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OFFICIAL GAZETTE

UNITED STATES PATENT OFFICE

VOL. 214 - 215

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ERRATA.

1,138,163, page 156, first claim, line 7, for the word "valve" read *value.*

1,138,982, page 481, third claim, line 2, for the word "inelastic" read *elastic.*

1,139,133, page 536, first claim, line 4, for the word "immediately" read *intermediately;* fourth claim, line 6, after the word "adjacent" insert the word *to.*

1,139,422, page 636, second claim, line 2, after the word "bar" insert a comma.

1,139,454, page 647, in heading, after residence of patentees, insert the words *assignor to The English & Mersick Company, of New Haven, Conn., a Corporation of Connecticut.*

1,140,883, page 1220, first claim, line 8, for the word "in" read *to.*

1,141,043, page 1274, second claim, line 3, for the word "intersects" read *intersect.*

VOL. 214.

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Patents Nos. 1,137,727 to 1,138,612.

THE OFFICIAL GAZETTE

OF THE

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ISSUE OF MAY 4, 1915.

Patents	886—No.	1,137,727 to No. 1,138,612, inclusive.
Designs	35—No.	47,281 to No. 47,315, inclusive.
Trade-Marks	78—No.	104,115 to No. 104,192, inclusive.
Labels	12—No.	18,423 to No. 18,434, inclusive.
Prints	6—No.	3,891 to No. 3,896, inclusive.
Reissues	5—No.	13,909 to No. 13,913, inclusive.
Total	1023	

The patents of this issue were pending an average of 26 months.

TO RESIDENTS OF THE UNITED STATES.

States.	Patents and Designs.	Trade-Marks, Labels, and Prints.	States.	Patents and Designs.	Trade-Marks, Labels, and Prints.
Alabama	3	....	North Carolina	3	....
Arizona	....	1	North Dakota	....	....
Arkansas	3	....	Ohio	53	8
California	30	2	Oklahoma	3	....
Colorado	8	1	Oregon	5	....
Connecticut	37	7	Pennsylvania	79	3
Delaware	1	....	Rhode Island	10	....
Florida	4	....	South Carolina	1	....
Georgia	8	2	South Dakota	....	....
Idaho	3	....	Tennessee	5	....
Illinois	97	8	Texas	17	2
Indiana	17	1	Utah	8	1
Iowa	14	2	Vermont	4	....
Kansas	11	1	Virginia	6	2
Kentucky	5	....	Washington	10	3
Louisiana	5	....	West Virginia	7	1
Maine	2	3	Wisconsin	13	3
Maryland	3	1	Wyoming	....	....
Massachusetts	37	7			
Michigan	23	....	Alaska, District of	....	....
Minnesota	26	....	Canal Zone	....	....
Mississippi	....	....	District of Columbia	3	....
Missouri	21	1	Hawaii Territory	2	....
Montana	1	....	Philippine Islands	1	....
Nebraska	13	....	Porto Rico	1	....
Nevada	....	....	U. S. Army	....	....
New Hampshire	5	1	U. S. Navy	1	....
New Jersey	25	3			
New Mexico	2	....	Total to residents of the United States	837	92
New York	138	26			

TO RESIDENTS OF FOREIGN COUNTRIES.

Countries.	Patents and Designs.	Trade-Marks.	Countries.	Patents and Designs.	Trade-Marks.
Argentina	2	....	Natal	....	....
Austria-Hungary	5	1	Netherlands	....	....
Belgium	1	....	New South Wales	2	....
British India	....	....	New Zealand	1	....
Brazil	....	....	Norway	....	....
British West Indies	....	....	Portugal	....	....
Canada	13	....	Queensland	....	....
Cape Colony	....	....	Roumania	....	....
Chile	....	....	Russia	1	....
Costa Rica	....	....	Scotland	....	....
Cuba	....	....	South Africa	1	....
Denmark	....	....	South Australia	....	....
England	10	....	Spain	....	....
Finland	....	....	Sweden	4	....
France	11	1	Switzerland	3	....
Germany	26	3	Transvaal	1	....
India	....	....	Victoria	1	....
Ireland	....	....	Wales	....	....
Italy	8	....			
Japan	1	....	Total to residents of foreign countries	93	5
Mexico	....	....			

Amendment to Laws Relating to the Judiciary.

An act to amend an act entitled "An act to codify, revise, and amend the laws relating to the judiciary," approved March third, nineteen hundred and eleven.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the first subdivision of section one hundred and sixteen of an act entitled "An act to codify, revise, and amend the laws relating to the judiciary," approved March third, nineteen hundred and eleven, is hereby amended to read as follows:

"First. The first circuit shall include the districts of Rhode Island, Massachusetts, New Hampshire, Maine, and Porto Rico."

* * * * * * *

"Sec. 128. The circuit courts of appeals shall exercise appellate jurisdiction to review by appeal or writ of error final decisions in the district courts, including the United States district court for Hawaii and the United States district court for Porto Rico, in all cases other than those in which appeals and writs of error may be taken direct to the Supreme Court, as provided in section two hundred and thirty-eight, unless otherwise provided by law; and, except as provided in sections two hundred and thirty-nine and two hundred and forty, the judgments and decrees of the circuit court of appeals shall be final in all cases in which the jurisdiction is dependent entirely upon the opposite parties to the suit or controversy being aliens and citizens of the United States or citizens of different States; also in all cases arising under the patent laws, under the trade-mark laws, under the copyright laws, under the revenue laws, and under the criminal laws, and in admiralty cases."

* * * * * * *

Sec. 6. That this act shall not affect cases now pending in the Supreme Court of the United States, or cases in which writs of error or appeals have been allowed at the date of its approval. And nothing in this act shall be deemed to repeal, amend, or modify the provisions of an act entitled "An act providing for writs of error in certain instances in criminal cases," approved March second, nineteen hundred and seven.

Approved, January 28, 1915.

APPLICATIONS UNDER EXAMINATION.

Condition at Close of Business May 1, 1915.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action. New.	Amended	No. of applications awaiting action.
314	1. Fences; Fences, Gates; Harrows and Diggers; Plows; Seeders and Planters; Trees, Plants, and Flowers.	Jan. 22	Jan. 19	477
128	2. Bee Culture; Curtains, Shades, and Screens; Dairy; Label Pasting and Paper Hanging; Paper Files and Binders; Medicines; Pneumatics; Presses; Tents, Canopies, Umbrellas, and Canes; Tobacco.	Nov. 5	Feb. 8	795
175	3. Annealing and Tempering; Electric Heating and Rheostats; Electrochemistry; Metal-Founding; Metallurgy; Plastic Metal Working.	Apr. 19	Apr. 17	94
232	4. Conveyers; Elevators; Excavating; Hoisting; Loading and Unloading; Pneumatic Despatch; Railway Mail Delivery; Traversing Hoists.	Dec. 2	Apr. 17	599
167	5. Bookbinding; Harvesters; Jewelry; Music.	Jan. 2	Mar. 22	335
318	6. Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Liquid Coating Compositions; Plastic Compositions; Preserving; Sugar and Salt; Substance Preparation.	Nov. 5	Apr. 23	496
12	7. Educational Appliances; Clutches; Games and Toys; Motors; Optics; Velocipedes.	Mar. 1	Mar. 23	506
131	8. Beds; Chairs; Furniture; Kitchen and Table Articles; Store Furniture; Supports.	Nov. 7	Apr. 12	1204
142	9. Air and Gas Pumps; Fluid-Pressure Regulators; Hydraulic Motors; Motors, Fluid; Motors, Fluid-Current; Pumps.	July 24	Apr. 7	818
235	10. Carriages and Wagons	Jan. 2	Apr. 10	705
154	11. Boot and Shoe Making; Boots, Shoes, and Leggings; Button, Eyelet, and Rivet Setting; Harness; Leather Manufactures; Nailing and Stapling; Whips and Whip Apparatus.	Mar. 22	Apr. 19	122
322	12. Journal-Boxes, Pulleys, and Shafting; Lubrication; Machine Elements.	Feb. 3	Apr. 17	771
329	13. Arms, Projectiles, and Explosive Charges, Making; Bolt, Nail, Nut, Rivet, and Screw Making; Boring and Drilling; Button Making; Chain, Staple, and Horseshoe Making; Driven, Headed, and Screw Threaded Fastenings; Gear Cutting, Milling, and Planing; Metal Drawing; Metal Forging and Welding; Metal Rolling; Metal Tools and Implements, Making; Metal Working; Needle and Pin Making; Nut and Bolt Locks; Turning.	Mar. 12	Mar. 11	429
307	14. Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal-Bending; Metal-Ornamenting; Sheet-Metal Ware, Making; Tools; Wire Fabrics and Structure; Wire-Working.	Dec. 18	Apr. 3	324
306	15. Bread, Pastry, and Confection Making; Coating; Fuel; Glass; Laminated Fabrics and Analogous Manufactures; Paper-Making and Fiber Liberation; Plastic Block and Earthenware Apparatus; Plastics.	Nov. 23	Apr. 8	676
109	16. Electric Signaling; Radiant Energy; Telegraphy; Telephony.	Dec. 12	Feb. 2	492
308	17. Matrix-Making; Paper Manufactures; Printing; Type-Bar Making.	Feb. 11	Apr. 17	170
327	18. Injectors and Ejectors; Liquid Heaters and Vaporizers; Miscellaneous Heat-Engine Plants; Steam and Vacuum Pumps; Steam-Engines; Steam-Engine Valves.	Mar. 23	Mar. 15	342
126	19. Dampers, Automatic; Furnaces; Heating Systems; Stoves and Furnaces.	Mar. 4	Mar. 24	235
179	20. Artificial Limbs; Builders' Hardware; Cutlery; Dentistry; Locks and Latches; Safes; Undertaking.	Apr. 1	Apr. 3	218

Applications Under Examination—Continued.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action. New.	Amended	No. of applications awaiting action.
112	21. Brakes and Gins; Carding; Cloth-Finishing; Cordage; Felt and Fur; Knitting and Netting; Silk; Spinning; Weaving; Winding and Reeling.	Jan. 2	Mar. 26	426
249	22. Aeronautics; Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Boats and Buoys; Firearms; Marine Propulsion; Ordnance; Ships.	Mar. 30	Mar. 31	247
379	23. Acoustics; Coin-Handling; Horology; Recorders; Registers; Time-Controlling Mechanism.	Oct. 23	Dec. 31	469
144	24. Apparel; Apparel Apparatus; Sewing-Machines.	Dec. 10	Apr. 2	452
315	25. Butchering; Mills; Threshing; Vegetable Cutters and Crushers.	Apr. 5	Mar. 23	148
106	26. Electricity, Generation; Motive Power.	Oct. 14	Jan. 30	531
372	27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus.	Feb. 15	Mar. 31	265
65	28. Internal-Combustion Engines	Feb. 9	Mar. 12	464
147	29. Coopering; Fire-Escapes; Ladders; Roofs; Wheelwright-Machines; Wooden Buildings; Wood-Sawing; Wood-Turning; Wood-working; Woodworking-Tools.	Mar. 15	Mar. 8	326
152	30. Illuminating-Burners; Illumination; Liquid and Gaseous Fuel Burners; Type-Writing Machines.	Dec. 14	Apr. 15	296
172	31. Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas-Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Glue.	Jan. 23	Mar. 8	327
278	32. Agitating; Carbonating Beverages; Dispensing Beverages; Dispensing; Domestic Cooking Vessels; Gas and Liquid Contact Apparatus; Heat Exchange; Ornamentation; Packaging Liquids; Refrigeration.	Nov. 12	Apr. 9	660
71	33. Bridges; Hydraulic Engineering; Masonry and Concrete Structures; Metallic Building Structures; Paving.	Jan. 13	Mar. 13	356
304	34. Railways; Railway-Brakes; Railway Rails and Joints; Railway Rolling-Stock; Railway Ties and Fasteners.	Mar. 4	Apr. 1	205
57	35. Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Garment-Supporters; Toilet.	Jan. 23	Apr. 23	537
264	36. Driers; Geometrical Instruments; Measuring Instruments; Photography.	Feb. 15	Apr. 5	606
107	37. Electric Lamps; Electricity, Conductors; Electricity, Conduits; Electricity, General Applications.	Oct. 20	Mar. 4	702
378	38. Animal Husbandry; Earth Boring; Fishing and Trapping; Stationery; Stone-Working; Wells.	Dec. 28	Mar. 25	533
321	39. Water Distribution	Jan. 23	Feb. 10	460
280	40. Baggage; Bottles and Jars; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Shipping and Storing Vessels; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles.	Nov. 13	Mar. 26	1106
125	41. Railway Draft Appliances; Resilient Tires and Wheels.	Mar. 1	Apr. 2	286
279	42. Railway Signaling; Signals; Electricity-Transmission to Vehicles.	Nov. 2	Feb. 2	701
382	43. Baths and Closets; Electricity, Medical and Surgical; Fire-Extinguishers; Sewerage; Surgery; Water Purification.	Mar. 22	Mar. 24	203

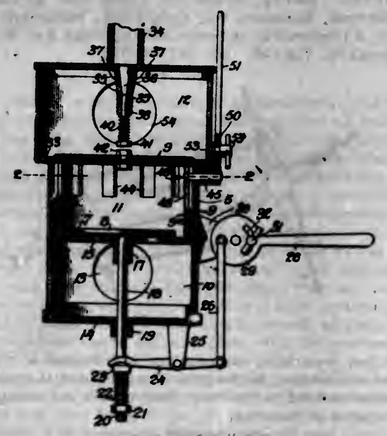
Oldest new case, July 24; oldest amended, Dec. 31.
Total number of applications awaiting action..... 20,305

161	TRADE-MARKS, DESIGNS, LABELS AND PRINTS:			
	Trade-Marks	Mar. 16	Apr. 16	752
	Designs	Feb. 4	Mar. 2	234
	Labels and Prints	Apr. 10	Apr. 10	194

PATENTS

GRANTED MAY 4, 1915.

1,137,727. CARBURETER FOR INTERNAL-COMBUSTION ENGINES. EDWIN F. ABERNETHY, Brooklyn, N. Y., assignor of one-half to George H. Abernethy, Brooklyn, N. Y. Filed Mar. 25, 1904. Serial No. 199,917. (Cl. 48—154.1.)



1. A carbureter having a chamber, an air valve, a fuel valve controllable by said air valve, and means under tension and operating independently of the aforesaid valves for maintaining in said chamber a partial vacuum equal to that established by a suction draft through said chamber, whereby such vacuum draws fuel from a fuel inlet valve into said chamber.

2. A carbureter having a chamber, a fuel inlet thereto, and a plurality of independent suction-operated devices, the one of said devices which primarily admits air to said chamber being under tension, the aforesaid devices operating to maintain in the chamber a partial vacuum equal to that established by a suction draft through said chamber, whereby such vacuum draws fuel from the fuel inlet into said chamber.

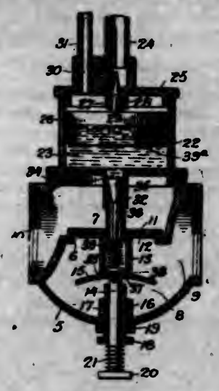
3. A carbureter having a chamber, a fuel inlet to said chamber, air and fuel valves, and suction-operated means under tension and independent of the aforesaid valves for maintaining in the chamber a partial vacuum equal to that established by a suction draft through said chamber, whereby such vacuum draws fuel from the inlet into said chamber.

4. A carbureter having a valved chamber, a fuel inlet to said chamber, a plurality of air valves adapted to be unseated successively by a suction draft through the chamber, a tension device coöperating with the valve by which air is admitted initially to said chamber, and a fuel valve controllable by one of said air valves, the construction and arrangement being such that a partial vacuum is maintained in the chamber equal to that established by a suction draft through said chamber, whereby such vacuum draws fuel through the fuel inlet into the chamber.

5. A carbureter having a carbureting chamber, an air valve, a fuel valve for admitting fuel to said chamber, and a vacuum-maintaining valve operating independently of the air valve and subsequent to the opening movement of the latter, whereby a partial vacuum is maintained in the carbureting chamber equal to that established by a suction draft therethrough.

[Claims 6 to 21 not printed in the Gazette.]

1,137,728. CARBURETER OR VAPORIZER FOR EXPLOSIVE-ENGINES. EDWIN F. ABERNETHY, Brooklyn, N. Y., assignor of one-half to George H. Abernethy, Brooklyn, N. Y. Filed Apr. 9, 1904. Serial No. 202,300. (Cl. 48—154.1.)



1. A vaporizer or carbureter of the class described comprising a carbureting chamber, a feed chamber positioned above the carbureting chamber, a fuel valve intermediate said carbureting and feed chambers, whereby liquid fuel may be supplied to the former from the latter, means for conveying liquid fuel to the feed chamber, a float controlled valve operating within the feed chamber and adapted to shut off the flow of liquid into said chamber without disturbing the communication between the carbureting and feed chambers, whereby a predetermined head of liquid fuel is maintained at all times in proximity to the valve intermediate the carbureting and feed chambers, and a suction operated element for automatically opening said valve between the carbureting and feed chambers the liquid connection from the feed chamber to the carbureting chamber operating to discharge fuel below the suction operated element.

2. A vaporizer or carbureter having a carbureting chamber, a feed chamber directly above the cabureting chamber, a vertical tube affording a direct connection between the feed chamber and the carbureting chamber, a supply pipe connected to said feed chamber, a float and a valve in said feed chamber for maintaining therein a fuel head at a constant level above the vertical tube, a suction operated element, and a separate fuel valve opened solely by said element for controlling the gravity inflow of fuel through said vertical tube, said vertical tube operating to discharge the liquid fuel below the suction operated element.

3. A vaporizer or carbureter having a carbureting chamber, a feed chamber positioned above the carbureting chamber, a mixture valve for varying the area of the air inlet to the carbureting chamber, a supply pipe connected

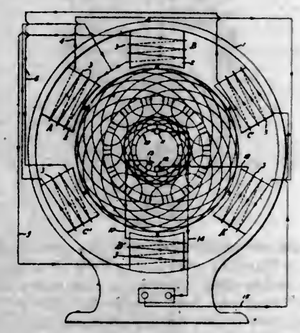
to said feed chamber for feeding fuel directly thereto, a float and a valve positioned within said feed chamber for maintaining in the feed chamber a fuel head at a constant level, a fuel valve seated independently of the mixture valve for controlling the communication between the two chambers, said fuel valve being opened by the mixture valve, and a spreader below the mixture valve, the fuel inlet to the carbureting chamber being at a point directly below the mixture valve and over the spreader.

4. A vaporizer or carbureter having a fuel valve, a mixture valve disconnected from said fuel valve and cooperating therewith for operating said fuel valve, said valves being seated independently of each other, a resistance opposing the opening movement of the mixture valve, means for adjusting the resistance to impart variable travel to the mixture valve and the fuel valve, means for conducting fuel through, and discharging it below, the mixture valve, and a spreader positioned below said mixture valve.

5. A vaporiser or carbureter having a mixture valve, a fuel valve controllable thereby, said valves being seated independently of each other, means for placing tension on the mixture valve, means for conducting fuel below the mixture valve, and a spreader movable with the mixture valve, said spreader being independent of the fuel valve.

[Claims 6 to 18 not printed in the Gazette.]

1,137,729. ELECTRIC MOTOR. HOMER E. ADAMS, Fort Worth, Tex. Filed Jan. 19, 1914. Serial No. 813,046. (Cl. 172—276.)



1. An electric motor, comprising a yoke, a plurality of magnet cores projecting rigidly from the yoke, three sets of V-connected windings respectively mounted upon said cores, an armature and a commutator having the usual relation, three brushes bearing upon the commutator, conductors extending from two of the brushes to two of the sets of field windings, and conductors extending from the motor terminals respectively to the other brush and other set of field windings.

2. An electric motor comprising a yoke, three sets of angularly displaced field windings, an armature and a commutator having the usual relation, three brushes bearing upon the commutator, conductors extending from two of the brushes to two of the sets of field magnet windings, and conductors extending from the motor terminals respectively to the other brush and other set of field windings.

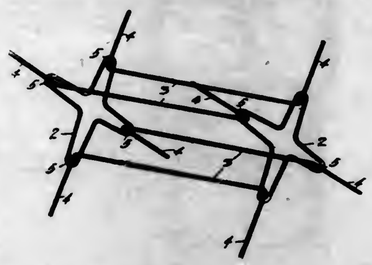
3. An electric motor, comprising a yoke, three equal angularly displaced interconnected sets of field coils carried by the yoke, one of the sets having connection with one of the motor terminals, an armature and a commutator connected in the usual relation, and three brushes bearing upon the commutator two of which have electrical connection with two of the sets of field coils, while the other has connection with the other terminal.

4. An electric motor, comprising a yoke, a plurality of magnet cores projecting therefrom, Y-connected sets of windings mounted upon said cores, the windings of each set being oppositely disposed and series connected, one of said windings being in electrical connection with one of the motor terminals, and three brushes bearing upon the commutator, one of which has electrical connection with the other motor terminal, while the other two are respectively connected to the other two sets of field windings.

5. An electric motor, comprising a double wound armature, three sets of interconnected angularly displaced field windings correlated with the armature in the usual relation thereto, a commutator bearing the usual relation to the armature and brushes bearing upon the commutator, so arranged as to throw the armature windings alternately into action.

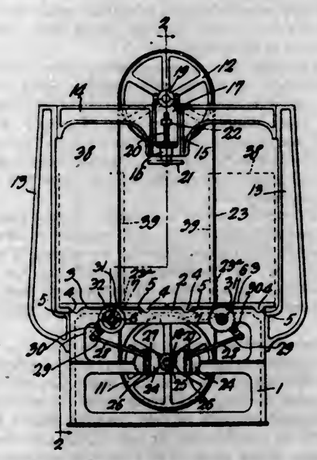
[Claim 6 not printed in the Gazette.]

1,137,730. REEL. JAMES D. ADAMS and AUGUST G. JOHNSON, Monessen, Pa., assignors to Pittsburgh Steel Co., a Corporation of Pennsylvania. Filed Nov. 6, 1912. Serial No. 729,846. (Cl. 242—77.)



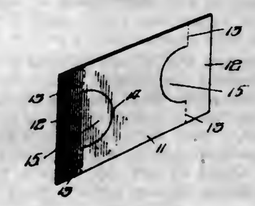
A reel comprising end members each formed of a single piece of wire bent in the form of a star, and U-shaped tie members welded to the inner faces of said end members at the apices of the star.

1,137,731. STONE-CUTTING MACHINE. MICHAEL AHEARN, Denver, Colo. Filed June 5, 1914. Serial No. 843,271. (Cl. 125—18.)



In an apparatus of the character described, a frame, a pair of carriages disposed side by side and slidable longitudinally upon the frame, a pair of feed screws carried by the frame below the respective carriages, the carriages having nut portions engaging the respective feed screws, a driving shaft carried by the frame below the carriages, adjustable means operatively connecting the driving shaft and the said feed screws, a pulley wheel carried by the said driving shaft below the carriages, an upper adjustably mounted pulley, and a band saw trained around the said pulley wheels, the carriages having longitudinal slots through which the runs of the band saw pass.

1,137,732. STRIP-HOLDER. CLARENCE J. ALFRED, New York, N. Y., assignor to National Biscuit Company, New York, N. Y., a Corporation of New Jersey. Filed May 15, 1914. Serial No. 838,711. (Cl. 229—42.)



1. A partition member, made of sheet material, and consisting of a rectangular body portion provided at one end with two flaps, which are in the same plane and integral with each other, and which project on opposite sides of said body portion; one of said flaps having one of its side margins at right angles to its base and in the same plane with the corresponding side margin of the body portion.

2. A partition member, made of sheet material, and consisting of a rectangular body portion provided at one end with two flaps, which are integral and rigid with each other, said flaps being in the same plane with each other and projecting on opposite sides of said body portion; one of said flaps having one side margin thereof at right angles to its base and in the same plane with the corresponding side margin of the body portion.

3. A partition member, made of sheet material, and consisting of a rectangular body portion provided at one end thereof with two flaps, which are in the same plane with each other and project on opposite sides of said body portion; said flaps being integral and rigid with each other, and each flap having a side margin at right angles to its base and in the same plane with one of the side margins of said body portion.

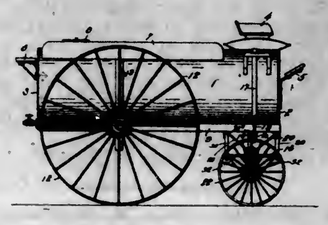
4. A partition member, made of sheet material, and consisting of a rectangular body portion provided at one end thereof with two flaps, which project on opposite sides of said body portion, said flaps being integral and rigid with each other, and each flap having a side margin at right angles to its base and in the same plane with the corresponding side margin of said body portion; the flap projecting to one side of the body portion having its said side margin forming a continuation of the corresponding side margin of the other flap.

5. A blank for a partition member, made of sheet material and of rectangular form, said blank being provided with a fold line parallel with one of its end margins and adapted to form a flap, and with a cut extending inwardly from said folding line and adapted to form a second flap on the base of the first named flap, said flaps being integral and rigid with each other, and one of said flaps having a side margin in the same plane with and formed by a part of one of the side margins of the blank.

[Claim 6 not printed in the Gazette.]

1,137,733. PORTABLE TANK. JOHN B. BARTHOLOMEW, Peoria, Ill., assignor, by mesne assignments, to Avery Company, a Corporation of Illinois. Filed Oct. 14, 1907, Serial No. 397,307. Renewed Jan. 21, 1911. Serial No. 603,954. (Cl. 21—146.)

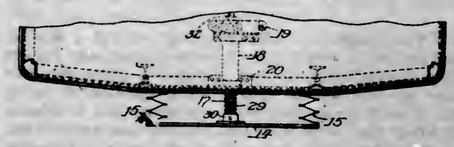
1. In a portable tank, the combination of a front axle, a rear axle, frame parts connecting said axles, said axles and frame parts being detachably secured together, front and rear wheels on said axles, respectively, and a tank part proper detachably mounted on the said axles and frame parts, one of the heads of said tank being removable, and the said axles, frame parts and front wheels, when disassembled, being so proportioned with respect to the tank that all of the said parts can be crated within it.



2. In a portable tank, the combination of a tank part proper having one of its heads removable, front and rear axles, a frame connecting the axles, wheels on the front axle of relatively small diameter, and wide tired wheels on the rear axle having a diameter approximately twice that of the tank and being disposed near the center of gravity of the tank, the parts of the frame, the axles and front wheels being detachably connected and adapted, when disassembled, to be crated in the tank.

3. The combination of the normally horizontal cylindrical tank, the rear axle upon which the tank is supported, the large wheels on the rear axle having a diameter approximately twice that of tank, the front wheels having a diameter half that of the rear wheels and less than the diameter of the tank so as to be adapted to be placed therein when detached, and means comprising a fifth wheel structure and a front axle for supporting the front end of the tank on the front wheels at an elevation such that the wheels can be turned under it.

1,137,734. UPPER BUFFING MECHANISM FOR RAILWAY-CARS. CARS J. BERG, Chicago, Ill., assignor to The Pullman Company, Chicago, Ill., a Corporation of Illinois. Filed Jan. 29, 1912. Serial No. 674,062. (Cl. 105—61.)



1. The combination of a buffer plate, a vestibule diaphragm face plate connected to and rising from the buffer plate, spaced buffing mechanisms for the buffer plate, and a single face-plate buffing mechanism engaged with the face plate at the top thereof and opposite the interval between the buffer plate buffing mechanisms.

2. The combination of a buffer plate, an inverted substantially U-shaped vestibule diaphragm face plate having its legs connected to said buffer plate, spaced buffing mechanisms for the buffer plate, and a single buffing mechanism engaged with the top portion of the face plate at substantially the vertical center thereof.

3. The combination of a buffer plate, a vestibule diaphragm face plate connected to and rising from the buffer plate, spaced buffing mechanisms for the buffer plate, a single face-plate buffing mechanism engaged with the face plate at the top thereof and opposite the interval between the buffer plate buffing mechanisms, and means for connecting the face plate buffing mechanism with the frame of a car and including guiding means to permit reciprocating and swinging movements of the yieldable portion of the face plate buffing mechanism.

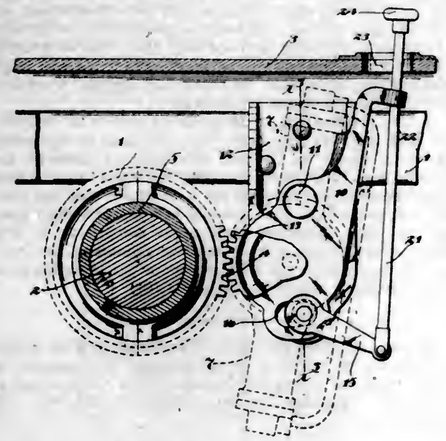
4. The combination of a buffer plate, a vestibule diaphragm face plate connected to and rising from the buffer plate, spaced buffing mechanisms for the buffer plate, a single face plate buffing mechanism pivotally connected with the face plate at the top thereof and opposite the

interval between the buffer plate buffing mechanisms, and means for connecting the face plate buffing mechanism with the frame of a car and including guiding means to permit reciprocating and swinging movements of the yieldable portion of the face plate buffing mechanism.

5. A buffing mechanism for cars, comprising the combination with a car frame, of a buffer plate, a pair of spring-controlled buffing means associated with said buffer plate, a face plate connected with said buffer plate and having a lintel at its upper portion, and unitary spring buffing means connected to substantially the central part of said lintel, substantially as described.

[Claims 6 to 13 not printed in the Gazette.]

1,137,735. GEARING. OSCAR M. BERGSTROM, Minneapolis, Minn. Filed Feb. 1, 1912. Serial No. 674,808. (Cl. 74—58.)

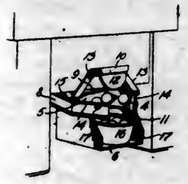


1. The combination with a driving gear, of a movable gear support, a driven gear on said support, said support being movably mounted and arranged to throw said two gears into and out of mesh, a clamp operative to secure said support in one position or another, and a common operating rod or element connected to said support and to said clamp and movable in one direction to move the former and in another direction to operate the latter.

2. The combination with a driving gear and a movable gear support, of a shipper lever pivoted to said support and having a segmental slot, a driven gear carried by said shipper lever, a clamping bolt anchored to said support and projecting through the slot in said shipper lever, a clamping arm having threaded engagement with said bolt and coöperating therewith to clamp said shipper lever in respect to said support, and an operating rod pivotally connected to said clamping lever and passed through a guide on said shipper lever, the said rod, when moved endwise, serving to set or release said clamping arms, and when moved laterally, to oscillate said shipper lever and thereby throw said driven gear into or out of mesh with said driving gear.

1,137,736. BALL-RETURN FOR POOL-TABLES. MICHAEL H. BERNHARD, Buffalo, N. Y., assignor to M. J. Bernhard Company, Inc. Filed Dec. 17, 1914. Serial No. 877,674. (Cl. 46—12.)

1. The combination with a pool table provided with ball return guides, of a ball holder comprising a receiving compartment arranged to receive the balls from said guides and having a discharge opening in the bottom portion thereof, and a part adapted to support a portable receptacle in position to catch the balls passing through said opening, and a self-closing member which closes said discharge opening and is adapted to be moved to permit the discharge of the balls through said opening.



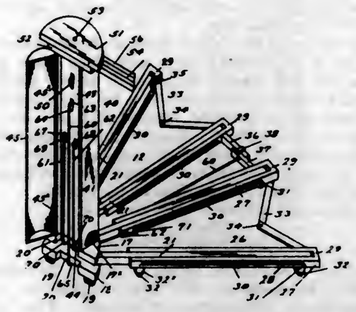
2. The combination with a pool table, of a ball holder having a ball receiving compartment comprising side walls provided with converging front portions having portions cut away at their tops, a bottom having an opening near the front thereof, a front wall supporting a door adapted to normally close said opening, arms connected with said front wall and hinged to said side walls so as to lie in the cut away portions thereof, and a support for a portable receptacle.

3. The combination with a pool table provided with ball return guides, of a two-section ball holder arranged to receive the balls from said guides, the upper section thereof having an opening in the bottom, side walls, and a front portion hinged to the side walls which normally serves to close said opening but which can be swung upwardly so as to establish communication between the two sections of the holder.

4. The combination with a pool table provided with ball return guides, of a ball receptacle arranged to receive the balls from said guides and having an upper and a lower compartment, the said upper compartment comprising a bottom having an opening at the forward part thereof, side walls, and a movable front wall pivotally connected with the side walls and having a door portion extending therefrom which is adapted to fit into and normally close said opening in the bottom of the section.

5. The combination with a pool table, of a ball holder mounted thereon comprising an upper portion having side walls with converging front portions, a slightly inclined bottom having an opening near the front thereof, a front wall connecting said side walls and having a door portion extending therefrom adapted to fit into and normally close the said opening, and arms extending from said front wall and pivotally connecting the same with the side walls.

1,137,737. PLANT-STAND. CHARLES T. BOONE, Kansas City, Mo. Filed Mar. 27, 1914. Serial No. 827,695. (Cl. 211—24.)



1. In a plant stand a base frame composed of horizontal pivoted extensible members extending radially from said base frame, and folding connecting devices connected with adjacent extensible members.

2. In a plant stand a base frame comprising a hub, and horizontal extensible members pivotally connected with said hub and extending radially therefrom, and adjustable folding devices connected with adjacent extensible members.

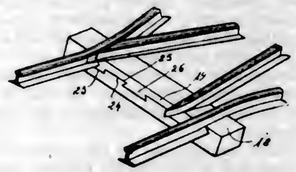
3. In a plant stand, a base frame composed of upper and lower horizontal hub members, radial supporting bars extending between said hub members, and pivotally connected therewith, extensible members connected with said bars and folding devices connected with said extensible members.

4. In a stand for displaying movable objects, the combination with a suitable base of an upwardly extended shelf support, having a longitudinal groove extending a certain depth in face portion, and an extensible member telescopically fitted within said groove, said groove being adapted to receive a shelf support upon the outward extension of said extensible member.

5. A plant stand composed of a hub member, and a base frame composed of radial bars pivotally connected with the hub member, and extensible members on said bars, an upright post connected with the hub member, and an extensible member upon said post, and hoisting devices on said post for hoisting the said extensible member and controlled by the extension of the extensible members on the radial bars of the base frame.

[Claims 6 to 10 not printed in the Gazette.]

1,137,738. METALLIC RAIL TIE AND FASTENER. IVAN BRADAČ, Akron, Ohio, assignor of one-third to Steve Rajki and one-third to Paul Varga, Akron, Ohio. Filed Dec. 9, 1914. Serial No. 876,215. (Cl. 238—5.)



A metallic tie and rail fastener comprising a rectangular body portion formed of a supporting section provided with dove-tail tongues and dove-tail grooves and further having seats therein adjoining certain of said grooves, and a fastener section also having dove-tail tongues and dove-tail grooves alining with and engaging respectively with the grooves and tongues of the supporting section, whereby to couple said sections together, said fastener section also including a plurality of seats in certain of the tongues alining with the seats of the supporting sections to receive a rail base therein, the portions of the tongues adjacent said seats being adapted to overlap the rail base and said tongues and grooves being slightly wedge-shaped.

1,137,739. LOCKING MECHANISM FOR VAULTS. JAMES W. CARPENTER, Brooklyn, N. Y. Filed Dec. 2, 1909. Serial No. 530,922. (Cl. 109—4.)



1. In a device of the character described, a wall, a door, a locking mechanism carried by the wall, means for operating said locking mechanism, and a grill attached to said locking mechanism.

2. In a device of the character described, a wall, a door locking mechanism coöperating therewith, a manually-operated combination lock for controlling the same, and connections providing compressed air for operating said locking mechanism.

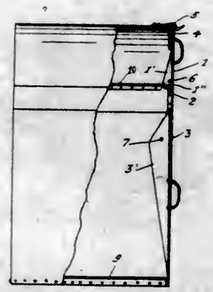
3. In a device of the character described, a wall, a door, locking mechanism therefor, a retainer providing compressed air for operating said locking mechanism, including a hand-operated valve and a lock for controlling the locking mechanism and adapted to control said valve.

4. In a device of the character described, a wall, a door, locking mechanism therefor, a retainer providing compressed air for operating said locking mechanism, a lock for controlling the locking mechanism, and an electrically operated air compressor also controlled by said lock for supplying the compressed air retainer with air.

5. In a device of the character described, a wall, a door, locking mechanism therefor, a retainer providing compressed air and devices for operating said locking mechanism operable from both sides of the wall.

[Claim 6 not printed in the Gazette.]

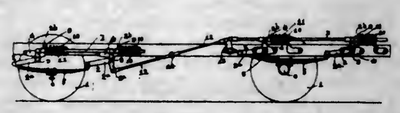
1,137,740. COMBINATION MAIL AND PARCEL-POST BOX. ALBERT CHALLEEN, Minneapolis, Minn. Filed Mar. 23, 1914. Serial No. 826,495. (Cl. 232—45.)



1. The combination, in a mail and parcel post box having a rigid middle partition with a groove or concave depression separating the upper, mail compartment, and the lower parcel compartment, of an upper door with convex bottom articulating or moving in the groove or concave depression in the said rigid partition, when swung up or down on its pivots, producing a practically weather-proof hinge substantially as described.

2. In a combination mail and parcel post box, having a rigid middle partition with a groove or concave depression separating the upper, mail compartment, and the lower parcel compartment, the combination of an upper door with a convexly curved bottom, forming a rounded surface running along the bottom of said door, so pivoted that when swung open or shut said convex surface moves in the groove or depression in the said rigid partition substantially as described.

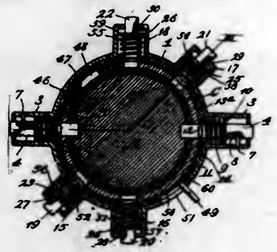
1,137,741. SPRING SUSPENSION FOR VEHICLES. JOHN JOSEPH CHARLEY, Malvern, Victoria, Australia. Filed May 10, 1913. Serial No. 766,847. (Cl. 21—101.)



1. In a vehicle suspension, the combination with a chassis and running wheels, of double armed rockers pivoted to said chassis, one pair for each wheel disposed in tandem, an axle carrying element supported between said rockers permitting free movement of the axle between ends of said rockers, a separate and independent resilient plane controlling or normalizing element located above the pivots of and in operative connection with each pair of rockers, and connecting means between the rockers of one wheel and the rockers of another wheel at the same side of the vehicle for transferring shock from one pair of rockers to the other.

2. In a vehicle suspension, the combination with a chassis and running wheels, of double armed rockers of a resilient character pivoted to said chassis, one pair for each wheel disposed in tandem, an axle carrying element supported between said rockers permitting free movement of the axle between ends of said rockers, a separate and independent resilient plane controlling or normalizing element in operative connection with each pair of rockers and disposed adjacent to said rockers and above the pivots thereof, and connecting means between the rockers of one wheel and the rockers of another wheel at the same side of the vehicle for transferring shock from one pair of rockers to the other.

1,137,742. COMBINATION-LOCK FOR AUTOMOBILES. ROY E. COYNER, Burr Oak, Kans. Filed Nov. 30, 1914. Serial No. 874,714. (Cl. 70—90.)



1. In combination with a rotatable member and a fixed sleeve surrounding the same, a case embracing said sleeve, a bolt carried by said case and adapted to secure the rotatable member from rotation, a movable ring to lock said bolt in engagement with the rotatable member and provided with a key-hole slot, and a push-button to lock the movable ring and adapted to in turn be locked by the edge of the key-hole slot.

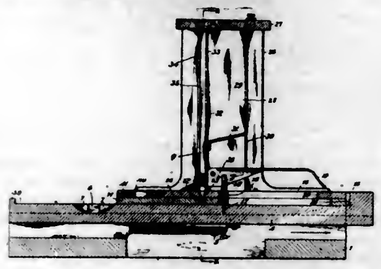
2. In combination with a rotatable member and a fixed sleeve surrounding the same, a case embracing said sleeve, bolts carried by said case and adapted to secure the rotatable member from rotation, a movable ring to lock said bolts in engagement with the rotatable member and provided with a plurality of irregular shaped slots, a spring tending to move said ring to unlocked position, and push-buttons having different notched portions to coact with the edges of the respective irregular shaped slots to lock the movable ring.

3. In combination with a rotatable member and a fixed sleeve surrounding the same, a case embracing said sleeve, a bolt carried by said case and adapted to secure the rotatable member from rotation, a movable ring to lock said bolt in engagement with the rotatable member and provided with an irregular shaped slot, a handle to move said ring to locked position, a spring to move said ring to unlocked position, a push-button adapted to lock the movable ring and in turn be locked by the edges of the irregular shaped slot, and a spring to control the movement of said push-button in one direction.

1,137,743. MATCH-BOX. ROBERT DICKSON, Hamilton, Ontario, Canada. Filed May 23, 1914. Serial No. 840,490. (Cl. 206—24.)

1. In a match box of the character described, a base, a housing arranged on said base, means associated with said housing defining a magazine and a match guiding channel leading therefrom, a principal slide arranged on said base, an auxiliary slide arranged in said base, means for connecting the principal slide with the auxiliary slide, means actuated by a projection from the main slide for regulating the flow of matches from said guiding channel, said primary sliding member being formed with a groove for receiving a match, and means for resiliently holding said primary sliding member in a predetermined position.

2. In a match box of the character described, a reciprocating dispensing member provided with a match receiving groove, a guiding slot co-acting with said groove, a housing adapted to contain matches, means for directing a stream of matches from said housing to said guiding slot, means for allowing one match to enter said guiding slot at one time, and means covering said guiding slot while the same is in registry with the groove in said reciprocating member.



3. In a match box of the character described, a housing provided with a guiding channel for matches, a pivotally mounted stop arranged to hold said matches against movement when in one position, and to allow the lowermost of said matches to move downwardly when in another position, means formed with a guiding slot for receiving said lowermost match, a reciprocating sliding member provided with a match receiving groove, a projection extending from said reciprocating member adapted to engage and move said pivotally mounted match stop, and means actuated by said reciprocating member for covering said guiding slot when the match receiving groove in said reciprocating member is in registry with the guiding slot.

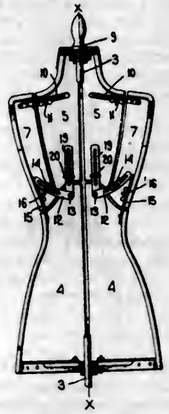
4. In a match vending box of the character described, a housing provided with a match guiding channel, said channel being open on one side at the top, a magazine arranged in back of said channel formed with an open side facing said channel, said magazine being adapted to be reciprocated, whereby matches therein may be raised so as to pass through said opening into said channel, means for feeding one match at a time from said channel, and means for abrading each of said matches as the same is fed from said channel to a point of utilization, whereby the match is delivered in a burning condition.

5. In a match box of the character described, a receiver, means for guiding matches from said receiver, a pivotally mounted stop co-acting with said guiding means, said pivotally mounted stop being provided with bifurcated extensions adapted to straddle the lowermost match when the stop is in one position, and to release said lowermost match when in another position, one portion of said bifurcated extensions moving beneath the remaining matches so as to allow only the lowermost match to pass from said guiding means, a reciprocating member for receiving and delivering said lowermost match, and means actuated by said reciprocating member for moving said stop.

[Claims 6 and 7 not printed in the Gazette.]

1,137,744. ADJUSTABLE DRESS-FORM. JAMES F. DINN, Port Washington, N. Y., assignor to Hall-Borchert Dress Form Company, New York, N. Y., a Corporation of New Jersey. Filed Jan. 19, 1914. Serial No. 812,940. (Cl. 223—18.)

1. In a dress form, the combination with a body portion divided horizontally below the shoulders and vertically below said horizontal division to present hip sections and also vertically above said horizontal division to present front and rear neck sections and separate front and rear shoulder sections on each side, of means adjustably connecting the upper portion of each shoulder section to the neck section, and means constituting a direct pivotal connection between the lower inner corner of each shoulder section and the hip section.



2. In a dress form, the combination with a body portion divided horizontally below the shoulders and vertically below said horizontal division to present hip sections, and also above said horizontal division to present front and rear neck sections and separate front and rear shoulder sections, of means adjustably connecting the upper portion of each shoulder section to the adjacent neck section, and a connecting member adjustably connected to the inner lower corner of each shoulder section and pivotally connected directly to the adjacent hip section at a point beyond the division line between said shoulder section and the adjacent neck section.

1,137,745. ANCHOR. CHARLES WILLIAM EDWARDS, Maquoketa, Iowa. Filed Mar. 4, 1914. Serial No. 822,419. (Cl. 189—92.)



An anchor comprising a flat rigid anchor bar having a tongue struck therefrom adjacent its lower end and forming a deflecting anvil and an opening coöperating with the anvil, a flat locking bar adapted to be driven along one side of the anchor bar and having a lower flexible end portion engageable with the said anvil to pass through the said opening.

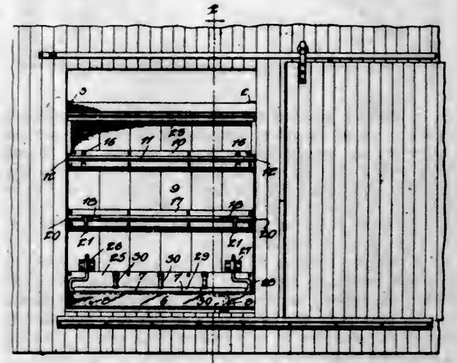
1,137,746. SHEET-METAL ROOFING. EDWARD WM. EDWARDS, Cincinnati, Ohio. Filed Sept. 25, 1914. Serial No. 863,516. (Cl. 108—18.)

A sheet metal roofing plate, embodying a nailing flange along one edge and an upstanding longitudinal ridge formed adjacent thereto and a double walled ridge formed by bending the metal upon itself and then bending the same over said ridge leaving a space therebetween, said ridges lying in close relation throughout so that said space therebetween will be relatively narrow, and a bead on the extreme opposite side edge of the plate formed by bending up the edge thereof, the shape of said bead being



such as to cause it to fit in the space between the ridges of the adjacent plate and have its free depending edge wedge against the inner sloping wall of said upstanding longitudinal ridge.

1,137,747. GRAIN-CAR DOOR. GEORGE H. FAHRENBRUCH, Omaha, Nebr. Filed Nov. 16, 1914. Serial No. 872,356. (Cl. 20—39.)



1. In a grain car door, a frame, a door mounted in said frame in combination with, arms mounted on said door and supporting a roller, extending substantially across the face thereof a face plate secured to the bottom rail of said frame and extending above the lower level of the door said arms and roller capable of upward and downward movement, and pivoted turn buttons adapted to contact with and securely hold said roller when in its downward position between said door and said face plate.

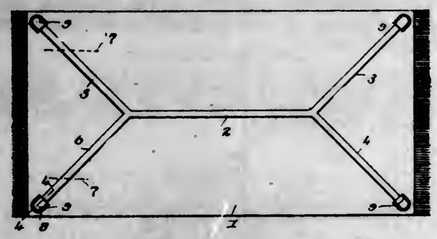
2. In a grain car door, a frame, a door, mounted in said frame, in combination with a roller extending parallel with the bottom rail of said frame, arms supporting said roller, bearings secured to said door, the upper ends of said arms and the said bearings coöperating to allow an outward as well as a vertical movement of said arms and said roller, a projection extending above the bottom rail and means contacting with said roller to securely hold said roller when in its downward position between said door and said projection.

1,137,748. RUG-RETAINER. BENJAMIN F. FORSYTH, Salt Lake City, Utah, assignor to Perfection Rug Retainer Company, Salt Lake City, Utah. Filed Jan. 7, 1914. Serial No. 810,892. (Cl. 16—3.)

1. A retainer adapted for use with a rug comprising a resilient retaining frame comprising a single member of flexible sheet material extending centrally along the bottom of the rug throughout the major portion of the length of the frame and including forked ends extending toward the corners, and devices for securing the terminals of the forked ends to the corner portions of the rug.

2. A retainer adapted for use with a rug comprising a resilient retaining frame of flexible sheet material comprising a central bar adapted to extend longitudinally of the rug and provided with forked ends formed as a part thereof, and devices for securing the terminals of the forked ends to corner portions of the rug.

3. A retainer adapted for use with a rug comprising a resilient retaining frame of flexible sheet material extending centrally along the rug and having forked ends extending toward the corners, and devices for securing the terminals of the forked ends to the corner portions of the rugs, said rug devices being located on the rugs in such spaced relation with respect to the length of the frame as to necessitate bowing or flexure of the frame to effect attachment whereby resulting recoil will cause the frame to stretch the rug both laterally and longitudinally.

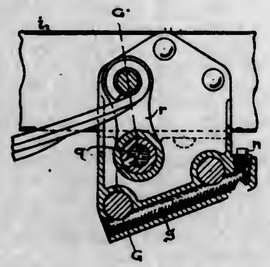


4. A retainer adapted for use with a rug comprising a retaining frame therefor comprising a central portion constructed to extend longitudinally of the rug having forked ends, disposed at an angle from the extremities thereof to extend toward the corners of the rug and to be connected therewith, the central portion and the forked ends all having the same thickness and all portions of the frame lying in the same plane.

5. A retainer adapted for use with a rug comprising an elongated retaining frame therefor, comprising a single member of flexible material formed to have ends extending into proximity to the corners of the rug, and devices for securing the ends of said frame to the rug to hold the frame under compression in the direction of its length.

[Claim 6 not printed in the Gazette.]

1,137,749. LUBRICATING APPARATUS. LOWELL C. FREEMAN, Detroit, Mich. Filed Mar. 19, 1913. Serial No. 755,382. (Cl. 21—104.)

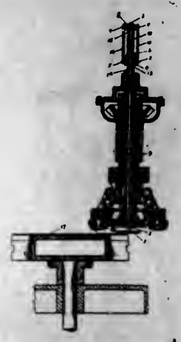


1. In an automobile, a tubular rod extending across the frame thereof, spring shackles secured and adapted to turn on said rod as a bearing, a slot extending from the interior of said rod to said bearing, and a wick occupying said slot.

2. In an automobile, a tubular rod extending across the frame thereof, spring shackles secured and adapted to turn on said rod as a bearing, a slot extending from the interior of said rod to said bearing, and a wick occupying said slot, said slot being formed through the wall of said rod above the lower portion of said rod.

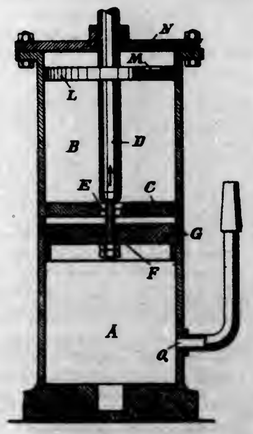
3. In an automobile, a frame having side pieces, a tubular rod extending across said frame, spring shackles secured and adapted to turn on said rod as a bearing outside of said side pieces, a slot extending from the interior of said rod to said bearings, and a wick occupying said slot, and a filler opening extending through the wall of said rod between said side pieces.

1,137,750. CAN-TOP GUIDING AND EJECTING MECHANISM. FRED LEO FULLER, Sacramento, Cal. Filed July 2, 1913. Serial No. 777,115. (Cl. 113—14.)



In a can capping apparatus of the class described wherein the cans are automatically fed from the can-top feeding station to the seaming station by means of a revolving turret, and wherein the can bodies with their caps thereon are acted upon by a stationary cover-guide, in combination with a hollow spindle having a recessed seaming chuck on the lower end thereof, a rod extending through said hollow spindle and protruding below said chuck, a guide-plate on the lower end of said rod normally in the same horizontal plane as the stationary cover-guide first mentioned above, a fixed collar on the rod above the hollow spindle, a sliding cross-head on the rod above the fixed collar, a compression spring between said fixed collar and said sliding cross-head, an operating lever pivoted to the main frame of the machine, and links connecting said sliding cross-head to said lever at its extremity.

1,137,751. VACUUM-PUMP. WOLFGANG GAEDE, Freiburg, Germany. Filed Apr. 8, 1914. Serial No. 830,347. (Cl. 230—27.)



1. In a vacuum pump, the combination with a cylinder having an outlet, a piston reciprocative in the cylinder, and a piston rod designed to move the piston into and away from an extreme position of substantial contact with the end wall of the cylinder, of means positively actuated by a reciprocative part for substantially filling said outlet when the piston is at rest in said extreme position; substantially as described.

2. In a vacuum pump, the combination with a cylinder

having an outlet, a piston reciprocative in the cylinder, and a piston rod designed to move the piston into and away from substantial contact with an end wall of the cylinder, of means for establishing an outlet through said wall when the piston is nearing said wall and for substantially filling said outlet when the piston is at rest in substantial contact with said wall; substantially as described.

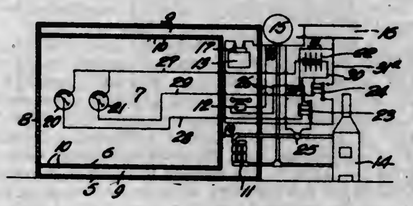
3. In a vacuum pump, the combination with a cylinder having an opening for communication with the space to be exhausted and also having an outlet, a piston reciprocative in the cylinder, and a piston rod designed to move the piston beyond said opening on its downward stroke and also into an extreme position of substantial contact with the inner end wall of the cylinder on its upward stroke, of means positively actuated by a reciprocative part for substantially filling said outlet when the piston is at rest in said extreme position and for maintaining said outlet substantially filled until the piston has passed said opening on its upward stroke; substantially as described.

4. In a vacuum pump, the combination of a cylinder having an outlet, a piston reciprocative in the cylinder, a piston rod having a limited sliding engagement with the piston, means for opening said outlet when the piston is nearing the end of its discharge stroke, and means operative during the sliding engagement between the piston rod and the piston for closing the outlet when the piston is at rest at the end of the discharge stroke; substantially as described.

5. In a vacuum pump, the combination of a cylinder having an outlet in the end wall, a piston reciprocative in the cylinder, and a piston rod having a limited sliding engagement with the piston and being designed to move the piston into and away from an extreme position in substantial contact with the end wall, said piston rod passing through said outlet and having means for opening said outlet when the piston is nearing said extreme position and for closing said outlet when the piston is in said extreme position; substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

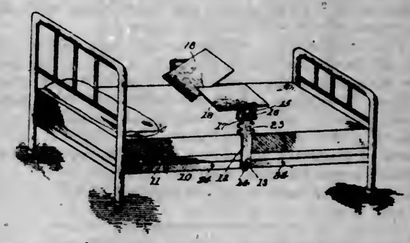
1,137,752. APPARATUS FOR CURING OR ARTIFICIALLY AGING CIGARS. GEORGE E. GOLDSTEIN, Montreal, Quebec, Canada. Filed June 20, 1914. Serial No. 846,294. (Cl. 98—45.)



1. A device of the character described, comprising a double walled chamber having the inner wall thereof formed imperforate at opposite sides, an air heating coil, a water tank, and an air circulating fan located between the inner and outer walls, means for heating and circulating fluid through said coil, a heating apparatus located in the tank, a thermometer and a hygrometer located within the chamber, electrically actuated means controlled by said thermometer governing the circulation of the heating fluid through said coil, and electrically actuated means controlled by the hygrometer governing the operation of the heater in said tank.

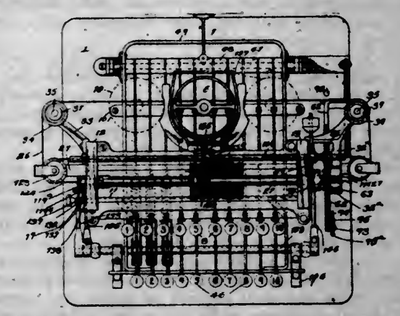
2. A device of the character described, comprising a double walled chamber having opposite inner walls thereof formed perforate, a water tank, an air circulating fan and a radiator located between the inner and outer walls, a fluid heating and circulating apparatus connected to said radiator, an electric water heating means within the tank, a thermometer and a hygrometer located within the chamber, means for controlling the temperature and supply of fluid through said radiator, a source of electric energy for said heater, said fan and said controlling means, a battery, a relay in circuit with the battery and thermometer arranged to govern the connection of said heating fluid controlling means with the source of energy, and a second relay in circuit with the battery and hygrometer arranged to govern the connection of said electric water heater with the source of energy.

1,137,753. TABLE ATTACHMENT FOR BEDS. FRANK GOTTESMAN, New York, N. Y. Filed Apr. 3, 1914. Serial No. 829,222. (Cl. 45—82.)



A device of the class described comprising in combination with the side rails of a bed, outwardly-projecting bolts carried by said rails oppositely-arranged brackets mounted upon said bolts, winged lock nuts carried by said bolts and adapted to engage said brackets in their adjusted positions, said brackets provided with opposite open slots and with perforated bosses at their upper ends, outwardly-extending pins upon said side rails upon opposite sides of said bolts adapted to be received in said slots upon a folding of said brackets, rods adjustably mounted in said bosses in alinement with each other and having a pin and socket engagement at their inner contacting ends, tables upon said rods, straps upon the under sides of said tables and surrounding said rods, and screws extending through said straps and adjustably engaging said rods.

1,137,754. COMBINED TYPE-WRITER AND COMPUTING MACHINE. EDWARD H. GUYER, Rock Island, Ill. Filed June 2, 1908. Serial No. 436,310. (Cl. 235—59.)



1. The combination of registering dials, depressible keys, transmission devices between the keys and the dials comprising an oscillatory gear and a disengageable clutch between said gear and dials, and means controlled by the movement of the keys for automatically disengaging the clutch at the beginning of the movement of the gear in one direction.

2. The combination of registering dials, depressible keys, transmission devices between the keys and dials comprising an oscillatory gear, and a disengageable clutch between said gear and dials, means for normally holding

the clutch in operative engagement, and means for disengaging the clutch at the beginning of the movement of the gear in one direction.

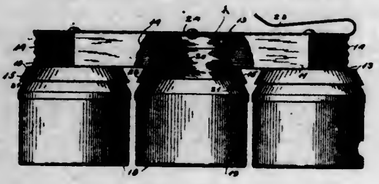
3. The combination of registering dials, depressible keys, transmission devices between the keys and dials comprising an oscillatory gear, and a disengageable clutch between said gear and dials, means for holding the clutch in operative engagement during the movement of the gear in one direction, and means for holding the clutch disengaged during the return movement of the gear.

4. The combination of registering dials, depressible keys, and means for transmitting the motion of the keys to the dials comprising a plurality of gears that are always in operative relation to each other, two of said gears running idle in opposite directions, and a clutch member adapted to be shifted into engagement with and to be driven by either of said idle gears.

5. The combination of registering dials, depressible keys, and means for transmitting the motion of the keys to the dials comprising a plurality of gears two of which are driven in opposite directions, a shiftable clutch member adapted to be moved into engagement with and to be driven by either of said two gears, and means for automatically disengaging the clutch during the return movement of the said transmitting means.

[Claims 6 to 41 not printed in the Gazette.]

1,137,755. MULTIPLE CARBID-CONTAINER. AUGIE L. HANSEN, Chicago, Ill., assignor to Justrite Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Apr. 10, 1914. Serial No. 831,044. (Cl. 224—5.)



1. In a multiple carbid container, the combination of an elongated supporting frame, a plurality of receivers secured in a row to said frame, and a carbid receptacle detachably secured in each receiver, and each adapted for interchangeability with the carbid receptacle of an acetylene lamp.

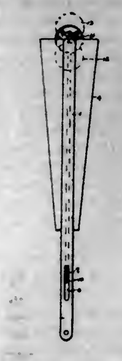
2. In a multiple container, the combination of an elongated supporting frame, a plurality of threaded caps secured to the frame and arranged in a row, a plurality of receptacles each having a threaded neck for detachable engagement with one of said caps, and a belt hook forming an integral part of the supporting frame.

3. In a multiple container, the combination of a supporting frame, a plurality of caps secured to the frame, and each adapted to detachably receive a carbid receptacle, each cap having a vent opening through which gases may escape from the receptacle held thereby.

4. In a multiple carbid container, the combination of a supporting frame, a plurality of threaded caps secured to said frame and each adapted to receive an acetylene lamp carbid receptacle, each cap having a vent opening for the escape of gases from the receptacle held thereby, and a belt hook on the supporting frame.

1,137,756. ILLUSION DEVICE. KICHISABURO HASHIMOTO, New York, N. Y. Filed Sept. 28, 1912. Serial No. 722,793. (Cl. 46—41.)

An illusion device having in combination a foldable member, a plurality of supports therefor one of said supports being provided with a slot, a rod extending parallel and adjacent to said slotted support and having its lower end projecting into said slot and a solid disk attached to the other end of said rod and adapted thereby to be retrieved into and between certain folds of said foldable member as herein specified.



1,137,757. WRIST-PIN FOR FELT-MAKING MACHINES. FRANK A. HEADSON, Milwaukee, Wis., assignor to H. W. Johns-Manville Company, Milwaukee, Wis., a Corporation of New York. Filed Aug. 8, 1910. Serial No. 576,042. (Cl. 74—38.)



1. In a machine of the class described, a shaft provided with a head having a transverse groove therein, a crank-supporting block adjustably mounted in said groove, a crank on said block, adjusting screw mechanism in engagement with the crank-supporting block for moving it to different adjusted positions, and a wedging block in engagement with the crank supporting block, for securing the latter in any position to which it is adapted to be adjusted.

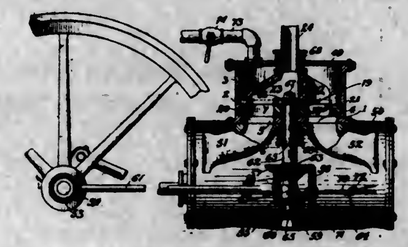
2. In a machine of the class described, the combination of a shaft provided with a transverse groove in the end thereof, a crank-supporting block adjustably mounted in said groove, a crank on said block, adjusting screw mechanism in engagement with the crank-supporting block for moving it to different adjusted positions, a wedging block in engagement with the crank-supporting block for securing the latter in any position to which it is adapted to be adjusted, and adjusting screw mechanism in engagement with the wedging-block for moving it into and out of securing engagement with the crank-supporting block.

3. In a machine of the class described, the combination of a shaft provided with a transverse groove in the end thereof, a crank-supporting block adjustably mounted in said groove, a ring encircling the end of the shaft in which the groove is located, a crank on said block, screws in threaded engagement with the ring and extending into and longitudinally of the groove into engagement with the crank-supporting block, and a wedging-block in engagement with the crank-supporting block, for securing the latter in any position to which it is adapted to be adjusted.

4. In a machine of the class described, the combination of a shaft provided with a transverse groove in the end face thereof, a crank-supporting block adjustably mounted in said groove, a crank on said block extending in parallel relation to the axial center of the shaft, adjusting screws in engagement with the opposite ends of the crank-supporting block and extending longitudinally of the groove, for moving the crank-supporting block and crank transversely of the shaft, and a wedging block in engagement with the crank-supporting block, for securing the latter in any position to which it is adapted to be adjusted.

5. In a machine of the class described, the combination of a shaft provided with a transverse groove in the end face thereof, a crank-supporting block adjustably mounted in said groove, a crank on the crank-supporting block, adjusting screws extending into and longitudinally of the groove and having their inner ends in engagement with the crank-supporting block, for moving the latter transversely of the shaft to different adjusted positions, a wedging block slidably mounted in the groove and in engagement with the crank-supporting block, and adjusting screw mechanism in engagement with the wedging block for moving it into securing engagement with the crank-supporting shaft.

1,137,758. ROTARY VALVE. ELBERT R. HOBBS, Buhl, Idaho. Filed June 7, 1913. Serial No. 772,404. (Cl. 136—12.)



1. Valve mechanism comprising a valve seat having apertures therein, a movable valve plate having passages therein adapted to be brought into communication with said apertures in the valve seat, and means for connecting a source of operating fluid with one or more of said passages.

2. Valve mechanism comprising a valve seat having apertures therein, a movable valve plate having passages therein adapted to be brought into communication with said apertures in the valve seat, and means operating in fixed relation to said valve plate for connecting a source of operating fluid with one or more of said passages.

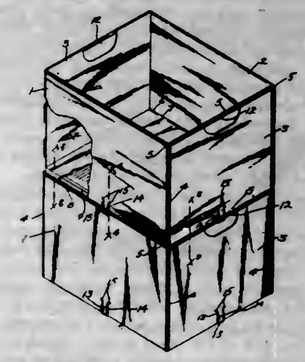
3. Valve mechanism comprising a valve seat having apertures therein, a valve plate having a plurality of groups of passages isolated from each other and movable in relation to said valve seat to bring each of said passages into communication with the apertures in the valve seat during a determinate portion of the movement of said plate and means for simultaneously connecting one or more of said passages of one group with a source of operating fluid and one or more of the other group of passages to exhaust.

4. Valve mechanism comprising a valve seat having apertures therein, a valve plate having a plurality of groups of isolated passages therein and adapted to be rotated upon said valve seat to bring said groups of passages into communication with said apertures alternately, and an adjustable valve member having inlet and exhaust recesses and adjustable in relation to the valve plate to bring one of said recesses into communication with one or more passages in one of said groups and to bring the other of said recesses into communication with one or more passages in another of said groups.

5. Valve mechanism comprising a valve seat having apertures therein, a rotatable valve plate having a plurality of isolated passages therein, rotatable fluid conveying means adjustable in relation to said valve plate to connect a portion of said passages with a source of operating fluid and another portion with an exhaust, and means for rotating said valve plate and said fluid conveying means in fixed relation to each other to bring said passages into communication with said apertures successively.

[Claims 6 to 13 not printed in the Gazette.]

1,137,759. FOLDING BOX. CHARLES M. JOHNSON, Minneapolis, Minn. Filed July 18, 1914. Serial No. 851,688. (Cl. 220—134.)
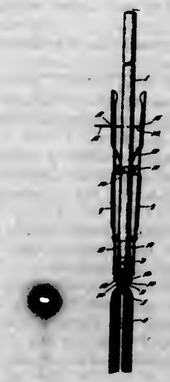


1. A box having at its lower edge portion a multiplicity of retaining clips mounted for vertical sliding movement, adapted to engage an underlying box to hold said boxes in stacked arrangement.

2. A box having at its lower edge portion a multiplicity of retaining clips adapted to engage an underlying box to hold said boxes in stacked arrangement, said clips being mounted to slide into operative positions under the action of gravity and into inoperative positions when engaged by a support on which said box is placed.

3. A box having at its lower edge portion a multiplicity of vertically movable U-shaped retaining clips adapted to engage an underlying box to hold said boxes in stacked arrangement, the prongs of said clips being mounted in seats on said box with freedom for endwise sliding movement.

4. A metallic box having at its lower edge portion a multiplicity of vertically movable U-shaped retaining clips, adapted to engage an underlying box to hold said boxes in stacked arrangement, the prongs of said clips being mounted in seat pressed from the sides of said box with freedom for endwise sliding movement therein.

1,137,760. MOP. GORO KAWASAKI, Chicago, Ill. Filed June 26, 1914. Serial No. 847,434. (Cl. 15—43.)



1. The combination of a mop head; a pair of levers pivotally connected together intermediate their extremities; contact members carried at corresponding ends of said levers adapted for engagement with opposite sides of said mop head; resilient means coöperating with said levers for normally pressing said contact members toward each other; and means coöperating with said levers for locking said contact members against relative outward movement,

said levers being movably mounted whereby said contact members may be moved relatively to said mop head, substantially as described.

2. The combination of a mop head; a pair of levers pivotally connected together intermediate their extremities; contact members carried at corresponding ends of said levers adapted for engagement with opposite sides of said mop head; resilient means coöperating with said levers for normally pressing said contact members toward each other; and means coöperating with the opposite ends of said levers for locking said contact members against relative outward movement, said levers being movably mounted whereby said contact members may be moved relatively to said mop head, substantially as described.

3. The combination of a mop head; a pair of levers pivotally connected together intermediate their extremities; contact members carried at corresponding ends of said levers adapted for engagement with opposite sides of said mop head; resilient means coöperating with said levers for normally pressing said contact members toward each other; and a transversely extending finger on the opposite end of one of said levers adapted to engage with the corresponding end of the other of said levers to lock said contact members against relative outward movement, said levers being movably mounted whereby said contact members may be moved relatively to said mop head, substantially as described.

4. The combination of a mop head; a pair of levers pivotally connected together intermediate their extremities; contact members carried at corresponding ends of said levers adapted for engagement with opposite sides of said mop head; resilient means coöperating with said levers for normally pressing said contact members toward each other; and a transversely extending tapering finger on the opposite end of one of said levers adapted to engage with a tapering socket in the corresponding end of the other of said levers to lock said contact members against relative outward movement, said levers being movably mounted whereby said contact members may be moved relatively to said mop head, substantially as described.

5. The combination of a handle; a cross piece at one end of said handle; a mop head arranged at said cross piece; a pair of levers pivotally connected together intermediate their extremities, said levers being mounted upon said handle for longitudinal sliding relative thereto; contact members at corresponding ends of said levers adapted for engagement with opposite sides of the mop head; there being recesses provided in opposite sides of said cross piece for the reception of said contact members when not in use; and resilient means normally pressing said contact members toward each other, substantially as described.

[Claims 6 to 9 not printed in the Gazette.]

1,137,761. PRESERVATION OF EGGS. HERBERT J. KEITH, Brookline, Mass. Filed June 23, 1914. Serial No. 846,890. (Cl. 99—14.)

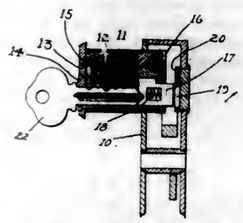
1. As a new product or article of manufacture, a churned homogeneous solid frozen egg mixture containing its original constituents but substantially no added air.

2. The herein described process which consists in excluding air from an egg mixture and simultaneously agitating and freezing such mixture.

3. The herein described process which consists in excluding air from an egg mixture, and in agitating or churning and simultaneously freezing such mixture while the air is excluded, and then freezing and holding such mixture at a temperature where bacterial action substantially ceases.

1,137,762. LOCK. FRANK I. KIMBALL, West Haven, Conn., assignor to Sargent & Company, New Haven, Conn., a Corporation of Connecticut. Filed Dec. 6, 1913. Serial No. 805,065. (Cl. 70—93.)

1. A cylinder lock having a key plug with a keyway, a rollback connected with the rear end of the key plug, a change key insertible into said keyway to rotate the key plug and said rollback, an emergency key insertible into the keyway to rotate the key plug and said rollback, and a slide adapted to actuate a part of an exterior lock or latch mechanism, extending into said keyway and adapted to be engaged and operated by said emergency key, said slide being inoperative by said change key; substantially as described.



2. A cylinder lock having a key plug, said key plug provided with a keyway, a rollback on the rear end of the cylinder lock, means of connection between the key plug and said rollback, whereby the former turns the latter, and a slide in said keyway adapted to be moved by a key, and operating in an opening through said rollback; substantially as described.

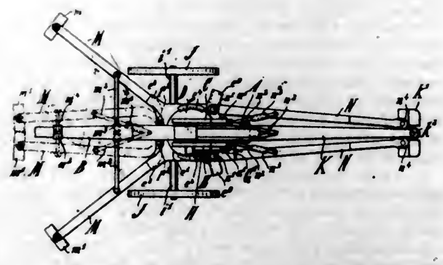
3. In a cylinder lock, the combination of a casing, a sleeve rotatable therein, a key plug rotatable in the sleeve, pin tumblers coöperating with the casing, sleeve and key plug, said key plug having a keyway, a rollback rotatably mounted on the rear end of the cylinder lock, an operator secured to the rear end of the key plug for turning said rollback, and a slide in the keyway operating in openings through said rollback and operator; substantially as described.

4. In a cylinder lock, a key plug having a keyway, a slide in the rear end of said keyway, a key insertible in said keyway, and arranged when so inserted to move said slide, a second key fully insertible in said keyway, without moving said slide, lock mechanism, a rollback for actuating said lock mechanism by means of said slide when the latter is moved by the first named key, and a second rollback actuated by either key; substantially as described.

5. A cylinder lock having a slide guided longitudinally in the rear end of the keyway, a spring normally holding said slide in retracted position, a key having its extremity conformed to said slide so as not to project the same, and another key having its extremity formed to project the slide; substantially as described.

[Claims 6 to 20 not printed in the Gazette.]

1,137,763. WHEELED GUN-CARRIAGE. NORBERT KOCH, Essen-Rellinghausen, and GEORG HAYN, Essen-on-the-Ruhr, Germany, assignors to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Filed MAR. 12, 1912. Serial No. 683,370. (Cl. 89—40.)



1. In a wheeled gun mount comprising an under carriage, a top carriage supporting the gun barrel and adapted to be trained for firing about 360° relatively to the under carriage, detachable wheels for said under carriage, a trail and legs on the gun mount, some of said legs being adapted to extend in forward direction and others to extend in the angles between the trail and said forward legs, so as to form together with the trail an all around foundation of the mount resting on the ground on the removal of said wheels.

2. In a wheeled gun mount comprising an under carriage, a top carriage supporting the gun barrel and adapted to be trained for firing about 360° relatively to the under carriage, detachable wheels for said under carriage, a trail, a trail eye on said trail for limbering up the gun mount and legs on the under carriage, some of said legs being adapted to extend forward and sidewise and some of said legs being adapted to extend in the angles between the trail and said forward and sidewise extending legs, so as to form together with the trail an all around foundation of the mount resting on the ground on the removal of the wheels.

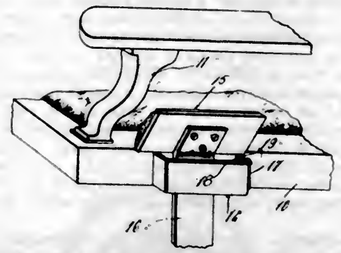
3. In a wheeled gun mount comprising an under carriage and a top carriage supporting the gun barrel and adapted to be trained for firing about 360° relatively to the under carriage and a detachable wheel axle and a pair of wheels thereon, the combination of a trail on said under carriage with four legs hinged to said under carriage, a pair of said legs being adapted to extend forward and sidewise and another pair of said legs being adapted to extend in the angles between the trail and said forward and sidewise extending legs, so as to form together with the trail an all around foundation of the mount on the removal of the axle and its wheels.

4. In a wheeled gun mount comprising an under carriage and a top carriage supporting the gun barrel, the combination of a trail on said under carriage with legs hinged to said under carriage and means for rigidly securing the legs in the operating position, said means comprising fixed jaws for the under carriage and jointed bars connecting the legs and a sleeve coupling for keeping said bars rigid.

5. In a wheeled gun mount comprising an under carriage and a top carriage supporting the gun barrel, the combination of a trail on said under carriage with legs hinged to said under carriage and means for rigidly securing the legs in the operating position, said means comprising fixed jaws for the under carriage and jointed bars connecting the legs and a sleeve coupling for keeping said bars rigid, said legs being provided with spades at their free ends.

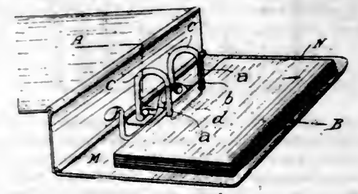
[Claims 6 to 9 not printed in the Gazette.]

1,137,764. ATTACHMENT FOR BARBERS' CHAIRS. THOMAS J. KOLOCOTRONIS, Shenadoah, Pa. Filed Aug. 30, 1913. Serial No. 787,507. (Cl. 155—26.)



An attachment for a barber's chair comprising an elongated member open at the top and bottom and one end, for the reception of the stem of the head rest of the chair, vertically spaced parallel attaching ears extending from the inner side of the receptacle and arranged for attachment to the upper and lower sides of the seat of the chair, the inner side of the attachment at the open end thereof having an angular portion extending toward the opposite side of the attachment and forming a stop, and an inwardly opening spring hinged door carried by the outer sides of the said open end and normally engaging with the said stop whereby outward movement of the door is prevented.

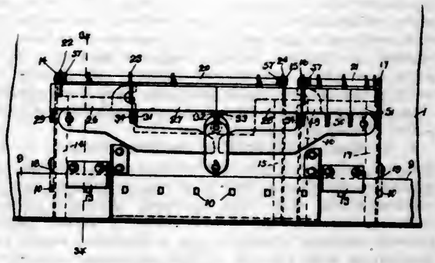
1,137,765. DOCUMENT-FILE. MAX KUMMER, Herrnhut, Germany. Filed May 28, 1914. Serial No. 841,438. (Cl. 129—8.)



1. A file for documents comprising a hook-shaped member having a beak which has a longitudinally extending cut away section, and a sheet-retaining member adapted to engage said cut away section.

2. A file for documents, comprising a pair of recessed posts, a pair of hinged hooks having recessed beaks adapted to be alined with the posts, and a bail having shanks adapted to be engaged by the recessed posts and hooks.

1,137,766. INTERLOCK FOR CUMULATIVE VOTING ON VOTING-MACHINES. WILLIAM J. LAUSTEREE, Jamestown, N. Y., assignor to Empire Voting Machine Company, Jamestown, N. Y., a Corporation of New York. Filed Oct. 14, 1913. Serial No. 795,054. (Cl. 235—54.)



1. In an interlocking device, the combination of a support, a plurality of frames mounted to swing on said support, and an interlocking device on said support permitting the swinging operation of either one of said frames, but not both at the same time.

2. In an interlocking device, the combination of a support, a plurality of frames mounted to swing on said support, and a plurality of blades on each of said frames, said blades being adapted to swing forward and back on said frames.

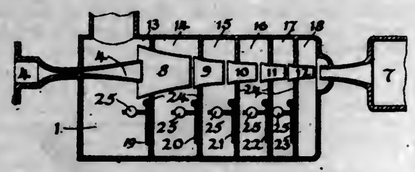
3. In an interlocking device the combination of a support, a plurality of frames mounted to swing on said support, and a plurality of blades on each of said frames, said blades being adapted to swing forward and back on said frames, and means for locking said blades in either their forward or back position.

4. In an interlocking device, the combination of a support, two vertically movable frames mounted on said support, blades mounted on each of said frames, said blades being adjustable forward and back thereon, and interlocking devices to prevent the vertical movement of more than one of said frames at a time.

5. In an interlocking device, the combination of a plate, flanges fastened to said plate, and frames pivotally mounted in said flanges, each of said frames having a series of blades mounted thereon and adjustable forward and back thereon.

[Claims 6 to 19 not printed in the Gazette.]

1,137,767. EJECTOR. MAURICE LEBLANC, Paris, France, assignor to Societe Anonyme Pour l'Exploitation des Procedes Westinghouse-Leblanc, Paris, France. Filed July 26, 1906. Serial No. 327,918. (Cl. 230—13.)



1. In an ejector, a fluid-supply nozzle, a fluid-controlling valve therefor, a receiving chamber communicating therewith, a series of axially alined, truncated cone-shaped members arranged to form a converging fluid passage, which communicates with said receiving chamber and receives fluid therefrom, a chamber between adjacent members, a liquid admission port communicating with the outlet of the last member of said series and a second series of convergent members and intermediate communicating chambers coöperating with said first series.

2. In an ejector, a receiving chamber, a convergent and divergent nozzle communicating therewith, a convergent passage comprising a plurality of truncated cone-shaped members communicating with and receiving fluid from said receiving chamber, a chamber between adjacent members, a valve between adjacent members and the first of said chambers and said receiving chamber and a divergent nozzle communicating with the last of said chambers and receiving motive fluid from said converging passage.

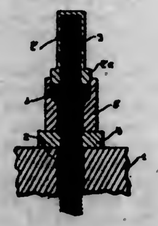
3. In an ejector, the combination of a receiving chamber, a convergent and divergent fluid injector communicating therewith, a divergent fluid passage comprising a plurality of truncated cone-shaped members communicating with said receiving chamber and receiving fluid from said injector, a chamber between adjacent members, valved ports connecting adjacent members, a valved port connecting the first of said chambers with said receiving chamber and a divergent nozzle communicating with the outlet of said divergent passage.

4. In combination with a receiving chamber, a fluid injector communicating therewith, a fluid passage comprising a plurality of axially-alined converging members communicating with said receiving chamber, pressure chambers between adjacent members, a valved opening between adjacent chambers and a divergent nozzle communicating with the last of said convergent members.

5. In combination with a receiving chamber, a fluid ejecting device communicating therewith and comprising a plurality of axially alined converging nozzle sections, a separate chamber communicating with the inlet end of each of said sections, and a valved passage establishing communication between the chambers of adjacent sections.

[Claims 6 to 26 not printed in the Gazette.]

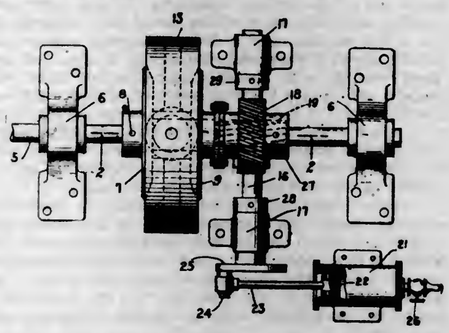
1,137,768. VALVE FOR PNEUMATIC TIRES. JACOB CAPSHAW MCCALL, Rotan, Tex. Filed Apr. 7, 1914. Serial No. 830,119. (Cl. 152—12.)



1. In a device of the character described, the combination with a valve stem, of a collar mounted upon the stem and restricted from inward displacement, the outer end of said collar being recessed, a packing ring mounted upon the valve stem within the recess of said collar, and a cap having screw threaded engagement with the valve stem and having its inner end fitting snugly within the recess of said collar, the packing ring being compressed between said cap and the bottom of said recess.

2. In a device of the character described, a collar adjustably mounted upon the valve stem and having its outer end recessed to form a seat, a packing surrounding the valve stem and arranged within the seat in said collar, and a cap adjustably mounted upon the valve stem and adapted to be advanced in the seat of said collar to compress the packing in said seat.

1,137,769. ADJUSTABLE-SPEED MECHANISM. WILLIAM MCENERNEY, New York, N. Y. Filed Apr. 28, 1913. Serial No. 764,020. (Cl. 74—34.)

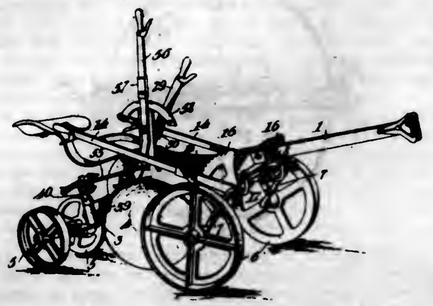


1. Adjustable speed transmission mechanism comprising a drive gear to which the power of the primary driving source is applied, a driven element from which power is taken at the adjusted speed, and a control gear; an intermediate gear carried by the driven element, meshing with the drive gear and reacting against the control gear to form a differential connection between the drive gear and the driven element, a speed governing shaft disposed at an angle to the axis of the control gear, angular thrust driving gearing through which the governing shaft is driven from the control gear, and a retarding device acting on the speed governing shaft and controllable to vary the speed of the said shaft and of the control gear which drives said shaft.

2. Adjustable speed transmission mechanism comprising a drive gear to which the power of the primary driving source is applied, a driven element from which the power is taken at the adjusted speed, and a control gear; an intermediate gear carried by the driven element, meshing with the drive gear and reacting against the control gear to form a differential connection between the drive gear and the driven element, a speed governing shaft disposed at an angle to the axis of the control gear, angular thrust driving gearing through which the governing shaft is driven from the control gear, a pump operated by the speed-governing shaft, and a valve controlling said pump to thereby control the speed of the speed-governing shaft and of the control gear which drives said shaft.

3. Adjustable speed transmission mechanism comprising a drive gear to which the power of the primary driving source is applied, a driven element from which the power is taken at the adjusted speed, and a control gear; an intermediate gear carried by the driven element, meshing with the driven gear and reacting against the control gear to form a differential connection between the drive gear and the driven element, a speed-governing shaft disposed at an angle to the axis of the control gear, high pitch spiral gearing through which the governing shaft is driven from the control gear, and a retarding device acting on the speed-governing shaft and controllable to vary the speed of the said shaft and of the control gear which drives said shaft.

1,137,770. REVERSIBLE-DISK PLOW. AUGUSTA P. MCKAY, Rome, Ga. Filed Sept. 26, 1913. Serial No. 791,985. (Cl. 97—40.)



1. A reversible disk plow, comprising a pair of rear thrust wheels movable about a substantially vertical pivot and free to rock about a substantially horizontal pivot and lever mechanism to turn said wheels about said vertical pivot.

2. A reversible disk plow, comprising a pair of rear thrust wheels revoluble about a substantially vertical pivot and free to rock about a horizontal pivot, means to limit the rocking movement of said wheels about the horizontal pivot and means to lock the wheels against movement about the vertical pivot.

3. A reversible disk plow, comprising a beam, a horizontally movable support pivotally connected with the beam, a rocking member connected with said support, thrust wheels journaled in the rocking member, means on the support to lock the same against movement relative thereto, and means for swinging the locking means and support in unison.

4. A reversible disk plow, comprising a beam, a horizontally movable support pivotally connected with the beam, a rocking member connected with said support, thrust wheels journaled in the rocking member, means to lock the support against movement, and means to limit the swing of the rocking member.

5. A reversible disk plow, comprising a beam, a rotatable post connected with the beam and having a horizontal portion, a sleeve rockable on said horizontal portion, rear thrust wheels carried by said sleeve, a lever connected with said post, a latch bar, and means to automatically lock the lever to the latch.

[Claims 6 to 10 not printed in the Gazette.]

1,137,771. FILM-ROLL HOLDER. LOUIS MANDEL, Chicago, Ill. Filed May 18, 1914. Serial No. 839,195. (Cl. 242—71.)



1. A photographic film roll holder comprising nested pairs of opposed cases, for holding the film, a non-rotatable core in one of the cases for the film, the sections of each case having registering slots through which the film passes, and the slots of one pair of cases being disposed out of register with the slots of the other case, and a protecting element adjacent the slots for protecting the film as it passes through the slots.

2. A photographic film roll holder comprising nested pairs of opposed cases, for holding the film, the sections of each case having registering slots through which the film passes, and the slots of one pair of cases being disposed out of register with the slots of the other case, and a flexible protecting element for the film, said element passing through the slots and with which element the film has engagement.

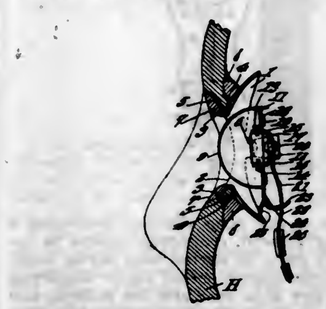
3. A photographic film roll holder comprising opposed telescoping sections having an opening through which the film passes, provisions for maintaining the holder against rotation while the film is being drawn therefrom, a non-rotatable core about which the film slides, and a protecting shield for the film while it passes through the said opening.

4. As an article of manufacture a film roll holder comprising a closed casing for holding the film, said casing having an opening through the wall thereof through which the film passes, a second closed casing in which the first recited casing is housed, the second casing having an opening through the wall through which the film passes, said openings being out of register to create friction on the film, means for maintaining them out of register and a flexible element extending through the openings from the inside of the casings to protect the film where it passes over the edges of said openings.

5. A photographic film roll holder comprising nested pairs of opposed cases for holding the film, the sections of each case having registering slots through which the film passes, the slots of the sections of one case being arranged out of register with the slots of the sections of the other case, a core arranged in the innermost casing and which core is encircled by the film, a portion of the film intermediate the slots passing between and frictionally held by the adjacent walls of the casing, and a protecting element for the film adjacent the slots.

[Claims 6 to 8 not printed in the Gazette.]

1,137,772. MECHANICAL EYE. JOSEPH ALEXANDER MANNING, Pawtucket, R. I. Filed June 12, 1914. Serial No. 844,719. (Cl. 46—40.)



1. The combination with an imitation head having an eye aperture, of a mechanical eye, including a support carrying an eye member, clamping two diametrically disposed means carried by the support for gripping the rim of the eye aperture of the head to hold the support relatively to the eye aperture, and a cementitious material covering the clamping means and adhering to the head and support to augment the attachment of the support to the head.

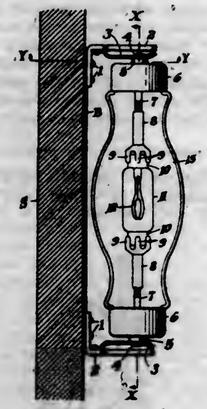
2. A mechanical eye, including a support having two eye apertures therethrough, two apertured lugs carried by the support one at each end thereof, means carried by the support adjacent the eye apertures for engageing an imi-

tation head, means carried by the support intermediate of the eye apertures for engaging the imitation head, and two eye members swingingly mounted in the apertured lugs for movement in unison.

3. A mechanical eye, including a support having two eye apertures therethrough, two apertured lugs carried by the support one at each end thereof, means carried by the support adjacent the eye apertures for engaging an imitation head, means carried by the support intermediate of the eye apertures for engaging the imitation head, a plate pivotally mounted in the apertured lugs for vertical swinging movement, two eye members attached thereto for movement therewith and for independent horizontal swinging movement, two levers swingingly connected to the plate adjacent the respective eye members, means for connecting the levers for movement in unison, and cooperable means carried by each lever and its respective eye member whereby horizontal swinging movement imparted to the lever will impart a glancing movement to both eyes of the eye members.

4. The combination with an imitation head, having an eye aperture, and a mechanical eye including a support carrying an eye member, two pairs of prongs diametrically disposed and carried by the support, said prongs being shaped to fit upon and clamp the edge of the head adjacent the opposite sides of the eye aperture to maintain the support to the head, and a cementitious material covering the prongs and reinforcing the portion of the head adjacent thereto.

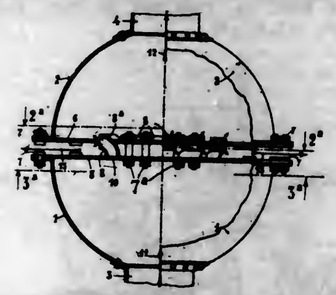
1,137,773. DETACHABLE LAMP. JOHN E. MARSDEN, Philadelphia, Pa. Filed June 18, 1914. Serial No. 845,805. (Cl. 240—11.)



1. A detachable electric lamp structure comprising a globe of insulating material, conducting closures on opposite ends of said globe, an electric lamp having terminals at opposite ends thereof, means rigidly supporting said lamp within said globe upon said end closures, said supporting means forming electrical communication between the lamp terminals and said conducting closures, and resilient means supporting said conducting closures and affording electrical communication therewith.

2. The combination with a globe, of ferrules on opposite ends thereof, longitudinally rigid conducting rods rigidly supported by said ferrules within said globe in axial alinement with each other, an electric lamp having terminals on opposite ends thereof, means on said rods receiving said lamp terminals, substantially rigid brackets, and resilient members supported by said brackets supporting said ferrules and affording electrical communication with the terminals of said lamp through said ferrules and rods.

1,137,774. PROCESS AND DEVICE FOR SEPARATION OF THE ELEMENTS COMPOSING A GASEOUS MIXTURE BY MEANS OF CENTRIFUGAL ACTION. EDOARDO MAZZA, Turin, Italy. Filed May 29, 1911. Serial No. 630,153. (Cl. 127—3.)



1. The method of separating the constituents of gas mixtures, which comprises passing the mixture through stationary curved channels at sufficient speed to impart centrifugal action thereto and arrange the constituents therein more or less into layers, and deflecting different portions of the gas as it discharges from the channels.

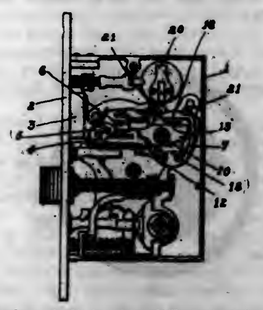
2. The method of separating the constituents of a gas mixture, which comprises supplying the compressed mixture of fixed gases to a curved channel at sufficient speed to cause centrifugal action, and deflecting separate portions of the mixture at different radial distances at the end of said channel.

3. The method of separating the constituents of a gaseous mixture, which comprises supplying the compressed mixture to a channel, expanding the mixture in the channel, causing the mixture to make a turn of small radius at the end of the channel with sufficient speed to cause centrifugal action in the gases, and deflecting different portions of the mixture at the exit of the channel in accordance with their density.

4. The method of separating the constituents of a gaseous mixture, which comprises passing the mixture at high velocity through a stationary curved channel, separating the mixture at the mouth of the channel and placing the denser portion of the mixture at the mouth of the channel under suction.

5. The method of separating the constituents of gas mixtures, which comprises passing the mixture through a stationary channel curving through substantially ninety degrees at a speed sufficient to centrifugally arrange the constituents in layers according to their density, and separating, and discharging the separated layers at the exit of the channel.

1,137,775. LOCK. IRVING D. MERRITT, New Haven, Conn., assignor to Sargent & Company, New Haven, Conn., a Corporation of Connecticut. Filed Sept. 23, 1911. Serial No. 650,883. (Cl. 70—76.)



1. In a lock, a bolt having different pairs of talons, a tumbler for the bolt, a projection on said tumbler movable between the talons of one pair, key operated means coöperating with said projection and with said last named talons, another projection on the tumbler movable between the talons of the second pair, and a thumb-turn member coöperating with said last named projection and with the second pair of talons; substantially as described.

2. In a lock, a bolt having a pair of talons, a tumbler having a projection movable between said talons, a thumb-turn hub having a diametrical double wing movable in a circle and either end of which is arranged to coact with said tumbler projection and said talons, and a spring acting on said thumb-turn hub and normally holding said double wing out of contact with said projection and said talons; substantially as described.

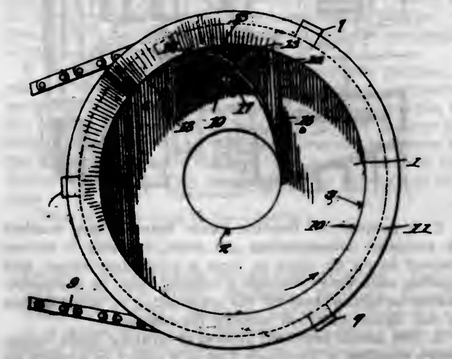
3. In a lock, a bolt having a pair of talons, a tumbler having a projection movable between said talons, a thumb-turn member movable in a complete circle and having a diametrical double wing, either end of which is arranged to coöperate with said tumbler projection and said talons, means on the tumbler to guide said wing into engagement with said projection and talons, and means acting on said thumb-turn member and normally holding it in a horizontal position and clear of the bolt and tumbler, so that the bolt may be protracted without actuating said thumb-turn member; substantially as described.

4. In a lock, a bolt having talons, a tumbler having a loop, a thumb-turn member mounted within said loop and having a wing movable over and guided by the latter, and a projection on said loop between the bolt talons arranged in the plane of the thumb-turn wing and adapted to be engaged by the latter said thumb turn member movable in a complete circle; substantially as described.

5. In a lock, a bolt having upper and lower talons, a tumbler for the bolt having a loop, a projection on said loop entering the space between the upper talons, another projection on said loop entering the space between the lower talons, key actuated means coöperating with one of said projections and the adjacent talons, and thumb-turn operated means coöperating with the other projection and its adjacent talons; substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,137,776. FEEDER FOR TILE-MACHINES. ST. JOHN MILLER, Pioneer, Ohio. Filed June 25, 1914. Serial No. 847,283. (Cl. 25—103.)



1. In a feeding mechanism, an annular shell adapted to be mounted for rotation above a hopper, a paddle carrying means mounted upon the interior of the shell and including an adjustable hanger adapted to project into the hopper, and a paddle carried by the lower end of the hanger arranged to be adjusted, when the hanger is adjusted, to accommodate the particular size of the hopper opening.

2. In a feeding mechanism, a shell adapted to be mounted for rotation above a hopper, a paddle carrying means carried by the interior of the shell and including a hanger mounted for oscillatory adjustments and means for holding the hanger at various angular positions, the hanger being adapted to project into the hopper, and a paddle carried by the lower end of the hanger to work within the hopper and adapted to be adjusted angularly when the hanger is adjusted.

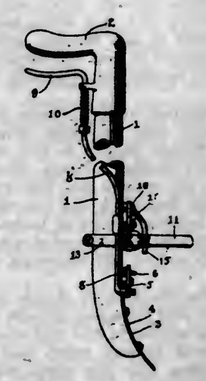
3. In a feeding mechanism, a shell adapted to be mounted for rotation above a hopper, a hinged member carried by the interior of the shell a hanger carried by the said hinged member adapted to project into the hopper, a paddle carried by the lower end of the hanger to work within the hopper, and means for holding the hinged member at various angular positions.

4. In a feeding mechanism, a shell adapted to be mounted for rotation above a hopper, a hinged member carried by the interior of the shell, a hanger carried by the said hinged member adapted to project into the hopper, a paddle carried by the lower end of the hanger to work within the hopper, and an adjusting screw threaded through the said hinged member to hold the paddle against movement away from the center of the hopper.

5. In a feeding mechanism, a shell adapted to be mounted for rotation above a hopper, a hinge having one leaf secured to the interior of the shell, a hanger carried by the other leaf of the hinge, a paddle carried by the hanger to work within the hopper around the opening thereof, and an adjusting screw threaded through the last mentioned leaf of the hinge and bearing against the other leaf.

[Claim 6 not printed in the Gazette.]

1,137,777. ASPARAGUS-CUTTER. EVERETT W. MOORE, Grand Rapids, Mich. Filed May 7, 1914. Serial No. 836,903. (Cl. 55—65.)



1. An asparagus cutter, comprising a staff having an extensible cutter at its lower end, gripping fingers on the staff above the cutter, and means for simultaneously actuating the cutter and gripping fingers from the upper end of the staff.

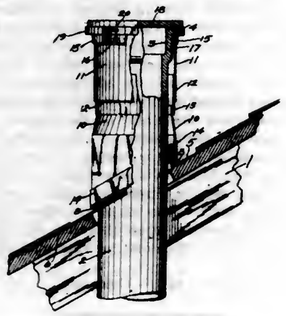
2. An asparagus cutter, comprising a staff having a curved surface near its lower end, a correspondingly curved extensible cutter traversably mounted on said surface, gripping fingers on the staff above the cutter, and means for simultaneously actuating the cutter and fingers from the upper end of the staff.

3. An asparagus cutter, comprising a staff, an extensible cutter at he lower end of the staff, a stationary and a pivoted gripping finger above the cutter, a pivoted lever attached at one end to the cutter, a pivoted bell crank engaging the pivoted finger with one end and a rod attached to the free ends of said lever and bell crank and extending near the upper end of the staff.

4. An asparagus cutter, comprising a staff having a curved surface near its lower end and a handle at its upper end, a curved extensible cutter traversably mounted on said curved surface, a lever pivoted to the staff and connected at one end to said cutter, a fixed finger and

a pivoted finger above the cutter, said fingers being normally separated by a spring, a bell crank pivoted to the staff and engaging the pivoted finger with one end, a rod attached to the respective free ends of the said lever and bell crank and extending near the said handle, and a spring to yieldably move the rod downward to release the gripping finger and retract the cutter.

1,137,778. VENT-PIPE. FRANCIS J. MOORE, Minneapolis, Minn. Filed July 20, 1914. Serial No. 851,939. (Cl. 108—26.)



1. The combination with an oblique roof structure and an upright vent pipe projecting through an opening therein, of a flashing secured to said roof structure and having an opening through which said pipe projects, a casing surrounding said pipe above said flashing and a joint strip carried by said flashing, extending in a plane substantially parallel to said roof structure and arranged to telescopically receive and removably support said casing.

2. The combination with an oblique roof structure and an upright vent pipe projecting through an opening therein, of a flashing secured to said roof structure and having a flanged opening through which said pipe projects, a casing surrounding said pipe above said flashing and a joint strip detachably and removably seated on the flange of said flashing, extending therearound in a plane substantially parallel to said roof structure and arranged to telescopically receive and removably support said casing.

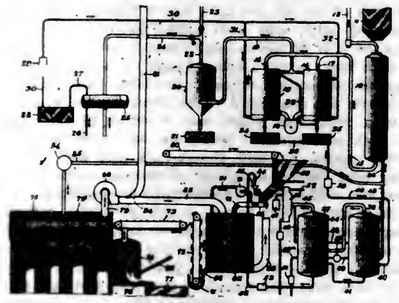
3. The combination with an oblique roof structure and an upright vent pipe projecting through an opening therein, of a flashing secured to said roof structure and having a flanged opening through which said pipe projects, a casing surrounding said pipe above said flashing and a joint strip S-shaped in cross section, arranged to telescopically receive the flange of said flashing and the lower edge of said casing, said joint strip extending around said flange in a plane substantially parallel to said roof structure.

1,137,779. PROCESS OF RECOVERING THE SODA CONTENT OF WASTE LIQUOR. HUGH K. MOORE, Berlin, N. H. Filed Mar. 6, 1913. Serial No. 752,365. (Cl. 23—22.)

1. The herein described process of treating the waste liquor resulting from the digestion of wood which consists in mixing the liquor with a carbonaceous carrier, burning the mixture, and simultaneously smelting and recovering the inorganic content of the said liquor.

2. The herein described process which consists in mixing the lignin liquor with a solid carbonaceous carrier, supplying air under pressure to and burning the mixture in a smelting furnace, smelting the contained soda, and recovering the soda.

3. The herein described process which consists in mixing lignin liquor containing soda with a carbonaceous carrier and sodium sulfate, supplying air under pressure to and burning said mixture, smelting the soda, and recovering the smelted soda.

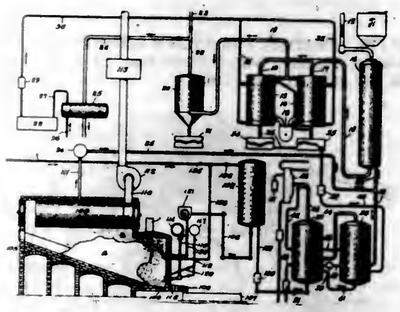


4. The herein described process of recovering soda from the waste liquor resulting from the digestion of wood which consists in mixing the liquor with a carbonaceous carrier and sodium sulfate, burning a dried mixture of said liquor and said carrier, smelting the contained soda and recovering the same, and drying the first-mentioned mixture by contact with the gaseous products of combustion resulting from burning a like dried mixture.

5. The herein described process which consists in mixing lignin liquor with a carbonaceous carrier, burning a previously dried mixture of said lignin liquor and said carrier in a smelting furnace, recovering the smelted soda, and with the resulting gaseous products of combustion drying the first-mentioned mixture.

[Claims 6 to 12 not printed in the Gazette.]

1,137,780. METHOD AND MEANS FOR TREATMENT OF WASTE LIQUORS. HUGH K. MOORE, Berlin, N. H. Filed Aug. 14, 1913. Serial No. 784,801. (Cl. 23—13.)



1. A process for treating lignin liquor which consists in partially concentrating the same, exposing a stream thereof to an air blast to form a continuous spray, and passing such spray through a radiant flame in a chamber heated to radiant heat for the evaporation or volatilization of the liquid, and then burning the residuum.

2. The herein described process of treating lignin liquor, which consists in burning a fuel in a retort to produce an intensely hot flame, spraying such liquor through said flame to evaporate liquid therefrom, forming an accumulation of the residuum in the retort, and supplying additional oxygen to and burning such residuum while in the retort.

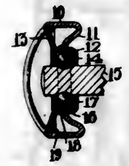
3. The herein described process of treating lignin liquor, which consists in spraying the same with air into a retort and into a flame produced by burning a suitable fuel, accumulating the residuum, supplying additional oxygen to burn the residuum, smelting the inorganic content of such residuum in a reducing atmosphere, and withdrawing the same in molten condition from the retort.

4. The herein described process which consists in producing a hot flame by incomplete combustion of a fuel in the lower part of a retort, spraying lignin liquor through said flame into the upper part of said retort to evaporate the liquid therefrom while in transit, accumulating the residuum on a sloping floor of the retort, and supplying air under pressure to the upper portion of said accumulated residuum to burn the same.

5. The herein described process which consists in mixing sulfate lignin liquor and sodium sulfate, and spraying such mixture into a retort in the presence of radiant heat.

[Claims 6 to 22 not printed in the Gazette.]

1,137,781. ROLLER. FRED S. MORTON, Worcester, Mass., assignor to Matthews Manufacturing Company, Worcester, Mass., a Corporation of Massachusetts. Filed Oct. 22, 1914. Serial No. 868,114. (Cl. 46—52.)



1. A roller comprising a tread, a side member secured thereto, a ball cup secured in said side member and forming two sides of a ball race, and a second side member mounted in the tread and forming the third side of the ball race.

2. A roller comprising two side members, a tread, and a ball cup, said cup having a circumferential bearing surface and one side flange and being secured within one of the side members, and the other side member extending inwardly and forming a second side flange which completes the ball race.

3. A roller comprising two side members, a tread, and a ball cup, said cup being secured in one side member, said tread being integral with the same member, and the other side member being secured within the tread, the inner portion of said second side member being effective to close one side of the ball cup and to retain the balls therein.

4. A roller having a unitary tread and side member, a ball cup mounted in said member and having a peripheral projection which prevents movement of the cup relative to the member in one direction, and a second side member secured within the tread and effective to prevent movement of the cup in the opposite direction.

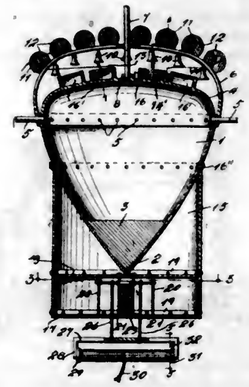
5. A roller having a unitary tread and side member, a ball cup mounted in said member and having a peripheral projection which prevents movement of the cup relative to the member in one direction, and a second side member secured within a tread and effective to prevent movement of the cup in the opposite direction, the inner portion of the last named side member constituting one side of the ball race.

[Claim 6 not printed in the Gazette.]

1,137,782. SHIPWRECK SIGNAL-INDICATOR. BENJAMIN FRANKLIN NIXON, Winnipeg, Manitoba, Canada. Filed May 7, 1914. Serial No. 837,041. (Cl. 9—9.)

1. A device of the class described comprising a body converging toward its lower end, a cap fixed upon the upper portion of said body, a ballast member positioned within the lower portion of said body whereby said body will be held in its correct vertical position, signaling means carried above said cap, whereby said signaling means will be held above the water, and means yieldably connecting a cable to the lower portion of said body, said cable adapted to be connected to a vessel whereby when a vessel sinks said body may float and allow said cable to engage a vessel whereby the location of the vessel may be determined, and said yieldable means adapted to prevent the breaking of said cable.

2. A device of the class described comprising a hollow body, said body converging toward its lower portion, a cap carried upon the upper portion of said body for forming a closure therefor, a sleeve fixedly secured to the lower portion of said body, plates fixedly secured within the lower portion of said sleeve, means connected to said plates for yieldably attaching a cable to said plates, said cable adapted to be attached also to a vessel, said means adapted to unreel said cable as a vessel sinks whereby said body will float to indicate the position of a vessel.



3. A device of the class described comprising a hollow body, a cap carried by the upper portion of said body forming a closure for the same, signaling means carried above said cap, a sleeve fixedly secured upon the lower portion of said body, plates fixedly secured within said sleeve and at a spaced distance apart, a plurality of vertical rods fixedly secured between said plates, a sliding plate carried upon a pair of said vertical rods, a spring bearing upon one of said fixed plates and upon said sliding plate will be normally urged in one direction, and means connected to said sliding plate for securing a cable, said cable adapted to be secured to a vessel whereby said cable may be attached to a vessel so as to allow the body to indicate the position of a vessel, said spring and sliding plate being adapted to yieldably connect the cable thereby preventing the same from being broken by undue strain being brought thereon.

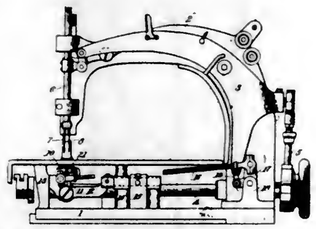
4. A device of the class described comprising a supporting body, said body converging toward its lower portion, a cap for closing the upper portion of said body, a signal, and means carried above said cap, said signaling means adapted to attract attention to said body, a sleeve carried upon said body, a plurality of spaced plates fixedly secured within said sleeve, vertical rods carried by said plates, a sliding plate positioned upon a pair of said rods, a screen carried between said last-mentioned rods and bearing upon said sliding plate for normally urging said sliding plate in one direction, a finger having an eye extending from each end of said sliding plate and engaging the remaining vertical rods, links connected to said finger and extending through one of said fixed plates, a bracket carried upon the outer ends of said links, whereby said bracket will be yieldably supported, a drum carried by said bracket, a cable secured to said drum, said cable adapted to be also attached to a vessel, said drum adapted to rotate for allowing the cable to unwind whereby when a vessel sinks a cable will remain attached thereto and the body will float so as to indicate the location of the vessel, said spring adapted to take up any undue strain adapted to bear upon the cable and thus preventing the same from being broken.

5. A device of the class described comprising a floating body, a cap forming a closure for the upper portion of said body, signaling means positioned above said cap, a sleeve carried upon the lower portion of said body, a plurality of fixed plates carried within said sleeve, vertical rods carried by said fixed plates, a sliding plate carried by a pair of said rods, a spring bearing upon said sliding plate for normally urging the same in one direction,

a finger extending from each end of said sliding plate and engaging one of said vertical rods, links engaging said fingers and extending through one of said fixed plates, a cable, means for supporting said cable upon said links, said cable adapted to be secured to a vessel whereby said cable may be paid out so as to allow the body to float and thus indicate the location of a vessel.

[Claims 6 to 8 not printed in the Gazette.]

1,137,783. LOOP-RETAINER FOR SEWING-MACHINES. LANSING ONDERDONK, New York, N. Y., assignor to Union Special Machine Company, Chicago, Ill., a Corporation of Illinois. Filed Feb. 19, 1908. Serial No. 416,727. (Cl. 112—5.)



1. The combination with a needle, a looper and means for operating the same, of a loop retainer and means for moving said loop retainer forward and back in unison with the looper, and devices for giving thereto a movement across the upper face of said looper at a distance back of the point thereof for engaging the needle loop and holding the same back on the looper.

2. The combination with a needle, a looper, a looper carrier and means for operating the same, of a retainer mounted on said looper carrier to move therewith and means for oscillating said loop retainer across the upper face of said looper at a distance back of the point thereof.

3. The combination with a needle, a looper, a looper carrier and means for operating the same, of a loop retainer pivoted to said looper carrier and means for oscillating said loop retainer across the face of said looper at a distance back of the point thereof.

4. The combination with a needle, a looper, a looper carrier and means for operating the same, of a loop retainer pivoted between spaced lugs, formed on said looper carrier and means for oscillating said loop retainer.

5. The combination with a needle, a looper, a looper carrier and means for operating the same, of a loop retainer oscillating back and forth with said looper carrier and means for oscillating said loop retainer, the connection between the loop retainer and its operating means being substantially in line with the pivotal support of the looper carrier.

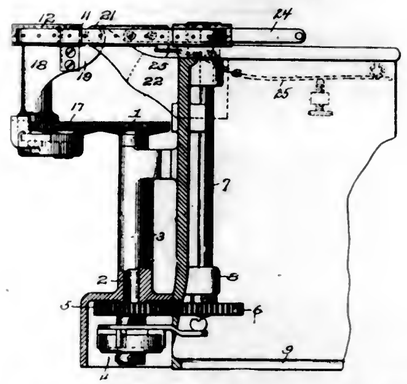
[Claims 6 to 20 not printed in the Gazette.]

1,137,784. FEEDING MECHANISM FOR OVERSEAMING CUP-FEED MACHINES. LANSING ONDERDONK, New York, N. Y., assignor to Union Special Machine Company, Chicago, Ill., a Corporation of Illinois. Filed Apr. 4, 1911. Serial No. 618,811. (Cl. 112—36.)

1. In a sewing machine, a feeding mechanism including inner and outer feed rolls or disks, a depending frame pivotally supported above the meeting edges of said rolls or disks and having means for supporting said outer feed roll or disk, and means for positively driving said outer feed roll or disk.

2. In a sewing machine, a feeding mechanism including inner and outer feed rolls or disks, a depending frame pivotally supported above the meeting edges of said rolls or disks and having means for supporting said outer feed roll or disk, means for driving said inner feed roll or disk, and means for positively connecting said inner feed roll or disk to the outer feed roll or disk whereby said feed rolls or disks are operated in unison.

3. In a sewing machine, a feeding mechanism including inner and outer feed rolls or disks, a depending frame pivotally supported above the meeting edges of said rolls or disks and having means for supporting said outer feed roll or disk, means for driving said inner feed roll or disk, means for positively connecting said inner feed roll or disk to the outer feed roll or disk, whereby said feed rolls or disks are operated in unison, said means for connecting the feed rolls or disks including a flexible member located substantially in line with the pivotal support for said frame, whereby the lower end of said frame may be swung outward to separate said feed rolls or disks.

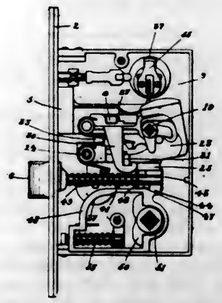


4. In a sewing machine, a main frame, a feeding mechanism including inner and outer feed rolls or disks, a depending pivoted frame supporting the outer feed roll, a shaft carried by said depending frame and geared to the outer feed roll, means for driving the shaft including a shaft on the main frame, means for driving the shaft on the main frame and a horizontal belt extending to said shaft on the main frame, and means for swinging the frame on its pivot.

5. In a sewing machine, a feeding mechanism including inner and outer feed rolls or disks, a depending pivoted frame supporting the outer feed roll, a shaft carried by said depending frame and geared to the feed roll, a belt wheel on the upper end of said shaft, a belt trained thereon, a vertical shaft driven from the inner feed roll and having a belt wheel thereon around which the belt is trained, and means for swinging the frame on its pivot.

[Claim 6 not printed in the Gazette.]

1,137,785. LOCK. ALBERT A. PAGE, East Haven, Conn., assignor to Sargent & Company, New Haven, Conn., a Corporation of Connecticut. Filed Apr. 10, 1911. Serial No. 620,149. (Cl. 70—92.)



1. In a lock, a latch bolt, a knob for retracting the same, a dead bolt, dogging means for said knob, means to actuate said dogging means and said dead bolt together, and other means to actuate said bolt independently of said dogging means; substantially as described.

2. In a lock, a dead bolt operable from the inside and from the outside of the door, a latch bolt, a latch bolt knob, separate means for dogging the latch bolt and for locking the knob against rotation, and means actuated by the protraction of said dead bolt from the inside of the door to operate both said dogging means and said knob locking means; substantially as described.

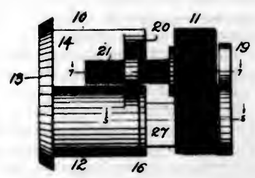
3. In a lock, a dead bolt operable from either side of the door, a latch bolt, a latch bolt knob, separate means for dogging the latch bolt and for locking the knob against rotation, and means actuated by a protraction of the dead bolt from the inside of the door, but unaffected by a protraction of said dead bolt from the outside of the door, to operate said latch dogging and knob locking means; substantially as described.

4. In a lock, a dead bolt, a change key to protract said dead bolt from the outside of the door, means to protract said dead bolt from the inside of the door, a latch bolt, a latch bolt knob, and means to block said knob against rotation when said dead bolt is protracted from the inside, said means being inoperative to block said knob when said bolt is protracted by said change key; substantially as described.

5. In a lock, a dead bolt, protractable from one side of the door by means of a series of keys, including a change key, and also protractable from the opposite side of the door, a latch bolt, a latch bolt manipulating member, and means to block said manipulating member automatically as said bolt is protracted from the second named side of the door, said means being inoperative to block said member when said bolt is protracted by said change key from the first named side of the door; substantially as described.

[Claims 6 to 57 not printed in the Gazette.]

1,137,786. LOCK. ALBERT A. PAGE, East Haven, Conn., assignor to Sargent & Company, New Haven, Conn., a Corporation of Connecticut. Filed Oct. 19, 1914. Serial No. 867,391. (Cl. 70—46.)

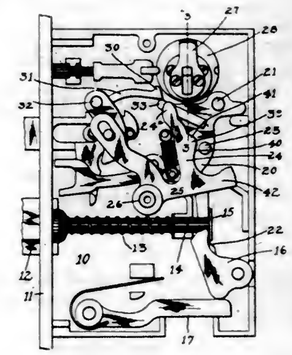


1. In an extensible cylinder lock, a coupling member of substantially rectangular cross-section formed integral with and projecting rearwardly from the key plug, said coupling member inclosing the keyway at the top and at the sides, and a cylinder extension having a rollback connected with said coupling member; substantially as described.

2. In an extensible cylinder lock, the combination with the main part of the lock, of a coupling member integral with the key plug, and presenting upright walls on opposite sides of the keyway, and between which walls the key may be inserted, and a cylinder extension having a rollback connected with said coupling member; substantially as described.

3. In an extensible cylinder lock, the combination with the main part of the lock, of a coupling member integral with and projecting rearwardly from the key plug, said member presenting an extension of the keyway and having walls inclosing the keyway at the top and at the sides, a retaining washer for the key plug surrounding and conforming to said coupling member, and a cylinder extension having a rollback carrier telescoping said coupling member; substantially as described.

1,137,787. LOCK. ALBERT A. PAGE, East Haven, Conn., assignor to Sargent & Company, New Haven, Conn., a Corporation of Connecticut. Filed Oct. 24, 1914. Serial No. 868,400. (Cl. 70—92.)



1. In a lock, a latch bolt, retracting mechanism therefor, detent mechanism for dogging the bolt in retracted position, a cylinder lock at one side of the door, a key for said cylinder lock adapted to retract the latch bolt and dog it in retracted position, and another key for said cylinder lock operative to retract the latch bolt but inoperative to dog it in retracted position; substantially as described.

2. In a lock, a latch bolt, retracting mechanism therefor, detent mechanism for dogging the bolt in retracted position, a cylinder lock, a key operative on said retracting mechanism and on said detent mechanism through said cylinder lock, and another key operative on said retracting mechanism alone through said cylinder lock; substantially as described.

3. In a lock, the combination of a latch bolt, a cylinder lock at one side of the door, a plurality of keys adapted to said cylinder lock, and mechanism operable by one of said keys to retract the latch bolt and dog it in retracted position, said mechanism being operative by another of said keys to the extent of retracting the bolt, but inoperative by said second key to dog the bolt; substantially as described.

4. In a lock, the combination of a latch bolt, a cylinder lock, a plurality of rollbacks operable by said cylinder lock, means actuated by one of said rollbacks to dog the latch bolt in retracted position, and means actuated by another rollback to retract the bolt, but inoperative to dog it in retracted position; substantially as described.

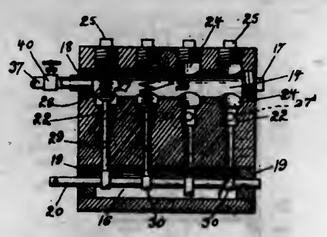
5. In a lock, the combination of a latch bolt, a cylinder lock, two rollbacks carried by said cylinder lock and forming permanent parts thereof, means operable by one of said rollbacks to dog the latch bolt in retracted position, and means operable by the other rollback to retract the bolt without dogging it in retracted position; substantially as described.

[Claims 6 to 19 not printed in the Gazette.]

1,137,788. SELF-STARTER FOR INTERNAL-COMBUSTION ENGINES. CHARLES A. PLACE, Newman, Ill. Filed Apr. 23, 1913. Serial No. 763,006. (Cl. 123—181.)

A device of the class described, comprising a casting having a plurality of vertical bores therethrough including a lower reduced part, a slightly enlarged intermediate part, and an upper enlarged portion, valve seats formed at the outer terminals of each intermediate portion, air ducts in communication with the intermediate portions, a transverse bore being formed in the casing intersecting the outer enlarged portions of the bores, means for supplying air thereto, a large transverse bore intersecting the reduced bores of the said housing, a cam shaft mounted

therein revolubly, operative connections for the cam shaft, valves upon said seats, having stems engaged in the reduced portions of the bores, projecting into the last named transverse bore for engagement by respective cam portions of said shaft, springs for seating the valves and



plugs closing the upper ends of all of the vertical bores, and the end of the first named transverse bore opposite the said air supply means.

1,137,789. BUTTON. EDWIN O. PASSBY, New York, N. Y. Filed May 7, 1914. Serial No. 836,971. (Cl. 24—95.)



1. A lacing button for shoes comprising a tubular member; a base member having a tubular shank and an annular shoulder, adapted to pass through said tubular member, and to engage said tubular member; and a head having a rigid shank adapted to pass through said tubular shank and to be secured thereto by upsetting, substantially as described.

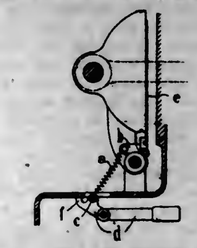
2. A lacing button for shoes comprising a tubular member; a base member having a tubular shank adapted to pass through said tubular member; and a head having a rigid shank adapted to pass through said tubular shank, said shank having an enlarged and split head adapted to be upset against said base member whereby to secure the several parts, substantially as described.

3. A lacing button for shoes comprising a tubular member having a reduced end portion; a base member having a tubular shank, said shank having a reduced portion adapted to pass through and to form a close fit with said reduced tubular portion; and a head having a rigid shank adapted to pass through and to form a close fit with said tubular shank and to be secured thereto by upsetting, substantially as described.

4. A lacing button for shoes comprising a tubular member formed with a flange and having a reduced end portion; a base member having a tubular shank, said shank having a reduced portion adapted to pass through and to form a close fit with said reduced tubular portion; and a head having a rigid shank adapted to pass through and to form a close fit with said tubular shank and to be secured thereto by upsetting, and said head being adapted to engage the flange of said base member, substantially as described.

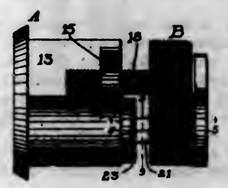
1,137,790. PLATEN PRINTING-PRESS. MAX ROCKSTROH, Klein Sedlitz, near Pirna, Germany. Filed Jan. 26, 1914. Serial No. 814,589. (Cl. 101—115.)

In platen printing presses in combination with the gripper bar thereof, a spring having one end secured to said gripper bar, a double arm rocking lever, to one arm of which the other end of said spring is secured, and means for limiting the rocking movement of said rocking lever in one direction for allowing said spring to exert a



pull for closing the gripper and a thrust for opening the same, substantially as described.

1,137,791. LOCK. JOSEPH D. SARGENT, New Haven, Conn., assignor to Sargent & Company, New Haven, Conn., a Corporation of Connecticut. Filed May 23, 1914. Serial No. 840,627. (Cl. 70—46.)



1. In an extensible cylinder lock, the combination with a main part having a rotary key plug and an extension having a rotary rollback or bit, of a rod connected to the rear end of the key plug, and a member connecting said rod with said rollback, slidably mounted in said extension; substantially as described.

2. In an extensible cylinder lock, the combination with a main part having a key plug and an extension having a movable bit or rollback, of a rod secured to the key plug, a member slidable on the rod and slidable in the extension, and means for connecting said member with said bit or rollback; substantially as described.

3. In an extensible cylinder lock, the combination with a main part having a key plug and an extension having a bore, of a rod secured to the key plug and adapted to extend into said bore, a member slidable in said bore and slidable on said rod, and a rollback operatively connected with said member; substantially as described.

4. In an extensible cylinder lock, the combination with a main part having a key plug and an extension having a bore, of a key rod extending rearwardly from the key plug in line with said bore, a cup-shaped member slidable on but non-rotatably engaged with said key rod, a rollback mounted rotatably on said extension, and means for connecting said cup-shaped member non-rotatably with said rollback; substantially as described.

5. In an extensible cylinder lock, the combination with a main part and the extension, of a plurality of telescoping members carried by one of said parts, and means for connecting one of said members with the other part; substantially as described.

[Claims 6 to 14 not printed in the Gazette.]

1,137,792. HAIR-DRYING DEVICE. GEORGE L. SCHEEL, Chicago, Ill. Filed Sept. 2, 1914. Serial No. 859,751. (Cl. 34—26.)

1. In a device of the class described, the combination of a comb comprising a back having an air passage and an adjacently positioned chamber formed therein; teeth projecting from said back, there being branch air passages leading from said first mentioned air passage to said teeth; a heating element mounted in said chamber; and means connected with said comb for forcing air through said air passages, substantially as described.

2. In a device of the class described, the combination of a comb comprising a back; teeth projecting from said back, there being a longitudinally extending air passage formed in said back tapering toward its outer end and branch passages leading from said first mentioned passage to said teeth; a heating element mounted adjacent said air passage; and means connected with said comb for forcing air through said air passages, substantially as described.



3. In a device of the class described, the combination of a comb comprising a back; teeth projecting from said back, there being a longitudinally extending air passage formed in said back tapering toward its outer end and branch passages leading from said first mentioned passage to said teeth; electrically operated means for heating said comb back; and means connected with said comb for forcing air through said air passages, substantially as described.

4. In a device of the class described, the combination of a comb formed of a single piece of sheet metal bent upon itself to form a back; teeth projecting from said back; a longitudinally extending air passage in said back and branch passages leading from said first mentioned passage to said teeth; a heating element mounted in said back; and means connected with said comb for pumping air through said air passages, substantially as described.

5. In a device of the class described, the combination of a comb formed of a single piece of metal bent to form a back; teeth projecting from said back; a longitudinally extending air passage in said back and branch passages leading from said last mentioned passages to said teeth; grooves in the sides of said teeth communicating with said branch passages; a heating element mounted in said back adjacent said first mentioned passage; and means connected with said comb for forcing air through said air passages, substantially as described.

[Claims 6 to 13 not printed in the Gazette.]

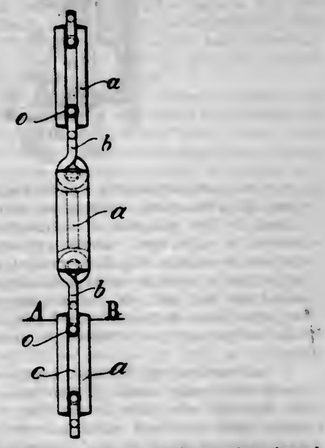
1,137,793. RETAINING-BATTEN FOR INSULATION, THERMAL OR OTHERWISE. HARRY H. SCHROYER, Chicago, Ill., assignor to The Acme Supply Company, a Corporation of Illinois. Filed Nov. 9, 1911. Serial No. 659,323. (Cl. 108—12.)



The combination with a surface to be covered, of a channel member fitting thereon, a filling within said channel member, and a series of screws passed through apertures in said channel member and into said surface to be covered, the apertures receiving said screws being slotted radially and formed into barbs turned inwardly and outwardly therefrom to engage the screw head on the outside and to engage the filling material on the inside.

1,137,794. FLEXIBLE SHAFT. WALTER SCHÜRMANN, Dusseldorf, Germany. Filed Nov. 23, 1912. Serial No. 733,063. (Cl. 64—30.)

1. A flexible shaft comprising a series of bar-shaped links, each of said links being provided with a pair of longitudinally extending, diametrically opposed lubricant-distributing grooves and with a pair of perforations extending transversely through said bar-shaped links in proximity to the ends thereof and opening into said grooves, the grooves and perforations jointly forming transverse pivotal openings in said bar-shaped links, and wire links alternating with said bar-shaped links, each of said wire links having an eye at each end that engages in an opening of a bar-shaped link and engages the adjacent groove-sides.



2. A flexible shaft comprising a series of bar-shaped links, each of said links being provided with a pair of longitudinally extending, diametrically opposed lubricant-distributing grooves and with a pair of perforations extending transversely through said bar-shaped links in proximity to the ends thereof and opening into said grooves, the grooves and perforations jointly forming transverse pivotal openings in said bar-shaped links, the diameter of the perforations exceeding the width of the grooves, and wire links alternating with said bar-shaped links, each of said wire links having an eye at each end that engages in an opening of the bar-shaped link and engages the adjacent groove-sides, whereby a tilting movement of the wire link relatively to the bar-shaped link is rendered possible while a rotation of said links relatively to each other is prevented.

1,137,795. DRY-KILN GAGE. LAWRENCE J. SCHWEIGER, Kansas City, Mo. Filed Apr. 6, 1914. Serial No. 829,859. (Cl. 73—118.)

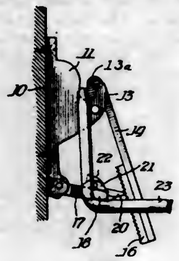


An instrument of the class described comprising a casing having one end tapered for ready insertion in a pile of lumber, a sight opening having associated therewith a scale, formed in one wall of the casing and adjacent the other end thereof, a stick free to expand or contract longitudinally and mounted in the casing and having its end adjacent the tapered end of the casing fixed thereto, the free end of the stick being adapted to register with degrees of the scale during its expansion or contraction, said casing having its walls provided with non-registering perforations for directing heat to the stick, as and for the purpose set forth.

1,137,796. CLOTHES-LINE HOLDER. THEODORE HENRY SEIFERT, Chicago, Ill. Filed Mar. 11, 1914. Serial No. 823,932. (Cl. 24—132.)

1. The combination with a base of a jaw pivoted thereto, clamping surfaces on said jaw and base, a yoke piv-

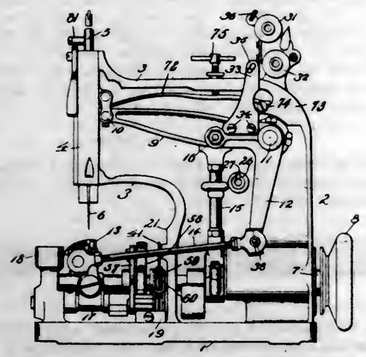
oted to said base, means pivoted to said yoke adapted to engage said jaw, said yoke and said means together forming a toggle lock, and manually actuated means whereby said toggle lock may be set or released.



2. The combination with a base of a jaw pivoted thereto, there being clamping surfaces on said base and jaw arranged for the reception of a line therebetween, a yoke pivoted to said base, lateral extensions on said yoke adapted to engage said line, ratchet teeth on said jaw, and a dog pivoted to said yoke adapted to engage said teeth, said dog and yoke being adapted to form a toggle lock between said base and said jaw, and means on said yoke, which may be actuated to clamp or release said line.

3. In combination, a base, a pair of ears projecting therefrom having cutouts in their upper edges adapted for the reception of a line or the like, a clamping jaw between said ears and pivotally connected thereto, and externally operated means, including toggle members, adapted to engage said jaw and actuate the same into engagement with said line or disengagement therefrom.

1,137,797. SEWING-MACHINE. DUDLEY S. SEYMOUR, Oak Park, Ill., assignor to Union Special Machine Company, Chicago, Ill., a Corporation of Illinois. Filed Oct. 27, 1906. Serial No. 340,908. (Cl. 112—29.)



1. A sewing machine comprising in combination stitch forming mechanism, including a needle, a needle lever means for operating the same, and a casing within which said operating means is located, said casing having a portion thereof removable whereby access may be had to said operating means, a boss formed on the fixed portion of said casing and supporting said needle lever; substantially as described.

2. A sewing machine comprising in combination stitch forming mechanism, a needle, a needle lever means for operating the same, and a casing within which said operating means is located, said casing being formed with an overhanging arm and a needle head and having a portion extending the length of the overhanging arm to the needle head removable whereby access may be had to said operating means, a boss formed on the fixed portion of said casing and supporting said needle lever; substantially as described.

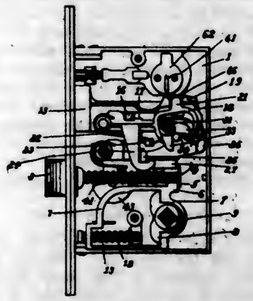
3. A sewing machine comprising in combination stitch forming mechanism, including a needle, a needle lever means for operating the same, and a casing within which said operating means is located, said casing comprising a standard and an overhanging arm having a needle head, a portion of said casing extending the length of said standard and overhanging arm being removable whereby access may be had to said operating means, a boss formed on the fixed portion of said casing and supporting said needle lever; substantially as described.

4. A sewing machine comprising in combination stich forming mechanism including a needle, means for operating the same, and a casing within which said operating means is located, said casing having a portion thereof removable whereby access may be had to said operating means, a sleeve carried by one of the parts of the casing and means carried by the other part and coöperating with said sleeve to hold said parts together; substantially as described.

5. A sewing machine comprising in combination stitch forming mechanism including a needle, means for operating the same, and a casing within which said operating means is located, said casing having a portion thereof removable whereby access may be had to said operating means, a sleeve having a slot therein carried by one of said parts and a locking pin carried by the other part and having a lug coöperating with said sleeve and slot to hold said parts together; substantially as described.

[Claims 6 to 21 not printed in the Gazette.]

1,137,798. LOCK. JOHN H. SHAW, New Haven, Conn., assignor to Sargent & Company, New Haven, Conn., a Corporation of Connecticut. Filed July 24, 1911. Serial No. 640,167. (Cl. 70—92.)



1. The combination with lock mechanism, of a pin tumbler lock having a key plug, said key plug being provided with a keyway, a rollback for operating said lock mechanism, connected with the rear end of the key plug, a second rollback, a plurality of keys insertible into said keyway, and a member movable relative to said first rollback by only one of said keys, and adapted to actuate said lock mechanism by means of said second rollback; substantially as described.

2. The combination with lock mechanism, of a pin tumbler lock having a key plug, said key plug provided with a keyway, a rollback connected with the rear end of the key plug, and adapted to operate a part of said lock mechanism, a second rollback, a plurality of keys insertible into said keyway, and a member projecting into the keyway, and movable relative to the first rollback by engagement with one of said keys, and adapted when so moved to operate another part of said lock mechanism by said second rollback, said movable member being inoperative by another of said keys; substantially as described.

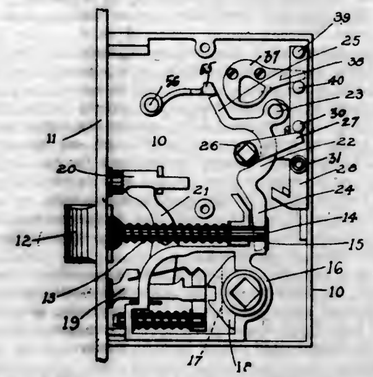
3. The combination with a mortise lock having a case and two separate parts or members therein, of a pin tumbler lock having a key plug, said key plug provided with a keyway, a rollback connected with the rear end of the key plug and adapted to operate one part or member of said mortise lock, a second rollback adapted to operate another part or member of said mortise lock, a plurality of keys insertible into said keyway, and a movable member shiftable relative to the first rollback by one of said keys only, and adapted when so shifted to operate the second named part or member of said mortise lock by means of said second rollback; substantially as described.

4. The combination with lock mechanism, including two separate parts or members, of a pin tumbler lock having a key plug, said key plug provided with a keyway, a rollback connected with the rear end of the key plug and adapted to operate one of the parts or members of said lock mechanism, a second rollback adapted to operate another part or member of said lock mechanism, two keys insertible into said keyway, and a member projecting into the keyway and movable relative to the first rollback by one of said keys to operate the second named part of said lock mechanism by means of said second rollback, said member being inoperative by another of said keys to actuate the second named part of said lock mechanism by means of said second named rollback; substantially as described.

5. In a lock, the combination with a bolt mechanism having two tumblers, of a pin tumbler lock having a key plug, said key plug provided with a keyway, a rollback connected with the rear end of the key plug and adapted to operate one of said tumblers, a second rollback adapted to operate the other tumbler, a plurality of keys insertible into said keyway and adapted to operate said first rollback, and a member movable relative to said first rollback by only one of said keys and adapted to actuate said second rollback; substantially as described.

[Claims 6 to 24 not printed in the Gazette.]

1,137,799. LOCK. JOHN H. SHAW, New Haven, and ALBERT A. PAGE, East Haven, Conn., assignors to Sargent & Company, New Haven, Conn., a Corporation of Connecticut. Filed July 20, 1912. Serial No. 710,566. (Cl. 70—92.)



1. In a lock, the combination of a case, a latch bolt therein, a deadlocking slide movable substantially at right angles to the latch bolt, and adapted to deadlock the same, a cylinder lock mechanism carried by the case embodying two rollbacks, a latch-retracting lever pivoted to the case and adapted to be actuated by one of said rollbacks, the second rollback being arranged to move said deadlocking slide into and out of operative position, a key for operating said first rollback to retract the latch bolt, and a second key for actuating both rollbacks to withdraw said deadlocking slide from operative position, and then immediately retract the bolt on the same movement of the key; substantially as described.

2. In a lock, the combination of a case, a latch bolt therein, a deadlocking slide movable substantially at right angles to the latch bolt and adapted to deadlock the same, a retracting lever for said latch bolt pivoted to the case, a cylinder lock mechanism carried by the case and having two rollbacks, one of said rollbacks being adapted to operate said retracting lever, and the other rollback being adapted to operate said deadlocking slide, said rollbacks being substantially in line with each other and located in the space between said deadlocking slide and the free end of said retracting lever, a key for operating the latch-retracting rollback individually, and a second key for coupling said rollbacks together, and for withdrawing the deadlocking slide from operative position and retracting the bolt within less than a full rotation of the key in one direction; substantially as described.

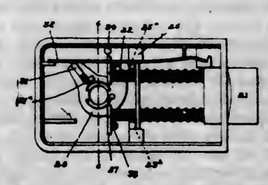
3. In a lock, the combination of a case, a latch bolt therein, a deadlocking slide for said latch bolt slidable at right angles to the latter, a retracting lever for the latch bolt pivoted in the case, a cylinder lock mechanism carried by the case and having a rollback adapted to actuate said retracting lever, said rollback normally having an upright position, a second or emergency rollback for said cylinder lock mechanism positioned operatively with respect to said deadlocking slide, and extending at an angle to the first rollback, a key for actuating the first rollback to retract the latch bolt, and a second key for actuating both rollbacks together to move said slide into deadlocking position, or to withdraw the slide from deadlocking position, and then retract the latch bolt on further movement of the key substantially as soon as the slide is moved out of the path of said bolt; substantially as described.

4. In a lock, a latch bolt, a deadlocking slide movable at right angles thereto, a retracting lever for said latch bolt, a cylinder lock mechanism having two rollbacks, a key for actuating one of said rollbacks to operate said retracting lever and withdraw the bolt, means for moving said slide into deadlocking position, and a second key for moving the deadlocking slide out of operative position by means of the second rollback, and for retracting the latch bolt by the first rollback, while the slide is being withdrawn from operative position; substantially as described.

5. In a lock, the combination of a case, a latch bolt therein, a deadlocking slide movable at right angles to the latch bolt, a thumb turn hub for moving said slide into and out of deadlocking position with respect to the latch bolt, a retracting lever for the bolt pivoted in the case, a cylinder lock mechanism out of line with said thumb turn hub, and having two rollbacks located in the space between said deadlocking slide and the free end of said retracting lever, a key for actuating one of said rollbacks to operate said retracting lever and withdraw the bolt, and another key for operat'vely actuating the second rollback, in addition to the first, and for withdrawing the deadlocking slide from operative position prior to the retraction of the bolt on the same movement of the key; substantially as described.

[Claims 6 to 23 not printed in the Gazette.]

1,137,800. NIGHT-LATCH. JOHN H. SHAW, New Haven, Conn., assignor to Sargent & Company, New Haven, Conn., a Corporation of Connecticut. Filed Jan. 29, 1913. Serial No. 744,930. (Cl. 70—42.)



1. In a lock, the combination of a case, a latch bolt therein having a shank, a head on said shank, a hub coöperating with said head, a guide pin on said head, and a grooved lug on the case coöperating with said guide pin; substantially as described.

2. In a lock, the combination of a case, a reversible latch bolt therein having rearwardly directed shanks,

heads on said shanks, a hub to coöperate with either of said heads depending on the adjustment of said bolt, guide pins on both heads, and guide lugs on the case having grooves receiving the respective pins; substantially as described.

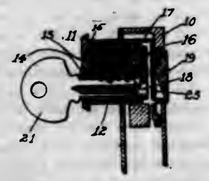
3. In a lock, the combination of a case, a latch bolt therein having rearwardly directed shanks, heads on said shanks, a retracting hub, said bolt being reversible so that either head may coöperate with said hub and being movable from the usual latching position to an abnormally projected portion, and means for guiding said heads as the bolt moves into the latter position; substantially as described.

4. The combination with a case having oppositely located lugs, a latch bolt in said casing having rearwardly directed shanks, a guide piece for said shanks abutting said lugs and having projections engaged with grooves of the latter. heads on said shanks guided in said grooves, and a retracting hub to coöperate with one of said heads; substantially as described.

5. In a lock, the combination of a latch bolt having a cross-head, a hub having wings located respectively on opposite sides of the cross-head, one of said wings being adapted to retract the latch bolt, and a substantially radial lug on the other wing having a tangential lip for holding the latch bolt retracted; substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,137,801. LOCK. JOHN H. SHAW, New Haven, Conn., assignor to Sargent & Company, New Haven, Conn., a Corporation of Connecticut. Original application filed July 24, 1911, Serial No. 640,167. Divided and this application filed June 13, 1914. Serial No. 844,997. (Cl. 70—93.)



1. A cylinder lock having a key plug, said key plug provided with a keyway, a rollback on the rear end of the cylinder lock, means of connection between the key plug and said rollback, whereby the former turns the latter, and a member in said keyway adapted to be moved by a key; operating in an opening in said rollback, substantially as described.

2. A cylinder lock mechanism having two rollbacks, two keys for said mechanism, both adapted to operate one of said rollbacks, and a key-engaging member actuated by one of said keys only for operating the other rollback; substantially as described.

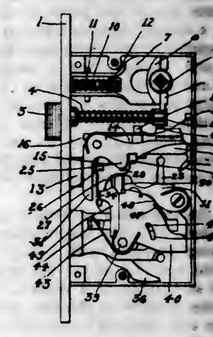
3. The combination with a cylinder lock having a key plug and a dog or rollback, of a member at the rear end of said lock forming a permanent part thereof, a key insertible into the key plug, and formed to engage said member and move it relatively to the key plug and rollback, and a second key fully insertible into said key plug without moving said member; substantially as described.

4. The combination with a cylinder lock having a key plug and a dog or rollback connected to said key plug, of a movable member permanently connected to and carried by the cylinder lock at the rear end thereof, a key insertible into the key plug to engage said member and move it relatively to the key plug and rollback, a second key insertible into said key plug without moving said member, and means to return said member to its initial position after the first key has been withdrawn from engagement therewith; substantially as described.

5. The combination with a cylinder lock having a key plug and a dog or rollback, of a movable member forming a permanent part of said cylinder lock and secured thereto at the rear end thereof, a spring to act on said movable member, a key insertible into said key plug and formed to engage said member and move it in opposition to said spring, and a second key fully insertible into said key plug without moving said member; substantially as described.

[Claims 6 to 21 not printed in the Gazette.]

1,137,802. LOCK. WILLIAM E. SPARKS, New Haven, Conn., assignor to Sargent & Company, New Haven, Conn., a Corporation of Connecticut. Filed July 22, 1911. Serial No. 639,962. (Cl. 70—71.)



1. In a lock, two dead bolts, means of connection between said bolts whereby the protraction of one retracts the other, independently operable tumbler mechanisms for the respective bolts, and means intermediate said bolts to release the tumbler mechanism of one bolt as the other bolt is operated; substantially as described.

2. In a lock, two dead bolts, means of connection between said bolts whereby the protraction of one retracts the other, independently operable tumbler mechanisms for the respective bolts, and a member actuated by the protraction of one of said bolts to release the tumbler mechanism of the other bolt; substantially as described.

3. In a lock, two dead bolts, connecting means between said bolts whereby one is retracted as the other is protracted, independent tumbler mechanisms for the respective bolts, and an intermediate lever operated by one of said bolts in the protraction thereof to release the tumbler mechanism of the other bolt; substantially as described.

4. In a lock, two dead bolts, connecting means between said bolts whereby the protraction of one retracts the other, independent tumbler mechanisms for the respective bolts, and a lever pivoted to the case intermediate said bolts and oscillated by direct engagement with one of said bolts, said lever having a projection to engage the tumbler mechanism of the other bolt and thereby release the same; substantially as described.

5. In a lock, two dead bolts, and independently operable tumbler mechanisms for the respective bolts, one of the tumblers of one of said bolts being movable, upon its release, into direct engagement with a tumbler of the other bolt to release said latter tumbler; substantially as described.

[Claims 6 to 53 not printed in the Gazette.]

1,137,803. LOCK. WILLIAM E. SPARKS, New Haven, Conn., assignor to Sargent & Company, New Haven, Conn., a Corporation of Connecticut. Original application filed Nov. 29, 1913, Serial No. 803,734. Divided and this application filed June 23, 1914. Serial No. 846,802. (Cl. 70—92.)

1. A cylinder lock having two rollbacks, and two keys for said lock, one of said rollbacks being displaced relative to the other by the insertion of one of said keys without being so displaced by the insertion of the other key; substantially as described.

2. A cylinder lock having a key plug, a rollback connected to said key plug, a change key and an emergency key

for operating said rollback and an auxiliary rollback carried by the cylinder lock, and displaceable relative to said first rollback by the emergency key only; substantially as described.



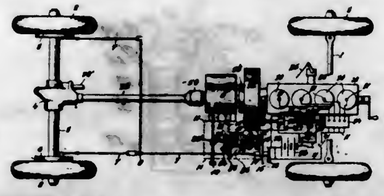
3. A cylinder lock having a key plug, a rollback connected to the rear end of said key plug, an auxiliary rollback, a plurality of keys, and means supporting said auxiliary rollback from said cylinder lock, and providing for movements thereof relative to the first rollback by engagement with one of said keys; substantially as described.

4. A cylinder lock having a key-engaging member at the rear end of the keyway, and a dog or rollback carried by said member; substantially as described.

5. A cylinder lock having a key-engaging slide at the rear end of the keyway, and a dog or rollback carried by said slide; substantially as described.

[Claims 6 to 17 not printed in the Gazette.]

1,137,804. VEHICLE CONTROL. ELMER A. SPERRY, Brooklyn, N. Y. Filed Nov. 6, 1908. Serial No. 461,289. (Cl. 21—90.)



1. In a vehicle, a source of power, a propelling means for the vehicle, driving connections between said source of power and said propelling means, said connections including a rotatable drum presenting a cylindrical surface, a rotatable element concentric therewith, an expansive band supported by said element close to said surface, a driving connection between an end of the band and the element, a device supported by said element adjacent a portion of said drum and adapted to engage the other end of the band, and means for drawing said device into engagement with said drum, whereby a relative movement between the element and band is effected.

2. In a vehicle, a source of power, a running gear for the vehicle, a speed changing mechanism located between the source of power and the running gear, electrical means for operating said mechanism, a foot pedal upon the vehicle, an electric switch in circuit with said electric operating means, and a mechanical connection between the pedal and the switch for operating the latter.

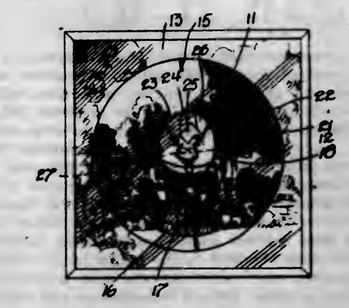
3. In a vehicle, a source of power, a running gear for the vehicle, a speed reducing mechanism located between said source of power and said running gear, said speed reducing mechanism including a clutch having a radially expanding band for establishing a power transmitting connection between the source and the mechanism and means for expanding said band, including an electrically magnetized member adapted, on being energized, to be rotated by said drum and expand the band.

4. In a vehicle, a source of power, a running gear for the vehicle, a speed changing mechanism located between the source of power and the running gear, electrical means for operating said mechanism, a foot pedal upon the vehicle, an electric switch in circuit with said electric operating means, and a contact on said switch adapted to be engaged by said pedal at a predetermined point in its excursion.

5. In a vehicle a source of power, a propelling means for the vehicle, a plurality of driving connections between said source and said means, said driving connections including a rotatable drum presenting a cylindrical friction surface, a radially tightening band for engaging the surface, a second rotatable element upon the same axis supporting the band close to the said surface, a driving connection between one end of the band and the element, a device for tightening the band against the surface rotating with the element and operating upon the other end of the band and means for operating the device which tightens the band and thus establishes the power-drving connection and a common means for operating each of the driving connections.

[Claims 6 to 42 not printed in the Gazette.]

1,137,805. PUZZLE. LILLIE GENEVIEVE STERN, Pittsburgh, Pa. Filed Nov. 22, 1913. Serial No. 802,581. (Cl. 46—41.)



1. A puzzle comprising a resiliently connected miniature figure having its head cut away to provide a recess, supporting means for said figure, and a series of shiftable elements adapted to be housed in said recess to complete the head of said figure.

2. A puzzle comprising a resiliently connected miniature figure having its head cut away to provide a recess, supporting means for said figure, a series of shiftable elements adapted to be housed in said recess to complete the head of said figure, a receptacle for said supporting means, and means whereby said receptacle and plate can be shifted independently of each other.

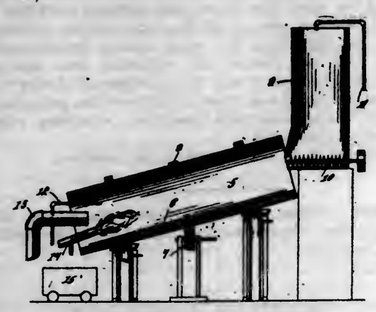
3. A puzzle comprising a resiliently connected miniature figure having its head cut away to provide a recess, supporting means for said figure, a series of shiftable elements adapted to be housed in said recess to complete the head of said figure, a receptacle for said supporting means, means whereby said receptacle and plate can be shifted independently of each other, a corrugated band within said receptacle above said supporting means, and deflectors projecting inwardly from said supporting means.

4. A puzzle comprising a resiliently connected miniature figure having its head cut away to provide a recess, supporting means for said figure, a series of shiftable elements adapted to be housed in said recess to complete the head of said figure, a receptacle for said supporting means, means whereby said receptacle and plate can be shifted independently of each other, a corrugated band within said receptacle above said supporting means, deflectors projecting inwardly from said supporting means, said head provided with a pocket, and a spherical member adapted to be lodged in said pocket.

5. A puzzle comprising a receptacle, a plate arranged therein, means whereby said receptacle and plate can be shifted independently of each other, a miniature figure connected with said plate and having its head cut away to provide a recess, and a series of shiftable elements

adapted to be lodged in said recess to complete the head.
[Claim 6 not printed in the Gazette.]

1,137,806. PROCESS OF PRODUCING ACID MONO-CALCIUM PHOSPHATE. ROBERT STEWART, Logan, Utah. Filed June 17, 1914. Serial No. 845,711. (Cl. 204—9.)



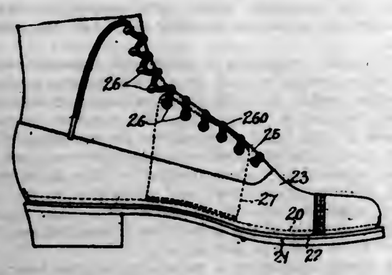
1. The herein described process, which consists in subjecting phosphate rock to the action of smelter smoke in the presence of steam, whereby acid mono-calcium phosphate and acid calcium sulfite are produced, subjecting the solution thus obtained to the action of an oxidizing agent, and recovering the acid mono-calcium phosphate in the solution without decomposing the same.

2. The herein described process, which consists in subjecting phosphate rock to the action of smelter smoke in the presence of steam whereby acid mono-calcium phosphate and acid calcium sulfite are produced, subjecting the solution thus obtained to the action of an oxidizing electric current, and recovering the acid mono-calcium phosphate in solution without decomposing the same.

3. The herein described process, which consists in subjecting phosphate rock to the action of smelter smoke in the presence of heat and water whereby acid mono-calcium phosphate and acid calcium sulfite are produced, oxidising the acid calcium sulfite whereby it is converted into calcium sulfate and sulfuric acid, and concentrating the solution for recovering the acid mono-calcium phosphate without decomposing the same.

4. The herein described process, which consists in subjecting phosphate rock to the action of smelter smoke in the presence of heat and water whereby acid mono-calcium phosphate and acid calcium sulfite are produced, oxidising the acid calcium sulfite, and recovering the acid mono-calcium phosphate, substantially as described.

1,137,807. ARCH-SUPPORTING SHOE. JOHN F. TREHAN, Brockton, Mass. Filed Oct. 24, 1912. Serial No. 727,584. (Cl. 36—71.)



1. A shoe having an arch support extending across and above the shank within the shoe and having its ends attached to the innersole and the upper respectively.

2. A shoe having as a component part thereof a flexible band located therein and extending transversely across and above the shank of the innersole to form an arch support, and means for attaching the opposite ends of the band to the shoe and arranged to elevate the body of the band above the inner side of the shank of the innersole.

3. A shoe having as a component part thereof a flexible band located within the shoe and extending across and above the innersole, means for attaching one end of the band at the junction of the innersole and the upper, and adjustable means for attaching the other end of the band to the upper and arranged to elevate the body of the band from the inner side of the shank of the innersole.

4. A shoe having an arch support permanently secured therein at the junction of the innersole and the upper at one side thereof and crossing the upper face of the innersole therefrom to a point above and relatively remote from the inner edge of the innersole, and means for securing the free end of the support to the upper to raise said support from the face of the innersole.

5. A shoe having an arch support permanently secured therein at its inner end and crossing the upper face of the innersole from a point adjacent the outer edge of the innersole to a point above and relatively remote from the inner edge of the innersole, and means connected with the shoe for varying the effective length of said arch support transversely of the innersole.

[Claims 6 to 9 not printed in the Gazette.]

1,137,808. FRUIT-PRESS. SAMUEL H. THOMAN, Shadyside, Ohio. Filed Mar. 16, 1912. Serial No. 684,133. (Cl. 146—9.)

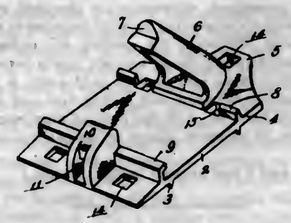


The combination with a casing, of a head constituting the bottom thereof, said head having a plurality of series of slots, disposed tangentially to a circular area at the center of the head, said area being of small size relative to the size of the head, each of said slots being provided with parallel sides and being relatively narrow, all of the series of slots converging to form equal angles and extending from points close to the periphery of the head to points close to the center of the head, and a worm mounted for rotation within the casing and having a single straight radial scraping edge at one end bearing against the head, said worm being pitched to compress material against the head, said scraping edge of the worm and the far edges of all of the slots in the head cooperating to shear material inwardly toward the center of the head.

1,137,809. RAILWAY-TRACK APPLIANCE. JOHN W. THOMAS, Kansas City, Kans., assignor of one-half to John R. Hamill, Kansas City, Mo. Filed Dec. 17, 1913. Serial No. 807,273. (Cl. 238—2.)

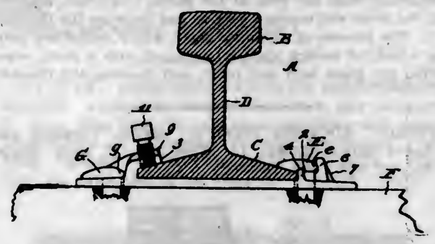
1. A device of the class described comprising a tie plate, an overhanging lip on said plate for engaging the adjacent side of the rail base, a flange on the plate having its upper edge beveled, an extension carried by the flange an abutment mounted on the extension and having a seat formed in its upper end, said beveled upper edge of the flange being engaged by the adjacent side of the rail base previous to the final seating of the rail base upon the tie plate by exerting pressure upon the rail and at which time the ball of the rail will rock into engagement with the seat of the abutment.

2. A device of the class described comprising a tie plate having an overhanging lip and flanges disposed in spaced relation thereon, one end of the plate terminating in an extension, an upwardly and inwardly inclined abutment mounted on the extension and having a seat for engaging the ball of the rail when the base thereof rests upon the plate and the side edges of the rail base engage the flange and overhanging lip respectively, said over-



hanging lip being intersected and reinforced by a lug mounted on the plate said lug having an opening formed therein, a key operating in the opening for clampingly engaging the rail base, and means for attaching the plate to a tie.

1,137,810. COMBINED RAIL-ANCHOR AND TIE-PLATE. JOHN W. THOMAS, Kansas City, Kans. Filed Sept. 21, 1914. Serial No. 862,713. (Cl. 238—2.)



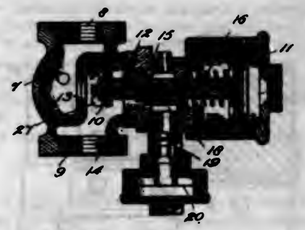
1. In a device of the character described, a plate, an abutment on said plate adjacent one side thereof and provided with a bevel upper surface, an overhanging flange on said plate near one margin thereof provided with a threaded opening, and a set-screw engaging the threads of said opening.

2. In a device of the character described, a plate, an abutment on said plate near one margin thereof, an overhanging flange on said plate near an opposite margin thereof and provided with a threaded opening, a reinforcement for said overhanging flange surrounding the threaded opening therein, and a set-screw for engaging the threads of said opening.

3. In a device of the character described, a plate having spike holes therein, shoulders adjacent certain margins of said spike holes and adapted to be bent over the heels of spikes driven through the spike holes, an abutment on the plate adjacent one margin thereof and interrupted by a number of the spike holes, an overhanging flange on the plate near an opposite margin thereof, said overhanging flange having a threaded opening extending therethrough, and a set-screw adapted to engage the threads of said opening.

1,137,811. TRAIN-CONTROL SYSTEM. GUY P. THURBER, Pittsburgh, Pa., assignor, by mesne assignments, to Automatic Train Control & Signal Company, Pittsburgh, Pa., a Corporation of Delaware. Filed May 20, 1912. Serial No. 698,389. (Cl. 188—1.)

1. The combination with the train line of an air brake system, of a normally closed exhaust valve connected with said train line, a fluid-actuated device arranged when acted upon by fluid under pressure to open the exhaust valve, a normally closed supplemental exhaust valve connected with the train line, a fluid-actuated device arranged when acted upon by fluid under pressure to hold the supplemental exhaust valve closed, and means controlling admission of fluid under pressure to the fluid-actuated devices.



2. The combination with the train line of an air brake system and the engineer's valve connected with the train line, of a normally open cut-off valve interposed between the engineer's valve and the train line, a normally closed exhaust valve in communication with the train line, a fluid-actuated device arranged when acted upon by fluid under pressure to hold the exhaust valve closed and the cut-off valve open, a normally closed supplemental exhaust valve connected with the train line, a fluid-actuated device arranged when acted upon by fluid under pressure to hold the supplemental exhaust valve closed, and means controlling admission of fluid under pressure to the fluid actuated devices.

3. The combination with the train line of an air brake system, of a normally closed exhaust valve connected with said train line, a fluid-actuated device arranged when acted upon by fluid under pressure to open the exhaust valve, a normally closed supplemental exhaust valve connected with the train line, a fluid-actuated device arranged when acted upon by fluid under pressure to hold the supplemental exhaust valve closed, and means for simultaneously permitting flow of fluid to the first fluid-actuated device and releasing pressure on the second fluid-actuated device.

4. The combination with the train line of an air brake system, of a normally closed exhaust valve connected with said train line, a piston arranged when acted upon by fluid under pressure to open the exhaust valve, a normally closed supplemental exhaust valve connected with the train line, a diaphragm arranged when acted upon by fluid under pressure to hold the supplemental exhaust valve closed, and means for simultaneously opening up flow of fluid under pressure to the piston and releasing the pressure on the diaphragm.

5. The combination with the train line of an air brake system and the engineer's valve connected with the train line, of a normally open cut-off valve interposed between the engineer's valve and the train line, a piston arranged when acted upon by fluid under pressure to close the cut-off valve, a normally closed exhaust valve connected with the train line, a fluid-actuated device arranged when acted upon by fluid under pressure to hold the exhaust valve closed, and means for simultaneously admitting flow of fluid to the piston and releasing the pressure on the fluid-actuated device.

[Claims 6 to 22 not printed in the Gazette.]

1,137,812. COMBINED END-STAKE POCKETS AND END-SILL BRACE. ERNEST R. VIRENO, Montreal, Quebec, Canada. Filed Apr. 10, 1914. Serial No. 830,937. (Cl. 105—183.)

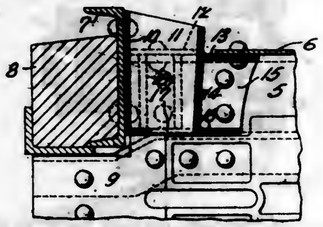
1. The combination with the center and end sills of a car, of a brace connected between said sills having end stake pockets formed therein.

2. The combination with the center and end sills of a car, of a brace connected between said sills having open bottomed end stake pockets formed therein.

3. The combination with the center and end sills of a car of a brace inserted in and secured to said center sill

and to the end sill above the draft gear, and open bottomed end stake pockets formed in said brace having ribbed side walls.

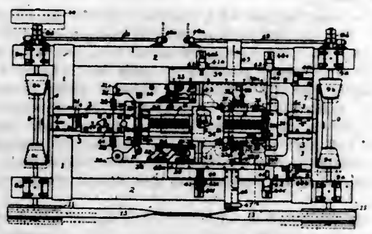
4. In a car, the combination with center and end sills, of end stake pockets located in the center sill inside the end sill.



5. In a car, the combination with center and end sills, of end stake pockets located in the center sill inside the end sill, said pockets being rigidly connected to the center and end sills above the draft gear and forming an end sill brace.

[Claims 6 to 10 not printed in the Gazette.]

1,137,813. LINK-PRESS. HAROLD VIDETTO, Bellingham, Wash. Filed Oct. 29, 1914. Serial No. 869,215. (Cl. 153—44.)



1. In a machine of the character described the combination of a reciprocable crosshead, slideways for said crosshead, two arms pivotally connected to said crosshead and also adapted to move on transversely automatically-adjustable slideways parallel to said crosshead slideways, and said automatically-adjustable slideways, with means to reciprocate said crosshead.

2. In a machine of the character described the combination of a reciprocable crosshead, slideways for said crosshead, two arms reciprocable along with said crosshead and each being pivoted at one end to said crosshead and having their other ends suited to be guided by transversely, automatically adjustable slideways which are parallel with said crosshead slideways, said automatically adjustable slideways, and two forming shoes each being connected by a knuckle joint with one of the said other ends of said arms, with means to reciprocate said crosshead.

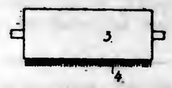
3. In a machine of the character described the combination of a reciprocable crosshead, slideways for said crosshead, two arms reciprocable along with said crosshead and each being pivoted at one end to said crosshead and having their other ends suited to be guided in their movements by transversely, automatically adjustable slideways which are parallel with said crosshead slideways, said automatically adjustable slideways, two forming shoes each being connected by a knuckle joint with one of the said other ends of said arms, and two slideway stops located in the paths of movement of said forming shoes and the guiding surface of said stops being at right angles with said crosshead slideways, with means to reciprocate said crosshead.

4. In a machine of the character described the combination with a rigidly attached die, a slidable forming block operable by a pressure means, said pressure means and guiding means for said forming block, of two withdrawable turning pins, guiding means for said pins, two bending means, guiding means for said bending means, two longitudinally and transversely movable forming shoes, directing means for said shoes, and another pressure means to operate said turning pins, said bending means, and said forming shoes.

5. In a machine of the character described the combination with a crosshead, slideways for the said crosshead, two arms pivotally connected to said crosshead, automatically adjustable slideways for guiding the outer ends of said arms, two forming shoes, knuckle joints between each of said forming shoes and each of said arms, a spring, a flexible connection between said spring and said shoes and said arms, and fixed stops in the path of movement of said forming shoes, of pressure means to reciprocate said crosshead.

[Claims 6 and 7 not printed in the Gazette.]

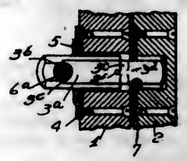
1,137,814. METHOD OF SPINNING GLASS. GEDEON VON PAZSICZKY, Riga, Russia. Filed Sept. 4, 1912. Serial No. 718,486. (Cl. 49—77.)



1. The process of spinning glass, which comprises exposing a portion of a molten glass batch, maintained in continuity with the body of the batch, to a comb, separating the comb and exposed portion and drawing the threads.

2. The process of spinning glass, which comprises moving a body of molten glass into contact with a comb, separating the glass body and comb, and drawing the threads.

1,137,815. LOCKING DEVICE. ANTON VOSATKA and LOUIS CEJKA, Chicago, Ill. Filed Aug. 17, 1914. Serial No. 857,040. (Cl. 70—94.)



1. In combination, a bolt of non-circular cross section, a plate having a non-circular opening formed to receive such bolt and a mounting in which the bolt may both rotate and slide in the direction of its axis of rotation, said bolt having a portion of reduced cross section adapted to rotate in the opening of the plate, and a non-circular portion adjacent thereto adapted to enter but not to rotate in said opening, together with means for stopping the bolt against sliding when the said non-circular portion is engaged in the opening.

2. In combination, a bolt of non-circular cross section, a plate having a non-circular opening formed to receive such bolt and a mounting in which the bolt may both rotate and slide in the direction of its axis of rotation, said bolt having a portion of reduced cross section adapted to rotate in the opening of the plate, and a non-circular portion adjacent thereto adapted to enter but not to rotate in said opening, the bolt having a shoulder adjacent to the said non-circular portion adapted to abut the plate to prevent sliding of the bolt in one direction when said non-circular portion is engaged in the opening and being adapted to receive locking means adjacent to its mounting to prevent sliding in the other direction.

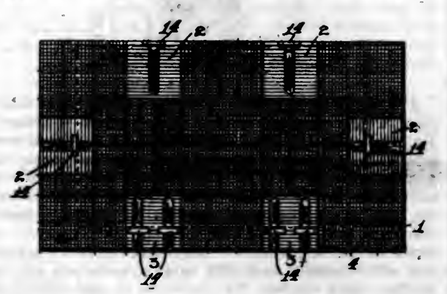
3. In combination, a bolt of non-circular cross section, a plate having a non-circular opening formed to receive such bolt and a mounting in which the bolt may both rotate and slide in the direction of its axis of rotation, said bolt having a portion of reduced cross section adapted to rotate in the opening of the plate, and a non-circular portion adjacent thereto adapted to enter but not to rotate in said opening, the bolt having a shoulder adjacent to the said non-circular portion adapted to abut the plate to prevent sliding of the bolt in one direction when said non-circular portion is engaged in the opening, and an aperture adjacent to its mounting adapted to receive a locking pin or its equivalent to prevent sliding of the bolt in the other direction.

4. In combination, a bolt of non-circular cross section, a plate having a non-circular opening formed to receive such bolt and a mounting in which the bolt may both rotate and slide in the direction of its axis of rotation, said bolt having a portion of reduced cross section adapted to rotate in the opening of the plate, and a non-circular portion adjacent thereto adapted to enter but not to rotate in said opening, together with means for stopping the bolt against sliding when the said non-circular portion is engaged in the opening, and abutments on the bolt at each side of the mounting for limiting its sliding movement therein.

5. In combination with a sliding door, a locking device comprising a bolt of non-circular cross section, a mounting in which the bolt may both rotate and slide in the direction of its axis of rotation carried at one side of the door, a plate independent of the door positioned on the opposite side thereof and having a non-circular opening into which the bolt is dimensioned to extend, said bolt having a portion of reduced cross section adapted to rotate in the opening of the plate, and a non-circular portion adjacent thereto adapted to enter but not to rotate in said opening, together with means for stopping the bolt against sliding when the said non-circular portion is engaged in the opening.

[Claim 6 not printed in the Gazette.]

1,137,816. PRINTER'S CATCH OR REGISTERING MEANS. ARTHUR R. WARREN, Oak Park, and ANTHONY F. BALS, Zion City, Ill., assignors, by direct and mesne assignments, to Universal Printing Appliances Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 21, 1913. Serial No. 755,876. (Cl. 101—169.)



1. In a printer's block an adjustable clamping member slidable therein, teeth thereon, a spring thrust ratchet rack acting to lock the same thereon by engagement with said teeth at various positions, and a lead screw for adjusting said locking means to afford a fine adjustment for said clamping member.

2. In a device of the class described a block, slidable clamping members thereon, pivotally mounted locking members adapted to engage the same in locked position at various points on said block, resilient means for said locking members normally acting to oppose pivotal movement thereof in one direction, and means adjusting said locking members and said clamping members therewith to afford a fine adjustment for said clamping members.

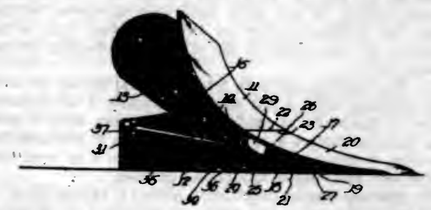
3. In a device of the class described a printer's block, clamping members slidable thereon, a recessed locking member adapted to hold said clamping member in adjusted position, and eccentric means on said clamping member adapted to engage in said recessed member to move said clamping member transversely of said block for centering adjustments.

4. In a device of the class described a clamp, a centering projection thereon, means affording quick locking adjustment therefor longitudinally of said block, and eccentric mechanism adapted to move said clamping member transversely for centering when locked from longitudinal movement.

5. In a device of the class described a printer's block, a clamping member slidable thereon and retained in squared relation in all positions thereon, pivotally mounted locking plates therefor adapted to be thrown out of engagement therewith to permit rapid adjustment thereof, and means adjusting said clamping member transversely of said block.

[Claims 6 to 14 not printed in the Gazette.]

1,137,817. DETACHABLE PLOWSHARE. IRA A. WEAVER, Springfield, Ill., assignor to Racine Sattley Company, Springfield, Ill., a Corporation of Illinois. Filed June 23, 1913. Serial No. 775,289. (Cl. 97—18.)

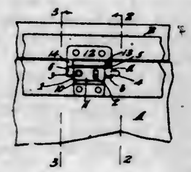


1. In a plow, the combination with a mold board and long landside, of a share and short landside, the line of junction between the short and long landside extending at an inclination downwardly and to the rear, a sheath having fixed relation to the mold board and extending forwardly thereof as an apron, and a lug carried by the share extending through the apron, and a draw member hooked over the lug and having an adjustable connection with a fixed portion of the plow, substantially as described.

2. In a plow, the combination with a mold board and long landside, of a share and short landside the line of junction between the short and long landside extending at an inclination downwardly and to the rear, a sheath having fixed relation to the mold board and extending forwardly thereof as an apron and provided with a slot, a lug on the lower face of the share adapted to extend through the slot, and a laterally wedging draw connection between the lug and a fixed portion of the plow, substantially as described.

3. In a plow, the combination with a mold board and long landside, of a share and short landside, the line of junction between the short and long landside extending at an inclination downwardly and to the rear, a sheath having fixed relation to the mold board and extending forwardly thereof as an apron and provided with a slot, a forwardly facing hooked lug on the lower face of the share adapted to extend through the slot, and a draw rod engaging over the lug and having an adjustable connection with a fixed portion of the plow, substantially as described.

1,137,818. LATCH. HANS WEIDE, New York, N. Y., assignor of one-half to Oswald Lorenz, New York, N. Y. Filed May 12, 1914. Serial No. 838,014. (Cl. 70—3.)



1. The combination with a pivoted latch plate having on opposite sides of its pivot an inclined latch and an

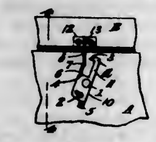
abutment surface, of a catch plate carrying a catch, said latch and catch having co-acting latching surfaces inclined in the line of latching and unlatching movement and reversed in direction to lock the parts together when the inclined surfaces are in contact, and a trip carried by the catch plate and engaging the abutment surface on the latch plate to move the latch into latching engagement with the catch and hold the latch in position to prevent unlatching except by the simultaneous rocking of the latch plate and movement of the trip.

2. The combination with a pivoted latch plate having on opposite sides of its pivot an inclined latch and an abutment surface, of a catch plate carrying a catch, said latch and catch having co-acting latching surfaces inclined in the line of latching and unlatching movement and reversed in direction to lock the parts together when the inclined surfaces are in contact, and a trip carried by the catch plate and having an inclined surface engaging the abutment surface on the catch plate to move the latch into latching engagement with the catch and hold the latch in position to prevent unlatching except by the simultaneous rocking of the latch plate and movement of the trip, the inclined surface on the trip being such as to prevent the movement of the trip by the rocking of the latch plate.

3. The combination with latch plate 11, having pivot 1, and inclined latch *a* and abutment surface 3 on opposite sides of the pivot, of catch arm 13 carrying catch *b* having inclined surface 5 co-acting with latch *a*, and arm 14 forming a trip engaging abutment surface 3 to rock the latch into and hold it in latching position.

4. The combination with latch plate 11, having pivot 1, and inclined latch *a* and abutment surface 3 on opposite sides of the pivot, and means for limiting the movement of the latch plate in opposite directions, of catch arm 13 carrying catch *b* having inclined surface 5 co-acting with latch *a*, and arm 14 carrying trip 6 having an inclined surface engaging abutment surface 3 and acting to hold the latch plate against unlatching movement except when the trip is moved simultaneously with but independently of the rocking of the latch plate.

1,137,819. LATCH. HANS WEIDE, New York, N. Y., assignor of one-half to Oswald Lorenz, New York, N. Y. Filed May 12, 1914. Serial No. 838,015. (Cl. 70—102.)



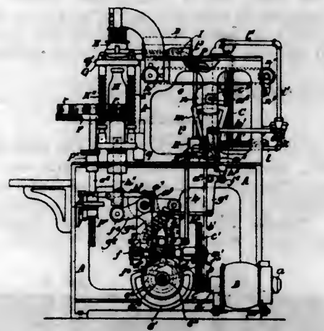
1. The combination of a pivoted latch plate and latch carried thereby, a catch coacting with the latch, a catch plate carrying the catch and engaging the latch plate during the latching movement to move the latch into latching engagement with the catch and hold the latch in position to prevent unlatching except by the simultaneous rocking of the latch plate and movement of the catch plate, the engaging surfaces of the latch and catch in latched position being in line with the pivot and upon the line of movement of the parts away from each other, whereby separation of the parts without unlatching is resisted by direct pull upon the latch pivot.

2. The combination of a pivoted latch plate and hooked latch carried thereby, said latch having an incline, of a catch co-acting with the latch, a catch plate carrying the catch and engaging the incline on the latch to rock the latch out of the path of the latch plate and engaging the latch plate during the latching movement to move the latch into latching engagement with the catch and hold the latch in position to prevent unlatching except by the simultaneous rocking of the latch plate and movement of the catch plate.

3. The combination with pivoted latch plate 10, having arm 11 carrying hooked latch *a* and abutment surface 4 at one side of the pivot, of catch arm 13 having catch opening *b*, and having an extension beyond the catch forming trip 6 engaging the abutment surface 4 to rock the latch plate into and hold it in latching position, the engaging surfaces of the latch and catch in latched position being in line with the pivot and upon the line of movement of the parts away from each other, whereby separation of the parts without unlatching is resisted by direct pull upon the latch pivot.

4. The combination with pivoted latch plate 10, having hooked latch *a* with end incline 3, arm 11, carrying hooked latch *a*, and abutment surface 4 at one side of the pivot, of catch arm 13 having catch opening *b* and having an extension beyond the catch engaging the incline 3 to rock the latch out of the path of the arm, and trip 6 engaging the abutment surface 4 to rock the latch plate into and hold it in latching position, the engaging surfaces of the latch and catch in latched position being in line with the pivot and upon the line of movement of the parts away from each other, whereby separation of the parts without unlatching is resisted by direct pull upon the latch pivot.

1,137,820. MACHINE FOR SELECTING, TREATING, AND APPLYING CLOSURE-SEALS. ALBERT WESTLAKE, New York, N. Y. Filed Nov. 12, 1913. Serial No. 800,486. (Cl. 93—1.)

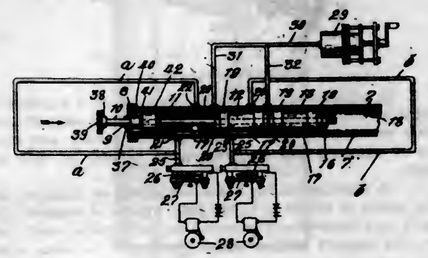


A machine for selecting, treating and applying closure seals, which comprises a disk feeding stack, a selecting device whereby the disks are removed one at a time from said stack, a conveyer adapted to receive and convey the disk as delivered to it by said selecting device, a heating mechanism through which said conveyer passes bearing the disk, a capping frame adapted to receive a heated disk from said conveyer and hold said disk in proper relation to the receptacle to be capped and sealed, a plunger tool which applies said disk to said receptacle and adjusting means whereby the operations of said devices are so harmonized, as to cap and seal a continuous succession of receptacles.

1,137,821. TESTING DEVICE. JOHN W. WHITE, New York, N. Y., assignor to Aero Fire Alarm Company, New York, N. Y., a Corporation of New Jersey. Filed May 8, 1913. Serial No. 766,271. (Cl. 73—51.)

1. The combination with a fluid system, comprising a plurality of independent circuits, of means for simultaneously testing all of said circuits, said means comprising a casing connected to and forming a part of each circuit, a pump connected to said casing and a plurality of valves mounted within said casing and operable by a single movement in one direction to simultaneously establish communication between said pump and each of said circuits and in the reverse direction to reëstablish the normal circuits through said casing.

2. The combination with a fluid system, comprising a plurality of independent circuits, of means for simultaneously testing all of said circuits, said means comprising an enlarged conduit common to all of said circuits and forming a part thereof, a pump having means of communication with said conduit and a plurality of valves positioned within said conduit and operable by a single movement in one direction to establish communication between said pump and each of said circuits, and by a single movement in the reverse direction to reëstablish said independent circuits through said conduit.

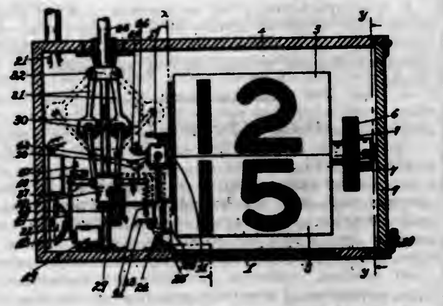


3. A means for simultaneously testing a plurality of independent circuits of a fluid system, consisting of a conduit common to all of said circuits, each circuit having two points of connection with said conduit and being independent of the remaining circuits, a pump communicating with said conduit and valve mechanism operable within said conduit by a single movement in one direction to establish communication between said pump and said circuits and in the reverse direction to cut out said pump and reëstablish said normal independent circuits.

4. The combination with a fluid system, comprising a plurality of independent circuits, of means for simultaneously testing all of said circuits, said means comprising a conduit having communication with all of said circuits and forming a part thereof, a pump normally independent of said circuits and connected with said conduit, a plurality of valves mounted within said conduit and manually operable by a single movement in one direction to establish communication between said pump and each of said circuits, and means for operating said pump to simultaneously test each of said circuits through said conduit, said valves being operable in the reverse direction by a single movement to cut off said pump and reëstablish each of said independent circuits.

5. The combination with a fluid system, comprising a plurality of normally independent circuits, of means for simultaneously testing all of said circuits and means for reëstablishing said normally independent circuits through said testing means upon the conclusion of the testing operation, said testing means being common to all of said circuits.

1,137,822. SPEEDOMETER. FREDERICK A. WIELAND, Chicago, Ill. Filed Jan. 13, 1914. Serial No. 811,831. (Cl. 73—123.)

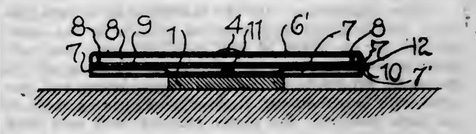


1. The combination with a self-propelled vehicle, of a casing carried thereby and provided with means for viewing the interior at one side thereof; a rotatable drum mounted in said casing opposite said viewing means; translucent speed signs on the sides of said drum; different colored electric lights in said drum; means operable by the speed of said vehicle for controlling said lights; and a signal operable by said means, substantially as described.

2. The combination with a self-propelled vehicle, of a casing carried thereby and provided with means for viewing the interior at one side thereof; a rotatable drum mounted in said casing opposite said viewing means; translucent speed signs on the sides of said drum; different colored electric lights in said drum; and means operable by the speed of said vehicle for controlling said lights, substantially as described.

3. The combination with a self-propelled vehicle, of a casing carried thereby and provided with means for viewing the interior at one side thereof; a rotatable drum mounted in said casing opposite said viewing means; translucent speed signs on the sides of said drum; different colored electric lights in said drum; separate circuits for said lights; electric contacts at different radial positions on said drum; a radially slidable electric contact cooperating with said contacts; centrifugal means operable by the speed of the vehicle and connected to operate said radially slidable contact; an electro-magnet; circuits for said electro-magnet controlled by said contacts; and a switch operable by said magnet and arranged to open one of said light circuits and close the other light circuit, substantially as described.

1,137,823. ESCUTCHEON-PLATE. LEWIS A. WILBUR, Gloversville, N. Y., assignor of one-half to Grace B. Cone, Amsterdam, N. Y. Filed Feb. 18, 1914. Serial No. 819,489. (Cl. 40—17.)

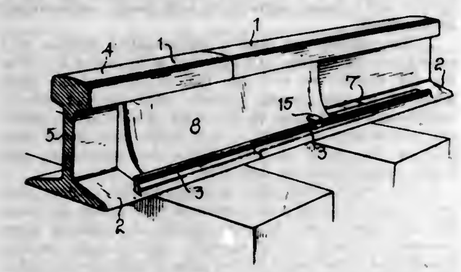


A device of the character described comprising a base plate having its edges directed outwardly, card holding flanges formed on the outwardly directed edges of the base plate, the outwardly directed edge at one end of the plate having a slot formed therein inwardly of the flanges and extending substantially the entire length of said edge, a transparent plate passed through said slot and engaged against the card holding flanges, a card passed through said slot and engaged against the inner face of said plate, the outer wall of said slot having a recess formed therein, a spring secured to the plate for engagement against the card to force the same outwardly of the slot, one end of the spring projecting through the slot and engaging in said recess to hold the card and plate outwardly of the slot behind the end edge of the plate, and the extremity of the spring being projected longitudinally from the plate to form a finger piece, whereby the spring may be readily forced inwardly to disengage the same from the card and allow the card to be removed through the slot.

1,137,824. RAIL-JOINT. JESSE WARREN WOMBLE, Winnsboro, La. Filed Feb. 27, 1915. Serial No. 11,029. (Cl. 239—9.)

1. The combination with the meeting ends of rails provided with longitudinally disposed recesses in the under surfaces of the heads of said rails and with longitudinally disposed recesses in the upper surfaces of the flanges at substantially their transverse center and provided with longitudinally disposed beads having their inner faces undercut, fish plates coacting with said rails, each of said fish plates having its upper portion adapted to fit within a recess of the head, said fish plate being provided in its under surface with a rib adapted to be positioned within a recess in the upper surface of a

flange, said fish plate being also provided with a longitudinally disposed lip adapted to be received within the undercut face of a bead.



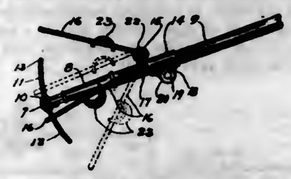
2. The combination with the meeting ends of rails provided with longitudinally disposed recesses in the under surfaces of the heads of said rails and with longitudinally disposed recesses in the upper surfaces of the flanges at substantially their transverse center and provided with longitudinally disposed beads having their inner faces undercut, fish plates coacting with said rails, each of said fish plates having its upper portion adapted to fit within a recess of the head, said fish plate being provided in its under surface with a rib adapted to be positioned within a recess in the upper surface of a flange, said fish plate being also provided with a longitudinally disposed lip adapted to be received within the undercut face of a bead, the recesses and beads of one of the rails being of a length in excess of the recesses and beads of the coacting rail.

3. The combination with the meeting ends of rails provided with longitudinally disposed recesses in the under surfaces of the heads of said rails and with longitudinally disposed recesses in the upper surfaces of the flanges at substantially their transverse center and provided with longitudinally disposed beads having their inner faces undercut, fish plates coacting with said rails, each of said fish plates having its upper portion adapted to fit within a recess of the head, said fish plate being provided in its under surface with a rib adapted to be positioned within a recess in the upper surface of a flange, said fish plate being also provided with a longitudinally disposed lip adapted to be received within the undercut face of a bead, the base flanges of the rails being provided with openings, the lips of the fish plates being provided with notches adapted to register with the openings of the flanges.

4. The combination with the meeting ends of rails provided with longitudinally disposed recesses in the under surfaces of the heads of said rails and with longitudinally disposed recesses in the upper surfaces of the flanges at substantially their transverse center and provided with longitudinally disposed beads having their inner faces undercut, fish plates coacting with said rails, each of said fish plates having its upper portion adapted to fit within a recess of the head, said fish plate being provided in its under surface with a rib adapted to be positioned within a recess in the upper surface of a flange, said fish plate being also provided with a longitudinally disposed lip adapted to be received within the undercut face of a bead, the base flanges of the rails being provided with openings, the lips of the fish plates being provided with notches adapted to register with the openings of the flanges, said notches being positioned adjacent one extremity of the fish plates.

1,137,825. SELF-CLEANING ATTACHMENT FOR RAKES. CHARLES D. WRIGHT, Adrian, Mich. Filed May 18, 1914. Serial No. 839,238. (Cl. 55--146.)

1. An attachment for rakes consisting of a holder having means to secure it to the rake handle, a support rotatably and transversely mounted on said holder, and arms arranged in divergently disposed rows and carried by said support and fixed thereto at one of their ends.



2. An attachment for rakes consisting of a holder having means to secure it to the rake handle, a support rotatably and transversely mounted on said holder, and divergently disposed and weighted arms carried by said support.

3. An attachment for rakes consisting of a holder having means to secure it to the rake handle, a support rotatably and transversely mounted on said holder, arms fixed to said support and arranged divergently in rows, and a bar mounted on each of said rows of arms.

4. The combination with a rake having a support carrying teeth and provided with a handle, of an attachment consisting of a holder having means to secure it to the handle of the rake, a shaft rotatably and transversely mounted on said holder, and divergently disposed arms carried by said shaft and extended to strike the said teeth carrying support in the movement of the shaft in either direction.

5. The combination with a rake having a support carrying teeth and provided with a handle, of an attachment consisting of a holder having means to secure it to the handle of the rake, a shaft rotatably and transversely mounted on said holder, divergently disposed arms carried by said shaft and extended above and below said teeth carrying support, and a bar mounted on the arms near the shaft which carries the same.

1,137,826. SHUTTLE EMBROIDERING-MACHINE. ROBERT ZAHN, Plauen, Germany; Alfred Rietzsch administrator of said Zahn, deceased. Filed Jan. 25, 1913. Serial No. 744,208. (Cl. 112—7.)



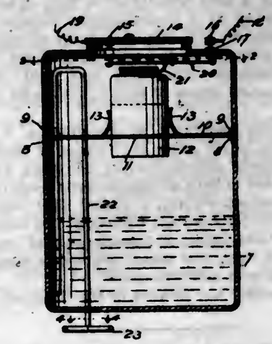
1. The combination with a shuttle raceway, having a longitudinal guide member, of a shuttle having its filling opening in one side, a curved surface on its opposite side which surface is undercut at its lower edge and forms a flat longitudinal shoulder or edge adapted to coöperate with said guide member and to form a positive rectilinear guide for the shuttle.

2. A shuttle having a flat solid bottom, a filling opening in one side, a curved surface in the opposite side which surface is undercut at its lower edge and forms a flat longitudinal shoulder or edge serving as a guide for said shuttle.

1,137,827. FIRE-EXTINGUISHER. ALBERT E. ALLEN, Spirit Lake, Iowa. Filed Aug. 27, 1914. Serial No. 858,919. (Cl. 169—8.)

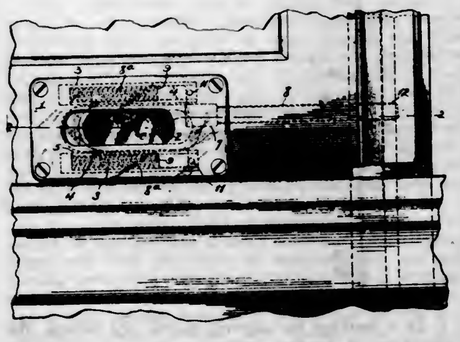
1. In a fire extinguisher, a container having lugs on its internal wall, said lugs having seats, a yoke having its ends rotatable in the seats, a receptacle supported by the yoke, a fuse within the receptacle, means engaging the fuse and receptacle for holding the receptacle in an upright position, conductor terminals for supporting the fuse, conductors of electricity connected to the terminals, and a liquid discharge pipe leading from the container.

2. In a fire extinguisher, a container having bearing lugs on its inner wall, a yoke rotatably supported by the lugs, a receptacle for chemically prepared liquid supported by the yoke, terminals extending through the wall of the container, said terminals having hooks, a fuse supported by the hooks, a member engaging the receptacle and having a hook for engaging the fuse for holding the



receptacle in an upright position, said receptacle being adapted to be inverted when released by the fuse, and a liquid discharging tube extending through the container for discharging the contents of the said container.

1,137,828. WINDOW-SASH LOCK. CHARLES H. ANDERSON, Cincinnati, Ohio. Filed Jan. 21, 1915. Serial No. 3,608. (Cl. 16—119.)



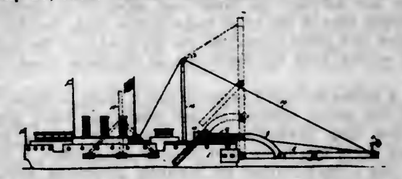
1. A sash lock consisting of a face plate having a slot extending lengthwise the same, a finger piece mounted at the rear of said plate and having a recess of substantially the size as the slot in the face plate, a bolt carried by said finger piece and a spring for actuating the latter in one direction.

2. A sash lock consisting of a face plate having a slot therein and provided on its rear face with supports for the finger piece, a finger piece mounted to slide in said supports and provided with a recess in the plane of the slot in the face plate, a bolt carried by said finger piece and springs for moving the latter in a direction to carry one end of the recess in the finger piece under the face plate.

3. A sash lock consisting of a face plate having a slot therein, and provided on its rear face with hollow slotted ribs, a finger piece having a recess in the plane of the slot in the face plate and side flanges resting in the slots in the ribs of the face plate, springs within the ribs and bearing against shoulders on the finger piece, and a bolt carried by the latter.

4. A sash lock consisting of a face plate having a slot extending lengthwise the same, a finger piece mounted to slide against the rear face of said face plate and having a recess of substantially the size as the slot in the face plate, a bolt carried by said finger piece and springs carried by the face plate and bearing against shoulders on the finger piece for moving the latter in one direction.

1,137,829. FENDER. CHARLES H. BARTON, Tyler, Tex., assignor of one-half to Alex Woldert, Tyler, Tex. Filed July 27, 1914. Serial No. 853,486. (Cl. 114—219.)

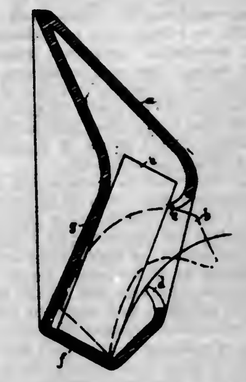


1. In a device of the character described, the combination with a vessel of a beam hinged to the prow of said vessel and projecting forwardly therefrom, said beam being formed of two parts hinged together, means for locking said beam in its forwardly projecting position, means for elevating said beam to a vertical position and the search light carried by the free end of said beam.

2. In a device of the character described, the combination with a vessel of a beam hinged to the prow of said vessel and projecting forwardly therefrom, said beam being formed of two parts hinged together, means for locking said beam in its forwardly projecting position and means for elevating the beam to a vertical position.

3. In a device of the character described, the combination with a vessel of a beam hinged thereto and projecting outwardly therefrom, said beam being formed of two parts hinged together, means for locking said beam in its outwardly projecting position, and means for elevating said beam to a vertical position.

1,137,830. HOLDER FOR TOILET-PAPER. ALPHONS BARUCH, Hamburg, Germany. Filed Oct. 30, 1913. Serial No. 798,257. (Cl. 211—29.)



1. A holder for an interfolded pad of toilet paper provided with a back section, a lower front section, an upper front section, a common horizontal ingress and egress slot intermediate the lower and upper front sections, and a pocket between the front sections and the back section, the pad being adapted to be housed within said pocket in an unbent condition and to rest against the lower horizontal edge of the upper front section.

2. A holder for an interfolded pad of toilet paper provided with a back section, a lower front section, an upper front section, a common horizontal ingress and egress slot intermediate the lower and upper front sections, and a pocket between the front sections and the back section, the pad being adapted to be housed within said pocket in an unbent condition, and to rest against the lower hori-

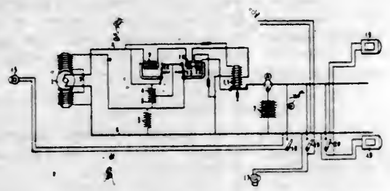
zontal edge of the upper front section, the depth of the pocket corresponding substantially to the maximum thickness of the pad.

3. A holder for an interfolded pad of toilet paper provided with a back section, a lower front section having an upper horibontal edge, an upper front section having a lower horizontal edge, and a horizontal ingress and egress slot between the lower and upper front sections, the upper edge of the lower front section being located in advance of a plane connecting the lower edge of the upper front section with the lower end of the lower front section.

4. A holder for toilet paper having a front, a single ingress and egress opening at the front, said front being provided with inwardly turned upper and lower lips formed above and below said opening respectively, a bottom, and a back having an inwardly projecting section that faces said opening, to form an angular paper-receiving pocket between the front and back, and below the upper lip.

5. A holder for interfolded sheets of toilet paper having an inwardly projecting back, an inclined bottom, a forwardly inclined lower front section having an inwardly turned lower lip, and a forwardly inclined upper front section having an inwardly turned upper lip, a common ingress and egress opening being formed between said lips.

1,137,831. ELECTRIC-LIGHTING SYSTEM FOR AUTOMOBILES. JOSEPH BIJUR, New York, N. Y. Filed Aug. 26, 1911. Serial No. 646,191. (Cl. 176—10.)



1. In lighting apparatus, in combination, a source of current susceptible to voltage drop on increase of current output thereof, automobile headlights, automobile side lights of higher voltage than said headlights, and means adapted to connect one or both of said sets of lights with said source of current, the difference between the voltages of said front and side lights being substantially equal to the drop in voltage of said source of current upon said headlights being connected therewith.

2. In lighting apparatus, in combination, a source of current susceptible to voltage drop on increase of current output thereof; a circuit adapted to be connected across said source of current and comprising an automobile headlight, and a second circuit, of higher resistance than said first circuit, adapted to be connected across said source of current in parallel with said first circuit and comprising an automobile sidelight, said headlight being adapted to burn with a substantially normal brilliancy at a pre-determined voltage of said source of current and said second circuit and sidelight being so constituted as to cause said sidelight to burn at a sub-normal brilliancy at said voltage of said source of current and at substantially normal brilliancy at a higher voltage.

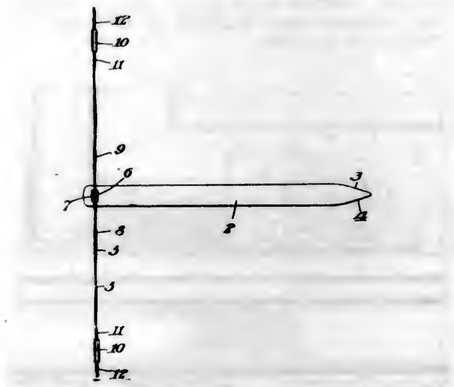
3. In lighting apparatus, in combination, a source of current susceptible to voltage drop on increase of current outpnt thereof, a circuit adapted to be connected across said source of current and comprising an automobile headlight, and a second circuit of higher resistance than said first circuit adapted to be connected across said source of current in parallel with said first circuit and comprising an automobile sidelight, said headlight being adapted to burn with a substantially normal brilliancy at a pre-determined voltage of said source of current and said second circuit and sidelight being so constituted as to cause said sidelight to burn at a sub-normal brilliancy at said voltage of said source of current and at substantially normal brilliancy at the increased voltage resulting from the opening of said first circuit.

4. In lighting apparatus, in combination, a source of current susceptible to voltage drop on increase of current output thereof, a light constituted to burn at substantially normal brilliancy at a predetermined voltage; a second light constituted to burn at substantially normal brilliancy at a lower voltage, said second light being of greater current consumption than said first light, and means adapted to connect either of said lights across said source of current.

5. In lighting apparatus, in combination, a generator, means tending to cut down the voltage of said generator upon the current output thereof becoming excessive, a light constituted to burn at substantially normal brilliancy at a predetermined voltage, a second light constituted to burn at substantially normal brilliancy at a lower voltage, said second light being of greater current consumption than said first light, and means adapted to connect either of said lights with said generator.

[Claims 6 and 7 not printed in the Gazette.]

1,137,832. LOOM FOR WEAVING DOUBLE PILE FABRICS. ALBERT W. BINZ, Philadelphia, Pa., assignor to George N. Schofield and Edward F. Mason, Philadelphia, Pa., Copartners trading as Schofield, Mason & Co. Filed Mar. 21, 1914. Serial No. 826,172. (Cl. 139—62.)



1. In a machine for weaving double pile fabrics, the combination of weaving mechanism, an arm, and means operative to raise and lower one end of said arm, the other end of said arm being free and constituting a pile gage adapted to separate and to be supported by and between the upper and lower cloths being woven, and the free end of said arm having upper and lower converging faces lying wholly between the normal planes of said cloths in all positions of said arm.

2. In a machine for weaving double pile fabrics, the combination of weaving mechanism, an arm, and means operative to raise and lower one end of said arm, the other end of said arm being free and constituting a pile gage adapted to separate and to be supported by and between the upper and lower cloths being woven, the free end of said arm having upper and lower converging faces extending between said cloths, said upper face lying substantially parallel to said upper cloth when said arm is in the lowermost position and said lower face lying substantially parallel to said lower cloth when said arm is in the uppermost position.

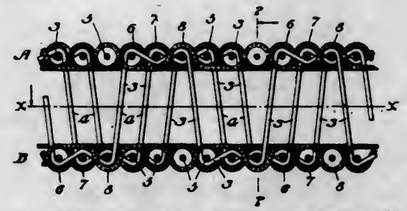
3. A pile-gage comprising a body portion provided with means for connecting one end thereof to a raising and lowering mechanism and the other and free end thereof terminating in oppositely disposed upper and lower faces substantially straight and inclined toward each other, said inclined faces being out of alinement with the upper and lower faces of the main body of the pile-gage, and adapted thereby to lie wholly between the normal planes of the upper and lower cloths of the fabric in the alternating positions of said gage.

4. A pile-gage comprising a gage arm having an opening in one end, and a vertical heddle formed of two wire members having the central portions thereof twisted together within said opening, and having the end portions thereof formed into means adapted to engage the horizontal bars of a heddle frame.

5. A pile-gage comprising a gage arm, and a vertical heddle formed of two wire members between which one end of said arm is located, said members being twisted together above and below said arm, and the end portions of said members being formed into means adapted to engage the horizontal bars of a heddle frame.

[Claims 6 to 8 not printed in the Gazette.]

1,137,833. PILE FABRIC. ALBERT W. BINZ, Philadelphia, Pa. Filed July 7, 1914. Serial No. 849,405. (Cl. 139—71.)



1. In a pile fabric, pairs of binding warp threads arranged in adjacent sets of three pairs each, weft threads interwoven with the pairs of warp threads, and pile threads interwoven with the weft threads and arranged in alinement with each other between the threads of each pair of warp threads, each pile thread having two pile ends, each two adjacent pile ends between the threads of the same pair of warp threads being equally spaced from each other by three weft threads, and each two adjacent weft threads within each set of pairs of warp threads having a pile end extending between the same from the back of the fabric to the pile face thereof.

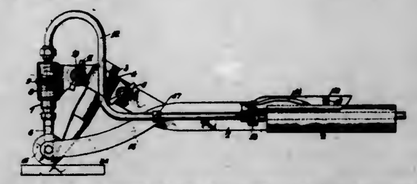
2. In a pile fabric, pairs of binding warp threads arranged in adjacent sets of three pairs each, weft threads interwoven with the pairs of warp threads, and pile threads interwoven with the weft threads and arranged in alinement with each other between the threads of each pair of warp threads, each pile thread having two pile ends extending between adjacent weft threads from the back of the fabric to the pile face thereof, the two threads of each pair of warp threads having the same course through the spaces between the weft threads, each pair of warp threads of a set having a course through the spaces between the weft threads different from the courses of the other two pairs of the set, and each two adjacent pile ends between the threads of the same pair of warp threads being equally spaced from each other by the same number of weft threads.

3. In a pile fabric, pairs of binding warp threads arranged in adjacent sets of three pairs each, weft threads interwoven with the pairs of warp threads, and pile threads interwoven with the weft threads and arranged in alinement with each other between the threads of each pair of warp threads, each pile thread having two pile ends extending between adjacent weft threads from the back of the fabric to the pile face thereof, the two threads of each pair of warp threads having the same course through the spaces between the weft threads, each pair of warp threads of a set having a course through the spaces between the weft threads different from the courses of the other two pairs of the set, and two pairs of warp threads of each set crossing each other between each two adjacent weft threads.

4. In a pile fabric, pairs of binding warp threads arranged in adjacent sets of three pairs each, weft threads interwoven with the pairs of warp threads, and pile threads interwoven with the weft threads and arranged in alinement with each other between the threads of each pair of warp threads, each pile thread having two pile ends extending between adjacent weft threads from the back of the fabric to the pile face thereof, the two threads of each pair of warp threads having the same course through the spaces between the weft threads, each pair of warp threads of a set having a course through the spaces between the weft threads different from the courses of the other two pairs of the set and crossing one weft thread on one face of the fabric and crossing two weft threads on the other face of the fabric in alternate succession, and two pairs of warp threads of each set crossing each other between each two adjacent weft threads.

[Claims 6 and 7 not printed in the Gazette.]

1,137,834. APPARATUS FOR CUTTING, WELDING, AND BRAZING METALS. FREDERICK M. BOWERS, Chester, Pa. Filed Aug. 26, 1914. Serial No. 858,659. (Cl. 219—10.)



1. In an apparatus of the kind described, the combination of a supporting frame, an electrode mounted thereon, a nozzle also mounted thereon for supplying an oxygen blast adjacent the point of said electrode, means for adjusting the nozzle vertically with respect to the electrode and other means for adjusting the nozzle angularly with respect to the electrode.

2. In an apparatus of the kind described, the combination of a supporting frame, an electrode mounted thereon, a nozzle also mounted thereon for supplying an oxygen blast adjacent the point of said electrode, means for adjusting the electrode with respect to the nozzle, means for adjusting the nozzle vertically with respect to the electrode and other means for adjusting the nozzle angularly with respect to the electrode.

3. In an apparatus of the kind described, the combination of a supporting frame, an electrode mounted thereon, means also mounted thereon for supplying an oxygen blast adjacent the point of said electrode, a handle on said frame adapted to be grasped by the hand of the operator, and means operable by the hand of the operator when grasping said handle for regulating said oxygen blast.

4. In an apparatus of the kind described, the combination of a supporting frame, an electrode mounted thereon, means also mounted thereon for supplying an oxygen blast adjacent the point of said electrode, a lever pivoted to the frame and rollers mounted on the lever for supporting the electrode above the material being operated upon.

5. In an apparatus of the kind described, the combination of a supporting frame, an electrode mounted thereon, means also mounted thereon for supplying an oxygen blast adjacent the point of said electrode and an adjustable support adapted to contact with the material being

operated upon and under the control of the operator, for regulating the elevation of the frame above said material.

[Claims 6 to 8 not printed in the Gazette.]

1,137,835. BRIQUET FOR USE IN ZINC-FURNACES. GEORGE S. BROOKS, Depue, Ill., assignor to The New Jersey Zinc Company, New York, N. Y., a Corporation of New Jersey. Filed Nov. 28, 1913. Serial No. 803,432. (Cl. 75—65.)

1. A briquet for zinc furnaces, composed of zinc ore and coal surrounded by and inclosed within a protecting shell or coating containing a large percentage of common salt; substantially as described.

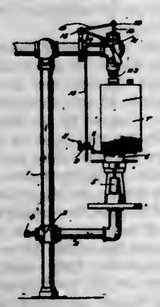
2. A briquet for zinc furnaces, composed of zinc ore and coal of the usual grades of fineness, and an additional quantity of more finely powdered material, such as ore, coal or zinc oxid, all inclosed within a protecting shell or coating containing a large percentage of common salt; substantially as described.

3. A briquet for zinc furnaces, composed of approximately four parts of ore of the usual grade of fineness, one part of more finely powdered material such as ore, coal or commercial zinc oxid and from one to one and one-half parts of coal of the usual grade of fineness, said ingredients being inclosed within a protecting shell or coating containing a large percentage of common salt; substantially as described.

4. The herein-described method of producing briquets for zinc furnaces, consisting in forming a plastic mixture composed of ore and coal of the usual grades of fineness, an additional quantity of more finely powdered material, such as ore, coal or commercial zinc oxid, and a sufficient quantity of salt solution to form a plastic mixture of the several ingredients, mixing said ingredients together to form such plastic mixture, forming a briquet of such mixture under pressure, and then slowly drying the briquet to bring its salt content toward its surface and cause it to form a protecting shell or coating inclosing the briquet, substantially as described.

5. The herein-described method of producing briquets for zinc furnaces, consisting in forming a plastic mixture composed of ore and coal of the usual grades of fineness, an additional quantity of more finely powdered material, such as ore, coal or commercial zinc oxid, and a sufficient quantity of salt solution to form a plastic mixture of said ingredients, mixing said ingredients together to form such plastic mixture, molding and pressing such mixture into the form of a briquet approximately conforming in cross section to the interior of the retort in which the briquet is to be used, and then slowly drying the briquet to bring its salt content to its surface and causing it to form a protecting shell or coating inclosing the briquet; substantially as described.

1,137,836. WEIGHER. CHARLES BUCHHOLZ, Cleveland, Ohio. Filed Feb. 17, 1912. Serial No. 678,311. (Cl. 73—181.)



1. The combination of a balance, a faucet, a lever for controlling the valve of said faucet, a weight arm in the path of said lever and interposed connections between the balance and lever whereby the weight of the liquid will actuate said lever to withdraw it from said weight arm to permit the valve to close owing to its weight and the pressure of the liquid and cut off the flow of liquid.

2. The combination of a balance, a faucet, a lever controlling the valve of said faucet, said lever being controlled by the weight of the liquid, a weighted arm having its free end arranged in the path of said lever, and a valve controlled by the movement of the weighted arm.

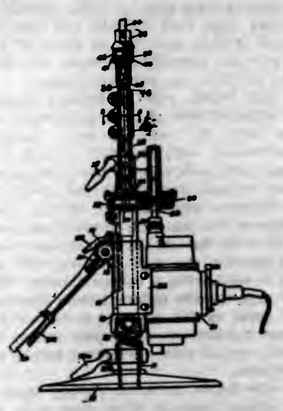
3. The combination of a balance, a faucet, a lever controlling the valve of said faucet, said lever being controlled by the weight of the liquid, a weighted arm having its free end arranged in the path of said lever, and a rod for controlling the valve of said faucet controlled by the movement of said weighted arm.

4. The combination of a balance, a faucet, a lever, a rod connected therewith and controlled by the movement of the balance, a pivotally mounted rod, an arm having one end fixedly secured thereto and the other end connected with the valve stem of the faucet, and an arm mounted on said pivotally mounted rod and extending into the path of said lever.

5. The combination of a balance, a faucet, a lever, a rod connected therewith and controlled by the movement of the balance, a pivotally mounted rod, an arm having one end fixedly secured thereto and the other end connected with the valve stem of the faucet, and an arm mounted on said pivotally mounted rod and extending into the path of said lever, the arm connected with the stem of the valve having an elongated slot in which said arm is loosely received.

[Claims 6 and 7 not printed in the Gazette.]

1,137,837. CEILING-DRILLING MACHINE. HJALMAR G. CARLSON, Worcester, Mass., assignor to Rockwood Sprinkler Company of Massachusetts, a Corporation of Massachusetts. Filed Nov. 16, 1914. Serial No. 872,332. (Cl. 77—6.)



1. In a tool of the character described, the combination of a frame, a shaft supported by said frame and extending upwardly therefrom, a telescoping casing movable with said frame and having means for carrying a tool head at the top, means for transmitting power to said shaft in all positions of the shaft, means in the casing for transmiting power to the tool head from the shaft in all positions of the casing, and means on the frame for raising and lowering the shaft.

2. In a tool of the character described, the combination of a base adapted to rest on the floor, a frame mounted on said base, a motor on the frame, a shaft supported by said frame and extending upwardly therefrom, a telescoping casing movable with said frame and having means for carrying a tool head at the top, means for transmitting power from the motor to said shaft in all positions of the shaft, means in the casing for transmitting power to the tool head from the shaft in all positions of the casing, and means on the frame for raising and lowering the shaft.

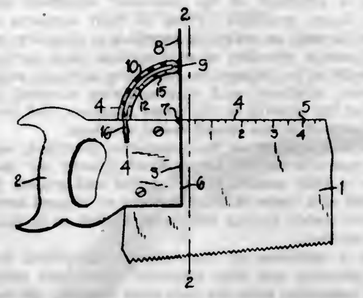
3. In a machine of the character described, the combination of a frame, a motor carried by the frame, a vertical shaft extending from the top of the motor, a slide carried by said frame and vertically movable therein, means on the frame for moving the slide up and down, a gear casing carried by said slide and movable therewith, two gears in said casing meshing with each other, one of them turning with the motor shaft in all positions of the frame, and a tool shaft extending upwardly from said slide and fixed to the other gear to receive power therefrom.

4. In a machine of the character described, the combination of a frame, a motor carried thereby and having a vertical shaft at the top, a vertically movable slide carried by the frame, means for raising and lowering said slide by hand, a pair of gears carried by said slide, one being connected with said motor shaft in all positions of the slide, a shaft connected with the other gear to transmit power therefrom and extending vertically from the top of the slide, a tool head mounted above the top of said shaft, and adjustable means for connecting said tool head and shaft to cause the tool head to be turned by the shaft.

5. In a machine of the character described, the combination of a frame, a motor carried thereby, a slide vertically movable on the frame, a square shaft extending upwardly from the top of said slide, means carried by said slide for connecting the motor shaft with said square shaft in all positions of the slide, a hollow cylindrical casing extending upwardly from the top of said slide and fixed thereto, a hollow cylindrical casing carried inside the first named casing and telescoping therewith, means for securing said casings in adjusted positions, a hollow square shaft inside the hollow cylindrical casings for receiving the first named square shaft and transmitting power therefrom, and a tool head at the top having a square shaft entering said hollow shaft and receiving power therefrom.

[Claims 6 to 9 not printed in the Gazette.]

1,137,838. SAW. ARTIE L. CLINE, Springdale, Ark. Filed Apr. 29, 1914. Serial No. 835,235. (Cl. 33—93.)



A measuring instrument comprising a blade and a handle, said handle being provided with a kerf to receive an extremity of the blade, the back edge of the blade and the inner edge of the handle being perpendicularly related, an arm pivotally engaged with the forward portion of the handle at a point substantially flush with the back edge of the blade, a segmental member pivotally secured to the arm and projecting within the kerf of the handle, said segmental member being provided with an arcuate slot, a clamping member rotatably supported by the handle and projecting through the slot of the segmental member and in swivel engagement with said segmental member, the inner extremity of said clamping member being threaded, said handle being provided with a recess in communication with the kerf thereof into which the threaded extremity of the clamping member projects, and a bur positioned within the recess of the handle in threaded engagement with the clamping member, the walls of the recess and the bur coacting to maintain said bur against axial rotation.

1,137,839. HAT-FASTENER. ALFRED CONNOR, Camperdown, near Sydney, New South Wales, Australia. Filed Apr. 3, 1913. Serial No. 758,638. (Cl. 132—25.)



1. A hat fastener comprising a headed pin having a spiral adjacent its head, a retaining cylinder adapted to be attached to the outer wall of the hat to receive and partially house said hat pin spiral, and a closely coiled gripping spiral, a covering dome adapted to be arranged on the inner side of said hat and inclosing said gripping spiral, the end of said spiral being adapted to extend through the hat and transversely said retaining cylinder, said transversely extending end of said spiral being adapted to engage the spiral of said headed pin and retain the pin within the cylinder.

2. A hat fastener comprising a headed pin having a spiral adjacent its head, a retaining cylinder adapted to be attached to the outer wall of the hat to receive and partially house said hat pin spiral, a closely coiled gripping spiral adapted to be arranged on the inner side of said hat, one end of said spiral being adapted to extend through the hat and transversely of said retaining cylinder, said transversely extending end of said spiral being adapted to engage the spiral of said headed pin and retain the pin within the cylinder.

3. A hat fastener comprising a headed pin having a locking spiral adjacent its head, a receiving and retaining cylinder for said locking spiral, a gripping spiral passing through the wall of the hat and adapted to secure said cylinder upon the outside of the hat, said cylinder having an internal transverse bar adapted to engage said locking spiral and a covering dome adapted to be fastened upon the inside of the hat by engaging with said gripping spiral.

4. A hat fastener comprising a headed pin having a locking spiral adjacent its head, a gripping spiral, a receiving and retaining cylinder for said first named spiral adapted to be fastened to the outside of the hat and having an internal transverse bar adapted to engage said locking spiral, and a covering dome adapted to be secured to the inside of said hat by said gripping spiral.

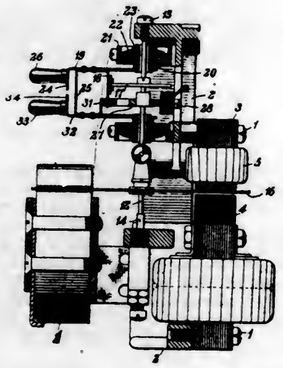
1,137,840. OVERLOAD AND REVERSE CURRENT RELAY. FRANK CONRAD, Swissvale, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed May 22, 1909. Serial No. 497,799. (Cl. 175—270.)

1. A relay instrument comprising a magnet, a disk having a spiral contour and mounted for rotative movement to present an increasing area adjacent a polar face of the magnet as it moves from its initial position, and an opposing spring the torque of which varies at substantially the same rate as the electromagnetic torque which it opposes.

2. A relay instrument comprising a magnet, a disk having a spiral contour and mounted for rotative movement to present a portion of increasing radius adjacent a polar face of the magnet as it moves from its initial position, and means for restraining the disk and holding it in its initial position until a predetermined opposing value of magnetzing current is reached, and then further progressively increasing the restraining force on the disk in proportion to the increase in the opposing torque caused by the rotation of the spiral disk.

3. A relay instrument comprising a magnet, a disk

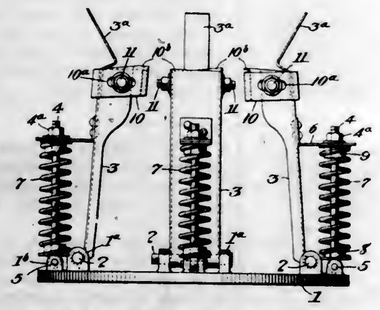
having a spiral contour and mounted for rotative movement to present an increasing area adjacent a polar face of the magnet as it is rotated from a predetermined position, and means for restraining the disk producing a restraining force increasing progressively in proportion to the increase in torque caused by the progressive increase of the effective area of the disk.



4. A relay instrument comprising a magnet, a disk having a spiral contour and mounted for rotative movement to present an increasing area adjacent a polar face of the magnet as it is rotated from a predetermined position, and a resilient means for exerting an opposing torque that varies as the electromagnetic torque exerted upon the disk varies.

5. A relay instrument comprising a magnet, a disk having a spiral contour and mounted for rotative movement, and a resilient means for opposing movement of the disk, the disk radii being of such progressively greater lengths that the electro-magnetic torque exerted upon the disk will increase at substantially the same rate as that exerted by the said resilient opposing means.

1,137,841. PINEAPPLE-PEELER. CHARLES WILLIAM COOKSON, Wahiawa, Hawaii. Filed Feb. 15, 1913. Serial No. 748,554. (Cl. 146—8.)



1. A machine for peeling fruit such as pineapples, comprising a frame, a plurality of knife-supports pivotally connected thereto at their lower ends and extending upwardly from their pivotal connections, knives carried by the upper ends of said supports, means associated with said supports and rigidly attached thereto and extending above the knives adapted to be engaged by the fruit to swing said supports and thereby cause the knives to follow the contour of the fruit, and means to yieldingly resist outward swinging movement of the supports.

2. A machine for peeling fruit such as pineapples, comprising a frame, a plurality of knife-supports pivotally connected thereto at their lower ends and extending upwardly from their pivotal connections, knives carried by the upper ends of said supports, means associated with said supports and extending above the knives adapted to be engaged by the fruit to swing said supports and thereby cause the knives to follow the contour of the fruit, laterally projecting elements associated with said supports, and springs interposed between said elements and said frame.

3. A machine for peeling fruit such as pineapples, comprising a frame, a plurality of knife-supports pivotally connected thereto at their lower ends and extending upwardly from their pivotal connections, knives carried by the upper ends of said supports, means associated with said supports and extending above the knives adapted to be engaged by the fruit to swing said supports and thereby cause the knives to follow the contour of the fruit, laterally projecting elements associated with said supports, bolts pivoted to the frame and extending upwardly through said laterally projecting elements, said bolts provided with shoulders above said elements to limit the inward movement of said supports, and springs interposed between said laterally projecting elements and the frame to yieldingly resist outward swinging movement of said supports.

1,137,842. SILO. FREDERICK WERT CRAM, Mount Vernon, Wash. Filed May 11, 1914. Serial No. 837,853. (Cl. 217—4.)



1. In a structure of the character decribed, a frame member having a groove therein and an inclined seat in the groove, and a wall section projecting into the groove of the frame member and engaging in the seat thereof, for the purposes specified.

2. In a structure of the character described, a frame member having a groove whose walls flare outwardly, an inclined seat formed in the groove of the frame member, and a wall section having its sides beveled to project into the groove of the frame member and engage in the seat of the latter, as specified.

3. In a structure of the character described, spaced upright frame members having in their opposing faces grooves in each of which is provided a plurality of inclined seats, a plurality of wall sections each having its ends inclined to engage the opposing inclined seats of the frame members, said sections being adapted to be guided in the grooves of the frame members, and binding means connecting the spaced frame members.

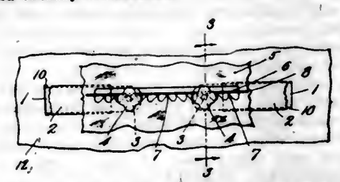
4. In a structure of the character described, spaced frame members having longitudinal grooves for the reception of filler boards, the bottom of said grooves being composed of a series of short inclined or stepped sections, and filler boards having their ends shaped to fit said inclined sections.

5. In a structure of the character described, spaced frame members and filler members, said frame members having individual seats for each filler member, the bottom surfaces of said seats and the end edges of the filler members being inclined relative to the frame member.

[Claims 6 and 7 not printed in the Gazette.]

1,137,843. HAT-SECURING DEVICE. OLE M. DAHL, Boston, Mass. Filed June 5, 1914. Serial No. 843,281. (Cl. 132—25.)

1. As a new article of manufacture, a hat securing device comprising a head engaging band provided at each end with a post, a locking member for said band ends provided with a slot for said posts, post engaging means on one edge of the slot, post retaining means on the locking member whereby the posts may be locked in position on the locking member at will, and the effective length of the band thereby determined.



2. The combination of an article of headwear with an expansible head encircling and engaging band substantially all within the article of headwear, the ends only of the band extended through relatively adjacent apertures in the article of headwear, and means entirely without said article and engaging the band ends for adjusting the circumferential dimension of the head engaging band.

1,137,844. PROCESS FOR THE PREPARATION OF A CONCENTRATED ANIMAL-DIP. ROBERT M. CHAPIN, Washington, D. C. Filed May 28, 1914. Serial No. 841,558. (Dedicated to the public.) (Cl. 167—6.)

1. The process for preparing a concentrated animal dip from arsenious oxid, consisting in preparing a strong water solution of caustic alkali, then adding thereto finely powdered arsenious oxid, and simultaneously blending the mixture by stirring, and maintaining the said mixture at a temperature approximately the boiling point without the application of external heat by stirring the composition simultaneously with the addition of the arsenious oxid, dissolving in the resultant solution sodium carbonate, then permitting the dilution of the said solution, and adding thereto pine-tar rendered miscible with water by previous blending, substantially as specified.

2. The process for preparing a concentrated arsenical animal dip consisting in dissolving 4 pounds of caustic soda in one gallon of water, dissolving in said solution 10 pounds of arsenious oxid by aid of heat generated by chemical reaction, then adding to said composition 10 pounds of crystallized sodium carbonate and sufficient water to make the cooled solution amount to a total volume of 5 gallons, permitting the dilution of said solution to an appropriate degree, and then adding thereto a blended mixture of approximately ½ pound of caustic soda, one quart of water, and one gallon of pine-tar substantially as specified.

1,137,845. SPRING. ARZENO J. DILLEY, Grand Rapids, Mich., assignor of one-half to Fred W. Green, Ionia, Mich. Filed Mar. 3, 1913. Serial No. 751,753. (Cl. 21—103.)

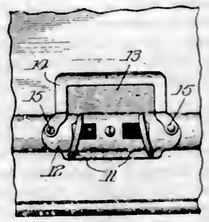


1. Springs for vehicles comprising one or more leaves of varying lengths superimposed and held together, the protruding ends only of said leaves having each a duct stamped therein, the outer end of each of said ducts open at the end of the leaf to receive lubricant without the necessity of separating the leaves.

2. A spring comprising a plurality of leaves having depressions stamped in the ends thereof to produce pockets for a lubricant, said pockets opening at the ends of the leaves for forming a passage for the introduction of a lubricant.

3. A spring comprising a plurality of leaves having a main and radial grooves or corrugations stamped on the under side thereof, and at the ends, said main groove opening at the end of the leaf, and the radial grooves leading from the main groove to the edges of the leaf.

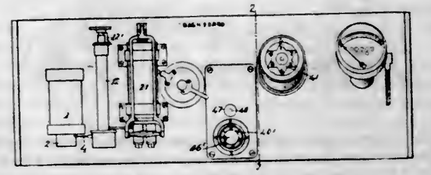
1,137,846. TICKET-HOLDER. IRA SHANNON DOWNING, Cleveland, Ohio, assignor to The Curtain Supply Company, Chicago, Ill., a Corporation of New Jersey. Filed Sept. 21, 1912. Serial No. 721,706. (Cl. 40—11.)



1. A new article of manufacture, an escutcheon plate for railway car curtains, said plate being bowed transversely and provided with an integral upstanding extension rising from the upper edge of the curved bowed portion throughout the length thereof, said extension constituting the back of a ticket holder, and an inverted substantially U-shaped spring clip having its upper portion lying in front of and in close proximity to the extension, the lower portions of the legs of the clip being shaped to conform to the convex face of the escutcheon plate and secured thereto.

2. As a new article of manufacture, an escutcheon plate provided with means for attachment to an object, said plate being further provided with an upstanding extension rising from its upper edge throughout the length thereof, and an inverted substantially U-shaped spring web having its upper portion lying in front of and in close proximity to the extension, the lower portion of the legs of the web being arranged to conform to and being secured to the face of the escutcheon plate.

1,137,847. APPARATUS FOR STARTING INTERNAL-COMBUSTION ENGINES. WILLIAM E. EASTMAN, Boston, Mass. Filed May 11, 1912, Serial No. 696,647. Renewed Feb. 27, 1915. Serial No. 11,047. (Cl. 123—180.)



1. A source of liquid explosive; a mixing apparatus; a pump; two or more cylinders of an internal combustion engine; a feed pipe; a duct for each cylinder connecting said pipe with the combustion chamber of said cylinder; a valve mounted in said duct to open and close said duct; means whereby said valves may be operated simultaneously or selectively; means to indicate the positions of the cranks of the engine shaft; means to indicate when the valve or valves have been moved in to operative position; a valve to open or close the free end of the pipe; and means to operate said valve; all being designed to be operated from the seat occupied by the operator.

2. A source of liquid explosive; a mixing apparatus; a pump; two or more cylinders of an internal combustion engine; a feed pipe, a duct for each cylinder connecting said pipe with the combustion chamber of said cylinder; a valve mounted in said duct to open and close said duct; means whereby said valves may be operated simultaneously or selectively; means to indicate the positions of the cranks of the engine shaft; means to indicate when the valve or valves have been moved into operative position; all being designed to be operated from the seat occupied by the operator.

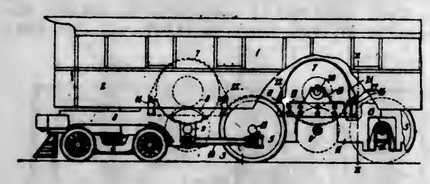
3. Two or more cylinders of an internal combustion engine; a feed pipe; a duct for each cylinder, connecting said pipe with the combustion chamber of its cylinder; a valve mounted in said duct to open and close said duct; means whereby said valves may be operated simultaneously or selectively; means to indicate the positions of the cranks of the engine shaft; means to indicate when the valve or valves have been moved into operative position; all being designed to be operated from the seat occupied by the operator.

4. A pump; two or more cylinders of an internal combustion engine; a feed pipe, a duct for each cylinder connecting said pipe with the combustion chamber of said cylinder; a valve mounted in said duct to open and close said duct; means whereby said valves may be operated simultaneously or selectively; means to indicate the positions of the cranks of the engine shaft; means to indicate when the valve or valves have been moved into operative position; a valve to open or close the free end of the pipe; and means to operate said valve; all being designed to be operated from the seat occupied by the operator.

5. The combination with the engine cylinders of an internal combustion engine, of a series of attachments therefor, each of which is provided internally with a duct; a chamber therein; a valve in said chamber, to open and close said duct; means for the transmission of a liquid or gas to said cylinder attachments; a rock shaft provided with means for simultaneously or selectively operating said valves; and means connected with said rock shaft, to indicate what if any valve is open or closed; all designed to be operated from the seat occupied by the operator.

[Claims 6 to 9 not printed in the Gazette.]

1,137,848. ELECTRIC LOCOMOTIVE. GEORGE M. EATON, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Aug. 11, 1913. Serial No. 784,050. (Cl. 105—259.)



1. A locomotive structure comprising side frames and a plurality of integral divided cross ties secured between the side frames and adapted to support the driving motors.

2. In a locomotive structure, the combination with a plurality of longitudinal side frames, of a substantially rectangular hollow casting having side and end members disposed between and cross-bracing said frames, and a driving motor having an armature supported upon said side members and a frame supported directly upon said end members.

3. In a locomotive structure, the combination with longitudinal side frames, of an integral member having spaced cross ties and side bearing pedestals rigidly secured between said side frame, and a driving motor having an armature supported upon said pedestals and a frame supported directly upon said cross ties.

4. In a locomotive structure, the combination with longitudinal side frames, of a rectangular bedplate disposed between said frames and attached thereto and having side-bearing pedestals, a motor armature supported upon said pedestals and a motor frame supported upon the cross members of said bedplates.

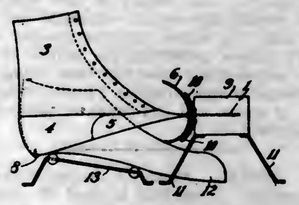
5. In a locomotive structure, the combination with longitudinal side frames, and a plurality of independent rectangular members secured between said side frames and having integral cross portions and side-bearing pedestals overhanging said side frames, of motor armatures and frames independently mounted upon said pedestals and cross portions of said rectangular members.

1,137,849. BILGE-PUMP. WALTER A. EDWARDS, Dayton, Ky. Filed Feb. 20, 1913. Serial No. 749,591. (Cl. 103—43.)



A bilge pump comprising a horizontal casing having discharge openings in its top and a central admission port in its bottom, a horizontally disposed impeller located within the casing and having substantially radially extending blades provided with downwardly and rearwardly inclined forward faces, a vertical shaft connected to the impeller and extending through the top of the casing, and discharge pipes secured to the casing at the discharge openings.

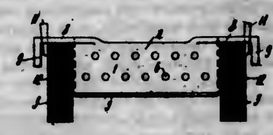
1,137,850. METHOD OF MAKING AND INCORPORATING STIFFENING-PIECES IN THE FOREPART OF BOOTS AND SHOES. RICHARD P. ELLIOTT, Boston, Mass. Filed Dec. 12, 1914. Serial No. 876,762. (Cl. 12—145.)



1. The method of making stiffened foreparts of boot and shoe uppers, which consists in incorporating in the boot or shoe upper before lasting, a dry stiffening piece composed of a fibrous material containing a stiffening composition or material adapted to be softened by a degree of heat which might be injurious to the boot or shoe upper and lining; heating the stiffening piece to soften it and protecting the upper and lining from the heat; thereafter molding the stiffening piece to the form of the toe portion of the last while it is soft, by the operations of pulling over and lasting and allowing the stiffening piece to cool and permanently retain its molded form.

2. The method of making stiffened box-toes of boot and shoe uppers, which consists of making a stiffening piece composed of fibrous material containing a stiffening composition or material adapted to be softened by heat of a degree which might be injurious to the upper and lining; fastening the stiffening piece to the upper; turning back the upper from the stiffening piece to protect it from the heat; heating the stiffening piece by a comparatively dry heat to render it soft and yielding; thereafter molding the stiffening piece to the form of the toe portion of the last while it is soft by the operation of pulling over the upper and allowing the stiffening piece to cool and permanently retain its molded form.

1,137,851. REMOVABLE MOLDING-FLASK BAR. DAVID M. FAHNESTOCK, Pittsburgh, Pa. Filed Nov. 7, 1913. Serial No. 799,680. (Cl. 22—111.)



1. A metallic flask bar or plate for a molding flask, having a body adapted to project into the flask and having at the upper edges of it ends portions adapted to project over and beyond the side edges of the flask, and means acting between said projecting portions and the sides of the flask for securing the bar to the flask.

2. A metallic flask bar or plate for a molding flask, having a body portion adapted to project into the flask and having at its upper edge at both ends a portion extending over the side of the flask and provided with an opening therethrough, and wedges adapted to be driven through said openings and bear against the outer side faces of the flask.

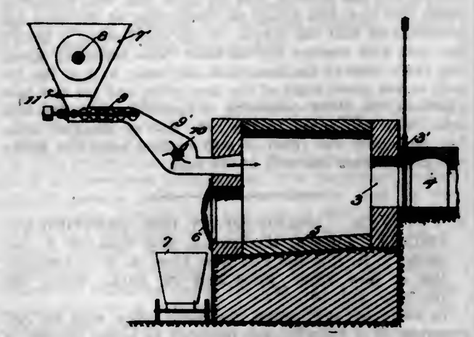
3. A metallic flask bar or plate for a molding flask, having a body portion arranged to project into the flask and having at its upper edge at an end a portion extending over the side of the flask and provided with an opening therethrough, and a wedge adapted to be driven through said opening and bear against the outer side face of the flask, the end edges of the body of said bar adjacent said extending portion being provided with propections adapted to engage the inner face of the flask.

4. A metallic flask bar or plate for a molding flask provided with a body adapted to project into the flask and having at both ends at its upper edge a portion projecting over the top edge of the flask and downwardly outside the same, the ends of said body being provided with teeth or projections and securing means engaging the overhanging edge portions of the bar and the flask walls and arranged to force the latter inwardly against said teeth.

5. A metallic flask bar or plate for a molding flask comprising a body adapted to project into the flask and provided with anchoring means, said body having at its ends portions extending beyond the side edges of the flask, said projecting portions being cut away to admit of the insertion of securing means for securing the bar to the flask.

[Claims 6 to 8 not printed in the Gazette.]

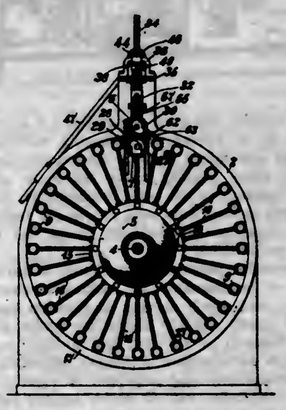
1,137,852. APPARATUS FOR MAKING WOOD-CHARCOAL. LOUIS FÉLIZAT, Bouches-du-Rhône, France, assignor to La Société Huilerie et Savonnerie de Lurian, Salon, Bouches-du-Rhône, France. Original application filed Feb. 25, 1910, Serial No. 545,897. Divided and this application filed July 21, 1913. Serial No. 780,335. (Cl. 202—10.)



1. In a furnace for making charcoal from residues of ligneous materials, the combination of a carbonising chamber, an inlet conduit opening into said chamber above the charcoal level, said conduit containing a receiving hopper and means for showering said ligneous material into said carbonising chamber, a discharge opening located substantially opposite the inlet conduit for permitting the escape of burning gases, and an opening in the lower part of said chamber for removing the charcoal.

2. A furnace for making charcoal from residues of ligneous materials comprising a carbonizing chamber having a charging inlet above the charcoal level and a discharge opening substantially opposite said inlet, and means for showering the ligneous materials through said inlet into the zone of partial combustion in the upper part of the chamber and onto the furnace hearth.

1,137,853. INSULATING-TUBE MACHINE. CHARLES LE G. FORTESCUE, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Aug. 7, 1911. Serial No. 642,875. (Cl. 93—81.)



1. A tube machine comprising a plurality of guide rolls disposed in the form of a hollow cylinder, a pair of cooperating pressure rolls having their engaging surfaces in the periphery of the cylinder to which the outermost lines of said guide rolls belong, and means for radially and concurrently adjusting the positions of the guide rolls and one of the pressure rolls.

2. A tube machine comprising a plurality of guide rolls disposed in the form of a hollow cylinder, a pair of coöperating pressure rolls having their axes in a radial plane and their engaging surfaces in the periphery of the cylinder to which the outermost lines of said guide rolls belong, and radially adjustable means for supporting the ends of the guide rolls and one of the pressure rolls.

3. A tube machine comprising a plurality of guide rolls disposed in the form of a hollow cylinder, a pair of coöperating pressure rolls having their engaging surfaces in the periphery of the cylinder to which the outermost lines of said guide rolls belong, means for oppositely driving the pressure rolls, and means for radially and concurrently adjusting the positions of the guide rolls and one of the pressure rolls.

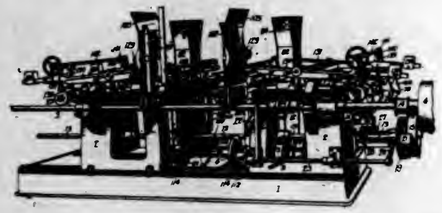
4. A tube machine comprising a plurality of guide rolls disposed in the form of a hollow cylinder, a pair of cooperating pressure rolls having their engaging surfaces in the periphery of the cylinder to which the outermost lines of said guide rolls belong, means for radially and concurrently adjusting one of the pressure rolls and the guide rolls, and independent means for adjusting the position of the other pressure roll.

5. A tube machine comprising a base and a stationary bracket or pedestal secured thereto, a substantially horizontally adjusting shaft rotatably supported by the pedestal, a stationary quill or sleeve surrounding the shaft

and secured to the pedestal, a plurality of radial screws rotatably supported in a plane substantially perpendicular to the center of the shaft, a second set of adjusting screws similarly supported in a parallel plane, interposed gearing between the screws and the adjusting shaft, and a plurality of rolls so supported by the radial screws that an adjustment of the shaft effects concurrent adjustment of the rolls.

[Claims 6 to 13 not printed in the Gazette.]

1,137,854. DOWELING-MACHINE. JOHN R. FRANTZ, Oshkosh, Wis., assignor to E. B. Hayes Machine Company, Oshkosh, Wis., a Corperation of Wisconsin. Filed Aug. 10, 1911. Serial No. 643,428. (Cl. 144—1.)



1. A doweling machine comprising, a horizontal track for rails to be operated on, boring mechanism, gluing mechanism and dowel driving mechanism operating in a horizontal plane slightly above the plane of said track which is common to all such mechanisms, means for operating said mechanisms, and means for feeding the rails one at a time and successively along the track to the different mechanisms.

2. A doweling machine comprising, a horizontal track for rails to be operated on, boring mechanism, gluing mechanism and dowel driving mechanism operating in a horizontal plane slightly above the plane of said track which is common to all such mechanisms, a hopper arranged in advance of said mechanisms and arranged to receive a supply of rails, the lowermost one of which always rests upon the track, and means for feeding the rails one at a time and successively along the track to the different mechanisms.

3. A doweling machine comprising boring mechanism, gluing mechanism, dowel driving mechanism, a hopper arranged in advance of said mechanisms for receiving a supply of the rails, a series of feed dogs for feeding the rails one at a time and successively from the hopper to said mechanisms respectively.

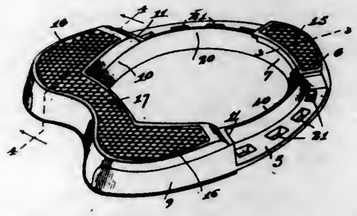
4. A doweling machine comprising, as a unitary structure, boring mechanism, gluing mechanism, dowel driving mechanism, means arranged in advance of said mechanisms for feeding the stock successively from one of the mechanisms to the other, and means for operating said mechanisms.

5. A doweling machine comprising, as a unitary structure, boring mechanism, gluing mechanism, dowel driving mechanism, all arranged in the same horizontal plane, a track common to said mechanisms, a hopper for the rails at one end of the track, and means for feeding the rails one at a time from the hopper and along the track to said different mechanisms successively.

[Claims 6 to 32 not printed in the Gazette.]

1,137,855. CUSHION-TREAD HORSESHOE. ROBERT E. FRUIN and THOMAS TOBIN, Chicago, Ill. Filed Feb. 15, 1913. Serial No. 748,535. (Cl. 168—14.)

1. A cushion-tread horse shoe, comprising a base-plate having inwardly curved heel portions of increasing width toward their rear edges and rounded at the latter, a toe calk, a pair of hollow heel calks, each having an inner end wall, an outer side wall extending along the outer edge of the heel portion to and slightly beyond the outer side of said rounded rear end, and an inner side wall approximately half the length of the outer side wall extending from said end wall along the inner edge of the heel portion to the inner side of said rounded rear end, intermediate calks between and continuous with the inner walls of said toe and heel calks, said intermediate calks and inner walls of the toe and heel calks springing from the inner edge of the base-plate and having their inner sides flared outwardly from the hoof to the tread side of the shoe, and a heel cushion comprising cushion pads filling said heel calks and a cross-bar integral and flush with said cushion pads and connecting the latter through the spaces between the rear ends of said side walls.



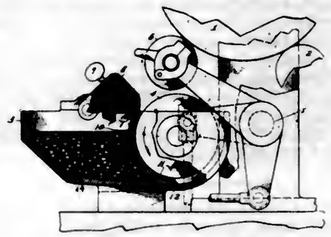
2. A cushion-tread horse shoe, comprising a base-plate having inwardly curved and apertured heel portions, a pair of hollow heel calks each having an outer and inner side wall and an inner end wall and open on their adjacent sides across the inner rear ends of said heel portions of the base-plate, a heel cushion comprising cushion pads filling said heel calks and extending through the apertures in the bottoms thereof and a cross-bar integral and flush with said cushion pads and connecting the latter through the open adjacent sides of said heel calks, and a fabric covering on the hoof side of the rear portion of said base-plate substantially coextensive with said heel cushion.

3. A cushion-tread horse-shoe, comprising a base-plate having a pair of hollow heel-calks open on their inner opposed sides, a heel cushion comprising cushion pads filling said heel-calks and overlapping the edges of the side walls thereof and a cross-bar integral and flush with the side and tread surfaces of said cushion pads and connecting the latter through the open sides of said heel-calks, a hollow toe-calk formed with outer, inner and side walls, a cushion pad filling said toe-calk and overlapping the edges of the walls thereof flush with the outer sides of said walls, and intermediate transversely beveled sharp-edged calks springing from the inner edge of said base-plate and connecting and continuous with the inner walls of said toe and heel-calks.

4. A cushion-tread horse shoe comprising an ovate apertured base-plate having curved widened heel portions spaced apart; a pair of hollow heel calks each having an inner end wall, an outer side wall extending from said end wall along the outer edge of the base to approximately the end thereof, and an inner side wall extending from said end wall along the inner edge of the base approximately half the length of the outer wall, a hollow toe calk and tapered intermediate calks extending along the inner edge of the base from the inner wall of the toe calk to the inner walls of the heel calks, and toe and heel cushions, the latter consisting of cushion pads filling said heel calks and keyed to the base and an integral cross bar flush with the tread of said cushion pads and filling the gap between the ends of the base.

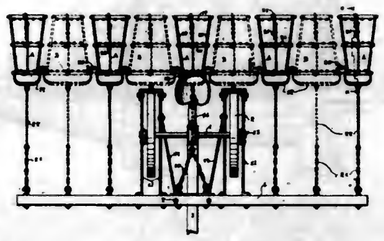
1,137,856. INK-FOUNTAIN FOR PRINTING-MACHINES. JOHN J. HALLIWELL, New York, N. Y., assignor to R. Hoe and Co., New York, N. Y., a Corporation of New York. Filed July 29, 1913. Serial No. 781,728. (Cl. 101—74.)

In an inking mechanism, the combination with an ink-fountain, of a fountain roll mounted to rotate therein, a partition located in the fountain adjacent the roll and having a feeding opening near its lower portion, and a ridge or lip in the fountain on the other side of the feeding opening the surface of said lip being adjacent the roll,



whereby the roll is kept out of contact with the ink except through the feeding opening.

1,137,857. SECTION-HARROW. HARRY W. HARLIN, Hermleigh, Tex. Filed June 10, 1914. Serial No. 844,125. (Cl. 55—89.)



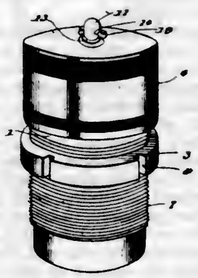
1. In a device of the character described, the combination with a pair of wheels, an axle, and a tongue, having the usual relation, of a cross bar mounted upon the tongue projecting laterally beyond the wheels, a pair of U-shaped frames, each having its extremity secured to the said cross bar, and each extending rearwardly beneath the axle and having connection therewith, one of the transporting wheels being mounted between the rearwardly extending portions of each of said frames, a harrow section pivotally connected with the rear end of each frame, and means establishing a flexible connection between the harrow sections.

2. In a device of the character described, the combination with a pair of transporting wheels, an axle, and a tongue, having the usual relation, a cross bar rigidly mounted upon the tongue in front of the axle and projecting laterally at each end beyond the transporting wheels, a U-shaped frame disposed at each side of the implement, its forward extremity being secured to said cross bar, and being inclined rearwardly at each side of the adjacent transporting wheel, and having connection with the axle, a yoke member secured at its center to the rear extremity of the U-shaped frame, and a harrow section having its forward end pivotally mounted between the extremities of each yoke member.

1,137,858. GREASE-CUP. MICHAEL LOUIS HENRY and MICHAEL HENRY, Terre Haute, Ind. Filed June 5, 1914. Serial No. 843,243. (Cl. 184—45.)

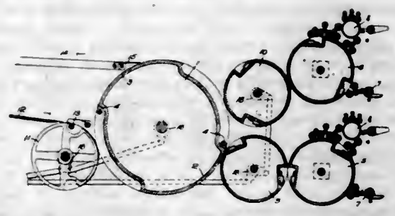
1. The combination of a cup, a detachable cap therefor, one of said members being formed with oppositely located bayonet grooves having extension notches, lugs on the other member movable into and out of said grooves and notches by a combined axial and sliding movement, an expressing plunger in said cup, a plunger stem slidable through said cap, a spring arranged to press said plunger toward the discharge end of the cup, and a bowed spring interposed between said cup and cap and pierced by said plunger stem serving to retain the cap on the cup.

2. The combination of a cup formed near the receiving end thereof with oppositely located bayonet grooves, a detachable cap fitting around the upper portion of said cup, lugs on the inside of said cup and movable into and out of said grooves by a combined axial and sliding movement, an expressing plunger in said cup, a plunger stem slidable through said cap, a spring arranged to press said plunger toward the discharge end of the cup, and a bowed spring interposed between said cup and cap serving to retain the cap on the cup, said bowed spring forming a seat for the plunger spring.



3. The combination of a cup formed near the receiving end thereof with oppositely located bayonet grooves having extension notches along the upper sides thereof, a detachable cap fitting around the upper portion of said cup, lugs on the inside of said cap and movable into and out of said grooves by a combined axial and sliding movement also adapted to seat in said notches, an expressing plunger in said cup, a spring arranged to press said plunger toward the discharge end of the cup, and a bowed spring interposed between said cup and cap serving to retain the cap on the cup, said bowed spring forming a seat for the plunger spring.

1,137,859. ROTARY PRINTING-PRESS. WILLIS K. HODGMAN, Taunton, Mass., assignor to The Huber-Hodgman Printing Press Company, Taunton, Mass., a Corporation of Massachusetts. Filed Apr. 24, 1913. Serial No. 763,214. (Cl. 101—89.)



1. A rotary printing press comprising in combination, an impression cylinder provided with a plurality of impression surfaces; a coöperating feeding cylinder at the rear of the press and contacting with the lower portion of said impression cylinder, said parts being constructed and arranged to effect the feeding of a sheet to each impression surface during a single revolution of the impression cylinder, said feeding cylinder having a single set of grippers for all the sheets; a coöperating delivery mechanism at the rear of the press to receive sheets printed-side-up from the top of said impression cylinder; and one or more offset or printing cylinders each provided with a printing surface arranged to coöperate with the said impression cylinder and each said surface thereof in turn to register with every impression surface of said impression cylinder during each revolution of said impression cylinder.

2. A rotary printing press comprising in combination, an impression cylinder provided with a plurality of impression surfaces: a coöperating feeding cylinder at one side of the press, said parts being constructed and ar-

ranged to effect the feeding of a sheet to each impression surface during a single revolution of the impression cylinder, said feeding cylinder having a single set of grippers for all the sheets; printed sheet delivery mechanism at the same side of the press and positioned above said feeding cylinder; and one or more offset or printing cylinders each provided with a printing surface arranged to coöperate with said impression cylinder and each said surface thereof in turn to register with every impression surface of said impression cylinder during each revolution of said impression cylinder.

3. A rotary printing press comprising in combination, an impression cylinder provided with a plurality of impression surfaces; a coöperating feeding cylinder at the rear of the press and contacting with the lower portion of said impression cylinder, said parts being constructed and arranged to effect the feeding of a sheet to each impression surface during a single revolution of the impression cylinder, said feeding cylinder having a single set of grippers for all the sheets, delivery tapes at the rear of the press and coöperating with the upper portion of said impression cylinder; and one or more offset or printing cylinders each provided with a printing surface arranged to coöperate with the said impression cylinder and each said surface thereof in turn to register with every impression surface of said impression cylinder during each revolution of said impression cylinder.

4. A rotary printing press, comprising in combination, an impression cylinder provided with a plurality of impression surfaces; a feeding cylinder, said parts being constructed and arranged to effect the feeding of a sheet to each impression surface during a single revolution of the impression cylinder, said feeding cylinder having a single set of grippers for all the sheets, and a coöperating feed board, and delivery mechanism at the same side of the press as the feeding cylinder and positioned thereabove; and one or more offset or printing cylinders each provided with a printing surface arranged to coöperate with the said impression cylinder and each said surface thereof in turn to register with every impression surface of said impression cylinder during each revolution of said impression cylinder.

5. A rotary printing press comprising in combination, an impression cylinder provided with a plurality of impression surfaces; a feeding cylinder, said parts being constructed and arranged to effect the feeding of a sheet to each impression surface during a single revolution of the impression cylinder, said feeding cylinder having a single set of grippers for all the sheets, delivery mechanism at the same side of the press as the feeding cylinder and positioned thereabove, and adapted to receive sheets from the impression cylinder printed-side-up; and one or more offset or printing cylinders each provided with a printing surface arranged to coöperate with the said impression cylinder and each said surface thereof in turn to register with every impression surface of said impression cylinder during each revolution of said impression cylinder.

[Claims 6 to 8 not printed in the Gazette.]

1,137,860. PROCESS OF TREATING ALUMINATE SOLUTIONS. HENRY HOWARD, Brookline, Mass. Filed May 24, 1913. Serial No. 769,615. (Cl. 23—13.)

1. The process of removing silica from aluminate solutions, which consists in diluting the solution to destroy the established equilibrium, and then subjecting the hot aluminate solution to the action of the residues from the decomposition of bauxite by alkali.

2. The process of removing silica from aluminate solutions, which consists in subjecting the hot aluminate solution, at a concentration not exceeding 30° Baumé, to the action of the residues from the decomposition of bauxite by alkali.

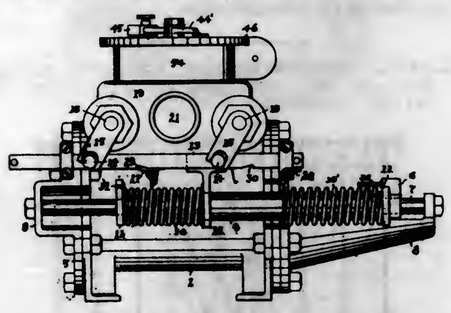
3. The process of removing silica from aluminate solutions, which consists in subjecting the hot aluminate solution, suitably diluted, to the action of the residues from the treatment of bauxite with alkaline aluminate solutions.

4. The process of removing silica from aluminate solutions, which consists in subjecting the hot aluminate solution, at a concentration not exceeding 30° Baumé, to the action of the residues from the treatment of bauxite with alkaline aluminate solutions.

5. In a process of making aluminum hydrate, the steps which consist in digesting bauxite with an alkaline-aluminate solution, and thereafter diluting the resulting aluminate solution and removing silica therefrom by further heating in presence of the undissolved residues.

[Claim 6 not printed in the Gazette.]

1,137,861. LIQUID-MEASURING DEVICE. ROBERT S. JOHNSON, East Cleveland, Ohio. Filed Feb. 21, 1914. Serial No. 820,140. (Cl. 221—103.)



1. In a measuring device, a cylinder having a piston therein and provided with inlet and outlet ports, oscillatory valves for said ports, means connected with said piston to oscillate said valves intermittently, a valve to control the flow of liquid through said device, and means having operative connection with the piston to effect automatic movement of said valve.

2. In a measuring device, a cylinder, a piston, valves and means to oscillate said valves intermittently comprising a reciprocable bar and locking pawls therefor, a set of springs to actuate said bar, and a reciprocable member to compress said springs and adapted to engage and release said locking pawls.

3. In a measuring device, a cylinder, a piston, valves, a reciprocable bar to oscillate said valves, locking pawls for said bar, a pair of springs to actuate said bar, a reciprocable member to compress said springs and unlock said pawls, and a cross-head for the piston to reciprocate said member.

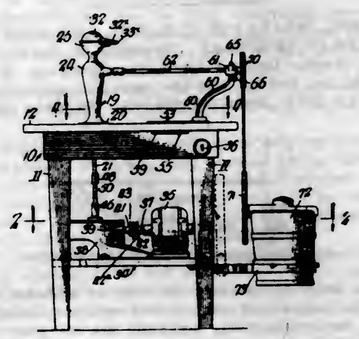
4. In a measuring device, a cylinder, a piston, valves, valve operating mechanisms, a separate valve to control the passage of a fluid through said device, a rotatable indicator having operative connections with said piston, a contact on said indicator to effect a closing movement of said separate valve, and means to effect an independent movement of said contact upon rotation of said indicator.

5. In a measuring device, a reciprocable piston, a valve, an indicator, means to rotate said indicator upon each stroke of the piston, a slidable contact carried by said indicator, a spiral to move said contact upon a rotative movement of said indicator, and a locking member for said valve, adapted to be released by engagement with said contact.

[Claims 6 to 9 not printed in the Gazette.]

1,137,862. GEARING FOR PORTABLE POWER-TABLES. GUSTAV B. KEIL, Chicago, Ill., assignor to Federal Electric Company, Chicago, Ill., a Corporation of Illinois. Filed July 19, 1912. Serial No. 710,477. (Cl. 74—36.)

1. In combination with a power table, a vertical shaft extending above and below said table, a horizontal driven shaft supported below said table, a casing in which said horizontal shaft has bearing, a worm within said casing fixed to said shaft, a vertical shaft having bearing in said casing and located substantially in vertical alinement below said first named vertical shaft, a worm gear fixed to said second named vertical shaft and in mesh with said worm, the adjacent ends of said vertical shafts being spaced apart, a connecting shaft extending between the adjacent ends of said two vertical shafts, and coupling means connecting the ends of said intermediate shafts with each of said vertical shafts, said coupling means permitting angular shifting movement between said intermediate shaft and said two upright shafts.



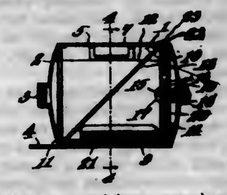
2. In combination with a power table, a rotative driven shaft horizontally supported above said table, a driving shaft, means operatively connecting said driven shaft and said driving shaft, a standard for supporting said driven shaft, said standard having a base, a plate attached to the table below said driven shaft and extending in a plane parallel to said driven shaft said plate having an elongated channel provided with inclined overhanging side walls and said base having lateral outwardly inclined edges, said base being narrower than said channel, and means for locking said base to said channel comprising a lever fulcrumed to swing in the plane of said channel and having a cam end adapted for engagement with one lateral edge of said base.

1,137,863. DOOR-LATCH. MICHAEL J. KEOUGH, St. Louis, Mo. Filed Nov. 27, 1914. Serial No. 874,268. (Cl. 70—119.)



In combination with a housing, a pair of latches pivoted at one end in the housing and projecting out of the housing, the free ends of the latches being provided with wedge or cam surfaces, and the outer faces of the latches being provided with concaved portions meeting the wedge surfaces aforesaid, a pair of keepers spaced apart and provided with inclined formations initially engaged by the cam faces of the latches, and with convex formations to subsequently engage the concaved portions of the latches, a pin in the housing between the latches, a flexed spring having a crown portion passed around the pin on the side facing the pivotal axes of the latches, the ends of the spring engaging the inner faces of the latches for causing the latter to maintain a permanent engagement with the keepers, and a rotatable wing between the keepers positioned to engage the latches at points adjacent the free ends of the spring and lock the latches to the keepers.

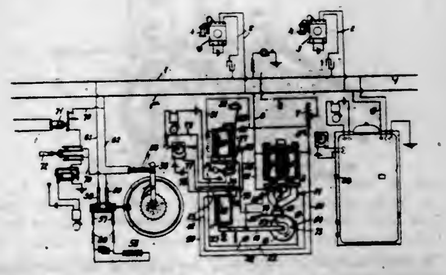
1,137,864. AUTOMATIC VIEW-FINDER. WALTER W. KING, Denver, Colo. Filed May 28, 1914. Serial No. 841,592. (Cl. 88—1.5.)



1. A view finder comprising a case having image panels, a shell disposed loosely within the case and having a rear ball cage, the ball cage having an annular ball race, the shell having forward and upper openings, means carried by the rear end of the case and provided with an annular ball race coöperable with the said cage, a series of ball bearings disposed within the said ball races, an oblique mirror mounted within the said shell, and a weight carried by the bottom of the shell.

2. A view finder comprising a case having image panels, a shell disposed loosely within the case and having a rear ball cage provided with an inner annular ball race, the shell having forward and upper openings, a bolt engaged through the rear end of the case, a pair of ball cones mounted upon the bolt within the ball cage, an annular series of ball bearings engaging the said ball cones and ball race, an oblique mirror fitted within the shell, and a weight carried by the bottom of the shell.

1,137,865. TELEPHONE SYSTEM. EDWARD E. KLEINSCHMIDT, New York, N. Y., assignor, by mesne assignments, to Hall Switch & Signal Company, a Corporation of Maine. Filed Feb. 25, 1910. Serial No. 545,808. (Cl. 177—342.)



1. In a system of the character described, a calling station and a plurality of local stations connected by a line circuit, selective switches included in branch circuits bridged on the line circuit at the local stations, means for impressing reversals of the current on the line circuit and for impressing a direct current on the line circuit, means responsive to the said reversals and to said direct current, respectively, for setting said switches, and for resetting said switches to normal position.

2. In a system of the character described, a calling station and a plurality of local stations connected by a line circuit, selective switches bridged on the line circuit at the local stations, means for impressing direct current impulses of opposite polarity on the line circuit, means responsive to the direct current impulses for restoring the switches to normal position and for setting the switches according to the polarity of the impulses, and a signal included in a branch circuit which is bridged on the line circuit when the corresponding selective switch is set, whereby said signal will be operated by the direct current on the line of reverse polarity to that for restoring the switches.

3. In a system of the character described, a main circuit, a signaling circuit bridged onto the main circuit, a

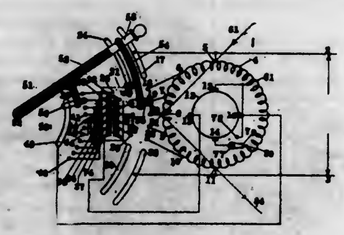
circuit closer for closing the signaling circuit, resetting means for the circuit closer, a selector magnet, a polarized armature influenced by said magnet, said polarized armature operating to actuate the resetting means and then close the signal circuit closer, and means for successively passing through said controller magnet an impulse of direct current and subsequently a plurality of impulses of alternating polarity.

4. In a system of the character described, a main circuit, a signaling circuit, a circuit closer controlling the signaling circuit, resetting means for the circuit closer, a circuit including the resetting means, step by step mechanism for setting said circuit closer, a magnet, a polarized armature influenced by said magnet for operating the step by step mechanism and closing the resetting circuit, and means for sending a direct current impulse through said magnet to control the resetting circuit and subsequently sending a plurality of impulses of alternating polarity through said magnet to operate the step by step mechanism.

5. In a system of the character described, a main circuit, a selecting circuit bridged onto the main circuit, a magnet in the selecting circuit, a polarized armature influenced by said magnet, a circuit including a signal, a circuit closer for closing the signal circuit operated by a current of alternating polarity through the polarized armature, resetting means for the circuit closer, and means whereby a current of given polarity sent through said magnet will close the resetting circuit, the signaling circuit being subsequently closed by alternating impulses.

[Claims 6 to 15 not printed in the Gazette.]

1,137,866. METHOD OF REGULATING THE SPEED OF ALTERNATING-CURRENT MOTORS. OTTO KNÖPFLI, Zurich, Switzerland, assignor, by mesne assignments, to Wagner Electric Manufacturing Company, St. Louis, Mo., a Corporation of Missouri. Filed Apr. 10, 1911. Serial No. 620,059. (Cl. 172—276.)



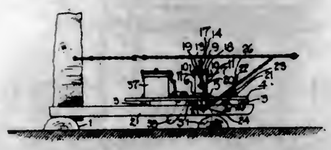
1. The method of adjusting the speed of an alternating current motor having a stator winding, working brushes on the rotor, exciting brushes displaced from the working brushes and connected to the stator winding by way of an adjustable ratio transformer, which comprises varying the phase of the E. M. F. impressed on the primary of the transformer, and simultaneously varying the transformation ratio of said transformer.

2. The method of adjusting the speed of an alternating current motor having a stator winding, working brushes on the rotor, exciting brushes displaced from the working brushes and connected to the stator winding by way of an adjustable ratio transformer, which comprises varying the phase of the E. M. F. impressed on the primary of the transformer by connecting said primary to the stator winding along different axes, and simultaneously varying the transformation ratio of said transformer.

3. The method of adjusting the speed of an alternating current motor having a distributed stator winding, working brushes on the rotor, exciting brushes displaced from the working brushes and connected to the stator winding by way of an adjustable ratio transformer, which consists, when changing the speed from the synchronous to higher or lower speeds, in simultaneously changing the axis along which the primary of the transformer is connected to the stator winding and decreasing the number of turns of the stator winding included in circuit with said primary.

4. The method of adjusting the speed of an alternating current motor having a distributed stator winding, working brushes on the rotor, exciting brushes displaced from the working brushes and connected to the stator winding by way of an adjustable ratio transformer, which consists, when changing the speed from synchronous to higher or lower speeds, in changing the axis along which the primary of the transformer is connected to the stator winding, and simultaneously varying the transformation ratio of said transformer.

1,137,867. MEANS FOR CLEANING AND OILING THE SKIDS OF SKIDWAYS. FREDERICK W. KOLB, La Conner, Wash. Original application filed June 20, 1914, Serial No. 846,411. Divided and this application filed Nov. 2, 1914. Serial No. 869,905. (Cl. 104—153.)



1. A device for cleaning the skids of skidways including a carriage, an air pump carried upon the carriage, and means for automatically actuating the air pump to apply air to each successive skid as the device is drawn along the skidway.

2. A device for cleaning the skids of skidways including a carriage, and automatically operated means carried upon the carriage to clean each successive skid as the device is drawn along the skidway.

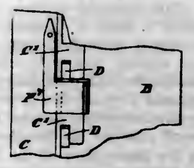
3. A device for cleaning the skids of skidways comprising a carriage, an air pump carried upon the carriage, actuating means operatively connected to said pump and normally disposed below the carriage to engage each successive skid as the device is drawn over the skidway, whereby the pump may be actuated to force a quantity of air upon each skid.

4. A device for cleaning the skids of skidways comprising a carriage, an air pump connected to the carriage, actuating means connected to the air pump and normally disposed below the carriage to engage each successive skid as the device is drawn along the skidway, and means for regulating the volume of air applied to each skid.

5. A device for cleaning the skids of skidways including a supporting frame, runners upon which the frame is supported, an air pump carried upon the frame, and an actuating means for the pump including a lever having an arm extending below the runners and adapted to engage successive skids.

[Claims 6 to 16 not printed in the Gazette.]

1,137,868. LOCK FOR PNEUMATIC-TIRE RIMS. HENRY P. KRAFT, Ridgewood, and PHILIP W. KAUTZMAN, West Hoboken, N. J., assignors to A. Schrader's Son, Incorporated, Brooklyn, N. Y., a Corporation of New York. Filed July 14, 1910. Serial No. 571,939. (Cl. 152—21.)



1. A demountable rim for tires, comprising two sections having a series of hooks and lugs adapted to be engaged by a relative rotary movement of said sections and a lock adapted to be inserted between said hooks and lugs for preventing reverse movement of said sections, said lock being pivoted to one of said sections and adapted to swing out of line with both said lugs and hooks, whereby said hooks can enter the space between said lugs without obstruction by said lock.

2. A demountable rim for tires comprising two sections adapted to be united, one of said sections having a series of hooks and the other a series of lugs, a lock attached to one of said sections and adapted to fit between one of said hooks and one of said lugs, one of said parts having an undercut portion and said lock having a beveled edge adapted to engage such undercut portion.

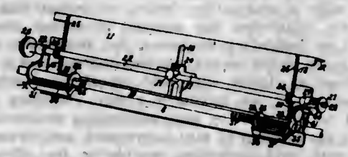
3. A demountable rim for tires comprising two rim sections adapted to be united, one of said sections having a series of hooks and the other a series of lugs, and a lock pivoted to one of said sections out of line with said interengaging means and adapted to lie flat upon said sections and to engage one of said hooks and one of said lugs.

4. A demountable rim for tires comprising two rim sections adapted to be united, said sections having interengaging portions adapted to be united by a relative rotative movement, and a spring lock attached to one of said sections and adapted to engage said interengaging portions to prevent separation of said sections.

5. A demountable rim for tires, comprising two sections having a series of hooks and lugs adapted to be engaged by a relative rotary movement of said sections and a lock adapted to be inserted between said hooks and lugs for preventing reverse movement of said sections, said lock having a spring shank pivoted to one of said sections, said lock being adapted to swing out of line with both said lugs and hooks, whereby said hooks can enter the space between said lugs without obstruction by said lock.

[Claim 6 not printed in the Gazette.]

1,137,869. TYPE-WRITING MACHINE. ALFRED G. F. KUROWSKI, New York, N. Y., assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Filed May 13, 1911. Serial No. 626,930. (Cl. 197—143.)



1. In a typewriting machine, the combination with a platen, of a paper adjusting table section adjacent to said platen in communication with the delivery portion thereof, a second section having a squaring gage for the leading edge of the sheet, said second section slidable on the first section, a rack provided on said slidable section, a rotatable shaft mounted on a fixed member, and a pinion fixed on said shaft to actuate said rack to move the slidable section, to provide an adequate supporting surface for use in squaring a work-sheet.

2. In a typewriting machine, the combination with a platen, of a paper adjusting table section fixed adjacent to said platen, a table section having a gage thereon being slidable on said fixed section, a rack provided on said slidable section, a rotatable shaft mounted in bearings on a fixed member, a pinion fixed on the shaft actuating said rack to move the slidable section when said shaft is rotated, a collar fixed on the shaft, and a nut threaded on said shaft to tighten against said bearing and bind said collar against the bearing to prevent rotation of said shaft.

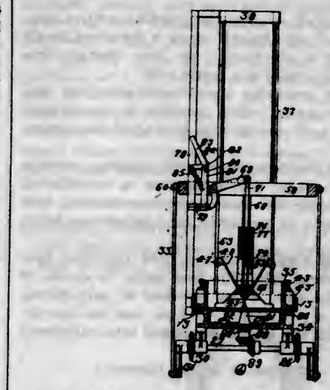
3. In a typewriting machine, the combination with a platen, of a paper adjusting table section adjacent to said platen, a table section having a gage thereon being slidable on the first section, a rack provided on said slidable section, a rotatable shaft mounted on a fixed member, a pinion fixed on said shaft actuating said rack to move the slidable section, and means for locking the shaft against accidental rotation.

4. In a typewriting machine, the combination with a platen, of a paper adjusting table in communication with the delivery portion of said platen, said table having a squaring gage thereon for the leading edge of the sheet mounted to slide toward and away from the printing line of the platen, a rack provided on said table, a rotatable shaft mounted on a fixed member, and a pinion fixed on the shaft engaging with said rack to move said slidable table when said shaft is rotated, to present an adequate supporting surface to a work-sheet being squared.

5. In a typewriting machine, the combination with a platen, of a slidable table having a squaring gage thereon for the leading edge of the sheet mounted to slide toward and away from the platen, a rack, a rotatable shaft mounted on a fixed member, a pinion fixed on the shaft engaging with said rack to move said table when said shaft is rotated, and means for locking the shaft against rotation to maintain said gage where adjusted.

[Claims 6 to 29 not printed in the Gazette.]

1,137,870. CUTTER FOR POTATO-PLANTERS. FRANK LAHR, Barberton, Ohio, assignor of one-half to William M. Thomas, Coventry township, Ohio. Filed Aug. 19, 1914. Serial No. 857,574. (Cl. 146—7.)



1. A potato cutter embodying upright guides, a plurality of spring-pressed downwardly projecting gates inclined toward each other and arranged when in their normal position to constitute a potato-receiving and centering receptacle, means to feed potatoes into said receptacle, a reciprocating plunger on said guides adapted when moved to its lower position to pass between said gates and engage the potatoes, a cutting knife below said receptacle, an ejector carried by said plunger, means to hold said ejector in its upper potrion during the downward stroke of said plunger, said means permitting a sudden downward movement of said ejector at the termination of the lower stroke of said plunger to permit said plunger to engage the potatoes for forcing them past said knife during the severing operation.

2. A potato cutter embodying upright guides, a plurality of spring-pressed downwardly projecting gates inclined toward each other mounted on said guides and arranged to form a temporary receptacle, means to feed potatoes to said receptacle, a reciprocally-acting plunger approximately cruciform in cross section with the outer portions thereof adapted to slide on said guides, a cross-head on said plunger, means for reciprocating said cross head and plunger, a vertically-shiftable ejector positioned centrally of said plunger, a spring for forcing said ejector downwardly, means to hold said ejector in its upper position during the downward movement of said plunger, and means to release said holding means to permit the spring to force said ejector suddenly downwardly at the lower

termination of the stroke of said plunger, a cutting knife positioned below said receptacle and in the path of the downwardly-moving potatoes.

3. A potato cutter embodying upright guides, a plurality of spring-pressed downwardly and inwardly-inclined gates arranged when assembled to form an inverted pyramidally-shaped receptacle with spaces interventing between the edges of coadjacent gates, means to feed potatoes to said receptacle, a reciprocally-moving plunger mounted on said guides and arranged when moved to its lower position to pass between said gates and engage the upper faces of a potato in said receptacle and force it therefrom, a cutting knife below said receptacle to engage and sever the potato into pieces, an ejector carried by said plunger, means for imparting to said ejector a sudden downward stroke at approximately the time the plunger reaches the termination of its lower stroke for driving the severed pieces from said knives.

1,137,871. METHOD OF TREATING FERRUGINOUS ZINC-CHLORID SOLUTIONS. STANLEY HERBERT LAWTON, Wilmington, Del., assignor to American Vulcanized Fibre Company, Wilmington, Del., a Corporation of Delaware. Filed June 21, 1913. Serial No. 775,100. (Cl. 23—13.)

1. The method of dehydrating ferric compounds, which consists in acting thereon with a concentrated solution of zinc chlorid.

2. The method which consists in reacting with a concentrated solution of zinc chlorid upon a dissolved ferric salt, in presence of a precipitant for iron, thereby precipitating the iron as anhydrous ferric oxid.

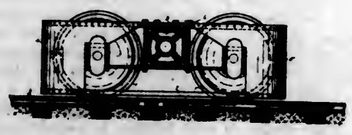
3. The method of purifying zinc chlorid solutions containing ferric compounds, which consists in concentrating said solutions until the iron is converted into anhydrous ferric oxid.

4. The method of treating zinc chlorid solutions containing dissolved ferric salts, which consists in introducing thereinto a precipitant for iron, and concentrating said solution until the iron is converted into anhydrous ferric oxid.

5. The method of treating zinc chlorid solutions containing dissolved ferric salts, the iron being in excess of one per cent. of the zinc, which consists in introducing into said solutions a precipitant for iron, and concentrating the solution until the iron is converted into anhydrous ferric oxid.

[Claims 6 to 12 not printed in the Gazette.]

1,137,872. WHEEL-FENDER. FELIX LEACH, Allenfarm, Tex. Filed Jan. 25, 1915. Serial No. 4,162. (Cl. 105—131.)

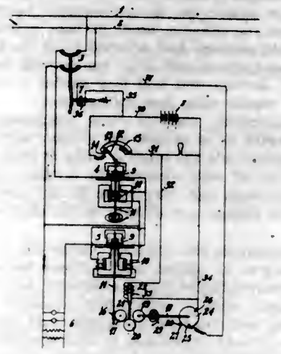


1. A fender for truck wheels consisting of a hood for each wheel of the truck, said hoods fitting over the wheels to be protected thereby and reinforcing bands secured to the upper and lower edges respectively, of the hoods and fixing said hoods in their relation to each other.

2. A fender for truck wheels consisting of a plurality of hoods formed of sheet metal, each hood fitting over and protecting its corresponding wheel, and approximately elliptical bands secured to the upper and lower edges respectively, of the hoods.

3. A fender for truck wheels consisting of a plurality of hoods approximately semi-elliptical in form, in transverse section, and bands approximately elliptical in form to which the upper and lower edges of said hoods are secured for fixing the hoods in their relation to each other.

1,137,873. METERING SYSTEM. PAUL M. LINCOLN, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Jan. 7, 1911. Serial No. 601,827. (Cl. 175—270.)



1. The combination with a circuit interrupter, and an indicating wattmeter in circuit therewith and an integrating wattmeter, of a movable member, means dependent upon said indicating wattmeter for operatively associating said movable member with said integrating wattmeter, and means dependent upon the movement of said movable member for actuating said interrupter.

2. The combination with a circuit interrupter, and an integrating wattmeter in circuit therewith and an indicating wattmeter, of a movable member biased to its initial position, means dependent upon said indicating wattmeter for operatively associating said movable member with said integrating wattmeter, and means associated with said movable member and dependent upon the degree of movement thereof for actuating said interrupter.

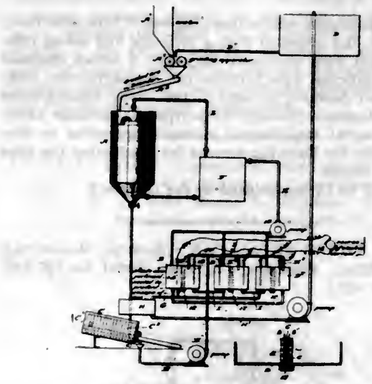
3. In an electrical system of distribution, the combination with a translating device, an integrating wattmeter for registering the amount of energy consumed thereby, an indicating wattmeter for measuring the effective value of the energy supplied thereto, and a circuit interrupter in circuit with said translating device and said meters, of an auxiliary rotary switching device adapted to be driven by said integrating wattmeter and to effect the opening of said interrupter, and means associated with said indicating wattmeter for effecting a driving connection between said rotary switching device and said integrating wattmeter when said indicating meter measures power in excess of a predetermined value.

4. In a system of distribution, the combination with a translating device, and an integrating and an indicating wattmeter in circuit therewith for respectively registering and indicating the power consumed thereby, of a rotary switching device adapted to effect the interruption of the translating device circuit, electromagnetic means for operatively associating said switching device with the shaft of said integrating meter, whereby said switching device is driven in proportion to the amount of power consumed by said translating device, and coöperating stationary and movable contact members associated with said indicating wattmeter for completing the circuit of said electromagnetic means when and as long as the effective value of power consumed by said translating device exceeds a predetermined amount.

5. The combination with an integrating wattmeter, a movable member biased to its initial position and adapted to be moved in proportion to the amount of energy passing through said integrating wattmeter, and means for operatively associating said movable member with said wattmeter, of an indicating wattmeter adapted to control the operation of said associating means.

[Claims 6 to 11 not printed in the Gazette.]

1,137,874. PROCESS OF LEACHING ORES. JASPER A. MCCASKELL, Salt Lake City, Utah. Filed June 2, 1914. Serial No. 842,426. (Cl. 204—15.)



1. The process herein described of leaching ores consisting, essentially, in producing chlorin gas electrolytically from metallic chlorids and using the chlorin thus produced to chlorinate the metals in the ore that is being treated, and regenerating the solvent by electrolyzing an aqueous solution of the chlorids in the cathode side of an electrolytic cell.

2. The process herein described of leaching ores and then regenerating the solvent, said process consisting, essentially, in producing chlorin gas electrolytically from metallic sodium chlorids, using the chlorin thus produced to chlorinate the metals in the ore that is being treated, and subsequently electrolyzing an aqueous solution of the chlorids in the cathode side of an electrolytic cell, thereby regenerating the original sodium chlorid, the metals in solution being deposited on the cathode of said cell.

3. The process herein described of leaching ores consisting, essentially, in producing chlorin gas electrolytically from metallic chlorids and delivering the chlorin thus produced under pressure into the body of the ore being treated for the purpose of both agitating and chlorinating the metal contents of said ore, and subsequently electrolyzing an aqueous solution of the chlorids in the cathode side of an electrolytic cell and regenerating the original chlorid solution thereby.

4. The process herein described of leaching ores, which consists, essentially, in producing chlorin gas electrolytically from metallic chlorids; utilizing the chlorin thus produced to agitate and chlorinate the metals in the ore that is being treated; filtering the ore and separating the liquid filtrate containing the metal in solution, and delivering said filtrate to the cathode side of an electrolytic cell; supplying the anode compartment of said cell with a saturated solution of a metallic chlorid; separating the compartments of the cell by a layer of mercury; electrolyzing the cell; and storing the chlorin produced in the anode compartment of the cell and utilizing the same for chlorinating the metals in a fresh charge of ore.

5. The process herein described of leaching ores which consists, essentially, in producing chlorin gas electrolytically from metallic chlorids; utilizing the chlorin thus produced to agitate and chlorinate the metals in the ore that is being treated; filtering the ore and separating the liquid filtrate containing the metals in solution and delivering said filtrate to the cathode side of an electrolytic cell; supplying the anode compartment of said cell with a saturated solution of a metallic chlorid; separating the compartments of the cell by a layer of mercury; electrolyzing the cell; and delivering the sodium derived from the splitting up of the chlorid in the cell, through the body of mercury so that it acts as a soluble anode which combines with the chlorin that is liberated at the cathode; and utilizing the resulting anolyte containing a small percentage of metal chlorids, for saturating a fresh charge of ore.

1,137,875. SWITCH. OTIS E. MCCOY, Baltimore, Md. Filed Apr. 13, 1912. Serial No. 690,609. (Cl. 175—282.)



1. A device of the kind described comprising a resilient sheet metal strip, said strip composed of a deflected portion forming at one end a switch-receiving contact, a shank extending in an opposite direction to said deflected portion, and a central slit portion formed on said shank, said slit portion consisting of a part deflected outwardly of one side of said shank, of an integral part extending into projecting position relatively to the opposite side of said shank, and of a finger portion formed terminally upon said last named projecting part.

2. A device of the kind described comprising a resilient metal strip, said strip consisting of an intermediate return portion contacting its body, said body and return portion having a curved-around part terminating in stem disposed parallel over said return portion, said strip also consisting of a shank extending in an opposite direction relatively to said return portion, said shank consisting of two parallel limbs having terminal inturned contacting portions, of a central portion deflected outwardly of one side of said shank, of an integral part extending angularly of said deflected portion and into projecting position relatively to the opposite side of said shank, and an integral finger portion formed terminally upon said projecting portion and disposed parallel to said limbs.

1,137,876. PNEUMATIC-TIRE GAITER. JOSEPH TAYLOR MCGUIRE, Newcastle-upon-Tyne, England. Filed Mar. 3, 1915. Serial No. 11,826. (Cl. 152—24.)



In a tire repair device, a plurality of superposed layers of fabric, the innermost of said layers being cut on the bias and the remaining layers being cut on the straight, said innermost layer extending lengthwise beyond the remaining layers and all of said layers being molded together and shaped to the contour of the tire; and means on the longitudinal edges of said molded together layers for securing the strap in place.

1,137,877. BALANCED-CRANK MECHANISM FOR PUMPS, MOTORS, &c. CHARLES MATTHEWS MANLY, Freeport, and HUGO CENTERVALL, Brooklyn, N. Y. Filed Aug. 16, 1911. Serial No. 644,358. (Cl. 103—44.)

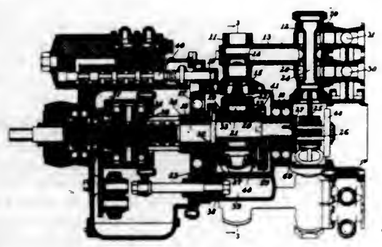
1. In a mechanism of the class described, the combination of a rotatable member, mechanism carried thereby and adjustable thereon, and means for balancing said member and said mechanism, substantially as described.

2. In a mechanism of the class described, the combination of a rotatable member, mechanism carried thereby and adjustable relative to the center of rotation of said member, and means for balancing said member and mechanism, substantially as described.

3. In a mechanism of the class described, the combination of a rotatable crank shaft, mechanism carried by the

crank pin of said shaft and shiftable thereon, and means for balancing said crank shaft and said mechanism, substantially as described.

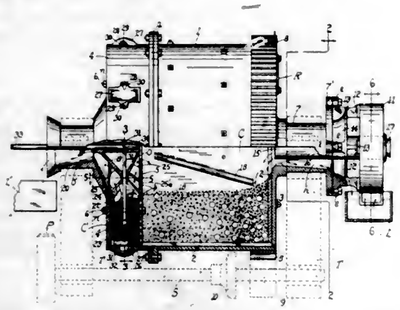
4. In a mechanism of the class described, the combination of a rotatable member having a variable throw crank and means for balancing said crank, substantially as described.



5. In variable stroke crank shaft, the combination with means rotatably adjustable for varying the stroke of said crank shaft, of means for counter-balancing the said stroke adjusting means at all positions of stroke variation, substantially as described.

[Claims 6 to 28 not printed in the Gazette.]

1,137,878. BALL-MILL. FRANK E. MARCY, Salt Lake City, Utah. Filed Sept. 4, 1913, Serial No. 788,132. Renewed Mar. 3, 1915. Serial No. 11,879. (Cl. 83—9.)



1. In combination with a tumbling-barrel or container rotatable about an axis and provided with intake and discharge openings, a diaphragm screen disposed across the rotation axis adjacent the discharge end of the barrel, means in the barrel for effecting a migration of the fines toward said diaphragm, radially disposed screens between said diaphragm and discharge opening operating to screen the fines and direct the same toward the discharge opening and to direct the oversize back to the barrel, and means on the walls of the barrel for preventing an accumulation of fines in the outer corners of the radial screens.

2. In combination with a tumbling barrel provided with peripheral openings and rotatable about a fixed axis, and having intake and discharge means, removable screens radiating from said axis and insertible into the barrel through said openings.

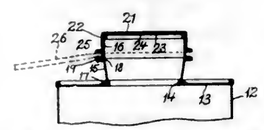
3. In combination with a tumbling-barrel or container rotatable about an axis and provided with intake and discharge means, a primary screen in the barrel located near the discharge end but spaced therefrom, secondary or finishing screens in said space removable through the peripheral walls of the barrel and operating to deliver the fines or undersize to the discharge means, and means operating in conjunction with said secondary screens to return the oversize back to the barrel.

4. In combination with a tumbling-barrel rotatable about a fixed axis, and provided with crushing and sizing compartments, a screen disposed across the rotation axis and forming a division wall between the compartments, and radially disposed finishing screens in the sizing compartment insertible thereinto through the peripheral walls of the barrel.

5. In combination with a tumbling-barrel rotatable about a fixed axis, and provided with a crushing and sizing compartment and with peripheral openings, a screen disposed across the rotation axis between the compartments, radially disposed finishing screens in the sizing compartment insertible thereinto through the peripheral openings aforesaid, and radial imperforate members operating in conjunction with the finishing screens for conducting the fines out of the barrel.

[Claims 6 to 15 not printed in the Gazette.]

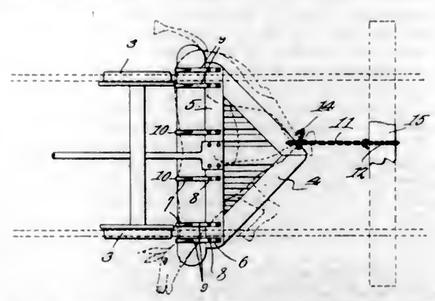
1,137,879. SHEET-METAL CAN. SAMUEL MARZYNSKI, Boston, Mass. Filed May 11, 1914. Serial No. 837,640. (Cl. 220—59.)



1. A can nozzle comprising an upper section having a base flange, a lower section having an upper flange that is embraced by the flange of the upper section, said flanges forming a bearing ledge for a prying tool, a cap fitting over the upper section and provided with a base flange adapted to be engaged by a prying tool, said lower section being of tapering formation so that buckling or bending pressure exerted upon the bearing ledge is resisted.

2. In combination with a can having a top wall provided with an opening therein and a flange surrounding said opening, of a nozzle secured to said flange, said nozzle comprising a lower tapering section having a lateral flange surrounding its upper edge and an upper section having a flange surrounding its lower edge, the flange of the upper section being bent around the flange of the lower section whereby said sections are secured together and a ledge is provided surrounding said nozzle at a distance above the top of the can, and a cap frictionally engaging the upper end of said nozzle, the lower edge of said cap being provided with a flange surrounding the same, said flange being spaced from said ledge when the cap is in position, whereby said cap may be removed by the insertion of an instrument between said flange and ledge.

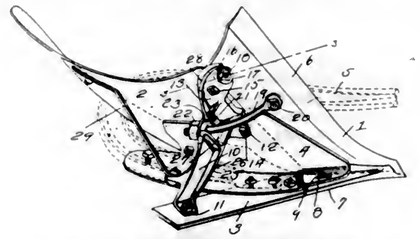
1,137,880. LOCOMOTIVE-PILOT ATTACHMENT. CHARLEY E. MATTISON, Sibley, La. Filed Oct. 30, 1914. Serial No. 869,427. (Cl. 105—254.)



1. In a device of the class described, a rigid, obstacle-engaging member comprising a forwardly presented impalement element; and means for rigidly securing the obstacle-engaging member to a vehicle-pilot whereby the forwardly presented impalement element will lie below the lowermost part of the pilot and form a rigidly mounted means for preventing an obstacle which passes beneath the pilot from engaging the wheels of the vehicle.

2. In a device of the class described, rigid, obstacle-engaging members each comprising a forwardly presented impalement element; and means for securing the obstacle-engaging members rigidly to the pilot of a vehicle in pairs, whereby the pairs will be located in front of the wheels of the vehicle and the members of the respective pairs be located close to the opposed side faces of the respective wheels with the impalement elements located below the lowermost part of the pilot.

1,137,881. PLOW. CHARLES H. MELVIN, Moline, Ill., assignor to Deere & Company, a Corporation of Illinois. Filed Apr. 27, 1911. Serial No. 623,580. Renewed Apr. 14, 1913. Serial No. 761,051. (Cl. 97—21.)



1. In a plow, the combination of a frog having two integral broad sheet-like parts at an angle to each other, a moldboard secured to and supported by one of the parts, a landside secured to and supported by the other of the parts, a share having a section in alinement with the moldboard, and a transverse brace secured at one end to the landside and at the other end to the frog, and to the moldboard and to the share at points beyond the edge of the frog.

2. In a plow, the combination of a frog having two integral broad sheet-like parts at an angle to each other, a moldboard secured to and supported by one of the parts, a landside secured to and supported by the other of the parts, a share, a transverse brace secured at one end to the landside and at the other end to the frog, the moldboard and the share, and an auxiliary brace connected at one end to the rear part of the moldboard and at the other end to the said transverse brace intermediate its ends the said auxiliary brace being free from engagement with other plow parts.

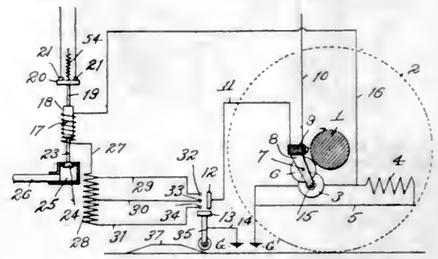
3. In a plow, the combination of a frog having two integral broad sheet-like parts at an angle to each other, a moldboard secured to and supported by one part, a landside secured to and supported by the other part, a share, means for securing the share to the other plow parts, and a transverse brace connected at one end to the landside and at the other end to the frog and to the moldboard at a point beyond the edge of the frog.

4. In a plow, the combination of a frog, having two integral broad sheet-like parts at an angle to each other, a moldboard secured to and supported by one of the parts, a landside secured to and supported by the other of the parts, a share, means for securing the share to the other of the plow parts, a transverse brace connected at one end to the landside and at the other end to the frog and to the moldboard at a point beyond the edge of the frog, and an auxiliary brace connected at one end to the rear part of the moldboard and at the other end to the said transverse brace intermediate its ends the said brace being free from engagement with other plow parts.

5. In a plow, the combination of a frog having an upper broad sheet-like part, a moldboard secured to the broad sheet-like part of the frog, a share, a bracket connected to the broad sheet-like part of the frog and to the moldboard at relatively remote points, the said bracket having an element extending at an angle to a line connecting the said points of connection, and means for securing the said element to prevent pivotal movement of the bracket about one or the other of the said points of connection, in a plane at an angle to that of the frog and moldboard.

[Claims 6 to 16 not printed in the Gazette.]

1,137,882. SPEED-CONTROL DEVICE FOR VEHICLES. WILLIAM S. MENDEN, Brooklyn, N. Y., assignor to Megosin Company, Inc., a Corporation of New York. Filed July 3, 1913. Serial No. 777,238. (Cl. 246—59.)



1. In a vehicle, the combination with a speed controlling instrumentality, of a source of power which varies with the speed of said vehicle, a circuit including said power source and instrumentality, said instrumentality being adapted under a fixed amount of resistance in said circuit to become operative under a predetermined speed of the vehicle, and means for predetermining the resistance in said circuit to vary the speed limits at which said instrumentality becomes operative.

2. In a vehicle, the combination with a speed controlling instrumentality, of a source of power which varies with the speed of said vehicle, a circuit including said power source and instrumentality, said instrumentality being adapted under a fixed amount of resistance in said circuit to become operative under a predetermined speed of the vehicle, and means for varying the resistance in said circuit to vary the speed limits at which said instrumentality becomes operative, said means including graded resistance, and a plunger suitably mounted on said vehicle to be displaced by means disposed along the route of said vehicle.

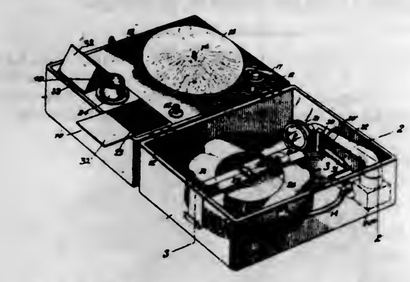
3. In a vehicle, the combination with a speed controlling instrumentality, of a source of power which varies with the speed of said vehicle, a circuit including said power source and instrumentality, said instrumentality being adapted under a fixed amount of resistance in said circuit to become operative under a predetermined speed of the vehicle, and means for varying the resistance in said circuit to vary the speed limits at which said instrumentality becomes operative, said means including graded resistance, and a plunger suitably mounted on said vehicle to be displaced by means disposed along the route of said vehicle, said plunger being adapted to make and break the circuit through different amounts of said resistance at different predetermined points.

4. In a vehicle, the combination with a speed controlling instrumentality, of a solenoid for operating said instrumentality, a source of electrical energy, a plurality of resistances, and means acting at a fixed point of travel for connecting a predetermined amount of said resistances in circuit with said electrical source and solenoid, said means automatically predetermining the speed limit at which the speed controlling instrumentality becomes operative.

5. In a vehicle, the combination with a speed controlling instrumentality, an energizing circuit therefor, means for varying the resistance in said circuit to regulate the current flowing through said circuit, and automatic means acting at a fixed point of travel of said vehicle, for positioning said resistance varying means to predetermine the speed limit of said vehicle.

[Claims 6 to 15 not printed in the Gazette.]

1,137,883. TALKING-MACHINE. THEODORE METZELER, New York, N. Y. Filed Apr. 6, 1914. Serial No. 829,822. (Cl. 181—3.)



1. In a talking machine, a casing member, motor mechanism housed in said casing, a resonance chamber in said casing adjacent said motor mechanism, a bridge over a portion of said resonance chamber, said resonance chamber opening upward adjacent said bridge, means for deadening the sound from the resonance chamber; and reproducer means supported by said bridge and in communication from above with said resonance chamber, the sound waves being directed downwardly into said resonance chamber and then upwardly therethrough.

2. In a talking machine, a casing member, motor mechanism housed in said casing, a resonance chamber in said casing adjacent said motor mechanism, said resonance chamber comprising a V-shaped chamber having upwardly and outwardly flaring ends, a bridge over a portion of said resonance chamber and reproducer means supported by said bridge and in communication with said resonance chamber.

3. In a talking machine, a casing member, motor mechanism housed in said casing, a resonance chamber in said casing adjacent said motor mechanism, said resonance chamber comprising a V-shaped chamber having upwardly and outwardly flaring ends, a bridge spanning the middle portion of said chamber leaving sound openings at either side of said bridge and reproducer means supported by said bridge and in communication with said resonance chamber.

4. In a talking machine, a casing member, motor mechanism housed in said casing, a resonance chamber in said casing adjacent said motor mechanism, said resonance chamber comprising a V-shaped chamber having upwardly and outwardly flaring ends, a bridge spanning the middle portion of said chamber leaving sound openings at either side of said bridge, means for deadening the sound from said sound openings and reproducer means carried by said bridge and in communication with said resonance chamber.

5. The herein described talking machine comprising in combination, a casing composed of two substantially similar casing portions hinged together along adjacent edges, one of said portions constituting a base or bottom for the machine and adapted to house the motor mechanism and including a resonance chamber opening upward adjacent said motor mechanism, the other of said portions constituting a housing for a collection of records and also including means for supporting in definite position for transportation the detachable parts of the machine, and means adapted to coöperate with the collection of records to prevent abrasion or damage thereof.

[Claims 6 to 8 not printed in the Gazette.]

1,137,884. WRENCH. EDWIN S. MILLER, Buffalo, N. Y. Filed Dec. 19, 1912. Serial No. 737,636. (Cl. 81—111.)

A wrench comprising a head having an arm at one end and a slot formed lengthwise in the outer edge of the head and said arm whereby the latter is divided into two members, a swinging jaw arranged in that portion of said slot between said arm members and pivotally connected therewith, a slide movable lengthwise within said slot at the opposite end thereof and provided with a jaw adapted to coöperate with said swinging jaw, and means arranged on said head for adjusting said slide and its jaw



lengthwise in said slot, the inner parts of the faces of said jaws forming extended bearing surfaces for engagement with the object grasped in all positions of these jaws within the adjustable limits of the wrench.

1,137,885. CALIPERS. JOHN A. MILLER, East St. Louis, Ill. Filed June 14, 1912. Serial No. 703,626. (Cl. 33—156.)



1. In a device of the character described, the combination of caliper legs pivotally connected at their upper ends, a drum carried by said upper ends, a bar slidably mounted in said drum, said bar provided with a plurality of cut-out portions serially arranged, a worm gear meshing with said cut-out portions, means for operating said worm gear, and means connecting said slidable bar and said caliper legs whereby the said legs may be adjusted.

2. In a device of the character described, a drum having an extension formed thereon, said extension being provided with an annular flange, caliper legs pivotally mounted upon said extension, said flange forming an abutment for one of said caliper legs and aiding in preventing lateral movement of the same upon said extension, a bar operating through said drum, a worm gear for operating said bar, the lower end of said bar being bifurcated and means connecting said bifurcated end and said caliper legs whereby when said worm gear is operated said legs will be adjusted in the manner described.

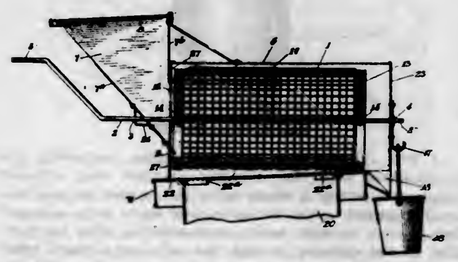
3. In a device of the character described, a drum having an extension formed thereon, an annular flange formed upon said extension, caliper legs pivotally mounted upon said extension, said flange forming an abutment for one of said caliper legs and aiding in preventing lateral movement of the same upon said extension, a bar operating through said drum, a worm gear carried by said drum for operating said bar, the lower end of said bar being bifurcated and arms pivotally connected to each of said divider legs and to the bifurcated end of said bar whereby when said worm gear is operated said divider legs will be operated in the manner described.

4. In a device of the character described, a drum having an extension formed thereon, said extension being provided with an annular flange, caliper legs pivotally mounted upon said extension, said flange forming an abutment for one of said caliper legs and aiding in preventing lateral movement of the same upon said extension, a bar operating through said drum, said bar provided with a longitudinally extending groove, a key carried by said drum in engagement with said groove whereby the rotation of said bar is prevented, a worm gear for operating said bar, the lower end of said bar being bifurcated and arms pivotally connected to each of said legs and to said bifurcated end of the bar for the purpose described.

5. In a device of the character described, a drum having an extension formed thereon, said extension being provided with an annular flange, caliper legs pivotally mounted upon the said extension, said drum having a bar operating therethrough, said bar provided with a plurality of recesses, said drum provided with a cut-out portion, brackets spanning said cut-out portion and supporting a worm gear, an extension formed upon said worm gear thereby facilitating its operation, said worm gear meshing with the recesses in said bar, the lower end of said bar being bifurcated and arms pivotally connected to each of said legs and to the bifurcated end of said bar whereby when said worm gear is operated said legs will be adjusted in the manner described.

[Claim 6 not printed in the Gazette.]

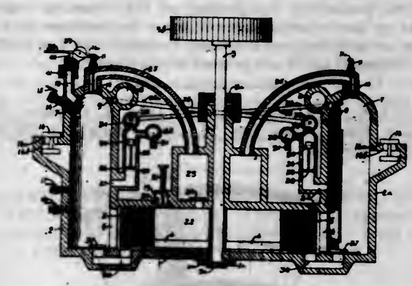
1,137,886. SIFTER. WILLIAM NICHTHAUSER, New York, N. Y.; Maud S. Nichthauser, executrix of said William Nichthauser, deceased, assignor to Nichthauser & Levy, a Corporation of New York. Filed May 24, 1912. Serial No. 699,455. (Cl. 83—60.)



In a sifter, a cylindrical sieve comprising a perforated sheet shaped to form a hollow cylinder open at each end, strengthening hoops secured at each end thereof, a shaft extending through said cylinder, and a flat radial strip extending diametrically across the forward end of said cylinder and then bent and made to lie flat against the inner walls of said cylinder and connecting the forward hoop with the shaft and firmly securing them together so that the rotation of the shaft will rotate the cylinder, the portion of said radial strip which extends across said cylinder being turned with its wider faces parallel to the longitudinal axis of the cylinder so as to provide the least obstruction to the entrance and passage of material rearwardly and through said cylinder, and being further bent at its medial portion to provide a seat in which the rotating shaft is removably secured.

1,137,887. INTERNAL-COMBUSTION ENGINE. PONTUS OSTENBERG, Los Gatos, Cal. Filed Feb. 2, 1914. Serial No. 815,992. (Cl. 123—19.)

1. In an internal combustion engine, the combination of a body portion circular in plan having one or more cylinders attached thereto, a driving shaft and means of rotating said shaft in said body portion, a fly wheel attached to the upper end of said shaft, a disk wheel keyed near the lower end of said shaft, a step bearing at the lower end of said shaft, means of attaching said step bearing to said body portion, a plurality of circular disks, means for fastening said disks to said disk wheel, means for discharging liquid through said disks, an explosion chamber in each cylinder, means for exploding the gases in said explosion chambers, a port dishing in the lower part thereof communicating with each of said explosion chambers and connecting the same with its respective explosion means, air intake valves and means for operating said valves, a cartridge chamber, means for attaching a vacuum pump to said explosion chamber, as and for the purpose described.



2. In an internal combustion engine, the combination of a body portion having one or more cylinders attached thereto, each cylinder having an offset in which a plurality of exhaust valves are set, said exhaust valves having upper and lower seats, a compression chamber formed in the upper portion of each cylinder and above said exhaust valves in which the gases are compressed and exploded, means for the admission of liquid to said cylinders, a gage valve designating the height of liquid in said cylinders, air intake valves, a disk wheel chamber adapted to inclose a disk wheel, air storage chamber above and attached to said disk wheel chamber, a valve admitting air from said disk wheel chamber to said air storage chamber, as shown and described.

3. In an internal combustion engine, the combination of a body portion having one or more cylinders attached thereto, each of said cylinders having an explosion chamber formed in the upper portion thereof, a disk wheel chamber formed in said body portion, an air storage chamber attached to said body portion, air pipes leading from said storage chamber to air intake valves, oil supply cylinders and means for supplying oil through said cylinders to said explosion chambers, a float connected with the valves in said oil supply cylinders, pipes leading from said oil supply cylinders to said explosion chambers, valves in said pipes to regulate the supply of oil to said explosion chambers, lower liquid outlets leading from said disk wheel chamber to said cylinders, means for preventing liquid from passing through said lower liquid outlets from said cylinders, means for holding the air inlet valves in place, as and for the purpose described.

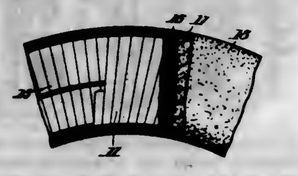
4. In an internal combustion engine, the combination of a central chamber adapted to contain a revolving liquid, auxiliary chambers positioned about the periphery thereof, said central chamber having ports communicating with each of said auxiliary chambers at such an angle as to direct a liquid passing from said auxiliary chambers to said central chamber around the periphery thereof, each of said auxiliary chambers having a conduit communicating with said central chamber and an inlet valve adapted to permit the passage of liquid from said conduit into said auxiliary chamber, substantially as shown and described.

5. In an internal combustion engine, the combination of a central chamber adapted to contain a revolving liquid, auxiliary chambers positioned about the periphery thereof, said central chamber having ports communicating with each of said auxiliary chambers at such an angle as to direct a liquid passing from said auxiliary chambers to said central chamber around the periphery thereof, each of said auxiliary chambers having a conduit communicating with said central chamber and an inlet valve adapted to permit the passage of liquid from said conduit into said auxiliary chamber, said central chamber being circular in plan, of greater diameter than depth, and so proportioned with relation to said auxiliary chambers that when said revolving liquid is increased or diminished in quantity therein by reason of said liquid passing from or to said auxiliary chambers an increase or reduction of pressure is provided on a fluid contained in the central part of said central chamber, a valve controlled inlet

for permitting the passage of fluid into the central part of said central chamber upon reduction of pressure of a similar fluid contained therein, and a valve controlled outlet for permitting the passage of fluid from the central part of said central chamber upon the increase of pressure on said fluid, substantially as shown and described.

[Claims 6 and 7 not printed in the Gazette.]

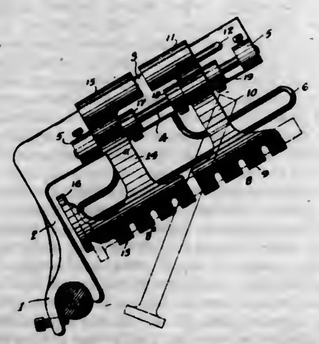
1,137,888. TIRE-FILLER. WILLIAM N. OURSLER, Odebolt, Iowa. Filed Feb. 26, 1913. Serial No. 750,904. (Cl. 152—8.)



1. A tire filler composed of a hollow puncture proof member, strips of canvas and rubber wound in opposite directions about said hollow puncture proof member, and a covering vulcanized to said strips.

2. A tire filler composed of a spirally wound resilient member having one end provided with a longitudinally curved socket formed upon the inner side thereof, the opposite end of said spirally wound resilient member being offset forming a shoulder at one side thereof, a resilient tongue extending from said shoulder and disposed inwardly of said spirally wound resilient member, for insertion within the curved socket, the curvature of said socket retaining the ends of the said member in locked relation, said member at the meeting ends thereof having a smooth outer surface and a covering for said spirally wound resilient member.

1,137,889. BOBBIN-HOLDER FOR SPOOLERS. OSCAR L. OWEN, Whitinsville, Mass., assignor to The Whitin Machine Works, Whitinsville, Mass., a Corporation of Massachusetts. Filed May 9, 1913. Serial No. 766,574. (Cl. 242—132.)



1. A bobbin holder for spoolers comprising a bracket frame and a two-part cradle for the bobbin suspended thereon, one of said parts being capable of displacement from working position to dump the bobbin from the holder.

2. A bobbin holder for spoolers comprising a bracket frame, a two-part cradle suspended therefrom, the parts whereof are adapted for relative separation and approach in an endwise direction to accommodate bobbins of different size.

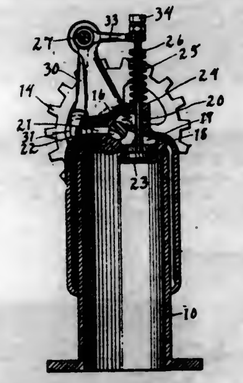
3. A bobbin holder for spoolers comprising a bracket frame, a two-part cradle thereon, one of said parts bearing the bobbin abutment and being relatively separable from the other part in an endwise direction.

4. A bobbin holder for spoolers comprising a frame, and a bobbin cradle composed of two independently pivoted counterbalanced parts, one of said parts having limited swinging movement and the other having a larger movement adapted to dump the bobbin from the holder.

5. A bobbin holder for spoolers comprising two parts together forming a bobbin cradle, said parts being independently supported and adjustable, relatively, in the direction of the axis of the cradle, and a tension guard common to both parts of the bobbin.

[Claims 6 not printed in the Gazette.]

1,137,890. GAS-ENGINE VALVE. CLARK H. PARKER, Beaver Dam, Wis. Filed Mar. 25, 1912. Serial No. 685,968. (Cl. 123—79.)



A four cylinder four cycle gas engine, comprising the combination with the cylinders provided with cylinder heads each having a single valve seat, spring pressed protecting puppet valves fitting on said valve seats, a chamber in each cylinder head communicating with the interior of the cylinder through the valve seat, there being intake and exhaust passageways communicating with the chamber, connected valve shaft sections journaled in the cylinder heads of cylinders at the intersection of the intake and exhaust passageways with said chambers and provided with cavities for establishing communication between said chambers and the intake and exhaust passageways, a driving connection between the valve shaft and the crank shaft of the engine, brackets on the cylinders, rock shafts journaled in the brackets, a sleeve surrounding each rock shaft, cams on the valve shaft sections, arms on the rock shafts and sleeves respectively engaging the cams, and arms on the rock shafts and sleeves respectively engaging the protecting puppet valve.

1,137,891. DRAFT-RIGGING FOR RAILWAY-CARS. CALVIN B. PATCH, Glenellyn, Ill., assignor to William H. Miner, Chazy, N. Y. Filed May 11, 1914. Serial No. 837,705. (Cl. 213—42.)

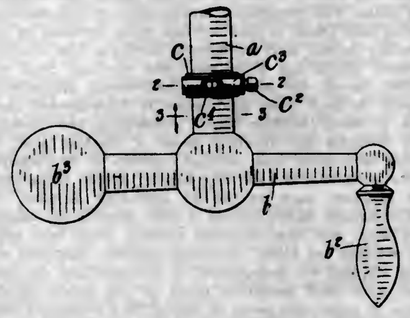


1. In a draft rigging for railway cars, in combination, draft members, stop members secured thereto, a draw-bar, a tail bolt secured to the draw-bar, followers, and compression resisting members between the followers, the tail bolt comprising two lateral sections, said sections when assembled forming a hood to receive the draw-bar, and rearwardly extending arms, the said arms being provided at their ends with an inclosing cup, and a key passing through the cup and the inclosed arm.

2. In a draft rigging for railway cars, a tail bolt having a hood at the forward end to receive the butt end of a draw-bar and provided with an arm extending rearwardly from the hood, said tail bolt comprising two members each of which has halves of the hood and arm formed integrally, and means for securing the two parts together.

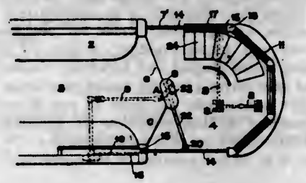
3. In a draft rigging for railway cars, the combination with draft members having stops, a draw-bar, followers, shock absorbing means between the followers, of a tail bolt secured to the draw-bar, said tail bolt comprising two lateral sections forming, when assembled, rearwardly extending arms, said arms passing through slots in the followers whereby the followers assist in retaining the sections together, each section forming a portion of each arm.

1,137,892. LATHE ATTACHMENT. JOHN PATTERSON, Ozone Park, N. Y. Filed July 21, 1914. Serial No. 852,153. (Cl. 33—207.)



The combination with the shaft of the tool advancing member of a lathe, of a collar which is slidably and rotatably mounted thereon and one side of which is provided in the plane thereof and transversely of said shaft and at right angles to the axis thereof with a spirit level, and a set screw passed through said collar and adapted to bear on said shaft.

1,137,893. PASSENGER-VEHICLE. ABRAM FRANK PAUL, London, England, assignor to Prepayment Car Sales Company, New York, N. Y., a Corporation of West Virginia. Filed Jan. 21, 1913. Serial No. 743,246. (Cl. 105—205.)

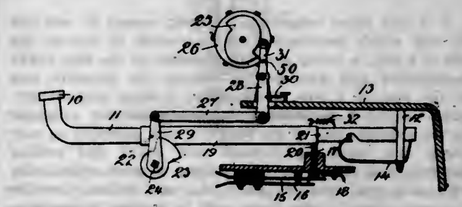


1. A double deck car having an inclosed platform, communicating unobstructedly with the lower deck portion of the car, a stairway leading from the lower to the upper deck of the car, a doorway and door at the side of platform, a barrier located inside said door and doorway to divide the space inside the same into separate restricted entrance and exit ways, said restricted entrance way leading to the interior of the lower deck portion and also to said stairway and means associated with said barrier to operate said door.

2. A double deck car having an inclosed platform communicating unobstructedly with the lower deck portion of the car, a stairway leading from the lower to the upper deck of the car, a doorway and door at one side of the platform, control devices for said door, said control devices located to divide the space inside said doorway into separate entrance and exit passage ways, said entrance passageway leading to the interior of the lower deck portion and also to said stairway.

3. A passenger car provided with a platform having an entrance and exit at one side and an exit alone at the other side, a stairway rising from a point approximately at or near the center of the platform and making a partial turn to the top deck, doors or barriers for opening and closing the entrance and exits so arranged that when opened the doors or barriers in conjunction with the stairway, define separated ingress and egress passageways on the platform.

1,137,894. PRINTING-TELEGRAPH SENDING APPARATUS. FRANK D. PEARNE, Chicago, Ill., assignor of one-half to James E. Martine, Chicago, Ill. Filed Mar. 22, 1909. Serial No. 484,882. (Cl. 177—380.)



1. In a printing telegraph sending apparatus, the combination with keys, sleeves mounted thereon and circuits controlled thereby, of means operating a sleeve for restoring the circuits to normal condition after manipulation of a key, without regard to the restoration of the key to normal position.

2. In a printing telegraph sending apparatus, the combination with keys, sleeves mounted thereon and circuits controlled thereby, of automatic means operating a sleeve for restoring the circuits to normal condition after manipulation of a key, without regard to the restoration of the key to normal position.

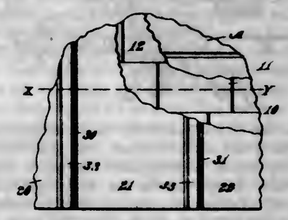
3. In a printing telegraph sending apparatus, a key, contacts arranged to be closed by the movement of the key, and means carried by the key but operating independently of the key movement for opening said contacts.

4. In a printing telegraph sending apparatus, circuit contacts, means for controlling said contacts, a key for actuating said controlling means to close said contacts, and devices carried by but operable independently of the key, while the latter is depressed, for releasing said controlling means to open said contacts.

5. In a printing telegraph sending apparatus, circuit contacts, a key for closing said contacts, and means mounted on but operating independently of the key for opening said contacts.

[Claims 6 to 22 not printed in the Gazette.]

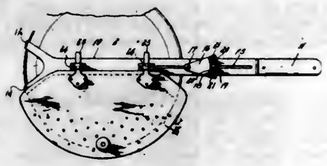
1,137,895. ROOFING. ARTHUR W. PHIPPEN, Methuen, Mass. Filed Jan. 15, 1914. Serial No. 812,289. (Cl. 108—7.)



In a roof covering, the combination of roof boards, with a plurality of vertical strips of plastic sheet roofing the adjoining edges of which are bent upward, and wooden cleats which have at the bottom longitudinal

tapering slots which are forced over the adjoining edges of the strips of roofing so as to distort and amalgamate them.

1,137,896. PAN-LIFTER. GEORGE C. POUNDSTONE, Chicago, Ill. Filed Oct. 28, 1913. Serial No. 797,831. (Cl. 65—32.)

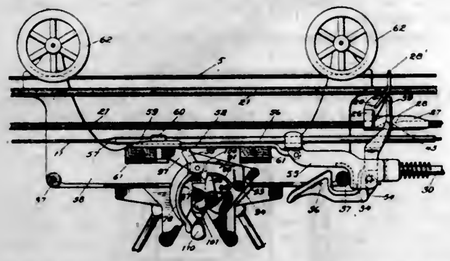


1. A pan lifter comprising a shank, means on one end of said shank constructed and arranged to engage the rim of a pan, a clamp slidably mounted on the said shank constructed and arranged to engage the opposite side of the rim of a pan, a segmental locking member pivotally mounted on the said clamp and slidably arranged on the opposite side of the shank, a stud mounted on said clamp and extending through said shank and locking member, and means on the locking member coöperating with said stud whereby when the said locking member is swung pivotally the clamp will be secured in position.

2. A pan lifter comprising a shank having means on the end thereof to engage the rim of a pan, a clamp slidably mounted thereon to engage the opposite side of the pan, means for locking said clamp in predetermined positions and a pan cover detachably mounted on said shank.

3. A pan lifter comprising a shank having pan engaging means on one end thereof, a clamp slidably mounted on the lower face of said shank, the said shank having a longitudinally extending slot therein above the said clamp, a locking member pivotally secured to the said clamp and slidably mounted on the opposite side of the shank, a headed stud secured to the clamp and extending upwardly through the slot in the shank and the said locking member, the said locking member being provided with a cam constructed and arranged to coöperate with the head of the stud to bind the clamp in place upon the shank.

1,137,897. STORE-SERVICE APPARATUS AND THE LIKE. FRANK D. POWELL, Boston, Mass., assignor to The Lamson Company, Boston, Mass., a Corporation of New Jersey. Filed Jan. 20, 1913. Serial No. 743,074. (Cl. 186—29.)



1. In store service apparatus, the combination of a carriage, a track for said carriage, an obstruction along the line of said track, a receptacle having a supporting frame, a station having means for elevating said frame and receptacle, means for automatically locking said frame to said carriage when elevated by said elevating means, means for propelling said carriage from said station, and means to engage said obstruction for preventing inadvertent displacement of said carriage when said frame is disconnected therefrom, a part of said last mentioned means being connected with a part of said locking means whereby when the latter is operative said obstruction engaging means is inoperatively disposed.

2. In store service apparatus, the combination of a carriage, a track for said carriage, a receptacle having a supporting frame, a station having means for elevating said frame and receptacle, mechanism for automatically locking said frame to said carriage when elevated by said elevating means, means for propelling said carriage from said station, and means for preventing inadvertent displacement of said carriage when said frame is disconnected therefrom, said mechanism including an element adapted for engagement with a part of said elevating means when said frame is locked to said carriage, for releasing said frame from said carriage, said element also adapted to render said displacement preventing means operative as said frame is released.

3. In store service apparatus, the combination of a carriage, a track for said carriage, a receptacle having a supporting frame, a station having means for elevating said frame and receptacle, mechanism for automatically locking said frame to said carriage when elevated by said elevating means, said mechanism having a lock releasing element, means for propelling said carriage from said station, means for preventing inadvertent displacement of said carriage when said frame is disconnected therefrom, a safety locking device, comprising two members each mounted for rotation about a vertical axis, for locking said frame and carriage together at two separate points even should said mechanism become inoperative, said members each having an operating member, and said elevating means having a part adapted for engagement with said lock releasing element when said frame and carriage are being connected together, said part also being adapted for engagement at substantially the same time, with said operating parts of the safety locking device to cause said parts to rotate their respective members about their vertical axis into their operative positions.

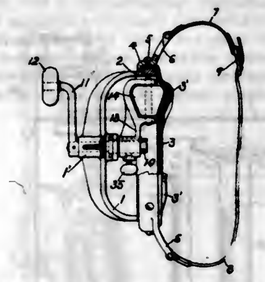
4. A store service apparatus having in combination a way having a station at an end thereof, a carrier adapted to travel along said way, a receptacle, means for attaching said receptacle to said carrier, a latch to hold said carrier at said station, and means, independent of said latch, for holding said carrier against inadvertent despatch from said station when said receptacle attaching means are inoperative.

5. In a store service apparatus, the combination of a carriage, a track for said carriage, a receptacle having a supporting frame, a station having means including a stirrup for elevating said frame and receptacle, a double acting locking device for holding said frame and carriage together when the receptacle is in substantially its uppermost position, and at other times for positively holding said stirrup and frame together, a part of said locking device being screw-shaped and rotatably connected to said frame and said stirrup having means to engage said screw shaped part and rotate the same in one direction or the other according to the direction of movement of said stirrup with respect to said locking device.

[Claims 6 to 30 not printed in the Gazette.]

1,137,898. OSTEOPATHIC APPARATUS. FRANK D. POWELL, Boston, Mass. Filed Feb. 5, 1914. Serial No. 816,812. (Cl. 128—16.)

1. An apparatus for osteopathically treating the large intestine, which comprises a relatively large diametered pressure applicator block having an abdomen engaging peripheral part successive portions of which are adapted to be driven successively in toward the abdominal wall of a patient, the said block bearing against said abdominal wall along a line substantially corresponding to the line of the patient's colon, and actuating and supporting means for said block to hold it against bodily sidewise movement, while displacing the said peripheral portions thereof successively and sequentially in toward the patient's abdomen and out again to, in effect, roll the block, substantially always in a canted position, around said abdominal wall to knead said colon by pressure applied substantially perpendicularly to said abdominal wall.



2. An apparatus for osteopathically treating the large intestine, which comprises a frame, pressure exerting means, carried by said frame for creating a substantially continuous and pronounced wave-like motion in the abdominal wall of the patient, along a determined path substantially corresponding to the line of the colon, and rotary means connected to said frame for actuating said pressure exerting means, said apparatus having provisions for relieving the pressure exerted by said first mentioned means when the wave of motion has reached the left iliac region and for causing a resumption of said motion in the right iliac region.

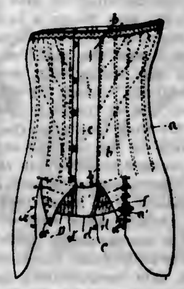
3. An osteopathic apparatus comprising an applicator block, a frame to support said block, means to support said frame, and rotary means to impart a wabbling motion to said block when the latter is in engagement with a portion of the patient to be treated, to establish a wave of motion through said portion.

4. An osteopathic apparatus comprising a pressure pad, a frame to support said pad, a roller to travel circularly around said pad, successive portions of said pad being driven outwardly with respect to said frame by the movement of said roller, and means for moving said roller circularly around said pad, said pad, in the portions thereof adjacent the path of said roller, being of varying thickness to cause said roller to exert a predeterminedly varied pressure through said pad upon the portions of the body to be treated.

5. An apparatus for osteopathically treating the large intestine, which comprises a frame, an applicator block, carried by said frame for creating a wave-like motion in the abdominal wall of a patient, along a determined path substantially corresponding to the line of the colon, rotary means connected to said frame for actuating said applicator block and means for preventing a reversal of said wave-like motion.

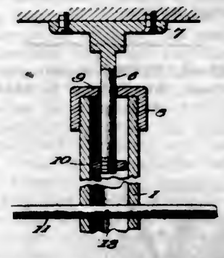
[Claims 6 to 10 not printed in the Gazette.]

1,137,899. SURGICAL CORSET. HELEN A. PRINCE, Portland, Me. Filed June 5, 1914. Serial No. 843,133. (Cl. 2—73.)



A surgical corset having in the front thereof a pair of fastening steels extending vertically over the abdomen and at one side of the center thereof, a relatively narrow strip of unstayed flexible cloth secured to one of said steels and forming the central portion of the corset front and an abdominal supporter below said strip consisting of a horizontally disposed band composed of two end sections of elastic webbing and a central section of cloth forming a continuation of said strip.

1,137,900. DISPLAY-RACK. JOHN REICHERT, Racine, Wis. Filed Feb. 21, 1914. Serial No. 820,253. (Cl 211—20.)



1. A harness rack adapted to be shipped knocked down and to be set up extending from floor to ceiling and to accommodate ceilings of different heights, consisting essentially of a hollow vertical rotary shaft provided with vertical series of radiating arms, the upper end of said shaft projecting upwardly a substantial distance above the topmost arm, a reducing cap fixed on the upper end of said shaft, a block adapted to be fixed to the floor and having an annular top bearing shoulder to removably receive the lower edge of said shaft and a vertical centering boss to removably enter the lower end of the shaft, and a ceiling bracket adapted to be fixed to the ceiling and having a rigid elongated vertical post depending a substantial distance into the upper end of said shaft and on which said shaft is longitudinally movable in applying its lower end to and releasing the same from said boss and to accommodate ceilings of different heights, said post being of reduced diameter with respect to the interior of said shaft, said cap forming the shaft bearing on the post.

2. A harness rack consisting of a pipe forming a vertical rotary shaft, a cap on the upper end of said shaft having a reduced vertical bearing opening, a floor plate to receive the lower end of said shaft, a ceiling plate having a vertical post depending through said cap opening and into the upper end of said shaft, said post being of reduced diameter with respect to the internal diameter of said shaft and being vertically movable thereon, and radial arms fixed to said shaft.

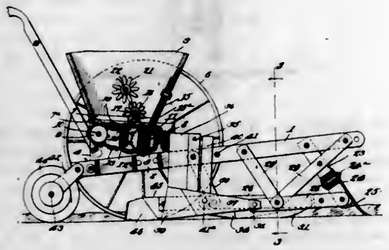
3. A rack consisting of a pipe forming a vertical rotary shaft, a floor block having a vertical boss entering the lower end of said shaft, a ceiling plate having a post of reduced diameter depending longitudinally into the upper end of said shaft, a disk on the lower end of said post within said shaft, a cap on the upper end of said post having a reduced bearing for said post, and arms fixed to and radiating from said shaft.

4. A harness rack adapted to be shipped knocked down and to be set up extending from floor to ceiling and to accommodate ceilings of different heights, consisting essentially of a hollow vertical rotary shaft provided with vertical series of radiating arms, a block adapted to be fixed to the floor and having an annular top bearing shoulder to removably receive the lower end edge of said shaft and a vertical centering boss to removably enter the lower end of the shaft, and a ceiling bracket adapted to be fixed to the ceiling and having a rigid elongated vertical post depending a substantial distance into the upper end of said shaft and on which said shaft is longitudinally movable in applying its lower end to and releasing the same from said boss and to accommodate ceilings of different heights.

5. A harness rack adapted to be shipped knocked down and to be set up extending from floor to ceiling and to ac-

commodate ceilings of different heights, consisting essentially of a hollow vertical rotary shaft having a vertical series of arms extending diametrically therethrough and arranged at various angles, and projecting radially in opposite directions from the shaft, the upper end of said shaft projecting a substantial distance upwardly above the topmost arm, a bearing block adapted to be fixed to the floor for the lower end of said shaft, and a ceiling bracket adapted to be fixed to the ceiling and having a rigid elongated vertical post depending a substantial distance into the upper end of said shaft and on which said shaft is longitudinally movable in applying its lower end to and releasing the same from said boss and to accommodate ceilings of different heights.

1,137,901. SEED-PLANTER. ALFRED JERE HORN REID, Henderson, Tenn. Filed June 8, 1914. Serial No. 843,820. (Cl. 111—32.)

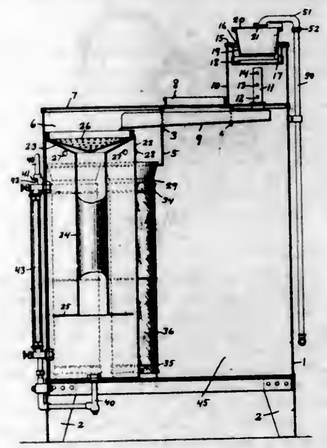


1. In a machine of the character described, a frame comprising an upper beam, lower spaced side bars having their forward ends offset toward one another, a lower central bar secured between the forward ends of the side bars, a standard connecting the forward ends of the said bars and the forward end portion of the beam, and braces connecting the said bars and beam, a plow share carried by the standard, deflectors secured to the said side bars in rear of the plow share for deflecting the soil inwardly, a seed furrow opener attached to the rear end of the central bar, a seed boot carried by the beam and depending in rear of the said furrow opener, and furrow closing deflectors carried by the rear ends of the side bars in rear of the said boot.

2. In a machine of the character described, a frame comprising an upper beam, lower spaced side bars having their forward ends offset toward one another, a lower central bar secured between the forward ends of the side bars, a standard connecting the forward ends of the said bars and the forward end portion of the beam, and braces connecting the said bars and beam, a plow share carried by the standard in front of the said lower central bar, runners secured to the said side bars in rear of the plow share and having deflectors for deflecting the soil inwardly, a seed furrow opener having its forward end pivoted to the rear end of the said central bar, means connecting the seed furrow opener and beam for holding the seed furrow opener at various vertical positions, the seed furrow opener having diverging deflectors at its rear end, a seed boot carried by the beam and depending in rear of the said deflectors of the seed furrow opener, and furrow closing deflectors carried by the rear ends of the side bars in rear of the boot.

1,137,902. FILTER. WILBER E. RICHARDSON, Milwaukee, Wis.; Wisconsin Trust Company, Milwaukee, Wis., a Corporation of Wisconsin, administrator of said Richardson, deceased. Filed Mar. 11, 1911. Serial No. 613,761. (Cl. 210—10.)

1. The combination in a filter of a tank, a separator and a filtering can and a rotatable bent nozzle projecting from the separator in a direction alongside the filtering can so that when the nozzle is rotated in one direction its end extends over the filtering can, and when rotated in the opposite direction or upwardly its end is not above the filtering can whereby the flow of oil through the nozzle is stopped and the filtering can may be removed from the tank.



2. In a filter, the combination of a tank provided with a partition therein to form a chamber separate from the rest of the interior of the tank, a separator closed at its bottom and open at its top extending from said chamber into the interior of said tank and adapted to contain both oil and water, a filtering can open at its top also extending from said chamber into the interior of said tank, and a rotatable bent nozzle projecting from the separator in a direction alongside the filtering can so that when the nozzle is rotated in one direction its end extends over the filtering can, and when rotated in the opposite direction or upwardly its end does not project over the filtering can.

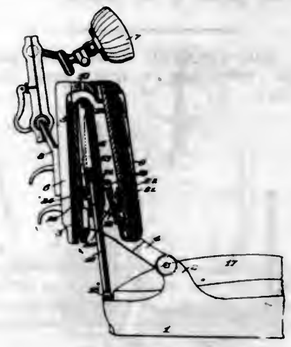
3. In a filter, the combination of a tank provided with a partition therein to form a chamber separate from the rest of the interior of the tank, a separator closed at its bottom and open at its top extending from said chamber into the interior of said tank and adapted to contain both oil and water, a plurality of filtering cans open at their tops arranged around said separator and also extending from said chamber into the interior of said tank, a plurality of rotatable bent nozzles projecting from the separator in directions alongside the filtering cans so that when the nozzles are rotated in one direction their ends will extend over the filtering cans, and when rotated in the opposite direction or upwardly their ends will not project over the filtering cans, and means for conducting oil to said separator.

1,137,903. DENTAL CHAIR. FRANK RITTER, Rochester, N. Y. Filed Nov. 14, 1911. Serial No. 660,232. (Cl. 155—7.)

1. In a chair, the combination with a seat frame, of a back rotatable on the seat frame, a back rest mounted on the back, and a compensating mechanism also mounted on the back between it and the back rest, and having connection with the seat frame, said compensating mechanism being operatively associated with the back rest whereby the lower end of the back rest is moved toward and away from the back to change the inclination of the back rest relatively to the back as the angular position of the latter is changed relatively to the seat.

2. In a chair, the combination with a seat frame and a back frame rotatable from an upright to an inclined position relatively thereto, of a back rest carried by the back frame and a compensating mechanism for moving the back rest outwardly from the back frame when the latter is lowered, said compensating mechanism comprising telescoping members swingingly connected to the seat and back frame.

3. In a chair, the combination with a seat frame and a back frame rotatable from an upright to an inclined position relatively thereto, of a back rest carried by the back frame and a compensating mechanism comprising telescoping members swingingly connected to the seat and back frame operating to move the back rest outwardly from the back frame when the latter is lowered and devices for clamping said telescoping members together to lock the back frame in its angular position of adjustment.

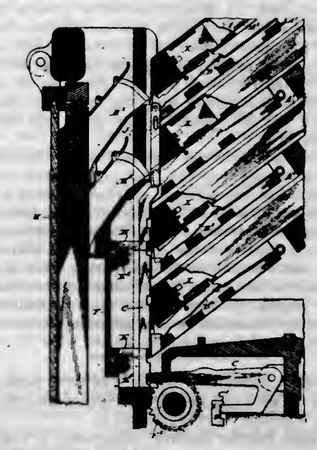


4. In a chair, the combination with a stationary seat, of a back rotatable relatively to the seat, a back rest mounted on the back, and a compensating mechanism disposed between the back and the back rest and connected to the back and seat and operating to incline the back rest angularly relatively to the back as the angular position of the latter is changed relatively to the seat.

5. In a chair, the combination with a seat frame, of a back adjustable on the seat frame, a back rest mounted on the back, and a compensating device also mounted on the back, the compensating mechanism comprising members slidable on each other and swingingly connected to the seat frame and operatively associated with the back rest whereby the back rest is moved relatively to the back as the angular position of the latter is changed.

[Claims 6 to 16 not printed in the Gazette.]

1,137,904. TYPOGRAPHICAL MACHINE. JOHN R. ROGERS, Brooklyn, N. Y., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed July 11, 1914. Serial No. 850,301. (Cl. 199—7.)



1. In a typographical machine, the combination of a plurality of separate and distinct superposed magazines, each having a series of channels for the type or matrices, and a keyboard mechanism connected simultaneously with all the operative channels of the several magazines.

2. In a typographical machine, the combination of a plurality of magazines, a keyboard mechanism, and means whereby the keyboard mechanism may be connected in its entirety to one magazine, or in part to each of several magazines, at will.

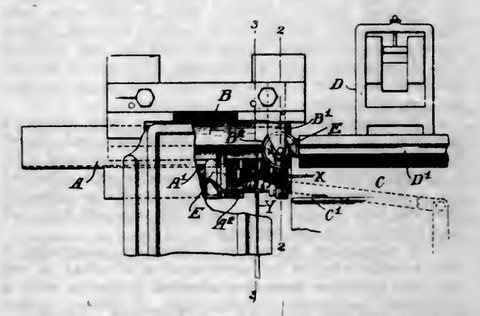
3. In a typographical machine, the combination of a plurality of separate and distinct superposed magazines each having a series of escapements, a corresponding plurality of sets of actuating devices for the escapements, and a keyboard mechanism connected simultaneously to all the actuating devices of the several sets.

4. In a typographical machine, the combination of a plurality of superposed magazines each having a series of escapements, the escapements of one magazine being staggered with relation to those of another magazine, and means for operating the escapements.

5. In a typographical machine, the combination of a plurality of superposed magazines each having a series of escapements, those of one magazine being staggered with relation to those of another magazine and a series of escapement actuating devices arranged side by side and divided into sets, one for each magazine, the actuating devices of one set being alternated with those of another set to correspond to the staggered relation of the escapements, for the purpose described.

[Claims 6 to 14 not printed in the Gazette.]

1,137,905. TYPOGRAPHICAL MACHINE. JOHN R. ROGERS, Brooklyn, N. Y., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed Feb. 19, 1915. Serial No. 9,267. (Cl. 199—7.)



1. In a typographical machine, the combination of a support provided with means to sustain the type or matrices at different levels therein, a device for transferring them therefrom, and means for bringing the type or matrices successively to a common level during their transfer, said means including a rotatable member to engage the type or matrices.

2. In a linotype machine, the combination of the first elevator provided with ledges to sustain the type or matrices at different levels therein, a device for transferring them therefrom, and means for depressing the elevated matrices to bring them to the level of the lower ones, the said means comprising a rotatable member to engage the elevated matrices successively as they are moved off their sustaining ledge by the transfer device.

3. In a linotype machine, the combination of the first elevator provided with ledges to sustain the matrices at different levels therein, the pusher E to transfer them therefrom, and the depressor bar B provided with the roller E to engage the matrices successively as they are transferred from the elevator and bring them to a common level.

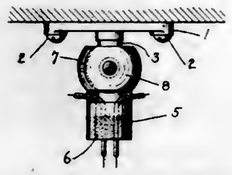
4. In a typographical machine comprising type or matrices formed in their upper ends with notches, the combination of a support provided with means to sustain the type or matrices at different levels therein, a de-

vice for transferring them therefrom, and means for bringing the type or matrices successively to a common level during their transfer, the said means comprising a rotatable member adapted to engage within the notches of the type or matrices.

5. In a typographical machine comprising type or matrices formed in their upper ends with notches, the combination of a support provided with means to sustain the type or matrices at different levels therein, a device for transferring them therefrom, and means for bringing the type or matrices successively to a common level during their transfer, the said means comprising the roller E formed with the annular flange E^1 adapted to engage at the bottoms of the notches of the type or matrices, for the purpose described.

[Claims 6 to 8 not printed in the Gazette.]

1,137,906. SUSPENSION DEVICE. ARTHUR ROSENBERG, New York, N. Y. Filed Sept. 6, 1913. Serial No. 788,403. (Cl. 240—85.)



1. In a suspension device the combination of two members, one constituting a base and the other an internally threaded socket having a lateral opening through the side wall of said socket, and one of said members having a ball secured thereto provided with a transverse hole through said ball, and the other member provided with a spherical recess adapted to receive said ball and provided with a transverse hole in alinement with and of smaller diameter than the hole in said ball, and a pin or bolt through said holes.

2. A suspension device comprising a base having a spherical lug provided with a transverse hole therethrough secured thereto, a threaded socket provided with a hemispherical recess adapted to receive said spherical lug, a hemi-spherical cap, and a bolt of smaller diameter than the hole in said lug, passing through said hole and said spherical lug and said cap.

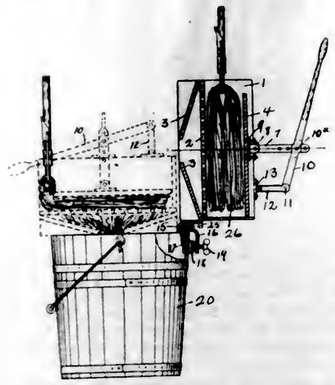
3. A suspension device for electroliers comprising a base member adapted for securement to a ceiling or the like, and having a depending spherical projection with a horizontal perforation therethrough, a divided socket member engaging said projection and having opposite perforations in line with the perforations in said projection, means on said socket for the attachment of an electrolier, and a clamping member extending through said perforations for securing the socket member on the spherical projection of the base member, said clamping member being of less diameter than the perforation in the projection to permit limited universal movement of the electrolier.

4. A suspension member for electroliers comprising a base member adapted for securement to a ceiling or the like, a spherical projection depending from said member and having a horizontal perforation therethrough, a two-part socket member adapted to engage said spherical projection and having a perforation in each member in line with the perforations in said projections, a sleeve integral with one of said socket member parts for the attachment of an electrolier, and a clamping member extending through said perforations to hold the two parts of the socket member together upon said spherical projection, said clamping member being of less diameter than the perforation in the projection to permit limited universal movement of the electrolier.

5. A suspension device for electroliers comprising a base member adapted for securement to a ceiling or the like, a spherical projection depending from said member and having a horizontal perforation therethrough, a two-part socket member fitted to said spherical projection, each of said parts having a perforation which perforations are in line with the perforation in said projection, a sleeve integral with one socket part for the attachment of an electrolier, a clamping bolt extending through said perforations and of less diameter than the perforation in the projection to permit limited universal movement of the socket member, and a tightening nut for the bolt exterior of the suspension device.

[Claim 6 not printed in the Gazette.]

1,137,907. MOP-WRINGER. JOHN W. ROSENBERRY, Betula, Pa. Filed July 14, 1913. Serial No. 778,823. (Cl. 15—12.)



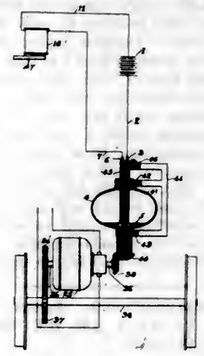
1. In a mop wringer, the combination of a pressure mechanism comprising pressure boards adapted to receive and squeeze a mop between them normally arranged in an upright position; a device for securing the mechanism to a receptacle; a hinge connection between the device and mechanism on which the mechanism may be swung from an upright position to a horizontal position over a receptacle to which the device is attached; and a spring for yieldingly holding the mechanism in an upright position.

2. In a mop wringer, the combination of a pressure mechanism comprising pressure boards adapted to receive and squeeze a mop between them normally arranged in an upright position; a device for securing the mechanism to a receptacle; a hinge connection between the device and mechanism on which the mechanism may be swung from an upright position to a horizontal position over a receptacle to which the device is attached; a spring for yieldingly holding the mechanism in an upright position; and an adjustable stop for adjusting the position to which the mechanism moves under the influence of the spring.

3. In a mop wringer, the combination of the sides; a perforated bottom between the sides; drip boards between the sides and below the bottom; a pressure board adapted to operate over the bottom; a securing device comprising a clamp adapted to clamp the device to a receptacle; a hinge connection between the device and the frame comprising the bottom and sides; a spring tensioned between the device and said frame adapted to swing the frame to an upright position; and a stop for limiting the movement of the frame under the influence of the spring.

1,137,908. CENTRIFUGAL CIRCUIT-BREAKER. CHRISTIAN F. RUMOLD, Berea, Ky. Filed Mar. 12, 1913. Serial No. 753,872. (Cl. 175—310.)

A centrifugal circuit breaker comprising a container, contact fluid therein, separate contact bars extending into the container to be electrically connected by said contact fluid, a sleeve supporting said contact bars and insulating them from each other, a neck on said container around said sleeve, between which and said sleeve a closure is formed, preventing escape of said contact fluid from said container, the exterior of said neck forming the bearing means on the container, a second bearing means on the container alined with said sleeve and said neck, a frame, bearings in the frame for the bearing means of the container, and a support on said frame for said sleeve.



1,137,909. CUSPIDOR-CARRIER. EDWARD RUSFELDT, Grand Forks, N. D. Filed Sept. 30, 1914. Serial No. 864,268. (Cl. 57—110.)



1. A cuspidor carrier having a horizontal handle portion, connecting portions extending downward therefrom, a shank to which said connecting portions converge, and a plurality of equidistant hook portions diverging from the lower end of said shank, each of said hook portions terminating in an upturned prong adapted to interlock with the downwardly rolled rim one of the several cuspidors which together constitute the load of the device.

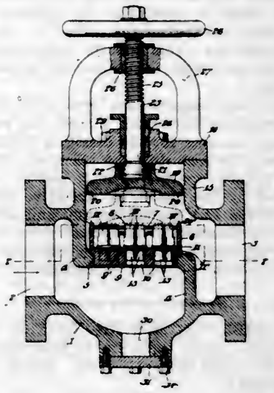
2. A cuspidor carrier having a horizontal handle portion, connecting portions extending downward therefrom, a shank to which said connecting portions converge, and hook portions in two pairs diverging from the lower end of said shank and terminating in prongs projecting upward and inward; the body of the device being made of wire, and said handle portion provided with a sleeve; substantially as hereinbefore specified.

1,137,910. NON-RETURN STOP-VALVE. ALBERT SCHADE, Philadelphia, Pa. Filed Mar. 18, 1914. Serial No. 825,500. (Cl. 137—32.)

1. A valve mechanism comprising a case provided with a diaphragm containing passages, non-return valves for controlling said passages, a wall connected with said diaphragm and inclosing said passages and valves, and a stop valve in said casing and adapted to be seated on said wall.

2. A valve mechanism comprising a case containing a box provided with passages, non-return valves adapted for controlling said passages, said valves having guide means movable in said passages, and a stop valve in said case for closing said box.

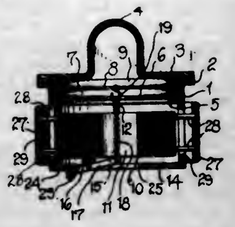
3. A valve mechanism comprising a case containing a diaphragm having a passage or passages therein, a non-return valve or valves for controlling said passage or passages, a wall within said case extending from said diaphragm in the direction of movement of said valve or valves therefrom, means within said wall for guiding the movements of said valve or valves, and a stop valve in said case and adapted to engage said wall whereby the flow through said case is stopped.



4. A valve mechanism comprising a case containing a diaphragm having a passage or passages therein, a non-return valve or valves for controlling said passage or passages, a wall in said case extending from said diaphragm in the direction of movement of said valve or valves therefrom, valve guiding means within said wall, means on said valve or valves coöperating with said guiding means for controlling the movements of said valve or valves, and a stop valve within said case and adapted to be seated on said wall to hold said non-return valve or valves seated.

5. A valve mechanism comprising a diaphragm containing passages adapted for seating valves, a wall connected with said diaphragm, a device containing through passages and chambers fixed to said wall, fluid passages communicating with said chambers, non-return valves adapted for controlling said passages first named, pistons connected with said valves and adapted to act in said chambers to control the movement of said valves, and a stop valve adapted to be seated on said wall.

1,137,911. SOUND-BOX. ANNIE W. SCHMIDT, Oakland, Cal. Filed June 17, 1914. Serial No. 845,685. (Cl. 181—10.)



1. A sound box comprising a casing, a diaphragm positioned therein, a piston within the casing, a stylus carried by the piston, an operative connection between the stylus and the diaphragm, a member surrounding the casing and capable of movement relatively thereto, and an operative connection between the movable member and the piston.

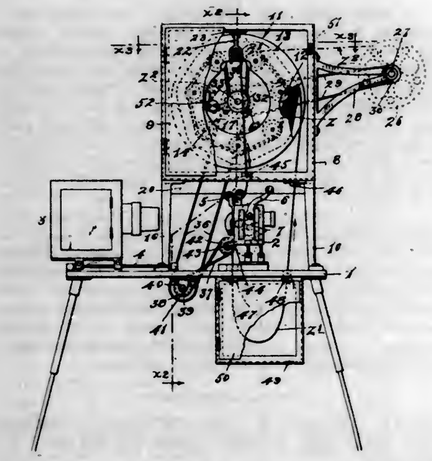
2. A device of the character described comprising a casing provided with elongated slots, a diaphragm positioned within the casing, a piston mounted within the

casing, a stylus carried by the piston, an operative connection between the stylus and the diaphragm, a member surrounding the casing and capable of movement relatively thereto, and a connection between the member and the piston disposed through the slots of the casing.

3. A sound box comprising a casing, an inwardly disposed flange within the casing, a seat ring seated on the flange, a cover member for the casing, a diaphragm interposed between the seat ring and the cover, a piston within the casing, a cover for the opposite end of the casing, a stylus carried by the piston, an operative connection between the stylus and the diaphragm, and guiding means for the piston connecting the second cover and the seat ring.

4. A sound box comprising a casing, an inwardly disposed flange within the casing, a seat ring seated on the flange, a cover member for the casing, a diaphragm interposed between the seat ring and the cover, piston within the casing, a cover for the opposite end of the casing, a stylus carried by the piston, an operative connection between the stylus and the diaphragm, and guiding means for the piston connecting the second cover and the seat ring, said guiding means serving to maintain said second cover and said ring in operative position.

1,137,912. REEL FOR MOVING-PICTURE MACHINES. FREDERICK D. SEARS and AXEL O. SÖDERGREN, Minneapolis, Minn. Filed Sept. 11, 1913. Serial No. 789,296. (Cl. 88—18.7.)



1. The combination with a reel, comprising a body having an axial opening and a plurality of loosely journaled rollers, of a ribbon, means for rotating said body to wind said ribbon on said rollers, and means, independent of said ribbon, for rotating said rollers, at will, to continuously feed the wound ribbon through the axial opening of said body after the ends thereof have been passed through said axial opening and connected.

2. The combination with a reel comprising a body having an axial opening and a plurality of loosely journaled rollers, of a ribbon, means for rotating said body to wind said ribbon on said rollers, means for locking said body against rotation, and means for continuously feeding the wound ribbon through the axial opening of said locked body, after the ends thereof have been passed through said axial opening and connected.

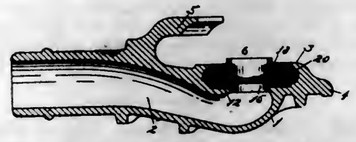
3. The combination with a reel comprising a body having an axial opening and a plurality of loosely journaled rollers, of a ribbon, means for rotating said body to wind said ribbon on said rollers, means for locking said body against rotation, and means for rotating said rollers while said body is locked against rotation, to continuously feed the wound ribbon through said axial opening, after the ends thereof have been passed through said axial opening and connected.

4. The combination with a reel comprising a body having an axial opening and a plurality of loosely journaled rollers, of a ribbon, means for rotating said body to wind said ribbon on said rollers, means for locking said rollers against rotation, with respect to said body, while said ribbon is being wound thereon, means for rotating said rollers to feed the wound ribbon through said axial opening after the ends thereof have been passed through said axial opening and connected, and means for locking said body against rotation while said rollers are being rotated.

5. The combination with a moving picture machine having a feed mechanism, of a body rotatable, at will, having an axial opening and a plurality of loosely journaled rollers, a film, means for rotating said body to wind said film on said rollers, and means independent of said ribbon for rotating the said rollers at will to continuously feed said film to said machine.

[Claims 6 to 10 not printed in the Gazette.]

1,137,913. HOSE-COUPLING. JAMES S. SHEAFE, New Brighton, N. Y. Filed Aug. 24, 1914. Serial No. 858,201. (Cl. 137—89.)



1. A coupling head for train pipe hose having a bore therethrough and a recess surroudning said bore, a non-corrodible gasket-engaging ring projecting into said bore and traversing said recess at a distance from the walls thereof, and non-corrodible filling material occupying the space between said ring and the recess wall.

2. The combination, with the coupling head of a train pipe hose, said head having a bore therethrough and a recess surroudning and merging with said bore, of a gasket-engaging ring of non-corrodible material traversing said recess and communicating with said bore, said ring being spaced from the walls of said bore to define an annular cavity, and non-corrodible filling material occupying such cavity and making a tight joint with said ring and the recess walls.

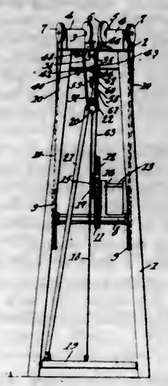
3. The combination, with the coupling head of a train pipe hose, said head having a bore therethrough and a recess surrounding and merging with said bore, of an interiorly grooved ring traversing said recess and communicating with said bore, the groove being located between the top and bottom of said recess and the ring being spaced from the recess walls, and non-corrodible cast material filling the portion of said recess outside of said ring and making close contact with the ring and recess walls.

4. The combination, with the coupling head of a train pipe hose, said head having a bore therethrough and a recess surrounding and merging with said bore, of a thin metal lining ring traversing said recess and communicating with said bore, said ring being embossed outwardly at a point intermediate its ends to form an inwardly opening annular groove, the outwardly projecting portions of said ring being located between the top and bottom of said recess, and non-corrodible cast material filling the portion of said recess outside of said ring and making close contact with the ring recess walls.

5. The combination, with the coupling head of a train pipe hose, said head having a bore therethrough and a recess surrounding and merging with said bore, of a gasket-receiving ring of non-corrodible material traversing said recess and forming a continuation of said bore, said ring being constructed to close said recess away from said bore and also having intermediate its ends an inwardly opening annular groove, and filling material of a nature more fusible than either said head or said ring cast into said recess around said ring.

[Claims 6 to 15 not printed in the Gazette.]

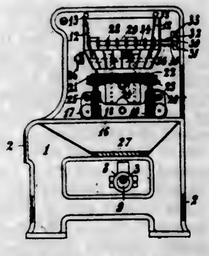
1,137,914. RAZOR-HONING MACHINE. GEORGE C. SHERMAN, Geneva, N. Y. Filed May 22, 1914. Serial No. 840,286. (Cl. 51—16.)



1. A razor honing machine, including a support, a pair of rotatory honing members, a reciprocable razor carrying member, a clamp carried by the latter member, an arm resiliently connected to the razor carrying member, an adjustable block mounted in the support and provided with two guides for receiving the upper end of the arm, and automatic means disposed in the path of the arm for alternately guiding the same from one guide to the other and for alternately changing the position of the razor carrying member relatively to the honing members.

2. A razor honing machine including a support, a pair of rotatory honing members, a reciprocable razor carrying member, an arm attached thereto and projecting from one side thereof, a block mounted in the support and provided with a Y-shaped groove for the reception of the upper end of the arm, a switch pivoted at the junction of the terminals of the Y-shaped groove, and means for operating the switch disposed in the path of the upper end of the arm, whereby as the razor carrying arm is reciprocated, the arm is alternately moved toward each honing member.

1,137,915. BRUSH-MAKING. ARTHUR EFRAIM SILANDER, Berlin, Germany. Filed Feb. 9, 1914. Serial No. 817,511. (Cl. 15—7.)



1. In a machine for the manufacture of brushes or brooms, the combination of a container for the bristles or hairs, passages leading from said container, means for agitating said container, means for supporting a brush head below the outlet orifices of said passages with its holes in register therewith, a series of parallel horizontal rods mounted in said container and means to operate the rods for effecting transverse movement of the edges of said rods supporting the bristles.

2. In a machine for the manufacture of brushes or brooms, the combination of a container for the bristles or hairs, funnel-shaped passages leading from said container, means for agitating said container, means for supporting a brush head below the outlet orifices of said passages with its holes in register therewith, a series of parallel rods pivotally mounted in said container, a pair of hinged rods each connecting alternate members of said parallel rods and means for actuating said hinged rods for rocking the alternate members of said parallel rods in opposite directions.

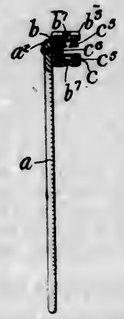
3. In a machine for the manufacture of brushes or brooms, the combination of a container for the bristles or hairs, funnel-shaped passages leading from said container, means for agitating said container, means for supporting a brush head below the outlet orifices of said passages with its holes in register therewith, a series of parallel rods pivotally mounted in said container, a pair of hinged rods each connecting alternate members of said parallel rods and means operated by the agitation of said container for rocking the alternate members of said parallel rods in opposite directions.

4. In a machine for the manufacture of brushes or brooms, the combination of a container for the bristles or hairs, passages leading from said container, means for agitating said container, means for supporting a brush head below the outlet orifices of said passages with its holes in register therewith, a series of parallel rods mounted in said container, means for moving the said rods, and a plurality of hoods each disposed above one of said rods to decrease the free space between adjacent rods.

5. In a machine for the manufacture of brushes or brooms, the combination of a container for the bristles or hairs, funnel-shaped passages leading from said container, means for agitating said container, a carriage arranged below said passages; a table surmounting said carriage, and below said passages to receive the brush heads and lifting gear operative upon said table to raise it relatively to said carriage parallel to the original position thereof.

[Claims 6 to 13 not printed in the Gazette.]

1,137,916. TOOTH-BRUSH. JOSEPH SIMMONS, New York, N. Y. Filed June 15, 1914. Serial No. 845,048. (Cl. 15—39.)

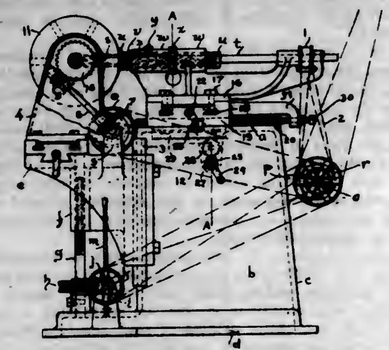


A tooth brush comprising a handle to the side of one end of which is pivoted a brush, comprising a holder which is arc-shaped in form and U-shaped in cross section, and a brush frame of the same general form as the holder and adapted to be inserted thereinto and removed therefrom, said brush frame being provided with brush material, the side walls of the holder being also provided adjacent to the ends thereof with vertical recesses adapted to receive the ends of the side walls of the brush frame, and said side walls of the holder being also provided with inwardly directed projections and the side walls of the brush frame with corresponding recesses to receive said projections.

1,137,917. MILLING-MACHINE. ARVEL T. SINK, Detroit, Mich., and GEORGE A. DUDLEY, Buffalo, N. Y. Filed May 20, 1914. Serial No. 839,683. (Cl. 90—20.)

1. In a milling machine, the combination of an end mill, means for holding a crank shaft eccentrically of one of the crank pins, means for revolving the said crank shaft so as to rotate the said crank pin upon its axis, and means

for moving the crank shaft across the end mill in a direction crosswise of the axis of rotation.



2. In a milling machine, the combination of a rotatable end mill, head stocks, means upon the head stocks for holding a crank shaft eccentrically thereof to bring the crank pin adjacent the end mill in concentric relation with respect to the head stock, means for rotating the head stock, and means for moving the head stock to cause the work to cross the end mill crosswise of the axis of rotation.

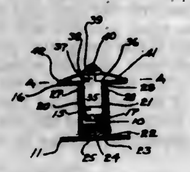
3. In a milling machine, the combination of an end mill, means for holding and rotating the work adjacent the end mill, means for causing the work to move across the end mill perpendicular to the axis of rotation, a movable bed, a stationary bed, means for adjusting the movable bed along the stationary bed, and a carrier for said end mill adjustable longitudinally of the movable bed and perpendicular to the direction of movability of the movable bed.

4. In a milling machine, the combination of an end mill, means for holding and rotating the work continuously and automatically, a bed upon which the end mill is mounted, a frame upon which the means for holding and rotating the work is mounted, the said frame being slidable vertically with respect to said bed, and automatic means for slowly sliding said frame vertically to carry the rotating work across the end of the end mill.

5. In a milling machine, the combination of a rotatable end mill, a head stock for holding and rotating the work, flexible driving connection for said head stock, a bed upon which said end mill is mounted, a frame having a sliding connection with the bed and upon which the head stock is mounted, said frame provided with a leg that is threaded, a screw in the form of a rotatable post engaging with said leg, a helical gear on said screw, and a worm for driving said helical gear.

[Claims 6 to 10 not printed in the Gazette.]

1,137,918. SEPARABLE BUTTON. CARL GUSTAF SJÖBERG, Malmo, Sweden. Filed Dec. 5, 1913. Serial No. 804,858. (Cl. 24—110.)



1. A separable button comprising a socket member having a suitable base, a solid portion intervening between said base and the socket in said member, and a side slot in the socket extending up from said solid portion, combined with a plug member adapted to enter said socket, a resilient arm secured by one end to the solid portion, thence rising within said slot, and curving from the latter to bring its other end into engagement with the plug member, and means within the latter enabling the curved portion of said arm to be forced outwardly and thereby caused to release said members.

2. A separable button comprising a socket member, a hollow plug member adapted to enter the socket thereof and having side apertures, resilient arms on the socket member bent oppositely inward so as to engage said apertures, and a releasing plunger for said members formed with shoulders normally resting upon the bent portions of said arms, in a position to spread them apart by forced engagement therewith.

3. A separable button comprising a socket member, a hollow plug member having a recessed head and detachably engaging said socket member, resilient means on the latter holding said members together, a releasing plunger for the member slidable in said plug member, said means operating to press said plunger normally outward endwise, a neck on the plunger, a knob on said neck, and a cover having an aperture for the operation of said knob, covering the bottom part of the latter, the neck, and the plunger, said cover being fitted into the recessed head of the plug member.

1,137,919. MULTIPLE-COUNTER CASH-REGISTER. FRANCESCO SKERL, Dayton, Ohio, assignor to The National Cash Register Company, Dayton, Ohio, a Corporation of Ohio, (incorporated in 1906.) Filed Aug. 15, 1912. Serial No. 715,151. (Cl. 235—2.)



1. In a cash register, the combination with a movable frame and a series of totalizers carried thereby, of a plurality of sets of transfer devices carried by said frame each set appropriate to one of said totalizers, a common operating means for said devices mounted independent of the frame, means for establishing a coöperative relation between the operating means and one of said sets of transfer devices, and means for moving said operating means in and out of engagement with said set of transfer devices.

2. In a cash register, the combination with a plurality of totalizers, of a plurality of sets of transfer devices each set appropriate to one of said totalizers, operating means common to all of said transfer devices, means for establishing a coöperative relation between the operating means and one of said sets of transfer devices, and means for moving said operating means in and out of engagement with said set of transfer devices.

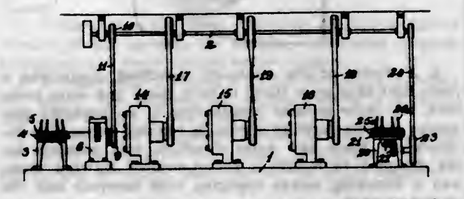
3. In a cash register, the combination with a movable frame and a series of totalizers carried thereby, of a plurality of sets of transfer devices carried by said frame and each appropriate to one of the totalizers, operating means mounted independent of the frame and common to all of the transfer devices, means for simultaneously positioning any one of the totalizers for operation, and establishing a coöperative relation between the transfer devices appropriate to the adjusted totalizer and the common operating means, and means for moving said operating means in and out of engagement with said set of transfer devices.

4. In a cash register, the combination with a main operating mechanism, of manipulative amount determining devices comprising a series of movable levers adapted to be manually differentially adjusted in either direction as a preliminary to an operation of the main operating mechanism, latches for temporarily latching the levers in their adjusted positions, and means for positively withdrawing the latches and restoring the levers to normal position upon an operation of the main operating mechanism.

5. In a cash register, the combination with a main driving means, of manipulative amount determining devices comprising a series of adjustable levers, resetting means for the adjustable levers carried by the main driving means, normally inoperative pawls for connecting the levers and resetting means, and means controlled by the adjustment of any lever for rendering its appropriate connecting pawl operative.

[Claims 6 to 28 not printed in the Gazette.]

1,137,920. MACHINE FOR REDUCING WIRE. FRANK H. SLEEPER, Worcester, Mass. Filed May 8, 1909. Serial No. 494,768. (Cl. 78—21.)



1. In a machine for the continuous reduction of a wire, the combination of a series of rotating swaging mechanisms in axial alinement, each comprising a rotating head, radially movable dies carried by said head, means for intermittently forcing said dies against the wire, a pair of feed rolls for the uniform feeding of the wire to the first of said swaging heads, and frictionally rotated means for taking up the wire as it is delivered from the last of said swaging mechanisms.

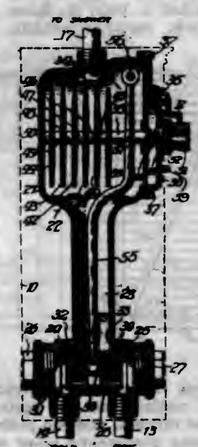
2. In a machine for the continuous reduction of a wire, the combination of a series of rotating swaging heads, each having intermittently actuated dies for compressing the wire and arranged in axial alinement, means for feeding the wire at a uniform speed to the first of said swaging heads, with the remaining swaging heads arranged to receive the wire direct from the next preceding swaging head, and a frictionally rotated take-up mechanism for receiving the wire from the last of said swaging heads.

3. In a machine for the continuous reduction of a wire, comprising a series of rotating swaging mechanisms of the class described, means for feeding the wires at a continuous uniform speed to the first of said swaging mechanisms, and means for rotating each of said swaging mechanisms in the opposite direction from the preceding swaging mechanism.

4. In a machine for the continuous reduction of a wire, a series of rotating swaging mechanisms of the class described placed in axial alinement, with each succeeding swaging mechanism, arranged to receive the wire direct from the next preceding swaging mechanism, means for feeding the wire at a continuous uniform speed to the first swaging mechanism, and means for rotating said swaging mechanisms.

1,137,921. TEMPERATURE-CONTROLLING DEVICE. MORTON O. SNEDIKER, Chicago, Ill., assignor to The Powers Regulator Company, Chicago, Ill., a Corporation of Illinois. Filed Apr. 20, 1914. Serial No. 833,192. (Cl. 236—6.)

1. In a temperature controlling device, the combination of a casing having cold and hot fluid inlets thereto and an outlet therefrom, a mixing chamber within said casing, a valve for controlling the proportional amounts of fluid passing from said inlets to said mixing chamber, a diaphragm in said casing, a hollow disk within said mixing chamber, said disk being provided with readily volatile fluid, connecting means between said disk and said diaphragm, whereby on increase of pressure of the fluid in said mixing chamber, said diaphragm will be moved outwardly to expand said disk, thereby compensating for said increased pressure on said disk, means for actuating said valve by the change in volume of said disk, whereby a predetermined temperature of the fluid in said mixing chamber is maintained, a spring engaging said diaphragm on one end, and a threaded plug engaging said spring on its opposite end, whereby, on rotation of said plug, the tension of said spring is changed and the predetermined temperature of the fluid within said mixing chamber is correspondingly changed, substantially as described.



2. In a temperature controlling device, the combination of a casing having cold and hot water inlets thereto and an outlet therefrom, a mixing chamber within said casing, a slide-valve for controlling the proportional amounts of water passing from said inlets to said mixing chamber, a plurality of hollow expansible disks within said mixing chamber, said disks being mechanically connected with each other in series, and each of said disks being substantially filled with a readily volatile fluid, a diaphragm in said casing, connecting means between said series of disks and said diaphragm, whereby on increase of pressure of the fluid in said mixing chamber, said diaphragm will be moved outwardly to expand said disks, thereby compensating for said increased pressure on said disks, means for actuating said valve by the change in volume of said disks, whereby a predetermined temperature of the water in said mixing chamber is maintained, a spring engaging said diaphragm on one end, and a threaded plug engaging said spring on its opposite end, whereby, on rotation of said plug, the tension of said spring is changed and the predetermined temperature of the water in said mixing chamber is correspondingly changed, substantially as described.

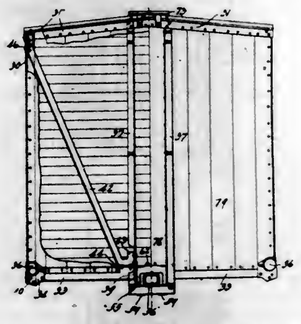
3. In a temperature controlling device, the combination of a casing having inlet and outlet ports, a valve controlling one of said ports, thermostatic means for actuating said valve, a diaphragm connected to said thermostat, and a spring associated with said diaphragm and acting to restrict the expansion of said thermostat, an increased pressure within said casing acting on said diaphragm to compress said spring and reduce the resistance to be overcome by said thermostat, substantially as described.

4. In a device of the class described, the combination of a casing having a plurality of inlets and an outlet, a valve controlling said inlets, a thermostat including a self-expansible element disposed within said casing, and adapted to be affected by pressure within said casing, spring means and a diaphragm associated with said thermostat said diaphragm being adapted to act upon said spring means and relatively reduce the resistance to expansion of

said thermostat in proportion to the increase in pressure within said casing, substantially as described.

5. In a device of the class described, the combination of a casing having hot and cold water inlets and an outlet, a valve controlling said inlets, a plurality of volatile-fluid-containing-thermostatic units controlling the actuation of said valve, a spring against which said thermostats act, and pressure-relieving means associated with said thermostatic valve-actuating device and arranged to counteract the compressive force of the fluid external to said disks in proportion as the pressure varies within said chamber, substantially as described.

1,137,922. BOX-CAR. ARNOLD STUCKI, Pittsburgh, Pa., assignor of one-half to Peter M. Kling, Pittsburgh, Pa. Filed Aug. 12, 1908. Serial No. 448,232. (Cl. 105—192.)



1. A railway box car comprising central longitudinal sills, a roof, roof carlines, and end posts riveted to the sills and to the end carlines, said end posts being of channel section extending downwardly below said rivets with undiminished width and tapering toward their tops.

2. A railway box car comprising central longitudinal sills, a roof, roof carlines, and end posts of channel form tapering toward their tops, having their webs riveted to the webs of the longitudinal sills and their upper ends riveted to the end carlines, said posts extending downwardly of undiminished width below the rivets which secure the same to the longitudinal sills.

3. A railway car frame comprising central longitudinal sills, roof carlines, and end posts riveted to the ends of the sills a nd the roof carlines, said posts being of channel form and having their inner flanges at the bottom turned into the plane of the webs to provide enlarged riveting areas.

4. A railway car frame comprising central longitudinal sills, end posts secured to said sills, a divided end sill, and diagonal braces secured to the inner ends of the sections of the end sills and extending to the upper outer corners of the car.

5. A railway car frame comprising central longitudinal sills, a divided end sill, a car body, end posts riveted to the ends of the central sills, and diagonal braces secured to the lower ends of said end posts and extending to the upper outer corners of the car body.

[Claims 6 to 13 not printed in the Gazette.]

1,137,923. TOOL-RETAINER. JEROME T. SULLIVAN, Collis, Minn. Filed June 26, 1914. Serial No. 847,508. (Cl. 2—151.)

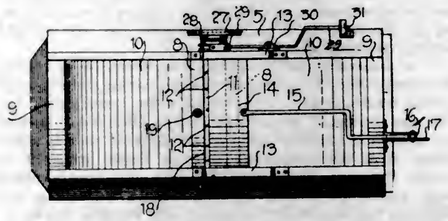
1. A tool retainer of the character described, comprising a member having an inwardly projecting portion forming a stop, and an outwardly projecting portion designed to extend beyond the edge of a pocket, said stop being moved outwardly when the device is rocked on said outwardly projecting portion.

2. A tool retainer of the character described, comprising a body bent back upon itself to form inner and outer members, said inner member having a stop for preventing the outward movement of a tool, and a rounded portion upon which the retainer is designed to be rocked to move said stop out of the path of the tool.



3. A device of the character described comprising a plate bent back upon itself to form inner and outer members, the inner member terminating in an inwardly projecting portion forming a stop, a rounded connection between the inner and outer members, said members being designed to receive a pocket-member between them, and a fastening means engaging said members and the pocket-member.

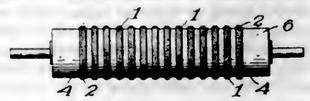
1,137,924. MANURE-SPREADER. JULIEN SWOLEAU, Duson, La. Filed Mar. 24, 1914. Serial No. 826,988. (Cl. 111—40.)



1. In a manure spreader, the combination with a body having a transversely extending discharge opening; of a horizontally movable feed controlling plate slidably mounted entirely beneath the bottom of the body and operating across the discharge opening, a longitudinally extending rod centrally arranged beneath the body and fixed at one of its ends thereto, the body of the rod being depressed below the level of the feed controlling plate to thereby permit of movement of the feed controlling plate across the space above the rod, said rod extending across the discharge opening, independently adjustable oppositely disposed chutes, each having a width equal to the maximum width of the discharge opening and having upwardly extending sides, and being pivotally mounted at their corresponding ends upon said rod, and chutes extending in opposite directions therefrom, whereby to deposit manure in spaced rows upon the ground, said chutes being movable from a position of angularity with respect to the bottom of the body, to a position parallel thereto.

2. In a manure spreader, a body having a discharge opening extending transversely thereto, a supporting member mounted at one end upon the bottom of the body and extending longitudinally of the body and beneath said opening, and oppositely disposed chutes hingedly mounted upon the supporting member for angular adjustment with relation to each other, said chutes being slidable off and on said supporting member.

1,137,925. DOFFER-RING. ORMAN L. TAFT, Worcester, Mass. Filed May 26, 1913. Serial No. 769,818. (Cl. 19—2.)



1. As a new article of manufacture, a doffer ring comprising a support for a plurality of teeth, said support being composed of more than one thickness of material and the outer surface of said support being jointless.

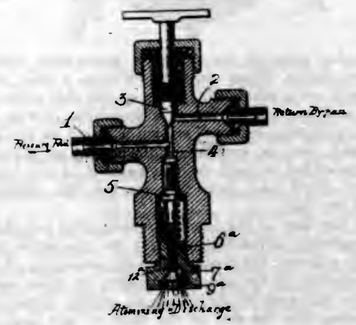
2. As a new article of manufacture, a doffer ring including a backing, a jointless facing surrounding said backing, and a plurality of teeth inserted through said backing and facing and projecting outwardly from said facing.

3. A doffer ring including a backing, a jointless facing secured to the backing, the backing and facing forming a support, and teeth carried by the support.

4. A doffer ring including a leather backing, a jointless felt facing, the backing and facing forming a support, and teeth carried by the support.

5. A doffer ring including a leather backing, a jointless felt facing cemented to the backing, the backing and facing forming a support, and teeth carried by the support.

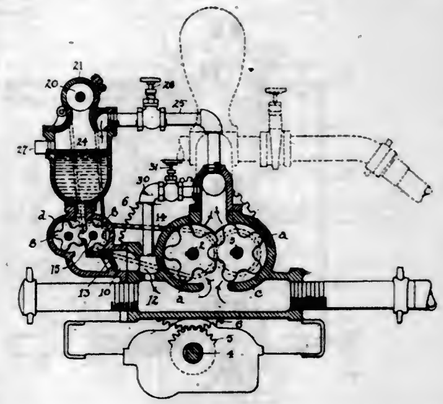
1,137,926. OIL-FEEDER FOR INTERNAL-COMBUSTION ENGINES. ELI TEETER, Jersey City, N. J. Filed June 27, 1910. Serial No. 569,124. (Cl. 137—81.)



An oil feed for internal combustion engines comprising a pressure actuated fuel feed and a nozzle supplied thereby; said nozzle being constructed with a bore having a tapered portion and a cylindrical portion beyond the tapered portion, and a plug constructed with a tapered portion conforming substantially to the tapered portion of the bore and with a substantially cylindrical knurled head entering the cylindrical portion of the bore; said plug being adjustable in said bore.

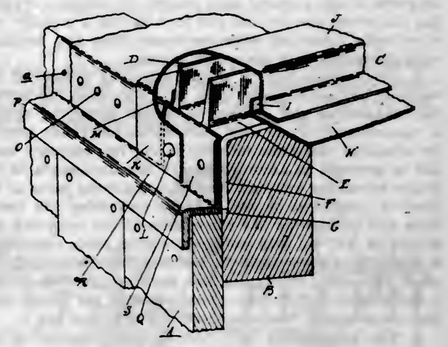
1,137,927. AUTOMOBILE CHEMICAL-ENGINE. JOHN A. THOMAS, Zanesville, Ohio. Filed June 17, 1912. Serial No. 704,057. (Cl. 169—9.)

A chemical fire extinguishing engine provided with a rotatable main pump consisting of two rotors having intermeshing wings and a rotary chemical supply pump of like construction and smaller size operatively connected therewith and constructed to measure the chemical and deliver the same to the intake side of the main pump in predetermined proportions through a valved channel, in combination with a chemical receiving chamber discharging into said chemical supply pump and a fluid passage



from the discharge side of said main pump to the said chamber provided with means to contract the volume of fluid to said chamber.

1,137,928. CAR. WILLIAM D. THOMPSON, Detroit, Mich., assignor to Hutchins Car Roofing Company, Detroit, Mich., a Corporation of Michigan. Filed Mar. 4, 1910. Serial No. 547,354. (Cl. 105—192.)

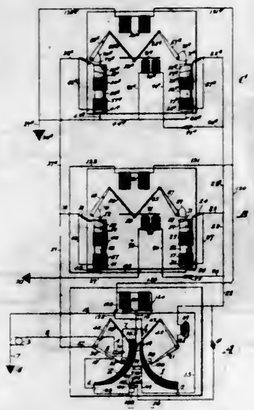


1. In a freight car, the combination with the siding or sheathing, of the roof structure, and an offset shaped metallic guard member extending longitudinally along the upper portion of the siding and outwardly beyond the latter and the roof.

2. In a freight car, the combination with the frame, the siding, and a roof sheet having a down turned flange, of a combined fascia and wear-iron having offset vertical portions and a lateral portion extending over the upper edge of the siding, one of said vertical portions being positioned between the frame and down turned flange of the roof sheet, and the other vertical portion overlapping the upper end of the siding.

3. In a freight car, the combination with the side plate, of the siding terminating at its upper edge at a distance below the plate top, and forming in connection therewith a longitudinal angle-shaped channel, a metallic angle bar within the channel covering the upper edge of the siding, and a metallic roofing having its eave portion overlapping the vertical section of the angle bar.

1,137,929. TELAUTOGRAPHIC APPARATUS. GEORGE S. TIFFANY, Summit, N. J., assignor to Gray National Telautograph Company, New York, N. Y., a Corporation of Virginia. Filed Apr. 2, 1912. Serial No. 687,956. (Cl. 178—20.)



1. The combination in a telautographic system of the variable current-strength type, of tracer lines connecting the transmitter and receiver, a source of electric energy therefor, a transmitting tracer and connections controlling the strength of the currents traversing the tracer lines in accordance with the movements of the tracer over its writing platen, and pen-moving parts at the receiver controlled by the currents traversing the tracer lines and controlling the movements of the receiving pen across its writing field, said pen-moving parts comprising a plurality of magnets of the solenoid type excited by currents traversing the tracer line circuits and each having a movable coil electrically connected with the tracer lines and mechanically connected with the receiving pen.

2. The combination in a telautographic system of the variable current-strength type, of tracer lines connecting the transmitter and receiver, a current supplying circuit, a transmitting tracer and connections controlled thereby for shunting therefrom into the tracer line currents varying in strength in accordance with the movements of the tracer across its writing field, and pen-moving parts at the receiver controlled by the currents traversing the tracer lines and controlling the movements of the receiving pen across its writing field, said pen-moving parts comprising a plurality of magnets of the solenoid type excited by currents traversing the tracer line circuits and each having a movable coil electrically connected with the tracer lines and mechanically connected with the receiving pen.

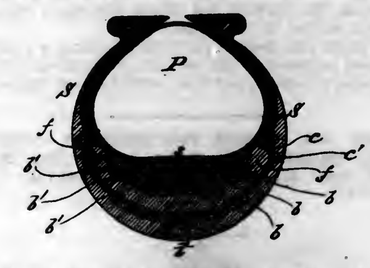
3. The combination in a telautographic system of the variable current-strength type, of tracer lines connecting the transmitter and receiver, a source of electric energy therefor, a transmitting tracer and connections controlling the strength of the currents traversing the tracer lines in accordance with the movements of the tracer over its writing platen, and pen-moving parts at the receiver controlled by the currents traversing the tracer lines and controlling the movements of the receiving pen across its writing field, said pen-moving parts comprising magnets of the solenoid type excited by currents traversing the tracer line circuits and having stationary windings and movable coils, both electrically connected with the tracer lines and said coils being mechanically connected with the receiving pen.

4. The combination in a telautographic system of the variable current-strength type, of tracer lines connecting the transmitter and receiver, a current supplying circuit, a transmitting tracer and connections controlled thereby for shunting therefrom into the tracer lines currents varying in strength in accordance with the movements of the tracer across its writing field, and pen-moving parts at the receiver controlled by the currents traversing the tracer lines and controlling the movements of the receiving pen across its writing field, said pen-moving parts comprising magnets of the solenoid type excited by currents traversing the tracer line circuits and having stationary windings and movable coils both electrically connected with the tracer lines and said coils being mechanically connected with the receiving pen.

5. The combination in a telautographic system of the variable current-strength type, of tracer lines connecting the transmitter and receiver, a source of electric energy therefor, a transmitting tracer and connections controlling the strength of the currents traversing the tracer lines in accordance with the movements of the tracer over its writing platen, and pen-moving parts at the receiver controlled by the currents traversing the tracer lines and controlling the movements of the receiving pen across its writing field, said pen-moving parts comprising a plurality of magnets of the solenoid type excited by currents traversing the tracer line circuits and each having a movable coil electrically connected with the tracer lines and also, by levers, with the receiving pen.

[Claims 6 to 20 not printed in the Gazette.]

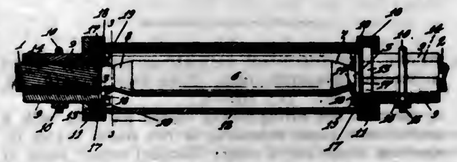
1,137,930. TIRE. PHILIP C. TRAVER, Far Rockaway, N. Y., assignor to Traver Puncture Proof Tire Company Inc., a Corporation of New York. Filed Feb. 24, 1914. Serial No. 820,392. (Cl. 152—18.)



1. A tire shoe of the character designated, having an interior elastic filling cushion forming a seat for the pneumatic tube substantially flat on the side adjacent the tread, said seat consisting of a truncated portion of the shoe constituting in cross section a chord to the arch of the tread, and an annular reinforcement of woven wire cloth embedded in said cushion parallel to the truncated seat or chord and extending on the flat cylindrically around the shoe.

2. A tire shoe of the character designated provided with a flat annular cylindrical seat for the pneumatic tube on the side adjacent the tread, said seat consisting of a truncated portion of the shoe constituting in cross section a chord to the arch of the tread, an elastic filling cushion conforming the interior of the shoe to said seat, and a plurality of annular reinforcements of woven wire embedded in said cushion substantially parallel to the truncated seat or chord and extending on the flat cylindrically around the tire.

1,137,931. CABLE-ARM OR JOINT. WALTER P. TRAVER and LOUIS F. THEIS, San Francisco, Cal. Filed Dec. 23, 1913. Serial No. 808,326. (Cl. 173—268.)



1. A cable armor joint comprising flanged clamps to be connected to the armor of a cable, bolts to bind the clamps tightly against the cable, a tube adapted to pass over the flanges of said clamps, and means to secure said tube to each of said clamps to relieve the cable of all load between said clamps.

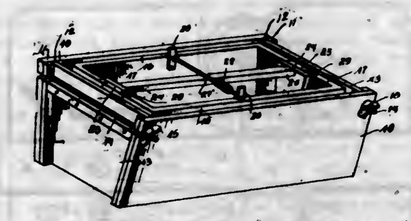
2. In a cable armor joint, flanged clamps to be secured to the armor of a cable, bolts to bind the clamps tightly against the cables, a tube slidable over the flanges of said clamps, and threaded nuts to connect said tube to said clamps.

3. A cable armor joint comprising flanged clamps to be connected to the armor of a cable, a ring and bolts to secure the out-turned ends of the wires forming said armor to said clamps, and means to connect two of said clamps together to carry the load on said cable between the clamps.

4. A cable armor joint comprising two sets of clamps and bolts to secure said clamps to a cable, means to secure the wires forming the armor of said cable to each of said clamps, a tube adapted to pass over said clamps, and means to secure said tube to each of the clamps.

5. A cable armor joint comprising two sets of clamps and bolts to secure said clamps to a cable, a ring and bolts to secure the wires forming said armor to each of the clamps, an internally threaded nut on each clamp, and a tube fitting over said clamps and to which said internally threaded nuts are connected.

1,137,932. COLLAPSIBLE CORE FOR CEMENT-MOLDS. JOSEPH VICKERS, San Diego, Cal. Filed May 10, 1913. Serial No. 766,856. (Cl. 25—130.)



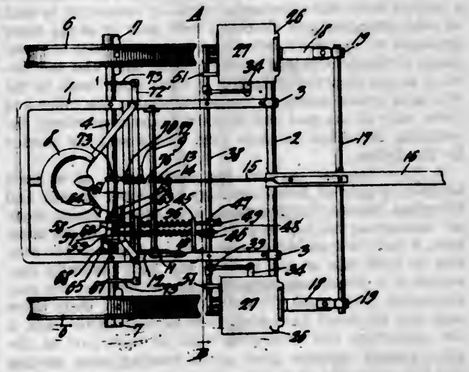
1. In a mold, a collapsible core comprising a pair of opposed side members, a removable clamp connecting the bottoms of said members, a wedging device located between said members and resting on said clamp, and a tension device connecting the members and arranged to draw the tops of said side members into close contact with said wedging device, said tension device bearing on said wedging device to hold the same in assembled position.

2. In a mold, a collapsible core comprising a pair of opposed side members, a clamp connecting the bottoms of said side members, spaced wedges interposed between said side members, brace bars connecting said wedges, one of said bars resting on said clamp, and a tension device to urge said side members together and bearing on one of said brace bars.

3. In a mold, a collapsible core comprising a pair of side members each consisting of a side wall, end walls extending from said side walls, the end walls of one member being opposed to the end walls of the other member and having their opposed edges diverging upwardly and bottoms connected with the end and side walls; ribs extending longitudinally of said bottoms and in spaced relation to the side walls; wedges arranged between the opposed edges of the end walls; brace bars connecting said wedges; clamps with downwardly extending ends engaging over said ribs, the lower brace bar resting on said clamp; arms extending upwardly from the side walls; and a tension device connecting said arms and resting on the upper brace bar.

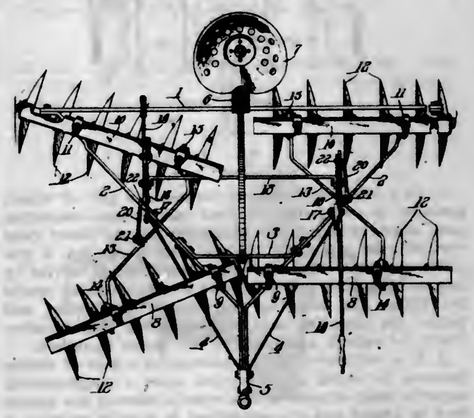
1,137,933. PLANTER. SHERMAN T. WALP, Springfield, Ohio. Filed Mar. 14, 1914. Serial No. 824,783. (Cl. 111—6.)

1. In a planter, the combination with a seed feed, a seed spout, and means for closing the seed spout at its lower end, of a revoluble axle, separate tappet devices revoluble therewith, and separate spring controlled mechanisms operated by the respective tappet devices for actuating the seed feed and the spout closing means respectively, said mechanisms being adjustably connected to the seed feed and spout closing means to vary the operative relation thereof.



2. The combination with a seed feed, a seed spout, and a closure at the lower end of the spout, of separate rock shafts, radial arms extending therefrom, connections between the respective arms and the seed feed and closure respectively, longitudinally slotted arms extending from the respective rock shafts, spring controlled rods slidably mounted, each rod being pivotally connected to one of the slotted arms and being adjustable along said arms toward or from its rock shaft, an axle mounted for rotation, separate tappets thereon, means for coupling either of said tappets to the axle, each tappet constituting means for pressing against and actuating one of the rods.

1,137,934. HARROW. LEWIS E. WATERMAN, Rockford, Ill., assignor to Emerson-Brantingham Company, Rockford, Ill., a Corporation of Illinois. Filed Dec. 26, 1912. Serial No. 738,734. (Cl. 55—83.)



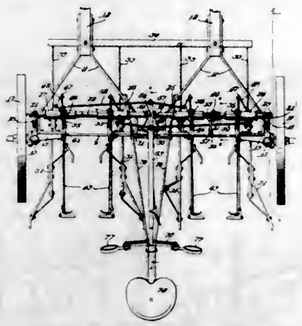
1. The combination of a frame having diagonally arranged side sections, front and rear earth agitating devices pivotally connected to the side sections at diagonally opposite ends of the devices, bars connecting said devices at the inner side of the pivots of the rear devices and at the outer sides of the pivots of the front devices, notched segments carried by said side sections at points intermediate the devices, levers pivoted to the segments and having

a dog engagement therewith, and links connecting the levers and said connecting bars, the actuation of said levers being adapted to swing the devices to positions at an angle to the line of draft.

2. An earth agitating device comprising a draft member, a pair of frame members connected thereto and diverging rearwardly therefrom, a transverse frame member connecting the rear portions of said diverging frame members, a pair of earth agitating gangs pivotally connected to each of said diverging side members, each pair of gangs being arranged to comprise forward and rear gangs with the rear gangs pivotally attached at their outer ends and the forward gangs pivotally attached at their inner ends to the diverging frame members, means connecting the inner and outer ends of the rear and forward gangs respectively for swinging the gangs on their axes, and a seat-bar carried by the frame.

3. In a tandem harrow, the combination of a draft member, a pair of frame members connected thereto and diverging rearwardly therefrom, a transverse frame member connecting the rear ends of said diverging frame members, a pair of harrowing tools arranged in tandem relation at each side of the harrow and each pivotally connected to a divergingly extending frame member, the rear harrowing tools being pivotally connected at their outer ends and the front harrowing tools at their inner ends, a bar connecting the harrowing tools of each pair at the sides thereof opposite their pivot whereby upon moving said bar forwardly or rearwardly the harrowing tools may be angled with respect to the line of draft, a lever pivotally mounted on each diverging frame member, and a connection between each lever and the adjacent bar for moving the bar to angle the harrowing tools.

1,137,935. TWO-ROW CULTIVATOR. LEWIS E. WATERMAN, Rockford, Ill., assignor to Emerson-Brantingham Company, Rockford, Ill., a Corporation of Illinois. Filed May 25, 1914. Serial No. 840,878. (Cl. 97—35.)



1. In a cultivator, the combination of a pair of wheels mounted to swing upon vertical axes, means connecting said wheels whereby the wheels are swung about their vertical axes and maintained in parallel relation, a plurality of beams carried by said means, means carried by and movable with respect to said wheel-connecting means for lifting and lowering said beams individually, and means for operating said beam-operating means collectively for raising and lowering the beams in unison.

2. In a cultivator, the combination of a pair of wheels mounted to swing about vertical axes, a longitudinally movable shaft connecting said wheels whereby the wheels may be angled and are maintained in parallel relation, a plurality of beams supported from said shaft, devices mounted upon and movable with respect to said shaft for raising and lowering the beams individually, and means for locking said device fixed with respect to said shaft and for rocking the shaft to simultaneously raise or lower all of said beams.

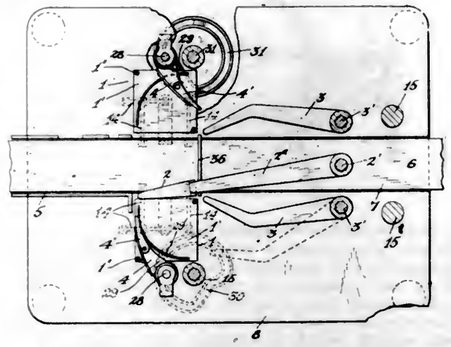
3. In a cultivator, the combination of a pair of wheels pivoted to shift about vertical axes, an arm rigid with the axle of each wheel and projecting forwardly from the vertical axes, a shaft pivotally connected with the extremity of each of said arms whereby the wheels are maintained in parallel relation, means for moving said shaft longitudinally to angle the wheels, beams supported from said shaft, a plurality of pivotally mounted hand levers, each connected with one of said beams, whereby the beams are raised and lowered individually, and a lever fixed to said shaft whereby the shaft may be rotated to raise or lower all of said beams simultaneously.

4. In a cultivator, the combination of a pair of wheels pivoted to swing about vertical axes, a shaft connecting said wheels, a post suspended from said shaft, a beam pivoted on said post, and an operating handle connected with said beam whereby the beam may be moved up and down on said post.

5. In a cultivator, the combination of a transversely extending shaft, a plurality of posts suspended from said shaft, a cultivator beam slidably and pivotally associated with each of said posts, pivotally mounted operating levers supported by said shaft, and connections between said levers and said beams whereby the beams may be moved vertically on said posts.

[Claims 6 to 22 not printed in the Gazette.]

1,137,936. WEIGHT-TESTING MACHINE. EDWARD H. WAUGH, Seattle, Wash., assignor to Smith Cannery Machines Co., Seattle, Wash., a Corporation of Washington. Filed Dec. 28, 1910. Serial No. 599,729. (Cl. 83—92.)



1. In a weight testing machine, companion weight testing mechanisms, means for feeding articles arranged between said testing mechanisms, a two-way feeding device for positioning the forward articles for testing, means for removing the articles from said testing mechanisms, and independent means each under control of a respective one of the testing mechanisms for directing tested articles of a predetermined class to a common point.

2. In a weight testing machine, a weight testing mechanism, pivotally supported means for ejecting the articles from said mechanism, means for advancing and retracting said ejecting means, directing means movable across the path of the ejected articles, and means controlled by said testing mechanism for operating said directing means.

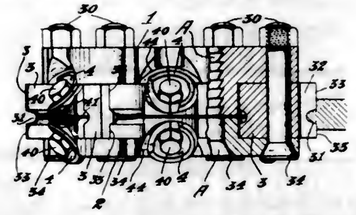
3. In a weight testing machine, a weight testing mechanism, directing means disposed to one side of said mechanism, means controlled by said testing mechanism for operating said directing means, means mounted on a relatively fixed part for ejecting the articles from said testing mechanism against said directing means, and means for advancing and retracting said ejecting means.

4. In a weight testing machine, a weight testing mechanism, a delivery means, means movable across the path of the articles ejected from said mechanism for directing the same to said delivery means, means controlled by said testing mechanism for operating said directing means, pivotally supported means for ejecting the articles from said mechanism, and means for swinging said pivotally supported means to impel the tested articles against said article directing means.

5. In a weight testing machine, spaced weight testing mechanisms, means for feeding to said mechanisms alternately, a common delivery means, ejector means for ejecting the articles from said testing mechanisms, and means controlled from said testing means for reflecting the ejected articles to said delivery means.

[Claims 6 to 24 not printed in the Gazette.]

1,137,937. CUTTER-HEAD. EDWARD H. WAUGH, Seattle, Wash. Filed Jan. 27, 1915. Serial No. 4,774. (Cl. 144—218.)



1. A cutter head having a series of cutters mounted for rotative adjustment upon axes which are inclined to the axis of the head and having conical outer surfaces and notched to form cutting faces and chip-clearance.

2. A cutter head having a series of cutters mounted for rotative adjustment upon axes which are inclined to the rotative axis of the head and having double conical outer surfaces, the bases of said cones being together, said cutters being notched or cut across to form cutting faces which include portions of both of said cones.

3. A cutter head having a body composed of two parts which are relatively adjustable in the direction of their axis of rotation, a series of cutters mounted upon each of said body parts upon axes which are inclined to the axis of rotation of the head and rotatively adjustable upon their axes, the surfaces of said cutters which constitute their cutting edges being conical and concentric with their axes.

4. A cutter head having a series of turned cutters mounted for rotative adjustment upon axes which are parallel with the rotative axes of the head, and a series of turned cutters mounted for rotative adjustment upon axes which are inclined in planes which are substantially radial to the rotative axis of the head.

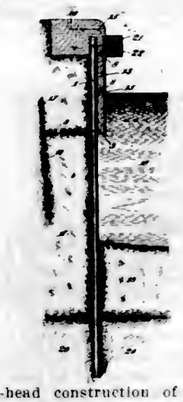
5. A cutter head having a series of cutters mounted for rotative adjustment upon axes which are parallel with the rotative axis of the cutter head and having outer surfaces which are concentric with their axes, indented to form the cutting edges and chip-clearance, and a series of cutters mounted for rotative adjustment upon axes which are inclined to the rotative axis of the head and which lie in planes which are substantially axial of the head, said cutters having conical exterior surfaces which lie in planes which are substantially perpendicular to the axis of the head and being notched to form cutting faces and chip-clearance.

[Claims 6 and 7 not printed in the Gazette.]

1,137,938. BULKHEAD CONSTRUCTION. JULIUS R. WEMLINGER, Brooklyn, N. Y. Filed Nov. 23, 1912. Serial No. 733,205. (Cl. 61—30.)

1. A bulk-head construction comprising a wall of metallic sheet piling the lower portion of which is driven into earth adapted to hold the same, a plurality of anchors connected to said wall and extending into the bank in the rear thereof, thereby securing the upper portion of the said wall, a bracket support secured horizontally to the outer surface of the said piling at an intermediate portion thereof, a concrete facing applied to the upper portion of said piling and resting on said bracket, and means for anchoring said concrete to said piling.

2. In a bulk-head construction of the character described, the combination with a wall of metallic sheet piling, of a plurality of anchor brackets secured to the upper portion of the outer face thereof, a concrete facing applied against the face of said piling and secured thereto by the brackets aforesaid.



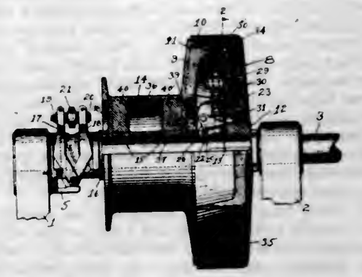
3. In a bulk-head construction of the character described, the combination with a wall of metallic sheet piling, of a substantially horizontal longitudinal support secured intermediate of the ends thereof, a concrete facing resting on said support, and means for anchoring said facing to the piling.

4. In a bulk-head construction of the character described, a wall of metallic sheet piling provided with a channel support extending longitudinally of an intermediate portion thereof, a concrete facing carried by said support and metal fabric reinforcing embedded in said concrete.

5. In a bulk-head construction of the character described, a wall of corrugated metallic sheet piling provided with angular brackets extending from the outer surface thereof, a metal plate supported by said brackets, provided with an outer upwardly projecting flange and a horizontal portion formed into scallops or corrugations adapted to fit within the corrugations of said piling, thereby forming a base or support for facing material adapted to rest thereon.

[Claims 6 and 7 not printed in the Gazette.]

1,137,939. CLUTCH FOR HOISTING-ENGINES. GUSTAV PERS. WERN, New York, N. Y. Filed Apr. 29, 1913. Serial No. 764,369. (Cl. 192—8.)

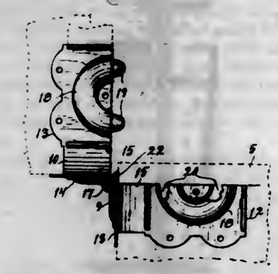


1. In a clutch, the combination of two members slidable one toward the other, a bell-crank lever carried by one member adapted to press normally against the other member, and a radially disposed spring designed to actuate said bell-crank lever.

2. In a clutch, the combination of a relatively fixed rotary member, a loose member revolnble by frictional contact therewith, and a spring-actuated bell-crank lever

carried by the rotary member and abutting against the loose member, said lever operating normally to keep said members separate.

1,137,940. TRUNK-HINGE FIXTURE. GEORGE HENRY WEBBAY, Racine, Wis. Filed Feb. 11, 1915. Serial No. 7,608. (Cl. 16—104.)



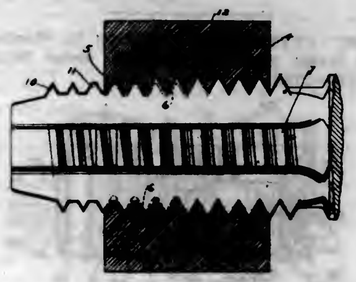
1. A trunk hinge fixture, comprising an angular body member having a side portion and a top portion extending at an angle with relation to the side portion, a wardrobe section member hinged to the side edge portion of the body member adjacent its lower end portion, and an angular top cover member having a tongue and recess engagement with the other two members.

2. A trunk hinge fixture, comprising an angular body member having a side portion and a top portion extending at an angle with relation to the side portion, a wardrobe section member hinged to the side edge portion of the body member adjacent its lower end portion and adapted to have edge abutting engagement therewith, and an angular top cover member adapted to have an edgewise engagement with the inner side edge of the body member and the upper edge of the wardrobe section member, said top cover member provided on its lower end portion with projecting tongues which enter recesses formed in the body member and the wardrobe section member adjacent the hinge, and the upper portion of the body member provided with a projecting tongue which enters a recess formed in the upper portion of the top cover member.

3. A trunk hinge fixture, comprising an angular body member having a side portion and a top portion extending at an angle with relation to the side portion, a wardrobe section member hinged to the side edge portion of body member adjacent its lower end portion and adapted to have edge abutting engagement therewith, and an angular top cover member adapted to have an edgewise engagement with the inner side edge of the body member and the upper edge of the wardrobe section member, the adjacent portions of the three members having a half circular rib embossed outwardly therefrom and the portion of the rib formed on the top cover member provided with offset projecting tongues which enter recesses formed by the embossed portions of the other two members, the adjacent upper portions of the body member and the top cover member having a circular rib embossed outwardly therefrom and the end portions of one half of the rib formed on one of the members provided with projecting tongues which enter recesses formed by the end portions of the other half rib portion.

4. A trunk hinge fixture, comprising an angular body member having a side portion and a top portion extending at an angle with relation to the side portion, a wardrobe section member hinged to the side edge portion of the body member adjacent its lower end portion and adapted to have edge abutting engagement therewith, and an angular top cover member adapted to have an edgewise engagement with the inner side edge of the body member and the upper edge of the wardrobe section member, the adjacent portions of the three members having portions of a semicircular rib embossed outwardly therefrom, the end portions of which semicircular rib portions have a tongue and recess engagement with each other, the adjacent upper portions of the body member and the top cover member having portions of a circular rib embossed outwardly therefrom, the adjacent end portions of which have a tongue and recess engagement with each other.

1,137,941. LOCK-NUT. IRVING C. WOODWARD, Chicago, Ill. Filed Mar. 25, 1914. Serial No. 827,075. (Cl. 151—1.)

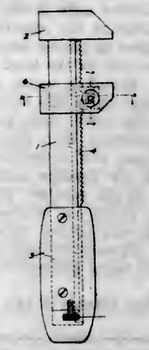


1. As an article of manufacture, a standard nut threaded to fit its bolt and having its threads adjacent to one end only coated with material adapted to frictionally grip the bolt and secure the nut thereon.

2. As an article of manufacture, a standard nut threaded to fit a standard bolt and having a packing of softer metal embedded in a portion only of the thread grooves whereby, when said nut is screwed onto its bolt, the threads of the bolt will be forced to cut into said soft metal coating and bind said nut on the bolt.

3. As an article of manufacture, a standard nut having one or more convolutions of the threads adjacent to one end only thereof coated with a tapered layer of soft metal whereby, when said nut is screwed onto a bolt, the threads will be forced to cut into said soft metal coating and bind said nut on the bolt.

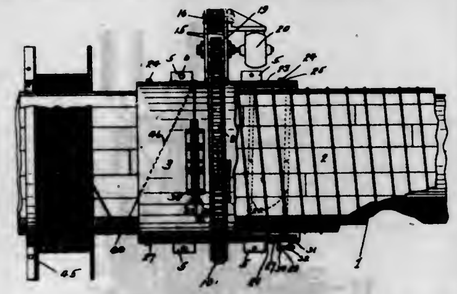
1,137,942. WRENCH. OMER AGNEW, Portland, Oreg. Filed Aug. 14, 1913. Serial No. 784,733. (Cl. 81—145.)



1. A wrench of the character referred to comprising in combination a body provided at one end with a fixed jaw and at its opposite end adapted to be gripped by the hand, a rack movably attached to said body longitudinally thereof and of less thickness, whereby to leave the corners of said body uncovered by said rack, a movable jaw slidably mounted upon said body and having integrally formed shoulders therein adapted to slide upon the shoulders of said body at opposite sides of and adjacent said rack, a dog seated in said movable jaw and adapted to engage with said rack, means for actuating said dog, and means for adjusting said rack longitudinally of said body, substantially as described.

2. In a wrench of the character referred to, in combination with a notched part, a jaw member slidably mounted thereon and provided interiorly thereof with a notched dog adapted to said notched part, a spring normally holding said dog in operating engagement with said notched part, said dog having at its opposite sides inclined bearing surfaces, two operating members movably mounted in opposite sides of said jaw member and operatively engaging at their inner ends the inclined bearing surfaces of said dog, whereby when said operating members are pressed inwardly toward each other, they operate to move said dog out of engagement with said notched part, substantially as described.

1,137,943. MACHINE FOR WINDING PIPES OR PIPE-COVERINGS. HARRY E. AINE, Richmond, Cal. Filed June 14, 1913. Serial No. 773,711. (Cl. 242—11.)



1. A wire winding apparatus including an annulus formed in sections, a shaft adapted to drive said annulus, means for supporting said shaft including spaced cheek plates, each carrying rollers engaging beneath flanges formed on the annulus, means supported by one of said cheek plates for driving said shaft, a beam to which the cheek plates are secured, and a wheeled support connected to the end of said beam remote from the cheek plates.

2. A wire winding apparatus including an annulus formed in sections, a shaft adapted to drive said annulus, means for supporting said shaft including spaced cheek plates, each carrying rollers engaging beneath flanges formed on the annulus, means supported by one of said cheek plates for driving said shaft, a beam to which the cheek plates are secured, a wheeled support, and an arm carried by the support and having a connection with said beam whereby the cheek plates and the structure supported thereby are prevented from rotating with the annulus.

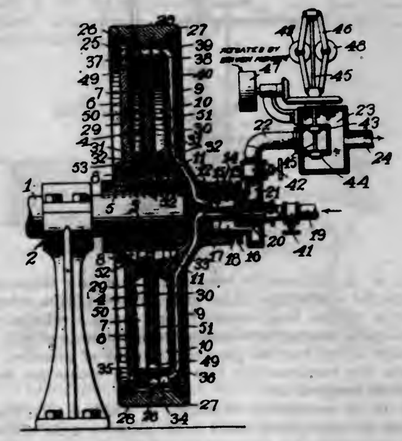
3. A wire winding apparatus including an annulus formed in sections, the sections of the annulus being secured together, a structure encircling shell formed in sections and arranged within the annulus, and resilient connections between the sections.

4. A wire winding apparatus comprising a rotatable annulus formed in sections and attached together, a cylindrical structure encircling shell mounted within said annulus to be rotated thereby and formed in semicircular sections secured together, each of said sections provided on its inner surface with pitch giving bars to cause the shell to advance spirally about the structure to be wound, means projecting exteriorly of each of said sections for adjusting the inclination of the pitch giving bars carried thereby, means for rotating said annulus, and means for supplying wire to the structure to be wound.

5. A wire winding apparatus comprising a rotatable annulus, a cylindrical structure encircling shell detachably mounted within said annulus to be rotated thereby, pitch giving bars mounted on the inner surface of said shell to cause the same to advance spirally about the structure to be wound, means projecting exteriorly of said shell for regulating the inclination of said pitch giving bars, means for supplying wire to the structure to be wound, means for rotating said annulus, an arm extending from said annulus rotating means, and a traveling support associated with said arm for maintaining the same steady.

[Claims 6 to 8 not printed in the Gazette.]

1,137,944. FRICTION-CLUTCH. CHARLES M. ALLEN, Worcester, Mass. Filed Feb. 8, 1912. Serial No. 676,455. (Cl. 192—18.)



1. In a clutch, frictionally engaging driving and driven members, means for applying a liquid pressure to force said members into contact, and means actuated by the rotation of said driven member for controlling the discharge of liquid from one of said members, whereby to remove the heat generated by the friction of said members.

2. In a clutch, frictionally engaging driving and driven members, means for applying a fluid pressure to force said members into contact, means for controlling the inflow and outflow of pressure medium to and from said clutch, and independent means actuated by the rotation of said driven member for controlling the outflow of pressure medium therefrom.

3. In a clutch, driving and driven members, one of which comprises a rotatable casing carrying a pair of yielding disks, and the other a rotatable disk interposed between said yielding disks, said rotatable casing having communicating chambers opening against said yielding disks, and means for supplying a liquid under pressure to said chambers.

4. In a clutch, frictional engaging members, means for applying liquid under pressure to force said members into contact, a valve controlled outlet for the liquid applied to said frictional members, and means for varying said outlet by the speed of the driven member of the clutch.

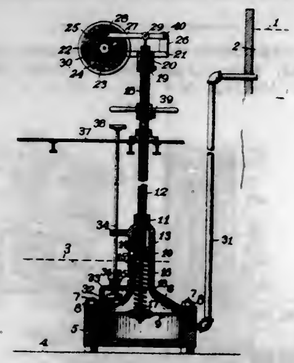
5. In a clutch, frictional driving and driven members, means for applying a liquid pressure to force said members into contact, comprising a chamber for the liquid having inlet and outlet passages, a valve for controlling said outlet passage and a governor for actuating said valve operatively connected with the driven member of the clutch.

[Claims 6 and 7 not printed in the Gazette.]

1,137,945. HYDROSTATIC RECORDER. CHARLES M. ALLEN, Worcester, Mass. Filed Feb. 12, 1912. Serial No. 677,110. (Cl. 73—110.)

1. In a hydrostatic recorder, a casing, a yielding diaphragm inclosed therein, there being openings into said casing from outside the recorder to conduct liquid under pressure from different sources to the opposite sides of said diaphragm, an adjustable spring applied to said diaphragm to balance the normal difference between the pressures on the opposite sides of the diaphragm, whereby various normal differences between said liquid pressures

may be balanced by varying the adjustment of said spring, and means for adjusting said spring.



2. In a hydrostatic recorder, a yielding diaphragm, means for conducting liquid under pressure from different sources outside the recorder to the opposite sides of said diaphragm, means for recording the movements of said diaphragm under varying pressure in terms of pressure, and means for compensating said recording means for variations in temperature.

3. In a hydrostatic recorder, a yielding diaphragm, means for conducting liquid under pressure from different sources outside the recorder to the opposite sides of said diaphragm, means for applying an independent pressure to one side of said diaphragm to balance the normal excess of pressure on the opposite side of said diaphragm, and means for recording the movements of said diaphragm under varying differences in the pressures on the opposite sides of the diaphragm.

4. In a hydrostatic recorder, a casing, a yielding diaphragm inclosed therein, there being openings into said casing from outside the recorder for conducting liquid under pressure from different sources to the opposite sides of said diaphragm, a spring applied to one side of said diaphragm to balance the normal difference in the pressures on the two sides of the diaphragm, means for varying the tension of said spring, a recording mechanism comprising a pivoted lever, a rod attached to said diaphragm and pivotally connected with said lever, and a metallic support for said recording mechanism parallel with and substantially the length of said rod.

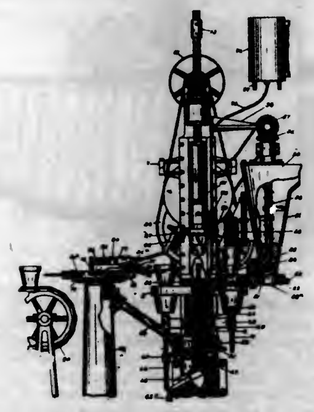
5. In a hydrostatic recorder, a casing, a yielding diaphragm inclosed therein and forming two chambers, there being an opening into one of said chambers to conduct fluid under pressure from a source outside the recorder to one side of said diaphragm and an opening leading from outside the recorder into the other chamber to permit the introduction of liquid to a predetermined height so as to exert a predetermined constant pressure on the other side of the diaphragm, and recording mechanism connected with the diaphragm to indicate differences in the pressures on the two sides of the diaphragm.

[Claims 6 and 7 not printed in the Gazette.]

1,137,946. MOLDING-MACHINE. WILLIAM J. BAIRD, Detroit, Mich. Filed July 9, 1910. Serial No. 571,198. (Cl. 25—26.)

1. In an automatic machine for shaping plastic material, the combination with a series of molds, means for intermittently feeding said series of molds, a rotary former adapted to coöperate successively with each of said molds, feeding means for charging each of said molds successively with plastic material, delivery mechanism for delivering the completed article from each of said molds successively, said former, feeding means, and delivery mechanism acting simultaneously on different molds during the rest periods of the series of molds.

2. In an automatic machine for shaping plastic material, the combination with a mold carrier provided with a series of molds, a rotary former positioned above said mold carrier, means for shifting said mold carrier intermittently to successively bring the molds thereof into operative relation to said rotary former, means for locking the mold carrier against movement during its periods of rest, means for reciprocating the rotary former to cause it to enter one of the molds during the rest period of the mold carrier, means for simultaneously ejecting the finished article from another of the molds of the carrier, a transfer device, means operatively associated with the former operating mechanism for positioning the transfer device to cause the same to engage an ejected article during the rest period of the mold carrier, and means for shifting the transfer mechanism when the mold carrier is moved.



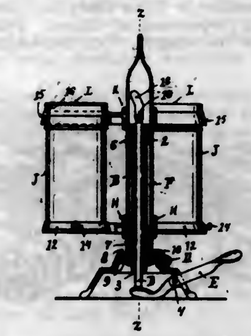
3. In an automatic machine for shaping plastic material, the combination with a mold carrier provided with a series of molds, a rotary former positioned above said mold carrier, means for shifting said mold carrier intermittently to successively bring the molds thereof into operative relation to said rotary former, means for locking the mold carrier against movement during its periods of rest, means for reciprocating the rotary former to cause it to enter one of the molds during the rest period of the mold carrier, means for simultaneously elevating a finished article from another of the molds of the carrier, a transfer mechanism means operable during the rest period of said mold carrier for operating the transfer mechanism to cause it to engage the article so elevated, and means operable upon the movement of the mold carrier for shifting the transfer mechanism with the article so engaged.

4. In an automatic machine for shaping plastic material, a frame, a mold carrier rotatably mounted for movement in a horizontal plane in said frame and provided with a series of molds, a rotary former mounted for reciprocation in said frame above said rotary mold carrier, a power shaft journaled in said frame, gearing between said power shaft and said former for continuously rotating the former, gearing between said power shaft and said mold carrier for intermittently rotating the mold carrier to successively bring the molds thereof under said former, means actuated by the power shaft for locking the mold carrier against rotation, during its periods of rest, and gearing between the power shaft and the former for reciprocating the former during the periods of rest of the mold carrier to cause the same to enter one of the molds of said carrier.

5. In an automatic machine for shaping plastic material, a frame, a mold carrier rotatably mounted in said frame and provided with a series of molds, a rotary former mounted for reciprocation in said frame above said mold carrier, a power shaft journaled in said frame, gearing between said power shaft and said former for rotating the same, gearing between the power shaft and the mold carrier, a clutch in said last mentioned gearing, a lock for holding the mold carrier against rotation in said frame, cams for simultaneously actuating said clutch and lock, gearing for continuously driving said cam from the power shaft, and gearing between the power shaft and the rotary former for reciprocating the former during the periods of rest of the mold carrier.

[Claims 6 to 26 not printed in the Gazette.]

1,137,947. VENDER'S DISPLAY-STAND. EDWARD BRUNHOFF, Cincinnati, Ohio. Filed Aug. 3, 1914. Serial No. 854,720. (Cl. 211—26.)



1. A display tray comprising a tubular standard, a supporting tray to support a plurality of containers mounted thereon, a plurality of lids movable in unison to cover and uncover said containers, and mechanism carried within said standard and actuated by a projecting lever to move said lids vertically and rotatably relative to said containers.

2. A display tray comprising a tubular standard, a supporting tray rotatably mounted thereon to support a plurality of containers, a plurality of lids rotatable upon said standard and movable in unison to cover and uncover said containers, and mechanism carried by said standard to actuate said lids vertically and rotatably in their movements to and from said containers.

3. A display tray comprising a standard, a supporting tray mounted on said standard to support a plurality of containers, a bracket provided with a plurality of lids to cover and uncover said containers, means carried by said standard to lift said lids from said containers, and a cam to guide said lids vertically and rotatably in their movements to and from said containers.

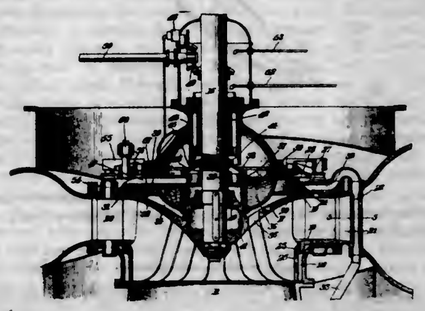
4. A display tray comprising a standard, a supporting tray rotatably mounted on said standard to support a plurality of containers, a bracket provided with a plurality of lids to cover and uncover said containers, said lids being rotatable with said containers, means carried by said standard to lift said lids from said containers and a cam to guide said lids vertically and rotatably in their movements to and from said containers.

5. A display tray comprising a standard, a rod mounted to move vertically within said standard, a hand lever to actuate said rod, a supporting tray rotatably mounted upon said standard to support a plurality of containers, a bracket movable by said rod relative to said tray and provided with lids to cover and uncover said containers, and a cam carried by said tray to guide the movements of said bracket in covering and uncovering said containers.

[Claims 6 and 7 not printed in the Gazette.]

1,137,948. PRESSURE-TURBINE. ERICH BUEHLE, New York, N. Y., assignor to The Pelton Water Wheel Co., Inc., San Francisco, Cal., a Corporation of California. Filed June 6, 1914. Serial No. 843,507. (Cl. 138—5.)

1. In apparatus of the class described, the combination of a runner, a casing inclosing the runner and forming with the back of the runner a plurality of annular chambers, said casing having a running joint with the periphery of the runner communicating with one of said chambers, and suction means communicating with both of said chambers.



2. In apparatus of the class described, the combination of a runner, a casing inclosing the runner and forming with the back of the runner a plurality of annular chambers, said casing having a running joint with the periphery of the runner communicating with one of said chambers, a draft tube adapted to receive the water discharged from said runner, and means for establishing communication between said draft tube and both of said chambers.

3. In apparatus of the class described, the combination of a runner, a casing inclosing the runner and having spaced parts coöperating respectively with the opposite sides of a peripheral flange on said runner and forming running joints therewith, said casing having an annular chamber communicating directly with both of said joints, and suction means communicating with said chamber.

4. In apparatus of the class described, the combination of a runner having a vertical axis and an upstanding peripheral flange, a casing inclosing said runner and having parts coöperating with the inner and outer sides of said flange to form running joints therewith, said casing forming with the runner two annular chambers separated by the inner of said parts which coöperates with the inner side of said flange, a draft tube, a conduit establishing communication between the outer of said chambers and said draft tube and said runner having openings in the upper wall thereof establishing communication between the inner of said chambers and the draft tube.

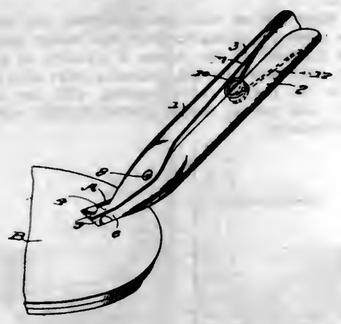
5. In apparatus of the class described, the combination of a runner having a vertical axis and an upstanding peripheral flange, a casing inclosing said runner and having parts coöperating with the inner and outer sides of said flange to form running joints therewith, said casing forming with the runner two concentric annular chambers, the outer of which communicates with both of said joints and the inner of which communicates only with the inner of said joints, and suction means communicating with both of said chambers and adapted to withdraw water therefrom.

[Claims 6 to 12 not printed in the Gazette.]

1,137,949. LID-LIFTER. JOHN E. BUSS, Wellsboro, Pa. Filed Mar. 24, 1914. Serial No. 826,943. (Cl. 126—338.)

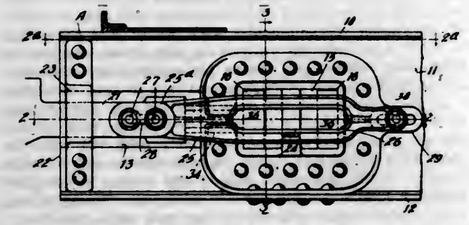
The herein described stove lifter comprising a pair of members each having a substantially semi-tubular lever arm which is flattened to form a jaw comprising double webs, the webs which form one of the jaws being in mu-

tual contact and those which form the other jaw being spaced apart, the first named jaw being permanently fitted between and partly overlapped by the webs of the last-named jaw and pivotally connected thereto, and a



spring arranged between the arms of the members and having its ends connected thereto, said spring serving to normally open the jaws.

1,137,950. SINGLE-CENTER-SILL DRAFT-RIGGING. ALFRED COPONY, Chicago, Ill., assignor to William H. Miner, Chicago, Ill. Filed Jan. 12, 1914. Serial No. 811,622. (Cl. 213—42.)



1. In a car, in combination with a single center sill recessed to receive followers therethrough, of a draw bar, followers extending transversely through said center sill, parallely arranged springs between said followers, one spring on each side of the center sill, connections between the followers and the draw bar, and spring means located to the rear of the rear follower for maintaining said connections and followers in proper position relatively to the center sill.

2. In a car, the combination with a center sill recessed to receive followers therethrough, of a draw-bar, followers extending transversely through the center sill, shock absorbing means between the followers, yoke arms connecting the followers and the draw-bar, and transversely arranged springs between the yoke arms and the center sill on opposite sides of the latter for maintaining the yoke arms in proper position relatively to the sill, substantially as specified.

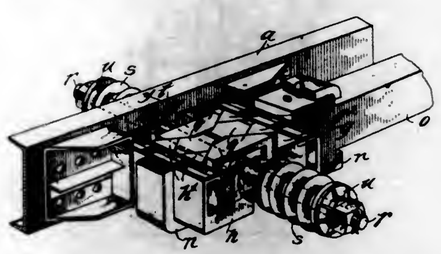
3. In a car, the combination with a single center sill recessed to receive followers therethrough, of a draw bar, followers extending transversely through said center sill, shock absorbing means between said followers, yoke arms operatively connecting the followers with the draw bar, and means for preventing relative laterally movements between the followers and said yoke arms, said means comprising coöperating flanges and notches to receive said flanges formed on the followers and yoke arms.

4. In a car, the combination with a single center sill bifurcated at its ends and recessed to receive followers therethrough, of a draw-bar mounted within the bifurcation, followers extending transversely through the center sill, springs between said followers, means operatively connecting the followers with the draw-bar, cheek plates secured to the opposite sides of the center sill and provided with stops for the followers, and spring-supporting arms on opposite sides of the center sill, said spring supporting arms being formed integral with said cheek plates and arranged to directly engage and support said springs, substantially as specified.

5. In a car, the combination with a single center sill bifurcated at its ends and recessed to receive followers therethrough, of a draw-bar mounted within the bifurcation, followers extending transversely through the center sill, each follower being provided with flanged ends, yoke arms encircling the followers and notched to receive said flanged ends, the arms being keyed to the draw-bar, and means for automatically centering the yoke arms and followers relatively to the center sill substantially as specified.

[Claim 6 not printed in the Gazette.]

1,137,951. DRAFT-GEAR. JAMES R. CARDWELL, Chicago, Ill., assignor to Union Draft Gear Company, Chicago, Ill., a Corporation of Illinois. Filed Aug. 23, 1909. Serial No. 514,172. (Cl. 213—64.)



1. A friction draft gear including relatively movable triangular friction blocks, a central longitudinally disposed friction element q^1 interposed between and frictionally engaging the same, and transversely movable friction blocks q between which the said friction element q^1 is disposed, which blocks q also have frictional engagement with the triangular blocks, the friction-producing element q^1 being divided transversely into two parts, and adapted to occupy a separated relation when the friction blocks q are closest together and being adapted for contact upon a predetermined separation of the friction blocks q.

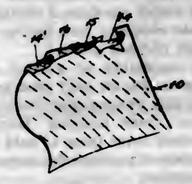
2. In a draft gear, in combination, a pair of followers, a pair of alined wedge-blocks located on the median line of the path of the followers; the combined length of such blocks determining the limit of the relatively approaching movement of the followers; a pair of opposed laterally movable wedging members engaging the wedge-blocks, and springs urging the wedging elements inward.

3. In a draft gear, in combination, a pair of opposed followers, a pair of wedge-blocks seated against the inner face of each follower, a pair of laterally movable wedge-blocks each engaging the outer lateral faces of one member of each pair of the first-mentioned wedge-blocks, means for yieldingly urging the second-named wedge-blocks inwardly, and a second pair of wedge-blocks respectively engaging the inner faces of the members of the two pairs of wedge-blocks first-named, the inner ends of the central wedge-blocks being normally out of contact.

4. In a draft rigging, the combination with the draw-bar, draw-bar yoke, center sills and stops, of followers, blocks, each having oppositely disposed wedging faces, a laterally extending rod, oppositely disposed wedge-shaped friction shoes slidably mounted thereon, springs pressing the shoes inwardly, and limiting stops on each wedge adapted to contact each other, substantially as specified.

5. In a draft rigging, in combination; a yoke; center sills; stops; followers; wedges; friction shoes movable transversely of said sills and coöperating with the wedges; springs coöperating with said shoes; and a projection on one of the wedges extending toward the opposite wedge and adapted to engage the latter when the followers are moved relatively toward each other, to thereby limit the amount of movement and compression of the springs, substantially as specified.

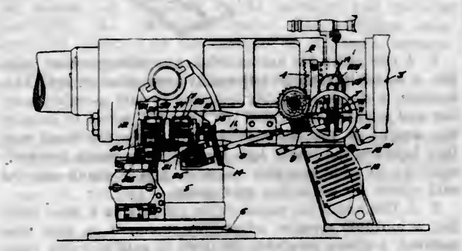
1,137,952. PULVERIZING ATTACHMENT FOR PLOW-SHARES. DIXON S. CARTER, Davenport, Iowa. Filed Jan. 26, 1914. Serial No. 814,369. (Cl. 97—18.)



1. A blade adapted to be connected with a mold board and having lateral extensions projecting in opposite directions.

2. A blade adapted to be mounted upon a mold board and having a longitudinally extending forward cutting edge and a slot extending transversely of the attaching end of the blade and passing through the cutting edge thereof and spaced a substantial distance from the adjacent end of the blade, a head arranged rearwardly of and adjacent the slot and rigidly connected with the attaching end of the blade and extending laterally beyond the blade upon both sides thereof at approximately a right angle thereto, and clamping bolts carried by the head upon opposite sides of the blade to engage with the mold board and coöperate with the slot in the blade to hold the blade upon the mold board.

1,137,953. ORDNANCE. DAVID J. CARTWRIGHT, Boston, Mass. Filed Feb. 23, 1907. Serial No. 358,813. (Cl. 89—41.)



1. In combination with a gun supported on the deck of a vessel, a self leveling member, a plurality of electrical contacts mounted on the gun and insulated therefrom and from each other, an electrical contact carried by the self leveling member which when the vessel rolls will make contact with one of said gun contacts, directing mechanism connected with the gun, a rotary shaft connected with the directing mechanism by which when the shaft is rotated the breech of the gun will be elevated or depressed, mechanism connected with the said rotary shaft which can be so controlled as to rotate the shaft in either direction or not at all, electromagnets electrically connected with the electrical contacts on the gun and which are energized only when the contact on the self leveling member connects with one of the gun contacts, and which when energized connect the shaft moving mechanism with the shaft.

2. In combination with a gun supported by trunnions, mechanism for elevating and depressing the breech of the gun, a plurality of insulated electrical contacts carried by one of the trunnions, a self leveling member suspended from the trunnion, an electrical contact carried by said self leveling member which, when the gun platform changes its plane in a manner to elevate the breech of the gun, will connect with one of said trunnion contacts and make electrical connection which will actuate the breech depressing mechanism, and which when the gun platform changes its plane in a manner to depress the breech of the gun will connect with the other trunnion contact and make electrical connection which will actuate the breech elevating mechanism.

3. In combination with a gun supported by trunnions, an adjustable plate pivoted on a support which normally rotates with the trunnion, a plurality of insulated contacts on said adjustable plate, mechanism for elevating and depressing the breech of the gun which is electrically actuated to elevate the breech of the gun when a circuit is made through one of the contacts on said adjustable plate and to depress the breech of the gun when the circuit is made through the other contact on the adjustable plate, a contact piece which makes the connection with one or the other of the contacts on said adjustable plate when the breech of the gun is elevated or depressed, and mechanism by which said adjustable plate may be turned on its pivot and maintained at any given position relative to the trunnion.

4. In combination with a gun, a pivoted plate which moves with the gun, two insulated contacts on said plate, a self leveling member carrying a contact piece, adjusting mechanism for setting the gun to any desired range and which when moved to change the elevation of the gun will cause electrical connection between the contact on the self leveling member and one or the other of the contacts on said plate, and mechanism which is electrically actuated by the connection between the contact on the self leveling member and one of the adjustable contacts to depress the breech relative to the gun platform when the gun platform moves in a direction to elevate the breech, and which is actuated by the connection between the contact on the self leveling member and the other adjustable contact to elevate the breech relative to the platform when the platform is moved in a direction to depress the breech.

5. In combination with a gun, mechanism for changing the angle of the gun, a pivoted plate, mechanism by which said plate may be turned on its pivot and maintained in its adjusted position relative to its support, two electrical contacts on said plate, and a self leveling member carrying a contact piece which connects with one or the other of said adjustable contacts whenever the breech of the gun is elevated or depressed, two electrical circuits in each of which is included one of said adjustable contacts, and an electromagnet in each of said circuits, which, when energized, will cause the mechanism for changing the angle of the gun to become operative.

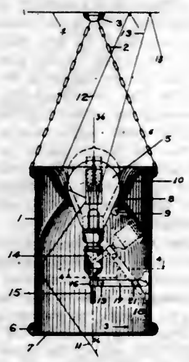
[Claims 6 to 26 not printed in the Gazette.]

1,137,954. LIGHTING-FIXTURE. JAMES R. CRAVATH, Chicago, Ill. Filed Nov. 14, 1913. Serial No. 800,935. (Cl. 240—78.)

1. A lighting fixture comprising a frame, a casing and a tubular reflector member both supported thereby, the reflector member housed by the casing and equipped intermediate of its ends with a contraction dividing the same into two substantially truncated conoidal reflectors opening in opposite directions; a socket adjustably supported by the casing, and a lamp mounted in the socket, the adjustable supporting of the socket permitting the lamp to be moved with respect to the said contraction of the reflector member.

2. A lighting fixture comprising an axially vertically disposed tubular reflector member equipped intermediate its ends with a contraction dividing the same into two substantially truncated conoidal reflectors opening respectively upward and downward, a casing member housing and supporting said reflector member, and a lamp supported by the casing member and so disposed with respect to the reflector member and casing that the lower edges of one of the latter will intercept all direct rays of light emanating from the lamp at angles of more than about twenty-five degrees with the axis of the reflector member.

3. A lighting fixture including an at least partially translucent casing member, an at least partially translucent tubular reflector member housed and supported thereby and divided by a contraction into two reflectors flaring in opposite directions, a lamp mounted within the reflector member and means associated with said lamp for varying the position of the latter with respect to said contraction, thereby simultaneously varying the proportion of the light distributed by the respective reflectors and the casing member.



4. In a lighting fixture, the combination with a lamp and a socket therefor, a pair of reflectors jointly housing the said lamp and reflecting portions of the light therefrom in substantially opposite directions, a casing housing the said reflectors, an arm connecting the socket and the casing to support the former, and a translucent cover for one end of the casing, the said arm being movable to move the socket out of its normal position to permit access to said cover through the other end of the casing.

5. In a lighting fixture, the combination with a lamp and a socket therefor, a pair of reflectors jointly housing the said lamp and reflecting portions of the light therefrom in substantially opposite directions, a casing housing the said reflectors, and a detachable translucent cover for one end of the casing.

[Claims 6 to 9 not printed in the Gazette.]

1,137,955. PIPE-COUPLING. CHARLES A. DIES, Chicago, Ill., assignor to Clayton Mark, Lake Forest, Ill. Filed May 15, 1913. Serial No. 767,760. (Cl. 137—28.)



1. A pipe coupling consisting of a spud, a tail piece and a coupling nut, said members being formed from tubular blanks drawn and compressed, one end of each member being turned over upon the exterior surface of that member and compressed thereagainst as a reinforcement thereof.

2. A coupling consisting of a spud and a tail piece, said spud and said tail piece each having an end turned down over the exterior of the part to provide two seating surfaces, one of the seating surfaces of the spud being adapted to form a bearing for a seating surface of the tail piece, and a coupling nut adapted to engage the other seating surfaces of the spud and tail piece.

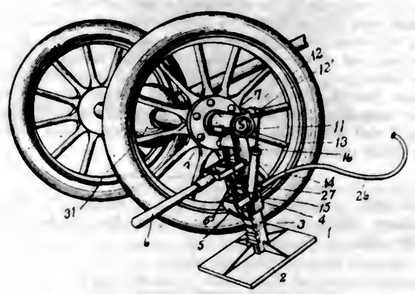
3. A pipe coupling consisting of a spud, a tail piece and a coupling nut, said spud having one end doubled over the exterior of the part and compressed to provide surfaces to bear on the tail piece and the coupling nut respectively, said tail piece having one end doubled over the exterior of the part and compressed to provide bearing surfaces for the spud and coupling nut respectively, and said coupling nut being provided with bearing surfaces to co-act with bearing surfaces of the spud and tail piece.

4. A stamped metal pipe coupling consisting of a spud, a tail piece and a coupling nut, the spud having a bearing surface for the coupling nut comprised of a turned-over portion lying parallel to and on the exterior of the walls of said spud, the tail piece having a turned-over lip, one face of which provides a seating surface for the spud and the other face of which provides a seating surface for the coupling nut, said coupling nut having seating surfaces for both spud and the tail piece.

5. A coupling consisting of a spud and a tail piece formed from tubular blanks, said spud and tail piece having outwardly-turned swaged and compressed reinforcing portions adjacent their meeting faces, and coupling means taking against outer faces of said outwardly-turned swaged and compressed portions for securing the spud and the tail piece together.

[Claim 6 not printed in the Gazette.]

1,137,956. AUTOMOBILE TIRE-PUMP. FRANK A. DOWLER, Lawrence, Kans. Filed July 19, 1912. Serial No. 710,370. (Cl. 230—27.)



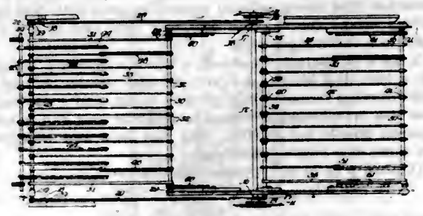
1. A tire pump for automobiles, comprising a base member, a movable member adjustably supported on said base member, a sleeve revolubly mounted in said movable member and adapted to receive the hub of a wheel to support the weight of the automobile and induce frictional contact between the wheel hub and sleeve, a pump pivotally mounted on said movable member, and a crank arm on said sleeve for actuating said pump.

2. A tire pump for automobiles comprising a base member, a movable member adjustably mounted on said base member, a sleeve revolubly mounted in said movable member and adapted to receive the hub of a wheel to support the weight of the automobile and induce frictional contact between the wheel hub and sleeve, an inwardly directed flange having an irregular, apertured portion for operatively engaging the hub cap of the wheel, a pump pivotally mounted on said movable member, and a crank arm on said sleeve operatively connected with said pump.

1,137,957. SHEET-DELIVERY MECHANISM FOR PRINTING-PRESSES. EDWARD F. DUDLEY, Oak Park, Ill., assignor to The Miehle Printing Press & Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Dec. 17, 1913. Serial No. 807,159. (Cl. 101—31.)

1. In a delivery mechanism for printing presses, a rigid delivery carriage bodily movable between the press and point of discharge of the sheets, the forward movement being in one plane and the return movement in another plane, a series of tapes movable with and relative to the carriage, substantially as described.

2. In a delivery mechanism for printing presses, a duplex delivery device comprising a pair of rigid delivery carriages bodily movable between the press and point of discharge of the sheets, the forward movement being in one plane and the return movement in another plane, and a series of tapes movable with and relative to each carriage, substantially as described.



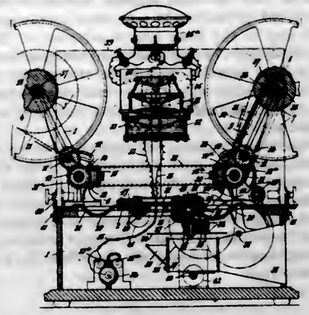
3. In a delivery mechanism for printing presses, a duplex delivery device comprising a pair of rigid delivery carriages bodily movable in alternation between the press and point of discharge of the sheets, the forward movement being in one plane and the return movement in a substantially parallel plane, and a series of tapes movable with and relative to each carriage, substantially as described.

4. In a delivery mechanism for printing presses, a duplex delivery device comprising a pair of rigid delivery carriages bodily movable in alternation between the press and point of discharge of the sheets, the forward movement being in one plane and the return movement in a lower plane, a series of carrier tapes movable with and relative to each carriage, and rider tapes movable with the carriage above the carrier tapes, substantially as described.

5. In a delivery mechanism for printing presses, the combination of a delivery carriage bodily movable between the press and point of discharge of the sheets, guides providing two superposed substantially parallel paths with connecting paths at the ends and also in their medial portion, a pair of sprocket wheels, and a drive chain on the wheels and connected to the carriage, and switches controlling the connecting paths, said switches automatically operated by the carriage as it passes, substantially as described.

[Claims 6 to 30 not printed in the Gazette.]

1,137,958. PORTABLE APPARATUS FOR PROJECTING STATIONARY OR ANIMATED PICTURES. CHARLES DUPUIS, Charenton, France. Filed July 2, 1913. Serial No. 776,964. (Cl. 88—17.)



1. In an apparatus for the projection of stationary and animated pictures, a casing having an exposure aperture in its top, a standard mounted on the latter, a lamp adjustable on the standard perpendicular to the top and adapted to project light rays vertically through the aperture, reel supports pivotally mounted on the top and adapted to be swung to and from the center of the latter, means to feed a picture film between the lamp and aperture, a total reflecting prism in the casing arranged to reflect the vertical light rays horizontally, and an object glass in the casing through which the horizontal rays are projected.

2. In an apparatus for the projection of stationary and animated pictures, a casing having an exposure aperture on its top, a lamp arranged to project light rays vertically through the aperture, a cooling device mounted between the lamp and aperture comprising a casing completely filled with liquid, a plano-convex lens closing the top of the casing with the convex face of the lens in contact with the liquid, means to feed a picture film between the cooling device and the aperture, a total reflecting prism in the casing arranged to reflect the vertical light rays horizontally, and an objective device in the casing through which the horizontal rays are reflected.

3. In an apparatus for the projection of stationary and animated pictures, a casing having an exposure aperture on its top, a lamp arranged to project light rays vertically through the aperture, a cooling device mounted between the lamp and aperture comprising a casing completely filled with liquid, a plano-convex lens closing the top of the casing with the convex face of the lens in contact with the liquid, means to feed a picture film between the cooling device and the aperture, a total reflecting prism in the casing arranged to reflect the vertical light rays horizontally, an objective device in the casing through which the horizontal rays are reflected, and means to adjust the exposure aperture relatively to the reflecting prism.

4. In an apparatus for the projection of stationary and animated pictures, a casing having an exposure aperture in its top, a lamp arranged to project light rays vertically through the aperture, a cooling device mounted between the lamp and aperture comprising a casing completely filled with liquid, a plano-convex lens closing the top of the casing with the convex face of the lens in contact with the liquid, means to feed a picture film between the cooling device and the aperture, a total reflecting prism in the casing arranged to reflect the vertical light rays horizontally, an objective device in the casing through which the horizontal rays are reflected, means to adjust the objective device, and means to center the aperture axially of the prism.

5. In an apparatus for the projection of stationary and animated pictures, a casing having an exposure aperture in its top, a lamp mounted on the latter and adapted to project light rays vertically through the aperture, means to adjust the lamp perpendicular to the top, reel supports pivotally mounted on the latter and adapted to be swung toward and from the center of the top, reels journaled in the supports, mechanism on the casing for continuously rotating the reels, a film on the reels, mechanism for intermittently moving the film over the aperture and means in the casing adapted to reflect the vertical rays horizontally.

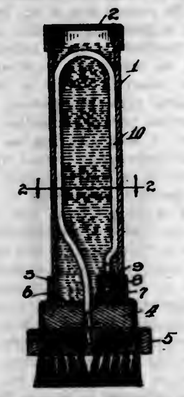
1,137,959. CLEANING DEVICE FOR UTILIZING VOLATILE LIQUIDS. FRANK D. FARNAM, Chicago, Ill. Filed Nov. 15, 1912. Serial No. 731,591. (Cl. 8—8.)

1. A cleaning device for utilizing volatile liquids embracing a container, a brush secured thereon, a passage communicating with the container and leading to the brush, and means operated by the heat of the hand of the user for delivering the contents from the container to the brush drop by drop.

2. A thin walled air-tight container for a volatile liquid, a brush secured on the container, a passage communicating with the container and leading to the brush, a valve normally closing said passage, and means operated by the heat of the hand of the user for delivering the contents from the container to the brush.

3. A cleaning device for utilizing volatile liquids embracing a thin walled container shaped to fit the hand, a brush secured thereon, an air-tight closure for the container adapted for removal to permit filling, a passage communicating with the container and leading to the brush, and a valve controlling said passage to prevent the escape of the volatile fluid from the container, and adapted to be opened by the volatilization of the fluid within the container when subjected to the heat of the hand.

4. A cleaning device for utilizing volatile liquids embracing a container shaped to fit the hand, a brush thereon, an air-tight closure for the container adapted for removal to permit filling, a pipe opening through the brush back and extending upwardly into and around the container, and a normally closed valve at the inner end of the pipe adapted to be unseated by internal pressure occasioned by the heat of the hand of the operator to permit delivery of the liquid therethrough to the brush.



5. A cleaning device for utilizing volatile liquids embracing a brush, a container, and means operated by the heat of the hand of the user for discharging the contents of the container drop by drop, to the brush.

[Claims 6 to 10 not printed in the Gazette.]

1,137,960. PERMUTATION-PADLOCK. JOHN S. FORBES and ROY H. POSTON, Flat River, Mo. Filed Mar. 4, 1914. Serial No. 822,468. (Cl. 70—113.)



1. In a permutation padlock, a shackle having a guiding leg and a locking leg, a body comprising an intermediate bolt disk having a passage for said guiding leg and a cavity for the locking leg and a bolt-receiving recess intersecting said cavity, a bolt loosely disposed in said recess, a spring normally acting to retract said bolt from engagement with said locking leg, permutation disks abutting opposite sides of said bolt disk and rotatably mounted thereon, said bolt having oppositely projecting studs and said permutation disks having annular grooves for receiving said studs and retaining said bolt in a shot position, and said grooves having notches for permitting retraction of said bolt from a shot position by said spring.

2. In a permutation padlock, a shackle having a locking leg, a body comprising an intermediate bolt disk having a cavity for the locking leg and a bolt-receiving recess intersecting said cavity, a bolt loosely disposed in said recess, means to retract said bolt from engagement with said locking leg, permutation disks abutting opposite sides of said bolt disk and rotatably mounted thereon, said bolt having oppositely projecting studs, and said permutation disks having annular grooves receiving said studs and notches having actuating portions for shifting said bolt into a locking position.

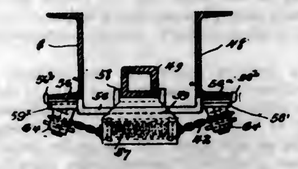
3. In a permutation padlock, a shackle having a locking leg, a bolt disk having a cavity for said locking leg and a bolt-receiving recess, a bolt in said recess, means normally acting to move said bolt out of engagement with said locking leg, and a permutation disk movable with respect to said bolt plate and having means for shifting said bolt into and retaining the same in a locking position.

4. In a permutation padlock, a shackle having a locking leg, a bolt disk having a cavity for the locking leg and a bolt-receiving recess, a bolt in said recess, and a permutation disk movable with respect to said bolt disk and having means for shifting said bolt into and retain the same in a locking position.

5. In a permutation padlock, a shackle having a locking leg, a bolt disk having a cavity for the locking leg and a bolt-receiving recess, a bolt in said recess, and a permutation disk movable with respect to said bolt disk and having grooved means for shifting said bolt into and retaining the same in a locking position.

[Claims 6 to 11 not printed in the Gazette.]

1,137,961. DRAFT-RIGGING MECHANISM. GEORGE H. FORSYTH, Chicago, Ill., assignor, by mesne assignments, to Waugh Draft Gear Company, a Corporation of Illinois. Filed Feb. 23, 1904. Serial No. 194,889. (Cl. 213—42.)



1. In a draft mechanism, the combination of a draft gear, a draw bar pivoted to the draft gear, and a connection between the truck and the draw bar in advance of the gear and serving to impart to the draw bar an angular movement to maintain the same substantially in the line of draft on a curve.

2. In a draft mechanism, the combination of a draft gear, means to hold the same against a lateral movement, a draw bar pivoted to the draft gear and means connecting the truck and draft bar in advance of the pivot to maintain the draw bar in the line of draft on a curve.

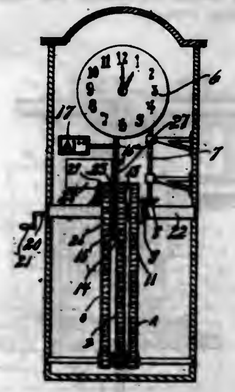
3. In a draft mechanism, the combination of a draft gear, means to hold the same against a lateral movement, a draw bar pivoted to the draft gear, and means connected to the truck and to the draw bar in advance of the pivot and serving to impart to the draw bar independent of the gear an increased angular movement relative to the car body over the angular movement occurring between the latter and the truck.

4. In a draft mechanism, the combination of a draft gear, means to hold the same against lateral movement, a draw bar pivoted to the draft gear, and means connected to the truck and to the draw bar in advance of the pivot and serving to impart to the draw bar independent of the gear an increased angular movement relative to the car body over the angular movement occurring between the latter and the truck, said connection exerting a lifting action on the draw bar.

5. In a draft mechanism, the combination of a draft gear, means to hold the same against lateral movement, a draw bar pivoted to the draft gear, and a yielding flexible connection between the truck and the draw bar in advance of the pivot, said connection serving to impart to the draw bar an increased angular movement relative to the car body over angular movement occurring between the latter and the truck.

1,137,962. WORKMAN'S TIME-RECORDER. WILLIAM T. GELTZ, Cleveland, Ohio. Filed Mar. 15, 1913. Serial No. 754,587. (Cl. 284—43.)

1. In a workmen's time recorder, the combination of a clock controlled standard time wheel, driven in one direction, a proving wheel driven forwardly simultaneously an extent equal to the standard time, an elapsed time wheel, means to turn the proving wheel backwardly to an extent equal to the forward movement, means engaging between the proving and elapsed time wheels to turn the latter to an equal extent when the former is turned backwardly, and marking means carried by each of said wheels.



2. In a workmen's time recorder, the combination of a clock controlled standard time wheel movable forwardly, a motor driven proving wheel provided with a device having a driving engagement with the standard time wheel when the proving wheel is turned forwardly, whereby the standard time wheel is turned by the proving wheel forwardly, an elapsed time wheel normally held at zero, manually operated means to disengage the proving wheel from the motor and turn the same backwardly an extent equal to its forward turn, means engaging between the proving and elapsed time wheels to turn the latter to an equal extent when the proving wheel is turned backwardly, and time marking means carried by each of said wheels.

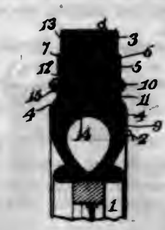
3. In a workmen's time recorder, the combination of a standard time wheel, a clock mechanism controlling the same, said wheel having a stop, a proving wheel having a device engaging said stop in one direction, whereby the wheels turn equally in said direction, driving means to turn said proving wheel in said direction, manually operated means to turn the proving wheel in reverse direction to an equal extent, an elapsed time wheel normally held at zero position, means engaging between the proving and elapsed time wheels to turn the latter equally when the former is reversed, time-marking means operated by each of said wheels, means to return the proving wheel until the device carried thereby strikes the stop when said manually operated means are released, and means to simultaneously return the elapsed time wheel to zero position.

4. In a workmen's time recorder, the combination of a clock controlled standard time, adapted to be driven in one direction, a proving wheel adapted to be driven to an equal extent in said direction, means to drive said wheels in said direction, an elapsed time wheel normally at zero position, means to turn the proving wheel in the opposite direction to an extent equal to its movement in said direction, a time indicator geared to the proving wheel, to indicate the extent of said reverse turn, means engaging between the proving wheel and the elapsed time wheel to turn the latter to an equal extent when the former is turned in said reverse direction, and marking means actuated by each of said wheels.

5. In a workmen's time recorder, the combination of a clock controlled first wheel provided on one side with a spiral groove, a motor driven second wheel located beside said first wheel and provided with a pin adapted to travel in said groove and stop against the end thereof and thereby turn the first wheel to an extent equal to the turn of the second wheel in one direction, means to turn the second wheel in reverse direction, a third wheel mounted beside the second wheel and normally held in zero position, pawl and ratchet mechanism engaging between the second wheel and third wheel and adapted to turn the latter equally with the former when said former is turned in reverse direction, and marking means operated by each of said wheels.

[Claims 6 and 7 not printed in the Gazette.]

1,137,963. AUXILIARY-TIRE ATTACHMENT. FRANK J. GIBBS, Tyrone, Pa. Filed Aug. 31, 1912, Serial No. 718,156. Renewed Sept. 5, 1914. Serial No. 860,466. (Cl. 152—33.)



1. The combination with a pneumatic tire, and an outer solid tire arranged in spaced relation, of an auxiliary rim provided with inner and outer channels receiving the said tires and composed of annular side members, and cylindrical telescoping flanges or members extending from the inner faces of the side members at points intermediate of the inner and outer edges thereof and provided with registering transverse bends forming grooves and providing inner and outer projections, which are embedded in the said tires to prevent the rim and the outer tire from creeping, and fastening devices piercing the side members and arranged in the registering grooves and securing the parts together, said fastening devices passing between the outer and pneumatic tires without piercing either of them.

2. The combination with a pneumatic tire, and an outer solid tire spaced from the pneumatic tire, of an auxiliary rim composed of annular spaced side plates, an annular flange formed integral with one of the side plates and extending across the space to the other side plate and forming inner and outer channels which receive the said tires, said annular flange having transverse bends which are embedded in the solid tire to prevent creeping, said plates having openings in alinement with the said bends, and fastening bolts passed through the openings of the side plates within the said bends and securing the parts together.

1,137,964. METHOD OF AND MEANS FOR PRODUCING ELECTRICALLY-CHARGED PARTICLES. ROBERT H. GODDARD, Worcester, Mass. Filed Apr. 26, 1913. Serial No. 763,934. (Cl. 250—35.)



1. The method of producing electrically charged particles by impact with other charged particles which consists in causing electrified particles to move continuously within a confined space and retaining all of them therein until they strike molecules of particles of gas or vapor.

2. Apparatus of the class described, comprising means to generate rays of charged particles and means to produce a field of energy acting on said charged particles to confine their entire movement to a limited space and a receptacle containing a gas or vapor the molecules of which are subject to impact by said charged particles.

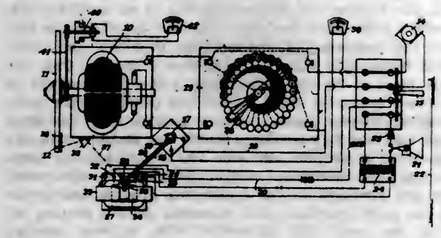
3. Apparatus of the class described, comprising means

to generate rays of electrically charged particles, combined electromagnetic and electrostatic means to produce a field of energy acting on said charged particles to confine them to a limited space, and a receptacle containing a gas or vapor the molecules of which are subject to impact by said charged particles.

4. Apparatus of the class described, comprising a receptacle containing a gas or vapor, means to generate therein electrically charged particles, and means to confine said particles to a limited space within said receptacle and prevent any of them from passing outside of said space without first striking one or more molecules of said gas or vapor.

5. Apparatus of the class described, comprising a tube containing a gas or vapor, a cathode, plates charged from the cathode, and magnet poles coöperating with said plates to confine the rays from said cathode to a limited space.

1,137,965. FREQUENCY-METER. PHILIP GORDON, Barre, Vt., assignor of one-half to Adelaide Estee, Montpelier, Vt. Filed Apr. 13, 1914. Serial No. 831,467. (Cl. 93—123.)



1. In a device of the class described, a vibrating element, a member revolving at a known speed, and means for indicating when the rate of vibration of the vibrating element is the same as the rate of revolution of the revolving member.

2. In a device of the class described, a vibrating element, a member capable of being revolved at a plurality of different known speeds, and means for indicating when the vibrating element is vibrating at the same rate that the revolving member is revolving at each of its different speeds.

3. In a device of the class described, a vibrating element, a member revolving at a known speed, and means for indicating whether the vibrating member is vibrating at a higher or lower number of vibrations in a period of time than the revolving member is making revolutions in the same period of time.

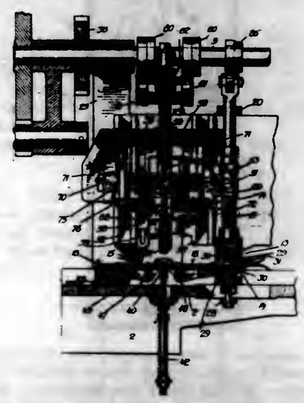
4. In a device of the class described, a revoluble member, means for operating said member at a plurality of different known speeds, a vibrating element, and means for indicating when the vibrating element is vibrating at the same rate that the revolving member is revolving in each of its different speeds.

5. In a device of the class described, a revoluble member, means for operating said member through a certain range of known speeds, a vibrating element, and means for indicating when the vibrating element is vibrating at any multiple of the rate that the revolving member is revolving at any of the speeds in such range.

[Claims 6 to 12 not printed in the Gazette.]

1,137,966. MACHINE FOR FORMING SEAMED TUBES. OTTO J. GROEHN, Detroit, Mich., assignor to Briscoe Manufacturing Company, Detroit, Mich., a Corporation of Michigan. Filed Apr. 6, 1914. Serial No. 830,047. (Cl. 113—34.)

1. The combination with means for intermittently advancing a sheet metal strip, of severing means for said strip adapted to form reverse bent hooks on the adjacent ends thereof, a mandrel around which the severed blank is folded, a clamping member coacting with said mandrel, means for depressing the mandrel to clamp the central portion of the strip in advance of the folding of the same, and coöperating means for folding the blank about the mandrel while thus clamped.



2. The combination with a mandrel, of means for intermittently advancing a sheet metal strip, adjustable to vary the lengths thus advanced, means for severing and forming reverse-bent hooks upon the severed ends of said strip, adjustable in relation to said mandrel to position the severed blank in symmetrical relation thereto, and means for folding the severed blank about said mandrel.

3. The combination with a mandrel, of means for intermittently advancing a sheet metal strip beneath said mandrel, adjustable to vary the length fed, a stop on one side of said mandrel, and severing means upon the opposite side thereof, both being relatively adjustable to the mandrel to arrange the severed blank symmetrically in relation thereto, and means for folding the severed blank about the mandrel.

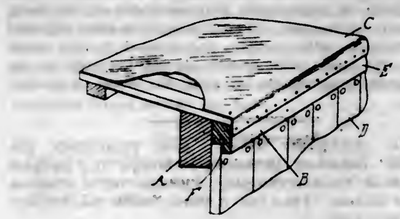
4. The combination with a mandrel, of means for intermittently advancing a sheet metal strip beneath said mandrel, means for adjusting the feed to vary the lengths advanced, means for severing the strip and forming reverse-bent hooks upon the severed ends thereof, said means being adjustably positioned upon one side of said mandrel, a stop adjustably positioned upon the opposite side of said mandrel to symmetrically arrange the severed blank therebeneath, means for clamping the blank against the bottom of said mandrel, and means for folding the opposite sides of the blank against the mandrel while thus clamped.

5. The combination with means for intermittently advancing a sheet metal strip, of means for severing said strip and forming reverse-bent hooks on the severed ends thereof, a mandrel arranged to extend transversely of said blank, means for lowering said mandrel, a yieldable block beneath said mandrel for clamping the blank thereagainst, and hinged wings upon opposite sides of said mandrel adapted to swing upward as the mandrel is depressed, to fold the blank.

[Claims 6 to 22 not printed in the Gazette.]

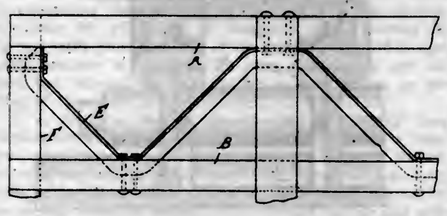
1,137,967. CAR. DAVID W. HAWKSWORTH, Detroit, Mich., assignor to Hutchins Car Roofing Company, Detroit, Mich., a Corporation of Michigan. Filed Feb. 2, 1910. Serial No. 541,612. (Cl. 105—192.)

In a freight car, the combination of a side plate, a fascia secured thereto, a roof connected to the fascia, and a sheathing independently secured to the side plate below the fascia, said fascia having a portion overhanging the upper edge of the sheathing and spaced a slight distance therefrom, permitting the removal of the sheathing



independently of the fascia by a combined lateral and vertical movement of the sheathing.

1,137,968. CAR-ROOF. DAVID W. HAWKSWORTH, Detroit, Mich., assignor to Hutchins Car Roofing Company, Detroit, Mich., a Corporation of Michigan. Filed June 11, 1910. Serial No. 566,382. (Cl. 108—5.)



1. In a car roof, the combination with purlins, of a member of angle cross-section bent to form a diagonal brace with securing portions parallel to the purlins, the vertical flange of the brace being in contact with the vertical face of the purlins and the lateral face extending parallel to and in proximity to the lateral face of the purlin.

2. In a car roof, the combination with a plurality of purlins, of a brace formed of angle bars having a flange overlapping the transverse face of the purlins, and a flange that overlaps the vertical face of the purlins and is secured thereto.

3. In a car roof, the combination with purlins, of a brace member lying substantially in the same plane as the purlins, said brace member being of angle cross-section and bent to form a diagonal brace with securing portions parallel to the purlins, the vertical flange of the brace being in contact with the vertical face of the purlin, and the lateral face extending parallel to and in proximity to the lateral face of the purlin.

1,137,969. STOP-COCK. JOSEPH W. HAYS, Chicago, Ill. Filed July 13, 1914. Serial No. 850,620. (Cl. 137—69.)

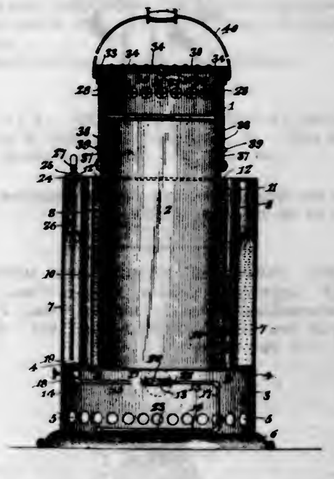


1. A stop valve for a flexible rubber tube consisting of a hard ball within the tube and a spring clamp around the tube, said clamp being provided with pressure ridges running longitudinally with the tube.

2. A stop-valve for a flexible rubber tube consisting of a hard ball within the tube and a spring clamp around the tube, said spring clamp engaging said tube about said ball.

3. A stop-valve for a flexible rubber tube consisting of a hard ball within said tube and a spring clamp around said tube and engaging same on opposite sides thereof on one side of said ball.

1,137,970. OIL-BURNING STOVE. JAMES P. HIGH and HARRY C. RATHBUN, Fairview, Okla. Filed June 16, 1914. Serial No. 845,471. (Cl. 126—44.)



1. A stove of the class described including a casing comprising upper and lower telescopic sections provided at their adjacent ends with means for adjustably connecting them, a hollow base supporting the casing and projecting outwardly at the bottom of the lower section, and a fuel tank mounted upon the base and surrounding the casing, said tank being arranged in spaced relation with the casing and terminating short of the upper end of the lower section thereof.

2. A stove of the class described including a casing, a base supporting the casing and consisting of an outwardly extending horizontal flange and a vertical wall connected with the said flange at the outer edge thereof and provided with openings, and a fuel tank mounted upon the base in spaced relation with the casing and surrounding the same, said fuel tank being supported upon the base and the flange thereof being provided with openings communicating with the interior of the base and the space between the casing and the tank.

3. A stove of the class described including a casing, a fuel tank surrounding the casing in spaced relation therewith to provide an intervening air space, a base having a horizontal flange extending across the space between the casing and the fuel tank at the bottom thereof and supporting the said tank, a lining of non-heat conducting material surrounding the casing at the said space, and a metallic sleeve incasing the said material and arranged in spaced relation with the fuel tank.

1,137,971. LIFE-PRESERVER. SAMUEL J. HINES, Plaquemine, La. Filed May 5, 1914. Serial No. 836,525. (Cl. 9—20.)

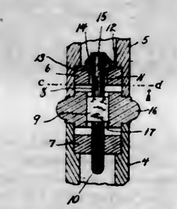
A life preserver comprising a water-tight garment forming a body portion, leg portions and sleeve portions, hand and feet coverings integrally formed with the respective sleeve and leg portions, a casing formed without the body portion at the waist line thereof, an inflatable buoyant element located within the casing, flexible straps mounted

on the body portion immediately below the casing and being of a length to depend a distance below the waist



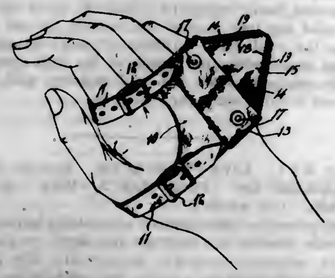
line of the body portion, and inflatable buoyant elements carried at the free ends of said straps.

1,137,972. INSULATED HANDLE FOR METAL VESSELS. ARTHUR E. HOBSON, Meriden, Conn., assignor to International Silver Co., Meriden, Conn., a Corporation of New Jersey. Filed Jan. 6, 1915. Serial No. 810. (Cl. 16—173.)



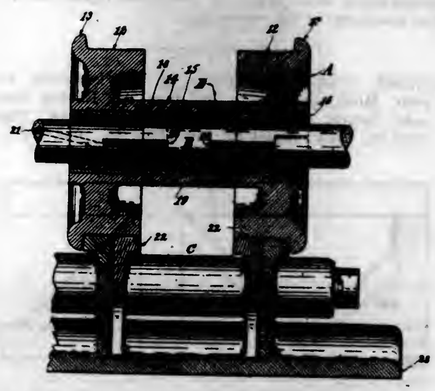
The combination with a metal vessel having handle sockets applied thereto, of a handle, one of said parts having a washer firmly secured therein, the outer face of said washer formed with a seat, the other part provided with a nut firmly secured therein, an insulator between the ends of the handles and said sockets, a screw extending through said insulator and having a head to be engaged thereby, one end of the screw threaded to enter said nut, the opposite end provided with a headed pin extending through the washer, and an insulator block on the said pin beneath the head, said block rounded and adapted to enter the seat in said washer.

1,137,973. BAND-KNIFE. CHIRLEY J. HOLSCHER, Cottage Grove, Wis. Filed Feb. 26, 1914. Serial No. 821,271. (Cl. 30—14.)



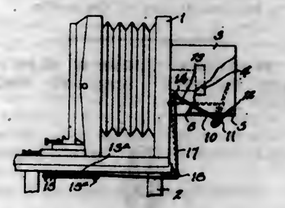
A band cutter comprising a strap adapted to be secured around the hand, a transverse strip stitched to the strap to form independent pockets opening in the direction of the side of the hand remote from the thumb when the strap is in place and the open edges of said pocket being substantially in registration with said side of the hand, and a knife having one end forked to form arms disposed respectively in said pockets and riveted to the strap whereby the knife will project beyond the side of the hand remote from the thumb when the device is secured in place.

1,137,974. BEARING-WHEEL FOR TRACTION-ENGINES. ORLEY C. HOUGHTON, Chicago, Ill., assignor to Bullock Tractor Company, Chicago, Ill., a Corporation of Illinois. Filed Oct. 8, 1914. Serial No. 865,677. (Cl. 105—146.)



A wheel of the nature described, comprising a body produced from a metal so hard as to be practically incapable of being machined, said body having a central bore, a series of recesses at one end of said bore, a bushing, said bushing being smaller in external diameter than the bore in said body, laterally-projecting lugs at one terminal of said bushing, said lugs being constructed to coact with said recesses to prevent rotation of said bushing, and a lining between said bushing and the wall of said bore, constructed to removably retain said bushing in said bore, said lining being a readily fusible substance capable of being removed by melting, said bushing being constructed of a material capable of being machined.

1,137,975. COMBINATION LENS-HOOD AND VIGNETTER. CHARLES R. HOWARD, Newark, N. Y. Filed Nov. 25, 1914. Serial No. 874,041. (Cl. 95—65.)



1. A combined lens hood and vignetter for cameras, including a lens hood, a transverse shaft extending across the lens hood and journaled thereon, a vignetter arm rigid with the transverse shaft and projecting laterally therefrom, a vignetter board carried by the vignetter arm, and means for rotating the shaft to adjust the position of the vignetter board within the hood.

2. A combined lens hood and vignetter for cameras, including a lens hood, a transverse shaft extending across the same and journaled thereon, a vignetter arm rigid

with the shaft and projecting laterally therefrom, a vignetter board, a cross head carried by the vignetter arm and formed with a pocket to receive the vignetter board, a crank arm rigid with the shaft, a finger actuated adjusting member adapted to be mounted upon the camera stand, and an operative connection between the finger actuating adjusting member and the crank arm so that the shaft may be rotated to adjust the position of the vignetter board within the hood.

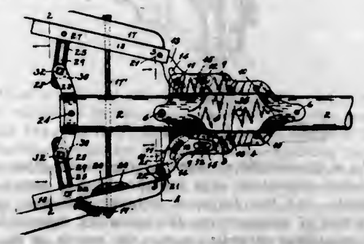
1,137,976. THUMB-GUARD FOR RAZORS. WALTER S. HYDE, Prineville, Oreg. Filed Sept. 1, 1914. Serial No. 859,681. (Cl. 30—12.)



1. As a new article of manufacture, a guard or protector for a razor comprising a body formed of a single piece of material, with its longitudinal edges adapted to bear against the sides of the serrated tang of the razor, a lip projecting from one end of the body, a tongue projecting from the other end of the body, and a second lip formed with the inner end of the tongue, the said tongue being adapted to lie along an edge of the tang and the said lips adapted to bear against the serrations on the tang of the razor.

2. A protector for a razor having a serrated tang formed with the blade and having the handle of the razor connected thereto, comprising a curved body for attachment to the tang, a tongue projecting from one end of the body, a lip on the other end of the body, and a second lip projecting from the tongue, with the said tongue and body extending longitudinally of th tang and said lips bearing against the serrations thereon.

1,137,977. VEHICLE-TONGUE DRAFT APPLIANCE. ROBERT T. JENNEY, Monticello, Iowa, assignor to Hall Manufacturing Co., Monticello, Iowa. Filed Oct. 12, 1914. Serial No. 866,313. (Cl. 21—36.)



1. A device of the character described comprising draft means, a pair of tongue-hounds, extension arms having each a pair of slots of which one is arcuate, bolts or the like connecting said arms, through said slots, with said draft means, and means for pivotally connecting said arms each with one of said hounds.

2. In a device of the character described, a tongue, a channel-iron tongue-hound, an extension arm pivoted between its webs, said arm having an arcuate slot, draft means secured to said tongue, and a bolt passed through an aperture in said draft means and seated in said slot, provision being made whereby to so guide the arm that the point at which it is pivoted to the hound will be adjustable in a line perpendicular to the tongue.

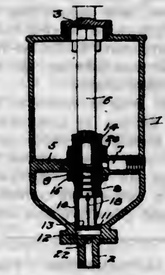
3. In a device of the character described, a tongue, means for adjusting a hound relative to the tongue and including a washer provided with a projection and a corrugated face, and corrugated means provided with a slot with which said projection coöperates, whereby said washer is prevented from turning relatively to said slot, and further whereby its corrugations are held always to register with the corrugations of said corrugated means.

4. In a device of the character described, a tongue, a tongue-hound, a slotted arm engaged with said hound, connecting means interposed between said tongue and arm, means provided with a projection adapted to seat and move in the slot in said arm, whereby said means is prevented from turning relatively to said arm, and means for securing said arm, connecting means, and the last recited element in fixed relationship.

5. An extension arm for devices of the character described, said arm having an arcuate and a longitudinally arranged slot, draft means with which its forward end is connected, and a tongue-hound with which its rear end is connected.

[Claims 6 to 10 not printed in the Gazette.]

1,137,978. GRAPHITE-FEEDING LUBRICATOR. THOMAS W. JOHNSON, Philadelphia, Pa. Filed May 13, 1914. Serial No. 838,330. (Cl. 184—29.)



1. The combination in a lubricator of a container having an outlet opening; a structure mounted in the container and having a cylinder for connection with a source of fluid under varying pressure; a piston in said cylinder; a needle connected to the piston and operative toward and from said opening; and a spring acting to press the needle toward the outlet opening.

2. The combination in a lubricator of a container having an outlet opening; a cross-member in said container having a passage for connection to a source of fluid under varying pressure; a cylinder supported by said cross-member and connecting with the passage therein; a piston in said cylinder; with a needle connected to the piston and operative toward and from the out-let opening of the container.

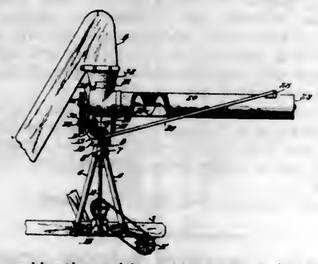
3. The combination in a lubricator of a container for solid lubricant having an outlet and a relatively small opening in its lower part leading to said outlet; a reciprocating member in the body of the container; and a needle actuated by said member and operative through said outlet opening for intermittently causing definite amounts of solid material to be forced through said opening, there being a passage independent of the small opening for connecting the interior of the container and the outlet.

4. The combination in a lubricator of a container for solid material having a relatively small outlet opening; a reciprocable needle capable of moving into and out of said opening; and means for reciprocating said needle to force definite amounts of lubricant through the opening, the same including a spring acting to force the needle toward said opening.

5. The combination in a lubricator of a container for solid lubricant having its interior connected and permanently exposed to a source of fluid under pressure and provided with a relatively small discharge opening; a cylinder; a piston operative therein; a needle reciprocated by the piston and mounted to operate within the discharge opening in the container; and a conduit connecting the cylinder with a source of fluid under varying pressure.

[Claims 6 to 12 not printed in the Gazette.]

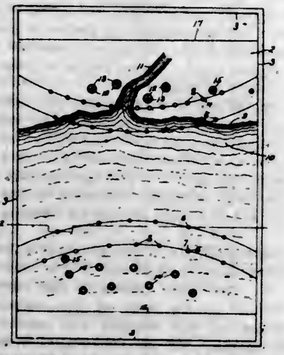
1,137,979. SWINGING CONVEYER. JOHN N. KAILOR, Columbus, Ind., assignor to Emerson-Brantingham Company, Rockford, Ill., a Corporation of Illinois. Filed Oct. 17, 1913. Serial No. 795,656. (Cl. 193—14.)



1. In combination with a conveyer having an auger-shaft, a drive-shaft with its axis transverse to that of the auger-shaft, a member turnable on the axis of said drive-shaft, supporting connection between said conveyer and turnable member, said connection including a bearing for the auger-shaft and a bearing for an intermediate-shaft, an intermediate-shaft journaled in the latter bearing, and gear connection between the intermediate-shaft and the auger and drive shafts.

2. In combination with a conveyer having an auger-shaft, a drive-shaft having its axis transverse to that of the auger-shaft, a member turnable on the axis of the drive-shaft, a fixed connection between the conveyer and the turnable member, an intermediate-shaft mounted on the turnable member, and a gear connection between said intermediate-shaft and the drive and auger shafts.

1,137,980. GAME APPARATUS. VIRGIL A. KEMPER, Kansas City, Mo. Filed Feb. 11, 1915. Serial No. 7,491. (Cl. 46—61.)



1. A game apparatus comprising a board having a playing side, a transversely arranged row of pegs projecting from the playing side, the outer pegs being spaced farther apart than the central ones, two sets of movable target members adapted to be located on the playing side of the board at opposite sides respectively of said row of pegs, and a projectile member adapted to be projected on said playing side between said pegs and against the opposite target members.

2. A game apparatus comprising a board having a playing side, a transversely arranged arcuate row of pegs projecting from the playing side, the outer pegs being spaced farther apart than the central ones, two sets of movable target members adapted to be located on the playing side of the board at opposite sides respectively of said row of pegs, and a projectile member adapted to be projected on said playing side between said pegs and against the opposite target members.

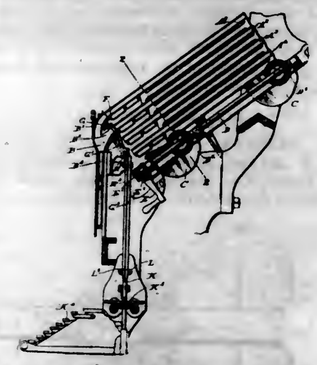
3. A game apparatus comprising a board having a playing side provided with a transversely arranged row of holes, pegs adapted to be removably mounted in said holes respectively, the outer holes of said row being spaced farther apart than the central holes, two sets of movable target members adapted to be located on the playing side of the board at opposite sides respectively of said row of holes, and a projectile member adapted to be projected on said playing side between said pegs and against the opposite target members.

4. A game apparatus comprising a board having a playing side provided with two transversely arranged arcuate rows of holes, the convex sides of said rows being adjacent to each other, pegs adapted to be removably mounted in said holes respectively, the outer holes of each row being spaced farther apart than the central ones, two sets of movable target members adapted to be located respectively at the concave sides of said rows, and a projectile member adapted to be projected on said playing side between said two rows of pegs and against the opposite target members.

5. A game apparatus comprising a board having a playing side provided with raised carom edges, a transversely arranged arcuate row of pegs projecting from the said playing side, the outer pegs being spaced farther apart than the central ones, target members adapted to be located on the playing side of the board at one side of said row of pegs, and a projectile member adapted to be projected between said pegs and against said target members.

[Claims 6 to 9 not printed in the Gazette.]

1,137,981. TYPOGRAPHICAL MACHINE. DAVID S. KENNEDY, Brooklyn, N. Y., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed June 19, 1914. Serial No. 846,021. (Cl. 199—7.)



1. In a typographical machine, the combination of two superposed magazines each provided with a series of escapements, and two series of actuating devices, one for each series of escapements, the actuating devices for the upper magazines extending across the mouth of the lower magazine and through which the type or matrices therefrom pass, and the escapements of the upper magazine being located on its under side so that their actuating devices will stand out of the path of the type or matrices passing therefrom.

2. In a typographical machine, the combination of two superposed magazines, each provided with a series of escapements, and two series of actuating devices mounted exteriorly of the magazines, one for each series of escapements, the actuating devices for the upper magazine extending past the mouth of the lower magazine and through which the type or matrices therefrom pass, and the escapements for both magazines being located on their under sides so that their corresponding actuating devices will stand out of the path of the outgoing type or matrices.

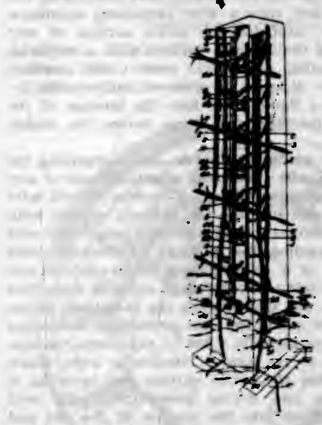
3. In a typographical machine, the combination of a plurality of superposed magazines movable to bring different selected pairs thereof into operative position, and each provided with a series of escapements, and two series of actuating devices for the escapements of the selected magazines, the actuating devices for the upper one of said magazines being arranged so as to stand out of the path of the outgoing type or matrices.

4. In a typographical machine, the combination of a plurality of superposed magazines movable to bring different selected pairs thereof into operative position, and each provided with a series of escapements, and two series of actuating devices for the escapements of the selected magazines, the escapements for the upper one of said magazines being located on its under side so that their actuating devices will stand out of the path of the outgoing type or matrices.

5. In a typographical machine, the combination of a plurality of superposed magazines movable to bring different selected pairs thereof into operative position, and each provided with a series of escapements, and two series of actuating devices for the escapements of the selected magazines, the said escapements being located on the under side of all the magazines so that the actuating devices may coöperate with the escapements of any selected pair of adjoining magazines.

[Claims 6 to 13 not printed in the Gazette.]

1,137,982. REINFORCED-CONCRETE POST. JAMES PETER KIMBLE, What Cheer, Iowa. Filed May 19, 1914. Serial No. 839,618. (Cl. 256—51.)



1. In a reinforced concrete post, a fence wire holding device embedded in the post body with one edge extended through the said body, means mounted in the said face of said holding device for receiving and supporting the fence wire strands, the said wire holding device consisting of an anchor plate embedded in one face of the cement post and having a series of staple receiving and holding sockets in its front edge, fence wire holding staples rigidly held in the said plate, the said staple holding sockets being arranged in pairs and divergingly disposed relatively to each other, said anchor plate having a water draining channel that extends lengthwise thereof and discharges through the lower front face of said anchor plate, said draining channel having communication with the staple holding sockets.

2. In a reinforced concrete post, a fence wire holding device embedded in the post body, with one edge exposed through said body, said wire holding device consisting of a pair of metallic plate sections in face contact with each other and having opposing matching corrugations to form staple receiving grooves, said plate sections having a longitudinal water draining groove in communication with said staple receiving grooves and delivering to the outside of the post.

3. In a reinforced concrete post, a fence wire holding device embedded in the post body with one edge exposed through said body, said wire holding device comprising a pair of plate members having opposing matching corrugations forming staple receiving grooves, each of said plates having a longitudinal rib on its outer side face adjacent to the rear edge of the plate, said plates having transverse apertures, tie wires passed through said apertures and bent substantially parallel to said plates to secure said plates together, said plates having reduced projections at their lower ends, and a securing member wrapped around said projections.

1,137,983. SKEWER-MOUNTING. HARRY GRANT KIMBALL, Bronxville, N. Y., assignor to The Whitin Machine Works, Whitinsville, Mass., a Corporation of Massachusetts. Filed Aug. 15, 1911, Serial No. 644,251. Renewed Sept. 3, 1913. Serial No. 787,992. (Cl. 242—131.)



1. A skewer mounting for metallic creels comprising a one-piece body or block of fictile material formed with a tubular lower portion adapted to receive a skewer tip and a dished upper surface forming a step-bearing, and provided with a laterally disposed supporting surface whereby it may rest without danger of rupture in a perforation in the creel.

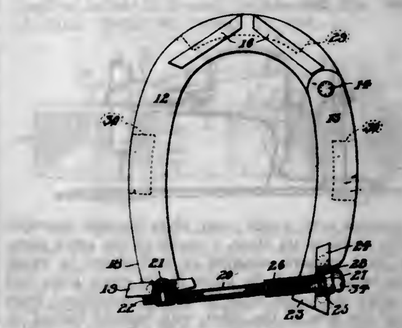
2. A skewer mounting for metallic creels comprising a piece of fictile material having an integral head flanged whereby it is supported within a perforation extending through a creel plate, and formed with an upper dished surface and a lower tubular portion adapted to support the tip of a skewer.

3. A skewer mounting for metallic spinning creels comprising a member adapted to be held in a perforation in the creel and having a laterally projecting supporting flange, a tubular part below the flange adapted to receive the top of a lower skewer and an upper surface formed as a step-bearing for the base of an upper skewer.

4. A skewer mounting for metallic creels composed of a block or piece of highly glazed, fictile material formed with a tubular lower portion adapted to receive the tip of a skewer, and means which are not subject to expansile pressure against said piece for supporting the same in a perforation in a metallic creel rail.

5. A skewer mounting for metallic creels composed of step-bearing surface, a top-holding surface and a lateral flange surface, all combined in a single structure and adapted to be placed in a perforation in the metallic creel rail, combined with non-frictional means for confining such structure within its said perforation, whereby it is relieved of expansile pressure.

1,137,984. QUICK-ACTION HORSESHOE. JOHN KOSTKA, Indiana Harbor, Ind. Filed Jan. 25, 1915. Serial No. 4,805. (Cl. 168—19.)



1. A horse shoe including a pair of hinged sections, hoof clamps carried by the sections, toe calks, a pair of

heel calks arranged at right angles to each other, a fastening member including a bolt threaded at one end and having its other end pivotally mounted on one of said calks, there being an opening inclined at each end in the other calk, an internally threaded sleeve mounted in the said opening, a head carried by said sleeve to engage the side walls of the opening, the threaded end of said bolt adapted to be received in said threaded sleeve, and means carried by the head of the sleeve for turning the same.

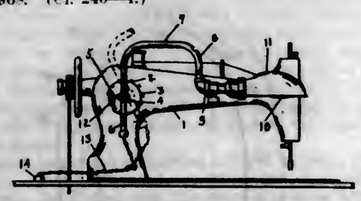
2. A horse shoe including a pair of hinged sections, hoof engaging clamps carried by the sections, toe and heel calks carried thereby, a two-part fastening member carried by the heel calks, one of said members being pivotally attached to one of the heel calks, the other of said members having a swivel connection with the other heel calk, and means carried by the last-named member for causing the two-part fastening member to be adjusted as to length.

3. A horse shoe including a pair of hinged sections, hoof clamps carried thereby, toe and heel calks, the said heel calks being arranged at an angle to each other, a threaded pin carried by one of said calks, a threaded bolt pivotally mounted on said pin, a sleeve member having an enlarged head swivelly mounted in the other calks, and internally threaded for the reception of the threaded end of the bolt, whereby the shoe sections may be moved to clamping position.

4. A horse shoe comprising two separate sections, one being larger than the other and having an arched toe portion, a hinging pintle connection between the said sections, a curved claw flange secured to one face of the said toe portion, marginal inwardly projecting claw flanges carried at opposite points upon the corresponding faces of the said two sections, forwardly converging calks carried upon the opposite face of the said toe portion, a transversely positioned projecting calk carried by the heel portion of the said larger section, a longitudinally positioned calk carried by the heel portion of the smaller section and having an opening therethrough, an internally-threaded socket bolt journaled through the said opening, an externally threaded bolt having one end screw-threaded within the said socket bolt and having its other end pivotally mounted to the said transverse heel calk.

5. A horse shoe comprising two sections hingedly mounted together, hoof engaging claws carried by the said sections, a transverse heel calk carried by one of said sections, a longitudinally positioned heel calk carried by the other of said sections and having an opening therethrough, a socket bolt journaled through the said calk opening and having an internally threaded socket, a perforated operating head at the outer end of the said socket bolt, a stop collar carried by the said socket bolt adjacent the said head thereof, a pivot screw carried by the said transverse calk, a bolt pivoted upon said screw and having an externally screw-threaded portion operatively positioned within the said socket bolt.

1,137,985. SEWING-LAMP. VICTOR KRAMP and MAX NEUBER, Toledo, Ohio. Filed Nov. 9, 1914. Serial No. 870,968. (Cl. 240—4.)



1. A machine arm, a side cover plate therefor pivotally mounted to swing in its plane, a clamp on the cover plate, a return bend support mounted by said clamp to swing in a plane transverse of the plane to the cover plate and rockable with the cover plate to permit movement from one side of the arm to the other, said support having an angular termination, and a lamp carried by said termination.

2. A lamp, a return bend support therefor, a machine arm, a mounting on said arm for the support to bring the lamp in position back of the arm, and means permitting rocking of the support as to the arm for bringing the lamp in position in front of the arm by swinging the lamp over the arm.

1,137,986. PROCESS OF PRODUCING AND PROTECTING INSULATING-COVERINGS OF OXID ON WIRES, BANDS, &c. ERNST WOLFGANG KÜTTNER, Berlin, Germany. Filed Sept. 2, 1910. Serial No. 580,196. (Cl. 91—68.)

1. A process for producing electric coils comprising the steps of winding a wire containing aluminum and of any shape into coils, oxidising the entire surface of said wire after it is coiled, and covering the oxidized surface with a mechanically resistant coating adapted to protect said oxidized surface against the damages of pressure.

2. A process for producing electric coils comprising the steps of winding into coils a wire containing aluminum and of any shape, oxidizing the entire surface of said wire after it is coiled and covering the oxidised surface with a mechanically resistant coating adapted to protect said oxidized surface against the damages of pressure, said coating being introduced in a liquid state into the interior of the coil and between the individual turns.

3. A process for producing electric coils comprising the steps of winding into coils a wire containing aluminum and of any shape, oxidising the entire surface of said wire, and covering the oxidized surface with a mechanically resistant coating adapted to protect said oxidized surface against the damages of pressure, said coating being introduced in a liquid state into the interior of the coil and between the individual turns during the oxidizing process.

4. A process for producing electric coils comprising the steps of winding a wire containing aluminum and of any shape into coils, oxidizing the entire surface of said wire after it is coiled, and covering the oxidized surface with a mechanically resistant coating adapted to protect said oxidized surface against the damages of pressure, said coating consisting of a solution with an evaporable solvent, said coating being introduced in a liquid state into the interior of the coil and between the individual turns.

5. A process for producing and protecting insulating coverings of oxid on metallic wires of any shape containing aluminum and in the form of bundles or coils, which consists in oxidizing the entire surface and covering it with a solidifying and drying protective liquid, said liquid being introduced into the interior of the coil and between the individual turns, said coil being subsequently heated an optional number of times.

[Claims 6 to 10 not printed in the Gazette.]

1,137,987. VEHICLE-SPRING. ALFRED M. LANE, St. Louis, Mo. Filed Aug. 3, 1914. Serial No. 854,684. (Cl. 21—103.)

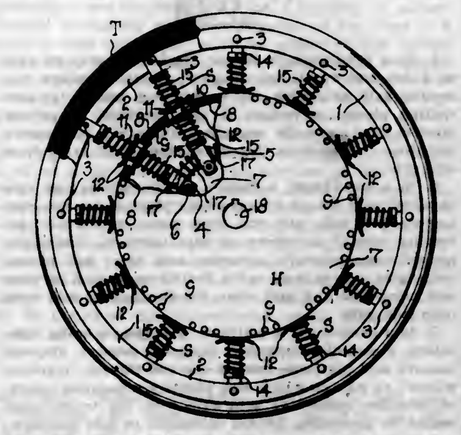


1. A leaf spring comprising a plurality of leaves, each of said leaves except the top leaf having an upwardly projecting flange extending along each longitudinal edge thereof, each of said leaves except the bottom leaf having a rabbet in its under face along each longitudinal edge thereof, the flanges of each leaf being fitted tightly in the rabbets of the leaf next above it, thereby positively preventing sidewise movement of said leaves relatively to each other, each of said leaves except the top leaf having oil grooves in its upper face extending from each end of said leaf to a point near the middle thereof, each of said leaves except the bottom leaf having holes therein communicating with the oil grooves in the leaf next below it, and means for supplying lubricant through holes in the top leaf to the oil grooves of the leaf next below said top leaf.

2. A leaf spring comprising a plurality of leaves, each of said leaves except the top leaf having a main oil groove in its upper surface extending longitudinally thereof from a point near each end to a point near the middle of said leaf, each of said leaves except the top leaf having auxiliary oil grooves leading obliquely from said main oil groove on each side thereof transversely of said leaf, each of said leaves except the bottom leaf having holes therein communicating with the main oil grooves, said holes and main oil grooves decreasing in cross-section from the top leaf to the bottom leaf, and means adjacent to the edges of each leaf for retaining the lubricant between said leaves, said last-mentioned means projecting above the surface of said leaf in which said oil grooves are located.

3. A leaf spring comprising a plurality of leaves, said leaves being provided with oil grooves and having holes therein connecting the oil grooves of adjacent leaves, and means adjacent to the edges of each leaf for retaining oil between the leaves, said means projecting above the surface of said leaf in which said oil grooves are located.

1,137,988. RESILIENT WHEEL. HELGE LAURIDSEN, Mason City, Nebr. Filed Jan. 18, 1915. Serial No. 2,878. (Cl. 152—28.)



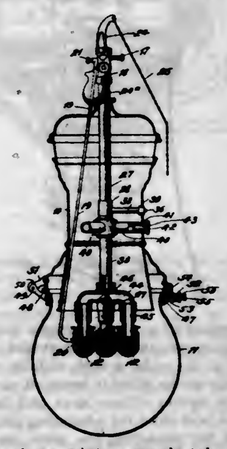
1. A resilient wheel comprising an outer annular member, a hub structure provided with radially disposed openings, an annular member loosely positioned within the hub, spokes pivotally engaged with the outer annular member and having their inner extremities provided with recesses in which the inner annular member is freely movable, and tensioning means coacting with each of the spokes and the hub.

2. A resilient wheel comprising an outer annular member, a hub structure provided with radially disposed openings, an annular member loosely positioned within the hub, spokes pivotally engaged with the outer annular member and having their inner extremities provided with recesses in which the inner annular member is freely movable, tensioning means coacting with each of the spokes and the hub, and tensioning means carried by the inner annular member and positioned between adjacent spokes.

3. A resilient wheel comprising an outer annular member, a hub structure provided with radially disposed openings, an annular member loosely positioned within the hub, spokes pivotally engaged with the outer annular member and having their inner extremities provided with recesses in which the inner annular member is freely movable, tensioning means coacting with each of the spokes and the hub, and anti-friction members carried by each of the spokes engageable with the inner face of the inner annular member.

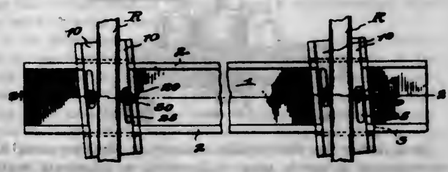
4. A resilient wheel comprising an outer annular member, a hub consisting of spaced disks, spaced blocks secured between the disks adjacent the periphery thereof, spokes pivotally engaged with the outer annular member and disposed between the spaces afforded by the adjacent blocks, sleeves positioned in the spaces between adjacent blocks and through which the spokes are loosely disposed, said sleeves being provided with flanges overlying the upper and lower faces of the blocks, tensioning means operatively engaged with each of the spokes at opposite sides of its sleeve and coacting with the sleeve, and tensioning means coacting with the inner extremities of the spokes to resist the movement of the spokes about their pivotal connection with the outer annular member.

1,137,989. GAS-LAMP. JOSEPH LEDERER, New York, N. Y. Filed Feb. 8, 1913. Serial No. 747,015. (Cl. 67—94.)



A gas lamp having a mixture supply tube provided with a discharge end having a valve seat, a fitting at the discharge end to carry the gas to the burners, and a valve disposed centrally of the fitting and coöperating with the valve seat, the valve being conical to spread the gas evenly to said burners.

1,137,990. RAILWAY-TIE AND FASTENER. WILLIAM ALONZA LOCKARD, Philadelphia, Pa., assignor of one-half to Arthur E. Stange, Philadelphia, Pa. Filed Jan. 7, 1915. Serial No. 1,038. (Cl. 238—5.)



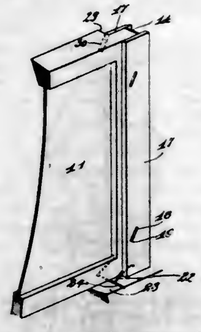
1. The combination with a railway tie having means to abut one side of a rail, and a pair of shoulders spaced from each other longitudinally of the rail and spaced unequal distances from the other side of the latter, of a longitudinally disposed wedge interposed between said shoulders and the rail, a supplemental wedge carried by the central portion of the first named wedge and located between the two shoulders, and a rigid projection dis-

posed in contact with the outer edge of the supplemental wedge.

2. The combination with a railway tie having means to abut one side of a rail, and a pair of shoulders spaced from each other longitudinally of the rail and spaced unequal distances from the other side of the latter, of a longitudinally disposed wedge interposed between said shoulders and the rail, and having a longitudinal slot lying parallel to and disposed near its outer edge, and a projection rising from the tie into said slot.

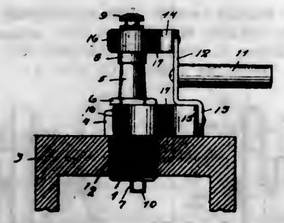
3. The combination with a railway tie having means to abut one side of a rail, and a pair of shoulders spaced from each other longitudinally of the rail and spaced unequal distances from the other side of the latter, of a longitudinally disposed wedge interposed between said shoulders and the rail, said wedge having a longitudinal slot lying parallel to and disposed near its outer edge, a rigid bolt rising from the tie through the slot, and a clamping nut on said bolt.

1,137,991. WINDOW. KNUTE L. LODVEE, Chicago, Ill. Filed Jan. 13, 1914. Serial No. 811,863. (Cl. 20—49.)



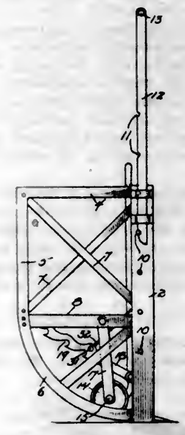
The combination of a window frame having jambs provided with slideways, and a sill provided with top transverse grooves at its ends, a sash slidably mounted in the frame, retaining strips slidably mounted on the ends of the sash, said strips having oblique slots, and the sash carrying pins seating in said slots for advancing the strips into the slideways and for retracting the same, and pivoted cross bails connecting the lower ends of the strips, and adapted to seat in the grooves of the sill when the sash is down.

1,137,992. SPARK-PLUG ATTACHMENT. ROYDEN K. MCDOUGAL, Lincoln, Nebr. Filed Mar. 11, 1912. Serial No. 682,958. (Cl. 175—183.)



In a device for electrically connecting the two metallic elements of a spark plug, comprising a relatively rigid metallic body portion having its lower end laterally and outwardly off set; an approximately U-shaped resilient metallic clamp attached to the upper end of the relatively rigid body portion; a second approximately U-shaped resilient metallic clamp attached to the lower outwardly off set end of the relatively rigid body portion and being substantially longer than the first named clamp whereby its free end is substantially co-extensive in length with the corresponding end of the first named clamp; and an insulating handle secured to the relatively rigid body portion between the clamps, whereby the clamps may be readily detachably mounted upon and removed from the elements of the spark plug.

1,137,993. HAND-TRUCK. WILLIAM H. MCCARTHY, Melrose, Minn. Filed May 18, 1914. Serial No. 839,400. (Cl. 21—65.)



1. In a hand-truck, a frame; traction-wheels; an axle on which said wheels are mounted; pivoted members connecting said axle with the truck-frame, means for preventing pivotal movement of said members, comprising pivoted arms normally engaging said axle; and means, including a hand-lever, for disengaging said arms from said axle.

2. In a hand-truck, a frame; traction-wheels; an axle on which said wheels are mounted; pivoted members connecting said axle with the truck-frame, means for preventing pivotal movement of said members, comprising pivoted arms normally engaging said axle; and means, comprising a hand-lever and a flexible connection between said hand-lever and said arms, for disengaging said arms from said axle.

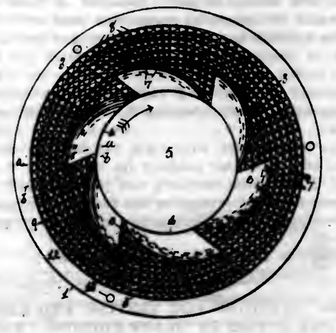
3. In a hand-truck, a platform; a frame; a brake, comprising a normally-depending, elongated member, disposed beneath said platform, toward one end thereof; traction-wheels; an axle on which said wheels are mounted; pivoted members connecting said axle with the truck-frame, means for preventing pivotal movement of said members; and means, common to said last-named means and to said brake, for simultaneously rendering inoperative said means for preventing pivotal movement of said members and for moving said brake out of normal, operative position.

4. In a hand-truck, a platform; a frame; a brake, comprising a normally-depending, elongated member, disposed beneath said platform, toward one end thereof; traction-wheels; an axle on which said wheels are mounted; pivoted members connecting said axle with the truck-frame, means for preventing pivotal movement of said members, comprising pivoted arms normally engaging said axle; and means, common to said arms and to said brake, for releasing said arms from engagement with said axle and for simultaneously moving said brake out of normal, operative position.

5. In a hand-truck, a platform; a frame; a brake, comprising a normally-depending, elongated member, disposed beneath said platform, toward one end thereof; traction-wheels; an axle on which said wheels are mounted; pivoted members connecting said axle with the truck-frame; means for preventing pivotal movement of said members, comprising pivoted arms normally engaging said axle; and means common to said arms and to said brake, for releasing said arms from engagement with said axle and for simultaneously moving said brake out of normal, operative position, said means including a hand-lever engageable with said brake.

[Claim 6 not printed in the Gazette.]

1,137,994. GRINDING-DISK. FRANK L. MCKILLIP, Green Bay, Wis., assignor to The Up-To-Date Machine Company, Green Bay, Wis., a Corporation of Wisconsin. Filed Sept. 6, 1913. Serial No. 788,372. (Cl. 83—3.)



In grinding disks of a ring form, one of which is to be stationary and the other revolving, a plurality of pockets formed around the inner circumference of the disks of a curved cross section and a curved outline outside thereof and ending in an abrupt abutment tangentially arranged, said tangential abutment lines continuing outwardly and dividing the disk into a plurality of lands with their surfaces made slightly dished, a series of concentric grooves around the disk over said lands, the series in one disk of a pair being staggered relative to those in the other, a series of grooves arranged transversely of said concentric grooves, one of those nearly midway between the abutment tangential lines being radial and those each side of said radial line approaching gradually, the same tangential line as said abutment lines, whereby the material as fed from the several pockets is forced between teeth that continually present a different angle to each other from the entrance of the material from a pocket to its escape at the circumference of the disks and becomes finely ground.

1,137,995. HOSE-STANDARD. WILLIAM A. MCLAREN, Pasadena, Cal. Filed July 8, 1914. Serial No. 849,852. (Cl. 248—29.)

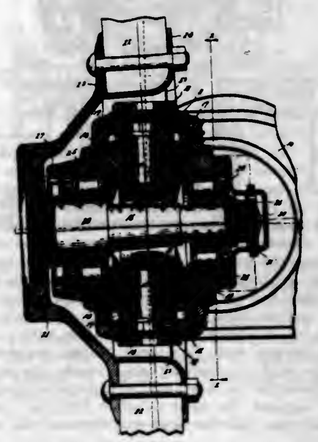


1. A hose standard comprising a post, a head secured to said post, said head having two depressions in the top near the forward edge and one depression in the top near the rear edge into which protuberances on a sprinkler will fit, and means for clamping the sprinkler in position on top of said head.

2. A hose standard comprising a post, a head secured to said post, said head having two depressions in the top near the forward edge and one depression in the top near the rear edge into which protuberances on a sprinkler will fit, and hooks adjacent to said forward depression so placed as to coöperate with said depressions to secure a sprinkler on the top of said head.

3. A hose standard comprising a post, a head secured to said post, a depression in said head adapted to receive a projection on a sprinkler, and a hook secured to said head and adapted to hook over a portion of said sprinkler and secure it on said head.

1,137,996. STEERING AXLE AND WHEEL. HOWARD C. MARMON, Indianapolis, Ind. Filed Aug. 1, 1912. Serial No. 712,720. (Cl. 21—142.)



1. In combination, a fixed axle having its end bifurcated to form upper and lower arms, a cage pivotally mounted between said arms on an axis intersecting said arms and substantially perpendicular to the axis of the axle, a spindle mounted in such cage on an axis which is canted slightly relatively to the axis of said axle and intersects the axis on which the cage is rotatable, and a vehicle wheel fixed on such spindle, the plane of such wheel intersecting the axis on which the cage is rotatable at a point within the cage structure.

2. In combination, a fixed axle having its end bifurcated to form upper and lower arms, a cage pivotally mounted between said arms on an axis intersecting said arms and substantially perpendicular to the axis of the axle, a spindle mounted in such cage on an axis which is canted slightly relatively to the axis of said axle and intersects the axis on which the cage is rotatable, and a vehicle wheel fixed on such spindle.

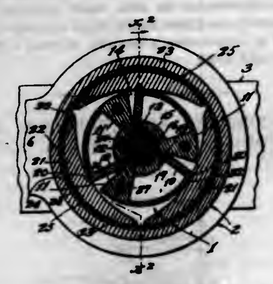
3. In combination, a fixed axle having its end bifurcated to form upper and lower arms, a cage pivotally mounted between said arms on an axis intersecting said arms, a spindle mounted in such cage and having its axis slightly inclined vertically from the axis of the axle and intersecting the pivotal axis of the cage, and a vehicle wheel fixed on such spindle.

4. In combination, a fixed axle, a cage pivotally mounted in one end of said axle on an axis transverse to the axis of the axle, anti-friction bearings between said cage and said axle, a spindle extending longitudinally through said cage and having its axis slightly inclined vertically from the axis of the axle and intersecting the pivotal axis of the cage, anti-friction bearings between said spindle and said cage on each side of the axis on which the cage is rotatable, and a vehicle wheel fixed on said spindle.

5. In combination, a fixed axle, a cage pivotally mounted in one end of said axle on an axis transverse to the axis of the axle, a spindle extending longitudinally through said cage and having its axis slightly inclined vertically from the axis of the axle and intersecting the pivotal axis of the cage, and a vehicle wheel fixed on said spindle.

[Claims 6 to 15 not printed in the Gazette.]

1,137,997. SHOCK-ABSORBER. GEORGE CUSHING MARTIN, Los Angeles, Cal. Filed Jan. 24, 1912. Serial No. 673,226. (Cl. 21—105.)



1. In a shock absorber the combination with a rotatably mounted circular wall; of a loose floating expansible band inside the wall; a shoe inside the band and means operatable by rotation of said circular wall to force the shoe against the band to effect frictional action between the shoe and the band and between the band and the wall.

2. In a shock absorber the combination with a rotatably mounted circular wall; of a loose floating open expansible band inside the wall; a shoe inside the band and means operatable by rotation of said circular wall to force the shoe against the band to effect frictional action between the shoe and the band and between the band and the wall.

3. In a shock absorber the combination with a rotatably mounted circular wall; of a loose floating expansible band inside the wall; a resilient shoe inside the band; and means operatable by rotation of said circular wall to force the shoe against the band to effect frictional action between the shoe and the band and between the band and the wall.

4. The combination with a circular ring wall; of a resilient shoe having inside the wall a segmental frictional surface; a floating open expansible band practically fitting the inside of the wall and surrounding the shoe, and having in contact with the frictional surface of the shoe an inner circular frictional surface to which the frictional surface of the shoe is normally unconformed; and means operable to deflect the shoe toward conformity with said inner frictional surface.

5. In a shock absorber the combination with a circular ring wall; of a shoe; a floating open expansible band between the shoe and the wall; said shoe and band having adjacent frictional faces that are normally unconformed to each other; and means to cause a relative change of shape between the frictional faces of the shoe and band thereby to increase the contacting frictional area between the shoe and the band.

[Claims 6 to 8 not printed in the Gazette.]

1,137,998. APPARATUS FOR FORMING CONCRETE STRUCTURES. ALVA S. MERRIETT, Los Angeles, Cal. Filed Nov. 3, 1913. Serial No. 798,941. (Cl. 25—131.)



1. The combination with form members, of brackets fixed on each corner of said form members, a cross bar, and clamps removably mounted on said brackets and adapted for application to the cross bar, for the purpose set forth.

2. The combination with form members, of brackets fixed on each corner of and near the center of the longitudinal edges of said form members, a cross bar, and clamps removably mounted on said brackets and adapted for adjustable application to the cross bar, for the purpose set forth.

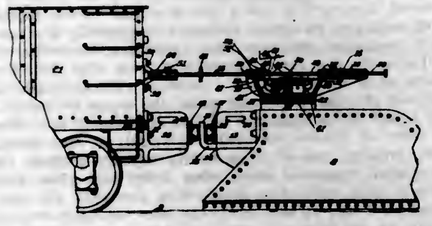
3. The combination with form members having corner notches and brackets fixed in the corners on said members adjacent the notches, a cross bar adapted to seat in said notches, and clamp members mounted on said brackets and adapted for adjustable connection with said cross bar.

4. The combination with form members having corner notches, of brackets mounted in the corners and at intermediate positions on said members, a cross bar adapted to seat in said notches, and clamp members adapted for mounting on said brackets and for engagement with said cross bar.

5. The combination with form members having corner notches, of a cross bar adapted for support in the corner notches of said form members and provided with sockets, and clamp members carried by the form members and having tips adapted for projection in the sockets in said cross bar.

[Claims 6 to 18 not printed in the Gazette.]

1,137,999. MACHINE FOR TESTING AND REGISTERING THE ACTION OF DRAFT-RIGGING. WILLIAM H. MINER, Chicago, Ill. Filed July 7, 1913. Serial No. 777,610. (Cl. 73—51.)



1. In a device of the character described, in combination, a bumper post, a car, means upon the bumper post and means upon the car to hold draft gears in opposed relation, a recording device located adjacent the bumping post, the said recording device comprising a revoluble disk, a marker for the same and a bar to actuate said marker, and means upon the car adapted to engage said bar whereby the marker is operated by the moving car while said disk is revolving and the gears are in engagement with each other.

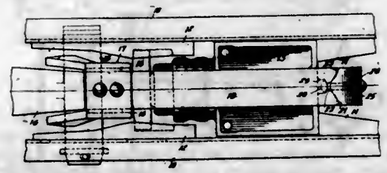
2. In a device of the character described, a railroad car, a pocket thereon adapted to receive a draft gear, a bumper post, a pocket thereon adapted to receive a draft gear, a recording device mounted independently of the bumper post, said recording device being provided with a revolving disk, a marker therefor, and a bar adapted to be actuated by a car and to actuate said marker.

3. In a device of the character described, a railroad car, a pocket thereon to receive a draft gear, a bumper post, a pocket thereon to receive a draft gear, a follower supported by said last mentioned pocket and in sliding engagement therein, a revoluble disk means for revolving the same, a marker for said disk, a bar to actuate said marker, and means upon the said car for actuating the said bar at a predetermined time in reference to the engagement of two draft gears when placed in the said pockets.

4. In a device of the character described, an inclined track, a car adapted to operate thereon, means upon said car to secure a draft gear, a bumper post associated with said track, means thereon to secure a draft gear in opposed relation to the first mentioned draft gear, a revoluble disk mounted independently of the said bumper post, means for revolving said disk, a marker for the said disk, a bar for actuating said marker, a buffer on the said car adapted to engage the said bar, whereby the rate of travel of the car upon engagement of the opposed draft gears may be recorded by said marker on said revoluble disk.

5. In a device of the character described, in combination a bumper post having means thereon to hold a draft gear in alinement with another draft gear carried by a car, a recording device including a movable element located adjacent the bumper post and a marker adapted to mark on said movable element, the marker being movable in a line parallel with the center line of a draft gear carried by the bumper post, and means for operating said marker from a car when a car is moved toward the bumper post.

1,138,000. RAILWAY DRAFT-RIGGING. WILLIAM H. MINER, Chicago, Ill. Filed Jan. 12, 1914. Serial No. 811,604. (Cl. 213—42.)



1. In a railway draft rigging having a rear follower provided with a flat rear surface, the combination with a yoke, of a rockable filler interposed between said follower and the rear end of the yoke, said rockable filler having a flat inner surface arranged to engage and slide on the rear flat side of said follower, substantially as specified.

2. As an article of manufacture, a yoke having a two-piece filler secured thereto at its rear end, one member of the filler being fixed with respect to the yoke and the other member thereof rockably connected thereto, the last named member having an extended flat bearing surface on the forward side thereof adapted to engage and slide upon the rear follower, substantially as specified.

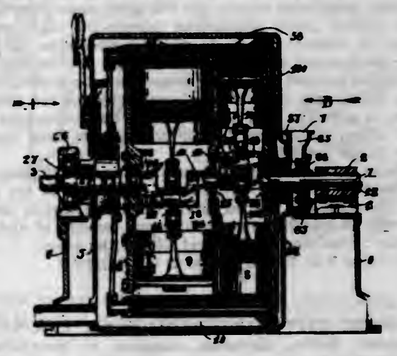
3. In a railway draft rigging, the combination with a draw-bar, a yoke connected to the draw-bar and shock absorbing mechanism, of a front follower having a curved outer bearing surface, a rear follower, and means intermediate the yoke and the rear follower automatically adapted to transmit the forces from the yoke in any position thereof to the rear follower in a line parallel with the center line of the gear, said means including a two-piece filler, one member of which has an extended flat surface bearing against the rear follower and slidable thereon and the other member of which is fixed with respect to the yoke, said members having a rockable bearing therebetween, substantially as specified.

1,138,001. CONNECTING-ROD BEARING FOR ROTATING CYLINDER-ENGINES. WILLIAM EDGAR MINUE, Fredericton, New Brunswick, Canada. Filed Jan. 26, 1914. Serial No. 814,571. (Cl. 64—62.)

1. In combination, a crank shaft having a crank, a pair of race rings on the crank formed with annular grooves on the outer ring a connecting rod formed with a surface adapted to receive rollers, rollers on the surface claws at either side of said surface adapted to act as containers for the rollers and engage in the annular grooves in the outer ring of the ball race.

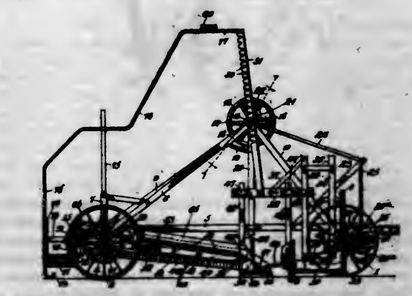
2. In combination, a crank shaft, a pair of race rings thereon, a connecting rod, a frame, rollers mounted in the frame adapted to reduce friction between the connecting rod and the outer ring, means for preventing the lateral motion and limiting the rolling action of said rollers, said means comprising pins projecting from the surfaces which the rollers engage, one of said rollers being provided with orifices adapted to engage with said pins.

3. In combination, a crank shaft, a pair of race rings thereon, a connecting rod having a bearing surface on its inner end extending peripherally of the race rings, rollers between the outer race ring and the bearing surface on the connecting rod and means on each side of the connecting rod extending over the race ring and adapted to prevent lateral movement of the connecting rod.



4. In combination, a connecting rod, a crank shaft, a pair of race rings mounted on said crank shaft the outer of said rings being formed with slots in its outer periphery side plates having flanges, said flanges being adapted to secure said connecting rod when said plates are bolted together, lugs on the inner periphery of said plates, said lugs being adapted to engage with said slots in the outer member of the ball race.

1,138,002. DITCHING-MACHINE. SAMUEL L. MOSER, Upper Sandusky, Ohio. Filed Dec. 12, 1912. Serial No. 737,693. (Cl. 37—25.)



1. In a machine for the purpose described, a vehicle, trench forming devices adjustably mounted on the vehicle for various depths of cut, and draft means connected to both the vehicle and trench forming devices and automatically adjustable on the latter, the connecting devices being variable as to the proportionate draft on said trench forming devices and vehicle.

2. In a machine for the purpose described, a vehicle, trench forming devices adjustably mounted on the vehicle for various depths of cut, draft means having flexible connections to both the vehicle and the trench forming devices and automatically adjustable on the latter, and a support for the draft means mounted on the vehicle, the connecting devices being variable as to the proportionate draft on said trench forming devices and vehicle.

3. In a machine for the purpose described, a vehicle, trench forming devices carried thereby and adjustable thereon for variable depth of cut, and draft means having connections to both the trench forming devices and the vehicle and variable as to the proportionate draft on said device and vehicle at will, the connections between the draft means and the trench forming devices being auto-

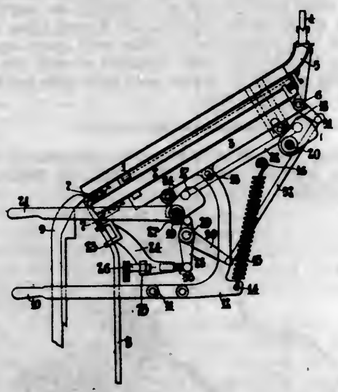
matically adjustable along the latter and the draft means being provided with supporting means attached to the vehicle for holding the draft means against participation in adjustments of the trench forming devices.

4. In a machine for the purpose described, a vehicle, trench forming devices carried thereby and adjustable thereon for producing different depths of trench, a draft means, supporting devices for the draft means carried by the vehicle, draft connections betwen the draft means and the vehicle, and freely slidable connections between the draft means and the trench forming devices, the connections between the draft means and the trench forming devices and vehicle being constructed for the application of power in such proportions as may be desired and the supporting devices for the draft means being located out of the line of draft.

5. In a machine for the purpose described, a scoop for excavating a trench, and cutting means out of the path of the scoop, said cutting means being displaced in the direction of travel of the machine one forward of and the other to the rear of the front end of the scoop.

[Claims 6 to 15 not printed in the Gazette.]

1,138,003. TYPOGRAPHICAL MACHINE. CARL MUEHLMISEN, Berlin, Germany, assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed May 25, 1914. Serial No. 840,799. (Cl. 199—7.)



1. In a typographical machine, the combination of a plurality of magazines, a frame carrying the magazines, means for shifting the frame to bring one or another of the magazines into operative position, and further means for moving the frame and all of the magazines thereon as a whole from their shifted position to facilitate the removal of the magazines.

2. In a typographical machine, the combination of a plurality of magazines, a frame carrying the magazines, means for shifting the frame to bring one or another of the magazines into operative position, and further means for moving the frame from its shifted position to facilitate the removal of the magazines, the said means comprising a hand lever fulcrumed in the machine frame and connections between said lever and the magazine frame.

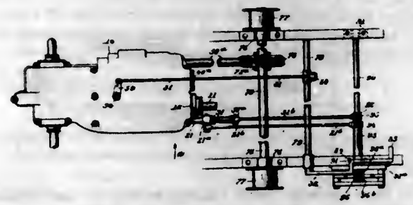
3. In a typographical machine, the combination of a plurality of magazines, a frame carrying the magazines, means for shifting the frame to bring one or another of the magazines into operative position, and further means for moving the frame from its shifted position to facilitate the removal of the magazines, the said means comprising a hand lever fulcrumed in the machine frame and an angled link pivotally connected to the hand lever and the machine frame respectively.

4. In a typographical machine, the combination of a fixed assembler entrance, a plurality of magazines, means for moving the magazines vertically to bring one or another into operative relation to the assembler entrance, and means distinct from the magazine moving means for lifting the magazines as a whole above the level of the assembler entrance for removal or inspection.

5. In a typographical machine, the combination of a fixed assembler entrance, a plurality of magazines, means for moving the magazines vertically to bring one or another into operative relation to the assembler entrance, means distinct from the magazine moving means for lifting the magazines as a whole above the level of the assembler entrance for removal or inspection, and counterbalancing devices connected to said lifting means.

[Claims 6 to 11 not printed in the Gazette.]

1,138,004. HOISTING-GEARING FOR MOTOR-TRUCKS. FRANK MUELLER, Allentown, Pa., assignor to International Motor Company, Wilmington, Del., a Corporation of Delaware. Filed Oct. 16, 1912. Serial No. 726,028. (Cl. 74—58.)



1. In motor vehicles and the like, in combination, a transmission mechanism, speed-controlling means for said transmission mechanism, an extra shaft, a power transmitting member operatively connected thereto and adapted to be actuated thereby, means for driving said transmission mechanism, and means for rendering said extra shaft operative, and rendering said speed-controlling means inoperative as to certain of the gears of said transmission mechanism.

2. In motor vehicles and the like, in combination, a transmission mechanism, speed-controlling means for said transmission mechanism, an extra shaft, a power transmitting member operatively connected thereto and adapted to be actuated thereby, normally inoperative means for driving said transmission mechanism, and means for rendering said extra shaft operative and for locking said speed-controlling means whereby to prevent the same being actuated to render certain of the gears of said transmission mechanism operative.

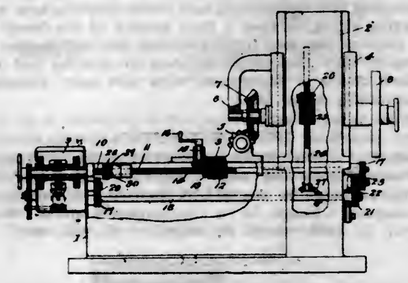
3. In motor vehicles and the like, in combination, a transmission mechanism, speed-controlling means for said transmission mechanism, an extra shaft, a power transmitting member operatively connected thereto and adapted to be actuated thereby, means for simultaneously operatively connecting said extra shaft with said transmission member, and locking said speed-controlling means whereby to prevent the same being actuated to render certain of the gears of said transmission mechanism operative.

4. In motor vehicles and the like, in combination, a transmission mechanism, speed-controlling means for said transmission mechanism, an extra shaft, a power transmitting member operatively connected thereto and adapted to be actuated thereby, normally inoperative means for operatively connecting said extra shaft with said transmission mechanism, and means coöperating with said speed-controlling means for preventing the actuating thereof to render certain of the gears of said transmission mechanism inoperative.

5. In motor vehicles and the like, in combination, a transmission mechanism, speed-controlling means for said transmission mechanism, an extra shaft, a power transmitting member operatively connected thereto and adapted to be actuated thereby, means for operatively connecting said extra shaft with said transmission mechanism, and for positively locking said speed-controlling means, whereby to prevent the same being actuated to render one of the speed gears of said transmission mechanism inoperative.

[Claims 6 to 17 not printed in the Gazette.]

1,138,005. GEAR-CUTTING MACHINE. ARISTIDES REYNOLDS MURRAY, Cincinnati, Ohio. Filed Apr. 3, 1909. Serial No. 487,689. (Cl. 90—6.)



1. In a machine tool, the combination of two feed screws arranged substantially at right angles, a carriage driven by one screw, another carriage driven by the other screw, gearing intermediate the screws whereby when one is rotated the other is rotated at a definite speed ratio, a driving member, and means by which said driving member may initially drive either of said screws as described.

2. In a machine tool, the combination of two feed screws arranged substantially at right angles, a carriage driven by one screw, another carriage driven by the other screw, gearing intermediate the screws whereby when one is rotated, the other is rotated at a definite speed ratio, a driving member, means for impelling the driving member in forward and reverse directions, and means by which said driving member may initially drive either of said screws as desired.

3. In a machine tool, the combination of two feed screws arranged substantially at right angles, a carriage driven by one screw, another carriage driven by the other screw, changeable gearing intermediate the screws, a driving member, and means for connecting the driving member selectively to initially drive either of the screws.

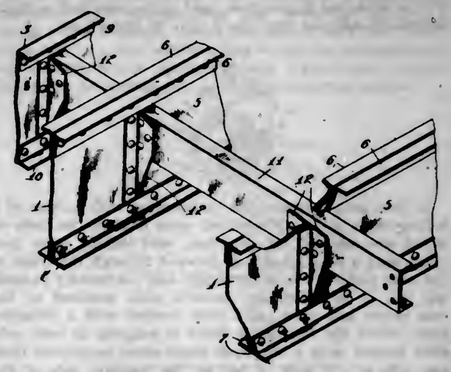
4. In a machine tool, the combination of a feed screw, a clutch member thereon, a pinion splined on said screw and having a clutch member to engage the screw clutch member, a carriage impelled by said screw, a shaft adjacent to said screw, gearing connected with said shaft and adapted to be engaged by said pinion, other gearing intermediate said shaft and said screw, a second feed screw arranged substantially at right angles to the screw first mentioned and a drive connection between said shaft and said second screw.

5. In a machine tool, the combination of a cutter and a work holder, a feed screw, a carriage impelled thereby, another feed screw arranged transversely to the first, another carriage impelled by the screw last named, a shaft, gearing connecting the shaft and one of said screws, other gearing connecting the shaft and the other of said screws, a driving member and means by which the driving member is connected to initially drive the screw last named or the shaft, as desired.

[Claims 6 to 13 not printed in the Gazette.]

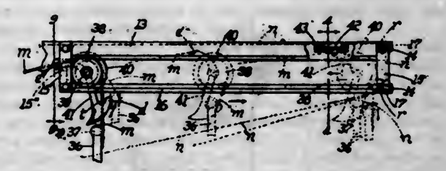
1,138,006. BALLAST-CAR. JOHN O. NEIKIRK, Morgan Park, Ill., assignor to Rodger Ballast Car Company, Chicago, Ill., a Corporation of Maine. Filed Nov. 21, 1910. Serial No. 593,300. (Cl. 105—76.)

In a car under-frame structure, the combination with side sills made up of vertical web plates and top and bottom reinforcing angles, of vertical joint angles riveted to the said web plates, metallic cross ties riveted to said joint angles, and having continuous end portions that



project through the said web plates, and supplemental side sills supported by the projected ends of said cross ties.

1,138,007. COTTON-LOADER. ALLEN NEWELL, Decatur, Tex. Filed May 2, 1914. Serial No. 835,957. (Cl. 212—98.)



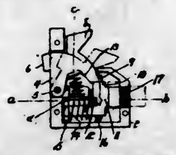
1. In a loader, a track member, a carrier frame suspended about an intermediate axis from said member and normally inclined to the vertical, the lower arm of the frame being provided with a saddle and a contiguous load guiding formation, the frame assuming a substantially vertical position under the weight of the load, means for causing the carrier and its load to travel toward the outer end of the track member, a pawl pivoted to the member with the free end thereof pointing toward the free end of the member, the portion of the frame above the suspension axis operating to lift the pawl in moving toward the free end of the member, and means on the frame for engaging the pawl upon the dropping of the latter to its normal position, whereby the frame and its load are locked against a return movement.

2. In a loader, a suitable track member, an axle provided with rollers traversing said track, a carrier-frame freely suspended from said axle and extending partly below and partly above the axis of suspension, the upper portion of the frame being provided with a cross-bar, a sheave on the axle between the rollers thereof aforesaid, a saddle on the lower portion of the carrier-frame, means on the frame contiguous to the saddle for guiding the load into the saddle, the cable from which the load is suspended being free to pass over the sheave and over the cross-bar, pawls mounted on the track member and adapted to be tripped by the cross-bar with the passage of the frame and its load along the track, and means for automatically forcing the pawls into locking engagement with the cross-bar after the latter has passed the pawls, to prevent return movement of the frame and load.

1,138,008. SASH-FASTENER. HENRY LAWTON NORTON, Waterbury, Conn. Filed Feb. 19, 1915. Serial No. 9,250. (Cl. 16—146.)

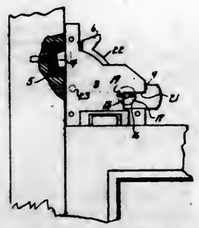
1. In a sash fastener, the combination with a case, of a locking lever pivotally mounted therein and provided

with a nose projecting forward through the front of the case and with a downwardly and rearwardly extending tail, a slide longitudinally movable in the case and formed with a V-shaped finger-piece, said slide permitted a slight movement sidewise whereby it may be withdrawn.



2. In a sash fastener, the combination with a case, of a locking-lever pivotally mounted upon a pivot the ends of which are inserted into the case, said locking lever provided with a nose projecting forward through the front of the case and with a downwardly and rearwardly extending tail, a longitudinally movable slide mounted in the case below said lever, said slide formed with a shoulder upon which the tail of the lever is adapted to rest, said slide formed with a V-shaped finger-piece projecting from one side of the slide, a lug on the opposite side of the slide, and an abutment in the case against which the lug will strike as the slide is moved rearward.

1,138,009. SASH-FASTENER. HENRY LAWTON NORTON, Waterbury, Conn. Filed Feb. 19, 1915. Serial No. 9,251. (Cl. 16—146.)



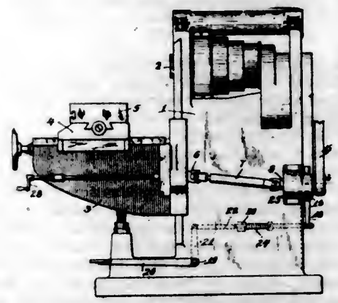
1. In a sash fastener, the combination with a case, of a locking lever pivotally mounted therein, said lever formed with a rearwardly and downwardly extending tail, a slide beneath said tail and formed with a shoulder upon which the tail may rest, a plug in said slide, a pin carried by said plug and corresponding in length to the thickness of the said slide, and an abutment in the case against which the pin may strike when projected beyond the side of the slide.

2. In a sash fastener, the combination with a case, of a locking lever pivotally mounted therein provided at its upper end with a nose projecting forward through the front of the case, and with a downwardly and rearwardly extending tail, a sliding finger piece mounted in the case below said lever and formed with a shoulder upon which the tail may rest, said slide formed with a transverse hole, a slotted plug movable in said hole, said plug being shorter than the thickness of said slide, a pin extending through said slide and corresponding in length to the thickness of said slide so as to project at one end, beyond said plug, springs co-acting with said lever and slide, and an abutment in the case in the path of said pin against which the pin will strike when projected beyond the side of the slide and before the shoulder is moved out of the path of the tail of the lever.

1,138,010. MILLING-MACHINE FEED MECHANISM. CHARLES D. OESTERLEIN, Cincinnati, Ohio, assignor to The Oesterlein Machine Company, Cincinnati, Ohio. Filed Feb. 1, 1915. Serial No. 5,387. (Cl. 90—18.)

Milling machine feed mechanism comprising, a vertically adjustable knee, a work-holding table mounted for movement thereon, a shaft journaled in the knee for giving traversing motion to the work-holding table, a fixed shaft journaled on the frame of the machine, a telescopic shaft connected to said knee shaft and fixed shaft by universal joints, a gear loose on said fixed shaft and adapted for continuous rotation, a pulley loose on said fixed shaft and adapted for rotation in the same direction as said gear but at higher speed, clutch-members connected with said gear and pulley, a clutch-member splined on said fixed shaft and adapted to lock either the gear or the pulley to the shaft, a clutch-throwing arm connected with said splined clutch-member and adapted for shifting that clutch-member, a treadle pivoted to the frame of the machine, a rod connecting said treadle with said clutch-throwing arm, and a spring acting between a fixed portion of the frame of the machine and said clutch-throwing arm and serving to normally hold the treadle in elevated position and the splined clutch in engagement with said gear, combined substantially as set forth.

1,138,011. RECORDING INSTRUMENT. SAMUEL THOMAS PARK and JOHN EMMET PHILLIPS, Danville, Ill., assignors to Locomotive Recording Dynamometer Company, Chicago, Ill., a Corporation of Maine. Filed Nov. 21, 1908. Serial No. 463,915. (Cl. 234—20.)

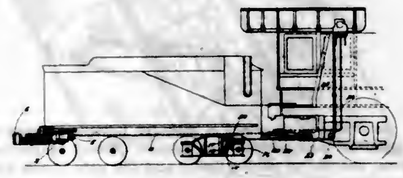


1. In a recording device for railway trains, paper feeding mechanism mounted in a locomotive and comprising a ratchet wheel, a pawl and pawl arm, a spring impelling said pawl arm in operative direction, a crank arm geared to one of the tender track wheels, and a flexible connection between said pawl arm and said crank arm, said connection comprising a spring of higher resistance than said pawl arm spring, the length of said flexible connection being such that in one position of said crank arm said connection will be slack and in the opposite position will be taut and actuate said pawl arm.

2. In a recording device for railway trains, paper feeding mechanism mounted in a locomotive and comprising a ratchet wheel, a pawl and pawl arm, a spring impelling said pawl arm in operative direction, a crank arm geared to one of the tender track wheels, and a flexible connection between said pawl arm and said crank arm, said connection comprising a spring of higher resistance than said pawl arm spring, the length of said flexible connection being such that in one position of said crank arm said connection will be slack and in the opposite position will be taut and actuate said pawl arm, the slack in said connection being sufficient to accommodate the variations in the relative positions of the locomotive and tender due to track curvature and other causes.

3. In combination with a railway locomotive and tender, a recording device comprising paper feed rolls, a casing rotatably embracing one of the track wheel axles and yieldingly connected to a fixed part of the vehicle on which it is mounted, a shaft in said casing and extending to the outside thereof, gearing in said casing between said shaft and axle, and actuating connections between said shaft and feed rolls.

4. In combination with a railway locomotive and tender, a recording device comprising paper feed rolls, a pulley secured to one of the track wheel axles, a casing surrounding said pulley and rotatably embracing said axle, said casing having a yielding connection with a fixed part of the vehicle on which it is mounted, a second pulley in said casing, and connections from said second pulley extending through said casing to said paper feed rolls.



5. In a recording device for vehicles, a series of fluid pressure recording devices, paper feeding mechanism, actuating connections between said paper feeding mechanism and one of the vehicle wheels, an oscillating inking ribbon frame, and connections between said frame and one of the vehicle wheels.

[Claims 6 to 10 not printed in the Gazette.]

1,138,012. ADJUSTABLE TEMPLE-TIP. CHARLES H. PERKINS, Norwich, Conn. Filed Feb. 9, 1915. Serial No. 7,048. (Cl. 88—52.)



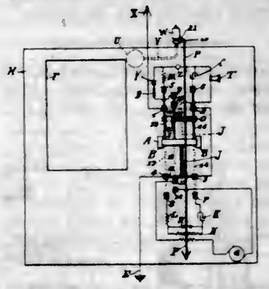
1. An adjustable temple tip comprising a socket member having a longitudinally extending aperture, a set screw carried at one end of said socket member and adapted to engage a temple bar adapted to be placed within said longitudinally extending aperture, said set screw being flush with the outer face of said socket member for preventing the engagement of said set screw with the hair of the wearer, said socket member provided with a tapering pocket at one end, a non-corrosible ear piece fitted within said pocket of said socket member, and said ear piece provided with a roughened tapering end engaging said pocket within said socket member for efficiently holding said socket member upon said ear piece.

2. A device of the class described comprising a socket member provided with a longitudinally extending aperture adapted to receive a temple bar of a pair of eye glasses, means for locking a temple bar within said aperture, said socket member provided with a tapering pocket formed in one end, an ear piece firmly held within said pocket, said ear piece provided with a longitudinally extending socket being roughened upon its inner face and adapted to engage the temple bar of a pair of eye glasses for resisting the longitudinal movement of the temple bar relative to said ear piece.

1,138,013. COMPOSITE ELECTRIC SIGNALING SYSTEM. WARREN N. PHINNEY, Boston, Mass. Filed Oct. 21, 1907. Serial No. 398,338. (Cl. 181—5.)

1. Apparatus for a signaling installation which comprises means for transmitting electric waves; in combination with means for observing the receipt of such waves from a distant transmitter; of a switch for causing said transmitting and receiving means to be alternately operative and inoperative; means for causing said switch to normally maintain the receiving means operative; means for producing sound waves transmissible to a considerable distance; and means for independently but simultaneously operating said sound-producing means and the switch to cause the electric wave transmitting means to become operative.

2. Apparatus for a signaling installation, which comprises means for transmitting electric waves; in combination with means for observing the receipt of such waves from a distant transmitter; of a switch for alternately operating such transmitting and receiving means; a spring which normally closes the switch with the receiving means; a power whistle; and means for independently but simultaneously operating said whistle and closing the switch to operate the electric transmitting means.



3. In apparatus for a composite signaling installation, the combination with means for transmitting and intelligibly receiving electric waves; of means for producing sound-waves transmissible to a considerable distance; means for placing alternately in operative condition, the means for transmitting and the means for receiving the electric waves; and means for operating the sound-producing means independently of but simultaneously with the electric wave transmitting means.

4. Apparatus for a signaling installation which comprises means for transmitting electric waves; in combination with means for observing the receipt of such waves from a distant transmitter; an aerial system constituting a part common to said transmitting and receiving means; of a switch for alternately operatively connecting one of said means with the aerial system and simultaneously removing the other means from such connection while maintaining an operative circuit through the aerial system; means for producing sound waves transmissible to a considerable distance; and means for independently but simultaneously operating said switch and said sound-producing means.

5. In a composite signaling installation, the combination with a transmitter of electric waves, of means for observing the receipt of such waves from a distant electric wave transmitter, means, operatively independent of said observing means, for producing sound waves transmissible to a considerable distance; and means alternately placing in operative condition, the electric wave transmitter and the means for observing the receipt of the electric waves.

[Claims 6 and 7 not printed in the Gazette.]

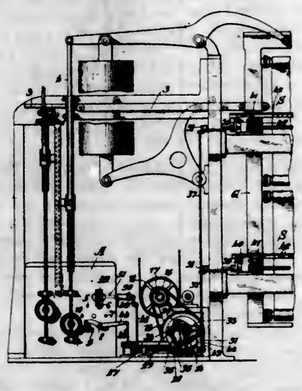
1,138,014. TRACTION AND ANTISKIDDING DEVICE FOR AUTOMOBILES. JOHN ROSS, Philadelphia, Pa. Filed Mar. 6, 1912. Serial No. 681,885. (Cl. 21—212.)



In a traction and anti-skidding attachment for wheels, the combination of a wheel having a tread portion, with two laterally projecting continuous annular guides respectively secured to the felly and spokes to provide flanges, the guide secured to the spokes having the wider flange, a plurality of rods guided in said flanges and relatively held in position and against rotation therein said rods provided on their outer ends with means for increasing traction and preventing skidding and at their inner

ends with screw threaded portions, sleeves having collars secured to the rods and guided in the flanges attached to the spokes and surrounding the screw-threaded ends, springs pressing upon the collars of the sleeves for pressing the rods outwardly and arranged between the guides, and nuts screwed upon the threaded ends of the rods coacting with the sleeves and guides for limiting the outward movement of the rods while permitting the inward movement thereof together with the sleeves.

1,138,015. JACQUARD EMBROIDERY-MACHINE. HIPPOLYT SAURER, Arbon, Switzerland. Filed June 10, 1913. Serial No. 772,743. (Cl. 112—7.)



1. In an embroidery machine the combination of perforators, an operating cam, a driving shaft therefor, transmitting mechanism between the cam and the perforators, and means for shifting the cam angularly with respect to its driving shaft.

2. In an embroidery machine the combination of perforators, an operating cam, a driving shaft therefor, a sleeve interposed between the shaft and the cam and free to move longitudinally with respect to the cam but compelled to rotate therewith and having a long spirally threaded engagement with the shaft, means to shift the sleeve longitudinally and transmitting mechanism between the cam and the perforators.

1,138,016. FUEL-BRIQUET. CARL J. SCHNEIDER, New York, N. Y. Filed Dec. 9, 1914. Serial No. 876,254. (Cl. 44—1.)

1. Process of making fuel briquets which consists in preparing a first mixture of molasses and soap, intermixing coal dust with said first mixture to form a second mixture, adding a solution of alum to the second mixture, molding the mass thus obtained into briquets, and drying said briquets.

2. Process of making fuel briquets which consists in preparing a first mixture of molasses and soap, intermixing coal dust with said first mixture to form a second mixture, adding a solution of alum to the second mixture, molding the mass thus obtained into briquets, drying said briquets, and passing the dried briquets first through a solution of soap and then through a solution of alum.

3. Process of making fuel briquets which consists in preparing a first mixture of fifteen gallons of molasses and fifteen pounds of soap, intermixing one ton of coal dust with said first mixture to form a second mixture, adding a solution of twenty-five pounds of alum to the second mixture, molding the mass thus obtained into briquets, and drying said briquets.

4. A fuel briquet manufactured from a mixture of materials composed in about the following proportions; one ton of coal dust, fifteen gallons of molasses, fifteen pounds of soap, and twenty-five pounds of alum.

1,138,017. SHOCK-ABSORBER FOR VEHICLES. ARTHUR SEMMIG, White Plains, N. Y. Filed Apr. 16, 1914. Serial No. 832,275. (Cl. 21—101.)

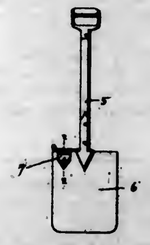


1. In a shock absorber, a cylinder positioned between the elliptical leaf springs of a vehicle, pivotal connections between one end of said cylinder and the axle of the vehicle, a piston slidably mounted in said cylinder, oppositely disposed yieldable means operating upon said piston within said cylinder, a bell crank lever pivotally connected at its center and at one end respectively to the lower and upper portions of said elliptical springs and means pivotally mounted at the other extremity of said bell crank for adjusting said piston longitudinally.

2. In a shock absorber the combination with a pair of elliptical leaf springs for a vehicle, of a cylinder having open ends, bushings secured in said open ends, pivotal connections between one of said bushings and the axle of the vehicle, a piston rod slidably mounted in said cylinder and working through an aperture in the other of said bushings, a socket member adjustably receiving the end of said piston rod, a piston head for said rod, oppositely expansible resilient means positioned in said cylinder to operate upon said piston head and means pivotally connecting said socket member with the adjacent ends or each of the leaf springs forming said elliptical springs of the vehicle.

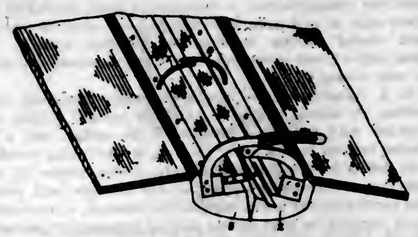
3. In a shock absorber the combination with the elliptical leaf springs of a vehicle of a double bell crank lever, means carried by said lever for pivotally linking adjacent ends of said leaf springs, a socket member also pivotally connected to said bell crank lever, a piston rod adjustably received by said socket member, a piston head for said rod, an open ended cylinder slidably receiving said piston head, bushings secured in said open ends, one of said bushings being apertured to receive said rod, pivotal connections between the other of said bushings and the axle of the vehicle and a pair of yieldable means positioned in said cylinder and oppositely disposed with respect to said piston head.

1,138,018. SHOVEL OR SPADE ATTACHMENT. KARL SIEDOW, Sidney, Nebr. Filed Oct. 16, 1913. Serial No. 795,541. (Cl. 55—115.)



An attachment for spades comprising a back wider than the top edge of the cutting blade of said spade, having an extension of the inner end adapted to fit snugly against the handle where it joins the cutting blade, and an upturned terminal at its outer end; front and back depending side plates bent obliquely to the plane of said back, to a point of contact with the surface of the said cutting blade, said depending side plates being then extended parallel to the front and back surfaces of said blade to closely embrace the same, said depending side plates having terminals with converging edges terminating in a point and said edges being beveled throughout their length.

1,138,019. LOOSE-LEAF BINDER. FRANK C. SKILES, Oak Park, Ill. Filed Mar. 20, 1914. Serial No. 826,040. (Cl. 129—17.)



1. In a loose leaf binder, the combination of a hinge and a lock for said hinge, a latch in said lock for holding the hinge in half closed position, and a catch for holding the hinge in completely locked position.

2. In a loose leaf binder, a hinge comprising two wings, a lock for said hinge, said lock comprising two flexible arms, one on each wing, adapted to rotate with the wings, a lever pivotally secured to one of said arms, and having the fulcrum on the other arm slidably connected to the lever, said lever serving to prevent the binder being closed without springing the arms apart, and also serving for manually springing the arms apart and for latching and unlatching the lock.

3. In a book binder, a hinge comprising two wings, an arm on each wing, a link pivotally fixed to one of said arms and slidably pivoted to the other, said link and arms forming a latch for locking said book half closed.

4. In a loose leaf binder, a hinge comprising two wings for supporting the backs of the binder, an arm on each support, a link pivotally fixed to one of said arms and slidably pivoted to the other, said link and arms forming a latch for locking said book half closed, a slot in said link forming a track for the slidable pivot, and an adjustable pin on said link for controlling the length of the stroke of said slidable pivot and for locking said binder in a completely closed position.

5. In a loose leaf binder, two wings for supporting the backs of the binder, a hinge for said wings, a lock for said wings, said lock comprising two flexible arms, one on each wing, said arms adapted to rotate about the hinge, a sliding link connecting the two arms adapted to permit the ends of the two arms to approach each other, said link operating as a stop and serving as a latch for the lock and adapted to prevent the ends from passing freely by without springing the arms, the terminal of the link serving as a handle for springing the arms apart.

1,138,020. FASTENING DEVICE. GEORGE C. SNYDER, Waterbury, Conn. Filed June 11, 1914. Serial No. 844,434. (Cl. 24—96.)



1. A fastening device for fabrics and the like, comprising an outer member having a tubular shank provided with an inturned basal flange, a thimble adapted to be positioned in telescopic relation with said shank and to carry a portion of the fabric with it into the shank, said inturned flange adapted to be deflected by the thimble and the fabric during positioning of the former, for the purpose described.

2. A fastening device, comprising a head portion and a tubular shank having substantially straight walls and an inturned basal flange, a tubular thimble adapted to be forced within said shank and against the head portion of the fastening device, the thimble adapted to collapse and expand radially when so forced against said head portion to form a bulbous head thereon to lock the thimble behind said inturned flange.

3. A button fastener, comprising a head portion and a tubular shank having substantially straight walls and an inturned basal flange, a flangeless tubular thimble adapted to be forced completely within said shank and against the head portion of the button, the thimble adapted to collapse and expand radially when so forced against the head portion of the button to form a bulbous head thereon to lock the thimble behind said inturned flange.

4. A button fastener for fabrics and the like, comprising a head portion and a tubular shank provided with an inturned flange, a thimble adapted to be forced in said shank and against the head portion of the button and to carry the fabric with it into said shank, the thimble adapted when so forced against the head portion of the button to collapse and to expand radially to thereby lock the thimble in the shank behind the inturned flange and to clamp the fabric in the shank, the inturned flange adapted to be deflected inwardly by the fabric and thimble during positioning of the latter to accommodate itself to the thickness of the fabric.

1,138,021. METHOD OF ATTACHING FASTENING DEVICES. GEORGE C. SNYDER, New York, N. Y. Filed June 29, 1914. Serial No. 847,938. (Cl. 218—4.)

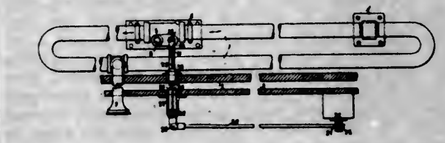


1. The method of attaching to fabric, fastening devices, comprising two tubular members one of which is adapted to be positioned in the other by telescopic action, which method consists in telescoping said members by forcing one of the same and a portion of the fabric into the other and collapsing a portion of the inner member during the telescoping action to form a bulbous head thereon to lock the collapsed member within the other, thereby attaching the fastening device to the fabric.

2. The method of attaching to fabric, fastening devices, comprising two tubular members one of which is adapted to be positioned in the other by telescopic action, which method consists in telescoping said members by forcing one of the same and a portion of the fabric into the other and collapsing a portion of the inner member during the telescoping action to form a head portion thereon having outwardly convexed lateral walls to lock the collapsed member within the other, thereby attaching the fastening device to the fabric.

3. The method of attaching to fabric, fastening devices, comprising an outer tubular member and a tubular thimble adapted to be positioned therein, which consists in telescoping said tubular thimble with respect to the outer member by forcing the tubular thimble and a portion of the fabric into said outer member, and collapsing a portion of the thimble during the telescoping action to form a bulbous head thereon to lock the collapsed thimble within the outer member, thereby attaching the fastening device to the fabric.

1,138,022. CONTROLLING DEVICE FOR HEATING SYSTEMS. EDWARD CURTIS SOPIO, Hoboken, N. J., assignor, by mesne assignments, to Standard Heat and Ventilation Company, Inc., New York, N. Y., a Corporation of New York. Filed Oct. 6, 1911. Serial No. 653,263. (Cl. 236—19.)



1. In a car heating apparatus having radiating pipes, in combination, a valve chamber having a steam inlet asso-

ciated therewith and a valve seat therein, a valve in said chamber coöperatively related to said seat, and means without the car for controlling the position of said valve according to the exterior temperature, said heating apparatus comprising means within the car for controlling the position of said valve seat according to the interior temperature.

2. A car heating apparatus having radiating pipes and comprising in combination a movable valve-chamber associated therewith, a thermostatically controlled valve in said chamber, means without the car for controlling the position of said valve according to the exterior temperature, and means within the car for controlling the position of said valve chamber relative to said valve.

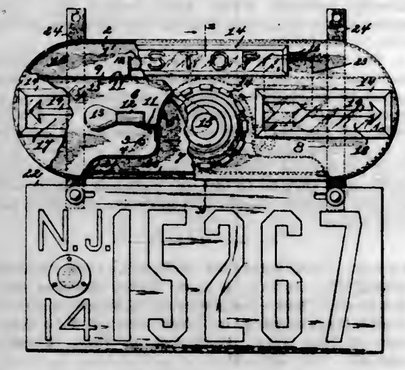
3. In a car heating apparatus in combination, a thermostatically operated system of radiating pipes, a valve chamber associated therewith having a valve seat, a valve in said chamber, a thermostatic member positioned without the car independent of the pipes and adapted to move the valve from and toward its seat according to the fall and rise of the temperature without the car, and means within the car for moving said seat relative to said valve, said means within the car comprising as a part thereof a part of the radiating pipes.

4. In a car heating apparatus in combination, a heating system, a movable valve chamber, a thermostatically controlled valve therein, a thermostatic member without the car and a lever between said thermostatic member and said valve for opening and closing the valve according to the fall and rise in temperature without the car, said heating apparatus comprising thermostatic means within the car for controlling the position of said valve chamber.

5. In a car heating apparatus in combination, a circulating system, a valve and valve seat therefor, a thermostatic means without the car independent of said system for moving said valve, as the temperature falls, away from its seat and thus cause a circulation of steam within said system, said heating apparatus comprising means within the car for moving said seat away from the valve as the temperature within the car falls.

[Claims 6 to 25 not printed in the Gazette.]

1,138,023. SIGNALING DEVICE. GEORGE J. SPOHRER and WILLIAM ELERY BEAN, Newark, N. J. Filed Apr. 4, 1914. Serial No. 829,423. (Cl. 240—22.)



1. A signaling device of the character described, comprising a casing, a partition located within and parallel with the upper portion of the casing, and a reflector located in the lower portion of the casing dividing said casing into four compartments, a transparent glass carried by the lower edge of said reflector, a telescoping cover secured to said casing having transparent material therein, the lower side of said cover being cut away to expose the glass in said casing.

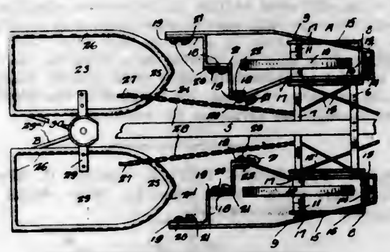
2. A signaling device of the character described, comprising an oblong casing, a partition located within and parallel with the upper portion of the casing, and a reflector located in the lower portion of the casing having a centrally-arranged curved portion dividing said casing into four compartments, a transparent glass carried by the lower edge of said reflector, a telescoping cover secured to said casing having transparent material therein, the lower side of said cover being cut away to expose the glass in said casing.

3. A signaling device of the character described, comprising an oblong casing, a partition located within and parallel with the upper portion of the casing, and a reflector located in the lower portion of the casing dividing said casing into four compartments, guides carried by said reflector, a transparent glass located between said guides and carried by the lower edge of the reflector, a telescoping cover secured to said casing having transparent material therein, the lower side of said cover being cut away to expose the glass in said casing.

4. A signaling device of the character described, comprising an oblong casing, a partition located within and parallel with the upper portion of the casing, and a reflector located in the lower portion of the casing dividing said casing into four compartments, a transparent glass carried by the lower edge of said reflector, a telescoping cover, means located on the inside of the cover and passing through apertures in the casing for removably securing the cover to the casing, said cover being provided with transparent material, the lower side of said cover being cut away to expose the glass in said casing.

5. A signaling device of the character described, comprising an oblong casing, a partition located within and parallel with the upper portion of the casing, and a reflector located in the lower portion of the casing dividing said casing into four compartments, a transparent glass carried by the lower edge of said reflector and located within the lower portion of the casing, a telescoping cover secured to said casing having transparent material therein, the lower side of said cover being cut away to expose the glass in said casing, and means located on the back of the casing for securing the device to a vehicle and for supporting a license tag.

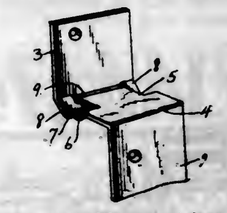
1,138,024. COMBINED CULTIVATOR AND DRAG. HENRY STEINFORT, Alida, Kans. Filed Aug. 11, 1914. Serial No. 856,181. (Cl. 97—44.)



In a device such as described, an attaching member and a pair of drags secured thereto, said drags each comprising a flat body tapered toward the forward end thereof, and having enlarged rounded edges, a connecting member attached to the drags, and a seat secured to the connecting member.

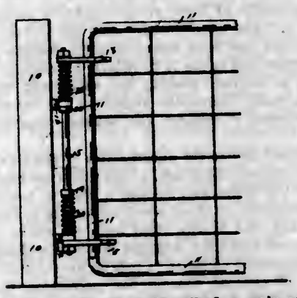
1,138,025. HINGE. MATHEW H. STOLL, La Crosse, Wis. Filed Jan. 2, 1915. Serial No. 132. (Cl. 16—104.)

1. A hinge including two leaves, one leaf being angularly bent adjacent one end, said angularly bent portion being formed with a transversely extending slot, the other leaf at one end being right angularly bent to engage over the upper edge of the wall of a box and having a tongue projecting from said angularly bent end, the tongue having a width equal to the length of the slot formed in the other leaf, said tongue being inserted into the slot and being bent to form a knuckle, the extremity of the tongue when so bent abutting against the inside face of the tongue at the base thereof and immediately adjacent said slot.



2. The combination with a container having an upwardly extending side wall and a lid extending over and resting upon the upper edge of the side wall, of a hinge therefor comprising two leaves, one leaf being bent at right angles to and disposed upon the inner face of the side wall of the container with its angularly bent portion extending over the upper edge of the side wall, said leaf being formed with a tongue extending beyond the side wall, the other leaf being applied to the inner face of the lid and adapted to rest upon the angularly bent portion of the first named leaf, said second named leaf projecting beyond the lid and being angularly bent below the upper edge of the side wall and transversely slotted to receive the tongue of the first named leaf, said tongue extending through the angular portion of the second named leaf from the inside to the outside thereof and being bent downward and then upward upon the inside face of the angular portion of the second named leaf to form a knuckle, the extremity of the tongue abutting against the inside face of the tongue at the base thereof adjacent to the said slot.

1,138,026. GATE-LATCH. EMMET J. TAYLOR, Guernsey, Iowa. Filed July 6, 1914. Serial No. 849,225. (Cl. 70—28.)



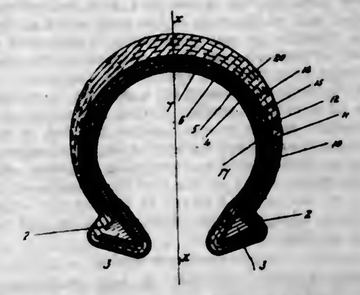
1. In a device of the class described, a pair of brackets adapted to be secured to a post, said brackets being provided with vertically alined bearings, said brackets being provided also with notches adjacent to the openings of said bearings, a rod rotatably and slidably mounted in said bearings, a gate engaging device, comprising a body fixed on said rod, and arms extending away from said body in substantially U shaped form, a lug on said body shaped to engage the notch in one of said brackets, and yielding means for normally drawing said rod to position for causing said gate engaging means to engage one of said brackets.

2. In a device of the class described, a pair of brackets adapted to be secured to a post, said brackets being provided with vertically alined bearings, said brackets being provided also with notches adjacent to the openings of said bearings, a rod rotatably and slidably mounted in said bearings, a gate engaging device, comprising a body fixed on said rod, and arms extending away from said body in substantially U shaped form, a lug on said body shaped to engage the notch in one of said brackets, yielding means for normally drawing said rod to position for causing said gate engaging means to engage one of said brackets, a second gate engaging means similar to the first excepting that it locks the lug on said body, a collar adjacent to the other of said brackets, provided with the lug adapted to enter the notch in the second bracket, and yielding means for tending to hold said rod in position to cause said collar to engage said second bracket.

3. In a device of the class described, a pair of brackets adapted to be secured to a post, said brackets being provided with vertically alined bearings, said brackets being provided also with notches adjacent to the openings of said bearings, a rod rotatably and slidably mounted in said bearings, a gate engaging device, comprising a body fixed on said rod, and arms extending away from said body in substantially U shaped form, a lug on said body shaped to engage the notch in one of said brackets, yielding means for normally drawing said rod to position for causing said gate engaging means to engage one of said brackets, a second gate engaging means similar to the first excepting that it lacks the lug on said body, a collar adjacent to the other of said brackets, provided with a lug adapted to enter the notch in the second bracket, and yielding means for tending to hold said rod in position to cause said collar to engage said second bracket, said U shaped device having its arms thickened at their inner faces.

4. In a device of the class described, a pair of brackets adapted to be secured to a post, said brackets being provided with vertically alined bearings and with notches adjacent to said bearings, a rod slidably and rotatably mounted in said bearings, gate engaging devices fixed on said rod adjacent to one of said bearings, and provided with a lug adapted to be received in the notch in said bearing when the gate engaging device is in one position of its movement, and yielding means for holding said gate engaging device in engagement with said first bearing, a collar fixed on said rod adjacent to the second bracket, provided with a lug adapted to enter the notch in said second bearing when said rod is in one position of its movement, a second gate engaging device, comprising a body fixed on said rod, each of said gate engaging devices having arms in a substantial U shape, and means for yieldingly holding said rod in position for holding said collar in engagement with said second bracket.

1,138,027. TIRE. CLYDE VARNELL, Houston, Tex. Filed Feb. 13, 1915. Serial No. 8,014. (Cl. 152—18.)

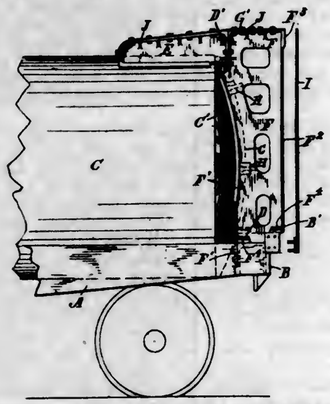


1. In a tire, a cushion portion, comprising two bead rings, a main portion of arch-shaped form formed of two layers of vulcanizing fabric having their respective edges secured over the inner and outer surfaces of the bead rings, an inner and an outer reinforced cushion secured over the main portion, each cushion comprising two sheets of cushion stock with a sheet of wire net between them, a layer of vulcanizing fabric interposed between the two said cushions, layers of vulcanizing fabric secured over the outer reinforced cushion, and an outer tread portion secured to the last said layers.

2. In a tire, a cushion portion, comprising two bead rings, a main portion of arch-shaped form formed of two layers of vulcanizing fabric having their respective edges

secured over the inner and outer surfaces of the bead rings, an inner and an outer reinforced cushion secured over the main portion, each cushion comprising two sheets of cushion stock with a sheet of wire net between them, each cushion having its edges secured over the bead rings and portions of the inside surface of the main portion, a layer of vulcanizing fabric interposed between the two said cushions, layers of vulcanizing fabric secured over the outer reinforced cushion and extending over the bead rings and for different distances over the inside surface, a cover sheet of vulcanizing fabric secured over the overlapping edges of the sheets on the inside surface, and an outer tread portion secured to the last said layers.

1,138,028. CAST-STEEL VESTIBULE-FRAME. GEORGE L. WALL, Lima, Ohio, assignor to Lima Locomotive Corporation, Lima, Ohio, a Corporation of Ohio. Filed Dec. 19, 1914. Serial No. 878,018. (Cl. 105—61.)

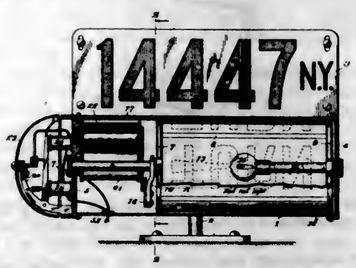


1. A vestibule attachment for a car having a tank, consisting of a unitary casting having side-plates projected from the tank beyond the end of the car-frame, with upright flanges upon the inner edges of the side-plates to fit against said tank and having integral cross-bars connecting the side-plates, means for attaching the foot of the vestibule casting to the end sill of the car, and side brackets upon the top of the tank with connection from the outer ends of the same to the inner edges of the side-frames, whereby the entire vestibule is supported at the top and bottom only, and the side-plates of the vestibule are disconnected from the rear end of the tank.

2. A vestibule attachment for a tank-car or tender, consisting of a unitary casting having side-plates provided with upright flanges to bear against the end of the car-tank, integral cross-bars connecting the inner edges of the side-plates, detachable ties connecting the outer edges of the side-plates, means at the foot for attachment to the end sill of the car, and means at the top for connection to brackets upon the tank, substantially as and for the purpose set forth.

1,138,029. SIGNAL DEVICE. SAMUEL T. WARNER, New York, N. Y. Filed Aug. 23, 1913. Serial No. 786,215. (Cl. 177—337.)

1. A signal device for automobiles or the like comprising a casing having a slot therein, an indicating drum rotatively mounted in the casing with a portion of its periphery exposed through the slot, an armature mounted upon the axis of the drum and rotatable therewith and having a bias to one position, and two controlling electro-magnets arranged in an arc about the axis at different angular distances from the biased position of the armature, each being adapted when energized to attract and rotate the armature in the same direction and hold the drum in the respective indicating position, an electric circuit and a source of current therein for energizing the magnets, and a manually controlled switch in the circuit adapted by a continuous movement to connect first the nearer magnet into the circuit and then break that connection and connect the other magnet into the circuit.



2. A signal device for automobiles or the like comprising a casing having a slot therein, an indicating drum rotatively mounted in the casing with a portion of its periphery exposed through the slot, an armature mounted upon the axis of the drum and rotatable therewith and having a bias to one position, two controlling electro-magnets arranged in an arc about the axis at different angular distances from the biased position of the armature, each being adapted when energized to attract the armature and rotate it in the same direction and hold the drum in the respective indicating position, and an electric circuit and a source of current therein for energizing the magnets, the circuit including two stationary contacts, one contact for each magnet and a movable switch member adapted by a continuous movement first to engage the contact for the nearer magnet and then to break that contact and then to engage the contact for the other magnet, whereby the armature is successively attracted by the two magnets.

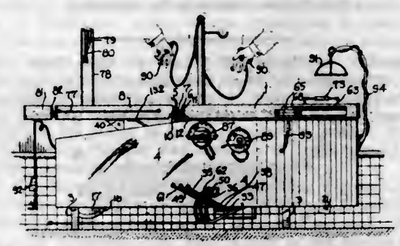
3. A signal device for automobiles or the like comprising a rotative indicating drum, a rotative armature connected to rotate the drum and having a bias to lowermost position, a plurality of three electro-magnets arranged one at the left and one at the right and one above the axis of the armature and each adapted when energized to attract the armature and cause it to rotate, an electric circuit and a source of current therein for energizing the magnets, and a manually controlled switch in the circuit arranged to independently connect the several magnets into the circuit.

4. A signal device for automobiles or the like comprising a rotative indicating drum, a rotative armature connected to rotate the drum and having a bias to lowermost position, a plurality of three electro-magnets arranged one at the left and one at the right and one above the axis of the armature and each adapted when energized to attract the armature and cause it to rotate, an electric circuit and a source of current therein for energizing the magnets, and a manually controlled switch in the circuit arranged when moved in one direction to successively connect one of the two lower magnets into the circuit and then break that connection and connect the upper magnet into the circuit, and when moved in the opposite direction to connect the other lower magnet into the circuit.

5. A signal device for automobiles or the like comprising, in combination with the brake pedal, a rotative indicating drum, a rotative armature connected to rotate the drum and having a bias to lowermost position, a plurality of three electro-magnets arranged one at the left and one at the right and one above the axis of the armature and each adapted when energized to attract the armature and cause it to rotate, an electric circuit and a source of current therein for energizing the magnets, a manually controlled switch in the circuit arranged when moved in one direction to successively connect one of the two lower magnets into the circuit and then break that connection and connect the upper magnet into the circuit, and when moved in the opposite direction to connect the other lower magnet into the circuit, a normally open pedal switch connected in multiple in the circuit of the first mentioned lower magnet and controlled by the brake pedal and arranged to be closed as the pedal is operated to apply the brakes, and a normally open manually controlled switch connected in multiple with the pedal controlled switch.

[Claims 6 and 7 not printed in the Gazette.]

1,138,030. PHYSICIAN'S TREATING-TABLE. CALVIN H. WESTON, Tyrone, Pa. Filed Dec. 11, 1914. Serial No. 876,696. (Cl. 128—16.)



1. A physician's treating table comprising a frame, a stationary member of the table mounted on said frame, a track swiveled in said frame, a pivot post pivotally connected at its upper end to said stationary member, and provided at its lower end with a pivoted shoe adapted to slide in said track, a bracket post rigidly carried by said pivot post, a movable member of the table pivotally mounted on said bracket post, brackets carried by said stationary member of the frame, bell cranks pivotally connected to said brackets, telescopic links connecting said bell cranks with said movable member of the table, a plurality of collars loosely carried by said pivot post, arms rigidly connected to one of said collars, other telescopic links connecting said arms and said bell cranks, and means for either moving the lower end of said pivot post in its shoe track, turning said track and said post, turning said arms to rock the movable member of the table vertically, turning the track and sliding the pivot post simultaneously, or turning the arms and turning the track simultaneously, said means comprising a slotted lever which is pivotally mounted in said frame, links pivotally connected to one of said arms and to the slotted lever, another of the links connecting one of the collars of the pivot post to said slotted lever, another link pivotally connected to said track and connecting said track and said slotted lever, the ends of said links which are connected to the slotted lever slidingly engaging the same, and means for sliding either of the links upon said slotted lever for changing the leverage between the slotted levers and the parts to which the other end of the links are connected.

2. A physician's treating table comprising a stationary member, a pivot post mounted below one end of said stationary member and provided with a bracket post, a movable member loosely mounted on said bracket post, and means for imparting a universal movement to said movable member.

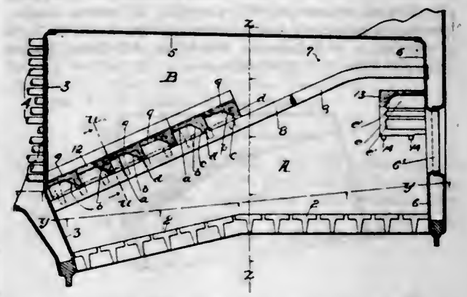
3. A physician's treating table comprising a frame, a pivot post, a stationary table member pivotally connected with the upper end of said pivot post, a bracket post carried by said pivot post, a movable table member loosely mounted on said bracket post, and means for turning said pivot post, whereby said movable member will be swung laterally.

4. A physician's treating table comprising a frame, a stationary table member provided upon the upper end of said frame, a pivot post pivotally connected to said stationary member and having its lower ends longitudinally slidable upon said frame, a bracket post rigidly connected with said pivot post, a movable table member loosely mounted on said bracket post, and means for sliding the lower end of said pivot post longitudinally, whereby said movable table member will be given a vertical swinging movement.

5. A physician's treating table comprising a frame, a stationary table member mounted upon said frame, a track pivotally mounted near the bottom of said frame, a pivot post pivotally connected to said stationary member at its upper end and having its lower end provided with a pivoted shoe adapted to slide longitudinally of the table in said track, a bracket post carried by said pivot post, a movable table member loosely mounted on said bracket post, and means for turning said track whereby said movable table member will be swung laterally.

[Claims 6 to 17 not printed in the Gazette.]

1,138,031. LOCOMOTIVE-BOILER FURNACE. JOHN P. NEFF, East Orange, N. J., assignor, by mesne assignments, to American Arch Company, New York, N. Y., a Corporation of Delaware. Filed May 25, 1907. Serial No. 375,627. (Cl. 110—87.)



1. A locomotive boiler and its contained firebox and flues, in combination with a substantially imperforate arch interposed between said flues and the bottom of the firebox, said arch comprising a plurality of upwardly and rearwardly inclined longitudinal water circulating tubes and refractory bricks supported thereby, the bottoms of said bricks together with said tubes forming a plurality of longitudinal channels that divide the products of combustion into longitudinal streams and the tops of said channels containing many distinct non-communicating cells or recesses which retard the products of combustion and break up said streams.

2. A locomotive boiler and its contained firebox and flues, in combination with a substantially imperforate arch interposed between said flues and the bottom of the firebox and extending from side to side thereof, said arch comprising a plurality of upwardly and rearwardly inclined longitudinal water circulating tubes and rows of refractory bricks supported thereby, the bottoms of said bricks together with said tubes forming a plurality of longitudinal channels spaced from side to side of the firebox and which divide the products of combustion into longitudinal streams, and the tops of said channels containing many distinct non-communicating cells or recesses that retard the products of combustion and break up said streams.

3. A locomotive boiler and its contained firebox and flues, in combination with a plurality of inclined longitudinal arch tubes, in said firebox, a plurality of transverse and longitudinal rows of refractory bricks supported by said tubes, the bottoms of said bricks together with said tubes forming a plurality of longitudinal channels that divide the products of combustion into longitudinal streams, and the bottoms of said bricks containing corresponding rows of recesses and projections that retard the products of combustion and break up said streams.

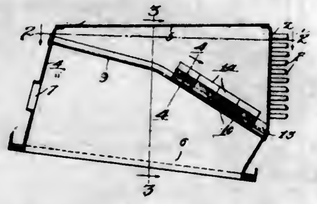
4. A locomotive boiler and its contained firebox and flues, in combination with an upwardly and rearwardly inclined arch interposed between said flues and the bottom of the firebox and comprising a number of longitudinal water circulating tubes and a plurality of longitudinal rows of refractory bricks supported by said tubes, the bottoms of said bricks together containing a plurality of transverse and longitudinal rows of distinct non-communicating recesses which retard the products of combustion

and break up the longitudinal and transverse streams thereof.

5. A locomotive boiler and its contained firebox and flues, in combination with a substantially imperforate arch interposed between said flues and the bottom of the firebox, said arch comprising a plurality of upwardly and rearwardly inclined longitudinal water circulating tubes and refractory bricks supported thereby, the bottoms of said bricks together with said tubes forming a plurality of longitudinal channels that divide the products of combustion into longitudinal streams and the tops of said channels being corrugated and acting to retard said products and break up said streams.

[Claims 6 to 10 not printed in the Gazette.]

1,138,032. LOCOMOTIVE-BOILER FURNACE. CHARLES B. MOORE, Evanston, Ill., assignor, by mesne assignments, to American Arch Company, New York, N. Y., a Corporation of Delaware. Filed Dec. 18, 1911. Serial No. 666,345. (Cl. 110—87.)



1. A locomotive boiler firebox having a plurality of arch tubes therein, in combination with a refractory arch supported by said tubes and comprising a plurality of transverse rows of arch bricks each composed of a number of substantially identical bricks, each thereof having a tube engaging socket at one end and being beveled at its other end and thereby adapted to be wedgingly held in position between two tubes.

2. A locomotive boiler firebox having inclined arch tubes therein, in combination with a refractory front arch resting on and supported by said tubes and comprising a plurality of transverse rows of substantially identical bricks, each brick having a tube engaging socket or groove at one end adapting the brick to rest upon and be supported by a tube and being beveled at its opposite end and thereby adapted to wedgingly engage the next adjacent tube and be thereby supported in compressed condition between the two tubes.

3. A locomotive boiler firebox containing a group of substantially parallel inclined arch tubes, in combination with a refractory front arch therein arranged against the flue sheet and co-extensive transversely of the firebox with the gronp of arch tubes, said arch comprising refractory sections arranged between adjacent tubes, each of said sections being provided on one edge with a tube engaging socket or groove, and its opposite edge being beveled for engagement with the adjacent tube whereby the section is wedgingly retained in position upon the two tubes.

4. A locomotive boiler firebox containing a group of substantially parallel inclined arch tubes, in combination with a refractory front arch therein arranged against the flue sheet and co-extensive transversely of the firebox with the group of arch tubes, said arch comprising refractory sections arranged between adjacent tubes, each of said sections being provided on one edge with a tube engaging socket or groove, and its opposite edge being beveled for engagement with the adjacent tube whereby the section is wedgingly retained in position upon the two tubes, and wedging locking bricks arranged between the outer tubes and the adjacent side sheets of the firebox to prevent the spreading of the tubes due to the wedging action of the sections.

5. A locomotive boiler firebox container a group of substantially parallel inclined arch tubes, in combination with a refractory front arch therein arranged against the flue sheet and co-extensive transversely of the firebox with the group of arch tubes, said arch comprising refractory sections arranged between adjacent tubes, each of said sections being provided on one edge with a tube engaging socket or groove, and its opposite edge being beveled for engagement with the adjacent tube whereby the section is wedgingly retained in position upon the two tubes, and similarly bricks having their socketed ends arranged upon the outer tubes of the group and their beveled ends against the side sheets of the firebox and serving to prevent the group of tubes from spreading.

[Claims 6 to 16 not printed in the Gazette.]

1,138,033. ARCH-BRICK. JOHN P. NEFF, New York, N. Y., assignor, by mesne assignments, to American Arch Company, New York, N. Y., a Corporation of Delaware. Filed Sept. 14, 1911. Serial No. 649,219. (Cl. 110—87.)



1. An arch brick having its lower end corners cut away to provide sockets for receiving supporting tubes, and having its upper end corners also cut away to provide sockets for receiving supporting tubes, the said sockets at the lower side of the brick being spaced apart a distance different from that between the sockets at the upper side of the brick.

2. An arch brick having its lower end corners beveled for receiving supporting tubes, and having its upper end corners also beveled for receiving supporting tubes, thus rendering the brick reversible, the said beveled portions at the lower end corners being spaced apart a distance different from that between the upper end corners.

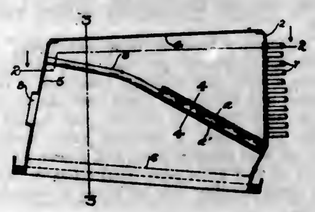
3. An arch brick having its lower end corners cut away to provide sockets for receiving supporting tubes with portions for engaging the sides of the tubes, and having its upper end corners also cut away to provide sockets for receiving supporting tubes with portions for engaging the sides of the tubes, the said portions of the lower sockets being spaced apart a distance different from that between the said portions of the upper sockets.

4. An arch brick having supporting surfaces at opposite lower edges and supporting surfaces at opposite upper edges, the lower supporting surfaces and the upper supporting surfaces being differently spaced to accommodate the brick to variations in the distances between tubes.

5. In a locomotive fire box, an arch brick provided with a plurality of recesses in its bottom, forming trussing means comprising a pair of ribs crossing each other adjacent their central portions and an edge rib extending around the bottom of the brick into which the cross ribs merge, the brick being provided at opposite ends with supporting surfaces to engage arch tubes.

[Claims 6 to 18 not printed in the Gazette.]

1,138,034. LOCOMOTIVE-BOILER FURNACE. CHARLES B. MOORE, Evanston, Ill., assignor, by mesne assignments, to American Arch Company, New York, N. Y., a Corporation of Delaware. Filed Dec. 18, 1911. Serial No. 666,339. (Cl. 110—87.)



1. A locomotive boiler firebox in combination with a body of refractory material therein arranged between the grate and the flues, said body being of greatest thickness along the longitudinal medial line and of least thickness along its lateral edges, and of graduated thickness between its medial line and lateral edges and provided with recesses which vary in depth proportionately to the thickness of the arch, substantially as described.

2. A locomotive boiler firebox containing a plurality of arch tubes, in combination with a refractory body resting upon said tubes and composed of a plurality of individual bricks, said bricks being provided with cavities or pockets which vary in depth proportionately to the distance from the side of the firebox, substantially as described.

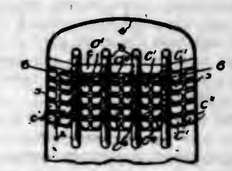
3. A locomotive boiler firebox containing a plurality of arch supporting tubes, in combination with a plurality of transverse rows of arch bricks supported by said tubes, said rows extending from side to side in the firebox and arranged close together upon the tubes, said bricks being provided with gas-mixing pockets in their undersides, the pockets of the bricks in each row being of greatest depth at the ends of the row and lessening in depth toward the middle thereof, substantially as described.

4. A locomotive boiler firebox containing a plurality of arch supporting tubes, in combination with a plurality of transverse rows of arch bricks supported by said tubes, said rows extending from side to side in the firebox and arranged close together upon the tubes, said bricks being provided with gas-mixing pockets in their undersides, the pockets in the bricks in each row being graduated in depth from the middle toward the ends of the row and being of least depth at the center of the row, substantially as described.

5. A locomotive boiler firebox containing a plurality of inclined arch tubes, in combination with a plurality of transverse rows of refractory bricks supported by and extending between said tubes, the undersides of said bricks being provided with gas-mixing cavities, the cavities in the bricks of each row being of greater depth toward the ends of the row than at the middle thereof, substantially as described.

[Claims 6 to 11 not printed in the Gazette.]

1,138,035. LOCOMOTIVE-BOILER FURNACE. CHARLES B. MOORE, Evanston, Ill., assignor, by mesne assignments, to American Arch Company, New York, N. Y., a Corporation of Delaware. Filed Dec. 18, 1911. Serial No. 666,342. (Cl. 110—87.)



1. A locomotive boiler firebox containing a plurality of arch supporting tubes, in combination with a plurality of transverse rows or arch bricks supported by said tubes, said rows extending from side to side in the firebox and arranged side by side upon the tubes, each said brick having oppositely inclined flat ends, the upper face of each brick being longer than the space between the supports upon which it rests whereby the brick depends between its supports and is thereby held against lateral movement in the firebox, and each said brick having oppositely disposed open ended recesses in its underside, adapted to deflect the firebox gases against the supports upon which the brick rests, substantially as described.

2. A locomotive boiler firebox containing a plurality of arch tubes, in combination with a front arch extending from side sheet to side sheet, and composed of a plurality of substantial identical bricks, each said brick being flat and oppositely beveled at its ends where it rests upon its supports and whereby it is held against lateral movement in the firebox, and each said brick being provided on its underside with oppositely disposed curved bottomed open ended recesses adapted to deflect the firebox gases laterally against the supports upon which the brick rests.

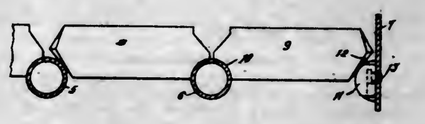
3. A locomotive boiler firebox containing inclined arch tubes, in combination with a longitudinal row of substantially identical bricks resting upon a tube and wedgingly engaging the adjacent side sheet of the firebox, each said brick having its ends oppositely beveled, and being provided on its under surface with a gas-mixing pocket or cavity having a curved bottom and an open end adapted to deflect the firebox gases against the side sheet of the firebox, substantially as described.

4. An arch brick for use in a locomotive boiler furnace provided with arch tubes spaced apart, the brick being adapted to rest upon the tubes and having its transverse ends which contact with the tubes flat and oppositely beveled, two oppositely extending recesses in the bottom of the brick having upwardly and outwardly curved bottoms and open ends whereby they are adapted to deflect the firebox gases laterally against the sides of the tubes upon which the bricks rest.

5. A locomotive firebox arch-brick, composed of refractory material, having ends formed for engagement with arch tubes and in its bottom provided with oppositely extending cavities or recesses which open through respective ends of the brick, for the purposes described.

[Claim 6 not printed in the Gazette.]

1,138,036. ARCH-BRICK AND SUPPORTING MEANS THEREFOR. JOHN P. NEFF, Brooklyn, N. Y., assignor, by mesne assignments, to American Arch Company, New York, N. Y., a Corporation of Delaware. Filed Jan. 10, 1912. Serial No. 670,403. (Cl. 110—87.)



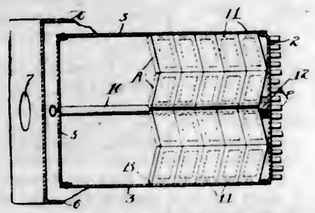
1. In a locomotive fire-box, an arch brick having an inclined surface and a socket at opposite ends of its upper face and an inclined face and socket at opposite ends of its lower face, the length of the upper face being different from that of the lower face to accommodate the brick to arch-supporting members which are differently spaced apart.

2. In a locomotive fire-box, an arch brick having an inclined surface and a socket at opposite ends of its upper face and an inclined face and socket at opposite ends of its lower face, the length of the upper face being different from that of the lower face to accommodate the brick to arch-supporting members which are differently spaced apart, and the said inclined surfaces being adapted to rest upon and project laterally above an arch-supporting member for compensating engagement therewith.

3. In a locomotive boiler fire box, a group of arch tubes and the side sheets of said box, in combination with a refractory arch body resting upon said tubes, a plurality of edge bricks, each resting upon one said tube, and extending toward but not against the adjacent side sheet, and each having a bottom end portion inclined with respect to the bottom of the brick, and edge brick supports wherewith the inclined end portions of the edge bricks compensatingly engage immediately adjacent respective side sheets.

4. The herein described improvement in locomotive firebox arches, comprising an arch brick the lower part of which is shorter than the space between its supports while its upper part is of a length to overhang both such supports, one end of said brick being shaped for pivotal abutment with several points upon one said support and its other end having an inclined point or edge for compensating wedging abutment with one point upon the other support whereby the brick is adapted to adjust itself to such supports and retain its position thereon and whereby an arching effect is secured in the intermediate parts of the brick.

1,138,037. LOCOMOTIVE-FURNACE. CHARLES B. MOORE, Evanston, Ill., assignor, by mesne assignments, to American Arch Company, New York, N. Y., a Corporation of Delaware. Filed Feb. 14, 1912. Serial No. 677,561. (Cl. 110—87.)

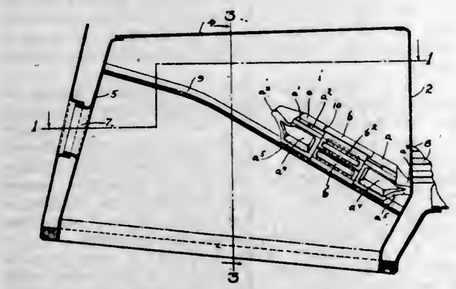


1. A locomotive boiler firebox, its inclined, water-circulating arch-tubes and its side sheets, in combination with a refractory arch supported by said tubes and side sheets and composed of oppositely inclined interchangeable elongated bricks, each thereof having an arch-tube socket at its lower end, and an interchangeable interlock at its upper end.

2. A locomotive boiler firebox in combination with a refractory arch therein and composed of oppositely inclined interchangeable elongated bricks, each thereof having an arch tube socket in its lower end, and an interchangeable interlock at its upper end.

3. A locomotive boiler firebox in combination with a refractory arch therein and composed of oppositely inclined interchangeable elongated bricks, each thereof having an arch tube socket in its lower end, an interchangeable interlock at its upper end, and containing a gas mixing pocket in its under side.

1,138,038. LOCOMOTIVE-BOILER FURNACE. CHARLES B. MOORE, Evanston, Ill., assignor, by mesne assignments, to American Arch Company, New York, N. Y., a Corporation of Delaware. Filed Dec. 18, 1911. Serial No. 666,341. (Cl. 110—87.)



1. A locomotive boiler firebox having two inclined arch tubes therein, in combination with a refractory arch resting upon and supported by said tubes and comprising two rows of supporting bricks spaced apart and a row of cover bricks arranged therebetween, each of said rows of supporting bricks comprising a pair of bricks resting upon the tubes and holding each other in position, and two similar end bricks resting upon the tubes and wedgingly engaging the side sheets, the under surface of said bricks being provided with large gas-mixing cavities of irregular contour, and their outer edges being provided with large tapered projections, said cover bricks resting upon, extending between and spacing said supporting bricks apart and substantially filling the opening between said rows of supporting bricks from side to side of the firebox.

2. A locomotive firebox equipped with two inclined arch tubes, in combination with a refractory arch of gabled form, comprising a center section and two side sections, said center section consisting of two parts supported by said tubes and leaning against and relatively held in position by each other and forming a central longitudinally disposed gable, each of the side sections resting on a tube and abutting the adjacent side sheet and forming a partial gable at each side of the firebox, and each said section having a relatively large tapered projection on each of its ends.

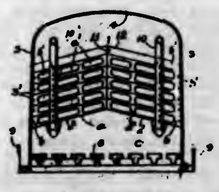
3. A locomotive firebox having two arch tubes therein, in combination with a plurality of arch spans supported by said tubes and spaced apart, each said span comprising a center section and two outer or end sections, the center section composed of two bricks resting upon and arched between said tubes, and each of the outer sections comprising a single brick supported by a tube and inclined upwardly and outwardly against the respective side sheet, each of said span bricks being provided with a single large tapered projection on its outer edge, and panel bricks extending between said spans spacing them apart, closing the spaces between respective spans and therewith completing an arch.

4. A locomotive firebox having two arch tubes, in combination with a plurality of arch spans supported by said tubes and spaced apart at different heights, said spans each comprising a center section and two outer or end sections, the center section composed of two bricks abutting at their inner ends and resting upon and arched between said tubes, and each of the outer sections composed of a single brick supported by a tube and inclined upwardly and outwardly against the adjacent side sheet, the lower span bricks having large tapered projections for contact with the flue sheet, and the upper span bricks each having a similar large tapered projection on its upper edge and panel or cover bricks extending between said spans spacing them apart and closing the spaces between respective spans.

5. A locomotive boiler firebox having a pair of inclined circulating tubes therein, in combination with a refractory body resting upon and supported by said tubes extending from side sheet to side sheet and resting against the flue sheet, said body comprising a plurality of transverse rows of supporting and cover bricks, each row of supporting bricks composed of a center span made up of two bricks supported on respective tubes and leaning against and interlocked with each other, and end spans each including a single brick resting upon a tube and leaning against the adjacent side sheet, the inner edge of the arch having a number of relatively large tapered projections arranged between the arch supports and adapted to contact with the flue sheet and hold the main part of the arch spaced therefrom, and said cover bricks arranged between said spans retaining said spans in spaced relation and closing the openings between them.

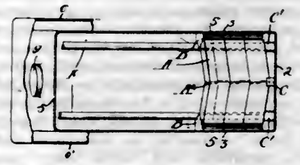
[Claim 6 not printed in the Gazette.]

1,138,039. LOCOMOTIVE-BOILER FURNACE. CHARLES B. MOORE, Evanston, Ill., assignor, by mesne assignments, to American Arch Company, New York, N. Y., a Corporation of Delaware. Filed Dec. 18, 1911. Serial No. 666,337. (Cl. 110—87.)



A locomotive boiler fire box as described, in combination with two longitudinally inclined water-circulating arch-tubes adjacent to opposite side sheets of the box, studs upon said side sheets substantially below respective tubes, a row of downwardly and outwardly inclined refractory bricks between each tube and adjacent side sheet, each said brick having its inner end upon the tube and its outer end supported by a said stud or studs, an arch body formed of two longitudinal rows of refractory bricks arched upon and between said rows of bricks and each of the body bricks having in its under side two gas mixing pockets separated by a strengthening wall or partition.

1,138,040. LOCOMOTIVE-BOILER FURNACE. CHARLES B. MOORE, Evanston, Ill., assignor, by mesne assignments, to American Arch Company, New York, N. Y., a Corporation of Delaware. Filed Dec. 18, 1911. Serial No. 666,349. (Cl. 110—87.)



1. A locomotive boiler firebox, in combination with inclined water-circulating tubes therein arranged adjacent to the side sheets of the firebox, refractory arch abutments resting on said tubes and against the adjacent side sheets, said abutments having their upper surfaces provided with a plurality of arch engaging projections arranged at different heights, and a refractory arch in said firebox composed of two transverse leaves interlocked at their inner edges and resting at their outer edges upon said abutments, their outer edges being provided with complementary projections adapted to engage the different projections of the abutments and thereby place the arch at different heights, substantially as described.

2. An adjustable arch for locomotive boiler fireboxes, comprising refractory abutment members having a plurality of arch-engaging projections arranged at different heights upon their upper surfaces and supported adjacent each side of the firebox, and a V-shaped arch proper each side thereof being provided on its lower edge with abutment-engaging projections, the upper edges of the two sides being arranged in interlocking engagement at substantially the center line of the firebox, substantially as described.

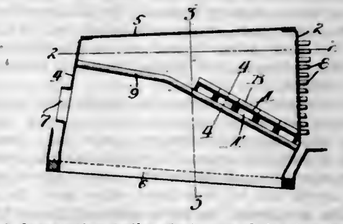
3. An adjustable arch for locomotive fireboxes comprising refractory arch supporting abutments and supports upon which said abutments are carried adjacent to the side sheets of the firebox, said abutments having upwardly and outwardly inclined surfaces provided with longitudinally arranged ribs forming arch-engaging projections, and a V-shaped arch proper spanning between opposite abutments and supported thereby, the arch comprising two inwardly inclined leaves, the lower edges thereof having longitudinal ribs adapted to engage with the arch supporting ribs on the abutments to hold the arch at different heights, and the inner edges of said leaves being formed for mutual interlockment, substantially as described.

4. A refractory abutment brick for use with adjustable arches in locomotive fireboxes, composed of refractory material, presenting a flat back and having an upper stepped surface presenting several interlocking projections, substantially as described.

5. A locomotive boiler firebox, in combination with a refractory arch therein, comprising a plurality of transverse rows of refractory members, each row consisting of two oppositely disposed abutment members, means supporting said abutment members in position upon the side sheets of the firebox, and two oppositely inclined arch members having complementary interlocking grooves and tongues upon their inner ends and said arch members and abutment members having complementary longitudinally arranged tongues and grooves and so arranged that the lower ends of said arch members can be placed at different distances apart upon said abutment members and held in such position, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

1,138,041. LOCOMOTIVE-FURNACE ARCH. CHARLES B. MOORE, Evanston, Ill., assignor, by mesne assignments, to American Arch Company, New York, N. Y., a Corporation of Delaware. Filed Dec. 18, 1911. Serial No. 666,344. (Cl. 110—87.)



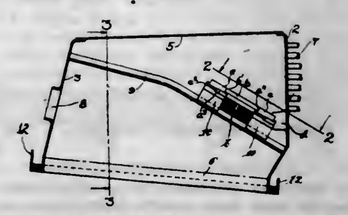
1. A locomotive boiler firebox and its longitudinal inclined arch tubes, in combination with a longitudinal row of upwardly and outwardly inclined refractory bricks interposed between each side sheet of the box and the adjacent arch tube, each said brick having its lower inner end socketed upon its tube, and a refractory arch body resting upon and entirely above all said tubes with its edges in abutment with said rows of bricks and thereby held against transverse movement in the firebox.

2. A locomotive boiler firebox and its longitudinal inclined arch tubes, in combination with a longitudinal row of upwardly and outwardly inclined refractory bricks interposed between each side sheet of the box and the adjacent arch tube, each said brick having its lower inner end socketed upon its tube, and a refractory arch body resting upon and entirely above all said tubes with its edges in substantial abutment with said rows of bricks, said body being composed of inverted box-like refractory bricks presenting gas-mixing cavities in their undersides.

3. A locomotive boiler firebox and its longitudinal inclined arch tubes, in combination with a row of upwardly and outwardly inclined refractory bricks interposed between each side sheet of the box and adjacent tube, said bricks being wedgingly self-secured between respective tubes and side sheets, and each said brick having strengthening ribs on its upper and lower edges and presenting a cavity of general triangular shape in longitudinal section.

4. A locomotive boiler firebox and its longitudinal inclined arch tubes, in combination with a row of upwardly and outwardly inclined refractory bricks interposed between each side sheet of the box and adjacent tube, said bricks being wedgingly self-secured between respective tubes and side sheets, each said brick being tapered from a thick end upon the tube to a thin end against the side sheet and presenting a top of substantially uniform thickness, and strengthening ribs of substantially triangular form.

1,138,042. LOCOMOTIVE-BOILER FURNACE. CHARLES B. MOORE, Evanston, Ill., assignor, by mesne assignments, to American Arch Company, New York, N. Y., a Corporation of Delaware. Filed Dec. 18, 1911. Serial No. 666,350. (Cl. 110—87.)



1. A locomotive boiler firebox equipped with two widely separated inclined arch-supporting tubes, in combination with a refractory arch supported by said tubes and held in spaced relation from the flue sheet, said arch comprising a plurality of arched spans, each thereof composed of two bricks abutting substantially midway between the tubes

and wedgingly resting thereon, and a plurality of roof bricks arranged between the span bricks spacing them apart and closing the openings between them, means preventing lateral movement of the roof bricks on the span bricks, and comprising side bricks supported at their inner ends by the span bricks and the roof bricks and at their outer ends wedgingly engaging the side sheets of the firebox, the inner ends of the side bricks and the outer edges of the arch being formed to provide coöperating substantially horizontal and vertical faces, as and for the purpose specified.

2. A locomotive boiler firebox in combination with two inclined arch supporting tubes therein arranged close to respective side sheets, a refractory arch body spanning from tube to tube and supported thereby, and inclined refractory leaves resting at their outer edges against respective side sheets and at their inner edges upon the outer edges of the arch body, the outer edges of the arch body and the inner edges of the refractory leaves being formed with coöperating substantially horizontal and vertical faces, as and for the purpose specified.

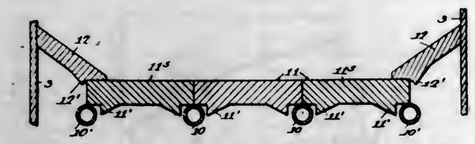
3. A locomotive firebox comprising in combination, side walls, longitudinally inclined circulation tubes between said side walls, and a baffle wall on said tubes comprising intermediate brick resting upon the circulation tubes, and side brick inclined in position and having their outer ends resting against the side walls, said intermediate and side bricks being provided with substantially horizontal and vertical coöperating faces, said faces being respectively so constructed and arranged as to cause the side brick to bear downwardly upon the intermediate brick and horizontally against the same.

4. A locomotive boiler fire box and its side sheets in combination with longitudinally arranged circulation tubes therein, a refractory baffle extending from side sheet to side sheet supported by the tubes and comprising intermediate bricks resting on and supported by the tubes and side bricks in inclined position, their outer ends resting against the side sheets and their inner ends formed to cooperate with the outer ends of the intermediate bricks and provided with substantially horizontal and vertical contacting faces, as and for the purpose specified.

5. A locomotive boiler fire box and its side sheets in combination with longitudinally arranged circulating tubes therein, a refractory baffle wall on said tubes comprising intermediate bricks resting on and supported by said tubes, and provided with portions depending between the tubes and side bricks inclined in position resting at their outer ends against the side sheets and their inner ends formed to provide faces supported upon the upper faces of the adjacent intermediate bricks and other faces bearing against the end faces of the intermediate bricks, as and for the purpose specified.

[Claims 6 to 8 not printed in the Gazette.]

1,138,043. FIRE-ARCH. CHARLES EUGENE MILLER, Chicago, Ill., assignor, by mesne assignments, to American Arch Company, New York, N. Y., a Corporation of Delaware. Filed Jan. 15, 1912. Serial No. 671,354. (Cl. 110—87.)



1. A fire arch comprising supporting tubes; bricks, forming an arch body loosely resting upon said tubes and abutting each other; means on said bricks for permitting only limited transverse movement thereof transversely with respect to said tubes; and inclined key-bricks resting upon the side bricks of the arch body and against the sides of the fire box, substantially as described.

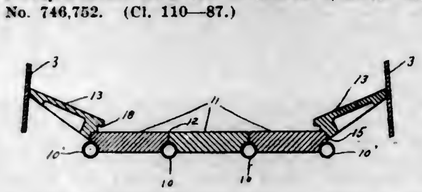
2. A fire arch comprising supporting tubes, fire bricks having their ends loosely resting upon adjacent tubes and abutting the ends of adjacent bricks, stop lugs extending downwardly between said tubes said lugs being positioned to permit slight movement of said bricks but not sufficient movement to permit them falling between said tubes, and inclined key-bricks resting upon the side bricks and against the sides of the firebox, substantially as described.

3. A fire arch comprising supporting tubes; fire bricks having their ends loosely resting on adjacent tubes and abutting the ends of adjacent bricks; stop lugs extending downwardly between said tubes, said lugs being positioned to permit slight movement of said bricks but not sufficient movement to permit of the bricks falling between said tubes; and inclined key-bricks resting upon the upper outer corners of the end bricks and against the sides of the fire box, substantially as described.

4. In a locomotive boiler firebox, a group of longitudinally extending arch tubes of less width than the firebox, an "arch body" supported on said tubes and laterally co-extensive therewith, said "arch body" comprising a plurality of abutting brick, each one resting upon two adjacent tubes, and having stop portions depending between tubes and slightly spaced therefrom, inclined key bricks resting upon the "side bricks" of the arch body and against the side sheets and pressing the brick of the arch body together, as and for the purpose specified.

5. In a locomotive boiler fire box a group of longitudinally extending arch tubes of less width than the fire box and an arch body supported upon said tubes and comprising a plurality of abutting bricks, each of which rests upon two adjacent arch tubes and is provided with stop portions depending between the tubes and slightly spaced therefrom, as and for the purpose specified.

1,138,044. LOCOMOTIVE-FURNACE ARCH. CHARLES E. MILLER, Chicago, Ill., assignor, by mesne assignments, to American Arch Company, New York, N. Y., a Corporation of Delaware. Filed Feb. 7, 1913. Serial No. 746,752. (Cl. 110—87.)



1. In a locomotive furnace, having a group of arch tubes longitudinally arranged therein and of less width than the firebox, an arch body comprising a plurality of brick resting upon the tubes, in combination with side brick resting upon the side rows of the arch body and extending upwardly therefrom into engagement with the side sheets, the said side bricks having their arch body engaging ends provided with a plurality of notches and thus adapted to rest upon the arch body in a number of different predetermined definite positions in manner to close spaces between the arch body and the side sheets of greatly varying widths.

2. A locomotive furnace having a group of arch tubes longitudinally arranged therein and having side tubes spaced from the side sheets, in connection with an arch body resting upon the tubes and comprising a plurality of substantially identical brick, side brick resting upon the arch body extending upwardly into wedging engagement with the side sheets, the body engaging portion thereof containing a plurality of notches to rest in a plurality of predetermined definite positions on the arch body whereby the side brick is adapted to take a plurality of positions varying in distance from the center of the arch, as and for the purpose specified.

3. In a locomotive furnace, a group of arch tubes of less width than the firebox, in combination with a brick arch arranged therein and composed of two brick forms,

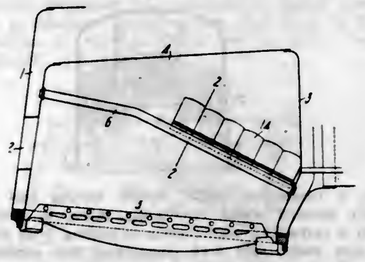
a plurality of one-form of brick resting upon the arch tubes and constituting the arch body and a plurality of the other form of brick resting upon the side of the arch body and extending upwardly and outwardly into engagement with the side sheet, said side bricks having a step-like lower end for engagement with the arch body in a number of definite positions to close spaces between the arch body and the side sheets of greatly varying widths.

4. A side brick for locomotive furnace arches relatively thick at one end, relatively thin at the other end, and tapering therebetween, said thick end having a plurality of longitudinally extending parallel flat surfaces in different planes and a plurality of other longitudinally extending parallel flat surfaces arranged at substantially right angles thereto and extending therebetween.

5. A substantially wedge-shaped side brick of substantially rectangular cross-section, for refractory fire arches, having a plurality of longitudinally arranged steps at the base portion thereof.

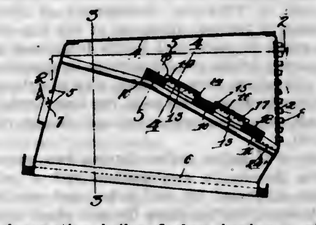
[Claims 6 and 7 not printed in the Gazette.]

1,138,045. BAFFLE-WALL FOR LOCOMOTIVE FIRE-BOXES. HARLOW D. SAVAGE, Ashland, Ky., assignor, by mesne assignments, to American Arch Company, New York, N. Y., a Corporation of Delaware. Filed June 9, 1913. Serial No. 772,575. (Cl. 110—87.)



A locomotive fire box comprising in combination, side walls, longitudinally inclined circulation tubes between said side walls, and a brick baffle wall on said tubes comprising intermediate refractory brick resting upon the circulation tubes, and refractory side brick inclined in position and having their outer ends curved in both horizontal and vertical planes and resting against the side walls, the inner edges of said side brick being formed to rest for their full length upon the circulation tubes, and lugs or projections on the lower face of each said side brick and bearing against the circulation tubes.

1,138,046. LOCOMOTIVE-BOILER FURNACE. CHARLES B. MOORE, Evanston, Ill., assignor, by mesne assignments, to American Arch Company, New York, N. Y., a Corporation of Delaware. Filed Dec. 18, 1911. Serial No. 666,351. (Cl. 110—87.)



1. A locomotive boiler firebox having a plurality of substantially parallel inclined arch tubes, in combination with a refractory arch body resting on said tubes, said body comprising a plurality of parallel transverse rows of slab-like supporting bricks having complementary grooves and ribs extending across their ends and by which they are interlocked to prevent longitudinal separation thereof, said rows being spaced apart upon the tubes and a plurality of cover or panel bricks interposed between, resting upon and spacing said rows apart.

2. A locomotive boiler firebox having a plurality of substantially parallel inclined arch supporting tubes, in combination with a refractory arch therein supported by said tubes, said arch comprising a plurality of parallel rows of reversible supporting bricks, said bricks being identical in form and having transverse projections and complementary grooves extending across their ends and adapting them to interlock with each other and mutually prevent their relative movement transversely in the firebox, said rows being spaced apart upon the tubes and thin cover bricks filling the spaces between the rows of supporting bricks and holding them in their spaced relation.

3. A locomotive boiler firebox having a plurality of substantially parallel inclined water circulating tubes therein, in combination with a refractory front arch resting on said tubes and against the flue sheet, said arch comprising a plurality of transverse rows of identical supporting bricks, each row comprising a center and two end bricks, all of said bricks having transverse vertically extending flanges extending across their ends and complementary transverse grooves arranged to receive the flanges of adjacent bricks, said rows being spaced apart longitudinally on the tubes and relatively thin cover bricks resting on said rows filling the spaces between them and having shoulders engaging the sides of said interlocked bricks to hold the rows spaced apart.

4. A locomotive boiler firebox having a plurality of substantially parallel inclined arch tubes therein, in combination with a refractory front arch resting on said tubes and against the flue sheet, said arch comprising a plurality of substantially parallel transverse rows of supporting bricks resting on said tubes, said blocks being substantially identical in form and each thereof having half thickness horizontal flanges on its ends and vertically extending complementary transverse tongues and grooves extending the length of said flanges adapted when the bricks are arranged in alternate reversed positions to mutually interlock and prevent the separation of the bricks of said rows transversely of the firebox, relatively thin cover bricks interposed between the upper edges of said transverse rows filling the spaces between them and holding said rows separated, and locking bricks wedgingly interposed between the side edges of said arch body and the side sheets of the firebox.

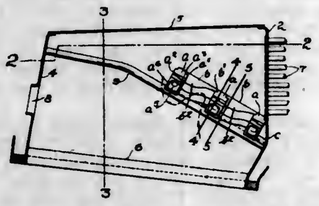
5. In a locomotive firebox, the combination with a plurality of longitudinally arranged inclined water circulating tubes, of a refractory front arch comprising a plurality of rows of firebricks arranged transversely therein and resting on said tubes, said rows of fire bricks being spaced apart longitudinally of the firebox and the individual bricks of said rows having complementary hooks and grooves extending across their ends whereby the bricks are interlocked at their ends and thus held against separation transversely of the firebox and transverse rows of thin cover bricks interlocked at their edges to prevent relative vertical movement thereof, said rows of cover bricks being interposed between the rows of supporting bricks filling the spaces therebetween and holding said rods of supporting bricks separated, and locking bricks wedgingly interposed between the rows of cover bricks and the side sheets of the firebox.

[Claims 6 to 8 not printed in the Gazette.]

1,138,047. LOCOMOTIVE-BOILER FURNACE. CHARLES B. MOORE, Evanston, Ill., assignor, by mesne assignments, to American Arch Company, New York, N. Y., a Corporation of Delaware. Filed Dec. 18, 1911. Serial No. 666,343. (Cl. 110—87.)

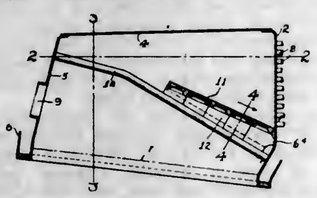
1. A locomotive boiler firebox containing two circulating tubes, in combination with a refractory front arch therein extending from side to side and in abutment with the flue sheet composed of two forms of bricks and com-

prising a plurality of two-brick spans spaced apart on the tubes, the bricks of the spans being all of the same form and thickest at their upper ends, an alternate series of filling or panel bricks arranged between said spans spacing them apart and filling the openings between them, the upper end of said panels also being thicker than their lower ends, and a series of bricks identical with said panel bricks arranged between each tube and the adjacent side sheet and serving to complete the arch, substantially as described.



2. A locomotive boiler firebox containing two comparatively widely separated, substantially parallel inclined circulating tubes, in combination with a "two-brick" refractory front arch comprising a plurality of parallel, self-supporting spans, each composed of two identical, tapered supporting bricks, their thinner ends resting upon and against respective tubes, and their thicker ends abutting each other in interlocked engagement, said spans being spaced apart upon the tubes, a plurality of identical tapered panel bricks arranged between and spacing said spans, and a plurality of similar tapered panel or filling bricks arranged in each side of the firebox resting on and against a tube and wedgingly engaging the respective side sheet, substantially as described.

1,138,048. LOCOMOTIVE-BOILER FURNACE. CHARLES B. MOORE, Evanston, Ill., assignor, by mesne assignments, to American Arch Company, New York, N. Y., a Corporation of Delaware. Filed Dec. 18, 1911. Serial No. 666,336. (Cl. 110—87.)



1. A locomotive boiler firebox containing a group of arch tubes arranged substantially in a single inclined plane, in combination with a refractory front arch supported upon said tubes and comprising a central longitudinal section or portion supported above and at less pitch than the tubes, and side sections resting upon the tubes and supporting said middle section in position, said intermediate section having positive stop shoulders serving to space the side sections, the said central and side sections being locked between the side sheets of the fire box by wedge bricks extending between the side sections and the side sheets.

2. A refractory front arch for locomotive boiler furnaces comprising an arch body extending from side to side of the firebox and composed of a plurality of longitudinal rows of refractory bricks, one of which rows is centrally disposed in the firebox, and rows on either side thereof having upwardly extending portions having tops disposed longitudinally at an angle to the tubes and supporting said middle section at a longitudinal angle to the tubes.

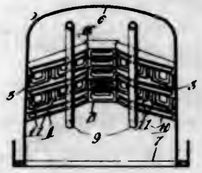
3. A refractory front arch for locomotive boiler furnaces having a central longitudinal comparatively deep and wide channel in its underside of greater depth at the lower end than at the upper end, the top of said channel having a plurality of gas mixing pockets or cavities, substantially as described.

4. A refractory front arch for locomotive boiler furnaces having a group of arch tubes, comprising longitudinally arranged side sections, each of which rests upon two tubes and having upstanding flanges or walls on their opposed edges, the tops of said walls being inclined longitudinally to the plane of said tubes, and a middle section spanning said walls closing the spaces therebetween and having abutment shoulders engaging the side sections and holding them in proper spaced relation.

5. A refractory front arch for locomotive boiler furnaces having a parallel group of arch tubes, comprising longitudinally arranged side sections having thin upstanding walls at their opposed edges, said walls rising higher above the tubes at the front than at the rear end of the arch, and a central roof section resting on said walls, closing the opening therebetween and having abutment shoulders serving to hold the side sections in proper spaced relation.

[Claims 6 to 12 not printed in the Gazette.]

1,138,049. LOCOMOTIVE-BOILER FURNACE. CHARLES B. MOORE, Evanston, Ill., assignor, by mesne assignments, to American Arch Company, New York, N. Y., a Corporation of Delaware. Filed Feb. 14, 1912. Serial No. 677,567. (Cl. 110—87.)



1. A locomotive boiler firebox having two substantially parallel water circulating tubes, in combination with a refractory arch therein extending from side sheet to side sheet, said arch comprising two oppositely inclined leaves each said leaf being of less width than half the width of the firebox, supported by one of said tubes and having its outer end resting against a side sheet, and a third refractory leaf interposed between and supported by the inner ends of the first mentioned leaves, each of said first mentioned leaves comprising a plurality of refractory supporting members extending transversely of the firebox spaced apart longitudinally therein and a plurality of cover members interposed between, supported by and closing the spaces between said refractory supporting members said third leaf being composed of a plurality of refractory bricks similar in form and shape to the refractory spacing members in the side leaves.

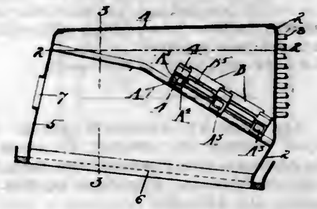
2. A locomotive boiler firebox having two water circulating tubes therein, in combination with a refractory arch therein supported by said tubes and comprising a leaf at each side extending from the side sheet toward the middle of the box and resting upon one of the tubes, said leaves being composed partly of relatively long narrow bricks tapered in thickness transversely of the firebox and each being of greatest thickness at the line above the tube upon which it rests roof bricks interposed between said long narrow bricks retaining them in spaced relation and filling the spaces between them, and a series of similar roof bricks interposed between the inner ends of said leaves maintaining them separated and closing the space between them.

3. A locomotive boiler firebox having two water circulating tubes therein, in combination with a refractory arch therein supported by said tubes and comprising a leaf at each side extending from the side sheet toward the middle of the box and resting upon one of the tubes, said leaves being composed partly of relatively long narrow bricks tapered in thickness transversely of the fire box and each being of greatest thickness at the line above the tube upon which it rests, roof bricks interposed between said long narrow bricks retaining them in spaced relation and

filling the spaces between them, and a series of similar roof bricks interposed between the inner ends of said leaves resting upon the inner ends of the long bricks and the interposed roof bricks maintaining said leaves separated and closing the space between them.

4. In a locomotive boiler fire box having two longitudinally arranged inclined circulating tubes in combination with a refractory front arch therein, extending from side sheet to side sheet resting upon and supported by said tubes, said arch comprising an upwardly and inwardly inclined section at each side supported at its outer edge upon a side sheet and resting adjacent to its inner edge upon the adjacent tube, the inner ends of said sections being spaced apart and refractory bricks bridging said space, each side section being made up of a number of transversely arranged relatively deep supporting bricks spaced apart longitudinally of the fire box, equal in length to the transverse width of the section and each having a relatively large recess in its under side whereby its contact with the tube upon which it rests is limited to a relatively small area, and relatively thin bricks extending between the upper edges of the supporting bricks and filling the spaces therebetween, whereby substantially the whole area of the supporting tubes is exposed to the gases of combustion.

1,138,050. LOCOMOTIVE-BOILER FURNACE. CHARLES B. MOORE, Evanston, Ill., assignor, by mesne assignments, to American Arch Company, New York, N. Y., a Corporation of Delaware. Filed Dec. 18, 1911. Serial No. 666,347. (Cl. 110—87.)



1. A locomotive boiler firebox having a plurality of arch tubes, in combination with a refractory arch body resting on said tubes, said body comprising spans which extend between and rest on said tubes, said spans being disposed in spaced apart rows and panel bricks which rest upon two adjacent spans and interlock the two adjacent bricks of each of the two spaces which they engage.

2. A locomotive boiler firebox having a plurality of inclined arch tubes, in combination with a refractory arch body resting upon said tubes, said body comprising a plurality of transverse rows of refractory span bricks spaced apart on said tubes, said bricks being also arranged in longitudinal rows in the firebox and panel or cover bricks resting upon adjacent transverse rows of span bricks and overlapping at each end two span bricks and formed to interlock therewith and prevent relative lateral movement of the span bricks.

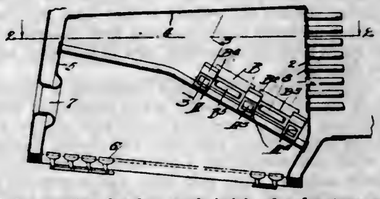
3. A locomotive boiler firebox having a plurality of inclined arch tubes, in combination with transverse rows of span bricks supported by said tubes, and a plurality of arch panel or cover bricks in turn supported by said span bricks and certain of said panel bricks interlocking with the said span bricks and preventing the lateral separation of adjacent span bricks.

4. A locomotive boiler firebox having a plurality of arch tubes, in combination with a plurality of transverse rows of bricks spaced apart upon and extending between said arch tubes, and a plurality of arch top forming bricks, through the medium of said transverse bricks being also supported by said arch tubes, said top forming bricks closing the spaces between said transverse bricks and having transverse shoulders on their undersides which serve as stops and spacers for said transverse bricks and certain parts thereof serving to interlock the adjacent bricks in said transverse rows and hold them against separation.

5. A locomotive boiler firebox containing a plurality of inclined arch tubes in combination with two or more rows of refractory span bricks spaced apart upon said tubes and abutting the sides of the firebox, and a plurality of refractory slabs or bricks in the spaces between said rows of span bricks spacing them apart and serving to bind the adjacent bricks in said rows together and preventing them from separating.

[Claims 6 to 10 not printed in the Gazette.]

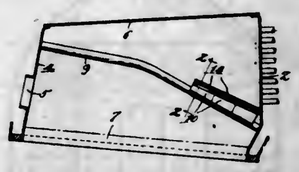
1,138,051. LOCOMOTIVE-BOILER FURNACE. CHARLES B. MOORE, Evanston, Ill., assignor, by mesne assignments, to American Arch Company, New York, N. Y., a Corporation of Delaware. Original application filed Dec. 18, 1911, Serial No. 666,347. Divided and this application filed Oct. 26, 1914. Serial No. 868,650. (Cl. 110—87.)



1. A locomotive fire box arch brick of refractory material having an arch tube bearing at its end, and an upstanding interlocking rib at its top at said end.

2. A locomotive firebox arch brick of refractory material having an arch tube bearing at its end and an upstanding interlocking rib on its top at said end, said brick containing a gas-mixing pocket or recess in its underside.

1,138,052. LOCOMOTIVE-BOILER FURNACE. CHARLES B. MOORE, Evanston, Ill., assignor, by mesne assignments, to American Arch Company, New York, N. Y., a Corporation of Delaware. Filed Feb. 14, 1912. Serial No. 677,568. (Cl. 110—87.)



1. In a locomotive boiler firebox having a plurality of substantially parallel water-circulating tubes, a refractory arch composed of a plurality of refractory slab-like arch bricks arranged across the firebox the end bricks of each row being wedgingly engaged with a side sheet of the box, refractory supporting members formed for placement upon the tubes and serving to support said bricks above the plane of the tubes, said supporting members having semi-cylindrical projections on their upper surfaces and said bricks having complementary sockets on their ends receiving said projections, the upper portions of the ends of said arch bricks being inclined inwardly whereby V-shaped grooves are provided between the ends thereof.

2. A locomotive boiler firebox having a plurality of substantially parallel water-circulating tubes, in combination with a refractory arch supported by said tubes and extending from side sheet to side sheet, said arch comprising a plurality of longitudinal rows of bricks each row spanning the space between two tubes or between a tube and a side sheet, and refractory supporting members resting upon said tubes and supporting said rows at their edges, the bricks of said rows being beveled at their ends to provide V-shaped grooves between the adjacent edges of the rows and said supporting members having V-shaped

grooves forming continuation of the spaces between said rows.

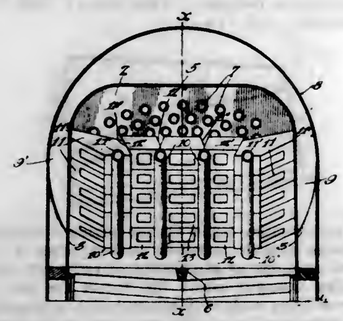
3. A locomotive boiler firebox having a plurality of substantially parallel water-circulating tubes, in combination with a refractory arch supported thereby and extending from side sheet to side sheet, said arch comprising refractory supporting members longitudinally arranged upon said tubes and refractory arch bricks arranged in transverse rows extending from side sheet to side sheet, said arch bricks having their adjacent ends separated to form longitudinal grooves in the arch and said supporting bricks having V-shaped grooves in their upper surfaces forming continuations of said longitudinal grooves and thereby providing the arch with weakened breaking lines.

4. A locomotive boiler firebox having a plurality of substantially parallel arch supporting tubes, in combination with a refractory arch therein extending from side sheet to side sheet and wedgingly interposed therebetween, said arch comprising a plurality of supporting members arranged upon said tubes and a plurality of transverse rows of arch bricks spanning from supporting member to supporting member and resting at their ends thereon, said supporting members being provided with grooves in their upper edges forming fracturing lines in said arch disposed above said tubes.

5. A locomotive boiler firebox containing a plurality of inclined substantially parallel water-circulating tubes, in combination with a refractory front arch therein extending from side sheet to side sheet and resting against the flue sheet and comprising a plurality of refractory arch supports arranged upon said tubes and a refractory arch proper resting upon said supports and thereby held above the plane of the tubes, the said supports beneath the forward end of the arch proper being higher than those beneath the rear end of the arch proper.

[Claims 6 to 9 not printed in the Gazette.]

1,138,053. LOCOMOTIVE-FURNACE ARCH. CHARLES E. MILLER, Chicago, Ill., assignor, by mesne assignments, to American Arch Company, New York, N. Y., a Corporation of Delaware. Filed Sept. 13, 1912. Serial No. 720,198. (Cl. 110—87.)



1. A locomotive boiler firebox or furnace in combination with a group of arch tubes arranged therein, the side tubes of which are spaced from the side sheets, side bricks having one end only resting upon the adjacent side tube and extending into engagement with the side sheet, and an arch body resting upon the spaced intermediate tubing and upon the said side bricks.

2. In a locomotive boiler firebox or furnace, the combination of a group of longitudinally extending arch tubes laterally spaced in the firebox and of less width, upwardly inclined side bricks engaging the side tubes and abutting the side sheets, thereby closing the space between the side tubes and the side sheets, and an arch body substantially laterally co-extensive with said group of arch tubes and resting upon the inner faces of the side bricks and upon the intermediate arch tubes thereby closing the space between the side bricks.

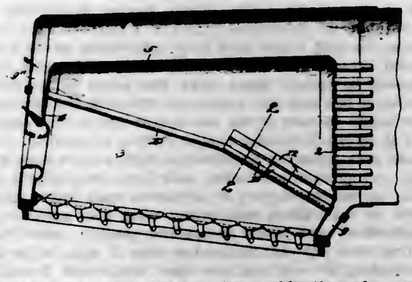
3. In a locomotive boiler firebox, the combination with its side sheets and front and rear sheets of a plurality of arch tubes extending from the front sheet to the rear sheet and substantially equally spaced between the side sheets, side bricks having grooved under portions engaging the side tube, said brick occupying an upwardly inclined position between the side tube and the side sheet, and having an upwardly and outwardly inclined inner face, intermediate or body bricks having complementary inclined faces abutting the inclined inner faces of the side bricks, said body bricks closing the spaces between the side bricks.

4. In a locomotive boiler firebox, the combination with its side sheets and front and rear sheets of a plurality of arch tubes extending from the front sheet to the rear sheet and substantially equally spaced between the side sheets, a plurality of side bricks of slightly greater width than the distance between the side tubes and side sheets resting upon the side arch tubes and wedgingly abutting the side sheets, thereby closing the spaces between the side sheets and the side tubes, said side bricks having portions extending inwardly from the side tubes, said portions being beveled to form a keystone shaped space between opposite side bricks, a keystone-like body portion comprising a plurality of bricks resting on the intermediate arch tubes and closing the space between the opposed side bricks by wedging abutment with the side bricks.

5. In a locomotive boiler firebox or furnace, the combination of a group of arch tubes laterally spaced therein, upwardly inclined side bricks abutting the side sheets and resting upon the side tubes, beveled inner faces on said side bricks within the confines of the side tubes, a body portion laterally slightly greater than the distance between the beveled faces of the opposed side bricks, said body portion having complementary beveled outer faces for engagement with the inner beveled faces of the side bricks as and for the purpose specified.

[Claims 6 to 10 not printed in the Gazette.]

1,138,054. LOCOMOTIVE-FURNACE ARCH. ARTHUR W. NELSON, Chicago, Ill., assignor, by mesne assignments, to American Arch Company, New York, N. Y., a Corporation of Delaware. Filed Sept. 24, 1913. Serial No. 791,642. (Cl. 110—87.)



1. In a locomotive fire-box the combination of a group of arch tubes, the side tubes being spaced from the side sheets, bricks resting upon the side tubes and abutting the side sheets, an inclined wedged portion on each brick adjacent the tube supported end, and other identical bricks having one end supported on an arch tube and the other end resting upon and supported by the inclined wedge portions of the adjacent bricks.

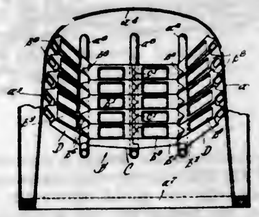
2. In a locomotive furnace a group of spaced arch tubes in combination with a plurality of bricks forming a refractory fire arch, each brick supported at one end only upon an arch tube, and extending therefrom in lever-like manner, and spanning the distance between adjacent tubes and having its other end resting upon an adjacent brick.

3. In a locomotive furnace, the combination of a group of spaced arch tubes, with a plurality of identical bricks forming a baffle wall in the furnace, each brick thereof resting at one end only upon an arch tube and spanning the space between adjacent tubes, and an upstanding inclined brick-abutting portion on each brick at the tube supported end for coöperation with the end of the adjacent brick.

4. In a locomotive furnace equipped with a group of longitudinally arranged and laterally spaced arch tubes, a plurality of identical refractory bricks forming an arch therein, each brick resting at one end upon an arch tube and having an upstanding inclined portion at the tube supported end, the bricks supported upon the side tubes extending into wedging engagement with the side sheets of the furnace, and the other bricks extending into wedging engagement with and being supported upon the inclined portion of the brick next adjacent.

5. In a locomotive furnace, a group of arch tubes of less width than the fire-box, in combination with a brick arch arranged therein and composed of one brick form, each brick being supported at one end upon a tube and having a groove therein for complementary engagement with the tube, and an inclined upstanding portion rising from the groove serving as a support for the end of the next adjacent brick.

1,138,055. LOCOMOTIVE-BOILER FURNACE. JOHN P. NEFF, East Orange, N. J., assignor, by mesne assignments, to American Arch Company, New York, N. Y., a Corporation of Delaware. Filed July 24, 1913. Serial No. 780,880. ((Cl. 110—87.)



1. A locomotive boiler firebox having longitudinally extending inclined arch-supporting tubes therein, in combination with a refractory front arch supported by said tubes and comprising a plurality of transverse rows of identical bricks arranged end to end, each brick having a V-shaped projection on one end and a complementary V-shaped recess at the opposite end, the projections and recesses of adjacent bricks being adapted to interfit.

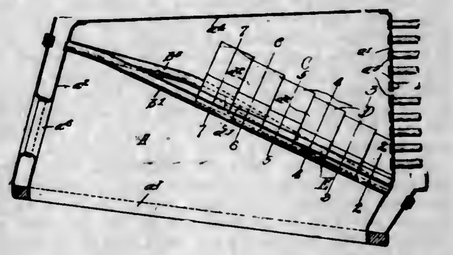
2. A locomotive boiler firebox containing a group of longitudinally extending arch supporting tubes, in combination with a refractory arch proper laterally coextensive with said group and comprising rows of bricks overlapping at their inner ends, the outer ends thereof having V-shaped projections, and similar side bricks resting at their inner ends upon the side tubes of the group and contacting at their outer ends with the side sheets of the firebox, the inner ends of said side bricks spanning said V-shaped projections and limiting the movement of the arch proper on the tubes.

3. A locomotive boiler firebox containing a group of longitudinally extending arch-supporting tubes, in combination with a refractory arch extending from side sheet to side sheet and supported by said tubes, said arch having a middle portion transversely coextensive with said group of tubes composed of bricks identical in form, each thereof being cut away at one end to substantially half the thickness of the brick, adjacent bricks being adapted to be reversed in position with their cut-away portions overlapped, the outer ends of said bricks having V-shaped projections which rest upon the outer tubes of the group, side bricks resting on the outer tubes of the group and leaning against the side sheet, the inner ends of said side bricks having projections which span the V-shaped points of the middle bricks and adapted to limit the movement of the middle portion of the arch upon said tubes.

4. A locomotive boiler firebox having a group of longitudinally extending arch-supporting tubes therein, a refractory arch supported by said tubes and comprising a center portion coextensive with said group, and side portions extending between the outer tubes and the side sheets of the firebox, said center portion being composed of a plurality of transverse rows of two bricks each, each brick extending between and supported by two tubes, the meeting ends of the bricks being cut away to half thickness and arranged in overlapping position, the outer ends of the bricks being provided with V-shaped projections resting upon the outer tubes, the side portions of the arch comprising similar bricks having their V-shaped projections in contact with the side sheets of the firebox and their half-thickness ends arranged upon the side tubes of the group, said half-thickness ends being provided with V-shaped recesses to receive the adjacent V-shaped points of the middle bricks and serving to limit the movement of the middle portion of the arch upon the tubes.

[Claims 6 to 10 not printed in the Gazette.]

1,138,056. LOCOMOTIVE-BOILER FURNACE. LE GRAND PARISH, New York, N. Y., assignor, by mesne assignments, to American Arch Company, New York, N. Y., a Corporation of Delaware. Filed Oct. 1, 1913. Serial No. 792,854. (Cl. 110—87.)



1. A locomotive boiler fire box in combination with a refractory front arch therein extending from side sheet to side sheet, said arch being substantially V-shaped in cross section *i. e.* the sides thereof being upwardly and outwardly inclined at its rear end and gradually varying in shape from end to end.

2. A locomotive boiler fire box in combination with a refractory front arch therein extending from side sheet to side sheet, the forward end of the arch being substantially horizontal in its center portion and the rear end thereof being V-shaped *i. e.* the sides thereof being upwardly and outwardly inclined, and the arch varying gradually in shape from end to end.

3. A locomotive boiler fire box in combination with a refractory front arch therein comprising at its forward end a central section which is horizontal and upwardly and outwardly inclined end sections, and at its rear end side sections similarly inclined and a center section which has sides inclined coincident with the side sections, the intermediate central portion of the arch varying gradually in inclination from one end to the other.

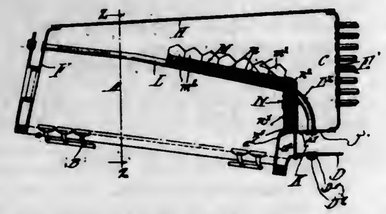
4. In a locomotive firebox a transverse arch comprising a plurality of longitudinally arranged panels or sections, the side panels being symmetrically arranged and inclined upwardly and outwardly at a uniform angle from end to end, the center sections being also symmetrically arranged

and varying in inclination from end to end the forward ends thereof being horizontal and the rear ends inclining upwardly and outwardly substantially coincident with the sides substantially as described.

5. A locomotive boiler fire box in combination with a longitudinally inclined refractory front arch therein, extending from side sheet to side sheet, having upwardly and outwardly inclined side portions extending from front to rear and arranged at substantially a constant angle to the side sheets and a middle portion which is V-shaped and the sides of which vary in inclination transversely to the arch from end to end thereof the rear ends thereof being substantially in the planes of the sides.

[Claims 6 and 7 not printed in the Gazette.]

1,138,057. STEAM-BOILER. JOHN P. NEFF, East Orange, N. J., assignor, by mesne assignments, to American Arch Company, New York, N. Y., a Corporation of Delaware. Filed May 12, 1913. Serial No. 767,055. (Cl. 110—87.)



1. In a locomotive boiler, a fire box having a barrel-like projection extending into the body of the boiler from the forward end of the fire box and serving as an auxiliary combustion chamber, in combination with water-circulating tubes extending longitudinally through the fire box rising from the lower portion of the extension and extending thence rearwardly and upwardly to the rear end of the fire box, a refractory transverse wall arranged at the rear end of the auxiliary combustion chamber and a refractory arch composed of refractory bricks supported by and wedgingly engaging the tubes and extending from the rear face of the wall, said wall serving to brace the tubes against the wedging action of the arch bricks.

2. In a locomotive boiler the combination with a fire box having an auxiliary combustion space extending forward into the barrel of the boiler beyond the front water leg and closed at its forward end by the flue sheet, a refractory baffle wall closing the lower part of the mouth of said extension and water circulating tubes rising from the floor of the extension between the wall and the flue sheet and extending rearwardly and upwardly through the fire box and through said refractory wall as and for the purpose specified.

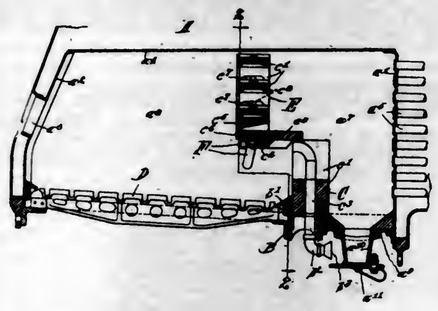
3. In a locomotive boiler having a fire box of the extension combustion chamber type closed at its forward end by the flue sheet, a refractory baffle wall arranged in the mouth of said extension and partially closing the entrance thereto, and water circulating tubes rising from the floor of the extension between the baffle wall and the flue sheet and extending rearwardly and upwardly through the fire box and through the upper part of said refractory wall, as and for the purpose specified.

4. In a locomotive boiler the combination with a fire box of the extension combustion chamber type of longitudinally arranged water circulating tubes extending from the lower part of said extension and inclined upwardly and rearwardly through the fire box, a refractory baffle wall resting upon the floor of said extension and arranged substantially above the front water leg of the fire box and engaging said tubes above their lower ends whereby the tubes and the wall mutually support each other.

5. In a locomotive boiler having a fire box of the extension combustion chamber type closed at its forward end by the flue sheet, a refractory baffle supported in the mouth of said extension and partially closing the entrance thereto, water circulating tubes rising from the floor of the extension between the baffle wall and the flue sheet and extending rearwardly and upwardly through the fire box and through the upper part of said refractory wall, and a rearwardly inclined refractory front arch supported by and upon the tubes, the forward end of the arch resting against the upper part of said baffle wall whereby the arch is held in position.

[Claim 6 not printed in the Gazette.]

1,138,058. LOCOMOTIVE-BOILER FIRE-BOX. JOHN P. NEFF, East Orange, N. J., assignor, by mesne assignments, to American Arch Company, New York, N. Y., a Corporation of Delaware. Filed Oct. 1, 1913. Serial No. 792,783. (Cl. 110—76.)



1. In a locomotive boiler firebox, a refractory baffle extending from the grate to the crown sheet and from side to side in the firebox and spaced rearwardly from the flue sheet dividing the firebox into an auxiliary combustion chamber in the forward part, and a main combustion chamber in the rear part, the lower part of the baffle preventing the direct flow of gases from the fuel bed to the flues and the upper part comprising checker-work permitting the gases to flow forwardly from the main combustion chamber to the auxiliary combustion chamber, and transverse water circulating tubes extending from side to side of the firebox supporting said checker-work in position.

2. In a locomotive boiler firebox, a refractory wall extending across the firebox extending from the grate to the crown sheet and spaced rearwardly from the flue sheet, the lower part being adapted to prevent the flow of gases from the fuel bed to the flues and being provided with air inlet passages adapted to permit air to enter the firebox over the fuel bed, the upper part of the baffle being composed of a refractory wall having openings through which the gases of combustion may flow from the fuel bed to the flues and being offset rearwardly from the lower part, refractory slabs filling in the space between the lower part and the upper part, and said air inlets being adapted to inject air into the firebox beneath said slabs.

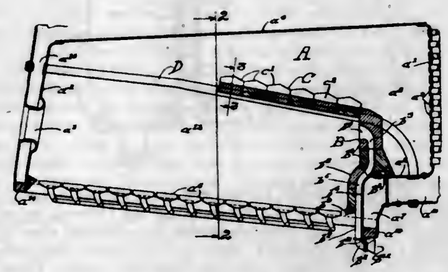
3. In a locomotive boiler firebox, a refractory baffle spaced from the flue sheet and adapted to divide the firebox into an auxiliary combustion chamber at the forward end and a main combustion chamber at the rear end, the lower part of said wall being arranged at the forward end of the grate and adapted to prevent the flow of gases from the fuel bed to the flues, the upper part of the wall being spaced rearwardly from the lower part and connected thereto by means of refractory slabs, means supporting the upper part of the wall in position, the lower part of the wall having air inlets through which air is admitted to the firebox beneath said slabs.

4. In a locomotive boiler firebox, a refractory baffle in the forward end thereof extending from the grate to the crown sheet and from side to side of the firebox and composed of a lower imperforate part and an upper part having gas passages to permit the flow of gases from the fuel bed to the flues, the upper part being offset rearwardly from the lower part, transversely extending water-circulating tubes supporting the upper part in position, and refractory slabs resting at the rear ends upon said tubes and upon which the upper part of the wall is supported and resting at their forward ends upon said wall and serving to close the space between the upper part and lower part of the baffle, one of said slabs being easily removable to permit entrance to the space between the baffle and the flue sheet.

5. In a locomotive boiler firebox, a cross wall rising from the grate to substantially half the height of the firebox and spaced from the flue sheet, transversely extending water-circulating tubes arranged in the firebox spaced rearwardly from the upper edge of said wall, refractory slabs resting at their rear ends upon said tubes and at their forward ends upon said wall and closing the space between the tubes and the wall, an auxiliary wall resting on said slabs and rising to the crown sheet, said auxiliary wall being provided with gas passages to permit the flow of gases from the fuel bed to the flues, a refractory bridge member resting on said slabs and serving to support said wall, said bridge member spanning one of said slabs and being provided on its underside with a recess permitting the free removal of said spanned slab.

[Claims 6 to 9 not printed in the Gazette.]

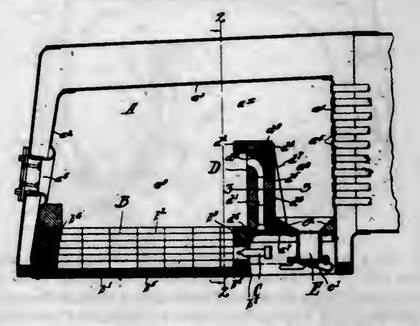
1,138,059. LOCOMOTIVE-BOILER. FREDERICK F. GAINES, Savannah, Ga., assignor, by mesne assignments, to American Arch Company, New York, N. Y., a Corporation of Delaware. Filed Oct. 13, 1913. Serial No. 794,913. (Cl. 110—76.)



1. In a locomotive boiler fire box of the extension fire box type, a refractory cross wall closing the lower part of the mouth of the extension, water circulating tubes rising from the floor of the extension and extending upwardly and rearwardly therefrom to the rear end of the fire box, a refractory arch composed of a plurality of fire brick supported on and by said tubes and extending upwardly and rearwardly through the fire box from the upper end of said wall, said wall being provided with air conduits extending from the lower end of the fire box in contact with the rear wall of the front water leg, and centrally through the wall and provided at their upper ends with discharge openings adapted to emit heated air from the rear face of the wall beneath the arch and above the fuel bed.

2. In a locomotive boiler fire box of the extension fire box type, a refractory cross wall closing the lower part of the mouth of the extension provided with vertically extending, transversely spaced air conduits, and having relatively narrow, hollow refractory portions extending downwardly to the level of the grate adapted to feed air to said conduits, a bracket secured to the rear wall of the front water leg of the boiler, and supporting said downwardly extending portions, and air inlet pipes extending upwardly from the lower part of the fire box one for each conduit and feeding air to said hollow extensions of the wall, whereby air is admitted through the conduits to the fire box above the fuel bed.

1,138,060. LOCOMOTIVE-BOILER FURNACE. FREDERICK F. GAINES, Savannah, Ga., assignor, by mesne assignments, to American Arch Company, New York, N. Y., a Corporation of Delaware. Filed July 24, 1913. Serial No. 780,968. (Cl. 158—3.)



1. A locomotive boiler fire box closed at its lower end and having a refractory lined combustion chamber in the rear part thereof, an oil burner adapted to project oil into said combustion chamber and a refractory cross wall rising within the fire box at the forward end of the combustion chamber and spaced rearwardly from the flue sheet, preventing the direct flow of the products of combustion from the combustion chamber to the flues, and a normally closed opening in the lower part of the fire box, arranged between the cross wall and the flue sheet.

2. A locomotive fire box closed at its lower end and having a refractory lined combustion chamber in the rear part thereof, the forward end of the combustion chamber being spaced rearwardly from the flue sheet and provided with a burner opening, a vertical cross wall rising within the fire box substantially above said burner opening and provided with air-admission passages ending in flared air admission inlets opening through the rear face of the wall, as and for the purpose specified.

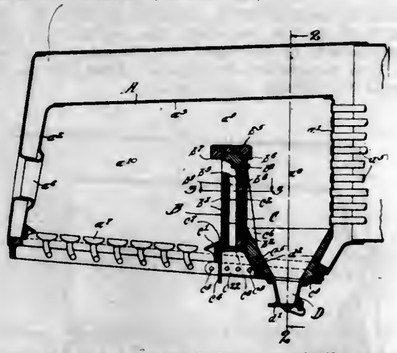
3. A locomotive boiler fire box in combination with a refractory bottom closure therefor provided in its rear part with a depressed combustion chamber, the forward wall of said chamber being spaced rearwardly from the flue sheet and provided with a burner opening, a refractory cross-wall rising within the fire box above said burner opening extending from side to side of the fire box and provided with air channels rising within the wall and which are flattened in the plane of the wall and adapted to discharge heated air into the fire box through the rear face of the wall.

4. A locomotive boiler fire box, closed at its lower end and having a refractory combustion chamber in the rear part thereof, the forward wall of said combustion chamber containing a burner opening, a refractory cross wall rising within the fire box above said burner opening and provided at its upper edge with a rearwardly projected ledge or coping and having oval air passages rising within the wall adapted to discharge heated air through the rear face of the wall below said ledge or coping.

5. A locomotive boiler fire box, closed at its lower end and having a refractory combustion chamber in the rear part thereof, the forward wall of said combustion chamber being spaced rearwardly from the flue sheet and provided with a burner opening, a refractory cross wall rising within the fire box above said burner opening and provided at its upper edge with a rearwardly projected ledge or coping and having oval air passages rising within the wall ending in flared air openings positioned to discharge heated air through the rear face of the wall below said ledge or coping.

[Claim 6 not printed in the Gazette.]

1,138,061.. LOCOMOTIVE-BOILER FURNACE. FREDERICK F. GAINES, Savannah, Ga., assignor, by mesne assignments, to American Arch Company, New York, N. Y., a Corporation of Delaware. Filed July 24, 1913. Serial No. 780,966. (Cl. 110—76.)



1. In a locomotive boiler firebox a vertically arranged cross wall in the forward end thereof extending from side to side and rising from substantially the level of the grate, a metallic wall supporting member extending from side to side, supported by the firebox and retaining the wall in position, said member comprising a horizontal shelf upon which the wall rests and an integral vertically extending wall retaining plate in contact with the formed face of the wall and substantially co-extensive therewith and cap bricks forming the upper edge of the wall adapted to interlock the upper part of the wall and the upper part of the wall retaining plate and means for retaining the lower part of the wall in position on the shelf.

2. In a locomotive boiler firebox a refractory cross wall in the forward end thereof rising from substantially the level of the grate and composed of a plurality of horizontal rows of refractory bricks, a metallic bridge member retaining the wall in position, extending from side to side of the firebox and supported thereby, said member comprising a wall receiving shelf and a vertically extending wall retaining plate, the shelf and the plate being formed integrally with each other, said plate being in contact with the forward face of the wall and substantially co-extensive therewith and refractory cap bricks forming the upper edge of the wall and provided with depending forward ends overlapping the upper edge of the plate, and depending rear ends overlapping the upper edge of the wall whereby the wall and plate are bound together and a vertically extending rib or ledge on the rear edge of the shelf adapted to retain the lower part of the wall on the shelf, the several rows of bricks being provided with interlocking tongues and grooves whereby the intermediate rows of bricks are retained in position.

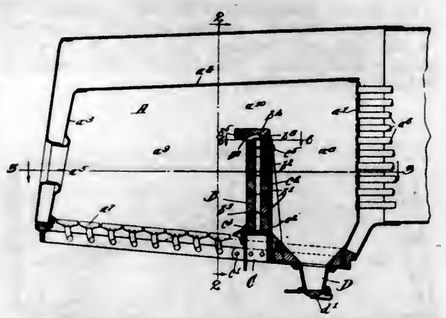
3. In a locomotive boiler fire box a transverse refractory wall arranged in the forward end thereof and extending from side to side, a metallic bridge member supporting the wall in position and comprising a wall shelf and a wall retaining plate integrally formed together, means for securing said member to the sides of the fire box, the wall having vertically extending air conduits adapted to admit air into the fire box above the grate, the shelf being provided with openings registering with said air conduits and a depending flange or plate on the rear edge of the shelf of a size to extend below the lower end of the fire box and adapted to direct air into said openings.

4. In a locomotive boiler fire box a refractory cross wall arranged in the forward end thereof extending from side to side, a metallic bridge member retaining said wall in position and provided with a horizontal shelf and a vertically extending plate formed integrally with the shelf and adapted to contact with the forward face of the wall, means for holding the wall in position on said bridge member, a vertically arranged depending plate at the rear edge of the shelf closing the forward end of the grate space of the fire box and a forwardly inclined depending plate at the forward edge of the shelf, said depending plates, shelf and vertically extending wall retaining plate being integrally formed, means for closing the space between the forward edge of the inclined plate and the forward end of the fire box and a normally closed cinder outlet arranged between the wall and the flue sheet through which cinders may be withdrawn from the firebox.

5. In a locomotive boiler fire box a refractory cross wall arranged in the forward end thereof extending from side to side and composed of a plurality of bricks arranged in horizontal rows, a metallic wall support spanning the firebox and supported thereby, said support comprising a horizontally extending wall shelf arranged beneath the wall and a buck stay plate formed integrally therewith extending upwardly from the shelf in contact with the forward face of the wall, integral means for retaining the lower rows of bricks upon the shelf and cap bricks interlocking the upper row of bricks with the upper edge of the plate portion, the intermediate rows of bricks being interlocked with the lower and upper rows and thereby retained in position.

[Claims 6 to 9 not printed in the Gazette.]

1,138,062. LOCOMOTIVE-BOILER FIRE-BOX. LE GRAND PARISH, New York, N. Y., assignor, by mesne assignments, to American Arch Company, New York, N. Y., a Corporation of Delaware. Filed Oct. 1, 1913. Serial No. 792,855. (Cl. 110—76.)

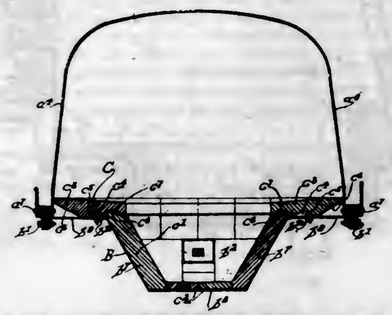


A locomotive boiler firebox and its grate, in combination with a cross wall in the firebox at the forward end of the grate, said wall being composed of horizontal rows of suitably stayed refractory bricks and extending from side to side of the firebox, a row of refractory coping bricks stayed on the top row of wall bricks, said coping bricks overhanging the rear of the wall, and said bricks containing a plurality of air passages terminating in a sub-divided, but substantially continuous, slot at the juncture of the wall and coping.

1,138,063. OIL-BURNING LOCOMOTIVE. JOHN P. NEFF, East Orange, N. J., assignor, by mesne assignments, to American Arch Company, New York, N. Y. a Corporation of Delaware. Filed Oct. 1, 1913. Serial No. 792,782. (Cl. 158—3.)

1. In a locomotive boiler fire box, a metal structure closing the lower end thereof and having a depressed central portion forming a fuel oil combustion chamber, said depressed portion having a floor and upwardly extending side walls, a horizontal shelf joining the side walls to the lower part of the fire box, projections rising from said shelf, fire bricks resting on said shelf having shoulders engaging with said projections and being held on the shelf thereby, fire bricks covering said side walls and having interlocked engagement with the shelf bricks whereby said bricks are held in position.

2. In an oil burning locomotive boiler, a firebox having a marginal shelf secured at its outer edge to the lower part of the fire box and a depressed central portion having a substantially horizontal floor and upwardly extending sides, spaced projections on the shelf, refractory bricks resting on the shelf and having shoulders engaging said projections to hold the bricks in place, and refractory bricks lining the sides of said depressed portion having upwardly extending projections interlocking with said shelf bricks, whereby the said bricks are held against displacement.



3. In a locomotive boiler, a fire-box pan joined at its edges to the lower edge of the fire box, said pan having a marginal shelf-like portion and a depressed central portion, fire bricks resting on and covering said shelf portion, inwardly projecting parts on the lower edge of the fire box above said pan, said shelf bricks being cut away on the lower sides of their outer ends to overlap said projections, upwardly extending projections on said pan and shoulders on said shelf bricks engaging said upwardly extending projections, said bricks being held in position thereby, refractory bricks lining said depressed portion and having upwardly extending projections interlocking with the inner ends of said shelf bricks, whereby said lining bricks are held against displacement.

4. In a locomotive boiler fire-box, a closed pan having a depressed central portion provided with upwardly and outwardly inclined side walls, a substantially horizontal shelf joining the upper edges of said side walls to the lower edges of the fire-box, fire bricks lining the upwardly extending sides of said depressed portion, other refractory bricks covering the floor of said depressed portion and holding the lower ends of the said bricks in position, shelf bricks protecting said shelf and having interlocking engagement at their inner ends with the upper ends of said side bricks, upwardly extending projections on said shelf and shoulders on the side bricks engaging said projections whereby the side bricks are held in position.

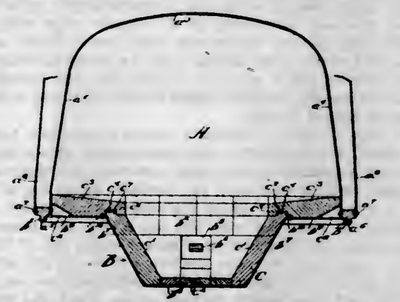
5. In a locomotive fire box a bottom closing pan having a depressed central portion and a horizontal shelf joining the edges of the depressed portion to the fire box, refractory bricks lining the bottom and sides of the depressed portion and refractory bricks protecting the shelf, the inner ends of the shelf bricks and the upper ends of the side bricks being interlocked, as and for the purpose specified.

[Claim 6 not printed in the Gazette.]

1,138,064. OIL-BURNING LOCOMOTIVE. JOHN P. NEFF, East Orange, N. J., assignor, by mesne assignments, to American Arch Company, New York, N. Y., a Corporation of Delaware. Original application filed Oct. 1, 1913, Serial No. 792,782. Divided and this application filed Oct. 26, 1914. Serial No. 868,652. (Cl. 158—3.)

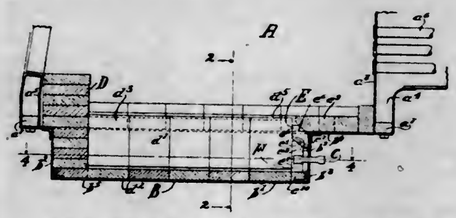
1. In a locomotive fire box a bottom closing pan having a depressed central portion surrounded by a marginal substantially horizontal shelf, refractory bricks lining the bottom and sides of the depressed portion, and refractory bricks covering said shelf, said shelf bricks being provided with grooves in their lower sides, rigid projections on the shelf entering said grooves and said side bricks having projections rising above said shelf and entering said grooves, as and for the purpose specified.

2. In a locomotive fire box a bottom closing pan having a depressed central portion and a horizontal shelf joining the edges of the depressed portion to the fire box, an upstanding rib on the inner edge of the shelf, refractory bricks lining the bottom and sides of the depressed portion and refractory bricks protecting the shelf, the inner ends of the shelf bricks having grooves receiving both said ribs and the upper ends of said side bricks, as and for the purpose specified.



3. In a locomotive fire box a bottom closing pan having a depressed central portion surrounded by a marginal substantially horizontal shelf, refractory bricks lining the bottom and sides of the depressed portion, and refractory bricks covering said shelf, an upstanding metallic rib extending along the inner edge of the shelf, said side bricks having projections rising above said shelf and said shelf bricks having grooves in their lower sides to receive said ribs and said projections, as and for the purpose specified.

1,138,065. OIL-BURNING LOCOMOTIVE-FURNACE. GUY M. BEAN, Los Angeles, Cal., assignor, by mesne assignments, to American Arch Company, New York, N. Y., a Corporation of Delaware. Filed Aug. 3, 1914. Serial No. 854,783. (Cl. 158—3.)



1. In a locomotive fire box, a bottom closing pan having a substantially vertical wall at one end provided with a burner opening, a refractory lining for said pan, the lining of said wall comprising a lower and upper row of refractory bricks, two of the lower bricks being spaced apart to form the sides of said opening, the upper edges of the lower bricks being formed to provide a V-shaped groove between the bricks and said wall, the lower edges of the upper bricks being conformed to and with the upper edges of the lower bricks and being thereby maintained in position against said vertical wall.

2. In a locomotive fire box a bottom closing pan having a substantially vertical wall at one end provided with a burner opening, a refractory lining for said pan composed of a plurality of slab like fire bricks, the lining for said vertical wall being composed of a lower and an upper row of fire bricks set on edge, two of the bricks of the lower row being spaced apart to form the sides of said burner opening, the upper edges of the said lower bricks being inclined outwardly and downwardly to form a V-shaped groove between the bricks and said wall, the upper row of bricks conforming on their lower edges with the upper edges of the lower row and being thereby retained in position against said wall, one of the upper row of bricks spanning said burner opening and resting on its ends upon

the spaced lower bricks and refractory means holding said spaced lower bricks in spaced relation.

3. In a locomotive fire box, a bottom closing pan having a substantially vertical wall at one end provided with a burner opening, a refractory lining for said pan composed of a plurality of individual slab like bricks, the lining for said vertical wall comprising a lower row of two bricks set on edge and spaced apart to form the sides of said opening and having outwardly and downwardly inclined upper edges, and an upper row of bricks resting upon said lower row and conforming on their lower edges with the upper edges thereof, one of said upper row of bricks spanning said opening and resting upon the bricks forming the sides thereof and a refractory brick upon the bottom of said pan spacing said two lower bricks apart and holding them in spaced relation.

4. In a locomotive fire box a bottom closing pan having a vertical wall adjacent to one end provided with a burner opening, a horizontal floor plate connecting the upper edge of said vertical wall with the forward water leg of the fire box, a refractory lining for said pan comprised of a plurality of individual slab like fire bricks, the lining for wall being composed of a lower and an upper row of bricks set on edge, the lower row consisting of two bricks spaced apart to form the sides of said opening and having outwardly and downwardly inclined upper edges, the bricks of the upper row having their lower edges conformed to and with the upper edges of the lower row and being thereby retained in position, a refractory member on the bottom of the pan spacing said two lower bricks apart, floor bricks on said horizontal plate, and said upper row rising above said horizontal plate and said floor bricks overhanging said upper bricks, whereby said floor bricks and said upper row of bricks mutually retain each other in position.

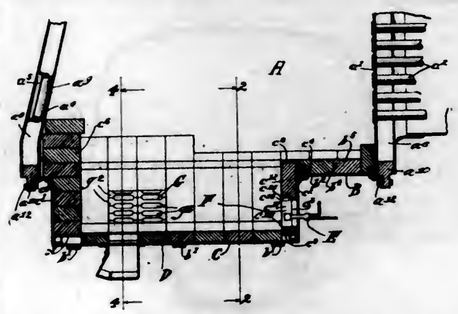
5. In a locomotive fire box a bottom closing pan having a vertical wall adjacent to one end and provided with a burner opening, a horizontal floor plate connecting the upper edge of said wall with the front water leg of the fire box, a refractory lining for said pan composed of a plurality of individual slab like fire bricks, the lining for said vertical wall being composed of a lower and an upper row of bricks set on edge, the lower row conforming in height with the height of said opening, and two thereof being spaced apart to form the sides of said opening, a refractory member arranged between said two bricks and holding them in spaced relation, the outer portions of the upper edges of the lower row of bricks being lower than their inner portions, the lower edges of the upper row conforming to and with the upper edges of the lower row, whereby they are held in position against said vertical wall, the upper edges of said upper row being outwardly and downwardly inclined and rising above said horizontal floor plate and floor bricks covering said floor plate, the rear row of which, have their rear edges conformed to and with the upper edges of the upper row of end bricks whereby they mutually retain each other in position.

[Claims 6 and 7 not printed in the Gazette.]

1,138,066. LOCOMOTIVE-BOILER FIRE-BOX. GUY M. BEAN, Los Angeles, Cal., assignor, by mesne assignments, to American Arch Company, New York, N. Y., a Corporation of Delaware. Filed Aug. 3, 1914. Serial No. 854,784. (Cl. 158—3.)

1. A locomotive boiler firebox in combination with a bottom closing pan provided with a centrally disposed longitudinally extending semi-cylindrical portion depending below the lower edge of the firebox, horizontally disposed floor plates connecting the depressed portion with the lower edge of the firebox, a lining for said pan chiefly comprising a plurality of substantially identical curved bricks arranged within said depressed portion, the outer edges of said lining extending above said floor plates, and flat refractory bricks on said horizontal floor plates and held in place by the upper edges of the curved bricks.

2. A locomotive boiler firebox in combination with a bottom closing pan, having a longitudinally extending centrally disposed substantially semi-cylindrical depressed portion, horizontally disposed floor plates connecting the edge portions of the depressed portion with the lower side edges of the firebox, the lateral edges of the semi-cylindrical portion of the pan rising above the horizontal floor plates and serving as retaining abutments for floor bricks placed upon said floor plates.



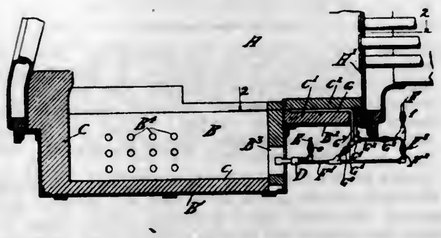
3. The fire box of an oil burning locomotive and a pan closing the lower end thereof, said pan having a longitudinally extending depressed portion, and one end of said depressed portion being provided with a burner opening, in combination with an oil burner smaller than the opening in said end and adapted to project oil longitudinally through said depressed portion, auxiliary air inlets in the wall of said depressed portion adjacent to the opposite end of said depressed portion, said inlets being formed of elongated narrow bricks having recessed sides arranged side by side with their recesses in registry.

4. A locomotive boiler fire box in combination with a bottom closing pan having an elongated depressed portion, provided with a burner opening in one end and having a plurality of longitudinally elongated auxiliary air inlets in its side walls adjacent the end opposite to the burner opening, said inlets being formed of narrow elongated bricks having recessed sides and together forming a plurality of narrow elongated air inlets.

5. A locomotive boiler fire box in combination with a bottom closing pan having a semi-cylindrical elongated depressed portion, one end of said depressed portion being provided with a burner opening, and the side walls thereof being provided with auxiliary air inlets adjacent to the end opposite to said burner, said inlets being formed by narrow elongated bricks having recessed sides and arranged side by side and adapted when thus arranged to provide a plurality of narrow elongated air inlets.

[Claims 6 to 12 not printed in the Gazette.]

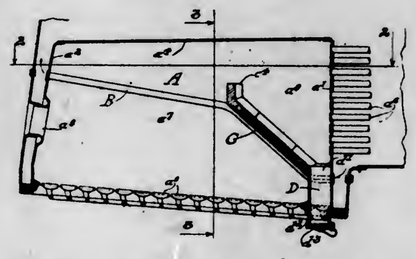
1,138,067. OIL-BURNING LOCOMOTIVE-FURNACE. GUY M. BEAN, Los Angeles, Cal., assignor, by mesne assignments, to American Arch Company, New York, N. Y., a Corporation of Delaware. Filed Aug. 3, 1914. Serial No. 854,785. (Cl. 158—3.)



1. A locomotive boiler and its firebox, in combination with a pan which closes the bottom of the firebox, and having a substantially horizontal shelf portion, said pan and shelf being floored with refractory material, a burner beneath said shelf and positioned to project a stream of oil and steam into said pan, an oil supply pipe connected with said burner, and a superheating coil embedded in the refractory material on said shelf and having its ends connected with the boiler and burner respectively, for the purposes described.

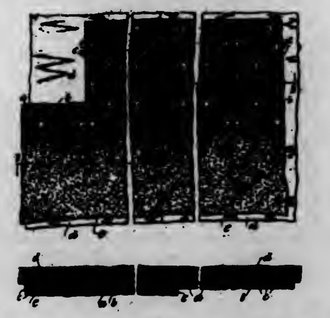
2. A locomotive boiler and its firebox, in combination with a pan which closes the bottom of the firebox and having a substantially horizontal shelf portion, carrying two layers of refractory bricks, a burner beneath said shelf and positioned to project a stream of oil and steam into said pan, an oil supply pipe connected with said burner, and a superheating coil positioned between said layers of bricks and having its ends connected with the boiler and burner respectively, for the purposes described.

1,138,068. LOCOMOTIVE-BOILER FURNACE. JOHN P. NEFF, East Orange, N. J., assignor, by mesne assignments, to American Arch Company, New York, N. Y., a Corporation of Delaware. Filed Oct. 1, 1913. Serial No. 792,780. (Cl. 110—87.)



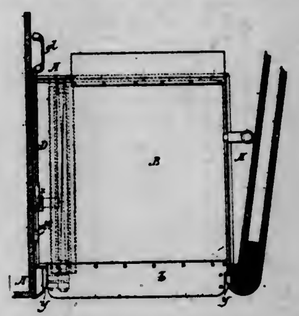
A locomotive boiler and its contained firebox, flue-sheet, flues and grate in combination with a number of arch tubes extending upwardly and rearwardly from the lower part of said flue sheet, refractory arch bricks supported by said tubes and therewith forming an imperforate baffle or arch which abuts said flue sheet and extends from side to side of the firebox, a vertical cinder chute or pocket fixed between two of said arch tubes, the upper end of said chute opening through said arch and its lower end opening through said grate, and a movable closure upon the lower end of the chute below said grate.

1,138,069. STUCCOLIKE SIDING FOR BUILDING PURPOSES. ADDISON APPLEGATE, Liberty, N. Y. Filed July 21, 1914. Serial No. 852,131. (Cl. 72—127.)



A stucco-like siding for buildings which comprises a series of composite sheets each composed of a base of water-proof fabric, a pitchy water-proof coating thereon and a granular coating applied to the pitchy coating to form a binding surface upon the water-proof base, strips of water-proof fabric disposed respectively under the butt joints of the adjacent composite sheets, and a comparatively thin and continuous surface coating of stucco applied on the granular coating, said composite sheet and strips of water-proof fabric being secured in place on the building by means of nails placed at frequent intervals.

1,138,070. TRAP-DOOR FOR RAILWAY-CARS AND SIMILAR STRUCTURES. ROY T. AXE, Syracuse, N. Y., assignor to Oliver M. Edwards, Syracuse, N. Y. Filed Oct. 6, 1910, Serial No. 585,640. Renewed Sept. 20, 1912. Serial No. 721,519. (Cl. 105—88.)



1. A trap door of the character described provided with means for hinging it in place to close an opening, which means is adapted to permit the door to turn thereon and move lengthwise of the axial line of such means, and means a portion of which is engageable with the door to move it lengthwise of its axial line of hinging independently of the turning of the door on its hinging means, substantially as set forth.

2. A trap door of the character described provided with means for hinging it in place to close an opening which means is adapted to permit the door to turn thereon and move lengthwise of the axial line of such means, and means a portion of which is in the form of a lever and is adapted to control the movement of the door lengthwise of the axial line of hinging independently of the turning of the door on its hinging means, substantially as set forth.

3. A trap door of the character described provided with means for hinging it in place to close an opening, which means is adapted to permit the door to turn thereon and move lengthwise of its axial line of hinging, and means a portion of which is engageable with the door and another portion is adapted to be movably mounted in place to move the door lengthwise of its hinging independently of the turning of such door on its hinging means, substantially as set forth.

4. A trap door of the character described provided with means for hinging it in place to close an opening, which means is constructed in two parts one of which is secured to the main portion of the door and is provided with receiving and holding means on opposite portions thereof and the other of which is received by and is slidable within the part secured to the door lengthwise of the axial line of such hinging means, substantially as set forth.

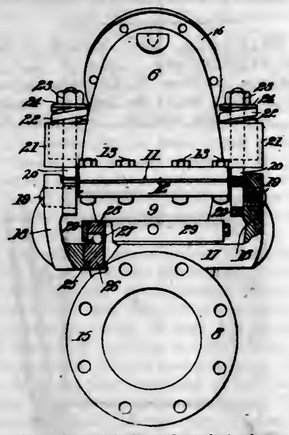
5. A trap door of the character described provided with means for hinging it in place to close an opening, which means is constructed in two parts, one of which is secured to the main portion of the door and the other is secured in place to coact with the part secured to the door, which parts are so shaped that one part is received, held and guided in an endwise direction by suitable means formed on opposite portions of both parts with a small portion only of one part in frictional contact with the other part, substantially as set forth.

[Claims 6 to 29 not printed in the Gazette.]

1,138,071. BALL-AND-SOCKET PIPE-JOINT. CHARLES W. BEAUFORT, Augusta, Ga. Filed July 1, 1914. Serial No. 848,517. (Cl. 137—88.)

1. The combination of ball and socket pipe members fitting together, a yoke rotatably held on one of said mem-

bers, and pivoted yielding connections between said yoke and the other member.



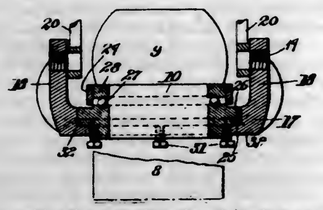
2. The combination of ball and socket pipe members fitting together, a turning yoke mounted on one of said members and having arms at opposite sides projecting beside the other member, and longitudinally yieldable connections pivoted to said arms and engaging said other member.

3. The combination of ball and socket pipe members fitting together, one of said members having lugs at opposite sides, and an external swiveling connection between said members, including pivoted link bolts and springs between said bolts and the lugs.

4. The combination of ball and socket pipe members fitting together, one of said members having lugs at opposite sides, a yoke rotatably mounted on the other of said members, links pivoted to the yoke, and springs in compression between the links and the lugs, to draw the said members together.

5. The combination of ball and socket pipe members fitting together, a yoke rotatably mounted on one of said members and having arms at opposite sides, bolts pivoted to said arms, and springs between the bolts and the other member, and tending to draw said members together.

1,138,072. COUPLING. CHARLES W. BEAUFORT, Augusta, Ga. Filed Sept. 1, 1914. Serial No. 859,689. (Cl. 137—88.)



1. The combination of ball and socket pipe members fitting together, a yoke pivotally connected between said members, a bearing between said yoke and one of said members, and means to adjust the yoke relative to the bearing, to center the pivots with respect to the ball.

2. The combination of ball and socket pipe members fitting together, the ball member having a reduced neck behind the ball, a connecting yoke between said members, including a ring surrounding said neck, a roller bearing between said ring and ball member, and means to adjust said ring with respect to the bearing.

3. The combination of ball and socket pipe members fitting together, a connecting yoke between said members, pivotal connections between the yoke and one of said members, in line with the center of the ball, and a bearing between the yoke and the other member, the yoke being adjustable with respect to the bearing, to set the pivotal axis in proper alinement with said center.

4. The combination of ball and socket pipe members fitting together, a yoke pivotally connected to one of said members, and a bearing between the yoke and the other member, said bearing including a ring, and means between the ring and the yoke to adjust the yoke to vary its position relative to the ring.

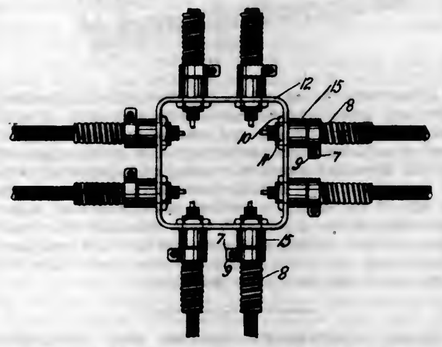
5. The combination of ball and socket pipe members fitting together, a yoke pivotally connected to one of said members, said yoke including a ring around the other member, a bearing between said ring and said other member, including a bearing ring, and adjusting screws between the yoke ring and the bearing ring.

1,138,073. CASE-HARDENING COMPOUND. ALFRED O. BLAICH, Chicago, Ill. Filed Oct. 18, 1913. Serial No. 795,873. (Cl. 148—25.)

1. A case-hardening compound comprising charred leather and a small per cent. of a sodium salt and a small per cent. of calcium carbonate thoroughly intermixed.

2. A case-hardening compound consisting of charred leather impregnated by an infusion of a small per cent. of a sodium salt and a small per cent. of calcium carbonate.

1,138,074. CONNECTOR. WILLIAM A. BONNELL, Brooklyn, N. Y. Filed Sept. 29, 1910. Serial No. 584,554. (Cl. 247—1.)



A connector for outlet boxes comprising a body portion having at one end means for detachably securing the connector to the box and having adjacent said end an annular shoulder adapted to abut against the exterior wall of the box to position said connector thereon, said shoulder also forming a shoulder within the connector adjacent the inner end thereof to form a stop for the armor when thrust into said connector, said connector having at its opposite end a pair of resilient clamping arms, each of said arms having a plurality of spiral ridges on its inner side of a pitch corresponding to the spiral armor of the conduit, said body portion between said shoulder and clamping arm, respectively, forming a pocket or socket for the free reception of the end of the armor of the conduit, whereby the conduit may be gripped at a considerable distance from its inner end, and said ridges may firmly engage the spiral grooves of said armor to aid the clamping effect of said arms in holding the conduit securely in place.

1,138,075. VENDING-MACHINE. ALTON H. BOWMAN, Allentown, Pa. Filed Aug. 20, 1912. Serial No. 715,998. (Cl. 194—39.)

1. The combination in a vending machine, of a casing; a transverse partition therein separating the compartment holding the commodity from that for the reception of the coins; a sliding tray mounted on the partition and less in width than the casing and having a platform supporting the commodity, the partition having a coin slot located between one edge of the tray and the casing; a trigger pivotally mounted close to the coin slot and having one arm with a lateral projection at the lower end and another arm extending across the casing and through the partition, said arm having a horisontal portion; a cam on the tray arranged to pass under the horisontal portion of the last mentioned arm of the trigger after a coin is located in the slot, so as to release the coin when the tray is pushed into the casing.

2. The combination in a vending machine, of a casing having an internal longitudinal groove at each side; a slotted transverse partition having ribs fitting the grooves; a tray movably mounted in the partition and having a depending lug adapted to the slot in the partition; a spring secured to the lug and to the partition to return the tray to its normal position after it is forced into the casing; a wire bent in the form of a trigger pivotally mounted on the underside of the partition; said partition having a coin slot therein; one arm of the wire trigger being bent to extend into the coin slot; the other arm of the trigger being bent to engage the sliding tray so that when the coin passes into the coin slot it will turn the trigger on its pivot, releasing the tray and allowing it to be pushed in to receive the commodity.

3. The combination of a casing; a transverse horisontally arranged partition having extensions; a tray arranged to slide on the partition; means for preventing the tray returning after being once moved out until it is moved to the full extent, said tray being less in width than the casing, said partition having a coin slot between the side of the tray and the casing and said partition having an opening at the opposite side at a point back of the tray when it is projected; plates secured to the extensions of the partition, forming a continuation of the coin slot; a trigger pivotally mounted under the partition and having a V-shaped arm provided with a projection at its lower end arranged to retain the coin in the slot, the trigger having another arm projecting through the opening in the partition having a right angled extension projecting over a portion of the tray when the tray is pushed in, said portion of the tray having an arm for engaging the last mentioned arm of the trigger so as to lift it and release the coin from the control of the other arm.

1,138,076. CUTTING IMPLEMENT. ALICE O. BRIGANCE, Navasota, Tex. Filed May 16, 1914. Serial No. 839,110. (Cl. 55—41.)



1. A device of the character described comprising a plate adapted to engage beneath the sole of a shoe or the like, said plate being provided with a knife edge, an extension carried by the rear portion of such plate and adapted to abut the arch of the shoe or the like, such extension being provided with a depending flange adapted to contact with the inner end of the heel of the shoe, such extension being provided with upwardly disposed wings to provide a clamping means for the device, and a pulverizing attachment overlying the extension of the plate and provided with depending prongs.

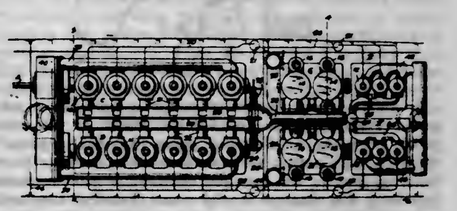
2. A device of the character described comprising a plate adapted to engage beneath the sole of a shoe or the like, said plate being provided with a knife edge, an extension carried by the rear portion of such plate and adapted to abut the arch of the shoe or the like, such extension being provided with a depending flange adapted to contact with the inner end of the heel of the shoe, such extension being provided with upwardly disposed wings to provide a clamping means for the device, and a pulverizing attachment overlying the extension of the plate and provided with depending prongs, the forward portion of such pulverizing attachment being provided with lateral extensions overlying the rear portion of the plate, certain of such prongs being carried by such lateral extensions.

3. A device of the character described comprising a plate adapted to engage beneath the sole of a shoe or the like, said plate being provided with a knife edge, an extension carried by the rear portion of the plate and adapted to abut the arch of the shoe or the like, said extension being provided with a depending flange adapted to contact with the inner end of the heel of the shoe, said extension being provided with upwardly disposed wings to provide a clamping means for the device, a plate in contact with the lower face of the first mentioned plate adjacent the forward extremity thereof and provided with extensions disposed through said first mentioned plate and having their free extremities united to afford a clip to receive the toe portion of a shoe or the like.

4. A device of the character described comprising a plate adapted to engage beneath the sole of a shoe or the like, said plate being provided with a knife edge, anchoring means carried by the rear portion of the plate, a plate in contact with the lower face of the first mentioned plate adjacent the forward extremity thereof and provided with extensions disposed through said first mentioned plate and having their free extremities united to afford a clip to receive the toe portion of a shoe or the like.

5. A device of the character described comprising a plate adapted to engage beneath the sole of a shoe or the like, said plate being provided with a knife edge, an extension carried by the rear portion of the plate and adapted to abut the arch of the shoe or the like, anchoring means carried by the plate and the extension, and a pulverizing attachment overlying the extension of the plate.

1,138,077. MARINE-ENGINE INSTALLATION. ALFRED BÜCHI, Winterthur, Switzerland, assignor to Busch-Sulzer Bros.-Diesel Engine Company, St. Louis, Mo., a Corporation of Missouri. Filed Oct. 22, 1912. Serial No. 727,119. (Cl. 123—52.)



1. In a power plant, the combination of Diesel engines arranged in parallelism at opposite sides of a longitudinal center line, there being two engines at each side of the center line spaced from each other longitudinally, air pumps located in the spaces between the engines at each

side of the center line, and a common scavenging air distribution system supplied by said pumps and arranged between the two proximate sides of the power plant.

2. In a marine power plant, the combination of a pair of propeller-driving Diesel engines arranged in parallelism, a pair of auxiliary Diesel engines likewise arranged in parallelism and spaced longitudinally from the propeller-driving engines, air pumps located between the main and auxiliary engines at each side, a common scavenging air distribution system supplied by said pumps and delivering to the various engines, and means for relatively controlling the supplies delivered to the propeller driving engines and to the auxiliary engines.

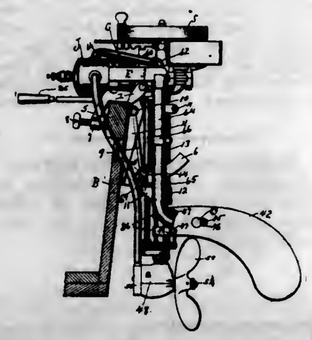
3. In a ship, the combination of a pair of propeller-driving Diesel engines disposed longitudinally and in parallelism, a pair of auxiliary Diesel engines likewise disposed longitudinally and in parallelism and spaced from the main engines, air pumps located between the main and auxiliary engines at each side for supplying both of them, a common receiver into which the pumps at opposite sides discharge their low pressure air, a common scavenging manifold communicating with one end of said receiver and extending longitudinally between said main engines, and connections between the other end of the receiver and the auxiliary engines.

4. In a ship, the combination of two longitudinally disposed parallel multiple cylinder Diesel engines, a common scavenging manifold disposed longitudinally between them, exhaust manifolds at their outer sides, and a common transverse header having connection with the stack and with the discharge ends of said exhaust manifolds.

5. In a marine power plant, the combination of a pair of main Diesel engines arranged in parallelism, a pair of auxiliary Diesel engines likewise arranged in parallelism and spaced longitudinally from the main engines, air pumps located between the main and auxiliary engines, part of the pumps being adapted to be driven by the main engines and part by the auxiliary engines, and a common distribution system which connects with both the main and the auxiliary engines and is supplied by the pumps of both the main and the auxiliary engines.

[Claim 6 not printed in the Gazette.]

1,138,078. MOTOR-OAR. EBEN BURROUGHS, Racine, Wis. Filed Jan. 15, 1914. Serial No. 12,290. (Cl. 115—18.)



1. An improved out-board motor comprising a water jacket engine, means for forcing water to the water jacket including an S-shaped pump chamber, a propeller operated gear and a meshing reversibly operable loosely mounted gear in the S-shaped chamber, a tubular connection from the chamber to the water jacket of the engine, an exhaust, an adjustable out-take with which the exhaust communicates, and a conduit between the water jacket and the out-take scavenging the cylinder by the operation of the water in conjunction with the spent gases establishing a partial vacuum within the exhaust, substantially as set forth.

2. In an out-board motor, the combination of a water jacket engine, a reversibly operable gear pump actuated by the propeller, a connection between the pump and the water jacket of the engine, an exhaust, an out-take with which the exhaust communicates and having its open end terminating under water, a conduit communicating with the water jacket and extending downward into the out-take and operating to cause the water in conjunction with the spent gases to establish a partial vacuum within the exhaust whereby to cause the cylinder to be scavenged, substantially as set forth.

3. In an out-board motor, an engine, a longitudinally adjustable rudder post supported therefrom, a longitudinally extensible steering post supported from the rudder post, a steering ring operatively connected with the lower end of the steering post, a rudder supported by the rudder post, and an operative connection between the rudder and the steering ring.

4. In an out-board motor, a rudder post, a casting carried thereby and provided with longitudinal slots, a rudder provided with an elongated slot, and bolts securing the casting and rudder together, and serving as a means to permit disconnection of the rudder from the casting.

5. In an out-board motor, the combination with an engine, of a clamp secured thereto and provided with a segmental arm, a rudder post, a clamp on the rudder post, and a pivoted brace bar connecting the two clamps.

[Claims 6 to 12 not printed in the Gazette.]

1,138,079. COLLAPSIBLE SHAFT. JAMES A. CAMERON and GUSTAF BIRGER BIRCH, New York, N. Y., assignors to Cameron Machine Company, Brooklyn, N. Y., a Corporation of New York. Filed Mar. 5, 1914. Serial No. 822,611. (Cl. 242—72.)



1. A collapsible shaft comprising: an inner driving member, a plurality of outer driven members, means extending through the inner member and securing said inner and outer members together permitting united circumferential revolution of the outer members with the inner member and permitting longitudinal adjustment of said members with relation to each other to expand and collapse the outer members, and circumferentially rotatable means connecting said inner and outer members for effecting said adjustment of the outer members.

2. A collapsible shaft comprising: an inner driving member, outer driven members, spacing members secured to said outer members, complementary cam faces on said spacing members and inner member, means extending through said inner member and loosely connecting said spacing members and inner member together permitting united circumferential revolution and longitudinal adjustment of the cam faces to expand and collapse the outer members, and rotatable means for effecting said longitudinal adjustment.

3. A collapsible shaft comprising: a core, an outer shell consisting of a plurality of segments, spacing members on said outer shell engaging with said core, means passing through the core for connecting the spacing members of different segments, and means for permitting said core and shell to be moved longitudinally with respect to each other to expand and collapse the outer shell.

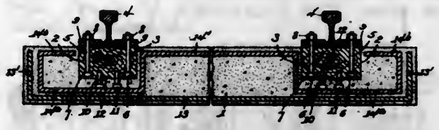
4. A collapsible shaft comprising: a core having slots therethrough, an outer shell consisting of a plurality of segments, spacing members on said segments straddling said core, complementary cam faces on said core and spacing members which by longitudinal movement of the parts with relation to each other cause the outer shell to expand and collapse, bolts passing through the slots of the core, and loosely connecting said spacing members of opposite segments so as to have diametral play with respect thereto, said slots being of a length greater than the diameter of the means passing through the same, and

means to effect the longitudinal movement of said core and shell.

5. A collapsible shaft comprising: a core, an outer shell consisting of a plurality of segments, means permitting said core and shell to be moved longitudinally with respect to each other to collapse and expand the shaft, and gripping members mounted on the core and adapted to project beyond the circumference of the outer shell when in its expanded position to grip the material thereupon.

[Claim 6 not printed in the Gazette.]

1,138,080. CROSS-TIE. JOSEPH F. CARPENTER, Wheeling, W. Va. Filed Feb. 24, 1915. Serial No. 10,181. (Cl. 238—3.)



1. A concrete crosstie having a recess formed therein adjacent to each of its ends, said recess having vertical side walls, a wood block fitted in said recess and having vertical faces, means projected through said block for securing a rail thereon, and dowel pins embedded in the concrete and projecting vertically into said recess, the upper ends of said dowel pins being received in sockets provided in said block.

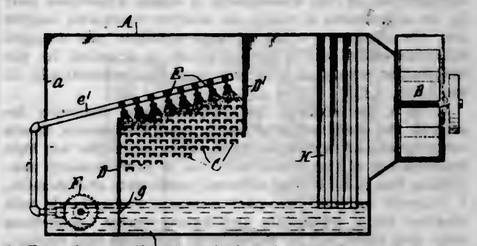
2. A concrete crosstie having a recess formed therein adjacent to each of its ends, said recess having vertical side walls, a wood block fitted in said recess and having vertical faces, rail attaching bolts projecting upward through said block, vertically disposed dowel pins anchored in the concrete and having their upper ends extending into said recess and received in sockets provided therefor in the under side of said block.

3. A concrete crosstie having a recess formed therein adjacent to each of its ends, said recess having vertical side walls, a wood block fitted in said recess, said block having vertical faces and having sockets in its under side, rail-attaching bolts directed through said block and having their heads countersunk in the under side thereof, and vertically disposed dowel pins anchored in the concrete and having their upper ends loosely received in said sockets whereby endwise movement of said block is prevented while no resistance to vertical movement of the latter is offered.

4. A concrete crosstie having a recess formed therein adjacent to each of its ends, a wood block fitted in said recess, said block having sockets in its under side, rail-attaching bolts directed through said block and having their heads countersunk in the under side thereof, and vertically disposed dowel pins anchored in the concrete and having their upper ends loosely received in said sockets whereby endwise movement of said block is prevented while no resistance to vertical movement of the latter is offered, the side walls of the recess and the sides of said block being so disposed that vertical movement of said block is not interfered with.

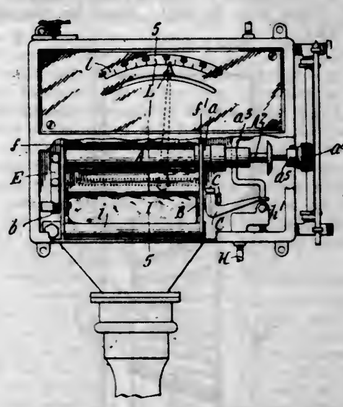
1,138,081. AIR WASHING AND CONDITIONING APPARATUS. WILLIS H. CARRIER, Buffalo, N. Y., assignor to Buffalo Forge Company, Buffalo, N. Y. Filed Jan. 21, 1910. Serial No. 539,411. (Cl. 98—42.)

In an air and gas washing apparatus, the combination of a chamber, a group of a large number of relatively long narrow baffles having substantially flat tops and depending side flanges, said baffles being arranged substantially horisontally in substantially horisontal rows in said chamber with spaces between the baffles, there being a considerable number of baffles in each of a plurality of successive rows, said baffles being wider than the spaces between the baffles in each row and arranged with the baffles in one row opposite the spaces between the baffles in the next row, the end baffles in at least some of the rows being arranged close to the walls of the chamber at each side thereof, means for distributing liquid over the upper portion of said group of baffles, and means for causing the air or gas to flow downwardly through said group of



baffles whereby the air entering the chamber is broken up into a multiplicity of small currents and caused to repeatedly cross the path of the water flowing over said baffles, substantially as set forth.

1,138,082. HYGROSTAT OR THERMOSTATIC DEVICE. WILLIS H. CARRIER, Buffalo, N. Y., assignor to Buffalo Forge Company, Buffalo, N. Y. Filed May 26, 1910, Serial No. 563,509. Renewed Feb. 20, 1914. Serial No. 820,065. (Cl. 98—39.)



1. In a thermostatic instrument of the character described, the combination of two expansible elements which are subject to different temperatures, a single adjustable part by the adjustment of which both the relative expansible length and the expansive ratio of said elements are changed simultaneously, and a device which is actuated by the differential action of said two elements, substantially as set forth.

2. In a thermostatic instrument of the character described, the combination of two expansible elements which are subject to different temperatures and one of which comprises two parts which have different coefficients of expansion and have a screw connection, a support with which one of said parts has a screw connection, said screw connections having threads which have the same pitch at a temperature approximately four degrees above zero Fahrenheit, and a device actuated by the differential action of said two elements, substantially as set forth.

3. In a thermostatic instrument of the character described, the combination of two expansible elements which are respectively influenced by the dry and wet bulb temperatures of the air, one of said elements consisting of a differential screw, the parts of which have different coefficients of expansion, the ratio of the pitches of the threads of said differential screw being practically the same as the ratio to each other of the wet and dry bulb temperatures as reckoned from a predetermined zero, and

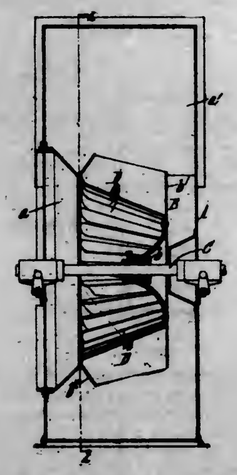
a device actuated by the differential action of said two expansible elements, substantially as set forth.

4. In a thermostatic instrument of the character described, the combination of two expansible elements, means whereby one of said elements is subjected to the wet bulb temperature of the atmosphere, a single adjustable part by the adjustment of which the relative expansible lengths and the expansive ratio of said elements are changed simultaneously, and a device which is actuated by the differential action of said two elements, substantially as set forth.

5. In a thermostatic instrument of the character described, the combination of two expansible elements, means whereby one of said elements is subjected to the wet bulb temperature of the atmosphere, one of said elements comprising two parts having different coefficients of expansion, a support for said two-part element, one part of said element being adjustable and having screw connections with said other part of the element and with said support, the threads of said screw connections having pitches such that the adjustment of said adjustable part changes the relative expansible lengths and the expansive ratio of said elements simultaneously, and a device which is actuated by the differential action of said two elements, substantially as set forth.

[Claims 6 to 8 not printed in the Gazette.]

1,138,083. ROTARY FAN. WILLIS H. CARRIER, Buffalo, N. Y., assignor to Buffalo Forge Company, Buffalo, N. Y. Filed Sept. 20, 1911. Serial No. 650,460. (Cl. 230—11.)



1. A centrifugal fan having a rotor provided with a plurality of propelling blades, the surface of each of the blades being a portion of the surface of a cone, substantially as set forth.

2. A centrifugal fan having a rotor provided with a plurality of propelling blades, the surface of each of the blades being a portion of the surface of a cone, and the inner and outer edges of the blades being each at an inclination to elements of the cone, substantially as set forth.

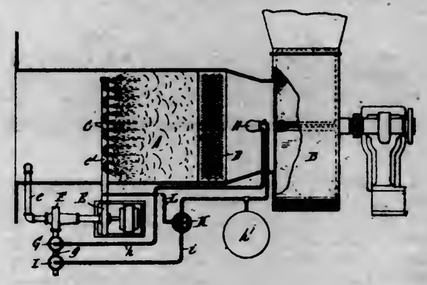
3. A centrifugal fan having a rotor provided with a plurality of propelling blades, the surface of each blade being a portion of the surface of a cone, and the axis of the surface of the blade being inclined to an axial plane of said rotor, substantially as set forth.

4. A centrifugal fan having a rotor provided with a plurality of propelling blades, the surface of each blade being a portion of the surface of a cone, and the axis of the surface of the blade being inclined to a radial plane of said rotor, substantially as set forth.

5. A centrifugal fan having a rotor provided with a plurality of propelling blades, the surface of each blade being a portion of the surface of a cone, and the axis of the surface of the blade being inclined both to an axial plane and to a radial plane of said rotor, substantially as set forth.

[Claims 6 to 22 not printed in the Gazette.]

1,138,084. SAFETY MEANS FOR HUMIDITY-REGULATING APPARATUS. WILLIS H. CARRIER, Buffalo, N. Y., assignor to Buffalo Forge Company, Buffalo, N. Y. Filed Aug. 7, 1912. Serial No. 713,855. (Cl. 98—43.)



1. In a humidifying apparatus, the combination with water supply means, heating means, and means which normally regulate the heating means to control the temperature in the humidifier, of means which are controlled by the water pressure and act upon a failure in the water pressure to render said heating means inactive, substantially as set forth.

2. In a humidifying apparatus, the combination with water supply means, heating means, and fluid actuated means which normally regulate the heating means to control the temperature in the humidifier, of means which are controlled by the water pressure and act upon a failure in the water pressure to alter the effect of said heating means, substantially as set forth.

3. In a humidifying apparatus, the combination with water supplying means, heating means, and fluid actuated means which normally regulate the heating means to control the temperature in the humidifier, of means which are controlled by both said fluid pressure and the water pressure and act upon a failure in either the fluid pressure or the water pressure to render said heating means inactive, substantially as set forth.

4. In a humidifying apparatus, the combination with water supply means, steam supply means, and fluid pressure actuated means which normally regulate the steam supply to control the temperature in the humidifier, of means which act upon a failure of either the water pressure or said fluid pressure to shut off the steam, substantially as set forth.

5. In a humidifying apparatus, the combination with water supply means, a steam supply valve, and means which operate said steam supply valve in response to changes in the temperature of the humidified air for controlling the temperature in the humidifier, of means controlled by the water pressure which act upon a failure of the water pressure to shut off the steam, substantially as set forth.

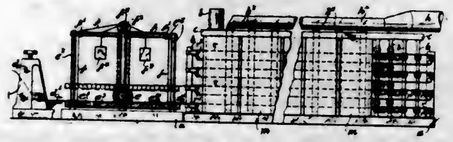
[Claims 6 to 11 not printed in the Gazette.]

1,138,085. METHOD OF REMOVING INK FROM PAPER-STOCK. MAX CLINE and CHARLES F. RHODES, Glens Falls, N. Y., assignors to International Paper Company, New York, N. Y., a Corporation of New York. Filed Nov. 27, 1911. Serial No. 662,579. (Cl. 92—14.)

1. The process of removing ink from waste newspaper stock, book stock, and the like, which consists in pulping the stock, adding a caustic alkali thereto for lifting the ink, adding aluminum silicate or clay, to absorb the lifted ink, and washing out the ink-carrying absorbent; substantially as described.

2. The process of removing ink from waste newspaper stock, book stock, and the like, which consists in pulping the stock and lifting the ink by adding about 2% of caustic soda, absorbing the lifted ink by adding about 2% of aluminum silicates such as fullers' earth, kaolin and other clays, or magnesium silicates such as talc, soapstone, etc., and washing out the ink-carrying absorbent; substantially as described.

1,138,086. DRIER. HARRY P. COE, Painesville, Ohio, assignor of one-half to Alexander S. Williams, Long Island City, N. Y. Filed Aug. 7, 1912. Serial No. 713,763. (Cl. 34—12.)



1. In a drier, the combination of a drying chamber, horizontal rows of pairs of transversely extended feeding rolls in said chamber, the lower roll of each alternate pair having a sprocket wheel fixed on one end, an endless sprocket chain associated with each horizontal row of lower rolls and engaging with all of the sprocket wheels in the row, a driving sprocket in one loop of each sprocket chain and an idler sprocket wheel in the other loop of each sprocket chain.

2. In a drier, the combination of a drying chamber, horizontal rows of pairs of transversely extended feeding rolls in said chamber, the lower roll of each alternate pair having a sprocket wheel fixed on one end, an endless sprocket chain associated with each horizontal row of lower rolls and engaging with all of the wheels in the row, a sprocket wheel fixed on the opposite end of each intermediate roll in each lower row, a second endless chain engaging each of the last named sprocket wheels and means to drive said sprocket chains.

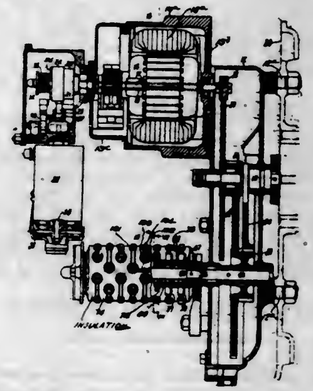
3. In a drier, the combination of a drying chamber, horizontal rows of pairs of transversely extended feeding rolls in said chamber, the lower roll of each alternate pair having a sprocket wheel fixed on one end, an endless sprocket chain associated with each horizontal row of lower rolls and engaging with all of the sprocket wheels in the row, a sprocket wheel on each upper roll of each pair of rolls with each of which said chain engages to drive the same, a driving sprocket in one loop of each sprocket chain and an idler sprocket wheel in the other loop of each sprocket chain.

4. In a drier, the combination of a drying chamber, horizontal rows of pairs of transversely extended feeding rolls in said chamber, the lower roll of each alternate pair having a sprocket wheel fixed on one end of it, an endless sprocket chain associated with each horizontal row of lower rolls and engaging with all of the sprocket wheels in the row, a sprocket wheel on each upper roll with each of which said chain engages to drive the same, a sprocket wheel fixed on the opposite end of each intermediate roll in each lower row, a second endless chain engaging each of the last named sprocket wheels and means to drive said sprocket chains.

5. In a drier, a drying chamber, air chambers extending longitudinally thereof, a main air supply pipe, auxiliary air supply pipes in communication with said main air supply pipe and extending longitudinally of the drier, conduits depending from said auxiliary supply pipes and extending vertically downward through said air chambers to points adjacent the bottoms thereof and having openings for the discharge of air.

[Claims 6 and 7 not printed in the Gazette.]

1,138,087. RAILWAY-SIGNAL. JOHN P. COLEMAN, Edgewood borough, Pa., assignor to The Union Switch & Signal Company, Swissvale, Pa., a Corporation of Pennsylvania. Filed Aug. 5, 1912. Serial No. 713,239. (Cl. 246—29.)



1. In combination, a signal device biased toward one position, a rotatable member operatively connected with said device when the latter moves or tends to move in response to its bias, a deflectable blade carried by said member, an arm mounted to oscillate, a roller journaled in said arm and movable into and out of the path of said blade by the oscillation of the arm; the point of contact between the blade and the roller when the blade is not deflected being substantially in the straight line between the center of the roller and the center of oscillation of the arm, whereby when the blade is deflected by the torque exerted by the signal device the said point of contact is not in said straight line, and a force is then exerted on the arm tending to move it out of position for engagement of the roller and the blade, the arm being biased to the latter position, and means for resisting said force and said bias of the arm.

2. In combination, a signal device biased toward one position, a rotatable member operatively connected with said device when the latter moves or tends to move in response to its bias, a deflectable blade carried by said member, an arm mounted to oscillate, a roller journaled in said arm and movable into and out of the path of said blade by the oscillation of the arm; the point of contact between the roller and the blade, when the latter is deflected by the torque exerted by the signal device, being slightly out of the straight line between the center of the roller and the center of oscillation of the arm whereby a force is then exerted on the roller tending to move it out of the path of the blade; and means for resisting said force.

3. In combination, a signal device biased toward one position, a rotatable member operatively connected with said device when the latter moves or tends to move in response to its bias, a deflectable blade carried by said member, an arm mounted to oscillate and having a blade-engaging element, the oscillation of said arm being such that the element moves into and out of the path of the blade; the direction of action between the said element and the blade, when the latter is deflected by the torque exerted on the member by the signal device, being at an angle to the line between the center of oscillation of the arm and the point of contact between the blade and the said element, which angle varies according to the torque exerted by the signal device; whereby a force is exerted on the arm tending to move it out of the path of the roller, which force varies according to the said angle; and means for resisting said force.

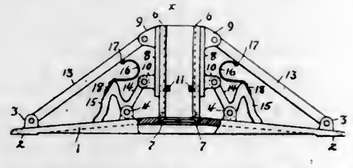
4. A railway signal comprising a signal device biased to one position of indication, means for moving it to another position; and a holding device for holding the signal device in the latter position and comprising a mem-

ber rotated by the signal device when the latter returns toward the position to which it is biased, a blade mounted on said member and projecting therefrom in a substantially radial plane, an arm mounted to oscillate, a roller journaled in said arm and movable into and out of the path of the blade by the oscillation of the arm, the line through the center of the roller and the center of oscillation of the arm being substantially ninety degrees from the line through the center of the roller and the center of the rotatable member when the roller is in the path of the blade, said blade being deflectable from the radial plane when engaged by the roller.

5. In a railway signal, a signal device biased toward one position of indication, means for moving it to another position; and a holding device for holding it in the latter position comprising a rotatable member, means interposed between the member and the signal device for rotating the member only when the signal device is returning toward its biased position, a projection carried by the member, a second member adapted to engage with the projection, and means for the control of the second member.

[Claims 6 to 25 not printed in the Gazette.]

1,138,088. DOOR-CLAMP. ROLLAND H. CROWEL, Fort Wayne, Ind. Filed Jan. 18, 1915. Serial No. 2,832. (Cl. 144—296.)



1. A door clamp comprised of a base; two horizontally movable jaws arranged vertically upon the base; a vertically sliding plate on the back of each jaw, having a stud near its lower part that extends through the corresponding jaw and projects from the inner face thereof, each of the jaws having a vertically extending slot for the movement therein of the corresponding stud; a pair of toggles connecting each plate with the base; and a spring in connection with each pair of toggles having tension adapted to hold them in normal position.

2. In a device of the class described a base; oppositely disposed jaws horizontally movable on the base; a sliding plate in connection with each jaw having a stud projecting through the corresponding jaw to a point beyond its inner face; a pair of toggles connecting each sliding plate with the base, and a spring in connection with each pair of toggles having tension to hold the same in normal position.

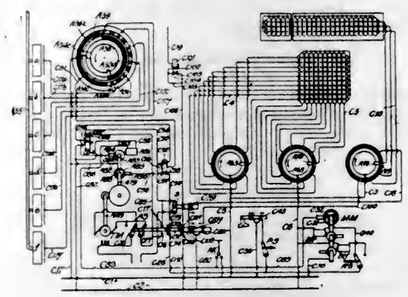
3. In a device of the class described a base; a pair of jaws oppositely disposed and having horizontally sliding connection therewith; a plate on the back of each jaw having vertically sliding connection therewith and having also a stud projecting beyond the inner face of the jaw; and spring actuated toggles connecting each plate with the base.

1,138,089. METHOD AND MEANS FOR STATISTICAL ACCOUNTING. WILLIAM J. CRUMPTON, Superior, Wis., assignor, by mesne assignments, to William R. Heath, Buffalo, N. Y. Filed Oct. 20, 1908. Serial No. 458,650. (Cl. 234—53.)

1. In combination, a stencil punching machine, a machine for marking a verification sheet, and a common keyboard for controlling the operation of said machines.

2. In combination, a bank of registers, means for involving said registers with entries, means for decumulating said registers, a stencil punching machine, a machine for marking a verification sheet, a keyboard for controlling the register decumulating means, and means whereby the said keyboard controls the operation of said stencil punching machine and said machine for marking the verification sheet.

3. In combination, a bank of registers, means for involving said registers with entries, means for decumulating said registers, a stencil punching machine, a keyboard for controlling the register decumulating means, and means whereby the said keyboard controls the operation of said stencil punching machine.

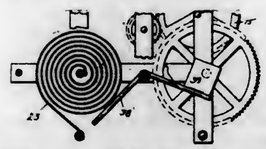


4. In combination, a bank of registers, means for controlling the actuation of said registers, a stencil punching machine, and means for automatically controlling the actuation of the stencil punching machine in accordance with the decumulation of the registers.

5. In combination, a plurality of registers, a counter associated with each register, a master machine for involving any connected register with an entry, a keyboard for controlling the connection of any selected register with said master machine, a keyboard for controlling the amount of the actuation by the master machine, means for controlling the direction of actuation of the master machine, a stencil punching machine, and means for automatically controlling the actuation of the stencil punching machine in accordance with the actuation of the register connecting means and of the master machine when actuated in a direction adapted to decumulate the connected registers.

[Claims 6 to 131 not printed in the Gazette.]

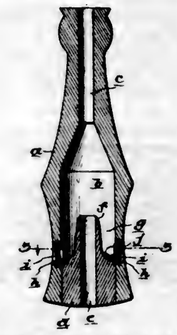
1,138,090. TIME-CONTROLLED ADVERTISING DEVICE. FRANK R. DAVIS and CURTIS P. DAVIS, Des Moines, Iowa. Filed Mar. 16, 1914. Serial No. 825,163. (Cl. 40—30.)



1. In a device of the class described, the combination of an exhibitor, a spring motor for operating the said exhibitor having a winding means, a clock designed to periodically control said exhibitor, a motor for operating said clock having a winding means, a member operatively connected with the first motor and arranged to stand in the path of access to the second winding means when the first motor is unwound and to move out of said path when the first motor is wound up.

2. In a device of the class described, an operative mechanism, a spring motor for operating the same having a winding means, a second operative mechanism adapted to periodically control the said spring motor, a spring motor for operating said second mechanism having a winding means, and a device suitably mounted, and adapted to be moved to position in the path of access to said second winding means when the first spring motor is run down and moved to position out of said path when said first motor is wound up.

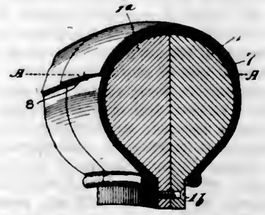
1,138,091. AMUSEMENT DEVICE. WILLIAM E. DAVIS, New Ipswich, N. H. Filed Feb. 19, 1915. Serial No. 9,320. (Cl. 46—57.)



1. An amusement device consisting of a cylindrical body chamber interiorly, a restricted passage entering each end of the cylinder and arranged in alinement axially, the inner end of one of the passages being surrounded by a cone extending into the interior chamber, and a ball of a diameter adapting it to pass through said passages, for the purpose set forth.

2. An amusement device consisting of a cylindrical body chambered interiorly, a restricted passage entering each end of the cylinder, and arranged in alinement axially, the inner end of one of the passages being surrounded by a cone extending into the interior chamber, and a ball of a diameter adapting it to pass through said passages, windows being provided at intervals around the cylinder coincident with the bottom of the annular channel formed by said cone.

1,138,092. TIRE-SHOE AND METHOD OF CONSTRUCTING SAME. CHARLES T. DICKEY, Elizabeth, N. J., assignor to Voorhees Rubber Manufacturing Company, Jersey City, N. J., a Corporation of New Jersey. Filed Aug. 10, 1912. Serial No. 714,396. (Cl. 154—14.)



1. The herein-described method of forming tire-shoe carcasses consisting in spirally winding a single strip of friction fabric on an annular mandrel to form an endless tube, then slitting the annular tube around its inner periphery to form a plurality of short strips of sufficient length to permit the free ends of each strip to be reversed and turned back upon the body of the carcass and extend over the tread-portion thereof, then positioning the bead wires, and drawing the ends of each strip around the bend wires and initially-formed tube and overlapping the free ends of the strips on one side of the carcass with the opposite free ends of the strips.

2. The herein-described method of forming tire-shoe carcasses which consists in spirally winding a single strip of friction fabric around an annular mandrel to form an endless tube with each convolution of the winding strip overlapping a plurality of other convolutions, then slitting the tube thus formed around its inner periphery, then inserting bead rings, then drawing the ends of the short strips formed by the slitting on one side of the carcass around the bead ring on that side, reversing these ends back upon the initially-formed tube and extending them across the tread-portion of the carcass, then drawing the opposite ends of the strips around the other bead ring, reversing these ends of the strip and turning them back upon the initially-formed tube, and overlapping the opposite ends to reinforce the tread portion of the carcass.

3. As a new article of manufacture, an annular tire-shoe carcass comprising superimposed layers of friction fabric formed by a plurality of overlapping encircling strips of friction material, the ends of each strip being reversed back upon themselves, one end of each strip overlapping its opposite end and both ends extending across and reinforcing the tread-portion of the carcass.

4. The herein-described process of forming a tire shoe, which consists in spirally winding a continuous strip of fabric upon a mandrel, said fabric being treated with a vulcanizable friction giving material, to fill the interstices between the warp and the weft thereof and prevent contact between the strands of the material, then slitting the tube thus formed along its inner periphery, then positioning the bead rings, then drawing the free ends of the fabric on one side of the carcass around the contiguous beading and carrying them over the tread portion, then drawing the free ends of the strips on the opposite side of the carcass around the adjacent beading and carrying them over the tread portion, these latter strips over-lapping the strips first manipulated, then providing a clencher bead of unvulcanized rubber, then applying a vulcanizable cover of graduated thickness merging into said clencher bead and submitting the whole to the process of vulcanization.

5. As a new article of manufacture, a tire shoe carcass provided with yieldable side walls formed of layers of loosely woven fabric made from a continuing strip of material divided and formed into a plurality of strips the ends being disposed at opposite extremities of the tread portion of the carcass and overlapping one another, forming a reinforced tread portion of a greater number of plies of the fabric than the side walls of the carcass.

1,138,093. AUTOMATIC VALVE. JULIUS DINERS, New York, N. Y. Filed Aug. 7, 1914. Serial No. 855,577. (Cl. 137—30.)



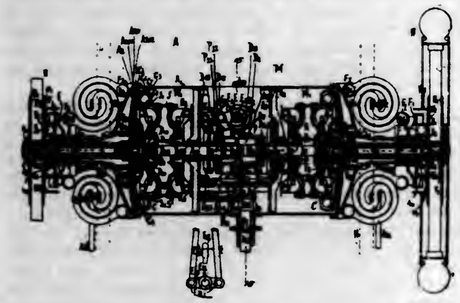
1. An automatic valve comprising a valve chamber having a tubular neck at one end, a valve seat formed therein adjacent the neck, a forked tube spanning said chamber and communicating with openings in the sides of the chamber above the valve seat, a tubular coupling secured to the neck, a spring-pressed valve in said chamber normally closing the neck-opening, and a stem on said valve projecting through the neck-opening into the bore of the coupling.

2. An automatic valve comprising a hollow cylindrical casing open at one end and having a tubular neck at the opposite end, a screw cap closing the open end of the casing, a valve seat formed in said casing adjacent the neck, a forked tube spanning said casing and communicating with openings in the casing above the valve seat, a valve in said casing, a spring bearing at its ends against the cap and the valve whereby to normally hold the latter on its seat, a stem on said valve projecting through the neck-opening into the bore of the coupling and carrying at its end a cross-piece.

1,138,094. POWER-TRANSMISSION APPARATUS. CHAUNCEY N. DUTTON, New York, N. Y. Filed Aug. 8, 1908. Serial No. 447,610. (Cl. 192—1.)

1. A power transmission mechanism apparatus comprising a revolving driving member and an elastic driven member located axially with the driving member, revoluble members mounted on the driving member and having rolling contact with the elastic driven member and means for controlling the power transmitted.

2. A power transmission mechanism apparatus comprising rolling driving members having an orbital motion about an axis, means for driving said rolling members, and an elastic driven member revoluble about the same axis, the rolling members being adapted to drive the elastic driven member by rolling contact.



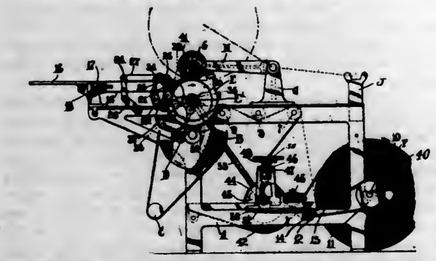
3. A power transmission mechanism apparatus comprising rolling driving members having an orbital motion and an axis, means for driving said rolling members, an elastic driven member revoluble about the same axis and means for controlling the power transmitted, the rolling members being adapted to drive the elastic driven member by rolling contact.

4. A power transmission mechanism apparatus comprising an elastic driven member revoluble about an axis, rolling driving members having an orbital motion about the same axis and means for driving said rolling members, the rolling driving members being located interiorly to the elastic driven member and adapted to drive it by rolling contact.

5. A power transmission mechanism apparatus comprising an elastic driven member revoluble about an axis, rolling driving members having an orbital motion about the same axis, means for driving said rolling members and means for controlling the power transmitted, the rolling driving members being located interiorly to the elastic driven member and adapted to drive it by rolling contact.

[Claims 6 to 51 not printed in the Gazette.]

1,138,095. DAMPING-MACHINE. WILLIAM S. EATON, Sag Harbor, N. Y., assignor to American Bank Note Company, a Corporation of New York. Filed May 7, 1909. Serial No. 494,628. (Cl. 101—96.)



1. In a damping machine, the combination with dampened absorbent material, or means winding said material into a roll, means whereby paper may be fed upon and wound within said roll as it is wound and means whereby said roll will be subjected to pressure as it is being wound.

2. In a damping machine, the combination with a strip of dampened absorbent material, of means winding said material into a roll and means whereby paper may be fed upon and wound within said roll as it is wound and means whereby said roll will be subjected to pressure as it is being wound.

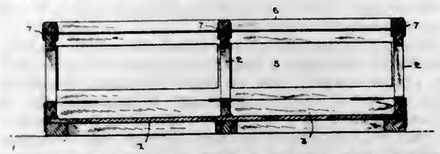
3. In a damping machine, the combination of a strip of dampened absorbent material, a spindle upon which said strip may be wound, means rotating said spindle and exerting a pressure on the material thereon, and means whereby paper may be fed upon and wound within said strip as it is wound upon said spindle.

4. In a damping machine, the combination of a strip of dampened absorbent material, a spindle, upon which said strip may be wound, means rotating said spindle, means whereby paper may be fed upon and wound within said strip as it is wound upon said spindle, means tensioning said strip as it is wound whereby pressure is exerted on the wound strip and on the paper therein contained, and guides between said spindle and said tensioning means.

5. In a damping machine, the combination of a bed roller, a strip of dampened material, a spindle mounted above and in frictional engagement with said bed roller, upon which said strip may be wound, means rotating said bed roller whereby said spindle is rotated and means whereby paper may be fed upon and wound within said strip as it is wound.

[Claims 6 to 25 not printed in the Gazette.]

1,138,096. FOLDING SHIPPING-CRATE. JAMES O. ENGLE, Ransom, Kans. Filed May 16, 1914. Serial No. 839,112. (Cl. 217—47.)



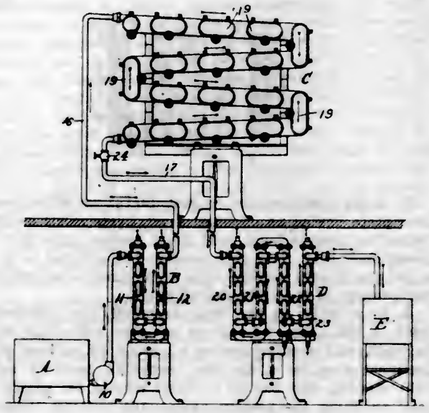
1. In a shipping crate, a base member, side, end and partition members hinged thereto and adapted to fold down upon said base, a top member carrying a plurality of grooved members adapted to receive the contiguous edges of the said end and partition walls and extending the full length of said end and partition walls, said grooved members each consisting of a piece of sheet metal bent upon itself to form a groove and anchoring flanges, the ends of said flanges having ears formed integral therewith and extended at right angles thereto.

2. In a shipping crate, a body or base portion, side strips along the edges of said body portion, metallic strips along the ends of the body portion and secured to said side strips, side members hinged to the side strips, end and partition members hinged to the body portion, said side, end and partition members being adapted to fold down on said body portion, a pair of top members hinged to said side members, grooved members on the under faces of said top members adapted to receive the contiguous edges of said end and partition walls, said groove members extending the full length of said end and partition walls, doors hingedly secured to parts of said top members adapted to form closures for openings therein and hasps hingedly secured to said doors adapted to engage parts of the top members and lock said top members and doors in closed position.

1,138,097. METHOD OF PASTEURIZING MILK. HARVEY FELDMEIER and CHARLES B. DALZELL, Little Falls, N. Y., assignors to D. H. Burrell & Company, Little Falls, N. Y. Filed June 9, 1911. Serial No. 632,127. (Cl. 99—15.)

1. In the process of pasteurization, the herein described steps which consist in heating the liquid to the pasteurizing temperature by subjecting the liquid while flowing in a continuous stream to the influence of a heating medium, then removing the liquid from the influence of such medium and holding the liquid at the pasteurizing temperature for the required period of time while flowing in a confined and continuous stream, and then cooling the liquid while flowing in a continuous stream, substantially as set forth.

2. In the process of pasteurization, the herein described steps which consist in heating the liquid to the pasteurizing temperature by subjecting the liquid to the influence of a heating medium, then removing the liquid from the influence of such medium and holding the liquid practically at the pasteurizing temperature for the required period of time while flowing in a confined stream with a speed which causes all liquid particles to move forwardly with practically the same speed throughout the cross sectional area of the flowing stream, substantially as set forth.



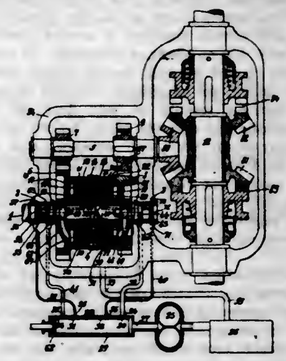
3. In the process of pasteurizing milk, the herein described steps which consist in heating the milk to the pasteurizing temperature by subjecting the milk to the influence of a heating medium while flowing in a continuous stream, then removing the milk from the influence of such medium and holding the milk at the pasteurizing temperature for the required length of time while flowing in a confined and continuous stream at a speed which is greatly reduced as compared with the speed of the milk while it is being heated, and then cooling the milk while flowing in a continuous stream.

4. In the process of pasteurizing milk, the herein described steps which consist in heating the milk to the pasteurizing temperature by subjecting the milk to the influence of a heating medium while flowing relatively rapidly in a continuous stream having a relatively small cross-sectional area, then removing the milk from the influence of such heating medium and holding the milk at the pasteurizing temperature for the required length of time while flowing in a confined and continuous stream of relatively large cross-sectional area, and then cooling the milk while flowing in a continuous stream.

5. The herein described process of pasteurizing milk which consists in heating the milk to the pasteurizing temperature by subjecting it to the action of a heating medium while flowing at a relatively high speed in a stream of relatively small cross-sectional area, then removing the milk from the influence of said medium and holding it at the pasteurizing temperature while flowing in a continuous stream of relatively large cross-sectional area at a greatly reduced speed, and then cooling the milk while flowing in a continuous stream.

1,138,098. GEARING. GUIDO FORNACA, Turin, Italy. Filed Oct. 17, 1912. Serial No. 726,233. (Cl. 74—59.)

The combination with a driving shaft, a driven shaft and interposed gearing for varying the relative ratio and direction of movement of the driving and driven shafts, said gearing including fixed and loose gears for varying the driving ratio, a disk clutch for each of said loose gears, a fluid operated piston for closing the disks of said clutches, a restricted fluid vent from the piston chamber of each clutch, a separate fluid pressure passage discharging between the disks of each clutch to separate them, a restricted fluid vent from between said disks, a source of fluid pressure, and a valve for connecting said source of fluid pressure alternatively with any one of said clutch pistons while connecting the disks of the other



clutches to the pressure to maintain them open, said valve permitting a continuous circulation of fluid from said source under variable pressure through said clutches.

1,138,099. FRICTION-CLUTCH. GUIDO FORNACA, Turin, Italy. Filed Oct. 17, 1912. Serial No. 726,234. (Cl. 192—10.)

1. A clutch comprising in combination a plurality of clutch members, a set of movable elements carried by one of said clutch members, a second set of movable elements carried by another of said clutch members, and means for applying a fluid under pressure to cause said sets of movable elements to come in frictional engagement to clutch said clutch members and for separating the movable elements of said sets from one another to unclutch said clutch members.

2. A clutch comprising in combination a clutch member, a set of disks carried thereby, a second clutch member, a set of disks carried thereby, certain of the disks of said first set being disposed between and contiguous to certain of the disks of said second set, and means for applying a fluid under pressure and under circulation to cause the disks of said sets to come into engagement to close said clutch members and for causing the fluid to flow between the contiguous disks of said sets to separate the same to unclutch said clutch members.

3. A clutch comprising in combination a clutch member, a set of disks movably mounted thereon, a second clutch member, a set of disks movably mounted thereon, certain of the disks of said second set being disposed between certain of the disks of said first set and adapted to come in frictional contact therewith, and means for supplying a fluid under pressure and under circulation to cause the disks of said sets to come in frictional contact to clutch said clutch members and to cause the fluid to circulate be-

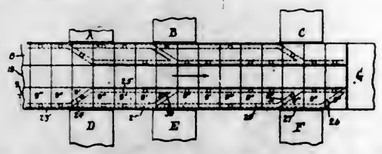
tween the disks of said sets to maintain said clutch members in unclutched position.

4. The combination with a driving shaft and a driven shaft and journals therefor, of a clutch member secured to said driving shaft, a set of axially movable elements carried by said clutch member, a second clutch member secured to said driven shaft, a plurality of axially movable elements carried by said second clutch member, certain of said second set of axially movable elements being interposed between certain of said first set of axially movable elements and adapted when moved to be brought in frictional contact with one another, and means for applying a fluid under pressure and under circulation to cause axial movement of said movable elements to bring the same in frictional contact to clutch said clutch members and to cause the fluid to flow between and separate the contiguous movable elements to unclutch said clutch members.

5. The combination with a plurality of coöperating clutch members and sets of friction disks carried thereby, of means for applying a fluid under pressure and under circulation to bring said movable elements in frictional contact to clutch said clutch members and to cause the fluid to circulate between contiguous disks to maintain said clutch members in unclutched position, said means comprising a pump for impressing a certain pressure on the fluid and means for controlling said impressed pressure.

[Claims 6 to 10 not printed in the Gazette.]

1,138,100. CONVEYER. ERNEST L. GALE, Jr., Yonkers, N. Y. Filed Apr. 16, 1914. Serial No. 832,156. (Cl. 104—165.)



1. A three-way discharge conveyer comprising means for discharging objects conveyed thereby to both sides of the conveyer, and longitudinally at the end thereof and a trackway for the conveyer forming an upper and lower run therefor.

2. A three-way discharge conveyer comprising means for simultaneously discharging to both sides of the conveyer, and longitudinally at the end thereof and a trackway for the conveyer forming an upper and lower run therefor.

3. A longitudinally movable conveyer comprising means for simultaneously discharging objects conveyed thereby at one or more points at one or both sides thereof, and longitudinally at the end thereof and a trackway for the conveyer forming an upper and lower run therefor.

4. An endless conveyer comprising means for automatically discharging objects conveyed thereby laterally to both sides thereof, and longitudinally at the end thereof and a trackway for the conveyer forming an upper and lower run therefor.

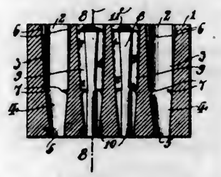
5. The combination of an endless series of carriers, a landing, and means for moving the carriers laterally when opposite said landing, to effect a discharge from the carriers.

[Claims 6 to 62 not printed in the Gazette.]

1,138,101. MACARONI DIE-PLATE. KARL GAMMEL, Cleveland, Ohio. Filed Mar. 12, 1914. Serial No. 824,080. (Cl. 107—14.)

1. A die plate having an opening therethrough, one portion of said opening being substantially cylindrical and the remaining portion being substantially frusto-conical, the wall outlining the cylindrical portion of said opening having oppositely disposed slots therein adapted to receive the webs of a die pin positioned in said opening.

2. A die plate having an opening therethrough, one portion of said opening being substantially cylindrical and the remaining portion being substantially frusto-conical, the wall outlining the cylindrical portion of said opening having oppositely disposed slots therein, said slots having one end opened to the outside of the plate and converging from said open end to the opposite end thereby to form wedging seats adapted to receive the webs of a die pin centered in said opening.



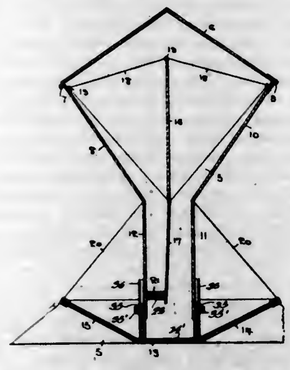
3. A die plate for use in manufacturing edible pastes, said plate having an opening of relatively small diameter extending therethrough, said plate having oppositely disposed seats inset from said opening and adapted to center a die pin in said opening with a minimum obstruction to the passage of the paste therethrough.

4. In a device of the class described, the combination with a die plate having an opening extending therethrough, said opening having a portion of uniform cross-sectional area, of a die pin removably centered within said opening, and having portions thereof set within the wall outlining the portion having the uniform cross-sectional area.

5. In a device of the class described, the combination with a die plate having an opening extending therethrough, of a die pin removably positioned in said opening, said plate engaging portions of said pin to prevent rotary movement of the same within said opening.

[Claims 6 to 8 not printed in the Gazette.]

1,138,102. ANIMAL-FEEDER. FRANCIS MARTIN GILTNER, Winfield, Kans. Filed Oct. 16, 1913. Serial No. 795,599. (Cl. 119—53.)

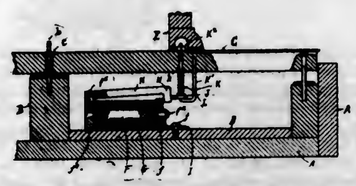


1. A feeder comprising vertical end walls, downwardly converging walls secured thereto, spaced vertical walls secured thereto and resting at their upper ends against the lower ends of said converging walls, a horizontal bottom wall secured between said end walls and spaced from said vertical walls, upwardly diverging walls secured between said end walls and resting at their lower ends against said bottom wall, an upper pivoted partition arranged between said end walls semi-distant from said downwardly converging walls to alternately control the admission to either discharge point made thereby, a lower partition secured between said vertical walls and inclined toward one of the vertical side walls and having its lower edge adjacent said bottom wall, oppositely disposed triangular partitions secured vertically to said vertical walls and resting upon the upper edge of said upwardly diverging walls and spaced from each other, and means between said inclined partition and one of said vertical walls for regulating the flow of food downwardly between said inclined partition and the wall toward which it is inclined, the space between said inclined partition and the opposite vertical wall being left unobstructed.

2. A feeder comprising side and end walls, transverse sectional walls, a multiple feeding trough at the bottom thereof, a hopper having converging side walls at the top of said feeder, a discharge device from said hopper, commencing at the bottom of said converging side-walls and running to just short of said trough, a division wall disposed in said hopper, adjustably pivoted to control a discharge into said hopper discharging device, a division wall in said hopper discharge device, commencing at the pivot point of said division wall, running to said trough and inclined to one of the side walls of said hopper discharging device, a feed regulator between said side wall and said inclined division wall, and an adjustable indicating means attached to said feed regulator for determining the quantity of feed dispensed.

3. The combination of a superposed hopper, a discharge device leading from said hopper to a trough, a trough below said discharging device, an adjustable and pivoted partition wall in said hopper, an inclined partition wall in said discharging device, an adjustable feed regulator between said inclined partition wall and one of the side walls of said discharging device, section walls in said trough to provide stalls, and vertical slides in each of said stalls.

1,138,103. MUSIC-PLAYER. DAVID J. HAUSS and ALEXANDER DOM, Aurora, Ind. Filed Aug. 12, 1909. Serial No. 512,486. (Cl. 84—174.)



1. In a musical instrument, key-levers, a playing mechanism comprising a plurality of actuating elements to actuate said key levers, and connections from said actuating elements to said key levers, said connections comprising rods connected to said key-levers and playing mechanism respectively, and springs on said rods engaging the actuating elements to yieldingly hold said key levers and actuating elements in the desired relative positions.

2. In a musical instrument, key levers, a playing mechanism comprising a plurality of actuating elements, and connections from said actuating elements to said key levers comprising eyelets associated with said actuating elements, and U-shaped yokes, one branch of each of said yokes being threaded through said eyelets, and connected to said key levers, and guide sockets in said key levers into which the other branches of said yokes extend.

3. In a musical instrument, key levers, a playing mechanism comprising a plurality of actuating elements, and connections from said actuating elements to said key levers comprising U-shaped yokes connected at the bend to the actuating elements of the playing mechanism, and at the ends of the said key levers.

4. In a musical instrument, key levers, a playing mechanism comprising a plurality of actuating elements, and connections from said actuating elements to said key levers comprising U-shaped yokes connected at their free ends to the said key levers, and at their closed ends to elements of said playing mechanism.

5. In a musical instrument, key levers, a playing mechanism comprising a plurality of actuating elements, and connections from said actuating elements to said key levers comprising U-shaped yokes connected to the elements of the playing mechanism and the key levers respectively, means for adjusting the effective length of one branch of said U-shaped yokes, and a socket into which the other branch of each of said U-shaped yokes is seated.

[Claims 6 to 10 not printed in the Gazette.]

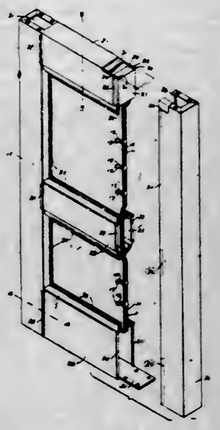
1,138,104. LOOSE-LEAF BINDER. JOHN C. HEDGES, Des Moines, Iowa. Filed Mar. 24, 1913. Serial No. 756,608. (Cl. 129—13.)



1. In a device of the class described, a binder member designed to engage one side of a book, externally screw threaded devices carried by said binder member and designed to be received in holes in the leaves of a book comprising a twisted bar extending through said binder member and provided with a right angled extension secured to the surface thereof, a second binder member designed to engage the other side of the book, a plurality of hollow cylinders mounted thereon, each of said cylinders having screw threads formed in its walls and being designed to receive one of said first named screw threaded members, and means for locking said cylinders and screw threaded members in various positions of their movement with relation to each other.

2. In a device of the class described, spaced binder members, a screw threaded engaging device mounted on one binder member, a coacting screw threaded engaging device rotatably and slidably mounted in the other binder member yielding means for holding said binder members apart, a head on the second engaging device outside the binder member in which it is mounted, said last named member and said head being formed with portions adapted to coact and prevent rotation of the second engaging device when the binder members are at the limit of their movement, away from each other and to become inoperative and to permit rotation of the second engaging device when the last described binder member is moved toward the other binder member slidably on the second engaging member.

1,138,105. METAL DOOR. PETER EDWARD HEGSTEDT, Jamestown, N. Y. Filed June 26, 1913. Serial No. 775,906. (Cl. 189—46.)



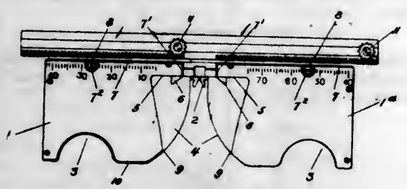
1. In a metal panel structure of the character described, the combination with a U-shaped stile having flanged edges and two parallel cross rails spaced apart, each of such rails having its end edge flanged, of a rectangular inter-

locking block provided on each of two of its opposite sides with one central projecting lug and parallel grooves adjacent to each of said lugs, said block being so arranged that one of the flanges of said stile and cross rail will engage with the grooves on one side of said block and the opposite flanges of said stile and cross rail will engage with the grooves on the other side of said block, whereby the said stile and cross rail may be securely locked in place by riveting down the projecting lugs.

2. In a metal panel structure of the character described, the combination with a U-shaped stile having right-angled flanged edges and a U-shaped cross rail having its two opposite end edges flanged at right angles, of an interlocking block provided on each of two of its opposite edges with one central projecting lug and narrow parallel grooves adjacent to each of said lugs, said block being so arranged that one of the flanges of said stile and cross rail will engage with the grooves on one side of said block and the opposite flanges of said stile and cross rail will engage with the grooves on the other side of said block, whereby the said stile and cross rail may be securely locked in place by riveting down the projecting lugs.

3. In a metal panel structure of the character described, the combination with a U-shaped stile having right-angled flanged edges and two parallel cross rails spaced apart, each having their end edges flanged at right angles, of an interlocking block provided on each of two of its opposite edges with a slot, said block being so arranged that one of the flanges of said stile and the flange of one of said cross rails will engage with the groove on one side of said block, and the opposite flange of said stile and the flange on the opposite cross rail will engage with the grooves on the other side of said block and strips longer than the depth of the said grooves, whereby the said strips may be inserted in the grooves of the said block, and the stile and cross rails may be locked in place by riveting the said strip over the said stile and cross rails.

1,138,106. TYPE-WRITING MACHINE. EDWARD B. HESS, New York, N. Y., assignor, by mesne assignments, to Royal Typewriter Company, Inc., New York, N. Y., a Corporation of New York. Filed May 4, 1912. Serial No. 695,027. (Cl. 197—40.)



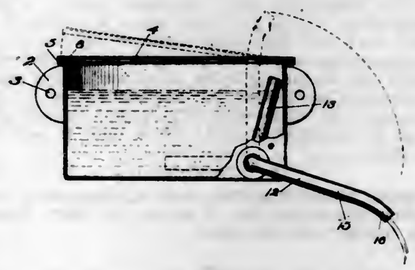
1. In a visible writing machine, a top cover plate constituting a dust shed composed of two sections arranged respectively on opposite sides of the printing point and having their inner edges closely adjacent and extending laterally and forwardly and each having an upright flange extending along the rear edge of each section, whereby dust and dirt of erasure is prevented from falling into the machine below the platen and is retained on the dust sheds to be laterally removed therefrom.

2. In a visible writing machine, a top cover plate constituting a dust shed composed of two sections arranged respectively on opposite sides of the printing point the inner edges of which approach each other toward the printing point and are formed with an upwardly inclined part 4 terminating in front of their rear edges forming thereby a shoulder 5 and an upright flange extending along the rear edge of each plate and, adjacent the printing point, forwardly to the shoulder 5, whereby dust and dirt of erasure is prevented from falling into the machine below the platen and is retained on the dust sheds to be laterally removed therefrom.

3. In a visible writing machine, a top cover plate constituting a dust shed composed of two sections arranged respectively on opposite sides of the printing point and having their inner edges closely adjacent and extending laterally and forwardly, and an upright flange extending along the rear edge of each section and also an upright flange at the front edge, whereby dust and dirt of erasure is prevented from falling into the machine below the platen and onto the keyboard and is retained on the dust sheds to be laterally removed therefrom.

4. In a visible writing machine, a top cover plate constituting a dust shed composed of two sections arranged respectively on opposite sides of the printing point and having their edges closely adjacent and extending laterally and forwardly and each having an upright flange extending along the rear edge and formed with a circular recess for the purpose set forth.

1,138,107. LIQUID-SOAP DISPENSER. ADELBERT D. HILL, Excelsior Springs, Mo. Filed Dec. 29, 1913. Serial No. 809,276. (Cl. 221—97.)



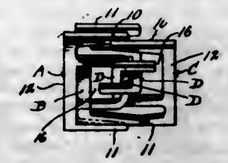
1. A liquid dispenser comprising a fluid container, and a tube pivotally mounted in a wall of the container and comprising inner measuring and outer delivery portions, having open mouths at their free ends and arranged at such an angle relative to each other that the open mouth of one of said portions is above the level of fluid in the container, when the depth of the fluid is less than the length of the measuring portion, irrespective of the position of the tube within a limited arc.

2. A liquid dispenser comprising a fluid container, and a tube pivotally mounted in a wall of the container and comprising inner measuring and outer delivery portions, having open mouths at their free ends and arranged at such an angle relative to each other that the open mouth of one of said portions is above the level of fluid in the container, when the depth of the fluid is less than the length of the measuring portion, irrespective of the position of the tube within a limited arc; the inner measuring element being adapted for engaging the walls of the container to limit the arc of movement of the tube.

3. A liquid dispenser comprising a fluid container, and a tube having an intermediate portion journaled in a wall of the container, and having end portions of such length and arranged at such an angle relative to each other that the free end of one of the end portions is above the level of fluid in the container, when the depth of the fluid is less than the length of the inner end portion of the tube, irrespective of the position of the tube within a limited arc.

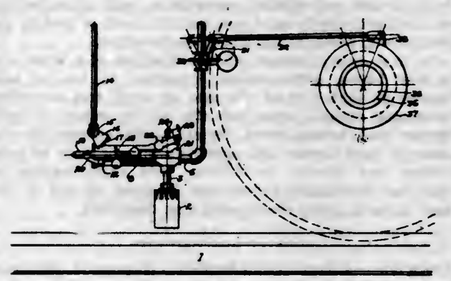
4. A liquid dispenser comprising a fluid container, and a tube having an intermediate portion journaled in a wall of the container, an inner end portion forming a measuring element and an outer end portion of greater length than the measuring element, and having a curved tip, forming a delivery portion; the said measuring and delivering elements being bent at an angle relative to each other, whereby, when the depth of liquid in the container is less than the length of the measuring element, the free end of either the measuring or delivering element is above the level of the fluid, irrespective of the position of the tube within a limited arc.

1,138,108. PUZZLE. RHABANUS J. HOGL, Wheeling, W. Va. Filed June 12, 1914. Serial No. 844,712. (Cl. 46—41.)



A puzzle comprising three U-shaped members the arms of each of which are disposed substantially at right angles to the arm connecting portion, a frame portion carried by each member between the arms thereof, the frame portions of two of said members having one side thereof interrupted by a passage whereby said frame portions may be interlocked with each other and interlocked with the frame portion of the other member.

1,138,109. AUTOMATIC DEVICE FOR CONTROLLING THE SPEED OF TRAINS. LAWRENCE WESLEY HORNE and WARREN NOBLE CRANE, New York, N. Y. Filed Sept. 4, 1913. Serial No. 788,077. (Cl. 246—59.)



1. A device for controlling the speed of trains comprising a valve adapted to be opened by a fluid pressure and a non-mechanical means for closing said valve and retaining it temporarily closed, a piston operated upon the opening of said valve, means for retaining said valve temporarily open, and means operated by said piston for disengaging said temporarily retaining means, and allowing said valve to be closed.

2. A device for controlling the speed of trains comprising a piston, a fluid pressure supply for said piston, a valve for controlling the admission of fluid pressure to said piston, a magnetic means for retaining said valve normally closed, mechanical means for temporarily retaining said valve open, means operable by said piston for disengaging said mechanical means to allow said valve to close, and a secondary valve adapted to be operated by the movement of said piston as and for the purpose set forth.

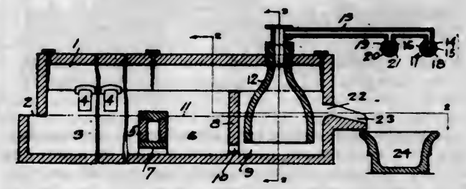
3. A device for controlling the speed of trains comprising a piston, fluid pressure supply for operating said piston, a valve, controlled by a non-mechanical means adjacent to a track, for admitting air to said piston, a second valve controlled by the movement of said piston and provided with means adapting it to be opened to a greater extent by each movement of said piston after the first.

4. A device for controlling the speed of trains comprising a pipe for supplying air under pressure, a mechanically operated valve within said air pipe, and an electrically operated valve within said air pipe and a piston controlled by the operation of said valves, an additional valve adapted to be operated by the movement of said piston and means connected to said piston for ratcheting said last named valve to an open position by a series of operations of said piston as herein specified.

5. A device of the character described comprising a train line air pipe, automatic means for exhausting said train line air pipe, and automatic means operated by a rotating part of said train for making inoperative said automatic means during a reversed movement of the train.

[Claims 6 to 8 not printed in the Gazette.]

1,138,110. GLASS-MELTING TANK-FURNACE. GEORGE E. HOWARD, Butler, Pa., assignor to The Pittsburgh Plate Glass Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Aug. 15, 1913. Serial No. 784,896. (Cl. 49—55.)



1. In apparatus of the class described, the combination of a glass melting tank, having a discharge opening, a hood, there being means of communication between said hood and the main supply of glass in said tank, means for opposing return flow of the glass through said communicating means, and means for varying the fluid pressure in said hood, whereby the level of glass therein may be raised above the normal level and means for thereafter depressing the level within the hood to cause a discharge of the glass from said tank through said discharge opening.

2. In apparatus of the class described, the combination with a glass melting tank having a discharge opening, a hood, there being means of constant communication between said hood and the main supply of glass in said melting tank, means for opposing return of the glass through said communicating means, and means for raising the level of the glass in said hood, and means for thereafter depressing the level to cause a discharge of glass from said tank through said discharge opening.

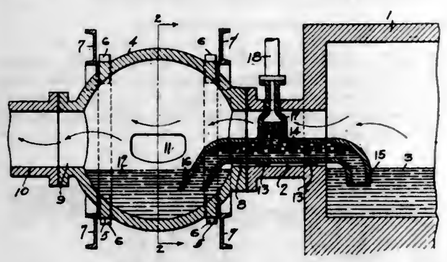
3. In apparatus of the class described, the combination of a glass melting tank having a discharge opening, a hood, there being means of communication between said hood and tank, means for opposing return of the glass through said communicating means, a vacuum producing apparatus, and an air pressure apparatus in communication with said hood whereby the level of the glass within said hood may be raised and lowered with varied acceleration to cause an increase of the discharge of glass from said tank through said discharge opening.

4. In apparatus of the class described, the combination of a glass melting tank having a constantly communicating chamber provided with a discharge outlet, a hood located in said chamber and constantly communicating therewith in such manner that the level in said hood is normally maintained at the same height as that of the main supply of glass in said tank and chamber, the opening forming communication between said tank and said chamber being less in size than the opening forming communication between said chamber and said hood, and means for varying the pressure in said hood above the glass, whereby the level in said chamber is raised and the glass flows through said discharge outlet.

5. In apparatus of the class described, the combination of a glass melting tank, an inclosing member in said melting tank there being means of constant communication between said member and tank, said member having a discharge opening, means for opposing return flow of the glass through said communicating means, means for creating a partial vacuum in said member whereby the glass is sucked up to a higher level in said member, and when the vacuum is destroyed glass flows from said discharge outlet.

[Claim 6 not printed in the Gazette.]

1,138,111. GLASS-MELTING TANK-FURNACE. GEORGE E. HOWARD, Butler, Pa., assignor to The Pittsburgh Plate Glass Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Nov. 15, 1913. Serial No. 801,271. (Cl. 49—55.)



1. In a delivery device for a glass furnace, the combination with a stationary glass melting tank, of a separate delivery reservoir having a discharge opening movable from a position substantially on a level with the glass in the melting tank to a point below such level and a siphon member for transferring the glass from said stationary tank to said delivery reservoir, and means for breaking said siphon connection to clear said tiltable furnace for inspection and repair.

2. In a delivery device for glass furnaces, the combination with a glass melting tank, of a separate delivery reservoir having a discharge opening movable from a position substantially on a level with the glass in the melting tank to a point below such level, and a siphon member for transferring the glass from said tank to said reservoir, and means for regulating the height of the glass in said siphon member.

3. In a delivery device for glass furnaces, the combination with a stationary glass melting tank, of a tiltable delivery reservoir having a discharge opening movable from a position substantially on a level with the glass in the melting tank to a point below such level, and a siphon member for transferring the glass from said tank to said delivery reservoir, and means for regulating the height of the glass in said siphon member.

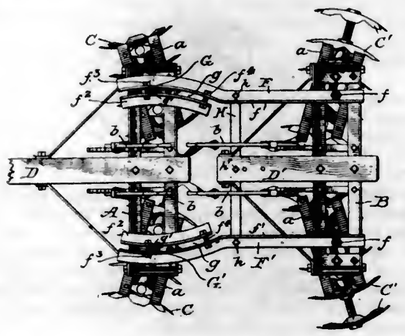
4. In a delivery device for a glass furnace, the combination with a glass melting tank, a separate delivery reservoir having a discharge opening constructed and arranged to move from a position substantially on a level with the glass in the melting tank to a point below such level, a siphon member for transferring glass from said stationary tank to said delivery reservoir, said siphon member having means for regulating height of glass therein, whereby flow of glass can be accelerated while the delivery reservoir is discharging.

5. In a delivery device, for a glass furnace, the combination with a glass melting tank, of a separate delivery reservoir having a discharge opening, a siphon member for transferring the glass from said tank to said delivery reservoir, said siphon being of sufficient sectional area to normally flow materially more glass in any given time than the corresponding melting rate of tank, so that when said opening is lowered below the level of the glass in said tank, a flow of glass in relatively large amount occurs in the siphon member, and assists in maintaining the level of the glass in the delivery reservoir during the discharging period.

[Claims 6 to 8 not printed in the Gazette.]

1,138,112. HARROW. ELMER S. HUBBARD, Higganum, Conn. Filed Jan. 10, 1914. Serial No. 811,303. (Cl. 55—83.)

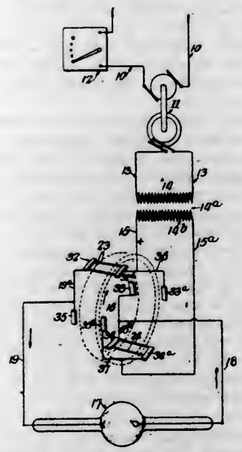
1. In a double harrow, the combination of a front and rear frame, each carrying earth working devices, connecting means adapted to hold said frames against independent vertical movement, said means being secured to one of said frames by pivotal connections at each side of the line of draft, and means permitting said frame to swing on either of said pivotal connections toward said other frame.



2. In a double harrow, the combination of a front and a rear frame, each carrying earth working devices, arms rigidly connected to one of said frames at each side of the line of draft, each of said arms being provided with a curved slot at its forward end, and bolts connected to the other of said frames and operating in said slots to form pivotal and sliding connections, said arms bearing on said last mentioned frame both in front of and in the rear of said bolts, substantially as described.

3. In a double harrow, the combination of a front and a rear frame, arms rigidly connected to one of said frames at each side of the line of draft and extending over and resting upon the top of the other of said frames and having slots therein, bolts secured to the other of said frames and operating in said slots to form sliding and pivotal connections, said arms bearing on said last mentioned frame both in front of and in the rear of said bolts, substantially as described.

1,138,113. X-RAY APPARATUS. SAMUEL T. HUTTON, Chicago, Ill., assignor to Scheidel-Western X-Ray Coil Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 7, 1911. Serial No. 612,792. (Cl. 171—253.)



1. In combination with two primary and two secondary mains and means for supplying alternating current to said primary mains, a rectifying switch adapted for connecting said primary and secondary mains comprising two sets of annularly arranged, stationary conducting arcs, each set being located in a plane laterally spaced from the plane of the other set, the arcs of each set being spaced from each other at angles of 90° and each arc of one set being located over against an associated arc of the other set, one pair of adjacent arcs of one set being connected to one primary main and the remaining pair being connected to the other primary main, and one pair of adjacent arcs of the other set being connected to one secondary main and the remaining pair being connected to the other secondary main, the said pairs of the latter set each comprising arcs which are opposed to arcs of the other set connected to different primary mains, a rotative switch member located between the planes of said sets of conducting arcs and carrying diametrically opposite conducting devices extending at an angle to said planes and adapted in the rotation thereof to be brought successively into alinement with said opposed conducting arcs, and means for continuously rotating said rotative switch member so that it rotates through an angle of 90° for each change of sign of the alternating current.

2. A rectifying switch of the class described comprising two sets of annularly arranged, stationary conducting arcs, each set being located in a plane laterally spaced from the plane of the other set, the arcs of each set being spaced from each other at angles of 90° and each arc of one set being located over against an associated arc of the other set, means electrically connecting one pair of adjacent arcs of one set, means electrically connecting the remaining pair of the arcs of said set, means electrically connecting one pair of adjacent arcs of the other set and means electrically connecting the remaining pair of the arcs of said set, the pairs of the latter set each comprising arcs which are opposed to arcs of the other set having no electrical connection, and a rotative switch member located between the planes of said sets of conducting arcs and carrying diametrically opposite conducting devices extending at right angles to said planes and adapted in the rotation thereof to be brought successively into alinement with said opposed conducting arcs.

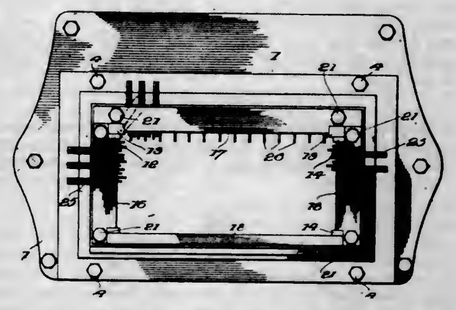
3. A rectifying switch of the class described comprising two sets of annularly arranged conducting arcs, each set being located in a plane laterally spaced from the plane of the other set, the arcs of each set being spaced from each other at angles of 90° and each arc of one set being located over against an associated arc of the other set, means electrically connecting one pair of adjacent arcs of one set, means electrically connecting the remaining pair of the arcs of said set, means electrically connecting one pair of adjacent arcs of the other set and means electrically connecting the remaining pair of the arcs if said set, the pairs of the latter set each comprising arcs which are opposed to arcs of the other set having no electrical connection, and a rotative switch member located between the planes of said sets of conducting arcs and carrying diametrically opposed conducting devices adapted in the rotation thereof to be brought successively into alinement with said opposed conducting arcs, said rotative switch member being made of insulating material and comprising a flat disk provided with a rim occupying the air gap between said opposed conducting arcs and said conducting devices carried by said rotative switch member including rods extending at an angle to the plane of said disk through said rim.

4. A rectifying switch of the class described comprising two sets of annularly arranged, stationary conducting arcs, each set being located in a plane laterally spaced from the plane of the other set, the arcs of each set being spaced from each other at angles of 90° and each arc of one set being located over against an associated arc of the other set, the arcs of each set being electrically connected in pairs of adjacent arcs, the pairs of connected arcs of one set each comprising arcs which are opposed to arcs of the other set having no electrical connection, and a rotative switch member located between the planes of said sets of conducting arcs and carrying conducting devices adapted in the rotation thereof to be brought successively into alinement with said opposed conducting arcs, said conducting devices including arcuate members having serrated projections adapted to pass in close relation with, but separated by an air gap from said conducting arcs.

5. A rectifying switch adapted for connecting said primary and secondary mains comprising two sets of annularly arranged, stationary conducting arcs having arcuate flanges, each set being located in a plane laterally spaced from the plane of the other set, the arcs of each set being spaced from each other at angles of 90° and each arc of one set being located over against an associated arc of the other set, the arcs of each set being electrically connected in pairs comprising adjacent arcs, the electrically connected pairs of the one set each comprising arcs which are opposed to arcs of the other set having no electrical connection, and a rotative switch member located between the planes of said sets of conducting arcs and carrying diametrically opposite conducting devices adapted in the rotation thereof to be brought successively into alinement with said opposed conducting arcs, said conducting devices including plates each having a laterally extending, serrated, arcuate flange adapted to pass in close relation to, but radially without and separated by an air gap from the arcuate flanges of said conducting arcs.

[Claims 6 to 10 not printed in the Gazette.]

1,138,114. DIE FOR BRICKMAKING-MACHINES. HARLEY R. IRELAND, Brazil, Ind., assignor to Hydraulic Press Brick Company, St. Louis, Mo., a Corporation of Missouri. Filed Jan. 6, 1915. Serial No. 769. (Cl. 25—20.)



1. In a device of the character described, the combination with a machine having a mouth through which a plastic mass is adapted to be discharged, of a supporting shell in said mouth, a plurality of members interfitting with said shell, and a plurality of pins carried by said members adapted to engage said plastic mass and roughen the surface thereof as it passes through said machine mouth.

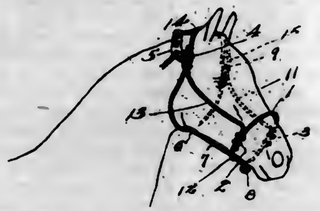
2. In a device of the character described, the combination with a machine having a mouth through which a plastic mass is adapted to be discharged, of a supporting shell in said mouth, a plurality of members interfitting with said shell, and a plurality of adjustable pins carried by said members adapted to engage said plastic mass and roughen the surface thereof as it passes through said machine mouth.

3. In a device of the character described, the combination with a machine having a mouth through which a plastic mass is adapted to be discharged, of a supporting shell in said mouth, a plurality of removable members interfitting with said shell, and a plurality of pins carried by said removable members adapted to engage said plastic mass and roughen the outer surface thereof as it passes through said machine mouth.

4. In a device of the character described, the combination with a machine having a mouth through which a plastic mass is adapted to be discharged, of a supporting removable shell in said mouth, a plurality of members carried by said removable shell, and a plurality of pins

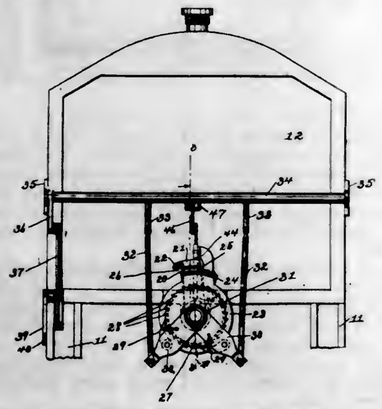
interfitting with said members adapted to engage said plastic mass and roughen the outer face thereof as it passes through said machine mouth.

1,138,115. HALTER. ORVILLE C. JOHNSON, St. Louis, Mo. Filed Sept. 25, 1914. Serial No. 863,438. (Cl. 54—24.)



A halter formed of a length of flexible material having one end secured by a clamp, thence passing downward and through a throat adjusting member, thence forward through a second clamp where it doubles back forming the throat-latch and again passes through said throat adjusting member, thence upward upon the opposite side of the head to a clamp and hook member, looping through the clamp of the clamp and hook member and extending forward therefrom forming one cheek-piece to a nose-piece, thence extending under the chin through the second clamp to form the chin-piece to the opposite end of the nose-piece, thence extending to form the other cheek-piece and to and through the first above mentioned clamp, passing thence over the head and doubling back to form a crown-piece and a loop to engage the hook portion of the said clamp and hook member, and having its free end secured by an adjusting buckle disposed below the crown of the head.

1,138,116. MOTOR-STARTING DEVICE. WILLIS JOHNSTON, Schenectady, N. Y. Filed June 18, 1912, Serial No. 704,275. Renewed Oct. 2, 1914. Serial No. 864,702. (Cl. 123—185.)



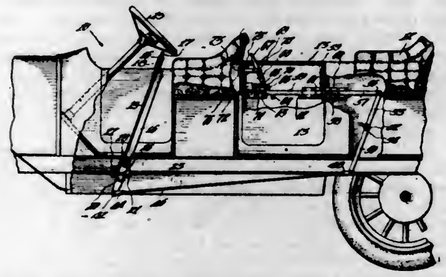
1. A motor starting device including a motor crank-shaft; a rotary connecting part automatically engaged with said motor crank-shaft; an actuating rotary part disengageably connected with said connecting part; manual means for rotating said actuating part in one direction; and for preventing rotation of said actuating part in the opposite direction; and manually actuated means for disengaging said connecting part from such crank-shaft.

2. A motor starting device including a motor crank-shaft; a rotary connecting part automatically engaged with said motor crank-shaft; an actuating rotary part having disengageable spring connection with said connecting part; means for rotating said actuating part in one direction and for preventing its rotation in the opposite direction; and manually actuated means for disengaging said connecting part from such crank-shaft.

3. In a motor vehicle, a crank-shaft provided with a clutch member; a rotary connecting part also provided with a clutch member; a spring for holding said clutch members in engagement; a lever for disengaging said clutch members; a toothed disk disengageably connected with said connecting parts; two pawls constructed and fitted for alternate engagement with said disk; a rocking lever located for convenient operation by a driver seated in the vehicle and connected to said pawls to rotate said disk and to said disengaging lever to release it and thereby permit said spring to engage said clutch members.

4. In a motor vehicle, a crank-shaft provided with a clutch member; a rotary connecting part also provided with a clutch member; means for engaging and disengaging said clutch members; a toothed disk disengageably connected with said connecting part; two pawls constructed and fitted for alternate engagement with said disk; a transverse rock-shaft connected to said pawls to rotate said disk and to said clutch engaging means to operate the same; and a rocking lever located for convenient operation by a driver seated in the vehicle and operatively connected to said rock-shaft.

1,138,117. AUTOMOBILE DOOR MECHANISM. YOSHIHEI KARIVA, Los Angeles, Cal. Filed Sept. 10, 1913. Serial No. 789,198. (Cl. 39—91.)



1. A mechanism for a swinging door comprising a latch adapted to enter a cavity in the door casing, a spring for holding said latch in said cavity, and a link sliding longitudinally in said door and having one projection so placed as to release said latch and having a second projection so placed as to strike upon and swing said door open.

2. A mechanism for a swinging door comprising a latch adapted to enter a cavity in the door casing, a lever for manually actuating said latch, a spring for holding said latch in said cavity, and a link sliding longitudinally in said door and having one projection so placed as to release said latch and having a second projection so placed as to strike upon and swing said door open.

3. In a vehicle having a front and a rear seat, doors giving access to said rear seat, a latch in each door, a lever for actuating each latch, a spring for holding each of said latches in the engaged position, a link system adapted to release said latch moving in said door, a shaft located transversely of the automobile under the rear seat, a door actuating lever turning freely on said shaft and actuating one of said link systems, a second door actuating lever rigidly secured to said shaft, a shaft actuating lever secured to said shaft, two pull rods, one secured to said first-named door actuating lever and the other secured to said shaft actuating lever, a short shaft located below and forward of the front seat, rod levers turning on said short shaft and connected to said pull rods, an operating lever and means whereby said operating lever may be connected to either or both of said rod levers.

4. A door formed of two parallel walls forming a narrow inclosed space therebetween, a doorway formed of two walls having a narrow inclosed space therebetween, a latch on said door, a link sliding between the walls of said door and having one projection for actuating said latch, a second projection engaging said door to close same, and a third projection engaging said door to open same, and means for actuating said link.

5. A door formed of two parallel walls forming a narrow inclosed space therebetween, a doorway formed of two walls having a narrow inclosed space therebetween, a latch on said door, a link sliding between the walls of said door and having one projection for actuating said latch, a second projection engaging said door to close same, and a third projection engaging said door to open same, a link sliding between the walls of said doorway, means for actuating said link, and means for connecting said links.

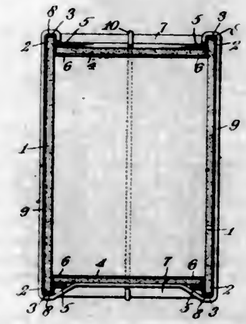
[Claim 6 not printed in the Gazette.]

1,138,118. PROCESS OF REDUCING WASTE SULFITE LIQUOR TO A POWDER. FREDERIC H. KENNARD, Newton, Mass. Filed Jan. 2, 1914. Serial No. 810,099. (Cl. 252.)

1. The process of reducing waste sulfite liquor to a powder by first concentrating the same to a viscous state in a vacuum and then applying the viscous material in a vacuum in a thin sheet onto a heated surface and retaining the same thereon until the viscous liquor is evaporated to dryness.

2. A new article of manufacture consisting of the powdered dry product from the evaporation of waste sulfite liquor having an acid reaction, the original composition being substantially conserved.

1,138,119. SHIPPING-RECEPTACLE. MAURICE LACHMAN, New York, N. Y., assignor to Lachman Manufacturing Company, New York, N. Y., a Corporation of Delaware. Filed Apr. 12, 1913. Serial No. 760,595. (Cl. 229—67.)

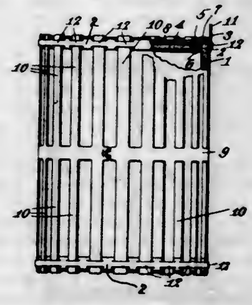


1. In a shipping receptacle, the combination with a cylindrical hollow body, heads for closing each end of said hollow body, rigid U-shaped stay members, the base of said stay members bearing against a head, hooks formed upon the free ends of said stay members and engaging the opposite end to retain said head within said body.

2. In a shipping receptacle, the combination of a cylindrical body, heads for closing said body, rigid U-shaped metallic stay members, each stay member having its base bearing against the outer surface of a head and having the legs of the said stay member extending longitudinally adjacent the outer surface of the body member, and hooks provided upon the free ends of said stay members, said hooks engaging the rim of said cylindrical body to retain said stay members in position.

3. In a shipping receptacle, the combination of a hollow paper body, a head for closing an end of said paper body, a rigid U-shaped stay member having its base bearing against and crossing said head to maintain said head in position within said body, the legs of said U-shaped stay member extending parallel to the axis of said body and closely adjacent the outer surface of said body, and means formed upon the free ends of said legs and coöperating with the rim of said body to maintain said stay in position.

1,138,120. PAPER CONTAINER. MAURICE LACHMAN, New York, N. Y., assignor to Lachman Manufacturing Company, New York, N. Y., a Corporation of Delaware. Filed Apr. 12, 1913. Serial No. 760,596. (Cl. 229—67.)



1. A container including in combination, a body of paper-like material, a metallic band secured to said body, metallic straps emanating from said band, hoops adjacent the ends of said body, loops on said hoops and extending over said straps, holding devices formed on said straps, and a head seated on said paper-like body and secured in position by the holding devices on said straps.

2. A container including in combination, a cylindrical paper body, a metallic band encircling said body, flat metallic members secured to said band and having a greater total length than the length of the body, hoops adjacent the ends of said body and having portions extending over the ends of said flat metallic members, heads seated in the ends of said body, and hooks formed in the ends of said members and extending over the edge of the rims at the ends of said body and coöperating with said heads to secure said heads to said body.

3. In a container in combination, an integral cylindrical body of fibrous material, metallic hoops on each end of said cylindrical body, loops formed upon said hoops, stay members having a total length greater than the length of said body extending lengthwise of said body and through said loops, a head seated in one end of said body, and hooks formed upon said stays and coöperating with said head to secure said head in position.

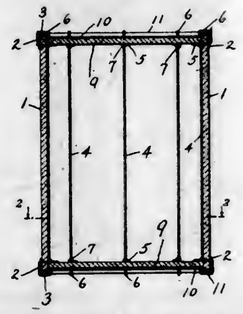
4. A container comprising an integral body of fibrous material, a supporting member coöperating with said integral body, said supporting member comprising a hoop and flat strips extending from said hoop, a head seated in one end of said body, a hoop adjacent the end of the body in which the head is seated, means to secure said strips to said last mentioned hoop, and means carried by said strips to secure said head within the end of said body.

1,138,121. SHIPPING-PACKAGE. MAURICE LACHMAN, New York, N. Y., assignor to Lachman Manufacturing Company, New York, N. Y., a Corporation of Delaware. Filed Nov. 8, 1913. Serial No. 799,847. (Cl. 229—67.)

1. A container comprising a cylindrical paper body, metallic stay members disposed within said body and extending substantially the length thereof, loops formed near each end of said stay members adjacent the ends of the cylindrical body, said loops extending inwardly in a radial direction, heads for each end of said body, said heads resting upon said loops, and flexible extensions extending from said loops through said cylindrical paper body in a radial direction and being adapted to be bent to engage the rims of the heads to secure the heads to said body.

2. A container comprising in combination a cylindrical paper body, metallic stay members disposed longitudinally

thereof, loops integral with the stay members and projecting radially within said body with the plane of the loops substantially at right angles to the axis of said cylindrical body, said stay members being twisted about one member of said loops, one member of said loops extending radially through said cylindrical paper body, heads constructed to rest upon said loops, metallic rings engaging the outer surface of said heads and seated on the ends of said body, and means to engage said rings to hold said heads within said cylindrical container and upon said loops.



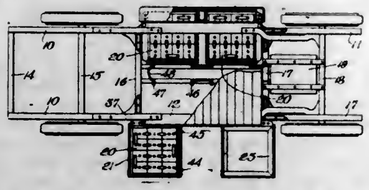
3. A container comprising a cylindrical paper body, metallic stay members having loops radially projecting within said body, a paper disk at each end of the body seated on said loops and a metal rim seated on the end of the body and bearing on said disk, said stay members terminating in hooks engaging said rims.

4. A container comprising a cylindrical paper body, a metal band at each end of said body, metallic stay members disposed longitudinally within said body, loops integral with said members and projecting radially within said body, a paper disk fitting within said body at each end and seated on said loops, an annular metal rim for each disk seated on the end of the body and engaging the outer surface of the disk and extensions of said loops passing laterally through the wall of said body and said bands and adapted to engage said rims substantially as and for the purpose described.

5. As a new article of manufacture, a stay member for securing heads to containers comprising a wire stay, a loop at each end of said wire stay integral therewith and projecting laterally therefrom and an extension of said loop disposed laterally from said wire in the opposite direction.

[Claims 6 and 7 not printed in the Gazette.]

1,138,122. ELECTRIC MOTOR-VEHICLE. FRED A. LAMBERT, Lawrence, and FRANK H. HARDY, Andover, Mass. Filed Dec. 19, 1914. Serial No. 878,084. (Cl. 105—267.)



1. In an electric motor vehicle the combination with the chassis of such vehicle, of a holder mounted pivotally upon said chassis to swing about a vertical axis and adapted to contain an electric battery.

2. In an electric motor vehicle the combination with the chassis of such vehicle, of a holder mounted pivotally upon said chassis and adapted to contain an electric battery, said holder being further so arranged that it may be swung about its pivotal axis into a position outside of the chassis and into another position more or less within the outer boundaries of the chassis.

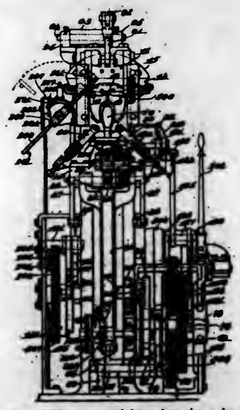
3. In a motor vehicle, the combination of a chassis having a side member constructed with an open space between its forward and rear ends, of a battery holder pivoted to the side member at one end of such open space and being arranged to swing through said open space into positions respectively outside of and within the chassis.

4. In a motor vehicle, a chassis having a side member constructed of alined and longitudinally separated bars at the front and rear portion thereof respectively, and vertically separated bars connected to said forward and rear bars at their ends and extending across the space between said forward and rear bars, respectively above and below the line of said bars, and a battery holder connected on a vertical pivot to said side member at one end of the space between said front and rear bars and at a height intermediate the upper and lower bars, and a battery mounted on said holder.

5. In a motor vehicle, a chassis having a side member constructed of longitudinally separated forward and rear bars, and vertically separated upper and lower bars connected to said forward and rear bars and crossing the space between them, and a battery holder arranged to enter and issue from such space.

[Claims 6 and 7 not printed in the Gazette.]

1,138,123. COUNTER-MOLDING MACHINE. ROSWELL A. LANCEY, Townsend, Mass., assignor to Leon C. Spaulding, Huntley N. Spaulding, and Roland H. Spaulding, Rochester, N. H., and Emma C. Spaulding and Marion L. Spaulding, Boston, Mass., Copartners, doing business under the firm-name of J. Spaulding & Sons Company, Rochester, N. H. Filed Aug. 26, 1914. Serial No. 858,748. (Cl. 12—66.)



1. A counter molding machine having in combination a fixed frame, a pair of pivotally mounted side molds therein together with actuating mechanism therefor, a center mold mounted on said frame adapted to rock back and forth with respect to said pair of side molds, and a doffer constructed and arranged to engage the flange of the molded counter when the center mold is rocked out of and away from the plane of said side molds and to move in a direction to disengage the counter from the center mold, said doffer and molds having a relatively fixed relation to each other with respect to the frame.

2. In a counter molding machine, in combination, a fixed frame, a pair of pivotally mounted side molds movable toward and from each other in a substantially vertical molding plane, a center mold mounted on said frame adapted to rock into and out of the plane of the side molds, means for actuating said mold to bring it into the molding plane, means for moving the molds relatively together toward and from each other when in said molding plane, said center mold being provided with a condyle-like bearing, and a socket base in which said bearing is seated.

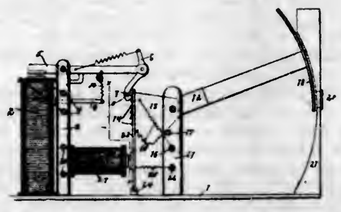
3. A counter molding machine having, in combination, center and side molds adapted to rock toward and from each other and a counter doffer, said doffer being mounted and arranged to move about an axis perpendicular to the plane of the molds and also in a plane approximately parallel to the plane of the molds.

4. In a counter molding machine, in combination, movable side molds, a center mold movable into and out of the plane of the side molds, and a feeder for feeding counter blanks to the molds while they are in the same plane.

5. A counter molding machine having, in combination pivotally mounted side molds adapted to swing toward and from each other, a rocking center mold movable at right angles to the plane of the swinging movement of the side molds and a revolving doffer mounted at one side of the center mold and revolving in a plane approximately parallel to the plane of the swinging movement of the side molds adapted to lift the counter from the rocking center mold when said center mold is swung away from said side molds.

[Claims 6 to 17 not printed in the Gazette.]

1,138,124. INDICATOR. DANIEL O. LAWRENCE, Columbus, Nebr., assignor of one-third to C. J. Garlow, Columbus, Nebr., and one-third to C. J. Cottingham, Los Angeles, Cal. Filed July 22, 1910, Serial No. 573,257. Renewed Oct. 10, 1914. Serial No. 866,136. (Cl. 177—328.)



1. In a device of the character described, a lever having teeth formed at one end, indicating means carried at the other end of said lever, an electro-magnet, a rocking armature disposed above said magnet, a second lever pivoted directly upon and at one end of said armature, one end of said second lever formed into a pawl, said pawl adapted to engage said teeth, whereby when said armature is rocked said first lever will be rocked by said pawl, a pin carried by said second lever, means for holding said first lever in said rocked position, means for moving said second means out of engagement with said first mentioned lever, said second means adapted to engage said pin when it is moved whereby said pawl will be pushed out of engagement with said teeth and said first lever will return to its first position.

2. In a device of the character described, a supporting structure, a lever pivoted upon said supporting structure, teeth formed on one end of said lever, indicating means on the other end of said lever, an electro-magnet, a rocking armature pivoted above said magnet, a second lever pivoted upon and at one end of said armature, a pin on said second lever, one end of said second lever formed into a pawl, said pawl adapted to engage said teeth, said magnet adapted to be energized whereby said armature will be rocked and said pawl will move said first lever into a changed position, a second electro-magnet, a third lever pivoted to said supporting structure, said third lever adapted to engage said teeth and hold said first lever in said changed position, said second magnet adapted to be energized whereby said third lever will be disengaged from said teeth, one end of said third lever adapted to engage said pin while being moved by said second magnet, whereby said pawl is disengaged from said teeth and said first lever moved to its first position.

3. In a device of the character described, a base plate, a standard positioned thereon, a lever having an enlarged end pivoted upon said standard, an indicating plate carried upon the small end of said lever, teeth formed upon the enlarged end of said lever, a vertically disposed electromagnet upon said base plate, a second standard upon said base plate, an armature pivoted intermediate its ends upon said second named standard and adapted to coöperate with said magnet, a second lever pivoted upon one end of said armature and held normally in engagement with said teeth through the medium of a coiled spring, a second electromagnet horizontally disposed upon said second named standard, a second armature pivoted upon said base plate and adapted to coöperate with said second mentioned magnet, said second mentioned armature adapted to hold said first mentioned lever in different positions for the purpose described.

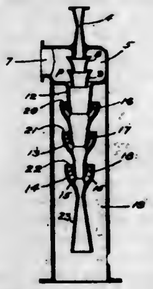
4. In a device of the character described, a base plate having a standard mounted thereon, a lever pivoted intermediate its ends upon said standard, said lever being enlarged at one end and provided with teeth upon said enlargement, the small end of said lever provided with a curved indicating plate, a second standard mounted upon said base plate, a vertically disposed electromagnet positioned upon said base plate, an armature pivotally connected to said second named standard adapted to coöperate with said electromagnet, a second lever pivoted upon one end of said armature and having one end normally in engagement with said teeth, said armature adapted to be rocked through the medium of said electromagnet, thereby moving said first named lever, an electromagnet carried by said second mentioned standard, said second electromagnet being disposed in a horizontal position, a second armature pivoted upon said base plate and provided with a cut out portion near its upper end, said second mentioned armature adapted to coöperate with said horizontally disposed electromagnet, said second mentioned armature adapted to engage said teeth and hold said first mentioned lever in different positions, for the purpose described.

5. In a device of the character described, a base plate having a standard mounted thereon, a lever having an enlarged end pivoted upon said standard, an indicating plate carried by the smaller end of said lever, teeth formed upon the enlarged end of said lever, an electromagnet disposed vertically upon said base plate, a second standard positioned upon said base plate, an armature pivoted intermediate its ends upon said second named standard, the end of said armature being directly above the core of said electromagnet, means comprising a pin on said second named standard and having resilient connection with one end of said armature adapted to normally hold said armature out of engagement with the core of said magnet, a lever pivoted intermediate its ends upon one end of said armature, a coiled spring connecting one end of said second mentioned lever and said armature, whereby the other end of said second mentioned lever is normally held in engagement with said teeth, a second electromagnet carried by said second mentioned standard and horizontally disposed in relation therewith, a bracket carried by said base plate, a second armature having pivotal connection with said bracket and adapted to coöperate with said second electromagnet, said second mentioned armature provided near its upper end with a vertical cut out portion, the base of said cut out portion adapted to engage said teeth, thereby holding said first mentioned lever in different positions, said second mentioned electromagnet adapted to move said second mentioned armature out of engagement with said teeth, for the purposes described.

1,138,125. FLUID-EJECTOR. MAURICE LEBLANC, Auteuil, Paris, France, assignor, by mesne assignments, to Societe Anonyme Pour l'Exploitation des Procedes Westinghouse-Leblanc, Paris, France. Original application filed Sept. 10, 1907, Serial No. 392,122. Divided and this application filed Sept. 27, 1910. Serial No. 583,993. (Cl. 230—13.)

1. An ejector device for compressible fluids, comprising an admission nozzle for motive fluid, a mixing cone receiving fluid from said nozzle and having a lateral discharge aperture formed therein at a point intermediate its ends for discharging excess fluid during the operation of

starting the device, and a divergent nozzle communicating with the outlet of said mixing cone; the outlet of said discharge passage communicating with the region into which said diffuser discharges.



2. An ejector device for compressible fluids, comprising an admission nozzle for motive fluid, a combined convergent divergent tube communicating with the source of fluid to be ejected receiving motive fluid from said nozzle and having lateral discharge passages intermediate its ends the outlets of which communicate with the region into which the combined tube discharges.

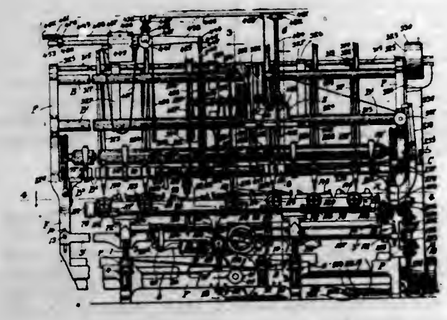
3. In combination in an ejector, an admission nozzle for motive fluid, a mixing cone communicating therewith, means for discharging fluid from said cone along its length during the operation of starting said ejector and a receiving chamber extending the entire length of said cone and in free communication with the outlet thereof.

4. In combination in an ejector, an admission nozzle for motive fluid, a mixing cone communicating therewith, means responsive to variations of fluid pressure within said cone for discharging fluid from said cone at points along its length during the operation of starting the ejector and a receiving chamber extending the entire length of said cone and in free communication with the outlet thereof.

5. In combination in an ejector, an admission nozzle for motive fluid, a mixing cone communicating therewith provided with apertures located at points along its length, and means for successively opening and closing said apertures during the operation of starting said ejector and a receiving chamber extending the entire length of said cone and in free communication with the outlet thereof.

[Claims 6 to 10 not printed in the Gazette.]

1,138,126. CARVING-MACHINE. EMIL R. LOCHMAN, St. Louis, Mo. Filed Oct. 14, 1905. Serial No. 282,854. (Cl. 90—13.5.)



1. In a carving machine, a tool-bar provided with a tracer and cutting tools, a retracting device mounted on the frame of the machine, a bar disposed at right angles with the tool-bar, and suitable couplings for said bar to connect the tool-bar and the retracting device to transmit the pressure brought against the side of the tracer to the retracting device and a flexible transmitter, to transmit the action of the retracting device, to the tool-bar and acting upon the tracer and tools in line of their axes, substantially as set forth.

2. In a combined automatic and hand carving machine, a reciprocating frame, means for holding pattern and stock in said frame, a tool-bar provided with a tracer and cutting tools, a retracting device mounted on the frame of the machine, a flexible transmitter and means including a bar connecting the tool-bar and the retracting device during the automatic motion of the machine, and means to readily disconnect the tool-bar from the retracting device for hand operation of the machine, substantially as set forth.

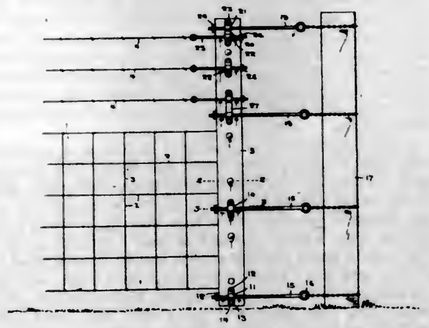
3. In a carving machine a tool-bar provided with a tracer and cutting tools, a retracting device, connecting members between said tool-bar and retracting device to transmit the pressure brought at right angles against the axis of the tracer to the retracting device, and another connecting member to transmit the action of the retracting device to the tool-bar and acting in line of the axis of the tracer, substantially as set forth.

4. In a combined automatic and hand fed carving machine a reciprocating stock frame, means for holding pattern and stock in said frame, a tool carriage reciprocating in a plane parallel with said stock frame, a tool-bar forming the outer member of said tool carriage, a locking device mounted on the frame of the machine, a bar coupled to the tool-bar one end of said bar passing freely through said locking device during hand operation of the machine, and means to readily close said locking device on said bar and thereby lock said tool carriage during automatic use of the machine, substantially as set forth.

5. In a carving machine, a tool-bar having tracer and cutting tools, a tool carriage, said tool-bar tiltable about its axis, a bar coupled to said tool-bar at right angles to the same, a locking device, said bar passing freely the said locking device during hand operation of the machine and means carried by said locking device to lock said bar against movement in line with its axis during automatic use of the machine, substantially as set forth.

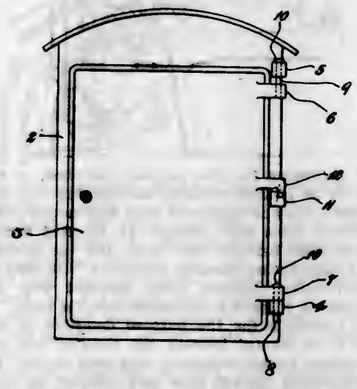
[Claims 6 to 101 not printed in the Gazette.]

1,138,127. FENCE-TIGHTENING DEVICE. CLARENCE L. LOFTUS, Stapleton, Nebr. Filed June 24, 1914. Serial No. 846,351. (Cl. 256—37.)



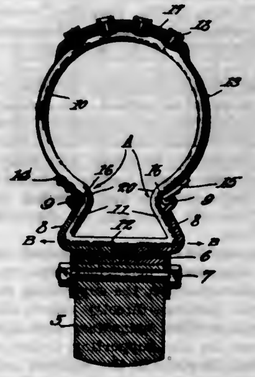
A wire stretching device comprising; a post, a wire clamping device positioned parallel with said post consisting of two members clamping wires between them, yoke members placed upon the outer face of one of said clamping members, adjustable eyelet bolts mounted through said yoke members, a plurality of double yoke members placed upon said outer faces of one of said double clamping members, adjustable eyelet bolts mounted through said double yoke members in opposite directions, barb wire attached to one of said last mentioned eyelet bolts in each double yoke member, means attached to said first mentioned eyelet bolts and to the opposite of said last mentioned eyelet bolts and encircling said post to stretch both said wires and said barb wires in unison by drawing said clamping device toward said post, means mounted upon said bolts and coacting with said yoke members to stretch said barb-wire without stretching said first mentioned wires, and means mounted upon said bolts and coacting with said yoke members to stretch said first mentioned wires in unison without stretching said barb-wire.

1,138,128. HINGE MECHANISM. GEORGE A. LONG, Hartford, Conn., assignor to The Gray Telephone Pay Station Company, Hartford, Conn., a Corporation of Connecticut. Filed Feb. 18, 1914. Serial No. 819,316. (Cl. 16—168.)



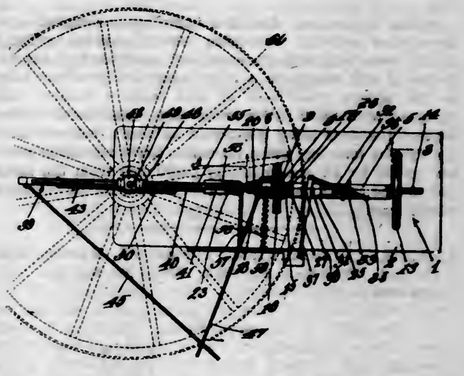
Hinge mechanism comprising upper and lower hinges, pintles for connecting the knuckles of the hinges and headed at their upper ends, the upper pintle extending freely through the upper knuckle of the upper hinge and being driven into the lower knuckle of the upper hinge and the lower pintle being driven into the upper knuckle of the lower hinge and extending freely into the lower knuckle of the lower hinge, and door closing cams interposed between the hinges, the engaging surfaces of the cams being imperforate, one of the cams being rigid with the door and the other being supported independently of the door.

1,138,129. AUTOMOBILE-TIRE AND RIM. JOHN S. LYONS, Wilkes-Barre, Pa., assignor of one-half to George T. Brown, Wilkes-Barre, Pa. Filed Nov. 4, 1913. Serial No. 799,211. (Cl. 152—8.)



In a tire, a helical tread spring each convolution of which is disposed transversely of the axis of the tire and embodies a resilient tread loop, straight, laterally diverging arms, and a continuous, inextensible cross bar connecting the arms; and a base on which the cross bar rests, the base comprising wings which bear upon the outer faces of the arms, the straight formation of the arms tending to prevent a transverse flexure of the arms intermediate their ends and serving to transmit lateral pressure to the base in straight diverging lines when the loop is compressed, the cross bar being straight from end to end whereby when the loop is compressed, the cross bar will remain at a fixed length and will coöperate with the wings in resisting the tendency of the arms to separate laterally due to the straight diverging relation existing between the arms.

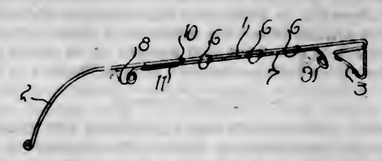
1,138,130. TIRE-BOLTING MACHINE. BENJAMIN F. MCCULLOUGH, Teague, Tex. Filed July 8, 1914. Serial No. 849,756. (Cl. 81—56.)



1. In a wheelwright machine, a frame, a jaw carried thereby for the seating of a wheel felly thereagainst, an upstanding fork having a shank journaled to the frame, a screw slidable through the arms of the fork, a nut threaded upon the screw and disposed snugly between the arms of the fork, and a lever fulcrumed to the screw and having a bolt-engaging element.

2. In a wheelwright machine, a frame, a rotatable wrench member carried thereby, a clamp member including a base slidable upon the frame, the base having a jaw at one end provided with an opening for the reception of the wrench member, and having an ear at the said end slidable through the frame, an adjusting screw carried by the frame and threaded through the said ear, a clamping element carried by the other end of the said base and slidably engaging the frame, and bolt holding means carried by the frame and coöperating with the said jaw and wrench member.

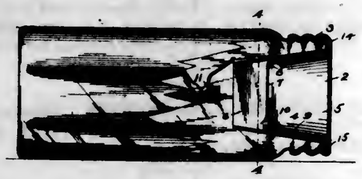
1,138,131. DEVICE FOR HANDLING CUSPIDORS. JOHN G. MACRAE, Eagle, Colo., assignor of one-sixth to Gustave H. Meyer and one-sixth to William M. Dickinson, Eagle, Colo. Filed July 8, 1914. Serial No. 849,816. (Cl. 57—111.)



A cuspidor lifter comprising a rod, formed with a handle at one end and the other end with a downward and rearwardly inclined hook, said rod provided with fixed guides intermediate its ends, in combination with a shorter reciprocative rod having a grip at one end and a

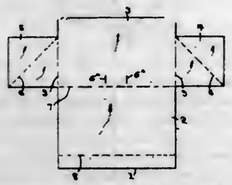
downward and forwardly inclined projection at the other end said rod located in the guides on the longer rod, and provided with a guide embracing the same, and a spiral spring surrounding the shorter rod and confined between the guide on said rod and an adjacent guide on the longer rod.

1,138,132. ANIMAL-TRAP. EDWIN T. MARSH, Bergen, N. Y. Filed Feb. 8, 1913. Serial No. 747,013. (Cl. 43—24.)



A trap of the type described including a receptacle, an open-ended inwardly converging tubular member having a square inner end with its outer end positioned at the entrance of said receptacle, a reticulated door pivotally hung in the square inner end of said tubular member and equipped with teeth at its lower edge, said toothed lower edge of the door being positioned adjacent the bottom of the tubular member, and a reticulate bait-suspending member upheld by an arm pivotally positioned from the inner end of said tubular member in alinement with the entrance of the trap.

1,138,133. COIN-CARRIER. THEODORE L. MARTIN, Muncie, Ind. Filed Sept. 11, 1914. Serial No. 861,253. (Cl. 229—69.)

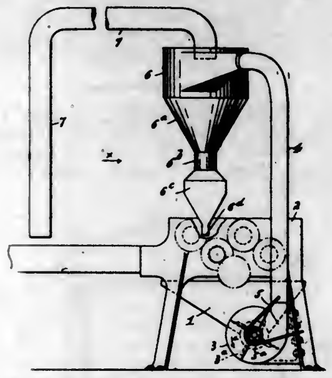


1. A coin carrier comprising a back portion having lateral extensions, said extensions being of less width than the width of the back portion, said extensions being adapted to be folded diagonally across their face so that the meeting edges will extend along the meeting line of the front and back when said lateral extensions have been folded along the edge of said back; a front fold adapted to be folded up against the said back and the said folded lateral extensions, and a flap adapted to be folded over the edge of the back when said back is in contact with the said front fold.

2. A coin holder comprising a back portion, a lateral extension attached to the edges of said back portion and of less width than the width of the back portion, said lateral extensions being adapted to be folded diagonally across their faces, an additional lateral extension at each end of the back portion, the width of said additional extension and the first mentioned extension being equal to the width of the back portion, said additional extension being adapted to be folded over the inner face of the back to retain articles within the receptacle, a front fold and a flap carried by the front fold adapted to be folded over the edge of the back portion and secured thereto.

1,138,134. APPARATUS FOR CLEANING TIN PLATES. WILLIAM GEORGE MOORE, Warren, Ohio, assignor to The Aetna Foundry and Machine Company, Warren, Ohio. Filed July 27, 1914. Serial No. 853,398. (Cl. 51—15.)

1. In apparatus for the purpose described, a hopper adapted to be located beneath the cleaning roll mechanism, exhaust means connected with said hopper, an outlet conductor from said exhaust, an elevated drum oblique connection between said drum and the outlet conductor, said drum being provided with a discharge opening adapted to discharge onto the rolls.



2. In apparatus for the purpose described, a hopper adapted to be located beneath the cleaning roll mechanism, exhaust means connected with said hopper, an outlet conductor from said exhaust, an elevated drum, oblique connection between said drum and the outlet conductor, a distributing chamber connected with said drum, said distributing chamber being provided with a discharge opening adapted to discharge onto the rolls.

3. In apparatus for the purpose described, a hopper adapted to be located beneath the cleaning roll mechanism, exhaust means connected with said hopper, a conductor extending upward from said exhaust, an elevated drum, oblique connection from the upper terminal of the conductor to the drum, a distributing chamber located below the drum, a tapered connecting member between the drum and the distributing chamber, said distributing chamber being provided with a discharge opening adapted to discharge onto the rolls.

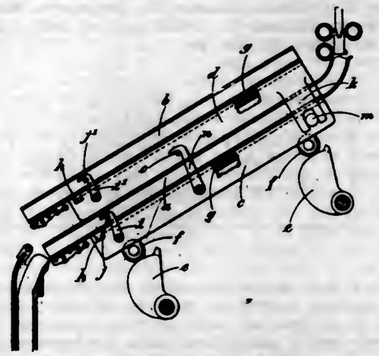
4. In apparatus for the purpose described, the combination of a hopper located below the cleaning roll mechanism, exhaust means connected with said hopper, an elevated circular receiving chamber, a connecting member between the exhaust means and the receiving chamber, the entrance from the connecting member to the chamber being at an angle to the radius of said chamber, a distributing and discharge member located below the receiving chamber, and a tapered connecting member between said chamber and the distributing and discharge member.

1,138,135. TYPOGRAPHICAL COMPOSING-MACHINE. CARL MUEHLEISEN, Berlin, Germany, assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed Dec. 26, 1914. Serial No. 879,191. (Cl. 199—7.)

1. In a typographical composing machine, the combination of two superposed magazines, two corresponding supporting frames therefor, the supporting frame for the upper magazine resting directly upon and supported wholly by the underlying magazine, and detachable means for connecting the several parts separably together; whereby said parts may be held together as a unitary structure and whereby each may be removed separately from the machine.

2. In a typographical composing machine, the combination of two superposed magazines, two corresponding supporting frames therefor, the supporting frame for the upper magazine resting directly upon and supported wholly by the underlying magazine, and detachable connections between the two supporting frames whereby the upper one is held in place in the machine and is capable of independent removal therefrom at will.

3. In a typographical machine, the combination of two superposed magazines, and two corresponding supporting frames therefor, the upper frame resting directly upon and supported wholly by the underlying magazine and being provided at its opposite sides with depending arms extending past the upper magazine and detachably connected to the lower supporting frame, for the purpose described.

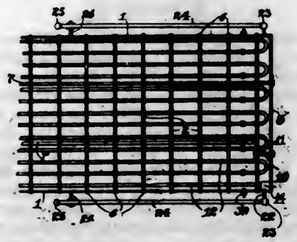


4. In a typographical machine, the combination of two superposed magazines, two corresponding supporting frames therefor, the upper supporting frame resting upon and supported wholly by the underlying magazine, detachable connections between the two supporting frames whereby they are held together against longitudinal displacement, and a locking latch connected to one of the supporting frames and arranged in engagement with the other, and serving to prevent their relative vertical displacement.

5. In a typographical machine, the combination with two superposed magazines, two corresponding supporting frames therefor, connections between the two supporting frames whereby they are held against relative longitudinal displacement, and detachable connections between each magazine and its corresponding supporting frame, whereby they are also held against relative longitudinal displacement, of a locking latch connected to one of the supporting frames and arranged in engagement with the other to prevent their relative vertical displacement, and a locking latch connected to each of the supporting frames and arranged in engagement with the corresponding magazine to prevent their relative vertical displacement.

[Claims 6 and 7 not printed in the Gazette.]

1,138,136. LUMBER-DRIER. AARON S. NICHOLS, New York, N. Y. Filed July 1, 1914. Serial No. 848,451. (Cl. 34—16.)



1. A platen for driers composed of side rails and cross bars, the cross bars consisting of flanged bars with the outer surfaces of the flanges curved convexly, transversely to the length of the flanged bars and the ends of said cross bar being held on the side rails, substantially as set forth.

2. A platen for lumber driers constructed with side rails and cross bars, the cross bars being composed of flanged bars, the top and bottom surfaces of the cross bars being in planes higher and lower than the upper and lower edges respectively of the side rails and said side rails and cross bars being connected with each other, substantially as set forth.

3. A platen for driers composed of side rails and cross bars, the cross bars having their upper surfaces curved convexly transversely to the length of the cross bars and said curved surfaces being above the planes of the upper edges of the side rails, substantially as set forth.

4. A platen for lumber driers composed of side rails and cross bars, the cross bars having their upper and lower surfaces curved convexly transversely to the length of the cross bars and said curved surfaces of the cross bars being respectively above and below the planes of the upper and lower edges of the side rails, substantially as set forth.

5. In a platen for driers, the combination of side rails, end bars and cross bars uniting the side rails between the end bars, with hollow blocks in the corners of the platen, the end parts of the side rails resting against the outer side surfaces of said blocks, said end portions of the side rails being provided with a slidable connection, substantially as set forth.

[Claims 6 to 13 not printed in the Gazette.]

1,138,137. MEANS FOR SHIFTING CLOSURES. AARON S. NICHOLS, New York, N. Y. Filed July 1, 1914. Serial No. 848,452. (Cl. 126—285.)



1. The combination with a longitudinally slotted member and means for guiding the same in longitudinal direction, of a second member mounted to slide and turn axially and supported by said longitudinally slotted member, a projection on said second member, said longitudinally slotted member being provided with a series of notches in the side of the slot for engagement with the said projection on the said sliding and rotative member and a mechanical device mounted for actuation by said longitudinally slotted member, substantially as set forth.

2. The combination with a longitudinal member mounted to slide lengthwise, of a second member supported by said first member and mounted to slide lengthwise in relation to said first member and also to turn axially, a series of notches in said first member, the second member having at its inner ends a means adapted to engage said notches, and a mechanical device mounted for actuation by said first mentioned longitudinal lengthwise sliding member, substantially as set forth.

3. The combination with a longitudinally slotted member and means for guiding the same in longitudinal direction, of a second member supported by said first mentioned longitudinally slotted member and mounted to slide and to turn axially in relation to said longitudinally slotted member, a projection on said second member, said longitudinally slotted member being provided with a series of notches in the sides of the slot for engagement with said projection on the member mounted to slide on the slotted member, said notches each having a shoulder for engagement with the projection on said second member and a mechanical device mounted for actuation by said longitudinally slotted member, substantially as set forth.

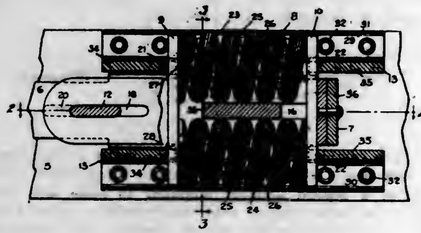
4. The combination with a longitudinally slotted member and means for guiding the same in longitudinal direction, of a second member mounted to slide and turn axially on said longitudinally slotted member, a projection on said second member, said longitudinally slotted member being provided with a series of notches in the sides of the slot for engagement with said projection on the member mounted to slide on the slotted member, said notches being arranged in pairs opposite each other and one notch of one pair having a shoulder for engagement with the said projection at one end and the other notch of a pair having a like shoulder at the opposite end and a mechani-

cal device mounted for actuation by said longitudinally slotted member, substantially as set forth.

8. The combination with a longitudinally slotted member and means for guiding the same in longitudinal direction, of a second member mounted to slide and turn axially on said longitudinally slotted member, a projection on said second member, said longitudinally slotted member being provided with a series of notches in the sides of the slot for engagement with said projection on the member mounted to slide on the slotted member, said notches being arranged in pairs opposite each other and one notch of one pair having a shoulder for engagement with the said projection at one end and the other notch of a pair having a like shoulder at the opposite end, that end of each notch opposite the one provided with the shoulder being leveled, and a mechanical device mounted for actuation by said longitudinally slotted member, substantially as set forth.

[Claims 6 to 8 not printed in the Gazette.]

1,138,138. DRAFT-RIGGING FOR RAILWAY-CARS. JOHN F. O'CONNOR, Chicago, Ill., assignor to William H. Miner, Chicago, Ill. Filed Apr. 11, 1914. Serial No. 831,288. (Cl. 213—42.)



1. In a draft rigging for railway cars, the combination with the draft members, draw-bar and draft yoke, of a stationary key between the draft members, front and rear stop members secured to the draft members, a compression resisting member extending in either direction beyond the key, and followers, the draft yoke being connected to the draw-bar and having a sliding engagement with the stationary key.

2. In a draft rigging for railway cars, in combination, draft members, a draw-bar, a yoke connected thereto, a stationary key, followers, a compression resisting member mounted between the followers, one of said followers being in front of the stationary key, and the other in the rear of the stationary key, the rear follower engaging the stationary key upon extreme forward movement of the draw-bar whereby the stationary key limits the forward movement of the rear follower.

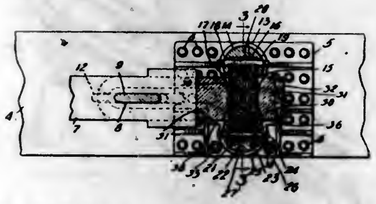
3. In a draft rigging for railway cars, the combination with draft members, draw-bar, a draft yoke secured thereto, and stop members, of a stationary key mounted between the draft members, a compression resisting member, and followers, the draft yoke being provided with slots through which the stationary key passes, the rear follower being stopped against rearward movement by the rear stop members, and by the draft yoke through its said engagement with the stationary key.

4. In a draft rigging for railway cars, the combination with draft members, a draw-bar and a yoke connected thereto, of a stationary key mounted between the draft members, followers, compression resisting members between said followers and above and below the stationary key, the said followers being arranged on opposite sides of the stationary key.

5. In a draft rigging for railway cars, in combination, draft members, a draw-bar, a draft yoke connected thereto, stop members, followers, compression resisting members mounted between the followers, comprising upper and lower sets of springs, and means for supporting the compression resisting members, comprising a key passing between the sets of springs and secured at its ends in the draft members.

[Claim 6 not printed in the Gazette.]

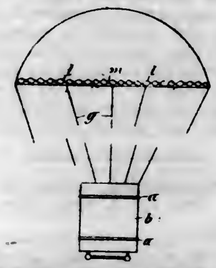
1,138,139. DRAFT-RIGGING FOR RAILWAY-CARS. JOHN F. O'CONNOR, Chicago, Ill., assignor to William H. Miner, Chicago, Ill. Filed Apr. 11, 1914. Serial No. 831,290. (Cl. 213—64.)



1. In a draft rigging for railway cars, in combination, draft members, a draw-bar, cheek plates, draft yoke connected to the draw-bar, a slotted block within the draft yoke, two sets of spring plates, upper and lower rotatable shoes, and separate housings for the lower shoe, the cheek plates being provided with housings to receive the upper shoe, one set of spring plates being connected at one end to the upper shoe, the other set of spring plates being connected at one end to the lower shoe.

2. In a draft rigging for railway cars, the combination with draft members having cheek plates secured thereto, of an upper shoe extending from one cheek plate to the other and mounted in bearings carried by said cheek plates, a lower shoe extending from one cheek plate to the other cheek plate and rotatably mounted in bearings carried thereby, and spring plates secured at their ends in said shoes.

1,138,140. PARACHUTE DEVICE. ANTON OISTER, Unter Siska, near Laibach, Austria-Hungary. Filed Jan. 6, 1914. Serial No. 810,594. (Cl. 244—21.)



1. Apparatus of the character described, comprising in combination a parachute, a receptacle adapted to normally contain the parachute in a collapsed condition, means connecting the parachute to the container, a locking device normally retaining the parachute within the receptacle, means for releasing the locking device, lazy-tongs provided on the periphery of the parachute, and springs at the joints of the lazy-tongs for the purpose of automatically expanding the lazy-tongs when the parachute leaves the container, for the purpose specified.

2. Apparatus of the character described, comprising in combination a parachute, a receptacle adapted to normally contain the parachute in a collapsed condition, means connecting the parachute to the container, a locking device normally retaining the parachute within the receptacle, means for releasing the locking device, means for causing the parachute to leave the container when the locking device is released, lazy-tongs provided on the periphery of the parachute, springs at the joints of the lazy-tongs for the purpose of automatically expanding the lazy-tongs when the parachute leaves the container, and

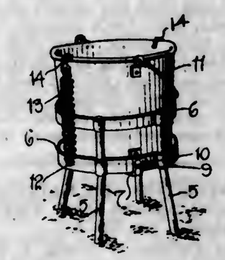
means for securing the apparatus upon the back of the user, for the purpose specified.

3. Apparatus of the character described, comprising in combination a parachute, a receptacle adapted to normally contain the parachute in a collapsed condition, means connecting the parachute to the container, a locking device normally retaining the parachute within the receptacle, means for releasing the locking device, lazy-tongs provided on the periphery of the parachute, springs at the joints of the lazy-tongs for the purpose of automatically expanding the lazy-tongs when the parachute leaves the container, and means for securing the apparatus upon the back of the user, for the purpose specified.

4. Apparatus of the character described, comprising in combination a parachute, a receptacle adapted to normally contain the parachute in a collapsed condition, cords connecting the parachute to the container, a locking device normally retaining the parachute within the receptacle, means for releasing the locking device, means for causing the parachute to be projected automatically from the container upon release of the locking device, lazy-tongs provided on the periphery of the parachute, springs at the joints of the lazy-tongs for automatically extending the lazy-tongs when the parachute leaves the container, and means for securing the apparatus upon the back of the user, for the purpose specified.

5. In a device of the kind described, the combination of a parachute, a receptacle adapted to normally contain the parachute in a collapsed condition in order to house the parachute in a small space when inoperative, cords connecting the parachute to the container, a locking device normally retaining the parachute within the receptacle, means for releasing the locking device, means within the container for automatically projecting the parachute surface therefrom upon release of the locking device, an automatically extenable rim on the periphery of the parachute comprising a plurality of members pivotally connected together at their ends, pivots upon which each of these members are mounted disposed at the centers of these members and adapted to connect them to the parachute and springs mounted at the joints of these members for automatically extending the rim when the parachute leavea the container, and straps for securing the apparatus upon the back of the user, for the purpose specified.

1,138,141. PAIL-STOOL. ELAM A. OLIVER, Belleville, Wis. Filed Jan. 13, 1915. Serial No. 2,066. (Cl. 31—14.)



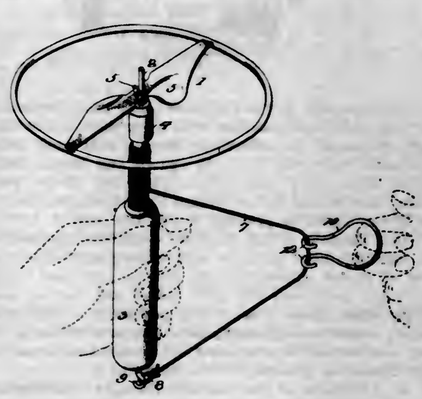
1. A milk pail stool including a vertically adjustable base bar upon which the pail immediately rests and is supported, and resilient holding devices connected to the stool and adapted for detachable connection to the upper edge of the pail.

2. A milk pail stool including a vertically adjustable base bar upon which the pail immediately rests and is supported, and a coil spring permanently attached at one end to the stool and provided with means on its other end for detachable engagement with the upper edge of the pail.

3. A milk pail stool including legs, spaced rings secured to said legs, a horizontal base bar having its ends engaged against the inner face of one of the rings at diametrically opposite points and adapted to immediately receive and support the pail, means for vertically adjusting said base bar upon the ring, and a plurality of resilient holding devices permanently attached at one of their ends to said ring and provided with means on their other ends for detachable engagement over the upper edge of the pail.

4. A milk pail stool including supporting legs, spaced rings secured to said legs, a horizontal base bar having vertically disposed slotted end portions engaged against the inner face of one of said rings at diametrically opposite points, clamping means extending through the slotted ends of said bar and through said ring to adjustably secure the bar upon the ring, and coil springs permanently connected at one of their ends to said ring at diametrically opposite points and provided with means on their other ends for detachable engagement with the upper edge of the pail.

1,138,142. SPINNING DEVICE. CHARLES MORGAN OLMSTED, Buffalo, N. Y. Original application filed Oct. 2, 1909, Serial No. 520,678. Divided and this application filed May 18, 1912. Serial No. 698,120. (Cl. 244—2.)



1. A spinning device for toys comprising a spinning part, a support for the latter, a cord designed to be wound on the spinning part and secured at its free end to the support, and a hook separate from said support for slidably engaging the cord at a point between the spinning part and the end thereof which is fastened to the support.

2. A spinning device for toys comprising a spool, a support for the latter having a centering rod, a cord designed to be wound on the spool and secured at its free end to the support, and means for pulling the cord at a point between the spool and the end thereof which is fastened to the support, said means movable relatively to said support.

3. In combination with a toy, means for rotating the same comprising a spinning part, a support for the latter, a cord designed to be wound on the spinning part and secured at its free end to the support, and means for engaging said cord and increasing the speed thereof at the spinning part over that of the engaging means.

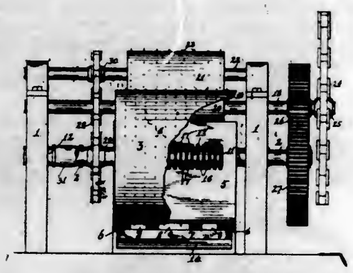
4. A spinning device for devices comprising a handle, a centering rod extending from one end thereof, a spool mounted on said centering rod, a hook at the other end of said handle, a cord wound on said spool and having a loop at its free end for engaging said hook and a hook for slidably engaging the cord.

5. In combination with a toy having an axial opening, of a spinning device for said toy comprising a handle, a centering rod extending from one end of said handle and designed to extend through said axial opening, a spool, divergent pins carried by said spool for engaging the toy at or near its axis, a cord wound on said spool and se-

cured at its free end to the handle, and a means for slidably engaging the cord between the spool and the fastened end of the cord.

[Claims 6 and 7 not printed in the Gazette.]

1,138,143. MACHINE FOR REMOVING THE PULP FROM PREVIOUSLY-SEPARATED PINEAPPLE-PEEL. JOHN ALFRED OLSEN, Honolulu, Hawaii, assignor to California Fruit Canners Association, San Francisco, Cal., a Corporation of California. Filed Feb. 23, 1915. Serial No. 9,775. (Cl. 146—11.)



1. In a machine of the described class, the combination of a rotatable head provided with a peripheral grill composed of spaced, circumferential flanges, said head carrying blades traversing the grill spaces and having their cutting edges lying back of the periphery of the grill-flanges; and means for presenting the material to the action of the blades by pressing it into the grill.

2. In a machine of the described class, the combination of a rotatable head provided with a peripheral grill composed of spaced, circumferential flanges, said head carrying blades traversing the grill spaces and having their cutting edges lying back of the periphery of the grill-flanges; means for adjustably mounting said blades in the head; and means for presenting the material to the action of the blades by pressing it into the grill.

3. In a machine of the described class, the combination of a rotatable head provided with a peripheral grill composed of spaced, circumferential flanges, said head carrying blades traversing the grill spaces and having their cutting edges lying back of the periphery of the grill-flanges; and a traveling carrier adapted to present the material to the action of the blades by pressing it into the grill.

4. In a machine of the described class, the combination of a rotatable head provided with a peripheral grill composed of spaced, circumferential flanges, said head carrying blades traversing the grill spaces and having their cutting edges lying back of the periphery of the grill-flanges; and a rotatable carrier-drum provided with pins adapted to engage the material and present it to the action of the blades while the drum presses it into the grill.

5. In a machine of the described class, the combination of a rotatable head provided with a peripheral grill composed of spaced, circumferential flanges, said head carrying blades traversing the grill spaces and having their cutting edges lying back of the periphery of the grill-flanges; a fixed face plate opposing the grill periphery, said plate having an opening through which the grill-flanges play; and means for presenting the material in said opening to the action of the blades by pressing it into the grill.

[Claims 6 to 8 not printed in the Gazette.]

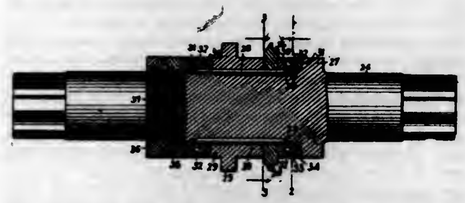
1,138,144. ICE-CREAM CONTAINER. CHRISTOPHER OTTOSEN, Ottosen, and HERBERT R. WRIGHT, Des Moines, Iowa. Filed Mar. 2, 1914. Serial No. 822,088. (Cl. 229—55.)

In a device of the class described, a container comprising a paper sack designed to fit inside an ice cream can, reinforcing strips extending across the bottom of said sack and up the sides to points above the top thereof on



the outer surface of said sack, and adapted to reinforce the sack and to serve as a support and handle therefor.

1,138,145. SHAPING-ROLLS FOR HORSESHOE-BARS. LUTHER THOMAS PAGE, Wareham, Mass., assignor of one-half to William E. C. Warr, Wareham, Mass. Original application filed June 24, 1913, Serial No. 775,476. Divided and this application filed January 8, 1914. Serial No. 811,007. (Cl. 80—30.)



1. In combination; a free-running shaft; a free-running ring mounted on said shaft and suitably provided with die sections; a tubular body freely mounted on said shaft, having a guide flange spaced apart from said ring; and a plurality of rollers surrounding said shaft and interposed between the same and said ring and said tubular body.

2. In combination; a free-running shaft; a free-running ring mounted on said shaft and suitably provided with die sections; a tubular body freely mounted on said shaft, having a guide flange spaced apart from said ring; a plurality of rollers surrounding said shaft and interposed between the same and said ring and said tubular body; and a plurality of thrust bearings, embodying bearing balls disposed at opposite sides of said ring and tubular body to maintain the working alinement of the same.

1,138,146. COMPOSITION FOR MATCH-HEADS. WILLETT C. PIERSON, Cleveland, Ohio. Filed Oct. 28, 1912. Serial No. 728,046. (Cl. 52—5.)

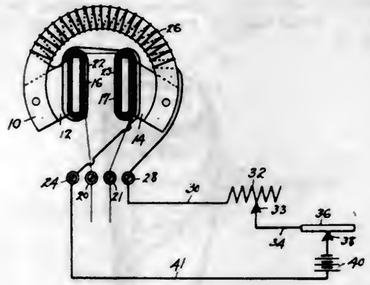
1. An igniting material containing a nitrated carbohydrate, a metallic nitrate, potassium chlorate, bi-chromate of potash, plaster of Paris, sulfur, powdered glass and glue.

2. An igniting material containing a nitrated cellulose, a metallic nitrate, potassium chlorate, bi-chromate of potash, plaster of Paris, sulfur, powdered glass and glue.

1,138,147. METHOD OF TUNING TELEPHONE-RECEIVERS. HAROLD J. POWER, Everett, Mass. Filed Feb. 5, 1914. Serial No. 816,718. (Cl. 179—114.)

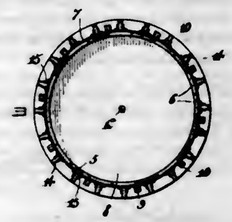
1. The method of tuning a telephone receiver to signaling impulses of a particular frequency which consists in varying the degree of saturation of the cores of the receiver magnet and maintaining the reluctance of the magnetic circuit approximately constant.

2. The method of tuning a telephone receiver to signaling impulses of a particular frequency which consists in varying the magnetic tension of the diaphragm and the maintaining of the reluctance of the magnetic circuit approximately constant.



3. The method of tuning a telephone receiver to signaling impulses of a particular frequency which consists in subjecting the receiver magnet to the influence of a polarizing current independent of the signaling current, varying the strength of said current until the rate of vibration of the receiver diaphragm corresponds to the frequency of the signaling impulses, and varying the relative position of the pole of the receiver magnet and diaphragm to maintain the air-gap approximately constant.

1,138,148. VEHICLE. FRANK T. RAMSEY, Austin, Tex. Filed Jan. 14, 1913. Serial No. 741,977. (Cl. 115—1.)



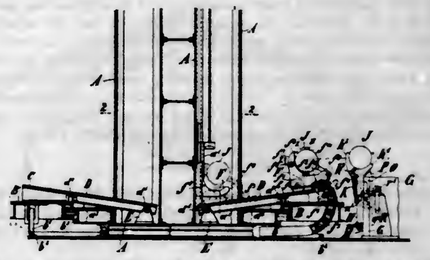
A propelling drum for land and water vehicles including a hollow cylindrical body made of a series of staves, a series of metallic strips encircling said staves for preventing outward movement thereof, heads, bolts for securing the heads to the ends of said staves, paddles positioned on said drums and contacting at their ends with said heads, L-shaped fasteners securing said paddles to said hoops, and means for rotating said drums.

1,138,149. AMMUNITION-HOIST. FRITZ REICHARD, Essen-on-the-Ruhr, Germany, assignor to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Filed June 19, 1914. Serial No. 846,184. (Cl. 89—46.)

1. An ammunition hoist, having a hoist shaft, an ammunition car running up and down in the shaft, a truck for bringing the ammunition into the shaft and a swinging device for placing the ammunition on said truck; said truck having gripping jaws which automatically grip the ammunition on receiving it from said swing, subsequently delivering it to said ammunition car.

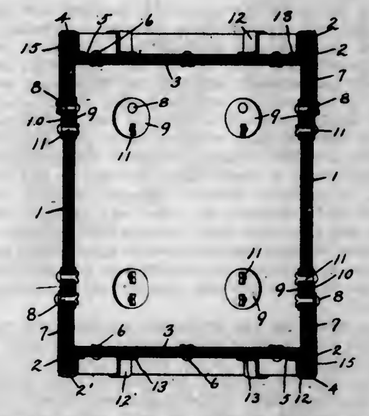
2. An ammunition hoist, having a hoist shaft, an ammunition car running up and down in the shaft, a truck for bringing the ammunition into the shaft and a swinging device for placing the ammunition on said truck; said truck having gripping jaws which automatically grip the ammunition on receiving it from said swing, subsequently delivering it to said ammunition car; said swinging device comprising a carrying member having hinged connection on said swinging device for delivering ammunition to said truck.

3. An ammunition hoist, having a hoist shaft, an ammunition car running up and down in the shaft, a truck for bringing the ammunition into the shaft and a swinging device for placing the ammunition on said truck; said truck having gripping jaws which automatically grip the ammunition on receiving it from said swing, subsequently delivering it to said ammunition car; said gripping jaws comprising a set of levers, hinged on the truck, in such a manner that one of said levers yields when receiving the ammunition from the swing.



4. An ammunition hoist, having a hoist shaft, an ammunition car running up and down in the shaft, a truck for bringing the ammunition into the shaft and a swinging device for placing the ammunition on said truck; said truck having gripping jaws which automatically grip the ammunition on receiving it from said swing, subsequently delivering it to said ammunition car; said swinging device comprising a carrying member having hinged connection on said swinging device for delivering ammunition to said truck; said gripping jaws comprising a set of levers, hinged on the truck, in such a manner that one of said levers yields when receiving the ammunition from the swing, and subsequently holds it fast as soon as released by said carrying member.

1,138,150. CONSTRUCTION OF PAPER CONTAINERS. ADOLPH F. RIETZEL, Westerly, R. I., assignor to Lachman Manufacturing Company, New York, N. Y., a Corporation of Delaware. Filed Dec. 9, 1913. Serial No. 805,481. (Cl. 229—67.)

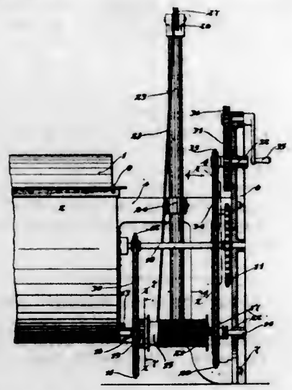


1. In a device of the character described in combination, a cylindrical body portion, a hoop of L-shaped cross section protecting one end of said body portion, a plurality of plates arranged in pairs with one plate of each pair on the interior and the other plate on the exterior of said body portion, rivets passing through said plates and said body portion and securing said plates in position at a substantial distance from the end of said body portion, metallic strips secured at one end by certain of said rivets, a head constructed to fit within said body portion, an an-

nular rim of Z-shaped cross section constructed to rest on the end of said body portion and covering a part of said hoop, and hooks on the ends of said metallic strips to retain the head in position within the end of said body portion.

2. In a device of the character described in combination, a cylindrical body portion, a pair of adjacent metallic members arranged with one of said members on the interior and the other of said members on the exterior of said body portion, rivets passing through said metallic members and through the body portion to secure said metallic members in position, a head constructed to fit within the end of said body portion, an annular metallic ring of substantially Z-shaped cross section, having one ledge secured to the head and the other ledge constructed to cover the ends of said body portion, and a metallic strip provided with a hook on one end to retain said head in position within said body portion, and the other end of said strip being secured in position by means of certain of said rivets.

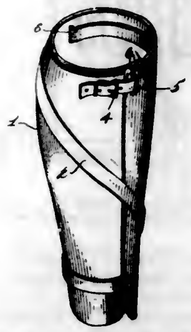
1,138,151. ACTUATING MECHANISM FOR GAS-GENERATING MACHINES. NELSON J. RUSSELL, Minneapolis, Minn. Filed Feb. 23, 1912. Serial No. 679,229. (Cl. 185—27.)



1. A motor for gas generating machines and the like, provided with a motor driven element, comprising a projecting shaft on said motor driven element, a counter-shaft, a windlass drum on said counter-shaft, a sprocket on said counter-shaft adjacent one end of said windlass drum, a sprocket on said projecting shaft, a sprocket chain running over said sprockets, a pawl and ratchet connection between said windlass drum and the adjacent sprocket, a weight, a cable connecting said weight to said windlass drum, a crank driven sprocket on the machine frame, a laterally movable sprocket located on said counter-shaft adjacent the other end of said windlass drum, and a sprocket chain running over the latter noted sprockets, the said laterally movable sprocket and the said windlass drum having coöperating lugs engageable by lateral movements of the said sprocket, substantially as described.

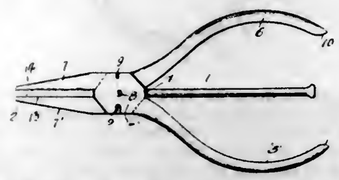
2. A motor for gas generating machines and the like provided with a motor driven element, comprising a projecting shaft on said motor driven element, a counter-shaft, a windlass drum on said counter-shaft, a sprocket on said counter-shaft adjacent one end of said windlass drum, a smaller sprocket on said projecting shaft, a sprocket chain coöperating with said sprockets, a pawl and ratchet connection between said windlass drum and the adjacent sprocket, a weight, a cable connecting said weight to said windlass drum, a relatively small driving sprocket on the machine frame, a relatively large gear fixed to said sprocket, a crank driven pinion meshing therewith to drive said gear, a laterally movable and larger sprocket located on said counter-shaft adjacent the other end of said windlass drum, and a sprocket chain coöperating with said driving sprocket and said laterally movable sprocket, the said laterally movable sprocket and the said windlass drum having coöperating lugs engageable by lateral movements of the said sprocket, substantially as described.

1,138,152. PUTTEE. EDOUARD SAUBESTRE, New York, N. Y. Filed May 15, 1912. Serial No. 697,374. (Cl. 36—2.)



The herein described puttee having a body portion with an opening between two vertical edges, a strap secured near the bottom, and adapted to be passed around the puttee, a hole at the upper edge of the said puttee on one side of the said opening, a loop on the other side of the said opening adapted to be projected through said hole, and a second pair of holes at the upper part of said puttee on substantially opposite sides thereof, whereby the strap may be passed into the interior of the puttee through one of the last-mentioned holes, out through the other of said holes and thence through the projecting loop.

1,138,153. COMBINATION-TOOL. AUGUST J. SCHEMMER, Sandusky, Ohio. Filed Oct. 24, 1911. Serial No. 656,474. (Cl. 7—3.)

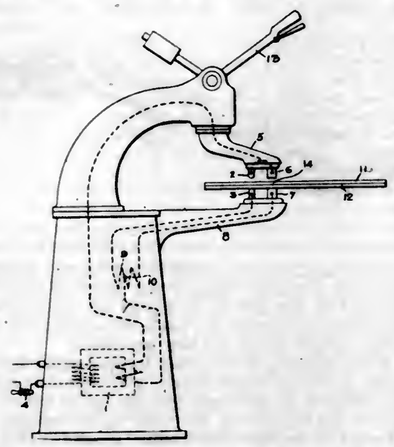


A tool of the plier type comprising a central member having a handle and jaw and being provided with a reduced joint portion positioned between the handle and jaw and extending above and below the same, an upper member provided with a handle and jaw and with a joint portion reduced and fitting against one side face of the point portion of said central member with its handle positioned above the handle of said central member and its jaw positioned beneath the jaw of said central member, lower member provided with a handle and jaw and with a joint portion positioned between the same and reduced and fitting against one side face of the joint portion of said central member with its handle positioned beneath the handle of said central member and its jaw positioned above the jaw of said central member, and means passing through the joint portion of said members to pivotally mount the same for independent pivotal movement.

1,138,154. ELECTRIC-RESISTANCE WELDING. ARTHUR M. STANLEY, Lynn, Mass., assignor to General Electric Company, a Corporation of New York. Filed Jan. 23, 1915. Serial No. 3,947. (Cl. 219—4.)

1. In an electric resistance welding machine, a stationary welding electrode, a stationary preparatory electrode,

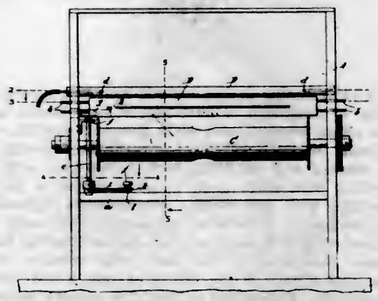
and a second welding electrode and a second preparatory electrode respectively coöperating with said first mentioned welding and preparatory electrodes, the operating faces of the preparatory electrodes being of greater area than those of the welding electrodes.



2. In an electric resistance welding machine, a stationary welding electrode, a stationary preparatory electrode, a second welding electrode and a second preparatory electrode respectively coöperating with said first mentioned welding and preparatory electrodes, and means for supplying energy to said welding and preparatory electrodes in unequal and predetermined proportions.

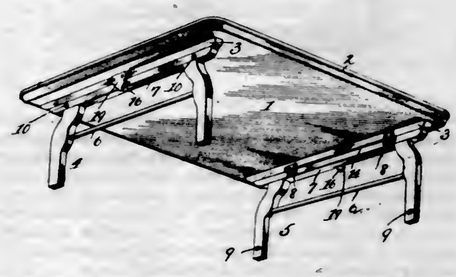
3. In an electric resistance welding machine, a stationary welding electrode, a stationary preparatory electrode, a second welding electrode and a second preparatory electrode respectively coöperating with said first mentioned welding and preparatory electrodes, and means for simultaneously moving said second electrodes to and from the work and for exerting pressure between said welding electrodes and between said preparatory electrodes in predetermined proportions.

1,138,155. TRANSPOSING MECHANISM FOR PNEUMATIC PLAYERS. WILLIAM C. STEPHENSON, Woburn, Mass., assignor to Vose & Sons Piano Company, Boston, Mass., a Corporation of Massachusetts. Filed Aug. 25, 1913. Serial No. 786,490. (Cl. 84—161.)



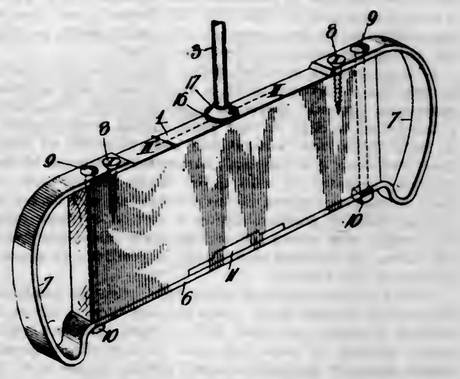
In a transposing device for pneumatic players, the combination with a spool box and an endwise shiftable tracker bar mounted therein, of a rotatable shaft journaled in one side of the spool box, an operative connection between the shaft and said tracker bar, and combined operating and locking means for the shaft, said means comprising a spring arm fixed to the lower end of the shaft and by means of which the shaft is adapted to be rotated and a segment secured in the bottom of the spool box beneath the spring operating arm and having notches therein normally receiving the spring arm to hold the same in any one of several predetermined positions of adjustment.

1,138,156. FOLDING TRAY. JOHN J. STROUD, Brooklyn, N. Y.; Edwin R. Root, executor of said Stroud, deceased, assignor to Franklin I. Stober, New York, N. Y. Filed Aug. 13, 1913. Serial No. 784,538. Renewed Mar. 29, 1915. Serial No. 18,318. (Cl. 45—11.)



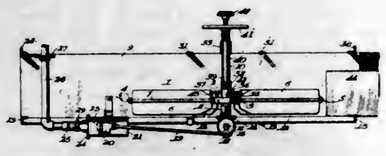
As a new article of manufacture, an invalid tray, comprising a top having a cross bar secured to its under side adjacent each end, spring-actuated leg frames pivotally mounted upon said cross bars normally held in folded position, laterally projecting pins carried by said leg frames, spring catches carried by the cross bar of the top arranged in the path of travel of said pins and adapted to hold said legs in set-up position against the tension of the spring-actuated means, and guards arranged over said catches for preventing the accidental displacement of said pins.

1,138,157. AGITATOR FOR WASHING-MACHINES. FRANK J. TALLANT, Leavenworth, Kans. Filed Mar. 11, 1911. Serial No. 613,923. Renewed Feb. 27, 1915. Serial No. 11,069. (Cl. 68—15.)



An agitator for washing machines, comprising a wood strip 1, having a vertical bore centrally of its length, a metal bar secured to the lower edge of the strip and bent to form loops disposed at the opposite ends of the strip, the extremities of the bar fitting upon the upper edge of the strip, bolts extending through the strip and said bar and its extremities, wood screws extending through the extremities of the bar into the wood strip, a plate set into the lower edge of the wood strip and upon the upper side of the body portion of the metal bar, and a shaft extending through the bore of the wood strip and shouldered upon the upper edge of the latter and provided at its lower end with an angular portion non-rotatably engaging said plate and bar and upset at its lower end against said bar.

1,138,158. CURRENT-OPERATED PUMPING APPARATUS. JOHN M. TRULL, Trull, Colo. Filed Dec. 23, 1913. Serial No. 808,377. (Cl. 170—121.)



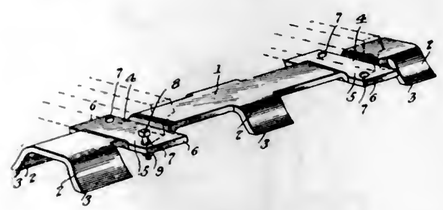
1. In an apparatus of the character described, a float, a driving shaft supported thereby, a hub on said driving shaft, a plurality of radial blades pivotally connected to said hub, means for holding said blades in a position of resistance to the current during a portion of their rotative travel, means for depressing said blade holding means whereby the blades are turned to a position of non-resistance to the current, a crank shaft, and gearing connecting the crank shaft and driving shaft.

2. In an apparatus of the character described, a float, a driving shaft supported thereby, a hub secured to said shaft, having an extension and a spiral groove therein, radial spindles secured to said hub and connected by a circular band at their outer ends, blades pivotally mounted on said spindles, the preponderance of their widths being below their axes, a disk having a housing which partially incloses the hub extension, and a coil spring interposed between the extension and the end of the housing, lugs on said disk which engage the edges of the blades and hold them in current resisting positions during a portion of their rotative travel, a tube surrounding said shaft and resting on the housing of said disk, a hand wheel threaded to the upper end of the shaft, the hub of which bears against said tube, and a pin in said housing which enters the spiral groove in said hub extension, whereby when the hand wheel is screwed down against said tube, the disk is depressed and simultaneously given a partial turn and its lugs turn the blades to positions of non-resistance to the current, and a crank shaft, gearing connecting the same and the driving shaft.

3. In a current operated motor apparatus, the combination with a driving shaft, a crank shaft, and gearing connecting the said shafts, of a power wheel, comprising a hub keyed to said driving shaft, radial shafts secured at their inner ends to said hub and connected at their outer ends by a circular band, horizontally disposed blades pivotally mounted on said radial shafts on one side of their transverse centers, means for holding said blades in current-resisting position during a portion of their rotative travel, and means coöperating with said blade holding means for turning said blades in positions of non-resistance to the current.

4. In a current operated motor apparatus, the combination with a driving shaft, a hub secured thereto having a reduced extension provided with a spiral groove, radial shafts secured in said hub, and horizontally disposed blades pivotally mounted on said shafts to one side of their transverse centers, of a disk having a housing into which the upper end of the hub extension projects, a pin in said housing which enters said spiral groove, a coil spring interposed between the housing and hub extension which normally holds the disk in a predetermined position above the hub, lugs depending from the disk which engage one side of the inner ends of the blades, a tube surrounding the upper portion of the shaft and resting on the disk housing, and a hand wheel threaded to the upper end of the shaft, the hub of which rests on the adjacent end of the tube, whereby when the hand wheel is screwed down the tube is forced down upon the housing of the disk, and the disk is thereby depressed and simultaneously given a partial turn, its lugs turning the blades to positions of non-resistance to the current.

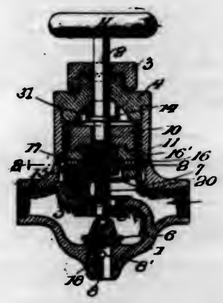
1,138,159. RAIL-TIE. OTTO NUMA WAELTI, Watson, Saskatchewan, Canada. Filed Dec. 20, 1913, Serial No. 807,992. Renewed Sept. 30, 1914. Serial No. 864,364. (Cl. 238—5.)



1. A railway tie comprising a top having its sides formed with angularly disposed legs which terminate in outturned feet, the said tie having its top provided with rail receiving depressions, and means for securing the rails upon the tie and within the said depressions.

2. A tie including a top having its side edges adjacent its ends and at its center formed with downturned legs which terminate in outturned feet, the top of the tie adjacent its end legs having rail receiving depressions, the lower walls of the depressions being extended beyond the opposite sides of the tie and having openings for the reception of securing elements, whereby rails may be sustained upon the tie and within the depressions.

1,138,160. COMPRESSION-STOP AND WASTE VALVE. CHARLES WALKER, Knoxville, Tenn. Filed Jan. 16, 1914. Serial No. 812,459. (Cl. 137—4.)



1. A valve casing having a drain port and a valve stem opening in alinement, a partition in said casing having a port alined between said drain port and opening, a longitudinally movable valve stem extending through said stem opening and partition port, a valve on said stem controlling said drain port, a collar having a threaded engagement with said stem, a non-rotatable reciprocating valve having an articulated connection with said collar and controlling said partition port, means limiting the longitudinal movement of said stem with relation to said casing, and a part of the casing against which the said non-rotatable valve abuts to limit its opening movement whereby both valves may be closed by positive screw-pressure.

2. A valve casing having a drain port and a valve stem opening in alinement, a partition in said casing having a port alined between said drain port and opening, a longitudinally movable valve stem extending through said stem opening and partition port, a valve on said stem controlling said drain port, a non-rotatable reciprocating valve having an articulated connection with said stem and controlling said partition port, means limiting the longitudinal movement of said stem with relation to said casing, and a part of the casing against which the said non-rotatable valve abuts to limit its opening movement whereby both valves may be closed by positive screw-pressure.

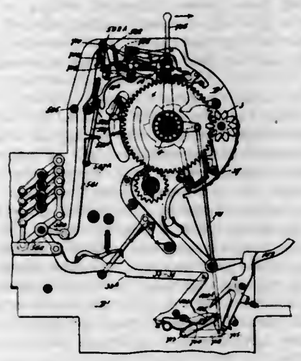
3. In combination, a valve casing having two ports in alinement, a valve stem extending through one port and having a valve controlling the other port, a non-rotatable reciprocating valve controlling the second port, and means articulated to said last named valve and engaging said stem for connecting the stem with said valve to actuate the latter, and means in the path of the stem and valve for enabling either valve to be moved to seating position and held seated by screw pressure while the other valve is open.

4. In combination, a valve casing having inlet and outlet ports and a drain port, a partition having a port located between said inlet and outlet ports, a longitudinally movable valve stem extending through said partition port and provided with a valve controlling said drain port, a reciprocating valve actuated by said stem controlling said partition port, said valve having side members to restrain its rotation, a collar having threaded engagement with said stem and having articulated connections with said valve, the axis of the connections being in alinement with said side members, and means in the path of said stem and reciprocating valve for enabling either valve to be held seated by screw pressure while the other valve is open.

5. In combination, a valve casing having a drain port and a valve stem opening provided with a recessed closure therefor, a partition in said casing having a port, a longitudinally movable valve stem extending through said closure and partition port, a non-rotatable reciprocating valve having an articulated member threaded to said stem and controlling said partition port and a second valve attached to said stem for controlling said drain port, a collar on said stem adapted to enter said closure recess to limit the upward movement of said stem, a part of said closure limiting the upward movement of said reciprocating valve, whereby either valve may be moved to closed position and held closed by screw pressure while the other is open.

[Claim 6 not printed in the Gazette.]

1,138,161. NON-PRINT AND NON-COMPUTE MECHANISM FOR TYPOGRAPHICAL COMPUTING-MACHINES. GEORGE WALKER, Newton Center, Mass. Filed July 25, 1912. Serial No. 711,503. (Cl. 235—59.)



1. In a typographical computing machine, a series of numeral wheels, mechanism to actuate said numeral wheels, printing devices, mechanism to actuate said printing devices, a shipper, connections between said shipper and said numeral wheel actuating mechanism adapted to disable the latter, and connections between said shipper and said printing device actuating mechanism adapted to disable the latter, both of said disabling connections being controlled by said single shipper, and each being adapted when operated to render inoperative its corresponding actuating mechanism without affecting the other actuating mechanism.

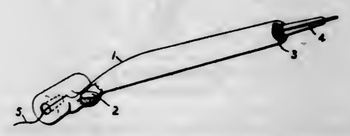
2. In a typographical computing machine, a series of numeral wheels, mechanism including a set of latches normally in operative position to actuate the numeral wheels, printing hammers, mechanism including a set of latches normally in operative position to actuate the printing hammers, and means to move the latches of one of said mechanisms to inoperative position without affecting the other.

3. In a typographical computing machine, a series of numeral wheels, mechanism including a set of latches normally in operative position to actuate the numeral wheels, printing hammers, mechanism including a set of latches normally in operative position to actuate the printing hammers, and means operated by a single shipper to move the latches of either of said mechanisms to inoperative position without affecting the other.

4. In a typographical computing machine, a series of numeral wheels, mechanism including a set of latches normally in operative position to actuate the numeral wheels, printing hammers, mechanism including a set of latches normally in operative position to actuate the printing hammers, and a movable rod extending across each of said sets of latches, either rod adapted to move its set of latches to inoperative position without affecting the other.

5. In a typographical computing machine, a series of numeral wheels, mechanism including a set of latches normally in operative position to actuate the numeral wheels, printing hammers, mechanism including a set of latches normally in operative position to actuate the printing hammers, a movable rod extending across each of said sets of latches, and mechanism operated by a single shipper adapted to actuate each of said rods to move either set of latches to inoperative position without affecting the other.

1,138,162. VAPOR ELECTRIC DEVICE. EZECHIEL WEINTRAUB, Lynn, Mass., assignor to General Electric Company, a Corporation of New York. Continuation in part of application Serial No. 698,741, filed May 21, 1912. This application filed Mar. 13, 1913. Serial No. 753,946. (Cl. 176—42.)



1. A vapor electric device comprising a quartz envelop, a mercury cathode at one end of said envelop, an anode consisting of a metal more refractory than platinum at the opposite end of said envelop, and current-conveying conductors for said electrodes the part of the anode conductor adjacent the anode proper also consisting of a metal more refractory than platinum, and the envelop section surrounding the anode and the anode conductor being proportioned to assume a temperature at which substantially no mercury will condense when said device is operating with an energy input sufficient to produce a high pressure arc.

2. A vapor electric lamp comprising a mercury cathode, a tungsten anode, current-conveying conductors for said electrodes sealed into said envelop, the part of the anode conductor adjacent the anode also consisting of tungsten,

and an inclosing quartz envelop which is contracted upon the anode conductor to proportion the space back of the anode so that mercury will not condense therein when said device is operating with an energy input sufficient to produce a high pressure arc.

3. A vapor electric lamp comprising a mercury cathode, an anode of material more refractory than platinum, an inclosing silica envelop and current supply wires for said electrodes, the part of the anode wire adjoining the anode consisting of a metal more refractory than platinum, and the parts of said envelop surrounding the anode being arranged and proportioned to assume a temperature at which no globules of mercury will form large enough to drop through the arc path when said lamp is operated with an energy input sufficient to produce a high pressure arc.

4. A lamp comprising a tubular envelop consisting largely of silica, a cathode of mercury at one end of said envelop, an anode of metal more refractory than platinum at the opposite end of said envelop, current conveying conductors for said electrodes, the anode conductor consisting of metal more refractory than platinum, and a seal of zones of vitreous material merging from quartz to a glass having the same coefficient of expansion as said conductor surrounding said conductor, the envelop wall being contracted upon the anode conductor so that but a negligible condensing space remains back of the anode.

1,138,163. VAPOR ELECTRIC DEVICE. EZECHIEL WEINTRAUB, Lynn, Mass., assignor to General Electric Company, a Corporation of New York. Filed Mar. 13, 1913. Serial No. 753,947. (Cl. 176—42.)

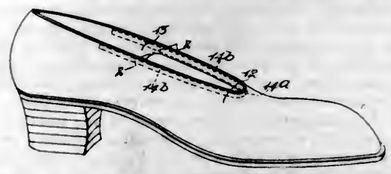


1. The method of operating a vapor arc between a mercury cathode and a tungsten anode in an exhausted envelop which consists in impressing upon said electrodes a voltage proportioned to secure an intense contracted arc with an energy consumption in excess of 15 watts per square inch of envelop, dissipating enough heat near the cathode to raise the critical point current valve at which the voltage increases abruptly, and maintaining the operating current a little below this critical point.

2. The method of operating a high pressure arc in an inclosed space between a vapor-emitting cathode and a solid refractory anode, which consists in dissipating heat near the cathode to raise the critical value of current at which the voltage increases abruptly and maintaining the operating current a little below this critical value.

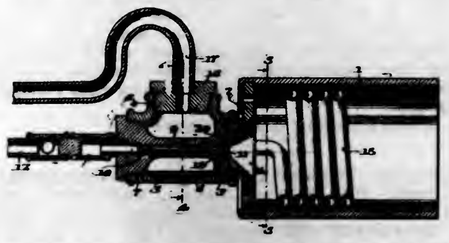
3. The method of operating a high pressure mercury vapor arc between a mercury cathode and a solid anode with a variable voltage, constant current energy supply which consists in dissipating heat near the cathode to raise the critical value of current at which the voltage consumed in the arc increases abruptly without increase of current, and maintaining the operating current slightly below this critical value.

1,138,164. LOW-CUT SHOE. CARLTON L. WHITCOMB, Brockton, Mass., assignor of one-third to Frank E. Whitcomb and one-third to John A. Holland, Brockton, Mass. Filed Jan. 28, 1914, Serial No. 814,949. Renewed Mar. 18, 1915. Serial No. 15,328. (Cl. 36—51.)



A low cut shoe having the usual vamp and quarters formed with an elongated foot-receiving opening extending into the vamp, portions of the vamp and quarters forming the outer member of a retainer-receiving pocket extending across the forward end of said opening and along portions of the sides thereof, quarter linings having narrow forwardly projecting tongues at their upper edges stitched at both edges to the vamp and quarters, said linings and tongues forming an inner pocket member, and a resilient retainer inserted in said pocket and comprising a neck extending across the forward end of the opening and elongated arms extending along portions of the sides of the opening.

1,138,165. CRUDE-OIL BURNER. CHARLES WIRTH, Scranton, Pa. Filed July 25, 1914. Serial No. 853,214. (Cl. 158—79.)



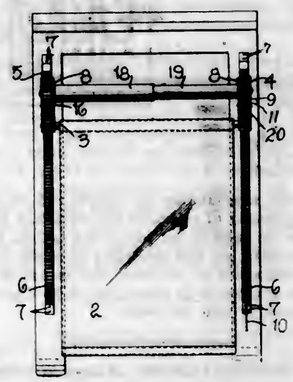
1. In a burner of the class described comprising a casing having three screw threaded outlets, a cylindrical burner tube open at one end, a plate closing one end of said burner tube having screw threaded engagement with one of the outlets, said plate having a passage flared in opposite directions from a point intermediate of its ends, a reducing nozzle having a bore of different diameters, screwed into another of the outlets, the bore of said nozzle communicating with the passage of said plate, an oil pipe communicating with the bore of said nozzle, and an air pipe communicating with the interior of said casing, through the remaining outlet.

2. In a burner of the class described, comprising a casing having three screw threaded outlets, a cylindrical burner tube open at one end, a plate closing one end of said burner tube having screw threaded engagement with one of the outlets, said plate having a passage flared in opposite directions from a point intermediate of its ends, a reducing nozzle having a bore of different diameters screwed into another of the outlets, a conical head on said nozzle having its outer surface spaced from the wall of the passage in the said plate for forming an intervening channel, the bore of said nozzle communicating with the passage of said plate, an oil pipe communicating with the bore of said nozzle, and an air pipe communicating with the interior of said casing, through the remaining outlet.

3. In a burner of the class described, comprising a casing having three screw threaded outlets, a cylindrical

burner tube open at one end, a plate closing one end of said burner tube having screw threaded engagement with one of the outlets, said plate having a passage flared in opposite directions from a point intermediate of its ends, a reducing nozzle having a bore of different diameters, screwed into another of the outlets, a conical head on said nozzle having its outer surface spaced from the wall of the passage in the said plate for forming an intervening channel, the bore of said nozzle communicating with the passage of said plate, through a series of angularly disposed apertures, the outlet of the channel being disposed adjacent the outlets of the apertures, an oil pipe communicating with the bore of said nozzle, and an air pipe communicating with the interior of said casing, through the remaining outlet.

1,138,166. WINDOW-SHADE FIXTURE. IRA B. WOLFE, Dermott, Ark., assignor, by direct and mesne assignments, of one-fourth to James A. Bennett, one-eighth to William P. Daniels, and one-eighth to William A. Daniels, Dermott, Ark. Filed Aug. 24, 1914. Serial No. 858,302. (Cl. 156—27.)



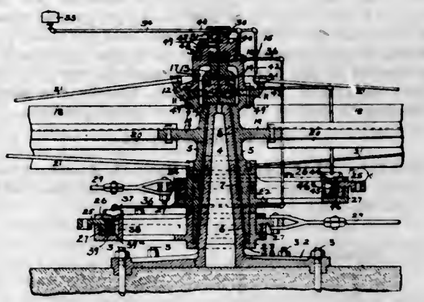
1. A shade fixture comprising, in combination, rack bars adapted to be mounted in vertical position, carriages slidably engaged with each of the rack bars, spur wheels rotatably supported by the carriages and in mesh with the rack bars, a spring roller operatively engaged with the spur wheels, said roller being adapted to be placed under tension upon movement of the carriages in one direction, a pawl pivotally supported intermediate its length by one of the carriages and having its opposite extremities adapted for engagement with the adjacent spur wheel and with the adjacent rack, and means for imparting rocking movement to the pawl whereby it may be simultaneously disengaged from the spur wheel and the rack.

2. A shade fixture comprising, in combination, rack bars adapted to be mounted in vertical position, carriages slidably engaged with each of the rack bars, spur wheels rotatably supported by the carriages and in mesh with the rack bars, a spring roller operatively engaged with the spur wheels, said roller being adapted to be placed under tension upon movement of the carriages in one direction, a pawl pivotally supported intermediate its length by one of the carriages and having its opposite extremities adapted for engagement with the adjacent spur wheel and with the adjacent rack, means for imparting rocking movement to the pawl whereby it may be simultaneously disengaged from the spur wheel and the rack, and means for normally maintaining said pawl in engagement with the spur wheel and the rack.

3. A shade fixture comprising, in combination, rack bars adapted to be mounted in vertical position, carriages slidably engaged with each of the rack bars, spur wheels rotatably supported by the carriages and in mesh with the rack bars, a spring roller operatively engaged with the spur wheels, said roller being adapted to be placed under tension upon movement of the carriages in one direction, a pawl pivotally supported intermediate its length by one of the carriages and having its opposite extremities adapted for engagement with the adjacent spur wheel and with the adjacent rack, and means for imparting rocking movement to the pawl whereby it may be simultaneously disengaged from the spur wheel and the rack, said pawl being positioned below the spur wheel.

4. A shade fixture comprising, in combination, rack bars adapted to be mounted in vertical position, carriages slidably engaged with each of the rack bars, spur wheels rotatably supported by the carriages and in mesh with the rack bars, a spring roller operatively engaged with the spur wheels, said roller being adapted to be placed under tension upon movement of the carriages in one direction, a V-shaped pawl pivotally supported at its apex by one of the carriages below the spur wheel and having its opposite extremities adapted for engagement with the adjacent spur wheel and with the adjacent rack, and means for imparting rocking movement to the pawl whereby it may be simultaneously disengaged from the spur wheel and the rack.

1,138,167. BEARING. CLYDE S. WRIGHT, Toledo, Ohio, assignor to The National Supply Company, Toledo, Ohio, a Corporation of Ohio. Filed Nov. 7, 1913. Serial No. 799,709. (Cl. 64—50.)



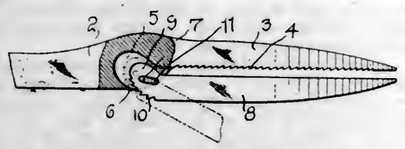
1. In a band-wheel pumping apparatus, a vertical spindle, a band-wheel hub rotatable thereon, a lower roller race member on the upper end of the spindle, anti-friction rollers on the race member, an upper roller race member on the rollers, a rotatable driver over the upper race member, connections whereby the driver rotates the upper race member and permits the former to tilt, a hub-cap supported by the driver and rigidly connected to the hub, and connections whereby the hub-cap rotates the driver.

2. In a band-wheel pumping apparatus, a vertical spindle, a band-wheel hub rotatable thereon, a lower roller race on the upper end of the spindle, anti-friction rollers on the race, an upper roller race on the rollers, a rotatable driver over the upper race, connections whereby the driver rotates the upper race and permits the former to tilt, a hub-cap supported by the driver and having the hub suspended on the hub-cap, and connections whereby the hub-cap rotates the driver.

3. In a band-wheel pumping apparatus, a vertical spindle, a band-wheel hub rotatable thereon, roller bearings supported by the spindle, a hub-cap lying over the upper end of the roller bearings, and a driver having a pin and socket connection with the hub-cap, there being a loose pin and socket connection between the driver and the upper end of the roller-bearing whereby the latter and the driver may vary their alinement.

4. In a band-wheel pumping apparatus, a vertical upwardly-tapered spindle, a band-wheel hub rotatable thereon and having a corresponding tapered opening for the spindle, roller bearings on the upper end of the spindle, a driver for the roller bearings, a hub-cap lying over the upper end of the driver, an angular pin and slot driving connection between the driver and the cap, and liners between the end of the pin and the base of the socket.

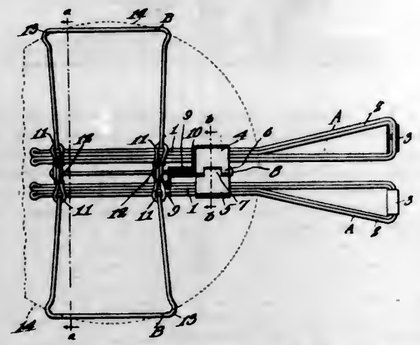
1,138,168. ALLIGATOR-WRENCH. ROBERT ACTON, La Salle, Ill. Filed Jan. 20, 1915. Serial No. 3,305. (Cl. 81—111.)



1. A wrench of the character described including a fixed jaw, a movable jaw having pivotal and sliding engagement with the fixed jaw, said movable jaw being formed at its base with a series of teeth, there being a detent disposed behind the teeth and with which one of the teeth is adapted to engage upon a rearward movement of the movable jaw relative to the fixed jaw to thereby hold the movable jaw in adjusted angular relation to the fixed jaw.

2. In a wrench of the character described, a handle, a fixed jaw extending from the handle, the handle being recessed at the base of the fixed jaw and there being a detent formed on the wall of the recess, a movable jaw having an offset base portion longitudinally slotted, the rear edge face of the base of the movable jaw being formed with a plurality of teeth, and a pin passing through the slot and the walls of the recess, said pin thereby providing pivotal support for the fixed jaw to permit the movement of the fixed jaw rearward to carry its teeth into engagement with the detent whereby the movable jaw may be held in any angular adjusted position.

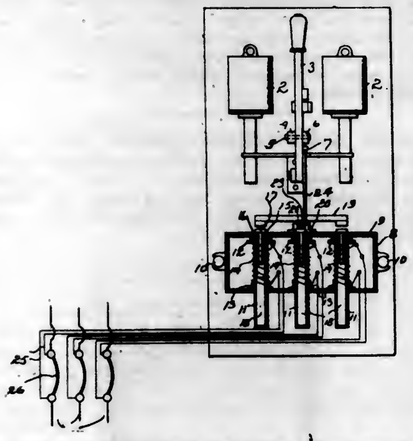
1,138,169. PLATE-LIFTER. MARY C. ADAMS, Atlantic City, N. J. Filed July 22, 1913. Serial No. 780,601. (Cl. 65—32.)



A plate lifter embodying a pair of parallel wire shanks each embodying a plurality of strands formed with a handle at the rear end of the shank, a hinge comprising a pair of leaves and a hinge pin connecting them, the leaves of the hinge being bent to embrace the shanks adjacent the handles, the hinge pin projecting outwardly between the shanks, and a pair of looped wire jaws having their terminal portions bent to embrace the respective shanks and hinge pin, the terminal portions of the jaws being interlocked to prevent relative longitudinal movement between the jaws.

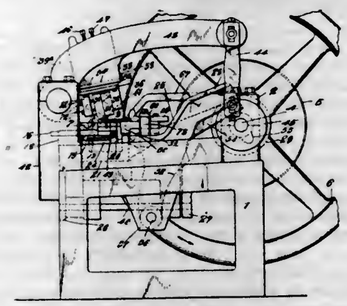
1,138,170. TRANSFORMER-PROTECTOR. OSCAR B. ALLGOOD, Blocton, Ala., assignor of one-half to John W. Groves, Birmingham, Ala. Filed Mar. 11, 1913. Serial No. 753,623. (Cl. 175—268.)

A tripping device comprising a rectangular casing, a plurality of tubes extending through the bottom of the casing at right angles thereto and having their lower ends closed, the upper ends of the tubes being flanged and spaced from the top of the casing on the interior thereof, collars secured to said tube within the casing and engaging the bottom of said casing whereby the tubes are supported, nuts fixed in the top of the casing, longitudinally bored members threaded through said nuts and projecting into the upper ends of the tubes, a headed pin slidable through each of said bored members, a longitudinally movable core carried within each of said tubes,



a coil of wire surrounding the upper end of each tube, whereby a plurality of solenoids are formed, a bar pivoted intermediate its ends to the top of the casing, projections formed upon said bar and extending over the headed pin, and a rod connected at its lower end to one of said projections and adapted to be connected at its upper end to a circuit breaker to trip the latter.

1,138,171. SPIKE-MACHINE. JAMES W. AMES, Montclair, and LOUIS J. BATZLE, Bayonne, N. J., assignors to W. Ames & Co., Jersey City, N. J., a Corporation of New Jersey. Filed Mar. 7, 1910, Serial No. 547,721. Renewed Sept. 23, 1914. Serial No. 863,221. (Cl. 10—57.)



1. In a spike-forming machine, an upper-pointing-die, a bottom-pointing-die, means for moving one of said dies in a direction transverse of the stock, and means for imparting a supplemental movement thereto lengthwise of the stock after the pointing-dies have formed the point on the spike being formed, thereby severing the stock by a pulling apart of the web left between said stock and formed spike.

2. In a spike-forming machine, an upper-pointing-die, a bottom-pointing-die, means for moving the upper die toward the stock to form a point on the portion thereof to be formed into a spike, with a web between said portion and the stock and means for imparting a supplemental movement to said upper die lengthwise of the stock, thereby severing the stock from the portion forming the spike by a pulling apart of the web between said stock and said portion thereof.

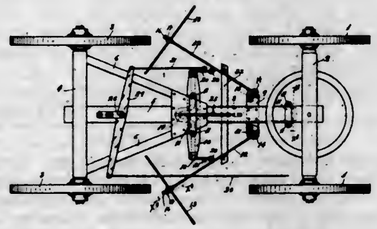
3. In a spike-forming machine, grippers for holding the stock, an upper-pointing-die and means for moving same toward the stock to form the point on the portion thereof to be formed into a spike, with a web between said portion and the stock, means for permitting said die to have a supplemental movement lengthwise of the stock, a heading-die and means for operating same, and means operated by the movement of said heading-die for giving a supplemental movement to said pointing-die to sever said stock and said portion thereof by a pulling apart of the web left between said stock and said portion thereof.

4. In a spike-machine, a cross-head and means for moving same toward the stock, a frame mounted in said cross-head and movable lengthwise therein, a pointing-die supported in said frame adapted to form a point on the portion of said stock to be formed into a spike, with a web between said portion and the stock, a movable heading-die, and an abutment carried thereby adapted to engage said frame and impart said supplemental movement thereto to sever said stock and said portion thereof by a pulling apart of the web left between said stock and said portion thereof.

5. In a spike machine, a cross-head, pivotal supports therefor, means for moving said cross-head toward the stock, a frame mounted in said cross-head and movable lengthwise therein, a pointing-die carried by said frame adapted to form a point on the portion of said stock to be formed into a spike, with a web between said portion and the stock, and means for imparting a supplemental movement to said pointing-die after the same has completed its movement toward said stock, to sever said stock and said portion thereof by a pulling apart of the web left between said stock and said portion thereof.

[Claims 6 to 12 not printed in the Gazette.]

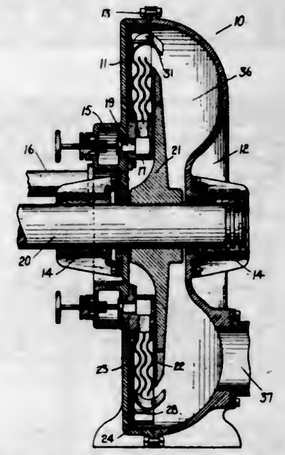
1,138,172. ROAD-GRADER ATTACHMENT FOR WAGONS. ALFRED AMUNDSON, Canby, Minn. Filed June 4, 1914. Serial No. 842,879. (Cl. 37—7.)



1. The combination with a wagon having front and rear pairs of wheels, and a reach structure connecting said front wheels to said rear wheels with freedom for horizontal swinging movement, of a hanger bar detachably secured to said reach structure, a pair of rearwardly diverging drag bars pivotally connected at their forward ends to said hanger bar, with freedom for raising and lowering movements and for limited lateral swinging movements, springs tending to hold drag bars against lateral movements, a pair of scraper blades, secured to said drag bars, extending transversely of said rear wheels and in front thereof, and means for raising and lowering said drag bars.

2. The combination with a wagon, of a grader attachment for said wagon, comprising a drag bar, pivotally connected at its forward end to the running gear of said wagon, with freedom for raising and lowering movements, and for a limited lateral movement, a spring tending to hold said drag bar against lateral movement, a scraper blade attached to the rear end of said drag bar, and means for raising and lowering said scraper blade.

1,138,173. TURBINE. EMIL ANDERSON, New York, N. Y., assignor to The Universal Turbine Company, Newark, N. J., a Corporation of New Jersey. Filed Oct. 4, 1913. Serial No. 793,421. (Cl. 121—60.)



1. A turbine engine rotor comprising a ring divided obliquely to its radii into a plurality of compartments, a set of rotor blades in each compartment dividing it into a plurality of parallel channels, one of said blades extending beyond the parallel channels and curved over the ends of the other rotor blades.

2. A turbine engine rotor comprising a ring, having therein partition plates dividing said rotor ring into a plurality of compartments, a set of wavy rotor blades in each compartment dividing it into a plurality of parallel tortuous channels, one of the outer of said blades extending beyond the parallel channels and curved over the ends of the other rotor blades.

3. A turbine engine rotor comprising a pair of side plates, partition plates secured thereto at intervals, a set of three rotor blades dividing the spaces between the partition plates into a pair of parallel channels, one of the outer of said rotor blades being longer than the others and extending in a curve over and beyond the ends of the shorter blades.

4. A turbine engine rotor comprising a pair of parallel side plates, partition plates secured thereto at equal intervals, a set of three wavy rotor blades dividing the spaces between the partition plates into a pair of parallel tortuous channels, one of the outer of said rotor blades being longer than the others and extending in a curve over and beyond the ends of the shorter blades.

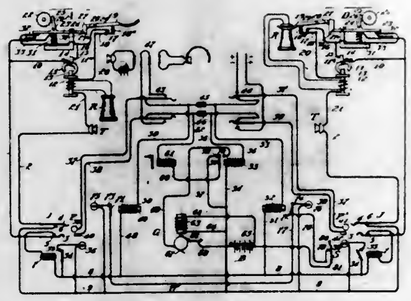
5. A turbine engine having a rotor comprising a rotor ring divided obliquely to its radii into a plurality of compartments, a set of rotor blades in each compartment dividing it into a plurality of parallel channels, one of said blades extending beyond the parallel channels and curved over the ends of the other rotor blades, and a nozzle arranged to direct motive fluid into said channels.

[Claims 6 to 11 not printed in the Gazette.]

1,138,174. TELEPHONE-EXCHANGE SYSTEM. GARRISON BABCOCK, Rochester, N. Y., assignor to Telechronometer Company, Rochester, N. Y., a Corporation of New York. Filed Jan. 22, 1910. Serial No. 539,466. (Cl. 179—11.)

1. In a telephone exchange system, the combination with a main exchange, telephone lines extending from substations to such exchange, a meter at one of such substations, comprising an operating electromagnet having an armature which is moved away from its magnet by the mechanical operation of the switch hook when the latter is released to close the line, a source of current at

the exchange for supplying current for talking purposes to the line, application of such current to a calling line inoperatively traversing the meter magnet, controlling mechanism for the meter included in the line circuit and inoperative to such current and means for reversing the direction of current flow to energize the meter magnet and actuate the meter by the attraction of its armature.



2. In a telephone exchange, the combination of a main exchange, telephone lines extending from substations to such exchange, a meter at one of such substations, a battery at the exchange adapted to send signaling current through a line when in calling condition, such current also traversing the meter controlling mechanism without effecting its operation, means for supplying talking current to the calling line through the meter controlling mechanism without operating the same, and a second source of current adapted to reverse the direction of current flow and means actuated when the called subscriber responds to connect such second source of current into the line to reverse the direction of current flow in the line and to simultaneously charge such battery to operate the meter.

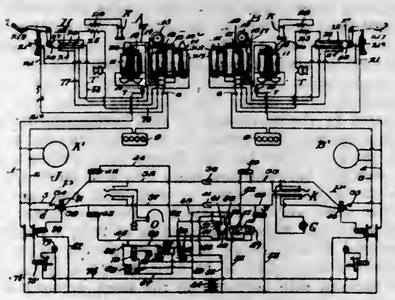
3. In a telephone exchange system, the combination of a main exchange, telephone lines extending from substations to such exchange, a meter at one of such substations, two sources of current connected in opposition, means for connecting one of such sources to a line in response to a call, and means for connecting the second source through the first source to reverse the direction of current flow in the line to operate the meter.

4. In a telephone exchange system, the combination of a main exchange, telephone lines extending from substations to such exchange, a meter at one of such substations, two sources of current connected in opposition, means for connecting one of such sources to a line in response to a call to supply signaling and talking current to the line without operating the meter controlling mechanism, and means operated by the response of the called subscriber for connecting the second source through the first source to reverse the direction of current flow in the line to operate the meter.

5. In a telephone exchange system, the combination of a main exchange, telephone lines extending from substations to such exchange, a meter at one of such substations, a source of current at the exchange for supplying signaling current to the lines, an operating electromagnet for the meter, a controlling magnet having its coil connected to the line circuit, a circuit for the operating magnet having contacts, an armature for the controlling magnet cooperating with said contacts and adapted by its operation to cause the energization of the operating magnet, application of signaling current to a calling line traversing the controlling magnet in an inoperative direction, and means for reversing the direction of current flow through the line and the controlling magnet to cause its operation, such operation of the controlling magnet serving to cause current from the line to energize the operating magnet of the meter.

[Claims 6 to 33 not printed in the Gazette.]

1,138,175. TELEPHONE SYSTEM. GARRISON BABCOCK, Rochester, N. Y., assignor to The Telechronometer Company, Rochester, N. Y., a Corporation of New York. Filed Mar. 6, 1911. Serial No. 612,582. (Cl. 179—11.)



1. In a telephone system, the combination with telephone lines extending from substations to an exchange, a message meter at one of the substations for registering the number of messages used, a receiver at the substation, a receiver hook, a shunt circuit having a pair of contacts and adapted when closed to render the message meter inoperative, an operating member controlled by the lowering of the receiver hook for closing said circuit, and adapted to be operated manually to open said contacts and permit the message meter to be operatively connected to the line.

2. In a telephone system, the combination with telephone lines extending from substations to an exchange, a message meter at one of the substations for registering the number of messages used, a shunt circuit having contacts adapted when closed to render the message meter inoperative, said contacts being normally closed, and means for opening the same.

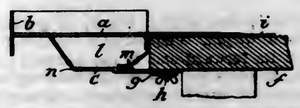
3. In a telephone system, the combination with telephone lines extending from a substation telephone set to an exchange, a message meter at the substation for registering the number of messages used, a shunt circuit having contacts adapted when closed to create a condition for rendering the message meter inoperative when the line circuit is closed at the telephone set, and means for automatically closing said contacts when use of the telephone set is discontinued.

4. In a telephone system comprising line wires extending from a central office to a plurality of substations and a telephone instrument set embodying a transmitter and a receiver located at each station, of metering devices at each of said stations, means at the central office for operating them and a branch circuit at each substation adapted to be closed to render the transmitter of instrument set and the meter at said station temporarily inoperative.

5. In a telephone system, the combination with a central office, line wires leading therefrom and a substation telephone set connected thereto and including a transmitter, of a metering apparatus at the substation connected to the line wires, a branch circuit extending from the instrument set and adapted to short circuit the transmitter and temporarily render the meter inoperative.

[Claims 6 to 10 not printed in the Gazette.]

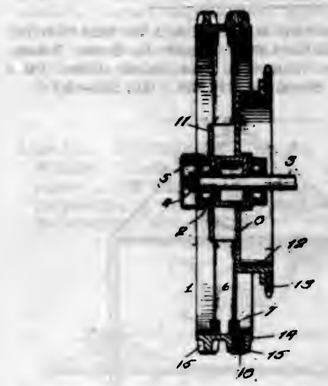
1,138,176. SAD-IRON SUPPORT. KARL EBNER, Kempten, Germany. Filed July 2, 1914. Serial No. 848,569. (Cl. 68—27.)



1. In an appliance of the character described, the combination of a supporting member and tongues projecting from said supporting member, adapted to lie on an ironing surface and form tracks from said surface to said supporting member.

2. In an appliance of the character described, the combination of a supporting member, the tongues projecting from said supporting member, adapted to lie on an ironing surface and form tracks from said surface to said supporting member, said tongues being tapered to terminate flush with said surface.

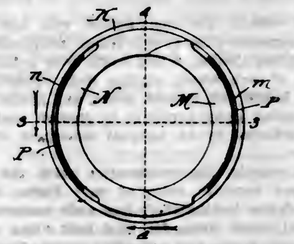
1,138,177. VEHICLE-WHEEL. JOHN B. BARTHOLOMEW, Peoria, Ill., assignor to Avery Company, a Corporation of Illinois. Original application filed Sept. 22, 1909, Serial No. 519,031. Divided and this application filed Dec. 8, 1909. Serial No. 532,086. (Cl. 152—9.)



1. In a wheel the combination with a hub and spokes, of a felly, a tire wider than the felly and provided with a circumferential series of radial apertures larger at their outer ends than at their inner ends, the said apertures being located with parts of their inner ends extending laterally beyond the sides of the felly, and ground engaging plugs of resilient material in the said apertures, substantially as set forth.

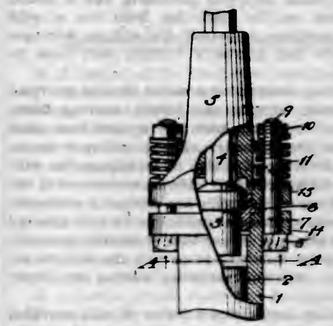
2. In a wheel, the combination with a hub and spokes, of a felly, a tire wider than the felly and provided with a circumferential series of radial apertures, the said apertures being located with parts of their inner ends extending laterally beyond the sides of the felly, and ground engaging plugs of resilient material in the apertures, substantially as set forth.

1,138,178. METALLIC PACKING. PERCY H. BATTEN, Chicago, Ill., assignor, by mesne assignments, to The Hewitt Company, Chicago, Ill., a Corporation. Filed Nov. 22, 1913. Serial No. 802,536. (Cl. 137—116.)



A metallic packing comprising a ring formed of male and female sections, the female section having its peripheral portion extending through an arc of greater angle than its inner bearing portion, and the male section having its peripheral portion extending through an arc of less angle than its inner bearing portion, the meeting ends of the male and female sections being inclined and shaped to fit together, the periphery of the female section being recessed from side to side between its ends to receive a spring and the end portions of the female section having curved peripheral surfaces of the full diameter of the ring, and the male section being recessed from side to side between its ends to receive a spring and having adjacent its inclined ends reduced peripheral portions corresponding to the unreduced end portions of the female section.

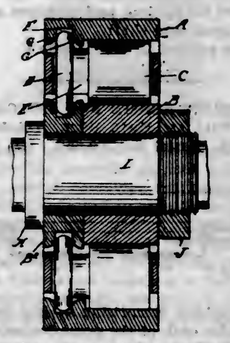
1,138,179. PERCUSSIVE TOOL. LEWIS C. BAYLIS, Easton, Pa., assignor to Ingersoll-Rand Company, New York, N. Y., a Corporation of New Jersey. Filed Mar. 28, 1912. Serial No. 686,838. (Cl. 121—10.)



1. A percussive tool including a cylinder, its front head and their adjacent flanges, bolts passing through said flanges, nuts on said bolts beyond the front head flange, and coil springs interposed between said nuts and the front head flange, the inner and outer end coils of which springs have projections thereon, said front head flange and said nuts having recesses for receiving the projections on the inner and outer end coils of the springs, whereby the springs serve the double function of shock absorbers and nut locks.

2. A percussive tool including a cylinder, its front head and their adjacent flanges, bolts passing through said flanges, nuts on said bolts beyond the front head flange, and coil springs interposed between said nuts and the front head flange, the inner and outer end coils of which springs have projections thereon at a distance from the ends of the coils, said front head flange and said nuts having recesses for receiving the projections on the inner and outer end coils of the springs, whereby the springs serve the double function of shock absorbers and nut locks.

1,138,180. ROLLER-BEARING. HENRY L. BOCK, Toledo, Ohio, assignor to William Emil Bock, Toledo, Ohio. Filed June 28, 1913. Serial No. 776,272. (Cl. 64—32.)



1. A roller bearing, comprising a series of rolls provided with enlarged heads forming end thrust bearing surfaces, inner and outer grooved end thrust bearing members

spaced from each other when concentrically arranged by less than the diameter of said enlarged ends, said enlarged heads being of a size to be engageable with said grooved members when the former are in oblique position, and annular portions of the race members for engaging the radial load sustaining portions of said rolls and holding the axes thereof in parallelism.

2. A roller bearing, comprising a series of rolls provided with enlarged heads forming end thrust bearing surfaces, inner and outer concentric race members for engaging said rolls spaced from each other by less than the diameter of said enlarged heads and provided with grooves for receiving said heads, said enlarged heads being engageable with said grooves when in different planes and the axes of the rolls being obliquely arranged, and a radial thrust race member portion separable from one of said grooved member portions to permit the oblique arrangement of said rolls and normally holding said rolls in parallelism.

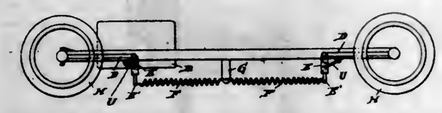
3. A roller bearing, comprising a series of rolls provided with enlarged heads forming end thrust bearing faces, inner and outer grooved race members spaced from each other by less than the diameter of said enlarged heads, said enlarged heads being of a size to be engageable with said grooved race members by an endwise movement of the heads when the axes of the rolls are obliquely arranged, a radial thrust portion integral with one of said grooved members, and a radial thrust portion separable from the other of said grooved members to permit the oblique arrangement of said rolls and normally holding the latter in parallelism.

4. A roller bearing, comprising a series of rolls provided with enlarged heads forming end thrust bearing faces, inner and outer grooved race members spaced from each other by less than the diameter of said enlarged heads, said heads being of a size to be engageable with said grooved race members by a relative endwise movement when the axes of the rolls are obliquely arranged, a radial load-carrying race portion integral with one of said grooved members, a radial load portion separable from the other of said grooved members to permit of the oblique arrangement of said rolls, and clamping means for holding said separable radial portion to its corresponding grooved member to normally hold the same from relative movement and to retain said rolls in parallelism.

5. A roller bearing, comprising a series of cylindrical rolls provided with enlarged heads having oblique end thrust bearing faces, inner and outer grooved race members spaced from each other by less than the diameter of said enlarged heads, said enlarged heads being of a size to be engageable with said grooved race members by a relative endwise movement of said members when the axes of said rolls are obliquely arranged, a radial load thrust portion integral with the outer one of said grooved members, a radial load portion separable from the inner one of said grooved members to permit of the oblique arrangement of said rolls, a shaft on which said separable radial load portions and grooved member are mounted, and clamping means for holding said members adjacent and in fixed relation upon said shaft.

[Claim 6 not printed in the Gazette.]

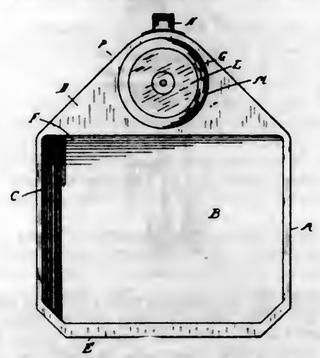
1,138,181. SPRING-FRAME FOR MOTOR-DRIVEN VEHICLES. WILLIAM EMIL BOCK, Toledo, Ohio. Filed July 16, 1912. Serial No. 709,652. (Cl. 21—101.)



1. A motor vehicle comprising a rigid frame, independent extensions for each of the ground-wheels pivotally connected to said frame, downwardly-extending bell-crank arms for said extensions, and springs arranged beneath said frame and anchored thereto, connected respectively to said bell-crank arms and resiliently supporting said extensions, said bell-crank arms having a telescopic extension to which said springs are anchored and a pivotal link connected at one end to the extension of said bell-crank lever and at its opposite end to the frame.

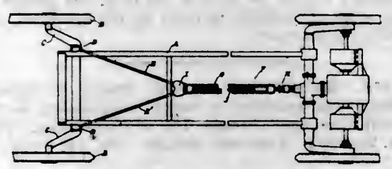
2. A motor vehicle comprising a rigid frame, independent extensions for each of the ground-wheels pivotally connected to said frame, downwardly-extending bell-crank arms for said extensions, said bell-crank arms having a telescopic extension, springs arranged beneath said rigid frame and anchored thereto, connected respectively to the telescopic extensions of said bell-crank arms and resiliently supporting said extensions, and a pivotal link connected at one end to the telescopic extension of the bell-crank arm and at its opposite end to the frame.

1,138,182. COMBINED RADIATOR AND HEADLIGHT FOR MOTOR-VEHICLES. HENRY L. BOCK, Toledo, Ohio, assignor to William E. Bock, Toledo, Ohio. Filed Sept. 11, 1912. Serial No. 719,730. (Cl. 240—7.)



The combination with a radiator frame, of a headlight, and a header for said radiator surrounding said headlight and forming a water-jacket therefor.

1,138,183. STABILIZING MECHANISM FOR VEHICLE RUNNING-GEAR. WILLIAM EMIL BOCK, Toledo, Ohio. Filed July 11, 1913. Serial No. 778,493. (Cl. 21—101.)



1. In a vehicle, the combination with the frame, of wheels on opposite sides of said frame independently yieldable in relation thereto, a bell crank lever actuated by the depression of each wheel, angling links connected to said bell crank levers and to each other, and a link connected to said angling links normally in median position to be laterally deflected by an unequal movement of said bell crank lever.

2. In a vehicle, the combination with the frame, of wheels upon opposite sides of said frame, rock arms upon said frame having their free ends connected to said wheels, bell crank arms for said rock arms, a link anchored to said frame and extending longitudinally thereof in a central position, and angling links connected to said longitudinal link and respectively to said bell crank arms.

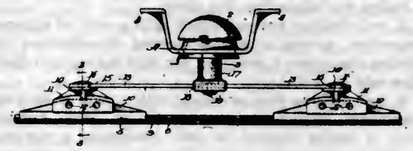
3. In a vehicle, the combination with a frame, of wheels arranged upon opposite sides of said frame, rock arms on said frame having their free ends supported upon said wheels, bell crank arms for said rock arms, a resilient yieldable member extending longitudinally of said frame centrally thereof, and angling links connecting said resilient member respectively to said bell crank arms.

4. In a vehicle, the combination with a frame, of wheels upon opposite sides of said frame, rock arms connected with said frame having their free ends supported on said wheels, bell crank arms for said rock arms, a resilient member anchored to said frame and extending longitudinally and centrally thereof, angling links connected with the free end of said resilient member and respectively to said bell crank arms, and means for limiting the yielding of said resilient member.

5. In a vehicle, the combination with a frame, of wheels upon opposite sides thereof, rock arms on said frame having their free ends supported on said wheels, bell crank arms for said rock arms, a resilient link anchored to said frame and extending longitudinally and centrally thereof, angling links connecting the free end of said resilient link to the respective bell crank arms, and a cable connecting opposite ends of said resilient link for limiting the yielding movement thereof.

[Claims 6 and 7 not printed in the Gazette.]

1,138,184. SUSPENSION DEVICE FOR TROLLEY-WIRES. GLENN HENRY BOLUS, Mansfield, Ohio, assignor to The Ohio Brass Company, Mansfield, Ohio, a Corporation of New Jersey. Filed Feb. 20, 1914. Serial No. 819,894. (Cl. 191—40.)



1. In a device of the class described, the combination of two separated members rigidly attachable to the trolley wire, a supporting means, and a single flexible means interposed between and rigidly secured to said members and said supporting means.

2. In a device of the class described, the combination of a supporting member, and a flexible suspension strap rigidly attached to the member and to the trolley wire at separated points.

3. In a device of the class described, the combination of a pair of separated members adapted to be fixed to the trolley wire, a flexible member rigidly attached at its ends to said separated members, and suspension means rigidly attached to said flexible member intermediate the ends.

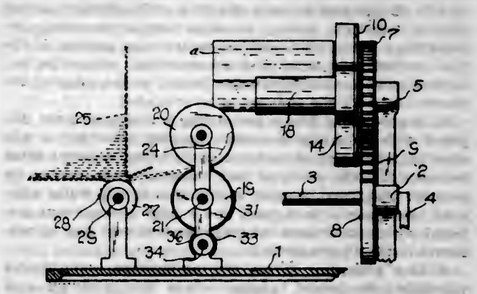
4. In a device of the class described, the combination of a resilient suspension member, means on said suspension member at separated points for rigid attachment to the trolley wire, and an intermediate supporting means rigidly attached to said resilient member.

5. In a device of the class described, the combination of a plurality of ear members rigidly attachable to the trolley wire to be suspended, a resilient member connecting said ear members and rigidly secured to them, and an intermediate supporting member rigidly connected to the resilient member.

[Claims 6 to 9 not printed in the Gazette.]

1,138,185. FOLDING-MACHINE. ALFRED A. BOYCE, Barre, Vt. Filed Jan. 14, 1914. Serial No. 812,076. (Cl. 101—43.)

1. A device of the character described including a folding means and a delivery mechanism coacting with said folding means and comprising a rotatable member movable relative to the folding means, a substantially rigid member rotatably supported by the first mentioned member and provided in its surface with a groove extending to the outer extremity thereof, said outer extremity of the second mentioned member being brought into close proximity to the folding means by the movement of the first mentioned member, and a casing fixedly secured to the first mentioned member disposed partially around said second member and positioned in close proximity thereto.



2. A device of the character described including a folding means and a delivery mechanism co-acting with said folding means and comprising a rotatable member movable relatively to the folding means, a substantially rigid member rotatably supported by the first mentioned member and provided in its surface with a groove extending to the outer extremity thereof, such outer extremity of the second mentioned member being brought into close proximity to the folding means by the movement of the first mentioned member, and a casing fixedly secured to the first mentioned member and disposed in close proximity to the second mentioned member.

3. A device of the character described including a folding means and a delivery mechanism coacting with said folding means and comprising a rotatable member movable relative to the folding means, a substantially rigid member rotatably supported by the first mentioned member and provided with a radially disposed elongated open ended slot, the outer extremity of the second mentioned member being brought into close proximity to the folding means by the movement of the first mentioned member, and a casing fixedly secured to the first mentioned member and disposed in close proximity to the second mentioned member.

1,138,186. GROUNDING DEVICE. LEON S. BEACH, New York, N. Y. Filed Dec. 6, 1912. Serial No. 735,260. (Cl. 173—31.)



1. In a ground connection, a container for moisture formed of conducting material adapted to be embedded in the ground, a second container for moisture formed of conducting material adapted to be embedded in the ground beneath said first named container, and means for electrically connecting said containers, the lowermost of said containers projecting beyond the vertical plane defined by the edge of the first named container to intercept moisture seeping downwardly through the ground, and also to intercept moisture overflowing from said first named container.

2. In a grounding device, a receptacle formed of conducting material adapted to be inserted in the ground and to receive and retain a quantity of liquid, a second recep-

tacle formed of conducting material adapted to be inserted in the ground beneath said first named receptacle and to receive and retain a quantity of liquid, said second named receptacle having an edge portion extending beyond the vertical plane defined by the edge portion of the first named receptacle, and an electrical connection extended between said receptacles having means adapted for connection with the member to be grounded.

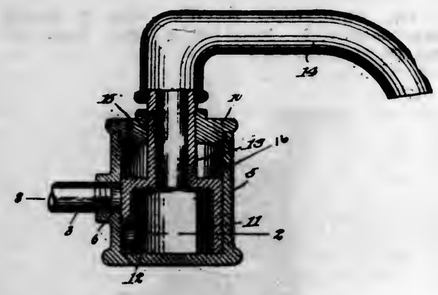
3. A grounding device comprising a concaved plate disposed with its concaved surface opening upwardly, a substantially flat disk of perforate conducting material fitted between the side walls of said concaved plate having its annular peripheral portion engaging said side walls adjacent the upper edge thereof, and a body of absorbent material within said concaved plate beneath said disk of perforate conducting material.

4. In a grounding device, the combination comprising a plurality of ground plates, means for retaining said ground plates in superposed relation spaced apart, said ground plates being of relatively decreasing size from the lowermost to the uppermost plate, each of said ground plates being concaved on its upper surface so as to receive and contain moisture, and a quantity of absorbent material within the concaved portion of each of said ground plates.

5. In a grounding device, the combination comprising a plurality of ground plates, means for retaining said ground plates in superposed relation spaced apart, said ground plates being of relatively decreasing size from the lowermost to the uppermost plate, each of said ground plates being concaved on its upper surface, a screen of conducting material above each of said ground plates electrically connected therewith, a quantity of absorbent material within the concaved portion of said ground plates beneath said screens, and a body of absorbent material enveloping all of said ground plates.

[Claims 6 to 17 not printed in the Gazette]

1,138,187. FAUCET. WALTER S. BRIDGES, Chicago, Ill. Filed June 5, 1914. Serial No. 843,204. (Cl. 137—26.)



1. A faucet comprising a casing having side inlets, and a valve slidably and rotatably mounted in the casing, and having a side port which is below the casing inlets when the valve is at the end of its inward movement in the casing, said port being adapted to register with the casing inlets, and the valve being hollow and having an opening at its inner end, the other end of the valve projecting from the corresponding end of the casing and having an outlet.

2. A faucet comprising a casing having side inlets, and a valve slidably and rotatably mounted in the casing, and having a side port which is below the casing inlets when the valve is at the end of its inward movement in the casing, said port being adapted to register with the casing inlets, and the valve being hollow and having an opening at one end, the other end of the valve being reduced and projecting from the corresponding end of the casing and having an outlet.

1,138,188. WELL-DRILLING IMPLEMENT. ALEXANDER DE BRETTEVILLE, San Francisco, Cal. Filed Nov. 24, 1911. Serial No. 662,203. (Cl. 255—78.)



1. In a well drilling tool, a cylindrical shell, an expansible bit having tapered arms in said shell, provided with internal longitudinal grooves and a spring for expanding said bit.

2. A well drilling tool, comprising a shell having a cap secured thereon provided with passages, a bit consisting of two expansible blades, having tapered arms located in said shell and provided with internal longitudinal grooves, connected with said passages and a spiral spring between said blades for expanding the same.

3. A well-drilling tool, provided with a pair of expansible members, having a spring secured therebetween for expanding the same, a covering for said spring and packing for said covering.

4. A well-drilling tool provided with a pair of expansible members having chambers provided with annular grooves, a spring located in said chambers, a covering about said spring and packing-rings in said grooves surrounding said covering.

5. In a well-drilling tool, the combination with a shell, of a pair of drill-members having arms secured within said shell, and having a central longitudinal opening in said arms, and a cap having a central duct registering with said opening and provided with lateral ducts leading outwardly from said central duct.

[Claims 6 and 7 not printed in the Gazette.]

1,138,189. ANTISKID ATTACHMENT FOR TIRES. ANDREW G. BRUCE, Mead, Nebr. Filed July 2, 1914. Serial No. 848,624. (Cl. 152—14.)



1. In an anti-skid attachment for tires, a series of disks seating on the tread thereof, each disk having a pair of ribs formed integral therewith, said ribs intersecting each other centrally, and having their ends substantially flush with the peripheries of the disks, said ribs having perforations formed in their free outer ends, chain sections having one of their ends engaged in said perforations and disposed transversely of the sides of the tire, and chains disposed circumferentially of the tire and to which the other ends of the chain sections are secured to hold said disks on the tire tread.

2. In an anti-skid attachment for tires, a series of disks seating on the tire tread, ribs on the disks having offset outer ends and having pins which are connected to said offset ends and extend laterally of the latter, chains extending laterally of the tire and engaged with the pins, and flat springs connected to the ribs and engaged with the free ends of the pins, the offset ends and the springs forming pockets in which the chain ends engage, and means to hold said chains over the tire.

1,138,190. PROCESS FOR FIXING ATMOSPHERIC NITROGEN. JOHN E. BUCHER, Coventry, R. I., assignor to Nitrogen Products Company, Providence, R. I., a Corporation of Rhode Island. Original application filed Oct. 21, 1912, Serial No. 726,924. Divided and this application filed July 17, 1913. Serial No. 779,627. (Cl. 23—13.)



1. The process of fixing atmospheric nitrogen which comprises effecting a liberation of alkali metal vapor from a compound of the same, substantially preventing the liberated metal from exercising a reaction retarding vapor pressure upon the residue of said compound by intermingling a current of free nitrogen with the so liberated alkali metal and reacting upon the mixture with carbon held in solution in a mass of catalytic material disposed at a point relatively remote from the place where said alkali metal is liberated, to form a cyanogen compound of said alkali metal.

2. The process of fixing atmospheric nitrogen which comprises effecting the liberation of an alkali or alkaline earth metal capable of acting as the base of a cyanogen compound to be formed while said nitrogen is being fixed, from a compound of said metal, sweeping the liberated metal in vaporous form toward a separate mass of catalytic material containing carbon in solution, by means of a current of free nitrogen and reacting upon the mixed nitrogen and metal vapor with said carbon in solution to directly form a cyanogen compound of said alkali metal.

3. The process of fixing atmospheric nitrogen which comprises effecting the liberation in vaporous condition of an alkali or alkaline earth metal, from a mass of material containing said metal as one of the constituents thereof, passing a current of free nitrogen in contact with said mass and thereby forming a mixture of nitrogen and the vapor of said metal, conveying said mixture into intimate contact with a mass of catalytic material containing carbon in solution, and reacting upon said carbon with said mixture to form a cyanogen compound of said light metal.

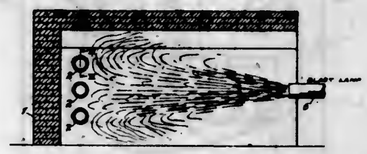
4. The process of fixing atmospheric nitrogen which comprises bringing free nitrogen and the vapor of an alkali or alkaline earth metal, capable of acting as the base of a cyanogen compound to be formed while said nitrogen is being fixed, simultaneously into intimate contact with carbon dissolved in a heated mass of catalytic material having an extended solution surface, and effecting a direct reaction at said surface between said metal, nitrogen and carbon to synthetically form said cyanogen compound.

5. The process of fixing atmospheric nitrogen which comprises bringing an intimate mixture of free nitrogen and the vapor of an alkali or alkaline earth metal, capable of acting as the base of a cyanogen compound to be formed during the course of said process, into close contact with an extended surface of catalytic material containing carbon in solution, reacting at said surface upon the dissolved carbon with said metal and nitrogen to synthetically form said cyanogen compound, and continuing said reaction by abundantly supplying said surface with fresh carbon as the content of dissolved carbon therein is reduced by said reaction.

[Claims 6 to 16 not printed in the Gazette.]

1,138,191. METHOD OF PRODUCING AMMONIA AND THE LIKE. JOHN E. BUCHER, Coventry, R. I., assignor to Nitrogen Products Company, Providence, R. I., a Corporation of Rhode Island. Original application filed Oct. 21, 1912, Serial No. 726,924. Divided and this application filed Jan. 8, 1914. Serial No. 810,973. (Cl. 23—31.)

1. The process of fixing nitrogen which comprises bringing initially free nitrogen into contact with carbon dissolved in a mass of catalytic material presenting an extended solution surface, combining the dissolved carbon with said nitrogen and with a metal present, prior to such reaction, as the base of a compound which includes a radical one of the constituents of which latter is oxygen, while substantially simultaneously reacting upon the mass of reactive material with water in vaporous condition, whereby to reform said compound while combining said nitrogen with the hydrogen of the water.



2. The process of fixing nitrogen which comprises bringing initially free nitrogen into contact with carbon dissolved in a mass of catalytic material presenting an extended solution surface, and heated to approximately 725° C., combining the dissolved carbon with said nitrogen as cyanogen and reacting upon the latter substantially directly as formed with a substance capable of yielding the element hydrogen, whereby to combine said nitrogen with said hydrogen.

3. The process of fixing nitrogen which comprises bringing initially free nitrogen into contact with carbon dissolved in a mass of catalytic material presenting an extended solution surface, combining the dissolved carbon with said nitrogen as cyanogen and reacting upon the latter substantially directly as formed with a substance capable of yielding the element hydrogen, whereby to combine said nitrogen with said hydrogen.

4. The process of fixing nitrogen which comprises causing successive reactions in the immediate vicinity of a mass of metal containing dissolved carbon, to first evanescently combine said dissolved carbon with free nitrogen and to then immediately recombine said nitrogen with hydrogen, by contacting free nitrogen molecules with carbon dissolved in said metal, and simultaneously contacting said molecules with those of a compound the base of which is adapted to act as the base of a cyanogen compound and immediately reacting upon the resultant product with a substance capable of yielding hydrogen, said first mentioned compound and said metal acting catalytically.

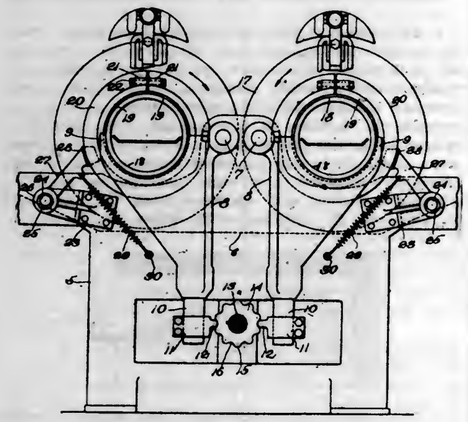
5. The process of fixing nitrogen which comprises causing successive reactions in the immediate vicinity of a mass of metal containing dissolved carbon, to combine said dissolved carbon with free nitrogen and to then re-combine said nitrogen with hydrogen, by contacting free nitrogen molecules with carbon dissolved in said metal and simultaneously contacting said molecules with those of a compound the base of which is adapted to act as the base of a cyanogen compound, and reacting upon the resultant product with a substance capable of yielding hydrogen, said first mentioned compound and said metal acting catalytically.

[Claim 6 not printed in the Gazette.]

1,138,192. DRIVING-GEAR FOR ROTARY PULP-SCREENS. RALPH S. CLARKE, Walpole, Mass., assignor to Wandel Screen Manufacturing Company, a Corporation of Massachusetts. Filed July 6, 1914. Serial No. 849,159. (Cl. 92—36.)

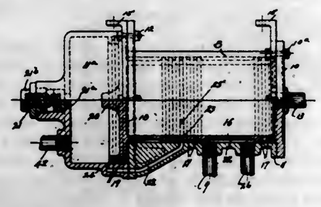
The combination with a pulp screen having a bearing, means for effecting vibratory motion of said bearing, a

pulp screen having a cylindrical extension journaled in said bearing, a split collar clamped on said member and having a peripheral groove, a pin fixed on the machine frame, an eccentric sleeve rotatable for adjustment on



said pin, an arm having a bearing sleeve embracing said eccentric and, at its free end a wedge adapted to engage the groove of said collar, and a spring acting to draw said wedge arm toward said collar.

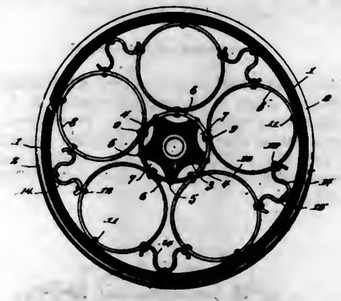
1,138,193. AIR-BRAKE SYSTEM. PATRICK COMERFORD, Victoria, British Columbia, Canada, assignor to Safety First Air Brake Company, Seattle, Wash. Filed Apr. 11, 1913. Serial No. 760,559. (Cl. 188—1.)



The combination in an air-brake system having both straight and automatic air lines, of a hollow piston having unequal faces and an annular channel around the said piston with which the said straight air line communicates, the said piston being acted upon by the air in an automatic line to normally prevent movement of the piston, a pipe which leads from the working chamber of the said piston to the brake cylinder and which is adapted to be placed in communication with a straight air-line pipe by means of said annular channel around said piston.

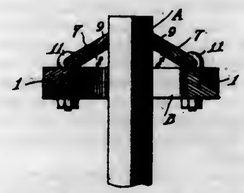
1,138,194. SPRING-WHEEL. LAWRENCE O. CORWIN and WILBY MOSES ARNOLD, Keene, Tex. Filed Mar. 19, 1913. Serial No. 755,436. (Cl. 152—28.)

In a resilient wheel, the combination of a non-resilient felly, a band within and concentric with the felly, a hub within and supporting said band having spaced spokes to which the band is directly fastened, a series of springs constructed to yield radially and circumferentially interposed betwen the band and the felly engaging the band at points intermediate the spokes, and arranged non-contiguous with each other tangentially to the band, and second springs, said second springs being arranged intermediate said first mentioned springs without a circle passing through their centers, and said second springs



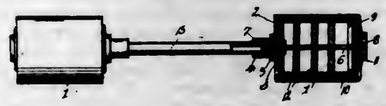
being fastened directly to the felly and the adjacent two springs of the first mentioned springs.

1,138,195. ROD-CLAMP. MARION M. COX, Corona, N. Mex. Filed May 10, 1913. Serial No. 766,778. (Cl. 24—249.)



A grip of the class described comprising a pair of concaved jaws movable toward and away from each other and having two rows of staggered and reversely inclined teeth formed on the confronting edges, one side of the teeth of one row being flush with one side of the jaw, one side of the teeth of the other row being flush with the opposite side of the jaw, the said rows of teeth having their respective apices operating in arcs of different radii and active on relatively opposite sides of a neutral position respectively.

1,138,196. EXERCISING APPARATUS. ROBERT N. DIEHL, Oilfields, Cal. Filed Aug. 14, 1912. Serial No. 715,092. (Cl. 46—69.)



1. The combination with an exercising apparatus of hollow bell members, a connecting member between said bell members and having engagement therewith, an interior flange on said bells, bolts passing through said bells and engaging said connecting member, plates on said bolts, said plates engaging said interior flanges upon said bells whereby to form a closure for said bells, and a plurality of division plates disposed upon said bolts for equalising the weight within said bell members and providing against excess dislodgement of weights within said bells.

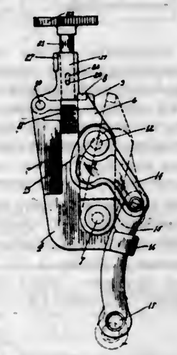
2. The combination with an exercising apparatus of hollow bell members, a connecting member between said bell members and having engagement therewith, attaching means for each bell, means passing through said bell members and engaging each attaching member to secure said bells to said connecting member, plates on said means forming closures for said bells, and a plurality of division plates removably carried by said means within the hollow

portion of said bells for subdividing the weight within said bell members.

3. An exercising apparatus including cylindrical bell members, an integral closure for one end of each member, a flange formed adjacent the other ends thereof, a removable closure abutting said flange, connecting means between said closures, and means carried by first said means to subdivide the interior of said bell between said closures.

4. An exercising apparatus including hollow bell members, an integral closure for one end of each member, attaching members threadingly engaging said closures, flanges formed interiorly of each member adjacent their opposite ends, removable closures abutting said flanges, connecting means between each pair of closures, subdivision plates supported in adjustable and removable relation upon said connecting means, and means for connecting pairs of said bell members.

1,138,197. AUTOMATIC-RELEASING CABLE-GRIP. RANDALL M. DIXON, Stockton, Cal. Filed May 14, 1914. Serial No. 838,497. (Cl. 104—87.)



1. A device of the character described comprising a plate, a shoulder on said plate, a swinging arm on said plate, means normally holding said swinging arm in fixed position, means pivotally mounted on said arm and movable to a point adjacent said shoulder for binding a member in frictional contact with said shoulder, and means for releasing said arm from its normal fixed position and allowing it to swing to carry said frictional binding means away from said shoulder, as described.

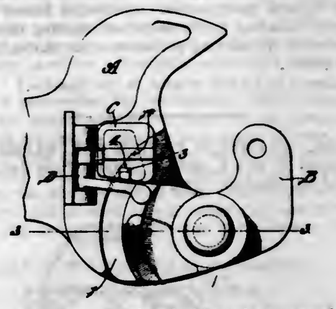
2. A device of the character described comprising a plate, a shoulder on said plate, a swinging arm on said plate, a latch normally holding said swinging arm in fixed position, an eccentric cam pivotally mounted to said arm and movable to a point adjacent said shoulder and means for releasing said arm from its normal fixed position and allowing it to swing to carry said cam away from said shoulder, as described.

3. A device of the character described comprising the combination with a cable, of a grip engageable with said cable, said grip comprising a plate, a shoulder on said plate, an eccentric cam pivotally mounted on said plate and adapted to engage said cable to bind it in frictional contact against said shoulder, and means for automatically releasing said cam from engagement with said cable at a predetermined point, as described.

4. A grip member comprising a plate, a shoulder on said plate, a swinging arm on said plate, a spring pressed latch normally engaging said arm, a frictional member carried by said arm and movable adjacent said shoulder, and a member slidably mounted in said plate and engageable with said latch to release the same from engagement with said arm, as described.

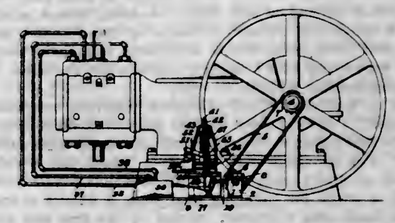
5. A device of the character described comprising the combination with an endless cable, of an independent member engageable with said cable, such independent member comprising a plate provided with a shoulder, a frictional means adapted to be actuated by the movement of said cable to bind said cable against said shoulder, an obstacle mounted adjacent the path of said cable and a member carried by said independent member engageable with said obstacle to release said frictional means from said cable, whereby said independent member will be released from said cable, as described.

1,138,198. CAR-COUPLING. HARRY E. DOERR, St. Louis, Mo., assignor to Samson Car Coupler Company, New York, N. Y., a Corporation of New York. Filed Feb. 5, 1914. Serial No. 816,801. (Cl. 213—14.)



In a car coupler, a head, a locking pin arranged in said head in such a manner that it can move in a vertical direction only, said pin being provided with a pair of cut-off portions arranged one above the other, a knuckle pivotally mounted in said head and provided with a pair of tails arranged one above the other that lie wholly without said head and which coöperate with cut-out portions on said pin to hold said pin in its raised position when the knuckle is in its open position, and a lateral projection on the uppermost tail that coöperates with a vertically-disposed slot formed in said pin above the uppermost cut-out portion thereof when the knuckle is in its closed position, said projection being adapted to contact with the lower edge of the uppermost recess when the locking pin is raised so as to prevent the complete withdrawal of said pin.

1,138,199. REGULATOR FOR FLUID-COMPRESSORS. WILLIAM MACFARLAND DONALDSON, New York, N. Y., assignor to Ingersoll-Rand Company, New York, N. Y., a Corporation of New Jersey. Filed July 25, 1912. Serial No. 711,561. (Cl. 230—24.)



1. In combination, a fluid compressor, its piston, means of driving it, a discharge valve and fluid pressure controlled means for automatically applying fluid pressure to and releasing the fluid pressure from behind the discharge valve for loading and unloading it for varying periods of time during the stroke of the piston.

2. In combination, a fluid compressor, its piston, means of driving it, a discharge valve and means controlled by variations in pressure for automatically applying fluid pressure to and releasing the fluid pressure from behind the discharge valve for loading and unloading it for varying periods of time during the stroke of the piston.

3. In combination, a fluid compressor, its piston, means of driving it, a discharge valve and fluid pressure controlled means for automatically applying fluid pressure to and releasing the fluid pressure from behind the dis-

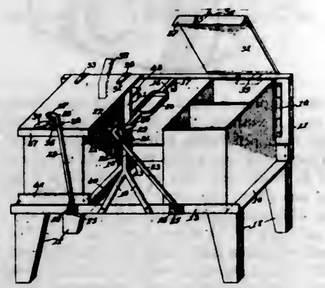
charge valve for loading and unloading it for varying periods of time during the stroke of the piston without changing the speed of the piston.

4. In combination, a fluid compressor, its piston, means of driving it, a discharge valve and means controlled by variations in pressure for automatically applying fluid pressure to and releasing the fluid pressure from behind the discharge valve for loading and unloading it for varying periods of time during the stroke of the piston without changing the speed of the piston.

5. In combination, a fluid compressor, its piston, means of driving it, a discharge valve normally having pressure behind it, and fluid pressure controlled means for automatically releasing the pressure and holding open the discharge valve for varying periods of time during the stroke of the piston.

[Claims 6 to 13 not printed in the Gazette.]

1,138,200. CLAMPING DEVICE FOR PAPER BOXES. CHARLES T. DUNN, Newark, Ohio. Filed Jan. 3, 1914. Serial No. 810,240. (Cl. 93—2.)



1. A machine of the character described comprising a table, a rear wall carried by said table, a forward flange carried by said table, a cover hinged to said rear wall, a lever pivotally connected with said forward flange, means carried by said lever for engaging said cover whereby said lever may be moved to a position to hold said cover in a lowered position, and means for supporting said lever when said cover is in a raised position.

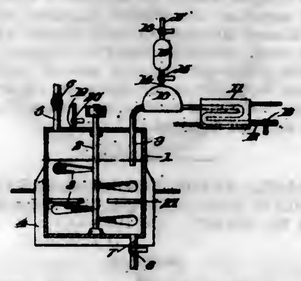
2. A machine of the character described comprising a table, a rear wall carried by said table, a forward flange carried by said table, a cover hinged to said rear wall, a standard carried by said flange, clamping means carried by said flange and releasably engaging the free-end portion of said cover, and means extending from said standard for supporting said clamping means when the same is out of engagement with said cover.

3. A machine of the character described comprising a support, a cover hinged to said support, a stem extending from said cover, a lever pivotally connected with said support and provided with a curved upper end portion, a latch pivotally connected with said lever and provided with a notch for engaging said stem, a handle carried by said latch, and a bracket carried by the free end portion of said lever and provided with a notch for receiving said stem.

4. A machine of the character described comprising a support, a pivoted pressing element, a clamping element for releasably engaging said pressing element, a standard secured to said support and having its upper end portion bent to form a bar extending transversely across said support, means extending from said standard for supporting said clamping means when said clamping means is not in use, and means carried by said support for limiting the pivotal movement of said pressing means in one direction.

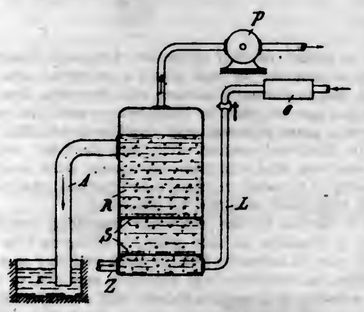
5. A machine of the character described comprising a table, a rear wall carried by said table, a forward flange carried by said table, a frame carried by said table between said rear wall and flange, said frame comprising a base, a forward flange, a rear wall, spacing strips carried by the rear wall to said frame and engaging the rear wall of said table, pressing means carried by the rear wall of said table, and clamping means carried by the forward flange of said table and releasably engaging said pressing means.

1,138,201. HYDROGENATING UNSATURATED ORGANIC MATERIAL. CARLETON ELLIS, Montclair, N. J. Filed Apr. 24, 1912. Serial No. 692,903. (Cl. 87—12.)



The process comprising adding nickel carbonyl and hydrogen to unsaturated fatty material, subjecting the mixture to a predetermined temperature sufficient to decompose the nickel carbonyl and cause the resulting nickel and the hydrogen to react upon the unsaturated fatty material and completing the hydrogenation at a lower temperature.

1,138,202. APPARATUS FOR PURIFYING WATER BY MEANS OF OZONIZED AIR. GEORG ERLWEIN, Berlin, and CHRISTOPH KNIPS, Charlottenburg, Germany, assignors to Siemens & Halske A. G., Berlin, Germany, a Corporation of Germany. Filed Nov. 15, 1910. Serial No. 592,445. (Cl. 210—1.)

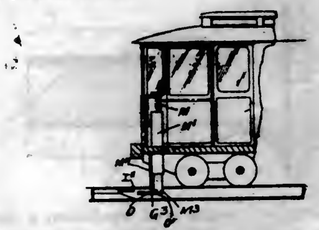


Apparatus for purifying water by means of ozonized air, comprising a reaction tower, a water conduit discharging thereinto, an ozone pipe discharging into the lower portion of the reaction tower, an air pump connected with the upper portion of the reaction tower and means independent of said air pump for leading off the purified water from the upper portion of the reaction tower.

1,138,203. CAR-SWITCH-OPERATING MECHANISM. GEORGE ARTHUR ERRINGTON, Toronto, Ontario, Canada. Filed June 15, 1914, Serial No. 845,150. Renewed Mar. 29, 1915. Serial No. 17,893. (Cl. 104—171.)

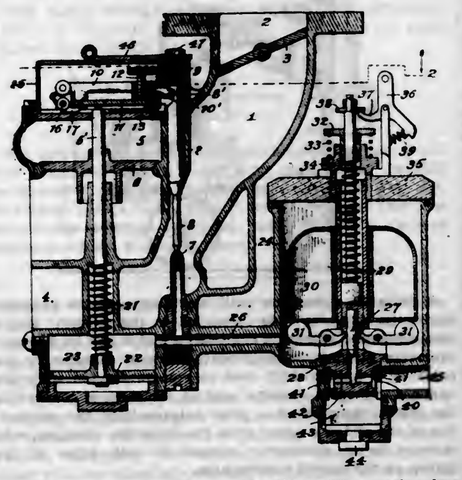
1. In a car switch operating mechanism, a tripping member designed to be carried by the car and comprising a casing located in the car vestibule and having a vertical slot in one side thereof and having an orifice located above the slot, a vertically movable spring held member adapted to engage, when depressed, the switch point operating lever extending horizontally in proximity to the track, a tread plate extending from the spring held member through the slot of the casing, a locking lever pivotally

supported in a suitable bracket carried by the depressible member and having an inturned upper end and a depending lower end adapted to engage a suitable projection lying in the path of the depressed end of the depressible member when the locking lever is carried by the depressible member to the depressed position, and spring means for forcing the lower end of the locking lever normally outwardly from the casing so that when the depressible member is depressed the upper inturned end of the locking lever will be forced through the orifice in the casing into engagement with the depressible member to hold the depressible member in the depressed position, as and for the purpose specified.



2. In a car switch operating mechanism, a tripping member designed to be carried by the car and comprising a casing located in the car vestibule, a vertically movable spring held member therein, means for depressing said spring held member, locking means adapted to hold the spring held member in the depressed position, means for releasing the spring held member from the depressed position and spring cushioning means designed to receive the depressible member when released at the end of its upward stroke, as and for the purpose specified.

1,138,204. CARBURETER. FREDERICK G. FOLBERTH, Cleveland, Ohio. Filed Aug. 4, 1911. Serial No. 642,309. (Cl. 48—154.1.)



1. In a carbureter, the combination with a casing having an air intake and a float chamber, of an automatically-controlled air intake valve, a lever adapted to be actuated by said air valve, a fuel valve, and a second independently fulcrumed lever engaging the fuel valve and adapted to be actuated by the first said lever.

2. In a carbureter, the combination with a casing having an air intake and a float chamber, of an automatically-controlled air intake valve, a fuel valve, a lever adapted to be actuated by said air valve and bodily adjustable to vary the distance between its fulcrum and the point of engagement with the air valve, and an independently fulcrumed lever connected with the fuel valve and adapted to be actuated by the first said lever.

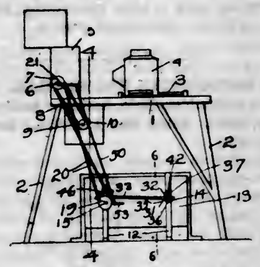
3. In a carbureter, the combination with a casing having an air intake and a fuel inlet, of an automatically-controlled air intake valve, a fuel valve, two levers, one adapted to be actuated by said air valve to rock the other and the latter engaging the fuel valve, and means for varying the relation between said levers, for the purpose described.

4. In a carbureter, the combination with a casing having an air intake and a fuel inlet, of an automatically-controlled air intake valve, a fuel valve, a lever adapted to be actuated by said air valve, means for shifting said lever bodily relative to the air valve to vary the effective length of the lever, a second lever adapted to actuate the fuel valve, and an adjustable connection between said levers.

5. In a carbureter, the combination with a casing having an air intake and a fuel inlet, of an automatically-controlled air intake valve, a fuel valve, a lever adapted to be actuated by said air valve, means for shifting said lever bodily relative to the air valve to vary the effective length of the lever, a second lever adapted to actuate the fuel valve, and a stud or pin adjustably connected with one of said levers and extending into contact with the other.

[Claims 6 to 13 not printed in the Gazette.]

1,138,205. FILM-REWINDING DEVICE. CHARLES V. FOOTE, Nephi, Utah. Filed Aug. 15, 1911. Serial No. 644,166. (Cl. 242—55.)

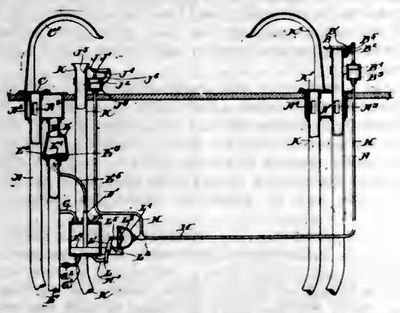


The combination with a rotating shaft, of a pulley having a part loosely mounted on the shaft, a clutch for operatively connecting the pulley and shaft, a rewinding box having feed and rewinding shafts rotatably mounted therein, a drum for the feed shaft, a sheave secured on the rewinding shaft, a cross belt connecting the pulley and sheave a rod positioned between the rewinding and feed shafts, brake shoes mounted upon the ends of the rod and adapted to engage the sheave and drum, respectively, a tensioning device carried by one end of the rod and engaged by the crossed belt, whereby tensioning of the belt will shift the brake shoe out of engagement with the sheave, and means for throwing out the clutch upon slacking of the belt.

1,138,206. PNEUMATIC-DESPATCH-TUBE APPARATUS. EDMOND A. FORDYCE, Boston, Mass., assignor to American Pneumatic Service Company, Boston, Mass., a Corporation of Delaware. Filed Apr. 15, 1907. Serial No. 368,190. (Cl. 243—15.)

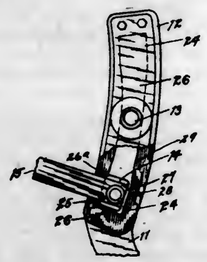
1. In a pneumatic despatch tube system, a station, a transit tube for the transmission of carriers from said station, means for establishing a carrier transmitting flow of air in said tube, a controlling device for said means adapted to respond to a fluid-pressure impulse, and means, including auxiliary tubing leading from said station to said device, for imparting a fluid-pressure operating impulse to said device from said station, said last mentioned means also including a pump and an operating member therefor which normally extends into the path which a carrier must traverse to be despatched from said

station, whereby to normally insure that said member shall be operatively displaced to operate said pump and thereby impart said impulse to said device through said auxiliary tubing whenever a carrier is to be despatched.



2. In a pneumatic despatch tube system, transmission tubing having terminals, a pipe having air therein normally at a different pressure from the air in said tubing, said pipe adapted to be placed in communication with said tubing to establish a carrier propelling current of air through the latter, a valve controlling communication between said pipe and tubing, a second valve disposed at one of said terminals, a fluid pressure controlling device adapted to be rendered operative by a movement of said second valve, fluid pressure operated means to control said first valve, and a pipe connecting said controlling device and said last mentioned means.

1,138,207. LOCOMOTIVE VALVE-GEAR. FRANKLIN W. FRITCHEY, Columbus, Ohio, assignor to Conrad Fritchey, Sandusky, Ohio. Filed Jan. 11, 1915. Serial No. 1,672. (Cl. 121—98.)

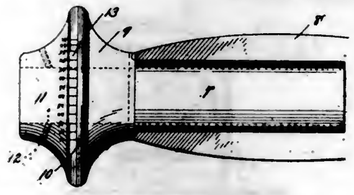


1. In a locomotive valve gear, a valve, a centrally pivoted slotted link, means for actuating said link by the means of the locomotive, connecting means between said link and said valve, a reverse lever, means for changing the cut off by movement of said lever, and supplemental means for locating said valve in a position of no lead when said lever is in full forward or full reverse position and establishing a lead for intermediate positions.

2. In a locomotive valve gear, a valve, a centrally pivoted slotted arcuate link, means for actuating said link by movement of the locomotive, connecting means between said link and said valve, a block slidable in said link and forming a portion of said last named means, means for moving said block in said link to change the engine cut off, and supplemental means for locating said valve in a position of no lead when said block is in full forward or full reverse position and establishing a lead when in intermediate positions.

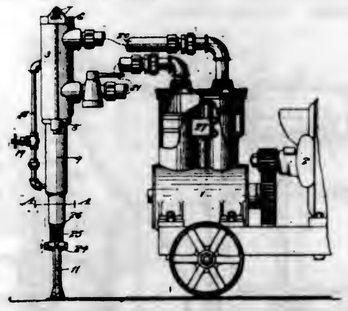
3. In a locomotive valve gear, a valve, a centrally pivoted slotted arcuate link, means for actuating said link by movement of the locomotive, connecting means between said link and said valve, a block slidable in said slotted link and forming a portion of said last named means, both extremities of both side walls of the slot in said link being additionally cut out so that when said block is centrally disposed in either extreme position of said link, the distance between its side walls and their coöperating link walls equals the full amount of lead calculated for said valve when in full high speed running position, the intermediate portions of the slot closely fitting said block, and means for shifting said block in said slot.

1,138,208. SPEED-INDICATING MEANS FOR MOTOR-CYCLES. GEORGE J. GAGNE, Woonsocket, R. I. Filed Oct. 9, 1913. Serial No. 794,269. (Cl. 116—49.)



The combination of a motor cycle handle-bar, a hand-grasp revoluble about the bar and adapted for fuel or spark control, a member, larger in diameter than the hand-grasp, fixed to the rear or outer end portion of the hand grasp, and a member secured on the handle-bar in rear of the first-named member and opposed to and abutting against the same; one of the said members having a scale and the other member having a pointer adapted to co-operate with said scale.

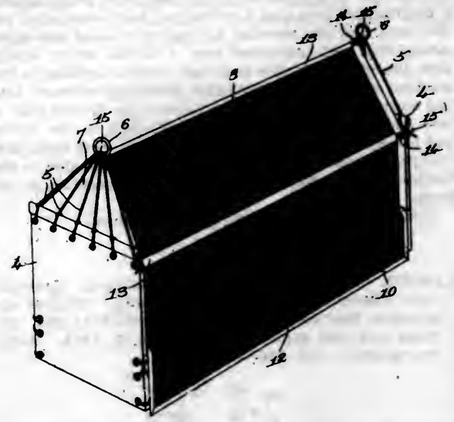
1,138,209. PERCUSSIVE TOOL. ARTHUR H. GIBSON, Easton, Pa., assignor to Ingersoll-Rand Company, New York, N. Y., a Corporation of New Jersey. Filed May 19, 1911. Serial No. 628,206. (Cl. 255—49.)



A pulsator, a hammer drill including a piston chamber having its opposite ends connected to the pulsator and a piston hammer extension chamber, a piston and its hammer extension fitted to be reciprocated in said chamber by the pulsator, a hollow drill steel in communication with the hammer extension chamber and an air passage connecting the piston chamber at a point intermediate the extremities of the piston's travel with the extension chamber, said passage being alternately opened to both sides of the piston as the piston reciprocates.

1,138,210. HAMMOCK-CANOPY. CHARLES GORDON, Chelsea, Mass. Filed June 15, 1910. Serial No. 566,899. (Cl. 5—14.)

As a new article of manufacture a couch hammock canopy comprising cloth end portions, a netting top and side portions, the end portions along their top and upper part of their side edges being inturned and united to the netting top and upper part of the netting side portions respectively, and forming a welt, the lower part of the edges of the netting side portions and the cloth end portions being free and disconnected whereby flaps are left at the bottoms of both of the end and side portions extending the entire length of the side portions and to the lower edge of the frame of the hammock, tapes stitched longitudinally of the canopy at the juncture of the top and side portions and at the juncture of the two top portions, and at the juncture of the end and side portions



and extending into the welts at said points, tapes stitched around the free edges of the netting flap portions and fastening devices connected to the juncture of the tapes and welts, said tapes thereby taking strain off the netting and enabling the canopy to be drawn taut and connected firmly to the ends of the hammock.

1,138,211. PROCESS OF FORMING POINTED BLANKS FOR BELT-HOOKS FROM A METALLIC STRAND. DAVID T. GRAHAM, St. Louis, Mo. Filed June 11, 1914. Serial No. 844,441. (Cl. 29—148.)



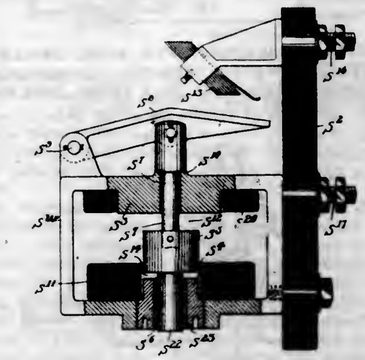
The process of forming pointed blanks for belt hooks from a metallic strand, comprising transversely swaging the strand of metal on opposite sides thereof and at predetermined points to flatten and bevel the same, and then successively cutting out from said uniformly thinned swaged portions, X-shaped pieces.

1,138,212. ELECTRIC SWITCH. JAY H. HALL, Cleveland, Ohio, assignor to The Electric Controller and Manufacturing Company, Cleveland, Ohio, a Corporation of Ohio. Filed Sept. 26, 1910. Serial No. 583,747. (Cl. 175—281.)

1. In a magnetically operated switch, a pair of contacts, a movable member adapted to move one of said contacts and biased to an inoperative position with said switch contacts separated, two windings for said switch, and means whereby when one winding is energized at a certain value in ampere turns it assists in biasing the movable member to inoperative position, and when energized at a lower value in ampere turns causes the movable member to move to an operative position, and whereby when the other winding is energized the movable member is prevented from operating.

2. In a switch, a pair of switch contacts, a movable member adapted to move one of said contacts and biased to an inoperative position with the said contacts separated, two windings for said switch, and means whereby, when one of the windings is energized alone, the contacts will close against the said bias, and whereby, when the second winding is energized above a predetermined value after the contacts have been closed, the contacts are caused to open.

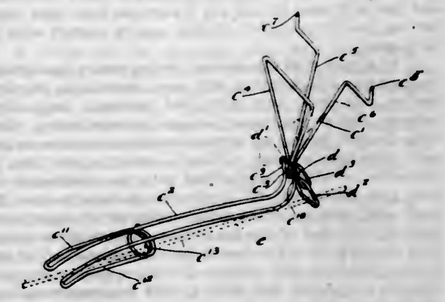
3. In a switch, a pair of contacts, a movable member adapted to move one of the contacts and normally in inoperative position with the contacts separated, two windings for the switch, and means whereby the movable member closes the contacts only when the current in one of the windings is below a predetermined value in ampere turns, and whereby, when the second winding is energized, the movable member is held in its inoperative position.



4. In a switch, a movable switch member, a winding therefor, means whereby the switch member is prevented from movement when the current in the winding is above a predetermined value and caused to move when the current in the winding falls to the said value, and an electromagnetic means associated with the first-named means for preventing the movement of the said member when the current in the said winding has fallen to the said predetermined value.

5. A controlling device for electric circuits comprising a movable switch member, an electromagnet coöperating therewith to either close the switch or hold it open, means whereby the switch is held open by the magnet when the current through the magnet is relatively high and closed by the magnet when the current falls to a predetermined value, and electromagnetic means for controlling the closing of said switch after the current has fallen to a predetermined value.

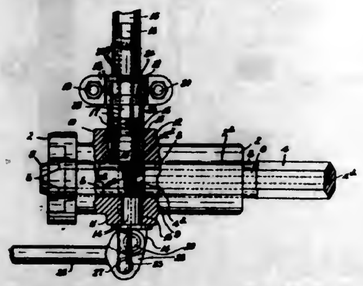
1,138,213. AWNING-CORD-OPERATING PROTECTOR DEVICE. JOHN M. HANF, West Philadelphia, Pa. Filed Aug. 8, 1914. Serial No. 855,839. (Cl. 156—75.)



1. An awning cord-operating protector device, consisting of two movable members, one member provided with a support and with prongs or spurs to engage framework and the other member formed at the free extremity underneath into an eye and the movable connection of said members having a guide-eye and a cord connected with the awning framing and extending through said eyes, substantially as and for the purposes described.

2. A device of the character described, comprising a framework and an awning framing supported thereto, in combination with a device, consisting of two hinged members, one of said members provided with a support and prongs or spurs to engage said framework and the other member provided with two parallel longitudinal arms in turned at the free extremities into an eye and the hinged connection for said members and as a part thereof, formed into a guide-eye, and a cord connected with said awning framing and extending through said eyes, substantially as and for the purposes described.

1,138,214. ATTACHMENT FOR ROCK-DRILLS FOR SUPPLYING WATER THERETO. CHARLES HANSEN, Johannesburg, Transvaal, South Africa. Filed Nov. 14, 1914. Serial No. 872,175. (Cl. 255—49.)



1. In a rock drill attachment of the nature indicated in combination a rock drill a drill steel mounted in the front end of said drill, said drill steel having a longitudinal passage and a transverse passage communicating therewith, the drill having an opening which communicates with said transverse passage, a flexible water supply pipe the extremity of which is projected into the opening in the drill and surrounds the transverse passage in the drill steel and means for forcing the end of said flexible pipe into said opening to form a watertight joint between it and the drill steel around the transverse hole.

2. In a rock drill attachment of the nature indicated in combination a rock drill a drill steel mounted in the front end of said drill, said drill steel having a longitudinal passage and a transverse passage communicating therewith, the drill having an opening which communicates with said transverse passage, a flexible water supply pipe the extremity of which is projected into the opening in the drill and surrounds the transverse passage in the drill steel and means for forcing the end of said flexible pipe into said opening to form a watertight joint between it and the drill steel around the transverse hole, said means serving also to retain the flexible pipe in contact with the drill steel.

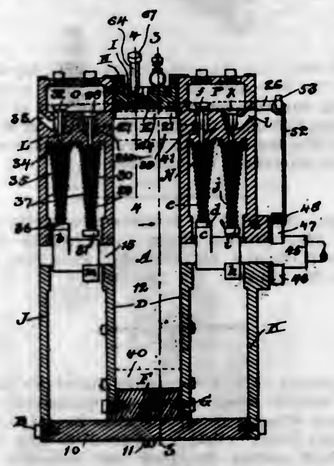
3. In a rock drill attachment of the nature indicated in combination a rock drill a drill steel mounted in the front end of said drill, said drill steel having a longitudinal passage and a transverse passage communicating therewith the drill having an opening which communicates with said transverse passage, a flexible water supply pipe the extremity of which is projected into the opening in the drill and surrounds the transverse passage in the drill steel, said opening in the drill permitting of slight movement of that end of the flexible pipe which is in contact with the drill steel and means for forcing the end of said flexible pipe into said opening to form a water-tight joint between it and the drill steel around the transverse hole, said means serving also to retain the flexible pipe in contact with the drill steel.

4. In a rock drill attachment of the nature indicated in combination a rock drill a drill steel mounted in the front end of said drill, said drill steel having a longitudinal passage and a transverse passage communicating therewith the drill having an opening which communicates with said transverse passage, a flexible water supply pipe the extremity of which is projected into the opening in the drill and surrounds the transverse passage in the drill steel, means for forcing the end of said flexible pipe into said opening to form a watertight joint between it and the drill steel around the transverse hole and means for preventing lateral expansion of the end of the flexible pipe when it is forced into the opening in the drill.

5. In water supplying attachments for rock drills the combination of a drill and a drill steel, the latter having a longitudinal hole and a transverse hole communicating therewith and the machine having an opening communicating with said transverse hole, a flexible water supply pipe, the end of which is projected into the opening in the machine so that it communicates with the transverse hole and means comprising a clamp fixed to the flexible pipe, a bow and a lever, the bow being attached to the clamp and loosely connected to the lever and the lever being pivotally attached to the machine at the opposite side to the flexible pipe for fixing the latter to the machine, as set forth.

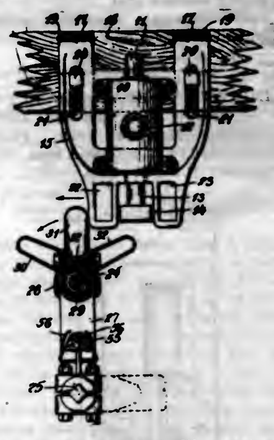
[Claims 6 and 7 not printed in the Gazette.]

1,138,215. AIR-COMPRESSOR. HAVELOCK HARFORD, Port Alberni, British Columbia, Canada. Original application filed July 24, 1912, Serial No. 711,330. Divided and this application filed Mar. 7, 1914. Serial No. 823,051. (Cl. 230—60.)



In an air compressor, the combination of the casing; a compression cylinder formed therein; a rotary piston mounted in said cylinder and provided with two wings spaced the required distance apart and projecting beyond the perimeter of said piston; a shaft for said piston journaled in said casing; an abutment mounted to operate in a recess formed in said cylinder; a rod on which said abutment is secured; compression chests formed in the said casing and positioned one on each side of said compression cylinder, each of the said compression chests being provided with an exhaust port, and being further provided each with an intake port which opens into said compression cylinder behind the said abutment mounted therein; a valve mounted to control the passage of air through each of the said ports; valve gear operated by said shaft to control said valves; means carried by said shaft for operating said abutment, comprising a sleeve keyed to the outer end of said shaft and provided with two cams positioned 180° apart; a lever pivoted at one end to the outside of said casing and adjacent said sleeve, provided in its underside with a lip, and further provided with a notch; means to maintain said lever in normal position; an arm carried by the outer end of said rod; a link-rod connecting said lever with said arm; a spring-controlled pin operating in said recess and having its inner end held in a pocket formed in said abutment; means whereby the tension of said spring against said pin can be adjusted, and a spring-controlled intake valve mounted in said air compressor to communicate with the said recess formed therein and in front of said abutment.

1,138,216. AUTOMATIC TRAIN-STOP. ERNEST ROWLAND HILL, East Orange, N. J., assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Feb. 9, 1911. Serial No. 607,570. (Cl. 246—59.)



1. In an automatic train controlling system, the combination of a movable controlling member mounted on a car or train, a guard in front of said member, and a track device provided with a movable member having a portion adapted to be deflected by said guard, and another portion for actuating the train controlling member by the deflecting movement of said movable member of the track device.

2. In an automatic train controlling system, the combination of a movable controlling member mounted on a car or train, a guard in front of said member, and a track device comprising a stop arm having a pivoted finger adapted to be deflected by said guard, and another finger connected with the first for actuating the train controlling member by said deflecting movement.

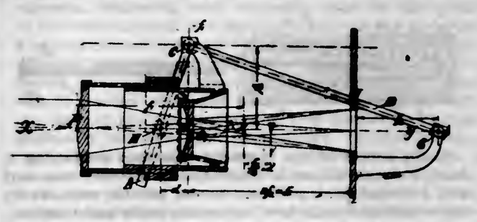
3. In apparatus of the kind described, in combination, a reciprocatory controlling member adapted to be mounted on a car or train, a guard in front of the controlling member and immovable relatively thereto, and actuating means for said member, adapted to be mounted adjacent to the track on which the car or train is running, said means including an element adapted to be actuated by the guard and in turn to engage and actuate the reciprocatory controlling member.

4. In apparatus of the kind described, in combination, a supporting frame adapted to be mounted on a car or train, a reciprocatory controlling member associated with the frame, a guard carried by the frame in front of the controlling member and immovable relatively thereto, and actuating means for the controlling member, adapted to be mounted adjacent to the track on which the car or train is running, said means including an element adapted to be actuated by the guard and in turn to engage and actuate the reciprocatory controlling member.

5. In an automatic train controlling system, the combination of a train controlling member, and guards carried by the train in front and rear of said member, of a track device provided with a pivotally mounted member having a portion adapted to be deflected by the front guard, and another portion for actuating the train controlling member and adapted to be deflected to permit the passage of the rear guard.

[Claims 6 to 14 not printed in the Gazette.]

1,138,217. TELEPHOTOGRAPHIC APPARATUS. LODEWYK J. R. HOLST, Philadelphia, Pa. Filed Aug. 29, 1914. Serial No. 859,183. (Cl. 88—24.)



1. In tele-photographic apparatus, a positive element, a negative element, an image surface and operative connections between the same adapted to cause the varying distances between the negative element and the image surface to automatically correspond with the conjugate distances between said negative element and said positive element.

2. In tele-photographic apparatus, a positive element movable along its optical axis and carrying pivoted guide-means in rigid relationship, a negative element movable along said optical axis and carrying in rigid relationship the pivot for a rectangle-lever, a support for an image-surface carrying also pivoted guide-means in rigid relationship thereto and a rectangle-lever, the intersection of the arms of which is carried by the pivot of said negative element, said arms respectively engaging the guide-means carried by said positive element and image-support, to thereby cause by the shiftings of the intersection point of said arms the proper relative shiftings of said positive and said negative elements with relation to said image-surface.

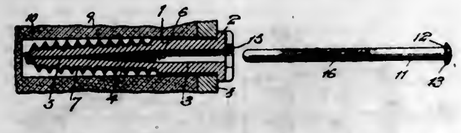
1,138,218. EMERGENCY LOCKING-BOLT FOR SAFE OR VAULT DOORS AND THE LIKE. FRANCIS L. HORSPOOL, Salt Lake City, Utah. Filed Aug. 9, 1913, Serial No. 783,981. Renewed Sept. 26, 1914. Serial No. 863,772. (Cl. 109—3.)



1. A device of the character described comprising a tubular casing, the upper end thereof being tapered, said casing provided with a hole located near said tapered end, a ball within said hole, a bolt within said casing provided with a groove for receiving said ball when said bolt is in locked position, a plunger within said casing for operating said bolt, said casing having a hole in its lower end for receiving the stem on said plunger.

2. A device of the character described comprising a tubular casing, the upper end thereof being tapered, said casing provided with a hole located near said tapered end, a sticker covering said hole, a ball within said hole, a bolt within said casing provided with a groove for receiving said ball when said bolt is in locked position, a plunger within said casing for operating said bolt, a spring within said casing for operating said plunger, said casing having a hole in its lower end for receiving the stem on said plunger, a wire secured to said stem and attached to the locking mechanism on the door, a hole in said door for receiving the tapered end of said tubular casing, substantially as and for the purpose set forth.

1,138,219. EXPANSIBLE SCREW, BOLT, OR NAIL. ADOLPH C. HOTTENROTH, Freeport, N. Y. Filed Sept. 3, 1914. Serial No. 860,048. (Cl. 85—2.)



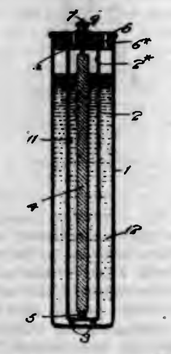
1. An article of the character described comprising a head, a shank having a longitudinally divided inner end and a central bore, said bore having parallel walls at its outer end developing into convergent walls and terminating in parallel abutting walls at its inner end, and a pin for engaging the convergent and abutting walls for spreading the divided end of the shank.

2. An article of the character described comprising a head, a shank having a longitudinally divided inner end and a central bore, said bore having parallel walls at its outer and inner ends connected by convergent walls, a pin for spreading the divided portion of the shank and a covering of ductile metal of uniform thickness for said shank.

3. An article of the character described comprising a head having a recess and a kerf therein, a shank having a longtiudinally divided inner end and a central bore, said bore having parallel walls at its outer and inner ends connected by convergent walls, and a pin provided with a head and adapted to engage the convergent walls to spread the divided portion of the shank before the head enters the recess.

4. An article of the character described comprising a head having a recess and a kerf therein, a shank having a longitudinally divided inner end and a central bore, said bore having parallel walls at its outer and inner ends connected by convergent walls, and a pin provided with a beveled head and adapted to engage the convergent walls to spread the divided portion of the shank before the head enters the recess.

1,138,220. STORAGE BATTERY. RICHARD HURLEY, Hoboken, N. J., assignor to John C. Farr, Jr., Hoboken, N. J. Filed Dec. 28, 1912. Serial No. 739,060. (Cl. 204—29.)



1. A storage battery having a double shell, the inner surface of the outer shell being of zinc amalgam and constituting a negative electrode; the outer surface of the inner shell being of copper amalgam and constituting a positive electrode; the inner surface of the inner shell being of zinc amalgam and constituting a negative electrode; and a lead plate located within the inner shell and constituting a positive electrode.

2. A storage battery having a double shell, the inner shell being composed of copper and having its inside surface coated with zinc amalgam and constituting a negative electrode, its outer surface coated with mercury and constituting a positive electrode, the outer shell being also composed of copper and having its inner surface coated with zinc amalgam and constituting a negative electrode, and a lead plate located within the inner shell and constituting a positive electrode.

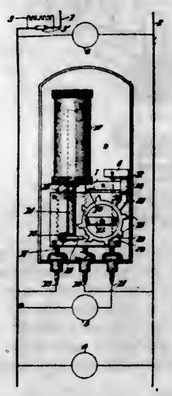
1,138,221. ELECTROLYTE. RICHARD HURLEY, Hoboken, N. J., assignor to John C. Farr, Jr., Hoboken, N. J. Filed Dec. 28, 1912. Serial No. 739,061. (Cl. 204—29.)

1. A composite electrolyte comprising a salt of lead, a salt of zinc and an acid.

2. A composite electrolyte comprising sulfate of lead, sulfate of zinc and sulfuric acid.

3. A composite electrolyte comprising sulfate of lead, sulfate of zinc, sulfuric acid, and water.

1,138,222. INDIVIDUAL OR GROUP CUT-OUTS FOR ELECTRICAL DEVICES. CHARLES JOHNSTON and CLAUDE JOHNSTON, Memphis, Tenn. Filed Mar. 21, 1911, Serial No. 616,042. Renewed Sept. 29, 1913. Serial No. 792,486. (Cl. 171—97.)



1. In combination with a main electric circuit containing a plurality of translating devices, a local circuit controlling one or more of said devices and having a make and break device therein, and means operable to either make or break the local circuit upon the lessening of the current strength in the main circuit, substantially as described.

2. An electric circuit having a plurality of translating devices, a solenoid in said circuit having a downwardly movable core operable only upon the deënergization of the solenoid, means actuated by said core for closing or opening the circuit through one or more of said devices, and distant control means for momentarily lowering the voltage of said circuit.

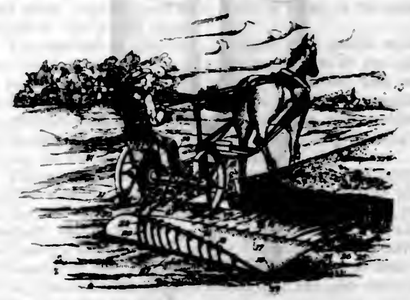
3. An electric circuit having a plurality of translating devices, a local cut-out for one or more of said translating devices, means to operate said cut out to either make or break the circuit through said translating devices upon the momentary lowering of the voltage in the main circuit without breaking said main circuit and central station means to effect such momentary lowering of the voltage.

4. In an electrically connected system of translating devices, a metallic local circuit means operated by gravity to alternately open and close said metallic local circuit to cut in or out one or more of said devices and means to release said gravity operated means by a momentary lowering of a given voltage in the main circuit without breaking said circuit.

5. An electric circuit containing a plurality of translating devices connected in parallel, a local make and break contact device controlling the circuit through one or more of said translating devices, having the contacts connected in series with said controlled devices, and an electrically released gravity actuated solenoid core for actuating in its downward movement said make and break device to either open or close the same and distant control means operating through said circuit to release said core.

[Claims 6 and 7 not printed in the Gazette.]

1,138,223. HAY-RAKING ATTACHMENT TO MOWERS. DAVID PRICE JONES, Bredenbury, Saskatchewan, Canada. Filed Apr. 11, 1913. Serial No. 760,566. (Cl. 56—128.)



1. A raking attachment comprising a supporting frame including a forward and rear member, a plurality of bars spaced apart and coupled respectively at one end to the rear frame member and extending in advance of the forward frame member to form gathering teeth, said bars being curved upwardly where they pass the forward frame member, a receiving member bearing over said bars and connected at its edges respectively to the rearward and forward frame members and perforated to receive the upwardly curving portions of the bars, means for swingingly coupling said frame to a mower, and means for elevating said frame.

2. The combination with a mower including the supporting body and a sickle bar head adapted to be elevated, of a frame including rods at the ends, a receiver carried by said frame, a swivel device connected to said supporting body, means for swingingly coupling one of said rods to the sickle bar support, means for coupling the other of said rods to the swivel device, and means for swinging said frame and the receiver carried thereby upwardly.

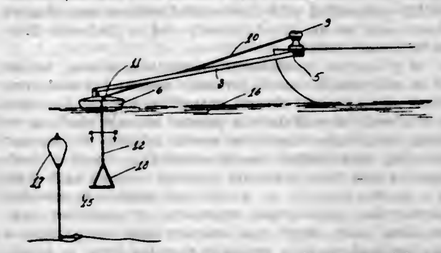
1,138,224. ELECTRICAL-SWITCH KEY. WILLIAM KAISLING, Chicago, Ill., assignor to Kellogg Switchboard & Supply Company, Chicago, Ill., a Corporation of Illinois. Filed June 19, 1913. Serial No. 774,551. (Cl. 175—283.)



1. A switching device comprising an elongated face plate, a switch element supporting bridge to the rear thereof consisting of an elongated bar, a plurality of plunger rods slidably supported by the face and bridge elements, a pair of contact springs for each plunger rod insulatingly mounted upon opposite sides of the bridge element and having free ends extending toward the face plate, and an annularly grooved conducting element and an annularly grooved insulating element carried upon each plunger rod for coöperation with the associated contact springs whereby when a plunger rod is moved to one position the conducting element connects the associated contact springs and when moved to another position the insulating element insulates said contact springs.

2. A switching device comprising an elongated face plate, a switch element supporting bridge to the rear thereof consisting of an elongated bar, a plurality of plunger rods slidably supported by the face and bridge elements, connecting studs extending from the face plate to the bridge element and positioned between the plungers, a pair of contact springs for each plunger rod insulatingly mounted upon opposite sides of the bridge element and having free ends extending to a point adjacent the inner side of the face plate, and an annularly grooved conducting element and an annularly groved insulating element adjacently mounted upon each plunger rod for coöperation with the associated contact springs whereby when a plunger rod is moved to one position the conducting element connects the associated contact springs and when moved to another position the insulating element insulates said contact springs.

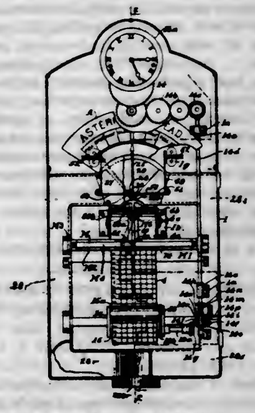
1,138,225. MINE-CATCHER. JAMES KING KENDRICK and JOHN WESLEY HALTERMAN, Willows, Cal. Filed Dec. 5, 1914. Serial No. 875,647. (Cl. 114—240.)



1. A device of the character described comprising the combination with a vessel, of a supporting means mounted on said vessel and extending outwardly therefrom, a float structure carried by said supporting means and a rake mechanism suspended from said float structure, as described.

2. A device of the character described comprising the combination with a vessel, of a supporting means projecting outwardly therefrom, a plurality of floats carried by said supporting structure and flexibly connected with each other, a rake structure suspended from said floats, and means for adjusting the position of said rake structure with respect to said floats, as described.

1,138,226. MARINE SPEEDOMETER. CHARLES H. KENNEY, New London, Conn. Filed May 9, 1913. Serial No. 766,490. (Cl. 234—26.)



1. In a marine speedometer adapted to indicate and record direction and speed ahead and astern by corresponding dips of a pointer and record diagrams, a case, an air duct in said case, a movable abutment in said duct

adapted to be moved by varying air-tension on opposite faces, a pointer operably connected with said movable abutment, and thereby dipped in opposite directions to indicate respectively speed ahead and astern, a record tape, tape supporting means adapted to support said tape, tape-feeding means adapted to cause a feed motion of said tape, a marker adapted to mark said tape, and marker-shifting means operably connecting said movable abutment and marker and adapted to move said marker synchronously and in the same direction with said pointer.

2. In a marine speedometer adapted to indicate and record direction and speed ahead and astern by corresponding dips of a pointer and record diagrams, a case, an air duct in said case, a closure in said duct adapted to be moved by varying air-tension on opposite faces, a pointer operably connected with said closure and thereby dipped in opposite directions to indicate respectively speed ahead and astern, a record tape, tape supporting means adapted to support said tape, tape-feeding means adapted to cause a feed motion of said tape, a marker adapted to mark said tape, and marker-shifting means operably connecting said closure and marker and adapted to move said marker synchronously and in the same direction with said pointer.

3. In a marine speedometer, comprising a case, an air duct in said case, a closure pivotally mounted in said duct, a shaft axial on said closure extending through an opening in a wall of said duct, a pointer on said shaft, a recording tape, tape-supporting means adapted to support said tape, tape-feeding means adapted to cause a feed-motion of said tape, a marker adapted to mark said tape, and a marker-support on which said marker is movably mounted, the combination therewith of operating gear connecting said shaft and marker and comprising a pinion on said shaft, a pivotally-mounted lever, a wheel-segment on one arm of said lever, and an operating connection operably connecting the other arm of said lever with said marker.

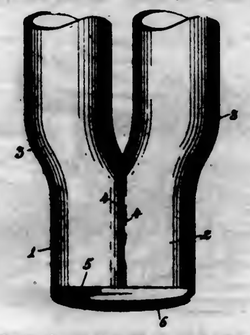
4. In a marine speedometer comprising a case, an air duct in said case, a closure pivotally mounted in said duct, a shaft axial on said closure extending through an opening in a wall of said duct, a pointer on said shaft, a recording tape, tape-supporting means adapted to support said tape, tape-feeding means adapted to cause a feed-motion of said tape, a marker-frame attached to said case, and a marker slidably mounted on said frame and adapted to mark said tape, the combination therewith of operating gear connecting said shaft and marker and comprising a pinion on said shaft, a pivotally-mounted lever, a wheel-segment on one arm of said lever, and an operating connection operably connecting the other arm of said lever with said marker.

5. In a marine speedometer comprising a case, an air duct in said case, a closure pivotally mounted in said duct, a shaft axial on said closure extending through an opening in a wall of said duct, a pointer on said shaft, a recording tape, a tape-supporting means adapted to support said tape, and tape-feeding means adapted to cause a feed-motion of said tape, the combination therewith of a marker-frame hinged to said case, a marker slidably mounted on said frame and adapted to mark said tape, operating gear connecting said shaft and marker and comprising a pinion on said shaft, a pivotally-mounted lever, a wheel-segment on one arm of said lever, and an operating connection operably connecting the other arm of said lever with said marker.

[Claims 6 to 11 not printed in the Gazette.]

1,138,227. METHOD OF MAKING U-SHAPED PIPE-BENDS. JULIUS KINDERVATER, Richmond, Va., assignor to Locomotive Superheater Company, New York, N. Y., a Corporation of Delaware. Filed July 8, 1914. Serial No. 849,677. (Cl. 29—157.)

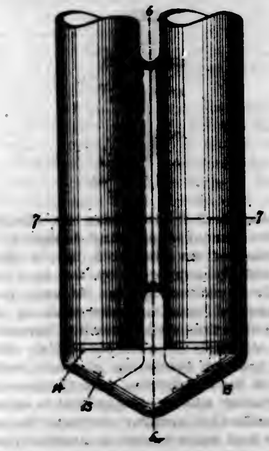
1. The method of making U shaped pipe bends which comprises displacing an end portion of each of two pipes laterally by bending, planing off said portion on the side toward which it has been displaced so as to make an opening through the pipe wall, abutting the planed edges of the two openings and then welding them together, and then closing the ends of the joined pipes.



3. The method of making U shaped pipe bends which comprises displacing an end portion of each of two pipes laterally by giving said portion a reverse bend and also an offset bend between the reverse bend and the end proper of the pipe, swaging down said portion for a short distance from said end proper, planing off said portion on the side to which it has been displaced so as to make an opening through the pipe wall, abutting the planed openings of the two pipes and welding them together, and closing the ends of the joined pipes.

4. The method of making U shaped pipe bends which comprises displacing an end portion of each of two pipes laterally by giving said portion a reverse bend and also an offset bend between the reverse bend and the end proper of the pipe, swaging down said portion for a short distance from said end proper, planing off said portion on the side to which it has been displaced so as to make an opening through the pipe wall, abutting the planed openings of the two pipes and welding them together, and welding a cap upon the ends of said joined pipes.

1,138,228. METHOD OF MAKING U-SHAPED PIPE-BENDS. JULIUS KINDERVATER, Richmond, Va., assignor to Locomotive Superheater Company, New York, N. Y., a Corporation of Delaware. Filed July 8, 1914. Serial No. 849,678. (Cl. 29—157.)



1. The method of making U shaped pipe bends which comprises applying pressure to the inner side of the pipe wall so as to form an opening therethrough bounded by a continuous closed flange abutting and welding said flanges of two pipes together, and then closing the ends of the joined pipes.

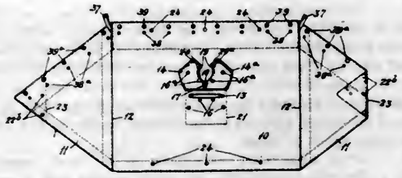
2. The method of making U shaped pipe bends which comprises applying pressure to the inner side of the pipe wall so as to form an opening therethrough bounded by a continuous closed flange, abutting and welding said flanges of two pipes together, and then welding a cap to the adjacent end of the joined pipes.

3. The method of making U shaped pipe bends which comprises applying pressure to the inner side of the pipe in a region extending axially, ending before the pipe end is reached, and of limited length so as to form an opening therethrough bounded by flanges, abutting and welding said flanges of two pipes together, and then welding a solid cap to the open end of each pipe.

4. The method of making U shaped pipe bends which comprises applying pressure to the inner side of the pipe in a region extending axially, ending before the pipe end is reached, and of limited length so as to form an opening therethrough bounded by flanges, abutting and welding said flanges of two pipes together, and then providing a solid cap countersunk to correspond with the pipe end and welding the same thereto.

5. The method of making U shaped pipe bends which comprises making a narrow longitudinal slit in the pipe wall beginning at a limited distance from one end and before the pipe end is reached, applying pressure from within the pipe to the edges of said slit so as to expand and spread them and form an opening through the pipe bounded by flanges, abutting and welding said flanges of two pipes together, and then welding a solid cap to the open end of each pipe.

1,138,229. PONCHO. CHARLES E. KNOBLAUCH, New York, N. Y. Filed Dec. 3, 1914. Serial No. 875,225. (Cl. 2—60.)



1. A poncho comprising a main section provided with a neck opening, end flaps connected with said main section and normally folded back thereon, the ends of said flaps being normally folded back beneath the same whereby interference with said opening is avoided, fastening means located on said flaps adjacent to the line of said last named fold and coöperating fastening means on said main section whereby said end flaps are secured in their folded back positions.

2. A poncho comprising a main section provided with a neck opening, a cover connected with said section adjacent to said opening and normally extending over same, said cover having divergent front edges, coöperating fastening means on said cover and main section for securing said cover over said opening and coöperating fastening means on said cover adjacent to said divergent front edges whereby the latter are secured together along a straight upright line at the front of the wearer to form a collar.

3. A poncho comprising a main section provided with a neck opening, a pair of flaps connected with said section adjacent to said opening and normally extending over same, coöperating fastening means on each flap for connecting said flaps together at their rear end, additional coöperating means on said main section and each flap for independently securing said flaps in position over said opening and coöperating fastening means on said flaps for securing the front ends thereof together to form a collar.

4. A poncho comprising a main section provided with a neck opening, a pair of flaps connected with said section adjacent to said opening and normally extending over same, coöperating fastening means on each flap for connecting said flaps together at their rear end, additional coöperating means on said main section and each flap for independently securing said flaps in position over said opening, coöperating fastening means on said flaps for securing the front ends thereof together to form a collar, end flaps forming continuation of said main section and normally folded back thereon in a manner to avoid interference with said opening and means for detachably maintaining said end flaps in their folded back positions.

5. The combination of a poncho, a blanket arranged to form a lining therefor and means for detachably connecting said poncho and blanket together in surface engagement with each other.

[Claims 6 to 10 not printed in the Gazette.]

1,138,230. PROCESS FOR THE MANUFACTURE OF HARD SOAPS. JOACHIM LEIMDÖRFER, Budapest, Austria-Hungary. Filed Mar. 28, 1912. Serial No. 686,864. (Cl. 87—5.)

1. A process for the manufacture of hard soaps, which consists in adding a saponifiable substance capable of increasing the resisting capacity of the alkali salts of the fatty acids to electrolytes in aqueous solution to one of the usual substances forming the basic constituent of the soap, and in treating the mass with a quantity of alkali corresponding to the formation of normal fatty acid salts and in such excess as may be technically necessary to produce complete saponification.

2. A process for the manufacture of hard soaps which consists in saponifying a substance forming the basic constituent of the alkali salt, together with a saponifiable addition capable of increasing the resisting capacity of the alkali salts of the fatty acids to electrolytes in aqueous solution, which acts to increase the colloidal resisting capacity of the soap, by means of an alkali in such excess quantity as may be technically necessary for the formation of normal fatty acid salts and for complete saponification.

3. A process for the manufacture of hard soaps which consists in adding to an ordinary fatty substance, a saponifiable substance to render the soap system insensitive to electrolytes, and in producing complete saponification of said substances by an alkali in such excess quantity as may be necessary for the formation of normal fatty acid salts and also for complete saponification.

4. A process for the manufacture of hard paste soaps which consists in adding to a fatty acid a supplemental saponifiable substance capable of increasing the resisting capacity of the alkali salts of the fatty acids to electrolytes in aqueous solution, and in treating the mixture with a strong alkaline solution (30 to 40° Bé.) in such quantity as to form normal fatty acid salts and to effect complete saponification.

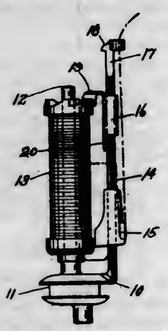
5. A process for the manufacture of hard soaps having a high percentage of fatty acids corresponding to the grain soaps, consisting in effecting the saponification of fatty acids by alkali carbonates, adding to the soap paste a quantity of saponifiable substance capable of increasing the resisting capacity of the alkali salts of the fatty acids to electrolytes in aqueous solution having a high percentage of fatty acids such that the fatty acid percentage of normal grain soaps is reached, and in effecting complete saponification by the addition of alkali in such quantity that after complete saponification the alkali excess of normal grain soap is present.

[Claim 6 not printed in the Gazette.]

1,138,231. CARRIER FOR BRAIDING-MACHINES. GEORGE F. MCCAHEY, Providence, R. I., assignor to New England Butt Company, Providence, R. I., a Corporation of Rhode Island. Filed Sept. 5, 1914. Serial No. 860,333. (Cl. 28—24.)

1. A top weight for braider carriers, comprising a body portion adapted to slide vertically on the carrier standard, said body having an integral resilient standard engaging

and guiding tongue adapted to yield to permit the positioning of the weight onto the standard.

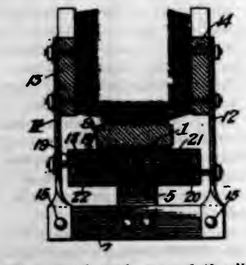


2. A top weight for braider carriers, comprising a body portion adapted to slide vertically on the carrier standard, said body having an integral resilient standard engaging and guiding tongue extending beyond the lower edge of the body portion.

3. A top weight for braider carriers, comprising a body portion adapted to slide vertically on the carrier standard, a resilient tongue formed from a portion of the body and extending below the lower edge thereof adapted to engage the standard and guide the vertical movement of said weight.

4. A top weight for braider carriers, comprising a body portion constructed of bendable material and adapted to slide vertically on the carrier standard, said body having an integral resilient guiding tongue extending beyond the lower edge of the body portion, said tongue being adapted to yield to permit the positioning of the weight onto the standard.

1,138,232. SHOE-CLEANING DEVICE. OWEN J. MCGANN, Fox township, Carroll county, Ohio. Filed June 12, 1914. Serial No. 844,644. (Cl. 15—2.)

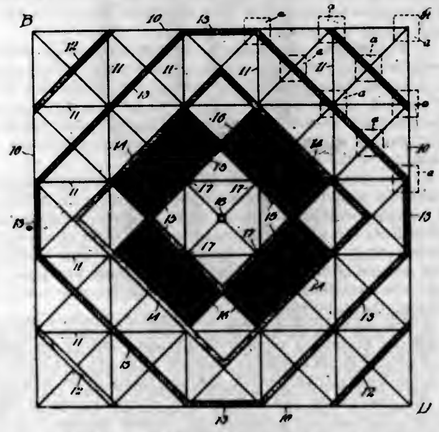


1. A device for cleaning shoes and the like, comprising a skeleton-like frame or support, a scraper and cleaning brush rigidly secured to said support, two vertical side cleaning brushes hinged to said frame or support, and side scrapers secured to the forward ends of each of said side cleaning brushes.

2. A device for cleaning shoes and the like, comprising a skeleton-like frame or support carrying bottom and side cleaning brushes, a compression spring for holding the side brushes in their contracted position, a barrel or cylinder inclosing said spring, and oppositely disposed piston rods carrying pistons working within said cylinder and adapted to compress the spring between the same, said rods having their outer ends connected to the side brushes for controlling the movement of said brushes.

3. A device for cleaning shoes and the like, comprising a skeleton-like frame or support consisting of a central or main longitudinal support having front and rear securing legs, and a cleaning brush and scraper rigidly attached thereto, a transverse support secured to the front supporting leg of said main support and at right angles thereto, a pair of vertical side members hinged to the outer ends of said transverse support carrying side cleaning brushes, and metallic side scrapers attached to the forward ends of said side cleaning brushes.

1,138,233. GAME. MAXIMILIEN MARIS, Chicago, Ill. Filed Jan. 25, 1915. Serial No. 4,087. (Cl. 46—64.)



1. A game apparatus, consisting of a board provided with a diagram comprising an outer square which is divided into a plurality of inner squares of equal sizes by a plurality of parallel lines also parallel with the sides of the outer square, each of the said inner squares being divided by their diagonals, certain of said diagonals being variously colored or otherwise designated to divide the space within the outer square into a plurality of zones or fields.

2. A game apparatus consisting of a board provided with a diagram comprising an outer square, said outer square being divided into a plurality of inner squares of equal size by lines extending parallel with and intersecting the sides of said outer square, the said inner squares being divided by their diagonals, certain of the said diagonals of the inner squares being colored to divide the board into a plurality of fields.

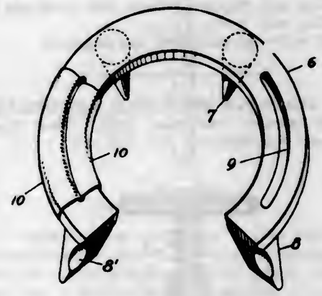
3. A game apparatus consisting of a board provided with a diagram comprising an outer square and a series of inner squares of uniform size arranged within the outer square by a plurality of dividing lines extending parallel with the sides of the outer square, each of the said equal inner squares being divided by its diagonals, means for designating the intersections of the sides and diagonals of the inner central square of the board, means for designating the square circumscribed about the said inner central square, its sides being bisected by the corners of the said inner central square, and a plurality of fields surrounding the said inner squares being formed by variously colored bands extending along the diagonals of the said inner squares.

4. A game apparatus consisting of a board provided with a diagram comprising an outer square and a series of inner squares of uniform size arranged within the outer square by a plurality of dividing lines extending parallel with the sides of the outer square, each of the said equal inner squares being divided by its diagonals, means for designating the intersections of the sides and diagonals of the inner central square of the board, means for designating the square circumscribed about the said inner central square its sides being bisected by the corners of the said inner central square, a plurality of fields surrounding the said inner squares being formed of variously colored bands extending along the diagonals of the said inner squares, and a plurality of game pieces divided into groups of two color designations and each of said color groups being divided into two groups distinguished by different character designations.

5. A game apparatus consisting of a board provided with a diagram comprising an outer square divided into a plurality of equal inner squares by lines extending parallel with the sides of the said outer square, the corners of the various equal inner squares being connected by diagonal lines, color designations for indicating the central inner square, a color designation for distinguishing the square formed by the diagonals of the squares surrounding the said inner square, a second colored square surrounding the first said colored square being bounded by the diagonals of the next succeeding outer tier of inscribed squares and designated by a different color band from the first said colored square, colored fields bounded by the sides of the two said colored squares, and outer colored bands surrounding the aforesaid inner colored bands being formed parallel therewith and diagonal lines of the said inscribed squares.

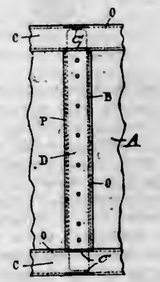
[Claims 6 to 10 not printed in the Gazette.]

1,138,234. QUOIT. WILLIAM J. MARTIN, Cleveland, Ohio. Filed Jan. 18, 1915. Serial No. 2,858. (Cl. 46—65.)



A quoit the body of which is provided with a slot and a covering of flexible material extending around the body and through the slot.

1,138,235. APRON FOR HARVESTING-MACHINES. ABRAHAM BERNARD JEAN RAOUL MIRANDE, Saverdun, France. Filed June 7, 1913. Serial No. 772,386. (Cl. 193—4.)



1. An apron for harvesting machines comprising a rectangular sheet of fabric provided with transverse bands of leather stitched along their edges so as to form sheaths, and with longitudinal leather bands forming borders, and flat steel bars inserted in said transverse sheaths.

2. An apron for harvesting machines comprising a rectangular sheet of fabric provided with transverse bands of leather stitched along their edges so as to form sheaths, and with longitudinal leather bands forming borders, and flat steel bars inserted in said transverse sheaths and connected to the same and to the fabric by screws and nuts, the heads of said screws being sunk in the leather sheaths and the shanks of the screws projecting on the outside of the apron to serve as draggers for the straw or the like.

1,138,236. MULTIPLATE DRIVE-CHAIN. FRANK L. MORSE, Ithaca, N. Y., assignor to Morse Chain Company, Ithaca, N. Y., a Corporation of New York. Filed Dec. 15, 1908. Serial No. 467,617. (Cl. 74—31.)



1. In a chain drive, the combination with a chain having links formed of a plurality of plates adapted to arch over the sprocket teeth, pintles joining said links, and spacing pieces between adjacent link plates to provide openings through the chain at the pintles, of a sprocket wheel having a guide projecting between the sprocket teeth and extending into said openings between the link plates.

2. A drive chain comprising links formed of a plurality of plates adapted to arch over the sprocket teeth, pintles for joining said links, the plates of one link being interspersed with the plates of the adjacent link, and spacing pieces in lieu of one or more link plates, interposed between plates of the links to form a guide opening between the plates at the pintles.

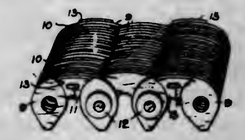
3. In a chain drive, the combination with a chain formed of arch-shaped links, and pintles joining the ends of the links, said links having radial openings at their ends around said pintles, of a sprocket wheel having a projecting guide provided with notches between the sprocket teeth and extending into said openings around the pintles.

4. In a chain drive, the combination with a chain having links formed of a plurality of plates adapted to arch over the sprocket teeth, pintles joining said links, and spacing pieces between adjacent link plates to provide openings through the chain at the pintles, of a sprocket wheel having a projecting guide ring provided with notches between the sprocket teeth and extending into said openings around the pintles.

5. A drive chain having links composed of a plurality of outside and intermediate plates adapted to arch over the sprocket teeth, the plates of one link being interspersed with the plates of the adjacent link, spacing pieces interposed between the plates of said links, and means for rigidly fastening said plates and spacing pieces of each link together.

[Claims 6 to 11 not printed in the Gazette.]

1,138,237. MULTIPLATE POWER-CHAIN. FRANK L. MORSE, Ithaca, N. Y., assignor to Morse Chain Company, Ithaca, N. Y., a Corporation of New York. Filed Apr. 25, 1911. Serial No. 623,278. (Cl. 74—32.)



1. A drive chain having links composed of a plurality of plates, the plates of one link being interspersed with the plates of the adjacent link, a spacing piece interposed between an outside link plate and the adjacent plate upon each side of the link, and independent means for rigidly securing said plates and spacer together upon opposite sides of the chain.

2. A drive chain having links composed of a plurality of plates, the plates of one link being interspersed with the

plates of the adjacent link, and spacing pieces riveted between the outside plates and the adjacent plates upon opposite sides of the links, the plates upon opposite sides being riveted independently of each other.

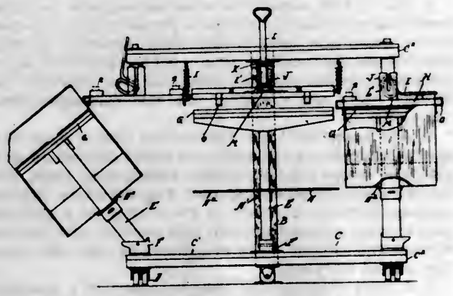
3. A drive chain having links, each composed of a series of arch-shaped plates interspersed with the plates of adjacent links, spacing pieces interposed between the outside plates and adjacent plates upon both sides of the link, and separate means for rigidly securing said plates and spacing pieces together upon the opposite sides of the chain.

4. A drive chain having links, each composed of a series of arch-shaped plates interspersed with the plates of adjacent links, and spacing pieces securely riveted between the outside plates and adjacent plates upon both sides of the links, the plates upon one side being riveted independently of those upon the other side of the chain.

5. A drive chain having links, each composed of a series of arch-shaped plates interspersed with the plates of adjacent links, and spacing pieces securely riveted independently of each other between the arched portions of the outside plate and adjacent plate upon opposite sides of the link.

[Claims 6 to 9 not printed in the Gazette.]

1,138,238. PACKAGE-SEALING MACHINE. LAWRENCE D. MORTON, Sandusky, Ohio, assignor to The Hinde & Dauch Paper Company, Sandusky, Ohio, a Corporation of Ohio. Filed Nov. 10, 1913. Serial No. 800,155. (Cl. 93—36.)



1. The combination with a revoluble carrier of a series of clamping heads mounted thereon, a series of coöperating heads also mounted on said carrier, each being movable into and out of registration with its corresponding clamping head, guides for registering said heads with each other, and independent clamping means for the respective pairs of clamping heads.

2. The combination with a revoluble standard of a series of blank-holders mounted thereon, each provided with a head insertible within the package, against which the end flaps may be folded, adjustable supports secured to each standard for supporting the package, a series of clamping heads corresponding to said blank-holders mounted on said carrier, means permitting the adjustment of each blank-holder into registration with its clamping head, and independent actuating means for the respective clamping heads.

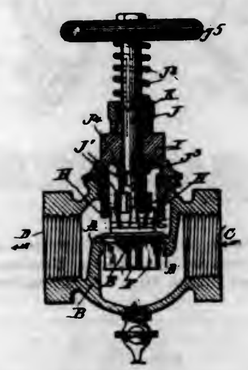
3. The combination with a revoluble carrier of a series of standards mounted thereon and adjustable from an inclined to a vertical position, a head mounted on each standard over which the box to be sealed may be sleeved in the inclined position of the standard, means for supporting the box upon the standard in position for the turning of its end flaps against said head, a series of clamping heads secured to said carrier and respectively in registration with said standards when in upright position, and clamping levers for depressing said clamping heads against the heads of said standards.

4. The combination with a revoluble carrier of upper and lower annular frames upon said carrier, a series of standards having hinged connection with said lower frame, permitting of adjustment from a vertical to an inclined position, a form on each standard insertible into a box to be sealed and forming a head against which the end flaps of said box may be folded, a support on said standard for holding the blank in position for the folding of its flaps, clamping heads vertically, adjustably mounted on said upper annular frame in position for registration with said lower heads when the supporting standards thereof are in vertical position, and clamping levers for actuating said clamping heads.

5. The combination with a revoluble carrier, comprising upper and lower frames, of a series of standards mounted on the lower frame, each adjustable from vertical to inclined position, a head mounted on each standard insertible within the box to be sealed and forming an abutment, against which the flaps may be folded, means for supporting the blanks upon said standards in position for folding of the flaps, a series of heads vertically, adjustably secured to the upper frame in position of registration with said standards when in vertical position, resilient means for supporting said clamping heads, and clamping levers for depressing said heads.

[Claims 6 to 10 not printed in the Gazette.]

1,138,239. MEANS FOR RELEASING A CHECK-VALVE. JOSEPH B. MOWRY, Cleveland, Ohio. Filed Nov. 22, 1913. Serial No. 802,473. (Cl. 137—32.)



1. The combination with a gravity valve and a casing and valve seat therein, of a stem vertically movable and revoluble in said casing, a stuffing box for said stem, an actuating spring therefor, a series of spaced engaging devices upon said stem, a corresponding series of engaging devices, annularly arranged upon the valve, said engaging series of devices permitting vertical movement of said stem, without coming out of engagement with each other, and a separate centering device for stem and valve, whereby the valve can be maintained in accurate relation to its seat when the stem is rotated to grind the valve.

2. The combination with a gravity valve, and a casing and seat therefor, of a stem longitudinally movable and rotatable in said casing, a stuffing box therefor, a centering device upon opposed extremities of the stem and valve, and engaging devices upon said stem and valve, said engaging devices positioned exterior to said centering device.

3. The combination with a gravity valve, and a casing and seat therefor, of a stem longitudinally movable and rotatable in said casing, a stuffing box therefor, a centering device upon opposed extremities of the stem and valve, and engaging devices upon said stem, and valve, said engaging devices positioned exterior to said centering device, and annularly arranged thereabout.

1,138,240. CANDLESTICK. LOUIS P. NASH, Orange, N. J. Filed Dec. 28, 1914. Serial No. 879,238. (Cl. 67—27.)

1. A candle holder, comprising a base adapted to rest on a table or other support and having a tubular stick contracted at a predetermined point above the base and formed into a supplemental top portion of less diameter than the bottom portion, said stick being provided at the top of the bottom portion with an annular collar and the top portion being provided with a removable sleeve of less length than said top portion and which fits centrally in said collar, and the top portion of the stick being provided above said sleeve with a detachable tubular cap having a shade holder and provided at its top with an inwardly directed flange.

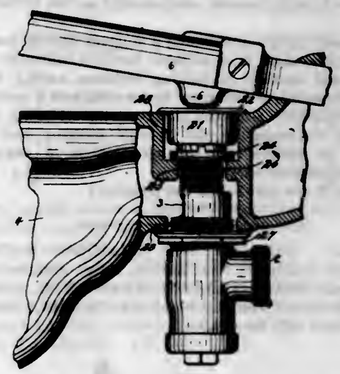


2. A candle holder, comprising a base adapted to rest on a table or other support and having a tubular stick contracted at a predetermined point above the base and formed into a supplemental top portion of less diameter than the bottom portion, said stick being provided at the top of the bottom portion with an annular collar and the top portion being provided with a removable sleeve of less length than said top portion and which fits centrally in said collar, and the top portion of the stick being provided above said sleeve with a detachable tubular cap having a shade holder and provided at its top with an inwardly directed flange, and a spiral spring placed in said stick and provided at the top thereof with a cap adapted to support a candle placed in said stick.

3. A candle holder, comprising a base adapted to rest on a table or other support and having a tubular stick contracted at a predetermined point above the base and formed into a supplemental top portion of less diameter than the bottom portion, said stick being provided at the top of the bottom portion with an annular collar and the top portion being provided with a removable sleeve of less length than said top portion and which fits centrally in said collar and is of less diameter than the bottom portion of the stick and the top portion of the stick being provided above said sleeve with a detachable tubular cap having a shade holder and provided at its top with an inwardly directed flange.

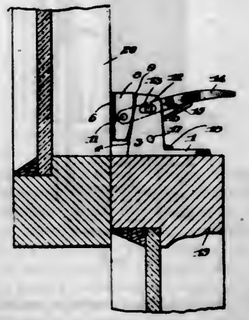
1,138,241. VALVE FOR SEAT-ACTION WATER-CLOSETS. WILLIAM G. NEWTON, New Haven, Conn., assignor to The Peck Bros. & Co., New Haven, Conn., a Corporation. Filed Aug. 31, 1914. Serial No. 859,409. (Cl. 137—93.)

The combination with a water closet bowl having a cup-shaped recess at the rear and clearance openings below said recess, of a valve comprising a valve casing having inlet and outlet openings, a main valve between the openings, said main valve formed with a hollow stem, a relief valve within the main valve, said relief valve having a stem formed on opposite sides with grooves, an operating head for moving the relief valve prior to the movement of the main valve, a cup adjustably connected with said valve casing and inclosing said head, said cup adapted to enter the recess in the bowl and formed with a flange adapted to rest upon the edge of the recess, and a



nut on said casing below the bowl adapted to be turned into engagement therewith.

1,138,242. SASH-HOLDER. EMIL OLSON, Rochester, N. Y. Filed Nov. 30, 1914. Serial No. 874,675. (Cl. 16—124.)



1. A sash holder comprising a support having means for securing the same to a lower window sash and also having a face inclined to the vertical, and a movably mounted holding member having a flat face for coöperation with an upper sash and having a curved face to engage and rock on said inclined face to adapt the flat face to the sash which it engages.

2. A sash holder comprising an attaching plate, a pair of uprights projecting from said plate and each having an inclined surface, a holding member having a plane surface and two parallel portions formed with curved surfaces bearing against the inclined surface, and a lever pivoted to the uprights and to and between the parallel portions.

3. A sash holder comprising an attaching plate, a pair of uprights projecting from said plate and each having an inclined surface, a holding member having a plane surface to coöperate with the window sash and two parallel portions bearing against the inclined surfaces, and a lever pivoted between its ends to and between the uprights, one end of the lever being also pivoted to and between the parallel portions on the holding member and the other end of the lever extending to the opposite side of the uprights in line with the holding member to provide an operating portion by which the lever may be moved, the pivotal connection with the uprights being shiftable.

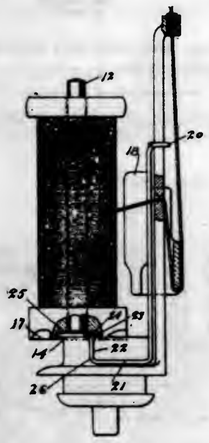
4. A sash holder comprising a supporting member having an inclined surface, an operating lever having a shiftable fulcrum on said supporting member, a holding member having a plane surface to coöperate with the window sash, bearing against the inclined surface on the support-

ing member, and pivotally connected to the operating lever, and a spring acting on said operating lever in a direction to shift the fulcrum point of the latter and to move the holding member downwardly on the inclined surface.

5. A sash holder comprising a support having means for securing the same in a suitable position and also having an inclined surface, a holding member having a plane surface to coöperate with an upper sash and a curved surface to coöperate with the inclined surface, and a member pivotally connected to the holding member and to the support to sustain the holding member in engagement with the inclined surface.

[Claim 6 not printed in the Gazette.]

1,138,243. CARRIER FOR BRAIDING-MACHINES. ALFRED PAQUETTE, East Boston, Mass., assignor to New England Butt Company, Providence, R. I., a Corporation of Rhode Island. Filed Sept. 9, 1914. Serial No. 860,938. (Cl. 28—24.)



1. A carrier for braiding machine comprising a standard and a spindle support having a flange at its upper end, a spindle on said support on which a bobbin spool is rotatably mounted, a transverse rib between said support and standard, said rib being adapted to normally engage the downwardly projecting teeth on the bobbin spool, a weight slidably mounted on said standard, a lift wire having a horizontal portion extending across from the standard beneath and clear of the spool, and its end portion turned upward and extending through the flange on said support to engage the spool approximately at its middle portion the opposite end of said wire extending upwardly parallel with said standard and bent to engage said weight when raised to lift the spool teeth from engagement with said rib when more yarn is required to be unwound from the spool, the flange on said support acting as a stop for the horizontal portion of said wire to limit the upward movement of said spool.

2. A carrier for braiding machine comprising a base having a standard and a flanged spindle support, a spindle on said support on which a bobbin spool is rotatably mounted, a transverse stop rib between said support and standard, said rib being adapted to normally engage the downwardly projecting teeth on the bobbin spool, a weight slidably mounted on said standard, and a lift wire having a portion extending across from the standard beneath and clear of the spool, and having a portion extending above the spindle support flange to engage the bottom of the spool about the spindle, and a portion to engage said flange whereby the raising motion of said wire is limited, the opposite end of said wire extending upward parallel with said standard and bent to engage said weight when raised to lift the spool teeth from engagement with said rib when more yarn is required to be unwound from the spool.

1,138,244. EXTENSIBLE RADIATOR-BRUSH. STANLEY PARKER, New Britain, Conn. Filed July 6, 1914. Serial No. 849,359. (Cl. 15—24.)



As a new article of manufacture, a brush suitable for cleaning between the coils of a radiator comprising a brush portion and a handle portion at one end thereof, the said handle portion being extensible and collapsible, comprising a plurality of members comprising overlapping ends of the said members housed one within the other and connected together by telescopic joints, and the said joints being provided with means for locking the members in definite relative positions when in extended position comprising in each case a latch on the inner of the said members composing the joint, a collar on the end of the outer of the said members, and a spring serving to hold the said latch engaged with the said collar, and housed between the said overlapping ends.

1,138,245. DEVICE FOR SORTING AND FEEDING REFUSE. WILLIAM STEEL PARSONS, Ladywell, England, assignor to J. Stone & Company, Limited, Deptford, England. Filed Feb. 3, 1913. Serial No. 746,020. (Cl. 83—56.)



1. A device for sorting and feeding refuse comprising a hopper, a selective or sorting grid covering the hopper and the passages through which have entry apertures of a predetermined area, a surface arranged at a predetermined distance beneath the exit apertures of said passages, and means adapted to discharge to one side of said grid objects capable of passing through said grid and freely deposited on said surface.

2. A device for sorting and feeding refuse comprising a hopper, a selective or sorting device comprising a grid covering the hopper and composed of an assemblage of independent bars each formed with a series of teeth for the formation of the apertures of said grid, said grid being arranged in selective relation with a surface in said hopper.

3. A device for sorting and feeding refuse comprising a hopper having an inclined bottom, a selective or sorting device comprising a grid in the upper end of said hopper, the plane containing the bottom edges of the bars of said grid being parallel with the bottom of said hopper and at a predetermined distance therefrom.

1,138,246. TIRE. JAMES A. RABBITT, Yokohama, Japan. Filed Sept. 20, 1913. Serial No. 790,923. (Cl. 152—22.)



1. The combination of a tire, consisting of a shoe, and a plurality of disconnected inflatable inner tube sections therein, and a rim on which the tire is mounted, comprising a metallic member to which the shoe is secured, a wooden member extending circumferentially on the inner side of the metallic member, and a metallic casing for the wooden member, secured at its edges to the metallic member, said rim having a plurality of openings through the various parts thereof, through which said sections may be passed, and detachable closures for said openings, each said closure having a depression on its inner face and a connection for each section for inflating the same extending through said depression and laterally through the wooden member and metallic casing of the rim, substantially as set forth.

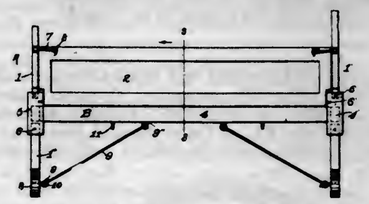
2. The combination of a tire consisting of a shoe, a plurality of inner-tube sections therein and connections to the sections for inflating them, and a rim comprising a metallic member to which the shoe is secured and a reinforcing member extending circumferentially on the inner side of the metallic member, said rim having a plurality of inwardly directed openings therethrough, through which said sections may be passed, and detachable closures for said openings, each consisting of a body portion adapted to fit within one of said openings and a plate adapted to lie against and be secured to the inner side of the rim, each said body portion having a depression on its inner face to receive one of said connections, the latter extending laterally through the reinforcing member of the rim, and check valves on the connections, substantially as set forth.

3. The combination of a rim having a plurality of inwardly directed openings therein, a shoe on the rim, a plurality of disconnected, inflatable members in the shoe, each of which may be passed through one of said openings when deflated, a tube secured to one side of said rim, detachable closures for said openings, detachable connections between said members and said tube, extending laterally through said rim, valves in said connections, and a valve connected to said tube, substantially as set forth.

4. The combination of a rim having a plurality of inwardly directing openings therein, a shoe on the rim, a plurality of disconnected, inflatable members in the shoe, each of which may be passed through one of said openings when deflated, a tube secured to one side of said rim, detachable closures adapted to fit within said openings and to be secured to the rim with their inner faces in position to support the inflatable members, said closures having depressions in their inner faces, and detachable connections between said members and said tube, lying in said depressions and extending laterally through said rim, and valves in said connections, substantially as set forth.

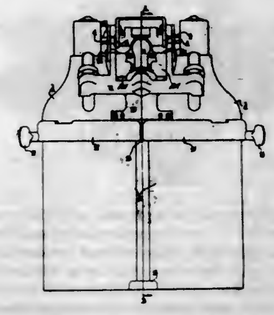
1,138,247. FOLDING CRADLE. LOUIS RAKOWSKY, Pittsburgh, Pa., assignor of one-half to Abraham Josselson, Pittsburgh, Pa. Filed May 9, 1913. Serial No. 766,516. (Cl. 5—56.)

A folding crib or cradle comprising a main frame supported in bearing blocks at each corner of the same, sides and upper and lower end sections pivoted in said bearing blocks, means on said lower sections for being engaged to hold said sections in their opened positions, and means on said upper sections for holding said sides and said upper sections in their open positions and for engaging with



said first named means to hold said sides and both of said end sections together in their folded positions.

1,138,248. DEVICE FOR AERATING LIQUIDS. HARRY VAUGHAN RUDSTON READ, London, England, assignor to Aerators Limited, London, England. Filed Apr. 7, 1914. Serial No. 830,127. (Cl. 225—18.)



1. In apparatus for aerating liquids, a base member attachable to the liquid-containing receptacle to be charged, said member having means for holding a charged reservoir; means for holding open a valve controlling the outlet of said receptacle together with means for discharging the contents of said reservoir through the outlet of said receptacle, said means including a manually-operated member, appropriate movement of which serves to render said holding-open means inoperative.

2. In apparatus for aerating liquids, a base member attachable to the liquid-containing receptacle to be charged, said member having means for holding a charged reservoir; means for holding open a valve controlling the outlet of said receptacle together with means for discharging the contents of said reservoir through the outlet of said receptacle, said means including a manually-operated member, functionally substitutable by appropriate movement for the active member of said holding-open means.

3. In combination in a device for aerating the contents of a liquid-containing receptacle, a base member attachable to said receptacle; means mounted on said base member for connecting a charged reservoir to the outlet of said receptacle; means for liberating the contents of said reservoir; means also mounted on said base member for holding-open a valve controlling the outlet of said receptacle together with a manually-operated member, movement of which serves successively to actuate said connecting and liberating means and to render said holding-open means inoperative.

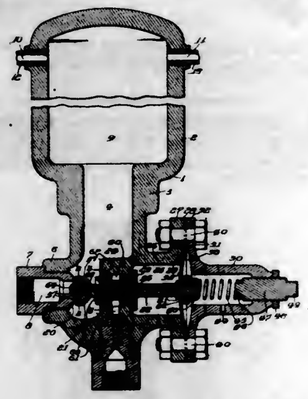
4. In apparatus for aerating liquids, a base member attachable to the siphon to be charged, said member having means for holding a charged capsule; means for holding down the valve lever of said siphon together with means for discharging the contents of said capsule through the siphon spout, said means including a manually-operated member, appropriate movement of which serves to render said holding-down means inoperative.

5. In combination in a device for aerating the contents

of a plurality of liquid-containing receptacles, a casing and cover therefor and means for simultaneously locking therewithin a plurality of receptacles, said means including locking members with intermeshing gears.

[Claims 6 to 8 not printed in the Gazette.]

1,138,249. APPARATUS FOR OPERATING ALARMS OR OTHER DEVICES. ARTHUR C. ROWLEY, Philadelphia, Pa., assignor to Associated Automatic Sprinkler Co., Philadelphia, Pa., a Corporation of Delaware. Filed Mar. 25, 1914. Serial No. 827,111. (Cl. 169—23.)



1. The combination with means providing a receiving chamber adapted to contain a fluid and provided with an inlet leading into said chamber and a discharge passage leading from said chamber, of a valve normally arranged to oppose a free flow of fluid through said inlet and means coöperating with said valve and arranged to be actuated under a predetermined pressure in said receiving chamber to move said valve to permit a free flow of fluid through said inlet and to close said discharge passage, said discharge passage being normally in restricted communication with said inlet.

2. The combination with means providing a supply chamber adapted to contain a fluid and provided with an inlet leading into said chamber and a discharge passage leading from said chamber, of a valve normally arranged to oppose a free flow of fluid through said inlet and a diaphragm coöperating with said valve and arranged to be actuated under a predetermined pressure in said receiving chamber to move said valve to permit a free flow of fluid through said inlet and to close said discharge passage, said discharge passage being normally in restricted communication with said inlet.

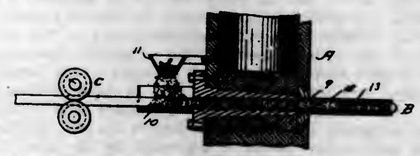
3. The combination with means providing a fluid receiving chamber and an auxiliary chamber, and provided with an inlet leading into said receiving chamber and a restricted outlet leading from said receiving chamber, of a reciprocatory member including a valve normally arranged to oppose a free flow of fluid through said inlet, and means connected to said reciprocatory member and arranged to be actuated by a fluid pressure in said auxiliary chamber to actuate said reciprocatory member, said auxiliary chamber being normally in restricted communication with said inlet.

4. The combination with means providing a fluid receiving chamber and an auxiliary chamber, and provided with an inlet leading into said receiving chamber and a restricted outlet leading from said receiving chamber, of a reciprocatory member including a valve normally arranged to oppose a free flow of fluid through said inlet, and a diaphragm connected to said reciprocatory member and arranged to be actuated by a fluid pressure in said auxiliary chamber to actuate said reciprocatory member, said auxiliary chamber being normally in restricted communication with said inlet.

5. The combination with means providing a fluid receiving chamber and an auxiliary chamber, and provided with an inlet leading into said receiving chamber and a restricted outlet leading from said receiving chamber, of a reciprocatory member including a valve normally arranged to oppose a free flow of fluid through said inlet, and means connected to said reciprocatory member and arranged to be actuated by a fluid pressure in said auxiliary chamber to actuate said reciprocatory member, said auxiliary chamber being normally in restricted communication with said inlet through said reciprocatory member.

[Claims 6 to 10 not printed in the Gazette.]

1,138,250. PROCESS OF MAKING INNER TUBES FOR VEHICLE-TIRES AND THE LIKE. ARTHUR W. SAVAGE, San Diego, Cal. Filed Mar. 6, 1914. Serial No. 822,928. (Cl. 154—14.)



1. The process of making a rubber tube, consisting in applying carbon to the inner surface of the tube before vulcanising, then vulcanising the tube under pressure and finally reversing the tube so that the inner surface becomes the outer surface thereof.

2. The process of making a rubber tube, consisting in applying a rubber stock to a mandrel or the like having a carbon coating, then vulcanising the tube upon the mandrel under pressure, and then reversing the tube so that the inner surface becomes the outer surface thereof.

3. The process of making a rubber tube, consisting in applying the rubber stock to a mandrel or the like having a carbon coating, then vulcanising the tube upon the mandrel under bandage pressure, and then reversing the tube so that the inner surface becomes the outer surface thereof.

4. The process of making a rubber tube, consisting in applying the rubber stock to a mandrel or the like having a carbon coating, then vulcanising the tube upon the mandrel under bandage pressure, and then reversing the tube so that the inner surface becomes the outer surface thereof.

5. The process of making a rubber tube, consisting in applying carbon to the surface of the tube before vulcanizing, and then vulcanising the tube under pressure whereby the carbon becomes intimately associated with the tube to form a permanent case upon the same.

[Claims 6 and 7 not printed in the Gazette.]

1,138,251. MASH-FILTER PLATE. JOSEPH SCHAEFER, Frankfort-on-the-Main, Germany. Filed July 30, 1913. Serial No. 781,964. (Cl. 210—13.)

1. In a mash filter the combination of water chamber frames, grains cake frames, filter cloths therebetween, and means in the water chamber frames adapted in cooperation with the filter cloths to permit the formation of trapezoidal grains cake in the grains cake frames, the thicker portion of which cakes project beyond the planes of separation between the grains cake and water chamber frames and into the latter, substantially as described.

2. In a mash filter the combination of water chamber frames, grains cake frames, filter cloths therebetween, supporting means arranged in upwardly diverging planes on each side of each water chamber frame and adapted to support the filter cloths so that grains cakes formed in the grains cake frames between the filter cloths shall be trapezoidal in cross section, the thicker portion of which cakes project beyond the planes of separation between the grains cake and water chamber frames and into the latter, substantially as described.

3. In a mash filter the combination of a plurality of water chamber frames, bars extending upwardly from the base of each water chamber frame, the edges of the bars on each side of the frame lying in planes diverging upward, a plurality of grains cake frames alternating with the water chamber frames, and filter cloths therebetween adapted to rest against said bars in the water chamber frames so that grains cakes formed in the grains cake frames shall be thicker at the bottom than at the top, substantially as described.

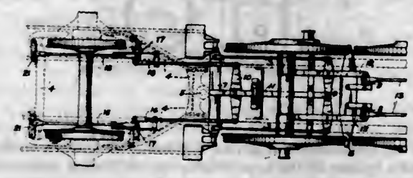


4. In a mash filter the combination of water chamber frames, grains cake frames, filter cloths therebetween, means in the water chamber frames adapted in coöperation with the filter cloths to permit the formation of trapezoidal grains cakes in the grains cake frames, and means on the floor of said grains cake frame adapted to facilitate the removal of the grains cakes substantially as described.

5. In a mash filter the combination of a grains cake frame provided with a triangular prismatic floor and water chamber frames on each side thereof supporting filter cloths adapted to form the side supports for grains cakes, said prismatic floor being adapted to form a groove in the bottom of the grains cake thereby facilitating the removal of the grains cake from the frame substantially as described.

[Claim 6 not printed in the Gazette.]

1,138,252. BRAKE-RIGGING FOR RADIAL TRUCKS. FRANCIS E. SCHWENTLER, St. Louis, Mo., assignor to American Brake Company, St. Louis, Mo., a Corporation of Missouri. Filed Sept. 16, 1914. Serial No. 861,970. (Cl. 188—44.)



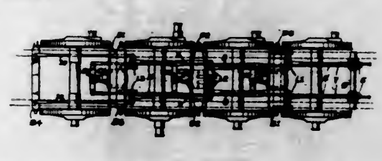
1. In a brake rigging for locomotives with trailer trucks, the combination of brake beams, hangers and shoes for the driving wheels, brake shoes applied to both sides of the trailer truck wheels, and two sets of equalizer levers and pull rods, one on each side, for actuating said brake beams and the brake shoes of the trailer truck.

2. In a brake rigging for locomotives with trailer trucks, the combination of brake beams, hangers and shoes for the driving wheels, equalizer levers and rods connected to said brake beams, a central connecting rod, a cross equalizer pivoted thereto, brake shoes applied to both sides of the trailer truck wheels, and rods connected at the outside ends of said cross equalizer for operating said brake shoes for the trailer truck.

3. In a brake rigging for locomotives with trailer trucks, the combination of brake beams, hangers and shoes for the driving wheels, equalizer levers and rods connected to said brake beams, a central connecting rod, a cross equalizer pivoted thereto, brake shoes applied to both sides of the trailer truck wheels, hanger levers therefor, truck levers pivotally connected to said hangers, pull rods connecting said truck levers together, and rods connecting said truck levers with the cross equalizer.

4. In a brake rigging for locomotives with trailer trucks, the combination of brake beams, hangers and shoes for the driving wheels, equalizer levers and rods connected to said brake beams, a centrally located connecting rod having guides, a cross equalizer pivoted thereto at a point near the radial truck pivot, brake shoes applied to both sides of the radial truck wheels, and rods connected to said cross equalizer for operating the brake shoes of said truck.

1,138,253. LOCOMOTIVE BRAKE-RIGGING. FRANCIS E. SCHWENTLER, St. Louis, Mo., assignor to American Brake Company, St. Louis, Mo., a Corporation of Missouri. Filed Sept. 16, 1914. Serial No. 861,972. (Cl. 188—44.)

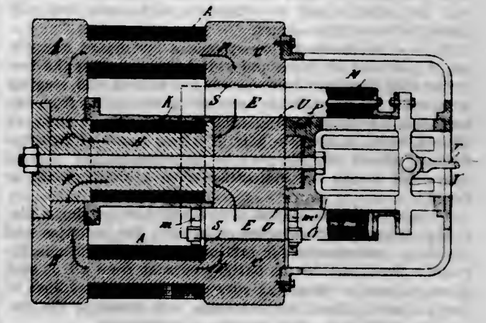


1. In a locomotive brake rigging, the combination of brake levers, a plurality of horizontal brake cylinders located in tandem between the side frames of the locomotive, equalizer bars therefor, and pull rods connecting said equalizers with the brake levers.

2. In a locomotive brake rigging, the combination with the side frames, of a plurality of horizontal brake cylinders located in tandem between said frames, cross frames supporting said cylinders, equalizer bars for said brake cylinders, pull rods connected thereto upon both sides of said cylinders, and brake levers actuated by said rods.

3. In a locomotive brake rigging, the combination of the side frames, a horizontal brake cylinder located between said frames, an equalizer bar for said cylinder, pull rods connected to said equalizer upon both sides of said cylinder, and brake levers pivotally mounted on the side frames and connected to said pull rods.

1,138,254. DYNAMO-ELECTRIC MACHINE. OCTAVE FRANÇOIS SIRE, Paris, France. Filed Jan. 31, 1911. Serial No. 605,805. (Cl. 171—252.)

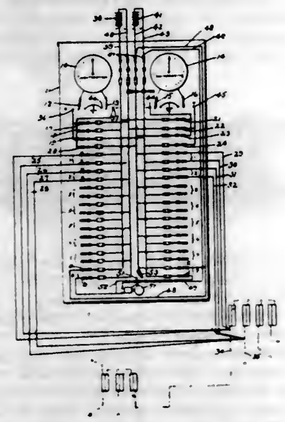


1. A dynamo electric machine comprising a fixed field magnet, a coil having a translatory movement in the magnetic field created by the field magnet, and divided into several sections, a series of insulated conductive rings surrounding the coil sections and connected respectively to two adjacent ends of said coil sections, and two series of brushes fixed to opposite faces of said field magnet

adapted to rub upon the said ring, substantially as described and for the purpose set forth.

2. A dynamo electric machine comprising a fixed field magnet, a coil having a translatory movement in the magnetic field created by the field magnet and divided into several sections comprising each a plurality of superposed bobbins connected to each other, a series of insulated conductive rings surrounding the coil sections and connected respectively to two adjacent ends of said coil sections, and two series of brushes fixed to opposite faces of said field magnet adapted to rub upon the said ring, substantially as described and for the purpose set forth.

1,138,255. INTERCOMMUNICATING TELEPHONE SYSTEM. HERBERT TEAL SLEE, Warwick, R. I. Filed Dec. 4, 1913. Serial No. 804,604. (Cl. 179—51.)



1. In a telephone wiring system, a test board comprising two series of wires extending through said board from the batteries to the different telephones for talking and ringing, the talking wires being arranged on one portion and the ringing wires on another portion of the board, an independent switch for each wire whereby communication therethrough may be momentarily interrupted, and means in the system for indicating trouble.

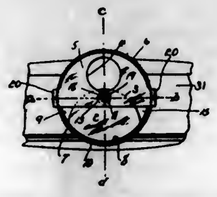
2. In a telephone system, a test board comprising a plurality of wires and switches connecting the batteries and telephone instruments for talking and ringing, means for readily disconnecting the battery current from all of said wires, means for supplying current to any pair of lines to test for short circuit therethrough, and means for indicating when a short occurs.

3. In a telephone wiring system, a test board comprising a plurality of wires and switches connecting the batteries and telephone instruments for talking and ringing, a separate set of switches controlling the mains from the batteries for disconnecting said battery current from all of said wires, a separate pair of wires, a pair of switches through which current may be supplied to any pair of lines, and means for indicating when a short circuit is found.

4. In a telephone system, a test board comprising a plurality of wires and switches connecting the batteries and telephone instruments for talking and ringing, means for readily disconnecting the battery current from all of said wires, means for supplying current to any pair of lines to test for short circuit therethrough, and means in the system for indicating when trouble exists therein.

1,138,256. CIGAR-CUTTER CROWN FOR WATCHES. ELMER E. STOCKTON, Bristol, Conn. Filed Feb. 25, 1915. Serial No. 10,553. (Cl. 58—95.)

1. A stem-winding and stem-setting watch having a rotatable crown and a member non-rotatable with respect to the crown, the said crown and member being adapted to co-act to clip the tip of a cigar.



2. A stem-winding and stem-setting watch having a rotatable and longitudinally movable crown and a member non-rotatable with respect to the crown but longitudinally movable therewith, the said crown and member being adapted to co-act to clip the tip of a cigar.

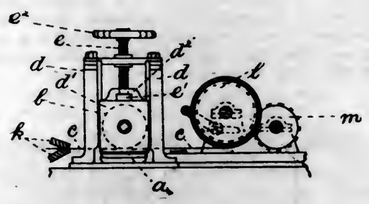
3. A stem-winding and stem-setting watch having a rotatable, longitudinally movable crown and a saddle embracing the crown, non-rotatable with respect thereto but longitudinally movable therewith, the said crown and saddle being adapted to co-act to cut the tip of a cigar.

4. In a stem-winding and stem-setting watch, the combination with a chambered crown, of a knife mounted therein, and a saddle applied over the said crown and adapted to permit the passage of the tip of a cigar through it into the chamber of the crown into position to be cut by the said knife.

5. In a watch, the combination with a winding and setting stem, of a crown fastened thereto and formed with a receiving-chamber, a knife mounted in the outer portion of the crown, and a saddle embracing the crown and having a positioning and cutting opening for the insertion of the tip of a cigar through it into the said chamber into position to be cut by the edge of the knife.

[Claim 6 not printed in the Gazette.]

1,138,257. MEANS FOR GIVING A FINISHED SURFACE TO WIRE-GAUZE. FRANCIS STONIER, Manchester, England. Filed Oct. 16, 1914. Serial No. 867,020. (Cl. 140—107.)



1. In apparatus, for giving a finished or smooth surface to wire gauze, of the type employing additional means for pulling or aiding the movement of the gauze between a revoluble presser roller and a roller or other curved bed, a flat bed in combination with said presser roller and in substitution for a roller or curved bed, and independently operated pulling means for the gauze, substantially as herein set forth.

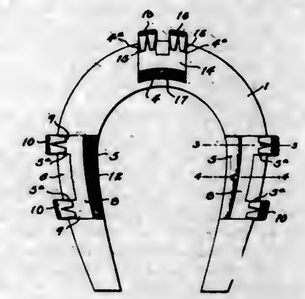
2. In apparatus, for giving a finished or smooth surface to wire gauze, of the type employing additional means for pulling or aiding the movement of the gauze between a revoluble presser roller and a roller or other curved bed, a flat bed in combination with said presser roller and in substitution for a roller or curved bed, and an independently operated roller upon which the gauze is wound at increased peripheral speed relatively to said presser roller, said winding roller being adapted to pull the gauze between the presser roller and said flat bed, substantially as herein set forth.

1,138,258. HIGH-TENSION ELECTRIC TERMINAL. ARTHUR A. STUPE, Chicago, Ill., assignor to Kellogg Switchboard and Supply Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 23, 1910. Serial No. 551,094. (Cl. 173—269.)



A high tension terminal comprising a pair of round rod-like terminal members each being transversely slotted near one end so as to provide laterally extending hook-like members, each lateral member extending into the slot of the other terminal member, an external screw thread for one of said members, an externally insulated metallic shouldered sleeve positioned over the other member and provided with an internal thread whereby said sleeve threads upon the first said member and the shoulder of the sleeve engages the second member so as to maintain the two terminal members in positive interlocking engagement and firm electrical contact, and means whereby a conductor may be secured to each of said terminal members.

1,138,259. HORSESHOE. JOHAN TARAS, Bentleyville, Pa. Filed Apr. 18, 1914, Serial No. 832,825. Renewed Feb. 25, 1915. Serial No. 10,612. (Cl. 168—21.)

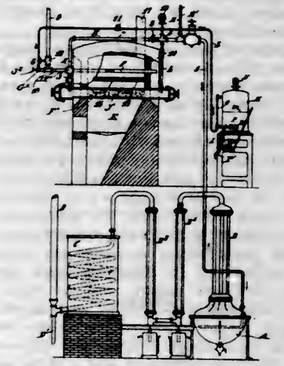


1. A nailless horseshoe including a body portion provided with a recess communicating with spaced lateral branches extending through an edge of the body portion, undercut ledges being provided in the said lateral branches, a slide fitted within the recess and provided with a pair of lateral arms adapted to be received within the lateral branches, tongues upon the lateral arms for engaging the undercut ledges, hoof engaging claws upon the lateral arms, and means for clamping the slides in position within the recess.

2. A nailless horseshoe including a body portion formed with a recess communicating with a pair of lateral branches extending through an edge of the body portion, undercut ledges being provided which extend across the lateral branches, a slide fitted within the recess and formed with lateral arms adapted to be received within the lateral branches of the recess, tongues upon the lateral arms for engaging the undercut ledges, hoof engaging claws carried by the lateral arms of the slide, and a retaining screw threaded within the body portion and engaging the slide to hold it rigidly in operative position.

3. A nailless horseshoe including a body portion provided with a recess communicating with spaced lateral branches extending through an edge of the shoe, undercut ledges being provided which extend across the said lateral branches, a slide fitted within the recess and provided with a beveled outer edge, said slide being formed with a pair of lateral arms adapted to be received within the lateral branches of the recess, tongues upon the lateral arms adapted to engage and interlock with the undercut ledges, hoof engaging claws carried by the lateral arms, and a retaining screw threaded within the body portion and formed with a beveled nose adapted to engage the beveled edge of the slide to retain the slide rigidly in operative position.

1,138,260. APPARATUS FOR THE INDUSTRIAL MANUFACTURE OF A NEW SPIRIT BY THE ISOMERIZATION OF PETROLEUM. AUGUSTE TESTELIN, Laeken, and GEORGES RENARD, Ixelles, Belgium. Filed Aug. 20, 1908. Serial No. 449,538. (Cl. 196—21.)



1. An apparatus for the continuous manufacture of volatile spirit from a vaporous mixture of water under pressure and fluid hydro-carbon by heat treatment and comprising a furnace, a container positioned above said furnace and heated by the heat convected from said furnace and adapted for the heat treatment, at an intermediate temperature, of such mixture and its conversion thereby into gaseous vapors; a second container positioned below said first mentioned container and exposed to the direct heat of said furnace and a permeable refractory obstruction in said second container, adapted for the heat treatment, at maximum temperature, of such vapors and to cause reactions among them and rearrangement of their atoms; condensing apparatus; and means to supply such mixture to and distribute its vapors and products thereof among the members of the apparatus.

2. An apparatus for the continuous manufacture of volatile spirit from a mixture of steam and fluid hydrocarbon by heat treatment at high pressure and comprising a furnace containing a combustion chamber, a convected heat chamber and a refractory partition separating the same and pierced with holes for the convection of heat to said convected heat chamber; a container in said convected heat chamber and adapted for the heat treatment at an intermediate temperature, of such mixture and its volatilization thereby into gaseous vapors; a second container located in said combustion chamber and therein a permeable refractory obstruction adapted for the heat treatment at maximum temperature, of such vapors and to cause reactions among them and rearrangement of their atoms; condensing apparatus; means to supply volatile hydro-carbon under pressure thereto and a feed pipe therefrom; steam supply means; means to mix and inject the same into the first mentioned container; and a distributing pipe system to distribute the aforesaid vapors and their derivaties among the containers and condensing apparatus.

3. An apparatus for the continuous manufacture of volatile spirit from a mixture of steam and fluid hydrocarbon by heat treatment at high pressure and comprising a furnace; a container heated by heat convected from said furnace and adapted for the heat treatment, at an intermediate temperature, of such mixture and its conversion thereby into gaseous vapors; a container exposed to the direct heat of said furnace and a permeable, refractory obstruction in said container, adapted for the heat-treatment, at maximum temperature, of such vapors and

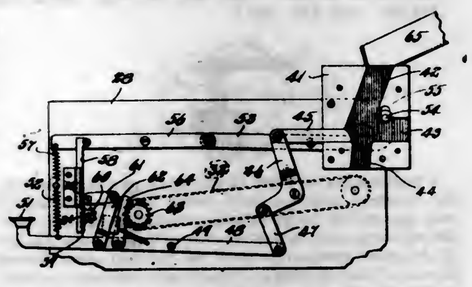
to cause reactions among them and rearrangement of their atoms; condensing apparatus; hydro-carbon supply means comprising a pressure tank adapted to contain fluid hydro-carbon, means to regulate the pressure in and the feed therefrom, means to supply fluid hydro-carbon under pressure thereto and a feed-pipe therefrom; steam-supply means; means to regulate the quantities of steam and of hydro-carbon fed to the apparatus; means to mix and inject the same into the first-named container; a distributing pipe system adapted to distribute the aforesaid vapors and their derivatives among the containers and condensing apparatus; and means to regulate the pressures obtaining among the containers, distributing pipes and condensing apparatus.

4. An apparatus for the continuous manufacture of volatile spirit from a mixture of steam and fluid hydro-carbon by heat treatment at high pressure and comprising a furnace containing a combustion chamber and a convected-heat chamber and a refractory partition separating the same and pierced with holes for the convection of heat to said convected-heat chamber; a sinuous tubular container located in said convected-heat chamber and adapted for the heat treatment, at an intermediate temperature, of such mixture and its volatilization thereby into gaseous vapors; a container located in said combustion chamber and therein a permeable, refractory obstruction adapted for the heat-treatment, at maximum temperature, of such vapors and to cause reactions among them and rearrangement of their atoms; condensing apparatus; hydro-carbon supply means comprising a pressure tank adapted to contain liquid hydro-carbon and compressed air, a pressure-gage and a sight gage therein to show respectively the pressure and the stand of hydro-carbon therein, means to supply liquid hydro-carbon and means to supply compressed air to said tank, and a feed pipe extending therefrom; steam supply means; means to regulate the quantities of steam and of hydrocarbon fed to the apparatus; means to mix and inject the same into the first-named container; a distributing pipe system adapted to distribute the aforesaid vapors and their derivatives among the containers and condensing apparatus; and connected with said system a pressure gage to show the pressure therein and a pressure regulator adapted to regulate such pressure and reduce it suitably for said condensing apparatus.

5. An apparatus for the continuous manufacture of volatile spirit from a mixture of steam and fluid hydro-carbon by heat treatment at high pressure and comprising a furnace containing a combustion chamber and a convected-heat chamber and a refractory partition separating the same and pierced with holes for the convection of heat to said convected-heat chamber; a sinuous tubular container located in said convected-heat chamber and adapted for the heat treatment, at an intermediate temperature, of such mixture and its volatilization thereby into gaseous vapors; a container located in said combustiontion chamber and therein a permeable, refractory obstruction adapted for the heat-treatment, at maximum temperature, of such vapors and to cause reactions among them and rearrangement of their atoms; condensing apparatus; hydro-carbon supply means comprising a pressure tank adapted to contain liquid hydro-carbon and compressed air, a pressure-gage and a sight gage therein to show respectively the pressure and the stand of hydro-carbon therein, means to supply liquid hydro-carbon and means to supply compressed air to said tank, and a feed pipe extending therefrom; steam supply means; means to regulate the quantities of steam and of hydrocarbon fed to the apparatus; means to mix and inject the same into the first-named container; a distributing pipe system adapted to distribute the aforesaid vapors and their derivatives among the containers and condensing apparatus; and connected with said system a pressure gage to show the pressure therein, a shock absorber adapted to cushion detonations occurring therein, and a pressure regulator adapted to regulate such pressure and reduce it suitably for said condensing apparatus.

[Claims 6 and 7 not printed in the Gazette.]

1,138,261. VENDING-MACHINE. JOHN TROIDL, St. Louis, Mo. Filed Sept. 10, 1914. Serial No. 861,054. (Cl. 194—75.)



1. In a vending machine, a container for the articles to be vended, which container has an open bottom, an endless belt arranged beneath said container and forming a bottom therefor, a trough pivotally mounted at the discharge end of the container, means for imparting intermittent movement to the belt, and coin controlled means coöperating with and operated by the belt actuating means for imparting tilting movement to the trough.

2. In a vending machine, a container for the articles to be vended, which container has an open bottom, an endless belt arranged beneath said container and forming a bottom therefor, a trough pivotally mounted at the discharge end of the container, a vibrator bearing against the container, means for imparting intermittent movement to the belt and simultaneously actuating the vibrator, and coin controlled means coöperating with and actuated by the belt and vibrator actuating means for imparting tilting movement to the trough.

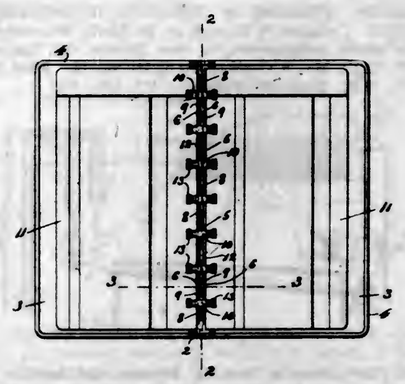
3. In a vending machine, a container for the articles to be vended, a pair of rollers arranged beneath said container, a belt operating on said rollers, there being a discharge opening between one of said rollers and the end of the container, a pivotally mounted trough arranged beneath said discharge opening, means for imparting movement to one of the rollers to drive the belt operating thereupon, and coin controlled means coöperating with and actuated by the roller actuating means for imparting tilting movement to the trough.

4. In a vending machine, a container for the articles to be vended, a pair of rollers arranged beneath said container, a belt operating on said rollers, there being a discharge opening between one of said rollers and the end of the container, a pivotally mounted trough arranged beneath said discharge opening, means for imparting intermittent movement to one of said belt carrying rollers, means actuated by the roller actuating means for shifting the container simultaneously with and in a direction opposite to the movement of the belt and coin controlled means coöperating with and actuated by the roller actuating means for imparting tilting movement to the trough.

5. In a vending machine, a container for the articles to be vended, which container is open at its lower end, an endless belt arranged beneath the container and forming a bottom therefor, a trough pivotally mounted at the discharge end of the container, means for moving the upper portion of the belt toward the trough and simultaneously moving the container in a direction opposite to that of the movement of the upper portion of the belt and coin controlled means actuated by and coöperating with the belt actuating means for simultaneously imparting tilting movement to the trough.

1,138,262. LOOSE-LEAF-BINDING DEVICE. EMORY A. TRUSSELL, New York, N. Y. Filed Sept. 16, 1910. Serial No. 582,315. (Cl. 129—1.)

1. In loose leaf binding devices the combination with back and cover-portions of a binding of a binding-strip embedded in said back-portion of said binding, ring-carrying member comprising a pair of longitudinally extending parallel strips, a plurality of upwardly extending rigid and continuous ring-portions connected by their respective ends with the outer marginal edges of said parallel strips, and means for connecting said ring-carrying member with said binding-strip, substantially as and for the purposes set forth.



2. In loose leaf binding devices the combination with back and cover-portions of a binding, of a binding-strip embedded in said back-portion of said binding, a ring-carrying member comprising a pair of longitudinally extending parallel strips, a plurality of upwardly extending rigid and continuous ring-portions connected by their respective ends with the outer marginal edges of said parallel strips, and means for connecting said ring-carrying member with said binding strip, comprising pairs of upwardly extending lugs or tongues connected with said binding strip and adapted to engage the inner marginal edges of said parallel strips of said ring-carrying member, substantially as and for the purposes set forth.

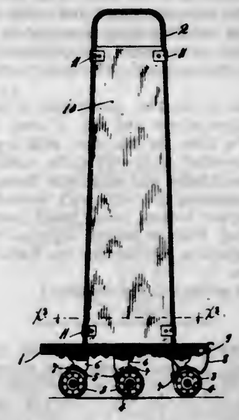
3. In loose leaf binding devices the combination with back and cover-portions of a binding, of a binding-strip embedded in said back-portion of said binding, a ring carrying member comprising a pair of longitudinally extending parallel strips, a plurality of upwardly extending rigid and continuous ring-portions connected by their respective ends with the outer marginal edges of said parallel strips, and means for connecting said ring-carrying member with said binding strip, comprising pairs of upwardly extending lugs or tongues connected with said binding strip and adapted to engage the inner marginal edges of said parallel strips of said ring-carrying member, said parallel strips of said ring carrying member being provided with notches or cut-out portions in their inner marginal edges adapted to receive said lugs or tongues of said binding-strip, substantially as and for the purposes set forth.

4. In loose leaf binding devices the combination with back and cover-portions of a binding-strip embedded in said back-portion of said binding, a ring-carrying member, means for connecting said ring carrying member with said binding-strip, and a plurality of upwardly projecting rigid and continuous ring-portions connected with said ring-carrying member, said ring-portions being provided with substantially flat bearing surfaces on their inner sides, said bearing-surfaces of said ring-portions being adapted to be engaged by loose or separable leaves, a plurality of loose leaves or sheets adapted to be connected with said ring-portions, each of said loose leaves or sheets being provided adjacent to one of its marginal edges with a plurality of perforations or holes having slots or cut-out portions extending therefrom to the adjacent marginal edge of said leaf or sheet to form pairs of oppositely extending spring lugs or tabs, substantially as and for the purposes set forth.

5. In loose leaf binding devices, the combination with back and cover-portions of a binding, of a binding-strip embedded in said back-portion of said binding, a ring carrying member comprising a pair of longitudinally extending parallel strips, a plurality of upwardly extending rigid and continuous ring-portions connected by their respective ends with the outer marginal edges of said parallel strips, and means for connecting said ring-carrying member with said binding strip, comprising pairs of upwardly extending lugs or tongues connected with said binding strip and adapted to engage the inner marginal edges of said parallel strips of said ring-carrying member, said parallel strips of said ring carrying member being provided with notches or cut-out portions in their inner marginal edges adapted to receive said lugs or tongues of said binding-strip, a plurality of loose leaves or sheets adapted to be connected with said ring-portions, each of said loose leaves or sheets being provided adjacent to one of its marginal edges with a plurality of perforations or holes having slots or cut-out portions extending therefrom to the adjacent marginal edge of said leaf or sheet, substantially as and for the purposes set forth.

[Claim 6 not printed in the Gazette.]

1,138,263. ROLLER-COASTER SKATE. JOHN CRITTENDEN TUTT, St. Paul, Minn. Filed Nov. 7, 1914. Serial No. 870,784. (Cl. 21—191.)



1. A coaster comprising a platform having a support permitting it to travel and provided with a bail-like handle offset at one side of the intermediate portion thereof, rising above the same, and having the lower ends of its legs bent horizontally and secured to said platform.

2. A roller coaster comprising a platform, rollers in triangular arrangement supporting said platform, and a handle secured to one side of said platform and rising from the intermediate portion thereof.

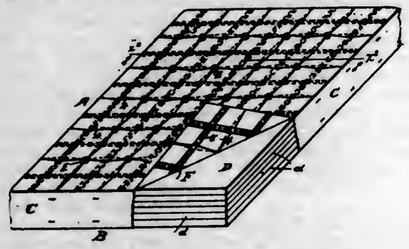
3. A roller coaster comprising a platform, rollers in triangular arrangement supporting the same, and a bail-like handle offset from one side of the intermediate portion of said platform having the lower ends of its legs bent horizontally and rigidly secured to said platform.

1,138,264. MATTRESS AND CUSHION. CHARLES B. VAN VORST and NINA E. FULKERSON, Los Angeles, Cal. Filed June 8, 1914. Serial No. 843,736. (Cl. 5—13.)

1. A mattress or the like having a cover, portions of which are folded to inwardly project, and lines of stitching extending transversely of such folded portions between the ends thereof and maintaining the formation of the same.

2. A mattress or the like having a cover, portions of which are folded to inwardly project, and lines of stitching extending transversely of such folded portions between the ends thereof and maintaining the formation of the

same; reinforcements being provided for the cover and being co-extensive with the lines of stitching.



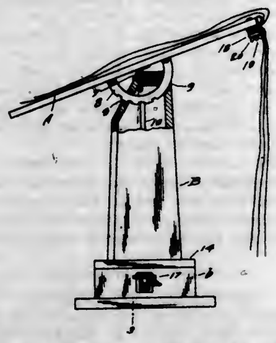
3. A mattress or the like having a cover, portions of which are folded to inwardly project, and lines of stitching extending transversely of such folded portions and maintaining the formation of the same; said cover being provided with tufts between which the cover folds extend, and said lines of stitching being arranged to intersect the folds intermediate of the tufts.

4. A mattress or the like having a cover, portions of which are folded to inwardly project, and lines of stitching extending transversely of such folded portions and maintaining the formation of the same; said cover being provided with tufts between which the cover folds extend, and said lines of stitching being arranged to intersect the folds intermediate of the tufts; reinforcements being provided for the cover and being co-extensive with the lines of stitching.

5. A mattress or the like, comprising a case consisting of top and bottom covers and side or edge covers joined therewith, and a filler for the case; said top and bottom covers being provided each with tufts, means being provided uniting said tufts and extending through said body or filler and depressing the tufts with respect to the body, each of said top and bottom covers being provided with inwardly projecting folds extending between the tufts and with rows of stitching intersecting the folds at points between the tufts.

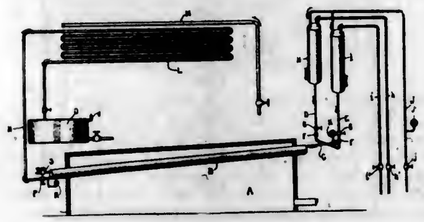
[Claim 6 not printed in the Gazette.]

1,138,265. DISPLAY-STAND. CHARLES C. VOSBURGH, Norwood, Ohio, assignor to The John Shillito Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Apr. 30, 1914. Serial No. 835,359. (Cl. 211—24.)



A display stand comprising a flat, rectangular top provided at one edge with a substantially semi-circular, fabric-covered, cushioning roll and adjustably supported to permit tilting to a position in which the edge with said cushioning roll may occupy a position elevated with reference to the opposite edge, a clamping bar on the underside of the top and close to said cushioning roll, bolts seated in said top and projecting beyond the underside thereof where they engage the bar mentioned, one bolt at each of its ends, and nuts on these bolts below the bar whereby this latter may be adjusted for the purpose of clamping material like fabric against the underside of the top and in a manner so that when said material is turned up, so as to rest on the upper side of the top, the objectionable effects of a short turn of the material is prevented by the cushioning roll over which said material is passed.

1,138,266. PROCESS OF TREATING HYDROCARBON OILS. CHARLES H. WASHBURN, St. Louis, Mo., assignor, by mesne assignments, to New Process Oil Company, St. Louis, Mo., a Corporation of Minnesota. Filed Mar. 24, 1913. Serial No. 756,433. (Cl. 196—21.)



1. The process of treating kerosene and heavier products of petroleum, which consists in placing the petroleum product and water into a retort, converting them into vapor, and leading off the vapor to a condenser, the terminal of which is closed to create a back pressure against the vapor, thereby condensing the vapor under a pressure of from three to five atmospheres maintained in both the retort and the condenser.

2. The process of treating kerosene and heavier products of petroleum, which consists in introducing the petroleum product and water into a retort under pressure, converting the product and water into vapor, and leading off the vapor to a condenser, the terminal of which is closed to create a back pressure against the vapor, thereby condensing the vapor under a pressure of from three to five atmospheres maintained in both the retort and the condenser.

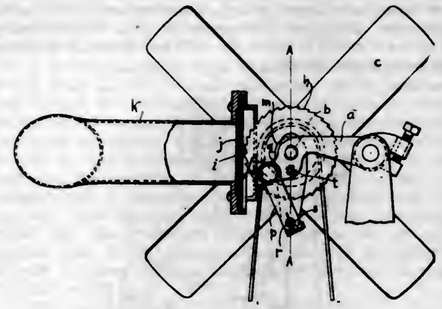
3. The process of transforming petroleum oils of a Baumé of 26° to 48° into a product of a Baumé not exceeding 52°, which consists in passing oil and water in liquid form into a retort, converting the oil and water into vapor, and leading off the vapor to a condenser, the terminal of which is closed to create a back pressure against the vapor, thereby condensing the vapor under a pressure of from three to five atmospheres maintained throughout distillation and condensation.

4. The process of transforming petroleum oils of a Baumé of 26° to 48° into a product of a Baumé not exceeding 52°, which consists in passing oil and water in liquid form into a retort, converting the oil and water into vapor by subjecting them to 600° F. to 950° F., and leading off the vapor to a condenser, the terminal of which is closed to create a back pressure against the vapor, thereby condensing the vapor under a pressure of from three to five atmospheres maintained throughout distillation and condensation.

1,138,267. HORN. ALLIS R. WELCH, deceased, Pontiac, Mich., by Mary E. Welch, administratrix, Pontiac, Mich. Filed Dec. 18, 1913. Serial No. 807,504. (Cl. 116—1.)

1. The combination of a rotating element, a shaft upon which the rotating element is mounted to rotate, a diaphragm held adjacent to the shaft, an actuator mounted to rotate upon the shaft, a friction wheel between the actuator and the rotating element and a spring by which the actuator, friction wheel and rotating element may be packed when desired.

2. The combination of a rotating element, a shaft upon which the rotating element is mounted to rotate, a diaphragm supported adjacent the shaft, an actuator supported to rotate about the shaft, a friction wheel between the actuator and the rotating element, a spring lever tending to pack the actuator, friction wheel, and rotating element, and a spring normally holding the spring lever out of engagement with the actuator, substantially as described.



3. The combination of a rotating element, a shaft upon which the rotating element is mounted to rotate, a friction wheel mounted around said shaft adjacent said rotating element, a diaphragm held adjacent the shaft, an actuator mounted to rotate around said shaft adjacent the friction wheel, a spring lever having a ring-like terminal tending to engage said actuator, a spring for holding the spring lever out of engagement with the actuator so as to prevent the packing of the actuator, friction wheel and rotating element, and a shifting arm attached to the lever for insuring the separation of the actuator, friction wheel and rotating element, substantially as described.

4. The combination with a rotating element, of a shaft upon which the rotating element is mounted to rotate, a sleeve mounted on one end of the shaft, a friction wheel mounted to rotate on the sleeve and lying adjacent the rotating element, a diaphragm held adjacent the shaft, an actuator rotatably mounted upon the sleeve adjacent the friction wheel, a spring lever having a ring-like portion around the sleeve tending to engage said actuator and adapted to cramp upon the sleeve when the end of the lever is pulled and means for normally holding the lever in a constrained position so as to cramp the ring at its end upon the sleeve, whereby when the end of the lever is released the spring lever packs the actuator, friction wheel, and rotating member, substantially as described.

1,138,268. SHEET-METAL VESSEL. FREDERICK WESTERBECK, St. Louis, Mo. Filed Dec. 14, 1911. Serial No. 665,638. (Cl. 220—33.)

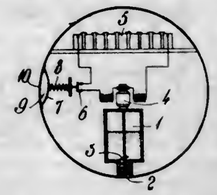


1. A sheet metal vessel having an internal dropped bead, the metal being curled inwardly and downwardly from the wall of the vessel, and then upwardly and outwardly, the terminal margin of the metal in the dropped bead being seated upon the metal immediately adjoining the wall of the vessel, and the edge of said terminal margin being exposed above the upper end of said wall between the outer face of the wall of the vessel and the top of said bead.

2. A sheet metal vessel having the wall of its body provided with a dropped internal top bead, the metal being curled inwardly and downwardly from the wall of the vessel; and then upwardly and outwardly, the terminal margin of the metal in the dropped bead lapping onto the inturned portion of the metal directly above the top of the wall of the vessel, the edge of said margin being exposed; the top of said dropped bead providing a seat for a closure and the outer face of said wall providing a second closure seat, the seat on said bead and the seat on said wall being adapted to receive a closure and the exposed marginal edge of the metal in the dropped bead being adapted to move inwardly away from the outer face of said wall in response to pressure by the closure against the top of said dropped bead.

3. A sheet metal vessel having an internal bead formed from the same sheet as that from which the body of the vessel is formed, the metal extending from the upper end of the wall of the vessel being curved upwardly and inwardly to form an inwardly extending upcurved bead supporting element, then downwardly and inwardly toward the center of the vessel and upwardly and outwardly toward the upcurved bead supporting element, the terminal margin of the metal being seated upon the upcurved bead supporting element and its edge being exposed between the top of the bead and the outer face of the wall of the vessel, the said terminal margin being adapted to move toward the center of the vessel when pressure is exerted upon the top of said bead.

1,138,269. MINE OR THE LIKE. SVEN GUSTAF WIGELIUS, Gottenborg, Sweden, assignor to Aron Andersson, Stockholm, Sweden, and Thor Carlander, Gottenborg, Sweden. Filed May 22, 1914. Serial No. 840,229. (Cl. 102—3.)



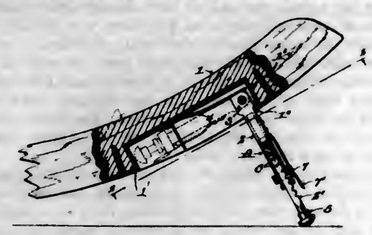
1. In a subfloating body adapted to assume an oscillating position of equilibrium below the surface of the water, the combination of a chamber arranged to regulate the depth of immersion of said body and communicating continuously with the outside water, electrically actuated means for emptying said chamber, an electric battery arranged to supply said means with electric current, and a hydrostat arranged to close and break the circuit of said means, said emptying means being arranged to be actuated by the outside water, so as to permit automatic filling of the said chamber when the circuit is broken, substantially as and for the purpose set forth.

2. In a subfloating body adapted to assume an oscillating position of equilibrium below the surface of the water, the combination of a cylindrical chamber arranged to regulate the depth of immersion of said body and communicating continuously with the outside water, a piston movable in said chamber for emptying the same, electric means for actuating said piston, an electric battery arranged to supply said means with electric current, and a hydrostat arranged to close and break the circuit of said means, said piston being arranged to be actuated by the outside water so as to permit automatic filling of the said chamber when the circuit is broken, substantially as and for the purpose set forth.

1,138,270. ROCKING-CHAIR ATTACHMENT. HENRY M. ZIEGLER and EMERY L. WIRTZ, Plymouth, Wis. Filed Mar. 9, 1914. Serial No. 823,421. (Cl. 155—18.)

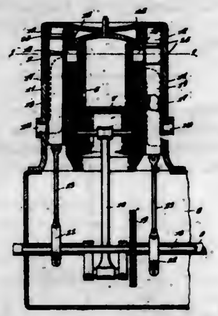
A locking attachment to chair rockers comprising a housing secured to the forward end of each rocker, a tele-

scopic leg in pivotal union with each housing, and means for selectively locking the legs in nested union with the



housing or in an extended position below the curved face of the rocker.

1,138,271. INTERNAL-COMBUSTION ENGINE. WILLIAM BACKMAN, Beacon, Iowa. Filed May 13, 1913. Serial No. 767,468. (Cl. 123—75.)

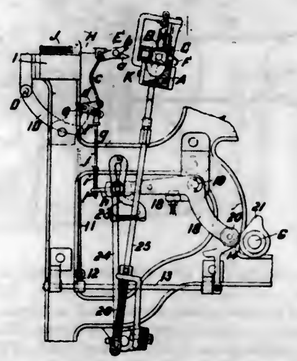


1. In an internal combustion engine, the combination with a cylinder, of a casing having a bore and a way for passage of fluid from the bore thereof into said cylinder, the opening of said way into said casing bore being reduced and diagonally positioned and the opening of said way into said cylinder being comparatively enlarged and having its margins parallel or at right angles to the vertical axis of said cylinder.

2. In an internal combustion engine, the combination with a cylinder, of a casing having a bore and a way for the passage of fluid from said bore into said cylinder, the opening of said way into said cylinder being enlarged and having its margins parallel or at right angles to the vertical axis of said cylinder, the opening of said way into said casing being comparatively reduced from first said opening and having its margins diagonally positioned, a valve reciprocable in said casing, and piston rings provided upon said valve to inclose vertically said diagonal way opening.

1,138,272. THREAD-CUTTER FOR THE DEPLETED WEFT OF WEFT-REPLENISHING LOOMS. EUGENE H. BALLOU, Pawtucket, R. I., assignor to Draper Company, Hopedale, Mass., a Corporation of Maine. Filed Oct. 18, 1912. Serial No. 726,477. (Cl. 139—85.)

1. A weft-replenishing loom wherein the replenishment occurs prior to the complete exhaustion of the running weft having, in combination, a rising and falling shuttle-box at the replenishing side of the loom; a change-shaft which is rocked when the running weft approaches exhaustion; a train of mechanism operatively located between the change-shaft and the shuttle-box, whereby the shuttle-box is lifted for the purpose of obtaining a fresh supply of weft and for ejection of the depleted weft-carrier; a thread-cutter having a stationary jaw and a pivoted jaw; instrumentalities between said pivoted jaw and the train of mechanism which lifts the shuttle-box, whereby the pivoted jaw is closed upon the stationary jaw concurrently with the lifting of the shuttle-box; the lay having a recess below the race-way of the lay; a thread-director normally located back of the reed and having a hook at its lower end which swings forwardly first through and then above and in front of said recess when the thread-director is actuated; a rock-shaft carried by the lay which carries said thread-director, said rock-shaft having a crank-arm; and a tappet on the rising and falling shuttle-box which encounters said crank arm when the shuttle-box rises, whereby the thread-director is swung forward to catch the weft and deliver it between the jaws of the cutter.



2. A weft-replenishing loom wherein the replenishment occurs prior to the complete exhaustion of the running weft having, in combination, a rising and falling shuttle-box at the replenishing side of the loom; a change-shaft which is rocked when the running weft approaches exhaustion; a train of mechanism operatively located between the change-shaft and the shuttle-box, whereby the shuttle-box is lifted for the purpose of obtaining a fresh supply of weft and for ejection of the depleted weft-carrier; a thread-cutter having a stationary jaw and a pivoted jaw; instrumentalities between said pivoted jaw and the train of mechanism which lifts the shuttle-box, whereby the pivoted jaw is closed upon the stationary jaw concurrently with the lifting of the shuttle-box; the lay having a recess below the race-way of the lay; a thread-director normally located back of the reed and havign a hook at its lower end which moves forwardly through said recess when the thread director is actuated; and actuating devices between the thread-director and the rising and falling shuttle-box which actuate the thread-director when the shuttle-box rises, whereby the thread-director is moved forward to catch the weft and deliver it between the jaws of the cutter.

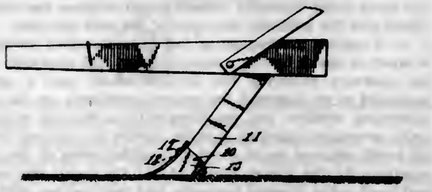
3. A weft-replenishing loom wherein the replenishment occurs prior to the complete exhaustion of the running weft having, in combination, a shuttle-box movable upon the lay at the replenishing side of the loom; a weft-detector controlled train of mechanism which moves the shuttle-box with respect to the lay for the purpose of obtaining a fresh supply of weft and for ejection of the depleted weft-carrier; a thread-cutter; instrumentalities between said thread-cutter and the train of mechanism which moves the shuttle-box, whereby the cutter acts concurrently with the lifting of the shuttle-box; the lay having a recess below the race-way of the lay; a thread-director normally located back of the reed and having a hook at its lower end which moves forwardly through said recess when the thread-director is actuated; and actuating devices between the thread-director and the shuttle-box which actuate the thread-director when the shuttle-box moves, whereby the thread-director is moved forward to catch the weft and deliver it to the cutter.

4. A weft-replenishing loom wherein the replenishment occurs prior to the complete exhaustion of the running weft having, in combination, a shuttle-box movable upon the lay at the replenishing side of the loom; a weft-detector controlled mechanism which moves the shuttle-box upon the lay for the purpose of obtaining a fresh supply of weft and for ejection of the depleted weft-carrier; a thread-cutter; the lay having a recess below the race-way of the lay; a thread-director normally located back of the reed and having a hook at its lower end which moves forwardly through said recess when the thread-director is actuated; and actuating devices between the thread-director and the shuttle-box which actuate the thread director when the shuttle-box moves, whereby the thread-director is moved forward to catch the weft and deliver it to the cutter.

5. A weft-replenishing loom wherein the replenishment occurs prior to the complete exhaustion of the running weft having, in combination, a shuttle-box movable upon the lay at the replenishing side of the loom; weft-detector controlled mechanism which moves the shuttle-box upon the lay for the purpose of obtaining a fresh supply of weft and for ejection of the depleted weft-carrier; a thread-cutter; a thread-director normally located back of the reed; and actuating devices between said thread-director and the shuttle-box which actuates the thread-director when the shuttle-box moves, whereby the thread-director is moved forward to catch the weft and deliver it to the cutter.

[Claim 6 not printed in the Gazette.]

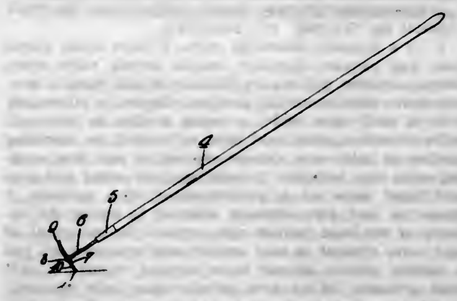
1,138,273. PLOW-STOCK SHIELD. HENRY B. BAUCOM, Marshville, N. C. Filed June 3, 1913, Serial No. 771,541. Renewed Nov. 23, 1914. Serial No. 873,635. (Cl. 97—26.)



1. The combination with a standard of a ground engaging shoe adapted to fit over the standard, a plow point bearing against the front wall of the shoe, said wall conforming to the contour of the body portion of the plow point, and means for securing the shoe and point to each other and to the standard.

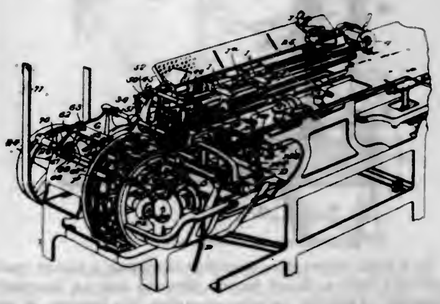
2. In a plow, the combination with a standard, of a removable ground engaging shield fitting on the foot of the standard and consisting of a one piece member comprising a flat bottom, side members having their lower forward ends converging outwardly, a concaved front member co-acting with the converging side members and bottom member to form a pocket to receive the standard, and fastening means for securing a plow point to the shield and the shield to the standard.

1,138,274. GARDEN IMPLEMENT. JOHN ALEXANDER BOZARTH, El Paso, Tex. Filed July 18, 1914. Serial No. 851,784. (Cl. 55—39.)



An implement of the class described, comprising a blade, one portion of the said blade provided with a plurality of rake prongs, the opposite portion of said blade being cut away to thin proportions forming a scraper blade with a beveled lower extremity, and a handle carrying said blade and secured thereto with the prolongation of the handle axis passing through the longitudinal, and average sectional, center of the said blade.

1,138,275. MACHINE FOR APPLYING BANDS TO CIGARS. WILLIAM CYRUS BRIGGS, Lynchburg, Va., assignor to Carolina Banding Machine Company, Winston-Salem, N. C., a Corporation of North Carolina. Filed Nov. 26, 1913. Serial No. 803,332. (Cl. 131—61.)



1. In a machine for applying bands to cigars, the combination with band-applying devices, of means for delivering cigars one at a time thereto, and means operated by the cigars while being advanced toward the band-applying devices for, automatically arresting the operation of the machine.

2. In a machine for applying bands to cigars, the combination with band-applying devices, of means for feeding rows of cigars, means for carrying cigars one at a time from a row to the band-applying devices, and means operated by the cigars while being advanced for automatically stopping the machine when a row of cigars is of irregular length.

3. In a machine for applying bands to cigars, the combination with band-applying devices, of means for feeding rows of cigars, means for carrying cigars one at a time from a row to the band-applying devices, a lever operated by the end cigar of a row, and stop mechanism actuated by said lever for arresting the operation of the machine.

4. In a machine for applying bands to cigars, the combination with band-applying devices, of means for feeding rows of cigars, means for carrying the cigars one at a time to the band-applying devices, a lever connected with the driving mechanism of the machine, a lever operated by the cigars while being advanced, and connections between said levers for arresting the operation of the machine.

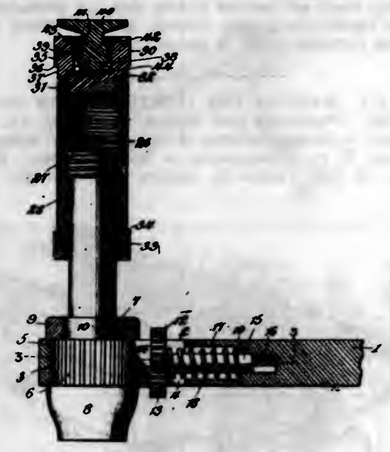
5. In a cigar-banding machine the combination with band-applying devices, of means for feeding rows of cigars, means for carrying the cigars one at a time to the band-applying devices, a lever disposed in the path of the end cigar of a row and adapted to be moved thereby, a reciprocating bar operatively connected with said lever, a lever for starting and stopping the machine, a dog carried by said lever, means engaging the dog for operating said starting and stopping lever, and devices carried by said reciprocating bar for controlling the position of the dog.

[Claims 6 to 25 not printed in the Gazette.]

1,138,276. RATCHET-DRILL. ADDISON BURTIS CARLL, Boothwyn, Pa. Filed May 24, 1913. Serial No. 769,646. (Cl. 77—43.)

1. A drill of the class described including a rotary stock provided with a shank having threads, and an interiorly threaded sleeve arranged on the shank and engaging the threads thereof to feed the drill, said sleeve consisting of a separable two-part structure, one part being provided with an exterior shoulder forming a seat and adapted to permit a piece of pipe or tube to be fitted on the sleeve to

increase the length of the drill, and the other part carrying a head and having a shoulder for engaging the upper end of the pipe or tube.



2. A drill of the class described including a rotary stock provided with a shank having threads, and an interiorly threaded extensible member engaging the threads of the shank and consisting of a separable two-part structure, each part having portions to receive an extension pipe or tube and provided with shoulders or seats for engaging the same.

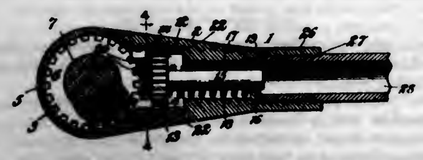
3. A drill of the class described including a rotary stock provided with a shank having threads, and an interiorly threaded sleeve arranged on and engaging the threads of the shank and provided at its inner portion with an exterior shoulder or seat, a socket piece having a threaded portion screwed into the outer end of the sleeve, said socket piece being provided with an exterior shoulder and being separable to permit a piece of pipe or tube to be placed on the sleeve to increase the length of the tool, and a swiveled head carried by the socket piece.

4. A drill of the class described comprising a rotary stock, feeding means including a socket piece provided with a bearing recess, a swiveled head having an inner bearing portion arranged in the recess of the socket piece, and detachable means projecting from the walls of the recess and engaging the bearing portion of the swiveled head to secure the same to the socket piece.

5. A drill of the class described comprising a rotary stock, feeding means including a socket piece provided with a bearing recess, a swiveled head having a ball arranged in the bearing recess, antifriction balls also located within the recess and supporting the said ball, and retaining means projecting from the walls of the recess and engaging the ball at the outer portion thereof.

[Claims 6 and 7 not printed in the Gazette.]

1,138,277. RATCHET MECHANISM FOR TOOLS. ADDISON B. CARLL, Boothwyn, Pa. Original application filed May 24, 1913, Serial No. 769,646. Divided and this application filed Apr. 15, 1914. Serial No. 832,060. (Cl. 74—16.)



1. A ratchet mechanism of the class described including a rotary stock or shank having a ratchet wheel, an oscillatory operating member having a bearing receiving the said ratchet wheel, and a rotary reversible pawl carried by the operating member and provided with an eccentrically arranged engaging portion adapted to be carried to either side of the bearing of the said member by the rotary movement of the pawl, said engaging portion being constructed to interlock with the teeth of the ratchet wheel, and the metal of the engaging portion being arranged to be clamped and wedged between the ratchet wheel and the operating member at the adjacent side of the bearing to lock the pawl in engagement with the ratchet wheel.

2. A ratchet mechanism of the class described including a rotary stock or shank having a ratchet wheel, an oscillatory operating member having a bearing opening and receiving the ratchet wheel, and a rotary reversible pawl carried by the operating member and provided with a tapered engaging portion, said engaging portion being eccentrically arranged so as to be carried to either side of the bearing by the rotary movement of the pawl, whereby the tapered engaging portion will be clamped or wedged between the ratchet wheel and the adjacent side of the bearing.

3. A ratchet mechanism of the class described including a rotary stock or shank having a ratchet wheel, an oscillatory operating member provided with an aperture receiving the ratchet wheel, and a spring actuated pawl carried by the operating member and mounted for rotary movement thereon, said pawl being provided with an eccentrically arranged engaging portion having an arcuate series of ratchet teeth to be carried to either side of the aperture by the rotary movement of the pawl, the metal of the teeth being arranged to be clamped between the ratchet wheel and the adjacent side wall of the said aperture.

4. A ratchet mechanism of the class described including a stock or shank having a ratchet wheel and provided with an aperture receiving the ratchet wheel, and a spring actuated pawl mounted for rotary movement on the said operating member and provided with a tapered eccentrically arranged engaging portion having an arcuate series of teeth adapted to be carried to either side of the said aperture by the rotary movement of the pawl, the terminal teeth being tapered inwardly and interlocking with the ratchet wheel and adapted to be clamped between the same and the adjacent side wall of the said aperture.

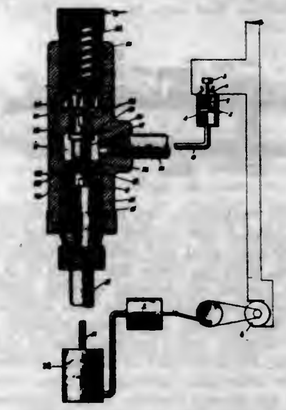
5. A ratchet mechanism of the class described, including a stock or shank provided with a recess, a ratchet wheel carried by the stock or shank and located adjacent to the recess, an operating member having an aperture receiving a ratchet wheel, and a reversible pawl mounted for rotary movement on and carried by the operating member and having an eccentrically arranged engaging portion, said engaging portion being adapted to be carried to either side of the operating member by the rotary movement of the pawl and being also adapted, when in an intermediate position, to engage the said recess to lock the operating member rigid with the stock or shank.

[Claim 6 not printed in the Gazette.]

1,138,278. PRESSURE-CONTROLLED VALVE. JOHN H. CASTLE and WILLIAM G. ROGERS, Painted Post, N. Y., assignors to Ingersoll-Rand Company, Jersey City, N. J.; a Corporation of New Jersey. Filed Sept. 25, 1913. Serial No. 791,709. (Cl. 230—24.)

1. In a pressure controlled valve, a valve chest, alined inlet and exhaust openings therein having valve seats, means to adjust the relative distance of said seats, a movable valve element having portions adapted to alternately seat on said valve seats, a spring tending to hold said valve element against said inlet valve seat, an operating surface on said valve element exposed to said inlet opening of an area sufficient to overcome said spring and open said inlet valve at a predetermined inlet pressure, a flange on said valve element adapted to utilise the velocity of the inlet current and continue the movement of said valve element to seat against said exhaust seat, and a holding surface on said valve element, exposed to said inlet pressure, of an area greater than said operating surface.

2. In a pressure controlled valve, a valve chest, alined inlet and exhaust openings therein having valve seats, means to adjust the relative distance of said seats, a movable valve element having portions adapted to alternately seat on said valve seats, a spring tending to hold said valve element against said inlet valve seat, means to adjust the tension of said spring, an operating surface on said valve element exposed to said inlet opening of an area sufficient to overcome said spring and open said inlet valve at a predetermined inlet pressure, a flange on said valve element adapted to utilize the velocity of the inlet current and continue the movement of said valve element to seat against said exhaust seat, and a holding surface on said



valve element exposed to said inlet pressure, of an area greater than said operating surface.

3. In a pressure controlled valve, a valve chest, an inlet opening into said valve chest, an exhaust opening from said valve chest of larger area than said inlet opening, a valve having portions adapted to alternately close said openings, a spring tending to hold said valve to close said inlet opening, and means for adjusting the pressure of said spring and the amount of movement of said valve.

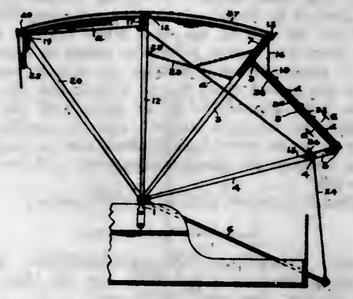
4. In a pressure controlled valve, a valve chest, an inlet opening into said valve chest, an exhaust opening from said valve chest of larger area than said inlet opening, a valve having portions adapted to alternately close said openings, a spring tending to hold said valve to close said inlet opening, and means for varying the travel of said valve.

1,138,279. TROLLEY-CONTACT. ALVA HAYS CAVEN, Youngwood, Pa. Filed May 7, 1914. Serial No. 837,042. (Cl. 246—55.)



A trolley switch, including a trolley wire supporting member, a block of insulation attached thereabove and supported thereby, a metal hood attached to the block of insulation and held in contact with the trolley carrying member by the block of insulation said metal hood being provided with two longitudinally disposed and depending parallel aprons, two insulating strips of equal length, one strip attached to the inner face of each apron, said strips being disposed in overlapped relation and each extending from its respective end of the hood to a point beyond the center of the hood, and two resilient metal plates of equal length disposed one upon each side of and parallel to the trolley wire, the terminals of said plate being connected to their respective insulating strips and thereby from the hood, the inner ends of the contact plates being disposed in overlapped relation, whereby a trolley wheel will engage one of said contact plates and when adjacent the central portion of the hood will engage both contact plates to finally engage only the second contact plate.

1,138,280. COMBINED VEHICLE STORM-FRONT AND SUN-SHIELD. THOMAS S. CRAPP, Indianapolis, Ind., assignor to Henrietta Crapp, Indianapolis, Ind. Filed Mar. 15, 1909. Serial No. 483,617. (Cl. 21—81.)



1. A folding front for vehicle tops in a plurality of sections pivoted to oscillate independently of each other about a common axis, said sections occupying different altitudes when lowered to operative positions extending outside of and below the top of the dash when lowered for use, means when the bottom section is raised in housing the front to carry the other sections up with it, means for locking the housed front to the vehicle top, all of said sections being adapted to be let down with the vehicle top when the latter is lowered, and an auxiliary front folding on pivots above said common axis to regulate the opening between the lower folding front and the folding vehicle top.

2. A folding front for vehicle tops in a plurality of sections pivoted to oscillate independently of each other about a common axis, said sections occupying different altitudes when lowered to operative positions extending outside of and below the top of the dash when lowered for use, means when the bottom section is raised in housing the front to carry the other sections up with it, means for locking the housed front to the vehicle top, means for raising said lower section, all of said sections being adapted to be let down with the vehicle top when the latter is lowered, and an auxiliary front folding on pivots above said common axis to regulate the opening between the lower folding front and the folding vehicle top.

3. A folding front for vehicle tops in a plurality of sections pivoted to oscillate independently of each other about a common axis, said sections occupying different altitudes when lowered to operative positions extending outside of and below the top of the dash when lowered for use, means when the bottom section is raised in housing the front to carry the other sections up with it, means for locking the housed front to the vehicle top, means for raising the lower section comprising a strap attached thereto and an elevated support over which the strap passes, all of said sections being adapted to be let down with the vehicle top when the latter is lowered, and an auxiliary front folding on pivots above said common axis to regulate the opening between the lower folding front and the folding vehicle top.

4. A folding front for vehicle tops in a plurality of sections pivoted to oscillate independently of each other about a common axis, said sections occupying different altitudes when lowered to operative positions extending outside of and below the top of the dash when lowered for use, means when the bottom section is raised in housing the front to carry the other sections up with it, means for locking the housed front to the vehicle top, means for lowering the lower section comprising a strap

attached thereto, an elevated support over which the strap passes, means for locking the strap at any given position to hold and support the front, all of said sections being adapted to be let down with the vehicle top when the latter is lowered, and an auxiliary front folding on pivots above said common axis to regulate the opening between the lower folding front and the folding vehicle top.

5. The combination with a folding vehicle top of a folding front for said top in a plurality of sections pivoted to oscillate independently of each other about a common axis which is also the axis of movement for the folding top, said sections occupying different altitudes when lowered to operative positions extending outside of and below the top of the dash when lowered for use, means when the bottom section is raised in housing the front to carry the other sections up with it, means for locking the housed front to the vehicle top, all of said sections being adapted to be let down with the vehicle top when the latter is lowered, and an auxiliary front folding on pivots above said common axis to regulate the opening between the lower folding front and the folding vehicle top.

[Claims 6 to 20 not printed in the Gazette.]

1,138,281. FLEXIBLE PIPE CONNECTION. WILLARD A. DODGE, Hornell, N. Y. Filed Apr. 30, 1914. Serial No. 835,490. (Cl. 137—34.)



1. In a pipe connection, the combination of two rigid members positively connected together but movable freely at an angle with respect to each other, a hose section having its ends located in said rigid members and forming a tight joint between said rigid members, and said hose section being of greater length, before insertion, than the space within which it is compressed, whereby when the connection is bent at an angle the hose section is not unduly stretched at the point of bend.

2. In a pipe connection, the combination of two rigid members positively connected together but movable freely at an angle with respect to each other, a hose section between said rigid parts forming a tight connection and being confined laterally, and said hose section being of greater length, before insertion, than the space within which it is compressed and confined, whereby when the connection is bent at an angle the hose section is not unduly stretched at the point of bend.

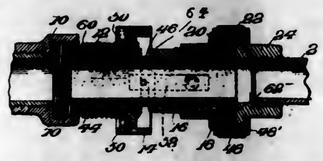
3. In a pipe connection, two rigid parts positively connected together but movable with respect to each other, in combination with a hose section between said rigid parts, said hose section having two parts formed of different diameters and being of greater length, before insertion in the connection, than the space into which it is compressed.

4. In a pipe connection, two rigid parts positively connected together but movable with respect to each other, in combination with a hose section between said rigid parts, said hose section when in normal position being confined laterally and having two parts formed of different diameters of greater length, before insertion in the connection, than the space into which it is compressed.

5. In a pipe connection, two rigid parts connected together by a ball and socket joint, whereby one of the parts may move with respect to the other, in combination with a hose section located within said ball and socket joint, said hose section being compressed lengthwise thereof so that when the parts of the ball and socket joint move with respect to each other, the hose section is not unduly stretched at the point of bend.

[Claims 6 to 16 not printed in the Gazette.]

1,138,282. FLEXIBLE PIPE CONNECTION. WILLARD ALMOND DODGE, Hornell, N. Y. Original application filed Apr. 30, 1914, Serial No. 835,490. Divided and this application filed Jan. 16, 1915. Serial No. 2,680. (Cl. 137—34.)



1. In a pipe connection, two pipe sections connected by a universal joint, a hose section within said pipe sections and said universal joint and being of greater length, before insertion, than the space into which it is fitted, one pipe section having one member of said universal joint secured thereto and confining the hose section, a second member of the universal joint being pivotally connected to said first member, and a third member of the universal joint inclosing the other part of the hose section and connected to the other pipe section and being pivotally connected with the second member of the universal joint.

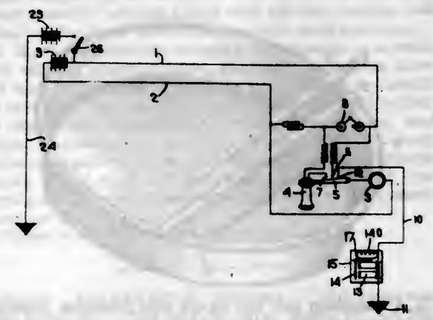
2. In a pipe connection, two pipe sections connected by a universal joint, a hose section within said pipe sections and said universal joint, said hose section having two parts of different diameters and being of greater length, before insertion, than the space into which it is fitted, one pipe section having one member of said universal joint secured thereto and confining the hose section, a second member of said universal joint being pivotally connected to said first member, and a third member of said joint inclosing the hose section of smaller diameter and connected to the other pipe section and being pivotally connected to the second member of the universal joint.

3. In a pipe connection, two pipe sections connected together by a universal joint, a hose section connecting said pipe sections within said universal joint, said hose section having two parts of different diameter, the larger part abutting against a shoulder in one pipe section and the smaller part having an annular flange abutting against a shoulder in the other pipe section, said hose section being of greater length, before insertion, than the space into which it is fitted.

4. In a pipe connection, two pipe sections, a hose section between said pipe sections, a universal joint connecting said pipe sections and confining said hose section at its central part, said hose section being of greater length, before insertion, than the space into which it is fitted.

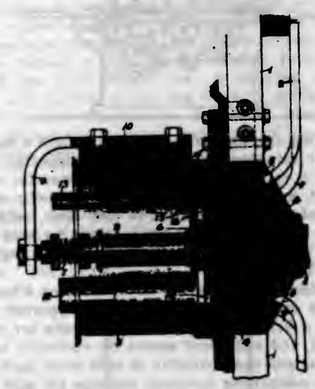
1,138,283. TELEPHONE-CALL REGISTER. WILLIAM G. DODGE and CHARLES HORACE LEAVE, Boston, Mass. Filed Mar. 20, 1914. Serial No. 826,109. (Cl. 179—18.)

1. In a telephone call recorder, the combination with a telephone circuit including a subscriber's telephone set, of an electrically-actuated call recorder, a circuit therefor normally continuous through said recorder and having a terminal situated to be engaged by the hook of the subscriber's instrument when the receiver is removed therefrom whereby the removal of the receiver will automatically connect said call recorder circuit to one side of the telephone circuit, and means operable from the central station to supply to said side of the telephone circuit and call recorder circuit a current of sufficient volume to operate the latter without interfering with any conversation being carried on over the telephone circuit.



2. In a device of the class described, the combination with a telephone circuit including a subscriber's telephone set, of a grounded normally continuous connection having a terminal situated to be engaged by the hook of the subscriber's set when the receiver is removed therefrom whereby said grounded connection is connected to one side of the telephone-circuit, an electrically-actuated recording device in said grounded connection, and means at the central station to send through said side of the telephone circuit and the grounded connection a call-recording current of sufficient volume to operate the recording device without interfering with any conversation being carried on over the telephone circuit.

1,138,284. METALLURGICAL APPARATUS. HENRY B. FABER, Brooklyn, N. Y. Filed Jan. 16, 1915. Serial No. 2,684. (Cl. 137—7.)



1. In metallurgical apparatus, parts formed of such dissimilar metals as are possessed of capacity for largely resisting corrosion in the presence of dissociating solvent, and means for largely preventing galvanic action between the metals.

2. In metallurgical apparatus, parts formed of such dissimilar metals as are possessed of capacity for largely resisting corrosion in the presence of dissociating solvent, and an insulator between the parts largely preventing galvanic action.

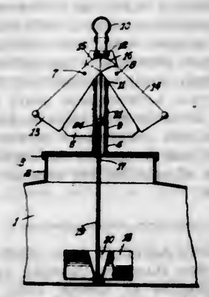
3. In metallurgical apparatus, parts formed of such dissimilar metals as are possessed of capacity for largely resisting corrosion in the presence of dissociating solvent, and a sheet of a third metal possessed of capacity for largely resisting dissociation in the presence of dissociating solvent, said sheet being disposed between and preventing contact of the first-named parts and largely preventing galvanic action.

4. In metallurgical apparatus, parts formed of such dissimilar metals as are possessed of capacity for largely resisting corrosion in the presence of dissociating solvent, and an iron-glass insulator between the parts.

5. In metallurgical apparatus, a part formed of hard lead, a coöperating part formed of bronze, and an insulator between the two parts of a material possessed of capacity for largely resisting dissociating in the presence of a dissociating solvent.

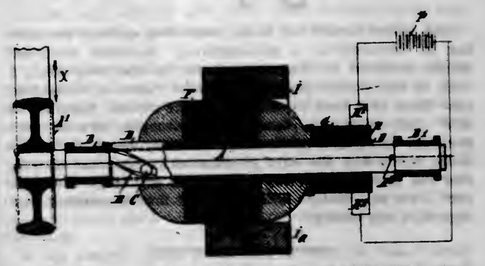
[Claims 6 and 7 not printed in the Gazette.]

1,138,285. WATER-GAGE. WILLIAM F. GREEN, Modesto, Cal. Filed Feb. 4, 1913. Serial No. 746,159. (Cl. 116—31.)



The combination with an automobile tank having a filling aperture, of a cover for said filling aperture, a water level signal mounted on said cover and comprising in combination, a vertical tubular member provided with slots in the upper portion thereof, shields carried by said tubular member, signal blades pivoted to said shields and having curved overlapping portions, said blades being adapted to normally be concealed by said shields, an actuating bar extending through the slots in the vertical tubular member and in operative engagement with the said pivoted signal blades, a float disposed in said tank, a vertical rod carried by said float, and flexible members connecting the upper end of said rod with said actuating bar whereby the signal blades are moved into their extended position.

1,138,286. DYNAMO-ELECTRIC MACHINERY. LEON VICTOR GRILLET and JEAN BAPTISTE TRUCHETET, Paris, France. Original application filed Oct. 18, 1911, Serial No. 655,325. Divided and this application filed Jan. 9, 1914. Serial No. 811,234. (Cl. 171—313.)



1. In an electrical generator, the combination of a field structure, an armature, a shaft, a sleeve mounted loosely on said shaft, a commutator carried by said sleeve, brushes on said commutator but insulated therefrom on axial movement of said commutator and a driving connection between said shaft and said sleeve causing relative axial movement between the two.

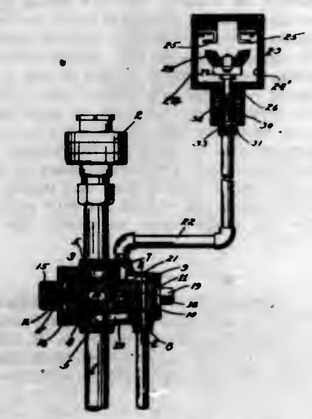
2. In an electrical generator, the combination of a field structure, a shaft, a sleeve mounted loosely on said shaft, an armature carried by said sleeve, a commutator carried by said sleeve, brushes on said commutator, an external circuit connected to said generator, a driving

connection between said shaft and said sleeve causing relative axial motion between the two and means operated by this motion to change the connections between the external circuit and the generator.

3. In an electrical generator the combination of a field structure, a shaft, a sleeve mounted loosely on said shaft formed with a helical groove at one end, a driving pin fixed to said shaft and engaging in the groove to drive said sleeve and to move it axially, an armature carried by said sleeve, a commutator carried by said sleeve, and brushes contacting with said commutator but insulated therefrom upon the axial movement of the commutator with said sleeve.

4. In an electrical generating system, the combination of a field structure, a shaft, an armature slidable upon said shaft, a commutator integral with said armature, an insulating ring integral with said commutator, brushes in contact with said commutator but contacting with said insulating ring upon axial movement of the commutator, a driving connection between said shaft and said armature causing the latter to slide upon said shaft, a secondary battery, electrical connections between said brushes and said battery, and means for insulating said brushes when the voltage of said battery exceeds that generated by said armature.

1,138,287. SAFETY-SWITCH FOR ELECTRIC TRAIN CONTROLS. ROY HAMLEN, Oakland, Cal., assignor of forty one-hundredths to George Tate, Oakland, Cal. Filed Mar. 31, 1914. Serial No. 828,527. (Cl. 188—4.)



In a safety switch for train controlling systems comprising in combination a pneumatically operated electrical switch adapted to close the circuit to the controller, a cock in the supply pipe to the brake valve, a connecting pipe from said cock to said pneumatic switch, the plug of said cock having a plurality of passages, two of said passages being adapted to simultaneously admit air to the brake valve and the said pneumatically operated switch, and the third passageway adapted to discharge the pressure from said switch when the said first mentioned passageways are closed.

1,138,288. NUT-DISH. JAMES M. HARPER, Chicago, Ill., assignor to Harper Supply Company, Chicago, Ill., a Corporation of Illinois. Filed May 7, 1914. Serial No. 836,875. (Cl. 65—15.)

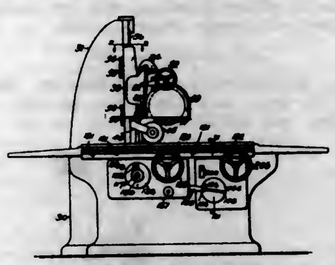
1. A household nut dish of the type described, comprising an open top dish having a transverse partition dividing the same into a pair of compartments, and means on the upper edge of said partition for holding a nut-pick, substantially as set forth.

2. A household nut dish of the type described, comprising an open top dish having a transverse partition dividing the same into a pair of compartments, the upper edge of said partition carrying a trough shaped holder for a nut-pick, substantially as set forth.



3. A household nut dish of the type described, comprising an open top dish having a transverse partition dividing the same into a pair of compartments, the upper edge of said partition carrying a trough shaped holder the side walls of which are cut away midway their length, substantially as set forth.

1,138,289. SURFACE-GRINDING MACHINE. JAMES N. HEALD and ALDEN M. DRAKE, Worcester, Mass., assignors to Heald Machine Company, Worcester, Mass., a Corporation of Massachusetts. Filed Jan. 15, 1915. Serial No. 2,467. (Cl. 51—12.)



1. A grinding machine having in combination a movable work table, a grinding wheel and shaft supported above said table in a vertically movable head, means for elevating said head, and additional means for vertically adjusting said wheel and shaft relative to said table, said additional means comprising eccentric bearings for said shaft in said head, and manually operated devices for angularly moving said bearings.

2. A grinding machine having in combination a movable work table, a grinding wheel and shaft supported above said table in a vertically movable head, means for elevating said head, and additional means for vertically adjusting said wheel and shaft relative to said table, said additional means comprising eccentric bearings for said shaft in said head, and manually operated devices for angularly moving said bearings, the axes of said shaft and said bearings being separated a substantial distance and being so relatively disposed that angular movement of said bearings will cause substantially proportional vertical movement of said shaft.

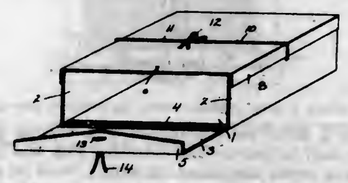
3. A grinding machine having in combination a movable work table, a grinding wheel and shaft supported above said table in a vertically movable head, means for elevating said head, and additional means for vertically adjusting said wheel and shaft relative to said table, said additional means comprising eccentric bearings for said shaft in said head, and manually operated devices for angularly moving said bearings, said devices comprising a gear fixed to said bearings, a hand wheel on said head, and driving connections from said hand wheel to said gear.

4. A grinding machine having in combination a movable work table, a grinding wheel and shaft supported above said table in a vertically movable head, means for elevating said head, and additional means for vertically adjusting said wheel and shaft relatively to said head, said means comprising an eccentric bearing for said shaft, a second eccentric bearing alined with the first bearing, and means to angularly move said bearings simultaneously.

5. A grinding machine having in combination a movable work table, a grinding wheel and shaft supported above said table in a vertically movable head, means for elevating said head, and additional means for vertically adjusting said wheel and shaft relatively to said head, said means comprising an eccentric bearing for said shaft, means to angularly adjust said bearing, a second eccentric bearing alined with the first bearing, and an arm connecting said bearings and constraining them to move simultaneously.

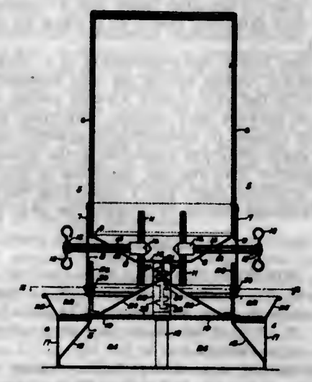
[Claims 6 to 18 not printed in the Gazette.]

1,138,290. RECEPTACLE. AMANDA C. HEIMBUECHER, St. Louis, Mo. Filed May 16, 1914. Serial No. 838,995. (Cl. 229—46.)



A receptacle comprising a bottom, side and end walls, one end and the upper sides of said receptacle being entirely open, a flap hinged to the edge of the bottom wall at the open end thereof, a lid for the upper open side of said receptacle, a tongue formed on the free longitudinal edge of the flap and being normally extended inwardly at right angles to the flap, a flexible element secured to the tongue, extended through the central part of the flap and arranged to be wound about the receptacle and said flexible element having a stop formed thereon intermediate its ends at the part thereof that is disposed between the tongue and opening in the flap through which the flexible element passes whereby the tongue is prevented being pulled inwardly against the inner face of the flap upon a pull on the flexible element.

1,138,291. DISPENSING APPARATUS. WALTER A. HILLIARD, Malden, Mass., assignor to W. A. Hilliard Company, Boston, Mass., a Corporation of Massachusetts. Filed Dec. 4, 1912. Serial No. 734,810. (Cl. 211—9.)



1. A dispensing apparatus having, in combination, a base and a superposed receptacle having interengaging means permitting them to be relatively adjusted by simply shifting their point of interengagement, said receptacle having an open bottom above said base.

2. A dispensing apparatus having, in combination, a base and a superposed receptacle having interengaging means permitting them to be relatively adjusted by simply relatively turning one upon the other about an axis and relatively moving them longitudinally of said axis, said receptacle having an open bottom above said base.

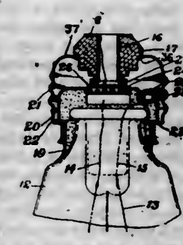
3. A dispensing apparatus having, in combination, a base and a superposed receptacle, one provided with a plurality of lateral notches, and the other provided with means supported in said notches, said receptacle having an open bottom above said base.

4. A dispensing apparatus having, in combination, a base and a superposed receptacle, one provided with a plurality of series of lateral notches, the several notches of each series being located one above another, and the other being provided with means supported in a notch of each series, said receptacle having an open bottom above said base.

5. A dispensing apparatus having, in combination, a base, and a superposed receptacle, one provided with a plurality of slots and notches leading laterally therefrom and the other being provided with means supported in said notches, said receptacle having an open bottom above said base.

[Claims 6 to 13 not printed in the Gazette.]

1,138,292. LOCKING-LAMP. HARVEY HUBBELL, Bridgeport, Conn. Filed Feb. 1, 1913. Serial No. 745,640. (Cl. 176—31.)



1. An electric lamp comprising a bulb, an inner lamp base shell secured to said bulb, a contact member connected with but insulated from said inner shell, conductors communicating with said bulb and connected with said contact member and inner shell, respectively, an outer threaded lamp base shell mounted to turn on said inner shell, one of said shells having a shoulder, and a pawl pivoted to the other of said shells for engaging said shoulder and causing said outer shell to turn with said inner shell when said inner shell is turned in one direction.

2. An electric lamp comprising a bulb, an inner lamp base shell secured to said bulb, a contact member connected with but insulated from said inner shell, conductors communicating with said bulb and connected with said contact member and inner shell, respectively, an outer threaded lamp base shell mounted to turn on said inner shell and having a shoulder, and a pawl pivoted to said inner shell for engaging said shoulder and turning said outer shell when said inner shell is turned in one direction.

3. An electric lamp comprising a bulb, an inner lamp base shell secured to said bulb, an outer threaded lamp base shell having a pair of oppositely disposed shoulders arranged in different positions longitudinally of said shell, and a pawl pivoted to said inner shell and having oppositely disposed ends adapted to coöperate with said shoulders respectively, said shells being relatively longitudinally movable to bring said pawl into a position to engage either of said shoulders.

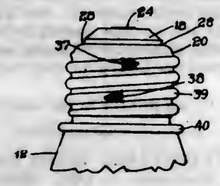
4. An electric lamp comprising a bulb, a button, a tube passing through said button, a flanged washer carried by the inner end of said tube, an inner lamp base shell secured to said bulb and having an opening and teeth pro-

jecting into said opening and engaging the flange on said washer, an outer threaded lamp base shell mounted to turn on said button and on said inner shell, and means for operatively connecting said shells for movement in unison when said inner shell is turned in one direction.

5. An electric lamp comprising a bulb, a button, a tube passing through said button, a flanged washer carried by the inner end of said tube, an inner lamp base shell secured to said bulb and having an opening and teeth projecting into said opening and engaging the flange on said washer, an outer threaded lamp base shell mounted to turn on said button and on said inner shell, and means carried by said inner shell for engaging and turning said outer shell when said inner shell is turned in direction.

[Claim 6 not printed in the Gazette.]

1,138,293. LOCKING-LAMP. HARVEY HUBBELL, Bridgeport, Conn. Filed Apr. 9, 1913. Serial No. 759,922. (Cl. 176—31.)



1. An electric lamp comprising a bulb and a lamp base, said lamp base including an outer shell adapted for attachment to a lamp socket, an inner shell longitudinally movable in the outer shell and secured to said bulb and means operatively connecting said shells for rotation in an opposite direction at each extreme of the longitudinal movement of the inner shell, to permit the lamp to be secured within or removed from the lamp socket.

2. An electric lamp comprising a bulb and a lamp base, said lamp base including an outer shell adapted for attachment to a lamp socket, an inner shell secured to said bulb and adapted to receive forcible longitudinal movement in said outer shell but normally retained at one extreme of its movement and means for operatively connecting said shells for rotation in an opposite direction at each extreme of the longitudinal movement of the inner shell to permit the lamp to be secured within or removed from the lamp socket.

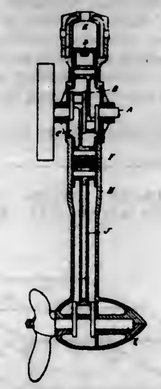
3. An electric lamp comprising a bulb and a lamp base, said lamp base including, in combination, an inner shell fixed to the bulb, an outer shell rotatably and longitudinally movable relatively thereto, and means connecting said shells and operative when the bulb is turned in one direction to cause engagement of the outer shell with a lamp socket, and inoperative when the bulb is turned in the opposite direction without longitudinal movement and causing removal of the lamp when turned in the opposite direction after longitudinal movement.

4. An electric lamp comprising a bulb and a lamp base, said lamp base including, in combination, two rotatable shells one of which is secured to said bulb and the other of which is adapted for attachment to a lamp socket, said first-mentioned shell having longitudinal movement also, and means connecting said shells alternatively operative to transmit rotation of one shell to the other in opposite directions to cause the lamp to be secured within a lamp socket or removed therefrom after longitudinal movement of the first-mentioned shell.

5. In an electric lamp, a lamp base comprising, in combination, two members having relative rotary and longitudinal movement for placing in attaching and detaching positions, one of said members having means for attachment to a lamp socket, and means connecting said members to permit attachment of said base and socket, said means being inoperative to permit detachment of said base and socket when said members are in attaching position, and being brought into position to permit detachment of said base and socket by longitudinal movement of one of said members.

[Claims 6 to 18 not printed in the Gazette.]

1,138,294. BOAT-MOTOR. OSCAR WALFRID HULT, Stockholm, Sweden. Filed Aug. 25, 1914. Serial No. 858,577. (Cl. 115—17.)



1. In a motor the combination of a working piston, a motor shaft having a crank connected with said piston, a balancing piston also connected with a crank on said motor shaft, and a driving shaft having a crank connected with said balancing piston.

2. In a motor the combination of a working piston, a balancing piston having its axis substantially in alinement with the axis of said working piston, a motor shaft located between said pistons, means for connecting said pistons to diametrically opposed cranks on said motor shaft, a driving shaft, and means for operating said driving shaft from said balancing piston.

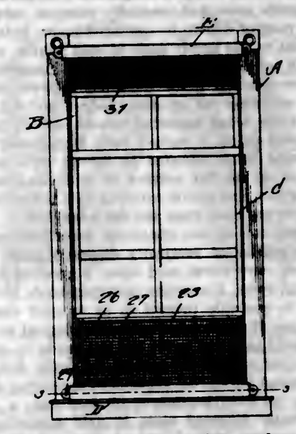
3. In a motor the combination of a working piston, a balancing piston having its axis substantially in alinement with the axis of said working piston, a motor shaft located between said pistons, means for connecting said pistons to diametrically opposed cranks on said motor shaft, the crank connected to the balancing piston being shorter than the one connected to the working piston, a driving shaft, and means for operating said driving shaft from said balancing piston.

4. In a boat motor, the combination of a working piston, a balancing piston having its axis substantially in alinement with the axis of said working piston, a motor shaft located between said pistons, connecting rods connecting said pistons to diametrically opposed cranks on said motor shaft, a propeller shaft, and a connecting rod connecting said balancing piston to a crank on said propeller shaft.

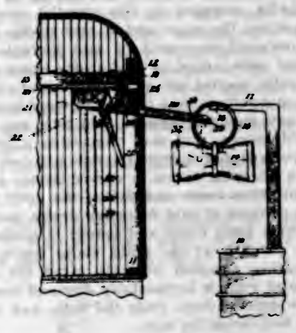
5. In a boat motor, the combination of a working piston, a balancing piston having its axis substantially in alinement with the axis of said working piston, a motor shaft located between said pistons, connecting rods connecting said pistons to diametrically opposed cranks on said motor shaft, the crank connected to the balancing piston being shorter than the one connected to the working position, a propeller shaft, and a connecting rod connecting said balancing piston to a crank on said propeller shaft.

1,138,295. WINDOW-SCREEN. WILLIAM E. JAMES, Carbon, W. Va., assignor of one-third to Edward J. Beer, Cincinnati, Ohio, and one-third to Emil F. Hocke, Carbon, W. Va. Filed Jan. 30, 1914. Serial No. 815,464. (Cl. 156—39.)

The combination of a window frame, casings mounted on said frame at the top and bottom thereof respectively, each of said casings including inwardly directed mouths extending across the entire casing, hinged bottoms included in said casings respectively for affording access to the interior thereof, upper and lower sashes slidable in the frame, spring rollers mounted in said casing respectively, screens wound upon said rollers and trained through the mouths of the containing casing and connected respectively to the upper and lower sashes, and a guide roller mounted on said frame and over which the screen attached to the upper sash travels.



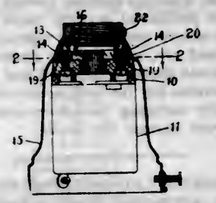
1,138,296. MAIL-BAG CATCHER. MICHAEL JOWSKI, North Tonawanda, N. Y. Filed Feb. 2, 1915. Serial No. 5,727. (Cl. 258—24.)



1. A mail bag catching device comprising a swingingly mounted arm, an operating lever for the said arm, a normally vertically positioning expansion spring attached to the said arm, a cleat having a transverse notch therein positioned in the line of travel of the said arm and at the extreme upper limit thereof, a spring pressed automatic arm engaging means carried by the said cleat, a mail bag engaging angular extension at the free end of said arm provided with a bottom groove, a weighted lock bar having one end pivoted to said extension within the said groove thereof, a releasing catch for the said bar, an operating plate for the said catch carried by the said arm at the base of the said extension.

2. A device of the class described comprising a swinging resilient arm, a vertical positioning means for the said arm, a stationary cleat having a notch therein adapted for the reception of the said arm laterally shiftable therein, a resilient engaging catch for the said arm carried by the said cleat at one side of the said notch, an angular extension at the free end of said arm, a weighted swinging lock bar pivoted adjacent the outer end of the said extension and a resiliently held automatically releasable catch device for the said bar carried by the said extension and arm.

1,138,297. ELECTRIC SOCKET AND SHADE-HOLDER. GEORGE P. KNAPP, Bridgeport, Conn., assignor to Harvey Hubbell, Incorporated, Bridgeport, Conn., a Corporation of Connecticut. Filed Aug. 3, 1914. Serial No. 854,743. (Cl. 240—114.)



1. The combination with a socket body having recesses, of a shade holder having lugs engaging said recesses, and a cap having bosses engaging said recesses and gripping the lugs upon the shade holder.

2. The combination with a socket body having a shoulder and recesses, of a shade holder having a flange adapted to rest on the shoulder and lugs adapted to engage the recesses, and a cap having bosses adapted to pass into the recesses and grip the lugs upon the shade holder.

3. The combination with a socket body having a shoulder and recesses, of a shade holder having a flange adapted to rest on the shoulder and lugs adapted to engage the recesses, and a cap having a flange adapted to engage the flange on the shade holder and bosses adapted to pass into the recesses in the body and grip upon the shade holder.

4. The combination with a socket body comprising upper and lower members, said upper member having recesses, of a shade holder having lugs engaging said recesses, a cap having bosses engaging the recesses and gripping the lugs upon the shade holder and means for attaching the body members together after the shade holder has been locked between the upper member and the cap.

5. The combination with a socket body comprising upper and lower members, and a cap, of a shade holder gripped between the upper member and the cap, means for securing the upper member and cap together with the shade holder in place, and means for securing the body members together after the shade holder is locked in place.

[Claim 6 not printed in the Gazette.]

1,138,298. KNEE-JOINT. WILLIAM F. LANG, Pittsburgh, Pa. Filed Mar. 9, 1915. Serial No. 13,198. (Cl. 3—3.)



1. A knee joint including a member having an eye, a sleeve screwed into the eye and having a smooth peripheral portion, a second member having an eye journaled on said smooth peripheral portion, there being a head at one end of the sleeve and bearing against the outer face of the last named eye, anti-friction devices interposed between the eyes and between the head and the eye adjacent thereto, a removable key for locking the sleeve to the other eye, a ductile gasket keyed to the sleeve, teeth upon the last named eye for engaging said gasket, and a screw engaging the sleeve and having a head for binding the gasket against the teeth and the sleeve.

2. A knee joint including separate members, eyes thereon arranged side by side, one of said eyes having a threaded bore and the other eye having a smooth bore, there being a counterbore in the outer face of each eye, the inner wall of the counterbore in the threaded eye being toothed, a sleeve having a smooth peripheral portion constituting a bearing for one of the eyes and having a threaded peripheral portion engaging the threaded bore in the other eye, a head upon the sleeve seated in one of the counterbores, a ductile gasket bearing against that end of the

sleeve remote from the head and engaged by the teeth in the toothed counterbore, and a screw extending into the sleeve and having a head bearing against the gasket.

3. A knee joint including a member having an eye, a sleeve screwed into the eye and having a smooth peripheral portion, a second member having an eye journaled on said smooth peripheral portion, there being a head at one end of the sleeve and bearing against the outer face of the last named eye, anti-friction devices interposed between the eyes and between the head and the eye adjacent thereto, a removable key for locking the sleeve to the other eye, and a screw engaging the sleeve and having a head adapted to thrust against the sleeve.

1,138,299. ELECTRICAL DRIVING SYSTEM. HENRY COOK LEAKE, Altrincham, England, assignor to Vickers, Sons & Maxim, Limited, Westminster, England. Filed June 6, 1910. Serial No. 565,341. (Cl. 172—239.)



1. The combination of an electric motor, means for supplying constant current to its terminals and a shunt across its terminals adapted to cause the ampere turns on the motor to vary inversely with the speed over a considerable range of speed.

2. The combination of an electric motor having a field winding and armature, means for supplying constant current to said motor, a shunt across the armature of said motor and independent of the field winding and means for varying the number of turns of the field winding and the resistance of said shunt simultaneously.

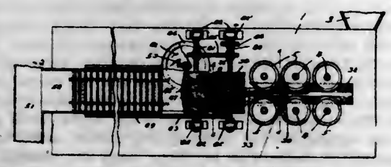
3. The combination of an electric motor having an armature, means for supplying constant current to said motor, a shunt across the armature of said motor and means for causing the current in the shunt to vary with the ampere turns on the field.

4. The combination of an electric motor, means for supplying constant current to said motor and means for causing the ampere turns on the armature to vary inversely with the speed over a considerable range of speed and for changing the rate of variation of the ampere turns on the armature with the speed.

5. The combination of an electric motor having an armature and field winding, means for supplying constant current to its terminals, a shunt across the armature independent of the field and means for varying simultaneously said shunt and the ampere turns on the motor field.

[Claims 6 to 19 not printed in the Gazette.]

1,138,300. FISH-SPLITTING MACHINE. CHRIS LETIN and FRETZ FREY, San Francisco, Cal. Filed Mar. 11, 1914. Serial No. 823,892. (Cl. 17—10.)



1. In a machine of the character described comprising a table, means carried thereby for gripping fish and carrying the same forward, a knife adapted to slit the fish along the back to one side of the bone therein, means for flattening the fish and viscerating the same, and a saw adapted to sever the bone from the flattened fish.

2. In a machine of the character described comprising a table, a plurality of vertically disposed gripping rolls for carrying the fish forward, a vertically disposed knife having a plurality of splitting members, means partly inclosing said knife adapted to flatten said fish after being slit by said knife, and a horizontally disposed saw adapted to cut the bone from said fish after being flattened.

3. In a machine of the character described comprising a table, a plurality of vertically disposed shafts mounted therein, said shafts being arranged in two parallel rows, a grooved guide arranged centrally between said rows of shafting to receive fish to be operated upon, fluted conical rolls attached to the upper ends of said shafts, means for rotating said rolls so as to carry said fish forward, a knife rotating in a vertical plane mounted between said rows of rolls, a plurality of splitting edges carried by said knife, said knife being mounted to one side of the center of said grooved guide, a curved vane fitting over the rear portion of said knife adapted to spread and flatten the fish, openings in the flat portion of said vane adapted to viscerate the fish, and a saw rotating in a horizontal plane adapted to cut the bone from the flattened fish.

4. In a machine of the character described comprising a table, a plurality of vertically disposed guide rolls arranged in two rows above said table, a grooved guide central with said rows, a rotating splitting knife mounted in said groove to one side thereof so as to split the fish adjacent the bone thereof, a curved vane adapted to embrace the rear of said saw and enter the slit made by said knife said vane being shaped to spread the split fish, a horizontally disposed fluted roll above said spreading device, to continue the forward movement of said fish, a plurality of longitudinally disposed slots in said spreading device adapted to remove the viscera, a horizontally disposed saw adapted to cut the bone from the fish, a fluted roll above said saw adapted to hold the fish flat upon said saw, spring mounted journals for said horizontal rolls to allow for varying sized fish and means for driving said saw, said cutter and said rolls.

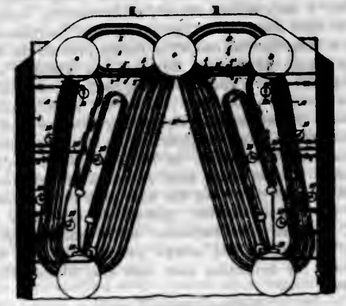
5. In a machine of the character described for splitting, cleaning, flattening and removing the bone from fish comprising in combination a table, a plurality of vertically disposed shafts arranged in two parallel rows slidable journals carrying the upper end of said shafts, springs to allow the outward movement of said journals, inverted conical fluted rolls carried by said shafts above said table, a grooved guide central between said rows of rolls, means for driving said rolls to urge the fish forward in said guide, a splitting saw mounted between said rolls and extending through said groove, said saw comprising a plurality of curved knives adapted to split the fish adjacent the backbone with a chopping action, a curved device adapted to enter the slit thus made and flatten the split fish, horizontal rolls in front of said flattening device, the said last mentioned rolls being fluted and shaped to conform to the outlines of the fish at the point above which they are mounted, spring mounted journals carry the shafts of said horizontal rolls, a horizontally disposed saw adapted to sever the exposed bone from the flesh, and means for lifting this flesh from the saw.

1,138,301. BOILER-FLUE-CLEANER SYSTEM. FREDERICK W. LINAKER, Dubois, Pa., assignor to The Vulcan Soot Cleaner Co., of Pittsburg, Pa., Dubois, Pa., a Corporation of New Jersey. Filed Nov. 3, 1914. Serial No. 870,125. (Cl. 122—392.)

1. The combination with a boiler having banks of tubes and a baffle above said tubes between the drums of the boiler, of a stationary distributing pipe above said baffle and having nozzles projecting through the baffle to project cleaning fluid onto the upper portions of said banks of tubes.

2. The combination with a boiler having banks of tubes, water drums to which the tubes are connected at their upper ends, and a baffle between said drums, of a fluid distributing pipe above said baffle and having discharge nozzles projected through the baffle at an acute angle to the axis of the distributing pipe for projecting cleaning fluid onto the upper portions of said banks of tubes.

3. The combination with a boiler having banks of tubes, water drums to which the tubes are connected at their upper ends, and baffles between said drums, of a stationary distributing pipe located above the baffle and having nozzles projected through the baffle for distributing cleaning fluid onto the upper portions of the banks of tubes, and rotary distributing pipes arranged within the furnace space of the boiler.

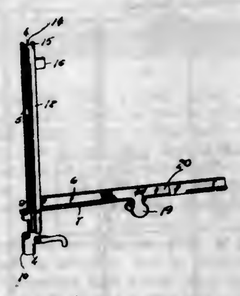


4. The combination with a boiler having banks of tubes, water drums to which the tubes are connected at their upper ends, a baffle between said drums at the top of the bank of tubes, and a superheater structure of a pair of distributing pipes arranged above said baffle and having nozzles extending downwardly through the baffle, the nozzles of one of said pipes being directed to project cleaning fluid onto the upper portions of the boiler tubes, and the nozzles of the other pipe being directed to project cleaning fluid onto the upper portion of the superheater structure.

5. The combination with a boiler having banks of tubes, water drums to which the tubes are connected at their upper ends, a baffle between said drums at the top of the bank of tubes, and a superheater structure, of a pair of distributing pipes arranged above said baffle and having nozzles extending downwardly through the baffles, the nozzles of one of said pipes being directed to project cleaning fluid onto the upper portions of the boiler tubes, the nozzles of the other pipes being directed to project cleaning fluid onto the upper portion of the superheater structure, and a feed pipe common to both of said distributing pipes.

[Claims 6 to 9 not printed in the Gazette.]

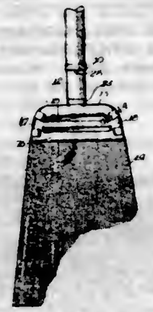
1,138,302. MUSIC-CLAMP. WILLIAM W. MALONE and EDWARD V. MALONE, Piqua, Ohio. Filed Nov. 25, 1913. Serial No. 803,069. (Cl. 45—61.)



1. A sheet clamp comprising a strip, a second strip extending laterally therefrom, means carried by the second strip for clamping the sheet thereto and a holding strip detachably associated with the first strip for holding an edge of the sheet thereagainst.

2. A music leaf clamp including an upright strip having a recess in its upper end, a horizontally extending strip carried by said upright strip, sheet securing means on the last-named strip, a holding strip extending longitudinally of said upright strip and terminating at the upper end in a hook fitting in a recess in the upper edge of said upright strip, and the lower end of said upright strip being formed with a socket for receiving the lower end of said holding strip.

1,138,303. BROOM. HUGH M. MARSH, Chicago, Ill. Filed Feb. 6, 1914. Serial No. 816,923. (Cl. 15—19.)



1. In a device of the kind described, in combination, a body of strands, a pair of clamping plates compressing the strands and having oppositely bowed registering shanks forming a handle socket, means permanently connecting the ends of the plates and binding them together upon the strands, a fixed ring encircling the said shanks at their inner ends and binding the plates together intermediate the ends of the plates, a handle fitting the said socket between the shanks, and means detachably connecting the handle and shanks.

2. In a device of the kind described, in combination, a body of strands, a pair of clamping plates compressing the strands and having oppositely bowed registering shanks forming a handle socket, means extending about the margins of the body of strands permanently connecting the ends of the plates and binding them together upon the strands, a fixed ring encircling the said shanks at their inner ends and binding the plates together, the said ring being the only means permanently connecting the plates intermediate their ends, a handle fitting the said socket between the shanks, and releasable means compressing the said shanks upon the handle.

3. In a device of the kind described, in combination, a body of strands, a pair of permanently connected clamping plates compressing the strands and having elastic oppositely bowed registering shanks forming a handle socket and one of said shanks being apertured adjacent its outer end, a handle having an end of reduced diameter for entering the said socket between the shanks and a shoulder higher than the thickness of the shanks for engaging the outer ends of the shanks, a pin set into the handle in line with the said shank aperture and projecting from the handle a greater distance than the thickness of the apertured shank, and a compressing ring running on the shanks and movable over the projecting end of the said pin into the space between the pin and the said handle shoulder.

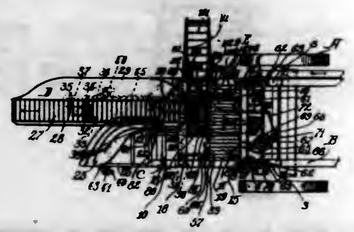
4. In a device of the kind described, in combination, a body of strands, and a pair of clamping plates compressing the strands and having intercalating fingers and apertures, each of the said fingers being folded about the margins of the body of strands and of the apertured plate and entering the body of strands through the plate aperture and engaging the apertured plate upon the inside adjacent the aperture.

5. In combination, a broom body of corn strands and a handle, a pair of clamping jaws compressing the body and having oppositely bowed registering shanks forming a split tubular socket for receiving the handle, one of the shanks being apertured and the handle being provided with a reduced end portion adapted to enter the socket and with a shoulder of greater depth than the thickness of the shanks adapted to abut against the ends of the shanks, a pin having a rounded end projecting from the

reduced end portion of the handle a greater distance than the thickness of the apertured shank and adapted to enter the aperture of such shank, and a compressing ring sliding on the shanks, such ring being adapted to yieldingly pass over the projecting rounded end of the pin and to abut against the shoulder on the broom handle.

[Claim 6 not printed in the Gazette.]

1,138,304. MACHINE FOR HARVESTING AND REDUCING CORN OR OTHER GROWTH TO SILAGE. DANIEL MEYER, Morris, Minn. Filed June 28, 1913. Serial No. 776,401. (Cl. 56—107.)



1. A machine of the character set forth, comprising, in combination, a vehicle, a frame detachably mounted upon said vehicle in extension thereof, a longitudinal trough on said frame, a carrier in said trough, a silage cutter disposed at the rearward end of said trough to which said conveyer is adapted to feed the stalks of corn, a corn stalk harvesting cutter at one side of said trough, a mold frame forwardly adjacent said cutter adapted during the forward movement of the machine to tip the corn stalks as cut over into said trough and onto said carrier with their butt ends toward said silage cutter and means for actuating said carrier and stalk and silage cutters, for the purposes specified.

2. A machine of the class set forth, comprising, in combination with a vehicle body, a supporting frame hinged upon said body to swing up, means for adjusting the height at which said frame is supported above the ground, carrying wheel elements adapted to support the outer free end of said frame on the ground, a corn harvesting cutter journaled on said frame, a silage reducing cutter on said frame, means for turning the cut corn from standing into substantially horizontal position with their butt ends facing said silage reducing cutter, and means for conducting said corn while in horizontal position butt first into engagement with said silage reducing cutter.

3. A machine of the class set forth, comprising, in combination with a vehicle body, a supporting frame hinged upon said body to swing up, stops interposed between said frame and body adapted to limit the downward swinging movement of said frame, means for adjusting the height at which said frame is supported above the ground, carrying wheel elements adapted to support the outer free end of said frame on the ground, a corn harvesting cutter journaled on said frame, a silage reducing cutter on said frame, means for turning the cut corn from standing into substantially horizontal position with their butt ends facing said silage reducing cutter, and means for conducting said corn while in horizontal position butt first into engagement with said silage reducing cutter.

4. A machine of the class set forth, comprising, in combination with a vehicle body, a supporting frame hinged upon said body to swing up, carrying elements selectively positioned to vary the height at which the forward free end of said frame is adapted to be supported on the ground, a corn cutter carried by said frame adapted to harvest standing corn, a silage cutter back of said corn cutter and a substantially horizontal conveyer extending forward on said frame at one side of said corn cutter and backward to said silage cutter, said conveyer being hinged upon said frame to swing up, means for adjustably supporting the free end of said conveyer to vary its height on said frame, and a mold frame coacting with said corn cutter and conveyer to tip the standing corn as cut into horizontal position on said conveyer with the butt ends of the corn stalks in position to advance toward said silage cutter.

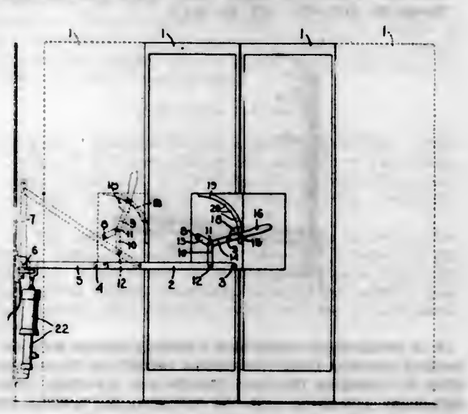
5. A machine of the class set forth, comprising, in combination, a supporting frame, a harvesting cutter journaled in said frame, a silage cutter also journaled in said frame, a longitudinal conveyer frame pivoted on said supporting frame having its forward end adapted to swing up, said conveyer frame being disposed at one side of said corn cutter and extending rearwardly to said silage cutter, means for adjustably supporting the free end of said conveyer frame on said supporting frame, a horizontal conveyer belt in the bottom of said trough, a mold frame adapted to tilt standing corn as cut over into horizontal position on said belt with the butt ends of the corn stalks facing said silage cutter, guards at the sides of said trough, a transverse conveyer below said silage cutter adapted to deliver the silage away from said machine and means for actuating said corn and silage cutters and conveyers.

1,138,305. BROOM-COVER. MARIE MILLER, New York, N. Y. Filed Sept. 21, 1914. Serial No. 862,803. (Cl. 15—28.)



A broom cover comprising a fabric bag shaped to completely incase the head of a broom and provided at one end with a constricted opening for encircling the broom handle adjacent the head, a closure flap formed with one wall of the bag to fold upon the opposite wall thereof and cover the lower end of the broom head, and fastening means on said last named wall and flap.

1,138,306. DOOR-OPERATING DEVICE. LEWIS C. NORTON, Chicago, Ill., assignor to Norton Door Check Company, Chicago, Ill., a Corporation of West Virginia. Filed Jan. 5, 1915. Serial No. 806. (Cl. 70—102.)



1. The combination with a door, of a door-operating device, an actuating member movably connected to the door and by which the door-operating device is actuated, a locking member carried by the door, and means associated with said member and coöperating with said locking member to lock the door against opening movement after it has been closed to a predetermined extent while permitting it to close freely.

2. The combination with a door, of a door-operating device, a lever pivoted to the door and by which the door-operating device is actuated, a locking bar carried by the door, and means associated with said lever and coöperating with said locking bar to lock the door against opening movement after it has been closed to a predetermined extent while permitting it to close freely.

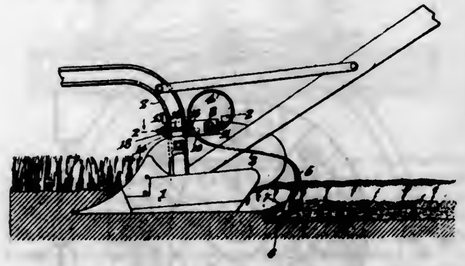
3. The combination with a door, of a toggle-lever door-operating device comprising two members pivotally connected together, one of which is pivoted to the door and the other of which is pivoted to a fixed abutment, a lever pivoted to the door, a pivotally-mounted lever by which the toggle-lever device is actuated, a locking member carried by the door, and means associated with the lever and coöperating with the locking member to lock the door against opening movement after it has been closed to a predetermined extent.

4. The combination with a door, of a toggle-lever door-operating device, a lever pivoted to the door and by which said toggle-lever device is actuated, a curved locking bar carried by the door, and means carried by said lever and coöperating with said locking bar to lock the door against opening movement after it has been closed to a predetermined extent.

5. The combination with a door, of a toggle-lever door-operating device, a handle secured to the door, connections between the handle and the toggle-lever device, said handle having a limited movement independent of said connections, and means associated with the handle to lock the door from opening movement after it has been closed to a predetermined extent, initial movement of the handle rendering said locking means inoperative and continued movement actuating the door-operating mechanism.

[Claim 6 not printed in the Gazette.]

1,138,307. PLOW ATTACHMENT. REDDIN W. PARRAMORE, Somerville, N. J. Filed Oct. 31, 1914. Serial No. 869,662. (Cl. 97—32.)



1. The combination with a turn plow, of a subsoil pulverizer comprising a share or hoe in trailing relation to the plow, and substantially in line with the middle of the furrow produced by the plow and arranged to cut a groove in the bottom of said furrow, and carrying means for the share or hoe attached to the plow and yieldable both laterally and longitudinally of the line of travel of the plow.

2. The combination with a turn plow, of a subsoil pulverizer comprising a share or hoe in trailing relation to the plow, and extending to a lower level than said plow and serving to cut a V-shaped groove in the bottom of the furrow made by said plow, leaving shelves or plateaus on each side of the groove, and carrying means for the share or hoe attached to the plow and yieldable both laterally and longitudinally of the line of travel of the plow, and said carrying means being also yieldable in an up and down direction.

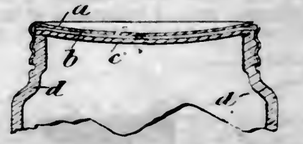
3. The combination with a turn plow, of a subsoil pulverizer comprising a share or hoe in trailing relation to the plow and substantially in line with the middle of the furrow produced by the plow, and an elastic mounting therefor normally locating the earth-entering end of the share or hoe at a lower level than the bottom of the plow, and yieldable both longitudinally and laterally and up and down with reference to the line of travel of the plow to constitute a vibratile support for the hoe or share, whereby it will form a groove in the bottom of the furrow and there pulverise the soil.

4. The combination with a turn plow, of a share or hoe having a single elastic arm, means for attaching the said arm at a single point to the standard of the plow above the plow proper, the share or hoe assuming a trailing relation to the plow with its lower end below the bottom of the plow, whereby the attachment is capable while at work of constant intervibration independent of the plow to which it is attached.

5. The combination with a turn plow, a bracket attached to the standard of the plow above the plow proper and projecting therefrom, a spring arm formed at one end into a volute, means for connecting the free end of the volute to the outer end of the bracket, the volute curving upwardly and forwardly from its point of attachment to the bracket and then downwardly beneath the same and merging into an elongated flat strip, then bent at an angle and formed with a foot, and a hoe or share connected to the foot and arranged in trailing relation to and extending below the level of the plow proper and adapted to form a groove in the bottom of the furrow made by the plow.

[Claims 6 and 7 not printed in the Gazette.]

1,138,308. AIR-TIGHT COVER FOR JARS AND BOTTLES. SYDNEY WOODROFFE PASCALL, London, England. Filed Mar. 26, 1914. Serial No. 827,294. (Cl. 215—84.)



1. In combination with a jar or other receptacle having a relatively large mouth threaded exteriorly, a closure therefor comprising a cover having a threaded flange for securing it over the mouth of the receptacle and a centrally dished portion, a disk of flexible material positioned on the top and over the mouth of said receptacle, and a centrally dished metallic disk interposed between the flexible disk and the cover, the dished portions of said cover and last named dish engaging each other when said cover is screwed down over the mouth of the receptacle.

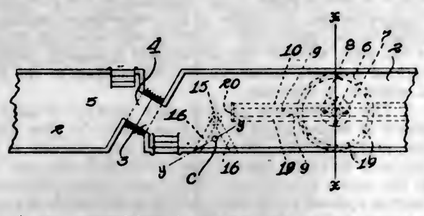
2. A closure for jars or other receptacles having a relatively large mouth comprising an outer dished cover having a threaded flange for connecting it to the receptacle, a cork disk upon the end of the receptacle a dished disk interposed between said cork disk and the said cover, said disk having its dishing somewhat shallower than the dishing of the cover whereby the said cover primarily engages said disk in the center.

1,138,309. CAR-BODY. FRANK E. PIXLEY, St. Paul, Minn. Filed June 26, 1914. Serial No. 847,383. (Cl. 105—19.)

1. A car, comprising, in combination, a car body and underframing articulated apart and joined by a combined pivot and sliding connection permitting said body to move longitudinally and swing laterally on said framing, means for deflecting an end of said body laterally on said framing in case of a longitudinal blow or impact, said means being connected with an end portion of said body and framing and serving to hold said body and framing in normal relation, but adapted to yield under the sudden impact of collision.

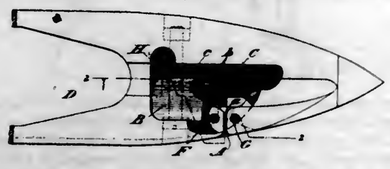
2. A car, comprising, in combination, a car body and underframing articulated apart and joined by a combined

pivot and sliding connection, permitting said body to move longitudinally and swing laterally on said framing, means for deflecting an end of said body laterally on said framing in case of a longitudinal blow or impact against an end of said body or framing and a connection between said body and framing serving to hold said body and framing in normal relation, but adapted to yield under the sudden impact of collision.



3. A car, comprising, in combination, a car body and underframing articulated apart and joined by a combined pivot and sliding connection permitting said body to move longitudinally and swing laterally on said framing, a guide between said body and framing extending diagonally from a longitudinal center line through said body and adapted to deflect an end of said body or framing laterally in case of a longitudinal blow or impact against an end of said body or framing and means serving to hold said body and framing in normal relation, but adapted to yield under the sudden impact of collision.

1,138,310. TENSION FOR LOOM-SHUTTLES. JOSEPH POISSON, Fall River, Mass., assignor to Draper Company, Hopedale, Mass., a Corporation of Maine. Filed Jan. 22, 1914. Serial No. 813,769. (Cl. 139—46.)



1. A loom shuttle having, in combination, a slotted side eye; an automatic threader with a longitudinal thread passage communicating at its front with the side eye and at its rear with the weft chamber of the shuttle; two vertical snubbing posts at opposite sides of the thread eye; a snubbing post at the juncture between the longitudinal thread passage and the side eye with its front face in a lateral plane passing midway between the snubbing posts at opposite sides of the side eye; a horizontal tension post at the bottom and entrance of the longitudinal thread passage, said tension post, and each of the snubbing posts at the side eye being roughened by means of spiral threads and cross-wise extending notches at the tops of said threads, and the spiral threads of the posts at the sides of the side eye being disposed in opposite directions and in such direction as to tend to feed the thread down toward the bottom of the side eye.

2. A loom shuttle having, in combination, a slotted side eye; an automatic threader with a longitudinal thread passage communicating at its front with the side eye and at its rear with the weft chamber of the shuttle; two vertical snubbing posts at opposite sides of the thread eye; a snubbing post at the juncture between the longitudinal thread passage and the side eye; a horizontal tension post at the bottom and entrance of the longitudinal thread passage, said tension post, and each of the snubbing posts at the side eye being roughened by means of spiral threads and cross-wise extending notches at the tops of said threads, and the spiral threads of the snubbing posts at the sides of the side eye being disposed in opposite directions and in such direction as to tend to feed the thread down toward the bottom of the side eye.

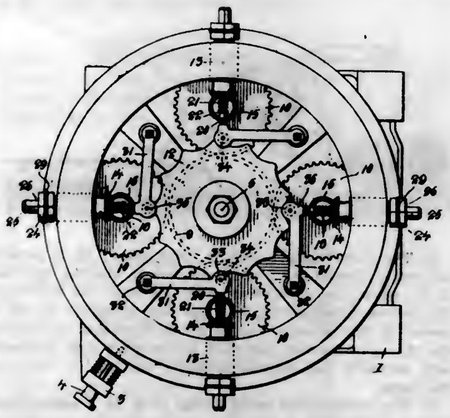
3. A loom shuttle having, in combination, a side eye; a longitudinal thread passage communicating at its front with the side eye and at its rear with the weft chamber of the shuttle; two vertical snubbing posts at opposite sides of the thread eye; a snubbing post at the juncture between the longitudinal thread passage and the side eye; a horizontal tension post at the bottom and entrance of the longitudinal thread passage, said tension post, and each of the snubbing posts at the side eye being roughened by means of spiral threads and cross-wise extending notches at the tops of said threads.

4. A loom shuttle having, in combination, a slotted side eye; an automatic threader with a longitudinal thread passage communicating at its front with the side eye and its rear with the weft chamber of the shuttle; two vertical snubbing posts at opposite sides of the thread eye; and a snubbing post at the juncture between the longitudinal thread passage and the side eye, each of the snubbing posts at the side eye being roughened by means of spiral threads and cross-wise extending notches at the tops of said threads, and the spiral threads of the posts at the sides of the eye being disposed in opposite directions and in such direction as to tend to feed the thread down toward the bottom of the side eye.

5. A loom shuttle having, in combination, a side eye; a longitudinal thread passage communicating at its front with the side eye and at its rear with the weft chamber of the shuttle; two vertical snubbing posts at opposite sides of the thread eye; and a snubbing post at the juncture between the longitudinal thread passage and the side eye, and each of the snubbing posts at the side eye being roughened by means of spiral threads and cross-wise extending notches at the tops of said threads.

[Claims 6 to 16 not printed in the Gazette.]

1,138,311. TUBE AND PIPE EXPANDER. HENRY EVERETT POLLARD, New Haven, Conn. Filed May 11, 1912, Serial No. 696,659. Renewed Oct. 3, 1914. Serial No. 864,946. (Cl. 153—82.)



1. Means for expanding tubing, the same consisting of an expanding head, means for imparting a rotary movement to the expanding head, a plunger arranged to operate in the expanding head, and mechanism including a tappet for imparting a rapid reciprocatory movement to the plunger simultaneously with the rotation of the expanding head.

2. In a machine for expanding tubing, the combination of an expanding head comprising separable jaws, means for imparting a rotary movement to the expanding head, a plunger having a part arranged to operate between the jaws of the expanding head to effect a separation thereof, and mechanism including a tappet for imparting a rapid reciprocatory movement to the plunger.

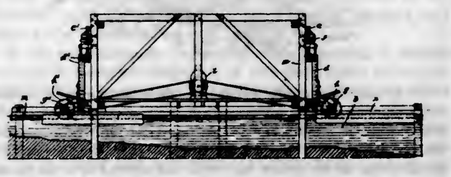
3. In combination a hollow shaft, an expanding head fitted to the hollow shaft and comprising separable jaws, a plunger mounted in the hollow shaft and having a portion arranged to operate between the jaws of the expanding head, and mechanism including a tappet for imparting a reciprocatory movement to the plunger.

4. In a tube expanding machine, the combination of a shaft, an expanding head fitted to and projecting beyond the shaft and comprising separable jaws, interlocking means between the jaws of the expanding head and the shaft to prevent relative longitudinal movement of the expanding head, other interlocking means between the jaws of the expanding head and the shaft to cause the shaft and expanding head to rotate together, means for imparting rotary movement to the said shaft, and means independent of the shaft operating between the projecting part of the expanding head for spreading the jaws thereof.

5. In a machine for expanding tubes, the combination of a rotary shaft, an expanding head mounted upon the shaft and comprising separable jaws, interlocking means between the jaws and shaft to prevent relative longitudinal movement of the said jaws and shaft, other interlocking means between the jaws and shaft to cause the jaws to rotate therewith, a plunger arranged to operate between the jaws of the expanding head, and means for imparting a rapid reciprocatory movement to the said plunger.

[Claims 6 to 13 not printed in the Gazette.]

1,138,312. ICE-HARVESTING APPARATUS. EMMONS C. PORTER, Brockton, Mass. Filed Mar. 1, 1912. Serial No. 680,827. (Cl. 125—14.)



1. In an apparatus for grooving ice, the combination with a body of water in which the ice is floated and which provides a yielding support therefor, a circular saw supported with its lower portion beneath the surface of the body of water, and means to rotate the saw, as the ice is floated therebeneath, to groove its upper surface.

2. In an apparatus for grooving ice, the combination with a body of water in which the ice is floated and which provides a yielding support therefor, a gang of suitably spaced circular saws supported with their lower portions dipping beneath the surface of the body of water, and an edge guard correspondingly spaced from said saws and arranged adjacent said surface to guide the ice as it is floated beneath the saws.

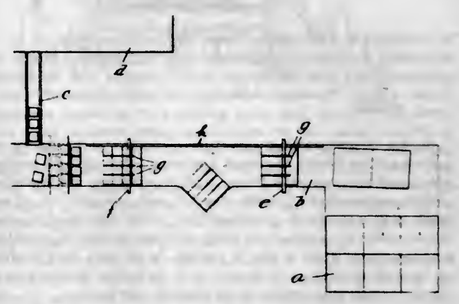
3. In an apparatus for grooving ice, the combination with a body of water in which the ice is floated and which provides a yielding support therefor, a circular saw supported with its lower portion below the level of said body of water, means to guide the ice as it is floated beneath the saw in a predetermined direction and means to drive the saw so that its lower edge moves in the same direction.

4. In an apparatus for grooving ice, a yielding support for the ice, comprising a body of water in which the ice is floated in a predetermined direction, a circular saw arranged to permit the ice to be floated therebeneath, and means to rotate said saw so that its lower edge moves in the direction in which the ice is floated.

5. In an apparatus for grooving ice, the combination with a structure supported at the side of a channel in which ice-sections are floated, of a pair of gangs of circular saws mounted to rotate about parallel axes, the saws of each gang being equally spaced apart and each saw of one gang being arranged to rotate in the plane of rotation of a saw of the other gang, and the space between said gangs being sufficient to permit the ice-sections to be turned through a right angle therebetween, and an edge-guide for the floating sections mounted at one side of the channel in parallelism with the planes of rotation of the saws and at a distance from the adjacent end saw equal to the space between the saws, substantially as described.

[Claims 6 to 17 not printed in the Gazette.]

1,138,313. METHOD OF HARVESTING ICE. EMMONS C. PORTER, Brockton, Mass. Original application filed Mar. 1, 1912, Serial No. 680,827. Divided and this application filed Jan. 15, 1915. Serial No. 2,295. (Cl. 125—20.)



1. The method of grooving the upper portion of a body of ice, consisting in moving the body of ice in a predetermined path through a body of water, beneath a circular cutter, while rotated about a horizontal axis, disposed above the surface of the water, at right angles to said path, with its lower portion dipping into the water.

2. The method of grooving the upper portion of a body of ice, consisting in causing the body of ice to float in a predetermined path through a body of water, beneath a circular cutter, while rotated about a horizontal axis, disposed at right angles to said path, with its lower portion dipping into the body of water.

3. The method of grooving ice which consists in forwardly rotating a circular cutter about a horizontally disposed axis over a body of water, with its lower portion dipping therein and moving in a predetermined direction, and moving a body of ice in the water, in said direction, beneath the cutter and into engagement with its lower portion, so that the cutter has a combined feeding and grooving action.

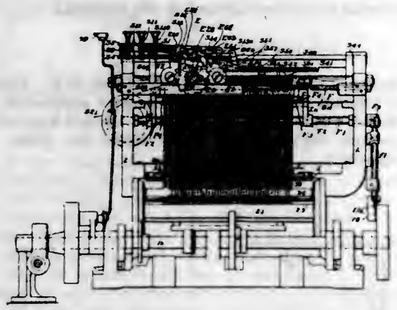
4. The method of grooving ice, which consists in forwardly rotating a circular cutter about a horizontally disposed axis over a body of water with its lower portion dipping therein and moving in a predetermined direction, and moving a body of ice, while floating therein, in said direction, and beneath the cutter into engagement with its lower portion, so that the cutter automatically feeds and grooves the ice.

5. The method of harvesting ice, which consists in floating a body of ice in a body of water toward a point of delivery, and in a predetermined path, beneath a gang of suitably spaced circular cutters, rotating about an axis disposed horizontally, and at right angles to said path, at a distance above the surface of the water, so that the lower portions of the cutters dip into the water at predetermined points in said path, and move in the direction of movement of the ice.

[Claims 6 to 8 not printed in the Gazette.]

1,138,314. PERFORATING-MACHINE. JAMES POWERS, New York, N. Y., assignor, by mesne assignments, to Powers Accounting Machine Company, New York, N. Y., a Corporation of Delaware. Filed May 24, 1913. Serial No. 769,558. (Cl. 164—112.)

1. In a perforating machine, a frame, a plurality of punch-action series mounted thereon, a key-action mechanism movable on said frame and comprising a key-action series corresponding with one of and adapted to co-act with said successive punch-action series and means for traversing said key-action mechanism.



2. In a perforating machine, a frame, a plurality of punch-action series mounted thereon, a key-action mechanism movable on said frame and comprising a key-action series corresponding with one of and adapted to co-act with said successive punch-action series and feed mechanism, operably connected with said key-action mechanism and adapted, when a key is struck, to initiate feed motion of said mechanism and arrest it in co-acting position relatively to the succeeding punch-action series.

3. In a perforating machine, a frame, a plurality of punch-action series mounted thereon, a key-action mechanism movable on said frame and comprising a key-action series corresponding with and adapted to co-act with said successive punch-action series and a skip key-action adapted to initiate the advance of said key-mechanism; and a spring-actuated feed mechanism adapted to advance said key mechanism.

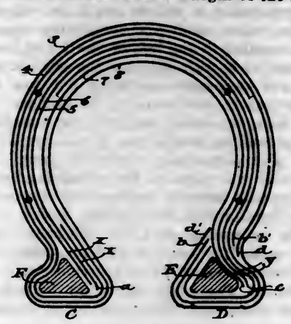
4. In a perforating machine, a frame, a plurality of punch-action series mounted thereon, a key-action mechanism movable on said frame and comprising a key-action series corresponding with and adapted to co-act with said successive punch-action series and a skip key-action adapted to initiate the advance of said key-mechanism, a spring-actuated feed mechanism adapted to advance said key mechanism, and an escapement mechanism adapted to control the feed of said carriage.

5. In a perforating machine, a frame, a plurality of punch-action series mounted thereon, a key-action mechanism movable on said frame and comprising a key-action series corresponding with and adapted to co-act with said successive punch-action series and a skip key-action adapted to initiate the advance of said key-mechanism, a spring-actuated feed mechanism adapted to advance said key mechanism, and an escapement mechanism adapted to initiate the advance of said key-mechanism and to stop it in co-acting position with successive punch-action series.

[Claims 6 to 34 not printed in the Gazette.]

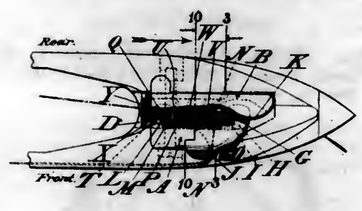
1,138,315. TIRE. JAMES N. RATTERREE, Little Rock, Ark. Filed Oct. 3, 1913. Serial No. 793,241. (Cl. 152—18.)

A protective armor for pneumatic tires, comprising a plurality of puncture-proof bands extending longitudinally of the tire and having their inner marginal portions arranged in overlapping relation to each other, a fabric sheet extending from one outside margin of one band transversely around the inner face of said band between the overlapping portions of the bands and around the outer side of the opposite band, and another fabric sheet extending from the other outside margin of the last named



band around the inner faces of both bands and then returned around the outer faces of said bands.

1,138,316. AUTOMATICALLY-THREADING LOOM-SHUTTLE. ALONZO E. RHOADES, Hopedale, Mass., assignor to Draper Company, Hopedale, Mass., a Corporation of Maine. Filed Sept. 5, 1913. Serial No. 788,342. (Cl. 139—46.)



1. An automatically threading shuttle having a slotted eye and a threader composed of two cast metal blocks located within a chamber in the shuttle, said blocks being characterized by a main longitudinal thread passage communicating at its outer end with the thread eye, an initial thread passage above the main passage, longitudinal ribs, U, V, on the two threader blocks respectively projecting toward each other between the two thread passages and having a narrow longitudinal slit between them affording communication between the two thread passages, a tongue S, extending rearwardly and outwardly from the inner end of the front block between the said thread passages, a thread director T, extending forwardly from the inner end of the rear block between the two thread passages leaving a narrow rearwardly and outwardly inclined throat between it and said tongue affording communication between said thread passages, a guard L, extending outwardly and rearwardly from the inner end of the front block above the initial thread passage, a ledge Q, projecting forwardly from the rear block above said guard leaving a narrow slot between it and said guard affording an entrance to said initial thread passage, a thread deflector W, projecting forwardly from the rear block part way across the initial thread passage and beyond the outer end of said guard L, a beak G, extending rearwardly from the outer end of the front block above the initial thread passage, a guard K, extending forwardly from the rear block and overhanging said beak with a thread space between, and a horn H, extending downwardly and inwardly from said beak and having a depending toe I, extending below the middle of the thread eye and outward thereof.

2. An automatically threading shuttle having a slotted eye and a threader composed of two cast metal blocks located within a chamber in a shuttle, said blocks being characterized by a main longitudinal thread passage communicating at its outer end with the thread eye, an initial

thread passage above the main passage, longitudinal ribs on the two threader blocks respectively projecting toward each other between the two thread passages and having a narrow longitudinal slit between them affording communication between the two thread passages, a tongue extending rearwardly and outwardly from the inner end of the front block between the said thread passages, a thread director extending forwardly from the inner end of the rear block between the two thread passages leaving a narrow rearwardly and outwardly inclined throat between it and said tongue affording communication between said thread passages, a guard extending outwardly and rearwardly from the inner end of the front block above the initial thread passage, a ledge projecting forwardly from the rear block above said guard leaving a narrow slot between it and said guard affording an entrance to said initial thread passage, and a thread deflector projecting forwardly from the rear block part way across the initial thread passage and beyond the outer end of said guard.

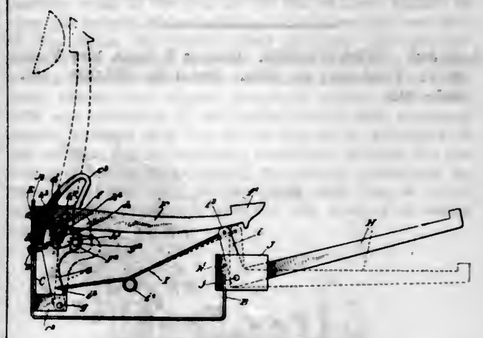
3. An automatically threading shuttle having a threader characterized by a main longitudinal thread passage communicating at its outer end with the thread eye, an initial thread passage above the main passage, longitudinal ribs projecting toward each other between the two thread passages and having a narrow longitudinal slit between them affording communication between the two thread passages, a tongue extending rearwardly and outwardly from the front of the threader between the said thread passages, a thread director extending forwardly from the rear of the threader between the two thread passages leaving a narrow rearwardly and outwardly inclined throat between it and said tongue affording communication between said thread passages, a guard extending outwardly and rearwardly from the front of one threader above the initial thread passage, a ledge projecting forwardly from the rear of the threader above said guard leaving a narrow slot between it and said guard affording an entrance to said initial thread passage, and a thread deflector projecting forwardly from the rear of the threader part way across the initial thread passage and beyond the outer end of said guard.

4. An automatically threading shuttle having a slotted eye and a threader composed of two cast metal blocks located within a chamber in the shuttle, said blocks being characterized by a main longitudinal thread passage communicating at its outer end with the thread eye, an initial thread passage above the main passage, a tongue extending rearwardly and outwardly from the inner end of the front block between the said thread passages, a thread director extending forwardly from the inner end of the rear block between the two thread passages leaving a narrow rearwardly and outwardly inclined throat between it and said tongue affording communication between said thread passages, a guard extending outwardly and rearwardly from the inner end of the front block above the initial thread passage, a ledge projecting forwardly from the rear block above said guard leaving a narrow slot between it and said guard affording an entrance to said initial thread passage, and a thread deflector projecting forwardly from the rear block part way across the initial thread passage and beyond the outer end of said guard.

5. An automatically threading shuttle having a slotted eye and a threader composed of two cast metal blocks located within a chamber in the shuttle, said blocks being characterized by a main longitudinal thread passage communicating at its outer end with the thread eye, an initial thread passage above the main passage, a tongue extending rearwardly and outwardly from the inner end of the front block between the said thread passages, a thread director extending forwardly from the inner end of the rear block between the two thread passages leaving a narrow rearwardly and outwardly inclined throat between it and said tongue affording communication between said thread passages, a guard extending outwardly and rearwardly from the inner end of the front block above the initial thread passage, and a thread deflector projecting forwardly from the rear block part way across the initial thread passage and beyond the outer end of said guard.

[Claims 6 to 11 not printed in the Gazette.]

1,138,317. TYPE-WRITER. GEORGE F. ROSS, New York, N. Y. Filed June 15, 1900. Serial No. 562,207. (Cl. 197—22.)



1. In a typewriter, the combination with a segment, of a bracket connected by a centering pin and a fastening screw to the segment, said centering pin and fastening screw being located in concentric arcs of circles whose common center is the printing point and the pin and screw for said bracket being positioned in the same radius of such circles, a type bar, an actuating member therefor, said type bar and the actuating member being both carried by the same bracket so as to be shiftable therewith relative to the centering pin, and a key lever supported independently of the bracket, said key lever having a yielding connection with said actuating member.

2. In a typewriter, the combination with a segment, of a bracket, a centering pin therefor, fastening means for fixedly securing the bracket in position, said centering pin and fastening means being located in concentric arcs of circles whose common center is the printing point and positioned, also, in the same radius of such circles, a type bar pivoted to the bracket, an actuating member for said type bar also pivoted to the bracket, said type bar and its actuating member being shiftable with the bracket relative to the centering pin, and a key lever supported independently of said bracket, said key lever being operatively connected with said actuating member.

3. In a typewriter, the combination with a segment, of a series of brackets each pivoted to the segment, said pivots of the brackets being positioned in a circle whose center is the printing point, type bars, actuating members therefor, said type bar and the actuating member for each bracket being both supported in the same bracket and shiftable therewith relative to the pivotal support for said bracket, and fastening means separate from the pivot for fixedly securing each bracket in position on the segment.

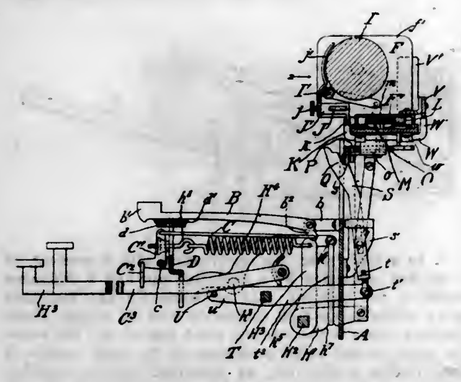
4. In a typewriter, the combination with a segment, of a series of brackets each connected thereto by a centering pin, the centering pin of each bracket being positioned in the arc of a circle whose center is the printing point, a type bar pivoted to the bracket, a type bar actuating member pivoted to the bracket independently of the pivot of the type bar, fastening means separate from the centering pins for fixedly securing the bracket in position on the segment, said type bar and the actuating member being shiftable with the bracket relative to the center pin, a key lever having an operative connection with said actuating member, and supporting means for said key lever, said supporting means being independent of the bracket and positioned forwardly thereof.

5. In a typewriter, the combination with a segment, of a bracket connected to said segment by a centering pin, fastening means separate from the centering pin for fixedly securing the bracket to the segment, a type bar pivoted to the bracket, the centering pin of the bracket being positioned rearwardly of the pivot for the type bar, a type bar actuating member supported on said bracket, a key lever having an operative connection with said actuating

member, and supporting means for said key lever, said supporting means being independent of the bracket and positioned forwardly thereof.

[Claims 6 to 16 not printed in the Gazette.]

1,138,318. TYPE-WRITER. GEORGE F. ROSE, New York, N. Y. Filed July 11, 1911. Serial No. 637,900. (Cl. 197—60.)



1. In a typewriter, the combination with a frame, and a platen carriage supported for sliding movement thereon and to be removed bodily therefrom, of a marginal stop coöperating with said carriage, an escapement, and a releasing device supported by the carriage for positioning the marginal stop and the escapement so as to free them from the carriage and permit removal thereof from said frame.

2. In a typewriter, the combination with a frame, and a platen carriage supported for sliding movement thereon and to be removed bodily therefrom, of a marginal stop for arresting the carriage at a predetermined point in the writing line, an escapement, said marginal stop and the escapement being normally in coöperative relation to the carriage, and a release key coöperating with said marginal stop and with said escapement for shifting both of them into positions free from the carriage so as to permit the latter to be removed by sliding it off the frame.

3. In a typewriter, the combination with a frame, and a platen carriage supported for sliding movement thereon and to be removed bodily therefrom, a marginal stop for arresting the platen carriage at a predetermined point in the writing line, an escapement, said marginal stop and the escapement being normally in coöperative relation to said carriage, and a single release key coöperating with said marginal stop and said escapement, said key operating to simultaneously position the marginal stop and the escapement free from the platen carriage so as to permit the latter to be taken off with an unrestrained sliding movement from said frame.

4. In a typewriter, the combination with a platen carriage, and tension means therefor, of a marginal stop, an escapement, a single release key mounted on the carriage and coöperating with both the marginal stop and the escapement for releasing the same to permit removal of the carriage, and means for uncoupling the tension means from the carriage during the operation of removing the latter and while the marginal stop and escapement are released from said carriage by said key.

5. In a typewriter, the combination with a frame, and a platen carriage supported for sliding movement thereon and to be removed bodily therefrom, of an escapement, a marginal stop, said escapement and the marginal stop being normally in coöperative relation to the platen carriage, a releasing member in operative relation to the marginal stop and the escapement, a single release key on the carriage, and means connecting the release key with the releasing member so as to position said marginal stop and the escapement free from contact with the carriage to permit the latter to be removed freely from the frame.

[Claims 6 to 18 not printed in the Gazette.]

1,138,319. LIFE-SAVING APPARATUS. CARL RYDELL, Manila, Philippine Islands. Filed Apr. 8, 1913. Serial No. 759,716. (Cl. 9—3.)



1. In combination, a boat group consisting of a plurality of boats, certain of which have removable air tanks to permit them to be nested in other boats, the intermediate portion of said boats having bulk heads, means connected to the intermediate portion for receiving lowering tackle, means for connecting said last-named means to the bulk head, and means for supporting the air tanks while the sections are assembled.

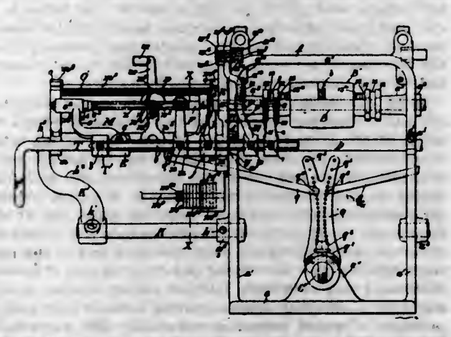
2. A life boat comprising intermediate and end sections, said end sections being in the form of air tanks, bulk heads at the end of the intermediate section, means for hingedly connecting the air tanks to the upper edge of the bulk head, said sections having keels, and means for attaching the keel of the end sections to the keel of the intermediate section.

3. A life boat comprising an intermediate section, end sections removably connected thereto, a removable cover extending the full length of the intermediate section and having foldable end sections, and an intermediate foldable section, and partitions dividing the end sections and the intermediate section and having vent flaps.

4. A life boat comprising an intermediate section having bulk heads at the end, supporting rods extending across the section and connected to the bulk head and removably mounted air tanks at the end of the sections, together with means for connecting the same to the bulk heads.

5. A life boat comprising an intermediate section, air tanks at the end of said section, a removable cover extending the full length of the intermediate section and having an intermediate furlable portion and compartment forming members connected to the cover and extending to the bottom of the intermediate section.

1,138,320. WINDING-MACHINE. CLARE RYDEN, Providence, R. I., assignor to Universal Winding Company, Portland, Me., a Corporation of Maine. Filed June 26, 1912. Serial No. 706,063. (Cl. 242—37.)



1. In a winding machine, the combination with a rotating cop-driver, of a reciprocating thread-guide adapted to traverse the yarn on the cop, a traverse-frame for supporting said guide to move away from the axis of the cop with the increase in diameter of the winding, a thread-bail pivoted on the traverse-frame and extending adjacent the path of traverse of the guide, and means to rock said bail to disengage the yarn from the thread guide during the reciprocation of the latter.

2. In a winding machine, the combination with a rotating cop-driver, of stopping-mechanism to arrest the rotation of the cop-driver, a reciprocating thread-guide, a traverse-frame for supporting the guide to move away from the axis of the cop as the latter increases in diameter, a thread-bail mounted on said frame adjacent the thread-guide, a sliding member adapted to move the bail to disengage the yarn from the thread-guide, and a lever connected with the stopping-mechanism and engaging the sliding-member to allow the movement of the latter with the traverse-frame, said lever adapted to be rocked to move the sliding-member to operate the thread-bail.

3. In a winding machine, the combination with the cop-driver, of stopping-mechanism therefor, a swinging traverse-frame, a thread-guide adapted to slide in said frame, a thread-bail pivoted on the frame and adapted to swing to disengage the yarn from the thread-guide, a wire-member mounted to slide in the traverse-frame to engage the thread-bail to swing the latter, and a lever connected with the stopping-mechanism and formed with a slot engaging a right-angled portion of the wire-member to move the latter when the lever is rocked by the operation of the stopping-mechanism.

4. In a winding machine, the combination with a rotating cop-driver, of stopping-mechanism therefor, a reciprocating thread-guide for traversing the yarn on the cop, a traverse-frame for supporting said guide to move away from the axis of the cop with the increase in diameter of the latter, an end-stop-lever mounted on the traverse-frame and supported in its normal position by the tension of the yarn leading to the thread-guide, and means actuated to operate the stopping-mechanism when said lever is released by the breaking or exhausting of the yarn.

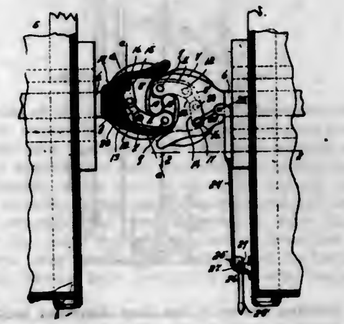
5. In a winding machine, the combination with a rotating cop-driver, of stopping-mechanism therefor, a reciprocating thread-guide, a traverse-frame for supporting said guide to move away from the axis of the cop in accordance with the growth of the latter, an end-stop-lever pivoted on the traverse-frame and adapted to be supported in an upright position by the tension of the yarn drawing through it, a lever adapted to be rocked to cause the operation of the stopping-mechanism, means to rock said lever, and a crank-arm on the end-stop-lever adapted to normally restrain the aforementioned lever from rocking but to allow it to rock upon the breaking or exhausting of the yarn.

[Claims 6 to 20 not printed in the Gazette.]

1,138,321. CAR-COUPLING. MORRIS SABLE, Denver, Colo. Filed Sept. 19, 1914. Serial No. 862,495. (Cl. 213—10.)

1. In a car coupling, a coupler having a recessed head, a knuckle pivotally mounted within said recess at the forward extremity of the latter, a link having one extremity pivotally connected with the heel of said knuckle, a second link pivotally connected with the opposite extremity of said first named link, the said pivotal connection between the two links when the knuckle is in the locked position being in the rear of the line of force applied to open the knuckle and adapted to lie adjacent the rear wall of the recess, the coupler head provided with perforations which register with its recess, a pin extending through said perforations and recess, and rotatable therein, and rigidly connected within said recess with one extremity of the second named link, suitable means mounted upon the end of the car in proximity of the coupler, and an operative connection between the pin and said means for throwing the joint between the first and second named links forwardly of said line of force, for the purpose set forth.

2. In a car coupling, a coupler having a recessed head, a knuckle pivotally mounted within said recess at the forward extremity of the latter, a link having one extremity pivotally connected with the heel of said knuckle, a second link pivotally connected with the opposite extremity of said first named link, said pivotal connection between the two links when the knuckle is in the locked position being in the rear of the line of force applied to open the knuckle and adapted to lie adjacent the rear wall of the recess, the coupler head provided with perforations which register with the recess therein, a pin extending through said perforations and recess and rotatable therein and rigidly connected within said recess with one extremity of the second named link, actuating means mounted upon the end of the car in proximity to the coupler, and an operative connection between the pin and said means for throwing the pivotal connection between the two links forwardly of said line of force, whereby the knuckle is released and allowed to swing upon its pivot.



3. In a car coupling, a coupler having a recessed head, a knuckle pivotally mounted within said recess in the forward extremity of the latter, a link having one extremity pivotally connected with the heel of said knuckle, a second link pivotally connected with the opposite extremity of said first named link and means for limiting the rearward movement of said connection, the coupler head provided with perforations which register with its recess, a pin extending through said perforations and recess and rotatable therein, and rigidly connected within the recess with one extremity of the second named link, and actuating means connected with the pin for throwing the joint between the first and second named links in a forward or rearward direction to respectively release and lock the knuckle for the purpose set forth.

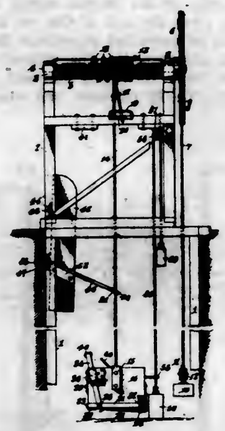
4. In a car coupling, a coupler having a recessed head, a knuckle pivotally mounted within said recess, a link having one extremity pivotally connected with the heel of said knuckle, a second link pivotally connected with the opposite extremity of said first named link, the said pivotal connection between the two links when the knuckle is in the locked position being in the rear of the line of force applied to open the knuckle, and means for limiting the rearward movement of the last named pivotal connection, means rotatably mounted in the coupler head and rigidly connected within the recess with one extremity of the second named link, and actuating means connected with said last named means for throwing the joint between the first and second named links forwardly of the said line of force.

5. In a car coupler, a coupler having a recessed head, a knuckle pivotally mounted within said recess, a link having one extremity pivotally connected with the heel of said knuckle, a second link pivotally connected with the opposite extremity of said first named link, said pivotal connection between the two links when the knuckle is in the locked position being in the rear of the line of force applied to open the knuckle, means for limiting the rearward movement of the last named pivotal connection, one extremity of the second named link being pivotally mounted in the coupler head, and means for operating this

link to throw the connection between the latter and the first named link forward of the said line of force.

[Claim 3 not printed in the Gazette.]

1,138,322. HOISTING APPARATUS FOR SILOS. HENRY SANTROCK, Kensington, Kans. Filed Feb. 16, 1914. Serial No. 818,996. (Cl. 214—12.)



1. A hoisting device of the class described including a bucket, hoisting mechanism having a rope or cable connected with the bucket for raising and lowering the latter, operating mechanism for the hoisting mechanism provided with an extensible operating rope having a free pendant loop and composed of sections for varying its length, and flexible guiding means for the bucket automatically adjustable to correspond with the travel of the bucket.

2. A hoisting apparatus of the class described, comprising a supporting frame, a hoisting bucket, hoisting mechanism for raising and lowering the bucket, and an automatically adjustable or extensible guiding means for the bucket, said guiding means being arranged to rest upon the material within a silo.

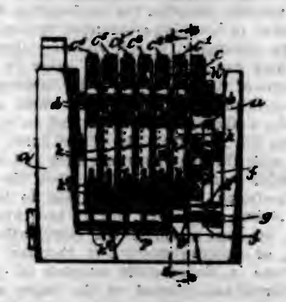
3. A hoisting apparatus of the class described, comprising a supporting frame, a hoisting bucket, hoisting mechanism for raising and lowering the bucket, and guiding means for the bucket consisting of an overhead pulley and a guiding rope arranged on the pulley and provided at its ends with unequal weights, the heavier weight being adapted to rest upon the material and the lighter weight operating to maintain the guiding rope taut, and permitting the heavier weight to descend and lengthen the effective portion of the guiding rope as the material is consumed, and means carried by the bucket and slidable on the guiding rope.

4. A hoisting apparatus of the class described comprising a frame, hoisting mechanism, a bucket connected with the hoisting mechanism and having a hinged downwardly opening bottom and provided at one of its walls with a gate having means for engaging the bottom to retain the latter in its closed position, means for holding the gate in engagement with the bottom, and means for releasing the said gate.

5 A hoisting apparatus of the class described, comprising a frame, hoisting mechanism, a bucket connected with the hoisting mechanism and having a hinged downwardly opening bottom and provided at one of its walls with a gate having means for engaging the bottom to support the latter in its closed position, a catch for locking the gate, and automatically operable means for tripping the catch.

[Claims 6 to 10 not printed in the Gazette.]

1,138,323. NUMBERING-HEAD. AMOS H. SMITH, New York, N. Y., assignor to American Bank Note Company, a Corporation of New York. Filed Aug. 20, 1913. Serial No. 785,614. (Cl. 101—184.)



1. A numbering head embodying therein a frame a plurality of digit wheels mounted in said frame, means operative directly upon each of said wheels whereby said wheels are independently and progressively actuated, locking means mounted in said frame adjacent to the periphery of each digit wheel of a denomination higher than the units wheel and operative upon the periphery of its digit wheel, and coöperative means carried by each said locking means and the digit wheel of next lower denomination respectively, whereby each said digit wheel of higher denomination is released when the transfer mechanism is about to become operative in relation thereto and is locked at all other times.

2. A numbering head embodying therein a frame a sequence of digit wheels mounted in said frame, means operative directly upon each of said wheels whereby said wheels are independently and progressively actuated, a lever mounted in said frame adjacent to the periphery of each digit wheel of a denomination higher than the units wheel, a bolt carried by each said lever, each digit wheel coöperative with a lever having a sequence of bolt sockets about its periphery adapted to receive said bolt, and cooperating means carried by each said lever and the digit wheel of next lower denomination respectively, whereby each said digit wheel of higher denomination is released during one tenth of a rotation of said wheel of next lower denomination and is locked at all other times.

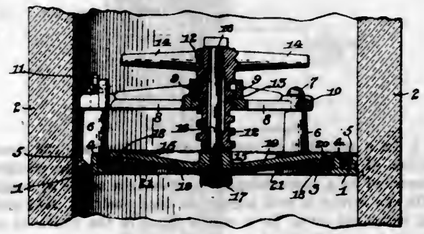
3. A numbering head embodying therein a frame a sequence of digit wheels mounted in said frame, means operative directly upon each of said wheels whereby said wheels are independently and progressively actuated, a lever mounted in said frame adjacent to the periphery of each digit wheel of a denomination higher than the units wheel, a bolt carried by each said lever, each digit wheel coöperating with a lever, having a sequence of bolt sockets about its periphery adapted to receive said bolt, a cam carried by each digit wheel and a stud carried by each said lever coöperating therewith whereby the lever acting on each digit wheel is adapted to be actuated once during each rotation of the digit wheel of next lower denomination, to release the digit wheel of higher denomination and leave it locked at all other times.

4. A numbering head embodying therein a sequence of digit wheels, means whereby said wheels are independently and progressively actuated, a lever mounted adjacent to the periphery of each digit wheel of a denomination higher than the units wheel, a bolt carried by each said lever, each digit wheel, coöperating with a lever, having a sequence of bolt sockets about its periphery adapted to receive said bolt, the side of each digit wheel of lower denomination toward the digit wheel of next higher denomination being countersunk within the periphery thereof, a cam disk of diameter smaller than said digit wheel, seated in said recess, a projection carried by each said lever and extending between adjoining digit wheels and a stud carried by said plate and projecting within said recess adjacent to the periphery of said disk whereby the lever acting on each digit wheel is adapted to be actuated once during each rotation of the digit wheel of next lower denomination, to release the digit wheel of higher denomination and have it locked at all other times.

5. A numbering head embodying therein a plurality of independently rotatable digit wheels, means whereby said wheels are progressively actuated, a plurality of independently operative means nominally locking said digit wheels against rotation and means whereby the movement of one digit wheel will release the locking means of an adjoining digit wheel, said locking means being capable of manual actuation whereby any digit wheel may be manually set while the adjoining wheels remain locked.

[Claims 6 to 8 not printed in the Gazette.]

1,138,324. VALVE MECHANISM. FRANK P. SNOW, Los Angeles, Cal. Filed Oct. 31, 1910. Serial No. 589,895. (Cl. 137—13.)



1. A valve mechanism comprising a valve seat plate having standards projecting therefrom, the said standards being provided with headed studs, a valve supporting spider shouldered upon said studs so as to be positively suspended thereon, a pivoted latch carried by the spider and capable of engaging one of said studs to prevent the spider from being disengaged from the studs by rotation about its axis, a reciprocating member mounted on the spider and a valve having a stem loosely mounted within the reciprocating member.

2. A valve mechanism comprising a valve, having a seat engaging gasket projecting from its face, a plate for gripping the gasket upon said face, a bolt extending through the plate and valve for holding them together, the said bolt projecting beyond the valve to form a valve stem, a screw carrying the said valve stem, a valve seat capable of engaging the gasket of the valve and means for supporting the said screw with the valve, adjacent to the valve seat.

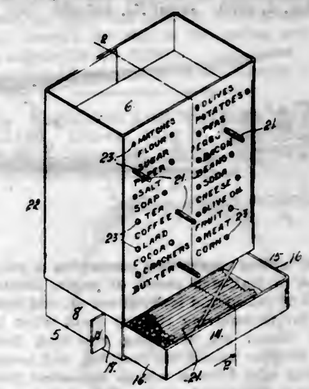
3. In an irrigating valve mechanism a seat plate having valve guiding posts thereon adapted to guide a valve to the seat on the seat plate, a quickly removable support engaging the posts, a hollow member threadably engaging the support, a valve stem loosely journaled in the hollow member and a valve carried thereby, one end of the hollow member engaging one end of the valve stem while the other end of the hollow member loosely engages the valve.

4. In an irrigating valve mechanism, valve guiding posts, a support engaging the posts and removable therefrom when rotated in a given direction, means for locking the support against rotation with respect to the posts, a hollow member threadably engaging the support, a valve stem, one end of which engages one end of the hollow member, the other end of which loosely engages the other end of the hollow member, a valve carried by said latter named end of the valve stem, and means rigid with the hollow member whereby the same may be rotated with respect to the support in a direction to raise the valve.

5. In an irrigating valve mechanism, valve guiding posts, a support engaging the posts and removable therefrom when rotated in a given direction about the axis of the valve, means for locking the support to the posts, a valve, a member controlling the valve and moving therewith said member threadably engaging the support, and means rigid with the last-named means for rotating the valve.

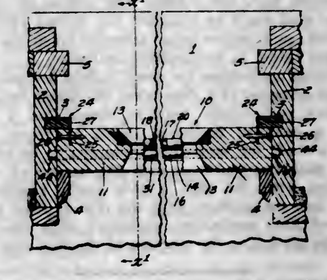
[Claim 6 not printed in the Gazette.]

1,138,325. MEMORANDUM DEVICE. HARRY L. SNYDER, Denver, Colo. Filed May 6, 1913. Serial No. 765,743. (Cl. 206—31.)



A device of the character described, composed of inner and outer telescoping members and a lower part extending forwardly from the bottom of the inner member and detachably applied, the said forward part consisting of a body member, which extends forwardly beyond the telescoping members, a vertically disposed front end and rearwardly extending side parts adapted to enter the lower part of the inner member, the inner extremities of the side parts being bent to form tongues and the inner member only having slots through which said tongues are passed.

1,138,326. WINDOW CONSTRUCTION. CLINTON E. SOMERS, Los Angeles, Cal., assignor to Elmer T. Galley, Los Angeles, Cal. Original application filed Mar. 12, 1913, Serial No. 753,823. Divided and this application filed Jan. 26, 1914. Serial No. 814,581. (Cl. 20—69.)



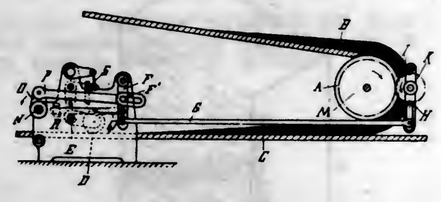
1. In a window, the combination of a parting bead, a sash mounted to move up and down along the inner face of said parting bead, and a metal cover on the sash extending over the parting bead to slide on the outer face of the parting bead when the sash moves up and down.

2. In a window, the combination of a parting bead, a sash mounted to move up and down on the inner face of said parting bead, and a metal cover on the sash bent to conform to the shape of the parting bead and positioned to extend over the parting bead so as to slide on the outer face of said parting bead when the sash moves up and down.

3. In a window, the combination of a rabbeted parting bead, a sash, and a metal weather parting bead cover attached to the sash stile and adapted to lap over said parting bead into said rabbeted portion thereof.

4. A window construction comprising a parting bead, a sash slidable along said parting bead, and metal cover members on the sash extending transversely across the parting bead and provided with an outwardly turned end overlapping the outside face of said bead.

1,138,327. DRIVING MECHANISM FOR SHEET-FEEDERS. GEORG SPIESS, Leipsig Connewitz, Germany, assignor to Arthur Spiess, Mannheim, Baden, Germany. Filed Apr. 2, 1909. Serial No. 487,469. (Cl. 101—39.)



1. Sheet feeding mechanism comprising a roll for feeding a bank of feathered sheets of paper, friction wheels adapted to be raised and lowered out of, and into, feeding positions for transferring the top sheet when in contact therewith, means for actuating the bank feeding roll when the friction wheels are inactive, and means in connection with said friction wheels dependent for inoperativeness upon the length of time the said wheels are in the lowered position, to control the extent of movement of the transport roll.

2. Sheet feeding mechanism comprising a roll for feeding a bank of feathered sheets, friction wheels adapted to be raised and lowered for transferring the top sheet when in contact therewith, pawl and ratchet mechanism for actuating said roll, a rack bar having an operative connection with said pawl and ratchet mechanism, a stop tooth adapted to be brought into engagement with said rack to limit the movement thereof and control the operation of said pawl and ratchet mechanism, and means connected with said friction wheels for governing the position of said stop tooth.

3. Driving mechanism for sheet feeding devices to transfer sheets of paper at a time when the sheet transporting means are periodically inactive comprising a roll for feeding a bank of feathered sheets of paper, combing wheels, a shaft for said wheels adapted to be raised and lowered with the wheels, and means in connection with the said shaft to transmit the motion of the shaft to the roll, said means being actuated when the combing wheels are raised to inoperative position.

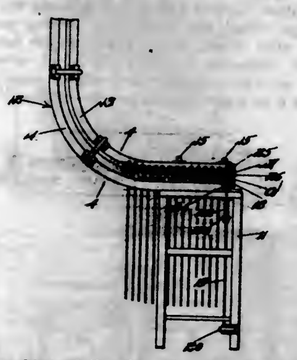
4. Driving mechanism for sheet feeding devices to transfer sheets of paper at a time when the sheets transporting means are periodically inactive comprising a roll for feeding a bank of feathered sheets of paper, combing wheels, a shaft for said wheels adapted to be raised and lowered with the wheels, a rack bar having an operative connection with the roll, a stop tooth adapted to be brought into engagement with the rack to limit its movement, and link mechanism connected with the combing wheels for governing the position of the said stop tooth.

1,138,328. MACHINE FOR APPLYING TOGGLES TO SKINS. WALTER R. SUTHERLAND, Salem, Mass., assignor of one-fourth to Edwin Cook and one-fourth to Charles A. Cook, Danvers, Mass. Filed May 15, 1914. Serial No. 838,868. (Cl. 81—3.)

1. In a machine of the character described, the combination of a raceway capable of supporting a series of toggles and having a longitudinal slot through which the string on the toggle hangs out and a finger to engage the lever of the toggle and forcibly close the toggle onto the skin.

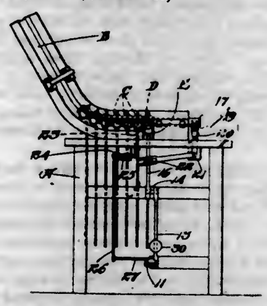
2. In a machine of the character described, the combination of a raceway of a cross-section adapted to receive a series of toggles placed side by side and having a longitudinal slot through which the string on the toggle hangs out, a finger to engage the lever of the toggle and forcibly close the toggle on the skin, and a pedal to operate said finger.

3. In a machine of the character described, the combination of a raceway composed of two suitable moldings separated by a space adapted to receive a series of toggles with the levers of the said toggles in open position, said molding being cut away for a width equal to the width of one toggle to permit the lever of the toggle to be swung to closed position, and a finger engaging the said toggle lever to move the said toggle lever through said cut-away space and close the toggle.



4. In a machine of the character described, the combination of a raceway composed of two suitable moldings separated by a space adapted to receive a series of toggles with the levers of said toggles in open position, said molding being cut away for a width equal to the width of one toggle to permit the lever of the toggle to be swung to closed position, a thin member bridging said cut-away space and adapted to engage the underside of the body of the toggle, and a finger engaging the said toggle lever to move it through said cut away space and close the toggle.

1,138,329. MACHINE FOR APPLYING TOGGLES TO SKINS. WALTER R. SUTHERLAND, Salem, Mass., assignor of one-fourth to Edwin Cook and one-fourth to Charles A. Cook, Danvers, Mass. Filed Sept. 29, 1914. Serial No. 864,183. (Cl. 81—3.)



1. The improved machine for applying toggles to skins which consists in a raceway capable of supporting a series of toggles, a finger to engage the lever of the toggle, and forcibly close the toggle on the skin, operating mechanism for said finger and a movable support for the said toggle, and means for moving the lever and simultaneously therewith withdrawing the support from under the toggle.

2. The improved machine for applying toggles to skins and the like which consists in a raceway capable of supporting a series of toggles, a finger to engage the lever of the toggle, a stop to engage the toggle in the raceway next the toggle to be applied to the skin said stop being operatively connected so that when the finger is being moved back after closing the toggle onto the skin the stop will be withdrawn from contact with the toggles, and permit the toggles to slide down the raceway.

3. The improved machine for applying toggles to skins which consists in a raceway having at its lower end an opening, there being supporting ledges for the toggle on opposite sides of the opening in the raceway, a finger to engage the lever of the toggle and forcibly close it on the skin, operating mechanism for the said finger, a slide bridging the opening in the raceway and to permit the lowest toggle to slide across the opening until its sides rest on the said ledges, and means to withdraw the slide.

1,138,330. CHECK-WRITER. LIBANUS M. TODD and CHARLES G. TIEFEL, Rochester, N. Y., assignors to G. W. Todd & Company, a Firm composed of George W. Todd and Libanus M. Todd, doing business at Rochester, N. Y. Filed Mar. 10, 1913. Serial No. 753,896. (Cl. 101—57.)



1. In a check writer, the combination with a platen, of a rotary type carrier having a plurality of transversely disposed type forms fixed thereon and relatively spaced longitudinally of the carrier, one of said members being shiftable relatively to the other in a direction longitudinally of the carrier to bring the individual forms, selectively, and the platen into coöperative positions and means for rotating the carrier while in coöperation with the platen to make the printing impression.

2. In a check writing machine, the combination with a fixed platen, of a longitudinally shiftable type carrier having a plurality of transversely disposed type forms fixed thereon and relatively spaced longitudinally of the carrier whereby the characters may be brought, selectively, into coöperative position relatively to the platen at the same point, the latter being adapted to coöperate with only one form at a time, means for rotating the carrier while in coöperation with the platen to make the printing impression and a check guide arranged to position a check passed through the machine in the direction of rotation of the carrier with a constantly uniform relationship to the platen.

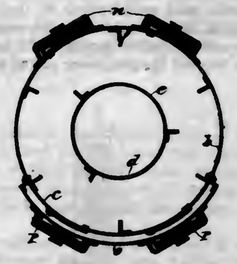
3. In a check writer, the combination with a rotary type cylinder having a plurality of circumferentially disposed forms fixed thereon and spaced longitudinally of the cylinder, of a rotary platen adapted to coöperate in rolling contact with only one form at a time and means for operating one of said members relatively to the other in a direction longitudinally of the cylinder to bring the individual forms, selectively, into coöperative position relatively to the platen.

4. In a check writer, the combination with a rotary type cylinder having a plurality of circumferentially disposed and relatively fixed forms thereon spaced longitudinally of the cylinder, of a platen adapted to coöperate with only one form at a time, means for rotating the cylinder while one of its forms is in coöperation with the platen during the taking of the impression and means for operating the cylinder back and forth longitudinally of its axis to bring the individual forms thereon, selectively, into coöperative position relatively to the platen.

5. In a check writer, the combination with a casing having a slot therein, of a platen within the casing, a shaft, a type carrier mounted thereon and having a plurality of type forms spaced from each other longitudinally of the carrier, the said carrier cylinder being shiftable longitudinally on the shaft to bring the individual type forms, selectively, into coöperative relationship with the platen, and an operating arm for so shifting the carrier extending through the slot in the casing and accessible from the exterior of the latter.

[Claims 6 to 54 not printed in the Gazette.]

1,138,331. DRUM FOR THE WORKING OF ANY KIND OF GRAIN. LUDWIG TOPF, Erfurt, Germany. Filed Apr. 8, 1912. Serial No. 689,336. (Cl. 34—7.)



1. A device for working grain, comprising in combination, a drum having a perforated section, an air pipe arranged within said drum forming a grain space between said drum and pipe, said air pipe having perforations located to direct the air issuing therefrom toward the top of said drum when the perforated section of the latter is at the bottom, the air being reversed in direction by contact with the top of the drum and leaving the latter at the bottom, and discharge and charge covers on said drum.

2. A device for working grain, comprising in combination, a drum having a perforated section, an air-pipe located in said drum and having a perforated section, said drum and pipe being located to form a grain space therebetween, and charge and discharge covers to said drum, said perforated sections being located in such relation to one another that air passing from said air-pipe will first strike against the solid portion of said drum and then reverse and pass out of the perforated portion of said drum.

3. A device for working grain, comprising in combination, a drum having a perforated section adapted to be exposed to the atmosphere, an air-pipe located within said drum and having a perforated section adapted to emit an air current into said drum in a direction away from the first mentioned perforated section, and charge and discharge covers on said drum.

4. A device for working grain, comprising in combination, a drum having a perforated portion exposed to the atmosphere, and having discharge and charge openings, perforated closures and air-tight covers for said openings, an air-pipe located within said drum and having a perforated portion adapted to emit an air current into said drum in a direction away from the first mentioned perforated portion.

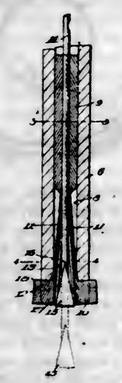
5. A device for working grain, comprising in combination, a drum having an exposed perforated portion, and an air-pipe located within said drum to form an annular grain space between said drum and pipe and having perforations through which air may enter said drum, the perforated portion of said drum being located, so that, when said grain-space is charged, air will issue from said air-pipe first outwardly against the solid portion of said drum and then reverse and pass through the grain to said perforated portion.

[Claim 6 not printed in the Gazette.]

1,138,332. REAMING-BITS FOR PROSPECTING-DRILLS. WILLIAM THOMPSON UNDERWOOD, Birmingham, Ala. Filed Apr. 29, 1914. Serial No. 835,125. (Cl. 255—77.)

1. A device of the class described, comprising a barrel adapted to be secured to a drill pipe section, said barrel

provided with a rectangular bore extending therethrough and provided at one end with diametrically opposed recesses communicating with the bore, a pair of stems substantially rectangular in cross-section disposed within the bore, said stems having their lower ends reduced to form resilient arms, oppositely disposed cutter heads on the lower ends of said resilient arms and disposed within the recesses in the barrel, diamonds carried by said cutter heads, said stems provided longitudinally of their meeting faces with centrally disposed substantially semitubular grooves forming a bore thorugh the stems, a rod disposed with the last said bore, and a wedge carried by said rod, said wedge normally disposed with its thin edge toward the cutter heads, said cutter heads at their meeting edges being beveled to form a guide for the wedge, said wedge adapted to be entered between said cutter heads for spreading the latter beyond the periphery of the barrel.



2. A device of the class described, comprising a barrel having a squared bore extending longitudinally and centrally therethrough and provided at one end with a pair of diametrically disposed recesses, said barrel adapted to be secured to a drill stem section, oppositely disposed cutter heads positioned within the recesses of the barrel, said cutter heads being movable away from each other, a rod disposed in a bore between the cutter heads and a wedge carried by said bore adapted to be entered between the cutter heads for spreading the latter beyond the periphery of the barrel.

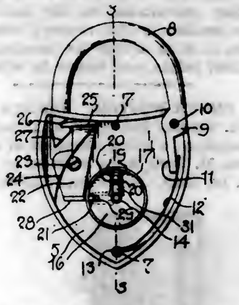
3. A device of the class described, comprising a hollow barrel, said barrel at one end provided with recesses, cutter heads disposed within the recesses, resilient means for maintaining said cutter heads within the recesses, and in proximity to each other, and means for entering between said cutter heads whereby to spread the latter beyond the periphery of the barrel.

4. A device of the class described, comprising a pair of cutter heads, means associated with the cutter heads for securing the latter to a drill pipe section, resilient means for normally maintaining said cutter heads within the circumference of a hole formed by the drill pipe, and means operable at will for spreading said cutter heads beyond the perimeter of the hole for enlarging the latter.

5. A device of the class described, comprising a pair of oppositely disposed cutter heads, means for securing the latter non-rotatably with relation to a drill pipe, means for normally maintaining said cutter heads in intimate relation with each other, and means for spreading the cutter heads at will.

1,138,333. PADLOCK. JOSEPH E. VEIGA, Lowell, Mass. Filed Dec. 17, 1914. Serial No. 877,736. (Cl. 70—105.)

1. In a lock, a case, a shackle pivoted at one end in the case and adapted to be projected at its opposite end into said case, a locking dog to coöperate with said shackle and hold the same in closed position, and a releasing member mounted in said case for rotatable and axial movement whereby the same may be coöperatively engaged with said dog.



2. In a lock, a case, a shackle pivoted at one end in said case and adapted to be projected into the case at its opposite end, a pivoted locking dog mounted in the case to engage the latter end of the shackle and hold the same in closed position, and a key actuated element rotatably and axially movable within said case whereby the same may be coöperatively engaged with said dog to actuate the same and release the shackle.

3. In a lock, a case, a shackle pivoted at one end in said case and adapted to have its other end projected into the case, a pivoted spring pressed locking dog mounted in the case to coöperate with the latter end of the shackle and hold the same in closed position, and a key actuated rotatably and axially movable element provided with means whereby the same is coöperatively engaged with said dog at the end of its axial movement in one direction to actuate the dog and release the shackle.

4. In a lock, a case, a shackle pivoted at one end in said case and adapted to have its other end projected into the case, a spring pressed locking dog pivotally mounted in the case to coöperate with said shackle and lock the same in closed position, a spring pressed key actuated element rotatably and axially movable in the case and normally held out of engagement with the locking dog, said element being provided with means to coöperatively engage said dog at the end of its axial movement in one direction whereby the dog is actuated upon a rotation of said element to release the shackle.

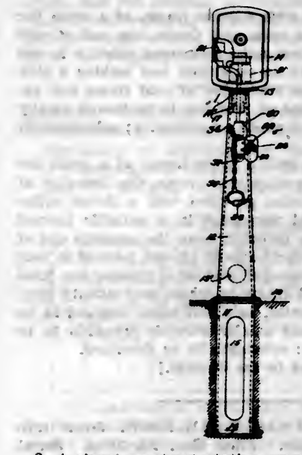
5. In a lock, a case, a shackle pivoted at one of its ends in said case and adapted to have its other end projected into the case, a pivoted spring pressed locking dog mounted in the case, one end of said dog engaging the shackle to hold the same in closed position, the other end of said dog having a lug formed thereon, a rotatably and axially movable disk mounted in the case, a spring yieldingly holding said disk against axial movement and in engagement with one of the case walls, said disk being provided with key engaging means and also having an opening therein to receive the lug on the locking dog when the disk is forced inwardly against the action of said spring whereby said disk is actuated to release the shackle.

[Claims 6 to 9 not printed in the Gazette.]

1,138,334. POLICE SIGNAL-STATION. KENNETH J. WALLACE, Brockton, Mass. Filed May 22, 1914. Serial No. 840,334. (Cl. 177—379.)

1. A signaling street station comprising a post adapted to be set in the ground, and a signaling box supported thereon; the said post having a compartment with a door below the signaling box; a hand-cuff with flexible connection fastened within said compartment, below said box; and means to eject the hand-cuff therefrom automatically upon the opening of said door.

2. A signaling street station comprising a post adapted to be set in the ground, a signaling box supported thereon; a compartment below the box, having a door; a hand-cuff with flexible connection fastened within said compartment; a lock for said door; and means for releasing said lock, said releasing means having a part located within the signal box, remote from said door, and adapted to be engaged by the operator to release said lock.



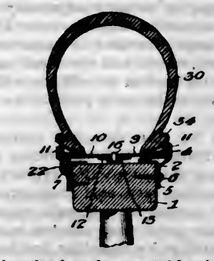
3. A signaling street station comprising a post adapted to be set in the ground, and a signaling box supported thereon; the said post being hollow and having a door in its side and a hand-cuff with flexible connection fastened within it; a lock for the door in the shaft of the post; an electric circuit controlling said lock; and a key for controlling said circuit, located within the main signaling box.

4. A signaling street station comprising a post adapted to be set in the ground, and a signaling box supported thereon; there being within a space adapted to hold a hand-cuff and having a bottom steeply inclined forward; a door for said space, adapted when closed to hold said hand-cuff on said inclined bottom, and when open to let it slip out of the space; and a flexible connection fastening the cuff to the post.

5. A signaling street station comprising a post adapted to be set in the ground, and a signaling box supported thereon; the said post being hollow and having a door and lock in its side; interior means to release said lock; an interior connection therefrom to the interior of the signal box; and means within the signal box remote from said door and lock for engagement by the operator to actuate said lock-releasing means.

[Claim 6 not printed in the Gazette.]

1,138,335. VEHICLE-WHEEL. CHARLES F. WARD and WILLIAM H. CLAY, Lexington, Ky., assignors of one-third to Porter Prather, Lexington, Ky. Filed Feb. 4, 1914. Serial No. 816,452. (Cl. 152—21.)



1. In a vehicle wheel, a demountable rim composed of a plurality of annular abutting members adapted to be placed edge to edge to form a substantially continuous surface for the tire, each of said rim members being provided with a flange, means to lock said rim members in position, and a plurality of annular plates adapted to be positioned permanently on the tire, and to be brought into binding engagement with the flanges of the demountable rim of said wheel.

2. In a vehicle wheel, an annular plate adapted to receive the clencher portion of a tire comprising a base, an inclined portion and a turned over portion, said turned over and inclined portions forming a channel for the clencher portion of a tire, said base terminating in an upstanding flange in juxtaposition to the inclined portion.

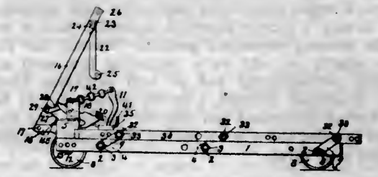
1,138,336. CURTAIN-SUPPORT. GEORGE M. WEITZEL, Duquesne, Pa. Filed July 30, 1913. Serial No. 782,066. (Cl. 156—22.)



1. In a curtain support, the combination, of a curtain pole having slots formed therein, relatively movable rods having their ends slidable in said slots, support means for the rods, lock means on the support to engage the rods, and means on the rod to lock the pole immovable relatively thereto.

2. In a curtain support, the combination, of a curtain pole having slots formed therein, rods having their ends slidable in said slots, means upon said rods and adjustable relatively to the pole to lock the rods against sliding movement, a stationary bracket, the said bracket serving as a support for the rods, and means adjustable relatively to the bracket and engageable with the respective rods to lock the latter immovable and the pole in its proper adjusted position, as and for the purpose set forth.

1,138,337. TRUCK. ENOCH WHALLEY, Willimansett, Mass. Filed Mar. 6, 1914. Serial No. 822,967. (Cl. 254—10.)



1. The combination, in a truck, of a body, a superimposed platform, links connecting said body and platform, an operating arm-provided link independent of said first-mentioned links, means operatively to connect opposite ends of said arm-provided link with said body and platform at points that are back of their front ends, a tongue pivotally connected with said body, and permanent connections between the arm of said arm-provided link and said tongue.

2. The combination, in a truck, of a body, a superimposed platform, links connecting said body and platform, an operating arm-provided link independent of said first-mentioned links, means operatively to connect opposite ends of said arm-provided link with said body and platform at points that are back of their front ends, a tongue pivotally connected with said body, permanent connections between the arm of said arm-provided link and said tongue, and locking means to hold said platform in its elevated position, and to release the same.

3. The combination, in a truck, a body and a superimposed link connected platform, said body and platform having attaching members for a link back of their front ends, an operating arm-provided link connecting said attaching members, a tongue pivotally connected with said body, a link pivoted to said tongue, and connecting means between said last mentioned link and the arm of said first mentioned link connection.

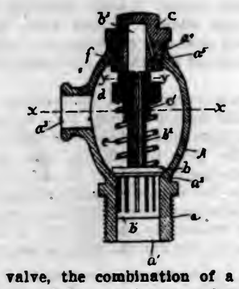
4. The combination, in a truck, of a body and a superimposed link connected platform, such body and platform

having attaching members back of their front ends for a link, an operating arm-provided link connecting said attaching members, a tongue pivotally connected with said body and provided with a shoulder, a link pivoted to said tongue in operative position relative to said shoulder, and connecting means between said last mentioned link and the arm of said first mentioned link.

5. The combination, in a truck, of a body and a superimposed link connected platform provided with transverse members, which extends from side to side of said body and platform, an intermediate operating link connected with said members obliquely arranged, braces between the sides of said body and platform and said members, and operating means for said link.

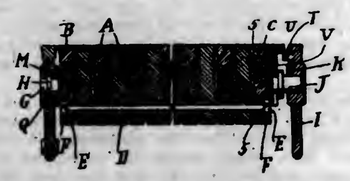
[Claims 6 and 7 not printed in the Gazette.]

1,138,338. RELIEF-VALVE. ROLVIN S. WHITNEY, Lewiston, Me. Filed May 4, 1914. Serial No. 836,154. (Cl. 137—53.)



In a relief valve, the combination of a casing having formed therein an inlet opening, a valve seat adjacent to said opening, a discharge opening, and a screw plug opening, a valve fitting said valve seat having guides extending into the inlet opening and guided by the walls thereof, a screw plug fitting said screw plug opening, said plug having a screw threaded extension and a central spindle opening extending partially through the plug, a valve spindle on said valve extending into said spindle opening, an adjusting nut on said extension having a series of shallow cavities, a spring pressed detent in said plug having a rounded end adapted to snap into and out of said cavities and a spiral spring interposed between said nut and said valve.

1,138,339. GRATE-BAR SECTION. EDWARD A. WILDT, Scranton, Pa. Filed Jan. 25, 1913. Serial No. 744,227. (Cl. 126—176.)



1. The combination with a grate frame, of a grate bar trunnioned for rocking upon said frame and an axially slidable lap expansion joint between said bar and said frame, one element of said lap joint being carried by said bar and being free from rotation, substantially as described.

2. The combination with a grate frame, of a grate bar trunnioned for rocking upon said frame and an axially slidable lap expansion joint between the end of said bar and said frame, one element of said lap joint being carried by said bar and engaging the other element of said lap joint, substantially as described.

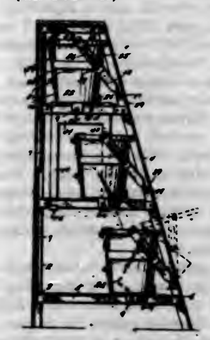
3. The combination with a grate frame, of a grate bar trunnioned for rocking upon said frame, one end of said bar being restrained from axial movement relatively to said frame, and the other end of said bar making an axially slidable lap expansion joint with said frame; substantially as described.

4. The combination with a grate frame, of a grate bar trunnioned for rocking upon said frame, one end of said bar being restrained from axial movement relative to one side of said frame, and an expansion leaf making a slidable lap joint with the other side of said frame and engaged with the free end of said bar to be moved axially therewith as said bar expands or contracts; substantially as described.

5. The combination with a grate frame, of a grate bar trunnioned for rocking upon said frame, the trunnion at one end of said bar being provided with a thrust collar and held against axial movement in a partable journal in said frame, and the trunnion upon the opposite end of said bar being free to move axially of said journal in said frame, and an expansion leaf making a slidable lap joint with that side of said frame in which said axially movable trunnion is journaled, said leaf being engaged in an annular channel in said axially movable trunnion to be axially moved thereby; substantially as described.

[Claim 6 not printed in the Gazette.]

1,138,340. SANITARY CANDY-PAIL RACK. JOHN OTTO WILES, Orleans, Nebr. Filed Mar. 26, 1914. Serial No. 827,427. (Cl. 211—6.)



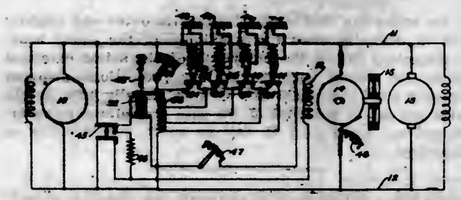
1. A device of the class described comprising a frame, a shaft carried by said frame, a pail supporting bracket comprising a cross-shape body provided with laterally extending fingers terminating in downwardly extending lips, said shaft extending through said lips for pivotally mounting said bracket upon said shaft, said body provided with a forwardly and a rearwardly extending finger, an adjustable section carried by said forwardly extending finger for engaging the front of said pail, said rearwardly extending finger provided with an upwardly extending portion, a cover engaging member adjustably mounted upon said rearwardly extending finger, a cover hingedly secured to said cover engaging member, a transversely extending bar carried by said frame, and cover raising arms secured to said bar and also secured to said cover for causing said cover to be swung to an open position as said bucket is tilted forwardly.

2. A device of the class described comprising a frame, a shaft carried thereby, a pail supporting bracket carried by said shaft, said pail supporting bracket provided with downwardly extending ears, said shaft extending through said ears, a pail carried by said pail supporting bracket, an adjustable cover supporting member engaging said pail and secured to said pail supporting bracket, a hinge carried thereby, said hinge provided with a right angularly extending leaf, said leaf engaging said cover, said leaf constituting a means for supporting said cover, and adjustable arms carried by said frame and engaging said cover for swinging said cover to an open position as said pail is swung forwardly.

3. A device of the class described comprising a frame, a shaft carried by said frame, a pail supporting bracket carried by said shaft, a cover, cover raising arms secured

to said cover, a transversely extending rod secured to said frame and engaging the lower ends of said cover raising arms, said rod adapted to constitute a stop for limiting the forward swinging movement of said pail, and an adjustable hinge secured to said bracket and engaging said cover for hingedly securing said cover upon said pail.

1,138,341. SYSTEM OF DISTRIBUTION. ROBERT B. WILLIAMSON, Milwaukee, Wis., assignor, by mesne assignments, to Allis-Chalmers Manufacturing Company, a Corporation of Delaware. Filed Sept. 30, 1909. Serial No. 520,330. (Cl. 171—312.)



1. In combination, a generator, a circuit supplied thereby, a dynamo-electric machine connected across said circuit, a fly-wheel on the shaft of said machine, a compressible resistance in the field circuit of said machine, and a plurality of solenoid operated switches directly responsive to different strengths of current supplied by said generator and operating to vary the pressure on said compressible resistance changing the effective resistance thereof for causing fluctuations in the load on said supplied circuit to be absorbed by said machine and fly-wheel.

2. In combination, a generator, a circuit supplied thereby, a dynamo-electric machine, means for regulating the voltage of said machine comprising a compressible resistance for the machine field circuit, a series of solenoids responsive to different strengths of current supplied by said generator, a separate solenoid the core of which is actuated to change the pressure on said compressible resistance medium, and switches operated by said series of solenoids and being adapted to vary the number of effective turns of said separate solenoid for controlling the amount of effective resistance in said field circuit.

3. In combination with an electric circuit, a resistance, means for regulating said resistance comprising a series of solenoids responsive to different strengths of current in said circuit, switches operated by said solenoids, a separate solenoid the core of which is actuated to vary said resistance, said switches when actuated by different strengths of current in said circuit acting to vary the number of effective turns of said separate solenoid for controlling the value of said resistance.

4. In combination with an electric circuit, a variable resistance, means for regulating said resistance comprising a series of electro-magnetically operated switches responsive to different strengths of current in said circuit, and an electromagnet the movable part of which is actuatable to vary the value of said resistance, said switches being actuatable by different strengths of current in said circuit to vary the effective ampere turns of said electromagnet for controlling the action of said movable part.

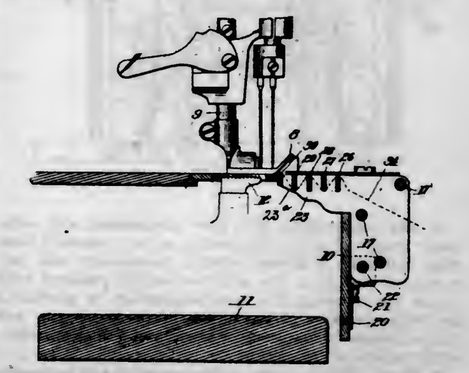
1,138,342. CLEANING DEVICE FOR INTAGLIO PLATES. HENRY A. WISE WOOD, New York, N. Y., assignor to Wood & Nathan Company, New York, N. Y., a Corporation of New York. Original application filed Feb. 25, 1907, Serial No. 359,116. Renewed Mar. 7, 1912, Serial No. 682,085. Divided and this application filed May 3, 1912. Serial No. 694,844. (Cl. 101—104.)

1. The combination with an intaglio printing member having a slit or gap, of a cleaning device, and adjustable means located near the member but independent thereof in position to engage the cleaning device while passing the gap for holding the same substantially at the height of the printing surface.

2. The combination with a printing member having intaglio printing surfaces thereon separated by a slit or gap, of a movable cleaning device, means for yieldingly holding the cleaning device in contact with said surfaces, and means located near the intaglio surfaces but independent thereof and of said holding means in position to hold the cleaning device while passing the gap at substantially the height of said printing surfaces.



1,138,343. EDGING-GUIDE FOR SEWING-MACHINES. RUSSEL G. WOODWARD, Chicago, Ill., assignor to Union Special Machine Company, Chicago, Ill., a Corporation of Illinois. Filed Aug. 6, 1909. Serial No. 511,595. (Cl. 112—9.)



1. The combination with a stitch forming mechanism and a feeding mechanism, of a guiding device for guiding and edging containing oppositely extending diagonally arranged cross bars to said stitch forming mechanism, said guide device having means for alining the opposed apices of each pair of apices of the cross bars, whereby each pair of opposed apices will be fed to the stitch forming mechanism in a line at right angles to the line of feed.

2. The combination with a stitch forming mechanism and a feeding mechanism, of a guiding device for guiding an edging containing oppositely extending diagonally arranged cross bars, to said stitch forming mechanism, said guiding device having means for alining and spreading the opposed apices of each pair of apices of the cross bars whereby each pair of opposed apices will be fed to the stitch forming mechanism in a line at right angles to the line of feed and in proper spaced relation to be engaged by the stitch forming mechanism.

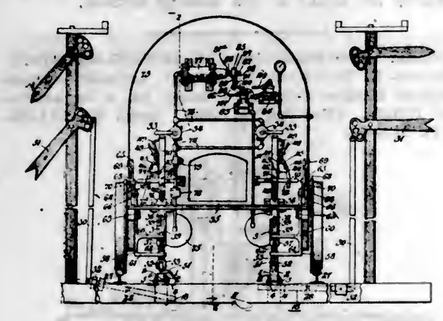
3. The combination with a stitch forming mechanism and a feeding mechanism, of a guiding device for guiding an edging containing oppositely extending diagonally arranged cross bars to said stitch forming mechanism, said guiding device having means for engaging in the respective openings between the opposed apices of each pair of apices of the cross bars, whereby the pairs of opposed apices will be stretched laterally and simultaneously alined so as to be fed to the stitch forming mechanism in a line at right angles to the line of feed.

4. In a guiding device for guiding edging containing oppositely extending diagonally arranged cross bars, a pair of spaced side members between which the edging is to be fed, and means disposed between said side members for engagement with the edging to aline the opposed apices of each pair of apices of the cross bars in a line at right angles to the line of feed of the edging.

5. The combination with a stitch-forming mechanism, of a device for guiding an edging having diagonally arranged cross bars, to said stitch-forming mechanism, including normally stationary guiding members over which the edging may be drawn, said members having curved guiding faces terminating in guiding recesses which spread the edging and properly position the cross bars thereof.

[Claims 6 to 20 not printed in the Gazette.]

1,138,344. AUTOMATIC TRAIN-STOP. EZRA H. WULFF, Toledo, Ohio. Filed Aug. 11, 1913. Serial No. 784,138. (Cl. 246—59.)



1. The combination with the independent and automatic brake valves of a locomotive, of an automatic train stop including a device movable backwardly and forwardly to and from the said valves and provided with means for actuating the same successively to produce a preliminary setting of the brakes of the locomotive and tender to take up the slack of a train, and final operation of the brakes of the cars of the train.

2. The combination with the independent and automatic brake valves of a locomotive, of an automatic train stop including a track device having a contact member and a device carried by the locomotive and operated by the contact device, the locomotive device being movable backwardly and forwardly to and from the said valves and provided with means for successively operating the same, said means being normally spaced from the valves to permit free manual operation of the same.

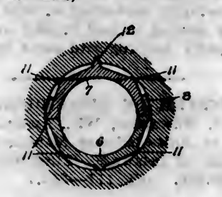
3. The combination with the independent and automatic brake valves of a locomotive, of an automatic train stop including a device carried by the locomotive and movable backwardly and forwardly to and from the said valves and provided with means for first actuating the independent brake valve to secure a slow application of the brakes of the locomotive and tender and then for operating the automatic brake valve to produce a service application of the brakes.

4. The combination with the independent and automatic brake valves of a locomotive, of an automatic train stop comprising a contact member, mechanism carried by the locomotive and operated by the contact member, said mechanism including a device movable backwardly and forwardly toward and from said valves and provided with means arranged to first operate the independent brake valve to set the brakes of a locomotive and tender and then operate the automatic brake valve to set the brakes of the cars of a train.

5. The combination with the independent and automatic brake valves of a locomotive, of an automatic train stop comprising a track device having a contact member, and fluid pressure mechanism carried by the locomotive and operated by the contact member, said fluid pressure mechanism including a device movable backwardly and forwardly toward and from the handles of the valves and arranged to successively actuate the same.

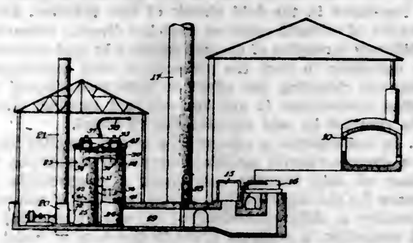
[Claims 6 to 33 not printed in the Gazette.]

1,138,345. EXPANSION-BOLT. LOTHAR R. ZIPPERER, New York, N. Y. Filed Nov. 25, 1914. Serial No. 873,968. (Cl. 85—2.4.)



An expansion bolt shield having its outer end slightly less in diameter than the remainder of the shield body, a projecting fin on the outer end of the shield extended above the shield body, and other projections disposed parallel with the shield axis of substantially even height with the shield body, all of the said projections being arranged not more than 45 degrees apart, substantially as described.

1,136,346. BOILER FOR UTILIZING WASTE HEAT. CHARLES J. BACON, Chicago, Ill. Filed Jan. 7, 1915. Serial No. 1,022. (Cl. 122—114.)



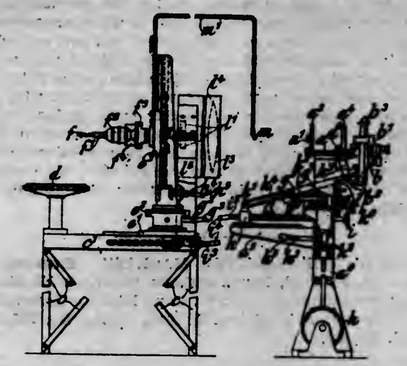
1. In a waste heat boiler for utilising exhaust gases from a regenerative metallurgical furnace, the combination of a first pass and a second pass, said passes consisting in shells containing water and provided with fire tubes, and a steam drum above the level of the connection between adjacent passes, substantially as described.

2. A device for utilising waste heat from the exhaust gases of regenerative metallurgical furnaces comprising in combination a two-pass fire tube boiler, and means for admitting feed water at the lower end of the second pass, substantially as described.

3. In a device for utilising waste heat from regenerative metallurgical furnaces, the combination of a pair of fire tube boilers located in juxtaposition and connected by a flue at their upper ends, means for admitting waste gases at the lower end of the first pass and discharging the same at the lower end of the second pass, and means for admitting feed water at the coolest point in said boilers, substantially as described.

1,138,347. COPYING DEVICE. WALTHER BAUERSFELD, Jena, Germany, assignor to the Firm of Carl Zeiss, Jena, Germany. Filed Dec. 20, 1913. Serial No. 808,004. (Cl. 33—174.)

1. In a copying device for direct and continuous copying a copying system comprising a copy-carrier and a copying tool, means adapted to displace the said copy-carrier and the said copying tool relatively to one another, a system of actuating devices adapted to operate the said means, a mark connected with the said copying system and adapted to share the said relative displacement, a stereoscopic system comprising a stereoscopic pair of photograms of the object to be copied and two objectives disposed in juxtaposition to the said pair of photograms and on that side of them which faces the said copying system, means for observing the said photograms and an illuminating device adapted to present the said mark to the said objectives, each of which latter is adapted to form an image of the said mark on the photogram opposite to it.



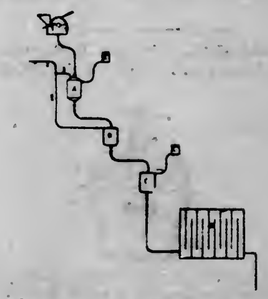
2. In a copying device for direct and continuous copying a copying system comprising a copy-carrier and a copying tool, means adapted to displace the said copy-carrier and the said copying tool relatively to one another, a system of actuating devices adapted to operate the said means, a mark connected with the said copying system and adapted to share the said relative displacement, the connecting line between the mark and the tool-point remaining parallel to itself during such displacement, a stereoscopic system comprising a stereoscopic pair of photograms of the object to be copied and two objectives disposed in juxtaposition to the said pair of photograms and on that side of them which faces the said copying system, means for observing the said photograms and an illuminating device adapted to present the said mark to the said objectives, each of which latter is adapted to form an image of the said mark on the photogram opposite to it.

3. In a copying device for direct and continuous copying a copying system comprising a copy-carrier and a copying tool, a spatial cross-slide system adapted to displace the said copy-carrier and the said copying tool relatively to one another, a system of actuating devices adapted to operate the said cross-slide system, a mark connected with the said copying system and adapted to share the said relative displacement, a stereoscopic system comprising a stereoscopic pair of photograms of the object to be copied and two objectives disposed in juxtaposition to the said pair of photograms and on that side of them which faces the said copying system, means for observing the said photograms and an illuminating device adapted to present the said mark to the said objectives, each of which latter is adapted to form an image of the said mark on the photogram opposite to it.

4. In a copying device for direct and continuous copying a copying system comprising a copy-carrier and a copying tool, a spatial cross-slide system consisting of a height-slide, a breadth-slide and a depth-slide adapted to displace the said copy-carrier and the said copying tool relatively to one another, a system of actuating devices adapted to operate the said cross-slide system, a mark connected with the said copying system and adapted to share the said relative displacement, a stereoscopic system comprising a stereoscopic pair of photograms of the object to be copied and two objectives disposed in juxtaposition to the said pair of photograms and on that side of them which faces the said copying system, means for observing the said photograms and an illuminating device adapted to present the said mark to the said objectives, each of which latter is adapted to form an image of the said mark on the photogram opposite to it.

5. In a copying device for direct and continuous copying a copying system comprising a copy-carrier and a copying tool, a spatial cross-slide system consisting of a height-slide, a breadth-slide and a depth-slide adapted to displace the said copy-carrier and the said copying tool relatively to one another, a system of actuating devices adapted to operate the said cross-slide system, a mark connected with the said copying system and adapted to share the said relative displacement, a stereoscopic system comprising a stereoscopic pair of photograms of the object to be copied and two objectives disposed in juxtaposition to the said pair of photograms and on that side of them which faces the said copying system, means adapted to displace the said photograms relatively to the said objectives, each in the direction of the axis of the objective belonging to it, coupling means between the said photograms and the said depth-slide, means for observing the said photograms and an illuminating device adapted to present the said mark to the said objectives, each of which latter is adapted to form an image of the said mark on the photogram opposite to it.

1,138,348. PRODUCTION OF SOLUBLE NITROGEN COMPOUNDS FROM ORGANIC SUBSTANCES OF ANIMAL ORIGIN. EMILE BOHON, Paris, France, assignor to Jacques Sloan, Paris, France, and said Emile Bohon. Filed Feb. 20, 1914. Serial No. 820,084. (Cl. 99—11.)



1. The herein-described process of producing nitrogen compounds perfectly soluble in water from organic substances of animal origin, which consists in boiling such substance in a caustic alkaline solution to completely dissolve it; removing the oils or fats which rise to the top of the boiling substance; neutralising the boiled substance by means of an acid; and finally concentrating the boiled and neutralised substance.

2. The herein-described process of producing nitrogen compounds perfectly soluble in water from organic substances of animal origin, which consists in boiling such substance in a caustic alkaline solution, to completely dissolve it; removing the oils or fats which rise to the top of the boiling substance; neutralising the boiled substance by means of an excess of acid and a quantity of sodium bicarbonate sufficient to destroy the excess of acid; and finally concentrating the boiled and neutralised substance.

3. The herein-described process of producing nitrogen compounds perfectly soluble in water from organic substances of animal origin, which consists in boiling such substance in a hydrated alkaline solution, to completely dissolve it; neutralising the solution thus produced with hydrochloric acid; and finally concentrating the neutralised solution.

4. The herein-described process of producing nitrogen compounds perfectly soluble in water from organic substances of animal origin, which consists in subjecting such substance to the action of a slightly caustic alkaline solution under heat and pressure, to completely dissolve it; neutralising the solution thus produced; and finally concentrating the neutralised solution.

1,138,349. AUTOMATIC TRAIN-CONTROLLING DEVICE. ABRAM L. BOWER, Boyertown, Pa. Filed Mar. 17, 1914. Serial No. 825,386. (Cl. 246—59.)

1. The herein described combination of a semaphore blade on the roadway, a fragile conductor mounted to engage said blade, a train circuit containing a source of electric current, a magnet and the fragile conductor.

2. An engaging arm located along the trackway, a circuit on the train, said circuit including a fragile conductor and a magnet, a brake valve controlled by the magnet, said fragile conductor being adapted to engage said arm when the latter is in stop position.



3. An engaging arm on the trackway, a train controlling device, a train circuit operating the train controlling device, a fragile conductor in the circuit adapted to engage said arm.

4. An engaging arm on the trackway, a train controlling device, a train circuit operating the train controlling device, a fragile conductor in the circuit, said conductor being adapted to engage said arm, said arm having two positions, an engaging position assumed by gravity and a non-engaging position.

1,138,350. SNAP-SEAL. EDWARD J. BROOKS, East Orange, N. J. Filed Feb. 2, 1915. Serial No. 5,677. (Cl. 70—99.)



1. In a snap seal of the type hereinbefore specified, the combination with a resiliently flexible shackle both ends of which are provided with fastening members, and a bulb-shaped seal part having an inlet hole in its top fitted to said shackle ends, of a double center piece inclosed within said seal part and adapted to interlock with said shackle ends, substantially as described, and having guides integral with the upper inner part thereof adapted to engage the edges of said shackle ends and properly aline same for the locking operation.

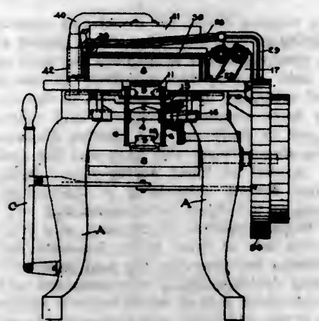
2. In a snap seal of the type hereinbefore specified, the combination with a resiliently flexible shackle both ends of which are provided with fastening members, and a bulb-shaped seal part having an inlet hole in its top fitted to said shackle ends, of a double center piece inclosed within said seal part adapted to interlock the said shackle ends, substantially as described, and having guides integral with the inner body portions of said center piece bent outwardly at right angles thereto and adapted to engage the edges of said shackle ends and properly aline same for the locking operation.

3. In a snap seal of the type hereinbefore specified, the combination with a resiliently flexible shackle both ends of which are provided with fastening members, and a bulb-shaped seal part having an inlet hole in its top fitted to said shackle ends, of a double center piece inclosed within said seal part provided with catches and catch surfaces adapted to interlock with said shackle ends, substantially as described, and having spring fingers adapted to engage the outer faces of the ends of said shackle and press the same into effective engagement with said catches and catch surfaces.

4. In a snap seal of the type hereinbefore specified, the combination with a resiliently flexible shackle both ends of which are provided with fastening members, and a bulb-shaped seal part having an inlet hole in its top fitted to said shackle ends, of a double center piece inclosed within said seal part provided with catches and catch surfaces adapted to interlock with said shackle ends, substantially as described, and having oblique spring fingers integral with the outer body portions of said center part at its upper ends adapted to engage the outer faces of the ends of said shackles and press same into effective engagement with said catches and catch surfaces.

5. An improved snap seal having, in combination, a resiliently flexible shackle both ends of which are provided with fastening members, a bulb-shaped seal part slotted to form inlet holes for said shackle ends, and a double center piece adapted to be contained within said seal part having catches and catch surfaces adapted to interlock with the fastening members of said shackle ends, spring fingers adapted to press said shackle ends into engagement with said catches and catch surfaces, and guide members adapted to engage the edges of said shackle ends and properly aline same for the locking operation; substantially as hereinbefore specified.

1,138,351. BOX-FLANGING MACHINE. SHERMAN T. BROWN, St. Paul, Minn., assignor to Brown Machinery Manufacturing Company, St. Paul, Minn., a Corporation of Minnesota. Filed Dec. 5, 1912. Serial No. 735,061. (Cl. 93—55.)



1. A machine of the class described comprising a carrier, means carried thereby for supporting a box or cover, means arranged along the path of travel of said carrier for applying glue to a supported box or cover, a flange supporting receptacle arranged along the path of travel of said carrier, guideways extending from said receptacle across said carrier, means for shoving a flange from said receptacle onto said guideways, and means for rotating said guideways to deposit a supported flange upon an underlying box or cover.

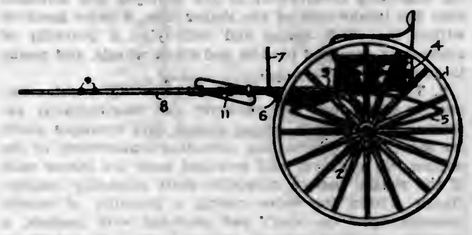
2. A machine of the class described comprising a carrier, means carried thereby for supporting a box or cover, means arranged along the path of travel of said carrier for applying glue to a supported box or cover, a receptacle for a superimposed plurality of flanges arranged along the path of travel of said carrier, guideways extending from said receptacle across said carrier, a slide below said receptacle, means for actuating said slide to shove the lowermost flange onto said guideways, and means for actuating said guideways to deposit a supported flange top upon an underlying box or cover.

3. A machine of the class described comprising a carrier, means carried thereby for supporting a box or cover, means arranged along the path of travel of said carrier for applying glue to a supported box or cover, a receptacle for a superimposed plurality of flanges arranged along the path of travel of said carrier, guideways extending from said receptacle across said carrier, a horisontally adjustable slide arranged below said receptacle, means for actuating said slide to shove the lowermost flange onto said guideways, and means for actuating said guideways to deposit a supported flange upon an underlying box or cover.

4. A machine of the class described comprising a carrier, means carried thereby for supporting a box or cover, means arranged along the path of travel of said carrier for applying glue to a supported box or cover, a receptacle for a superimposed plurality of flanges arranged along the path of travel of said carrier, horisontally adjustable flange centering guides arranged within said receptacle, a horisontally movable slide at the bottom of said receptacle, flange holding devices alongside said receptacle above said carrier, means for actuating said slide to carry the lowermost flange from said receptacle to said holders, and means for actuating said holders to deposit a supported flange upon an underlying box or cover.

5. A machine of the class described comprising an endless carrier, means carried thereby for supporting a box or cover, means arranged along the path of travel of said carrier for applying glue to a supported box or cover, a receptacle for a superimposed plurality of flanges arranged along the path of travel of said carrier, means for shoving the lowermost flange in said receptacle over an adjacent carrier supported box or cover and depositing the same upon said box or cover, and means for pressing said flange upon said box or cover, comprising a pressure plate adjustably supported above the carrier, and means for carrying said pressure plate into contact with an underlying box or cover.

1,138,352. HORSE-DRAWN VEHICLE. JOSEPH P. BROWNLEE, Evanston, Ill., assignor to The Studebaker Corporation, South Bend, Ind., a Corporation of New Jersey. Filed June 25, 1914. Serial No. 847,214. (Cl. 21—56.)



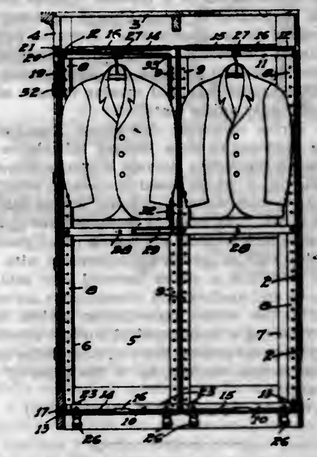
1. A two-wheeled horse drawn vehicle having shafts secured to the axle and adapted to be secured to the saddle harness, said shafts transversely divided intermediate the axle and saddle connections and united by hinges operating in a plane passing approximately through the longitudinal center of the shafts, leaf springs, two permanently secured to two of said sections of the shafts which are opposite on one side thereof and two permanently secured to the opposite sections on the opposite side thereof, said springs being looped and pivotally secured to the opposite sections of the shafts so that the tension of said springs is opposed, operating normally to maintain the shafts in longitudinal alinement, but adapted to yield to horse motion.

2. A two-wheeled horse drawn vehicle having shafts secured to the axle and adapted to be secured to the saddle harness, said shafts transversely divided intermediate the axle and the saddle connection and united by hinges operating in a plane passing approximately through the longitudinal center of the shafts so that the movement of the shafts is in the arc of a circle about the axis of the hinges, elastic means suitably mounted, in reverse position, on opposite sides of the shafts and between the sections thereof with their tension directed to maintain the sections normally in longitudinal alinement, and opposed to the movement of the shafts in their common arc of a circle about the axis of the hinges.

1,138,353. CABINET. GEORGE S. CARTER, Minneapolis, Minn. Filed Jan. 2, 1914. Serial No. 809,971. (Cl. 211—16.)

1. The combination, with a cabinet, having an open front, of a plurality of wheeled carriers fitting within said cabinet, one in front of the other, an automatic latch adapted to lock said carriers together when they are inclosed within said cabinet, and means accessible from the front of the forward carrier for releasing said latch, substantially as described.

2. The combination, with a normally stationary cabinet, of merchandise carriers arranged therein, one in front of another, means connecting the front and rear carriers for simultaneous movement out of said cabinet, and means operable from outside the cabinet for releasing said locking means to allow the forward carrier to be removed independently of the rear carrier.



3. The combination, with a normally stationary cabinet, of merchandise carriers arranged therein, one in front of another, a latch device connecting the front and rear carriers for simultaneous movement out of said cabinet, and means operable from outside the cabinet for tripping said latch device to allow the forward carrier to be removed independently of the rear carrier.

4. The combination, with a normally stationary cabinet having an open front, of a merchandise carrier fitting within said cabinet and composed of an upright frame having merchandise racks thereon, said carrier having a facing composed of upright stiles and cross bars between them at the top and bottom, and doors hinged to said stiles, said facing having packing strips mounted in said stiles and the cross bar at the top of said carrier, said packing strips contacting with and forming close, dust-proof joints between said facing and the front of said cabinet, said carrier being freely movable from or into said cabinet, for the purpose specified.

1,138,354. STYLUS FOR SOUND-REPRODUCING MACHINES. PLINY CATUCCI, Newark, N. J., assignor to A. F. Meisselbach & Brother, a Corporation of New Jersey. Filed Aug. 10, 1914. Serial No. 855,946. (Cl. 181—11.)



1. In a stylus mounting for sound reproducing machines, the combination of a tubular thimble having one of its ends contracted to form a small opening, a rough jewel embedded in a cementitious material within said thimble, resting against the ledge formed by and projecting slightly from said contracted opening, and a working point ground upon said jewel, said working point lying in the axis of said thimble.

2. In a stylus mounting for sound reproducing machines, the combination of a tubular thimble having one of its ends contracted to provide a comparatively small opening therein, a rough jewel embedded in a cementitious

material within said tubular thimble, resting against the ledge formed by and projecting slightly from said opening, and a working point upon the projecting part of said jewel with the axis of said point coincident with the axis of said thimble.

3. In a stylus mounting for sound reprodncing machines, the combination of a tubular thimble having one of its ends contracted to form a small opening, a rough jewel embedded in a cementitious material within said tubular thimble for holding said jewel in place, a working point ground upon said jewel in the axis of said thimble, and a shank inserted into said tubular thimble above and against said cementitious material.

4. In a stylus mounting for sound reproducing machines, the combination of a tubular thimble having one of its ends contracted to provide a comparatively small opening therein, a rough jewel projecting slightly from said opening, a cementitious material within said tubular thimble in which said jewel is embedded for holding the same against displacement, a working point ground upon the projecting part of said jewel coincident with the axis of said thimble, and a shank inserted into said tubular thimble above and against said cementitious material.

5. A stylus for sound reproducing devices having a rough jewel having a hemispherical surface provided with a single stylus point ground thereon, said stylus point having an axial-section conforming to the sides of an equilateral triangle.

[Claims 6 to 15 not printed in the Gazette.]

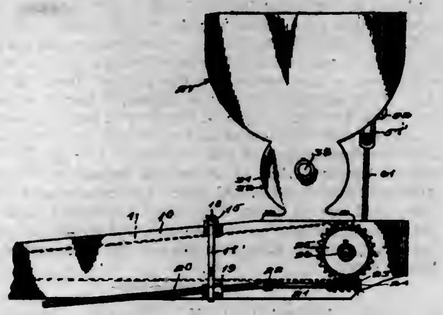
1,138,355. DENTAL TOOL. CASSIUS M. CARR, Fort Worth, Tex. Filed Oct. 12, 1905. Serial No. 282,462. (Cl. 32—10.)



1. A scale removing dental tool comprising a handle, a compound bent shank, and, adjacent the end of said shank, a cutting edge extending to and coincident with a line projecting from and extending through the longitudinal axis of the handle, said shank being formed adjacent the cutting edge with a guide surface which transversely comprises substantially straight line elements and which longitudinally conforms to the shape of the tooth surface to be operated upon and is adapted to rest thereon in contact with the tooth surface in such manner as to prevent the cutting edge from scraping the dentine of the root of the tooth, the guide surfaces, cutting edge and the end of the shank beyond the cutting edge being so shaped that when cutting, the tool must rest upon the tooth at two points, one point being in the cutting edge and the other point being in the guide surface adjacent thereto, so that the tool must be operated by a drawing motion, the point of contact in the guide surface necessarily going ahead of the cutting edge, thus causing the tool to cut after the manner of a Japanese plane.

2. Tools for the treatment of teeth comprising a series of straight handles, each tool adapted for use upon a predetermined shaped portion of the tooth and each having a cutting edge and a guiding portion, the guiding portion serving to engage with the tooth in advance of the cutting edge to steady the same, and the cutting edge being in the line of the axis of the handle whereby the instrument has no tendency to turn when in use, and plaines as contradistinguished from scraping the surface.

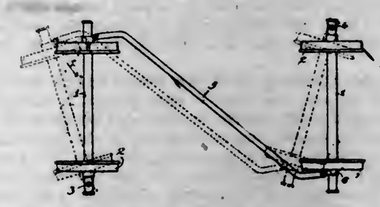
1,138,356. FEED MECHANISM FOR CANDY-COATING MACHINES. JAMES CONTE, Lima, Ohio. Filed Feb. 14, 1914. Serial No. 818,710. (Cl. 91—2.)



1. The combination with a candy coating machine embodying a conveyer and longitudinally extending and laterally spaced shaker bars arranged thereon, of a valve casing extending transversely of the conveyer and arranged near the intake ends of the shaker bars, a valve mounted within the valve casing and embodying a plurality of alternately arranged pockets and blank wheels, and means to move the valve.

2. The combination with a candy coating machine embodying an endless belt conveyer and longitudinally extending and laterally spaced shaker bars arranged above the same, of a valve casing extending transversely of the endless belt conveyer and arranged near the intake ends of the shaker bars, a rotatable shaft extending longitudinally within the valve casing, a plurality of wheels mounted upon the shaft and provided with pockets, a plurality of blank wheels arranged upon the shaft in alternate relation to the pockets, means to laterally move the shaker bars, and means to rotate the shaft.

1,138,357. CAR-TRUCK. SAMUEL M. CURWEN, Philadelphia, Pa., assignor to The J. G. Brill Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Jan. 28, 1911. Serial No. 605,156. (Cl. 105—137.)



1. In a truck of the class described, a truck frame, wheels, two normally parallel axles for said wheels, axle boxes and means for pivoting two of said axle boxes so that an axle may radiate from each, links for mounting the other axle boxes so that they may move relatively to the truck and in horisontal planes, and means for connecting said axles so that the same will radiate in unison.

2. In a truck of the class described a truck frame, wheels, axles, axle boxes and means for pivoting two of said axle boxes so that an axle may radiate from each, means for mounting the other axle boxes so that they may move relatively to the truck and in a horisontal plane, a motor casing sleeved on one of said axles and means for flexibly connecting said casing with said truck frame whereby the said motor casing is supported.

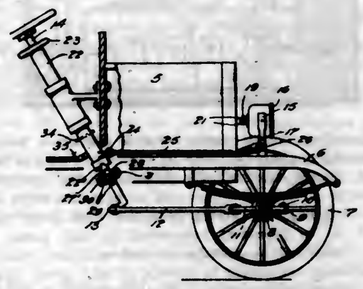
3. In a truck of the class described a truck frame, wheels, axles, axle boxes and means for pivoting two of said axle boxes so that an axle may radiate from each, and means for mounting the other axle boxes so that they may move relatively to the truck and in a horizontal plane.

4. In a truck of the class described a side frame having small pedestals 8 and large pedestals 9 so that the pedestal 8 is adapted to receive and pivot an axle box and the pedestal 9 will stay clear of an axle box at all times.

5. In a truck of the class described, side frames and crossings connected to the same, axles with axle boxes mounted thereon one of said axle boxes being adapted to be pivoted in said frame and means for flexibly connecting the other axle box to said frame whereby it may have movement relative thereto and out of contact with said frame.

[Claims 6 to 14 not printed in the Gazette.]

1,138,358. HEADLIGHT CONTROL FOR AUTOMOBILES. JAMES E. DEMPSEY, Seattle, Wash. Filed Feb. 16, 1914. Serial No. 818,873. (Cl. 240—62.)



1. A device for controlling headlights, comprising a steering post, a clutch member splined thereon and capable of reciprocatory movements with relation thereto, a sleeve mounted thereon for rotary movements and means whereby said sleeve and clutch member may be rotated in unison or independently of one another.

2. In combination with the steering post of an automobile, of a sleeve mounted thereon, said sleeve being provided at one end with a hand wheel and at its other end with a plurality of recesses, a clutch member splined on said steering post and provided with a plurality of teeth, and means controlled by the operator for bringing said teeth into engagement with said recesses, whereby said sleeve and said clutch member may be rotated in unison with said steering post.

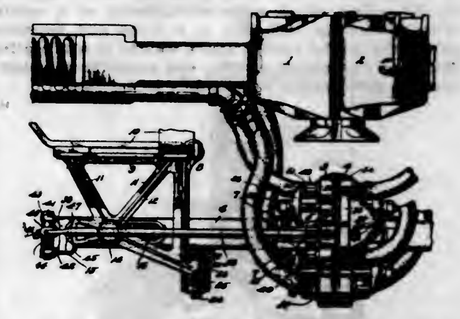
3. In a device of the class described, a steering post, a sleeve loosely mounted thereon, a clutch member splined thereon, means for rotating said sleeve independently of said steering post, and spring actuated means for reciprocating said clutch member, whereby said sleeve and said clutch member are made to rotate in unison.

4. In a device of the class described, the combination with a steering post and headlights, of a sleeve loosely mounted thereon, provided with a hand wheel at one end thereof and a plurality of recesses at the other end thereof, a clutch member splined on said steering post adjacent the recessed end of said sleeve, means connecting said sleeve with said headlights for rotating the latter in unison with or independently of said steering post.

5. A control for headlights comprising a steering post having a sleeve loosely mounted thereon, and a clutch member splined thereon, a spring actuated tread plate adapted to reciprocate said clutch member into and out of engagement with said loosely mounted sleeve, and means coöperating with said tread plate for locking said clutch member into engagement with said loosely mounted sleeve thereby affording means whereby said clutch member and said sleeve are made to operate in unison with said steering post.

[Claims 6 and 7 not printed in the Gazette.]

1,138,359. AUTOMATIC TRAIN-PIPE COUPLING. VOTAW S. DURBIN, St. Louis, Mo., assignor to Durbin Automatic Train Pipe Connector Company, St. Louis, Mo., a Corporation of Arizona. Filed Jan. 6, 1913. Serial No. 740,813. (Cl. 188—18.)



1. In a train pipe coupler, a bracket, a coupling member pivotally mounted therein, said bracket having a rigid portion extending downward under said coupling member, and a yieldable support for said coupling member on said downwardly extending portion of the bracket.

2. In a train pipe coupler, a bracket, a coupling member pivotally mounted in said bracket, a casing carried by said bracket, a spring pressed plunger working in said casing, and an adjusting bolt mounted in said plunger and adapted to support said coupling member.

3. In a train pipe coupler, a bracket, a hollow plunger mounted therein and having an elongated opening, a pivot pin mounted in the bracket and extending through said opening, a coil spring mounted in the plunger and extending between said pivot pin and the end of the plunger, a coupler head mounted on said plunger, and a yielding support mounted on the bracket and engaging the under side of said plunger.

4. In a train pipe coupler, in combination with the coupler head, an elbow-shaped, pipe-connecting nipple having one end portion rotatably mounted in the coupler head, a lug on said nipple, a bolt mounted on the coupler head and having a screw-threaded outer end, a bridge piece slidably mounted on said bolt and having a socket for engaging said lug, and a nut for said bolt whereby to clamp the bridge piece in position.

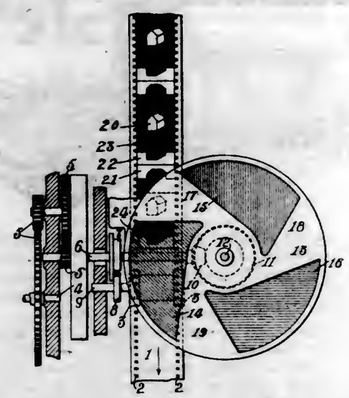
5. In a train pipe coupler, in combination with a coupler head having an aperture, an elbow-shaped, pipe-connecting nipple having a straight portion rotatably mounted in said aperture and provided on its exterior with a lug located substantially in the plane of the axis of said straight portion, a bolt mounted on the coupler head and having a screw-threaded outer end, a bridge piece slidably mounted on said bolt and having a socket for receiving said lug, and a nut for said bolt whereby to clamp the bridge piece in position.

[Claims 6 to 10 not printed in the Gazette.]

1,138,360. METHOD OF PRESENTING THE ILLUSION OF SCENES IN COLORS. THOMAS A. EDISON, Llewellyn Park, West Orange, N. J., assignor to New Jersey Patent Company, West Orange, N. J., a Corporation of New Jersey. Continuation of application Serial No. 728,370, filed Oct. 29, 1912. This application filed June 16, 1913. Serial No. 773,843. (Cl. 88—16.4.)

1. The method of making a photographic film consisting in producing a negative by photographing at spaced intervals upon a sensitized film a series of images of an object or scene, preparing a positive film therefrom, blocking out solidly on the positive thus obtained all the portions of each image other than those representing the portions of the scene photographed of a certain color, different in each view, making a sub-negative from the blocked out positive, and preparing a positive from the sub-negative, substantially as described.

2. The method of making a photographic film consisting in producing a negative by photographing at spaced intervals upon a sensitized film a plurality of series of images of a moving scene, preparing a positive film therefrom, blocking out solidly on the positive thus obtained all the portions of each image other than those representing the portion of the scene photographed of a certain color, different in each view of a series, and recurring periodically in the various series, making a sub-negative from such blocked out positive, and preparing a positive from the sub-negative, substantially as described.



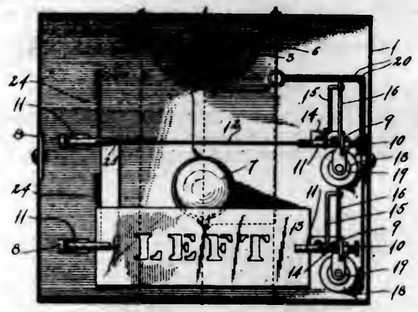
3. The method of presenting the illusion of a scene in color consisting in producing a negative by photographing at spaced intervals upon a sensitized film a series of images of the scene, preparing a positive film therefrom and blocking out solidly on the positive thus obtained all the portions of each image other than those representing the portion of the scene photographed of a certain color, making a sub-negative from such blocked out positive, preparing a positive film from the sub-negative, and projecting the series of images through said last named positive film, each image being projected through a color medium appropriate thereto at such a rate that all the differently colored images of the series blend in the vision of the beholder to form the complete scene in its natural colors, substantially as described.

4. The method of presenting the illusion of animated scenes in color, consisting in producing a negative by photographing at spaced intervals upon a sensitized film a plurality of series of images of a moving scene, preparing a positive film therefrom and blocking out solidly on the positive thus obtained all the portions of each image other than those representing the portion of the scene photographed of a certain color, different in each view of a series, and recurring periodically in the various series, making a sub-negative from such blocked out positive, preparing a positive film from the sub-negative, and projecting the series of images through said last named positive film in a moving picture projecting apparatus, each image being projected through a color medium appropriate thereto at such a rate that all the differently colored images of each series blend in the vision of the beholder to form the complete scenes in their natural colors, substantially as described.

5. The method of presenting the illusion of animated scenes in color, consisting in producing a black and white negative by photographing at spaced and rapidly succeeding intervals upon a sensitized film a plurality of series of images of a moving scene, preparing a black and white positive therefrom, blocking out solidly on the positive thus obtained all the portions of each image other than those representing the portion of the scene photographed comprising a certain color, different in each view of a series and recurring periodically in the various series, making a black and white sub-negative from such blocked out positive, preparing a black and white positive film from the sub-negative, and projecting the series of images through said last named positive film, each image being projected through a color medium appropriate thereto at such a rate that all the differently colored images of each series blend in the vision of the beholder to form the complete scenes in their natural colors, substantially as described.

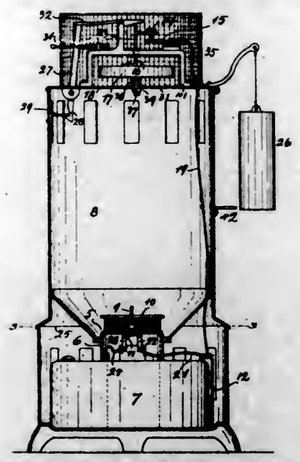
[Claim 6 not printed in the Gazette.]

1,138,861. SIGNAL DEVICE FOR VEHICLES. JOHN C. EDWARDS, Mobile, Ala. Filed Oct. 14, 1913. Serial No. 795,074. (Cl. 40—65.)



A signaling device comprising a casing, a source of light provided approximately in the center of the interior of said casing, horizontally disposed arms provided in said casing above and below and at opposite sides of said source of light, sign plates provided with short spindles adapted to be pivotally connected to said arms, levers rigidly connected to certain of said spindles, rocking levers pivotally connected to certain of said arms, links provided between said levers and said rocking levers, armatures provided at one end of said rocking levers, and electro-magnets for attracting and releasing said armatures whereby the sign plates are adapted to be turned on their pivots.

1,138,862. HEATING DEVICE. CHARLES E. EGAN and WILLIAM E. MAYER, Cincinnati, Ohio. Filed Nov. 26, 1913. Serial No. 803,318. (Cl. 175—115.)



1. In a heating device for the purpose described, the combination of a casing, an automatically opening lid, complementary locking devices to hold the lid in closed position, mechanism adapted to actuate one of these locking devices so as to release the lid, a fuel container within the casing, means to effect ignition of the fuel and a thermostat mounted upon the lid and adapted to operate the

mechanism mentioned when affected by the heat generated by the ignited fuel.

2. In a heating device for the purpose described, the combination of a casing, a burner within the same, electrically heated ignition means positioned inside of the casing and adapted to ignite the burner, a thermostat connected to this casing and means adapted to be actuated thereby to control the operation of these ignition means.

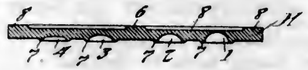
3. In a heating device for the purpose described, the combination of a casing, a liquid fuel burner within the same and comprising a wick tube, a normally inactive electric circuit comprising a portion of high resistance adapted to become hot while current passes and located close to the wick tube, a match holder positioned close to this particular portion of the circuit and means to control passage of current through the circuit.

4. In a heating device for the purpose described, the combination of a casing, a fuel-container within the same, electrically heated means operating to ignite the fuel in the container, an electric circuit of which these means form a part, complementary contact pieces also forming part of this circuit and normally a part and a thermostat supported on the casing and to which one of the contact pieces mentioned is connected and whereby it is actuated to contact with the other contact piece when a certain temperature renders said thermostat active.

5. In a heating device for the purpose described, the combination of a casing, an automatically opening lid for the casing, complementary locking devices, one on the casing and the other on the lid, a spring-actuated latch to normally maintain them in engagement, means to release the latch to effect disengagement of the locking device and a thermostat mounted upon the lid and adapted to actuate these means.

[Claims 6 to 8 not printed in the Gazette.]

1,138,363. PRIMARY BATTERY. DEVEREUX ELMES, Orange, N. J., assignor to New Jersey Patent Company, West Orange, N. J., a Corporation of New Jersey. Filed Oct. 3, 1914. Serial No. 864,786. (Cl. 204—49.)



1. In a primary battery, an electrode plate having a plurality of reduced portions of different thickness to indicate the extent of energy expenditure by the appearance of perforations in said reduced portions during the consumption of the plate, substantially as described.

2. As a new article of manufacture, an electrode plate for a voltaic battery having means for visually indicating the extent of energy expenditure and the quantity of energy still available, comprising a plurality of depressions of different depth, substantially as described.

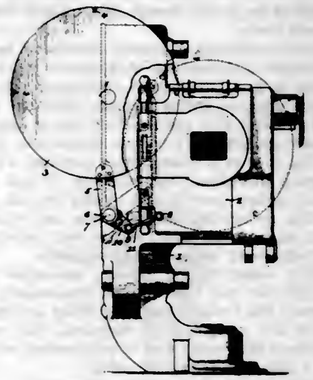
3. As a new article of manufacture, an electrode plate for a voltaic battery having means for visually indicating the extent of energy expenditure and the quantity of energy still available, comprising a plurality of depressions of different depth and means for indicating the location of said depressions, substantially as described.

4. In a primary battery, a positive electrode plate having a plurality of depressions of different depth on the side farthest away from the negative element with which it coacts, the plate being thereby formed with a plurality of reduced portions of different thickness, whereby the extent of energy expenditure will be indicated by the appearance of perforations through said reduced portions, substantially as described.

5. As a new article of manufacture, an electrode plate for a voltaic battery having means for visually indicating the extent of energy expenditure and the quantity of energy still available, comprising a plurality of depressions of different depth, and raised rims surrounding said depressions, substantially as described.

[Claim 6 not printed in the Gazette.]

1,138,364. AUTOMATIC SHUTTER FOR KINETOSCOPES. JOHN D. ENGELBREIT, Chicago, Ill., assignor to The Enterprise Optical Mfg. Company, Chicago, Ill., a Corporation of Illinois. Filed Feb. 17, 1913. Serial No. 748,826. (Cl. 88—17.)

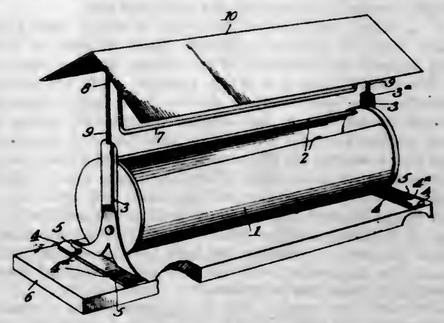


1. In a safety shutter mechanism, the combination of a film gate, an oscillatory shutter journaled a distance to the rear of said gate, and operative connections between said gate and shutter for effecting simultaneous movements of the same, substantially as set forth.

2. In a safety shutter mechanism, the combination of a film gate, an oscillatory shutter journaled a distance to the rear of said gate, and operative connections between said gate and shutter for effecting simultaneous movements thereof, the same comprising an intermediate member having universal connections with the aforesaid shutter and gate, substantially as set forth.

3. In a safety shutter mechanism, the combination of a film gate, an oscillatory shutter journaled a distance to the rear of said gate, and operative connections between said gate and shutter for effecting simultaneous movements thereof, the same comprising universal socket members connected to said gate and shutter and an intermediate link having globular ends for engagement in said sockets, substantially as set forth.

1,138,365. CHICK-FEEDER. FRANK ENOS, Jr., Norwich, Conn., assignor to The Norwich Automatic Feeder Company, Norwich, Conn., a Corporation of Connecticut. Filed Aug. 12, 1914. Serial No. 856,466. (Cl. 119—61.)



1. A feeder comprising a trough, standards carried by the ends thereof and having supporting feet, said standards projecting above the trough and provided with longitudinal grooves, a guard extending longitudinally above the trough and provided with roof supports at its ends which terminate in legs adapted to be detachably seated in said grooves, and a roof adapted to overhang the sides

and ends of the trough and having means for detachably engaging the roof supports.

2. A feeder comprising a trough having the longitudinal edges of its opening projecting inwardly to form splash guards, standards supporting the trough and provided with guard seats, and a guard extending centrally and longitudinally of the trough-opening and detachably engaging said seats.

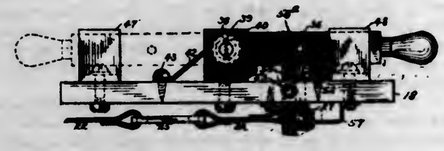
3. A feeder comprising a trough, standards carried by the ends thereof and provided with means which coöperate with the ends of the trough to form guard sockets, and a guard for preventing poultry climbing into the trough and provided with end legs that seat in said sockets.

4. A feeder comprising a trough, supporting standards carried by the ends of the trough and provided with guard seats, a guard extending longitudinally of and in proximity to the trough opening and having its end portions provided with upstanding roof supports and terminating in legs that engage the seats, and a roof provided with means for detachably engaging the supports.

5. A feeder comprising a trough, standards therefor provided with flat feet that extend transversely of and project beyond the trough, said feet being provided with openings for the reception of fasteners, the standards projecting above the trough and being provided with guard seats, and a guard engaging the seats.

[Claims 6 to 9 not printed in the Gazette.]

1,138,366. SAFETY LIMIT-SWITCH. HENRY A. EVERETT, Haddon Heights, N. J. Filed Aug. 27, 1910. Serial No. 579,329. (Cl. 175—284.)

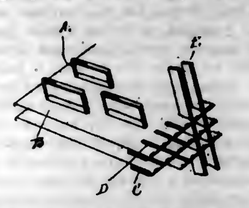


1. A safety limit switch including a switch base having an opening, a spring pressed switch blade, a laterally projecting pin carried by the latter, a latch provided with a hook portion having an inclined pin engaging face, said latch also having a portion projecting through the opening in the switch base, a bracket on the reverse side of the base, and a lever working in said bracket having a weighted operating connection, said lever adapted to normally bear against the portion of the latch projecting through the opening in the switch base to maintain the inclined engaging face of the hook portion of the latch member normally in engagement with said pin.

2. A safety limit switch including a switch base provided with an opening, a switch blade pivoted on the base between the terminals of the switch, springs tending to throw said blade to a safety position, a pin projecting laterally from said blade, a switch blade latch member pivoted to the base in the opening therein and having a hook portion provided with an inclined face for engaging said pin, a bracket on the reverse side of the switch base, a lever pivoted to the same side of said base and at right angles to the pivot of the latch member, said lever movable in the bracket and normally bearing against the portion of the latch member that projects through the opening in the base to maintain the hook portion of said latch member in engagement with the pin, and a weighted operating connection for said lever.

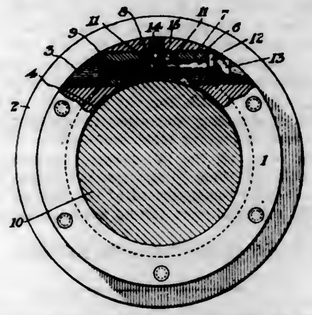
1,138,367. RADIATOR. GEORGE E. FARLINGER, Detroit, Mich., assignor to Briscoe Manufacturing Company, Detroit, Mich., a Corporation of Michigan. Filed Dec. 2, 1910. Serial No. 595,275. (Cl. 257—130.)

A radiator comprising liquid circulating tubes, fins extending transversely thereof having an integral portion at their forward edge bent to form beads, reinforcing strips of stiffer metal inclosed in said beads, said reinforcing strips and beads being slotted, the depth of the slot being slightly less than the depth of the reinforcing



member, and bars extending transversely to said fins, engaging said slots.

1,138,368. LOCKING DEVICE. FRANK G. FEELEY, Chicago, Ill., assignor to M. D. Knowlton Company, Rochester, N. Y., a Corporation of New York. Filed July 5, 1913. Serial No. 777,530. (Cl. 74—8.)



1. In combination with a member provided with a bore having a lateral opening, of a locking device located in said bore comprising a plurality of parts having co-acting inclined faces and one of which parts is movable laterally of the bore under endwise compression by the other, compressing means co-acting with said locking parts, and means loosely engaging the laterally movable locking part and holding it against endwise movement in the bore in which the locking device is contained during the actuation of the compressing means.

2. In combination with a member provided with a bore having a lateral opening, of a locking device located in said bore comprising a plurality of parts having co-acting inclined faces and one of which parts is movable laterally of the bore under endwise compression by the other, compressing means co-acting with said locking parts, and means connecting said laterally movable part with said member comprising a detent on one loosely engaging with a seat in the other whereby the laterally movable part is held against endwise movement in the bore in which the locking device is contained.

3. In combination with a mandrel and a collar thereon for carrying a cutting or decreasing device, the said collar having a bore tangential to the mandrel opening and intersecting the same to provide a communicating opening, of a locking device in said bore comprising a plurality of parts having co-acting inclined faces and one of which parts is movable laterally of the bore under endwise compression by another to a position in clamping engagement with the mandrel, compressing means co-acting with said locking parts, and means on the collar loosely engaging the laterally movable locking part and holding it centrally of the mandrel and against endwise movement in the bore.

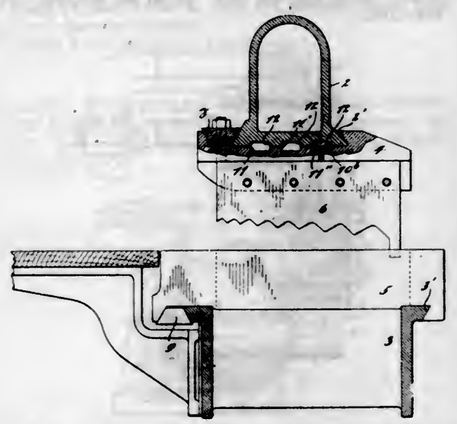
4. In combination with a mandrel and a collar thereon for carrying a cutting or creasing device, the said collar having a bore tangential to the mandrel opening and intersecting the same to provide a communicating opening, of a locking device in said bore comprising a compression bolt and a plurality of sleeves mounted thereon having co-acting inclined faces, one of said sleeves having an opening of greater diameter than that of the bolt and

being movable laterally of the bolt under endwise compression to a position in clamping engagement with the mandrel, and means on the collar loosely engaging the laterally movable locking part and holding it centrally of the mandrel and against endwise movement in the bore.

5. In combination with a mandrel and a collar thereon for carrying a cutting or creasing device, the said collar having a bore tangential to the mandrel opening and intersecting the same to provide a communicating opening, of a locking device in said bore comprising a compression bolt and three sleeves mounted thereon having adjacent co-acting faces inclined in a direction whereby the central sleeve, under endwise compression by the adjacent sleeves, will be moved laterally of the bolt to a position in clamping engagement with the mandrel, said central sleeve having an opening of greater diameter than that of the bolt to permit of such lateral movement, and means on the collar loosely engaging the laterally movable locking sleeve and holding it centrally of the mandrel and against endwise movement in the bore.

[Claims 6 and 7 not printed in the Gazette.]

1,138,369. CUTTING MECHANISM. FRANK G. FEELEY, Chicago, Ill., assignor to M. D. Knowlton Company, Rochester, N. Y., a Corporation of New York. Filed Aug. 12, 1913. Serial No. 784,465. (Cl. 164—47.)



1. In a cutting mechanism, the combination with a cutter-bar, and with a knife-holder carried thereby and disposed transversely thereto, of means coacting with said cutter-bar and knife-holder and extending laterally beyond the latter for furnishing an extended support for said knife-holder and its knife in a direction transverse thereto.

2. In a cutting mechanism, the combination with a cutter-bar, and with a knife-holder carried thereby and disposed transversely thereto, of means coacting with said cutter-bar and knife-holder and extending laterally beyond the latter at both sides thereof for furnishing an extended support for said knife-holder and its knife in a direction crosswise of the same.

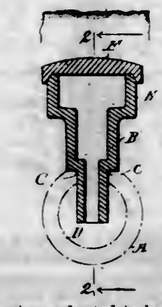
3. In a cutting mechanism, the combination with a cutter-bar, and with a series of knife-holders carried thereby and disposed transversely thereto, of a plurality of devices coacting with said cutter-bar and knife-holders for furnishing extended supports for each if said knife-holders and its knife in a direction crosswise thereof, said devices being disposed in different positions crosswise of the knife-holders.

4. In a cutting mechanism, the combination with a cutter-bar, and with a series of knife-holders carried thereby and disposed transversely thereto, of a plurality of devices coacting with said cutter-bar and knife-holders for furnishing extended supports for each of said knife-holders and its knife in a direction crosswise thereof, said devices being disposed crosswise of the knife-holders at different points in the lengths thereof.

5. In a cutting mechanism, the combination with a cutter-bar having a longitudinal guide-surface, and with a knife-holder carried by said cutter-bar and disposed transversely thereto, of an extended support for said knife-holder projecting from opposite sides thereof, and means for holding said extended support in contact with said guide-surface.

[Claims 6 to 12 not printed in the Gazette.]

1,138,370. IRRIGATION-TILE. LUCIUS H. FRINK, Rock Island, Ill. Filed Mar. 15, 1911. Serial No. 614,566. (Cl. 137—65.)



1. In a tile structure adapted to be buried in the ground for irrigating, fertilizing or draining purposes, a water tight tile having a longitudinally extending slot in the upper part thereof, an auxiliary hollow porous core arranged above and parallel to the tile and having an enlarged upper part and a narrow open lower edge portion extending into the water tight tile through the longitudinal slot therein, and a removable top for the porous core.

2. In a tile structure adapted to be buried in the ground for irrigating, fertilizing or draining purposes, a water tight tile pipe having a longitudinally extending slot in the upper wall thereof, and an auxiliary hollow porous core arranged above and parallel to the water tile pipe, said core being closed at its upper edge and open at its lower edge and extending at its lower edge through the longitudinal slot into the tile.

1,138,371. POTATO-PICKER. JAMES FLYNN, Rogers, Minn. Filed Mar. 28, 1914. Serial No. 827,887. (Cl. 55—27.)

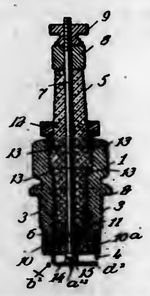


1. A potato picker comprising shanks having handles thereon, heads mounted on said shanks and tines carried by said heads and adapted to engage and lift the potatoes from the ground when said shanks are raised, said shanks having a connection between them allowing relative longitudinal movement, whereby the potatoes carried by the tines of said shanks can be agitated to dislodge the dirt therefrom.

2. A potato picker comprising shanks having handles thereon, said shanks having a pin and slot connection for relative longitudinal movement, heads mounted on said shanks and tines carried by said heads and adapted to

engage and lift the potatoes from the ground, when said shanks are raised, the longitudinal movement of one shank with respect to the other shaking the potatoes on said tines to dislodge the dirt therefrom.

1,138,372. SPARK-PLUG. JOHN ALBERT GILBERT, Cocoa, Fla. Filed May 20, 1914. Serial No. 839,750. (Cl. 123—169.)



A spark plug comprising a casing, a central insulating member secured to said casing and provided with a conducting rod, an insulating plate disposed at one end of said casing and having a portion arranged to enter said central insulating member, and being provided with a slot, a plurality of conductors carried by said plate and spaced apart from one another to provide spark gaps, said conducting rod being arranged to project through said insulating plate and having a portion serving a central terminal, one of the conducting members being spaced apart from said terminal to provide a spark gap, and a terminal carried by said casing and arranged to project through the slot in said insulating plate into close proximity to another of said conductors but spaced from the latter to provide a spark gap.

1,138,373. DUST-MOP. WALTER D. GODFREY, Pittsburgh, Pa. Filed Mar. 5, 1914. Serial No. 822,638. (Cl. 15—51.)



1. In a polishing device a circular flanged head, a longitudinally folded case arranged circumferentially of said head and provided with eyes, strands of absorbent material arranged within said case transversely thereof whereby the extremities of said strands depend from said head, and means extending through said eyes and engaging said head for holding said case in engagement therewith.

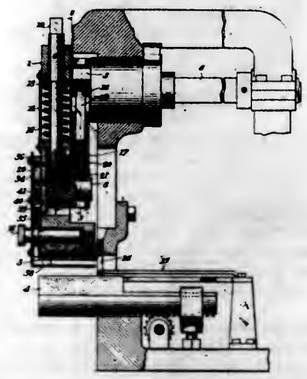
2. A polishing device comprising a flanged head, means attached to and in connection with the head providing an oil reservoir, said means having an outlet, said head having a threaded socket for coupling a handle thereto, said socket open at each end and constituting a filling opening for said oil reservoir, a case provided with eyes, strands of absorbent material secured to said case, means extending through said eyes for connecting said case to said head, and an absorbent pad arranged within said reservoir over said outlets to retard the discharge from the reservoir.

3. A polishing device comprising a flanged head, means attached to the head to provide in connection therewith an oil reservoir, said means having outlets, a flexible polishing member detachably connected to said head and formed of absorbent material, said head provided with a filling opening for said reservoir, a handle extending in said filling opening and connected to the head, and an absorbent pad arranged in said reservoir and positioned over said outlets.

4. A polishing device comprising a flanged head, radially disposed lugs carried by the flange of said head, a polishing member mounted upon said lugs, means extending through the polishing member and engaging in said flange for detachably connecting the member to the head, and a handle detachably connected to the head.

5. A polishing device comprising a head, provided with a flange, lugs projecting from said flange, a case having the inner side thereof mounted upon said lugs, strands of absorbent material connected to and projecting from said case, means extending through said case and engaging in said flange for detachably connecting the case to the head, a handle connected to the head, a cup-shaped member arranged within the head and constituting an oil reservoir, said member provided with outlets, and an absorbent pad arranged within said member over said outlets.

1,138,374. SAFETY DEVICE FOR PRESSES. FRIEDRICH GRAFFENBERGER, Milwaukee, Wis., assignor to A. Geo. Schulz Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed June 20, 1914. Serial No. 846,240. (Cl. 164—107.)



1. In a press or the like having a reciprocating part and an eccentric for actuating said part the combination of a pitman connecting the eccentric with said reciprocating part and having a bearing guided and movable in one end thereof toward and from the other end, a latch guided in the pitman transversely to its length and adapted to lock said bearing in its normal working position, a cam lever fulcrumed to and extending lengthwise of the pitman and having a yielding connection with the latch, a spring tending to hold the latch out of operative position, and an abutment in the path of the cam lever adapted to thrust the latch into operative position when said reciprocating part reaches a certain point in its advance movement.

2. In a press or the like having a reciprocating part and an eccentric for actuating said part the combination of a pitman connecting the eccentric with said reciprocating part and having at one end a bearing guided and movable lengthwise of the pitman, a spring tending to hold said bearing in its normal working position in the pitman, a latch guided in the pitman transversely to its length and adapted to lock said bearing in its normal working position relative to the pitman, a cam lever fulcrumed to and disposed lengthwise of the pitman and having a yielding connection with the latch, a spring tending to hold the latch out of operative position, and an adjustable abutment in the path of the cam lever adapted by engagement therewith to thrust the latch into operative position at a predetermined point in the advance of said reciprocating part.

3. In a press or the like having a reciprocating part and an eccentric for actuating the same, the combination of a pitman connecting the eccentric with said reciprocating part and having a yielding bearing at one end, means adapted to lock said bearing in its normal working position at a certain point in the advance movement of said reciprocating part, a guard movably connected with said reciprocating part, and means operated by said guard to arrest the advance of said reciprocating part when the guard meets an obstruction.

4. In a press or the like having a reciprocating part and an eccentric for actuating the same, the combination of a pitman connecting the eccentric with said reciprocating part and having a yielding bearing at one end, a guard movably connected with said reciprocating part, and means operated by said guard to arrest the advance of said reciprocating part when the guard meets an obstruction.

5. In a press or the like the combination with a reciprocating head and an eccentric for actuating the same, of a pitman connecting the eccentric with said head and having a longitudinally yielding connection with one of said parts, a clutch having a movable member carried by the head and adapted by engagement with a stationary part of the machine to arrest the advance of the head, and a guard movably connected with the head and adapted when it meets an obstruction to shift the movable clutch member into operative position.

[Claim 6 not printed in the Gazette.]

1,138,375. PIPE-FITTING FOR MATERIAL-CONVEYING LINES OR CONDUITS. LORNE A. GRIFFIN, Elkhart, Ind. Filed Feb. 5, 1914. Serial No. 816,797. (Cl. 137—75.)



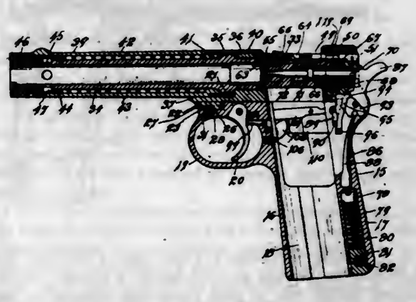
1. In a T connection for material conveying conduits the combination of a T body provided with a branch opening removable cover for the branch opening, an opening in the side of the T body, a plurality of removable segmental wear sections arranged within the T body and adapted to be removed through said opening, said wear sections being provided with laterally projecting lugs on one side thereof, two of said wear sections being adapted for insertion through said side opening and subsequent longitudinal projection to the main openings of the T interior, and a cover plate sealing said lateral opening and adapted to engage said wear section lugs to retain the wear sections against lateral movement.

2. In a T connection for material conveying conduits the combination of a T body provided with a branch opening removable cover for the branch opening, an opening in the side of the T body, a removable segmental wear section arranged within the T body and provided with laterally projecting lugs, and a cover plate sealing said lateral opening and adapted to engage the wear section lugs to retain same against lateral movement.

3. In a T connection for material conveying conduits the combination of a T body provided with a branch opening removable cover for the branch opening, an enlargement of the T body formed in the lower portion thereof, a plurality of removable wear sections arranged within the T body and carried by said enlargement, two of said wear sections being provided with lugs for limiting the longitudinal movement thereof within the T body, a cover plate for sealing said lateral opening, and means for securing the cover plate in position.

4. In a T connection for material conveying conduits the combination of a T body provided with a branch opening removable cover for the branch opening, an enlargement of the T body formed in the lower portion thereof and eccentric with the upper bore portion thereof, a removable segmental wear section arranged within said enlargement and within the T body and provided with laterally projecting lugs, an opening in the side of the T body adapted for the removal of said wear section, a cover plate for sealing said opening and engaging the lugs on said wear section to retain same against lateral movement, and means for securing the cover plate in position.

1,138,376. FIREARM. GRANT HAMMOND, Hartford, Conn., assignor of one-third to Alva C. Washburne, Pittsfield, Mass., and one-third to Frederick G. Crane, Dalton, Mass. Filed Oct. 25, 1912. Serial No. 727,694. (Cl. 42—3.)



1. A firearm including a frame, firing mechanism, a barrel to receive a projectile for discharge, a breech-bolt, breech-bolt actuating mechanism including a casing composing a muzzle section and a breech section separably secured together, the breech section being connected with the breech-bolt and the muzzle section having a chamber to receive the gases of explosion to actuate it, and a spring surrounding the barrel within the casing to return it to its normal position.

2. A firearm including a frame, firing mechanism, a barrel to receive a projectile for discharge, a breech-bolt, breech-bolt actuating mechanism including a casing within which the barrel is located, a collar secured to the barrel and closely fitting the interior of the casing, a sleeve secured to the interior of the casing and slidable on the barrel providing a space between said collar and sleeve, said barrel having ports communicating with said space, and means for returning the casing to its normal position.

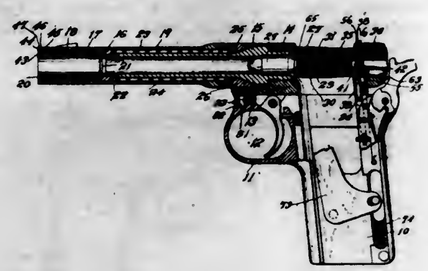
3. A firearm including a frame, firing mechanism, a barrel to receive a projectile for discharge and having a shoulder on its outer surface, a breech-bolt, breech-bolt actuating mechanism including a casing surrounding and inclosing the barrel and having an interior shoulder to rest against that on the barrel, a collar secured to the barrel and fitting the interior of the casing, a spring located between the casing and barrel and thrusting against said collar and against the casing, and a sleeve secured to the interior of the casing providing a space between said sleeve and said collar, said barrel having ports registering with said space in the normal position of the casing.

4. A firearm including a frame and a receiver rigidly abutting one against the other and having interengaging tongue and grooved members, means for removably holding said members in rigid engagement, a barrel projecting from the receiver, firing mechanism including a breech-bolt movable in said receiver and containing a firing pin, means for moving the breech-bolt and means for actuating the firing mechanism.

5. A firearm including a frame and a receiver having interengaging tongue and grooved members arranged to engage by a sliding movement but held against separation by a movement transverse to the direction of said sliding movement, a manually operated locking member for holding said parts against sliding movement, a barrel rigidly secured to the receiver, a breech-bolt located in the receiver and containing a firing pin, means for actuating the breech-bolt, and means for operating the firing mechanism.

[Claims 6 to 25 not printed in the Gazette.]

1,138,377. FIREARM. GRANT HAMMOND, Hartford, Conn., assignor of one-third to Alva C. Washburne, Pittsfield, Mass., and one-third to Frederick G. Crane, Dalton, Mass. Filed July 16, 1913. Serial No. 779,272. (Cl. 42—3.)



1. A firearm including a frame and a receiver having interchanging locking grooved parts, a spring seated pin inclosed within one of said parts and adapted to engage a recess in the opposite part to positively lock said parts together, and a releasing pin projecting from the spring seated pin through an opening in the frame to the outer surface thereof to release said spring seated pin to permit disengagement of said parts.

2. A firearm including a frame having a lipped groove and a recess in the bottom of said groove, a receiver having a lipped projection to engage said groove, a holder slidably inclosed within the receiver and adapted to engage said recess to positively lock said parts together, and a releasing pin secured to said holder and projecting through an opening in the receiver to the outer surface thereof to release said holder to permit disengagement of said parts.

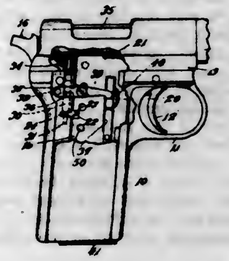
3. A firearm including a frame containing loading, firing and ejecting mechanisms, a barrel secured to the frame, said barrel having an extension constituting an expansion chamber at the muzzle end thereof, a casing movably mounted on the barrel, and a tube secured to the casing and projecting into the barrel extension to form one wall of said expansion chamber.

4. A firearm including a frame containing loading, firing and ejecting mechanisms, a barrel secured to the frame and having an extension constituting an expansion chamber at its muzzle end, a casing movably mounted on the barrel, and a tube secured to said casing and projecting into the barrel extension to form one wall of said expansion chamber, the outer surface of the inner end of said tube being recessed to permit passage of gases into said expansion chamber.

5. A firearm including a frame containing loading, firing and ejecting mechanisms, a barrel secured to said frame and having an extension constituting an expansion chamber at its muzzle end and a relief opening into said expansion chamber, a casing movably mounted on the barrel, and a tube secured to the casing and projecting into the barrel extension to form one wall of the expansion chamber.

[Claims 6 to 19 not printed in the Gazette.]

1,138,378. MAGAZINE CATCH AND RELEASE. GRANT HAMMOND, Hartford, Conn., assignor of one-third to Alva C. Washburne, Pittsfield, Mass., and one-third to Frederick G. Crane, Dalton, Mass. Filed July 16, 1913. Serial No. 779,273. (Cl. 42—7.)



1. A firearm including a frame containing a magazine chamber and supporting mechanism including a magazine located in said chamber and having a movable follower, means for moving said follower, means for retaining the follower against movement after removal of the last cartridge from the magazine and for permitting movement of said follower after the last cartridge has been fired, and a magazine holder connected with said follower to be operated thereby in its final movement.

2. A firearm including a frame containing a magazine chamber and supporting mechanism including a magazine located in said chamber and having a movable follower, means for moving said follower, a breech-bolt arranged to retain the follower against movement after removal of the last cartridge from the magazine and to permit movement of the follower immediately after the firing of the last cartridge, a magazine holder, and an operative connection between said holder and said follower to be operated by the latter in its final movement.

3. A firearm including a frame containing a magazine chamber, a breech bolt movably mounted therein, means for operating the breech bolt, a magazine located in said chamber, a magazine holder, means for releasing said holder, a follower in the magazine movable into the path of the breech bolt and connected to operate the releasing means when in said path, said follower being arranged to rest against the breech bolt in one position of said bolt, and means for moving the follower.

4. A firearm including a frame having a chamber for a magazine, a magazine removably located in said chamber, a catch to retain the magazine in place, catch actuating means, a member borne by the magazine in engagement with a movable part thereof, and connections between said member and catch actuating means to release the latter in the movement of said part.

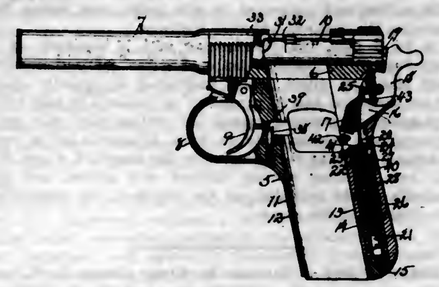
5. A firearm including a frame having a magazine chamber, a magazine located therein, a catch to retain the magazine in place, catch actuating means, a member borne by the magazine in the path of the movable follower thereof and arranged to be released in the upward movement of said follower, and connections between said member and catch actuating means to release the latter.

[Claims 6 to 14 not printed in the Gazette.]

1,138,379. FIREARM. GRANT HAMMOND, Hartford, Conn., assignor of one-third to Alva C. Washburne, Pittsfield, Mass., and one-third to Frederick G. Crane, Dalton, Mass. Filed Feb. 3, 1914. Serial No. 816,152. (Cl. 42—3.)

1. A firing mechanism for a firearm including a breech-bolt, a member to actuate the breech-bolt, a hammer, a sear, means for actuating the sear, and means upon the breech-bolt actuating member to disengage the sear and its actuating means.

2. A firing mechanism for a firearm including a breech-bolt, a breech-bolt actuating lever, a hammer, a sear, means for actuating the sear, and means upon the breech-bolt actuating lever to engage the sear actuating means to disengage it from the sear.



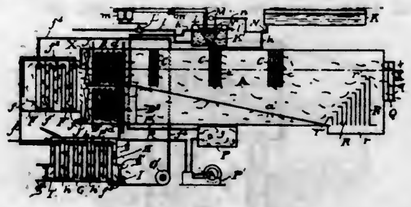
3. A firing mechanism for a firearm including a breech-bolt, a breech-bolt actuating lever, a hammer, a sear actuating bar, means for operating said bar, and a shoulder upon said lever to engage said bar to disengage it from said sear.

4. A firing mechanism for a firearm including a breech-bolt, a breech-bolt actuating lever, means for actuating said lever, a trigger, a sear, a sear actuating bar, a hammer, means for engaging the sear and hammer, and means upon said lever acting upon said bar to permit engagement of the sear and hammer during the opening movement of the breech bolt.

5. A firing mechanism for a firearm including a breech-bolt, a breech-bolt actuating lever, means for actuating said lever, a trigger, a sear, a hammer, a connecting member for transmitting movement of the trigger to the sear, and means upon said breech-bolt actuating lever to disengage said connecting member from the sear during the firing operation.

[Claims 6 to 23 not printed in the Gazette.]

1,138,380. PROCESS OF PRODUCING SOLUBLE MILK-POWDER. GORDON DON HARRIS and JAMES S. POLLARD, Bayonne, N. J., assignors to General Dehydrator Company, New York, N. Y., a Corporation of New York. Filed Sept. 28, 1912, Serial No. 722,798. Renewed Oct. 14, 1914. Serial No. 866,735. (Cl. 99—5.)



1. The process of dehydrating or desiccating milk which consists in spraying the milk while at a temperature of substantially 98° Fahrenheit into warm dehydrated air having a temperature of substantially 98° Fahrenheit, and then continuing the dehydration of the milk by subjecting the sprayed milk to warm dehydrated air having a temperature of substantially 98° Fahrenheit.

2. The process of dehydrating or desiccating milk which consists in atomising milk into dehydrated air while maintaining the milk at a temperature of substantially 98° Fahrenheit.

3. The process of dehydrating milk which consists in atomising the milk by dehydrated air having a temperature of substantially 98° Fahrenheit.

4. The process of dehydrating milk which consists in atomising the milk by dehydrated air having a temperature of substantially 98° Fahrenheit, while maintaining the material substantially at a temperature of 98° Fahrenheit.

5. The process of dehydrating or desiccating milk which consists in establishing the flow of dehydrated air through a chamber, expanding the air during its flow through such chamber, spraying fluid milk into the dehydrated air substantially at the entrance of said air into the chamber, whereby the sprayed milk is mechanically suspended within the air as it flows through said chamber, and feeding other currents of dehydrated air to the current of milk carrying air during the flow thereof through said chamber, whereby the addition of such dehydrated air to the expanding current of milk carrying air subjects the milk particles to further treatment and absorbs the aqueous constituents thereof.

[Claims 6 to 15 not printed in the Gazette.]

1,138,381. COIN-MAILING CARD. WILLIAM H. HART, Jr., Philadelphia, Pa. Filed July 24, 1914. Serial No. 852,802. (Cl. 229—69.)



1. In a coin-mailing device, a card comprising a back section, and a coin receiving section connected therewith by a fold line, said last-named fold line having therein a coin-receiving recess forming a pocket in which portions of a coin may be received, said pair of members being adapted to clamp other portions of the coin between them leaving the upper portions of the coin exposed and the first named fold line being adapted to support the bottom edge of the coin therein.

2. A coin mailing device, a card comprising a coin receiving section, a back section, and a covering section with fold lines joining the respective sections, said coin receiving section comprising a pair of members united by a fold line, said last-named fold line having therein a coin-receiving recess forming a pocket in which portions of a coin may be received, said pair of members being adapted to clamp other portions of the coin between them, leaving the upper portions of the coin exposed, and the first named fold line being adapted to support the bottom edge of the coin therein, said covering section being adapted to overlap said back section, said folded pair of the coin receiving pocket with the coin between them and the exposed upper portion of the coin.

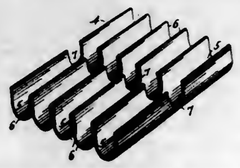
3. A coin-mailing device composed of a foldable card comprising a cover section, a back section and a coin-holding section, the sections being united by fold lines, said coin-holding section being formed of a pair of members, said fold lines having therein a coin-receiving recess, the pair of members of said coin-holding section being foldable on each other and on said back section with the coin partly occupying said pocket, partly clamped between said members, and partly projecting through said recess, and said cover section adapted to overlap the back section, said coin-holding section, and the exposed portion of the coin.

4. In a mailing card, a back, and a pair of sections foldably connected therewith, said sections being united by a fold, the latter having therein a recess in which a portion of a coin is adapted to be seated, the remaining portions being adapted to project from said fold in opposite directions and be clamped between said sections, and said sections covered by said back.

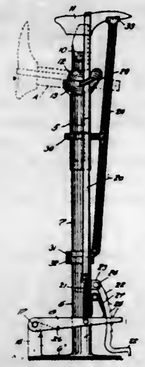
1,138,382. CIGARETTE-PACKAGE. ARTHUR F. HETHERINGTON, New York, N. Y. Filed Feb. 1, 1913. Serial No. 745,571. (Cl. 229—15.)

A package for cigarettes comprising a box body capacitated to hold a plurality of superposed layers of cigarettes, a cover, and an interliner fitted snugly in the box and composed of a single piece of flexible material formed to provide a plurality of troughs substantially the width of the cigarette with partitions between, the walls of the troughs extending substantially the length of the ciga-

rettes and being of a height substantially that of the cigarettes placed therein, the walls of said troughs between the superposed cigarettes being provided with cut out portions extending to substantially the bottom of the trough, permitting the cigarettes to be readily removed therefrom.



1,138,383. SHOEMAKER'S JACK. OLAUS JENSEN. Seattle, Wash., assignor of one-half to Olswang Bros. & Co., Seattle, Wash. Filed Aug. 27, 1914. Serial No. 858,883. (Cl. 12—123.)



1. In a jack, the combination with the standard provided with strap guides and a socket in its upper end, of a last supporting post having a spherical central portion adapted to seat in said socket, the portion of the post below said spherical portion forming a stub adapted to engage the standard to secure the post in substantially upright and horizontal positions, a pedal attached to the lower portion of said standard, a strap extending through said guides, springs connecting the ends of the strap with said pedal, and spring pressed means for securing the pedal in adjusted positions.

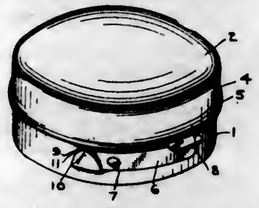
2. In a jack, the combination with a standard, a post adjustably secured thereto for rotary and oscillatory movements, a last detachably connected to said post, a strap and adjustable means connected with said standard for regulating the tension of the strap, of a toe support for the last, said toe support comprising a bar revolubly connected to said standard and terminating at its upper end in a concave head.

3. In a jack, the combination of a standard formed of a plurality of interfitting parts, a post formed to make a ball-and-socket connection with the uppermost of the standard parts, means for securing said post in positions substantially in axial alinement and in rectangular relations with respect to the standard, a last adapted to be detachably secured to said post, a strap, adjustable means for regulating the tension of the strap when applied to the last and a toe support for the last comprising a bar removably mounted on said standard and terminating at its upper end in a head adapted to receive the toe of the last.

4. In a jack, the combination with the standard provided with strap guides and a socket in its upper end, of a last-supporting post having a spherical central portion adapted to seat in said socket, the portion of the post below said spherical portion forming a stub adapted to engage the standard to secure the post in substantially upright and horizontal positions, a pedal attached to the lower portion of said standard, a strap extending through said guides and connected to said pedal, and means for securing the pedal in adjusted positions.

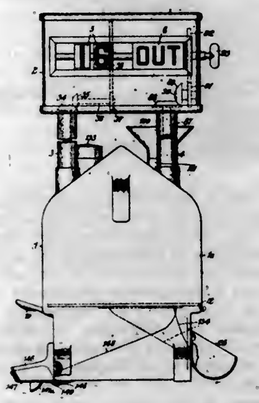
5. In a jack, the combination with a standard, of a post formed to make a ball-and-socket connection with said standard, strap guides positioned at opposite sides of the standard and in proximity of the axis of said ball-and-socket connection, means for maintaining said post in positions substantially in axial alinement or in rectangular relations with respect to the standard, a last for the post, a strap passing through said guides, and adjustable means provided on the standard for regulating the tension of the strap.

1,138,384. BOX. MADISON M. KING, Albany, N. Y., assignor to John Q. A. Whittemore and Charles Whittemore, Boston, Mass. Filed Dec. 22, 1913. Serial No. 808,198. (Cl. 220—6.)



In a box, the combination of the cover and the body of the box, the cover having a flaring flange, a lever pivoted to the body of the box and having a wedge-shaped corner on the inner side of the lever for first penetrating between and separating the flange of the cover from the body of the box upon the movement of the lever and an abutting surface located beside the wedge-shaped corner for abutting the flaring portion of the flange of the cover of the box for lifting the cover relative to the body of the box upon a continued movement of the lever.

1,138,385. COIN-REGISTER. WILLIAM G. KIRCHHOFF, Berwyn, Ill., assignor to The International Register Co., Chicago, Ill., a Corporation of Illinois. Filed Feb. 12, 1910. Serial No. 543,440. (Cl. 235—32.)



1. In a coin or token registering machine, the combination of a temporary register, a totalizing register, normally locked operating mechanisms one of which is adapted to operate both of such registers an amount differing in value from the actuation of such registers effected by the other operating mechanisms, such operating mechanisms being unlocked by the deposit of coins or tokens of corresponding value, and means for preventing the simultaneous actuation of two or more of such operating mechanisms.

2. In a coin or token registering machine, the combination of a temporary register, a totalizing register, a normally locked operating mechanism for actuating both of such registers, such operating mechanism being unlocked by deposit of a predetermined coin or token to allow actuation thereof to advance such registers an amount corresponding to the value of such coin or token, and means for delivering such deposited coin or token to the operator upon actuation of such operating mechanism.

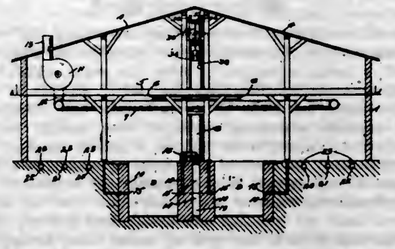
3. In a coin or token registering machine, the combination of a temporary register, a totalizing register, a normally locked operating mechanism for actuating both of such registers, such operating mechanism being released by the deposit of a predetermined coin or token to allow actuation thereof to advance such registers an amount corresponding to the value of such coin or token, and means independent of said coin released mechanism, for preventing actuation of such operating mechanism to actuate either register during a resetting operation of the temporary register.

4. In a coin or token registering machine, the combination of a temporary register, a totalizing register, a normally locked operating mechanism for actuating both of such registers, such operating mechanism being released by the deposit of a predetermined coin or token to advance such registers an amount corresponding to the value of such coin or token deposited, and means independent of said coin released mechanism, for preventing actuation of such operating mechanism during a resetting operation and for preventing the resetting of the temporary register during actuation of the operating mechanism.

5. In an admission register, the combination of a registering mechanism, a coin or token-controlled operating mechanism for operating such registering mechanism, and a second operating mechanism operable independently of the coin or token-controlled operating mechanism and adapted to also operate said registering mechanism.

[Claims 6 to 51 not printed in the Gazette.]

1,138,386. BRICK-KILN CONSTRUCTION. KARL W. KLOSE, Seneca, Kans. Filed Oct. 18, 1912. Serial No. 726,472. (Cl. 25—132.)



1. The combination of an open top kiln, a superstructure covering the kiln and having a drying floor above the kiln, said kiln having a main smoke flue, flues adjacent the drying floor connected with the main smoke flue and a blower for producing a draft through said smoke flues.

2. The combination of an open top kiln, a housing covering the kiln and having a drying floor above the kiln, and a trolley track secured to said drying floor and extending over the kiln.

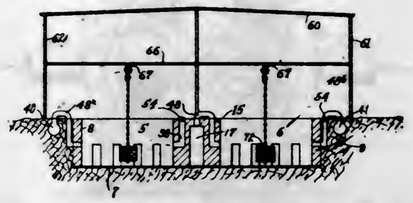
3. The combination with a continuous kiln comprising two parallel fire chambers below ground having open tops, of a housing, a dry floor within the housing above the kiln, and a trackway adjacent the under side of the drying floor and extending over the fire chamber.

4. The combination with a continuous kiln having a fire chamber below ground, of a superstructure covering the chamber having its side walls spaced from the fire chamber, a drying floor within the housing above the fire chamber, and a lowering device conveying brick from the drying floor within the housing.

5. The combination of an open top continuous kiln below ground, a superstructure having a drying floor above the ground, a lowering device, an inclined track therefor, a trolley track extending over the kiln, the lower end of said inclined track extending under a portion of the trolley track.

[Claim 6 not printed in the Gazette.]

1,138,387. BRICK-KILN. KARL W. KLOSE, Seneca, Kans. Filed Aug. 27, 1914. Serial No. 858,926. (Cl. 25—134.)



1. A continuous kiln having a bottom, side walls and an open top, a series of individual flues in a side wall opening at the top, a continuous horizontal flue adjacent thereto having upward openings, and means for connecting selectively individual flues with adjacent openings of the continuous flue.

2. A continuous kiln having a bottom and side walls and an open top, a main flue in one of the walls having upward openings, individual upright flues in such wall starting from the face of the wall and terminating at the top and adapted to be selectively connected with the main flue.

3. A continuous kiln below ground, having a bottom and side walls forming an open top and full width of the kiln, a main flue having series of upward openings, and a series of individual flues in the side walls opening upwardly at the top of the ground.

4. A continuous kiln comprising parallel fire chambers having a bottom and side walls and a central partition between the chambers having a main flue, openings leading upwardly from the main flue to the top of the partition, flues in the partition leading upwardly and opening at the top thereof, and means for connecting these openings with the openings of the main flue.

5. A continuous kiln comprising a chamber having a bottom and side walls, a main flue on one side of the chamber and an auxiliary flue on the other, two sets of individual upward flues located in the respective side walls of the kiln, and means adapted to connect selected individual flues with corresponding openings in the adjacent main and auxiliary flues respectively.

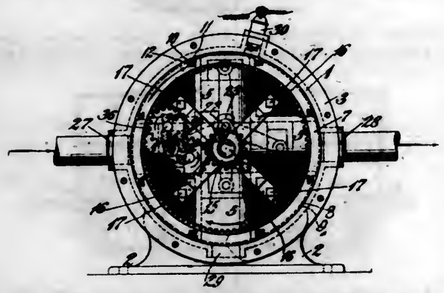
[Claims 6 to 16 not printed in the Gazette.]

1,138,388. ROTARY INTERNAL-COMBUSTION ENGINE. JAMES F. LEVERING, Chester, Pa. Filed Apr. 1, 1914. Serial No. 828,669. (Cl. 123—44.)

1. In a rotary internal combustion engine, a cylindrical casing provided with an inlet and a diametrically opposite exhaust, a frame rotatable in said casing and formed with a plurality of pairs of diametrically opposite radiating cylinders having open outer ends successively registering with said inlet and exhaust, a crank-shaft journaled centrally in said casing and formed with one crank, pistons in said cylinders and connected to said crank, and gearing connected to said crank-shaft and frame to impart rotary motion to the latter at a ratio of one revolution of said frame to a number of revolutions of the crank-shaft equal to the number of cylinders.

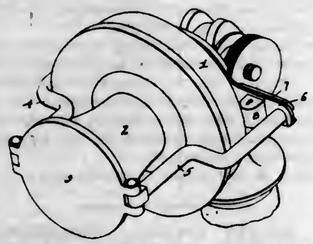
2. In a rotary internal combustion engine, a cylindrical casing provided with an inlet, an igniting device, an exhaust diametrically opposite said inlet and a scavenging port at right angles to said inlet and exhaust; a frame

rotatable in said casing and having radiating cylinders formed with open outer ends successively registering with said inlet, igniting device, exhaust and scavenging port; a crank-shaft journaled centrally in said frame and casing and formed with one crank; pistons in said cylinders; pitmen connected to said pistons and the crank of the shaft, and gearing connected to said crank-shaft and frame to impart rotary motion to the latter at a ratio of one revolution of the frame to a number of revolutions of the crank-shaft equal to the number of cylinders.



3. In a rotary internal combustion engine, a cylindrical casing having heads and provided in its wall with diametrically opposite inlet and exhaust, an igniting device and a scavenging port at right angles to said inlet and exhaust, a frame rotatable within said casing and provided with packing rings and formed with radiating cylinders having open outer ends; pistons reciprocable in said cylinder, a crank-shaft journaled in central bearings in the heads of the casing, pitmen connected to said pistons and the pin of said crank-shaft, annular internally cogged gears upon the sides of the cylinder-frame, gears upon the crank-shaft, and gears journaled upon the heads of the casing and meshing with the gears upon the crank-shaft and the annular internally cogged gears.

1,138,389. ATTACHMENT FOR TELEPHONE-TRANSMITTERS. THEODORE LUBY, Philadelphia, Pa., assignor of one-half to Marcus Rothschild, Philadelphia, Pa. Filed Aug. 15, 1914. Serial No. 856,890. (Cl. 179—189.)



1. The combination of a telephone transmitter having a forward portion of greater diameter than that in the rear of the same and a forwardly projecting mouth piece, a clamp applied to the contracted rear portion of the transmitter, arms projecting forwardly from said clamp to the front of the mouth piece, and a closure for said mouth piece carried by the front ends of said arms.

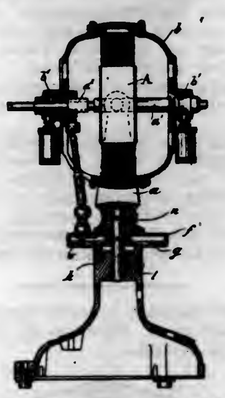
2. The combination of a telephone receiver having a forward portion of greater diameter than that in the rear and having also a forwardly projecting mouth piece, a split clamp applied to the contracted rear portion of the receiver, means for confining said split clamp in place thereon, arms extending forwardly from said clamp to the front of the mouth piece, and a closure for said mouth piece carried by the forward ends of said arms.

3. The combination of a telephone transmitter having a forward portion of greater diameter than the portion in the rear thereof and also having a forwardly projecting mouth piece, a yoke embracing the contracted rear portion of the transmitter and comprising two members pivoted together at one end and provided at the other end with means for retaining them in contracted relation, arms projecting forwardly from said yoke to the front end of the transmitter, and a closure for the latter carried by said arms.

4. The combination of a telephone transmitter having a forward portion of greater diameter than the portion in the rear thereof and having a forwardly projecting mouth piece, a member adapted to engage the contracted rear portion of the transmitter, arms projecting forwardly from said member to the forward edge of the mouth piece, and a closure for the latter pivoted to the forward end of one of said arms and in locking engagement with the forward end of the other of said arms.

5. A telephone transmitter attachment comprising a closure for the transmitter, yoke members engaging the neck of the transmitter, and arms extending from said closure to the yoke, one of said arms constituting a pivot for the yoke members which have at their opposite ends angularly disposed slots for the reception of the other arm, the latter being pivoted to the closure.

1,138,390. OSCILLATING FAN. ERCOLE MARELLI, Milan, Italy. Filed May 8, 1912. Serial No. 695,856. (Cl. 230—1.)



1. An oscillating fan-apparatus comprising the combination with a fan mounted for rotation on a suitable shaft, a motor arranged to drive the shaft, and a movable mounting for the foregoing parts, capable of oscillating about an axis, of a stationary base supporting said movable mounting, a double rack carried by said base and concentric with the axis, a pinion mounted on a shaft shiftably secured to said movable mounting and arranged to engage said rack, a flexible and extensible driving connection between the pinion shaft and the motor-driven shaft for rotating said pinion, and guiding means for the double rack, said guiding means being arranged to shift the rack periodically so as to bring the pinion into engagement with different parts of the same and thus to cause oscillation of the movable fan mounting and the parts carried thereby.

2. An oscillating fan apparatus comprising the combination with a fan mounted on a power driven shaft, a movable support for said shaft capable of oscillation about an axis, and a stationary base carrying said support, of a pinion carried by said support and arranged to move therewith in an arc of fixed radius, a rack segment mounted on said base but capable of limited movement relative thereto and arranged to mesh with said pinion, and means for transmitting power from the fan shaft to the pinion.

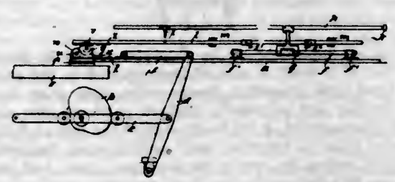
3. An oscillating fan apparatus comprising the combination with a fan mounted on a power driven shaft, a movable support for said shaft capable of oscillation about an axis, and a stationary base carrying said support, of a pinion carried by a shaft rigidly mounted on said support, a rack segment carried by said stationary base but movable relatively thereto, means for insuring continuous engagement of said pinion with said rack segment, and means for driving the pinion shaft.

4. An oscillating fan apparatus comprising the combination with a fan mounted on a power driven shaft, a movable support for said shaft capable of oscillation about an axis, and a stationary base carrying said support, of a pinion carried by a shaft mounted on said support, a member provided with a rack segment carried upon said stationary base, a sliding connection between said member and said stationary base, means for maintaining the pinion and rack segment in mutual engagement, and means for driving the pinion shaft.

5. An oscillating fan apparatus comprising the combination with a fan mounted on a power driven shaft, a movable support for said shaft capable of oscillation about an axis, and a stationary base carrying said support, of a pinion carried by a shaft rigidly mounted on said support, a member provided with a rack segment carried upon said stationary base, a pin projecting from said member and arranged to work in a slot in said stationary base, a double guiding groove or slot in said member arranged to coöperate with one end of the pinion shaft, and means for transmitting power from the fan shaft to the pinion shaft.

[Claim 6 not printed in the Gazette.]

1,138,391. STRAIGHT HOSIERY-FRAME. MAX MICHAEL, Chemnitz, Germany, assignor to the Firm of Schubert & Salzer Maschinenfabrik, Aktiengesellschaft, Chemnitz, Germany. Filed Mar. 27, 1914. Serial No. 827,719. (Cl. 66—12.)



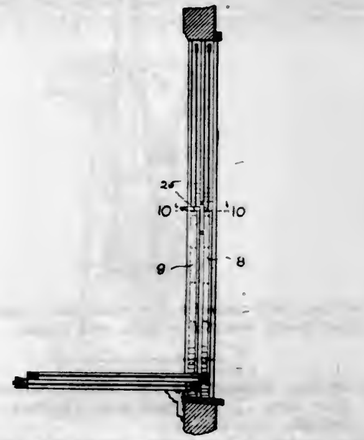
1. In a hosiery frame, the combination with a reciprocable connecting bar, and a thread guide bar frictionally connected with the latter, of a stop member adapted to retard the movement of the thread guide bar, and gearing interposed between the stop member and the connecting bar adapted to impart to said stop member a continuous and uniform movement in the direction of the movement of said bars.

2. In a hosiery frame, the combination with a reciprocable connecting bar, and a thread guide bar frictionally connected with the latter, of a stop member adapted to retard the movement of the thread guide bar, and rack and pinion mechanism interposed between the stop member and the connecting bar adapted to impart to said stop member a continuous and uniform movement in the direction of the movement of said bars.

3. In a hosiery frame, the combination with a reciprocating slur connecting bar, and a thread guide bar frictionally connected with said slur connecting bar, of a rod carrying at least one stop member disposed in position for being overtaken by said thread guide bar and adapted to retard the same, rack teeth provided at adjacent ends of the slur connecting bar and the said rod, and gear wheels interposed between said stop member and the slur connecting bar, engaging said rack teeth and adapted to impart to the said stop member reciprocating movement of reduced speed and in the direction of the movement of the slur connecting bar and thread guide bar.

1,138,392. WINDOW. GEORGE MILLER, Buffalo, N. Y. Filed Aug. 12, 1914. Serial No. 856,371. (Cl. 20—49.)

1. In a window the combination with an upper and a lower sash, a slide pivotally connected to each sash, means for holding the sashes and slides against accidental relative movement, and a key adapted to operate said means whereby the sashes may be swung relatively to the slides and means engaged by said key to limit the upward movement of the slides when the sashes are swung.



2. In a window the combination with an upper and a lower sash, of a slide pivotally connected to each sash, a key guide way in the upper end of each slide, means locking the sashes and slides against accidental relative movement, a key adapted to slide in said guide ways and operate said locking means whereby the sashes may be swung relatively to their slides into position for cleaning.

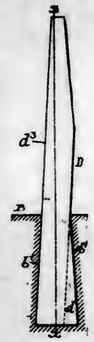
3. In a window the combination with an upper and a lower sash, of a slide pivotally connected to each sash, a key guide way in the upper end of each slide, means locking each sash to its slide against accidental relative movement, a keeper plate secured to the parting strip of the window frame and provided with an elongated slot, a key adapted to slide in said guide ways in the slides to unlock the sashes from the slides, and pass through said elongated slot whereby the sashes may be swung into cleaning position and the slides locked against movement by the engagement of the key with the upper end of said elongated slot.

4. In a window the combination with an upper and lower sash, of a slide pivotally connected to each sash, a key guide way in the upper end of each slide, metallic strips secured to the abutting faces of the slide and sash, a recess in the upper end of the metal strips on the slides, a spring locking tongue carried by the sash adapted to enter said recess and lock the sash and slide against relative movement, a keeper plate secured to the parting strip of the window and provided with an elongated slot and a bolt opening at each end of the slot, a key adapted to slide in said guide ways to disengage the locking tongues from their recesses and pass through the said elongated slot, whereby the sash may be swung to cleaning position and the slides locked against movement by the key engaging the upper end of the slot.

1,138,393. ROLL FOR BEATING-ENGINES. GUYON MILLER, Downingtown, Pa., assignor to Downingtown Manufacturing Company, Downingtown, Pa., a Corporation of Pennsylvania. Filed Jan. 27, 1910. Serial No. 540,341. (Cl. 92—22.)

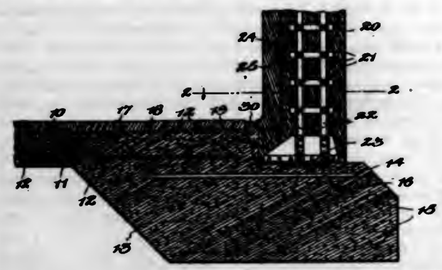
The combination in a beating roll, of a shaft; heads mounted on the shaft, said heads having flanges in which are a series of dove-tailed grooves, the walls of each of said grooves being equi-distant from a radial line taken from the center of the roll; a series of reversible blades adapted to fit the dove-tailed grooves, each of said blades having one side straight from top to bottom and each blade having spaced projections at the bottom of the opposite side, said projections being tapered and the outer por-

tion of the side of the blade having said projections being beveled to impart a slight cant to the working face of



the blade with respect to the radial line of said blade; and filling blocks mounted between said blades.

1,138,394. RESERVOIR AND TANK. WILLIAM MUESER, New York, N. Y. Filed Sept. 14, 1911. Serial No. 649,352. (Cl. 72—13.)



1. A tank or reservoir for fluent material, comprising a bottom and a continuous upstanding confining wall mounted on the bottom, the lower edge of said wall being slidable upon the bottom to permit the expansion and contraction of said wall, without injuring it and said bottom, and anti-friction members interposed between the wall and bottom to permit of said expansion and contraction.

2. A tank or reservoir for fluent material, comprising a bottom having a shoulder and a continuous upstanding confining wall mounted on the bottom alongside the shoulder, the lower edge of said wall being movable upon the bottom to permit of its expansion and contraction without injuring it or said bottom, and a seal of substantially permanently plastic material interposed between the inner face of the side wall and the shoulder of the bottom.

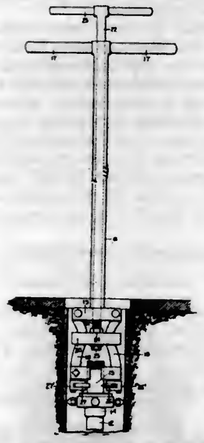
3. A tank or reservoir for fluent material, comprising a bottom having a shoulder and a continuous upstanding confining wall mounted on the bottom alongside the shoulder, the lower edge of said wall being movable upon the bottom to permit of its expansion and contraction without injuring it or said bottom, a seal of substantially permanently plastic material interposed between the inner face of the side wall and the shoulder of the bottom, and antifriction members interposed between the lower edge of the wall and bottom.

4. A tank or reservoir for fluent material, comprising a bottom of cementitious material and a continuous upstanding confining wall of cementitious material mounted on the bottom, the lower edge of said wall being slidable upon the bottom to permit the expansion and contraction thereof without injuring it or said bottom, said bottom furthermore having an upstanding continuous shoulder arranged within the confining wall and spaced therefrom, antifriction plates interposed between the lower edge of the wall and the upper face of the bottom, and a seal of pitch-like material interposed between the shoulder of the bottom and the inner face of the wall.

5. A tank or reservoir for fluent material comprising a bottom, a separate wall mounted on the bottom, and a joint between the wall and bottom, including means to facilitate the movement of the wall on the bottom.

[Claims 6 and 7 not printed in the Gazette.]

1,138,395. COMBINED PIPE WRENCH, CUTTER, AND DIE. EUGENE A. NELSON, New York, N. Y. Filed Dec. 15, 1914. Serial No. 877,325. (Cl. 81—189.)



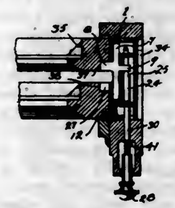
1. In an implement of the character set forth, the combination of a head, a pair of jaws pivoted to the ends of the head and extending downwardly, said jaws having downwardly and outwardly inclined portions, pipe engaging devices carried by the lower ends of the jaws, a follower slidably fitted to the jaws and movable along the inclined portions, means to rotate the head and jaws, and means to move the follower up or down along the jaws to cause the jaws to move away from or toward each other, said last mentioned means including a rod extending upwardly through the head and threaded therein, said rod being journaled in the follower and rotatable independently of the means for rotating the head and jaws.

2. In an implement of the character set forth, the combination of a head, a stem extending upwardly therefrom, means to rotate the stem and head around a vertical axis, a pair of jaws connected at their upper ends to the ends of the head and extending downwardly therefrom, said jaws having divergent inclined portions below their connected ends, a follower mounted slidably upon the inclined portions of the jaws and snugly embracing the same, a threaded rod journaled at its lower end in said follower between the jaws and having threaded connection with the head, and means to rotate the threaded rod independently of the rotation of the head and jaws whereby the position of the pivoted jaws is positively determined at all times.

1,138,396. SASH-FASTENER. WILLIAM H. NELSON, Hazleton, Iowa. Filed May 23, 1914. Serial No. 840,510. (Cl. 16—119.)

1. A sash-fastener, consisting of the combination of window-sashes having recesses in the side stile thereof having bolts arranged to engage the sides of said recesses, a slide-piece recessed to actuate said bolts, springs to hold said bolts in engagement with said recesses in the sashes, a key adapted for detachable connection with the said slide-piece, stops movably interposed in the paths of movement of said bolts, and operative connections between said stops and said slide-piece adapted to separately shift either stop when the slide-piece is moved by said key in an appropriate direction.

2. A sash-fastener, consisting of the combination of window-sashes having recesses in the side stile thereof having bolts arranged to engage the sides of said recesses, a slide-piece recessed to actuate said bolts, springs to hold said bolts in engagement with said recesses in the sashes, a transversely notched key adapted for detachable connection with the said slide-piece, stops movably interposed in the paths of movement of said bolts, and operative connections between said stops and said slide-piece adapted to separately shift either stop when the slide-piece is moved by said key in an appropriate direction, and means for detachably locking said key against movement, comprising a fixed support, and a bolt slidably mounted thereon and adapted to releasably engage the notch in said key.



3. A sash-fastener, consisting of the combination of window-sashes having recesses in the side stile thereof having bolts arranged to engage the sides of said recesses, a slide-piece recessed to actuate said bolts, springs to hold said bolts in engagement with said recesses in the sashes, a key adapted for detachable connection with said slide-piece, springs, each secured at one end and having its other end slidably connected to said slide-piece, each spring having a stop-projection ordinarily projected into the path of movement of the adjacent bolt, the said slide-piece when moved to and fro, acting to shift either of the latter springs to remove its stop-projection from the path of movement of the adjacent bolt.

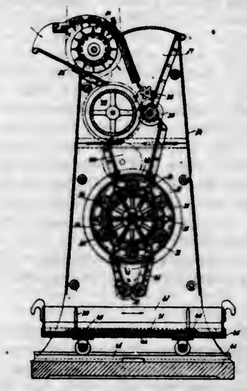
4. A sash-fastener, consisting of the combination of a window-sash having recesses in the side stile thereof having a bolt arranged to engage the sides of said recesses, a slide-piece recessed to actuate said bolt, a spring to hold said bolt in engagement with said recesses in the sash, a key adapted for detachable connection with the said slide-piece, a stop movably interposed in the path of movement of said bolt, and a flat spring on which said stop is mounted and having one end fixed and the other end slidably connected to said slide-body.

5. A sash-fastener, consisting of the combination of a window-sash having recesses in the side stile thereof having a bolt arranged to engage the sides of said recesses, a slide-piece recessed to actuate said bolt, a spring to hold said bolt in engagement with said recesses in the sash, said slide-piece having on one end an upwardly-belt part provided with a slideway in its upper edge, a flat spring having one end fixed with its other end seated slidably in the said groove, a stop on said flat spring projected into the path of movement of said bolt to prevent the shifting thereof from a recess of said sash, and means detachably connected to said slide-piece adapted to move it to cause it to slidably compress said flat spring to move the stop thereon out of the path of movement of said bolt.

1,138,397. APPARATUS FOR MIXING CEMENT AND FIBROUS MATERIAL. JAN NEBETÄIL, Prague, Austria-Hungary, assignor to Joseph Prince Colloredo-Manusfeld, Dobřis, Austria-Hungary. Filed Mar. 6, 1914. Serial No. 822,982. (Cl. 83—73.)

1. Apparatus for mixing cement and fibrous material, comprising, primary mixing means consisting of intermeshing grooved rollers and means for delivering fibrous material and dry cement thereto, secondary mixing means for receiving dry mixture from the said primary mixing means, and for subjecting said mixture to a further treatment, means for supplying water to said secondary mixing means, and means for discharging the resulting wet mixture substantially as hereinbefore set forth.

2. Apparatus for mixing cement and fibrous material, comprising means for reducing fibrous material, a hopper for pulverized cement, primary mixing means for mixing the reduced fibrous material and the said cement and for combing the fibrous material, secondary mixing means, and means for supplying water to said secondary mixing means substantially as and for the purpose hereinbefore set forth.



3. Apparatus for mixing cement and fibrous material, comprising a spiked roller and a spiked surface in fixed relation thereto, for reducing the fibrous material, a hopper for pulverized cement, a pair of intermeshing grooved rollers below said spiked roller and hopper for subjecting the fibrous material and cement to a primary mixing, secondary mixing means, a funnel for conveying the primarily mixed fibrous material and cement from the aforesaid rollers to the said secondary mixing means, and means for supplying water to said secondary mixing means substantially as and for the purpose hereinbefore set forth.

4. Apparatus for mixing cement and fibrous material, comprising, primary mixing means for mixing fibrous material and cement in the dry state, a funnel for discharging the dry mixture to secondary mixing means said secondary mixing means consisting of two concentric casings, the larger being stationary and the smaller being rotatable, hollow perforated plates on said rotary casing, a hollow shaft for said rotary casing, tubes connecting said shaft with the aforesaid hollow plates for conveying water thereto, and rollers carried by the rotary casing, and means for rotating said rollers about their own axes, substantially as and for the purpose hereinbefore set forth.

1,138,398. REINFORCED-CONCRETE RAILWAY-SLEEPER. JAN NEBETÄIL, Prague, Austria-Hungary, assignor to Joseph Prince Colloredo-Manusfeld, Dobřis, Austria-Hungary. Filed Mar. 6, 1914. Serial No. 822,983. (Cl. 238—3.)



1. A reinforced concrete railway sleeper comprising a body of compressed cement and fibrous material, a reinforcement consisting of trapezoidal stays and rods threaded through said stays, chair bases on said sleeper, bolts for holding said chair bases on to the sleeper and means within the sleeper connecting said bolts together for the purpose of maintaining the chair bases at the correct distance apart, substantially as hereinbefore set forth.

2. A reinforced concrete railway sleeper comprising, a body of compressed cement and fibrous material, and having bores for bolts for securing chair bases to said sleeper, and a reinforcement consisting of stays of trapezoidal form, rods threaded through said stays, and a rod terminating in coiled springs surrounding the aforesaid bores, substantially as and for the purpose hereinbefore set forth.

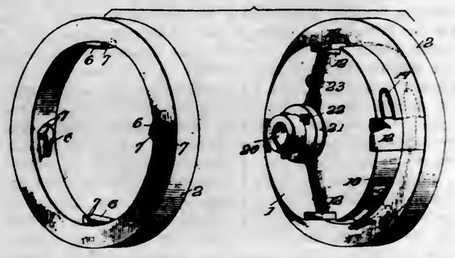
3. A reinforced concrete railway sleeper comprising a body of compressed cement and fibrous material, a reinforcement consisting of trapezoidal stays and rods threaded through said stays, chair bases on said sleeper, bolts passing through said sleeper for securing the said chair bases thereto, angle plates adapted to be bolted to said chair bases, and a strap connecting the angle plates, substantially as and for the purpose hereinbefore set forth.

4. A reinforced concrete sleeper comprising a body of compressed cement and asbestos fiber, said body having recesses for chair bases and bores for bolts for holding said chair bases, and a reinforcement embedded in said body consisting of trapezoidal stays, and rods threaded through said stays, substantially as hereinbefore set forth.

5. A reinforced concrete sleeper comprising a body of compressed cement and asbestos fiber, said body having recesses for chair bases and bores for bolts for holding said chair bases, and a reinforcement embedded in said body consisting of a plurality of trapezoidal stays, and rods threaded through said stays, some of stays having sleeves coincident with the bores in the body, substantially as and for the purpose hereinbefore set forth.

[Claims 6 to 8 not printed in the Gazette.]

1,138,399. **MEANS FOR SECURING TIRES ON CRUSHING AND GRINDING WHEELS, ROLLS, AND THE LIKE.** MARVIN A. NICOL, Willamina, Oreg. Filed May 8, 1914. Serial No. 837,223. (Cl. 74—8.)



1. In combination, a body having its periphery formed to removably receive an exterior annular member, said body having a channel extending longitudinally across its periphery and open at both ends of the body and an exterior inclined wedging depression in said periphery opening at one end into said channel, and an exterior annular member fitting the periphery of said body and movable longitudinally thereon from either end in being applied to and removed from the body, said member having an internal wedge-like lug rigid therewith and adapted to move in said channel when said member is being applied or removed, said lug adapted to wedge in said depression to exert radial pressure on said member under relative rotary movement of the body and member in one direction and to move into the channel and from locking engagement with the depression under relative rotary movement of the body and member in the opposite direction.

2. In combination, a body having a cylindrical peripheral surface formed to removably receive an exterior annular member, the periphery of said body formed with a wedging surface inclined circumferentially of the body, and an exterior annular member having a cylindrical inner surface to receive the periphery of said body, said member being movable longitudinally on said body from either end thereof in being applied to and removed from the body, said member having an internal wedging surface rigid therewith and inclined circumferentially thereof and formed to directly engage said wedging surface of the body to lock and wedge the member against longitudinal and circumferential movements on the body under relative rotary movement of the body and member in one direction, and to move circumferentially from locking engagement with said surface of the body under relative rotary movement of the body and member in the opposite direction.

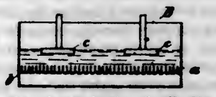
3. In combination, a wheel body or the like, having an exterior channel extending longitudinally across its periphery and open at both ends thereof and having a pair of parallel spaced depressions in its periphery extending laterally from said channel and having wedging floors, and a pair of separate annular members arranged on the periphery of said body and movable longitudinally thereon from either end thereof in being applied thereto and removed therefrom, said members being similar and each having a rigid internal lug movable longitudinally in said channel during the longitudinal movement of the members, said lugs adapted to enter said depressions and tightly wedge on the floors thereof to exert radial pressure on the members under relative rotary movement of the body and members in one direction and to relieve said radial pressure and move from said depressions and into said channel under relative rotary movement of the body and members in the opposite direction.

4. In combination, a wheel body or the like, having exterior channels extending longitudinally across its periphery and inclined spaced parallel depressions in its periphery extending laterally and all in the same direction from said channels, annular similar members fitting the periphery of said body and separately removable therefrom and applicable thereto longitudinally from either end thereof, said members having rigid internal wedge-like lugs movable longitudinally in said channels during the longitudinal movements of the members on the body and adapted to move laterally with respect to the channels and into said depressions to exert radial pressure on and lock the members on the body under relative rotary movement of the members and body in one direction, and to move back from said depressions and into the channels to release the members from locking engagement with the body under relative rotary movement of the members and body in the opposite direction, and removable member-locking devices arranged in said channels to engage the channel walls and the lugs and cause said relative rotary movement of the body and members to lock the members on the body, said devices being removable from said channels to permit removal of said member, substantially as described.

5. In combination, a rotary body having a cylindrical periphery formed with exterior wedging surfaces inclined circumferentially of the body, similar separately removable exterior annular members on said periphery and each movable longitudinally thereon from either end thereof in being applied to and removed from the body, said members having internal wedging surfaces rigid therewith and inclined circumferentially thereof at their inner faces to directly engage said wedging surfaces of the body and exert radial pressure between the body and members to lock the members on the body under relative rotary movement of the body and members in one direction, and to move from locking engagement with said surfaces of the body under relative rotary movement of the body and members in the opposite direction, one of each pair of said surfaces being elevated and the other depressed to center the members and lock the same against longitudinal movement when the said surfaces are in locking engagement.

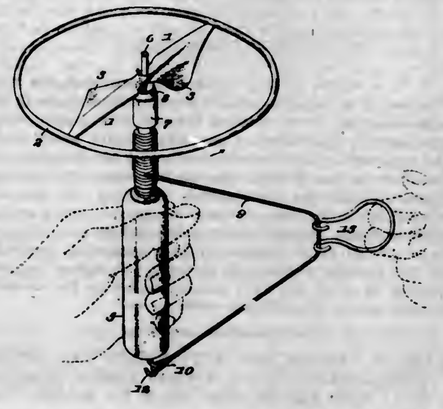
[Claims 6 to 9 not printed in the Gazette.]

1,138,400. **APPARATUS FOR ELECTROLYSIS OF ALKALINE CHLORIDS.** KARL OCHS, Berlin-Charlottenburg, Germany, assignor to Siemens & Halske, A. G., Siemensstadt, near Berlin, Germany, a Corporation of Germany. Filed Nov. 13, 1914. Serial No. 872,051. (Cl. 204—58.)



Apparatus for the electrolysis of alkaline chlorids comprising in combination a liquid container, suitable positive and negative electrodes above and below, a porous diaphragm extending across the space between said electrodes, and vertical partitions disposed adjacent to the upper surface of said porous diaphragm and submerged in the liquid between the positive electrode and said porous diaphragm said partitions being of such height compared with their distance from each other as to prevent bodily motion of the liquid in the space adjacent the diaphragm.

1,138,401. **AERIAL TOY.** CHARLES MORGAN OLMSTED, Pasadena, Cal. Filed Oct. 2, 1909. Serial No. 520,678. (Cl. 244—19.)



1. An aerial toy comprising a ring forming a fly-wheel, and a plurality of helicoidally twisted blades radiating from the axis of the ring and secured to the latter at their outer ends, each blade gradually increasing in width from its base and bent or curved transversely, the maximum width being coextensive with a pitch not less than 45°, from which point each blade is gradually decreased in width to its outer ends.

2. An aerial toy comprising a ring forming a fly-wheel, and a plurality of helicoidally twisted blades radiating from the axis of the ring and secured to the latter at their outer ends, each blade being of concavo convex formation for a portion or all of its length and of increased width near its base, more than half of the blade surface being within a circle concentric with the fly wheel ring and having approximately half its diameter.

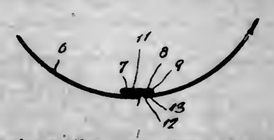
3. An aerial toy comprising a ring forming a fly-wheel, and a plurality of helicoidally twisted blades radiating from the axis of the ring and secured to the latter at their outer ends, each blade gradually increasing in width from its base and concaved on its underside for a portion or all of its length, the maximum width being coextensive with a pitch of about 45° or more from which point each blade is gradually decreased in width to the periphery of the toy.

4. An aerial toy comprising a ring forming a fly-wheel, and a plurality of helicoidally twisted blades radiating from the axis of the ring and secured to the latter at their outer ends, the weight of the fly-wheel being greater than that of the blades, said blades being bent or curved and concaved on their undersides and of gradually increasing width from the axis of the ring to a point coextensive with a pitch of about 45° or more of the concaved portion, such widened portions of the blades intersecting the plane of the ring.

5. An aerial toy comprising a flying part having a plurality of radiating blades, the latter having more tran half of the blade surface within a circle the radius of which is one half as great as the extreme radius of the flying part, said blades being weighted at their outer ends, and being twisted so that the pitch angle of the wide bases is at least twice as great as the pitch angle of the narrow tips.

[Claims 6 and 7 not printed in the Gazette.]

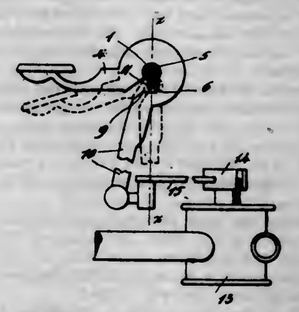
1,138,402. **STOVEPIPE-SECTION.** ROBERT ORR and BURLEIGH S. ANNIS, Chattanooga, Tenn. Filed Mar. 1, 1912. Serial No. 680,992. (Cl. 126—309.)



1. A stove pipe section comprising a sheet of metal one edge of the sheet of metal being folded upon itself to form pockets, an offset flange comprising the opposite edge of the sheet, and a tongue stamped from the sheet of metal, adjacent the offset portion of the flange, said tongue projecting rearwardly and adapted to engage within one of the pockets, and said flange adapted to engage within the opposite pocket when the edges of the sheet of metal are brought together.

2. A stove pipe section comprising a sheet of metal having a portion of one edge overlying a part of the main body of the sheet and forming a double pocket, an offset flange on the opposite edge of the sheet, a shoulder constituting an abutment for the extreme edge of the overlying portion of the section when the edges are brought together, tongues stamped from the sheet adjacent the offset flange, said tongues having an inclined edge coöperating with the respective pockets for providing a wedging action between the tongues and pockets, said tongues being constructed to assume a position in spaced relation with the pipe section when the edges thereof are brought into engagement with each other.

1,138,403. **TRUMPET-ACTION.** ROMEO ORSI, Milan, Italy. Filed July 19, 1913. Serial No. 780,033. (Cl. 84—8.)



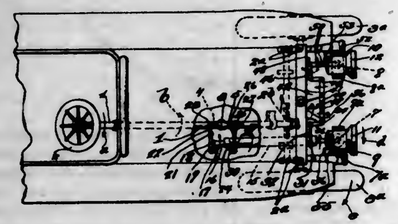
A trumpet action of the kind described comprising a plurality of slotted key levers, a tubular hub on each, a common pivot rod within and supporting the hubs, column bearings for the pivot rod, lugs on said bearings, a needle spring for each key lever arranged parallel to the pivot rod and extending through the slot in each key lever, a thumb screw on said lugs to retain one end of each spring in position relative to the hub and a stop projecting from each of the hubs to engage the other end of each needle spring whereby the rotation of the hub will tension the spring.

1,138,404. **DIRIGIBLE AUTOMOBILE-LAMP.** THEODORE H. PASCHKE, Hampton, Nebr. Filed Nov. 30, 1914. Serial No. 874,846. (Cl. 240—62.)

1. In combination with a steering mechanism including a steering post having lateral projections, a pair of automobile lamps, a pair of telescoping rocking shafts, each having a sliding connection with one of the projections, and connections between said shafts and said automobile lamps.

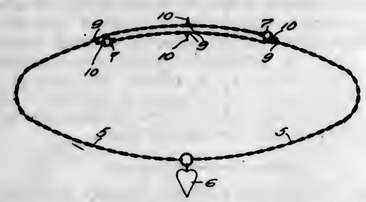
2. In combination with a steering mechanism of an automobile having a steering post provided with lateral projections, a pair of automobile lamps, a pair of telescop-

ing rocking shafts, each being provided with a lateral arm, links connecting said projections and said arms, said links being provided with slots where they are pivoted to the



arm, connections between said shafts and the lamps of the automobile, and means for returning the lamps to their normal positions.

1,138,405. JEWELRY-CHAIN. DUTEE J. PEARCE, Seattle, Wash. Filed May 11, 1914. Serial No. 837,685. (Cl. 59—93.)



1. A chain of the class described, having at its extremities inter-engageable attachment hooks, said chain being provided at distances from its extremities with links having supplementary eyes, which are respectively engageable by said hooks whereby the effective size of the chain may be lessened.

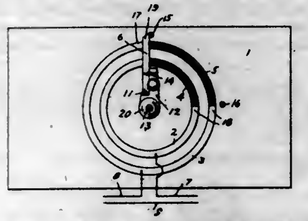
2. A chain of the class described provided with attachment hooks at both extremities for coupling the ends of the chain to enable the latter to be worn at its maximum size, said chain being provided with depending links which are adapted to be engaged by the respective hooks whereby the size of the chain is reduced suitable to be worn as a necklace.

3. A chain of the class described, provided with a hook at each extremity of the chain, and double-eye links interposed between the single-eye chain links to afford means for detachably securing the hooks to the chain at predetermined distances from the ends thereof.

4. A chain of the class described comprising a plurality of inter-connected links, certain of said links being provided with depending eyes, and spring-locking attachment hooks provided on the extremities of the chain, said hooks being adapted to be engaged with each other or with selected ones of said eyes to afford, in effect, an endless chain of variable sizes.

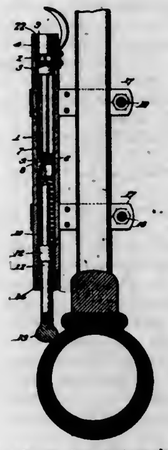
1,138,406. ELECTRICALLY-OPERATED TIME-SWITCH. JAMES W. PENNEWILL and MOSE R. BUCHANAN, Silver City, N. Mex. Filed July 23, 1913. Serial No. 780,654. (Cl. 175—290.)

1. A switch comprising fixed contacts, an element movable with respect to the said contacts, a bridging contact movable along the fixed contacts, a hinged connection between the contact and element whereby the contact is moved by the latter, said movable contact extending across the fixed contact with a free end projecting beyond the latter, stops being arranged adjacent the ends of the fixed contacts and located in the path of the movement of the free end of the movable contact, whereby the latter wipes against the stops to retard the movement of the movable contact while the said element moves, and a spring connected with the movable contact and element and adapted to be placed under tension while the movable contact is engagement with a stop for causing the movable contact to pass quickly off the fixed contacts at one end or on the contacts at the opposite ends.



2. In a switch device of the class described, the combination of a shaft, an arm thereon, a clutch between the arm and shaft for permitting the arm to be moved while the shaft is stationary, a movable contact mounted on the arm, fixed contact means over which the movable contact travels, stop devices adjacent the ends of the movable contact means for momentarily arresting the movable contact while the arm continuously moves, and a spring connected with the arm and movable contact and arranged to be placed under tension by the momentary arresting of the movable contact for causing the latter to move quickly on or off the fixed contact means as the movable contact passes the said stop devices.

1,138,407. ALARM FOR AUTOMOBILE AND OTHER WHEEL-TIRES. EDWIN SANFORD PHELPS, Elizabeth, N. J. Filed Apr. 19, 1906. Serial No. 312,693. (Cl. 116—1.)



1. A detonating alarm for automobile or other wheel tires, comprising a cap or cartridge holder, a slidable hammer or firing pin and a trigger, and means for securing the alarm to a wheel with one end of the trigger in proximity to the tire so as to be projected on deflation of the tire to cause the hammer to explode the cartridge, said trigger having a normally limited longitudinal movement without rendering the hammer active to explode the cartridge, substantially as described.

2. A detonating alarm for automobile or other wheel tires, comprising a cap or cartridge holder, a hammer or firing pin and means for holding the same in retracted position, a yielding trigger for releasing the hammer, said trigger having a normal limited reciprocatory movement without releasing the hammer, and means for attaching the alarm to a wheel, said trigger having a part thereof in proximity to the tire of a wheel and adapted to be actuated on deflation of the tire to release the hammer, substantially as described.

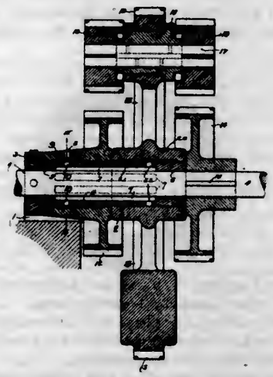
3. A detonating alarm for automobile or other wheel tires comprising a cap or cartridge holder, a hammer or firing pin and means for holding the same in retracted position, a yielding trigger for releasing the hammer, said trigger having a normal limited reciprocatory movement without releasing the firing pin, means for attaching the alarm to a wheel, and a head adjustable on the trigger adjacent to a tire of a wheel, substantially as described.

4. A detonating alarm for automobile or other wheel tires, comprising a cap or cartridge holder, a hammer or firing pin, means for holding the same in a retracted position, a spring for impelling the hammer or firing pin when released, a cushioned trigger in coöperative relation to the hammer and having a part adjacent to a tire to be actuated on deflation of the tire, said trigger having a limited reciprocatory movement without releasing the hammer or firing pin, and means for attaching the alarm to a wheel, substantially as described.

5. A detonating alarm for automobile or other wheel tires, comprising a tubular barrel, a cap or cartridge holder, fitting in one end of the barrel, a seat for the cap or cartridge in the barrel back of the holder, a hammer or firing pin operable through said seat, means for holding the hammer in retracted position, a trigger for releasing the hammer, and means for attaching the alarm to a wheel in position for the trigger to be actuated on deflation of a wheel tire, substantially as described.

[Claim 6 not printed in the Gazette.]

1,138,408. MEANS FOR LUBRICATING BEARINGS. HAROLD S. PIERCE, Philadelphia, Pa., assignor to Link-Belt Company, Chicago, Ill., a Corporation of Illinois. Filed Sept. 5, 1914. Serial No. 860,414. (Cl. 64—27.)

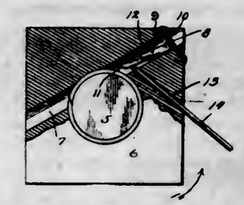


1. The combination of a fixed bearing; a sleeve mounted in the fixed bearing and having a portion extending beyond the bearing, said sleeve having longitudinal channels and radiating passages extending from the channels to the periphery of the sleeve, one of said passages being at the bearing, the bearing having a lubricant opening communicating with said first mentioned passages; and a wheel loosely mounted on the sleeve and in line with the other radiating passages.

2. The combination of a fixed bearing having a fixed sprocket wheel thereon; a sleeve mounted in the bearing and extending beyond the end thereof; a shaft mounted in the sleeve and extending beyond the end of the sleeve, the sleeve having a series of longitudinal channels therein and two series of radiating passages communicating with the channels, the bearing having a lubricant opening communicating with one series of channels, the other series of channels being at a point beyond the bearing; a sprocket wheel loosely mounted on the projecting portion of the sleeve.

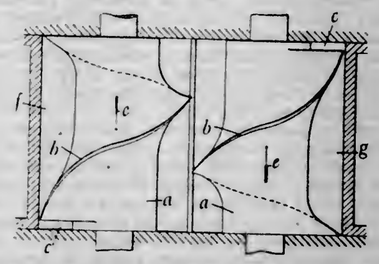
3. The combination of a fixed bearing having a lubricating opening therein; a sleeve mounted in the bearing and having a portion extending beyond the end thereof; a sprocket wheel mounted on the overhanging portion of the sleeve; a shaft extending through the bearing and the sleeve; a sprocket wheel on that portion of the bearing beyond the sleeve, the sleeve having a series of longitudinal channels therein surrounding the shaft, and two series of radial passages, one in line with the lubricating opening in the bearing, the other in line with the hub of the sprocket wheel mounted on said sleeve, said sprocket wheel having a channel, and the bearing having an eccentric passage forming communication between two or more of the radiating passages of the sleeve with the lubricating opening in the bearing.

1,138,409. LOCK-NUT. JOSEPH PINTO, Osceola Mills, Pa. Filed Sept. 24, 1914. Serial No. 863,254. (Cl. 151—25.)



In combination with a bolt, a lock nut comprising a nut threaded upon the bolt and provided with a recess communicating with the bore of the nut and tangential to said bore at the outer wall of the recess, a catch member disposed within said recess, a transverse pin extending through the outer end of said recess and bearing against one end of said catch member, a leaf spring disposed in said recess, bearing against one wall thereof and normally forcing said catch member against the opposite wall thereof, and a tooth forward on said catch member and normally contacting with the threads on said bolt, whereby movement of said nut for screwing it upon said bolt will cause movement of said catch member in opposition to said leaf spring and whereby movement of said nut for unscrewing it from said bolt will cause said tooth to bite into said thread.

1,138,410. MACHINE FOR PREPARING RUBBER. JOHN EDWARD POINTON, Peterborough, England. Filed Jan. 21, 1914. Serial No. 813,501. (Cl. 18—2.)



1. In a rubber preparing machine, the combination of a member comprising intercommunicating chambers, a continuous partition or ridge between said chambers, and propellers in said chambers and bypasses at the ends of the propellers as set forth.

2. In a rubber preparing machine the combination with a member comprising intercommunicating chambers a continuous partition or ridge between the said chambers, a propeller in each chamber, and a by-pass at one end only of each propeller, the bypasses in the respective chambers being located at opposite ends.

3. In a rubber preparing machine, the combination of a member comprising intercommunicating chambers, a continuous partition or ridge between said chambers, a pro-

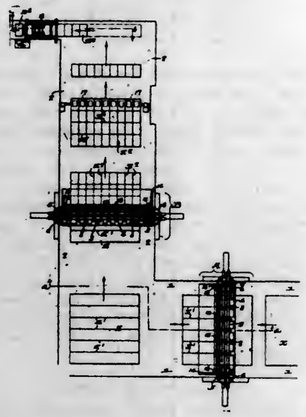
peller in each chamber having a continuous spiral blade, one end of which extends to the end of said chamber, the opposite end of said blade spaced away from its adjacent end of the chamber, to form a by pass, the by-passes in the respective chambers being located at opposite ends.

4. In rubber preparing machines, the combination consisting of intercommunicating chambers, a partitioning ridge between the said chambers and extending from end to end of the same, propellers in the said chambers, and by-passes at the ends of the propellers, as set forth.

5. In rubber preparing machines, the combination consisting of intercommunicating chambers, a partitioning ridge between the said chambers and extending from end to end of the same, a propeller in each chamber, and a by-pass at one end of each propeller, the said by-passes being at opposite ends of the chambers, as set forth.

[Claims 6 to 8 not printed in the Gazette.]

1,138,411. PROCESS OF HARVESTING ICE. HOWELL D. PRATT, Philadelphia, Pa., assignor to Link-Belt Company, Chicago, Ill., a Corporation of Illinois. Filed Sept. 24, 1914. Serial No. 863,349. (Cl. 125—20.)



1. The process of harvesting ice, said process consisting in floating a block of ice in a channel and through a sawing apparatus; cutting a series of longitudinal kerfs in the face of the ice; moving the block of ice transversely, without turning, through another sawing apparatus which cuts another series of kerfs in the ice at right angles to the first series; and then breaking the block into smaller blocks on the lines of the kerfs.

2. The process herein described of harvesting ice, said process consisting in cutting a large rectangular block of ice from the main field; floating the ice into a right angled channel; cutting a series of longitudinal kerfs in the block of ice as it passes through one portion of the channel; then moving the block of ice laterally, without turning; passing it through the second portion of the channel; cutting a series of kerfs therein at right angles to the first series; breaking the large block into smaller blocks on the lines of the kerfs; and then passing the smaller blocks through a third channel.

3. The process herein described of harvesting ice, said process consisting in cutting a rectangular block of ice from the field; floating the block into a channel; cutting a series of longitudinal kerfs in the upper face of the block and a series of kerfs in the underside of the block in line with those on the upper side; then moving the block at an angle and cutting a series of kerfs in the upper face of the block at right angles to the first mentioned kerfs; simultaneously cutting a series of kerfs in the bottom of the block of ice; and breaking the block of ice on the lines of the kerfs, forming separate blocks.

1,138,412. DOLL'S HEAD. MARY E. RADICK, White Plains, N. Y. Filed Jan. 20, 1915. Serial No. 3,247. (Cl. 46—40.)

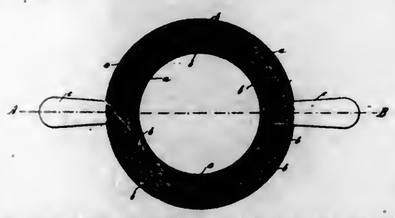


1. A doll head having two faces diametrically opposite, the expression of said faces being different, a wig pivotally connected to the apex of the doll's head whereby the same can be moved on the head and thereby expose one of the faces while the other is covered by the wig.

2. A doll head having two faces diametrically opposite, a pin at the apex of the doll's head, a wig associated with the pin and turnable thereon, said wig adapted to cover any one of the faces while exposing the other substantially as and for the purposes set forth.

3. A doll head having a plurality of faces, a wig mounted to swing on the apex of the head, said wig adapted to expose any one of the faces while covering the other faces substantially as and for the purpose set forth.

1,138,413. PACKING. ANTONIO RAIMONDI, Milan, Italy. Filed Nov. 10, 1910. Serial No. 591,630. (Cl. 137—28.)



1. A joint packing for pipes and inclosures, comprising a flat thin foraminated hard metal plate.

2. A joint packing for pipes and inclosures, comprising a thin flat hard metal plate provided over its surface with minute closely adjacent perforations.

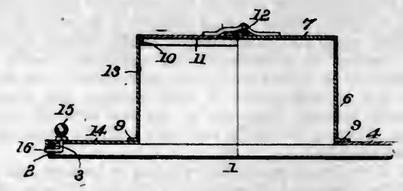
3. A joint packing for pipes and inclosures, which comprises a flat thin foraminated hard metal plate, provided with handles arranged at opposite points.

4. In a joint packing, the combination of two pipe joints provided with flanges adjacent to one another, in combination with an interposed packing comprising a foraminated thin flat hard sheet metal plate, and means for holding the flanges together.

1,138,414. STORAGE HAT-BOX. THEODORE RANDOLPH, Cleveland, Ohio. Filed Sept. 10, 1914. Serial No. 861,113. (Cl. 206—8.)

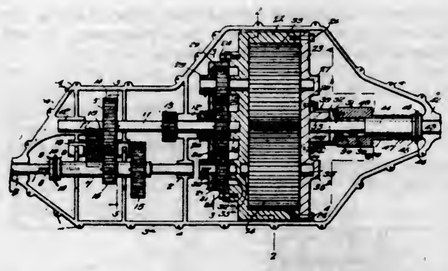
1. A sheet metal hat box comprising a base having an annular flange, a metal rim connected to said flange, a body portion having a brim cover and a crown portion, a triangular brace at the junction of said brim cover and crown portion, a hinged cover, a latch for holding said cover closed and a loop connected to the edge of the brim portion for suspending the hat box from a wall.

2. A hat box made of sheet metal and comprising a base having a flange, a rim connected to said flange, a spaced upper brim portion, a crown portion, a triangular brace between said brim and crown portion, a semi-circular crown portion, and a cover hinged to said crown portion, said cover being in the form of one-half of a hat and pro-



vided with a latch at its outer edge to engage the rim of the base, and means for suspending the hat box.

1,138,415. SPEED-CHANGING GEAR. ELWYN M. RAYBURN and ALDEN G. RAYBURN, Sausalito, Cal. Filed June 10, 1914. Serial No. 844,174. (Cl. 74—34.)



1. A speed changing gear, comprising a stationary sectional casing, driving and driven shafts journaled in the casing at the opposite ends thereof and parallel with respect to each other, a countershaft journaled in the casing parallel with the driven shaft and adjacent thereto, and in alinement with the driving shaft, a substantially cylindrical casing arranged between the driving shaft and the countershaft, said casing having central recesses at its ends in which the driving and the countershaft are received, the driving shaft being keyed to the casing, shafts journaled in the casing at opposite sides of the center, a gear wheel secured to each of the said shafts within the cylindrical casing, said gear wheels meshing with each other at the center of the casing, and dividing the casing into separate compartments, a pipe arranged transversely of the end of the cylindrical casing adjacent to the driving shaft and communicating with the casing on opposite sides of the point of intermeshing of the gear wheels, said pipe having a cylinder at its center through which the driving shaft extends, a sleeve slidable on the driving shaft and movable into and out of the cylinder to close the pipe at the cylinder, means for moving the sleeve, a spring normally pressing the sleeve outward, one of the lateral shafts of the cylindrical casing being extended outside of the casing and lying alongside the countershaft in spaced relation, a gear wheel secured to the countershaft, a gear wheel secured to the extended end of the first-named shaft and meshing with the gear wheel of the countershaft, a counterpressure gear journaled in the casing on the opposite side of the gear wheel of the countershaft, means within the sectional casing for connecting the countershaft and the driven shaft to cause them to rotate in the same direction at different speeds, and other means for connecting the said shafts to cause them to rotate in opposite directions.

2. A speed changing gear, comprising a stationary sectional casing, driving and driven shafts journaled in the casing at the opposite ends thereof and parallel with respect to each other, a countershaft journaled in the casing parallel with the driven shaft and adjacent thereto, and in alinement with the driving shaft, a substantially cylindrical casing arranged between the driving shaft and the countershaft, said casing having central recesses at its ends in which the driving and the countershaft are received, the driving shaft being keyed to the casing, shafts journaled in the casing at opposite sides of the center, a gear wheel secured to each of the said shafts within the cylindrical casing, said gear wheels meshing with each other at the center of the casing, and dividing the casing into separate compartments, a pipe arranged transversely of the end of the cylindrical casing adjacent to the driving shaft and communicating with the casing on opposite sides of the point of intermeshing of the gear wheels, said pipe having a cylinder at its center through which the driving shaft extends, a sleeve slidable on the driving shaft and movable into and out of the cylinder to close the pipe at the cylinder, means for moving the sleeve, a spring normally pressing the sleeve outward, one of the lateral shafts of the cylindrical casing being extended outside of the casing and lying alongside the countershaft in spaced relation, a gear wheel secured to the countershaft, a gear wheel secured to the extended end of the first-named shaft and meshing with the gear wheel of the countershaft, a counterpressure gear journaled in the casing on the opposite side of the gear wheel of the countershaft, and releasable means for connecting the countershaft and the driven shaft.

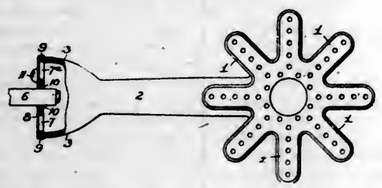
3. A speed changing gear, comprising a stationary sectional casing, driving and driven shafts journaled in the casing at the opposite ends thereof and parallel with respect to each other, a countershaft journaled in the casing parallel with the driven shaft and adjacent thereto, and in alinement with the driving shaft, a substantially cylindrical casing arranged between the driving shaft and the countershaft, said casing having central recesses at its ends in which the driving and the countershaft are received, the driving shaft being keyed to the casing, shafts journaled in the casing at opposite sides of the center, a gear wheel secured to each of said shafts within the cylindrical casing, said gear wheels meshing with each other at the center of the casing, and dividing the casing into separate compartments, a pipe arranged transversely of the end of the cylindrical casing adjacent to the driving shaft and communicating with the casing on opposite sides of the point of intermeshing of the gear wheels, said casing being adapted to contain oil, a valve for controlling the communication through the pipe, a spring normally pressing the valve to opened position, means for operating the valve, a gear wheel outside the casing and rigid with one of the gear wheels of the casing, a gear wheel on the countershaft with which the last named gear wheel meshes, and a changeable speed gear connection between the countershaft and the driven shaft.

4. A speed changing gear, comprising a driving shaft, a countershaft arranged in alinement therewith and in spaced relation, a casing keyed to the driving shaft between the shafts, gear wheels journaled in the casing and meshing with each other and dividing the interior of the casing into two compartments, said casing being adapted to contain oil, a gear wheel on the countershaft, a gear meshing therewith and rigid with one of the wheels in the casing, a by-pass pipe connecting the compartments of the casing, means for controlling the flow of oil through the by-pass pipe, a driven shaft journaled parallel with the countershaft, and a changeable speed gear connection between the countershaft and the driven shaft.

5. A speed changing gear, comprising a driving shaft, a countershaft in alinement therewith and in spaced relation, a casing keyed to the driving shaft between the shafts, gear wheels journaled in the casing and meshing with each other and dividing the interior of the casing into two compartments, said casing being adapted to contain oil, a gear wheel on the countershaft, a gear meshing therewith and rigid with one of the wheels in the casing, a by-pass pipe connecting the compartments of the casing, means for controlling the flow of oil through the by-pass pipe, a driven shaft journaled parallel with the countershaft, and a changeable speed gear connection between the countershaft and the driven shaft.

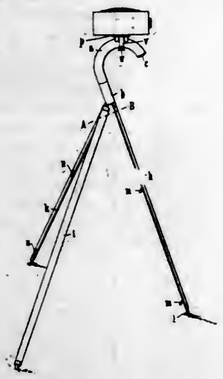
[Claims 6 and 7 not printed in the Gazette.]

1,138,416. GAS-BURNER. CLARENCE V. ROBERTS and JAMES W. BUTLER, Philadelphia, Pa., assignors to Roberts & Mander Stove Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Sept. 18, 1913. Serial No. 790,393. (Cl. 158—118.)



A mixer of the class described embodying a shell with partly closed end, a rotative shutter bearing against said end of the shell for controlling inflow of air thereto, means for retaining the shutter in its proper relation to the end of the shell, and locking means separate from the retaining means and comprising a projecting stud and a segmentally disposed series of notches for engaging said stud, one of said retaining elements being formed on the end closure of the shell and the other upon that part of the shutter corresponding thereto.

1,138,417. CAMERA-STAND. HENRY ROTTENBURG, Cambridge, England. Filed Apr. 25, 1914. Serial No. 834,443. (Cl. 248—47.)



1. A folding camera stand adapted to be used also as a walking stick, and comprising a handle, a leg attached thereto, two further legs with projections thereon engaging in slots in the handle portion, pivots in the handle portion passing through said projections and means for tightening the joints, comprising a member adapted when turned to engage with a wedging action against faces formed in the two parts of the handle portion separated by a slot, whereby when the member having a wedging action is turned, the two parts of the handle portion are separated and are pressed toward the projections on the legs.

2. A folding camera stand adapted to be used also as a walking stick, and comprising a handle, one leg rigidly secured to said handle, two further legs, projections on said legs passing into slots in the handle member, one at each side of a longitudinal cut therein, pivots for the projections of said legs, and a screw with a conical portion adapted to engage in the handle member along the line of the longitudinal cut, whereby when the screw is tightened the portions of the handle member between the longitudinal cut and the slots for the leg projections, are pressed apart to bind said leg projections and to take up lateral looseness.

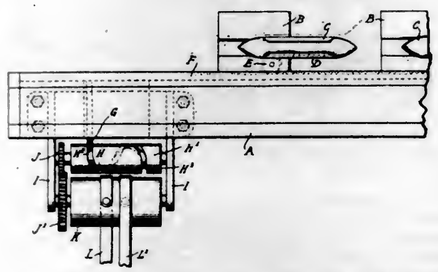
3. A folding camera stand adapted to be used also as a walking stick, and comprising a handle formed as a hollow member of crook-shaped, legs connected thereto and adapted to be opened out for use as a stand, and a cap on the end of said handle adapted to close the end thereof and to be opened in order to give access to the interior.

4. A folding camera stand adapted to be used also as a walking stick, and comprising a handle formed as a hollow member of crook-shape, legs connected thereto and adapted to be opened out for use as a stand, a cap on the free end of said handle, a hinge therefor and a spring pressing against a portion of the cap adjacent to said hinge, whereby the cap is held with a spring action in the closed position.

5. A folding camera stand adapted to be used also as a walking-stick, and comprising a handle of crook-shape, legs with means attaching them thereto in such manner that they can be opened out when required, or kept closed together, and an attachment adapted to fit on the crook handle and to carry the camera thereon, said attachment including means for clamping it securely on the handle and a part for engaging with a camera.

[Claims 6 to 13 not printed in the Gazette.]

1,138,418. SHUTTLE-OPERATING MECHANISM. GUY G. SANDS, East Greenville, Pa. Filed Mar. 10, 1914. Serial No. 823,706. (Cl. 139—49.)

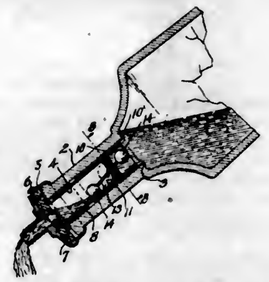


1. A shuttle operating mechanism, comprising a shuttle having a rack, a rack bar, a pinion directly in mesh with the said shuttle rack and the said rack bar, a pin on the said rack bar, a roller having a spiral groove engaged by the said pin, the said spiral groove terminating in short transverse grooves, and means operatively connected with the crank shaft of the loom for imparting a turning motion to the said roller alternately in opposite directions, and thereby give an alternate reciprocating motion to the rack.

2. A shuttle operating mechanism, comprising a shuttle having a rack, a rack bar, a pinion in mesh with the said shuttle rack and said rack bar, a pin on the said rack bar, a roller having a spiral groove engaged by the said pin, the said spiral groove terminating at each end in short transverse grooves, a driving roller, gear wheels connecting the said grooved roller with the said driving roller, driving bands connected with the peripheral face of the said driving roller and extending from opposite sides thereof, an arm to which the said bands are secured, a shaft upon which said arm is secured, an elliptical gear on said shaft and engaged by an eccentrically mounted pinion secured to the crank shaft of the loom.

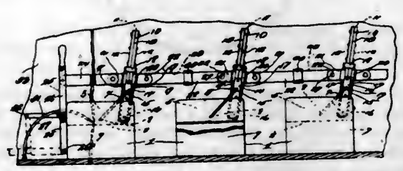
1,138,419. ANTIREFILLABLE BOTTLE. HENRY F. SCHULTZ, Salt Lake City, Utah. Filed June 19, 1914. Serial No. 846,125. (Cl. 215—55.)

A bottle stopper of the class described comprising in combination with a bottle neck, a valve casing of cylindrical form having an annular flange at its upper end for seating against the entrance of the neck, said casing being of a smaller diameter than the cross sectional area of the entrance to the bottle, a locking member of a larger diameter than the valve casing and disposed thereupon at its lower end, said locking member having depending spring legs formed with engaging flanges adapted to interlock with the bottle neck upon insertion of the casing thereinto, a seat formed in the neck and having an opening therethrough, a valve member operable in said casing and comprising a stem having heads at opposite ends thereof adapted to seat at opposite sides of said valve seat to close the passage through the neck, a packing member surround-



ing a portion of the casing and holding the same spaced from the interior wall of the neck at one end, a cap member crimped upon the neck, and a second packing member intermediate the cap and the entrance to the neck clamped against the flanged extremity of the casing to hold said casing from movement into the bottle.

1,138,420. SERIES OF REVERSIBLE CAR-SEATS. SOLOMON SMITH, Slab Fork, W. Va. Filed Jan. 25, 1913. Serial No. 744,164. (Cl. 155—2.)

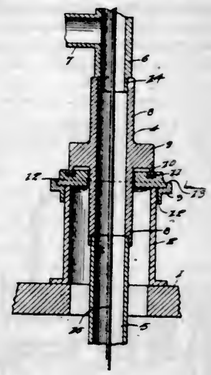


1. A series of car seats, backs therefor, links swingingly connecting the backs to the seats, said backs having ears projecting from their opposite faces, links connecting said ears pivotally, thereby joining the backs in sequence, a reciprocating bar, straps carried by the bar for loosely strapping the links to the bar, said links being rockable slightly in said straps, an additional link, to one end of which one end of said bar and one of the ears of the end chair back are pivotally connected, a lever to which the other end of said additional link is pivoted, whereby the chair backs may be operated synchronously, and means for holding said lever in different positions, the rockable connection of the link to the bar constituting means to permit the chair back to respond to the swaying of a person's body when sitting upright.

2. In a supporting mechanism, a series of car seats, backs therefor, means for connecting each back to each seat, ears projecting from one edge of each back, one to the rear and one forwardly, links pivotally connecting said ears thereby joining the backs, an elongated supporting bar, looped straps carried by the bar for loosely and rockably strapping the links to the bar to permit the backs to respond to the swaying of persons' bodies when sitting upright.

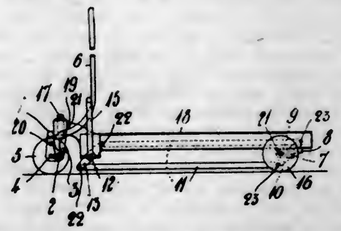
1,138,421. COUPLING FOR OIL-WELLS. ALBERT B. SOLINGER, Sackett, Pa. Filed Aug. 28, 1914. Serial No. 859,079. (Cl. 166—14.)

1. A coupling member for oil wells consisting of a tubular body portion, an annular flange formed intermediate the ends of the body portion, a depending marginal flange on the under face of said annular flange and a ring having an annular groove in its upper face to be mounted upon the upper part of the well structure and receiving the depending flange in the groove thereof.



2. The combination with a well casing, stand pipe and well tubing of a coupling member for the tubing and stand pipe consisting of a tubular body portion having internal screw threads at its ends receiving the adjacent ends of the stand pipe and well tubing, an annular flange formed integral with the coupling member intermediate the ends thereof and having formed integral therewith on its under face a depending marginal flange, a ring mounted upon the casing and having an annular groove in its upper face to receive the depending marginal flange.

1,138,422. TRANSPORT-LORRY. JOHN MAGNUS LARSON SPANGENBERG, Forshaga, Sweden. Filed Oct. 19, 1914. Serial No. 867,497. (Cl. 21—118.)

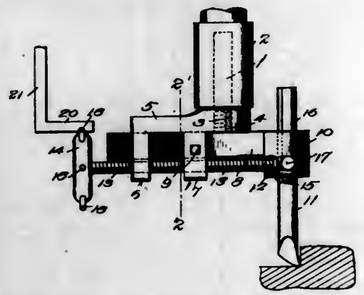


1. In a transport lorry of the kind herein described a lorry frame the one end of which is supported by two wheels each supported by the ends of a crank shaft the middle portion of which is pivotally connected to said frame, the other end of said frame being supported by one wheel through the intermediation of a vertical shaft the lower part of which is fork shaped, the lower ends of said fork shaped part being pivotally connected with spindles eccentrically arranged in relation to the axle of the wheel and attached to a part in which the axle of the wheel runs, and a handlever adapted to be operated in such a way that the last part may be turned on the axle of the last named wheel and means by which the first named shaft is turned when said lever is operated.

2. In a transport lorry of the kind herein described a lorry frame the one end of which is supported by two wheels each supported by the ends of a crank shaft the middle portion of which is pivotally connected to said frame, the other end of said frame being supported by one wheel through the intermediation of a vertical shaft the lower part of which is fork shaped, the lower ends of said fork shaped part being pivotally connected with spindles eccentrically arranged in relation to the axle of the wheel and attached to a part in which the axle of the wheel runs, and a handlever adapted to be operated in such a way that the last part may be turned on the axle of the last named wheel and means by which the first named shaft is turned when said lever is operated, said

means consisting of a horizontal shaft on which is rigidly fastened a fork shaped member coöperating with said lever when turned forward, a two-armed lever fastened to said shaft, link bars by which each end of the said two-armed lever is pivotally connected with corresponding ends of a two-armed lever rigidly fastened to the first named shaft.

1,138,423. DRILL ATTACHMENT. CLAUD SWANBERG, Cadillac, Mich. Filed Sept. 5, 1914. Serial No. 860,412. (Cl. 82—1.)



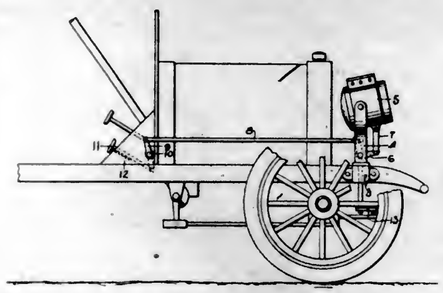
1. An attachment for use with hand or power operated drills, for connecting a tool to the chuck of the drill eccentrically and comprising a body having at one end means for engaging the stem of the drill to connect the body with the stem and with the body extending radially from the stem, the body having spaced depending arms provided with registering openings, a bar mounted to slide in the openings radially of the stem, said bar having at the end adjacent to the engaging means of the body a holding sleeve for the tool, and having means for clamping the tool in the sleeve, a feed screw having a threaded engagement with the arms below the bar and having a rotatable connection with the holding sleeve, a hand wheel at the opposite end of the feed screw, said hand wheel having radial pins or extensions for engagement by a catch to partially rotate the screw at each complete rotation of the stem, and means for clamping the bar from longitudinal movement.

2. An attachment for use with hand or power operated drills, for connecting a tool to the chuck of the drill eccentrically, and comprising a body having at one end means for engaging the stem of the drill to connect the body with the stem, and with the body extending radially from the stem, the body having spaced depending arms provided with registering openings, a bar mounted to slide in the openings and provided at one end with a holding sleeve for the tool, and having means for clamping the tool in place, feeding mechanism in connection with the bar, and the main body, and means for operating the said feeding means to advance the tool at each complete rotation of the stem.

1,138,424. HEADLIGHT CONTROL. WILLIAM CHARLES SYKES, Greensburg, Pa. Filed Nov. 12, 1914. Serial No. 871,691. (Cl. 240—62.)

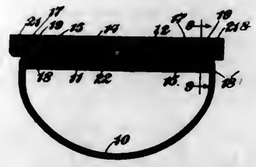
1. In a vehicle head-light, a pair of supports each mounted to turn in the vertical plane, a lamp in each of said supports mounted to swing in a vertical plane so that the rays of light from the lamp can be thrown above and below the axis of the lamp, a pedal mechanism for swinging said lamps simultaneously in a vertical plane, said pedal having means whereby the same can be maintained in various predetermined positions, and means for turning said supports in unison at any positions of the pedal.

2. In a vehicle head-light control, a pair of supports each mounted to turn in a vertical plane, a lamp in each of said supports mounted to swing in a vertical plane, each of said lamps normally tending to fall with its front downward, a bell-crank arm pivotally secured to each of said supports, a link in front of the support connecting the lamp to the bell-crank arm, a pedal, means connecting the pedal to said bell-crank arms whereby the same is controlled, said pedal having means whereby the same can



be maintained in predetermined positions, and means for turning the said lamp supports at any position of the pedal.

1,138,425. SHOE. EDWARD O. TEAGUE, Winchester, Mass., assignor of one-half to George A. Dobyne, St. Louis, Mo. Filed Mar. 25, 1914. Serial No. 827,128. (Cl. 36—17.)



1. A shoe having an upper, a middle sole comprising a center piece or templet and a welt flexibly attached to the edge of the center piece or templet, a metallic fastener seam attaching the welt to the upper, and an outsole attached to the welt.

2. A shoe having an upper, an insole, a middle sole comprising a center piece or templet and a welt flexibly attached to the edge of the center piece or templet, a seam attaching the welt to the upper comprising metallic fasteners clenched on the insole in a direction along the seam, and an outsole attached to the welt.

3. A shoe having an upper, an insole, a middle sole comprising a center piece or templet and a welt flexibly attached to the edge of the center piece or templet, a seam attaching the welt to the upper comprising metallic fasteners having laterally extending heads and clenched on the insole, the heads and points extending in a direction along the seam, and an outsole attached to the welt.

4. A shoe having an upper, a middle sole having a strip on the outer face thereof, a metallic fastener seam attaching said middle sole to the upper and passing through said strip, and an outsole attached to said middle sole.

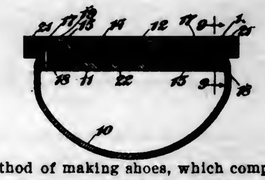
5. A shoe having an upper, a sole, a metallic fastener seam attaching said sole to the shoe, and means on one face of said sole adapted to reinforce the seam.

[Claims 6 to 15 not printed in the Gazette.]

1,138,426. METHOD OF MAKING SHOES. EDWARD O. TEAGUE, Winchester, Mass. Filed Mar. 25, 1914. Serial No. 827,129. (Cl. 12—142.)

1. The method of making shoes, which comprises, laying a strip of reinforcing material along one face of a welt or middle sole, attaching the welt to the upper and insole of a lasted shoe by a metallic fastener seam passing through the welt and the strip thereon and the upper and insole and attaching an outsole to the welt.

2. The method of making shoes, which comprises, cementing a strip of reinforcing material along one face of a welt or middle sole, attaching the welt to the upper and insole of a lasted shoe by a metallic fastener seam passing through the welt and the strip thereon and the upper and insole and attaching an outsole to the welt.



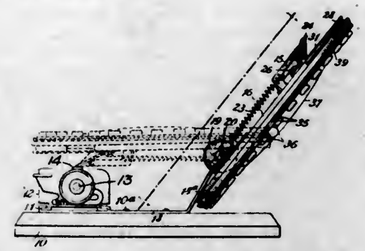
3. The method of making shoes, which comprises, laying a strip of reinforcing material along the outer face of a welt or middle sole, attaching the welt to the upper and insole of a lasted shoe by a seam of metallic fasteners passing through the welt and the strip thereon and the upper and insole and attaching an outsole to the welt.

4. The method of making shoes, which comprises, laying a strip of reinforcing material along the outer face of a welt or middle sole, attaching the welt to the upper and insole of a lasted shoe by a seam of metallic fasteners, passing through the welt and the strip thereon and the upper and insole, and having laterally extending heads engaging the strip, and attaching an outsole to the welt.

5. The method of making shoes, which comprises attaching a welt to a templet to conform the welt to the contour of the templet, laying a strip of reinforcing material along the outer face of the welt, attaching the welt to the upper and insole of a lasted shoe by a seam of metallic fasteners passing through the welt and the strip thereon and the upper and insole, and attaching an outsole to the welt.

[Claim 6 not printed in the Gazette.]

1,138,427. TYPE-WRITER. SAMUEL ALEXANDER THOMPSON, New York, N. Y. Filed May 20, 1914. Serial No. 839,774. (Cl. 197—46.)



1. In a typewriter, a rockably mounted frame, a wheel mounted on the frame to turn in its own plane, radial, type-carrying means on the wheel, and types in pairs on the said radial means, the frame presenting a depression accommodating the radial means pertaining to a pair of types and permitting a limited oscillation of the wheel, the central portion of the depression being lower than the side portions and accommodating the radial means pertaining to either type of a pair in a position depressed below the means pertaining to the other type of the pair.

2. In a typewriter, a wheel having a series of radial fingers forming type-carrying means, types on said fingers, and a rockable support on which the wheel is mounted to turn in its own plane, said support having a depressed notch accommodating in depressed position the type-carrying means pertaining to a pair of types, and affording space for limited oscillation of said depressed means to either side of said notch, the said notch furthermore presenting a bottom surface depressed at the center below the side portions, and the said central portion accommodating the type-carrying means pertaining to one type.

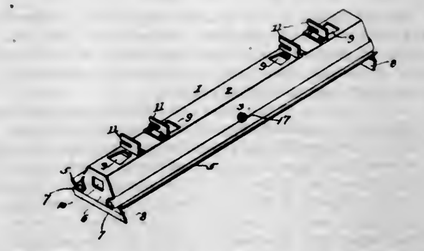
3. In a typewriter, a wheel mounted to turn in its own plane and to rock downwardly, type arranged in pairs, means on the wheel carrying said types, and means rockable with the wheel and presenting a depressed notch into which the type-carrying means for a pair of types may be depressed, the central portion of the notch being depressed beyond the side portions and accommodating the type-carrying means pertaining to a single type of a pair.

4. In a typewriter of the character described, a rockable support, a member mounted on said support to rock therewith and to turn in its own plane, depressible type-carrying means on said member, type on said carrying means, said support presenting a depressed notch below the type-carrying means, permitting the depression of the carrying means pertaining to two adjacent types and affording space for the oscillation of said depressed means toward either end of the notch, and a guard below the notch having an opening adjacent to the central portion of the notch, the opening permitting a single type only to be depressed therethrough.

5. In a typewriter of the character described, a rockable support, a member mounted on said support to rock therewith and to turn in its own plane, depressible type-carrying means on said member, type on said carrying means, said support presenting a depressed notch below the type-carrying means permitting the depression of the carrying means pertaining to two adjacent types, and affording space for the oscillation of said depressed means toward either end of the notch, and a guard below the notch, having an opening adjacent to the central portion of the notch, the opening permitting a single type only to be depressed therethrough, the said notch furthermore presenting a differential bottom surface.

[Claims 6 to 12 not printed in the Gazette.]

1,138,428. METALLIC RAILWAY-TIE. JOSEPH F. VALLIN, Audubon, N. J. Filed Aug. 12, 1914. Serial No. 856,438. (Cl. 238—5.)



1. The combination in a railway tie, of a body portion; a flat top section; inclined sides; a flange beyond the sides at a different incline, said flange extending from one end of the tie to the other; end sections made integral with the body of the tie; and means for securing the end sections of the tie to the flanges.

2. The combination of a metallic tie having a flat upper portion; inclined side portions and flanges inclined at a different angle from the side portions, the edges of the flanges being turned upward, the flanges and the side portions extending from one end of the tie to the other; end portions made integral with the body of the tie and arranged to close the ends of the tie; and means for securing these end portions to the flanges, each end portion being inturned at its lower edge and extending below the side flanges of the tie.

3. The combination in a metallic tie, of a body portion having inclined side members; means near each end of the tie for securing the rails to the tie; and reinforcing plates secured to the interior of the tie directly under the securing means for the rails, said reinforcing plates having transverse end members spaced apart and extending downward, the tie having tamping openings through which ballast can be forced under the end members of the plate.

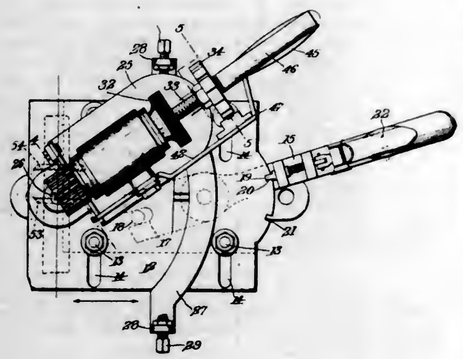
4. The combination of a metallic railway tie having a flat upper portion; inclined side portions; integral end portions extending down from the body of the tie; and two reinforcing plates located near each end of the tie below the rail supports, the tie having a tamping opening

in its upper surface and a tamping opening in each end.

5. A metallic railway tie having a flat upper surface and downwardly extending side members; laterally inclined flanges extending from the base of the side members so as to project under the ballast; tamping openings in the tie; and plates inside of the tie projecting downwardly into the ballast so that the ballast as it is tamped through the openings in the tie will be held by the downwardly projecting plates.

[Claim 6 not printed in the Gazette.]

1,138,429. ATTACHMENT FOR MILLING-MACHINES. HENRY E. VAN NESS, Elmira, N. Y. Filed Sept. 2, 1914. Serial No. 859,890. (Cl. 90—11.)



1. In mechanism of the class described, the combination of a pivotally mounted support, a work-arbor thereon, a plurality of side-milling cutters, and means whereby said support is swung about its pivot, in either direction, to feed the work against either cutter.

2. In mechanism of the class described, the combination of a pivotally mounted support, a work-arbor thereon, a plurality of side-milling cutters having a common axis, and means whereby said support is swung about its pivot, in either direction, to feed the work against either cutter.

3. In mechanism of the class described, the combination of a pivotally mounted support, a work-arbor thereon, a side-milling cutter, the axis of which is substantially at right angles to the axis of the pivot of said support, means whereby said support is swung about its pivot to feed the work against the cutter, and means for indexing the work.

4. In mechanism of the class described, the combination of a pivotally mounted support, a work-arbor thereon, a plurality of side-milling cutters, means whereby said support is swung about its pivot, in either direction, to feed the work against either cutter, and means for indexing the work.

5. In mechanism of the class described the combination of a pivotally mounted support, a work-arbor thereon, a plurality of side-milling cutters having a common axis, means whereby said support is swung about its pivot, in either direction, to feed the work against either cutter, and means for indexing the work.

[Claims 6 to 15 not printed in the Gazette.]

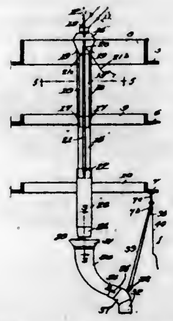
1,138,430. NON-CHATTERING BRAKE-HANGER. ALLEN WALLACE, Moorestown, N. J., assignor to The Baldwin Locomotive Works, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Feb. 6, 1914. Serial No. 816,993. (Cl. 188—84.)

1. The combination in brake mechanism for car trucks, of a transom; a bracket thereon having bearings spaced a distance apart; a hanger less in width than the distance between the bearings; brake mechanism suspended from the hangers; a bolt extending through the bearings and the hanger; and a U-shaped spring having openings near the ends, the bolt passing through the openings, one end of the spring bearing against the bolt and the other end bearing against the hanger, causing the hanger to be forced against one of the bearings.



2. The combination in brake mechanism for car trucks, of upper and lower bearings, the upper bearing being secured to the transom of the truck and the lower bearing being secured to the truck beam; a hanger connecting the bearings; a bolt passing through each bearing and the hanger; and two U-shaped springs, each spring having an opening in each end, one spring being mounted on one bolt and the other spring being mounted on the other bolt and each spring bearing against the head of its bolt and the hanger.

1,138,431. CHUTE. OSCAR EBRIE WEST, Brunswick, Ga. Filed Apr. 22, 1913. Serial No. 762,789. (Cl. 193—41.)



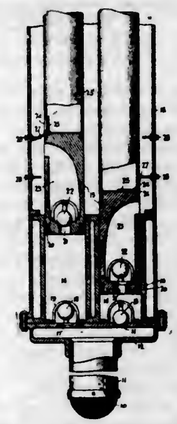
1. A device of the character described comprising a pipe section, a hopper mounted on the upper end thereof, a chain for suspending said hopper and said pipe section, a plurality of pipe sections telescopically fitted together and to said first mentioned pipe section, means for raising and lowering the telescopic pipe sections, the lowermost telescopic pipe section having a supporting bar extending transversely across the same and adapted to engage and support the adjacent telescopic pipe section when the sections are telescoped, mechanism connected with said supporting bar for receiving and conveying materials from said lowermost pipe section, and means for adjusting said mechanism.

2. A device of the character described comprising a tubular and hollow member through which material may be conveyed, a bar extending diametrically across said hollow member, a stirrup carried by said bar, a swivel-hook mounted upon said stirrup and adapted to turn relatively to the same, a bridle chain connected with said swivel-hook, a pipe section connected with said bridle chain and suspended thereby, said pipe section being provided with a funnel-shaped portion, and means for connecting said pipe section with another pipe section to receive the material.

3. In a chute the combination of a pipe section through which material may be conveyed, the pipe section having a slightly conical lower end, a supporting bar mounted within the said lower end of the pipe section, a swivel hook supported upon the said supporting bar, a bridle chain engaging said swivel hook, and a pipe section connected with the ends of said bridle chain and suspended thereby, for receiving material from said first mentioned pipe section.

4. A device of the character described comprising a hopper for receiving material, means for suspending the same, a pipe section secured to the lower end of the hopper and extending downwardly therefrom, a plurality of pipe sections telescopically fitted together and to said first mentioned pipe section, means for raising and lowering the telescopic pipe sections, the lowermost telescopic pipe section being provided with supporting means for supporting the adjacent pipe section when the sections are telescoped, and means suspended from said supporting means for receiving and conveying material from said lowermost pipe section.

1,138,432. WELL-PUMP. GEORGE EDWARD WHITE, Gwelo, South Rhodesia, South Africa. Filed Dec. 7, 1912. Serial No. 735,408. (Cl. 103—72.)

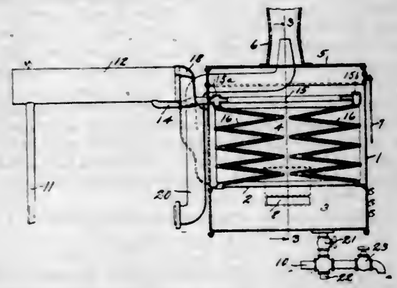


1. A well pump comprising, a cylinder; a delivery casing above said cylinder, said cylinder having a valve-controlled inlet; a plunger in said cylinder having a valve-controlled outlet from said cylinder to said delivery casing; a tubular rod in said casing for reciprocating said plunger, having an opening and a valve to control said opening; and means on said delivery casing adapted to operate said valve in said rod at predetermined points, thereby establishing or severing the communication between said delivery casings and said tubular rod.

2. A well pump comprising, a casing, a pair of cylinders each having a valve-controlled inlet in said casing; a delivery casing above said casing for both of said cylinders; a plunger in each of said cylinders having a valve-controlled outlet from said cylinders to said delivery casing; a tubular rod for each of the said plungers in said delivery casing and substantially parallel to it, each of said tubular rods having an opening and a valve to control said opening; and means on said delivery casing adapted to operate each of said valves in said tubular rod when said rods reach substantially the end of their up and down stroke.

3. A well pump comprising, a cylinder having a valve-controlled inlet; a delivery casing for the cylinder and above same; a plunger in said cylinder having a valve-controlled outlet from said cylinder to said delivery casing and a tubular rod associated with said plunger, said tubular rod having an opening near the top of said plunger establishing communication between said tubular rod and said delivery casing; a valve for said opening; a pivot secured to said valve and projecting through said tubular rod and a yoke rigidly secured to the projecting ends of said pivot by means of which said valve could be operated, and thereby control the opening in said tubular rod; and means at predetermined points on the lateral surface of said delivery casing adapted to engage said yoke during the reciprocation of said tubular rod, thereby controlling the communication between said tubular rod and said delivery casing.

1,138,433. COOLING SYSTEM FOR TRACTORS. ARCHIE WILLIAMS, Climax, Minn. Filed Apr. 4, 1914. Serial No. 829,569. (Cl. 123—170.)

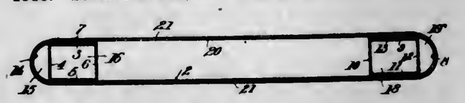


1. An engine cooling system of the class described, comprising a water reservoir, a distributing conduit, a primary cooling chamber constituting a return conduit, a plurality of air tubes open at one end to the atmosphere and arranged in said return conduit to subject the water to preliminary cooling, a secondary cooling compartment comprising an air chamber associated with the air conduit and with which the tubes communicate at their other ends, zig-zag water passages in the air chamber for conveying the water from the return conduit to the reservoir, and exhaust means in the air chamber to induce circulation of air through the air tubes in the primary cooling chamber and about the zig-zag passage in the secondary cooling chamber.

2. A cooling system of the class described comprising a water reservoir, an air chamber arranged above said reservoir, conduits for leading the water to the air chamber, tubes therein for subjecting the water in the conduits to a cooling medium, and passages leading from the conduits to the air chamber and connecting the tubes therewith, said passages terminating in cover plates for the air chamber.

3. A cooling system of the class described comprising a water reservoir, an air chamber arranged above said reservoir, a pair of conduits for returning water to the reservoir, a plurality of air tubes disposed in said conduits and around which the water flows, passages leading from the conduits to the air reservoir and connecting the tubes therewith, said passages terminating in removable cover plates for the sides of the air chamber, a plurality of wide attenuated passages in the air chamber arranged in zigzag form, means for distributing the water from the conduits to the zigzag passages, and an exhaust pipe passing into the chamber whereby to induce circulation of air through the tubes and about the zigzag passages aforesaid.

1,138,434. CLOTH-BOARD WITH CUSHIONING EDGES. WYLE T. WILSON, Philadelphia, Pa. Filed Aug. 18, 1913. Serial No. 785,331. (Cl. 206—50.)



1. A cloth board provided with a body portion having top and bottom side walls; cushioning edge walls joining said side walls; and end walls terminating flush with said side walls and joining said edge walls, substantially as described.

2. A cloth board provided with a hollow body portion having top and bottom side walls; hollow cushioning edge walls joining said side walls; and end walls terminating flush with said side walls and joining said edge walls, substantially as described.

3. A cloth board provided with a body portion having top and bottom side walls; cushioning edge walls asso-

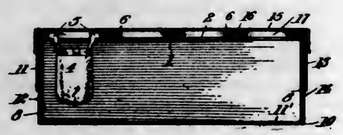
ciated with hollow chambers joining said side walls; and end walls terminating flush with said side walls and joining said edge walls, substantially as described.

4. A cloth board comprising a hollow body portion; stiffening means associated with said body portion; side walls associated with said body portion; cushioning edge walls terminating in said side wills; and end walls terminating in said side and edge walls, substantially as described.

5. A cloth board comprising a hollow body portion; stiffening means comprising hollow prisms associated with said body portion; side walls associated with said body portion; cushioning edge walls terminating in said side walls; and end walls terminating in said side and edge walls, substantially as described.

[Claims 6 to 12 not printed in the Gazette.]

1,138,435. MEANS FOR HOLDING A PLURALITY OF GAS-MANTLES. WYLE T. WILSON, Philadelphia, Pa. Filed Nov. 6, 1913. Serial No. 799,540. (Cl. 217—26.)



1. In a container for gas mantles, the combination of an integral member provided with a plurality of holes each of a size greater than the outer circumference of the bodies of the mantles to be stored, but less than the outer circumference of the feet of said mantles; a support for said member adapted to prevent the bodies of said mantles contacting with the walls of said container; and means associated with said container for holding said feet against the surface of said member, substantially as described.

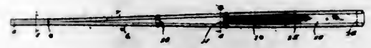
2. In a container for a plurality of gas mantles, the combination of a member of integral sheet material having a plurality of perforations the circumference of each of which is larger than the bodies of the said mantles but smaller than the circle occupied by the feet of said mantles; integral supports for said member adapted to prevent the bodies of said mantles from contacting with the walls of said container; a second sheet like member adapted to overlie said first named perforated member; and means for holding said second sheet like member and mantle feet in their positions when resting on the surface of said first sheet like member, substantially as described.

3. In a container for a plurality of gas mantles, the combination of a member of sheet material having a plurality of perforations the circumferences of each of which are larger than the bodies of the said mantles but smaller than the circle occupied by the feet of said mantles; integral supports for said member adapted to prevent the bodies of said mantles from contacting with the walls of said container; a second sheet like member provided with perforations larger than the circle on which said feet rest, adapted to overlie said first named perforated member; and means for holding said second sheet like member and mantle feet in their positions when resting on the surface of said first sheet like member, substantially as described.

4. A container for a plurality of mantles comprising an integral perforated sheet having supports longer than the bodies of said mantles, combined with means for detachably holding the feet of said mantles against said perforated sheet, substantially as described.

1,138,436. VEHICLE-POLE. MARTIN E. ANDERSON, De Kalb, Ill., assignor of one-third to himself, one-third to Frank G. Anderson, and one-third to Andrew O. Anderson, De Kalb, Ill. Filed Apr. 13, 1914. Serial No. 831,603. (Cl. 21—36.)

1. A vehicle pole comprising two oppositely disposed U-bars having their flanged edges in contact for a portion of their length at the front ends, means for firmly securing together said contacting ends, said bars slightly diverging from the contacting portions rearwardly on curved lines, narrow substantially rectangular spacing frame members between said diverging bars and fitting the inner contours thereof to strengthen the pole and maintain the U-bars in shape, means for firmly connecting the U-bars and spacing members, an elongated spacing member between the rear ends of said bars and snugly fitting the inner contours thereof, means for securing said elongated member in position, and a covering plate secured between said bars and extending from the elongated spacing member forwardly to the narrow spacing member next in advance thereof and held between said members and the flanges of the U-bars.

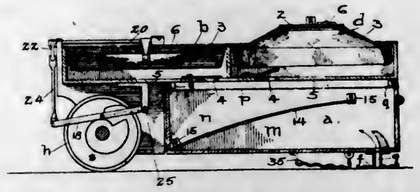


2. A vehicle-pole comprising two oppositely-disposed U-bars having a substantial portion of their front end portions in contact, an elongated spacing-member fitted between the rear end portions of said bars and holding them a distance apart, said spacing member closing the space between said bars for a substantial portion of their length, and devices securing said bars together.

3. A vehicle-pole comprising two oppositely-disposed U-bars, a substantial length of the forward ends of said bars being secured in contact, an elongated spacing-member fitted between the rear end portions of said bars, one or more intermediate spacing-members between said bars in advance of said elongated member, a cover-plate fitted between said members to close the space between the bars for a substantial portion of their length in advance of said elongated member, and devices for securing said bars and said spacing-members firmly together.

4. A vehicle-pole comprising two oppositely-disposed U-bars for a substantial portion of their length secured in contact, an elongated spacing-member fitted between the rear end portions of said bars, one or more intermediate spacing-members between said bars in advance of said elongated member and snugly fitting the inner contour of said bars, a cover-plate fitted between said members in advance of said elongated member, and devices for securing said bars and said spacing-members firmly together, said cover-plate resting upon two of said spacing-members.

1,138,437. CARPET-SWEEPING APPLIANCE. CHARLES L. BAENDER, Oakland, Cal., assignor, by mesne assignments, to National Sweeper Company, Torrington, Conn., a Corporation of New Jersey. Filed June 28, 1909. Serial No. 504,878. (Cl. 15—60.)



1. The combination in a pneumatic carpet cleaner, of a casing, a dust box, a screen device in the upper portion of said box removable therefrom, a suction nozzle secured to and supporting the front end of said cleaner, the exit thereof entering said box under the screen device, a suction device above the box communicating with the interior thereof above the screen device, journal bearings on the casing in rear of the box, a shaft supported in said bearings, traction wheels on said shaft adapted to support the rear end of the cleaner and cam and lever connections between the shaft and the suction device for operating the latter.

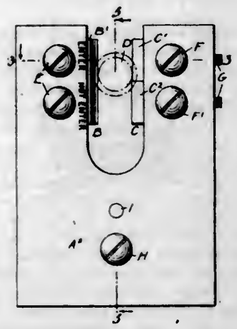
2. The combination in a pneumatic cleaner having traction wheels supporting the rear thereof, a dust receptacle removable from the cleaner and having a horizontal screen device in its upper portion, a suction nozzle supporting the front end of the receptacle, the exit from the nozzle entering the receptacle below the screen device, a suction device above the receptacle and connecting devices between the wheels and the suction device for operating the latter.

3. The combination in a pneumatic carpet cleaner, of a dust box, a screen device removably mounted on the upper portion of said box adapted to be removed and replaced in said box, a suction nozzle secured to and supported in the front end of said box, the exit therefrom entering said box under the screen device, journal bearings secured to the machine in rear of said box, a shaft in said bearings, a suction device above said box communicating with the interior thereof above said screen device, traction wheels secured on the shaft adapted to support the rear end of the cleaner and rotate the shaft, and connections between the shaft and the suction device for operating the latter.

4. In a sweeping appliance, the combination of a dust receptacle, a nozzle communicating therewith and supporting the front end thereof, a suction device over said receptacle and communicating therewith, screening means located between the nozzle and suction device, wheels forming the rear support of said appliance, and operative connections between the wheels and the suction device adapted to operate said device upon the rotation of the wheels.

5. In a sweeping appliance, the combination of a dust receptacle, a nozzle supporting the front end thereof and communicating therewith, wheels located near the rear end of said dust receptacle, a suction device located over said dust receptacle and communicating therewith through valve-controlled apertures, a wall removably supported in the receptacle around said apertures, a screen secured to the periphery of said wall, operative connections between said wheels and said suction device for operating said device upon the rotation of said wheels.

1,138,438. THREAD-GAGE. CHARLES LOUIS BAILEY, Glen Ridge, N. J. Filed Mar. 17, 1914. Serial No. 825,372. (Cl. 33—199.)



1. A thread gage provided with oppositely-disposed gage members spaced apart to form a passage for a threaded article to be gaged, the gage members having straight edges, of which one is grooved for the passage of a thread of the article and the other edge is adapted to pass between adjacent threads of the article and is provided with an upper and a lower portion, of which the lower portion is set farther inward than the upper portion.

2. A thread gage, comprising a stock, gage members adjustably held on the said stock and having oppositely-disposed edges spaced apart for the passage of a threaded article, one of the edges having a groove extending lengthwise of the edge for the reception of a thread and the other edge being adapted to pass between adjacent threads of the article, one of the gage members being made in parts having their edges offset one beyond the other part.

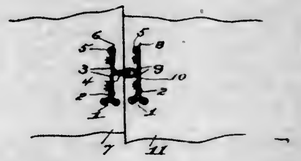
3. A thread gage, comprising a stock provided with spaced arms having guideways, gage members fitting the said guideways and having oppositely-disposed edges spaced for the passage of a threaded article, the edge of one of said gage members having a lengthwise-extending groove for engagement by a thread of the article, and the edge of the other gage member being adapted to pass between adjacent threads of the article, the said last-named gage member being made in parts, and means for adjusting one of the parts independently of the other toward the grooved member.

4. A thread gage, comprising a stock provided with spaced arms having guideways, gage members fitting the said guideways and having oppositely-disposed edges spaced apart for the passage of a threaded article, the edge of one of the said gage members having a lengthwise-extending groove for engagement by a thread of the article, and the edge of the other gage member being adapted to pass between adjacent threads of the article, the last-named gage member being made in parts each having a slot, screws passing through the slots and screwing in the said stock to fasten the gage member parts in place, and adjusting screws screwing in the said stock against the outer ends of the said gage member parts.

5. A thread gage provided with gage members, one of said members having V-shaped edges spaced apart to form a groove and between which the thread of the article to be gaged is passed, one of the members having an upper part and a lower part, of which the edge of the lower part projects beyond the edge of the upper part.

[Claims 6 to 8 not printed in the Gazette.]

1,138,439. HOOK-AND-EYE FASTENING. NELLIE M. BAILEY, Kinsale, Va. Filed Nov. 3, 1914. Serial No. 870,136. (Cl. 24—229.)

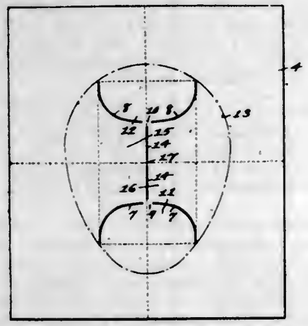


In a hook and eye fastening device, a hook member and an eye member each composed of a single piece of wire, the wire of each member being folded centrally to form a pair of laterally diverging loops, serpentine arms looped together in a pair for each member and projecting from the lateral loops centrally between the latter and meshing throughout their length for clamping therebetween the material to which they are pinned, one of the arms of each pair terminating in a pin point, and the other arms having respectively a hook and an eye centrally thereof and terminating in an open ring for catching the points therein, all of said arms adapted to swing parallel with the lateral loops in opening and closing movements.

1,138,440. SANITARY SHIELD. ELEANOR L. BAINBRIDGE-BELL, Mount Bethel, Pa. Filed Nov. 9, 1914. Serial No. 871,028. (Cl. 4—18.)

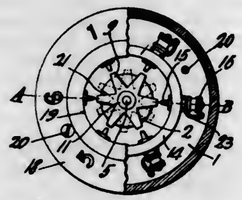
As an article of manufacture, a sanitary shield comprising a sheet of suitable material weakened adjacent one end on two quadrant lines jointly forming a broken semi-circle curved toward the center of said sheet; similarly weakened adjacent the other end on quadrant lines jointly forming a broken semi-circle curved toward the center of said sheet, and weakened on a median line from

n point adjacent one semi-circular line to a point adjacent the center of the sheet, and similarly weakened on a me-



dian line from a point adjacent the other semi-circular line to a point adjacent the center of the sheet.

1,138,441. TROUBLE-DETECTOR FOR SPARK-PLUGS. GEORGE M. BEARD, Pleasant Lake, Ind. Filed Apr. 3, 1914. Serial No. 829,357. (Cl. 175—183.)



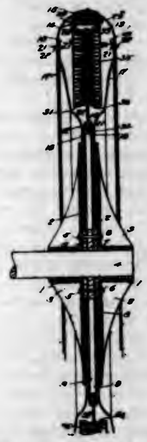
1. A trouble detector for spark plugs including a central member of conductive material, points arranged about said member and spaced therefrom, means for electrically connecting the points to the respective spark plugs, said central member being adapted to be grounded to the engine, the gap between the said central member and the points being greater than that between the points of the spark plugs.

2. An attachment for spark plugs of hydrocarbon engines, including a central member of conductive material, spaced points arranged therearound and spaced therefrom, there being normally gaps between the points and central member slightly greater than the gap between the points of the spark plugs, means for electrically connecting the respective points of the attachment to the corresponding spark plugs, means for grounding the central member to the engine, and means adjacent the points of the attachment for indicating the plugs to which the points are connected.

3. An attachment for spark plugs of hydrocarbon engines, including a central member of conductive material, spaced points arranged therearound and spaced therefrom, there being normally gaps between the points and central member slightly greater than the gap between the points of the spark plugs, means for electrically connecting the respective points of the attachment to the corresponding spark plugs, means for grounding the central member to the engine, and means for placing the central member in and out of active coöperation with the points.

4. A trouble detector for the spark plugs of explosive engines, including a central revoluble member, points arranged therearound and adapted to be electrically connected to the respective spark plugs, means for grounding the central member to the engine, and means for limiting the rotation of the central member, said member being movable into and out of position to make and break a spark gap between the member and the respective points.

1,138,442. WHEEL. THOMAS C. BENBOW, Absarokee, Mont. Filed June 27, 1914. Serial No. 847,684. (Cl. 152—37.)

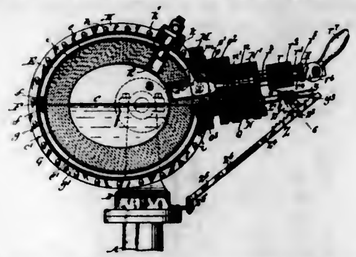


1. A spring wheel comprising a hub consisting of sleeve sections arranged in alinement, and each having at its inner end a radial continuous flange, bracing ribs integral with the flange and the sleeve and arranged between the flange and the sleeve, a pair of disks arranged between the flanges and the sleeve sections, means for securing the sleeve sections and the disks together in spaced relation, a tire comprising a housing consisting of a rim section arc-shaped in cross section and lateral sections, the rim section having a continuous peripheral groove or depression, a solid tread member seated in the depression, the lateral housing sections each comprising a plane portion received between a flange and the adjacent disk, and an outwardly flaring portion detachably connected at its outer edge with the adjacent side edge of the rim section of the housing, a series of blocks arranged between the disks at their periphery and in spaced relation, each block having intermediate its ends a pair of oppositely extending trunnions and the disks having openings in which the trunnions are journaled, and cushioning elements arranged between the blocks and the rim section at the groove or depression.

2. A spring wheel comprising a hub consisting of sleeve sections arranged in alinement, and each having at its inner end a radial continuous flange, bracing ribs integral with the flange and the sleeve and arranged between the flange and the sleeve, a pair of disks arranged between the flanges and the sleeve sections, means for securing the sleeve sections and the disks together in spaced relation, a tire comprising a housing consisting of a rim section arc-shaped in cross section and lateral sections, the rim section having a continuous peripheral groove or depression a solid tread member seated in the depression, the lateral housing sections each comprising a plane portion received between a flange and the adjacent disk, and an outwardly flaring portion detachably connected at its outer edge with the adjacent side edge of the rim section of the housing, a series of blocks arranged between the disks at their periphery and in spaced relation, each block having intermediate its ends a pair of oppositely extending trunnions and the disks having openings in which the trunnions are journaled, and a cushioning element arranged between each block and the rim housing, each of the said elements being pivoted to the rim housing at its outer end and dajustably connected with the block at its inner end.

1,138,443. APPARATUS FOR PRODUCING CASTINGS. CHRISTOPHER H. BIERBAUM, Buffalo, N. Y. Filed Mar. 19, 1909. Serial No. 484,566. (Cl. 22—69.)

1. A pressure casting machine comprising a mold, a closed tiltable melting pot or ladle having an outlet through which the molten material is transferred from the pot or ladle to said mold, and means for exerting pressure on the interior and exterior of the pot or ladle.



2. A pressure casting machine comprising a mold, a closed tiltable melting pot or ladle having an outlet through which the molten material is transferred from the pot or ladle having an outlet through which the molten material is transferred from the pot or ladle to said mold, and means for exerting uniform air pressure simultaneously on the interior and exterior of the pot or ladle.

3. A pressure casting machine comprising a closed melting pot or ladle having an outlet and adapted to be tilted for pouring the metal through said outlet, a mold adapted to be connected with the outlet of the pot or ladle for receiving the molten material therefrom, and a pressure jacket inclosing said pot or ladle.

4. A pressure casting machine comprising a closed melting pot or ladle having an outlet and adapted to be tilted for pouring the metal through said outlet, a mold adapted to be connected with the outlet of the pot or ladle for receiving the molten material therefrom, and a pressure jacket inclosing said pot or ladle and communicating with the interior of the latter.

5. A pressure casting machine comprising a hollow spherical melting pot or ladle having an outlet nozzle for the molten material, a spherical pressure jacket inclosing said pot or ladle and communicating with the interior thereof through an opening in the upper side of said nozzle, and a mold adapted to be connected with said outlet and to receive the molten material therefrom.

[Claims 6 to 29 not printed in the Gazette.]

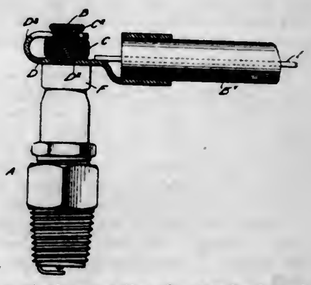
1,138,444. PROCESS FOR THE PRODUCTION OF BOOTS AND SHOES. GIOVANNI BATTISTA BINETTI, Vigevano, Italy. Filed Nov. 17, 1913. Serial No. 801,521. (Cl. 36—20.)



The process of making boots and shoes comprising as steps thereof, assembling together an inner and an outer sole and providing an angular space between the lower marginal face of the insole and the upper face of the outsole, securing the margin of said insole to said outsole by a seam, temporarily securing said insole and outsole to a last, stretching an upper over said last, turning out the lower margin of said upper upon the upper marginal surface of said outsole, and securing said upper within said angular space by a seam passing through the upper and outsole.

1,138,445. TERMINAL CONNECTION FOR SPARK-PLUGS. JAMES P. BLAUVELT, Nyack, N. Y. Filed Oct. 21, 1914. Serial No. 867,758. (Cl. 173—269.)

1. A terminal connection, comprising a clip adapted to be connected with an electrical conductor, said clip having oppositely arranged and spaced non-resilient members provided with registering openings, one of the members having a slit leading from the opening out through the end thereof, and a nut having a reduced portion engaging the opening of the slitted member and having the portion thereof below the reduced portion lying wholly between the members of the clip, the slit of the clip member being of less width than the diameter of the reduced portion of the nut, whereby the nut will be permanently held in the clip.



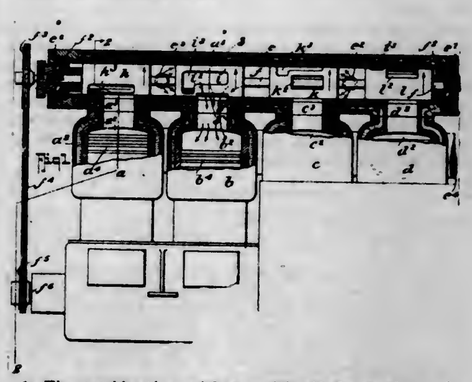
2. In a terminal connection for spark plugs having a central electrode member, a nut screwing thereon, and a clip connected with an electrical conductor and having a return bend provided with a bearing, the said nut extending between the clip and the return bend and having a journal engaging the said bearing.

3. In a terminal connection for spark plugs having a central electrode member, a nut screwing thereon, and a clip connected with an electrical conductor and having a return bend provided with a lengthwise extending split forming split members having registering recesses at their opposite edges to form a bearing for the said nut to turn in.

4. In a terminal connection for spark plugs having a central electrode member, a nut screwing thereon, and a clip connected with an electrical conductor and having a return bend provided with a lengthwise extending split forming split members having registering recesses at their inner opposite edges to form a bearing, the said nut extending between the clip and its return bend and having a journal at the upper end engaging the said bearing.

5. A terminal connection comprising a clip adapted to be connected with an electrical conductor, said clip having oppositely arranged and spaced members provided with registering openings of unequal diameter, and a nut having a reduced portion engaging the larger opening of the member, the portion of the nut except that engaging the opening being wholly between the said members.

1,138,446. ROTARY VALVE. DAVID BOWMAN, Edmonton, Alberta, Canada. Filed June 3, 1914. Serial No. 842,666. (Cl. 123—59.)



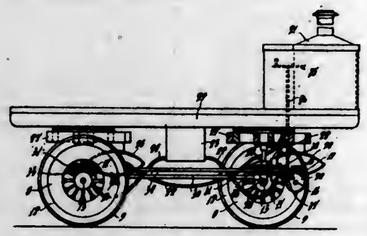
1. The combination with a multi-cylinder engine; of a shaft, means for rotating the same, a plurality of spaced

hollow valve members open at each end interchangeably mounted thereon, one over each cylinder, said members being longitudinally split at one side thereof to permit expansion and contraction, and being overlapped at the joint thereof to prevent leakage, a casing for said members provided with inlet ports between said members, and exhaust ports for corresponding cylinders, and said members having each, an inlet port in constant communication with said casing inlet ports, and adapted for communication with a corresponding cylinder, and having an exhaust passage adapted to connect a corresponding cylinder and casing exhaust port.

2. The combination with a multi-cylinder engine; of a shaft, means for rotating the same, a plurality of spaced hollow valve members open at each end interchangeably mounted thereon, one over each cylinder, a casing for said members provided with inlet ports arranged therebetween, said members being hollow and open-ended and having a plurality of heat radiating flanges therein, and having, each, an inlet port in constant communication with said casing inlet ports and adapted for communication with a corresponding cylinder and with an exhaust passage adapted to connect a corresponding cylinder and casing exhaust port.

3. The combination with a multi-cylinder engine; of a shaft, means for rotating the same, a plurality of spaced hollow valve members open at each end interchangeably mounted thereon, one over each cylinder, a casing for said members provided with inlet ports therebetween and with outlet ports adjacent corresponding cylinder ports, and said members being provided, each, with an inlet port cut through the wall thereof and in constant communication with said casing inlet ports and adapted for communication with a corresponding cylinder port, and with an exhaust passage formed in the surface of the wall thereof, out of communication with the interior of said member, and adapted to connect corresponding cylinder ports and casing exhaust ports.

1,138,447. MOTOR-VEHICLE. WILLIAM PRATT BRADSHAW, Sydenham, Christchurch, New Zealand. Filed May 6, 1914. Serial No. 836,707. (Cl. 21—193.)

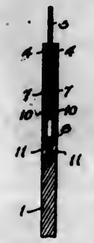


In a motor vehicle the combination of a body, turntables pivoted to said body, a pair of axles carrying the vehicle wheels, vertical members on said axles connected with said turntables, worm wheels fixed to said vehicle members, a longitudinal rod having worms for engaging said worm wheels and adapted to operate the latter simultaneously in opposite directions, and means for operating said rod from the body of the vehicle.

1,138,448. FLY-SWATTER. EDWARD BROCKMAN, Aurora, Ill. Filed Nov. 17, 1914. Serial No. 872,601. (Cl. 43—1.)

1. A fly swatter including a handle provided with a pair of clamping jaws having inclined faces thereon, wire fabric adapted to be inserted between the clamping jaws, and a slide having a bifurcated end constructed to engage the inclined faces of the jaws and to coöperate therewith to force the jaws together.

2. A fly swatter including a handle provided with a pair of clamping jaws having oppositely inclined faces thereon, wire fabric adapted to be inserted between the clamping jaws, and a bifurcated member having the arms thereof formed with inclined faces adapted to engage the oppositely inclined faces of the clamping jaws and coöperate therewith to force the jaws together.



3. A fly swatter including a handle provided with a pair of clamping jaws having corresponding slots therein, wire fabric adapted to be inserted between the clamping jaws, a slide mounted for movement within the slot, and means actuated by the slide for forcing the clamping jaws toward each other.

4. A fly swatter including a handle provided with a pair of clamping jaws formed with inclined faces, wire fabric adapted to be inserted between the clamping jaws, and a slide formed with inclined faces adapted to engage the inclined faces of the jaws and coöperate therewith to force the jaws toward each other.

5. A fly swatter including a handle provided with a pair of clamping jaws having inclined faces therein and a transverse slot, wire fabric adapted to be inserted between the clamping jaws, and a clamping slide seated within said transverse slot and provided with a bifurcated end, the arms of said bifurcation having opposed inclined faces, said inclined faces of the arms of the bifurcation coöperating with the inclined faces in the clamping jaws for detachably securing the wire fabric between the clamping jaws.

1,138,449. LOCOMOTIVE-HEADLIGHT. WILLIAM THOMAS BROWN, Hapeville, Ga. Filed Aug. 18, 1914. Serial No. 857,374. (Cl. 240—46.)

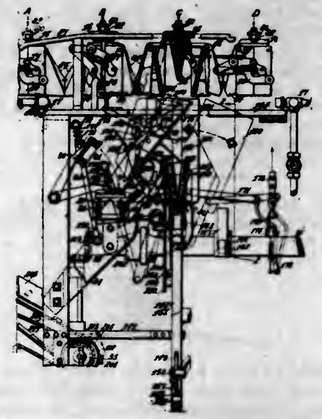


1. The combination with a reflector, of a frame removably supported thereon, and a secondary reflector removably mounted on the frame for throwing a stream of light at an angle to the stream projected by the reflector.

2. The combination with a reflector, having openings therein through which a chimney may extend, of a frame mounted on the reflector having an end passage through one of the openings for supporting the frame upon the reflector, and a secondary reflector carried by the frame for throwing a stream of light in a direction at an angle to the stream of light projected from the reflector.

3. The combination with a reflector, of a secondary reflector supported in the reflector for throwing a stream of light at an angle to the stream projected by the reflector, and a flexible frame mounted in the reflector for supporting the secondary reflector, and adapted to be flexed to accommodate the angle to which the secondary reflector is to be adjusted.

1,138,450. ICE-CREAM-CONE MACHINE. FREDERICK A. BRUCKMAN, Portland, Oreg. Filed July 18, 1912. Serial No. 710,116. (Cl. 107—58.)



1. In an ice cream cone machine, a set of molding devices including female mold sections and cores therefor, means for opening and closing said molding devices to discharge the molded product, a trimming mechanism, means for conveying the molded product from the molding devices to the trimming mechanism, said means including a chute, and means for moving said chute into an inoperative position during the action of said trimming mechanism.

2. In an ice cream cone machine, a set of molding devices including female mold sections and cones therefor, means for opening and closing said molding devices to discharge the molded product, means for conveying the molded product from the molding devices, said means including a chute, and means for moving said chute into an inoperative position at times, and means for oiling the mold cores when said chute is in its inoperative position.

3. In an ice cream cone machine, a set of molding devices each including a pair of female mold sections, cores adapted to be projected into said sections, means for opening and closing said female mold sections to discharge the molded product, combined with means for projecting between said female mold sections when open to oil said cores while said cores remain projected between the separated female mold sections.

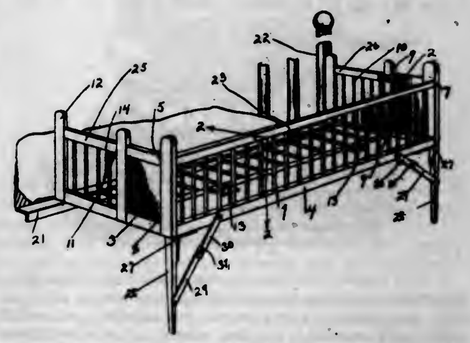
4. In a machine of the class described, the combination with the molding devices which include cores, of a trimming mechanism, means for conveying the molded product from the molding devices to the trimming mechanism, and means for moving said conveying means to an inoperative position during the action of said trimming mechanism and oiling the mold cores.

5. In a machine of the class described, the combination with the molding devices, of a chute for conveying the molded product from the molding devices and delivering them at a given place, said chute including a set of sections, side partition wings projecting between said sections, a core oiling device, and means for first withdrawing said partition wings and then moving said oiling device to oil said cores.

[Claims 6 to 29 not printed in the Gazette.]

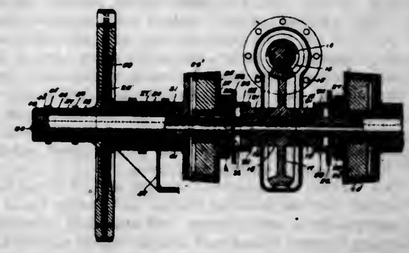
1,138,451. BABY-CRIB. HUDSON H. BUGELE, St. Louis, Mo. Filed May 28, 1913. Serial No. 770,402. (Cl. 5—59.)

A folding crib, comprising a bottom, end pieces, and an immovable side piece, means for rigidly fastening said parts together, said end pieces having foldable extension end pieces hingedly connected thereto, a foldable side piece hingedly connected to the bottom, which when folded down extends endwise between the extension end pieces, and when folded to a closed position, the extension end pieces fold thereagainst, the corner portions of the rigidly connected end, side and bottom pieces having foldable legs, means comprising straps secured to the foldable side piece and serving to attach the foldable side piece to the side of a bed, and also for strapping the upper parts of the extension end pieces to the upper part of the foldable side piece to hold the crib folded, the outer face of the foldable side piece adjacent its outer rail having headed lugs, the bottom face of the rigid bottom having headed lugs,



the extension end pieces having on their lower edges latches, to engage either the headed lugs of the foldable side piece to hold the same in position, or to engage the headed lugs of the rigid bottom to hold the extension end pieces folded against the outer face of the foldable side piece when the crib is collapsed, said legs adapted to be folded to permit the crib when opened to rest flat on the floor and adjacent a side wall.

1,138,452. GEARING FOR TRACTORS. JUAN G. CASTERAN, Buenos Aires, Argentina. Filed June 23, 1913. Serial No. 775,318. (Cl. 74—36.)



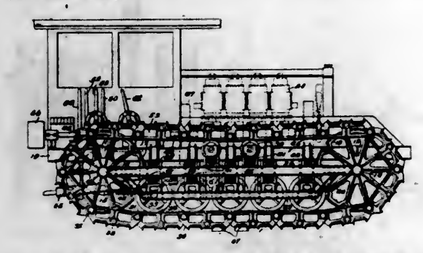
1. In a gearing for tractors, a driving shaft, a driven shaft at angles thereto and driven thereby, a housing for said driving shaft, clutch members carried by and driven by said driven shaft, sprocket wheels rotatably carried by said driven shaft, cups carried by said sprocket wheels and a rotatable sleeve carried by each side of said housing to engage said clutch members with said cups carried by said sprocket wheels, for driving said sprockets from said driven shaft.

2. In a gearing for tractors, a driving shaft, a shaft driven by said driving shaft, a housing for said driving and driven shafts, said driven shaft extending in opposite directions from said housing, bearings formed in said housing for said driven shaft, clutch members driven by and slidable on said driven shaft, sprocket wheels rotatably carried by said driven shaft, co-acting clutch-members secured to said sprocket wheels, and sleeves rotatably mounted on said housing for moving said slidable clutch members into binding engagement with the co-acting clutch members carried by said sprocket wheels.

3. In a gearing for tractors, a driving shaft, a housing for said driving shaft, a shaft driven by said driving shaft extending through said housing, wheels rotatably carried

by said driven shaft, clutch members for driving said wheels with said driven shaft, said clutch members comprising members slidably mounted on said driven shaft, sleeves rotatably mounted on said housing, said sleeves controlling the sliding movement of said sliding clutch members, and said sleeves being operable independently of each other.

1,138,453. TRACTOR. JUAN G. CASTERAN, Buenos Aires, Argentina. Filed July 16, 1913. Serial No. 779,361. (Cl. 21—114.)



1. In a tractor, the combination with a rigid frame having bearings, sleeves mounted therein and having heads at their outer ends, a prime mover, and manually controlled connections between it and said sleeves; of an outer frame comprising side bars having bearings alined with those of the main frame, a shaft passing through said sleeves and extending through and journaled in the bearings of the outer frame, wheels having cupped hubs loose on said shaft between the last-named bearings and said heads and adapted to engage the latter, and nuts at the extremities of said shaft.

2. In a tractor, the combination with a rigid frame having bearings, sleeves mounted therein and having heads at their outer ends, a prime mover, and manually controlled connections between it and said sleeves; of an outer frame comprising said bars having bearings alined with those of the main frame, a shaft passing through said sleeves and extending through and journaled in the bearings of the outer frame, wheels having cupped hubs loose on said shaft between the last-named bearings and said hubs and adapted to engage the latter, said shaft being tubular and and having radial lubricating passages within said bearings and sleeves and its extremities threaded, a nut on each extremity against the last-named bearing, a cap on said extremity serving as a lock nut and pierced with a hole communicating with the bore of the shaft, and a screw for removably closing said hole.

3. In a tractor, the combination with a rigid frame having bearings, sleeves mounted therein and having heads at their outer ends, a prime mover, and manually controlled connections between it and said sleeves; of an outer frame comprising side bars having bearings alined with those of the main frame, a shaft passing through said sleeves and extending through and journaled in the bearings of the outer frame, sprocket wheels having cupped hubs loose on said shaft between the last-named bearings and said heads and adapted to engage the latter, a shaft journaled in bearings at the other end of the main frame and side bars, sprocket wheels carried by this shaft in line with those first mentioned, endless articulated tracks connecting each pair of sprocket wheels, upright guideways carried by said side bars, and spring-pressed rollers mounted in said guideways and bearing on the lower run of the tracks and upward beneath the upper run thereof.

4. In a tractor, the combination with a frame having bearings, sleeves mounted therein, a prime mover, and manually controlled connections between it and said sleeves; of a shaft passing through said sleeves, sprocket wheels having hubs loose on said shaft and adapted to engage the sleeves, a shaft journaled in bearings at the other end of the frame, sprocket wheels carried by this shaft in line with those first mentioned, endless articulated tracks connecting each pair of sprocket wheels, upright guideways carried by said frame, and spring-pressed rollers mounted in said guideways and bearing on the lower run of the tracks and upward beneath the upper run thereof.

5. In a tractor, the combination with a frame having bearings near its front and rear at each side, the main shafts journaled therein, sprockets thereon, and two endless articulated tracks connecting the front and rear sprockets; of upright guideways carried by said frame, bearing blocks slidably mounted in the guideways, rollers journaled in said blocks, and spring pressing the upper blocks toward the upper run of the tracks and the lower blocks toward the other run thereof.

[Claim 6 not printed in the Gazette.]

1,138,454. MOLD FOR CONCRETING PILES. GENERAL SHERMAN CHAPMAN, St. Petersburg, Fla. Filed Dec. 29, 1913. Serial No. 809,228. (Cl. 25—127.)



1. A mold to apply a concrete casing around piles already driven, comprising a shell formed of tubular sheet metal split along one side only, and of unbroken continuity in cross section between the edges, and a rigid locking rod in the form of a continuous tube to slidably engage the edge portions of the shell and secure the same, the said rod having a continuous longitudinal slot along a side thereof, and the said edge portions of the shell presenting out-turned, mating, lateral webs adapted by their combined thickness to approximately fill the longitudinal slot of the rod and lie back to back when drawn together by the rod, there being oppositely disposed longitudinal beads on the webs at their outer edges which are receivable in the interior of the rod, said rod being greater in length than the height of the shell and having means at its upper end whereby the rod may be driven and withdrawn.

2. A mold to apply a concrete covering around piles already driven, comprising a split shell formed of bendable sheet metal, and a rigid locking rod in the form of a continuous tube to slidably engage edge portions of the shell, said rod having a longiutdinal slot along a side thereof extending from the lower end and terminating short of the upper end, there being a driving and pulling head on the upper end of the rod, the said edge portions of the shell presenting outwardly disposed lateral webs, the web of each edge portion being returned on itself so that each edge presents a web of double thickness, the combined webs approximately filling the longitudinal slot of the rod, there being oppositely disposed enlarged beads on the webs respectively within the hollow interior of the rod.

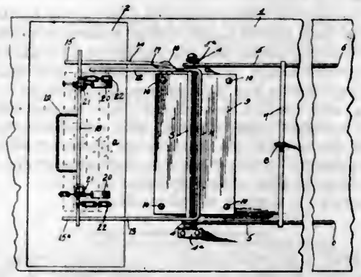
3. A mold to apply a concrete covering around piles already driven, comprising a split shell of tubular sheet metal and of unbroken continuity in cross section from one edge to the other, and a locking rod for the opposite edge portions of the shell, said edge portions each having a core, the material of the shell extending outwardly and around said core and being returned on itself inwardly from said core, presenting beads at the cored portions and presenting lateral webs uniting the said cored portions to the said body of the shell, the locking rod being in the form of a longitudinal, continuous tube, the length of the rod exceeding the height of the shell, and the upper end of the rod having a head whereby the rod may be driven and withdrawn, the rod furthermore having a longitudinal slot below the head to accommodate the webs of the respective edge portions of the shell.

4. A mold to apply a concrete covering around piles already driven, comprising a split shell each edge portion of which presents a member out-turned and then returned on itself, each edge thereby presenting a web of double thickness, the said webs having beads at the outer portions thereof and the two thicknesses of each web lying close together between the beads and the body of the shell; in combination with a tubular, longitudinally slotted locking rod to engage the said edge portions of the shell.

5. A mold to apply a concrete covering around piles already driven, comprising a shell, opposite edge portions of which are formed with beads, one of the edge portions being formed with an interior flap overlapping the opposite edge portion when the shell is in the closed position; in combination with locking means to engage the said edge portions.

[Claim 6 not printed in the Gazette.]

1,138,455. MAIL-BAG DELIVERER. WILLIAM CALVIN COCHRAN, Ninevah, Ind. Filed Apr. 9, 1914. Serial No. 830,757. (Cl. 258—23.)



1. A mail bag deliverer comprising a base member, a shaft upon which said base member is pivoted, said base member having outwardly extending arms and being flat upon its outer and inner sides, a wear plate connected to the side of a car under said base member, springs connected to the car and to said shaft for holding the arms in the operative and inoperative position, said base plate having side edges which are held by the springs against the base plate when thrown against the car and said base plate being held with a flat surface against the wear plate when the arms are thrown outward in position for supporting a mail bag.

2. A mail bag deliverer comprising a frame having outwardly projecting arms, said arms being connected by a base member, a car, a wear plate connected to the side of said car, said base member being flat on its under side and having angular edges, a rod connected to said arm, springs for bearing on said rod for normally holding said base against said wear plate whereby said arms are held in two positions against the tension of said springs, and means for holding a mail bag suspended in position to be delivered.

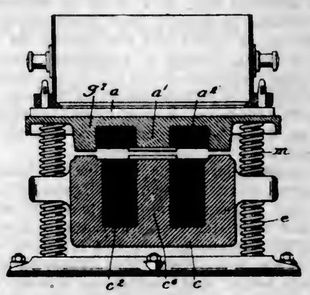
1,138,456. OPENER. WILLIAM C. CURRAN, Cincinnati, Ohio. Filed May 2, 1913. Serial No. 765,107. (Cl. 65—47.)



An opening tool comprising a handle having an enlargement provided with an elongated transversely disposed opening, said enlargement upon directly opposite sides having tapering prongs extending from and offset from opposite sides of the enlargement and protruding in opposite directions, said prongs being disposed in parallelism with one another and said handle, and in conjunction with the handle constituting an opener.

1,138,457. JAR-MOLDING MACHINE. KARL OTTO DAHLMEYER, Berlin, Germany. Filed Jan. 13, 1915. Serial No. 1,999. (Cl. 22—45.)

1. In a jar-molding machine, the combination of a bed, an anvil, means mounted on said bed for yieldingly supporting said anvil, an electromagnet constructed in said anvil, a mold-carrying table, and an armature for said electromagnet connected to actuate said table, substantially as described.



2. In a jar-molding machine, the combination of a bed, an anvil, means for yieldingly supporting said anvil, an electromagnet mounted on said anvil, a mold-carrying table, an armature for said electromagnet connected to actuate said table, and means for automatically closing and interrupting the circuit through said electromagnet, substantially as described.

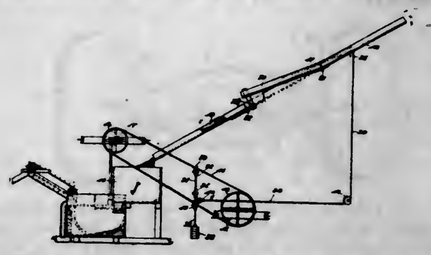
3. In a jar-molding machine, the combination of a bed, an anvil, spring means for yieldingly supporting said anvil from the bed, an electromagnet mounted on said anvil, a mold-carrying table, an armature for said electromagnet connected to actuate said table, a circuit for said electromagnet, a switch included in said circuit, and means arranged between said table and anvil for automatically shifting said switch to close and interrupt said circuit, substantially as described.

4. In a jar-molding machine, the combination of a bed, an anvil, spring means mounted on said bed for yieldingly supporting said anvil, an electromagnet movable with said anvil, a mold-carrying table supported from said anvil, an armature for said electromagnet connected to actuate said table, a circuit for said electromagnet, an interrupter included in said circuit and mounted on one movable element of the machine, and means on the other movable element for engaging and actuating said interrupter, substantially as described.

5. In a jar-molding machine, the combination of a bed, a hollow anvil supported from said bed and formed with a central core, a winding located in said anvil and constituting with said core an electromagnet, a mold-carrying table, and an armature for said electromagnet connected to actuate said table, substantially as described.

[Claims 6 to 12 not printed in the Gazette.]

1,138,458. AUTOMATIC STARTING AND STOPPING DEVICE. FRANK BELIN DAVENPORT, Wilkes-Barre, Pa. Filed Oct. 13, 1914. Serial No. 866,454. (Cl. 64—4.)



1. The combination with a machine for treating material and power devices to operate the same, of a chute serving to deliver material into the machine through the action of gravity, said chute including a movable section, the position of which is determined by the mass of material passing therethrough, and connections between said movable chute section and said power devices whereby, when the chute is empty, the machine will be thrown out of action.

2. The combination with a machine adapted to treat material and power devices for operating the same including a shiftable belt, of a chute to deliver material into the machine by gravity, said chute including a section hinged at its upper end and having its lower end movable vertically toward a horizontal position when empty, a cable connected at one end to the movable chute device and having a portion extending adjacent said belt, and connections between said cable and the belt to cause the shifting of the belt coincidentally with the swinging of said chute.

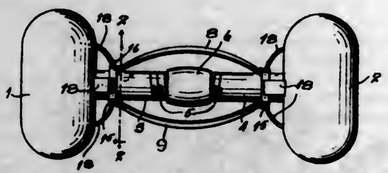
3. The combination with a machine for treating material and power means for operating the same including a shiftable belt, of means for delivering material into the machine, said delivering means including a movable chute section, shifting means for the belt including an endless rope and a counterweighted cable connected at one end to the chute device, and connections between said cable and the belt shifting device whereby, upon movement of the movable chute section in either direction the belt will be shifted to either stop or start the machine automatically.

4. In a device of the character set forth, the combination with a machine adapted to treat material and power devices for operating it including a shiftable belt, of a chute comprising stationary spaced sections, a movable section bridging the space aforesaid and movable into and out of alinement with the stationary sections, and a keeper to determine the extent of movement of the movable section in a direction out of alinement, belt shifting devices, and a counterweighted cable extending between the movable chute section and the belt shifting devices whereby, when the chute runs empty, the movable section thereof will be swung out of alinement with the other sections and the belt will be shifted to stop the machine.

5. In a device of the character set forth, the combination with a machine adapted to treat material and power means for operating it including a shiftable belt, of means to deliver material to the machine in either a constant or irregular stream, said delivering means including a chute section pivoted at its upper end and adapted when empty to swing upwardly toward a horizontal position, lever devices secured to the chute section and extending upwardly beyond the pivot thereof, a belt shifting device having constant coöperation with the belt, and a counterweighted cable extending between said shifting device and said lever devices whereby, when the movable chute section is empty, the machine will be automatically stopped by the shifting of the belt in one direction, and when the chute is loaded the machine will be restarted by the shifting of the belt in the opposite direction.

[Claims 6 and 7 not printed in the Gazette.]

1,138,459. DUMB-BELL. CHARLES T. DAY, Leechburg, Pa. Filed Sept. 26, 1914. Serial No. 863,728. (Cl. 46—69.)



1. In a dumb bell structure, dumb bells, rods secured centrally to the facing sides of said dumb bells, said rods having their meeting ends adjustably connected for varying the distance between the facing sides of said dumb bells.

2. In a dumb bell structure, ordinary bells, rods connected to the center of the facing portions of said bells, said rods having their meeting ends externally screw threaded in opposite relation to each other, a collar mounted upon said externally screw threaded end for rotary movement for regulating the distance between the meeting ends of the rods and the facing sides of said bells.

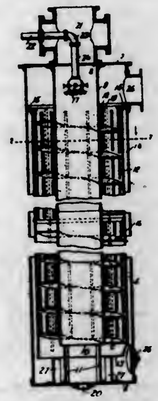
3. In a dumb bell structure, bells, rods secured centrally to the facing sides of said dumb bells, said rods having their meeting ends adjustably connected for varying the distance between the facing sides of said dumb bells and arcuate resilient grips carried by said rods and curving outwardly therefrom for providing a yieldable hand grip therefor.

4. In a dumb bell structure, a pair of bells, a stem connecting said bells, collars slidably mounted upon said stem, resilient means interposed between said collars and said bell and arcuate resilient grips carried by said collars and positioned diametrically opposite each other and curving outwardly therefrom for providing a yieldable hand grip for the stem.

5. A dumb bell comprising a handle having heads on its opposite ends, spaced collars slidably mounted on the handle, outwardly bowed springs connected at their opposite ends to said collars, springs mounted on said handle between said heads and said collars, said springs normally forcing said collars inwardly of the handle, and said bowed springs being adapted for movement inwardly against the handle, the inward movement of said bowed springs forcing said collars longitudinally of the handle against the tension of said springs.

[Claim 6 not printed in the Gazette.]

1,138,460. GAS-SCRUBBER. WILLIS M. DERBY, Buchanan, N. Y. Filed Sept. 25, 1913. Serial No. 791,766. (Cl. 48—135.)



1. In a gas scrubber, two walls spaced apart to form a passage, one of the walls being curved for directing the gas around the other wall, the curved wall having an opening and a flange extending inwardly from the curved wall at the opening for the purpose specified.

2. In a gas scrubber, a tubular member, a tubular member of less diameter than the first tubular member and disposed therewithin, means between the tubular members for directing a gas circularly around the second tubular member, means for directing the gas from within the second tubular member to the space between the two tubular members, a sprayer in the second tubular member, there being openings in the first tubular member through which impurities and water may pass, and flanges at the openings in the first tubular member and extending inwardly for the purpose specified.

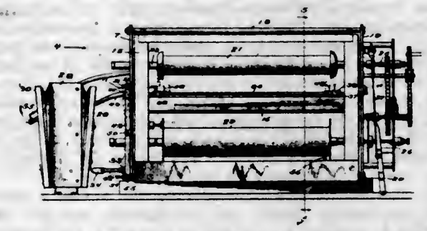
3. In a gas scrubber, a vertical tubular casing having a head at its bottom and a head with an opening at its top, a tubular member disposed in the tubular casing and spaced therefrom and from the first head, the tubular member being connected to the second mentioned head adjacent the opening therein, a second tubular member having openings and disposed around the first tubular member and within the tubular casing, the second tubular member being spaced from the first head, a member for connecting the top of the second tubular member with the tubular casing, a deflector between the two tubular members for giving a gas passing therethrough, a circular motion, a sprayer in the first tubular member, an outlet in the casing for the gas above the second tubular member, and flanges extending inwardly from the second tubular member at the openings therein.

4. In a gas scrubber, a spiral member for giving the gas a circular motion, a member at the outer side of the spiral member and having an opening or openings through which impurities may pass and a flange or flanges extending inwardly from the second member at the said opening or openings.

5. In a gas scrubber, means for giving the gas a circular motion, two members spaced apart around the said means, the inner of the said two members having an opening or openings through which impurities may pass and a flange or flanges extending obliquely and inwardly from the inner of the said two members at the said opening or openings.

[Claims 6 to 11 not printed in the Gazette.]

1,138,461. AUTOMATIC TRACKER. FRANCIS W. DRAPER, Richmond, Ind., assignor to The Starr Piano Company, Richmond, Ind., a Corporation of Indiana. Filed Apr. 26, 1913. Serial No. 763,829. (Cl. 84—161.)



1. The combination with a tracker bar, of a rigid frame embracing the tracker bar, music rollers carried by the rigid frame upon opposite sides of the tracker bar, pneumatic means for moving the rigid frame and music rollers, a sliding member mounted adjacent the tracker bar, valves carried by the sliding member, and in line with the ends of said rollers and means to manually adjust the sliding member relative to the tracker bar.

2. The combination with a tracker bar rigidly mounted, of a rigid frame surrounding the tracker bar, music rollers carried by the rigid frame upon opposite sides of the tracker bar, pneumatic means for shifting the rigid frame and music rollers longitudinally of the tracker bar, a rod adjacent and slidable relative to the tracker bar, valves carried by the rod in line with the ends of said rollers and adapted to control the pneumatic, and means to manually slide the rod independently of the tracker bar and music rollers.

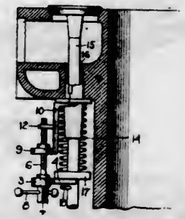
3. The combination with a tracker bar; of music rollers upon opposite sides of the tracker bar, pneumatic means for simultaneously moving the music rollers relative to the tracker bar, a double pneumatic a rod mounted adjacent the tracker bar, valve blocks carried by the rod, wings carried by the blocks in alinement with the opposite ends of the music rollers, means connecting the valves with the pneumatic, and manual means to slide the rod longitudinally of the tracker bar.

4. The combination with a tracker bar, of music rollers disposed upon opposite sides of the tracker bar, pneumatic means for adjusting the alinement between the tracker bar and the music rollers, a rod slidably mounted adjacent the tracker bar, valve blocks carried by the rod, in alinement with the opposite ends of the music rollers, means for controlling the valves, and manual means for sliding the rod relative to the tracker bar and rollers.

5. The combination with a tracker bar, a movable frame, music rollers therein on opposite sides of the tracker bar, and means to automatically adjust the position of the frame and music rollers with respect to the tracker bar; of a rod slidably mounted relative to the tracker bar, valve members on the rod, wings carried by said members and normally in alinement with the opposite ends of the music rollers, a second slidably mounted rod, a manual lever for moving it, and a rock lever connecting the two rods.

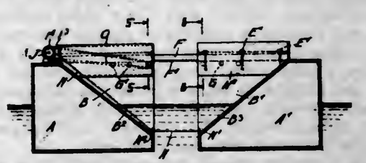
[Claim 6 not printed in the Gazette.]

1,138,462. VALVE-SPRING COMPRESSOR. JOHN JOSEPH EAGAN, New York, N. Y. Filed Nov. 13, 1914. Serial No. 871,909. (Cl. 29—87.1.)



In a device of the class described, a head having a lateral bifurcated flange, a member having at the ends thereof oppositely disposed lateral flanges, a screw in said head mounted to turn therein, but prevented from longitudinal movement thereof, said screw being in threaded engagement with one of the flanges of said member, the other of said flanges having a slot, and a projection on said member in alinement with the flange engaged by the screw, said projection forming a bearing for said screw.

1,138,463. SELF-DUMPING SCOW. FRANKLIN PIERCE EASTMAN, New York, N. Y. Filed Sept. 24, 1914. Serial No. 863,276. (Cl. 114—30.)



1. A self-dumping scow, comprising two hulls affording between them a hopper for holding the load at the time the hulls are abutting sidewise and for allowing the load to dump automatically on the hulls moving apart, and connecting means at a right angle to the length of the scow and slidably connecting the hulls with each other to maintain the hulls in the same plane when closed or open.

2. A self-dumping scow, comprising two hulls affording between them a hopper for holding the load at the time the hulls are abutting sidewise and for allowing the load to dump automatically on the hulls moving apart, and connecting means at a right angle to the length of the scow and slidably connecting the hulls with each other above the water line to maintain the hulls in the same plane when closed or open.

3. A self-dumping scow, comprising two hulls affording between them a hopper for holding the load at the time the hulls are abutting at their opposite sides, a transverse guideway at one of the said hulls, and a beam fixed on the other hull and slidably engaging the said guideway.

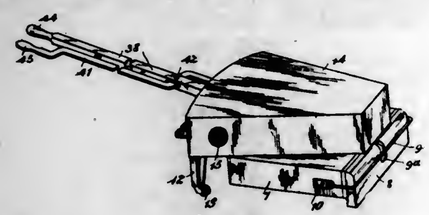
4. A self-dumping scow, comprising two hulls affording between them a hopper for holding the load at the time the hulls are abutting at their opposite sides, a transverse guideway at one of the said hulls, a beam fixed on the other hull and slidably engaging the said guideway, and manually controlled means for drawing the hulls together after dumping.

5. A self-dumping scow, comprising two hulls affording between them a hopper for holding the load at the time the hulls are abutting at their opposite sides, a pair of spaced beams extending transversely and secured to one of the hulls, the said beams forming a guideway between

them, and a transverse beam secured on the other hull and slidably fitting the said guideway.

[Claims 6 to 10 not printed in the Gazette.]

1,138,464. PUMPING MECHANISM FOR VACUUM-CLEANERS. HOWARD ECKEL, Los Angeles, Cal. Filed May 16, 1914. Serial No. 839,011. (Cl. 230—2.)



1. In a vacuum cleaner, the combination of a receiver, a casing connected with said receiver and having substantially the form of a keystone, a portion of said casing being wider than said receiver, casters mounted upon the edges of the portion thus wider than said receiver, a tongue connected with said casing, bellows mounted within said casing, and means operable by hand for actuating said bellows.

2. In a vacuum cleaner, the combination of a receiver, a casing secured to said receiver, a tongue pivotally connected with said casing, a hand lever pivotally connected with said tongue, bellows mechanism located within said casing, and links connected with said bellows mechanism and with said hand lever.

3. In a vacuum cleaner, the combination of a receiver, a casing connected therewith, a partition mounted within said casing and provided with a slot which communicates with said receiver, a plurality of bellows mounted within said casing, separate links connected with the different bellows, a single hand lever connected with all of said links and adapted to swing relatively to said casing, and a tongue pivotally connected with said casing and adapted to swing relatively to the same, said tongue being pivotally connected with said hand lever.

4. In a vacuum cleaner, the combination of a receiver, a casing connected therewith, a partition located within said casing and provided with an opening which communicates with said receiver, two bellows located within said casing, one disposed on each side of said partition and communicating with said opening therein, separate links connected with the different bellows, a hand lever connected with all of said links, a tongue connected with said casing, and a pivot pin extending through said tongue and through said hand lever for enabling relative movements of said tongue and said hand lever to actuate all of said bellows.

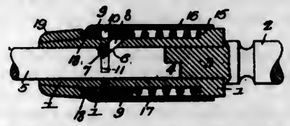
5. In a vacuum cleaner, the combination of a casing, a tongue pivotally connected therewith and adapted to swing relatively thereto, a plurality of bellows mounted within said casing, links pivotally connected with said bellows, and a hand lever connected with said links, said hand lever being pivotally connected with said tongue, and free to swing bodily therewith relatively to said casing.

[Claim 6 not printed in the Gazette.]

1,138,465. CHUCK. THOMAS J. FEGLEY and GEORGE O. LEOPOLD, Philadelphia, Pa., assignors to North Bro's. M'f'g Co., Philadelphia, Pa., a Corporation of Pennsylvania. Filed Nov. 19, 1914. Serial No. 872,962. (Cl. 29—145.)

1. The combination in a chuck, of a body portion having an opening for a tool bit, or other device, and having a diagonal, transverse slot communicating with the central opening; a locking bar mounted in the slot and arranged to engage a tool bit, or other device, to be held in the chuck; and means for moving the bar into and out of position in the slot.

2. The combination in a chuck, of a body portion having an opening therein for a bit, or other article to be secured thereto, and having a transverse diagonal slot; a bar mounted in the slot; and a sleeve longitudinally movable on the body portion and engaging the bar so that, when the sleeve is moved, the bar will be forced out of engagement with the bit, or other device, located in the body portion.



3. The combination in a body portion having an opening for the reception of a bit, or other device, and having a diagonal slot communicating with the said opening; a sleeve mounted on the body portion and having a transverse slot; a locking bar extending through both slots; and a spring mounted on the body portion and bearing against a shoulder thereon and against the sleeve and tending to hold the bar in the projected position.

4. The combination in a chuck, of a body portion having a longitudinal opening therein and having a stepped stem to receive the stepped end of a drill bit and having a diagonal slot extending forwardly and communicating with the central opening; a sleeve mounted on the body portion and having a transverse slot therein at an angle with respect to the slot in the body portion; a bar extending through both slots; a spring back of the sleeve tending to force the sleeve forward and the bar into the diagonal slot to its full depth so as to enter a notch in the bit located in the body portion; and means for preventing the sleeve from turning in the body portion.

5. The combination of a body portion having a longitudinal opening therein and an external shoulder and having a diagonal slot extending forwardly and communicating with the longitudinal opening; a sleeve mounted on the body portion and having a transverse slot; a transverse bar having the ends turned at right angles to the body of the bar, said ends being located in the transverse slot of the sleeve; and a spring located between the shoulder on the body portion and the sleeve.

[Claims 6 and 7 not printed in the Gazette.]

1,138,466. BRUSH. CHARLES ARTHUR FOGARTY, New York, N. Y. Filed Apr. 29, 1914. Serial No. 835,152. (Cl. 15—22.)



1. In a brush, a loop, doubled-up stock engaging the loop, said loop having an extension enlarged at the end thereof and positioned between the doubled-up stock by which the extension is covered, and a flattened annular member clamping the stock to the extension.

2. In a brush, a bristle carrier comprising a shank, a loop and an extension from the loop, said extension and shank being on opposite sides of said loop and in alinement with each other, said extension having an enlarged end, doubled-up stock engaging the loop and covering said extension, a flattened annular member clamping the stock to the extension and a handle associated with the shank.

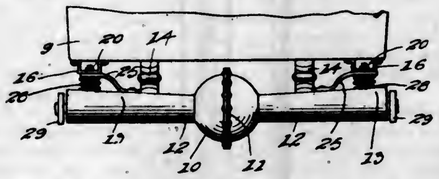
3. In a brush, a shank having a loop adapted to receive the stock, an extension from the loop in alinement with the shank, doubled-up stock engaging the loop and covering the extension, a flattened annular member engaging the stock exteriorly and clamping the same to the extension and a handle secured to the shank.

4. In a brush, a wire bristle carrier comprising a shank, a loop integral therewith and an extension from the loop having an enlarged end, said shank and extension being on opposite sides of the loop and in alinement with each other; doubled-up stock engaged in the loop and covering the extension; a flattened annular member engaging exteriorly the stock and clamping the same to the extension and a handle secured to the shank.

5. In a brush, a wire loop having an extension integral therewith, said extension having an enlarged end, said loop having also a stem on the opposite side from the extension and in alinement therewith; doubled-up stock engaging the loop and covering said extension; a flattened annular member engaging exteriorly the stock and clamping the same to the extension; a handle associated with the stem; and a cover for the loop and annular member associated with said handle.

[Claim 6 not printed in the Gazette.]

1,138,467. SPRING-AXLE. JAMES H. GILLILAND, Greensboro, N. C. Filed Dec. 22, 1914. Serial No. 878,570. (Cl. 21—187.)



1. In a device of the class described, the combination with a vehicle body, of an axle casing beneath said body, resilient connections between said body and said axle casing, a floating axle section within said casing, and resilient connections between said floating axle section and said vehicle body.

2. In a device of the class described, the combination with a vehicle body, of an axle casing beneath said body, resilient connections between said body and said axle casing, a floating axle section within said casing, resilient connections between said floating axle section and said vehicle body, and means for guiding the floating axle section in its movement within the axle casing.

3. In a device of the class described, the combination of a vehicle body, an axle casing beneath the same, resilient connections between the axle casing and the vehicle body, floating axle sections extending longitudinally in opposite directions through said axle casing from the center thereof to a point beyond the opposite halves of said axle casing, the opposite halves of the axle casing being provided with outwardly inclined upper faces, said upper faces having openings positioned therein adjacent the outer ends of said halves of the casing, bracket members carried by said vehicle body above said opening, guide pins depending through said bracket members, bearing hoods carried by said guide pins and positioned upon said axle sections, bearing balls carried by said hood bearings, cushion springs engaged around said guide pins and bearing upon said bearing hood, and resilient connections between said brackets and the opposite halves of said casing.

4. The combination with a vehicle body, of an axle casing beneath the body, a spring extending longitudinally of the casing and connected with the same and with the vehicle body, a floating axle within said casing and a coiled spring interposed between the axle and the first mentioned spring.

1,138,468. COMBINED MIDDY-BLOUSE, ROMPERS, AND SKIRT. BENJAMIN GOLDBERG, New York, N. Y. Filed Dec. 1, 1914. Serial No. 874,984. (Cl. 2—145.)

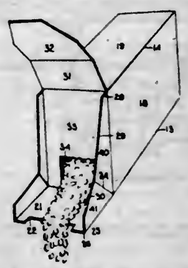


1. A combination garment comprising a blouse, rompers detachably connected to the blouse adjacent the waist, and a skirt detachably connected with the blouse at a point below the waist and covering the rompers.

2. A three-piece garment comprising a blouse, internal bands therein respectively at the waist and bottom of the blouse, and separate garment pieces detachably connected with the respective bands, whereby the blouse can be worn with either one or both of said pieces.

3. A blouse for a multiple-piece garment, internal bands extending around the inside of the blouse adjacent the waist and below the same, fastenings on the bands, and a belt fastened around the outside of the blouse at the waist thereof.

1,138,469. CARTON. SAMUEL GOODKIND, New York, N. Y. Filed Feb. 25, 1915. Serial No. 10,468. (Cl. 229—17.)



1. In an article of the class described, a carton having four sides and an end, a spout at the end forming a continuation of one side, wings at the side of the spout connecting the spout with the sides of the carton adjacent the carton's side from which the spout extends, there being creases in the wings, and a tongue on the carton's side opposite the first mentioned carton's side for disposal between the spout and the wings for closing the carton.

2. In an article of the class described, a carton having four sides and an end, a spout at the end forming a continuation of one side, wings at the side of the spout connecting the spout with the sides of the carton adjacent the carton's side from which the spout extends, there being creases in the wings, and a tongue and a partition extending from the carton's side opposite the first mentioned carton's side, the partition being disposed within the tongue and having an opening adjacent the carton's side having the spout to permit a limited flow of the contents of the carton to the spout, the tongue being provided for disposal between the spout and the wings for closing the carton.

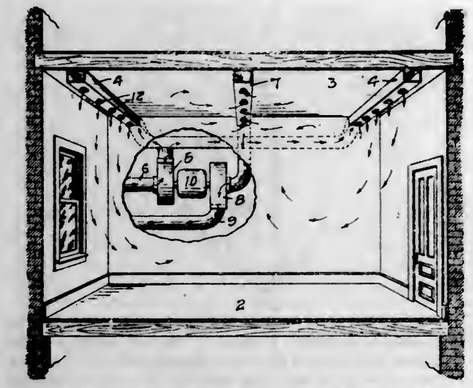
3. In an article of the class described, a carton having four sides and an end, a spout at the end integral with and forming a continuation of one of the sides, wings at the sides of the spout, the wings being integral with the spout and with the carton's side adjacent the carton's side having the spout, there being diagonal creases in the

wings and a tongue integral with and extending from the carton's side opposite the first carton's side for disposal between the spout and the wings.

4. In an article of the class described, a blank having four longitudinal creases separating five portions, the blank being folded at the creases with one of the end portions disposed over the other end portion and secured thereto to form a carton having four sides, an extension at one end of the middle portion of the blank forming a spout, wings integral with the sides of the spout and with the portions of the blank adjacent the said middle portion, there being oblique creases in the wings, and a tongue extending from one of the end portions of the blank for disposal between the spout and the wings for the purpose specified.

5. In an article of the class described, a blank having four longitudinal creases separating five portions, the blank being folded at the creases with one of the end portions disposed over the other end portion and secured thereto to form a carton having four sides, an extension at one end of the middle portion of the blank forming a spout, wings integral with the sides of the spout and with the portions of the blank adjacent the said middle portion, there being oblique creases in the wings, a partition extending from the inner end portion of the blank for disposal across an end of the carton to retard the flow of the contents, and a tongue extending from the outer end portion of the blank for disposal between the spout and the wings for the purpose specified.

1,138,470. VENTILATING APPARATUS. LESLIE S. HACKNEY, St. Paul, Minn. Filed Oct. 24, 1911. Serial No. 656,531. (Cl. 98—27.)

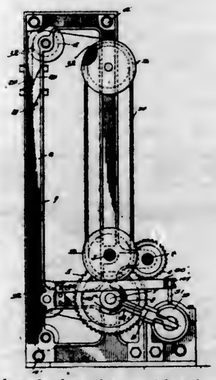


1. A ventilating apparatus comprising air inlet and exhaust trunks mounted in or near the ceiling of the room to be ventilated, in substantially parallel relation, each trunk having a series of openings arranged at intervals and communicating with said room substantially from wall to wall thereof, said inlet openings being arranged to deliver in a downwardly direction each a substantially equal volume of cool air, said outlet openings being arranged each to withdraw a substantially equal volume of vitiated air from the space to be ventilated, and means for creating forced circulation through said inlet and outlet openings to maintain a circulation of fresh air substantially downwardly from the inlets to the breathing zone and of vitiated air upwardly to the outlets.

2. A ventilating apparatus comprising air inlet and exhaust trunks mounted in or near the ceiling of the room to be ventilated, in substantially parallel relation, each trunk having a series of openings arranged at intervals and communicating with said room substantially from wall to wall thereof, said inlet openings being arranged to deliver in a downwardly direction each a substantially equal volume of cool air, said outlet openings being arranged each to withdraw a substantially equal volume of vitiated air from the space to be ventilated, a fan connected to the inlet air trunks for forcing air to said inlet openings and a fan connected to said exhaust trunks for withdrawing air from outlet openings to maintain a circulation of fresh air downwardly from the inlets to the breathing zone and of vitiated air upwardly to the outlets.

3. A ventilating apparatus comprising air inlet and exhaust trunks mounted in or near the ceiling of the room to be ventilated, in substantially parallel relation, each trunk having a series of openings arranged at intervals and communicating with said room substantially from wall to wall thereof, said inlet openings being arranged to deliver in a downwardly direction each a substantially equal volume of cool air, said outlet openings being arranged each to withdraw a substantially equal volume of vitiated air from the space to be ventilated, said inlet openings being provided with devices to assist in guiding the incoming air downwardly, and means for creating forced circulation through said inlet and outlet openings to maintain a circulation of fresh air substantially downwardly from the inlet to the breathing zone and of vitiated air upwardly to the outlets.

1,138,471. ADVERTISING DEVICE AND THE LIKE. HENRY KINGSFORD HARRIS, Rusholme, Wickford, England. Filed Mar. 17, 1911. Serial No. 615,128. (Cl. 40—53.)

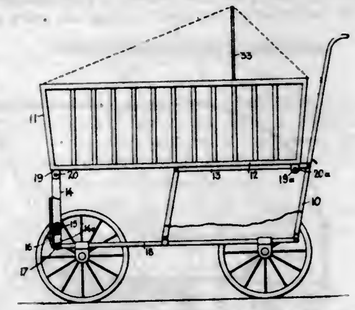


In an advertising device, the combination of a plurality of movable bands each provided with intelligible legends, feed rollers moving said bands, a contact member carried by one of the bands, a stationary contact member mounted partially within the path of travel of said first-named contact member, clutch mechanism throwing said feed rollers into and out of action, a magnet for controlling said clutch mechanism, an electric circuit connected with said magnet for energizing the same, said circuit being controlled by said contact members, and Jacquard mechanism for further controlling said electric circuit.

1,138,472. CRIB ATTACHMENT FOR GO-CARTS. CARY S. HEATH, Montrose, Colo. Filed Jan. 25, 1913. Serial No. 744,199. (Cl. 21—83.)

1. A crib attachment for go-carts and the like, comprising an independent bodily movable crib body adapted to be removably superimposed upon the body of the cart and having means for detachably securing it to the cart, said separate front and rear fastening means being at the under side of the crib body.

2. A crib attachment for go-carts and the like, comprising an independent bodily movable crib body adapted to be removably superimposed upon the body of the cart, at the top of the latter, said crib body having at the under side, at the front, a depending leg support to rest on the front end of the cart body, at the bottom of the latter, the crib body furthermore having on the under side thereof, near the rear end, movable fastening means to detachably engage the top frame of the cart body.



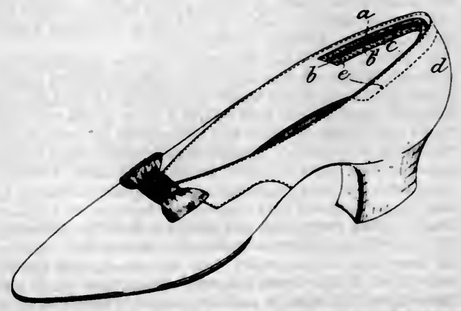
3. A crib attachment for go-carts and the like, comprising an independent bodily movable crib body adapted to be removably superimposed upon the body of the cart, at the top of the latter, said crib body having at the under side, at the front, a depending leg support to rest on the cart body, at the bottom of the latter, the crib body furthermore having on the under side thereof, near the rear end, movable fastening means to detachably engage the top frame of the cart body, the leg support at the front end of the crib body being hingedly connected to said body to fold upwardly and rearwardly therebeneath.

4. A crib attachment for go-carts and the like, comprising an independent bodily movable crib body adapted to be removably superimposed upon the body of the cart, at the top thereof, fastening means on the under side of the body, near the rear end to detachably engage the top frame of the cart body, a depending leg support on the crib body at the front adapted to rest on the top of the cart, at the bottom of the latter, and fastening means carried by said support at the lower end thereof, adapted to detachably engage the cart body.

5. A crib attachment for go-carts and the like, comprising an independent bodily movable crib body having a bottom frame adapted at its rear end to rest on the top of the cart body, said crib body being provided with transversely sliding fastening members at each side, at the bottom, there being a space between the said fasteners and the bottom frame of the crib body to receive the top frame members of the cart body and permit the fasteners to slide beneath the said members, said crib body having the leg support depending from the bottom frame at the front, and adapted to rest on the bottom of the cart body.

[Claims 6 and 7 not printed in the Gazette.]

1,138,473. SHOE. WILLIAM CHARLES HENRY POLDEN HEDGECOCK and FLORENCE AMY HEDGECOCK, Brighton, England, assignors to Phillips' Patent Limited, London, England. Filed Jan. 25, 1915. Serial No. 4,297. (Cl. 36—1.)



1. The combination with a shoe, of a marginal holding device comprising a length of rubber tubing and a covering material incasing said tubing and attached around the top inside edge portion of the shoe heel.

2. The combination with a shoe, of a marginal holding device comprising a length of rubber tubing and covering material incasing said tubing and having upper and lower marginal portions for attachment around the top inside edge portion of the shoe heel.

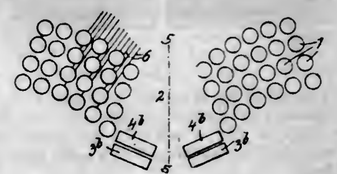
3. The combination with a shoe, of a marginal holding device comprising a length of rubber tubing, a length of covering material doubled over to incase the said tubing, at the same time leaving an attaching flange, and means securing said flange around the top inside edge portion of the shoe heel.

4. The combination with a shoe, of a marginal holding device comprising a length of rubber tubing, a length of covering material doubled over to incase the said tubing, at the same time leaving attaching flange portions and means securing said flange portion around the top inside edge portion of the shoe heel.

5. In a shoe, means for holding the shoe firmly upon the foot, comprising a length of rubber tubing and covering material inclosing said tubing and having a marginal flange for attachment to the shoe.

[Claims 6 to 9 not printed in the Gazette.]

1,138,474. TYPE-WRITING MACHINE. FRITZ HEIDNER, Freiburg, Germany. Filed Mar. 18, 1914. Serial No. 825,583. (Cl. 197—100.)



1. In a typewriter keyboard, two groups of keys separated from each other by a space of such width that the forearms of the operator lie substantially parallel with each other, the transverse rows of keys of each group running in the form of curves whose concavity is on the side next the operator.

2. In a typewriter key-board, two groups of keys separated from each other by a space of such width that the forearms of the operator lie substantially parallel with each other, the transverse rows of keys of each group running in the form of a curve whose concavity is on the side next to the operator, in combination with parallel levers for the keys directed at an angle to the rows of keys.

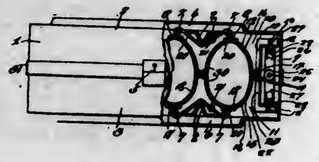
3. In a typewriter key board, two groups of keys separated from each other, the two groups of keys being opposite the hands of an operator when the operator's arms are extended parallel from his sides, the said keys being arranged in concentrically curved rows and parallel straight rows from the front to the rear of the said key board.

4. In a typewriter key board, two groups of keys separated from each other, the two groups of keys being opposite the hands of an operator when the operator's arms are extended parallel from his sides, the said keys being arranged in concentrically curved rows and parallel straight rows from the front to the rear of the said key board, and parallel obliquely extending groups of key levers connected to the keys.

1,138,475. EGG-CRATE. ELES L. HENINGER and DAVID REED, Jr., Kokomo, Ind. Filed Apr. 1, 1914. Serial No. 828,711. (Cl. 217—35.)

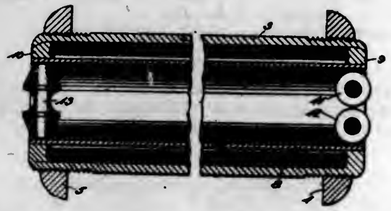
An egg shipping crate comprising two oppositely disposed correspondingly constructed sections, each having longitudinal grooves, rods in said sections extending transversely of said grooves, the adjacent open faces of the sections having flexible diaphragms constructed with egg receiving chambers, means for connecting said diaphragms

to the sections; means for attaching the diaphragms movably to said rods, said attaching means between the rods and the diaphragms engaging said groove, said sections



having pneumatic chambers for pneumatically cushioning said eggs.

1,138,476. CORD-LEAD. SAMUEL HEYMAN, New York, N. Y. Filed Oct. 21, 1914. Serial No. 867,742. (Cl. 16—17.)



1. In a device of the character described, a body formed with a plurality of spurs or projections for holding the same in place, a pair of end nuts for preventing longitudinal movement of said body, and a cable guiding means in said body.

2. In a device of the character described, a body, means arranged at the ends of said body acting as stops for preventing longitudinal movement of said body, a polygonal pipe arranged in said body, and a pair of rollers arranged in each end of said pipe, one pair of rollers being arranged at substantially right angles to the other pair.

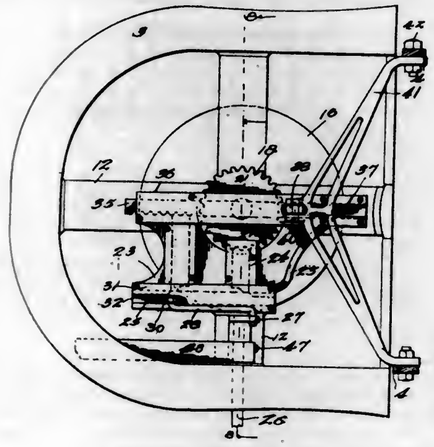
3. In a device of the character described, a body provided with lugs or spurs, a nut arranged at each end of said body for preventing longitudinal movement of said body, a pipe arranged in said body formed polygonal in cross section, said body having the ends bent over so as to engage and hold said pipe in place, and a pair of rollers arranged at each end of said pipe, one pair of said rollers being arranged at right angles to the other pair.

1,138,477. BARBER'S CHAIR. JOSEPH R. HIBBETS, Trenton, N. J. Filed Sept. 15, 1913. Serial No. 789,753. (Cl. 155—7.)

1. The combination with a pedestal and a chair revoluble on said pedestal having an adjustable back and seat, of a rack wheel on the pedestal and a pawl on the chair engaging said wheel, a movable rack bar having connection with the adjustable back and a pawl engaging said bar, a key common to both pawls, and said key and pawls having cut away portions and shoulders co-acting whereby the movement of the key will free either of said pawls.

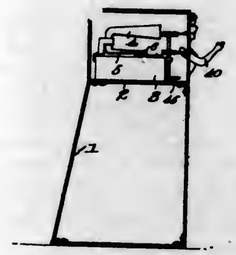
2. The combination with a chair and its pedestal and a rack wheel fixed relatively to said pedestal, of a toothed pawl engaging the wheel, a movable rack bar and a pawl engaging said rack bar and a key common to both pawls whereby the movement of the key will free either of said pawls, and means coöperating with said parts to hold them in adjusted positions.

3. The combination with a revoluble chair and its pedestal and a rack wheel fixed relatively to said pedestal, of a radially slidable pawl mounted on the chair, engaging the wheel and having its end cut away to form a shoulder, a movable rack bar mounted on the chair, disposed over the center of said rack wheel and out of operative connection therewith, a pawl engaging said rack bar and having a cut away end forming a shoulder and a slidable key mounted on the chair having cut away portions



conforming to the two pawls whereby the movement of the key will free either of said pawls.

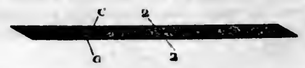
1,138,478. ADVERTISING APPARATUS. SIDNEY M. HIRSCH, Nashville, Tenn. Filed Aug. 14, 1914. Serial No. 856,834. (Cl. 46—40.)



1. In an advertising apparatus of the character described, the combination of a figure, a pivoted lever having its outer end constructed to form one of the lips of said figure, a rock-shaft, arms for said figure mounted on said rock-shaft, an actuating lever for said rock-shaft, a motor and connections arranged between said motor and said lip and arm actuating levers for operating the same simultaneously, substantially as described.

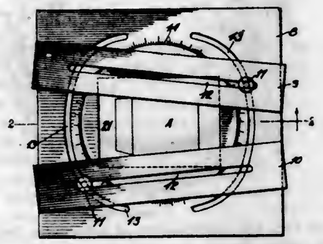
2. In an advertising apparatus of the character described, the combination of a frame, a figure on said frame, a phonograph supported within said frame for reproducing speech as issuing from said figure, a lever pivoted in said frame and having its outer end constructed to form one of the lips of said figure, a rock-shaft journaled in said frame, arms for said figure mounted on said rock-shaft, an actuating lever for said rock-shaft, a cam shaft journaled in said frame, reducing gear connections between said phonograph driving mechanism and said cam shaft for actuating the latter to complete one revolution during each traversing movement of the needle over the phonograph record, and a pair of disk cams mounted on said cam shaft and engaging each of said lip and arm actuating levers to operate the same simultaneously with the reproduction of the phonographs, substantially as described.

1,138,479. DENTAL POLISHING DEVICE. WILLIS L. HOUGH, Laconia, N. H. Filed June 24, 1912. Serial No. 705,385. (Cl. 51—1.)



A flexible dental attrition device comprising two celluloid layers intimately united to form a substantially homogeneous piece, one layer being continuous and unbroken, and grit embedded solely in the other layer.

1,138,480. PERSPECTIVE-FINDER. OTTO V. HUMANN, Worcester, Mass. Filed Aug. 13, 1914. Serial No. 856,628. (Cl. 33—64.)



1. An instrument as characterized, comprising a plate constructed from opaque material and having a rectangular view opening centrally disposed and a plurality of slots surrounding said opening, at opposite sides thereof; a plurality of straight-edged blades adapted to extend across said opening, for locating position and direction of distant objects in relation to said opening; and devices extending through said slots to connect the blades adjustably to said plate.

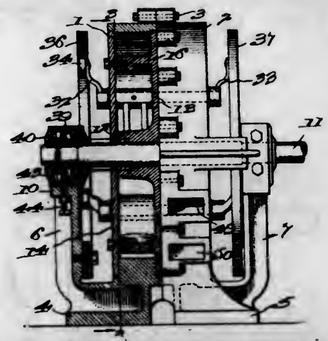
2. An instrument as characterized, comprising a plate constructed from opaque material and having a rectangular view opening centrally disposed, and having a plurality of slots surrounding said opening, at opposite sides thereof; a plurality of straight-edged blades adapted to extend across said opening, for locating position and direction of distant objects in relation to said opening; and a plurality of rivets pivotally and slidably connecting said blades and said plate, said rivets extending through said slots.

3. An instrument as characterized, comprising a plate constructed from opaque material, having a rectangular view opening centrally disposed and provided with a plurality of slots, said slots being disposed at opposite sides of said opening; a plurality of straight-edged blades, each having a longitudinally-disposed slot; and a plurality of connecting pivots extending through said slots in said blades and said plate, for movably and slidably mounting said blades on said plate.

4. An instrument as characterized, comprising a plate constructed from opaque material, having a rectangular view opening centrally disposed and provided with a plurality of slots, said slots being disposed at opposite sides of said opening; a plurality of straight-edged blades, each having a longitudinally-disposed slot; a plurality of connecting pivots extending through said slots in said blades and said plate, for movably and slidably mounting said blades on said plate, said plate being provided with a scale, surrounding said opening, for determining the angles of distance of said blades in relation to said opening.

1,138,481. ROTARY ENGINE. FRIEDRICH HUPE, U. S. Navy. Filed Jan. 7, 1915. Serial No. 961. (Cl. 121—87.)

1. In a rotary engine, the combination of a cylinder, a rotor journaled in said cylinder, a partition constructed with said rotor and arranged to divide the cylinder to provide a pair of compartments, an abutment located in each of said compartments and formed with intake and exhaust ports, cylindrical flanges projecting from said partition into each of said compartments, cylinder heads for inclosing said compartments connected to said flanges, spindles journaled through said partition and cylinder heads, a pair of pistons mounted on each of said spindles and arranged to operate one in each of said compartments, and means for rocking said spindles to actuate the piston, substantially as described.



2. In a rotary engine, the combination of a cylinder, a rotor journaled in said cylinder, a partition constructed to rotate with said rotor and arranged to divide said cylinder to provide a pair of compartments, abutments located in said compartments and provided with intake and exhaust ports, cylindrical flanges projecting from said partition and arranged to revolve one in each of said compartments, cylinder heads for inclosing said compartments and connected to said flanges, spindles journaled through said partition and cylinder heads, a sleeve mounted on said spindle one to each side of said partition and connected to move with the same, pistons supported from said sleeves and adapted to be projected through the respective cylindrical flanges into said cylinder compartments, an arm connected to each opposite end of said spindle, and cam means for actuating said arms to rock the spindles as the rotor revolves, substantially as described.

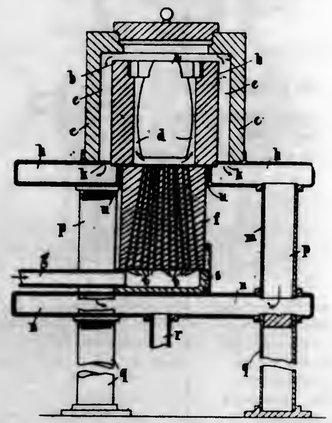
3. In a rotary engine, the combination of a cylinder built up of a pair of vertically divided sections, means for connecting said sections together, pedestals cast with said cylinder sections, a main shaft journaled in said pedestals, a rotor mounted to revolve with said shaft and constructed with a central partition for dividing the cylinder to provide a pair of compartments, abutments located in said compartments and provided with intake and exhaust ports, and pistons carried by said rotor for coöperating with the abutments in said compartments, substantially as described.

4. In a rotary engine, the combination of a cylinder built up of a pair of vertically divided sections, means for connecting said sections together, bases cast with said sections, pedestals cast with said sections and erected in spaced relation thereto, horizontal members extending in opposite directions from said cylinder sections and jointed centrally to said pedestals, a main shaft journaled in said pedestals and horizontal members, a rotor mounted on said shaft within the cylinder, and pistons carried by said rotor, substantially as described.

5. In a rotary engine, the combination of a cylinder built up of a pair of vertically divided sections, bases cast with said sections, pedestals cast with said bases, a main shaft journaled in said pedestals, a rotor mounted on said main shaft and constructed with a partition for dividing said cylinder to provide a pair of compartments, a reversely disposed abutment located in each of said cylinders and provided each with intake and exhaust ports, cylindrical flanges projecting in opposite directions from said partition and arranged to rotate in the respective cylinder compartments, a pair of cylinder heads for inclosing the sides of the compartments and connected to

said flanges, a plurality of spindles journaled through said partition and cylinder heads, separate series of pistons mounted on said spindles to either side of said partition and arranged in reverse relation to correspond with the respective abutments, and means for rocking said spindles to actuate said pistons, substantially as described.

1,138,482. CRUCIBLE AND LIKE FURNACE. ALEXANDER CONSTANTINE IONIDES, Jr., London, England. Filed Oct. 4, 1912. Serial No. 723,972. (Cl. 75—186.)



1. A metallurgical furnace comprising in combination a combustion chamber, a crucible therein, means for admitting to said chamber a combustible mixture in practically self-burning proportions, and a downwardly extending conduit having one end in said chamber and the other end opening into the atmosphere at a point below the rest of the apparatus, in order that the products of combustion shall be emitted into the atmosphere at the lowest point of the apparatus.

2. A metallurgical furnace comprising in combination a combustion chamber, a crucible therein, means for admitting to said chamber a combustible mixture in practically self-burning proportions, and means by which the resulting products of combustion are emitted into the atmosphere at a point below the combustion chamber.

3. A metallurgical furnace comprising in combination an outer casing, an inner concentrically placed casing open at its upper end to connect the chamber therein with an annular passage between the two casings, a conduit passing through both casings to admit a combustible mixture in practically self-burning proportions to the chamber for combustion therein, and a downwardly extending conduit beginning in said annular passage, and opening into the atmosphere below the outer casing, in order that the outlet for the products of combustion shall be situated at the lowest point of the apparatus.

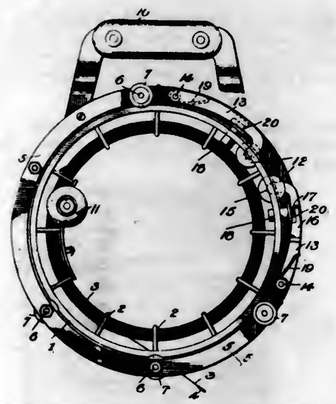
1,138,483. REEL. ROBERT JOHNSTON, Kingston, Pa. Filed Jan. 29, 1914. Serial No. 815,130. (Cl. 242—84.8.)

1. In a reel, the combination with a spool; of a frame encircling the spool; and anti-friction rollers journaled in the frame and engaged by the outer periphery of the spool, to support the spool exteriorly thereof and confine the coils of material wound on the spool.

2. In a reel, the combination of a spool having treads; a frame encircling the spool; and grooved roller journaled in and extending across the frame, the treads seated in the grooves in the rolls.

3. In a reel, the combination of a spool; a frame encircling the spool; and bearings extending between the sides of the frame, and on which the spool is journaled.

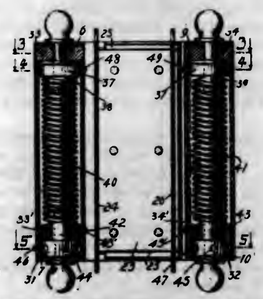
4. In a reel, the combination of a spool; an annular frame concentric to and encircling the spool; anti-friction devices interposed between the spool and frame; yielding pressure rolls to engage the material wound upon or unwound from the spool; and guard rolls to contact the sides of the spool, to prevent the spool from catching on the pressure rolls.



5. In a reel, the combination of a spool; a frame to support the spool; means to cause the material wound upon the spool to coil snugly thereon, and hold it in place against accidental uncoiling; and guard means carried by the coil-retaining means and contacting the spool at all times to prevent injurious contact between the spool and coil-retaining means.

[Claims 6 to 19 not printed in the Gazette.]

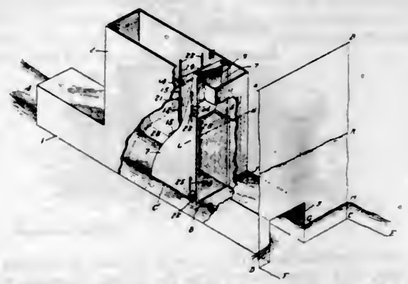
1,138,484. DOUBLE-ACTING LAVATORY-HINGE. OSCAR KATZENBERGER, Chicago, Ill. Filed July 18, 1914. Serial No. 851,747. (Cl. 16—25.)



1. In a double acting hinge of the character described, a pair of leaves, each leaf being provided with a pair of turned-over ears, a center formed with a pair of barrels, said barrels being arranged on the same face of the center and adapted to fit between the respective ears set forth, a pintle extending through each pair of said ears and respective barrels, a spring arranged in each of said barrels, and means for connecting the opposite ends of each of said springs to the respective leaves and to said center so as to urge each leaf toward said center.

2. In a double acting hinge of the character described, a pair of box flanges, a leaf rigidly secured to each of said flanges, each of said leaves being formed with a pair of ears, a center formed with a pair of barrels on one side, whereby the opposite side is flat, said barrels being positioned between said ears, a pintle extending through each pair of ears and the respective barrels, a spring arranged in each of said barrels, and means for connecting the opposite ends of said springs to the respective leaves and to said center so as to urge each leaf toward said center.

1,138,485. AUTOMATIC HEAD-GATE. KARL KEELER, Provo, Utah. Filed Dec. 29, 1913. Serial No. 809,345. (Cl. 61—47.)



1. The combination with a fluid conduit, of spring suspending means, and an upwardly and downwardly bodily movable head gate having a laterally disposed bottom and an upright breast, said headgate being freely suspended by said spring suspending means, directly subject to the pressure and head of the fluid adapted to regulate the flow thereof beneath the gate.

2. The combination with a fluid conduit, of a tension suspended upwardly and downwardly movable head gate having an open part composed of a breast and bottom and sides adapted to receive the pressure and head of the water and to regulate the flow of the fluid through said conduit and past said headgate.

3. The combination with a fluid conduit, of spring suspending means, embodying an adjustable tension device, and an upwardly and downwardly bodily movable head gate having a laterally disposed bottom and an upright breast, said headgate being freely suspended by said spring suspending means, directly subject to the pressure and head of the fluid and adapted to regulate the flow thereof beneath the gate.

4. The combination with a fluid conduit, of an automatic headgate of hollow form composed of breast, sides and bottom adapted to receive the pressure and head of the liquid, retaining rollers coöperating with the head gate and adapted to prevent its horizontal displacement, and spring suspension means for said head gate said headgate being adapted to regulate the flow of the fluid through said conduit and past said headgate.

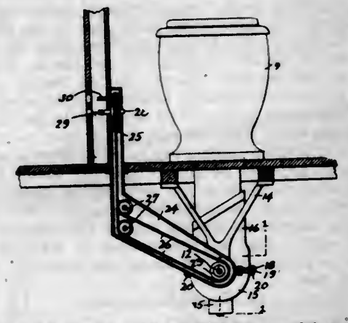
5. The combination with a fluid conduit, of a tension suspended upwardly and downwardly movable head gate having an open part composed of a breast and bottom and sides adapted to receive the pressure and head of the water, said headgate being adapted to regulate the flow of the fluid through said conduit and past said headgate, and a float coöperating with the headgate and adapted to compensate for backing up of the fluid.

1,138,486. RAILROAD SANITARY APPARATUS. GEORGE WALKER KELLEY and ISAIAH S. KELLEY, New York, N. Y. Filed June 19, 1914. Serial No. 846,090. (Cl. 4—17.)

1. An apparatus as characterized, comprising a toilet fixture having a pendent waste-pipe; a rotary container having a receiving pipe section to register in service with said waste-pipe, forming a continuous passage between said fixture and said container; means for rotating said container; and a casing for said container, infolding the same in spaced relation thereto, to provide a heating chamber therefor.

2. An apparatus as characterized, comprising a toilet fixture having a pendent waste-pipe; a rotary container having a receiving pipe section to register in service with said waste-pipe, forming a continuous passage between said fixture and said container; means for rotating said container; a casing for said container, infolding the same in spaced relation thereto to provide a heating chamber therefor; means for rotating said casing; a steam-heating system arranged for supplying steam to said chamber; and means mounted on said casing for voiding liquid accumulation.

3. An apparatus as characterized, comprising a toilet fixture having a pendent waste-pipe; a rotary container having a receiving pipe section to register in service with said waste-pipe, forming a continuous passage between said fixture and said container; a casing for said container, infolding the same in spaced relation thereto to provide a heating chamber therefor; means for rotating said casing; and a steam-heating system arranged for supplying steam to said chamber.

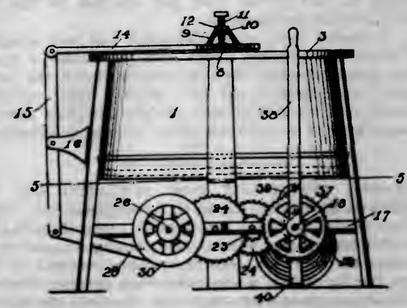


4. An apparatus as characterized, comprising a toilet fixture having a pendent waste-pipe; a rotary container having a receiving pipe section to register in service with said waste-pipe, forming a continuous passage between said fixture and said container; a casing for said container, infolding the same in spaced relation thereto to provide a heating chamber therefor; means for rotating said casing; a steam-heating system arranged for supplying steam to said chamber; and means mounted on said casing for voiding liquid accumulation.

5. An apparatus as characterized, comprising a toilet fixture having a pendent waste-pipe; a rotary container having a receiving pipe section to register in service with said waste-pipe, forming a continuous passage between said fixture and said container; a casing for said container; infolding the same in spaced relation thereto to provide a heating chamber therefor; means for rotating said casing; a steam-heating system arranged for supplying steam to said chamber; and means mounted on said casing for voiding liquid accumulation, and embodying a floating valve arranged to be lifted from its seat by the accumulation of liquid in said casing.

[Claim 6 not printed in the Gazette.]

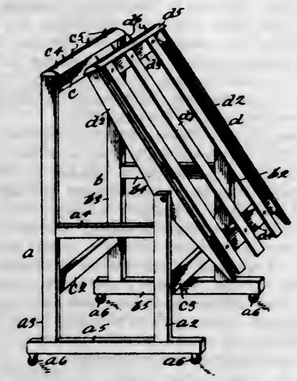
1,138,487. OPERATING MECHANISM FOR WASHING-MACHINES. JAMES E. KELLY, Mason City, Iowa. Filed July 29, 1912. Serial No. 712,161. (Cl. 74—50.)



An operating mechanism comprising a horizontal mounting plate having therethrough a vertical opening, a vertically disposed shaft with its upper end rounded and projecting through said opening, a pinion fixed on the upper end of said shaft and resting on the top of the mounting plate to hold said shaft against downward

movement, a frusto-conical shaped casing arranged over said pinion, said casing having a flat top with a centrally disposed screw-threaded opening through said top, and two transverse openings in the sides of said casing near its bottom, said transverse openings being opposite each other and at a point to one side of the center of said casing, the lower portions of the inner wall of the casing at the shortest distance between the two openings being vertical to form a flat guide surface on one side through said casing, said casing having an apertured annular attaching flange formed integral with its bottom and resting flush against the upper face of the mounting plate, the top of said flange being flush with the bottom walls of the opposite openings in the casing, a bearing screw in the threaded opening in the casing and arranged in vertical alinement with the vertical shaft thereunder, said screw having at its top an enlarged head and at its lower end a point adapted to rest upon the rounded top of said shaft, a locking nut on said screw to lock the same in its adjusted position, a rack bar passed through the opposing openings in the sides of the casing and to operatively engage the pinion, the outer side edge of said bar being adapted to slidably engage the said flat inner wall of said casing, and the bottom of said bar being adapted to slide on the said flange, and means to operate said rack bar.

1,138,488. DISPLAY-RACK. ORVILLE F. KIME, Crestline, Ohio. Filed July 1, 1914. Serial No. 848,370. (Cl. 211—14.)

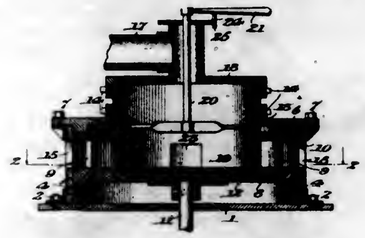


1. A display rack, comprising a support, front and rear uprights thereon, the latter of which is higher than the former, a brace across the tops of said rear uprights, and a frame pivoted to the tops of said front uprights and adapted to bear against said rear uprights to bind displayed articles therebetween.

2. A display rack, comprising front and rear uprights, the latter of which are higher than the former, a frame, pivots passed through the sides thereof, below the center thereof, and through the tops of said front uprights, whereby said frame will bear against said rear uprights through gravity to bind displayed articles therebetween.

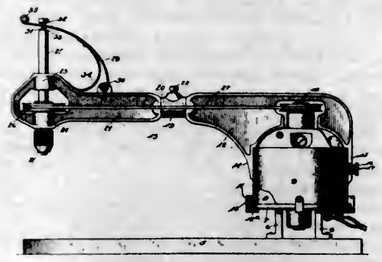
1,138,489. APPARATUS FOR APPLYING OIL TO ROAD-SURFACES. HENRY G. KNIEF, Napa, Cal. Filed Nov. 28, 1913. Serial No. 803,487. (Cl. 137—64.)

1. The combination with a casing having an opening in one side thereof, of a rotor removably mounted in the casing having blades, a removable fluid chamber received in the casing, means for supporting the fluid chamber in the casing, said blades located afound the outer wall of the fluid chamber, said chamber provided with an opening through which the fluid may pass between the blades of the rotor as the rotor rotates about the chamber, means in the fluid chamber for controlling the discharge of fluid therefrom, and means for rotating the rotor for causing the fluid to be discharged through the opening in the casing.



2. The combination with a casing having an opening in one side, of a rotor mounted in the casing provided with blades, of a fluid chamber mounted in the casing about which the rotor rotates, said chamber provided with an opening in registry with the opening of the casing through which the fluid is discharged between the blades, whereby upon the rotation of the blades, the fluid is discharged from the casing, and means for regulating the opening of the fluid chamber for governing the direction of flow of the fluid from the casing.

1,138,490. DRILL. ISAAC LAPIDUS, New York, N. Y. Filed Oct. 21, 1914. Serial No. 867,800. (Cl. 77—6.)



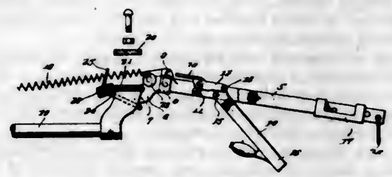
1. In a drill, a motor having a shaft, a casing disposed around the motor and rotatable relatively thereto, an arm secured to the casing for rotating therewith, bearings in the arm, a spindle disposed in the bearings and movable longitudinally relatively thereto, means connecting the shaft with the spindle for rotating the latter, and means for securing a tool to the spindle.

2. In a drill, a motor having a shaft, a casing disposed around the motor and rotatable relatively thereto, an arm section secured to the casing, a second arm section pivoted to the first arm section on an axis extending longitudinally of the first arm section, bearings on the second arm section, a spindle disposed in the bearings, and movable longitudinally relatively thereto, means connecting the shaft with the spindle for rotating the spindle, and means for securing a tool to the spindle.

1,138,491. BED-SPRING TIGHTENER. HENRY LA ROE, North River, N. Y. Filed July 28, 1914. Serial No. 853,745. (Cl. 140—110.)

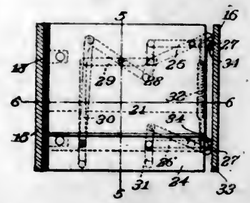
1. A bed spring tightener comprising legs having laterally disposed feet, a jaw fixed to the legs, a slide movably mounted upon the legs, a lever fulcrumed to the legs adapted to be received within the slide, a jaw movably mounted upon the legs, links pivotally connected with the movable jaw and with the legs, said lever being pivotally connected with the movable jaw.

2. A bed spring tightener comprising legs having laterally disposed feet, rollers attached to the legs at the feet, a jaw fixed to the legs, a slide movably mounted upon the legs, a lever fulcrumed to the legs and having an end portion adapted to be received in the slide, a jaw movably mounted upon the legs, links pivotally connected with the movable jaw and the legs, said lever being pivotally connected with the movable jaw.



3. A bed spring tightener comprising legs having feet, a jaw fixed to the legs and having a groove disposed along the length thereof, a lever fulcrumed to the legs, a slide movably mounted upon the legs and adapted to receive the end portion of the lever, a jaw movably mounted upon the legs, links pivotally connected with the movable jaw and the legs, said lever being pivotally connected with the movable jaw.

1,138,492. STIRRUP. NOBLE W. LEADBETTER, Bickleton, Wash., assignor of one-third to Jens Nygaard, Bickleton, Wash. Filed Oct. 31, 1914. Serial No. 869,658. (Cl. 54—49.)

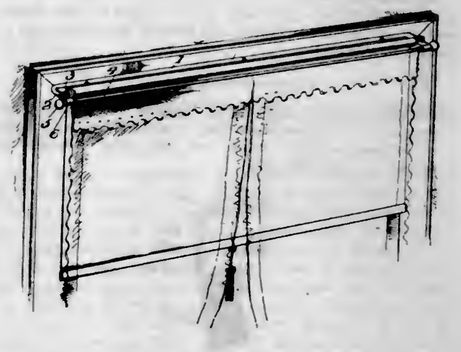


1. In a safety stirrup, a body having side members, a tread member connected hingedly with one of the side members, and a ledge associated with the other side member; said tread member comprising telescopically related members, spring actuated levers fulcrumed on one of said members and having projecting ends adapted to be supported on the ledge, and means connecting the other ends of the levers with the other tread member constructed and arranged to actuate the levers to disengage them from the ledge by telescoping or sliding movement of the last mentioned tread member.

2. In a safety stirrup, a body having side members, one of which is provided with a ledge, a tread member hingedly connected with the other side member and having spring actuated levers with projecting ends adapted to be supported on the ledge, stop members on the ledge in the path of the projecting ends of the levers, a second tread member supported slidably or telescopically with respect to the first mentioned tread member, and means connecting the levers fulcrumed on the first mentioned tread member with the last mentioned tread member whereby sliding movement of said last mentioned tread member will operate the levers against the tension of the actuating spring.

3. In a device of the class described, a stirrup body having side members one of which is provided with a ledge, a U-shaped tread member connected hingedly with the other side member, spring actuated levers fulcrumed on the under face of the top plate of said U-shaped member and having projecting ends adapted to be supported on the ledge, a second tread member disposed telescopically with respect to the first mentioned tread member, said second tread member including a flange slightly overlapping the top plate of the first mentioned tread member, and connecting means including links connecting the spring actuated levers with the flange of the second tread member, whereby telescoping movement of said second tread member with respect to the first mentioned tread member will result in operating the levers against the tension of the actuating spring to disengage the projecting ends of said levers from the supporting ledge.

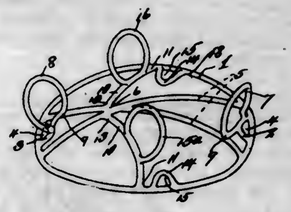
1,138,493. WINDOW CURTAIN AND SHADE HOLDER. JOHN HAMILTON LINN, Charleston, W. Va. Filed Sept. 19, 1914. Serial No. 862,488. (Cl. 156—19.)



1. In a device of the class described, a supporting rod or bar having its ends bent outwardly to form spring arms, said arms having sockets for a shade roller, a curtain rod supported by said arms, said rod having its ends screw-threaded, and thumb nuts on said curtain rod for regulating the tension of said arms.

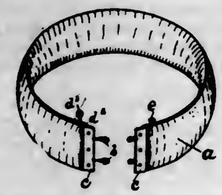
2. In a device of the class described, a supporting rod having its ends bent outwardly to form spring arms, said arms being provided with sockets for a shade roller, sleeves on the ends of said arms, a curtain rod designed to fit in said sleeves, the ends of said rod extending beyond said sleeves and having screw threads thereon, and thumb nuts on said rod for holding said arms in position to support a shade roller.

1,138,494. HAIR-FORM. DELLA J. BRYANT LUTHER, Eureka, Cal. Filed Oct. 16, 1914. Serial No. 867,015. (Cl. 132—23.)



A hair form comprising an outer oval rim having arches forming openings to receive hair pins, a pair of longitudinal strips intersecting one another and arching from one end of the oval to the other, second strips connecting the longitudinal strips with the sides of the oval rim and extending at angles to the longitudinal strips, a pair of circular members projecting laterally from the arches at the ends of the oval rim, a second pair of circular members projecting laterally from the strips which connect the longitudinal strips and the sides of the oval rim, and arches carried by the sides of the oval rim forming hair pin openings.

1,138,495. LIFE-PRESERVER. JAMES MACAULAY, Lynn, Mass. Filed Sept. 9, 1914. Serial No. 860,939. (Cl. 9—17.)



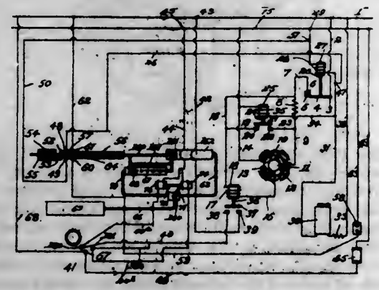
In combination, in a life preserver, an inflatable belt, a sheath formed in said belt, a valve fixed in said sheath, and an air pump located in said sheath and removably attached to said valve.

1,138,496. JOINT. ALBERT W. MARTIN, Worcester, Mass., assignor to Woods-Sherwood Company, a Corporation of Massachusetts. Filed Feb. 29, 1912. Serial No. 680,672. (Cl. 220—85.)



As an article of manufacture, a kitchen utensil having a cylindrical sheet metal rim and a foraminous bottom and a joint between them comprising an inwardly upturned flange at the bottom of the rim and a downwardly turned parallel flange inside it and continuous therewith to leave an open bottomed space between said flanges, the top of the foraminous bottom entering said open bottomed space between said flanges on the rim, said flanges being pressed together to secure the edge of the foraminous bottom between them, and said rim, flanges, and bottom being provided with a continuous circumferential bead convexed outwardly between the top and bottom of the flanges for preventing displacement of the bottom and located centrally under said rim so as to project beyond it all around, both inside and outside the rim.

1,138,497. MOTOR-CONTROL DEVICE. WILLIAM S. MENDEN, Brooklyn, N. Y., assignor to Megosin Company, Inc., a Corporation of New York. Original application filed Jan. 2, 1913, Serial No. 739,755. Divided and this application filed Apr. 30, 1913. Serial No. 764,588. (Cl. 246—61.)



1. In a passenger car, a motor, a circuit therefor, a shunt for short circuiting said motor, and a make and break device for said shunt.

2. In a passenger car, a motor, a circuit therefor, a short-circuiting shunt for said motor, a make and break device for said shunt circuit, and a door adapted to operate said make and break device.

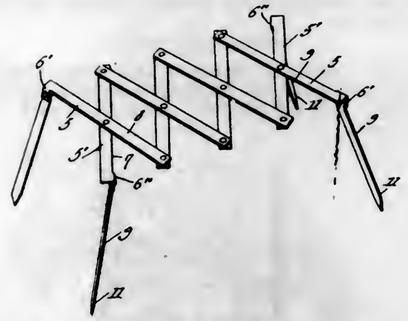
3. In a passenger car, an electric motor, a circuit for operating said motor, said circuit including a switch, means for operating said switch, a shunt circuit for controlling said operating means, a short circuiting branch for said shunt, a switch for said branch, and a door for said car operatively connected to the switch for said branch, said branch switch being normally held in open position by the door in closed position and adapted to automatically close said branch when the door is opened.

4. In a passenger car, an electric motor, an operating circuit therefor, a switch included in said circuit, a shunt circuit including means for operating said switch, a door for said car, and means operatively related to said door for short circuiting said shunt circuit.

5. In a passenger car, a motor, a circuit including said motor, a door for said car, and means operated by said door for short circuiting said motor.

[Claims 6 to 14 not printed in the Gazette.]

1,138,498. FOLDING GRATE. JOHN L. MOORE, Alexandria, Minn. Filed Aug. 8, 1914. Serial No. 855,856. (Cl. 126—30.)

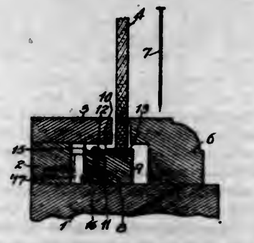


1. A device of the class described, comprising lazy tongs, legs pivotally connected to the end bars thereof, said legs when collapsed engaging the end bars and holding the lazy tongs against extension.

2. A collapsible support comprising lazy tongs, legs pivotally secured thereto, said legs adapted to collapse thereagainst, said legs coacting with the lazy tongs for locking the latter in a collapsed condition.

3. A device of the class described, comprising lazy tongs, alternately arranged flanges carried thereby, legs pivotally secured to said flanges, said legs when folded against said flanges rigidly locking said lazy tongs in a collapsed condition.

1,138,499. SAFETY MEANS FOR SETTING PLATE-GLASS. DANIEL J. MURNANE, Glendale, Mo. Filed July 15, 1914. Serial No. 851,092. (Cl. 20—56.4.)



1. In a safety means for setting plate glass, the combination with a recessed rabbet against which the glass is adapted to be clamped, of a recessed clamping molding adapted to bear against the opposite side of the glass from the rabbet, and a laterally adjustable setting block in the recess of said rabbet and molding on which the glass is adapted to rest.

2. In a safety means for setting plate glass, the combination with a rabbet against which the glass is adapted to be clamped, of a clamping molding adapted to bear against said glass opposite the rabbet, and a laterally adjustable setting block secured in position between said rabbet and molding and on which the lower edge of the glass is adapted to rest.

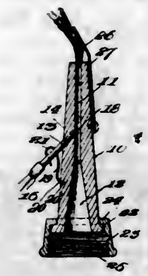
3. In a safety means for setting plate glass, the combination with a rabbet against which the glass is adapted to be clamped, of a clamping molding adapted to bear against said glass opposite the rabbet, a recess formed between said rabbet and said molding, a laterally adjustable setting block secured in position within said recess and on which the lower edge of the glass is adapted to rest.

4. In a safety means for setting plate glass, the combination with a rabbet against which the glass is adapted to be clamped, of a clamping molding adapted to bear against said glass opposite the rabbet, a recess formed between said rabbet and molding, a laterally adjustable setting block secured within said recess and spring pressed toward said molding, said block being adapted to receive the lower edge of the glass.

5. In a safety means for setting plate glass, a rabbet against which the glass is adapted to be clamped, a clamping molding, a setting block having a laterally adjustable glass receiving surface, said surface being readily and easily movable to carry the glass into contact with said rabbet when pressure is applied on the opposite side of the glass.

[Claims 6 to 12 not printed in the Gazette.]

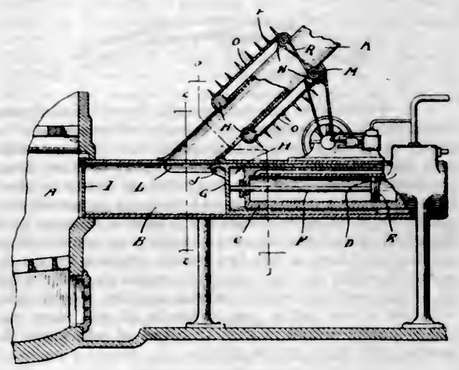
1,138,500. SPRAYING-NOZZLE. PERRY T. NAYLOR, Springfield, Mass. Filed Jan. 12, 1914. Serial No. 811,645. (Cl. 137—80.)



1. A mixing device of the character described including a nozzle, an inlet tube threaded through the wall of the nozzle, there being a socket formed in the outer face of the nozzle adjacent the point at which the tube enters the nozzle, and a keeper for holding the tube in adjusted position, said keeper consisting of a metallic strap substantially hook-shaped in configuration and provided with alined openings formed in its bill and neck portions for the reception of the tube, the free terminal of the shank of the hook being reduced and pointed whereby the said terminal may be inserted in the said socket.

2. The combination with a tubular member having a socket formed in its outer face and a conductor leading through the wall of the tubular member into the interior thereof, of a keeper for holding the conductor in operative relation to the tubular member, said keeper consisting of a substantially hook-shaped metallic strap having alined openings formed in its bill and neck portions for the reception of the conductor, the shank of the hook having a reduced terminal portion seated in the said socket.

1,138,501. AUTOMATIC STOKER. ARTHUR C. NELSON, Duluth, Minn. Filed Dec. 30, 1913. Serial No. 809,555. (Cl. 110—109.)



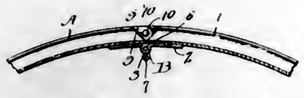
1. A stoker comprising a delivery cylinder adapted for communication with a fire box, a door hinged to the cylinder for normally closing communication between it and the fire box, a feed pipe inclined toward the fire box and communicating with the cylinder at the top thereof, a hinged door supported internally of the cylinder for closing communication between the feed pipe and the same and normally gravitated to open position, a piston cylinder of a diameter less than the internal diameter of the delivery cylinder and fixed centrally interiorly of the same, a hollow head slidably telescoped upon the piston cylinder and working within the delivery cylinder for movement longitudinally thereof, a piston working within the piston cylinder and connected directly to the hollow head, means for supplying and exhausting fluid to and from the said piston cylinder for actuating the piston therein, and a curved nose formed on the head and projected therefrom for raising the second-named door and subsequently opening the first-named door on movement of the head in one direction.

2. A stoker comprising a delivery cylinder adapted for communication with a fire box, a door hinged to the cylinder for normally closing communication between it and the fire box, a feed pipe inclined toward the fire box and communicating with the cylinder at the top thereof, a hinged door supported internally of the cylinder for closing communication between the feed pipe and the same and normally gravitated to open position, a piston cylinder of a diameter less than the internal diameter of the delivery cylinder and fixed centrally interiorly of the same, a hollow head slidably telescoped upon the piston cylinder and working within the delivery cylinder for movement longitudinally thereof, a piston working within the piston cylinder and connected directly to the hollow head, means for supplying and exhausting fluid to and from the said piston cylinder for actuating the piston therein, a curved nose formed on the head and projected therefrom for raising the second-named door and subsequently opening the first-named door on movement of the head in one direction, and means within the feed pipe for positively feeding fuel therefrom to the first-named cylinder.

1,138,502. DEMOUNTABLE RIM. PHILIP J. NEUBIG and CHRISTIAN C. NEUBIG, Jr., Plaquemine, La. Filed Sept. 5, 1914. Serial No. 860,374. (Cl. 152—21.)

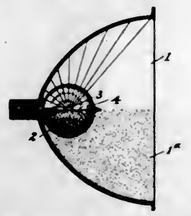
1. A demountable tire-holding rim for vehicle wheels, embodying a circular series of arcuate sections hinged together at their adjoining extremities and each provided with tire retaining flanges, two of said sections being provided at their meeting edges with an auxiliary hinge joint, comprising overlapping and pivotally connected ears the pivots of which are located at a greater distance from the wheel center than the other hinges, and a detachable hinge pin for the hinge of the last named sections by the

removal of which the rim may be collapsed inwardly while all of the sections are still hinged together.



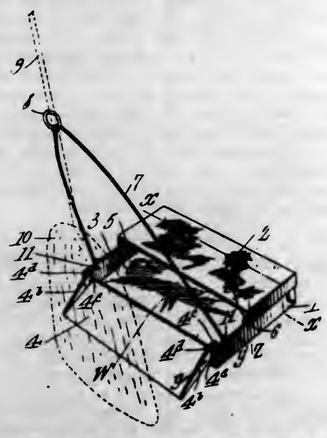
2. A demountable tire-holding rim for vehicle wheels, embodying a circular series of arcuate sections hinged together at their adjoining extremities and each provided with tire retaining flanges, two of said sections being provided at their meeting edges with an auxiliary hinge joint, comprising overlapping and pivotally connected ears the pivots of which are located at a greater distance from the wheel center than the other hinges, a detachable hinge pin for the hinge of the last named sections by the removal of which the rim may be collapsed inwardly while all of the sections are still hinged together, a pull chain attached at one end to one extremity of said hinge pin, and retaining means at the other end of said chain for holding said hinge pin in place.

1,138,503. LAMP. WILLIAM F. PERSONS, Cleveland, Ohio, assignor to The Guide Motor Lamp Manufacturing Company, Cleveland, Ohio, a Corporation of Ohio. Filed Mar. 2, 1914. Serial No. 821,895. (Cl. 240—41.)



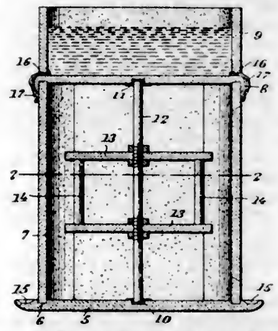
In a projector, the combination of a reflector adapted to project an approximately concentrated beam of light, and an incandescent lamp comprising a filament and a bulb having its surface between said filament and the lower portion of said reflector roughened and colored to prevent reflection of rays of light into the upper portion of the projected field.

1,138,504. DUST-PAN. WILLIAM E. A. PIPHER, Parkers Landing, Pa., assignor of one-fourth to Charles A. Sherwood, Parkers Landing, Pa. Filed Apr. 20, 1912. Serial No. 692,173. (Cl. 65—20.)



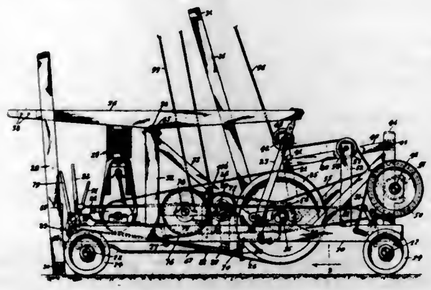
As an article of manufacture, a sheet metal pan including a bottom and sides, the bottom having a forwardly projecting extension provided with upstanding side flanges, the basal portion of the said extension having a double bend forming an upstanding portion between the forward ends of and less in height than the sides of the pan, and a lip declined from the said upstanding portion, the forward ends of the side having bent back portions and the rear ends of the flanges having bent back portions interlocked with the aforesaid bent back portions.

1,138,505. COOLER. VINCENT V. PITTMAN, Selma, Cal. Filed Feb. 7, 1914. Serial No. 817,286. (Cl. 62—90.)



A cooler comprising a bottom having inner and outer channels, a sectional cylindrical body fitted within the innermost channel, a water reservoir superimposed upon the body and having a depending rim embracing the upper end of the said body to hold the sections thereof together, the said reservoir being formed with apertures in its side wall, and absorbent strips passed through the apertures and having the major portion of their length depending without the body.

1,138,506. PORTABLE DRILLING-RIG. CALVIN D. RANDALL, Reward, Cal. Filed May 22, 1913. Serial No. 769,279. (Cl. 255—11.)



1. In a portable well drilling rig, the combination of a wheeled frame, a motor mounted on said frame, a crank shaft having a pair of correspondingly extending crank arms and a single oppositely extending crank arm, means for rotating said crank shaft from the motor, a walking beam supported on the wheeled frame having divergent side members, a pair of pitman rods connected to the side members of the walking beam and adjustably connected to the pair of crank arms on the crank shaft and spudding mechanism connected to the other crank arm of the crank shaft.

2. In a portable well drilling rig, the combination of a wheeled frame, a motor on said frame, a crank shaft having a pair of correspondingly extending crank arms and a single oppositely extending crank thereon, a walking beam, a pair of pitmen adjustably and detachably connected to the pair of crank arms and connected to the

walking beam, a pitman connected to the other crank arm, a spudding beam connected to said last named pitman, a pair of band wheels keyed on the crank shaft, belts passing over the band wheels adapted to be driven by the motor whereby the crank shaft is rotated.

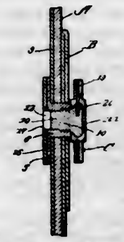
3. In a portable well drilling rig, the combination of a wheeled frame, a motor on said frame, a crank shaft having a pair of correspondingly extending crank arms and a single oppositely extending crank thereon, a walking beam, a pair of pitmen adjustably and detachably connected to the pair of crank arms and connected to the walking beam, a pitman connected to the other crank arm, a spudding beam connected to said last named pitman, a pair of band wheels keyed on the crank shaft, belts passing over the band wheels adapted to be driven by the motor whereby the crank shaft is rotated, a casing line drum, a spudding drum and means for successively throwing the said drums in and out of operative connection with the crank shaft.

4. In a portable well drilling rig, the combination of a wheeled frame, a motor on said frame, a crank shaft having a pair of correspondingly extending crank arms and a single oppositely extending crank arm thereon, a walking beam, a pair of pitmen adjustably and detachably connected to the pair of crank arms and connected to the walking beam, a pitman connected to the other crank arm, a spudding beam connected to said last named pitman, a pair of band wheels keyed on the crank shaft, belts passing over the band wheels adapted to be driven by the motor whereby the crank shaft is rotated, a casing line drum, a spudding drum and means for successively throwing the said drums in and out of operative connection with the crank shaft, comprising two pairs of sheaves revolubly mounted on the crank shaft, bull wheels connecting with each of the drums, ropes passing around the bull wheels on the casing line drum and around one of the sheaves in each pair of wheels, ropes passing around the bull wheels on the spudding drum and around the other sheave and a pair of clutch members keyed on the crank shaft arranged between the sheaves of each pair and adapted to be moved in and out of engagement with either sheave on each side thereof to drive either of the drums.

5. A portable well drilling rig, comprising a wheeled frame, a motor mounted on said frame, a crank shaft mounted in operative relation to said motor, connecting means to drive said crank shaft, a plurality of parallel crank arms on said crank shaft, a plurality of pitmen adapted to be connected thereto, means to adjust said pitmen to said crank arms, a walking beam operatively mounted on said frame and connected to said adjustable pitmen, a winding drum mounted adjacent said walking beam, a spudding beam mounted on said frame, a winding drum mounted adjacent said spudding beam, cables connected to each of said beams and their coöperative winding drums, and operating means connecting said spudding beam to said crank shaft.

[Claims 6 and 7 not printed in the Gazette.]

1,138,507. POCKET SAFETY DEVICE. CAMDEN REDINGER, Pierce, Pa. Filed July 10, 1914. Serial No. 850,214. (Cl. 2—151.)



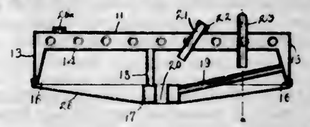
1. A safety device of the class described comprising a member adapted to be permanently connected to the body of the garment, means detachably engageable with the member and adapted to be inserted through a pocket in the garment across the mouth thereof for locking the pocket closed and having a swiveled head without the pocket, means on the member and engageable with the first-named means to lock the same to the member, the said head and means carrying the same being formed with keyways adapted to receive a key for holding the head fixed relative to said means for detachment thereof on releasing the locking means therefrom.

2. A device of the class described comprising a pair of members adapted for engagement with each other for the locking of the pocket in a coat, one of said members being secured to the coat at the inside thereof while the other member is engageable therewith from the outside of the coat, means for locking the outside member when engaged in the inside member, and a head swiveled on the outside member, the said head being formed with a keyway adapted to receive a key for holding the head fixed on the outside member for releasing the latter from the inside member when freed from the locking means.

3. A device of the class described comprising a pair of members adapted for engagement with each other for the locking of the pocket in a coat, one of said members being secured to the coat at the inside thereof, while the other member is engageable therewith from the outside of the coat, means for locking the outside member when engaged in the inside member, a head swiveled on the outside member, the said head being formed with a keyway adapted to receive a key for holding the head fixed on the outside member for releasing the latter from the inside member when freed from the locking means, and threads formed on the respective members for engagement with each other.

4. A device of the class described comprising a pair of members adapted for engagement with each other for the locking of the pocket in a coat, one of said members being secured to the coat at the inside thereof, while the other member is engageable therewith from the outside of the coat, means for locking the outside member when engaged in the inside member, a head swiveled on the outside member, the said head being formed with a keyway adapted to receive a key for holding the head fixed on the outside member for releasing the latter from the inside member when freed from the locking means, threads formed on the respective members for engagement with each other, and a catch carried by the locking means to hold the same in locking position on the inside member.

1,138,508. BROODER. RALPH R. ROOT, Cleveland, Ohio. Filed May 9, 1908. Serial No. 431,739. (Cl. 237—15.)



1. The combination with a heating drum, a heat radiating member extending therefrom, an auxiliary drum beneath said heating drum and provided with a central opening, a burner for heating the first drum, which burner projects into the opening in the auxiliary drum, and pipes connecting the two drums, the second drum being connected only with the first drum.

2. The combination of a heating drum, a plurality of pipes communicating at one of their ends with said drum and closed at their opposite ends, a cooling drum, pipes connecting and suspending said cooling drum from the first drum, the cooling drum being provided with an opening, a burner for heating the first drum, said burner extending into the opening in the second drum.

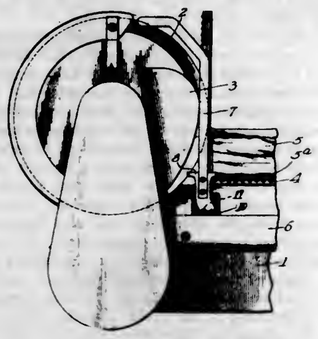
3. The combination of a heating drum, a burner for heating the said drum, a second drum having a central opening into which the burner extends, a substantially vertical pipe connecting the drums, and a second pipe connecting the second drum with the first drum at a point thereon lower than that at which the first pipe connects, thereby causing a circulation of fluid in the said drums.

4. The combination of a fluid heating drum, a plurality of non-communicating heat radiating members connected only to the drum, a second drum provided with a central opening, a burner for heating the first drum and extending into the opening in the second drum, and pipes connecting the second drum to the first drum only.

5. The combination of a fluid heating drum, a plurality of pipes which are connected with the said drum at one of their ends and closed at the opposite ends, a second drum depending from the first drum and having a central opening, a burner for heating the first drum and extending into the opening in the second drum, and pipes connecting the said drum with the first drum only.

[Claims 6 to 8 not printed in the Gazette.]

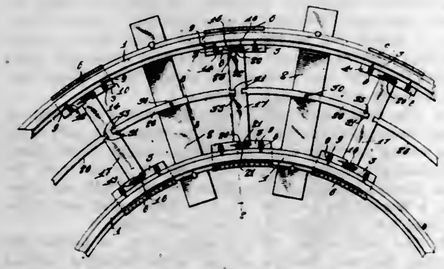
1,138,509. MEAT-GUIDE. GEORGE J. SAYER, Chicago, Ill. Filed Sept. 14, 1914. Serial No. 861,616. (Cl. 17—24.)



1. A meat slicing machine having a rotary circular knife, a meat diverter adjacent to said knife to divert the severed slice away from said knife, a double guide structure comprising an extended guide portion between which and said diverter the slice passes as it is being severed by the knife and also a protruding portion closely adjacent to one portion of the knife and conforming substantially to the bevel of the knife to form a restricted passageway for a portion of the slice.

2. A meat slicing machine having a rotary circular knife, guiding means alongside of said knife, said guiding means including an extended guidin portion to guide the major portion of the slice and comprising also a smaller guide portion in closer proximity to the knife to form a restricted passageway for a portion of the slice.

1,138,510. ANTISPREADING ATTACHMENT FOR RAILS. MARY E. SIMPSON, Yates, Tex. Filed Nov. 6, 1914. Serial No. 870,681. (Cl. 238—5.)



1. In combination with track rails, dogs, means to removably fasten said dogs to the rails, said dogs being provided with vertically-extending recesses, said recesses extending throughout the depth of said dogs, and means engageable with said recesses for connecting said dogs.

2. In combination with track rails, dogs, means to removably fasten said dogs to the rails, said dogs being provided with vertically extending recesses, said recesses extending throughout the depth of said dogs, said recesses having upwardly inclined walls, and means engageable with said recesses for connecting said dogs.

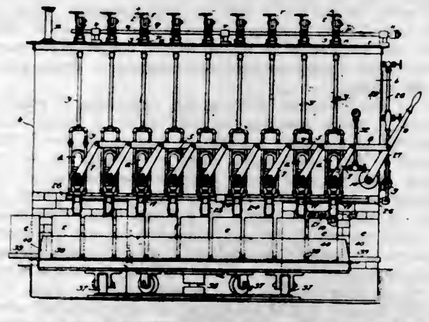
3. In combination with track rails, dogs, means to removably fasten said dogs to the rails, said dogs being provided with vertically extending dovetail recesses, said recesses extending throughout the depth of said dogs, said recesses having upwardly inclined walls, and a tie member engageable with said dogs, said tie member being provided with dovetail ends for engagement with said recesses.

4. In combination with track rails, dogs, means to removably fasten said dogs to the rails, said dogs being provided with vertically extending dovetail recesses, said recesses extending throughout the depth of said dogs, said recesses having upwardly inclined walls, and a tie member engageable with said dogs, said tie member being provided with dovetail ends for engagement with said recesses, said dovetail ends having upwardly inclined walls for engagement with said recesses.

5. In combination with track rails, dogs, means to removably fasten said dogs to the rails, said dogs being provided with vertically extending dovetail recesses, said recesses extending throughout the depth of said dogs, means engageable with said recesses for connecting said dogs, and means carried by said last-mentioned means to fasten said last-mentioned means in said recesses.

[Claims 6 to 8 not printed in the Gazette.]

1,138,511. CAN-FILLING MACHINE. HENRY C. SMART, New York, N. Y., assignor to Standard Oil Company of New York, N. Y., a Corporation of New York. Filed July 27, 1912. Serial No. 711,909. (Cl. 226—18.)



1. A machine for filling a number of receiving vessels simultaneously with measured quantities of liquid, comprising a supply chamber, a number of measuring vessels which have their measuring portions within said supply chamber and are provided with stationary inlet passages opening from the lower part of said chamber into the lower parts of said measuring vessels and also with stationary outlet passages extending from said measuring vessels through a wall of said supply chamber, two distinct sets of valves for controlling said inlet and said outlet passages respectively, the inlet valves being located within and the delivery valves outside of said supply chamber, and means for moving the valves of each set in unison, operating means for the inlet valves extending through a wall of said supply chamber for operation outside the same, and the outlet passages between said outside delivery valves and the measuring vessels being in free communication with the latter so that portions of the measured charges are contained in said passages, substantially as described.

2. A machine for filling a number of receiving vessels simultaneously with measured quantities of liquid, comprising a supply chamber, a number of upright measuring vessels which have their measuring portions within said supply chamber and are provided with stationary inlet passages opening through the bottoms of said measuring vessels from said supply chamber and also with valved outlet passages extending horizontally from said measuring vessels through a vertical wall of said supply chamber, valves in the form of horizontally disposed disks which are movable up and down for controlling said inlet passages, and means which include vertical stems attached directly to said disks and extending upwardly therefrom for operating said inlet valves in unison, substantially as described.

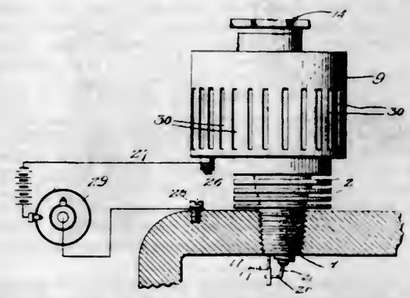
3. A machine for filling a number of receiving vessels simultaneously with measured quantities of liquid, comprising a supply chamber, a number of measuring vessels which have their measuring portions within said chamber and are provided with stationary inlet passages opening from said chamber into the lower parts of said measuring vessels and which are also provided with stationary outlet passages extending from said measuring vessels through a wall of said chamber for delivering the charges to said receiving vessels, vertically movable valves which control said inlet passages and which have longitudinally movable stems connected directly with said valves and extending upward through the tops of said measuring vessels and said chamber, and delivery valves which are located outside of said chamber in said stationary outlet passages, substantially as described.

4. A machine for filling a number of receiving vessels simultaneously with measured quantities of liquid, comprising a supply chamber, a number of measuring vessels which have their measuring portions within said chamber and are provided with stationary inlet passages opening from said chamber into the lower parts of said measuring vessels and which are also provided with stationary outlet passages extending from said measuring vessels through a wall of said chamber for delivering the charges to said receiving vessels, vertically movable valves which control said inlet passages and which have longitudinally movable stems connected directly with said valves and extending upward through the tops of said measuring vessels and said chamber, vertically adjustable displacers which are located in said measuring vessels above said inlet valves and approximately fill the horizontal areas of said measuring vessels and which are provided with openings through which said valve stems pass, rods connected with said displacers and extending upward through the tops of said measuring vessels and said chamber, means for adjusting said rods individually so as to shift the displacers individually in a longitudinal direction, and delivery valves which are located outside of said chamber in said stationary outlet passages, substantially as described.

5. A machine for filling a number of receiving vessels simultaneously with measured quantities of liquid, comprising a supply chamber closed on top in order to exclude the aeriform contents of said chamber from the atmosphere of the room in which it is placed, a number of measuring vessels which have their measuring portions within said chamber and are provided with stationary inlet passages opening from said chamber into the lower parts of said measuring vessels and which are also provided with stationary outlet passages extending from said measuring vessels through a wall of said chamber for delivering the charges to said receiving vessels, vertically movable valves which control said inlet passages and which have longitudinally movable stems connected directly with said valves and extending upward through the tops of said measuring vessels and said chamber, vertically adjustable displacers which are located in said measuring vessels above said inlet valves and approximately fill the horizontal areas of said measuring vessels and which are provided with openings through which said valve stems pass, rods connected with said displacers and extending upward through the tops of said measuring vessels and said chamber, means for adjusting said rods individually so as to shift the displacers individually in a longitudinal direction, stuffing-boxes on the cover of said chamber around said valve stems and said displacer adjusting rods, and delivery valves which are located outside of said chamber in said stationary outlet passages, substantially as described.

[Claims 6 to 16 not printed in the Gazette.]

1,138,512. SPARKING DEVICE FOR ENGINES. WALDEMAR MATTHAEUS STEMPEL, Fort Madison, Iowa. Filed May 16, 1912. Serial No. 697,695. (Cl. 123—154.)



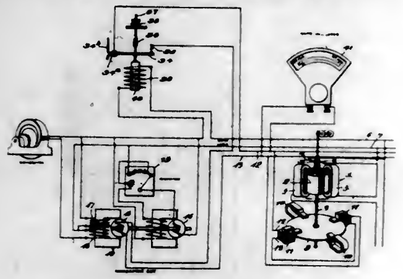
1. A sparking device of the character described comprising a plug, an electro-magnet arranged on said plug, said magnet having a core adapted to form one pole thereof, a casing arranged around said magnet and adapted to form the opposite pole, said casing having in its side walls a plurality of slots and having a closed outer end provided with a recess and a central passage, an armature compartment formed on the outer end of the casing and communicating through the passage with the recess in said end, a plug to close the outer end of said compartment, a stationary contact bar arranged in and insulated from said plug, said bar having an electrical connection with the magnet, a movable contact bar slidably mounted in the plug and extending through the core of the magnet and into said armature-compartment, an armature arranged on the end of the bar in said compartment, and means whereby said movable contact bar is reciprocated to bring the same into and out of electrical engagement with said stationary contact bar thereby making and breaking the electric circuit through the magnet and producing sparks.

2. A sparking device of the character described comprising a plug, an electro-magnet arranged on said plug, said magnet having a core adapted to form one pole thereof, a casing arranged around said magnet and adapted to form the opposite pole, an armature compartment formed on the outer end of the casing and communicating through the passage with the recess in said end, a plug to close the outer end of said compartment, a stationary contact bar arranged in and insulated from said plug, said bar having an electrical connection with the magnet, a movable contact bar slidably mounted in the plug and extending through the core of the magnet and into said armature compartment, an armature arranged on the end of the bar in said compartment, and means whereby said movable contact bar is reciprocated to bring the same into and out of electrical engagement with said stationary contact bar thereby making and breaking the electric circuit through the magnet and producing sparks.

1,138,513. ELECTRIC METER. WALDEMAR M. STEMPEL, State College, Pa. Filed Feb. 27, 1913. Serial No. 751,076. (Cl. 171—268.)

1. In a system of distribution, the combination of a generator, a load circuit supplied thereby, a meter including a rotary element, an auxiliary circuit, means included in said load circuit and controlling said auxiliary circuit whereby the energization of the latter will be inversely proportional to the load on the former, and means in said auxiliary circuit to influence the rotation of said rotary element substantially as and for the purpose set forth.

2. In a system of distribution the combination of a generator, a load circuit supplied thereby, an electric meter including a rotary element, means coöperating with the latter to retard the same, an auxiliary circuit including said means, a source of supply for said auxiliary circuit and means included in the load circuit for controlling said source of supply whereby the output of the latter will be inversely proportional to that of the former.



3. In a system of electrical distribution, the combination with a current generator, and an electrical meter provided with a damping disk; of electric retarding devices applied thereto, a supplemental generator connected with said retarding devices, and means included in the circuit of said current generator for controlling the field of said supplemental generator, whereby when said current generator is delivering full load said supplemental generator will be inactive and the retarding devices in the meters thereby deënergized and whereby as the load decreases said supplemental generator becomes more and more active thereby energizing said retarding devices and causing the meter to record more slowly.

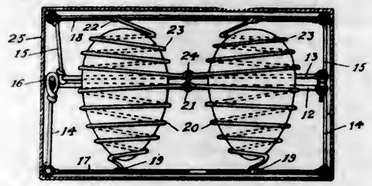
4. In a system of electrical distribution, the combination with a current generator, and an electrical meter provided with a damping disk; of a supplemental generator set of electro-magnets within whose fields said damping disk is located, said magnets having windings in circuit with said supplemental generator and means included in the circuit of said current generator for controlling the field of said supplemental generator, whereby when the said current generator is delivering full load said supplemental generator and the magnets in circuit therewith will be rendered inactive, and whereby as the load decreases said supplemental generator will become more and more active thereby energizing said electromagnets and causing the meter to record more slowly.

5. In a system of electrical distribution, the combination with a current generator, and an electrical meter provided with a damping disk; of a supplemental generator, retarding devices applied to said damping disk and included within the circuit of said supplemental generator, means connected with said current generator for controlling the field of said supplemental generator whereby said retarding devices may be energized and deënergized in accordance with the load on said current generator, a circuit breaker arranged in the circuit of said supplemental generator, and means in the circuit of said current generator and automatically operated when the latter is delivering full load to operate said circuit breaker, thereby breaking the circuit of said supplemental generator.

[Claim 6 not printed in the Gazette.]

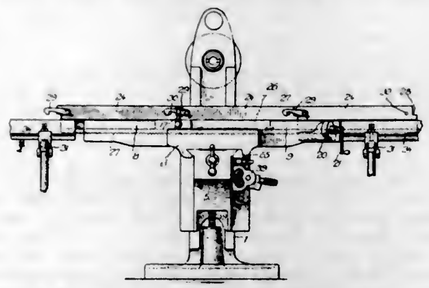
1,138,514. EGG-CARRIER. MARTIUS K. SWARTZ, Nisswa, Minn. Filed Dec. 19, 1913. Serial No. 807,644. (Cl. 217—35.)

1. A carrier for eggs comprising a pair of frames each consisting of two rectangular wire members held in spaced relation by wire uprights, said frames being hingedly connected together in the planes of the inner of said rectangular members, the outer of said rectangular members being provided with a plurality of cross wires, spiral springs having the end adjacent the smallest coil connected to said cross wires and the end adjacent the largest coil to a wire in the plane of the junction of the sections when the same are folded, the juxtaposed coils of corresponding pairs of said spiral springs being then positioned to receive and engage the walls of an egg.



2. A carrier for eggs comprising a pair of wire frame sections hingedly connected to fold together and formed so that when so folded a box-like frame structure is provided, spiral springs within each of said sections connected adjacent the smallest coil to the outside of the section and at the end of the largeat coil to a wire in the plane of the junction of the sections when the same are folded, the juxtaposed coils of corresponding pairs of said spiral springs being then positioned to receive and engage the walls of an egg.

1,138,515. MILLING-MACHINE. SAMUEL JOSEPH TODD and ALBERT MILTON HUMBER, Highland Park, Mich. Filed June 20, 1914. Serial No. 846,229. (Cl. 90—21.)



1. In a milling machine, a table feed, and interlocked abutting tables capable of being repeatedly connected and disconnected to said table feed to move in one direction in said machine.

2. In a milling machine, a saddle, a table feed carried thereby, table abutting sections adapted to be moved in one direction upon said saddle by said table feed, and means adapted to adjust said saddle.

3. In a milling machine, an adjustable saddle, a plurality of detachably connected tables adapted to be moved in one direction upon said saddle, and means operatable from the rear side of said saddle for moving said tables.

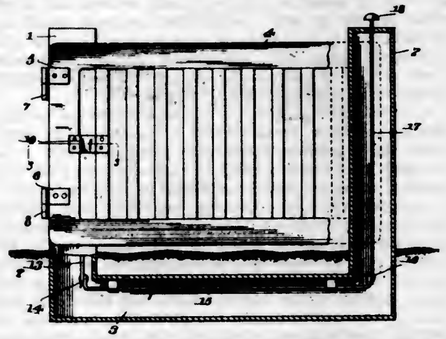
4. In a milling machine, a saddle, a plurality of abutting tables adapted to be guided over said saddle in a train whereby sections can be removed at one end and placed at the opposite end of the train, and means for detachably connecting the ends of the tables.

5. In a milling machine, a table adapted to be repeatedly fed through said machine, diagonally disposed power means forming part of said machine for moving said table therethrough, and means alining with said power means for manually adjusting a table.

[Claims 6 to 20 not printed in the Gazette.]

1,138,516. GATE-LATCH. WILLIAM C. VESPER, Staunton, Ill. Filed Oct. 7, 1914. Serial No. 865,527. (Cl. 70—28.)

In a gate latch mechanism, the combination of a pair of hollow gate posts, a hollow sill connecting the gate posts at the base thereof, a pivotally mounted spring pressed latch member disposed in one of said gate posts and having a latch end projecting therefrom, a gate hinged to the latter-named posts and having a keeper member thereon for coaction with the latch end of the pivoted latch member, a rod extending through and movable longitudinally in the other gate post and having an operating



member at its upper end, a rod journaled in the hollow sill, a crank connecting one end of said rod directly with the said longitudinally extending rod, a crank connected with the other end of the sill rod, and a link directly connecting the said crank with the said latch.

1,138,517. RECEPTACLE. ANDREW O. VESTINE, Dorchester, Mass., assignor, by mesne assignments, to James E. Doyle, Worcester, Mass. Filed Mar. 31, 1913. Serial No. 757,762. (Cl. 221—93.)



1. A receptacle consisting of two opposed side members each provided with a bead and a laterally extended flange adjacent said bead, the edges of the respective flanges curled one about and one within the adjacent bead of the opposite side member, an inlet neck and an outlet neck extended through one flange member, an aperture in the opposite flange member registering with each neck, said inlet neck having a flange received in a depression in one flange and locked therein by the adjacent laterally extended flange.

2. A receptacle comprising a plurality of side members each provided with a circumferentially disposed raised portion, said raised portions disposed at relatively opposite sides of the receptacle, the edge of each side member adjacent the raised portion bent laterally and having a locking engagement with the raised portion on the opposite member, forming a connecting annular receptacle wall.

3. A receptacle comprising a plurality of opposed curvilinear side members having their adjoining circumferential edges overlapped and locked by a laterally positioned flange on one member engaging the outer face of a raised portion on the opposite member and a similarly positioned flange on said opposite member engaging the inner face of a raised portion on the first named member, said flanges forming a sides-connecting reinforced receptacle wall.

4. A receptacle comprising a plurality of side members having their adjoining edges locked by a flange on one member engaging the outer face of a raised portion on the opposite member, and a flange on said opposite member engaging the inner face of a raised portion on said first-named member, and a neck extending through one of said members and an aperture in the other of said members registering with said neck.

5. A receptacle comprising a plurality of side members having their adjoining edges locked by a flange on one member engaging the outer face of a raised portion on the opposite member, and a flange on said opposite member engaging the inner face of a raised portion on said first-named member, a neck extending through one of the said members, a flange on said neck frictionally held between said side members, and an aperture in the other of said members registering with said neck.

[Claims 6 to 9 not printed in the Gazette.]

1,138,518. EXTENSIBLE NECK-YOKE. GASPER LEON WADDELL, Grapeland, Tex. Filed May 26, 1914. Serial No. 841,161. (Cl. 21—77.)



A neck yoke comprising a main section having a longitudinal slot and notches along one edge of the slot in communication therewith, and sections slidable within the main section, screws threaded into the sides of the end sections and arranged to move from the longitudinal slot of the main section and enter selected notches thereof to hold the end sections in the adjusted position and rings fitted to the outer ends of the telescoping sections and arranged so that when under strain, the latter serves to hold the screws in the receiving notches even though such screws should be loose.

1,138,519. PROCESS OF MANUFACTURING PEROXID OF HYDROGEN. WALTER WEBER, Dusseldorf, Germany, assignor to the Firm of Henkel & Cie., Dusseldorf, Germany. Filed Feb. 26, 1914. Serial No. 821,216. (Cl. 204—9.)

1. A process of making hydrogen peroxid which comprises reducing oxygen or oxygenous gases dissolved in a suitable electrolyte to hydrogen peroxid at a cathode composed of copper amalgam by electrolysis.

2. A process of making hydrogen peroxid which comprises reducing oxygen or oxygenous gases dissolved in a suitable electrolyte to hydrogen peroxid at a cathode composed of amalgamated copper by electrolysis.

3. A process of making hydrogen peroxid which consists in reducing gaseous oxygen to hydrogen peroxid by continuously forcing oxygen or oxygenous gases into the watery solution of a suitable electrolyte under high pressure and during the simultaneous generation of hydrogen at a cathode composed of copper amalgam by electrolysis.

1,138,520. PROCESS OF MANUFACTURING PEROXID OF HYDROGEN. WALTER WEBER, Dusseldorf, Germany, assignor to the Firm of Henkel & Cie., Dusseldorf, Germany. Filed Feb. 26, 1914. Serial No. 821,217. (Cl. 204—9.)

1. A process of making hydrogen peroxid which comprises reducing oxygen or oxygenous gases dissolved in a suitable electrolyte to hydrogen peroxid at a cathode composed of silver amalgam by electrolysis.

2. A process of making hydrogen peroxid which comprises reducing oxygen or oxygenous gases dissolved in a suitable electrolyte to hydrogen peroxid at a cathode composed of amalgamated silver by electrolysis.

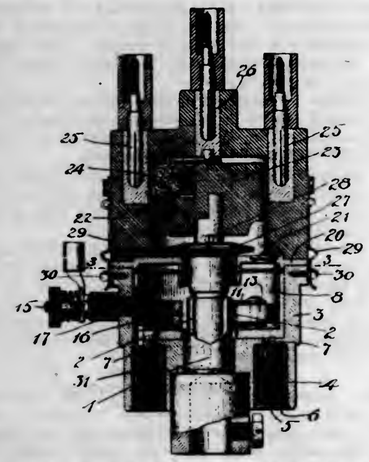
3. A process of making hydrogen peroxid which consists in reducing gaseous oxygen to hydrogen peroxid by continuously forcing oxygen or oxygenous gases into the watery solution of a suitable electrolyte under high pressure and during the simultaneous generation of hydrogen at a cathode composed of silver amalgam by electrolysis.

1,138,521. ATHLETIC SOCK. SIDNEY WEST, Washington, D. C. Filed Aug. 26, 1912. Serial No. 717,173. (Cl. 2—23.)



As a new and complete article of manufacture, a sock, consisting of a lower portion adapted to completely incase the foot of the wearer, an upper portion integral with said lower portion and incasing the ankle of the wearer, the upper portion being of a length to come barely above the ankle, a strap permanently attached to said upper portion wholly within the area thereof and adapted to encircle that portion to bind the same about the ankle of the wearer, the strap being interwoven for a portion of its length with the material of said upper portion, and means carried by said upper portion to secure the ends of the strap.

1,138,522. ELECTRICAL IGNITION APPARATUS. ERNEST C. WILCOX, Meriden, Conn., assignor to The Connecticut Telephone & Electric Company, Inc., Meriden, Conn., a Corporation of Connecticut. Filed June 18, 1914. Serial No. 845,834. (Cl. 123—168.)



1. In an igniter apparatus, a rotatable shaft, a housing supported thereon, a cam driven by said shaft, an interrupter unit including interrupter parts arranged outside of said cam, said unit being arranged to be bodily applied to and removable from said housing, means for holding said unit in operative position in said housing, and a terminal carried by said housing and insulated therefrom, and arranged to be electrically connected with one of said interrupted parts.

2. In an igniter apparatus, a rotatable shaft, a housing supported thereon, a cam driven by said shaft, an interrupter unit including interrupter parts arranged outside of said cam, said unit being arranged to be bodily applied to and removable from said housing, means for holding said unit in operative position in said housing, and a terminal carried by said housing and insulated therefrom, and arranged to be electrically connected with one of said interrupter parts, and a distributer element comprising a part carried by said housing and another part detachably carried by said shaft.

3. In an igniter apparatus, a rotatable shaft, a housing supported thereon, a cam driven by said shaft, an interrupter unit including interrupter parts, said unit being arranged to be bodily applied to and removable from said housing, means for holding said unit in operative position in said housing, and a terminal carried by said housing and insulated therefrom, and arranged to be electrically connected with one of said interrupter parts, and a distributer element comprising a part carried by said housing and another part carried by said shaft, and a condenser element in the form of a unit, said distributer unit being arranged to be carried by said housing and being detachable therefrom, with means for electrically connecting said condenser with said terminal.

1,138,523. ANTISEPTIC TOOTH-BRUSH RECEPTACLE. ROBERT MORSE WITHYCOMBE, Sydney, New South Wales, Australia. Filed June 24, 1913. Serial No. 775,566. (Cl. 132—11.)



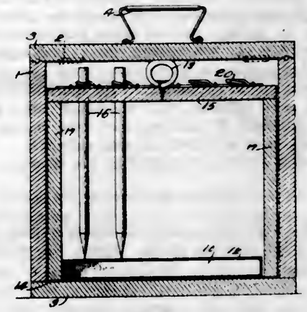
An antiseptic tooth-brush holder comprising a tube provided at its bottom with an inverted funnel-shaped air-inlet which is formed integrally therewith and which projects upwardly into the interior thereof, the top of which inlet is adapted to support the bristles of a brush, the space between the wall of said inlet and the opposite portion of the wall of said holder being adapted to contain an antiseptic substance.

1,138,524. DISINFECTANT PENCIL-CARRIER. LOUIS C. WITKOWSKI, Collingswood, N. J. Filed Mar. 21, 1914. Serial No. 826,433. (Cl. 167—3.)

1. A pencil disinfecting device comprising a casing, a removable plate mounted therein, a tray carrying disinfectant material, plate supporting means rigid with the plate adapted to position the tray and means carried by the plate for holding the pencils in vertical position but spaced from the tray.

2. A pencil disinfecting device comprising a casing, a removable plate therein, a disinfectant tray located in the bottom of the casing, tabs rigid with and extending from the tray and engaging the casing, plate supporting means extending from the plate adapted to engage the tabs to hold the tray in place, and means carried by the plate for holding the pencils vertical so that their points may be in proximity to but spaced from the tray.

3. A pencil disinfecting device comprising a casing, a removable rack carried therein, a disinfectant carrying tray in the bottom of the casing, a cover for said tray, rack supporting means depending from the plate engaging said cover adapted to position the cover and rack, and means for holding the pencils in a vertical position so that their points will be above the tray.

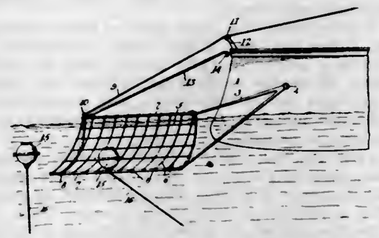


4. A pencil disinfecting device comprising a casing, a cover hingedly connected thereto, a pencil carrying rack removably mounted within the casing, a handle for said rack, disinfectant carrying means located in the bottom of the casing, and rack supporting means carried by the rack adapted to engage the disinfectant carrying means, said cover adapted to engage the handle to force the supporting means against the disinfectant carrying means and thereby hold the disinfectant carrying means against displacement.

5. A pencil disinfecting device comprising a casing, a horizontally disposed disinfectant carrying tray within the casing, and means for holding the points of the pencils equi-distant from the tray.

[Claims 6 to 14 not printed in the Gazette.]

1,138,525. MINE-CATCHER. PETER ZAKIT, Akron, Ohio. Filed Feb. 10, 1915. Serial No. 7,421. (Cl. 114—240.)

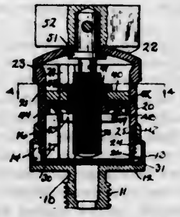


A triangular frame having a yielding body portion, hooks disposed at intervals along the lower edge of the frame, supporting arms for the frame adapted to be pivotally connected at their inner ends to the opposite sides of the bow of a vessel, means, as a stay rod, provided at its inner end with a hook to hold the drag in its operative position and by its disengagement with the vessel to permit the drag being raised to the deck of the vessel, and a cable or other suitable device for raising the drag.

1,138,526. GREASE-CUP. OSCAR ZERK, Cleveland, Ohio, assignor, by mesne assignments, to George W. Bowen, Auburn, N. Y. Filed Feb. 19, 1912. Serial No. 678,703. (Cl. 184—48.)

1. In a device of the character described, the combination, of two coöperating members, one externally threaded and the other internally threaded, an annular recess in the internally threaded member, a coiled spring lying in the annular recess, and a shoulder on the externally threaded member adapted to engage the spring when the latter member is screwed into place.

2. In a grease cup, the combination, of a cup and a cap having a screw threaded engagement with each other, a locking device carried by one of such members and movable in the annular course thereon independently of its support, and means on the other member for automatically engaging said device and moving it bodily when the cap and cup are screwed together.



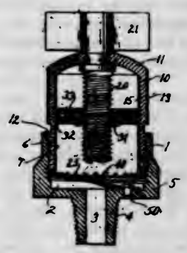
3. In a grease cup, the combination, of a cup and a cap having a screw threaded engagement with each other and a coiled spring freely carried within and surrounded by the cup and engaging the cap, said spring extending in such direction that the rotation to turn the cap on draws the spring around, while the rotation in the direction to turn the cap off shoves on the spring and forces its outer surface into a more binding engagement with the cup.

4. In a grease cup, the combination, of a cup and cap, said members coöperating and one member having an internal thread and the other an external engaging thread, the member with the internal thread having an annular internal recess and the member with the external thread having a notch, and a spring loosely carried to travel bodily in the recess independently of the internally threaded member and adapted to engage in the notch.

5. In a device of the character described, the combination, of two coöperating members, one externally threaded and the other internally threaded, an annular recess in the internally threaded member, a notch in the externally threaded member, and a coiled spring lying in the annular recess and having a projection adapted to engage the notch, said spring freely occupying the recess whereby it may be drawn around therein and being compressible within the recess as the notched member is screwed into the other member, whereby the spring has its projection caused to automatically enter the notch.

[Claims 6 to 21 not printed in the Gazette.]

1,138,527. GREASE-CUP. OSCAR ZERK, Cleveland, Ohio, assignor, by mesne assignments, to George W. Bowen, Auburn, N. Y. Filed Apr. 3, 1913. Serial No. 758,552. (Cl. 184—48.)



1. In a grease cup, the combination of a cup portion having an internally threaded wall and having a nipple projecting from its base with an internal bore, an annular spring secured to said base within the wall on one side of the opening of the spring, the opening of the spring being opposite the entrance to said bore, said spring having a projection, and a cap having an external thread and screwing into the internally threaded wall of the cup and notched to coact with said projection.

2. In a grease cup, the combination of a cup, a cap

screw threaded thereto, and an annular spring having an opening for the passage of grease and secured to the cup at the side of such opening, and having an engagement with the lower edge of the cap.

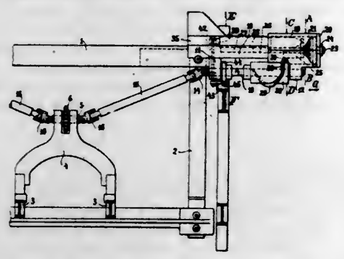
3. In a grease cup, the combination of a cup, a cap screw threaded thereto and having a notch at its lower edge, and a spring washer having an opening for the passage of grease and secured at the side of such opening to the cup, said washer having a projection adapted to engage said notch.

4. In a grease cup, the combination of a cup having an internally threaded wall rising from the upper face of its base, the cup having an exit opening leading from said upper face, a cap screwing into said wall and having a notch at its lower edge, and spring member secured to the upper face of the base of the cup at the side of the opening, said member also having at the side of the opening a projection adapted to engage said notch.

5. In a grease cup, the combination of a cup, a cap screw threaded thereto, and a spring washer within the cup having an opening for the passage of grease and secured at one side of such opening to the cup, and at the other side having a spring engagement with the lower edge of the cap.

[Claims 6 and 7 not printed in the Gazette.]

1,138,528. PICKING-MOTION FOR WEAVING-LOOMS. EMIL ZIPPER, Vienna, Austria-Hungary. Filed Dec. 27, 1913. Serial No. 808,987. (Cl. 139—48.)



1. A picking motion for looms comprising a shuttle box, a picker wholly arranged therein and working lengthwise thereof, an operating spring for said picker, a rotatable cylinder projecting into the shuttle box and having a spiral rib for alternately releasing the picker and returning it to position in opposition to its spring, and means for operating the cylinder.

2. A picking motion for looms comprising a shuttle box, a picker wholly arranged therein and working lengthwise thereof and having a projection, an operating spring for said picker, a rotatable cylinder having a spiral rib to engage said projection and move the picker in opposition to its spring, the rib being formed to alternately release and move the picker, and means for operating the cylinder.

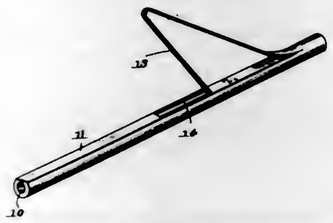
3. A picking motion for looms comprising a shuttle box, a picker wholly arranged therein and working lengthwise thereof and having a projection, a rotatable cylinder having a rib which extends spirally over approximately half of the cylinders circumference and at its outer end has an extension normal to the axis of the cylinder, the said rib engaging the projection and thereby moving the picker in opposition to its spring, and being formed to alternately release and move the picker, and means for operating the cylinder.

4. A picking motion for looms comprising a shuttle box, a picker arranged therein and working lengthwise thereof, the picker having one or more rods projecting therefrom in the direction of the movement of the picker, the shuttle box having openings in which said rods engage with dash-pot effect during the movement of the picker, a spring for operating the picker, a rotatable cylinder projecting into the shuttle box and having a spiral rib for alternately releasing the picker and returning it to normal position in opposition to its spring, and means for operating the cylinder.

5. A picking motion for looms comprising a shuttle box, a picker wholly arranged therein and working lengthwise thereof and having a projection, an operating spring for said picker, a rotatable cylinder having a spiral rib to engage said projection and move the picker in opposition to its spring, the rib being formed to alternately release and move the picker, means for operating the cylinder, comprising a shaft driven from any desired shaft of the loom, a rod transmitting the motion of said driven shaft to said cylinder, and universal joint connections between one end of said rod and said driven shaft and the other end of said rod and said cylinder.

[Claims 6 and 7 not printed in the Gazette.]

1,138,529. TOY GUN. ABEL C. ANTHONY, San Francisco, Cal. Filed Nov. 4, 1914. Serial No. 870,289. (Cl. 124—12.)



1. As a new article of manufacture, a gun formed of a single piece of tubular material having a portion partially slit lengthwise thereof, with its inner end integral with the piece of material, said portion forming a spring-like projector and extending into an opening formed in the tubular portion of the piece of material.

2. A toy gun comprising a tubular member provided with an opening and a projector formed integral with said tubular member and having a portion thereof extending into said opening.

3. A gun formed of a single piece of bamboo closed by a knot at one end, said bamboo being longitudinally cut to provide a portion partially severed from the body of the piece of bamboo and having its inner end integral with the knot end of the bamboo, said portion forming a spring-like projector operating in an opening formed in the piece of bamboo.

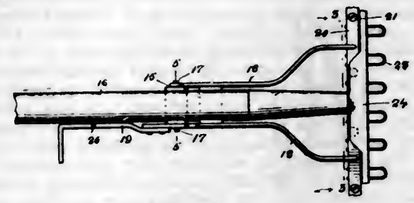
4. A toy gun comprising a tubular member having an opening communicating with its interior and a projector formed integrally with said tubular member by partially severing a portion of the tubular member from itself, with the free end of said projector operating in the opening and limiting in its movement in the opening by the end walls thereof, said end walls forming an integral part of the tubular member.

5. A toy gun comprising a tubular member provided with an opening and an angular shaped spring-like projector formed integral with said tubular member and having its free end operating in said opening, with the forward and backward movement of the free end of the projector in the opening limited by transverse portions of said tubular member, said transverse portions forming the end walls of the opening.

1,138,530. CLEANING DEVICE FOR HAND-RAKES. SAMUEL BERGE, Lethbridge, Alberta, Canada. Filed July 22, 1914. Serial No. 852,529. (Cl. 55—146.)

1. A rake appliance comprising a clip having laterally extending pintles, side members pivoted on the pintles, one of said side members being provided with a rearwardly extending handle and both of said side members diverging forwardly, a bar secured to the divergent forward ends of the side members, a clamp bar connected

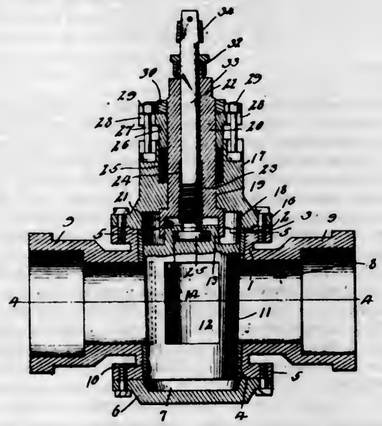
therewith, and U-shaped loops interposed between said bars.



2. The combination with a rake including a handle and a rake head having teeth, of a clip secured on the rake handle and having laterally extending pintles, side members pivoted on the pintles, one of said side members being provided with a rearwardly extending handle, and both of said side members diverging forwardly, a bar secured to the forward ends of the side members, a clamp bar, bolts connecting the latter with the first mentioned bar, and U-shaped loops interposed between the bars, extending forwardly therefrom and engaging the rake teeth.

3. The combination with a rake including a handle and a rake head having teeth, of a clip secured on the rake handle and having laterally extending pintles, side members pivoted on the pintles, one of said side members being provided with a rearwardly extending handle, and both of said side members diverging forwardly, a bar secured to the forward ends of the side members, a clamp bar, bolts connecting the latter with the first mentioned bar, and U-shaped loops interposed between the bars, extending forwardly therefrom and engaging the rake teeth; and a stop member secured to the rake handle and lying in the path of the rearwardly extending handle of one of the side members.

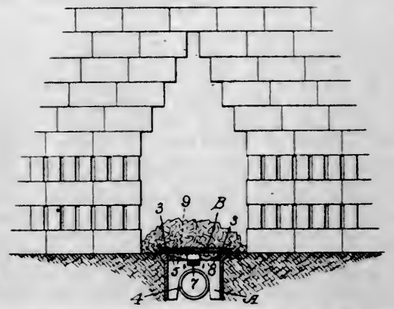
1,138,531. VALVE. WILLIAM BIRKBECK and WILLIAM H. ASHMAN, Freeland, Pa. Filed Sept. 22, 1914. Serial No. 862,993. (Cl. 137—7.)



1. In a valve, a casing having a fluid passage therethrough and a valve seat formed therein, a plug engaging said seat controlling said passage and rotatable to open and closed positions, a non-circular block on one end of said plug formed with a substantially U-shaped recess opening onto one end of the block and having the upper wall provided with a slot having an open end contiguous to the open end of the recess, a sleeve projecting out of said casing coaxial with said plug, a socket on the inner end of said sleeve surrounding said block and of a shape corresponding to that of the block whereby in the rotation of the sleeve, the plug will be actuated to open and closed positions, a stem disposed within said sleeve and having the inner end thereof passed through the slot in said block and extending into said recess, a head on the inner end of said stem within said recess, and means for moving said stem longitudinally within the sleeve to move the plug longitudinally to increase and decrease the frictional contact between the plug and seat.

2. In a valve, a casing having a fluid passage therethrough and a valve seat formed therein, a plug engaging said seat controlling said passage and rotatable to open and closed positions, a non-circular block on one end of said plug formed with a substantially U-shaped recess opening onto one end of the block and having the upper wall provided with a slot having an open end contiguous to the open end of the recess, a sleeve projecting out of said casing coaxial with said plug, a socket on the inner end of said sleeve surrounding said block and of a shape corresponding to that of the block whereby in the rotation of the sleeve, the plug will be actuated to open and closed positions, a stem disposed within said sleeve and, having the inner end thereof passed through the slot in said block and extending into said recess, a head on the inner end of said stem within said recess, means for moving said stem longitudinally within the sleeve to move the plug longitudinally to increase and decrease the frictional contact between the plug and seat, and a key having socket members adapted to engage the outer ends of said sleeve and stem respectively whereby the sleeve and stem may be actuated.

1,138,532. AIR-BOX OF BRICK-KILNS. JOHN C. BOSS, Elkhart, Ind. Filed May 6, 1912. Serial No. 695,435. (Cl. 25—148.)



The combination with a brick kiln arch and its imperforate floor or hearth for supporting fuel, of an air box embedded in said floor and having its top open for the discharge of air and flush with the surface of the floor and a plate covering said top and overlapping said walls of the box and spaced therefrom to form a narrow air exit for discharging air laterally into said fuel at the point where it contacts with said floor.

1,138,533. ICE-CREAM-CONE DISHER. THEODORE J. BRANDT, Gresham, Oreg., assignor, by mesne assignments, to National Specialty Company, Portland, Oreg., a Corporation of Oregon. Filed May 1, 1914. Serial No. 835,667. (Cl. 107—48.)

1. In an ice cream cone disher, the combination with a semi-circular shank, of a handle carried at one end thereof, a mold section carried at the other end thereof, a second semi-circular shank mounted to swing on the first semi-circular shank and normally engaging the same to form a tubular compartment, a mold section carried by the second shank and adapted to form a conical mold with the first mentioned mold section, a trigger mounted to swing on the first shank, a cutting member mounted to rotate on the first mold section and adapted to rotate in the second mold section, a rack bar carried by the trigger, a toothed wheel on the cutting member and adapted to be

engaged by the rack bar to rotate the cutting member in the said mold when the said trigger is actuated, a plurality of interlocking members, one of the said members being carried within one of the said shanks and the other said member carried within the other said shank, a locking rod carried by the trigger for normally holding the said members in locked relation to secure the said shanks and said mold sections in locked relation, a spring carried by the first mentioned shank and engaging the second shank to normally hold the second shank in engagement with the first shank, and an operating member having connection with the said trigger to actuate the same and adapted to engage the said shanks and swing the same from against the action of the said springs to separate the said mold sections, the said trigger, when actuated, being adapted to move the said locking rod out of engagement with one of the said locking members to unlock the movable shank relatively to the rigid shank.



2. In an ice cream cone disher, the combination with a shank, of a handle carried thereby, a mold section on the shank and rigid therewith, a second shank mounted to swing on the first shank and forming a tubular compartment therewith, a second mold section carried by the second shank to form a conical mold with the first mold section, a trigger mounted to swing on the first shank, a plurality of normally engaging female members carried by the said shanks, with one of the members on one of the shanks and the other member on the other shank, a locking rod carried by the trigger and engaging the said members to normally lock the same and secure the said shanks and said mold sections in relatively locked position, a spring engaging the second shank for holding the same in engagement with the first shank and for holding the second mold section in engagement with the first mold section, and an operating member passing through the shanks and having connection with the trigger to actuate the same and move the locking rod into unlocked position, with a portion of the trigger adapted to engage the shanks and swing the said second shank and said second mold section into open position relatively to the first shank and first mold section.

3. In an ice cream cone disher, the combination with a stationary body including a mold section, of a movable body mounted to swing on the stationary body and including a mold section, the said mold sections normally engaging and forming a conical mold, a trigger mounted to swing on the stationary body, means carried by the trigger for normally locking the movable body to the stationary body, and an operating member having connection with the trigger to actuate the same and to engage the said movable body to swing the same into open position relatively to the stationary body after the said movable body has been unlocked from the stationary body.

4. In an ice cream cone disher, the combination with a stationary body including a mold section, of a movable body mounted to swing on the stationary body and including a mold section, the said mold sections normally engaging and forming a conical mold, a trigger mounted to swing on the stationary body, means carried by the trigger for normally locking the movable body to the stationary body, an operating member having connection with the trigger to actuate the same and to engage the said movable body to swing the same into open position relatively to the stationary body after the said movable body has been unlocked from the stationary body, and a flat spring carried by the stationary body and engaging the movable body to normally hold the movable body in closed position relatively to the stationary body.

5. In an ice cream cone disher, the combination with a stationary body including a mold section, of a movable body mounted to swing on the stationary body and including a mold section, the said mold sections normally engaging and forming a conical mold, a trigger mounted to swing on the stationary body, means carried by the trigger for normally locking the movable body to the stationary body, an operating member having connection with the trigger to actuate the same and to engage the said movable body to swing the same into open position relatively to the stationary body after the said movable body has been unlocked from the stationary body, a flat spring carried by the stationary body and engaging the movable body to normally hold the movable body in closed position relatively to the stationary body, a cutting member mounted to rotate in the said mold, and means carried by the said trigger for actuating the cutting member when the said trigger is actuated by the said operating member.

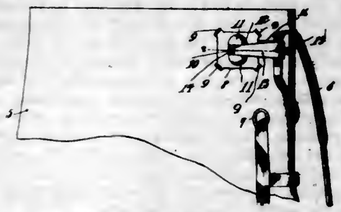
1,138,534. PLAYING-CARDS. JOHN L. BRISTER, Norfolk, Va. Filed Apr. 24, 1914. Serial No. 834,249. (Cl. 46—25.)



A set of playing cards comprising a plurality of cards, arranged in suits or groups, bearing distinctive designation characters peculiar to each group, each card comprising a body portion and a coupon detachable therefrom, the cards of each suit bearing different designations, peculiar to each card and its coupon in each group, such designations appearing upon the body portion and coupon of each card to indicate their relationship, the body portion of each card bearing thereon matter responsive to a certain question, lecture or description, and the coupon portion of each card bearing thereon the question, lecture or description, to which the matter on the body portion of said card is responsive, whereby the body portions and coupons of the set of cards may be separated and employed by a lecturer and players, respectively, substantially as described.

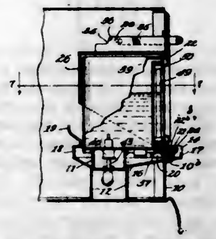
1,138,535. SHOE-LACE FASTENER. WILLIAM D. BUCHTEL, Paxton, Nebr., assignor of one-half to William B. Paxton, Paxton, Nebr. Filed Dec. 20, 1913. Serial No. 807,967. (Cl. 24—147.)

In a shoe lace fastener, a base plate secured to the upper of the shoe and having an elongated opening therein, bearings rising from said plate at the opposite sides of the opening, a leaf spring interposed between said plate and shoe upper and slightly spacing the former from the latter, a hook member swingingly mounted in said bearings and operating through the opening in said plate for engagement with said spring whereby the hook is held under tension in either open or closed position, said hook comprising an elongated strip of metal having its free end bent



under and rearwardly of the shank portion of the hook to provide a bill.

1,138,536. OIL-STOVE. LEE S. CHADWICK, East Cleveland, Ohio, assignor to The Cleveland Foundry Company, Cleveland, Ohio, a Corporation of Ohio. Filed July 23, 1914. Serial No. 852,611. (Cl. 158—41.)



1. In a stove of the character described, the combination of a base, transverse plates projecting upwardly from said base, a liquid fuel distributing receptacle above said base and interposed between said plates, a door adapted to swing upwardly and downwardly and pivoted at the front of said plates, a carrier for a liquid fuel dispensing receptacle supported by said door, a liquid fuel dispensing receptacle on said carrier, one or more burners located outside the space formed between said plates, and a supply pipe communicating with the distributing receptacle and extending to said burner or burners.

2. In a stove of the character described, the combination of a base having a compartment thereabove, a liquid fuel distributing receptacle in said compartment, a door for said compartment adapted to swing upwardly and downwardly, a carrier for a liquid fuel dispensing receptacle supported by said door, a liquid fuel dispensing receptacle on said carrier, one or more burners located outside the compartment, and a supply pipe communicating with the distributing receptacle and extending to said burner or burners.

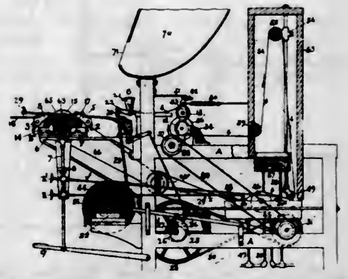
3. In a stove of the character described, the combination of a base, a pair of plates projecting upwardly from said base and forming opposite walls of a compartment, a plate extending across the space between the first mentioned plates and having a door opening therein, a door cooperating with said opening, a carrier mounted on said door, a liquid fuel dispensing receptacle adapted to be supported by said carrier, a liquid fuel distributing receptacle within the compartment, one or more burners located outside of said compartment, a supply pipe connecting the distributing receptacle with said burner or burners, and means whereby the liquid fuel in the dispensing receptacle may be delivered into the distributing receptacle when the former receptacle is brought into operative relation to the latter.

4. In a stove of the character described, the combination of one of more burners, a compartment, a liquid fuel distributing receptacle within said compartment, a supply pipe extending from said receptacle to said burner or burners, a door for said compartment, a carrier on said door, a liquid fuel dispensing receptacle adapted to be supported by said carrier, and connections whereby, when the door is closed, the dispensing receptacle will be brought into operative relation to the distributing receptacle to discharge its contents into the latter.

5. In a stove of the character described, the combination of one or more burners, a compartment, a liquid fuel distributing receptacle within said compartment, a supply pipe extending from said receptacle to said burner or burners, a carrier movable into and out of said compartment, a liquid fuel dispensing receptacle adapted to be supported by said carrier, and connections whereby, when the carrier is moved into the compartment, the dispensing receptacle will be brought into operative relation to the distributing receptacle to discharge its contents into the later.

[Claims 6 to 21 not printed in the Gazette.]

1,138,537. MECHANISM FOR MAKING CLOTH-BOARDS. ALFRED M. CHAFFEE, Oxford, Mass. Filed May 15, 1914. Serial No. 838,811. (Cl. 144—279.)



1. In a mechanism of the character described, an assembling-bed having a flat top surface, oppositely oscillatable jaw-bars along the front and rear edges of said bed and journaled in bearings at the end thereof, the axes of said jaw-bars being in a plane approximately coincident with the plane of the bed surface, and means for operating the jaw-bars.

2. In a device for assembling cloth-boards, the combination, of a supporting bed, oppositely disposed longitudinal front and rear edge-fitting members thereon movable toward and from each other, end-gage members provided with inwardly projecting prongs at their rear ends, one of said end-gage members being movable laterally, means for moving said longitudinal members for compressing the assembled parts of the cloth-board together, and means for moving said end-gage member.

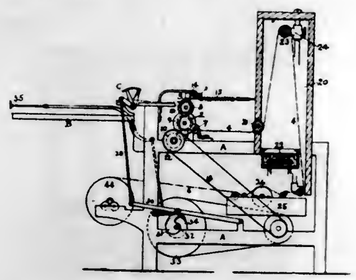
3. In mechanism for making cloth-boards or the like, an assembling-bed having a flat top surface, oscillatable jaws along the front and rear edges of said bed surface, bearings at the ends of said bed in which the jaws are journaled, their axes approximately in line with the plane of the bed, arms fixed upon the jaw-supporting journals, vertically movable rods or bars slidable in upright guides at the ends of the bed, links connecting said rods and arms, a treadle connected for the actuation of said rods, and springs for moving said parts to elevated position for opening said jaws.

4. In mechanism of the class described, the combination, of means for continuously glue-coating one side of a forwardly moving web of paper or fabric, means for continuously vapor-dampening the opposite side of said web, means for regulating the amount of exposure to the vapor-dampening effect, a forming table or bed for the assembling of the work therein, form-indicating guide members arranged upon said bed and movable for pressing together the assembled parts, means for automatic feed-delivery of the glue-coated dampened web, a power actuated cut-off shear disposed between the feed-delivery devices and forming bed, means for operating said guide members, means for actuating the cutting shear to sever the delivered part of the web, a hand manipulated starter in a convenient relation to said forming bed, and connections therefrom for putting said shear into action.

5. In mechanism for making cloth-boards, an assembling-bed having a work-supporting surface upon which to assemble the parts of the cloth-board, inwardly and outwardly movable oscillatable longitudinal edge compressing jaw-bars, disposed axially in line with the edge angles of the assembling-bed, and provided with rigidly projecting arms and actuating connections therefor, means for forcing said jaw-bars inward against the assembled cloth-board, and means for retracting said jaw-bars when the pressing force is released.

[Claims 6 to 13 not printed in the Gazette.]

1,138,538. MEANS FOR DELIVERING MOISTENED OR GLUE-COATED PAPER AND SIMILAR FABRICS. ALFRED M. CHAFFEE, Oxford, Mass. Filed May 15, 1914. Serial No. 838,812. (Cl. 91—14.)



1. A mechanism for the purpose described, comprising a pair of rolls, a rockable housing frame in which said rolls are mounted, fulcrum pivots for said housings disposed at positions eccentric to the axis of the primary roll, a friction wheel fixed on the axle of said primary roll, a drive-friction wheel or pinion mounted adjacent to said friction wheel, but normally out of contact therewith, means for operating said drive-section wheel, means for counterbalancing or returning said housing-frame to its primary position, a limiting stop for arresting the swing movement of the housing frame and suitable gearing operatively connecting the axles of said rolls.

2. In a mechanism for the purpose described, in combination, a pair of web-carrying-rolls, means connecting the pair for simultaneous rotation, housings in which said rolls are mounted, said housings being pivotally fulcrumed at a position rearward from the roll axes, a friction wheel secured upon the axle of one of said rolls, a driving element provided with a friction wheel against which said first named friction-wheel is brought into contact by forward swing and relieved from contact by backward swing of said housings, means for normally retracting said housings and rolls, said retracting means adapted to be overcome, and the friction members put into active contact by a slight forward pull upon the paper or fabric about said rolls.

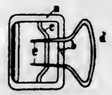
3. A web delivering mechanism for the purpose specified, comprising a plurality of non-contacting rolls intergeared for rotating in unison; a pivotally fulcrumed oscillatable bearing supporter on which said rolls are mounted, means for limited backward preponderance to said supporter, a frictional driving means for operating said rolls, the frictional engaging faces of which are relatively disposed to be out of engagement when said supporter is at its backward position, and to be brought into operative engagement by the forward oscillation of said supporter, substantially as set forth.

4. The combination with means for glue-coating and means for moistening paper in a continuous web; of a feed-delivery means comprising a plurality of web-carrying rolls about which the paper passes, a rockable support for said rolls, means for the automatic operation of said rolls for advancing the paper or web, a counter-poising means for normally retaining the same out of action, said mechanism adapted to be temporarily thrown into operative automatic feeding action by a slight forward pull or draft applied to the advance end of the web, and to assume non-active relation when such pull or draft is relinquished.

5. In a mechanism for the feed-delivery of damp paper or the like, the combination with means for moistening a web of paper, a carrier-roll for supporting the web, an exit-guide roll, a feed-delivery means comprising a plurality of intermeshingly geared web-carrying rolls mounted on a rockable frame supported on fulcrum pivots eccentric to the roll axes, a mechanical actuating means for rotating said rolls, said actuating means brought into action by rocking forward the roll-supporting frame by a pull upon the end of the delivered web.

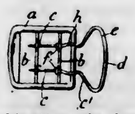
[Claims 6 and 7 not printed in the Gazette.]

1,138,539. BUCKLE. JOSEPH CHARY, Oberhomburg, Lothringen, Germany. Filed Mar. 14, 1914. Serial No. 824,731. (Cl. 24—179.)



In a buckle comprising in combination, a split resilient, rectangular frame having oval recesses provided at opposite points in the inner parts of two of its sides, a rotatable cross bar formed with a cranked portion, said cross bar being provided with end trunnions, each of the shape of a truncated cone with an oval base and adapted to normally fit in said oval recesses whereby when the bar is rotated it is frictionally held by the coöperation of said end trunnions in said oval recesses due to the spreading action of the split frame, a spiked member secured to the cranked portion of said rotatable cross bar and adapted to be moved laterally across the buckle frame as the bar is rotated about its pivots and to be retained in its extreme position, substantially as described.

1,138,540. BUCKLE. JOSEPH CHARY, Oberhomburg, Lothringen, Germany. Filed Aug. 6, 1914. Serial No. 855,466. (Cl. 24—190.)

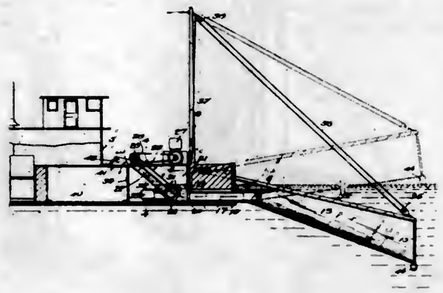


In a buckle, the combination of a buckle frame, stationary transverse members extending across the buckle frame and provided with eye pieces, a spiked member having its spikes guided in the said eye pieces and provided with stops between the said stationary members and with an upwardly curved loop-shaped handle for the accommodation of the end of the strap, substantially as set forth.

1,138,541. FISHING DEVICE. DAWSON CONEKIN, St. Petersburg, Fla. Filed Jan. 28, 1914. Serial No. 814,974. (Cl. 43—9.)

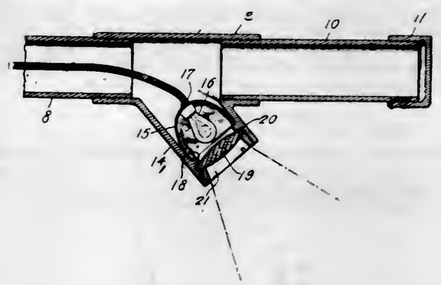
1. A fishing device including a vessel having a compartment therein provided with an inclined rear wall, a fishing net, a pipe communicating at one end with the net and at the other end with said compartment whereby the full volume of water entering the pipe from the net may be directed through the compartment against said rear wall, means for lifting fish from the rear wall, a second pipe communicating at one end with the compartment through an opening in said rear wall and at the other end with the outside of the vessel, and a screen disposed over the opening in said rear wall.

2. A fishing device including a vessel having a compartment therein, a fishing net having a restricted throat means for directing the full volume of water from said throat into said compartment, means for allowing the exit of water from the compartment whereby a current including the full volume of water from said restricted throat may be established through said compartment, means in the compartment for retarding the passage of fish therethrough with the current, and means adapted to coact with the retarding means for raising fish from the compartment.



3. A fishing device including a vessel having a compartment therein, a fishing net having a restricted discharge opening, means for establishing a direct current comprising the full volume of water from said restricted discharge opening through said compartment, means for retarding the passage of fish through the compartment with the current, and means for raising the fish from the compartment.

1,138,542. FISHING DEVICE. DAWSON CONEKIN, St. Petersburg, Fla. Filed Jan. 6, 1915. Serial No. 745. (Cl. 43—9.)



1. In a fishing device, the combination with a boat, of a pair of tubular outriggers pivotally connected to the boat at its prow, means for raising and lowering the outriggers at will, a net supported by the outriggers, a Y-joint forming a section of each outrigger and having a branch disposed in a diagonal line with respect to the path of the boat, a light carried by each of the Y-joints and disposed in the diagonal branches thereof, and transparent elements disposed in said branches to prevent entrance of water to the lights, and whereby said lights may direct their rays diagonally across the course of the vessel to merge in advance of the net, substantially as described.

2. The combination with a vessel, of a pair of outriggers pivotally supported near the prow thereof, means whereby said outriggers may be lowered and raised at will, a net supported by said outriggers, and lights carried by the outriggers near the outer ends thereof and adapted to direct their rays diagonally across the course of the vessel to meet in a light zone in advance of the net, substantially as described.

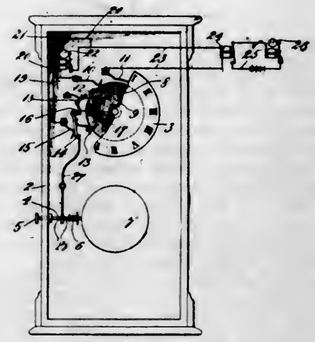
3. The combination with a vessel, of a tubular outrigger pivotally connected therewith, a net associated with the outrigger, an electric light bulb disposed in said outrigger, a transparent element disposed in the outrigger through which rays from said electric light bulb are adapted to pass, said outrigger being open at its inner end, and wires connected to a source of current and to said electric light bulb and passing through said tubular outriggers, substantially as described.

4. The combination with a vessel, of a pair of tubular outriggers having lights disposed therein and also having transparent elements through which the rays of said lights are adapted to pass, a net supported by the outriggers, said lights being disposed whereby to cast their rays toward each other and diagonally across the course of the vessel whereby to create a light zone in advance of the net.

5. The combination with outriggers and a net supported thereby, of a light carried by each of the outriggers, said lights adapted to project their rays diagonally across the path of the net whereby to create a light zone in advance of said net.

[Claim 6 not printed in the Gazette.]

1,138,543. SIGNALING APPARATUS. HERBERT C. DAVIS, New York, N. Y., and EVERETT D. CHADWICK, Winchester, Mass. Filed June 15, 1909. Serial No. 502,322. (Cl. 234—37.5.)



1. An apparatus of the character described, comprising an electric signaling circuit including a contact terminal, manually-operative means for breaking said circuit during a predetermined interval, and periodically-operating means for automatically resetting said circuit-breaking means at the beginning of said interval and for closing the signaling circuit at said contact terminal at the end of said interval.

2. An apparatus of the character described, comprising an electric signaling circuit which is normally open at two different points, periodically-operating means for automatically closing the circuit at said points at the beginning and end of a predetermined interval, respectively, and manually-operative means for breaking the circuit during said interval.

3. An apparatus of the character described, comprising an electric signaling circuit having two normally-open branches and signaling mechanisms included in said branches respectively, the common portion of said circuit being normally open at a different point, periodically-operating means for automatically closing said circuit at the latter point and for thereafter closing the branch circuits in succession at the ends of predetermined intervals; and manually-operative means for opening the common portion of said circuit during said intervals.

4. The combination with a watchman's clock of an electric signaling circuit, said circuit being normally open at two different points, means operated by the clock mechanism for periodically closing the circuit at said points successively, and a device adapted to be manually operated from the exterior of the clock for breaking said circuit during the intervening period.

5. The combination with a watchman's clock of a normally-open electric signaling circuit having two distinct contact terminals in series therein, means operated by the clock mechanism for closing the circuit through said terminals successively at periodic intervals, and means operative from the exterior of the clock for breaking the circuit through one of the terminals prior to the closing of the circuit through the other terminal.

[Claims 6 to 10 not printed in the Gazette.]

1,138,544. INNER TUBE FOR PNEUMATIC TIRES. CLARENCE L. DAWSON, Los Angeles, Cal. Filed Dec. 22, 1913. Serial No. 808,126. (Cl. 152—22.)



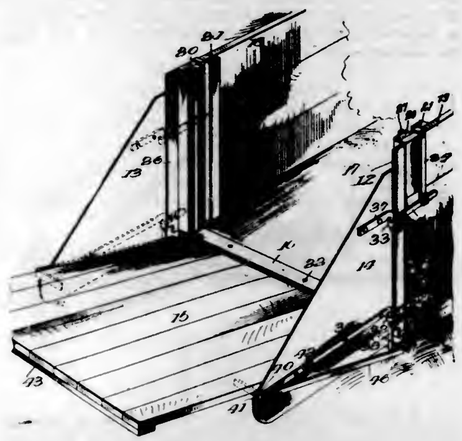
1. An inner tube for pneumatic tires, comprising the combination of an annular resilient tube, an annular resilient partition within the tube forming the inside of the tube into two equal circumferentially extending compartments, said partition consisting of a continuous strip of resilient material of a width approximately corrsponding to one-half the inner circumference of the tube and a reinforcing fabric on the partition adjacent its connection with the outer portion of the tube, said reinforcing fabric acting to normally maintain the outer portion of the wall approximately at right angles to the tube.

2. An inner tube for pneumatic tires, comprising an annular resilient tube, a central circumferentially extending partition wall in said tube, said wall formed of flexible material and of a width approximately that of one-half the transverse periphery of the tube, and protective fabric on the outer faces of the partition adjacent its juncture with the outer periphery of the tube and extending a distance on the partition wall corresponding to one-half the width of the tread.

1,138,545. SHOVEL-BOARD. ELBERT W. DENNIS, Beatrice, Nebr., assignor of one-half to John M. Anderson, Sweet Springs, Mo. Filed Oct. 21, 1913. Serial No. 796,485. (Cl. 21—21.)

1. In an end gate construction for wagons, a shovel plate and attaching plates adapted to be detachably secured to the bottom and sides of a wagon body, wings adapted for detachable hinged connection to the attaching plates, an end gate adapted to be supported by the shovel plate for swinging movement between the wings, but free from attachment to the shovel plate, attaching plates or wings, and means carried by the end gate and engaging the wings to prevent tilting of the lower end of the end gate when in open position.

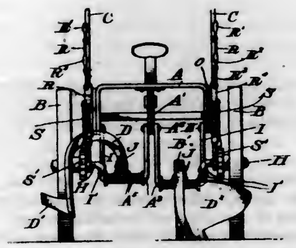
2. In an end gate construction, the combination with a wagon body having sides provided with spaced vertical cleats, of attaching plates engaging against the ends and inner faces of the sides, said attaching plates being fluted to seat between the cleats, hinge plates secured to the attaching plates and bearing by their forward ends against the outer faces of the sides of the wagon body, U-shaped members secured by their ends to certain of the hinge plates and to the attaching plates and bearing by their bight portions upon the upper edges of the sides of the wagon, wings having hinge plates operatively engaging the hinge plates of the attaching plates, and an end gate supported by the wings.



3. In an end gate construction, the combination with a wagon body, of a shovel plate extending rearwardly from the wagon body, an end gate swingingly supported at its lower edge upon the shovel plate and movable to vertical position, wings hingedly connected to the wagon body and adapted to fold inwardly across the rear face of the end gate, and means for automatically locking said wings in such position.

4. In an end gate construction, the combination with a wagon body having sides provided with vertical cleats, of attaching plates lockingly engaging the sides and cleats, hinge plates secured to the attaching plates and bearing against the outer faces of the sides of the wagon body, wings operatively connected to the hinge plates, and an end gate supported by and between the wings.

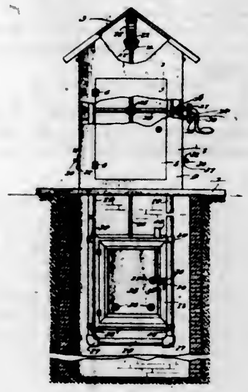
1,138,546. ATTACHMENT TO SULKY-PLOWS. PATRICK A. DOYLE, Copenhagen, N. Y. Filed July 22, 1914. Serial No. 852,449. (Cl. 97—36.)



In combination with a sulky plow having drop axles with wheels journaled thereon, a plow secured to one of said axles, bearing plates secured to the other axle, an L-shaped member secured to one of said bearing plates, a subsoiler beam having a shank portion which is straight a portion of its length, engaging said L-shaped plate and fastened thereto and curved rearwardly of its point of connection with the plate and extending downwardly in the rear of the adjacent wheel of the beam, a subsoiler projecting laterally from the lower end of the beam and positioned in the furrow in which the adjacent wheel moves, and means for raising and lowering the drop axles.

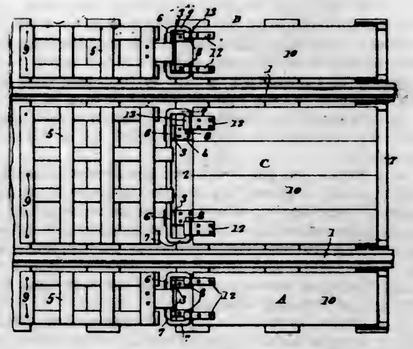
1,138,547. COLD-STORAGE-WELL SYSTEM. FRANK M. DUNN and ROLLIE G. KROH, Newton, Iowa. Filed Apr. 14, 1914. Serial No. 831,821. (Cl. 187—3.)

In apparatus of the class described a structure at the mouth of a well, tubular guides extending down into the well and having elbows at their upper ends, screw plugs in the uper ends of the elbows, bolts extending through the walls of the structure and engaging said screw plugs, adjusting bolts also connecting the tubular guides to the walls of the structure, a cross bar connecting the lower



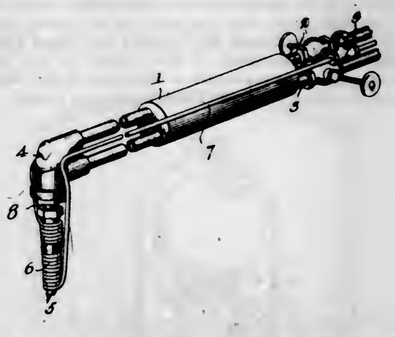
ends of the guides, a safe arranged between and slidably connected to the guides for vertical movement, and means to raise and lower the safe.

1,138,548. CATTLE-GUARD. BARTON ESTES, Seattle, and EDGAR B. ROBINSON, Houghton, Wash. Filed Sept. 24, 1913. Serial No. 791,618. (Cl. 39—42.)



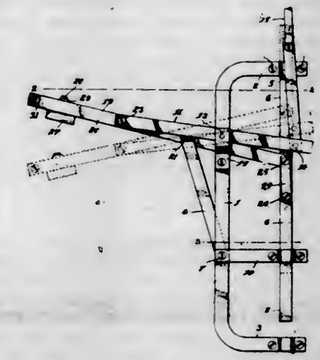
A cattle guard comprising a hinged gate having a hinge rod extending along the bottom edge thereof and fastened rigidly thereto, the end portions of said rod being bent at the corners of the gate and extended at right angles away from the gate to form crank arms, the ends of the latter being extended toward each other to form pintles, supporting stirrups for said hinge rod having sockets open on top in which said rod is placed adapting the connected gate and platform to be lifted out of position without disturbing said stirrups, a depressible platform having fixedly attached eyes receiving said pintles, and a roller carried by said platform and journaled in bearings secured to the bottom face of said platform.

1,138,549. TORCH. JAMES SHERIDAN FREDERICKSON, Vallejo, Cal. Filed July 17, 1914. Serial No. 851,610. (Cl. 158—109.)



In a torch, a burner tip, a cooling coil removably surrounding the tip and held in position thereon by expansion of the tip when in operation, supply and discharge pipes connected to the coil, and means for controlling the supply of cooling fluid to the coil.

1,138,550. STROKE-REGULATOR FOR WINDMILL-PUMPS. ALVA E. GAULT, Eustis, Nebr. Filed Oct. 21, 1914. Serial No. 867,832. (Cl. 74—5.)



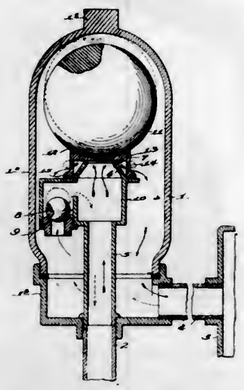
1. In a stroke regulating apparatus of the class described, the combination of a frame, a lever fulcrumed thereto, a reciprocating element connected to said lever, a second lever connected to the first named lever for operation thereby, a second reciprocating element connected to the second lever, a shiftable fulcrum for the second lever, and a weight on the second lever to counteract the force of the down stroke of the first named lever.

2. In a stroke regulating apparatus of the class described, the combination of a frame, a lever fulcrumed thereto, a reciprocating element connected to said lever, a second lever connected to the first named lever for operation thereby, a second reciprocating element connected to the second lever, a shiftable fulcrum for the second lever, and a weight carried by and shiftable on the second lever to counteract the force of the down stroke of the first named lever.

1,138,551. RELIEF-VALVE. EDMUND F. GEBHARDT, Easton, Pa. Filed June 12, 1913. Serial No. 773,289. (Cl. 137—53.)

1. A relief valve organization comprising a casing having separate inlet and outlet connections, a pipe within said casing forming a continuation of the inlet connection and having at its upper end a valve seat which func-

tions as an outlet into said casing, a main valve normally closing the outlet at the upper end of said pipe and being positively centered with relation to said seat, the main valve having a concave upper face, and a spherical weight resting upon the main valve and conformably seating upon said concave upper face, the width of the casing being so selected that the weight has normally no contact with the casing and displacement of said weight in any lateral direction as far as the center of said valve is prevented by the wall of the casing which surrounds said weight.



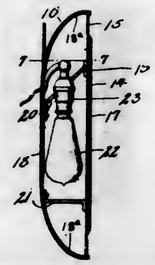
2. A relief valve organization comprising a casing having separate inlet and outlet connections, a pipe within said casing forming a continuation of the inlet connection and having at its upper end a valve seat which functions as an outlet into said casing, a main valve normally closing the outlet at the upper end of said pipe and being positively centered with relation to said seat, and a spherical weight resting upon the main valve, the width of the casing being so selected that the weight has normally no contact with the casing and displacement of said weight in any lateral direction as far as the center of said valve is prevented by the wall of the casing which surrounds the said weight.

3. A relief valve organization comprising a casing having separate inlet and outlet connections, a pipe within said casing forming a continuation of the inlet connection and having at its upper end a valve seat which functions as an outlet into said casing, a main valve normally closing the outlet at the upper end of said pipe and being positively centered with relation to said seat, and a spherical weight resting upon the main valve, the width of the casing being so selected that the weight has normally no contact with the casing and displacement of said weight in any lateral direction as far as the center of said valve is prevented by the wall of the casing which surrounds said weight, said valve seat consisting of a flange formed as a truncated cone and the said valve engaging said flange with its under face and having an extension surrounding the flange and adapted to engage upon the upper face of said pipe.

4. A relief valve organization comprising a casing having separate inlet and outlet connections, a pipe within said casing forming a continuation of the inlet connection and having at its upper end a valve seat which functions as an outlet into said casing, a main valve normally closing the outlet at the upper end of said pipe and being positively centered with relation to said seat, the main valve having a concave upper face, and a spherical weight resting upon the main valve and conformably seating upon said concave upper face, the width of the casing being so selected that the weight has normally no contact with the casing and displacement of said weight in any lateral direction as far as the center of said valve is prevented by the wall of the casing which surrounds said weight, said valve seat consisting of a flange formed as a truncated cone and the said valve engaging said flange with its under face and having an extension surrounding the flange and adapted to engage upon the upper face of said pipe.

5. A relief valve organization comprising a casing having separate inlet and outlet connections, a pipe within said casing forming a continuation of the inlet connection and having at its upper end a valve seat which functions as an outlet into said casing, a main valve normally closing the outlet at the upper end of said pipe and being centered with relation to said seat, and a spherical weight acting upon the main valve to hold the latter against its seat, the width of the casing being so selected that the weight has normally no contact with the casing and the displacement of said weight in any lateral direction as far as the center of said valve is prevented by the wall of the casing which surrounds said weight.

1,138,552. ILLUMINATING-MIRROR. WILFRED B. GODDARD, Cleveland, Ohio. Filed Mar. 13, 1914. Serial No. 824,502. (Cl. 240—4.)



1. A device of the character described comprising a mirror, and an illuminator forming with said mirror complemental parts of the device, said illuminator including a casing having a concealed source of light therein, a light transmitting surface of mat tint or color, and means for reflecting through said surface and from said concealed source a light so related in tone to the tone of said surface as to produce a soft, mellow light for reflection upon the object to be viewed in the mirror.

2. A device of the character described comprising a mirror, an associated light transmitting surface of a mat tone or color, a casing carrying said mirror and surface, and a lamp concealed within said casing and arranged to emit a light to be transmitted by said surface, said lamp being of a character to emit rays so related in tone to the color of the transmitting surface as to produce a soft, mellow light for reflection against the object to be viewed in the mirror.

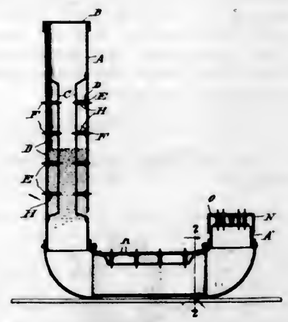
3. A device of the character described comprising a mirror, a light transmitting or diffusing element associated therewith and having a mat tone or color, a casing supporting the mirror and light transmitting and diffusing element and provided with a reflecting surface, and a lamp concealed within said casing and provided with a bulb complemental in tone to the tone of the said light transmitting and diffusing element.

4. A device of the character described comprising a mirror, a light transmitting element of a mat color associated with the mirror, a transparent or translucent casing carrying said mirror and transmitting element, said casing being provided with a reflecting surface, and a lamp concealed within the casing and adapted to produce a light complemental in color tone to the transmitting element.

5. A device of the character described comprising a mirror having a reflecting surface at the back thereof, a transparent or translucent light-transmitting surface surrounding the mirror, said surface being of mat color, a casing carrying the mirror and transmitting surface and provided with a reflecting surface opposite the back reflecting surfaces of the mirror, and a lamp arranged within the casing between said reflecting surfaces.

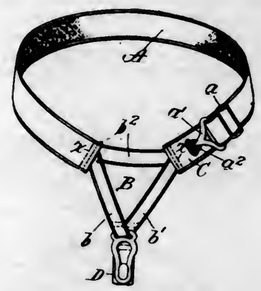
[Claims 6 to 26 not printed in the Gazette.]

1,138,553. RUBBING-POST. CHARLES GOEDEN, Fordyce, Nebr. Filed Oct. 9, 1914. Serial No. 865,882. (Cl. 119—157.)



A dipping post comprising a stand pipe communicating at its lower end with a laterally extending reservoir terminating in an upwardly extending capped end which is apertured, valves regulating the apertures in the capped end, the stems of the valves projecting through the apertures, said stand pipe adapted to contain liquid under pressure which, when the valves in the cap are opened, will flow through the apertured cap, said stand pipe and laterally extending portion being provided with apertures, and stemmed valves regulating the same.

1,138,554. GARTER. GEORGE B. GLIDDEN, Dighton, Mass., assignor to George Frost Company, Boston, Mass. Filed Aug. 24, 1914. Serial No. 858,229. (Cl. 241—6.)



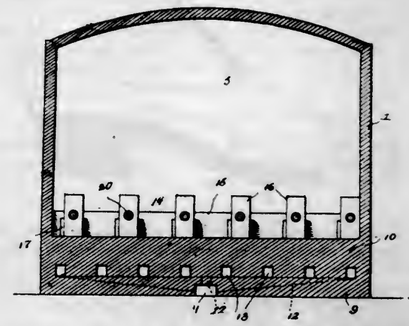
1. A garter comprising a tubular leg-band, a tubular tab, a clasp and a clasp-suspending device comprising a plurality of narrow tapes having two end portions inserted into the end of the leg band and secured thereto by stitching and two end portions inserted into the end of the tab and secured thereto by stitching.

2. A garter comprising a tubular leg-band, a tubular tab, a clasp and a clasp-suspending device comprising narrow tape members converging toward the clasp and connected therewith and which have their upper outer end portions on opposite sides of the clasp inserted into the ends of the leg-band and tab and stitched thereto.

3. A garter comprising a tubular leg-band, a tubular tab and a triangular clasp-suspending device comprising a a tape having its ends inserted into the ends of the leg-band and tab, and two narrow diagonally arranged tape members having their upper ends inserted into the ends of the tab and leg-band and secured thereto and which are attached at their lower ends to a clasp.

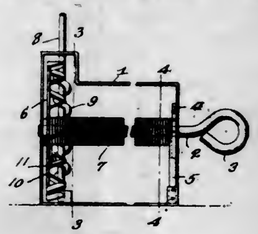
4. A garter, comprising a tubular leg-band, a tubular tab, and a triangular clasp-suspending device, comprising a tape of elastic material having its ends inserted into the ends of the leg-band and tab, and two narrow diagonally arranged tape members having their upper ends inserted into the ends of the tab and leg-band and secured thereto and which are attached at their lower ends to a clasp.

1,138,555. HOT-MILL FURNACE. OLIVER B. GOLDING, Elwood, Ind. Filed June 30, 1914. Serial No. 848,267. (Cl. 75—40.)



In a furnace of the class described a bottom comprising a floor having a longitudinal clean-out channel and vertical openings communicating therewith, spaced walls on the said floor and on opposite sides of said vertical openings, fire bricks on said spaced walls and cast iron bricks also on said spaced walls and arranged alternately with and extending above the fire bricks.

1,138,556. MOTOR FOR TOYS. PHILIP J. GREAVER, New York, N. Y., assignor to B. Z. Toy Mfg. Co., Inc., New York, N. Y., a Corporation of New York. Filed Nov. 27, 1914. Serial No. 874,279. (Cl. 185—37.)

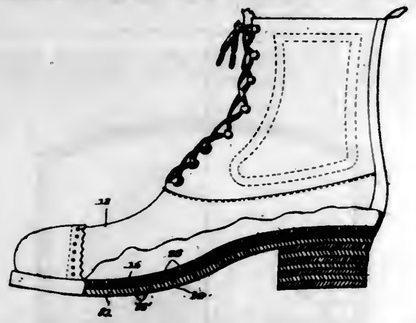


1. A motor comprising a frame, a shaft journaled upon the frame, a worm carried by the shaft, a spring actuated wheel journaled for rotation upon the frame and having peripheral teeth provided at an edge with outstanding lips disposed at an obtuse angle to the plane of the wheel the said teeth and lips adapted to engage the convolutions of the worm.

2. A motor comprising a frame, a shaft journaled thereon, a rod spirally wound upon the shaft and secured thereto and constituting a worm, a spring actuated wheel journaled upon the frame and having peripheral teeth provided at an edge with lips adapted to encounter the convolutions of the worm.

3. A motor comprising a frame, a shaft journaled thereon, a worm carried by the shaft, another shaft journaled upon the frame, a ratchet wheel attached to the last mentioned shaft, a spring pawl mounted upon the frame and engageable with the ratchet wheel, a worm wheel loosely mounted upon the last mentioned shaft, a spring wound about the last mentioned shaft and connected at one end with the ratchet wheel and at its other end with the worm wheel, the said worm wheel having peripheral teeth provided at an edge with outstanding lips disposed at an obtuse angle to the plane of the wheel and the said teeth and lips adapted to engage the convolutions of the worm.

1,138,557. SHOE. FRANK GUSTAVESON, Wabasha, Minn. Filed Sept. 9, 1914. Serial No. 860,906. (Cl. 36—3.)



The combination, in a shoe, of an outer sole, an inner sole perforated throughout the body thereof, and a flexible elastic air containing filler between said soles, said filler comprising a body of felt having perforations therein registering with the perforations in the inner sole.

1,138,558. MOLDING APPARATUS. ADOLOR HAMEL, Chicago, Ill., assignor of one-half to Walter W. Fulton, Chicago, Ill. Filed Feb. 16, 1911. Serial No. 609,034. (Cl. 25—131.)



1. A molding apparatus of the class set forth, embodying mold sections having outwardly extending flexible sheet metal flanges at their meeting edges, the outer face of these flanges being shaped to form channels extending along the flanges, and a series of clamping devices connecting said channel flanges at intervals, each of these devices consisting of a pair of elongated clamping bars slidably engaging the channels, each pair of said bars carrying means for removably clamping them upon said flanges at any desired point.

2. A molding apparatus of the class set forth, embodying mold sections having outwardly extending flexible sheet metal flanges at their meeting edges, the outer face of these flanges being shaped to form channels extending along the flanges, and a series of clamping devices connecting said channel flanges at intervals, each of these devices consisting of a pair of elongated clamping bars slidably engaging the channels, each pair of said bars carrying means for removably clamping them upon said flanges at any desired point, said means including a plurality of separately adjustable connections between the members of each pair of bars.

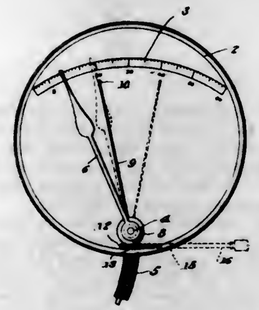
3. A molding apparatus of the class set forth, embodying mold sections having outwardly extending flexible sheet metal flanges at their meeting edges, the outer face of these flanges being shaped to form channels extending along the flanges, and a series of clamping devices connecting said channel flanges at intervals, each of these devices consisting of a pair of elongated clamping bars slidably engaging the channels, each pair of said bars carrying means for removably clamping them upon said flanges at any desired point, said means including arms rigid with said bars, and a plurality of separately adjustable connections between said arms.

1,138,559. TIRE-ARMOR. GEORGE W. HARDY, Baltimore, Md. Filed Feb. 4, 1914. Serial No. 816,413. (Cl. 152—16.)



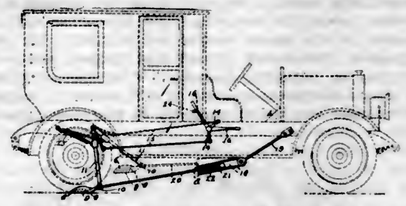
In tire armor, a transversely arched tread-covering section, integral arms at opposite sides of said section, extension arms having a jointed connection with the first named arms, extending toward the center of the wheel and formed with longitudinal slots, a hasp hinged to the inner extremity of one of said arms, means for fastening said hasp to the extremity of the other arm, and cushioning means supported by said hasp adapted to bear against a wheel felly and guided by said slots, said cushioning means embodying a cross head having its extremities slidable in said slots, a radially extending guide stem, an expansion spring encircling said stem and interposed between said cross head and hasp, and means for clamping the ends of said cross head temporarily in fixed relation to said extension arms.

1,138,560. AUTOMATIC SPEED CONTROL FOR VEHICLES. ARMIN G. HELFER, New York, N. Y. Filed Sept. 12, 1913. Serial No. 789,576. (Cl. 177—10.)



An indicator comprising a casing, a worm wheel journaled therein, a finger movably mounted, a stop fixed to the worm wheel at the edge thereof and having an end portion lying in the path of movement of the finger, bearings mounted in the casing, a worm journaled in the bearings and engaging the worm wheel at a point opposite the stop, said worm having an extension located within the casing and adapted to be engaged by a key for turning the same, said casing having an opening opposite the end of said extension through which the key may be inserted for engagement with the extension.

1,138,561. VEHICLE-BRAKE. ARMIN G. HELFER, New York, N. Y. Filed Sept. 16, 1913. Serial No. 790,079. (Cl. 21—8.)



In combination with a wheel mounted vehicle, a brake comprising a rod journaled to the body of the vehicle, a lever fixed to the rod, a bell crank lever fulcrumed to the body of the vehicle and so arranged that its working end swings from a point above to a point below, and vice versa, the fulcrum point of the said bell crank lever when the said lever is swung, means operatively connecting the free end of the first mentioned lever with the working end of the bell crank lever, an arm fixed to said rod, a shoe carried by the arm and adapted to pass under the wheel of the vehicle when the rod is turned, a spring connected at one end with the arm and at its other end with the body of the vehicle and being under tension to normally hold the shoe toward the wheel, a shock absorber including relatively movable members one of which is connected with the body of the vehicle and the other connected with the free end portion of the arm and a spring engaging both of said members and being under tension with a tendency to draw the shoe away from the wheel.

1,138,562. MEDICINE-BOX. JOHN HERBOLDT, Woodside, Idaho. Filed Dec. 1, 1913. Serial No. 804,080. (Cl. 206—42.)



1. A box including a body portion, a lid, locking means therefor, a supplemental head secured within the lid, a coil spring having one extremity threaded through said supplemental head near the periphery thereof and conforming thereto, a hook formed at the extremity of said spring and engaging said head, and a plunger carried at the opposite end of said spring and adapted to be received within the body portion of the box.

2. A box including a body portion, a lid, locking means therefor, a spring pressed plunger carried within the box, said plunger including a head portion having in its periphery a series of spaced outwardly facing V-shaped incisions defining intermediate tongues, and a padding carried by said plunger and retained in position thereon by engagement with said tongues.

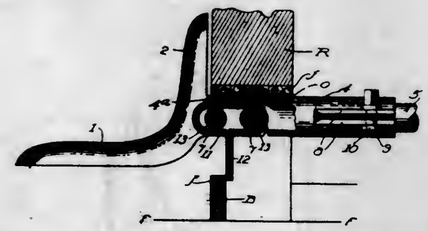
3. A box including a body portion, a lid, locking means therefor, a spring pressed plunger carried within the box, said plunger including a head portion, a padding carried by the plunger, and securing tongues formed from the head portion and engaging the padding.

4. A box including a body portion, a lid, locking means therefor, a spring secured within the lid, a plunger carried at the outer extremity of said spring and adapted to be received within the body portion of the box, and a loop formed in said spring at the point of entering said plunger, the bight portion of said loop lying against the upper face thereof and forming a bearing surface for the spring.

5. A box including a body portion, a lid, locking means therefor, a plunger, a coil spring arranged within the lid and having its outer extremity threaded into the plunger near the periphery thereof and conforming thereto, said plunger being adapted to be received within the body portion of the box, and a hook formed at the terminal of the spring for engagement with the plunger, said hook being positioned substantially diametrically opposite the point where the spring enters said plunger.

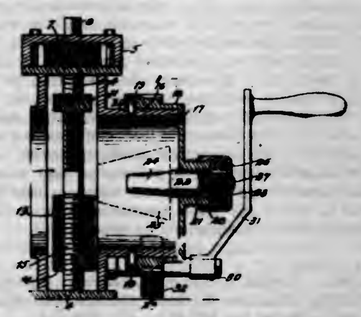
[Claim 6 not printed in the Gazette.]

1,138,563. PEDAL. OTTO HIGEL, Toronto, Ontario, Canada. Filed July 29, 1914. Serial No. 853,916. (Cl. 84—24.)



A pedal for upright pianos, comprising in combination a main tread portion having rearwardly extending ears, a hollow sleeve member, and a depending guard plate, one end of said sleeve and a portion of said guard plate being nested one within the other and rigidly secured between said rearwardly extending ears, the opposite end of said hollow sleeve being formed with opposite perforated lobe portions separated apart and an adjustable coupling member passing therethrough whereby said sleeve is adapted to be clamped on the main transmitting rod, substantially as described.

1,138,564. PIPE-REAMING MACHINE. HENRY HILLEGASS, Houghton, Mich. Filed May 19, 1914. Serial No. 839,576. (Cl. 77—73.)



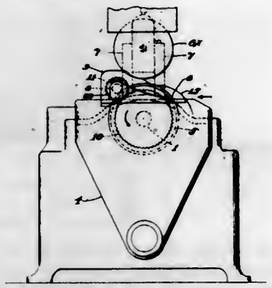
1. A reaming machine including a frame, chuck jaws mounted in a portion thereof, means for moving said chuck jaws toward and from each other, a reamer shaft mounted for sliding and rotating movement in the frame, a nut secured to said shaft and having threaded connection with a portion of the frame, a reamer mounted in the shaft, and means for rotating the shaft.

2. A reaming machine including a frame, opposing chuck jaws operable in one portion of the frame, a cylindrical frame extension, an operating member rotatably mounted in said extension, means for rotating said member, a hub projecting from the member, a reamer shaft mounted for longitudinal movement in the hub, and a cap

having rotatable connection with the shaft and threaded connection with the hub.

3. A reaming machine comprising a frame, opposing chuck jaws operable in one portion of the frame, a cylindrical frame extension forming a bearing section, a plate disposed adjacent said bearing section, an annular flange on the plate overlying the bearing section, and adapted to rotate thereon, rollers carried by the flange adapted to be seated in recesses in the bearing section and forming a connection between the flange and the bearing section, means for rotating the plate and the annular flange, a hub projecting from the plate, a reamer shaft mounted for longitudinal movement in the hub, and a cap having threaded connection with the hub.

1,138,565. CEMENTING-MACHINE. HIRAM HOLDEN, Manchester, N. H. Filed May 23, 1914. Serial No. 840,595. (Cl. 91—51.)



1. A cement applying machine comprising in combination a cement reservoir, a cementing wheel rotating in one direction, a small cylindrical member rotating in the opposite direction and located in proximity to the periphery of the cementing wheel for returning the cement to the reservoir, and stationary means surrounding said member for returning the waste cement to said reservoir, substantially as described.

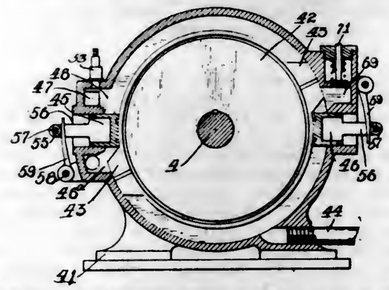
2. A cement applying machine comprising in combination, a reservoir, a cementing wheel rotating in one direction, a cement returning member rotating in the opposite direction and comprising a horizontally disposed cylindrical shaft having a pair of inwardly inclined beveled flanges one arranged opposite either edge of the cementing wheel, and a central intermediate annular flange between said beveled end flanges, substantially as described.

3. A cement applying machine comprising in combination, a reservoir, a cementing wheel rotating in one direction, a cement returning member rotating in the opposite direction and comprising a cylindrical shaft having suitable flanges formed thereon and mounted with its axis parallel to the axis of the cementing wheel, a coiled wire member surrounding a portion of said cement returning member and held against rotation, said member adapted to direct any waste cement escaping toward the cementing wheel, substantially as described.

1,138,566. ROTARY HYDROCARBON EXPLOSIVE-ENGINE. CHARLES W. HORN, Chicago, Ill. Filed Nov. 13, 1911. Serial No. 659,921. (Cl. 123—14.)

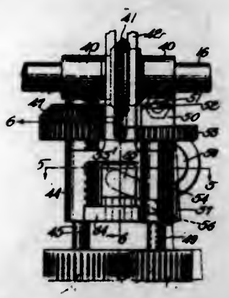
1. In a device of the class described, a power cylinder, a power head revoluble therein, fixed and rigid pistons diametrically opposite thereon and fitting in the cylinder, diametrically opposite disposed abutments in said cylinder, means for retracting said abutments with the approach of the power piston and returning the same to position immediately behind said pistons, means for supplying an explosive charge for compression between one of said abutments and one of said pistons, a cam actuated valve permitting a transfer of the mixture to the other side of said abutment when compressed by the movement of said piston and an igniter in the transfer passage.

2. In a device of the class described, a power cylinder, a power head revoluble therein, fixed and rigid pistons diametrically opposite thereon and fitting in the cylinder, diametrically opposite disposed abutments in said power cylinder, means for retracting said abutments with the approach of the power piston and returning the same to position immediately behind said pistons, means for supplying an explosive charge for compression between one of said abutments and one of said pistons, a compression cylinder and piston auxiliary to said power pistons



for augmenting the compression of said charge when delivered thereto, a cam actuated valve permitting a transfer of mixture to the other side of said abutment when further compressed by said auxiliary cylinder and piston and an igniter in the passage between the compression cylinder and the power cylinder.

1,138,567. FEEDING MECHANISM FOR CARDING-MACHINES. JOSEPH B. HOWE, Worcester, Mass., assignor to Sydney Harwood, Newton, Mass., and John H. Harwood, Brookline, Mass., Copartners doing business under the firm-name of George S. Harwood & Son, Boston, Mass. Filed June 4, 1914. Serial No. 843,053. (Cl. 19—7.)



1. In a feeding mechanism for carding machines, a traveler body, a pair of feed rolls rotatably supported by the traveler body and separable from each other, and a pair of intermeshing gears adapted to actuate said feed rolls, the range of movement of separation of said feed rolls being greater than the range of movement of separation of said gears whereby a relatively wide separation of the feed rolls may be had without withdrawing the gears from mesh.

2. In a feeding mechanism for carding machines, a traveler body, two rotary shafts carried by said body and provided with intermeshing gears, a reed roll on each shaft, said shafts and their feed rolls and gears being bodily separable one from the other and the range of movement of separation of the ends of said shafts carrying the feed rolls being greater than the range of movement of separation of the ends of said shafts carrying the gears, whereby a relatively wide separation of the feed rolls may be had without withdrawing the gears from mesh.

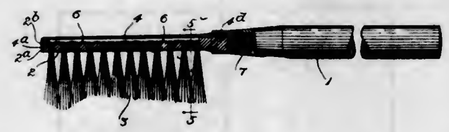
3. In a feeding mechanism for carding machines, a traveler body, a vertical rotary shaft journaled on said traveler body, a feed roll at the lower end of said shaft and a gear at the upper end of said shaft, a second rotary shaft, pivotal connection between the upper end of the second rotary shaft and the traveler body adapted to permit the shaft to be swung on its pivot in a vertical plane toward and away from the first shaft, a feed roll at the lower end of the second shaft and a gear at the upper end of the second shaft in mesh with the gear on the shaft journaled on the traveler body, whereby when the two shafts are swung apart the movement of separation of the feed rolls will be greater than that of the intermeshing gears, thus admitting of a relatively wide separation of the feed rolls without withdrawing the gears from mesh.

4. In a feeding mechanism for carding machines, a traveler body, a vertical rotary shaft journaled on said traveler-body, a feed roll at the lower end of said shaft and a gear at the upper end of said shaft, a second rotary shaft, pivotal connection between the upper end of the second rotary shaft and the traveler body adapted to permit the shaft to be swung on its pivot in a vertical plane toward and away from the first shaft, a feed roll at the lower end of the second shaft and a gear at the upper end of the second shaft in mesh with the gear on the shaft journaled on the traveler body, whereby when the two shafts are swung apart the movement of separation of the feed rolls will be greater than that of the intermeshing gears, thus admitting of a relatively wide separation of the feed rolls without withdrawing the gears from mesh, and means adapted yieldingly to urge the feed rolls toward each other.

5. In a feeding mechanism for carding machines, a traveler body, a vertical rotary shaft journaled on said traveler body, a feed roll at the lower end of said shaft and a gear at the upper end of said shaft, a second rotary shaft, pivotal connection between the upper end of the second rotary shaft and the traveler body adapted to permit the shaft to be swung on its pivot in a vertical plane toward and away from the first shaft, a feed roll at the lower end of the second shaft and a gear at the upper end of the second shaft in mesh with the gear on the shaft journaled on the traveler body, whereby when the two shafts are swung apart the movement of separation of the feed rolls will be greater than that of the intermeshing gears, thus admitting of a relatively wide separation of the feed rolls without withdrawing the gears from mesh, a spring adapted yieldingly to urge the feed rolls toward each other, and means to vary the tension of said spring.

[Claims 6 to 17 not printed in the Gazette.]

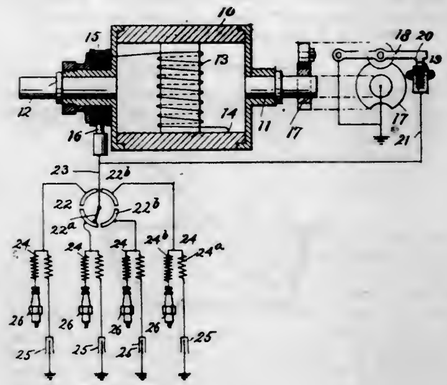
1,138,568. TOOTH-BRUSH. EDGAR G. HUBBEL, Winthrop, Mass. Filed Dec. 2, 1912. Serial No. 734,453. (Cl. 15—39.)



1. In a brush, in combination, a bristle-block having a projecting stem and a vertical outer edge with a projecting flange or shoulder, a backing or cover having a vertical flange which embraces said vertical edge of the bristle-block, with the lower edge of said flange concealed and protected by said projecting flange or shoulder, said backing or cover having a lug, and a handle having a socket in which said stem and lug are removably received and secured.

2. In a brush, in combination, a bristle-block having a projecting stem and a plain outer edge with an outwardly projecting flange forming a shoulder, a backing or cover having a plain flange which embraces said plain outer edge of the bristle-block, with its lower edge concealed and protected by the said shoulder, said backing or cover having a lug, means engaging the said backing or cover to hold the same in place upon the bristle-block, and a handle engaging said stem and lug to combine and connect the parts.

1,138,569. IGNITION SYSTEM. DOW B. HUGHES, Cleveland, Ohio, assignor to The Citizens Savings and Trust Company, trustee, Cleveland, Ohio, a Corporation of Ohio. Filed Apr. 27, 1910. Serial No. 557,880. Renewed Sept. 25, 1914. Serial No. 863,550. (Cl. 123—148.)



1. In an ignition system, a plurality of spark plugs, a source of current, a distributer having its movable member connected to said source of current, a disruptive discharge coil and a condenser for each spark plug, each of the stationary members of the distributer being connected to a spark plug, to a disruptive discharge coil, and to a condenser, and a make and break device coöperating with said source of current, the condensers being connected to the distributer in series relation with the primaries of the different coils, and the spark plugs and secondaries being connected through the distributer to the source of current independently of the condensers and of the make and break device.

2. In an ignition system, a source of current, means for making and breaking a short circuit about said source of current, a distributer having its movable member connected to said source of current, a plurality of spark plugs, a disruptive discharge coil and a condenser for each spark plug, each of the stationary members of the distributer being connected to a condenser and to a primary of a disruptive discharge coil in series relation, and being connected to a spark plug and to the secondary of the disruptive discharge coil, the secondary and spark plug being in series relation.

3. In an ignition system, a magnet having an armature winding, means for making and breaking a short circuit about the armature winding, a distributer having its movable member connected to the winding, and a disruptive discharge coil and condenser for each spark plug, each of the stationary members of the distributer being connected to a spark plug and to the secondary of a disruptive discharge coil in series relation and being also connected to the primary of the coil and to a condenser in series relation.

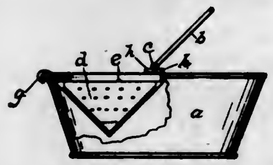
4. In an ignition system, a magneto having an armature winding, one end of which is grounded, a distributer having a movable member connected to the opposite end of the winding, a make and break device for making and breaking a short circuit about the armature winding, a plurality of spark plugs, a disruptive discharge coil and a condenser for each spark plug, each of the stationary members of the distributer being connected to ground through the primary of a disruptive discharge coil and

condenser, and each being connected to a spark plug through the secondary of the disruptive discharge coil.

5. In an ignition system, a magneto having an armature winding, one end of which is grounded, a distributer having its movable member connected to the armature winding, a plurality of spark plugs, a disruptive discharge coil and a condenser for each spark plug, each of the stationary members of the distributer being connected to ground through a condenser and a primary of a disruptive discharge coil, and being connected to ground through the secondary of the coil and through a spark plug, the condenser and primary being in series relation and being in shunt to the secondary and the spark plug which are in series relation, and means for making and breaking a short circuit about the armature winding.

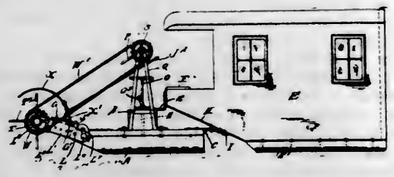
[Claims 6 to 8 not printed in the Gazette.]

1,138,570. MOP-WRINGER. GEORGE HUMPHRIES, Boston, Mass. Filed Sept. 8, 1914. Serial No. 860,504. (Cl. 15—12.)



As an improved article of manufacture, a mop wringer comprising a perforated cone-shaped member, a plate portion from which said member depends, said plate being provided at one end with a hook to engage over the upper edge of a receptacle, and at the opposite ends at the corners with oppositely located hooks having portions to engage over the sides of the receptacle, and portions at substantially right angles thereto to loop around the ears of a receptacle.

1,138,571. WATER-CYCLE. JOHN JONES, Bokhoma, Okla. Filed Sept. 29, 1914. Serial No. 864,112. (Cl. 115—23.)



1. A water cycle comprising a car having the forward end thereof undercut and provided with horizontally disposed guide strips projecting from the bottom thereof, a bracket arm fixed to the undercut portion of the car, buoyant runners, a crosspiece connecting the same, an angled bar fastened to the forward end of the car and to which said crosspiece is pivotally connected, a curved plate fastened to the runners and guided between the wall of the undercut portion of the car and said bracket member, and means for propelling the apparatus.

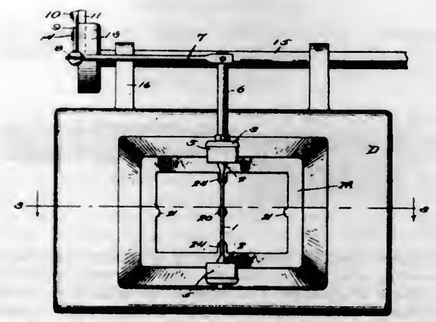
2. A water cycle comprising a car having the forward end thereof undercut and provided with horizontally disposed guide strips projecting from the bottom thereof, a bracket arm fixed to the undercut portion of the car, buoyant runners, a crosspiece connecting the same, an angled bar fastened to the forward end of the car and to which said crosspiece is pivotally connected, a curved plate fastened to the runners and guided between the wall of the undercut portion of the car and said bracket member, adjustably mounted slotted plates fastened to the forward ends of the runners, propellers mounted upon said slotted plates, and means for driving the propellers.

1,138,572. WRENCH. WILLIAM KAYLOR, Muskogee, Okla. Filed Oct. 26, 1914. Serial No. 868,707. (Cl. 81—119.)



A wrench including a one-piece head having laterally spaced jaws with a hexagonal nut engaging socket therebetween, said socket comprising two flat converging nut facet engaging faces running parallel and of equal length to two of the faces of the nut to be engaged, one of the spaced jaws having a flat inner face one and one-half times as long as one facet of the nut, the lower end of said jaw converging with the outer end of the adjacent facet engaging face of the socket, a stop one-half the length of the facet of the nut, extending parallel with the facet and projecting from the outer end of said jaw, the other spaced jaw being parallel with the first-named jaw and having a flat inner face one-half the length of the facet of the nut, the inner end of said face converging with the outer end of the adjacent facet engaging face of the socket, and the other end projecting obliquely outward from the face, whereby the various inner faces of the wrench are parallel with the facets of the hexagonal nut, and one face of said wrench being one and one-half times longer than the facet of the nut and its opposite parallel face being one-half the length of the opposite parallel facet of the nut substantially as described and for the purpose set forth.

1,138,573. BRICK-DIE. CHARLES C. KEETY, Watsontown, Pa. Filed June 17, 1914. Serial No. 845,688. (Cl. 25—105.)



1. In a brick machine, the combination with the die through whose mouth a clay column is ejected; of an upright knife movably mounted across said mouth, and means for rocking the knife on its own axis.

2. In a brick machine, the combination with the die through whose mouth a clay column is ejected; of supports above and below said mouth and having transverse slots, an upright knife movably mounted in said slots, and means for rocking the knife on its own axis.

3. In a brick machine, the combination with the die through whose mouth a clay column is ejected; of supports above and below said mouth and having transverse slots, journal boxes slidably mounted in said slots, an upright knife rounded above and below its blade and having its rounded portions mounted in said boxes, and means for rocking the knife on its own axis.

4. In a brick machine, the combination with the die through whose mouth a clay column is ejected; of supports above and below said mouth and having transverse slots, journal boxes slidably mounted in said slots, an upright knife rounded above and below its blade and having its rounded portions mounted in said boxes, a lever projecting from the upper end of the knife, and a reciprocating mechanism for said lever connected with a moving part of the column-forming machine.

5. In a brick machine, the combination with the die through whose mouth a clay column is ejected; of supports above and below said mouth and having transverse slots, journal boxes slidably mounted in said slots, an upright knife rounded above and below its blade and having its rounded portions mounted in said boxes, a shaft connected with the column-forming mechanism, a wheel fast on said shaft and having a radial groove, a block adjustably mounted in said groove and carrying a wrist-pin, a lever fast on the upper end of said knife, and connections between said lever and wrist-pin.

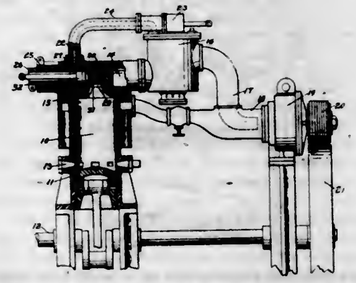
[Claims 6 to 10 not printed in the Gazette.]

1,138,574. NUT AND BOLT LOCK. O'DELL KING, THOMAS HALSEY FOX, and JAMES LARENCE ORR KING, Sandy Springs, S. C. Filed Dec. 21, 1914. Serial No. 878,325. (Cl. 151—16.)



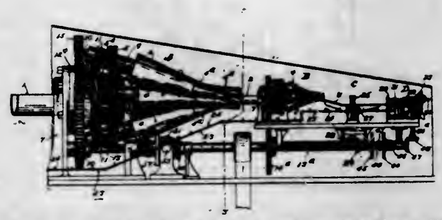
In combination with a bolt having a head and a circumferentially threaded shank portion, said bolt being hollow and the wall interiorly threaded, a nut fitted over the circumferentially threaded part of the bolt and having a shoulder which is circumferentially threaded, a nut having an integral screw projecting therefrom for engagement with the interior threads of the bolt, and a head with a flange interiorly threaded and adapted to fit over the threaded shoulder of said nut.

1,138,575. INTERNAL-COMBUSTION ENGINE. FRANK J. C. F. KNAAK, New York, N. Y., assignor of one-half to Joseph H. MacDonald, New York, N. Y. Original application filed Feb. 13, 1911, Serial No. 608,189. Divided and this application filed May 13, 1913. Serial No. 767,487. (Cl. 123—34.)



The method of operating an oil engine consisting in heating the oil to a temperature at which the lighter constituents would volatilize under ordinary pressures, maintaining the heated oil under pressure sufficient to prevent said lighter constituents from volatilizing, then admitting directly into the cylinder a charge of said oil under said temperature and pressure simultaneously with a charge of hot air adjacent therto, to mix with another charge of air previously introduced into the cylinder.

1,138,576. CANDY-MAKING MACHINE. EUSTACE R. KNOTT, Sharon, Mass., assignor to E. R. Knott Machine Company, Boston, Mass., a Corporation of Massachusetts. Filed Aug. 30, 1910. Serial No. 579,731. (Cl. 107—10.)



1. In a candy-making machine, the combination with a batch-reducing device, and a confection-cutter having means for feeding the reduced batch lengthwise and operating to progressively separate the longitudinally moving batch into confection-pieces, of a section-cutter by which the batch is separated between the reducing device and the feeding means of the confection-cutter to permit the portion in advance to have a rate of endwise feed of its own through the confection-cutter.

2. In a candy-making machine, the combination with a rotary spinner delivering continuously, a confection-cutter having cutter-rolls between which the reduced batch feeds longitudinally with a continuous action, and a section-cuter by which the said batch is separated between the spinner and the confection-cutter so that the portion in advance may have a rate of feed of its own through the confection-cutter.

3. In a candy-making machine, the combination with a rotary spinner and reducer revolving around the batch of candy without turning or twisting the later, of a stationary batch-support at the entrance to said spinner and reducer by which the batch is held until drawn into the spinner.

4. In a candy-making machine, the combination with a rotary spinner comprising a nest of cones around a central cone-shaped space, and means for revolving said nest around the said space and rotating the cones upon their individual axes, of a batch-support at the entrance to said space supporting the batch until it is drawn into the spinner by the feding action of the cones.

5. In a candy-making machine, the combination with a rotary spinner comprising a nest of cones around a central cone-shaped space, and means for revolving said nest around the said space and rotating the cones upon their individual axes, of a non-rotating guide through which the batch enters the said space.

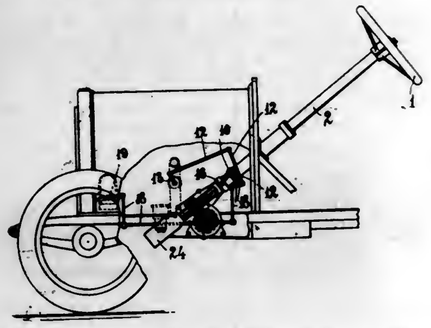
[Claims 6 to 14 not printed in the Gazette.]

1,138,577. CONTROLLING DEVICE FOR USE IN AUTOMOBILES. VINCENZO LANCIA, Turin, Italy. Filed July 31, 1913. Serial No. 782,302. (Cl. 172—179.)

1. In a construction for controlling circuits installed on a motor car a current generator, apparatus switched into the circuits of the generator, other circuits, a contact device at which terminate the wires of the said various circuits, independent drums for the control of the contact device, a steering wheel, operating parts mounted on the atering wheel, and means for connecting the said parts to the drums of the contact device.

2. In a construction for the control of circuits installed on a motor car a current generator, a steering tube, contacts grouped into a contact device mounted at

the base of the steering tube, independent drums cooperating with the contact device, a tube mounted inside the steering tube and connected to one of the drums of the contact device, a rod mounted inside the preceding tube and connected to the other drum of the contact device, a steering wheel and parts on the steering wheel for operating the said tube and the said rod.



3. In a construction for the control of the circuits installed on a motor car provided with a current generator, a steering tube, contacts grouped into a contact device mounted at the base of the said steering tube, a rotatable drum for the control of contacts of the said device, said drum being longitudinally movable for controlling a front contact, a member mounted in the interior of the steering tube and connected to the said drum, and means on the hand wheel for operating said member.

4. In a construction for the control of the circuits installed on a motor car a current generator, a steering tube, contacts grouped into a contact device mounted at the base of the said steering tube, drums coöperating with the contact device, one of the said drums being longitudinally movable for controlling a front contact and connected to a central rod, a button on the hand wheel for operating the said drum, a tube concentric with the said rod, mounted in the interior of the said steering tube and connected to the other drum of the combinator, a steering wheel and a handle on the steering wheel connected to the said tube.

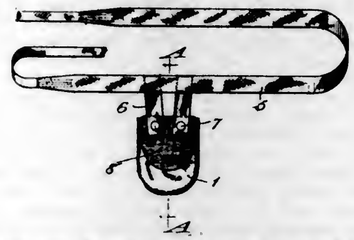
5. In a construction for the control of circuits installed on a motor car a current generator, a steering tube, contacts mounted at the base of the said tube, drums cooperating with the said contacts, a steering wheel, operating parts on the steering wheel, concentric tubes connecting the operating parts to the control drums, and a tube inclosing the said tubes and mounted in a stationary manner in the interior of the steering tube.

1,138,578. CEDAR CHEST. EDWARD HUDSON LANE, Altavista, Va. Filed June 26, 1914. Serial No. 847,367. (Cl. 217—56.)



A chest comprising a body part, a movable top thereon having an edge extending beyond the plane of the side of the body part, a molding having a horizontal portion and a depending inner edge flange portion, means for securing the molding to the top and passing through the said horizontal portion thereof, the outer edge of the horizontal portion thereof, the outer edge of the horizontal portion being positioned inwardly beyond the edge of the top and a relatively thin strip fitted in the space between the outer edge of the molding and the overhanging portion of the top to constitute substantially a finishing continuation of the top, the width of the strip being greater than the width of the horizontal portion of the molding, thereby forming in conjunction with the said flange a receiving channel for the upper edge of the body and fastening means passing through the said strip into the horizontal portion of the molding, substantially as described.

1,138,579. THERAPEUTICAL BANDAGE. ALFRED A. MORCK and HARRY GOLDBLATT, New York, N. Y. Filed Dec. 27, 1913. Serial No. 809,022. (Cl. 128—38.)



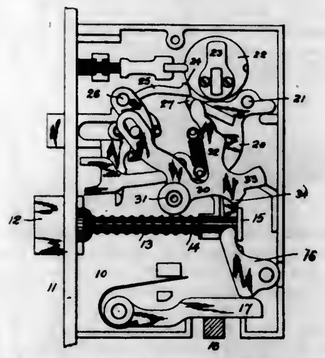
1. A gonorrhea bag comprising a pouch for receiving the organ, said pouch being complete in itself, and a wiping flap independent of the structure of the pouch as a pouch, said wiping flap having one edge thereof secured to the said pouch and the remainder thereof lying against the pouch, whereby the wiping flap is adapted to serve the purpose of cleansing the organ and the surface of the said flap designed to be used in cleansing is protected by the pouch from contamination.

2. A gonorrhea bag formed of two layers of fabric with the edges of said layers adjacent each other and lying between the two said layers.

3. A gonorrhea bag formed of two layers of fabric secured at the side, one edge of each layer being folded back, the outer one inwardly and the inner one outwardly, and the other edge of each layer being unfolded, said four edges being secured together for forming the pouch, whereby all of said edges lie between the two said layers of fabric.

4. A gonorrhea bag formed of two layers of fabric secured at the side, one edge of each layer being folded back, the outer one inwardly, and the inner one outwardly, and the other edge of each layer being unfolded, said unfolded edges lying between said folded edges, and said four edges being secured together for forming the pouch, whereby all of said edges lie between the two said layers of fabric.

1,138,580. LOCK. ALBERT A. PAGE, East Haven, Conn., assignor to Sargent & Company, New Haven, Conn., a Corporation of Connecticut. Filed Nov. 11, 1914. Serial No. 871,506. (Cl. 70—46.)



1. In a lock, the combination of a latch bolt, and a cylinder lock mechanism inoperative to retract said bolt but operative to dog it in retracted position; substantially as described.

2. In a lock, the combination of a latch bolt, manual retracting means therefor, key-actuated means at the outside of the door for retracting said bolt, and a cylinder lock mechanism at the inside of the door for dogging said bolt when it is held retracted by said manual retracting means, said cylinder lock mechanism being inoperative to retract the bolt; substantially as described.

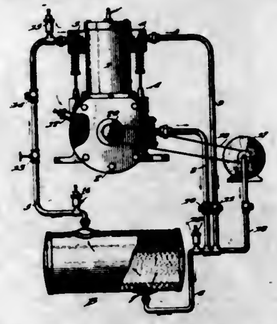
3. In a lock, the combination of a latch bolt, key-actuated means at the outside of the door for retracting said bolt but inoperative to dog it in retracted position, manual retracting means for the bolt at the inside of the door, and key-actuated means at the inside of the door inoperative to retract the bolt but operative to dog it in retracted position when it is retracted by said manual retracting means; substantially as described.

4. In a lock, the combination of a latch bolt, key-actuated means for retracting the same from the outside of the door, manually operable means for retracting said bolt from the inside of the door, a cylinder lock at the inside of the door, and a dogging lever for said latch bolt adapted to be actuated by said cylinder lock and independent of said first named key-actuated means; substantially as described.

5. In a lock, the combination of a latch bolt, key-actuated means for retracting the same from the outside of the door, manually operable means for retracting said bolt from the inside of the door, a cylinder lock at the inside of the door, and a dogging lever for said latch bolt adapted to be actuated by said cylinder lock and independent of said first named key-actuated means, said dogging lever being inoperative to retract the bolt but being operative to dog it in retracted position; substantially as described.

[Claims 6 to 11 not printed in the Gazette.]

1,138,581. CHARGE-FORMING DEVICE FOR INTERNAL-COMBUSTION ENGINES. JIM H. SHUMAKER, Beaver Falls, Pa. Filed Aug. 5, 1913. Serial No. 783,092. (Cl. 123—119.)



1. A device of the character described, comprising, in combination with an internal combustion engine, a mixing-tank made fluid-tight and adapted to contain a volatile liquid used to enrich air for forming an explosive charge for the engine, an air supply pipe connected with the mixing-tank, a gas supply pipe leading from said tank and connected to have an opening into the explosion chamber of the engine, a pipe connected with said air supply pipe and with the chamber of the cylinder at a suitable point to provide an exhaust opening, a pipe leading from the crank-case to said air supply pipe, and valves located in each of said pipes connecting with the air supply pipe and in the gas supply pipe to be opened and closed at the proper intervals by the suction and compression of the fluid carried by the pipes.

2. A device of the character described, comprising, in combination with an internal combustion engine, a mixing-tank made fluid-tight and adapted to contain the volatile liquid used to enrich air for forming an explosive charge for the engine, an air supply pipe connected with the mixing-tank, a gas supply pipe leading from said tank and connected with the inlet of the engine, a pipe connected with the exhaust of the engine and with the air supply pipe, and a pipe leading from the crank-case to said air supply pipe.

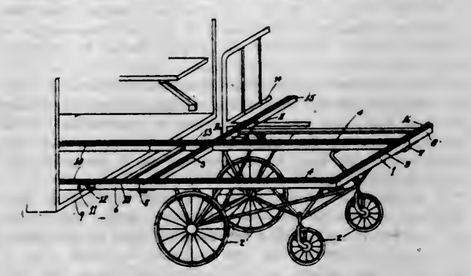
3. A device of the character described, comprising, in combination with an internal combustion engine, a mixing tank made fluid-tight and adapted to contain the volatile liquid used to enrich air for forming an explosive charge for the engine, an air supply pipe connected with the mixing-tank and having the opening therefrom submerged in the liquid, a gas supply pipe leading from said tank and connected with the inlet of the engine, a pipe connected with the exhaust of the engine and with the air supply pipe, an air inlet valve placed to admit air to the crank-case, a pipe leading from the crank-case to said air supply pipe to contain the air from said crank-case as it is compressed by the down-stroke of the piston, and valves located in said gas supply pipe and in the pipes from the exhaust and the crank-case.

4. A device of the character described, comprising, in combination with an internal combustion-engine, a mixing-tank made fluid-tight and adapted to contain the volatile liquid used to enrich air for forming an explosive charge for the engine, an air supply pipe connected with the mixing-tank preferably at the lowest point thereof, the liquid level in the tank maintained at such a level that a gas chamber is formed in the upper part of the tank, a gas supply pipe leading from the gas chamber and connected with the inlet of the engine, a pipe connected with the exhaust of the engine and with the air supply pipe, a pipe leading from the crank-case to said air supply pipe, and an auxiliary source of air supply arranged to be operated by the normal running of the engine for augmenting the supply of air forced into the mixing-tank.

5. A device of the character described, comprising, in combination with an internal combustion engine, a mixing-tank made fluid-tight and adapted to contain a volatile liquid used to enrich air for forming an explosive charge for the engine, an air supply pipe connected with the mixing-tank preferably at the lowest point thereof, said air supply pipe and tank so constructed that a straining and moistening liquid heavier than the volatile liquid can be placed in the bottom of the tank and in the air supply pipe for straining and moistening air before it passes through the volatile liquid, a gas supply pipe connected with the mixing-tank in the upper part thereof and leading to the inlet of the engine, a pipe from the exhaust of the engine and connected with the air supply pipe, an air inlet valve connected with the crank-case, an air outlet pipe from the crank-case to the air supply pipe, an auxiliary source of air supply adapted to derive its driving power from the engine for augmenting the supply of air fed through the air supply pipe.

[Claim 6 not printed in the Gazette.]

1,138,582. HOSPITAL APPARATUS. RALPH H. SLEICHER, Troy, N. Y., assignor to The Hospital Appliance Company, Troy, N. Y., a Corporation of New York. Filed Jan. 9, 1914. Serial No. 811,163. (Cl. 21—65.)

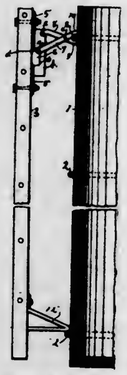


1. In an apparatus of the class described and in combination, a vehicle having two perpendicularly arranged sets of ways, one set extending transversely of the vehicle and the other set extending longitudinally of the vehicle; and a couch adapted to be supported upon said vehicle and

having means engageable with said ways and shiftable from one set to the other thereof.

2. In an apparatus of the class described and in combination, a vehicle having two perpendicularly arranged sets of ways, one set extending transversely of the vehicle and the other set extending longitudinally of the vehicle; a plurality of bridges, one attachable at the end of each way; and a couch adapted to be supported upon said vehicle and having means engageable with said ways and also the bridges, said means also being shiftable from one set of ways to the other.

1,138,583. LADDER-SUPPORT. THOMAS H. TASKER, Holland, Mich. Filed Nov. 9, 1914. Serial No. 871,203. (Cl. 228—20.)



1. In combination with a structure having a supporting element, and a ladder for use on said structure, a bracket secured to the upper end of said ladder, a lever pivotally connected to said bracket at one end, a lever slidingly connected with said bracket at one end, said levers pivotally connected near the other ends, and heads formed thereon and arranged to be made to engage the supporting element on the structure, substantially as shown and described.

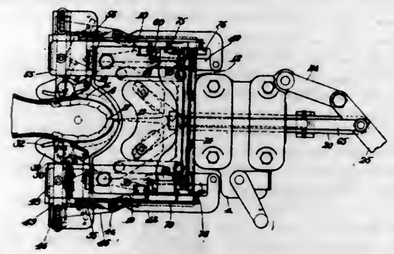
2. In combination with a silo construction, and hoops thereon, and a ladder for use therewith, a bracket secured to each stile of the ladder, leavers pivotally secured to the upper end of the brackets, braces slidingly connected with the body of the bracket at one end, the opposite ends of said levers pivotally connected, heads formed on the levers beyond the pivotal connection, grips formed on said heads to engage the hoop on the silo to support a ladder connected therewith.

1,138,584. APPARATUS FOR USE IN THE MANUFACTURE OF BOOTS AND SHOES. PEARL J. WENTWORTH, Boston, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Dec. 29, 1910. Serial No. 599,908. (Cl. 12—14.)

1. A machine of the class described having, in combination, means for supporting a shoe, means for lasting the heel seat, and means positioned as an incident to the lasting operation for marking the heel seat at each side adjacent to the heel breast location at a measured distance from the heel end face of the shoe.

2. A machine of the class described having, in combination, means for supporting a shoe, means for lasting the heel seat, and means for forming cuts in the lasted over upper materials on the innersole at each side of the heel, said means being arranged to locate the cuts with their outer ends a substantial distance inside the edge of the shoe bottom.

3. A machine of the class described having, in combination, means for supporting a shoe, means for lasting an end portion of the shoe, and means operated automatically during the actuation of the lasting means to mark the shoe bottom, said means being arranged to locate the mark entirely inside that portion of the shoe bottom which is visible in the rand crease of the finished shoe.

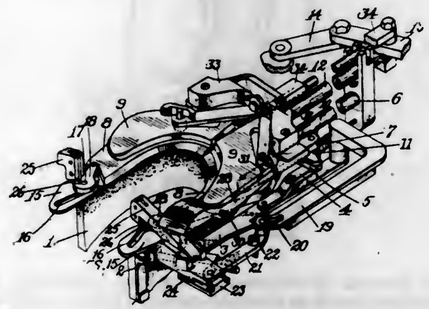


4. A machine of the class described having, in combination, means for supporting a shoe, means for lasting an end portion of the shoe, cutters arranged to form incisions extending from a point located a substantial distance inside the shoe edge toward the edge of the lasted over upper, and automatic means for operating said cutters during the operation of the lasting means.

5. A machine of the class described having, in combination, means for supporting a shoe, wipers movable for lasting an end portion of the shoe, cutters for the shoe materials, and means for moving said cutters during a portion only of the period of movement of said wipers.

[Claims 6 to 79 not printed in the Gazette.]

1,138,585. METHOD FOR USE IN THE MANUFACTURE OF BOOTS AND SHOES. PEARL J. WENTWORTH, Boston, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Original application filed Dec. 29, 1910, Serial No. 599,908. Divided and this application filed Dec. 26, 1912. Serial No. 738,707. (Cl. 12—145.)



1. That improvement in methods of making welt shoes which consists in positioning upper materials upon a last, lasting the upper materials over the innersole to form the heel seat, and after the upper materials have been positioned on the last forming said materials to provide at a measured distance from the heel end face of the shoe an abrupt edge in a position to indicate the location for an end of the welt attaching seam.

2. That improvement in methods of making welt shoes which consists in lasting the upper materials over the innersole to form the heel seat, and making through said materials at each side of the heel seat at a measured distance from the heel end face of the shoe a slit which will indicate the position for and facilitate the formation of the ends of the welt attaching seam.

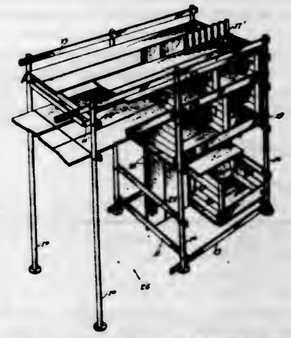
3. That improvement in methods of making welt shoes which consists in positioning upper materials upon a last, lasting the upper materials over the innersole to form the heel seat, and after the upper materials have been positioned on the last making a slit in said materials on the heel seat extending inward from a point determined by reference to the lateral surface of the last and located a substantial distance inside the shoe edge and adjacent to the point for beginning or ending the welt attaching seam.

4. That improvement in methods of making welt shoes which consists in clamping the upper materials upon the lateral surface of the heel portion of a last in adjusted relation to the plane of the heel seat to afford the desired width of flange for lasting over the edge of the last upon the heel seat, and after the upper materials have been thus clamped upon the last, making slits in the bottom edges of said materials at points determined by reference to the edge of the last bottom and the rear end face of the last.

5. That improvement in methods of making welt shoes which consists in clamping the upper materials upon the lateral surface of a last in adjusted relation to the plane of the heel seat to afford the desired width of flange for lasting over the edge of the last upon the heel seat, bending the bottom edge portion of said materials inwardly over the edge of the rear portion of the last bottom, and then making slits in said bent over materials at a measured distance from the rear end face of the shoe in locations determined by reference to the lateral surface of the last and extending inwardly from points located a substantial distance inside the edge of the last bottom.

[Claims 6 to 13 not printed in the Gazette.]

1,138,586. SHELVING. FRANK ARONSON, Chicago, Ill. Filed July 28, 1913, Serial No. 781,546. Renewed Apr. 5, 1915. Serial No. 19,332. (Cl. 211—27.)

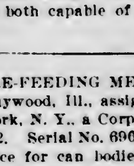


1. Shelving comprising in combination vertical posts, flat ended cross bars, U-bolts connecting said bars to said posts, shelves extending lengthwise to span said cross bars, and transversely extending from position determined by the vertical posts to positions slightly-separated intermediate said posts, and vertical back boards effecting such intermediate separation of the shelves said back boards at their opposite vertical edges contacting with the cross bars, and positioned wholly by the shelves and cross bars.

2. Shelving comprising in combination vertical posts, flat ended cross bars, U-bolts connecting said bars to said posts, shelves extending lengthwise to span said cross bars, and transversely extending from position determined by the vertical posts to positions slightly-separated intermediate said posts, vertical back boards effecting such intermediate separation of the shelves, said back boards at their opposite vertical edges contacting with the cross bars, and positioned wholly by the shelves and cross bars, front rails extending along said shelves inside of the posts and compartment walls interposed between said front rails and back boards.

3. Shelving comprising in combination vertical posts, flat ended cross bars, U-bolts connecting said bars to said posts, shelves extending lengthwise to span said cross bars, and transversely extending from position determined by the vertical posts to positions slightly-separated intermediate said posts, vertical back boards effecting such intermediate separation of the shelves, said back boards at their opposite vertical edges contacting with the cross bars, and positioned wholly by the shelves and cross bars, front rails extending along said shelves inside of the posts, compartment walls interposed between said front rails and back boards, and metal clips secured to said back boards and receiving the vertical edges of said compartment walls.

1,138,587. SUSPENDER-LOOP. EDWARD L. ASHLEY, Waterbury, Conn., assignor to Scovill Manufacturing Company, Waterbury, Conn., a Corporation of Connecticut. Filed Oct. 7, 1914. Serial No. 865,517. (Cl. 24—224.)



1. A suspender loop, having a resilient suspender engaging member terminating in a contracted button passage, and a resilient button engaging member, these two members being flexibly connected to swing back and forth and both capable of lateral expansion at their connection to permit the passage of the button from one member to the other.

2. A suspender loop, having a resilient suspender engaging member terminating in a contracted button passage, and a resilient button engaging member, these two members having interengaging eyes, whereby the engaged portions of both members are capable of lateral expansion and contraction and back and forth swinging movements.

3. A suspender loop, having a suspender engaging member provided with bowed sides and terminating in a contracted button passage and provided with closed eyes at said passage, and a button engaging member terminating in closed eyes engaging with the eyes on the suspender engaging member, these two members being resilient and both capable of spreading laterally at their point of engagement to permit the passage of the button through said contracted passage to and from the button engaging member.

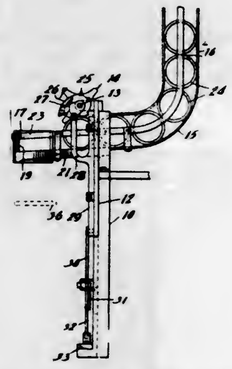
4. A suspender loop, composed of two parts, each made of wire, one of the parts having a bar for connection with a suspender and bowed sides terminating in a contracted button passage and provided with closed eyes at said passage, and the other part having eyes hingedly connected with the eyes of the first-named part to permit flexing of the two parts of the loop, the two parts being resilient and both of them yielding laterally at their connection to permit the passage of the button through said contracted passage for engagement with and disengagement from the button.

5. A suspender loop, having a resilient suspender engaging member terminating in a contracted button passage, and a resilient button engaging member, constructed of flat wire, these two members being flexibly connected to swing back and forth and both capable of lateral expansion at their connection.

1,138,588. ARTICLE-FEEDING MECHANISM. AUGUST M. AUGENSEN, Maywood, Ill., assignor to Sanitary Can Company, New York, N. Y., a Corporation of New York. Filed May 13, 1912. Serial No. 696,895. (Cl. 193—29.)

1. A feeding device for can bodies comprising in combination, a gravity feed chute, a vertical chute and a track connecting said chutes over which the can bodies are adapted to pass, said track having two rails, one of which is elevated progressively relatively to the other to thereby tilt the can bodies, and timing mechanism for spacing the can bodies as they leave the gravity feed

chute, sufficiently to allow them to pass onto said track and be tilted, one at a time, into the vertical chute without jamming or interfering with each other, substantially as specified.



2. A feeding device for can bodies comprising in combination, a gravity feed chute and a vertical chute, a track located between said chutes and over which the can bodies are adapted to pass, said vertical chute having a cylindrical portion, and said track having two rails, one of which is elevated progressively relatively to the other, said rails terminating at the circumference of the cylindrical portion of the vertical chute.

3. In a device for feeding can bodies in combination, a gravity feed chute and a vertical chute and means for automatically tipping the can bodies being fed while passing from the gravity feed chute to the vertical chute, said vertical chute having a cylindrical portion provided with cut-out section on one side thereof.

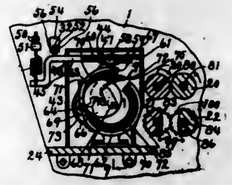
4. In a device for feeding can bodies in combination, a gravity feed chute, a cylindrical vertical chute and means for automatically tipping the can bodies being fed while passing from the first named chute to the last named chute, said means including a track formed with the cylindrical chute, said chute being provided with a cut-out portion on the side adjacent said track, substantially as specified.

5. A feeding device for can bodies comprising, in combination, a frame-work adapted to be attached to a machine, a gravity chute terminating and secured to said framework, a vertical chute also connected to said framework and a track portion between said chutes over which the can bodies being fed are adapted to pass, said track having one side thereof elevated above the other side, and timing mechanism for separating and spacing the can bodies as they leave the gravity chute sufficiently to allow the same to be tilted into the vertical chute, one at a time, without jamming or interfering with each other, substantially as specified.

[Claims 6 to 8 not printed in the Gazette.]

1,138,589. CHECK-CONTROLLED APPARATUS. WALTER LOOMIS HAMILTON, Holyoke, Mass., assignor, by mesne assignments, to Scott Paper Company, Philadelphia, Pa., a Corporation of Pennsylvania. Original application filed Aug. 15, 1911, Serial No. 644,136. Divided and this application filed Oct. 27, 1911. Serial No. 657,074. (Cl. 194—10.)

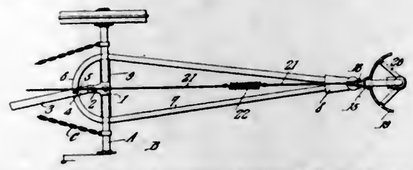
1. The combination, in check-controlled apparatus, with a lever adapted to be actuated by a coin, and a trip-arm in operative relation to said lever and provided with a latch, an electric motor, an electric circuit for such motor, a rotary member operatively connected with said motor, a movable member in such circuit adapted to be engaged by and released from said latch, said movable member being in the path of said rotary member and capable of being actuated by the latter into engagement with said latch, and means to close such circuit through said movable member, when the latter is released from said latch.



2. The combination, in check-controlled apparatus, with a trip-arm provided with locking and releasing means, and coin-operated means to operate said trip-arm, of an electric motor, an electric circuit for such motor, an annulus in such circuit, such annulus having a pivotally attached segment adapted to be engaged by and released from said locking and releasing means, a rotary member operatively connected with said motor and arranged to actuate said segment into engagement with said locking and releasing means, and a rotary member, also in said circuit, with which said segment contacts, when released from said locking and releasing means, to close said circuit.

3. The combination, in check-controlled apparatus, with a lever adapted to be actuated by a coin, and a trip-arm in operative relation to said lever, said trip-arm being provided with a latch, of an electric motor, an electric circuit for such motor, an annulus in such circuit, such annulus having a pivotally attached segment adapted to be engaged by and released from said latch, an eccentric operatively connected with said motor and arranged to actuate said segment into engagement with said latch, and a revoluble brush also in said circuit and arranged to be contracted with by said segment, when the latter is released from said locking and releasing means, to close said circuit.

1,138,590. PILOT ATTACHMENT FOR TRACTION-ENGINES. RALPH B. HARTSOUGH, Minneapolis, Minn. Filed Feb. 23, 1909, Serial No. 479,344. Renewed Oct. 28, 1909. Serial No. 525,156. (Cl. 97—81.)



1. In combination, a traction engine, a frame supported thereon and projecting in front of the engine, a furrow pilot wheel carried by said frame and adapted to bear on the side wall of the furrow, means located near said wheel and having an operating means extending back to the engine for locking said wheel at a predetermined angle, said wheel being freely movable as a caster when released from said locking means.

2. In combination, a traction engine, a frame projecting in advance of said engine, a furrow pilot wheel carried by said frame and arranged to oscillate on a vertical axis, means located near said wheel for locking it at a predetermined angle with respect to the wall of the furrow, means extending back to the engine for operating said locking means, said wheel being freely movable as a caster when released from said locking means.

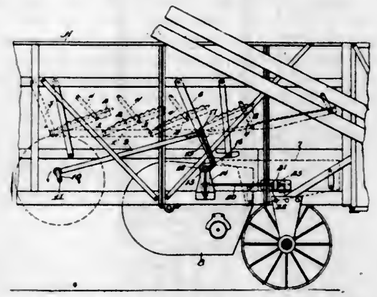
3. In combination, a traction engine, a frame mounted thereon and projecting forwardly therefrom, a furrow pilot wheel carried by said frame and arranged to bear on the side wall of the furrow, a locking latch arranged to lock said wheel at a predetermined angle to the furrow wall, and means extending backwardly to the engine for operating said latch.

4. The combination, with the steering axle of a traction engine, of a forwardly projecting frame, a caster carried by said frame, and means located at the forward portion of said frame and operable from said engine for locking said caster against movement with respect to the frame, said caster when locked constituting a pilot wheel.

5. The combination, with the steering axle of a traction engine, of a frame projecting forwardly therefrom, a pilot wheel journaled in said frame and arranged to bear on the side wall of the furrow, said wheel having a substantially vertical axis and capable of performing the functions of a caster wheel, means for locking said caster wheel at any desired angle with respect to the furrow wall, and means controlling said locking means from the engine, for the purpose specified.

[Claims 6 to 9 not printed in the Gazette.]

1,138,591. SHOE-OPERATING MECHANISM FOR GRAIN-SEPARATORS. PRIMM R. HAWTHORNE, Battle Creek, Mich. Filed Nov. 25, 1914. Serial No. 873,898. (Cl. 130—24.)

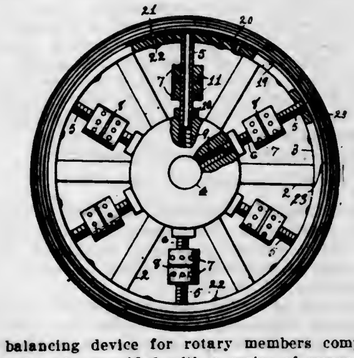


1. In a grain and straw separating machine, the combination with two separating members mounted to oscillate in the same general direction, of means connecting said members, said means being actuated by one of said members and actuating the other member to impart two strokes to the latter to one of the former.

2. In a grain and straw separating machine, the combination with two separating members mounted to oscillate in the same general direction, of means connecting said members, including a bell crank lever actuated by one of said members and actuating the other member to impart two strokes to the latter to one stroke of the former.

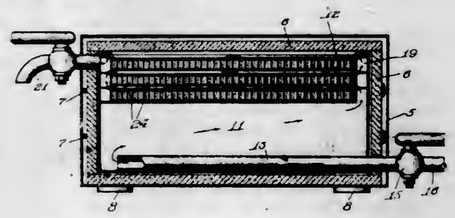
3. In a grain and straw separating machine, the combination with a shaker carrier, and a shoe, both mounted on swinging supports to move in the same general direction, of means connecting said carrier and shoe, whereby one stroke of said carrier effects two strokes of said shoe.

1,138,592. BALANCING DEVICE FOR WHEELS. ORTON C. LITTLE, Menasha, Wis., assignor to Onward Manufacturing Company, Menasha, Wis. Filed Oct. 21, 1912. Serial No. 727,009. (Cl. 74—6.)



A balancing device for rotary members comprising a hub and a rim provided with a series of screw threaded holes bored through the rim and into the hub and spaced at substantially equal distances apart in radial lines, a rod for each hub hole provided with threads for its entire length and adapted for insertion into a rim and its corresponding hub hole, a jam nut upon each rod adapted to be screwed against said hub, two cylindrical nuts threaded upon each rod intermediate its jam nut and pulley rim, and a washer interposed between each of said two nuts, each nut having a series of holes bored around it adapted to be engaged simultaneously with like holes in its companion nut by a suitable wrench for adjusting their position longitudinally of the rod upon which they are mounted.

1,138,593. WATER-HEATER. DOSIER H. MOSTELLER, Chicago, Ill., assignor to John M. Berry and William Tinsley, Chicago, Ill. Filed May 4, 1914. Serial No. 836,276. (Cl. 219—39.)



1. In a water heater, the combination of a heat insulating casing, a water reservoir adjacent one of the walls of said casing, a plurality of water tubes extending in parallel and close relation intermediate said reservoir and the opposite wall of said casing, and of total capacity less than said reservoir, said tubes being interconnected and having the discharge end thereof located adjacent said opposite wall, and heating elements arranged one intermediate each adjacent pair of tubes, and one intermediate said reservoir and the tube adjacent thereto, substantially as described.

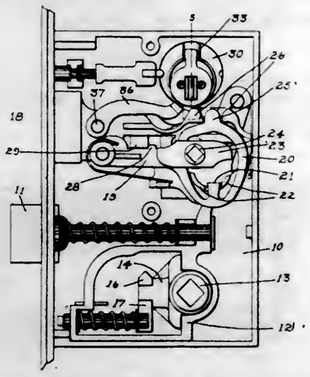
2. In a water heater, the combination of a heat insulating casing, a water reservoir adjacent one of the walls of said casing, a plurality of water tubes extending in parallel and close relation intermediate said reservoir and the opposite wall of said casing, and of total capacity less than said reservoir, said tubes consisting of interconnected straight conduits of flat and widened form, whereby the flat interior walls are spaced closely together, heating elements intermediate said tubes of a shape and size corresponding closely therewith, and resistance wires surrounding said elements adapted to generate heat when energized by an appropriate electric current, the arrangement of said tubes and elements being such that practically the entire heating surface of each element is maintained in intimate proximity with substantially the entire surface of the adjacent tubes, substantially as described.

3. In a water heater, the combination of a heat insulating casing, a water reservoir adjacent one of the walls of said casing, a plurality of water tubes extending in parallel and close relation intermediate said reservoir and the opposite wall of said casing, and of total capacity less than said reservoir, said tubes consisting of a plurality of straight conduits of flat and widened form having the flat interior walls thereof spaced closely together, divisional walls within each of said tubes extending in a longitudinal direction thereof, heating elements intermediate said tubes of a shape and size corresponding closely therewith, and resistance wires surrounding said elements adapted to generate heat when energized by appropriate electric current, the arrangement of said tubes and elements being such that practically the entire heating surface of each element is maintained in intimate proximity with substantially the entire surface of the adjacent tubes and divisional walls therein, substantially as described.

4. In a water heater, the combination of a reservoir, a plurality of interconnected water tubes extending in parallel and close relation thereto, and of total capacity less

than said reservoir, and heating elements arranged one intermediate each adjacent pair of tubes, and one intermediate said reservoir and the tube adjacent thereto, substantially as described.

1,138,594. LOCK. ALBERT A. PAGE, East Haven, Conn., assignor to Sargent & Company, New Haven, Conn., a Corporation of Connecticut. Filed Dec. 5, 1913. Serial No. 804,861. (Cl. 70—92.)



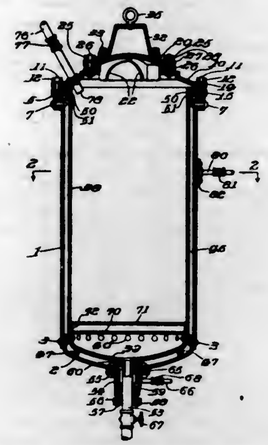
1. In a lock, the combination of a case, a latch bolt in said case, a sliding member movable parallel to the latch bolt, a main latch retracting lever pivoted on the vase, a second retracting lever pivoted on said sliding member and adapted to coöperate with the first named lever, a pin tumbler lock mechanism, and two keys for operating said pin tumbler lock mechanism, one of said keys being operative to actuate said sliding member and to retract the latch bolt, and the other key being operative to retract the latch bolt, but inopertive on said sliding member; substantially as described.

2. In a lock, a case, a latch bolt in said case, a sliding member in said case movable parallel to sad latch bolt, a tumbler to dead-lock said sliding member, retracting levers for said latch bolt, one of said levers pivoted on said sliding member, and the other pivoted on the case, a thumb-turn member operable from the inside of the room to protract and retract said sliding member, a pin tumbler lock mechanism at the outside of the door, located out of alinement with said thumb-turn member, and two keys to operate said pin tumbler lock mechanism, one key being operative on the same to protract and retract said sliding member, and to retract the latch bolt, and the other key being inoperative on said sliding member, but operative to retract the latch bolt when said sliding member is in retracted position; substantially as described.

3. In a lock, the combination of a case, a latch bolt therein, a dead bolt having upper and lower talons, a tumbler for said dead bolt having projections to coöperate with the respective talons, a retracting lever for said latch bolt pivoted on the case, another retracting lever for said latch bolt pivoted on the dead bolt, a thumb-turn hub to coöperate with one of the tumbler projections and the corresponding talons of the dead bolt, and a pin tumbler lock mechanism to coöperate with the other talons of the dead bolt and the corresponding tumbler projection, said pin tumbler lock mechanism having two dogs or bits, one of which is inoperative on said dead bolt, but operative to retract the latch bolt when the dead bolt is in retracted position, the other bit being operative to protract and retract the dead bolt and to retract the latch bolt; substantially as described.

4. In a lock, the combination of a case, a latch bolt therein, a dead bolt having upper and lower talons, a tumbler for said dead bolt having projections to coöperate with the respective talons a thumb-turn hub to coöperate with one of said projections and its corresponding talons, a pin tumbler lock mechanism to coöperate with the other tumbler projection and its corresponding talons, and retracting levers for the latch bolt, said pin tumbler lock mechanism having two bits, one of which is adapted to engage one of said latch bolt retracting levers, but to clear the adjacent dead bolt talons and tumbler projection; substantially as described.

1,138,595. PROCESS OF DISSOLVING SODIUM SILICATE. WILLIAM H. STANTON and JAMES G. VAIL, Chester, Pa., assignors to Philadelphia Quartz Company, a Corporation of Pennsylvania. Filed Mar. 6, 1913. Serial No. 752,260. (Cl. 23—13.)



1. The process of dissolving a soluble silicate or the like, which consists in treating a liquid solvent in contact with an excess of the soluble silicate with a heated gas chemically inert toward said soluble silicate while maintaining the liquid in a quiescent condition.

2. The process of dissolving an alkaline silicate or the like, which consists in treating a liquid solvent in contact with an excess of the silicate with a heated gas chemically inert toward said silicate in such manner that circulation is minimized.

3. The process of dissolving a soluble silicate or the like, which consists in heating a quantity of water in contact with an excess of a substantially anhydrous soluble silicate in such manner that the creation of convection currents is minimized.

4. The process of dissolving sodium silicate or the like, which consists in heating a solvent liquid in contact with an excess of substantially anhydrous sodium silicate in such manner that circulation is minimized until the concentration of the solution has reached a point sufficient to prevent reduction in the rate of solution due to hydrolysis.

5. The process of dissolving an alkaline silicate or the like without mechanical agitation, which consists in covering an excess of the silicate contained in a suitable receptacle with water, and then surrounding said receptacle with steam in such manner as to raise the temperature of the contents of said receptacle to approximately the temperature of said steam without the creation of convection currents.

[Claims 6 to 8 not printed in the Gazette.]

1,138,596. DEINKING PROCESS. OTTO CHARLES WINESTOCK, Perkinsville, Vt., assignor to The General Waste-Paper Recovery Company, Baltimore, Md., a Corporation of Delaware. Filed May 29, 1912. Serial No. 700,547. (Cl. 92—3.)

1. A process of de-fibering paper and like materials which consists in immersing the material in a liquid and pulling the fibers of the material apart by subjecting it to opposing forces acting completely below and away from the surface of the liquid, one of which forces is the inertia of the liquid in which the material is suspended.

2. A process for defibering paper and similar materials consisting in immersing the paper in a liquid and feeding this through blades wholly immersed in the liquid and revolving so rapidly that they are able to break down to its component fibers small pieces of paper fed to them and held relatively against the tendency to revolve at the speed of the blades by their own inertia and that of the liquid in which they are suspended.

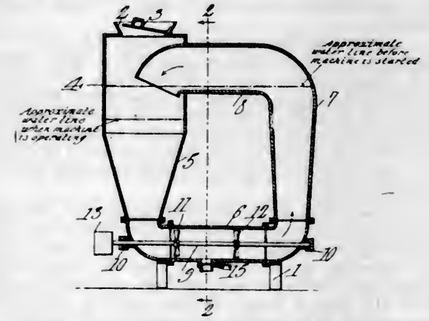
3. A process of defibering paper and like materials which consists in immersing the paper in a liquid and feeding this liquid through a screw propeller revolving so rapidly that it is able to defiber small pieces of paper held against the tendency to revolve with the propeller solely by their own inertia and that of the surrounding liquid.

4. A process of defibering paper and like materials which consists in immersing the paper in a liquid and feeding this through a screw propeller immersed in said liquid, revolving so rapidly as to product a cavity in the liquid effective to promote the defibering action.

5. A process of defibering and deinking paper and like materials which consists in immersing the paper in a liquid containing a detergent, and pulling apart the fibers of the paper by an opposition of forces acting completely below and away from the surface of the liquid, one of which forces is the inertia of the paper and the liquid in which it is suspended.

[Claims 6 and 7 not printed in the Gazette.]

1,138,597. DEINKING APPARATUS. OTTO CHARLES WINESTOCK, Perkinsville, Vt., assignor to The General Waste-Paper Recovery Company, Baltimore, Md., a Corporation of Delaware. Filed May 29, 1912. Serial No. 700,546. (Cl. 92—20.)



1. A defibering apparatus having a rotatable propeller and a straight cylindrical tube closely surrounding said propeller and acting to prevent escape of material by centrifugal action around said propeller, and a second propeller arranged within said tube in advance of said first mentioned propeller and serving to drive liquid and material toward said first mentioned propeller, means for feeding liquid and material to said tube, means for receiving liquid and material from said tube, and means for driving said propellers.

2. A defibering apparatus, having a straight cylindrical tube, a plurality of rotatable spaced propellers arranged within said tube, the diameter of at least one of said propellers being substantially the same as the inner diameter of said tube, whereby centrifugal action and escape of material around said propeller is prevented, a feeding chamber at the feed end of said tube so proportioned to the tube that there are no dead spaces in the chamber, whereby all the material in the chamber is progressively fed to the tube while the apparatus is in operation, and means for continuously returning the material from the discharge end of the tube to the feed chamber.

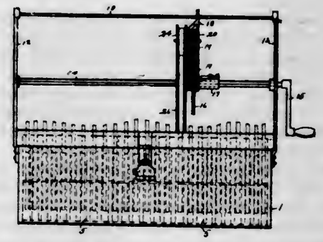
3. A defibering apparatus having a straight cylindrical tube, a plurality of rotatable propellers arranged within and substantially filling the tube in cross section, one of said propellers being located adjacent the forward end of the tube and the other near the rear end thereof, means for driving said propellers, means for feeding liquid and material to the forward end of said tube, and means for receiving liquid and material from the rear end thereof.

4. A defibering apparatus having a straight cylindrical tube provided with curved end pieces, a shaft extending longitudinally through said tube and journaled in said curved ends, a propeller fixed on said shaft near the forward end of said tube, a propeller fixed on said shaft a slight distance from the rear end of said tube, said propellers being spaced from each other, a steep sided feed chamber connected with the forward end of said tube in advance of said first mentioned propeller, and a return conduit having a flaring portion and leading from the rear end of said tube to said feed chamber.

5. An apparatus for de-fibering and de-inking printed paper comprising, in combination, a horizontal draft-tube; an over-driven propeller shaft extending lengthwise of said tube and having a succession of propellers of increasing effectiveness; a vertical supply chamber communicating with the entrance end of said draft-tube, said chamber being enlarged at its upper end, and diminishing in size toward its lower end where it joins the draft-tube; and a return passage leading from the discharge end of the draft-tube to the enlarged upper end of the supply chamber and discharging downwardly into said chamber, said return passage increasing gradually in size from the draft-tube to the supply chamber.

[Claims 6 to 8 not printed in the Gazette.]

1,138,598. RIBBON CABINET AND WINDING MACHINE. LOUIS W. WORSHAM and JOSEPH A. HAUTIER, Houston, Tex.; said Worsham assignor to said Hautier. Filed Jan. 15, 1914. Serial No. 812,239. (Cl. 242—55.)



1. A device of the character described including a casing, means carried thereby whereon a ribbon reel may be mounted, a winding device carried by the casing, said device embodying a spindle and a means for rotating the same, said spindle being adapted to receive and rotate a spool whereon the ribbon from said reel is wound, said winding device being adjustable relative to the casing so as to be brought into alinement with the said reel.

2. A device of the character described including a casing, means in said casing for rotatably mounting a ribbon reel and a winding device in connection with the casing, said device embodying a rotatable spool support and means for rotating said support, said winding device being adjustable relative to the said reel.

3. A device of the character described including a casing, means in said casing whereon is mounted a ribbon reel, a winding device adjustable relative to the casing and ribbon reel, said device embodying a rotatable spool support and a means for rotating the same, said support being provided to receive and rotate a spool whereon the ribbon from said reel is wound.

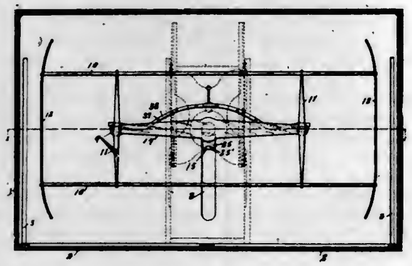
4. A device of the character described in cluding a casing; means in said casing whereon a ribbon reel may be mounted; a winding device adjustable relative to the cas-

ing, said device embodying a rotatable spindle and means for rotating the same; said spindle being provided to receive and rotate a spool whereon is wound ribbon from said reel and a means for locking the winding device against adjustment relative to the casing.

5. A device of the character described including a casing, a winding device in connection therewith, said casing and winding device being adjustable relative to each other, a ribbon reel support in said casing, a rotatable spool support operatively connected with said winding device, said spool support being adapted to receive and rotate a spool whereon is wound ribbon delivered from said reel.

[Claims 6 to 13 not printed in the Gazette.]

1,138,599. SHOW-CASE. LYMAN W. WELCH, Grand Rapids, Mich., assignor to Welch Mfg. Co., Grand Rapids, Mich. Filed Oct. 20, 1911. Serial No. 655,681. (Cl. 277—76.)



1. In a display device, the combination of a case, a rotatable rack movable to and from a position within the case, a guard rail extending substantially longitudinally of the case, and means carried by the rack and adapted to engage said guard rail as the rack is moved from front position inward of the case to prevent contact of the rack with the case.

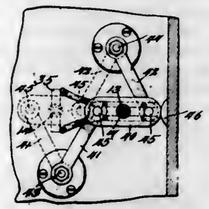
2. In a display device, the combination of a case, a rotatable rack movable to and from a position within the case, a guard rail extending substantially longitudinally of the case back of the longitudinal median line of the case, and means carried by the rack and adaptable to engage said guard rail as the rack is moved from front position inward of the case to prevent contact of the rack with the case.

3. In a display device, the combination of a case, a guard rail secured to the case back of the longitudinal median line of the case and extending substantially longitudinally of the case, a rotatable rack having projecting portions at each side of the center of rotation of the rack to engage said guard rail and turn the rack into non-contacting relation with the case as the rack is moved from the front toward inner position.

4. In a display device, the combination of a case, a guard rail secured to the case back of the longitudinal median line of the case and extending substantially longitudinally of the case, said guard rail having a curved central portion, a rotatable rack having projecting portions at each side of the center of rotation of the rack to engage said guard rail and turn the rack into non-contacting relation with the case as the rack is moved from the front toward inner position.

5. In a display device, the combination of a case or cabinet, a rotatable rack movable to and from a position within the case or cabinet and having projecting portions at opposite sides of the axis of rotation, and a longitudinally extending guard rail secured to the case back of the longitudinal median line of the case and adapted to be engaged by one or the other of said projecting portions of the rack to turn the same into parallelism with the case when the rack is moved toward the inner position while diagonal to the case, said guard rail having a central portion to prevent inward movement of the rack when the latter is at right angles to the lengh of the case.

1,138,600. DISPLAY-RACK. EDWARD S. FRAZIER and ALFRED GUSTAFSON, Aurora, Ill., assignors to Samuel D. Young, trustee, Grand Rapids, Mich. Filed Jan. 10, 1910. Serial No. 537,178. (Cl. 211—16.)



1. In a display device, the combination of a case or compartment, means comprising two coöperating members to prevent contact of the rack with the case or compartment as the rack is moved to and from the front of the case, one of said members including guide bars secured to the case and the other a part carried by the rack, said guide bars having outwardly diverging disconnected ends terminating back of the outer position of the rack member, and unlimiting the outward movement of the rack.

2. In a display device, the combination of a case or compartment, means comprising two coöperating members to prevent contact of the rack with the case or compartment as the rack is moved to and from the front of the case, one of said members including guide bars secured to the case, and having diverging and disconnected front ends, and the other a part carried by the rack, said guide bars being normally out of engaging relation with the said part carried by the rack when the rack is in front position for rotative movement and permitting outward movement of the rack member adapted to be brought into engagement therewith to turn the rack into parallelism with the case or compartment as the rack is moved toward its inner position.

3. In a display device, the combination of a case or compartment, a rack movable to and from a front position with respect to the case or compartment, two separate guide bars secured to said case or compartment and having outwardly diverging ends terminating back of the outer position of the rack, and means carried by the rack beyond the said guide bars when the rack is moved to front position and adapted to engage said guide bars when the rack is moved inward.

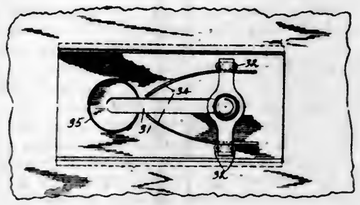
4. In a display device, the combination of a case, a rotatable rack movable to and from a position at the front of the case, a guiding device connected to the case, a cross-bar connected to the rack, said cross-bar being movable beyond and disengaged entirely from said guiding device when the rack is moved to front position for rotation and adapted to be brought into engagement therewith as the rack is moved from its front toward its rear position to turn the rack into parallel relation with the case.

5. In a display device, the combination of a case, a rotatable rack movable to and from a position at the front of the case, a guiding device comprising two separate guide bars having terminal ends diverging toward the front of and connected to the case, a cross-bar connected to the rack, said cross-bar being disengaged entirely from said guiding device and unrestricted in its outward movement to thereby when the rack is moved to front position for rotation and adapted to be brought into engagement therewith as the rack is moved from its front toward its rear position to turn the rack into parallel relation with the case.

[Claims 6 and 7 not printed in the Gazette.]

1,138,601. DISPLAY-FIXTURE FOR GARMENTS. ALFRED GUSTAFSON, Aurora, Ill., assignor, by mesne assignments, to The Welch Manufacturing Company, a Corporation of Michigan. Filed Mar. 22, 1911. Serial No. 616,106. (Cl. 211—16.)

1. A display fixture comprising a carriage, a track therefor, a slotted guide plate arranged above said track, a column mounted on said carriage and extending through said slot, a garment supporting device revolubly mounted on said column, guide arms supported on the column, and ribs on said guide plate adapted to be engaged by said guide arms.



2. A display fixture comprising a carriage, a track therefor, a column comprising a shaft mounted on said carriage, a guide plate arranged above said track, a slot in said plate engaged by said shaft, guide ribs on said plate, a guide ring arranged concentric with one end of said slot, and a guide arm revolubly mounted on said shaft and adapted to engage said guide ribs and ring.

3. In a display fixture, a carriage composed of an upper and a lower plate adjustably connected, a track on which said carriage is mounted, anti-frictional means between said track and the plates of said carriage, a vertical shaft supported by said carriage, a column rotatable on said shaft, garment supporting means connected with said column, guide means secured to said column, a track arranged above said carriage and having parallel portions and converging portions adapted to prevent the rotation of said guide means, and a circular track arranged in the same plane with the first named track, said circular track adapted to permit the rotation of said guide means.

4. A display fixture comprising a carriage, a track therefor, a guide plate arranged above said track, a longitudinal slot in said plate, guide ribs on said plate, a shaft mounted on said carriage and projecting through said slot, a tube revolubly mounted on said shaft, display devices adjustable on said tube, and guide arms fixed on said tube and adapted to engage said guide ribs.

5. A display fixture comprising a carriage, a track therefor, a guide plate arranged above said track, a longitudinal slot in said plate, guide ribs arranged on said plate opposite one end of the said slot, a guide ring on the plate concentric with the other end of the slot, a shaft mounted on said carriage and projecting through said slot, a tube revolubly mounted on said shaft, and a cross arm on said tube adapted to engage said guide ribs and ring.

[Claims 6 to 9 not printed in the Gazette.]

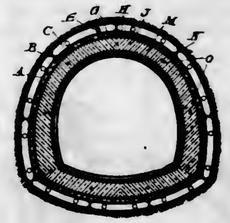
1,138,602. PROCESS OF CONSERVING ORGANIC SUBSTANCES. HEINRICH GOSLAR, Aachen, Germany. Filed Aug. 6, 1914. Serial No. 855,347. (Cl. 99—5.)

1. A process for conserving flesh, blood, animal glands and the juices thereof, and the juices of fruit and vegetable and simultaneously maintaining the nativity of their ingredients, which consists in thoroughly mixing finely divided fibrin-containing webs and gluten-containing grain-flour, adding to this mixture the organic substances, and then forming the whole mass thus prepared into thin sheets and quickly drying the mass in this condition at a low temperature.

2. That process of conserving flesh, blood, and animal glands and the juices thereof, and the juices of fruit and vegetables and simultaneously maintaining the nativity of their ingredients which consists in mixing finely divided fibrin and gluten-containing substances with the organic substances to be conserved, in the presence of moisture rolling the mass into thin sheets, and quickly drying the sheets at a low temperature.

1,138,603. METHOD OF BUILDING WATERPROOF TUNNELS. FRANZ XAVER HALLINGER, Hamburg, Germany. Filed May 2, 1914. Serial No. 836,039. (Cl. 61—16.)

1. The method of building a waterproof tunnel in which the bore is made by driving a shield forward, consisting in



first constructing a protective casing or covering comprising an outer tube or layer of compressible material such as sand or earth, gravel or clay, an intermediate layer of asphalt-felt board or suitable metal, the outer tube or layer of compressible material being formed under the counter-pressure or reaction of the presses or jacks used for driving forward the shield, and in subsequently constructing the tunnel tube proper inside the aforesaid three-part protective casing or covering.

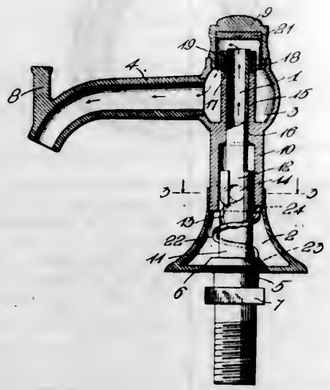
2. In the method of building a waterproof tunnel in which the bore is made by driving a shield forward, consisting in constructing the tunnel tube proper inside a protective casing or covering whose construction precedes the construction of the tunnel tube and takes place within the shield, the employment of a shield having at the rear thereof a second shell concentric with and inside the ordinary shell, this second shell being so arranged that the annular space around it is adapted to receive the abutment plates of the presses or jacks which effect the driving forward of the shield, these abutment plates being movable in this space like pistons in order to compress the material forming the outer layer of the protective casing or covering under the counter-pressure or reaction of the presses or jacks, the second shell of the shield also giving a support and protection during the construction of the intermediate layer of the protective covering.

3. In the method of building a waterproof tunnel in which the bore is made by driving a shield forward, constructing a protective casing or covering comprising an outer tube or layer of compressible material such as sand or earth, gravel or clay, an intermediate layer of plates and an inner insulating layer of asphalt-felt board or suitable metal, the outer tube or layer of compressible material being formed under the counter-pressure or reaction of the presses or jacks used for driving forward the shield, subsequently constructing the tunnel tube proper inside the aforesaid three-part protecting casing or covering, employing a shield having at the rear thereof a second shell concentric with and inside the ordinary shell, this second shell being so arranged that the annular space around it is adapted to receive the abutment plates of the presses or jacks which effect the driving forward of the shield, these abutment plates being movable in this space like pistons in order to compress the material forming the outer layer of the protective casing or covering under the counter pressure or reaction of the presses or jacks and the second shell of the shield giving a support and protection during the construction of the intermediate layer of the protective covering.

1,138,604. FAUCET. HUGH MACDONALD, Detroit, Mich.; L. Burton West and John Wheeler Reid executors of Macdonald, deceased. Filed Nov. 8, 1910. Serial No. 591,273. (Cl. 137—4.)

1. A valve comprising a tubular stem for the passage of a fluid, the upper end of the tubular stem being open and

forming a valve seat, a casing embracing the tubular stem and having a rotatable and endwise movement thereon, said casing being divided into an upper annular chamber and a lower annular chamber, the upper chamber surrounding the stem and in communication with the open top thereof, the upper closed end of the casing constituting a valve which is seated upon the top of the stem in the lowermost position of the casing, a spiral guide between the lower portion of the casing and the stem and a spring for yieldingly and normally holding the casing at its lowermost limit.



2. A valve comprising a tubular stem for the passage of water, an annular base surrounding the stem with an annular space between them, a casing in communication with the stem and having an outlet, a portion of the casing being located in the annular space between the stem and the base, and the casing having a movement upon the stem to open and close communication therewith.

3. A valve comprising a tubular stem for the passage of fluid, an annular base carried by the same with an annular space between them, a casing in communication with the stem and having a portion located in the annular space between the stem and base, and a stud and spiral groove engagement between the stem and casing to impart an endwise movement to the casing when the latter is rotated.

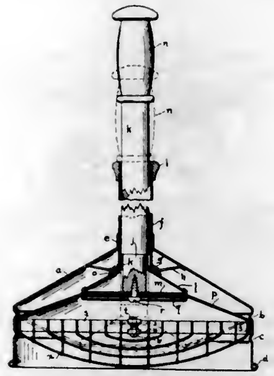
4. A valve comprising a tubular stem for the passage of fluid, one end of the stem constituting a valve seat, a base carried by the stem and having an annular space between the stem and base, a casing rotatably and slidably embracing the valve seat end portion of the stem and having a cylindrical part fitting in the space between the stem and base, a valve carried within the casing and arranged to seat upon the valve seat, and a stud and spiral groove engagement between the stem and the cylindrical portion of the casing to impart an endwise movement to the latter when it is rotated.

5. A valve comprising a tubular stem for the passage of fluid, an annular base surrounding the stem with an annular space between them, a casing provided with an outlet and movably embracing the stem and in communication therewith, and a spring housed within the base in engagement with the casing and arranged to automatically move the latter to close the valve.

[Claim 6 not printed in the Gazette.]

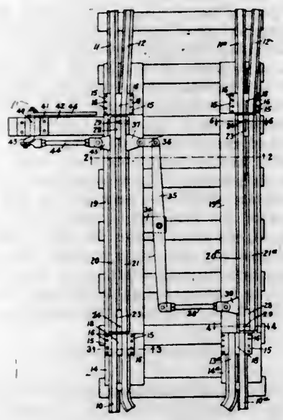
1,138,605. EXPANSIBLE BAND. FRED ELLIOTT YOUNGS, Detroit, Mich., assignor of one-half to John W. Hubbard, Detroit, Mich. Filed May 17, 1913. Serial No. 768,353. (Cl. 24—243.)

An expansible band, comprising a band circular in form and provided with two ends cut to a V-shape, a nut and a block each provided on two sides with an obliquely-disposed recess, into which recesses the V-shaped ends of the band fit, and a screw passing through the block and



threaded into the nut for causing the block and nut to approach or separate, substantially as described.

1,138,606. RAILROAD-SWITCH. IRA A. CALL, Denver, Colo., assignor to Call Switch Company, Denver, Colo., a Corporation of Arizona. Filed Mar. 26, 1913. Serial No. 756,868. (Cl. 104—126.)



1. A railroad track switch of the butt-end type, comprising approaching and trailing track rails, throw rails between the ends of said track rails operating from their opposite ends, and bed plates having their ends abutting against the ends of the track rails and forming rigid connections between said approaching and trailing track rails and over which said throw rails operate.

2. In a railroad switch, the combination with approaching main line rails, trailing main line rails and siding rails, of bed plates having their ends abutting against the ends of said rails, a stub rail located between the approaching and trailing rails on the main line side of the switch and pivoted on one of said bed plates adjacent the approaching end of the switch, the other end of said stub rail being movable so as to aline either with the trailing main line rail or the siding rail, a pair of stub rails disposed side by side at the turn out side of the switch and pivoted adjacent the trailing end of the switch, one stub rail of said pair being in alinement with the trailing main line rail and the other stub rail of said pair being in alinement with the siding rail, said pair of stub rails being movable so as to bring one or the other of them into alinement with the approaching main line rail, and suitable means for shifting said stub rails to change the switch from main line to siding position and vice versa.

3. In a railroad switch, the combination with approaching main line rails, trailing main line rails and siding rails, of bed plates having their ends abutting against the end of said rails, a stub rail located between the approaching and trailing rails on the main line side of the switch and pivoted to one of said bed plates adjacent the approaching end of the switch, the other end of said stub rail being movable so as to aline either with the trailing main line rail or the siding rail, a guard at the side of said stub rail and moving therewith, a pair of stub rails disposed side by side at the turn out side of the switch and pivoted adjacent the trailing end of the switch, one stub rail of said pair being in alinement with the trailing main line rail and the other stub rail of said pair being in alinement with the siding rail, said pair of stub rails being movable so as to bring one or the other of them into alinement with the approaching main line rail, and connections whereby when one of said stub rails is moved the other stub rails participate in such movement.

4. In a railroad switch, the combination with a pair of bed plates, approaching main line rails rigidly secured to said bed plates, trailing main line rails rigidly secured to said bed plates, and siding rails rigidly secured to said bed plates, said rails having their ends abutting against the ends of said bed plates, of a stud rail located between the approaching and trailing rails on the main line side of the switch and pivoted adjacent the approaching end of the switch, the other end of said stub rail being movable so as to aline either with the trailing main line rail or the siding rail, a pair of stud rails disposed side by side at the turn out sde of the switch and pivoted adjacent the trailing end of the switch, one stub rail of said pair being in alinement with the trailing main line rail and the other stub rail of said pair being in alinement with the siding rail, said pair of stud rails being movable so as to bring one or the other of them into alinement with the approaching main line rail, and means for shifting said stub rails to change the switch from main line to siding position and vice versa.

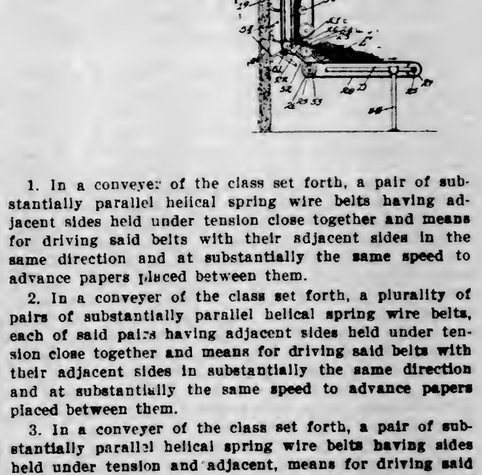
1,138,607. [WITHDRAWN.]

1,138,608. CENTRIFUGAL DEVICE FOR FILTERING SUGAR-JUICES. LAURENT G. G. DIBBETS, Caguas, Porto Rico. Filed Apr. 6, 1914. Serial No. 829,851. (Cl. 210—36.)

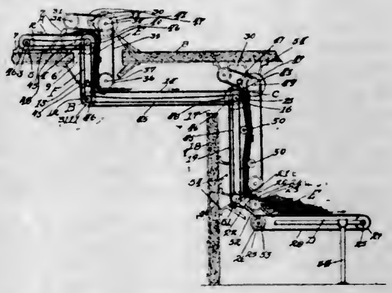
1. In a centrifugal machine for filtering sugar juices having a central rotatable basket, an outer casing provided with discharge openings at diametrically opposite points for discharging the filtered juices, and means for tilting the casing to cause the discharge of the filtered juices through either of said openings.

2. In a centrifugal machine for filtering sugar juices having a central rotatable basket, an outer casing provided with discharge openings at diametrically opposite points for discharging the filtered juices, and means for directing the filtered juices into either of said openings, said last-named means comprising trunnions for rotatably mounting the exterior casing.

3. In a centrifugal machine for filtering sugar juices having a central rotatable basket, an outer casing provided with discharge openings at diametrically opposite points for discharging the filtered juices, and means for directing the filtered juices into either of said openings, said last-named means comprising trunnions for rotatably mounting the exterior casing, the axial line of the trunnions being at right angles to the line between the discharge openings.



1,138,609. NEWSPAPER-CONVEYER. FREDERICK W. FULLERTON, St. Paul, Minn., assignor to Dispatch Conveyor Company, a Corporation of Minnesota. Filed May 20, 1911. Serial No. 628,598. (Cl. 193—4.)



1. In a conveyer of the class set forth, a pair of substantially parallel helical spring wire belts having adjacent sides held under tension close together and means for driving said belts with their adjacent sides in the same direction and at substantially the same speed to advance papers placed between them.

2. In a conveyer of the class set forth, a plurality of pairs of substantially parallel helical spring wire belts, each of said pairs having adjacent sides held under tension close together and means for driving said belts with their adjacent sides in substantially the same direction and at substantially the same speed to advance papers placed between them.

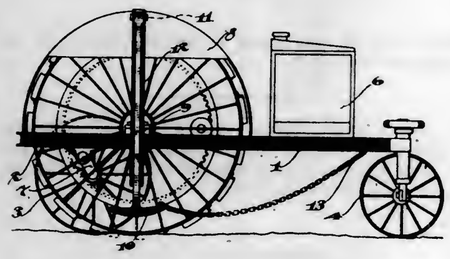
3. In a conveyer of the class set forth, a pair of substantially parallel helical spring wire belts having sides held under tension and adjacent, means for driving said belts with their adjacent sides in the same direction and at the same speed to advance papers placed between them, and means for guiding papers between said adjacent sides.

4. In a conveyer of the class set forth, a pair of substantially parallel helical spring wire belts having sides held under tension and adjacent, means for driving said belts with their adjacent sides in the same direction and at substantially the same speed to advance papers placed between them, and means for delivering papers from between said adjacent sides.

5. A conveyer of the class set forth, comprising, in combination, a pair of carrier belts having adjacent sides cooperating together and traveling in the same forward direction, a third belt having one side traveling in a forward direction and arranged with said side in position to receive papers from between the adjacent sides of said pair of belts, and a guiding element arranged to assist in delivering the papers from between said adjacent sides on to the said side of said third belt, all of said belts being composed of coils of wire acting under spring tension.

[Claims 6 to 8 not printed in the Gazette.]

1,138,610. ANTITIPPING DEVICE FOR TRACTORS. D. MAURICE HARTSOUGH, Minneapolis, Minn., assignor to Bull Tractor Company, Minneapolis, Minn., a Corporation of Minnesota. Filed Jan. 28, 1914. Serial No. 814,970. (Cl. 21—114.)



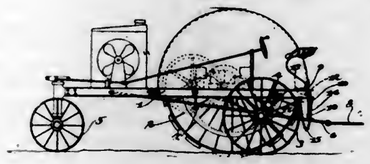
1. The combination with a tractor, of an anti-tipping device in the form of a leg pivotally connected to one side thereof at its upper end, with its free lower end arranged to swing outward and into contact with the ground, to prevent the tractor from being tipped over by a tilting movement in that direction, and a tension member connected to the lower portion of said leg and to the front portion of said tractor.

2. The combination with a tractor having a relatively large traction wheel, an offset rear wheel and a steering wheel located in front of said traction wheel, of an anti-tipping device comprising a leg pivotally hung at its upper end in the vicinity of the upper outer portion of said traction wheel with its free lower end arranged to swing outward into contact with the ground to prevent the tractor from being tipped over by a tilting movement toward the same, the said leg at its lower end having a shoe arranged to slide on the ground in the anti-tipping action.

3. The combination with a tractor having a relatively large traction wheel, an offset rear wheel and a steering wheel located in front of said traction wheel, of an anti-tipping device comprising a leg pivotally hung at its upper end in the vicinity of the upper outer portion of said traction wheel with its free lower end arranged to swing outward into contact with the ground to prevent the tractor from being tipped over by a tilting movement toward the same, and a cable attached to the lower portion of said leg and to the front portion of the tractor.

4. The combination with a tractor having a relatively large rear traction wheel, an offset rear wheel and a steering wheel located in front of said traction wheel, of an anti-tipping device comprising an upright channel bar rigidly secured to the tractor framework just outward of said traction wheel, a leg having its upper end pivotally connected to the upper end of said channel bar and normally resting therein, a ground engaging shoe applied to the lower free end of said leg, and a cable connecting the lower portion of said leg to the front portion of said tractor.

1,138,611. DRAG-BAR CONNECTION FOR TRACTORS. D. MAURICE HARTSOUGH, Minneapolis, Minn., assignor to Bull Tractor Company, Minneapolis, Minn., a Corporation of Minnesota. Filed Jan. 28, 1914. Serial No. 814,971. (Cl. 21—114.)



1. The combination with a tractor having a single traction wheel, of a draw bar connected thereto and arranged to swing from a position at one side of said traction wheel into a position at the rear of said traction wheel and vice versa, a vertically adjustable connection supporting the rear end of said draw bar from said tractor with freedom for lateral swinging movements, and stop devices limiting the lateral swinging movements of said draw bar.

2. The combination with a tractor having a single rear traction wheel, a laterally offset rear wheel and a front guide wheel of a draw bar pivotally connected to the tractor frame adjacent to the inner side of said traction wheel, and having a free rear end offset toward said traction wheel and arranged to swing behind the same when the tractor is turned toward the traction wheel side thereof.

3. The combination with a tractor having a single rear traction wheel, a laterally offset rear wheel and a front guide wheel, of a draw bar pivotally connected to the tractor frame adjacent to the inner side of said traction wheel, and having a free rear end offset toward said traction wheel and arranged to swing behind the same when the tractor is turned toward the traction wheel side thereof, a vertically adjustable connection supporting the free rear end of said draw bar from the tractor frame, and a draw connection attached to the offset free end of said draw bar.

4. The combination with a tractor having a single rear traction wheel, a laterally offset rear wheel and a front guide wheel, of a draw bar pivotally connected to the tractor frame adjacent to the inner side of said traction wheel, and having a free rear end offset toward said traction wheel and arranged to swing behind the same when the tractor is turned toward the traction wheel side thereof, vertically adjustable connection supporting the free rear end of said draw bar from the tractor frame, and a draw connection attached to the offset free end of said draw bar, and stop chains attached to said draw bar and to said tractor frame for limiting the lateral swinging movements thereof.

1,138,612. ROCK-DRILL. MOSES ARTHUR KNAPP, Oakland, Cal. Filed Feb. 23, 1915. Serial No. 10,027. (Cl. 121—10.)

1. In a rock drilling apparatus having a drilling engine and a hollow drill bit; a water tank affixed to said drilling engine and a connection from said water tank to said hollow bit.

2. In a rock drilling apparatus having a drilling engine and a hollow drill bit; a water tank affixed to said drilling engine, connection from said water tank to said hollow bit, and means for supplying an air pressure to said water tank.



3. In a rock drilling apparatus having a drilling engine and a hollow drill bit; a water tank affixed to said drilling engine, connection from said water tank to said hollow bit, and means of supplying an air blast to said hollow bit in such a manner that said air and said water shall be delivered at the cutting end of said drill bit as a combined blast of air and water.

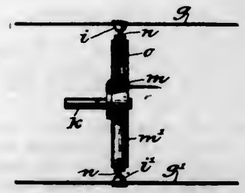
4. In a rock drilling apparatus having a drilling engine and a hollow drill bit; a water tank affixed to said drilling engine, connection from said water tank to said hollow bit, means of supplying an air blast to said hollow bit and means of controlling the amount of flow of water from said water tank to said hollow bit.

5. In a rock drilling apparatus having a drilling engine and a hollow drill bit; a water tank affixed to said drilling engine, connection from said water tank to said hollow bit, means of supplying an air blast to said hollow bit in such a manner that said air and said water shall be delivered at the cutting end of said drill bit as a combined blast of air and water and means of controlling the amount of said air blast.

[Claims 6 to 20 not printed in the Gazette.]

REISSUES.

13,909. MECHANICAL HORN. OSCAR C. ARLITZ, Grantwood, N. J., assignor, by mesne assignments, to Lovell-McConnell Manufacturing Company, a Corporation of Delaware. Filed Dec. 19, 1912. Serial No. 738,111. Original No. 979,245, dated Dec. 20, 1910, Serial No. 564,907. (Cl. 116—1.)



1. A mechanical horn embodying therein a plurality of parallel diaphragms, a rotary impact member arranged between, and adapted to vibrate both of, said diaphragms, a casing having a chamber upon the outside of each said diaphragm and a sound outlet common to both of said chambers, and an amplifier communicating with the said sound outlet.

2. A mechanical horn embodying therein a drum the ends of which are inclosed by a plurality of parallel diaphragms, whereby an inert column of air is formed between said diaphragms, a rotary impact member, arranged between, and adapted to vibrate both of, said diaphragms, a casing having a chamber upon the outside of each said diaphagm and a sound outlet common to both of said chambers, and an amplifier communicating with the said sound outlet.

3. A mechanical horn embodying therein a plurality of parallel diaphragms, a rotary impact member arranged between, and adapted to vibrate both of said diaphragms, a casing having a sound outlet, a large chamber adjacent to said outlet and branch chambers extending from said last mentioned chamber forwardly of each of said diaphragms whereby a single column of air is formed which is simultaneously displaced by both of said diaphragms, and said sound waves will be collected and simultaneously discharged through said sound outlet, and an amplifier communicating with the said sound outlet.

4. A mechanical horn embodying therein a plurality of parallel diaphragms, a rotary impact member arranged between, and adapted to vibrate both of, said diaphragms, said impact member comprising a rotary stem and a hammer head capable of movement relative to said stem and normally projecting beyond the planes of said diaphragms, whereby said head is adapted to recede with either of said diaphragms upon an engagement of these parts upon the reflex action of the latter, a casing having a chamber upon the outside of each of said diaphragms and a sound outlet common to both of said chambers, and an amplifier communicating with the said sound outlet.

5. A mechanical horn embodying therein a plurality of parallel diaphragms, a rotary impact member arranged between, and adapted to vibrate both of, said diaphragms, said impact member comprising a plurality of rotary stems each said stem carrying a hammer head capable of movement relative to said stem, and normally projecting beyond the planes of said diaphragms, whereby said head is adapted to recede with either of said diaphragms upon an engagement of these parts upon the reflex action of the latter, a casing having a chamber upon the outside of each of said diaphragms and a sound outlet common to both of said chambers, and an amplifier communicating with the said sound outlet.

6. A mechanical horn embodying therein a plurality of parallel diaphragms, a plurality of oppositely disposed, simultaneously rotatable impact members, arranged between and adapted to simultaneously engage and vibrate both of, said diaphragms, a casing having a chamber upon the outside of each said diaphragm and a sound outlet common to both of said chambers, and an amplifier communicating with the said sound outlet.

7. A mechanical horn embodying therein a plurality of parallel diaphragms, a rotary impact member arranged between, and adapted to vibrate both of, said diaphragms, said impact member comprising a pair of oppositely disposed, radically projected stems and a hammer head on each stem capable of movement relative to said stem and normally projecting beyond the planes of said diaphragms, whereby said head is adapted to recede with either of said diaphragms upon an engagement of these parts upon the reflex action of the latter, a casing having a chamber upon the outside of each of said diaphragms and a sound outlet common to both of said chambers, and an amplifier communicating with the said sound outlet.

8. A mechanical horn embodying therein a plurality of parallel diaphragms, a rotary impact member arranged between, and adapted to vibrate both of, said diaphragms, said impact member comprising a rotary stem and a hammer head capable of movement relative to said stem and a spring acting on said head to normally project it

beyond the planes of said diaphragms, whereby said head is adapted to recede with either of said diaphragms upon an engagement of these parts upon the reflex action of the latter, a casing having a chamber upon the outside of each of said diaphragms and a sound outlet common to both of said chambers, and an amplifier communicating with the said sound outlet.

9. A mechanical horn embodying therein a plurality of parallel diaphragms, a rotary impact member arranged between, and adapted to vibrate both of, said diaphragms, said impact member comprising a rotary stem and a hammer head rotatably mounted in and capable of movement relative to said stem and a spring acting on said head to normally project it beyond the planes of said diaphragms, whereby said head is adapted to recede with either of said diaphragms upon an engagement of these parts upon the reflex action of the latter, a casing having a chamber upon the outside of each of said diaphragms and a sound outlet common to both of said chambers, and an amplifier communicating with the said sound outlet.

10. A mechanical horn embodying therein a plurality of parallel diaphragms, a plurality of oppositely disposed, simultaneously rotatable impact members arranged between and adapted to simultaneously engage and vibrate both of said diaphragms, the axis of rotation of said impact members being perpendicular to the axes of said diaphragms, a casing having a chamber upon the outside of each said diaphragm, and a sound outlet common to both of said chambers and an amplifier communicating with said sound outlet.

11. A mechanical horn embodying therein a plurality of parallel diaphragms, a rotary impact member arranged between, and adapted to vibrate both of said diaphragms, said impact member comprising a shaft, the axis of which is perpendicular to the axes of said diaphragms, a pair of oppositely disposed, radially projected stems and a hammer head carried by, and capable of movement relative to, each of said stems, and normally projecting beyond the planes of said diaphragms whereby said head is adapted to recede with either of said diaphragms upon an engagement of these parts upon the reflex action of the latter, a casing having a chamber upon the outside of each said diaphragm, and a sound outlet common to both of said chambers, and an amplifier communicating with said sound outlet.

12. A mechanical horn embodying therein a plurality of parallel diaphragms, a rotary impact member arranged between, and adapted to vibrate both of said diaphragms, said impact member comprising a rotary stem the axis of which is at right angles to the axis of said diaphragms, a hammer head capable of movement relative to said stem, and a spring acting on said head to normally project it beyond the planes of said diaphragms, whereby said head is adapted to recede with either of said diaphragms upon an engagement of these parts upon the reflex action of the later, a casing having a chamber upon the outside of each of said diaphragms and a sound outlet common to both of said chambers, and an amplifier communicating with said sound outlet.

13. A mechanical horn embodying therein a plurality of parallel diaphragms, a rotary impact member arranged between, and adapted to vibrate both of said diaphragms, said impact member comprising a rotary stem, the axis of which is perpendicular to the axes of said diaphragms, a disk hammer head rotatably mounted in, and capable of movement relative to, said stem, and a spring acting on said head to normally project it beyond the planes of said diaphragms, whereby said head is adapted to recede with either of said diaphragms upon an engagement of these parts upon the reflex action of the later, a casing having a chamber upon the outside of each of said diaphragms, and a sound outlet common to both of said chambers, and an amplifier communicating with said sound outlet.

14. In a mechanical horn, the combination with a casing having a sound outlet and interior partitions forming an air column having two branches, communicating with said sound outlet, of a drum the ends of which, adjacent to said branch chambers are inclosed by a plurality of parallel diaphragms whereby an inert column of air is formed between said diaphragms, and said diaphragms when flexed outwardly, act upon substantially the same column of air, raised impact members carried by said diaphragms respectively, a motor mounted within said casing, the shaft of which motor is substantially perpendicular to the axes of said diaphragms and terminates within said drum in substantial alinement with said diaphragms, impact members carried by said diaphragms respectively, a plurality of diametrically opposite, radially projected bifurcated arms carried by said motor shaft, each said arm having mounted in the fork thereof a disk hammer head having trunnions mounted in elongated slots in said arms, whereby said heads are capable of movement relative to said arms, a spring normally projecting said head beyond the normal plane of either of said diaphragms, whereby said heads, by a wiping engagement with said impact members of said diaphragms, will flex said diaphragms, but will be caused to recede with said diaphragms by a substantially radial thrust thereon through the reflex action thereof, and an amplifier communicating with said sound outlet.

15. A mechanical horn embodying therein a diaphragm, and a rotary member adapted to vibrate said diaphragm, said rotary member comprising a rotary body, a plurality of impact heads, each rotatable about its own axis, and a support for each of said impact heads, said supports normally projecting said heads into operative position for engagement with said diaphragm, and having guided movement on said body, whereby said heads may recede with said diaphragm on the engagement of these parts and upon the reflex action of the latter.

16. A mechanical horn embodying therein a diaphragm, and a rotary member adapted to vibrate said diaphragm, said rotary member comprising a rotary body, a plurality of impact heads, each rotatable about its own axis, and a support for each of said impact heads, said supports normally projecting said heads into operative position for engagement with said diaphragm, and having guided radial movement on said body, whereby said heads may recede with said diaphragm on the engagement of these parts upon the reflex action of the latter.

17. A mechanical horn embodying therein a diaphragm, and a rotor having a plurality of impact members carried thereby and adapted to vibrate said diaphragm, said impact members each having guided movement relative to said rotor, and each rotatable about its own axis, and a plurality of springs for projecting said impact members to limiting positions whereby they may have engagement with said diaphragm upon a rotation of said rotor.

18. A mechanical horn embodying therein a diaphragm, and a rotor having a plurality of impact members carried thereby and adapted to vibrate said diaphragm, said impact members each having guided movement relative to said rotor, in a direction having a radial component, and each rotatable about its own axis, and a plurality of springs for projecting said impact members to limiting positions whereby they may have engagement with said diaphragm upon a rotation of said rotor.

13,910. MOLDING. WILLIAM R. FRIEDEL, Memphis, Tenn. Filed Mar. 31, 1915. Serial No. 18,424. Original No. 1,113,896, dated Oct. 13, 1914. Serial No. 818,680. (Cl. 20—15.)

1. A molding strip comprising a body provided with a rabbet on each side and a groove merging into said rabbet, said body being also formed with a face portion arranged on one side of said groove and falling short of the edges of the body, and retaining strips co-acting with said rabbets and said groove for holding in place a wall board extending into said rabbets and arranged on the surface of said face, each of said strips having a bead extending into said groove, and an overhanging edge overhanging the board arranged on said face, whereby said strips clamp the board on said face in position, and the boards having their edges in said rabbets.

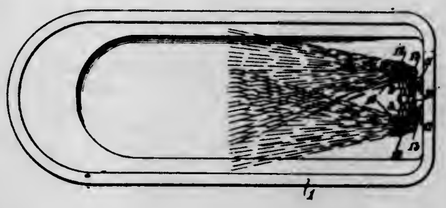


2. A wall covering comprising parallel molding strips having rabbets in the sides facing each other, at least one of the strips having on the front a flange portion extending outwardly over the corresponding rabbet in the direction of the opposite strip, a wall board extending at its edges into said rabbets, the width of the board being not greater than the distance from the outer edge of said flange portion to the farthest point on the opposed rabbet in the next strip, and means coöperating with said strips and pressing frictionally on the outer face of the wall board for holding the board in place.

3. A wall covering comprising parallel molding strips having rabbets in the sides facing each other, said strips having flanges lying in front of the rabbets and projecting outwardly partly across the rabbets, a wall board extending at its edges into said rabbets, the width of the wall board being approximately equal to the distance between the nearest points on the flanges of the strips between which the wall board lies, and means coöperating with said flanges and engaging with the outer face of the wall board for holding it in place.

13,911. CURTAINLESS SHOWER-BATH. ANDREW E. KENNEY, North Plainfield, N. J., assignor, by mesne assignments, to Reddan Specialty Company, Inc., a Corporation of New York. Filed Mar. 27, 1915. Serial No. 17,349. Original No. 1,054,922, dated Mar. 4, 1913, Serial No. 682,771. Reissue No. 13,877, dated Feb. 9, 1915, Serial No. 879,601. (Cl. 4—26.)

1. In a shower bath, the combination with a tub, of a pair of nozzles located in substantially the same horizontal plane and at a point above the rim of the tub, a second pair of nozzles located above the first pair in substantially the same horizontal plane, each pair of nozzles disposed to direct their streams on converging and downwardly inclined lines whereby the streams from all the nozzles will fall within the confines of the tub, and means for supplying water to the nozzles.



2. In a shower bath, the combination with a tub having hot and cold water faucets, a supporting bar resting upon and bridging the space between the two faucets, a clamping bar engaging beneath the two faucets, means for forcing the two bars together to clamp them upon the faucets, a hollow upright column rising from the supporting bar, laterally extending arms carried by the column, nozzles carried by said arms disposed to direct their streams on converging and downwardly inclined lines so that the streams shall fall within the confines of the tub, and a water supply connection between the faucets and the upright column.

3. In a shower bath, the combination with a tub, of a pair of nozzles arranged in spaced relation and disposed to direct their streams on converging lines downwardly inclined into the tub so that such streams shall fall wholly within the confines of the tub, a second pair of nozzles located above the first pair and disposed to direct their streams on converging and downwardly inclined lines so as to fall wholly within the confines of the tub, the second pair of nozzles being also disposed in spaced relation but offset from the vertical plane of the lower pair to prevent drippings from the upper pair of nozzles from falling on the lower pair of nozzles and being splashed by such contact.

4. In a shower bath, the combination with a bath tub provided with a hot and cold water supply at one end thereof, of a shower comprising an upright pipe detachably connected to said water supply, groups of relatively small outlets at about the same level on either side of said pipe and in communication therewith, each of said groups of outlets being in a plane approximately to the vertical but with the plane of the group on one side of the pipe meeting the plane of the group on the other side of the pipe at an obtuse angle so that the streams of water from said groups of outlets will be directed lengthwise of the tub but will converge within the limits of the tub.

5. In a shower bath, the combination with a tub provided with a faucet, of a portable shower detachably secured to the faucet and supported thereby comprising an upright pipe provided with a plurality of fine outlets, said outlets being arranged in groups in an approximately horizontal plane to discharge a plurality of fine streams directed at an angle to each other whereby the streams will converge above the level of the tub and approximately above the median line thereof to form substantially a single large stream and fall wholly within the tub, and means for supplying water to said pipe and outlets.

6. In a shower bath, the combination with a faucet, of an upright pipe communicating with said faucet and provided with a plurality of relatively small outlets above the level of the tub, said outlets being arranged in groups to deliver approximately equal quantities of water in relatively distinct streams, the axis of each group being arranged to intersect the vertical plane coincident with the median line of the tub and intermediate the ends thereof so that the streams of water delivered from each group of outlets will commingle above the tub to form substantially a single stream and the water will fall wholly within the confines of the tub, and means for supplying water to said faucet.

13,912. METALLIC SHOE-COUNTER. BENJAMIN F. MCCOY, St. Louis, Mo. Filed July 14, 1913, Serial No. 779,059. Original No. 1,064,923, dated June 17, 1913, Serial No. 717,112. (Cl. 36—68.)



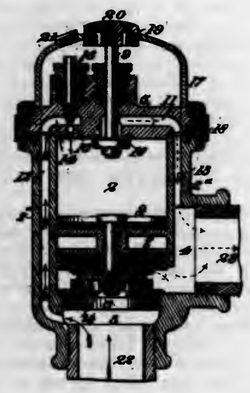
1. A metallic shoe counter comprising a flexible heel portion arranged to be bent and fitted to lasts of different

heel contours, said heel portion having a series of inturned teeth along its lower edge constituting a discontinuous flange, the arrangement and relative spacing of the teeth being such that the counter may be machine-lasted in a shoe.

2. A metallic counter comprising a flexible heel portion arranged to be bent and fitted to lasts of different heel contours, said heel portion having an inturned serrated flange along its lower edge, the teeth of said inturned flange being pointed and spaced close together, and the notches between the teeth extending into the wall of said heel, whereby said counter may be machine-lasted in a shoe.

3. A metallic shoe counter consisting of flexible side walls and a flexible heel portion arranged to be bent and fitted to lasts of different contours, said counter being provided along its lower edge with narrow inturned projections spaced around the heel portion, the arrangement and relative spacing of the teeth being such that the counter may be machine-lasted in a shoe, the side walls of said counter being provided adjacent to their ends with inturned stitching flaps or extensions which are perforable by a sewing machine needle.

13,913. REVERSIBLE FLUSH-VALVE. JOHN B. WILLIAMS, San Francisco, Cal., assignor, by mesne assignments, to Perfection Valve Company, a Corporation of California. Filed Dec. 21, 1914. Serial No. 878,454. Original No. 1,062,868, dated May 27, 1913, Serial No. 701,303. (Cl. 137—93.)



1. A device of the class described comprising an outer casing, a cylindrical portion within said outer casing, intake and discharge connections attached to said casing and communicating with the lower end of said cylinder, a valve seat provided in the lower portion of said cylinder, a piston valve arranged to close on said valve seat to shut off communication between the intake and the discharge connections, partitions connecting said outer casing and cylindrical portion in such manner as to provide two ducts, one being connected with the intake opening and the other being connected with the outlet opening, a cylinder head closing the upper end of the cylinder and provided with diametrically oppositely disposed passageways opening into said cylinder and each communicating with one of said ducts, a needle valve carried by said cylinder head and adapted to control one of said passage ways, and a control valve carried by said cylinder head and provided with a push button, said cylinder head being formed with the passage ways constructed to permit the cylinder head to be reversed whereby the relationship of said passage ways to the ducts is interchanged, substantially as described.

2. A device of the class described comprising an outer casing, a cylindrical portion within said outer casing, intake and discharge connections attached to said casing and communicating with the lower end of said cylinder, a valve seat provided in the lower portion of said cylinder, a piston valve arranged to close on said valve seat to shut off communication between the intake and the discharge connections, partitions connecting said outer casing and cylindrical portion in such manner as to provide two ducts, one being connected with the intake opening and the other being connected with the outlet opening, a cylinder head closing the upper end of the cylinder and provided with diametrically oppositely disposed passage ways opening into said cylinder and each communicating with one of said ducts, means to vary the rate of flow through one of said passage ways, and a control valve carried by said cylinder head and provided with a push button, said cylinder head being formed with the passage ways constructed to permit the cylinder head to be reversed whereby the relationship of said passage ways to the ducts is interchanged, substantially as described.

3. A device of the class described comprising an outer casing, a cylindrical portion within said outer casing, intake and discharge connections attached to said casing and communicating with the lower end of said cylinder, a valve seat provided in the lower portion of said cylinder, a piston valve arranged to close on said valve seat to shut off communication between the intake and the discharge connections, partitions connecting said outer casing and cylindrical portion in such manner as to provide two ducts, one being connected with the intake opening and the other being connected with the outlet opening, a cylinder head closing the upper end of the cylinder and provided with diametrically oppositely disposed passage ways opening into said cylinder and each communicating with one of said ducts, means to vary the rate of flow through one of said passage ways, and a control valve carried by said cylinder head and provided with a push button, said cylinder head being formed with the passage ways constructed to permit the cylinder head to be reversed whereby the relationship of said passage ways to the ducts is interchanged, substantially as described.

4. A device of the class described comprising an outer casing, a cylindrical portion within said outer casing, intake and discharge connections attached to said casing and communicating with the lower end of said cylinder, a valve seat provided in the lower portion of said cylinder, a piston valve arranged to close on said valve seat to shut off communication between the intake and the discharge connections, partitions connecting said outer casing and cylindrical portion in such manner as to provide two ducts, one being connected with the intake opening and the other being connected with the outlet opening, a cylinder head closing the upper end of the cylinder and provided with diametrically oppositely disposed passage ways opening into said cylinder and each communicating with one of said ducts, means carried by the head to restrict one of said passage ways and thereby produce a differential flow through them, and a control valve carried by said cylinder head and provided with a push button, said cylinder head being formed with the passage ways constructed to permit the cylinder head to be reversed whereby the relationship of said passage ways to the ducts is interchanged, substantially as described.

5. In a flushing valve, the combination of a valve chamber, intake and discharge connections communicating with said valve chamber, a duct leading into the intake and a duct leading into the discharge, a member having passages adapted to register with said ducts, said passages when in registered position forming in effect parts of the ducts and leading into the valve chamber, a valve in said chamber arranged to normally shut off communication between the intake and the discharge, said valve being maintained in its normal position relative to intake and discharge by a counterbalancing fluid pressure delivered to the valve chamber through one of the ducts and the registered passage in said member, a valve in the other passage in said member which when opened acts to reduce the counterbalancing fluid pressure against the main valve and cause the fluid pressure in the intake to open the valve, whereby communication between intake and discharge is established, and means for adjusting said member to reverse registration of the passages relative to the ducts whereby reversal becomes effective to render the discharge connection the intake and the intake connection the discharge.

6. In a flushing valve, the combination of a valve chamber, intake and discharge connections communicating with the valve chamber, a duct leading into the intake and a duct leading into the discharge, a main valve in said chamber operative to normally shut off communication between the intake and discharge by a counterbalancing fluid pressure opposed to the fluid pressure in the intake, a head closing the valve chamber, and provided with passages registering with said ducts, one of said passages being arranged to deliver the counterbalancing fluid pressure and the other provided with a valve which when opened affords communication between the valve chamber and the duct leading to the discharge to thereby exhaust the counterbalancing fluid pressure and permit the intake pressure to open the main valve, and means for adjusting said head to reverse the registration of said passages with the ducts, whereby the intake connection becomes the discharge and the discharge connection the intake, permitting reversal of fluid flow through the flushing valve.

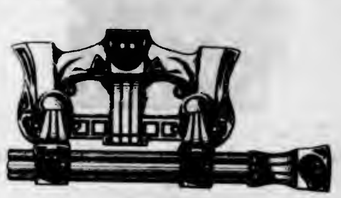
7. In a flushing valve, the combination of a valve chamber, intake and discharge connections communicating with the valve chamber, a duct leading into the intake and a duct leading into the discharge, a main valve in said chamber operative to normally shut off communication between the intake and discharge by a counterbalancing fluid pressure opposed to the fluid pressure in the intake, a head closing the valve chamber and provided with a restricted passage adapted to register with the duct leading to the intake and with a valve controlled passage adapted to register with the duct leading to the discharge, both said passages communicating with the interior of the main valve chamber, the restricted passage delivering the counterbalancing fluid pressure and the valved passage upon opening of the valve exhausting the counterbalancing fluid pressure to permit the main valve to open and establish communication between the intake and discharge, and means for adjusting said head to reverse the registration of the passages relative to the ducts whereby the intake connection becomes the discharge and the discharge connection the intake.

8. In a flushing valve, the combination of a valve chamber, intake and discharge connections communicating with the valve chamber, a duct leading into the intake and a duct leading into the discharge, a main valve in said chamber operative to normally shut off communication between the intake and discharge by a counterbalancing fluid pressure opposed to the fluid pressure in the intake and a reversible head closing the valve chamber and provided with a choked passage adapted to register with one duct, and with a valve controlled passage adapted to register with the other duct, both said passages forming extensions of the ducts and communicating with the interior of the main valve chamber, the restricted passage delivering the counterbalancing fluid pressure from its registered duct and the valve passage upon opening of the valve exhausting the counterbalancing fluid pressure through its registered duct to permit the main valve to open and establish communication between the intake and discharge.

9. In a flushing apparatus, the combination with a valve chamber, intake and discharge connections communicating with said chamber, a valve in said chamber operative to normally shut off communication between intake and discharge by a counterbalancing fluid pressure opposed to the fluid pressure in the intake, a duct connecting the intake with the valve chamber for supplying said fluid pressure, and a second duct connecting the valve chamber with the discharge and valve controlled to exhaust the counterbalancing fluid pressure and permit the main valve to open by fluid pressure at the intake, and means for reversing the functions of said ducts relative to fluid pressure control of the main valve, whereby reversal becomes effective to render the discharge connection the intake and the intake connection the discharge.

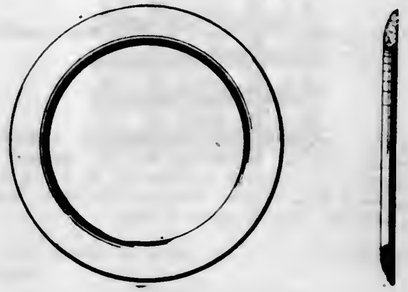
DESIGNS.

47,281. BURIAL-CASKET HANDLE. CHARLES BLESCH, Newport, Ky., assignor to The Crane & Breed Manufacturing Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Jan. 16, 1915. Serial No. 2,766. Term of patent 14 years.



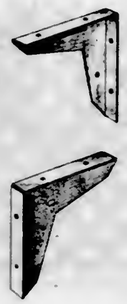
The ornamental design for a burial casket handle, substantially as shown.

47,282. CINCH-RING. GEORGE BUEHMANN, Newark, N. J. Filed Nov. 19, 1914. Serial No. 873,056. Term of patent 14 years.



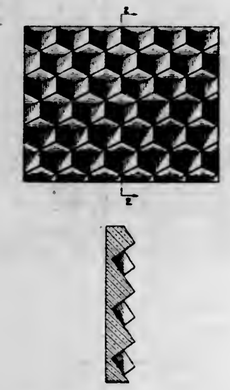
The ornamental design for a cinch ring, as shown.

47,283. BRACKET. JOSEPH F. EAGAN, St. Jo, Tex. Filed Jan. 25, 1915. Serial No. 4,387. Term of patent 3½ years.



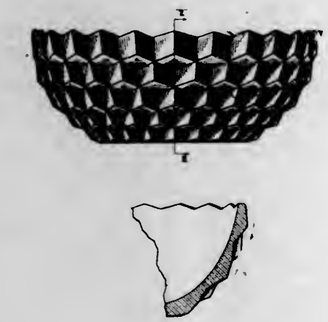
The ornamental design for a bracket, as shown.

47,284. PIECE OF GLASS. PHILLIP EBELING, Moundsville, W. Va., assignor to Fostoria Glass Company, Moundsville, W. Va., a Corporation of West Virginia. Filed June 27, 1914. Serial No. 847,758. Term of patent 7 years.



The ornamental design for a piece of glass, substantially as shown and described.

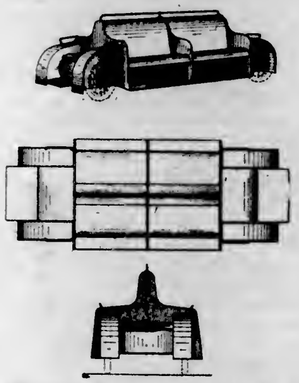
47,285. GLASS VESSEL OR SIMILAR ARTICLE. PHILLIP EBELING, Moundsville, W. Va., assignor to Fostoria Glass Company, Moundsville, W. Va., a Corporation of West Virginia. Filed June 27, 1914. Serial No. 847,759. Term of patent 7 years.



The ornamental design for a glass vessel or similar article, substantially as shown and described.

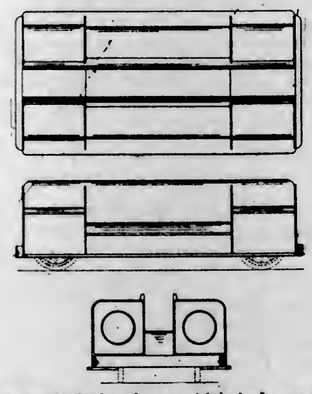
47,286. [WITHDRAWN.]

47,287. VEHICLE-BODY. ROLLIE B. FAGEOL, Oakland, Cal. Filed Jan. 5, 1915. Serial No. 696. Term of patent 14 years.



The ornamental design for a vehicle body, as shown.

47,288. VEHICLE-BODY. ROLLIE B. FAGEOL, Oakland, Cal. Filed Jan. 5, 1915. Serial No. 697. Term of patent 14 years.



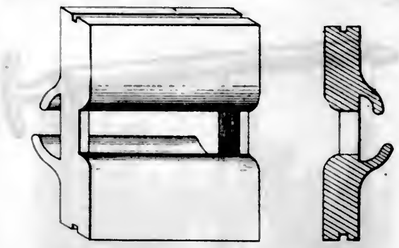
The ornamental design for a vehicle body, as shown.

47,289. TOBACCO AND MATCH BOX. WILLIAM JOHN FRICKE, Hartford, Conn. Filed Jan. 16, 1915. Serial No. 2,765. Term of patent 3½ years.



The ornamental design for a tobacco and match box, as shown.

47,290. WALL-TILE. HARRY N. GOLDSMITH, Philadelphia, Pa. Filed May 19, 1914. Serial No. 839,656. Term of patent 7 years.



The ornamental design for a wall tile, as shown.

47,291. LACE EDGING. SAMUEL N. GOODMAN, Philadelphia, Pa., assignor to Friedberger-Aaron Manufacturing Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Feb. 27, 1915. Serial No. 11,066. Term of patent 7 years.



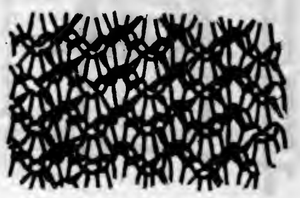
The ornamental design for a lace edging, as shown and described.

47,292. VANITY-CASE. ELI A. GUTHMAN, New York, N. Y. Filed Jan. 28, 1915. Serial No. 4,955. Term of patent 3½ years.



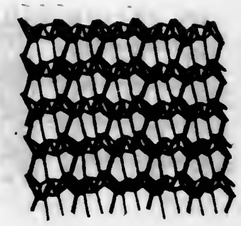
The ornamental design for a vanity case as shown.

47,293. LACE. MORRIS A. HALDEMAN, Nazareth, Pa., assignor to G. A. Schneebeli & Co., Inc., Nazareth, Pa., a Corporation of Pennsylvania. Filed Feb. 17, 1915. Serial No. 8,934. Term of patent 7 years.



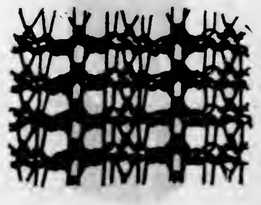
The ornamental design for a lace, substantially as shown.

47,294. LACE. MORRIS A. HALDEMAN, Nazareth, Pa., assignor to G. A. Schneebeli & Co., Inc., Nazareth, Pa., a Corporation of Pennsylvania. Filed Feb. 17, 1915. Serial No. 8,935. Term of patent 7 years.



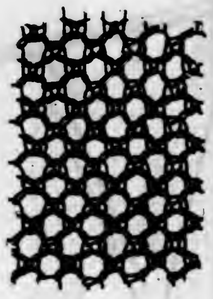
The ornamental design for a lace, substantially as shown.

47,295. LACE. MORRIS A. HALDEMAN, Nazareth, Pa., assignor to G. A. Schneebeli & Co., Inc., Nazareth, Pa., a Corporation of Pennsylvania. Filed Feb. 17, 1915. Serial No. 8,936. Term of patent 7 years.



The ornamental design for a lace, substantially as shown.

47,296. LACE. MORRIS A. HALDEMAN, Nazareth, Pa., assignor to G. A. Schneebeli & Co., Inc., Nazareth, Pa., a Corporation of Pennsylvania. Filed Feb. 17, 1915. Serial No. 8,937. Term of patent 7 years.



The ornamental design for a lace, substantially as shown.

47,297. LACE. MORRIS A. HALDEMAN, Nazareth, Pa., assignor to G. A. Schneebell & Co., Inc., Nazareth, Pa., a Corporation of Pennsylvania. Filed Feb. 17, 1915. Serial No. 8,938. Term of patent 7 years.



The ornamental design for a lace, substantially as shown.

47,298. POISON-BOTTLE. WILLIAM W. HAYS and EDWARD HAYS, Macomb, Ill. Filed Jan. 16, 1915. Serial No. 2,764. Term of patent 14 years.



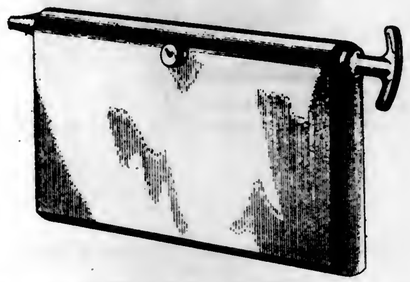
The ornamental design for a poison bottle, as shown

47,299. FIRE-EXTINGUISHER CASING. ROBERT S. HICKISH, Tuckahoe, N. Y., assignor, by mesne assignments, to Edward T. Powell, Columbus, Ohio. Filed Mar. 4, 1914. Serial No. 822,526. Term of patent 14 years.



The ornamental design for a fire extinguisher casing as shown.

47,300. FIRE-EXTINGUISHER CASING. ROBERT S. HICKISH, Tuckahoe, N. Y., assignor, by mesne assignments, to Edward T. Powell, Columbus, Ohio. Filed Mar. 4, 1914. Serial No. 822,527. Term of patent 14 years.



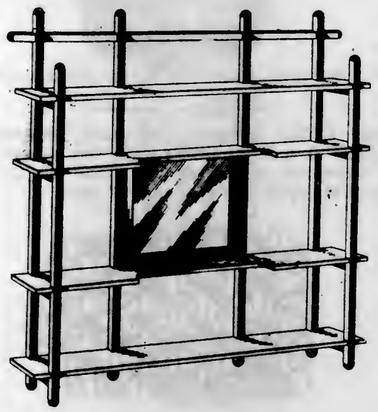
The ornamental design for a fire extinguisher casing as shown.

47,301. LAMP-CHIMNEY. ADDISON JENKINS, Kokomo, Ind., assignor to D. C. Jenkins Glass Company, Kokomo, Ind., a Corporation. Filed Jan. 13, 1915. Serial No. 2,082. Term of patent 14 years.



The ornamental design for a lamp chimney as shown.

47,302. BOOK-RACK. JOHN H. JEWETT, Appleton, Wis. Filed Feb. 24, 1915. Serial No. 10,382. Term of patent 7 years.



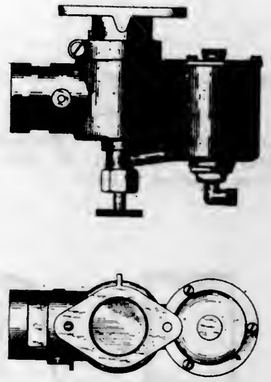
The ornamental design for a book rack substantially as shown.

47,303. BUTTON, BADGE, OR SIMILAR ARTICLE. BENJAMIN R. JOLLY, Raleigh, N. C., and PRESTON L. FOWLER, New York, N. Y.; said Fowler assignor to said Jolly. Filed Dec. 8, 1914. Serial No. 876,149. Term of patent 3½ years.



The ornamental design for a button, badge, or similar article, as shown.

47,304. CARBURETER. CHARLES B. KENT, Kenosha, Wis. Filed Aug. 15, 1914. Serial No. 856,995. Term of patent 7 years.



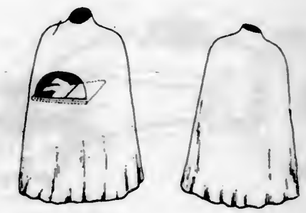
The ornamental design for a carbureter, as shown.

47,305. SPOON. THEODORE J. LOWRAY, Washington, D. C. Filed Jan. 4, 1915. Serial No. 522. Term of patent 3½ years.



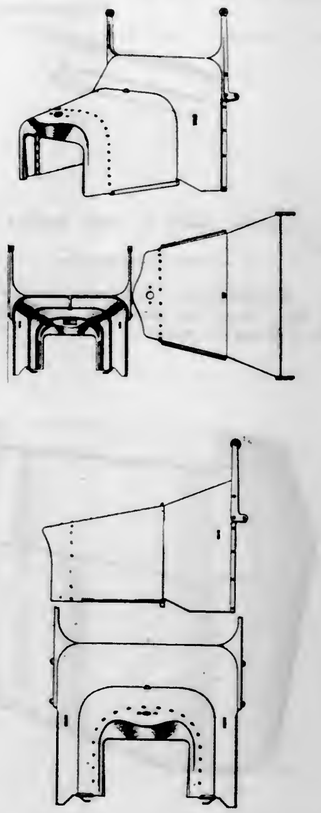
The ornamental design for spoons, as shown.

47,306. COVER FOR DRIVERS OF MOTOR-CARS, MOTOR-BUSSES, OR THE LIKE VEHICLES. MADGE CHRISTINE MORRIS, Catford, London, England. Filed Oct. 16, 1912. Serial No. 726,127. Term of patent 3½ years.



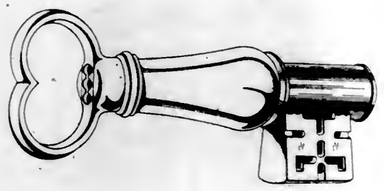
The ornamental design for a cover for the drivers of motor cars, motor busses, or the like vehicles as shown and described.

47,307. HOOD AND COWL-DASH ATTACHMENT FOR AUTOMOBILES. JOHN SCHNEIDER and HENRY SCHNEIDER, Ann Arbor, Mich. Filed Jan. 19, 1915. Serial No. 3,182. Term of patent 3½ years.



The ornamental design for a hood and cowl dash for automobiles substantially as shown.

47,308. TOY BANK. WILLIAM J. SOMERVILLE, Cleveland, Ohio. Filed Feb. 11, 1915. Serial No. 7,605. Term of patent 14 years.



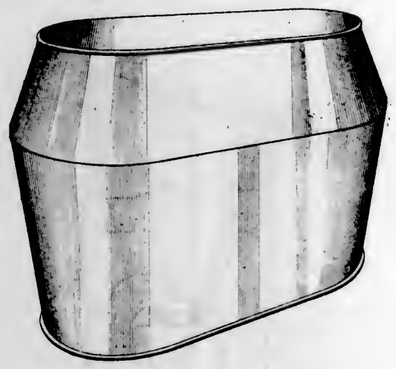
The ornamental design for a toy bank as shown.

47,309. METAL MOLDING. ALBERT C. TERRELL, Grand Rapids, Mich. Filed July 6, 1914. Serial No. 850,018. Term of patent 14 years.



The ornamental design for metal molding shown and described.

47,310. WASHBOILER. CYNTHIA WACASER, Kansas City, Mo. Filed July 24, 1914. Serial No. 852,912. Term of patent 14 years.



The ornamental design for a wash boiler, as shown.

47,311. PENCIL-CASING. DOMINIC M. WALL, East Providence, R. I., assignor to F. T. Pearce Company, Providence, R. I., a Corporation of Rhode Island. Filed Jan. 18, 1915. Serial No. 2,989. Term of patent 7 years.



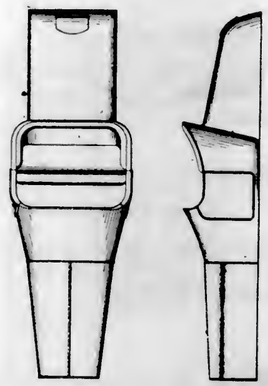
The ornamental design for a pencil casing, as shown.

47,312. TABLE ORNAMENT. ABRAHAM GRANT WEISER, Los Angeles, Cal. Filed Dec. 7, 1914. Serial No. 875,992. Term of patent 14 years.



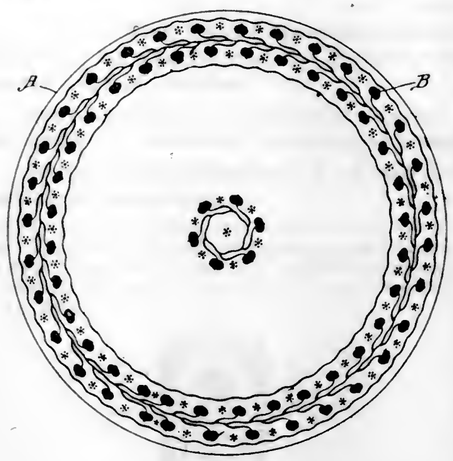
The ornamental design for a table ornament, as shown.

47,313. AUTOMOBILE-BODY. WILLIAM B. WEST, Philadelphia, Pa. Filed Jan. 22, 1915. Serial No 3,842. Term of patent 14 years.



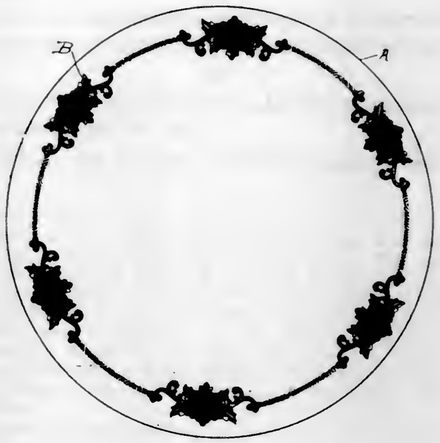
The ornamental design for an automobile body, as shown.

47,314. ARTICLE OF MANUFACTURE. JOHN T. WIGLEY, Syracuse, N. Y., assignor to Onondaga Pottery Co., Syracuse, N. Y., a Corporation of New York. Filed Feb. 27, 1915. Serial No. 11,063. Term of patent 7 years.



The ornamental design for an article of manufacture as shown and described.

47,315. ARTICLE OF MANUFACTURE. JOHN T. WIGLEY, Syracuse, N. Y., assignor to Onondaga Pottery Co., Syracuse, N. Y., a Corporation of New York. Filed Mar. 8, 1915. Serial No. 12,975. Term of patent 7 years.



The ornamental design for an article of manufacture as shown and described.

TRADE-MARKS

PUBLISHED MAY 4, 1915.

The following trade-marks are published in compliance with section 6 of the act of February 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of this date.

Marks applied for "under the ten-year proviso" are registrable under the provision in clause (b) of section 5 of said act as amended February 18, 1911.

As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.

Ser. No. 43,577½. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) GENSUKE SHIGEMURA, Nagasaki-Ken, Japan. Filed July 17, 1909.



Particular description of goods.—A Remedy for Seasickness and Headaches Resulting from Other Causes.
Claims use since Jan. 19, 1909.

Ser. No. 52,707. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) BARRETT MANUFACTURING COMPANY, New York, N. Y. Filed Nov. 10, 1910.

CARBO

Consisting of the word "Carbo."
Particular description of goods.—Creosote-Oil and Kindred Oil Distillates of Coal-Tar.
Claims use since on or before Nov. 9, 1910.

Ser. No. 63,770. (CLASS 12. CONSTRUCTION MATERIALS.) THE PHILIP CAREY MANUFACTURING COMPANY, Lockland, Ohio. Filed May 24, 1912.



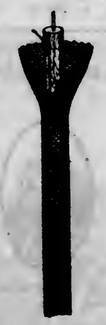
Particular description of goods.—Roofing, Roofing-Paper, Roofing Materials, Roofing-Repair Materials, Building-Papers, Sheathing-Papers, Sound-Deadening Materials, Heat and Cold Insulating Materials, Steam Pipe and Boiler Insulating Materials, Magnesia Steam Pipe and Boiler Insulating Materials, Asbestos Steam Pipe and Boiler Insulating Materials, Waterproofing Materials of a Solid Nature to be Mixed with Construction Material, Damp-Proofing Materials of Like Nature, Waterproof Wrapping Materials as a Construction Material, Expansion Street-Paving Joint, Fireproof Hydraulic Cements, Stove-Lining Cements, Wall-Board and Wall-Plaster Substitute.
Claims use since 1906.

Ser. No. 67,394. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) HAYNES-LANGENBERG MANUFACTURING COMPANY, St. Louis, Mo. Filed Dec. 13, 1912. Under ten-year proviso.

FRONT RANK

Particular description of goods.—Hot-Air Furnaces.
Claims use since about Jan. 1, 1888.

Ser. No. 69,026. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) DETROIT INSULATED WIRE COMPANY, Detroit, Mich. Filed Mar. 14, 1913.



The trade-mark consists of a single uncolored cotton thread which extends parallel to the wire and is located between the rubber insulation of the wire and the surrounding braid.
Particular description of goods.—Insulated Electric Wires.
Claims use since Jan. 1, 1911.

Ser. No. 69,027. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) DETROIT INSULATED WIRE COMPANY, Detroit, Mich. Filed Mar. 14, 1913.



The trade-mark consists of three (3) parallel uncolored cotton threads which extend parallel to the wire and are located between the rubber insulation of the wire and the surrounding braid.

Particular description of goods.—Insulated Electric Wires.

Claims use since Jan. 1, 1911.

Ser. No. 69,401. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) WRIGLEY'S LIMITED, London, England. Filed Mar. 28, 1913.



Particular description of goods.—Chewing-Gum.

Claims use since Dec. 1, 1912.

Ser. No. 72,877. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) MILTON L. EFFSTEIN, Fort Worth, Tex. Filed Sept. 16, 1913.



MARTHA WASHINGTON

Particular description of goods.—Sarsaparilla, Birch-Beer, Raspberry-Shrub, Grape-Juice, Champagne-Cider, (non-alcoholic,) Root-Beer, Lime-Juice, and Flavoring Extracts for Soda-Fountain Beverages Consisting of Pineapple-Juice, Spiced Fruit-Juices, Mixed Fruit-Juices, Mixed Apple and Grape Juices, and Fresh-Fruit Juices.

Claims use since Sept. 10, 1913.

Ser. No. 73,066. (CLASS 39. CLOTHING.) EDWIN BOSTOCK & COMPANY, LIMITED, Stafford, England. Filed Sept. 26, 1913.



Particular description of goods.—Boots, Shoes, Slippers.

Claims use since Sept. 28, 1903.

Ser. No. 74,535. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) FERDINAND WOLFF, Paris, France. Filed Dec. 12, 1913.



No claim being made to the use of the words "Les Grands Films Sensationels." The trade-mark consists of the letters "G F S" in red, associated with a sinuous double-curved figure in blue.

Particular description of goods.—Motion-Picture Films.

Claims use since Oct. 30, 1913.

Ser. No. 75,631. (CLASS 24. LAUNDRY APPLIANCES AND MACHINES.) THE SALT LAKE HARDWARE CO., Salt Lake City, Utah. Filed Feb. 2, 1914.



The word "Cutmore."

Particular description of goods.—Washing-Machines and Wringers.

Claims use since Jan. 1, 1906.

Ser. No. 75,953. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) TYER RUBBER CO., Andover, Mass. Filed Feb. 16, 1914.



Particular description of goods.—Atomizers, Bandages, Invalid-Cushions, Operating-Cushions, Bed-Pans, Breast-Pipes, Breast-Pumps, Bulbs for Atomizers and Syringes, Catheters, Water-Bottles for Medical Use, Combination Bags and Bottles for Medical Use, Face Bottles and Bags, Ice-Bags, Dental Dams, Douches for Administering Medicament, Medicine-Droppers, Finger-Cots, Syringes, Fountain-Syringes, Bulb-Syringes, Combination-Syringes, Nipples, Nipple-Shields, Pacifiers, Pessaries, Rectal Pipes and Tubes, Stomach-Tubes, Teething-Rings, Tourniquets.

Claims use since 1906.

Ser. No. 76,097. (CLASS 39. CLOTHING.) BARDENHEUER HYGIENIC UNDERWEAR CO., New York, N. Y. Filed Feb. 24, 1914.



Particular description of goods.—Linen-Mesh Underwear.

Claims use since April, 1906.

Ser. No. 76,436. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE HILLS BROTHERS COMPANY, New York, N. Y. Filed Mar. 7, 1914.



The mark being substantially the signature of Aram Hamparsum, of Smyrna, Turkey.

Particular description of goods.—Figs and Dates.

Claims use since January, 1893.

Ser. No. 76,563. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) JOHN GRAW ROCK, New Rochelle, N. Y. Filed Mar. 11, 1914.

REX

Particular description of goods.—Shock-Absorbers for Automobiles.

Claims use since July 21, 1913.

Ser. No. 78,039. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) TEXAS GUM CO., Temple, Tex. Filed May 6, 1914.



No claim being made to the name "Smith's."

Particular description of goods.—Chewing-Gum.

Claims use since about the 1st day of March, 1910.

Ser. No. 79,559. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) FRANCIS M. COX, Winterset, Iowa. Filed July 6, 1914.



No claim being made for the words "Iowa Herb Hog Cholera" and "Trade Mark."

Particular description of goods.—A Medicine for the Treatment of Hog-Cholera.

Claims use since Sept. 1, 1914.

Ser. No. 79,990. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) REGENTS MERCANTILE CORPORATION, St. Louis, Mo. Filed July 22, 1914.

"HYGEIA"



Particular description of goods.—Spices and Flavoring Extracts for Foods.

Claims use since Oct. 1, 1911.

Ser. No. 80,280. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) HARRY T. STEWART, Sharon, Pa. Filed Aug. 3, 1914.



Particular description of goods.—Bread, Cake, and Pastry.

Claims use since July 1, 1914.

Ser. No. 80,295. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) N. V. FABRIEK VAN MELKPRODUCTEN "EXCELSIOR," Woerden, Netherlands. Filed Aug. 4, 1914.



No claim being made to the exclusive use of the word "Brand."

Particular description of goods.—Condensed Milk.

Claims use since Jan. 1, 1907.

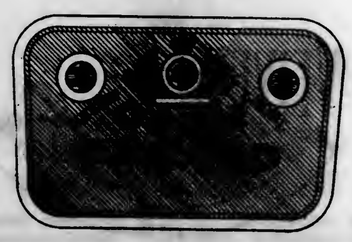
Ser. No. 80,307. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) SNOW'S FOUNTAINS, INC., New York, N. Y. Filed Aug. 4, 1914.



Particular description of goods.—Confectionery and Bakery Goods—Namely, Cakes, Tarts, Sandwiches, Rolls, Bread, Pies, Biscuit, Crackers, Cream-Puffs, Éclairs, Pastries, Candies, Ices, Ice-Cream, and Eggs.

Claims use since May 1, 1913.

Ser. No. 80,693. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) SANCHEZ LEAL HERMANOS, Puerto de Santa Maria, Spain. Filed Aug. 20, 1914.



No claim is made to the exclusive right to the use of a green label or to the word "Ojen."

Particular description of goods.—Cordial, a Compound.

Claims use since Jan. 2, 1913.

Ser. No. 80,975. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) A/S ARENDAL SMELTEVERK, Christiania and Arendal, Norway. Filed Sept. 4, 1914.



The words "A/S Arendal Smelteverk Silicium Karbid Durubit Norge" being disclaimed.

Particular description of goods.—Artificial Corundum Obtained by Smelting in an Electric Furnace and Abrasive and Polishing Stones, Disks, and Hones Manufactured of Same.

Claims use since April, 1914.

Ser. No. 81,178. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) GEBRUDER SIEMENS & COMPANY, Berlin-Lichtenberg, Germany. Filed Sept. 10, 1914.

We De

Particular description of goods.—Electric Lanterns, Arc-Lamps, and Appliances—viz., Cylinders, Holders, and Clamps, Suspension Devices.

Claims use since November, 1910.

Ser. No. 81,179. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) GEBRUDER SIEMENS & COMPANY, Berlin-Lichtenberg, Germany. Filed Sept. 10, 1914.

Wede

Particular description of goods.—Electric Lanterns, Arc-Lamps, and Appliances—viz., Cylinders, Holders, and Clamps, Suspension Devices.

Claims use since November, 1910.

Ser. No. 81,723. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NAAML. VENN. FABRIEK VAN MELKPRODUCTEN "EXCELSIOR," Woerden, Netherlands. Filed Oct. 7, 1914.

Happy-Land Brand

No claim being made to the exclusive use of the word "Brand."

Particular description of goods.—Condensed Milk.

Claims use since Aug. 15, 1914.

Ser. No. 82,012. (CLASS 38. PRINTS AND PUBLICATIONS.) BOY SCOUTS OF AMERICA, New York, N. Y. Filed Oct. 20, 1914.



No claim being made for the words "Every Boy's Library", except in the form shown.

Particular description of goods.—Printed Books and Periodicals.

Claims use since Oct. 1, 1913.

Ser. No. 82,065. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE NORWICH PHARMACAL COMPANY, Norwich, N. Y. Filed Oct. 21, 1914.

ALFATONE

Particular description of goods.—Medicinal Tonics.

Claims use since prior to Jan. 1, 1905.

Ser. No. 82,905. (CLASS 17. TOBACCO PRODUCTS.) JOSEPH GOLDBERG, Portland, Oreg. Filed Nov. 25, 1914.

NEUTRAL

Particular description of goods.—Cigarettes.

Claims use since Nov. 2, 1914.

Ser. No. 83,069. (CLASS 39. CLOTHING.) P. H. HANES KNITTING CO., Winston-Salem, N. C. Filed Dec. 4, 1914.



Consisting of the word "Hanes" and the representation of a panel, the letters of the word "Hanes" being of varying heights and conforming, substantially, to the upper and lower edges of the panel.

Particular description of goods.—Combination-Suits, Shirts, and Drawers of Ribbed Knitted Material.

Claims use since Nov. 28, 1914.

Ser. No. 83,253. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE LEE-WARREN MILLING COMPANY, Salina, Kans. Filed Dec. 12, 1914.

The Admiral

Particular description of goods.—Wheat-Flour.

Claims use since April, 1900.

Ser. No. 83,580. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE FRANK TEA & SPICE CO., Cincinnati, Ohio. Filed Dec. 30, 1914.

APPETONE

Particular description of goods.—Peanut-Butter, Flavoring Extract for Foods, Pepper Sauce, and Prepared Mustard Containing Spices, Vinegar, and Olive-Oil.

Claims use since Dec. 1, 1914.

Ser. No. 83,603. (CLASS 2. RECEPTACLES.) THE HERO MANUFACTURING CO., INC., Philadelphia, Pa. Filed Dec. 31, 1914.



Particular description of goods.—Metal Boxes; Cans; Collapsible Tubes; Engineers' Oiler Sets; Oilers; Oil-Cans; Pump-Oilers; and Tallow-Pots.

Claims use since the year 1883.

Ser. No. 83,777. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) LANDERS, FRARY & CLARK, New Britain, Conn. Filed Jan. 11, 1915.

UNIVERSAL
L. F. & C.

Particular description of goods.—Pocket-Knives, Scissors, Shears, Carving-Knives, Table-Knives, Orange-Knives, Fruit-Knives, Hunting-Knives, Fish-Knives, Butter-Knives, Scraping-Knives, Grape-Fruit Knives, Slicing-Knives, Oyster-Knives, Factory-Knives, Pill-Knives, Banana-Knives, Sloyd-Knives, One-Arm-Man Knives, Pie-Knives, Butcher-Knives, Cheese-Knives, Oil-Cloth Knives, Bread-Knives, Skinning-Knives, Cigar-Knives, Hacking-Knives, Broom-Corn Knives, Paper-Hangers' Knives, Pruning-Knives, Lemon-Knives, Paring-Knives, Boning-Knives, Beet-Knives, Rubber Knives, Children's Knives, Steak-Knives, Tobacco-Knives, Clam-Knives, Ribbing-Knives, Cotton-Sampling Knives, Splitting-Knives, Cake-Knives, Cooks' Knives, Pallet-Knives, Hop-Knives, Pork-Knives, Bread and Butter Knives, Putty-Knives, Shoe-Knives, Gilding-Knives, Medium Knives, and Dessert-Knives Having Steel Blades.

Claims use since Apr. 21, 1913.

Ser. No. 83,816. (CLASS 17. TOBACCO PRODUCTS.) MANUEL LOPEZ FERNANDEZ, Habana, Cuba. Filed Jan. 13, 1915.



The name "F. Menendez y Hos" and the address "Gervasio, 96, Habana" are not claimed to be technical trade-mark matter.

Particular description of goods.—Cigars.

Claims use since the year 1882.

Ser. No. 83,827. (CLASS 17. TOBACCO PRODUCTS.) JOS. J. JUSZKOWSKI, Detroit, Mich. Filed Jan. 13, 1915.



Particular description of goods.—Certain Brand of Snuff-Tobacco.

Claims use since 1890.

Ser. No. 83,832. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) L. LEBER & SON, Newark, N. J. Filed Jan. 13, 1915.

L. L. & S.

Particular description of goods.—Gold Alloy.

Claims use since May 9, 1911.

Ser. No. 83,979. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NATIONAL GROCERY COMPANY, Jersey City, N. J. Filed Jan. 20, 1915.

NATIONAL

Particular description of goods.—Tapioca, Rolled Oats, Cornmeal, Farina, Pickles, Catsup, Chilli Sauce, Oyster-Cocktail Sauce, Flavoring Extracts for Foods, Wheat-Flour, Cotton-Seed Oil for Food, Olives; Vinegar, Both White and Cider; Cocoa, Olive-Oil, Horse-Radish, Honey, Hominy, Buckwheat-Flour, Prepared Wheat-Flour, Pancake-Flour, and Peanut-Butter.

Claims use since September, 1911.

Ser. No. 84,117. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ARNOLD A. HORLICK, Milwaukee, Wis. Filed Jan. 26, 1915. Under ten-year proviso.

MALTOAT

Particular description of goods.—Maltoat Food, a Preparation in which Malt and Oats are Combined; Bakery Products—Namely, Biscuit, Cookies, and the Like Containing said Food Preparation, and Other Products in which the Same Food Preparation is Incorporated with Milk, Chocolate, or Cocoa, These Latter Products being Known to the Trade as Maltoat Milk, Maltoat Chocolate, and Maltoat Cocoa.

Claims use since in April, 1888.

Ser. No. 84,192. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) THE B. F. GOODRICH COMPANY, New York, N. Y. Filed Jan. 29, 1915. Under ten-year proviso.

GOODRICH

Particular description of goods.—Solid or Cushion Rubber Tires for Vehicles.

Claims use since the year 1882.

Ser. No. 84,239. (CLASS 38. PRINTS AND PUBLICATIONS.) FEDERAL LEGISLATIVE BULLETIN SERVICE INCORPORATED, Chicago, Ill. Filed Feb. 1, 1915.

FEDERAL (LBS) SERVICE INC.

Particular description of goods.—Periodicals Published Weekly.

Claims use since Jan. 1, 1915.

Ser. No. 84,242. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CHARLES C. MCDONALD, Elyria, Ohio. Filed Feb. 1, 1915.

COAST TO COAST

Particular description of goods.—Canned Pork and Beans.

Claims use since 1912.

Ser. No. 84,305. (CLASS 12. CONSTRUCTION MATERIALS. BESTWALL MANUFACTURING COMPANY, Chicago, Ill. Filed Feb. 5, 1915.



The words "Bestwall" and "Trade Mark" being disclaimed.

Particular description of goods.—Composite Board or Panel.

Claims use since Sept. 4, 1914.

Ser. No. 84,384. (CLASS 46. FOODS AND INGREDIENTS OF FOODS. PRICE FLAVORING EXTRACT COMPANY, Chicago, Ill. Filed Feb. 8, 1915.



The picture being fanciful.

Particular description of goods.—Food-Flavoring Extracts and Jelly-Powder.

Claims use since Jan. 7, 1915.

Ser. No. 84,399. (CLASS 39. CLOTHING.) COLLINS & FAIRBANKS CO., Boston, Mass. Filed Feb. 9, 1915. Under ten-year proviso.

COLLINS & FAIRBANKS

Particular description of goods.—Hats, Overcoats, Gloves, and Caps and Fur Coats, Collars, Muffs, Caps, and Gloves.

Claims use since about August, 1883.

Ser. No. 84,435. (CLASS 16, PAINTS AND PAINTERS' MATERIALS.) PIMBLEY PAINT & GLASS CO., St. Joseph, Mo. Filed Feb. 10, 1915.



Particular description of goods.—A Preparation for Cleaning and Polishing Automobiles.

Claims use since Nov. 1, 1914.

Ser. No. 84,444. (CLASS 42, KNITTED, NETTED, AND TEXTILE FABRICS.) SIDNEY BLUMENTHAL & COMPANY, New York, N. Y. Filed Feb. 11, 1915.



No claim is made to the words "The Shelton Looms" appearing upon the accompanying drawing.

Particular description of goods.—Plushes and Velvets in the Piece.

Claims use since Dec. 31, 1914.

Ser. No. 84,469. (CLASS 19. VEHICLES NOT INCLUDING ENGINES.) W. WETTENGEL & SON, Omaha, Nebr. Filed Feb. 11, 1915.

WE-DD

Particular description of goods.—Carriages, Carts, and Delivery-Wagons.

Claims use since Dec. 1, 1913.

Ser. No. 84,475. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) ABBEY & IMBRIE, New York, N. Y. Filed Feb. 12, 1915.

"Foxy Quiller"

Particular description of goods.—Fishing-Tackle—namely, Crab and Fish Traps.

Claims use since about Oct. 31, 1910.

Ser. No. 84,492. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) PAINT PRODUCTS CO., Chicago, Ill. Filed Feb. 12, 1915.



No claim being made to the use of the word "Chicago."

Particular description of goods.—Dry, Paste, and Ready-Mixed Paints and Enamels, Stains, Wall-Paints, Lacs, Fillers, Varnishes, Japans, Surfacers, Paint-Removers, Oils for Painters' Use, and Reducers.

Claims use since Jan. 1, 1915.

Ser. No. 84,526. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) JACOB DE BEER, Johnstown, N. Y. Filed Feb. 15, 1915.

STARTER

Particular description of goods.—Base-Balls, Including Ordinary or Hard Base-Balls, and Soft Balls of the General Character of Base-Balls, Including Play, Ground, and Indoor Balls.
Claims use since Jan. 27, 1915.

Ser. No. 84,542. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) WM. WRIGLEY JR., COMPANY, Chicago, Ill. Filed Feb. 15, 1915.

TWIN MINT

No exclusive claim is made to the word "Mint."
Particular description of goods.—Chewing-Gum.
Claims use since Feb. 6, 1915.

Ser. No. 84,544. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) CONTINENTAL BRASS AND FOUNDRIES CO., St. Louis, Mo. Filed Feb. 16, 1915.



Particular description of goods.—Radiator-Valves.
Claims use since Jan. 19, 1915.

Ser. No. 84,590. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) STEWART DICKSON & COMPANY, INC., New York, N. Y. Filed Feb. 17, 1915.



Particular description of goods.—Composition Packing, Made in Sheet Form Used as a Jointing.
Claims use since Aug. 1, 1914.

Ser. No. 84,665. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) FRANK T. MURRAY, Chicago, Ill., assignor to Qualityre Rubber Company, a Corporation of Maine. Filed Feb. 20, 1915.

QUALITYRE

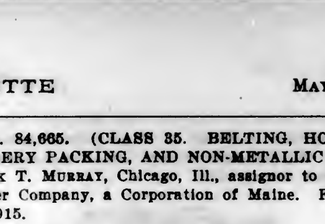
Particular description of goods.—Rubber Tires.
Claims use since Feb. 10, 1915.

Ser. No. 84,675. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ARROW BOILER COMPOUND COMPANY, St. Louis, Mo. Filed Feb. 23, 1915.



Particular description of goods.—Boiler Compounds for Preventing and Removing Scale Formations.
Claims use since about Dec. 14, 1914.

Ser. No. 84,678. (CLASS 5. ADHESIVES.) JAMES BALL, Detroit, Mich. Filed Feb. 23, 1915.



I disclaim the exclusive right to use the representation of the hand-pump as it appears in the drawing, also the word "Stoppaleek." The exclusive right to use the representation of a pneumatic tire as it appears in the drawing is also disclaimed.
Particular description of goods.—Dry Powdered Material adapted for use, after being mixed with liquid, in repairing leaks, punctures, etc., in pneumatic tires.
Claims use since Feb. 15, 1915.

Ser. No. 84,691. (CLASS 39. CLOTHING.) HIRSCH MFG. CO., Minneapolis, Minn. Filed Feb. 23, 1915.



Particular description of goods.—Overalls and Work-Shirts of Textile Material.
Claims use since Nov. 14, 1914.

Ser. No. 84,735. (CLASS 39. CLOTHING.) EMIL A. HIRNER, Allentown, Pa. Filed Feb 24, 1915.



No claim being made to the exclusive use of the words "The Extra Knit In Piece."
Particular description of goods.—Hosiery.
Claims use since May 25, 1914.

Ser. No. 84,743. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) PENETIM MANUFACTURING COMPANY, New York, N. Y. Filed Feb. 24, 1915.

"CRETOLINE"

Particular description of goods.—Preparation for Hardening Concrete.
Claims use since May, 1914.

Ser. No. 84,752. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) PETER BRUCATO, New York, N. Y. Filed Feb. 25, 1915.



The picture being the representation of the minor daughters of Peter Brucato.
Particular description of goods.—Lemons and Oranges.
Claims use since about 1893.

Ser. No. 84,831. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) THE VANITY FAIR PUBLISHING COMPANY, INC., New York, N. Y. Filed Feb. 27, 1915.

Vanity Fair

Particular description of goods.—Garment-Patterns.
Claims use since Jan. 1, 1915.

Ser. No. 84,857. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) MUELLER-KELLER CANDY CO., St. Joseph, Mo. Filed Mar. 1, 1915.

"QUALITY HILL CHOCOLATES"

No claim being made to the exclusive use of the word "Chocolates."
Particular description of goods.—Candy.
Claims use since Sept. 13, 1910.

Ser. No. 84,864. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) H. T. PAISTE COMPANY, Philadelphia, Pa. Filed Mar. 1, 1915.



Particular description of goods.—Attachment-Plugs, Panel-Boxes, Entrance-Switch Boxes, Chandelier-Plugs, Crossover-Insulators, Crow-Feet, Current-Taps, Cut-Outs, Entrance-Switches, Fuse-Plugs, Fusette Fuse-Plugs, Ground-Clamps, Arc-Lamp Hangers, Metal Molding-Adaptors, Paneletts, Pipe-Taplets, Lamp-Receptacles, Rosettes, Shade-Holders, Lamp-Sockets, Baby Knife-Switches, Tablet-Boards, and Molding-Taplets.
Claims use since about January, 1900.

Ser. No. 84,872. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) ERNEST SCHWALM, Jersey City, N. J. Filed Mar. 1, 1915.



Particular description of goods.—Bats.
Claims use since Feb. 10, 1915.

Ser. No. 84,906. (CLASS 24. LAUNDRY APPLIANCES AND MACHINES.) NATIONAL CHEMICAL CO., Syracuse, N. Y. Filed Mar. 3, 1915.

PROSPERITY

Particular description of goods.—Collar-Molding Machines, Seam-Dampening Machines, Starching-Machines, Starch Cookers and Aerators, Dry-Room Hangers, Outlet-Valves for Washing-Machines, Rotary-Brush Washing-Machines.
Claims use since Apr. 17, 1911.

Ser. No. 84,911. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) WELLINGTON G. RICHARDSON, Cambridge, Mass. Filed Mar. 3, 1915.



Particular description of goods.—Life-Preservers.
Claims use since Feb. 19, 1914.

Ser. No. 84,932. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) INTERNATIONAL HEATER COMPANY, Utica, N. Y. Filed Mar. 4, 1915. Under ten-year proviso.

ECONOMY

Particular description of goods.—Warm-Air Furnaces, Combination Steam and Warm-Air Heaters, Combination Hot-Water and Warm-Air Heaters, Low-Pressure Steam-Boilers for Heating Purposes, Hot-Water Boilers for Heating Purposes and Parts thereof.
Claims use since Apr. 1, 1877.

Ser. No. 84,940. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) THE YOUNGSTOWN SHEET & TUBE COMPANY, Youngstown, Ohio. Filed Mar. 4, 1915.

COPPEROID

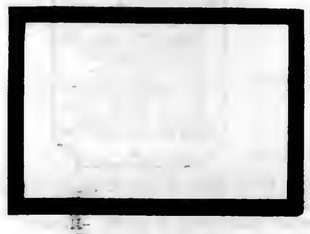
Particular description of goods.—Iron and Steel Sheets, Wire, and Iron and Steel Bars and Rods.
Claims use since Feb. 15, 1915.

Ser. No. 84,944. (CLASS 39. CLOTHING.) JOSEPH P. VOORHEES, New York, N. Y. Filed Mar. 5, 1915.



No claim being made to the word "Lustre" apart from the mark shown in the drawing.
Particular description of goods.—Hosiery.
Claims use since Dec. 9, 1914.

Ser. No. 84,979. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) GARFIELD & CO., New York, N. Y. Filed Mar. 6, 1915.



Particular description of goods.—Sedlitz-Powders.
Claims use since 1912.

Ser. No. 85,010. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) THE CARTON BELTING COMPANY, Berwick, Me., and Boston, Mass. Filed Mar. 8, 1915.

CARZAK

Particular description of goods.—Stitched Canvas Belting.
Claims use since Jan. 1, 1915.

Ser. No. 85,041. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE HALEY-HAMMOND COMPANY, Jersey City, N. J., and New York, N. Y. Filed Mar. 9, 1915.



Particular description of goods.—Tanning Extracts Made from Barks and Woods Used for Tanning Leather.
Claims use since Apr. 1, 1914.

Ser. No. 85,042. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE HALEY-HAMMOND COMPANY, Jersey City, N. J., and New York, N. Y. Filed Mar. 9, 1915.



Particular description of goods.—Tanning Extracts Made from Barks and Woods Used for Tanning Leather.
Claims use since Mar. 1, 1914.

Ser. No. 85,067. (CLASS 39. CLOTHING.) HARRY ZWEIFEL, Mercer, Pa. Filed Mar. 10, 1915.



The words "Trade Mark," "American Silks for American Women," and "Wear Skirts" being disclaimed.
Particular description of goods.—Silk Underskirts.
Claims use since Nov. 16, 1914.

Ser. No. 85,070. (CLASS 7. CORDAGE.) AMERICAN MANUFACTURING CO., Boston, Mass., and New York, N. Y. Filed Mar. 11, 1915.

PENNANT

Particular description of goods.—Rope, Cord, Lines, and Twine Manufactured from Vegetable Fiber.
Claims use since about Feb. 15, 1906.

Ser. No. 85,071. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) BLACK DAZZLE CO., Philadelphia, Pa. Filed Mar. 11, 1915.



The exclusive right to the use of the word "Enamel" is herein disclaimed.
Particular description of goods.—A Liquid for Painting Metallic Surfaces, Acting as a Preservative Therefor and for the Prevention of Rust Thereon.
Claims use since Oct. 31, 1909.

Ser. No. 85,101. (CLASS 43. THREAD AND YARN.) G. ROBISON & SON, New York, N. Y. Filed Mar. 11, 1915.

G. R. S.

Particular description of goods.—Yarn.
Claims use since Jan. 1, 1915.

Ser. No. 85,122. (CLASS 31. FILTERS AND REFRIGERATORS.) FRANK T. PARKER, Philadelphia, Pa. Filed Mar. 12, 1915.

PHC

Particular description of goods.—Filter-Cloths for Presses.
Claims use since Feb. 8, 1915.

Ser. No. 85,130. (CLASS 17. TOBACCO PRODUCTS.) CAYEY-CAGUAS TOBACCO COMPANY, New York, N. Y. Filed Mar. 13, 1915.

IMPO

Particular description of goods.—Cigars, Cheroots, and Cigarettes Made of Cigar-Tobacco.
Claims use since Feb. 16, 1915.

Ser. No. 85,132. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) PAUL DE COURCY, Cincinnati, Ohio. Filed Mar. 13, 1915.

LACTIC BUDS.

Particular description of goods.—Suppositories.
Claims use since Jan. 1, 1910.

Ser. No. 85,172. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MAX LANDESMAN, New York, N. Y. Filed Mar. 15, 1915.

"PURITAS"



"PURITY FIRST"

The words "Purity First" being disclaimed.
Particular description of goods.—An Antiseptic Solution.
Claims use since Feb. 1, 1915.

Ser. No. 85,208. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) W. H. GARNER & Co., Norwich, N. Y. Filed Mar. 17, 1915.

GARNOLO

Particular description of goods.—Furniture-Polish.
Claims use since February, 1911.

Ser. No. 85,211. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) HIDDEN INLET CANNING Co., Ketchikan, Alaska, and Seattle, Wash. Filed Mar. 17, 1915.

Steamboat

Particular description of goods.—Canned Salmon.
Claims use since October, 1911.

Ser. No. 85,212. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) HIDDEN INLET CANNING Co., Ketchikan, Alaska, and Seattle, Wash. Filed Mar. 17, 1915.

INVENTOR

Particular description of goods.—Canned Salmon.
Claims use since October, 1911.

Ser. No. 85,225. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE AMERICAN OINTMENT Co., New Brighton, Pa. Filed Mar. 18, 1915.

PENEGUENT
SAL-METHOL

Comprising the words "Peneguent Sal-Methol."
Particular description of goods.—Improved Medicated Ointment.
Claims use since Sept. 1, 1913.

Ser. No. 85,226. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE AMERICAN OINTMENT Co., New Brighton, Pa. Filed Mar. 18, 1915.

Peneguent Meth-Iodine

Comprising the words "Peneguent Meth-Iodine."
Particular description of goods.—Improved Medicated Ointment.
Claims use since Jan. 1, 1915.

Ser. No. 85,237. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) JOHN OLIVER JOHNSON, Chicago, Ill. Filed Mar. 18, 1915.

WINNER BRAND

No claim being made to the word "Brand" apart from the mark shown in the drawing.
Particular description of goods.—Lawn-Seeds.
Claims use since about Feb. 12, 1913.

Ser. No. 85,249. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) GEO. BORGFELDT & Co., New York, N. Y. Filed Mar. 19, 1915.

LACATAN

Particular description of goods.—Ready-Mixed Paints, Enamels, and Varnishes Having a Cellulose Base.
Claims use since Feb. 24, 1915.

Ser. No. 85,271. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) DEUTSCHE GASGLUEHLICHT AKTIENGESELLSCHAFT (AUERGESELLSCHAFT,) Berlin, Germany. Filed Mar. 20, 1915.

AZO

Particular description of goods.—Electric Incandescent Lamps and Their Parts—Namely, Metallic Filaments, Socket-Plugs, Filament-Supports, and Bulbs.
Claims use since Apr. 14, 1914.

Ser. No. 85,301. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE ALBERT DICKINSON COMPANY, Chicago, Ill. Filed Mar. 22, 1915.

RIVAL



Particular description of goods.—Poultry Feed.
Claims use since Feb. 18, 1915.

Ser. No. 85,302. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) DE LAVAL STEAM TURBINE COMPANY, Trenton, N. J. Filed Mar. 22, 1915. Under ten-year proviso.

DE LAVAL

Particular description of goods.—Steam-Turbines, Centrifugal Pumps, Centrifugal Blowers, Reduction-Gears, and Flexible Couplings.
Claims use since 1893.

Ser. No. 85,303. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) JED FRYE & Co., New York, N. Y. Filed Mar. 22, 1915.

J. F. C.

Particular description of goods.—Fish.
Claims use since Mar. 12, 1915.

Ser. No. 85,307. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) GOWAN-LENNING-BROWN Co., Duluth, Minn. Filed Mar. 22, 1915.

Royal Society

Particular description of goods.—Coffees and Teas.
Claims use since December, 1912.

Ser. No. 85,337. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) MERRELL-SOULE COMPANY, Syracuse, N. Y. Filed Mar. 23, 1915.

Milcoco

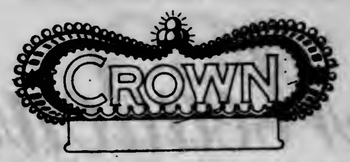
Particular description of goods.—A Food Product Consisting of Van Houten's Cocoa, Skim-Milk, and Sugar, Mixed in Proper Proportions and Dried, as an Article of Food.
Claims use since about Mar. 1, 1915.

Ser. No. 85,350. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) SELDONITE LABORATORIES LIMITED, London, England. Filed Mar. 23, 1915.

SELDONITE

Particular description of goods.—A Chemical Preparation to be Applied to Coal and other Combustible Materials for Intensifying the Heat of Fires.
Claims use since Dec. 10, 1913.

Ser. No. 85,362. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) BUHL-HEMIG COMPANY, Chicago, Ill. Filed Mar. 24, 1915.



Particular description of goods.—Malt Sugar or Maltose.
Claims use since on or about Mar. 1, 1915.

Ser. No. 85,391. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) BEST-CLYMER MANUFACTURING COMPANY, St. Louis, Mo. Filed Mar. 25, 1915.

KOJEL

Particular description of goods.—A Table Delicacy Containing Corn-Syrup, Granulated Sugar, and Juices From Various Fruits, Such as Green and Ripe Apples, Strawberries, Raspberries, Blackberries, Grapes, and Plums.
Claims use since Feb. 18, 1915.

Ser. No. 85,412. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) JENS JEPSEN POULSEN, Copenhagen, Denmark. Filed Mar. 25, 1915.

„NIELSIN"

Particular description of goods.—Plaster to be Used by Dentists in the Taking of an Impression of the Mouth.
Claims use since Feb. 27, 1915.

Ser. No. 85,444. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CHARLES P. MATTHEWS & SONS, INC., Philadelphia, Scranton, Carbondale, Monroeton, and Rummerfield, Pa., and Buffalo, N. Y. Filed Mar. 26, 1915.



Particular description of goods.—Wheat-Flour.
Claims use since January, 1913.

Ser. No. 85,446. (CLASS 28. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) W. C. MEADOWS MILLS COMPANY, North Wilkesboro, N. C. Filed Mar. 26, 1915. Under ten-year proviso.

Meadows

"Meadows."

Particular description of goods.—Grinding-Mills and Parts Thereof.

Claims use since 1875.

Ser. No. 85,468. (CLASS 39. CLOTHING.) BROWN SHOE COMPANY, INC., St. Louis, Mo. Filed Mar. 27, 1915.

MAXINE

Particular description of goods.—Women's Leather Shoes.

Claims use since Feb. 1, 1915.

Ser. No. 85,501. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) WALTER L. WIDLAR, Cleveland, Ohio, Filed Mar. 27, 1915.

JIFFY-JAX

Particular description of goods.—Automobile-Jacks.

Claims use since November, 1913.

Ser. No. 85,510. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) GOODELL-PRATT COMPANY, Greenfield, Mass. Filed Mar. 29, 1915.

Mr. Punch

Particular description of goods.—Drills.

Claims use since Jan. 15, 1915.

Ser. No. 85,664. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE DAYLOCK CORPORATION, New York, N. Y. Filed Apr. 3, 1915.

EMBOSOGRAF

Particular description of goods.—Embossing-Machines.

Claims use since Mar. 5, 1915.

Ser. No. 85,670. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) THE HIND & HARRISON PLUSH CO., New York and Clark Mills, N. Y. Filed Apr. 3, 1915.

NAPALAM

Particular description of goods.—Plushes in the Piece.

Claims use since Mar. 18, 1915.

Ser. No. 85,681. CLASS 39. CLOTHING.) A. TRAINA & Co., New York, N. Y. Filed Apr. 3, 1915.

Campus

Particular description of goods.—Ladies' and Misses' Dresses.

Claims use since about Dec. 9, 1914.

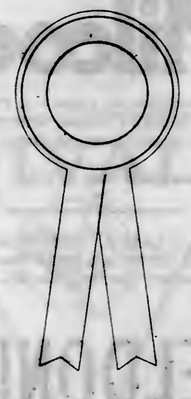
Ser. No. 85,685. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) BARRY-WEHMILLER MACHINERY COMPANY, St. Louis, Mo. Filed Apr. 5, 1915.

NATIONAL

Particular description of goods.—Bottle-Washing Machines, Bottle-Soaking Machines, Bottle-Brushing Machines, and Conveying Apparatus.

Claims use since 1902.

Ser. No. 85,690. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE BUCKLEY-NEWHALL COMPANY, New York, N. Y. Filed Apr. 5, 1915.



The trade-mark consists of a medallion with pendant streamers, both being printed in blue.

Particular description of goods.—Sewing-Machines, Vacuum-Cleaners, and Carpet-Sweepers.

Claims use since Aug. 10, 1910.

Ser. No. 85,691. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE BUCKLEY-NEWHALL COMPANY, New York, N. Y. Filed Apr. 5, 1915.

BLUE RIBBON

Particular description of goods.—Sewing-Machines, Vacuum-Cleaners, and Carpet-Sweepers.

Claims use since Aug. 10, 1910.

Ser. No. 85,772. (CLASS 39. CLOTHING.) BERGMAN KNITTING MILLS, Germantown, Pa. Filed Apr. 8, 1915.

880

Particular description of goods.—Cardigan Jackets and Jackets Known as Sweater-Coats.

Claims use since Jan. 1, 1877.

TRADE-MARK REGISTRATIONS GRANTED

MAY 4, 1915.

104,115. CERTAIN NAMED MUSICAL INSTRUMENTS AND SUPPLIES THEREFOR. THE AEOLIAN COMPANY, Meriden, Conn., and New York, N. Y.
Filed October 31, 1914. Serial No. 82,290. PUBLISHED FEBRUARY 23, 1915.

104,116. SLEDS. S. L. ALLEN & CO., Philadelphia, Pa.
Filed September 10, 1914. Serial No. 81,177. PUBLISHED FEBRUARY 23, 1915.

104,117. RADIATORS. JAMES B. CLOW & SONS, Chicago, Ill.
Filed July 20, 1914. Serial No. 79,928. PUBLISHED DECEMBER 22, 1914.

104,118. LEATHER BOOTS AND SHOES. SAMUEL FLEMING, Lowell, Mass.
Filed August 21, 1913. Serial No. 72,464. PUBLISHED NOVEMBER 10, 1914.

104,119. CANNED SALMON. HAWK FISH COMPANY, Seattle, Wash.
Filed March 23, 1914. Serial No. 76,856. PUBLISHED FEBRUARY 16, 1915.

104,120. WHEAT-FLOUR, MORE SPECIFICALLY SELF-RISING FLOUR. KOENIGSMARK MILL COMPANY, Waterloo, Ill.
Filed December 5, 1914. Serial No. 83,090. PUBLISHED FEBRUARY 16, 1915.

104,121. CLEANSER. KOHLER CO., Kohler, Wis.
Filed January 13, 1915. Serial No. 83,828. PUBLISHED FEBRUARY 16, 1915.

104,122. CERTAIN PACKINGS FOR THE JOINTS OF GAS-PIPES. ALTEN S. MILLER, New York, N. Y.
Filed July 17, 1914. Serial No. 79,886. PUBLISHED FEBRUARY 23, 1915.

104,123. TEXTILE RUGS AND MATS AS WELL AS RUNNERS AND COTTON BAGGING. PALMETTO PRODUCTS COMPANY, INC., New York, N. Y.
Filed July 25, 1914. Serial No. 80,082. PUBLISHED JANUARY 19, 1915.

104,124. CERTAIN NAMED OILS AND GREASES. PIERCE OIL CORPORATION, Richmond, Va., and St. Louis, Mo.
Filed July 24, 1914. Serial No. 80,039. PUBLISHED DECEMBER 1, 1914.

104,125. WHEAT-FLOUR. CHAS. LACEY PLUMB, New York, N. Y.
Filed August 22, 1912. Serial No. 65,539. PUBLISHED NOVEMBER 24, 1914.

104,126. LEATHER VANITY-BAGS. HARRY S. RAINS, New York, N. Y.
Filed October 31, 1914. Serial No. 82,309. PUBLISHED FEBRUARY 23, 1915.

104,127. LADIES' DRESSES. M. & H. RENTNER, New York, N. Y.
Filed January 29, 1915. Serial No. 84,204. PUBLISHED FEBRUARY 23, 1915.

104,128. CERTAIN NAMED FOODS. RUST-PARKER-MARTIN COMPANY, Augusta, Me., and Duluth, Minn.
Filed September 1, 1914. Serial No. 80,923. PUBLISHED DECEMBER 1, 1914.

104,129. DRIED BEEF, BLOATERS, SMOKED HERRING, PECANS, SUGAR, MAPLE-SYRUP, AND MOLASSES. RUST-PARKER-MARTIN COMPANY, Augusta, Me., and Duluth, Minn.
Filed September 1, 1914. Serial No. 80,924. PUBLISHED DECEMBER 1, 1914.

104,130. METAL-POLISH, GLASS-POLISH, PORCELAIN-POLISH, STOVE-POLISH, AND STONE-POLISH. SIEGEL & CO., Cologne Braunsfeld, Germany.
Filed September 26, 1914. Serial No. 81,500. PUBLISHED FEBRUARY 23, 1915.

104,131. CIGARS. SIMON & SALZENSTEIN, Dallas, Tex.
Filed October 10, 1914. Serial No. 81,797. PUBLISHED FEBRUARY 23, 1915.

104,132. FRESH APPLES AND FRESH PEACHES. SPOKANE FRUIT GROWERS CO., Spokane, Wash.
Filed September 2, 1913. Serial No. 72,641. PUBLISHED MARCH 3, 1914.

104,133. HYDRAULIC CEMENT. STERLING PORTLAND CEMENT COMPANY, New York, N. Y.
Filed October 22, 1914. Serial No. 82,083. PUBLISHED JANUARY 19, 1915.

104,134. MEN'S DRESS-SHIRTS AND NEGLIGÉE SHIRTS. THE TEXTILE SHIRT CO., Cincinnati, Ohio.
Filed October 24, 1914. Serial No. 82,154. PUBLISHED DECEMBER 22, 1914.

104,135. MEN'S DRESS-SHIRTS AND NEGLIGÉE SHIRTS. THE TEXTILE SHIRT CO., Cincinnati, Ohio.
Filed October 24, 1914. Serial No. 82,155. PUBLISHED DECEMBER 22, 1914.

104,136. FLY-KILLERS OR HAND DEVICES FOR KILLING FLIES AND OTHER INSECTS. UNITED STATES WIRE MAT CO., Decatur, Ill.
Filed August 21, 1914. Serial No. 80,732. PUBLISHED NOVEMBER 24, 1914.

104,137. LEATHER BOOTS, LEATHER SHOES, AND LEATHER SLIPPERS. E. A. WEIL COMPANY, Savannah, Ga.
Filed October 1, 1912. Serial No. 66,076. PUBLISHED FEBRUARY 23, 1915.

104,138. CERTAIN NAMED HARDWARE AND PLUMBING SUPPLIES. THE AMERICAN HARDWARE CORPORATION, New Britain, Conn.
Filed May 25, 1914. Serial No. 78,512. PUBLISHED FEBRUARY 23, 1915.

104,139. CERTAIN NAMED HARDWARE AND PLUMBING SUPPLIES. THE AMERICAN HARDWARE CORPORATION, New Britain, Conn.
Filed May 25, 1914. Serial No. 78,513. PUBLISHED FEBRUARY 23, 1915.

104,140. CERTAIN MUSICAL INSTRUMENTS, PARTS AND SUPPLIES THEREFOR. AMERICAN PIANO CO., New York, N. Y.
Filed January 7, 1911. Serial No. 53,732. PUBLISHED FEBRUARY 16, 1915.

104,141. LEATHER AND CANVAS BOOTS AND SHOES. BURLEY & STEVENS INC., Portland, Me., and Newburyport, Mass.
Filed January 26, 1915. Serial No. 84,111. PUBLISHED FEBRUARY 23, 1915.

104,142. KNIT UNDERWEAR. JOHN J. BYRON, Troy, N. Y.
Filed January 29, 1915. Serial No. 84,187. PUBLISHED FEBRUARY 23, 1915.

104,143. SODIUM POWDER USED AS A CLEANSING COMPOUND FOR CERTAIN NAMED MATERIALS. CHARON PRODUCTS COMPANY, Philadelphia, Pa.
Filed August 28, 1914. Serial No. 80,852. PUBLISHED DECEMBER 1, 1914.

104,144. BALING-PRESSES. THE DAVENPORT MANUFACTURING CO., Davenport, Iowa.
Filed December 1, 1914. Serial No. 82,994. PUBLISHED FEBRUARY 23, 1915.

104,145. ROMPERS AND OUTER SUITS FOR CHILDREN. ELY & WALKER DRY GOODS CO., St. Louis, Mo.
Filed January 26, 1915. Serial No. 84,113. PUBLISHED FEBRUARY 23, 1915.

104,146. VIOLIN-STRINGS, ACCORDIONS, CONCERTINAS, MOUTH-HARMONICAS, AND CHROMATIC STANDARDS. THE FRED GRETSCH MFG. CO., New York, N. Y.
Filed October 25, 1913. Serial No. 73,601. PUBLISHED FEBRUARY 23, 1915.

104,147. COMPOUND FOR CURING PUNCTURES IN TIRES. INTERSTATE PUNCTURE PROOF COMPANY, Denver, Colo.
Filed July 7, 1914. Serial No. 79,602. PUBLISHED FEBRUARY 23, 1915.

104,148. OLEOMARGARIN AND BUTTERIN. JOHN F. JELKE CO., Chicago, Ill.
Filed October 27, 1914. Serial No. 82,211. PUBLISHED DECEMBER 29, 1914.

104,149. BLEND WHISKY. W. G. & E. G. MURPHY CO., INC., New York, N. Y.
Filed January 27, 1915. Serial No. 84,136. PUBLISHED FEBRUARY 23, 1915.

104,150. BLEND WHISKY. W. G. & E. G. MURPHY CO., INC., New York, N. Y.
Filed January 27, 1915. Serial No. 84,137. PUBLISHED FEBRUARY 23, 1915.

104,151. CERTAIN NAMED FURNITURE. "MUNDUS" AKTIENGESELLSCHAFT DER VEREINIGTEN OESTERREICHISCHEN BUGHOLZMOEBEL-FABRIKEN ("MUNDUS" UNITED AUSTRIAN BENT WOOD FURNITURE MANUFACTURERS LTD.), Vienna, Austria-Hungary.
Filed May 22, 1914. Serial No. 78,479. PUBLISHED FEBRUARY 9, 1915.

104,152. AXLE-GREASE. THE NATIONAL REFINING COMPANY, Cleveland, Ohio.
Filed July 3, 1914. Serial No. 79,541. PUBLISHED DECEMBER 15, 1914.

104,153. WINES. R. PETRI WINE COMPANY, INC., San Francisco, Cal.
Filed January 27, 1915. Serial No. 84,141. PUBLISHED FEBRUARY 23, 1915.

104,154. WHISKY, BRANDY, CORDIALS, AND RUM. R. PETRI WINE COMPANY, INC., San Francisco, Cal.
Filed January 27, 1915. Serial No. 84,142. PUBLISHED FEBRUARY 23, 1915.

104,155. JEWELRY, AND PARTICULARLY FOR USE UPON JEWELRY USED AS PENDANTS, CHARMS, AND BROOCHES. RANKIN COMPANY, INC., Roanoke, Va.
Filed September 30, 1914. Serial No. 81,577. PUBLISHED DECEMBER 22, 1914.

104,156. LADIES' AND MISSES' DRESSES. THE ROSEGOLD MANUFACTURING CO., Worcester, Mass.
Filed August 8, 1914. Serial No. 80,407. PUBLISHED NOVEMBER 24, 1914.

104,157. CERESIN. ERNST SCHLIEMANN'S EXPORT-CERESIN-FABRIK, GESELLSCHAFT MIT BESCHRÄNKTER HAFTUNG, Hamburg, Germany.
Filed June 15, 1912. Serial No. 64,205. PUBLISHED FEBRUARY 11, 1913.

104,158. CERESIN. ERNST SCHLIEMANN'S EXPORT-CERESIN-FABRIK, GESELLSCHAFT MIT BESCHRÄNKTER HAFTUNG, Hamburg, Germany.
Filed June 15, 1912. Serial No. 64,207. PUBLISHED FEBRUARY 11, 1913.

104,159. CERTAIN MALTED FOODS, IN PASTE FORM OR A DRY STATE. THOMPSON'S MALTED FOOD COMPANY, Phoenix, Ariz., and Waukesha, Wis.
Filed December 20, 1913. Serial No. 74,764. PUBLISHED DECEMBER 8, 1914.

104,160. SALT. THE UNION SALT COMPANY, Cleveland, Ohio.
Filed October 26, 1914. Serial No. 82,196. PUBLISHED DECEMBER 15, 1914.

104,161. SALT. THE UNION SALT COMPANY, Cleveland, Ohio.
Filed October 26, 1914. Serial No. 82,197. PUBLISHED DECEMBER 15, 1914.

104,162. BREAD, ROLLS, BISCUITS, CAKES, COOKIES, AND CRACKERS. WARD BAKING COMPANY, New York, N. Y.
Filed November 16, 1912. Serial No. 66,931. PUBLISHED JANUARY 12, 1915.

104,163. BREAD. WARD BAKING COMPANY, New York, N. Y.
Filed December 2, 1912. Serial No. 67,189. PUBLISHED JANUARY 12, 1915.

104,164. CERTAIN PHARMACEUTICAL PREPARATIONS FOR TOILET USE. ELLA LOUISE KELLER WILLISON, Chicago, Ill.
Filed March 5, 1914. Serial No. 76,389. PUBLISHED FEBRUARY 23, 1915.

104,165. SKIN-LOTION FOR CHAPPED HANDS, FACE, AND LIPS, SUNBURN, AND FOR USE AFTER SHAVING. M. AND N. CO., Pittsburgh, Pa.
Filed October 9, 1914. Serial No. 81,770. PUBLISHED NOVEMBER 17, 1914.

104,166. CERTAIN NAMED MEN'S CLOTHING. BRIEDE & ROGOVSKY, Chicago, Ill.
Filed June 20, 1913. Serial No. 71,205. PUBLISHED MARCH 2, 1915.

104,167. CERTAIN NAMED CLOTHING FOR MEN, LADIES, AND CHILDREN. COHEN, GOLDMAN & CO., New York, N. Y.
Filed August 14, 1914. Serial No. 80,560. PUBLISHED MARCH 2, 1915.

104,168. ELECTRIC GENERATORS. HENRY E. ELROD, Dallas, Tex.
Filed August 6, 1914. Serial No. 80,359. PUBLISHED FEBRUARY 23, 1915.

104,169. ELECTRIC INCANDESCENT LAMPS. GENERAL ELECTRIC COMPANY, Schenectady, N. Y.
Filed January 13, 1915. Serial No. 83,820. PUBLISHED FEBRUARY 23, 1915.

104,170. ELECTRIC INCANDESCENT LAMPS. GENERAL ELECTRIC COMPANY, Schenectady, N. Y.
Filed January 13, 1915. Serial No. 83,822. PUBLISHED FEBRUARY 23, 1915.

104,171. BEER. THE KAMM & SCHELLINGER BREWING CO., Mishawaka, Ind.
Filed December 7, 1914. Serial No. 83,117. PUBLISHED MARCH 2, 1915.

104,172. BREAD, WRAPPED AND UNWRAPPED. MARSH BAKING CO. INC., Stamford, Conn.
Filed July 11, 1914. Serial No. 79,736. PUBLISHED DECEMBER 8, 1914.

104,173. VELVETS AND PLUSHES IN THE PIECE. THE SALT'S TEXTILE MANUFACTURING COMPANY, Bridgeport, Conn., and New York, N. Y.
Filed February 2, 1915. Serial No. 84,269. PUBLISHED MARCH 2, 1915.

104,174. VELVETS AND PLUSHES IN THE PIECE. THE SALT'S TEXTILE MANUFACTURING COMPANY, Bridgeport, Conn., and New York, N. Y.
Filed February 2, 1915. Serial No. 84,270. PUBLISHED MARCH 2, 1915.

104,175. POPCORN. VERDER BROTHERS, Hollis, N. H.
Filed September 16, 1913. Serial No. 72,911. PUBLISHED FEBRUARY 2, 1915.

104,176. DRY BATTERIES, FIRE-ALARM BOXES, ELECTRIC LANTERNS, BATTERY-CONNECTORS, AND PARTS FOR TELEGRAPH INSTRUMENTS. J. H. BUNNELL & CO., New York, N. Y.
Filed December 30, 1914. Serial No. 83,576. PUBLISHED FEBRUARY 23, 1915.

104,177. METAL BOX-STRAPPING. CARY MANUFACTURING CO., Brooklyn, N. Y.
Filed December 14, 1914. Serial No. 83,269. PUBLISHED FEBRUARY 23, 1915.

104,178. CHAMPAGNE-WINE. CHANDON ET CIE., Epernay, France.
Filed February 13, 1911. Serial No. 54,468. PUBLISHED DECEMBER 30, 1913.

104,179. WRITING-PAPER, PRINTING-PAPER, ENVELOPS, TABLETS, WRITING-CARDS, AND CARD-BOARD. EATON, CRANE & PIKE COMPANY, Pittsfield, Mass.
Filed January 16, 1915. Serial No. 83,919. PUBLISHED FEBRUARY 23, 1915.

104,180. RUBBER-COVERED WIRES AND CABLES. THE ELECTRIC CABLE COMPANY, Bridgeport, Conn., and New York, N. Y.
Filed December 15, 1914. Serial No. 83,290. PUBLISHED FEBRUARY 23, 1915.

104,181. CIGARETTES AND SMOKING-TOBACCO. ADOLPH L. MOCK, New York, N. Y.
Filed December 14, 1914. Serial No. 83,281. PUBLISHED FEBRUARY 23, 1915.

104,182. CERTAIN NAMED HARDWARE AND PLUMBING SUPPLIES. PARKER WIRE GOODS COMPANY, Worcester, Mass.
Filed May 11, 1914. Serial No. 78,203. PUBLISHED FEBRUARY 23, 1915.

104,183. PAINT AND VARNISH REMOVERS. SIMPLEX MANUFACTURING CO., New York, N. Y.
Filed May 29, 1914. Serial No. 78,667. PUBLISHED FEBRUARY 23, 1915.

104,184. RUBBER TIRES AND CASINGS. HERBERT STARNES, Atlanta, Ga.
Filed December 17, 1914. Serial No. 83,354. PUBLISHED FEBRUARY 23, 1915.

104,185. ENVELOP-SEALING MACHINES. UNITED SEALING MACHINE COMPANY, Springfield, Mass.
Filed December 30, 1914. Serial No. 83,596. PUBLISHED FEBRUARY 23, 1915.

104,186. LUBRICANTS. ALEXANDER WARRELL, Worcester, Mass.
Filed June 29, 1914. Serial No. 79,443. PUBLISHED OCTOBER 20, 1914.

104,187. LUBRICANTS. ALEXANDER WARRELL, Worcester, Mass.
Filed June 29, 1914. Serial No. 79,445. PUBLISHED OCTOBER 20, 1914.

104,188. VARNISH. C. A. WILLEY COMPANY, New York, N. Y.
Filed January 15, 1915. Serial No. 83,888. PUBLISHED FEBRUARY 23, 1915.

104,189. PLOWS, CULTIVATORS, PLANTERS, HARROWS, STALK-CUTTERS, DRILLS, AND PARTS THEREOF. J. I. CASE PLOW WORKS, Racine, Wis.
Filed January 22, 1915. Serial No. 84,021. PUBLISHED MARCH 2, 1915.

104,190. PLOWS, CULTIVATORS, PLANTERS, HARROWS, STALK-CUTTERS, DRILLS, AND PARTS THEREOF. J. I. CASE PLOW WORKS, Racine, Wis.
Filed January 22, 1915. Serial No. 84,022. PUBLISHED MARCH 2, 1915.

104,191. NEGLIGÉE AND WORK SHIRTS. GEORGE H. NICHOLAS, New York, N. Y.
Filed October 22, 1914. Serial No. 82,078. PUBLISHED DECEMBER 29, 1914.

104,192. NIGHT-SHIRTS AND PAJAMAS. STEINER & SON, Asbury Park, N. J.
Filed December 1, 1914. Serial No. 83,006. PUBLISHED MARCH 2, 1915.

TRADE-MARK REGISTRATIONS CANCELED.

25,526. CARBONATED TONIC BEVERAGE. FRED GILL, Grand Rapids, Mich.
Registered November 13, 1894. Canceled April 16, 1915.

64,936. STEEL IN BARS, BILLETS, INGOTS, AND FORGINGS. HAMMACHER, DELIUS & CO., New York, N. Y.
Registered August 27, 1907. Canceled April 7, 1915.

77,370. STAPLE-LIKE METALLIC FASTENERS, &c. HEATON-PENINSULAR BUTTON FASTENER CO., Boston, Mass.
Registered April 5, 1910. Canceled April 7, 1915.

79,125. STAPLE-LIKE METALLIC FASTENERS, &c. HEATON-PENINSULAR BUTTON FASTENER CO., Boston, Mass.
Registered August 9, 1910. Canceled April 7, 1915.

88,828. BRAIDS, SHOE-LACES, GALLOONS, AND CORSET-LACES. BARTHELS MFG. CO., New York, N. Y.
Registered October 29, 1912. Canceled March 5, 1915.

95,379. CIGARS AND SMOKING AND CHEWING TOBACCO. WAYNE TOBACCO COMPANY, Fort Wayne, Ind.
Registered February 10, 1914. Canceled March 4, 1915.

LABELS

REGISTERED MAY 4, 1915.

18,422.—*Title:* "CHERRY PEPSIN TONIC, A COMPOUND." (For a Medicinal Tonic.) J. A. BOKEL, Baltimore, Md. Filed February 24, 1915.

18,423.—*Title:* "REPUBLICAN." (For Piece Goods.) EVERETT, HEANEY & Co., New York, N. Y. Filed January 11, 1915.

18,424.—*Title:* "THE BEER WITHOUT A SUBSTITUTE." (For Beer.). FENWAY BREWERIES, Boston, Mass. Filed April 8, 1915.

18,425.—*Title:* "ZIP THE ZIP." (For a Non-Alcoholic Beverage.) HARRIS GLICKMAN, New York, N. Y. Filed November 3, 1914.

18,426.—*Title:* "DR. B. J. KENDALL'S HAIR TONIC FOR DISEASES OF THE HAIR AND SCALP." (For a Preparation for Diseases of the Hair and Scalp.) BURNEY J. KENDALL, Geneva, Ill. Filed March 25, 1915.

18,427.—*Title:* "STIMULO." (For Coffee.) MAHON-STOLTZ COMPANY, Ottumwa, Iowa. Filed March 22, 1915.

18,428.—*Title:* "MOUNTAIN HOME BRAND." (For Coffee.) MATSON COFFEE COMPANY, Salt Lake City, Utah. Filed February 26, 1915.

18,429.—*Title:* "NEWBOLD & BRADLEY LAXATIVE CAPSULES BLUEFIELD, W. VA." (For a Medicine in Capsule Form.) NEWBOLD & BRADLEY, Bluefield, W. Va. Filed December 16, 1914.

18,430.—*Title:* "AROMITA SILVER CLEANZUP." (For a Silver-Cleaner.) THE WM. M. PALMER MFG. CO. INC., New York, N. Y. Filed March 1, 1915.

18,431.—*Title:* "SEA FOAM." (For a Washing-Powder.) PEET BROS. MFG. CO., Kansas City, Kans. Filed March 29, 1915.

18,432.—*Title:* "PHY-TO-LAX." (For Cereals.) PHY-TO-LAX COMPANY, Paterson, N. J. Filed April 8, 1914.

18,433.—*Title:* "FALFEINE." (For Flavoring.) THE ROLAND CO., Seattle, Wash. Filed December 30, 1914.

18,434.—*Title:* "VENUS LAVENDER ASTRINGENT." (For an Astringent.) VENUS COMPANY, Brooklyn, N. Y. Filed March 25, 1915.

PRINTS

REGISTERED MAY 4, 1915.

3,891.—*Title:* "GLOBE SPRINKLERS." (For Sprinklers.) THE GLOBE AUTOMATIC SPRINKLER CO., Cincinnati, Ohio. Filed February 27, 1915.

3,892.—*Title:* "GREENFIELD'S CHOCOLATE SPONGE." (For Candy.) E. GREENFIELD'S SONS, New York, N. Y. Filed April 7, 1915.

3,893.—*Title:* "OLD BEN COAL." (For Coal.) OLD BEN MINING CORPORATION, Chicago, Ill. Filed April 7, 1915.

3,894.—*Title:* "THE LATEST WHITE FOUR-THIRTY TOURING." (For Touring-Cars.) THE WHITE COMPANY, Cleveland, Ohio. Filed April 5, 1915.

3,895.—*Title:* "THE LATEST WHITE FOUR-FORTY-FIVE LANDAULET-LIMOUSINE." (For Landaulet-Limousines.) THE WHITE COMPANY, Cleveland, Ohio. Filed April 5, 1915.

3,896.—*Title:* "YOUNG AMERICA BRAND." (For Boys' Blouses, Shirts, Pajamas, and Night-Robes.) THE WOOD-WILSON COMPANY INC., New York, N. Y. Filed September 19, 1914.

DECISIONS

OF THE

COMMISSIONER OF PATENTS

AND OF

UNITED STATES COURTS IN PATENT CASES.

DECISIONS OF THE U. S. COURTS.

Court of Appeals of the District of Columbia.

CHEATHAM *v.* COLLINS.

Decided January 4, 1915.

1. INTERFERENCE—CONCEPTION.

Where a drawing disclosed a device which when constructed in accordance therewith demonstrated the efficiency and utility of the invention, but contained some minor defects which a skilled mechanic would have removed, *Held* that an explanation of the drawing was sufficient to establish conception of the invention.

2. SAME—PRIORITY.

The evidence reviewed and *Held* to establish that Collins conceived the invention before Cheatham filed his application, that he was diligent in reducing his invention to practice, and that priority was properly awarded to Collins.

Mr. O. E. Edwards, Jr., for the appellant.

Mr. A. W. Kiddle and *Mr. E. A. Packard* for the appellee.

SHEPARD, *C. J.*:

Cheatham appeals from a decision of the Commissioner of Patents in an interference proceeding awarding priority to Collins. The issue of the interference is defined in the following counts:

1. In a device of the class described, a trolley wire, a double solenoid, a controlling magnet, a movable conductor and means for supporting the same adjacent to the trolley wire, a contact member which may be controlled by said controlling magnet, contacts in the double solenoid circuits which may be closed by the pressure of a trolley wheel on said movable conductor through one coil of the double solenoid, or by the combined action of the controlling magnet and trolley wheel through the other coil of the solenoid when the device is in use, so that when a motor current is shut off from the motors of a car one of the coils of the double solenoid will be energised and when the motor current is applied to the motors of a car the other coil of the double solenoid will be energised.

2. In a device of the class described, a trolley wire, a movable insulated conductor and means for supporting the same adjacent to the trolley wire, a controlling magnet which is connected to the trolley wire and said movable conductor, a double solenoid adapted to operate the switch-point and means actuated by the combined action of said controlling magnet and the movable conductor or by the movable conductor alone so that when a trolley wheel presses on this movable conductor, a circuit will be closed through one or the other of the coils of the double solenoid according to whether or not a motor current is drawn through the trolley wheel when on the movable conductor.

3. A line contactor having a frame to be secured to a trolley wire, a trolley wheel engaging portion insulated from the frame, a selector comprising electrically operated means having one terminal to be electrically connected to the supply wire and the other to the insulated portion whereby when current for operating the car is being drawn therethrough the electrical means will operate the selector to regulate the position of a contact and means operated by the movable portion to close a circuit.

4. A line contactor having a frame, means for securing the frame to a trolley wire, a member insulated from the frame, a vertically movable member, a contact adapted to be mechanically operated by the last mentioned member, an electrical means having one terminal electrically connected to the supply wire, the other to the insulated member carried by the frame, and circuit controlling means comprising said electrical means.

The device covered by this issue is an automatic switch for street-railways, which consists of an attachment to the trolley-wire for engagement with the trolley-wheel, and provided with devices for controlling a double solenoid connected with the switch-point in such a manner that if the motorman approaches the switch with the current cut off at his controller the switch will be held or thrown so as to cause the car to move straight ahead, while if the controller remain with the current on the motors, the car will be switched to the branch track.

Collins, whose application was filed November 10, 1911, is the junior party. He alleges conception May 17, 1911, disclosure May 26, 1911, and actual reduction to practice July 24, 1911.

Cheatham filed June 22, 1911. He alleges conception June 15, 1911, and disclosure the same day, but disclaims actual reduction to practice. He has offered no evidence showing his conception and he has therefore been confined to his filing date, June 22, 1911, for both conception and reduction to practice.

It appears that there has been an infringement suit pending between Cheatham and Collins in the District Court of the United States for New York, involving a prior device of Collins and the verdict in it was rendered against Collins, May 26, 1911, followed by judgment May 30, 1911. Apprehending an adverse decision Collins, who was the engineer of the Automatic Switch Company, undertook the invention of another device which would not infringe Cheatham's patent. He made a drawing of the invention of the issue which he submitted and explained to his counsel, who advised a speedy development. With diligence he went to work, completing his drawings, which, when completed on June 13, 1911, he submitted to his counsel, who advised the construction of the device. After completing working drawings he built a device which was tested on the line of the Brooklyn Street Car Company and found to operate satisfactorily at a junction where many cars were switched. This construction contained the elements of the issue. Certain mechanical improvements were made and it is admitted by Cheatham that the device operated properly on July 29, 1911.

The tribunals of the Patent Office agreed that Collins was at least entitled to June 13, 1911, as his date of conception and that he exercised due diligence in reducing to practice. The contention of Cheatham, who has appealed, is that the structure conceived by Collins prior to July 29, 1911, was inoperative and that he should be limited to that date for his conception. There was no motion to dissolve on the ground of inoperativeness and each tribunal of the Patent Office to which it was presented as an incidental question has decided in favor of Collins. The question of inoperativeness must be regarded as settled. (*Duryee* v. *Rice*, 28 App. D. C., 423, 431; 126 O. G., 1357; 1907, C. D., 443.)

It is apparent from the evidence that the drawings of Collins were embodied in a construction that was tested upon cars in Brooklyn on July 24 and 25, 1911. While the test was sufficient to demonstrate the efficiency and utility of the invention there were some minor mechanical defects which were afterward cured. The device reasonably met the requirements of the specifications, and the changes afterward were such as any skilled mechanic would have made to remove the minor defects in operation. (*Burson* v. *Vogel*, 29 App. D. C., 388, 394; 131 O. G., 942; 1907, C. D., 669; *Pool* v. *Dunn*, 34 App. D. C., 132, 137; 151 O. G., 450; 1910, C. D., 285.)

The evidence on behalf of Collins is carefully and fairly reviewed in the decisions of the Patent Office tribunals who concluded that he had conceived the invention at least as early as June 13, 1911, and had been diligent in reducing to practice before Cheatham's application was filed.

We find no error and being fully satisfied with their conclusions, the decision is affirmed.

The clerk will certify this decision to the Commissioner of Patents as required by law.

Affirmed.

Court of Appeals of the District of Columbia.

BECHMAN *v.* SCOTT AND SCOTT, EXECUTORS OF WALTER SCOTT, DECEASED. SCOTT AND SCOTT, EXECUTORS OF WALTER SCOTT, DECEASED, *v.* BECHMAN.

Decided March 8, 1915.

INTERFERENCE—PRIORITY—NO RIGHT TO MAKE THE CLAIMS.

Structure analyzed and *Held* that Scott is not entitled to make the claims.

Mr. A. E. Dowell for Bechman.

Mr. Axel V. Becken for Scott and Scott.

PATENT appeals Nos. 958 and 959.

VAN ORSDEL, *J.*:

These are appeals from the decision of the Commissioner of Patents in an interference proceeding involving an improvement in rotary web-printing presses. The issues are embraced in the following two counts:

1. A rotary printing press, comprising a plurality of sets of rotary cylinders, the cylinders in adjacent sets being arranged end to end, and means for rotating said cylinders; a set of folders and diagonally arranged web-guides adjacent to each set of printing cylinders whereby the webs printed by such cylinders may be directed to any folder.

2. A rotary printing press comprising a series of plate cylinders arranged end to end and co-acting impression cylinders similarly arranged, and means whereby the cylinders in each series may be rotated synchronously; with means whereby any set of cylinders may be thrown out of operation, a plurality of folding mechanisms, and diagonally arranged web-guides adjacent to each printing mechanism whereby the web printed by any cylinder may be directed to any folder.

The interference is between an application for patent, filed December 15, 1904, by one Walter Scott, now deceased, and an application of Henry F. Bechman, filed March 2, 1905. The counts in interference were embraced in an amendment to Bechman's application made July 7, 1905. Claims corresponding to the issue were not made in Scott's application until April 25, 1911, when they were entered by amendment at the request of Scott's executors. The Examiner of Interferences awarded priority of invention to Bechman, on the ground that Scott was not entitled to make claims corresponding to either of the counts of the issue. The Board of Examiners-in-Chief affirmed the decision of the Examiner of Interferences as to count 1, but reversed it as to count 2, holding Scott entitled to make a claim corresponding to count 2, and awarding priority to Scott as to that count, on the ground that, although Bechman was the first to conceive, he had failed to exercise reasonable diligence in reducing his invention to practice. The Commissioner affirmed the Board of Examiners-in-Chief, from which decision the case comes here on appeal.

The printing-presses of the respective parties differ materially in form, arrangement and operation. Bechman's press is embraced within a single framework, containing four different sets of perfecting printing mechanisms. The cylinders of each perfecting mechanism are in the same plane; and the relative position of the four perfecting mechanisms is such that the several cylinders of each are arranged in parallel rows, with the axes of the corresponding cylinders in alinement. The ends of the adjacent cylinders are brought as closely together in the frames of the press as they can be arranged to insure the independent operation of each perfecting mechanism. On each end of the frame is arranged a pair of folding devices to fold the webs or sheets when delivered from the perfecting mechanism. Diagonally arranged web-guides are constructed above and adjacent to each of the perfecting mechanisms designed to convey the web or sheet at the will of the operator from the perfecting mechanism to which it is adjacent to any one of the four folders. The plate-cylinders for each perfecting mechanism are placed at a uniform elevation and are so located as to be accessible from the opposite sides of the press.

Scott's press consists of two separate printing-machines set a distance apart and connected by means for uniform operation. Each machine is mounted in a separate frame, and each machine contains two sets of perfecting printing mechanisms, one placed above the other. The separate machines are arranged side by side at a convenient distance apart to facilitate operation, with their printing-cylinders of corresponding levels in alinement. In other words, the sets of cylinders in the lower perfecting mechanism of each of the two machines entering into the Scott construction are in alinement and in parallel rows, while the sets of cylinders of the upper perfecting mechanism of each of the two machines are also in alinement and in parallel rows. Thus, in Scott's press, the four perfecting mechanisms are in two planes—two on the upper plane, and two on the lower. The two sets of cylinders on each plane have their ends positioned opposite one another, but not immediately adjacent, as in the Bechman machine. At the rear of each of the two machines which form the Scott press is a pair of folders, above which are located diagonally disposed web-guides for the purpose of conducting a web or sheet from either of the two perfecting mechanisms of the machine to either of the two folders attached thereto. Unlike the Bechman press, the arrangement is such that it is impossible to direct the full web or sheet from any one of the four perfecting mechanisms to any one of the four folders. The operation of the folders and web-guides on the Scott press is described in the opinion of the Board of Examiners-in-Chief as follows:

The arrangement, however, is such that the entire product coming from either or both of the several sets of perfecting mechanisms carried by either or both of the frameworks of Scott may be directed to either of those folders which are located nearest to the frameworks. It is not possible, however, to similarly direct the products of all of the perfecting mechanisms to either of the folders which are more remote from the framework.

A brief comparison of the presses of the interference will suffice to demonstrate their dissimilarity. Bechman discloses a single printing-press containing four perfecting mechanisms adjacently arranged, with the four sets of perfecting-cylinders arranged end to end, extending longitudinally and on the same plane; while Scott has two sets of perfecting-cylinders on one plane and two on another, and not arranged consecutively end to end, but end to end in pairs only across an intervening space of indefinite width. In the Bechman press stereotype-plates may be operated by the pressman from the front or rear of the respective cylinders; while in the Scott press they can only be operated from above, or from the ends of the cylinders. In Bechman's press a set of web-guides is constructed directly over each printing mechanism; while in the Scott press the web-guides are located directly over the folders. Bechman has a single structure; while Scott has two structures which may be separated and operated as independent printing-presses. Each shows a plurality of perfecting printing mechanisms, a plurality of folders and diagonally arranged web-guides.

With this description of the invention in issue before us, we come to the points on which this interference must turn. They consist, we think, (1) in the arrangement of the cylinders in Bechman's press in a single plane, as against Scott's two parallel planes, one above the other; and (2) in the ability of Bechman to deliver a full web or sheet from any perfecting mechanism to any folder, as compared to the inability of Scott to accomplish this feat.

Count 1 calls for a plurality of sets of cylinders in adjacent sets arranged end to end, and count 2 for a series of coacting plate and impression cylinders arranged end to end. In our opinion, this requirement can only be found in the Bechman machine, where the plurality of sets of cylinders in the four perfecting mechanisms, which, in the aggregate, make up the press, are arranged end to end in alinement and on the same plane. In the Scott machine, only the cylinders of the two perfecting mechanisms on the same plane are arranged end to end. The language of the counts must be construed as referring to all of the sets of cylinders of the perfecting mechanisms embraced in the respective machines as constituting the plurality adjacently situated in series end to end.

The counts also require that the web-guides shall be so related to the perfecting mechanisms and the folders that a full web or sheet from any cylinder may be directed to any folder. This interpretation must obtain for the reason that Bechman's press is capable of accomplishing this result, and a reasonable interpretation of the counts calls for its accomplishment. Therefore, before Scott can make the claims, he must be able to show that his press is capable of doing the same thing. It is conceded that the result which is attained by Bechman cannot be accomplished on the Scott press. This is a material and controlling element of both counts, and the conceded inability of Scott's press to accomplish this result forces us to the conclusion that he is not entitled to make the claims.

It is unnecessary to pass upon the other points advanced by the appeal, since the ones considered are decisive of the case. The decision of the Commissioner of Patents is affirmed as to count 1, and reversed as to count 2. The clerk is directed to certify these proceedings as by law required.

No. 958 reversed; and No. 959 affirmed.

ADJUDICATED PATENTS.

(U. S. D. C.) The Lawson patent, No. 744,369, for a loose-leaf binder, *Held* void for lack of invention. *McMillan Book Co.* v. *Irving-Pitt Mfg. Co.*, 220 Fed. Rep., 345.

(U. S. C. C. A.) The Rhodes patent, No. 777,488, for a fish bait or lure, *Held* valid and infringed. *Enterprise Mfg. Co.* v. *William Shakespeare, Jr., Co.*, 220 Fed. Rep., 304.

(U. S. D. C.) The Pitt patent, No. 778,070, for an improvement in loose-leaf binders, *Held* valid and infringed as to claims 1 to 9, inclusive, and not infringed as to claim 10. *Irving-Pitt Mfg. Co.* v. *Twinlock Co.*, 220 Fed. Rep., 325.

(U. S. D. C.) The Cole patent, No. 812,920, for anatomical footwear, *Held* void for anticipation by a prior printed publication. *Anatomik Footwear Co.* v. *Coward*, 220 Fed. Rep., 342.

(U. S. C. C. A.) The Bush patent, No. 838,379, for a draft-gearing, claim 1 *Held* void for anticipation. *Universal Draft Gear Attachment Co.* v. *Bush*, 220 Fed. Rep., 300.

(U. S. D. C.) The Luellen patent, No. 1,043,854, for a device for holding and dispensing individual drinking-cups, *Held* valid and infringed. *Individual Drinking Cup Co.* v. *United States Drinking Cup Co.*, 220 Fed. Rep., 331.

(U. S. D. C.) The Luellen patent, No. 1,043,854, for a device for holding and distributing individual drinking-cups, *Held* valid and infringed. *Individual Drinking Cup Co.* v. *Osmun-Cook Co.*, 220 Fed. Rep., 335.

(U. S. C. C. A.) The Mitchell reissue patent, No. 12,675, (original No. 827,809,) for a combined letter-sheet and envelop, *Held* not infringed. *Stevens* v. *Mitchell*, 220 Fed. Rep., 455.

Adverse Decisions in Interference.

PATENT No. 1,039,864.

On March 31, 1915, a decision was rendered that William B. Smith Whaley was not the first inventor of the subject-matter covered by claims 1, 3, 7, and 10 of his Patent No. 1,039,864, subject, "Valves," and no appeal having been taken within the time allowed such decision has become final.

PATENT No. 1,066,037.

On March 31, 1915, a decision was rendered that Nicoll C. Oddo was not the first inventor of the subject-matter covered by claim 1 of his Patent No. 1,066,037, subject, "Automobile-horns," and no appeal having been taken within the time allowed such decision has become final.

Disclaimer.

1,083,617.—*Edward R. Kast*, Baltimore, Md. SIGNATURE-HANDLING MECHANISM. Patent dated January 6, 1914. Disclaimer filed April 28, 1915, by the inventor and assignee, *The Kast Inscribing and Gathering Machine Company.*

Enters this disclaimer—

"To claims 1, 2, 5, and 6 of said Letters Patent."

Interference Notices.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., April 24, 1915.

Miller & Miller, their assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Swift and Company, Union Stock Yards, Chicago, Ill., for registration of a trade-mark and trade-mark registered February 23, 1892, No. 20,763, to Miller & Miller, No. 12 North Paca street, Baltimore, Md., and a notice of such declaration sent by registered mail to said Miller & Miller at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Miller & Miller, their assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

J. T. NEWTON, *First Assistant Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., April 19, 1915.

Joseph Meyer, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Schinasi Bros., 32 West One hundredth street, New York, N. Y., for registration of a trade-mark and trade-mark registered May 14, 1889, No. 16,570, to Joseph Meyer, 3 Cross Lane, London, England, and a notice of such declaration sent by registered mail to said Joseph Meyer at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Joseph Meyer, his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

J. T. NEWTON, *First Assistant Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., April 16, 1915.

Leo Prange, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of The International Manufacturers Agency, Inc., 461 Broome street, New York, N. Y., for registration of a trade-mark and trade-mark registered January 7, 1890, No. 17,383, to Leo Prange, 780 Madison street, Brooklyn, N. Y., and a notice of such declaration sent by registered mail to said Leo Prange at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Leo Prange, his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

J. T. NEWTON, *First Assistant Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., April 10, 1915.

John L. Radermacher, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of The Bloom & Godley Co., of 205 North Willow street, Trenton, N. J., for registration of a trade-mark and trade-mark registered May 5, 1914, No. 96,828, to John L. Radermacher, of 296 Sterling Place, Brooklyn, N. Y., and a notice of such declaration sent by registered mail to said John L. Radermacher at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said John L. Radermacher, his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

J. T. NEWTON, *First Assistant Commissioner.*

THE
OFFICIAL GAZETTE
OF THE
United States Patent Office.

Vol. 214—No. 2. TUESDAY, MAY 11, 1915. Price—$5 per year.

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Printed copies of patents are furnished by the Patent Office at 5 cents each. For the latter, address the Commissioner of Patents, Washington, D. C.

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ISSUE OF MAY 11, 1915.

Patents	857	No. 1,138,613 to No. 1,139,469	inclusive.
Designs	38	No. 47,316 to No. 47,353	inclusive.
Trade-Marks	86	No. 104,193 to No. 104,280	inclusive.
Labels	30	No. 18,435 to No. 18,464	inclusive.
Prints	7	No. 3,837 to No. 3,843	inclusive.
Reissues	14	No. 13,914 to No. 13,917	inclusive.
Total	1024		

The patents of this issue were pending an average of 24.7 months

TO RESIDENTS OF THE UNITED STATES.

States.	Patents and Designs.	Trade-Marks, Labels, and Prints.	States.	Patents and Designs.	Trade-Marks, Labels, and Prints.
Alabama	3	.....	North Carolina	5	1
Arizona	3	.....	North Dakota	3	.....
Arkansas	2	.....	Ohio	71	16
California	53	4	Oklahoma	5	1
Colorado	9	1	Oregon	6	.....
Connecticut	26	7	Pennsylvania	102	22
Delaware	1	1	Rhode Island	3	.....
Florida	3	.....	South Carolina	3	.....
Georgia	5	1	South Dakota	1	.....
Idaho	3	.....	Tennessee	3	1
Illinois	74	10	Texas	7	.....
Indiana	22	.....	Utah	1	.....
Iowa	15	2	Vermont	1	.....
Kansas	11	.....	Virginia	7	.....
Kentucky	3	.....	Washington	15	.....
Louisiana	1	.....	West Virginia	4	.....
Maine	6	.....	Wisconsin	20	.....
Maryland	6	.....	Wyoming	2	.....
Massachusetts	56	8			
Michigan	34	8	Alaska, District of	.....	.....
Minnesota	18	1	Canal Zone	.....	.....
Mississippi	4	.....	District of Columbia	6	.....
Missouri	26	2	Hawaii Territory	1	.....
Montana	2	.....	Philippine Islands	.....	.....
Nebraska	8	1	Porto Rico	.....	.....
Nevada	1	.....	U. S. Army	.....	.....
New Hampshire	1	2	U. S. Navy	.....	.....
New Jersey	35	2			
New Mexico	.....	.....	Total to residents of the United States	821	121
New York	129	31			

TO RESIDENTS OF FOREIGN COUNTRIES.

Countries.	Patents and Designs.	Trade-Marks.	Countries.	Patents and Designs.	Trade-Marks.
Argentina	1	1	Natal	.....	.....
Austria-Hungary	1	.....	Netherlands	.....	.....
Belgium	.....	.....	New South Wales	1	.....
British India	.....	.....	New Zealand	.....	.....
British West Indies	.....	.....	Norway	.....	.....
Canada	18	1	Portugal	.....	.....
Cape Colony	.....	.....	Queensland	.....	.....
Chile	.....	.....	Roumania	.....	.....
Costa Rica	.....	.....	Russia	.....	.....
Cuba	.....	.....	Scotland	5	1
Denmark	1	.....	South Australia	.....	.....
England	16	.....	Spain	.....	1
Finland	.....	.....	Sweden	1	.....
France	5	.....	Switzerland	1	.....
Germany	20	.....	Transvaal, South Africa	.....	.....
Guatemala	.....	.....	Victoria	3	.....
India	.....	.....	Western Australia	.....	.....
Ireland	.....	.....			
Italy	1	.....	Total to residents of foreign countries	74	4
Luxemburg	.....	.....			
Mexico	.....	.....			

Notice—Attorneys.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., April 27, 1915.

By direction of the Secretary of the Interior the departmental order of February 3, 1908, disbarring J. Thomas Turner from practicing before this Department and its Bureaus, was on the 20th of April, 1915, canceled and revoked, and he has been from that date restored to practice.

W. F. WOOLARD,
Chief Clerk.

Adverse Decisions in Interference.

PATENT No. 1,075,517.

On April 7, 1915, a decision was rendered that Harold B. Taylor was not the first inventor of the subject-matter covered by claims 1, 2, 3, 5, and 6 of his Patent No. 1,075,517, subject, "Electrical-heater elements and methods of making the same," and no appeal having been taken within the time allowed such decision has become final.

PATENT No. 1,078,786.

On April 7, 1915, a decision was rendered that Hanba and Gladfelter were not the first inventors of the subject-matter covered by claims 1, 2, and 3 of their Patent No. 1,078,786, subject, "Automobile door-hinges," and no appeal having been taken within the time allowed such decision has become final.

APPLICATIONS UNDER EXAMINATION.

Condition at Close of Business May 3, 1915.

Room No.	Divisions and subjects of invention.	Oldest new application awaiting office action. New.	Oldest amended application awaiting office action. Amended.	No. of applications awaiting action.
314	1. Fences; Fences, Gates; Harrows and Diggers; Plows; Seeders and Planters; Trees, Plants, and Flowers.	Feb. 4	Jan. 26	473
128	2. Bee Culture; Curtains, Shades, and Screens; Dairy; Label Pasting and Paper Hanging; Paper Files and Binders; Medicines; Pneumatics; Presses; Tents, Canopies, Umbrellas, and Canes; Tobacco.	Dec. 3	Feb. 23	785
175	3. Annealing and Tempering; Electric Heating and Rheostats; Electrochemistry; Metal-Founding; Metallurgy; Plastic Metal Working.	Apr. 26	Apr. 29	105
232	4. Conveyers; Elevators; Excavating; Hoisting; Loading and Unloading; Pneumatic Despatch; Railway Mail Delivery; Traversing Hoists.	Dec. 2	Apr. 29	638
167	5. Bookbinding; Harvesters; Jewelry; Music.	Jan. 18	Apr. 6	331
318	6. Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Liquid Coating Compositions; Plastic Compositions; Preserving; Sugar and Salt; Substance Preparation.	Nov. 10	Apr. 20	534
312	7. Educational Appliances; Clutches; Games and Toys; Motors; Optics; Velocipedes.	Mar. 1	Apr. 1	554
131	8. Beds; Chairs; Furniture; Kitchen and Table Articles; Store Furniture; Supports.	Nov. 17	Apr. 19	1176
142	9. Air and Gas Pumps; Fluid-Pressure Regulators; Hydraulic Motors; Motors, Fluid; Motors, Fluid-Current; Pumps.	Aug. 4	Apr. 15	823
235	10. Carriages and Wagons	Jan. 5	Apr. 19	644
154	11. Boot and Shoe Making; Boots, Shoes, and Leggings; Button, Eyelet, and Rivet Setting; Harness; Leather Manufactures; Nailing and Stapling; Whips and Whip Apparatus.	Mar. 30	Apr. 28	115
322	12. Journal-Boxes, Pulleys, and Shafting; Lubrication; Machine Elements.	Feb. 10	Apr. 21	719
329	13. Arms, Projectiles, and Explosive Charges, Making; Bolt, Nail, Nut, Rivet, and Screw Making; Boring and Drilling; Button Making; Chain, Staple, and Horseshoe Making; Driven, Headed, and Screw Threaded Fastenings; Gear Cutting, Milling, and Planing; Metal Drawing; Metal Forging and Welding; Metal Rolling; Metal Tools and Implements, Making; Metal Working; Needle and Pin Making; Nut and Bolt Locks; Turning.	Mar. 20	Apr. 8	432
307	14. Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal-Bending; Metal-Ornamenting; Sheet-Metal Ware, Making; Tools; Wire Fabrics and Structure; Wire-Working.	Dec. 31	Apr. 5	332
308	15. Bread, Pastry, and Confection Making; Coating; Fuel; Glass; Laminated Fabrics and Analogous Manufactures; Paper-Making and Fiber Liberation; Plastic Block and Earthenware Apparatus; Plastics.	Nov. 30	Apr. 22	669
109	16. Electric Signaling; Radiant Energy; Telegraphy; Telephony.	Dec. 17	Feb. 15	482
303	17. Distrix-Making; Paper Manufactures; Printing; Type-Bar Making.	Mar. 1	Apr. 26	167
37	18. Injectors and Ejectors; Liquid Heaters and Vaporizers; Miscellaneous Heat-Engine Plants; Steam and Vacuum Pumps; Steam-Engines; Steam-Engine Valves.	Mar. 23	Mar. 26	319
236	19. Dampers, Automatic; Furnaces; Heating Systems; Stoves and Furnaces.	Mar. 9	Mar. 26	233
179	20. Artificial Limbs; Builders' Hardware; Cutlery; Dentistry; Locks and Latches; Safes; Undertaking.	Apr. 10	Apr. 9	223

Applications Under Examination—Continued.

Room No.	Divisions and subjects of invention.	Oldest new application awaiting office action. New.	Oldest amended application awaiting office action. Amended.	No. of applications awaiting action.
112	21. Brakes and Gins; Carding; Cloth-Finishing; Cordage; Felt and Fur; Knitting and Netting; Silk; Spinning; Weaving; Winding and Reeling.	Jan. 9	Apr. 1	408
249	22. Aeronautics; Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Boats and Buoys; Firearms; Marine Propulsion; Ordnance; Ships.	Apr. 8	Apr. 7	257
379	23. Acoustics; Coin-Handling; Horology; Recorders; Registers; Time-Controlling Mechanism.	Nov. 11	Dec. 31	485
144	24. Apparel; Apparel Apparatus; Sewing-Machines.	Dec. 10	Apr. 2	494
315	25. Butchering; Mills; Threshing; Vegetable Cutters and Crushers.	Apr. 9	Apr. 3	138
106	26. Electricity, Generation; Motive Power.	Oct. 15	Jan. 30	549
372	27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus.	Feb. 17	Apr. 8	259
65	28. Internal-Combustion Engines	Feb. 17	Mar. 18	451
147	29. Coopering; Fire-Escapes; Ladders; Roofs; Wheelwright-Machines; Wooden Buildings; Wood-Sawing; Wood-Turning; Woodworking; Woodworking-Tools.	Feb. 19	Mar. 8	338
152	30. Illuminating-Burners; Illumination; Liquid and Gaseous Fuel Burners; Type-Writing Machines.	Jan. 2	Apr. 19	291
172	31. Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas-Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Glue.	Feb. 9	Mar. 12	323
278	32. Agitating; Carbonating Beverages; Dispensing Beverages; Dispensing; Domestic Cooking Vessels; Gas and Liquid Contact Apparatus; Heat Exchange; Ornamentation; Packaging Liquids; Refrigeration.	Nov. 24	Apr. 14	656
71	33. Bridges; Hydraulic Engineering; Masonry and Concrete Structures; Metallic Building Structures; Paving.	Jan. 26	Mar. 17	371
304	34. Railways; Railway-Brakes; Railway Rails and Joints; Railway Rolling-Stock; Railway Ties and Fasteners.	Mar. 17	Apr. 8	229
57	35. Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Garment-Supporters; Toilet.	Feb. 1	May 1	531
264	36. Driers; Geometrical Instruments; Measuring Instruments; Photography.	Feb. 25	Apr. 23	618
107	37. Electric Lamps; Electricity, Conductors; Electricity, Conduits; Electricity, General Applications.	Nov. 10	Mar. 12	696
378	38. Animal Husbandry; Earth Boring; Fishing and Trapping; Stationery; Stone-Working; Wells.	Jan. 1	Apr. 3	520
321	39. Water Distribution	Feb. 17	Mar. 24	453
280	40. Baggage; Bottles and Jars; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Shipping and Storing Vessels; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles.	Nov. 20	Mar. 31	1109
125	41. Railway Draft Appliances; Resilient Tires and Wheels.	Mar. 3	Apr. 12	296
279	42. Railway Signaling; Signals; Electricity-Transmission to Vehicles.	Nov. 2	Feb. 12	735
382	43. Baths and Closets; Electricity, Medical and Surgical; Fire-Extinguishers; Sewerage; Surgery; Water Purification.	Mar. 25	Apr. 2	293

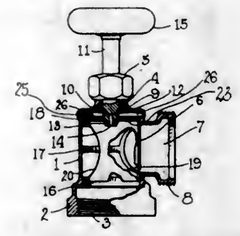
Oldest new case, Aug. 4; oldest amended, Dec. 31.
Total number of applications awaiting action..... 20,293

161	TRADE-MARKS, DESIGNS, LABELS AND PRINTS:			
	Trade-Marks	Mar. 25	Apr. 26	755
	Designs	Feb. 12	Mar. 2	544
	Labels and Prints	Apr. 21	Apr. 26	45

PATENTS

GRANTED MAY 11, 1915.

1,138,613. VALVE. WILLIAM E. ARNDT, Detroit, Mich., assignor to Capital Brass Works, Detroit, Mich., a Corporation of Michigan. Filed Apr. 20, 1914. Serial No. 833,010. (Cl. 137—7.)



1. A valve of the type described comprising a cylindrical body having an open end and a side connection, a valve stem rotatably supported by an end of said body, and a sheet metal valvular member within said body and having an inturned head at one end thereof free of said valve body, said head having an opening to receive said stem.

2. A valve of the type described comprising a body having one end thereof open and the opposite end closed and the side thereof provided with a connection, a rotatable valve stem supported in the closed end of said body, a sheet metal valvular member rotatably mounted in said body and having the form of a sleeve with one side thereof cut away to establish communication between the open end of said body and the side connection thereof, and means carried by one side of said valvular member at an end thereof and disposed concentrically thereof for permanently connecting said member to said stem in axial alinement therewith.

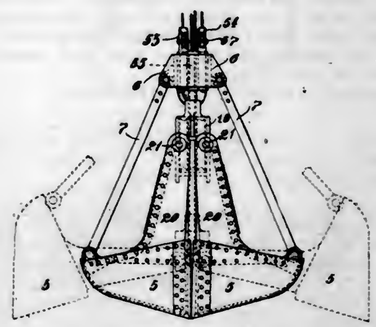
3. A sheet metal valvular member for valves comprising a sleeve having the action of a shutter, said sleeve having one side thereof completely cut away, and a head carried by the end of said sleeve at one side thereof and provided with means adapted to limit the movement of said sleeve within a valve.

4. A valve of the type described comprising a cylindrical body having an open end, a closed end and a side connection, a rotatable valve stem permanently supported by the closed end of said valve body and having the inner end thereof reduced, a sheet metal sleeve rotatably mounted in said valve body and having the side thereof completely cut away to establish communication between the side connection of said body and the open end thereof, a head carried by an end of said sleeve and disposed at right angles to the longitudinal axis thereof and fitted upon the inner end of said stem and held thereon by flaring the end of said stem, and means in connection with said head and said valve body for limiting the movement of said sleeve within said body.

5. In a valve, the combination with a cylindrical body having one end thereof closed and the opposite end thereof open, a side connection carried by said valve body, and a valve stem rotatably supported in the closed end of said body and having the inner end thereof reduced, of a sheet metal sleeve having the action of a shutter within said valve body and having a side thereof completely cut away and adapted to establish communication between said side connection and the open end of said body, a head formed integral with the side of said sleeve and disposed at a right angle, said head having a flanged rectangular opening formed therein to receive the reduced end of said stem, said stem having the end thereof flared to retain said head in engagement therewith.

[Claims 6 to 8 not printed in the Gazette.]

1,138,614. BUCKET. HERBERT S. ATKINSON, East Orange, N. J., assignor to The Hayward Company, New York, N. Y., a Corporation. Filed Dec. 16, 1909. Serial No. 533,363. (Cl. 37—30.)



1. A bucket comprising a supporting-head, sheaves mounted in said head, coöperating bowl sections, connecting rods pivotally connected to said head and to said bowl sections, guide members depending from and supported only by the head, a movable sheave casing pivotally connected to the bowl sections and having recesses to receive said guide members, sheaves mounted in said movable casing, and a closing line coöperating with the sheaves in the head and those in the movable casing to raise and lower the latter and thereby open and close the bowl sections.

2. The combination with a hoisting and supporting line of a bucket of the class described, comprising a supporting head, having an elongated opening diagonally disposed, a supporting sheave around which said hoisting and supporting line is adapted to pass mounted in said opening, separately rotatable bowl operating sheaves also mounted in said opening, coöperating bowl sections, connecting rods pivotally connected to said head and to said bowl sections, guide members depending in parallel relation from the head, a movable sheave casing, having portions bored to receive said guide members, arms on said bowl sections pivotally connected to the sides of said casing, bowl operating sheaves mounted in said casing, said head sheaves being diagonally arranged in coöperative vertical relation to the bowl operating sheaves in said movable casing, and flexible means coöperating with the sheaves in the head and in the movable casing to open and close the bowl sections.

3. A bucket comprising a supporting head, sheaves mounted in said head, coöperating bowl sections, connecting rods pivotally connected to said head and to said bowl sections, guide members depending from and supported only by the head, a sheave casing slidably mount-

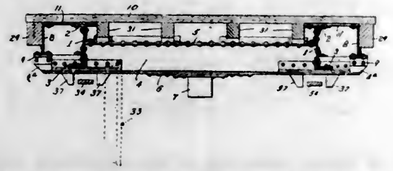
ed on said guide members, sheaves in said casing, side arms rigidly secured to the bowl sections and pivotally connected to the sheave casing, a closing line coöperating with the sheave members in the head and those in the movable casing to raise and lower the latter and thereby open and close the bowl sections, and means on said guide-members adapted to limit the downward movement of said sheave casing.

4. A bucket comprising a supporting head, sheaves mounted in said head, coöperating bowl sections, connecting rods pivotally connected to said head and to said bowl sections, guide members depending from the head and having their lower ends free, a sheave casing slidably mounted on said guide members, sheaves in said casing, side arms rigidly secured to the bowl sections and pivotally connected to the sheave casing, brace members connecting said arms and divergent truss members connected to each bowl section and to the bucket head adapted to retain the bowl sections in alinement, and a closing line coöperating with the sheave members in the head and those in the movable casing to raise and lower the latter and thereby open and close the bowl sections.

5. In combination with a bucket of the class described a supporting-head having an opening therein, a sheave casing within said opening and secured to the head, bored walls dividing said casing and supported at their ends by the ends of the casing, sheaves within the divisions formed by said walls, and a shaft passing through said head, walls and sheaves, the bores of said walls acting as a bearing for said shaft.

[Claims 6 to 37 not printed in the Gazette.]

1,138,615. UNDERFRAME STRUCTURE FOR CARS. JOHN C. BARBER, Chicago, Ill. Filed Dec. 26, 1913. Serial No. 808,679. (Cl. 105—76.)



1. A car underframe structure having main side sills located for application over the truck side frame, body bolsters rigidly secured to and connecting said side sills and having continuous end portions projecting beyond the same, and relatively shallow supplemental side sills supported by the projecting ends of said body bolsters.

2. A car underframe structure having main side sills located for application over the truck side frames, body bolsters rigidly secured to and connecting said main side sills and having continuous end portions projecting beyond the same, relatively shallow supplemental side sills supported by the projected ends of said body bolsters, and connecting plates secured to and tying together the upper portions of said main and supplemental sills.

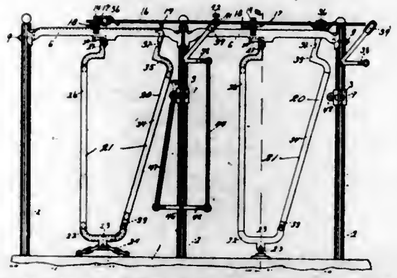
3. In a car underframe structure, the combination with main side sills, of body bolsters and cross beams connecting said side sills and having continuous end portions projecting beyond the same, relatively shallow supplemental side sills supported by the projected ends of said body bolsters and cross beams, and cover plates rigidly connected to the upper portions of said main and supplemental side sills.

4. In a car underframe structure, the combination with main side sills, of body bolsters and cross beams connecting said side sills and having continuous end portions projecting beyond the same, the tops of said body bolsters and cross beams being located below the tops of said side sills, relatively shallow supplemental side sills supported by the projected ends of said body bolsters and cross beams, brackets secured to said supplemental sills, outside nailing strips mounted in said bracket, intermediate nailing strips carried on said body bolsters and cross beams, and a floor applied to said nailing strips.

5. In a car underframe structure, the combination with main side sills, of body bolsters and cross beams connecting said side sills and having end portions projecting beyond the same, relatively shallow supplemental side sills supported by the projected ends of said body bolsters and cross beams, outside nailing strips secured to said supplemental sills, intermediate nailing strips carried on said body bolsters and cross beams, a floor applied to said nailing strips, and cover plates located immediately below said floor and rigidly secured to and tying together the upper portions of said main and supplemental sills.

[Claims 6 to 10 not printed in the Gazette.]

1,138,616. CATTLE-STANCHION. HERMAN BARSNESS and EDWIN SAMUEL BARSNESS, Black Earth, Wis. Filed July 23, 1914. Serial No. 852,710. (Cl. 119—148.)

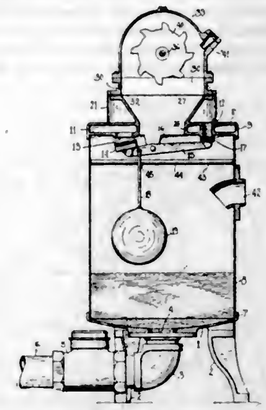


1. In a device of the kind described, in combination with spaced uprights and a bow for securing cattle, a metal girder connecting each pair of uprights, said girder comprising a top plate, a longitudinal slot in said top plate, a lug a distance from the inner end of said slot, a link disposed in said lug, a side plate depending from each side of said top plate, a bracket extending laterally from one of the side plates adapted to support a rod in sliding engagement therewith, a shelf between said side plates at the lower edges thereof and integral therewith, and approximately intermediate their length, a notch in the rear end of said shelf, a semicircular bearing formed in the front end of said shelf the center of said bearing being the longitudinal center of said girder, semicircular vertical plates at the extreme ends of said girder adapted to be bolted to the posts as described.

2. In a device of the kind described, a combination with spaced uprights and a bow for securing cattle, a means for connecting the tops of said uprights, a rod carried in brackets attached to said top connecting means, a double arm loosely connected to said posts, one member of the arm operatively connected to said rod and moving coincident therewith, a rod connected to the other member of said arm and depending therefrom, the lower end of said rod pivotally secured between duplicate double ended arms, the said arms pivotally connected to the said post intermediate their length, a tubular member pivotally disposed between the duplicate arms opposite the rod, a rod inserted in the upper end of said tubular member in sliding contact therewith, the upper end of said rod pivotally secured between lugs integral with a connection clamped to the posts aforesaid substantially as described.

3. In a device of the kind described, in combination with spaced uprights, a means for connecting the tops of said uprights a cattle securing bow comprising side rails hingedly connected at the bottom and provided with curved upper members, one of said curved upper members provided with a lug projecting a distance beyond the center thereof to receive one end of a link, the other end of said link disposed in the slotted portion of a plate integral with said top supporting means and the other curved member provided with a notch in register with said lug to permit said bows to slide past each other at right angles to the curved portions aforementioned, a hasp disposed on a rod and adapted to secure the said cattle securing bows in closed position, as described.

1,138,617. PUMP FOR VACUUM CLEANING SYSTEMS. GEORGE B. BARTLEY, Detroit, Mich., assignor of one-third to Oscar G. Tweddell and one-third to Richard Spoelstra, Detroit, Mich. Filed Aug. 24, 1914. Serial No. 858,363. (Cl. 83—47.)



1. In a vacuum cleaning device, the combination with a pump and a hydraulic motor for operating said pump, of a tank to receive the discharge of said motor and having an outlet for the discharge and an inlet for dust-laden air, a hollow crown plate on said tank supporting said pump and motor and having a ported web establishing communication between said tank and said motor, a ported web in said crown plate adapted to establish communication between said tank and the atmosphere, said crown plate having a port through which said pump produces a vacuum in said tank retaining the discharge of said motor in said tank, and means adapted to control the communication between the atmosphere and said tank whereby the vacuum in said tank can be broken to allow the contents thereof to exhaust.

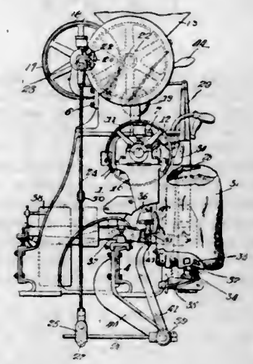
2. In a vacuum cleaning device, the combination with a pump and a hydraulic motor for operating said pump, of a tank to receive the discharge of said motor, said tank having an outlet for the discharge of said motor and an inlet for dust-laden air above the point of discharge from said tank, a hollow crown plate on said tank supporting said pump and said motor and establishing communication between said pump and said tank whereby a vacuum can be produced in said tank retaining the discharge of said motor therein, and means adapted to break the vacuum in said tank whereby the contents thereof can be discharged.

3. In a vacuum cleaning device, the combination with a pump and a hydraulic motor for operating said pump, of a tank to receive the discharge of said motor, said tank having an outlet for the discharge of said motor and an inlet for dust-laden air above the outlet of said tank, and means on said tank alternately establishing communication between said pump and said tank and the atmosphere and said tank whereby said pump can intermittently produce a vacuum in said tank maintaining the discharge of said motor therein until said tank is placed in communication with the atmosphere.

4. In a vacuum cleaning device, the combination with a pump and a hydraulic motor for operating said pump, of a tank to receive the discharge of said motor, said tank having an outlet for the discharge of said motor and an inlet for dust-laden air above the outlet of said tank, a crown plate on said tank ported to establish communication between said pump and said tank and the atmosphere and said tank, and float actuated means in said tank controlling the ports of said crown plate whereby a vacuum can be intermittently produced in said tank.

5. In a vacuum cleaning device, the combination with a pump and a hydraulic motor for operating said pump, of a tank adapted to receive discharges from said motor and temporarily hold the same, said tank having an inlet for dust-laden air, means carried by said tank alternately establishing communication between said pump and said tank and the atmosphere and said tank whereby a vacuum can be intermittently produced in said tank to draw dust-laden air into the discharge of said motor.

1,138,618. BAG-FILLING MACHINE. ADELMER MARCUS BATES, Chicago, Ill., assignor to Bates Valve Bag Company, Chicago, Ill., A Corporation of West Virginia. Filed June 20, 1914. Serial No. 846,246. (Cl. 100—57.)



1. In a filling device for flexible walled receptacles the combination of means for suspending the receptacle in an upright position from above with means for inserting the material therein and means for striking the side wall of the receptacle while the material is being inserted.

2. In a filling device for flexible walled receptacles the combination of means for suspending the receptacle from within in an upright position with means for inserting the material therein, and means for striking the side wall of the receptacle while the material is being inserted.

3. In a filling device for flexible walled receptacles the combination of means for suspending the receptacle in an upright position from above comprising a filling tube projecting within the receptacle with means for inserting the material therein, and means for striking the side wall of the receptacle while the material is being inserted.

4. In a filling device for flexible walled receptacles the combination of means for suspending the receptacle in an upright position from above comprising a filling tube projecting within the receptacle with means for forcibly feeding the material through said filling tube into the receptacle, and means for striking the side wall of the receptacle while the material is being inserted.

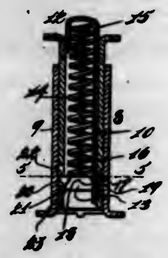
5. In a filling device for flexible walled receptacles the combination of means for suspending the receptacle in an upright position from above with means for inserting the material therein and means for striking the side wall of the receptacle intermediate its ends and substantially at right angles to its length while the material is being inserted.

[Claims 6 to 24 not printed in the Gazette.]

1,138,619. POST FOR LOOSE-LEAF BINDERS. FARRON S. BETTS, New York, N. Y. Filed Oct. 14, 1914. Serial No. 866,567. (Cl. 129—13.)

1. A fastening device for loose-leaf-binders, consisting of a tubular socket member, a tubular plunger member to slidably engage same, said plunger member being provided with openings, a lock carried by said plunger member, said lock consisting of a lever provided with a point to engage the inner wall of the socket member, said lever at one end thereof engaging one of the openings in said

plunger member, the engaging point of said lever passing through the other opening in said plunger member, and means to actuate said lever.



2. A fastening device for loose-leaf binders consisting of a tubular socket member, a tubular plunger member to slidably engage same, said plunger member being provided with alining openings, a locking lever carried by said tubular plunger having a point to engage the wall of said socket member, said lever at one end thereof being in engagement with one of the openings in said plunger member, the point of said lever passing through the other opening in said plunger member, a plunger carried by said plunger member provided with an opening to engage said lever, and a spring seated at one end thereof against said lever and at the other end thereof against the upper end of said plunger.

3. A fastening device for loose-leaf binders consisting of a plurality of adjustably connected tubular members adapted to slide one within the other, a lock carried by the inner member arranged to contact with the outer member, said lock consisting of a lever normally contacting at each end thereof with said inner member, said inner member being provided with openings to receive said lever, and means to rock said lever upon one of its points of contact with said inner tubular member.

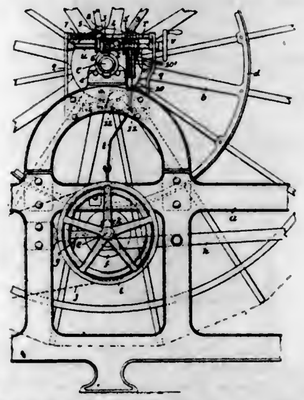
4. A fastening device for loose-leaf binders consisting of a tubular socket member, a tubular plunger member provided with alining openings adapted to slidably engage said socket member, a locking lever loosely engaging one of the openings in said plunger member and passing through the other opening to engage the wall of the socket member, a plunger adapted for reciprocation in said tubular plunger member provided with an opening to engage said locking lever, and with a spring acting upon said lever.

5. A fastening device for loose-leaf binders consisting of a tubular socket member, a tubular plunger member provided with alining openings adapted to slidably engage said socket member, a locking lever loosely engaging one of the openings in said plunger member and passing through the other opening to engage the wall of the socket member, said lever being provided with a tapered end contacting with one of the edges of the opening through which the end of said lever passes, said edge acting as a fulcrum point for said lever, a plunger adapted for reciprocation within said opening, said plunger consisting of a hollow upper end and a rod projecting downwardly therefrom, said rod being provided with an opening to engage said locking lever, and a spring having its upper end seated in the hollow upper end of said plunger, the lower end of said spring bearing upon said lever.

1,138,620. WARPING-MACHINE. EDWARD BLOOM, Haledon, N. J. Filed Mar. 21, 1914. Serial No. 826,142. (Cl. 28—14.)

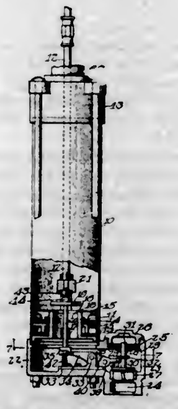
1. In a warping machine, the combination of the frame, the reel journaled therein, an alarm device having an actuating member to be actuated, a pattern mechanism operatively connected with and driven by the reel, and means to transmit motion to said member including pattern-mechanism-actuated devices and a branched flexible connection attached to said member and having its branches connected with said devices.

2. In a warping machine, the combination of the frame, the reel journaled therein, means to rotate the reel including a disconnective clutch connection, an alarm device having an actuating member to be actuated, a pattern mehanism operatively connected with and driven by the reel, pattern-mechanism-actuated means to control said clutch connection, and means to transmit motion to said member including pattern-mechanism-actuated devices and a branched flexible connection attached to said member and having its branches connected with said devices.



3. In a warping machine, the combination of the frame, the reel journaled therein, a pattern chain having balls arranged out of alinement with each other in the length of the chains, reel-actuated means for advancing the chain, a plurality of levers bearing against the chain respectively in alinement with said balls, an alarm device having an actuating member, and a branched chain attached to said member and having its branches respectively connected with said levers.

1,138,621. PUMP. ALLEN A. BOWSER, Fort Wayne, Ind., assignor to S. F. Bowser & Company, Incorporated, Fort Wayne, Ind. Filed Nov. 4, 1912. Serial No. 729,251. (Cl. 103—60.)



1. The combination with a pump having a reciprocable piston, of an admission valve movable parallel with the piston but spaced laterally from the pump at the bottom, and a normally inoperative lever engaging both the valve and piston to open the valve by a movement of the piston in one direction.

2. The combination with a pump having a reciprocable piston, of an admission valve movable parallel therewith but spaced laterally from the pump at the bottom, and a lever normally inoperative but adapted to engage both the valve and the piston when the piston is moved an additional distance in one direction, for opening the valve.

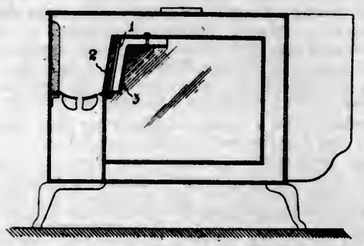
3. In a pump, the combination with a reciprocable valved piston, of an admission valve at the bottom of the pump movable parallel with the piston but spaced therefrom, and a lever normally inoperative disposed at the bottom of the pump and adapted to be interposed between the valve in the piston and the other valve engaging both valves when the piston is moved an additional distance in the downward direction.

4. In a pump, the combination with a reciprocable valved piston having an ordinary length of travel and capable of movement an additional distance in one direction, a movable stop to govern the additional movement of the piston, an admission valve at the bottom of the pump movable parallel with the piston but spaced laterally therefrom, a lever of the first order normally inoperative but adapted to be engaged by the piston valve when the piston is moved an additional distance to open both the piston valve and the admission valve to permit a back flow of fluid from within the pump.

5. In a lift pump, the combination with a valved piston reciprocable therein, a stop on the piston to limit the opening movement of the valve, means to permit an additional movement of the piston at one end of its stroke, an admission valve for the pump spaced from the piston but movable parallel therewith, a lever of the first order normally ineffective but adapted to be interposed between the valve in the piston and the admission valve and operated by engagement with the piston valve when the piston is moved an additional distance to raise both of said valves.

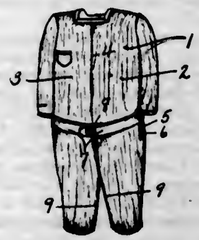
[Claims 6 to 11 not printed in the Gazette.]

1,138,622. COOK-STOVE. WILLIAM BRANDENBURG and DAVID JOHN BARKER, Picton, Ontario, Canada. Filed July 1, 1913. Serial No. 776,856. (Cl. 126—19.)



A cook stove having the oven front partly cut away to expose the fire back, and having an integral casting located in the oven of L-shape with side flanges and secured in place to form an L-shaped flue spaced from the oven front and top and extending only part way down the front and part way toward the back of the oven.

1,138,623. GARMENT. JOHN H. BROWN, Oneida, N. Y. Filed Nov. 16, 1914. Serial No. 872,452. (Cl. 2—144.)

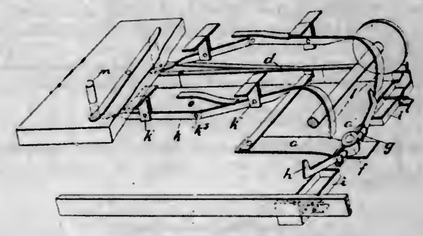


1. A garment divided across the back and having slits at opposite sides of the division extending downwardly to form a rear flap, a band secured to the upper edge of said flap and adapted to extend around the garment, a reinforcing piece having its edges secured to the edge of the flap and a body portion of the garment bordering the slit, and one end secured to said band.

2. A garment having a rear flap with its opposite edges separated from the body of the garment to form slits, a piece of fabric U-shape in cross section and having a V-shape end for reinforcing the edge of the garment bordering the slit.

3. A garment having a rear flap with its opposite edges separated from the body of the garment by slits and a reinforcing piece U-shape in cross section having its edges disposed upon opposite sides of the edge of the rear flap and the edge of the body portion of the garment bordering the slit, said edges secured to each other by means extending through the portion of the garment lying between them.

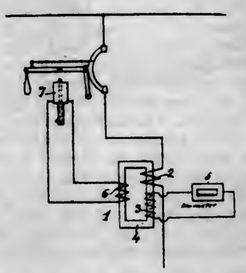
1,138,624. TRACK-SWITCH. JOHN BERNARD BULMER, Toronto, Ontario, Canada. Filed Jan. 16, 1914. Serial No. 812,413. (Cl. 104—24.)



1. The hereinbefore described device comprising a switch, a switch-moving lever connected therewith, two arms pivotally connected with the lever on opposite sides of its fulcrum, and rocker levers to raise said arms.

2. The hereinbefore described device comprising a switch, a switch-moving lever connected therewith, two arms pivotally connected with the lever on opposite sides of its fulcrum, and rocker levers to raise said arms, in combination with adjustable means carried by the car to selectively engage either of said arms and move the lever to predetermine the position of the switch.

1,138,625. SERIES TRANSFORMER. GEORGE A. BURNHAM, Cliftondale, Mass., assignor to Sears B. Condit, Jr., Brookline, Mass. Original application filed Feb. 8, 1911, Serial No. 607,368. Divided and this application filed Oct. 16, 1911. Serial No. 654,838. (Cl. 175—294.)



1. The combination of a series transformer having a primary and a secondary normally deriving energy from the primary, a circuit connected to the primary, a switch in the primary circuit, a coil in inductive relation to the transformer primary and secondary, and means controlled by said coil and responsive to wide changes of resistance and resultant excessive rise of voltage in the secondary for opening the switch.

2. The combination with a series transformer having a primary and a secondary normally deriving energy from

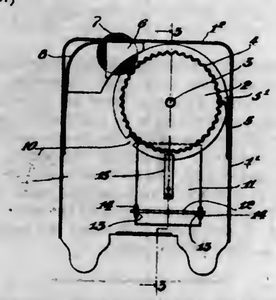
the primary, of a circuit to which the primary is connected, an automatic switch in said circuit, a trip coil receiving its energy inductively from the transformer primary for opening the switch on overload, a coil in inductive relation to the transformer primary and secondary, and means controlled by the last mentioned coil for short-circuiting the secondary circuit upon excessive rise of resistance in the external secondary circuit.

3. The combination with a series transformer having a primary circuit and a secondary circuit normally fed therefrom, of a coil in inductive relation to the primary and secondary of the transformer and means controlled by said coil for preventing excessive rise of voltage in the secondary circuit.

4. A series transformer having a primary winding, a secondary winding, and a closed coil on said transformer adapted to preserve its ratio of transformation under change of load, and means controlled by said coil for preventing excessive rise of voltage in the secondary circuit.

5. The combination with a series transformer having a primary winding, a secondary winding, and a closed coil on said transformer adapted to preserve its ratio of transformation under change of load, of means controlled by said coil for preventing excessive rise of voltage in the secondary circuit, comprising an automatic switch in the primary circuit, and an overload trip coil for said switch receiving its energy inductively from the transformer primary.

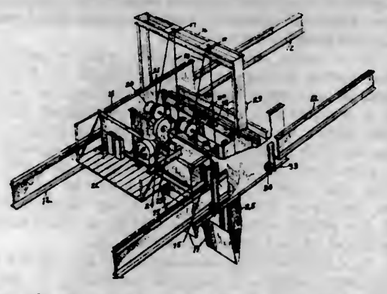
1,138,626. TOY SAFE. JULIUS CHEIN, Upper Montclair, N. J. Filed Jan. 31, 1912. Serial No. 674,475. (Cl. 235—100.)



A toy safe including a casing, a disk rotatably mounted therein, a corrugated annular flange secured to one surface of the disk at right angles thereto, the diameter of the flange being less than that of the disk, that portion of the casing above the disk being formed with a coin slot, means carried by the casing to guide a deposited coin into edge contact with the corrugated flange, that portion of the disk projecting beyond the flange serving as a guide in opposition to said means to hold the coin in contact with the flange, holding means carried by the casing to coöperate with the corrugations of said flange to control movement of the disk, said holding means bearing on the outer surface of the flange and against the projecting edge of the disk, a door closing an opening in the casing, the upper portion of the door extending above the lower portion of the disk, and door locking means coöperating with the disk beyond the flange, said disk being formed with a slot to permit door releasing movement of said locking means in a predetermined position of the disk.

1,138,627. COAL BREAKER AND SCRAPER. JOSEPH P. CONSIDINE, Detroit, Mich. Filed Nov. 21, 1913. Serial No. 802,204. (Cl. 37—50.)

1. A coal breaker and scraper, having, in combination with a supporting trackway, a traveling carriage provided with toothed wheels adapted to engage correspondingly located indentations on said trackway, a boring spud slidably held in vertical position by said carriage, flexible means for supporting said spud at the desired elevation with respect to the carriage, means for causing an impacting downward movement of the spud without objectionable transmission of the shock to the traveling carriage, and means mounted on the carriage and adapted to be actuated after the driving of the spud has been completed whereby the toothed wheels of the carriage are positively rotated to cause the movement of the carriage along the trackway, substantially as described.



2. In a coal breaker and scraper, in combination with track members, a carriage adapted to travel therealong, means located on said carriage for positively causing its movement in either direction along said track members, spud members slidably engaging in vertical bearings in said carriage, flexible cables for supporting said spud members at desired elevational positions, and flexible means for driving said spud members downwardly through a subjacent mass, said spud members when driven being adapted to be moved thereagainst lengthwise of the track by the travel of the carriage therealong.

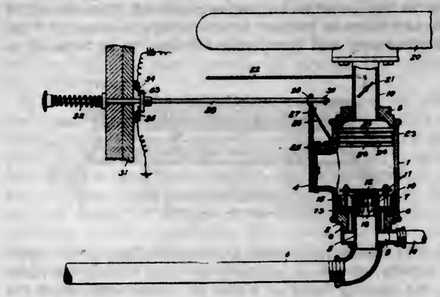
3. In a coal breaker and scraper, in combination with track members, a carriage adapted to travel therealong, a spud member slidably held in vertical position by bearings in said carriage, a cable for flexibly supporting the spud member at the desired elevation with respect to the carriage, flexible means for transmitting downward actuation to said spud, and means for positively causing the travel of the carriage and consequently of the spud member lengthwise of the track members after the driving of the spud member into a subadjacent mass has been completed.

4. A coal breaker and scraper, comprising a traveling carriage, spud members flexibly supported therefrom and slidably held in vertical position by bearing portions thereof, means for driving said spud members into a subjacent mass without transmission of the resultant impact to the carriage, and means adapted to be brought into action after the driving of the spuds has been completed whereby the carriage is positively actuated, thereby moving the spud members and with them the mass of coal into which they have been driven, substantially as described.

1,138,628. MIXING-VALVE. WILLIAM J. COOK, Orange, Ga., assignor of one-tenth to Adam F. Cook, Charlerol, Pa., and one-tenth to Thomas C. Cook, one-tenth to James L. Cook, and one-tenth to Thomas F. Deakin and Anna S. J. Deakin, Pittsburgh, Pa. Filed Jan. 21, 1914. Serial No. 813,472. (Cl. 48—180.)

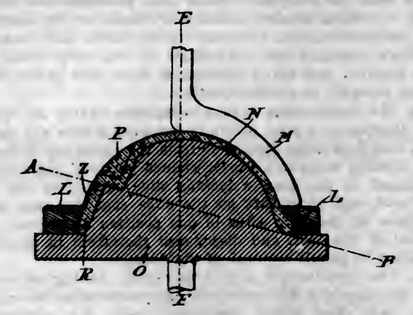
1. In a mixing valve, the combination of a casing having openings therein, a plug in one of said openings provided with a central concavity having tapered sides, a tube extending through the center of said plug and extending above the bottom of the concavity, a plurality of passageways extending through said plug from the bottom of the concavity exterior of said tube, a closure plate for said tube extending laterally therefrom on all sides, an annular disk forming a closure for said passageways, means for connecting said closures into a single member, and means for holding such member yieldingly in closed valve position.

2. In a mixing valve, the combination of a casing having a tubular inlet port projecting within the casing and forming with the wall thereof an annular chamber, the outer wall of said chamber tapering outwardly from the bottom thereof, a plate valve closing the inner end of said port and having a projecting flange whereby gas issuing from the port is deflected laterally, a second inlet port en-



tering said casing at the bottom of said annular chamber, a valve ring for closing the second port, means for connecting said two valve members to operate in unison, and means for holding them yieldingly in closed position.

1,138,629. MANUFACTURE OF LAVATORIES AND THE LIKE. RAYMOND E. CRANE, Los Gatos, Cal. Filed Oct. 18, 1913. Serial No. 795,201. (Cl. 25—156.)



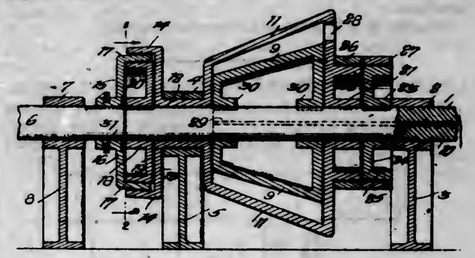
1. The method of forming an earthenware lavatory including as an integral homogeneous structure, a non-circular bowl, a slab and a back, which consists in applying a mass of clay to a mold having the non-circular contour of the bowl interior, spinning the clay to a circular contour to preliminarily form the outside of the bowl, and removing the surplus clay from the outer non-circular portion of the bowl.

2. The method of forming an integral homogeneous earthenware lavatory including a slab, a back and a non-circular bowl which consists in applying a mass of clay to a mold to form the non-circular contour of the bowl interior, the face of the slab and the back, spinning the clay to a circular contour to preliminarily form the outside of the bowl and finally removing the surplus clay adjacent the non-circular portion of the bowl.

3. The method of forming an integral homogeneous earthenware lavatory including a slab, a back and a non-circular bowl which consists in applying a mass of clay to a mold to form the non-circular contour of the bowl interior, the face of the slab and the back, spinning the clay to a circular contour to preliminarily form the outside of the bowl and rear wall of the back, and finally removing the surplus clay adjacent the non-circular portion of the bowl and the rear of the back.

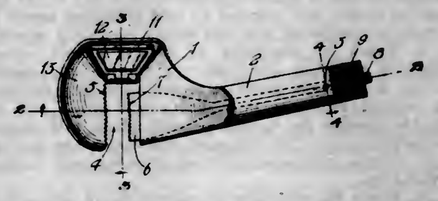
1,138,630. TURBINE. GUY W. CRAWFORD, Fremont, Mich. Filed June 29, 1914. Serial No. 847,855. (Cl. 121—57.)

1. In combination, a driving shaft and a driven shaft arranged in alinement and with their inner ends adjacent, a turbine comprising an inner casing keyed to the driving shaft and an outer casing journaled on the driving shaft, means for supporting the driving shaft, the driven shaft, and the outer casing for rotation, a brake wheel keyed to the driving shaft, a brake wheel rigid with the outer casing, a brake band coöperating with each wheel to prevent the said wheel from rotation, a disk secured to the driving shaft, and having a lateral flange, a disk secured to the driven shaft and having a lateral flange extending outside of the disk on the driving shaft, a disk secured to the outer casing and having a flange fitting outside the flange of the disk on the driven shaft, clutch mechanism for connecting the flange of the driven shaft to either of the other flanges, said driving shaft having a central passage for the motive fluid, and having radial ports delivering to the space between the inner and outer casing, said inner and outer casing having blades, and the outer casing having an exhaust port.



2. In combination, a driving shaft and a driven shaft arranged in alinement, a turbine consisting of an inner member keyed to the driving shaft, and an outer member journaled on the driving shaft, brake mechanism in combination with each of the said members for preventing rotation thereof, a disk secured to the driving shaft and having a lateral flange, a disk secured to the driven shaft and having a lateral flange extending outside of the flange of the disk on the driving shaft, a disk secured to the outer member and having a flange fitting the outside of the flange of the disk on the driven shaft, and clutch mechanism for connecting the flange of the driven shaft to either of the other flanges.

1,138,631. DENTAL INSTRUMENT. HARRY M. CRAWFORD, Lima, Ohio. Filed Sept. 28, 1914. Serial No. 863,948. (Cl. 32—20.)



1. A dental instrument comprising a concavo-convex member having an opening extending transversely inward from one side thereof, and a movable member operable across said opening and adapted to coöperate with one wall of said opening to form a clamp.

2. A dental instrument comprising a concavo-convex member having an opening extending transversely thereof from one side inwardly, a mirror hinged at the end of said opening and a clamping member adjustable toward and away from one wall of said opening.

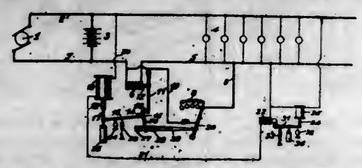
3. A dental instrument comprising a spoon-shaped member having a hollow handle, the bowl of said member having an opening extending inwardly from one side edge thereof, the outer wall of said opening being serrated to form a stationary clamping member, and a movable clamping member operable across said opening.

4. A dental instrument comprising a spoon-shaped member having a hollow handle, the bowl of said member having an opening extending inwardly from one side edge thereof, the outer wall of said opening being serrated to form a stationary clamping member, a movable clamping member mounted in said hollow handle, and means carried by said handle for projecting and withdrawing said member toward and away from said stationary clamping member.

5. A dental instrument comprising a spoon-shaped member having a hollow handle, the bowl of said member having an opening extending inwardly from one side edge thereof, the outer wall of said opening being serrated to form a stationary clamping member, a movable clamping member mounted in said hollow handle, and a rotatable member swiveled in said hollow handle and coacting with said movable clamping member to project and retract said member toward and away from the stationary clamping member.

[Claims 6 to 8 not printed in the Gazette.]

1,138,632. ELECTRIC REGULATION. JOHN L. CREVELING, New York, N. Y., assignor to Safety Car Heating and Lighting Company, a Corporation of New Jersey. Filed Apr. 18, 1911. Serial No. 621,813. (Cl. 171—229.)



1. Means for regulating an electric circuit comprehending a regulating element, means for regulating the value thereof, a variable resistance in shunt to said regulating element and means whereby the regulating element operating means operates to increase and decrease said variable resistance without appreciably varying the regulating element.

2. Means for regulating an electric circuit comprehending regulating means, operating means therefor, means for diverting current around said regulating means and means whereby the diverting means is operated by said operating means without appreciably effecting the regulating means.

3. Means for regulating an electric circuit comprehending regulating means and means for operating the same combined with a regulating element in shunt to the first named means and operated by said operating means between variations of said first named regulating means.

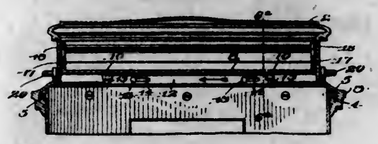
4. Means for regulating an electric circuit comprehending a carbon pile having a substantially definite range of operation, operating means controlling the same, a variable resistance in shunt to said carbon pile and means whereby the operating means affects said variable resistance and is free to operate the carbon pile throughout certain movements without affecting said variable resistance.

5. Means for regulating an electric circuit comprehending a regulating element, electromagnetic means for controlling the same, a regulating element in shunt to the first named regulating element and means whereby the operating means affects the latter regulating element and operates the first regulating element throughout substantially its range without affecting the second regulating element.

[Claims 6 to 11 not printed in the Gazette.]

1,138,633. MAIL-BOX. JOSEPH WARREN CUTLER, Rochester, N. Y., assignor to Cutler Mail Chute Company, Rochester, N. Y. Filed Jan. 29, 1913. Serial No. 744,889. (Cl. 232—45.)

1. The combination with a receptacle having an opening therein, of a door pivotally mounted and adapted to swing within the opening, the opening being of a size to permit removal of the door from the receptacle when in a predetermined position, and a locking member adjustably mounted on one of said parts, said locking member when in one position having engagement with the other part, and when in another position being disengaged from said other part and permitting the door to be removed.



2. The combination with a receptacle having an opening therein, of a door pivotally mounted within the opening, the opening being of a size to permit removal of the door from the receptacle when in a predetermined position, and a locking member adjustably mounted on the receptacle, said locking member when in one position having engagement with the door to prevent its removal, and when adjusted to another position, being disengaged from the door and permitting its removal.

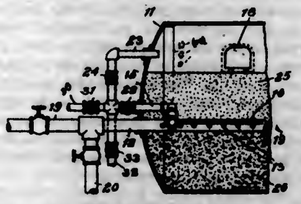
3. The combination with a receptacle having an opening therein, of a door pivotally mounted within the opening, the opening being of a size to permit removal of the door from the receptacle when in a predetermined position, a locking member slidably arranged on the receptacle, and projections arranged on the door, said locking member engaging the projections on the door when in one position and being disengaged from said projections when adjusted to another position.

4. The combination with a receptacle having an opening therein, of a door pivotally mounted within the opening, said door being removable from the receptacle through the opening when in a predetermined position, projections arranged on the door, a locking slide carried by the receptacle, and abutments on the slide engaging said projections on the door when in one position to prevent removal of the door, and disengaged therefrom in another position to permit removal of the door.

5. The combination with a receptacle having an opening therein, of a door pivotally mounted within the opening, said door being removable from the receptacle through the opening when in a predetermined position, and a locking slide carried by one of said parts, projections on the other of said parts, the aforementioned slide having abutments coöperating with said projections to prevent removal of the door when in one position and to permit removal of the door when in another position.

[Claims 6 to 8 not printed in the Gazette.]

1,138,634. PROCESS FOR SEPARATING DETRITUS FROM LIQUIDS. JOHN M. DAVIDSON, Pittsburgh, Pa., assignor to Wm. B. Scaife & Sons Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed Jan. 7, 1914. Serial No. 810,793. (Cl. 210—13.)



1. The process of saving detritus out of a liquid by filtering the liquid downward through a filter bed, meantime preventing the packing of solid detritus on top of the filter by agitating it with a gas flowing up through the filter, and reversing the flow of gas to dry the solid on top the filter, substantially as described.

2. The process of concentrating a mixture of liquid and solids above a filter medium through which only the liquid portion can pass, by forcing an opposite flow of a lighter fluid through the filter medium in opposition to the flow of liquid, to prevent packing of detritus on the filter medium surface, and after a sufficient amount of detritus is collected reversing the flow of the lighter fluid through the filter whereby to dry out the collected cake of detritus.

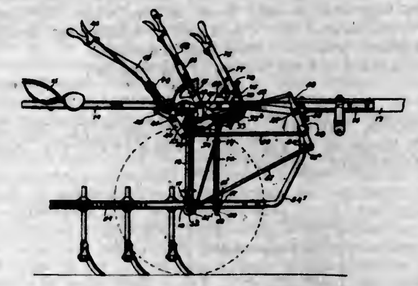
3. The process of concentrating a mixture of liquid and solids above a filter medium through which only the liquid can pass, by forcing the liquid through the filter under pressure while simultaneously forcing a lighter fluid through said filter in the opposite direction, to prevent choking of the filter medium, and intermittently stopping the supply of mixture to be filtered, and forcing the remaining liquid through the filter by means of pressure from above, and then of drying the resulting cake of detritus by means of steam forced through the filter in reverse direction.

4. The process of separating detritus from liquid consisting in collecting the mixture above a filtering medium through which only the liquid can pass, of continuously agitating the mixture by means of an opposite flow of air through the filter, intermittently stopping the collection above the filter and changing the counter flow of air to a heated gas, whereby to dry out the detritus collected on the filter surface.

5. The process of separating detritus from liquids consisting in collecting the mixture above a granular filter through which only the liquid can pass, and forcing a flow of a heated lighter fluid through the filter in opposition to the liquid whereby to prevent packing on the filter surface and to dry out the collected detritus.

[Claim 6 not printed in the Gazette.]

1,138,635. CULTIVATOR. FRANK E. DAVIS, La Crosse, Wis. Filed Oct. 17, 1908. Serial No. 458,163. (Cl. 97—35.)



1. In a riding-cultivator, the combination of a frame, carrying-wheels each dirigibly connected to the frame, means for steering the wheels, shovel-beams, raising and lowering connections for the beams, said beams being pivoted to swing vertically independently of the wheels, balancing-connections between the dirigible wheels and the frame, and means for conjointly shifting the balancing-connection to balance the frame and the beam connections to raise or lower the beams.

2. In a riding-cultivator, the combination of a frame, carrying-wheels, each pivotally connected to the frame to swing laterally and longitudinally, means for steering the wheels, shovel-beams pivotally sustained by the frame independently of the wheels, and a lever connected to said wheels to shift them longitudinally and to said beams to raise or lower them.

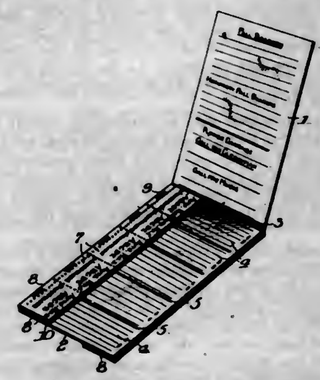
3. In a riding-cultivator, the combination of a frame, carrying-wheels each dirigibly connected to the frame, means for steering the wheels, shovel-beams, a balancing-connection between the dirigible wheels and the frame, and means connected to the balancing-connection and to the beams to raise or lower them, said connecting-means comprising a hand-lever for each beam for securing the levers in different positions on the rack.

4. In a riding-cultivator, the combination of a frame, carrying-wheels, each pivotally connected to the frame to swing laterally and longitudinally, means for steering the wheels, shovel-beams, a lever, connections between said lever and said wheels for shifting them to balance the frame, and a connection between said lever and the beams for raising or lowering them, the connection for shifting the wheels to balance the frame comprising a connection with the wheel which is concentric with the pivot about which the wheel swings laterally, the connection between the lever and the shovel-beams comprising a lever for adjusting the shovel-beams independently of the connection.

5. In a riding cultivator, the combination of a frame, an arch axle pivoted to the frame to swing longitudinally and comprising spindles, carrying-wheels mounted on said spindles, pivotal connections between the axle and the spindle which permit the wheels to swing laterally, and means for operating the arch axle sections to balance the frame, comprising rods pivotally connected to the arch-axle below the spindles and substantially concentric with the axes about which the spindles swing laterally.

[Claims 6 to 13 not printed in the Gazette.]

1,138,636. RECORD-BOOK. FREDERICK W. DAVIS, Chicago, Ill., assignor to Frigid Fluid Company, Chicago, Ill. Filed Dec. 29, 1913. Serial No. 809,161. (Cl. 11—8.)



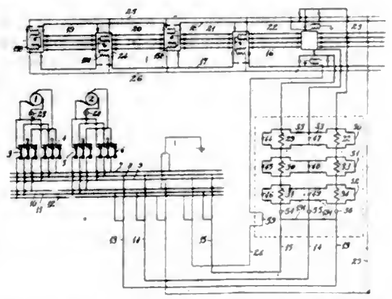
1. A device of the character described consisting of a leaf, and a plurality of perforated coupon strips one above the other fastened upon and extending along one side of said leaf, blank spaces provided upon said leaf corresponding to the various sets of superposed coupons, each row of superposed coupons and the corresponding blank space having the same serial number.

2. A carriage list comprising a leaf, a plurality of superposed strips fastened on top of said leaf along one side thereof, a row of longitudinal perforations in said strips, a plurality of parallel rows of perforations transversely of said strips to divide each strip into a plurality of coupons, and dividing lines on said leaf transversely thereof to subdivide the same corresponding to the coupons, the subdivided spaces on said leaf and the coupons above said space having the same serial number corresponding to the number of a conveyance, the top layers of coupons being for the intended occupants of the conveyance and the lower layer having indicia thereon to indicate their use by the driver of the conveyance.

3. A carriage list comprising a leaf, a plurality of superposed strips fastened on top of said leaf along one side thereof, a row of longitudinal perforations in said strips, a plurality of parallel rows of perforations transversely of said strips to divide each strip into a plurality of coupons, dividing lines on said leaf transversely thereof to subdivide the same corresponding to the coupons, the subdivided spaces on said leaf and the coupons above said space having the same serial number corresponding to the number of a conveyance, the top strips of coupons

being for the intended occupants of the conveyance and the lower strip having indicia thereon to indicate their use by the driver of the conveyance, and a cover leaf secured to said leaf having information indicia thereon.

1,138,637. SYSTEM OF ELECTRICAL DISTRIBUTION. HARRY P. DAVIS, Pittsburgh, and FRANK CONRAD, Swissvale, Pa., assignors to Westinghouse Electric & Manufacturing Company, a Corporation of Pennsylvania. Filed Dec. 31, 1908. Serial No. 470,232. (Cl. 175—294.)



1. The combination with a supply circuit and a distributing circuit, of means dependent upon predetermined abnormal conditions in any portion of the distributing circuit for inserting resistance in the supply circuit, cutting out said portion of the distributing circuit and excluding the resistance.

2. The combination with a distributing circuit comprising a plurality of sections and supply circuits connected to each section, of means dependent upon predetermined abnormal conditions in any section for automatically inserting resistance in the supply circuits, cutting out said section and excluding the resistance from the supply circuit.

3. The combination with a supply circuit, a distributing circuit comprising a plurality of sections, circuit interrupters located at the respective ends of each section and supply circuits connected to each section through the interrupters, of means dependent upon an abnormal demand upon any section for automatically inserting resistance in the supply circuits and actuating the circuit interrupters at the end of said section.

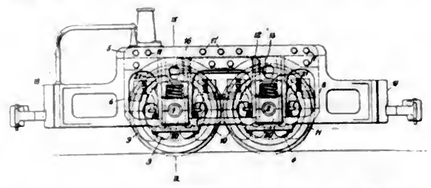
4. The combination with a distributing circuit comprising a plurality of sections and circuit interrupters located at the respective ends of the sections having electroresponsive release mechanisms, of means dependent upon an excessive current traversing the circuit interrupters for automatically rendering the release mechanisms capable of remote control, means dependent upon an abnormal demand upon any section for inserting resistance in the supply circuit and for actuating the active release mechanisms, and means dependent upon the cutting out of the said section for excluding the resistance from the supply circuit.

5. The combination with a supply circuit and a distributing circuit comprising a plurality of sections, of means dependent upon an abnormal current demand upon any section for automatically inserting resistances in the supply circuit and cutting out said section.

[Claims 6 to 19 not printed in the Gazette.]

1,138,638. LOCOMOTIVE. JOSEPH LE CONTE DAVIS, Pittsburgh, Pa., assignor, by mesne assignments, to Westinghouse Electric & Manufacturing Company, East Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Jan. 10, 1908. Serial No. 410,228. (Cl. 105—259.)

1. An electric locomotive having a short wheel base and comprising a horizontally disposed magnetizable yoke provided with three integral downwardly projecting pole pieces having free ends, armatures rotatably mounted between the middle and outer pole pieces and a winding surrounding the middle pole piece and disposed above the armatures.



2. An electric locomotive having a short wheel base and comprising a horizontally disposed magnetizable yoke provided with three downwardly projecting integral pole pieces having free ends, armatures rotatably mounted between the middle and outer pole pieces, a two-part concentric winding surrounding the middle pole piece above said armatures and means for connecting the parts of the field magnet winding in either series or parallel relation.

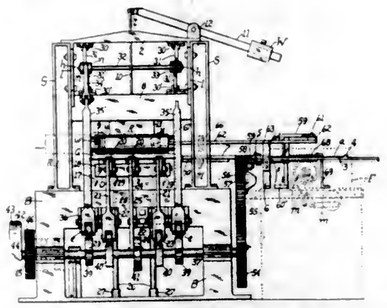
3. An electric locomotive having a short wheel base comprising a substantially horizontal yoke provided with three downwardly projecting integral pole pieces having detachable free ends, a winding surrounding the upper portion of the middle pole piece, and armatures rotatably mounted between the middle and outer pole pieces.

4. The combination with a pair of driving axles, and armatures carried thereby, of side frames and a field magnet frame secured thereto and resiliently supported upon the axles and comprising a substantially horizontal yoke and three downwardly projecting pole pieces having unconnected lower ends and provided with long concave side faces between which the armatures are located.

5. The combination with a pair of driving axles, and armatures carried thereby, of a field magnet frame resiliently supported upon the axles and comprising a substantially horizontal yoke and three downwardly projecting pole pieces having unconnected lower ends and provided with long concave side faces between which the armatures are located, and a field magnet winding surrounding the middle pole piece above said armatures.

[Claims 6 to 9 not printed in the Gazette.]

1,138,639. STOVEPIPE-FORMING MACHINE. RICHARD R. DIETRICH, St. Louis, Mo. Filed May 18, 1914. Serial No. 839,317. (Cl. 153—34.)



1. In a machine of the character described, a blank-feeding member, a member provided with a gap or cavity across which the blank is advanced, a pipe-forming member reciprocating opposite the cavity and operating to force the blank thereinto, a complementary die in the cavity in the path of the reciprocation of the forming member aforesaid against which a section of the blank may be forced, dies operating from opposite sides of the plane of reciprocation of the forming member for forcing other sections of the blank against the forming member, and means for withdrawing the said dies from the blank, the latter adhering to the forming member after such withdrawal.

2. In a machine of the character described, a blank-feeding member, a member provided with a cavity across and along which the blank is advanced, a substantially cylindrical pipe former or punch reciprocating opposite the cavity and operating to bend the blank and force the same into the cavity, a complementary die in the cavity against which the bottom peripheral portion of the punch and a corresponding section of the blank may be driven, side dies reciprocating across the path of reciprocation of the punch and provided with faces contoured to conform to the surface of the punch for forcing the remaining portions of the blank against the corresponding peripheral portions of the punch, whereby the blank wraps around the punch and loosely adheres thereto.

3. In a machine of the character described, a blank-feeding member, a member provided with a cavity across and along which the blank is advanced, a substantially cylindrical pipe former or punch reciprocating opposite the cavity and operating to bend the blank and force the same into the cavity, a complementary die in the cavity in the path of movement of the punch for engaging a portion of the peripheral surface of the punch and a corresponding portion of the blank, reciprocating side dies operating across the path of reciprocation of the punch and contour to conform to the surface of said punch for forcing the remaining portions of the blank against the remaining portions of the periphery of the punch whereby the blank wraps around the punch, and a member on the punch for maintaining the edges of the wrapped blank a fixed distance apart.

4. In a machine of the character described, a blank-feeding member, a member provided with a cavity across and along which the blank is advanced, a pipe former or punch reciprocating opposite the cavity and operating to bend the blank and force the same into the cavity, a complementary die in the cavity in the path of movement of the punch for engaging a portion of the peripheral surface of the punch and a corresponding section of the blank, reciprocating side dies operating across the path of reciprocation of the punch and contour to conform to the surface of the punch for forcing the remaining sections of the blank against the remaining peripheral portions of the punch, a longitudinally disposed peripheral formation on the punch for maintaining the edges of the blank wrapped about the punch a fixed distance apart, suitable cam-shafts, and intermediate connections between said shafts and the punch and movable dies for imparting thereto the necessary reciprocations.

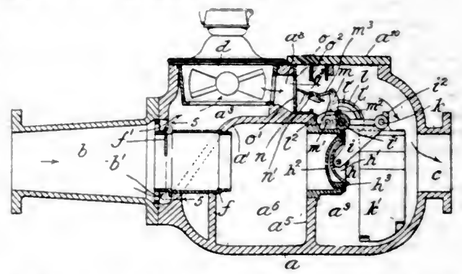
5. In a machine of the character described, a reciprocating former, a cam-shaft disposed on either side of the plane of reciprocation thereof, a cam on one shaft and a coöperating cam on the opposite shaft, bell-cranks mounted to engage the riding surfaces or formations of the respective cams, links leading from corresponding lever arms of the bell-cranks, a toggle-joint coupled to the links and comprising a pair of toggle-links, the pivotal terminal of one of the links being fixed and the corresponding terminal of the opposite link being coupled to the reciprocating former, the riding surfaces of the cams being shaped to cause an oscillation of the bell-cranks simultaneously in the same direction whereby the toggle-links are alternately expanded and contracted, and a corresponding reciprocation imparted to the former aforesaid.

[Claims 6 to 8 not printed in the Gazette.]

1,138,640. WATER-METER. HENRY I. DILTS, Long Island City, N. Y., assignor to Neptune Meter Company, New York, N. Y., a Corporation of New Jersey. Filed Dec. 13, 1911. Serial No. 665,494. (Cl. 137—32.)

1. The combination with a meter casing having a transverse wall with an aperture therethrough, of a valve to close said aperture, said valve comprising a main part and a projecting part secured positively thereto to enter the aperture and relatively movable with respect to the main part, and a lever arm to support the valve and pivotally connected to said main part.

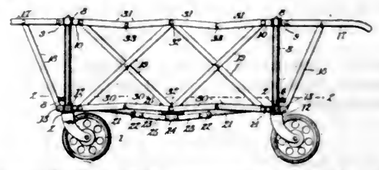
2. In a meter having a high-duty passage and a low-duty passage the combination of a valve seat in the high-duty passage, a valve to coöperate therewith, a bell crank lever mounted above the valve seat and to one arm of which the valve is connected, a weight connected to the other arm of the bell crank lever, a valve to control the low-duty passage, and means independent of said valves and actuated by the opening movement of the high-duty valve to close the low-duty valve.



3. In a meter having a low-duty passage and a high-duty passage, the combination of a valve seat in the high-duty passage, a valve to coöperate therewith, a bell crank lever mounted above the valve seat and to one arm of which the valve is connected, a weight connected to the other arm of the bell crank lever, a valve to control the low-duty passage, a lever operatively connected to the low-duty valve and a cam plate in operative relation with said last-named lever and connected to the bell crank lever to move therewith.

4. In a meter having a low-duty passage and a high-duty passage, the combination of a valve seat in the high-duty passage, a valve to coöperate therewith, a bell crank lever mounted above the valve seat and to one arm of which the valve is connected, a weight connected to the other arm of the bell crank lever, a valve to control the low-duty passage, a lever operatively connected to the low-duty valve and a cam plate having a cam slot with a concentric portion and an offset engaged by a projection from the lever connected to the low-duty valve.

1,138,641. CASKET-TRUCK. CARL B. DOLGE, Westport, Conn. Filed Sept. 21, 1914. Serial No. 862,668. (Cl. 27—1.)



1. A collapsible truck comprising telescopic corner posts, lazytongs interposed between and connected with each adjacent pair of posts both at the sides and ends of the truck, horizontally-disposed rock-shafts connected with the lower portions of the corner posts and having bifurcated portions, links pivoted in said bifurcated portions, transversely-disposed links pivotally connected to the inner portions of the first-named links, vertically-swinging links pivotally connected with said transversely-disposed links and extending longitudinally inward therefrom, a horizontal plate arranged above the inner portions of said longitudinally-disposed links and having a depending portion pivotally connected with said portions, and a handle on said plate.

2. A collapsible truck comprising telescopic corner posts, lazytongs interposed between and connected with each adjacent pair of posts both at the sides and ends of the truck, horizontally-disposed rock-shafts connected with the corner posts, and a locking brace including links pivotally connected to said rock-shafts.

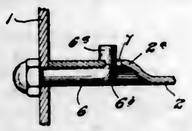
3. A collapsible truck comprising telescopic corner posts, lazytongs interposed between and connected with

each adjacent pair of posts both at the sides and ends of the truck, and a vertically-movable, flexible locking brace interposed between and connected with opposite pairs of posts; said brace being constructed and arranged to be moved downwardly beyond the dead-center and to remain on itself in said position until drawn upwardly.

4. A collapsible truck comprising telescopic corner posts, lazytongs interposed between and connected with each adjacent pair of posts at the sides of the truck, and lower and upper pairs of side brace links pivotally connected with the corner posts and the lazytongs; the lower side brace links being constructed and arranged to flex upwardly and being held against downward flexing, and the upper side brace links being constructed and arranged to flex downwardly and being held against upward flexure.

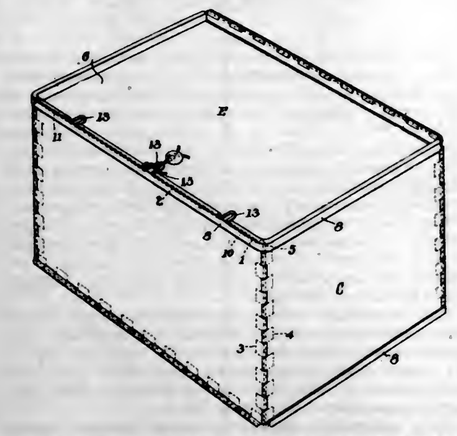
5. In a collapsible truck, the combination with corner posts, and collapsible connections intermediate the posts; of a vertically-movable, flexible locking brace including rock-shafts connected with the posts, links connected with said shafts, and a handle connected with said links; said brace being constructed and arranged when moved vertically beyond the dead-center, to remain of itself in said position.

1,138,642. METALLIC STAIR CONSTRUCTION. WILLIAM DOWLING and WILLIAM A. SCHROEDER, St. Louis, Mo., assignors to Mesker Brothers Iron Company, St. Louis, Mo., a Corporation of Missouri. Filed May 25, 1914. Serial No. 840,779. (Cl. 189—43.)



In a stair structure of the sort described, the combination with a stringer and a tread portion, having a channel pressed therein adjacent its end, of a headless bolt seated in said channel and passing through the stringer, one end of said bolt being bent upwardly and extending through the tread at the inner end of the channel therein, there being a slot formed in the upwardly bent end of the bolt, which slot receives a portion of the tread, and means coöperating with the other end of said bolt for drawing said tread and said stringer together.

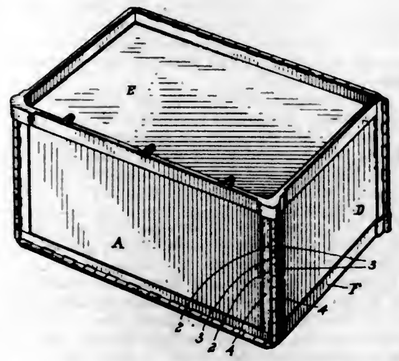
1,138,643. METALLIC SHIPPING-CASE. WILLIAM A. DUNLAP, Pittsburgh, Pa. Filed Mar. 19, 1914. Serial No. 825,862. (Cl. 220—17.)



1. In a metallic packing case, the combination with vertical wall members hinged together at the corners of the case, of a top member hinged to the upper edge of one vertical wall member in a line outside the vertical plane of said wall member, and a bottom member hinged to the lower edge of the vertical wall member in a line outside of the vertical plane of said last mentioned wall member, said top and bottom members each having an inset body portion adapted to fit the opposite edge portions of said vertical wall members and thereby reinforce the structure against lateral strain.

2. In a metallic packing case, the combination with vertical walls, of a cover pivoted at the edge of one vertical wall, said cover having an inset body portion and an upstanding recessed rim, of a locking member carried by the opposite vertical wall and adapted to be turned inwardly from vertical to horizontal position, and an elongated slot in said upstanding rim adapted to receive the locking member when the latter is in vertical position and to permit it to be turned into horizontal position overlying the body portion of the cover.

1,138,644. METALLIC SHIPPING-CASE. WILLIAM A. DUNLAP, Pittsburgh, Pa. Filed Apr. 29, 1914. Serial No. 835,201. (Cl. 220—17.)



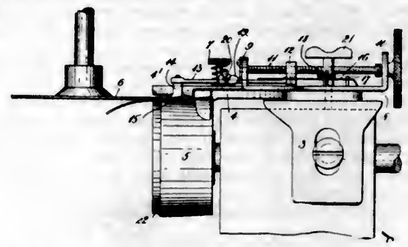
1. In a sheet metal collapsible packing case, the combination of vertical wall members, and vertical hinges between adjacent edges of said members, each hinge comprising a pintle disposed on the outside of one wall member and on the inside of the general plane of the adjacent wall member, the hinged edges of the wall members being continuous, and the body portions forming the hinge being provided with a plurality of alternating closed slots and with intervening alternating strips bent around said pintle.

2. In a metallic packing case, the combination with vertical wall members hinged together at the corners of the case, of a top member hinged to the upper edge of one vertical wall member, and a bottom member hinged to the lower edge of the opposite vertical wall member, each of the vertical hinges between the wall members comprising a pintle disposed on the outside of one wall member and on the inside of the general plane of the adjacent wall member, the hinged edges of the adjoining wall members being continuous, and the body portions forming the hinges being provided with a plurality of alternating closed slots and with intervening alternating strips bent around said pintle.

1,138,645. SKIVING-MACHINE. NEWELL V. DYER, Holbrook, Mass. Filed Oct. 9, 1914. Serial No. 865,932. (Cl. 69—16.)

1. In a machine of the class described, the combination of a feed roll and yieldingly mounted adjustable means, having a part adjacent said feed roll for gaging or guiding leather arranged to permit said leather to be introduced underneath or held against said part.

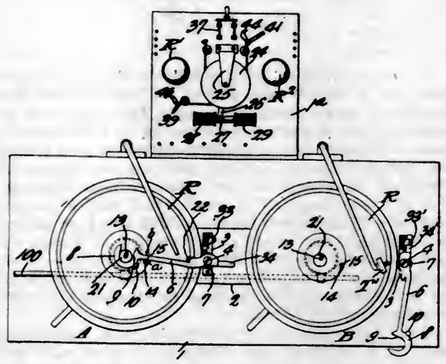
2. In a machine of the class described, the combination of a feed roll and an adjustable gage or guide having a projecting arm having attached thereto a block with a protruding base yieldingly held against the feed roll in such manner as to permit leather to be introduced underneath or held against said block.



3. In a machine of the class described, the combination of a suitable feed roll and a yieldingly mounted guide or gage arranged to permit leather to be introduced either against the guide or gage or underneath it, substantially as described.

4. In a machine of the class described, the combination with a suitable feed roll of an adjustable gage having a detachable block with a protruding base held against the feed roll by holding means permitting the introduction of leather either underneath the block or against it.

1,138,646. STYLUS-POSITIONING AND CIRCUIT-CONTROLLING MEANS FOR SOUND-REPRODUCING MACHINES. CHARLES W. EBELING, Wheeling, W. Va. Filed Oct. 30, 1913. Serial No. 798,296. (Cl. 181—3.)



1. In a sound reproducing machine, a sound record carrier, a stylus, means for moving the stylus transversely of the phonic groove of a record to direct the stylus to the phonic groove of such record, and means actuated by the record carrier for displacing said stylus moving means after the stylus has been placed in the phonic groove of the record.

2. In a sound reproducing machine a sound record carrier, a stylus, a stylus positioning means movable transversely of the phonic groove of a record supported by said carrier during the rotation of the carrier to direct the stylus to the phonic groove of such record, and means actuated by the record carrier for displacing said stylus positioning means after the stylus has been guided to the phonic groove of the record.

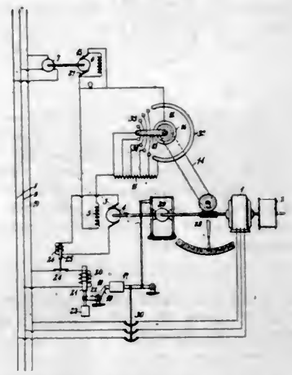
3. In a sound reproducing machine, a sound record carrier, a stylus, a pivotally displaceable stylus positioning means mounted for movement transversely of the phonic groove of a record supported by said carrier, means actuated by the carrier for imparting transverse movement thereto during the rotation of the carrier, and means actuated by the carrier for displacing the stylus positioning means after the stylus has been directed to the phonic groove of the record.

4. In a sound reproducing machine, a sound record carrier, a stylus positioning means, a circuit closer, and means actuated by the carrier for controlling the stylus positioning means and the circuit closer.

5. In a sound reproducing machine, a sound record carrier, a stylus, a stylus positioning means movable transversely of the phonic groove of the record supported by said carrier during the rotation of the carrier to direct the stylus to the entrance of the phonic groove of such record, means actuated by the record carrier for displacing said stylus positioning means after the stylus has been guided to the phonic groove of the record, and a circuit closer actuated by the stylus guiding means.

[Claims 6 to 12 not printed in the Gazette.]

1,138,647. SAFETY SPEED-CONTROL APPARATUS FOR MOTORS. SIEGMUND HANS ECKMANN and JAMES WAGNER, Manchester, England, assignors to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed May 11, 1912. Serial No. 696,767. (Cl. 172—152.)



1. The combination with a motor for driving a reciprocating load at predetermined normal speeds that vary in accordance with the position of said load, of a safety control apparatus comprising an electric generator the speed of which corresponds to that of the reciprocating load and the excitation of which is varied inversely as the predetermined normal speeds of the reciprocating load vary, whereby an excessive speed of the load effects an increase in the electromotive force of said generator to cut off the supply of power and apply a brake to the motor.

2. The combination with a motor for driving a load at a plurality of predetermined normal speeds and an electric generator driven at speeds corresponding to those of said load, an electromagnetically controlled safety device governed by said generator and means for varying the field excitation of said generator inversely with the predetermined normal speeds of the load.

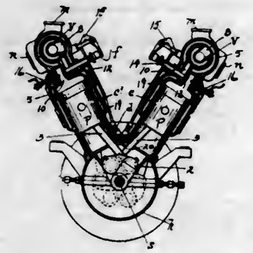
3. The combination with a motor for driving a load in each of two directions at predetermined varying speeds for accelerating and retarding the same and at a substantially uniform speed relatively high between acceleration and retardation periods, of an electromagnetically controlled safety device, an electric generator geared or coupled to said load and providing the current for the controlling circuit of said safety device, an exciter for the field magnet of said generator and a rheostat for automatically varying the current in the exciter circuits in accordance with the predetermined speeds of the load.

4. The combination with a hoist drum, and an electric generator coupled or geared together, of a motor for normally driving said drum and generator at certain predetermined speeds, a safety device adapted to be governed by electrical energy supplied by said generator, an exciter

for said generator and a rheostat for the exciter circuit that is automatically operated to compensate for the varying speed of the generator under normal operating conditions.

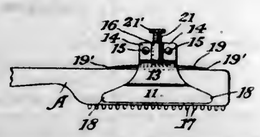
5. The combination with a motor for normally driving a reciprocating load at different predetermined speeds, and a generator driven at corresponding speeds, of a safety device that is governed by electrical energy from said generator, a constant speed exciter and a rheostat for the exciter circuit that is automatically operated to compensate for the normal varying speeds of the generator.

1,138,648. EXPLOSIVE-ENGINE. ARTHUR G. ELLIS, East Liverpool, Ohio. Filed Jan. 17, 1913. Serial No. 742,576. (Cl. 123—59.)



In an internal combustion engine, a series of engine cylinders, a combined intake and exhaust passage for each cylinder and a puppet valve in each passage, in combination with a rotary valve for said several passages in advance of said puppet valves in the passage of gas and a single cam shaft and puppet-valve operating connections with said shaft located between said cylinders and in operating connection therewith.

1,138,649. SAFETY-GUARD FOR RAZORS. LOUIS W. FARQUHAR, St. Louis, Mo. Filed May 11, 1914. Serial No. 837,766. (Cl. 30—12.)



1. A safety guard for razor blades comprising a pair of elongated plates having a narrow connection therebetween, said plates having a neck near said connection with substantially parallel sides, a presser strip guided in said neck and between the sides thereof and adapted to engage two separated points the back of a razor blade to which the guard is applied, said plates having converging portions beyond said neck adapted to engage the sides of the razor blade, and a single adjusting screw between said separated points mounted in said narrow connection and imparting the adjusting force through said presser strip to the razor blade.

2. A safety guard for a razor blade consisting of two plates adapted to engage the opposite sides of the razor blade, a blade-presser mounted between said plates, an adjusting member for moving said blade-presser toward the razor blade, said plates having oppositely disposed offset portions forming a guide engaging said adjusting means.

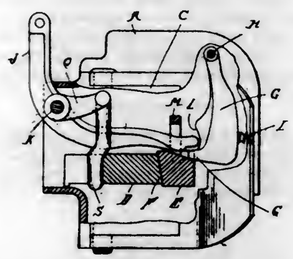
3. A safety guard for a razor blade consisting of two plates adapted to engage the opposite sides of the razor blade, a blade-presser mounted between said plates, a screw for adjusting said blade presser toward the razor blade, said plates having meeting flanges and each having an offset portion, said offset portion being oppositely disposed and forming a guide sleeve engaging opposite sides of said screw.

4. A safety guard for a razor blade consisting of two plates adapted to engage the opposite sides of the razor blade, a blade-presser mounted between said plates, a screw for adjusting said blade presser toward the razor blade, said plates having oppositely disposed offset portions forming a guide sleeve engaging said screw, and a swivel connection between said screw and said blade-presser.

5. A safety guard for a razor blade having means for engaging the sides of the razor blade, a blade-presser for engaging the back edge of the razor blade, a screw mounted in said guard for adjusting said blade presser toward the blade, said screw having a bore passing therethrough, and a pin connected with said blade-presser and passing through said bore to retain said screw in connection with said blade-presser.

[Claims 6 to 8 not printed in the Gazette.]

1,138,650. CAR-COUPLING. MASON B. GIBERSON, Detroit, Mich., assignor to Thomas H. Simpson, Detroit, Mich. Filed Dec. 17, 1912. Serial No. 737,223. (Cl. 213—10.)



1. In a car coupler, the combination with the coupling hook, of a wege-shaped detent for locking said hook adapted to automatically compensate for wear, a dog for anutomatically engaging said detent in its locked position to hold the same from disengagement, and a lever for lifting said detent, also engaging said dog and adapted to disengage the same in advance of movement of the detent.

2. In a car coupler, the combination with a coupling hook, of a wedge-shaped dog for locking said hook adapted to compensate for wear, a dog adapted to engage and hold said detent in its locking position said dog including means for compensating for wear, and releasing means for said detent and dog adapted to disengage the latter in advance of the former.

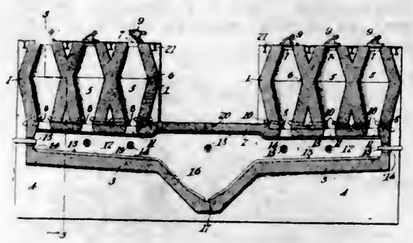
3. In a car coupler, the combination with the coupling hook, of a wedge-shaped detent for locking said hook adapted to compensate for wear, a dog pivotally secured within the coupler to engage said detent and hold the same from movement, a lever for releasing said detent having a limited lost motion therewith, and a cam engagement between said lever and dog for disengaging the latter in advance of the movement of the detent.

1,138,651. ORE-SMELTING FURNACE. GEORGE P. GIBSON, Braddock, Pa. Filed Aug. 6, 1914. Serial No. 855,433. (Cl. 75—71.)

1 A smelting furnace including an inclosed melting furnace having a muffler chamber and a molten metal pit in communication with said chamber, an upright smelting furnace unit having a contracted discharge throat at its lower end opening into the top of said muffler chamber, and separate heating means respectively for the said heating unit and the said muffler chamber.

2. A smelting furnace including a plurality of smelter furnace units, an inclosed melting furnace arranged beneath said smelter units and adapted to receive the discharge therefrom, and separate heating means respectively for each of said units and for the melting furnace.

3. A smelting furnace including a plurality of independent smelting blast furnace units, each of said units having an enlarged central ore chamber and at the bottom formed with a contracted discharge throat, heating means in the contracted discharge throat portion of each of said furnace units, a single melting furnace common to all of said blast furnace units and arranged beneath the throat portions thereof, and separate heating means for the melting furnace.

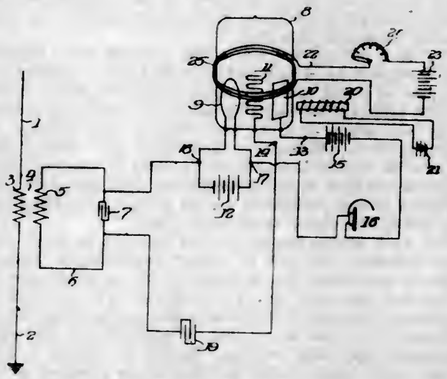


4. A smelting furnace including a plurality of independent smelting blast furnace units each having at its lower end a contracted discharge throat, heating means in the contracted discharge throat of each furnace unit, a melting furnace having a muffle chamber in communication with the discharge throat of the smelter units, a molten metal pit for receiving molten metal from the muffle chamber, and separate heating means for the melting furnace.

5. A smelting furnace including a melting furnace, a plurality of independent smelting blast furnace units arranged in battery formation on said melting furnace, said melting furnace having inclined melting hearths arranged beneath the discharge openings of the smelter units, a central molten metal pit between said inclined hearths, heating means for said units, and other heating means in proximity to and over said hearths.

[Claims 6 to 9 not printed in the Gazette.]

1,138,652. WIRELESS TELEGRAPHY. BURCH GRAVES, Thorntown, Ind. Filed Jan. 24, 1914. Serial No. 814,027. (Cl. 250—27.)



1. An oscillation detector comprising a pair of relatively stationary electrodes separated by a gaseous medium maintained in a condition of molecular activity, and a magnet arranged in immediate proximity to and at one side of said electrodes, in combination with other means for creating electric energy surrounding said detector, substantially as described.

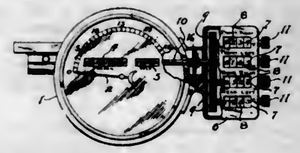
2. An oscillation detector comprising a pair of relatively stationary electrodes separated by a sensitive conducting gaseous medium, an electromagnet arranged in immediate proximity to and at one side of said detector, and other means for creating electric energy encircling said electrodes, substantially as described.

3. An oscillation detector comprising an evacuated vessel, two electrodes inclosed within said vessel, and a grid-shaped member of conducting material interposed between said electrodes, in combination with means for creating electric energy surrounding said vessel and electrodes, substantially as described.

4. An oscillation detector comprising an evacuated vessel, two electrodes inclosed within said vessel, and a grid-shaped member of conducting material interposed between said electrodes, in combination with means for creating electric energy surrounding said vessel and electrodes, and a rheostat in said local circuit, substantially as described.

5. An oscillation detector comprising an evacuated vessel, two distinct electrodes inclosed within said vessel, a conducting member interposed between said electrodes within said vessel, and an electromagnet arranged exteriorly if said vessel and in proximity to said electrodes at one side thereof, in combination with a coil in a local circuit and encircling the vessel and electrodes, substantially as described.

1,138,653. SPEEDOMETER AND TIRE-METER. WILLIAM P. HAMMOND, New York, N. Y. Filed Nov. 25, 1913. Serial No. 802,984. (Cl. 235—95.)



1. A tire meter attachment for speedometers including a plurality of registering devices distinct from the ordinary trip and total registers of the speedometer and driven synchronously therewith.

2. A tire meter attachment for speedometers including a casing, a series of independent registering odometers within the casing, gearing between the several registering odometers, and a driving connection between one of the registering odometers and the odometer of the speedometer, the series of registering odometers being distinct from the odometer of the speedometer and driven synchronously therewith.

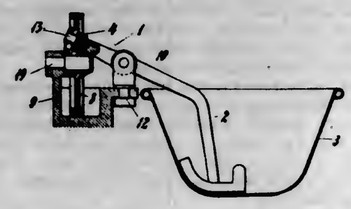
3. A tire meter attachment for speedometers, including a casing, a series of independent registering odometers mounted within the casing, indicating means for identifying each odometer with some particular wheel, and a driving connection between the several odometers and the odometer of the speedometer, the said odometers being distinct from the odometer of the speedometer and driven synchronously therewith.

4. A tire meter attachment for speedometers including a casing, a series of registering odometers mounted within the casing and identified with the different wheels of the vehicle, one of the registering odometers being provided with a main operating shaft, gearing between the several registering odometers, and an operative connection between the said main driving shaft and the resetting wheel of the odometer speedometer.

5. A tire meter attachment for speedometers including a casing, a series of registering odometers mounted within the casing and identified with the different wheels of the vehicle, one of the registering odometers being provided with a main driving shaft, gearing between the several registering odometers, and a clutch connection between the main driving shaft and the resetting wheel of the odometer of the speedometer whereby the former is driven when the resetting wheel is rotated in a forward direction but is disengaged from the resetting wheel when the same is rotated backwardly.

[Claim 6 not printed in the Gazette.]

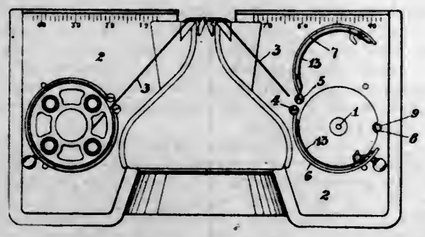
1,138,654. MIXING AND KNEADING MACHINE. RICHARD HERRMST, Halle-on-the-Saale, Germany. Filed July 2, 1913. Serial No. 777,113. (Cl. 107—30.)



1. A mixing and kneading machine comprising, a kneading lever having a downwardly bent end portion, a horizontal rotatable member in which the lever is fulcrumed, a rotatable driving member, a radial ball bearing permitting universal movement connecting the lever and driving member and adapted to move relatively to the latter to permit the fulcrum point of the lever to be moved relatively to the axis of rotation of the driving member whereby differential curved movements may be imparted to the lever.

2. A mixing or kneading machine comprising a kneading lever having a downwardly bent end portion, a forked member rotatably mounted in the machine frame and forming a fulcrum for the lever, a ball bearing comprising concentric rings movably mounted in a socket formed in the power end of the levers, balls interposed between said rings, a rotatable driving member, and an inclined pin carried by the latter projecting into the inner ring of the ball bearing.

1,138,655. RIBBON DEVICE OF TYPE-WRITING MACHINES. EDWARD B. HESS, New York, N. Y., assignor to Royal Typewriter Company, Inc., New York, N. Y., a Corporation of New York. Filed Mar. 9, 1914. Serial No. 823,314. (Cl 197—151.)



1. In a visible typewriting machine, a top plate thereof, two vertical posts extending up therefrom and suitably adjacent to form a slot for the ribbon and a ribbon spool housing in two sections one of which is hinged to turn back to permit insertion of a spool.

2. In a visible typewriting machine, a top plate thereof, two vertical posts extending up therefrom and suitably adjacent to form a slot for the ribbon and a ribbon spool housing in two sections one of which is hinged on one of said posts to turn back to permit insertion of a spool.

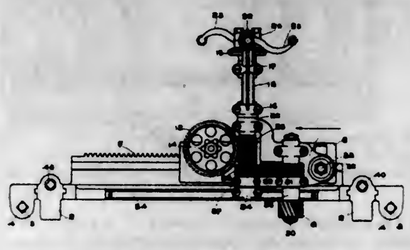
3. A ribbon spool spindle, a flanged ribbon spool between the flanges of which a ribbon may be wound, a housing for the spool adapted to open laterally to permit insertion of the spool, and a projection on the inner side of the housing which extends between the flanges of the spool when the housing is closed.

4. A ribbon spool spindle, a flanged ribbon spool between the flanges of which a ribbon may be wound, a housing formed of a plurality of parts and adapted to open laterally to permit insertion of a spool and means for preventing slack of the ribbon from falling down below the lower flange of the spool.

5. A ribbon spool housing comprising a hinged section adapted to swing outwardly and formed with a projection at its lower edge, and a fixed head under which said projection passes when the section is closed.

[Claims 6 to 9 not printed in the Gazette.]

1,138,656. PORTABLE MILLING-MACHINE FOR MILLING POCKETS FOR SWITCH-POINTS IN STOCK-RAILS. THOMAS F. HILLIARD, Oil City, Pa. Filed July 13, 1914. Serial No. 850,778. (Cl. 90—12.)



1. In a milling machine, a bed arranged to be secured to a railway rail, a carriage arranged to travel upon said bed, a milling-cutter mounted in said carriage operable to remove a portion of the head of said rail, and a guide for said milling-cutter arranged to automatically define the operation of said milling-cutter upon said rail.

2. In a milling machine, a bed arranged to be secured to and to extend longitudinally of a railway-rail, means for adjusting said bed laterally upon said rail, a carriage mounted upon said bed and adapted to travel longitudinally thereof, a milling-cutter mounted upon said carriage operable to remove a portion of the head of said rail, and means arranged to automatically define the operation of said cutter upon said rail.

3. In a milling machine, a bed arranged to be secured to and to extend longitudinally of a railway-rail, a carriage arranged to travel upon said bed longitudinally of said rail, means for causing said travel, an arm swingingly mounted upon said carriage, a milling-cutter carried by said arm, operable to remove a portion of the head of said rail, and adapted to be operated by said carriage-operating means, and means arranged to automatically define the profile and longitudinal extent of the operation of said cutter upon said rail-head.

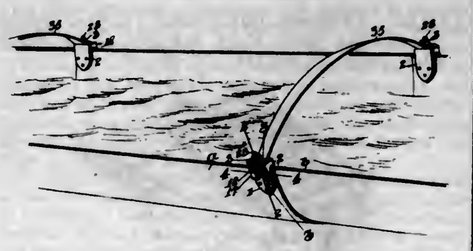
4. In a milling machine, a bed arranged to be secured to a railway-rail, a rack secured to said bed, a carriage arranged to travel upon said bed, a pinion revolubly mounted in said carriage engaging said rack, means for revolving said pinion to cause said travel of said carriage, a milling-cutter yieldably mounted upon said carriage operable to remove a portion of the head of said rail, and means arranged to automatically act upon said cutter in respect to said yieldability for the purpose of defining the action of said cutter upon said rail-head.

5. In a milling machine, a bed arranged to be secured to a railway rail and to extend longitudinally thereof, means for causing and securing the lateral adjustment of said bed upon said rail, a carriage-rail upon said bed, a carriage arranged to travel upon said carriage-rail, means operable to cause said travel, a milling-cutter yieldably mounted upon said carriage, operable to remove a portion of the head of said rail, and means arranged to cooperate with said cutter in respect to said yieldability, for the purpose of defining the action of said cutter upon said head.

[Claims 6 to 8 not printed in the Gazette.]

1,138,657. FLUME-JOINT COUPLING. WRIGHTSMAN D. HIMES, Delta, Colo. Filed Aug. 14, 1914. Serial No. 856,784. (Cl. 108—28.)

1. In a flume, a set of overlapping sections, and means for securing the overlapping sections together, said means comprising a clamp member secured to one section and a clamp member secured to the other section, said clamp members having engaging portions and means for drawing said clamp members together to bring said engaging portions into contact, the contacting faces of said engaging portions having projections for applying a sealing pressure between the contacting faces of the overlapping flume sections.



2. In a flume, the combination with the overlapping clamp sections, of a clamp for securing the same together, said clamp comprising a main body portion, means for securing said main body portion to one of the flume sections, said main body portion including an apertured projection, a second clamp member secured to the opposed flume section and having a member to project through said slotted projection, means for drawing said clamp members in a direction parallel to one another, and means for simultaneously moving said clamp members toward each other laterally to clamp the overlapping flume sections together.

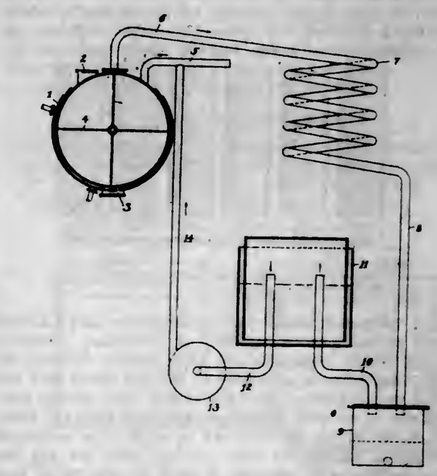
3. In a flume composed of overlapping sections, a clamp for securing the overlapping sections together, said clamp comprising two members, the first of said members consisting of a body plate, means for securing said body plate to one of the flume sections, the first of said clamp members also including a portion projecting at right angles to said body plate and provided with a longitudinal slot, the other of said clamp members consisting of a body portion, means for securing said last named body portion to the second of the overlapping flume sections, said second clamp member body portion having a lug to project through said slot, a nut threaded onto said lug for drawing said lug through said slot to thereby impart a slidable movement to said body plates, and means for imparting relative motion to said body plates to bring them closer together as said nut is screwed down.

4. In a flume composed of overlapping sections, a clamp for securing the overlapping sections together, said clamp comprising two members, the first of said members consisting of a body plate, means for securing said body plate to one of the flume sections, the first of said clamp members also including a portion projecting at right angles to said body plate and provided with a longitudinal slot, the other of said clamp members consisting of a body portion, means for securing said last named body portion to the second of the overlapping flume sections, said second clamp member body portion having a lug to project through said slot, a nut threaded onto said lug for drawing said lug through said slot to thereby impart a slidable movement to said body plates, means for imparting relative motion to said body plates to bring them closer together as the nut is screwed down, said last named means comprising projections on said first mentioned clamp member for engaging said second mentioned clamp member, the contacting surfaces between said projections and said second clamp member being beveled to thereby force said first and second clamp members bodily toward each other to clamp the flume sections together, substantially as shown and described.

5. In combination with the overlapping flume sections, a clamp member secured upon the inside of one of said sections, a clamp member secured upon the outside of the other of opposing flume sections, the said clamp members having interlocking portions, and means that co-act with the said interlocking portions for bringing the clamp members and their respective flume sections together.

[Claim 6 not printed in the Gazette.]

1,138,658. PROCESS OF DRYING SODIUM-BISULFITE CRYSTALS. HENRY HOWARD, Brookline, Mass. Filed June 24, 1913. Serial No. 775,608. (Cl. 23—13.)



1. The process of drying sulfite crystals, which consists in removing the moisture from said crystals in an atmosphere of sulfur dioxid.

2. The process of drying sulfite crystals, which consists in heating the wet crystals in a closed chamber, and passing a current of sulfur dioxid gas through said chamber.

3. The process of drying sulfite crystals, which consists in heating the wet crystals in a closed chamber, and passing a current of hot sulfur dioxid gas through said chamber.

4. The process of drying sulfite crystals, which consists in heating and agitating the wet crystals in a closed chamber, passing a current of sulfur dioxid gas through said chamber, and removing the moisture from the effluent gas and returning it to said chamber.

5. The process of drying sulfite crystals, which consists in heating and agitating the wet crystals in a closed chamber, passing a current of hot sulfur dioxid gas through said chamber, and removing the moisture from the effluent gas and returning it to said chamber.

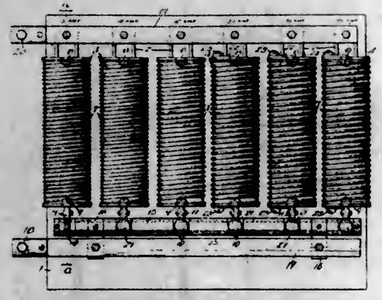
1,138,659. RESISTANCE DEVICE. SAMUEL E. HUBNERFAUTH, Chicago, Ill. Filed June 18, 1914. Serial No. 845,807. (Cl. 219—48.)

1. A resistance device of the character described having a pair of bus bars, a plurality of insulating tubes, a backboard, current conducting arms for mounting said tubes on said backboard, a coil resistance unit coiled about the exterior of each tube, a coiled resistance unit interiorly of each tube, said resistance units being carried between said arms, and a switch element carried by one of the arms of each tube.

2. A resistance device for electroplating tanks having a pair of bus bars, a plurality of individual resistance units of unlike resistance and high current carrying capacity adapted to be connected in parallel across said bus bars, a switch element for each unit so that various combinations of carrying capacities depending upon the selection of the switch elements can be made, said resistance units being coiled, and an insulating tube for each unit.

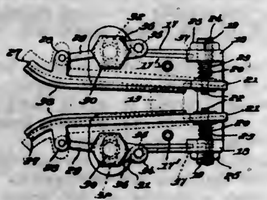
3. A resistance device for electroplating tanks having a pair of bus bars, a plurality of individual resistance

units of unlike resistance and high current carrying capacity adapted to be connected in parallel across said bus bars, a switch element for each unit so that various combinations of carrying capacities depending upon the selection of the switch elements can be made, said resistance units being coiled, an insulating tube about which each unit is mounted, and current conducting end plates mounted to said tubes to which the corresponding extremities of the associated resistance unit are connected.



4. A resistance device for electroplating tanks having a pair of bus bars, a plurality of individual resistance units of unlike resistance and high current carrying capacity adapted to be connected in parallel across said bus bars, a switch element for each unit so that various combinations of carrying capacities depending upon the selection of the switch elements can be made, said resistance units being coiled, and arms carried upon one bus bar for supporting one terminal of each of said units, said switch elements being electrically associated with the other bus bar.

1,138,660. PICKER-CHECK. JOSEPH H. JONES, Winthrop, and LITFALLAH G. SABBAG, East Boston, Mass. Filed Oct. 7, 1914. Serial No. 865,412. (Cl. 139—22.)

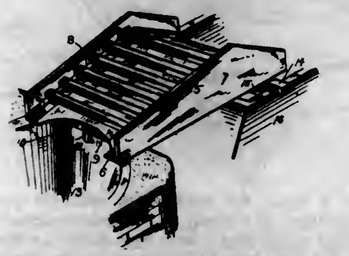


1. A picker check, comprising a base adapted to be secured to the lay of a loom, a pair of cheek pieces with friction surfaces facing toward each other presenting a picker receiving mouth, the mounting of said cheek pieces being formed to permit a yield thereof toward the back and also toward the front thereof with a component of advance toward the picker stick as it enters said mouth, and means for separately varying the extent of such yield at front and back and the normal position of the front and back portions of said cheeks respectively by separate adjustments.

2. A picker check, comprising a base adapted to be secured to the lay of a loom, and cheek pieces secured to said base presenting spaced apart friction faces to engage the sides of a picker stick, said cheek pieces having each a mounting formed to yield at the back thereof, and also to yield toward the front thereof with a swinging movement having a component of advance toward the picker stick as it enters between said pieces.

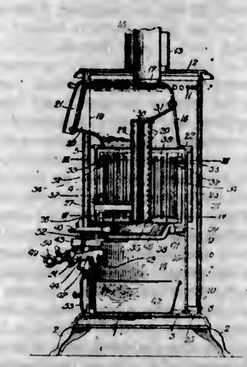
3. A picker check, comprising a base plate adapted to be secured to a lay having ears projecting out from the rear thereof, pins extending toward each other adjustably threaded in said ears, cheek pieces presenting spaced apart friction surfaces slidably fitted to said pins at their rear ends with interposed springs, said pins being formed to adjust the rear ends of said cheek pieces inward, posts mounted toward the front of said base plate adjacent each of said cheek pieces with provision for adjustment toward and from said cheek pieces, levers fulcrumed on said posts and pivotally engaged with said cheek pieces toward the front thereof, and springs for acting on said levers at the rear of said fulcrum posts and tending to press the front part of said cheeks in toward each other.

1,138,661. LAUNDRY DRIPBOARD. EDWARD JORDAN, Newton, New South Wales, Australia. Filed May 4, 1914. Serial No. 836,145. (Cl. 68—30.)



An improved laundry dripboard comprising a longitudinally-arched bottom having one inclination longer than the other, the free end of the longer inclination being of a segmental shape, bearers, to the underside of which is secured the arched bottom, sides to which the bearers are secured, transverse pieces secured to the top of the bearers above the longer inclination, said sides projecting above the bottom and transverse pieces, lateral strengthening pieces below the arched bottom, a pivoted lug for one of said pieces adapted to engage the boiler, and a bearer affixed to said sides below the bottom, having stop pieces secured to it.

1,138,662. GARBAGE-BURNER. WILLIAM J. KEEP, Detroit, Mich., assignor to Michigan Stove Company, Detroit, Mich., a Corporation of Michigan. Filed July 9, 1914. Serial No. 849,870. (Cl. 110—18.)



1. In a gas burning garbage incinerator, a foraminous pot adapted to contain garbage, an imperforate wall surrounding said pot for maintaining a flame against the garbage exposed by the foramina of the pot whereby the garbage is dried and eventually burned, an apron coöperating with said imperforate wall in providing an air heating chamber, and a perforated drying chamber throughout the length of said pot receiving air from said chamber heated by the flame acting on the imperforate wall for subjecting the garbage to a drying to increase the porosity of the same, thereby preparing it for admission of the flame for incinerating purposes.

2. A garbage burner comprising a vertical grate, a tiltable grate at the bottom thereof coöperating with said vertical grate in providing a foraminous pot adapted to contain garbage, burners below said tiltable grate, an air heating chamber surrounding said vertical grate with the inner wall thereof deflecting the flame of said burners against garbage in said grate, and heating air admitted to said chamber, and means for conducting heated air from the lower part of said chamber to a point centrally of said vertical grate.

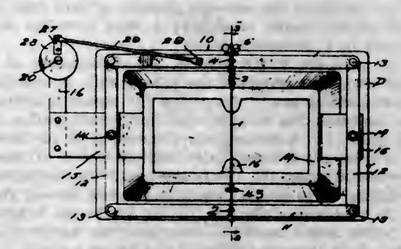
3. A garbage burner comprising a vertical grate, a tiltable grate at the bottom thereof coöperating with said vertical grate providing a foraminous pot adapted to contain garbage, burners below said tiltable grate, an air chamber surrounding said vertical grate with the inner wall thereof deflecting the flame of said burners against garbage in said grate and heating air admitted to said chamber, and a perforated drying chamber longitudinally of said vertical grate receiving air from said air chamber and discharging the air into the garbage in the direction toward the flame attacking the garbage.

4. A garbage burner comprising a vertical grate, a grate at the bottom thereof coöperating with said vertical grate in providing a formainous pot adapted to contain garbage, burners below said bottom grate, an air chamber surrounding said vertical grate with the inner wall thereof deflecting the flame of said burners against garbage in said grate and heating air admitted to said chamber, and means throughout the length of said vertical grate and in communication with the lower part of said air heating chamber for disseminating air in the garbage in the direction of the flame attacking the garbage.

5. A garbage burner comprising a vertical grate, a tiltable grate at the bottom thereof coöperating with said vertical grate in providing a foraminous pot adapted to contain garbage, burners below said tiltable grate, an air heating chamber surrounding said vertical grate with the inner wall thereof deflecting the flame of said burners against garbage in said grate and heating air admitted to said chamber, said chamber having the lower end thereof closed at the front thereof, and means communicating with the lower closed end of said chamber for conducting heated air centrally of said vertical grate and into garbage held thereby.

[Claim 6 not printed in the Gazette.]

1,138,663. BRICK-DIE. CHARLES C. KESTY, Watsontown, Pa. Filed June 17, 1914. Serial No. 845,689. (Cl. 25—105.)



1. In a brick machine, the combination with the die through whose mouth a clay column is ejected; of a wire extending across the center of said mouth for bisecting said column longitudinally, and means for moving the wire to and fro in a plane across the outlet end of the mouth and in timed relation to the ejection of said column.

2. In a brick machine, the combination with the die through whose mouth a clay column is ejected; of a wire extending across the center of said mouth for bisecting said column, and means for reciprocating an end of the wire in a plane at right angles to the length of the column.

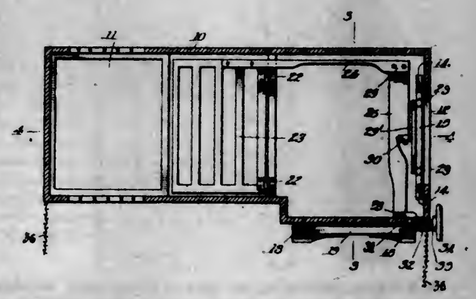
3. In a brick machine, the combination with the die through whose mouth a clay column is ejected; of a wire extending across the center of said mouth for bisecting said column, and means for reciprocating both ends of the wire in a plane at right angles to the length of the column.

4. In a brick machine, the combination with the die through whose mouth a clay column is ejected; of a wire extending across said mouth for bisecting said column, means for reciprocating both ends of the wire in a plane at right angles to the length of the column, and means for adjusting the extent of reciprocation.

5. In a brick machine, the combination with the die through whose mouth a clay column is ejected; of a frame, a wire carried within the frame and extending across the center of said mouth for bisecting said column, and means for reciprocating a side bar of the frame so as to move the wire in a plane at right angles to the length of the column.

[Claim 6 to 17 not printed in the Gazette.]

1,138,664. TRAP-NEST. CHARLES T. KING, Moline, Ill., assignor of one-fourth to Horace M. Anderson, Moline, Ill. Filed Mar. 17, 1914. Serial No. 825,319. (Cl. 119—50.)



1. An apparatus of the class described comprising an inclosure having an inlet and an outlet, a closure for the inlet movable inwardly by gravity, a member within the inclosure and adapted to be actuated by a hen and including an arm extending into the path of the inlet closure and operate to close the same when actuated, a catch device adapted to automatically engage said arm and hold it in engagement with the inlet closure, and means operative by a hen in passing through the outlet for releasing said catch device.

2. An apparatus of the class described, comprising an inclosure having an inlet and an outlet, a nest within the inclosure, a movably supported closure for the inlet, a platform movably supported between the nest and the inlet and adapted to be operated by a hen in passing to the nest, means connected to said platform and including a member extending into the path of said inlet closure for actuating the same and holding it in closed position, a catch device in position to engage said closure holding member, and a movable member adapted to be displaced by the hen in passing through the outlet and engaging the catch device to release the inlet closure holding member therefrom.

3. An apparatus of the class described comprising an inclosure having an inlet and an outlet, a nest within the inclosure, a movably supported closure for the inlet, a platform movably supported between the nest and the inlet and adapted to be operated by a hen in passing to the nest, means connected to said platform and including a member extending into the path of said inlet closure for actuating the same and holding it in closed position, and means adapted to be displaced by the hen in passing through the outlet to release the inlet closure holding means at its return movement.

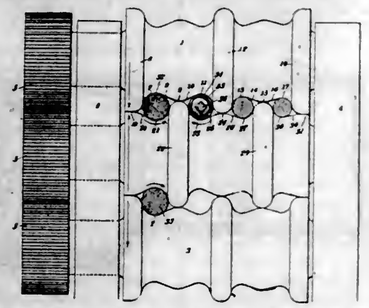
4. An apparatus of the class described comprising an inclosure having an inlet and an outlet, a nest within the inclosure, a movably supported closure for the inlet, a platform movably supported between the nest and the inlet and adapted to be operated by a hen in passing to the nest, means connected to said platform and including a member

extending into the path of said inlet closure for actuating the same and holding it in closed position, a catch device in position to engage said closure holding member, and a movable member adapted to be displaced by the hen in passing through the outlet and engaging the catch device to release the inlet closure holding member therefrom at its return movement.

5. An apparatus of the class described comprising an inclosure having an inlet and an outlet, a nest within the inclosure, a movably supported closure for the inlet, means adapted to be operated by a hen in passing to the nest for actuating said inlet closure, means adapted to be operated by a hen in passing through the outlet for releasing the inlet closure, and means for locking said releasing means from action.

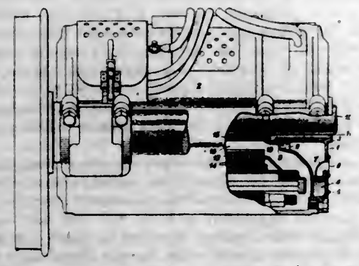
[Claims 6 to 9 not printed in the Gazette.]

1,138,665. ROLL FOR ROLLING-MILLS. NORMAN KING, Sr., Canton, Ohio. Filed June 11, 1914. Serial No. 844,407. (Cl. 80—59.)



In a rolling mill, a set of rolls provided with annular grooves substantially circular in cross section, said annular grooves spaced by means of annular collars formed upon the rolls, each alternate collar being of lesser diameter than the remaining collars, said smaller collars being provided with inclined sides formed tangential to the adjacent grooves, said rolls adapted to constantly rotate the bar being rolled during the time that the rolling action is taking place.

1,138,666. BEARING-HOUSING. SAMUEL M. KINTNER, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Mar. 2, 1910. Serial No. 546,855. (Cl. 64—24.)



1. A bearing housing comprising a cylindrical bearing, an oil-draining system, a waste oil reservoir having an overflow outlet and a detachable tubular member which is secured to the edge of the overflow outlet and projects below the surface of the oil in the waste-oil reservoir.

2. A bearing housing comprising a cylindrical bearing, an oil-draining system, a waste oil reservoir having an overflow outlet, and a hollow shield or barrier projecting inwardly through the overflow outlet and into the oil in the reservoir, and means for detachably fastening the shield or barrier to the outer edge of said outlet.

3. A bearing housing comprising a cylindrical bearing, an oil-draining system, a waste oil reservoir having an overflow outlet, a detachable curved pipe projecting inwardly through said outlet below the surface of the oil in said reservoir and having an annular flange adapted to be seated against the outer edge of said outlet and means for securing said pipe thereto.

1,138,667. HYDRAULIC POWER TRANSMISSION. JOSEPH MOSES WARD KITCHEN, East Orange, N. J. Filed Feb. 21, 1907. Serial No. 358,561. (Cl. 138—3.)



1. In a motor driven vehicle, the combination with the chassis and drive wheels of the vehicle, of (1) means for generating motive power by explosion, (2) means for transferring the power of said explosion to a flowing fluid, (3) means for storing or accumulating the power thus transferred, the said last named means comprising provision for equalizing and diffusing the intense interrupted shock and jar of explosion into a continuous smooth outflow of a power transmitting medium, and (4) means for revolving a shaft by the power thus transmitted, said mechanism being constructed and disposed to drive said motor vehicle and having the following described specific construction and arrangement of parts; said parts being horizontally disposed in relation to and at a level below the upper border of the chassis frame of said vehicle, said first named means having at the front of said frame one or more pistoned engines horizontally acting in the line of the greatest length of said frame, a crank shaft transversely disposed to the greatest length of said frame and so disposed as to receive rotary motion from the reciprocal motion of the pistons of said engine, one or more rotary pumps attached to said shaft and rotating with said shaft, said engine and pumps being placed interior to the side lines of said frame, said third named means comprising one or a connected series of air and fluid compression tanks or pipes constructed and arranged to pass serially therethrough a motive fluid and for holding a compressed gas for equalizing the outgoing pressure of said fluid, said fourth named means comprising a fluid actuated motor revolving in a horizontal plane.

2. In a motor driven vehicle, the combination of the chassis and drive wheels of the vehicle with, a mechanism for transmitting power comprising (1) means including a pump for producing through explosion rotary motion in a crank shaft, (2) a horizontally disposed shaft for driving said vehicle, (3) a horizontally rotating motor, (4) means for communicating the rotary motion of the horizontally rotating motor to said horizontally disposed driving shaft, and (5) means for relieving friction due to the weight of said fourth named means in communicating motion to said driving shaft through the buoyant force of a liquid.

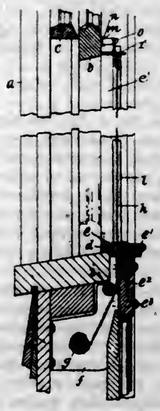
3. In a motor driven vehicle, the combination with the chassis and drive wheels of the vehicle of (1) an internal combustion engine, (2) a pump for forcing a fluid, (3) means for the compression and accumulation of said fluid, (4) a horizontally rotating motor floating in a fluid, (5) the driving shaft of said vehicle, (6) means for communicating motion from said motor to said driving shaft, and (7) means for conveying fluid in a circulatory round between and through said pump, compression tank and horizontally rotating motor.

4. In a motor driven vehicle, the combination of the chassis and drive wheels of the vehicle with a mechanism for transmitting power comprising (1) an explosive engine, (2) means actuated by said engine for pumping a fluid power transmitting medium and for conveying said medium to power accumulating cooling and pressure equalizing tanks, (3) said tanks, (4) a valve for transmitting power and for controlling the amount of power transmitted to the propulsion shaft of said vehicle and for reversing motion in said propulsion shaft and for stopping motion in said shaft, (5) means for controlling the actuating mechanism of said valve through the use of the hand and of the foot, (6) means for securing a differential rate of rotation in the propulsion wheels of said vehicle, (7) a horizontally rotating floating turbine motor actuated by said fluid medium through the power generated by said engine, said motor having an impeller floating in a liquid in a casing impervious to fluids in its lowest levels, said casing being a part of said motor, and (8) a gearing connecting said impeller and the propulsory shaft of said vehicle.

5. In a motor driven vehicle, the combination with the chassis, traction wheel, guiding wheel, and driving shaft for said traction wheel of the vehicle, of the following parts supported by said chassis, (1) an internal combustion engine and means for forcing a power transmitting fluid with the energy generated in said engine, (2) combined storage, compression and cooling tanks for said fluid, (3) a motor actuated by said forced fluid for driving said shaft, (4) a cooling jacket for the cylinder of said engine, (5) means for forcing said fluid through said cooling jacket to and into said tanks and from said tanks to and through said motor for actuating said shaft, (6) means for controlling the amount of cooling fluid passing through said jacket, (7) an overflow safety valve located between said fifth named means and said compression and cooling tanks, (8) two conduits at a low level in each of said tanks, said conduits entering said tanks at the ends of said tanks from without said tanks, and opening in said tanks near the center and at about an equal distance from the ends of said tanks, (9) a receiving tank for motive fluid exhausted from said motor, (10) means for conveying said fluid from said motor to said receiving tank. (11) means for conveying said fluid from said tenth named means to said forcing means, and (12) means for conveying gas for combustion from said last named tank to said engine.

[Claims 6 to 10 not printed in the Gazette.]

1,138,668. SCREEN, CURTAIN, AND THE LIKE. WILLIAM BERNARD KNAPP, Paterson, N. J. Filed Sept. 10, 1913. Serial No. 789,036. (Cl. 156—39.)



1. The combination of a rectangular frame having the opening to be secured and a slit penetrating one of its top and bottom sides, a screen penetrating said slit, a roller on which the screen is wound, means exterior of the frame affording bearings for the roller, and a cross-sectionally T-shaped cross-bar secured to the free-end edge of the screen and having its vertical portion adapted to enter the slit in the open position of the screen and its horizontal portion flat and adapted to rest against said slitted side of the frame, said cross-bar consisting of a strip of bent sheet-metal having its longitudinal edge-portions arranged face to face and gripping the said edge of the screen between them, substantially as described.

2. The combination of a window frame having the opening to be screened and a longitudinally split sill and having an apron e^2 forming a unitary structure with the part of the sill at one side of the split, a screen penetrating said slit, a roller on which the screen is wound, means exterior of the frame affording bearings for the roller, and a cross-bar attached to the free-end edge of the screen, said structure obscuring the roller and screen below the sill and being removable to expose the same, substantially as described.

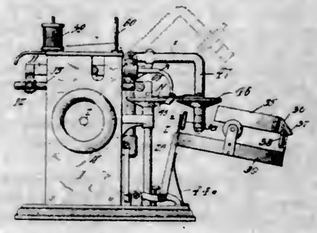
3. The combination of a rectangular frame having the opening to be screened, a screen having its side marginal portions thickened-up, a roller on which the screen is wound, a guide roller for the screen having circumferential grooves receiving the thickened-up portion thereof, and means affording bearings for the rollers, substantially as described.

4. In combination, a frame, two sashes vertically movable therein past each other, an oscillatory guard closing the space between the panes of the two sashes and pivoted in one of the sashes on an axis parallel with their planes of movement and elastic means normally holding said guard in the horizontal position, said guard being freely revoluble in each direction from the horizontal position, substantially as described.

5. A fabric screen adapted to be wound on a roller or the like having thickened-up attenuated portions, each thickened-up portion consisting of a series of spaced projections extending longitudinally of the screen, and each projection being of generally uniform thickness transversely thereof, substantially as described.

[Claims 6 to 9 not printed in the Gazette.]

1,138,669. HAT-SWEAT-SEWING MACHINE. WILLIAM A. KNIGHT and LEO BAUER, Newark, N. J. Filed Apr. 9, 1913. Serial No. 759,927. (Cl. 112—3.)



1. In a hat sweat sewing machine, sewing mechanism including a needle, hat supporting means, a presser wheel normally received within a hat supported by said supporting means and movable toward and away from the sewing mechanism, and a needle guide and a separate sweat band guide movable with said presser wheel, said sweat band guide being capable of limited movement with respect to said needle guide, substantially as set forth.

2. In a hat sweat sewing machine, sewing mechanism including a needle, hat supporting means, a presser wheel normally received within a hat supported by said supporting means and movable toward and away from the sewing mechanism, a needle guide and a separate sweat band guide movable with said presser wheel, said sweat band guide being capable of limited movement with respect to said needle guide, and a cord guide carried by said sweat band guide, substantially as set forth.

3. In a hat sweat sewing machine, sewing mechanism including a needle, hat supporting means, means for holding said hat supporting means in position during the sewing operation, a needle guide and a separate sweat band guide carried by said holding means, said sweat band guide being capable of limited movement with respect to said needle guide, and a cord guide carried by the sweat band guide, substantially as set forth.

4. In a device of the class described, the combination of a movable frame, rollers on said frame, a substantially ring shaped member having a downwardly tapering outer surface and provided with a trackway resting on said rollers, and means for sewing a sweat band to a hat when supported in said ring shaped member, substantially as and for the purposes set forth.

5. In a device of the class described, the combination of a vertically adjustable frame, rollers rotatably mounted on said frame, a substantially ring shaped hat supporting member provided with a trackway and free to rotate on said rollers, and means for sewing a sweat band to a hat when supported in said ring shaped member, substantially as and for the purposes set forth.

[Claims 6 to 31 not printed in the Gazette.]

1,138,670. ARYLAMINOANTHRAQUINONE DYESTUFFS AND PROCESS OF MAKING SAME. GEORG KRÄNZLEIN, Lindlingen, near Höchst-on-the-Main, RUDOLF HAGENBACH, Frankfort-on-the-Main, and FRANZ GILOY, Höchst-on-the-Main, Germany, assignors to Farbwerke Vorm. Meister Lucius & Brüning, Höchst-on-the-Main, Germany, a Corporation of Germany. Filed May 13, 1914. Serial No. 838,292. (Cl. 8—1.)

1. The process of manufacturing new arylaminoanthraquinone dyestuffs, which consists in introducing acid groups into anthraquinone derivatives of the genera formula:

$$A(OH)\begin{Bmatrix}O\\N\end{Bmatrix}$$

wherein A means an anthraquinone residue, and X an aromatic residue, and OH : O : N stand in 1 : 2 : 3 position, then condensing the products thus obtained with aromatic amins.

2. The process of manufacturing new arylaminoanthraquinone dyestuffs, which consists in introducing acid groups into anthraquinone derivatives of the general formula:

$$A(OH)\begin{Bmatrix}O\\N\end{Bmatrix}X$$

wherein A means an anthraquinone residue, and X an aromatic residue, and OH : O : N stand in 1 : 2 : 3 position, then condensing the products thus obtained with aromatic amins and sulfonating these condensation products.

3. The process of manufacturing new arylaminoanthraquinone dyestuffs, which consists in introducing negative groups into the oxazoles derived from β-aminoalizarin and an aromatic acid derivative, condensing the products obtained with aromatic amins and sulfonating these condensation products.

4. The process of manufacturing new arylaminoanthraquinone dyestuffs, which consists in introducing a nitro groups into anthraquinone derivatives of the general formula:

$$A(OH)\begin{Bmatrix}O\\N\end{Bmatrix}X$$

wherein A means an anthraquinone residue, and X an aromatic residue, and OH : O : N stand in 1 : 2 : 3 position, condensing the products thus obtained with aromatic amins and sulfonating these condensation products.

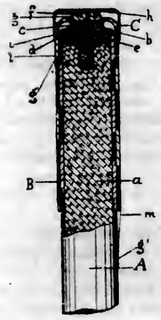
5. The process of manufacturing new arylaminoanthraquinone dyestuffs, which consists in nitrating the oxazole derived from β-aminoalizarin and a benzoic acid derivative, condensing the nitro product with aromatic amins and sulfonating the condensation products.

[Claims 6 to 10 not printed in the Gazette.]

1,138,671. FUSE AND CAP. JOHN LAMANTIA, Port Richmond, N. Y. Filed Dec. 14, 1914. Serial No. 877,232. (Cl. 102—24.)

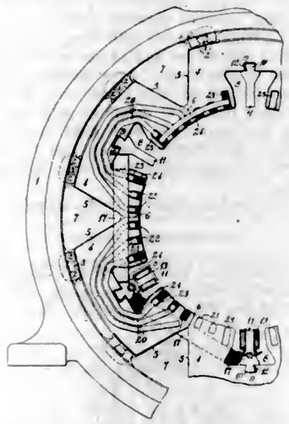
1. An improvised fusee-case composed of a paper tube having its wall at one end choked and then crimped outward, making thus an extension which is firmly tied at the base, and leaving a convenient aperture in its center to carry a highly inflammable material.

2. An improved cap composed of a paper tube of a suitable length, having its wall at one end choked and then crimped outward making thus an extension which is firmly tied and closed so as to leave no aperture or



passage whatsoever, the aforesaid extension carrying a complementary material.

1,138,672. DYNAMO-ELECTRIC MACHINE. BENJAMIN G. LAMME, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Sept. 10, 1909. Serial No. 517,108. (Cl. 171—228.)



1. A field magnet for a dynamo-electric machine having a laminated core comprising a plurality of sets of superposed plates each of which constitutes parts of two adjacent main pole pieces and is provided with a central recess and pole face slots, auxiliary pole pieces supported in said recesses, commutating coils for said auxiliary pole pieces, main magnetizing coils surrounding the main pole pieces and compensating coils disposed in said slots.

2. A field magnet for a dynamo-electric machine having a plurality of sets of superposed core plates each of which constitutes parts of two adjacent main pole pieces and is provided with a central recess, main coils surrounding said pole pieces, auxiliary pole pieces seated in said recesses, coils for said auxiliary pole pieces, and hangers for said coils having flanges for supporting the main coils.

3. A field magnet for a dynamo-electric machine having a cylindrical frame and a continuous cylindrical laminated core comprising a plurality of sets of superposed plates having substantially parallel side edges except adjacent to their inner ends where adjacent sets are in abutting engagement along radial planes to form a continuous pole face, each of said sets of plates constituting parts of two adjacent main pole pieces, whereby openings

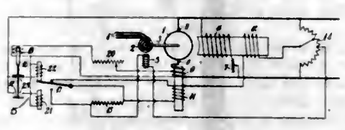
are provided between the cylindrical frame and portions of said core.

4. A field magnet for a dynamo-electric machine having a core composed of segmental laminæ, auxiliary pole pieces supported by said segmental laminæ, main coils, auxiliary coils, and hanger brackets mounted on the auxiliary pole pieces and having flanges for supporting both the main coils and the auxiliary coils.

5. A field magnet for a dynamo-electric machine having a laminated core provided with slots in its pole piece faces, compensating coils in all of said slots and series magnetizing coils in the slots which are adjacent to the sides of the pole pieces.

[Claims 6 to 11 not printed in the Gazette.]

1,138,673. SWITCHING DEVICE. BENJAMIN G. LAMME and JOHN L. MCK. YARDLEY, Pittsburgh, Pa., assignors to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Oct. 31, 1913. Serial No. 798,507. (Cl. 171—123.)



1. The combination with a plurality of dynamo-electric machines mechanically associated and electrically connected in series circuit relation and provided with field magnet windings, of a circuit including certain of the windings of both machines, automatic means for eliminating a predetermined part of said circuit and means associated with said first means for simultaneously maintaining substantially constant electrical resistance in said circuit.

2. The combination with a plurality of dynamo-electric machines mechanically associated and electrically connected in series circuit relation and provided with field magnet windings, of a circuit including certain of the windings of both machines, automatic means for eliminating one of said windings from said circuit under predetermined conditions, and means dependent upon said first means for maintaining the total resistance of said circuit substantially constant.

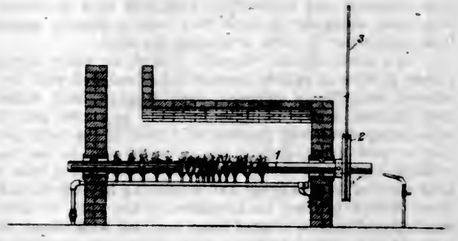
3. The combination with a dynamo-electric machine adapted to deliver alternating and direct current and provided with a plurality of field windings, and a second dynamo-electric machine mechanically associated with said first machine and electrically connected in series therewith and provided with a field winding which is connected in series circuit with one of the field windings of said first machine, of a resister, automatic means dependent upon the current of one of said windings for eliminating a certain winding from said series circuit, and means for thereupon inserting said resistor in said circuit.

4. The combination with a dynamo-electric machine adapted to deliver alternating and direct currents and provided with a series field and a plurality of shunt field windings, and a second dynamo-electric machine mechanically associated with said first machine and electrically connected in series therewith and provided with a shunt field winding which is connected in series circuit with one of the shunt field windings of said first machine, of a resistor having a resistance substantially equal to that of one of said shunt field windings, a switching device for eliminating that winding from said series circuit, means associated with said device for simultaneously inserting said resistor in said circuit, and a coil connected across another of the windings and dependent upon the current therein for actuating said switching device.

5. The combination with a dynamo-electric machine adapted to deliver alternating and direct current and provided with a main field winding and auxiliary series and shunt field windings, and a second dynamo-electric machine mechanically associated with said first machine and electrically connected in series therewith and provided with a shunt field winding which is connected in series circuit with the auxiliary shunt field winding of said first machine, of a resistor having a resistance substantially equal to that of said auxiliary shunt field winding, a switching device biased to short-circuit that winding and include said resistor in ssid series circuit, means associated with said device for opening the short-circuit and simultaneously eliminating said resistor, and a coil connected across a portion of said series field winding and depending upon the current therein for actuating said switching device from its biased position.

[Claims 6 to 9 not printed in the Gazette.]

1,138,674. PROCESS OF PREPARING ARC-LAMP ELECTRODES. GEORGE M. LITTLE, Pittsburgh, and BENJAMIN J. GUDGE, Wilkinsburg, Pa., assignors to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Apr. 21, 1910. Serial No. 556,880. (Cl. 176—133.)



1. The process of preparing rod-like electrodes which consists in simultaneously baking and axially rotating them.

2. The process of preparing rod-like electrodes containing a volatile binder which consists in simultaneously baking and axially rotating them in air.

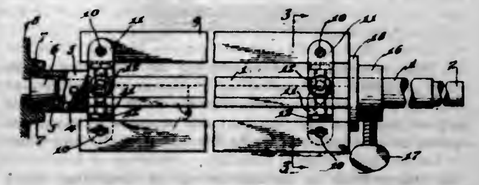
3. The process of preparing rod-like electrodes containing a volatile binder which consists in simultaneously baking and axially rotating them in a draft of air.

4. The process of preparing rod-like electrodes containing a volatile binder which consists in moving them into and out of a furnace, axially rotating them during such movement, and directing a draft of air upon them while disposed in the furnace.

5. The process of preparing electrodes which consists in simultaneously baking them, rotating them, and removing the carbonaceous gases that are liberated.

[Claims 6 to 10 not printed in the Gazette.]

1,138,675. COLLAPSIBLE MANDREL. EDWARD M. LOCKWOOD, Philadelphia, Pa., assignor to C. R. Carver Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed July 17, 1914. Serial No. 851,668. (Cl. 242—72.)



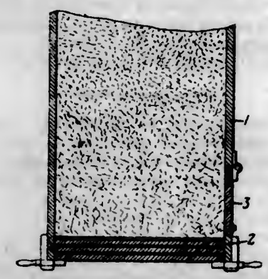
1. In a device of the character stated, an arbor having a polygonal shaped portion, a pair of links for each side of said portion and pivoted thereto, bars pivoted respectively to each pair of links, a head secured to said arbor at one end and forming an abutment to limit the movement of said bars in one direction, said head having an apertured portion to receive a centering device and also having

a polygonal shape adapted to fit a socket of corresponding shape in a driving member, a collar slidingly mounted on the opposite end of said arbor and adapted to engage the adjacent ends of said bars, and means to lock said collar in a predetermined position, whereby in one position said collar maintains said bars properly positioned to form a winding mandrel, and in another position releases said bars to form a collapsed mandrel.

2. In a device of the character stated, an arbor having a body portion of square cross section, combined with bars having a substantially rectangular construction located respectively opposite each face of said square body portion, a pair of links for each bar, each pair of links being pivoted at one end to a face of the body portion of said arbor and pivoted at the opposite end to the face of the alined bar whereby all of said bars may be moved into contact with the respective sides of the arbor body, each bar seating between its own links and the pair of links of the next adjacent bar, a head secured to said arbor and projecting beyond the side faces thereof to form an abutment in the path of movement of said bars, and a collar slidably mounted on the opposite end of said arbor from said abutment and adapted to hold said bars in contact with said abutment to hold said bars relatively spaced from said arbor to form a winding mandrel.

3. In a device of the character stated, an arbor having a body portion of square cross section, combined with bars located respectively opposite each face of said square body portion, a pair of links for each bar, each pair of links being pivoted at one end to a face of the body portion of said arbor and at the opposite end to the bar whereby the bar is in alinement with an adjacent face, a head secured to said arbor and projecting beyond the side faces thereof to form an abutment in the path of movement of said bars, said head being provided with means for removably securing said arbor to a driving member, a collar slidably mounted on the opposite end of said arbor from said abutment and adapted to hold said bars in contact with said abutment, and means to lock said collar in a position to hold said bars relatively spaced from said arbor to form a winding mandrel.

1,138,676. PROCESS OF MANUFACTURING INSULATING MATERIAL. WILLIAM J. LONGMORE, Bellevue, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Feb. 16, 1912. Serial No. 678,125. (Cl. 154—2.)



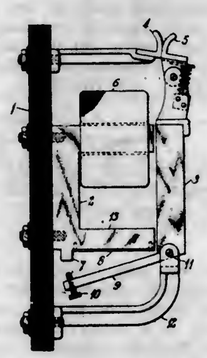
1. The process of manufacturing an insulating sheet which consists in distributing a shower of commingled scales of mica and a comminuted dry bond upon a heated member and then applying heat and pressure to the upper surface of said material while the said material and member are in their original position.

2. The process of manufacturing an insulating sheet which consists in distributing a shower of commingled scales of mica and a comminuted dry bond upon a plane surface within a chamber and subsequently applying heat and pressure to the upper surface of said distributed material without removing it from the chamber.

3. The process of manufacturing insulating sheets which consists in distributing showers of commingled scales of mica and a comminuted dry bond upon each of a plurality of successively superposed heated members.

4. The process of making insulating sheets which consists in depositing a shower of commingled mica flakes and comminuted dry binding material upon a plane surface, placing a heated plate upon said deposited materials, depositing another shower of said materials upon said heated plate, and applying thereto another heated plate.

1,138,677. ELECTRICALLY-OPERATED SWITCH. WALTER O. LUM, Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed June 14, 1912. Serial No. 703,761. (Cl. 175—281.)



1. A magnet comprising a U-shaped stationary magnetizable member, an armature pivotally mounted near the outer end of one branch of the U-shaped member and having a projection extending substantially parallel to said branch when the armature occupies one extreme position and at an angle to said branch when the armature occupies its other extreme position, and means for magnetically insulating the armature projection from the adjacent branch of the stationary member except at the free end of the projection.

2. A magnet comprising a U-shaped stationary magnetizable member, an armature pivotally mounted near the outer end of one branch of the U-shaped member and having a projection extending substantially parallel to said branch when the armature occupies one extreme position, and a damper of conducting material located at one side of the branch of the U-shaped member that is adjacent to the armature projection.

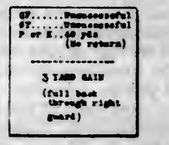
3. A magnet comprising a U-shaped stationary magnetizable member, an armature pivotally mounted near the outer end of one branch of the U-shaped member and having a projection extending substantially parallel to said branch when the armature occupies one extreme position, and a damper comprising a closed loop of conducting material interposed between the armature projection and the adjacent branch of the stationary magnetizable member and parallel to said branch.

4. An alternating current magnet switch comprising a stationary magnetizable member, a movable armature, a magnetizing coil, the stationary member and the armature providing, when energized, two flux paths that tend to actuate the armature in opposite directions to respectively open and close the switch, and a damper comprising a closed turn of conducting material located in a plane between, and substantially parallel to, the two paths.

5. An alternating current magnet switch comprising a U-shaped stationary magnetizable member, a stationary contact member, an armature pivotally mounted near the outer end of one branch of the U-shaped member and having a projection extending substantially parallel to said branch when the switch is open, a movable contact member carried by the armature, the stationary magnetizable member and the armature providing two flux paths that tend, respectively, to open and close the switch, and means for magnetically insulating the two paths from each other.

[Claims 6 and 7 not printed in the Gazette.]

1,138,678. CARD GAME. HENRY H. MCNAIR, St. Paul, Minn. Filed Aug. 5, 1912. Serial No. 713,205. (Cl. 46—25.)



1. A game apparatus comprising a diagram laid off to represent a foot ball field, and a deck of cards, each of which contains on one face a series of different plays determining the progress of the ball to and fro over the field and thereby governing the length of time each of the opponents is to possess the ball.

2. A game apparatus comprising a deck of cards, each of which contains on one face a series of different plays determining the progress of the ball to and fro over the field and thereby governing the length of time each of the opponents is to possess the ball, and a diagram laid off to represent a foot ball field, said diagram having a margin upon which may be indicated the number of plays during each period of the game.

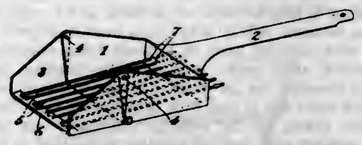
3. A game apparatus comprising a deck of cards for playing the game of foot ball, one face of each of which cards is divided into two sections, each section containing a similar series of different plays determining the progress of the ball to and fro and thereby governing the length of time each of the opponents is to possess the ball.

4. A game apparatus comprising a deck of cards for playing the game of football, each of which cards contains on one face a series of different plays determining the progress of the ball to and fro and thereby governing the length of time each of the opponents is to possess the ball.

5. A game apparatus for playing the game of foot-ball, comprising a deck of cards to be played by one opponent, each of which cards contains a series of plays determining the progress of the ball over the field and thereby governing the length of time such opponent is to possess and play the ball, all of the cards being placed and replaced in the deck from which to draw prior to each play.

[Claim 6 not printed in the Gazette.]

1,138,679. ASH-SIFTER. CARL MARTIN, New York, N. Y. Filed Mar. 2, 1915. Serial No. 11,625. (Cl. 83—60.)

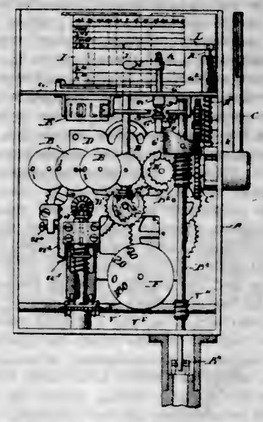


1. An implement comprising a body having a movable mouth and a sifter secured at one end to the mouth and having its other extremity freely supported in the implement so as to be movable with the mouth.

2. An implement comprising a body having a movable mouth and a sifter secured at one end to the mouth and having its other extremity freely suported in the implement so as to be movable with the mouth, said sifter being inclined from the mouth toward the back of the implement.

3. An implement comprising a body having raised sides and back, a mouth having lateral flanges pivoted to the sides of the body and adapted to be swung toward and away from the body, a plurality of sifter bars pivotally secured at their front ends to the mouth and having their rear ends freely supported in the body at a point above the bottom thereof.

1,138,680. RECORDING-TAXIMETER. GEORGE SEYMOUR MAXWELL, Newark, N. J., assignor, by direct and mesne assignments, to The Taximeter Register Company, Washington, D. C., a Corporation of Delaware. Filed Oct. 16, 1911. Serial No. 654,830. (Cl. 235—30.)



1. In a taximeter, the combination, with the taximeter clock mechanism, the register-setting device and the register-driving shaft arranged to be operated by the movement of the vehicle, of means for holding and moving a record sheet, connections between the clock mechanism and said means whereby the latter is operated, a reciprocatory marker arranged to mark on one part of the record sheet, means operated by the register driving shaft for reciprocating said marker in continuous contact with said record sheet, a second marker arranged to mark continuously on another part of the record sheet, and means operated by the movement of the register-setting mechanism for adjusting said second marker in a direction transverse to that of the movement of the record sheet, the record produced on the sheet by said markers expressing at all times the relation between the speed of the vehicle and the tariff conditions under which the vehicle is operated.

2. In a taximeter, the combination, with the taximeter clock mechanism, the register-setting device and the register-driving shaft arranged to be operated by the movement of the vehicle, of means for holding and moving a record sheet, connections between the clock mechanism and said means whereby the latter is operated, a reciprocatory marker arranged to mark on one part of the record sheet, means operated by the register-driving shaft for reciprocating said marker in continuous contact with said record sheet, a second marker arranged to mark continuously on another part of the record sheet, a stepped cam arranged to be adjusted by the movement of the register-setting device, and connections between said stepped cam and the said second marker, whereby the latter is adjusted transversely of the direction of movement of the record sheet, according to the position of the register-setting device, the record produced on the sheet by said markers expressing at all times the relation between the speed of the vehicle and the tariff conditions under which the vehicle is operated.

3. In a taximeter, the combination, with the taximeter clock mechanism, the register-setting device and the register-driving shaft arranged to be operated by the movement of the vehicle, of means for holding and moving a record sheet, connections between the clock-mechanism and said means whereby the latter is operated, a reciprocatory marker arranged to mark on one part of the sheet, a cam device rotated by the register-driving shaft, means

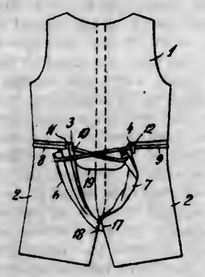
operated by the cam-device for reciprocating said reciprocatory marker in a straight line and in continuous contact with said record sheet, a second marker arranged to mark continuously on the record sheet at another part, and means actuated by the register-setting device for adjusting said second marker transversely to the direction of movement of the record sheet, the record produced on the sheet by said markers expressing at all times the relation between the speed of the vehicle and the tariff conditions under which the vehicle is operated.

4. In a taximeter, the combination, with the register-setting means and the register-driving means arranged to be operated by the movement of the vehicle, of means for holding and uniformly moving a record sheet, a pair of markers arranged in a line transverse to the movement of the sheet, means operated by the register-driving means for reciprocating one marker transversely to the movement of the record sheet, and means actuated by the movement of the register-setting means for adjusting the other marker transversely of the movement of the record sheet and to different extents, both markers being arranged to make continuous registering contact with said sheet and to produce a record thereon expressing at all times the relation between the speed of the vehicle and the tariff conditions under which the vehicle is operated.

5. In a taximeter, the combination, with the register-setting means and the register-driving means arranged to be operated by the movement of the vehicle, of means for holding and uniformly moving a record sheet, means operated by the register-driving means for giving one marker rectilinear reciprocative movement transversely to the movement of the record sheet, and means actuated by the movement of the register-setting means for adjusting the other marker transversely of the movement of the record sheet and to different extents, both markers being arranged to make continuous registering contact with said sheet and to produce a record thereon expressing at all times the relation between the speed of the vehicle and the tariff conditions under which the vehicle is operated.

[Claims 6 and 7 not printed in the Gazette.]

1,138,681. COMBINATION-GARMENT. JOSEPH MICHAELIS, New York, N. Y. Filed Dec. 14, 1914. Serial No. 877,066. (Cl. 2—144.)



1. A combination garment comprising a one-piece suit, consisting of shirt and drawers combined, the back of said drawers, comprising the seat, being open transversely across the back of the garment in the vicinity of the waist line and extending downwardly to the crotch to form a V shaped opening, and overlapping flaps for closing the back of said drawers.

2. A combination garment comprising a one-piece suit, consisting of shirt and drawers combined, the back of said drawers comprising the seat being open transversely across the back of the garment in the vicinity of the waist line and extending downwardly to the crotch to form a V shaped opening, overlapping flaps for closing the back of said drawers, and straps secured to said flaps for drawing the same into closed position.

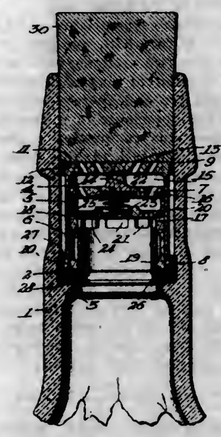
3. A combination garment comprising a one-piece suit, consisting of shirt and drawers combined, the back of said drawers, comprising the seat, being open transversely across the back of the garment in the vicinity of the waist line and extending downwardly to the crotch to form a V shaped opening, and overlapping flaps for closing the back of said drawers, the top of each flap being substantially the width of said transverse opening.

4. A combination garment comprising a one-piece suit, consisting of shirt and drawers combined, the back of said drawers, comprising the seat, being open transversely across the back of the garment in the vicinity of the waist line and extending downwardly to the crotch to form a V shaped opening, and overlapping flaps for closing the back of said drawers, the top of each flap being substantially the width of said transverse opening, the bottom of each flap arranged to overlap each other at the crotch and to be secured to the inner sides of the drawer legs.

5. A combination garment comprising a one-piece suit, consisting of shirt and drawers combined, the back of said drawers comprising the seat being open transversely across the back of the garment in the vicinity of the waist line and extending downwardly to the crotch to form a V shaped opening, three overlapping flaps for closing the back of said drawers, and straps secured to two of said flaps for drawing the same into closed position.

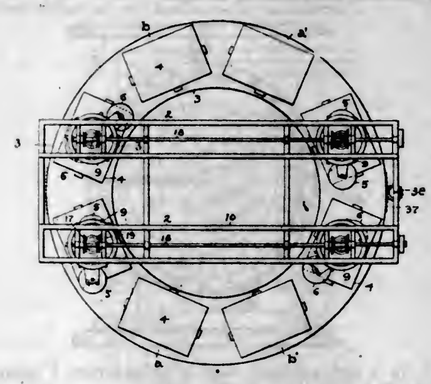
[Claim 6 not printed in the Gazette.]

1,138,682. NON-REFILLABLE BOTTLE. JOHN J. A. MILLER, Denver, Colo. Filed Mar. 17, 1914. Serial No. 825,270. (Cl. 215—61.)



In a non-refillable bottle, the combination with a bottle neck having an interior annular recess, the lower edge of which terminates in an extended annular projection, of a housing having annular projections on its opposite ends, and an integral wall or diaphragm over its upper end provided with circular rows of inclined holes radiating from a common axial point, a cap in the housing having a central spacing lug in contact with its closed end, and inclined holes out of line with those in the said closed end, a valve casing in the housing the upper end of which abuts against said cap, an annular projection in said casing having a beveled valve seat on its upper edge, a valve in said casing comprising a cylindrical body portion, and an annular beveled valve portion which rests upon said seat, ports being formed at the junction of the body portion and valve portion, an expansion coal spring interposed between the valve and cap, a resilient washer over the lower ends of the housing and valve casing, and a locking device comprising a divided resilient band having inturned upper and lower flanges, the former engaging the annular projection on the lower end of the housing and the latter engaging the said resilient washer, said band being adapted to expand and enter the annular recess of the bottle neck when the housing is inserted to its limit.

1,138,683. STONE GRINDING AND POLISHING MACHINE. GEORGE R. MURRAY, Cleveland, Ohio. Filed Aug. 5, 1912. Serial No. 713,218. (Cl. 51—11.)



1. In a stone grinding and polishing machine, a rotatable grinding member and means to support the same for both horizontal and vertical movement, a traveling support for the slabs, and a circular track for said slab support extending beneath said grinding membera.

2. In a stone grinding and polishing machine, a set of gravity grinding and polishing members and a counterbalancing means for said members, a traveling carrier adapted to move said members in a horizontal plane, and a traveling support to carry the slabs laterally beneath said members.

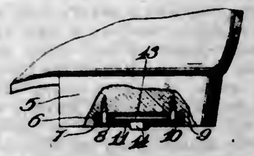
3. In a stone grinding and polishing machine, a rotatable carrier for the slabs arranged to travel in a circle, and separate sets of abrading devices mounted above said carrier at opposite sides of said circle and comprising carriers and a circular track from which each carrier is suspended.

4. In a stone grinding and polishing machine, a circular track and a slab support mounted to ride thereon, and separate sets of slab abrading devices bridging said track at diametrically-opposite points thereon, said devices having each a plurality of grinders adapted to rotate about a fixed axis.

5. In a stone grinding and polishing machine, a rotatable slab support, movable carriers having each a set of abrading devices on the bottom thereof, means to raise and lower said devices and means to rotate and to counterbalance the same.

[Claims 6 and 7 not printed in the Gazette.]

1,138,684. DANCING-CLOG. CHARLES D. NEELY, Chicago, Ill. Filed October 7, 1914. Serial No. 865,498. (Cl. 36—34.)

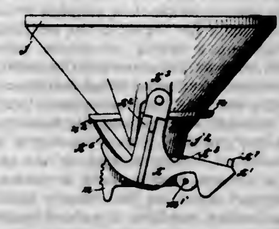


1. A sounding member for dancing clogs comprising a plate having a recess in one side provided with an upper wall, and an opening from said recess through the other side, and a sounding device loose in the recess, said sounding device being a disk adapted to come in contact with opposite walls of the recess to produce a sound, the thickness of the disk being less than the depth of the recess, and said disk having a stud projecting through the opening in the plate and below the same when the disk engages the bottom wall of the recess.

2. A sounding member for dancing clogs comprising a plate having a recess in one side, and an opening from said recess through the other side, a cover plate closing the recess, and a sounding device in the recess, said sounding device comprising a disk which is free tomove between the cover plate and the bottom wall of the recess, and to come in contact with said parts to produce a sound, said disk having a stud projecting through the aforesaid opening in the first-mentioned plate and below the same when the disk engages the bottom wall of the recess.

3. A sounding member for dancing clogs comprising a plate having a recess in one side provided with an upper wall, and an opening from said recess through the other side, and a sounding device loose in the recess, said sounding device being a disk, the thickness of which is less than the depth of the recess, and which disk is adapted to come in contact with opposite walls of the recess to produce a sound, said disk having a stud projecting through the opening in the plate and below the same when the disk engages the bottom wall of the recess, the outer end of the stud having a rounded edge.

1,138,685. WATER-SHED FOR ACETYLENE-GENERATORS. ALGERNON S. PHELPS, Chicago, Ill. Original application filed Sept. 17, 1909, Serial No. 518,168. Divided and this application filed Oct. 9, 1914. Serial No. 865,871. (Cl. 48—38.)



1. In an acetylene generator, the combination, with a carbid magazine and carbid feeding mechanism, of means to conduct water of condensation away from the feeding mechanism comprising a rib formed integral with the lower part of the magazine, and extending around the same at an inclination to the horizontal.

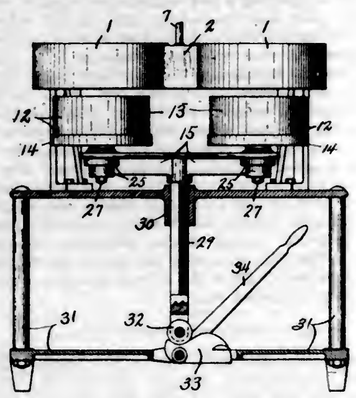
2. In an acetylene generator, the combination, with a carbid magazine and carbid feeding mechanism, of means to conduct water of condensation away from the feeding mechanism comprising a rib formed integral with the lower part of the magazine and extending around the same at an inclination to the horizontal, said rib having a groove in its upper surface and a discharge at its lower side.

3. In an acetylene generator, the combination, with a carbid magazine and carbid feeding mechanism, of means to conduct water of condensation away from the feeding mechanism comprising a rib formed integral with the lower surface of the magazine and extending around the same at an inclination to the horizontal, said rib being formed as an annulus and having a groove in its upper surface with a discharge lip at its lower side.

4. In an acetylene generator, the combination, with a carbid magazine having a lower conical surface, and carbid feeding mechanism arranged beneath said magazine, of an annular rib cast on the lower conical surface of the magazine and extending around the same at an inclination to the horizontal, said rib having a groove in its upper surface with a discharge lip at its lower side.

5. In an acetylene generator, the combination, with a carbid magazine having a discharge mouth and a carbid feeding mechanism arranged therebelow, of a trough formed integral with said magazine and encircling the same at a location somewhat above said discharge mouth, said trough being arranged to intercept moisture flowing down the magazine walls and to prevent access of the same to the feeding mechanism.

1,138,686. COLLAR-IRONING MACHINE. WILBUR W. QUINN, Syracuse, N. Y., assignor to National Chemical Company, Syracuse, N. Y., a Corporation of New York. Filed May 16, 1911. Serial No. 627,500. (Cl. 68—9.)



1. A collar ironing machine comprising a head having a circular groove in its underside, a vertically movable frame, a circular collar support of substantially the same diameter as the groove which it is adapted to enter and centrally mounted upon the frame to tilt relatively to the axis of the head and a spring interposed between the frame and collar support for restoring the collar support to its normal position after being tilted therefrom.

2. In an ironing machine, an ironing head having a circular channel, a collar support movable into and out of the channel, a reciprocatory frame having a socket, a spring in the socket, a washer resting on the spring and provided with a concave bearing, and a convex bearing on the collar support seated in the concave bearing.

3. In a collar ironing machine, a pair of ironing heads having steam chambers and a hollow neck integrally connecting said heads and having its interior communicating with the chambers, said heads being provided with circular grooves, circular collar supports movable into and out of registration with said grooves, a reciprocatory frame, and yielding connections between said frame and collar supports so that upon reciprocation of said frame said collar supports are moved into and out of the grooves in the heads under yielding pressure.

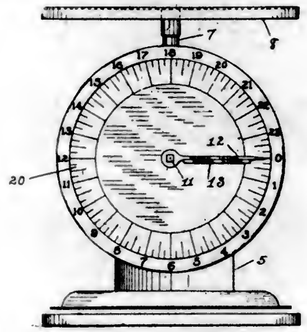
4. In a collar ironing machine, a pair of hollow ring-shaped heads integrally united side by side by a hollow web, the interior chamber of the web being divided by a partition connecting the adjacent sides of the inner walls of the interior chambers of the heads forming connecting passages between the chambers in the heads at opposite sides of the partition, one of said passages being provided with a steam inlet and the other passage provided with an outlet, in combination with a pair of circular collar supports movable into and out of the grooves of their respective heads.

5. An ironing machine comprising a head having a collar-receiving portion, a rotatable frame, said frame movable toward and from the head, a collar support mounted on said frame at one side of the axis thereof and adapted to be moved into and out of registration with the collar-receiving portion of said head by rotation of said frame, and a spring interposed between the collar support and frame to allow the collar support to be depressed with respect to the frame and means allowing the collar support to tilt laterally with respect to the frame.

[Claims 6 to 12 not printed in the Gazette.]

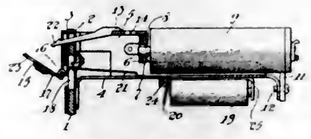
1,138,687. SPRING-BALANCE SCALE. FRITZ REICHMANN, Albany, N. Y. Filed Aug. 7, 1913. Serial No. 783,550. (Cl. 73—46.)

1. A spring-balance having indicating mechanism comprising a pair of relatively movable members, one having a graduated scale and the other having an index coöperative with said scale; a weight-actuated shaft operatively connected with one of said members by means including a thermostatic compensating element.



2. In a spring-balance, and in combination, a weight-supporting spring; a rotatory shaft connected with said spring; a shaft-operated index; and a thermostatic compensating element between said shaft and the outer end of said index.

1,138,688. SELF-RESTORING ANNUNCIATOR. ALEXANDER C. REID, Genoa, Ill., assignor to Cracraft, Leich Electric Company, Genoa, Ill. Filed Aug. 18, 1913. Serial No. 785,406. (Cl. 177—329.)

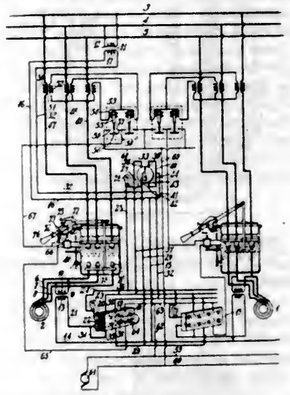


An annunciator having a front plate, a framework mounted thereon but insulated therefrom extending rearwardly from said plate, a shutter having a depending finger on the front side of said plate, an electromagnet carried by said framework, an armature and shutter arm controlled thereby, a second electromagnet mounted below said framework, beneath the first aforesaid electromagnet, and an armature and shutter restoring arm controlled by said second electromagnet, said shutter restoring arm extending through an opening in said front plate to engage said depending finger.

1,138,689. SYNCHRONIZING SYSTEM. BERTRAND P. ROWE, Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed June 24, 1913. Serial No. 775,503. (Cl. 171—118.)

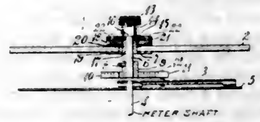
1. The combination with a power circuit, an alternating current dynamo-electric machine, a main switch adapted to connect said machine to said circuit, and electro-responsive means which may prevent the permanent closing of the main switch, of a main control circuit for said electro-responsive means which is provided with auxiliary switches, a synchronizing circuit, a multipolar switch adapted to close simultaneously the main control and the synchronizing circuits, and an auxiliary control circuit provided with overload relays to actuate said auxiliary switches in the main control circuit.

2. The combination with a power circuit, an alternating current dynamo-electric machine, a main switch adapted to connect the machine to said circuit, and electro-responsive means to prevent the permanent closing of the main switch when the current flow from said dynamo-electric machine exceeds a certain amount, of a main control circuit comprising an overload relay and said electro-responsive means, a synchronizing circuit, a multi-polar switch adapted to close simultaneously the main control and the synchronizing circuits, and an auxiliary control circuit to actuate said overload relay, said auxiliary control circuit comprising current transformers connected to the mains of said dynamo-electric machine.



3. The combination with a power circuit, an alternating current dynamo-electric machine, a main switch adapted to connect said machine to the power circuit, and electro-responsive means to prevent the permanent closing of the main switch, of a main control circuit for said electro-responsive means comprising an overload relay, a synchronizing circuit, a multi-polar switch to cloos said main control circuit during the time only that the synchronizing circuits is closed, and an auxiliary control circuit to actuate said overload relay when the current flow from said dynamo-electric machine exceeds a certain amount.

1,138,690. METER. ALBERT B. RYPINSKI, New York, N. Y., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Mar. 18, 1913. Serial No. 755,137. (Cl. 171—95.)



1. In an electrical measuring instrument comprising a rotating standard having an indicator secured thereto, a tensional element normally positioned out of engagement with the indicator, and means for effecting engagement between the indicator and the tensional element.

2. In an electrical measuring instrument comprising a rotating standard having an indicator secured thereto, a tensional element normally positioned out of engagement with the indicator, and manually operated means for effecting engagement between the tensional element and the indicator.

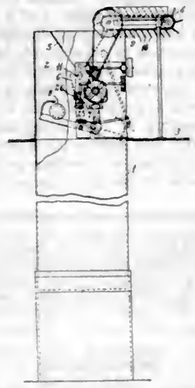
3. In an electrical measuring instrument, the combination with a rotating indicator, of a tensional element surmounting the indicator, and means for moving the tensional element perpendicularly to the plane of rotation of the said indicator to operatively engage the said indicator.

4. In an electrical measuring instrument comprising a rotating standard, an indicator secured thereto, a spiral spring surmounting the plane of rotation of the indicator, means for moving the spiral spring perpendicularly to the said plane of rotation, and means for effecting engagement between the indicator and the spring.

5. In an electrical measuring instrument comprising a rotating standard, an indicator secured thereto, a tensional element, and externally accessible means for effecting engagement between the indicator and the tensional element.

[Claims 6 to 10 not printed in the Gazette.]

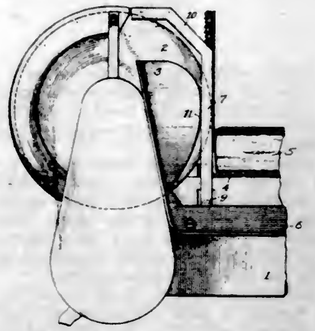
1,138,691. METHOD OF PRODUCING MICA INSULATION. JOHN R. SANBORN, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Aug. 10, 1910. Serial No. 576,579. (Cl. 154—2.)



1. The method of manufacturing sheet insulation which consists in scattering mica flakes and powdered insulating bond into the upper portion of a laterally restricted and vertically elongated space, permitting said material to be deposited within said space and subjecting the deposited mixture to heat and pressure.

2. The method of manufacturing insulating sheets or plates, which consists in projecting predetermined quantities of mica flakes and powdered insulating bond into the upper portion of a laterally restricted and vertically elongated air-filled chamber until a mass of mixed flakes and bond is deposited upon the floor of said chamber and then subjecting the deposited mixture to heat and pressure.

1,138,692. MEAT-GUIDE FOR SLICING-MACHINES. GEORGE J. SAYER, Chicago, Ill. Filed July 11, 1914. Serial No. 850,461. (Cl. 17—24.)

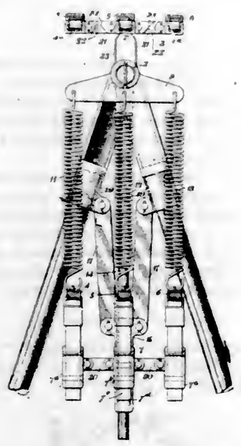


1. A meat slicing machine having a rotary circular knife, a meat guide alongside of said knife to direct the severed slice away from said knife, and a second guide for said slice between which second guide and said first guide said slice passes as it is being severed by the knife, said second guide having a flat surface adjacent the knife and projecting beyond the cutting edge thereof toward the axis of the knife to form a support for the severed slice.

2. A meat slicing machine having a rotary circular knife, a meat guide alongside of said knife to direct the severed slice away from said knife, and a second guide for said slice between which second guide and said first guide said slice passes as it is being severed by the knife, said second guide consisting of a plate mounted vertically to said slicing machine, said second guide having a flat surface adjacent the knife and projecting beyond the cutting edge thereof toward the axis of the knife to form a support for the severed slice.

3. A meat slicing machine having a rotary circular knife, a meat guide alongside of said knife to direct the severed slice away from said knife, and a second guide for said slice between which second guide and said first guide said slice passes as it is being severed by the knife, said second guide having a flat surface adjacent the knife and projecting beyond the cutting edge thereof toward the axis of the knife to form a support for the severed slice, said second guide consisting of a plate mounted vertically to said slicing machine, and having its inner face beveled, so that its inner face presents a surface parallel to the surface of the knife and at the side thereof.

1,138,693. TROLLEY. WILLIAM SCHAAKE, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Dec. 24, 1909. Serial No. 534,762. (Cl. 191—65.)



1. A trolley comprising a frame having a horizontal shaft at the top, a guide rod depending from each end thereof, a plurality of contact members movably connected to the guide rods and yieldingly supported from the ends of the shaft.

2. A trolley comprising a frame having a horizontal shaft at the top, a guide rod depending from each end thereof, brackets secured to the shaft adjacent to the guide rods and a plurality of bow contact members movably connected to the guide rods at their ends, and springs connecting the ends of the contact members to the brackets for forcing the contact members upwardly.

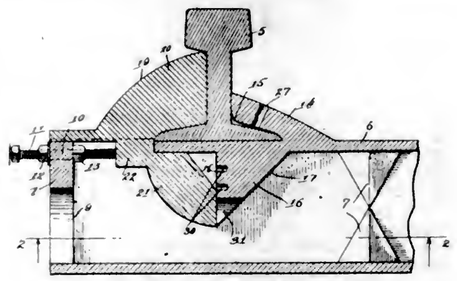
3. A trolley comprising a frame having a horizontal shaft at the top, a guide rod depending from each end thereof, brackets secured to the shaft adjacent to the guide rods, a plurality of bow contact members, positioning sleeves movably associated with the guide rods and connected to the ends of one of the contact members, link connections between the sleeves and the ends of the other contact members, and springs connecting the brackets at the ends of the horizontal shaft to the ends of the bow contact members.

4. The combination with a plurality of hinge-connected bow contact members the contact surfaces of which are normally in substantially the same horizontal plane, of a pantograph frame having a pair of guide rods provided with positioning sleeves having link connections to frame members, elevating springs between the ends of each contact member and the frame, and a movable sleeve connection between the contact member ends and the guide rods.

5. The combination with a pantograph frame having a horizontal shaft at its upper end and a vertical guide rod depending from each end thereof, of a plurality of hinge-connected side-by-side bow contact members, lifting springs between the ends of said contact members and said shaft, movable connections between the ends of the contact members and the guide rods and positioning sleeves coöperating with said guide rods and connected to the frame to move as the frame is raised and lowered.

[Claims 6 to 12 not printed in the Gazette.]

1,138,694. METALLIC TIE. BARTHOLOMEW J. SHEEHE, Dunkirk, N. Y. Filed May 15, 1914. Serial No. 838,805. (Cl. 238—5.)



1. A hollow tie including a rail engaging portion formed on the upper face of the tie to brace the rail from lateral displacement in one direction, and having a portion depending on the interior of the tie, subjacent the rail to reinforce the tie, and a common means to coact with the bracing and reinforcing portion to brace the rail from lateral displacement in the opposite direction, and increase the reinforcing means.

2. A device as specified, including a metallic tie having a portion extending from the upper face thereof for engagement with the base flange of a rail, and a portion depending from the upper face of the top of the tie to form an abutment, and a base flange engaging member adjustably mounted in the tie and normally contacting with said abutment to reinforce said tie directly beneath said rail.

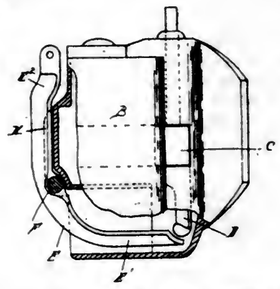
3. A metallic tie, in combination with a rail, including a rail engaging plate integrally formed with the top of the tie, and a rail fastening member adjustably mounted in the tie having a portion extending thereabove for engagement with the web and base flange of the rail, and a portion extending beneath the top of the rail so as to lie subjacent thereof for reinforcing the tie.

4. A metallic tie, in combination with a rail, including a rail engaging plate extending from the upper face of the tie, a rail-clamping member adjustably mounted in the tie for coöperation with said plate, and bolts threaded through the end of the tie and being engaged with said clamping member for holding the same snugly in engagement with the rail.

5. A device as specified, including a tie having a portion of its upper face extended to provide a rail engaging plate, a rail clamping plate adjustably mounted in said tie for cooperation with said plate, bolts extending through the ends of said tie and being engaged with said member for holding the same snugly in engagement with the rail, nuts engaged with said bolts on the end of said tie, said end provided with an opening therein through which access is gained to the interior of the tie for manipulating the nut mounted on the bolt within the tie.

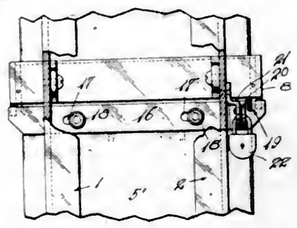
[Claim 6 not printed in the Gazette.]

1,138,695. CAR-COUPLING. THOMAS H. SIMPSON, Detroit, Mich. Filed Dec. 10, 1912. Serial No. 735,882. (Cl. 213—59.)



In a car coupler, the combination with a body and swinging knuckle, of a detent for locking said knuckle vertically adjustable within said body, a downwardly extending shank on said detent, a bell crank lever fulcrumed at the side of said body having an arm extending inward into engagement with said shank, and a downward extension of said body having parallel walls embracing the inwardly extending portion of said lever with connecting walls above and beneath said lever.

1,138,696. MAIL-CHUTE. ARTHUR K. SMITH, St. Louis, Mo., assignor, by mesne assignments, to Cutler Mail Chute Company, Rochester, N. Y., a Corporation of New York. Filed Nov. 2, 1910. Serial No. 590,405. (Cl. 193—31.)



1. A mail chute, comprising superposed sections, a support bar having projecting portions at either side, a locking bar mounted slidably on an adjacent section, said bar being notched at one edge and slotted between its edges, pins extending frome the chute section within the slots of the bar, and means for locking said bar in engagement with the projecting lips of the support bar.

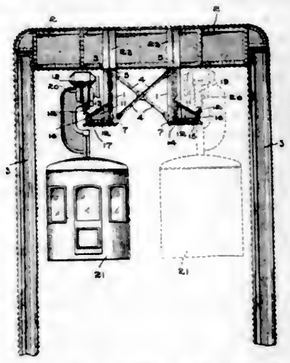
2. A mail chute comprising a support and superposed sections attached thereto, stationary projecting lips secured to the support at the sides, and locking devices slidably arranged at the rear of the sections and coöperating with said lips.

3. A mail chute comprising a support and superposed sections attached thereto, stationary projecting portions at the sides of the support, and slidable devices mounted on the sections at the rear and arranged for locking engagement with said projecting portions on the support.

1,138,697. SUSPENSION-RAILWAY. JOSIAH H. SMITH, Philadelphia, Pa., assignor to William H. Tigerman, Philadelphia, Pa. Filed Aug. 19, 1914. Serial No. 857,475. (Cl. 104—4.)

1. In a suspension railway, the combination with a longitudinal girder, of a series of laterally projecting rail supporting cantalivers secured to the longitudinal girder and horizontal plates below the cantalivers secured to the girder, substantially as described.

2. In a suspension railway, the combination with a longitudinal girder, of laterally projecting cantalivers on the girder, a longitudinal rail supporting beam secured to the cantalivera and means connecting the beam with the bottom of the girder, substantially as described.



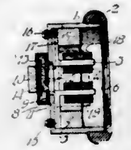
3. In a suspension railway, the combination with a longitudinal girder, of laterally projecting cantalivers on the girder, a longitudinal rail supporting beam secured to the cantalivers, and horizontally positioned plates connecting the lower edge of the beam with the lower edge of the longitudinal girder, substantially as described.

4. In a suspension railway, the combination with a longitudinal girder, of cantalivers projecting laterally from the girder, an I-beam secured to the outer ends of the cantalivers, a rail supported upon the I-beam, and plates connecting the I-beam with the bottom of the girder below the cantalivers, substantially as described.

5. In a suspension railway, the combination with a longitudinal girder consisting of upper and lower parallel angle bars connected by vertical and diagonal angle bar struts, said vertical angle bars arranged in pairs, of laterally projecting vertically positioned plates secured between the pairs of vertical struts, and rail supporting beams secured to the outer ends of said plates, substantially as described.

[Claims 6 to 10 not printed in the Gazette.]

1,138,698. TELEPHONE. EDWARD SCOTT STEWART and CHRISTOPHER DOUGLASS STEWART, Ottawa, Ill. Filed May 26, 1913. Serial No. 769,887. (Cl. 179—102.)



1. A device of the character described comprising a diaphragm, an electromagnetic receiver winding for actuating said diaphragm, a variable resistance transmitting element, and an air confining casing to which said transmitting element and diaphragm are mounted so that said diaphragm when actuated by sound waves actuates said transmitting element through the agency of the air confined within said casing, said transmitting element having a fixed electrode rigidly mounted on said casing and a movable electrode, and said casing having an opening therein registering with said movable electrode.

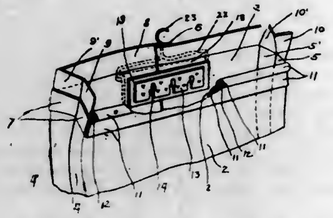
2. A device of the character described comprising a diaphragm, an electromagnetic receiver winding for actuating said diaphragm, a variable resistance transmitting element, and an air confining casing to which said transmitting element and diaphragm are mounted so that said diaphragm when actuated by sound waves actuates said transmitting element through the agency of the air confined within said casing, said transmitting element having a fixed electrode rigidly mounted on said casing and

a movable electrode, and said casing having an opening therein registering with said movable electrode and closed by said transmitting element.

3. A device of the character described comprising a diaphragm, an electromagnetic receiver winding for actuating said diaphragm, a transmitting element, and an air confining casing to which said transmitting element and diaphragm are mounted so that said diaphragm when actuated by sound waves actuates said transmitting element through the agency of the air confined within said casing, said transmitting element having a movable electrode and a carbon chamber provided with comminuted material, said chamber being fixedly mounted on the casing and said casing having an opening therein registering with said movable electrode and closed by said transmitting element.

4. A device of the character described comprising a casing, a diaphragm mounted on said casing, and forming a substantially air-tight compartment with said casing, a receiver magnet mounted within said casing to actuate said diaphragm, and a carbon carrying cup rigidly mounted on said casing and having a movable electrode actuated by said diaphragm through the air confined within said casing when said diaphragm is under the influence of sound waves exteriorly of said casing.

1,138,699. BAG. EDWIN BALL STIMPSON, New York, N. Y., assignor to Edwin B. Stimpson Company, Brooklyn, N. Y. Filed Aug. 28, 1913. Serial No. 787,125. (Cl. 206—7.)



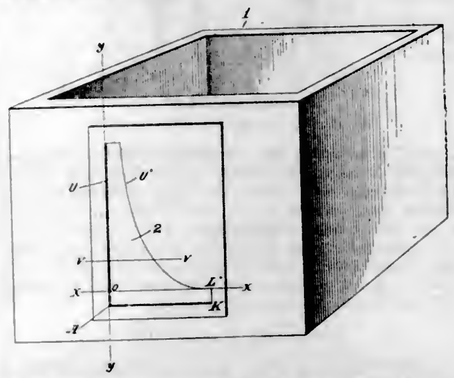
1. In combination with the wall of a bag, a suspension plate on the outside thereof, and a second plate on the inside thereof, the outside plate having its upper edge turned over to form a bead, a suspension hook having portions sprung into said turned-over portion of the outside plate, the second plate having a row of integrally formed hooks projecting forwardly into the bag, one of the plates having a plurality of rows of integrally formed prongs extending through the back wall and the other plate having a corresponding plurality of rows of apertures to be entered by the prongs.

2. In combination with the body walls and mouth of a bag, said body walls including side plications, a reinforcing strip about the mouth of the bag, a stiffening element at the front of the bag, the back wall and side plications of the bag being extended upwardly above the level of said reinforcing strip and above said stiffening element, and a suspension plate connected to the back wall and extending transversely thereof below the upper level of said reinforcing strip.

1,138,700. APPARATUS FOR MEASURING LIQUIDS. HARRY HERBERT SUTRO, deceased, by Victor Sutro, administrator, New York, N. Y., assignor to L. M. Booth Company, a Corporation of New York. Original application filed June 1, 1909, Serial No. 499,559. Divided and this application filed Oct. 3, 1913. Serial No. 793,209. (Cl. 73—167.)

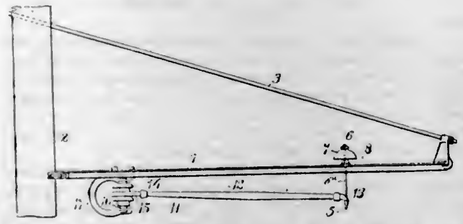
1. A liquid meter provided with a weir notch having a datum level, a minimum operative level above the datum level, and a bottom level below the datum level, the width of the notch above the minimum operative level being such that the flow of liquid therethrough will at all levels above the minimum operative level be in direct proportion to the height of liquid above the datum level.

2. A liquid meter provided with a weir notch having an edge formed on a constantly changing curvature and extending from the line of minimum operative level to the line of maximum operative level, said notch having its datum level below the line of minimum operative level and its bottom edge below the datum level, the width of the notch between said maximum and minimum operative levels being such that the flow of liquid therethrough will at all levels above the minimum operative level be in direct proportion to the height of liquid above the datum level.



3. A liquid meter provided with a weir notch having a datum level, a minimum operative level above the datum level, and a bottom level below the minimum operative level, the width of the notch above the minimum operative level being such that the flow of liquid therethrough will at all levels above the minimum operative level be in direct proportion to the height of liquid above the datum level.

1,138,701. OVERHEAD ELECTRIC-LINE CONSTRUCTION. THEODORE VARNEY, Pittsburgh, Pa., assignor to Westinghouse Electric & Manufacturing Company, a Corporation of Pennsylvania. Filed Apr. 5, 1907. Serial No. 366,501. (Cl. 191—42.)



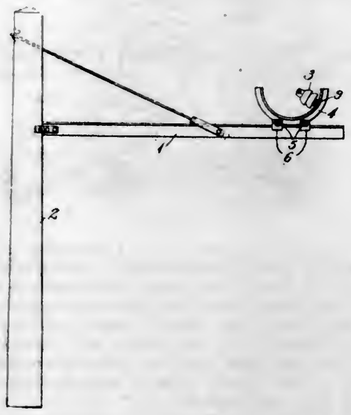
1. A steadying device for electric line conductors comprising a substantially horizontal arm, a horse shoe bracket adjustably mounted thereon, an insulator supported by the horse shoe bracket, and an arm or rod interposed between the insulator and the line conductor.

2. A steadying device for electric line conductors comprising a substantially horizontal arm, a bracket adjustably suspended from said arm, a tubular insulator rotatably supported upon the bracket with its axis substantially vertical, and an arm or rod having one end secured to the insulator and its other end connected to the line conductor.

3. A steadying device for electric line conductors comprising a horizontal arm, a horse shoe bracket adjustably mounted thereon, a rod or tube vertically suported by the bracket, an insulator mounted upon the rod or tube, and an arm interposed between the insulator and the line conductor.

4. In an overhead structure for electric railways, the combination with a substantially horizontal arm, a messenger cable supported by, and insulated from, the arm, and a trolley conductor suspended from the cable, of means for bracing the trolley conductor against lateral movement comprising a horse shoe bracket adjustably mounted on the arm, a rod or tube vertically supported by the bracket, an insulator mounted upon the rod or tube, and an arm interposed between the insulator and the trolley conductor.

1,138,702. ELECTRIC-LINE SUPPORT. THEODORE VARNEY, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Dec. 2, 1909. Serial No. 531,057. (Cl. 173—321.)



1. A supporting means for an electric conductor comprising a bracket having a curved supporting portion, a metal base block having an open-top recess, means for clamping said block adjustably to the curved portion of said bracket, and an upwardly projecting insulator having its lower end cemented into the recess in said block and provided with means for attaching a wire or cable to its upper end.

2. A supporting means for an electric line conductor comprising a bracket having a curved supporting portion, a metal base block having an open-top recess and a bottom clamping bolt to engage the curved portion of said bracket, and an upwardly projecting insulator having its lower end cemented into the recess in the block and provided with means for attaching a wire or cable to its upper end.

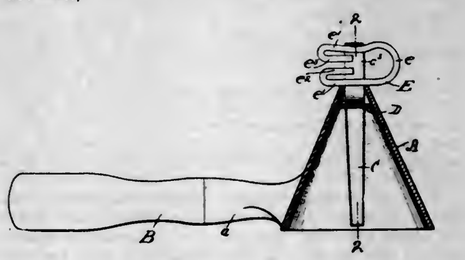
3. An insulating support for an electric line conductor comprising a bracket having a curved supporting portion, a metal base block rigidly clamped upon said curved supporting portion but adjustable along the same when the clamping means is loosened, and an insulator secured to the base block and having its axis radial to the bracket.

4. An insulating support for an electric line conductor comprising a bracket having a curved supporting portion, a metal base block adjustably mounted on said supporting portion, and a solid insulator secured to the base block and projecting radially inward toward the center of curvature of the bracket.

5. A supporting structure for an electric line conductor comprising a substantially horizontal member, a bracket having a curved supporting portion and provided with means for adjustably clamping it to said member, a metal base block adjustably secured to the supporting portion of the bracket, and an insulator secured to the base block and projecting radially inward toward the axis of curvature of the bracket.

[Claim 6 not printed in the Gazette.]

1,138,703. ICE-CREAM DIPPER. EDWIN WALKER, Erie, Pa. Filed Jan. 9, 1909. Serial No. 471,388. (Cl. 107—48.)



1. In an ice cream dipper, the combination of a cup open at its top and bottom, a scraper positioned within said cup and having a loop adapted to project through the opening in the bottom of the cup, and a retaining member positioned exteriorly of the cup and coöperating with the loop on the scraper and with the cup for the purpose of detachably retaining the scraper within the cup, said retaining member being operable for imparting rotary movement to the scraper.

2. In an ice cream dipper, the combination of a cup provided with an opening at its bottom, a scraper positioned within the cup, and having a projection resiliently secured to the scraper and adapted to extend through the opening in the bottom of said cup, means coöperating with the projection on the scraper for exerting a tension thereon for the purpose of retaining the scraper within the cup, said retaining means being operable for imparting rotary movement to the scraper, and spacing means positioned between the legs of the scraper, whereby the tension transmitted to the scraper by its retaining means causes the spacing means to spread the legs of the scraper and thus maintain them in frictional engagement with the interior wall of the cup.

3. In an ice cream dipper, a cup, a rotatable scraper provided with a loop extending outwardly through the bottom of said cup, and a member coöperating with said loop for detachably securing the scraper in its operative position.

4. In an ice cream dipper, a cup, a scraper provided with a loop which extends beyond the cup, and a key insertible into, and withdrawable from, the loop by a slidable movement, said key forming a manually operative member for the scraper and adapted to retain said scraper in operative position within the cup.

5. In an ice cream dipper, a cup, a scraper provided with a loop which extends beyond the cup, and a key having members adapted to frictionally engage the loop for precluding accidental disengagement of the key from the scraper.

[Claims 6 to 11 not printed in the Gazette.]

1,138,704. ICE-CREAM DIPPER. EDWIN WALKER, Erie, Pa. Filed Oct. 4, 1909, Serial No. 520,942. Renewed Oct. 12, 1912. Serial No. 725,538. (Cl. 107—48.)



1. In an ice cream dipper, a cup, a scraper interiorly thereof, a rotatable nut connected with the cup for detachably holding the scraper in its operative position, and means for rotating the scraper.

2. In an ice cream dipper, a cup, a scraper positioned interiorly thereof, a stem extending from the base of the scraper, a rotatable nut engaging frictionally with the cup and coöperating with the stem for detachably retain-

ing the scraper in its operative position, said nut being retained in operative position relative to the cup upon the removal of said scraper from the cup and the stem from the nut and means for rotating the scraper.

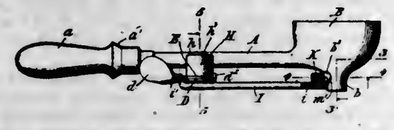
3. In an ice cream dipper, a cup, a scraper interiorly thereof, a stem extending from the base of the scraper, a nut coöperating with the stem for detachably retaining the scraper in its operative position, said nut being swiveled to a permanent element of the disher and adapted to remain in position upon the withdrawal of the scraper and the stem, a gear on said stem, and an operating rack meshing with the gear, whereby the scraper may be rotated.

4. In an ice cream dipper, a cup provided with a chamber at its closed part, a scraper provided with a member extending into said chamber, a nut frictionally engaging with a part of the cup and coöperating with the member for retaining the scraper in position, and a member separate from the retaining nut for operating the scraper, said scraper-operating member being incased within the chamber of the cup.

5. In an ice cream dipper, a cup provided with a scraper chamber and with a separate gear incasing chamber, a scraper provided with a stem, a gear fitted removably to the scraper, said gear being incased within said separate chamber and adapted to remain in position therein upon the withdrawal of the scraper and the stem from the cup, means for rotating the gear, and means for retaining the scraper and the stem in operative relation to the cup and the gear, respectively.

[Claims 6 to 23 not printed in the Gazette.]

1,138,705. ICE-CREAM DISHER. EDWIN WALKER, Erie, Pa. Filed Dec. 17, 1910. Serial No. 597,917. (Cl. 107—48.)



1. In a device of the class described, the combination of a frame, a cup, a scraper operable within the cup, a lever on the frame, means connecting the lever and the scraper to allow of the operation of said scraper from the lever, a spring coöperating with the lever, means for limiting the movement of the lever in the spring pressed direction, means coöperating with the scraper and with the cup for detachably retaining the scraper in the cup, said means being independent of the scraper operating means in the carrying out of its function, and being operable to permit of the removal of the scraper without relaxing the tension of the spring, and means separate from the frame and the lever for incasing said spring.

2. In a device of the class described, the combination of a frame, a cup, a scraper operable within said cup and detachably secured thereto, a lever pivoted to the frame, means operatively connecting the lever and the scraper, said means being so positioned that the scraper may be removed from the cup while the parts of the scraper operating mechanism are retained in coöperative relation to each other, a spring coöperating with the lever, means for limiting the movement of the lever in the spring pressed direction, and means separate from the frame and the lever for incasing the spring.

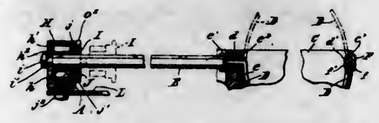
3. In a device of the class described, a frame, a cup, a scraper operable within the cup, a lever on the frame, means connecting the lever and the scraper, a spring coöperating with the lever, means for limiting the movement of the lever in the spring pressed direction, and means for incasing the spring, said spring incasing means being separate from the lever.

4. In a device of the class described, a frame, a cup thereon, a scraper operable within the cup, a lever, scraper operating means connected with the scraper and said lever, a spring acting to press the lever in one direction, a stop device for limiting the movement of the lever in the spring pressed direction, said scraper being removable from the cup without disturbing the operative position of the lever and the spring, and a retaining member independent of the scraper operating means, said retaining member being carried by a fixed part of the cup and coöperating with the scraper for precluding the latter from displacement within the cup.

5. In a device of the class described, the combination of a frame, a cup thereon, a scraper operable within the cup, a lever pivoted to the frame, means pivoted to the lever and coöperating with the scraper for operating the same, a spring coiled around the lever pivot and acting to impel the lever in one direction, the scraper being removable from the cup without relaxing the tension of the spring or disconnecting the scraper operating mechanism.

[Claims 6 to 53 not printed in the Gazette.]

1,138,706. ICE-CREAM DISHER. EDWIN WALKER, Erie, Pa. Filed Nov. 3, 1911. Serial No. 658,305. (Cl. 107—48.)



1. In an ice cream disher, the combination of a cream receptacle, a scraper operable therein, operating means for normally imparting a traversing movement to the scraper within the confines of the receptacle only, and mechanism coöperating with said operating means for releasing the scraper whereby it may be rotated to a position outside the cream receptacle and thus allow the receptacle and scraper to be readily cleansed without detaching the scraper from the receptacle.

2. In an ice cream disher, the combination of a cream receptacle, a scraper permanently secured thereto and operable therein, operating means for imparting a traversing movement to the scraper within the confines of the receptacle, and means for rendering the operating means ineffective and for releasing the scraper whereby said scraper may be moved to a position outside of the cream receptacle while the same is fixedly secured thereto, said means being normally adapted to preclude the movement of the scraper exteriorly of the receptacle.

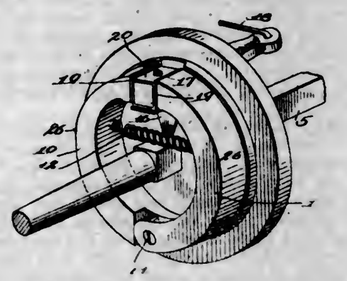
3. In an ice cream disher, a cream receptacle provided with a non-detachable scraper adapted to be moved to a position outside said cream receptacle, in combination with operating means for imparting a traversing movement to the scraper within the confines of the receptacle only, and a shiftable member coöperating with the operating means for maintaining the parts thereof in operative relation, said shiftable member being movable to release the scraper from its coöperative action with its operating means, whereby said scraper may be moved to a position external of the receptacle to allow of the cleansing thereof while said scraper remains permanently secured to the receptacle.

4. In an ice cream disher, the combination of a cream receptacle, a scraper adapted to operate therein and to be moved to a position outside of the receptacle without detaching it from said receptacle, a shaft for operating the scraper, operating means for imparting a traversing movement to the scraper within the limits of the receptacle only, during the normal operation of the scraper, and means operable to release the scraper from the coöperative action of its operating means, whereby it may be moved to a position external of the receptacle, while its operating shaft remains in its operative position, for the purpose of allowing of proper cleansing of the receptacle and scraper.

5. In an ice cream disher, the combination of a cream receptacle, a scraper pivotally secured permanently to the receptacle near the open side thereof, operating means coöperating with the scraper for imparting a traversing movement thereto within the limits of said receptacle only, during the normal operation of the scraper, and means for releasing the scraper from its operating means, said scraper being capable, when released, of movement into a position outside of the receptacle for the purpose of allowing of proper cleansing of the receptacle and the scraper, while the latter is maintained in permanent engagement with the receptacle.

[Claims 6 to 16 not printed in the Gazette.]

1,138,707. WHEEL-BRAKE. JOHN T. WESTWOOD, Wheeling, W. Va., assignor of one-fourth to James B. Somerville and one-fourth to George C. Beneke, Wheeling, W. Va. Filed Apr. 11, 1914. Serial No. 831,212. (Cl. 21—8.)



1. In a brake of the class specified, the combination with an axle having a head secured thereto and a wheel hub collar, of segmental dogs pivoted on the head and having upper free ends normally drawn in close relation, and a lever movably extending through the head and having a rectangular extremity pivoted between the upper free ends of the dogs, the lever and its rectangular extremity having a horizontal oscillating movement and said extremity engaging the dogs at diagonally opposite points to expand the said dogs against the collar.

2. In a brake of the class specified, the combination with an axle having a disk secured thereon and a hub collar applied against the disk, dogs having ends pivotally secured to the outer side of the disk within the collar, a horizontally disposed lever extending through the upper portion of the disk and having a rectangular head pivotally mounted between the upper ends of the dogs, and a spring connected to the inner opposing portions of the dogs above the axle to hold the free ends of the dogs normally in close engaging contact with the opposite side portions of the head of the lever.

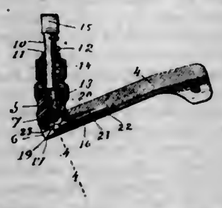
3. In a brake of the class specified, the combination with an axle having a disk secured thereon and a wheel hub collar fitted thereagainst around the axle, segmental dogs pivoted at their lower ends to the disk and having upper free ends, and a horizontally disposed oscillating lever having a rectangular head pivoted between the upper free ends of the dogs and operative so that the diagonally opposite corners thereof will engage corresponding portions of the free ends of the dogs and uniformly expand the latter against the inner surface of the collar.

4. In a brake of the class specified, the combination with an axle having a disk secured thereon and a wheel hub collar disposed against the outer side thereof around the axle, of a pair of segmental dogs pivotally mounted against the outer side of the disk and having their upper free ends normally drawn toward each other, a horizontally disposed oscillating lever extending through the disk and having a pivotally mounted head between the upper free ends of the dogs, and an extension sleeve removably mounted on the head of the lever to directly engage the opposite faces of the free ends of the dogs.

5. In a brake of the class specified, the combination with an axle having a disk secured thereon and a wheel hub collar disposed against the outer side thereof around the axle, a pair of segmental dogs pivotally mounted against the outer side of the disk and having free ends normally drawn toward each other, a horizontally disposed oscillating lever extending through the disk and having a pivotally mounted head of angular form disposed adjacent to the free ends of the dogs, and an extension sleeve of the same form and removably mounted on the head of the wheel to directly contact with the free ends of the dogs and operating to provide a positive contact between the lever and the dogs to preserve a sensitive operation of the brake at all times.

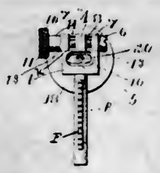
[Claim 6 not printed in the Gazette.]

1,138,708. SIGHT FOR FIREARMS. JAMES WINDRIDGE, Middlefield, Conn., assignor to The Lyman Gun Sight Corporation, Middlefield, Conn., a Corporation of Connecticut. Filed Feb. 19, 1910. Serial No. 544,851. (Cl. 33—57.)



In a sight for firearms, the combination of a base provided with pivoting ears, a sight having a portion extending between said ears, a hinge pivot extending into openings in the ears, the portion of the pivot in one of said openings having a detent notch, and a leaf spring attached to the underside of the base and having fixed at one end a detent playing through a groove in the ear in which the portion of the hinge pivot having the detent notch is located and supported on opposite sides by the walls of said groove, whereby strain is prevented from falling on the spring.

1,138,709. SIGHT FOR FIREARMS. JAMES WINDRIDGE, Middlefield, Conn., assignor to The Lyman Gun Sight Corporation, Middlefield, Conn., a Corporation of Connecticut. Filed Mar. 31, 1913. Serial No. 758,079. (Cl. 33—55.)



1. In a sight for firearms, the combination of a head having a guideway formed of intersecting transverse surfaces forming an acute angle, a sight carrying slide having similar surfaces engaging those of the guideway, projections on the head and the slide lapping past each other, an adjusting screw passing through said projections, and a plate extending over the projections and provided with spring ears through which said screw passes.

2. In sights for firearms the combination of a base, a sight stem mounted thereon having a head perforated in the direction of sighting, and a transverse guideway, a slide guided in the way having a screw threaded perforation in registration with the perforation of the head, a sight screwed therein, ears integrally formed upon the head and slide, an adjusting screw engaging the ears to move the slide in the head laterally for wind gage adjustment, and a spring for imposing friction upon the adjusting screw to prevent its accidental displacement in its bearings.

3. In a sight for firearms the combination of a base, a sight stem mounted in the base, adjustable as to height, provided with a head perforated in the direction of sighting having a transverse flange at its lower edge and a

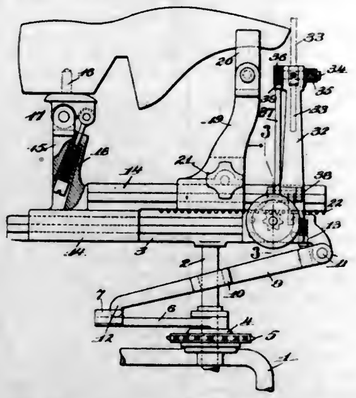
tongue on its upper edge overhanging the flange, a slide guided on said flange of the head provided with ears corresponding to the tongue of the head overhanging and engaging the upper edge of the head, an adjusting screw journaled in said ears having its intermediate threaded portion in threaded engagement with the tongue of the head, thrust collars on the ends of the screw adjacent the ears, a spring plate spanning the ears having downwardly bent ends between the screw collars and ears perforated to receive the screw and proportioned to exert tension endwise upon the screw collars to hold the screw frictionally against displacement, the spring plate graduated on its upper surface with reference to an indicator mark on the tongue of the head, the slide being perforated and screw-threaded to receive a sight disk substantially as and for the purpose specified.

4. In a sight for firearms, the combination of a head having a vertical rear face and an upper horizontal guiding edge and provided with a lower flange having its upper surface comprising an acute angle with the said vertical face, and a tongue projecting over the rear face having its lower surface parallel with that of the flange, a slide adapted to engage the vertical face of the head, with its upper and lower edges bearing on the surface of the tongue and flange, and provided with ears bearing upon the upper edge of the head, and a screw passing through the ears and tongue in screw threaded engagement with one of the said elements and held against longitudinal movement relatively to its other.

5. In a sight for firearms, the combination of a head having a vertical rear face and an upper horizontal guiding edge and provided with a lower flange having its upper surface comprising an acute angle with the said vertical face, and a tongue projecting over the rear face having its lower surface parallel with that of the flange, a slide adapted to engage the vertical face of the head, with its upper and lower edges bearing on the surface of the tongue and flange, and provided with ears bearing upon the upper edge of the head, a screw passing through the ears and tongue in screw threaded engagement with one of the said elements and held against longitudinal movement relatively to the other, and a spring bar surmounting and let into the tongue and ears, and forming a guideway to hold the movable part in place.

[Claim 6 not printed in the Gazette.]

1,138,710. WORK-SUPPORT. ERASTUS E. WINKLEY, Lynn, Mass. Filed Aug. 20, 1908. Serial No. 449,408. (Cl. 12—127.)



1. A work support for automatic shoe machinery, having, in combination, a work holder and a work positioning device relatively movable in a direction to cause the work to engage said device and to place the work in working position in the machine, said device having a work locating stop normally in inoperative position, and means for automatically placing said stop in operative position during the relative approach movement of the work and work positioning device.

2. A work support for automatic shoe machinery, having, in combination, a work holder and a work positioning device having a work locating stop, said holder and device being relatively movable to place the work on said holder in working position in the machine, and means for moving said stop into and out of operative position during the positioning operation.

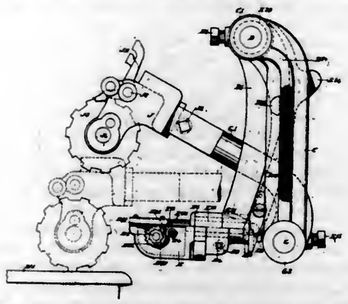
3. A work support for automatic shoe machinery, having, in combination, a base portion, a work positioning device fixedly mounted on said base having a movable work locating stop, means for holding said stop in inoperative position, actuating means for said stop, a work holder movably mounted on said base, means for positioning said work holder relatively to said device, means for locking said work holder positioning means against movement, and a single means for releasing said work holder positioning means from the action of said locking means and permitting positioning movements of both the work holder and work locating stop.

4. A work support for automatic shoe machinery, having, in combination, a movably mounted work holder, a fixedly mounted work positioning device having a work locating stop movable into and out of operative position, actuating means for adjusting said work holder relatively to said positioning device and for moving said stop, and a combined work holder locking device and work locating stop controlling device connected with said actuating means, whereby the stop is placed in inoperative position when the work holder is locked against adjustment and in operative position during the adjusting operation.

5. A work support for automatic shoe machinery, having, in combination, a base portion, a work holder movably mounted thereon, an actuating device for said holder, a work positioning device fixedly mounted on said base having a work locating stop movable into and out of operative position, a controller for governing the position of said stop mounted on and operable with the actuator for the work holder, and operative connections between said stop and controller.

[Claims 6 to 13 not printed in the Gazette.]

1,138,711. INKING DEVICE FOR PRINTING AND MARKING MACHINES. ERASTUS WOODWARD, Somerville, Mass., assignor to American Stamping Machine Company, Lynn, Mass., a Corporation of Massachusetts. Filed May 13, 1910. Serial No. 561,134. (Cl. 101—71.)



1. In a device of the character described, a type head, an inking roll adapted to engage and ink the type carried on said head, means for inking said type previous to each impression thereof, an operating arm independent of said type head for carrying said inking roll and adapted to operate said roll whereby the same is moved across the type to ink the same and subsequently to withdraw from contact with the type and out of the path thereof on its return movement to permit the impression of said type head, mechanism for operating said type head independently of the mechanism which operates said inking roll operating arm.

2. In a device of the character described, a type head, an inking roll adapted to engage and ink the type carried on said head, means for inking said type previous to each impression thereof, an operating arm independent of said type head for carrying said inking roll and adapted to operate said roll whereby the same is moved across the type to ink the same and subsequently to withdraw from contact with the type and out of the path thereof on its return movement to permit the impression of said type head, mechanism for operating said type head independently of the mechanism which operates said inking roll operating arm, and mechanism for automatically shifting the position of said roll at each inking operation whereby a different portion of said roll is engaged by said type previous to each impression.

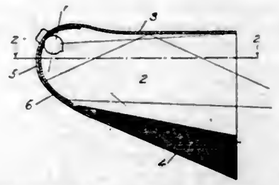
3. In a device of the character described, a type head, an inking device comprising an inclosed holder, an inking roll mounted in said holder, an absorbent material carried in said holder for retaining and feeding the ink to said roll, an automatic shutter adapted to expose said roll to ink the type to cover said roll when the same is not in inking operation, and mechanism operated by said shutter when opening to move said inking roll previous to the inking of said type.

4. In a device of the character described, a type head, an inking device comprising an inclosed holder, an inking roll mounted in said holder, an absorbent material carried in said holder for retaining and feeding the ink to said roll, a shutter normally inclosing said inking roll, and mechanism operated by said shutter when opening to move said inking roll previous to the inking of said type, said mechanism adapted to permit the closure of said shutter after the inking of said type without moving said roll.

5. In a device of the character described, a type head, an inking device carrying an inking roll adapted to engage and ink the type carried on said type head, an absorbent material for retaining and feeding the ink to said roll, and yielding means for holding said absorbent material in contact with said roll.

[Claims 6 to 11 not printed in the Gazette.]

1,138,712. NON-GLARING HEADLIGHT. JAMES E. WRIGHT, Bay City, Mich. Filed Aug. 7, 1914. Serial No. 855,628. (Cl. 240—41.)

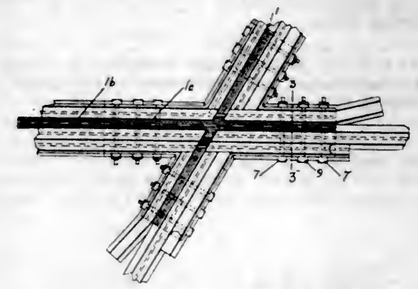


1. In a headlight, the combination with a source of light and a suitable reflector back of said light, of a curved hood, the upper part of which is disposed with its axis substantially horizontal, the upper part of said hood lying in approximately the horizontal plane of the source of light, said hood formed with a laterally flaring reflecting surface and a downwardly flaring non-reflecting surface.

2. In a headlight, the combination of a reflecting hood, the upper part of which is disposed with its axis substantially horizontal, said hood formed with outwardly flaring side surfaces and downwardly flaring bottom surfaces, a source of light located at the small end of said hood substantially in the plane of said top surface, the bottom surface of said hood being non-reflecting, for the purposes set forth.

3. In a headlight, the combination of a reflecting hood, the upper part of which is disposed with its axis substantially horizontal, said hood being formed with flaring side and bottom surfaces, a source of light located at the small end of said hood, the lower surface of the hood being non-reflecting for the purposes set forth.

1,138,713. RAIL-CROSSING. JAMES E. WRIGHT, Bay City, Mich. Filed Sept. 29, 1914. Serial No. 864,108. (Cl. 104—40.)

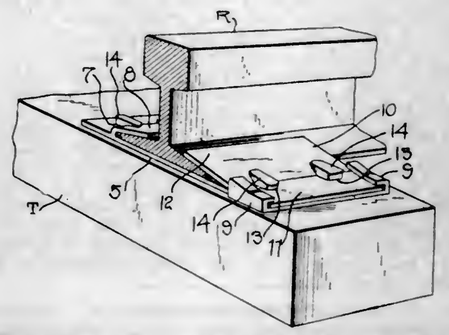


1. A joint for track-rails comprising a guard-rail, a filler piece secured between said guard rail and the meeting ends of the track rails, said filler piece having a concaved upper surface and having its ends downwardly beveled, fish-plates adapted to receive said filler piece between them, and means for clamping said guard-rail, track rails, filler piece and fish-plates together, for the purposes set forth.

2. A joint for track-rails comprising a guard rail, a filler piece secured between said guard rail and the meeting ends of the track rail, said filler piece having a concaved upper surface and having its ends downwardly beveled, a fish-plate located between the track rails and guard rail and having its upper face formed with a longitudinal slot to receive said filler piece, and fastening means adapted to secure said guard-rail, track rails and fish-plate together.

3. A joint for track rails comprising a guard-rail, a sectional filler piece secured between said guard rail and the meeting ends of the track rail, said sectional filler piece having a concaved upper surface and having the ends of its extreme sections downwardly beveled, a fish-plate located between the track rails and guard-rail and having its upper face formed with a longitudinal slot to receive said filler piece, and fastening means adapted to secure said guard-rail, track rails and fish-plate together.

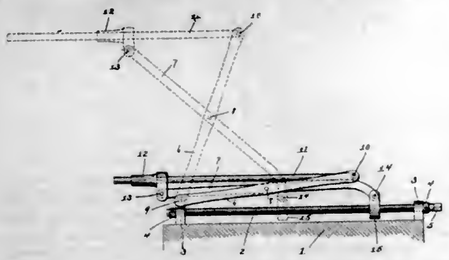
1,138,714. RAIL-FASTENER. OTTO A. YEAGLE, Ava, Ohio. Filed Sept. 10, 1914. Serial No. 861,085. (Cl. 238—2.)



A rail fastener including a tie plate provided with means for securing the same upon a tie and having an inwardly and upwardly extended rail clamping flange integrally formed on one end, said plate being provided upon its other end and on its longitudinal edges with inwardly extending upwardly inclined overhanging lips, and a rail clamping plate having an angularly disposed portion adapted for engagement upon the rail flange, the opposite edges of said plate being adapted for insertion beneath said overhanging lips, said lips and the inclined portion

of the plate being disposed in substantially parallel relation when the plate is engaged upon the rail flange, said tie plate and the clamping plate being provided with spaced openings adapted to coincide to receive suitable fastening spikes.

1,138,715. MECHANICAL MOVEMENT. JAMES H. YOUNG, Paterson, N. J. Filed Sept. 8, 1913. Serial No. 788,573. (Cl. 74—5.)



1. A mechanical movement comprising in combination a pair of shafts; a pair of diagonally arranged levers of different lengths pivoted together intermediately of their ends, one of said levers having its opposite ends pivotally connected with said shafts respectively; and members pivotally connected with the opposite ends of the other of said levers and movable longitudinally of the respective shafts.

2. A mechanical movement comprising in combination a support; a pair of shafts, one mounted upon said support; a pair of diagonally arranged levers of different lengths pivoted together intermediately of their ends, the shorter of said levers having one of its ends pivotally connected with said support and its other end pivotally connected with the other of said shafts; sleeves embracing and movable longitudinally of the respective shafts; and pivotal connections between said sleeves and the respective ends of the longer of said levers.

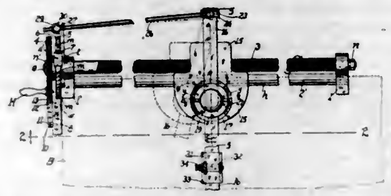
3. A mechanical movement comprising in combination a pair of shafts; a pair of diagonally arranged levers of different lengths, one of said levers having its opposite ends pivotally connected with said shafts respectively; and members pivotally connected with the opposite ends of the other of said levers and movable longitudinally of the respective shafts, one of the pivotally connected ends of one of said levers being offset to one side of a line extended through the pivotal connections at its other end and middle.

4. A mechanical movement comprising in combination a support; a pair of shafts, one mounted upon said support; a pair of diagonally arranged levers of different lengths pivoted together at substantially their middle, the shorter of said levers having one of its ends pivotally connected with said support and its other end pivotally connected with the other of said shafts; sleeves embracing and movable longitudinally of the respective shafts; and pivotal connections between said sleeves and the respective ends of the longer of said levers, one end of said longer lever being offset and having its pivotal connection at one side of a line extended through the pivotal connections at its other end and middle.

1,138,716. RULING-MACHINE. GUSTAV A. ZEISER, St. Louis, Mo. Filed Nov. 23, 1914. Serial No. 873,534. (Cl. 33—81.)

1. In a ruling appliance, a suitable feed-screw, a head traveling thereon, a rule pivotally mounted on said head at a point between the ends of the rule, a fixed support a link loosely coupled to one arm of the rule and to said fixed support, means for supporting the feed-screw and means for imparting rotations to the feed-screw.

2. In a ruling appliance, a suitable feed-screw, a head traveling along the screw, a rule pivotally mounted on the head at a point between the ends of the rule, a fixed support, a link loosely coupled to one arm of the rule and to said fixed support, means for supporting the feed-screw, means for imparting rotations to the screw, and means for limiting the degree of any rotation thus imparted.



3. In a ruling appliance, a suitable feed-screw, a rail mounted adjacent thereto, a head traveling along the screw and bearing on said rail, a rule mounted pivotally on the head and swinging in a plane parallel to the axis of the screw, a fixed support, a link loosely coupled to the rule on one side of the pivotal axis thereof, and to said fixed support respectively, means for supporting the feed-screw, means for imparting rotation to the screw, and means for limiting the angle or arc of any given rotation and hence the distance of advance of the head along the screw and the degree of oscillation of the rule.

4. In a ruling appliance, a pair of clamp-hangers, a rail member connecting the same, a feed screw mounted between the hangers adjacent the rail member, a toothed disk secured to one end of the screw, a lever mounted to freely oscillate about the screw adjacent the toothed disk, a pawl on the lever engaging the toothed edge of the disk, a stationary disk secured to the hanger adjacent the lever, said disk being graduated peripherally, a stop mounted adjustably on the graduated disk for arresting the pawl-lever, a rest for the lever to support the same in its released position, a head traversing the screw, a rule mounted on the head at a point intermediate its length and oscillatable in a plane parallel to the axis of the screw, a fixed support on the hanger carrying the graduated disk and a link having its ends loosely coupled to one arm of the rule and to said fixed support respectively.

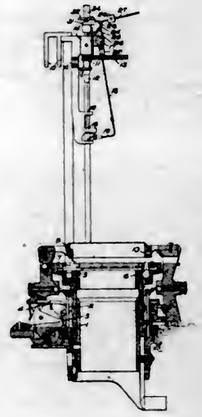
5. In a ruling appliance of the character described, a feed-screw, a head traversing the same axially and extending in opposite directions across the axis of the screw, an annular protractor disk provided with diametrically disposed arcuate ribs on opposite sides of the opening thereof, said disk being flush with the surface of the head and the ribs extending above said surface and having their adjacent ends spaced apart, a stud projecting through the head and the opening of the disk and provided with a transverse slot above the plane of the surface of the head, a rule passed through said slot and the passage-ways between the adjacent ends of the ribs aforesaid, and lock nuts on the stud for holding the rule against longitudinal displacement.

[Claims 6 to 8 not printed in the Gazette.]

1,138,717. YARN-TAKE-UP MECHANISM FOR KNITTING-MACHINES. JOSEPH H. ZENS, Milwaukee, Wis., assignor to Scott & Williams, Incorporated, Camden, N. J., a Corporation of New Jersey. Filed June 30, 1911. Serial No. 636,303. (Cl. 66—9.)

1. A machine having yarn supply means, means for continuous operation and means for discontinuous operation, whereby yarn supplied thereto is at times constantly taken into the machine and at times taken intermittently with formation of slack, in combination with yarn take-up means having a take-up arm, and means reacting with the constantly moving yarn and said arm to restrain said arm from excessive movement during said continuous operation.

2. A knitting machine having yarn feeding means, means for continuous rotary knitting and means for reciprocatory knitting, whereby yarn supplied thereto is at times constantly taken into the machine and at times taken intermittently with formation of slack, in combination with yarn take-up means having a take-up arm, and a restraining arm reacting with the yarn when constantly moved to restrain said take-up arm from excessive movement, said restraining arm being free to move with the yarn in contact therewith when said yarn is slack.



3. A knitting machine having yarn feeding means, means for continuous rotary knitting and means for reciprocatory knitting respectively taking yarn constantly, and intermittently with the formation of slack, in combination with yarn take-up means having a take-up arm, means reacting with the constantly moving yarn to restrain said arm from excessive movement during rotary knitting, and means to lock said take-up arm out of action.

4. Yarn take-up means comprising an arm and an attachment of said arm mounted to contact with a guided run of yarn, means tending to displace said arm and said attachment and the yarn laterally upon the occurrence of slack in the yarn, a fixed surface and means to hold said attachment in sliding contact with said surface to restrain endwise movement of yarn laterally deflected into contact therewith on the occurrence of slack.

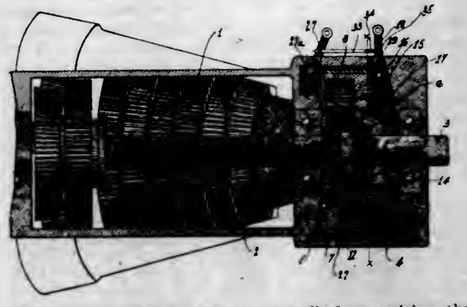
5. A knitting machine having in combination yarn guiding means, a yarn take-up arm and means for deflecting the yarn and placing it under frictional restraint when so deflected connected to said take-up arm to control its position by the resistance of normally tense yarn during the operation of the machine to deflection by said deflecting means.

[Claims 6 to 13 not printed in the Gazette.]

1,138,718. REVERSING-GEARING. ALFRED N. ADAMS, Stockton, Cal. Filed Oct. 21, 1913. Serial No. 796,439. (Cl. 74—34.)

1. A device of the character described comprising the combination with a driving shaft and a driven shaft, of a casing provided with recesses, a train of gears journaled in said casing and interposed between said driving shaft and said driven shaft whereby, when said casing is held stationary, said driving shaft and said driven shaft will move in opposite directions, a friction band mounted in such casing and adapted to be operated to hold said casing stationary, an independent lever having a dog, said lever being operable to move said dog in one of said recesses, a lever for operating said friction band, and means for operating said first named lever with the movement of said last named lever to throw said dog into one of said recesses when said friction band is engaged with said casing, as described.

2. A device of the character described comprising the combination with a driving shaft and a driven shaft, of a casing provided with recesses, a clutch member movable on one of said shafts and operable to engage said casing to lock said casing stationary with respect to said shaft, a lever adapted to operate said clutch member, another lever provided with a dog operable to engage one of said recesses, a link connecting said levers whereby when said clutch member is engaged with said casing, said dog will be disengaged from said recesses, a train of gears disposed within said casing and being connected with each of said shafts, a friction band adapted to engage said casing, means for operating said friction band, and means whereby when said friction band is engaged with said casing said dog will engage one of said recesses, as described.



3. A device of the character described comprising the combination with a driving shaft and a driven shaft, of a casing, a train of gears carried thereby connected with each of said shafts, a friction band for holding said casing stationary independently of said shafts, a lever for operating said friction band, an independent lever having means for engaging said casing to hold it rigid against any movement within said friction band, operating means for said second named lever comprising a third lever and a link connection between said third lever and said second named lever, said first named lever being operable to engage said third named lever to move said second named lever with the movement of said first named lever, as described.

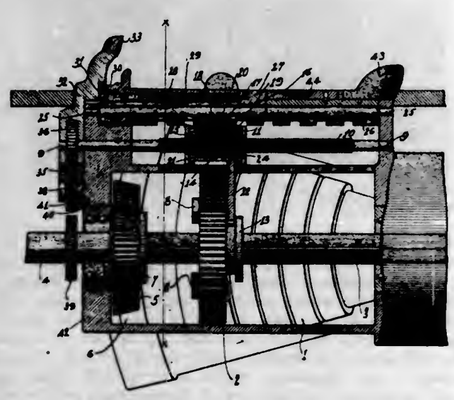
4. A device of the character described comprising the combination with a driving shaft and a driven shaft, of a casing, a train of gears disposed within said casing and connected with each of said shafts, a clutch member operable on one of said shafts to engage said casing to hold said casing stationary with respect to said shaft, a lever for operating said clutch member, a friction band operable to hold said casing stationary independently of said shafts, a lever for operating said friction band, an independent means for holding said casing rigid against any movement within said friction band, a third lever for operating said last named means, said third named lever lying adjacent said first named lever whereby said third named lever cannot be operated until said first named lever is moved out of the path thereof, said second named lever being operable to engage and move said third named lever when said first named lever is moved out of the path thereof, as described.

1,138,719. AUTOMATIC GEAR-SHIFTER. ALFRED N. ADAMS, Stockton, Cal. Filed Oct. 27, 1913. Serial No. 797,417. (Cl. 74—58.)

1. A device of the character described comprising the combination with a driving shaft and a plurality of gears driven thereby, of a gear adapted to engage said plurality of gears, a threaded shaft, a nut mounted on said threaded shaft and engaging said single gear, a gear secured to said threaded shaft, another gear secured to said driving shaft, a swinging lever, a pair of gears carried thereby, one of said gears engaging the gear on said threaded shaft and both of said gears being capable of

being brought into independent engagement with said driving shaft gear, said pair of gears engaging each other, as described.

2. A device of the character described comprising the combination with a driving shaft and a plurality of gears driven thereby, a driven shaft, a gear on said driving shaft and a gear on said driven shaft, a lever, a pair of gears carried by said lever, one of said gears engaging the gear on said driven shaft and each of said gears being capable of being brought into independent connection with the gear on said driving shaft, said pair of gears engaging each other, a carrier movable on said driven shaft, a gear carried by said carrier and engaging said plurality of gears, a swinging bar having a normal engagement with said carrier to lock the same against action when said pair of gears are out of engagement with the gear on said driving shaft and a member slidable on said swinging bar and adapted to engage said lever whereby said lever may be moved with the movement of said swinging bar, as described.



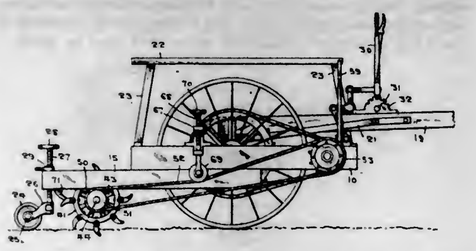
3. A device of the character described comprising the combination with a driving shaft and a plurality of gears driven thereby, of a gear adapted to engage said plurality of gears, means for moving said single gear from a point of engagement with one of said gears to the next succeeding gear and locking the same in that position, means coöperating with said first named means for moving said single gear from a point of engagement with one of said gears over a series of succeeding gears, as described.

4. A device of the character described comprising the combination with a driving shaft and a plurality of gears driven thereby, of a carrier provided with a lug, a single gear connected with said carrier and adapted to engage said plurality of gears, a rocking shaft provided with a toothed bar adapted to engage said lug, means for moving said carrier and means for disengaging said toothed bar from said lug when said carrier is to be moved, as described.

5. A device of the character described comprising the combination with a driving shaft and a plurality of gears driven thereby, of a single gear adapted to engage said plurality of gears, a carrier connected with said single gear and provided with a lug, a shaft, said carrier being screw mounted on said shaft, a lever fulcrumed on said shaft and provided with a gear mechanism, a gear on said driving shaft adapted to engage said gear mechanism on said lever, such gear mechanism being connected with said second named shaft whereby when said gear mechanism is engaged with the gear on said driving shaft, said second named shaft will be operated, a rocking shaft provided with a toothed bar, adapted to engage said lug, and means for disengaging said toothed bar from said lug simultaneously with the operation of said lever to throw said gear mechanism into connection with the gear on said driving shaft, as described.

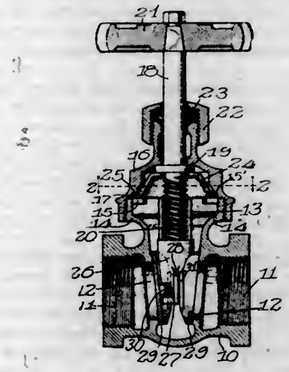
[Claim 6 not printed in the Gazette.]

1,138,720. FARM MACHINERY. ANTON J. ALBRACHT and JOSEPH WESSEL, Lindsay, Nebr. Filed Apr. 2, 1914. Serial No. 828,969. (Cl. 55—85.)



A machine of the class described, comprising a frame, drive wheels mounted within said frame, a pulverizer mounted in the rear end of said frame, a tongue pivotally mounted centrally of said frame, a segmental rack bar arranged upon said tongue in proximity to the forward end of said frame, a bearing arranged upon the base plate of said rack bar, a bell crank lever revolubly mounted in said bearing, an operating lever pivotally connected to said rack bar, a link connecting said lever with one arm of said bell crank lever, a link connecting the other arm of said bell crank lever to the forward end of said frame, whereby to actuate the forward end of said frame for raising and lowering said pulverizer at the rear end of said frame.

1,138,721. VALVE. CLETUS N. ALLERDING, Mansfield, Ohio, assignor to The Ohio Brass Company, Mansfield, Ohio, a Corporation of New Jersey. Filed Aug. 26, 1911. Serial No. 646,113. (Cl. 137—5.)



1. In a gate valve, the combination with a housing and a bonnet therefor, threaded one within the other and forming an annular space on the inside when so positioned, a stem rotatable in the housing having a shoulder, one face of which bears against the inside of the bonnet, the lower end of the stem being threaded, a stem retainer surrounding the stem with an outer edge which engages loosely in the said annular space, and an inner edge which engages the other face of the said shoulder, a disk carrying nut positioned on the stem, the housing being formed with valve seats which incline as they approach the bottom and with guide ways substantially parallel to the axis of the valve, disks with one flat face, ears which project from opposite sides and are adapted to engage the guide rails, and hollowed out on the other side with rounding projections therein, the said disk carrying nut being formed at the end and on opposite sides with grooves to contain the said rounding projections whereby the disks are moved up and down on the valve seats and permitting them to oscillate about the disk carrying nut, the said retainer being operative to prevent the movement of the stem in a longitudinal direction, and the said disk carrying nut being held against rotation whereby the disks are moved when the stem is rotated.

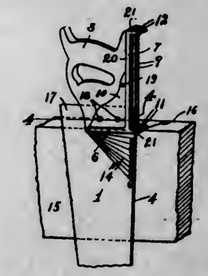
2. In a gate valve, the combination with the valve housing and a bonnet threaded one within the other, of a valve stem, means to prevent the longitudinal movement of the stem, a disk carrier threaded on the valve stem and formed at the end with a head grooved on both sides, valve disks with one flat face, hollowed out on the opposite side and provided with rounding projections, which fit the grooved portion of the disk carrier, whereby the disks are permitted to have an oscillatory movement about the carrier to seat them upon the valve seats, the said grooves and projections being effective to cause the engagement of their members to raise and lower the disks when the said stem is rotated without moving the latter longitudinally.

3. In a valve of the class described, the combination of a valve disk carrier formed with lateral transverse grooves convexly arched from a central opening, and valve disks formed with lateral rounded projections concavely arched spaced apart and fitting the said grooves to position the disks on the carrier.

4. In a gate valve, the combination with a valve housing and a bonnet threaded one within the other, of a valve stem, means to prevent the longitudinal movement of the stem, a disk carrier threaded on the valve stem and formed with lateral transverse grooves convexly arched from a central opening, and valve disks formed with laterally rounded projections concavely arched, spaced apart, and fitting the grooves to position the disks.

5. In a gate valve, the combination with a housing and a bonnet therefor threaded one within the other and forming an annular retaining space, a rotatable valve stem having a shoulder bearing one face against the inside of the bonnet, a stem retainer through which the stem is passed having an edge held by the housing and bonnet in the annular retaining space with another edge bearing against the opposite face of the shoulder to hold the stem against longitudinal movement, a valve disk carrier threaded on the valve stem and formed with lateral transverse grooves convexly arched from a central opening, and valve disks formed with laterally rounded projections concavely arched, spaced apart, and fitting the said grooves to position the disks on the carrier.

1,138,722. CARPENTER'S COMBINATION-TOOL. DANIEL J. ANNIS, Plainfield, Ill., assignor, by direct and mesne assignments, of two-ninths to Thomas C. Davis and five-ninths to Theodor Wensel, Joliet, Ill., and two-ninths to Linn Coleman, Chicago, Ill. Filed May 23, 1910. Serial No. 562,955. (Cl. 33—82.)



1. A carpenter's hand tool comprising a hand grip handle having a straight front end and containing a blade slot, in combination with a straight edged blade wider than said front end and secured in said slot with its straight edge at right angles to said front end of the handle, the back of said handle being below and diverging from the projected line of said blade edge, and said back of the handle being provided with upstanding gage lugs or projections containing sight gaps in sight alinement with said back edge of the blade.

2. A carpenter's tool comprising a hand grip handle having a blade slot in its front end, in combination with L-shaped metal members secured to opposite sides of said handle and forming a straight front end and a straight back or top thereon, the angle between the front and back portions of said members being less than a right angle, and said members having gage lugs or projections upstanding from the ends of their back portions.

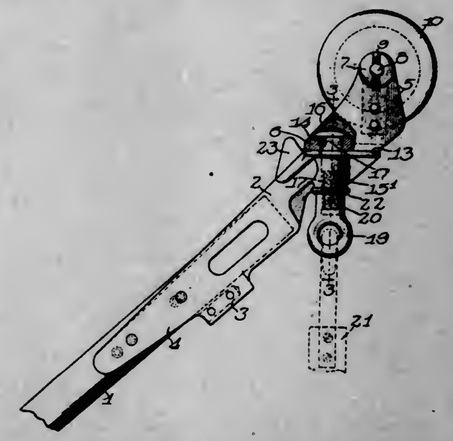
3. A carpenter's tool comprising a hand grip handle having a blade slot in its front end, in combination with L-shaped metal members secured to opposite sides of said handle and forming a straight front end and a straight back or top thereon, the angle between the front and back portions of said members being less than a right angle, gage lugs or projections upstanding from the ends of said back portions, and a blade secured in said slot and presenting a straight edge at right angles to the front portions of said members.

4. A carpenter's hand tool comprising a hand grip handle having a straight front end and containing a blade slot, in combination with a straight edged blade wider than said front end and secured in said slot with its straight edge at right angles to said front end of the handle, the back of said handle diverging from the projected line of said blade edge, and said back of the handle being provided with upstanding siding gage lugs one at the juncture of the blade and handle and having a sight gap, for the purposes described.

5. A carpenter's hand tool comprising a hand grip handle having a straight front end slotted to receive a blade, a blade fixed therein and having a back edge at right angles to said front end, siding gage lugs provided upon the front and rear ends of said handle and the forward lug containing a sight gap through which the juncture of the saw back and the front end of the handle may be seen.

[Claim 6 not printed in the Gazette.]

1,138,723. TROLLEY-WHEEL MOUNT. GLENN HENRY BOLUS, Mansfield, Ohio, assignor to The Ohio Brass Company, Mansfield, Ohio, a Corporation of New Jersey. Filed Feb. 9, 1912. Serial No. 676,518. (Cl. 64—70.)



1. In apparatus of the class described, the combination of a trolley pole having a flat surfaced bearing at its upper end, a correspondingly surfaced member rotatably mounted thereon and having trolley wire contacting means, a detachable pivot bolt connected to said member and projecting through said bearing for rotating said member, and an eye-member threaded on said bolt below said bearing.

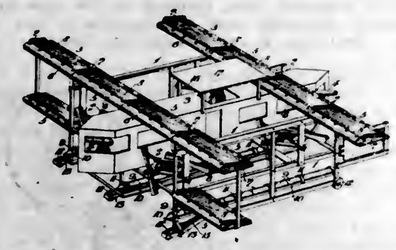
2. In a trolley of the class described, the combination of a trolley pole, a trolley harp pivotally mounted at the end thereof, and disposed generally at one side of its

pivotal axis to cause said harp to automatically follow the trolley wire when in operating relation thereto, a pivot bolt connected to said harp, and depending below said harp, a removable eye-member on the end of said pivot bolt and a depending handle attached to said eye member for rotating said harp into operating relation to the trolley wire.

3. The combination of a substantially vertically disposed bearing member having a broad, flat bearing surface at its upper end disposed in a plane substantially at right angles to said bearing, a substantially U-shaped trolley harp disposed generally at one side of the longitudinal axis of the bearing and having a broad, flat bottom surface resting upon said bearing surface, said harp having a squared opening positioned in line with said bearing, a pivot bolt extending down through said squared opening and bearing and having its upper portion removably fitted in said squared opening, and means attached to the end of the bolt below the bearing for rotating the bolt and harp.

4. The combination of a substantially vertically disposed bearing member having a broad, flat bearing surface at its upper end disposed in a plane substantially at right angles to said bearing, a substantially U-shaped trolley harp disposed generally at one side of the longitudinal axis of the bearing and having a broad, flat bottom surface resting upon said bearing surface, said harp having a squared opening positioned in line with said bearing, a pivot bolt extending down through said squared opening and bearing and having its upper portion removably fitted in said squared opening, an eye-member threaded onto the end of said bolt below said bearing, and an operating handle attached to said eye-member.

1,138,724. AIRSHIP. JOHN W. BOUGHTON, Philadelphia, Pa., assignor to The Boughton Flying Machine Company, a Corporation of South Dakota. Filed May 24, 1913. Serial No. 769,568. (Cl. 244—2.)



1. In an air ship, a frame, and a buoyant pontoon of separable hollow caissons arranged end to end lengthwise of the ship and supported on said frame.

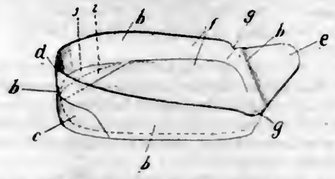
2. In an air ship, a frame, and a buoyant pontoon of separable hollow sections arranged end to end lengthwise of the ship, combined with a longitudinally divided support in which said sections are removably held.

3. In an airship, a frame, a buoyant pontoon composed of separable hollow caissons arranged end to end lengthwise of the ship, a longitudinally divided support in which said caissons are removably located, and means holding said longitudinally divided support fixedly in position.

4. In an airship, a frame, a buoyant pontoon formed of separable hollow members disposed end to end in the direction of the length of the ship, and a rack secured to said frame and divided in longitudinal directions, and having means embracing said hollow members and detachably holding them in the rack.

1,138,725. REPAIR-HEEL FOR RUBBER FOOTWEAR. JOSÉ CAPDEVILA, New York, N. Y. Filed Mar. 5, 1913. Serial No. 752,110. (Cl. 36—73.)

1. A repair heel for a rubber overshoe having a rubber tread, side and rear wall portions integral therewith and extending upwardly therefrom to form a recess adapted to receive and closely embrace the worn heel of a rubber overshoe, said wall portions being constructed and arranged for cementing to the sides of said overshoe heel, and a forward wall portion integral with said tread and extending upwardly and outwardly therefrom, and a tapering flexible flap integral with said forward wall portion and extending outwardly therefrom and adapted for bending into conformity with the curve of the arch of the overshoe for cementing thereto to assist in retaining said repair heel in position and to prevent leakage of water over the forward wall between the repair heel and the tread of the overshoe; substantially as described.



2. A repair heel for rubber shoes, having outwardly inclined side, rear and forward walls and depression filling ridges instanding from said side walls adjacent said forward wall; substantially as described.

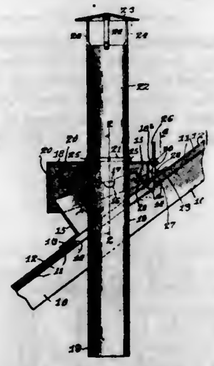
3. A repair heel for rubber shoes, having upstanding walls and a wedge detachably secured at the rear of the interior of said heel; substantially as described.

4. The combination of a repair heel for rubber footwear and a wear compensating wedge cemented within said heel; substantially as described.

5. A repair heel for rubber shoes, having upstanding walls and a plurality of wear compensating wedges partially attached in superimposed position within said heel; substantially as described.

[Claims 6 to 11 not printed in the Gazette.]

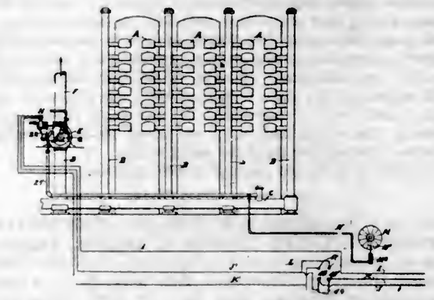
1,138,726. CHIMNEY. MAURICE CARNEY, Chicago, Ill., assignor to Paul Dickinson, Incorporated, Chicago, Ill., a Corporation. Filed Dec. 12, 1913. Serial No. 806,259. (Cl. 108—26.)



1. A chimney comprising a pipe section provided with an integral radially-extending plate forming a pipe support having a downwardly-extending shield, a roof plate for a slope roof provided with an interior opening adapted to receive the chimney pipe and having an upwardly-extending shield on the interior of said pipe support shield, and pivotal connections between the pipe support shield and the roof plate shield comprising diametrically opposed trunnions cast integrally and extending on to the interior of the walls of said pipe support shield, said roof plate being provided with sockets for said trunnions.

2. A chimney comprising a pipe section provided with an integral radially-extending plate forming a pipe support having a downwardly-extending shield, a roof plate for a slope roof provided with an interior opening adapted to receive the chimney pipe and having an upwardly-extending shield on the interior of said pipe shield, and pivotal connections between the pipe support shield and the roof plate shield comprising diametrically opposed trunnions on one of said shields coöperating with sockets on the other of said shields.

1,138,727. PRESSURE CONTROL FOR GAS-BENCHES. HENRY A. CARPENTER and ARTHUR W. WARNER, Sewickley, Pa., assignors to Riter-Conley Manufacturing Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed Dec. 13, 1913. Serial No. 806,413. (Cl. 48—173.)



1. The combination with a plurality of gas retorts, a gas main, and a connection between the gas main and the interior of said retorts, of means for maintaining the pressure in a predetermined retort in substantial equilibrium with the atmospheric pressure adjacent thereto.

2. The combination with a plurality of gas retorts, a main, a conduit connection between the retorts and the main, an exhauster for the main, means for driving the exhauster, and means responsive to variations of pressure in the main for determining the speed of the exhauster, said means including mechanism for establishing substantial equilibrium in pressure between a predetermined retort and the atmosphere.

3. The combination with a plurality of retorts, and a gas main in communication with the retorts, of an exhauster for the main, a governor for automatically controlling the speed of the exhauster under variations in main conditions, and means whereby the speed of the exhauster may be varied independent of variations in main conditions from a point remote from the exhauster.

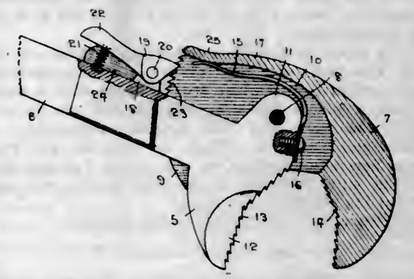
4. The combination with a plurality of retorts, and a gas main in communication with the retorts, of an exhauster for the main, a governor for automatically controlling the speed of the exhauster under variations in main conditions, and means whereby the speed of the exhauster may be varied independent of variations in main conditions from a point remote from the exhauster, said means being operative through the governor.

5. The combination with a plurality of retorts, and a gas main in communication with the retorts, of an exhauster for the main, a governor for automatically controlling the speed of the exhauster under variations in main conditions, and means whereby the speed of the exhauster may be varied independent of variations in main conditions, said means including a shiftable weight.

[Claims 6 to 24 not printed in the Gazette.]

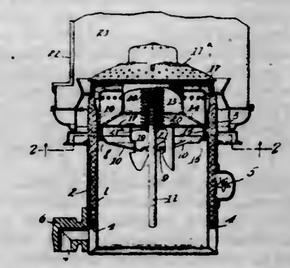
1,138,728. AUTOMATIC ADJUSTING PIPE-WRENCH. LARRY CAVANNA, Fairmont, W. Va. Filed Oct. 23, 1913. Serial No. 796,945. (Cl. 81—99.)

1. A pipe wrench comprising a handle, a fixed jaw formed at the forward end of the handle, a movable jaw pivoted to the fixed jaw having ratchet teeth on its inner end and provided with a seat for the point of the thumb when the handle is clasped in the hand, a spring arranged to normally press the working end of the movable jaw toward the fixed jaw and the thumb seat of said movable jaw away from the handle, and a spring pawl pivoted to the handle and normally engaging the ratchet teeth of movable jaw to prevent the opening of said jaw by its spring, said pawl having its handle end located to receive the root or body of the thumb while the point of the thumb is in engagement with the thumb seat of the movable jaw whereby all of the manual operations necessary for the adjustment and use of the wrench may be performed with one hand.



2. A pipe wrench comprising a handle, a fixed jaw at the forward end thereof projecting in opposite directions therefrom in approximately T form, one of said projections being in the form of a pivot lug, a movable jaw centrally pivoted to said lug and formed with a recess to receive the fixed jaw, the bridge of said recess being formed with a seat to receive the point of the thumb of a hand grasping the handle and the movable jaw having ratchet teeth between the thumb seat and the handle, a leaf spring secured to the pivot lug forward of the pivot, passing around said lug and bearing outwardly against the inside of the bridge of the recess of the movable jaw at the thumb seat to normally press the working face of said movable jaw toward that of the fixed jaw, and a spring pressed pawl pivoted to the wrench handle having its point normally pressed into engagement with the ratchet teeth of the movable jaw to normally hold the jaws from opening, the handle of the pawl being located in position to receive the root or body of the thumb while the point of the thumb is in engagement with the thumb seat of the movable jaw, whereby all of the manual operations necessary for the adjustment and use of the wrench may be performed with one hand.

1,138,729. BURNER. LEE S. CHADWICK, Cleveland, Ohio, assignor to The Cleveland Foundry Company, Cleveland, Ohio, a Corporation of Ohio. Filed October 25, 1913. Serial No. 797,216. (Cl. 158—94.)



1. In a burner, the combination of inner and outer wick tubes, a spreader extending above the upper ends of said tubes and spaced therefrom, a wick within the space between the wick tubes, and means operative by temperature changes for automatically moving the spreader away from the top of the wick tubes.

2. In an oil burner, the combination of inner and outer wick tubes and a wick therebetween, an abutment for the top of the wick, and means, operative by temperature

changes, for automatically moving said abutment away from the top of the wick tubes.

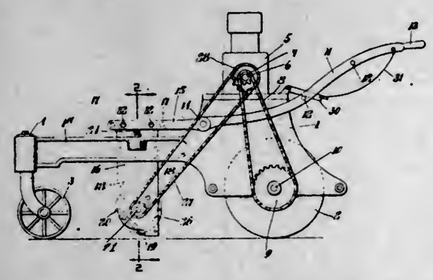
3. In an oil burner, the combination of inner and outer wick tubes and a wick therebetween, an abutment for the top of the wick, and means, operative by temperature changes, for automatically separating the abutment and the wick.

4. In an oil burner, the combination of inner and outer wick tubes and a wick therebetween, an abutment for the top of the wick, and means, operative by temperature changes, for varying the distances between the wick tubes and the abutment.

5. In an oil burner, the combination of inner and outer wick tubes and a wick therebetween, a flame spreader having a surface against which the top of the wick is adapted to abut, a spindle carried by said spreader and projecting within the inner wick tube, a spring surrounding said spindle and tending to elevate the spreader, and fusible means normally retaining the spreader in a predetermined position with reference to the tops of the wick tubes, against the action of said spring.

[Claims 6 to 15 not printed in the Gazette.]

1,138,730. MOTOR LAWN-MOWER. WILLIAM HERBERT COLDWELL, Newburgh, N. Y. Filed July 3, 1914. Serial No. 848,771. (Cl. 56—19.)



1. In a lawn mower, the combination with a main frame, provided with rotary supporting devices and steering handles movably connected to said frame for steering the same, of a separate cutter frame movable vertically with respect to the main frame, and operatively connected with said movable steering handles, and cutting mechanism carried by said separate frame, whereby the cutting mechanism may be elevated to pass an obstacle by said steering handles, without raising any portion of the main frame.

2. In a lawn mower, the combination with a main frame, rotary supporting devices therefor, and rearwardly projecting steering handles pivotally connected to said main frame, of a separate cutter frame movable bodily vertically with respect to the main frame, said cutter frame being connected to said pivotal steering handles, said cutter frame and main frame being provided with co-acting parts for supporting the cutter frame when in its lowermost position at a predetermined distance from the ground.

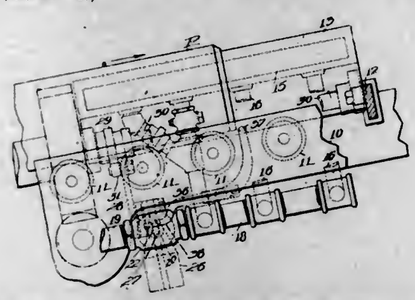
3. In a lawn mower, the combination with a main frame, rotary supporting devices therefor, and rearwardly projecting steering handles pivotally connected to said main frame, of a separate cutter frame movable bodily vertically with respect to the main frame, said cutter frame being connected to said pivoted steering handles, said cutter frame being provided with parts for engaging parts connected with the main frame to support the cutter frame upon the main frame when in its lowermost position, the parts connected with one of said frames being adjustable to vary the height of cut.

4. In a lawn mower, the combination with a main frame, rotary supporting devices therefor, and rearwardly projecting steering handles pivotally connected to said main frame, of a separate cutter frame movable bodily vertically with respect to the main frame, said cutter frame being connected to said pivoted steering handles, vertically adjustable supporting devices on the main frame, and devices connected with the cutter frame adapted to engage and rest upon said adjustable devices to support the cutter frame when in its lowermost position and regulate the height of the cut.

5. In a lawn mower, the combination with a main frame, rotary supporting devices therefor, and steering handles pivotally connected with the main frame and having rearwardly extending portions, said steering handles having portions extending forwardly on their pivotal connections, of a demountable cutter unit comprising a stationary knife, a rotary cutter and a frame separate from the main frame, and provided with means for holding the rotary cutter and stationary knife in operative relation, said cutter unit being detachably secured to the forwardly extending portions of the steering handles, and means for limiting the movement of said cutter unit downwardly with respect to the main frame, whereby the weight of the cutter unit will be supported by the main frame, and whereby the cutter unit may be raised by the steering handles without elevating the main frame.

[Claims 6 to 14 not printed in the Gazette.]

1,138,731. MACHINE FOR COOLING STEREOTYPE PRINTING-PLATES. EDWARD C. COLLINS, Taunton, Mass., assignor, by mesne assignments, to Wood Newspaper Machinery Corporation, New York, N. Y., a Corporation of Virginia. Filed Sept. 17, 1909, Serial No. 518,178. Renewed Oct. 1, 1913. Serial No. 792,874. (Cl. 22—4.)



1. In a device of the character described, the combination of a valve adapted to control the flow of a fluid, said valve having a stem, resilient means for normally opening said valve, means for guiding a stereotype printing plate along a path, and a latch having one end located in the path of the printing plate, the other end of said lever being in position to engage said stem and hold the valve closed except when the printing plate is in engagement with the latch.

2. In a device of the class described, the combination of a valve for controlling the flow of a cooling fluid, means for normally opening the valve, means for guiding a stereotype printing plate along a path, and independent means adapted to be operated by the printing plate for positively holding said valve closed except when the printing plate is in position to engage said independent means.

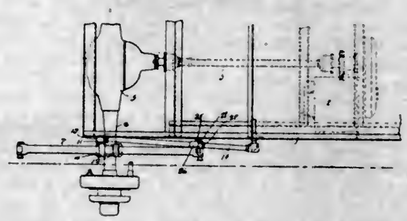
3. In a device of the character described, the combination of a valve for controlling the flow of a cooling fluid, means for normally opening said valve, a latch adapted to move by gravity into a position to prevent the opening of the valve, and means for guiding a stereotype printing plate into a position to engage the latch and move it away from the position in which it holds the valve closed.

4. In a device of the character described, the combination of a valve for controlling the flow of a cooling fluid, means for normally opening said valve, a latch adapted to move into a position to prevent the opening of the valve, means for guiding a stereotype printing plate into a position to engage the latch and move it away from the position in which it holds the valve closed, a shaft, and means connected with said shaft for closing the valve at a predetermined time.

5. In a device of the character described, the combination of a valve for controlling the flow of a cooling fluid, means for normally opening said valve, a shaft, means operated by said shaft for positively closing the valve for a certain interval during the rotation of the shaft, means for locking said valve in closed position, and means for guiding a stereotype plate along a path into a position to engage said locking means and render it inoperative while the plate is in a certain position.

[Claims 6 to 10 not printed in the Gazette.]

1,138,732. AUTOMOBILE RUNNING-GEAR. DE WITT C. COOKINGHAM and JOHN H. HERTNER, Cleveland, Ohio, assignors to The Rauch and Lang Carriage Company, Cleveland, Ohio, a Corporation of Ohio. Filed Oct. 3, 1911. Serial No. 652,561. (Cl. 21—90.)



1. In a vehicle, the combination of the vehicle frame; a wheel axle; a housing for said axle; an elliptic spring supporting said frame upon said housing; a member connected with said housing and with said frame at a point spaced from the point of connection of said spring thereto, said member being thus connected with said frame by a ball and socket joint; and a linked connection between one end of said spring and said member.

2. In a vehicle, the combination of the vehicle frame; a wheel axle; a housing for said axle; an elliptic spring supporting said frame upon said housing; a member connected with said housing and with said frame at a point spaced from the point of connection of said spring thereto, said member being thus connected with said frame and housing by ball and socket joints; and a linked connection between one end of said spring and said member.

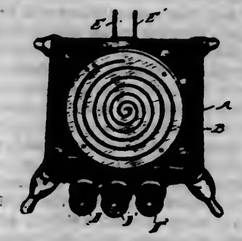
3. In a vehicle, the combination of the vehicle frame; a wheel axle; an elliptic spring supporting said frame upon said housing; a rigid member connected at one end with said housing; a link connecting the other end of said member with said frame at a point spaced from the point of attachment of said spring to said frame; and a link connecting one end of said spring to said member, said link including a yoke pivotally secured to said member about a transverse axis, and an eye-bolt adjustably threaded in said yoke at one end and secured to the spring bolt at its other.

4. In a vehicle, the combination of the vehicle frame; a wheel axle; a housing for said axle; an elliptic spring supporting said frame upon said housing; a rigid member connected at one end with said housing by a ball and socket joint; a link connecting the other end of said member with said frame at a point spaced from the point of attachment of said spring to said frame, said link being thus connected by a ball and socket joint with both said member and frame; and a link connecting one end of said spring to said member.

5. In a vehicle, the combination of the vehicle frame; a wheel axle; a housing for said axle; an elliptic spring supporting said frame upon said housing; a rigid member connected at one end with said housing at a point to the rear of said axle and at its other end to said frame at a point in front of the point of attachment of said spring to said frame; and a connection between the forward end of said spring and said member.

[Claims 6 to 15 not printed in the Gazette.]

1,138,733. ELECTRICAL HEATING UNIT. LLOYD GROFF COPEMAN, Flint, Mich., assignor to Copeman Electric Stove Company, Flint, Mich., a Corporation of Michigan. Filed Jan. 23, 1914. Serial No. 813,934. (Cl. 219—37.)



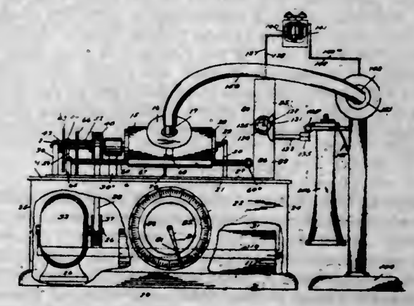
1. An electrical heating unit, comprising an electrical insulating, heat-distributing body having a groove in one face thereof, separate overhanging projections extending from the sides of said groove, and a coiled resistor within said groove and engageable with said overhanging projections.

2. An electrical heating unit, comprising an electrical insulating, heat-distributing body having a groove in one face thereof, inwardly-projecting lugs arranged at intervals along said groove, and a coiled resistor within said groove and engageable with said lugs.

3. An electrical heating unit, comprising an electrical insulating, heat-distributing body having a spiral groove in one face thereof, overhanging projections extending from the sides of said groove in a radial line from the center of said body, and a coiled resistor wound spirally within said groove and engageable with said overhanging projections.

4. An electrical heating unit, comprising an electrical insulating, heat-distributing body having a spiral groove in one face thereof, inwardly-projecting lugs arranged at intervals along said groove, a resistor wound spirally within said groove and engaging said lugs, said resistor being divided into a plurality of sections concentric with and surrounding one another, and means for closing circuit alternatively through said sections.

1,138,734. AUTOMATIC TELEPHONE RESPONDING APPARATUS. EDWARD J. CRESSEY, Wichita, Kans. Filed Oct. 14, 1913. Serial No. 795,099. (Cl. 179—6.)



1. In a combined phonograph instrument and telephone, a signal circuit, and an electro-magnet and armature in the signal circuit, a motor actuating the phonograph, and motor circuit-closing mechanism acting to prolong the closing of the armature in the one closing of the signal circuit.

2. In combined phonograph and telephone instruments, a signal circuit from the telephone circuit, and an electrically energized motor actuating the phonograph in an electric circuit, a circuit closer controlling the motor circuit, an electro-magnet, and an armature controlled by the signal circuit of the telephone controlling the closing of the motor circuit, and mechanism controlled

by the phonograph acting to prolong the closing of the motor circuit in a single closing of the signal.

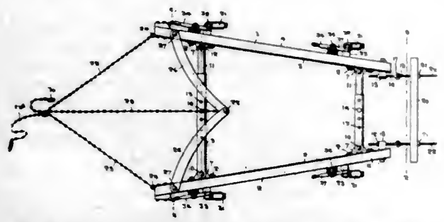
3. In combined phonograph and telephone instruments, a signal circuit from the telephone circuit, an electro-magnet and armature controlled by the signal circuit, a motor in a motor circuit, and a circuit closer, an electro-magnet, and a bell in an electro-magnet circuit, and a circuit closer, a revoluble time controller actuated by the phonograph and controlled in its movements by the closing of the signal circuit and acting to close the circuit closer to the electro-magnet bell circuit of the phonograph.

4. In combined phonograph and telephone instruments, a signal circuit in the telephone circuit, an electro-magnet circuit for the phonograph in electric connection with the signal circuit, a motor in a motor circuit, and a circuit closer, a revoluble time-controlled disk actuated by the motor, and an armature controlling the closing of the circuit closer of the motor-circuit, which is operated by the signal circuit and releasably connected with the revoluble disk.

5. A combined telephone and phonographic sound-producing apparatus, consisting of a phonograph, and a telephone electrically operated means on the phonograph for imparting movement thereto, and electrically-controlled apparatus in the signal circuit of the telephone acting to hold the circuit closed and which is continuously operated in the closing of the signal circuit, until a complete repetition of the record response has been made to the last telephone circuit closing call.

[Claims 6 to 23 not printed in the Gazette.]

1,138,735. ROAD-DRAG. HARVEY MORRIS DAVIS, Kinmundy, Ill. Filed July 3, 1914. Serial No. 848,824. (Cl. 37—5.)



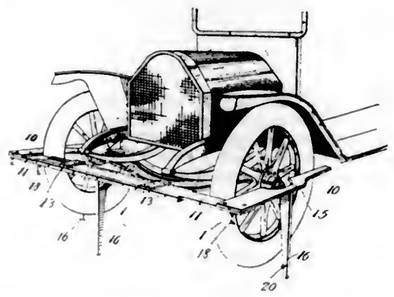
A road drag comprising two side bars, longitudinally adjustable transverse connections, a pair of horizontal inwardly projecting bars pivoted to the front ends of the side bars and inclining backwardly, a pivot pin connecting the inner rear end of said pivoted bars, a chain connecting the front ends of the side bars, a hook chain adjustable on the connecting chain, and a hook chain secured at its rear end to the connecting pivot pin of the pivoted bars and adapted to be extended forward, crossing the connecting chain for connection with the engine or other puller.

1,138,736. TRAMMEL-GAGE FOR VEHICLE-WHEELS. CHARLES C. DEDREUX, Cleveland, Ohio. Filed Oct. 21, 1914. Serial No. 867,711. (Cl. 33—203.)

1. A gage for truing up vehicle wheels comprising a pair of spaced parallel arms adapted to engage the faces of opposite wheels of the vehicle, the length of the arms being greater than the diameter of said wheels, a common base for said arms, said arms being arranged for adjustment toward and from each other, and means for supporting said arms in a horizontal position substantially midway of the height of the wheels.

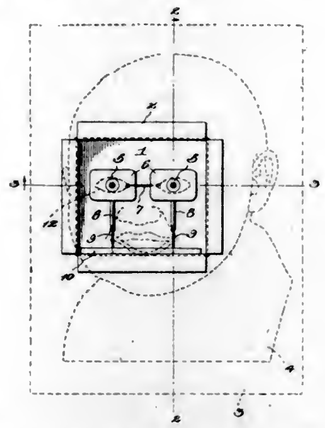
2. A gage for truing up vehicle wheels comprising a pair of spaced parallel arms adapted to engage the face of opposite wheels of the vehicle, the length of the arms being greater than the diameter of said wheels, and the inner edges of said arms being notched, and a common base for said arms, said arms being arranged for adjustment toward and from each other.

3. A gage for truing up vehicle wheels comprising a pair of spaced parallel arms adapted to engage the face of opposite wheels of the vehicle, the length of the arms being greater than the diameter of said wheels, a base member rigidly attached to each arm and extending perpendicularly thereto, means securing said base members together in longitudinally adjustable relation, and means for supporting said arms in horizontal position midway of the height of the wheels.



4. A gage for truing up vehicle wheels comprising a pair of spaced parallel arms adapted to engage the face of opposite wheels of the vehicle, the length of the arms being greater than the diameter of the wheels, a common base for said arms, said arms being arranged for adjustment toward and from each other, and legs attached to said arms and base and adapted to support the same horizontally.

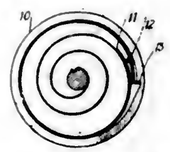
1,138,737. ADVERTISING DEVICE. RUPERT FRED. DUNHAM, Bridgeport, Conn. Filed May 6, 1914. Serial No. 836,803. (Cl. 46—40.)



1. In an advertising device, an eye carrier, a stiff rigid thick stem engaged at one end with the carrier, and a thin flexible element disposed below and rigidly connected at its upper end to the stem and at its opposite end being connected to a relatively stationary point whereby the spring supports the stem.

2. A device of the character described comprising a support bearing a representation, openings in the support, a movable member mounted in the rear of said support bearing a complemental representation showing through the said openings, flexible spring elements secured to the rear of the support and carrying the movable member at the upper ends thereof and weighting means connected to the movable member arranged above the points of support of the flexible spring elements.

1,138,738. SPRING. CHARLES I. EARLL, New York, N. Y. Filed Dec. 26, 1913. Serial No. 808,695. (Cl. 185—45.)



1. A coiled spring having its outer end folded or turned back upon the adjacent portion and an outwardly projecting hook formed at the junction of the folded portion and said adjacent portion.

2. A flat spiral coiled spring having an outer end portion folded or turned back upon the inside of the adjacent portion and an outwardly extending hook or engaging projection at the junction of said portions.

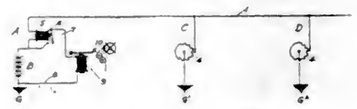
3. A flat coiled spring having an outer end portion folded or turned back upon the inside of the adjacent portion and an engaging projection formed at the junction of said portions by an outward bend at said junction.

4. The combination with a member having an annular recess provided with an inwardly extending projection in its periphery, of a spring in said recess having an outer end portion folded or turned back upon the adjacent portion and a hook formed at the junction of said portions adapted to engage the projection in said recess.

5. The combination with a member having an annular recess provided with an inwardly extending projection in its periphery, of a spring in said recess having an outer end portion folded or turned back upon the adjacent portion and a hook formed at the junction of said portions, said outer end portion being of a length sufficient to press said hook outwardly against the inner periphery of said recess.

[Claims 6 and 7 not printed in the Gazette.]

1,138,739. COMPOSITE ELECTRIC SYSTEM. RICHARD MAX EATON, Niagara Falls, N. Y., assignor, by mesne assignments, to The Garford Manufacturing Company, Elyria, Ohio, a Corporation of Ohio. Filed Apr. 15, 1909. Serial No. 490,100. (Cl. 179—5.)



1. In a composite system consisting of a combined police and telephone system, the combination of a main station, a plurality of substations, telephone talking sets at substations operating over said system, a single pair of conductors connecting all of the talking sets of said stations, lamp signals at said substations and self-restoring means at the substations connected to the conductors independently of the talking sets' connections controlling said lamp, said means being adapted to be simultaneously controlled by the attendant at the main station over said pair of conductors.

2. In a composite system, the combination of a main station, a plurality of substations, a pair of conductors connecting said stations, telephone sets at the substations connected to the conductors, a normally non-luminous signal at each substation controlled over said conductors, self-restoring means connected to the conductors at the substations independently of the telephone sets and means at the main station for simultaneously operating the self-restoring means at the substations.

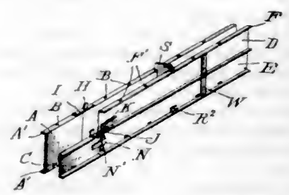
3. In a composite electric system, a central station, substations, metallic conductors connecting the central and substations, telephone sets at the substations and means to bridge said telephone sets across said metallic conductors, a self-restoring signal controlling means at each substation connected to said metallic conductors independently of the telephone sets, said signal restoring means being impervious to telephone currents, a signal at each station controlled by the signal controlling means thereat, and when actuated visible from a plurality of quarters, and mechanism for simultaneously operating said signal controlling means from the central station.

4. In a composite system, the combination of a main station, a plurality of substations, a pair of metallic conductors connecting said stations, a telephone set at each substation, a bridge at each substation between the metallic conductors in which the substation thereat is connected, a lamp signal at each substation, a self-restoring relay at each substation controlling the lamp thereat and connected to the conductors independently of the telephone sets and mechanism at the main station for controlling the simultaneous actuation and retirement of said lamp controlling means at the substations.

5. In a composite system, the combination of a main station and a plurality of substations, a pair of conductors connecting said stations, a telephone set at each substation connected to said conductors, a lamp signal at each substation, means to supply current to said lamp signals, self-restoring means at the substations controlling said lamp signals, said lamp signal controlling means being connected to said conductors independently of the talking sets, mechanism at the main station for causing the simultaneous actuation of the lamp signal controlling means at the various stations and means controlled at the main station for permitting a simultaneous self-restoring actuation of said signal controlling means.

[Claims 6 and 7 not printed in the Gazette.]

1,138,740. FORM FOR MAKING CURBS. FRANKLIN W. ESCHEN, New York, N. Y. Filed July 13, 1914. Serial No. 850,726. (Cl. 25—118.)

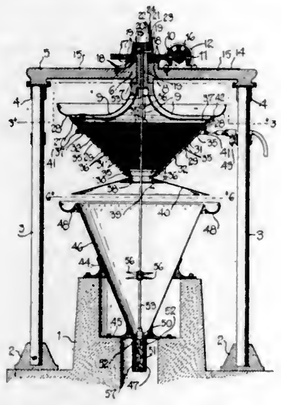


1. A form or mold for making curbs consisting of a plate having slotted flanges upon its opposite edges and forming one wall of the mold, superimposed flanged plates and means for securing the same together and forming the opposite wall of the mold, the flanges of the upper of said plates being slotted, and slots formed in the walls of the oppositely disposed plates, division plates having upon their opposite edges lugs parallel with the length thereof adjacent to the top and bottom of the plate and adapted to engage slots in the flanges of the plates, key plates having lugs passing through slots in the wall plate and slotted for the reception of the lugs upon the division plate.

2. A form or mold for making curbs consisting of a plate having slotted flanges upon its opposite edges and forming one wall of the mold, superimposed flanged plates and means for securing the same together and forming the opposite wall of the mold, the flanges of the upper of said plates being slotted, slots formed in the walls of the oppositely disposed plates, division plates having upon their opposite edges lugs parallel with the length thereof adjacent to the top and bottom of the plate and adapted to engage slots in the flanges of the plates, key plates having lugs passing through slots in the wall plate and slotted for the reception of the lugs upon the division plate, locking plates secured to the flanges of the under of the side channel plates and overlapping the end of the flange of an adjacent plate, the overlapping portion of

the locking plate being slotted, a key passing through registering slots in the locking plate and flange, a lug projecting from each locking plate, and a strap engaged by the lug.

1,138,741. SEPARATOR. GEORGE ALLEN FOWLER, Miami, Ariz., assignor to Crown Mill Equipment Company, Phoenix, Ariz., a Corporation of Arizona. Filed June 10, 1914. Serial No. 844,335. (Cl. 83—82.)



1. A device of the character described comprising a collecting tank provided with an outlet, a revolving valve for controlling the flow through the outlet, and means under control of the matter collected within the tank for opening the valve.

2. A device of the character described comprising a collecting tank provided with an outlet, a revolving valve for controlling the flow through the outlet, means under control of the matter collected within the tank for opening the valve, and a spiral tail carried by the valve disposed within the outlet.

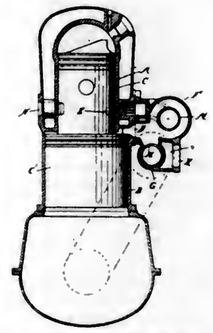
3. A device of the character described comprising a collecting tank provided with an outlet, a revolving valve for controlling the flow through the outlet, means under control of the matter collected within the tank for opening the valve, and means for limiting the movement of the valve away from the outlet.

4. A device of the character described comprising a rotatable screening element, a collecting tank disposed below the screening element and provided with an outlet opening, a rotatable valve for controlling the discharge through the outlet opening, an operative connection between the valve and the screening element whereby the same will be caused to rotate in unison, and a lifting medium coacting with the valve and operable by material accumulating in the tank during the rotation of said valve.

1,138,742. MULTICYLINDER TWO-CYCLE ENGINE. ERNEST R. FRIED, Detroit, Mich., assignor to General Motors Company, Detroit, Mich., a Corporation of New Jersey. Filed Mar. 19, 1912. Serial No. 684,783. (Cl. 123—59.)

1. In a multi-cylinder explosion engine, the combination with a plurality of power cylinders having an alined pump cylinder for each power cylinder, of valveless conduits connecting each pump cylinder with an unalined power cylinder, a rotary valve for controlling the admission of the gaseous charges to the respective pump cylinders, and a casing for said valve integral with said connecting conduits for the pump and power cylinders.

2. In a multi-cylinder explosion engine, the combination with a plurality of power cylinders each having an alined pump cylinder, of a rotary valve controlling the admission of the charges successively to said pump cylinders, a casing for said valve, and conduits formed in said casing for connecting each pump cylinder uninterruptedly with an unalined power cylinder.



3. In a multi-cylinder explosive engine, the combination with a plurality of power cylinders each having an alined pump cylinder, of a hollow rotary valve controlling communication between the interior thereof and said pump cylinders successively, and a valve casing having a gas inlet passage communicating with the interior of said hollow valve at a point intermediate the pump cylinder ports, said casing having also formed therein, uninterrupted valveless connecting conduits between each of the pump cylinders, and an unalined power cylinder.

4. In a multi-cylinder explosion engine, the combination with a plurality of power cylinders cast en bloc and alined pump cylinders, of a hollow rotary valve for controlling the successive admission of gaseous charges to the pump cylinders, and a casing for said valve detachably connected to said cylinders having formed therein a gas inlet passage communicating with the interior of said hollow valve, and a plurality of uninterrupted valveless passages, one for connecting each pump cylinder with an unalined power cylinder, said passages being distinct and unconnected with each other.

5. In a multi-cylinder explosion engine, the combination with a plurality of power cylinders each having an alined pump cylinder, of a valve controlling the admission of the charges successively to said pump cylinders, a casing for said valve provided with a conduit extending between a pump cylinder and an unalined power cylinder, and independent passages for connecting the other pairs of unalined pump and power cylinders, said passages surrounding said conduit.

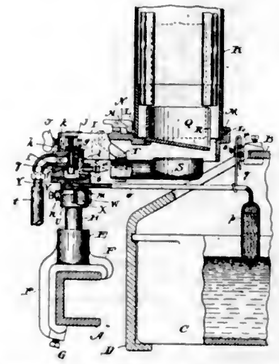
[Claim 6 not printed in the Gazette.]

1,138,743. DEVICE FOR MAINTAINING A CONSTANT SUPPLY OF MELTED MATERIAL IN A RESERVOIR. ALBERT A. FROEHLICH, Toledo, Ohio. Filed June 29, 1912. Serial No. 706,594. (Cl. 22—80.)

1. The combination with a reservoir adapted to hold melted material, of a crucible adapted to contain said material in solid form, a device for melting the metal in said crucible, means for controlling the functioning of said heating device, a thermostatic device coöperating with the metal within said reservoir and adapted to be contacted by the material therein, and operative connections between the thermostatic device and the controlling means for the heating device.

2. The combination with a reservoir adapted to hold melted material, of a crucible adapted to contain said material in a solid form, a device for melting the metal in said crucible, means for regulating the functioning of said heating device, a closed receptacle adapted to contain a readily expensible and contractible fluid substance, a portion of said receptacle being adapted to be contacted by the material within the reservoir, one end of said receptacle being closed by a movable member, the said movable member and the controlling means for the heating device being adapted to coöperate to regulate the functioning of the heating device.

3. The combination with a reservoir adapted to hold melted material, of a crucible adapted to contain said material in solid form, a burner for effecting the melting of the metal in said crucible, means for supplying a combustible to said burner, a thermostatic device coöperating with the metal within said reservoir and adapted to be contacted by the material therein, and operative connections between the thermostatic device and means for supplying combustible fluid for controlling the functioning of the burner.



4. The combination with a reservoir adapted to hold melted material, of a crucible adapted to contain said material in solid form, a burner adapted to effect the melting of the metal in said crucible, means for supplying a combustible fluid to said burner, a movable member controlling the passage of fluid to said burner, a thermostatic device coöperating with the metal within said reservoir and adapted to be contacted by the material therein, said movable member being controlled by said thermostatic device.

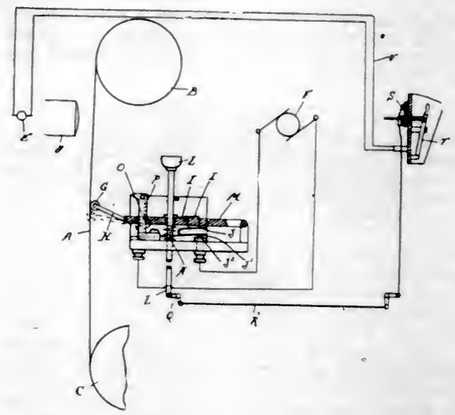
5. The combination with a reservoir adapted to hold melted material, of a crucible adapted to contain said material in solid form, a burner adapted to effect the melting of the metal in said crucible, a conduit through which a combustible fluid is supplied to said burner, a flexible diaphragm controlling the passage of said fluid through said conduit, a thermostatic device including a closed receptacle having a portion thereof adapted to be contacted by the material within the reservoir, said receptacle being adapted to contain a readily expansible and contractible fluid substance, the said fluid substance within the thermostatic device operating upon the flexible diaphragm to control the movement thereof.

[Claims 6 to 18 not printed in the Gazette.]

1,138,744. DEVICE FOR AUTOMATICALLY CONTROLLING MOVING-PICTURE MACHINES. BENJAMIN GARROS, Detroit, Mich., assignor of twenty-five one-hundredths to Charles E. Allinger, twenty-five one-hundredths to Charles A. Strelinger, twenty-five one-hundredths to Charles T. Bush, and twenty-five one-hundredths to Major E. Jones, Detroit, Mich. Filed Oct. 26, 1914. Serial No. 868,682. (Cl. 88—17.)

1. The combination with a traveling film, an electric motor for operating the same and a switch controlling said motor, of an idler pulley bearing against said film in its normally operative position, a rock-arm on which said idler pulley is mounted, and mechanism mechanically connected to said rock-arm for operating said electric switch when said pulley is released by the discontinuance of the film.

2. The combination with a traveling film, a motor for actuating the same and a source of light, of a controlling mechanism comprising an idler pulley bearing against said film in its normally operative position, a rock-arm on which said pulley is journaled, a second rock-arm connected to said first-mentioned rock-arm for closing the motor switch in the normal position of parts, mechanism for automatically opening the electric switch for the light, a latch for restraining said mechanism from operation, and a trip actuated by said first-mentioned rock-arm upon the discontinuance of the film and release of the pulley for releasing said latch.

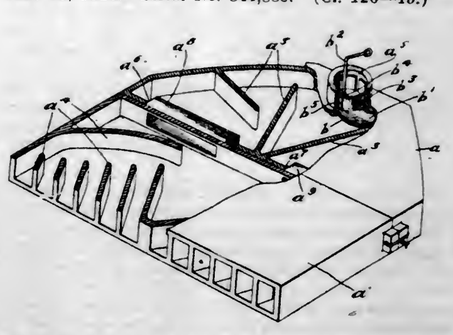


3. The combination with a traveling film and a motor for actuating the same, of a light adjacent to said film, a rock-arm restrained by said film when in normal operative position, a means connected to said rock-arm for controlling said motor, and a separate means connected to said rock-arm for controlling said light, each of said controlling means automatically operating upon the release of said rock-arm by the discontinuance of the film to respectively stop the motor and light.

4. The combination with a traveling film and a motor for actuating the same, of a controlling mechanism comprising an idler pulley bearing against said film in its normally operative position, a rock-arm on which said pulley is journaled, and a second rock-arm upon said first-mentioned rock-arm for closing the motor switch in the normal position of parts, said second rock-arm permitting the motor switch to open upon the discontinuance of the film.

5. The combination with a traveling film, of a motor for actuating the same, an arm restrained by said film when in normally operative position, a switch, and a member on said arm for normally maintaining said switch closed, said arm automatically operating said member upon the discontinuance of said film to open said switch.

1,138,745. ADJUSTABLE HEAT AND FUEL ECONOMIZER. MANLY M. GILLAM, Flushing, N. Y. Filed June 13, 1914. Serial No. 844,885. (Cl. 126—15.)



1. An adjustable heat and fuel economizer, comprising intake and discharge sections removably fitted to each

other and each provided with baffling-means and a damper arranged about the inlet of said intake-section having actuating means mounted in and contouring with said inlet and operable from one side of said intake-section.

2. An adjustable heat and fuel economizer, comprising an intake-section, a divided discharge-section removably fitting the intake-section, a damper arranged about the inlet of the intake section, spring acting means mounted in and contouring with said inlet for positioning said damper and a rod for sliding the same and operable from one side of said intake-section.

1,138,746. BRUSH OR COLLECTOR FOR ELECTRICAL MACHINES. EUGÈNE GINDRE, Paris, France, assignor to Societe Anonyme le Carbone, Levallois-Perret, near Paris, France. Filed July 25, 1913. Serial No. 781,054. (Cl. 171—210.)

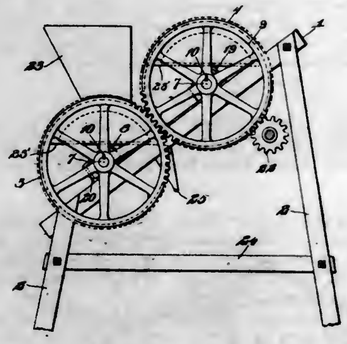


1. In a brush or collector for electrical machines, a yoke comprising end portions, a central portion and corrugations on the said central portion formed normal to the surface of the said central portion and located at the junction thereof with the end portions.

2. In a brush or collector for electrical machines, a saddle piece comprising end portions and a central portion, corrugations on the said central portion formed normal to the surface of the said central portion and located at the junction thereof with the end portions and a socket for receiving and securing the electrical conductor.

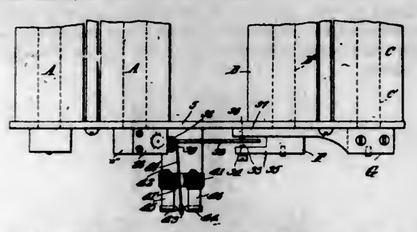
3. In a brush or collector for electrical machines, a saddle piece comprising end portions and a central portion, ribs on the said central portion formed normal to the surface of the said central portion and located at the junction thereof with the end portions, a socket for receiving and securing the electrical conductor and means for securing the saddle piece to the brush or collector.

1,138,747. CEREAL FORMER AND TOASTER. ORIEL M. GRAVES, Odessa, Wash., assignor to Western Cereal Company, a Corporation. Filed June 13, 1913. Serial No. 773,576. (Cl. 107—2.)



A combined cereal crimping and cooking machine including a frame having an inclined upper surface, bearing strips secured upon said surface, an adjustable and a non-adjustable bearing block mounted in each of the strips, rolls mounted in said bearing blocks, said rolls having their peripheries formed with a series of ribs that intermesh with each other, one of said rolls being adjustably mounted so as to vary the distance between said ribs, burners supported by said rolls for heating the latter, and a hopper arranged above said rolls.

1,138,748. TRACK-RELAY FOR SIGNAL SYSTEMS. GARDNER B. GRAY, Pittsburgh, Pa., assignor, by mesne assignments, to Automatic Train Control & Signal Company, Pittsburgh, Pa., a Corporation of Delaware. Filed Sept. 1, 1911. Serial No. 647,278. (Cl. 175—327.)



1. The combination of two magnets, a metal block connected to one of the poles of one of said magnets, an armature pivoted in said block and having its free end extended toward the poles of the other of said magnets, a metal block carried by each of the poles of the second magnet, terminals formed on each of said blocks and disposed side by side in spaced relation to provide a space for the reception of the free end of the armature, a plurality of depending contact arms carried by and insulated from the armature, a block of insulation through which said contact arms project and within which they are permitted to oscillate, and a plurality of contact points carried by and projecting below the block of insulation and in the path to be engaged by the contact arms, the change of polarity of the poles of said second magnet actuating the armature to cause it to move toward one or the other of said terminals and consequently actuate the contact arms to engage either set of contact points.

2. The combination of a supporting member, an armature carried on said supporting member, electromagnetic means on the support for influencing said armature and adapted to move the same in opposite directions, a plate extending from said supporting member, an insulating block secured to said plate and having a slot therein, sets of contact points mounted to the outer face of said block on opposite sides of the slot therein, contact arms secured to said armature and insulated therefrom and extended through said slot to engage with certain sets of contact points to close certain circuits according to the movement of said armature.

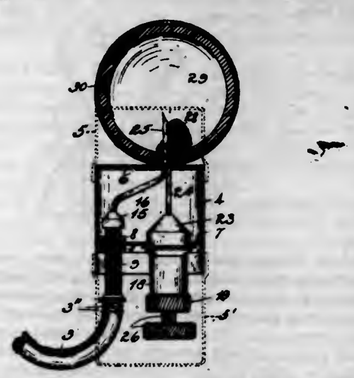
3. The combination of relays having the coils of each arranged side by side, an armature having an end pivoted to one of the poles of one of said relays and being polarized thereby, arms extended from the poles of the other of said relays in spaced relation, the free end of said armature being extended between said extended arms and being adapted to be influenced by the polarity of the current therethrough so as to move therebetween, contact points arranged in spaced relation with said armature, and contact arms secured to the armature and insulated therefrom and to engage with certain of said contact points according to the movement of the armature.

1,138,749. BALL INFLATER AND SEALER. ALLEN AYRAULT GREEN, Galesburg, Ill., assignor of one-half to Harold M. Holland, Galesburg, Ill. Filed Mar. 31, 1914. Serial No. 828,529. (Cl. 18—1.)

1. In a device of the character described, an air-tube, a spring-actuated air-inlet valve associated therewith, an air-pump in communication with said valve, a cement nozzle having its outlet adjacent that of the air-tube, and a cement-injector for forcing cement through said nozzle.

2. In a device of the character described, an air-tube, a source of air-supply, a check-valve intermediate said elements, a cement-nozzle having its discharge end adjacent the discharge end of the air tube, and means for forcing cement through said nozzle.

3. In a device of the character described, an air-tube, a source of air supply, a check-valve and a check-valve-return-spring intermediate said elements, a cement-nozzle having its discharge end adjacent the discharge end of the air-tube, and means for forcing cement through said cement-nozzle.

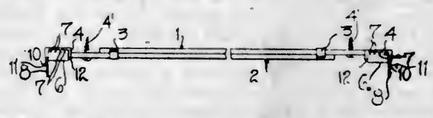


4. In a device of the character described, an air-discharge tube, means for forcing air therethrough, means whereby its return is prevented, and a cement-discharge tube having its discharge end adjacent the outlet of the air-tube.

5. In a device of the character described, an air-discharge tube, means for forcing air therethrough, means whereby its return is prevented, and a cement-discharge tube having its outlet adjacent that of the air-tube but not extended to as great a distance as is the latter.

[Claims 6 to 8 not printed in the Gazette.]

1,138,750. SUPPORTING-BRACKET. CHARLES H. GREENWOOD, Slatington, Pa. Filed Dec. 30, 1914. Serial No. 879,745. (Cl. 156—23.)



1. A supporting element including relatively adjustable bars, blocks carried by the outer ends of said bars, U-shaped keepers arranged over the blocks and having their ends secured to the side thereof, brackets having outstanding flanges formed thereon and adapted to be arranged between the medial portion of each U-shaped keeper and the block, and a removable retaining plate adapted to be disposed between the flange of the bracket and the block, whereby to clamp said bracket in position.

2. A supporting element including relatively adjustable bars, blocks each having a groove formed in one face thereof adapted to receive the outer end of each of the movable bars, U-shaped keepers arranged over the blocks and having their ends secured to the sides thereof, brackets provided with flanges adapted to be disposed between the intermediate portions of the keepers and the blocks, retaining plates disposed between the flanges of the brackets and the blocks, and a rib formed in each of the retaining plates at the inner edge thereof for engagement with the edge of the U-shaped keepers, as and for the purpose set forth.

3. A supporting element including relatively movable bars, blocks carried by the outer ends thereof, keepers carried by said blocks, brackets having inwardly extending flanges formed thereon, and adapted to be removably arranged between the keepers and the blocks, retaining plates removably arranged between the blocks and the flanges on the brackets, outstanding flanges formed on the retaining plates, and ribs carried by the retaining plates for engagement with one edge of the keepers.

4. A curtain support comprising a transversely extending member, keeper plates at the ends of the member, each attached at its upper and lower ends to the member and spaced from the face thereof to receive the base flange of a shade bracket, and clamping plates each insertible between the corresponding keeper and the base flange of the bracket and locking the bracket in place.

1,138,751. APPARATUS AND PROCESS FOR DRYING. WILLIAM M. GROSVENOR, Grantwood, N. J. Filed Apr. 9, 1909. Serial No. 488,981. (Cl. 34—47.)



1. In an improved process for drying glue and similar materials, cooling and purifying the drying medium, heating the cooled and purified drying medium, subjecting the material to the heated drying medium at a relatively low pressure and then subjecting the material to the drying medium at a materially increased pressure.

2. In an improved process for drying glue and similar materials susceptible of being injured or contaminated by suspended matter in the drying medium, said process consisting in circulating the drying medium in a cycle closed upon itself and in a suitable inclosure, introducing the material into the drying medium at one point in said cycle, purifying the drying medium by refrigeration at one point in said cycle where any air admitted to the cycle will be purified before it engages the material, and removing the material at still another point in said cycle where the pressure is greater than atmosphere to prevent the ingress of unpurified air.

3. In an improved process of drying glue and similar materials susceptible of being injured or contaminated by suspended matter in the drying medium, said process consisting in circulating the drying material in a cycle closed upon itself and in a suitable inclosure, purifying it by refrigeration, compression and impingement against moist surfaces at substantially its highest pressure at one point in said cycle and where any air admitted to the cycle will be purified, introducing the material into the drying medium, and removing the material at a point in the cycle where the pressure is greater than atmospheric, to prevent the ingress of unpurified air.

4. In an improved process for drying glue and similar materials liable to melt, first subjecting the glue or similar material to a current of drying medium passing in an upward direction through the glue or similar material to initially dry the under surface of the glue and then further subjecting the glue or similar material to drying operations.

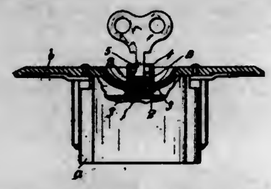
5. In an improved process for drying glue and similar materials liable to melt, subjecting the glue or similar material to a current of a relatively cool and humid drying medium at a pressure less than atmospheric, passing in an upward direction against the lower surface of the glue or similar material to form a skin on said lower surface, and then subjecting the glue to substantially horizontal currents of drying medium at relatively increased temperatures, and decreased humidity and at materially relatively increased pressures.

[Claims 6 to 18 not printed in the Gazette.]

1,138,752. KEY-OPERATED ROTARY SWITCH. MONROE GUETT, Hartford, Conn., assignor to The Hart & Hegeman Manufacturing Company, Hartford, Conn., a Corporation of Connecticut. Filed Jan. 16, 1912. Serial No. 671,437. (Cl. 175—289.)

1. In an electric switch of the rotary type, an operating spindle, a notched operating sleeve threaded thereon, a face plate having a thimble part overlying said sleeve and constituting a stop to prevent its disengagement from

said spindle, said face plate having a key-receiving aperture with lateral slots in alinement with the notches of said operating sleeve.



2. The combination with an electric switch of the rotary type having a spindle, a receptacle in which the switch mechanism is mounted and a face plate adapted to be secured in position to overlie the mouth of said receptacle, a thimble carried by said face plate, an operating sleeve secured to the switch spindle and located underneath said face plate, and concealed by said thimble, peripheral notches in the top of said sleeve, and a key-way through said thimble in alinement with said sleeve having a central aperture to receive a rotatable key shank, and lateral slots in alinement with the peripheral notches in the operating sleeve and means for preventing the disengagement of said sleeve and spindle.

3. The combination with an electric switch of the rotary type having a spindle, a receptacle in which the switch mechanism is mounted and a face plate adapted to be secured in position to overlie the mouth of said receptacle, of an operating sleeve removably secured to the switch spindle and located underneath said face plate, peripheral notches in the top of said sleeve, a thimble concentric with said spindle and sleeve and having its open end permanently secured in an aperture in the face plate, and a key way through the end of said thimble comprising a central aperture to receive a rotatable key shank and lateral slots in alinement with the notches in said operating sleeve, the distance between the top of said spindle and the outer end of said thimble being less than the length of said sleeve.

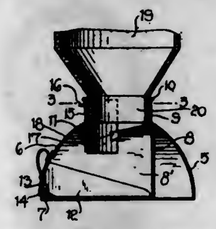
4. In an electric switch, the receptacle, a face plate adapted to overlie the mouth of said receptacle, a switch spindle, an operating sleeve having threaded engagement therewith, peripheral notches in the head of said sleeve, a thimble positioned on said face plate with its open end permanently secured in an aperture in alinement with said operating sleeve and concentric therewith, the closed end of said thimble having a key way cut therethrough provided with a central aperture to receive a rotatable key shank, and lateral slots in alinement with the peripheral notches in the operating sleeve, the distance between the top of said spindle and the outer closed end of said thimble being less than the length of said sleeve.

5. In an electric switch, the receptacle, a face plate adapted to overlie the mouth of said receptacle, a switch spindle, an operating sleeve having threaded engagement therewith, peripheral notches in the head of said sleeve, a thimble positioned on said face plate with its open end permanently secured in an aperture in alinement with said operating sleeve, the closed end of said thimble having a key way cut therethrougn provided with a central aperture to receive a rotatable key shank, and lateral slots in alinement with the peripheral notches in the operative sleeve, the closed end of said thimble constituting a stop to prevent the disengagement of said sleeve from said spindle.

[Claim 6 not printed in the Gazette.]

1,138,753. DISPLAY-CASE. ARTHUR W. GUSSNER and LOUIS H. CARUFEL, Bismarck, N. D. Filed Feb. 28, 1914, Serial No. 821,733. Renewed Oct. 24, 1914. Serial No. 868,518. (Cl. 211—9.)

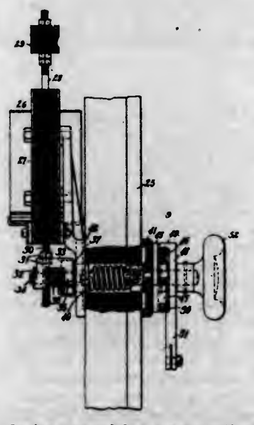
1. A display case provided with an opening in its front wall, the lower edge of said opening being outwardly and upwardly inclined, said case also having an opening in its top wall to receive the open end of a merchandise container, and a scoop adapted to be inserted through said first mentioned opening and having its bottom wall upwardly inclined at the closed end of the scoop for engagement upon the inclined forward edge of the opening in said case.



2. A display case provided with a scoop receiving opening in its front wall and also having an opening in its top wall, an upstanding flange surrounding said opening, a lip projecting downwardly from the top wall of the casing, a feed regulating plate vertically adjustable upon said flange, and means carried by said lip frictionally engaging said plate to retain the plate in its adjusted position.

3. A display case provided with a scoop receiving opening in its front wall and an opening in its top wall, an annular upstanding flange surrounding said later opening and adapted to support a container, a semi-circular lip depending from said top wall, said upstanding flange being provided with a vertical slot, an adjustable feed regulating plate having a finger piece movable in said slot, and resilient tongues formed on said depending lip and engaging over the vertical edges of said feed regulating plate to retain the same in its adjusted position.

1,138,754. CIRCUIT-INTERRUPTER. FORD W. HARRIS, Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Sept. 26, 1910. Serial No. 583,859. (Cl. 175—269.)



1. A tripping device comprising a supporting member, a rotatable shaft, a resilient member disposed between said shaft and said supporting member, means for restraining said resilient member, and electro-responsive means for releasing said restraining means under predetermined conditions, a crank, and a lost-motion connection between said shaft and said crank.

2. In a tripping device, the combination with a circuit interrupter, means for latching the same in a closed position, and a crank to release the latching means, of a shaft on which the crank is mounted, a spring adapted to be tensioned when said shaft is rotated under predetermined conditions, means for restraining said spring, means for releasing said restraining means, and a lost-motion connection between said shaft and said crank.

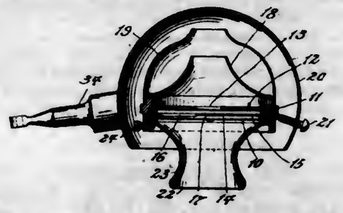
3. A tripping device for a circuit interrupter comprising a crank for tripping said circuit interrupter, a rotatable shaft, a lost-motion connection between said crank and said shaft, means for operating said shaft, means for restraining said operating means, and means for releasing said restraining means under predetermined conditions.

4. A tripping device for a circuit interrupter comprising a tripping crank for tripping said circuit interrupter, a rotatable shaft, means for connecting said crank to said shaft, a spring adapted to be tensioned when said shaft is rotated under predetermined conditions, a latch for restraining said spring, and an electromagnet for releasing said latch under predetermined conditions.

5. A tripping device for a circuit interrupter comprising a tripping crank, a supporting means, a rotatable shaft supported by said supporting means, a spring attached to said shaft and to said supporting means and adapted to be tensioned when said shaft is rotated under predetermined conditions, a latch for restraining said spring, and an electro-responsive means for releasing said latch under predetermined conditions.

[Claims 6 to 11 not printed in the Gazette.]

1,138,755. ACOUSTIC INSTRUMENT. HARRY W. HESS, New York, N. Y. Filed Dec. 31, 1913. Serial No. 809,642. (Cl. 181—3.)



1. In a phonograph, and in combination with the record support and record moving means thereof, an external hollow reflector having a single opening for emission of sound, a diaphragm mounted within said reflector near the opening thereof, a sounding shell mounted over the outer face of said diaphragm and projecting beyond the plane of the opening in said reflector, a stylus adapted to act upon said diaphragm, and mounting means for said reflector adapted to permit movement thereof over the record, substantially as described.

2. In a phonograph, and in combination with the record support and record moving means thereof, a hollow external reflector having a single opening, a diaphragm suitably mounted near said opening within said reflector, a stylus adapted to act thereon, a sound conveying shell directed inward from said diaphragm away from the reflector opening, a second sound conveying shell directed outward from said diaphragm through said opening, and mounting means for said reflector adapted to permit movement thereof over the record, substantially as described.

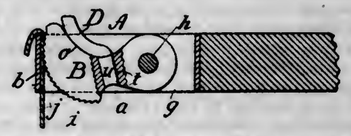
3. In a phonograph and in combination with the record support and record moving means thereof, a hollow reflector substantially of the shape of a sphere with a segment removed along a plane so placed as to afford a constricted opening, a diaphragm mounted within said reflector substantially parallel to the plane of said opening, a sounding shell applied over the outer face of said diaphragm and projecting outside of said opening, a stylus adapted to act upon haid diaphragm, and mounting means for said reflector adapted to permit movement thereof over the record, substantially as described.

4. In a phonograph, means for moving the record and a support for said record moving means; in combination with a compound resonator adapted to move as a whole over said record and comprising an inner shell outwardly concave an outer shell outwardly convex and a shell surrounding both, and a diaphragm and stylus associated with said resonator and adapted to move therewith, substantially as described.

5. In a phonograph, means for moving the record and a support for said record moving means; in combination with a resonator adapted to move as a whole over said record, a diaphragm within said resonator, a tone-clarifying disk mounted behind said diaphragm and having substantially radial slits therein each provided with a projecting wing on one side, and a stylus operatively connected with said diaphragm, substantially as described.

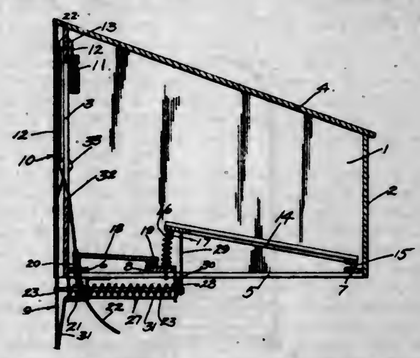
[Claims 6 to 8 not printed in the Gazette.]

1,138,756. TWINE CUTTING AND RETAINING DEVICE. FREDERICK M. HOLMES, Springfield, Mass. Filed Mar. 14, 1913. Serial No. 754,213. (Cl. 30—14.)



A twine retaining device comprising a frame having a comparatively narrow aperture therein and having attachment lugs for the connection of the frame to a counter, a member having a pivot connecting it within the rear portion of the apertured frame, having its end portion farther from the pivot formed eccentric to such pivot and coöperative for twine binding effect with the adjacent end wall of the frame, and said pivoted member having a back inclined to the general length of such member, and a cutter secured to the pivoted member whereby the edge of the blade is directed opposite from the eccentric formed edge of said pivoted member, and conformed to the aforesaid inclined back.

1,138,757. HEN'S NEST-BOX. CHRISTIAN OLAF OLSEN HUSEBY, Crary, N. D. Filed Sept. 3, 1914. Serial No. 859,940. (Cl. 119—50.)



1. The combination with a nest box, having a door opening, of a normally open door for said door opening, yielding means tending to close said door, a nest-supporting platform within said box, a lock for holding said door open, means actuated by the weight of a hen on said nest-supporting platform, for actuating said lock to permit said door to close, and a door-opening platform mounted in said box, between said door opening and said nest-supporting platform, arranged to open said door under the weight of a hen on said door-opening platform.

2. The combination with a nest box, having a door opening, of a normally open door for said door opening, yielding means tending to close said door, a yieldingly held nest-supporting platform within said box, a lock for holding said door open, means actuated by the movement of said nest-supporting platform, under the weight of a hen, for releasing said lock to permit said door to close, and a yieldingly held door-opening platform mounted in said box between said door opening and said nest-sup-

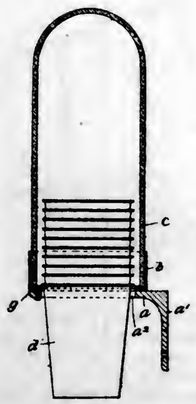
porting platform, arranged to open said door under the weight of a hen on said door-opening platform.

3. The combination with a nest box, having a door opening, of a normally open door for said door opening, yielding means tending to close said door, a yieldingly held nest-supporting platform within said box, an endwise and rotatively movable lock bolt for holding said door open, a spring holding said lock bolt protracted, a cam for retracting said lock bolt, and an arm on said lock bolt arranged to be engaged by the movement of said platform to impart a rotary movement to said lock bolt, said arm when rotated engaging said cam to retract said lock bolt.

4. The combination with a nest box, having a door opening, of a normally open door for said door opening, yielding means tending to close said door, a yieldingly held nest-supporting platform within said box, an endwise and rotatively mounted lock bolt for holding said door open, a spring holding said lock bolt protracted, a cam for retracting said lock bolt, an arm on said lock bolt arranged to be engaged by the movement of said platform to impart a rotary movement to said lock bolt, and a connection to said door for returning said arm to a normal position during the opening movement of said door.

5. The combination with a nest box having a door opening, of a normally open door for said door opening, weighted cables for closing said door, a spring-held nest-supporting platform within said box, a lock for holding said door open arranged to be actuated by the downward movement of said nest-supporting platform, a spring-supported door-opening platform mounted in said box between said door opening and said nest-supporting platform, and a connection from said door-opening platform for raising said weighted cables to permit said door to open under the action of gravity.

1,138,758. CUP-HOLDER. ALFRED RUSSELL HUSSEY, Harvard, Mass., assignor to American Water Supply Company of New England, Boston, Mass., a Corporation of Massachusetts. Filed Oct. 3, 1910. Serial No. 584,989. (Cl. 211—8.)



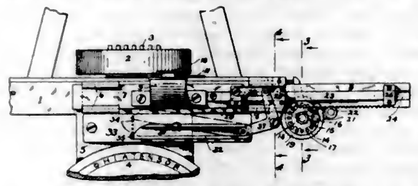
1. A cup-holder consisting of a receptacle adapted to contain a pile of nested cups having a delivery opening of a diameter as large as the maximum diameter of the cups to permit the passage of the cups through it without distortion, said chamber being normally closed except at said opening, and an elastic ring entirely surrounding said opening having its internal diameter less than the maximum diameter of the cups, the bottom cup of the pile engaging said ring to close the opening and said ring yielding to permit said bottom cup to be removed without distortion and returning to normal to engage the next succeeding cup of the pile, substantially as described.

2. A cup-holder consisting if a supporting bracket having an aperture through its base of a diameter as large as the maximum diameter of the cup, and an elastic ring entirely surrounding said aperture and extended inward beyond the edge thereof, a removable dome arranged on said base above said aperture adapted to contain a pile of nested cups, the lower end of the pile of cups projecting downward through said aperture so that the bottom cup of the pile is accessible beneath the bracket, said bottom cup of the pile engaging the elastic ring to close the aperture, and said ring yielding to permit said cup to be removed without distortion and returning to normal to engage the next succeeding cup, substantially as described.

3. A cup-holder consisting of an apertured bottom plate, a collar arranged on said plate, a rubber gasket arranged within the collar around the aperture and extended inward beyond the edge of the aperture to form an elastic lip, a dome fitted into the collar and resting on said gasket, thereby forming a dust tight receptacle for a pile of nested cups, the lower end of which projects through the aperture and the bottom cup of the pile engages the elastic lip to close the aperture and to support the pile of cups, said lip yielding to permit removal of the bottom cup of the pile without distortion and returning to normal to engage the next succeeding cup, substantially as described.

4. A cup-holder consisting of a supporting bracket having an opening through its base, and an elastic ring entirely surrounding said opening, a dome arranged on said base above said opening adapted to form a chamber to contain a pile of nested cups, the lowermost cup of the pile projecting downward through said opening, so as to be accessible beneath the bracket and engaging the elastic ring to close the opening and to support the pile of cups above it, substantially as described.

1,138,759. FEED DEVICE FOR STENCIL-CUTTING MACHINES. FRANK AMOS JOHNSON, Dunellen, N. J. Filed Apr. 5, 1913. Serial No. 758,997. (Cl. 101—57.)



1. In a stencil-cutting machine, a traveling feed device; a stencil-carrying device; connections between said feed device and said stencil-carrying device; in combination with means for giving said feed device a fixed step-by-step movement and means for simultaneously varying the length of the connections between said feed device and said stencil-carrying device.

2. In a stencil-cutting machine, the combination of a primary feed device with a stencil-carrying device—said devices being arranged to telescope or slide one on the other; means for giving said primary feed device a fixed step-by-step movement; connections between said primary feed device and said stencil-carrying device which are adapted to reduce the movement of said stencil carrying device with relation to said primary feed device and means for limiting the movement of said stencil-carrying device, whereby, with a fixed movement of said stencil-carrying device a variable movement is provided for said primary feed device.

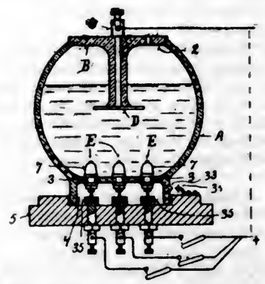
3. In a stencil-cutting machine, the combination of the feed rack 8; bell crank 27 mounted on said rack; stencil-carrying slide 7; limiting stops 36 and 37; connecting link 28; the bracket plate 33 secured to the front of said stencil-cutting machine; the swinging channel arm 32 pivoted to said plate; the pin 35 for holding one end of said channel arm in variable positions and the roll 30 secured to said bell crank and adapted to slide in said channel arm, substantially as described and shown.

1,138,760. SOLDERING DEVICE. FRED KANDEL, Wilkinsburg, Pa. Filed Jan. 30, 1915. Serial No. 5,322. (Cl. 158—27.)



In a soldering device such as described, a hollow handle, a removable closure for one end of the handle, a support conforming to the shape of the interior of the handle and engaging the removable closure for the end thereof, a tubular body portion having one end engaged by the removable closure and secured thereto and extending outwardly from said hollow handle, a head secured to the opposite end of the tubular body portion, said head having a central rearwardly extending passage therein and supplementary passages leading from the forward end of the central passage to the rear of said head and opening through the outer sides thereof, a partition disposed within said tubular body and having an opening therein, a pipe supported by said partition and by the first mentioned support, said pipe having its rear end curved downwardly into the hollow handle and an offset portion at its opposite end terminating in a depending discharge nozzle, a valve controlling the passage of fuel through the pipe and means for forcing air under pressure into the hollow handle for the purpose of forcing fuel from the hollow handle through said pipe.

1,138,761. ELECTROLYTIC INTERRUPTER. JOHN ROBERT KELLEY, Covington, Ky. Filed Mar. 19, 1912. Serial No. 684,889. (Cl. 175—315.)



1. In an electrolytic interrupter, a cell containing an electrolyte, an interrupter electrode comprising a supporting member of non-conducting material projecting into said electrolyte, an electrode having a substantially semi-spherical upwardly turned face in contact with the electrolyte, and a conducting shank leading downwardly from said upwardly turned face and sealed into said supporting member.

2. In an electrolytic interrupter, a cell containing an electrolyte, an interrupter electrode comprising a supporting member of non-conducting material seated in an orifice through the lower portion of the cell wall and projecting into the electrolyte, an electrode having a substantially semi-spherical upwardly turned face in contact with the electrolyte, and a conducting shank leading downwardly through and closing a perforation through said supporting member.

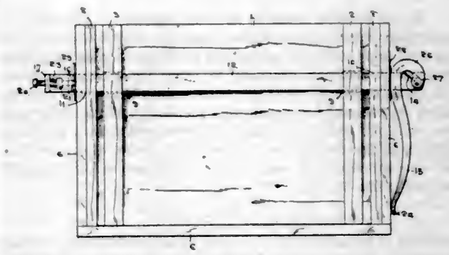
3. In an electrolytic interrupter, a cell containing an electrolyte, an interrupter electrode comprising a supporting member of non-conducting material projecting upwardly into said electrolyte, an electrode having a head located at the upper end of said supporting member and in contact with the electrolyte, and a conducting shank of less diameter than the head leading from said head through and sealed into said supporting member.

4. In an electrolytic interrupter, a cell containing an electrolyte, an interrupter electrode comprising a supporting member of non-conducting material seated in an orifice through the cell wall below the surface of said electrolyte, a packing ring and a nut threaded to said supporting member to seal said supporting member in place, and an electrode seated in a perforation through said supporting member and exposing a restricted face to the electrolyte.

5. In an electrolytic interrupter, a cell containing an electrolyte, an interrupter electrode comprising a supporting member passing through an orifice in the lower portion of the cell wall and having a threaded shank projecting outside the cell wall, a packing member to seal the joint between said supporting member and the cell wall, a nut engaging said threaded shank to clamp said supporting member and packing member in position relative to said cell, and an electrode sealed into said supporting member and exposing a restricted upturned area to the electrolyte.

[Claims 6 to 8 not printed in the Gazette.]

1,138,762. END-GATE TIGHTENER. HENRY S. KIESAU, Waukon, Iowa. Filed Aug. 13, 1914. Serial No. 856,625. (Cl. 61—47.)



1. An end gate tightener comprising; a flume, an end gate thereto, a locking bar transversely mounted through said flume and said end gate, projections upon one end of said locking bar, a spring actuated bolt mounted in said projections and adapted to contact with said flume, and a removably mounted cam actuating means in the opposite end of said locking bar adapted to contact with the opposite face of said flume to draw said locking bar against the action of said spring actuated bolt to tighten said flume and said end gate.

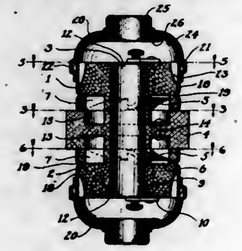
2. An end gate tightener comprising; a flume, an end gate in the end thereof, locking means transversely mounted through said flume and said end gate having an oblique slot in one end, clamping means mounted in the opposite end of said locking bar, and a clamping lever mounted in said slot, said clamping lever having a handle portion, two parallelly disposed arm members of cam formation, and a bolt connecting the ends of said arm members, said clamping lever mounted in said slot through the medium of said bolt and operating to draw said locking bar into tight position upon the actuation of said lever through the medium of said cam like arm members.

1,138,763. ELECTRIC SWITCH. CHARLES J. KLEIN, Milwaukee, Wis., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed Aug. 3, 1912. Serial No. 713,048. (Cl. 175—290.)

1. A feed through electric switch comprising, in combination, a pair of spaced insulating bases, a rotatable insulating member therebetween, the adjacent faces of said bases and said member having complementary annular recesses, a plurality of contacts on said bases and said member within said recesses, and a tubular sleeve extending through said bases and said member and holding the former against separation and relative rotation and affording a conductor passage therethrough.

2. A feed through electric switch comprising, in combination, a pair of spaced insulating bases, a rotatable in-

sulating member therebetween, the adjacent faces of said bases and said member having complementary annular recesses, a plurality of stationary contacts in said base recesses arranged in the form of ratchets, a plurality of resilient contacts in the recesses of said member adapted to make and break circuit between said stationary contacts in a predetermined sequence upon rotation of said member and a tubular metallic sleeve insulated from all of said contacts for holding said bases against relative separation and rotation and constituting a passage for a conductor therethrough and through said member.



3. In an electric switch, in combination, a plurality of insulating bases, a rotatable member therebetween, the adjacent faces of said bases and said member having complementary annular recesses, a plurality of contacts on said bases and said member within said recesses, tubular means forming the axis of said member and holding said bases against separation and relative rotation, a resilient casing rigidly secured to each of said bases, and a removable cap for each of said casings adapted to be snapped over the ends of the latter.

1,138,764. HERMETICALLY-SEALED BOTTLE. CLARENCE M. KLINE, Philadelphia, Pa., assignor to Smith, Kline & French Co., Philadelphia, Pa., a Corporation of Pennsylvania. Filed Apr. 23, 1914. Serial No. 833,848. (Cl. 215—54.)

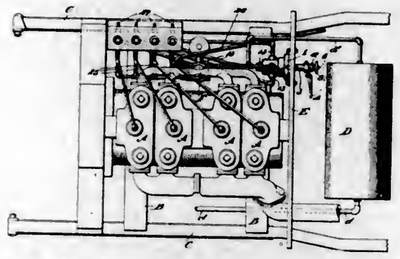


1. In an hermetically sealed bottle, the combination of a rubber cork fitting the neck of the bottle with sufficient protrusion of the upper end to permit its being grasped for removal, said cork being pierced axially from top to bottom; and a glass plug inserted within said pierced corked to expand it and tighten its fit in the neck of the bottle, said plug having its head flattened so that the top of the plug lies in substantially the same plane as the top of the cork, substantially as and for the purpose described.

2. In a hermetically sealed bottle, the combination of a rubber cork fitting the neck of the bottle with sufficient protrusion of the upper end to permit its being grasped for removal; said cork being pierced axially from top to bottom; and a glass plug inserted within said pierced cork to expand it and tighten its fit in the neck of the bottle, said plug having its head flattened and lying close to the plane of the top of the cork, the diameter of said head being smaller than that of the top of the cork substantially as and for the purpose described.

3. In a hermetically sealed bottle, the combination of a rubber cork fitting the neck of the bottle and pierced axially from top to bottom; and a glass plug capable of insertion within said pierced cork to expand it and tighten its fit in the neck of the bottle, said plug having its head flattened so that the top of the plug lies in substantially the same plane as the top of the cork, and also having an upper cylindrical portion, an intermediate tapered portion and a lower smaller cylindrical portion.

1,138,765. GAS-ENGINE STARTER. STEPHEN S. KRAYER, St. Louis, Mo. Filed Apr. 28, 1913. Serial No. 764,279. (Cl. 123—180.)



1. In a starting device for gas engines, the combination with a fuel liquid supply chamber, and a supply passage therefor, of an air supply passage leading to said chamber, a double diaphragm valve in said supply passage controlled by air pressure operable effectively to close the fuel liquid supply passage and to permit the air pressure to enter said fuel liquid, and an outlet passage from said fuel liquid chamber to the engine cylinder, substantially as specified.

2. In a starting device for gas engines, the combination with a fuel supply chamber, a supply passage opening into said chamber, a valve for said passage, means normally holding said valve open, a passage for admitting air into said chamber, a valve controlling said air passage, means normally holding said second named valve closed, and means for supplying air to said air passage, of means actuated by the pressure of the air so supplied for closing the valve in said supply passage and opening the valve in said air passage, substantially as specified.

3. In a starting device for gas engines, the combination with a fuel supply chamber, a passage for admitting fuel to said chamber, and a passage for admitting air to said chamber, of valves controlling said passages, respectively, means for supplying air under pressure to said air passage, and means actuated by the air so supplied to effectively open one of said valves and to close the other, substantially as specified.

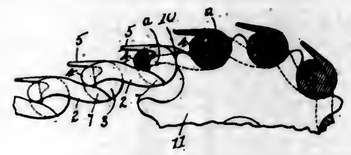
4. In a starting device for gas engines, the combination with a liquid supply chamber, and a supply passage therefor, of an air passage opening into said chamber, a valve normally closing said air passage, means for conducting air under pressure to said air passage, and means actuated by the air for opening said valve and for closing said supply passage, substantially as specified.

5. In a starting device for gas engines, the combination with a liquid supply chamber, separate valves controlling the admission of fuel and of air to said chamber, means for conducting air under pressure toward said chamber and means actuated by the passage of the air effectively to open one of said valves and to close the other, substantially as specified.

[Claim 6 not printed in the Gazette.]

1,138,766. SPROCKET-CHAIN. EDWIN S. LEAYCRAFT, Jersey City, N. J. Filed May 11, 1912. Serial No. 696,570. (Cl. 74—32.)

1. A sprocket chain comprising, successive similar links consisting of side bars, and transverse bars having respectively, convex and concave bearing surfaces, the convex bearing surface on one bar being described about the pivotal axis of that bar and the concave bearing surface on the other bar being described about said axis on the first named bar, said bearing surfaces being located on the inner sides of the respective bars.



2. A sprocket chain comprising links consisting of side bars and transverse bars, the contact surface on one bar being described about the axis of that bar and contact surfaces of the other bar being described about the axis of the first-mentioned bar, the former being convex and the latter concave, and said side bars extending over the ends of said transverse bars.

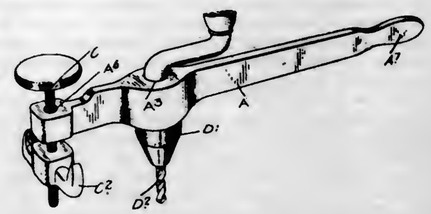
3. A sprocket chain comprising links having transverse bars, one of which is provided with a hooked guard and whose bearing surface is described about the axis of said bar, the other transverse bar having its concave contact surface described about the axis of the first mentioned bar.

4. A sprocket chain comprising links having transverse bars, one of which is provided with a hooked guard and whose bearing surface is described about the axis of said bar, the other transverse bar having a concave contact surface of greater radius than the inner contact surface of the first mentioned bar and being of a width substantially equal to the distance between the inner end of said hooked guard and its transverse bar.

5. A sprocket chain comprising links provided with transverse bearing bars having outer cylindrical sprocket bearing surfaces adapted to contact with the opposite sides of the sprocket teeth, parallel side bars located the same distance apart on each link, the side bars on each link overlapping those of the adjacent link, each pair of side bars being attached to a portion only of the ends of the sprocket bearing cross bar, and leaving the remaining portion of the ends of said cross bar unobstructed to allow movement of the adjacent side bars across the ends of said cross bar when the chain is fixed.

[Claims 6 to 10 not printed in the Gazette.]

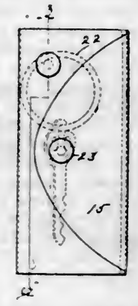
1,138,767. AUXILIARY OPERATING ATTACHMENT FOR DRILLS. ANGUS GILBERT MCCORMACK, Port Arthur, Ontario, Canada. Filed Aug. 3, 1914. Serial No. 854,795. (Cl. 77—7.)



1. An operating attachment for breast drills comprising a lever provided with an orifice at one end and a recess into which the brace chuck fits and an orifice extending from the recess through which the shank of the drill extends and a vertical spindle suitably threaded and extending through such orifice, a nut carried on the spindle and a strap for connecting the nut to a suitable base, as and for the purpose specified.

2. An attachment for breast drills comprising a lever provided with a recess in which the drill chuck fits and an orifice at one end, a vertical spindle suitably threaded through such orifice, a nut carried on the spindle and an inverted U-shape strap secured to a suitable base and having an orifice through which the threaded spindle extends and against the horizontal portion of which the nut bears, as and for the purpose specified.

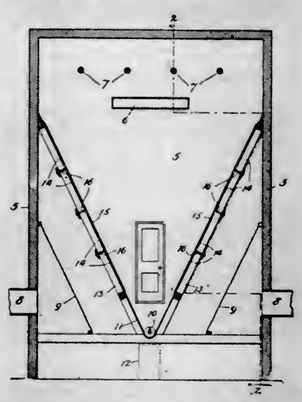
1,138,768. POCKET KEY-CASE. ALBERT C. MCFARLAND, Chicago, Ill. Filed May 18, 1914. Serial No. 839,271. (Cl. 150—40.)



1. A key case comprising a single piece of foldable material having a post permanently attached thereto, said material being provided with a snap fastener attached thereto at a point spaced from the post, said fastener cooperating with the end of the post to detachably hold a key ring or the like on said post.

2. A key case comprising a piece of material provided with portions forming the case proper and a flap, a post attached to one portion of said material, a snap fastener coöperable with said post and attached to the material at a point spaced from the post, the material being foldable about a line located between the post and said fastener, and means for detachably holding said flap in closed position.

1,138,769. DESICCATING APPARATUS. JOHN C. MACLACHLAN, Chicago, Ill. Filed Mar. 16, 1914. Serial No. 824,982. (Cl. 99—5.)



1. A desiccating apparatus comprising a chamber having intake and exhaust ports, the exhaust-ports being located at opposite sides, and oppositely flaring screening means interposed between the intake and exhaust ports converging toward the center of the chamber at their lower ends, and a conveyer to receive the material falling from the screening devices.

2. A desiccating apparatus having, in combination, a chamber having intake-ports at its upper end, and exhaust-ports at opposite sides of its lower end, a centrally disposed trough with a conveyer therein, and screening

devices extending diagonally upward and outward from the upper margin of the trough to the walls of the chamber.

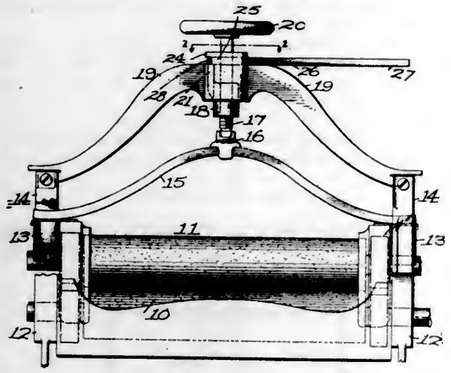
3. In a desiccating apparatus including a desiccating chamber having intake and exhaust ports, an inclined screen interposed between the intake and exhaust ports and having a surface composed of plaited cloth in which the plaits extend up and down on the inclined surface, for the purpose set forth.

4. A desiccating apparatus, comprising, in combination, a chamber having intake ports at its upper end and exhaust-ports on opposite sides of its lower end, a conveyer at the center of the chamber, oppositely-inclining screening devices extending upward from the conveyer having screening surfaces consisting of cloth lying in plaits, the line of plaits being up and down to form ways in which the material may run to the conveyer.

5. In a desiccating apparatus, including a desiccating chamber having intake and exhaust ports, an inclined screening device interposed between the intake and exhaust ports and having a surface formed of cloth with plaits therein running up and down to form ways for the purpose set forth, in combination with means for agitating the cloth to shake down the material.

[Claims 6 to 10 not printed in the Gazette.]

1,138,770. QUICK RELEASE FOR WRINGER-ROLLS. STEPHEN M. MARSHALL, Clinton, Mass. Filed Aug. 14, 1914. Serial No. 856,781. (Cl. 68—32.)



1. In a wringer, in combination, a frame, a pressure regulating screw, a nut fitting said screw and vertically slidable but non-rotatable in said frame, and means to lock said nut in depressed position, said means being movable in either direction from locking position to release said nut.

2. In a wringer, in combination, a frame, a bearing-tensioning means, a screw to regulate the pressure of said means, a nut for said screw vertically slidable but non-rotatable in said frame, said nut having an upward projection, and a locking lever having a portion movable in a horizontal plane into the path of said projection to hold said nut depressed against the pressure of said tensioning means.

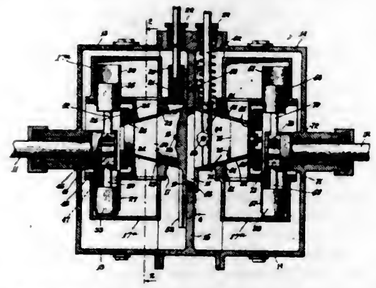
3. In a wringer, in combination, a frame, a bearing-tensioning means, a screw to regulate the pressure of said means, a nut for said screw vertically slidable but non-rotatable in said frame, said nut having an offset projection, a locking lever having a portion movable into the path of said projection to hold said nut depressed against the pressure of said means, said lever engaging said projection when the lever is in mid-position and movable in either direction to clear said projection, and a stop to limit the movement of said lever in each direction.

4. In a wringer, in combination, a frame, a bearing-tensioning means, a screw to regulate the pressure of said means, a nut for said screw vertically slidable but non-rotatable in said frame, said nut having a projection, and a locking lever having a lug movable into the path of said projection to hold said nut depressed against the pressure of said means, said lever being pivoted on said screw and partially rotatable thereon.

5. In a wringer, in combination, a frame, a bearing-tensioning means, a screw to regulate the pressure of said means, a nut for said screw vertically slidable but non-rotatable in said frame, said nut having a projection, and a locking lever having a portion movable into the path of said projection to hold said nut depressed against the pressure of said means, said frame having a cored extension cast integrally therewith and said locking means being positioned between said frame and its extension and pivotally movable about said screw.

[Claims 6 to 8 not printed in the Gazette.]

1,138,771. HYDRAULIC TRANSMISSION APPARATUS. JOSEPH DE MARTINO, New York, N. Y., assignor of one-half to Charles W. Gillett, New York, N. Y. Filed Jan. 21, 1913. Serial No. 743,353. (Cl. 138—3.)



1. A hydraulic transmission apparatus including in combination a driven mechanism operated by liquid flow, and a driving mechanism, the latter comprising a revoluble pulsator-group and drum supported on a non-revoluble bearing, and a hub device actuated by the driving shaft for operating said pulsators by eccentricity to cause continuous liquid flow to and from the driven mechanism in closed circuit.

2. A hydraulic transmission apparatus including in combination, a driven mechanism operated by liquid flow, and a driving mechanism, the latter comprising a revoluble pulsator-group supported on a non-revoluble bearing, and a device actuated by the driving shaft for operating said pulsators; and means for bodily shifting the position of the pulsator group to vary or reverse the liquid flow.

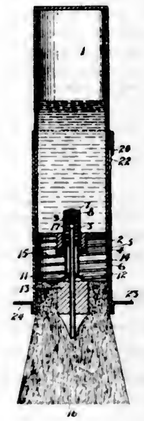
3. A hydraulic transmission apparatus including in combination a driven mechanism operated by liquid flow, and a driving mechanism, the latter comprising a pulsator-group, a revoluble drum carrying said pulsator group, a non-revoluble bearing supporting said drum, a device actuated by the driving shaft for operating said pulsators, and means for directing the discharge and suction of the pulsators to maintain a continuous flow; and means for shifting said drum to vary or reverse the liquid flow.

4. A hydraulic transmission apparatus including in combination a driven mechanism operated by liquid flow, and a driving mechanism, the latter comprising a pulsator-group, a revoluble drum carrying said pulsator-group, a non-revoluble bearing supporting said drum, and a device actuated by the driving shaft for operating said pulsators; said bearing having ports for directing the discharge and suction to maintain a continuous flow; and means for shifting said bearing with the drum and pulsator-group to vary or reverse the liquid flow.

5. A hydraulic transmission apparatus comprising in combination with a driven mechanism operated by liquid fluid and having a revoluble pulsator-group, a fluid-tight non-revoluble bearing supporting said pulsator-group, a liquid controlling driving mechanism comprising a revoluble pulsator-group, a fluid-tight non-revoluble bearing supporting said named pulsator-group, a device actuated by the driving shaft for operating said last named pulsators, and means for bodily shifting the position of said last named pulsator-group to vary or reverse the liquid flow.

[Claims 6 to 15 not printed in the Gazette.]

1,138,772. FOUNTAIN-BRUSH. WAYNE MATTHEWS, Oakland, Cal. Filed June 22, 1914. Serial No. 846,544. (Cl. 15—46.)



1. The combination of a liquid receptacle, a brush, a tubular holder therefor surrounding the liquid receptacle, a tube having an open end opening into the brush, the tube having at its other end a hole adapted to communicate with the receptacle, a guide secured to the tube, a guide-way within which said guide is guided and having an apertured inner end closely surrounding the tube, a spring pressing apart said brush and receptacle, and means for closing said aperture when said brush and receptacle are so pressed apart and for opening it when they are pressed together against the action of said spring.

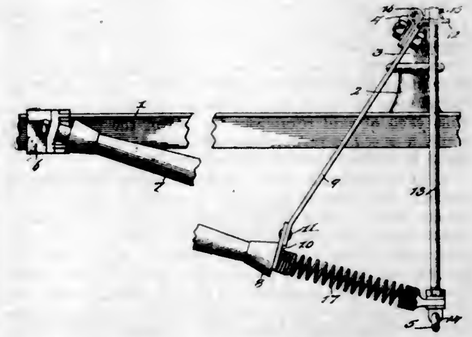
2. The combination of a liquid receptacle, a tube, a brush, a tubular holder therefor surrounding the liquid receptacle, an open end of the tube extending into the brush, the tube having at its other end an opening adapted to communicate with the receptacle, a spring compressed between the ends of the brush and receptacle, the receptacle having a projection and the brush holder having a longitudinally extending channel to receive said projection to limit the extent of separation of said brush and receptacle, and means for automatically closing said opening when said brush and receptacle are pressed apart by said spring and for opening it when they are pressed together against the action of said spring.

1,138,773. STEADY-BRACE FOR TROLLEY-LINES. GEORGE A. MEAD and WILLARD H. KEMPTON, Mansfield, Ohio, assignors to The Ohio Brass Company, Mansfield, Ohio, a Corporation of New Jersey. Filed July 13, 1910. Serial No. 571,777. (Cl. 191—41.)

1. The combination with an electric conductor wire and a suspension means therefor, of a steadying device separate from said suspension means and provided with a flexible portion adjacent one end, and a stationary support for said suspension means and said steadying device.

2. The combination with an electric conductor wire and suspension means therefor, of a steadying device and a stationary bracket for the suspension means and the steadying device, the latter being separate from the suspension means and having one end provided with a flexible portion in connection with the conductor wire, the other being removably secured to the bracket.

3. The combination with a trolley wire, of a steadying device for the wire, a stationary support, and means to support the trolley wire from the stationary support, the steadying device being provided with a flexible member on one end and connected to the wire, and having the other end secured to the stationary support, the steadying device being effective to prevent lateral displacement of the trolley wire.

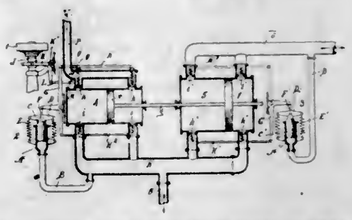


4. The combination with a stationary support and a messenger wire receiving support therefrom, of a trolley wire, means for suspending said trolley wire from said messenger wire, a steadying arm for said trolley wire supported at one end by said stationary support, means for connecting the other end of said arm to said messenger wire, and means for resiliently connecting the trolley wire to said steadying arm.

5. The combination with a stationary support and a messenger wire receiving support therefrom, of a trolley wire, means for suspending said trolley wire from said messenger wire, a steadying arm for said trolley wire supported at one end by said stationary support, means for connecting the other end of said arm to said messenger wire, means for resiliently connecting the trolley wire to said steadying arm, said means for steadying and for supporting the trolley wire from the messenger wire being adapted to prevent permanent lateral displacement of said wire while it rises and falls.

[Claims 6 to 8 not printed in the Gazette.]

1,138,774. CONTROLLING MEANS FOR STEAM-ENGINES FOR THE UTILIZATION OF WASTE HEAT. JACOB HEINRICH MISSONG, Frankfort-on-the-Main, Germany. Filed July 9, 1912. Serial No. 708,447. (Cl. 121—39.)



1. In a compound steam engine in which the waste heat is utilized, the combination with the several stages of the engine, each of said stages having a steam inlet and a steam outlet, of separate automatic regulators, one for each stage of the engine, each regulator being under the influence of the exhaust of its stage, operative connection from each of said regulators to control either the inlet or the outlet of its stage, or both inlet and outlet of said stage, a centrifugal governor, and connections from said governor to compensate for variations in the amount of available waste steam.

2. In a compound steam engine in which the waste heat is utilized, the combination with the several stages of the engine, each of said stages having a steam inlet and a steam outlet, of separate automatic regulators, one for each stage of the engine, each regulator being under the influence of the exhaust of its stage, operative connections from each of said regulators to control the inlet of its stage, a speed governor, and connections from said governor to control the operation of the engine.

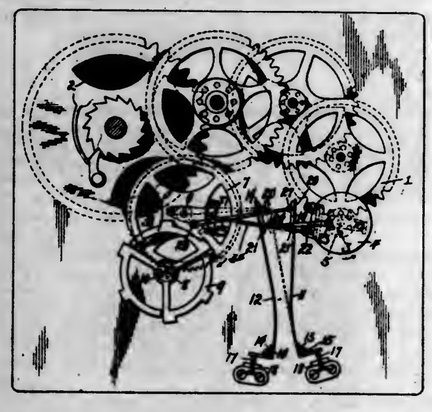
3. In a compound steam engine in which the waste heat is utilized, the combination with the several stages of the engine, each of said stages having a steam inlet and a steam outlet, of separate automatic regulators, one for each stage of the engine, each regulator being under the influence of the exhaust of its stage, operative connections from each of said regulators to control the outlet of its stage, a speed governor, and connections from said governor to control the operation of the engine.

4. In a compound steam engine in which waste heat is utilized, the combination with the several stages of the engine, each of said stages having a steam inlet and a steam outlet, of separate automatic regulators, one for each stage of the engine, each regulator being under the influence of the exhaust of its stage, operative connections from each of said regulators to control both the inlet and the outlet of its stage, a speed governor, and connections from said governor to control the operation of the engine.

5. In a compound steam engine in which the waste heat is utilized, the combination with the several stages of the engine, each of said stages having a steam inlet and a steam outlet, of separate automatic regulators, one for each stage of the engine, each regulator being under the influence of the exhaust of its stage, operative connections from each of said regulators to control the operation of its stage, a speed governor, and connections from said governor to throttle the supply of live steam.

[Claims 6 and 7 not printed in the Gazette.]

1,138,775. ESCAPEMENT. HUBERT A. MYERS, Toledo, Ohio. Filed Aug. 6, 1914. Serial No. 855,361. (Cl 185—46.)



1. In combination, a rotatable drive member, a driven member, and means connecting said members for communicating movement from one to the other thereof, said means having a plurality of spring elements which have energy alternately stored therein by a rotation of the drive member and alternately communicating driving elements to the driven member.

2. A device of the character described having a plurality of resilient members having power movements in opposite directions, means alternately acting on said members to store energy therein, and movable means alternately actuated by said members during the respective power strokes thereof.

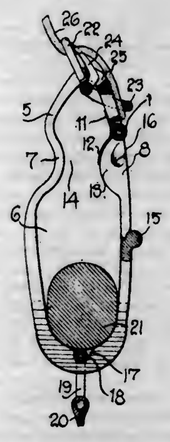
3. A device of the character described having a plurality of resilient members having power strokes in opposite directions, means operable to alternately impart energy storing movements to said members, a rotatable element, and means having connection with said element and alternately acted on by said members during the respective power strokes thereof to impart rotation to said element.

4. In a device of the character described, a plurality of oscillatory spring fingers having their power strokes or spring movements in opposite directions, a driven member and a drive member, means for imparting rotation to said drive member, and separate means, one for imparting energy storing movements to said fingers in alternate order from a rotation of the drive member and one for communicating movements to said driven member in alternate order from said fingers during the respective power strokes thereof.

5. In combination, a pair of spring fingers, means for successively acting on said fingers to impart opposed flexing the movements thereto to store energy therein, and means having a movable part which is successively operated by said springs during reflexing movements thereof.

[Claims 6 to 19 not printed in Gazette.]

1,138,776. TUG-LOOP. WILLIAM B. NORTH, Lumberton, N. C. Filed Sept. 15, 1914. Serial No. 861,823. (Cl. 54—51.)

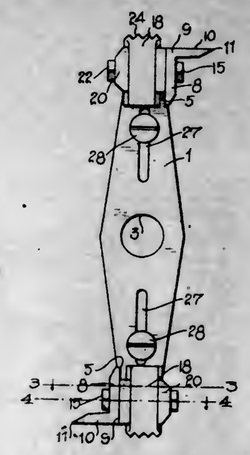


A shaft supporting tug comprising an elongated metal loop having an entrance opening in one side thereof and adjacent to one of its ends, and an inwardly opening spring held latch plate normally closing said entrance opening, said latch plate being formed with an enlargement to limit the movement of the shaft with respect to the loop in one direction, and said loop being provided with an opening in one of its ends, in combination with an attaching buckle including a frame adapted to receive the loop and a tongue pivotally mounted in said frame to extend through the opening in the end of the tug loop for connection to the tug strap.

1,138,777. WOODWORKING-TOOL. CYRUS L. OAKLEY, Carbondale, Pa. Filed Dec. 7, 1914. Serial No. 875,911. (Cl. 144—222.)

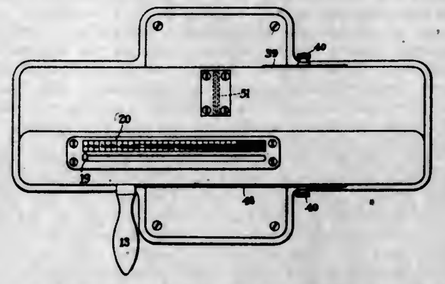
A device of the character described comprising an arm having a central perforation to afford a mounting therefor and having longitudinally disposed elongated slots

therein at opposite sides of the opening, balancing members disposed through said slots and detachably engaged



with the arm, and cutting members carried by the opposite extremities of the arm.

1,138,778. PRINTING-MACHINE. EDMUND OCUMPAUGH, 2D, Rochester, N. Y. Filed Jan. 23, 1914. Serial No. 813,875. (Cl. 101—57.)



1. In a printing-machine, the combination of a type-carrying member having characters arranged in a concentric series, and operating-mechanism adapted to swing said member, about the center of said series, to bring its characters selectively into operative position, and to move said member transversely to said series, while in engagement with the work, to feed the work.

2. In a printing-machine, the combination of a type-wheel having a series of characters on its periphery, and operating-mechanism adapted to rotate the wheel, to bring its characters selectively into operative position, and to move the wheel axially, while in engagement with the work, to feed the work.

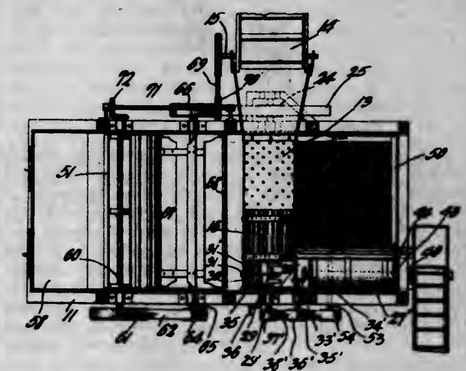
3. In a printing-machine, the combination of a type-wheel having characters arranged in a series extending around its periphery, a platen-roller coöperating with the type-wheel and journaled on an axis lying in a plane normal to the axis of the type-wheel, and operating-mechanism adapted to rotate the type-wheel, to bring its characters selectively into coöperative relation with the platen-roller, and to move the type-wheel axially, while in engagement with the work, to feed the work.

4. In a printing-machine, the combination of a type-carrying member having characters arranged in a series, a manually-operable member movable both angularly and longitudinally with respect to a fixed axis, and connections, between the type-carrying member and the manually-operable member, whereby one of said movements of the latter is translated to a selective movement of the type-carrying member in the direction of the length of said series, and the other of said movements of the manually-operable member is translated to an impressing movement of the type-carrying member in a direction transverse to the length of said series.

5. In a printing-machine, the combination of a type-wheel provided with a peripheral series of characters and movable both rotatively and axially, a manually-operable member adapted to the both slide along, and swing around, a fixed axis, and connections, between the type-wheel and said member, adapted to translate the two movements of the latter, the one into rotative movement, and the other into axial movement of the wheel.

[Claims 6 to 14 not printed in the Gazette.]

1,138,779. CORN-SHELLING MACHINE. CHARLES P. OETH, Mount Vernon, Ind. Filed May 22, 1914. Serial No. 840,266. (Cl. 130—6.)



1. A corn shelling machine comprising a concave, an agitating shaft extending therethrough, a movably mounted cob riddle drum adapted to receive the material as it is ejected from the said concave, means for vibrating the said cob riddle drum.

2. A corn shelling machine comprising a concave, an outlet therefor, a resiliently mounted door valve controlling the discharge of cobs therefrom, an agitating shaft extending therethrough, a cob riddle drum adapted to receive the material as it is ejected from the said concave, means for actuating the said cob riddle drum, means disposed beneath the cob riddle drum, means disposed beneath the cob riddle drum and the concave and adapted to receive the shelled corn therefrom.

3. A corn shelling machine comprising a concave, and a pressure controlled discharge outlet therefor, an agitating shaft extending therethrough, a cob riddle drum adapted to receive the material as it is ejected from the said concave, means for vibrating the said cob riddle drum, a shaking screen disposed beneath the cob riddle drum and the concave and adapted to receive the shelled corn therefrom.

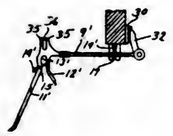
4. A corn shelling machine comprising a concave, means extending therethrough adapted to agitate and move the contents longitudinally thereof, a valve-like door with the opening thereof controlled by the pressure exerted thereagainst carried by and communicating with the concave, a cob riddle drum communicating with the concave and closed therefrom by the said valve-like door, means extending through the said cob riddle drum adapted to agitate the contents and move the same longitudinally thereof, means for agitating the said drum to shake the contents thereof, and means for collecting the shelled corn passing through the concave and the cob riddle drum.

5. A corn shelling machine comprising a concave, means extending therethrough adapted to agitate and move the contents longitudinally thereof, a valve-like door with the opening thereof controlled by the pressure exerted

thereagainst carried by and communicating with the concave, a cob riddle drum communicating with the concave and closed therefrom by the said valve-like door, means extending through the said cob riddle drum adapted to agitate the contents and move the same longitudinally thereof, means for agitating the said drum to shake the contents thereof, means for collecting the shelled corn passing through the concave and the cob riddle drum, and a conveyer communicating with the axis of the said cob riddle drum adapted to convey the cobs away therefrom.

[Claims 6 to 8 not printed in the Gazette.]

1,138,780. MAIL-CATCHING APPARATUS. WILLIAM T. O'HARA, Spokane, Wash., assignor to Spokane Mail Equipment Company, Spokane, Wash. Filed July 21, 1913. Serial No. 780,172. (Cl. 258—21.)



In a mail handling apparatus, a vertical post having brackets mounted therein, a vertical rod mounted in said brackets, a substantially horizontal arm mounted on said vertical rod, mail pouch holding jaws carried at the outer end of said arm, a coil spring disposed on said vertical rod and adapted to react on said rod so as to tend to rotate said rod and horizontal arm about their vertical axis, a bracket mounted on said post and having pivoted thereto an angular member adapted to engage the said horizontal arm and hold the same against the action of said coil spring, a spring interposed between said angular member and said last mentioned bracket whereby said arm is held firmly against the said angular member but is moved sufficiently upon a blow to allow the angular member to release the said arm.

1,138,781. MILKING-STOOL. THOMAS CLARENCE OLER, Iowa Falls, Iowa. Filed Nov. 6, 1914. Serial No. 870,543. (Cl. 31—13.)

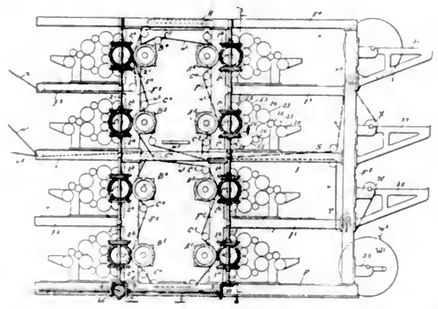


1. A milking stool comprising a frame made of a single metal bar doubled on itself and bent on an arc at its center to form a pail-holding loop, legs on said loop, legs secured to and adjustable longitudinally of said frame and spaced from said loop, and a seat on the latter legs.

2. A milking stool comprising a frame made of a single metal bar bent on an arc at its center to form a pail-holding loop, supporting legs on opposite sides of and fixed to said loop, supporting legs crossing said frame at the end thereof opposite to said loop, means for securing the latter legs to and adjustable longitudinally of said frame, and a seat fixed to the latter legs above said frame.

1,138,782. COMBINED MULTICOLOR AND PERFECTING WEB PRINTING-PRESS. GEORGE E. PANCOAST, Brooklyn, N. Y. Filed June 3, 1911. Serial No. 631,153. (Cl. 101—124.)

1. A rotary web printing machine including in combination, two sets of printing couples vertically arranged side by side with an open space between them and with their cylinders parallel and in tracking relation, the impression cylinders of both sets being accessible from said space, means for driving a plurality of the couples in either direction, an inking mechanism adapted to be driven in either direction associated with the design cylinder of each of said reversible couples, means for supplying a plurality of webs to one set, and means for delivering the printed webs from the other set, said delivering means comprising a set of turner bars arranged in a transverse plane adjacent to the last-mentioned set of printing couples and folding mechanism arranged at the side of the press in the plane of the turner bars.



2. A rotary web printing machine including in combination, two sets of printing couples vertically arranged side by side with an open space between them and with their cylinders parallel and in tracking relation, the impression cylinders of both sets being accessible from said space and the design cylinders of each set being arranged in fixed bearings, means mounted in fixed relation to the axes of the design cylinders for driving the printing couples of each set, movable bearings for the impression cylinders of the several couples, inking mechanism for each design cylinder arranged on the opposite side thereof from the corresponding impression cylinder, and supports for the inking mechanism movable with relation to the design cylinder.

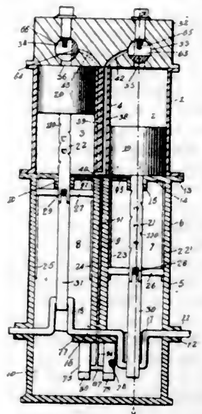
3. A rotary web printing machine including in combination, two sets of printing couples vertically arranged side by side with an open space between them and with their cylinders parallel and in tracking relation, the impression cylinders of both sets being accessible from said space and the design cylinders of each set being arranged with their axes in a single plane, means for driving the couples including a shaft arranged in the plane of the axes of the design cylinders of each set and intersecting said axes, and gearing between each of said shafts and the design cylinders of the corresponding set, means for movably supporting the impression cylinders with relation to their respective design cylinders, inking mechanism for each design cylinder, and means for movably supporting the inking mechanism with relation to the corresponding design cylinders.

4. A rotary web printing machine including in combination, two sets of printing couples vertically arranged side by side with an open space between them and with their cylinders parallel and in tracking relation, the impression cylinders of both sets being accessible from said space, and the design cylinders of each set being arranged in a single plane, means for driving the couples in either direction, said means including a shaft arranged in the plane of the design cylinders of each set and at right angles to the axes of said design cylinders, each driving shaft being provided with a pair of bevel gears corresponding to each design cylinder, the members of each pair being independently movable upon its shaft into and out of mesh with a bevel gear upon the shaft of the corresponding design cylinder, and means for driving said shafts in unison.

5. A rotary web printing machine including in combination, two sets of printing couples vertically arranged side by side with an open space between them and with their cylinders parallel and in tracking relation, the impression cylinders of both sets being accessible from said space, an inking mechanism for each design cylinder movably mounted with relation thereto to afford access to the cylinder and to the inking mechanism, and means for driving each of a plurality of the couples in either direction, the corresponding inking mechanisms being reversible so as to properly apply the ink to its design cylinder irrespective of the direction of rotation thereof, and means for supplying one or more webs to one set of printing couples and for delivering the printed web or webs from the other set.

[Claims 6 to 26 not printed in the Gazette.]

1,138,783. INTERNAL-COMBUSTION ENGINE. IGNACE PERUGINI, Toronto, Ontario, Canada. Filed Sept. 16, 1914. Serial No. 862,021. (Cl. 123—59.)



1. In an internal combustion engine, the combination with the main casing and crank shaft having a double throw journaled therein, of a pair of cylinders supported upon the casing, pistons and piston rods therefor connected to the crank shaft, a cylinder head for the cylinders, a firing chamber located in the cylinder head above each cylinder, a port leading from each firing chamber into each cylinder, a closing valve for the port, an inlet port adjacent to the bottom of each cylinder, an exhaust port adjacent to the top of each cylinder, a duct leading from the bottom of each cylinder into the firing chamber of the other cylinder, valves for the exhaust and inlet ports, and means operated by the piston as it approaches one end of the cylinder for opening the exhaust and inlet ports and simultaneously closing the port leading from the firing chamber to such cylinder and as it approaches the other end of the cylinder for closing the exhaust and inlet ports and simultaneously opening the port leading from the firing chamber to the cylinder, as and for the purpose specified.

2. In an internal combustion engine, the combination with the crank case and crank shaft journaled therein having a double throw, of a pair of cylinders supported upon the crank case and having closed lower ends, pistons for the cylinders, piston rods slidably held in vertical bearings in the closed lower ends of the cylinders and connected to the crank shaft, cylinder heads for the cylinders, a firing chamber for each cylinder located in the cylinder head, a port leading from each firing chamber into each cylinder, a duct leading from the bottom of each cylinder into the firing chamber of the opposite cylinder, a valve in the firing chamber designed to alternately open and close the port leading from the firing chamber and the duct leading into the firing chamber, an inlet port located at the bottom of each cylinder, an exhaust port located at the top of each cylinder, a valve for each inlet and exhaust port, a slide bar extending between the inlet and exhaust valves of each cylinder and having a depending lower end extending into the crank casing, means carried by each piston rod for engaging the slide bar as it approaches the upward and downward limits of its stroke whereby the valves alternately open and close their corresponding ports, and means operated by the slide bar for operating the valve in the corresponding firing chamber for opening the port leading to the cylinder and simultaneously closing the duct leading to the opposing cylinder at the upper end of its stroke and for closing the port leading to the cylinder and opening the passage leading to the opposing cylinder at the lower end of its stroke, as and for the purpose specified.

3. In an internal combustion engine, the combination with the crank case and double throw crank suitably journaled therein, of a pair of cylinders supported upon the crank case and having closed lower ends, pistons for the cylinders, piston rods slidably held in bearings in the closed ends of the cylinders, a cylinder head extending over both cylinders, a cylindrical firing chamber located in the cylinder head above each cylinder, a cylindrical valve turnably held in each firing chamber having a peripheral recess therein, a port leading from the firing chamber into the cylinder, a duct leading from the bottom of each cylinder through the intervening cylinder wall and cylinder head to the firing chamber of the opposing cylinder, an inlet port located in proximity to the bottom of each cylinder, an exhaust port located in proximity to the top of each cylinder, slide valves coacting with the exhaust and inlet ports, a pinion carried by the cylindrical valve of the firing chamber, a rack bar carried by the exhaust slide valves and meshing with the aforesaid pinion, a slide bar slidably held in the cylinder wall and by which the inlet and exhaust valves are carried, and means carried by the piston rod whereby the slide bars are moved vertically in the corresponding direction as the piston approaches each end of its stroke, as and for the purpose specified.

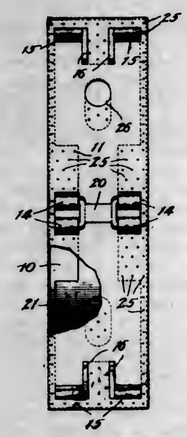
4. In an internal combustion engine, the combination with the crank case and double throw crank suitably journaled therein, of a pair of cylinders supported upon the crank case and having closed lower ends, pistons for the cylinders, piston rods slidably held in bearings in the closed ends of the cylinders, a cylinder head extending over both cylinders, a cylindrical firing chamber located in the cylinder head above each cylinder, a cylindrical valve turnably held in each firing chamber having a peripheral recess therein, a port leading from the firing chamber into the cylinder, a duct leading from the bottom of each cylinder through the intervening cylinder wall and cylinder head to the firing chamber of the opposing cylinder, an inlet port located in proximity to the bottom of each cylinder, an exhaust port located in proximity to the top of each cylinder, slide valves coacting with the exhaust and inlet ports, a pinion carried by the cylindrical valve of the firing chamber, a rack bar carried by the exhaust slide valves and meshing with the aforesaid pinion, a slide bar slidably held in the cylinder wall and having a longitudinal slot therein and by which the inlet and exhaust slide valves are carried, an arm extending radially outwardly from the piston rod through the vertical slot and designed to engage an end of the slot as the piston approaches the ends of its stroke, as and for the purpose specified.

5. In an internal combustion engine, the combination with the crank case having a double throw crank journaled therein, a pair of cylinders supported by the crank case having closed lower ends, a piston for each cylinder, a piston rod slidably held in vertical bearings in the closed lower ends of the cylinders and connected to the crank shaft, an inlet port at the lower end of each cylinder, an exhaust port at the upper end of each cylinder, a slide valve co-acting with each inlet and exhaust port, a vertically slidable bar by which the inlet and exhaust ports are carried having a longitudinal slot therein, an arm extending into the longitudinal slot of each slide bar, and means for locking the slide bar in a stationary position adapted to be released by the longitudi-

nal movement of the radial arm of the slot as it approaches each end of the slot, as and for the purpose specified.

[Claim 6 not printed in the Gazette.]

1,138,784. BRAKE-SHOE. CLIFTON D. PETTIS, Ridgewood, N. J. Filed Aug. 20, 1914. Serial No. 857,632. (Cl. 188—82.)



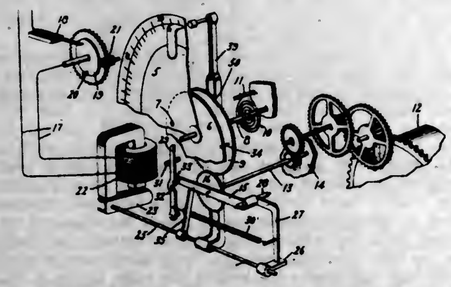
1. A brake shoe comprising a cast metal body and a ductile metal back provided with a plurality of perforations of such size as to permit the escape of air but check the flow of metal through the back in the casting operation.

2. A brake shoe comprising a cast metal body and a ductile metal back provided with a plurality of perforations of such size as to permit the escape of air but check the flow of metal through the back in the casting operation, said perforations having inwardly projecting edges.

3. A brake shoe comprising a cast metal body, a ductile metal back, a reinforcing member within said back, said back being provided with a plurality of perforations of such size as to permit the escape of air but check the flow of metal through the back in the casting operation.

4. A brake shoe comprising a cast metal body, a ductile metal back and a reinforcing member within said back and having reduced or cut-away portions, said ductile metal back being provided at points opposite the cut-away portions of said reinforcing member, with perforations of such size as to permit the escape and flow of air.

1,138,785. DEMAND-INDICATOR. WILLARD E. PORTER, Lynn, Mass., assignor to General Electric Company, a Corporation of New York. Filed Aug. 1, 1913. Serial No. 782,444. (Cl. 234—5.5.)



1. A demand indicator comprising in combination a movable record sheet having an initial position, means for moving said record sheet, means for returning said record sheet to its initial position at predetermined intervals, and a marking device operatively related to said record sheet and adapted to impart a record mark on said record sheet at the end of each of said predetermined intervals.

2. A demand indicator comprising in combination a circular record sheet having an initial position and adapted to be rotated about its center as an axis, means for rotating said record sheet, means for returning said record sheet to its initial position at predetermined intervals, and a marking device operatively related to said record sheet and adapted to impart a record mark on said record sheet at the end of each of said predetermined intervals.

3. A demand indicator comprising in combination a movable record sheet having an initial position, means for moving said record sheet, a marking device arranged on one side of said record sheet, a pad arranged on the other side of said record sheet, said marking device and said pad being relatively movable toward each other, and means actuated at predetermined intervals for returning said record sheet to its initial position and for effecting a relative movement of said marking device and said pad to impart a record mark on said record sheet.

4. A demand indicator comprising in combination a movable record sheet having an initial position, means for moving said record sheet, a stationary marking device arranged on one side of said record sheet, a pivotally mounted pad arranged on the other side of said record sheet and opposite said marking device, and means actuated at predetermined intervals for returning said record sheet to its initial position and for forcing said pad toward said marking device to impart a record mark on said record sheet.

5. A demand indicator comprising in combination a movable record sheet having an initial position, a driving mechanism adapted to be operatively connected to said record sheet, means for interrupting the operative connection between said driving mechanism and said record sheet at predetermined intervals, means for positively insuring the operative connection between said driving mechanism and said record sheet except during the interruptions occasioned by said last mentioned means, a marking device operatively related to said record sheet and adapted to impart a record mark on said record sheet at the end of each of said predetermined intervals, and means for returning said record sheet to its initial position when the operative connection between said driving mechanism and said record sheet is interrupted.

[Claims 6 to 21 not printed in the Gazette.]

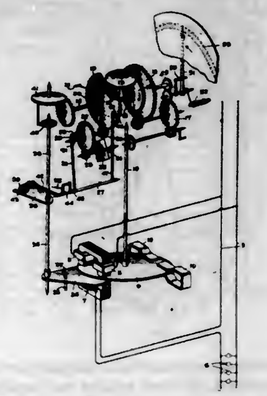
1,138,786. DEMAND-INDICATOR. WILLARD E. PORTER, Lynn, Mass., assignor to General Electric Company, a Corporation of New York. Filed July 1, 1914. Serial No. 848,418. (Cl. 171—34.)

1. In a demand indicator, a rotatable meter element, a rotatably mounted member, means for exerting a torque on said member substantially proportional to the speed of rotation of the meter element, means adapted when energized to exert a countertorque on said member, and means whereby said last mentioned means is energized by the rotation of the meter element.

2. In a demand indicator, a rotatable meter element, a rotatably mounted shaft, means for exerting a torque on said shaft substantially proportional to the speed of rotation of the meter element, a spring adapted when energized to exert a counter-torque on said shaft, and means whereby said spring is energized by the rotation of the meter element.

3. In a demand indicator, an electric meter having field coils and a rotatable armature, a member pivotally mounted in the magnetic field of said coils whereby the member is subjected to a torque, means operatively related to said member and adapted when energized to exert a counter-torque thereon, and means whereby said last mentioned means is energized by the rotation of said armature.

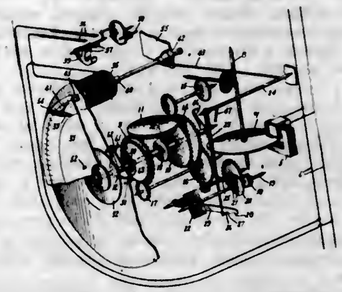
4. In a demand indicator, a rotatable meter element, a member having a restricted movement, means whereby a force is exerted on said member substantially proportional to the speed of rotation of the meter element, means adapted when energized to exert an opposing force on said member, and means whereby said last mentioned means is energized by the rotation of the meter element.



5. A maximum demand indicator comprising a rotatable meter shaft, an actuator having an initial position and operatively connected to the meter shaft, means adapted to be energized by the rotation of the meter shaft, means whereby the actuator is returned to its initial position when the meter shaft has energized said last mentioned means an amount substantially proportional to the speed of rotation of the meter shaft, and means for indicating the maximum movement of said actuator.

[Claims 6 to 12 not printed in the Gazette.]

1,138,787. DEMAND APPARATUS. WILLARD E. PORTER, Lynn, Mass., assignor to General Electric Company, a Corporation of New York. Filed Aug. 4, 1914. Serial No. 854,967. (Cl. 234—5.5.)



1. In a demand apparatus, a planetary member operatively mounted on a rotatable shaft and adapted to drive the shaft in a forward direction, means adapted when energized to drive said shaft in a backward direction, and means for actuating said planetary member to drive said shaft in a forward direction and to simultaneously energize said last mentioned means.

2. In a demand apparatus, a train of gearing, a movable member operatively related to said gearing, means adapted when energized to move said member in a backward direction, means for dampening the movement of said member in the backward direction, and means operatively related to said gearing for moving said member in a forward direction and for simultaneously energizing said first mentioned means.

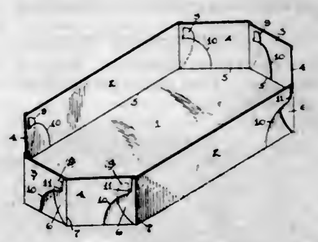
3. In a demand apparatus, a rotatably mounted shaft, means adapted to rotate said shaft in a backward direction, gear member having a planetary movement adapted to rotate said shaft in a forward direction and to simultaneously energize said first mentioned means, and means whereby said shaft is intermittently permitted to respond to the action of the first mentioned means.

4. In a demand apparatus, a rotatably mounted shaft, means adapted to rotate said shaft in a backward direction, a gear member having a planetary movement adapted to rotate said shaft in a forward direction and to simultaneously energize said first mentioned means, means whereby said shaft is intermittently permitted to respond to the action of said first mentioned means, and means for damping the speed of rotation of said shaft when responding to the action of said first mentioned means.

5. In a demand apparatus, a train of gearing having a planetary member, a shaft adapted to be driven in a forward direction by said planetary member, means adapted when energized to drive said shaft in a backward direction, and means for actuating said planetary member to drive said shaft in a forward direction and to simultaneously energize said first mentioned means.

[Claims 6 to 21 not printed in the Gazette.]

1,138,788. PAPER BOX. JOHN M. PULEY, Cleveland, Ohio. Filed July 22, 1914. Serial No. 852,392. (Cl. 229—41.)



1. A blank for paper boxes consisting of a central or body part, integral flaps carried by the margins thereof, each flap being defined from said body part by a flexible crease or fold and the creases of adjacent flaps making an angle of more than 90°, and a securing member carried by each flap adjacent to one lateral edge, each of said flaps being formed with a curved slit at a point removed from its securing member and extending from a point adjacent the lateral edge of the flap to a point adjacent its crease, each of said slits being of greater longitudinal extent than the corresponding securing member and adapted to receive the securing member of same both in folded and in expanded position.

2. A blank for paper boxes consisting of a central or body part, integral flaps carried by the margins thereof and defined therefrom by flexible creases or folds, the creases of adjacent flaps making angles greater than 90°, and means including a curved slit and a securing member for securing adjacent flaps together, each of said slits being curved about a center substantially coinciding with the intersection of the corresponding creases, and the corresponding securing member being carried by the adjacent flap at a distance from its crease substantially equal to the radius of curvature of said slit.

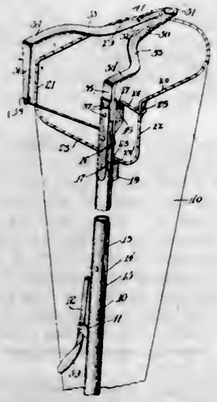
3. A blank for paper boxes consisting of a central or body part, integral flaps carried by the margins thereof and defined therefrom by flexible creases or folds, the creases of adjacent flaps making angles greater than 90°, and means including a curved slit and a securing member for securing together the meeting edges of adjacent flaps, each of said slits being curved about a center substantially coinciding with the intersection of the corresponding creases and having an angular extent sufficient to permit the infolding of said flaps without disconnecting said securing member from said flaps.

4. A blank for paper boxes consisting of a central or body part, flaps carried by the margins thereof and defined therefrom by flexible creases or folds, the creases of adjacent flaps making angles greater than 90°, and a securing member carried by each flap adjacent to one of its lateral edges, said securing members being arranged upon the corresponding edge of each flap so as to progress uniformly around the blank, each of said flaps also having at a point removed from its securing member an arcuate slit extending from a point adjacent its lateral edge to a point adjacent to its crease and adapted to receive the securing member of the adjacent flap, the radius of curvature of said slit being substantially equal to the distance of the securing member from its crease and the center of curvature of said slit coinciding substantially with the point of intersection of the corresponding creases.

5. A blank for paper boxes consisting of a central or body part, flaps carried by the margins thereof and defined therefrom by flexible creases or folds, the creases of adjacent flaps making angles greater than 90°, a flexible tongue carried by one of the lateral margins of each flap and adapted to overlap the adjacent flap, and an outwardly projecting finger extending from each tongue and defined by a notch, each of said flaps also having an arcuate slot formed about the point of intersection of the corresponding creases and adapted to receive said finger, the length of said slit being greater than the width of said finger whereby said flaps may be folded inwardly about their creases without withdrawing the fingers from their slits.

[Claims 6 to 9 not printed in the Gazette.]

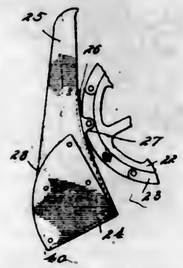
1,138,789. FRUIT-GATHERER. THOMAS M. RANEY, Leadville, Colo. Filed May 2, 1914. Serial No. 835,952. (Cl. 56—99.)



1. A fruit gatherer comprising a handle, upper and lower shoulders extending from said handle, a frame formed from a strand of wire bent to assume a U-shape and having its arms bent downwardly and then toward each other and having their free ends bent to form fingers mounted in said lower shoulder, a brace formed from a strand of wire having its inner end portion double and bent to form a finger extending into said upper shoulder and having its outer end portion bent to form an eye through which one of the arms of said frame passes, a receptacle carried by said frame, cutting means carried by said handle and extending above said frame, and operating means for said cutting means.

2. A fruit gatherer comprising a handle, a frame carried by said handle, cutting means carried by said handle and comprising a pair of jaws pivotally connected together at one end and having their inner edges sharpened adjacent the pivoted ends of said jaws and being then carried in diverging relation, the jaws being then carried substantially parallel and having their end portions bent downwardly, the end portion of one of said jaws being secured to said handle, actuating means connected with the free end of the other of said jaws, and means for normally holding said jaws in an open position.

1,138,790. AUTOMATIC MACHINE FOR LOADING AND SCREENING COAL AND OTHER MATERIAL BY POWER. ALBERT H. REYNOLDS, London, Ontario, Canada. Filed Nov. 10, 1913. Serial No. 800,240. (Cl. 193—28.)



1. In a screening apparatus, a bucket having an elongated chute portion adapted to rest on an elevator chain and a cutting plate adapted to force its way into the material to be elevated and forming a pocket for the retention of the same, said bucket further having sides projecting forwardly of the cutting plate and provided with downwardly turned points and attaching lugs on said bucket adapted to secure the bucket to a chain.

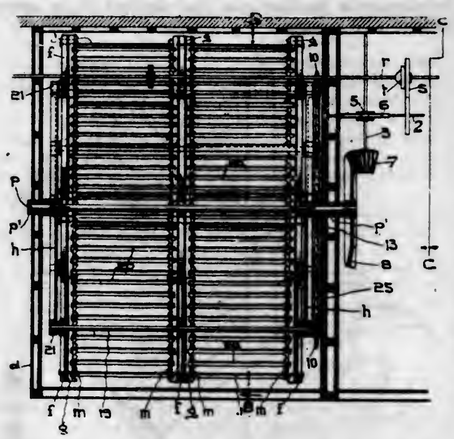
2. In a screening apparatus, a bucket having an elongated chute portion adapted to rest on an elevator chain and a cutting plate adapted to force its weight into the material to be elevated and forming a pocket for the retention of the same, said bucket further having sides projecting forwardly of the cutting plate and provided with downwardly turned points, and attaching lugs on said bucket adapted to secure the bucket to a chain, said lugs being arranged adjacent the forward end of the chute portion and remote from the said points.

1,138,791. VULCANIZING APPARATUS. TALMON HENRY RIEDER, Berlin, Ontario, Canada, assignor to Canadian Consolidated Rubber Company, Limited, Montreal, Canada, a Corporation. Filed Jan. 9, 1911. Serial No. 601,692. (Cl. 18—6.)

1. In a vulcanizing apparatus the combination with a heated chamber; of a rotatable drum within said chamber; means for rotating said drum; a series of annular stick carriers revolubly mounted on said drum; sticks supported by said carriers; means extending from one side of said sticks for supporting the goods to be vulcanized, said sticks being supported in open slots formed in said carriers for preventing said sticks from turning when loaded and means for holding the carriers to maintain the slots in upright position during the rotation of the drum.

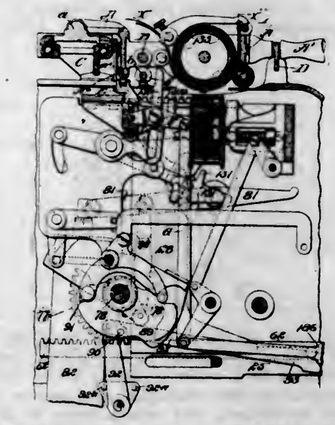
2. In a vulcanizing apparatus, the combination with a heated chamber; of a rotatable drum within said chamber; means for rotating said drum; a series of annular stick carriers revolubly mounted on said drum; means for supporting the articles to be vulcanized upon said carriers; a pulley rigidly attached to the wall of said chamber; means on said carriers for engaging a belt; and an endless belt connecting said pulley and said engaging means on said stick carriers for maintaining them in a substantially level position during rotation of the drum.

3. In a vulcanizing apparatus the combination with a vulcanizing chamber, of a skeleton drum revolubly mounted within said chamber; a series of carriers journaled in the said drum; means for supporting the articles to be vulcanized upon the said carriers; pulleys fixed upon the journals of the said carriers; a pulley mounted upon the drum eccentrically relatively thereto; a pulley arranged concentrically relatively to the said drum



and mounted rigidly upon a fixed part of the apparatus; and an endless belt looped over the said pulleys.

1,138,792. CALCULATING-MACHINE. FRANK C. RINSCHE, St. Louis, Mo., assignor, by mesne assignments, to Burroughs Adding Machine Company, Detroit, Mich., a Corporation of Michigan. Filed Aug. 29, 1904. Serial No. 222,572. Renewed Nov. 2, 1914. Serial No. 869,974. (Cl. 235—60.)



1. In a machine of the character described, the combination of printing mechanism, type-carrying racks, adding wheels normally disengaged therefrom, a cam-yoke for engaging said racks with said wheels for movement of racks in the adding direction, a pitman normally connected to said yoke for oscillating the same, and means for disconnecting the pitman and yoke to prevent any engagement of wheels and racks and provide for printing alone.

2. In a machine of the character described, the combination of printing mechanism, type-carrying racks, adding wheels normally disengaged therefrom, a cam yoke for engaging said racks with said wheels for movement of racks in the adding direction, said cam-yoke having a stud, a pitman notched for engagement with said stud, and means for disconnecting the pitman and yoke to prevent any engagement of wheels and racks and provide for printing alone.

3. The combination with a laterally shiftable carriage, of means for alternately shifting said carriage in opposite directions, a platen mounted in said carriage around which paper is arranged, line-spacing devices for said paper, a vibratory bar for operating said line-spacing mechanism, said bar being movable with the carriage, a collar on said bar, and a vibrating arm operable at each shifted position of the carriage, said arm, when the carriage is in one position, coöperating with the collar to line-space the paper, and when said carriage is in another of its shifted positions vibrating idly; substantially as described.

4. The combination with a laterally adjustable carriage, of means for shifting said carriage alternately in opposite directions, a cam face on the carriage, a bar cooperating with said cam face, so as to be raised or depressed according to the position of the carriage, and a totalizer which is rendered operative or inoperative according to the raised or depressed position of said bars; substantially as described.

5. The combination with key-controlled devices including a rack designed to engage with and be disengaged from the wheels of the totalizer, a laterally shiftable carriage, and means whereby when said carriage is in one of its shifted positions said racks are prevented from becoming engaged with the totalizer; substantially as described.

[Claims 6 to 19 not printed in the Gazette.]

1,138,793. ADDING-MACHINE. FRANK C. RINSCHE, Detroit, Mich., assignor to Burroughs Adding Machine Company, Detroit, Mich., a Corporation of Michigan. Filed Aug. 18, 1913. Serial No. 785,375. (Cl. 235—62.)



1. In a machine of the class described, the combination of a wheel having a series of settable stop pins; means tending to rotate said wheel; a series of keys; a series of wheel-stop-pin setting members operatively connected with said keys respectively; and a combined wheel-stopping and wheel-stop-pin-restoring member common to the keys.

2. In a machine of the class described, the combination of a wheel having a series of settable stop pins; means tending to rotate said wheel; a fixed stop to coact with any one of said wheel-stop-pins; a series of keys; a series of wheel-stop-pin setting members operatively connected with said keys respectively; and a combined wheel stopping and wheel-stop-pin-restoring member common to the keys.

3. In a machine of the class described, the combination of a wheel having a series of settable stop pins; means tending to rotate said wheel; a fixed stop to coact with any one of said wheel-stop-pins; a series of keys; a series of wheel-stop-pin-setting members operatively connected with said keys respectively; and a wheel-stop-pin-restoring member common to the keys and normally interposed between the set wheel-stop-pin and the fixed stop.

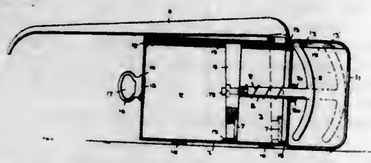
4. In a machine of the class described, the combination of a wheel having a series of settable stop pins; means tending to rotate said wheel; a fixed stop to coact with any one of said wheel-stop-pins; a series of keys; a series of wheel-stop-pin-setting members operatively connected with said keys respectively; and a wheel-stop-pin-restoring member normally interposed between the set wheel-stop-pin and the fixed stop and coacting with the wheel-stop-pin-setting members any one

of which displaces said restoring member upon depression of a key.

5. In a machine of the class described, the combination of a wheel having a series of settable stop pins; means tending to rotate said wheel; a fixed stop to coact with any one of said wheel-stop-pins; a series of keys; a series of wheel-stop-pin-setting members operatively connected with said keys respectively; a wheel-stop-pin-restoring member normally interposed between the set wheel-stop-pin and the fixed stop and coacting with the wheel-stop-pin setting members any one of which displaces said restoring member upon depression of a key; and a spring applied to said restoring member to retract it upon release of the depressed key and cause it to restore the stop-pin; substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

1,138,794. OIL-CAN. OSCAR R. RYDQUIST, St. Croix Falls, Wis. Filed June 3, 1914. Serial No. 842,599. (Cl. 221—51.)



1. An oil can comprising an oblong cylindrical body portion of uniform diameter throughout its length, a spout removably secured to said body portion adjacent one end thereof and normally disposed parallel with the body, a piston of a diameter equal to the diameter of the body portion, said piston being greater in width at one edge than at the other, a stem attached to the piston and extended through one end of the body portion, a hand-grip attached to said stem, a spring surrounding said stem whereby the piston is held normally inward, a valve pivotally secured to the piston, a guide for said hand-grip, an air vent for said body portion, and a plurality of stops adapted to limit the movement of the piston in the body portion.

2. The combination with an oil can; of a wedge shaped piston, having a suitable valve operatively mounted therein and connected by a stem to a hand-grip; a plurality of stops fixedly placed upon the inside of the body portion; a spiral spring surrounding the piston-stem; a handle mounted on the end of the can; a guiding groove within the said handle; a hand-grip attached to the piston stem and having one end of said hand-grip slidably mounted in said groove; a spout operatively fastened to and normally extending parallel with the top side of said can; supports on the lower side of said can whereby it is kept in proper position when not in use, and an air vent on the upper side of the front end of said oil can.

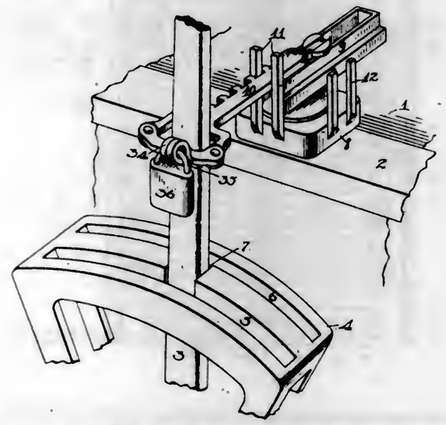
1,138,795. LEVER-LOCK. CHARLES R. SAUNDERS, Cleveland, Ohio. Filed Dec. 23, 1909. Serial. No. 534,668. (Cl. 70—90.)

1. In a device of the character set forth, the combination of a base having upwardly projecting prongs, and a locking member adjustably and pivotally supported from said base, and projecting between said prongs.

2. In a device of the character set forth, the combination of a base having an upwardly projecting pair of prongs, and a locking member adjustably supported from said base and pivoted to swing vertically between said prongs, said member having means adapted to engage the prongs in its various adjusted positions.

3. In a device of the character set forth, the combination of a base having a pair of upwardly projecting prongs, a locking member pivotally supported from said base, arms pivotally connected to the outer end of the locking member, and means for securing said arms together.

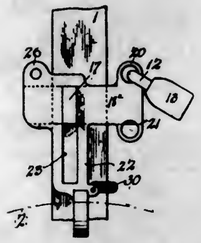
4. In a device of the character set forth, the combination of a base having two pairs of upwardly projecting prongs, and a locking member pivotally and rotatably supported by said base and adapted to be swung between said prongs.



5. In a device of the character set forth, the combination of a base having two pairs of upwardly projecting prongs, a locking member rotatably connected to said base and adapted to be inserted between either pair of prongs, and a spring co-acting with one pair of prongs and adapted to retain the member in place therebetween.

[Claims 6 to 18 not printed in the Gazette.]

1,138,796. AUTOMOBILE-LOCK. CHARLES R. SAUNDERS, Cleveland, Ohio. Filed Aug. 9, 1910. Serial No. 576,310. (Cl. 70—90.)



1. In a device of the character set forth, the combination of a base or support having means whereby it may be secured to a lever, a locking device carried by and slidable along said lever past said base or support and means for securing said locking device to said base or support when in its operative or engaging position, said locking device when in such engaging position serving to cover and prevent access to said securing means.

2. In a device of the character set forth, the combination of a base or support having means whereby it may be secured to a lever, a locking device sleeved on said base or support slidable thereon along said lever, and means for securing said device to the base or support when in its operative and inoperative position, said device when in operative position serving to cover and prevent access to said securing means.

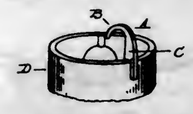
3. The combination, with a guide frame or gate comprising side members and an intermediate slotted member, of an operating lever, a lock carried by said lever and comprising a base or support attached to said lever and a forked locking device reciprocably mounted on said base or support, the lower ends of the forks being adapted to enter the spaces on opposite sides of the intermediate member when said lever is located in the slots thereof, and to engage the inner faces of said side members whereby the lateral movement of said lever is prevented, and means for locking said devices in place with its forks in such spaces.

4. The combination, with a guide frame or gate comprising a pair of side members and an intermediate slotted member, of an operating lever in said frame, and a lock carried by said lever, said lock comprising a base or support secured to the lever, and means movable with respect to said base or support adapted to engage inner faces of the side members to prevent lateral movement of the lever.

5. A device of the character set forth, comprising a substantially U-shaped base, said base comprising a pair of opposed sections, screws connecting said sections, and a vertically reciprocable locking device mounted on said base, said locking device being provided with a plate adapted to cover said screws when the locking device is in its operative or locking position.

[Claims 6 to 17 not printed in the Gazette.]

1,138,797. SPARK-PLUG. ALBERT SCHMIDT, Flint, Mich., assignor to Champion Ignition Company, Flint, Mich., a Corporation of Michigan. Filed Oct. 13, 1913. Serial No. 794,972. (Cl. 123—169.)



1. A spark plug, comprising a plug-casing having a transverse slot in the inner end wall thereof, and an electrode fashioned from sheet metal inserted in said slot and projecting beyond the sides thereof, the projecting portions being upset to expand the metal in the slot into heat-conducting contact with the casing.

2. In a spark plug, a plug-casing having a transversely-extending slot in the inner end wall thereof, and an electrode formed of sheet metal having a shank portion inserted in said slot and expanded to form a retaining and heat-conducting connection.

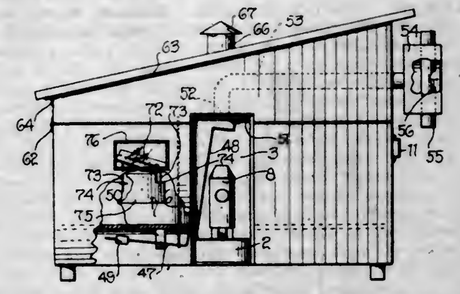
3. In a spark plug, the combination of a plug-casing having a transversely-extending slot in the inner end wall thereof, and an electrode of hooked or return-bent form having an enlarged shank and tapering toward the point, said shank being inserted in said slot to project beyond the opposite sides thereof and being upset to form a retaining and heat-conducting connection.

4. In a spark plug, a plug casing having a transverse slot in the inner end wall thereof, and an electrode formed of sheet metal having a shank portion inserted in said slot and extending longitudinally from said wall and expanded to form a retaining and heat-conducting connection.

1,138,798. BROODER. OSCAR A. SCHRAMM, Delphos, Ohio. Filed Nov. 10, 1913. Serial No. 800,234. (Cl. 237—3.)

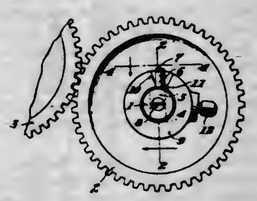
1. A brooder comprising superimposed compartments having inter-communicating openings, one of said compartments being provided with openings in communication with the atmosphere, a rock bar positioned in one of the compartments, closing means coacting with the openings in communication with the atmosphere, closing means coacting with the inter-communicating openings between the compartments, a thermostat within one of the compartments, an operative connection between the thermostat and the rock bar whereby said rock bar is caused to move upon expansion and contraction of the thermostat, means capable of operation for imparting movement in unison to the controlling means for the openings in communication with the atmosphere and the closing means for the inter-communicating openings between the compartments.

2. A brooder of the character described comprising a compartment provided with a plurality of openings, a rock bar mounted relatively thereto, movable closure members coacting with the openings of the compartment, a movable rod positioned in proximity to the rock bar, an operative connection between the rod and the movable closure members of certain of the openings, rods pivotally engaged with the first mentioned rod and intersecting the rock bar and operatively engaged therewith whereby said last named rods will be caused to move in unison with the rock bar, operative connections between said last named rods and the movable closure members of the remainder of the openings, a thermostat within the compartment, and an operative connection between the thermostat and the rock bar whereby said rock bar will be caused to move upon expansion or contraction of the thermostat.



3. A brooder of the character described comprising a compartment provided with a plurality of openings, a rock bar mounted relatively thereto, movable closure members coacting with the openings of the compartment, a movable rod positioned in proximity to the rock bar, an operative connection between the rod and the movable closure members of certain of the openings, rods pivotally engaged with the first mentioned rod and intersecting the rock bar and operatively engaged therewith whereby said last named rods will be caused to move in unison with the rock bar, operative connections between said last named rods and the movable closure members of the remainder of the openings, a thermostat within the compartment, an operative connection between the thermostat and the rock bar whereby said rock bar will be caused to move upon expansion or contraction of the thermotsat, and a weighted rod operatively engaged with the rock bar and overlying the first named rod.

1,138,799. ADJUSTMENT DEVICE FOR MACHINE ELEMENTS. ROBERT W. SCOTT, Boston, Mass. Filed July 25, 1913. Serial No. 781,053. (Cl. 74—8.)



1. A device for adjusting the angular position of a machine element comprising a drive shaft, a member mounted on said shaft normally for rotation therewith, and means held in a transverse bore in said shaft having a rotatable eccentric portion engaging said member to determine the angular position of said member on said shaft.

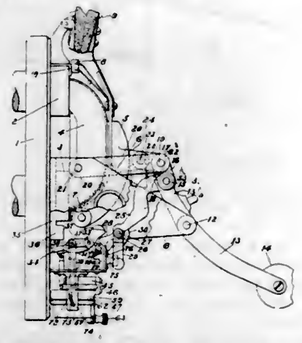
2. In an adjustment device for machine elements a drive shaft, a normally fixed member mounted on said shaft for rotation therewith, and means for adjusting the angular position of said normally fixed member comprising rotatable means housed in a transverse bore in said shaft having an eccentric portion engaging said normally fixed

member, to determine its position on said shaft, and means for locking said normally fixed member in its adjusted position.

3. A gear train having adjustable elements comprising a driving shaft, a pin in a transverse bore in said shaft having an eccentric portion projecting from said pin, a part mounted on said shaft having a flaring slot embracing said eccentric portion, and means to lock said pin and said part with respect to said driving shaft.

4. As an article of manufacture an adjustment member for determining the position of one machine element mounted upon another comprising a split pin having an eccentric portion at one end thereof, said portion being formed for the reception of a tool for rotating the eccentric portion when the structure is in its seated position.

1,138,800. CIRCUIT-BREAKER. WILLIAM M. SCOTT, Berwyn, Pa. Filed Jan. 31, 1912. Serial No. 674,546. (Cl. 175—270.)



1. The combination with electro-responsive means having a movable member, of relatively fixed and movable sucker elements normally in adhesive contact with each other, a positive jointed mechanical connection between said movable member of said electro-responsive means and said movable sucker element, and means acting between said movable sucker element and said movable member through said jointed connection to hold the same at maximum distance from each other while said sucker elements are in contact with each other, whereby said movable member is prevented from moving in advance of said sucker element due to lost motion in said jointed connection and premature separation of said sucker elements is prevented.

2. The combination with electro-responsive means having a movable member, of relatively fixed and movable sucker elements normally in adhesive contact with each other, a gimbal connection between the movable member of said electro-responsive means and said movable sucker element, and a spring thrusting against said movable sucker element and the remote element of said gimbal connection, whereby less than predetermined force applied to said movable member is prevented from separating said sucker elements by advance movement due to lost motion in said gimbal connection.

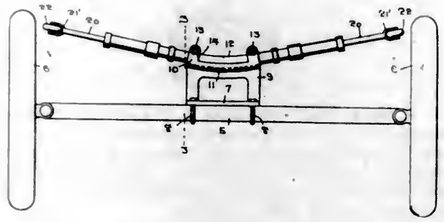
3. The combination with electro-responsive means having a movable member, of a sucker comprising relatively fixed and movable elements normally in adhesive contact with each other, a hollow member, a gimbal connection between said hollow member and said movable sucker element, a pivoted connection between said hollow member and the movable member of said electro-responsive means, and a spring within said hollow member thrusting against said hollow member and said movable sucker element, whereby less than pre-determined force applied to said hollow member is prevented from separating said sucker elements by advance movement due to lost motion in said gimbal connection.

4. The combination with electro-responsive means having a movable member, a sucker comprising relatively fixed and movable elements normally in adhesive contact with each other, a housing closed to the atmosphere inclosing said sucker, said fixed sucker element being in fixed relation with respect to said housing, means for adjusting said housing and said movable member of said electro-responsive means in definite relation with respect to each other, and a connection from said movable member of said electro-responsive means through a wall of said housing to said movable sucker element.

5. The combination with electro-responsive means having a movable member, of a sucker comprising relatively fixed and movable elements normally in adhesive contact with each other, a movable housing closed to the atmosphere inclosing said sucker elements in fixed relation with respect to said fixed sucker element, a member extending through a wall of said housing, a pivoted connection outside of said housing between said member and said movable member of said electro-responsive means, a pivotal connection between said member and said movable sucker element within said housing, and means for taking up lost motion between the movable member of said electro-responsive means and said movable sucker element.

[Claims 6 to 26 not printed in the Gazette.]

1,138,801. HORN-BLOWING ATTACHMENT FOR AUTOMOBILES. WILLIAM W. SCOTT, Plant City, Fla. Filed June 3, 1914. Serial No. 842,553. (Cl. 177—10.)



1. In an automatic signaling device, a frame, means for removably attaching said frame to the axle of a vehicle, a tube removably carried by said frame and means carried by said tube and designed to be automatically actuated by the wheel attached to said axle to operate a signal when the vehicle is rounding the curve.

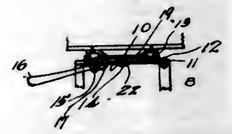
2. In an automatic signaling device, a frame, means for removably attaching said frame to the axle of a vehicle, a tube removably carried by said frame, a piston slidably positioned within said tube, means carried at one extremity of said piston adapted to contact with the wheels of a vehicle when rounding a curve and means at the other extremity of said piston for completing a circuit necessary to operate a signal when said wheels contact with said first means.

3. In an automatic signaling device, a frame, means for removably attaching said frame to the axle of a vehicle, a tube removably carried by said frame, pistons slidably positioned within said tube, means carried on the outer extremity of said piston for contacting with the wheels of a vehicle, means carried on the inward extremity of said pistons and adapted to complete an electric circuit when said pistons are forced inwardly by the contact of said wheels with first said means and resilient means connected to said pistons whereby the same are returned to their normal position when such contact ceases.

4. The combination with an axle of a vehicle having wheels pivoted at the extremity thereof, of a frame removably secured to said axle, a tube removably carried by said frame and slidable means carried by said tube adapted to contact with one or other of said wheels when the machine is rounding a curve to complete an electric circuit necessary for the operation of a signal.

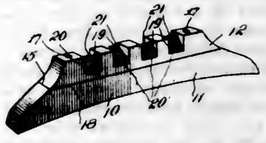
5. In an automatic signaling device, a frame, means for attaching said frame to the axle of a vehicle, a tube carried by said frame, a piston slidably mounted within said tube, means at one end of said piston adapted to contact with the wheels of the vehicle, and means at the other end of said piston for completing a circuit to operate a signal when the said wheels contact with said first means.

1,138,802. SWING. GEORGE F. SHERMER, Columbus, Ohio. Filed June 11, 1914. Serial No. 844,493. (Cl. 155—22.)



The combination with a supporting frame and a base plate having an overturned ring forming an annular flange with an opening therein, of a revoluble seat plate with a central boss supported on the base plate and a pair of diametrically arranged lugs extending under said flange, and means for locking said seat plate in any one of a plurality of positions.

1,138,803. BRIDGE FOR STRINGED MUSICAL INSTRUMENTS. ALBERT SHUTT, Topeka, Kan. Filed Apr. 14, 1914. Serial No. 831,778. (Cl. 84—132.)

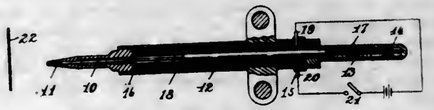


1. In a bridge, the combination with a lower section adapted to be supported on a stringed musical instrument, of dowel pins projecting from the lower section, and an apertured upper section for removable connection with the lower section and adapted to be superposed thereon, with the dowel pins of the lower section extending into the apertures of the upper section.

2. In a bridge, the combination with a lower section, of an upper section on the lower section, and means rigid with the lower section and projecting therefrom to extend into the upper section and secure the same in superposed position relatively to the lower section.

3. In a bridge, the combination with a lower section having a plane face, of an upper section having a plane face and superposed relatively to the lower section, a member for interposition between the sections, and means on the lower section and projecting through the member and the upper section for holding the upper section rigid relatively to the lower section and for securing the said member against displacement between the sections.

1,138,804. DEVICE FOR PERFORATING PAPER. PAUL J. SIMMEN, Indianapolis, Ind. Filed June 27, 1913. Serial No. 776,081. (Cl. 101—133.)



1. In apparatus of the character set forth, the combination with a solenoid coil, of means for supplying current to the coil continuously for a material period of time, a marking implement, and means actuated by the energization of the coil to cause the marking implement to operate on a record sheet and be withdrawn therefrom while the coil is still energized.

2. In apparatus of the character set forth, the combination with a solenoid coil, of means for supplying current to the coil continuously for a material period of time, a marking implement, and an armature carrying the marking implement and actuated by the energization of the coil to cause the marking implement to operate on a record sheet, said marking implement being automatically withdrawn from such sheet while the coil is still energized, and said current supplying means being independent of the armature.

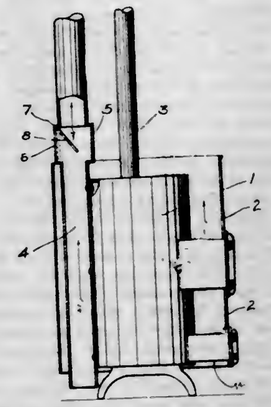
3. In apparatus of the character set forth, the combination with a solenoid coil, of means for supplying current to the coil continuously for a material period of time, a marking implement, and an armature carrying the marking implement and actuated by the energization of the coil to cause the marking implement to operate on the record sheet, said armature and implement being sufficiently heavy to cause the armature to be carried past the neutral position and the implement to operate on a record sheet and then be withdrawn therefrom while the coil is still energized.

4. In apparatus of the character set forth, the combination with a solenoid coil, of means for supplying current to the coil continuously for a material period of time, a marking implement, an armature carrying the marking implement and actuated by the energization of the coil, and means for holding the armature at one side of the neutral position of the same when the coil is de-energized, said armature when actuated by the energization of the coil being sufficiently heavy to cause it to be carried by its momentum past the neutral position, to thereby cause the marking implement to operate on a record sheet, the armature then returning to the neutral position and withdrawing the implement from the record sheet while the coil is still energized, said current supplying means being independent of the armature.

5. In apparatus of the character set forth, the combination with a solenoid coil, of means for supplying current to the coil continuously for a material period of time, a marking implement, an armature carrying the marking implement and actuated by the energization of the coil, and a spring for holding the armature at one side of the neutral position of the same when the coil is de-energized, said armature when actuated by the energization of the coil being sufficiently heavy to cause it to be carried by its momentum past the neutral position, to thereby cause the marking implement to operate on a record sheet, the armature then returning to the neutral position and withdrawing the implement from the record sheet while the coil is still energized.

[Claims 6 and 7 not printed in the Gazette.]

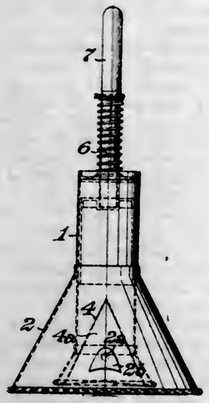
1,138,805. HEATING AND VENTILATING SYSTEM. LEO C. SMITH, Minneapolis, Minn., assignor to Smith System Heating Co., Minneapolis, Minn., a Corporation of Minnesota. Filed Feb. 23, 1911. Serial No. 610,214. (Cl. 237—47.)



The combination with a heater having a surrounding jacket through which the air of the room is circulated, of

a foul air pipe, extended vertically through said jacket and provided at its intermediate portion with an expanded compartment, said compartment having a lateral discharge passage opening directly into the room, and a damper mounted in said compartment, said damper being adjustable, in one extreme position to close said lateral discharge passage, in another extreme position to close the upper portion of said foul air pipe, and, in an intermediate position, to open more or less of both said lateral discharge passage and the upper portion of said foul air pipe.

1,138,806. PNEUMATIC WASHING APPLIANCE. MARCUS L. SMITH, Scranton, Pa. Filed Dec. 10, 1913. Serial No. 805,679. (Cl. 68—5.)



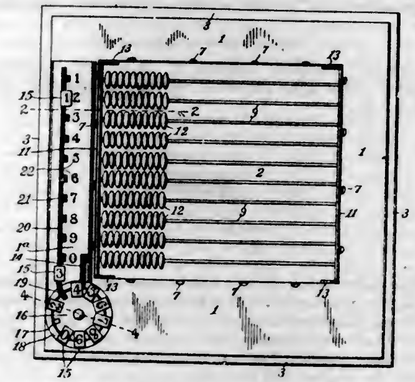
1. In a pneumatic washing appliance, the combination of a piston chamber, a piston fitted therein, means for reciprocating said piston, inner and outer cones fixed to the piston chamber, the inner cone projecting therefrom a lesser distance than the outer cone, and separated compartments located in the space between the inner and outer cones, each having a discharge opening through the outer cone.

2. In a pneumatic washing appliance, the combination of a piston chamber, a piston fitted therein, means for reciprocating said piston, an outer cone secured to the piston chamber intermediate of its ends, an inner cone secured to one end of the piston chamber and projecting therefrom a lesser distance than the outer cone, and plates interposed between the inner and outer cones and forming a plurality of separated compartments, each having a discharge opening through the outer cone.

3. In a pneumatic washing appliance, the combination of a piston chamber, a piston fitted therein consisting of a length of tubing closed near its upper end and having a tubular socket for the reception of a handle projecting upwardly therefrom, air passages in the top of said chamber and surrounding said piston, inner and outer cones fixed to the piston chamber, and plates interposed between said cones to form a plurality of separated compartments, certain of said compartments having a discharge opening through the outer cone.

4. In a pneumatic washing appliance, the combination of a piston chamber, a piston fitted therein consisting of a length of tubing closed near its upper end and having a tubular socket for the reception of a handle projecting upwardly therefrom, air passages in the top of said chamber and surrounding said piston, inner and outer cones fixed to the piston chamber, openings in said outer cone and a hood or deflector arranged over the openings in said outer cone, plates interposed between said cones to form a plurality of separate compartments and certain of said compartments having a discharge opening through the said outer cone and under said hood or deflector.

1,138,807. EDUCATIONAL APPLIANCE. SETH J. SPITLER, Greenville, Mich. Filed May 21, 1914. Serial No. 839,960. (Cl. 35—2.)



1. In a device of the character described, a base, a frame connected to the base comprised of spaced apart members whereby an open well is formed above the base, and a counting frame detachably positioned in said well, substantially as described.

2. In a device of the character described, a base, a frame connected to the base comprised of spaced apart members whereby an open well is formed above the base, a counting frame having a plurality of spaced apart rods and end members connected to the rods, and means for retaining said end members frictionally within the well by engagement thereof with opposed members of the said frame.

3. In a device of the character described, a base, a frame connected to the base comprised of spaced apart members whereby an open well is formed above the base, opposed sides of the frame having depressions formed therein, a counting frame comprised of spaced apart parallel rods having ends turned at right angles to the bodies of the rods, end members receiving the ends of the rods and connecting them together, said end members having beads formed therein adapted to seat in the depressions in the sides of said frame whereby said counting frame may be detachably retained in the well by engagement with the said sides of the frame.

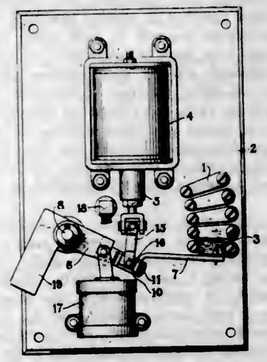
4. In a device of the character described, a base plate having its edges turned back for a distance forming receiving pockets, a frame formed of a channel member having spaced apart vertical sides and a horizontal connecting member at the upper ends thereof, and flanges formed on the outer vertical members of said channel member seating in said receiving pockets.

5. In a device of the character described, a base plate having its edges turned back for a distance to form receiving pockets, a frame having spaced apart members, each member comprised of outer and inner vertical portions connected at their upper ends by an integral horizontal portion, horizontal flanges formed at the lower ends of the outer vertical portions and seating in the receiving pockets, horizontally located projections extending from the lower ends of the inner portions, each of said projections terminating in a bead, and clips secured to the said base for receiving said beads and securing the said frame members in fixed relation to the base.

[Claims 6 to 8 not printed in the Gazette.]

1,138,808. CIRCUIT-CONTROLLER. LEWIS L. TATUM, Milwaukee, Wis., assignor to The Cutler-Hammer Mfg Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed June 13, 1913. Serial No. 773,574. (Cl. 172—288.)

1. In a circuit controller, in combination, a contact, a support therefor, and means for operating said support to impart both an abutment and sliding movement to said contact, said means being mechanically connected to said support to inherently tend to render said movements of said contact progressive.



2. In a circuit controller, in combination, a contact, a support therefor and means for operating said support to impart both an abutment and sliding movement to said contact, said means being mechanically connected to said support to inherently tend to effect abutment movement of said contact prior to sliding movement thereof in either direction.

3. In a circuit controller, in combination, a plurality of stationary contacts, a coöperating movable contact operable with respect to certain of said stationary contacts as an abutment contact and with respect to others as a sliding contact and operating means for said movable contact inherently tending to effect said movements progressively.

4. In a circuit controller, in combination, a series of stationary contacts, a coöperating movable contact operable as an abutment contact with respect to the end contacts of said series and as a sliding contact with respect to the intermediate contacts of said series and operating means for said contact including mechanical means inherently tending to render said movements of said contact progressive with the abutment movement preceding the sliding movement.

5. In a circuit controller, in combination, a contact movable both as an abutment contact and as a sliding contact and operating means for said contact including mechanical means inherently tending to render said movements of said contact progressive with the abutment movement preceding the sliding movement in both directions.

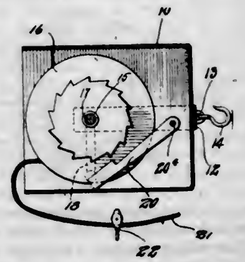
[Claims 6 to 20 not printed in the Gazette.]

1,138,809. SIGNALING DEVICE FOR MOTOR-VEHICLES. JOHN A. THOMPSON, Rosebank, N. Y. Filed Jan. 8, 1913. Serial No. 740,877. (Cl. 40—77.)



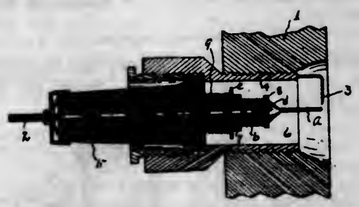
A vehicle signal device including a cylindrical casing having an observation aperature and a light ray directing aperture formed in the wall thereof, a rotatable sign carrier carried within the casing and operable through one end of the casing, a lamp engaging member carried at the other end of the casing and comprising an apertured disk, a gasket fitting upon the outer face thereof and about the aperture and an annulus secured to the disk to coöperate with the disk and the gasket to form a clamp at one end of the casing.

1,138,810. CLOTHES-LINE REEL AND STRETCHER. DANIEL T. TIMBERLAKE, St. Louis, Mo. Filed Jan. 19, 1914. Serial No. 812,955. (Cl. 242—101.)



In a clothes line reel, a rectangular housing open at one end, a strap fixed to said housing and extending across the closed end thereof, and partially across the side walls, a hook carried by said strap, which hook is adapted to be attached to one end of a clothes line, a shaft journaled in the end portions of the strap and in the side walls of the housing, a hub fixed on said shaft within the housing, a pair of disks fixed on the ends of the hub, which disks are located within the housing and lie immediately adjacent to the side walls thereof, said hub and disks forming a spool on which is adapted to wind a pulley carrying clothes line so that the same is located wholly within the housing while not in use, a ratcheted wheel fixed on one end of the hub within the housing, and a gravity pawl pivotally mounted within the housing and adapted to engage the teeth of said ratchet wheel.

1,138,811. SPARK-PLUG. JOSEPH TRISKA, Omaha, Nebr. Filed Jan. 6, 1914. Serial No. 810,582. (Cl. 123—169.)

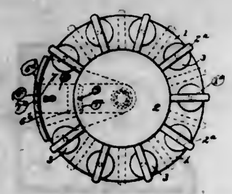


A spark plug, comprising, in combination with a metallic housing having a cylindrical chamber, an insulating plug having a body portion mounted in said housing and having a stem disposed centrally of the chamber for circumscribing a conductor, a detent member mounted on the terminal of the stem, a sleeve formed with an annular ridge and loosely mounted on said stem adjacent to said detent member, and a spring abutting upon the body portion of the insulating plug for engagement with said sleeve.

1,138,812. SPOOL OR CORD HOLDER. FRED H. VAN LOOZEN, Cleveland, Ohio. Filed Apr. 23, 1914. Serial No. 833,833. (Cl. 242—139.)

1. In a spool or cord holder, a base member provided with a plurality of spool receiving spindles, a spring resisted member movable in a horizontal plane carried by said base member and provided with a plurality of arms normally overhanging said spindles and terminating in thread guide loops at the other sides thereof, and a lock carried by said base member and locking said spring resisted movable member in its normal position.

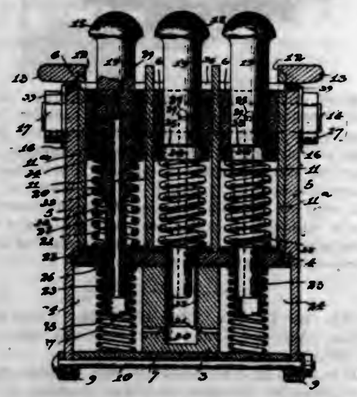
2. In a spool or cord holder, a supporting member provided with spool receiving spindles, a spring resisted thread guide carrying member rotatably carried thereby and having thread guide members normally extending over said spool receiving spindles to prevent the removal of spools therefrom, and a lock for holding said thread guide carrying member in closed relation to said spindles.



3. A spool or cord holder, comprising a stationary base member provided about its sides with a plurality of spaced spool receiving spindles, a movable member mounted thereon and provided with similarly spaced outwardly extending arms normally overhanging said spindles and terminating in depending thread guide loops at the sides of said spindles, a spring connected at one end to said base member and at the other end to said movable member, a locking device carried by said stationary member and normally holding said movable member in its closed position against the resistance of said spring, and a stop for holding said movable member in its unlocked position.

4. A spool or cord holder, comprising a stationary base member provided at its sides with a plurality of spool carrying spindles, a lock at one side of said base member provided with a spring resisted locking member, a movable member carried by said base member and provided with a plurality of outwardly extending arms normally overhanging said spindles and terminating in depending thread guide loops normally extending outside of said spools on said spool carrying spindles, a spring attached to and carried within said base member and connected to said movable member, and a lock and a spring resisted locking member within said base member and normally holding said movable member in its closed position.

1,138,813. VEHICLE-TIRE. JOHN R. VICKERY, Chicago, Ill. Filed Dec. 28, 1912. Serial No. 738,995. (Cl. 152—8.)



1. In a vehicle tire structure, the combination of an inner rim band adapted to engage the felly of the wheel, annular side-plates secured to said inner rim band, an outer sectional rim band comprising a plurality of bearing-blocks disposed side by side between said side-plates and grooved on their adjacent transverse sides, clamp-bolts extending through the grooves of said bearing-blocks and said side-plates and securing said bearing-blocks in place in the rim structure, and spring-pressed plungers slidably mounted in said bearing-blocks.

2. In a vehicle tire structure, the combination of an inner rim band adapted to engage the felly of the wheel, annular side-plates secured to said inner rim band, an outer sectional rim band comprising a plurality of bearing-blocks disposed side by side between said side-plates and grooved on their adjacent transverse sides, clamp-bolts threaded on each end extending through the grooves of said bearing-blocks and said side-plates, nuts on both ends of said clamp-bolts permitting the withdrawal of the latter from either side of the rim structure, and spring-pressed plungers slidably mounted in said bearing-blocks.

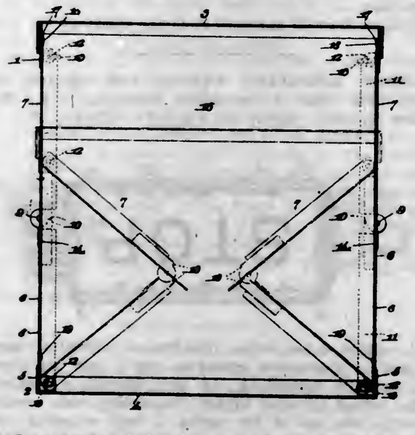
3. In a vehicle tire structure, the combination of an inner rim band adapted to engage the felly of the wheel, annular side-plates secured to said inner rim band, an intermediate annular partition plate mounted on said inner rim band, an outer sectional rim band comprising a plurality of rectangular bearing-blocks arranged side by side between said side-plates and partition plate and grooved on their adjacent transverse sides, clamp-bolts extending through the grooves of said bearing-blocks and said side-plates and partition plate and securing said bearing-blocks in place in the rim structure, and spring-pressed plungers slidably mounted in said bearing-blocks.

4. In a vehicle tire structure, the combination of a rim formed with radial bearings in its outer periphery, spring-pressed plungers slidably mounted in said bearings, and means for taking up wear and preventing rattling of said plungers in their bearings comprising followers overlying the outer periphery of said rim and fitted to and engaging one side of said plungers adjacent to one end of said bearings, and means for forcing said followers against said plungers.

5. In a vehicle tire structure, the combination of a rim formed with radial bearings in its outer periphery, spring-pressed plungers slidably mounted in said bearings, and means for taking up wear and preventing rattling of said plungers in their bearings comprising followers overlying crosswise the outer periphery of said rim and fitted to and engaging one side of said plungers adjacent to one end of said bearings, and springs constantly urging said followers against said plungers.

[Claims 6 to 8 not printed in the Gazette.]

1,138,814. FOLDING CRATE OR BOX. ADOLPH VON SCHLUEMBACH, Altoona, Pa. Filed Nov. 9, 1912. Serial No. 730,346. (Cl. 220—17.)



1. In a device of the class described, upper and lower members, sides hingedly connected at one end to said members respectively and at their opposite ends to each other, one of said sides being extended beyond the axis of the hinge to overlap the edge of the opposite side, and the edge of said opposite side being bent to receive the said overlapping portion whereby said sides will lie in the same plane when the device is in set-up position, substantially as described.

2. In a device of the class described, upper and lower members, foldable sides comprising upper and lower sections hingedly connected together at their adjacent edges and slidably and hingedly connected at their free ends to said members, and ends hingedly connected to one of said members and fitting snugly between said sides when the device is in unfolded position and holding said sides in close proximity to the adjacent portions of said members, substantially as described.

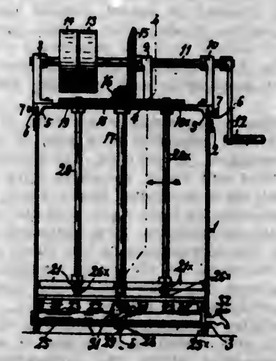
3. In a device of the class described, upper and lower rectangular members, the former being provided with depending flanges and the latter having upwardly extending flanges, the opposite flanges of said upper member being provided with horizontally disposed slots and the corresponding flanges of said lower member being provided with upwardly and outwardly extending slots, foldable sides, studs on said sides arranged in said slots, and end members adapted to fit snugly between said sides, substantially as described.

4. In a device of the class described, upper and lower rectangular members, the former being provided with depending flanges and the latter having upwardly extending flanges, the opposite flanges of said upper member being provided with horizontally disposed slots and the corresponding flanges of said lower member being provided with upwardly and outwardly extending slots, foldable sides, studs on said sides arranged in said slots, and hingedly mounted end members adapted to fit snugly between said sides, substantially as described.

5. In a device of the class described, upper and lower members, foldable sides hingedly connected to said members, each of said sides comprising an upper and a lower portion hingedly connected and the adjacent edges of said portions overlapping throughout their lengths, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

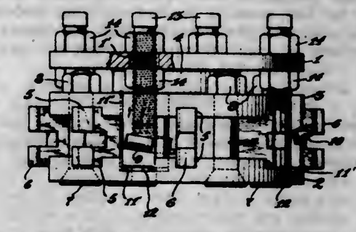
1,138,815. PAINT-MIXER. GUSTAV VOSS, Madison, Wis. Filed Sept. 22, 1913. Serial No. 791,080. (Cl. 91—57.)



1. In a machine of the kind described, the combination with a cylindrical vessel having a bottom and a detachably secured cover partly closing its top, of a dasher shaft journaled in the cover and the bottom in central position of the vessel, a propeller-shaped dasher fixed on said shaft and having its blades moving near the bottom and the sides of the vessel, a horizontal bar having its ends detachably secured to the inner side of the lower portion of the vessel, other dasher shafts arranged parallel to the central shaft and having their lower ends journaled on the horizontal bar and their upper ends journaled in the cover, propeller-shaped dashers fixed on said other dasher shafts, meshing cog-wheels fixed on the upper ends of all the dasher shafts, and means for rotating one of the dasher shafts and thereby all of them.

2. In a machine of the kind described, the combination with a cylindrical vessel having a bottom and a detachably secured cover partly closing its top, of a dasher shaft journaled in the cover and the bottom in central position in the vessel, a propeller-shaped dasher fixed on said shaft and having its blades moving near the bottom and the sides of the vessel, a horizontal bar having its ends detachably secured to the inned side of the lower part of the vessel, other dasher shafts arranged parallel to the central shaft and having their lower ends journaled on the horizontal bar and their upper ends journaled in the cover, propeller-shaped dashers fixed on said other dasher shafts, meshing cog-wheels fixed on the upper ends of all of the dasher shafts and means for rotating one of the dasher shafts and thereby all of them, said means for rotation consisting of a bevel pinion fixed on the central dasher shaft, bearings fixed upon the cover, a horizontal shaft journaled in the bearing, a bevel gear fixed on the horizontal shaft and meshing with the first mentioned bevel gear, and means for turning the horizontal shaft.

1,138,816. CUTTER-HEAD. EDWARD H. WAUGH, Seattle, Wash., assignor to John W. Winningham, Seattle, Wash. Filed July 22, 1912, Serial No. 710,941. Renewed Dec. 21, 1914. Serial No. 878,428. (Cl. 144—233.)



1. In a cutter head, relatively adjustable spaced clamping supports, a cutter holder adjustably mounted on both and free of the same, and means mounted on one of the supports and engaged with the holder for adjusting it irrespective of the relative adjustment and position of the supports.

2. In a cutter head, relatively adjustable spaced clamping supports, one of which has spaced flanges, clamping bolts connecting the supports for drawing them toward each other and passing through one of the flanges, a cutter holder adjustably mounted on both supports and movable transversely thereof, and means mounted on the other flange of said support and connected to the holder for adjusting it irrespective of the relative adjustment and position of the supports.

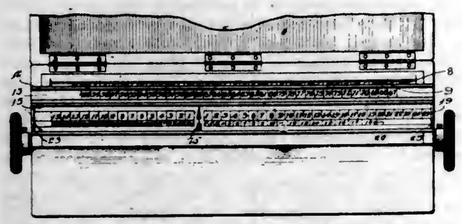
3. In a cutter head, the combination with a support, of a cutter holder movably mounted thereon and having a cutter socket and a screw for clamping a cutter in the socket and adjusting and holding the cutter holder on the support, said screw being threaded in the holder and having its end entering the socket to abut against the cutter, and nuts adjustably threaded on the screw and engaging opposite portions of the support.

4. In a cutter head, the combination with a support having a flange, of a cutter holder slidably mounted on the support transversely thereof and having a cutter socket, a screw slidably passing through the flange and having a threaded engagement with the cutter holder, said screw having an end enterning the socket to engage and clamp a cutter therein, and nuts adjustably threaded on the screw and engaging opposite sides of the flange for adjusting the cutter holder and holding it in adjusted relation.

5. In a cutter head, spaced supports, one having a socket provided with a reduced portion, a cutter holder mounted on and slidably transversely of the supports, said holder having a reduced stud slidably engaged in the re-

duced portion of the socket of said support, and adjusting means for the holder mounted on the other support and engaged with the said cutter holder.

1,138,817. COMPUTING DEVICE. WALTER I. WEBBER, Los Angeles, Cal. Filed Jan. 27, 1914. Serial No. 814,650. (Cl. 235—87.)

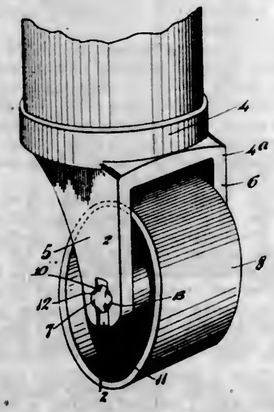


1. In a computing device an element carrying data, a fixed scale, and a slidable scale carrying two sets of graduations, the first set of graduations being read in conjunction with the data and fixed scale, and the second set of graduations being readable in conjunction with the fixed scale.

2. In a computing device a rotatable element carrying data, a fixed scale to be read in conjunction with said data, and a slidable scale having two series of graduations, the first series of graduations being read in conjunction with said fixed scale and data, the second series of graduations being arranged progressively and readable in conjunction with the fixed scale.

3. A computing device comprising a rotatable cylinder bearing a plurality of longitudinal rows of data marks arranged in different positions along a cylinder and bearing also an annular series of data marks extending around the cylinder, the respective data marks of the last named series registering with the respective rows of the first named data marks, a fixed scale extending longitudinally of the cylinder and adjacent thereo, and a slidable scale movable longitudinally adjacent to said fixed scale and provided with two longitudinal series of graduations, the graduations of one series being progressive and being read in conjunction with the fixed scale and the other series of graduations on the slidable scale being read in conjunction with the data of the cylinder and also the fixed scale.

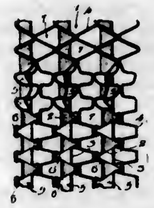
1,138,818. CASTER. JOHN M. WEBSTER, Cincinnati, Ohio, assignor to The O. P. Schriver Co., Cincinnati, Ohio, a Corporation of Ohio. Filed Mar. 14, 1914. Serial No. 824,796. (Cl. 16—4.)



1. In a caster the combination of a frame, an axle mounted in the frame and a wheel loosely mounted on the axle, said frame having means formed thereon which are adapted to distort the head of the axle when said axle is driven into wheel mounting engagement with the frame.

2. In a caster the combination of a frame having a grooved axle-mounting fork, an axle and a caster wheel, the groove being adapted to lock the axle against rotation relatively to its mounting frame when the end of the axle is deformed by being driven into the groove to mount the wheel thereon.

1,138,819. RADIATOR. FRANK B. WENTWORTH and LOUIS F. CLAUSING, Los Angeles, Cal. Filed Jan. 12, 1914. Serial No. 811,591. (Cl. 257—130.)



1. A water tube unit for radiators comprising a pair of opposed metal plates joined along their longitudinal edges, the plates having transverse corrugations extending across their entire width, and the convex portions of one plate projecting into and fitting the concave portions of the other plate, the crests of the corrugations being flattened, and the flattened portions extending a slight distance on each side of the longitudinal center of the section, and the plates being spread apart along their longitudinal center to provide a water channel.

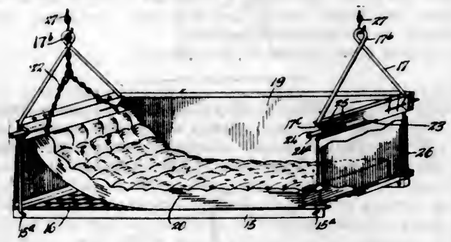
2. A radiator comprising a plurality of water tube units, each unit consisting of a pair of similar plates formed with transverse corrugations extending across their entire width, the plates being secured together at their longitudinal edges with the convex portions of one plate projecting into and fitting the concave portions of the other plate, the inner crest portions of the corrugations being flattened on each side of the longitudinal center of the section, and the flattened portion of one section being disposed in spaced parallel relation to the flattened portion of the other section, thereby providing a water channel, and the unflattened portions of the corrugations forming blind lateral channels in communication at their inner ends with the first mentioned channel.

3. A radiator comprising a plurality of water tube units, each unit consisting of a pair of nested transversely corrugated plates, the corrugations extending entirely across said plates, the plates being united along longitudinal edges and being spread apart intermediate their united edges to form water conduits the crest portions of the corrugations being flattened intermediate their ends, the corrugations in the plates providing air passages transverse to the water conduits, and means secured between the units for spacing them apart and providing additional air passages.

4. A radiator comprising a plurality of water tube units, each unit consisting of a pair of nested, transversely corrugated plates, the corrugations extending entirely across said plates, the plates being united along their logitudinal edges and being spread apart intermediate their united edges to form water conduits, the crest portions of the corrugations being flattened intermediate their ends, said corrugations providing air passages transverse to the water conduits and spacing plates between the units, each spacing plate having corrugations with flattened central portions secured to corresponding intermediate portions of the water tube units, and the convex portions of the spacing plates being soldered to the convex portions of the water tube unit.

5. A radiator comprising a plurality of water tube units arranged in parallel relation to one another, each unit consisting of a pair of nested, transversely corrugated plates, the corrugations extending entirely across the plates, the central portions of the crests of the corrugations being flattened, and the plates being spread apart along the line of their longitudinal centers to provide a longitudinal water channel substantially rectangular in cross section, said channel extending at right angles to the corrugations, the plates converging from the said edges of the channel to their united longitudinal edges, thus providing blind lateral channels communicant at their inner ends with the first mentioned channel, the concave portions on the exterior of the plates providing air passages, and a transversely corrugated spacing plate between each pair of water units, crest portions of the corrugations of each spacing plate being flattened intermediate their ends, and the flattened portions being opposed to and secured to the exterior flattened portions of the water units.

1,138,820. HAMMOCK-COT. FRANK B. WERSEL, Jr., Cincinnati, Ohio. Filed May 1, 1914. Serial No. 835,581. (Cl. 5—61.)



1. In a hammock cot, the combination of a frame, legs removably secured to the frame, hangers removably secured to the frame and adjacent to the legs, a roller removably mounted on said hangers, and fabric secured to said roller, adapted to cover the hangers, legs and frame and to be rolled upon said roller when not in use.

2. In combination in a hammock cot, a frame, legs removably mounted on the frame, hangers removably mounted on the frame adjacent to the legs, windshields removably secured to the hangers and the frame, a mattress located on the frame and means adapted to support one end of the mattress in an inclined position relatively to the frame.

3. A hammock cot comprising a frame having inclined slots located at the ends of said frame, shouldered rivets located at the ends of said frame adjacent to the slots, legs adapted to support said frame, hooked plates secured to the legs and adapted to engage the rivets to secure the legs to the frame, and hangers having offset ends adapted to engage the slots.

4. In a hammock cot the combination of a frame, hangers removably mounted on the frame, a mattress, and support members adapted to engage the hangers and the mattress to support the mattress in an inclined position relatively to the frame.

5. In combination in a hammock cot, a frame, hangers secured to the frame and having bends formed therein, transverse braces having ends fitting the bends, plates having perforations engaging the bends and extending beyond the ends of the braces, longitudinal strips between the braces, means mounted on the strips adapted to removably engage the plates, and wind shields secured to the longitudinal strips and the braces.

[Claims 6 and 7 not printed in the Gazette.]

1,138,821. LATHE ATTACHMENT. ANTON E. WICKLAND and ARTHUR T. BRITTON, San Jose, Cal. Filed May 18, 1914. Serial No. 839,266. (Cl. 51—4.)

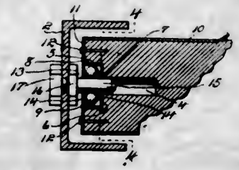
1. In combination with the spindle of a lathe having an exteriorly threaded end, a chuck threaded over said spindle end and having a head which latter is provided with a diametrically extending dove-tail extension, said extension being provided with a screw-threaded recess and a projection which extends into the recess, a spindle extension having a dove-tail groove which receives said dove-tail extension and also having a screw-threaded recess which registers with the screw-threaded recess of the dove-tail extension, a screw engaged in said registering recesses and having an annular groove which receives said projection, a work engaging element borne by the spindle extension, means to drive said element, and means to drive the spindle.



2. In combination with the spindle of a lathe, a chuck secured to the front end of the spindle and having a dove-tail extension, a member having a dove-tail groove which slidably receives said dove-tail extension, a rotatable screw engaged with the member and with the extension to move the member laterally of the spindle, means to hold the screw against endwise movement, a work engaging element borne by the member, means to rotate said element, and means to drive the spindle.

3. In combination with the spindle of a lathe, a chuck secured to the front end of the spindle and having a dove-tail extension, a member having a dove-tail groove which slidably receives said dove-tail extension, means for adjusting the member in said groove, a work engaging element borne by the member, means to drive said member, and means to drive the spindle.

1,138,822. BEARING. HARRY E. WILLIAMS, Louisville, Ky., assignor to Dow Wire & Iron Works, Louisville, Ky., a Corporation. Filed June 1, 1912. Serial No. 701,067. (Cl. 64—36.)



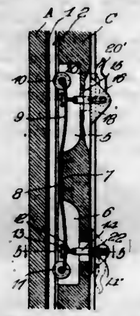
A device of the character described comprising a roller provided at both ends with a concentric recess extending into the roller and provided with a counter-recess, an annular plate arranged in said counter-recess, an annular casing in said counter-recess, a ferrule on each end of the roller, a face plate on each end of the roller, a series of balls arranged in the counter-recess in the roller, a plurality of loosely arranged ball retaining rings in said counter-recess to retain balls therein, and an axle entering said concentric recess at each end of the roller for engagement with the said balls in the said counter-recess, substantially as described and for the purposes set forth.

1,138,823. SASH-HOLDER. JAMES P. WILLIAMS, New York, N. Y. Filed Aug. 10, 1914. Serial No. 856,039. (Cl. 16—54.)

1. A sash holder comprising a resilient strap adapted to be fixed to the outer edge of one of the side bars of a window sash, a friction roller carried by said strap, and roller retracting means connected with said strap and comprising a slotted link, and an eccentric having a stud slidably engaged with the slot of said link.

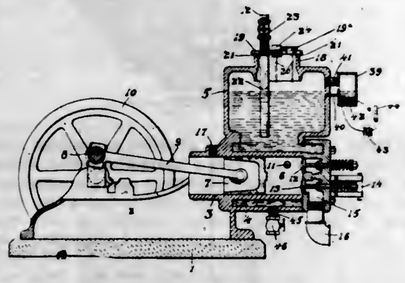
2. The combination with a window sash having a recess in the outer edge of one of its side members, of a resilient strap fixed to said edge with its free end extending into said recess, a friction roller mounted on the

free end of said strap, an eccentric pivoted on the opposite edge of said side member, and a link connecting said eccentric with said strap.



3. The combination with a window sash having spaced recesses in the outer edge of one of its side members, of a resilient strap secured intermediately of its ends to said edge between said recess with its ends disposed opposite said recesses, roller on said strap ends, links adjutably connected with said strap ends, and having longitudinal slots therein, said side member having apertures extending through the rear walls of said recesses, brackets mounted on said side members over said apertures and having openings registering with said apertures, the slotted ends of said links extending through said apertures and openings, and members eccentrically fulcrumed on said brackets and pivotally connected with the slotted ends of said links at points remote from their fulcrums.

1,138,824. INTERNAL-COMBUSTION ENGINE. WILLIAM WILLS, Canton, Ohio, assignor of one-third to Homer E. Black and one-third to William L. Rohrer, Canton, Ohio, and one-eighth to Wm. A. Marshall, Austin, Nev. Filed May 21, 1914. Serial No. 839,939. (Cl. 123—34.)



1. In an internal combustion engine, an oil containing cooling jacket surrounding the cylinder, an oil containing reservoir located upon said cooling jacket and communicating therewith, means for maintaining a uniform level of oil in the reservoir, means for vaporizing a sufficient quantity of oil to start the engine, an air intake pipe extending downward through the top of said reservoir and through the oil contained therein, the lower extremity of said pipe terminating at a point adjacent the explosive chamber and a gas outlet pipe connecting the reservoir and the cylinder.

2. In an internal combustion engine, an oil containing cooling jacket surrounding the cylinder, an oil containing reservoir located upon said cooling jacket and communicating therewith, means for vaporizing a sufficient quantity of oil to start the engine, an air intake pipe extending downward through the top of said reservoir and through the oil contained therein, the lower extremity of said pipe terminating at a point adjacent the explosive chamber and a gas outlet pipe connecting the reservoir and the cylinder.

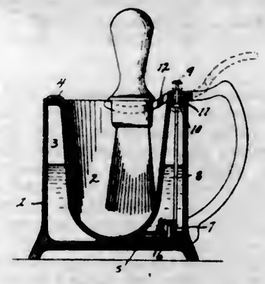
3. In a hydrocarbon motor, an oil containing cooling jacket surrounding the explosion chamber, a vaporizing chamber communicating with the cooling jacket, means for maintaining the oil within the vaporizing chamber at a given level, means for forcing air through the oil contained in the vaporizing chamber and means for feeding the same into the explosion chamber.

4. In a hydrocarbon motor, an oil containing cooling jacket surrounding the explosion chamber, the heat radiated from the explosion chamber being adapted to vaporize the oil contained in the cooling jacket, means for forcing air through the oil contained in the cooling jacket, means for feeding the same into the explosion chamber, and means for operating the engine until the explosion chamber has become sufficiently heated to vaporize the oil contained in the cooling jacket.

5. An internal combustion engine, comprising a jacketed cylinder provided with a hopper, and adapted to contain oil as a cooling agent, an air intake pipe extending into said hopper and discharging against the cylinder, means for maintaining a uniform level of oil in the hopper, means for vaporizing a sufficient quantity of oil to start the engine and a gas feed pipe connecting said hopper to the explosion chamber.

[Claim 6 not printed in the Gazette.]

1,138,825. SANITARY SHAVING-CUP. EUGENE WARREN WILSON, Detroit, Mich., assignor of one-half to William Clifton Morgan, Highland Park, Mich. Filed Jan. 13, 1913. Serial No. 741,716. (Cl. 132—15.)

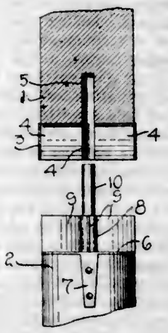


1. In a shaving cup, an open cup-shaped lather chamber, a lather-producing solution chamber surrounding the lather chamber, said solution chamber being closed to atmosphere with the exception of a vent and a closable opening and closed as to the lather chamber with the exception of a passageway therebetween, the lather chamber being supported at the top and bottom in the solution chamber, said vent and said passageway being normally closed, and means for opening both the vent and the passageway.

2. In a shaving cup, an open cup-shaped lather chamber, a lather-producing solution chamber formed between the wall of the lather chamber and the outer wall of the cup, there being a passageway between said chambers near the bottom of the lather chamber, the solution chamber being otherwise closed to atmosphere with the exception of a vent and a closable opening, a valve normally closing said passageway, a valve normally closing said vent, and means for operating said valves from the exterior of the cup.

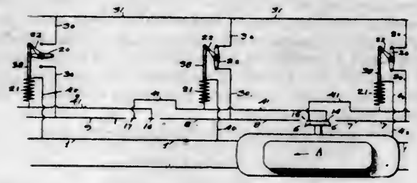
1,138,826. SECTIONAL SUPPORTING-POLE. TOBIAS YOUNIS, Concho, Ariz. Filed Mar. 12, 1914. Serial No. 824,248. (Cl. 189—26.)

1. The combination of two parts to be connected together, one of said parts being provided in its end with radially extending kerfs and a longitudinal bore of greater depth than said kerfs and with which said kerfs communicate, a cap plate fixed upon the end of the other part and provided at diametrically opposite points with attaching arms, said cap plate being further provided at its center with a socket and blades extending radially from the socket to the outer edge of the plate to be received in the respective kerfs of the first part, a rod engaged in said socket and adapted to extend into said bore when the parts are connected, and a circumscribing band fixed upon the first part and entirely closing the outer ends of said kerfs.



2. The combination of two pole sections to be connected together, one of said sections being provided in its end face with a plurality of radially extending kerfs and a longitudinal bore with which said kerfs communicate, said bore being of greater depth than the kerfs, a cap plate fixed upon the end of the other pole section and provided with a central longitudinally extending sleeve, a series of radially disposed blades integrally formed upon the sleeve and plate, said blades being adapted to be received in the kerfs of the first pole section, a rod mounted in said sleeve and of greater length than the blades to extend into the bore of the first pole section, and a circumscribing band fixed upon the first pole section and closing the outer ends of said kerfs.

1,138,827. THIRD-RAIL SYSTEM. PHILIP H. ZUM MALLEN, Chicago Heights, Ill. Filed Aug. 15, 1914. Serial No. 857,280. (Cl. 191—17.)



1. In a third rail system, the combination of a third rail composed of insulated sections; a pair of contact plates between the adjacent ends of each section and in alinement therewith; a feed wire; an electrical connection between the feed wire and each insulated section of the third rail; a separate switch for each section of the third rail and arranged to open and close the connection between the feed wire and that section; an electromagnet arranged to close and open the switch with each alternate movement; an electrical connection between the magnet and that one of each pair of contact plates nearest the end of each adjacent section; and a contact shoe arranged to connect a section of the third rail, temporarily connected to the feed wire, with the contact plate in connection with the electromagnet of the section in advance thereby operating the switch of the said section in advance and connecting the feed wire with that section of the third rail.

2. In a third rail system, the combination of a third rail composed of insulated sections; a pair of contact plates between the adjacent ends of each section and in alinement therewith; a feed wire; an electrical connection between the feed wire and each insulated section of the third rail; a separate switch for each section of the third rail and arranged to open and close the connection between the feed wire and that section; an electromagnet arranged to close and open the switch with each alternate movement; an electrical connection between the magnet and that one of each pair of contact plates nearest the end of each adjacent section; and a contact shoe arranged to travel in contact with the sections of the third rail and the contacts and to connect a section with the contact in connection with the electromagnet of the section in advance, thereby imparting an impulse to the said magnet and causing the switch of that section to connect that section with the feed wire, and to connect the section in the rear with the contact in connection with the magnet of that section.

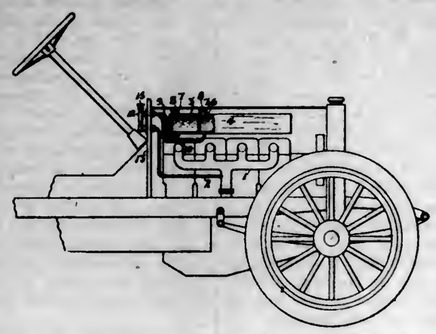
3. In a third rail system, the combination of a third rail composed of insulated sections; a pair of insulated contacts between the ends of each section; a feed wire; a separate connection between the feed wire and each section; a separate switch for each section arranged to open the connection between the feed wire and the section at each alternate movement thereof and to close the said connection at every other alternate movement thereof; an electromagnet for each section connected to the ground and to each of the contacts nearest the adjacent sections; and a contact shoe arranged to travel in contact with the sections of the third rail and the contacts and to connect a section with the contact in connection with the magnet of the section in advance, thereby imparting an impulse to the said magnet and causing the switch of that section to connect that section with the feed wire, and to connect the section in the rear with the contact in connection with the magnet of that section.

4. In a third rail system, the combination of a third rail composed of insulated sections; a pair of insulated contacts between the ends of each section and alined therewith; a feed wire; a separate connection between the feed wire and each section; a separate switch for each section arranged to open the connection between the feed wire and the section at each alternate movement thereof and to close the said connection at every other alternate movement thereof; an electric magnet for each section connected to the ground and to each of the contacts nearest the adjacent sections; and a contact shoe arranged to travel in contact with the sections of the third rail and the contacts alined therewith and to connect a section with the contact in connection with the electromagnet of the section in advance, thereby imparting an impulse to the said magnet and causing the switch of that section to connect the same with the feed wire, and to connect the section in advance with the contact in connection with the magnet of the section in the rear thereby imparting an impulse to the said magnet and causing the switch of the section in the rear to open the connection between the said section and the feed wire.

1,138,828. FUEL ECONOMIZER AND DECARBONIZER FOR INTERNAL-COMBUSTION ENGINES. JACK ADAMS, San Francisco, Cal. Filed Aug. 19, 1914. Serial No. 857,490. (Cl. 123—25.)

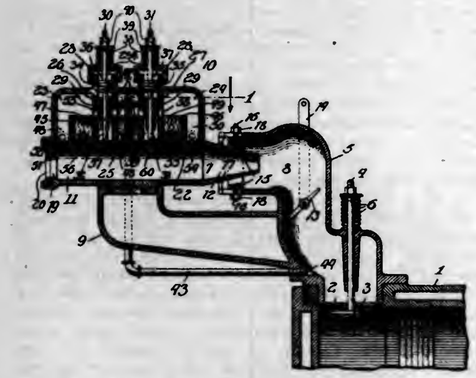
In combination with the internal combustion engine of an automobile, vessels for containing water and a decarbonizing fluid respectively, two upwardly extending transparent pipes, a third pipe communicating with the lower ends of said first-named pipes, all of said pipes being on the rear side of the dashboard of the automobile, conduits communicating at one end with the upper ends of the first-named pipes, valves for regulating the sizes of the communicating passages, said conduits communicating at the other end with said vessels respectively, a conduit communicating at one end with said third pipe and con-

nected at the other end direct with the intake manifold of the engine, said third-named pipe being open to the ad-



mission of air, and means for regulating admission of air thereinto.

1,138,829. CARBURETER. GUSTAV A. F. AHLBERG, Chicago, Ill. Filed Nov. 28, 1910. Serial No. 594,521. (Cl. 48—154.1.)



1. A carbureter, comprising in combination primary and secondary chambers, each having an air inlet and a discharge outlet, the discharge outlet of said primary chamber leading into said secondary chamber, whereby a flow from the former may be induced by a suction through the latter, a source of fuel supply in communication with an opening leading to said primary chamber, a fuel valve for varying the effectiveness of said opening, yielding means tending to hold said valve fully open, a vacuum controlled piston arranged to oppose said yielding means, a fuel mixture regulating valve within and near the entrance to said secondary chamber, means for controlling the same from without, and a conduit leading from a point in advance of said fuel mixture regulating valve to the chamber of said vacuum controlled piston, to enable the variation in vacuum at said point to be communicated to said piston chamber to vary the effective opening of the fuel valve.

2. A carbureter, comprising in combination primary and secondary chambers, and having an air inlet and a discharge outlet, the discharge outlet of said primary chamber leading into an inlet to said secondary chamber with a space between open to the atmosphere, a source of fuel supply in communication with said primary chamber, a fuel valve for varying the effective fuel opening, yielding means tending to hold said valve fully open, a vacuum controlled piston arranged to oppose said opening means, a fuel mixture regulating valve within and near the entrance to said secondary chamber, means for actuating said valve from without, and a conduit leading from a point located between the discharge opening of said secondary chamber and said fuel mixture regulating valve to the piston chamber of said vacuum controlled piston.

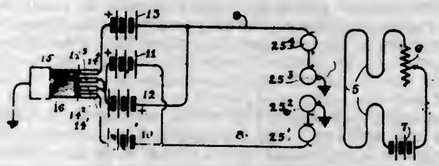
3. A carbureter, comprising in combination primary and secondary chambers each having an air inlet and a discharge outlet, the discharge outlet of said primary chamber leading into the open end of said secondary chamber with a space between the two open to the atmosphere, means for varying the effective air opening leading to said primary chamber, a source of fuel supply in communication with said primary chamber, a fuel valve for varying the fuel supply opening, yielding means for holding said valve normally open, a vacuum controlled piston arranged to oppose said opening means, a fuel mixture regulating valve within and near the entrance to said secondary chamber, means for actuating said valve from without to vary the quantity of fluid admitted thereto and a conduit leading from a point between said fuel mixture regulating valve and the discharge opening of said secondary chamber to the piston chamber of said vacuum controlled piston.

4. A carbureter, comprising in combination primary and secondary chambers, each having an air inlet and a discharge outlet, the discharge outlet of said primary chamber leading into the open end of said secondary chamber with a space between the two open to the atmosphere, means for varying the effective area of the air opening leading to said secondary chamber, a source of fuel supply in communication with said primary chamber, a fuel valve for varying the fuel supply opening, yielding means for holding said valve normally open, a vacuum controlled piston arranged to oppose said opening means, a fuel mixture regulating valve within and near the entrance to said secondary chamber, means for actuating said valve from without to vary the quantity of fluid admitted thereto and a conduit leading from a point between said fuel mixture regulating valve and the discharge opening of said secondary chamber to the piston chamber of said vacuum controlled piston.

5. A carbureter, comprising in combination primary and secondary chambers, each having an air inlet and a discharge outlet, the discharge outlet of said primary chamber leading into the open end of said secondary chamber with a space between the two open to the atmosphere, means for varying the effective area of the air opening leading to each of said chambers, a source of fuel supply in communication with said primary chamber, a fuel valve for varying the fuel supply opening, yielding means for holding said valve normally open, a vacuum controlled piston arranged to oppose said opening means, a fuel mixture regulating valve within and near the entrance to said secondary chamber, means for actuating said valve from without the chamber to vary the volume of fluid admitted thereto and a conduit in communication with said secondary chamber in advance of said fuel mixture regulating valve, said conduit leading to the piston chamber of said vacuum controlled piston.

[Claim 6 not printed in the Gazette.]

1,138,830. PRINTING-TELEGRAPH RECEIVER. CHARLES G. ASHLEY, Chicago, Ill., assignor to General Engineering and Construction Company, Limited, Toronto, Canada, a Corporation. Filed Nov. 21, 1910, Serial No. 593,320. Renewed Sept. 24, 1914. Serial No. 863,384. (Cl. 178—30.)



1. In a printing telegraph system, a receiver comprising a plurality of printing pens, a receiving surface, electromagnetic means for withdrawing said pens from contact with said receiving surface and a further electromagnetic means associated with each of said pens for selectively propelling said pens to strike said receiving surface.

2. In a printing telegraph system, a receiver comprising a plurality of printing pens, a receiving surface, an electromagnet for withdrawing said pens from contact with said receiving surface and a further electromagnetic helix for each of said pens whereby a desired pen may have its magnetic member reversed in magnetic polarity and thereby cause said withdrawing electromagnet to become a pen-propelling electromagnet for said desired pen whereby said desired pen is propelled selectively to impress its imprint upon said receiving surface.

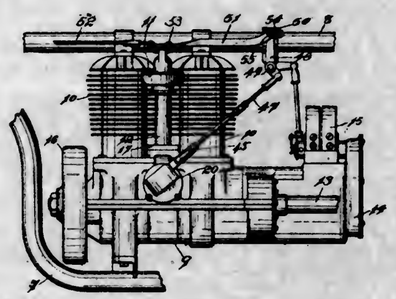
3. A receiver for use in printing telegraph systems comprising a plurality of printing pens, a receiving surface, magnetic means common to all of said pens and adapted to withdraw said pens normally out of contact with said receiving surface and further magnetic means associated with said pens severally whereby a desired pen may be reversed with respect to said common magnetic means selectively to cause the desired pen to impress its type face upon said receiving surface.

4. A receiver for use in printing telegraph systems, comprising a plurality of pivoted armatures, a recording surface, an electromagnet adapted to retain said armatures in a normal position, a plurality of operating solenoids, each surrounding one of said armatures, a printing type attached to one extremity of each of said armatures, said solenoids being adapted when energized to cause said armature to assume a position other than normal and thereby impress their type face on said recording surface.

5. A receiver for use in printing telegraph systems comprising a single polarizing magnet, a plurality of operating solenoids, a pivoted armature within each of said solenoids and free to move therein, a recording surface, a printing type carried on one extremity of each of said armatures, said polarizing magnet being adapted to maintain all of said armatures in a normal position thus retaining said type out of contact with said recording surface, and said solenoids when energized being each adapted to cause its particular inclosed armature to be released from the influence of said polarizing magnet and assume an alternative position under the influence of said solenoid and said polarizing magnet to cause the type face which it bears to record its impression on said recording surface.

[Claims 6 to 19 not printed in the Gazette.]

1,138,831. INTERNAL-COMBUSTION ENGINE. CHARLES E. BAKER and EVERETT M. DE LONG, Hartford, Conn., assignors, by mesne assignments, to the New Britain Machine Company, New Britain, Conn., a Corporation of Connecticut. Filed Aug. 23, 1910. Serial No. 578,535. (Cl. 123—97.)



1. A cylinder, a piston located in the cylinder, a valve chamber communicating with the cylinder, an intake valve to control the supply of fluid to the cylinder, means for exerting force to hold said valve to its seat, means for controlling admission of fluid to said valve, and means for simultaneously operating said fluid admitting means and also for varying the pressure against said valve.

2. A cylinder, a piston located in the cylinder, a chamber communicating with the cylinder, a valve in said chamber to control the flow of fluid to the cylinder, a spring exerting pressure upon the valve, means for controlling the admission of fluid to said valve, and means for simultaneously operating said fluid controlling means and also for varying the tension upon said spring.

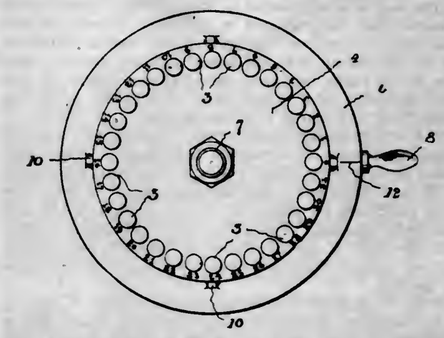
3. A cylinder, a piston located in the cylinder, a valve chamber communicating with the cylinder, a valve located in said chamber, means for exerting force to press the valve to its seat, a throttle to control the admission of fluid to said valve, and means connected for operation with said throttle to vary the force to hold the valve to its seat.

4. A cylinder, a piston located in the cylinder, a valve chamber, an intake valve located in said chamber, a spring to force said valve against its seat, a throttle to control the admission of fluid to said valve, and means for varying the force of said spring, said means being connected for operation simultaneously with the throttle.

5. A plural number of cylinders, pistons located in each of the cylinders, a valve chamber communicating with each of the cylinders, an intake valve located in each of the chambers, means for forcing each of the valves to its seat, means to control the admission of fluid to each of the valves, and means connected to operate simultaneously with the fluid admitting means to vary the force against said valve.

[Claims 6 to 13 not printed in the Gazette.]

1,138,832. WRITING-MACHINE. OTTOMAR FEDOR BAMBERG and EDMUND WEINHOLD, Laibach, Austria-Hungary. Filed May 29, 1913. Serial No. 770,797. (Cl. 178—22.)



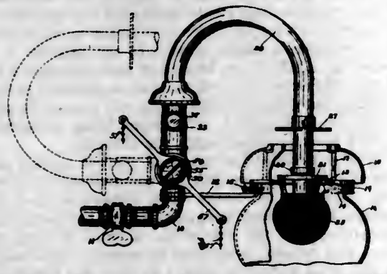
1. A device for use in changing over the operative connections between two type machines for the purpose of transmitting messages in cipher and for deciphering the same, comprising two contact carriers the one formed with a notched surface and the other with projections adapted to engage the notches, means for normally pressing the projections into the notches, and connections from said contact carriers leading to the two type machines from one of which messages are to be transmitted to the other.

2. A device for use in changing over the operative connections between two type machines for the purpose of transmitting messages in cipher and for deciphering the same, comprising two contact carriers the one formed with a notched surface and the other with projections adapted to engage the notches, a spring pressing the one contact carrier into engagement with the other, indications on the one contact carrier adapted to show the setting position in conjunction with a mark on the other, and connections from said contact carriers leading to the two type machines from one of which messages are to be transmitted to the other.

3. A device for use in changing over the operative connections between two type machines for the purpose of transmitting messages in cipher and for deciphering the same, comprising two contact carriers, a hollow axle carrying the one contact carrier, around which axle the other contact carrier is revoluble, means for locking the revoluble contact carrier in any one of a number of positions relative to the other contact carrier, a cable of conductors

passed through the hollow axle to the contact carrier fixed thereon, and a second cable of conductors connected to said revoluble contact carrier, said cables leading to the type machines to be connected.

1,138,833. INCANDESCENT GAS-BURNER. GEORGE BATY, Brooklyn, and ROBERT M. RYAN, New York, N. Y. Filed Dec. 9, 1914. Serial No. 876,343. (Cl. 67—94.)



1. An incandescent gas burner comprising a pipe, a frame fixed thereon and supporting a shade and a mantle, and a burner tube pivotally mounted on said pipe, and movable into and out of operative relation with said mantle, said tube at all times retaining operative connection to said pipe, whereby said burner may be lighted while the burner tube is removed from the mantle.

2. An incandescent gas burner comprising a pipe, a mantle and holder mounted in fixed position thereon, and a burner tube also mounted on said pipe, the end of said tube being movable in a substantially vertical direction out of said mantle into convenient lighting position, said tube at all times retaining operative connection to said pipe, whereby said burner may be lighted while the burner tube is removed from the mantle.

3. An incandescent gas burner comprising a pipe, a frame fixed thereon, a mantle and mantle holder supported on said frame, and a burner tube movably mounted on said pipe, the outer depending end of said tube being positioned in operative relation to said mantle but removable upwardly therefrom in a substantially vertical direction to lighting position, whereby said burner may be lighted while the burner tube is removed from the mantle.

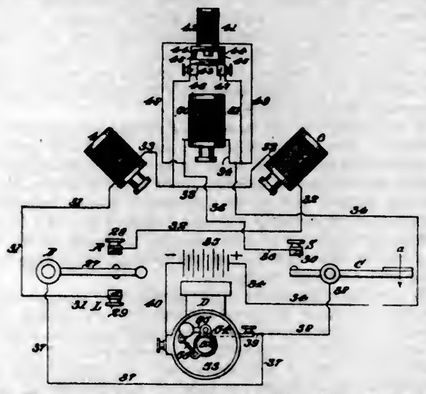
4. An incandescent gas burner comprising a pipe, a frame mounted thereon for supporting a shade and a mantle, and a burner tube pivotally mounted on said pipe, said tube being of substantially semi-circular form with its outer depending end normally positioned in operative relation to said shade and mantle and movable on its pivot in a substantially vertical direction away from its operative position to a lighting position substantially removed from said shade and mantle, said tube retaining operative connection with said pipe in all positions of said tube.

5. In an incandescent gas burner, a pipe, a frame fixed thereon, and means for separately supporting a shade, a mantle-holder, and a reflector on said frame, said shade, mantle-holder and reflector being each independently removable from said frame without movement of said frame or of the other two elements.

[Claims 6 to 12 not printed in the Gazette.]

1,138,834. DIRECTION-INDICATOR FOR VEHICLES. WILLIAM W. BELL, Alameda, Cal. Filed Mar. 16, 1914. Serial No. 824,906. (Cl. 177—337.)

1. The combination with a car, of a casing secured to the rear end of same, a plurality of signs pivotally mounted in said casing, a solenoid magnet connected to each sign, a source of current supply means automatically controlled by the steering and braking mechanism of the car for closing a circuit through one or another of said magnets to raise the connected sign into display position, said means operating to prevent the display of more than one sign at the time, and comprising a core magnet connected in shunt circuit with one of the solenoid magnets, an armature actuated by the core margnet, and a pair of contact members with which the armature is adapted to engage to open or close the current through the other solenoid magnets.



2. The combination with a car, of a casing secured to the rear end of same, a plurality of signs pivotally mounted in said casing, a solenoid magnet connected to each sign, a source of current supply means automatically controlled by the steering and braking mechanism of the car for closing a circuit through one or another of said magnets to raise the connected sign into display position, said means operating to prevent the display of more than one sign at the time, and means for opening the circuit between the magnets and the source of current supply when the engine of the car is stopped, said means comprising a centrifugally actuated circuit-breaker driven by the engine.

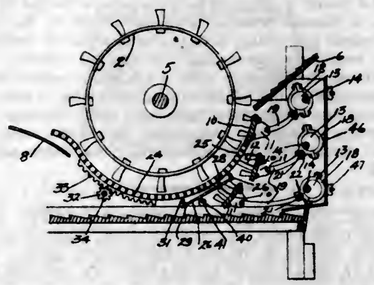
3. In combination with a car, electrically operated direction signals actuated by the steering mechanism, an electrically operated stop indicating signal actuated by the car brake, and a single electrically energizable means common to and independeat of and for controlling each of the direction signals whereby upon each operation of the stop signal said single means will be actuated to open the circuit through either of said direction signals.

4. In combination with a car and a series of signs, a solenoid magnet for operating each sign, and means controlled by the steering and braking mechanism for closing a circuit through said magnets to move the sign thereof to display position and to prevent the display of more than one sign at a time including a core magnet connected in shunt circuit with one of the solenoid magnets, an armature actuated by the core magnet, and a pair of contacts with which the armature is adapted to engage to open or close the circuit through the solenoid magnets.

5. In combination with a car, direction signals, solenoid magnets for actuating said signals by movement of the steering mechanism, a stop signal, a solenoid magnet for actuating the stop signal by movement of the car brake mechanism, and electrically energizable means common to and independent of the direction signal magnets and operated upon energization of the stop signal magnet to open the circuit through both of said direction signal magnets, said circuit breaker being independent of the circuit closing means.

1,138,835. THRESHING-MACHINE. JOHN A. BERGREN, Lake Park, Minn., assignor of one-tenth to Alfred F. Youngberg and two-fifths to Herman S. Wilson, Lake Park, Minn. Filed May 16, 1914. Serial No. 838,988. (Cl. 130—27.)

1. In a threshing machine, the combination with a tooth-equipped cylinder, of a concave, comprising a plurality of tooth-equipped sections, for coöperation with said cylinder, certain of said concave sections being mounted for movements toward and from said cylinder, a grate, mounted for substantially concentric movement in respect to said cylinder, said grate having a supplemental section arranged to take the place of any one of the movably mounted concave sections, when moved to an inoperative position, and to be separated from said grate to permit one of said movably mounted concave sections to be inserted therebetween.



2. In a threshing machine, the combination with a tooth-equipped cylinder, of a concave, comprising a plurality of tooth-equipped sections, for coöperation with said cylinder, certain of said concave sections being mounted for movements toward and from said cylinder, a grate, mounted for substantially concentric movement in respect to said cylinder, said grate having a supplemental section arranged to take the place of any one of the movably mounted concave sections, when moved to an inoperative position, and means for locking said supplemental grate section in a predetermined set position, when taking the place of one of the movably mounted concave sections.

3. In a threshing machine, the combination with a tooth-equipped cylinder, of a concave, comprising a plurality of tooth-equipped sections, for coöperation with said cylinder, certain of said concave sections being mounted for movements toward and from said cylinder, a grate, mounted for substantially concentric movement in respect to said cylinder, said grate having a supplemental section arranged to take the place of any one of the movably mounted concave sections, when moved to an inoperative position, and means for locking said supplemental section to said grate for common movement therewith toward and from said concave sections.

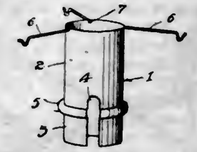
4. In a threshing machine, the combination with a tooth-equipped cylinder, of a concave, comprising a plurality of tooth-equipped sections, for coöperation with said cylinder, certain of said concave sections being mounted for movements toward and from said cylinder, a grate, mounted for substantially concentric movement in respect to said cylinder, said grate having a supplemental section arranged to take the place of any one of the movably mounted concave sections, when moved to an inoperative position, means for locking said supplemental section to said grate for common movement therewith toward and from said concave sections, and means, operative, at will, for releasing said supplemental section from said grate.

5. In a threshing machine, the combination with a tooth-equipped cylinder, of a concave, comprising a plurality of tooth-equipped sections, for coöperation with said cylinder, certain of said concave sections being mounted for bodily movements to and from operative positions, said concave sections, when in operative positions, having interlocking engagement one with the other.

[Claims 6 to 10 not printed in the Gazette.]

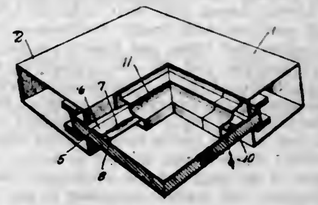
1,138,836. LIGHTING-FIXTURE APPARATUS. NORMAN D. BISHOP, Los Angeles, Cal. Filed Feb. 14, 1911. Serial No. 608,643. (Cl. 240—116.)

As a new article of manufacture, a shade supporting attachment for electric light sockets, including a hollow cylindrical shell adapted to be fitted over an electric light socket, one end of the shell being provided with a longitudinal slot adapted to receive the key of the socket, while the opposite end of the shell is formed with bayonet slots, a ring fitted removably upon the said opposite end



of the shell, rods projecting radially from the said ring for supporting a shade, the inner ends of the rods projecting inwardly from the ring for engagement with the before mentioned bayonet slots of the shell to lock the ring in position upon the shell.

1,138,837. METAL DOOR. SVEN G. BOLIN, Kansas City, Mo. Filed Feb. 6, 1913. Serial No. 746,467. (Cl. 189—53.)



1. In a metal door, an inset panel, an inwardly facing spring clip fixed to and spaced from the edges of the panel, and a molding comprising corner members, having mitered and square ends and spring lips adapted for projection beneath the spring clips on the panel, and straight members having square ends adapted for projection between and abutment with the square ends of the corner members, and having spring lips adapted for projection beneath the spring clips on the panel, whereby the corner members are locked firmly in position.

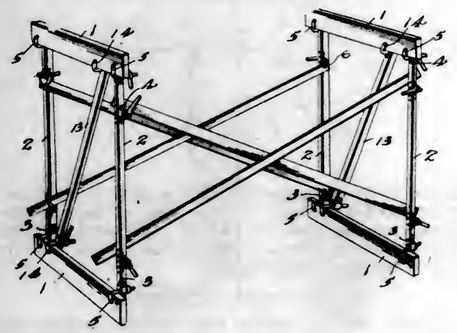
2. In a metal door, stiles and cross rails, a panel set in from said stiles and cross rails to form a shoulder, a fastening member fixed to said panel adjacent said shoulder and having a spring lip opening toward the center of said panel, a molding comprising corner members having mitered and square ends, and a spring lip adapted for projection beneath the spring lip of the fastening member, and straight sections having square ends adapted for abutment with the square ends of the corner sections and having spring lips adapted for projection beneath said fastening member to lock the corner sections in position.

1,138,838. TRESTLE-SCAFFOLD. GEORGE BONENBERGER, Evansville, Ind., assignor to Steel Scaffolding Company, Evansville, Ind., a Corporation of Indiana. Filed Apr. 15, 1913. Serial No. 761,214. (Cl. 20—83.)

1. A multiple unit scaffold composed of superposed end frames or trestles, each comprising horizontal members, and uprights having clamps near their ends, the intermediate horizontal members constituting a common connecting means with which the clamps of the uprights of upper and lower end frames are engaged, said clamps affording means whereby the uprights may be set at any desired points lengthwise of the common horizontal connecting members.

2. A multiple unit scaffold composed of superposed end frames or trestles, each comprising horizontal members, and uprights having clamps near their ends, the intermediate horizontal members with which the clamps of the uprights of upper and lower end frames are engaged constituting a common and the sole connecting means be-

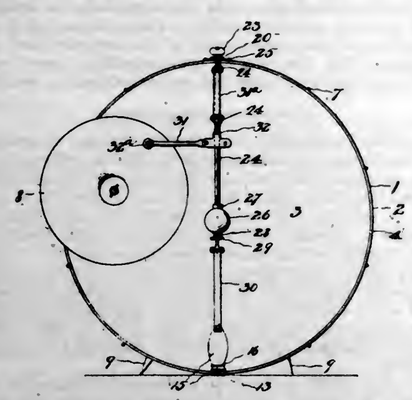
tween the uprights of the end frames, said clamps affording means whereby the uprights may be set at any desired points lengthwise of the common horizontal connecting members.



3. A multiple unit scaffold composed of superposed end frames or trestles, each comprising horizontal members, uprights having clamps near their ends, the intermediate horizontal members with which the clamps of the uprights of upper and lower end frames are engaged constituting a common and the sole connecting means between the uprights of the end frames, said clamps affording means whereby the uprights may be set at any desired points lengthwise of the common horizontal connecting members, and inclined braces having clamps engaged with the horizontal members and adapted to be set at any desired points of the length of said horizontal members.

4. A multiple unit scaffold composed of end frames or trestles each comprising uprights having clamps near their ends, and horizontal members of a vertical dimension greater than the distance of said clamps from the ends of said uprights so that a portion of the horizontal member is vertically beyond the end of certain of the uprights and engageable by the clamps at the ends of a superposed series of uprights either in line with, or offset from, the others, and inclined braces having clamps near their upper and lower ends detachably connecting them to the horizontal members of the end frames similarly to the connection of the uprights above defined.

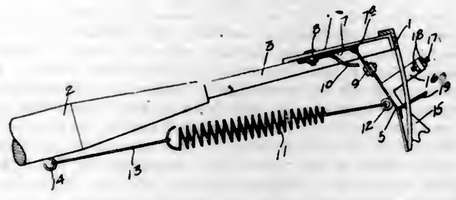
1,138,839. DRUM AND CYMBAL BEATER. GEORGE WASHINGTON BOWMAN, Estherville, Iowa. Filed May 29, 1913. Serial No. 770,691. (Cl. 84—10.)



1. In a device of the character described, a clamping device comprising plates, a drum-beater arm pivoted to one of said plates, spring means connected to the said arm, a slidable plate connected to the spring-means adapted to control the tension of said spring means and regulate the force of the beat of the drum-beater arm, a slot in said slidable plate, a bolt passing through said slot, a thumb-nut on said bolt for locking the slidable plate in adjusted positions, a pedal and means operatively connecting said pedal and the pivoted drum-beater arm, substantially as shown and described.

2. In a device of the character described, a clamping device comprising plates adapted to be attached to the rim of a drum, a drum-beater arm pivoted to one of said plates, a tension plate slidably connected to the other plate, means for locking said plates in adjusted positions, means resiliently connecting the slidable tension plate and pivoted drum-beater arm, a cymbal, a cymbal-beater arm adjustably mounted on said pivoted arm, a pedal for operating the drum-beater arm and cymbal-beater arm, and means operatively connecting said pedal with said pivoted drum-beater arm, substantially as shown and described.

1,138,840. COMBINED SCRAPER AND RAKE. FREDERICK C. BOYNTON, Springpark, Minn., assignor of one-half to Ernest R. Gaylord, Minneapolis, Minn. Filed June 11, 1914. Serial No. 844,419. (Cl. 55—146.)



1. The combination with a rake, of a scraper blade mounted for swinging movements in front thereof, having a ground engaging edge and provided with a portion having open notches in which the teeth of said rake normally lie, with the portions between notches projecting between the said teeth.

2. The combination with a rake, of a scraper blade mounted for swinging movements in front of the rake teeth, and yielding means tending to move said scraper blade forward; said scraper blade being vertically adjustable.

3. The combination with a rake, of a scraper blade mounted for swinging movements in front of the rake teeth, and yielding means tending to move said scraper blade forward, said scraper blade being vertically and forwardly and rearwardly adjustable.

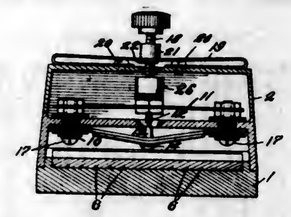
4. The combination with a rake, of a scraper blade mounted for swinging movements in front of the rake teeth, and yielding means tending to move said scraper blade forward, said scraper blade having a toothed bar projecting rearward between the teeth of the rake.

5. The combination with a rake, of a scraper blade mounted for swinging movements in front of the rake teeth, and yielding means tending to move said scraper blade forward, said blade having ground engaging teeth at its ends.

[Claims 6 to 8 not printed in the Gazette.]

1,138,841. ELECTRIC SAD-IRON. WILLIAM A. BRAUN, Canal Dover, Ohio, assignor to Dover Manufacturing Company, Canal Dover, Ohio. Filed Oct. 12, 1912. Serial No. 725,362. (Cl. 219—21.)

1. In a device of the described class, the combination with a member to be heated, of a heating resistance carried by said member, a source of electric energy, an electric circuit, the respective branches of which are normally connected at one of their ends with said source of electrical energy and at their other end with said heating resistance, a pair of electric terminals, a thermostat comprising two bars, one within and one without the member to be heated, supporting said terminals, located in and adapted to form a part of one of the branches of said electric circuit, both of said bars being supported at their respective ends from the same insulating posts, and means for manually increasing or diminishing the pressure of the terminal carried by said exterior bar against the opposing terminal.



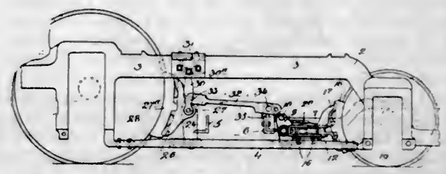
2. In a device of the described class, the combination with a member to be heated, of a heating resistance carried by said member, a source of electric energy, an electric circuit, the respective branches of which are normally connected at one of their ends with said source of electrical energy and at their other ends with said heating resistance, a pair of electric terminals, a thermostat comprising two bars, one within and one without the member to be heated, supporting said terminals, located in and adapted to form a part of one of the branches of said electric circuit, a pair of insulating posts, said exterior and interior bars each supported at their respective ends from one of said insulating posts, means for manually increasing or diminishing the pressure of the terminal carried by said exterior bar against the opposing terminal, whereby the action of said interior bar is controlled and regulated without applying direct resistance to its movement, an electric condenser and electric conductors communicating between the respective sides of said condenser and the respective branches of said electric circuit.

3. In a device of the described class, the combination with a member to be heated, of a heating resistance carried by said member, a source of electric energy, an electric circuit, the respective branches of which are normally connected at one of their ends with said source of electrical energy and at their outer ends with said heating resistance, a pair of electric terminals, an exterior and an interior bar supporting said terminals, located in and adapted to form a part of one of the branches of said electric circuit, a resilient plate supported from the exterior of the body to be heated, a hand actuated screw adjustably supported from said resilient plate in close proximity to said exterior bar, an insulating bearing interposed between said bar and the opposing end of said screw, said screw being adapted, as it is turned forward and rearward against said insulating member, to increase and diminish the pressure of the terminal carried by said exterior bar against the terminal carried by said interior bar, whereby the action of said interior bar is controlled and regulated without applying direct resistance to its movement.

4. In a device of the described class, the combination with a member to be heated, of a heating resistance carried by said member, a source of electric energy, an electric circuit, the respective branches of which are normally connected at one of their ends with said source of electrical energy and at their other ends with said heating resistance, a pair of electric terminals, an exterior and an interior bar supporting said terminals, located in and adapted to form a part of one of the branches of said electric circuit, said bars being supported at their respective ends from insulating posts, a hand actuated screw yieldingly supported in adjustable bearings, an insulating bearing interposed between said bar and the opposing end of said screw, said screw being adapted, as it is turned forward and rearward against said insulating member, to increase and diminish the pressure of the terminal carried by said exterior bar against the terminal carried by said interior bar, whereby the action of said interior bar is controlled and regulated without applying direct resistance to its movement.

5. In a device of the described class, the combination with a member to be heated, of a heating resistance carried by said member, a source of electric energy, an electric circuit, the respective branches of which are normally connected at one of their ends with said source of electrical energy and at their other ends with said heating resistance, a pair of electric terminals, an exterior and an interior bar supporting said terminals, located in and adapted to form a part of one of the branches of said electric circuit, a pair of insulating posts, said interior and exterior bars being both supported at their respective ends from said insulating posts, a hand actuated screw yieldingly supported in adjustable bearings, an insulating bearing interposed between said bar and the opposing end of said screw, said screw being adapted, as it is turned forward and rearward against said insulating member, to increase and diminish the pressure of the terminal carried by said exterior bar against the terminal carried by said interior bar, whereby the action of said interior bar is controlled and regulated without applying direct resistance to its movement, an electric condenser, and electric conductors communicating between the respective sides of said condenser and the respective branches of said electric circuit.

1,138,842. BRAKE MECHANISM FOR MAXIMUM-TRACTION TRUCKS. JAMES A. BROOKS, Philadelphia, Pa., assignor to The J. G. Brill Co., Philadelphia, Pa., a Corporation of Pennsylvania. Filed Oct. 26, 1912. Serial No. 727,824. (Cl. 188—24.)



1. In a device of the class described, a pair of brake shoes at each side of the truck, one of said brake shoes being slidably mounted and the other mounted so as to have a swinging movement, a brake beam uniting two of said shoes and means for applying greater pressure to the driving wheels than to the trailing wheels.

2. In a device of the class described, a pair of upright levers and a bar connecting the same, a brake beam and means for connecting the same to said levers, brake shoe holders secured to said beam, brake shoes on said holders, a second set of vertical levers, connecting rods connecting said two sets of levers, brake shoe holders connected to said second set of levers, means for supporting said brake shoe holders, brackets and means for supporting the same, and connecting rods, connecting the upper ends of said second set of vertical levers with said brackets.

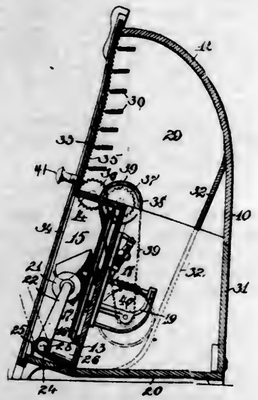
3. In a device of the class described, a bar and slides for supporting the same, upright levers pivotally connected to said bar, a clevis pivotally connected to each of said upright levers, a brake beam uniting the clevises, a brake shoe holder carried by said brake beam, a brake shoe carried by said brake shoe holder, a guide for supporting said brake beam, means for supporting said guide, connecting rods pivotally connected to the lower ends of said upright levers, a second set of vertical levers and means for connecting one of said levers with each of said rods, a brake shoe holder pivotally connected to said second set of levers and a brake shoe carried by this holder, means for supporting said last mentioned brake shoe holder and means for pivoting the upper ends of said last mentioned levers, so that when power is applied to the bar connecting the first mentioned upright levers, the brake shoes are forced against their respective wheels.

4. In a device of the class described, a sliding brake shoe in coöperation with the trailing wheel, a swinging brake shoe for coöperation with the driving wheel, devices for holding and operating said brake shoes and means connecting said devices.

5. In a device of the class described, a sliding brake shoe in coöperation with the trailing wheel, a swinging brake shoe for coöperation with the driving wheel, devices for holding and operating said brake shoe and adjustable means connecting said devices.

[Claims 6 to 21 not printed in the Gazette.]

1,138,843. TALKING-MACHINE. WILLIAM H. CAMFIELD, Newark, N. J. Filed May 11, 1914. Serial No. 837,671. (Cl. 181—3.)



1. A talking machine comprising a casing having a record-reproducing chamber and having a sound conveying means leading from said chamber, and means for alternately closing the record-reproducing chamber and sound conveying means.

2. A talking machine comprising a casing having a record-reproducing chamber and having a sound conveying means leading from said chamber, and a lid so disposed that it can be moved to alternately close the record-reproducing chamber and the sound conveying means, so that the opening of one inaures the substantial closing of the other.

3. A talking machine comprising a casing, a sound chamber at the top thereof and opening at one side, a pair of sound channels formed in the casing and connected to the chamber, a motor between the channels, the casing having a record chamber under the sound chamber, and a sound-box in the record chamber and in communication with the channels.

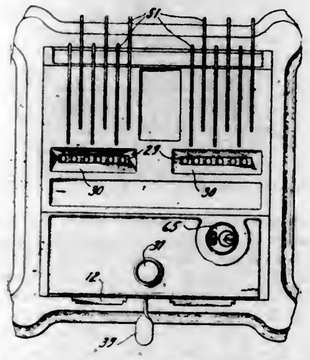
4. A talking machine comprising a casing, a sound chamber at the top thereof and opening at one side, a pair of sound channels formed in the casing and connected to the chamber, a motor between the channels, the casing having a record chamber under the sound chamber, a sound-box in the record chamber and in communication with the channels, and a lid arranged to close both the sound chamber and the record chamber.

5. A talking machine having its record-reproducing chamber and its horn side by side, and a lid to slide over both and adapted to alternately close them.

[Claims 6 to 13 not printed in the Gazette.]

1,138,844. READING AND RESETTING DEVICE. EDMUND S. CHURCH, Dayton, Ohio, assignor to The National Cash Register Company, Dayton, Ohio, a Corporation of Ohio, (incorporated in 1906.) Filed July 5, 1910. Serial No. 570,388. (Cl. 235—6.)

1. In a machine of the class described, the combination with a detachable accumulating device manually insertible in the machine, and comprising differentially adjustable slides, of pivoted rack segments in the machine having extensions positioned to be engaged and operated by the slides of said detachable device when the same is inserted, and additional rack segments provided with indicating flanges and handles and meshing with said first rack segments.



2. In a machine of the class described, the combination with a detachable accumulating device manually insertible in the machine, and comprising differentially adjustable slides, of pivoted rack segments in the machine having extensions positioned to be engaged and operated by the slides of said detachable device when the same is inserted, additional rack segments provided with indicating flanges and handles and meshing with said first rack segments, a latch for holding said detachable device in the machine, and a hand operated key having connections for displacing said latch.

3. In a machine of the class described, the combination with a detachable accumulating device manually insertible in the machine, and comprising differentially adjustable slides, with means for locking said slides in any adjusted position, of pivoted rack segments in the machine positioned to be engaged and operated by said slides when the detachable device is inserted, segments having indicating flanges, and driven by said rack segments, a latch for said detachable device when inserted, a manually operated push key having connections for displacing said latch, an operating handle, connections from said handle for displacing said slide locking means, and devices operated by said handle for preventing movement of said push key.

4. In a machine of the class described, the combination with customers' and clerks' detachable accumulating devices, manually insertible in the machine, and each comprising differentially adjustable slides with means for locking said slides in any adjusted position, of two sets of pivoted rack segments in the machine, having extensions positioned to be engaged and actuated by the detachable slides of said devices respectively, a handle, and connections therefrom for releasing the locking means of the slides of both said detachable devices, devices for separately latching the sets of rack segments, and cams actuated by said handle for operating said segment latching devices, the cams being timed to latch the customer's segments before the customer's detachable slides are released but to latch the clerk's segments only after the clerk's detachable slides have been released.

5. In a machine of the class described, the combination with a detachable accumulating device manually insertible in the machine, of rack segments in the machine positioned to be engaged and operated by said detachable device when the same is inserted, devices for preventing actuation of said segments, a key controlled lock having connections to displace said preventing devices, a separable base for the machine, and extensions on said preventing device positioned to engage and hold said separable base in contact with the machine.

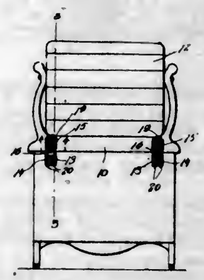
[Claims 6 to 24 not printed in the Gazette.]

1,138,845. METALLIC COMPOUND. HERBERT B. COHO, Mount Vernon, N. Y. Filed Sept. 22, 1914. Serial No. 862,960. (Cl. 75—1.)

1. A metallic compound comprising lead and copper alloy commingled with needles antimony (sulfid).

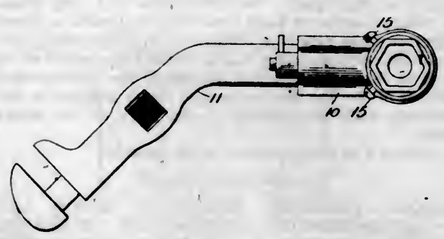
2. A metallic compound comprising lead and copper alloy commingled and fused with needles antimony (sulfid).

1,138,846. MIRROR-FASTENER. WILDER H. COOK, Athens, N. Y. Filed July 17, 1914. Serial No. 851,663. (Cl. 16—110.)



A device of the kind described comprising a pair of attaching plates, hinge elements formed on said plates and having alined openings therein, a pin loosely inserted through said openings to hingedly connect said plates, ribs formed on said plates and provided with alined openings, and a U-shaped locking member inserted through said last-named openings to secure said plates against relative movement, the legs of said member embracing the hinge elements and retaining said pin in position therein.

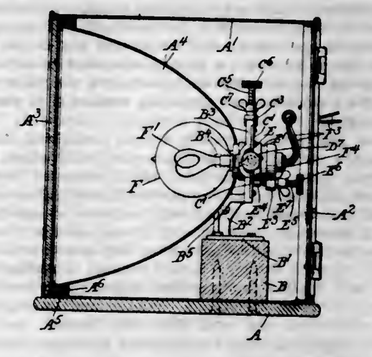
1,138,847. WRENCH. ANTHONY CUDOSZKI, Passaic, N. J. Filed May 9, 1913. Serial No. 766,462. (Cl. 81—60.)



A wrench comprising a head having a socket for a handle at one end and a circular opening at the other end, a ratchet wheel with a socket and adapted to be held in the opening, a housing in the upper side of the head, a pawl and spring in the housing, means for reversing the pawl, a screw retaining the ratchet wheel in the opening, a nut engaging member carried by the ratchet wheel, and a universal joint between the engaging member and the ratchet wheel.

1,138,848. BRACKET FOR LOCOMOTIVE-HEADLIGHTS. CHARLES W. DAKE, Chicago, Ill., assignor to Pyle-National Electric Headlight Company, Chicago, Ill., a Corporation of New Jersey. Filed Dec. 30, 1914. Serial No. 879,630. (Cl. 240—44.)

1. A bracket for locomotive headlights and the like comprising a fixed supporting member, means carried thereby for supporting an electric light and for moving it in a horizontal and in a vertical plane along three lines in such planes each perpendicular to the others.



2. A bracket for locomotive headlights and the like comprising a fixed supporting member, separate means carried thereby for supporting an electric light and for moving it in a horizontal and in a vertical plane.

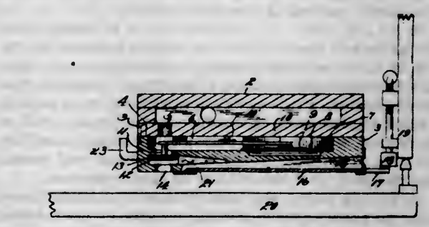
3. A bracket for locomotive headlights and the like comprising a fixed supporting member, separate means carried thereby for supporting an electric light and for moving it in a horizontal and in a vertical plane along three lines in such planes each perpendicular to the others.

4. A support for locomotive headlights and the like comprising a fixed bracket, a carriage mounted thereon, means for moving it along a vertical line, a slide in said carriage and means for moving it with respect to said carriage along a horizontal line, a light supporting sleeve in said slide and means for moving it along a horizontal line perpendicular to the line of movement of the slide.

5. A support for locomotive headlights and the like comprising a fixed bracket, a carriage mounted for movement thereon, a slide mounted in said carriage for movement at right angles to the line of movement thereof, a light supporting member mounted in said slide for movement at right angles to the line of movement of both the carriage and the slide.

[Claims 6 to 13 not printed in the Gazette.]

1,138,849. INDIVIDUAL PNEUMATIC-ACTION MECHANISM. WILLIAM F. DEITEMEIER, San Francisco, Cal. Filed Feb. 25, 1914. Serial No. 820,828. (Cl. 84—178.)

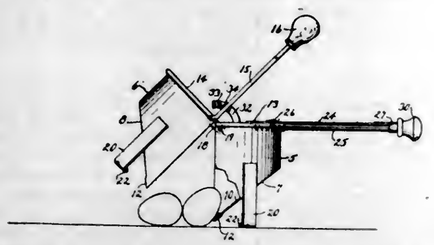


1. An individual pneumatic action, comprising, in combination, a vacuum chest having a port in its bottom wall; an action block whereon said chest is mounted having a longitudinal chamber in its upper surface which is covered by said chest and enlarged and deepened at one end to form a diaphragm chamber and is connected at its other end with said chest by said port, said block being provided with a duct leading at one end into the diaphragm chamber, and with a valve chamber opening at its lower end into the atmosphere and at its upper end into the second-named end of the longitudinal chamber; a diaphragm located in the diaphragm chamber above the inlet end of

said duct; a valve located in the valve chamber and movable into position to close either end thereof, said valve having a stem which projects through the upper end of said chamber into the longitudinal chamber; a centrally-fulcrumed lever mounted in the longitudinal chamber and attached at one end to said diaphragm and at the other end to the valve stem; a bellows connected to said block and having a connecting duct leading to the valve chamber; and a tracker-board conductor connected to the first-named duct.

2. An individual pneumatic action, comprising, in combination, a vacuum chest having a port in its bottom wall; an action block whereon said chest is mounted having a longitudinal chamber in its upper surface which is covered by said chest and enlarged and deepened at one end to form a diaphragm chamber and is connected at its other end with said chest by said port, the second-named end of said chamber having a lateral channel extending therefrom, said block being provided with a duct leading at one end into the diaphragm chamber and an equalizing port connecting said duct and said channel, and with a valve chamber; and a tracker-board conductor connected to the first-named duct.

1,138,850. EGG-BOILER. WILLIAM L. DEMING, Salem, Ohio. Filed July 28, 1913. Serial No. 781,482. (Cl. 53—1.)



1. In an egg boiler, the combination of a holder having two parts, means for hinging these two parts together near their upper edges, an opening through the bottom of each part, a bail rigid with one part, a handle carried by the bail, and a cover carried by the other part adapted to close over the holder in its closed position.

2. In an egg boiler, the combination of a holder having two parts, means for hinging these two parts together near their upper edges, screens mounted in the bottom of these two parts and slanting toward the center, a bail rigid with one part a handle carried by the bail, and a cover slidably carried by the other part.

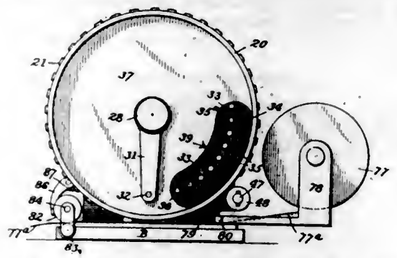
3. In an egg boiler, the combination of a holder made in two parts and open at the top, screens mounted in the bottom of each part and slanting toward the center, said screens coming together in a substantially straight line across the bottom of the center, legs rigid on each part, a bail rigid on one part, a handle carried by the bail a cover carried by the other part and slidable across the top of both parts when in the closed position, and means for holding each part in an open or closed position.

4. In an egg boiler, the combination of a holder comprising two parts suitably hinged together at their upper edges, screens mounted on the bottom of each part and meeting along a straight edge across the center of the bottom, a bail rigid with one part, a handle carried by the bail, and a detent spring having notches engaging the bail to hold the receptacle in opened or closed position.

5. In a device of the character described, the combination of a holder comprising two parts hinged together at their upper portions and having openings through the bottom portion of each part, a bail rigid with one part, and a detent spring rigid with the other part having notches adapted to engage the bail to hold the receptacle in an open or closed position.

[Claims 6 and 7 not printed in the Gazette.]

1,138,851. CRYPTOGRAPH. BENJAMIN M. DES JARDINS, West Hartford, Conn. Filed Apr. 23, 1901, Serial No. 57,069. Renewed Aug. 17, 1909. Serial No. 513,347. (Cl. 197—4.)



1. In a cryptograph, printing type, a platen therefor relatively to which the type are movable, means for normally indicating when a selected type is in printing position, and a series of mechanisms to vary the extent of movement of successively selected type from printing position.

2. In a cryptograph, the combination of a series of type, a platen, means for moving all the type relative to the platen, an index, and a series of mechanisms each adapted to vary the distance separating the type in printing position from that corresponding to any selected character.

3. In a cryptograph, the combination of a platen, a series of type movable bodily relative to the platen, an index, a series of mechanisms each adapted to vary the extent of movement by which the type in printing position is separated from the type corresponding to any selected character, and means for rendering said mechanisms successively operative.

4. In a cryptograph, the combination of a platen, a series of type movable bodily relative to the platen, to bring any one thereof into printing position, an index, a series of mechanisms each adapted to vary the extent of movement by which the type in printing position is separated from the one corresponding to any selected character and comprising independently adjustable members, and means for rendering said mechanisms successively operative.

5. In a cryptograph, the combination of a type wheel, an index, a series of disks rigid with the index, a second series of disks rotatable relative to the disks rigid with the index, springs acting to hold each of the second series of disks in a predetermined relation to the corresponding member of the first said series, and means adapted to successively limit the rotation of the disks of the second series.

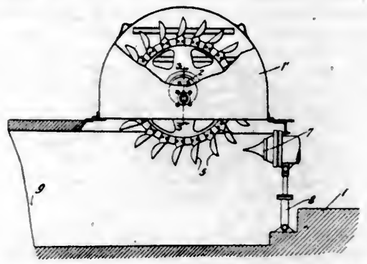
[Claims 6 to 28 not printed in the Gazette.]

1,138,852. COMBINED HYDRAULIC MOTOR AND VACUUM-CREATING MEANS FOR CLEANERS. WILLIAM ASHTON DOBLE, San Francisco, Cal., assignor to the Pelton Water Wheel Company, San Francisco, Cal., a Corporation of California. Filed Feb. 16, 1914. Serial No. 819,090. (Cl. 230—13.)

1. The combination with a fixed housing, of a prime power motor situated therein to receive the impact stream from a hydraulic nozzle, a suction hose connection within the housing and communicating with the interior thereof and adapted to receive a hose for the utilization of the suction force of the motor for vacuum cleaning purposes, and means for maintaining normally closed the said hose connection.

2. The combination with a stationarily mounted prime power motor adapted to be operated by an impact fluid pressure, a fixed housing for said motor, said housing being formed with an opening therein for the reception of a suction hose for vacuum cleaning purposes, and means for normally maintaining said opening closed.

3. The means for utilizing the vacuum or suction force within the housing of a hydraulically operated prime motor for vacuum cleaning purposes, the same comprising a suction coupling connected with the housing and communicating with the interior thereof and adapted for the reception of a suction hose, and means for normally maintaining said coupling closed.

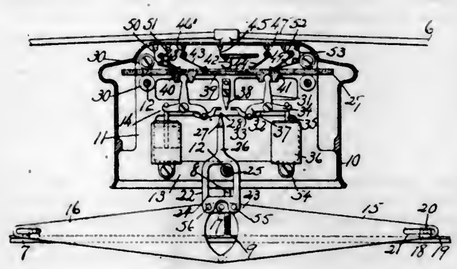


4. The combination with a stationarily mounted prime power motor adapted to be operated by an impact fluid pressure, a fixed housing for said motor, said housing being formed with an opening therein for the reception of a suction hose for vacuum cleaning purposes, a baffle wall within said housing adjacent the inner end of said opening, and means for normally maintaining said opening closed.

5. The combination with a stationarily mounted prime power motor adapted to be operated by an impact fluid pressure, a fixed housing for said motor, said housing being formed with an opening therein, a coupling mounted in said opening, said coupling formed with a hose receiving connection communicating with the exterior of said housing and also formed with a suction chamber communicating with said hose receiving connection and opening at its lower end into said housing, and means associated with said hose receiving connection for normally closing the same.

[Claims 6 to 8 not printed in the Gazette.]

1,138,853. CONTACTOR. FRANK L. EAGER, Waterbury, Conn. Filed Oct. 14, 1909. Serial No. 522,624. (Cl. 246—54.)



1. An actuator movably supported, means for supporting the actuator to move bodily in transverse directions to position it and to operate it by contact of a moving object, a plural number of actuated members positioned to be operated by said actuator, and actuating mechanism including a switching member to control an electric circuit.

2. An actuator movably supported, means for bodily moving the actuator successively in transverse directions to position it and to operate it by contact of a moving body, actuated mechanism operatively connected with said actuator and including a switching member to control an electric circuit.

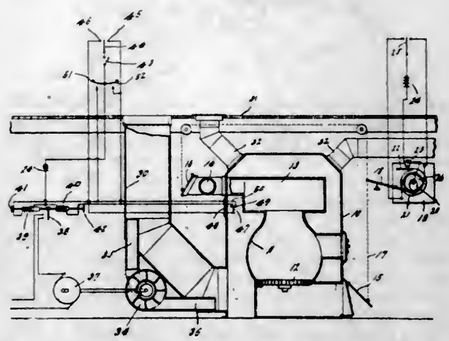
3. An actuator movably supported, means for supporting the actuator to move in a direction toward and from a moving object and also in a direction transverse thereto to position the actuator and to effect its operation by passage of said moving object, a plural number of actuated members positioned to be operated by said actuator, and actuated mechanism connected with said members and including a switching device to control an electric circuit.

4. A supporting wire to conduct electricity, an actuator connected with said wire, means for moving the actuator in a vertical and a horizontal direction to position it and to operate it by contact with a moving object, and a plural number of actuated members positioned to be operated by said actuator.

5. A supporting wire, an actuator connected with said wire, means for moving the actuator in a vertical and in a horizontal direction to position it and to operate it, means for guiding said actuator, a plural number of actuated members positioned to be operated by said actuator, and a switching device operatively connected with said actuated members.

[Claims 6 to 16 not printed in the Gazette.]

1,138,854. CIRCULATION-CONTROL SYSTEM. EDWARD F. EDGECOMBE, Jr., Marion, Ind., Filed Jan. 2, 1913. Serial No. 739,668. (Cl. 237—2.)



1. In combination, a hot air heating plant, means for producing a forced circulation for said plant, temperature-responsive means for controlling said circulation-producing means, and means responsive to the condition of the heating plant for controlling the effect produced by said temperature-responsive means.

2. In combination, a hot air furnace, a power-operated blower for assisting the circulation of heating air through said furnace, thermostatic means for controlling said blower, and means responsive to the condition of the furnace for controlling the effect produced by said thermostatic means.

3. In combination, a hot air furnace, power operated means for producing a forced circulation of heating air through said furnace, a thermostat responsive to the temperature at control point, and a second thermostat responsive to the temperature of the said furnace, said two thermostats coöperating to control said circulation-producing means.

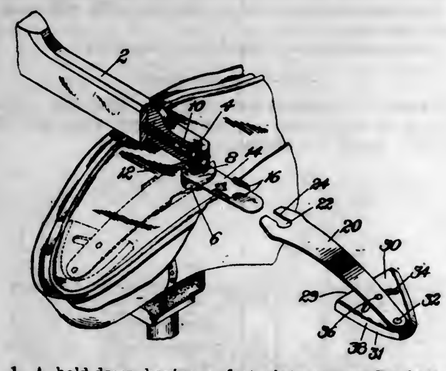
4. In combination, a hot air furnace, power-operated means for producing a forced circulation of heating air through said furnace, a thermostat responsive to the temperature at a control point, a second thermostat responsive to the temperature of the furnace, and an electro-magnetically operated device controlling the operation of said circulation-producing means and controlled by the joint action of said two thermostats.

5. In combination, a hot air furnace, power-operated means for producing a forced circulation of heating air therethrough, a thermostat located at a desired control point and having "hot" and "cold" contact buttons, a second thermostat responsive to the temperature of the furnace and also having "hot" and "cold" contact buttons, an electro-magnetically operated device controlling the operation of said circulation-producing means, and

connections between said two thermostats and said electromagnetically operated device whereby the latter is actuated to start the circulation-producing means in operation when the first thermostat engages its "cold" contact button and the second thermostat engages its "hot" contact button, and to stop the operation of the circulation-producing means when both thermostats engage their "cold" contact buttons or the first thermostat engages its "hot" contact button.

[Claims 6 to 19 not printed in the Gazette.]

1,138,855. HOLDDOWN. FRED ELLIS, St. Louis, Mo., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed July 12, 1912. Serial No. 709,031. (Cl. 12—14.)



1. A hold-down having a foot plate arranged substantially parallel to the plane of the last bottom and provided on its end and lateral edges with a depending flange constituting the innersole engaging face and shaped to fit welt innersole back of the rib for supporting the rib against the advancing and closing action of toe lasting wipers.

2. A hold-down having a foot place provided on its end and lateral edge with a turned down flange constituting the inner-sole engaging face and shaped to fit a welt innersole back of the rib, said plate presenting a recess back of and inside the down-turned edge to permit the said edge to be positioned in front of the innersole rib and upon the feather for use in clamping the feather upon the last bottom without crushing the lip.

3. A hold-down having a foot plate provided on its end and lateral edge with a turned down flange constituting the innersole engaging face and shaped to fit a welt innersole back of the rib, said plate being mounted for movement lengthwise of the shoe to permit it to be used first as a feather clamp in front of the innersole rib and then as a rib backing in the rear of said rib.

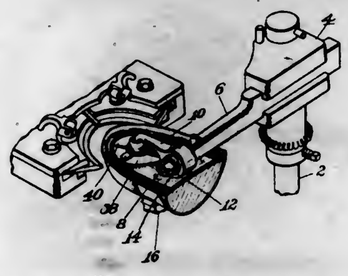
4. A hold-down having a foot plate hollowed to form a marginal edge face constituting the innersole engaging face and shaped to fit a welt innersole back of the rib and supported for movement about substantially the center of curvature of the toe for adjustment to right and left crooked shoes.

5. A hold-down for lasting machines comprising supporting and operating means and a foot plate hollowed on the work-engaging face to form an acute angled marginal edge of substantially the edge contour of the channel rib around the toe and along the side of the toe of a welt shoe innersole serving to concentrate its pressure on a line adjacent to said rib.

[Claims 6 to 11 not printed in the Gazette.]

1,138,856. HOLDDOWN. HARRY M. HART, St. Louis, Mo., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed June 9, 1913. Serial No. 772,628. (Cl. 12—14.)

1. A hold-down foot comprising a clamping member to engage the shoe over the ball of the last, and a forwardly extending finger having a toe plate pivoted thereto near the center of curvature of the toe for lateral positioning movement, said plate comprising members which are also angularly movable relatively to fit differently shaped toes.



2. A hold-down foot comprising a clamping member to engage the shoe over the ball of the last, and a forwardly extending finger having a toe plate pivoted thereto near the center of curvature of the toe for lateral positioning movement to fit differently shaped toes and comprising side members 38, 40 spaced apart and each separately pivoted for relative positioning movement.

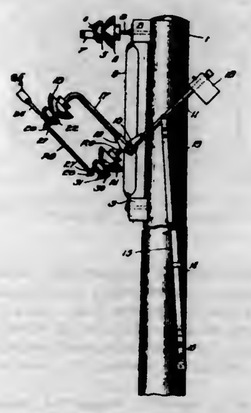
3. A hold-down foot having a toe plate comprising lateral members connected by a toggle arranged to cause forward pressure applied through the toggle to force the said lateral members outwardly as well as forwardly.

4. A hold-down foot having a toe plate comprising lateral members mounted to turn about a common center located between said members and each about a separate center.

5. A hold-down foot having a toe plate comprising lateral members mounted to turn about a common center near the center of curvature of the shoe toe and each about a separate pivot, said separate pivots being movable laterally toward and from the median line of the shoe.

[Claims 6 to 13 not printed in the Gazette.]

1,138,857. COMBINED SWITCH AND FUSE. RALPH ELSMAN, San Francisco, and CHARLES DALLERUP, San Rafael, Cal. Filed Aug. 20, 1913. Serial No. 785,660. (Cl. 175—292.)



1. A combined fuse and switch for use at the top of a pole comprising an upper wood cross arm, stationary clips supported thereon and forming circuit terminals for high voltage line conductors, another wood cross arm on said pole, braces connecting said cross arms to form a rigid structure, a rock shaft carried by said braces and a plurality of switch elements supported by said rock shaft and swinging therewith away from said pole and out of operative connection with said high voltage stationary clips, each of said swinging switch elements including a replaceable fuse.

2. In an electric switch mechanism, the combination with a tubular rock shaft, a counterweighted arm rigidly connected therewith, an insulating push bar operatively connected to said arm to swing said shaft, stationary clips supported above said shaft on a wood cross arm and adapted for connection with high voltage conductors, and swinging members clamped to said shaft and swinging therewith into and out of operative connection with said clips, each of said members comprising a pair of insulators spaced apart and bridged by a fuse, the topmost of said insulators carrying a switch arm connected with the fuse and movable therewith into or out of contact with the stationary clip and the lowermost insulator having means for permanent attachment to a conductor to be protected by said fuse.

3. In a combined fuse and switch for high voltage electric circuits, the combination of a pair of wood cross arms spaced apart at the top of a transmission line pole and connected by three metal strips bolted thereto to form a rigid structure, insulators carried by the topmost arm and bearing stationary clips projecting away from said pole and adapted to form the circuit terminals of a high voltage line, a rock shaft pivotally mounted in said metal strips, a counterweighted arm rigidly connected to said shaft, an insulated push rod connected to said counterweighted arm to swing said rock shaft in its bearings, and switch members supported by said rock shaft and swinging therewith toward the pole to engage said clips, each of said members comprising an arm carrying a pair of insulators spaced apart and bridged by a renewable fuse, one of said insulators carrying a switch arm movable therewith into and out of contact with a stationary terminal of the top cross arm, substantially as described.

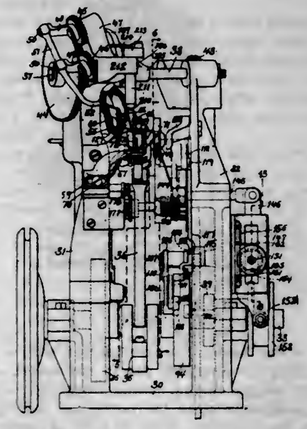
4. In an electrical switch mechanism for use on the top of a pole, the combination of a plurality of stationary terminals adapted for connection with high voltage line conductors, a tubular rock shaft, a counterweighted arm connected therewith, a reach bar connected with said arm for controlling the position of said rock shaft from the base of the pole, means for locking said rock shaft in desired position, and a plurality of switch elements carried by said rock shaft and movable therewith into and out of operative connection with said high voltage terminals, each of said switch elements comprising a rigid arm clamped to the rock shaft, an insulator at either end of said arm, a fuse device bridging said insulators, and a switch arm mounted on the topmost insulator and connected with said fuse device to establish connection with a corresponding terminal when said rock shaft is suitably swung upward toward the top of the pole by means of its reach bar.

1,138,858. LOCK-STITCH SEWING-MACHINE. EDWARD ERICKSON, Lynn, Mass., assignor, by direct and mesne assignments, to Victor Shoe Machinery Company, Boston, Mass., a Corporation of Massachusetts. Filed Aug. 18, 1911. Serial No. 644,769. (Cl. 112—20.)

1. In a sewing machine, a stitch forming mechanism including a shuttle, a needle, a loop caster movable in a circular path around the shuttle with its thread engaging recess always facing in the same direction, means for imparting to said caster a plurality of such motions during each operation of the needle, means for deflecting the needle thread into the path of the caster during one of said plurality of motions, and means for tightening the loop after it is released by the caster.

2. In a sewing machine, a stitch forming mechanism, including a shuttle, a needle and a loop caster for taking the loop from the needle and casting it over the shuttle, a gear and means for rotating it, two pinions of smaller size than said gear and meshing with it, crank arms connected with said pinions, the caster having a shank connected with said crank arms, and means for tightening the loop after it is carried over the shuttle by the caster.

3. In a sewing machine, a stitch forming mechanism including a shuttle, a needle, a loop caster having means for rotating it around the shuttle a plurality of times during each operation of the needle, a deflector or transferrer for delivering the loop from the needle to the caster at a point in one of the rotations of the caster, and means for tightening the loop.



4. In a sewing machine, the combination with a hooked needle, a shuttle and a work plate, of means below the work plate for delivering thread to the hook of the needle and means above the work plate for removing the thread from the hook of the needle and carrying it around the shuttle, the means below the work plate comprising a laterally movable thread guide, a lever having a finger for holding the thread in the hook of the needle as the latter rises through the work, two links of different lengths for supporting said finger lever, and means connected with the shorter of said links at a point between its ends for swinging said link, the means above the work plate comprising a finger for deflecting the loop from the needle and a caster to engage the loop and carry it over the shuttle.

5. In a sewing machine, the combination with a hooked needle and a work plate, of a lever having its end provided with a thread eye, a pivotally mounted arm carrying the fulcrum of said lever, means for oscillating the arm in one plane to cause the end of the lever to swing toward and from the point of the needle, means for oscillating the lever in another plane to cause the said eye to carry the thread into the hook of said needle, a loop-drawing finger movable across the path of movement of the said eye, and means for actuating said finger timed to cause it to hold the loop taut and in the hook of the needle.

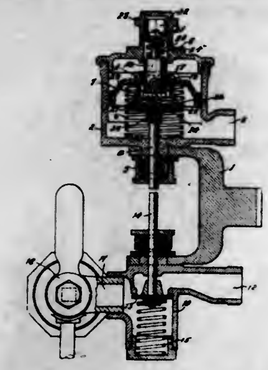
[Claims 6 to 10 not printed in the Gazette.]

1,138,859. WATER-VALVE FOR INSTANTANEOUS WATER-HEATERS. REYNOLDS C. FRAMPTON, Pittsburgh, Pa. Filed June 25, 1912. Serial No. 705,780. (Cl. 126—351.)

1. In a water heater the combination with a gas valve for controlling the supply of gas to the heater, of a water valve comprising a casing having inlet and outlet ports, a piston working between the ports and cutting off communication therebetween when in both extremes of movement and provided with a passage extending from one side of the piston to the other, a check valve preventing any back flow of water from the outlet to the inlet side of the piston and normally held yieldingly in closed position, and means operated by the piston for moving the gas valve.

2. In a water heater the combination with a gas valve for controlling the supply of gas to the heater, of a water valve comprising a casing having inlet and outlet ports, a piston working between the ports and cutting off communication therebetween when in both extremes of movement, a passage extending from one side of the piston to

the other, a check valve preventing any back flow of water from the outlet to the inlet side of the piston, and means operated by the piston and normally held yieldingly in closed position for moving the gas valve.



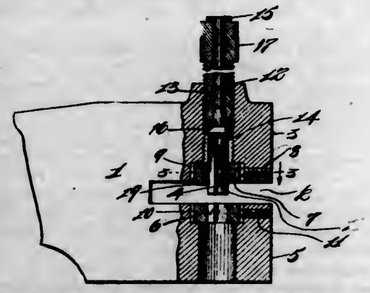
3. In a water heater the combination with a gas valve for controlling the supply of gas to the heater, of a water valve comprising a casing having inlet and outlet ports, a piston working between the ports and cutting off communication therebetween when in both extremes of movement and provided with a passage extending from one side of the piston to the other, a yielding spring disk normally closing the passage and preventing any back flow of water from the outlet to the inlet side of the piston, and means operated by the piston for moving the gas valve.

4. In a water heater the combination with a gas valve for controlling the supply of gas to the heater, of a water valve comprising a casing having inlet and outlet ports, a piston working between the ports and provided with a passage extending from one side of the piston to the other, a yielding spring disk provided on its under side with a packing and normally closing the passage whereby a back flow of water from the outlet to the inlet side of the piston is prevented, and means operated by the piston for moving the gas valve.

5. In a water heater the combination with a gas valve for controlling the supply of gas to the heater, of a water valve comprising a casing having inlet and outlet ports, a piston working between the ports and provided with a passage extending from one side of the piston to the other, a check valve for preventing a back flow of water from the outlet to the inlet side of the piston, means operated by the piston for moving the gas valve, and means for opening the check valve when the piston is moved to a position to the rear of its normal position of rest.

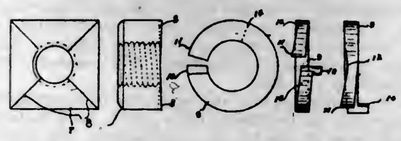
[Claims 6 to 12 not printed in the Gazette.]

1,138,860. ADJUSTABLE PUNCH AND DIE. CHARLES C. GLADWIN, New York, N. Y. Filed Nov. 18, 1914. Serial No. 872,704. (Cl. 164—101.)



A handle bifurcated to form a pair of jaws, in combination with two disks notched peripherally at corresponding intervals and adapted to be turned in said jaws respectively, one of said disks constituting a die and the other a punch guide, screws engaging independently of each other the peripheral notches of said disks, a punch working through said die and shaped to be turned by the rotary adjustment of said guide, and means for moving said punch endwise through said guide without turning it.

1,138,861 LOCK-NUT DEVICE. EDMUND F. GOBATTI, Pueblo, Colo. Filed Dec. 10, 1913. Serial No. 805,765. (Cl. 151—39.)



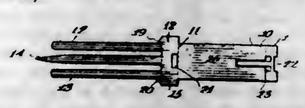
In a lock nut of the character described, the combination of a bolt, a nut having ratchets on the bearing face, and a spring split washer having a boss at one end on the side next the bearing surface adapted to engage a recess in the bearing surface, which end is thinner than the body of the washer, the other free end of said washer being as thick as the body of said washer and cut away from last said end to a distance equal to one of said ratchets on said nut and slopingly to the depth corresponding to the height of the shoulder of said ratchets.

1,138,862. VESSEL. CHARLES GORA, Athabaska Landing, Alberta, Canada. Filed Dec. 28, 1912, Serial No. 738,991. Renewed Mar. 19, 1915. Serial No. 15,656. (Cl. 114—68.)



A vessel comprising inner and outer hulls, the outer hull being spaced apart from the inner hull with the confronting sides thereof in parallelism and connected by integral transversely arranged equally spaced webs providing transverse air compartments, and angularly disposed ribs connecting said inner and outer hulls within the compartments thereof and dividing each air compartment into a plurality of compartments.

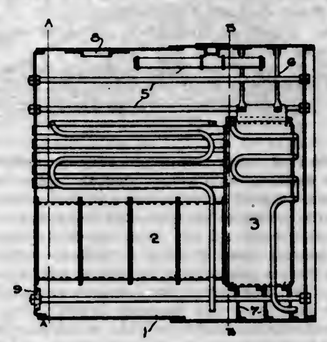
1,138,863. GAGE-PIN FOR TYMPANS OF PLATEN PRINTING-PRESSES. JACOB ROHR GROVE, Washington, D. C. Filed June 19, 1914. Serial No. 846,084. (Cl. 101—22.)



1. A blank for gage pins of generally rectangular form having a notch centrally of one end margin and slits at the margin opposite to the notch, an attenuated member between the slits and projecting beyond the slitted margin of the blank, short prongs at opposite sides of the slitted margin, longitudinally registering slots adjacent the notch and slitted margin respectively, said blank being adapted for bending and folding on various lines.

2. A gage pin for tympans, comprising a housing formed with a prong, the forward ends of the bottom members on opposite sides of said prong curved upwardly, registering slots in opposite ends of said housing, a detent spring mounted in the housing, a stripper adjustably mounted through said slots, said stripper in contact with said spring, affording easy movement, and holds said stripper in any required position which it is placed to receive the sheets to be printed.

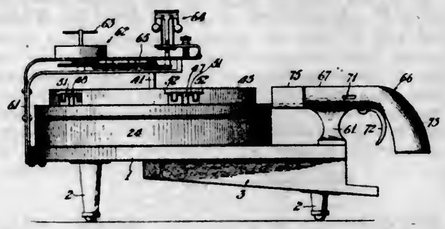
1,138,864. CIRCULATOR. F. WALTER GUIBERT, Detroit, Mich., assignor to Eckliff Automatic Boiler Circulator Company, Detroit, Mich., a Corporation of Michigan. Filed Aug. 23, 1913. Serial No. 786,255. (Cl. 122—410.)



1. In a boiler provided with a furnace and flue tubes for the products of combustion, a circulator comprising a pipe leading from the bottom of the boiler up to said flues and lying lengthwise of and against one or more of the flues.

2. In a boiler provided with a furnace and flue tubes for the products of combustion, a circulator comprising a pipe leading from the bottom of the boiler up to the flues, looping up the sides of some of the flues by lying along and against some of the same, and looping back and forth on the top of some of the flues by lying along and against some of the same.

1,138,865. GAME APPARATUS. CHARLES AUGUSTUS HAGERTY, Los Angeles, Cal. Filed Aug. 3, 1914. Serial No. 854,881. (Cl. 46—57.)



1. A game apparatus comprising a stationary base having a series of pockets therein, a rotatable table mounted on said base, said table having a series of radially arranged apertures extending inwardly from the outer face thereof, means for discharging a missile into said apertures, and means whereby a missile received in an aperture in said table is delivered into a predetermined pocket in said base.

2. A game apparatus comprising a stationary base having a series of pockets therein, a distributing box on said base having a series of channels therein each having outlet means to a predetermined pocket, a rotatable table mounted on said base, said table having a series of apertures therein, each of said apertures having outlet means into a predetermined channel in said distributing box, and means for discharging a missile into the apertures in said table.

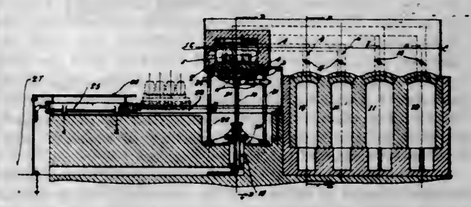
3. A game apparatus comprising a stationary base having a series of runways each terminating in a pocket, a distributing box on said base having a series of concentric channels therein each having an outlet to a predetermined runway, a rotatable table mounted on said base, said table having a series of apertures therein, each of said apertures having outlet means into a predetermined channel in said distributing box, means for rotating said table, and means for discharging a missile into the apertures in said table.

4. A game apparatus comprising a base having a series of pockets supported thereby, a rotatable table mounted on said base, said table having a series of apertures therein, gate means at the mouth of each aperture, means for discharging a missile into said apertures, and means for delivering a missile from any of said apertures into a predetermined pocket.

5. A game apparatus comprising a base having a series of pockets supported thereby, a rotatable table mounted on said base, said table having a series of apertures extending inwardly from the face thereof, a gate in the mouth of each aperture, means for pivotally mounting said gates to permit the same to swing freely inwardly, means for preventing the gate from swinging outwardly, means for discharging a missile into the apertures in said table, and means for conducting a missile from any of said apertures to a predetermined pocket.

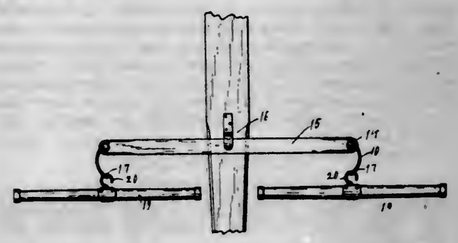
[Claim 6 not printed in the Gazette.]

1,138,866. CRUCIBLE-FURNACE. EMIL HALLGREN, Bellevue, Pa. Filed Nov. 14, 1914. Serial No. 872,165. (Cl. 75—186.)



In a furnace of the character described, a melting chamber having an open lower end, stationary sidewalls and solid roof for said melting chamber, a vertically movable bottom, closing said open lower end, a plunger supporting said movable bottom, means for actuating the plunger to move said bottom away from and toward said opening, horizontal guides disposed below the melting chamber for supporting the bottom when in its lowermost position, a cross head slidable upon the guides, in interlocking engagement between the cross head and bottom, means for actuating the cross head to move the bottom horizontally out of the vertical path of movement and a platform in the line of horizontal movement of the bottom.

1,138,867. CLEVIS. JOHN W. HARTLEY, Nashotah, Wis. Filed Sept. 21, 1914. Serial No. 862,719. (Cl. 97—4.)

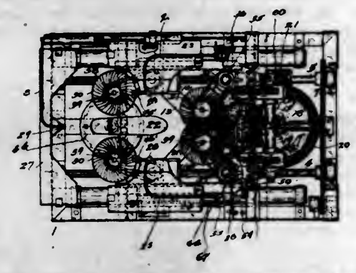


1. A clevis comprising a member having spring arms, adapted to straighten under tension, connected together

at one of their ends, and means at the ends of said clevis-member for connecting said clevis to a plurality of members to space said members apart and form a connection therebetween, said clevis-arms having a portion out of line with the line of draft of the clevis whereby the members to which the clevis is connected will be relieved of the initial shock occasioned by a force tending to separate these members to which the ends of the clevis are connected.

2. A clevis comprising substantially parallel extending spring arms, adapted to straighten under tension, connected together at one of their ends, which arms are curved from the line of draft of the clevis, whereby the members to which the clevis is connected will be relieved of initial shock when said members are acted upon by a force tending to separate them.

1,138,868. SHOE-SHINING MACHINE. AUGUST H. R. HELLER, Pittsburgh, Pa. Filed June 14, 1913. Serial No. 773,626. (Cl. 15—61.)



1. The combination with a reciprocating carriage of a foot rest, a pair of brushes on the carriage, holders for the brushes, contact points on the holders, and means actuated by the reciprocating carriage to separate said brushes by means of the contact points.

2. The combination with a reciprocating carriage and brushes thereon of contact points carried by the brushes, a rack wheel supported in a stationary frame, means on the carriage for turning said wheel, and means projected by the turning wheel into the path of the contact point to separate the brushes.

3. The combination with brushes as described of a frame and a rack wheel supported thereon, a traveling carriage supporting the brushes having a pawl adapted to engage the wheel, and means upon the carriage projected by the predetermined rotation of said wheel into the path of movement of the brush holders and operating to separate the brushes.

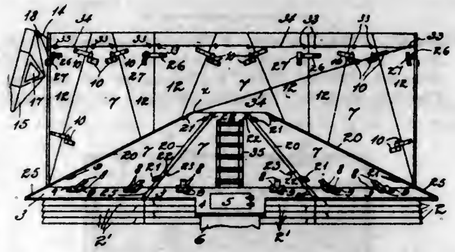
4. The combination with a supporting frame, a reciprocable carriage and brushes carried thereby, a rack wheel in the frame and a cam lug thereon, means for extending the brushes, including a plate having a lug complementary to the lug of the rack wheel, and a cam plate for each brush and means on the first mentioned plate adapted to contact with said cam plates operating to separate the brushes.

5. The combination of a reciprocable carriage and a pair of separable brushes carried thereby, a supporting frame and a rack wheel journaled therein, means on the carriage for turning the wheel, a cam on the wheel, a perforated disk, a plate having a lug adapted to ride on said cam and a pair of bolts on the plate adapted to pass through said perforated disk into the path of movement of the brush holders and operating to separate the brushes as described.

[Claims 6 and 7 not printed in the Gazette.]

1,138,869. SILO. EVERETT E. HINCHLIFF, Galesburg, Ill. Filed Dec. 27, 1913. Serial No. 808,936. (Cl. 20—1.41.)

1. A silo roof comprising a plurality of independently elevatable sections, and a cap hingedly connected with the free end of one of said sections and adapted to swing out of the way when the section with which it is connected is elevated.



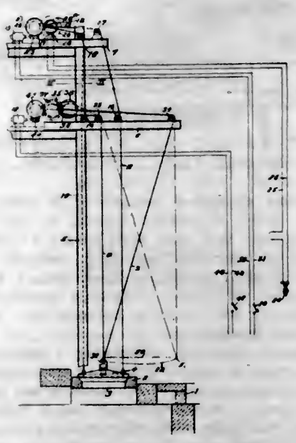
2. A silo roof comprising a plurality of independently elevatable sections, and a cap hingedly connected with one of them, adapted to swing down on the outside of the section with which it is connected when the latter is elevated and to rest on and cover the inner ends of all the roof sections when they are in normal positions.

3. In a roof, a plurality of elevatable sections, a block secured to the free end of one of said sections, a ring hinged to said block and adapted to rest on the inner ends of said sections when they are in normal positions, and a cap hinged to said block and adapted to hang outward of the adjacent roof section when it is elevated.

4. A silo-roof comprising a plurality of independent elevatable roof sections, a cap-supporting element secured to one of said sections, and a cap hingedly connected with said cap-supporting element and adapted to hang on the outside of the section with which it is connected when the latter is elevated.

5. A silo roof comprising a plurality of independent sections, a hinge block secured to one of said sections, a center-ring hinged to said block and adapted to swing backward therefrom, and a cap fixed to said ring.

1,138,870. GLASS-DRAWING APPARATUS. HARRY F. HITNER, Mount Vernon, Ohio, assignor to The Pittsburg Plate Glass Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed July 6, 1911, Serial No. 637,150. Renewed Oct. 15, 1914. Serial No. 866,881. (Cl. 49—17.)



1. In glass drawing apparatus, the combination with a furnace and a vertically movable top stone having a glass drawing opening, of means for giving the top stone a fixed vertical movement of reciprocation, comprising a cable extending upward from the top stone, a crank provided with a laterally projecting member to which the upper end of the cable is secured, and means for rotating the crank, the throw of the crank being such as to give the top stone the desired range of movement, and arranged so that the top stone is lifted during one half of the forward rotation of the crank and lowered during the other half of such forward rotation.

2. In glass drawing apparatus, the combination with a furnace and a vertically movable top stone having a glass drawing opening, of means for giving the top stone a fixed vertical movement of reciprocation, comprising a plurality of cables extending upward from the top stone, a crank provided with a laterally projecting member to which the upper ends of the cables are secured, and means for rotating the crank, the throw of the crank being such as to give the top stone the desired range of movement, and arranged so that the top stone is lifted during one half of the forward rotation of the crank and lowered during the other half of such forward rotation.

3. In glass drawing apparatus, the combination with a furnace and a vertically movable top stone having a glass drawing opening, of means for giving the top stone a fixed vertical movement of reciprocation, comprising a cable extending upward from the top stone, a crank provided with a laterally projecting member to which the upper end of the cable is secured, means for rotating the crank, the throw of the crank being such as to give the top stone the desired range of movement, and arranged so that the top stone is lifted during one half of the forward rotation of the crank and lowered during the other half of such forward movement, and an indicator actuated by the rotation of the crank for giving a signal when the top stone reaches its lower position.

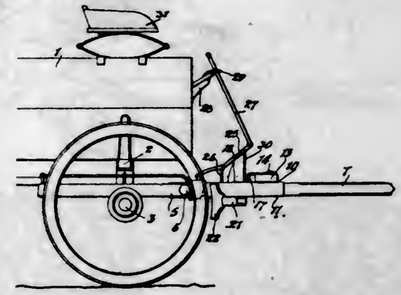
4. In glass drawing apparatus, the combination with a furnace, a vertically movable top stone having a glass drawing opening and a cover therefor, of means for shifting the cover laterally comprising two cables secured to the cover, one of which extends upward substantially vertically and the other of which extends upward diagonally to the side to which the cover is to be shifted, and means for actuating the cables to give the cover an upward and a lateral movement.

5. In glass drawing apparatus, the combination with a furnace, a vertically movable top stone having a glass drawing opening and a cover therefor, of means for shifting the cover laterally, comprising two cables secured to the cover, one of which extends upward substantially vertically and the other of which extends upwardly diagonally to the side to which the cover is to be shifted, and means for actuating the cable to give the cover an upward and a lateral movement, such means comprising a pair of cranks to which the ends of the cables are attached and arranged so that during one half of their rotary movements the cables are pulled upward to raise the cover and shift it laterally, and during the other half of such movements the cover is shifted back to position over the top stone.

1,138,871. BRAKE ATTACHMENT TO VEHICLES. JONATHAN HOLLIDAY, Togo, Saskatchewan, Canada. Filed Apr. 6, 1914. Serial No. 830,031. (Cl. 21—9.)

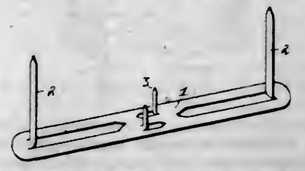
1. In a wheeled vehicle the combination with the front hounds and the pole hounds pivotally connected to the front hounds, of top and bottom plates secured to the pole hounds, a pole slidably received between the plates and the pole hounds, a bolt passing through the pole and extending through suitable longitudinally disposed slots formed in the plates, the said slots and a bolt preventing the withdrawal of the pole from between the pole hounds, a double tree mounted on the bolt, a brake beam secured to the under side of the pole, brake shoes carried by the beam and located normally in advance of the front vehicle wheels and releasable means for locking the pole in its advanced position as limited by the slots, as and for the purpose specified.

2. In a wheeled vehicle the combination with the front hounds and the pole hounds pivotally connected to the front hounds, of top and bottom plates permanently secured to the pole hounds, a pole slidably received between the pole hounds, a vertically disposed bolt secured to the pole and extending through suitable longitudinally disposed slots provided in the plates, the slots limiting the end movement of the pole, a double tree mounted on the bolt, a brake beam secured to the under side of the pole, brake shoes secured to the ends of the beam and located normally in advance of the front vehicle wheels, a cross piece connecting the rear ends of the pole hounds and a removable block inserted between the rear end of the pole and the cross piece, said block normally retaining the pole in its advanced position as limited by the slots, as and for the purpose specified.



3. In a wheeled vehicle the combination with the front hounds and the pole hounds pivotally connected to the front hounds, of top and bottom plates permanently secured to the pole hounds, a pole slidably received between the pole hounds, a vertically disposed bolt secured to the pole and extending through suitable longitudinally disposed slots provided in the plates, the slots limiting the end movement of the pole, a double tree mounted on the bolt, a brake beam pivotally secured to the under side of the pole, brake shoes secured to the ends of the beam and located normally in advance of the front vehicle wheels, a cross piece connecting the rear end of the pole hounds, a vertically slidable wedge shaped block carried by the pole hounds and inserted between the cross piece and the rear end of the pole and means for withdrawing the block, as and for the purpose specified.

1,138,872. FASTENER FOR LETTER-FILES. JOHN C. HUB, Jr., Cleveland, Ohio. Filed Dec. 30, 1909. Serial No. 535,702. (Cl. 24—153.)

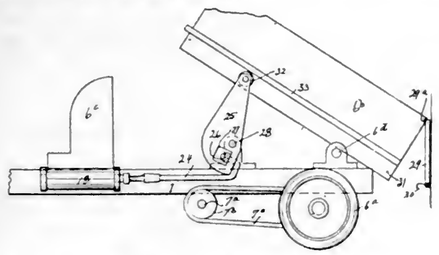


A device of the character described, comprising a substantially rectangular sheet metal body having two long strips stamped therefrom, each of said strips remaining attached to said body at one end and extending from the points of attachment toward the center of the body, said strips being alined but spaced from each other; and two relatively short strips stamped from said body between the adjacent ends of said long strips, whereby such short strips may be bent up to securely engage the backing of a file and said long strips may be bent up to engage individual sheets to be filed.

1,138,873. HOISTING MECHANISM. EDWARD HUBBACK, Seattle, Wash. Filed Nov. 16, 1914. Serial No. 872,340. (Cl. 21—20.)

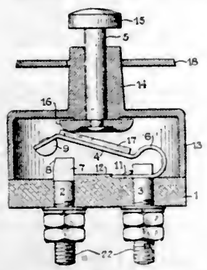
1. In a device of the class described, the combination with a truck and its engine of a box pivoted to the truck

frame, levers pivoted to the said frame and adapted to rotate the said box about its pivot, a heel upon each of the levers, flexible connections passed around the heels of the said levers and there secured, fluid operated pistons the ends of which are connected to the said flexible connections, a system of pipes and a pump for circulating the fluid therethrough, and operative connections between the said pump and the said engine.



2. In a device of the class described, the combination with a power truck, having a box pivoted to the truck frame, of a pair of levers pivoted to the frame of the truck and adapted to rotate said box about its pivot, a ledge upon each side of the said box and which is constantly in engagement with one of the said levers, a pump and a system of fluid containing pipes and cylinders connected thereto, the said pipes having a check valve and a two-way cock, pistons for the said cylinders, operative flexible connections between the said pistons and the said levers, means for operatively connecting the pump with the engine of the truck, said means including a friction wheel and an operating yoke and lever.

1,138,874. ELECTRIC SWITCH. CHARLES J. KLEIN, Milwaukee, Wis., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed Apr. 18, 1914. Serial No. 832,903. (Cl. 177—10.)



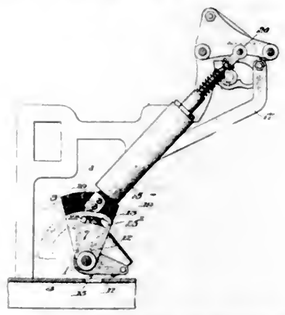
1. In an electric switch, in combination, a base, a pair of spaced terminals extending therethrough and having binding posts without the same, one of said terminals being substantially T-shaped and having its top partially sunk in said base and constituting a contact portion, a resilient bridging member fixed to said base and biased to open circuit position, a contact tip on said bridging member to engage and wipe over said contact portion of said terminal, and a push-button operating member for actuating said bridging member.

2. In an electric switch, in combination, a base, a contact thereon having a substantially flat extremity and a portion reflexed thereover, and securing means for said contact underlying said reflexed portion thereof and extending into said base, said means having an angular head portion and said contact extremity having an open slot to receive said means and having offset lugs to abut said head portion thereof for locking the same against rotation and removal through said slot.

3. In a momentary contact switch for automobile electric starting systems, in combination, an insulating base, a pair of spaced terminals penetrating the same and having headed contacts on one face thereof and binding posts on the other face thereof, a flexible strip bridging member for said contacts clamped against angular displacement at one end by one of the headed contacts and extending toward but biased out of engagement with the other, said member having a rounded contact tip at its free extremity to engage and wipe over said last mentioned contact, and a reciprocable operating member bearing upon said bridging member intermediate its ends.

4. A momentary contact switch for automobile electric starting systems, comprising, in combination, a circular, flat insulating base, two spaced terminals penetrating said base, each comprising a bolt member having a headed contact on one face of the base and clamping nuts threaded thereon on the other side of the base to anchor the terminal and to receive a line wire, a resilient bridging member for said contacts clamped against angular displacement beneath one of the same and backwardly looped above the other, said member having a contact tip at its free extremity to engage and wipe over said last mentioned contact, and a reciprocable operating member bearing upon said bridging member but insulated therefrom.

1,138,875. ADDING AND RECORDING MACHINE. HARRY LANDSIEDEL, Poplar Bluff, Mo., assignor, by mesne assignments, to The Dalton Adding Machine Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Feb. 1, 1912. Serial No. 674,755. (Cl. 235—60.)



1. In an adding machine, the combination with a main operating shaft, and mechanism to be operated, of a yielding connection between said shaft and said mechanism comprising a spring, a support carried by said shaft constituting an abutment for said spring and an element mounted in said shaft operable to adjust and hold said abutment in different positions with respect to said shaft, substantially as described.

2. In an adding machine, the combination with a main operating rock shaft, means for operating said shaft, and parts operated by said shaft, of an adjustable support carried by said shaft, a spring mounted on said support and acting as an abutment for said parts operated by said shaft and a manipulative device for adjusting said support in different positions with respect to said shaft, substantially as described.

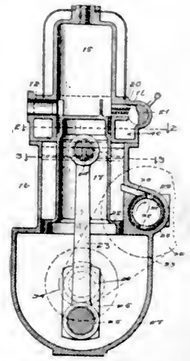
3. In an adding machine, the combination with a main shaft, and means for operating said shaft, of a support carried by said shaft, a spring having one end mounted on said support, an abutment for the opposite end of said spring, and means for adjusting and holding said support in different positions with respect to said shaft and said abutment, substantially as described.

4. In an adding machine, the combination with a shaft, and means for operating said shaft, of a support on said shaft, a spring having one end mounted on said support, an abutment for the opposite end of said spring, means holding said spring between said support and said abutment in whatever position said support may be, and an element supported by said shaft operable to adjust and hold said support in different positions with respect to said shaft and said abutment, substantially as described.

5. In an adding machine, the combination with a shaft, and means for operating said shaft, of a support on said shaft, a spring having one end mounted on said support, an abutment for the opposite end of said spring, a screw operating in said shaft and operable to adjust and hold said support in different positions with respect to said abutment, and members holding said spring between said support and said abutment in any position of said support, substantially as described.

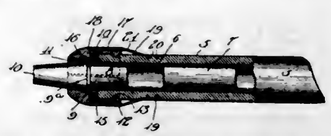
[Claims 6 to 14 not printed in the Gazette.]

1,138,876. INTERNAL-COMBUSTION ENGINE. CHARLES M. LEECH, Lima, Ohio. Filed Oct. 3, 1913. Serial No. 793,187. (Cl. 123—59.)



The combination with a pair of internal combustion engines, each of which comprises a power cylinder, a piston to reciprocate within the cylinder, a compression cylinder arranged below the first named cylinder, a compression piston connected with the first named piston and operating within the compression cylinder, a crank shaft, and a pitman connecting the piston and crank shaft; of an annular compression chamber surrounding each power cylinder, having communication therewith and having a transverse port communicating with the compression cylinder of the other engine; a valve casing having a common inlet and outlet ports leading into the compression cylinders of the two engines; a tubular valve rotatable within the valve casing and provided between its ends with four inlet ports arranged at substantially ninety degrees apart and at each end with a pair of inlet openings arranged at substantially 180° apart; and means for driving the tubular valve at substantially one-half crank shaft speed.

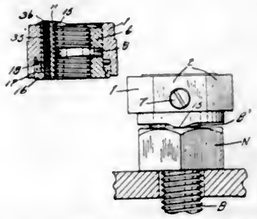
1,138,877. PNEUMATIC HAMMER. DELPHIS T. LELOIS, Chicago, Ill. Filed Nov. 23, 1914. Serial No. 873,448. (Cl. 78—44.5.)



1. A tool-holder for pneumatic hammers comprising semi-circular jaws detachably engaging the hammer barrel and the tool and adapted to permit longitudinal movement of the latter, a sleeve seated on and embracing said jaws, and means secured to said barrel and detachably engaging said sleeve for holding it against displacement.

2. A tool-holder for pneumatic hammers comprising semi-circular jaws detachably engaging the hammer barrel and the tool and adapted to permit longitudinal movement of the latter, said jaws each having a recess in its outer face shouldered at one end, a closed sleeve detachably fitting said recess and clamping said jaws in operative position and springs secured to the barrel and having their free ends removably engaging said sleeve.

1,138,878. NUT-LOCKING DEVICE. ALEXANDER E. LOTSTROM, Seattle, Wash. Filed Jan. 16, 1915. Serial No. 2,527. (Cl. 81—10.)



1. In a device of the character described, a die-member formed with a longitudinal bore and a tongue projecting into said bore, a bushing rotatively mounted in said bore formed with interior screw-threads adapted to engage with screw-threads of a bolt, and a cam-surface upon one end of said bushing engageable by said tongue to guide the latter in its contact with the bolt-thread.

2. In a device of the character described, a die-member formed with a longitudinal bore and a tongue projecting into said bore, a bushing rotatively secured in said bore and provided with internal screw-threads engageable with the screw-threads of a bolt, and means upon said bushing for guiding said tongue in the relative rotative movements of the die-member and bushing whereby said tongue is caused to engage and deflect the bolt-thread.

3. In a device of the character described, a die-member formed with a longitudinal bore and a tongue projecting into said bore, a bushing rotatively secured in said bore provided with means for connection with a bolt, and a cam surface upon said bushing engageable by said die-member in its limited reverse movement relative to said bushing whereby the die-member is given longitudinal movement during which said tongue is caused to deflect the thread of said bolt.

4. In a device of the character described, a die-member formed with a longitudinal bore and a tongue projecting into said bore, a bushing rotatively mounted in said bore formed with interior screw-threads in alinement with said tongue and adapted to engage with the screw-threads of a bolt, a cam-surface upon one end of said bushing engageable by said tongue to guide the latter in its contact with the bolt-thread and stops provided at each end of said cam-surface to limit the rotary movement of said tongue.

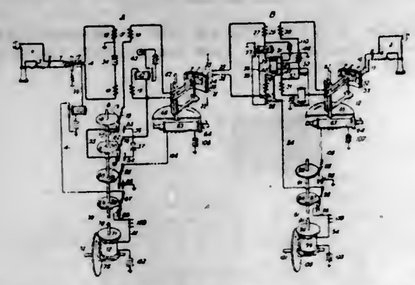
5. In a device of the character described, a die-member formed with a longitudinal bore and a tongue projecting into said bore, a bushing rotatively mounted in said bore formed with interior screw-threads adapted to engage with screw-threads of a bolt, a cam-surface upon one end of said bushing engageable with said tongue to guide the latter in its contact with the bolt-thread, a slot in said bushing relatively conforming to the configuration of said cam-surface, and a projection from said die-member entering said slot.

[Claims 6 to 8 not printed in the Gazette.]

1,138,879. TRUNKING SYSTEM FOR TELEPHONE-EXCHANGES. FRANK R. MCBERTY, New Rochelle, N. Y., assignor to Western Electric Company, New York, N. Y., a Corporation of Illinois. Filed Sept. 8, 1909. Serial No. 516 769. (Cl. 179—27.)

1. In a telephone exchange system, the combination with an automatic switching apparatus, a trunk line consisting of a pair of conductors adapted to form part of the talking circuit, and substation lines connected through said automatic switching apparatus and trunk line, of means oper-

able upon the opening of the substation line of the called subscriber for including a source of current in the trunk line, and an electroresponsive circuit-controlling device actuated by current from said source.



2. In a telephone exchange system, the combination with an automatic switching apparatus, a trunk line consisting of a pair of conductors adapted to form part of the talking circuit, and substation lines connected through said automatic switching apparatus and trunk line, of a switch at the substation of the called subscriber adapted to close the line when in use, means at one end of said trunk line operable upon the opening of said switch for including a source of current in the trunk line, and a circuit controlling device at the other end of said trunk line responsive to said source of current.

3. In a telephone exchange system, the combination with an automatic switching apparatus, a trunk line consisting of a pair of conductors adapted to form part of the talking circuit, and substation lines connected through said automatic switching apparatus and trunk line, of a connecting switch included in the circuit of the called substation line, means operable upon the opening of said switch for including a source of current in the trunk line, and a signaling device in the trunk line responsive to said source of current.

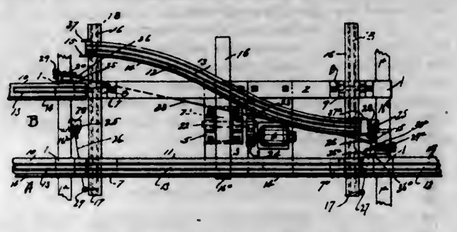
4. In a telephone exchange system, the combination with an automatic switching apparatus, a trunk line consisting of a pair of conductors adapted to form part of the talking circuit, and substation lines physically disconnected from but inductively connected to said trunk line, an automatic switching apparatus uniting said substation line to said inductive connection, of a plug and jack switch included in the circuit of one of said substation lines, means operable upon the removal of the plug for including a source of current in the trunk line, and an electroresponsive circuit-controlling device actuated by current from said source.

5. In a telephone exchange system, the combination with an automatic switching apparatus, a trunk line consisting of a pair of conductors adapted to form part of the talking circuit and substation lines connected through said automatic switching apparatus and trunk line, of a connecting switch included in the circuit of one of said substation lines, means at one end of said trunk line operable upon the opening of said switch adapted in successive stages to open said trunk line and to interpose therein a source of current, and a circuit controlling device at the other end of said trunk line responsive to said source of current.

[Claims 6 to 29 not printed in the Gazette.]

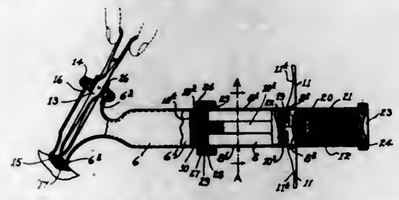
1,138,880. SWITCHING DEVICE. ROYAL A. MCCLURE, Seattle, Wash. Filed July 6, 1914. Serial No. 849,149. (Cl. 104—180.)

The combination in a switching device of a frame work for the switch tracks proper, a supporting structure upon which the said frame work which is adapted to be bodily moved at right angles to the tracks of the switch proper, counterweights which hold the said frame work in normal position, a motor and connections between the same and the said framework whereby the latter is adapted to be moved to a predetermined position, means for holding the said framework in such position, the said means including latch plates and spring bolts, and a lever adapted to be struck by a passing train, there being connections between



said lever and said holding means whereby, when the said lever is so struck, the said holding means is released.

1,138,881. COMBINED DEPURATOR AND SURGICAL INSTRUMENT. WILLIAM THOMAS MCFARLAND, Chicago, Ill. Filed Mar. 6, 1913. Serial No. 752,415. (Cl. 128—9.)



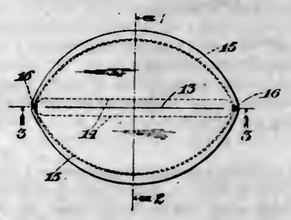
1. The combination in an instrument or device of the class set forth of, a combination hair, sliver, blackhead, or the like remover member and pump cylinder having a flanged end, a combination piston guide and spring chamber detachably secured to said flanged end by a screw flange; said combination pump cylinder and hair, or the like remover member having an opposite end with a bearing through which may be inserted a pair of tweezers for the removal of hair, slivers, or the like with the aid of a vacuum produced by and in the self-contained vacuum pump, and an opening in the wall opposite the one through which the tweezers are inserted.

2. The combination in an instrument or device of the class set forth of, a vacuum pump having a detachable cylinder and piston guide having a screw flange detachably secured to each other by a screw flange secured against the flange of the cylinder and screwed to the screw flange of said guide; said cylinder terminating at its free end in a spout or nose to which may be secured a skin or flesh invigorator; and said spout having a bearing opposite its open end in which may be inserted a pair of tweezers for the removal of hair, slivers, or the like, with the aid of vacuum produced by and in the self-contained vacuum pump.

3. The combination in a depurator, or device of the class set forth of, a blackhead, or the like, remover end having an opening enlarging into a pump cylinder, or piston bore in its opposite end; a flanged end on said pump cylinder, or piston bore; a combined piston guide and spring chamber detachably secured to said flanged end by a screw flange.

4. The combination in a device of the class set forth of, a combined vacuum depurator and surgical instrument, consisting of a combined depurator and vacuum pump cylinder having a depurator end forming into its opposite end a pump cylinder having a flanged end; a combination piston guide and spring chamber detachably secured to said flanged end by a screw flange; said combined depurator and vacuum pump cylinder having an opposite end with a bearing through which may be inserted a pair of tweezers, or other suitable surgical instruments, for the removal of hair, slivers, or the like, or blackheads, etc., with the aid of a vacuum produced by and in the self-contained vacuum pump, and an opening in the wall of the depurator end opposite the one through which the tweezers are inserted.

1,138,882. PURSE. ALBERT JOHN MEIER, Glendale, Mo. Filed June 6, 1912. Serial No. 702,099. (Cl. 150—28.)



1. A purse or like receptacle comprising a flexible body doubled over and constructed to form a self-contained receptacle having a substantially flat bottom, and having a slit along one face thereof to form an expansible opening for the receptacle, the device being collapsible to expand said slit and expose said bottom, and means constructed to normally hold said slit closed.

2. A purse or like receptacle comprising a flexible body doubled over and constructed to form when extended a flat closed self-contained receptacle, and having a slit along one face thereof to form when collapsed a substantially flat bottomed open receptacle, said slit being normally closed, and said device being collapsible to expand said slit and expose the bottom of the receptacle.

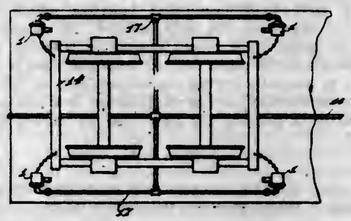
3. A purse or like receptacle comprising a flexible body doubled over and constructed to form a self-contained receptacle having a substantially flat bottom and having a slit along one face thereof to form an expansible opening for the receptacle and an elliptical spring engaging the body at the ends of the slit constructed to hold the slit closed, the device being collapsible to expand said slit and expose said bottom.

4. A purse or like receptacle comprising a flexible body doubled over and constructed to form a self-contained receptacle having a substantially flat bottom, and having a slit along one face thereof to form an expansible opening for the receptacle, and lips on the body extending along the edges of said slit, the device being collapsible to expand said slit and expose said bottom.

5. A purse or like receptacle comprising a flexible body doubled over and constructed to form a self-contained receptacle, and having a slit along one face thereof to form an expansible opening, and strips extending along the edges of said slit, said strips decreasing in thickness from the center toward the ends.

[Claims 6 and 7 not printed in the Gazette.]

1,138,883. RAILWAY SAFETY DEVICE. WILFRED J. MELVIN and HARRY J. BURBRIDGE, Bathurst, New Brunswick, Canada. Filed Nov. 25, 1914. Serial No. 874,062. (Cl. 188—2.)



1. In a device of the character described; a casing provided with an opening in its bottom and having, at its top, a nipple adapted to be connected to a source of supply of fluid pressure; a removable plug adapted to fit in the said opening and make an air tight closure; means for securing the plug in operative position; and means for closing the inner end of the said nipple when the device is not in use.

2. In a device of the character described; a casing having a centrally located opening in its bottom and provided with a nipple at the center of its top adapted to be connected to a source of supply of fluid pressure; a plug having a flexible head adapted to normally close the said opening in the bottom of the casing; a piston adapted to press upon the upper face of the head of the said plug, at the edge thereof, so as to secure it in position; means for closing the inner end of the said nipple, when the device is not in use; and means for attaching the plug to means adapted to effect its removal in case of accident.

3. In a device of the character described; a casing having a centrally located opening in its bottom and provided with a nipple at the center of its top adapted to be connected to a source of supply of fluid pressure and having its inner end beveled to form a valve seat, the said casing being further provided with a lateral port near its bottom; a plug having a flexible head adapted to normally close the said opening in the bottom of the casing; a piston mounted in the casing provided with an integral stem having a hollow lower portion communicating with the interior of the casing and a cylindrical recess in its upper end, and a cylindrical bore, the said piston being adapted to normally press upon the upper face of the head of the said plug, near the edge thereof, so as to secure it in position; a valve adapted to be seated in the inner end of the said nipple so as to close it, and provided with an integral stem the inner end of which is operative in the bore in the said stem of the piston; a coil spring mounted about the said valve stem and seated in the recess in the upper end of the said piston stem, and adapted to hold the said valve seated when the device is not in use, and to permit unseating thereof when the device is in use; and means for attaching the said plug to means adapted to effect its removal in case of the breaking of a truck or journal or the like.

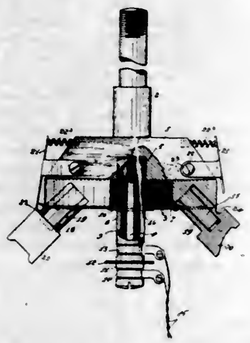
4. In combination; a railway train air pipe line; a truck; a casing provided with a central opening in its bottom and a centrally located nipple on its top, and a lateral port near its bottom; connections between the said air pipe line and the said nipple; a plug adapted to normally close the said opening in the bottom of the casing and provided with a flexible head; a piston operative in the said casing and adapted to normally press on the inner face of the head of the said plug, near the edge thereof, so as to secure it in position; means for closing the inner end of the said nipple when it is not connected to an air pipe line, and for permitting the opening thereof when it is so connected; and means for connecting the said plug to one corner of the said truck.

1,138,884. ATTACHMENT FOR EDGE-SETTING MACHINES. RAOUL J. B. MONCHAMP, Manchester, N. H. Filed Nov. 14, 1914. Serial No. 872,070. (Cl. 12—104.)

1. In a device of the character described; a head, having its under face recessed; attaching means integral therewith; heating coils mounted in the recess of the head and insulated therefrom; means for electrically connecting the said coils to an electrical circuit, such means being arranged to permit revolution of the head; irons carried by the head and detachably mounted therein; and means for securing the irons in operative position.

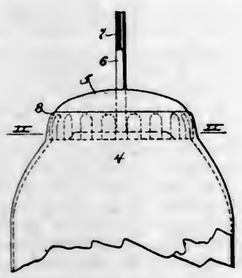
2. In a device of the character described; a head having its under face recessed; integral attaching means therefor; heating coils mounted in the recess of the said head and insulated therefrom and from each other; a plug of material of high electrical conductivity centrally located above the coils and electrically connected to one side thereof, and insulated therefrom and from the head, and having a centrally screw threaded bore; a plate removably secured on the lower face of the said head; a screw inserted through the plate and the coils and threaded into the said plug, the said screw being insulated from the said coils and plate and having an annularly grooved head; an annularly grooved sleeve of high electrical con-

ductivity mounted about the upper portion thereof and insulated therefrom and from the said plate and electrically connected to the other side of the said coils; means for connecting the said sleeve and screw to opposite sides of an electrical circuit, so as to permit revolution of the



said sleeve; diametrically opposite angularly disposed pins integral with the said head and projecting beyond the lower face thereof; irons adapted to be mounted on the said pins; and means for holding the irons in position, such means being carried by the said head.

1,138,885. BAIT FOR DRAWING GLASS CYLINDERS. GEORGE E. MOORE, Arnold, Pa., assignor to Pittsburg Plate Glass Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Mar. 30, 1909. Serial No. 486,823. (Cl. 49—17.1.)

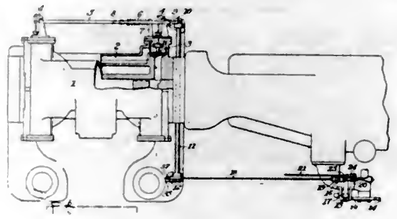


A metal bait for drawing glass cylinders, comprising a body portion provided with an annular glass engaging portion one side surface of which is provided with flutes extending a portion of the distance to the upper part of the glass engaging portion and the other surface being substantially smooth.

1,138,886. VARIABLE-CAPACITY COMPRESSED-AIR ENGINE. BRUNO V. NORDBERG, Milwaukee, Wis. Filed Mar. 30, 1914. Serial No. 828,123. (Cl. 230—37.)

1. In a variable capacity compressed air engine the combination with a cylinder provided with a by-pass connecting the ends of the cylinder, of a valve controlling communication between the ends of the cylinder through the by-pass, means for opening said valve at the limits of the piston stroke, and means for rendering said valve opening means operative at will.

2. In a variable capacity compressed air engine provided with means for varying its compressing capacity, the combination with the cylinder having a by-pass connecting its ends, of a valve normally closing said by-pass, means actuated by the engine and adapted to open said valve at the ends of the piston stroke, and means for rendering said valve opening means operative when the engine has reached its full compressing capacity working under normal conditions, to increase the work of compression.



3. In a variable capacity compressed air engine adapted to be converted from a motor into a compressor at will and provided with means for varying its capacity as a compressor from zero to full capacity, the combination with a cylinder having a by-pass, of a valve normally closing said by-pass, means actuated by the engine for opening said valve at the limits of the piston stroke, and means for rendering said valve opening means operative when the engine has reached its full capacity working under normal conditions as a compressor, to increase the work of compression.

4. In a variable capacity compressed air engine the combination with a cylinder having a by-pass connecting its ends, of valves controlling communication between the ends of the cylinder through the by-pass and located close to its ends, means tending to close said valves, automatic means adapted to momentarily and simultaneously open said valves at the limits of the piston stroke, and means for rendering said valve opening means operative and inoperative at will.

5. In a variable capacity compressed air engine the combination of a cylinder having a by-pass connecting its ends, a valve normally closing the by-pass, means actuated by the engine and adapted to automatically open said valve at the limits of the piston stroke, means for rendering said valve opening means operative or inoperative, and means for opening said valve at will and at any point in the piston stroke independently of said automatic means.

[Claims 6 to 11 not printed in the Gazette.]

1,138,887. METHOD OF PRESERVING BANANAS. HUGH EDWARD PLUNKETT, Malden, Mass., assignor, by mesne assignments, to United States Tropical Food Company, Malden, Mass., a Corporation of Massachusetts. Filed June 6, 1914. Serial No. 843,550. (Cl. 99—8.)

1. A method of preserving bananas which consists, first; in removing the skin, second; in subjecting the body to steam in a closed receptacle whereby the body is cooked and the stain derived from the rind is removed, third; in partially drying the cooked body to form a surface crust thereon leaving the interior in a soft condition, and lastly in surrounding the pulp body to exclude air therefrom.

2. A method of preserving bananas which consists, first; in removing the skin, second; in subjecting the body to steam in a closed receptacle whereby the body is cooked and the stain derived from the rind is removed, third; in partially drying the cooked body to form a surface crust thereon leaving the interior in a soft condition, and lastly in packing the pulp body to exclude air therefrom.

1,138,888. BANANA FOOD AND PROCESS OF MAKING SAME. HUGH EDWARD PLUNKETT, Malden, Mass., assignor, by mesne assignments, to United States Tropical Food Company, Malden, Mass., a Corporation of Massachusetts. Filed June 6, 1914. Serial No. 843,551. (Cl. 99—11.)

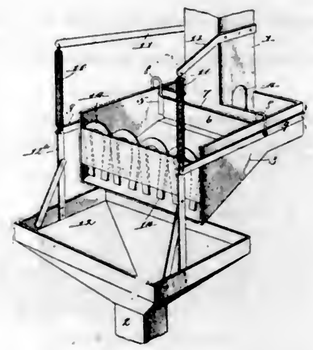
1. The method of preparing banana bodies for food, which consists first, in reducing the peeled banana meat bodies to a pulpy mass, 2nd, in subjecting the pulpy mass to a bath at a suitable temperature and lastly in subjecting the mass to a vacuum to remove the stain and to dry the mass for food.

2. The method of preparing banana bodies for food, which consists first, in reducing the peeled banana meat bodies to a pulpy mass, 2nd, in subjecting the pulpy mass to a bath at a suitable temperature and lastly in subjecting the mass to a vacuum to remove the stain and to dry the mass for food, at one and the same time.

3. A method of preparing banana bodies for food, which consists, first, in reducing the peeled banana meat bodies to a pulpy mass, second, in subjecting the pulpy mass to a bath at a suitable temperature, and lastly, in subjecting the mass to heat to remove the stain and dry the mass for food.

4. An article of manufacture, purified banana granules having the natural color of the body of the fruit (after separation from the skin) before such fruit is ripened and free from staining ingredients and dried preparatory for use as food.

1,138,889. MAGNETIC SEPARATOR. DAVID L. RAND, Ayr, N. D. Filed Jan. 16, 1915. Serial No. 2,653. (Cl. 83—71.)

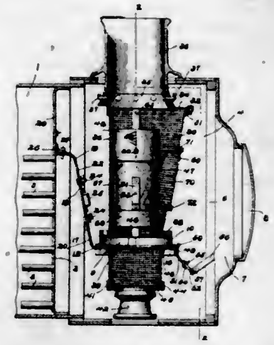


1. A feed governor adapted to be inserted in an interrupted grain spout, comprising a chute carried by one section of the spout, and a vertically movable hopper cooperating with the other section of the spout, a series of magnets extending transversely across the chute, a vertically movable gate to the rear of said magnets, and means connecting said movable hopper and said gate.

2. A feed regulator comprising a chute, a grain delivery spout having an upper section leading to said chute, a vertically movable hopper carrying a continuation of said grain spout, said continuation being off-set with respect to the upper section, a series of magnets arranged transversely across the lower end of the chute and above said hopper, a gate, U-shaped members carried by the gate and straddling the sides of the chute, pivoted bars to which said members are pivotally connected, and common means for supporting the forward ends of the bars and the hopper.

3. A device of the kind described comprising a chute, a grain delivery spout adapted to discharge into the upper rear portion of the chute, a transverse partition in advance of said spout, said partition terminating short of the bottom of the chute, said chute being comparatively wide with respect to the diameter of the spout, a vertically movable gate arranged in advance of said partition, a series of magnets arranged in advance of said gate, pivoted bars, means connecting the gate to the bars, a hopper, coil springs secured at their upper ends to a fixed support having their lower ends connected to said hopper, the front ends of said bars being also connected to said springs.

1,138,890. SPARK-ARRESTER. PHILIP L. RAYMOND, Reading, Pa. Filed June 23, 1914. Serial No. 846,732. (Cl. 110—122.)



1. In a spark arrester, the combination with a smoke box having a stack at its upper end, and an exhaust nozzle at its lower end in line with the stack, of a support in the smoke box having an opening therein in line with the nozzle and the stack, a screen, a coupling ring secured on the upper end of the screen and having an upwardly projecting portion fitting within and secured to the stack, a sleeve adjustable vertically in the lower end of the screen and bearing directly upon the support, and a screen connecting the top of the nozzle with the support, substantially as described.

2. In a spark arrester, the combination with a smoke box having a stack at its upper end, and an exhaust nozzle at its lower end in line with the stack, of a support in the smoke box having an opening therein in line with the nozzle and the stack, a screen, a coupling ring secured on the upper end of the screen and having an upwardly projecting portion fitting within and secured to the stack, a segmental adjustable sleeve clamped around the lower end of the screen and bearing directly upon the support, and a screen connecting the top of the nozzle with the support, substantially as described.

3. In a spark arrester, the combination with a smoke box having a stack at its upper end, a horizontal table secured in the smoke box, a screen connecting the stack and the table, a ring fixed to the lower end of the screen, and a sleeve adjustable on the ring and supporting the screen on the table, substantially as described.

4. In a spark arrester, the combination with a smoke box having a stack at its upper end, a horizontal table secured in the smoke box, a screen connecting the stack and the table, a ring secured to the lower end of the screen, and a segmental sleeve clamped around the ring and supporting the screen upon the table, substantially as described.

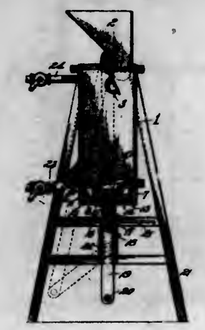
5. In a spark arrester, the combination with a smoke box having a stack at its upper end, a horizontal table secured in the smoke box, a screen connecting the stack and the table, a channel ring secured to the lower end of the screen, and a segmental sleeve clamped around the outer portion of said channel ring and supporting the screen upon the table, substantially as described.

[Claims 6 to 15 not printed in the Gazette.]

1,138,891. MACHINE FOR MOLDING LIQUID-BORNE PARTICLES. JULIAN H. RIVERS, St. Louis, Mo., assignor, by mesne assignments, to Universal Fibre Company, New York, N. Y., a Corporation of Delaware. Filed Dec. 22, 1906, Serial No. 349,146. Renewed Apr. 1, 1912. Serial No. 687,778. (Cl. 92—64.)

1. In a molding machine, the combination with a series of pivoted wall sections, and a perforated plate supported on the inner side of each of said sections, of a bottom section operable effectively to move said wall sections to-

gether effectively to position said plates in the form of an inclosure, and a container opening into the inclosure formed by said wall sections and said bottom, substantially as specified.



2. The combination with a container, of a mold composed of a series of sections pivoted to said container, a bottom section, links supported by said container, and connections between said links and said bottom section whereby operation of said links will move said bottom section, substantially as specified.

3. The combination with a container, and a mold, of links pivotally supported by said container, a shaft supported by said links, other links supported by said shaft, a member carried by said second named links, and a connection from said member to said mold whereby operation of said links will open and close said mold, substantially as specified.

4. The combination with a container, and means for introducing material to be molded into the container, of a series of mold sections pivoted to the container, a bottom section supporting said pivoted sections, and means for holding said bottom section against said pivoted sections, substantially as specified.

5. The combination with a container, of a mold composed of a series of sections pivoted to said container, and a bottom section arranged to hold said pivoted sections together, substantially as specified.

[Claims 6 to 31 not printed in the Gazette.]

1,138,892. HYDROCARBON-MOTOR. EDWARD F. ROBERTS, Detroit, Mich., assignor to Packard Motor Car Company, Detroit, Mich., a Corporation of Michigan. Filed Feb. 23, 1915. Serial No. 9,982. (Cl. 123—75.)

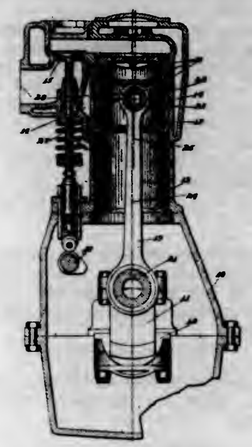
1. In a hydrocarbon motor, the combination with the cylinder and a piston adapted to have play therein, of means including a pivotal connection laterally offset only slightly from the axis of the piston and opposing rocking action of the piston on its support at the top of the stroke.

2. In a hydrocarbon motor, the combination with a vertical cylinder and a piston arranged to slide therein, of a piston pin connection offset only slightly from the axis of the cylinder and piston for the purpose set forth.

3. In a hydrocarbon motor the combination with a vertical cylinder and a piston arranged to slide therein, of a piston pin connection offset only slightly from the axis of the cylinder on that side away from the side of the cylinder having the greatest pressure on the firing stroke.

4. In a hydrocarbon motor the combination with the cylinder and a piston smaller than the cylinder and sliding therein with a small amount of play, of a connecting rod, and a pivotal connection between the piston and connecting rod offset only slightly from the axis of the piston, for the purpose described.

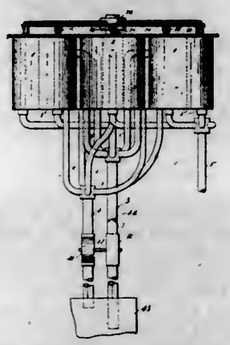
5. In a hydrocarbon motor, the combination of a cylinder, a piston arranged to slide therein, a crank shaft arranged at right angles to the cylinder axis, and a connecting rod journaled at its lower end to a crank of said shaft and at its upper end to the piston, the piston pivot



being laterally offset only slightly from the center of the piston.

[Claims 6 to 16 not printed in the Gazette.]

1,138,893. STEAM VACUUM-PUMP. JOHN G. ROBINSON, Melrose, Mass. Filed Jan. 4, 1913. Serial No. 740,146. (Cl. 160—1.)



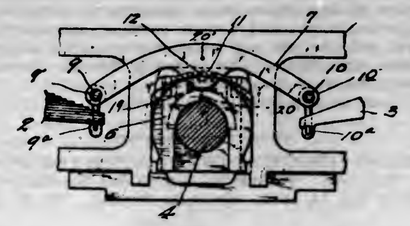
In a steam vacuum pump, a governor tank, a plurality of governed tanks associated therewith, a water valve, a steam valve and a vacuum-breaking valve in each of said tanks, float-controlled means in each tank for actuating said water and vacuum-breaking valves, actuating means associated with each tank for said steam valves, and float-controlled means in said governer tank for intermittently operating said actuating means.

1,138,894. LOCOMOTIVE. PATRICK J. ROCK, Homeville, Pa. Filed Jan. 20, 1915. Serial No. 3,246. (Cl. 105—17.)

1. The combination with a locomotive frame, a supporting axle and journal box, of a bearing block on the journal box, and a longitudinally disposed oscillatable equalizer comprising a pair of parallel beams and a connecting bar fulcrumed in said block, and suspending means at the ends of said equalizer.

2. The combination with a locomotive frame, a supporting axle, a journal box therefor and a bearing block seated on the box, of a pair of longitudinally extending

arched parallel beams having a connecting fulcrum bar seated in said block with the ends of said beams located



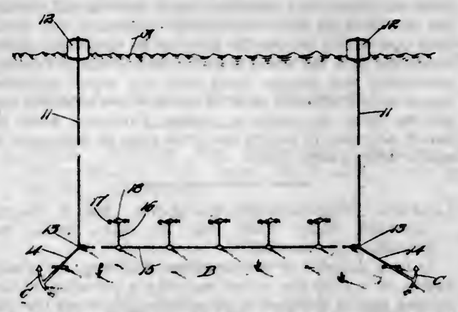
below the fulcrum, and suspending devices at the ends of the beams.

1,138,895. APPAREL-SHIRT. TOBIAS L. RUBINSTEIN, St. Louis, Mo., assignor to The New Era Manufacturing Company, St. Louis, Mo., a Corporation of Missouri. Filed Aug. 20, 1913. Serial No. 785,797. (Cl. 2—41.)



In an apparel shirt, a collar comprising two plies, each having an inturned hem at its free edge, a lining, having a turned edge, arranged between the plies and having its turned edge incased by one of said hems and its opposite edge secured to one of said plies only, a neck band comprising two plies, each of which are secured to the plies of the collar, the lines of securing between the collar and neck band and between the plies of the collar and its lining being spaced throughout their lengths and out of parallelism so that there will be a wider folding line at the collar ends than at its middle.

1,138,896. FISHING-TRAWL. WILLIAM P. RYAN, Gloucester, Mass., assignor of one-half to Edward K. Burnham, Gloucester, Mass. Filed May 19, 1914. Serial No. 839,632. (Cl. 43—7.)

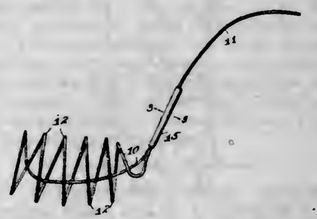


1. In a trawl, the combination with a ground line of a ganging secured at one end to said ground line, a hook secured to the free end of said ganging, and a float secured on the upper side of said hook whereby it is retained in a horizontal position above the bottom.

2. The improved trawl comprising a ground line, anchors, and a buoy line, a plurality of gangings secured to said ground line at intervals throughout its length, a combination hook and float secured to each of said gangings comprising a hollow metal bait having a hook secured beneath it, said bait causing said hook to float above the bottom at a distance determined by the length of the ganging.

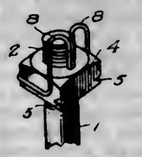
3. The improved ground trawl comprising a ground line adapted to rest on the bottom, a buoy line, a plurality of gangings secured to said ground line, a hook and a float secured to each of said gangings, said floats being adapted to retain said hooks at a predetermined distance above said ground line as it rests on the bottom.

1,138,897. KITCHEN UTENSIL. MARY SÁRI, Cleveland, Ohio. Filed Feb. 18, 1914. Serial No. 819,368. (Cl. 107—53.)



An egg-beater comprising a single piece of resilient wire, one end of which is bent upon itself to form a loop handle, while the other end is longitudinally curved and extended forward of said handle to constitute a body portion, and then formed into a series of convolutions surrounding said forwardly extending curved body portion in position to yield to conform to the shape of a bowl or other vessel, and having its rear end bent to longitudinally aline with the opposite end of the wire, and a sleeve securing the two alined ends of the wire in parallel engagement with the forwardly-extending body portion of the wire.

1,138,898. NUT-LOCK. CHARLES F. SCHWAB, Eugene, Oreg. Filed Apr. 2, 1914. Serial No. 829,118. (Cl. 151—8.)



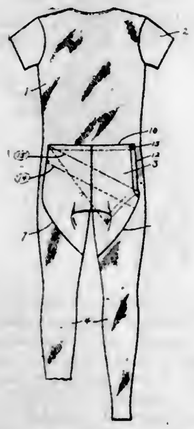
1. A nut lock comprising a bolt having a longitudinal groove in the threaded end thereof, a nut threaded upon said bolt and having a pocket formed therein, said nut having notches at the corners thereof, and a wire locking frame engaging the outer portions of said nut and positioned within a plurality of said notches and having fingers positioned in an opening formed by the registering of said pocket and groove whereby said nut will be held in a locked position upon said bolt.

2. A nut lock comprising a bolt having a longitudinal groove formed in the threaded end thereof, a nut threaded upon said bolt, said nut provided with an internal pocket, said nut having notches formed at the corners thereof, and a wire locking frame carried by said nut and fitting within a plurality of said notches, said frame comprising a substantially U-shaped nut-engaging portion, outwardly extending arms formed upon said U-shaped portion, said arms terminating in inwardly extending parallel locking fingers adapted to be positioned in the opening formed by the registering of said pocket and said groove thereby locking said nut upon said bolt.

1,138,899. UNION SUIT. JOSEPH R. SHEPTER, Chicago, Ill. Filed Mar. 9, 1914. Serial No. 823,481. (Cl. 2—144.)

1. A union suit comprising a main member having a posterior opening extending through the crotch portion

and into opposed parts of the leg portions; and a flap member normally closing said opening up to a line reaching from below the belt line at one side of the back of the wearer of the garment to a point proximate to the hip joint at the other side thereof, the back of the main member terminating below and substantially parallel to said line and the elasticity of the flap member so disposed as to afford a maximum expansibility substantially along said line.



2. In a garment of woven material having a posterior opening, a flap for closing said opening, the said flap integral with the crotch portion of the garment and permanently fastened along the whole of one of its lateral edges and along the other lateral edge up to a point above the crotch, the said flap presenting a side opening extending from the said point to the upper end of the last named lateral edge and detachably secured to the garment at its said upper end of said edge; the weave of the said flap providing a maximum expansibility substantially along a line reaching from the said point on one lateral edge of the flap to the upper end of the said permanently fastened lateral edge, thereby enabling said flap to stretch along said line to afford the required posterior opening when the flap is folded back along the said line.

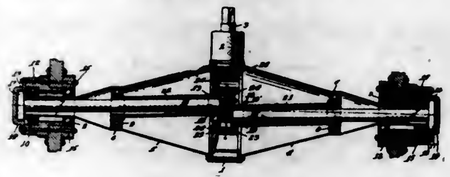
3. A combination undergarment comprising a main body-and-leg member provided with a posterior opening extending through the crotch and downwardly into opposing parts of the leg portions thereof, and a flap member extending from the front of the garment through the crotch and over the back portion thereof and comprising two equal parts joined together by a seam extending midway through the crotch and up the middle of the back, the wales of said flap member diverging from said seam at angles gradually increasing from the upper end portion of said flap member at the back of the garment through said crotch, whereby the said disposition of the wales renders said flap member most elastic to strains acting in a direction substantially transverse to said seam at the upper portion of said flap and substantially parallel with said seam in the crotch portion of the flap member.

4. A combination undergarment comprising a main member equipped with a posterior opening, and a flap member secured to the garment and normally closing the said opening, the said flap member comprising a pair of substantially arcuate portions secured to each other along their concave edges, the juncture of the said portions disposed substantially vertically of the garment, the concavity of the said adjoined edges causing the said juncture to be drawn forwardly of the garment when the latter is in use.

5. A combination undergarment comprising a main member equipped with a posterior opening, and a flap member secured to the garment and normally closing the said opening, the said flap member comprising a pair of substantially arcuate portions secured to each other along their concave edges, the juncture of the said portions disposed substantially vertically of the garment, the concavity of the said adjoined edges causing the said juncture to be drawn forwardly of the garment when the latter is in use, the said arcuate portions equipped at the lower end of their said concave edges with relatively pointed tips, the said tips extending through the crotch and up the front of the garment.

[Claim 6 not printed in the Gazette.]

1,138,900. REAR-AXLE CONSTRUCTION FOR MOTOR-VEHICLES. CHARLES L. SMITH, San Francisco, Cal. Filed May 14, 1913. Serial No. 767,660. (Cl. 21—90.)



1. A rear axle construction for vehicles comprising a hollow, rigid supporting axle carrying wheel hubs at its outer ends, two live axles out of alinement with each other each having an angular head at the outer ends thereof, a cap connected with the wheel hub and operatively connecting each of said wheel hubs with the heads on the live axles, means for holding the inner ends of the live axles out of the axis of rotation of the wheel hubs, and means to connect the inner ends of said live axles to permit one to rotate around and in a different direction from the other.

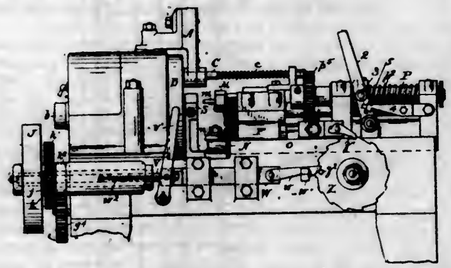
2. A rear axle construction for vehicles comprising a rigid supporting axle having a wheel hub mounted thereon at each end thereof, two live axles out of alinement with each other within said rigid axle, each having an angular head on its outer end, means to loosely connect each live axle with the adjacent wheel hub, means to hold the inner ends of said axles out of alinement with the axis of rotation of the wheel hubs, a gear carried by the inner end of each live axle and in mesh with the gear on the adjacent live axle, and means to rotate said shafts to drive the wheel hubs.

3. A rear axle construction for vehicles comprising a rigid supporting axle having wheel hubs at its outer end, a revoluble sleeve within the rigid axle, means to rotate said sleeve, two live axles out of alinement with each other extending into the sleeve, each axle having its axis out of alinement with the axis of rotation of the wheel hubs and having an angular head on its outer end, means connected with the wheel hubs for operatively and loosely connecting the angular head with the wheel hub, and means at the adjacent ends of the two live axles for permitting them to rotate in reverse directions when required and also to permit the inner ends of said axles to rotate around each other.

1,138,901. NUT-TAPPING MACHINE. ROY H. SMITH, Cleveland, Ohio. Filed Feb. 18, 1910. Serial No. 544,555. (Cl. 10—75.)

1. In a machine of the character described, the combination of a rotatable turret carrying a plurality of nut holding chucks arranged in an annular row about the axis of the turret, mechanism for turning said turret intermittently predetermined distances, a movable head stock, mechanism carried by said head stock for drilling, tapping and facing nuts held in said chucks, said mechanism being located opposite the different chucks when the turret is stationary, means for intermittently reciprocating the head stock, means for feeding nuts to the chucks, means for opening and closing the chucks, each of said chucks being opened by said means at a time when it is in engagement with the tapping spindle, whereby the nut leaves the chuck and passes upon said tapping spindle.

2. In a machine of the character specified, the combination with a rotatable turret having a plurality of nut holding chucks mounted thereon, means for moving said turret intermittently distances corresponding with the distances between the chucks, a head stock movable between and from said turret, a plurality of spindles rotatably mounted thereon, the axis of the spindles being in line with the chucks when the turret is stationary, means for feeding nuts to the holding chucks, means for opening and closing the chucks, each of said chucks being opened by said means at a certain time while the nut held therein is in engagement with a certain spindle, whereby the nut leaves the chuck and passes upon the spindle.



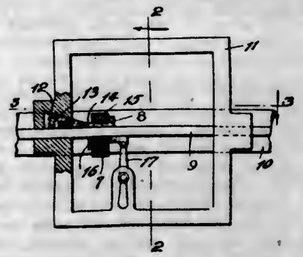
3. In a machine of the character described, the combination with a nut holding chuck, a rotatable tool, means for reciprocating said tool as it rotates, a fixed wrench located intermediate of the tool and chuck, and means for opening the chuck while the tool engages the nut to permit the withdrawal of the nut upon the tool and into engagement with said wrench.

4. In a machine of the character described, the combination of a nut holding chuck, a rotatable tool, means for reciprocating said tool as it rotates, a spring yieldingly holding said tool in working position, a fixed wrench through which said tool passes when reciprocated, and means for opening said clutch to permit the withdrawal of the nut upon the tool and into engagement with the wrench.

5. In a machine of the character specified, the combination of a rotatable turret, a plurality of nut holding chucks carried thereby, means for moving said turret intermittently arcual distances corresponding with the distances between the chucks, a nut feeding chute, a head stock movable toward and from said turret, a plurality of spindles rotatably mounted thereon with their axes in line with the several chucks when the turret is stationary, and a spring actuated plunger carried by said head stock and adapted to force a nut out of said chute and into an adjacent chuck, and means for opening and closing said chucks.

[Claims 6 to 16 not printed in the Gazette.]

1,138,902. DEVICE FOR GRIPPING. RUDOLPH C. SMITH, Yonkers, N. Y. Filed May 5, 1913. Serial No. 765,431. (Cl. 74—13.)

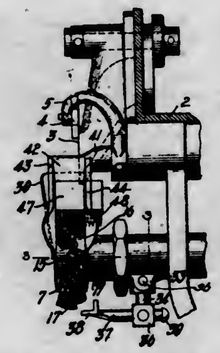


1. A body, a second body movable under power relatively thereto, and means for establishing plural compound frictional connections in series between said bodies automatically varying to balance part of the accelerating and retarding forces by one connection and the other part by the other, said means comprising compounded plural self-releasing mechanical powers.

2. A body, a second body movable under power relatively thereto, and means for establishing a frictional connection between said bodies automatically varying to balance the accelerating and retarding forces, said means comprising compounded plural self-releasing wedges.

3. A body, a second body movable under power relatively thereto, and means for establishing a frictional connection between said bodies automatically varying to balance the accelerating and retarding forces, said means comprising compounded plural self-releasing wedges carried by the movable body with one wedge on each side of the other body, and a yoke coupling said wedges and having an inclined surface to engage one of them and a plain surface to engage a plain surface of the other wedge, said movable body having an inclined surface to engage the inclined face of said other wedge.

1,138,903. CEMENTING-MACHINE. CHARLES P. STANSON, Saugus, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed June 6, 1908. Serial No. 437,123. (Cl. 91—39.)



1. In a machine for cementing the welt of a shoe before the outer sole is applied thereto, the combination of cement-applying means, means for regulating the amount of cement to be applied to the work, a work-rest, and clearing means for separating and removing foreign matter from the cement and the cement-applying means comprising a series of needle-like members.

2. In a machine of the class described, the combination of a cement applying means, means for regulating the supply of cement thereto, means to regulate the amount of cement applied thereby, a work rest, cement clearing and foreign matter retaining means comprising a two-part clearer trough member provided with a stem and adjustable about said stem, said trough member having a bottom provided with needle-like members adapted to remove foreign matter from the cement.

3. In a machine of the class described, a telescoping cement-applying means provided with a series of staggered cement-applying members adapted to be adjusted in similar relation with each other, adjustable cement-clearing means to coöperate therewith, longitudinally and laterally adjustable cement-regulating means, and a work rest.

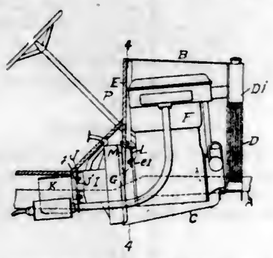
4. In a shoe cementing machine, the combination of cement applying means, means for regulating the supply of cement thereto, means to regulate the amount of cement applied thereby, a work rest, cement clearing and foreign matter retaining means movably secured in substantially the same vertical plane with the cement applying means, said retaining means comprising a clearer trough member one end of which is open and having a

bottom provided with a comb-like edge at said open end adapted to remove foreign matter from the cement.

5. In a machine of the class described, the combination of cement applying means, 7, an adjustable farm 20 with its walls 29—30 disposed at opposite sides of said cement applying means, trough 42, provided with the clearer plate 47 having teeth 48 thereon, arranged to engage said cement applying means near its active face and a work guide 38.

[Claims 6 to 20 not printed in the Gazette.]

1,138,904. AUTOMOBILE. CECIL HAMELIN TAYLOR and BOUDEWIJN B. NEUTEBOOM, Detroit, Mich. Filed Apr. 26, 1912. Serial No. 693,395. (Cl. 21—90.)



1. In an automobile having a main frame with side pieces, a unitary second frame extending between said side members and having a front and back cross piece, said cross pieces being provided with openings surrounded by seats, an internal combustion engine secured against the seat around the opening in one of said cross pieces, and a transmission casing secured to the seat around the opening in the other of said cross pieces.

2. In an automobile having a main frame with side members, a unitary second frame extending between said side members and having a front and back cross piece, said cross pieces being provided with openings surrounded by seats, an internal combustion engine secured against the seat surrounding the opening on one of said cross pieces, and a transmission casing secured to the seat on the other of said cross pieces, the wall of one of the openings in said cross pieces being incomplete, for the purpose described.

3. In an automobile, an inclosure, a radiator extending across one end of said inclosure, the other end of said inclosure being covered except for a circular space concentric and a little larger than the fly wheel, a fly wheel located in said circular space, fan blades in said fly wheel adapted to draw air from said inclosure and fins or small fan blades on the periphery of said fly wheel adjacent to the walls of said circular inclosure, adapted to create an outward draft.

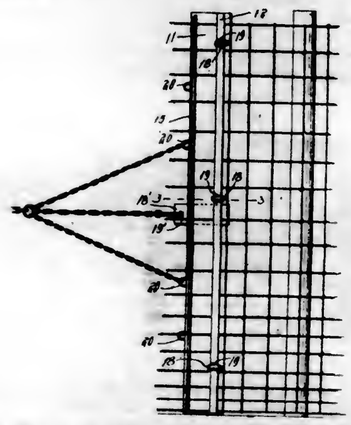
4. In an automobile having a main frame, a unitary second frame secured to said main frame having two cross pieces, a machined surface on each of said cross pieces, and mechanism adapted to be secured to each of said surfaces having a longitudinal shaft, said surfaces being arranged in parallel planes and so that said shaft shall be alined when said mechanism is secured in place.

5. In an automobile having a main frame, a unitary second frame secured to said main frame having two cross pieces, a vertical machined surface on each of said cross pieces, a mechanism having a longitudinal shaft adapted to be secured to each of said surfaces, said surfaces being so arranged that said shafts shall be alined when said mechanism is secured in place.

[Claims 6 to 12 not printed in the Gazette.]

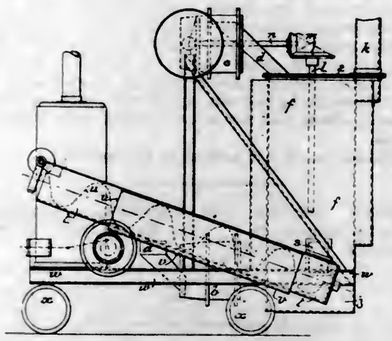
1,138,905. CLAMP. CHARLES A. TAYLOR, Winchester, Ill., assignor of one-half to Newton Black, Farmer City, Ill. Filed July 17, 1914. Serial No. 851,590. (Cl. 254—83.)

1. A wire fence clamp comprising a pair of detachable clamping bars, arms carried by one of said bars and terminating in hooks, the other of said bars having notches formed in one edge in which said hooks are adapted to be engaged, said last-named bar being swung inwardly on said hooks to bring the opposite edge thereof into clamping relation with the first-named bar, said bars when assembled forming in effect an angle bar between the parts of which a wire is adapted to be received and clamped.



2. A wire fence clamp comprising a pair of detachable clamping bars, arms adjustably carried by one of said bars and extending at substantially right angles to one face thereof, hooks formed on the free ends of said arms, the other of said bars having one edge engaged with said hooks and the opposite edge thereof swung inwardly toward the first-named bar to effect the clamping of a wire, and means for adjusting said arms to set the last-named bar toward or away from the first-named bar, to permit the reception therebetween of wires of different gages.

1,138,906. PLANT FOR MAKING TAR MACADAM. NEIL TAYLOR, Leeds, England. Filed Feb. 16, 1914. Serial No. 818,935. (Cl. 94—6.)



1. In apparatus for drying, heating and tarring stones for making tar macadam, the combination on a frame mounted on wheels of a motor, a supply chute, an elevating conveyer, a second supply chute, a drying and heating chamber composed of an ascending zig-zag flue, and a circular stepwise descending heating passage, the horizontal portions of said flue and of said passage alternating with one another, scraper arms in the horizontal portions of said heating passage mounted on a rotating central vertical shaft, an inclined tarring, mixing and elevating trough and connecting mechanism between said motor and the elevating conveyer, central vertical shaft and the trough mixer and elevator, and a chute between the bottom horizontal portion of the heating passage and the lower end of the inclined tarring trough, substantially as set forth.

2. In apparatus for drying, heating and tarring stones for making tar macadam, the combination with a drying and heating chamber composed of alternate horizontal flue and heating sections, of short and vertical flues, passage tubes through the horizontal flue sections a central rotating vertical shaft, radial scrapers in each heating section carried by said vertical shaft, and a delivery chute from the bottom heating section, of an inclined trough, a rotating mixing elevating and discharging worm mounted in said trough and means for heating said chamber and for heating said trough substantially as set forth.

3. In apparatus for drying and heating stones for making tar macadam the combination in a drying and heating chamber of a number of alternate heating and flue sections formed by horizontal partitions, a zig-zag passage for the flame and hot gases consisting of said horizontal flue sections and short vertical end flues, a rotating vertical shaft extending vertically upward through said heating and flue spaces, a number of revolving scraper arms in each heating space attached to said vertical rotating shaft, an isolating sleeve and a passage tube in each flue space, the passage tube in any flue space being situated in advance (so considered with respect to direction of rotation of the revolving scraper arms) of the passage tube in the next heating space below by an angular distance approximately equal to the angular width, referred to the revolving vertical shaft as center, of said tube passages, substantially as set forth.

4. In apparatus for drying and heating stones for making tar macadam, the combination in a drying and heating chamber of alternate horizontal heating and flue sections, a zig-zag passage formed of said horizontal flue sections and short vertical end flues, a rotating vertical shaft, a number of scraper arms in each of said heating sections attached to said rotating shaft, an isolating sleeve and a passage tube in each flue section, a chimney in communication with the topmost horizontal flue section, a furnace in communication with the topmost horizontal flue section and a delivery chute from the bottom heating section, substantially as set forth.

5. In apparatus for drying, heating and tarring stones for making tar macadam the combination on a frame mounted on wheels, of a heating and drying chamber at the rear, an endless chain elevator, a chute between the top drum of said elevator and the top of the heating and drying chamber, a supply chute at the receiving end of the bottom drum of the elevator, an inclined tarring mixing and elevating trough supported by one side of said frame, a chute from the bottom of the drying and heating chamber to the lower end of the inclined trough and driving connections between the motor and the chain elevator and the rotating worm of the inclined tarring trough.

[Claim 6 not printed in the Gazette.]

1,138,907. PROCESS OF PREPARING WOOD FIBER. JOHN HERMAN THICKENS, Buffalo, N. Y. Filed Jan. 21, 1914. Serial No. 813,502. (Cl. 92—7.)

1. The method of making strong fibered pulp, which consists in steaming the woody material in a digester until thoroughly heated, then flooding the digester with an alkaline solution cold enough to condense the steam in the woody material and effect absorption therein of the alkaline solution, withdrawing the unabsorbed alkaline solution from the digester and continuing the steaming.

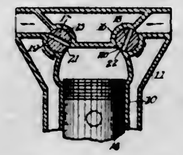
2. The method of making a strong fibered pulp, which consists in steaming the woody structure in a digester until thoroughly heated, then flooding the digester with an alkaline solution of lower temperature to condense the steam in the woody structure and effect absorption of the alkaline solution, and then withdrawing the alkaline solution and continuing the steaming until the woody structure reacts acid.

3. The method of making strong fibered pulp from wood, which consists in steaming the wood in a digester until thoroughly heated, then admitting an alkaline solution at a temperature slightly below the boiling point until the steam in the wood is condensed and absorption of the alkaline solution is thereby effected, immediately withdrawing the unabsorbed alkaline solution and continuing the steaming until a sample of wood from the digester reacts acid.

4. The method of treating wood, which consists in steaming the wood under pressure until it becomes heated throughout, then flooding the digester with an alkaline solution admitted through the bottom thereof and at a temperature slightly below boiling, whereby the steam in the wood is condensed and absorption of the alkaline solution is effected, then quickly withdrawing the unabsorbed solution and subjecting the wood to further steaming until a sample taken from the digester reacts acid, and subsequently repeating the flooding with alkaline solution and the steaming to acid condition until the desired digesting has been effected.

5. The method of making strong fibered pulp, which consists in steaming the wood under pressure in a digester until it becomes heated throughout to the temperature of the steam, then admitting an alkaline solution in large quantity and quickly through the bottom of the digester until the latter is substantially filled, the temperature of this solution on its admission being slightly below the boiling point, whereby the steam in the digester and throughout the wood will be condensed and the alkaline solution drawn into the wood in large quantity, then withdrawing the unabsorbed alkaline solution and continuing the steaming until the wood is returned to acid condition, and alternately repeating the chilling with alkaline solution and the steaming until the desired digesting is effected, and the material placed in condition for mechanical reduction by usual methods; substantially as described.

1,138,908. HYDROCARBON-MOTOR. MILTON TIBBETTS, Detroit, Mich, assignor to Packard Motor Car Company, Detroit, Mich, a Corporation of Michigan. Filed May 13, 1911. Serial No. 627,030. (Cl. 123—190.)



1. In a hydrocarbon motor, the combination with separate inlet and exhaust rotary valves, of means for operating said valves from the crank shaft comprising a pair of vertical shafts extending from either side of the crank shaft to points adjacent the valves, spiral gearing between said vertical shafts and the crank shaft, and spiral gearing between the upper ends of said shafts and said valves.

2. In a hydrocarbon motor, the combination with the crank shaft having a spiral gear thereon, a rotary valve for controlling the motor inlet port and having a spiral gear thereon, and a rotary valve independent of the said rotary inlet valve for controlling the motor exhaust port and having a spiral gear thereon, of an operating shaft having gears in mesh with the spiral gear on said crank shaft and the spiral gear on said inlet valve, and a second operating shaft having spiral gears in mesh with the spiral gear on said crank shaft and the spiral gear on said exhaust valve.

3. In a hydrocarbon motor, the combination with separate intake and exhaust rotary valve in the head of the motor, of a pair of vertical shafts for independently driving said valves from the motor crank shaft, a magneto, gears for driving said magneto from one of said vertical shafts, a water circulation pump, and means for driving said pump from the other of said vertical shafts.

4. In a hydrocarbon motor, the combination with separate inlet and exhaust rotary valves in the head of the motor, of a pair af non-alined shafts for independently rotating said valves, driving connections between said shafts and the motor crank shaft, an electric machine, a water circulation pump, and means for driving said machine and pump from said shafts respectively.

1,138,909. SHOE-FILLER. ANDREW THOMA, Cambridge, Mass., assignor to North American Chemical Company, New York, N. Y., a Corporation of Maine. Original application filed May 11, 1908, Serial No. 432,083. Divided and this application filed July 1, 1912. Serial No. 707,019. (Cl. 106—3.)

1. A shoe filler composition, comprising gum arabic and wax tailings.

2. A shoe filler composition, comprising a mucilaginous gum and wax tailings.

3. A shoe filler composition, comprising a mucilaginous vegetable gum, a permanently sticky, tenacious, slow-drying waxy adhesive of the type of wax tailings, and a resilient, chunky filling material mixed together to a doughy sticky mass, adherent to leather, and permanently pliable.

4. A shoe filler composition for a shoe-filling material, comprising a restraining agent consisting at least in part of a natural vegetable gum, an adhesive material consisting at least in part of wax tailings, moisture, and a filler-body material mixed together to a doughy sticky mass, adherent to leather, and permanently pliable.

5. A shoe filler composition, comprising gum arabic, wax tailings, moisture, and comminuted cork, the cork having approximately its natural resiliency.

[Claims 6 to 16 not printed in the Gazette.]

1,138,910. SHOE-BOTTOM FILLER. ANDREW THOMA, Cambridge, Mass., assignor to North American Chemical Company, New York, N. Y., a Corporation of Maine. Filed July 8, 1912. Serial No. 708,266. (Cl. 106—3.)

1. A shoe-bottom filler which, when in a shoe, is normally sticky, pliable, resilient and non-shifting in position, combined with means capable of rendering said filler extremely slimy and slippery while being applied to the shoe-bottom cavity.

2. A shoe-bottom filler, which, when in a shoe, is normally sticky, pliable and non-shifting in position, containing a predominant element capable of giving the filler a sleeking, slippery surface to which the laying tool cannot cling while the filler is being applied to the shoe bottom cavity, said predominant element having the further characteristic of being transitory in its sleeking, slippery influence, so as subsequently to cease to be predominant in this respect, then allowing the sticky feature of the filler to assert itself.

3. A shoe-bottom filler, which, when in a shoe, is normally sticky, pliable and non-shifting in position, containing a predominant element capable of giving the filler a sleeking, slippery surface to which the laying tool cannot cling while the filler is being applied to the shoe bottom cavity, said predominant element having the further characteristic of being transitory in its sleeking, slippery influence, and thereafter changing to a restraining and retarding influence on the rest of the filler.

4. A shoe-bottom filler, which, when in a shoe, is normally sticky, pliable and non-shifting in position, containing a predominant element capable of giving the filler a sleeking, slippery surface to which the laying tool cannot cling while the filler is being applied to the shoe bottom cavity, holding the sticky component of the filler disseminated in a finely distributed condition throughout the filler mass, and having a volatile portion which permits said element to change subsequently to a retarding influence for aiding in maintaining the remaining characteristics of the filler permanent and unchangeable.

5. A shoe-bottom filler, having a body of comminuted filler material united by a binder with a tendency to melt at low heat, combined with a relatively thick sleeking fluid sufficient in amount to give the filler mass a slimy slippery surface when being laid in the shoe-bottom cavity.

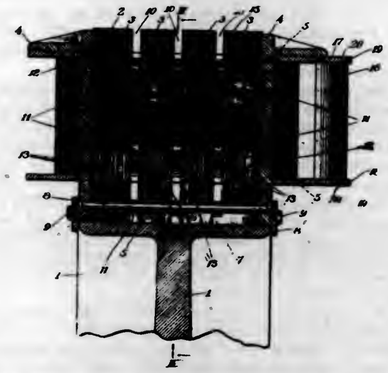
[Claims 6 to 13 not printed in the Gazette.]

1,138,911. TIRE-PROTECTOR. ORIN M. THOMAS, Oakland, Cal. Filed Sept. 29, 1913. Serial No. 792,281. (Cl. 152—18.)



The combination with a tire comprising an outer casing and a pneumatic inner tube of an annular liner removably seated therebetween and consisting of the continuous, service-stretched fabric portion of a used outer casing.

1,138,912. DYNAMO-ELECTRIC MACHINE. MILTON E. THOMPSON, Ridgway, Pa. Filed June 23, 1910. Serial No. 568,453. (Cl. 171—252.)



1. An alternator provided with laminated pole structures, some of the laminations being cut away so as to form air gaps at the base of the pole structures.

2. An alternator having a field pole structure and suitable windings and provided with air gaps in the structure on the opposite side of the windings from the pole face, said gaps being very thin as compared with their radial dimensions.

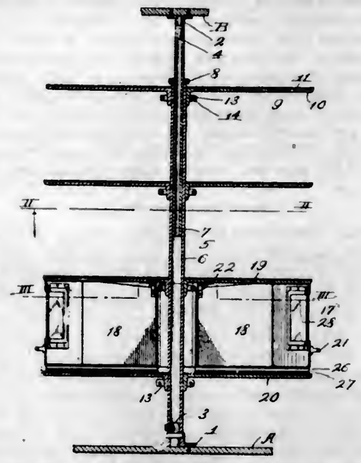
3. An alternator having a field pole structure and suitable windings thereon, and provided with air gaps in the structure on the opposite side of the windings from the pole face and the magnetic structures adjacent and between said gaps being very thin as compared with their radial dimensions.

4. An alternator having field pole structures provided each with a plurality of gaps at the base of the field poles and the magnetic structures adjacent and between said gaps being very thin as compared with their radial dimensions.

1,138,913. DISPLAY-CABINET. JOSEPH B. TINSLEY, Kansas City, Kans. Filed Mar. 23, 1914. Serial No. 826,566. (Cl. 211—20.)

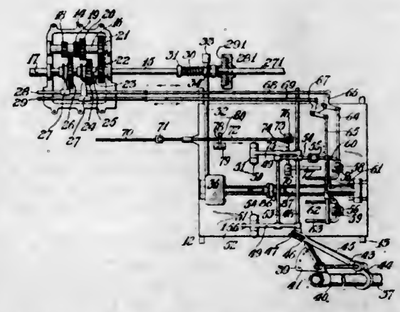
1. In a device of the class described, the combination with a vertically disposed shaft of a plurality of upper and lower horizontal brackets having their inner ends terminating in vertical portions, upper and lower shelves consisting of a pair of sections having their meeting edges disposed over certain of the respective brackets and detachably connected thereto.

2. In a device of the class described, the combination with a vertically disposed shaft, of a plurality of upper and lower horizontal brackets having their inner ends terminating in vertical portions, upper and lower shelves consisting of a pair of sections having their meeting edges disposed over certain of the respective brackets and de-



tachably connected thereto, clamping rings having their inner walls provided with recesses for engaging the vertical portions of the brackets to hold said brackets spaced equally at their inner ends, said clamping rings serving to hold said vertical portions in binding engagement with the shaft, and bins slidably mounted between the upper and lower shelves.

1,138,914. GEAR-SHIFTING MECHANISM. EUGENE O. WALSER, Los Angeles, Cal. Filed Feb. 27, 1914. Serial No. 821,569. (Cl. 74—58.)



1. A variable ratio gearing comprising a driving shaft, a driven shaft, several different ratio means for connecting the shafts, suitable mechanisms for throwing each of said ratio means into operative relation, reset means for throwing all of said ratio means out of operative relation, a selector adapted to be thrown into engagement with any of said mechanisms, and operating means engaging and actuating said reset means and selector.

2. A variable ratio gearing comprising a driving shaft, a driven shaft, a clutch connecting one of the shafts to an external driving means, several different ratio means for connecting the shafts, suitable mechanisms for throwing each of said ratio means into operative relation, reset means for throwing all of said ratio means out of operative relation, a selector adapted to be thrown into engagement with any of said mechanisms, and operating means connected to said clutch and actuating said reset means and selector.

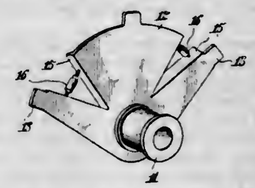
3. A variable ratio gearing comprising a driving shaft, a driven shaft, a clutch connecting one of the shafts to an external driving means, several different ratio means for connecting the shafts, suitable mechanisms for throwing each of said ratio means into operative relation, reset means for throwing all of said ratio means out of operative relation, a selector adapted to be thrown into engagement with any of said mechanisms, and a lever permanently connected to said clutch and engaging and actuating said reset means and selector.

4. A variable ratio gearing comprising a driving shaft, a driven shaft, a clutch connecting one of the shafts to an external driving means, several different ratio means for connecting the shafts, suitable mechanisms for throwing each of said ratio means into operative relation, reset means for throwing all of said ratio means out of operative relation, a selector adapted to be thrown into engagement with any of said mechanisms, a lever permanently connected to said clutch, means connected to said lever for actuating said reset means, and means connected to said lever for actuating said selector.

5. A variable ratio gearing comprising a driving shaft, a driven shaft, a clutch connecting one of the shafts to an external driving means, several different ratio means for connecting the shafts, suitable mechanisms for throwing each of said ratio means into operative relation, reset means for throwing all of said ratio means out of operative relation, a selector adapted to be thrown into engagament with any of said mechanisms, a lever permanently connected to said clutch and having a projection engaging said selector, a reset link pivoted to said clutch, and a slide actuated by said reset link to actuate said reset means.

[Claims 6 to 8 not printed in the Gazette.]

1,138,915. MOTOR-VEHICLE-MOVING ATTACHMENT. SELTON M. WETZEL, Port Orchard, Wash. Filed Feb. 18, 1914. Serial No. 819,508. (Cl. 242—95.)



1. A drum to be fitted to the drive wheel of a motor vehicle, such drum having a plate at one end formed with lateral wings to come between adjacent spokes of the drive wheel and means for pressing such wings against the opposing sides of the spokes.

2. A drum to be fitted to the drive wheel of a motor vehicle, such drum having a plate cut at a plurality of points, the cut-out portions of the plate being bent outwardly to provide wings, and means for pressing such wings against the opposing sides of the spokes.

3. A drum to be fitted to the drive wheel of a motor vehicle, such drum having a plate cut at a plurality of points, the cut-out portions of the plate being bent outwardly to provide wings, the upper edge of the plate at a plurality of points being formed to provide means whereby the plate may be permanently secured to and exteriorly of the spokes of the wheel, and means for pressing such wings against the opposing sides of the spokes.

1,138,916. METHOD FOR FACILITATING THE SEPARATION OF NITROGLYCERIN. RUDOLF WEYEL, Bürrigerheide, Germany, assignor, by mesne assignments, to Rheinische Dynamitfabrik, Cologne, Germany. Filed Nov. 25, 1912. Serial No. 733,324. (Cl. 52—3.)

1. The method of facilitating the separation of a mixture of liquids containing nitroglycerin and an acid, which comprises generating silicon fluorid in said liquids by the addition of a fluosilicate.

2. The method of facilitating the separation of a mixture of liquids having different specific gravities, containing nitroglycerin and an acid, which comprises generating silicon fluorid in said liquids by the addition of a fluosilicate.

3. The method of facilitating the separation of a mixture of liquids containing nitroglycerin and an acid, which comprises generating silicon fluorid in said liquids by the addition of a fluosilicate and siliceous compound.

4. The method of facilitating the separation of a mixture of liquids having different specific gravities, containing nitroglycerin and an acid, which comprises generating silicon fluorid in said liquids by the addition of a fluosilicate and siliceous compound.

5. The method of facilitating the separation of a mixture of liquids containing nitroglycerin and an acid which comprises generating silicon fluorid in said liquids by the addition of sodium fluosilicate.

[Claims 6 and 7 not printed in the Gazette.]

1,138,917. METHOD FOR FACILITATING THE SEPARATION OF NITROGLYCERIN. RUDOLF WEYEL, Bürigerheide, Germany, assignor, by mesne assignments, to Rheinische Dynamitfabrik, Cologne, Germany. Filed Nov. 25, 1912. Serial No. 733,325. (Cl. 52—3.)

1. The method of facilitating the separation of a mixture of liquids containing nitroglycerin and an acid, which comprises generating silicon fluorid in said liquids by the addition of a fluorid and an insoluble silicious compound.

2. The method of facilitating the separation of a mixture of liquids having different specific gravities, containing nitroglycerin and an acid, which comprises generating silicon fluorid in said liquids by the additon of a fluorid and an insoluble silicious compound.

3. The method of facilitating the separation of a mixture of liquids containing nitroglycerin and an acid, which comprises generating silicon fluorid in said liquids by the addition of sodium fluorid and an insoluble silicious compound.

4. The method of facilitating the separation of a mixture of liquids having different specific gravities, containing nitroglycerin and an acid, which comprises generating silicon fluorid in said liquids by the addition of sodum fluorid and an insoluble silicious compound.

5. The method of facilitating the separation of a mixture of liquids containing nitroglycerin and an acid, which comprises generating silicon fluorid in said liquids by the addition of a fluorid and insoluble silica.

[Claims 6 to 8 not printed in the Gazette.]

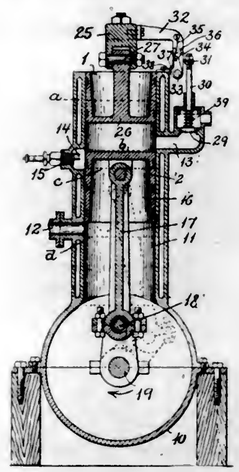
1,138,918. POULTRY-CRATE. WILLIAM R. WHITE, Denison, Tex., assignor of one-half to R. S. Legate, Denison, Tex. Filed Sept. 26, 1913. Serial No. 791,996. (Cl. 217—36.)



1. A poultry crate comprising a rectangular floor, wires projecting vertically upward from each corner of the floor, a rectangular top frame united at its corners to the upper ends of the vertical wires and supported thereby, two sets of wires arranged transversely of each other and having their ends secured respectively in opposite sides of the top frame, said wires welded together at their crossing points to form with the frame the top or cover for the crate, and two sets of wires arranged transversely of each other at each end or side of the crate said wires welded together at their crossing points to form a side wall for the crate, the ends of one set of wires for each side wall being secured in respectively the top frame and bottom floor of the coop and the ends of the wires of the other set being firmly secured to the vertical corner wires of the crate.

2. A poultry crate formed of a bottom or floor, a top and four sides and vertical wires forming a connection between the floor and top, the top consisting of a rectangular frame with crossing wires secured at their respective ends in the sides and ends of the frame, each side consisting of crossing wires secured at their respective vertical ends in the top frame and in the floor of the crate and at their horizontal ends to the vertical corner wires, and bracing means for each side wall consisting essentially of two wires extending diagonally across the wires of the side wall from a corner vertical wire to the top frame.

1,138,919. TWO-CYCLE ENGINE. FRANK W. WILLEY, Boston, and WILLIAM GALLETLY, Melrose, Mass., assignors to Carbon-Oxygen Gas Engine Company, Boston, Mass., a Corporation of Massachusetts. Filed May 25, 1912. Serial No. 699,643. (Cl. 123—48.)



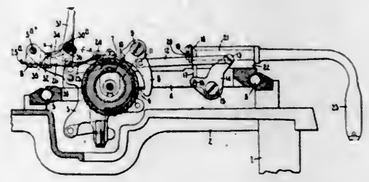
1. An internal combustion engine comprising a cylinder, a piston, a movable charge-compressing head within the cylinder, an inlet for the charge having a controlling valve and means connected with said movable head for opening the charge-admitting valve.

2. An internal combustion engine comprising a cylinder, a piston, a movable charge-compressing head within the cylinder, an inlet for the charge having a controlling valve and means connected with said movable head for opening the charge-admitting valve, said means comprising a yielding dog movable with said head, and a valve stem having a collar adapted to be engaged by said dog.

1,138,920. TYPE-WRITING MACHINE. CLIO B. YAW, Arlington, N. J., assignor, by mesne assignments, to Remington Typewriter Company, Ilion, N. Y., a Corporation of New York. Filed June 15, 1912. Serial No. 703,822. (Cl. 197—121.)

1. In a typewriting machine, the combination with a platen and its line spacing wheel, of a movable spring, a detent carried by said spring and constantly engaged with said line spacing wheel, and key controlled means for moving said spring and detent a predetermined extent in either of two directions at will to cause corresponding predetermined extents of movement of the platen.

2. In a typewriting machine, the combination with a platen and its line spacing wheel, of a detent, a spring carrying the same and having a slot, means for supporting said spring, and means for moving said spring oppositely from a central normal position and causing corresponding movements of the platen in either direction at will.



3. In a typewriting machine, the combination with a platen and its line spacing wheel, of a spring carrying a detent and also having a slot, a bracket, and a screw for sustaining said spring, and means for moving the spring longitudinally in either direction from a central normal position to effect through the detent and line spacing wheel corresponding rotative movements of said platen.

4. In a typewriting machine, the combination with a platen and its line spacing wheel, of a detent, a support therefor, a link connected to said support, a hand lever connected to said link, and detent devices for maintaining said lever in a central position and also for maintaining said lever in either of two abnormal positions.

5. In a typewriting machine, the combination with a platen and its line spacing wheel, of a detent, a spring support therefor, an arm extending upward from said support, a link connected at one end to said arm, a hand lever to which the other end of said link is connected, and means for maintaining said hand lever and connected parts in either of three predetermined positions.

[Claims 6 to 8 not printed in the Gazette.]

1,138,921. PROCESS OF RECOVERING METALS BY ELECTROLYSIS. LAWRENCE ADDICKS, Douglas, Ariz. Filed Nov. 5, 1914. Serial No. 870,440. (Cl. 204—15.)

1. In a process for the electrolytic reduction of metals in the presence of a substance having a solvent action upon the deposited metal, electrolyzing in the presence of a salt adapted to counteract the solvent action of said substance having the dissolving action.

2. In a process for the electrolytic reduction of metals in the presence of a substance having a solvent action upon the deposited metal, electrolyzing in the presence of a sulfate adapted to counteract the solvent action of said substance having the dissolving action.

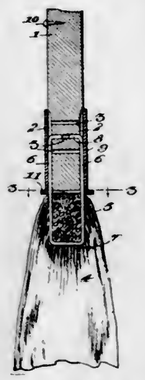
3. In a process for the electrolytic reduction of metals in the presence of a substance having a solvent action upon the deposited metal, electrolyzing in the presence of aluminum sulfate of a concentration adapted to counteract the solvent action of said substance having the dissolving action.

4. In a process for the electrolytic reduction of metals in the presence of a substance having a solvent action upon the deposited metal, electrolyzing in the presence of a substance adapted to counteract the solvent action of said substance having the dissolving action, said counteracting substance being present in amount sufficient to materially reduce the degree of attack on the cathode and yet insufficient to deaden its effect, whereby the solution may be sufficiently used as a solvent for metals or ores.

5. In a process for the electrolytic reduction of copper in the presence of a depolarizer which acts to form a substance having a solvent action upon the deposited copper, electrolyzing in the presence of a salt adapted to counteract the solvent action of said substance having the dissolving action.

[Claims 6 to 17 not printed in the Gazette.]

1,138,922. DUSTER. MELVIN P. ALLEN, Kansas City, Mo. Filed Apr. 16, 1914. Serial No. 832,243. (Cl. 15—28.)



A device of the character described comprising an elongated cylindrical handle having at its lower end longitudinal grooves arranged at diametrically opposite points thereon said handle having transverse openings whose ends terminate in said longitudinal grooves, a cleaning element held below the end of said handle, a flat circular washer disposed between the flat lower end of said handle and the cleaning element, said washer being of a greater diameter than the end of the handle to form a projecting flange, and having a centrally disposed transverse slot of sufficient length to allow its ends to aline with the longitudinal grooves on the end of the handle, a substantially U-shaped engaging member gripping said cleaning element and having its arms projecting through the ends of the slot in said washer and arranged within the longitudinal grooves of the handle, the extreme free ends of said arms being bent inwardly at right angles to project into one of the said transverse openings in the handle, that portion of the arms extending between the washer and the inwardly bent ends being bulged outwardly along their entire length between the points aforesaid, a cylindrical sleeve slidably mounted on the handle, and the downward movement of said sleeve being limited by the flange formed by the washer, substantially as described and for the purposes set forth.

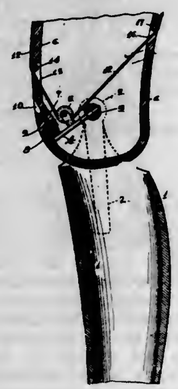
1,138,923. ARTIFICIAL KNEE-JOINT. CLYDE A. AUNGER, San Francisco, Cal. Filed May 13, 1913, Serial No. 767,718. Renewed Oct. 12, 1914. Serial No. 866,419. (Cl. 3—6.)

1. An artificial knee joint comprising a leg portion having a knee bolt rigidly secured to the upper end thereof; a stump portion rotatably mounted upon the rigid knee bolt and having a lug on the inner side of the front portion thereof; an arm fixedly secured to the rigid knee bolt adapted to engage the lug on the stump portion; and means for moving the leg portion forward.

2. An artificial knee joint comprising a leg portion having a rigid side bar on each side of the upper portion thereof; a knee bolt rigidly secured between the upper ends of the rigid side bar; a lateral arm fixedly secured to the knee bolt; a stump portion rotatably mounted upon the rigid knee bolt and having a lug on the inner side of the front portion thereof adapted to engage the end of the arm secured to the rigid knee bolt; a roller secured to the upper surface of the arm; and means secured to the roller adapted to be operated by the shoulders of the wearer of the artificial knee joint for the purpose of bringing the leg portion forward.

3. An artificial knee joint comprising a hollow leg portion; a rigid side bar on each side of the upper end of

the leg portion; a knee bolt rigidly secured between the upper ends of the rigid side bar; a lateral arm fixedly secured to the rigid knee bolt and having a roller secured to the upper surface thereof; a hollow stump portion having slots in the front and rear portion thereof; suitable shoulder straps passing through the said slots and engaging the roller on the upper surface of the arm; and means secured within the front portion of the stump and adapted to engage the end of the lateral arm secured to the rigid knee bolt.



4. An artificial knee joint comprising a hollow leg portion; a rigid side bar on each side of the upper end of the leg portion; a knee bolt rigidly secured between the upper ends of the rigid side bar; a lateral arm fixedly secured to the rigid knee bolt and having a roller secured to the upper surface thereof; a hollow stump portion having slots in the front and rear portion thereof; suitable shoulder straps passing through the said slots and engaging the roller on the upper surface of the arm; and adjustable means secured within the front portion of the stump and adapted to engage the end of the lateral arm secured to the rigid knee bolt.

5. An artificial knee joint comprising a hollow leg portion; a rigid side bar on each side of the upper end of the leg portion; a knee bolt rigidly secured between the upper ends of the rigid side bar; a lateral arm fixedly secured to the rigid knee bolt and having a roller secured to the upper surface thereof; a hollow stump portion having slots in the front and rear portion thereof; suitable shoulder straps passing through the said slots and engaging the roller on the upper surface of the arm; a nut secured to the inner side of the front wall of the stump portion; and a screw within the nut adapted to be adjusted from the outside of the stump portion and to engage the end of the arm secured to the knee bolt within the stump portion.

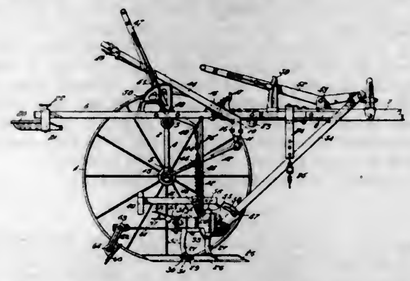
1,138,924. JOINTED PILE. CHARLES L. BAILEY, Arthur Bay, Mich. Filed June 13, 1914. Serial No. 845,018. (Cl. 20—18.5.)

The combination with two pile sections, of a joint therefor, comprising two telescopic metal sleeves carried by the respective adjacent ends of the sections, one sleeve being provided with a circumferential rim having a slot, a lug carried upon the inner face of the other sleeve for passage through the slot, whereby when one sleeve is rotated within the other, the lug will engage the under side of the rim to prevent longitudinal separation of the sleeves and pile sections, each of said pile sections being provided with a concentric socket for coaxial disposition, and a flexible connection having its terminals mounted and connected within the sockets intermediate of their ends, said flexible connection being of sufficient length to permit of the separation of the sleeves and the disposition of one section alongside of the other section,



the said sockets constituting a receptacle for the slack when the joint is connected.

1,138,925. CULTIVATOR. JOHN B. BARTHOLOMEW, Peoria, Ill., assignor, by mesne assignments, to Avery Company, a Corporation of Illinois. Filed Aug. 17, 1906. Serial No. 331,072. (Cl. 97—35.)



1. In an implement of the class described, the combination of a main wheel-supported frame, a horizontally elongated earth-working blade, a carrier therefor, means for supporting the carrier from the main frame with freedom for lateral movement, and actuating means independent of said supporting means for moving the blade to vary its inclination to the horizontal longitudinally from end to end and for holding it in adjusted position, substantially as set forth.

2. In an implement of the class described, the combination of a main wheel-supported frame, a horizontally elongated earth-working blade, a carrier therefor, means for supporting the carrier from the main frame with freedom for lateral movement, and means mounted on the wheel-supported frame independent of the aforesaid supporting means for varying the inclination to the horizontal of the blade longitudinally from end to end, substantially as set forth.

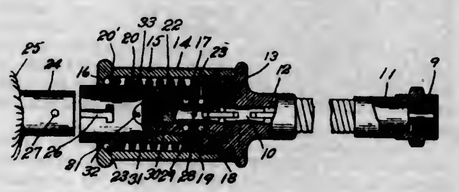
3. In an implement of the class described, the combination of a main wheel-supported frame, a horizontally elongated earth-working blade, a carrier therefor, means for suspending the carrier from the main frame with freedom for lateral movement, means for actuating said suspending means to raise and lower the carrier, and actuating means independent of the suspending means for moving the blade to vary its inclination to the horizontal longitudinally from end to end and for holding it in adjusted position, substantially as set forth.

4. In an implement of the class described, the combination of a main wheel-supported frame, a horizontally elongated earth-working blade, a carrier therefor, means for suspending the carrier from the main frame with freedom for lateral movement, means for actuating said suspending means to raise and lower the carrier, and means mounted on the wheel-supported frame independent of the suspending means for varying the inclination to the horizontal of the blade longitudinally from end to end, substantially as set forth.

5. In an implement of the class described, the combination of a main wheel-supported frame, a horizontally elongated earth-working blade, a carrier therefor, means for supporting the carrier from the main frame and adjusting said carrier and the blade bodily up and down, and actuating means independent of the said supporting and adjusting means for moving the blade to vary its inclination to the horizontal longitudinally from end to end and for holding it in adjusted position, substantially as set forth.

[Claims 6 to 13 not printed in the Gazette.]

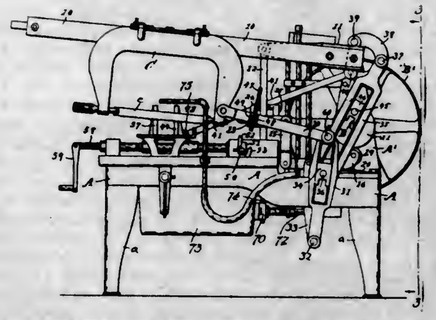
1,138,926. FRICTIONAL COUPLING. WILLIS J. BERNETT, Kansas City, Mo., assignor to William B. Thayer, Kansas City, Mo. Filed Jan. 6, 1913. Serial No. 740,441. (Cl. 64—13.)



1. In a frictional coupling, the combination with a drive shaft, of a cup fixed to said shaft, a socket member revolubly mounted on said shaft and within said cup, a screw and washer for holding said socket member to said shaft, a spring for yieldingly tensioning said socket member against said screw and washer and adapted for frictionally connecting said cup and socket member, and anti-friction mountings for said socket and cup members.

2. In a frictional coupling, the combination with a drive shaft, of a cup fixed to said shaft, a socket member revolubly mounted on said shaft and within said cup, means for holding said socket member to said shaft against longitudinal movement in one direction, a spring for yieldingly tensioning said socket member toward said holding means and adapted for frictionally connecting said cup and socket member, and an anti-friction bearing for taking up the thrust of said socket member in the opposite direction.

1,138,927. HACKSAW-MACHINE. ROBERT C. BERRY, Indianapolis, Ind. Filed Oct. 5, 1911. Serial No. 652,077. Renewed Nov. 3, 1914. Serial No. 870,171. (Cl. 29—73.)



1. A hack-saw machine comprising a frame, a support for the saw frame, a reciprocating saw frame mounted on said support, a vise for holding the work, means for opening and closing the jaws of said vise, a slotted link pivoted to an appropriate part of the frame, a pitman connecting the saw frame with the end of said link opposite its pivot, a sliding block in the slot of said link, another slotted link one end of which is mounted on a pivot carried by said sliding block and the other end of which is pivoted to an intermediate point of a three-point lever, said lever pivotally supported at one end on the frame, a connecting rod extending from the other end of said lever to one of the jaws on the work-holding vise, another sliding block in the slot of said second link, and an operating shaft with a crank connected with said sliding block of said second link, substantially as set forth.

2. A hack-saw machine comprising a frame, a support for the saw frame, said saw frame mounted on said support, a vibratory link mounted on a pivot on an appropriate part of the frame, a pitman connecting the opposite end of said link with the saw frame, a sliding block mounted in a slot in said link, a second link pivoted at one end to said block and at its other end mounted on an adjustable pivot, said adjustable pivot, means for adjusting said pivot, a sliding block mounted in a slot in said section link, and a driving shaft having a crank pivoted to said sliding block, substantially as set forth.

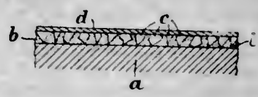
3. A hack-saw machine comprising a reciprocating saw frame, a vibratory part connected to said saw frame, and means for operating said vibratory part consisting of an operating shaft, a crank connection thereon, a link mounted to slide on said crank connection and connected at one end to a sliding block in a slot in said vibratory part and at its other end to an adjustable pivot, said sliding block, said adjustable pivot, and means for adjusting the same, substantially as set forth.

4. A hack-saw machine comprising a reciprocating saw frame, a vibratory part connected therewith for operating the same, and means for controlling the vibration of said part and the stroke of said saw frame embodying a link slidably connected at one end with said vibratory part, and at its other end connected with a movable pivot, said movable pivot, and means for moving said pivot, substantially as set forth.

5. A hack-saw machine comprising a reciprocating saw frame, a vibratory part connected therewith for operating the same, and means for controlling the vibration of said part and the stroke of said saw frame embodying a link slidably connected at one end with said vibratory part, and at its other end connected with a movable pivot, said movable pivot, and means for moving said pivot through the medium of the size of the work, substantially as set forth.

[Claims 6 to 17 not printed in the Gazette.]

1,138,928. METHOD OF COVERING SURFACES. JOHN PATRICKSON BOULTON, Barrow-in-Furness, England. Filed May 25, 1912. Serial No. 699,794. (Cl. 91—68.)



1. Method of covering a surface comprising the application thereto of a coating of covering material; embedding in said coating before the complete drying thereof glass granules from which powder and particles of excessive dimensions have been eliminated by selection, and smoothing said coating so that facets of the granules and the surface of the covering material are brought flush with one another whereby a mosaic-like surface is produced, substantially as set forth.

2. Method of covering a surface comprising the application thereto of a coating of covering material, embedding in said coating before the complete drying thereof glass granules from which powder and particles of excessive dimensions have been eliminated by selection, and rolling said coating with sufficient pressure for causing facets of the granules and the surface of the covering

material to be brought flush with one another whereby a mosaic-like surface is produced, substantially as set forth.

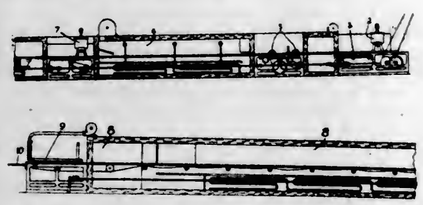
3. Method of covering a surface comprising the application thereto of a coating of covering material, attaching to said coating while still plastic glass granules from which powder and particles of excessive dimensions have been eliminated by selection, and smoothing said coating with sufficient pressure for causing said granules to be completely embedded in said coating and with facets of said granules flush with the surface of said coating whereby a mosaic-like surface is produced, substantially as set forth.

4. Method of covering a surface comprising the application thereto of a coating of covering material, spraying on to said coating while still moist glass granules from which powder and particles of excessive dimensions have been eliminated by selection, and rolling the resulting deposit of glass granules whereby a mosaic-like surface is produced, substantially as set forth.

5. Method of covering a surface comprising the application thereto of a coating of covering material, attaching to said coating while still plastic granules from which powder and particles of excessive dimensions have been eliminated by selection, smoothing said coating with sufficient pressure for causing said granules to become embedded in said coating with facets about flush with the latter whereby a mosaic-like surface is produced, applying a further coating or covering material, and wiping the last named from the facets composing said mosaic-like surface, substantially as set forth.

[Claim 6 not printed in the Gazette.]

1,138,929. PROCESS FOR DEPOSITING INTO CHOCOLATE CONFECTIONERY CENTERS OF FRUIT PRODUCTS OR OTHER FOOD STUFFS. WILLIAM BOYD, Dundee, Scotland. Filed July 3, 1914. Serial No. 848,853. (Cl. 107—54.)



1. In the manufacture of chocolate confectionery having centers of fruit products or other food stuffs which are liquefied by artificial heat and which set, jell or solidify on cooling; a process consisting in forming in molds chilled chocolate shells which form the containers or cups of the produced sweetmeat; then cooling said shells, then filling said shells with comparatively hot centers; then cooling said shells and centers; then warming the exposed surfaces of said shells and centers; then depositing liquid chocolate upon the exposed surfaces of said shells and centers; and then finally cooling the whole product.

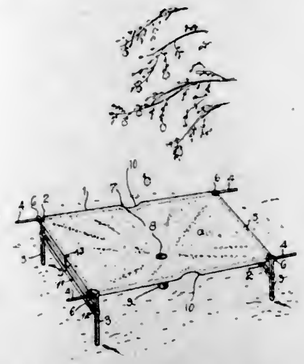
2. In the manufacture of confectionery having centers of fruit products, or other food stuffs which are liquefied by artificial heat and which set, jell or solidify on cooling; the process of forming shells by pouring liquid which forms the coating of the confection into molds, the molds being cooled sufficiently to solidify the liquid immediately in contact therewith; then pouring out or removing the liquid centers from the shell and then cooling the shell thereby made; then pouring or depositing into said shell the hot center in a liquid or plastic condition the cooling of the mold being sufficient to preserve the shell, and then finally cooling the product.

3. In the manufacture of confectionery having centers of fruit products or other food stuffs which are liquefied by artificial heat and which set, jell or solidify on cooling; the process of filling molds with liquid which forms the coating of the confection; then chilling the mold and its contents sufficiently to cause the liquid to form a hard film of a desired thickness on the sides of the mold, and then removing the remaining liquid portions from said film or shell; then pouring or depositing into the shell a hot center in a liquid or plastic condition, the chilling of the mold being sufficient to preserve the shell; then chilling the shell and center; then warming the exposed surfaces of the shell and the center sufficiently to combine with other liquid, and then coating the exposed edges of the shell and the exposed surfaces of the center with such liquid, and then cooling the goods sufficiently to enable them to be rapped out of the said molds, substantially as described.

4. In the manufacture of confectionery having centers of fruit products or other food stuffs which are liquefied by artificial heat and which set, jell or solidify on cooling; the process of filling molds with liquid which forms the coating of the confection, then chilling the mold and its contents sufficiently to cause the liquid to form a hard film of a desired thickness on the sides of the mold, and then removing the remaining liquid portions from said film or shell; then pouring or depositing into the shell a hot center in a liquid or plastic condition, the filling of the mold being sufficient to preserve the shell, then chilling the shell and center, then warming the exposed surfaces of the shell and center sufficiently to enable it to be combined with liquid chocolate and then coating the exposed edges of the shell and the exposed surfaces of the center with liquid chocolate and then finally cooling the goods sufficiently to enable them to be rapped out of said molds, substantially as described.

5. In the manufacture of chocolate confectionery having centers of fruit products or other food stuffs which are liquefied by artificial heat and which set, jell or solidify on cooling; the process consisting in forming in molds chilled chocolate shells which form the containers or cups of the produced sweetmeats; then cooling said shells, then filling said shells with comparatively hot centers, then cooling said shells and centers and then finally closing the shells.

1,138,930. FRUIT-COLLECTING APPARATUS. JOHN H. BREWER, Silverton, Oreg. Filed Aug. 11, 1914. Serial No. 856,235. (Cl. 56—99.)

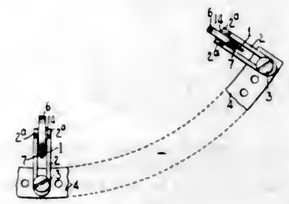


1. A device of the class described including a frame consisting of longitudinal side rods bent upon themselves adjacent the ends thereof to form supporting legs and having their ends projecting beyond the supporting legs to provide handles, transverse end members having their ends bent upon themselves to form bearing loops adapted to embrace the extended ends of the longitudinal side members, a canvas supporting member carried by said side and end members and having a central opening, a conductor communicating with said opening, and removable bracing means engaging said supporting legs to retain them in their effective positions, as and for the purpose set forth.

2. A device of the class described including a frame comprising longitudinal side rods having portions thereof bent upon themselves to form supporting legs and their ends extended beyond the supporting legs to form handles, transverse end members supported by said side portions and forming bearings for the side portions to rotate in, a canvas supporting member arranged between said side and end portions, bracing bars having loops formed at their ends and slidably mounted upon said supporting legs whereby to normally retain said legs in their upright positions, hook members carried by said bars and adapted to engage the transverse end portions to support the bars in their operative position.

3. A device of the class described including a frame consisting of transverse end members having loops formed at each end thereof, longitudinal side members having central indentations and having portions thereof bent upon themselves adjacent the ends to form supporting legs and having their ends projecting beyond the supporting legs to provide handles, the inner ends of the handles being rotatably mounted within the loops of the end members, whereby the legs will fold inwardly, transverse supporting bars having loops at the ends thereof adapted to receive the supporting legs to retain them in an upright position, hook members carried by the bars and adapted to engage the transverse end portions to support the bars in their effective positions, a canvas supporting member arranged between the side and end portions and having a central opening therein, and a conductor communicating with said opening, as and for the purpose set forth.

1,138,931. TYPE-WRITING MACHINE. ARTHUR J. BRIGGS, Syracuse, N. Y., assignor, by mesne assignments, to Remington Typewriter Company, Ilion, N. Y., a Corporation of New York. Filed Dec. 10, 1912. Serial No. 735,885. (Cl. 197—39.)



1. In a typewriting machine, the combination of a type bar provided with an eye, anti-friction rollers therein, bearing elements within said eye with which said rollers coöperate, and a compressible spacing member on which said elements are mounted, said member and said elements being rigidly secured together under compression.

2. In a typewriting machine, the combination of a type bar provided with an eye, anti-friction rollers therein, bearing elements within said eye with which said rollers coöperate, a compressible spacing member on which said elements are mounted, said member and said elements being rigidly secured together under compression, a type bar hanger, and means for connecting said spacing member to said hanger.

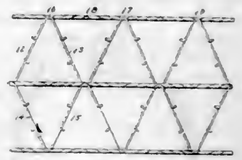
3. In a typewriting machine, the combination of a type bar member, a bearing member, anti-friction rollers between said members, one of said members comprising two relatively adjustable parts for taking up lost motion in the bearing, and compressible means operative independently of said rollers to secure said parts set permanently in a fixed relationship obtained by forcing said parts toward each other against the resistance of said compressible means, a type bar hanger, and means for connecting said bearing member with said hanger.

4. In a typewriting machine, the combination of a type bar member, a bearing member, one of said members being provided with an eye and the other comprising two adjustable parts, compressible means for securing said parts permanently in a fixed relationship obtained by forcing said parts toward each other against the resistance of said compressible means, anti-friction rollers within said eye and coöperating with said parts, said means being operative independently of said rollers to fix said parts, a type bar hanger, and means for connecting said bearing member with said hanger.

5. In a typewriting machine, the combination of a type bar provided with an eye, anti-friction rollers therein, a pair of disks within said eye having inclined bearing faces with which said rollers coöperate, and a compressible sleeve provided with a device for spacing said disks apart, said disks and said sleeve being rigidly secured together under compression.

[Claims 6 to 22 not printed in the Gazette.]

1,138,932. CONCRETE REINFORCEMENT. NORRIS ELMORE CLARK, Plainville, Conn. Filed June 22, 1908. Serial No. 439,848. (Cl. 72—117.)



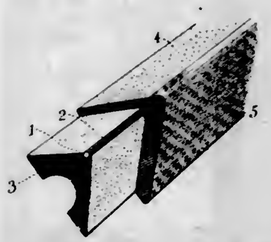
1. An expanded metal reinforcing fabric comprising parallel tension members and bent tie members forming meshwork integrally connecting adjacent tension members, the said tension members having an elastic limit greater than that of the tie members.

2. An expanded metal reinforcing fabric comprising twisted bar members and tie members integrally connecting adjacent twisted bar members.

3. An expanded metal reinforcing fabric comprising parallel bar members with deformation at the sides for bonding engagement in concrete and bent tie members integrally connecting adjacent bar members and forming a mesh-work, the bar members having higher elastic limit than the tie members.

4. A reticulated reinforcing fabric for concrete comprising longitudinal parallel bar members having lateral deformation for affording bonding engagement in the concrete and reticulated sections integrally connecting the adjacent edges of adjacent bar members, the bar members having a materially higher elastic limit than the metal of the reticulated sections.

1,138,933. BILLIARD-CUSHION. HENRY Z. COBB, Winchester, Mass., assignor to Revere Rubber Company, Chelsea, Mass., and Providence, R. I., a Corporation of Rhode Island. Filed June 6, 1913. Serial No. 772,020. (Cl. 46—11.)



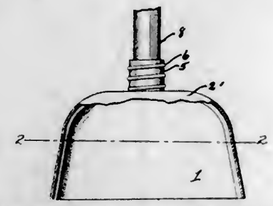
1. A billiard cushion comprising a main body of vulcanized rubber having hard, resilient metallic wire embedded near the contact edge thereof, said wire being covered with a tightly braided layer of metallic filamentary material.

2. A billiard cushion comprising a main body of vulcanized rubber having steel piano wire embedded near the contact edge thereof, said wire being covered with a tightly braided layer of metallic filamentary material.

3. A billiard cushion comprising a main body of vulcanized rubber having steel piano wire embedded near the contact edge thereof, said wire being covered with a tightly braided layer of steel filaments.

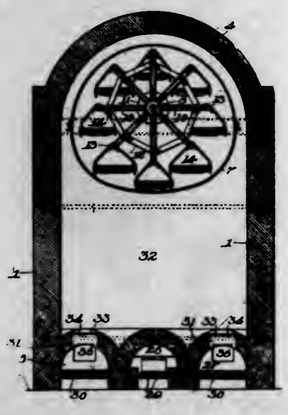
4. A billiard cushion comprising a main body of vulcanized rubber having hard resilient metallic wire embedded near the contact edge thereof, said wire being covered with a tightly braided layer of metallic filaments, and a covering of fabric vulcanized to the lower face of the cushion strip and extending toward its contact edge to a point adjacent said wire.

1,138,934. BROOM-HEAD. OSCAR T. COOK, Martinsville, Ill. Filed Sept. 9, 1914. Serial No. 860,876. (Cl. 15—19.)



In a device of the kind described, in combination, a plate member curved along the sides thereof, an inwardly and backwardly bent flange formed integral with the sides and top edge of said plate, a second plate member curved along the sides thereof, an outwardly and backwardly bent flange formed integral with the sides and top edge of said plate, said inwardly and backwardly bent flange and outwardly and backwardly bent flange being adapted to engage with each other when said plates are pressed together, semi-cylindrical extensions formed integral with the tops of said plate members, said extensions being adapted to form a socket when said plate members are engaged, said extensions provided with a roughened face interiorly thereof, said extensions formed with male screw threads upon the outer face thereof, and a screw threaded cap member adapted to seat upon said extensions.

1,138,935. BAKING-OVEN. WILLIAM S. CORBY and JAMES L. PARSONS, Jr., Washington, D. C. Original application filed Oct. 12, 1912, Serial No. 725,514. Divided and this application filed Mar. 19, 1913. Serial No. 755,567. (Cl. 107—59.)



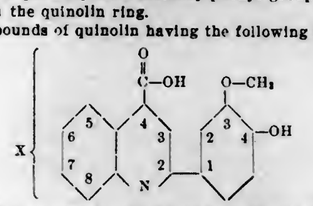
1. The combination of the reel, the series of uniformly sized trays, the tray carriers each pivoted to the reel at a hinge axis relatively close to the reel axis and having a relatively long radius of swing from its hinge axis, all of said axes being uniformly distant from the reel axis whereby the trays are caused to revolve relatively to the reel within a region of short radius from the reel axis, the gas-tight reel-inclosing drum, and guide means at each side of each tray and carried thereby for preventing the trays respectively from positively engaging with an adjacent tray when they contact, said means revolving in paths each of which has an upper part approximately conforming to an oval of one curvature and its lower part approximating an oval of another curvature and said drum having the lower part of its wall arranged in close proximity to the lower part of the path of said means.

2. The combination of the reel, the series of uniformly sized trays, the tray carriers each pivoted to the reel at a hinge axis relatively close to the reel axis and having a relatively long radius of swing from its hinge axis, all of said axes being uniformly distant from the reel axis whereby the trays are caused to revolve relatively to the reel within a region of short radius from the reel axis, the gas-tight reel-inclosing drum and guide means at each side of each tray and carried thereby consisting of curved bars extending downward to points below the tray for preventing the trays respectively from positively engaging with an adjacent tray when they contact.

1,138,936. QUINOLIN COMPOUNDS AND PROCESS OF PRODUCING THE SAME. ALEX B. DAVIS, Indianapolis, Ind., assignor to The Eli Lilly and Company, Indianapolis, Ind., a Corporation of Indiana. Filed Feb. 21, 1913. Serial No. 750,024. (Cl. 23—24.)

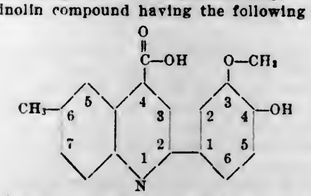
1. Compounds of the quinolin (4) carboxylic acid group, containing a para-oxy-meta-methoxy-phenyl group in the 2 position in the quinolin ring.

2. Compounds of quinolin having the following formula:



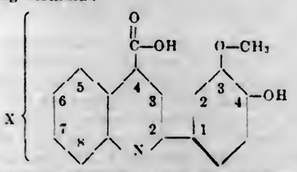
in which X is an organic radical replacing a hydrogen atom in one of the CH groups of the quinolin ring.

3. A quinolin compound having the following formula:



which may be called (2) para-oxy-meta-methoxy-phenyl (6) methyl-quinolin (4) carboxylic acid.

4. The process of producing compounds of quinolin of the following formula:

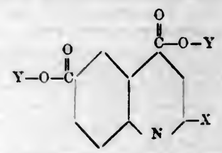


in which X is an organic radical replacing a hydrogen atom in one of the CH groups of the quinolin ring, by boiling together in absolute alcoholic solution pyruvic acid, vanillin and aromatic amin.

5. The process of producing (2) para-oxy-meta-methoxy-phenyl (6) methyl-quinolin-(4) carboxylic acid by boiling together in absolute alcoholic solution, pyruvic acid, para toluidin and vanillin as above described.

1,138,937. QUINOLIN COMPOUNDS AND PROCESS OF PRODUCING SAME. ALEX B. DAVIS, Indianapolis, Ind., assignor to The Eli Lilly and Company, Indianapolis, Ind., a Corporation of Indiana. Filed May 20, 1914. Serial No. 839,842. (Cl. 23—24.)

1. An ester of the quinolin group having the following formula:—



in which X is any aryl group and Y any monovalent radical.

2. An ester of 2-phenyl-quinolin-4 : 6-dicarboxylic acid.

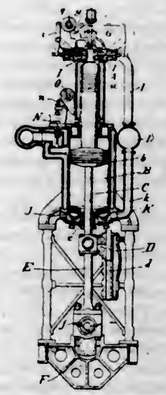
3. 2-phenyl-quinolin-4 : 6-dicarboxylic 6 ethyl ester.

4. The process of producing derivatives of quinolin which consists in condensing an ester of para-amino-benzoic acid and an aromatic aldehyde with pyruvic acid.

5. The process of producing derivatives of quinolin consisting in boiling together in absolute alcoholic solution, equimolecular proportions of a nester of para-amino-benzoic acid, an aromatic aldehyde and pyruvic acid.

[Claims 6 and 7 not printed in the Gazette.]

1,138,938. TWO-CYCLE MULTIPLE-EXPANSION DIESEL ENGINE. GREGORY CALDWELL DAVISON, New London, Conn., assignor to Electric Boat Company, New York, N. Y., a Corporation of New Jersey. Filed May 14, 1913. Serial No. 767,531. (Cl. 123—36.)



1. In a multiple expansion oil engine for operation upon the Diesel cycle of converting the heat energy of fuel into work, a high pressure two-cycle internal combustion engine provided with the adjuncts necessary for the initiation of the Diesel cycle, a lower pressure fluid expansion engine coupled with and arranged to receive the partially expanded gases from said internal combustion engine, and a source of high pressure scavenging air for bodily displacing the expanding gases from said internal combustion engine into said fluid expansion engine; substantially as described.

2. In a multiple expansion oil engine for operation upon the Diesel cycle of converting the heat energy of fuel into work, a high pressure two-cycle internal combustion engine having a piston-controlled exhaust port and provided with the necessary adjuncts to work upon the combustion period of the Diesel cycle, a lower pressure fluid expansion engine coupled with said internal combustion engine, arranged to receive the expanding gases therefrom, and work upon the expansive period of the Diesel cycle, and a source of high pressure scavenging air for bodily displacing the expanding gases from said internal combustion engine into said fluid expansion engine through said piston-controlled exhaust port; substantially as described.

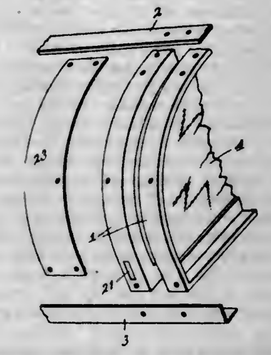
3. In a multiple expansion oil engine for operation upon the Diesel cycle of converting the heat energy of fuel into work, a high pressure cylinder and piston working on the two cycle principle and having only sufficient capacity to effectively utilize the substantially constant pressure expansive action of the gases during the combustion period of the Diesel cycle, a cylinder and piston of greater capacity for receiving and utilizing the further expansive action of the gases burnt in said first cylinder, and means for bodily transferring the contents of said first cylinder to said second cylinder after the completion of said combustion period; substantially as described.

4. In a multiple expansion oil engine for operation upon the Diesel cycle of converting the heat energy of fuel into work, a high pressure cylinder and piston working on the two cycle principle and having only sufficient capacity to effectively utilize the substantially constant pressure expansive action of the gases during the combustion period of the Diesel cycle, and a low pressure cylinder and piston whose working stroke is counter to that of said high pressure cylinder, and means for bodily transferring the contents of said high pressure cylinder into said low pressure cylinder at the end of the working stroke of said high pressure piston and at the beginning of the working stroke of said low pressure piston; substantially as described.

5. In a multiple expansion oil engine for operation upon the Diesel cycle of converting the heat energy of fuel into work, a high pressure cylinder and piston having a piston controlled exhaust port and working on the two cycle principle, said high pressure cylinder and piston having only sufficient capacity to effectively utilize the substantially constant pressure expansive action of the gases during the combustion period of the Diesel cycle, a low pressure cylinder and piston the working stroke of which is counter to said high pressure piston, an open conduit leading from the exhaust port of said high pressure cylinder to the compression space of said low pressure cylinder, and a source of high pressure scavenging air for bodily transferring through said conduit the contents of said high pressure cylinder to said low pressure cylinder upon the opening of said exhaust port of said high pressure cylinder by the movement of the high pressure piston; substantially as described.

[Claim 6 not printed in the Gazette.]

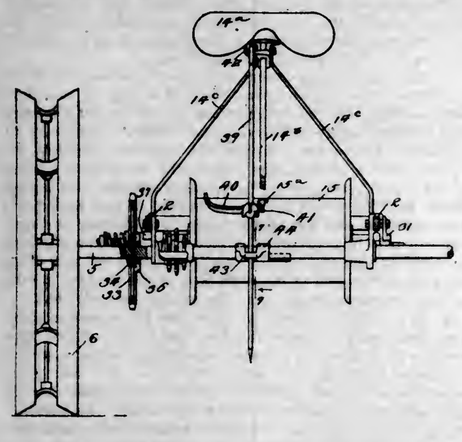
1,138,939. SANITARY SHOW-CASE. JOHN F. DEARDORFF, Kansas City, Mo. Filed Oct. 25, 1913. Serial No. 797,233. (Cl. 211—25.)



A show case comprising a plurality of sections, each section having segmental shaped ends, the ends of the intermediate section abutting the ends of the adjacent sections, a bar extending across the upper portions of said ends and connecting the same, an angle bar extending across the lower portions of the ends and connecting the same, the outer and inner ends of the outer sections having glass

panes, carried thereby, the panes of the inner ends of said sections serving as closures for the ends of the intermediate section, arcuate plates engaging the arcuate surfaces of the ends for uniting the abutting ends of the sections and being engaged by said bar and angle bar.

1,138,940. WIRE REELING AND UNREELING MACHINE. CLARENCE H. DOOLEY, Rock Island, Ill., assignor to Deere & Mansur Co., a Corporation of Illinois. Filed Feb. 2, 1911. Serial No. 606,168. (Cl. 111—45.)



1. The combination of a main frame, supporting and driving wheels therefor, a reel for a wire, power connections between one wheel and the reel, an eye secured to the frame at a point directly in advance of one end of the reel, and means within the control of the operator for causing the wire as it is wound upon the reel to work toward the end of the reel opposite to the eye, the wire returning to the other end automatically.

2. The combination of a frame, supporting and driving wheels for the frame, a reel upon which a wire may be wound, the said reel being mounted upon the frame, power connections between one of the said wheels and the reel, a wire guiding eye located substantially directly in advance of one end of the reel, an element adapted to serve as an anchor pin for the end of the said wire, the said element having an eye at one end and a foot rest intermediate its ends and a hook on the frame adapted to support the said element by means of the eye thereof in position to permit the operator to swing the said element by means of the foot rest thereof to guide the wire as it is wound upon the reel toward that end of the reel which is opposite to the said eye on the frame, the wire returning to the other end of the reel under the influence of the eye.

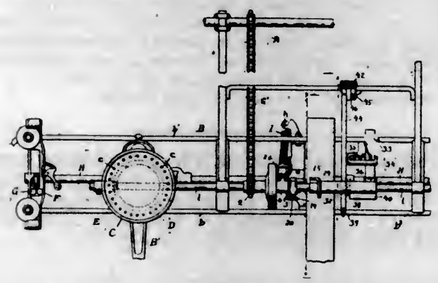
3. The combination of a main frame, supporting and driving wheels therefor, a reel for a wire mounted upon the frame, power connections between one of the wheels and the reel, a wire guiding eye on the frame, substantially directly in advance of one end of the reel, and means for controlling the winding of the wire upon the reel comprising a rod movably connected at its upper end with the frame and a sleeve slidable on the main axle, the said rod serving to engage the wire to move it toward the end of the reel opposite to the said eye, the wire returning to the other end of the reel automatically under the influence of the eye.

4. The combination of a main frame, an axle, supporting and driving wheels upon which the axle is mounted, a reel rotatably connected with the axle, a wire guiding eye mounted upon the frame at a point substantially directly in advance of one end of the reel, and a wire guiding mechanism comprising a rod pivotally connected at its upper end with the main frame and a sleeve slidable on the axle and provided with an eye through which the lower end of the rod passes loosely, the said rod serving when moved by the operator to move the wire as it winds upon the reel toward the end thereof which is opposite to the said eye on the frame, the wire returning automatically to the other end of the reel as it continues to wind.

5. The combination of a main frame, a rotatable axle supporting the frame, supporting and driving wheels for the axle, a wire reel, a sprocket wheel connected with the reel, a second sprocket wheel mounted upon the axle, a chain connecting the two sprocket wheels, a lug on the main frame, in position to engage the sprocket wheel on the axle, the said sprocket wheel being slidable on the axle into or out of engagement with the lug, and means for locking the said sprocket wheel to the axle when out of engagement with the lug.

[Claim 6 not printed in the Gazette.]

1,138,941. VARIABLE-DROP PLANTER. HARRY L. DOOLEY, Rock Island, Ill. Filed May 14, 1910. Serial No. 561,349. (Cl. 111—5.)



1. In a planter, the combination with the seed counter or measurer, of driving means therefor comprising a fixed throw intermittently operating clutch, means for rendering said clutch continuously operative, a second variable throw clutch, adjustable means for disengaging said clutch during a part of the movement of the fixed throw clutch, and means for preventing the operation of the means for rendering the fixed throw clutch continuously operative when the disengaging device of the variable clutch is in operative position.

2. In a planter, the combination with the seed counter or measurer, of driving means therefor comprising an intermittently operating variable throw clutch mechanism, manual controlling means for varying the throw of the clutch, means for rendering said clutch mechanism continuously operative, and means for preventing the operation of the last named means when the clutch mechanism is not set for its maximum throw.

3. The combination of a seed receptacle, a seed separator, means for moving said separator, means for driving said moving means, means for connecting said moving and driving means, means for disengaging said connecting means adapted to act at the ends of predetermined similar cycles, means adapted to automatically disengage the connector during a part of the said cycles, manual means for rendering the disengaging device entirely inoperative, and means for preventing the operation of said manual means while the said automatic means is in operative position.

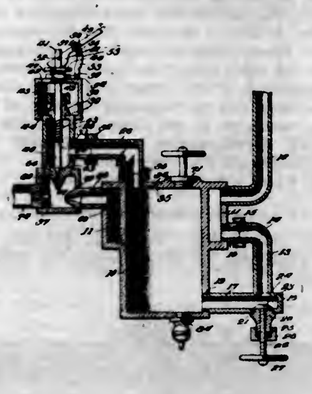
4. The combination of a seed receptacle, a seed separator, means for moving said separator, means for driving said moving means, means for connecting said moving and driving means, means for disengaging said connecting means adapted to act at the ends of predetermined similar cycles, means adapted to automatically disengage the connector during a part of the said cycles, manual means for rendering the disengaging device entirely inoperative, and means for preventing the operation of said manual means except when the said automatic means is in a predetermined position.

5. The combination of a seed receptacle, the valved seed guide, the seeder plate, the continuously operable

plate mover, the continuously acting mover driver, the movable connection between the driver and the mover, the intermitting separator for the connection, the manual withdrawer for the separator, the varier for the connector, and means preventing the action of the manual withdrawer until the varier is in a predetermined position.

[Claims 6 to 10 not printed in the Gazette.]

1,138,942. LUBRICATOR. HENRY A. DUC, Charleston, S. C. Filed Sept. 16, 1913. Serial No. 790,049. (Cl. 184—50.)



1. In a displacement lubricator, a reservoir for the lubricant, a steam jacket surrounding the reservoir, a valved connection between the lower portion of the steam jacket and the lower end of the reservoir, and a mixing chamber having connection with the upper portions of the reservoir and steam jacket.

2. In a displacement lubricator, a reservoir for the lubricant, a steam jacket surrounding the reservoir, a valved connection between the lower portion of the steam jacket and the lower end of the reservoir, a mixing chamber, a nozzle connection between the mixing chamber and the steam jacket, and a connection between the upper portion of the reservoir and the mixing chamber for supplying the lubricant to the mixing chamber at an angle to the jet of steam.

3. In a displacement lubricator, a reservoir for the lubricant, a steam jacket surrounding the reservoir, a valved connection between the lower portion of the steam jacket and the lower end of the reservoir, a mixing chamber, a nozzle connection between the mixing chamber and the steam jacket, and a valved connection between the upper portion of the reservoir and the mixing chamber for supplying the lubricant to the mixing chamber in regulated quantity at an angle to the jet of steam.

4. In a device of the character described a lubricant reservoir, a mixing chamber, a steam jacket for the reservoir, a nozzle conducting steam from the steam jacket to the mixing chamber, a lubricant controlling valve carried by the mixing chamber, and means for conducting lubricant from the reservoir to the valve, said valve being adapted to introduce the lubricant into the mixing chamber at a point above the level of the line of entrance of the steam.

5. In a device of the character described, a lubricant reservoir, a steam jacket, a mixing chamber, a nozzle conducting steam from the steam jacket to the mixing chamber, a lubricant controlling valve carried by the mixing chamber, and a nozzle carried by the valve and projecting into the mixing chamber for introducing the lubricant above the level of the line of entrance of the steam and at an angle thereto, and means for conducting lubricant from the reservoir to the valve.

[Claims 6 to 8 not printed in the Gazette.]

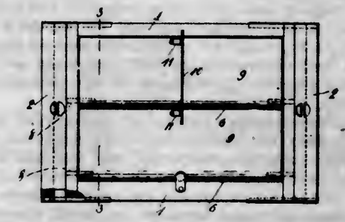
1,138,943. TRAP. CHARLES G. DUNCAN, Los Angeles, Cal., assignor of one-half to John Marston, Los Angeles, Cal. Filed Mar. 9, 1914. Serial No. 823,595. (Cl. 43—21.)



1. A trap comprising a metal base having struck up therefrom at right angles two supports, a finger pivotally mounted in said support, a lever having one end bent upon itself at right angles, said bent end terminating in a catch, the other end of said lever forming a bait receiving pedal, a jaw pivotally mounted on said base, a spring to normally hold said jaw in inoperative position, said jaw being arranged to be held in operative position by said finger engaging said catch, and a spring bearing against the underside of said lever to hold said catch normally in the path of movement of said finger.

2. A trap comprising a metal base having at one end integral supports, a finger pivotally mounted in said supports, a lever having one end bent upon itself at right angles, said bent up end terminating in a catch, and said lever pivotally mounted at the bend, a jaw, a spring to normally hold said jaw in inoperative position, said jaw being arranged to be held in operative position by said finger engaging said catch, a guide for said lever, and a spring bearing against the underside of said lever to hold said catch normally in the path of movement of said finger.

1,138,944. COMBINED SCREEN AND SHUTTER. ALBERT N. EATON, Newburyport, Mass. Filed Apr. 21, 1913. Serial No. 762,466. (Cl. 20—58.)



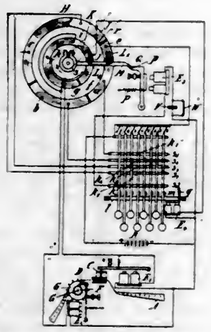
1. A combined screen and shutter comprising a frame, screening applied thereto in spaced sections lying in the same plane with an opening between the sections, a shutter having a hub mounted to turn within said opening on an axis lying within the plane of said sections, said hub having slats extending therefrom in reverse directions and lying in parallel planes offset with relation to the center of said hub whereby said slats may occupy an open position or close against said sections.

2. A combined screen or shutter comprising a frame, screening applied thereto in several spaced sections lying in the same plane with an opening between adjacent sections, shutters having hubs mounted to turn within said openings on axes lying within the plane of said sections, said hubs having also slats extending therefrom offset with relation to the centers thereof whereby said slats may occupy open positions or close against said sections.

1,138,945. PERFORATING APPARATUS FOR MAKING REGISTER-BANDS. ERWIN EHRHARDT, Pankow, near Berlin, Germany, assignor to Siemens & Halske A.-G., Berlin, Germany, a Corporation of Germany. Filed Dec. 10, 1912. Serial No. 736,010. (Cl. 178—92.)

1. In electromagnetic perforating apparatus of the character described, the combination with a source of current, a punching apparatus comprising a punching electromagnet having one pole connected to one pole of the source

of current, and a keyboard having all the keys connected to the other pole of the source of current, of a plurality of contact-bars adapted to be contacted by the keys, one single distributing disk comprising a plurality of rings of segments connected to said contact-bars and to the other pole of said electromagnet, and means for electrically connecting together the segments of one ring with those of another.



2. In electromagnetic perforating apparatus of the character described, the combination with a source of current, a punching apparatus comprising a punching electromagnet having one pole connected to one pole of the source of current, a paper-band feed mechanism comprising a feed electromagnet having one pole connected to the said pole of the source of current, and a keyboard having all the keys connected to the other pole of the source of current, of a plurality of contact-bars adapted to be contacted by the keys, one single distributing disk comprising two concentric rings of segments, the segments of one ring being connected to said contact-bars, and the segments of the other ring being connected to the other poles of the punching and feed electromagnets, and means for electrically connecting together the segments of one ring with those of another.

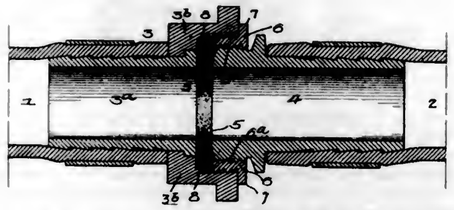
3. In electromagnetic perforating apparatus of the character described, the combination with a source of current, a punching apparatus comprising only one punch and a punching electromagnet having one pole connected to one pole of the source of current for punching holes in one longitudinal row, and a keyboard having all the keys connected to the other pole of the source of current, of a plurality of contact-bars adapted to be contacted by the keys, one single distributing disk comprising a plurality of rings of segments connected to said contact-bars and to the other pole of said electromagnet, and means for electrically connecting together the segments of one ring with those of another.

4. In electromagnetic perforating apparatus of the character described, the combination with a source of current, a punching apparatus comprising a punching electromagnet having one pole connected to one pole of the source of current, and a keyboard having all the keys connected to th other pole of the source of current, of a plurality of contact-bars adapted to be contacted by the keys, a hook mounted on each key, a locking bar for holding each hook when the keys are depressed, a releasing electromagnet normally holding the locking bar in its inoperative position, one single distributing disk comprising two concentric rows of segments, the end segment of one row being connected to the one pole of the source of current, the end segment of the other row being connected over the releasing magnet to the other pole of the source of current, the remaining segments of the former row being connected to the contact-bars and the remaining segments of the latter row being connected to the other pole of the punching electromagnet, and electrically connected to the other pole of the punching electromagnet, and electrically connected brushes slidable over said rows of segments.

5. In electromagnetic perforating apparatus of the character described, the combination with a source of current, a punching apparatus comprising a punching electromagnet having one pole connected to one pole of the source of current, a paper-band feed mechanism comprising a feed electromagnet having one pole connected to the said pole of the source of current, and a keyboard having all the keys connected to the other pole of the source of current, of a plurality of contact-bars adapted to be contacted by the keys, a hook mounted on each key, a locking bar for holding each hook when the keys are depressed, a releasing electromagnet normally holding the locking bar in its inoperative position, one single distributing disk comprising two concentric rows of segments, the end segment of one row being connected to the one pole of the source of current, the end segment of the other row being connected over the releasing electromagnet to the other pole of the source of current, the remaining segments of the former row being connected to the contact-bars, and the remaining segments of the latter row being connected to the other poles of the punching and feeding electromagnets, and electrically connected brushes slidable over said rows of segments.

[Claims 6 to 8 not printed in the Gazette.]

1,138,946. COUPLING. JAMES B. ELLIOTT, Riverton, N. J. Filed May 17, 1913. Serial No. 768,238. (Cl. 137—28.)

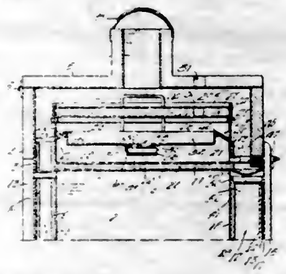


1. In a coupling, the combination of an internally-threaded member having a seat, a washer carried by said member and engaging the said seat, means adapted to the threads of the internally-threaded member to permanently hold the washer to its seat when the coupling is disassembled, and an externally-threaded coupling member for insertion into the internally-threaded member, said coupling members being axially alined, and said washer being interposed between the alined ends of said members and engaged near its periphery by said holding means.

2. In a coupling, the combination of an internally-threaded member having a seat, a washer carried by said member and engaging said seat, a threaded sleeve adapted to the internally-threaded coupling member and serving to hold the wasner in place when the coupling is disassembled, and an externally-threaded coupling member for insertion in the internally-threaded member, said sleeve being internally-threaded for the reception of said externally-threaded member, said coupling members being axially alined, and said washer being interposed between the alined ends of said coupling members and engaged near its periphery by said threaded sleeve.

1,138,947. REFRIGERATOR. ALBERT FINK, Los Angeles, Cal., assignor of one-half to Adam Layer, Los Angeles, Cal. Filed June 23, 1913. Serial No. 775,422. (Cl. 62—90.)

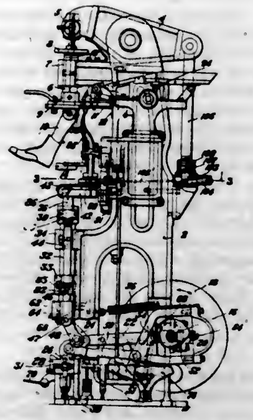
1. A refrigerator comprising an inner casing forming a food chamber, absorbent material in the walls of said refrigerator about said food chamber, a drinking water reservoir on the top of said food chamber, a water distributing pan above said drinking water reservoir supported thereon, said distributing pan having a dished central portion, a filter member in the bottom of said dished portion adapted to deliver water from said dished portion to said water reservoir, said distributing pan having a series of perforations in the side thereof, arranged to deliver water to the absorbent material in the walls of said refrigerator, and cooling means above said distributing pan.



2. In a refrigerator, a drinking water reservoir, absorbent material on said drinking water reservoir, a distributing pan above said drinking water reservoir, said distributing pan having a dished portion arranged to deliver a quantity of water to said drinking water reservoir, and said distributing pan having a series of perforations in the side thereof adapted to distribute water to the absorbent material on the walls of said drinking water reservoir.

3. In a refrigerator, a drinking water reservoir, absorbent material on the walls thereof, a water distributing pan seated on said water reservoir and forming a top therefor, said pan having a dished central portion, a filter member in the bottom of said dished portion, means whereby water is passed from said dished portion through said filter member into said reservoir, means in said distributing pan for distributing water to the absorbent material on the walls of said reservoir, a cooling pan on the top of said distributing pan having an opening in the bottom thereof, absorbent material having a similar opening in said distributing pan, and means for simultaneously removing said cooling pan and said distributing pan from said reservoir.

1,138,948. HEELING-MACHINE. JOHN E. GLIDDEN, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Apr. 19, 1910. Serial No. 556,326. (Cl. 1—32.)



1. In a heel attaching machine, the combination of a nailing die, a jack adjustable relatively to the die into different heel and top lift attaching positions, and means for effecting such adjuatments automatically, constructed to permit the repetition of one of the attaching operations without manipulation by the operative.

2. In a heel attaching machine, the combination of a shoe support, a nailing die, a driver block, a toggle for actuating said die to cause compression of the work, means connected to said toggle for actuating the same, an independent toggle for actuating the driver block and separate mechanism for actuating the last named toggle, said means and said mechanism being timed to act successively in the order stated.

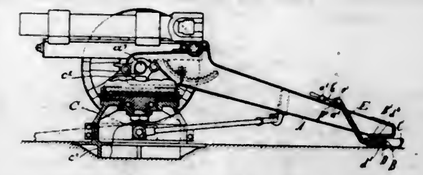
3. In a heel attaching machine, the combination of a shoe support, a nailing die, a driver block, a toggle for actuating said die to cause compression of the work, means connected to said toggle for actuating the same, an independent toggle actuating the driver block and separate mechanism for actuating the last named toggle, said means and said mechanism being timed to act successively in the order stated, and a single controlling device for said means and mechanism.

4. In a heel attaching machine, the combination of nailing mechanism, including upwardly movable drivers, a downwardly extending work support located above said nailing mechanism, and means upon said work support for engaging frictionally a last and holding the last suspended upon the work support.

5. In a heel attaching machine, the combination of upwardly acting nailing mechanism, a downwardly extending work support located above said nailing mechanism, and expansible means upon said work support for entering the socket of a last and holding said last suspended upon the work support.

[Claims 6 to 18 not printed in the Gazette.]

1,138,949. WHEELED GUN-CARRIAGE. WALTER HEILEMANN and HEINRICH KANONENBERG, Essen-on-the-Ruhr, Germany, assignors to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Filed Apr. 26, 1913. Serial No. 763,846. (Cl. 89—40.)



1. In a wheeled gun carriage having a spade on the trail end, a tray shaped shoe, means for attaching the shoe beneath the spade, thereby providing a smooth sliding surface for the trail on the ground and a pivoted device for anchoring the gun carriage to the ground, said device allowing an easy training of the gun carriage.

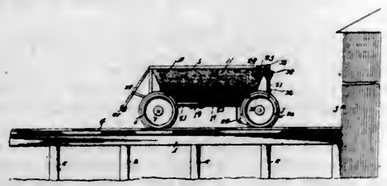
2. In a wheeled gun carriage having a spade on the trail end, a tray shaped shoe, means for attaching the shoe beneath the spade, thereby providing a smooth sliding surface for the trail on the ground; said means comprising a bearing piece having a transverse groove and vertical end walls for securely gripping said shoe and a pivoted device for anchoring the gun carriage to the ground, said device allowing an easy training of the gun carriage.

3. In a wheeled gun carrisge having a spade on the trail end, a tray shaped shoe, and means for attaching the shoe beneath the spade, thereby providing a smooth sliding surface for the trail on the ground; said means comprising a bearing piece having a transverse groove and vertical end walls for securely gripping said shoe; a pair of eyelets on said bearing piece, a spindle secured in said eyelets, an arm mounted to revolve on said spindle provided with a hook at its free end, a transverse shaft and eccentric bearings therefor on the trail, and locking members for securing said shaft in a certain position when said hook is in engagement with said shaft.

4. In a wheeled gun carriage having a spade on the trail end, a tray shaped shoe, and means for attaching the shoe beneath the spade, thereby providing a smooth sliding surface for the trail on the ground; said means com-

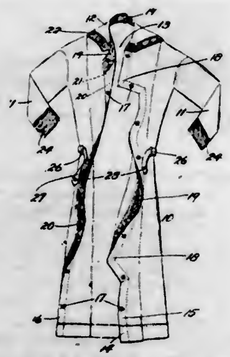
prising a bearing piece having a transverse groove and vertical end walls for securely gripping said shoe; a pair of eyelets on said bearing piece, a spindle secured in said eyelets, an arm mounted to revolve on said spindle provided with a hook at its free end, a transverse shaft and eccentric bearings therefor on the trail, a flexible lever at one end of said shaft and a dog on the trail end constructed to secure said lever in a certain position when said hook is in engagement with said shaft, whereby said shoe may be held securely to the trail end.

1,138,950. LIVE-STOCK FEEDER. RAY HENDERSON, Macomb, Ill. Filed Mar. 6, 1914. Serial No. 823,003. (Cl. 105—14.)



A stock feeding car having a longitudinally movable bottom, a rack bar on the bottom of the car, an axle shaft, a pinion mounted on said shaft for rotation therewith and for movement longitudinally thereon so that said pinion may be engaged with or disengaged from said rack bar, a bell crank shifter connected to said pinion and an operating lever mounted on the car body and connected to said bell crank shifter.

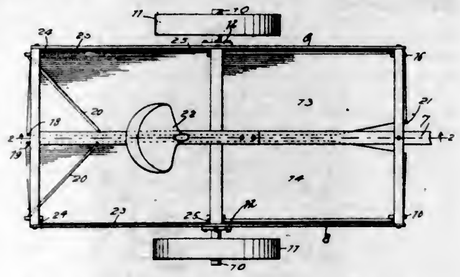
1,138,951. WEARING-APPAREL. MAX HERMAN, Philadelphia, Pa. Filed May 22, 1914. Serial No. 840,360. (Cl. 2—54.)



A combination garment of the class described, embracing an integral skirt and waist open at its front from neck to bottom and so finished upon both faces as to be transposable for so wearing the same, the respective flaps of the garment from neck to bottom being provided with fastening mediums for securing the open garment front in either position and both faces of the garment adjacent the garment waist line being provided with straps for supporting a removable belt.

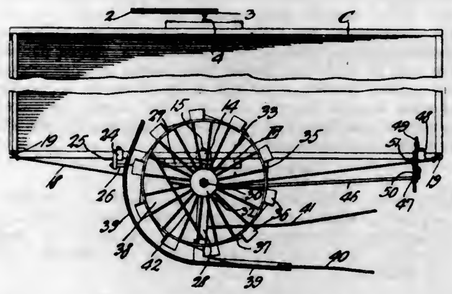
1,138,952. COTTON-BOLL PICKER. DANIEL HEWITT, Tyler, Tex. Filed July 21, 1914. Serial No. 852,294. (Cl. 56—6.)

1. In a cotton boll picker, a frame including inverted U-shaped ribs, hangers connected to the said ribs, said hangers connected to the ribs, said hangers being wider than the ribs and constituting guides for doors, a sectional bottom upported by the hangers, plates on the outer surfaces of the ribs and forming the sides of the frame, doors guided between the said plates and the hangers, and fingers at the rear of the frame for gathering bolls.



2. In a cotton boll picker, a frame including U-shaped ribs and side plates, hangers supported by the ribs and having inwardly and upwardly projecting extensions, a sectional bottom supported by the angular portions of the hangers, the said sectional bottom having a space between the inner edges and the said sectional bottom having a flared opening merging with the opening between the sections at the rear, and fingers carried by the frame for moving bolls from the plants.

1,138,953. KAFIR-CORN HEADER. JOSEPH W. HOOVER, Winfield, Kans. Filed June 29, 1914. Serial No. 847,998. (Cl. 56—131.)



1. A corn heading attachment including a platform tiltably mounted, a deflecting wall upstanding from one side and the rear portion of the platform, a reel mounted for rotation above the platform and close to the wall, tangentially disposed shearing elements outstanding from the reel and movable over the platform, blades outstanding from the reel for engaging severed heads and directing them along the inner side of the wall, and means for actuating the reel.

2. A corn heading attachment including a platform tiltably mounted, an arcuate deflecting wall upstanding from the outer rear portion of the platform, a reel mounted for rotation above the platform and concentric with the wall, tangentially disposed shearing blades outstanding from the reel and movable over the platform, blades outstanding from the reel for engaging severed heads and directing them along the inner side of the wall, and means for rotating the reel irrespective of the angular adjustment of the reel and platform.

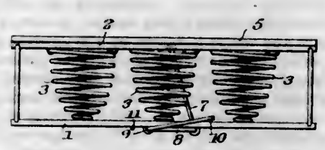
3. A corn heading attachment for vehicle bodies, including a platform, means for detachably connecting the platform to one side of a vehicle body, said platform being tiltably mounted, a deflecting wall upstanding from the platform, a reel mounted for rotation above the platform about an upwardly extending axis, means for gathering corn into the space between the reel and the wall, tangentially disposed shearing blades extending from the periphery of the reel, and means for rotating the reel independently of the angular adjustment of the reel and platform.

4. A corn heading attachment for vehicle bodies, including a platform, means for detachably connecting the platform to one side of a vehicle body, means for tilting the platform relative to the body, an arcuate deflecting wall upstanding from the platform, a reel mounted for rotation about an upwardly extending axis and above the platform, means for gathering corn into the space between the wall and reel, blades outstanding from the reel for directing the severed corn along the inner side of the wall and into the body to which the attachment is secured, tangentially disposed shearing blades outstanding from the reel and working above the platform, and means for rotating the reel independent of the angular adjustment thereof.

5. A corn heading attachment for vehicle bodies, including a drive shaft, means for transmitting motion thereto from a supporting wheel of a vehicle, means for adjustably and detachably engaging one side of a vehicle body, an upwardly extending shaft carried thereby and receiving motion from the first named shaft, a platform tiltably connected to said body engaging means, an upstanding deflecting wall upon the platform, a reel supported by the platform and mounted for rotation about an upwardly extending axis, there being a universal connection between said reel and the upwardly extending shaft, cutting blades outstanding from the lower portion of the reel, blades outstanding from the periphery of the reel for engaging severed heads and directing them along the upstanding wall, and means for gathering corn and directing it into the space between the reel and wall.

[Claims 6 and 7 not printed in the Gazette.]

1,138,954. CONTAINER. ALLEN M. HULBERT, St. Cloud, Minn. Filed Mar. 24, 1914. Serial No. 826,920. (Cl. 217—18.)



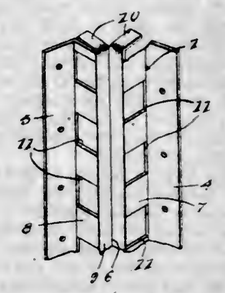
1. An egg container comprising a pair of plates one of which is apertured, collapsible egg containing members connected to said plates and means to draw the plates together and thereby collapse the egg containing members for exposing the eggs through the apertures.

2. An egg container comprising a pair of plates one of which is apertured, collapsible egg containers arranged between said plates and connected to both, said containers being open at one end and closed at the opposite end, their open ends registering with the apertures in the apertured plate and means to draw the plates together whereby the containers are collapsed and the eggs exposed through the apertures, together with a cover for the apertured plate.

3. An egg container comprising a pair of plates one of which is apertured, helical springs interposed between the plates and connected to both of them, said helical springs having one end open and the opposite end closed, the open end in register with the apertures in the apertured plate, a crank shaft journaled to one of the plates and a connection between the crank on the crank shaft and the opposite plate.

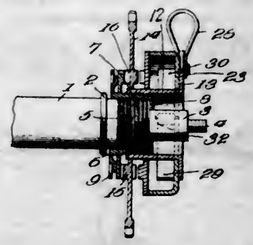
1,138,955. CORNER-STRIP FOR WALLS. WILLIAM ROSS HUNTER, Cleveland, Ohio. Filed July 6, 1914. Serial No. 849,304. (Cl. 72—121.)

A corner strip for walls consisting of an angular body plate being V-shaped in cross section and provided on its longitudinal edges with right angularly extending flanges, said flanges having a plurality of openings therein, flanges formed integral with said last named flanges and projecting at right angles thereto, said flanges and the body plate being of approximately the same length and laterally extending flanges formed on the upper end of the body plate and extending a distance equivalent to the width of the



first named flanges, said last named flanges to be secured upon the right angular walls of a room in the corner thereof.

1,138,956. COASTER-BRAKE. MARTIN H. JOHNSON, Little Falls, Minn. Filed Mar. 3, 1914. Serial No. 822,230. (Cl. 208—57.)



1. In a coaster brake, a thimble to be fitted to a wheel hub, a clutch member carried by the thimble for rotation therewith, a gear mounted for rotation and having a clutch element for coöperation with the said clutch member, means for automatically shifting the gear, a brake hub connected for rotation with the said thimble, a stationary member, a member mounted for rotation, means for rotating the member and a brake band connected at its ends to the stationary and rotatable members and surrounding the hub.

2. In a coaster brake, a thimble to be fitted to a wheel hub and carrying a clutch member, a brake hub connected to the thimble for rotation therewith, a stationary member upon the said brake hub, a member mounted upon the brake hub for turning movement and having a clutch member, a gear mounted for rotation between the clutch member of the thimble and the last-mentioned clutch member and shiftable to coöperate with either of the said members, and means for automatically shifting the gear, a brake band surrounding the brake hub and connected to the stationary and rotatable members upon the said brake hub.

3. In a coaster brake, a thimble to be fitted to a wheel hub and carrying a clutch member, a brake hub connected for rotation with the thimble, a gear mounted for rotation upon the said brake hub and having a clutch face opposing the clutch of the thimble, a member mounted for rotation upon the said brake hub, the said member and the said gear having clutch faces arranged to coact when the gear is shifted, means for automatically shifting the gear, a stationary member, and a brake band surrounding the said brake hub and connected to the rotatable member and the stationary member.

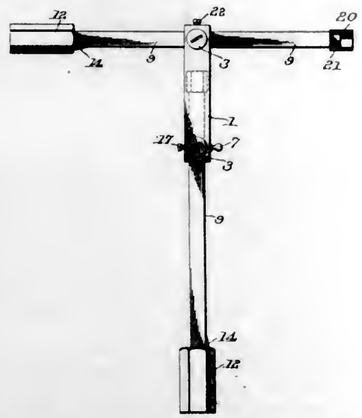
4. In coaster brake, a thimble to be fitted to a wheel hub, a clutch member mounted upon the thimble for rotation therewith and shiftable thereon, resilient means upon the thimble coöperating with the said clutch member to

hold the said member yieldably in one direction, a sprocket gear mounted for rotation in juxtaposition to the clutch member and having a clutch face arranged to coact with the said member, the said gear being shiftable and being provided with a second clutch face, means for automatically shifting the gear, a brake hub connected for rotation with the thimble, a member mounted for movement upon the brake hub and having a clutch face opposing the last mentioned clutch face of the said gear, a fixed member, and a brake band surrounding the brake hub and connected at one end to the member which is mounted for turning movement upon the hub and at its other end to the said stationary member.

5. In a coaster brake, a thimble to be fitted to a wheel hub, a clutch member mounted for rotation with the thimble and slidable thereon, resilient fingers upon the thimble bearing against the said clutch member, whereby to yieldably hold the same in one direction, a gear mounted for rotation upon the brake hub and having a clutch face opposing the said clutch member and provided with a second clutch face, means for automatically shifting the gear, a member mounted for rotation upon the said brake hub and having a clutch face arranged to coöperate with the last mentioned clutch face of the gear, a member mounted upon the said brake hub and held stationary, and a brake band connected at its ends to the two last mentioned members and surrounding the said brake hub.

[Claim 6 not printed in the Gazette.]

1,138,957. WRENCH. OLIVER P. KILPATRICK, Readout, Okla. Filed May 5, 1913. Serial No. 765,550. (Cl. 81—177.)



1. A wrench comprising a frame consisting of side plates, blocks pivoted between the plates, and bars slidably mounted in the blocks.

2. A wrench comprising a frame consisting of side plates, blocks pivoted between the end portions of the plates and being square in transverse section, and rods slidably mounted in the blocks.

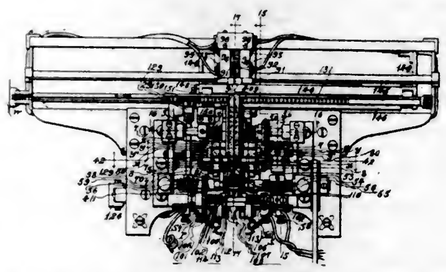
3. A wrench comprising a frame consisting of side plates, blocks pivoted between the side plates, a ball pivoted to one of the side plates and engageable with the blocks to hold the same against rotation, and rods slidably mounted in the blocks.

4. A wrench comprising a frame, consisting of side plates, blocks pivoted between the side plates, rods slidably mounted in the blocks, and spring pressed pins carried by the blocks for holding the rods at adjusted positions.

5. A wrench comprising a frame consisting of side plates, blocks pivoted between the side plates, rods slidably mounted in the blocks and having grooves, strips slidably mounted in the rods, pawls pivoted to the strips and engageable with the socket members, and spring pressed pins carried by the blocks and engageable with the strips to hold the same and the rods in adjusted positions.

[Claim 6 not printed in the Gazette.]

1,138,958. PRINTING-TELEGRAPH. OSCAR L. KLEBER, Pittsburgh, Pa. Filed Mar. 24, 1911. Serial No. 616,740. (Cl. 178—28.)



1. A printing telegraph, comprising in combination, a line circuit, a transmitting means at one end including an intermittently operating pulsator and a receiving means at the other end, the receiving means including a rotary type wheel normally held from rotation and set in action under the impulses sent from the transmitter, selecting devices that control the desired positioning of the wheel, said devices including a plurality of definitely positioned sets of stops on the type wheel, and a single set of selecting members, and means for shifting the said members for coacting with the plurality of the wheel stop sets.

2. A printing telegraph, comprising an electrical circuit, a character transmitting device, a type wheel normally inert and set in rotation as the electric impulse is sent in, said wheel having a plurality of concentric rows of selecting stops, selecting fingers for coacting with the said stops and controllable by the impulses from the transmitter, and means for automatically setting the said fingers to engage with certain ones of the successive rows of stops, and means for releasing the type wheel.

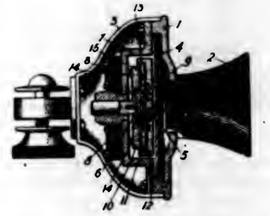
3. In a printing telegraph of the character described, the combination with a plurality of type wheels and electric circuit operating means for bringing one after the other of said wheels into active position, a paper carriage that is fed along after the printing action is effected; of means controlled by the final thrust of the carriage for bringing a predetermined one of the type wheels into operative position for action when said carriage is released and returned to its normal position.

4. In a printing telegraph system of the character stated; a continuously rotating shaft, a plurality of like printing wheels frictionally mounted to turn with the shaft, electro-mechanical means for holding the wheels at a normal position and actuated to release the wheels under electric impulses from the transmitting line, a paper carriage and feeding mechanism actuated at the end of movement of the last operated one of the plurality of printing wheels, and a mechanism operable under electric impulses from the transmitting line for printing each character that is successively brought into the printing line.

5. In a printing telegraph system of the character stated, a continuously rotating shaft, a plurality of like constructed and operating printing wheels frictionally held on the shaft and to turn therewith when released, selecting mechanism which includes a stop finger, a main line, transmission devices in the said main line for controlling the selecting mechaniam, a printing device, and a releasing device, the said printing and releasing devices including printing and releasing magnets, the said printing and releasing devices being normally out of action and the printing and release magnets relatively so arranged and timed for action, whereby, when a selected transmission impulse is sent through the main line the printing and release magnets are actuated in succession.

[Claims 6 to 59 not printed in the Gazette.]

1,138,959. TELEPHONE-TRANSMITTER. DAVID KOENIG, New York, N. Y., assignor to Western Electric Company, New York, N. Y., a Corporation of Illinois. Filed Mar. 21, 1911. Serial No. 615,825. (Cl. 179—122.)



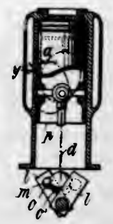
1. In a telephone transmitter, an electrode chamber comprising a block of heat-conducting material, an electrode embedded therein, a second block of heat-conducting material having a flared central opening and insulated from said first mentioned block, and an electrode flexibly supported in said opening opposite said first mentioned electrode.

2. In a telephone transmitter, an electrode chamber comprising a block of heat-conducting material having an insulated face, an electrode embedded in said block, a second block of heat-conducting material contiguous to said insulated face and having a flared central opening, the larger end of which is of greater diameter than said electrode and adjacent said insulated face, and a second electrode flexibly supported within said opening opposite said first mentioned electrode.

3. In a telephone transmitter, a pair of electrodes forming opposite walls of a granular chamber and a block of heat conducting material having a flaring opening forming the side walls of said chamber, the smaller end of said flaring opening being opposite and closely adjacent one of said electrodes and the opposite end of said flaring opening being opposite the other of said electrodes but separated therefrom.

4. In a telephone transmitter, a movable and a stationary electrode, a block of heat conducting material upon which said stationary electrode is supported, a second block of heat conducting material having a naked flaring wall forming the side wall of a granular chamber, the larger end of said wall being opposite said stationary electrode and of larger diameter than said electrode and the smaller end thereof being opposite said movable electrode.

1,138,960. DISTRIBUTION-GEAR, SUCH AS VALVE MECHANISM. ANDRE LAFITTE, Biarritz, France. Filed May 17, 1912. Serial No. 698,002. (Cl. 123—45.)



1. In an internal combustion engine, a piston, valve gear in which the piston acts as a valve, a cylindrical recess, arranged concentrically with the piston port, a cylindrical disk in said recess having an opening for the purpose of extending the said port, packing rings between the disk and the wall of the recess, and means for pressing the said disk against the inner wall of the cylinder and for bringing the piston port in register with the cylinder port.

2. In an internal combustion engine, a piston, valve gear in which the piston acts as a valve, a cylindrical recess, arranged concentrically with the piston port, a cylindrical disk in said recess having an opening for the purpose of extending the said port, packing rings between the disk and the wall of the recess in the piston, circular grooves triangular in cross-section at the bottom of the said recess, similar grooves on the flat face of the cylindrical disk, triangular packing rings engaging the said grooves for the purpose of pressing the disk against the wall of the cylinder and means for bringing the cylinder port in register with the piston port.

3. In an internal combustion engine, a piston, valve gear in which the piston acts as a valve, a cylindrical recess, arranged concentrically with the piston port, a cylindrical disk in said recess having an opening for the purpose of extending the said port, packing rings between the disk and the wall of the recess in the piston, circular grooves triangular in cross-section at the bottom of the said recess, similar grooves on the flat face of the cylindrical disk, triangular packing rings engaging the said grooves for the purpose of pressing the disk against the wall of the cylinder, a connecting rod between the piston and the controlling crank, a forked big end on the connecting rod having openings in its branches, pins engaging the said openings, the said pins being oppositely arranged to a spherical bearing, a ball for the said bearing, the said ball being arranged on an inclined crank pin with which the crank shaft is provided, and means for bringing the cylinder port in register with the piston port.

4. In an internal combustion engine, a piston, valve gear in which the piston acts as a valve, a cylindrical recess, arranged concentrically with the piston port, a cylindrical disk in said recess having an opening for the purpose of extending the said port, packing rings between the disk and the wall of the recess in the piston, circular grooves triangular in cross-section at the bottom of the said recess, similar grooves on the flat face of the cylindrical disk, triangular packing rings engaging the said grooves for the purpose of pressing the disk against the wall of the cylinder, a connecting rod between the piston and the controlling crank, a forked big end on the connecting rod having openings in its branches, pins engaging the said openigs, the said pins being oppositely arranged to two hemispherical parts secured to one another to form a spherical bearing, a tongue projecting inside the said bearing, a groove for receiving the said tongue arranged at an angle on a ball secured to the inclined crank pin of the crank shaft.

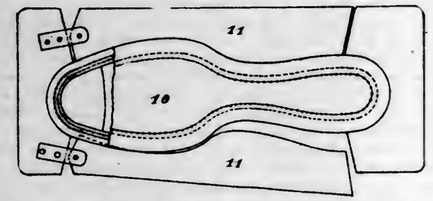
5. In an internal combustion engine, a cylinder provided with admission and exhaust ports, a piston having ports leading to the cylinder working space, a connecting rod for said piston, a forked big end on the connecting rod, a spherical bearing, gudgeon pins diametrically arranged on the spherical bearing and journaled in the fork arms, a crank-shaft having an inclined crank pin, a ball on the crank-pin corresponding to the spherical bearing, and a tongue on the bearing engaging with a circumferential groove on the ball, for the purpose set forth.

[Claim 6 not printed in the Gazette.]

1,138,961. PROCESS FOR MANUFACTURING WELTED BOOTS AND SHOES WITHOUT LASTING. EWALD LANGENOHL, Wermelskirchen, Germany. Filed May 22, 1909. Serial No. 497,680. (Cl. 12—142.)

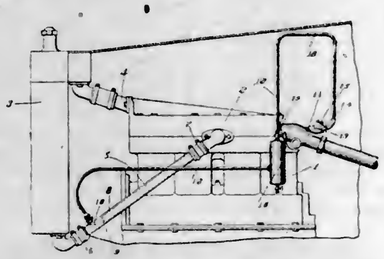
The hereindescribed method of constructing a boot or shoe, which consists in securing a welt around the entire margin of an unsoled upper blank prior to the shaping of said upper, and in bending said welt downwardly and away from said upper blank into a plane approximately parallel with the plane of the tread face of the boot or shoe, and in successively applying pressure to the interior and exterior of the toe and heel portions of the

upper to shape said parts, and in applying pressure to the exterior of the sides of the upper between the welt and



the lower margin of the upper, and applying a sole, substantially as described.

1,138,962. CIRCULATING SYSTEM. NORBERT M. LA PORTE, Baltimore, Md. Filed Dec. 9, 1914. Serial No. 876,184. (Cl. 123—170.)



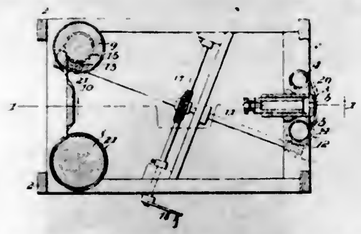
1. An automobile accessory in the form of a circulating pump consisting of a tubular member to be used as a substitute for the radiator connection which extends upward from the bottom of the radiator to the water jacket, the said tubular member having a reduced portion forming a water nozzle disposed toward the water jacket, a gas nozzle coöperating with and directed into the water nozzle, and means connecting the gas nozzle to the exhaust manifold, the water nozzle and gas nozzle having an injector action and serving to lift the water and carry it from the bottom of the radiator to the water jacket and thus accelerate the circulating action.

2. An automobile accessory consisting of a radiator connection to act as a circulating pump, the said connection having a reduced portion forming a water nozzle directed toward the water jacket, a gas nozzle coöperating with and turned in the direction of the water nozzle, a small tube for connecting the gas nozzle to the exhaust manifold, a chamber forming part of the passage between the gas nozzle and manifold for equalizing the pressure of the exhaust gases before they reach the nozzle, and means for preventing flow of the cooling water to said gas nozzle.

3. A water cooling system for internal combustion engines consisting of a water jacket, a radiator and connections arranged to give thermosiphonic circulation including means connecting the bottom of the radiator to the water jacket, the said connection being in the form of a pipe to act as a circulating pump, a gas nozzle in the pipe turned in the direction of thermosiphonic circulation, the pipe being reduced as to its internal dimension just beyond said gas nozzle, a tube for leading a portion of the exhaust gases to said nozzle, and means for preventing back-flow of water through said tube.

4. A water cooling system for internal combustion engines consisting of a water jacket, a radiator and connections arranged to give thermosiphonic circulation including a pipe connecting the bottom of the radiator to the water jacket, a gas nozzle in the said pipe turned in the direction of thermosiphonic circulation, a tube for leading a portion of the exhaust gases to said nozzle, and means for preventing back-flow of water through said tube.

1,138,963. MEANS FOR PRINTING AN ENLARGEMENT FROM A NEGATIVE-FILM. HOMER E. LEASH and JOHN L. SCHWENK, New Westminster, British Columbia, Canada; said Leash assignor to said Schwenk. Filed Feb. 21, 1914. Serial No. 820,121. (Cl. 88—24.)



1. A device for photographically enlarging a picture from a negative film, said device comprising the combination with a suitable supporting frame, of a plate at one end having a light admitting slit, a lens intermediate of the ends of the frame in axial alinement with the slit, a roller rotatably mounted on one side of the slit plate on which roller the negative film is wound, a film receiving roller rotatably mounted on the other side of the slit to which roller the film is connected across the slit plate from the other roller, a plate at the other end of the frame at the required distance from the lens to give the desired enlargement of the picture, a roller mounted on one side of this plate on which roller a strip of printing paper is wound, a roller rotatably mounted on the other side of this plate to which roller the strip of printing paper is connected across the plate from the other roller the diameter of the print receiving roller being proportioned to that of the film receiving roller in the ratio of the desired enlargement, and means for simultaneously rotating the two receiving rollers at a uniform speed.

2. A device for photographically enlarging a picture from a negative film, said device comprising the combination with a suitable supporting frame, of a plate having a light admitting slit, a roller having a film wound on it, said roller rotatably mounted on one side of the slit plate, a film receiving roller rotatably mounted on the other side of the slit plate to which roller the end of the film is attached across the plate, a lens the axis of which is in alinement with the slit, a plate normal to the axis of the lens at the required distance from it to give the desired enlargement, a roller on which a strip of photographic printing paper is wound, which roller is rotatably mounted on one side of the plate, a print receiving roller rotatably mounted on the other side of the plate to which roller the printing paper from the other roller is attached across the plate, means preventing free rotation of the roller on which the film is initially coiled, means preventing free rotation of the roller on which the printing paper is initially wound, and means for simultaneously rotating the film receiving reel and the print receiving reel.

1,138,964. PENNANT-HOLDER FOR AUTOMOBILES. FRANK LOUNGLEY, Oswego, N. Y. Filed July 20, 1914. Serial No. 852,042. (Cl. 248—37.)

1. A pennant holder comprising an upright supporting member, means for attaching said member to a supporting structure, spaced sockets carried by said upright member and laterally projecting clamping elements carried by said supporting member, one projecting between said sockets and the other below them.

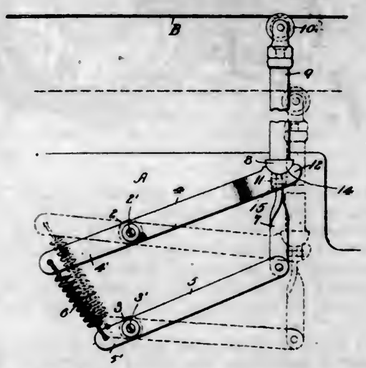
2. A pennant holder comprising an upright supporting member, means for attaching said member, a supporting structure, longitudinally spaced sockets carried by said supporting member on one face thereof, and a resilient laterally movable clamping element extending through said supporting member between said sockets.

3. A pennant holder comprising an upright supporting member, means for attaching said member, a supporting structure, longitudinally spaced sockets carried by said supporting member on one face thereof, and a resilient laterally movable clamping element extending through said supporting member between said sockets, said clamping member comprising a coil spring having arms extending in opposite directions, one of said arms being attached to said supporting member and the other having a laterally extending loop projecting through said member between said sockets.



4. A pennant holder comprising a flat metal strip having a twisted shank at one end provided with a laterally extending supporting engaging arm, means, detachably connected with said shank for coöperation with said support engaging arm for securing said strip to the supporting structure, said strip being provided with longitudinally spaced apertures above the shank thereof, pole receiving sockets positioned on one face of said strip, clamping members supported on the other face of said strip and each having a laterally extending resilient arm positioned to project through the apertures in the strip.

1,138,965. TROLLEY MECHANISM. GEORGE E. LYNCH, Chelsea, Mass., assignor, by mesne assignments, to The Jeffrey Manufacturing Company, a Corporation of Ohio. Filed June 24, 1907. Serial No. 380,638. (Cl. 191—65.)



1. The combination with a car, of supports thereon, a frame mounted on the supports and provided with a vertically movable part, a trolley arm connected with the vertically movable part of the frame and movable therewith, the connection between the arm and the frame being such that the arm may swing transversely about an axis extending longitudinally of the car, a spring and connections whereby said spring serves to elevate the movable part of the frame together with the trolley arm and through which the force of the spring is transmitted to tend to hold the arm in normal central position, substatially as set forth.

2. In a trolley, the combination of a pair of levers mounted upon separate pivotal supports and having rear arms of unequal length, means for maintaining the levers in parallel relation with each other, a spring between the ends of the rear arms of the levers for elevating the forward arms of the levers, and a trolley arm supported on the front arms of the levers, substantially as set forth.

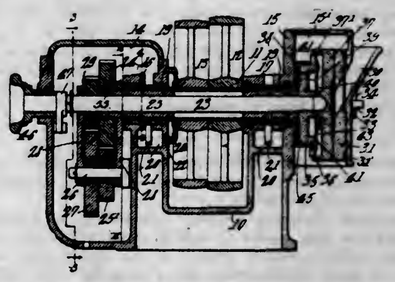
3. In a trolley apparatus, the combination of a normally vertical trolley arm, a mechanism on which the arm is supported and for normally holding the arm in normal vertical position, the construction being such that the arm can swing transversely about a horizontal axis, the said mechanism comprising a pair of levers, two supports on which the levers are pivotally mounted, means for maintaining the levers in parallel relation to each other in different positions to which they may be moved, and a spring for holding the levers in position to operatively support the trolley arm, substantially as set forth.

4. In an under-running trolley apparatus, the combination of a supporting frame, comprising a pair of levers pivotally supported between their ends upon separate pivots, the rear ends of the levers being of unequal length, and a link connecting the forward ends of the levers and serving to maintain them in parallel relation with each other, a vertically movable trolley arm supported by the said frame near its forward end, a pivotal connection between the said frame and the trolley arm to permit the latter to swing laterally, and a spring connected to the rear ends of the levers for holding the trolley up against the supply wire, substantially as set forth.

5. In a trolley apparatus, the combination of a pair of levers, two supports on which the levers are pivotally mounted, a trolley arm resting on the upper of said levers, a link connecting the lower lever with the trolley arm, and a spring connected to the upper lever to force it upward and to the lower lever to resist upward movement thereof, the lever arms being so proportioned that the spring will hold the upper lever and the trolley arm in contact and lift the forward ends of both of the levers to move the trolley arm into operative position, substantially as set forth.

[Claims 6 to 12 not printed in the Gazette.]

1,138,966. ORE-GRINDER. EDWARD F. MCCOOL, Victor, Colo. Filed July 3, 1911. Serial No. 636,778. (Cl. 83—10.)



1. In an ore grinder, a sleeve, means for driving said sleeve, a shaft eccentrically supported within said sleeve, means for transmitting the motion of said sleeve to said shaft, a grinding disk pivotally supported by the end portion of said shaft and means carried by said shaft to rotate said disk.

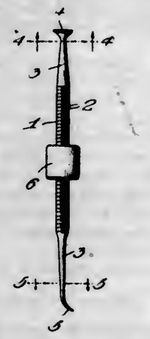
2. In an ore grinder, a casing, a sleeve supported by the casing, a shaft eccentrically mounted within said sleeve, means for rotating said sleeve and shaft at different speeds, a grinding disk pivotally supported by said shaft, means carried by said shaft for rotating said disk and a fixed grinding disk supported upon the casing adjacent said rotating disk.

3. In an ore grinder, a sleeve, a shaft eccentrically supported within said sleeve, a grinding disk pivotally supported by said shaft, a disk mounted on said shaft adjacent said first mentioned disk, means for locking said disks together, a bearing supporting said shaft eccentrically of said sleeve and adjacent one of its ends, and an annular dust guard mounted on said bearing.

4. In an ore grinder, a shaft, a grinding disk in rocking engagement with one end of said shaft, a clutch disk supported upon said shaft adjacent said grinding disk, the rear of said grinding disk having arms extending laterally from a point opposite its center, said clutch disk having a portion of its forward face hollowed out, projections extending inwardly from the rim into the hollower out portion, and one or more bars of spring material secured at the ends of said rim and passing over a part of said hollowed out portion, said arms of the grinding disk being adapted to bear against the projections and under the spring members of the clutch disk.

5. In an ore grinder, a sleeve, a shaft supported eccentrically within said sleeve, means for driving said shaft, a feed screw, a lug arranged between said feed screw and the end portion of said shaft, the screw when advanced imparting longitudinal movement to said shaft independent of said sleeve.

1,138,967. EAR AND FINGER-NAIL CLEANER. GEORGE J. METZGER, Rochester, N. Y. Filed Apr. 9, 1914. Serial No. 830,736. (Cl. 128—10.)

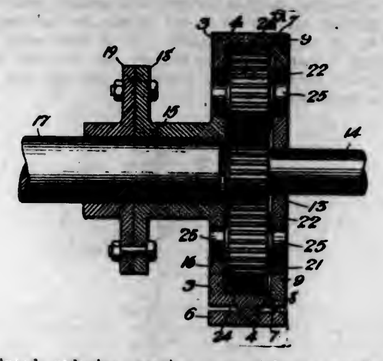


An ear pick comprising a rectilinear cylindrical stem having one end reduced and provided with a circular head, the portion of said stem from its reduced end to its other end being externally threaded, and a stop nut threaded on said stem, and adapted to be adjusted upon the threads adjacent the head, whereby the other threads are exposed to constitute means for preventing the fingers of a user from slipping upon said stem.

1,138,968. SPEED-REDUCING GEARING. JOHN NEILL, Honolulu, Hawaii. Filed Apr. 20, 1914. Serial No. 833,128. (Cl. 74—34.)

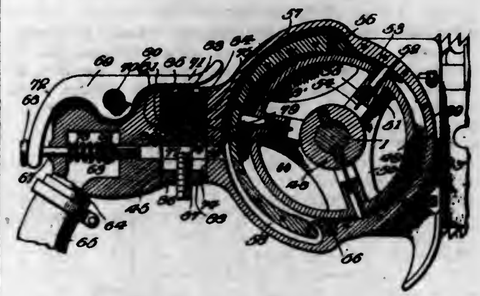
1. Speed reducing gearing comprising, a stationary housing, a ring bolted to said housing, an internal gear within said housing, a pinion on the higher speed shaft, one or more intermediate gears meshing with said internal gear and said pinion, a casting adapted to be attached to the lower speed shaft, and a cover secured to said casting, each shaft of the intermediate gears journaled in said casting and cover, the casting and cover adapted to turn in the housing and ring, substantially as described.

2. Speed reducing gearing, comprising a stationary housing, disk-like side covers rotatably mounted in the housing and forming therewith an inclosed gear compartment, a shaft entering one side of said housing through one of said side covers, a pinion associated therewith, an internal gear associated with the housing, a pinion interposed between and meshing with said first-named pinion and the internal gear and journaled in both of said side covers, and a second shaft connected to the second rotatable side cover, for the purpose described.



3. Speed reducing gearing, comprising a stationary housing provided with an internal gear, rotatable side covers associated with the housing and forming therewith an inclosed gear compartment, a ring secured to the housing at at least one side thereof in which the corresponding rotatable side cover is mounted, a shaft entering one side of said housing through one of said side covers, a pinion associated therewith, a pinion interposed between and meshing with said first-named pinion and the internal gear and journaled in both of said side covers, and a second shaft connected to the second rotatable side cover, for the purpose described.

1,138,969. FLUID-PRESSURE MOTOR. CHARLES J. OLSON, Muskegon, Mich. Filed Jan. 25, 1913. Serial No. 744,182. (Cl. 121—74.)



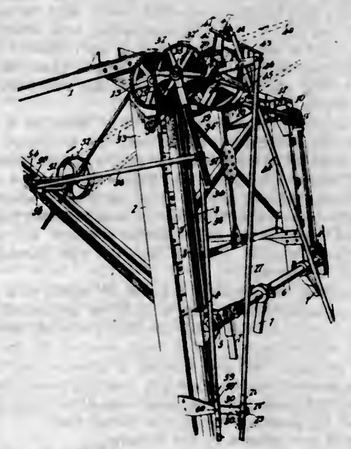
1. In a motor of the class described, a casing, a rotor mounted in the casing, pistons carried by the rotor, the casing having an inlet port, one wall of the casing being formed with a number of exhaust openings and the rotor having a rim and the exhaust openings in the wall of the casing being located within the boundary of the rim, and a by-pass in the said wall of the casing at the rim of the motor.

2. In a motor of the class described, a casing, a rotor mounted in the casing and having a peripheral rim extending between the heads of the casing, the said heads of the casing being provided with oppositely located by-passes located at the rim of the rotor, the rotor being formed with passageways located inwardly of the rim, and an inlet for the casing, one head of the casing being formed with exhaust openings located inwardly of the by-pass and within the boundary of the rim.

3. In a motor of the class described, a casing, a rotor mounted in the casing and having a hub and a peripheral rim extending between the heads of the casing and supported upon the hub by a perforated web, the said hub of the casing being provided with oppositely located by-passes communicating at their ends with the space between the said rim of the rotor and the curvilinear wall of the casing and the space within the rim, an inlet for the casing communicating with the space between the rim and the curvilinear wall of the casing, pistons upon the rotor projecting into said space, one head of the casing being formed with exhaust openings communicating with the space within the rim.

4. In a motor of the class described, a casing including sides and a rim, the casing having an inlet port opening through its rim, a rotor mounted within the casing, the rotor including a rim extending between the said sides of the casing, the said sides of the casing being outwardly bulged at a point in the peripheral line of the rim of the rotor whereby to provide a by-pass between the space exteriorly of the rim of the rotor and interiorly of the same, and pistons carried by the rotor and projecting beyond the rim of the same, the sides of the casing being provided with exhaust openings located within the boundaries of the rim of the rotor.

1,138,970. FEED DRIVING MECHANISM. FRANK PIERCE, Rutland, Vt., assignor to Lincoln Iron Works, Rutland, Vt., a Corporation of Vermont. Filed Oct. 13, 1913. Serial No. 794,947. (Cl. 74—58.)



1. In a machine of the kind described, the combination with feed mechanism, of a driving shaft for said feed mechanism, a gear carried by said driving shaft, a pivotally mounted arm, a series of pinions carried by said arm, means for rotating one of said pinions intermittently, means fo rcontinuously rotating the other pinions, and means for adjusting said pivotally mounted arm.

2. In a machine, the combination with a movable frame, of feed mechanism for said movable frame, a driving shaft for said feed mechanism, a gear carried by said driving shaft, a series of driving pinions mounted to independently engage said driving gear, a counter shaft, means for driving one of said pinions intermittently from said counter shaft, means for driving two of the pinions of said series continuously in a reverse direction from said counter shaft, and means for holding any one of said pinions in engagement with said driving gear.

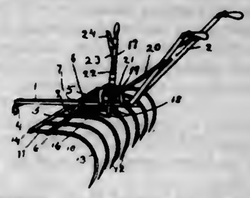
3. In a machine of the kind described, the combination with a pivotally mounted member, feed mechanism for said member, a driving shaft for said mechanism, a gear carried by said driving shaft, a pivotally mounted arm, spaced pinions carried by said arm, a driving pinion having a driving connection with two of said pinions, a feed pinion mounted upon said arm, means for driving said feed pinion intermittently, and means for driving said other pinions continuously.

4. The combination with a machine having a movable member, of feed mechanism for said member, a driving shaft for said feed mechanism, a driving gear carried by said driving shaft, a pivotally mounted banjo arm, pinions carried by said arm adapted to independently engage said driving gear, means for rotating one of said pinions intermittently, and means for rotating the other pinions continuously.

5. In a machine, the combination with the feed mechanism thereof, a gear for driving said feed mechanism, of driving means for said driving gear comprising a series of pinions capable of independently engaging said gear, means for driving one of said pinions intermittently, and means for driving the other pinions of said series continuously.

[Claims 6 to 27 not printed in the Gazette.]

1,138,971. HARROW AND CULTIVATOR. STANLEY D. POOLE, Moline, Ill., assignor to Deere & Company, Moline, Ill., a Corporation of Illinois. Filed May 1, 1907. Serial No. 371,347. (Cl. 97—10.)



1. In a cultivator, the combination of a beam, two groups of normally separately swinging parallel flat horizontal bars vertically pivoted to the beam and positioned on opposite sides thereof, longitudinally extending flat tool bars each pivotally connected to the several bars of one of the groups of swinging bars and each bent downward at its rear end to form a resiliently ground engaging tool, separately swinging brace bars for the said groups of swinging bars, each brace bar being at its outer end connected to one of the swinging bars and at its inner end vertically pivoted to the beam co-axially with the corresponding swinging bar and in a different horizontal plane therefrom, and means for holding the swinging bars in definite angular relation to the beam.

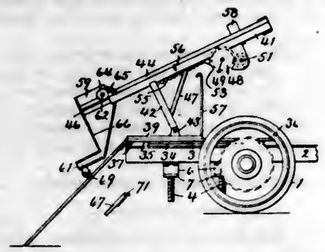
2. In a cultivator, the combination of a beam, two groups of swinging bars arranged on opposite sides of the beam and vertically pivoted thereto for movement about common axes, the bars of each group being parallel to each other, longitudinal tool bars arranged in sets on opposite sides of the beam and each vertically pivoted to each of the corresponding swinging parallel bars, tools located at the rear ends of the longitudinal bars and adapted to be arranged by the adjustment of the bars in a single straight line or in two lines diverging from the center toward the front or in two lines diverging from the center toward the rear, means for locking together for unitary movement above the common axis two oppositely disposed swinging bars the tools being thus held in one straight line, a pivoted hand lever on the beam, and means for connecting the hand lever either with the bars at both sides of the beam whereby the hand lever may be used to bring the tools into any one of the three aforesaid relationships or with the bars at only one side of the beam whereby the hand lever may be used (when the aforesaid locking means is operative) to change the angle of the line of the tools with respect to the beam.

1,138,972. TREE-HANDLING APPARATUS. DWIGHT F. PREVOST, New York, N. Y. Filed Mar. 19, 1913, Serial No. 755,344 Renewed Oct. 6, 1914. Serial No. 865,277. (Cl. 55—120.)

1. An apparatus of the class described, comprising a bole-carrier, means to tilt such carrier into an approximately horizontal position, means to elevate and depress said carrier, and means to turn said carrier end for end while raised by said elevating and depressing means.

2. An apparatus, of the class described, comprising lifting and lowering means for a tree, tilting means for such

first-mentioned means, and elevating and depressing means and turning means for such tilting means.



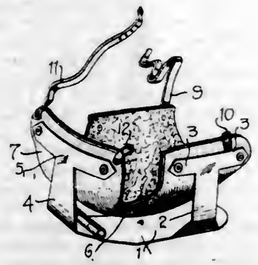
3. An apparatus, of the class described, comprising lifting and lowering means for a tree, tilting means for such first-mentioned means, and reciprocable means and turning means for said tilting means.

4. An apparatus, of the class described, comprising lifting and lowering means for a tree, tilting means for such first-mentioned means, and reciprocable means, elevating and depressing means, and turning means for such tilting means.

5. In apparatus of the class described, a vehicle frame, an elevator supported thereby, a rotatable member on said elevator, and a bole-carrier supported by said rotatable member.

[Claims 6 to 26 not printed in the Gazette.]

1,138,973. KNEE-REST FOR COTTON-PICKERS. PAUL PRINCE, Harrah, Okla. Filed June 13, 1914. Serial No. 844,969. (Cl. 2—130.)

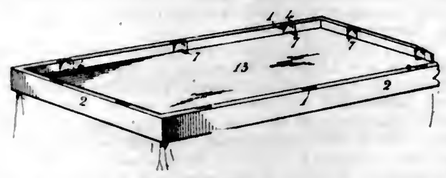


1. A device of the character described comprising a frame including a base having reduced upturned resilient side walls, said side walls having enlarged heads at their upper ends, a front wall having an enlarged head at its upper end hingedly connected to the base, a pad secured adjacent its side edges to the enlarged heads of said side walls, said pad having a forwardly extending tongue secured adjacent its forward edge to the upper head of the front wall, and means secured to the pad and to said extension for securing the device to a knee.

2. A knee rest for cotton pickers or the like comprising a frame including a base having upstanding resilient side walls, a front wall hingedly connected to the forward end of said base, a pad substantially U-shaped in cross-section connected adjacent its opposite side edges to the upper ends of the side walls, said pad having a forwardly extending tongue secured adjacent its forward edge to the upper end of said front wall, the intermediate portion of said pad being spaced above the base of said frame, and means for securing the rest to the knee.

1,138,974. SHIP'S-TABLE GUARD OR FIDDLE. NORMAN FREDERICK RAMSAY, Newcastle-upon-Tyne, England. Filed Feb. 17, 1915. Serial No. 8,892. (Cl. 114—188.)

1. Means for securing a guard or fiddle to a ship's table, comprising a socket adapted to be let in the upper edge of the table and, in association with the guard, supporting devices of different lengths and occupying positions one above the other, the upper supporting device being arranged to enter the socket and the lower supporting device to rest above the socket without entering it.



2. Means for securing a guard or fiddle to a ship's table, comprising a socket adapted to be let into the upper edge of the table and, in association with the guard, supporting devices of different lengths adapted to be housed in the guard and occupying positions one above the other, the upper supporting device being arranged to enter the socket and the lower supporting device to rest above the socket without entering it.

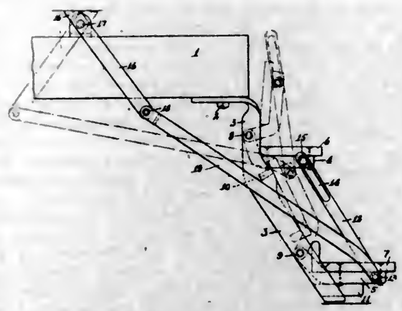
3. Means for securing a guard or fiddle to a ship's table, comprising a socket adapted to be let into the upper edge of the table and having a low front wall, and, in association with the guard, a pivotal supporting hook adapted to enter the socket and engage the low wall thereof and a pivotal supporting finger of greater length than the hook adapted to rest above the top of the socket, the hook occupying a position above the finger.

4. In means for securing a guard or fiddle to a ship's table, the combination with a rail, of a slotted plate adapted to be let in flush with the rail, a vertical pivot pin arranged behind such plate and supporting devices of different lengths secured to such pivot pin near opposite ends thereof, the upper supporting device being shorter than the lower and adapted to be projected through the slotted plate while the other recedes into the rail through the plate and vice versa.

5. In means for securing a guard or fiddle to a ship's table, the combination with a rail, of a slotted plate adapted to be let in flush with the rail, a vertical pivot pin arranged behind such plate, a hook secured to the pivot pin near its upper end and a finger of greater length than the hook secured to the pivot pin near its lower end, the said hook and finger being adapted to be alternately housed in the rail by passage through the slotted plate.

[Claim 6 not printed in the Gazette.]

1,138,975. FOLDING DOUBLE CAR-STEP. HENRY J. REGO, San Jose, Cal. Filed Jan. 25, 1915. Serial No. 4,303. (Cl. 105—86.)



1. A folding double car-step comprising fixed hangers depending from the car; upper and lower steps; step-carrying arms pivotally connected with said hangers; a link pivotally connected at its lower end with an arm of the lower step, said link having in its upper end a slot adapted for limited play upon a pin in an arm of the upper step; and means applied to the arm of the lower step for swinging both steps about the pivotal connection of their arms.

2. A folding double car-step comprising fixed hangers depending from the car; upper and lower steps; step-carrying arms pivotally connected with said hangers; a link pivotally connected at its lower end with an arm of the lower step, said link having in its upper end a slot adapted for limited play upon a pin in an arm of the upper step; an operating lever pivotally mounted on the car; and a link connecting said lever with the arm of the lower step, to swing both steps about the pivotal connections of their arms.

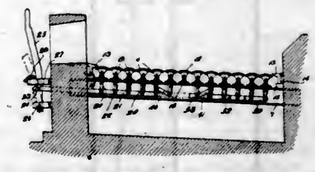
3. A folding double car-step comprising fixed hangers depending from the car; upper and lower steps; step-carrying arms pivotally connected with said hangers; a link pivotally connecting the carrying arms of the two steps; means applied to one of said step-carrying arms for swinging the connected steps about the pivotal connections of their arms; and fixed stops carried by the hangers to limit the downward swing of the step-carrying arms and to support their steps in operative position.

4. A folding double car-step comprising fixed hangers depending from the car; upper and lower steps; step-carrying arms pivotally connected with said hangers; a link pivotally connected at its lower end with an arm of the lower step, said link having in its upper end a slot adapted for limited play upon a pin in an arm of the upper step; means applied to the arm of the lower step for swinging both steps about the pivotal connection of their arms; and fixed stops carried by the hangers to limit the downward swing of the step-carrying arms and to support their steps in operative position.

5. A folding double car-step comprising fixed hangers depending from the car; upper and lower steps, step-carrying arms pivotally connected with said hangers; a link pivotally connecting the carrying arms of the two steps; an operating lever pivotally mounted on the car; a link connecting said lever with one of said step carrying arms, to swing the connected steps about the pivotal connections of their arms; and fixed stops carried by the hangers to limit the downward swing of the step-carrying arms and to support their steps in operative position.

[Claim 6 not printed in the Gazette.]

1,138,976. GRATE. CLAUDE B. ROBERTS, Belfast, Me. Filed Apr. 6, 1914. Serial No. 829,916. (Cl. 126—176.)



1. An oscillating grate-bar consisting of a transversely curved section having openings through it from top to bottom and having parti-openings at the side and end, and having the lower extremity of the side-edges formed coincident with the extremity of the wall of the adjacent opening to form cutting edges, substantially as described.

2. An oscillating grate-bar consisting of a transversely curved section having openings through it from top to bottom and having lugs arranged beneath and extended downward from it for engagement with bar-carriers, the side-edges of said lugs being made sharp to form cutting edges, substantially as described.

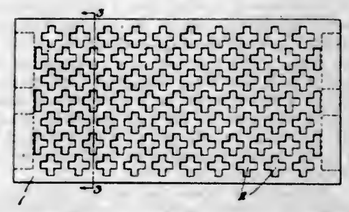
3. A grate comprising two sets of oscillating bar-carriers arranged in parallel relation and grate-bars arranged thereon having transversely curved grate-sections, a stationary grate-bar arranged between said sets of oscillating grate-bars, means for connecting together the bar-carriers of each set, said connecting means involving a connection with the bar-carriers adjacent said intermediate stationary grate-bar whereby said adjacent bar-carriers are caused to move through shorter arcs than the remaining bar-carriers, substantially as described.

4. A grate comprising two sets of oscillating bar-carriers arranged in parallel relation and grate-bars arranged thereon having transversely curved grate-sections, a row of stationary grate-bars arranged between said sets of oscillating grate-bars having their edges beveled on their under sides and the adjacent grate-sections being arranged to provide for movement of the next rows of grate-sections without substantially increasing the areas of the openings produced upon oscillations thereof, means for connecting together the bar-carriers of each set, said connecting-means involving a connection with the bar-carriers adjacent said stationary grate-bars, whereby said adjacent bar-carriers are caused to move through shorter arcs than the remaining bar-carriers of the sets, substantially as described.

5. A grate including a stationary grate bar, a plurality of sets of oscillating grate bars arranged on opposite sides of the stationary grate bar, grate bar rocking means, and connections between said rocking means and the respective sets of grate bars, said connections being adjusted to rock the set of grate bars adjacent the stationary grate bar through a shorter arc than the grate bars of the remaining set.

[Claim 6 not printed in the Gazette.]

1,138,977. FURNACE-GRATE. CLAUDE B. ROBERTS, Belfast, Me. Filed Apr. 6, 1914. Serial No. 829,917. (Cl. 126—180.)



1. A grate-section transversely curved from edge to edge throughout its length and having means for connecting it to a bar-carrier and having openings through it from top to bottom of the shape of a Greek cross, said openings being arranged in parallel rows and the openings of each row being staggered with respect to the openings of adjacent rows, and said openings being made tapering, substantially as described.

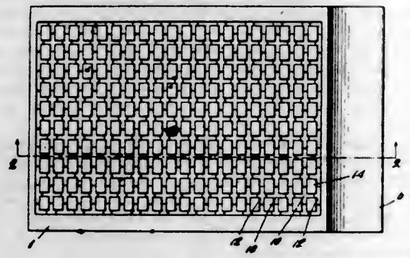
2. A grate-section transversely curved from edge to edge throughout its length and having means for connecting it to a bar-carrier and having openings through it from top to bottom of the shape of a Greek cross, said openings being arranged in parallel rows and the openings of each row being staggered with respect to the openings of adjacent rows, and said openings being made tapering and arranged with their medial lines in parallel relation, substantially as described.

3. A grate-section transversely curved from edge to edge throughout its length and having means for connecting it to a bar-carrier and having openings through it from top to bottom of the shape of a Greek cross, said openings being arranged in parallel rows and the openings of each row being staggered with respect to the openings of adjacent rows, the walls of said openings being made substantially vertical for a short distance at the top and divergent from the lower ends of said vertical portions to the bottom of the section, substantially as described.

4. An oscillating grate-section transversely curved from edge to edge throughout its length and having means for connecting it to a bar-carrier and having openings through it from top to bottom of the shape of a Greek cross, said openings being arranged in parallel rows and the openings of each row being staggered with respect to the openings of adjacent rows, and said openings being made tapering, a pivoted bar-carrier supporting said

grate-section, the radius of the arc of the grate-section being greater than the distance between the top of the section and the fulcrum of the bar-carrier, substantially as described.

1,138,978. FURNACE-GRATE. CLAUDE B. ROBERTS, Belfast, Me. Filed Apr. 6, 1914. Serial No. 829,918. (Cl. 126—180.)



1. A grate-section having means for attaching it to a transverse bar-carrier borne by moving elements, said grate section having openings through it of the form of a Greek cross, which openings are arranged in rows, the openings of each row being staggered with respect to the openings of adjacent rows, said grate-section also having channels at the top arranged in open communication with said openings, substantially as described.

2. A grate-section having means for attaching it to a transverse bar-carrier borne by moving elements, said grate-section having openings through it of the form of a Greek cross, which openings are arranged in rows, the openings of each row being staggered with respect to the openings of adjacent rows, said grate-section also having intersecting channels at the top extending from end to end and from side to side of the section, which channels are in open communication with the adjacent openings, substantially as described.

3. A grate-section having means for attaching it to a transverse bar carrier borne by moving elements, said grate-section having openings through it of the form of a Greek cross, which openings are arranged in rows, the openings of each row being staggered with respect to the openings of adjacent rows, said grate-section also having projections at the top between the openings which projections are of rectangular outline in plan, substantially as described.

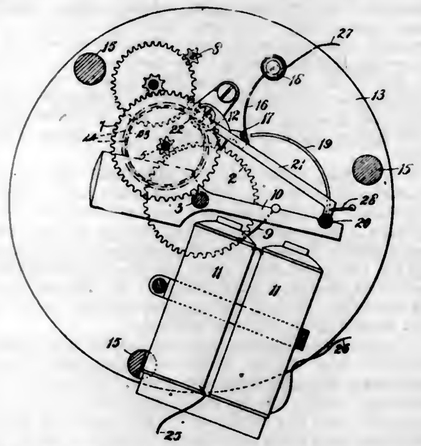
4. A grate-section having means for attaching it to a transverse bar-carrier borne by moving elements, said grate-section having openings through it of the form of a Greek cross, which openings are arranged in rows, the openings of each row being staggered with respect to the openings of adjacent rows, said grate-section also having channels at the top arranged in open communication with said openings, said channels in communication with the openings forming projections of rectangular outline in plan, substantially as described.

1,138,979. ELECTRICALLY-DRIVEN CLOCK. THOMAS RUSHTON, Upper Holloway, London, England. Filed June 13, 1912. Serial No. 703,553. (Cl. 58—41.)

1. In an electric clock the combination of a winding wheel, a pawl resting thereon, a contact arm in position to fall upon and be lifted by said pawl, and a member adapted to receive said arm when lifted and to support it for an interval.

2. In an electric clock the combination of a contact arm, a resilient member attached to said arm, a support continuously rotated by the clock and adapted to deflect said member and having slots permitting said member to fall when deflected.

3. In an electric clock the combination of a contact arm, a slotted rim continuously rotated by the clock, a member attached to said contact arm normally resting on and deflected by the rotating rim, but free to fall through the slots when deflected, and means for raising said member through the slots again so that it may spring beyond them.

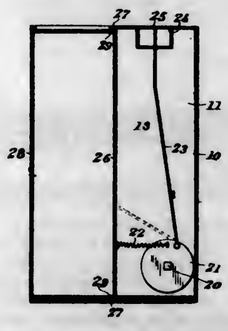


4. In an electric clock, the combination of a pivoted contact arm, a winding wheel, a pawl engaging said wheel and in position to receive the contact arm, a supporting member rotated by the clock, and an arm attached to the contact arm adapted to be lifted on to said support by the passage of the pawl over a tooth.

5. In an electric clock, the combination of a slotted rim continuously rotated by the clock, an arm resting on said rim and a springy finger on said arm adapted to be deflected by said rim and to fall through the slots, and to spring beyond a slot when lifted through it.

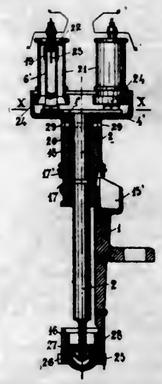
[Claim 6 not printed in the Gazette.]

1,138,980. COMBINED TOBACCO AND MATCH BOX. THOMS F. SAMUEL and JOSEPH H. WOLCOTT, Boston, Ga. Filed May 10, 1913. Serial No. 766,770. (Cl. 206—22.)



In a match box, the combination with a casing, of a partition forming a plurality of compartments in the casing, an inclined floor in one of the compartments and terminating at one end adjacent a longitudinal slot in the casing, a roller mounted to turn in the first mentioned compartment and lying adjacent the lower end of the inclined floor, with the said roller normally closing the said slot and provided with a longitudinal groove adapted to register with the slot for ejecting matches through the slot, the said matches being contained on the said inclined floor, a stud projecting from one end of the roller and into the other compartment, a disk carried by the stud, a contractile spring having connection with the disk and with the casing for normally holding the roller in normal position to close the slot, a lever having pivotal connection with the said disk for imparting rotation to the roller to move the groove thereof into registration with the slot, and a finger piece projecting through an opening in a wall of the second compartment, with the said finger piece carried by the said lever and normally lying flush with the wall of the second compartment to constitute a portion thereof.

1,138,981. SPINNING AND TWISTING MACHINE. PIETRO SARACCO, Turin, Italy. Filed Dec. 26, 1913. Serial No. 808,889. (Cl. 118—6.)



1. In a machine for spinning and twisting the combination with a rim having a vertical axis, of a rotary support concentric with the said rim, means for rotating the said support, spools carrying the thread, means on the said support for suspending the spools, and means on the said spools adapted to engage with the outer rim during the rotation of the support.

2. In a machine for spinning and twisting, the combination with a rotary rim having a vertical axis, of a rotary support concentric with the said rim, means for independently rotating the rim and the support, spools carrying the thread, means on the said support for suspending the spools therefrom and means on the said spools adapted to come into engagement with the outer rim during the rotation of the support.

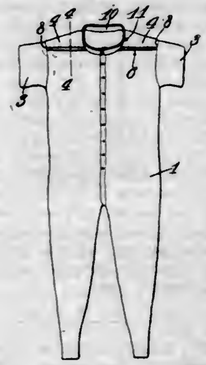
3. In a machine for spinning and twisting, the combination with a rotating rim having a vertical axis, of a rotating support concentric with the said rim, means for rotating independently the rim and the support, vertical spindles secured to the said support, a hollow spool for the thread, pivoted on each of the said spindles, and means on the said spools adapted to engage with the outer rim during the rotation of the bracket.

4. In a machine for spinning and twisting, the combination with a rim having a vertical axis, of a rotating support concentric with the said rim, means for rotating the said support, spools carrying the thread, each provided with a rolling surface at its bottom, and means for suspending the spools on the support so that their rolling surfaces are away from the outer rim when the support is stationary, and engage with it when the said support is rotated.

5. In a machine for spinning and twisting, the combination with a rim having a vertical axis, of a rotating support concentric with the said rim, means for rotating the said support, vertical spindles secured to the said support, a hollow spool for the thread for each of the said spindles, rolling surfaces at the base of the said spools and means for pivoting the spools on the spindles whereby their rolling surfaces are away from the outer rim when the support is stationary, and come into contact therewith when the said support is rotated.

[Claims 6 and 7 not printed in the Gazette.]

1,138,982. UNION UNDERGARMENT. JAMES C. SCOTT, Portsmouth, Ohio, assignor to Unitee Knitwear Company, Oriskany Falls, N. Y., a Corporation. Filed June 15, 1914. Serial No. 845,300. (Cl. 2—144.)



1. A garment of the class described comprising a back; a front; an elastic yoke connecting the back and the front; a collar assembled with the yoke; and an inelastic strip extended between the collar and the back.

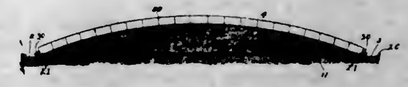
2. A garment of the class described comprising a back; a front; an elastic yoke connecting the back and the front; a collar assembled with the yoke; and an inelastic strip the transverse edges of which are secured to the collar and the back, the upright edges of the strip being free.

3. A garment of the class described comprising a front; a back; an inelastic yoke joined to the front, and joined to the back to form a back seam; a collar joined to the yoke to form a collar seam; and an inelastic strip, the upright edges of which are free, the transverse edges of the strip being secured in the back seam and in the collar seam.

4. A garment of the class described embodying an elastic shoulder yoke; and an inelastic strip disposed transversely of the yoke, the upper and lower edges of the strip being secured to prevent a stretching of the yoke, and the strip being severable to permit the yoke to stretch.

5. In a garment of the class described, coöperating parts comprising a back and a front; an elastic yoke connecting the back and the front; a collar assembled with the yoke; and an inelastic element extended between the collar and one of said coöperating parts.

1,138,983. ROAD. ROBERT P. SCOTT, Cadiz, Ohio. Filed Apr. 19, 1913. Serial No. 762,191. (Cl. 94—1.)



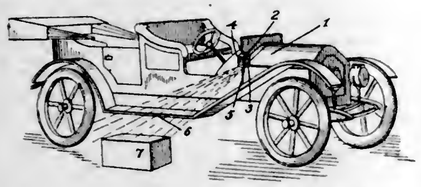
1. The combination of an arched road built up of bricks or blocks, channel irons forming curbs at opposite sides supporting the arch, each having an upwardly extending flange to receive a tie rod and an outer and upwardly extending projection to form a gutter, and separate and removable tie rods with threaded ends carrying nuts, said rods passing through said upwardly extending flanges and connecting said channel irons.

2. The combination of an arched road surface built up of bricks or blocks, channel irons at opposite sides supporting the arch and forming guttered curbs, said channel irons having upward-projecting inner flanges against which the ends of the arch bear and also flanges projecting inward beneath the ends of the arch, and tie rods connected to said upward-projecting flanges.

3. The combination of an arched road surface built up of bricks or blocks, channel irons, arranged at opposite sides thereof so as to form curbs and extended abutments supporting said arch, said irons having upwardly projecting flanges against which the ends of the arch bear, as well as lips projecting inwardly beneath the ends of the arch and also having outer upwardly extending projections to form gutters, and threaded tie rods removably connected to said upwardly projecting flanges as and for the purpose described.

4. The combination of an arched road surface built up of interlocking bricks or blocks, channel irons at opposite sides thereof, extending lengthwise of the road, so as to form extended abutments to support said arch, said bricks or blocks having interlocked joints along their sides and breaking joints at their ends, said channel irons supporting the arch and having upwardly extending flanges to receive tie rods and also outer and upwardly extending projections to form gutters, together with separate and removable tie rods having threaded ends provided with nuts joining said channel irons.

1,138,984. LAMP. ROBERT C. SHAAL, Port Chester, N. Y., assignor to Safety Car Heating and Lighting Company, a Corporation of New Jersey. Filed May 5, 1911. Serial No. 625,217. (Cl. 240—46.)



1. In combination with a vehicle, a lamp supported thereby, said lamp comprising a rectangular frame having a source of light supported therein, a blank side toward said vehicle, and also having a light-refracting bottom so formed as to direct the rays of light rearwardly and downwardly.

2. In combination with a vehicle, a lamp supported thereon comprising a frame having a source of light supported therein, and a reflector in coöperative relation to the latter, said frame having a bull's-eye in its back, and a light-refractive bottom constructed so as to direct the rays of light rearwardly.

3. In combination with a vehicle, a lamp supported thereon consisting of a frame having its top and the side toward the vehicle closed, said frame having also a transparent front, and a light-refractive bottom constructed to direct the rays of light toward the rear of the vehicle.

4. A lamp for vehicles comprising a rectangular frame, having one side blank and its opposite side transparent, and having a transparent front, and a bull's-eye lens in its back, and also a prismatic bottom.

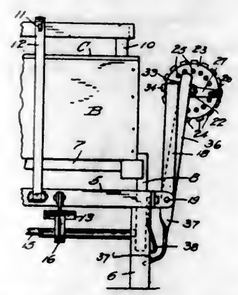
5. A lamp for vehicles comprising a rectangular frame, a source of light suspended therein, a reflector arranged in coöperative relation to said source of light so as to direct the rays therefrom downwardly; and said frame having a prismatic bottom formed so as to direct the rays of light reflected thereon in a direction at an angle to said direction of reflection.

[Claim 6 not printed in the Gazette.]

1,138,985. BOX-MARKING MACHINE. JOHN N. SHOTWELL, Cashmere, Wash. Filed Oct. 22, 1914. Serial No. 867,954. (Cl. 101—83.)

1. In a marking machine, the combination with a table, a frame hingedly connected thereto and having a horizontal bar-member, a type-block, and means for detachably securing the latter to said bar, of a type-wheel rotatably connected to said frame, and means carried by the frame for securing the wheel in selected rotary positions.

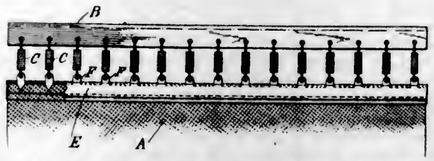
2. In a machine of the class described, the combination with a table, of a frame hingedly connected thereto, a spring tending to hold the frame in inoperative position, a plurality of type-blocks detachably connected to said frame, a wheel having type on its periphery rotatably connected to said frame, and means engageable with the wheel for securing the same in selected rotary positions.



3. In a marking machine of the class described, a vibratory frame having a horizontal bar-member provided with a longitudinal groove, a type-block having a shoulder adapted to seat upon an edge of said bar-member, said type-block being formed with a longitudinal groove, and means engaging in the grooves of said bar-member and the block whereby the latter is detachably connected to the bar-member.

4. The combination with a box-head holding machine comprising a table, an elevator operatively connected to the table, and means for raising said elevator, of printing devices comprising a type-carrying frame hingedly connected to the table, a spring acting to yieldingly hold said frame in inoperative position, and means operated by the elevator whereby the frame is actuated in opposition to said spring.

1,138,986. BED-SPRING. GEORGE F. SISBOWER, East Orange, N. J., and LOUIS EDWARD PITTONI, New York, N. Y., assignors to New York Couch Bed Company, New York, N. Y., a Corporation of New York. Filed Nov. 4, 1912. Serial No. 729,478. (Cl. 5—62.)



1. A woven-wire mattress-fabric having its edge inclosed by a cover-plate carried by the fabric, the said cover-plate containing a core piece over which the fabric is turned, and retained by the cover-plate, the said core piece being adapted for the engagement of spring-hooks therewith and the cover-plate being perforated at intervals to permit such engagement of the hooks and core-piece.

2. A woven-wire mattress-fabric having its edge inclosed by a cover-plate carried by the fabric, the said cover-plate containing a core piece over which the fabric is turned and retained by the cover-plate, the said core-piece having perforated extensions projecting therefrom laterally through openings in the cover-plate, for the engagement of spring-hooks with the core-piece.

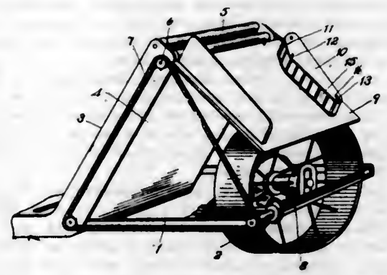
3. A woven-wire mattress-fabric having its edge inclosed by a flat cover-plate carried by the fabric and perforated at intervals, the said cover-plate being bent over the fabric edge and containing a core-piece around which the fabric is folded and pressed into engagement with the fabric at one side of the core to grip and retain in place the folded fabric.

4. A woven-wire mattress-fabric having its edge inclosed by a cover-plate independent of the end rail of the frame and bent into a horizontal U-shape, a core-piece adapted to be engaged by the attaching spring hooks and having the fabric bent over it and retained by the cover-plate being pressed into engagement with the fabric at one side of the core, and the said cover-plate being perforated at intervals to permit of the said engagement of the core-piece and hooks.

5. A woven-wire mattress-fabric having its edge inclosed by a cover-plate secured thereto independently of the end rail of the mattress frame and perforated at intervals, a core-piece within said cover-plate over which the edge of the fabric is turned and loops or eyes projecting through said perforations in the cover-plate.

[Claims 6 to 8 not printed in the Gazette.]

1,138,987. CANVAS BUTTER FOR BINDERS. HAROLD T. SMITH, Willis, Kans., assignor of one-half to John Ehrsam, Bern, Kans. Filed Nov. 29, 1912. Serial No. 734,090. (Cl. 56—36.)

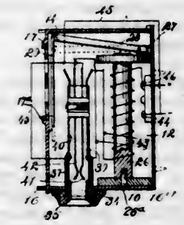


1. The combination with a binding table, of a butter comprising closed triangular and parallel frame members having longitudinal slots therein adjacent one of their apices, having apices directed inwardly over the table, and having short, inwardly directed sides at their upper ends, a yoke slidably mounted between the frame members, a roller having a shaft mounted in the yoke and projected into the frame slots, rollers revolubly mounted in the other apices of the frame members, and an apron run over said rollers.

2. The combination with a binder table, of a butter comprising closed triangular and parallel frame members having longitudinal slots therein adjacent one of their apices, having apices directed inwardly over the table, and having short, inwardly directed sides at their upper ends, a yoke slidably mounted between the frame members, a roller having a shaft mounted in the yoke and projected into the frame slots, an apertured bar for spacing said frame members, a rod on said yoke slidably projected through the aperture in said bar, a spring surrounding the rod and bearing against the bar and yoke, rollers revolubly mounted in the other apices of the frame members, and an apron run over said rollers in close proximity to said frame members.

1,138,988. VISUAL-SIGNAL STATION. ALFRED LOUIS SOHM, Los Angeles, Cal., assignor to Sohm Electric Signal & Recording Company, Spokane, Wash., a Corporation of Arizona. Filed May 2, 1910. Serial No. 558,999. (Cl. 177—329.)

1. In combination, a housing having a visual opening, a spring jack therein arranged for the reception of a contact plug inserted through an opening in said housing, a circuit including the spring jack and arranged to be closed by the reception of and contact with a contact plug, an electromagnet mounted in said casing and having its winding connected in said circuit, and a target arranged to be moved relative to said visual opening in said housing by the energization of said electromagnet, whereby there may be a visual indication of the proper closing of the circuit by the insertion of the plug.



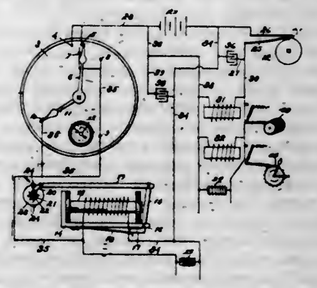
2. In combination, a housing having a visual opening, a spring jack therein, a contact plug adapted to be inserted through an opening in said housing and into said spring jack, a circuit including the spring jack and arranged to be closed by the reception of and contact with said plug, an electromagnet mounted in said casing and having its winding connected in said circuit, and a target arranged to be moved relative to said visual opening in said housing by the energization of said electromagnet, whereby there may be a visual indication of the proper closing of the circuit by the insertion of the plug.

3. In combination, a housing for a visual opening, electrical contact mechanism therein, a circuit including said electrical contact mechanism, means for operating said electrical contact mechanism to close said circuit through an opening in said housing, an electromagnet mounted in said casing and having its winding connected in said circuit, and a target arranged to be moved relative to a visual opening in said housing by the energization of said electromagnet, whereby there may be a visual indication of the proper closing of the circuit.

4. In a visual signal station device, an electromagnet, a spring jack comprising two sets of springs each spring of each set being connected in parallel with one spring of the other set and in the circuit of said electromagnet, and a portable contact plug which upon insertion into said jack actuates both sets of springs.

5. In a visual signal station device, an electromagnet, a spring jack comprising two sets of springs each spring of each set being connected in parallel with one spring of the other set and in the circuit of said electromagnet, and a portable metallic contact plug adapted for insertion into said jack for causing an electrical connection between the springs of each set.

1,138,989. TIME-CLOCK MECHANISM. ALFRED LOUIS SOHM, Los Angeles, Cal., assignor to Sohm Electric Signal & Recording Company, Spokane, Wash., a Corporation of Arizona. Filed Sept. 13, 1910. Serial No. 581,793. (Cl. 234—43.)



1. In a system of the class described, the combination of a master clock, a recording apparatus, said master clock having a plurality of contact points on its dial for

its hour hand, contact points upon its dial for its minute hand, electrical connection between said contact points and an electromaget in said recording apparatus, and an armature for said electromagnet adapted to control the movement of a character wheel so as to bring said wheel into operative position for registering certain characters during certain periods of time.

2. In a system of the class described, a master clock, a plurality of recording machines, and a plurality of secondary clocks, each of said recording machines having an electromagnet, the armature of which is controlled by said master-clock and adapted to change the position of a character wheel immediately before and after certain hours of the day so as to bring said wheel into or out of position for printing certain characters, and a common means for actuating said recording machines and secondary clocks.

3. In a device of the character described, a printing wheel having characters thereon on opposite sides and adapted to print twice during each revolution, a ratchet wheel attached thereto having eight teeth, a magnet coil with an armature operatively connected with said ratchet wheel, a master clock having contast points for the minute hand at the dial figure 12, and contact points for the hour hand at the dial figures 12, 1, 5 and 8, circuits connecting up said magnet coil and contact points whereby the armature will operate to expose the "late" character of the printing wheel between the hours of eight and twelve and one and five.

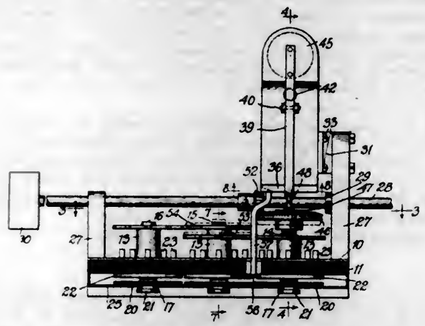
4. In a device of the class described, the combination with time and number printing wheels adapted upon actuation to print a number and the time in a certain printing line, of a printing wheel having tardy characters thereon, a ratchet wheel attached thereto, a magnet coil with an armature operatively connected with said ratchet wheel, a master clock having contast points for the minute hand distributed at certain points, circuits connecting up said maget coil and contact points so that the armature will operate to maintain the tardy characters of the printing wheel in the printing line between certain hours of the day.

5. In a device of the class described, the combination with time and number printing wheels adapted upon actuation to print a number and time in a certain printing line, of a printing wheel having special characters thereon, a ratchet wheel attached thereto, a magnet coil with an armature operatively connected with said ratchet wheel, a master clock having contact points for the minute hand distributed at certain points, circuits connecting up said magnet coil and contact points so that the armature will operate to change the position of said printing wheel immediately before and after certain hours of the day to maintain the special characteristics in the printing line between certain hours of the day.

1,138,990. ELECTRICAL CIRCUIT-CHANGING MECHANISM. ALFRED L. SOHM, Chicago, Ill., assignor to Sohm Electric Signal & Recording Company, Chicago, Ill., a Corporation of Arizona. Filed Apr. 15, 1912. Serial No. 690,864. (Cl. 234—41.5.)

1. In electrical circuit changing mechanism, a series of contacts, a wiper for said contacts, means for moving said wiper, electromagnetically operated means for controlling said wiper, a manually controlled switch for causing actuation of said electromagnetic controlling means, a second series of contacts, and a wiper for said series kinematically connected with the first named wiper.

2. In electrical circuit changing mechanism, a series of circularly arranged contacts, a rotary wiper for said contacts, means for moving said wiper, electromagnetically operated means for controlling said wiper, a manually controlled switch for causing actuation of said electromagnetic controlling means, a second series of contacts, a wiper for said second series, means kinematically connecting said wipers so that the last named wiper will make one revolution for every ten of the first named, a third series of contacts, a wiper for said third series, and means for kinematically connecting the third wiper with the second so that the latter will make one revolution for every ten of the former.



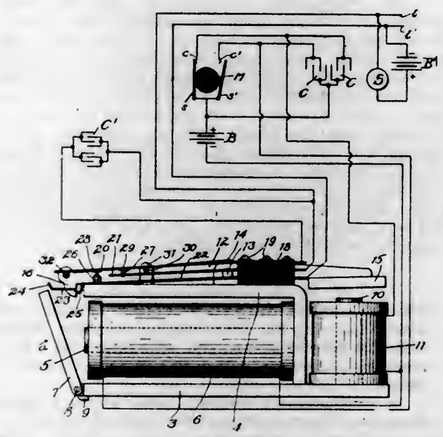
3. In electrical circuit changing mechanism, three series of circularly arranged contacts, a rotary wiper for each of said series, Geneva mechanism connecting said wipers, and means to move the middle element of said mechanism only out of the zone of the other two, to permit independent setting of said wipers.

4. In electrical circuit changing mechanism, a shaft, means for rotating said shaft, a pinion on said shaft, a gear, electromagnetic means for bringing said gear into and out of mesh with said pinion, a series of circularly arranged contacts, and a wiper rotating with said gear and riding on said contacts.

5. In electrical circuit changing mechanism, a shaft, means for rotating said shaft, a pinion on said shaft, a gear, electromagnetic means for bringing said gear into and out of mesh with said pinion, a series of circularly arranged contacts, a wiper rotating with said gear and riding on said contacts, means for automatically locking the gear and pinion in engagement, and electromagnetic means for releasing said gear from said pinion.

[Claims 6 to 12 not printed in the Gazette.]

1,138,991. ELECTRICAL APPARATUS AND CIRCUIT. ALFRED L. SOHM, Chicago, Ill., assignor to Sohm Electric Signal & Recording Company, Chicago, Ill., a Corporation of Arizona. Filed Apr. 22, 1912. Serial No. 692,299. (Cl. 58—24.)



1. In combination, a pair of contact springs, a third spring common to them, a normally open secondary clock circuit controlled by said pair, a source of current in said clock circuit, an electromagnet, an armature arranged to make a passing common contact between said springs whereby impulses of uni-directional current are sent through said secondary clock circuit, and a master clock controlling said electromagnet.

2. In combination, a pair of contact springs, a third spring common to them and normally in contact with one of them, a normally open secondary clock circuit including a source of current controlled by said pair, an electromagnet, an armature arranged to close the open contact and open the closed contact by the attraction of said armature to send impulses of uni-directional current, and a master clock controlling said electromagnet.

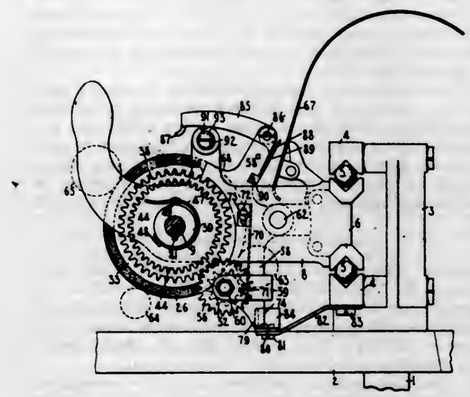
3. In combination, a pair of contact springs, a third spring common to them, a secondary clock circuit controlled by said pair, an electromagnet, an armature therefor arranged to make passing common contact between said springs, means for mechanically locking said armature in its raised position, a second electromagnet, means controlled by said second electromagnet for releasing said armature, and a master clock controlling said electromagnets.

4. In combination, a pair of contact springs, a third spring common to them, a normally open secondary clock circuit including a source of uni-directional current controlled by said pair, an electromagnet, an armature arranged to make a passing common contact between said springs, said contact causing an impulse or uni-directional current to pass through said circuit and a master clock controlling said electromagnet.

5. In combination, a master-clock, a pair of contacts controlled thereby, a normally-open secondary clock circuit, including a source of current, a pair of springs included in said secondary clock circuit, said springs being normally out of contact, a third spring normally in contact with one of said springs, an electromagnet having a circuit controlled by the pair of contacts of said master-clock, an armature for said electromagnet, said armature bringing the three springs momentarily into contact to close the secondary clock circuit.

[Claims 6 and 7 not printed in the Gazette.]

1,138,992. TYPE-WRITING MACHINE. HERBERT H. STEELE, Marcellus, N. Y., assignor to The Monarch Typewriter Company, Syracuse, N. Y., a Corporation of New York. Filed Feb. 24, 1913. Serial No. 750,278.) (Cl. 197—129.)



1. In a typewriting machine, the combination of two platens, line spacing means for one of the platens, means for automatically communicating line spacing movement to the other platen when said line spacing means are actuated, and means for varying the extent of said line spacing movement thus automatically communicated while the operation of said line spacing means remains constant.

2. In a typewriting machine, the combination of a divided platen, line spacing means for one of the sections of the platen, means for automatically communicating line spacing movement to another section of the platen, and means settable by hand for varying the extent of said line spacing movement thus automatically communicated while the operation of said line spacing means remains constant.

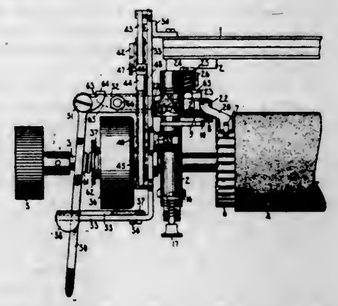
3. In a typewriting machine, the combination of two separate platens, means operating automatically to couple said platens together so that turning movement communicated to one platen will be communicated to the other platen, and means for varying certain of the elements of said coupling means.

4. In a typewriting machine, the combination of two separate platens, and means effective at a single operation for turning said platens to the same extent, certain of the elements of said means being variable so that both said platens will be turned but to different extents at a single operation.

5. In a typewriting machine, the combination of a platen comprising a plurality of rotary sections, and means operative by a single finger piece for at will turning said sections simultaneously either to the same extent or to different extents.

[Claims 6 to 28 not printed in the Gazette.]

1,138,993. TYPE-WRITING MACHINE. HERBERT H. STEELE, Marcellus, N. Y., assignor to The Monarch Typewriter Company, Syracuse, N. Y., a Corporation of New York. Filed Nov. 19, 1913. Serial No. 801,904. (Cl. 197—114.)



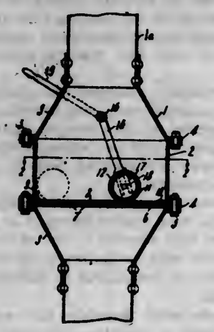
1. In a typewriting machine, the combination with a platen, a line space wheel, a detent, and a line space pawl for operating said line space wheel through successive line-space distances, of means for automatically disengaging said detent during the operation of said pawl to turn said ratchet wheel and platen.

2. In a typewriting machine, the combination with a platen, a line space wheel, a detent, a line spacing handle, a line spacing pawl, and means adjustable to regulate the number of tooth spaces through which said wheel is turned at each operation of said pawl, of a device operated by said line space handle for disengaging said detent during the operation of said pawl, and separate means for adjusting said device in harmony with the adjustment of the first mentioned adjustable means.

3. In a typewriting machine, the combination with a roller platen, a line space wheel, a line space handle, a rock shaft operated by said handle, and a line space pawl operated by said rock shaft, of a cam mounted on said rock shaft and adapted to engage said detent to lift it away from said wheel.

4. In a typewriting machine, the combination with a roller platen, a line space wheel, a line space handle, a rock shaft operated by said handle, and a line space pawl operated by said rock shaft, of a cam mounted on said rock shaft and adapted to engage said detent to lift it away from said wheel, means adjustable to vary the extent of line spacing, and means for adjusting said cam.

1,138,994. VALVE. LAWRENCE C. STEELE, Pittsburgh, Pa. Filed Nov. 1, 1913. Serial No. 798,745. (Cl. 137—4.)



1. A fluid valve, comprising a casing provided with a cross wall having a plurality of perforations therethrough, a flexible curtain normally covering said perforations and having one edge fixed relatively to the casing, a roller within said casing and having one edge of said curtain secured thereto, means for winding said curtain upon said roller to uncover said perforations and means for preventing other than rolling movement of said roller.

2. A fluid valve, comprising a casing provided with a cross wall having a plurality of perforations therethrough, a flexible curtain normally covering said perforations, a roller within said casing and having one edge of said curtain secured thereto, means connected to said roller for winding said curtain thereupon to uncover said perforations, and means for preventing other than rolling movement of said roller.

3. A fluid valve, comprising a casing provided with a cross wall having a plurality of perforations therethrough, a flexible curtain normally covering said perforations, a roller within said casing and having one edge of said curtain secured thereto, means operable from the outside of the casing for rolling said roller back and forth over said wall, and guiding means for said roller.

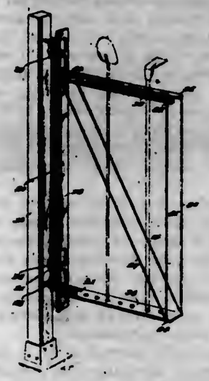
4. A fluid valve, comprising a casing having a cross wall provided with a plurality of perforations therethrough, a flexible curtain normally covering the perforations in said wall and having one edge thereof secured to a fixed portion of the casing, a roller in said casing having the other edge of said curtain secured thereto, and a flexible band having one end thereof secured to said roller and the other end connected to a fixed portion of said casing, said curtain and band being adapted to wind upon said roller in opposite directions.

5. A fluid valve, comprising a casing having a cross wall therein provided with a plurality of perforations therethrough, a flexible curtain normally covering the perforations in said wall, a roller in said casing having one edge of said curtain secured thereto, guiding means for said roller and means for moving said roller back and forth along said wall.

1,138,995. DISPLAY-RACK. CHARLES F. STEWART, Nashville, Kans. Filed Jan. 20, 1914. Serial No. 813,248. (Cl. 211—14.)

1. In a device of the character described, a supporting standard, a retaining bracket secured thereto for swinging movement, said bracket including a substantially rectangular body member having a pair of parallel arms defining a longitudinally extending bifurcation, and a plurality of resilient gripping fingers carried by one of the arms and extending into the bifurcation, each of said fingers being movable away from the second arm whereby an article may be interposed between the second arm and the fingers and clamped therebetween.

2. In a device of the character described, a supporting standard, an attaching plate swingingly connected thereto, said attaching plate being formed from a single length of metal and including a pair of longitudinally spaced apertured hinge lugs extending from one face of the plate, and pairs of mating attaching ears formed adjacent the upper and lower terminals of the plate, a body member having its inner terminal received between the attaching ears at the lower terminal of the plate, and a bracket having its inner terminal received between the attaching ears adjacent the upper end of the plate.



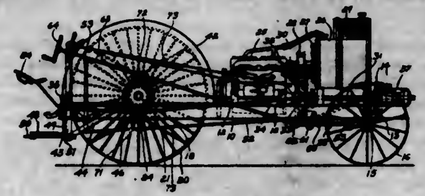
3. In a device of the character described, a supporting standard, an attaching plate swingingly connected thereto, a body member, a retaining bracket, said body member and bracket being secured to the attaching plate and arranged in parallel spaced relation to each other, said body member being provided with a longitudinally extending series of spaced sockets, said retaining bracket having a longitudinal bifurcation extending inwardly from its outer terminal, and a plurality of resilient retaining fingers secured on one side of the bifurcation and having their intermediate portions projecting into the bifurcation whereby a plurality of articles may be clamped therein between the springs and the other side of the bracket and whereby any one of the articles held may be removed independently of the other articles.

4. A bracket of the character described including a pair of parallel arms defined by a longitudinally extending bifurcation, and a plurality of gripping fingers carried by one of the arms and extending into the bifurcation, each of said fingers being movable away from the second arm whereby an article may be interposed between the fingers and second arm.

5. A bracket of the character described including a pair of rigidly connected arm members mounted in parallel spaced relation to each other and having a free and unobstructed space between their adjacent terminals whereby articles may be freely passed between the arms, and a plurality of resilient gripping members carried by one of the arms and arranged to clamp articles against the other arm.

1,138,996. TRACTION-ENGINE. GEORGE T. STRITE and FRANK H. BIERMAN, Minneapolis, Minn., assignors of one-fifth to Howard J. Bierman and one-fifth to Ensley L. Strite, Minneapolis, Minn., and one-fifth to J. S. Clapper, Billings, Mont. Filed Jan. 16, 1914. Serial No. 812,470. (Cl. 21—114.)

1. A traction engine comprising a unitary rectangular frame formed of channel iron and provided with an intermediate longitudinal member spaced from a side of the frame, said side members of the frame being provided with bearings, a traction wheel between a side member and said intermediate member having an integral axle hub extending through said bearings by which said frame is suspended from the said axle hub, steering wheels for supporting the front end of the frame, a motor and connections for operating the traction wheel including a drive gear fast on said axle and extending into the space between the longitudinal frame member and the other side member.



2. A traction engine comprising a unitary rectangular frame formed of channel iron and provided with an intermediate longitudinal member spaced from a side of the frame, said side members of the frame being provided with bearings, a traction wheel between a side member and said intermediate member having an integral axle hub extending through said bearings by which said frame is suspended from the said axle hub, steering wheels for supporting the front end of the frame, a motor on said frame in front of the traction wheel, a set of transmission gearing on said frame in front of the motor, and connection therefrom for operating the traction wheel.

3. A traction engine comprising a unitary rectangular frame formed of channel iron and provided with an intermediate longitudinal member spaced from a side of the frame, said side members of the frame being provided with bearings, a traction wheel between a side member and said intermediate member having an integral axle hub extending through said bearings by which said frame is suspended from the said axle hub, steering wheels for supporting the front end of the frame, a motor on said frame in front of the traction wheel, a set of transmission gearing on said frame in front of the motor, and connections therefrom for operating the traction wheel including a longitudinal shaft and a drive gear fast on said axle and extending into the space between the longitudinal member and the other side member.

4. A traction engine comprising a unitary rectangular frame formed of channel iron and provided with an intermediate longitudinal member spaced from a side of the frame, said side members of the frame being provided with bearings, a traction wheel between a side member and said intermediate member having an integral axle hub extending through said bearings by which said frame is suspended from the said axle hub, steering wheels for supporting the front end of the frame, a motor on said frame in front of the traction wheel, a radiator in front of the motor, a set of transmission gearing located on the extreme front end of the frame, and connections therefrom for operating the traction wheel.

5. A traction engine comprising a frame, a single traction wheel having a live axle journaled on and extending outside of the said limits of said frame, said axle being provided with flanged heads, and supplemental traction wheels having hubs formed with flanged heads complemental to the heads on the live axle, by which said supplemental wheels are rigidly secured to and so that their hubs form an extension of the said live axle.

1,138,997. CONVERTIBLE FURNITURE. MAX H. STUEWE, Hollywood, Cal. Filed Mar. 12, 1913. Serial No. 753,879. (Cl. 45—70.)

1. A convertible article of furniture comprising a body having a vertically arranged compartment, a cabinet vertically movable within said compartment, a rotatable member mounted upon the body to one side of the cabinet-receiving compartment, flexible connections between said rotatable member and the cabinet to effect a lifting of the cabinet when turning the rotatable member in one direction, other flexible connections between the rotatable member and the cabinet to draw the cabinet within its compartment when turning the rotatable member in an opposite direction, direction pulleys for the twe sets of flexible connections, and a movable top normally closing the body and extending over and concealing the said rotatable member and the connecting means between it and the cabinet, said top registering with upper and lower shelves of the cabinet when the latter is at the limit of its movement in each direction to close the cabinet-receiving compartment.



2. A convertible article of furniture including a body having a vertically disposed cabinet compartment less in length than said body, a vertically movable cabinet therein, a top having the same length as the body and slidably mounted thereupon, said top normally covering the cabinet compartment but being shiftable outwardly to uncover the same, means for raising and lowering the cabinet, laterally disposed filling pieces movable into and out of position to fill the spaces at the ends of the cabinet and behind the sliding top, and means for raising said filling pieces into a horizontal position when the cabinet is raised and lowering said filling pieces into a vertical position beneath the level of the sliding top when the cabinet is lowered.

3. A convertible article of furniture including a body having a vertically disposed cabinet compartment less in length than said body, a sliding top mounted upon the body and shiftable rearward into position to cover the cabinet compartment or outward to a position to uncover the same, a vertically movable cabinet mounted in the compartment, means disposed beneath the sliding top and operatively connected to the cabinet whereby to vertically raise or lower the same, filling pieces disposed at each end of the body and having each the same length as the depth of the cabinet, and means for shifting said filling pieces as the cabinet is lifted from a vertical position behind the outer walls of the body into the space at the ends of the cabinet and behind the sliding top with their upper faces flush with the upper face of the sliding top.

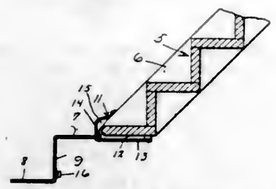
4. A convertible article of furniture comprising a body formed with a cabinet compartment extending longitudinally of the body, a cabinet disposed within said body, a sliding top mounted upon the body and when closed extending over the cabinet and when opened permitting the cabinet to be raised, a grooved wheel mounted upon the body beneath said top, a flexible connection attached to one portion of the wheel and at its other end attached to one side of the cabinet at the lower end thereof, a flexible connection attached to the opposite portion of the wheel and also attached to the same end of the cabinet, a flexible connection extending oppositely to the first named connection and attached from the same side of said wheel and connected to the opposite end of the cabinet, a flexible connection extending oppositely from the second named flexible connection and to the same side of the wheel and extending to the last named end of the cabinet, and pulleys over which said flexible connections pass whereby upon a rotation of the wheel in one direction the cabinet will be raised and a rotation of the wheel in the opposite direction the cabinet will be lowered.

5. A convertible article of furniture including a body having a cabinet compartment extending longitudinally thereof and adjacent the rear of the body, a fixed top on the body extending from the front of the body to the for-

ward wall of the cabinet compartment, a grooved wheel rotatably mounted upon said top, a second top slidably mounted upon the fixed top and extending over the said wheel and having a depth substantially equal to the depth of the article of furniture, said sliding top being movable outward to disclose the cabinet compartment and being provided at its forward edge with a downwardly extending molding, a cabinet slidably mounted within the cabinet compartment for vertical movement, flexible connections between the grooved wheel and the cabinet to effect the lifting of the cabinet when rotating the wheel in one direction, other flexible connections between the wheel and the cabinet for drawing the cabinet into the said compartment when rotating the wheel in an opposite direction, and guide pulleys for the two sets of flexible connections.

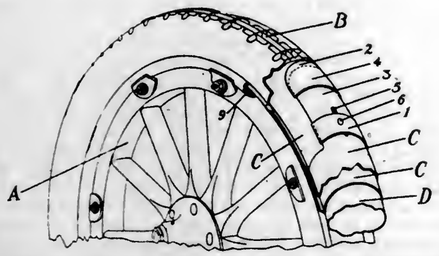
[Claims 6 to 8 not printed in the Gazette.]

1,138,998. EXTENSION CAR-STEP. STEPHEN J. SWANSON, Riverton, Wyo. Filed Aug. 31, 1914. Serial No. 859,504. (Cl. 105—86.)



The combination with a flight of car steps, of an extension step comprising horizontal portions connected by a vertical portion, trunnions at the ends of the rear edge of the uppermost horizontal portion, and brackets secured upon the flight of steps and spaced from the lower end of the front portion of the sides of the flight of steps forming guide ways journally receiving said trunnions, and said brackets having inwardly extending flanges spaced below the bottom of the lowermost one of the flight of steps and slidably receiving said trunnions.

1,138,999. RUBBER-TIRE ARMOR. FRANK H. TALBOT, Cincinnati, Ohio. Filed Aug. 21, 1914. Serial No. 857,856. (Cl. 152—18.)



In a rubber vehicle tire, an armor, consisting of any suitable metal formed and fashioned into a circular tube, having its inner side slitted longitudinally, the longitudinal edges of said slit being out-turned, one end of said tube having on its upper side a loop and a loop-shaped pocket, the other end of said tube having a longitudinally-slotted finger-shaped extension therefrom, in combination with a screw, said loop and said loop-shaped pocket being adapted to receive said finger-shaped extension slidingly, said screw being adapted to fixedly engage a perforation through said loop and slidingly engage the slot through said finger-shaped extension, said outturned edges being adapted to engage the longitudinal edges of the outside portion of said tire.

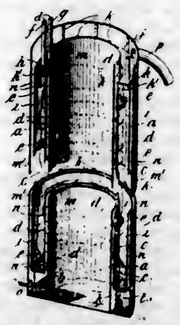
1,139,000. COMBINED SHADE AND CURTAIN HOLDER. EDWIN W. THOMPSON, Steubenville, Ohio. Filed July 24, 1914. Serial No. 852,855. (Cl. 156—23.)



1. In combination a bar having a dovetailed groove, a bar slidable in said dovetailed groove, a rail having a dovetailed groove, said second mentioned bar partially received in said rail whereby said rail will have two shoulders, said shoulders adapted to engage the end of said first mentioned bar whereby said rail may form an extension of said bar, a slide sliding in said first mentioned bar and in said rail, means for holding said slide against movement, and a bracket formed upon each of said slides.

2. In combination an extensible bar, a track formed in said extensible bar, a slide moving in said track, at each end of said bar, a stop to limit the movement of said slides, a hook arm formed upon each slide extending beneath said bar upwardly and forwardly therefrom, a lug extending rearwardly of each of said slides, and said lug being formed with an opening, the other lug being formed with a recess, and integral split ring formed upon each of said hook arms.

1,139,001. ELECTRICAL WATER-HEATER. SIDNEY LE FÈVRE VARVEL, Melbourne, Victoria, Australia. Filed Nov. 18, 1914. Serial No. 872,686. (Cl. 219—39.)



1. An electrical fluid heater comprising two cylindrical walls forming an annular space, a closed annular member formed by two further cylindrical walls, with end closing members, located in said annular space, a helically wound high resistance wire located within said closed annular member, a heat conducting medium filling said closed annular member, means for introducing cold liquid into the lower end of said annular space below said closed annular member, and means for drawing off hot liquid from the top end of said annular space above said closed annular member, said liquid being permitted to flow upwardly on both sides of the closed annular member simultaneously.

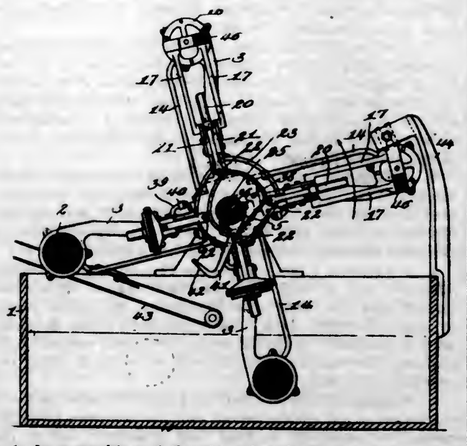
2. An electrical fluid heater comprising two cylindrical walls forming an annular space, a closed annular member formed by two further cylindrical walls, with end closing members, located in said annular space, a helically wound high resistance wire located within said closed annular member, insulated tubes on the said closed annular member for connecting the resistance wire to external terminals, a heat conducting medium filling said closed annular member, means for introducing cold liquid into the lower end of said annular space below said closed annular member, and means for drawing off hot liquid from the top end of said annular space above said closed annular member, said liquid being permitted to flow upwardly on both sides of the closed annular member simultaneously.

3. An electrical fluid heater comprising two cylindrical walls forming an annular space, a closed annular member formed by two further cylindrical walls, with end closing members, located in said annular space, a helically wound high resistance wire located within said closed annular member, a liquid heat conducting medium filling said closed annular member, a vent pipe leading from the top of said closed annular member, means for introducing cold liquid into the lower end of said annular space below said closed annular member, and means for drawing off hot liquid from the top end of said annular space above said closed annular member, said liquid being permitted to flow upwardly on both sides of the closed annular member simultaneously.

4. An electrical fluid heater comprising two cylindrical walls forming an annular space, a closed annular member formed by two further cylindrical walls, with end closing members, located in said annular space, a high resistance wire helically wound around the inner wall of the closed annular member and within said closed annular member, a heat conducting medium filling said closed annular member, means for introducing cold liquid into the lower end of said annular space below said closed annular member, and means for drawing off hot liquid from the top end of said annular space above said closed annular member, said liquid being permitted to flow upwardly on both sides of the closed annular member simultaneously.

5. An electrical fluid heater comprising two cylindrical walls forming an annular space, a closed annular member formed by two further cylindrical walls, with end closing members, located in said annular space, longitudinal spacing members located on both sides of the closed annular member between the cylindrical walls of the same and the other aforesaid cylindrical walls, a helically wound high resistance wire located within said closed annular member, a heat conducting medium filling said closed annular member, means for introducing cold liquid into the lower end of said annular space below said closed annular member, and means for drawing off hot liquid from the top end of said annular space above said closed annular member, said liquid being permitted to flow upwardly on both sides of the closed member simultaneously.

1,139,002. MACHINE FOR MAKING PLATES FROM PULP. FRANK W. WATERMAN, Baltimore, Md. Filed Apr. 14, 1910. Serial No. 555,506. (Cl. 92—56.)



1. In a machine of the class described, the combination of a vat to contain a pulp solution, a rotatable carrier supporting a mold section upon which the pulp is to be deposited, means for producing a suction action upon said mold section, a shiftable mold section adapted to compress a plate formed upon the mold section first mentioned and forming a receiver for the plate, means for swinging said shiftable mold section from a position to receive a plate to a position to eject the same, an ejector carried by said shiftable mold section, and means for positively and mechanically actuating said ejector to remove the plate when the shiftable mold section is in ejecting position.

2. In a machine of the class described, the combination of a vat to contain a pulp solution, a rotating carrier provided with a mold section upon which the pulp is adapted to be deposited, a hinged mold section having means for swinging it into engagement with a plate formed upon the mold section first mentioned and for swinging it into position to eject the plate therefrom, means for creating a suction action upon the mold section first mentioned, means for admitting compressed air to the mold section first mentioned to transfer a formed plate therefrom to the shiftable mold section, a mechanical ejector carried by the shiftable mold section, and means for actuating said ejector to remove the plate therefrom.

3. In a machine of the class described, the combination of a vat to contain a pulp solution, a rotating carrier supporting a mold section, means for creating a suction action upon said mold section, means for admitting a supply of compressed air to said mold section a moment before the interruption of said suction action, a hinged mold section adapted to swing into a position to coöperate with the mold section first mentioned and to swing into ejecting position, means for producing a compression upon the mold sections, the hinged mold section being adapted to receive the formed plate from the mold section first mentioned and to swing into ejecting position, an ejector movably carried by the hinged mold section, and a device arranged in the path of said ejector for actuating the latter to remove the plate from the hinged mold section while the latter is in ejecting position.

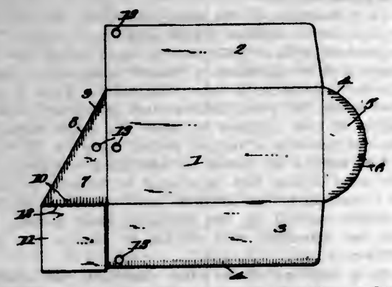
4. In a machine of the class described, the combination of a vat to contain a pulp solution, a traveling carrier supporting a mold section provided with a mesh upon which the pulp is adapted to be deposited, and a separately formed ring surrounding said mesh and securing the same in position, means for creating a suction action upon said mold section, and a shiftable mold section also having a mesh to coöperate with the formed plate and also having a separately formed ring which secures the mesh of the shiftable mold section in position and coöperates with the ring of the section first mentioned as a shear to trim the edge of the formed plate.

5. In a machine of the class described, the combination of a rotatable carrier provided with a mold-supporting arm and a mold thereon, the mold-supporting arm having a suction passage which communicates tangentially with the interior of said mold and said arm being bodily offset circumferentially with respect to the mold so as to form a collecting space for the liquid flowing from the mold, a compressed air supply pipe located exteriorly of said arm and communicating with the mold section at a point approximately opposite to and directed toward the point of connection between the mold section and its supporting arm, means for creating a suction action upon said mold section, means for subsequently admitting compressed air to said compressed air supply pipe leading to the mold section, and a shiftable complemental mold section arranged to coöperate with the mold section first mentioned.

1,139,003. ENVELOP. WILLIAM E. WESTBERG, Willmar, Minn. Filed May 2, 1914. Serial No. 835,966. (Cl. 229—70.)

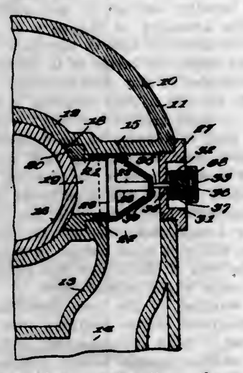
An envelop formed from a blank of substantially stiff material comprising a substantially rectangular body portion adapted for the reception of an address, side flaps extending therefrom and foldable on the rear face of the body portion, the outer longitudinal edge of one of the side flaps being gummed for engagement with the other of the side flaps, a gummed top flap extending from the body portion and foldable thereon, a bottom flap projecting from the body portion and foldable thereon, the outer

edge of the bottom flap being cut diagonal, a recording flap extending from the enlarged end of the bottom flap and foldable over the upper corner of the front face of the body portion and adapted for the reception of an address corresponding to the address on the front face,



said recording flap provided with perforations adjacent the upper edge thereof for facilitating the disengagement of the recording flap from the bottom flap and said body portion, said flaps and bottom flap provided with registering openings for facilitating the attachment of the same to a container.

1,139,004. PACKING-RING. ARTHUR D. WHIDDEN, Elyria, Ohio. Filed Feb. 12, 1914. Serial No. 818,368. (Cl. 137—115.)

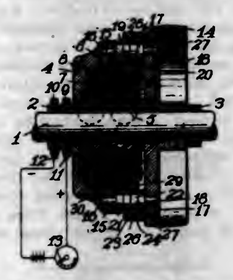


1. In a packing ring construction, the combination with a valve casing inclosing a rotary cylindrical valve and having a duct leading through the casing to the valve, of a packing ring including an annular body member positioned in a seat formed in the inner face of the valve casing about the inner end of the duct and having its inner end shaped to conform to the outer face of the valve, an outwardly directed flange formed upon the ring, an asbestos packing ring seating between said flange and the wall of the duct, a clamping ring engaging against the asbestos ring and provided with converging legs, a foot carried by the legs, and a clamp screw threaded in the outer end of the duct and operatively engaging the foot to force the clamping ring inwardly.

2. In a packing ring construction, the combination with a valve casing inclosing a rotary cylindrical valve and having a duct leading through the casing to the valve, of a packing ring including an annular body member positioned in a seat formed in the inner face of the valve casing about the inner end of the duct and having its inner end shaped to conform to the outer face of the valve, an outwardly directed flange formed upon the ring, an asbestos packing ring seating between said flange and the wall of the duct, a clamping ring engaging against the asbestos ring and provided with converging legs, a foot carried by the legs, and a clamp screw threaded in the outer end of the duct and operatively engaging the foot to force the clamping ring inwardly, said clamp screw including a pin engaging the foot, and a spring holding the pin in such engagement.

3. In a packing ring construction, the combination with a valve casing inclosing a rotary cylindrical valve and having a duct leading through the casing to the valve, of a packing ring including an annular body member positioned in a seat formed in the inner face of the valve casing about the inner end of the duct and having its inner end shaped to conform to the outer face of the valve, an outwardly directed flange formed upon the ring, an asbestos packing ring seating between said flange and the wall of the duct, a clamping ring engaging against the asbestos ring and provided with converging legs, a foot carried by the legs, and a clamp screw threaded in the outer end of the duct and operatively engaging the foot to force the clamping ring inwardly, said clamping screw including a body perforated centrally and provided with a circumferential outwardly directed flange, a pin extending through the perforation of the body to engage the foot of the clamping ring, a flanged head carried by the pin and seating within the flange, a cap threaded upon the free end of the flange, and a spring bearing between the flange of the head and the cap.

1,139,005. MAGNETIC CLUTCH. ALONZO W. WHITCOMB, Worcester, Mass. Filed May 22, 1911. Serial No. 628,607. (Cl. 172—284.)



1. A magnetic clutch comprising two opposing clutching members, one of said members consisting of an electromagnet and the other of said members consisting of an armature therefor, each of said members having an annular series of spaced frictional surfaces, with the spaces filled with nonmagnetic metal.

2. A magnetic clutch comprising two rotatable clutching members, each member having a concentric series of frictional magnetizable surfaces about its axis, said two series of surfaces being arranged in opposed relation and each surface in each series being surrounded by nonmagnetic material, and means for magnetically energizing one of said clutching members at will.

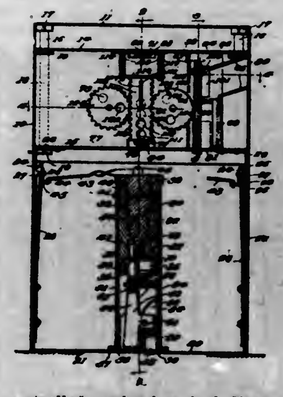
3. A magnetic clutch, comprising two rotatable clutching members, consisting of an electromagnet and an armature therefor, annular plates of nonmagnetic material interposed between said member, and a series of plates of magnetic material inserted in said nonmagnetic plates.

4. A magnetic clutch comprising two opposing clutching members, one of said members consisting of an electromagnet and the other of said members consisting of an armature therefor, each of said members being provided with a concentric series of spaced frictional magnetizable surfaces, the two concentric series of surfaces being engageable with each other.

5. A magnetic clutch, comprising two rotatable members consisting of an electromagnet and an armature therefor, means for normally holding said armature within the magnetic field, means for energizing said electromagnet at will, a series of magnetic plates carried by said electromagnet having their edges surrounded by nonmagnetic metal, a series of magnetic plates carried by said armature having their edges surrounded by nonmagnetic metal, annular plates of nonmagnetic metal interposed between said series of magnetic plates and provided with a series of

spaced magnetic plates exposed on opposite sides of said annular plates, a sleeve of nonmagnetic metal carried by one of the rotatable members, a second sleeve of nonmagnetic metal carried by the other rotatable member, said sleeves overlapping said annular plates and alternately connected therewith by spline connections.

1,139,006. COIN-ACTUATING SAVINGS-BANK. FENTON WRIGHT, Chicago, Ill. Filed May 8, 1912. Serial No. 695,957. (Cl. 194—74.)



1. A coin controlled mechanism, including a closed casing provided with a coin slot and a plurality of openings, means for normally preventing access to said casing through the openings, a rack bar movable in the casing over certain of said openings of the casing, gears meshing with the rack bar and mounted between the other openings, said rack bar and gears being provided with openings which in certain positions of the rack bar and gears register with the openings of the casing, and coin controlled means for actuating one of said gears.

2. A coin controlled mechanism, including a closed casing provided with a coin slot and an opening, a coin chute formed in the casing, a rotatably mounted gear extending into the coin chute with a tooth in position to engage a coin passing therethrough, and a plunger adapted to engage the coin and force the same past the gear, said forcing of the coin partially rotating the gear.

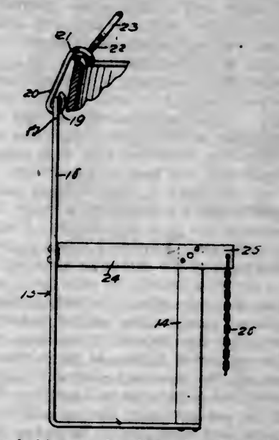
3. A coin controlled mechanism, including a closed casing provided with a coin slot and a plurality of openings, a coin chute, spaced gears rotatable in the casing, one of said gears extending into the chute, said gear being without teeth for a portion of its circumference, a rack bar having teeth meshing with the teeth of the gears, said gears and rack bar being provided with openings which, in one position of the gears and rack bar, register with the openings of the casing, said gear within the chute being adapted to block a coin passing through the same, and a plunger adapted to engage the coin so blocked and force the same past the gear, said forcing of the coin turning the gear.

4. A coin controlled mechanism, including a closed casing provided with a coin slot and an opening, means including a rotatable gear for preventing access to the casing through the opening, coin controlled means including a plunger for rotating said gear to permit access to the casing through the opening, and means co-acting between the gear and plunger to lock the gear against counter-rotation.

5. A coin controlled mechanism, including a closed casing provided with a coin slot and an opening, means including a gear provided with a radial notch for preventing access to the casing through the opening, coin controlled means including a plunger for rotating said gear to permit access to the casing, and an arm carried by the plunger and adapted to seat in the notch of the gear to prevent counter-rotation of the gear.

[Claims 6 to 8 not printed in the Gazette.]

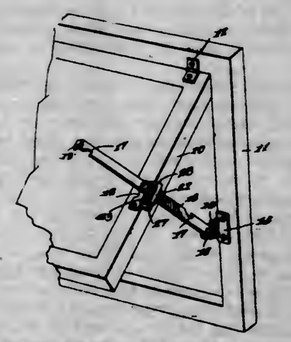
1,139,007. BARREL-RACK. RANDOLPH L. WRIGHT, Wedgefield, S. C. Filed July 24, 1914. Serial No. 852,884. (Cl. 248—12.)



1. In a keg holder, a plurality of posts, plates secured thereto, said plates having pintles, a keg support consisting of a cage having an open side, hangers secured to the cage and oscillatingly supported from the pintles, a clip hinged to a portion of the frame and adapted to overlie the upper edge of the keg, a shank threaded through the clip and adapted to bear against the upper edge of the cage, and a handle on the said shank.

2. In a keg holder, a plurality of posts, plates secured to said posts, said plates having trunnions, keg holders consisting of cages having open sides, hangers secured to the cages, said hangers being supported from the pintles, bands on the keg holders terminating in loops, flexible connections partially embracing the kegs and connected to the loops of the bands for retaining the kegs in place, a clip hinged to the cage and adapted to overlie the edge of the keg, and a screw threaded through the clip and adapted to bear on the keg for retaining it in position.

1,139,008. WINDOW ATTACHMENT. ADOLPH ABRAHAM, Rockford, Ill. Filed Jan. 22, 1914. Serial No. 813,755. (Cl. 16—28.)



1. A window attachment comprising a latch-holding bracket, a latch slidably connected with said latch-holding bracket, a latch bar extending through said latch and bracket and provided with means for releasably connecting said bar with said bracket, and securing means for said bar pivotally connected with the inner end thereof, said bracket and latch moving upon said securing means to permit said latch to engage the inner end of said bar.

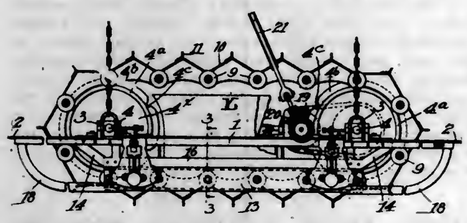
2. In combination a support, a closure pivotally connected with said support, a bracket carried by said support and provided with a tongue, a latch bar pivotally con-

nected with said tongue, a latch bracket carried by said closure and slidably connected with said latch bar to releasably engage the same and releasably hold said closure at a desired angle, and a latch plate slidably connected with said latch bracket and provided with means for engaging the inner end portion of said latch bar to releasably hold said closure in a closed position.

3. In combination a support, a closure hinged to said support, a bracket carried by said support and provided with a tongue, a latch plate carried by said closure and provided with a slot, a tooth at the upper end of said slot, a latch bar pivotally connected with said tongue and extending through said slot and provided with notches for engagement by said tooth, a plate slidably mounted upon said latch bracket and provided with a tooth, the tooth of said plate engaging the inner-end portion of said latch bar to releasably hold said closure in a closed position.

4. An attachment of the character described comprising a latch bar, a securing bracket for said latch bar pivotally connected with the same, the inner end of said latch bar being cut to form a cam, a latch bracket slidably connected with said latch bar and releasably engaging the same, a latch slidably connected with said latch bracket for releasably engaging the inner-end portion of said latch bar when said latch bar is in a lowered position, the cam end of said latch bar automatically moving said latch to a position to permit said latch bar to be swung to a lowered position.

1,139,009. TRACTOR. WILLIAM P. ALLEN, Little Rock, Ark., assignor to Allen Tractor Company, a Corporation of Illinois. Original application filed Jan. 31, 1910, Serial No. 541,087. Divided and this application filed July 22, 1911. Serial No. 639,956. (Cl. 21—114.)



1. A tractor belt comprising a series of traction blades extending transversely of the direction of travel at the road-engaging ply of the belt, and a corrugated supporting member comprising surfaces which slope upwardly from the opposite faces of each of said blades at said road-engaging ply.

2. A tractor belt composed of a series of pivotally-connected links, each of said links comprising a traction blade extending transversely of the direction of travel when in road-engaging position and in a plane intermediate the link pivots, and supporting surfaces which slope upwardly from the opposite faces of such blade when the link is in the lower and road-engaging ply of the belt.

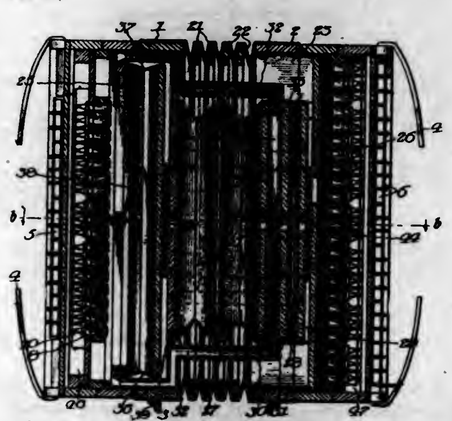
3. In an endless belt tractor, a traction belt comprising a series of links angular in section transverse to the link pivots, the apex of the angle being in a plane transverse to the travel of the tractor belt and intermediate the axes of said link pivots, each of said links having a blade-like traction rib projecting from the apex of its angle.

4. In an endless belt tractor; a traction belt having a corrugated tractive surface, the outwardly-projecting corrugations being angular in vertical section parallel to the direction of travel, and the distances from the apexes of such successive corrugations being substantially greater than the depth of the space between them, and said projecting corrugations being each provided with a blade-like traction rib extending transversely of the direction of travel, arranged to project downwardly for engagement with the road surface.

5. A tractor comprising a frame and four carrying wheels therefor, two at each side; a tractor apron consisting of tractor chains traveling respectively about the wheels at opposite sides having their links angle-shaped in section transverse to the chain pivots, and plates connecting the opposite links of the two chains, secured for such connection to the oppositely inclined sides of the angle-shaped links.

[Claims 6 to 9 not printed in the Gazette.]

1,139,010. ACCORDION. GUSTAF ANDERSON, Ishpeming, Mich. Filed July 12, 1911. Serial No. 638,088. (Cl. 84—1.)



1. A bellows accordion having two sections movable toward and away from each other substantially parallel to each other, sound producing devices carried by each section, manually operable keys provided on each section, a pneumatic chamber within each section, whose operative connection with its corresponding devices is controlled by said keys, said pneumatic chambers forming a reservoir chamber, an extensible and retractable tube for uniting said pneumatic chambers, and means operated by said sections when they are moved toward and away from each other to maintain a predetermined pneumatic condition within said reservoir chamber, said means including a pair of pumping bellows arranged side by side.

2. A bellows accordion having two sections movable toward and away from each other substantially parallel to each other, sound producing devices carried by each section, manually operable keys provided on each section, a pneumatic chamber within each section, whose operative connection with its corresponding devices is controlled by said keys, said pneumatic chambers forming a reservoir chamber, an extensible and retractable tube for uniting said pneumatic chambers, and means operated by said sections when they are moved toward and away from each other to maintain a predetermined pneumatic condition within said reservoir chamber, said means including a pair of pumping bellows arranged side by side, the adjoining end plates of said pumping bellows forming a chamber, and ducts leading from said last aforesaid chamber to said reservoir chamber.

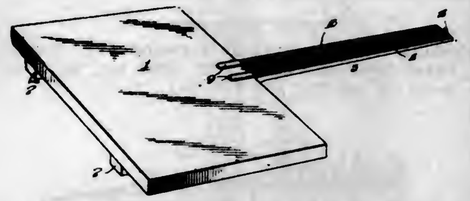
3. A bellows accordion having two sections movable toward and away from each other substantially parallel to each other, sound producing devices carried by each section, manually operable keys provided on each section, a pneumatic chamber within each section, whose operative connection with its corresponding devices is controlled by said keys, said pneumatic chambers forming a reservoir chamber, an extensible and retractable tube for uniting said pneumatic chambers, and means operated by said sections when they are moved toward and away from each other to maintain a predetermined pneumatic condition within said reservoir chamber, said means including a pair of pumping bellows arranged side by side, the adjoining end plates of said pumping bellows forming a chamber, and ducts leading from said last aforesaid chamber to said reservoir chamber, and means whereby said two pumping bellows are actuated alternately.

4. A bellows accordion having two sections movable toward and away from each other substantially parallel to each other, sound producing devices carried by each section, manually operable keys provided on each section, a pneumatic chamber within each section, whose operative connection with its corresponding devices is controlled by said keys, said pneumatic chambers forming a reservoir chamber, an extensible and retractable tube for uniting said pneumatic chambers, and means operated by said sections when they are moved toward and away from each other to maintain a predetermined pneumatic condition within said reservoir chamber, said means including a pair of pumping bellows arranged side by side, the adjoining end plates of said pumping bellows forming a chamber, and ducts leading from said last aforesaid chamber to said reservoir chamber, said reservoir chamber having a yielding wall.

5. An accordion having two sections, a pair of pumping bellows arranged side by side within said sections, means for fastening the adjoining sides of said bellows to one section, and means for fixedly securing the opposite sides of said bellows together and to the other section.

[Claims 6 to 9 not printed in the Gazette.]

1,139,011. ATTACHMENT FOR DRAWING-BOARDS. ELMER E. BARNARD, Lynchburg, Va. Filed Jan. 25, 1912. Serial No. 673,419. (Cl. 33—1.)

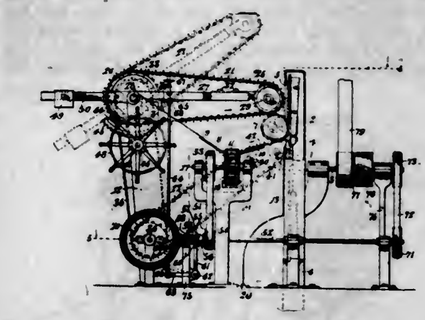


1. An attachment for drawing boards including an arm, a clamp for the drawing board, said clamp being provided with a rounded head having its periphery formed with a rounded flange, a plate secured upon the arm and being provided with an upset portion having a projecting lip, the said lip adapted to engage with the flange of the head, and a pivoted adjustable connection between the head and the plate.

2. An attachment for drawing boards including an arm, a removable clamp connected with the drawing board, said clamp being provided with an offset rounded head, the said head having its lower face provided with a rounded flange, a plate connected with the under face of the arm, said plate being provided with an upset portion having an extending lip which is adapted to engage with the flange of the clamp, an adjustable pivotal connection between the head of the clamp and the plate, the upset portion of the plate and the arm being provided with a longitudinally extending line, and the rounded head of the clamp being provided with graduation marks, substantially as and for the purpose set forth.

1,139,012. BARK-ROSSING MACHINE. WARREN E. BEADLE, Grand Rapids, Wis. Filed Dec. 31, 1913. Serial No. 809,668. (Cl. 144—208.)

1. A machine of the class described including a table, a cutter, a lower feeding chain having an active run located at the upper face of the table, an upper feeding chain having an active run arranged in substantial parallelism with the table, said feeding chains being movable in opposite directions and through such movements operating to carry the log to and from the cutter and also to continuously turn the log while the same is operated on by the cutter, and means for movably mounting the upper feeding chain to permit the same to be carried downwardly and upwardly to and from the said position of its active run.



2. A machine of the class described including a table, a cutter, a lower feeding chain having an active run traveling at the surface of the table, an upper feeding chain having an active run arranged in substantial parallelism with the table, the active runs of the said feeding chains engaging a log at the top and bottom thereof and movable in opposite directions to carry the log to and from the cutter and for turning the log while the same is being operated on by the cutter, one of the said active runs of the feeding chains moving toward the cutter and traveling at a higher rate of speed than the other run, whereby the log is continuously pressed toward the cutter while being turned against the same, and means for movably mounting the upper feeding chain to carry its active flight to and from the said position thereof.

3. A machine of the class described including a table, a cutter, a lower feeding chain having an active run traveling away from the cutter at the surface of the table, an upper feeding chain having an active run arranged in substantial parallelism with the table and traveling toward the cutter, said active runs of the feeding chains engaging a log at the top and bottom thereof and operating to carry the log to and from the cutter and to continuously turn the log while the same is being operated on by the cutter, and means for movably mounting the upper feeding chain to carry its active run to and from the said position thereof.

4. A machine of the class described including a table, a cutter, a lower feeding chain having an active run traveling away from the cutter at the surface of the table, an upper feeding chain having an active run arranged in substantial parallelism with the surface of the table and traveling toward the cutter at a higher rate of speed than the active run of the lower chain, said upper and lower chains operating to carry a log to the cutter and to continuously rotate the log while the same is in engagement with the cutter, and means for movably mounting the upper feeding chain to carry its active run to and from the said position thereof, the upper feeding chain, when raised, permitting the log to be carried away from the cutter by the lower feeding chain.

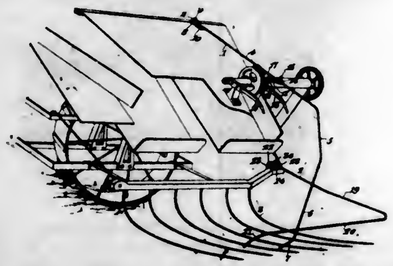
5. A machine of the class described comprising a cutter, a conveyer, means for actuating the conveyer including a clutch, and feeding mechanism for carrying the logs from the conveyer to the cutter, said feeding mechanism having a pivotally mounted arm and a feeding chain carried by the arm to move it into and out of engagement with the log, a shiftable rod having spaced tappets arranged to be engaged by the said arm, and means connected with the rod for operating the clutch.

[Claim 6 not printed in the Gazette.]

1,139,013. BUNDLE-CARRIER ATTACHMENT FOR BINDERS. WILHELM C. G. BERNDT, Kenesaw, Nebr. Filed May 27, 1914. Serial No. 841,318. (Cl. 56—37.)

1. A bundle carrier attachment for binders including a top rod or member provided at its inner end with attaching means and arranged to extend outwardly over the

bundle carrier of a binder and downwardly at the outer portion thereof to prevent the bundles from slipping off the bundle carrier at the outer side of the same, said top rod or member being provided with a terminal rearwardly extending portion arranged to prevent the bundles from turning on the bundle carrier and falling through the same.



2. A bundle carrier attachment for binders including a top bar or member arranged to extend outwardly over the bundle carrier and downwardly at the outer portion thereof, means for pivoting the inner end of the rod or member, and a pivoted link connected with the rod or member at a point intermediate of the ends thereof and arranged to permit the same to move upwardly a limited distance.

3. A bundle carrier attachment for binders including a top bar or member arranged to extend outwardly over the bundle carrier and downwardly at the outer portion thereof, means for pivoting the inner end of the rod or member, and a link pivoted at one end and provided at the other end with an open bearing receiving the top rod or member at a point intermediate of the ends thereof, said link being provided with means for detachably retaining the said rod or member in the bearing, said pivot permitting the rod or member to swing inwardly with respect to the machine.

4. The combination with the bundle carrier of a binder, of a bundle carrier attachment including a front rod or member comprising a front portion and an outer rearwardly extending portion, means for movably mounting the inner end of the front portion of the rod on the binder independently of the bundle carrier to permit the front rod or member to fold against the binder, and means also mounted independently of the bundle carrier for detachably holding the front rod or member in its operative position.

5. The combination with a binder having a bundle carrier composed of spaced transverse rods, a front rod or member comprising a front portion located above and in substantial parallelism with the vertical planes of the rods at the front of the bundle carrier, said front rod or member being provided at its inner end with attaching means and having a rearwardly extending portion intersecting the vertical planes of the rods of the bundle carrier and arranged to be flexed by bundles accumulating on the said carrier.

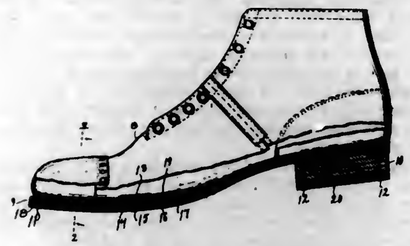
[Claims 6 to 9 not printed in the Gazette.]

1,139,014. SHOE CONSTRUCTION. AUGUSTUS H. BUTTLES, Milwaukee, Wis., assignor to Luedke-Schaefer-Buttles Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed Oct. 26, 1914. Serial No. 868,607. (Cl. 36—30.)

1. A shoe construction, comprising an upper, and a sole connected thereto comprising an in sole, a middle sole, a slip sole and an outer sole, the in sole and the middle sole being formed of fiber.

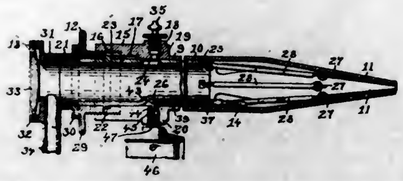
2. A shoe construction, comprising an upper, and a sole connected thereto comprising a sock lining, an in sole, a middle sole, a slip sole and an outer sole, the sock lining and the in sole and the middle sole being formed of fiber.

3. A shoe construction, comprising an upper, an in sole positioned within the upper and overlapping the lower edge portion of the upper, and an outer sole portion consisting of a plurality of sewed together thicknesses of material positioned below the insole and the overlapped portions of the upper, and means extending through the outer sole portion and the in sole and the overlapped upper portion for connecting the parts together, the in sole and at least one of the thicknesses of the outer sole portion being formed of fiber.



4. A shoe sole consisting in part of a plurality of thicknesses of material sewed together along their edge portions, another thickness of material mounted thereon and connected to the first mentioned thicknesses by nails extending through all of the thicknesses of material in a line within the line of the sewing, certain of the thicknesses of material being formed of fiber.

1,139,015. URETHROSCOPE OR ENDOSCOPE. FERDINANDO CERBO, Providence, R. I. Filed Dec. 10, 1914. Serial No. 876,552. (Cl. 128—24.)



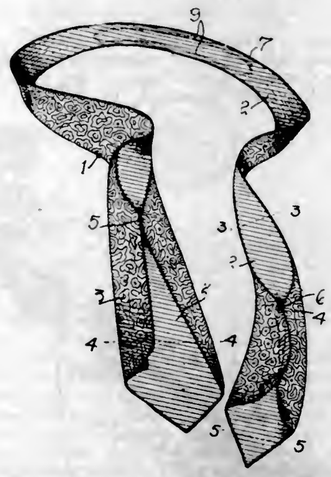
1. In a urethroscope, an outer tube, a plurality of comparatively short dilator arms formed integral with the outer tube and forming when closed a cone-shaped end on the outer tube, each dilator arm being so shaped that when in the closed position a longitudinal space is formed between each pair of dilator arms, an inner tube in contact for its entire length with the outer tube, means for operatively connecting the apex end of the inner tube with each dilator arm, means for holding the inner tube from turning on its axis and means for reciprocating the inner tube.

2. In a urethroscope, an outer tube, a plurality of comparatively short dilator arms formed integral with the apex end of the outer tube, said dilator arms having a pointed end, a comparatively wide central portion and a comparatively narrow base, an inner tube in surface contact with the outer tube, a lever arm operatively connected with each dilator arm and with the apex end of the inner tube, means for holding the inner tube from turning on its axis and means for reciprocating the inner tube.

3. In a urethroscope, an elongated outer tube, a plurality of comparatively short dilator arms formed integral with the apex end of the outer tube, an elongated inner tube in surface contact with the outer tube, a ring on the inner face of each dilator arm, a lever arm operatively connected with each ring and with the apex end of the inner tube through an opening in the end of the inner tube, means for holding the inner tube from turning on its axis and means for reciprocating the inner tube.

4. In a urethroscope, an elongated outer tube, a plurality of comparatively short dilator arms formed integral with the apex end of the outer tube, an elongated inner tube in surface contact with the outer tube, a lever arm operatively connected with each dilator arm and with the apex end of the inner tube, a longitudinal groove in the outside of the inner tube, a boss having a screw-threaded hole in the head end of the outer tube, a small metal tube in the longitudinal groove in the inner tube, an insulated wire in the small metal tube and terminating at one end in an insulated contact point in the boss and at the other or apex end in an insulated contact point, an electric lamp, means for detachably securing the lamp to the apex end of the small metal tube, a detachable metal casing for the electric lamp, a battery adapted to screw into the boss and form an electrical contact with the wire and with the boss, means for holding the inner tube from turning on its axis and means for reciprocating the inner tube.

1,139,016. NECKTIE. JOHN L. CLARK, Jr., Fairhaven, Mass. Filed Nov. 30, 1914. Serial No. 874,768. (Cl. 2—11.)



1. In a necktie, a tie body including a neck portion and open ended flaps provided with shoulders, that portion of the tie body constituting the neck portion being only of sufficient width to form the facing of the neck portion, a satin finish reinforcing strip co-extensive with the body in blank and tacked to the margins of the neck portion and forming a "slip-easy" backing therefor, said strip extending beyond the shoulders of the flaps and tacked to the shoulders and to the margins of the flaps, substantially as described.

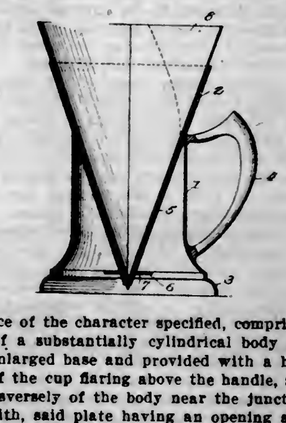
2. A necktie consisting of a tie body comprising a neck-band portion and open end tying flaps, and a substantially inextensible reinforcing backing co-extensive with the tie body in blank and tacked to the margins thereof.

3. An open end necktie consisting of a tie body comprising a neck-band portion and open end tying flaps, and an inextensible backing for the neck-band portion and said tying flaps, said backing being co-extensive with the tying flaps in blank and tacked to the margins of said flaps.

1,139,017. INSTRUMENT FOR RECEMENTING DENTAL BRIDGES AND THE LIKE. EDWIN H. CRAWFORD, Santa Rosa, Cal. Filed Feb. 16, 1915. Serial No. 8,684. (Cl. 32—10.)

1. An instrument of the class described comprising a tube reduced at one end, a source of supply of compressed air, a conduit from said source having a nozzle, and a valve in said conduit between said source and said nozzle, the other end of the tube and the nozzle being provided with means for making a gas-tight point therebetween.

2. An instrument of the class described comprising a tube reduced at one end, a source of supply of compressed air, a conduit from said source having a nozzle, and a valve in said conduit between said source and said nozzle, the other end of the tube and nozzle being provided with means whereby they may be detachably connected to form a conduit for compressed air flowing from said nozzle into said tube.



3. An instrument of the class described comprising a tube reduced at one end, a source of supply of compressed air, a conduit from said source having a nozzle, and a valve in said conduit between said source and said nozzle, and a holder having a finger piece for conveniently holding the same, said holder being conformed to be connected to the nozzle and to the larger end of the tube to form a substantially gas-tight joint therebetween permitting compressed air to flow substantially undiminished in pressure from the nozzle to the tube.

4. An instrument of the class described comprising a tube reduced at one end, a source of supply of compressed air, a conduit from said source having a nozzle, and a valve in said conduit between said source and said nozzle, and a holder having a smaller end formed with an outwardly tapering conduit, the larger end of the tube diverging outwardly to fit within said conduit, the larger end of the holder having an inwardly tapering conduit to fit around said nozzle.

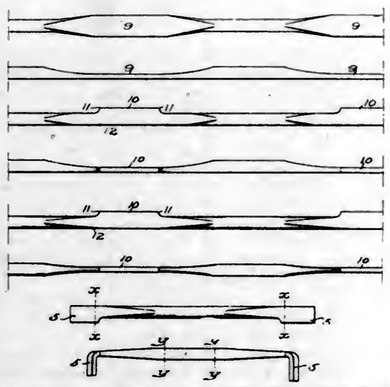
1,139,018. SANITARY SODA-CUP. DAVID F. CURTIN, Chicago, Ill. Filed Nov. 7, 1913. Serial No. 799,705. (Cl. 65—13.)

1. A device of the character specified, comprising a cup consisting of a substantially cylindrical body having an annularly enlarged base and provided with a handle, the upper end of the cup flaring above the handle, a plate arranged transversely of the body near the junction of the base therewith, said plate having an opening at the axis of the body, and a frusto-conical support having its small end seated in the opening of the plate and having its large

end engaging the internal surface of the body at the commencement of the flaring portion, the inner surface of the support being continuous with the inner surface of the flaring portion of the cup, the small end of the support being open and supported at a height such that the apex of a conical receptacle in the support will be above the lower plane of the base.

2. A device of the character specified, comprising a cup, consisting of a substantially cylindrical body having a base and provided with a handle, the upper end of the cup flaring above the handle, a plate arranged transversely of the body near the junction of the base therewith, said plate having an opening at the axis of the cup, and a frusto-conical support having its small end seated in the opening of the plate and having its large end engaging the internal surface of the body at the commencement of the flaring portion, the inner surface of the support being approximately continuous with the inner surface of the flaring portion of the cup, the small end of the support being open and being spaced above the lower plane of the base to bring the apex of a conical receptacle in the support above the said plane.

1,139,019. PROCESS OF MAKING CHAIN-LINKS. JAMES M. DODGE, Philadelphia, Pa., assignor to Link-Belt Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 11, 1914. Serial No. 823,913. (Cl. 59—8.)



1. The process herein described of making a quadrangular body portion of an open rectangular link, said process consisting in first flattening a round bar at intervals; cutting a portion of the flattened part away to leave a portion of a greater width than the round portion; then severing the blank at the flattened part; then bending the flattened part near the ends of the blank to form the end members: and bending the blank at the round portion to form the end bar and side bars.

2. The process herein described of making a quadrangular body portion of a chain link, said process consisting in flattening and tapering a portion of a round bar so as to increase its width; then cutting the surplus metal from the flattened and tapered part, leaving an extension on one side to form the end members of a link; then cutting the blank at the flattened part; and finally bending the blank into quadrangular shape.

3. The process herein described of making a quadrangular body portion of a link, the same consisting in first flattening a round bar at intervals; removing a porton of each flattened part, leaving a projection at one side thereof; then cutting the bar into lengths at the flattened parts, so as to form blanks with projections at each end; and then bending the blank into quadrangular shape with the flattened portions abutting.

4. The process herein described of making the quadrangular portion of a link, said process consisting in flattening and tapering a bar at intervals so as to increase the width of the bar; removing the surplus metal from one side of the flattened part of the bar and removing portions of the metal from the other side of the bar, leaving projections at intervals; cutting the bar at the projections so as to form blanks having enlargements at one side and at each end; then bending the blank to form the quadrangular body portion having a round bar at one end and the flat member at the other end, with tapered side members.

5. The process herein described of making a quadrangular chain link, said process consisting in flattening a round bar at intervals to increase its width; removing the surplus metal at one side of the flattened portion of the bar so that that side of the blank will be straight; removing portions of the metal at the other side of the bar to leave projections at the flattened portions; rounding the bar at each side of the projections and at the opposite side of the bar; cutting the bar at the projections, forming a blank with the projections on the same side and at each end; bending the blank at each side of the round central portion and bending it at the end of the flattened portions so as to form a round cross bar and flat end members of a greater height than the cross bar.

1,139,020. TYPOGRAPHICAL MACHINE. PHILIP T. DODGE, New York, N. Y., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed Feb. 6, 1915. Serial No. 6,590. (Cl. 199—7.)



1. In a typographical machine, the combination of a single series of escapements, a plurality of magazines, each provided in one of its faces with openings to receive the escapements, and movably arranged so that one or another may be brought into operative relation thereto, and a corresponding plurality of distributors to coöperate with the magazines.

2. In a typographical machine, the combination of a single series of escapements, a movable supporting frame, a plurality of magazines mounted therein, and one movable longitudinally relative thereto into and out of engaging relation to the escapements, and a corresponding plurality of distributers to coöperate with the magazines.

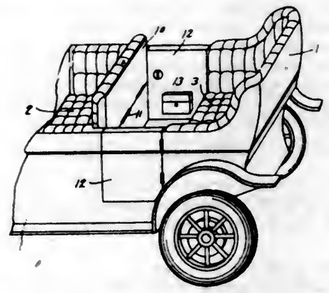
3. In a typographical machine, the combination of a single series of escapements, a plurality of magazines movable as a whole and also relatively to each other to bring any selected one into operative relation to the escapements, and a corresponding plurality of distributers to coöperate with the magazines.

4. In a typographical machine, the combination of a single series of escapements, a plurality of magazines, a supporting frame therefor movable to locate a selected magazine above or below the level of the escapements, the said magazine being movable forwardly and backwardly in the frame into and out of engaging relation to the escapements, and a plurality of distributers to coöperate with the several magazines.

5. In a typographical machine, the combination of a single series of escapements, a plurality of magazines, a movable supporting frame therefor, the said magazines being arranged in said supporting frame so that one may be moved thereby directly into and out of operative relation to the escapements, and a plurality of distributers to coöperate with the several magazines.

[Claims 6 to 15 not printed in the Gazette.]

1,139,021. AUTOMOBILE-BODY. LESTER C. DUNCAN, Lenia, Idaho, assignor, by direct and mesne assignments, of nine-tenths to Clarence F. Carey, Spokane, Wash., and one-tenth to V. A. Greenleaf, Seattle, Wash. Filed Mar. 31, 1913. Serial No. 757,752. (Cl. 21—43.)



1. An automobile body comprising in combination, a seat having a back, hinges connecting said back with the body, and locking mechanism mounted on said back and adapted to hold said back normally in a vertical position, said mechanism comprising one or more bolt members, means pivoted to said bolt members, a gear wheel pivoted to said link, a rack meshing with said gear wheel, a fixed abutment projecting from said back, a stop carried by said rack, and a spring intermediate said abutment in said stop adapted to hold said mechanism in a locking position.

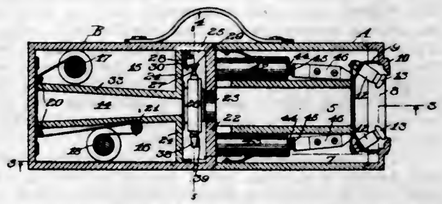
2. An automobile body comprising in combination, a seat having a back, hinges connecting said back with the body, and locking mechanism mounted on said back and adapted to hold said back normally in a vertical position, said mechanism comprising one or more bolt members, means pivoted to said bolt members, a gear wheel pivoted to said link, a rack meshing with said gear wheel, a fixed abutment projecting from said back, a stop carried by said rack, a spring intermediate said abutment in said stop adapted to hold said mechanism in a locking position, means whereby said rack may be operated to release said locking members, and a stop adapted to prevent the accidental operation of said rack.

3. An automobile seat comprising in combination, a fixed horizontal portion provided with a slot near one edge thereof, blocks slidably mounted in said slot, curved brackets rigid with said blocks, hinges carried at one end of said brackets, a movable portion supported by said hinges, said portion being normally in a vertical position but said hinges being adapted to permit it to assume a horizontal position in substantially the same plane as said fixed portion, and means for supporting said movable portion in a horizontal position.

4. An automobile body comprising in combination, a front seat, a back for said front seat hinged to the body, means for normally locking said back in an upright position, rear doors hinged to the body and blocks carried by said doors adapted to support said back in a horizontal position.

5. The combination of an automobile body, two seats carried by said body and spaced apart, doors hinged to said body and opening from spaces between said seats, and blocks attached to the inner sides of said doors, the forward one of said seats being provided with a back adapted to swing rearwardly and rest on said blocks.

1,139,022. PHOTOGRAPHIC CAMERA. WILLIAM F. FOLMER, Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a Corporation of New York. Filed Oct. 30, 1913. Serial No. 798,226. (Cl. 95—31.)



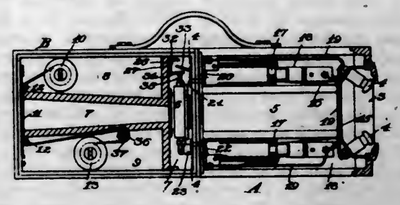
1. The combination with a camera casing, comprising two separable sections, the front section embodying an elongated light chamber and the rear section an exposure chamber, of a laterally arranged object illuminating device carried by the front section at the forward end of the light passage and a lens and shutter mechanism carried by the rear section at the forward end of the exposure chamber and adapted to assume an alined position intermediate the light passage and exposure chamber when the two sections are in coöperation with each other.

2. The combination with a camera casing comprising two separable sections, the front section embodying an elongated light passage and a relatively laterally arranged battery chamber opening at the rear of said section and the rear section embodying an exposure chamber, of an object illuminating device arranged forwardly of the front section embodying an electric lamp, a battery in the battery chamber accessible from the rear of the front section when the sections are separated and electrical connections between the lamp and battery.

3. The combination with a camera casing comprising two separable sections provided with electrical circuit closing contacts arranged to coöperate when the sections are held together in operative relationship, the front section embodying a light passage and the rear section an exposure chamber alined therewith, of an object illuminating device embodying an electric lamp arranged forwardly of the front section, a battery carried by one of the sections, a switch carried by the rear section and an electrical circuit including the lamp, battery, switch and contacts.

4. The combination with a camera casing having a separate laterally removable inner structure carrying film supply and feeding devices and providing the exposure chamber of the camera, of an object illuminating device carried by the casing and embodying an electric lamp, a battery carried by the casing, and an electric circuit connecting the battery and the lamp and comprising two cooperating switch contacts one of which is on the casing and the other on the laterally removable inner structure, said switch contacts being moved into proper relationship when the last mentioned member is assembled within the casing.

1,139,023. PHOTOGRAPHIC EXPOSING MECHANISM. WILLIAM F. FOLMER, Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a Corporation of New York. Filed Oct. 30, 1913. Serial No. 798,227. (Cl. 95—31.)



1. In a photographic camera, the combination with a film feeding mechanism embodying a carrying plate having gearing thereon, of shutter mechanism embodying a

lever extending transversely of the plate, and pivoted members on the plate coöperating with both the gearing of the feeding mechanism and the shutter lever to control one mechanism through the medium of the other.

2. In a photographic camera, the combination with a film feeding mechanism embodying a carrying plate having gearing mounted thereon and provided with a slot, of a shutter mechanism embodying a lever extending through the slot, a trip pivoted on the plate to coöperate with the shutter lever and adapted to be actuated by the feeding mechanism and a second trip pivoted on the plate to coöperate with the feeding mechanism and adapted to be actuated by the shutter lever.

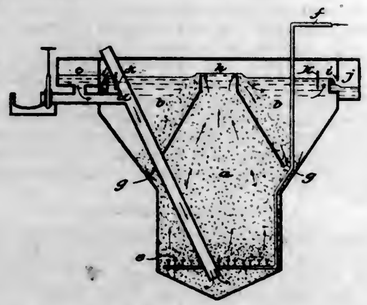
3. In a photographic camera, the combination with a film feeding mechanism and a shutter mechanism, of a detent for the shutter mechanism arranged under the control of the feeding mechanism and a detent for the feeding mechanism arranged under the control of the shutter mechanism.

4. In a photographic camera, the combination with a film feeding mechanism and a shutter mechanism, of a detent for the shutter mechanism, a trip actuated by the feeding mechanism for releasing said detent and a detent under the control of the shutter mechanism adapted to engage the trip and restrain the feeding mechanism through the medium thereof.

5. In a photographic camera, the combination with a shutter and a film feeding mechanism, of two levers having substantially coincident normal positions and adapted to be simultaneously depressed, one of said levers constituting a shutter operating member, means for returning the levers to normal positions, means under the control of the feeding mechanism for detaining the shutter operating lever in depressed position after an actuation of the shutter while allowing the return of the other lever to normal position, and means under the control of the shutter operating lever for detaining said last mentioned lever in normal position until the shutter operating lever has returned to normal position.

[Claims 6 to 9 not printed in the Gazette.]

1,139,024. PROCESS OF PURIFYING SEWAGE OR OTHER WASTES AND APPARATUS THEREFOR. LESLIE C. FRANK, Washington, D. C. Filed Apr. 2, 1915. Serial No. 18,863. (Dedicated to the public.) (Cl. 210—18.)



1. The herein described process of purifying sewage which consists in causing a flow thereof in a definite path, oxidizing the sewage in one portion of its path, causing a sedimentation in and decanting the clear liquid from a relatively remote portion of its path, and reintroducing the sediment into the oxidizing portion of the path.

2. The herein described process of purifying sewage, which consists in causing it to circulate around a horizontal axis (in a vertical plane), simultaneously oxidizing the same, continuously removing the clear liquid from a relatively still portion, from which the sediment has been settled, and reintroducing the sediment into the oxidising portion.

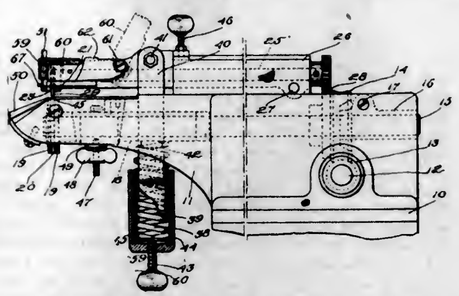
3. The herein described process of purifying sewage which consists in causing it to circulate, simultaneously oxidizing the same in one portion of the path, continuously removing the clear liquid from a relatively still portion of the path from which the sediment has been settled, reintroducing the sediment and continuously adding fresh sewage into the oxidizing portion of the path.

4. The herein described process of purifying sewage which consists in continuously introducing fresh sewage into a body of the sewage in such a manner as to cause circulation and agitation, simultaneously oxidizing the sewage, permitting the velocity to decrease and ceasing agitation in one portion of its path, whereby sedimentation takes place, continuously removing the clear liquid, and directing the sediment back into the agitating portion.

5. The herein described process of purifying sewage which consists in simultaneously agitating it and oxidizing it in one portion of its path, continuously removing the clear liquid from a relatively still portion of the path from which the sediment has settled, continuously reintroducing the sediment and part of the sewage into the oxidizing and agitating portion of the path;—in which process the accumulation of harmful quiescent deposits of sludge in any portion of the path is prevented.

[Claims 6 to 10 not printed in the Gazette.]

1,139,025. HEEL-SEAT ROUNDING AND RANDING MECHANISM. LOUIS G. FREEMAN, Cincinnati, Ohio. Filed Aug. 5, 1911. Serial No. 642,520. (Cl. 12—85.)



1. An apparatus of the kind described, comprising a swinging yieldably mounted feed roll for feeding the stock, and a randing knife adjustably mounted laterally adjacent said feed roll for reducing the top surface of the stock adjacent its periphery and substantially parallel with the bottom surface, said knife being movably mounted and connected to be controlled by said yieldable feed roll.

2. An apparatus of the kind described, comprising a pair of upper and a pair of lower feeding rolls for gripping and feeding the stock, means for yieldingly pressing said pairs of rolls toward each other, and a randing knife mounted adjacent said feeding and gripping rolls, said knife being adapted to act on the top surface of the stock in the same horizontal plane with said gripping and feeding rolls, substantially parallel with the bottom surface of the stock and mounted for lateral adjustment transverse of the direction of feed, and for longitudinal adjustment along the line of feed.

3. An apparatus of the kind described, comprising a pair of feed rolls with means for yieldably drawing the same toward each other to grip the work between them, a heel seat rounding cutter having its operative edge extending substantially in the line of the axes of said rolls, and a randing tool adjustably mounted so that its operative edge may be brought adjacent the work engaging portion of the feed rolls.

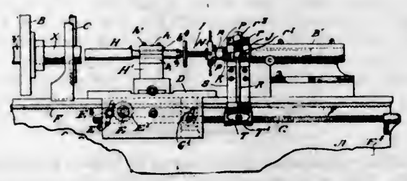
4. An apparatus of the kind described, comprising a pair of coacting feeding rolls, a heel seat rounding knife, and a randing knife mounted in operative relation thereto, the randing knife extending outward beyond the rolls, and a guard having a portion extending outward and

arranged to protect the upper leather from scuffing and contact with said randing knife.

5. An apparatus of the kind described, comprising means for feeding the work, a randing knife having its operative edge extending adjacent the work gripping portion of said feeding means, a guard for the upper leather, and means for oiling the upper leather as it is fed to the machine.

[Claims 6 to 23 not printed in the Gazette.]

1,139,026. ENGINE-LATHE. GEORGE C. GARDNER and JAMES A. GROW, Richmond, Va., assignors to The Tredegar Company, Richmond, Va., a Corporation of Virginia. Filed Jan. 6, 1915. Serial No. 851. (Cl. 82—21.)



1. An attachment for engine lathes, comprising a supporting frame, a shaft carried thereby and provided with means for connecting it with the lead screw of the lathe, a screw shaft adapted to be connected with the tool-holder of the lathe, and connections between said first-mentioned shaft and said screw shaft.

2. An attachment for engine lathes, comprising a supporting frame, a shaft carried thereby and provided with means for operatively connecting it with the lead screw of the lathe, a screw shaft adapted to be connected with the tool-holder of the lathe, a sleeve surrounding said screw shaft and geared to said first-mentioned shaft, half nuts engaging said screw shaft, and a hand-wheel connected with said half nuts for opening and closing them.

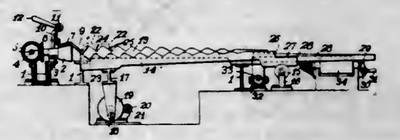
3. An attachment for engine lathes, comprising a supporting frame, a shaft carried thereby and provided with means for operatively connecting it with the lead screw of the lathe, a screw shaft adapted to be connected with the tool-holder of the lathe, a hand-wheel carried by said screw shaft and provided with a pawl adapted to engage the tool-holder, and connections between said first-mentioned shaft and said screw shaft.

4. The combination with the head-stock and tail-stock of an engine lathe of a rotary spindle adapted to be connected with the work, an end thrust bearing for said spindle, a tool-holder or boring bar supported on the lathe carriage, a screw shaft connected with said boring bar and extending into the tail-stock, a sleeve surrounding said screw shaft and carrying a worm wheel, an end thrust bearing interposed between the tail-stock and said sleeve and worm wheel, means for connecting said sleeve with the screw shaft and for disconnecting it therefrom, and connections between said worm wheel and the lead screw of the lathe.

5. An engine lathe, comprising a carriage, a rack, and a lead screw, means for connecting the carriage with the lead screw and for disconnecting it therefrom, a pinion mounted on the carriage and adapted to be connected with the rack and to be disconnected therefrom, a tool-holder, a support on the carriage to which the tool-holder is secured, a screw shaft connected with the tool-holder and extending into the tail-stock of the lathe, driving connections between said screw shaft and the lead screw of the lathe, and means for connecting the screw shaft with said driving connections and for disconnecting it therefrom.

[Claim 6 not printed in the Gazette.]

1,139,027. CONVEYER FOR METAL RODS. JEROME R. GEORGE, Worcester, Mass., assignor to Morgan Construction Company, Worcester, Mass., a Corporation of Massachusetts. Filed May 29, 1911. Serial No. 630,124. (Cl. 80—48.)



1. The combination with a series of conveyer rolls, of an angular trough at the side of said conveyer rolls, means for transferring rods from said rolls to said trough, a series of stationary bars arranged to receive the rods from said trough, a series of movable bars between said stationary bars, means for imparting a rotary movement in vertical planes to the ends of said movable bars next said conveyer rolls, fulcrums for said movable bars near their opposite ends, a second set of conveyer rolls, and means for transferring the rods to said second conveyer rolls.

2. In a conveyer for metal rods, the combination of stationary supporting bars, movable bars, with the upper surfaces of said stationary and said movable bars provided with a series of notches gradually decreasing in depth from one end of said bars, and means for imparting a rotary movement in vertical planes to the ends of said movable bars having the deepest notches.

3. In a conveyer for metal rods, the combination of a series of stationary bars having graduated angular notches, a series of conveyer rolls, means for guiding the rods in their progress over said rolls, an angular trough between said rolls and said stationary bars, a series of notched movable bars, and means for moving said movable bars in vertical planes to carry the rods from said angular trough to said stationary bars.

4. In a conveyer for metal rods, the combination with a series of supporting bars and a series of movable bars, said bars having their upper surfaces provided with corresponding angular notches and forming a cooling bed, means for operating said movable bars, a second series of conveyer bars arranged to receive the rods from said first series of supporting bars, means for imparting an angular and sliding movement to said second series of bars, and a series of conveyer rolls journaled between the bars of said second series.

5. In a conveyer for metal rods, the combination with a series of stationary supporting bars and of movable lifting bars, with their upper surfaces having corresponding notches, of means for imparting an angular and sliding movement to said lifting bars, a second series of conveyer bars arranged to receive the rods from said first series of supporting bars, means for imparting an angular movement to said second series of bars, conveyer rolls to receive the rods from said second series of conveyer bars, and means for lowering the supporting surfaces of said second series of conveyer bars below the supporting surfaces of said conveyer rolls.

[Claims 6 to 15 not printed in the Gazette.]

1,139,028. ARTIFICIAL TOOTH. ALBERT E. GIBSON, Philadelphia, Pa., assignor to The Dentists' Supply Company, a Corporation of New York. Filed Aug. 23, 1911. Serial No. 645,583. (Cl. 32—9.)

1. As an article of manufacture, a pin for an artificial tooth, which consists of a pin of oxidizable metallic material of high fusibility, having one end covered by a shielding cap of non-oxidizable metal, said cap compressed tightly upon the pin and in which the metal of said pin and cap is densified in part providing raised portions of the pin and depressed portions of the cap, and in which further, the cap has its side portion extended radially to

form a wing having an exposed edge at a distance from and directed away from the head portion of the pin.



2. As a new article of manufacture, a pin for artificial teeth which consists of a pin of base metal of high fusibility, combined with a cap of non-oxidizable metal of high fusibility clamped over the head of the pin and having its side portion compressed into a laterally projecting flat wing having a two ply exposed edge at the end of the cap most distant from the head of the pin, said plies in close contact upon each other.

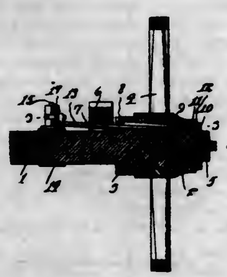
3. As a new article of manufacture, a pin for artificial teeth which consists of a pin of base metal of high fusibility, combined with a cap of non-oxidizable metal of high fusibility clamped over the head of the pin and having its side portion compressed at a plurality of places about the pin into laterally projecting flat wings arranged at the end of the cap most distant from the head of the pin.

4. As an article of manufacture, a pin for artificial teeth, consisting of a pin structure of base metal of high fusibility and having a head portion, combined with a cap of non-oxidizable metal fitting over the head and about the body of the pin to a distance from the head and said cap being compressed upon the pin and at diametrically opposite places and flattened radially to provide oppositely directed flat wings of folded metal with radial edges in substantial alinement and extending from substantially diametrically opposite sides of the pin.

5. As an article of manufacture, a pin for artificial teeth, consisting of a pin structure of base metal of high fusibility and having a head portion, and said pin being formed with longitudinal and transverse ribs, combined with a cap of non-oxidizable metal fitting over the head and about the body of the pin to a distance from the head and said cap being compressed upon the pin and at two oppositely directed places and flattened to provide oppositely directed flat wings of folded metal extending from substantially diametrically opposite sides of the pin.

[Claims 6 to 11 not printed in the Gazette.]

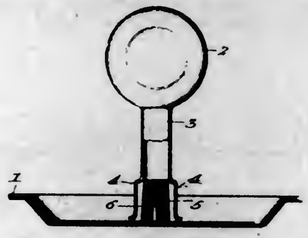
1,139,029. NUT-LOCK. JAMES R. GLYNN, South Omaha, Nebr. Filed July 2, 1913. Serial No. 777,020. (Cl. 21—30.)



1. In combination, an axle, a clamp upon the axle, a lever pivotally connected with the clamp, a block upon the axle, a spring between the block and the lever, and a nut engaging lock bar passing through the block and guided thereby.

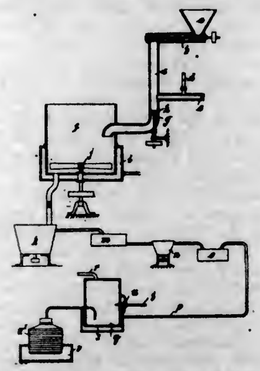
2. The combination with an axle having a spindle and the hub of a wheel arranged upon the spindle, and a nut for sustaining the wheel upon the spindle, the said spindle having a passage and the nut having a depression which registers with the passage, of a clamp surrounding the axle, said clamp including a split band having a threaded member which is adapted to pass through an opening in one end of the band, a lever arranged upon the threaded member, means for sustaining the lever upon the threaded member, a block upon the axle having an opening which registers with the passage in the spindle, a locking bar normally having one of its ends arranged in the nut and passing through the opening in the block, a connection between the said bar and lever, a spring connected with the lever and block and exerting a tension between the said lever and block.

1,139,030. FOUNTAIN-FEED FLY-KILLER. SAMUEL GOLDHAMMER, Denver, Colo. Filed Aug. 20, 1914. Serial No. 857,701. (Cl. 43—22.)



The combination with a tray having a fixed vertical pin, disks of poison-retaining material on said pin, and a resilient plug on said pin in contact with said poson retaning material, of a reservoir having a depending neck which fits over said plug and against said poison-retaining material, said neck having interior outlet channels, the lower ends of which are closed when water from said reservoir rises in the tray, to a predetermined depth thereby cutting off the flow from the reservoir.

1,139,031. MANUFACTURE OF ARTIFICIAL MILK. FRITZ GÖSSEL, Frankfort-on-the-Main, Germany. Filed May 5, 1914, Serial No. 836,426. Renewed Mar. 25, 1915. Serial No. 17,051. (Cl. 99—11.)



1. The method of manufacturing artificial milk from vegetable beans which comprises making an extract of such beans with hot water at a temperature below 100° C. of those ingredients suitable for making milk, removing undissolved substances from said extract and adding to and emulsifying with the extract fats, sugars and the like while maintaining the extract under as constant condition of temperature and pressure as possible.

2. The method of manufacturing artificial milk from vegetable beans which comprises making a water extract from beans in a finely divided form, of the albumins, fats, carbo-hydrates and salts contained therein, separating said extract completely from the residue of the beans and adding to the extract and emulsifying therewith fats, sugars and the like, said emulsification being effected under constant conditions of temperature and pressure.

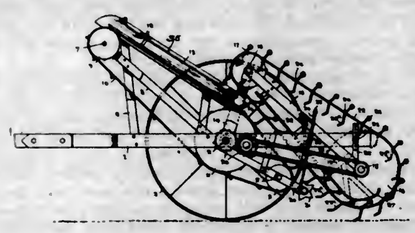
3. The method of manufacturing artificial milk from vegetable beans which comprises making a water extract from such beans in a finely divided form, of the albumins, fats and carbohydrates and salts, separating said extract completely from the residue of the beans, removing a portion of the fats, and adding to the extract and emulsifying therewith additional fats, sugars and the like, said emulsification being effected under constant conditions of temperature and pressure.

4. The method of manufacturing synthetic milk from vegetable beans consisting in making an extract in water of the nutritive constituents of said beans, eliminating fatty matter from said extract and adding to and embodying with the resulting product such materials as are required to make its composition approximate that of milk.

5. The method of manufacturing artificial milk from vegetable beans which comprises treating fine flour of the bean with pure hot water and intimately mixing said flour and water at a temperature below the boiling point, retaining said flour and water in paste form and hot for a time, completely separating the liquid extract from the residue, removing a portion of the fats in said extract, and emulsifying fats with said extract at a temperature of about 40° C.

[Claims 6 and 7 not printed in the Gazette.]

1,139,032. STONE-GATHERING MACHINE. EDWARD C. HELMKE, Macfarland, Wis. Filed May 2, 1914. Serial No. 835,802. (Cl. 55—17.)



1. A stone gathering machine comprising a wheeled frame, an endless conveyer extending forwardly and upwardly from said frame, an endless belt adapted to travel rearwardly of said conveyer, rakes on said belt, and resiliently mounted means adapted to coöperate with said rakes to deposit stones on said endless conveyer.

2. A stone gathering machine comprising a wheel mounted frame, an endless conveyer thereon extending upwardly and forwardly therefrom, a frame pivotally supported at its front end to the axis of said wheels, means for adjustably supporting the rear end of said frame, an endless belt adapted to travel in said frame in proximity to said endless conveyer, rake bars carried by said belt, and means adapted to coöperate with said rakes to deposit stones on said endless conveyer.

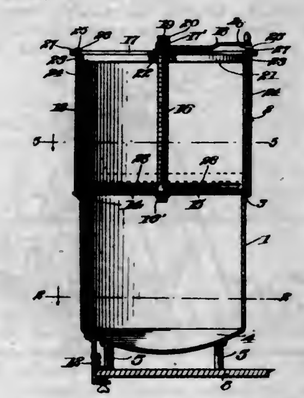
3. A stone gathering machine comprising a wheel mounted frame, an endless conveyer extending upwardly and forwardly therefrom, a frame pivoted at its forward end to the axis of the wheels of said frame, means adjustably supporting the rear end of said frame, belts adapted to travel in said frame, rakes on said belt, and a roller having longitudinal blades adapted to coöperate with said rakes to deposit stones upon said endless conveyer.

4. A stone gathering machine comprising a wheel mounted frame, an endless conveyer thereon extending upwardly and forwardly therefrom, a frame pivotally supported at its front end to the axle of said wheels, means for adjustably supporting the rear end of said frame, an endless belt adapted to travel in said frame in proximity to said endless conveyer, rake-bars carried by said belt, teeth attached to said rake-bars, and means adapted to coöperate with said toothed rake-bars to deposit stones on said endless conveyer.

5. A stone gathering machine comprising a wheel mounted frame, an endless conveyer thereon extending upwardly and forwardly therefrom, a frame pivotally supported at its front end to the axle of said wheels, means for adjustably supporting the rear end of said frame, an endless belt adapted to travel in said frame in proximity to said endless conveyer, rake-bars pivotally carried by said belt, teeth attached to said rake-bars, and means adapted to coöperate with said toothed rake-bars to deposit stones on said endless conveyer.

[Claims 6 and 7 not printed in the Gazette.]

1,139,033. COLANDER. MARTHA J. HERBSTRIET, Urbana, Ill. Filed Feb. 10, 1914. Serial No. 817,903. (Cl. 146—9.)



1. A colander having a main vessel provided with an upper and a lower chamber with a ledge at their junction, a removable vessel in the upper chamber resting on said ledge, outlet means from said second chamber, a plate in said second vessel mounted against turning movement relatively to the second vessel, a bar, projections on said vessels engaged by said bar to prevent independent turning movement of the vessels, a removable screw rod passing through said plate, screw threads on the plate engaging the rod passing through said plate, screw threads on the plate engaging the rod, said rod also extending through said bar as a bearing and to prevent displacement thereof and the bottom of said second vessel as a bearing, and an operating member on said rod.

2. A colander having a main vessel, a removable vessel mounted therein, abutment means on each of said vessels, a plate movable longitudinally of the removable vessel, a turnable rod passing through said plate, means to move the plate through movement of said rod, a bar removably disposed between said abutment means to prevent relative turning movement of the vessel, and said rod and bar engaging to prevent displacement of the bar radially of the vessels.

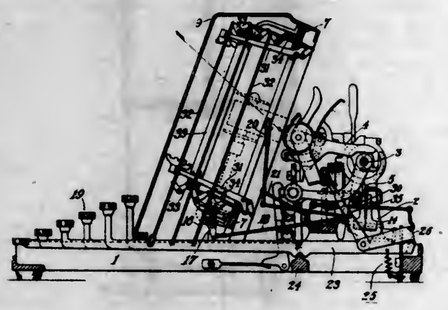
1,139,034. COOLING ATTACHMENT FOR RADIATORS. WILLIAM J. HICKEY, San Francisco, Cal., assignor, by mesne assignments, to Hickey Condenser Company, a Corporation of California. Filed Jan. 2, 1914. Serial No. 810,040. (Cl. 257—125.)



A device of the character described comprising the combination with a radiator cap, of a chambered member on

the outside of said cap, said cap being provided with a passageway communicating from one of said chambered members to the other, said chambered member inside of said cap being provided with an opening in its lower end and with a pair of openings communicating to the outside of said cap, and a tube communicating with said last named openings and projecting through said inner chambered member, as described.

1,139,035. TYPE-WRITING MACHINE. FREDERIC W. HILLARD, New York, N. Y., assignor to Mary R. Hillard, Middlebury, Conn. Original applications filed Aug. 25, 1896, Serial No. 603,845, and Mar. 22, 1909, Serial No. 485,147. Divided and this application filed Apr. 25, 1912. Serial No. 693,039. (Cl. 197—154.)



1. In a typewriting machine, the combination of type keys, carriage propelling power, and a pawl and ratchet ribbon feed, means operated by the stroke on the keys for reciprocating the ribbon pawl in one direction, and means operated by the carriage propelling power for reciprocating the ribbon pawl in the other direction, substantially as described.

2. In a typewriting machine, the combination of type keys, carriage propelling power, a letter spacing escapement comprising two engaging members which can be disengaged and reëngaged and a pawl and ratchet ribbon feed, means operated by the stroke on the keys for disengaging the escapement members and reciprocating the ribbon pawl in one direction, and means operated by the carriage propelling power for reëngaging the escapement members and reciprocating the ribbon pawl in the other direction, substantially as described.

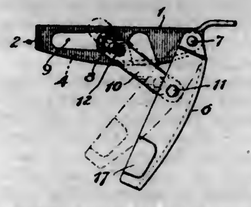
3. In a typewriting machine, the combination of ribbon actuating mechanism, carriage propelling power, an escapement, and means for transmitting the carriage propelling power through the escapement to the ribbon actuating mechanism, and for thereby actuating the ribbon mechanism by the carriage propelling power, substantially as described.

4. In a typewriting machine, the combination of type keys, carriage propelling power, a letter spacing escapement comprising a spaced member and spacing member, and a pawl and ratchet ribbon feed, means operated by the keys for disengaging the normally engaging parts in the escapement and reciprocating the ribbon pawls in one direction, and means operated by the carriage propelling power through the spaced member of the escapement for reëngaging said normally engaging parts in the escapement and reciprocating the ribbon pawls in the opposite direction, substantially as described.

5. In a typewriting machine which has its printing point normally in view and the printing ribbon normally away therefrom, the combination of keys and means operated by the keys for moving the printing ribbon to the printing point, and carriage propelling power and means operated thereby for starting said ribbon back to its normal position.

[Claims 6 to 11 not printed in the Gazette.]

1,139,036. BELT-BUCKLE. ERNEST N. HUMPHREY, New Britain, Conn., assignor to The Traut & Hine Manufacturing Company, New Britain, Conn., a Corporation of Connecticut. Filed Sept. 9, 1914. Serial No. 860,850. (Cl. 24—194.)



1. In a belt buckle, a base having a longitudinal passage therethrough for a belt, a lever pivoted at one end to said base, a clamping member slidably carried by the base and arranged to engage said belt and clamp the same against the lower wall of said base, a toggle connection between said lever and said clamping member whereby when said lever is moved toward the base, said member will be moved into belt clamping position.

2. In a belt buckle, a base having a longitudinal passage therethrough for a belt, a lever pivoted at one end to said base, a clamping member slidably carried by the base and arranged to engage said belt and clamp the same against the lower wall of said base, a toggle connection between said lever and said clamping member whereby when said lever is moved toward the base, said member will be moved into belt clamping position, said member comprising a bar extending across the base and arranged to engage a belt transversely.

3. In a belt buckle, a base having a longitudinal passage therethrough for a belt, a lever pivoted at one end to said base, a clamping member slidably carried by the base and arranged to engage said belt and clamp the same against the lower wall of said base, a toggle connection between said lever and said clamping member whereby when said lever is moved toward the base, said member will be moved into belt clamping position, said member having a limited independent movement relatively to said toggle connection.

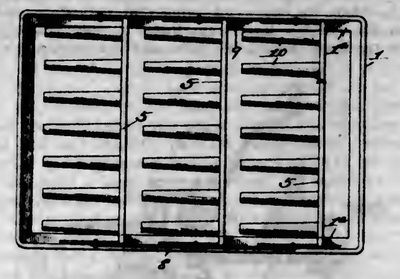
4. In a belt buckle, a base member having a longitudinal passage therethrough for a belt, a belt clamping bar extending transversely across said base member in a position adjacent to the position to be occupied by a belt, said bar being guided by said base to be moved toward and from the lower wall thereof as the bar is shifted longitudinally in said base, means for shifting said bar comprising a lever pivotally connected to said base and a toggle connection between said lever and said bar, whereby as the lever is moved on its pivot the longitudinal position of the bar in said base will be shifted.

5. In a belt buckle, a base member having a longitudinal passage therethrough for a belt, a belt clamping bar extending transversely across said base member in a position adjacent to the position to be occupied by a belt, said bar being guided by said base to be moved toward and from the lower wall thereof as the bar is shifted longitudinally in said base, means for shifting said bar comprising a lever pivotally connected to said base and a toggle connection between said lever and said bar, whereby as the lever is moved on its pivot the longitudinal position of the bar in said base will be shifted, and means for permitting said bar to have a limited independent movement relatively to said toggle connection.

[Claims 6 to 12 not printed in the Gazette.]

1,139,037. BAKER'S DOUBLE TIN STICK LADY-LOCK PAN. NATHANIEL HUTH, Brookville, Pa. Filed Jan. 15, 1914, Serial No. 812,313. Renewed Sept. 23, 1914. Serial No. 863,219. (Cl. 53—10.)

1. A device of the kind described comprising a flue, means carrying said flue and movable to bring said flue into either upright or horizontal position and a former fitting over said flue and adapted when in position to form a continuation thereof.



2. A device of the kind described comprising a bar adapted to swing from a horizontal to a vertical position, a plurality of flues open at each end carried by the bar and formers adapted to fit upon said flues.

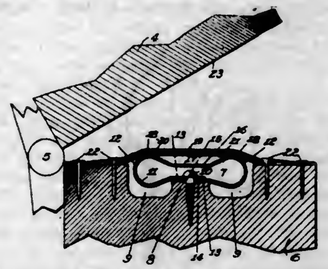
3. A device of the kind described comprising a bar adapted to swing from a horizontal to a vertical position, a plurality of flues open at each end carried by the bar and formers adapted to fit upon said flues, and of greater length than the flues.

4. A device of the kind described comprising a skeleton pan, a series of hinged bars carried by said pan, flues arranged upon said bars and opening through said bars, and formers adapted to fit over and form a continuation of said flues.

5. A device of the kind described comprising a pan, cross bars pivotally arranged within said pan, flues open at each end carried by the bars, formers adapted to fit upon said flues, and means connecting said bars together, thereby causing all of said bars to swing in unison.

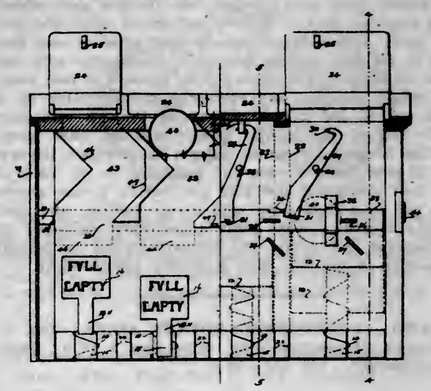
[Claim 6 not printed in the Gazette.]

1,139,038. PACKING FOR REFRIGERATOR-DOORS. GEORGE A. JOHNSON, Chicago, Ill., assignor to W. H. Miner, Chicago, Ill. Filed Aug. 11, 1913. Serial No. 784,042. (Cl. 20—69.)



In a packing for doors of refrigerator cars and the like, the combination with a door and an adjacent member having meeting edges when the door is in closed position, one of said edges being provided with a longitudinally extending groove therein, of yieldable, flexible, facing material bridging said groove, and yielding means for pressing said material outwardly firmly against the adjacent edge, said means including a longitudinally extending spring strip secured in said groove, said spring strip having rounded, spaced edges yieldingly engaging said material along two spaced parallel lines, whereby when the door is in closed position, said material is pressed into engagement with the adjacent edge along said spaced lines and said material between said lines is kept in contact with the adjacent edge to thereby provide a wide surface contact between the meeting edges of the door and adjacent member.

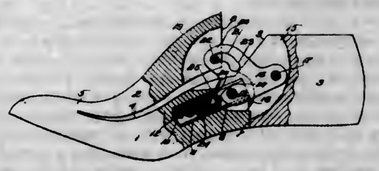
1,139,039. MULTIPLE-COMPARTMENT COIN-CONTROLLED VENDING-MACHINE. HERBERT D. KIPPEN, ALEXANDER T. BROWN, and JAMES TILMON WHITE, Spokane, Wash. Filed Sept. 2, 1914. Serial No. 859,926. (Cl. 194—65.)



1. A coin controlled vending machine comprising a casing having a multiple number of separate compartments, an independent lid and coin slot for each compartment, an independent locking lever for each lid, a common actuating bolt slidably mounted transversely across the machine to coöperate with coins to actuate the levers to release the lids, an independent coin channel for each compartment, independent means in each of said channels for directing the coin to coöperate with said bolt to release the lids and means for actuating said bolt, together with independent means in each compartment whereby the merchandise in each of said compartments coöperates with said means to adjust a face plate to indicate the presence of merchandise in said compartments, and means for adjusting said face plates to indicate the absence of merchandise in the compartments.

2. A coin controlled vending machine comprising a casing having a multiple number of separate compartments, an independent lid and coin slot for each compartment, an independent locking lever for each lid, a common actuating bolt slidably mounted horizontally across the machine to coöperate with coins to actuate the levers to release the lids, the actuating means comprising a lug on each lever and a corresponding pin on the bolt, between which the coin takes its place so that a movement of the bolt rocks the lever and releases the same from its hold on the lid, an independent coin channel for each compartment, independent means in each of said channels for directing the coin to coöperate with said bolt to release the lids and means for actuating said bolt.

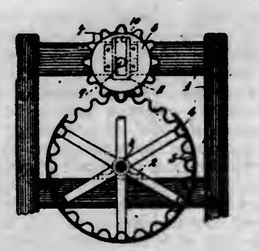
1,139,040. COLLAPSIBLE LAST. WALTER A. KRENTLER, Detroit, Mich., assignor to Krentler-Arnold Hinge Last Company, Detroit, Mich., a Corporation of Michigan. Filed June 12, 1914. Serial No. 844,665. (Cl. 12—136.)



A collapsible hinged last, having in combination, a divided forepart having a bored socket and a movable

instep porting having a vertical saw kerf, a heel part having a vertical saw kerf in central, intersecting, longitudinal alinement with the rear of said socket and with the first named saw kerf, a tubular hinged member, fitted in said bored socket in the forepart and projecting rearwardly from said forepart into the heel part where it is provided with a vertical slot alined with said two saw kerfs, and a hinged plate-member fitted in said saw kerf in the heel part in supported engagement with the walls adjacent said kerf, occupying the slot in said tubular hinged member, and connected to the latter by a pivot pin in the heel part, passing through said rear outer end of the tubular hinged member, said plate-member having a projecting portion fitted within the saw kerf of said instep portion and supported by the walls of said last mentioned saw kerf and having a cam groove and pin connection with said instep portion, and said tubular hinged member being transversely anchored at its forward end within the forepart beyond its pivotal connection in the heel part, with said plate-member.

1,139,041. CORRUGATED ROTARY SIEVE. OLE L. LARSON, Minneapolis, Minn. Filed Sept. 5, 1914. Serial No. 860,457. (Cl. 130—16.)



1. The combination with a rotary longitudinally corrugated sieve, of a rotary corrugated sieve cleaning device engaging the corrugated sieve and having a gear-like rotating contact therewith.

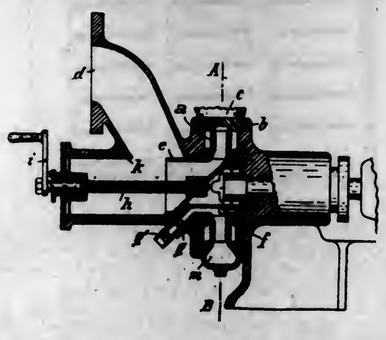
2. The combination with a rotary sieve constructed from wire netting bent to form longitudinally extended circumferentially spaced corrugations, of a corrugated sieve cleaning roller also constructed from wire netting rotatably mounted for gear-like engagement with the corrugations of said sieve.

1,139,042. CENTRIFUGAL PUMP. JOSEF LEHNE, Tempelhof, and WILHELM LUCKE, Neukölln, Berlin, Germany, assignors to Internationale Rotationsmaschinen-Gesellschaft mit beschränkter Haftung, Berlin, Germany. Filed Apr. 10, 1914. Serial No. 830,918. (Cl. 103—43.)

1. In a centrifugal pump, in combination, a casing having a suction inlet and a delivery outlet and an air exit, a revoluble blade wheel mounted in the casing, and an axially slidable valve located concentrically with the wheel and which when slid within the latter connects one part of the wheel with the said suction inlet and another part with the said air exit.

2. In a centrifugal pump, in combination, a casing having a suction inlet and a delivery outlet and an air exit, and a valve controlling the latter, a revoluble blade wheel mounted in the casing, and an axially slidable valve located concentrically with the wheel and which when slid within the latter connects one part of the wheel with the suction inlet and another part with the said air exit.

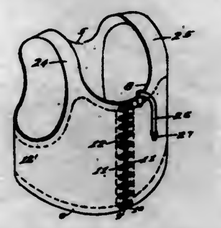
3. In a centrifugal pump, in combination, a casing having a suction inlet and a delivery outlet and an air exit, a revoluble blade wheel mounted in the casing, and an axially slidable valve located concentrically with the wheel and which when slid within the latter connects one part of the wheel with the suction inlet and another part with the said air exit, said casing also having a groove which, when the valve on being slid out of the wheel closes the suction inlet, constitutes a fluid passage between the space behind the valve and the suction inlet.



4. In a centrifugal pump, in combination, a casing having a suction inlet and a delivery outlet and an air exit, a revoluble blade wheel mounted in the casing, and an axially slidable valve located concentrically with the wheel and which when slid within the latter connects one part of the wheel with the suction inlet and another part with the said air exit, the cross section of the spiral which the wheel describes moreover exhibiting an extension in axial direction.

5. In a centrifugal pump, in combination, a casing having a suction inlet and a delivery outlet and an air exit, a revoluble blade wheel mounted in the casing, and an axially slidable valve located concentrically with the wheel and which when slid within the latter connects one part of the wheel with the suction inlet and another part with the said air exit, the initial part of the inner circumferential wall of the wheel chamber running concentrically with the wheel.

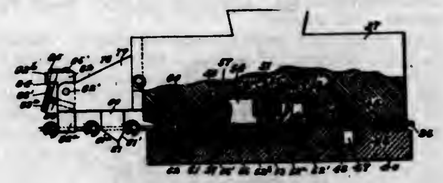
1,139,043. LIFE-SAVING CORSET. PAUL F. LEITNER, Long Beach, Cal. Filed Nov. 4, 1914. Serial No. 870,311. (Cl. 9—20.)



1. A life saving corset adapted to be worn under the clothing and restricted to the upper portion of the body above the waist line composed of inner and outer parallel walls cut away above the waist line at the back and with the front edges extending conveniently below the waist line at the front and adapted to be suitably secured together; said walls being of water proof and air tight fabric cemented together around the outer edges and the openings and having a central neck and opposite side arm openings with flat shoulder portions above the arm openings formed by cementing said walls together; and there being a pair of symmetrically formed air chambers on each side of the garment separated in the back by cemented divisions, intercommunicating therethrough and extending continuously around the sides beneath the arm openings and terminating at the front edges.

2. A life saving corset adapted to be worn under the clothing and to cover the portion of the body from the shoulders to the waist line, composed of two water proof and air tight walls of fabric of like pattern cut away conveniently above the waist line in the back and extending entirely around the body with the ends meeting at the center of the front and extending slightly below the waist line; having a central neck opening formed at the top, arm holes formed in the sides and flat shoulder portions above the arm holes; the edges around the openings and sides and said shoulder portions being suitably cemented together and cemented divisions being formed in the center of the back; a pair of symmetrical air chambers being formed between the cemented portions, intercommunicating through said rear divisions and extending continuously around the sides and under the arm holes to the front edges and being limited in area on each side of the front by the downwardly extending shoulder portions in order to form flat surfaces over the breasts; provided with means for securing the front ends together and means for inflating the garment convenient to the mouth of the wearer.

1,139,044. PROCESS OF CORRECTING THE PITCH OF DRIVE-CHAINS. SYLVANUS D. LOCKE, Bridgeport, Conn., assignor to Locke Steel Belt Company, Bridgeport, Conn., a Corporation of West Virginia. Original application filed June 4, 1908, Serial No. 436,711. Renewed Jan. 17, 1914, Serial No. 812,828. Divided and this application filed Aug. 1, 1914. Serial No. 854,501. (Cl. 59—8.)



1. The process of making drive chain having links of uniform pitch, each link consisting of side bars, a relatively small end bar or pintle, and a relatively large end hook or sprocket bar, which consists in forming the links, connecting them together in series, and then holding each link of the series successively while correcting the pitch of an adjoining link.

2. The process of making drive chain having links of uniform pitch, each link consisting of side bars, a relatively small end bar or pintle, and a relatively large end hook or sprocket bar, which consists in forming the links, connecting them together in series, and then individually correcting the pitch of each link of the series successively.

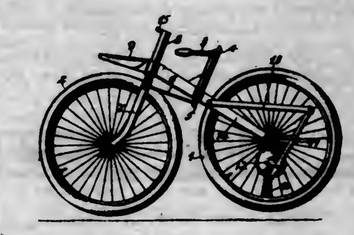
3. The process of making drive chain having links of uniform pitch, each link consisting of side bars, a relatively small end bar or pintle, and a relatively large end hook or sprocket bar, which consists in forming the links, connecting them together in series, and then holding each link of the series one after the other, and correcting individually the pitch of another link in the series.

4. The process of making drive chain having links of uniform pitch, each link consisting of side bars, a relatively small end bar or pintle, and a relatively large end hook or sprocket bar, which consists in forming the link, connecting them together in series, and then stretching each link relative to an adjoining link to correct its pitch.

5. The process of making drive chain having links of uniform pitch, each link consisting of side bars, a relatively small end bar or pintle, and a relatively large end hook or sprocket bar, which consists in forming the links, connecting them together in series, and then stretching the links individually and successively to correct and make their pitch uniform.

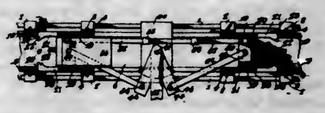
[Claims 6 and 7 not printed in the Gazette.]

1,139,045. BICYCLE. MAURICE SAMUEL LOGAN, Brooklyn, N. Y. Filed Apr. 15, 1914. Serial No. 831,943. (Cl. 208—114.)



The combination in a bicycle of the aft wheel mounted in a fork, said fork attached to the frame by a swivel bearing located forward of the rider's seat, the handle bar, and means controlled thereby, for turning said fork about in said bearing, substantially as shown and described.

1,139,046. HAY-PRESS. JOHN THOMAS MCCUNE, Decatur, Miss. Filed May 2, 1914. Serial No. 835,934. (Cl. 100—9.)



1. A baling press provided with a frame including longitudinally arranged sills and beams with the latter above and spaced from the sills, baling chambers spaced apart in the direction of the length of the press, a plunger in each baling chamber, a sweep pivotally mounted intermediate of the baling chambers between the sills and beams and provided at the pivoted end with divergent arms directly on and fast to said sweep and located on opposite sides thereof, and links each connecting a respective one of the divergent arms to a respective plunger.

2. A baling press provided with baling chambers spaced apart in the direction of the longitudinal axis of the press, reciprocable followers, one for each baling chamber, said followers having sliding connections between them, and means for actuating the followers.

3. A baling press provided with baling chambers spaced apart in the direction of the longitudinal axis of the press, reciprocable followers one for each baling chamber, sliding connections between the followers, a sweep pivoted in the baling press between the followers and provided with arms diverging from the pivoted support, the sweep and arms being located in the longitudinal center line of the press and movable in a plane intermediate of the tops and bottoms of the baling chambers of the press, and link connections between the outer ends of the arms and the respective followers.

4. A baling press provided with baling chambers spaced apart in the direction of the longitudinal axis of the press, reciprocable followers one for each baling chamber, said followers having sliding connections between them, a sweep pivoted in the baling press between the followers and provided with arms diverging away from the pivoted support, and link connections between the outer ends of the arms and the respective followers.

5. A baling press provided with baling chambers spaced apart in the direction of the longitudinal axis of the press, reciprocable followers one for each baling chamber, said followers having sliding connections between them, a sweep pivoted in the baling press between the followers and provided with arms diverging away from the pivoted support, and link connections between the outer ends of the arms and the respective followers, each follower being provided with anti-friction thrust bearings on the side of the center line of the press remote from that toward which

the divergent arms project and also with a top board extending lengthwise of the press toward the pivoted support of the sweep.

[Claims 6 and 7 not printed in the Gazette.]

1,139,047. DRAWBRIDGE CIRCUIT-CONTROLLER. FORD MARSELLIS, Berkeley, Cal. Filed Nov. 12, 1912. Serial No. 730,874. (Cl. 173—332.)



1. A drawbridge circuit controller comprising two cooperating sets of contact fingers one of which sets is mounted on the drawbridge and the other on the abutment, a block carrying one of said sets said block being pivotally mounted to prevent straining the fingers during vertical movements of the bridge relative to the abutment, a leveling arm secured to the said block, and springs acting upon said leveling arm for biasing said block to normal position.

2. A drawbridge circuit controller comprising two cooperating sets of contact fingers one of which sets is mounted on the bridge and the other on the abutment, and one of which sets is movable longitudinally into and out of engagement with the other, a block carrying one of said sets said block being pivotally mounted to permit vertical oscillation of the fingers carried thereby, a leveling arm secured to the said block, springs acting upon said leveling arm for biasing the block to normal position, and means for varying the compression of said springs to vary the normal position of the said block.

3. A drawbridge circuit controller comprising two cooperating sets of contact fingers one of which sets is movable longitudinally into and out of engagement with the other, a block carrying one of said sets said block being pivotally mounted to permit oscillations of the fingers carried thereby, a leveling arm secured to said block, a hole in the arm, a stud fixed with respect to the arm and passing through the hole and two coiled springs on the stud one on each side of the arm.

4. A drawbridge circuit controller comprising two cooperating sets of contact fingers one of which sets is movable longitudinally into and out of engagement with the other, a block carrying one of said sets said block being pivotally mounted to permit oscillations of the fingers carried thereby, a leveling arm secured to said block, a hole in the arm, a stud fixed with respect to the arm and passing through the hole, and two coiled springs on the stud one on each side of the arm, and a nut on the stud for varying the compression of the springs.

5. A drawbridge circuit controller comprising a set of horizontally spaced contact fingers, a second set of contact fingers arranged in pairs, the pairs being horizontally spaced to register with the fingers of the first set and the fingers of each pair being mounted one above the other to receive between them the registering finger of the first set, one of said sets being pivotally mounted to permit of oscillation in a vertical plane to compensate for vertical relative movement of the two sets, and means for moving one of said sets of fingers longitudinally into and out of engagement with the other set.

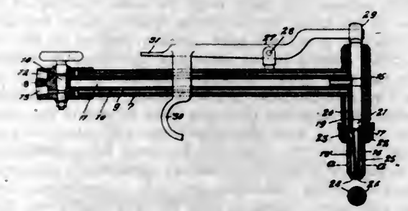
[Claims 6 to 9 not printed in the Gazette.]

1,139,048. APPARATUS FOR CUTTING METAL. ADOLF MESSER, Frankfort-on-the-Main, Germany. Original application filed June 29, 1911, Serial No. 636,112. Divided and this application filed Oct. 31, 1912. Serial No. 728,819. (Cl. 75—90.)

1. In a cutter, the combination with a burner nozzle, a yoke mounted thereon, a pair of wheels carried by said yoke and independently adjustable one relatively to the other.

2. In a cutter, the combination with a cutter head provided with a flame detachable nozzle and a pair of supports located upon opposite sides of said nozzle and independently adjustable for controlling the angle of the cut.

3. In a flame cutter, the combination of a detachable nozzle and adjustable means carried thereby for engaging the surface acted upon for regulating the angle of the cut relatively to such surface.

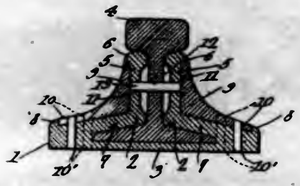


4. In a flame cutter, the combination with a nozzle, of means carried thereby for engaging the surface of material acted upon, an adjustable radius-bar secured to said nozzle, and an adjustable axis point for said radius-bar.

5. In a flame cutter, the combination with a nozzle, of means adjustably carrying the nozzle for regulating the angle of the flame to the surface worked upon, an adjustable radius-bar carried by such nozzle, and an adjustable axis carried by said radius-bar.

[Claims 6 to 8 not printed in the Gazette.]

1,139,049. RAIL-JOINT. JACOB E. MEYERS, Remington, Ind., assignor of one-third to Ezra Bowman, one-sixth to William Townsend, and one-sixth to Claude B. Townsend, Remington, Ind. Filed Aug. 10, 1914. Serial No. 856,068. (Cl. 239—6.)



1. In a rail joint, an angle fish plate, and a brace disposed between the flanges thereof, the flanges of the fish plate having means engaging the brace for guiding the brace for longitudinal sliding movement and for holding the brace against lateral displacement.

2. In a rail joint, an angle fish plate, and a brace disposed between the flanges thereof, the flanges of the fish plate having means for guiding the brace for longitudinal sliding movement, the brace and lower flange of the fish plate having openings adapted to be brought into alinement.

3. In a rail joint, an angle fish plate, flanges thereof having lips, and a brace disposed between the said lips.

4. In a rail joint, an angle fish plate whose flanges are provided with lips, and a brace slidably fitting between the flanges of the fish plate and having its ends engaging the said lips to hold the brace against lateral displacement, the brace and lower flange of the fish plate having openings adapted to aline.

5. In a rail joint, a rail chair having complementary angle fish plates, and braces disposed between the flanges of the respective fish plates, the flanges having means engaging the braces for guiding the braces for longitudinal sliding movement and for holding them against lateral displacement.

[Claims 6 to 9 not printed in the Gazette.]

1,139,050. SPRING-BED CONSTRUCTION. CLARENCE D. MILLER, PERRY D. MILLER, and JOHN O. GADBERRY, Carthage, Mo. Filed Jan. 15, 1914. Serial No. 812,300. (Cl. 5—29.)

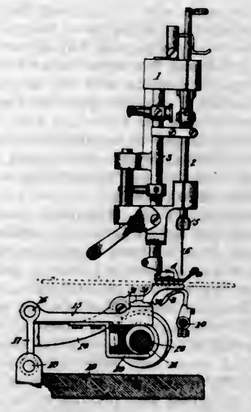
1. In a spring bed, a stay wire; a spring the terminal convolution of which is provided with a bend, and with a lateral loop disposed opposite to the bend and extending across the stay, the end of the terminal convolution being formed into an outstanding tongue which passes across the stay and across the end of the loop, the end of the tongue being connected with the first specified bend of an adjoining spring, the stay and the bend engaging opposed edges of the tongue.



2. In a spring bed, a stay wire having a bend; a spring the terminal convolution of which is provided with a bend and with a lateral loop disposed opposite to the bend and extending across the stay, the bend in the stay lying between the side portions of the loop, the end of the terminal convolution being formed into a tongue extended across the bend of the stay and across the end of the loop and passed between the bend of the stay and the end of the loop, the end of the tongue being connected with the first specified bend of the adjoining spring.

3. In a spring bed, a stay having a bend; a spring, one convolution of which is provided with a lateral loop, the bend in the stay lying between the side portions of the loop, the end of the said convolution of the spring being extended across the side of the loop and bent within the contour of the loop to form into a tongue which is extended beneath the bend of the stay and across the end of the loop in the spring.

1,139,051. FEEDING MECHANISM FOR MULTIPLE-NEEDLE MACHINES. JAMES R. MOFFATT, Chicago, Ill., assignor to Union Special Machine Company, Chicago, Ill., a Corporation of Illinois. Filed May 25, 1908. Serial No. 434,726. (Cl. 112—8.)



1. A feeding mechanism including in combination, a feed bar, means for moving said feed bar, a feed dog, and means for securing said feed dog to said feed bar whereby it may be adjusted laterally, including a rib and a recess coöperating therewith carried respectively by the feed bar and feed dog and means for securing said feed dog in adjusted position.

2. A feeding mechanism including in combination, a feed bar, means for operating the same, a rib carrying member supported by the feed bar and extending transversely thereof, a plurality of feed dogs each having a recess to engage said rib and means for adjustably holding said feed dogs on said ribbed member.

3. A feeding mechanism, including in combination, a feed bar, means for operating the feed bar, a plate secured thereto and extending transversely thereof, and having a rib projecting from its upper side, a plurality of feed dogs, each being provided with a recess to engage said rib, and means for holding said feed dogs in adjusted positions, on said rib.

4. A feeding mechanism including in combination, a feed bar, means for operating the same, a plate secured to the front end of said feed bar, and having an upwardly projecting rib, a slot extending longitudinally through said plate, and a plurality of feed dogs, each being provided with a recess to engage said rib and locking screw passing through said slot for each feed dog, and adjustably holding said feed dog on said rib.

5. The combination of a plurality of spaced needles, of a feed dog coöperating with each of said needles and intermediate feed dogs for engaging the material between said needles.

[Claims 6 to 9 not printed in the Gazette.]

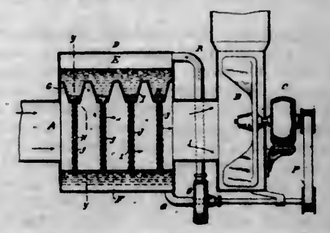
1,139,052. SEAL-FASTENING. THOMAS E. MURRAY and GEORGE K. JESSUP, New York, N. Y.; said Jessup assignor to said Murray. Filed Mar. 28, 1914. Serial No. 827,858. (Cl. 70—99.)



1. A seal fastening, comprising a shackle having a substantially smooth surface, a closed shell having two openings receiving the arms of said shackle, a resilient member within said shell of material harder than the material of said shackle arms and contacting at its ends with said arms: the said member being adapted to compress said arms against said shell and to engage said arms upon attempted withdrawal of said shackle from said shell.

2. A seal fastening, comprising a wire shackle having a substantially smooth surface, a closed shell having side walls and edge walls and having openings in one of said edge walls receiving the arms of said shackle, a support within said shell in proximity to the edge wall containing said openings and disposed between said openings, and a strip of resilient metal harder than said shackle extending in front of said openings and between said support and said edge wall: the said shackle arms being adapted when in place in the shell to meet the edge wall opposite to that containing said opening, and the said metal strip being adapted to compress said arms against said shell upon attempted withdrawal of said shackle from said shell.

1,139,053. APPARATUS FOR NEUTRALIZING CORROSIVE FUMES IN GASES. THOMAS E. MURRAY and EDWIN B. RICKETTS, New York, N. Y. Filed Feb. 1, 1915. Serial No. 5,526. (Cl. 75—30.)



1. An apparatus for freeing a gas current from corrosive gas, comprising a perforated or foraminous plate, means for delivering a liquid upon said plate to form a thin sheet over the surface thereof facing the gas inlet and means for projecting said current directly upon the surface of said liquid sheet to mingle therewith and pass through the openings in said plate.

2. An apparatus for freeing a gas current from corrosive gas, comprising a perforated or foraminous plate, means for delivering a liquid to form thin sheets on opposite surfaces of said plate, and means for projecting said current directly upon the surface of one of said liquid sheets to mingle therewith and pass through the openings in said plate.

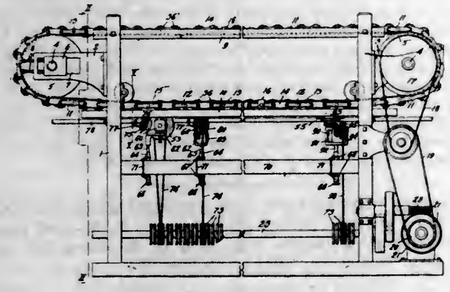
3. An apparatus for freeing a gas current from corrosive gas, comprising a perforated or foraminous plate, means for continuously delivering a liquid upon said plate to form a thin sheet over the surface thereof facing the gas inlet and means for projecting said current directly upon the surface of said liquid sheet to mingle therewith and pass through the openings in said plate.

4. An apparatus for freeing a gas current from corrosive gas, comprising a casing adapted to contain liquid, and having an inlet and an outlet for said current, a perforated or foraminous partition extending downwardly from the upper wall of said casing to a point below the liquid level in said casing and interposed between said inlet and said outlet, and means for continuously elevating the liquid in said casing to the top of said plate on the side facing said current inlet and delivering the same upon the surface of said plate in the form of a thin sheet.

5. An apparatus for freeing a gas current from corrosive gas, comprising a casing adapted to contain liquid, and having an inlet and an outlet for said current, a receptacle for liquid in the upper part of said casing, a plurality of perforated or foraminous plates interposed between said inlet and said outlet and extending downwardly from said receptacle to a point below the liquid level in said casing and receiving liquid from said receptacle in the form of thin sheets upon their surfaces facing said current inlet, and means for continuously elevating liquid from said casing to said receptacle.

[Claims 6 and 7 not printed in the Gazette.]

1,139,054. GLASS-CUTTING MACHINE. HERBERT W. MORRIS and EDWARD M. MORRIS, Buffalo, N. Y., assignors of one-third to David Z. Morris, Ridgeville, Ontario, Canada. Filed Apr. 9, 1913. Serial No. 759,876. (Cl. 51—3.)



1. In a machine of the character described, the combination of a plurality of stones arranged to rotate in relatively different planes, means for presenting the article to be cut to successive stones and for changing the position of the article to present it in different positions to the stones so as to produce a pattern upon said article.

2. In a machine of the character described, the combination of a plurality of stones arranged to rotate in different planes at an angle to each other, means for presenting an article to be cut to successive stones, and means for rotating the article about its axis when in contact with the stones.

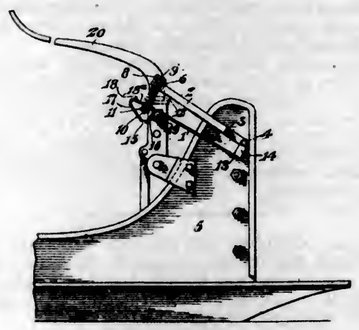
3. In a machine of the character described, the combination of a plurality of stones, supporting means for said stones permitting angular adjustment of the planes of rotation thereof, and means for changing the position of the article to be cut to present it in different positions to successive stones.

4. In a machine of the character described, the combination of a plurality of stones, supporting means for said stones permitting angular adjustment of the planes of rotation thereof, and means for conveying a series of articles past said stones and changing the position of the articles for presenting each article in different positions, presenting each article to the action of successive stones.

5. In a machine of the character described, the combination of a plurality of stones, supporting means for said stones permitting angular adjustment of the planes of rotation thereof, means for conveying a series of articles past said stones and presenting each article to the action of successive stones, and means for turning the articles so as to present different portions of the surfaces thereof to the action of successive stones.

[Claims 6 to 40 not printed in the Gazette.]

1,139,055. LOCKING DEVICE FOR SAWMILL-DOGS. JOHN W. MORRIS, Kila, Mont. Filed Sept. 30, 1913. Serial No. 792,653. (Cl. 74—39.)



1. The combination with a relatively fixed support and a pivotally mounted operating lever provided with a lateral projection, of a supporting bar secured to the said support and projecting therefrom, a latch lever arranged below and in spaced relation with the supporting bar and pivotally connected at one end with the same, said latch lever being provided at the other end with a downwardly projecting head arranged to engage with the lateral projection of the operating lever, and a spring interposed between the supporting bar and the latch lever and arranged to urge the latter downwardly.

2. The combination with a relatively fixed support and a pivotally mounted operating lever provided with a lateral projection, of an inclined supporting bar secured at its lower end to and projecting from the said support and provided at its upper end with a lateral extension, an inclined latch lever arranged below and in spaced relation with the supporting bar and provided at its upper end with a head adapted to engage with the lateral projection of the operating lever, said latch lever having its lower end bent laterally toward the support and provided with an upwardly extending arm pivoted to the lower end of the supporting bar, and slidable means connected with the laterally extending arm of the supporting bar and with the head of the lever for urging the latter downwardly.

3. The combination with a relatively fixed support and a pivotally mounted operating lever provided with a lateral projection, of a supporting bar secured at one end to the support and pivoted to the attached end of the same, said latch lever having its other end portion bent downwardly at approximately a right angle and then upwardly at an acute angle to substantially the plane of the latch lever and then bent inwardly to the same, forming an approximately triangular head adapted to engage with the lateral projection of the operating lever, a rod piercing the supporting bar and the inwardly bent portion of the head of the latch lever and constituting a slidable connection between the said latch lever and bar, and a coiled spring disposed on the rod and arranged to urge the lever downwardly.

1,139,056. SAFETY-RAZOR. WILLIAM JAMES MYATT, Birmingham, England. Filed June 17, 1912. Serial No. 704,001. (Cl. 30—12.)



1. A safety razor including in combination, a handle, a movable guard and a movable blade carried thereby, and coöperating means connecting said guard and blade whereby the movement of the guard or blade from the shaving to the stropping position or vice versa is accompanied by a simultaneous movement of the other part to the appropriate position.

2. A safety razor including in combination, a handle, a frame, a guard and blade rotatably mounted in said frame, and means connecting the guard and blade so that by rotating one of the latter the other is simultaneously rotated in the reverse direction.

3. A safety razor including in combination, a frame, a guard and blade rotatably mounted therein, a toothed member on the guard and a toothed member secured in relation to the blade and in gear with the first mentioned toothed member whereby the guard and blade are simultaneously rotated toward and away from one another by movement of either.

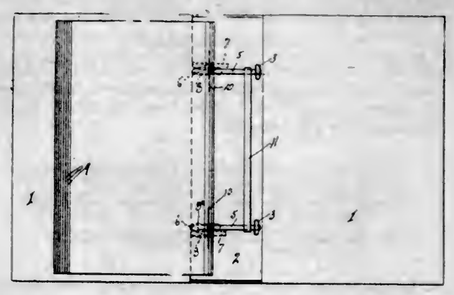
4. A safety razor including in combination a handle, a frame, a guard and blade rotatably mounted in such frame and means connecting the guard and blade so that by rotating one of the latter, the other is simultaneously rotated in the reverse direction to a different angular extent.

5. A safety razor having a handle, a blade movable into alinement or substantial alinement with the handle for the purpose of stropping and cleaning, a guard movable to admit of said stropping and cleaning, means comprising a spring thrust or pressure control directly effective on the guard to hold the same in the shaving position, and connecting means between the blade and the guard whereby said spring control is indirectly effective upon the blade to also hold the same in the shaving position, and means independent of the spring of said pressure arrangement whereby the blade may be positively held against substantial movement in either direction when in the stropping or cleaning position.

[Claims 6 to 18 not printed in the Gazette.]

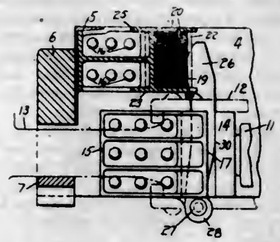
1,139,057. BOOKBINDER. PETER NYBOE, Seattle, Wash. Filed May 2, 1914. Serial No. 835,837. (Cl. 129—24.)

In an article of the class described, the combination with a magazine cover, of means for removably attaching leaves within the cover, the said means comprising a block fitted into the rib of the cover, the said block having recesses therein, wires having loops which are adapted to be received by the said recesses and one of the ends of each of the wires being adapted to be frictionally held in one of the side walls of one of the recesses, the other end being bent into parallelism with the opposite end, screw eyes secured into the block opposite each recess and into the eye of each of which the free end of one of the wires is adapted to be snapped, a plurality of wire eyes having straight portions, the said eyes being adapted to be slipped into notches cut into the folded edges of the leaves, the last mentioned eyes being adapted to receive



the first mentioned wires, and a resilient band adapted to be passed around from one of the said wires to the other.

1,139,058. DRAFT-RIGGING FOR RAILWAY-CARS. JOHN F. O'CONNOR, Chicago, Ill., assignor to William H. Miner, Chicago, Ill. Filed Nov. 24, 1913. Serial No. 802,850. (Cl. 213—42.)



1. In a draft rigging for railway cars, the combination with the draft gear, draft yoke draw bar, stop members and followers, of a supplemental shock absorbing member mounted between the draft members and comprising springs, seats therefor and levers for compressing springs, said levers being pivoted to the front stop members and actuated by the front follower in its forward movement.

2. In a draft rigging for railway cars, the combination with the draw bar and draft members, of a shock absorbing member comprising a spring cage mounted above the draw bar, springs therein, and levers to compress the springs, said levers having actuating means operatively connected to the draw bar in its forward movement.

3. In a draft rigging for railway cars, the combination with sills, a draw-bar, stop members, yoke, main draft gear and a follower, of a supplemental shock absorbing device comprising a plurality of plate springs secured to and between the sills adjacent said follower, and means for flexing said springs upon movement of said follower toward the springs and prior to the operation of the main gear, said follower remaining stationary during the operation of the main gear.

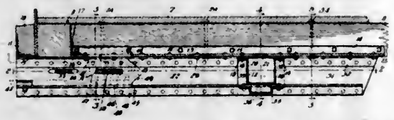
4. In a draft rigging for railway cars, the combination with the sills, stop members, draw-bar, yoke and main draft gear, of a member secured to and extending from one sill to the other sill above the level of the top of the draw-bar, springs carried by said member, and means for operating the springs during the initial movement of the draw-bar in one direction and prior to the operation of the main gear.

5. In a draft rigging for railway cars, the combination with the draw bar, draft members, stop members, draft yoke, followers and draft gear, of an auxiliary shock absorbing member mounted upon the draft members, and comprising a spring cage, springs within the cage, arms pivotally connected to the draft members, and adapted to compress said spring, slots in the spring cage for the

longitudinal movement of the arms therein, the said arms being actuated by the front follower on forward movement thereof.

[Claims 6 to 16 not printed in the Gazette.]

1,139,059. UNDERFRAME FOR RAILWAY-CARS. JOHN F. O'CONNOR, Chicago, Ill., assignor to William H. Miner, Chazy, N. Y. Filed June 12, 1914. Serial No. 844,615. (Cl. 105—76.)



1. In an under-frame for railway cars, combination with center sills, a dependent box girder secured thereto, said girder having a transverse opening for the passage of the body-bolster.

2. In an under-frame for railway cars, the combination with wooden center sills, a dependent box girder secured thereto, said girder having a transverse opening for the passage of a body-bolster.

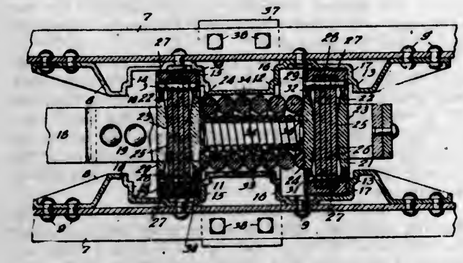
3. In an under-frame for railway cars, the combination with center sills, under sills and body-bolsters subadjacent to the center sills of draft-arms, each draft-arm comprising a channel-shaped member extended forwardly and rearwardly from the body-bolster and above the same, a further channel-shaped member extended forwardly and rearwardly of the bolster and below the same, and plates connecting said members, the said draft-arm being secured to the center sills.

4. In an under-frame for railway cars, in combination, center sills, end sills, body-bolsters, the center sills being provided at their ends with a draft member, the draft member comprising upper and lower channel-shaped members and plates connecting said members, the body-bolsters passing through said draft-arm between the channel-shaped members.

5. In an under-frame for railway cars, in combination with center sills, end sills and body-bolsters, of a draft member for each end of the center sills, the draft member comprising a channel-shaped member extending from the end sill rearwardly of the body-bolsters and above the same, a further channel-shaped member passing underneath the end sill of the body-bolster and rearwardly of the same, vertical plates including said channel-shaped member, the upper channel-shaped member being secured between the center sills and the body-bolsters passing transversely between the channel-shaped members.

[Claims 6 to 13 not printed in the Gazette.]

1,139,060. DRAFT-RIGGING FOR RAILWAY-CARS. JOHN F. O'CONNOR, Chicago, Ill., assignor to William H. Miner, Chazy, N. Y. Filed June 12, 1914. Serial No. 844,616. (Cl. 213—64.)



1. In a draft-rigging for railway cars, followers, springs extending from the ends thereof and spring caps inclosing the ends of said springs.

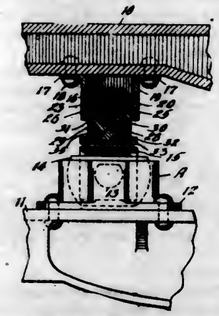
2. In a draft-rigging for railway cars, a follower, having a transverse recess, springs within said recess, spring caps at the ends of said springs and means for connecting said spring caps to the springs.

3. In a draft-rigging for railway cars, a follower, flat springs in engagement therewith, spring caps inclosing the ends of said springs and pins or keys securing said caps to the springs.

4. In a draft rigging for railway cars, a follower, flat springs extending transversely of said follower and in engagement therewith, and spring caps secured to the ends of said springs, said caps being movable relatively to said follower.

5. In a draft rigging for railway cars, a follower having a transversely extending recess therethrough, flat springs extending through said recess and beyond the edges of the follower, spring caps secured to the ends of said springs, said caps being substantially channel shape in cross section, the caps being movable back and forth relatively to the follower.

1,139,061. ADJUSTABLE SIDE BEARING FOR RAILWAY-CARS. JOHN F. O'CONNOR, Chicago, Ill., assignor to William H. Miner, Chazy, N. Y. Filed July 25, 1914. Serial No. 852,998. (Cl. 105—115.)



1. In a side bearing for railway cars, a striking plate, and means for adjusting the height of said striking plate, said means including an adjustable eccentric supporting member separable from the striking plate.

2. In a side bearing for railway cars, the combination with a casting adapted to be secured to a bolster, of a striking plate, and means for adjusting the striking plate relatively to said casting, said means including a supporting member separate from and adjustable to different angular positions relatively to said casting.

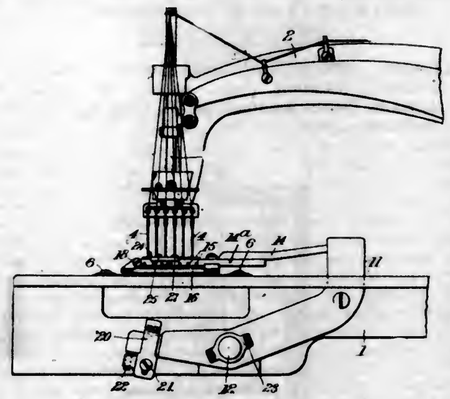
3. In a side bearing for railway cars, the combination with a bolster, of a casting secured thereto, a thrust member, and an eccentric support for said member adjustable angularly about a horizontal axis, the thrust member having a single bearing face.

4. In a side bearing for railways cars, the combination with a casting adapted to be secured to a bolster, said casting being provided with bearings, an eccentric supporting member mounted in said bearings, and a thrust member carried by said supporting member, the thrust member and eccentric supporting member being relatively adjustable.

5. In a side bearing for railway cars, the combination with a casting adapted to be secured to a bolster, of a thrust member, an adjustable support for said member, said support being a regular polygon in cross section.

1,139,062. TUCKING-GUIDE FOR SEWING-MACHINES. LANSING ONDERDONK, New York, N. Y., assignor to Union Special Machine Company, Chicago, Ill., a Corporation of Illinois. Filed Dec. 10, 1908. Serial No. 466,861. (Cl. 112—12.)

1. The combination of a work support, stitch-forming mechanism including a needle bar, a plurality of needles carried thereby arranged in a line substantially at right angles to the line of feed, and a plurality of tuck-forming devices, said devices terminating at their receiving ends one in advance of the other relative to the stitch-forming mechanism, whereby a plurality of tucks may be formed one in advance of the other, and devices for directing the tucks to the stitch-forming mechanism, whereby they may be simultaneously stitched.



2. The combination of a work support, stitch-forming mechanism including a needle bar, a plurality of needles carried thereby and arranged in a line substantially at right angles to the line of feed, a plurality of tuck-forming guides carried by the work support, a plurality of upper tuck-forming fingers coöperating therewith, said tuck-forming fingers terminating at their receiving ends one in advance of the other relative to the stitch-forming mechanism, whereby a plurality of tucks may be formed one in advance of another and directed to the stitch-forming mechanism.

3. The combination of stitch forming mechanism, including a plurality of needles, a presser foot having a plurality of needle holes, said presser foot having a plurality of grooves formed therein in advance of said needle holes, said grooves being inclined to the vertical and located wholly in front of the needle holes, for turning down and directing a plurality of tucks, and a tucking guide, including means for forming a plurality of tucks.

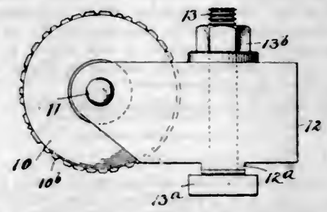
4. The combination of stitch forming mechanism, including a plurality of needles, a presser foot having a plurality of needle holes, said presser foot having a plurality of grooves formed therein, in advance of said needle holes, said grooves being inclined to the vertical and located wholly in front of the needle holes, for turning down and directing a plurality of tucks, and a tucking guide including an upper member and a lower member, tuck forming guides carried by said lower member, and coöperating tuck forming fingers carried by said upper member.

5. A tucking guide including in combination, an upper member and a lower member, a plurality of guides carried by said lower member, one of said tuck guides extending farther toward the front of the machine than the others, and the other guides commencing respectively at points nearer the stitch forming mechanism, whereby one tuck may be folded in advance of another, the rear end of said tucking guides being substantially the same distance from the stitch forming mechanism.

[Claims 6 to 20 not printed in the Gazette.]

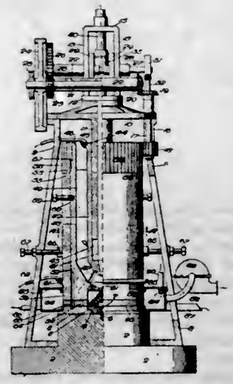
1,139,063. ATTACHMENT FOR LATHES. HERMAN W. OSTER, Cleveland, Ohio, assignor to The Oster Manufacturing Company, Cleveland, Ohio, a Corporation of Ohio. Filed Aug. 1, 1912. Serial No. 712,664. (Cl. 201—4.)

An attachment for a lathe or planer, comprising a holder having means for attaching the same to the tool-carrying part of such machine, an annular die rotatably mounted in said holder, said die having on its periphery raised characters tapered toward their outer ends or edges and adapted to be impressed in the moving work held in such machine, when the die is brought up against such work and is driven thereby, and said die having on its



periphery between certain of said characters spaced projecting ribs, each of which extends circumferentially a short distance around the die in a plane at right angles to the axis of the die, the function of said projecting ribs being to maintain the die and work in driving relationship.

1,139,064. MILL FOR TREATING ORES AND THE LIKE. ALBERT VICTOR PARK, South Melbourne, Melbourne, Victoria, Australia. Filed Oct. 5, 1914. Serial No. 865,169. (Cl. 83—57.)



1. In a mill for treating ore, the combination of an inner and outer disintegrator, each having a percussive and a rotary action, means connecting the two disintegrators to operate independently or together, and means for operating the disintegrators.

2. In an improved mill for treating ores, an inner and outer disintegrator each having a percussive and a rotary action upon the ore, said disintegrators having means to automatically discharge the ore as it is reduced, and means for automatically feeding successive charges of ore to the disintegrators.

3. In an improved mill for treating ores, means for automatically and intermittently feeding the ore to be reduced, reducing means having a percussive and grinding action upon the ore fed said reducing means including inner and outer disintegrators, said reducing means automatically discharging the ore as it is reduced, means for receiving the reduced ore discharged, and a sprayer for preventing dust arising during reduction of the ore.

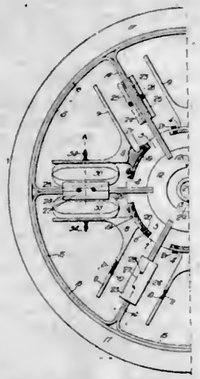
4. In an improved mill for treating ores, reducing means, means including inner and outer disintegrators for automatically and intermittently feeding ore to the reducing means, said reducing means having a percussive and a grinding action upon the ore fed, said reducing means automatically discharging the ore as it is reduced, means for receiving the reduced ore discharged, means for discharging the reduced ore from the receiving means,

means for inducing a down draft through the mill, and means to prevent dust passing from the mill with the draft.

5. In a mill for treating ore, the combination of a base, an inner disintegrator above the base and formed with a bottom opening and inclined walls adjacent thereto, an outer disintegrator surrounding the inner disintegrator mounted on the base, means for lifting and dropping the inner disintegrator the latter subsequently lifting and permitting the outer disintegrator to fall, means for supplying ore to the disintegrators, and a receiving pan surrounding the outer disintegrator.

[Claims 6 to 21 not printed in the Gazette.]

1,139,065. RESILIENT WHEEL. RICHARD THOMAS PARK, South Melbourne, Melbourne, Victoria, Australia, assignor to R. T. P. Patent Wheels Proprietary Limited, Melbourne, Australia, a Corporation of Victoria, Australia. Filed May 20, 1914. Serial No. 839,824. (Cl. 152—28.)



1. An improved resilient wheel, consisting of a hub element having outstanding flanges, a series of outstanding arms mounted on said flanges, a rim element having a series of radial spokes parallel with adjacent arms, a rim encircling said spokes, a tire carried by the rim, a slide mounted upon each spoke, a series of elongated pneumatic cushions secured to the slides of the spokes and the adjoining outstanding arms, and an outer plate secured to the hub element.

2. An improved resilient wheel, consisting of a hub element having a series of overhanging flanges, arms outstanding from said flanges, a rim element having a hub ring encircled by said flanges, a series of radial spokes protruding from said ring and passing between the flanges and the outstanding arms of each flange, a slide mounted upon each spoke and a series of tangential cushions secured to the outstanding arms and to the slides.

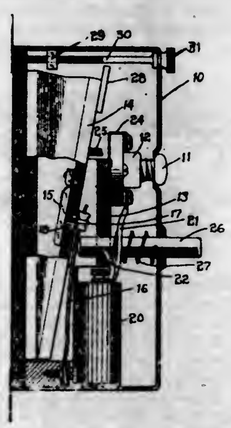
3. An improved resilient wheel, consisting of a hub element having a boss, flanges protruding from said element and overhanging said boss, said flanges having openings or passageways therebetween, a pair of outstanding arms protruding from each flange, a rim element consisting of a hub ring encircling the boss and encircled by the flanges, spokes radiating from said ring and passing through the openings between the flanges, said spokes being parallel with the adjoining arms, a slide mounted upon each spoke, and a series of elongated cushions secured to the outstanding arms and the slides.

4. An improved resilient wheel, consisting of a hub element having a series of outstanding arms, a rim element having a series of radial spokes, each spoke being parallel with the adjoining arms and a series of elongated pneumatic cushions disposed between the arms and the spokes, each cushion comprising an outer cover and an inner air bag.

5. An improved resilient wheel, consisting of a hub element having a boss, a series of flanges protruding from said element and overhanging said boss, a pair of arms outstanding from each flange, a rim element having a hub ring encircling the boss and encircled by the flanges, a series of spokes radiating from the hub ring and passing between the flanges and pairs of arms carried thereby, a slide mounted upon each spoke, and a series of pneumatic cushions secured to the slides and the outstanding arms, each cushion comprising an outer cover and an inner air bag.

[Claims 6 to 9 not printed in the Gazette.]

1,139,066. PNEUMATIC TIME-SWITCH. GEORGE H. PARSONS, Stamford, Conn., assignor of one-half to T. La M. Couch, Stamford, Conn. Filed Jan. 16, 1915. Serial No. 2,576. (Cl. 161—25.)



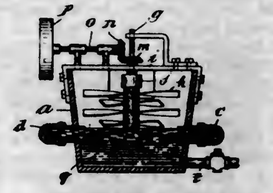
1. A switch of the character described comprising an electric circuit, a bellows acting when distended to open the circuit, a spring controlled push pin adapted to collapse the bellows and close the circuit, a spring acting to distend the bellows and open the circuit, a projection on the bellows and an adjustable stop adapted to be engaged by said projection to limit the collapsing movement of the bellows and consequently the time required for distension.

2. An apparatus of the character described comprising an electric circuit, a bellows having a valve and acting when distended to open the circuit, a spring acting to retain the bellows valve in the closing position and also to distend the bellows and means acting to open said valve, collapse the bellows and close the circuit.

3. An apparatus of the character described comprising an electric circuit, a bellows having a valve and acting when distended to open the circuit, a spring acting to retain the bellows valve in the closing position and also to distend the bellows, a push pin acting to open said valve, collapse the bellows and close the circuit, and means for regulating the collapsing movement of the bellows and consequently the time required for distension and the opening of the circuit.

1,139,067. AMALGAMATOR. CHARLES W. PATTEN, Lynn, Mass. Filed Jan. 17, 1914. Serial No. 812,615. (Cl. 83—67.)

1. An amalgamator comprising a receptacle arranged to permit side overflow at its top and to contain an amalgamating fluid in its bottom portion, means to deliver a mixture of water and solid material to said fluid below the surface thereof, to permit it to pass therethrough to said surface, and a screw-propeller mounted to rotate about a vertical axis within said receptacle, with its lower portion above and in immediate unobstructed proximity to the normal level of the amalgamating fluid and its upper portion above the level of the overflow edge of the receptacle, to receive the material as it rises from said fluid, elevate it to points above said edge, and accelerate its discharge thereover, by centrifugal action.



2. An amalgamator comprising a receptacle arranged to permit overflow at its top and to contain an amalgamating fluid in its bottom portion, means to deliver a mixture of water and solid material to said fluid below the surface thereof, to permit it to pass therethrough to said surface, and a screw-propeller mounted to rotate about a vertical axis within said receptacle, and composed of a series of adjacently spaced horizontally extending inclined blades, the lowermost of which are arranged to swing above and in immediate unobstructed proximity to said surface and the uppermost above the level of the overflow edge of the receptacle, the intermediate blades being arranged to propel the solid material from the lower to the upper blades, whereby said propeller may have an elevating and mixing action on the solid material.

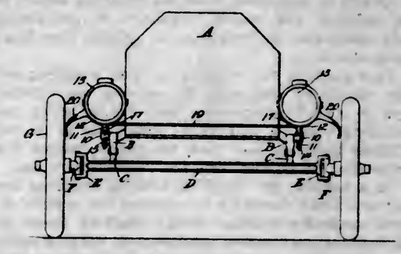
3. An amalgamator comprising a circular receptacle having a side overflow outlet at its top and arranged to contain an amalgamating fluid in its bottom portion, means to force a mixture of water and solid material into said fluid, to permit it to rise to the surface thereof, and a series of horizontally extending, adjacently disposed, and similarly inclined blades mounted to rotate in said receptacle about a vertical axis disposed centrally thereof, the lowermost of said blades being arranged above and in immediate unobstructed proximity to said fluid level, and the uppermost above the overflow edge of said outlet, to permit said blades to elevate the material from said fluid and discharge it from said outlet by centrifugal action.

4. An amalgamator comprising a circular receptacle having a side overflow outlet at its top and arranged to contain an amalgamating fluid in its bottom portion, means to force a mixture of water and solid material into said fluid, to permit it to rise to the surface thereof, and a series of horizontally extending, adjacently disposed, and similarly inclined blades mounted to rotate in said receptacle about a vertical axis disposed centrally thereof, the lowermost of said blades being arranged adjacent and above said fluid level, and the uppermost above the overflow edge of said outlet, said receptacle having the inner surface of its side walls, above said fluid level, of inverted conical form to provide a partial support for the solid material, as it is carried upwardly to said outlet between the ends of the blades and said walls.

5. An amalgamator comprising a cylindrical receptacle having an outlet at its top, and arranged to contain an amalgamating fluid to a predetermined depth, a screw-propeller arranged centrally of said receptacle to rotate about a vertically disposed axis, in position to engage solid material, as it rises above the surface of the fluid and to elevate it to said outlet, supply pipes opening into said receptacle, below the surface of said fluid, at diametrically opposite points, and means to cause the material to be forced from said pipes simultaneously into the fluid, to permit it to pass freely through the fluid and rise to the surface thereof, to cause opposite portions of the propeller to be loaded thereby with approximate uniformity.

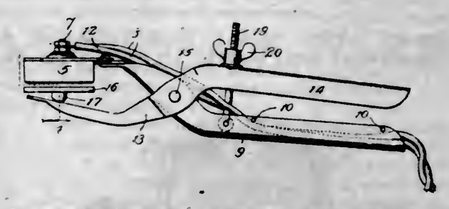
1,139,068. HEADLIGHT-OPERATING MECHANISM. JENS PETER PEDERSEN, Provo, Utah. Filed Dec. 17, 1913. Serial No. 807,336. (Cl. 240—62.)

A headlight operating device for vehicles comprising a pair of sleeve-like bearings connected to the vehicle frame at the opposite sides of the body, forks each having a reduced stem rotatably fitted in the bearings, coöperating means formed on the stem and bearings for holding the lights in normal position, an outwardly and forwardly curved resilient arm integral with the outermost limb of



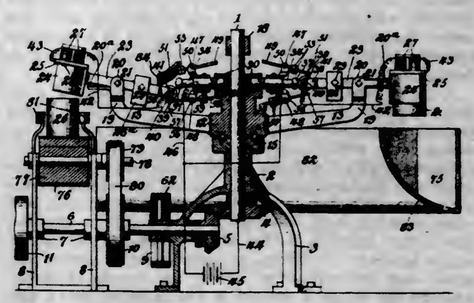
each fork and adapted to extend in close proximity to the periphery of the wheel of the vehicle, a rearwardly directed extension medially of each fork, and a rod connected to the extensions of the forks for simultaneously turning the lights on turning of the wheels of the vehicle.

1,139,069. ELECTRIC VULCANIZER. CARL A. PFANSTIEHL, North Chicago, Ill. Filed Mar. 8, 1913. Serial No. 752,860. (Cl. 18—18.)



In a vulcanizer, the combination with two pivoted sheet-metal members crossing each other between their ends and mutually pivoted, one of said members being U-shaped in cross-section to receive conducting wires and terminating in a sheet-metal heating box carrying an electric resistance element, a pressure-plate formed with rounded buttons mounted to rock on the end of the other member to oppose said box, and means to hold the corresponding ends of said members in forcibly pressed relation with each other, for the purpose set forth.

1,139,070. AUTOMATIC WEIGHING-MACHINE. WALTER J. PHELPS, Baltimore, Md., assignor to Phelps Can Company, Weirton, W. Va., a Corporation of West Virginia. Filed May 19, 1914. Serial No. 839,595. (Cl. 83—92.)



1. In a machine for weighing articles, weighing means, and means associated therewith for causing the articles to adhere to and be suspended by the weighing means at the top portions of said articles while being weighed, said second-named means including means for causing the

release of the suspended articles under predetermined weight conditions.

2. In a machine for weighing articles, weighing means, means associated therewith for causing the articles to adhere to and be suspended from the weighing means while being weighed, and means responsive to predetermined weight conditions for releasing the articles from the suspending means.

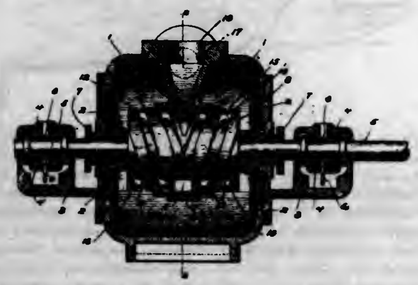
3. In a machine for weighing articles, weighing means, means associated therewith for causing the articles to adhere to and be suspended from the weighing means while being weighed, and means responsive to the action of articles weighing less than the predetermined weight for releasing the articles from the suspending means.

4. In a machine for weighing articles, weighing means, means associated therewith for causing the articles to adhere in suspended relation to the weighing means while being weighed, and means responsive to weights both less and greater than a predetermined weight for releasing the articles from the suspending means.

5. In a machine for weighing articles, weighing means, means associated therewith for causing the articles to adhere in suspended relation to the weighing means while being weighed, and means responsive to weights both less and greater than a predetermined weight for releasing the articles from the suspending means, said weight responsive means being arranged to act in the order named.

[Claims 6 to 42 not printed in the Gazette.]

1,139,071. PUMP. LOUIS L. PRATT, Philadelphia, Pa. Filed Nov. 15, 1912. Serial No. 731,475. (Cl. 230—14.)



1. In an air pump, a chamber of circular cross section provided in the periphery with a water inlet and an air inlet spaced apart circumferentially, a rotary impeller within said chamber and provided with a spiral passage way, and means for positively rotating said impeller, substantially as described.

2. In an air pump, a chamber provided with an air inlet and a water inlet, the latter extending substantially tangentially into said chamber, a rotary impeller within said chamber and provided with a spiral passage way and means for positively rotating said impeller in a direction opposite to that of the inflowing water, substantially as described.

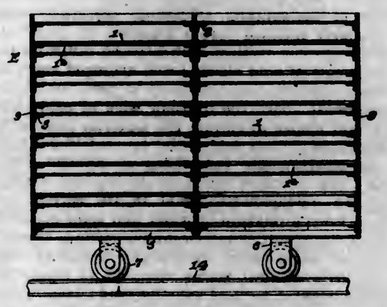
3. In a pump, the combination with a casing, of a rotary impeller mounted in the casing, a driving shaft secured to the rotary impeller and projecting through the casing, said rotary impeller having a plurality of circuitous passages beginning at the center of the rotary impeller and discharging into the casing, said casing having air and water inlets at an angle to each other, and both communicating with the center of the rotary impeller, said rotary impeller having wedge shaped walls operating to separate the current of water into the several passages, and intermittently cut off the supply of water, whereby the water is divided in the passages into a plurality of separate slugs or sections inducing a suction of air between them, substantially as described.

4. In a pump, the combination with a casing having a central circular chamber, and air and water inlet ports communicating with said circular chamber and located at an angle to each other, of a rotary impeller mounted to turn in the casing within the circular chamber and out of contact with the walls of the latter, a driving shaft secured to the rotary impeller and projecting through the casing, said rotary impeller having a plurality of circuitous passages beginning at the center of the rotary impeller, and division walls on the rotary impeller constructed to intermittently cut off the supply of water, whereby the water in the passages is compelled to flow in a continuous series of separate slugs or sections and induce a suction of air between them, said casing having an air and water outlet above said chamber whereby the latter remains submerged, and means on the rotary impeller for deflecting the water away from the central chamber in the casing, substantially as described.

5. In a pump, the combination with a casing having a central circular chamber, and air and water inlet ports communicating with said chamber and located at an angle to each other, of a cylindrical rotary impeller mounted to turn in said central chamber, a driving shaft secured to the rotary impeller and projecting through the casing, said rotary impeller having a plurality of spiral grooves beginning at the center of the rotary impeller and extending to the ends thereof, and shell sections secured on the rotary impeller and extending over the grooves from their ends to points removed from the center of the rotary impeller, substantially as described.

[Claims 6 to 12 not printed in the Gazette.]

1,139,072. STARCH-DRYING TRUCK. MORLEY PUNSHON REYNOLDS, Cleveland, Ohio, assignor to The W. S. Tyler Company, Cleveland, Ohio, a Corporation of Ohio. Filed Jan. 12, 1914. Serial No. 811,542. (Cl. 34—46.)



1. A carrier comprising a frame, wheels below the same to provide transit means, sides and ends of foraminous material supported on said frame, and a series of horizontal rigid shelves for supporting material to be dried.

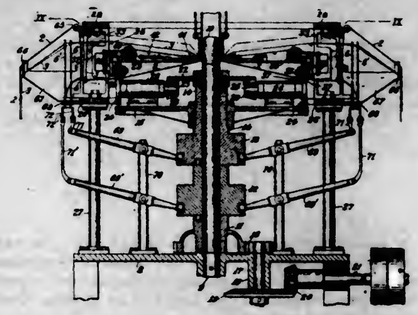
2. A carrier comprising a frame, wheels below the same to provide transit means, sides and ends of foraminous material supported on said frame, and a series of horizontal rigid shelves of foraminous material for supporting material to be dried.

1,139,073. CIRCULAR LOOM. MATTHEW B. RHOMOSER, Sandy Hook, Conn., assignor to Fabric Fire Hose Company, New York, N. Y., a Corporation of New York. Filed Feb. 2, 1914. Serial No. 815,937. (Cl. 139—7.)

1. In a circular loom for weaving tubular fabric, a rotary shuttle for wrapping weft strands helically about substantially straight warp strands, and means for weaving binder strands alternately over successive warp strands and weft strands without interweaving the latter.

2. In a circular loom for weaving tubular fabric, a rotary shuttle for wrapping weft strands continuously and helically about substantially straight warp strands and means for weaving binder strands over successive warp strands and weft strands, the latter being under greater tension than said binder strands.

3. In a circular loom for weaving tubular fabric, a rotary shuttle for wrapping weft strands continuously and helically about substantially straight warp strands maintained under constant tension, and means for weaving binder strands over successive warp strands and pairs of weft strands, the binder strands being under less tension than said warp strands.

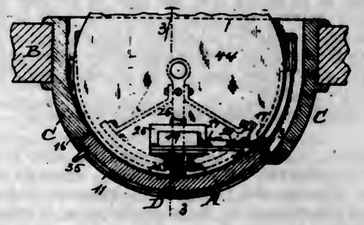


4. In a circular loom for weaving tubular fabric, a rotary shuttle for wrapping weft strands continuously and helically about substantially straight warp strands, and means for weaving binder strands over the warp strands and successive pairs of weft strands, the pairs being composed of alternately adjacent weft strands.

5. In a circular loom for weaving tubular fabric, a rotary weft shuttle, means for forming sheds between warp strands and binder strands, and means for weaving the binder strands over the warp strands between successive sheds.

[Claims 6 to 44 not printed in the Gazette.]

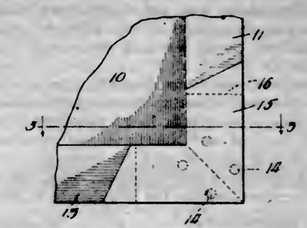
1,139,074. MEANS FOR AUTOMATICALLY CLOSING VAULT-DOORS. FREDERICK W. RODLER, Cincinnati, Ohio, assignor to Victor Safe & Lock Co., Norwood, Ohio, a Corporation of Ohio. Filed Sept. 16, 1912. Serial No. 720,460. (Cl. 39—95.)



In combination, a door frame substantially rectangular and shaped between its upright members in form of a cylindrical segment which contains the door-opening, a door shaped complementary to the segmental part of the door-frame, a hinge-frame pivotally mounted in the door-frame and to which the door is connected for movement with respect to the opening in the door-frame, an electric motor positioned in the door-frame and below the hinge frame mentioned, a segmental rack connected to the hinge-frame, a circular floor attached to the hinge-frame so as to be concentric with the door and movably fitted into the door frame so as to cover the motor, a pinion permanently in mesh with this rack and adapted to be rotated by the motor and a switch to control the operation of the motor for the purpose of moving the door into closed position.

1,139,075. POSTER OR DISPLAY-CARD. WADSWORTH D. ROY, Chicago, Ill. Filed Sept. 30, 1912, Serial No. 723,111. Renewed Dec. 22, 1913. Serial No. 808,275. (Cl. 40—158.)

1. A poster or display card comprising a body sheet of suitable material, marginal reinforcing strips applied to the face of the sheet, reinforcing pieces applied between said strips and body sheet at the corners of the latter, and fastening means piercing said body sheet, the reinforcing strips and reinforcing pieces.

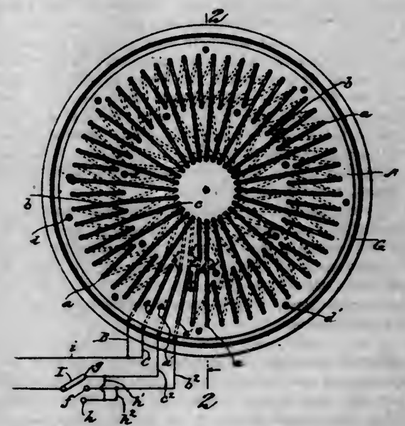


2. A poster or display card comprising a body sheet of suitable material, marginal reinforcing strips applied to the face of the sheet, reinforcing pieces applied between said strips and body sheet at the corners of the latter, fastening means piercing said body sheet, the reinforcing pieces and strips, and facing corner pieces applied to the said strips at the corners of the card and secured thereto.

3. A poster or display card comprising a body sheet of relatively stiff material, separate thin, relatively wide and flat reinforcing strips applied to the front face of the sheet at the side, top and bottom margins to prevent warping thereof, reinforcing plates applied between said strips and body sheet at the corners of the latter, fastening means piercing said body sheet, the reinforcing pieces and strips, and facing corner pieces applied to the said strips at the corners of the card and pasted thereto, said reinforcing strips being miter jointed at the corners of the card, and the corner pieces being applied over and concealing the miter joints.

4. A poster comprising a single thickness body sheet, flat wide margined reinforcing strips applied and fastened to the face of the sheet at the side, top and bottom margins thereof and supported by said sheet and meeting at their ends in matched relation at the corners of the poster, and of sufficient thickness and strength only to stiffen the card against warping, whereby the poster is reinforced about its margins to support the same in leaning position, and corner pieces applied to said strips and extending across the meeting matched ends thereof at the corners of the sheet to further reinforce the body sheet and the strips at the corners of the poster and to hold the matched ends of the strips together.

1,139,076. RESISTANCE FOR ELECTRIC HEATERS. EDWIN A. RUTENBER, Logansport, Ind. Filed Jan. 31, 1914. Serial No. 815,851. (Cl. 219—37.)

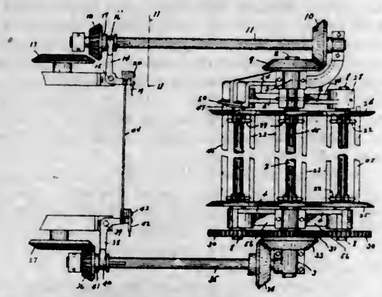


1. An electrical resistance embodying a core composed of a single layer of mica provided with a plurality of rows

of apetrures, and a plurality of resistance wires or ribbons laced through said apertures, and producing flattened windings in contact with the respective faces of said core, the inner and outer windings being passed through the same apertures of two adjacent rows and all of said windings being retained immovably in position by said core.

2. An electrical resistance comprising a core composed of a single piece of insulating material and provided with concentric rows of apertures, and a plurality of resistance wires laced through said apertures and producing windings which are in contact with the respective surfaces of the core, the inner and outer windings being laced through the same apertures forming the middle row of apertures in the core.

1,139,077. REEL FOR WIRE-FABRIC MACHINES. CLARENCE E. SAFFORD, Detroit, Mich. Filed Nov. 18, 1911. Serial No. 660,953. (Cl. 242—64.)



1. In a wire fabric reel, a rotatable winding drum, comprising a central shaft and longitudinally extending bars hinged thereto, disks forming the ends of said drum receiving and supporting said bars, means for rotating said drum, one of said disks connected with said rotating means, the other of said disks being movable longitudinally of the shaft of the drum, and means for permitting the withdrawal of the shaft of said drum from its supporting bearings.

2. A wire fabric reel, comprising a rotatable frame, a plurality of winding drums mounted in said frame, means for rotating said frame, means for revolving said drums independently of the frame rotating means, and means carried by each winding drum actuatable by the rotation of the frame for severing the strand wires of the fabric as said drums in succession swing into winding position.

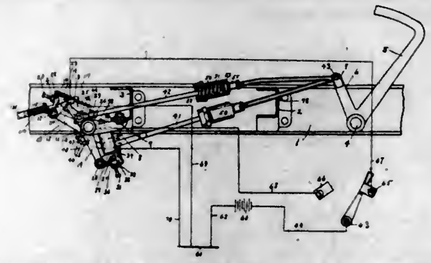
3. A wire fabric reel comprising a plurality of spaced winding drums, means for imparting bodily movement to said drums in a predetermined direction, means for rotating the forward drum about an axis at right angles to the general direction in which the drums may be moved to fill said forward drum, means for severing the longitudinal strands of wire after the forward drum is filled and for positively engaging the ends of the strands of the main portion of fabric in the succeeding drum after the severing of the portion on the filled drum, and means for actuating said severing means while the drums are being moved in the predetermined direction.

4. A wire fabric reel, comprising a main rotary frame, a plurality of winding drums journaled in said frame, means for rotating the main frame, means for revolving said drums, each of said drums having shearing plates, and means for actuating a shearing plate on each drum at a predetermined point in the circle described by the rotation of the main frame.

5. A wire fabric reel, comprising a rotatable frame, a plurality of revoluble drums detachably mounted in said frame, means for turning the frame, means for revolving said drums, and means carried by each of the drums for severing the strand wires of the fabric and bending the ends of the severed strands into engagement with a member of the severing device.

[Claims 6 to 12 not printed in the Gazette.]

1,139,078. SPEED-CHANGING MECHANISM. HERMAN G. C. SCHWARZE, Detroit, Mich. Filed Sept. 26, 1913. Serial No. 791,909. (Cl. 74—81.)



1. A speed changing mechanism comprising a movable gear shifting dog, means to move the dog, a latch normally out of the path of the dog, an electro-magnet for drawing the latch into the path of the dog, and an electric circuit for energizing the magnet.

2. A speed changing mechanism comprising a pivoted gear shifting dog, means to swing the dog about its pivot, a latch normally out of the path of the dog, an electro-magnet for drawing the latch into the path of the dog, and an electric circuit for energizing the magnet.

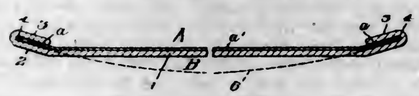
3. A speed changing mechanism comprising a pivoted gear shifting dog, means to swing the dog about its pivot, a pivoted latch normally out of the path of the dog, an electro-magnet for drawing the latch into the path of the pivoted dog, and an electric circuit for energizing the magnet.

4. A speed changing mechanism comprising a movable gear shifting dog, means to move the dog, a pivoted latch adapted to engage with the dog, a spring normally holding the latch out of the path of the dog, an electro-magnet for drawing the latch into the path of the dog, and an electric circuit for energizing the magnet.

5. A speed changing mechanism comprising a movable gear shifting dog, means to move the dog, a pivoted latch adapted to be swung into the path of the dog, a spring normally holding the latch out of the path of the dog, means for limiting the movement that the spring may impart to the latch, an electro-magnet for drawing the latch into the path of the dog, and an electric circuit for energizing the magnet.

[Claims 6 to 18 not printed in the Gazette.]

1,139,079. METHOD OF AND DEVICE FOR HOLDING PHOTOGRAPHIC-FILM SHEETS. HERMAN C. SIEVERS, Chicago, Ill., assignor to Eastman Kodak Company, Rochester, N. Y., a Corporation of New York. Filed Feb. 18, 1914. Serial No. 819,333. (Cl. 95—68.)



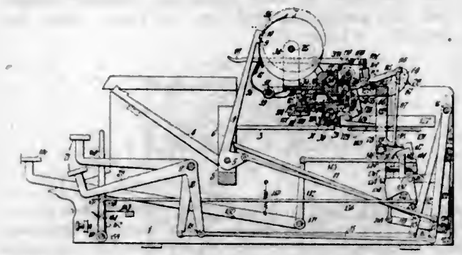
1. An exposing holder for photographic film sheets comprising a flat backing surface against which the body of the sheet is disposed and oppositely inclined elements forming slots adapted to confine opposite edges of the sheet and arranged forwardly of and angularly to the said backing surface.

2. An exposing holder for photographic film sheets comprising a flat backing plate having forwardly inclined doubled edges providing inclined slots adapted to receive opposite edges of the film sheet and to confine them in angular positions relatively to the backing plate.

3. The method of flattening photographic film sheets during exposure which consists in disposing the body of the sheet against a flat surface while opposite edges of the sheet are confined in forwardly inclined angular positions with reference to said surface.

4. An exposing holder for photographic film sheets, comprising a flat backing plate against which the body of the sheet is disposed and oppositely inclined surfaces at opposite edges of the plate having means for confining opposite edges of the sheet against the inclined surfaces, the latter being arranged forwardly of and angularly to the main surface of the backing plate.

1,139,080. TYPE-WRITING MACHINE. BURNHAM C. STICKNEY, Elizabeth, N. J., assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Original application filed June 30, 1903, Serial No. 163,704. Divided and this application filed Oct. 5, 1912. Serial No. 724,022. (Cl. 197—73.)



1. In a front strike typewriting machine, the combination with a segment supporting a series of type bars each having a plurality of printing characters, and a platen, of a shift-lever, a platen-shift frame mounted to oscillate up and down and having a rigid central arm arranged lower than the platen, and connections whereby the shift-lever acts on said arm to shift the platen, substantially as set forth.

2. In a front strike typewriting machine, the combination with a main frame, the type bars each having a plurality of printing characters, and a platen carriage, of a carriage-shift frame which is pivotally connected to the main frame at each side of its center to swing up and down and supports said carriage, a shift-lever, and connections by which the lever acts on the center of the shift-frame to the main frame, substantially as set forth.

3. In a typewriting machine, the combination with a main frame, a series of type bars, a platen, and a carriage for the platen, of a shift-frame supporting the carriage and arranged transversely on the main frame and connected thereto by pivots at each side of the center of the main frame and at the rear of the shift-frame, and a vibrating support connecting the central part of the shift-frame to the main frame, substantially as set forth.

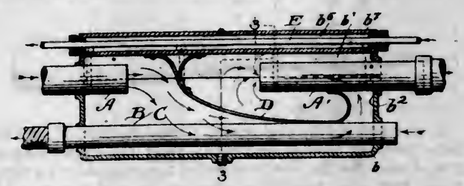
4. In a type writing machine, the combination with a main frame, a series of type bars, a platen, and a carriage for the platen, of a shift frame supporting the carriage and arranged transversely on the main frame and connected thereto by pivots at each side of the center of the main frame and at the rear of the shaft frame, and a support connecting the central part of the shift-frame to the main frame.

5. In a typewriting machine, the combination with a main frame, a series of type bars, a platen, and a carriage for the platen, of a shift frame supporting the carriage and arranged transversely on the main frame and connected thereto by pivots at each side of the center of the main frame and at the rear of the shift frame, and a device extending from the central part of the shift-frame to the main frame, and inclusive of a part vibratable to control the position of the shift frame.

[Claims 6 to 9 not printed in the Gazette.]

1,139,081. FUEL-ECONOMIZER FOR INTERNAL-COMBUSTION ENGINES. HERMAN A. STONE, Cleveland, Ohio, assignor of one-half to Gustave A. Stone, Cleveland, Ohio. Filed Feb. 27, 1914. Serial No. 821,407. (Cl. 48—149.)

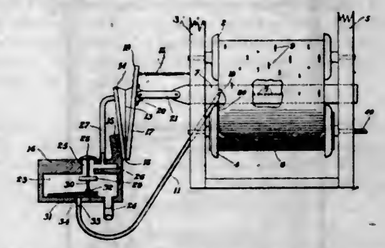
1. In a device of the character specified, the combination of a chamber comprising a body and a cap separably connected therewith, each of said parts having in both end walls one-half of a circular hole, two separated sections of a pipe for conveying hot gases, which sections pass respectively through the two holes specified, means for drawing together the two parts of said chamber to clamp them upon said pipe sections, a fluid supply pipe which passes through said chamber and out through both end walls thereof, and a fluid supply pipe which passes through one wall of said chamber from end to end thereof and projects beyond both of said ends.



2. In combination with two separated sections of a pipe for conveying hot gases, of a chamber into which said pipe sections project through holes in which said pipe-sections fit, an air pipe which passes through said chamber and out of the same through the walls thereof, said chamber having in one wall a hole which extends from end to end of the chamber, and a fuel pipe extending through said hole and projecting from both ends thereof.

3. In a device of the character described, the combination of two alined and separated sections of a pipe for conveying hot gases, a heating and expansion chamber through opposite ends of which said pipe sections project, an air pipe which extends through said chamber and out through holes in both end walls thereof, a baffle plate connected with one wall of said chamber and extending therefrom between the separated ends of said pipe section in an inclined direction toward said air pipe, the free end of said baffle plate being recurved and lying between and in contact with the air pipe and one of said exhaust pipe sections.

1,139,082. NOTE-SHEET-GUIDING DEVICE. WILBUR M. STONE, New York, N. Y., assignor of one-half to James O'Connor, New York, N. Y. Filed Sept. 15, 1911. Serial No. 649,444. (Cl. 84—161.)



1. In a note-sheet guiding device the combination of a tracker-bar, a single guide opening appurtenant to said tracker-bar, an actuating pneumatic for shifting said tracker-bar in one direction, a spring for shifting said tracker-bar in the opposite direction, a single valve for governing the action of said actuating pneumatic and said spring, a primary pneumatic for actuating said valve, the action of said primary pneumatic in opposite directions being governed by means including the admission of atmosphere and the closing against the admission of atmosphere respectively, of said guide opening by the note-sheet.

2. In a note-sheet guiding device the combination of a tracker-bar mounted for movement in the direction of its length, an actuating pneumatic for shifting the tracker-bar in one direction, a spring for shifting said tracker-bar in the other direction, a single guide opening fixed relatively to said tracker-bar, and means consisting of one primary pneumatic and one valve, whereby when said

guide opening is covered or uncovered as the case may be by the note sheet said actuating pneumatic is caused to move the tracker-bar, and when said guide opening is uncovered or covered respectively by said note sheet said spring is permitted to move said tracker-bar.

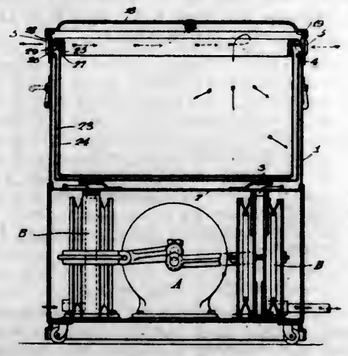
1,139,083. SCREW-DRIVER. STEVE TAKACS, Newark, Ohio. Filed Aug. 3, 1914. Serial No. 854,602. (Cl. 145—52.)



1. A screw driver comprising a body member, a pair of jaws movable toward and away from the chisel-shaped end of said body, a sleeve movable longitudinally on said body, and cam formations carried by the end of said sleeve nearest the chisel-shaped end of said body and arranged to engage said jaws by rotative movement of said sleeve to move said jaws toward each other into gripping engagement with a screw head.

2. A screw driver comprising a body member, a pair of jaws movable toward and away from the chisel shaped end of said body, a sleeve slidable longitudinally on said body and arranged to embrace said jaws, and cam formations carried by the end of said sleeve nearest the chisel shaped end of said body and formed by cutting out portions of said sleeve between its ends at diametrically opposite points, thereby leaving projecting prongs, said formations being arranged to engage said jaws by rotative movement of said sleeve to move said jaws toward each other into gripping engagement with a screw head.

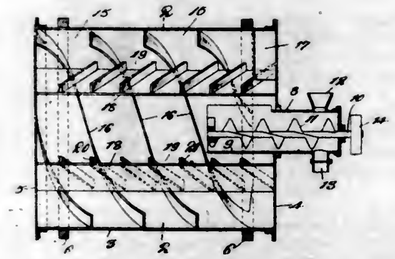
1,139,084. VACUUM RENOVATING APPARATUS. JOSEPH H. TEMPLIN, Philadelphia, Pa., assignor, by mesne assignments, to Santo Manufacturing Company, Philadelphia, Pa., a Corporation of Delaware. Filed June 23, 1909. Serial No. 503,969. (Cl. 83—47.)



1. In a vacuum cleaner, the combination of a vacuum reservoir having an inlet opening in the end wall thereof, a chamber formed on the inner wall of said reservoir and extending transversely of said wall and connecting with said opening, said chamber having an outlet at its inner end into the reservoir, a dust receptacle, a supporting member for said dust receptacle located adjacent the wall of said chamber below said discharge outlet thereof, a removable cover for said receptacle, and means for exhausting air from the reservoir.

2. In a vacuum cleaner, the combination of a vacuum reservoir having an inlet in the end wall thereof adjacent the upper end of the reservoir, a chamber extending along one of the side walls of the reservoir on the inner face thereof and adjacent its upper end and connecting with said inlet opening, said chamber having an outlet at the opposite end from the inlet opening, the wall of the reservoir along said chamber having a side opening therein, a glass for closing said opening, a dust receptacle, a supporting member for said dust receptacle located adjacent said chamber and beneath the discharge opening thereof, a removable cover for said reservoir, and means for exhausting air from the reservoir.

1,139,085. MIXING-MACHINE. RICHARD TIEDTKE, Höchst-on-the-Main, Germany, assignor to Farbwerke vorm. Meister Lucius & Brüning, Höchst-on-the-Main, Germany, a Corporation of Germany. Original application filed Mar. 30, 1908, Serial No. 424,015. Divided and this application filed Oct. 27, 1910. Serial No. 589,440. (Cl. 83—73.)



1. The combination with a rotatable drum, of a series of helically disposed blades disposed upon drum, chutes disposed upon the front head of the drum and associated with the respective helical blades, said chutes being directed inwardly, a centrally disposed hopper mounted within the drum and located in position for receiving material discharged by said chutes upon the rotation of the drum, and means located within said hopper for moving material therein backwardly into the drum for further treatment or outwardly for discharging the same.

2. In a device of the character described, a revolving, horizontal drum, means for moving the material continuously in a circuit therein and tumbling same, comprising peripherally disposed helical guides extending from end to end of said drum, longitudinal, radially-arranged lifting plates lying within said guides, guiding plates disposed obliquely on the lifting surface of said lifting plates, a discharge spout, and pockets at the ends of said helical guides for feeding the material to said spout, substantially as described.

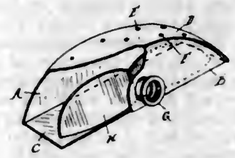
3. The combination with a revolving horizontal drum, having means for moving the material continuously in a circuit therein and tumbling same, of feeding and discharging means communicating with the interior of said drum, said means comprising a shaft and a worm mounted on said shaft, said shaft being rotatable in one direction to operate said worm to effect the discharge of the material from said drum, and in the reverse direction to produce the return of the material to said drum for further mixing.

4. In a device of the character described, a revolving horizontal drum, having a receiving end, means for moving the material continuously in a circuit therein and tumbling same, the path of movement of the material being toward the receiving end of said drum, and means located in the receiving end of the drum and independent of the movement thereof for effecting the feeding and discharge of the material, said means embodying a worm and a discharge outlet, the worm being adapted to operate in one direction to effect the discharge of the material from said outlet and in the opposite direction to return the material to the drum for mixing.

5. In a device of the character described, the combination with a revolving horizontal drum, having one end provided for the reception of material, of means for moving the material continuously in a circuit therein and tumbling same, means for directing the path of movement of the material toward the reception end of said drum, and means located within said reception end and independent of the movement of said drum for feeding and discharging the material being operated upon, said means embodying a worm rotatable in one direction to effect the discharge of the material and in the reverse direction to return the material to said drum for further mixing, and a discharge chute located in said discharge and feeding means exteriorly of the reception end of said drum.

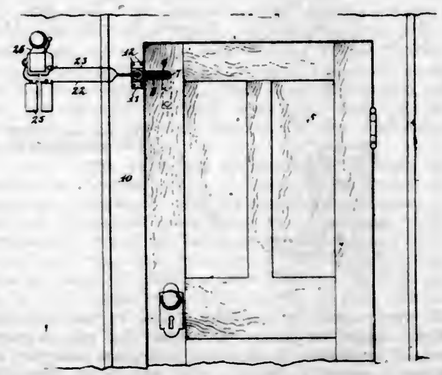
[Claim 6 not printed in the Gazette.]

1,139,086. SPRINKLER. WILLIAM S. TIDSWELL, Lansing, Mich. Filed Oct. 16, 1914. Serial No. 866,984. (Cl. 137—83.)



A sprinkler, comprising a comparatively flat base and upwardly-extending sides having similar arched upper edges, of a perforated strip secured to said edges forming the sprinkler top, a coupling connected to one of the sides, and a deflector within the sprinkler extending upwardly from the base at an angle to the side walls.

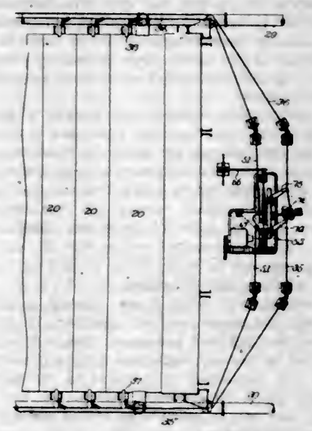
1,139,087. ELECTRIC DOOR-LATCH. THOMAS S. TORRESSON, New York, N. Y. Filed Mar. 18, 1914. Serial No. 825,445. (Cl. 177—202.)



1. An apparatus of the class described for use in connection with doors, comprising a latch movably and a keeper fixedly, secured to the door and its frame, a lug carried by the free end of said latch, an electric push button carried by said keeper and including a button and containing receptacle, said receptacle adapted to receive said lug therein.

2. An apparatus for use in connection with a door comprising a latch pivotally and a bracket fixedly secured to the door and its frame, said bracket including a base plate with an outwardly and then upwardly extending arm, an electric push button carried by the upwardly extending portion of said bracket arm, said push button including a receptacle and a button therein normally positioned flush with the open extremity thereof, said bracket base plate, arm, and push button defining an upwardly opening unencumbered receptacle adapted to removably receive the free extremity of said latch therein, said latch provided with a lug at its free extremity for engagement with said button.

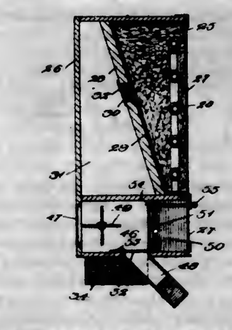
1,139,088. COKE-PRODUCING PLANT. FRED TSCHUDI, Birmingham, Ala. Filed June 17, 1911. Serial No. 633,848. (Cl. 202—9.)



1. A by-product coke producing plant comprising, in combination, a plurality of regenerative, reversible coke ovens, gas valves and air and stack reversing valves applied to both ends of each oven, and mechanical means actuated by a single motor for actuating said gas, air and stack valves, said mechanism in its actuation synchronously repeating the actions of discontinuing the supply of gas to one side of each oven, then subsequently and substantially simultaneously reversing the direction of flow of air through each oven, then subsequently admitting a supply of gas from the opposite side of each oven, substantially as described.

2. A by-product coke producing plant comprising, in combination, a plurality of regenerative, reversible coke ovens, gas valves and air and stack reversing valves applied to both ends of each oven, and mechanical means actuated by a single motor for actuating said gas, air and stack valves, said mechanism in its actuation synchronously repeating the actions of discontinuing the supply of gas to one side of each oven, then subsequently and substantially simultaneously reversing the direction of flow of air through each oven, then subsequently admitting a supply of gas from the opposite side of each oven, and means for regulating the stack draft of each oven, substantially as described.

1,139,089. CAR HEATING AND VENTILATING SYSTEM. EDWARD VARNER, Rochester, N. Y., assignor of one-third to Frank E. Mehle and one-third to John A. Stapleton, Rochester, N. Y. Filed Feb. 1, 1912. Serial No. 674,719. (Cl. 237—45.)



1. In combination with a car having a plurality of seats within the same, and air chambers formed in the same walls of the car between the seats and each pro-

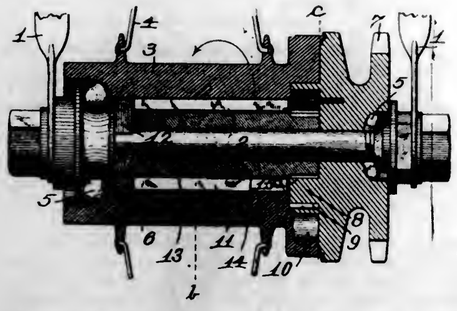
vided with oppositely opening inlets in its bottom leading to the exterior of the car and an outlet leading to the interior of the car, feed and return steam pipes on the car, radiators arranged in the chambers and connected in parallel with the feed and return pipes, independent valves on the radiators permitting any one or more to be closed independently of the others, and means for closing either or both of the inlets of each air chamber independently of the other chambers.

2. In combination with a car having a plurality of seats within the same and air chambers in the vertical walls of the car between the seats, feed and return steam pipes carried by the car, radiators arranged within the air chambers and connected in parallel to the feed and return steam pipes, independent valves for the radiators permitting any one or more to be closed independently of the others, and independent valves for the air chambers permitting any one or more to be opened or closed independently of the other chambers.

3. In combination with a car having a plurality of seats within the same and air chambers in the vertical walls of the car between the seats, feed and return steam pipes carried by the car, radiators arranged within the air chambers and connected in parallel to the feed and return steam pipes, independent valves for the radiators permitting any one or more to be closed independently of the others, independent valves for the air chambers permitting any one or more to be opened or closed independently of the other chambers, and a controllable outlet from the car adjacent to each air chamber.

4. In combination with a car having a plurality of seats within the same, and air chambers formed in the side walls between the seats and each provided with oppositely opening inlets positioned on the bottom of the car and leading to said chamber, and an outlet leading to the interior of the car, feed and return steam pipes on the car, radiators arranged in the chambers and connected in parallel with the feed and return pipes, independent valves on the radiators permitting any one or more to be closed independently of the others, means for closing either or both of the inlets of each air chamber independently of the other chambers, and controllable outlets leading through the side walls of the cars between the two inlets of each chamber.

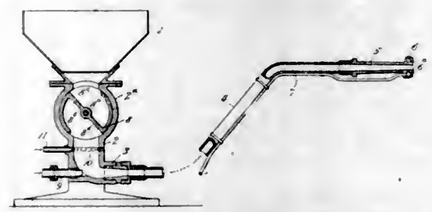
1,139,090. COASTER-BRAKE. OWEN C. WATKINS, Middletown, Ohio, assignor of one-third to Thomas E. Reed, Middletown, Ohio. Filed Aug. 24, 1914. Serial No. 858,187. (Cl. 208—57.)



1. A coaster brake comprising, an axle, a hub carried thereby and provided with a cylindrical bore concentric with the axle and extending the major portion of the length of the hub, a split brake-sleeve having its periphery in engagement with said bore and extending substantially the whole length thereof and provided with a cam-bore extending substantially throughout its length, means for preventing the rotation of the brake-sleeve, a cam mounted for rotation upon the axle and adapted to engage the cam-bore in the brake-sleeve, a sprocket loose on the axle at one end of the hub, means connecting the sprocket with the hub and adapted to cause the turning of the sprocket in the forward direction to enforce the turning of the hub in the same direction while permitting the hub to turn forward freely in relation to the sprocket, and means connecting the sprocket with the cam to cause the sprocket to turn the cam when the sprocket is turned in backward direction and to permit the sprocket to turn freely relative to the cam when the sprocket turns in the forward direction, combined substantially as set forth.

2. A coaster brake comprising, rear fork-members, an axle fixedly carried thereby, ball-bearings carried by the axle, a hub surrounding the axle and supported by the ball-bearings and having a cylindrical brake-bore extending through it and having a counterbore at one end of the brake-bore, a sprocket loose on the axle at the counterbored end of the hub, a boss projecting from the sprocket into said counterbore, ratchet-teeth formed on the periphery of the boss, pawls carried by the hub and adapted to be engaged by said ratchet-teeth to propel the hub in the forward direction when the sprocket turns in the forward direction, a split brake-sleeve fitting the bore of the hub and having an elliptic bore, means for preventing the turning of the brake-sleeve relative to the axle, a cam mounted for rotation on the axle and extending substantially the full length of said brake sleeve and having a periphery adapted to coöperate with the elliptic bore of the brake sleeve, ratchet-teeth carried by the end of the cam nearest the sprocket and facing in the same direction as the first-mentioned ratchet-teeth, and pawls carried by the boss and adapted to engage the ratchet-teeth of the cam and turn the cam in backward direction and expand the brake-sleeve when the sprocket is turned in backward direction, combined substantially as set forth.

1,139,091. METHOD OF PLASTERING WALL-SURFACES. CARL WEBER, Chicago, Ill. Filed Feb. 12, 1914, Serial No. 818,380. Renewed Mar. 29, 1915. Serial No. 17,887. (Cl. 25—1.)

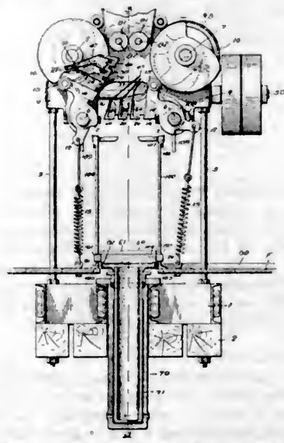


1. The method of applying plaster to wall-surfaces, which consists in passing the cement and sand ingredients, in a condition of being only sufficiently moistened to cohere and start hydration of the cement, into the path of fluid-pressure currents, impelling the mixture by said pressure to the point of delivery to a wall-surface, and introducing the remaining water necessary to produce complete hydration into the previously moistened mixture near said point.

2. The method of applying plaster to wall-surfaces, which consists in passing the cement and sand ingredients, in measured quantity and in a condition of being only sufficiently moistened to cohere and start hydration of the cement, into the path of the fluid-pressure currents, impelling the measured and moistened mixture by said pressure to the point of delivery to a wall-surface, and introducing the remaining water necessary to produce complete hydration into said mixture near said point.

3. The method of applying plaster to wall-surfaces, which consists in passing the cement and sand ingredients into the path of fluid-pressure currents, introducing into the mixture on its approach to said path only sufficient water to produce cohesion of the particles of the ingredients and start hydration of the cement, impelling the moistened mixture by said pressure to the point of delivery to a wall-surface, and introducing the remaining water necessary to produce complete hydration into said mixture near said point.

1,139,092. BALING-PRESS. JAMES NELSON WOOD, Blackshear, Ga., assignor to The Neely Compress and Cotton Company, Richmond, Va., a Corporation of Virginia. Filed Mar. 17, 1913, Serial No. 754,874. Renewed Oct. 5, 1914. Serial No. 865,193. (Cl. 100—1.)



1. In a baling press, the combination with means for supporting the bale during its formation, of means for positively compressing and maintaining compression of the bale throughout substantially the entire area of the compression face of the bale, and for exposing a portion of the said face at a time to permit the addition of material, said compressing means having a fixed relation with the bale while in contact therewith, supporting means for the compressing means, said supporting means and the bale supporting means being held from relative movement in all directions parallel with the compression face of the bale.

2. In a baling press, the combination with means for supporting the bale during its formation, of means for positively compressing and maintaining compression of the bale throughout substantially the entire area of the compression face of the bale, and for exposing a portion of the said face successively across the compressing surface to permit the addition of a complete layer of material, said compressing means having a fixed relation with the bale while in contact therewith, supporting means for the compressing means, said supporting means and the bale supporting means being held from relative movement in all directions parallel with the compression face of the bale.

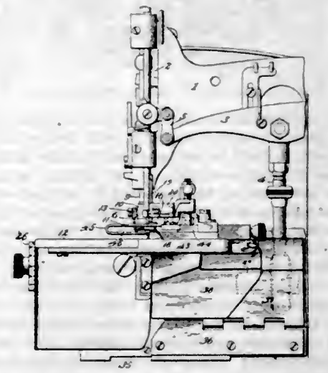
3. In a baling press, the combination with a plurality of independently actuated compressing devices having bale engaging faces whose combined areas are substantially equal to the area of the compression face of the bale and means for positively and independently forcing said compressing devices into engagement with the bale, and for raising them singly to permit the insertion of a layer of material while maintaining the bale under the pressure of the others.

4. In a baling press, the combination with bale forming and compressing devices having faces for engaging different portions of the bale, the combined areas of said bale engaging faces being substantially co-extensive with the engaged face of the bale, independent actuating means for positively forcing each of said devices into contact with the bale and holding it in position to retain the compression thereof, and for raising said devices successively to permit the insertion of a layer of material upon the exposed surface of the bale while maintaining the compression of the unexposed portions thereof.

5. In a baling press, the combination with receding pressure means for supporting a bale during its formation, of a plurality of unconnected compressing devices movable independently into and out of engagement with different portions of the engaged face of the bale, the combined areas of the said portions of the face of the bale engaged by said devices being substantially co-extensive with the face of the bale, said devices being held against lateral movement with respect to the bale when in engagement therewith, independent actuating means for positively forcing said devices into and holding them in engagement with the bale, and for raising them singly to permit of the application of material upon the exposed surface while maintaining the compression upon the unexposed portions.

[Claims 6 to 24 not printed in the Gazette.]

1,139,093. SEWING-MACHINE. RUSSEL G. WOODWARD, Waukegan, Ill., assignor to Union Special Machine Company, Chicago, Ill., a Corporation of Illinois. Filed Nov. 26, 1906. Serial No. 345,201. (Cl. 112—6.)



1. A sewing machine including in combination, a stitch forming mechanism, a trimming mechanism including a normally statonary lower blade and a coöperating movable upper blade, an edge guide, and means for positively adjusting the lower blade laterally with respect to the stitch forming mechanism independently of said upper blade, and for simultaneously adjusting said edge guide.

2. A sewing machine including in combination, a stitch forming mechanism, a trimming mechanism including a normally stationary lower blade and a coöperating movable upper blade, an edge guide, a strip guide and means for positively adjusting the lower blade laterally of said stitch forming mechanism independently of the upper blade and for simultaneously adjusting said edge guide and said strip guide.

3. A sewing machine including in combination stitch forming mechanism, trimming mechanism, comprising a trimmer support, a trimmer blade carried thereby, an edge guide carried by said trimmer support, a strip guide, and means for yieldingly pressing said strip guide against the trimmer support and means for adjusting said trimmer support; substantially as described.

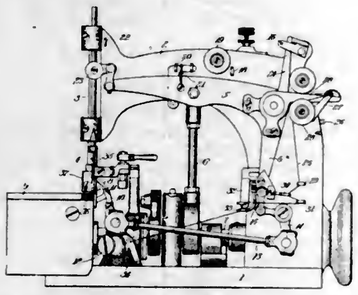
4. A sewing machine including in combination a presser foot, stitch forming mechanism, an edge guide, an uncurler carried by said presser foot and coöperating with the upper face of said edge guide to uncurl the fabric, a trimming mechanism comprising a trimmer support, a trimmer blade carried thereby and means for positively and simultaneously adjusting said trimmer blade and edge guide relative to the stitching mechanism; substantially as described.

5. A sewing machine including in combination, a stitch-forming mechanism, a trimming mechanism, an edge guide, a strp guide movable relative to the trimming mechanism, and means for simultaneously adjusting said

trimming mechanism, edge guide and strip guide relative to the stitch mechanism, said edge guide being located in advance of the trimmer; substantially as described.

[Claims 6 to 9 not printed in the Gazette.]

1,139,094. THREAD-CONTROLLER FOR SEWING-MACHINES. RUSSEL G. WOODWARD, Waukegan, Ill., assignor to Union Special Machine Company, Chicago, Ill., a Corporation of Illinois. Filed May 5, 1908. Serial No. 430,900. (Cl. 112—26.)



1. The combination of a work support, a needle, a thread carrying looper coöperating with the needle above the work support to form a loop of thread around said needle, means for furnishing slack to the looper thread until after the needle point has passed into the material, and means for subsequently taking up the slack in the looper thread on the downward movement of the needle.

support, a needle, means for operating the needle, a thread

2. A sewing machine including in combination a work support, a needle, means for operating the needle, a thread carrying implement coöperating with the needle beneath the work support, a thread carrying looper coöperating with said implement and with said needle above the work support for forming a loop of thread around the needle above the work support, means for giving slack to the looper thread until the point of the needle has entered the material, and means for taking up the slack in the looper thread on the downward movement of the needle.

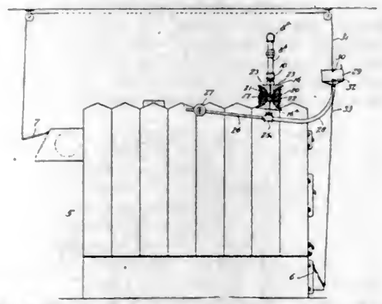
3. The combination of a work support, a needle, a thread carrying looper coöperating with the needle above the work support for forming a loop around the needle, a supplemental thread controlling device acting on the looper thread and a main thread controlling device acting on the looper thread, said supplemental controlling device being timed to give slack to the looper until the point of the needle has entered the material, said main thread controlling device being timed to take up slack on the downward movement of the needle after the needle point has entered the material.

4. The combination of a work support, a needle, a thread carrying looper coöperating with the needle above the work support for forming a loop around the needle, a main thread controlling device for the looper thread, and a supplemental controlling device acting on the looper thread, in advance of the take-up action of the main thread controlling device, and prior to the needle point entering the material, whereby the looper thread around the needle is prevented from deflecting the needle, said main thread controlling device being timed to take up slack on the downward movement of the needle after the needle point has entered the material.

5. The combination of a work support, a feeding device, a needle, a looper operating in a plane substantially at right angles to the line of feed and coöperating with the needle above the work support for forming a loop of thread around the needle, means for releasing the looper thread from strain on the needle until after the needle point has passed into the material, and means for subsequently taking up the looper threads on the downward movement of the needle.

[Claim 6 not printed in the Gazette.]

1,139,095. AUTOMATIC FURNACE-REGULATOR. CHARLES E. ANDERSON, Chicago, Ill. Filed Feb. 13, 1915. Serial No. 7,963. (Cl. 236—1.)



1. An automatic regulator of the character described, comprising a collapsible receptacle, pivotally connected caps between which said receptacle is confined, a steam-pipe adapted to be connected at one end with a steam-boiler and leading into said receptacle, an upwardly extending water-pipe secured to the lower cap and communicating with said receptacle, a weight on the lower end of said water-pipe, and a water-receptacle on the upper end thereof.

2. An automatic regulator of the character described, comprising a collapsible receptacle, pivotally connected caps between which said receptacle is confined, a steam-pipe having a rising section adapted to be connected at one end with a steam-boiler and a downwardly extending section leading into the upper end of said receptacle, an overflow-pipe connecting said pipe-aections, an upwardly curving water-pipe secured to the lower cap and communicating with said receptacle, a weight on the lower end of said water-pipe and a water-receptacle on the upper end thereof.

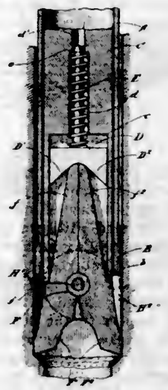
3. An automatic regulator of the character described, comprising a collapsible receptacle, pivotally connected caps between which said receptacle is confined, a steam-pipe adapted to be connected at one end with a steam-boiler and leading into one end of said receptacle, an upwardly curving water-pipe secured to the lower cap and communicating with said receptacle, a weight on the lower end of said water-pipe and a water-receptacle on the upper end thereof, and a stop-device on said caps near their pivotal connection.

4. An automatic regulator of the character described, comprising a collapsible receptacle, caps secured on the opposite heads of said receptacle, having mutually overlapping ears at which they are pivotally connected together, a steam-pipe having a rising section adapted to be connected at one end with a steam-boiler and a downwardly extending section leading through the upper cap into said receptacle, an upwardly extending water-pipe secured to the lower cap and communicating through the latter with said receptacle, a weight on the lower end of said water-pipe and a water-receptacle on the upper end thereof.

5. In combination with a boiler-equipped furnace, provided with a lower front draft-door and an upper rear check-door, a regulator comprising a collapsible receptacle, pivotally connected caps between which said receptacle is confined, a steam-pipe rising from the boiler and having a depending section leading into the upper end of said receptacle, an overflow-pipe connecting the rising and depending steam-pipe sections, an upwardly extending water-pipe secured to the lower cap and communicating through the latter with said receptacle, a weight on the lower end of said water-pipe and a water-receptacle on the upper end thereof having connections with said doors.

1,139,096. UNDERREAMER. EMIL R. BECKERT, Chicago, Ill. Filed Dec. 20, 1913. Serial No. 808,017. (Cl. 255—76.)

1. In an underreamer, the combination with a mandrel having a chamber in the lower portion thereof, of a pair of complemental overlapping bits extending within the chamber in the mandrel, a pivot rod passing through the overlapped portions of said bits and supported at its ends by the mandrel, concentric coöperating shoulders on the overlapped portions of said bits for transmitting the strains on each bit to the other bit, and means for oscillating said bits to project their cutting edges beyond the vertical plane of the mandrel.



2. In an underreamer, the combination with a mandrel having a chamber in the lower portion thereof, of a pair of complemental overlapping bits extending within the chamber in the mandrel, a tubular bushing passing through the overlapped portions of said bits, a pivot rod passing through said bushing and supported at its ends by the mandrel, means for oscillating said bits to project their cutting edges beyond the vertical plane of the mandrel, and coöperating shoulders on the mandrel and bits arranged to contact with each other when the bits are oscillated to outwardly project their cutting edges.

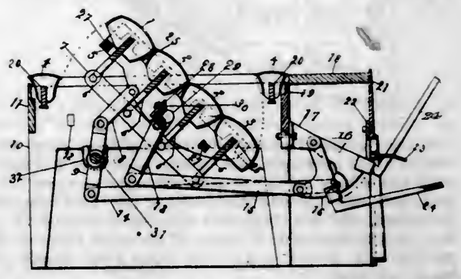
3. In an underreamer, the combination with a mandrel having a chamber in the lower portion thereof, of a pair of complemental overlapping bits extending within the chamber in the mandrel, a pivot rod passing through the overlapped portions of said bits and supported at its ends by the mandrel, means for oscillating said bits to project their cutting edges beyond the vertical plane of the mandrel, concentric coöperating shoulders on the overlapped portions of said bits for transmitting the strains on each bit to the other bit, and coöperating shoulders on the mandrel and bits arranged to contact with each other when the bits are oscillated to outwardly project their cutting edges.

4. In an underreamer, the combination with a mandrel having a chamber in the lower portion thereof, of a pair of complemental overlapping bits extending within the chamber in the mandrel, each of said bits having an upwardly projecting shank extending into a central chamber in the mandrel of less width in the direction of the axis of the bits than the chamber in which the bits extend, a pivot rod passing through the overlapped portions of said bits and supported at its ends by the mandrel, means for oscillating said bits to project their cutting edges beyond the vertical plane of the mandrel, concentric curved shoulders on the bits above their axes formed by the reduced axial width of the shanks, and coöperating shoulders on the mandrel formed by the difference in axial width of the chambers to receive the bits and shanks and adapted to be engaged by said curved shoulders on the bits to transmit strains from the bits to the mandrel.

5. In an underreamer, the combination with a mandrel having a chamber within the lower part thereof, of a pair of bits pivotally supported at the lower end of said mandrel, means for automatically oscillating said bits to project their cutting edges outwardly, a curved shoulder on each bit concentric to and above the axis thereof, shoulders on said mandrel coöperating with said shoulders on the bits to transmit strains from the bits to the mandrels, a lateral shoulder on each bit at one side of its axis, shoulders on said mandrel with which the lateral shoulders on the bits engage when the bits are oscillated to project their cutting edges outwardly, and coöperating shoulders on said bits to transmit strains from one bit to the other.

[Claim 6 not printed in the Gazette.]

1,139,097. FURNACE-GRATE. HENRY BENTON, Elizabeth, N. J. Filed Apr. 18, 1912. Serial No. 691,693. (Cl. 126—177.)



1. The combination of a supporting frame, a cradle pivotally mounted in said frame, means for rocking said cradle, grate bars rockingly mounted in said cradle with depending arms, a link connecting said arms transversely thereof, a rocking shaft mounted in said frame longitudinally of said grate bars beneath the same and said link, an upwardly projecting arm on said rocking shaft, a second link connecting said first-mentioned link and the said rocking shaft arm and normally lying substantially horizontal and parallel to said first-mentioned link above the same, and means for rocking said rocking shaft.

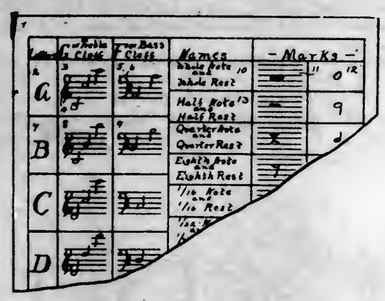
2. The combination of a supporting frame, a cradle pivoted in said frame, means for rocking said cradle, grate bars pivotally mounted in said cradle each with a depending arm, a link connecting said arms transversely of the grate bars and having an upwardly projecting stud, a rocking shaft mounted in said frame longitudinally of said grate bars beneath the said link, a rocker arm fast on said shaft projecting both upwardly above the said link in its normal position and downwardly from the rocking shaft, a second link pivoted at its opposite ends to the upper end of said rocker arm and the stud on the link respectively and thus normally lying wholly above the first-mentioned link, and means connected to the lower end of said rocker arm for rocking the grate bar.

3. The combination of a supporting frame, a cradle pivoted intermediate its ends in said frame adapted to swing from substantially horizontal position upward at its rear end into inclined position, grate bars pivotally mounted in said cradle each with a depending arm, a link connecting said arms transversely of the grate bars and having an upwardly projecting stud, a rocking shaft mounted in said frame longitudinally of said grate bars beneath the said link and in the rear of the pivotal mounting of said cradle, a rocker arm fast on said shaft projecting both upwardly above the said link in its normal position and downwardly from the rocking shaft, a second link pivoted at its opposite ends to the upper end of said rocker arm and the stud on the link respectively and substantially horizontal in normal position thus normally lying wholly above the first-mentioned link, and means connected to the lower end of said rocker arm for rocking the grate bars.

1,139,098. MUSICAL EDUCATIONAL GAME-CARDS. JAMES AUSTIN BOSTWICK, New York, N. Y. Filed Aug. 14, 1913. Serial No. 784,741. (Cl. 46—25.)

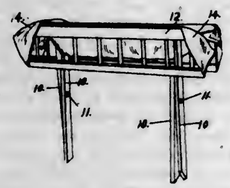
1. A pack of playing cards in series, certain of said cards having on their faces portions of a musical staff

having notes of different value and location, and other of said cards having the alphabetic name of said notes as specified.



2. Game-cards consisting of 67 independent cards certain of which have upon their faces a portion of a musical staff with a note or sign of different value or name upon each card, other of said cards having the typed name of said notes, and said signs, said cards being adapted to be won by pairing notes or signs of the same name or by pairing with a note or sign the typed name thereof as herein set forth.

1,139,099. BED OR COT. CHARLES D. BROUYETTE and GEORGE P. MCENTIRE, Topeka, Kans., assignors to McEntire Brothers, a Copartnership consisting of Ralph N. McEntire and George P. McEntire. Filed July 7, 1913. Serial No. 777,647. (Cl. 5—58.)



1. In an article of the character described, the combination with supporting legs; of a bottom of flexible material; and sides and ends one pair of which are made of flexible material the other pair being rigid members which seat on the legs, when the article is unfolded, and which are hinged thereto so that they fold outwardly.

2. An article of the character described comprising two pairs of crossed, pivoted legs, a bottom of flexible material, rigid sides hinged at their bottom edges to the upper ends of the legs so as to fold outwardly, and flexible ends.

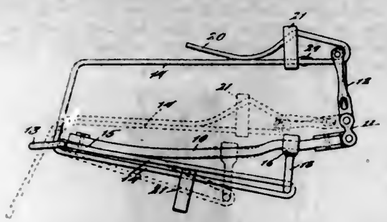
3. An article of the character described comprising two pairs of crossed, pivoted legs, a bottom of flexible fabric, rigid sides which seat on the tops of the legs when in upright position and are hinged thereto so that they fold outwardly, and ends of flexible fabric.

4. An article of the character described comprising two pairs of crossed, pivoted legs, rigid sides which seat on the tops of the legs when in upright position and are hinged thereto so as to be foldable outwardly, and a single sheet of flexible fabric secured to the extremities and lower edges of the sides so as to constitute ends and a bottom for the article.

5. An article of the character described comprising foldable supporting means, sides hinged to said supporting means, and flexible ends secured to the sides which hold the sides in upstanding position when the supporting means is unfolded but permit the sides to be folded down upon the supporting means when the latter is collapsed.

[Claims 6 to 8 not printed in the Gazette.]

1,139,100. ADJUSTABLE LETTER-PACKAGE TIER. ULYSSES J. BURKE, Des Moines, Iowa. Filed Dec. 7, 1914. Serial No. 875,919. (Cl. 24—17.)



1. An adjustable package tie embodying a body portion, a flexible encircling member secured by one extremity to the body to project beyond one end of the latter, a fastening device connected with the body and with which fastening device the encircling member has detachable engagement, and means slidingly mounted upon the body between the ends thereof and also having sliding engagement with the encircling member for varying the length of the latter with respect to the body.

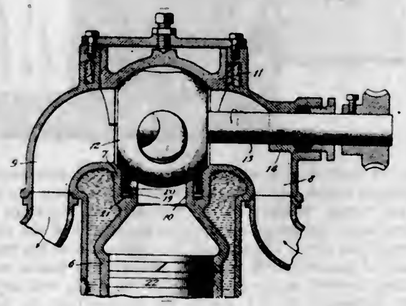
2. An adjustable package tier embodying a body portion, a flexible encircling member secured by one extremity to the body portion, to project beyond one end of the latter, a buckle connected to the other extremity of the body and with which buckle the encircling member has detachable engagement, and means having sliding engagement with the encircling member and also mounted to slide freely upon the said body to vary the length of the projecting portion of the encircling member with respect to the body, said means being frictionally held against displacement with respect to the body by the stress of the encircling member upon the said means.

3. An adjustable package tier, embodying a body portion, a flexible encircling member secured by one extremity to the body portion, to project beyond one end of the latter, a buckle connected to the other extremity of the body and with which buckle the encircling member has detachable engagement, means having sliding engagement with the encircling member and also mounted to slide freely upon the said body to vary the length of the projecting portion of the encircling member with respect to the body, said means being frictionally held against displacement with respect to the body by the stress of the encircling member upon the said means, and a catch device for holding the end of the encircling member which projects beyond the buckle.

4. An adjustable package tie, embodying a body, a buckle, a link connection between the buckle and one end of the body, a flexible encircling member connected by one extremity to the other end of the body, a loop at that end of the body to which the flexible member is connected, a slide mounted to freely slide upon the body between its ends, said slide having an apertured portion, said member extending along the body toward the buckle end, passing freely through the slide and then bent back upon itself to extend through the loop to project beyond the loop end of the body, the end of the flexible member adapted to detachably engage the said buckle, said slide being retained in its adjusted position with respect to the body, by the stress exerted upon the slide by the said encircling member, and a catch mounted to slide freely upon the encircling member for holding the free extremity of the encircling member.

5. An adjustable package tie, embodying a body, a buckle, a link connection between the buckle and one end of the body, a flexible encircling member connected by one extremity to the other end of the body, a loop at that end of the body to which the flexible member is connected, a slide mounted to freely slide upon the body between its ends, said slide having an apertured portion, said member extending along the body toward the buckle end, passing freely through the slide and then bent back upon itself to extend through the loop to project beyond the loop end of the body, the end of the flexible member adapted to detachably engage the said buckle, said slide being retained in its adjusted position with respect to the body, by the stress exerted upon the slide by the said encircling member, and means for holding the free end of the encircling member.

1,139,101. VALVE DEVICE FOR INTERNAL-COMBUSTION ENGINES. MILFORD G. CHANDLER, Chicago, Ill., assignor to Chandler Engine Valve Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 4, 1915. Serial No. 12,051. (Cl. 123—190.)



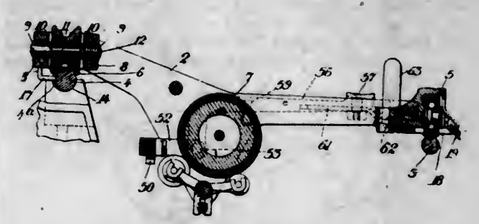
1. In an internal combustion engine, the combination with its cylinder having a port serving for both inlet and exhaust and a piston operating in said cylinder, of a rotary valve controlling said port and adapted to be operated in timed relation to said piston and containing passages opening through opposite ends, respectively, of said valve and through separate ports in the periphery of said valve and serving as inlet and exhaust passages, the surface area of said inlet passage being greater than the surface area of said exhaust passage.

2. The combination with an internal combustion engine having a port serving for both inlet and exhaust, of a hollow rotary valve controlling said port and adapted to be operated in timed relation to said piston, said valve containing openings in its opposite ends with an inclined partition dividing the valve into two non-communicating passages communicating, respectively, with the open ends of said valve and the opening through separate ports in the periphery of the valve and serving as inlet and exhaust passages, the surface area of said inlet passage being greater than the surface area of said exhaust passage.

3. The combination with an internal combustion engine having a port serving for both inlet and exhaust, of a hollow rotary valve controlling said port and adapted to be operated in timed relation to said piston, said valve containing openings of different cross-sectional areas, at its ends, with a partition dividing the valve into non-communicating inlet and exhaust passages communicating, respectively, with the larger and smaller openings in the ends of the valve, said passages communicating with openings, respectively, in the periphery of the valve, the surface area of said inlet passage being greater than the surface area of said exhaust passage.

4. In an internal combustion engine, the combination with its cylinder having a port serving for both inlet and exhaust and a piston operating in said cylinder, of a rotary valve controlling said port and adapted to be operated in timed relation to said piston, one end of said valve being wholly open and its opposite end partially closed by an end-wall, an inclined partition in said valve united at one end with the peripheral wall of the valve and at its opposite end with said end-wall and dividing the valve into non-communicating inlet and exhaust passages, communicating, respectively, with the larger and smaller openings in the ends of the valve and communicating with separate ports in the periphery of said valve.

1,139,102. TYPE-WRITER CARRIAGE MECHANISM. JOHN J. CHAPIN, Detroit, Mich, assignor to Burroughs Adding Machine Company, Detroit, Mich., a Corporation of Michigan. Filed Sept. 2, 1908. Serial No. 451,366. (Cl. 197—92.)



1. In a machine of the class described, the combination with a laterally movable spring-drawn paper carriage and means for holding it at different positions; of normally locked manipulative means for releasing the carriage; and an unlocking device operable in the opposite direction to that in which the carriage is moved by its spring.

2. In a machine of the class described, the combination with a laterally movable spring-drawn paper carriage and means for holding it at different positions; of means for releasing the carriage including a handle lever on one end thereof; and a lock for said lever with a handle movable in the opposite direction to that in which the carriage is moved by its spring.

3. In a machine of the class described, the combination with a laterally movable spring-drawn paper carriage and means for holding it at different positions; of means for releasing the carriage including a handle lever on one end thereof, a locking lever engaging said handle lever; and a slide piece connected to said locking lever and movable in the opposite direction to that in which the carriage is moved by its spring.

4. In a machine of the class described, the combination with a laterally movable spring-drawn paper carriage and means for holding it at different positions; of means for releasing the carriage including a handle lever on one end thereof, a locking lever engaging said handle lever; and a handle piece slidingly mounted on the carriage to a limited extent and connected to said locking lever for disengaging the same from the handle lever by movement of the handle piece oppositely to the direction in which the carriage is moved by its spring.

5. In a machine of the class described, the combination with a laterally movable spring-drawn paper carriage and means for holding it at different positions including a member pivotally mounted on the carriage to swing up and down; of a handle lever having a one-way connection with said member for lifting it to release the carriage; and manipulative means normally locking said handle lever.

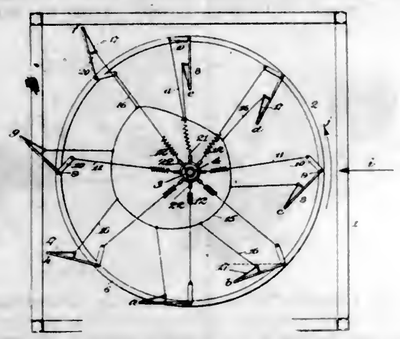
[Claims 6 to 14 not printed in the Gazette.]

1,139,103. WINDMILL. ROBERT CLADE, Newark, N. J., assignor to Air Turbine Company of America, Jersey City, N. J., a Corporation of New Jersey. Filed Mar. 17, 1914. Serial No. 825,206. (Cl. 170—26.)

1. A windmill having a vertical shaft, carrying rims, a plurality of vanes turning on vertical axes between the rims, means connected to the vanes and acting to normally turn them to a tangential position in relation to the rims, and a flexible ring surrounding the shaft and connectors between the vanes and the ring to balance the centrifugal forces which tend to turn certain vanes outwardly by the increased wind pressure on other vanes.

2. A windmill having a vertical shaft, carrying rims, a plurality of vanes turning on vertical axes between the rims, spring stops connected to the vanes and acting to normally turn them to a tangential position in relation to the rims, and a flexible ring surrounding the shaft and connectors between the vanes and the ring to balance the

centrifugal forces, which tend to turn certain vanes outwardly, by the increased wind pressure on other vanes.



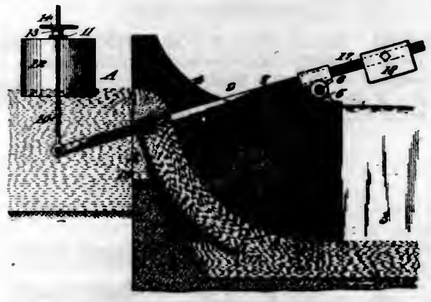
3. A windmill having a vertical shaft, rims thereon, vanes carried on vertical axes between the rims, arms on the vanes, spring stops connected to the arms and tending to normally hold the vanes in tangential relation to the rims, a flexible ring surrounding the shaft, and connections between the ring and vanes so that the pressure of the wind on those vanes which are to windward of the shaft will resist the centrifugal stresses on those vanes which are to leeward of the shaft.

4. A windmill which comprises a shaft, a plurality of rims carried by the shaft, a plurality of vanes turning on vertical axes between the rims, an arm connected to each vane at right angles thereto, a spring stop connected to each arm, a collar connected to the stops, and means outside of the wheel for sliding the collar to release the tension on the stops, a flexible ring surrounding the shaft, a horse on each vane extending to its free edge, and a connection between the ring and each horse whereby when the tension on the spring stop is released the vanes will be free to feather and the connections on some of the vanes will slide along the horses to the free edges of such vanes to release such vanes from the restraining influence of the connections.

5. A windmill which comprises a shaft, a plurality of rims carried by the shaft, a plurality of vanes turning on vertical axes between the rims, an arm connected to each vane at right angles thereto, a spring stop connected to each arm, a collar connected to the stops, and means outside of the wheel for sliding the collar to release the tension on the stops, and acting to normally turn them to a tangential position in relation to the rims, a flexible ring surrounding the shaft, a horse extending from about the middle of each vane to the free edge thereof, at an upward angle, connections between the ring and each horse whereby when the tension on the spring stop is released the vanes will be free to feather and the connections on some of the vanes will slide along the horses to the free edges of such vanes to release such vanes from the restraining influences of the connections.

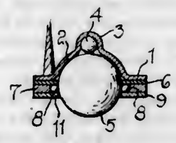
1,139,104. SPILL-GATE. ADONIRAM J. COLLAR, Yreka, Cal. Filed May 14, 1914. Serial No. 838,419. (Cl. 61—47.)

1. In combination with a gateway having spaced side walls and an end wall, a gate having an inclined end which projects above and below said end wall and also having sides which are mounted between the side walls of the gateway, a frame consisting of side bars connected to the sides of the gate and an end bar which connects the side bars and is disposed on the outer side of and spaced from the end wall of the gateway, a shaft extending across the side walls of the gateway and connected to the latter at the opposite end of the gateway, the free ends of the side bars extending beyond the shaft, adjustable weights on said free ends of the side bars, a threaded vertical rod extending upwardly from and pivoted to the center of the end bar of the frame, a pair of floats on the respective outer sides of the frame, a cross-bar connecting the floats and having an aperture to receive said threaded rod, and means on the threaded rod engaging the cross bar to enable vertical adjustment of the floats in unison.



2. In combination with a gateway having side walls, a U-shaped frame having its sides pivoted between the ends of the frame, weights on the free ends of the sides and spaced from the frame pivots, a gate secured to the frame between the pivots thereof and the closed end of the frame, a pair of spaced floats, means to connect the floats, and a member pivoted to the closed end of the frame and adjustably connected to the means for connecting the floats whereby the latter may be adjusted in unison.

1,139,105. CASTER. EBEN H. COSTLOW, Altoona, Pa. Filed Feb. 8, 1915. Serial No. 6,850. (Cl. 16—151.)



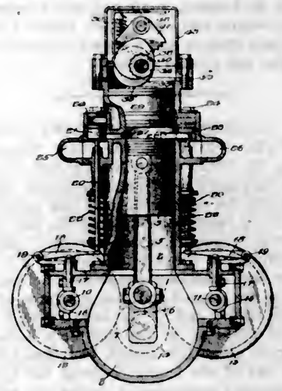
1. A caster including a base plate provided with a socket, a ball member adapted to be arranged within said socket, a bearing plate mounted upon the base plate, a retaining ring upon the bearing plate, a cover plate arranged over the ring and provided with a central opening through which a portion of the ball projects, and bearing balls disposed between the bearing plate and the cover plate and the first mentioned ball and the retaining ring, as and for the purpose set forth.

2. A caster including a body formed with a socket, and further provided with a continuation at the central portion of the socket, an anti-friction ball arranged within the continuation, a second anti-friction ball disposed within the socket and bearing upon the first ball, said body being provided with a thickened rim and having a race-way formed therein, bearing balls disposed within said race-way, and a retaining plate engaging over the second anti-friction ball and removably attached to the thickened edge of the body to retain the bearing balls in position within the race-way, as and for the purpose set forth.

1,139,106. GASOLENE-ENGINE. HENRY H. CUTLER, Milwaukee, Wis. Filed Dec. 1, 1910. Serial No. 595,015. (Cl. 123—48.)

1. In an internal combustion engine, the combination with a cylinder forming the combustion chamber, of a working piston therein, a movable member in the opposite end of the cylinder, means for timely advancing the said member to expel the exhaust gases from the cylinder, and means to variably limit its position of return to thereby vary the volume of the compression chamber between said member and piston.

2. In an internal combustion engine, the combination with a cylinder, of a working piston operable in one end of said cylinder, a compression piston in the opposite end of said cylinder, means operated by the engine for advancing said compression piston at each exhaust stroke to expel the exhaust gases, and means for varying the position of return of said compression piston to thereby vary the volume of the compression space between said two pistons.



3. In an internal combustion engine, the combination with a cylinder, of a working piston therein, a compression piston, the combustion chamber being between said pistons, means for advancing the compression piston to expel the exhaust gases at each exhaust stroke, and an adjustable stop device to limit the return position of said compression piston to thereby vary the volume of the compression space.

4. In an internal combustion engine, the combination with a cylinder, of a working piston therein, a compression member, a cam in the rear of said compression member operated by the engine and timed to advance the same at each exhaust stroke to expel the exhaust gases, and a second cam in the rear of said compression member to limit its return position to thereby vary the compression space, said second cam being operated independently of the first named cam.

5. In an internal combustion engine, a cylinder, a working piston therein, a compression member between which and the working piston a combustion chamber is formed, a shaft in the rear of the compression member, a cam fixed thereon, said shaft being operated to cause the cam to advance the compression member at each exhaust stroke, a second cam loosely mounted on said shaft and arranged to limit the return position of the compression member to vary the volume of the compression space, and mechanism under the control of the operator for changing the position of said loosely mounted cam.

[Claims 6 to 11 not printed in the Gazette.]

1,139,107. WATCHCASE, &c. CHARLES L. DEPOLLIER, New York, N. Y. Filed Jan. 9, 1915. Serial No. 1,280. (Cl. 224—4.)



1. The combination with a watch case, of an attaching device movably secured to the watch case and adapted to be extended for use or to be closed in so as to become practically invisible, the watch case having a seat to receive the attaching device when it is closed in.

2. The combination with a watch case, of an attaching device hinged on the watch case and adapted to be extended for use or to be closed in so as to become practically invisible, the watch case having a seat to receive the attaching device when it is closed in.

3. The combination with a watch case having a recess, of a swiveled head mounted in the recess and smaller than the recess so as to leave a space about it, and an eye hinged to the swiveled block and adapted to be closed into said recess so as to become practically invisible.

1,139,108. WATCHCASE, &c. CHARLES L. DEPOLLIER, New York, N. Y. Filed Jan. 28, 1915. Serial No. 4,016. (Cl. 224—4.)



1. The combination with a watch case having a hole formed therein, of a fastening device independent of the watch and having a head to enter the hole, and means to retain the head detachably in the hole against accidental disengagement.

2. The combination with a watch case having a hole formed therein, of a fastening device having an expansible head adapted to enter the hole, and means to expand the head within the hole.

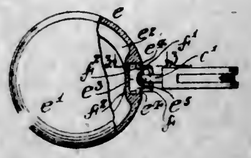
3. The combination with a watch case having a hole formed therein, of a fastening device comprising a flanged, split head adapted to enter the hole in the watch case, and means to expand the said head within the hole.

4. The combination with a watch case having a hole formed therein, of a fastening device comprising a flanged, split head adapted to enter the hole in the watch case, and a relatively movable part having a finger to enter between the parts of the split head and expand the same within the hole.

5. The combination with a watch case having a hole formed therein, of a link comprising two members relatively movable in a longitudinal direction, one of such members having a flanged, split head adapted to enter the hole in the watch case and the other of said members having a finger to expand the head within the hole.

[Claims 6 to 8 not printed in the Gazette.]

1,139,109. WATCHCASE, &c. CHARLES L. DEPOLLIER, New York, N. Y. Filed Feb. 1, 1915. Serial No. 5,415. (Cl. 224—4.)



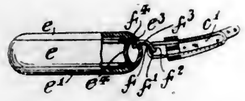
1. A watch-case having its center formed with a deep recess or hole, a loop adapted to be received and concealed within said deep recess or hole and to be drawn out for engagement with a hook or snap ring, and means to prevent complete disengagement of the loop from the watch-case when drawn out.

2. A watch-case having its center formed with a deep recess or hole on its exterior surface, and also formed adjacent to the deep recess or hole with a concaved or dished

recess, and having a loop adapted to be received and concealed within the deep recess or hole and to be drawn out for engagement with a hook or snap ring.

3. A watch-case having its center formed with an undercut deep recess or hole and a loop adapted to be received and concealed within said deep recess or hole and to be drawn out for engagement with a hook or snap ring and having its legs formed with lugs to engage the shoulders of said deep recess or hole to prevent complete disengagement of the loop from the watch-case.

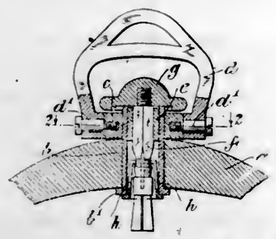
1,139,110. WATCHCASE, &c. CHARLES L. DEPOLLIER, New York, N. Y. Filed Feb. 1, 1915. Serial No. 5,416. (Cl. 224—4.)



1. A watch-case having its center formed with two holes extending through it and a wire loop having its legs threaded through said holes and headed to prevent their withdrawal and adapted to be pushed in so that its central portion lies against the surface of the watch-case center.

2. A watch-case having its center formed with two holes extending through it at one side of its central plane and a curved guard-plate underlying said holes, and a wire loop having its legs parallel and curved and threaded through said holes and headed to prevent complete withdrawal from engagement with the watch-case center, said loop being adapted to be pushed in and to have its middle portion raised against the periphery of the watch-case center.

1.139,111. WATCH. CHARLES L. DEPOLLIER, New York, N. Y. Filed Mar. 11, 1915. Serial No. 13,593. (Cl. 58—95.)



1. In a watch, the combination of a watch-case center, a sleeve passing radially through said watch-case center and rotatable therein, a bow secured externally to the outer end of said sleeve, and a winding arbor mounted axially within said sleeve and operatively engaged thereby.

2. In a watch, the combination of a watch-case center, a sleeve passing radially through said watch-case center and rotatable therein, said sleeve having at its inner end an external flange or shoulder, a bow secured externally to the outer end of said sleeve, and a winding arbor mounted axially within said sleeve and operatively engaged thereby.

3. In a watch, the combination of a watch-case center, a sleeve passing radially through said watch-case center and rotatable therein, a bow secured externally to the outer end of said sleeve, and a winding arbor radially movable within said sleeve but operatively engaged thereby so as to be rotated therewith.

4. In a watch, the combination of a watch-case center, a sleeve passing radially through said watch-case center and rotatable therein, a bow secured externally to the outer end of said sleeve, a second sleeve secured within the first named sleeve and having a polygonal hole therethrough and a winding arbor having its outer portion polygonal in cross-section to conform to said hole so as to be movable radially therethrough but to be rotated therewith.

5. In a watch, the combination of a watch-case center, a sleeve passing radially through said watch-case center and rotatable therein, a bow secured externally to the outer end of said sleeve, a winding arbor mounted axially within said sleeve and operatively engaged thereby and movable axially therein and a crown secured to said arbor outside of the end of said sleeve.

1,139,112. PROCESS OF PROVIDING SHOE-LACING WITH TIPS. FRANCIS I. DU PONT, Wilmington, Del. Filed July 26, 1912. Serial No. 711,649. (Cl. 18—59.)

1. In the manufacture of laces for shoes, etc., the process of providing the same with solid tips adhesively united therewith which consists in wetting the end to be tipped with a solution comprising a substance capable of adhesively uniting the fibers or threads of the lacing and a solvent of said substance adapted to be evaporated off, then pressing the treated end into the form of a tip, then inserting the tipped end of the lacing into a tube which is capable of adhering to the substance with which the lacing has been previously tipped, and then applying pressure to the end of the lacing carrying the tube, whereby the said substance permanently unites the tube with the lacing.

2. In the manufacture of laces for shoes, etc., the process of providing the same with solid tips adhesively united therewith which consists in wetting the end to be tipped with a solution comprising a substance capable of adhesively uniting to the fibers or threads of the lacing and a solvent of said substance adapted to be evaporated off, then pressing the treated end into the form of a tip, then inserting the tipped end of the lacing into a tube which is capable of adhering to the substance with which the lacing has been previously tipped, and then applying heat and pressure to the end of the lacing carrying the tube, whereby the said substance permanently unites the tube with the lacing.

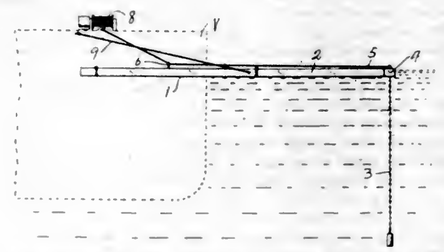
3. In the manufacture of laces for shoes, etc., the process of providing the same with solid tips adhesively united therewith which consists in wetting the end to be tipped with a solution comprising a substance capable of adhesively uniting to the fibers or threads of the lacing and a solvent of said substance adapted to be evaporated off, then evaporating off the solvent, then molding the treated end into a tip by the application of heat and pressure, then inserting the tipped end of the lacing into a tube, and then applying heat and pressure to the end of the lacing carrying the tube.

4. In the manufacture of laces for shoes, etc., the process of providing the same with solid tips adhesively united therewith, which consists in applying to the end of the lacing a substance capable of adhesively uniting therewith, pressing and molding the treated end to cause said substance to adhesively unite with the threads or fibers of the lacing, inserting the tipped end of the lacing into a tube capable of adhering to said substance and adapted to form the superficial part of the finished tip, and pressing and molding the end of the lacing carrying the tube, thereby forming a tip permanently united to the lacing.

5. In the manufacture of laces for shoes, etc., the process of providing the same with solid tips adhesively united therewith which consists in applying to the ends of the lacing a substance capable of integrally uniting with the lacing, then applying pressure to the treated end in the direction of the width of the lacing and molding it into a form having an elongated cross section, then inserting the same into a tube of similar cross-section, and then applying pressure to the lacing end in the direction of the longer diameter thereof and molding it into its final shape.

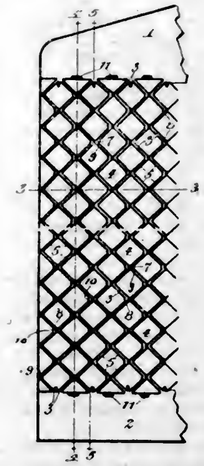
[Claims 6 to 8 not printed in the Gazette.]

1,139,113. TORPEDO-GUARD. AUSTIN M. EVANS, Potts Camp, Miss. Filed Oct. 28, 1914. Serial No. 869,058. (Cl. 114—241.)



In combination with a vessel, arms pivotally engaged therewith and projecting forwardly thereof, extensions pivotally engaged with the arms, a chain fabric secured to the extensions, and means common to the arms and the extensions for elevating said arms and extensions.

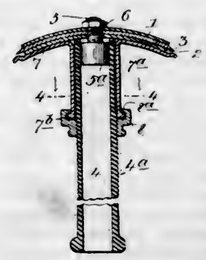
1,139,114. RADIATOR. JOHN M. FEDDERS, Buffalo, N. Y., assignor to Fedders Manufacturing Company, Inc., Buffalo, N. Y., a Corporation of New York. Filed Aug. 4, 1914. Serial No. 854,947. (Cl. 257—130.)



1. A radiator core having water and air passages arranged at right angles to each other and comprising a plurality of strips each of which is bent to form a plurality of webs which are arranged zig-zag and at right angles relatively to each other, and successive webs forming two walls of a square air passage, some of the corners of the strip being full and others bent reversely into concavo-convex form, said full corners alternating with said reversely bent corners, a plurality of such strips being assembled so that each strip forms a zig-zag water passage with one adjacent strip and a plurality of air passages with another adjacent strip, each air passage being formed by two walls of one strip and two walls of another strip, the two strips forming one water passage having their reversely bent corners adjacent to each other in pairs so that one reversely bent corner projects into the respective water passage and forms a seat therein while the companion reversely bent corner projects outwardly from said water passage and forms a clearance space between the same and the companion inwardly projecting corner, and the full corners of each strip engaging with the seats formed by the inwardly projecting corners of the adjacent strip which together form air passages therebetween.

2. A radiator core having water and air passages arranged at right angles to each other and comprising a plurality of strips each of which is bent to form a plurality of webs which are arranged zig-zag and at right angles relatively to each other, and successive webs forming two walls of a square air passage, some of the corners of the strip being full and others bent reversely into concavo-convex form, said full corners alternating with said reversely bent corners, a plurality of such strips being assembled so that each strip forms a zig-zag water passage with one adjacent strip and a plurality of air passages with another adjacent strip, each air passage being formed by two walls of one strip and two walls of another strip, the two strips forming one water passage having their reversely bent corners adjacent to each other in pairs so that one reversely bent corner projects into the respective water passage and forms a seat therein while the companion reversely bent corner projects outwardly from said water passage and forms a clearance space between the same and the companion inwardly projecting corner, the full corners of each strip engaging with the seats formed by the inwardly projecting corners of the adjacent strip which together form air passages therebetween, and opposite edges of each strip having off-sets which engage with the corresponding off-sets of the strip with which the same forms a water passage.

1,139,115. SAFETY-RAZOR. HENRY J. GAISMAN, New York, N. Y., assignor to Auto Strop Company, New York, N. Y., a Corporation of New York. Filed June 22, 1909. Serial No. 503,642. (Cl. 30—12.)



1. A safety razor comprising a blade holder arranged to hold a normally flat blade flexed in curved condition, a guard for the blade edge separate from the blade holder, and means for holding the guard in graduated positions for purposes of shaving.

2. A safety razor comprising a blade holder having opposed curved plates, means for clamping a normally flat blade flexed in curved condition between said plates, a guard separate from the blade holder, and means for holding said guard in graduated positions for purposes of shaving.

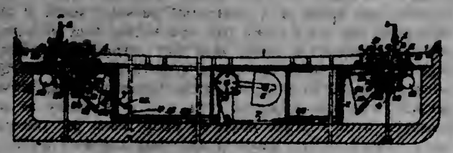
3. A safety razor comprising a blade holder having a pair of opposed curved plates, a normally flat double-edged blade between said plates, a handle connected with one of the plates, means for clamping said blade flexed in curved condition between said plates, an adjustable double-guard separate from said plates, and means for holding said guard in graduated positions for purposes of shaving.

4. A safety razor comprising a holder having a pair of opposed-curved plates, a handle, means for clamping a normally flat blade flexed in curved condition between said plates, a guard provided with a sleeve mounted upon said handle, and means for holding said guard in graduated positions for purposes of shaving.

5. A safety razor comprising a holder having a pair of opposed plates, a handle, means for rigidly clamping a normally flat blade flexed between said plates, a guard provided with a sleeve mounted upon said handle, said handle having threads, and a nut engaging said threads and having rotative engagement with said sleeve.

[Claims 6 to 9 not printed in the Gazette.]

1,135,116. HOLDING AND DISENGAGING GEAR FOR SHIPS' BOATS. HENRY WILLIAM GAVIN, Edinburgh, Scotland. Filed Oct. 6, 1914. Serial No. 865,286. (Cl. 9—22.)



1. A holding and disengaging gear for ships' boats, comprising in combination, a stand at each end of the boat, a hook or claw member pivoted on each stand, and adapted when closed to engage a link at the end of the falls, a finger integral with the hook or claw member, slidably mounted catch pieces in connection with which the fingers are kept in powerful engagement when the boat is suspended from the falls so as to hold the hook member in the closed position, an elbow lever at each end of the boat working on a pivot located adjacent to the hook member against the upper arm of which the links at the ends of the falls abut, and weight actuated lines each bifurcated at the end into two branches, one of which branches is coupled to the lower arm of the elbow lever and the other branch to the sliding catch pieces in such manner as to take the entire weight off these catch pieces by the links at the end of the falls abutting against the said upper arm of the elbow levers, whereby so long as the links are kept in tension by the falls, the elbow levers can not be pulled up by the weight, but immediately the boat is waterborne and the tension on the falls thereby slackened, the elbow levers are released, the pull of the weight being thereby communicated to the sliding catch pieces, thus pulling them clear of the hook members.

2. A holding and disengaging gear for ships' boats comprising in combination, a stand at each end of the boat, a hook or claw member pivoted on each stand and adapted when closed to engage the link at the end of the falls, slidably mounted catch pieces for holding the hook members in the closed position, a lever arm at each end of the boat working on a pivot located adjacent to the hook member, a fork or clutch member secured to the same pivot as that to which the lever arm is secured, but adapted to straddle the hook member, so that while being clear of the hook it can be brought laterally against the link when engaged by the hook, and weight actuated lines each bifurcated at the end into two branches, one of which is coupled to the lever arms, and the other to the sliding catch pieces.

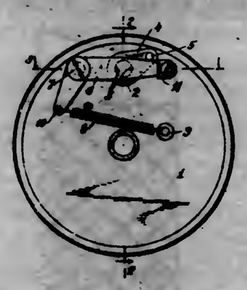
3. A holding and disengaging gear for ships' boats, comprising in combination, a stand at each end of the boat, a hook or claw member pivoted on each stand and adapted when closed to engage the link at the end of the falls, slidably mounted catch pieces for holding the hook members in the closed position, a pivoted fork or clutch member located adjacent to each link at the end of the falls when engaged by the hook, and against which the link presses when kept in tension by the falls, a lever arm for operating each clutch, and weight actuated lines bifurcated at the ends into two branches, one branch being coupled to the lever arms and the other to the sliding catch pieces, in such manner that the latter branch lies slack when the lever is pressed down, so that the entire pull of the weight is borne by the links abutting against the clutch member.

4. A holding and disengaging gear for ships' boats comprising in combination, a stand at each end of the boat, a hook or claw member pivoted on each stand and adapted when closed to engage the links at the end of the falls, slidably mounted catch pieces for holding the hook members in the closed position when the falls are in tension, a pivoted fork or clutch member located adjacent to each link when engaged by the hook, a lever arm for operating each clutch, weight actuated lines bifurcated at the ends into two branches, one of which is so coupled to the lever arms and the other to the sliding catch pieces that the slackening of the tension on the links of the falls at both ends of the boat releases both clutch and allows the lever arms to fly upward by the pull of the weight on the branch of the line actuated thereby, while the other branch of the line is thereby put into tension so as to pull the catch pieces clear of the hooks and cause them to turn into the open position.

5. In a holding and disengaging gear for ships' boats, the combination with catch pieces that hold the hook members in the closed position when the falls are in tensions, pivoted clutch members against which the links of the falls press when kept in tension by the falls, and lever arms for actuating the clutch members, of weight actuated lines bifurcated at the end into two branches coupled to the sliding catch pieces and the lever arms, respectively, the branch that is coupled to the sliding catch pieces normally lying slack, but is tightened to bring the pull of the weight on it at the moment when the tension of the falls at both ends of the boat is simultaneously relaxed.

[Claims 6 and 7 not printed in the Gazette.]

1,139,117. DUPLICATING-MACHINE. CHARLES FREDERICK GREEN, Hornchurch, England, assignor to A. B. Dick Company, Chicago, Ill., a Corporation of Illinois. Filed May 26, 1914. Serial No. 840,965. (Cl. 101—132.)



1. In a rotary duplicator, the combination of a member having an orifice therein, a revoluble member mounted in said orifice, a closure mounted on the inner side of said first member and normally covering said orifice, and means for moving said closure from closing position upon the revolution of said revoluble member, said revoluble member being adapted to be engaged from the outer side of said first member for the rotation thereof, substantially as set forth.

2. In a rotary duplicator, the combination of an end plate for a closed cylinder, having an orifice therein, a closure mounted on the inner side of said plate and normally covering said orifice, a pivoted arm adapted to force said closure away from closing position, and means within said orifice adapted to be engaged by an inserted instrument for moving said arm to move said closure, substantially as set forth.

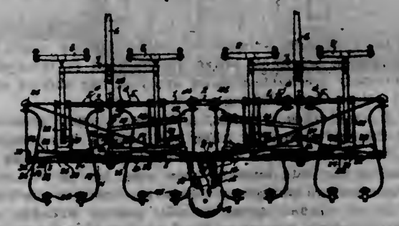
3. In a rotary duplicator, the combination of an end plate for a closed cylinder, having an orifice therein, a closure mounted on the inner side of said plate and normally covering said orifice, a pivoted arm adapted to force said closure away from closing position, and a sleeve mounted in said orifice, connected to said arm to oscillate the same by its rotation, substantially as set forth.

4. In a rotary duplicator, the combination of an end plate for a closed cylinder, having an orifice therein, a closure mounted on the inner side of said plate and normally covering said orifice, a pivoted arm adapted to force said closure away from closing position, and a sleeve mounted in said orifice, connected to said arm to oscillate the same by its rotation, said sleeve being constructed to interlock with the mouth of a collapsible ink container, when the latter is inserted within said orifice and into engagement with said sleeve, substantially as set forth.

5. In a rotary duplicator, the combination of an end plate for a closed cylinder, having an orifice therein, a spring-pressed closure on the inner side of said plate normally covering said orifice, a sleeve revolubly mounted in said orifice and having engagable means therein, and an arm secured to said sleeve and having means thereon for moving said closure against its spring-pressure, substantially as set forth.

[Claims 6 to 8 not printed in the Gazette.]

1,139,118. CULTIVATOR. WILLIAM P. HARPER, Abilene, Kans., assignor of one-half to John S. Duffy, Abilene, Kans. Filed Dec. 17, 1914. Serial No. 877,684. (Cl. 97—35.)



1. In a cultivator, the combination with an axle, of a main frame pivoted thereto and partly supported thereby, a wheeled supplemental support relative to which the main frame is vertically adjustable, a horizontal rock shaft pivoted in said supplemental support, a cam secured to said rock shaft and supporting said main frame, a lever for swinging said rock shaft, means for releasably holding the lever in different positions to which it may be swung, a shovel frame, and means carried by the main frame for supporting and vertically adjusting the shovel frame.

2. In a cultivator, the combination with an axle, of a main frame pivoted thereto and partly supported thereby, a wheeled support relative to which the main frame is vertically adjustable, a horizontal rock shaft pivoted to said support, a cam secured to said rock shaft and supporting the main frame, a lever for rocking said rock shaft, means for releasably holding the lever in different positions to which it may be swung, a shovel frame, a draft bar pivoted to the axle and to the shovel frame, and means carried by the main frame for supporting and vertically adjusting the shovel frame.

3. In a cultivator, the combination with an axle, of a main frame supported thereby, a shovel frame, a bar connected to the shovel frame and vertically movable relative to the main frame, releasable means for locking the said bar in different positions relative to the main frame, a lever carried by the main frame, means actuated by said lever for lifting the shovel frame, and a draft bar pivoted to the axle and to the shovel frame.

4. In a cultivator, the combination with an axle, of a main frame pivoted thereto and partly supported thereby, a shovel frame, a bar connected to the shovel frame and vertically movable relatively to the main frame, means for releasably locking said bar in different positions relatively to the main frame, a lever, means actuated by said lever for lifting the shovel frame, a draft bar pivoted to the axle and to the shovel frame, a wheeled supplemental support relative to which the main frame is vertically adjustable, and manually operated means for vertically adjusting and supporting the main frame upon the supplemental support.

5. In a cultivator, the combination with an axle, of a main frame pivoted thereto and partly supported thereby, a shovel frame, a bar connected to the shovel frame and vertically movable relatively to the main frame, means for releasably locking the said bar in different positions relatively to the main frame, a lever, means actuated by the lever for lifting the shovel frame, a draft bar pivoted to the axle and to the shovel frame, a wheeled supplemental support relative to which the main frame is vertically adjustable, a rock shaft pivoted to the supplemental support, a cam carried by and rotatable with said rock shaft and adapted to support the main frame, and means for rocking the rock shaft and for retaining it in different positions.

[Claims 6 and 7 not printed in the Gazette.]

1,139,119. TOY TOP. ISIDOR HEIDENREICH, Chicago, Ill. Filed Sept. 8, 1914. Serial No. 860,695. (Cl. 46—32.)



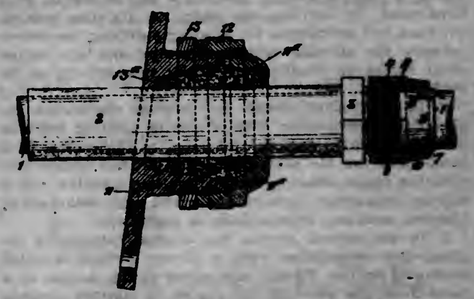
1. As a new article of manufacture, a toy top comprising a spindle having a pair of shoulders associated therewith, and a rigid disk, a covering for said disk on which advertising matter may be printed, and a transparent celluloid cover for said disk covering, all clamped between said shoulders.

2. As a new article of manufacture, a toy top comprising a spindle having a pair of shoulders associated therewith, and a rigid disk having a downturned flange, a covering for said disk on which advertising matter may be printed, and a transparent celluloid cover for said disk covering, all clamped between said shoulders.

3. As a new article of manufacture, a toy top comprising a spindle having a pair of shoulders associated therewith, and a disk with a down-turned flange, a covering for said disk and a flat button embraced within said flange, all clamped between said shoulders.

4. As a new article of manufacture, a toy top comprising a spindle having a pair of shoulders associated therewith, and a disk with a downturned flange, and a button embraced within said flange, clamped between said shoulders.

1,139,120. RENEWABLE SLEEVE FOR ROTATABLE SHAFTS. HOWARD HOFFMAN, Belmar, N. J. Filed Aug. 5, 1914. Serial No. 855,109. (Cl. 64—29.)



1. A shiftable sleeve for shafts comprising a cylindrical portion, a wrench receiving portion, a threaded cylindrical portion, and a tapered portion slotted to permit of frictional engagement with a shaft.

2. A shiftable removable bearing sleeve for shafts comprising a cylindrical portion, a wrench receiving portion, a threaded cylindrical portion, a slotted tapered portion, and a taper chambered nut having a cylindrical threaded portion adapted to engage said threaded and tapered portions of said sleeve thereby to permit frictional engagement between said sleeve and a shaft.

3. A shiftable removable bearing sleeve for shafts comprising a cylindrical portion, a slotted tapered portion at one end thereof, and a cylindrical threaded portion adjacent to said slotted tapered portion; and a nut having a

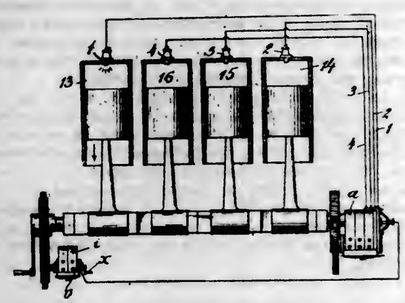
cylindrical threaded portion to engage the cylindrical threaded portion of said sleeve, and a taper chambered portion to simultaneously engage the slotted tapered portion of said sleeve thereby to permit frictional engagement between said sleeve and a shaft.

4. The combination with a stuffing box, of a shiftable shaft protecting sleeve on said shaft and in said stuffing box, and shaft engaging means carried by said sleeve to permit its rigid engagement in any adjusted position on a shaft, the sleeve being axially shiftable so as to replace a worn surface of said sleeve in said stuffing box by a fresh surface.

5. The combination with a stuffing box and a shaft, of a shiftable sleeve therebetween, one end of said sleeve being threaded and having a slotted tapering portion and a taper seated lock nut for said end, whereby said sleeve may be locked, unlocked and moved relative to said stuffing box and shaft to replace a worn by an unworn surface.

[Claims 6 to 10 not printed in the Gazette.]

1,139,121. ELECTRICAL IGNITION SYSTEM FOR INTERNAL-COMBUSTION ENGINES. GOTTLOB HONOLD, Stuttgart, Germany, assignor to the Firm of Robert Bosch, Stuttgart, Germany. Filed Mar. 25, 1912. Serial No. 685,945. (Cl. 123—148.)



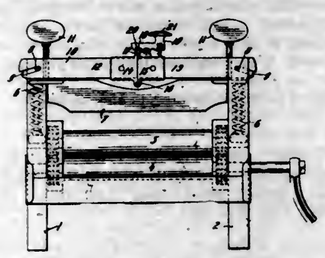
1. In an ignition system for internal combustion engines, the combination with a service ignition machine having a positive driving connection to the engine, of a hand-crank for starting the engine, a starting ignition machine, and mechanism for effecting a driving connection between the starting ignition machine and the engine shaft during the cranking operation; substantially as described.

2. In an ignition system for internal combustion engines, the combination with a service ignition machine having a positive driving connection to the engine, of a hand-crank for the engine having a ratchet engagement with the engine shaft, a starting ignition machine, and a driving connection between the crank and the starting ignition machine; substantially as described.

3. In an ignition system for internal combustion engines, the combination with a service ignition machine having a positive driving connection to the engine, of a hand-crank for starting the engine, a starting ignition machine, mechanism for effecting a driving connection between the starting ignition machine and the engine shaft during the cranking operation, said mechanism including a disengageable coupling, and independent driving means for the starting ignition machine; substantially as described.

4. In an ignition system for internal combustion engines, the combination with a service ignition machine having a positive driving connection to the engine, of a hand-crank for the engine having a ratchet engagement with the engine shaft, a starting ignition machine, a disengageable driving connection between the crank and the starting ignition machine, and independent driving means for the starting ignition machine; substantially as described.

1,139,122. SAFETY CLOTHES-WRINGER. NATHAN B. HUTTON, Barnesville, Ohio. Filed May 14, 1914. Serial No. 838,566. (Cl. 68—32.)



1. In a clothes wringer, a frame, tension controlled rolls therein separable when the tension is released, a transversely breakable tension applying bar and an emergency release for breaking the bar.

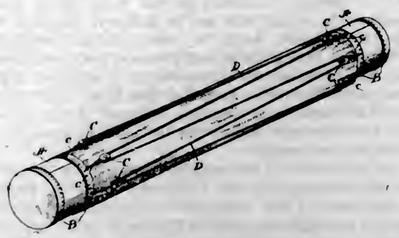
2. In a clothes wringer, a frame, tension controlled rolls therein, separable when the tension is released, a transversely breakable tension applying bar, means for adjusting the roll tension when said bar is in normal position, and an emergency release for breaking the bar.

3. In a clothes wringer, side pieces, wringer rolls mounted therein and separably held under spring tension, a top cross-bar formed of two pieces hinged together at their meeting ends enabling the meeting ends to move vertically, a snap-latch to normally hold said pieces rigidly in alinement, pin and slot connection between the side pieces and the outer ends of said cross bar pieces, and means whereby the roll tension is controlled by said cross bar when in normal position.

4. In a clothes wringer, side pieces, wringer rolls mounted therein and separably held under spring tension, a top cross-bar comprising two pieces meeting and separating in a vertical plane, bracket on said meeting ends pivoted on the under side, lugs on the upper portions of said brackets constituting a locking detent when the joint is closed, a snap latch on one of said brackets for locking and releasing said lugs, pin and slot connection between the outer ends of said cross-bar, and said side pieces, and means whereby the roll tension is controlled by said cross-bar when in normal position.

5. In a clothes wringer, side pieces, wringer rolls separably held by the side pieces, tension means on the side pieces, a medially breakable bar having a pin and slot connection with the side pieces, a latch for the breakable portion of said bar to hold the ends of the bar in alinement and adapted to constitute an emergency release, and means whereby the alinement of the breakable sections of the bar holds the rolls under tension and automatically releases them upon unlatching said breakable bar.

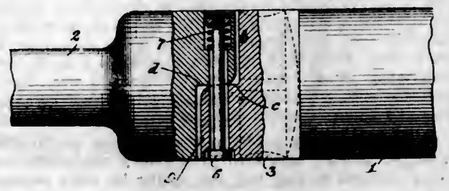
1,139,123. LOG-BUOY. JOSEPH H. JOHNSON, Blissville, Ark. Filed Sept. 28, 1914. Serial No. 863,809. (Cl. 9—15.)



1. Means for floating heavy logs, comprising two floats, pulleys applied in circular series to said floats and a wire or cable passing through the pulleys and adapted to draw the floats firmly against the ends of a log.

2. Means for floating heavy logs, comprising watertight metallic floats, a rope or cable for connecting them and drawing them tightly against the end of a log, and guides for the cable carried by the floats, and flexible connections between the guides and the floats.

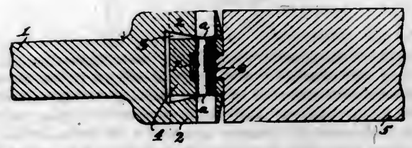
1,139,124. UNIVERSAL COUPLING FOR ROLLS, &c. WALTER KENNEDY, Pittsburgh, Pa. Filed Sept. 21, 1914. Serial No. 862,679. (Cl. 74—19.)



1. A coupling comprising driving and driven rotatable parts one part having a block or rib extending therefrom and provided with a shoulder, and adapted to project into a slot in the other part, said part having a shoulder within said slot adapted to bear on the shoulder on the block or rib, said slot having a width greater than that of the block or rib, and rocking blocks arranged in the side walls of the slot and bearing on the sides of the block or rib, and means for holding the coupling members in engagement.

2. A coupling comprising driving and driven rotatable parts one part having a block or rib having portions extending different distances therefrom thereby forming a shoulder, the other part having a slot extending different depths thereinto thereby forming a shoulder in the bottom of the slot adapted to bear on the shoulder of the rib, rocking shoes interposed between the rib and the sides of the slot and a bolt passing through both parts of the coupling.

1,139,125. UNIVERSAL COUPLING. WALTER KENNEDY, Pittsburgh, Pa. Filed Sept. 21, 1914. Serial No. 862,680. (Cl. 74—19.)



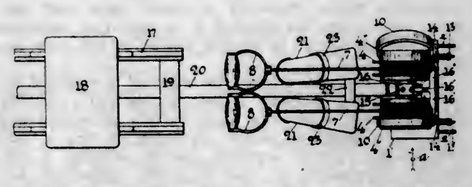
1. A coupling comprising driving and driven rotatable parts, one of said parts having lugs and the other part being provided with a rib extending across its end, in combination with a block provided with peripheral notches for the reception of said lugs and with a groove for the reception of said rib, the lugs and rib slidably bearing against the side walls of the notches and groove and the lugs movable longitudinally in the notches to permit of the driving or driven parts being shifted to angular position one to the other.

2. A coupling comprising driving and driven rotatable parts, one of said parts having lugs and the other part being provided with a rib extending across its end, in combination with a block provided with peripheral notches for the reception of said lugs and with a groove for the reception of said rib, the lugs and rib slidably bearing against the side walls of the notches and groove, and means for locking the block against lateral movement along the rib.

3. A coupling having in combination a block, driving and driven parts provided with projecting portions adapted to positively engage the block in planes at right angles to each other, the projecting portion of one part overlapping the corresponding portion of the other part and including between them portions of the block, the projecting portions being movable independently of the block in directions substantially at right angles to the direction of rotation of the coupling and a pin engaging the block and a portion projecting into engagement with the block.

4. A coupling having in combination driving and driven rotatable parts, a connecting block, the driving and driven parts having portions projecting therefrom and positively engaging the block in planes at right angles to each other, said parts being movable to angular positions relative one to the other while maintaining engagement with the block, one of said parts being movable relative to the block in the direction of the axis of rotation of said part, and means for preventing the block from moving relative to the other part in the direction of the axis of rotation of said part.

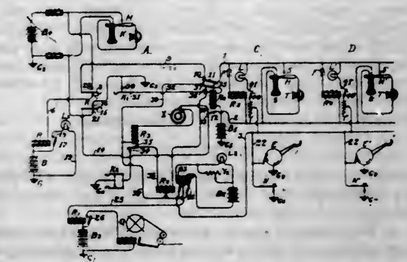
1,139,126. EXERCISING-MACHINE. EDWARD J. KERNS, Worcester, Mass. Filed Dec. 30, 1914. Serial No. 879,647. (Cl. 46—69.)



1. In an exercising machine, the combination with a portable frame or stand, adapted to be secured in position, and a shaft mounted on said frame, of two rotary drums mounted on said shaft, each drum having a cord wound around the same, and connected therewith, and a spring connected with each drum, and also with said frame, to control the rotary motion of each drum, and means to guide said cord and hold it on each drum, and to stop the winding of said cord on each drum.

2. In an exercising machine, the combination with a portable frame or stand, adapted to be secured in position, and a shaft mounted on said frame, of a rotary drum mounted on said shaft, said drum having a cord wound around the same and connected therewith, and a spring connected with said drum, and also with said frame, to control the rotary motion of said drum, and means to guide said cord and held it on said drum, and stop the winding of said cord on said drum.

1,139,127. COMPOSITE ELECTRIC SYSTEM. ALBION D. T. LIBBY, Elyria, Ohio, assignor, by mesne assignments, to The Garford Manufacturing Company, Elyria, Ohio, a Corporation of Ohio. Filed Jan. 28, 1910. Serial No. 540,571. (Cl. 179—5.)



1. In a composite system, including a combined police and telephone system, the combination of a main station, a plurality of substations, police signaling devices at said stations, telephones at the substations, a plurality of conductors utilized by said devices connecting said stations, a telephone circuit operating over a pair of said conductors,

lamp signals at said substations adapted to be connected in and operated over certain of said conductors, a source of current adapted to be connected with the c nductors to which the lamps may be connected for operating all of said lamps simultaneously and means at the substations controlling the operation of said lamps, said controlling means connected in circuit with said telephone conductors and adapted to be controlled thereover by a separate source of current located at the main station.

2. In a composite system, including a combined police and telephone system, the combination of a main station, a plurality of substations, police signaling devices at said stations, telephones at the substations, a plurality of conductors utilized by said devices connecting said stations, a telephone circuit operating over a pair of said conductors, lamp signals at said substations adapted to be connected in and operated over certain of said conductors, a source of current adapted to be connected with the conductors to which the lamps may be connected for operating all said lamps simultaneously and relays at the substations controlling the operation of said lamps, said controlling relays connected in circuit with said telephone conductors and adapted to be controlled thereover by a separate source of current located at the main station.

3. In a composite system consisting of a combined police and telephone system, a main station and a plurality of substations, a plurality of conductors connecting said stations, a telephone circuit consisting of two of said conductors, a police signaling system utilizing a conductor independent of said telephone conductors and ground, a luminous signal at each substation adapted to be connected in circuit with one of said telephone conductors and said independent conductor, a source of current for operating said lamp over said telephone conductor, means controlling the operation of said lamp, connected in circuit with said telephone conductors, said means adapted to be controlled by said main station operator.

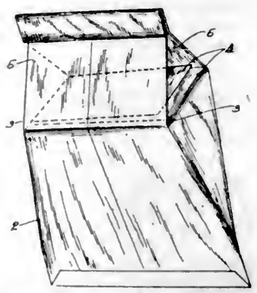
4. In a composite system consisting of a combined police and telephone system, a main station and a plurality of substations, a plurality of conductors connecting said stations, a telephone circuit consisting of two of said conductors, a police signaling system utilizing a conductor independent of said telephone conductors and ground, a luminous signal at each substation adapted to be connected in circuit with one of said telephone conductors and said independent conductor, a source of current for operating said lamp over said telephone conductor, a relay controlling the operation of said lamp connected in circuit with said telephone conductors, said relay adapted to be controlled by said main station operator.

5. In a composite system consisting of combined telephone and police systems, a main station and a plurality of substations, telephones at said stations, a plurality of conductors connecting said stations, a telephone line utilizing two of said conductors, a conductor independent of said telephone conductors, luminous signals at the substations adapted to be connected in circuit with one of said telephone conductors and said independent conductor, a source of current for operating said signals and means for controlling the operation of said signals, said means operated over the telephone conductors by a separate source of current located at the main station.

[Claims 6 to 21 not printed in the Gazette.]

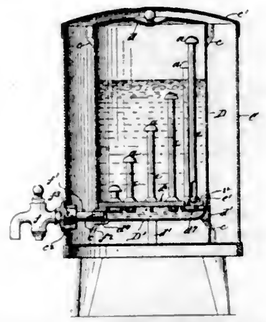
1,139,128. CORNUCOPIA-HOLDER. JOHN LINDBERG, San Francisco, Cal. Filed July 7, 1914. Serial No. 849,423. (Cl. 229—6.)

1. In a confection holder, an inverted V-shaped member having an opening in its top to receive a cornucopia, the free ends of the member being movable toward each other and engaged with the sides of the cornucopia, and a bag to receive said member, said bag being of V-shape so as to receive the free ends of said member to hold same in engagement with the cornucopia, the top of the bag having ends which overlap and close the bag mouth and having sides which converge and extend over said ends and are folded into engagement with one another to provide a hand grip.



2. In a confection holder, a V-shaped bag, an inverted V-shaped member apertured to receive a cornucopia and being received in said bag and having its sides engaged with the respective opposite sides of the cornucopia to hold the latter against lateral movement, and means on the bag to close the top thereof and to provide a handle therefor.

1,139,129. LIQUID-DISPENSER. HARRY C. LYONS, New York, N. Y. Filed Apr. 23, 1914. Serial No. 833,880. (Cl. 31—85.)



1. In a receptacle for holding and dispensing liquids having constituents of different specific gravities, the combination of a plurality of drain ducts each having a drain port at a different level from the other drain ports, a discharge conduit common to all of said drain ducts, and a faucet connected with said discharge conduit, and a float cap for each of said ducts frictionally retained within the same for the purpose described.

2. Means for dispensing liquids containing constituents of different specific gravities, consisting of a dispensing reservoir, a plurality of drain ducts therein each formed with a drain port on a level different from the drain ports of other drain ducts in the series, a float cap for each of said ducts frictionally retained within the same, a common discharge chamber with which all the drain ducts communicate, and a discharge faucet connected with said discharge chamber, for the purpose described.

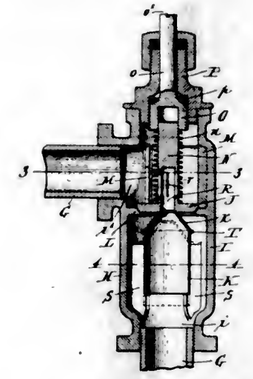
3. Means for dispensing liquids containing constituents of different specific gravities, consisting of a dispensing reservoir, a plurality of drain ducts therein each formed with a drain port on a level different from the drain ports of other drain ducts in the series, a common discharge chamber with which all the drain ducts communicate, a valve interposed between each drain duct and said discharge chamber, said valve being loosely contained within the lower end of the drain duct and a discharge faucet connected with said discharge chamber, for the purpose described.

4. Means for dispensing liquids containing constituents of different specific gravities consisting of a dispensing reservoir, a plurality of drain ducts therein, each formed with a drain port on a level different from the drain ports of other drain ducts in the series, a float cap for each drain duct arranged to protect its inlet port, each drain duct being provided with air admission openings at its upper end to admit air when the float cap is seated upon the end of the duct, a common discharge chamber with which all the drain ducts communicate, and a discharge faucet connected with said discharge chamber, for the purpose described.

5. In a receptacle for holding and dispensing liquids having constituents of different specific gravities, a plurality of drain ducts, a discharge chamber common to all of said ducts, each having its upper end on a different level from the others, a valve in each drain duct at the lower end thereof, each drain duct being detachably mounted and having an enlarged conical base receiving the valve, and a guard for each valve extending into said chamber.

[Claim 6 not printed in the Gazette.]

1,139,130. INTENSIFIER FOR HOT-WATER HEATING SYSTEMS. WILLIAM C. MCKEOWN, Buffalo, N. Y. Filed Jan. 2, 1913. Serial No. 739,742. (Cl. 137—53.)

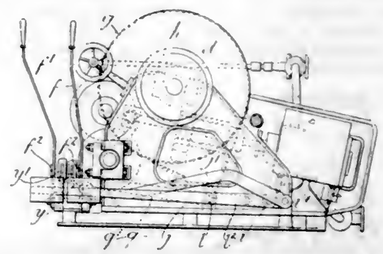


1. An intensifier comprising a casing having an inlet, an outlet, two sets of longitudinal internal guide-ribs and a valve seat between said two sets of guide-ribs, a main valve normally seated against said valve seat and adapted to open only at a predetermined high pressure, said main valve being guided in its movements by one set of said guide-ribs and having a passage therethrough, and an auxiliary valve guided for movement by the other set of guide-ribs and adapted to close said passage to cut off communication between the spaces at opposite sides of said main valve.

2. An intensifier comprising a casing divided into two parts and having a set of longitudinal guide-ribs in one of said parts, an inlet in said last-mentioned part and an outlet or return in the other part, a spring-controlled valve between said parts having a central bore in communication with both parts, and a hollow valve having a tapered upper end adapted to close said central bore and being guided for movement by said guide-ribs.

3. An intensifier comprising a casing having an inlet, an outlet or return, a valve seat between said inlet and said outlet or return and a set of longitudinal guide-ribs between said inlet and said valve seat, said guide-ribs being spaced from said valve seat, a spring-controlled valve normally closed against said seat and having a central passage in communication with the spaces at opposite sides of said valve seat, and a hollow valve guided by said guide-ribs and having a tapered upper end adapted to close said central passage and an outstanding flange adapted to bear against the ends of said guide-ribs adjacent said valve seat.

1,139,131. SHIP AND LIKE WINCH ARRANGEMENT. GEORGE THOMAS MACFARLANE, Pinner, and MATTHEW ROLEY, Slough, England, assignors to G. D. Peters and Company Limited, London, England, George Thomas Macfarlane, Pinner, England, and Matthew Roley, Slough, Bucks, England. Filed Oct. 27, 1913. Serial No. 797,700. (Cl. 254—187.)



1. A winch comprising a shaft, a barrel thereon, a weight applied free-wheel brake for such barrel, a unidirectional counter shaft, direct and reversing gear connecting the barrel and counter shafts, clutches adapted to render the different gears alternately operative, a hand lever adapted to close one such clutch at a time and means associated with the lever adapted to insure release of the brake before one clutch is closed and to arrest the lever and prevent the other clutch being closed unless the brake is applied.

2. A winch comprising a shaft, a barrel thereon, a weight applied free-wheel brake for such barrel, a unidirectional counter shaft, direct and reversing gear connecting the barrel and counter shafts, clutches adapted to render the different gears alternatively operative, a hand lever adapted to close one such clutch at a time and means associated with the lever adapted to insure release of the brake before one clutch is closed and to arrest the lever and prevent the other clutch being closed unless the brake is applied, such means also acting to prevent the brake being released after such other clutch has been closed.

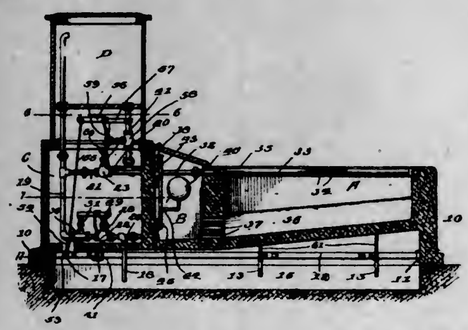
3. A winch comprising a shaft, a barrel thereon, a weight-applied free-wheel brake for such barrel, a unidirectional counter shaft, direct and reversing gear connecting the barrel and counter shafts, clutches adapted to render the different gears alternatively operative, a hand lever adapted to close one such clutch at a time, a brake releasing arm adapted to be operated by the lever when closing the reverse driving clutch and a member movable with the lever when closing the direct driving clutch such member encountering the brake mechanism and arresting the lever before the clutch can be closed, if the brake be not applied.

1,139,132. WATERING-TROUGH. JOSEPH A. MAYNARD, Ravena, N. Y., assignor of one-third to Louis Paltenghi and one-third to Oscar Brook, Ravena, N. Y. Filed Mar. 14, 1914. Serial No. 824,708. (Cl. 119—76.)

1. A watering apparatus comprising a trough, a water reservoir in communication therewith, a flushing tank having a spraying device in the trough, a main for supplying water to the tank and reservoir, and means operated by an animal for opening the main to the tank and reservoir and shutting off the spraying device.

2. A watering apparatus comprising a trough, a water reservoir in communication therewith, a flushing tank having a spraying device in the trough, a main for supplying water to the tank and reservoir, means operated by an animal for opening the main to the tank and reservoir and shutting off the spraying device, means for shutting off the supply of water from the main to the reservoir on its reaching a predetermined level in the latter, and means for bringing the first-named means to normal position when released by the animal.

3. A watering apparatus comprising a trough, a water reservoir in communication therewith, a flushing tank having a spraying device in the trough, a main for supplying water to the tank and reservoir, means operated by an animal for opening the main to the tank and reservoir and shutting off the spraying device, means for shutting off the supply of water from the main to the reservoir on its reaching a predetermined level in the latter, means for bringing the first-named means to normal position when released by the animal, and means automatically closing the main on the release of the first-named means.



4. A watering apparatus comprising a trough, a water reservoir in communication therewith, a flushing tank having a spraying device in the trough, a main for supplying water to the tank and reservoir, means operated by an animal for opening the main to the tank and reservoir, and shutting off the spraying device, means for shutting off the supply of water from the main to the reservoir on its reaching a predetermined level in the latter, means for bringing the first-named means to normal position when released by the animal, means automatically closing the main on the release of the first-named means, means operative on the release of the first-named means to discharge the water from the trough and reservoir, and means operative on the release of the first-named means for opening the spraying device.

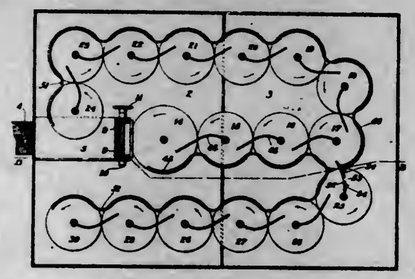
5. A watering apparatus comprising a trough, a water reservoir in communication therewith, a flushing tank having a spraying device in the trough, a main for supplying water to the tank and reservoir, means operated by an animal for opening the main to the tank and reservoir and shutting off the spraying device, means for shutting off the supply of water from the main to the reservoir on its reaching a predetermined level in the latter, means for bringing the first-named means to normal position when released by the animal, means automatically closing the main on the release of the first-named means, means operative on the release of the first-named means to discharge the water from the trough and reservoir, means operative on the release of the said first-named means for opening the spraying device, means for preventing overflow in the reservoir, and means for draining the supply means to the tank on the closing of the main.

1,139,133. DISTRIBUTING MECHANISM. JOHN H. MICHENER, Jr., New York, N. Y. Filed Nov. 9, 1911. Serial No. 659,276. (Cl. 193—1.)

1. In a stowing or trimming device the combination with a series of rotary disks, a fixed rail associated therewith for forwarding material from end to end of the series, said device being provided with deflectors for immediately spilling the material.

2. A conveyer including in combination, a series of consecutive disks mounted for rotation in the same general plane and a fixed rail extending lengthwise of said series adjacent to the upper faces of said disks for retaining the material thereon.

3. A conveyer including in combination, a series of consecutive disks mounted for rotation in the same general plane, said disks having their receiving edge portions lower than their discharge edge portions and a fixed rail extending lengthwise of said series adjacent to the upper faces of said disks for retaining the material thereon.

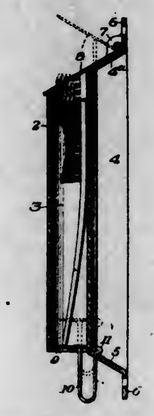


4. A conveyer including in combination, a series of consecutively contiguous disks mounted for rotation in the same general plane, each of said disks having its receiving edge portion lower than the discharge edge portion of the disk from which it receives and a fixed rail extending lengthwise of said series adjacent the upper faces of said disks for retaining the material thereon.

5. In a conveyer the combination with a series of rotary disks, of a series of deflectors for causing the conveyed material to pass from disk to disk and a guide lower than the deflectors for partially retaining the conveyed material on the disks.

[Claim 6 to 15 not printed in the Gazette.]

1,139,134. TOOTH-BRUSH HOLDER. WALTER MILLER, Beaver Falls, Pa., assignor of one-half to James S. Miller, Beaver, Pa. Filed Oct. 14, 1914. Serial No. 866,596. (Cl. 132—11.)



1. A container having a vertically movable cover, a vertically movable bottom and a connection between the cover and the bottom, said connection having a finger push portion extending below the container when the bottom and cover are raised; substantially as described.

2. A container having a vertically movable cover, a vertically movable bottom, and a connection between the cover and the bottom, said connection having a portion thereof below the container arranged to form a finger push, and said connection being exterior of said compartment; substantially as described.

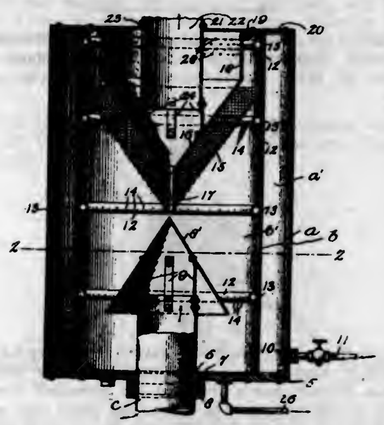
3. A container having a vertically movable cover, a vertically movable bottom, and a connecting member between the cover and bottom, said member being connected to the lower side of the bottom and extending thence upwardly to the cover exteriorly of said compartment; substantially as described.

4. A tooth brush holder having a compartment for a tooth brush, a movable cover for said compartment, a movable bottom in said compartment, and a cover actuating device connected to the movable bottom and extending below the lower end of the compartment, and on the exterior of said compartment; substantially as described.

5. A tooth brush holder having a compartment for a tooth brush, a rearward extension at the upper end of the compartment, a rearward extension at the lower end of said compartment, said extensions forming brackets for securing the holder in position, a cover pivoted to the upper extension, a movable bottom in the compartment, and a cover actuating device connected to the movable bottom and extending below the lower end of the compartment, said actuating device extending upwardly in back of the compartment; substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,139,135. STEAM-CONDENSER. GEORGE PETERSON, Bayonne, N. J. Filed Dec. 16, 1913. Serial No. 807,115. (Cl. 261—4.)

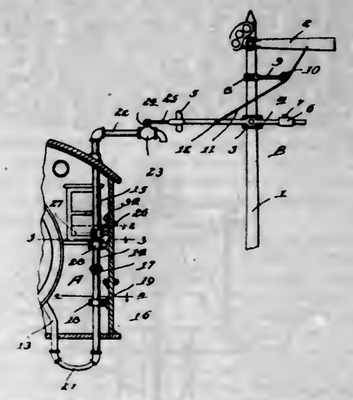


1. In a condenser for steam, the combination of an outer casing and an inner casing, steam inlet and outlet means positioned in the ends of the casings, a water inlet pipe entering the outer casing, water outlet pipes located in the inner casing and communicating with the outer casing for spraying water within the inner casing, and a series of conical deflectors or baffles located within the inner casing between the steam inlet and steam outlet means, substantially as described.

2. In a condenser for steam, the combination of an inner chamber, an outer chamber, water inlet means entering the outer chamber, water outlet means positioned on the wall of the inner chamber, steam inlet and outlet pipes entering the inner chamber, a conical deflector carried by the steam inlet pipe, a screen located within the inner chamber and arranged in spaced relation with the conical deflector, and a second conical deflector positioned within the inner chamber and arranged in spaced relation to the screen.

1,139,136. TRAIN-STOPPING APPARATUS. WILLIAM PURCELL, Hornell, N. Y. Filed July 31, 1914. Serial No. 854,353. (Cl. 246—59.)

1. In train stopping apparatus, the combination with the brake pipe, of a vertical air conducting pipe comprising upper and lower axially alining sections connected to each other at the meeting ends thereof for relative movement, a horizontal pipe section connected to the upper end of said air conducting pipe, a valve carried by said last section and normally closed, means for opening said valve to establish communication between said pipe and the atmosphere, a handle on the upper pipe section of said air conducting pipe whereby said section may be rotated relatively to the lower section to swing the valve to inactive position, means holding said upper pipe section against movement to active position, and a connection between the lower end of said air conducting pipe and said brake pipe.



2. In train stopping apparatus, the combination with the brake pipe, of a vertical air conducting pipe comprising upper and lower axially alining sections connected to each other at the meeting ends thereof for relative movement, a horizontal pipe section connected to the upper end of said air conducting pipe, a valve carried by said last section and normally closed, means for opening said valve to establish communication between said pipe and the atmosphere, a handle on the upper pipe section of said air conducting pipe whereby said section may be rotated relatively to the lower section to swing the valve to inactive position, means holding said upper pipe section against movement to active position, a flexible connection between said air conducting pipe and said brake pipe, and means supporting said air conducting pipe and permitting vertical sliding movement thereof.

1,139,137. SAFETY DEVICE FOR CUFF-BUTTONS. HYMAN R. ROGALSKY, Bradford, Pa. Filed July 21, 1914. Serial No. 852,149. (Cl. 24—90.)

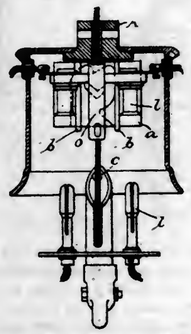


A safety device for cuff buttons comprising two overlapping semi-circular members formed from a single strand of resilient wire, said semi-circular members each being provided with a centrally disposed loop to engage the shank of a cuff button, the ends of the wire being bent around the body portion of the device at a point centrally opposite the loop, and a sheet-metal finger-hold secured to the body portion of the device and covering the ends of the wire, the two semi-circular portions having a divergent guide for the shank of the button.

1,139,138. DEVICE FOR RELIEVING THE PULL ON THE ROPE FOR COUPLING DEVICES FOR ELECTRIC CONDUCTORS. WILLY SCHMIDT, Frankfort-on-the-Main, Germany. Filed Oct. 15, 1912. Serial No. 725,940. (Cl. 240—63.)

1. A device of the character described consisting of a support, an inverted U-shaped guide carried by said support and having alined apertures in its opposite sides, a longitudinally slidable plate mounted in said apertured guide, a track within said plate, means carried on the article to be raised adapted to travel in said track, and means on said plate adapted to serve as a rest for said article carried means, substantially as described.

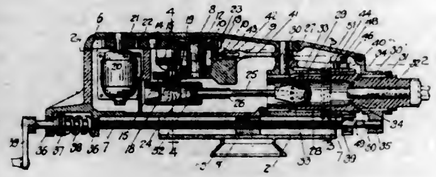
2. A device of the character described consisting of a support, an inverted U-shaped guide carried by said support and having alined apertures in its opposite sides, a longitudinally slidable plate mounted in said apertured guide, a track in said plate, an abutment carried by the article to be raised and adapted to travel on said track, a stop on said plate, said track being so arranged as to guide said abutment at a certain point in its passage over said stop, said stop being so arranged as to force said plate sidewise when said abutment is lowered thereto whereby a different portion of the track is presented to the abutment when it is again raised, substantially as described.



3. A device of the character described consisting of a support, a guide carried by said support, a longitudinally slidable plate mounted on said guide, a track in said plate, means carried by the article to be raised adapted to travel in said track, and a stop provided on said plate adapted to serve as a seat for said traveling means after it has passed over a certain predetermined portion of said track, substantially as described.

4. A device of the character described consisting of a support, a guide carried by said support, an apertured longitudinally slidable plate mounted in said guide, an abutment carried by the article to be raised, said apertured plate being adapted to serve as a guide for said abutment, a V-shaped stop on said apertured plate adapted to serve as a catch for said abutment, and means for releasing said abutment from said track, substantially as described.

1,139,139. ROCK-DRILL. WILLIAM L. SMITH, Chicago, Ill. Filed Oct. 2, 1912. Serial No. 723,567. (Cl. 255—42.)



1. In an impact machine, a rotary crank, a cylinder having a wrist connection therewith, a piston in said cylinder, a hammer connected with said piston, and a tool disposed to be engaged by said hammer, said crank having a chamber in communication with the interior of said cylinder, for the supply of a lubricant thereto.

2. In an impact machine, a shaft having a passage for the supply of a lubricant, a crank on said shaft, having a chamber in communication with said passage, a wrist rotatable on said shaft and having a recess in communication with said chamber, a cylinder on said wrist, its interior being in communication with said recess, a piston in said cylinder, a hammer connected with said piston, and a tool disposed to be engaged by the said hammer.

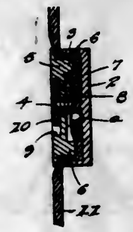
3. In an impact machine, a rotary crank, a cylinder having a wrist connection therewith, a piston in said cylinder, a hammer connected with said piston, and a tool disposed to be engaged by said hammer, said crank, wrist-connection and cylinder having coöperative means for the supply of a lubricant to the interior of the cylinder during movement of the said crank.

4. In an impact machine, a rotary crank, a wrist rotatably mounted thereon and having a forked bearing, a trunnioned cylinder mounted in said bearing so as to be capable of movement for varying the angle between its longitudinal axis and the axis of rotation of the wrist, a piston in said cylinder, an impact-element connected with said piston, and means for guiding said element for rectilinear reciprocation.

5. In an impact machine, a support having a nut, a housing having bearings, a feed screw extending through said nut and rotatably mounted in said bearings, a bearing to resist end-thrust of said screw and a spring applied between said thrust bearing and one of the first mentioned bearings.

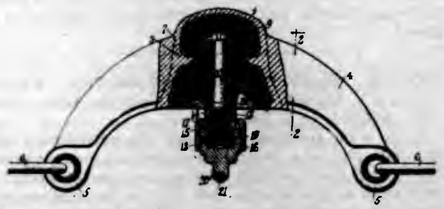
[Claims 6 and 7 not printed in the Gazette.]

1,139,140. PUNCTURE-PLUG FOR PNEUMATIC TIRES. BERNARD W. SPITLER, Dorchester, Mass. Filed June 23, 1914. Serial No. 846,817. (Cl. 152—26.)



A puncture plug comprising a circular member having a peripheral flange extending at right angles to the body portion thereof, and a threaded pin extending from the center of the body portion beyond the outer edge of said flange, and a circular coacting member provided with an angular flange of less diameter than and adapted to fit within the first mentioned flange to fold the material at right angles, and to clamp the material between the base of the flange and the body of the circular member, said coacting member having a recess in its outer face and provided with an aperture through which said threaded pin extends, and a nut fitted to said pin within said recess, said coacting member being provided with an outwardly extending flange, the periphery of which is co-extensive with the flange of the circular member.

1,139,141. LOCKING-CLIP. LOUIS STEINBERGER, Brooklyn, N. Y. Filed Oct. 18, 1910. Serial No. 587,718. (Cl. 191—40.)

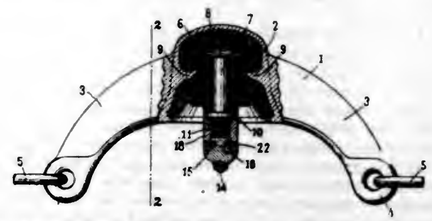


1. A locking clip, comprising a spanner hanger, a bolt supported thereby and provided with an annular bead, and also provided with a threaded portion extending from said annular bead, a threaded sleeve revolubly mounted upon said threaded portion and provided with an annular bead, a nut having a contracted portion in engagement with said annular bead of said annular sleeve, said nut being threaded internally and revoluble relatively to said sleeve, a head threaded externally and fitting into said nut, and a clip connected with said head for supporting a wire.

2. A locking clip, comprising a hanger, a bolt supported thereby and provided with a bead, and further provided with a threaded portion extending from said bead, a sleeve threaded internally and revolubly fitted upon said threaded portion, said sleeve being adapted to jam against said bead and being provided also with an annular flange, a nut provided with a contracted portion for resting upon said annular flange, said nut being threaded internally, a head threaded externally and fitted into said nut, and a clip member connected with said head for supporting a conductor.

3. A locking clip, comprising a fixed bolt, means for supporting the same, a sleeve carried by said bolt and provided with a flange, said sleeve being further provided with an angular surface to be engaged by a wrench, a nut provided with a portion for engaging said annular flange, said nut being threaded internally, a head threaded externally and engaged externally by said nut, said head having a central compartment of greater diameter than said threaded portion of said bolt for receiving the latter, and a clip member mounted upon said head.

1,139,142. LOCKING-CLIP. LOUIS STEINBERGER, Brooklyn, N. Y. Filed Sept. 21, 1912. Serial No. 721,695. (Cl. 191—42.)



1. As an article of manufacture, a wire clip provided with separately formed means for attaching it to a hanger, the wire clip having a cylindrical portion formed with an annular groove, the attaching means comprising a sleeve encircling the cylindrical portion of the wire clip having an aperture therein registering with the annular groove, and means in said aperture projecting into said groove to provide a swivel connection between the sleeve and cylindrical part of the wire clip, said means being adjustable and adapted to lock the sleeve to the cylindrical portion of the wire clip, to prevent swivel action when desired.

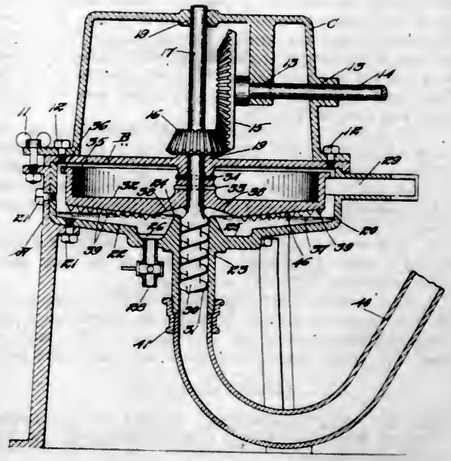
2. As an article of manufacture, a wire clip provided with separately formed means for attaching it to a hanger, the wire clip having a cylindrical portion formed with an annular groove, the attaching means comprising a sleeve encircling the cylindrical portion of the wire clip having a threaded aperture therethrough registering with the annular groove, and a screw in said aperture projecting into said groove to provide a swivel connection between the sleeve and the wire clip, and said screw being adjustable to lock the sleeve to the wire clip when desired.

3. In a device of the class described, the combination with a hanger bolt, of a wire clip having a cylindrical portion formed with an annular groove in its side wall, the end surface of the cylindrical portion engaging the end surface of the hanger bolt, a member for forcing said parts together comprising a separately formed sleeve loosely encircling the cylindrical portion and having a portion encircling the hanger bolt, the portion of said sleeve which encircles the cylindrical portion of the wire clip having a threaded aperture therethrough registering with the annular groove on the cylindrical portion, and a screw in said aperture extending into said groove to provide a swivel connection between the sleeve and the wire clip, means whereby rotation of the sleeve about the hanger bolt will force the end of the cylindrical portion of the wire clip into frictional engagement with the opposing end of the hanger bolt, and said screw being adjustable to lock the sleeve against swivel movement, when desired.

4. In a device of the class described, the combination with a hanger bolt, of a wire clip having a cylindrical portion projecting upwardly therefrom, said cylindrical portion having an annular groove formed exteriorly thereon, a separately formed sleeve loosely encircling said cylindrical portion and projecting thereabove into engagement with the hanger bolt, means engaging between said sleeve and the annular groove in said cylindrical portion to provide a swivel connection between said sleeve and said cylindrical portion, and means whereby rotation of said sleeve will clamp said cylindrical portion against said hanger bolt to prevent rotation of said cylindrical portion relatively to said hanger bolt.

5. In a device of the class described, the combination with a hanger bolt, of a wire clip having a cylindrical portion projecting upwardly therefrom, said cylindrical portion having an annular groove formed exteriorly thereon, a separately formed sleeve loosely encircling said cylindrical portion and projecting thereabove into engagement with the hanger bolt, means engaging between said sleeve and the annular groove in said cylindrical portion to provide a swivel connection between said sleeve and said cylindrical portion, means whereby rotation of said sleeve will clamp said cylindrical portion against said hanger bolt to prevent rotation of said cylindrical portion relatively to said hanger bolt, and means for fixing said sleeve to said cylindrical portion to prevent swivel movement of said sleeve relatively to said cylindrical portion.

1,139,143. GOLD-SEPARATING MECHANISM. FRANK W. STEVENS, Newton, Mass., assignor of one-half to Alfred Hopewell, Wellesley, Mass. Filed Jan. 23, 1914. Serial No. 813,989. (Cl. 83—67.)

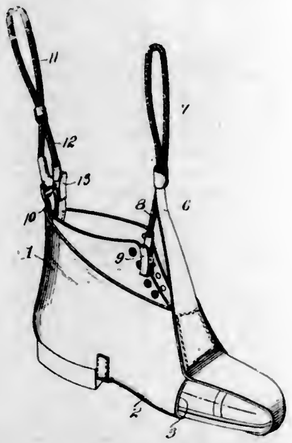


1. In a gold separator, the combination of a receptacle for quick-silver having an inwardly inclined bottom and a feed conduit extending through the bottom of the receptacle and terminating slightly above the level of the quick-silver in the said receptacle, means for feeding gravel through said feed conduit, and a rotary member located slightly above the inner end of said conduit and said bottom, said member having a feeding surface which engages the gravel floating in the quick-silver in said receptacle and agitates and discharges it therefrom.

2. In a gold separator, the combination of a receptacle having quick-silver therein, an inwardly inclined bottom and a feed conduit extending through the bottom of the receptacle and terminating slightly above said bottom, means for feeding gravel through said conduit, a low

portion in said bottom immediately adjacent said feed conduit having an outlet opening therein and means for closing the same, a rotary disk having an inwardly inclined feeding surface extending from its outer edge to a point above the low portion in said bottom, said feeding surface being partially submerged in said quick-silver, and means for feeding gravel through said feed conduit to the rotary disk.

1,139,144. SHOE-PULLER. CHARLES F. THOMAS, Granville county, N. C. Filed Apr. 24, 1914. Serial No. 834,203. (Cl. 132—30.)



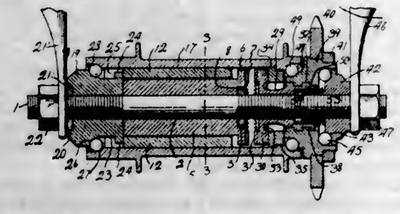
1. A shoe pull comprising a sling including a continuous side having an open top, a partially closed bottom and a partially closed front, a tongue secured to the front and extending beyond the opening therein, means for securing the end of the tongue to the bottom of the sling to engage with the toe and sole portion of a shoe and to secure the sling upon the shoe, and strap members secured to the front and rear of the sling.

2. A shoe pull comprising a body conforming to the shape of the rear and lower portion of a shoe, the same having a top opening to receive the shoe, a toe opening through which the front portion of the shoe is passed, and a heel opening to receive the heel of the shoe, and pull members at the front and rear of the body.

3. A device for the purpose set forth, including a sling having a loop at its front and a loop at its rear, and a catch associated with each of the loops.

4. In a device for the purpose set forth, a sling having its front and rear portion formed with extensions, a loop connected with each of the extensions, a cord connected with each of the loops, and a catch for each of the cords.

1,139,145. COASTER-BRAKE. GEORGE W. VAN DEREN, Elmira, N. Y. Filed Nov. 5, 1913. Serial No. 799,361. (Cl. 208—57.)



1. A coaster brake including a hub formed with a barrel, a sectional brake shoe including semicircular sections adapted to engage said barrel, said shoe having opposed recesses formed in the ends thereof, a cone member arranged within the hub, opposed lugs formed upon the inner end of the cone member and adapted to be disposed within said recesses to retain the brake shoe against rotation, longitudinal levers arranged between each section of the brake shoe and means for actuating said levers to expand the shoe against the inner periphery of the barrel.

2. A device of the class described including a hub formed with a barrel, a sectional brake shoe including semicircular sections adapted to engage said barrel, said shoe having opposed recesses formed in the ends thereof, a cone member arranged within the hub, opposed lugs formed upon the inner end of the cone member and adapted to be disposed within said recesses to retain the brake shoe against rotation, longitudinal levers arranged between each section of the shoe, longitudinal lugs formed on said levers to prevent outward movement of the same, and means for actuating said levers to expand said sections against the inner periphery of the barrel.

3. A device of the class described including a hub formed with a barrel, a sectional brake shoe including semicircular sections adapted to engage said barrel, said shoe having opposed recesses formed in the ends thereof, a cone member arranged within the hub, opposed lugs formed upon the inner end of the cone member and adapted to be disposed within said recesses to retain the brake shoe against rotation, longitudinal levers arranged between the longitudinal edges of said sections, an inner hub member having longitudinal recesses to receive the inner longitudinal edges of the brake levers, whereby rotary movement of the inner hub member will actuate said levers and expand the shoe against the inner periphery of the barrel.

4. A coaster brake including a hub formed with a barrel, a sectional brake shoe including semicircular sections adapted to engage said barrel, said shoe having opposed recesses formed in the ends thereof, a cone member arranged within the hub, opposed lugs formed upon the inner end of the cone member and adapted to be disposed within said recesses to retain the brake shoe against rotation, longitudinal brake levers arranged between the longitudinal edges of said sections, stop lugs formed on said levers to prevent outward movement of the same, an inner hub member having longitudinal recesses to receive the inner longitudinal edges of the brake levers, and means for rotating said inner hub member to actuate the brake levers and expand the sections of said shoe against the inner periphery of the barrel.

5. A coaster brake including a hub formed with a barrel, a sectional brake shoe including semicircular sections adapted to engage said barrel, said shoe having opposed recesses formed in the ends thereof, a cone member arranged within the hub, opposed lugs formed upon the inner end of the cone member and adapted to be disposed within said recesses to retain the brake shoe against rotation, brake levers arranged between the longitudinal edges of said sections, stop lugs formed on said levers to prevent outward movement of the same, an inner hub member having opposed flatened faces provided with longitudinal grooves adapted to receive the inner longitudinal edges of said brake levers, and means for rotating said inner hub member to actuate the brake levers and expand the shoe against the inner periphery of the barrel.

[Claims 6 to 11 not printed in the Gazette.]

1,139,146. SPECTACLES. JOEL C. WELLS, Southbridge, Mass. Filed Apr. 10, 1913. Serial No. 760,185. (Cl. 88—50.)

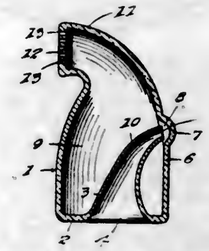


1. The combination with an arched bridge, of lens clips secured to the termini of the bridge and disposed substantially tangential to the inner curvature thereof and a pivot seat carried by one of said parts adjacent the point of attachment of the bridge and lens clip and to one side of said point of attachment.

2. The combination with a forwardly arching bridge member, of lens clips secured thereto at the termini of the arch and substantially tangential to the curvature thereof, forwardly offset lugs carried by one of said parts, pivots secured to the lugs and levers having bearing portions engaging the pivots and having their material disposed in a vertical plane.

3. The combination with lens attachments, of a bridge member for connecting the same shaped to fit the nose of the wearer and extending directly forwardly from the front portion of the lens attachments whereby the lens attachments form substantial continuations of the inner curvature of the bridge and are adapted to bear against the sides of the nose, and pivot supports carried by one of said parts and forwardly offset relative to the lens attachments.

1,139,147. SALT-STAND. CHESTER R. WEST, Colbert, Ga. Filed July 15, 1914. Serial No. 851,132. (Cl. 65—45.)



1. A salt stand made of a single piece of glass and molded in form, said salt stand being provided with an upwardly and outwardly curved filling funnel provided with a restricted discharge opening inside the salt stand, a by-pass groove formed in the rear wall of the stand to permit the salt to enter the salt chamber, and an oppositely curved discharge nozzle provided with perforations.

2. A salt stand formed of glass as an entirety and comprising a base having an inwardly extending curved discharge funnel, a bulging portion at the rear wall, and a by-pass groove formed on the inner surface of said wall adjacent the discharge mouth of the funnel, and a perforated discharge nozzle extending in the direction opposite to the filling funnel.

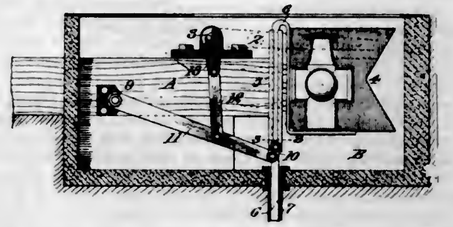
3. A glass salt stand or shaker provided with an inwardly extending curved filling funnel extending from the bottom of the salt shaker or stand and terminating in a restricted opening adjacent to the rear wall of the shaker, said rear wall having an outwardly bulged portion forming an interior by-pass groove for the salt, and an oppositely curved perforated discharge head or nozzle, said stand being formed complete of a single integral piece of glass.

1,139,148. DISAPPEARING SIGNAL-TARGET AND LIGHT FOR RAILROAD-TRACK SWITCHES. EDISON R. WILLIAMS, Bakersfield, Cal. Filed June 29, 1914. Serial No. 847,943. (Cl. 246—41.)

1. A railway switch signal comprising a housing, a vertically disposed guide member completely inclosed within the housing, a signal carrying rod slidably mounted in the member, and means for reciprocating the rod to raise or lower the signal, said signal when in its lowered position being inclosed by the housing and being located opposite the guide member, and when raised, being projected from the housing and above said member.

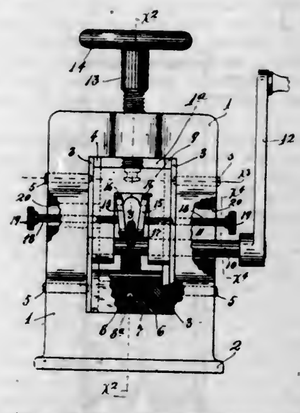
2. In a signal, a housing, a signal carrying rod slidable in the housing, a guide for said rod carried by the housing, a horizontal lever pivoted at one end in the housing and having its other end operatively connected to the rod, a crank, and a connection between the crank and the lever at a point intermediate the ends of the lever.

3. A railway switch signal comprising a housing, a tie extending into the housing, a guide member mounted on the inner end of the tie, a signal bearing rod slidably engaged in the member, a lever having one end pivotally connected to the tie and its other end in operative connection with the lower end of the rod, and means for swinging the lever vertically to raise or lower the rod, thereby alternately positioning the connection of the lever and rod at the upper and lower ends, of the guide member.



4. A railway switch signal comprising a housing, a vertically disposed guide member completely inclosed within the housing, a signal carrying rod slidably mounted in the member, a horizontal lever pivoted at one end to a relatively fixed point within the housing, the other end of the lever being in operative connection with the rod, and means pivotally connected intermediate the ends of the lever for swinging the latter to raise or lower the signal bearing rod.

1,139,149. RING-EXPANDER. FRANK O. ANDERSON, Minneapolis, Minn., assignor to Alfred Anderson, Minneapolis, Minn. Filed Mar. 30, 1912. Serial No. 687,300. (Cl. 80—5.)



1. In a ring expander, the combination with a rigid endless supporting frame having an opening with parallel side walls, of detachable rigidly secured guide strips applied to the said parallel side walls of the opening of said frame, a presser head having tongue and groove sliding engagement with said guide strips and normally held thereby interlocked to said frame but removable laterally from said frame with said guide strips, a platen roller journaled in the lower portion of the opening of said frame, and an expanding shaft detachably journaled in said presser head and working through a clearance passage in said frame.

2. In a ring expander, the combination with a rigid endless supporting frame having an opening with parallel side walls, of detachable rigidly secured guide strips applied to the said parallel side walls of the opening of said frame, a presser head having tongue and groove sliding engagement with said guide strips and normally

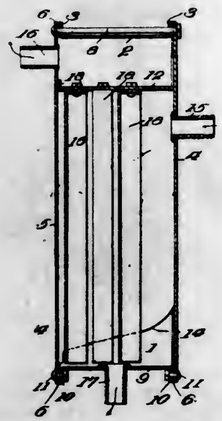
held thereby, interlocked to said frame but removable laterally from said frame with said guide strips, an anvil block in the lower portion of the opening of said frame interlocked to the lower portions of said guide strips, a platen roller journaled to said anvil block, the said presser head and anvil block being normally held in coöperative alinement by said guide strips and presser head and being removable laterally from said frame with said guide strips.

3. In a ring expander, the combination with a frame, of a platen roller supported by said frame, a presser head movable on said frame toward and from said presser roller, an expanding shaft journaled in said presser head, and ring guiding devices comprising laterally spaced pivoted guide plates, each having at its free edge a pair of guide rollers journaled for independent rotations and adapted to engage the sides of a ring to be expanded.

4. In a ring expander, the combination with a frame, of a platen roller supported by said frame, a presser head movable on said frame toward and from said presser roller, an expanding shaft journaled in said presser head, and ring guiding devices comprising laterally spaced pivoted guide plates, each having at its free edge a pair of guide rollers journaled for independent rotations and adapted to engage the sides of a ring to be expanded, said expanding shaft projecting through a vertical clearance passage in one side of the said frame, and screw rods working through the sides of said presser head and engageable with said pivoted guide plates to adjust the same, the said screw rods working through clearance passages in the sides of said frame.

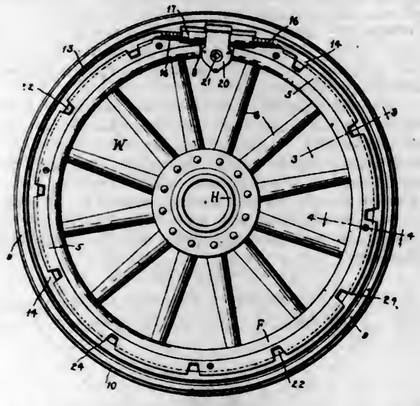
5. In a ring expander, the combination with a frame, of a platen roller and coöperating expanding shaft mounted on said frame, and coöperating pivoted ring guiding plates having independently movable rollers for direct engagement with the ring.

1,139,150. STEAM-SEPARATOR. CUDELLAS ARMSTRONG, Hobart, Okla. Filed June 18, 1914. Serial No. 845,957. (Cl. 83—90.)



A steam separator comprising a vertically elongated casing having a steam inlet in its front wall, a steam outlet in its rear wall in a higher plane than the steam inlet and having a water outlet in its bottom, a wall of substantially U-form arranged within the casing, with its front and rear edges in contact with the front and rear walls of the casing, with its top spaced some distance from the top of the casing and disposed between the said steam inlet and steam outlet and with the sides spaced but a short distance from the sides of the casing and terminating at their lower ends a distance from the bottom of the casing and a plurality of baffles depending from the top of the U-shaped wall adjacent to said steam inlet and being spaced at their lower ends from the bottom wall of the casing.

1,139,151. DEMOUNTABLE RIM. JOSEPH B. ARTHUR, Hutchinson, Kans. Filed Mar. 2, 1914. Serial No. 822,007. (Cl. 152—21.)

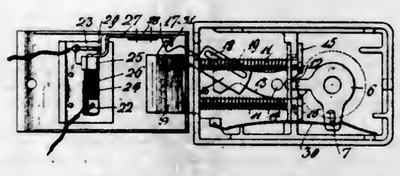


1. In a device of the class described, the combination with the felly of a wheel having the outer side face thereof offset and continuing therearound, a felly band applied to the outer periphery of said felly and having a beveled outer periphery and a rim applied to said felly band, the inner periphery of said rim being beveled coincident to the inclination of the outer periphery of said band; of a ring removably secured in the offset portion of said felly, the inner face of a portion of said ring being beveled and spaced from portions of the rim and felly band, a split ring disposed in the space between the beveled portions of the aforesaid ring and the adjacent side of the rim and felly band, the outer face of said split ring being beveled coincident to the beveling of the portion of the first mentioned ring, and means for contracting said ring in the space in which the same is seated whereby to cause the rim to bind tightly on the felly band and remain secured in position.

2. In a device of the class described, the combination with the felly of a wheel, the outer side face of which is offset a plurality of times continuing therearound, a felly band removably applied on the outer periphery of said felly and having its outer periphery beveled outwardly, said felly band and felly being provided with registering notches at predetermined points therein, and a rim applied to the outer periphery of said felly band, the inner periphery of the rim being beveled coincident to the beveling of the outer periphery of said band; of a ring removably applied to the side of the felly in one of the offset portions thereof, the inner face of a portion of said ring being beveled outwardly and forming an outer wall for the remaining offset portion of the felly, depending lugs carried on the rim and received in the registering notches of the felly and felly band, said ring being also provided with notches alining with the aforesaid registering notches, a split ring applied in the last mentioned offset portion of the felly between the beveled inner wall of the first mentioned ring and the outer faces of the rim and felly, the outer face of said split ring being beveled coincident to the beveling of the inner face of the first mentioned ring, and means for contracting said split ring whereby to cause the rim to be frictionally seated and retained on the felly band.

3. The combination with the felly of a wheel, having spaced notches therein of a wedge shaped band mounted upon its periphery, its narrow edge being also provided with spaced notches, registering with the aforesaid notches a ring secured to one side of said felly and having notches registering with those in said band and felly, the inner side of said ring being beveled, a rim having an annular wedge shaped portion on its inner side in contact with the wedge shaped band on said felly, lugs extending inwardly from said rim and entering the aforesaid registering notches in the wedge shaped band and the felly, said rim having spaced from the wide edge of its wedge shaped portion, an annular bead, a wedge shaped clamping ring movably mounted between said bead and said wedge shaped portion of the rim, and means for contracting said wedge shaped clamping ring to cause it to contact with the beveled face of the ring carried by said felly, whereby the wedging portions of said rim and said band are forced into binding contact.

1,139,152. BURGLAR-ALARM LOCK. JOHN BALTES, New York, N. Y. Filed Feb. 12, 1914. Serial No. 818,347. (Cl. 177—203.)



1. The combination in an alarm lock, of a bolt, in combination with a socket, two electrical terminal poles in said socket and adapted to contact with each other, a sliding member in said socket and adapted to normally remain in set position, holding said terminal poles out of contact, and a hook member adapted when said bolt is forcibly released to draw said sliding member, thereby establishing an electrical connection between said terminal poles.

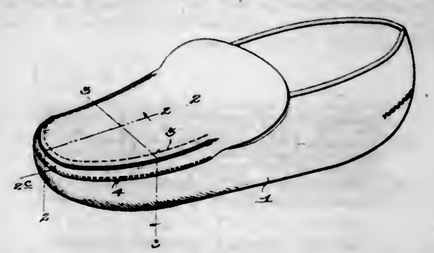
2. The combination in an alarm lock, of a bolt, in combination with a socket, two electrical poles in said socket insulated from said bolt and socket and adapted to contact with each other, a sliding member in said socket adapted to normally remain in a set position holding said terminal poles out of contact, a hook member adapted when said bolt is forcibly released to draw said sliding member thereby establishing an electrical connection between said terminal poles, and means for actuating said bolt from within or without, without establishing contact between said terminal poles.

3. The combination in an alarm lock, of a sliding bolt in combination with a socket, two electrical terminal poles in said socket and adapted to contact with each other, a sliding member in said socket and adapted to normally remain in a set position holding said terminal poles out of contact, a hook member adapted when said bolt is forcibly released to draw said sliding member thereby establishing an electrical connection between said terminal poles, and a revolving disk adapted to actuate said bolt member and said sliding member.

4. The combination in an alarm lock, of a bolt in combination with a socket, two electrical poles in said socket and adapted to contact with each other, a sliding member in said socket and adapted to normally remain in a set position holding said terminal poles out of contact, a hook member adapted when said bolt is forcibly released to draw said sliding member thereby establishing an electrical connection between said terminal poles, a revolving disk adapted to actuate said bolt and sliding member, and means for revolving said disk from within or without, without establishing contact between said poles.

5. The combination in an alarm lock, of a sliding bolt in combination with a socket, two electrical terminal poles in said socket and adapted to contact with each other, a sliding member in said socket adapted to normally remain in a set position holding said terminal poles out of contact, a toggle member having a hook at one end thereof adapted when said bolt is forcibly released to draw said sliding member thereby establishing an electrical connection between said terminal poles, a revolving disk adapted to actuate said poles, and means for actuating said disk and bolt from within or without, without establishing electrical contact between said poles.

1,139,153. MOCCASIN. WILLARD S. BASS, Wilton, Me. Filed Sept. 4, 1914. Serial No. 860,242. (Cl. 36—11.)



1. A moccasin having a vamp of the usual form and a toe-piece large enough to project over the adjacent edge of the vamp; said toe-piece being fastened to the vamp first, by a seam in which the stitches pass directly through the edge of the vamp and through the toe-piece some distance from its edge, and secondly, by a lap seam in which the stitches pass through the vamp and through the projecting portion of the toe-piece which overlaps the edge of the vamp and covers the stitches of the first seam on the outer side of the vamp.

2. A moccasin having a vamp and a toe-piece projecting over the adjacent edge of the vamp, and secured thereto by stitches passing through the toe-piece and through the edge of the vamp so that a portion of the toe-piece projects beyond said point of attachment and the edge of the vamp and laps a short distance onto the surface of the vamp covering the edge of the vamp and the stitches underlying it on the outer side of the vamp; the toe-piece being further fastened to the vamp by a seam in which the stitches pass through the vamp and the projecting edge of the toe-piece.

3. A moccasin having a vamp of usual form, a toe piece large enough to project over the adjacent edges of the vamp, said toe piece being sewed to the vamp by a seam passing directly through both vamp and toe piece so that the stitches appear only on the outer surface of the toe piece, the edges of the toe piece projecting beyond such seam and the projecting lapped portion of the toe piece being stitched to the vamp parallel with the first seam.

4. A moccasin having a toe piece and a vamp gathered and stitched to the toe piece in the usual manner, said toe piece having a projecting portion lapped onto the vamp and secured thereto by stitches passing directly through both the vamp and the projecting portion of the toe piece so that the stitches appear on the outer surface of the toe piece and the inner surface of the vamp.

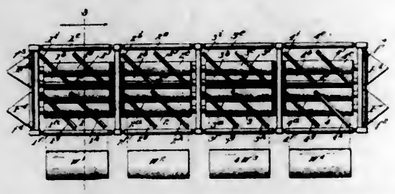
5. A moccasin having a vamp of the usual form and a toe-piece projecting over the adjacent edge of the vamp, said toe-piece being fastened to the vamp by a seam formed by stitches passing through the edge of the vamp and through an overlying portion of the toe-piece some distance from the edge of the latter; said toe-piece being further fastened to the vamp by a lap seam in which the stitches pass through the vamp and the projecting edge of the toe-piece.

1,139,154. ROTARY PRINTING-PRESS. HENRY F. BECHMAN, Battle Creek, Mich., assignor to Duplex Printing Press Company, Battle Creek, Mich. Filed Mar. 2, 1905. Serial No. 248,069. (Cl. 101—124.)

1. A rotary-printing-press, comprising a plurality of sets of rotary-cylinders, the cylinders in adjacent sets being in axial alinement, and means for rotating said cylinders, folders at the opposite ends of the press, and diagonally arranged web-deflectors adjacent to each set of printing-cylinders whereby the webs printed by such cylinders may be directed to any folder.

2. A rotary-printing-press comprising a series of axially alined plate-cylinders and co-acting impression-cylinders means whereby the cylinders in each series may be rotated synchronously; with means whereby any set of cylin-

ders may be thrown out of operation, folding mechanisms at each end of the press, and a set of diagonally arranged web-guides adjacent to each set of cylinders whereby the web printed by such cylinders may be directed to either folder at either end of the press.



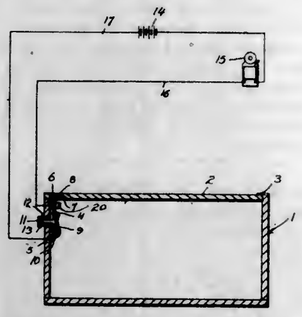
3. A rotary-printing-press, comprising a series of printing-mechanisms, each printing-mechanism containing a pair of plate-cylinders and co-acting impression-cylinders, the cylinders in the several mechanisms being arranged end to end; means for driving the several cylinders synchronously, a plurality of folding devices at each end of the press, a set of deflectors or guides arranged diagonally of the press adjacent to each printing-mechanism, whereby the web printed on each mechanism may be directed to any folder at will, and means for directing webs through the printing-mechanisms and to the said deflectors, substantially as set forth.

4. A rotary-printing-press, comprising a series of printing-mechanisms, each printing-mechanism containing a pair of plate-cylinders and co-acting impression-cylinders, the cylinders in the respective mechanisms being axially alined, a shaft and gearing for driving the several cylinders synchronously, a pair of folding devices at each end of the press, a set of deflectors or guides arranged diagonally of the press and cylinders above each printing-mechanism, whereby the web printed on each mechanism may be directed toward either end of the press and to any folding mechanism at will, and means for directing webs to each printing-mechanism and to the said deflectors, substantially as set forth.

5. The combination with a main frame, of sets of rotary printing cylinders arranged end to end in and longitudinally of the frame, folders at the ends of the cylinders, and a set of diagonally arranged deflectors above each set of cylinders whereby the webs printed by the cylinders may be directed to any of the folders.

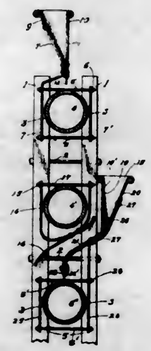
[Claims 6 to 38 not printed in the Gazette.]

1,139,155. MAIL-BOX SIGNAL. ARCHIE R. BENNETT, Knoxville, Tenn. Filed Jan. 29, 1914. Serial No. 815,226. (Cl. 177—203.)



A circuit closer consisting of a support of insulating material, a latch bar pivoted on said support, a right angularly extending projection carried by said bar intermediate the ends thereof, a button on the outer end of said projection, a contact member carried by said support, a door having a latch placed thereon to coöperate with the latch bar, said latch bar being normally spaced from said contact member when the door is closed and the latch in latched position, and a spring to normally hold said latch by a latched position, said latch bar to engage said contact member to close a circuit when a push is given to the button on said projection to unlatch said latch bar.

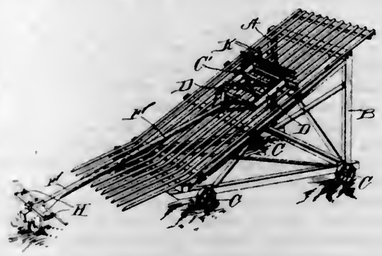
1,139,156. SPRAY-TROUGH FOR COOLING CONDENSERS. FRANK F. BENTLEY, Warren, Ohio. Filed Mar. 9, 1914. Serial No. 823,550. (Cl. 257—178.)



1. The combination with condenser tubes, of a spray trough having a bent and serrated extension of its bottom edge; supporting bars riveted to said trough and forming elemental parts of hangers capable of suspension upon said tubes, as shown and described.

2. The combination with condenser tubes mounted in vertical series and with spray troughs horizontally suspended above each series; of a sloping deflector plate under the lower tube of each series; and a hanger having a lower bar bent to correspond with the slope of said deflector and riveted thereto and a top bar capable of retaining said hanger and deflector suspended from the top of said lower tube, as shown and described.

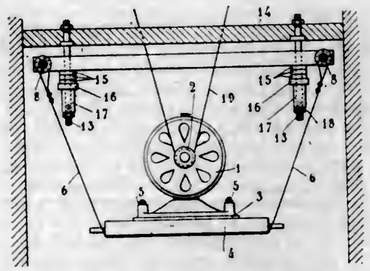
1,139,157. HAY-STACKER. JOHN E. BLANSETT, Teton, Idaho, assignor of one-third to Albert T. Knauss, Teton, Idaho. Filed Sept. 1, 1914. Serial No. 859,645. (Cl. 57—53.)



A hay stacking apparatus comprising an inclined rack made up of a frame having slats which are bent at angles near the lower end of the frame, a stacker member located on said rack comprising a frame with rollers therein and a flange at its forward end and a rack projecting above the flange, a beam having pivotal connection with the frame carrying said roller and adapted to move stacker member over the inclined rack.

1,139,158. VIBRATION-ABSORBING SUPPORT. FRÉDÉRIC STÉPHEN BOERAIRS, Paris, France. Filed July 12, 1913. Serial No. 778,762. (Cl. 248—30.)

1. In a support for motors, the combination with a frame, of a floating platform suspended from said frame, hanger rods supporting said frame, and cushioned means on said hanger rods for said frame.

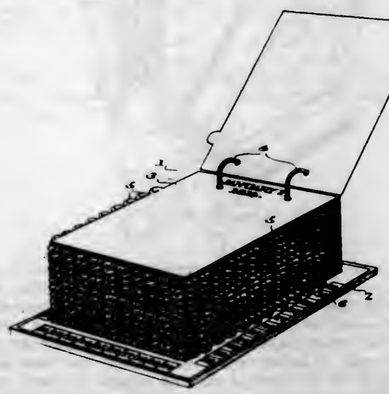


2. In a support for motors, the combination with a supporting structure, comprising cross beams, of sleeves slidably mounted on said beams, a motor platform, and non-metallic flexible straps for connecting said platform to said sleeves.

3. In a vibration absorbing support for motors, the combination with a motor platform of resiliently suspended cross beams, members connecting said cross beams to form therewith a rectangular supporting structure, sleeves slidably mounted on said connecting members, and non-metallic straps flexibly suspending said platform from said sleeves.

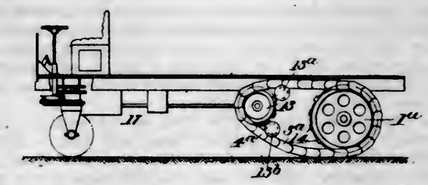
4. In a vibration absorbing support for motors, the combination with a supporting structure comprising resiliently suspended cross beams, of sleeves slidably mounted on said beams, a motor platform, and non-metallic flexible straps connecting said platform to said sleeves.

1,139,159. MEMORANDUM-CALENDAR. JAMES BOSSART, San Francisco, Cal. Filed July 17, 1914. Serial No. 851,618. (Cl. 40—119.)



A calendar comprising a base, fastening members projecting upwardly therefrom, and a pad of leaves mounted upon the base and engaging said fastening members so as to be individually turned back for reference thereto, said leaves being of smaller dimensions than the base so as to dispose portions of the latter to provide marginal extensions on at least three sides thereof, said extensions being provided with substantially equal divisions of a month index table bearing the month day numerals in regular order, the said leaves being arranged in superposed month groups and the leaves of the respective groups being provided at their sides with index tabs bearing thereon indications of the month to which the groups are appropriated, said tabs being arranged in registration with the corresponding month day numerals upon the said marginal extensions of the base.

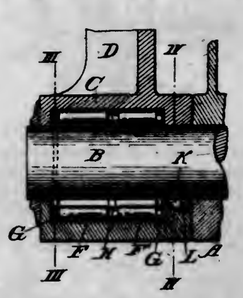
1,139,160. PLATFORM-WHEEL. JOHN H. CARR, Alhambra, Cal. Filed May 26, 1913. Serial No. 769,912. (Cl. 21—150.)



1. In a structure of the character described, the combination with a rotary member having projections on its periphery, of an endless track loosely surrounding the rotary member and consisting of a series of shoes, links pivotally connecting said shoes together, ends of adjacent links being attached to the middle portions of each shoe by a common pivot, permitting the ends of said shoes to swing free of the links, each of said links having a slot arranged midway between its ends and adapted to be engaged by said projections on the rotary member, said projections being suitably spaced on the rotary member to successively engage the slot in one link after another in rotation.

2. In a structure of the character described, the combination with a rotary member, of an endless track loosely surrounding the rotary member and consisting of a series of shoes connected together by links, each shoe having an outer shell of metal and an inner filling of wood, the metal shells being U-shaped in cross section with their sides adapted to overlap the rim of the rotary member for positioning the track thereon, the wood fillings having longitudinal channels to house the links, and pivot pins passed through the sides of the metal casings, and wood fillings of the shoes for connecting said ends of the links together in said channels.

1,139,161. ROLLER-BEARING. JOHN H. CARR, Alhambra, Cal. Original application filed Sept. 16, 1913, Serial No. 789,967. Divided and this application filed Feb. 16, 1914. Serial No. 819,040. (Cl. 64—62.)



1. The combination with an axle, of a journal, a part of which is of greater diameter than said axle, bearing elements mounted in said enlarged part of the journal, there being a groove in the journal extending below the axle and a ball in said groove and contacting with the under surface of the axle.

2. The combination with an axle, of a journal, a part of which is of greater diameter than said axle, a roller bearing comprising a set of rollers and spacer rings of greater diameter than the axle and arranged in the enlarged part of the journal, there being a groove in the journal arranged at one end of the enlarged portion and extending below the axle, and a ball in said groove and contacting with the under surface of the axle.

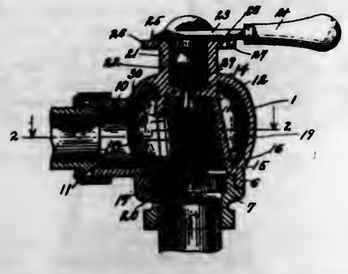
3. The combination with an axle, of a journal, a part of which is of greater diameter than said axle, a roller bearing comprising sets of rollers and spacer rings of greater diameter than the axle and arranged in the enlarged part of the journal, there being a groove in the journal arranged at one end of the enlarged portion and extending below the axle, said groove being formed on a curve of greater radius than the axle, and a ball in said groove and contacting with the under surface of the axle for the purpose specified.

4. The combination with an axle, of a journal, a part of which is of greater diameter than said axle, a roller bearing comprising sets of rollers and spacer rings of greater diameter than the axle and arranged in the enlarged part of the journal, there being a groove in the journal arranged at one end of the enlarged portion and extending below the axle, said groove being formed on a curve of greater radius than the axle and arranged eccentrically of the latter, and a ball in said groove and contacting with the under surface of the axle for the purpose specified.

5. The combination with an axle, of a journal, a part of which is of greater diameter than said axle, a roller bearing comprising sets of rollers and spacer rings of greater diameter than the axle and arranged in the enlarged part of the journal, there being a groove in the journal arranged at one end of the enlarged portion and extending below the axle, said groove being formed on a curve of greater radius than the axle and arranged eccentrically of the latter, the lowest point of said groove being located directly below the vertical center line of the axle, and a ball in said groove and contacting with the under surface of the axle for the purpose specified.

[Claim 6 not printed in the Gazette.]

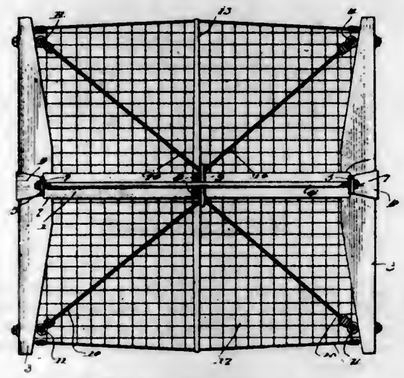
1,139,162. VALVE. SOLOMON DE WITT CHAPMAN, Canton, Ohio. Filed Sept. 16, 1914. Serial No. 862,010. (Cl. 137—7.)



A valve including a globular case having a conical wall therein forming a valve seat with a cross wall at the smaller end and a tubular wall extending therefrom, a conical valve seated in the conical wall and having a cross wall at its smaller end, a stem extending through the cross walls with a cylindric head on one end in the tubular wall and an adjustable nut on the other end, said stem being engaged with the valve wall, a washer between the stem head and the adjacent cross wall, a compression spring between the nut and the valve wall, and a tubular wall around the spring and stem connected at one end with the valve wall and having a cap closing its other end.

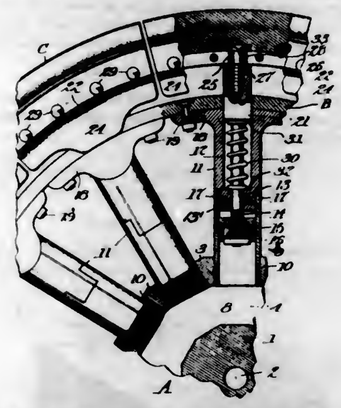
1,139,163. GATE. JOHN W. CLARK, Kimmell, Ind. Filed Apr. 24, 1914. Serial No. 834,187. (Cl. 256—73.)

The herein described gate frame comprising a longitudinal centrally arranged bar, vertical end bars having their central portions detachably arranged on the ends of the longitudinal bar, struts on opposite sides of the longitudinal bar, clips on the centers of the end bars arranged in line with the longitudinal bar and having outstanding arms, and truss rods having their central portions engaged with the outer sides of the struts and with end portions extended through openings in the arms of the clips and



provided with nuts threaded thereon and engaging the outer sides of the clip arms.

1,139,164. SHOCK-ABSORBING WHEEL. EDWARD CLEMENT, Mobile, Ala., assignor of one-fourth to W. H. Clement and one-fourth to J. W. Jernigan, Troy, Ala. Filed July 21, 1914. Serial No. 852,215. (Cl. 152—31.)



In a shock-absorbing wheel comprising a hub, a series of longitudinally movable tire supporting rods extending radially with respect to the center of the hub and non-circular in cross section, cushioning means for said rods, each of said rods having its outer extremity reduced to form a clamp engaging tenon non-circular in cross section, a pair of tire section holding clamps for each rod formed with notches which in complemental relation conform to the shape of said tenon and snugly receive the same, and means for securing said pair of clamps in fixed relation to one another and said tenon.

1,139,165. MICROSCOPE-COVER-GLASS-CENTERING DEVICE. NATHAN A. COBB, Falls Church, Va. Filed Mar. 5, 1912. Serial No. 681,749. (Cl. 33—180.)



1. The combination in a cover-glass centering device of a support having the same width as the slide; and a spring to hold the slide against the support; the spring having two projections bearing on the top of the slide at two points such that when the edge of the cover-glass rests against these two bearing points it is centered on the slide.

2. The combination in a cover-glass centering device of a support which is two-pronged at its free end and of the same width as the slide; a spring to hold the slide against the support; the spring having a bearing for the end of the slide, this bearing being located near that end of the support to which the spring is attached; and a pair of projections on the spring, bearing on the top of the slide at two points such that when the slide rests against the first bearing and is fitted to the support, *i. e.* lies with its two edges adjacent to and parallel to the edges of the support, the bearing points of the pair of projections may be used to center the cover-glass.

3. The combination in a cover-glass centering device of a support for the slide, a spring to hold the slide against the support and having two projections bearing on the top of the slide at two points such that when the cover-glass rests against the two latter it is equidistant from the edges of the slide; and an adjustable bearing for the end of the slide located near the end of the support to which the spring is attached, and such that cover-glasses of different sizes may be centered.

4. The combination in a cover-glass centering device of a bearing for the end of the microscope slide, and two bearings on the top of the slide such that when the edge of a cover-glass is rested against these two latter bearings it is centered on the slides.

5. The combination in a cover-glass centering device of a support having two prongs at its free end, and of the same width as the slide; a spring to hold the slide against the support; an adjustable bearing for the end of the slide and located near the end of the support to which the spring is attached; two projections on the spring, bearing on the top of the slide at two points such that when the edge of the cover-glass is rested against these two bearing points it is centered on the slide; and an additional spring to assist in holding the slide against the support in a proper position.

1,139,166. OVERCHECK-HOOK. IRA E. CORNELL, Akron, Ohio. Filed Apr. 7, 1914. Serial No. 830,233. (Cl. 54—62.)

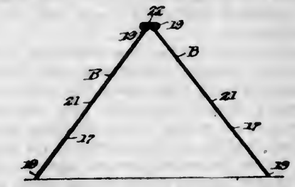


The herein described overcheck hook comprising a base having a bolt stem on its under side and also having a pair of upwardly extending fork arms on its upper side united at their lower ends and provided in the position between their lower ends with a recess which is open at the rear side, in combination with a tongue provided at its free end with an enlarged portion adapted to engage in and correspond in length with the recess, the said tongue being provided at the opposite end with cross arms pivotally mounted in said fork arms.

1,139,167. PLANT-BED PROTECTOR. HENRY B. CRIBB, Horry county, S. C. Filed July 8, 1914. Serial No. 849,805. (Cl. 47—22.).

1. In a device of the class described, a panel unit of approximately rectangular symmetrical shape consisting of a frame, strands and cross pieces, said frame having side members with out-turned loops at the ends and intermediate the ends thereof, and end members with out-turned loops intermediate the ends thereof.

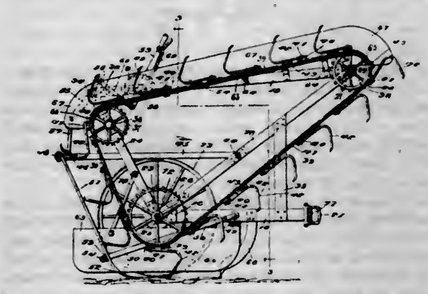
2. In a device of the class described, a panel unit of approximately rectangular symmetrical shape including a frame having a wire mesh filling, said frame having upper and lower side members provided at the ends and intermediate the ends thereof with out-turned loops that extend downwardly with respect to the lower side member and upwardly with respect to the upper side member, and end members provided intermediate the ends thereof with out-turned loops.



3. A plant protector comprising two panel units each consisting of a substantially rectangular symmetrical frame having a wire mesh filling, said frame comprising upper and lower side members having out-turned loops at the ends and intermediate the ends thereof, and end members having out-turned loops intermediate the ends thereof, said frame units being inclined toward each other with the loops extending from the lower side member engaging the ground and constituting supporting feet and the loops extending from the upper side members disposed contiguous to each other, in combination with connecting links having resilient hooks detachably engaging the contiguous loops of the frame units.

4. In a device of the class described, a panel consisting of a wire frame having a wire mesh filling, the side and end members of said frame being provided with out-turned loops, in combination with a connector made of resilient wire, said connector comprising a body having terminal loops and opposed hooks with out-turned bills that lie in contact with the intermediate portions of the wire body, substantially as set forth.

1,139,168. STONE RAKER AND LOADER. CLIFFORD E. CULP and ALLEN T. WILKS, Stella, Mo. Filed June 27, 1914. Serial No. 847,672. (Cl. 55—17.)



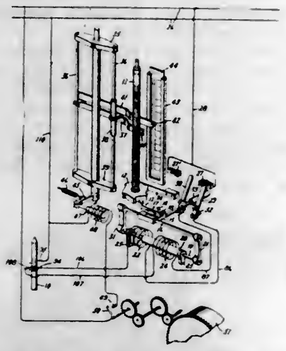
1. In an apparatus of the class described, a supporting frame, an endless flexible member carried by said frame and having gathering teeth, a raking device associated with said gathering teeth, upper radius members pivoted respectively to said frame and to said raking device at its upper part, lower radius members pivoted respectively to said frame and to said raking device near its lower part, and means for vertically adjusting said raking device to cause it to swing with said radius members.

2. In an apparatus of the class described, a supporting frame, a flexible traveling belt carried by said frame and including a plurality of gathering teeth, a raking device, upper radius members pivoted respectively to said frame and said raking device at its upper part, lower radius members pivoted respectively to said frame and to said raking device near its lower part, and means for vertically adjusting said raking device to cause it to swing with said radius members.

3. In an apparatus of the class described, a supporting frame, an elevating device supported upon said frame and including gathering fingers and arranged for downward and rearward and thence upward movement, upper radius members swinging from said frame, a head member connected to said upper radius members and having raker teeth, lower radius members swinging from said supporting frame and connected to said raker teeth, and means for vertically adjusting said radius bars and the raker device carried thereby.

4. In an apparatus of the class described, a supporting frame, a flexible member connected to said frame and including gathering teeth and arranged to move downwardly and rearwardly thence upwardly and rearwardly and thence forwardly, a raking device coacting with the upwardly and rearwardly moving portion of the flexible member, upper radius members pivoted respectively to said frame and to said raking device at its upper part, lower radius members pivoted respectively to said frame and said raking device near its lower part, and means for vertically adjusting said raking device to cause it to swing with said radius members.

1,139,169. DEMAND APPARATUS. JOHN T. DEMPSTER, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Dec. 7, 1914. Serial No. 875,802. (Cl. 234—5.5.)



1. A demand apparatus comprising in combination a rotatable shaft, an actuator, a reciprocating member adapted to drive said actuator only when moved in one direction, electromagnetic means controlled by said shaft for moving said member in the direction to drive said actuator, and additional electromagnetic means for moving the member in the opposite direction.

2. A demand apparatus comprising in combination a rotatable shaft, an electric circuit including circuit-closing means operatively related to said shaft, an actuator, electromagnetic means included in said circuit, an armature having an initial position and adapted to be moved therefrom and to drive said actuator upon the energization of said electromagnetic means, and electromagnetic means for returning the armature to its initial position.

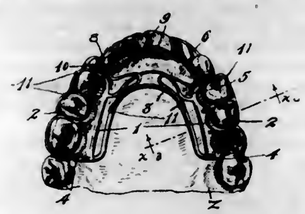
3. A demand apparatus comprising in combination a rotatable shaft, a driving member, a ratchet secured to said driving member, a reciprocating pawl operatively related to said ratchet, electromagnetic means controlled by said shaft for moving said pawl in the direction to drive said ratchet, and electromagnetic means also controlled by said shaft for moving the pawl in the opposite direction.

4. A demand apparatus comprising in combination a rotatable shaft, an actuator, a reciprocating member adapted to drive said actuator when moved in one direction only, electromagnetic means for moving said member in the direction to drive said actuator and for moving said member in the opposite direction, main circuit-controlling means operatively related to said shaft for closing the circuit of said electromagnetic means, and auxiliary circuit-controlling means operatively related to said member for opening the circuits of said electromagnetic means.

5. A demand apparatus comprising in combination a rotatable shaft, an actuator, a reciprocating member adapted to drive said actuator when moved in one direction only, electromagnetic means for moving said member in the direction to drive said actuator, main circuit-controlling means operatively related to said shaft for closing the electric circuit of said electromagnetic means, and auxiliary circuit-controlling means operatively related to said member for breaking the circuit of said electromagnetic means.

[Claims 6 to 23 not printed in the Gazette.]

1,139,170. TOOTH-REGULATING APPLIANCE. FREDERICK W. DRISSLER, Minneapolis, Minn. Filed June 13, 1914. Serial No. 844,882. (Cl. 32—19.)



1. In a tooth regulating appliance, the combination with a pair of anchor plates fitted to the lingual surfaces of the crowns of the teeth, to which they are anchored, and means for securing said anchor plates to said teeth, of an arch bar, pivoted at its ends to said plates, for rotary movement in the arc of a circle, toward and from the roof of the mouth.

2. In a tooth regulating appliance, the combination with a pair of anchor plates, fitted to the lingual surfaces of the teeth to which they are anchored, and having anchor loops embracing said teeth, of an arch bar, having its ends pivoted at the distal of said plates for rotary movement in the arc of a circle, toward and from the roof of the mouth and extended forward to a point back of the central teeth, and an equalizing spring connecting said anchor plates anteriorly.

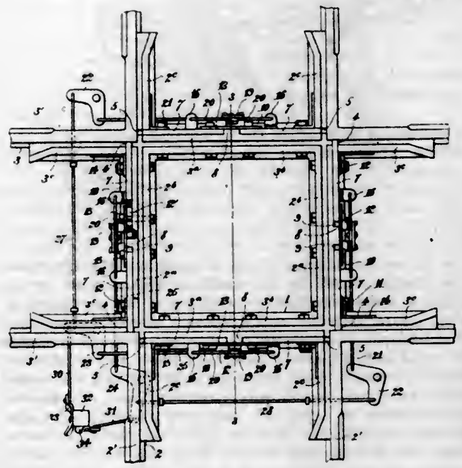
3. In a tooth regulating appliance, the combination with a pair of anchor plates, fitted to the lingual surfaces of the teeth to which they are anchored, and means for securing said anchor plates to said teeth, of an anchor bar, having its ends pivoted to said plates for rotary movement in the arc of a circle, toward and from the roof of the mouth, and a combined regulating and retaining bar, having its ends secured to said plates and extended over the labial and buccal surfaces of the teeth.

4. In a tooth regulating appliance, the combination with a pair of anchor plates fitted to the lingual surfaces of the teeth to which they are anchored, and means for securing said anchor plates to said teeth, of an arch bar, having its ends connected at the distal of said plates, and an equalizing spring, having its ends pivoted to said anchor plates anteriorly, for rotary movement in the arc of a circle, toward and from the roof of the mouth.

5. In a tooth regulating appliance, the combination with a pair of anchor plates fitted to the lingual surfaces of the teeth to which they are anchored, and means for securing said anchor plates to said teeth, of an arch bar, having its ends transversely hinged at the distal of said plates, and an equalizing spring, having its ends pivoted to said anchor plates anteriorly, for rotary movement in the arc of a circle, toward and from the roof of the mouth.

1,139,171. RAILWAY-CROSSING. JOHN W. EAST, Los Angeles, Cal. Filed Aug. 5, 1914. Serial No. 855,239. (Cl. 104—116.)

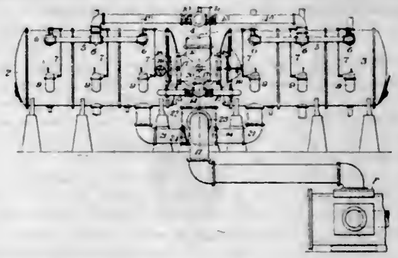
1. Two intersecting tracks, a crossing arranged between the tracks at the intersection thereof, a foundation upon which the crossing rests, guard rails for the main rails terminating adjacent the corners of the crossing, bridge rails having outer flanges, said bridge rails resting upon the foundation and having their inner faces engaging the outer faces of the crossing rails, guide means upon the foundation embracing the base flange of the bridge rails, means for retaining the bridge rails against the crossing rails, means for operating the bridge rails to move certain of the same into contact with the inner faces of the main rails to close the gaps between the rails of one of the tracks.



2. Two tracks, one arranged angularly of the other, a crossing between the tracks, a foundation upon which the crossing rests, guard rails arranged parallel with the inner faces of the rails of the track and terminating adjacent the corners of the crossing, bridge rails arranged at the outer faces of the crossing and having one of their ends arranged between the end of the guard rails and the said crossing, each of said bridge rails having an outwardly flanged base which is notched at its end and engaging with the end of the guard rails, the bridge rails being arranged in pairs, guide members upon the foundation for the flanged base portions of the bridge rails, guide members co-acting between the crossing and the bridge rails, and means for actuating either of the opposite pairs of bridge rails to move the same away from each other to close the gap between the main guard rails of either of the tracks.

3. The combination with two angularly arranged tracks having a crossing at the intersection of the same and having guard rails which terminate adjacent the corners of the crossing, of a foundation upon which the crossing rests, said foundation extending beyond the outer faces of the crossing rails, the said crossing rails having their outer faces centrally provided with lugs, bridge rails arranged in pairs and resting upon the foundation, each of said bridge rails having one of its ends contacting with the end of one of the guard rails, each pair of bridge rails having their inner heads notched to contact with the lugs upon the crossing rails when the bridge rails are in one position, said bridge rails having outer base flanges, the foundation being provided with inturned lips which engage with the base flanges said bridge rails having elongated slots, plates crossing the slots, members passing through the plates and entering the crossing rails to force the bridge rails against the crossing rails, the outer corners of the base of each of the bridge rails being notched, and means comprising mechanism for operating either of the diametrically opposite pairs of bridge rails to slide the same in opposite directions to close the gaps between the guard and main rails to close either of the tracks.

1,139,172. MULTIPLE-UNIT HEATER. WILLIAM S. ELLIOTT, Pittsburgh, Pa. Filed Nov. 22, 1912. Serial No. 732,904. (Cl. 261—4.)



1. A multiple unit heater, comprising a plurality of heater units connected in parallel between steam and water supply conduits, and a common delivery well or chamber to which the water outlets of all the units are connected, and each of the outlet connections to said well or chamber having an outwardly opening check valve therein, said check valves mutually controlling each other; substantially as described.

2. A multiple unit heater, comprising a plurality of heater units, a water supply conduit having a branch leading to each unit, a steam supply conduit also having a branch leading to each unit, and a common water delivery chamber or well to which the water outlets of all the units are connected, each of said outlets having an outwardly opening check valve, said check valves mutually controlling each other; substantially as described.

3. A multiple unit heater, comprising a plurality of heater units connected in parallel between steam and water supply conduits, said units being arranged in pairs, a junction box to which the water outlets of each pair are connected, and a delivery chamber or well to which all the junction boxes are connected; substantially as described.

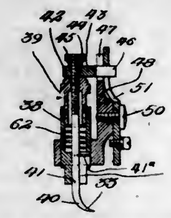
4. A multiple unit heater, comprising a plurality of heater units connected in parallel between steam and water supply conduits, said units being arranged in pairs, a junction box to which the water outlets of each pair are connected, and a delivery chamber or well to which all the junction boxes are connected, each water outlet connection having an outwardly opening check valve therein, the check valves of each junction box and of the delivery chamber mutually controlling each other; substantially as described.

5. A multiple unit heater, comprising a plurality of heater units connected in parallel between steam and water supply conduits, each unit having means for automatically controlling the level of water therein, a common delivery well or chamber to which the water outlets of all the units are connected, and check valves in the connections leading to said chamber, said check valves mutually controlling each other; substantially as described.

1,139,173. LATCH-OPENING MECHANISM FOR KNITTING-MACHINES. WILLIAM J. ELLIOTT, Philadelphia, Pa., assignor to Adolph Kessell, Philadelphia, Pa. Filed Apr. 15, 1914. Serial No. 831,978. (Cl. 66—21.)

1. A knitting machine comprising in its construction, a series of latch needles, a movable dial plate, a latch opener for the needles carried by the movable dial plate and comprising a casing having two telescoping parts, one being detachably and adjustably carried by the movable dial plate, a rod adjustably mounted in the other part and having at its lower end a latch opener horn or finger, a lateral device carried by the upper end of said rod, an element adapted to be manually manipulated in engagement with said device for holding the rod down with the horn in the path of said latches, means carried by the movable dial plate and having connections with said element for automatically actuating the same to release

the device of said rod, a member on a stationary part of the knitting machine for actuating said last mentioned means, and means acting between the two parts of the casing for throwing the rod upwardly to automatically remove the horn from the path of the latches.



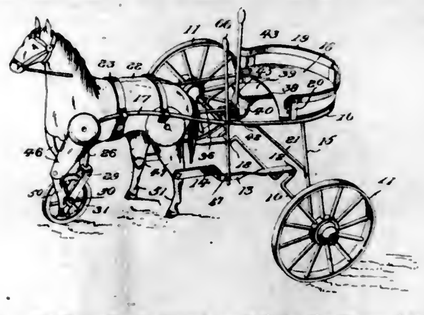
2. In combination with a knitting machine having a series of latch needles and provided with a movable dial plate, a latch opener carried by the movable dial plate comprising a casing carried by the dial plate, a spring tensioned member having a latch opening horn at its lower end mounted i nsaid casing and an arm at its upper end, an element adapted to be manually thrown in engagement with the arm for camming said member downwardly to throw the horn in the path of said latches, and means coöperating between the movable dial plate and a stationary part of the knitting machine having connections with said element for actuating the same to release the arm, said spring tensioned means automatically throwing the member out of the path of the latches.

3. In combination with a knitting machine having a series of latch needles and provided with a movable dial plate, a latch opener carried by the movable dial plate comprising a casing, a spring tensioned member having a latch opening horn at its lower end mounted in said casing and an arm at its upper end, an element adapted to be manually thrown in engagement with the arm for camming said member downwardly to throw the horn in the path of said latches, and means coöperating between the movable dial plate and a stationary part of the knitting machine having connections with said element for actuating the same to release the arm, said spring tensioned means automatically throwing the member out of the path of the latches, and means to prevent the member from partially turning while at rest or when moving vertically.

4. In combination with a knitting machine having a series of latch needles and provided with a movable dial plate, a latch opener comprising a casing carried by the dial plate, said casing comprising two parts, one being stationary, the other being movable and telescopically mounted in the stationary part, spring tensioned means for the movable part, a member adjustably mounted in the movable part and having a latch opening horn at its lower end, an arm adjustably carried by the upper end of said member, an element adapted to be manually operated for camming against said arm to throw the member downwardly and holding the same down against the action of the spring tensioned means with the horn in the path of the latches, and means for automatically actuating said element to release the arm, to permit the spring tensioned means to throw the movable part and the member upwardly and the horn out of the path of the latches.

5. In combination with a knitting machine having a series of latch needles and provided with a movable dial plate, a latch opener comprising a casing carried by the dial plate, said casing comprising two parts, one being stationary, the other being movable and telescopically mounted in the stationary part, spring tensioned means for the movable part, a member adjustably mounted in the movable part and having a latch opening horn at its lower end, an arm adjustably carried by the upper end of said member, an element adapted to be manually operated for camming against said arm to throw the member downwardly and holding the same down against the action of the spring tensioned means with the horn in the path of the latches, and means for automatically actuating said element to release the arm, to permit the spring tensioned means to throw the movable part and the member upwardly and the horn out of the path of the latches, and means to prevent the member from partially turning while at rest or when moving vertically.

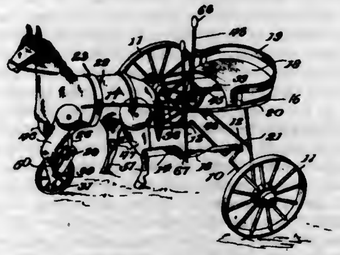
1,139,174. POLYCYCLE. DAVID GUY FINLEY, Grand Island, Nebr. Filed July 21, 1913. Serial No. 780,287. (Cl. 208—114.)



1. A toy including a frame, a shaft in the frame, bearing wheels carried by the shaft, a seat carried by the frame, a bracket extending forwardly of the seat and provided at its free edge with a notch, a toy animal mounted in the frame, a vertical shaft journaled in brackets within the animal and terminating at its lower end in a wheel carrying fork, a gear keyed on said shaft, a horizontal shaft having a downwardly depending arm, an arcuate rack carried by said arm and meshing with the gear, a lever pivoted for forward and rear swinging movement to the free end of said shaft and adapted in one position to seat in the notch of the bracket, and a spring secured to the seat and lever arm to normally move the latter into said notch.

2. A toy including a figure and a seat spaced from the figure supported upon bearing wheels, a vertically disposed shaft in the figure carrying one of the bearing wheels and revoluble to steer the figure, a second shaft extending longitudinally of the figure, operative connection between the shafts, whereby turning of the second shaft will turn the first, a hand lever pivoted to that end of the second shaft adjacent the seat and movable to turn such shaft, a bracket in advance of the seat provided with a notch to receive the hand lever, and a spring normally tending to hold the lever in such notch.

1,139,175. POLYCYCLE. DAVID G. FINLEY, Grand Island, Nebr. Original application filed July 21, 1913, Serial No. 780,287. Divided and this application filed May 26, 1914. Serial No. 841,051. (Cl. 208—42.)



1. A toy including a wheeled frame having a rotatable drive shaft and pedal levers operatively connected to the drive shaft, a toy animal supported in the frame and having upper swinging leg portions and lower swinging leg portions connected to the upper leg portions, links pivotally connected to the lower leg portions and to the animal, levers pivoted intermediate their length within the animal, links pivotally connecting the free ends of said levers with the upper portion of the upper leg members, and operative connection between the pedal levers and certain of the lower leg portions.

2. In a toy, the combination with a wheeled frame including a rotatable drive shaft and pedal levers operatively connected to the shaft, of a toy animal carried by the frame, said animal having swingingly mounted upper forward and rear leg members and lower forward and rear leg members swingingly mounted on the lower ends of the upper leg members, links swingingly connecting the upper ends of the lower leg members with the upper portion of the animal body, whereby swinging of the upper leg portions will cause swinging of the lower leg portions, levers pivoted intermediate their length within the animal body, links connecting the free ends of the levers with the upper portions of the upper leg members, and operative connection between the pedal levers and the lower portions of the upper rear leg members.

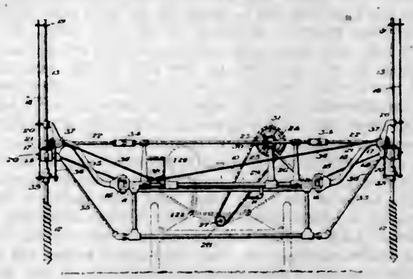
3. A toy including a frame, a crank shaft journaled in the frame, bearing wheels carried by the shaft, a vertical shaft carrying an additional bearing wheel forming a steering wheel, a toy animal supported in the frame over the steering wheel and provided with movable legs, pedal levers connected to the crank arms of the crank shaft by one end and by their opposite ends to certain of the legs of the toy animal, an eye swivelly carried by one of said levers, and a hand lever pivoted in the frame intermediate its length and with its lower end slidable in said eye.

4. A toy including a wheeled frame having drive wheels, pedal levers, operative connection between the pedal levers and drive wheels, a toy animal supported in the frame and having upper swinging leg portions and lower swinging leg portions, means operable by movebent of the pedals for swinging certain of the lower leg portions, and means operable by swinging of said lower leg portions for swinging the remaining lower leg portions and the upper leg portions.

5. A toy including a wheeled frame having a rotatable drive shaft and pedal levers operatively connected to the drive shaft, a toy animal supported in the frame and having upper swinging leg portions and lower swinging leg portions, operative connection between the pedal levers and certain of the lower leg portions, and means operable by swinging of such lower leg portions for swinging the corresponding upper leg portions.

[Claims 6 to 8 not printed in the Gazette.]

1,139,176. PORTABLE EARTH-BORING MACHINE. ANDREW FLESHER, Taylorville, Ill. Filed June 13, 1914. Serial No. 844,920. (Cl. 255—19.)



1. A portable earth boring machine, comprising a wheeled structure, a boring tool, an arm carrying said tool and hingedly connected to the wheeled structure, whereby the arm may be swung outwardly to position a boring tool a substantial distance beyond the side of said structure, and a driven shaft mounted on said structure and on said arm and adapted to flex in unison with the swinging movements of said arm.

2. A portable earth boring machine, having a vertically hinged arm adapted to be swung inwardly so that it lies substantially close to the machine and to be swung outwardly from the side of said machine, a structure to which the arm is hingedly connected, a driven shaft mounted on said structure and extending to and having a portion mounted on said arm, said shaft adapted to flex in unison with the swinging movements of the arm, and a boring tool carried by the free end of said arm.

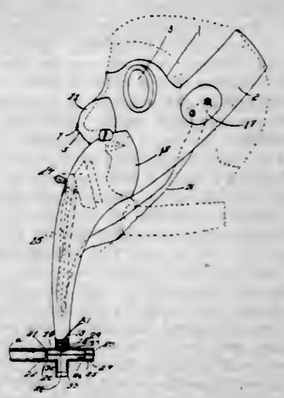
3. An earth boring machine comprising a frame, an arm having one end hingedly connected to longitudinal side of the frame, a boring tool mounted in the free end of the arm, said arm adapted to be swung inwardly so that in one position it lies substantially close to the side of the frame, and in another position it operatively holds the tool a substantial distance away from said side of the frame, a driven shaft mounted on said frame, and extending to and having a part supported by said arm, said shaft having a joint permitting it to fold in unison with the swinging movements of the arm.

4. An earth-boring machine, comprising a frame, a boring-tool, foldable-connections between the tool and frame permitting the tool to be normally positioned substantially close to the frame and to be swung outwardly transversely of the frame and to operatively hold the boring tool in the outboard position, and means for operating the boring-tool, said means including a driven shaft and gearing between the same and the tool, said shaft having a joint permitting it to flex in unison with said foldable connections.

5. An earth-boring machine comprising a frame, a plurality of boring-tools at opposite portions of the frame, and supporting arms for the tools, each of said arms carrying a tool at one end and having opposite ends hingedly connected to the frame whereby the arm and the tool carried thereby may be swung from a position substantially close to the machine to a position removed a substantial distance therefrom.

[Claims 6 to 13 not printed in the Gazette.]

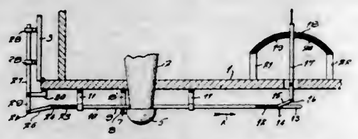
1,139,177. FIREMAN'S HELMET. JOHN M. GANZER, Poughkeepsie, N. Y. Filed May 7, 1914. Serial No. 836,998. (Cl. 128—42.)



1. A fireman's mask comprising a body portion, a head band connected thereto, sight openings in the body portion of the mask, a nose piece, a tube extending from the mouth portion of the mask, valves in the nose piece and in said tube permitting inhalation and exhalation from the outer air, a telephone transmitter in said tube, and a receiver on the head band.

2. A fireman's mask comprising a body portion having a head band, a telephone receiver connected to the head band, an exhalation valve connected to the mask, an inhalation tube provided with a valve, and a telephone transmitter in the inhalation tube.

1,139,178. CLOSET-HOPPER. HENRY P. GONSOULAND, Oakland, Cal. Filed Dec. 30, 1914. Serial No. 879,772. (Cl. 4—17.)



1. The combination with the approaching step controlling trap door on a railway coach, and an excrement hopper carried by said coach, of a closure cup for the open lower end of said hopper, a shaft rigidly connected to said cup, means for rotating said shaft for moving said cup out of a closing position for the open end of said hopper, and means for preventing the rotation of said shaft and the movement of said cup when said trap door is in a raised position.

2. The combination with the step controlling trap door of a railway coach and an excrement hopper positioned within said coach, of a cup forming a closure for the lower open end of said hopper, a rotatable shaft rigidly connected to said cup, a pinion mounted upon one end of said shaft, a slidable rack bar meshing with said pinion for rotating said shaft and moving said cup into an open or closed position upon the rotation of said shaft by the sliding movement of said rack bar, means for manually sliding said rack bar, and means for preventing the sliding movement of said rack bar when said trap door is in a raised position.

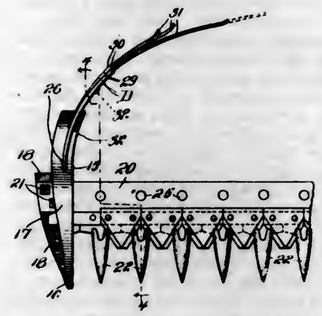
3. The combination with a railway coach having a trap door for controlling the opening to the approach step thereof, and an excrement hopper carried by said coach, of a cup forming a closure for the lower open end of said hopper, a shaft rigidly connected to said cup, a pinion carried by said shaft, a slidable rack bar operatively meshing with said pinion for rotating said pinion and said shaft upon slidable movement of said rack bar for moving said cup into an open or closed position for the open end of said hopper, said rack bar having a slot formed in one end thereof, a pin mounted in said slot, a link connected to said pin, an arm connected to said link, said arm being connected to and positioned beneath the under surface of said door for preventing the sliding movement of said rack bar when said door is in an open position.

4. The combination with a railway coach having a trap door for controlling the opening to the approach step thereof, and an excrement hopper carried by said coach, of a cup forming a closure for the lower open end of said hopper, a shaft rigidly connected to said cup, a pinion carried by said shaft, a slidable rack bar operatively meshing with said pinion for rotating said pinion and said shaft upon slidable movement of said rack bar for moving said cup into an open or closed position for the open end of said hopper, said rack bar having a slot formed in one end thereof, a pin mounted in said slot, a link connected to said pin, an arm connected to said link, said arm being connected to and positioned beneath the under surface of said door for preventing the sliding movement of said rack bar when said door is in an open position, said rack bar having a longitudinally extending slot formed in the other end thereof opposite to said first named slot, a lever connected to said rack bar through the medium of said slot, for manually sliding said rack bar when said door is in a closed position.

1,139,179. CUTTING APPARATUS. GEORGE HANSEN, Winston, Mont. Filed Sept. 5, 1914. Serial No. 860,352. (Cl. 56—30.)

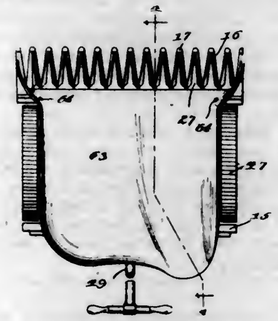
1. A slide shoe for mowing machines comprising a body portion having an outwardly extending flange provided with slots, guide members extending through said slots and fixed on the outer face of the body portion, some of said guide members being provided with longitudinal flanges at the side edges thereof, and extension members supported adjustably by said flanges.

2. In a guide shoe for mowing machines, a body portion having an outwardly extending flange provided with a slot, a curved longitudinally flanged guide member ex-



tending through said slot and secured on the face of the body portion, an extension member guided adjustably between the flanges of said guide member, and means for securing such extension member at various adjustments.

1,139,180. LAWN-MOWER. ANDREW HAUGLAND, Sioux City, Iowa. Filed Dec. 31, 1913. Serial No. 809,778. (Cl. 56—19.)



1. In a lawn mower, a base plate having forwardly extending fingers, recesses at the sides of said plate and a slot in the plate intermediate the recesses, a cutter bar mounted for transverse reciprocatory movement on the base plate and having a notch in its rear side, angular supporting members mounted on the base plate, one at each side, said supporting members having front arms extending in the direction of the slot in the base plate and rearwardly extending arms adjacent to the recesses in the side edges thereof, said front arms having longitudinal bores and said rearwardly extending arms having upwardly extending plates, ground wheels journaled on the plates within the recesses in the side edges of the base plate and having internal gears, shaft members journaled in the bores of the front arms, said shaft members being provided at their outer ends with pinions engaging the internal gears and at their inner ends with spring actuated clutch members, a shaft extending across the slot in the base plate and supported terminally in the bores, said shaft having clutch members engaging the spring actuated clutch members, and a cam wheel on said shaft, said cam wheel being accommodated within the slot in the base plate in engagement with the notch in the cutter bar.

2. In a lawn mower, a base plate having a slot, angular supporting members mounted on the base plate and having front arms and upwardly extending side plates, said front arms being longitudinally bored, journals extending from the side plates, ground wheels mounted on the journals and having internal gears, shaft members

journaled in the bore of the front arms and having pinions meshing with the internal gears, a shaft supported in the inner ends of the bores and extending across the slot in the base plate, clutch means connecting the shaft with the aforesaid shaft members, a reciprocatory cutter bar mounted on the base plate, and cutter bar actuating means mounted on the shaft which extends across the slot, said means being accommodated within the slot.

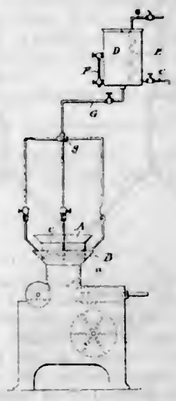
3. In a lawn mower, a base plate, a cutter bar supported thereon for reciprocatory movement, angular supporting members mounted on the base plate, each including a front arm abutting on the cutter bar to assist in guiding the latter, and an upwardly extending side plate having a journal, ground wheels mounted on the journals, means for transmitting motion from the ground wheels to the cutter bar, a handle supporting yoke having limbs terminally pivoted on the side plates, and clamp bolts connected with the limbs of the yoke and extending through the side plates, the latter being provided with arcuate slots for the passage of said clamp plates.

4. In a lawn mower, a base plate, angular supporting members mounted thereon and including front arms having longitudinal bores, one of said front arms being provided with a recess, a half box fitted in the recess, a shaft supported for rotation in the bores of the arms and having terminal clutch members, shaft members supported for rotation in the bores of the arms and having spring actuated clutch members, means for driving the shaft members to impart rotary motion to the shaft, a reciprocatory cutter bar, and means associated with the clutch driven shaft for imparting motion to the cutter bar.

5. In a lawn mower, a base plate having forwardly extending fingers, angular supporting members mounted on the base plate and including front arms having bores, the axes of which are substantially parallel to the front edge of the plate and upwardly extending side plates, ground wheels supported for rotation on the side plates, shaft members supported for rotation in the outer ends of the bores and deriving motion from the ground wheels, an intermediate shaft, clutch means connecting the intermediate shaft with the outer shaft members, a reciprocatory cutter bar, means for transmitting motion to the cutter bar from the intermediate shaft, and a cap plate mounted on the supporting members and extending across the base plate, said cap plate constituting a cover for the parts of the device mounted on the base plate and also forming a guide over which the cut grass will be discharged.

[Claim 6 not printed in the Gazette.]

1,139,181. OILING DEVICE FOR DOUGH-DIVIDER MACHINES. CYRUS HOYT HEILIG, York, Pa. Filed Oct. 24, 1914. Serial No. 868,440. (Cl. 107—15.)



1. An oiling device for a dough-divider hopper comprising a source of supply, a receiver within the hopper, and a conduit leading from said source to said receiver; said receiver being adapted to distribute the oil by overflow therefrom upon the inner side of the hopper.

2. An oiling device for a dough-divider hopper comprising a suitable source of supply arranged above said hopper, means for distributing the oil upon the inner side of said hopper, and a conduit leading from said source to said distributer for supplying oil or grease thereto by gravity, together with means for regulating the quantity of oil delivered to said distributer.

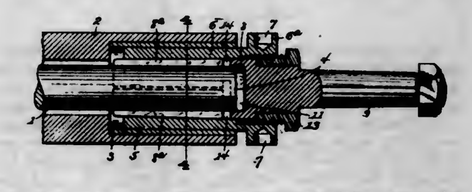
3. In combination with an apparatus for dividing and molding dough or other plastic material, a hopper adapted to be mounted upon the dough-divider hopper and having a trough-like oil receptacle adapted to overflow into the dough-divider hopper, and means for supplying oil or grease by gravity to said receptacle.

4. In combination with an apparatus for dividing and molding dough or other plastic material, a hopper adapted to be mounted upon the dough-divider hopper and having a trough-like oil receptacle adapted to overflow into the dough-divider hopper, and means for supplying oil or grease by gravity to said receptacle, together with means for regulating the quantity of oil flowing into said receptacle.

5. In combination a dough-divider hopper having a flaring mouth, a hopper having a trough-like portion at its lower end resting upon the mouth of the dough-divider hopper, an inclined plate overlying the inner edge of said trough-like part, and means for supplying oil or grease thereto by gravity, the contents of said trough-like part being adapted to overflow into the mouth of the dough-divider hopper.

[Claims 6 to 13 not printed in the Gazette.]

1,139,182. EMERGENCY AXLE EXTENSION. CLYDE HENTHORN and WILLIAM T. WEHE, Bellaire, Ohio. Filed July 16, 1914. Serial No. 851,403. (Cl. 21—5.)



1. An emergency axle extension comprising a member having a plurality of parallel flexible fingers disposed about a central axle-receiving bore, said member having an integral axially alined spindle, a bearing member embracing said fingers, and means rotatably mounted on the inner end of said spindle and having threaded connection with said bearing member whereby the latter is actuated to exert pressure on said fingers for causing the latter to grip an axle received in said bore.

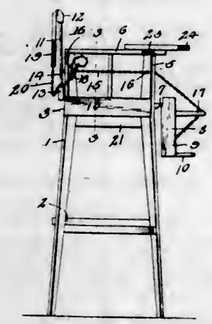
2. In a device of the character described, the combination with an axle and axle housing, of a hollow clamping member slotted to form resilient fingers mounted on the end of the axle, said member having an integral axially alined spindle adapted for the reception of a wheel hub, a cylindrical bearing member disposed in embracing relation to said fingers, said bearing member being rotatably mounted within the end of said housing, and means independent of the wheel hub whereby said clamping member and said bearing member are moved relatively for causing said fingers to grip said axle.

3. In a device of the character described, the combination with an axle and axle housing, of a hollow clamping member having an inwardly tapered exterior and having an integral axially alined spindle for the reception of a wheel hub, said member being slotted to form a plurality of fingers and being mounted upon the axle with said fingers embracing the latter, a cylindrical bearing member having an inwardly tapered bore disposed in embracing relation to said fingers and being rotatable within said housing, and means threaded within said bearing member

and exerting inwardly directed pressure against said clamping member whereby the fingers of the latter are caused to grip said axle.

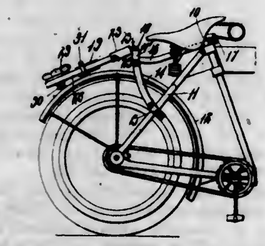
4. In a device of the character described, the combination with an axle and axle housing, of a hollow clamping member having an inwardly tapered exterior and having an integral axially alined spindle, said member being slotted to form a plurality of fingers and being mounted upon the axle with said fingers embracing the latter, a cylindrical bearing member having an inwardly tapered bore disposed in embracing relation to said fingers and being rotatable within said housing, and a gland in threaded engagement with said bearing member, said gland having its inner end seated against said clamping member and being adapted to exert a force whereby said bearing member and said clamping member are relatively moved longitudinally in opposite directions for causing said fingers to grip said axle.

1,139,183. CHAIR. CHARLES A. JOHNSON, Webster, S. D. Filed Jan. 21, 1914. Serial No. 813,464. (Cl. 155—6.)



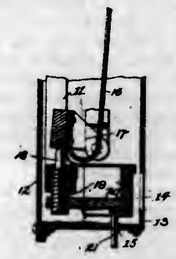
In a device of the class described, supporting legs, a seat carried thereby, back and foot supports hinged to lie in a plane with the seat member or at substantial right angles thereto, flexible supporting members connecting and common to both the back and foot members and arranged to move one of said members in a direction opposite to the movement of the other member, means for engaging the flexible members for holding the head and foot members in adjusted position, a head piece hinged to the back member and flexible members connecting the head piece and the legs for supporting the head piece in vertical position when the back member is arranged in a plane with the seat.

1,139,184. BACK-REST FOR MOTOR-CYCLES. JAMES P. JOHNSON, Council Bluffs, Iowa. Filed May 7, 1913. Serial No. 765,989. (Cl. 208—138.)



A back rest comprising a standard adapted to be secured to the frame of a bicycle, and including upper and lower hingedly connected sections, said upper section being provided with a slot, a sleeve slidably mounted on the standard and adapted to lock the hinge joint thereof when said sections are in alinement, a pin carried by the sleeve and extending through the slot, an expansion spring mounted in said slot and connected to the pin to normally urge the sleeve to locking position, and means for moving said sleeve out of locking relation with the hinge.

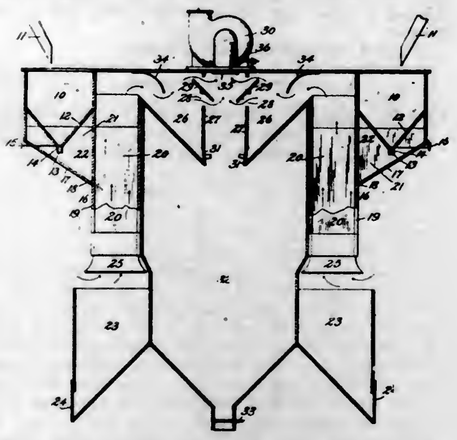
1,139,185. ADJUSTING MEANS FOR THERMOSTATS AND THE LIKE. PAUL F. JOHNSON, Milwaukee, Wis. Filed Feb. 19, 1915. Serial No. 9,345. (Cl. 236—8.)



1. In an automatic control device the combination of a responsive element; a movable member for adjusting the action of said responsive element; a handle for moving said member and mounted to move thereon in a path transverse to the adjusting movement of said member; and a tortuous guide for said handle.

2. In an automatic control device, the combination of a pivoted saddle; a responsive element mounted thereon; a threaded stop for coacting with said saddle to adjust the action of said responsive element; a dial member fixed on said stop for turning the same and indicating the position thereof; a handle for moving said dial member and mounted to move thereon in a substantially radial path; and a tortuous guide for said handle.

1,139,186. PNEUMATIC CONCENTRATOR. RENO D. O. JOHNSON, Nazareth, Pa., assignor to Joseph A. Horner, Bath, Pa. Filed Jan. 25, 1913. Serial No. 744,168. (Cl. 83—54.)



1. In an apparatus of the kind described, a vertically disposed separating flue of flattened rectangular shape provided in one of its narrow sides with an opening intermediate of its length and confronting an extended open space reaching to its opposite narrow side, combined with feed means in communication with said opening, and adapted to deliver material to be treated into the flue in the direction of the opposite narrow side, a settling chamber at the upper end of said flue, and means for generating a current of air in said flue in a direction opposed to that of the gravital movement of the material, substantially as set forth.

2. In an apparatus of the kind described, a vertically disposed separating flue of flattened rectangular shape provided in one of its narrow sides with an opening intermediate of its length and confronting an extended open space reaching to the opposite side of said flue, said extended open space being in the line of trajectory, combined with feed means in communication with said opening, and adapted to project material to be treated into the flue in the direction of the opposite narrow side, a settling chamber at the upper end of said flue, and means for generating a current of air in said flue in a direction opposed to that of the gravital movement of the material, substantially as set forth.

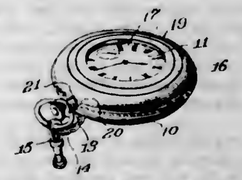
3. In an apparatus of the kind described, a vertically disposed separating flue prolonged or extended in the direction of the feed of material and relatively to the dimensions of said flue in other transverse directions, said flue having an opening intermediate of its length and confronting such prolongation or extension through which the material to be separated enters the flue to fall therethrough by gravity, means for generating a current of air in said flue in a direction opposed to that of the gravital movement of the material, a mouth on the lower end of the flue for the entrance of air and shaped to direct the air current in a straight line through the flue, a feed hopper delivering to the feed opening, a settling chamber connected to the upper end of the flue, and a receiving means below and spaced from the air inlet end of said flue.

4. In an apparatus of the kind described, a vertically disposed separating flue prolonged or extended in the direction of the feed of material and relatively to the dimensions of said flue in other transverse directions, said flue having an opening intermediate of its length and confronting such prolongation or extension through which the material to be separated enters the flue to fall therethrough by gravity, means for generating a current of air in said flue in a direction opposed to that of the gravital movement of the material, a mouth on the lower end of the flue having outwardly flaring sides of a shape to direct the air current in a straight line through the flue, a feed hopper delivering to the feed opening, a receiving means for the heavier particles below the mouth and spaced therefrom, a settling chamber connected to the upper end of the flue to receive the lighter particles, a deflector in the settling chamber, a gravity operated gate at the bottom thereof, and a receptacle below said separating chamber to receive the particles collected in the settling chamber.

5. In an apparatus of the kind described, a vertically disposed separating flue providing a horizontally narrow but extended interior space and having a feed opening confronting said extended space, the line of trajectory being conformable to the line of said extended space, feeding means communicating through said opening with the flue, and means for causing a fluid current in the flue in opposition to the gravital movement of the material, substantially as set forth.

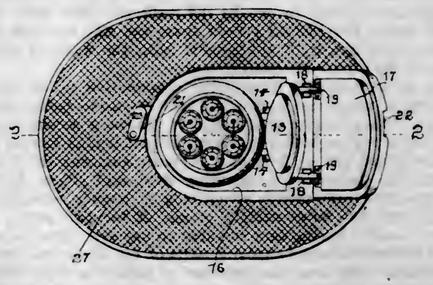
[Claims 6 to 11 not printed in the Gazette.]

1,139,187. WATCH-PROTECTOR. GEORGINE KAAK, San Antonio, Tex. Filed July 24, 1914. Serial No. 852,930. (Cl. 58—105.)



As a new article of manufacture, a watch protector comprising watch inclosing elements forming a back and a front for the watch, with the front having an opening therein to expose a portion of the watch, said back and front each having a notch, with the notches adapted to register for the passage of the stem of the watch, and a chain-like holding member having its ends secured in the back adjacent the notch thereof.

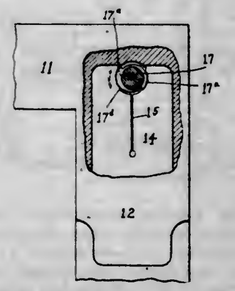
1,139,188. WATER-METER BOX. MATTHEW M. KANE, Rome, Ga. Filed June 11, 1913. Serial No. 773,084. (Cl. 220—124.)



1. In a device of the class described, a casing including a horizontal top member provided with apertures each having a reduced lateral offset, a closure for the top, arms extending from the closure and engaging respectively in the reduced offsets of the apertures and provided with lateral projections bearing beneath the top when the closure is open and in one position and adapted to pass through the apertures to release the closure when the same is in another position.

2. In a device of the class described, a casing including a horizontal top member having an opening with a supporting shoulder surrounding the opening, said top member being provided with apertures through the horizontal portion of the shoulder and each having a reduced lateral offset, a closure for the top member and adapted to engage the shoulder when closed, arms extending from the closure and engaging respectively in the reduced offsets of the apertures and provided with lateral projections bearing beneath the shouldered portion of the top when the closure is open and in one position and adapted to pass through the apertures to release the closure when the same is in another position.

1,139,189. TAKE-DOWN SQUARE. FRANK I. KIMBALL, West Haven, Conn., assignor to Sargent & Company, New Haven, Conn., a Corporation of Connecticut. Filed July 27, 1912. Serial No. 711,932. (Cl. 33—114.)



1. In a separable square, the combination of an arm having an under-cut groove extending transversely thereof, a second arm having a tongue fitting said groove, said tongue provided with a longitudinal slit or kerf, and with a recess in communication with said slit or kerf, a rotary cam member permanently mounted in the arm having the groove, and having cam surfaces adapted to engage the

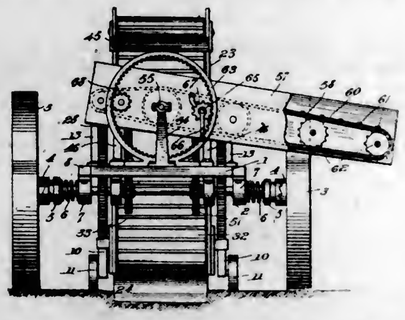
side walls of said recess, and thereby spread apart the side portions of the tongue into tight engagement with the walls of the groove, substantially as described.

2. In a separable square, the combination of an arm having a transverse under-cut groove at one end thereof, a second arm having a tongue of reduced width adapted to fit said groove, said tongue being provided with a longitudinal slit or kerf, and with a recess in communication with said slit or kerf, and a rotary cam member journaled in the arm having the groove, and extending into said groove, said cam member adapted to enter said recess as the square is assembled, and provided at opposite sides with cam surfaces to engage the respective side walls of said recess and thereby spread apart the side portions of the tongue into tight engagement with the walls of said groove, substantially as described.

3. In a separable square, the combination of an arm having a transverse extension, said extension being provided with a longitudinal undercut groove, a second arm having a tongue fitting said groove, said tongue having a longitudinal slit or kerf and a recess adjacent the free extremity thereof communicating with said slit or kerf, a rotatable cam device comprising a washer embedded flush with the outer surface of one of the two parts, a stem member having cam surfaces on opposite sides thereof adapted to engage opposite walls of the said recess and a circular flange on the other end of said stem flush with the outer surface of the square part, said cam device adapted to be rotated in the plane of the square about its axis to spread or wedge apart the side portions or branches of the tongue so that they tightly engage the walls of said groove, substantially as described.

4. In a separable square, the combination of an arm having a groove, a second arm having a tongue fitting within said groove, said tongue being provided with a longitudinal slit or kerf, and with a recess adjacent its free extremity, and in communication with said slit or kerf, a rotary member mounted in one of said arms and adapted to engage opposite walls of said recess, and thereby spread or wedge apart the side portions or branches of the tongue so that they tightly engage the walls of said groove, and a projection on said tongue to limit the movement of said rotary member; substantially as described.

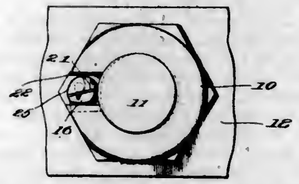
1,139,190. DITCHING-MACHINE. GEORGE A. KIMBREL, Avondale, Colo. Filed Dec. 2, 1913. Serial No. 804,321. (Cl. 37—25.)



1. A ditching machine comprising a wheel mounted frame, an elevator mounted upon the frame, means for operating the elevator from the wheels, a trunk pivotally mounted upon the frame at the delivery end of the elevator, and having its delivery end free to be swung to one side or the other of the axis of the pivot a conveyer belt mounted for movement along the trunk, means for moving the conveyer belt from the supporting wheels and means for swinging the trunk to position its delivery end beyond either of the two sides of the main frame whereby material may be deposited by the elevator on either of two runs of the belt.

2. A ditching machine comprising a wheel mounted frame, an elevator mounted upon the frame, means for operating the elevator from the wheels, circular guides mounted upon the frame, a trunk pivotally mounted between the guides, said guides having circular sets of teeth, a shaft journaled upon the trunk and provided with gear wheels which mesh with the teeth, a belt mounted for orbital movement along the trunk, means for operating the belt from the supporting wheels and shiftable to cause the runs of the belt to move in either of two directions.

1,139,191. NUT-LOCK. ALONZO A. KING, Paonia, Colo. Filed May 19, 1914. Serial No. 839,602. (Cl. 151—25.)



1. A nut lock including a nut bored to receive a bolt and being recessed to receive a pawl, said nut having a shoulder formed thereon adjacent said recess, a pawl detachably mounted in said recess and adapted for interlocking engagement with the bolt, said pawl being normally removable from the nut and being movable into interlocking engagement with said shoulder when engaged by the bolt for maintaining the pawl in operative engagement with the nut.

2. A nut lock including a nut bored to receive a bolt and having a recess formed therein, a shoulder formed on the nut adjacent said recess, a pawl mounted to turn in said recess and detachably connected with the nut, said pawl being normally removable from the nut and including a stem having a head eccentrically mounted thereon and normally arranged to project within the bolt opening of the nut to engage the bolt, said head being adapted for interlocking engagement with the bolt and being movable into interlocking engagement with said shoulder when engaged by the bolt for maintaining the pawl in operative engagement with the nut.

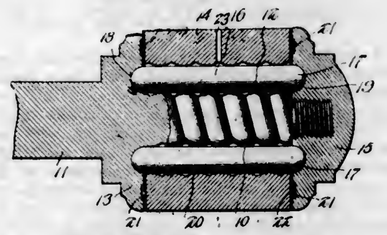
3. A nut lock including a nut bored to receive a bolt and having a transversely extending recess formed in one face thereof, said recess communicating with the bolt opening of the nut, an overhanging shoulder formed on the nut and projecting into said recess, the bottom wall of said recess having a bore formed therein, a pawl carried by the nut, said pawl being normally removable from the nut and including a stem mounted in said bore, and a head eccentrically mounted upon the stem and provided with teeth, a spring carried by the head and embracing said stem, said spring being normally adapted to project the head of the pawl into the bolt opening formed in the nut, said head being adapted for interlocking engagement with the bolt and interlocking engagement with said shoulder when engaged by the bolt for maintaining the pawl in operative engagement with the nut, the teeth formed on said head being arranged to contact with the bolt.

4. A nut lock including a nut bored to receive a bolt and having a recess formed therein, a shoulder formed on the nut adjacent said recess, and an eccentrically mounted pawl including a substantially circular head arranged in said recess, said pawl being normally removable from the nut and having the head thereof arranged for interlocking engagement with the bolt and movable into interlocking engagement with said shoulder when engaged by the bolt for maintaining the pawl in operative engagement with the nut.

5. A nut lock including a nut bored to receive a bolt and having a shoulder formed thereon, a pawl detachably connected with the nut and arranged adjacent said shoulder and provided with an inclined face, said pawl being normally removable from the nut and being movable into interlocking engagement with the bolt with the inclined face thereof in interlocking engagement with said shoulder for maintaining the pawl in operative engagement with the nut.

[Claim 6 not printed in the Gazette.]

1,139,192. ROLLER-BEARING. JAMES FRANK KING, Milwaukee, Wis. Filed Oct. 1, 1912, Serial No. 723,396. Renewed Sept. 23, 1914. Serial No. 863,222. (Cl. 64—39.)



1. The combination with a stationary bearing member, of a rotary member mounted thereon, spirally arranged contacting surfaces formed on faces adjacent to each other of the said members and having their trends reversely disposed with respect to each other, and bearing rollers concentrically arranged about the stationary member and held within the rotary member for contact with the spiral surfaces.

2. The combination with a stationary bearing member, of a rotary member mounted thereon, spirally arranged contacting surfaces formed on faces adjacent to each other of the said members and having their trends reversely disposed with respect to each other, and bearing rollers concentrically arranged about the stationary member and held within the rotary member for contact with the spiral surfaces, the said spiral surfaces each having its convolutions of convex form throughout the extent thereof.

3. The combination with a stationary bearing member, and a rotatable member surrounding the same, of spiral ribs formed on the faces adjacent to each other of the said members, the said spiral ribs being extended in reverse directions to each other, and a series of rolling elements arranged concentrically with respect to the stationary member between it and the said rotary member and adapted for contact with the said spiral ribs.

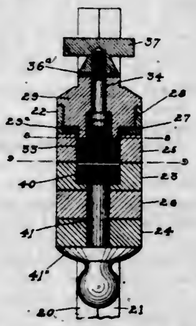
4. The combination with a stationary bearing member, and a rotatable member surrounding the same, of spiral ribs formed on the faces adjacent to each other of the said members, the said spiral ribs being extended in reverse directions to each other, a series of rolling elements, arranged concentrically with respect to the stationary member between it and the said rotary member and adapted for contact with the said spiral ribs, and means carried by the stationary member and working against the rotary member to hold the said bearings against displacement longitudinally with respect to the members.

1,139,193. LOCKING-HINGE. GEORGE W. KIRSCHNER, West Haven, Conn., assignor to Sargent & Company, New Haven, Conn., a Corporation of Connecticut. Filed Nov. 16, 1912. Serial No. 731,791. (Cl. 16—110.)

1. In a locking hinge, the combination of hinge members having alined knuckles, means connecting said knuckles, and a clutch comprising coöperating members non-rotatably fixed within the respective knuckles, one of said members being movable axially of the hinge into engagement with the other; substantially as described.

2. In a locking hinge, the combination of hinge members having alined knuckles, a separate locking member fixed within one of said knuckles, and a coöperating locking member guided rectilinearly in the other knuckle and movable axially of the hinge into and out of engagement with said first locking member; substantially as described.

3. In a locking hinge, the combination of two hinge members having knuckles with polygonal openings, a locking nut fixed in one of said openings, a coöperating locking nut guided in the other opening, and a member having threaded engagement with said movable nut to adjust the same; substantially as described.

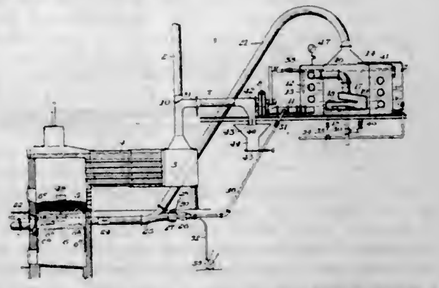


4. In a locking hinge, the combination of hinge members having a plurality of interfitting perforated knuckles, clutch members non-rotatably fitted within two adjacent intermediate knuckles, a pintle at one end of the hinge connected with one of said clutch members, and a pintle at the opposite end of the hinge connected with the other clutch member; substantially as described.

5. In a locking hinge, the combination of two hinge members having a plurality of interfitting perforated knuckles, a separate clutch member housed in one of said knuckles in the axis of the hinge, a pintle secured to said clutch member and holding it against displacement axially of the hinge, a coöperating clutch member housed in another knuckle, and means for adjusting said second clutch member toward and away from the first clutch member; substantially as described.

[Claims 6 to 13 not printed in the Gazette.]

1,139,194. SMOKE-CONSUMER. HENRY KLEMAN, Pittsburgh, Pa., assignor of one-half to Edward Martin, Pittsburgh, Pa. Filed Aug. 29, 1910. Serial No. 579,519. (Cl. 110—49.)



1. A smoke consuming system, comprising a furnace having a grate, a stack, an offtake pipe from the furnace stack, an inlet pipe to the air space below the grate, a fan to draw the gas from the stack to the offtake pipe and force it through the inlet, a gas cooling coil between the offtake pipe and the inlet pipe, a tank containing water surrounding the coil, a direct connection between the offtake pipe and the inlet pipe in back of the fan for returning a portion of the gases to the furnace, said direct connection leading from the offtake pipe in front of the cooling coil, and means to supply oxygen to the inlet pipe; substantially as described.

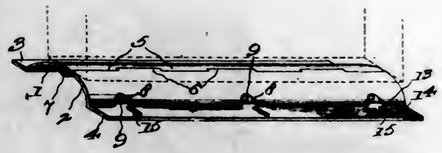
2. A smoke consuming system, comprising a furnace having a grate, a stack, an offtake pipe from the stack of the furnace, an inlet pipe to the air space below the grate,

a fan to draw the gas from the stack through the offtake pipe and force it through the inlet pipe, a gas cooling coil between the offtake pipe and the inlet pipe, a tank containing water surrounding said coil, means for separating the heavy matter from the gases after they have passed through the cooling coil, a direct connection between the offtake pipe and the inlet pipe in back of the fan for returning a portion of the gases to the furnace, said direct connection leading from the offtake pipe in front of the cooling coil, and means to supply oxygen to the inlet pipe to mix the oxygen with the gas from the direct connection and the gas which is passed through the cooling coil; substantially as described.

3. A smoke consuming system, comprising a furnace having a grate, a stack, an offtake pipe from the stack, an inlet pipe to the air space below the grate, a fan to draw the gas from the stack through the offtake pipe and force it through the inlet pipe, a gas cooling coil between the offtake pipe and the inlet pipe, a tank containing water surrounding said coil, a direct connection between the offtake pipe and the inlet pipe for returning a portion of the gases to the furnace, said direct connection leading from the offtake pipe in front of the cooling coil, and an injector for feeding oxygen to the inlet pipe and for drawing the hot gases through the by-pass, the oxygen, hot gases and the gases from the cooling coil mixing within the inlet pipe before entering the air chamber below the grate; substantially as described.

4. A smoke consuming system, comprising a furnace having a grate, a stack, an offtake pipe from the stack, an inlet pipe to the air space below the grate, a fan to draw the gas from the stack through the offtake pipe and force it through the inlet pipe, a gas cooling coil between the offtake pipe and the inlet pipe, a tank containing water surrounding said coil, a direct connection between the offtake pipe and the inlet pipe for returning a portion of the gases to the furnace, said direct connection leading from the offtake pipe in front of the cooling coil, an injector for feeding oxygen to the inlet pipe and for drawing the hot gases through the by-pass, the oxygen, hot gases and the gases from the cooling coil mixing within the inlet pipe before entering the air chamber below the grate, and a connection for feeding some of said gases to the combustion chamber of the furnace; substantially as described.

1,139,195. THRESHOLD. ERNEST KRAUSE, El Paso, Tex. Filed Mar. 1, 1915. Serial No. 11,348. (Cl. 20—64.)

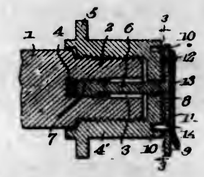


1. A threshold divided along its central longitudinal line, the divided parts hinged to each other along such line so that the height of the threshold may be adjusted by movement of the free edges of the parts toward or from each other, and means for sustaining the parts in said adjusted relation.

2. A threshold divided along its central longitudinal line, the divided parts being arched and hinged to each other along such line so that the height of the threshold may be adjusted by movement of the free edges of the parts toward or from each other, and means for sustaining the parts in said adjusted relation.

1,139,196. NUT-LOCK. WILLIAM S. LAIL, Connellys Springs, N. C. Filed May 29, 1914. Serial No. 841,886. (Cl. 151—2.)

A threaded spindle having a threaded bore, a nut for the spindle, said nut having its outer face provided with a central opening, a bolt having a reduced shank extending through the opening, a head for the shank having an irregular perimeter, said head having an opening, the outer face of the nut having a plurality of concentrically arranged depressions, a spring pivotally secured to the head,



and a longitudinally movable detent arranged upon the head and adapted to pass through the opening thereof to engage with the depressions in the nut.

1,139,197. FOOT-GEAR. ERNEST A. LLEWELLYN and JOHN R. BRIGGS, Wilton, Me., assignors to G. H. Bass & Company, Wilton, Me., a Corporation of Maine. Filed Oct. 2, 1914. Serial No. 864,648. (Cl. 36—11.)



1. A moccasin having a vamp and a toe-piece, said toe-piece being attached at its margin to one edge of the vamp by stitches uniting the two parts in such manner as to leave a portion of the toe-piece projecting over and beyond the edge of the vamp; said projecting portion of the toe-piece covering the stitches on the outer surface of the vamp and being further fastened to the vamp by a lap seam in which the stitches pass through a marginal portion of the vamp and through the overlapping margin of the toe-piece.

2. A moccasin having a vamp and a toe-piece fastened together by a seam uniting one edge of the vamp and an adjacent portion of the toe-piece; said toe-piece having a marginal portion extending beyond and overlapping the edge of the vamp so as to cover the stitches of said seam on the outer side of the vamp and fastened to the underlying marginal portion of the vamp by a lap seam.

3. A shoe having an upper composed of a lower section forming the quarters and a portion of the vamp, a top section and an upper vamp section, the meeting edges of said sections being arranged in abutting relation and united by a seam, and integral extensions of the top and upper vamp sections overlying the lower section and united thereto by a seam independent of the first named seam.

4. A shoe having an upper composed of a lower section forming the quarters and lower portion of the vamp, a top section, and an upper vamp section, the meeting edges of said lower section being arranged in abutting relation with the meeting edges of said top section and upper vamp section and united thereto by a seam, and flaps integral with the said top and upper vamp sections and turned outwardly over said seam and downwardly upon the said lower section, whereby a single cover seam is formed between the lower section and top and upper vamp sections, said flaps being cemented to the lower section and also united at their free edges to said lower section by a line of stitching, and forming a water shedding surface overlapping the single seam aforesaid.

5. A moccasin, or the like, having a vamp and a toe-piece, said toe-piece being stitched to the vamp in such manner as to leave a portion of the toe-piece projecting beyond the seam and over the lower edges of the stitches and the vamp.

1,139,198. AUGER. JOEL LUND, San Francisco, Cal. Filed Jan. 9, 1913. Serial No. 741,034. (Cl. 145—126.)

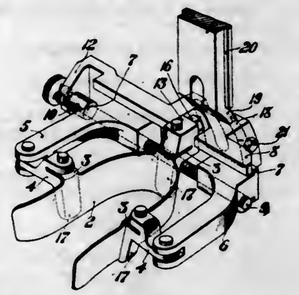


1. A bit including a body terminating in a hollow cylindrical shell internally threaded and internally beveled at its free end to form a cutting edge, and a cylindrical cutting head externally threaded to engage with the threads of the shell and slotted radially and beveled to form a pod cutter, said head being hollow to permit the passage of chips.

2. A bit including a body terminating in a hollow internally threaded shell, a hollow cylindrical body member threaded in the shell and provided at its free end with a centrally formed feed screw and with a radially extending slot providing a pod cutter, the body of said head being provided with a spiral slot communicating with the first slot and with the hollow portion of the body, the end of said head being provided with a screw driver receiving groove.

3. A bit including a body terminating in a hollow cylindrical shell, the free end of which is flared outwardly and beveled to form a scalloped cutting edge, and a cutting head having threaded engagement in the shell and with its outer end flared to seat against the inner face of the flared portion of the shell to limit the inward movement of the head within the shell.

1,139,199. HEELING-MACHINE. THOMAS LUND, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed May 10, 1910. Serial No. 560,440. (Cl. 1—32.)



1. In a device of the class described, positioning means for a shoe including a flexible clamping band, oppositely disposed supporting members adjustable in a straight line toward and from each other, and pivoted links interposed between the band and the members.

2. In a device of the class described, the combination of a U-shaped band supported at three separate points by pressure blocks extending substantially the entire width of the band and adjusting mechanism constructed and arranged for adjusting two of the pressure blocks simultaneously toward or from each other in a right line.

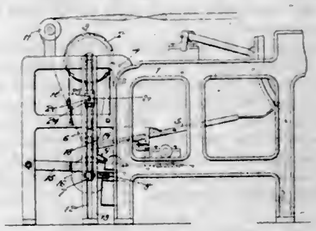
3. A band clamp for heel machines, having, in combination, a flexible U-shaped band, a support therefor arranged outside the band, and links connecting the support and band, said links having heads rigid therewith at their inner ends extending substantially from one edge to the other of the band.

4. In a band clamp for heel machines, a flexible band having at one edge integral ears bent at an angle to the body of the band, a band support, and links pivotally connected to said ears and to said support, the ends of said links which are connected to said ears being provided with pressure blocks extending substantially the entire width of the band.

5. In a band clamp for heel machines, the combination of a band support, a band sustained thereby, and a segmental guide for said support, said guide having its center of curvature at the rear end of the band.

[Claims 6 and 7 not printed in the Gazette.]

1,139,200. LOOM. WILLIAM J. LUTTON, Paterson, N. J. Filed Dec. 10, 1912. Serial No. 735,958. (Cl. 139—59.)



1. In a loom, the combination with a depending floating roller for applying tension to the warp threads, of a device supported independently of the roller and arranged to move up and down with the roller, said device exerting restraint on the roller at points maintained at all times in a horizontal plane, whereby the roller is maintained in its horizontal position under abnormal stresses.

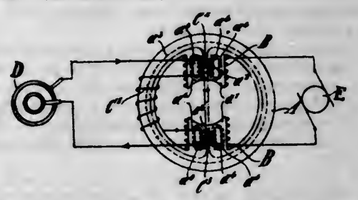
2. In a loom, the combination with a depending floating roller for applying tension to the warp threads, of an equalizing device comprising a rocking support provided with extensions in position to apply weight on the opposite ends of the floating roller to hold the roller in horizontal position.

3. In a loom, the combination with a depending floating roller for applying tension to the warp threads, of a rocking frame provided with weighted arms separate from the floating rolls and arranged to draw downward on the opposite ends of the floating roller.

4. In a loom the combination with a depending floating roller for applying tension to the warp threads and a weight bar suspended from the roller, of a rocking frame provided with weighted extensions arranged to rest on the weight bar to hold it in a horizontal position.

5. In a loom, the combination with a floating roller for applying tension to the warp threads and a weight bar suspended from the floating roller, of bars uprising from the opposite ends of the weight bar, a clamping rod supported by the loom frame and means in coöperative relation with the clamping rod and uprights for clamping the said uprights and hence the weight bar temporarily in position.

1,139,201. DIRECT-CURRENT DYNAMO-MACHINE. WILHELM LUYKEN, Essen-on-the-Ruhr, Germany, assignor to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Filed Dec. 5, 1910. Serial No. 595,703. (Cl. 171—209.)



1. A separately excited direct current dynamo machine having a secondary winding on the magnet-frame adapted

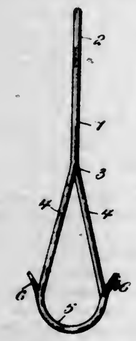
to be charged with alternating current, whereby to neutralize the remanent magnetism in the magnet-frame.

2. A separately excited direct current dynamo machine having a closed magnet frame provided with pole pieces and a secondary winding partly arranged on the pole pieces and partly on a portion of the frame therebetween, said winding being adapted to be charged with alternating current, whereby to neutralize the remanent magnetism in the magnet frame.

3. A separately excited direct current dynamo machine having a closed magnet frame provided with pole pieces and a secondary winding adapted to be charged with alternating current, whereby to neutralize the remanent magnetism in the magnetic frame, said winding comprising helices disposed on the pole pieces and wound to produce poles of the same sign in the ends of the pole pieces adjacent the armature.

4. A separately excited direct current dynamo machine having a closed magnet frame provided with pole pieces and a secondary winding adapted to be charged with alternating current, whereby to neutralize the remanent magnetism in the magnet frame, said pole pieces being divided into parallel strips and said winding comprising helices disposed on one strip of each pole piece and wound to produce poles of the same sign in the ends of the pole pieces adjacent the armature.

1,139,202. ANCHOR. JERRY MASAK, Detroit, Mich. Filed June 2, 1914. Serial No. 842,458. (Cl. 114—207.)

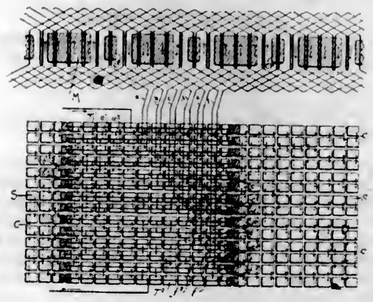


An anchor embodying a straight shank having attaching means at one end, the other end of said shank being bifurcated and the branches thereof being substantially straight and divergent, the end portion of one branch being curved and extended inwardly and to one side only of the common plane of the two branches and provided with an end fluke, and the other branch being curved in the opposite direction and extended inwardly and to the opposite side only of the common plane of the two branches and provided with an end fluke, all parts being formed integrally.

1,139,203. DIRECT-CURRENT MACHINE. CHARLES W. GIRVIN, San Francisco, Cal., assignor to Girvin Electrical Development Company, Limited, Honolulu, Hawaii, a Corporation of Hawaii. Filed May 14, 1913. Serial No. 767,725. (Cl. 171—252.)

1. In direct current mechanism, a predetermined number of open-circuit sources of alternating E. M. F., a rotatable commutator for rectifying the current of said sources individually, each terminal of a source coöperating with the commutator at spaced apart points of the commutator, the commutator maintaining said sources in series relationship.

2. In direct current mechanism, a predetermined number of open-circuit sources of alternating E. M. F., a rotatable commutator for rectifying the current of said sources individually, each terminal of a source coöperating with the commutator at spaced apart points of the commutator, the commutator maintaining said sources in series relationship, the source terminal points of cooperation being in parallel relation.



3. In direct current mechanism, a predetermined number of open-circuit sources of alternating E. M. F., a rotatable commutator for rectifying the current of said sources individually, each terminal of a source coöperating with the commutator at spaced apart points of the commutator, the commutator maintaining said sources in series relationship, the source terminal points of coöperation being in parallel relationship independent of the commutator.

4. In direct current mechanism, a predetermined number of open circuit armature coil units, each terminal of a coil unit being in the form of a plurality of brushes connected in parallel, and a commutator for maintaining said sources constantly in series relationship through said brushes, the commutator acting individually on each unit.

5. In direct current mechanism, a predetermined number of open circuit armature coil units, each terminal of a coil unit being in the form of a plurality of brushes connected in parallel, and a commutator for maintaining said sources constantly in series relationship through said brushes, the commutator acting individually on each unit, the points of contact of brushes in parallel being spaced apart on the commutator.

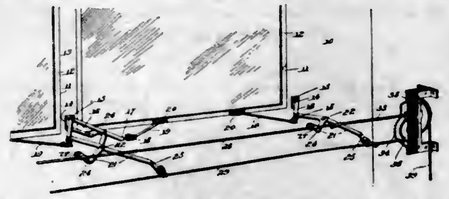
[Claims 6 to 14 not printed in the Gazette.]

1,139,204. SUPPORT. CHARLES MATHEWS, Cambridge, Ohio. Filed Dec. 20, 1913. Serial No. 808,002. (Cl. 155—35.)



In a swing support, in combination a hooked member, adapted to engage a suitable support, a pulley removably attached to the hooked member, and a pulley block, said block being formed of a single piece of metal, and comprising a pair of spaced sides in which the pulley is journaled, and an ear formed integral with the sides, said ear having an aperture therein, for the reception of the chains of the swing.

1,139,205. MULTIPLE-SASH-OPERATING DEVICE. JOSEPH MATTHEWS, EDWARD W. FREEMAN, and WILLIAM H. S. BATEMAN, Philadelphia, Pa. Filed Sept. 19, 1914. Serial No. 862,574. (Cl. 16—28.)



1. In a device of the character described, the combination with a frame and movable sashes thereon, of a bracket on the frame, diverging arms pivoted on the bracket, rods connecting with the sashes and in pivotal connection with the said arms, a pair of toggle levers connecting with the said arms, and means for actuating the free ends of the toggle levers to operate the sashes relatively to the frame.

2. In a device of the character described, the combination with a frame having movable sashes thereon, of arms pivoted on the frame, rods connecting with the sashes, clamps pivotally carried on the arms and in clamping engagement with the rods, toggle levers connecting with the arms, and means for operating the toggle levers.

3. In a device of the character described, the combination with a frame having movable sashes thereon, of diverging arms pivoted at a common point on the frame, means connecting with the sashes and with the arms for operating the sashes when the arms are actuated, toggle levers having a common pivot point and having independent connection with the arms, and means for actuating the toggle levers to operate the arms.

4. A means for operating a sash upon a frame, comprising an arm pivoted on the frame, a rod conecting with the sash and the arm, a pivoted toggle lever having an end in pivotal connection with said arm, said toggle lever having an integral end portion offset to one side of the lever operating means, and a clamp on the offset portion of the toggle and connecting with said operating means.

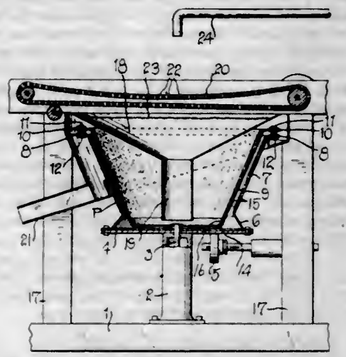
5. A means for operating a sash upon a frame comprising an arm pivoted on the frame, a rod connecting with the sash, a clamp on the arm and adjustably clamping one end of the rod to the arm, a toggle lever in pivotal connection with said arm, said toggle lever having an integral end portion offset to one side of the lever actuating means for said toggle lever, and a clamp swingingly supported on said offset portion of the toggle and adjustably clamping said offset portion of the toggle with said actuating means.

[Claims 6 to 9 not printed in the Gazette.]

1,139,206. ORE-SEPARATOR. HUGH H. MCGOVERN, Oak Grove, Oreg. Filed July 8, 1914. Serial No. 849,776. (Cl. 83—87.)

1. A centrifugal ore separator comprising a body mounted for axial rotation, a bowl secured to said body, and a second bowl nested within the first mentioned bowl and separated therefrom, the bottom of said inner bowl being substantially open, each of said bowls being provided with a surface adapted to retain values, said bowls being relatively so positioned as to sub-divide the pulp and each adapted to separately concentrate its respective portion, and means coacting with the upper extremities of the bowls for maintaining the inner bowl in operative position.

2. A centrifugal ore separator comprising a body mounted for axial rotation, a bowl secured to said body, and a second bowl nested within the first mentioned bowl and separated therefrom, the bottom of said inner bowl being substantially open, each of said bowls being provided with a surface adapted to retain values, said bowls being relatively so positioned as to sub-divide the pulp and each adapted to separately concentrate its respective portion, and adjustable means connecting the upper extremities of the bowls whereby the inner bowl is maintained in operative position.

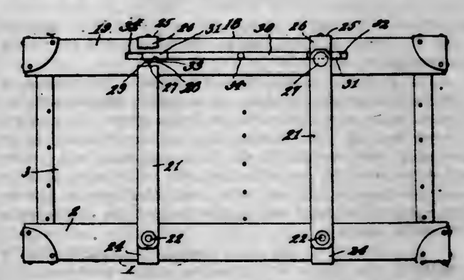


3. A centrifugal ore separator comprising a body mounted for axial rotation, a bowl secured to said body, and a second bowl nested within the first mentioned bowl and separated therefrom, the bottom of said inner bowl being substantially open, each of said bowls being provided with a surface adapted to retain values, said bowls being relatively so positioned as to sub-divide the pulp and each adapted to separately concentrate its respective portion, the upper extremities of said bowls being provided with overlying flanges, and means coacting with said flanges for maintaining the inner bowl in operative position.

4. A centrifugal ore separator comprising a body mounted for axial rotation, a bowl secured to said body, and a second bowl nested within the first mentioned bowl and separated therefrom, the bottom of said inner bowl being substantially open, each of said bowls being provided with a surface adapted to retain values, said bowls being relatively so positioned as to sub-divide the pulp and each adapted to separately concentrate its respective portion, the upper extremities of said bowls being provided with overlying flanges, and adjustable means co-acting with said flanges for maintaining the inner bowl in operative position.

5. A centrifugal ore separator comprising a plurality of nested bowl members maintained in spaced relation, the bottom of the inner bowl being substantially open, each of said bowls being provided with a surface adapted to retain values, said bowls being relatively so positioned as to sub-divide the pulp and each adapted to separately concentrate its respective portion.

1,139,207. SHIPPING-CASE. EDWIN BENJIMAN MCHOSE, Aaronsbury, Pa. Filed May 1, 1914. Serial No. 835,745. (Cl. 217—15.)



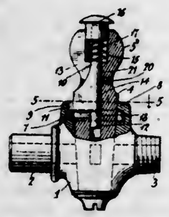
1. In a crate, a bottom, a cover, stays pivoted to the bottom and having grooved pins at their free ends, the cover having sockets arranged to receive the said pins,

and latches carried by the cover and engageable with the grooves of the said pins to lock the pins within the sockets.

2. In a crate, a bottom, a cover, a plurality of stays pivoted to each side portion of the bottom, the stays having grooved pins at their free ends, and the side portions of the cover having sockets for receiving the pins, and a slidable latch mounted upon each side portion of the cover and having notched portions coöperable with the said sockets for receiving the pins and engaging the grooves of the pins to lock the pins within the sockets.

3. In a crate, a bottom, a cover, stays pivoted to the bottom and having pins at their free ends, the stays being arranged in pairs, the cover having sockets adapted to receive the said pins, and means for locking the pins within the sockets, the stays of each pair and sockets of the cover being so arranged that when the stays are arranged vertically relative to the bottom the pins are engageable with the sockets to hold the cover in raised position, and whereby when the cover is lowered against the bottom, the stays may be crossed to enable the pins thereof to be engaged to the opposite sockets of the cover.

1,139,208. GAS-COCK. JOHN H. MCMURRAY, Schenectady, N. Y., assignor of one-half to John T. Gorman, Cohoes, N. Y. Filed Aug. 20, 1914. Serial No. 857,794. (Cl. 137—7.)

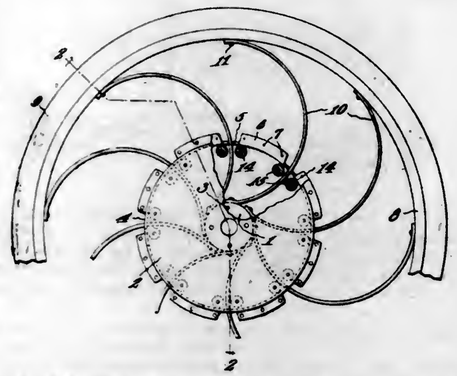


In a gas cock, a casing, turning plug fitted therein and having a projecting head provided with a lateral recess extending to its circumferential face, the head having at its upper end an axially located recess with which said lateral recess communicates and having an axially located bore projecting downwardly from said lateral recess, the casing having its inner face provided near its upper end with a circumferential channel and having a flange overhanging said channel and provided with a notch extending between said channel and the upper face of the casing, a key mounted said lateral recess for sliding movement in the direction of the axis of the casing and having a laterally projecting finger formed to engage in said notch, the key also having below said finger a centering extension which engages in said bore, an operating button secured to the upper end of the key and arranged in said axially located recess and an expansive spring also arranged in said axially located recess under said operating button and engaging the same.

1,139,209. WHEEL. HENRY D. MILLS, Far Rockaway, N. Y. Filed Mar. 19, 1914. Serial No. 825,878. (Cl. 152—50.)

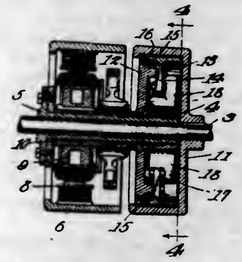
1. In a device of the class described, a hub having a peripheral opening; a rim; an arcuate, transversely resilient spoke connected with the hub and the rim and extended through the opening; and an anti-friction roller extended transversely of the hub and terminally journaled for rotation upon the hub, the roller being located adjacent the opening and being adapted to engage the intermediate portion of the curved face of the spoke when the spoke yields.

2. In a device of the class described, a hub having a peripheral opening; a rim; a spring spoke connected with the hub and the rim and extending through the opening; anti-friction elements journaled upon the hub, upon opposite sides of the opening, and adapted to coöperate with the spoke; the periphery of the hub being equipped with outstanding reinforcing ribs located approximately parallel to the median plane of the wheel and disposed upon opposite sides of the opening.



3. In a device of the class described, a hub comprising a tubular body and side plates secured to the ends of the body, the peripheries of the side plates being provided with approaching marginal flanges having coöperating notches defining openings, the marginal flanges having outwardly extended abutting ears; securing elements connecting the ears; a rim; spring spokes connecting the tubular body and the rim and extended through the openings; shafts connecting the side plates; and spoke-engaging rollers on the shafts and located adjacent the openings.

1,139,210. ELECTRIC ENGINE-STARTER. MARY PIERSON MITCHELL, Eaton, Ohio. Filed Mar. 14, 1914. Serial No. 824,831. (Cl. 172—239.)



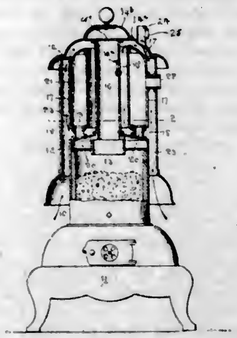
1. In combination, an explosion engine, a shaft connected thereto, a sleeve in which the shaft is journaled, a motor having a stator casing attached to the sleeve, the rotor of the motor being rotatable upon the sleeve, and coöperable clutch devices carried by the shaft and the rotor.

2. In combination, an explosion engine, a shaft connected thereto, a sleeve forming a journal for a portion of the shaft, a motor having a stator casing attached to said sleeve, the rotor of the motor being rotatable upon the sleeve, a driven clutch member carried by the shaft, and a centrifugally operated clutch member operably connected to the rotor, whereby when the rotor has attained a predetermined speed, the centrifugally operated clutch member automatically engages the driven clutch member to connect the rotor of the motor to the shaft.

3. In combination, an explosion engine, a shaft connected thereto, a motor embodying a casing having a shaft incasing sleeve and a stator carried by the casing, a second sleeve mounted for rotation upon the first sleeve, the rotor of the motor being carried by the second sleeve, two coöperable clutch members carried by the shaft and the second sleeve, whereby when the rotor has attained a predetermined speed, the shaft is automatically connected to the rotor of the motor.

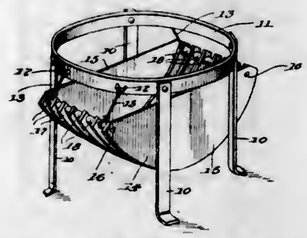
4. In combination, an explosion engine, a shaft connected thereto, a motor embodying a casing having a sleeve through which the shaft is journaled and having a stator carried by the casing, a second sleeve mounted for rotation upon the first sleeve, the rotor of the motor being carried by the second sleeve, and coöperable clutch devices carried by the shaft and second sleeve.

1,139,211. STOVE. JACOB K. MOHLER, Ephrata, Pa. Filed May 28, 1912. Serial No. 700,301. (Cl. 126—67.)



A stove comprising; a casing, a top member supporting said casing, a fuel feeding tube supporting said top member, said fuel feeding tube having an enlarged lower portion, and a fire pot having a central aperture with an upturned flange therearound supporting said fuel feeding tube, said enlarged portion of said fuel feeding tube projecting into said fire pot, and said enlarged portion of said fuel feeding tube and said upturned flange combining to form a reinforcing joint and to prevent warping.

1,139,212. POT-HOLDER. JOHN T. MORGAN, Burlison, Tenn. Filed Apr. 10, 1914. Serial No. 831,080. (Cl. 126—30.)



In combination with a supporting body, a band, a segmentally shaped grate member consisting of side plates and interposed segmentally shaped relatively spaced grate bars, eyes on the band, and hooks carried by the eyes and connecting with the grate member to swingingly support the same on the supporting body.

1,139,213. NEGATIVE-POLE PLATE FOR ALKALINE STORAGE BATTERIES. WILLIAM MORRISON, Des Moines, Iowa. Filed Aug. 6, 1913. Serial No. 783,428. (Cl. 204—29.)

1. The process of producing a compound for use in reversible alkaline batteries, which comprises electrolytically reducing a compound containing zinc and titanium in the presence of an alkaline electrolyte.

2. The process of producing a compound for use in reversible alkaline batteries, which comprises electrolytically reducing a mixture containing a zinc-titanium compound and a substance containing mercury in the presence of an alkaline electrolyte.

3. The process of making electrodes for use in reversible alkaline batteries, which comprises combining a zinc compound with a titanium compound, thereby forming a zinc-titanium compound, collecting the said zinc-titanium compound and applying it to a support for a battery electrode.

4. The process of making electrodes for use in reversible alkaline batteries, which comprises mixing solutions containing a zinc compound and a titanium compound, thereby forming a zinc-titanium compound, mixing said zinc-titanium compound with a substance containing mercury and applying said mixed mass to a support for a battery electrode.

5. The process of making electrodes for use in reversible alkaline batteries, which comprises mixing solutions of a zinc salt and of a soluble titanate, thereby forming an insoluble zinc-titanium compound, collecting said compound and applying it to a support for a battery electrode.

[Claims 6 to 16 not printed in the Gazette.]

1,139,214. ELECTROLYTE FOR SECONDARY BATTERIES. WILLIAM MORRISON, Des Moines, Iowa. Filed Sept. 11, 1914. Serial No. 861,270. (Cl. 204—29.)

1. An electrolyte for secondary batteries, comprising a solution of a titanium compound.

2. An electrolyte for secondary batteries, comprising an acid solution of a titanium compound.

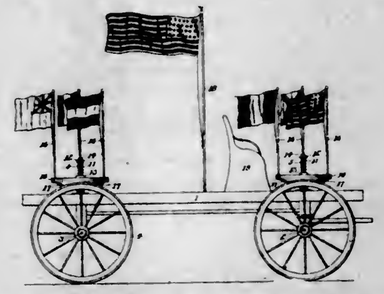
3. An electrolyte for secondary batteries, comprising a sulfuric acid solution of a titanium compound.

4. An electrolyte for secondary batteries, comprising a sulfuric acid solution of titanic acid.

5. A secondary battery, comprising electrodes and an electrolyte containing a titanium compound dissolved therein.

[Claims 6 to 8 not printed in the Gazette.]

1,139,215. DISPLAY-WAGON. CHARLES H. NORTHRUP, Oaks, Pa. Filed Sept. 22, 1914. Serial No. 863,040. (Cl. 46—48.)



1. In a display wagon, the combination with a vehicle frame and its traction wheels, of a vertically-disposed spindle, a disk mounted thereon, spring devices for insuring the engagement of the disk with the adjacent traction wheel, and means carried by said disks for imparting an undulatory movement to said disks.

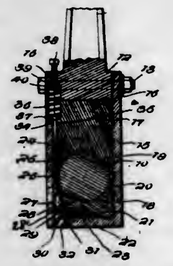
2. In a display wagon, the combination with a vehicle frame and its traction wheels, of a vertically-disposed spindle, a disk mounted thereon, spring devices for insuring the engagement of the disk with the adjacent traction wheel, and means carried by said disks for imparting an undulatory movement to said disks, comprising a plurality of cams on the under surface of said disk adapted to successively engage the peripheries of the traction wheels.

3. A display wagon comprising a vehicle body, traction wheels therefor, a plurality of vertical spindles supported upon the vehicle frame, a rotatable disk centrally mounted on each of said spindles, springs above and below said disks, flags supported on said disks, and means for ini-

parting an undulatory movement to said disks consisting of cams on the under sides of the disks adapted to engage said traction wheels.

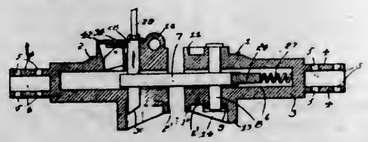
4. A display wagon comprising a vehicle body, traction wheels therefor, a plurality of vertical spindles supported upon the vehicle frame, a rotatable disk centrally mounted on each of said spindles, springs above and below said disks, flags supported on said disks, means for imparting an undulatory movement to said disks consisting of cams on the under sides of the disks adapted to engage said traction wheels, and universal connections between said spindles and the vehicle frame.

1,139,216. BEARING FOR CONNECTING-RODS. LEO E. OHR, Biloxi, Miss. Filed Apr. 4, 1913. Serial No. 758,976. (Cl. 74—17.)



A bearing for connecting rods including a rod, a yoke carried by the rod, bearing blocks arranged within the yoke and disposed to embrace a crank shaft, the first of said blocks being provided with a longitudinally extending recess, the second of said blocks being provided with an arcuate recess, a wedge including a shank and a head member, said head member being provided with a rounded shoulder, the shank being slidably received within the longitudinal recess of the first-mentioned block, said shoulder being received in the initial position of the blocks in the arcuate recess of the second-mentioned block, and a second-wedge member interposed between the terminal of the yoke and the adjacent face of the second-mentioned bearing block, the terminal of the second wedge member being engageable by the adjacent face of the said wedge head, and yieldable means engaging the shank of the first-mentioned wedge for holding the head thereof in engagement with the second-mentioned wedge.

1,139,217. CAR-COUPLING. LOUIS OLCSVARY, Lemont Furnace, Pa. Filed May 28, 1914. Serial No. 841,527. (Cl. 213—51.)

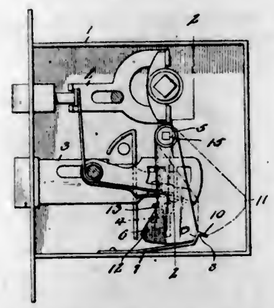


1. A car coupling device including coacting coupling members, a coupling link pivoted to one of the coupling members and having a slot in its outer end, the other of the coupling members having a longitudinal opening therein to receive the coupling link and a vertical opening communicating with the longitudinal opening, a coupling pin slidably mounted in the vertical opening, and means to releasingly support the coupling pin in up position so that it may be dropped through the slot in the coupling link comprising a block slidable in the vertical opening and extending into the longitudinal opening to be moved upwardly when engaged by the coupling link, a latch plate pivoted on said block, guide lugs on the sides of the latch plate, and the side walls of the recess of the vertical opening at the upper portion thereof being provided with upwardly and rearwardly inclined grooves to receive the guide lugs whereby the block is moved upwardly in a rearwardly inclined plane, said lock plate to coöperate with the coupling pin to hold the pin in up position, and to be moved away from supporting relation to the pin when the link engages the blocks and pushes the same upwardly.

2. A car coupling device including coacting coupling members, a coupling link carried by one of the coupling members and having a slot in its outer end, the other of the coupling members having a longitudinal link receiving opening therein and a vertical opening communicating with the longitudinal opening, a block slidable within the longitudinal opening and having its lower face beveled and extended within the longitudinal opening to be engaged and moved upwardly by said link, a coupling pin vertically slidable in the last named coupling member and means carried by said block to engage and hold said pin in up position, normally and to release said pin when the block is moved upwardly.

3. A car coupling device including coacting coupling members, a coupling link carried by one of the coupling members and having a slot in its outer end, the other of the coupling members having a longitudinal link receiving opening therein and a vertical opening communicating with the longitudinal opening, a block slidable within the longitudinal opening and having its lower face beveled and extended within the longitudinal opening to be engaged and moved upwardly by said link, a coupling pin vertically slidable in the last named coupling member, means carried by said block to engage and hold said pin in up position, normally and to release said pin when the block is moved upwardly, and means to guide said block in its upward movement whereby it is caused to move upwardly and rearwardly.

1,139,218. LOCK. OSCAR J. OLM, Minneapolis, Minn., assignor of one-half to Gustav Monasch, Minneapolis, Minn. Filed Jan. 27, 1914. Serial No. 814,756. (Cl. 70—8.)

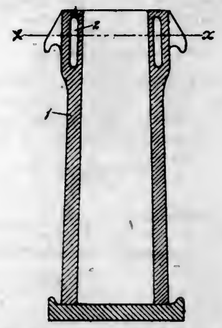


In a lock, a casing having a key hole, a shaft journaled in the casing and having a depending shield member integral therewith arranged to operate over the key hole, an escutcheon plate having a key hole slot therein, a squared shaft provided with a circular collar and a key extending radially therefrom, said key adapted to enter the key hole slot and prevent the removal of the shaft from the door, said shaft arranged to connect with the shaft having the shield thereon, a knob for operating the second shaft and a spring locking member carried by the casing and adapted to hold the shield in operative or inoperative position.

1,139,219. INGOT-MOLD. JOSEPH I. PEYTON and SAMUEL E. HITT, Sydney, Nova Scotia, Canada. Filed Aug. 22, 1914. Serial No. 858,078. (Cl. 22—147.)

1. An open top ingot mold having a vacuum chamber formed in its side walls and spaced from the top of the mold to provide a relatively thick upper wall for such vacuum chamber.

2. An open top ingot mold having a vacuum chamber formed in its side walls and spaced from the top of the mold to provide a relatively thick upper wall for such vacuum chamber, the upper portion of the mold walls being thickened to provide heavy lower and outer walls for such vacuum chamber.



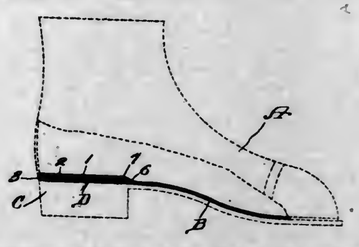
3. An open top ingot mold having a vacuum chamber in the upper portion of its side walls, a manually-operated closure secured to the outer face of the mold in communication with such vacuum chambers, and a protecting hood projecting from the mold above said closure.

4. An open top ingot mold having a vacuum chamber in the upper portion of its side walls, a manually-operated closure secured to the outer face of the mold in communication with such vacuum chamber, a protecting hood projecting from the mold above said closure, a shield pivoted beneath said hood for inclosing said closure, and means for clamping said shield in closed position.

5. An open top ingot mold having a vacuum chamber in the upper portion of its side walls, a closure for such vacuum chamber secured to the mold, an actuating handle for said closure, a shield for inclosing said closure and confining said actuating handle against shifting, and means for clamping said shield in closed position.

[Claim 6 not printed in the Gazette.]

1,139,220. HEEL-GUARD FOR BOOTS OR SHOES. EDWARD C. POND, Petersburg, Va. Filed June 26, 1912, Serial No. 706,071. Renewed Oct. 20, 1914. Serial No. 867,663. (Cl. 36—1.)

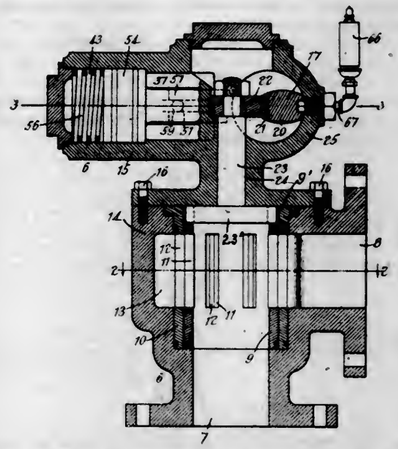


1. The combination with a boot or shoe having an insole of a heel protecting device therefor comprising a plate overlying the heel portion of the insole; a metallic plate overlying said plate and conforming therewith; and means along the outer edges of said metallic plate engaging with and secured to the heel portion of the insole along the outer edges thereof, substantially as described.

2. The combination with a boot or shoe having an insole of a heel protecting device therefor comprising a metallic plate overlying the heel portion of the insole; a metallic plate overlying said plate and conforming therewith; and a plurality of tongues formed integral with the second named plate along the outer edges thereof, some of said tongues being bent around and against the inner metallic plate, and other of said tongues being bent around and against the heel portion of the insole, substantially as described.

3. The combination with a boot or shoe having an insole of a heel protecting device therefor comprising a plate overlying the heel portion of the insole; and means along the outer edges of said plate engaging with and secured to the heel portion of the insole along the outer edges thereof, substantially as described.

1,139,221. STOP-VALVE. WILLIAM G. POTTER, Marblehead, Mass. Filed Jan. 19, 1914. Serial No. 813,056. (Cl. 137—7.)



1. A stop valve embodying a casing having an inlet and an outlet passage and a rotary member in said casing adapted to alternately open and close said passages when rotated in either direction, mechanism adapted to rotate said rotary member in opposite directions including a reciprocatory piston and a fluid pressure cylinder in which said piston is adapted to reciprocate, independent sources of fluid pressure connected to said cylinder at opposite ends of said cylinder, respectively, and fluid pressure operated means adapted to lock said piston in a predetermined position.

2. A stop valve embodying a casing having an inlet and an outlet passage and a rotary member in said casing adapted to alternately open and close said passages when rotated in either direction, mechanism adapted to rotate said rotary member in opposite directions, including a reciprocatory piston and a fluid pressure cylinder in which said piston is adapted to reciprocate, and independent sources of fluid pressure connected to said cylinder at opposite ends of said piston, respectively.

3. A stop valve embodying a casing having an inlet and an outlet passage and a rotary member in said casing adapted to alternately open and close said passages when rotated in either direction, a gear fast to said rotary member, a piston with a rack thereon meshing into said gear, a cylinder in which said piston is adapted to reciprocate and independent sources of fluid pressure connected to said cylinder at opposite ends of said piston, respectively.

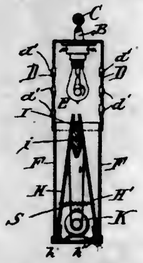
4. A stop valve embodying a casing having an inlet and an outlet passage and a rotary member in said casing adapted to alternately open and close said passages, mechanism adapted to rotate said rotary member in opposite directions including a reciprocatory piston and a fluid pressure cylinder in which said piston is adapted to reciprocate, independent sources of fluid pressure connected to said cylinder at opposite ends of said piston, respectively, and fluid pressure operated means adapted to lock said piston in a predetermined position.

5. A stop valve embodying a casing having an inlet and an outlet passage and a rotary member in said casing

adapted to alternately open and close said passages when rotated in either direction, mechanism adapted to rotate said rotary member in opposite directions, including a reciprocatory member with piston heads at the ends thereof, respectively, a fluid pressure cylinder in which said piston heads are adapted to reciprocate, and independent sources of fluid pressure connected to said cylinder at opposite ends of said reciprocatory member, respectively, said casing having a fluid pressure chamber opening into said fluid pressure cylinder between said piston heads and connected to both of said independent sources of fluid pressure and a stem on said rotary member projecting into said fluid pressure chamber and a check valve interposed between each of said sources of fluid pressure and said fluid pressure chamber.

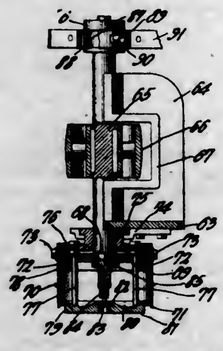
[Claims 6 to 11 not printed in the Gazette.]

1,139,222. ILLUMINATED SIGN. FRANK N. POULALION, Des Moines, Iowa. Filed Mar. 27, 1914. Serial No. 827,635. (Cl. 40—132.)



A sign, comprising a casing, sign plates on opposite sides thereof, spaced apart and having light pervious characters thereon, covers for said sign plates having a space between them, an elongated cam mounted to rotate in said space between the covers directly engaging the covers and at times holding them in closed position, means for rotating said cam and a spring for moving the covers to open position when released by the cam.

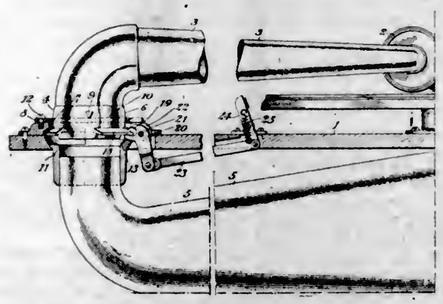
1,139,223. MACHINE FOR HEADING AND BORING BASKET-BOTTOMS. WILEY H. PRIDGEN, Creek, N. C. Filed Mar. 19, 1914. Serial No. 825,894. (Cl. 144—23.)



1. A rotating cylindrical saw for cutting disks from the stock, an ejecting disk surrounded by the saw and adapted to engage the stock during the movement of the saw into and out of the stock, thus to clamp the stock and to eject the cut disk from the saw, said ejecting disk having an annular channel for the reception of sawdust during the cutting operation.

2. A rotating cylindrical saw for cutting disks from the stock, an ejecting disk surrounded by the saw and adapted to engage the stock during the movement of the saw into and out of the stock, thus to clamp the stock and to eject the cut disk from the saw, said ejecting disk having an annular channel for the reception of sawdust during the cutting operation, there being a central opening within the ejecting disk, a boring element movable through said opening and into the stock during the cutting of the stock, and means for closing the opening in the ejecting disk during the operation of the boring element.

1,139,224. TALKING-MACHINE. WALTER HYER PUMPHREY, New York, N. Y., assignor to American Graphophone Company, Bridgeport, Conn., a Corporation of West Virginia. Filed Oct. 5, 1911. Serial No. 652,916. (Cl. 181—3.)



1. In a talking machine, the combination of a tone-arm supporting ring provided with a bearing surface, and a tone-arm arranged to have both vertical and horizontal movements, the axes of which movements intersect in the plane of said bearing surface.

2. In a talking machine, the combination of a horizontally disposed tone-arm supporting ring provided with a bearing surface, and a tone-arm shaped at one end as a portion of a sphere, and arranged to have both vertical and horizontal movements, the axes of which movements intersect in the plane of said bearing surface.

3. A tone-arm shaped exteriorly at one end as a portion of a sphere, and a mounting for the spherical end of the arm comprising a member having two annular surfaces relatively arranged to contact with the arm only in a plane passing through the center of the sphere, one of said surfaces forming a bearing surface.

4. A tone-arm shaped exteriorly at one end as a portion of a sphere and a mounting for said spherical end of the arm comprising a member having two annular surfaces relatively arranged to contact with the arm only in a plane passing through the center of the sphere, one of said surfaces forming a bearing surface, and retaining means for the arm above said bearing surface.

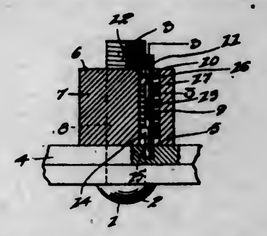
5. A tone-arm shaped exteriorly at one end as a portion of a sphere and a mounting for the shaped end of the arm comprising a bearing member having two annular surfaces relatively arranged to contact with the arm only in a plane passing through the center of the spherical portion thereof, and a removable retaining ring for the arm above the bearing member.

[Claims 6 to 11 not printed in the Gazette.]

1,139,225. NUT-LOCK. JAMES PURSSELLEY, Drumright, Okla., assignor of one-fourth to Robert L. Yarbro and one-fourth to Wiley C. Jones, Drumright, Okla. Filed Oct. 8, 1914. Serial No. 865,674. (Cl. 151—34.)

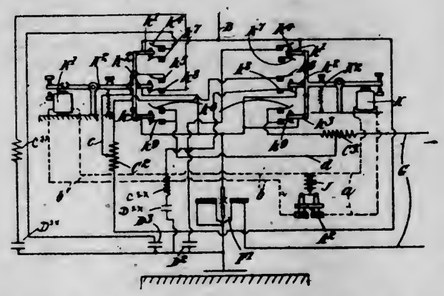
A nut lock including a body having a central bore extending therethrough, said central bore being screw threaded and arranged to fit the shank of the bolt, the body also having a parallel bore extending partially therethrough, a closure at one end of the bore, said closure being provided with a double keyhole slot, a stem slidable in the parallel bore, said stem being of less diameter than

the bore, an enlargement near the lower terminal of the stem, said enlargement being of substantially the same diameter as the bore, and free to slide therein, a transverse bar on the stem near its upper end, said bar being of a size to permit the same to pass through the double keyhole slot, and a coil spring surrounding the stem and arranged



to exert downward pressure on the enlargement to force the stem downwardly and into engagement with the article which is being clamped when the device is in use, the transverse bar being arranged to pass through the keyhole slot and engage the under side of the end closure to hold the same against accidental displacement.

1,139,226. RADIOTELEGRAPHY. EDWARD RAYMOND-BARKER, Wimbledon, England, assignor to The Amalgamated Radio-Telegraph Company, Limited, London, England. Filed Jan. 9, 1908. Serial No. 410,014. (Cl. 250—9.)

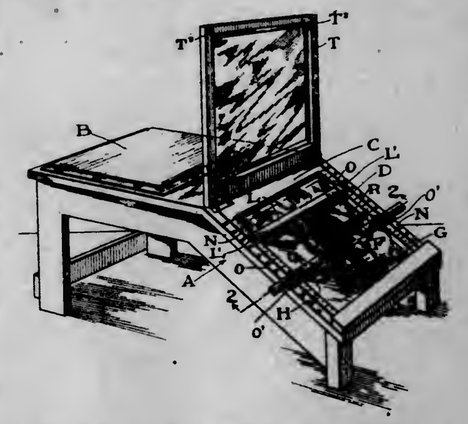


1. In radio-telegraphy, the combination with an elevated conductor system, electric arcing means, a pair of arc-shunting circuits containing capacity and inductance adjusted to produce undamped electrical oscillations of a known wave length, one of said shunt circuits being associated with the elevated conductor system, another pair of arc-shunting circuits adjusted to produce undamped electrical oscillations of a different wave length, one of said circuits being associated with the elevated conductor system, means for normally keeping the electric arcing means in connection with the arc-shunting circuits that are unassociated with the elevated conductor system and means for breaking the aforesaid connections and making connections between the arcing means and the arc-shunting circuits that are associated with the elevated conductor system in a predetermined order and for equal intervals of time so that the elevated conductor system emits signals composed of elements equal in time value but differing in wave-length.

2. In radio-telegraphy, the combination with an elevated conductor system, electric arcing means, a pair of arc-shunting circuits containing capacity and inductance adjusted to produce undamped electrical oscillations of a known wave length, one of said shunt circuits being associated with the elevated conductor system, another pair of arc-shunting circuits adjusted to produce undamped electrical oscillations of a different wave length, one of said circuits being associated with the elevated conductor system, means for normally keeping the electric arcing means in connection with the arc-shunting circuits that are unassociated with the elevated conductor system, electromagnetic devices for actuating the aforesaid connecting means to break the aforesaid connections and to make connections between the arcing means and the arc-shunting circuits that are associated with the elevated conductor system, and means for actuating the said electromagnetic devices for equal intervals of time and in a predetermined order.

3. In radio-telegraphy, the combination with an elevated conductor system, electric arcing means, a pair of arc-shunting circuits containing capacity and inductance adjusted to produce undamped electrical oscillations of a known wave length, one of said shunt circuits being associated with the elevated conductor system, another pair of arc-shunting circuits adjusted to produce undamped electrical oscillations of a different wave length, one of said circuits being associated with the elevated conductor system, means for normally keeping the electric arcing means in connection with the arc-shunting circuits that are unassociated with the elevated conductor system, means for breaking the aforesaid connections and making connections between the arcing means and the arc-shunting circuits that are associated with the elevated conductor system in a predetermined order and for equal intervals of time so that the elevated conductor system emits signals composed of elements equal in time value but differing in wave-length, and means for recording the order in which the oscillation producing systems render the elevated conductor system emissive.

1,139,227. SHOE-FITTING STOOL. ALLEN TROUSDALE REED, Byers, Tex. Filed July 30, 1914. Serial No. 854,122. (Cl. 33—3.)

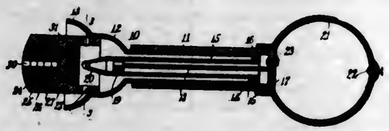


A shoe fitting stool having an inclined frame with glass therein, angle plates engaging over the edges of said frame and provided with threaded projections, slotted measuring bars through which said projections are adapted to pass, nuts fitted upon threaded ends of said projections for holding the slotted bars in adjusted positions, a measuring bar rising from the inner end of each of said slotted measuring bars, and a measuring bar connecting the upper ends of said measuring bars which rise from the inner ends of said slotted bars and adapted to pass over the instep of a foot to be measured.

1,139,228. LATHER-PRODUCING DEVICE. HERMANN REICHE, Millstone, N. J. Filed July 28, 1910. Serial No. 574,268. (Cl. 132—15.)

1. In a lather producing device, a body composed of materials adapted when combined with a liquid to spontaneously generate lather, said body having passages for said lather, a handle, a holder for said body, and means for ejecting said lather through said passages.

2. In a lather producing device, a body composed of materials, adapted when combined with a liquid, to spontaneously generate lather, said body having passages for said lather, a handle, a holder for said body, means for adding a liquid to said body, and means for electing said lather through said passages.



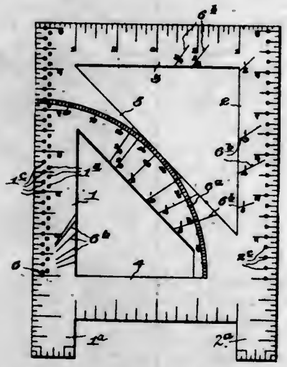
3. In a lather producing device, a body composed of materials, adapted when combined with a liquid, to spontaneously generate lather, a holder therefor, a telescopic handle to which the holder is attached, said handle having two sections, a cylinder attached to one section thereof, and a piston disposed within said cylinder and attached to the other section thereof, adapted upon a relative lengthwise movement of the sections of said handle to eject a liquid to said body.

4. In a lather producing device, a body composed of materials, adapted when combined with a liquid, to spontaneously generate lather, said body having passages for the escape of said lather, a handle, a holder for said body, and means comprishing a collapsible bulb and a conduit leading to said body for adding air to and ejecting the lather through said passages.

5. In a lather producing device, a body composed of materials, adapted when combined with a liquid, to spontaneously generate lather, said body having passages for the escape of said lather, a handle, a holder for said body, means for adding a liquid to said body, means for ejecting said lather through said passages, and a flange attached to said holder and surrounding said body.

[Claims 6 to 9 not printed in the Gazette.]

1,139,229. SQUARE. RALPH WALDO REQUA, Chico, Cal. Filed Aug. 5, 1914. Serial No. 855,112. (Cl. 33—104.)



1. A square composed of parallel side members, two parallel top and bottom members connecting the side members, a diagonally arranged member connected with the other members, said side and end members being scaled on their edges and said diagonal member having scores adapted to indicate various angles relative to the edge of the bottom member, a guide flange attached to the reverse side of said square, and a pivot pin adjustably connected therewith.

2. An instrument for the purpose specified, comprising two parallel side members, two parallel top and bottom members at right angles to and connecting the side members, the ends of the side members extending below the bottom member, said members being scaled on their outer faces and the side members being perforated, and a diagonally arranged member connected with the other members and scored to indicate various angles relative to the edge of the bottom member.

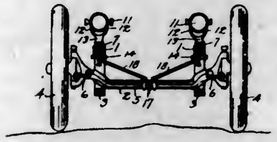
3. A square composed of parallel side members, two parallel top and bottom members connecting the side members, a diagonally arranged member connected with the other members, said side and end members being scaled on their edges and said diagonal member having scores to indicate various pitches relative to the edge of the bottom member, a guide flange attached to the reverse side of said square, and a pivotal pin connected with the square, substantially as set forth.

4. A square for the purpose specified, comprising parallel side members, top and bottom members connecting said members at right angles thereto, the side members extending below the bottom member, a diagonally arranged member connected at the opposite corners of the square, said side members being provided with scales and perforations, and said diagonal member being provided with a protracting scale, and with scoring lines radiating from an opening in one of the side members, a guide flange attached to the reverse side of said square, and a pivot pin adjustably connected therewith adjacent said opening.

5. A square for the purpose specified having four members forming a right-angled frame, each provided with a scale whereby measurements may be made on lines drawn along any or all of the four sides of such frame, a straight edged member extending diagonally across the frame at an angle of forty-five degrees, each side member of the frame extending below the bottom member thereof, substantially as specified.

[Claims 6 and 7 not printed in the Gazette.]

1,139,230. AUTOMOBILE HEADLIGHT-CONTROL MECHANISM. FRANK P. ROBERTS, Tacoma, Wash. Filed Feb. 3, 1912. Serial No. 675,231. (Cl. 240—62.)

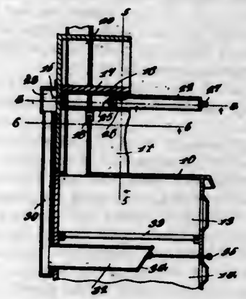


1. In combination with a vehicle having a frame beam, a base mounted thereon, said beam and base having alining openings extending therethrough, a ball race on said base, arcuate recesses on the opposing sides of said opening in said base concentric to said ball race, said base having parallel sides, a lamp stand formed in conformity with said base and having sides parallel with said base sides, arcuate tongues adapted to operate in said recesses, said stand having a central pin adapted to project through said openings and a right angular arm on said pin whereby said stand may be rotated.

2. In combination with a vehicle having a frame beam, a base mounted thereon, said beam and base having alining openings extending therethrough, a ball race on said base, arcuate recesses on the opposing sides of said opening in said base concentric to said ball race, said base having parallel sides, a lamp stand formed in conformity with said base and having sides parallel with said base sides, arcuate tongues adapted to operate in said recesses, said stand having a central pin adapted to project through said openings and a right angular arm on said pin and means for rotating said stand in unison with the steering mechanism of said vehicle.

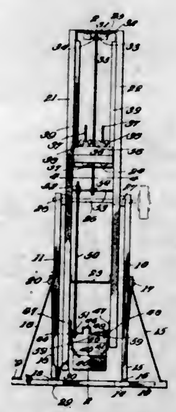
1,139,231. STOVE. ANDREW W. ROTH, River Aux Vases, Mo. Filed Apr. 15, 1914. Serial No. 832,100. (Cl. 126—17.)

A stove provided with a fire box and with an ash pit beneath said fire box, a back for said stove, a housing carried by said back, a conduit leading from said housing, an arm leading from said conduit into said ash pit and extending through the same for a relatively great extent, a closure for the inner end of said arm adjustably con-



nected with the arm and means for releasably holding said closure in an adjusted position.

1,139,232. ROTARY SWING. FREDERICK SCHWARZ, Berne, Ind. Filed July 13, 1914. Serial No. 850,748. (Cl. 46—27.)



1. A swing of the character described including a supporting frame, a body member mounted for rotation in the frame, a passenger seat supported at one end of the body member, a counterpoise mounted at the other terminal portion of the body member, and means operable from the passenger seat for adjusting the counterpoise longitudinally with respect to the body member, said means including a crank terminally journaled in the side members of the body member and disposed within reach of the passenger seat, and flexible means operatively connecting the crank to the counterpoise.

2. A swing of the character described including a supporting frame, an axle carried thereby, a body member consisting in a frame journaled intermediate its length on the axle and adapted to rotate thereabout, a passenger seat supported at one end of the body member, a crank carried by the body member and disposed within reach of the pasenger seat, a counterpoise mounted at the end of the body member opposite to the passenger seat, a chain secured at its terminals to the counterpoise, longitudinally spaced sprockets carried by the body member, said chain operating over said sprockets, and a chain operatively connecting the crank to one of said sprockets whereby the counterpoise may be adjusted longitudinally of the frame from the passenger seat.

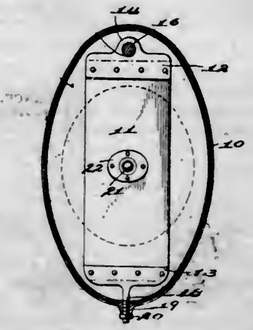
3. A swing of the character described including a supporting frame, a body member rotatable therein, a passenger seat suspended at one end of the body member, a counterweight mounted at the other end of the body member, longitudinally extending guide members for supporting and guiding the counterweight, a crank journaled in the body member within reach of the passenger seat, and flexible means operatively connecting the crank to the counterweight whereby the counterweight may be adjustable longitudinally of the body member from the passenger seat.

4. A swing of the character described including a supporting frame, a body member rotatably mounted therein, a passenger seat suspended at one terminal to the body member, a counterweight mounted for longitudinal movement at the other terminal of the body member, said counterweight including a plurality of bar members and fastening members connecting the bars, and means operable from the passenger seat for adjusting the counterweight longitudinally of the body member.

5. A swing of the character described including a supporting frame, a body member rotatable therein, a passenger seat suspended at one end of the body member, a counterweight adjustable longitudinally at the other end of the body member, guide members carried by the body member and serving to support and guide the counterweight, longitudinally spaced sprockets mounted in the body member at one side of the center thereof, a chain engaging the sprockets and terminally connected to the counterweight, a crank journaled in the body member within reach of the passenger seat, and a chain operatively connecting the crank to the first-mentioned chain whereby the counterweight may be adjusted longitudinally within the body member from the passenger seat.

[Claims 6 and 7 not printed in the Gazette.]

1,139,233. AUTOMOBILE-HORN. CONCETTA PASCALE SCOGNAMILLO, New York, N. Y. Filed Mar. 31, 1914. Serial No. 828,617. (Cl. 116—1.)



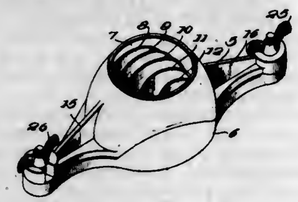
1. In a signaling device or horn, a resonator, an inclosure, a vibrating flat strip in the inclosure adjacent to the resonator, said flat strip having securing means at opposite extremities and being free at opposite sides, the said flat strip constituting the diaphragm of the device or horn and the sole sound producing vibrating means, and mean intermediately and directly engaging and causing said strip to vibrate.

2. In a signaling device or horn, a resonator, an inclosure, a vibrating flat strip within the inclosure adjacent to the resonator and having the sides free and the opposite extremities secured, the flat strip constituting the diaphragm means of the device or horn and one of the extrmities provided with an adjusting means to vary the tension and the tone quality of the strip, the inclosure on opposite sides of the free sides of the strip being fully open to the resonator, and rotary means intermediately and directly engaging a portion of and causing the said strip to vibrate to produce a loud signaling sound.

3. In a signaling device or horn, a resonator, an inclosure to which the resonator is attached, a resilient vibrating strip within the inclosure adjacent to the resonator and constituting the diaphragm of the device or horn, the said strip having opposite free sides and re-

tained ends and provided with a projection between its sides and ends, means for changing the tension of the strip to vary the sound emitted thereby, and means directly engaging said projection for causing the strip to vibrate.

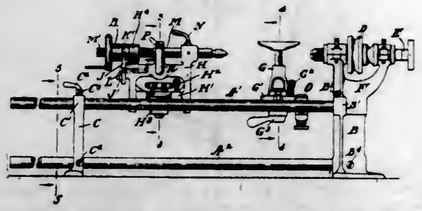
1,139,234. VULCANIZER. DANIEL RAYMOND SEARLES, Tiffin, Ohio. Filed July 30, 1913. Serial No. 781,960. (Cl. 18—18.)



1. In a vulcanizer, a base member recessed on its under side and having an upwardly convexed central portion and wings extending therefrom, and an open upper member forming a liquid fuel-chamber and having a concaved bottom adapted to fit over the convex central portion of said lower member, wings extending from said upper member, and means for releasably securing the wings of said upper and lower members together, the lower ends of said securing means being housed in the recessed under side of said lower member.

2. In a vulcanizer, a base-member, an open hollow upper member adapted to fit over said base-member and having its wall inwardly converging toward said opening, the edge of the wall surrounding the opening overhanging the base portion of said upper member, and a plurality of arc-shaped heat-conducting plates arranged within said upper member, the inwardly converging wall of said upper member extending beyond the outer ends of said plates.

1,139,235. LATHE. WILLIAM E. SEVERANCE, Hoboken, N. J., assignor of one-half to Daniel Hartley, Newark, N. J. Filed Sept. 24, 1913. Serial No. 791,506. (Cl. 82—2.)



1. In a device of the character described, the combination of a plurality of standards, a plurality of bars horizontally disposed mounted in said standards, a tail-stock mounted on said bars to have free movement vertically with respect to one of them, and means for adjusting the limit of said movement.

2. In a device of the character described, the combination of a plurality of standards, a plurality of bars horizontally disposed mounted in said standards, a slide-rest mounted on said bars and freely slidable to and fro thereon and means for moving the said slide-rest vertically and for maintaining it in different positions thereon, said means permitting free vertical movement of the rest in one direction.

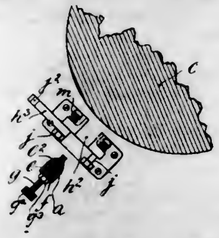
3. In a device of the character described, the combination of a plurality of standards, a plurality of bars horizontally disposed detachably mounted in said standards, and extending from one to the other, a tail-stock mounted on said bars to have horizontal movement thereon, and means for moving the said tail-stock vertically and for securing it in different vertical positions thereon.

4. In a device of the character described, the combination of a plurality of standards, a plurality of bars horizontally disposed one of which is detachably mounted in said standards, and extends from one to the other, a tail-stock mounted on said bars and means for moving the said tail-stock vertically and for securing it in different vertical positions thereon.

5. In a device of the character described the combination of suitable standards, a bar horizontally supported by said standards, a tool supporting member mounted to slide freely to and from the head on said bar, a second horizontal bar adjacent to the first and adapted to receive and support a portion of the said tool supporting device, means for moving the said supported portion to and from the said last named bar and for holding the same in different positions with respect to said bar, said holding means permitting additional movement of the supporting device in one direction angular to the bar.

[Claims 6 to 14 not printed in the Gazette.]

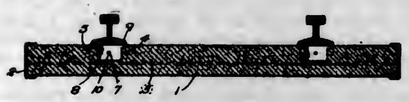
1,139,236. ADJUSTABLE SCRAPER FOR ROLLER-MILLS. FRANK STACEY, Birmingham, England. Filed Dec. 7, 1912. Serial No. 735,516. (Cl. 83—12.)



1. In combination, a roll scraper comprising a longitudinally grooved rigid bar and a flexible roll engaging strip adjustably fitted in the groove in said bar, and brackets supporting said bar and arranged to provide grooves in which the ends of said bar engage, said brackets including pivotally mounted cross bars which form the bases of said grooves and provide bearings for the bar of said scraper and which may be moved pivotally to withdraw their support from he bar of said scraper, and spring means holding said cross bars in normal position in opposition to the pressure exerted against the same by said scraper bar and permitting movement of said cross bars in the direction of the depth of said grooves.

2. In combination, a roll scraper comprising a longitudinally grooved rigid bar, and a flexible roll engaging strip fitted in the groove in said bar; and brackets supporting said bar and arranged to provide grooves in which the ends of said bar engage, the brackets including cross bars which form the bases of said grooves, bolts holding the cross bars to the bodies of the brackets, and springs upon said bolts acting in opposition to the pressure exerted by said scraper bar against said cross bars, the cross bars being mounted pivotally at one end thereof on one of their attachment bolts and at their other ends having slots to engage over the other attachment bolts.

1,139,237. RAIL-CLAMP. CLARENCE O. STORM, Kansas City, Mo. Filed July 10, 1914. Serial No. 850,132. (Cl. 238—4.)



1. The combination with a tie having a rectangular socket provided with laterally opening apertures, of a clamp comprising paired members having base blocks adapted to seat in the tie socket, and having transverse apertures adapted to register with said tie socket apertures and with each other, clamp lips spaced from the base blocks and extended laterally to overlie the adjacent base, and a bolt extending through the apertures in said base blocks and tie socket.

2. The combination with a tie having a rectangular socket provided with offset seats, of a rail clamp comprising paired members each having a base block adapted to seat in said socket, and a lipped portion on the block adapted to seat in the tie seat and spaced from the base block to clamp a rail.

3. The combination with a tie having a rectangular socket and a downset seat at each side of said socket, of a rail clamp comprising paired members each having a base block adapted to seat in said socket and lie flush with the top of said tie, an offset shoulder projecting laterally from said base block and adapted to rest on one of said downset seats, an upwardly inclined lip integral with said shoulder and extending laterally therefrom to overlie the adjacent block, and a bolt for holding said clamp to said tie.

1,139,238. WOVEN-WIRE-FENCE-FABRIC STRETCHER. SAMUEL W. TATE, Parma, Idaho. Filed Sept. 10, 1913. Serial No. 789,120. (Cl. 254—77.)



1. A wire fence stretcher comprising a pair of members united for relative longitudinal movement; means for producing relative longitudinal movement between said members; support engaging means on one member, whereby both members may be employed as a lever, one portion of said means being movable for assembly with a fence, at the completion of the lever-wise operation of the stretcher and being slidable along said member for assembly with the fence.

2. A wire fence stretcher comprising an inner tube; wire holding means assembled therewith; an outer tube in which the inner tube slides; a screw threaded into the inner tube and held for rotation but against longitudinal movement in the outer tube; a support-engaging projection on the outer tube; and a flexible element detachably secured at one end of the projection, the other end of the flexible element being slidable along the outer tube.

3. A wire stretcher embodying a main member; an auxiliary member mounted to move in the main member; a wire holder on the auxiliary member and located beyond one end of the main member; operating means connecting the main and auxiliary members and adapted to retract the auxiliary member and the wire holder, the operating means being reversible to advance the auxiliary member and the wire holder; and spaced lateral elements on the main member adapted to coöperate with a suitable support to permit an end for end reversal of the stretcher and to permit the stretcher to be employed as a lever, intermediate the retraction and the advancement of the auxiliary member, said elements, respectively, affording a thrust bearing, during the retraction and the advancement of the auxiliary member.

1,139,239. TORPEDO-GUARD. ERASMUS R. TRAMMELL, Lakeland, Fla. Filed Feb. 20, 1915. Serial No. 9,662. (Cl. 114—240.)

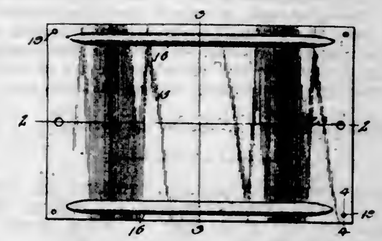
1. The combination with a vessel, of a series of folding curtains, a lazy-tong connection interposed between the vessel hull and curtain whereby the distance between the curtain and vessel may be adjusted.

2. The combination with the hull of a vessel, of a series of folding screens of sufficient rigidity to cause the explosion of mines or torpedoes, the upper hinged section of each curtain being provided with lazy-tong connections with the hull of the vessel, means whereby the lazy-tong connections may be actuated to move the screen outward or return it to proximity of the vessel hull above the water line.



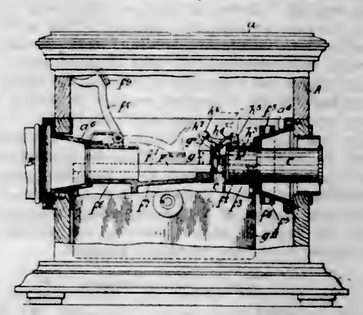
3. A series of curtains, each comprising a series of hinged sections of sufficient rigidity to cause the explosion of mines or torpedoes, lazy-tong connections interposed between the curtains and the hull of a vessel whereby the screen may be thrown outward and suspended a sufficient distance from the hull of the vessel to cause the explosion of mines or torpedoes a sufficient distance from the vessel to protect the same against injury resulting from the explosion.

1,139,240. TOE-BOARD. JOSEPH GODFREY VICHE, Duluth, Minn. Filed Dec. 13, 1913. Serial No. 806,687. (Cl. 57—18.)



A toe board consisting of a rectangular sheet of metal curved longitudinally and having upstanding rocker-shaped ribs of smaller radius than the curvature of the sheet on the convex side adjacent to the side edges thereof, said ribs constituting reinforcing braces, wheel guards and, when the toe board is overturned, runners for convenience in moving the device, the curvature of said runners being such that only limited portions thereof may at any time be in ground engaging position on a level surface.

1,139,241. OPTICOPICTORIAL APPARATUS. FERDINAND VON MADALER, West Drayton, England, assignor to The Rotary Photographic Company, Limited, London, England, a Corporation of Great Britain and Ireland. Filed Apr. 24, 1913. Serial No. 763,434. (Cl. 88—18.)



1. In optico-pictorial apparatus the combination of a lens, a support, means on said support adapted to receive and position a removable film holder, means for driving the film of said film holder past the lens and means for

directing said film onto the driving means during the positioning of the film holder on its support.

2. In optico-pictorial apparatus the combination of a lens, a support, means on said support adapted to receive and position a removable film holder, means for guiding the film of said film holder in the correct position relatively to the lens, means for moving said film past the lens, and means for directing said film onto the driving means during the positioning of the film holder on its support.

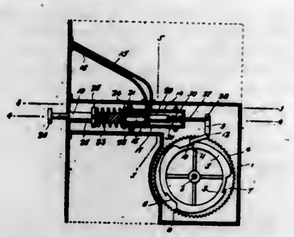
3. In optico-pictorial apparatus the combination of a lens, a table-like support, means carried thereby adapted to receive and position a removable film holder, means for guiding the film of said holder in the correct position relatively to the lens, means for removing said film past the lens, and curved guides for directing said film on to the driving means during the positioning of the film holder on its support.

4. In optico-pictorial apparatus the combination of a lens, a table-like support, means carried thereby adapted to receive and position a removable film holder, means for guiding the film of said film holder in the correct position relatively to the lens, means for moving said film past the lens, and a fixed and a movable curved guide for directing said film on to the driving means during the positioning of the film holder on its support.

5. In optico-pictorial apparatus the combination of a lens, a source of light, a support for a film adapted to rotate about an axis, that is approximately coaxial with the lens, means for clamping a removable film holder on said support with the film normal to the axis of the lens and means for intermittently moving said film past the lens.

[Claims 6 to 24 not printed in the Gazette.]
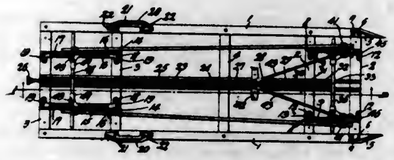
1,139,242. COIN-CONTROLLED VENDING OR ACTUATING MECHANISM. WALTER H. WALKER, Binghamton, N. Y. Filed May 15, 1914. Serial No. 838,818. (Cl. 194—55.)



In a coin controlled vending or actuating mechanism, the combination of a motor driven power transmitting element, having a peripheral portion divided to form locking notches and cam surfaces between said notches, a casing, a power transmitting plunger within said casing, a spring for yieldingly holding said plunger from movement and returning the same after actuation to normal position, a bell-crank detent pivotally coupled to said plunger and having a toothed portion to engage and cooperate with said notches and segmental cam surfaces, a second plunger movable within the casing and adapted to normally telescope with the first-named plunger and to be coupled thereto by a deposited coin, means for introducing a coin between said plungers, a spring for opposing motion of the second-named plunger and returning the same to normal position, and means for applying power to the second-named plunger.

1,139,243. VEHICLE-JACK. CHARLES E. WARNER, Ottawa, Kans. Filed May 14, 1914. Serial No. 838,565. (Cl. 57—15.)

1. In a vehicle jack, the combination with a base frame, of racks disposed in pairs and mounted on the frame, the racks of each pair being adjustable toward and from each other, segmental gears supported by the respective racks, shafts adjustably mounted within and supported by the gears and constituting connections therebetween, connecting rods, adjustable connections between said rods and the gears, and means carried by the gears for engaging and elevating the axles of a vehicle when brought into position thereagainst.



2. A vehicle jack including a base frame, front and rear rack bars supported thereby and disposed in pairs, the bars of each pair being adjustable toward and from each other, segmental gears mounted upon the respective rack bars, shafts connecting the gears and eccentrically mounted therein, connecting bars, adjustable connections between said bars and the corresponding front and back gears, upstanding axle engaging fingers upon the front gear, there being seats adjacent the fingers for the reception of the front axle of a vehicle, means carried by the rear gears for engaging and supporting the rear axle of a vehicle.

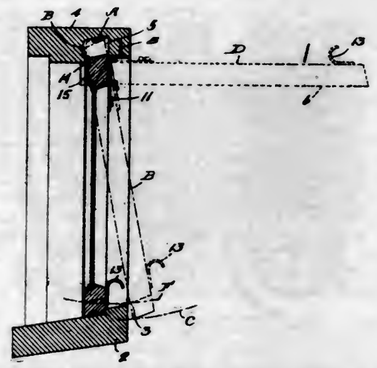
3. A vehicle jack including a base frame, front and rear rack bars supported thereby and disposed in pairs, the bars of each pair being adjustable toward and from each other, segmental gears mounted upon the respective rack bars, shafts connecting the gears and eccentrically mounted therein, connecting bars, adjustable connections between said bars and the corresponding front and back gears, upstanding axle engaging fingers upon the front gear, there being seats adjacent the fingers for the reception of the front axle of a vehicle, means carried by the rear gears for engaging and supporting the rear axle of a vehicle, the front rack bars having notches therein, and means carried by the front gears for engaging the notched portions of the bars to limit the rotation of the gears in one direction.

4. A vehicle jack including a base frame, front and rear rack bars supported thereby and disposed in pairs, the bars of each pair being adjustable toward and from each other, segmental gears mounted upon the respective rack bars, shafts connecting the gears and eccentrically mounted therein, connecting bars, adjustable connections between said bars and the corresponding front and back gears, upstanding axle engaging fingers upon the front gear, there being seats adjacent the fingers for the reception of the front axle of a vehicle, means carried by the rear gears for engaging and supporting the rear axle of a vehicle, and means for automatically holding the gears against return movement when shifted out of their normal positions.

5. A vehicle jack including a base frame, front and rear rack bars supported thereby and disposed in pairs, the bars of each pair being adjustable toward and from each other, segmental gears mounted upon the respective rack bars, shafts connecting the gears and eccentrically mounted therein, connecting bars, adjustable connections between said bars and the corresponding front and back gears, upstanding axle engaging fingers upon the front gear, there being seats adjacent the fingers for the reception of the front axle of a vehicle, means carried by the rear gears for engaging and supporting the rear axle of a vehicle, the front rack bars having notches therein, means carried by the front gears for engaging the notched portions of the bars to limit the rotation of the gears in one direction, and means for automatically holding the gears against return movement when shifted out of their normal positions.

[Claim 6 not printed in the Gazette.]

1,139,244. WINDOW. WILLIAM S. WARREN, Cambridge, Mass. Filed Sept. 8, 1913. Serial No. 788,554. (Cl. 20—53.)



1. In a device of the class described in combination with a window casing having a water excluding ledge and a groove in its cap piece said groove having an outer bearing edge, a sash having hinged connection to said casing, said connection permitting a relative movement sufficient to allow said sash to be entered into said groove and to be engaged under said bearing edge after it has been swung into open position.

2. In a device of the class described in combination with a window casing having a water excluding ledge and a recess in its cap piece, said recess providing an outer bearing edge, a sash normally bearing in closing position outside of said water excluding ledge and a hinge member connecting said sash and casing, said hinge member having a slot, a fixed element in said sash and working in said slot by which said sash may be either raised in said recess to clear said ledge when in closed position or be engaged under said bearing when in open position.

3. In a device of the class described, a window casing having a water excluding ledge, a lateral shoulder at the top of the casing, a sash having hinged connection to said casing, said connection permitting a relative movement sufficient to allow the upper edge of said sash to be engaged under said lateral shoulder after it has been swung into open position.

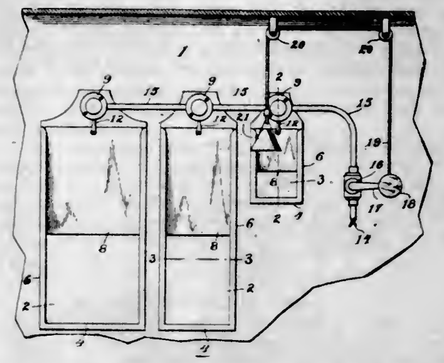
4. In combination with a window casing having a water excluding ledge on its sill and a lateral shoulder near its top, a sash, a slotted connecting element on said sash and a pivot element on said casing below said shoulder and entering said slot and having a lateral play therein sufficient to permit the engagement of said sash with said shoulder when said window is open.

1,139,245. GUARD FOR THE BOOTHS OF PICTURE-PROJECTING MACHINES. ARTHUR WERNER and RICHARD S. DENNISS, San Francisco, Cal. Filed July 17, 1914. Serial No. 851,674. (Cl. 88—17.)

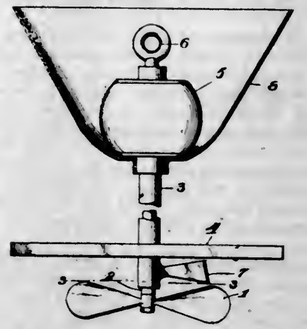
1. The combination with a booth of the class described having openings therein, of shutters capable of sliding movement to close the openings and normally in open position, fusible devices holding said shutters in normal position, a normally open electric circuit including fusible devices, and means for closing said circuit to blow the fuses.

2. The combination with a booth of the class described having openings therein, of shutters capable of sliding movement to close the openings and normally in open position, fusible devices holding said shutters in normal position, a normally open electric circuit including said fusible devices, and thermostatically controlled means for closing said circuit to blow the fuses.

3. The combination with a booth of the class described having openings therein, of shutters capable of sliding movement to close the openings and normally in open position, fusible devices holding said shutters in normal position, a normally open electric circuit including said fusible devices, a switch in said circuit, means disposed in proximity to the filament of the picture projecting machine within the booth and connected to said switch and adapted to hold the switch normally open and release the switch upon the filament becoming ignited, and means for actuating the switch to closed position upon the release thereof.



1,139,246. WATER-CALMING DEVICE. JESSE F. WHITE, Titusville, Fla. Filed Oct. 27, 1914. Serial No. 868,880. (Cl. 114—0.5.)



1. Means for calming turbulent water, embodying a submerged water lifting screw propeller revoluble on a substantially vertical axis, and driving mechanism for said propeller.

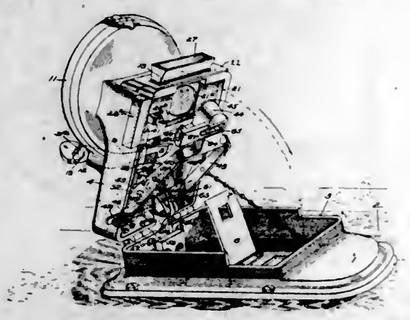
2. Means for calming turbulent water, embodying a submerged water lifting screw propeller revoluble on a substantially vertical axis, a substantially vertical shaft for driving said propeller, a housing for said shaft, a supporting base to which said housing is attached, and a suspension eye at the upper extremity of said housing.

3. Means for calming turbulent water, embodying a submerged water lifting screw propeller revoluble on a substantially vertical axis, a substantially vertical shaft for driving said propeller, a housing for said shaft, a supporting base to which said housing is attached, and a motor supported by said housing for driving said shaft.

1,139,247. TIME-STAMP. JOHN C. WILSON, Boston, Mass., assignor to The Automatic Time Stamp Company, Boston, Mass., a Corporation of Maine. Filed June 27, 1907. Serial No. 381,013. (Cl. 234—55.)

1. The combination of a die with a platen, means for operating the same to effect a printing operation, a card receiving pocket having a fixed stop, a support, a card positioning member mounted to slide on said support rela-

tively to said pocket, spring means tending to move said member away from said pocket, a card engaging element carried by said card positioned member, spring means tending to move said element away from said member, a cam member on said card positioning member and an operating member on said platen for engaging said cam member in the course of the printing operation automatically to shift said positioning member and cause said element yieldably to move the card to said fixed stop.



2. The combination of a die with a platen, a card receiving pocket having a fixed stop, a reciprocable card positioning member, a support for said member, spring means tending to slide said member away from said stop, a cam faced lug on said member and an arm on said platen for engaging said cam face and automatically shifting said member toward said stop in the course of the movement of said platen toward said die in making an imprint.

3. The combination of a die with a platen, a card receiving pocket interposed between them and having a fixed stop, a reciprocable card positioning member, a card engaging element, spring means tending to move said element away from said member, spring means for yieldingly maintaining said member and element as a unit normally out of said pocket to present a free and unobstructed card receiving interior for the pocket, and means for automatically shifting said unit toward said fixed stop to adjust an edge of the card to said stop in the course of the relative movement of said die and platen in making an imprint.

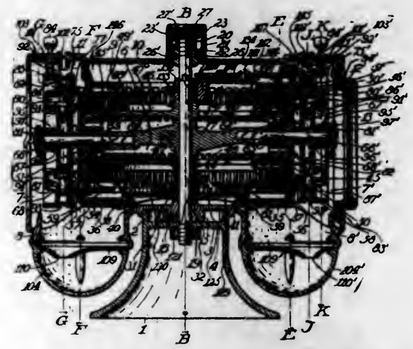
4. The combination of a die, a platen, a time train for actuating said die, a card receiving pocket interposed between said die and platen and having a fixed stop, a card positioning member having provision for engaging an edge of the card, a support for said member, spring means tending to slide said member along said support away from said stop and leave a free and unobstructed interior for the pocket and means for automatically shifting said member toward said stop in the course of relative movement of the die and platen to adjust an edge of the card to said fixed stop.

5. The combination of a casing, with a die, a platen, a time train for actuating said die, a card receiving pocket interposed between said die and platen and having a fixed stop, a card positioning member having provision for engaging an edge of the card, means tending to slide said member away from said stop, and means for automatically shifting said member toward said stop in the course of relative movement of the die and platen to adjust the opposite edge of the card thereto.

[Claim 6 not printed in the Gazette.]

1,139,248. VENDING-MACHINE. JOHN WINKELMEYER, Greenfield, Ind., assignor to Specialty Manufacturing Company, Greenfield, Ind., a Corporation of Indiana. Filed Nov. 3, 1911. Serial No: 658,404. (Cl. 211—8.)

1. A vending machine including a magazine comprising two oppositely arranged plates spaced apart, divisional projections on one extending to the opposite one of the plates, and guide ribs on the inner side of one of the plates extending from the projections and also toward but not to the opposite one of the plates.



2. A vending machine including a rotary magazine having gear teeth, a rotary pinion engaging the gear teeth and having a disk thereon, a rotary wheel adjacent the disk, and a spring interposed substantially between the wheel and the disk for forcing the disk and the wheel rotatably in relatively opposite directions.

3. A vending machine including a rotatable magazine having peripheral pockets, an ejector movable into or out of the pockets, means for frictionally retarding movement of the ejector, and means intermittently acting automatically to move the ejector and overcoming the retarding means successively following rotation of the magazine.

4. A vending machine including a rotary magazine, rotary gearing for rotating the magazine, a lock for preventing rotation of the magazine, a wheel rotatably mounted adjacent the gearing, means for making yielding operative connection between the wheel and the gearing to rotate the magazine, and means for retracting the lock in advance on movement of the wheel to operate the gearing.

5. A vending machine including an upright cylindrical casing having an aperture therein, an annular magazine rotatably mounted in the casing with its periphery opposite the aperture, the magazine having pockets in its periphery, means for rotating the magazine, a push-bar mounted in the casing and movable into the pockets toward the aperture, and a friction brake automatically acting to retard the movement of the push-bar.

[Claims 6 to 35 not printed in the Gazette.]

1,139,249. FRICTION-CLUTCH. OLIN M. ALEXANDER, Anniston, Ala. Filed Dec. 4, 1914. Serial No. 875,535. (Cl. 192—3.)



1. The combination of driving and driven co-acting clutch elements, one comprising a ring and the other comprising a radially expansible member mounted within the ring, a shaft carrying the radially expansible member and having flat longitudinal faces, and wedge fingers mounted to slide along said flat faces and operative to expand said radially expansible member.

2. The combination of driving and driven co-acting clutch elements, one comprising a ring and the other comprising a disk mounted within the ring and formed in sections, a shaft carrying the disk and having flat longitudinal faces, and wedge fingers mounted to slide along said flat faces and operative to spread the sections of said disk.

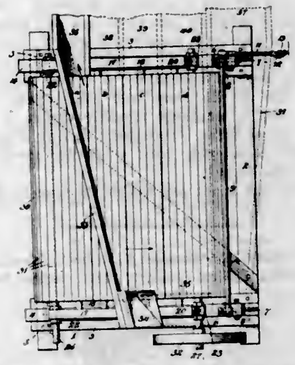
3. The combination of driving and driven co-acting clutch elements, one comprising a ring and the other comprising a disk mounted within the ring and formed in sections, bow springs associated with one of said clutch elements and interposed between and conforming to the outline of the adjacent circumferential faces of said ring and said disk, a shaft carrying the disk, and means for spreading or expanding the sections of the disk.

4. The combination of driving and driven co-acting clutch elements, one comprising a ring and the other comprising a disk mounted within the ring and formed in sections, a shaft carrying the disk, the adjacent faces of the disk and the ring being circumferentially grooved, bow springs associated with the ring and interposed in said circumferential grooves and conforming to the outline thereof, and means for spreading or expanding the sections of the disk, the bow springs tending to spring inwardly.

5. The combination of driving and driven co-acting clutch elements, one comprising a ring and the other comprising a disk mounted within the ring and formed in sections, a shaft carrying the disk, the adjacent faces of the disk and the ring being circumferentially grooved, bow springs interposed in said circumferential grooves and conforming to the outline thereof, the ring having its inner face provided with transverse grooves and the bow springs having their ends fitted in said transverse grooves, the bow springs tending to spring inwardly, and means for spreading or expanding the sections of the disk.

[Claims 6 and 7 not printed in the Gazette.]

1,139,250. SEPARATING-MACHINE. WALLACE S. AYRES, Hazleton, Pa. Filed Mar. 13, 1907, Serial No. 362,169. Renewed Sept. 19, 1914. Serial No. 862,594. (Cl. 83—54.)



1. In a separator, a separating floor having its surface made in a plurality of individually planate and unobstructed sections connected edge to edge, each section being laterally inclined to a greater degree than the inclination of the preceding section and all sections being also longitudinally inclined; and means for discharging material upon the higher end of one of the laterally lower sections.

2. In a separator, a separating floor longitudinally inclined and having a general transverse inclination in a direction at substantially right angles to such longitudinal inclination, the floor having its surface made up of individual sections connected edge to edge and located in a plurality of angularly related planes, and means for discharging a stream of material upon a lower section and over the floor in a direction corresponding approximately to the aforesaid longitudinal inclination.

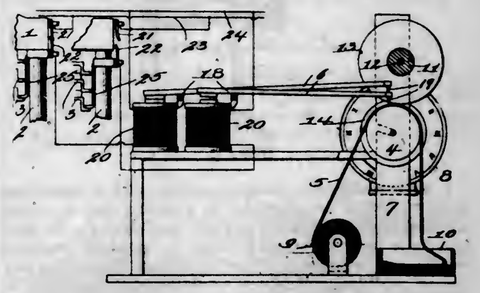
3. In a separator, a traveling separating floor longitudinally inclined and having its surface located in a plurality of planes inclined with reference to each other and in a direction at substantially right angles to such longitudinal inclination.

4. In a separator, a separating floor longitudinally inclined and transversely inclined in a direction approximately at right angles to such longitudinal inclination, said floor having its surface made up of a plurality of planes disposed edge to edge and each of which is inclined in a different degree in a direction approximately at right angles to the aforesaid longitudinal inclination, means for moving said floor toward the highest plane, and means for discharging a stream of material upon the lower plane in a direction approximately in line with such longitudinal inclination.

5. In a separator, a traveling separating floor formed in sections, means for disscharging a stream of material over the floor in a given direction, said floor being inclined in approximately the same direction and in a direction approximately at right angles thereto, and means for causing certain sections of the floor to arrest the passage of a given portion of the stream material.

[Claims 6 to 16 not printed in the Gazette.]

1,139,251. AUTOMATIC TIME-CHECK FOR OIL-PRESSES AND OTHER MACHINES. THOMAS BELL, Tyler, Tex. Filed Aug. 9, 1913. Serial No. 783,997. (Cl. 234—1.5.)



1. The combination of an oil press having a relatively fixed head and movable press boxes, a record member having graduations representing periods of time, means for moving the record member at a constant speed, a marking device coöperative with the record member, and electrical means embodying contacts connected to the head and one of the press boxes of the press and governed according to the operation of the latter for automatically controlling the engagement and disengagement of the marking device relatively to the record member.

2. The combination of an oil press having a relatively fixed head and a movable press box, a tape, means for moving the tape, a marking device movable to and from operative relation with the tape, and electrical means embodying contacts connected to the head and one of the press boxes of the press and governed according to the operation of the latter for automatically controlling such movements of the marking device.

3. The combination of an oil press having a relatively fixed head and movable press boxes, a tape, means for moving the tape at a constant speed, a device adapted to produce a mark on the tape while said device is in engagement therewith, said device being movable to and from engagement relatively to the tape, and electrical means embodying contacts connected to the head and one of the press boxes of the press and governed according to the operation of the latter for automatically controlling such movements of said marking device.

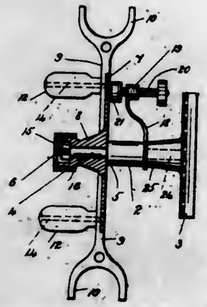
4. The combination of a machine having parts movable into and out of engagement when the same is in operation and idle respectively, a recording member having means for moving it at a constant speed, a marking device normally engaging the recording member, and means embodying electrical contacts controlled by the engagement and disengagement of said parts and operative automatically

during the whole of the working operation of the machine for disengaging the marking device relatively to the recording member.

5. The combination of a machine embodying parts movable relatively to one another when the machine is in operation or idle, a recording member having means for moving it at a constant speed, a marking device, and means embodying electrical contacts, the engagement and disengagement of which is controlled by the relative positions of said parts for causing the marking device to engage and operate upon the recording member while the machine is idle and to disengage thererrom while the machine is in operation.

[Claims 6 and 7 not printed in the Gazette.]

1,139,252. FISHING-REEL. VAIDEN BORDNER, Elkhart, Ind. Filed Apr. 7, 1914. Serial No. 830,249. (Cl. 242—84.5.)



1. In a fishing reel, the combination, with a supporting spindle adapted to be secured to a fishing rod, of a reel provided with a brake surface and journaled on the said spindle, a retractible brake spring mounted on the said spindle and adjustable circumferentially thereon to any desired position, means for adjusting the tension with which the brake block is applied, a brake block carried by the brake spring and engaging with the brake surface, and means which normally hold the brake spring in place after its position has been adjusted.

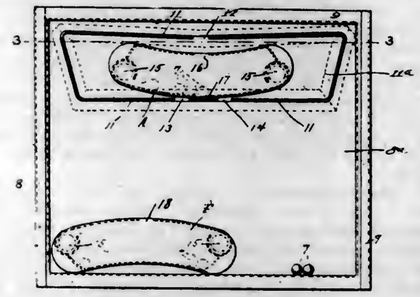
2. In a fishing reel, the combination, with a plate, for attachment to the rod, provided with a laterally projecting boss, and a spindle having a pin at one end which is secured in the said boss, said spindle having a bearing on its free end portion; of a reel provided with a brake disk and journaled on the said bearing, a retractible brake spring mounted on the said pin in frictional engagement with the spindle and boss and adjustable circumferentially on the pin, and a brake block carried by the brake spring and bearing on the brake disk.

1,139,253. PUZZLE. CHARLES B. BREWER, Hyattsville, Md. Filed Oct. 27, 1914. Serial No. 868,875. (Cl. 46—41.)

1. A device of the character described comprising a tray; a septum dividing said tray into two areas, said septum having apertures therein; pellets in said tray adapted to be moved, by tilting the tray, from one of said areas into the other through the septum apertures; and a freely movable pellet-carrier in one of said areas controlling the septum apertures, said pellet-carrier having a pellet-discharge aperture therein.

2. A device of the character described comprising a tray; a septum dividing said tray into two areas and having apertures therein; pellets adapted to be moved, by tilting the tray, from one of said areas into the other through the septum apertures; a freely movable pellet-carrier in one of the areas and controlling the septum apertures; said pellet-carrier having a pellet-discharge aperture therein; and a target in the other area adapted to be struck by pellet passing through a septum aperture.

3. A device of the character described comprising a tray; a septum dividing said tray into two areas and having apertures therein; pellets adapted to be moved, by tilting the tray, from one of said areas into the other through the septum apertures; a freely movable pellet-carrier in one of the areas and controlling the septum apertures; said pellet-carrier having a pellet-discharge aperture therein; and a similarly movable target in the other area adapted to be struck by a pellet passing through a septum aperture.

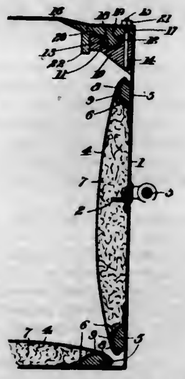


4. A device of the character described comprising a tray; a septum dividing said tray into two areas and having apertures therein; pellets adapted to be moved, by tilting the tray, from one of said areas into the other through the septum apertures; a freely movable pellet-carrier in one of the areas, said carrier having a pellet-admission and a pellet-discharge opening, the said discharge opening registering with a septum aperture in one position of the carrier; and a target in the other area adapted to be struck by a pellet passing through a septum aperture.

5. A device of the character described comprising a tray; a septum dividing said tray into two areas and having apertures therein; pellets adapted to be moved, by tilting the tray, from one of said areas into the other through the septum apertures; a freely movable pellet-carrier in one of the areas and controlling the septum apertures; and a similarly movable target in the other area, said target being a receptacle having a pellet-admission opening registering with a septum aperture in one position of the target.

[Claims 6 and 7 not printed in the Gazette.]

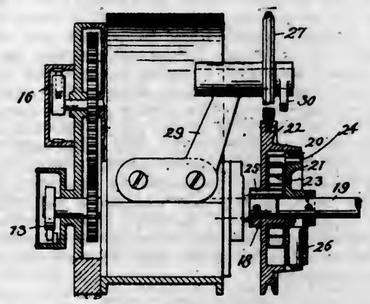
1,139,254. COFFIN. GEORGE F. BROWN, Winnipeg, Manitoba, Canada. Filed Jan. 27, 1912. Serial No. 673,916. (Cl. 27—7.)



1. A burial casket comprising a casing having oppositely positioned arcuate retaining members adapted to be secured at one edge to the casing, the main portion of each of said retaining members being curved in cross section and terminating in an unconfined edge near the wall of the casing to form an arcuate channel parallel with said wall, retaining strips fitted within said channel and adapted to be frictionally engaged between said arcuate members and the wall, and a lining adapted to be secured to a plurality of said retaining strips.

2. A burial casket including a casing having channels formed on its inner surface, said channels being arranged near the margins of the sides and bottom of the casing and consisting of bent flanges having their edges turned in toward the surfaces on which they are mounted, wooden strips retained in said channels by the edges of said flanges, and lining for the upholstery of the casket secured to said strips.

1,139,255. DUAL IGNITION SYSTEM. ALANSON P. BRUSH, Detroit, Mich. Filed Mar. 21, 1912. Serial No. 685,237. (Cl. 123—149.)



1. In a dual ignition system for a multiple cylinder engine, two sources of current comprising a battery and a magneto, the latter having associated therewith a drive shaft adapted to be operated by the engine, circuit interrupting and distributing mechanisms and comprising rotary members adapted to be driven by said drive shaft, and a coupling between the drive shaft and said rotary members by which the latter may be turned relative to the drive shaft when the engine is at rest to interrupt the battery circuit and direct the spark to the proper cylinder for starting the engine in the forward direction.

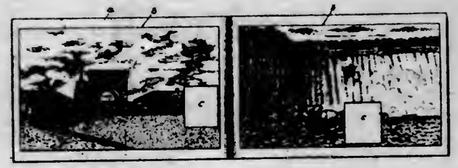
2. In a dual ignition system for a multiple cylinder engine, two sources of current comprising a battery and a magneto, the latter having associated therewith a drive shaft adapted to be operated by the engine, circuit interrupting, distributing and transforming mechanisms and including rotary circuit breaker and distributer members associated with the magneto so as to be driven thereby, and a flexible coupling between the drive shaft and the magneto by which the latter may be turned backward and thence will be restored to normal position relative to the drive shaft, so that the circuit breaker and distributer will interrupt the primary battery circuit and direct the high tension current to the proper cylinder for starting the engine in the forward direction.

3. In a dual ignition system for a multiple cylinder engine, two sources of current comprising a battery and a magneto, the latter having associated therewith a drive shaft adapted to be operated by the engine, circuit interrupting, distributing and transforming mechanisms including rotary circuit breakers and distributer members associated with the magneto so as to be driven thereby, and a flexible coupling between the drive shaft and magneto including a spring which enables the magneto to be turned backward relative to the drive shaft when the engine is at rest, and thence quickly in a forward direction, so that by moving the circuit breaker and interrupter, the primary battery circuit may be interrupted, and a spark directed to the proper cylinder for starting the engine in the forward direction.

4. In a dual ignition system for a multiple cylinder engine, two sources of current comprising a battery and a magneto, the latter having associated therewith a drive shaft adapted to be operated by the engine, circuit interrupting and distributing mechanisms including rotary circuit breaker and distributer members associated with the magneto so as to be driven thereby, and a coupling between the drive shaft and the magneto by which the latter may be turned backward and thence restored to normal position relative to the drive shaft so as to cause the primary battery circuit to be interrupted by the circuit breaker and the high tension current directed by the distributer to the proper cylinder for starting the engine in the forward direction, and means for locking the magneto shaft and drive shaft in proper relationship when the engine is in operation.

5. In a dual ignition system for an internal combustion engine, two sources of current comprising a battery and a magneto, the latter having associated therewith a drive shaft adapted to be operated by the engine, circuit interrupting and distributing mechanisms comprising movable parts adapted to be actuated by the drive shaft, a switch by which either the battery or the magneto may be connected to the interrupting and distributing mechanisms, and a coupling between the drive shaft and circuit interrupting and distributing mechanisms by which the latter may be operated independently of the drive shaft when the engine is at rest so as to interrupt the battery circuit and direct a spark to the proper cylinder for starting the engine in the forward direction.

1,139,256. EDUCATIONAL DEVICE. JESSE R. CLARK, Chicago, Ill., assignor to The Forbes Lithograph Mfg. Co., Boston, Mass., a Corporation of Massachusetts. Filed Apr. 4, 1914. Serial No. 829,447. (Cl. 46—37.)



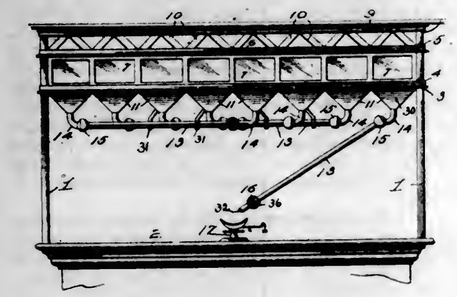


An educational device comprising a series of main, incomplete pictures, each having an interruption therein leaving a blank space, the series of blank spaces being of similar contour, and a series of complete picture elements of similar contour, each of said elements formed to fit one of said spaces, and containing matter identifying the same with one of the main pictures, and supplying the missing part of such main picture, and an adhesive coating on each of said incomplete picture elements for securing the same permanently in its proper space.

1,139,257. STORE-FIXTURE. EUGENE BURREN COLLETTE and EDWARD PIERCE LARRY, New Orleans, and NORBERT BURAS, Venice, La. Filed Apr. 1, 1914. Serial No. 828,814. (Cl. 211—8.)

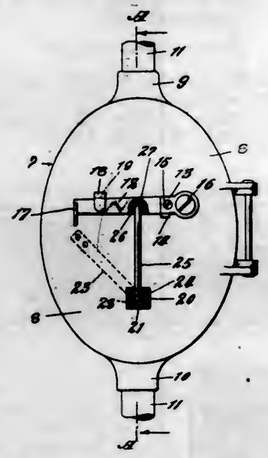
Apparatus for the purpose described, comprising a counter, a frame arranged above the counter, a series of hoppers arranged transversely side by side above the counter and in the frame and having discharge elbows and also having side and end walls inclined downwardly and inwardly to said elbows; the said elbows being arranged in side by side planes and having upper vertical portions and lower longitudinally-disposed portions, mov-

able valve spouts, universal joints connecting said spouts with the longitudinally-disposed portions of the elbows,



and hooks on the hoppers constructed and arranged to support the spouts in their idle horizontal positions.

1,139,258. SIGNAL-BOX. THOMAS H. S. CONE, Boundbrook, N. J. Filed Dec. 18, 1912. Serial No. 737,420. (Cl. 177—372.)



1. In a signal box, the combination of signal-sending mechanism mounted therein, an actuating lever mounted exteriorly of said box and connected to said signal-sending mechanism, a stop for limiting the movement of said lever in one direction and a rod of frangible material for normally locking said lever against movement in the other direction, a boss formed on said lever, a boss positioned on the exterior of said box below said lever and provided with a vertical bore extending therethrough, and a lateral bore communicating with the interior of said box and with said vertical bore, said rod of frangible material being adapted to be inserted through said vertical bore in said latter boss, and the upper end thereof seated within the boss on said lever, and a spring-pressed pin mounted on the interior of said box and movable within said lateral bore to support said rod in engagement with the boss formed on said lever and prevent the removal of said rod without encompassing its destruction.

2. In a signal box, the combination of a signal actuating lever mounted exteriorly of said box, a stop for limiting the movement of said lever in one direction and means for normally locking said lever against movement in the opposite direction, said means comprising a boss formed on said lever, a boss positioned on said box below said lever and provided with a vertical bore extending therethrough and a lateral bore communicating with the interior of said box and with said vertical bore, a pin arranged for movement within said lateral bore, a spring mounted on the interior of said box and connected to said pin to normally maintain said pin within said bore, a frangible rod and means for manually moving said pin within said lateral bore to permit the insertion of said rod through said vertical bore whereby the upper end of said rod may be positioned within the boss formed on said lever, the re-seating of the pin within said lateral bore providing a support for the other end of said frangible rod and securing it against removal without encompassing its destruction.

3. In a signal box, the combination of a signal actuating lever mounted exteriorly of said box, a stop for limiting the movement of said lever in one direction, and means for normally locking said lever against movement in the opposite direction, said means comprising a boss formed on said lever, a boss positioned on said box below said lever and provided with a vertical bore extending therethrough and a lateral bore communicating with the interior of said box and with said vertical bore, a pin arranged for movement within said lateral bore, a spring mounted on the interior of said box and connected to said pin to normally maintain said pin within said bore, a frangible rod, and means for manually moving said pin within said lateral bore to permit the insertion of said rod through said vertical bore, whereby the upper end of said rod may be positioned within the boss formed on said lever, the re-seating of the pin within said lateral bore providing a support for the other end of said frangible rod and securing it against removal without encompassing its destruction; and means for manipulating said actuating lever, said means comprising an extension formed at right angles to the plane of the body of the lever whereby, upon the destruction of the frangible rod, the said lever may be pulled down to start the signal-sending mechanism.

1,139,259. MANUFACTURE OF ELECTROTYPE-PLATES. CHARLES P. COTTRELL, Westerly, R. I., assignor, by mesne assignments, to C. B. Cottrell & Sons Company, New York, N. Y., a Corporation of Delaware. Filed Jan. 5, 1911. Serial No. 600,977. (Cl. 101—178.)



1. In the manufacture of electrotype plates, simultaneously forming gradations in the face of the plate and casting the backing up metal onto the back of the shell while the face of the shell is held upon a suction surface with an overlay interposed between the face of the shell and said suction surface.

2. In the manufacture of electrotype plates, simultaneously forming gradations in the face of the plate and casting the backing up metal onto the back of the shell while the face of the shell is held upon a heated suction surface with an overlay interposed between the face of the shell and said suction surface.

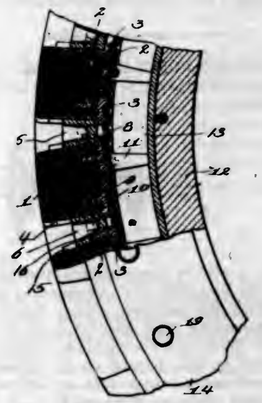
3. In the manufacture of electrotype plates, simultaneously forming gradations in the face of the plate and casting the backing up metal onto the back of the shell while the face of the shell is held upon a suction surface with a reverse overlay interposed between the face of the shell and said suction surface.

4. In the manufacture of electrotype plates, simultaneously forming gradations in the face of the plate and casting the backing up metal onto the back of the shell while the face of the shell is held upon a heated suction surface with a reverse overlay interposed between the face of the shell and said suction surface.

5. The method of producing an electrotype plate with gradations in its printing face consisting in placing a shell face downward upon a surface with an interposed overlay in register therewith, holding the shell on said surface by suction and then casting the backing up metal onto the back of the shell.

[Claims 6 to 14 not printed in the Gazette.]

1,139,260. RESILIENT TIRE. CHARLES DE LUKACSEVICS, West Nutley, N. J., assignor to William H. Dane, East Orange, N. J. Filed Apr. 11, 1913. Serial No. 760,513. (Cl. 152—8.)



1. In a resilient tire, tread elements, each comprising a base and a rubber body joined thereto, a frame having inclosures for the tread elements, and an annular spring forming a base wall common to said inclosures and upon which the tread elements rest, the bases having corrugated faces and the spring having corrugations, the tread elements having corrugated inner faces and the spring having corrugations to match the corrugated inner faces of the tread elements.

2. In a resilient tire, tread elements, each comprising a base and a rubber body secured thereto, the base having a plurality of guides which project slightly beyond the rubber body, a frame having inclosures for the tread elements, the walls of the inclosures being engaged by said guides, and a corrugated annular spring support for the tread elements, the base, having corrugations to match and engage the corrugations of the spring support.

3. In a resilient tire, tread elements, each comprising a base and a rubber body molded thereon, the base having anchorage lugs incorporated in the body and having guides adjoining and formed with the lugs and which project slightly beyond the rubber body, a frame having inclosures for the tread elements, the walls of the inclosures being engaged by said guides, and a spring support for the tread elements.

4. In a resilient tire, tread elements, a frame having side bars defining inclosures for the tread elements and having lugs projecting radially and inwardly from its side bars, a felly upon which said lugs engage, an annular spring supporting the tread elements and arranged between the lugs and also between the tread elements and the felly, the tread elements having projecting guides, the side bars having inturned flanges which overhang and are engaged by said guides, and annular side flanges secured to said felly and overlying and also secured to said lugs.

1,139,261. THREAD-GUARD FOR SEWING-MACHINES. JOHN W. DARLEY, Jr., Baltimore, Md. Filed Apr. 6, 1910. Serial No. 553,772. (Cl. 112—29.)

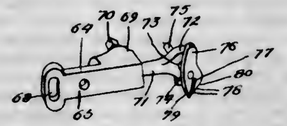
1. In a sewing machine, the combination of the frame of the machine, a tension device carried thereby, a take-up device, a needle, means for operatign said take-up device and needle, and a thread guard attached to one end of the farme, and through which the needle thread is adapted to pass, including a funnel-shaped portion having a hole in one side, and parts between which said take-up device reciprocates, substantially as described.

2. In a sewing machine, the combination with the machine frame, a needle, a take-up device and means for operating them, of a thread gusrd secured to one end of the frame and provided with a slot therein, through which said take-up device reciprocates, and with curved protecting portions on each side of said slot, said thread guard being made of sheet metal bent into an approximately funnel-shaped form, substantially as described.



3. In a sewing machine, the combination with the frame of the machine, a take-up device, a needle and means for operating them, with a thread guard of sheet metal secured to said frame, said guard being in the main funnel-shaped, with a lower open end, and provided with a hole through which the thread enters, with a slot having guard plates in proximity thereto, through which slot the take-up device works, with a space through which the thread may be slipped, and a wire guide attached to said guard, substantially as described.

1,139,262. LATCH PROTECTOR OR PRESERVER. WILLIAM J. ELLIOTT, Philadelphia, Pa., assignor to Adolph Kessell, Philadelphia, Pa. Filed May 20, 1914. Serial No. 839,810. (Cl. 66—21.)

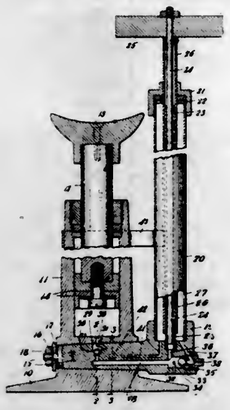


1. In combination with a knitting machine having a series of latch needles and provided with a revoluble member, a device carried by the revoluble member of the knitting machine for gliding over the latches thereby protecting the same, said device comprising a plate pivoted on said revoluble member and extending radially of the knitting machine, said plate having at one end an elongated slot, means extending through the elongated slot and engaging the revoluble member for holding the plate adjustable on its pivot, the other end of the plate having a socket, a rod mounted in said socket, a set screw for holding the rod adjustable in the socket, one end of the rod having an enlargement, a latch needle protecting plate movable with said revoluble member and in a horizontal plane, said protecting plate having a threading eye and groove at one end, while at the other end is rounded off and adapted to glide over the latches of the needle, a pin rising upwardly from the protecting plate, and being mounted adjustable vertically and revolubly in said enlargement, whereby the protecting plate may be adjusted at different angles to the annular movement of the revoluble member.

2. In combination with a knitting machine having a series of latch needles and provided with a revoluble member, a device carried by the revoluble member of the knitting machine for gliding over the latches thereby protect-

ing the same, said device comprising a plate pivoted on said revoluble member and extending radially of the knitting machine, means coöperating with one end of said plate and said member for holding the plate adjustable on its pivot, the other end of the plate having a socket, a rod mounted in said socket, a set screw for holding the rod adjustable in the socket, one end of the rod having an enlargement, a latch needle protecting plate movable with said revoluble member and in a horizontal plane, said protecting plate having a threading eye and groove at one end, while the other end is rounded off and adapted to glide over the latches of the needle, a pin rising upwardly from the protecting plate, and being mounted adjustable vertically and revolubly in said enlargement, whereby the protecting plate may be adjusted at different angles to the annular movement of the revoluble member.

1,139,263. LIFTING-JACK. EDWARD ERICKSON and PETER SJOSTROM, Malden, Mass. Filed Apr. 4, 1914. Serial No. 829,562. (Cl. 138—9.)



1. A device of the character described, comprising two members each including a cylinder and a piston, said members having a single pivotal connection having valved ports to permit the device to be operated with the two members at varying angles relatively to each other, all of the ports which furnish communication between the two cylinders being provided in said single pivotal connection.

2. A device of the character described, comprising two members each including a cylinder and a piston, said members having a free pivotal connection to permit the device to be operated with the two members at varying angles relatively to each other, the pivotal connection having valved ports providing communication between the two cylinders, means being provided for holding the two members substantially parallel when not in use.

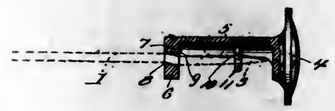
3. A liquid-operated lifting-jack comprising a base having an upright cylinder, a piston and lifting rod in said cylinder, a plug rotatably mounted adjacent the lower end of said cylinder, and a pump connected solely with the plug whereby it may be swung to either one of a plurality of positions relatively to the base and upright cylinder and operated in such position, said plug having valved passageways for controlling the communication between said cylinder and pump.

4. A liquid-operated lifting-jack comprising a base having an upright cylinder, a piston and lifting rod in said cylinder, a tapered plug rotatably mounted adjacent the lower end of said cylinder, a pump connected with the plug, said plug having passageways for controlling the communication between said cylinder and pump, and valves for controlling said passageways.

5. A liquid-operated lifting-jack comprising a base having an upright cylinder, a piston and lifting rod in said cylinder, a plug rotatably mounted adjacent the lower end of said cylinder, and a pump connected with the plug, said plug having ports adapted to permit the flow of liquid from the pump into the cylinder when the plug is in one rotative position and to permit liquid to return to the pump from the cylinder when in another rotative position.

[Claims 6 and 7 not printed in the Gazette.]

1,139,264. HAT-PIN-POINT PROTECTOR. LEO J. GAGE, Hilbert, Wis. Filed Apr. 8, 1913. Serial No. 759,799. (Cl. 24—155.)



A pin point protector comprising a disk having an integral relatively broad flexible extension of substantially concavo-convexed configuration, a hook carried by the extension and depending from the concaved portion of the extension at a point between the ends thereof, and a depending angular portion formed on the extension at the free end thereof and provided with a relatively long pin receiving passage inclining downwardly and in direction toward the terminal of said hook.

1,139,265. ARTIFICIAL TOOTH. JOSEPH ARCHIBALD GARDNER, Memphis, Tenn. Filed Feb. 3, 1915. Serial No. 5,945. (Cl. 32—9.)



1. An artificial tooth provided with a body portion having a labial face, and in rear thereof a tapered dove-tail lug projecting away from the occlusal portion in the form of a V-shaped dove-tailed wedge adapted to engage the corresponding cope.

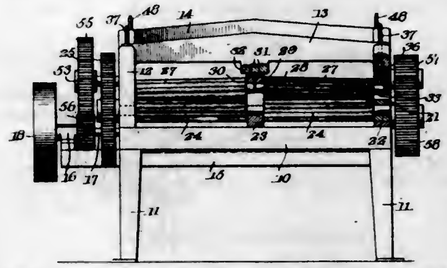
2. An artificial tooth provided with a body portion having a labial face, and in rear thereof a tapered dove-tailed lug projecting away from the occlusal portion in the form of a V-shaped dove-tailed wedge, the parts of said tooth at each side of said dove-tailed lug being flat, and the said lug and tooth being adapted to engage the corresponding cope.

3. An artificial tooth provided with a body portion having a labial face, and in rear thereof a tapered dove-tailed lug projecting away from the occlusal portion in the form of a V-shaped dove-tailed wedge, the said dove-tailed lug being provided with an auxiliary lug projecting therefrom and integral therewith, and adapted to engage the corresponding cope.

4. An artificial tooth provided with a body portion having a labial face, and in rear thereof a tapered dove-tailed lug projecting away from the occlusal portion in the form of a V-shaped dove-tailed wedge, the said dove-tailed lug being provided with an auxiliary lug rectangular in cross section projecting therefrom and integral therewith, and adapted to engage the corresponding cope.

1,139,266. TREAD-PLATE SHAPER. GEORGE R. GIBSON, Ellwood City, Pa. Filed June 2, 1914. Serial No. 842,438. (Cl. 153—2.)

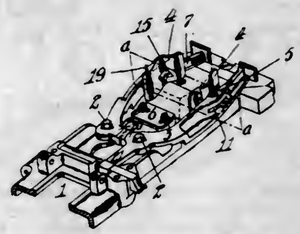
1. A machine of the class described comprising a base, vertical end walls rising from the base, upwardly bowed bridge bars connected to said walls, angle plates fixed to the under face of the base and disposed in parallel relation to each other, a split bearing mounted upon the said bars, a driving shaft journaled in the bearing, the said end walls being formed with front and rear guideways, medial bearings rising from the base, stationary bearings arranged in the front guideway, a shaft journaled in the said stationary bearings and also the medial bearings, corrugated rollers on the said shaft and disposed at opposite sides of the medial bearing, a pair of independent corrugated rollers arranged above the first-named rollers, fulcrum bearings arranged at the inner ends of the last-named rollers, slidable bearings arranged in the front guideways and working against the outer ends of the said pair of upper rollers, adjustable fulcrum keys arranged in the end walls and acting upon the slidable bearings for the angular adjustment of the upper pair of rollers relative to the first-named rollers, connections between the first-named rollers and the said driving shaft, and upper and lower smoothing rollers having bearings arranged in the rearmost guideway.



2. A machine of the class described comprising a base, vertical end walls rising from the base, upwardly bowed bridge bars connected to said walls, angle plates fixed to the under face of the base and disposed in parallel relation to each other, a split bearing mounted upon the said bars, a driving shaft journaled in the bearing, the said end walls being formed with front and rear guideways, medial bearings rising from the base, stationary bearings arranged in the front guideway, a shaft journaled in the said stationary bearings and also the medial bearings, corrugated rollers on the said shaft and disposed at opposite sides of the medial bearing, a pair of independent corrugated rollers arranged above the first-named rollers, fulcrum bearings arranged at the inner ends of the last-named rollers, slidable bearings arranged in the front guideways and working against the outer ends of the said pair of upper rollers, adjustable fulcrum keys arranged in the end walls and acting upon the slidable bearings for the angular adjustment of the upper pair of rollers relative to the first-named rollers, connections between the first-named rollers and the said driving shaft, upper and lower smoothing rollers having bearings arranged in the rearmost guideway, and means for angularly adjusting the smoothing rollers relative to the base.

3. A machine of the class described comprising a base, vertical end walls rising from the base, upwardly bowed bridge bars connected to said walls, angle plates fixed to the under face of the base and disposed in parallel relation to each other, a split bearing mounted upon the said bars, a driving shaft journaled in the bearing, the said end walls being formed with front and rear guideways, medial bearings rising from the base, stationary bearings arranged in the front guideway, a shaft journaled in the said stationary bearings and also the medial bearings, corrugated rollers on the said shaft and disposed at opposite sides of the medial bearing, a pair of independent corrugated rollers arranged above the first-named rollers, fulcrum bearings arranged at the inner ends of the last-named rollers, slidable bearings arranged in the front guideways and working against the outer ends of the said pair of upper rollers, adjustable fulcrum keys arranged in the end walls and acting upon the slidable bearings for the angular adjustment of the upper pair of rollers relative to the first-named rollers and the said driving shaft, upper and lower smoothing rollers having bearings arranged in the rearmost guideway, connections between certain of the smoothing rollers and the said driving shaft, and means for angularly adjusting the smoothing rollers relative to the base.

1,139,267. HEEL GRIPPING AND CENTERING DEVICE. JOHN E. GLIDDEN, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed May 2, 1910. Serial No. 558,759. (Cl. 12—48.)



1. In a machine of the character described, the combination of means for gripping and holding the edges of a heel blank, and additional means engaging the edge surface of said blank for preventing it from being ejected in a direction perpendicular to the tread surface thereof.

2. In a heel feeding carriage, the combination of a breast gage, movable members for engaging and holding the edges of a heel and additional adjustable means provided with sharp points for penetrating the edge surfaces of said heel and preventing movement in the direction of its height.

3. In a device of the character described, a carrier, gripper arms pivoted upon said carrier, a gripper finger mounted upon each of said arms and movable relatively thereto, and an adjustable blade carried by each of said fingers to engage the edges of a heel held between said fingers.

4. In a heel compressing machine, the combination, with a reciprocatory heel carriage, of a heel clamp mounted upon said carriage comprising a pair of gripper arms pivotally mounted upon said carriage, gripper fingers pivotally mounted upon said arms, and a blade having a notched and sharpened end adjustably mounted in each of said gripper fingers, said notched and sharpened ends projecting inwardly of the heel clamp.

5. In a machine of the character described, the combination with a support, of means mounted upon said support for clamping and holding a heel blank, the edges of which are inclined with respect to the tread surface thereof, said means comprising oppositely movable means for engaging the inclined edges of said heel blank and additional means movable with said last mentioned means adapted to penetrate said inclined edges sufficiently to prevent movement of the blank in a direction perpendicular to the surface thereof.

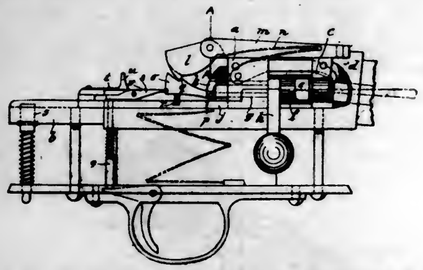
[Claim 6 not printed in the Gazette.]

1,139,268. SMALL-ARM. PHILIP THOMAS GODSAL, Iscoyd Park, county of Flint, near Whitchurch, England. Filed Dec. 31, 1914. Serial No. 879,945. (Cl. 42—16.)

1. In a small arm breech mechanism constructed on the block bolt principle above indicated a bolt carrier wherein are mounted so as to be movable therewith, a firing mechanism, a rotatable locking block, a rearward extension on the latter, a cam-piece fitting onto the extension and keyed thereto so as to rotate therewith, means for rotating the locking block and the cam-piece, whereby the unlocking of the bolt and the cocking of the firing mechanism may be affected simultaneously, and a sear for retaining the firing mechanism when cocked.

2. In a small arm breech mechanism constructed on the block bolt principle above indicated a bolt carrier wherein are mounted so as to be movable therewith, a firing mechanism, a rotatable locking block a rearward extension on the latter, a cam-piece for cocking the firing

mechanism, fitting onto the extension and keyed thereto so as to rotate therewith, a lever attached to the cam-piece for rotating the same and the locking block, and a sear for retaining the firing mechanism substantially as described.



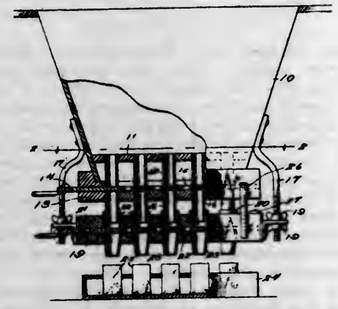
3. In a small arm breech mechanism constructed on the block bolt principle above indicated a bolt carrier wherein are mounted so as to be movable therewith, a firing mechanism comprising a pivoted hammer and a firing pin, a rotatable locking block, a rearward extension on the latter, a cam-piece fitted onto the extension and keyed thereto so as to rotate therewith, means for rotating the locking block and cam-piece so as to cock the hammer and a sear for keeping the hammer cocked substantially as described.

4. In a small arm breech mechanism constructed on the block bolt principle above indicated wherein a bolt carrier is employed having mounted therein, a firing mechanism, a rotatable locking block, a cam-piece connected therewith for cocking the firing mechanism, a lever attached to the cam for rotating the same and the locking block, and a sear for retaining cocked the firing mechanism, a retaining device for the cam-piece consisting of a spring catch fitted into the cheek of the breech substantially as described.

5. In a small arm breech mechanism constructed on the block bolt principle above indicated wherein a bolt carrier is employed having mounted therein, a firing mechanism, a rotatable locking block, a cam-piece connected therewith for cocking the firing mechanism, means for rotating the locking block and the cam-piece and a sear for retaining the firing mechanism, an antifriction wheel in the cheek of the breech for the cam-piece to bear against to start the bolt block when rotated substantially as described.

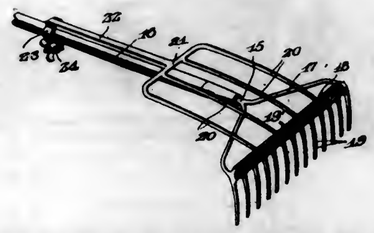
[Claims 6 and 7 not printed in the Gazette.]

1,139,269. MEASURING-MACHINE. AUGUSTUS GOODMAN, EDWIN GOODMAN, and DAVID COWEN, New York, N. Y., assignors to A. Goodman & Sons, a Corporation of New York. Filed Mar. 30, 1914. Serial No. 828,419. (Cl. 226—18.)



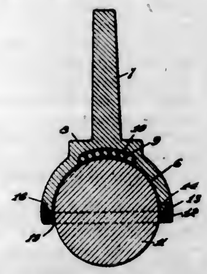
In a measuring device, a container, tubes extending downwardly therefrom, a base portion provided with apertures through which said tubes project, the base projecting laterally from the sides of the container, a plurality of hangers secured to the container and having threaded portions at one end, the upper end of each hanger being provided with an offset portion whereby the threaded portion projects laterally from the base of the container, a frame adapted to be carried below the container, tubes mounted within said frame and arranged to telescope with the tubes first mentioned, brackets carried by the frame and projecting laterally therefrom, said brackets being disposed immediately below the offset portions of the hangers, nuts carried by the hangers and engaging the brackets, a slide provided with apertures, said slide being carried by the frame, and a second apertured slide carried by the base of the container.

1,139,270. RAKE. JAMES A. GOULD, El Reno, Okla. Filed Jan. 17, 1914. Serial No. 812,763. (Cl. 55—10.)



A rake head having teeth projecting downwardly therefrom, said head being provided with a plurality of transverse apertures, a handle on which said rake head is fixed, a fork having tines guided through the apertures of the rake head, said tines being curved in the direction of the free ends of the rake teeth, a shank extending from the head of the fork and lying adjacent to the rake handle, and a clamp connected with said shank and engaging the rake handle to secure the fork at various adjustments.

1,139,271. BALL-BEARING CASTER FOR FURNITURE. MATHEW D. GRAY, Bakersfield, Cal. Filed Dec. 10, 1913. Serial No. 805,734. (Cl. 16—151.)

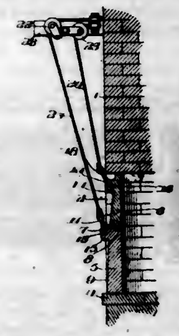


A ball-bearing caster, comprising a mounting shank, a casing on said shank formed with a hemispherical recess and having a depression in the dome of the recess, a series of anti-friction balls seated in the depression, a caster ball seated against the anti-friction balls and encompassed to its horizontal axis by the casing, and a retaining ring detachably secured to the casing and encircling the caster ball below its horizontal axis to hold the caster ball in the recess, said retaining ring having a vertically rounded inner periphery to reduce its frictional engagement with the caster ball.

1,139,272. OVEN-DOOR. EDDIE FLOYD GRIFFIN, Uniontown, Pa. Filed Dec. 6, 1912. Serial No. 735,328. (Cl. 202—6.)

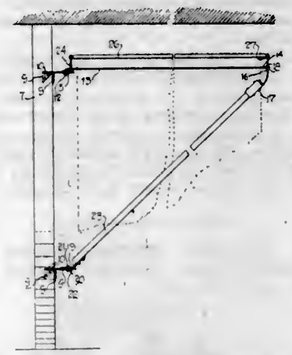
A coke oven having a door way, a pair of superimposed sections fitting in said door way each of said sections increasing in thickness from its upper edge to its base, aper-

tured ears projecting laterally from said sections, a pair of pulleys above and spaced laterally from said ears, and



flexible inclined cables passing over said pulleys and connected with said ears.

1,139,273. RUG-HANGER. JAMES S. GRIFFIN, Elgin, Tex. Filed Mar. 24, 1914. Serial No. 826,922. (Cl. 211—22.)

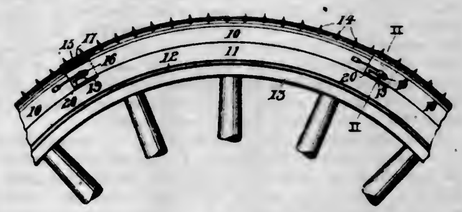


1. The combination with a support, of a pair of vertically spaced supporting plates secured to the support, an inclined plate pivotally connected to the lower supporting plate, a bracket pivotally connected to the upper supporting plate, said bracket having a pair of transversely spaced openings therein, an inclined brace bar connected at its lower end to the inclined plate, a sleeve secured to the upper end of the brace bar, a pair of diverging arms extending vertically from said sleeve, each of said arms having an opening formed therein, and a pair of rollers revolubly connected at their inner ends in the openings in said brackets and at their outer ends in the openings in said arms.

2. The combination with a vertical support, of a pair of vertically spaced supporting plates secured to said support, an inclined plate pivotally connected to the lower supporting plate, a rod pivotally connected at its inner end to the upper supporting plate, a brace bar connected at its lower end to said inclined plate and at its upper end to the outer end of said rod, a bracket connected to the inner end of said rod, and a roller revolubly connected at its inner end to said bracket and at its outer end to the upper end of said brace bar.

3. The combination with a vertical support, of a pair of vertically spaced supporting plates secured to said support, an inclined plate pivotally connected to the lower supporting plate, the upper plate being formed with an opening adjacent its outer edge, an outwardly extending rod having its inner end offset downwardly, an angular bracket having an opening in its horizontal arm to aline with the opening in said upper plate, the vertical arm of said bracket also having an opening therein, said rod having its downwardly offset portion pivotally disposed through the alined openings, the body portion of said rod extending outwardly through the opening in the vertical arm of the rod, an inclined brace bar connected at its lower end to said inclined plate, and a roller revolubly connected at its inner end to said bracket and at its outer end to the brace bar, the outer end of the brace rod being connected to the brace bar below the roller.

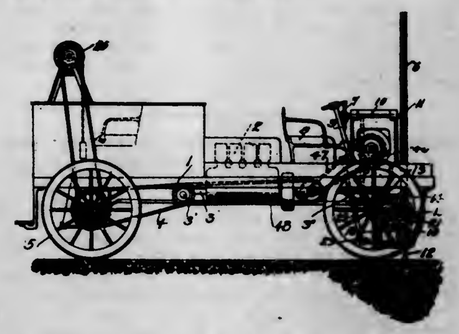
1,139,274. NON-SKID TIRE-ARMOR. FRANK GROHAL, Greensburg, Pa. Filed Feb. 18, 1915. Serial No. 9,077. (Cl. 152—16.)



1. A tire armor comprising a plurality of U-shaped sections each having a centrally positioned elongated slot adjacent one end thereof and provided with an upwardly directed inclined rear wall, a transversely arranged angularly projecting rib carried on the tread portion on the other end of each of said sections, said rib adapted to be received in the adjacent slot and engaging the inclined wall to prevent outward movement of the overlapped section, and side connecting means between the adjacent ends of the said sections.

2. A tire armor including sections arranged in overlapped relation upon the tread portion of the tire, each section having a transverse and angularly projecting rib adjacent one end thereof, the opposite end of each section being provided with a slot in its tread portion with the rib of the adjacent section slidably positioned therein, the rear walls of the said slots being inclined to prevent outward movement of the overlapped section, oppositely projecting pins carried by the overlapping section ends and retaining hooks carried by the underlying section ends engaging the said pins.

1,139,275. MECHANISM FOR BORING HOLES IN THE EARTH. JAKOB V. GUDMOND-HÖYER, Morris, N. Y. Original application filed Apr. 9, 1914, Serial No. 830,833. Divided and this application filed Aug. 5, 1914. Serial No. 855,181. (Cl. 255—19.)



1. In apparatus of the class described, the combination of a vehicle, means for propelling said vehicle, drilling mechanism carried thereby for drilling holes, means for automatically discontinuing movement of the vehicle to permit operation of the drilling mechanism, said pro-

pelling means being operable upon cessation of drilling action to continue the vehicle movement.

2. In apparatus of the class described, the combination of a vehicle, drilling mechanism for boring holes, common means for propelling the vehicle and operating the drilling means, brake mechanism for said vehicle, and means for applying the brake at predetermined points in the movement of said vehicle.

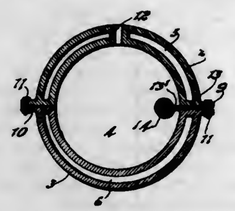
3. In apparatus of the class described, the combination of a vehicle, drilling mechanism for boring holes, means for propelling the vehicle and operating the drilling mechanism, a brake lever, and means coöperating with said brake lever to control the operation of the same upon movement of said vehicle a predetermined distance.

4. In apparatus of the class described, the combination of a vehicle, drilling mechanism for boring holes, means for propelling the vehicle and operating the drilling mechanism, a brake lever, and means coöperating with said brake lever to control the operation of the same upon movement of said vehicle a predetermined distance, said means comprising a cam wheel operatively connected to the vehicle driving mechanism.

5. In apparatus of the class described, the combination of a vehicle, drilling mechanism for boring holes, means for propelling the vehicle and operating the drilling mechanism, a brake lever, means coöperating with said brake lever to control the operation of the same upon movement of said vehicle a predetermined distance, said means comprising a cam wheel, and means for holding the lever in coöperative position with respect to said wheel.

[Claims 6 to 11 not printed in the Gazette.]

1,139,276. MOLD FOR TIRE-FILLERS. HERBERT JAMES HARDIE, Winnipeg, Manitoba, Canada. Filed Mar. 9, 1914. Serial No. 823,488. (Cl. 18—38.)

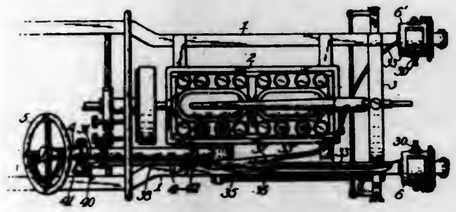


A mold for resilient tire fillers comprising releasably connected complementary sections providing between them a continuous circular molding chamber having a circular cross section of the dimensions of the filler to be molded, one of said sections being fitted with a filling opening from the exterior of the mold to the interior of the chamber and a thin continuous annular plate clamped between the sections and having the inner edge thereof inset in from the inner side of the mold wall and provided on the inset side with a continuous rim of circular cross section and relatively small in respect to the cross section of the mold, as and for the purpose specified.

1,139,277. REFLECTED-LIGHT-DIMINISHING APPARATUS. JESSEY F. HARRELL, Indianapolis, Ind. Filed Oct. 10, 1912. Serial No. 724,898. (Cl. 240—44.)

1. Reflected light diminishing means including a supported case, a focusing reflector supported in the case, a lamp device, a holding stem movably guided in the case for supporting the lamp device at different positions within the reflector, actuating means movably supported within the case adapted for graduatingly changing the position of the holding stem, controlling means operatively connected with the actuating means and extending to a point remote therefrom, and means for latching the controlling means to hold the stem and the lamp device in graduated position.

2. Reflected light diminishing apparatus including a supported focusing reflector provided on its axis with a guide, a stem movably supported by the guide and provided with a longitudinally movable flexible controlling device extending therefrom, means for guiding the controlling device and controlling the flexibility thereof, and a lamp device connected with the stem.



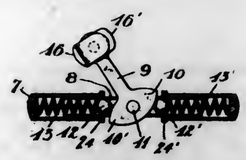
3. Reflected light diminishing apparatus including a supported focusing reflector provided with a guide, a stem movably supported by the guide, a flexible controlling rod, coupling means connecting the rod with the stem, means for guiding the rod and controlling the flexibility thereof, and a lamp device connected with the stem.

4. Reflected light diminishing apparatus including a supported focusing reflector provided with a guide, a stem movably supported by the guide, a flexible controlling rod, coupling means connecting the rod with the stem, a supported tubular casing enveloping and guiding the rod, and a lamp element carried by the stem opposite to the reflector.

5. Reflected light diminishing apparatus including a supported focusing reflector provided with a guide, a stem movably supported by the guide and having a relatively long and flexible controlling device operatively connected therewith, a lamp element carried by the stem opposite to the reflector, and means for tortuously guiding the controlling device and controlling the flexibility thereof.

[Claims 6 to 12 not printed in the Gazette.]

1,139,278. ELECTRIC SWITCH. GEORGE H. HART, West Hartford, Conn. Filed Dec. 31, 1914. Serial No. 879,821. (Cl. 175—287.)



1. In an electric switch the combination of a base, stationary contacts thereon, an actuating member having a to and fro movement and carried by said base, an oscillating switch-arm pivoted to said actuating member and having a peaked cam, a spring-pressed body carried by said member and engaging said cam, said base having a surface located on the opposite side of said switch-arm from said stationary contacts and engaged by said switch-arm and causing its upper end to move relatively to said member in the direction of said contacts when said member is moved in the opposite direction.

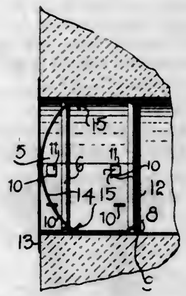
2. In an electric switch the combination of a base, stationary contacts thereon, an actuating member having a to and fro movement and carried by said base, an oscillating switch-arm pivoted to said actuating member and having a peaked cam, a spring-pressed body carried by said member and engaging said cam, said base having a surface located on the opposite side of said switch-arm from said stationary contacts and engaged by said switch-arm and causing its upper end to move relatively to said member in the direction of said contacts when said member is moved in the opposite direction, said switch-arm consisting of a main portion and blades insulated therefrom, said main portion having an extension which engages said surface on said base.

3. In an electric switch the combination of a base, stationary contacts thereon, an actuating member having a to and fro movement and carried by said base, an oscillating switch-arm pivoted to said actuating member and having a peaked cam, a spring-pressed body carried by said member and engaging said cam, and said base having two surfaces on opposite sides of said switch-arm and engaged by said switch-arm so as to make its upper end move relatively to said member in a direction opposite to the movement of said member when said member is moved.

4. In an electric switch the combination of a base, stationary contacts thereon, an actuating member having a to and fro movement and carried by said base, an oscillating switch-arm pivoted to said actuating member and having a peaked cam, a spring-pressed body carried by said member and engaging said cam, and said base having two surfaces on opposite sides of said switch-arm and engaged by said switch-arm so as to make its upper end move relatively to said member in a direction opposite to the movement of said member when said member is moved, said switch-arm consisting of a main portion and switch-blades insulated therefrom, the parts thereof which engage said surface being oppositely extending portions of said main portion.

5. In an electric switch, the combination of a base, stationary contacts thereon, an actuating member having a to and fro movement carried by said base, an oscillating switch-arm pivoted to said member and having two oppositely extending peaked cams adjacent to the pivot, two spring-pressed bodies longitudinally movable within said actuating member and engaging said cams respectively, and means for preventing the upper end of said switch-arm from following the movements of said actuating member until the peaks of said cams have passed said spring-pressed bodies.

1,139,279. ADJUSTABLE FLUE-STOP. WALTER E. HART, Shelbyville, Ill. Filed Feb. 15, 1915. Serial No. 8,392. (Cl. 126—319.)

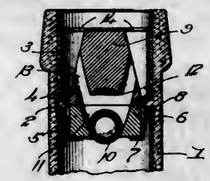


1. A flue stop including a body consisting of a sheet metal cylinder split longitudinally and provided adjacent its longitudinal edges with means to adjustably connect said edges together, and a back plate adapted to be arranged in one end of said cylindrical body and clamped thereby at its periphery when the longitudinal edges of the body are connected.

2. A flue stop including a body consisting of a sheet metal cylinder split longitudinally and provided adjacent its longitudinal edges with means to adjustably connect said edges together, said cylindrical body being further provided on one end with an internal annular groove, a back plate adapted to be removably engaged in said groove and clamped in position by the body sheet when the longitudinal edges thereof are connected, and a cap plate provided with means to fit within the body of the flue stop, said body being further provided with means formed therein for engagement by the means on the cap plate to retain the latter in position against the end of the cylindrical body.

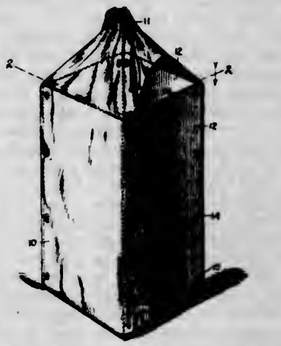
3. A flue stop including a body consisting of a sheet metal cylinder split longitudinally and provided adjacent its longitudinal edges with means for adjustably connecting said edges together, said cylindrical body being also provided upon one end with an inwardly projecting annular flange and an internal annular rib adjacent to said flange, a back plate adapted to be engaged at its outer edge between said rib and flange and securely clamped in place by the body sheet when the longitudinal edges thereof are connected, and a cap plate provided with a resilient bar adapted to fit within the other end of said body, the sheet metal body plate being provided adjacent to its latter end with an annular internal rib for engagement by the ends of the resilient bar whereby the cap plate is retained in position against the end of the cylindrical body.

1,139,280. NON-REFILLABLE BOTTLE. HAROLD LEE HART, Galesburg, Ill. Filed Oct. 24, 1914. Serial No. 868,500. (Cl. 215—65.)



A bottle including a neck, an annular flange formed on and projecting into said neck, a casing arranged in said neck and seated on said flange, opposite arms depending from the under face of said casing, said arms being spaced from the periphery of said casing, and engaging the inner face of said flange, a valve casing, the lower extremities of said arms being bent inwardly for supporting said valve casing, flexible tongues struck from said arms, the free ends of said tongues engaging the under face of said flange for preventing the removal of said first mentioned casing, said valve casing tapering toward its upper end, the upper end of said valve casing abutting the under face of the upper end of said first mentioned casing at a point spaced from the longitudinal sides thereof, and the upper end of said first mentioned casing being provided with openings communicating with the interior thereof.

1,139,281. PARCEL-POST PROTECTOR FOR MAIL-SACKS. HANNAH HAZELTON, New York, N. Y. Filed Feb. 2, 1915. Serial No. 5,661. (Cl. 150—13.)



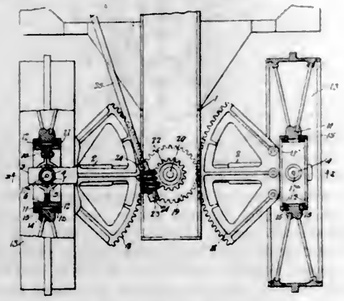
1. A parcel post protector for mail sacks, comprising a series of independent reinforcing sections designed to form a rectangular inclosure with open ends, and a plurality of hinge connections at the adjoining edges thereof.

2. A protector of the class described, comprising four rectangular sections of stiff material of even dimensions, said sections being provided with eyelets along certain edges, links passing through said eyelets to pivotally connect the sections, and another section of smaller dimensions similarly connected to one of the other sections and

adapted to be encompassed thereby when the sections are folded to produce an inclosure with open ends.

3. A protector of the class described, comprising four rectangular sections of stiff material of even dimensions, said sections being provided with eyelets along certain edges, links passing through said eyelets to pivotally connect the sections, and another section of smaller dimensions similarly connected to one of the other sections and adapted to be encompassed thereby when the sections are folded to produce an inclosure with open ends, and inclosure when fitted in a mail sack serving to protect the contents thereof with the sections braced together, and to permit the sack to be fastened in the usual manner, said sections being adapted to be folded on one another for return shipment in a compact space.

1,139,282. SPRING-WHEEL. CHARLES O. HEGGEM, Massillon, Ohio, assignor to The Russell and Company, Massillon, Ohio, a Corporation of Ohio. Filed Oct. 17, 1910. Serial No. 587,491. (Cl. 21—142.)



1. The combination, with a ground wheel, and an axle having a vertical projection, of an annular bearing member carried by said axle and having a guideway to coöperate with said projection, whereby said bearing member is free to move about a vertical axis relative to said axle, a resilient member confined between said axle and said bearing member, and a second bearing member carried by said ground wheel and coöperating with the first-mentioned bearing member.

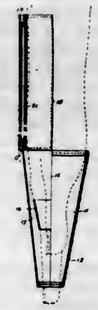
2. The combination, with a ground wheel, and an axle having a vertical projection, a bearing member carried by said axle and having a socket to receive said projection, whereby said bearing member is free to move about a vertical axis relative to said axle, a spring interposed between said axle and said bearing member, and a second bearing member carried by said ground wheel and coöperating with the first-mentioned bearing member.

3. The combination, with an axle having a vertically arranged projection and a bearing member carried by said axle and having a socket to receive said projection, said socket and said projection being circular in cross section, whereby said bearing member is free to move about a vertical axis relatively to said axle, of a ground wheel, and a second bearing member carried by said ground wheel and coöperating with the first-mentioned bearing member.

4. The combination, with an axle having vertical projections extending from the top and bottom thereof, respectively, a bearing member surrounding said axle and having sockets to receive said projections, whereby said bearing member is free to move about a vertical axis relative to said axle, and a spring coiled about one of said projections and arranged between the same and its socket, of a ground wheel, and a bearing member carried thereby and coöperating with the first-mentioned bearing member.

5. The combination, with a ground wheel, and an axle having a depending projection forming a guide, of an annular bearing member carried by said axle and having a hollow guideway to coöperate with said projection, whereby said bearing member is free to move about a vertical axis relative to said axle, said hollow guideway being adapted to contain a lubricant, a second bearing member carried by the ground wheel and coöperating with the first mentioned bearing member, said guideway having an opening therein to permit the passage of lubricant therefrom to the bearing surfaces of said members.

1,139,283. POLISHING-MITT. HARRY W. HEPNER, Allentown, Pa. Filed May 12, 1914. Serial No. 838,058. (Cl. 15—16.)

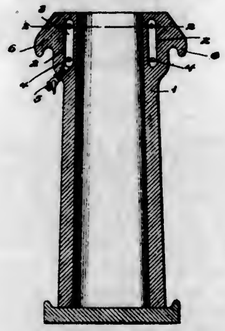


1. A mitt comprising a tubular toilet brush having rubbing surfaces constructed of different materials to serve a variety of uses; and a containing pocket for said brush, said pocket being hinged to said brush.

2. A mitt comprising a tubular toilet brush having rubbing surfaces constructed of different materials to serve a variety of uses; and a containing pocket for said brush, said pocket being hinged to said brush, the sides of said pocket completely covering said brush.

3. A mitt comprising a tubular toilet brush having rubbing surfaces constructed of different materials to serve a variety of uses; and a containing pocket for said brush, said pocket being hinged to said brush, said brush and said pocket being co-extensive, the sides of said pocket completely covering said brush, said pocket being provided at one side with two overlaid walls, the space between said walls being divided to form a series of end-opening pockets.

1,139,284. INGOT-MOLD. SAMUEL E. HITT, Elyria, Ohio, and JOSEPH I. PETTON, Washington, D. C. Filed Jan. 27, 1915. Serial No. 4,741. (Cl. 22—147.)



1. An ingot mold having a plurality of vacuum chambers formed in its side walls and provided with relatively thick upper walls.

2. An ingot mold having a plurality of vacuum chambers formed in its side walls and provided with relatively thick upper walls and partitions connecting their inner and outer walls.

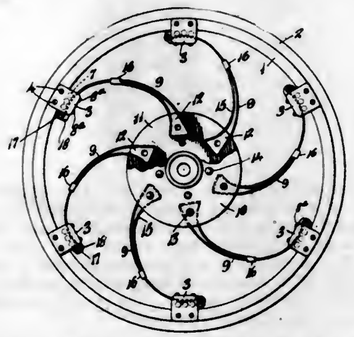
3. An ingot mold having a plurality of vacuum chambers formed in its side walls and provided with relatively thick upper walls and with symmetrically disposed integral partitions connecting their inner and outer walls.

4. An ingot mold having a plurality of vacuum chambers formed in its side walls and provided with heavy upper and lower walls.

5. An ingot mold having a plurality of vacuum chambers formed in its side walls and provided with heavy upper, lower and outer walls.

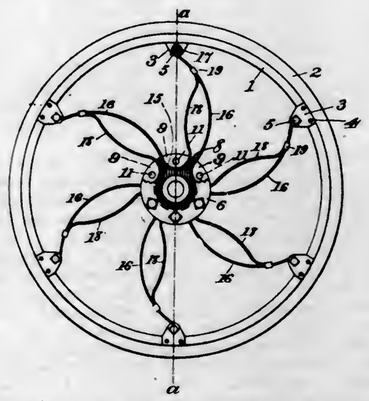
[Claims 6 to 12 not printed in the Gazette.]

1,139,285. SPRING-WHEEL. CHARLES HOFF, Cincinnati, Ohio, assignor of one-half to Andrew Oker, Cincinnati, Ohio. Filed Nov. 10, 1913. Serial No. 800,099. (Cl. 152—28.)



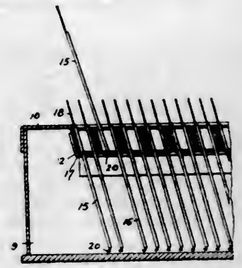
A spring-wheel comprising a rim having a series of equi-distant clips, ball boxes or chambers provided in said clips and having detachable perforated trays, balls freely mounted in said detachable trays, a series of resilient flat metal spokes or arms each having outer hook-ends that are adapted to slidingly-engage the said balls and, also, having inner loop-ends that extend outwardly along part of the body portion to reinforce same and are provided with inwardly-turned lateral extensions that freely engage said body portions, and a pair of centrally-orificed hub plates provided with alining and contacting inwardly-projecting lugs that are adapted for uniting-engagement with the said inner loop-ends of the resilient spokes or arms to readily and firmly hold the latter in operating position in the wheel.

1,139,286. SPRING-WHEEL. CHARLES HOFF, Cincinnati, Ohio, assignor of one-half to Andrew Oker, Cincinnati, Ohio. Filed Aug. 17, 1914. Serial No. 857,052. (Cl. 152—50.)



A spring-wheel for vehicles comprising a circular rim having a series of inwardly-extending clips, a central hub having an outer disk or cap-member and an inner disk having a circular series of duly spaced integral lugs or filler-blocks, suitable transverse screws or bolts connecting said hub disk members, and a series of pairs of integral, resilient, curved long and auxiliary short arms extending radially between said rim and hub and each having a U-shape bend intervening its said long and auxiliary short arms and adapted to engage one of said lugs in the disk-capped hub so that the long arm has its outer end attached to one of the said clips and the auxiliary short arm has free, resiliently-bearing and reinforcing contact with the long resilient arm of the next succeeding spring-spoke.

1,139,287. TABULAR CALCULATOR. ALFRED W. HOFFMAN, New York, N. Y. Filed July 8, 1914. Serial No. 849,708. (Cl. 235—61.)



1. An apparatus as characterized, comprising a plurality of racks, each having a perforated upper and lower wall; and a plurality of elongated tabbed holders, each having a shoulder at the lower end thereof to rest upon the lower wall of said racks to support said holders in raised position, and a tab head resting on the upper wall of said racks to support said holders in the lower position thereof.

2. An apparatus as characterized, comprising a plurality of racks, each having a perforated upper and lower wall; a plurality of elongated tabbed holders, each having a shoulder at the lower end thereof to rest upon the lower wall of said racks to support said holders in raised position, and a tab head resting on the upper wall of said racks to support said holders in the lower position thereof; and means mounted on said holders for preventing lifting the same out of said racks.

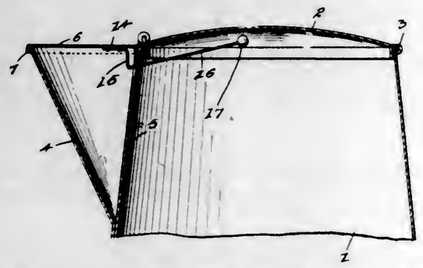
3. An apparatus as characterized, comprising a plurality of racks, each having a perforated upper and lower wall; a plurality of elongated tabbed holders, each having a shoulder at the lower end thereof to rest upon the lower wall of said racks to support said holders in raised position, and a tab head resting on the upper wall of said racks to support said holders in the lower position thereof; and hooked ends, one formed on each of said holders for engaging the under side of said racks when said holders are lifted to exposed position.

4. An apparatus as characterized, comprising a plurality of racks, each having a perforated upper and lower wall; a plurality of elongated tabbed holders, each having a shoulder at the lower end thereof to rest upon the lower wall of said racks to support said holders in raised position, and a tab head resting on the upper wall of said racks to support said holders in the lower position thereof; and a plurality of flanges, oppositely disposed and fixedly connected with each of said holders to form channels for holding a filler.

5. An apparatus as characterized, comprising a plurality of racks, each having a perforated upper and lower wall; a plurality of elongated tabbed holders, each having a shoulder at the lower end thereof to rest upon the lower wall of said racks to support said holders in raised position, and a tab head resting on the upper wall of said racks to support said holders in the lower position thereof; a plurality of flanges oppositely disposed and fixedly connected with each of said holders to form channels for holding a filler; and a bracket bench mounted on said holder within said channels to form a rest for said filler.

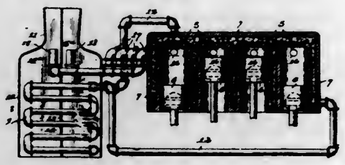
[Claim 6 not printed in the Gazette.]

1,139,288. COFFEE-POT. LYSANDER HOWARD, Louisville, Ky. Filed Apr. 22, 1914. Serial No. 833,736. (Cl. 53—3.)



The combination with a coffee pot having a spout, of a cover for the spout, brackets secured to opposite sides of said spout and extending upwardly to a point beyond the upper surface of said spout, a wire secured to each of the rear and outer ends of said cover, said wires being pivotally mounted in the brackets, a downturned flange on said cover to overhang the edges of said spout, a wire secured to the intermediate part of said cover and extending downwardly and inwardly within the coffee pot, and a weight on its free end to raise the cover when pot is tilted.

1,139,289. ENGINE-COOLING DEVICE. GEORGE S. JACOBS, Laporte, Ind., assignor, by mesne assignments, to Finley P. Mount as receiver of M. Rumely Company. Filed Apr. 30, 1913. Serial No. 764,542. (Cl. 123—170.)



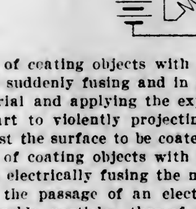
1. In an engine cooling device, the combination with the cylinders and cooling-jacket of a multiple cylinder engine, of a cooling device connected with said cylinder-jacket and provided with air-circulating passages, a stack containing a plurality of compartments equal in number to the number of cylinders in free communication with the air-circulating passages of said cooling device, and an exhaust pipe leading from each of said cylinders into only one of said compartments.

2. In an engine cooling device, the combination with the cylinders and cooling-jacket of a multiple cylinder engine, of a radiator containing liquid and air-circulating passages, pipes connecting said jacket and liquid circulating passages of said radiator, a stack containing a plurality of compartments in free communication with the air-circulating passages of said radiator, and a separate exhaust pipe leading from each of said cylinders into one only of said compartments.

3. In an engine cooling device, the combination with the cylinders and cooling jacket of a multiple cylinder engine, of a radiator provided with air-circulating passages, partitions in said radiator forming a plurality of compartments dividing the air-circulating passages of the radiator, a stack divided into a corresponding plurality of compartments each communicating with a compartment of the radiator, and separate exhaust pipes each leading from each of said cylinders into one of the compartments of said stack.

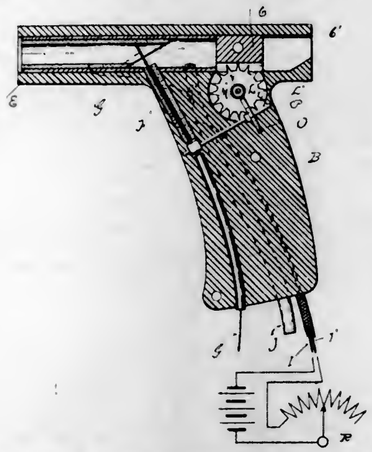
4. In an engine cooling device, the combination with the cylinders and cooling jacket of a multiple cylinder engine, of a radiator provided with air circulating passages, partitions in said radiator forming a plurality of compartments dividing the air-circulating passages of the radiator, a superposed stack containing partitions located in the same vertical planes as the partitions of the radiator and dividing said stack into a corresponding plurality of compartments each communicating with an underlying compartment of the radiator, and a separate exhaust pipe from each of the cylinders of the engine each leading into one of the compartments of said stack.

1,139,290. VALVE. ARTHUR JAQUISH, Ontario, Oreg. Filed Aug. 15, 1914. Serial No. 856,958. (Cl. 152—12.)



The combination with a pneumatic tire, of a tube provided with by-passes, a sleeve adjustable thereon, a supplemental tube having a nipple thereon, a valve therein, a coil-spring maintaining said supplemental tube against said first named tube, and a washer carried by said supplemental tube, said washer comprising a horizontal member and a dependent member, each of which covers corresponding ends of said by-passes.

1,139,291. COATING WITH FUSIBLE MATERIAL. CHARLES FRANCIS JENKINS, Washington, D. C. Filed Dec. 16, 1914. Serial No. 877,593. (Cl. 91—70.1.)



1. The method of coating objects with fusible material which consists in suddenly fusing and in part volatilizing the coating material and applying the expansive force of the volatilized part to violently projecting the non-volatilized part against the surface to be coated.

2. The method of coating objects with fusible material which consists in electrically fusing the material through its resistance to the passage of an electric current and throwing innumerable particles thereof with very high velocity against the object to be coated.

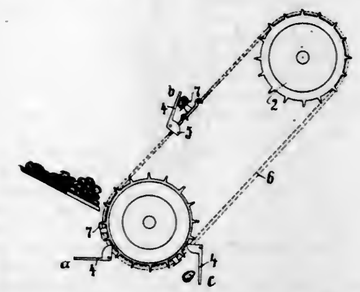
3. The method of metallizing porous non-metallic bodies which consists in electrically fusing the coating metal through its resistance to the passage of an electric current, dividing it into extremely small particles while fluid, and driving these particles with extremely high velocity against the body to be coated or metallized.

4. The method of coating articles with fusible material which consists in fusing the coating material and driving minute particles thereof against the article to be coated by the explosive action of explosive agents.

5. The method of coating with metal which consists in fusing small quantities of the coating metal successively, and by the successive actions of highly explosive agents driving minute particles of each small quantity against the surface to be coated.

[Claim 6 not printed in the Gazette.]

1,139,292. FEED MECHANISM FOR POTATO-PLANTERS. BOHUMIL JIROTKA, Berlin, Germany. Filed May 23, 1914. Serial No. 840,443. (Cl. 193—2.)



1. In feed and conveyer mechanism for distributing bodies of various sizes, the combination with an endless conveying member and two wheels carrying the same, of tables carried by said member, a spring-influenced gripper rotatably mounted on said member in operative relation to each table, the gripper and the table being connected to relatively movable portions of the conveying member whereby each gripper when passing one of the wheels is caused to move relatively to its table and thereby impart a rolling movement to a body pressed by it on the table.

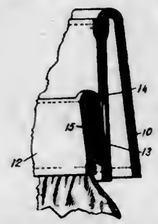
2. In feed and conveyer mechanism for distributing bodies of various sizes, the combination with an endless conveying member and two wheels carrying the same, of tables carried by said member, a spring-influenced gripper rotatably mounted on said member in operative relation to each table, the gripper and the table being connected to relatively movable portions of the conveying member whereby each gripper when passing one of the wheels is caused to move relatively to its table and thereby impart a rolling movement to a body pressed by it on the table, each table slanting relatively to the conveying member.

3. In feed and conveyer mechanism for distributing bodies of various sizes, the combination with an endless chain and two sprocket-wheels carrying the same, of gripping devices each comprising a spring-influenced rotatable gripper and a support carried by the chain, each gripper having a shoulder, and a disk mounted eccentrically to one of the sprocket wheels for contacting with the shoulders of the grippers and opening the grippers.

1,139,293. MEANS FOR ATTACHING COLLARS AND OTHER NECKWEAR TO SHIRTS. BENJAMIN JOACHIM, Newark, N. J., and BENJAMIN DAVIDSON, Los Angeles, Cal. Filed Apr. 1, 1913. Serial No. 758,120. (Cl. 2—67.)

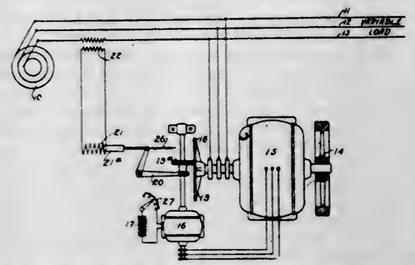
1. The combination with a neck band having a tongue; of a collar having a pocket located between the plies of the collar and engageable by said tongue, said pocket having an open end and closed sides at the entrance opening thereof and a bottom for engagement by the end of the tongue, whereby displacement of the tongue laterally is prevented.

2. The combination with the neck portion of an article of apparel having a plurality of tongues disposed centrally and at the sides thereof, said tongues depending from a point below the upper edge of said neck portion and spaced therefrom to produce engaging members; of a second article of apparel such as a collar, having pockets engaged by said members, said pockets having closed lower ends and open upper ends, adapted to receive the engaging members produced by said tongues.



3. The combination with the neck band of a shirt comprising a plurality of plies of material and having the usual buttonholes at the ends thereof and a plurality of tongues stamped from certain plies of the material, said tongues being located centrally of the length of the band at the back thereof when the band is in position and at spaced points at either side of the central tongue and inwardly of the buttonholes; of a collar also comprising a plurality of plies and having buttonholes near its ends and pockets located between certain plies thereof in similar relation to the disposition of the tongues in the band and adapted to be engaged by said tongues to secure the collar to the band and prevent upward displacement thereof relative thereto, said tongues when engaged in the pockets being hidden from view.

1,139,294. SYSTEM OF DISTRIBUTION. JOHN L. JOHNSON, Milwaukee, Wis., assignor, by mesne assignments, to Allis-Chalmers Manufacturing Company, a Corporation of Delaware. Filed June 27, 1910. Serial No. 568,971. (Cl. 171—312.)



1. In combination, an electric circuit, a motor having one member connected to said circuit, supplying current to another member of said motor, and means responsive to the load on said circuit and coöperating mechanically with said motor for varying the frequency of the current supplied to the other member of said motor.

2. In combination, two alternating current circuits, a motor having a rotating member of large inertia, said circuits being connected to separate members of said motor, a mechanical variable-speed connection between said motor and the generator supplying one of said circuits, and means responsive to the load on the other of said circuits for varying the frequency of the current in the first circuit.

3. In combination, two alternating current generators, a motor the two members of which are connected respectively to the circuits of said generators, and a mechanical variable speed device operated by said motor for driving one of said generators, said variable speed device being adjustable to vary the speed of said latter generator in response to changes in load on the circuit supplied by the other generator.

4. In combination, two alternating current circuits, a variable-speed generator supplying one of said circuits, a

motor whose synchronous speed is dependent upon the relative frequencies of said circuits, a mechanical speed-varying connection between said motor and said generator for driving the latter, and means responsive to the load on one of said circuits for actuating speed-varying connection to vary said relative frequencies.

5. In combination, a main alternating current generator, an auxiliary alternating current generator, circuits supplied by said generators, a motor having two members connected respectively to said circuits, and a mechanical variable-speed device driven by said motor and responsive to the load on said main generator for driving said auxiliary generator.

[Claims 6 to 8 not printed in the Gazette.]

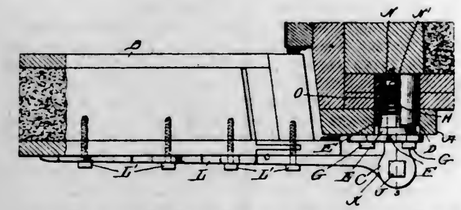
1,139,295. CIRCUIT-CLOSER FOR ELECTRIC-LIGHTED LEVELS OR PLUMBS. ARTHUR RUSSELL JONES, Bangor, Me. Filed Aug. 16, 1913. Serial No. 785,122. (Cl. 175—282.)



1. In a circuit closer for an electric lighted level and plumb the combination of a body, means for forming a circuit carried by said body, a cover plate carried by said body, a housing carried by said cover plate, said housing comprising a plurality of vertical sides, an integral bridge carried by said sides and positioned at a spaced distance below the top of said sides, a circuit closer slidably mounted upon said bridge and fitting between said sides, said sides constituting a shield for guarding said circuit closer, a spring fixedly secured to the under side of said bridge, said spring provided with an off-set portion so as to allow the spring to swing easily without interference from said bridge, a pin having a head carried by the free portion of said spring, said circuit closer adapted to engage said head for driving said pin inwardly for closing the circuit.

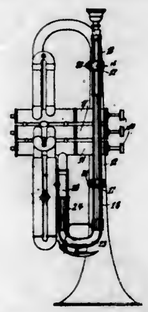
2. In an electric lighted level and plumb, the combination of a body, means for forming a circuit carried by said body, said body provided with a cover plate having an elongated slot, a housing carried by said plate and extending through said slot, said housing comprising side walls, an integral bridge carried by said side walls, a circuit closer slidably mounted upon said bridge and fitting between said sides, said sides constituting a shield for guarding said circuit closer, said housing provided with integrally bent portions positioned upon the inner side of said plate, thereby holding said housing in its correct position.

1,139,296. SELF-ADJUSTING SPRING-HINGE. RICHARD E. JONES, Hagerstown, Md. Filed Dec. 9, 1909. Serial No. 532,165. (Cl. 16—25.)



In a device of the kind described, the combination with a cylindrical casing, of a plate having a collar the inner end of which is reduced and fitted into the end of the casing, a stem extending through the plate and collar, and bifurcated at its outer end, its inner end having a threaded bore, a washer arranged upon the end of stem, a screw for holding the same in place, a spring surrounding said stem and bearing upon said washer and reduced end of collar, and a strap adapted to be secured to a door said strap being pivotally connected to the bifurcated outer end of stem as set forth.

1,139,297. CORNET. MARK J. KALASHEN, Brooklyn, N. Y. Filed July 21, 1914. Serial No. 852,174. (Cl. 84—8.)



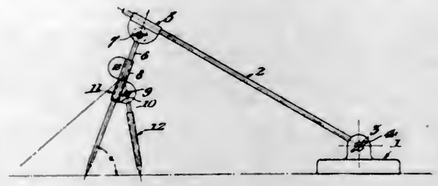
1. A cornet, comprising a bell, valves and their casings, pipes between the valves and the bell, a mouth-piece pipe detachably supported on the bell, and pipes between the valves and the mouth-piece pipe.

2. A cornet, comprising a bell, valves and their casings, a mouth-piece pipe, pipes between the valves and the bell, pipes between the valves and the mouth-piece pipe, means for detachably supporting on the bell the entire mouth-piece pipe, said mouth-piece pipe having a crook and a slidable connection beyond said crook, and said supporting means comprising two brackets, one located near the mouth-piece end of the mouth-piece pipe, and the other adjacent the crook of said pipe, said mouth-piece pipe being free from said valve-casings between said brackets.

3. A cornet, having a mouth-piece pipe provided with a crook rigidly fixed thereto, said mouth-piece pipe being slidably connected beyond the crook with one of the cornet-pipes, and clamps engaging the elongated main-portion of the mouth-piece pipe for detachably holding the mouth-piece pipe in position.

4. A cornet, having a mouth-piece pipe provided with a crook rigidly fixed thereto, said mouth-piece pipe being slidably connected beyond the crook with one of the cornet-pipes, clamps for detachably engaging the elongated main-portion of the mouth-piece pipe, and brackets extending from the bell and supporting said clamps in the path of swinging movement of the mouth-piece pipe.

1,139,298. INSTRUMENT FOR DRAFTING CONIC SECTIONS. JOHN D. KEPPY, Toronto, Ontario, Canada. Filed June 10, 1914. Serial No. 844,220. (Cl. 33—27.)



1. A curve drafting instrument comprising a leg; means for supporting the leg at any desired angle in a plane at right angles to the surface on which the curve is to be drawn comprising a base, an arm pivoted on the base to swing in a vertical plane, means for clamping said arm to the base, a slide movable on the arm, and means for clamping the leg to the slide and the slide to the arm, the aforesaid leg being pivoted on the slide; a telescopic scribing arm; and means for journaling the scribing arm on said leg so that during the tracing of a given curve the axis of the scribing arm intersects the axis of the leg at the same point.

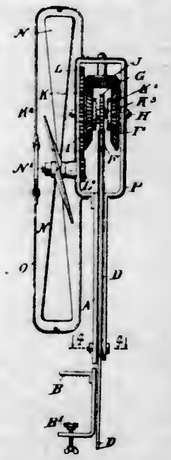
2. A curve drafting instrument comprising a leg; means for supporting the leg at any desired angle in a plane at right angles to the surface on which the curve is to be drawn; a telescopic scribing arm; a bearing for journaling the scribing arm on said leg so that during the tracing of a given curve the axis of the scribing arm intersects the axis of the leg at the same point; and means for holding the bearing at any desired position longitudinally of the leg.

3. A curve drafting instrument comprising a leg; means for supporting the leg at any desired angle in a plane at right angles to the surface on which the curve is to be drawn; a telescopic scribing arm; a bearing for journaling the scribing arm on said leg so that during the tracing of a given curve the axis of the scribing arm intersects the axis of the leg at the same point; means for holding the bearing at any desired position longitudinally of the leg; and means for holding the scribing arm at any desired angle relative to the axis of said leg.

4. A curve drafting instrument comprising a leg; means for supporting the leg parallel to a given plane surface; a telescopic scribing arm; and means for journaling the scribing arm on said leg so that during the tracing of a given curve the axis of the scribing arm intersects the axis of the leg at the same point.

5. A curve drafting instrument comprising a leg; means for supporting the leg parallel to a given plane surface; means for varying the distance of the leg from said surface; a telescopic scribing arm; and means for journaling the scribing arm on said leg so that during the tracing of a given curve the axis of the scribing arm intersects the axis of the leg at the same point.

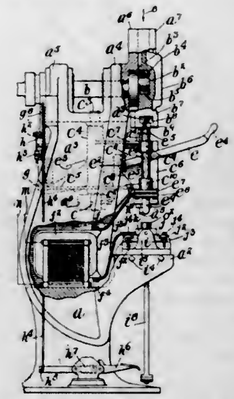
1,139,299. FAN ATTACHMENT FOR ROCKING-CHAIRS. WILLIAM L. KLINE, Rutherford, N. J., assignor of one-half to Frank J. Kline, Rutherford, N. J. Filed June 5, 1914. Serial No. 843,155. (Cl. 230—7.)



1. A fan attachment for rocking chairs and similar rocking articles, comprising a frame having means for detachably securing it to the article, a fan wheel journaled in the said frame, a pendulum mounted to swing on the said frame and provided with a segmental rack, a spur wheel in mesh with the said segmental rack, loosely mounted beveled gear wheels on opposite sides of the said spur wheel, a beveled pinion in mesh with the said beveled gear wheels, a gearing connecting one of the said bevel gear wheels with the said fan wheel, and pawl and ratchet mechanisms connecting the said spur wheel with the said beveled gear wheels.

2. A fan attachment for rocking chairs and similar rocking articles, comprising a frame provided with means for attaching it to the article, a fan wheel mounted in the upper part of the frame and having a pinion on its shaft, a pendulum mounted to swing on the frame and having a segmental rack at its upper end, a stationary shaft in the upper part of the frame, a spur wheel loosely mounted on the shaft and meshing with the segmental rack, beveled gear wheels loosely mounted on the shaft on opposite sides of the spur wheel and having ratchet teeth on their inner faces, spring pawls on opposite faces of the spur wheel and engaging the ratchet teeth of the said gear wheels, a beveled pinion in mesh with the said beveled gear wheels, and a gear wheel secured to one of the bevel gear wheels and meshing with the pinion on the fan shaft.

1,139,300. ELECTRIC RIVETING APPARATUS. FRANK P. KOBERT, New Haven, Conn. Filed Jan. 5, 1914, Serial No. 810,278. Renewed Oct. 7, 1914. Serial No. 865,590. (Cl. 219—2.)



1. In a machine of the class described, a frame provided with a table, a die mounted on said table and composed of separate parts, one of which is movable toward and from the other, and a horizontally rotatable member mounted in said frame and carrying a vertically movable plunger and a vertically movable electrode, each of which is adapted to be thrown into vertical line with a work piece held by the die.

2. A machine of the class described comprising a suitable frame provided with a suitable supported die consisting of two parts, one of which is movable toward and from the other, said parts being adapted to support a work piece and a horizontally rotatable member mounted in the frame and provided with a vertically movable plunger and a vertically movable electrode, each of which is adapted to be thrown into vertical line with the work piece supported by the die.

3 A machine of the class described comprising a suitable frame provided with a suitable supported die consisting of two parts, one of which is movable toward and from the other, said parts being adapted to support a work piece and a horizontally rotatable member mounted in the frame and provided with a vertically movable plunger and a vertically movable electrode, each of which is adapted to be thrown into vertical line with the work piece supported by the die, the separate parts of the die being also provided with water circulating passages.

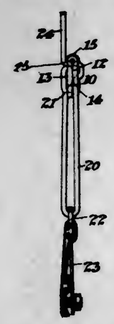
4. In a machine of the class described, a frame provided with a die adapted to support a work piece, and a central rotary member mounted in the frame and provided with a vertically movable plunger and a vertically movable electrode, and means for rotating said member so as to throw the electrode and the plunger successively into vertical line with a work piece held by the die.

5. A machine of the class described, comprising a frame provided with a suitable die support, a die mounted on said support and adapted to hold a work piece, a rotatable member mounted in the frame above the support of the

die and provided with a vertically movable plunger and a vertically movable electrode, means for turning said rotatable member so as to bring the electrode and the plunger successively into vertical line with the work piece held by the die, means for depressing the electrode, means for depressing the plunger, and means for passing an electric current through the electrode and through the die.

[Claims 6 to 9 not printed in the Gazette.]

1,139,301. BUCKLE. WALDEMAR KOPS, New York, N. Y., assignor to Kops Brothers, New York, N. Y., a Firm. Filed Sept. 27, 1912. Serial No. 722,593. (Cl. 24—198.)



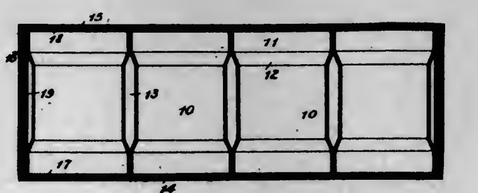
1. A buckle made from an integral blank comprising inverted U-shaped end members, a rounded top member extending at right angles between the rounded portions of the said end members, a reverse side member to which one end of a fabric employed with the buckle is to be attached and which extends between the corresponding parts of the said inverted U-shaped end members, an obverse side member extending between the other parts of the said inverted U-shaped end members, and an obverse side member intermediate of the aforesaid obverse side member and the adjacent portion of the said top member, the fabric employed with the buckle being adapted to be passed under the first aforesaid obverse side member over the intermediate obverse side member and under the said top member, the rear edge of which is adapted to grip the same when in use.

2. A buckle comprising the following integral parts, inverted U-shaped end members, a rounded top member extending at right angles between the rounded portions of the end members, the edge of the said rounded top member at the rear of the buckle forming a gripping edge, a reverse side member extending between the corresponding end members at the rear of the buckle, and which is adapted to have connected thereto the fabric employed with the buckle and obverse side members extending between the other end members at the front of the buckle and which obverse members are adapted to have threaded between them the fabric employed with the buckle.

3. A buckle comprising the following integral parts, inverted U-shaped end members, a rounded top member extending at right angles between the rounded portions of the end members, an edge of the said rounded top member at the rear of the buckle forming a gripping edge, a reverse side member extending between the corresponding end members at the rear of the buckle, obverse side members extending between the other end members at the front of the buckle, and a fabric or webbing attached to the said reverse side member and extending beneath and between the said obverse side members, and also beneath the edges of the said rounded top member in the use of the buckle.

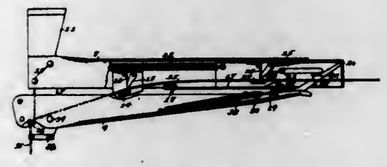
1,139,302. EGG-CONTAINER. WILLIAM H. LEWIS, Arrington, Va. Filed May 21, 1914. Serial No. 840,035. (Cl. 217—29.)

1. A tubular egg-holding cell round in cross section, said cell having an elongated cylindrical body to hold an egg and end portions of greater diameter than the body portion, the terminal portions of the enlarged ends being cylindrical and joined to the relatively contracted cylindrical body of the cell by flaring portions.



2. An egg-holding cell presenting a central cylindrical body portion, cylindrical ends of less length than the cylindrical central portion and of larger diameter than said central portion, and flaring portions connecting the said cylindrical central portion with the cylindrical end portions.

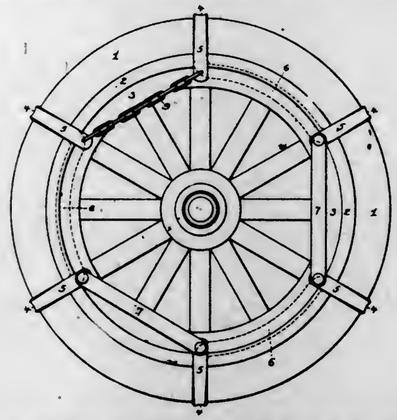
1,139,303. HAMMER. VERNON THOMAS LYNCH, Chicago, Ill. Filed Jan. 8, 1915. Serial No. 1,125. (Cl. 1—51.)



1. An implement of the class described, comprising a head, a handle, a reciprocating shuttle, means on said shuttle for feeding wire through said head, means for locking said shuttle in one position, means for releasing said locking means, means for moving said shuttle to carry said wire when so released, and means for forming a nail from said wire.

2. An implement of the class described, comprising a head, a handle, means for feeding wire through said handle, a lever, means connected with said head and with said lever for bending a length of wire to form a nail head, comprising a lip on said head and a nose on said lever, and a cutter carried by said lever for detaching a formed nail from the wire.

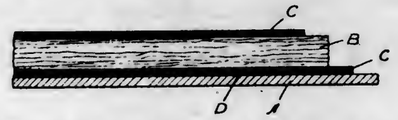
1,139,304. WHEEL-TIRE GRIP. GEORGE ALBERT LYON, Philadelphia, Pa. Original application filed Oct. 29, 1909, Serial No. 525,283. Divided and this application filed May 12, 1911. Serial No. 626,756. (Cl. 152—14.)



1. A tire grip having tread members crossing the tire from side to side and each presenting both on its inner and outer faces reversely angled fore and aft portions, whereby it presents upstanding front and rear edges to the roadway, and a depressed central portion which indents the tire.

2. A tire grip having tread members crossing the tire from side to side, said tread members presenting a concavo-convex cross section with the concave side to the roadway and the convex side to the tire.

1,139,305. COMPOSITE INSULATING MATERIAL. HELON B. MACFARLAND, Chicago, Ill., and ROBERT J. SHOEMAKER, Topeka, Kans.; said Shoemaker assignor to said MacFarland. Filed Nov. 26, 1913. Serial No. 803,209. (Cl. 154—44.)



1. An insulating material comprising a stratum of felt-like vegetable fibers from which the non-fibrous constituents of the plants have been removed, and integrally united therewith a facing composed of fibrous material derived from like plants treated so as to make it denser and more tenacious than said felt-like stratum.

2. An insulating material comprising a stratum of felt-like cellulose fibers and integrally united therewith a facing of hydro-cellulose.

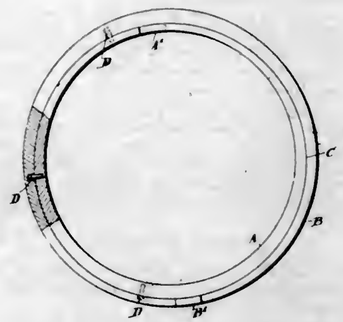
3. An insulating material comprising a stratum of vegetable fibers and integrally united therewith a facing of material produced by treating like vegetable fibers with a dilute acid.

4. An insulating material comprising integrally united strata composed respectively of felted vegetable fibers and of a denser, more tenacious material produced from fibrous material by treating the same with an acid.

5. An insulating material comprising integrally united strata composed respectively of felted cellulose fibers and of hydro-cellulose.

[Claims 6 to 10 not printed in the Gazette.]

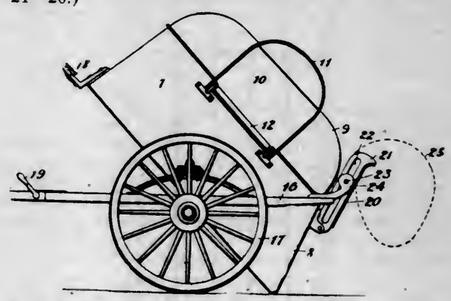
1,139,306. PACKING. GEORGE MCCADDEN, St. Cloud, Minn. Filed Feb. 16, 1914. Serial No. 818,915. (Cl. 121—108.)



1. A piston packing comprising an inner expanding ring and an outer expanding bearing ring, the inner and outer peripheries of the rings being concentric and the joint between the rings being eccentric, each ring having at its thinnest portion a lap joint, said lap joints being located diametrically opposite each other, a retaining pin rigidly secured to the inner ring and projecting radially from the outer face thereof, the outer ring having a radial socket extending outwardly and partly through said ring whereby the radial pin may loosely engage the socket to prevent circumferential movement of the rings and provide a smooth outer surface for the outer ring over said socket.

2. A piston packing comprising an inner expanding and an outer expanding bearing ring, the inner and outer peripheries of the rings being concentric and the joint between the rings being eccentric, each ring having at its thinnest portion a lap joint, the said joints being wholly unobstructed and approximately diametrically opposite each other, a series of spaced retaining pins projecting radially from the outer face of the inner ring and rigidly secured to said ring, and radial recesses in the inner face of the outer ring at a suitable distance from its lapped ends, the said retaining pins being located in less than one half portion of its ring and of less length than the combined thickness of the inner and outer rings whereby said pins loosely engage said radial recesses and a smooth outer face on the outer ring over said pins is provided.

1,139,307. ASH-CART. HERMAN MECKING, New York, N. Y. Filed June 1, 1914. Serial No. 842,046. (Cl. 21—20.)



1. In an ash cart, a frame, a body pivotally mounted on said frame; means normally locking the body and the frame, the rear end of said body sloping downwardly and having a discharge opening thereat; a trap for said opening connected to the body adjacent the upper edge of the discharge opening; a roller carried by the frame across said trap; and guiding means carried by the trap engaging said roller, the engagement of said guiding means and said roller causing the trap to move on its pivot when the body is moved in the frame.

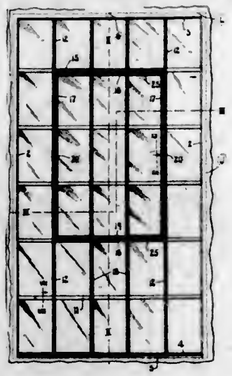
2. In an ash cart, a frame; a body pivotally mounted in said frame; means normally locking the body on the frame, the rear end of said body sloping downwardly and having a discharge opening thereat; a trap for said openings having its side and bottom edges rounded and being adapted to fit snugly against the edges of the body at the discharge opening; means carried by the side and bottom edges of the discharge opening and adapted to be engaged by the trap whereby the discharge opening of the body is sealed; means connecting said trap and body adjacent the upper edge of the discharge opening; a roller carried by the frame across said trap; guiding means carried by the trap engaging said roller, the engagement of said guiding means and said roller causing the trap to move on its pivot when the body is moved by the frame.

3. In an ash cart, a frame; a body pivotally mounted on the frame, the rear end of said body sloping so that the capacity of the body at the bottom is greater than at the top, said rear end of the body having a discharge opening; a trap for said discharge opening pivotally connected to the body adjacent the upper edge of the discharge opening; and a roller carried by the frame extending across said trap, said trap having slotted guides engaging the roller, said roller adapted to move the trap on its pivot to a position substantially parallel to the rear of the body when the same is placed into dumping position.

4. In an ash cart, a frame; a body pivotally mounted on said frame, the rear end of said body sloping downwardly, whereby the capacity of the body increases toward the bottom, the rear of said body having a discharge opening; a trap for said opening having its sides and bottom edges rounded and adapted to fit snugly against the edges of the body at the discharge opening;

means carried by the side and bottom edges of the discharge opening adapted to be engaged by the trap, whereby the discharge opening of the body is sealed; means pivotally connecting said trap to the body adjacent the upper edge of the discharge opening; a roller carried by the frame across said trap; and slotted guiding means carried by the trap and engaging with said slots said roller, the movement of the body on the frame causing the trap to move on its pivot, whereby said trap is adapted to be placed in a substantially parallel position to the back of the body when said body is placed into the dumping position.

1,139,308. WINDOW. FRANK MESKER and JACOB BENC, St. Louis, Mo., assignors to Mesker & Bro., St. Louis, Mo., a Firm composed of Barnard T. Mesker and Frank Mesker. Filed July 1, 1912. Serial No. 706,931. (Cl. 189—72.)

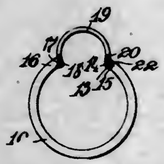


1. A window structure, comprising a lintel, jambs and a sill; and a sash interlocked with said lintel so as to allow the sash to expand vertically, said sash being connected to said sill by means which allow the sash to expand horizontally.

2. A window structure comprising a lintel, jambs, and a sill; and a sash extending into said lintel and jambs, said lintel having a lug and the sash being provided with a notch for the reception of said lug whereby the sash is interlocked with the lintel to permit vertical expansion of the sash, and a slidable connection between said sash and sill allowing the sash to expand horizontally.

3. A window structure comprising a lintel, jambs, and a sill; and a sash extending into said lintel and jambs, said lintel having a lug and the sash being provided with a notch for the reception of said lug whereby the sash is interlocked with the lintel to permit vertical expansion of the sash, and means for connecting said sash to said sill, said means including a pin secured to one of said parts and slidably fitted to the other part to permit horizontal expansion of said sash.

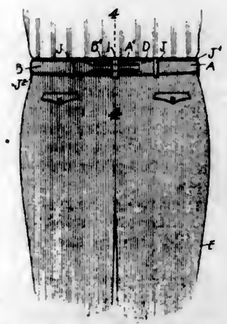
1,139,309. HOOP EAR-RING. CHARLES F. NESLER, Newark, N. J., assignor to Nesler & Company, Newark, N. J., a Corporation of New Jersey. Filed Feb. 5, 1914. Serial No. 816,694. (Cl. 63—12.)



1. An ornamental member for an earring comprising a bent strip of metal with its ends adjacent, one end of the strip having a thinned part with a shoulder at its inner end, the thinned part being formed against the shoulder so as to provide a knuckle having an outside diameter substantially equal to the thickness of the main part of the strip, and an ear wire pivoted to the knuckle and adapted to engage the other end of the strip.

2. An ornamental member for an earring comprising a bent strip of metal with its ends adjacent, one end of the strip having a thinned part with a shoulder at its inner end, the thinned part being formed against the shoulder so as to provide a knuckle having an outside diameter substantially equal to the thickness of the main part of the strip, the knuckle being slotted, an ear-wire in said slot, and a pintle passing through the ear-wire and the knuckle, the ear wire being adapted to engage the other end of the member.

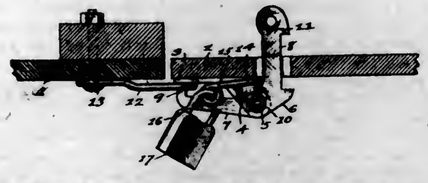
1,139,310. WAIST-BELT. LOUIS RECHTSCHAFFEN, New York, N. Y. Filed Oct. 28, 1914. Serial No. 868,981. (Cl. 2—143.)



1. A waist belt, comprising two belt sections secured at their rear ends to the waistband of a garment, one of the said sections being provided at the rear portion with an elongated opening and the other section having its rear portion narrowed and passing through the said elongated opening, means for guiding the rear portions of the belt sections at said opening, fastening means detachably and adjustably connecting the free end of one belt section to the waistband, and fastening means detachably and adjustably connecting the free end of the other belt section to the first-named belt section.

2. A waist belt, comprising two belt sections secured at their rear ends to the waistband of a garment, one of the said sections being provided at the rear portion with an elongated opening and the other section having its rear portion narrowed and passing through the said elongated opening, a triple loop attached to the back of the waistband for the said rear portions of the belt sections to slide in independently one of the other, fastening means detachably connecting the free end of one belt section to the waistband, and fastening means detachably connecting the free end of the other belt section to the first-named belt section.

1,139,311. DOOR-LATCH. FREDERICK ELIJAH RICHARDSON, Manchester, Iowa. Filed Aug. 13, 1914. Serial No. 856,582. (Cl. 70—45.)



A sliding door latch, comprising a plate secured to a door, a lever pivoted thereon and provided with two arms

substantially perpendicular to each other, one of which projects through said door and the other of which is hooked at its end, a spring for maintaining said hooked end against said plate, and a stationary keeper on the door frame adapted to be engaged by said hooked end to hold said door in closed position.

1,139,312. BATHING-CAP. HENRY P. RINDSKOPF, New York, N. Y. Filed May 8, 1914. Serial No. 837,192. (Cl. 2—106.)



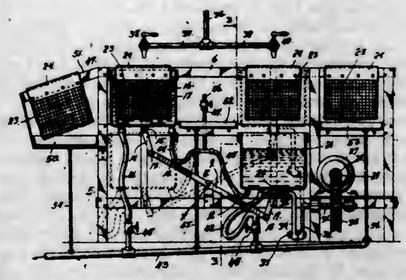
1. A bathing cap, having an enlarged head opening, and a resilient endless loop fixedly attached to a portion of the body adjacent the edge of the head opening thereof and adapted to infold the remainder of the body.

2. A bathing cap comprising a full-opening body, and a contractible endless loop fixedly attached to said body adjacent the edge thereof and adapted to extend over and contract upon the remainder of the body, to hold the same in contact with the head of the wearer.

3. A cap as characterized, having a contractible endless loop, a portion of which is fixedly attached to the body, to form a contractible head band therefor.

4. A bathing cap comprising a body portion having an enlarged head opening, a section of the edge of said opening being gathered for partly contracting the same; and an endless elastic loop fixedly attached to said body portion and to the contracted section thereof, said loop being adapted to extend over said body portion for contracting the remainder of said head opening.

1,139,313. DISH-WASHER. FRANK HOYT STEVENS, Colorado Springs, Colo. Filed May 15, 1914. Serial No. 838,704. (Cl. 141—9.)



1. In a dish washer, the combination with a suitable frame, of a basket slidable longitudinally thereon supported against downward movement and composed of material to allow the liquid to enter and escape freely, a tub adapted to contain liquid, and means for alternately raising and lowering the tub to submerge the contents of the basket at predetermined intervals, substantially as described.

2. The combination with a frame, of two baskets slidable longitudinally thereon and supported against downward movement and two tubs adapted to respectively contain washing and rinsing liquid, and means for imparting a reciprocating movement to the tubs, whereby the latter are brought into telescopic relation with the baskets at predetermined intervals.

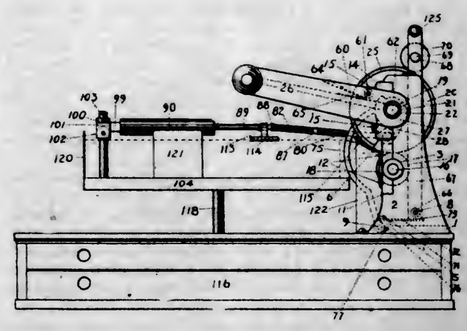
3. The combination of a frame, baskets mounted thereon and constructed to permit liquid to enter and escape freely, liquid containing tubs arranged below and in vertical alinement with the baskets, a walking beam whose opposite extremities are movably connected with the respective tubs, and means for imparting movement to the walking beam whereby the tubs are actuated to submerge the contents of the baskets in the liquid of the tubs at predetermined intervals, substantially as described.

4. The combination of a frame, baskets mounted thereon and constructed to permit liquid to enter and escape freely, liquid containing tubs arranged below and in alinement with the baskets, a walking beam whose opposite extremities are connected with the respective tubs, and means for imparting movement to one tub and thence to the walking beam and the other tub, whereby the contents of the baskets are submerged in the liquid of the tubs at predetermined intervals, and drain trays located forwardly and rearwardly of the tubs and between the latter, substantially as described.

5. The combination with a frame, of baskets slidably mounted thereon, liquid containing tubs arranged below the baskets and in vertical alinement therewith, a walking beam fulcrumed at a point between the tubs, its opposite extremities being respectively connected with the tubs, and means for imparting movement to the walking beam, whereby the tubs are successively and alternately raised and lowered, and the contents of the baskets submerged in the liquid of the tubs at predetermined intervals, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

1,139,314. ROTARY PRINTING-PRESS. EDWIN R. STORM, New York, N. Y. Filed Sept. 10, 1907. Serial No. 392,146. (Cl. 101—126.)



1. In a rotary printing press, a type-cylinder having a cylindrical type-bed and formed with one end of a diameter smaller than the diameter of the type-bed, and the other end of a diameter greater than the type-bed; and an end piece of a diameter greater than the diameter of the type-bed rotatably mounted on the said smaller end.

2. In a rotary printing press, a type-cylinder having a cylindrical type-bed and formed with one end of the diameter of the type-bed and the other end with a recessed portion extending beyond the type-bed; a sleeve on the smaller end of the type-cylinder formed with its axis coincident with the axis of the said type cylinder; and a recessed end-piece of a diameter greater than the diameter of the said type-bed rotatably mounted on the said sleeve.

3. In a rotary printing press; a type cylinder having a cylindrical body; a fixed end-piece extending beyond the cylindrical body and having an annular recess in the ex-

tended portion; an end-disk fitted in one end of the cylindrical body; a rotatable end-piece extending beyond the said cylindrical body and having an annular recess in the extended portion and a channel communicating with the said recess; sections of a hollow shaft on which the cylinder is mounted; and a rod fitting the hollow sections.

4. In a rotary printing-press; a type cylinder having a cylindrical body perforated by an axial hole; a fixed end-piece on one end of the type clylinder extending beyond the cylindrical body and having an axial hole and an annular recess in the extended portion; an end-disk of approximately the diameter of the type cylinder terminating the opposite end of the type cylinder and provided with an axial hole; sections of a hollow shaft fixed in the end-piece and end-disk; a rotatable end-piece mounted on the section of the hollow shaft in the end-disk; an extended portion on the rotatable end-piece having an annular recess and a channel communicating with the said recess; and a locking-rod filling the sections of the hollow shaft.

5. In a rotary printing-press; a type cylinder having a cylindrical body; a head-piece secured to the type-cylinder; a fixed end-piece extending beyond the cylindrical body; a rotatable end-piece extending beyond the cylindrical body; semi-cylindrical hubs on the end-pieces; sections of a hollow shaft fitted to the cylinder; and a rod filling the sections of the hollow shaft.

[Claims 6 to 40 not printed in the Gazette.]

1,139,315. PRODUCTION OF WET-CARBONIZED-PEAT BRIQUETS. NILS TESTRUP, London, England, and THOMAS RIGBY, Dumfries, Scotland, assignors, by mesne assignments, to Wetcarbonizing Limited, London, England. Filed May 6, 1912. Serial No. 695,397. (Cl. 44—3.)

1. A process of briqueting peat consisting in heating the same to destroy water binding bodies therein, removing liberated water by filtration under pressure, disintegrating and further drying the material to a low water content and thereupon subjecting the material to consolidation by such suddenly applied pressure as to heat the material to the temperature at which contained binding agents are fused.

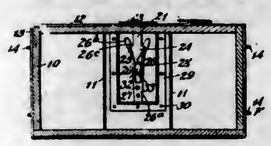
2. A process for briqueting peat consisting in rendering the contained water free by heating the peat to a high temperature under pressure, then subjecting the material to filtration under pressure, then to disintegration and further drying to a water content of about 5%, and thereafter to consolidation by such suddenly applied pressure as to raise the temperature of the occluded air and cause fusion of the contained binding substances of high fusion temperature.

3. A process for briqueting peat consisting in rendering the contained water free by heating the peat to a high temperature under pressure, then subjecting the material to filtration under pressure, thereafter to disintegration and further drying to a water content of about 5%, then heating the porous material to a temperature not exceeding 100° C. and thereupon effecting consolidation by a suddenly applied pressure sufficient to heat the material to the temperature at which the contained binding agents are fused.

4. A process for briqueting peat consisting in heating the peat to set free water retained therein, removing liberated water by filtration under pressure, disintegrating and further drying the material to a low water content, heating the material to a temperature not exceeding 100° C. and thereupon consolidating the material by such suddenly applied pressure as to heat the material to the temperature at which contained binding substances are fused.

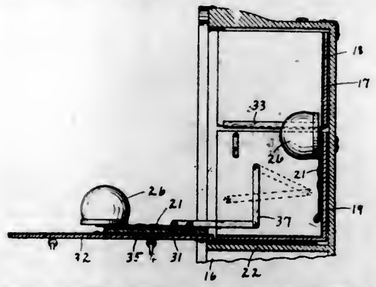
1,139,316. FASTENER FOR BOX-COVERS. FRANCIS DWIGHT VAN VALKENBURGH, Biloxi, Miss. Filed Apr. 16, 1914. Serial No. 832,302. (Cl. 70—3.)

A fastener for a shipping case, comprising a fastener element applicable to the body of the case and a coacting fastener element applicable to the cover of the case; said second mentioned element having a top plate adapted to removably rest on the top of the cover, and a depending shank on the said plate adjacent the front edge of the latter, the lower end of the said shank having an arrow



head; said first fastener element having means to secure it to the body of the case and having resilient latching means to engage the arrow head of the first element.

1,139,317. CONVERTIBLE TRUNK. GEORGE H. WHEARY, Racine, Wis., assignor to The Hartmann Trunk Company, Racine, Wis., a Corporation of Wisconsin. Filed July 22, 1912. Serial No. 710,739. (Cl. 190—1.)



1. A convertible trunk, comprising a trunk section, drawers within said section and independently removable therefrom and having front openings covered with doors, one of said drawers provided with a bottom portion which may be adjusted to combine the compartments of both drawers into one compartment and means for locking the two drawers together to cause them to move as one.

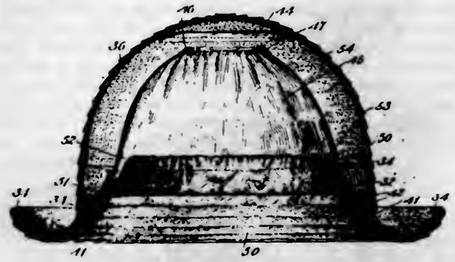
2. A convertible trunk, comprising a trunk section, a lower drawer within said section, an upper drawer within said section and located above the lower drawer, both of said drawers having front openings and doors covering said openings, the bottom portion of the upper drawer being adjustably connected to said drawer to provide for combining the compartment of the upper drawer with the compartment of the lower drawer, and means for locking both drawers together to cause them to move as one.

3. A convertible trunk, comprising a trunk section, a lower drawer within said section, an upper drawer within said section and located above the lower drawer, both of said drawers having front openings and doors covering said openings, the bottom portion of the upper drawer being adjustably connected to said drawer to provide for combining the compartment of the upper drawer with the compartment of the lower drawer, and means within the drawers for holding hats and for locking the two drawers together when combined to form one compartment.

4. A convertible trunk, comprising a trunk section, a lower drawer within said section, an upper drawer within said section and located above the lower drawer, both of said drawers having front openings and doors covering said openings, the bottom portion of the upper drawer being hinged to said drawer and adapted to be swung to a position to combine the compartment of the upper drawer with the compartment of the lower drawer, means for locking the hinged bottom portion in adjusted position, and hat holders positioned within the drawers for holding hats and for locking the two drawers together.

1,139,318. HAT-PATTERN. LYDIA KENDALL WHEELOCK, New York, N. Y. Filed Mar. 10, 1914. Serial No. 823,704. (Cl. 2—108.)

1. A hat pattern, comprising an outer brim section, an inner brim section, a dome-shaped crown formed of a disk and a side crown formed of a strip, said parts being cut and marked to indicate the manner of assemblage of the foundation material of a hat to be constructed, said assemblage in accordance with said marks, enabling the production of a duplicate of the original hat.



2. A hat pattern, comprising an outer brim section, an inner brim section, a crown proper and a side crown, said outer brim embodying a substantially circular strip with free end portions adapted to overlap each other and with interior notches producing tongues, the inner brim and side crown embodying curved strips also adapted to overlap at their end portions, and the crown proper embodying a substantially circular flat section having spaced radial darts providing intermediate portions adapted to overlap each other at certain edges to produce a convex shape and also having edge notches, said notches first and last mentioned permitting formation between the crown proper and the side crown, and the inner and outer brims respectively when secured together, all of said parts being marked to indicate their inter-relation in the reproduction of a duplicate of the original.

3. A hat pattern, comprising a series of strips and a disk having slits, said strips and disk being adapted to be fitted together to produce a hat of the required design.

4. A hat pattern comprising an outer brim section normally in the shape of an arcuated strip, an inner brim section also normally in the shape of an arcuated strip, a crown normally in the shape of a circular blank and a side crown normally in the shape of an arcuated strip, said parts being adapted to be assembled to form a hat shape.

5. A hat pattern, including in part, a crown having radial slits whereby the portions intermediate said slits are adapted to be overlapped to shape the crown of a hat made of material cut therefrom.

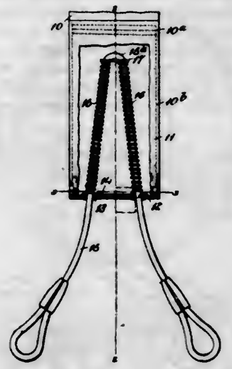
[Claims 6 to 10 not printed in the Gazette.]

1,139,319. RESILIENT CONNECTING DEVICE. JAMES PATTERSON WILSON, Los Angeles, Cal., assignor to Will H. Grosscup, Los Angeles, Cal. Filed Mar. 19, 1914. Serial No. 825,800. (Cl. 241—21.)

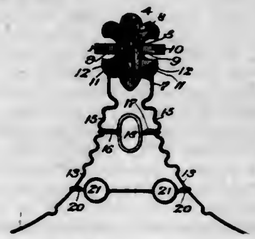
1. In a device of the character described, a pocket, a flexible element returned on itself, presenting two elongated members continuous with each other and movable through the bottom of the pocket, separate compression springs coiled around said members within the pocket, and a separating device in fixed position on said flexible element between the springs and immovable longitudinally of said element, said separating device being abutted by the adjacent ends of the springs, and said springs being seated on the bottom of the pocket.

2. A supporting device for an article of wearing apparel and means thereon to attach said device to an article of apparel, said means comprising a flexible element returned on itself presenting two elongated members, an element presenting a pocket through which said members may move longitudinally, separate compression springs on said elongated members yieldingly resisting longitudinal movement thereof, and a separating device in fixed position on the flexible element between the springs and abutted by adjacent ends of the springs, the opposite ends of the springs bearing against the bottom of the pocket.

3. A supporting device for an article of wearing apparel and means thereon to attach said device to an article of apparel, said means comprising a flexible element returned on itself presenting two elongated members, an element presenting a pocket through which said members may move longitudinally, separate compression springs on said elongated members yieldingly resisting longitudinal movement thereof said springs being seated in said pocket, and a separating device in fixed position on the flexible element between the springs and abutted by adjacent ends of the springs, said separating device presenting eyes embracing the flexible element and disposed at an angle to each other.



1,139,320. BROOM-GUARD. STEPHEN G. WILSON, Philadelphia, Pa. Filed June 12, 1914. Serial No. 844,676. (Cl. 15—23.)



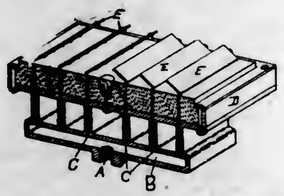
1. In a broom, a buckle secured upon each side thereof at the middle point of the stitching, a resilient wire U-shaped bridle element arranged to straddle each edge of the broom body, the arms of said bridle elements being corrugated throughout a portion of their lengths, curved gradually upward, and pivotally mounted at their upper extremities in said buckles, and an adjusting link upon each side of the broom slidable upon the opposed arms of the bridle elements.

2. In a broom, a buckle secured upon each side thereof at the middle point of the stitching, each buckle being provided along each side edge with a plurality of horizontally elongated perforations, resilient wire U-shaped bridle elements arranged to straddle the edges of the broom, the arms of said elements being provided at their upper extremities with elongated hooks adapted to be received in said perforations when the arms are in a horizontal position only, and means upon each side of the broom for drawing the opposed arms of said bridle elements toward each other.

3. In a device of the character stated, the combination of buckles having tongues situated at different heights and adapted to be inserted beneath different lines of stitching on the broom head and having barbed tongues extending inwardly from the buckles between the splints of the broom head, with independent wire loops each having their ends in pivotal engagement with a buckle on opposite sides of the broom head and diverging from the point of connection therewith on each side and engaging the side edges of the broom head, whereby while the loops

are anchored with respect to the broom head, swinging movement between the loops and said buckles is provided to insure an equal pressure on both side edges of the splints, and yielding links on each side of the broom head having means directly engaging with and slidable upon the diverging portions of the loops, whereby the spread of the loops may be adjusted at the edges to vary the tension thereof against the splints, and said links extending between the loops to engage with sides of the broom head at points above the engagement of the loops with the side edges of the broom head.

1,139,321. SURFACE COMBUSTION BURNER. ERNEST J. ALLEN, Albany, N. Y., assignor to Rathbone, Sard & Company, Albany, N. Y., a Corporation. Filed Feb. 10, 1915. Serial No. 7,256. (Cl. 158—99.)



1. In a surface combustion burner, a hearth arranged to expose the entire incandescent surface for radiation to the object to be heated and provided with a series of openings for the passage of a gas mixture; with a baffle plate adjusted above the hearth against which the gas mixture will impinge and burn.

2. In a combustion gas burner, a hearth composed of fire brick; a mixing chamber beneath the hearth; means for conducting the gas mixture into said mixing chamber; conduits extending from said mixing chamber to the top of the hearth; and baffle plates placed at an angle to the hearth above the openings in said conduits, substantially as described and for the purpose set forth.

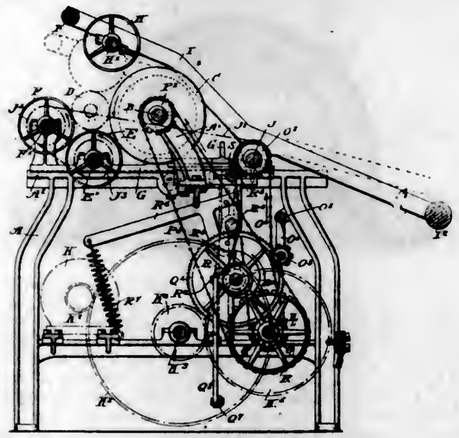
3. In a surface combustion burner, a hearth adapted to expose its entire incandescent surface and fire bed portion for radiation to the object to be heated; a series of baffle plates mounted at an angle to the surface of the hearth; and a series of unobstructed passageways extending through the hearth, permitting the uninterrupted flow of gas mixture through the hearth and its delivery to and burning at the hearth side of said baffle plates.

1,139,322. TRIMMING-MACHINE FOR ROLLS. MILLARD FILLMORE ANDERSON, New York, N. Y. Filed May 8, 1914. Serial No. 837,296. (Cl. 164—65.)

1. A trimming machine for rolls, comprising a driven supporting roller for supporting a roll and rotating the same, a driven abutment roller for one side of the roll to abut against, a bearing roller located on one side of said supporting roller and higher up to form an abutment bearing on the top of the roll, spaced rotary knives located on the other side of the said supporting roller for cutting the ends of the roll, and means for moving the said rollers and the said knives bodily one relatively to the other.

2. A trimming machine for rolls, comprising a driven supporting roller for supporting a roll and rotating the same, a driven abutment roller located on one side of the said supporting roller and higher up to form an abutment for one side of the roll to abut against, a swing frame provided with a bearing roller adapted to engage the top of the roll, spaced rotary knives located on the other side of the said supporting roller and adapted to cut the ends of the roll, and means for bodily moving the said rollers and knives one relatively to the other.

3. A trimming machine for rolls, comprising a driven supporting roller for supporting a roll and rotating the same, a driven abutment roller for one side of the roll to abut against, a swing frame provided with a bearing roller adapted to engage the top of the roll, spaced rotary knives adapted to cut the ends of the roll, fixed bearings for the said knives, a carriage on which the said supporting roller and the said abutment roller are journaled and on which carriage the said swing frame is fulcrumed, and means for imparting a reciprocating movement to the said carriage.

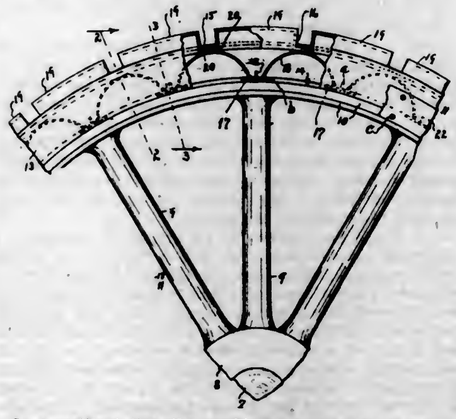


4. A trimming machine for rolls, comprising spaced rotary knives, a reciprocating carriage, a driven supporting roller journaled on the said carriage and adapted to support and rotate a roll to be trimmed, a driven abutment roller journaled on the said carriage adjacent the said supporting roller and higher up to form an abutment for one side of the roll, and means for imparting a reciprocating motion to the said carriage.

5. A trimming machine for rolls, comprising spaced rotary knives, a reciprocating carriage, a driven supporting roller journaled on the said carriage and adapted to support and rotate a roll to be trimmed, a driven abutment roller journaled on the said carriage adjacent the said supporting roller and higher up to form an abutment for one side of the roll, a manually controlled swing frame fulcrumed on the said carriage, a bearing roller journaled on the said swing frame, and means for imparting a reciprocating movement to the said carriage.

[Claims 6 to 9 not printed in the Gazette.]

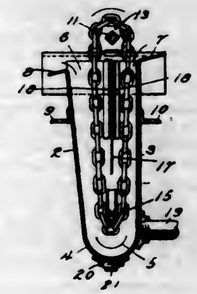
1,139,323. RESILIENT VEHICLE-TIRE. DON JUAN ARNOLD, Omaha, Nebr. Filed Aug. 25, 1913. Serial No. 786,425. (Cl. 152—8.)



In a resilient tire, the combination of a wheel rim, an annular casing consisting of a pair of upright circular

side plates connected at longitudinal intervals by cross-plates and having inwardly projecting flanges at their inner edges provided with recesses, said casing being adapted to be disposed outwardly with its flanges engaging the wheel rim, bearing plates disposed in said recesses, each being provided with a ridge, a plurality of bow-springs, each being interposed between a cross-plate and the flanges of the casing for engagement of its ends with and intermediate the ridges of two adjacent bearing plates, a plurality of rectangular tread-blocks, each being disposed between the side plates and two adjacent cross-plates and provided at each of its ends with a flange for engaging between a cross-plate and one of said bow-springs, and means for connecting the side plates with the wheel rim.

1,139,324. AMALGAMATOR. FRANK P. ARNOLD, Carbondale, Pa., and GEORGE F. WEDEMAN, Washington, D. C. Filed May 23, 1914. Serial No. 840,534. (Cl. 83—67.)

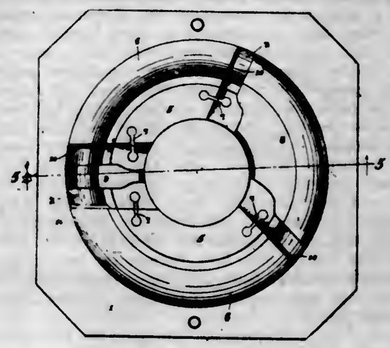


1. An amalgamator comprising an open top receptacle having feed and discharge means on opposite sides, a plurality of vertically disposed endless agitators, means for operating said agitators in opposition to the flow of pulp, the wall of the feed side of the receptacle being substantially parallel to one flight of the agitators, the wall of the discharging side of said receptacle being upwardly inclined with respect to the other flight of said agitators, a shaft supporting said agitators at the top, a member separating the agitators at the lower portions, a vertical partition depending between the flights of the agitators, extending across the receptacle, and having a depth substantially less than that of the agitators.

2. An amalgamator comprising a relatively narrow open top receptacle having feed and discharge means on opposite sides, a plurality of vertically disposed endless agitators, means for operating said agitators in opposition to the flow of pulp, the wall of the feed side of the receptacle being substantially parallel to one flight of the agitators, the wall of the discharging side of said receptacle being upwardly inclined with respect to the other flight of said agitators, a shaft supporting said agitators at the top, a member separating the agitators at the lower portions, a vertical partition depending between the flights of the agitators, extending across the receptacle, and having a depth substantially less than that of the agitators, and a mercury chamber formed at the bottom of said receptacle below said agitators.

1,139,325. METHOD OF MAKING COLLAPSIBLE CORES. PETER BACHER, Canton, Ohio. Filed Apr. 20, 1914. Serial No. 833,073. (Cl. 22—213.)

The herein described method which consists in producing segmental sections and segmental connecting members, coating the ends of said sections and connecting members with non-weldable material, placing said sections and connecting members in a mold in spaced relationship and casting segmental sections in the mold and



chilling the same against the coated ends of the segmental sections and connecting members.

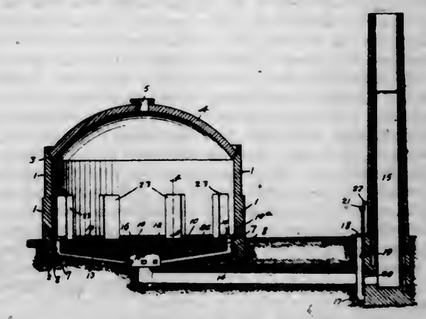
1,139,326. ALKALI-FREE DETERGENT FOR SCOURING AND DYEING AND PROCESS OF MAKING SAME. JOHN BARRINGTON, Boston, Mass. Filed June 2, 1914. Serial No. 842,464. (Cl. 8—6.)

1. An alkali-free detergent for scouring and dyeing, containing substantially in the proportions described, a neutral cocoanut oil soap, sulfonated castor oil, and aniln color adapted to dye both vegetable and animal fibers.

2. An alkali-free detergent for scouring and dyeing, containing, substantially in the proportions described, a neutral vegetable oil soap, sulfonated castor oil, and aniln color adapted to dye both vegetable and animal fibers.

3. The process for producing a cake of dye-soap, consisting in boiling a neutral, vegetable oil soap, sulfonated castor oil and water, substantially in the proportions described, until dissolved, adding substantially in the proportion described, an aniln color adapted to dye both vegetable and animal fibers dissolved in water, boiling this mixture, and then cooling it.

1,139,327. KILN. SAMUEL PLUMMER BEEBOUT, New Cumberland, W. Va., and THOMAS EVART MORGAN, Columbus, Ohio. Filed May 1, 1914. Serial No. 835,641. (Cl. 25—145.)



1. In a kiln, the combination with the annular inclosing wall, and the arched roof, the wall having openings, and furnaces at the openings, the kiln having an imperforate floor, of an annular flue or passage encircling the kiln at the inner surface of the inclosing wall, a central chamber arranged below the imperforate floor and having a central opening, the floor having an opening registering with the opening of the chamber, said kiln having radial flues or passages leading from the annular passage to the

central chamber, and having a main flue leading from the bottom of the central chamber to the stack, said kiln having a sump in the said main passage adjacent to the stack, and a damper for controlling the said main passage at the sump, bags or chimneys at each furnace inside the kiln, each bag communicating with the interior of the kiln at the upper end of the bag, transverse supporting walls arranged on the imperforate floor, and a grid floor for the ware supported by the supporting wall, said annular flue having a perforate top between the bags, said grid floor and the perforate top of the annular passage being composed of blocks laid alongside each other in courses, the ends of the blocks in the adjacent courses of the grid floor abutting, each block having transverse grooves in its vertical side edges for placing the interior of the kiln in communication with the space below the grid floor, the inner wall of the annular flue having openings, said openings being of greater size between the adjacent bags and gradually decreasing in size toward the adjacent bags.

2. In a kiln, the combination with the annular inclosing wall, and the arched roof, the wall having openings, and furnaces at the openings, the kiln having an imperforate floor, of an annular flue or passage encircling the kiln at the inner surface of the inclosing wall, a central chamber arranged below the imperforate floor and having a central opening, the floor having an opening registering with the opening of the chamber, said kiln having radial flues or passages leading from the annular passage to the central chamber, and having a main flue leading from the bottom of the central chamber to the stack, said kiln having a sump in the said main passage adjacent to the stack, and a damper for controlling the said main passage at the sump bags or chimneys at each furnace inside the kiln, each bag communicating with the interior of the kiln at the uper end of the bag, transverse supporting walls arranged on the imperforate floor, and a grid floor for the ware supported by the supporting walls, said annular flue having a perforate top between the bags, said grid floor and the perforate top of the annular passage being composed of blocks laid alongside each other in courses, the ends of the blocks in the adjacent courses of the grid floor abutting, each block having transverse grooves in its vertical side edges for placing the interior of the kiln in communication with the space below the grid floor, and the inner wall of the annular floor having openings.

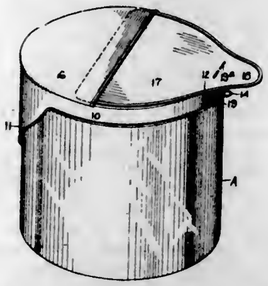
3. In a kiln, the combination with the annular inclosing wall, and the arched roof, the wall having openings, and furnaces at the openings, the kiln having an imperforate floor, of an annular flue or passage encircling the kiln at the inner surface of the inclosing wall, a central chamber arranged below the imperforate floor and having a central opening, the floor having an opening registering with the opening of the chamber, said kiln having radial flues or passages leading from the annular passage to the central chamber, and having a main flue leading from the bottom of the central chamber to the stack, said kiln having a sump in the said main passage adjacent to the stack, and a damper for controlling the said main passage at the sump, bags or chimneys at each furnace inside the kiln, each bag communicating with the interior of the kiln at the upper end of the bag, transverse supporting walls arranged on the imperforate floor, and a grid floor for the ware supported by the supporting rail, said annular flue having a perforate top between the bags, the inner wall of the annular passage having openings leading to the space between the grid floor and the imperforate floor.

4. A kiln having an inclosing wall and an imperforate floor and a central chamber below the floor, and having an annular flue or passage at the inclosing wall, and having radial flues or passages leading from the annular flue to the central chamber, and inclining downward toward said chamber, and having a main discharge flue leading from the bottom of the central chamber, the inclosing wall being perforated at intervals for admitting the heated gases from the furnaces to the interior of the kiln, the kiln having bags or chimneys within the kiln at each of the said openings and communicating at their upper ends with the interior of the kiln, said kiln having a perforate floor for supporting the ware spaced above the imperforate floor and extending from the top of the annular flue between the bags or chimneys, and having perforate cross walls for supporting the perforate floor, the inner wall of the annular flue having openings between the bags, said openings being of greatest size intermediate the bags and decreasing in size toward the bags, the central chamber having a central opening in its top and the imperforate floor having an opening registering therewith, the perforate floor consisting of blocks laid in courses, the blocks of the courses having their side edges abutting, and the members of each course abutting at their ends against the members of the adjacent courses, each block having a vertical groove in one of its side edges.

5. A kiln having an inclosing wall and an imperforate floor and a central chamber below the floor, and having an annular flue or passage at the inclosing wall, and having radial flues or passages leading from the annular flue to the central chamber, and inclining downwardly toward said chamber, and having a main discharge flue leading from the bottom of the central chamber, the inclosing wall being perforated at intervals for admitting the heated gases from the furnaces to the interior of the kiln, the kiln having bags or chimneys within the kiln at each of the said openings and communicating at their upper ends with the interior of the kiln, said kiln having a perforate floor for supporting the ware spaced above the imperforate floor and extending above the top of the annular flue between the bags or chimneys, and having perforate cross walls for supporting the perforate floor, the inner wall of the annular flue having openings between the bags, said openings being of greatest size intermediate the bags and decreasing in size toward the bags, the central chamber having a central opening in its top and the imperforate floor having an opening registering therewith.

[Claims 6 to 14 not printed in the Gazette.]

1,139,328. JAR-COVER. ISABELL BELL, St. Paul, Minn. Filed Nov. 20, 1914. Serial No. 873,169. (Cl. 215—80.)

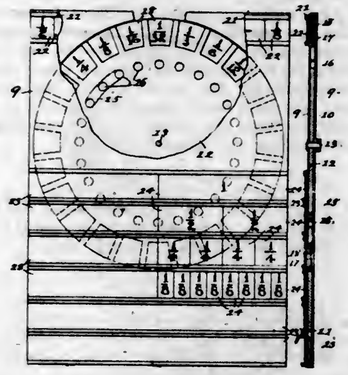


1. A cover of the character described comprising a split ring, having overlapping ends at the front and provided with a fixed top portion terminating short of the front of the ring, a separable top member covering the ring between the fixed top portion and the front, and fastening means for the overlapped ends of the ring, said separable top member having an element co-acting with the said fastening means to hold said separable member detachably in position.

2. A cover of the character described, comprising a split ring adapted to encircle a jar, said ring having overlapped ends, and a fixed top portion thereon raised above the upper edge of the ring, a separable top member slidably fitting at its rear end beneath the fixed top portion, a turn button on one end of the ring detachably engaging the opposite end, and an element on the separable cover member detachably engaged by said turn button.

3. A cover of the character described comprising a split ring presenting overlapping ends at the front of the ring, and formed with a depending back portion extending lower than the said ends, said ring having a fixed top portion terminating short of the front, a separable top member on the ring at the front, and means to secure the overlapped ends and said separable top member.

1,139,329. EDUCATIONAL CHART. CLARENCE ELLIS BIRCH, Lawrence, Kans. Filed Jan. 16, 1915. Serial No. 2,616. (Cl. 35—2.)



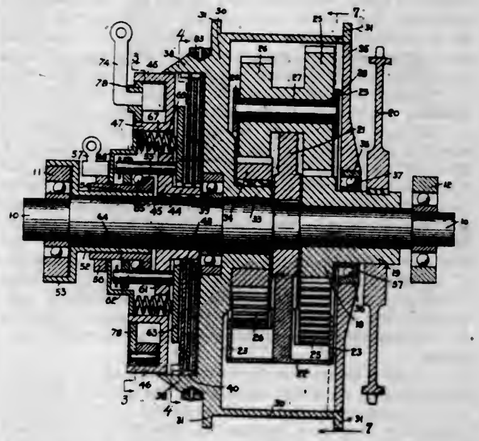
1. An educational chart, comprising a relatively fixed member provided with means adapted to receive any one of a plurality of interchangeable elements bearing, each, a desired symbol, a movable member in operative connection therewith provided with means adapted to receive any one of a plurality of interchangeable elements bearing, each, a desired symbol, and means for revealing any one of the symbols on said movable member adjacent the symbols on said fixed member, to form an arithmetical problem.

2. An educational chart, comprising a relatively fixed member provided with means adapted to receive any one of a plurality of interchangeable elements bearing, each, a desired symbol, a movable member in operative connection therewith provided with means adapted to receive any one of a plurality of interchangeable elements bearing, each, a desired symbol, said fixed member being provided with a window wherein any one of the symbols on said movable member may be revealed to form, with the symbols on said fixed member, an arithmetical problem, and means for moving said movable member.

3. An educational chart, comprising a relatively fixed member provided with an opening therethrough, means thereon adapted to receive any one of a plurality of interchangeable elements adjacent said window bearing, each, a desired symbol, a revoluble disk on said member provided with a plurality of peripheral pockets, an interchangeable block in each pocket bearing a desired symbol, and means for revolving sad disk, said window being in the peripheral line of said blocks whereby any block may be rendered visible through said window to form, with said interchangeable elements, an arithmetical problem.

4. An educational chart, comprising a relatively fixed member provided with an opening therethrough, a clip adjacent said window and on each side thereof adapted to receive any one of a plurality of interchangeable elements bearing, each, a desired symbol, a movable member in operative connection with said fixed member bearing a plurality of desired symbols adapted, each, to be brought to said window to form, with said interchangeable elements, an arithmetical problem, and a plurality of supplemental clips on said fixed member adapted, each, to receive any one of a plurality of interchangeable elements bearing, each, a desired symbol whereby solutions of problems may be ocularly demonstrated.

1,139,330. VARIABLE-SPEED GEARING FOR MOTORCYCLES. EDWARD A. BLACK, Phoenix, British Columbia, Canada. Filed May 9, 1913. Serial No. 766,588. (Cl. 74—34.)



1. The combination with the rear axle of a motorcycle and open bearings rotatably supporting the same; of a hub shell journaled on the axle and having a removable portion, a cage having a web portion keyed on the axle within the hub shell, a shank gear journaled on the axle and adapted to be suitably driven, a pinion fixed to the hub shell interiorly, means for holding the axle stationary, sets of pinions carried by the cage and being of different diameters, said pinions last mentioned being disposed in mesh with the shank gear and pinion fixed to the shell, respectively, to drive the latter at reduced speed when the axle is held stationary, and means for locking the shell to the axle.

2. The combination with the rear axle and frame of a motorcycle and open bearings rotatably supporting the same; of a hub shell journaled on the axle and having a removable portion, a cage having a web portion fixed on the axle within the hub shell, a shank gear journaled on the axle and adapted to be suitably driven, a pinion fixed to the hub shell interiorly, sets of pinions carried by the cage and being of different diameters, said pinions last mentioned being disposed in mesh with the shank gear and pinion fixed to the shell, respectively, to drive the latter at reduced speed, a sleeve fixed to one of the bearings and having a threaded portion, a stationary element carried by the frame, a circular casting fixed to the axle, means to lock the casting to the stationary element, coöperating clutch elements carried by the hub shell and casting, and a sleeve operating on the first-mentioned sleeve to move the clutch elements into and out of operative position.

3. The combination with the rear axle and frame of a motor cycle and open bearings rotatably supporting the same; of a hub shell journaled on the axle and having a removable portion, a cage having a web portion fixed on the axle within the hub shell, a suitably driven shank gear journaled on the axle, a pinion fixed to the hub shell interiorly, sets of pinions carried by the cage and being of different diameters, said pinions last mentioned being disposed in mesh with the shank gear and pinion fixed to the shell, respectively, to drive the latter at reduced speed, a sleeve fixed to one of the bearings and having a threaded portion, a stationary element carried by the frame, a circular casting fixed to the axle, means coöperating with the stationary element and the casting to hold the axle stationary, coöperating clutch elements carried by the hub shell and casting, said clutch elements being normally locked, a shifting plate for said clutch elements and having rods operating through the circular casting, an operating ring carried by the rods, and a sleeve operating on the first-mentioned sleeve and provided with a flanged

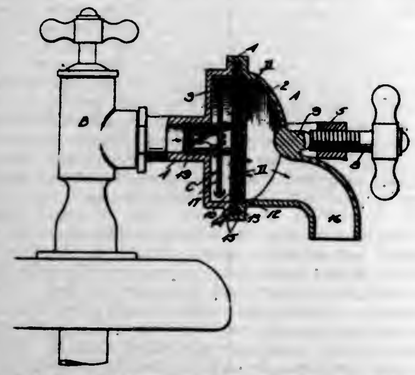
portion adapted to engage the operating ring to unlock the clutch elements.

4. The combination with the rear axle and frame of a motorcycle and open bearings rotatably supporting the same; of a hub shell journaled on the axle and having a removable portion, a cage having a web portion keyed on the axle within the hub shell, a suitably driven shank gear journaled on the axle, a pinion fixed to the hub shell interiorly, sets of pinions carried by the cage and being of different diameters, said pinions last mentioned being disposed in mesh with the shank gear and pinion fixed to the shell, respectively, to drive the latter at reduced speed, a sleeve fixed to one of the bearings and having a threaded portion, a stationary element carried by the frame, a circular casting fixed to the axle, clutch means to lock the stationary element and casting together to hold the axle stationary, coöperating clutch elements carried by the hub shell and casting, a sleeve operating on the first-mentioned sleeve to move the clutch elements out of operative position, resilient means causing frictional gripping action between the clutch elements, and a compression ring adjustably engaged with the circular casting to vary the frictional gripping action of the clutch elements.

5. A drive mechanism for motorcycles, embodying a hub shell, an axle on which said shell is journaled, suitably driven means journaled in the shell and on the axle constituting a low speed gearing for rotating the shell, said means being adapted at times to rotate with the axle, said hub shell being provided with a lateral flange having interior longitudinal ribs, clutch plates slidable on the ribs, a circular casting having a sleeve portion keyed to the axle, said sleeve portion having exterior longitudinal ribs, clutch plates slidable on the ribs, said circular casting also having a plurality of openings therethrough arranged in spaced relation in two concentric series, a clutch operating plate having rods extending through the openings of one series and adapted to be shifted longitudinally with respect to the casting, a compression ring operating in the casting, springs engaged through the other series of openings and positioned between the clutch operating plate and the compression ring to hold the clutch plates in one position, said compression ring serving to move the clutch plates in an opposite position, said circular casting having spaced outwardly extending flanges, stationary plates carried by the frame and disposed between said flanges, a cam operated band clutch and means connected to the frame for operating the clutch to lock the casting and its axle to the frame while the hub shell is rotating independently thereof to produce a low speed gear.

[Claims 6 to 11 not printed in the Gazette.]

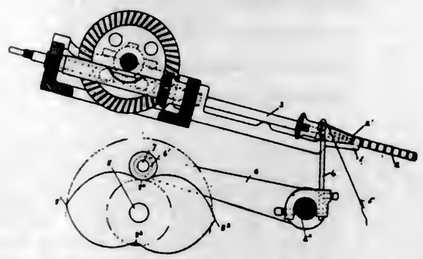
1,139,331. FAUCET-FILTER. JOSEPH BOULARD, New York, N. Y., assignor to Universal Filter-Faucet Corporation, New York, N. Y., a Corporation of New York. Filed Sept. 2, 1914. Serial No. 859,819. (Cl. 210—7.)



1. A filtering device comprising a body having an inlet, a filtering element in the body, a distributing plate interposed in front of the inlet, whereby liquid is deflected radially from the center to the periphery of the plate and thence flows on the opposite side of the latter so as to be quickly distributed over the filtering element, and a boss on the plate and having a port adjacent the latter, and means for connecting the boss adjustably with the inlet to vary the effective area of the port of the boss, and thereby regulate the pressure of the water passing through the filtering device.

2. A filtering device comprising a body having an inlet, a filtering element mounted in the body, a distributing disk arranged between the inlet and the filtering element for directing the water outwardly from the inlet on one side of the disk and inwardly along the opposite side and along the filtering element, and a hollow boss on the disk connected with the inlet and having ports through which the water flows from the inlet to the body of the device, said boss being adjustable with respect to the inlet to change the area of the ports and thereby regulate the pressure of the water entering the filtering device.

1,139,332. PIRN OR COP WINDING MACHINE. THOMAS A. BOYD, Glasgow, Scotland. Filed Nov. 24, 1913. Serial No. 802,814. (Cl. 242—34.)



1. In pirn and cop winding machines, a cup or shaper within which the cone of the cop is built, a traverse guide for leading the thread to the cone of the cop within said cup or shaper, and means for reciprocating said guide, said means serving to move the guide to different points at the apex of the cup on successive reciprocations, for the purpose described.

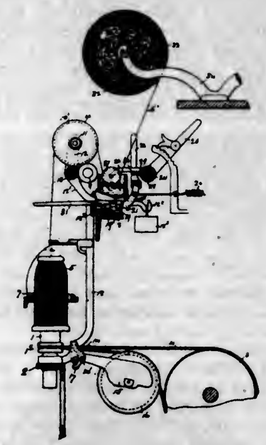
2. In pirn and cop winding machines, a cup or shaper within which the cone of the cop is built, a traverse guide for leading the thread to the cone of the cop within said cup or shaper, and means for reciprocating said guide, said means serving to move the guide to different points at the base of the cup on successive reciprocations, for the purpose described.

3. In pirn and cop winding machines, a cup or shaper within which the cone of the cop is built, a traverse guide for leading the thread to the cone of the cop within said cup or shaper, and means for reciprocating said guide, said means serving to move the guide to different points at the apex and base of the cup respectively on successive reciprocations, for the purpose described.

4. In pirn and cop winding machines, a cup or shaper within which the cone of the cop is built, a traverse guide for leading the thread to the cone of the cop within said cup or shaper, and means for reciprocating said guide, said means comprising a double throw cam shaped to effect the travel of said guide to different points at the apex and base of the cup on successive reciprocations, for the purpose described.

1,139,333. SPINNING AND TWISTING PAPER AND OTHER FIBROUS MATERIALS. THOMAS ALEXANDER BOYD, Glasgow, Scotland. Filed Apr. 30, 1914. Serial No. 835,515. (Cl. 118—12.)

1. In a machine of the character described, a delivery roller, a damping roller over which the sliver passes, a liquid container into which said damping roller dips, a stop motion mechanism for halting the sliver feed, and means operative upon the actuation of said stop mechanism for lifting said damping roller from the liquid container.



2. In a machine of the character described, a delivery roller, a damping roller over which the sliver passes, a liquid container into which said damping roller dips, a stop motion mechanism for halting the sliver feed, and means automatically operative upon the actuation of said stop mechanism for lifting said damping roller from the liquid container.

3. In a machine of the character described, a delivery roller, a pivoted damping roller, over which the sliver passes, a stop motion mechanism comprising a drive-band tensioning roller, and means for moving the same out of tensioning position, in combination with a lever actuated thereby and engaging the pivoted damping roller to lift the same on the actuation of the stop motion mechanism.

4. In a machine of the character described, a liquid container, a damping roller dipping therein, a pivoted lever carrying said roller, an adjusting lever and means operated thereby freely engaging the damping roller lever to regulate the depth of the dip of said damping roller into the liquid container.

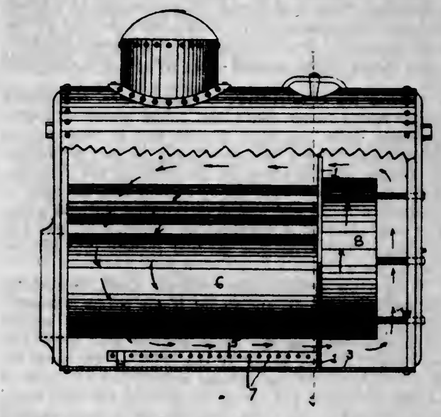
5. In a machine of the character described, a liquid container, a damping roller dipping therein, a pivoted lever carrying said roller, an adjusting lever and means thereon freely engaging the damping roller lever to regulate the depth of the dip of said damping roller into the liquid container, in combination with a stop motion mechanism comprising a lifting lever freely engaging the damping roller lever and means automatically actuating said lifting lever on the operation of the stop motion mechanism.

1,139,334. WATER-CIRCULATOR FOR STEAM-BOILERS. EDWARD W. BRAY, Norfolk, Va. Filed Nov. 6, 1913. Serial No. 799,561. (Cl. 122—410.)

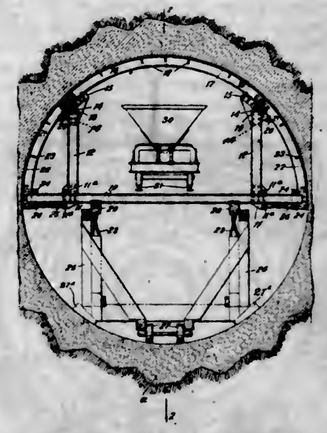
1. In a steam boiler and water circulator therefor, the combination with a furnace and combustion chamber, of means provided with an aperture radiating from said combustion chamber to the shell of the boiler, for the purpose specified.

2. In a steam boiler and water circulator therefor, the combination of a furnace and combustion chamber, and means provided with an aperture extending from the combustion chamber to the shell of the boiler for dividing the water space and heating surface at or near the back tube and flue sheet at the combustion chamber end of the boiler, for the purpose specified.

3. In a circulator for steam boilers, the combination with a furnace and combustion chamber, of a baffle plate radiating from the combustion chamber to the shell of the boiler, and means in said baffle plate through which the water circulates from under the furnace and combustion chamber, up around the sides and back thereof to the water line.



1,139,335. CONCRETE-TUNNEL FORM. ALFRED A. BREWER, New York, N. Y., assignor to Ransome International Conduit Co., Dunellen, N. J., a Corporation of New Jersey. Filed Feb. 29, 1912. Serial No. 680,748. (Cl. 25—131.6.)



1. A form for constructing concrete tubes, comprising diametric frame beams, additional frame beams extending transversely from one side thereof and a rigid arched frame section between the outer ends of said additional frame beams, hinged wings at the sides of the form extending between said rigid frame section and the ends of the diametric beams and means for moving the said wings in and out.

2. A form for constructing concrete tubes, comprising diametric frame beams, additional frame beams extending transversely from one side thereof and a rigid arched frame section between the outer ends of said additional frame beams, hinged wings at the sides of the form extending between said rigid frame section and the ends of the diametric beams and means for moving the said wings in and out, the hinges of the wings being located at the ends of the arched frame section.

3. A form for constructing concrete tubes, comprising diametric frame beams, additional frame beams extending transversely from one side thereof and a rigid arched frame section between the outer ends of said additional

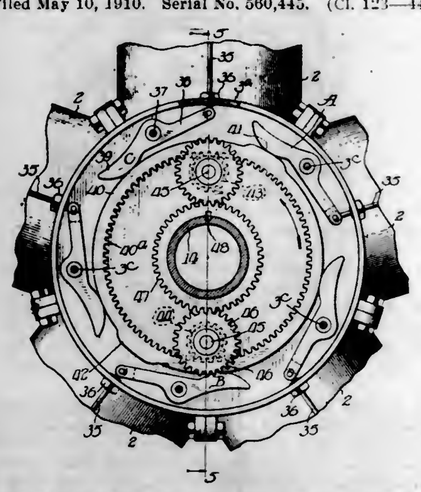
frame beams, hinged wings at the sides of the form extending between said rigid frame section and the ends of the diametric beams and means for moving the said wings in and out, the hinges of the wings being located at the ends of the arched frame section and said means for moving the wings being located adjacent to the diametric beams.

4. A form for constructing concrete tubes, comprising diametric frame beams, additional frame beams extending transversely from one side thereof and a rigid arched frame section between the outer ends of said additional frame beams, hinged wings at the sides of the form extending between said rigid frame section and the ends of the diametric beams and means for moving the said wings in and out, comprising turnbuckles mounted on the diametric beams and extending parallel thereto into connection with the wings.

5. A form for constructing concrete tubes, comprising diametric frame beams, additional frame beams extending transversely from one side thereof and a rigid arched frame section between the outer ends of said additional frame beams, hinged wings at the sides of the form extending between said rigid frame section and the ends of the diametric beams and means for moving the said wings in and out, said means for moving the wings being located alongside of the diametric beams and the form being provided with devices whereby the means for moving the wings may be reversed from one side to the other of the diametric beams, for the purpose specified.

[Claims 6 to 10 not printed in the Gazette.]

1,139,333. INTERNAL-COMBUSTION ENGINE. THOMAS P. BROOKE, Chicago, Ill., assignor, by direct and mesne assignments, to Louis C. Kuhnert, Jr., Chicago, Ill. Filed May 10, 1910. Serial No. 560,445. (Cl. 123—44.)



1. In an internal combustion engine, the combination of a cylinder having a single port, a valve controlling said port, means for actuating said valve embodying two elements traveling bodily in the same direction, one of said elements being connected to the valve, means for moving the elements at different rotative speeds to engage one with the other whereby the element connected to the valve is periodically overtaken and moved to actuate the valve.

2. In an internal combustion engine, the combination of a plurality of cylinders each having a single port, valves for controlling said ports, means for actuating said valves embodying elements traveling in a circle and connected with said valves respectively, and another element traveling in the same direction as the first said elements but at a different rate of speed, and adapted to overtake and to come into engagement with the first said elements successively for moving them to actuate the valves.

3. In an internal combustion engine, the combination of a plurality of cylinders each having a single port and revolving about a given center, valves for controlling said ports, valve actuating elements operatively related to said valves respectively revolving with the cylinders about said center, and a second element also revolving with said cylinders about said center in the same direction but at a higher rate of speed and adapted to engage with the first said elements successively for moving them to actuate the valves.

4. In an internal combustion engine, the combination of a plurality of cylinders revolving about a given center and each having a single port, valves for controlling said ports, valve actuating elements operatively connected with said valves respectively and revolving about said center with the cylinders at the same rate of speed as said cylinders, a cam revoluble about said center with said elements and gearing operatively connecting said cam with the said cylinders for driving the cam at a higher rate of speed than the cylinders and causing it to overtake and move said elements for actuating said valves.

5. In an internal combustion engine, the combination of a plurality of cylinders revolving about a given center, and each provided with a single port, valves for controlling said ports, valve actuating elements disposed in the same plane revolving with said cylinders about said center at the same rate of speed as the cylinders, a cam revoluble about said center with said elements and adapted to engage the same, and gearing connecting said cam with the cylinders for imparting to the cam a rotative speed of travel greater than the speed of travel of said elements.

[Claims 6 to 9 not printed in the Gazette.]

1,139,337. SELF-LOCKING PIN. GEORGE C. BROWN, Indianapolis, Ind. Filed Dec. 5, 1914. Serial No. 875,683. (Cl. 85—3.)



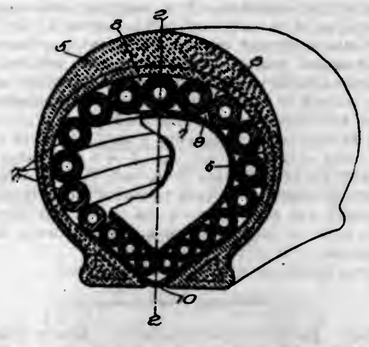
1. A device of the class described, comprising a pin equipped near one end with a pair of oppositely disposed recesses connected by a channel extending transversely of said pin, and an anchoring member of resilient material having a portion disposed within said channel and presenting end portions normally projecting beyond the outer surface of the pin, the resiliency of said anchoring member permitting the said end portions to be housed respectively by said recesses.

2. A device of the class described, comprising a pin equipped near one end with a pair of oppositely disposed recesses connected by a channel extending transversely of said pin; an anchoring member of resilient material having a portion disposed within said channel and presenting end portions normally projecting beyond the outer surface of the pin, the resiliency of said anchoring member permitting the said end portions to be housed respectively by said recesses; and means associated with said pin and anchoring member for relatively interlocking the same.

3. A device of the class described, comprising a pin equipped near one end with a pair of oppositely disposed recesses connected by a channel extending transversely of said pin, and an anchoring member of resilient material having its central portion disposed within said channel and presenting end portions normally projecting beyond the outer surface of the pin, the resiliency of said anchoring member permitting the said end portions to be housed respectively by said recesses, the said central portion of the anchoring member and an adjacent portion of the pin being equipped with relatively interlocking formations.

4. A device of the class described, comprising a pin equipped near one end with a pair of oppositely disposed recesses connected by a channel extending transversely of said pin, and an anchoring member of resilient material having its central portion disposed in said channel and having end portions normally projecting beyond the outer surface of the pin, the resiliency of said anchoring member permitting the said end portions to be housed respectively by said recesses, the said anchoring member presenting a formation disposed within said channel, a portion of the pin adjacent to the said formation being of reduced thickness and being distorted out of its original position to afford an interlocking with the said formation upon the anchoring member.

1,139,338. TIRE. FREDRICK S. BRYANT, Reading, Mass. Filed Apr. 1, 1913. Serial No. 758,267. (Cl. 152—10.)

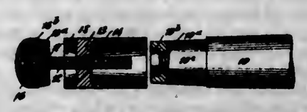


A tire of the character described comprising a shoe, an inflatable inner tube, and a series of intermediate tubes parallel with and entirely surrounding said inner tube, being interposed between the latter and said shoe, said intermediate tubes abutting against each other and against said shoe and inner tube with sufficeint radial pressure to provide a series of normally isolated oppositely disposed inner and outer air chambers, and to prevent separation of said intermediate tubes from each other except under extraordinary local depressions.

1,139,339. EXPLOSIVE. GEORG BURGSCHMIET, Morden, Manitoba, Canada. Filed Jan. 12, 1914. Serial No. 811,753. (Cl. 52—3.)

An explosive comprising essentially about 80% of nitrate of ammonium, about 18% of dinitrotoluene, and about 2% of charcoal and wood meal.

1,139,340. BILLIARD-CUE-TIP FASTENER. LEO CIARLELLI, Bristol, R. I. Filed Nov. 15, 1913. Serial No. 801,174. (Cl. 46—9.)



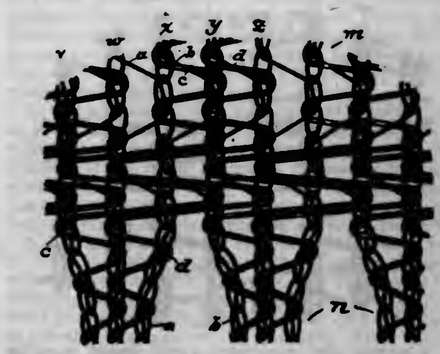
A fastener for billiard cue tips, comprising a ferrule having near the front end a transverse portion formed with an axial threaded orifice, and having means at the rear of the partition to engage the cue, the ferrule furthermore having at the front of the partition an annular, tapered flange forming a tapered socket, a cue tip tapered at its rear portion to fit within the annular flange of the ferrule, there being a shoulder at the front of the tapered portion of the tip to protect the end of the flange, a threaded spindle having a flattened head, the back of the tip being recessed to receive said head, a transverse pin extending removably through the tapered portion of the tip and through the flattened head of the spindle within the flange of the ferrule, the spindle having threaded engagement adjacent to the head with the partition of the ferrule, and means to effect threaded engagement between the rear end of the spindle and the cue.

1,139,341. METHOD OF FORMING HOLLOW ARTICLES OF RUBBER. FRANK A. CIGOL, Paterson, N. J. Filed Apr. 28, 1913. Serial No. 763,985. (Cl. 18—56.)

1. The herein described method of forming hollow articles of rubber consisting in placing a sheet of unvulcanized rubber upon a die having a substantially horizontal top face formed with a series of recesses to whose form the articles to be produced are ultimately to be shaped, forcing the material of the sheet over each recess into the latter and in substantially conforming relation thereto and thereby molding concavo-convex portions in the sheet, placing a gas-forming substance in the thus-formed concavo-convex portions of the sheet, imposing another sheet of unvulcanized rubber face to face with and upon the first sheet, exerting pressure upon the two sheets around each recess in the die sufficient to squeeze them into adhering contact with each other and ultimately sever from the sheets parts including said concavo-convex portions, and finally vulcanizing the parts thus cut from the sheets in a vulcanizing mold.

2. The herein described method of forming hollow articles of rubber consisting in placing a sheet of unvulcanized rubber upon a die having a substantially horizontal top face formed with a series of recesses having chamfered margins to whose form the articles to be produced are ultimately to be shaped, forcing the material of the sheet over each recess into the latter and in substantially conforming relation thereto and thereby molding concavo-convex portions in the sheet, placing a gas-forming substance in the thus-formed concavo-convex portions of the sheet, imposing another sheet of unvulcanized rubber face to face with and upon the first sheet, exerting pressure upon the two sheets around the chamfer of each recess in the die sufficient to squeeze them into adhering contact with each other and ultimately sever from the sheets parts including said concavo-convex portions, and finally vulcanizing the parts thus cut from the sheets in a vulcanizing mold.

1,139,342. KNITTED FABRIC. FRANK CLEWLEY, Philadelphia, Pa., assignor to Simon Friedberger, Philadelphia, Pa. Filed Aug. 24, 1914. Serial No. 858,237. (Cl. 66—4.)



1. A knitted fabric comprising a weft formed of a plurality of parallel chains each of which is composed of knitted loops some of which are formed of one weft thread and some of which are formed of another weft thread, and a warp consisting of filling threads extending back and forth between adjacent chains in such manner as to

leave, at intervals between adjacent chains, spaces, devoid of filling threads, each of which extends along several knitted loops of a chain, certain of said weft threads each extending across certain of said spaces and forming loops in a plurality of chains.

2. A knitted fabric comprising a weft formed of a number of parallel chains each of which comprises successive loops formed of one weft thread and successive loops formed of another weft thread, each of said weft threads extending at intervals between different chains and forming successive loops in both chains, and a warp formed of filling threads extending back and forth between and interlaced with the chains.

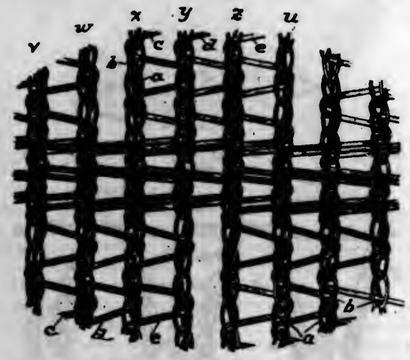
3. A knitted fabric comprising a weft formed of a plurality of parallel chains each of which is composed of a plurality of loops formed of one weft thread alternating with a plurality of loops formed of another weft thread, each weft thread extending at intervals between adjacent chains and forming certain of the loops of both chains and a warp formed of filling threads extending back and forth between and interlaced with the chains.

4. A knitted fabric comprising a weft formed of a plurality of parallel chains composed of threads each of which forms two loops of one chain, thence extends across in one direction and forms two loops of an adjacent chain and thence extends back in the opposite direction and forms two additional loops of the first chain, and so on, the said two pairs of loops of the first chain being connected to two intervening loops formed by another similarly extending thread, and a warp formed of filling threads extending back and forth between and interlaced with the chains.

5. A knitted fabric the body portion of which contains a weft composed of a plurality of parallel chains each of which is composed of knitted loops some of which are formed of one weft thread and some of which are formed of another weft thread, each of said weft threads extending to an adjacent chain and forming certain of the loops therein, and the fringe portion of which contains a weft composed of a plurality of parallel chains each of which is a continuation of one of the chains of the body portion and is composed of knitted loops formed of a single weft thread, said body portion and fringe containing a warp formed of filling threads extending back and forth between and interlaced with the chains.

[Claims 6 and 7 not printed in the Gazette.]

1,139,343. KNITTED FABRIC. FRANK CLEWLEY, Philadelphia, Pa., assignor to Simon Friedberger, Philadelphia, Pa. Filed Aug. 24, 1914. Serial No. 858,238. (Cl. 66—4.)



1. A knitted fabric comprising a weft formed of a number of pairs of threads forming chains, each pair of threads extending along only a single chain and each thread of a pair forming loops interlaced with the loops of the other thread, and a warp formed of filling threads extending back and forth between and interlaced with the chains.

2. A knitted fabric comprising a weft formed of a number of pairs of threads forming chains, each pair of threads extending along only a single chain and the two threads of each pair forming alternate loops of the chain, and a warp formed of filling threads extending back and forth between and interlaced with the chains.

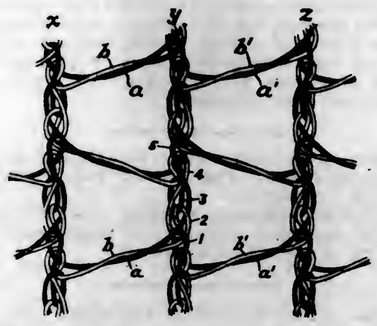
3. A knitted fabric comprising a weft formed of a number of pairs of threads forming chains, each pair of threads extending along only a single chain, each thread of a pair extending successively forward, backward and forward to form a loop engaging loops of the other thread respectively in front and back of the first loop and thence extending successively forward, backward and forward to form a loop beyond and interlaced with said forward loop of the second thread, and so on, whereby a chain is formed composed of alternating loops, and a warp formed of filling threads extending between and interlaced with the chains.

4. A knitted fabric comprising a weft formed of a number of pairs of threads, the two threads of each pair forming alternate loops of a continuous chain of loops, each thread in the formation of a complete loop extending through one of the adjacent loops formed by the other thread thence through the other adjacent loop formed by the last named thread, and thence through the first adjacent loop to the next loop formed by the first thread, and a warp formed of filling threads extending back and forth between and interlaced with the chains.

5. A knitted fabric comprising a weft formed of a number of pairs of threads, each thread of a pair being interlaced with the other thread of the pair to form a continuous chain of loops, and a warp formed of filling threads deflected back and forth between the chains and extending, at each point of interlace with a chain, between the two weft threads of a pair.

[Claims 6 to 9 not printed in the Gazette.]

1,139,344. TWISTED-NET FABRIC. FRANK CLEWLEY, Philadelphia, Pa., assignor to Simon Friedberger, Philadelphia, Pa. Filed Nov. 18, 1914. Serial No. 872,695. (Cl. 66—4.)



1. A knitted fabric composed of a number of longitudinally extending chains each of which is composed of alternating series of loops, the loops of one series of one chain being integrally united with the loops of a series of another chain and being interlocked with the loops of the adjacent series of the first chain.

2. A knitted fabric composed of a number of longitudinally extending chains each of which is composed of alternate series of loops, one pair of threads forming the loops of one series and another pair of threads forming the loops of another series, the loops of one series of one chain being interlocked with the loops of the adjacent series of the same chain, and the pair of threads composing each of said series of loops extending to, and forming a series of loops of, another chain.

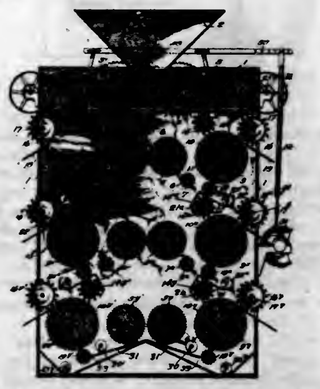
3. A knitted fabric composed of a number of pairs of threads forming longitudinally extending chains, each of which is composed of knitted loops adjacent series of which are formed of two different pairs of threads, each pair of threads at the junction between adjacent series of loops of the same chain being interlocked with the other pair of threads and thence extending transversely to, interlocking with, and forming part of, another chain of loops.

4. A knitted fabric composed of a number of pairs of threads, the threads of one pair being interlooped to form a section of a chain, thence extending transversely and interlooped to form a section of another chain, thence extending transversely and interlooped to form another section of the first chain, the threads of another pair being interlooped to form a section of the first chain connecting the other specified section of the first chain and extending transversely and interlooped to form discontinuous sections of a third chain.

5. A knitted fabric composed of a number of pairs of threads, the threads of one pair being interlooped to form a section of a chain, thence extending transversely and interlooped to form a section of another chain, thence extending transversely and interlooped to form another section of the first chain, the threads of another pair being interlooped to form a section of the first chain between the other specified sections of the first chain, the said intermediate section being interlocked with the other sections of the first chain.

[Claims 6 to 9 not printed in the Gazette.]

1,139,345. COTTON-HULLER. JOSHUA C. CONRAD, Cement, Okla. Filed Jan. 15, 1914. Serial No. 812,259. (Cl. 13—9.)



1. In a cotton huller, a casing, a feed hopper carried thereby, means for feeding the cotton and hulls from said hopper, a beater disposed below said feeding means, a saw cylinder disposed at one side of said beater and arranged to receive the cotton thrown from the beater, and a revolving brush for cleaning the cotton from the saws.

2. In a cotton huller, a casing, a feed hopper carried thereby, means for feeding the cotton and hulls from said hopper, a beater disposed below said feeding means, a saw cylinder disposed at one side of said beater and arranged to receive the cotton thrown from the beater, a revolving brush for cleaning the cotton from the saws, a brush arranged to revolve against the saw teeth for brushing the hulls from the cotton caught up by the saws, an auxiliary beater disposed below and substantially midway between said first named beater and said saw cylinder for deflecting the cotton and hulls passing the first named beater, and a picker roll disposed below the saw cylinders for receiving the cotton and hulls deflected by said auxiliary beater, said picker roll being in close engagement with said saws.

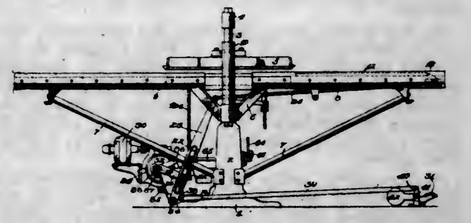
3. In a cotton huller, a casing, a feed hopper carried thereby, means for feeding the cotton and hulls from said hopper, a beater disposed below said feeding means, a saw cylinder disposed at one side of said beater and arranged to receive the cotton thrown from the beater, a revolving brush for cleaning the cotton from the saws, a brush arranged to revolve against the saw teeth for brushing the hulls from the cotton caught up by the saws, an auxiliary beater disposed below and substantially midway between said first named beater and said saw cylinder for deflecting the cotton and hulls passing the first named beater, a picker roll disposed below the saw cylinders for receiving the cotton and hulls deflected by said auxiliary beater, said picker roll being in close engagement with said saws, an inclined chute disposed below said picker roll, a trough at one end of said inclined chute, and a conveyer disposed in said trough.

4. In a cotton huller, a casing, a feed hopper carried thereby, a pair of feed rollers disposed underneath said feed hopper, a plurality of pairs of rotary beaters disposed underneath said feed roll, the axes of the beaters of each pair being in horizontal alinement, and the axes of the corresponding beaters of the several pairs being in vertical alinement, and a saw cylinder disposed at one side of each of said beaters.

5. In a cotton huller, a casing, a feed hopper carried thereby, a pair of feed rollers disposed underneath said feed hopper, a plurality of pairs of rotary beaters disposed underneath said feed roll, the axes of the beaters of each pair being in horizontal alinement, and the axes of the corresponding beaters of the several pairs being in vertical alinement, and a saw cylinder disposed at one side of each of said beaters, the axes of the saw cylinders corresponding to any pair of beaters being in horizontal alinement with the axes of the beaters.

[Claims 6 to 9 not printed in the Gazette.]

1,139,346. PRESSING-MACHINE. DANIEL M. COOPER, Rochester, N. Y., assignor to American Laundry Machinery Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Apr. 8, 1912. Serial No. 689,156. (Cl. 68—9.)



1. In a pressing machine, the combination with a frame, of a bed, a presser movable vertically of the frame and coöperating with the bed, feeding devices movable longitudinally of the frame, means having connection with the feeding devices for moving the latter, and instrumentalities controlled by the movement of the last mentioned means for operating said presser.

2. In a pressing machine, the combination with a frame, of a bed, a presser movable vertically of the frame and coöperating with the bed, feeding devices movable longitudinally of the frame, means for moving the feeding devices, and instrumentalities controlled by said means for operating the presser, said instrumentalities being brought into operation after the movement of the feeding devices.

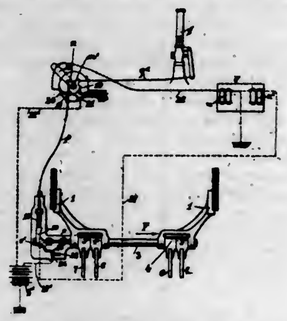
3. In a pressing machine, the combination with a frame, of a bed, a presser movable vertically of the frame and coöperating with the bed, feeding devices movable longitudinally of the frame, operating means acting first to effect movement of the feeding devices and subsequently to actuate the presser, and a controlling device connected to said operating means.

4. In a pressing machine, the combination with a frame, of a bed, a presser movable vertically of the frame and coöperating with the bed, feeding devices movable longitudinally of the frame, and treadle-controlled operating means acting first to effect movement of the feeding devices and subsequently to actuate the presser.

5. In a pressing machine, the combination with a frame, of a bed, a presser movable vertically of the frame and coöperating with the bed, reciprocatory feeding devices movable longitudinally of the frame, means for effecting movement of the feeding devices, and instrumentalities controlled by said means and operatively connected to the presser for moving the latter, the last mentioned instrumentalities being brought into operation after the movement of the feeding devices.

[Claims 6 to 20 not printed in the Gazette.]

1,139,347. ELECTROMAGNETIC DEVICE FOR NOTIFYING AND RECORDING THE PASSING OF SIGNALS AT DANGER. HENRI COUSIN, Paris, France. Filed Jan. 24, 1911. Serial No. 604,684. (Cl. 246—14.)



1. In a railway safety appliance, the combination of a vehicle movable along a line of way, a signal on the vehicle, obstacle operable means on the vehicle for operating said signal, recording mechanism to register the operation of said signal, and manual means adapted to make a record on said recording mechanism at any desired moment.

2. In a railway safety appliance, the combination of a vehicle movable along a line of way, a signal on the vehicle, automatic means on the vehicle for operating said signal, means external of said vehicle to control said automatic means, recording mechanism to register the operation of said signal, and manual means adapted to make a record on said recording mechanism at any desired moment.

3. In a railway safety appliance, the combination of a vehicle movable along a line of way, a signal on the vehicle, obstacle operable means on the vehicle for operating said signal, recording mechanism adapted to move constantly in a predetermined path from which it is deflected on the operation of said signal, and manual means adapted to make a record on said recording mechanism at any desired moment.

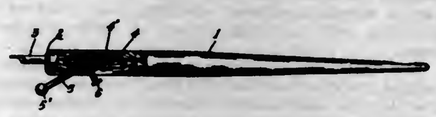
4. In a railway safety appliance, the combination of a vehicle movable along a line of way, a signal on the vehicle, obstacle operable means on the vehicle for operating said signal, recording mechanism adapted to furnish a normal reading and to furnish an abnormal reading to register the operation of said signal, and manual means adapted to make record on said recording mechanism at any desired moment.

5. In a railway safety appliance, the combination of a vehicle movable along a line of way, a signal on the vehicle, obstacle operable means on the vehicle for operating said signal, recording mechanism adapted to record the time at which the operation of said signal was effected, and manual means adapted to make a record on said recording mechanism at any desired moment.

[Claims 6 to 17 not printed in the Gazette.]

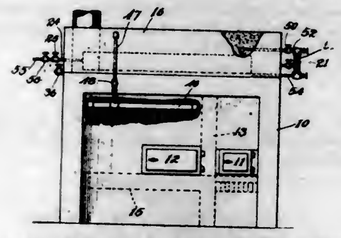
1,139,348. PENHOLDER-SUPPORT. HERBERT W. CRAIG, Laporte, Ind. Filed Aug. 4, 1913. Serial No. 782,818. (Cl. 120—107.)

1. A device of the character described comprising a penholder, a tubular holding device extending transversely through the penholder and obliquely thereto, a ball ended rod extending through the tube, and means for adjusting the rod with relation to the pen end of the holder.



2. A device of the character described comprising a penholder, a holding device extending transversely through the penholder and having an orifice extending therethrough obliquely related to the longitudinal axis of the penholder, and a brace rod adjustably held in said orifice and having a rest-end adapted to be positioned so as to rest upon the writing surface behind and to one side of the pen point.

1,139,349. BAKER'S OVEN. HOWARD CROUTHAMEL, Chicago, Ill. Filed May 27, 1914. Serial No. 841,205. (Cl. 122—8.)

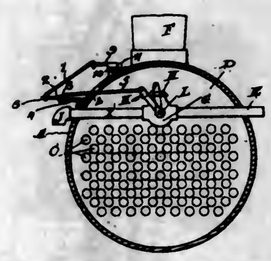


1. A water heating and steam generating system for bakers' ovens, having a grate located at the front end thereof comprising a plurality of steam drums positioned over the front end of the oven, an expansion chamber connected at its ends to a manifold with connections extending into the steam drums, a set of coils positioned over the center portion of the oven, a second set of coils over the rear portion of the oven, connections between one end of the first mentined coil and each of the steam drums, a connection between the other end of said coil and one end of the other coil, a supply pipe leading into the opposite end of the last mentioned coil and a steam connection between the top of the centrally located coil and the tops of each of the steam drums.

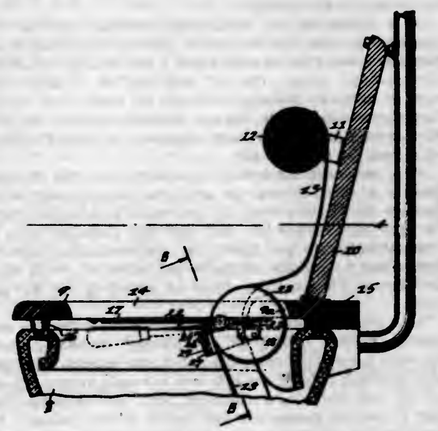
2. A water heating and steam generating system for bakers' ovens, having a grate located at the front end thereof, comprising a plurality of steam drums positioned over the front end of the oven, an expansion chamber connected with each of said drums, a set of coils positioned over the center portion of the oven, a second set of coils over the rear portion of the oven, connections between one end of the first mentioned coil and each of the steam drums, a connection between the other end of said coil and one end of the other coil, a supply pipe leading into the opposite end of the last mentioned coil and a stem connection between the top of the centrally located coil and the top of each of the steam drums.

1,139,350. MEANS FOR PRESERVING BOILER-FLUES. JAMES PERCY DANBROOK, Salvador, Saskatchewan, Canada. Filed Apr. 27, 1914. Serial No. 834,654. (Cl. 110—156.)

In combination with a boiler having a smoke box and furnace, said furnace provided with a fire door; the flues opening from said furnace into the smoke box; an exhaust pipe opening into said smoke box, a three-way valve coupled to the inner end of said exhaust pipe, and provided with an exhaust nozzle; a coupling pipe connected with said three-way valve and opening through the smoke box into the air; a lever controlling the movement of said valve which is normally positioned to permit the steam to exhaust through said nozzle; a bell-crank lever carried by said boiler; a link rod connecting said bell-crank lever with said first-mentioned lever; an actuating rod supported by the furnace, and having its axis in alinement with the axis of movement of said fire door; means whereby the lower end of said actuating rod is connected with said fire door; an arm carried by the upper end of said actuating rod, and a link rod connecting said arm with said bell-crank lever, the whole arranged to operate as set forth.



1,139,351. TOILET APPLIANCE. JOHN A. F. DANNER, Elizabeth, N. J. Filed Feb. 11, 1915. Serial No. 7,531. (Cl. 4—18.)

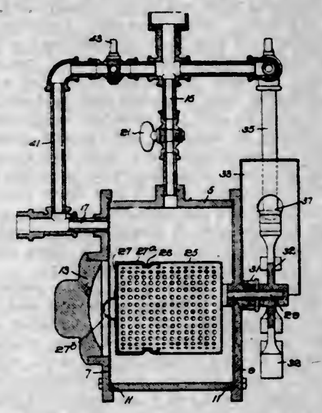


1. The combination with a water-closet, of means for supporting a roll of paper, a shaft extending transversely of and movable longitudinally of said closet, a flexible disk loosely mounted thereon, spring arms for holding said paper in operative position over said disk, and means for oscillating said shaft and disk for the purpose specified.

2. The combination with a water-closet, of means for supporting a roll of paper, a shaft extending transversely of and movable longitudinally of said closet, means for guiding said shaft longitudinally of and beneath the seat of said closet, a flexible disk loosely mounted on said shaft and adapted to receive a portion of said paper, spring arms holding said paper in operative position on said disk, means for revolving said disk and arms to feed said paper forwardly, and means for oscillating said disk and paper when in operative position for the purpose specified.

1,139,352. CLEANING DEVICE. JOHN A. DE VITO, West Medford, Mass. Filed June 21, 1912. Serial No. 704,952. (Cl. 137—14.)

1. A device of the class described comprising, in combination, a container having provision for conducting water therethrough, means to distribute soap to the water comprising a receiver having a perforated wall; a shaft connected to said receiver and projecting through a wall of said container; a turbine for driving said shaft located exteriorly of said container; and means for conducting water to said turbine to drive the latter independently of the stream of water passing through said container.



2. A device of the class described comprising, in combination, a container; a soap receiver therein; a turbine located exteriorly of said container for actuating said receiver; pipes for conducting a stream of water to drive said turbine and a water stream to and from said container, said pipes having provision for shunting a stream of water around said container.

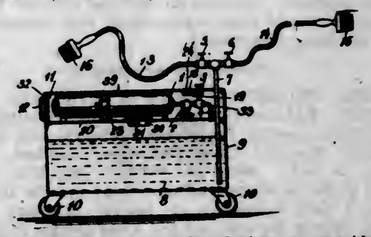
3. A device of the class described comprising, in combination, a container; a soap receiver therein; a turbine located exteriorly of said container for driving said receiver; pipe means for conducting separate streams of water to said turbine and container; and valve means for said pipe means for permitting the delivery of water through said container or as a shunted stream about said container.

4. A device of the class described comprising in combination, a container, means for conducting a stream of water therethrough, a soap receiver in said container, a turbine exterior of said container, means to transmit movement from said turbine through a wall of said container to said receiver, and means for supplying a stream of water to said turbine independently of the water which passes through said container.

5. A device for mixing soap with water comprising in combination, a container having an inlet and an outlet, a shaft journaled in said container and adapted to be driven externally thereof at a high speed, and a soap receiver eccentrically connected to said shaft and having a wall containing a multiplicity of small soap distributing perforations.

[Claims 6 to 9 not printed in the Gazette.]

1,139,353. FINISH-REMOVER-APPLYING DEVICE. CARLETON ELLIS, Montclair, N. J., assignor to Chadeloid Chemical Company, New York, N. Y., a Corporation of West Virginia. Filed July 31, 1911. Serial No. 641,605. (Cl. 91—44.)



1. In finish remover applying devices, a portable tank provided with transferring devices and provided with an

internal partition forming a lower liquor compartment and an upper gas container compartment, a hinged cover and a container door communicating with said gas container compartment, a filling aperture and closing device therefor communicating with said liquor compartment, a delivery pipe and valved connections with applying devices communicating with said liquor compartment, a gas pressure pipe communicating with said liquor compartment, an automatic pressure regulating valve and a manual pressure adjusting valve connected with said gas pressure pipe and located in said gas container compartment, an adjusting handle to manually operate said pressure adjusting valve from outside said tank and an indicator coöperating with said adjusting valve, a safety and discharge valve communicating with said liquor compartment and an interchangeable gas container removably connected to said gas pressure pipe to supply carbon dioxid to said liquor compartment and pneumatically force the liquor therefrom while suppressing inflammability.

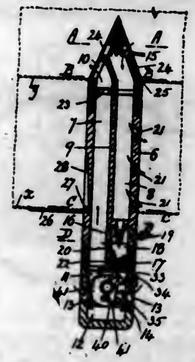
2. In finish remover applying devices, a portable tank provided with wheeled transferring devices and comprising a liquor compartment and a gas container compartment, means to supply liquor to said liquor compartment, valved delivery devices communicating with said liquor compartment, a gas pressure pipe communicating with said liquor compartment and a pressure regulating valve connected with said gas pressure pipe, a safety and discharge valve communicating with said liquor compartment and an interchangeable gas container removably connected to said gas pressure pipe to supply inert inflammability suppressing gas to said liquor compartment and pneumatically force the liquor therefrom while suppressing inflammability.

3. In finish remover applying devices, a portable tank provided with wheeled transferring devices and comprising a liquor compartment and a gas container compartment, means to supply liquor to said liquor compartment, valved delivery devices communicating with said liquor compartment, a gas pressure pipe communicating with said liquor compartment and an automatic pressure regulating valve connected with said gas pressure pipe and an interchangeable gas container removably connected to said gas pressure pipe to supply inert inflammability suppressing gas to said liquor compartment and pneumatically force the liquor therefrom while suppressing inflammability.

4. In finish remover applying devices, a portable tank provided with wheeled transferring devices and provided with an internal partition forming a lower liquor compartment and an upper gas container compartment, a hinged cover and a container door communicating with said gas container compartment, a filling aperture and closing device therefor communicating with said liquor compartment, a delivery pipe and valved connections with applying devices communicating with said liquor compartment, a gas pressure pipe communicating with said liquor compartment, an automatic pressure regulating valve and a manual pressure adjusting valve connected with said gas pressure pipe and located in said gas container compartment, an adjusting handle to manually operate said pressure adjusting valve from outside said tank and an indicator coöperating with said adjusting valve, a safety and discharge valve communicating with said liquor compartment and an interchangeable high pressure gas container removably connected to said gas pressure pipe to supply gas to said liquor compartment and pneumatically force the liquor therefrom.

1,139,354. PROJECTILE FOR DESTROYING AIRSHIPS, BALLOONS, AND OTHER AEROSTATS. REGINALD ARTHUR FEATHERSTONE-SMITH and MEHERJIBHOY BOMANJI COOPER, London, England. Filed Sept. 19, 1914. Serial No. 862,501. (Cl. 102—26.)

1. A projectile for destroying airships and the like comprising a shell having an air passage extending therethrough toward the nose end and a gas passage extending therethrough toward the tail end, a gas igniter in communication with the gas passage, openable stops at the exterior of the shell, and means for forcing a blast of air along the air passage.



2. A projectile for destroying airships and the like comprising a shell having an air passage extending therethrough toward the nose end and a gas passage extending therethrough toward the tail end, a gas igniter in communication with the gas passage, openable stops at the exterior of the shell, and means for forcing a blast of air along the air passage.

3. A projectile for destroying airships and the like comprising a shell having an air passage extending therethrough toward the nose end and a gas passage extending therethrough toward the tail end, the gas passage being open at different distances between its ends, a gas igniter in communication with the gas passage, openable stops at the exterior of the shell, and means for forcing a blast of air along the air passage.

4. A projectile for destroying airships and the like comprising a shell having an air passage extending therethrough toward the nose end and a gas passage extending therethrough toward the tail end, the passages being in communication with the gas passage, openable stops at the exterior of the shell, and means for forcing a blast of air along the air passage.

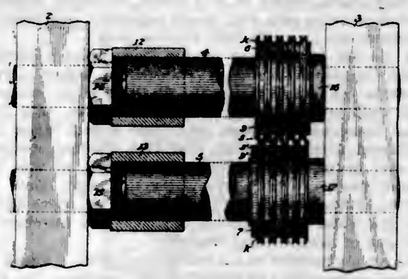
5. A projectile for destroying airships and the like comprising a shell having an air passage extending therethrough toward the nose end and a gas passage extending therethrough toward the tail end, a nozzle at the tail end of the gas passage, a chamber open to the atmosphere and to the air passage, a gas igniter in the chamber, the nozzle being directed toward the gas igniting means, openable stops at the exterior of the shell, and means for forcing a blast of air along the air passage.

[Claims 6 to 12 not printed in the Gazette.]

1,139,355. SLITTING-MACHINE. FRANK G. FEELEY, Chicago, Ill., assignor to M. D. Knowlton Company, Rochester, N. Y., a Corporation of New York. Filed Nov. 9, 1912. Serial No. 730,345. (Cl. 164—70.)

1. In a machine of the class specified, a shaft, a plurality of collars mounted thereon having oppositely disposed knife seating surfaces, annular knives secured at their working faces to said seating surfaces, and said collars having oppositely disposed projecting portions adapted to coöperate with the corresponding projecting portion of an adjacent collar to thereby space the collars independently of the knives.

2. In a machine of the class specified, the combination with a pair of parallel shafts, of a plurality of knife collars carried by each of said shafts, said collars having oppositely disposed knife locating cheeks, annular knives secured at their working faces to said cheeks, and said collars having oppositely disposed projecting portions extending at least flush with the outer faces of the knives to coöperate with the corresponding projecting portion of an adjacent collar to thereby space the collars irrespective of the thickness of the knives, and the pairs of cooperating knives having their working faces in the same plane.



3. In a machine of the class specified, the combination with a shaft, of a knife-collar carried by said shaft and having a pair of parallel knife-locating cheeks from which project oppositely extending hubs of smaller diameter than the main portion of the collar, and a pair of knives secured to said collar with their working faces adjacent said cheeks.

4. In a machine of the class specified, the combination with a shaft, of a knife-collar carried by said shaft and having a pair of parallel knife-locating cheeks from which project oppositely extending hubs of smaller diameter than the main portion of the collar, and a pair of annular knives mounted on said hubs and having their working faces adjacent said cheeks.

5. In a machine of the class specified, a shaft, a plurality of collars mounted thereon each having a knife-seating surface, an annular knife secured to each collar with its working face adjacent said seating surface, and means to space the collars on the shaft independently of the knives, whereby the same spacing of the collars may be maintained regardless of the thickness of the knives and whereby the working faces of the knives may be maintained in the same plane with their respective seating surfaces, thereby preserving the spacing of the working faces of the knives.

[Claims 6 and 7 not printed in the Gazette.]

1,139,356. GAME APPARATUS. ALBERT FRANKLIN FIELDS, Alhambra, Cal. Filed Oct. 16, 1913. Serial No. 795,569. (Cl. 46—25.)



1. A game of playing cards, comprising a "cosmos" card representative of the universe in that it bears thereon a figure separated into twelve divisions distinguished by signs of the zodiac arranged in natural order one in each division, a symbol indicative of the ruling planet of such division being associated wth each divison zodiac sign, and a plurality of suits of cards each comprising pip cards bearing thereon the signs of certain zodiac divisions borne by the said "cosmos" card, together with a set of tripliicity cards having zodiac indicia corresponding with those of the pip cards and the said tripliicity cards also having thereon the names of the zodiac signs of the "cosmos" card.

2. A game of playing cards, comprising a "cosmos" card representative of the universe in that it bears thereon a figure separated into twelve divisions distinguished by signs of the zodiac arranged in natural order one in each division, a symbol indicative of the ruling planet of such division being associated with each divison zodiac sign, and a plurality of suits of cards each comprising pip cards bearing thereon the signs of certain zodiac divisions borne by the said "cosmos" card, together with a set of triplicity cards having zodiac indicia corresponding with those of the pip cards and the said triplicity cards also having thereon the names of the zodiac signs of the "cosmos" card, the pip and triplicity cards of each suit being also provided with corresponding designs establishing the unity of the suit, and the said designs of each suit being distinguished from the designs of the others.

3. A game of cards comprising a "cosmos" card having division distinguished by signs of the zodiac arranged in natural order; a suit of planet cards each containing thereon an illustration personifying a certain planet together with a symbol identifying such particular planet so each card is distinguished from the others of this suit; and a plurality of suits of cards representative of the elements fire, earth, water and air, each of the latter suits consisting of a predetermined number of pip cards and certain triplicity cards, the cards of each of said element suits having a design common to said cards but the designs for the different suits being of distinguishing shapes and colors; the tripiicity cards of each element suit being provided with human-like representations of the ruling powers of the element of which they are symbolic, with symbols corresponding to those of a plurality of the planet cards and symbolic of the ruling planets of said suit, with a sign indicative of the particular element represented by the suit, and with a design of the particular constellation belonging to each especial triplicity card.

4. In game apparatus, a chart divided into a group of zodiac sign spaces each space containing the twelve signs of the zodiac and descriptions of characteristics applicable to natives born in said signs, a designation of the ruling planet and the dates inclusive belonging thereto being associated with each sign space, a series of card spaces provided opposite the sign spaces, a series of cards each bearing thereon the name of a particular sign of the zodiac and the dates inclusive belonging to that sign and thereby associating each of said cards with a certain one of the sign spaces, another series of cards consisting of planet cards disposable on the zodiac sign spaces of the chart and distinguished from one another by the different names of planets and illustrations also significant of the latter, and still another series of cards disposable in the card spaces of the chart and distinguished from one another by indicia comprising the names of the astrological houses of the zodiac, the planet cards aforesaid bearing indicia qualifying that of the last mentioned series of cards and qualified thereby, and designs associating the cards of the last named with those of the first named series.

1,139,357. INHALER. CHARLES A. GARSKE, Omaha, Nebr. Filed July 2, 1913. Serial No. 777,056. (Cl. 128—13.)



1. In a device of the class described, a pair of inhalant holders, a pin extending transversely through said holders so that each is rotatable about the pin, resilient re-

taining members, and means for connecting the pin to said members in varying longitudinal relations thereto.

2. In a device of the class described, a pair of tubular inhalant-holders, a frame having a pin extending transversely through the holders so that each of the same is rotatable about the pin, and frictional retaining means for keeping the holders in adjusted relations to the pin and frame.

3. In a device of the class described, inhalant-holders having end-portions adapted to be inserted into the nostrils, a member having threaded portions extending transversely from the holders, springs having longitudinal slots therein through which said threaded portions extend, and nuts on the threaded portions for clamping the springs thereon in adjusted relations thereto.

4. In a device of the class described, a frame, inhalant-tubes mounted thereon and adapted to be inserted into the nostrils, means on the frame for engaging the upper bony portion of the nose to retain the tubes in the nostrils, and means for varying the length of the frame from said engaging means to the tubes.

5. In a device of the class described, a frame comprising spring members and a transverse pin connecting said members, the pin passing through longitudinal slots in the spring members, means for holding the pin at adjusted positions in said slots, and inhalant-holders rotatably mounted on the pin.

[Claim 6 not printed in the Gazette.]

1,139,358. AIR PURIFIER AND WASHER. CHARLES A. GEDDES, Philadelphia, Pa., assignor of one-half to James J. Kennedy, Jr., Philadelphia, Pa. Filed Aug. 25, 1914. Serial No. 858,440. (Cl. 98—45.)



1. An air purifier and washer, comprising a liquid container, a tank having liquid therein, a second tank having liquid therein and having its lower end in communication with the upper end of said first tank, the upper end of said second tank being in communication with the lower end of said container, a transparent container supported above said first container, a third container supported above said transparent container, and means to maintain said container and tanks in assembled condition.

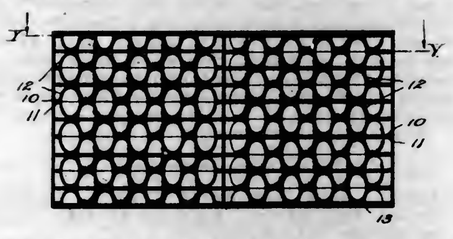
2. An air purifier and washer, comprising a tank having liquid therein, means to pass air into said liquid, a second tank having liquid therein, and having its lower end in communication with the upper end of said first tank, a sectional container in communication with the upper end of said second tank, one of said sections being transparent, means to maintain said sections in assembled position, and means to conduct the purified air from said container.

3. An air purifier and washer, comprising a liquid container, brackets connected therewith, filtering tanks connected with the brackets, closures for the tanks, the upper end of the first filtering tank being connected with the lower end of the second filtering tank, said second filtering tank having its upper end communicating with the lower end of said liquid container, filtering compound in said tanks, baffles in said liquid container, means to introduce water into said liquid container, and means to introduce air into said first filtering tank.

4. An air purifier and washer, comprising a sectional liquid container having a transparent upper portion, brackets connected therewith, filtering tanks connected with said brackets, closures for said tanks, said tanks being connected with each other, one of said tanks being connected with said liquid container, filtering compound in said tanks, means to adjust the level of said compound, means to introduce water into said liquid container, baffles located within said container above and below the water level therein, and means to introduce air into one of said filtering tanks.

5. An air purifier and washer, comprising a liquid container, comprising a plurality of body sections, the intermediate section of which is transparent, and inlet and outlet sections, a lower and an intermediate bracket connected with said container, filtering tanks connected with the brackets, closures for the tanks, said tanks being connected with each other and one of said tanks being connected with said liquid container, an upper bracket carried by said upper section, fastening devices connecting said upper and intermediate brackets to maintain them in assembled position, means to carry the water level in said liquid container at a point within said upper section, baffles in said upper section above the water level therein, baffles in said lower section, and means to introduce air into one of said filtering tanks.

1,139,359. PACKING MEANS FOR PRESERVING PERISHABLE ARTICLES. EDWIN R. GILL, Yonkers, N. Y. Filed July 1, 1913. Serial No. 776,773. (Cl. 99—8.)



1. In a packing means for the purpose described, a closed cell having walls composed of pulp impregnated with a germicide.

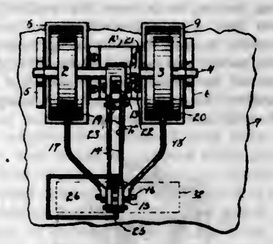
2. In a packing means for the purpose described, a closed cell having walls composed of pulp impregnated with a germicide and shaped loosely to envelop the article to be packed, substantially as described.

3. In a packing means for the purpose described, a pair of sheets each provided with half cells adapted to register with the half cells in the other, the walls of said half cells being impregnated with an antiseptic material, substantially as described.

1,139,360. MACHINE FOR ATTACHING RUNNERS TO HOSIERY. BERTRAM P. HUDSON and EARL R. HUDSON, Watertown, Conn. Filed Oct. 9, 1914. Serial No. 865,058. (Cl. 216—9.)

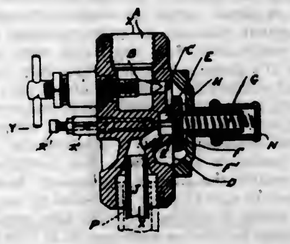
1. The combination with two glue wheels, of a pair of brushes arranged in line therewith, a table, a leaf mounted in said table and means for swinging the brushes away from the glue wheels and across the end of the leaf and corresponding line on the table.

2. The combination with a table, of a frame mounted thereon, two glue pots supported in said frame, a shaft supported in said frame, two glue wheels mounted on said shaft and running in said glue pots, a lever mounted in said frame, a ratchet arm also mounted in said frame, said lever and arm connected by a link, a pair of brushes moved by said link and extending into contact with said wheels, a table, a leaf mounted in said table, means for moving said brushes across the end of said leaf and corresponding point on said table, and means for moving the leaf and folding it downward upon the table.



3. The combination with a frame, of two glue pots mounted thereon, a horizontal shaft, two glue wheels mounted on said shaft and extending into said glue pots, a ratchet fixed to said shaft, a lever and an arm mounted in said frame, the arm carrying a pawl adapted to engage with said ratchet, said arm and lever connected at their outer ends by a link, two brushes coupled with said link, and extending into the path of said glue wheels, a table, a leaf mounted thereon, and means for moving the brushes away from the table across the end of the leaf and corresponding point on the table, and means for moving the leaf upward and folding it onto the table.

1,139,361. AUTOMATIC LIGHTING AND EXTINGUISHING APPARATUS FOR HIGH-PRESSURE GAS-LAMPS. GEORGE KEITH, London, England, assignor of one-half to James Keith, London, England. Filed Dec. 28, 1914. Serial No. 879,392. (Cl. 67—18.)



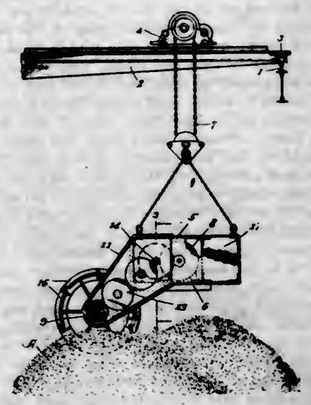
1. In an automatic lighting and extinguishing apparatus for high pressure gas lamps, in combination, a diaphragm casing having a gas inlet and a gas outlet and a chamber connected to both the inlet and outlet and provided with a seat, a diaphragm normally held against said seat to cut off communication between said inlet and chamber, a by-pass connecting said chamber with a point of the system beyond the usual injecting jet of the lamp, and a valve controlling said by-pass, the stem of said valve being acted on by that portion of said diaphragm which is exposed to said chamber.

2. In an automatic lighting and extinguishing apparatus for high pressure gas lamps, in combination, a diaphragm casing having a gas inlet and a gas outlet and a chamber connected to both the inlet and outlet and provided with a seat, a diaphragm normally held against said seat to cut off communication between said inlet and chamber, a pilot by-pass, and a loaded valve for said pilot by-pass, the stem of said valve being acted on by that portion of the diaphragm which is exposed to said chamber.

3. In an automatic lighting and extinguishing apparatus for high pressure gas lamps, in combination, a diaphragm casing having a gas inlet and a gas outlet and a chamber connected to both the inlet and outlet and provided with a seat, a diaphragm normally held against said seat to cut off communication between said inlet and chamber, a loaded plunger serving to hold said diaphragm normally against its seat, said plunger formed with a recess opposite the edge of said seat, a by-pass connecting said chamber with a point of the system beyond the usual injecting jet of the lamp, and a valve controlling said by-pass, the stem of said valve being acted on by that portion of said diaphragm which is exposed to said chamber.

4. In an automatic lighting and extinguishing apparatus for high pressure gas lamps, in combination, a diaphragm casing having a gas inlet and a gas outlet and a chamber connected to both the inlet and outlet and provided with a seat, a by-pass connecting said chamber with a point of the system beyond the injecting jet, a pilot light by-pass, two spring-loaded valves one for each by-pass, said valves disposed in the path of movement of said diaphragm, the valve for said first mentioned by-pass being in a position to permit passage of gas therethrough only when the diaphragm occupies the position corresponding to the commencement and termination of the passage of gas through said outlet, and the valve for the pilot light by-pass being in a position to permit passage of gas to the pilot light when the diaphragm is in engagement with said seat.

1,139,362. APPARATUS FOR CUTTING AND MIXING SAND. VERNE E. MINICH, New York, N. Y., assignor to Sand Mixing Machine Company, Greenfield, Ohio, a Corporation of Ohio. Filed Sept. 18, 1913. Serial No. 790,400. (Cl. 22—89.)



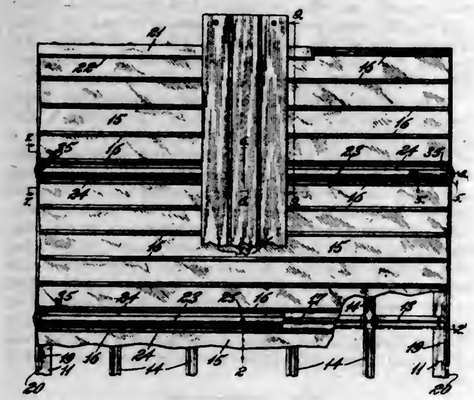
1. In an apparatus for cutting or mixing sand, the combination of an overhead traveling carriage and a rotary cutter or mixer comprising oppositely curved blades suspended from said carriage and adapted to travel through a sand heap located beneath the carriage.

2. In a sand-cutting and mixing apparatus, the combination of a crane, a platform suspended from said crane and adapted to be raised and lowered, a motor mounted on said platform and rotary sand-cutting or mixing blades mounted on said platform and operatively connected to said motor.

3. In an apparatus for cutting or mixing sand, the combination of a traveling crane, a casing suspended from said crane, a motor mounted within said casing and a cutting or mixing cylinder carried by said crane and operatively connected to said motor.

4. In an apparatus for cutting or mixing sand, the combination of a crane, a casing suspended from said crane and adapted to be raised and lowered, a motor mounted within said casing, a cutting or mixing cylinder carried by said casing and projecting beneath the same, said cylinder being rotatively driven by said motor and a compartment in said casing adapted to receive ballast to adjust the position of said cylinder.

1,139,363. METAL CAR-ROOF. WALTER P. MURPHY, Chicago, Ill. Filed May 6, 1914. Serial No. 836,598. (Cl. 108—5.)



1. A car frame having carlines and longitudinal members connecting the same, load sustaining roofing sheets extending from eaves to eaves covering the entire space therebetween and having their side marginal edges overlapped and looped over the carlines, and fixedly attached to the car at the ridge and loosely secured at the eaves to permit movement of the sheets as a whole lengthwise of the car at the eaves independently of the carlines.

2. A car frame comprising side plates, a skeleton roof frame supported by said car frame, and overlapping roofing-sheets supported by said roof frame and covering the car from eaves to eaves, said sheets being fixedly secured to the roof frame at the ridge thereof and loosely supported by said roof frame away from the ridge, and seam caps secured to the substructure in the neighborhood of the eaves and overlapping the joints between said overlapping sheets, said caps being adapted to permit a limited movement of the roof sheets relative to said substructure, whereby said car roof permanently maintains its relation to the substructure at the ridge fastenings but is movable relative to the substructure at all other points.

3. A car roof comprising carlines and metal roofing sheets arranged crosswise of the car and supported on said carlines, said sheets having interlocking margins looped over the carlines and fixedly secured to said carlines at the ridge, said sheets being movable relative to the substructure at all other points, and eaves caps over the eaves ends of said looped margins, said caps restraining the movement of said sheets at the eaves.

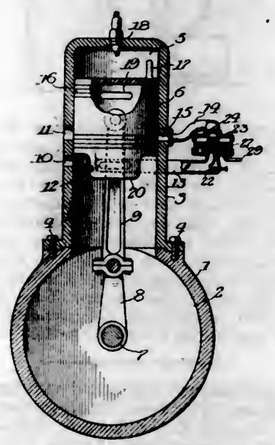
4. A car roof comprising carlines and metal roofing sheets supported thereby and interlocked at their margins to constitute a complete roof covering, said sheets being fixedly secured together and to the carlines at the ridge and loosely secured to the eaves ends of the carlines, whereby said sheets are movable as a unitary structure along with the middles of said carlines and independently of their ends.

5. A car roof including carlines, and load sustaining roofing sheets attached to the car at the ridge and secured at the eaves in such a way as to permit movement of the sheets as a whole lengthwise of the car at the eaves, the side marginal edges of said sheets overlapping each other and looped over the carlines by which they are supported.

[Claims 6 to 15 not printed in the Gazette.]

1,139,364. INTERNAL-COMBUSTION ENGINE. HERBERT F. OREGFELL, Chicago, Ill., assignor of one-third to Talbot G. Martin and one-third to John Erickson, Chicago, Ill. Filed June 8, 1912. Serial No. 702,553. (Cl. 123—73.)

1. An internal combustion engine having a cylinder, an explosion chamber therein, an inclosed crank chamber, a piston for said cylinder adapted to compress fluid in the crank chamber, means to conduct compressed fluid from said crank chamber to said explosion chamber, a source of combustible fluid associated with said means whereby in the passage of compressed fluid through said means, said combustible fluid is mixed with said compressed fluid, said piston having means to prevent the return of explosive mixture from said first aforesaid means to said crank chamber, a port in said cylinder coöperating with said means in said piston and controlled by said piston to control the flow of compressed fluid into said means, and means to conduct more or less of said compressed fluid around said source of combustible fluid.



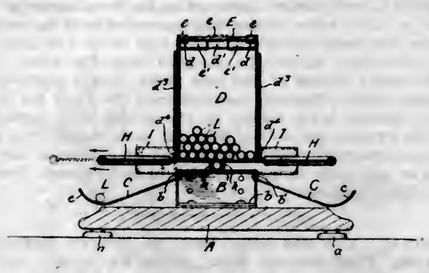
2. An internal combustion engine having a cylinder, an explosion chamber therein, an inclosed crank chamber, a piston for said cylinder adapted to compress fluid in the crank chamber, means to conduct compressed fluid from said crank chamber to said explosion chamber, a source of combustible fluid associated with said means whereby in the passage of compressed fluid through said means, said combustible fluid is mixed with said compressed fluid, said piston having means to prevent the return of explosive mixture from said first aforesaid means to said crank chamber, a port in said cylinder coöperating with said means in said piston and controlled by said piston to control the flow of compressed fluid into said means, and means to conduct more or less of said compressed fluid around said source of combustible fluid.

3. An internal combustion engine having a cylinder, an explosion chamber therein, an inclosed crank chamber, a piston for said cylinder adapted to compress fluid in the crank chamber, means to conduct compressed fluid from said crank chamber to said explosion chamber, a source of combustion fluid associated with said means whereby in the passage of compressed fluid through said means, said combustible fluid is mixed with said compressed fluid, said piston having means to prevent the return of explosive mixture from said first aforesaid means to said crank chamber, a port in said cylinder coöperating with said means in said piston and controlled by said piston to control the flow of compressed fluid into said means, and a port in said cylinder controlled by said piston to control the influx of fluid mixture into said explosion chamber, a port in said cylinder controlled by said piston to control the influx of fluid to be compressed in the said crank chamber, and means to conduct more or less of said compressed fluid around said source of combustible fluid.

4. An internal combustion engine having a cylinder, an explosion chamber therein, an inclosed crank chamber, a piston for said cylinder adapted to compress fluid in the crank chamber, means to conduct compressed fluid from said crank chamber to said explosion chamber, a source of combustible fluid associated with said means whereby in the passage of compressed fluid through said means, said combustible fluid is mixed with said compressed fluid, said piston having means to prevent the return of explosive mixture from said first aforesaid means to said crank chamber, a port in said cylinder coöperating with said means in said piston and controlled by said piston to control the flow of compressed fluid into said means, and a port in said cylinder controlled by said piston to control the influx of fluid mixture into said explosion chamber, a port in said cylinder controlled by said piston to control the flux of fluid to be compressed in the said crank chamber, a port in said cylinder controlled by said piston to control the exhaust of combusted fluid from said explosion chamber, and means to conduct more or less of said compressed fluid around said source of combustible fluid.

5. An internal combustion engine having a cylinder, an explosion chamber therein, an inclosed crank chamber, a piston for said cylinder adapted to compress fluid in the crank chamber, means to conduct compressed fluid from said crank chamber to said explosion chamber, a source of combustible fluid associated with said means whereby in the passage of compressed fluid through said means, said combustible fluid is mixed with said compressed fluid, said piston having means to prevent the return of explosive mixture from said first aforesaid means to said crank chamber, a port in said cylinder coöperating with said means in said piston and controlled by said piston to control the flow of compressed fluid into said means, and a port in said cylinder controlled by said piston to control the influx of fluid to be compressed in the said crank chamber, a port in said cylinder controlled by said piston to control the exhaust of combusted fluid from said explosion chamber, baffling means carried by said piston, and means to conduct more or less of said compressed fluid around said source of combustible fluid.

1,139,365. STRAW-HOLDER. EUGENE O'CONNOR, Everett, Wash. Filed Jan. 30, 1914, Serial No. 815,490. Renewed Dec. 4, 1914. Serial No. 875,534. (Cl. 211—8.)

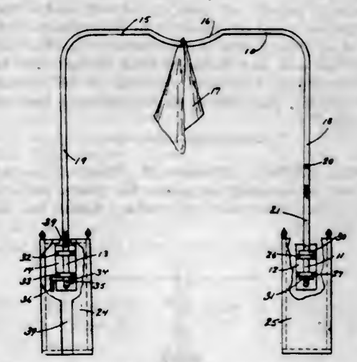


1. In a device of the character described, the combination of a casing consisting of upper and lower spaced apart sections, the upper section of which forms a holder, and a discharge member consisting of a plate movable horizontally in the space between the casing sections and having an intermediate straw receiving space formed by slitting the same along an irregular line and bending the resulting free portions downwardly at alternately opposite sides of the straw receiving space so as to confine a straw received in the space.

2. A straw dispensing device of the character described, comprising a casing consisting of upper and lower spaced apart sections, a discharge plate movable horizontally in opposite directions in the space between the said sections and provided with laterally projecting bearing pieces, supplemental casings formed along portions of the main casing and in which the bearing pieces are movable, and springs within the said supplemental casings and engaging the said bearing pieces to normally maintain the discharge member in an intermediate position.

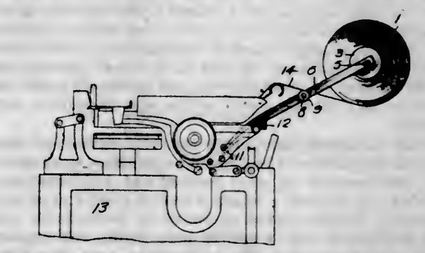
3. A straw dispensing device of the character described, comprising a casing consisting of upper and lower spaced apart sections, the former of which is open at its lower end and constitutes a holder, a discharge member movable horizontally in the space between the said sections and having an intermediate straw receiving space and reinforced edges, and supplemental plates secured along portions of the casing sections and having concaved contiguous flanges between which certain of the reinforced edges of the discharge member are received and guided.

1,139,366. TOWEL-RACK. JOSEPH G. PAINTON, Buffalo, N. Y., assignor of one-half to Gustave Dietrich, Buffalo, N. Y. Filed Aug. 2, 1912. Serial No. 712,896. (Cl. 45—32.)



A towel rack comprising bearing brackets provided with lugs, each of said lugs having a central aperture, and a towel rod having one of its ends pivotally supported and lockingly engaged with the lugs on one of said bearing brackets, the end of said rod so supported being provided with a hinged joint and lockingly held by the lugs on the other of said brackets, said towel rod being so formed that it has a central horizontal portion above said bearing brackets and vertical side portions extending downwardly toward said bearing brackets.

1,139,367. TYPE-WRITER ATTACHMENT. GEORGE WESTGATE PALMER, Seattle, Wash. Filed May 28, 1914. Serial No. 841,492. (Cl. 197—33.)



1. An attachment for typewriters, comprising a shaft adapted to support a strip of paper formed into a roll, the shaft having its ends reduced, collars on the shaft at each end of the roll, means for rigidly fixing each of the collars to the shaft, a pair of supporting plates, each of the said plates having in one end an opening for receiving a reduced end of the shaft, a guide shaft or roller arranged parallel with the paper supporting shaft and detachably connected at its ends to the plates, each plate having means at the end remote from the paper supporting shaft for engaging the carriage of a typewriter to support the roll of paper above and behind the carriage, said means comprising a hook for engaging the front edge of the paper guide plate, and depending lugs for engaging the opposite side edges of the tabulating bar.

2. An attachment for typewriters, comprising a shaft adapted to support a strip of paper formed into a roll, the shaft having its end reduced, collars on the shaft at each end of the roll, means for rigidly fixing each of the collars to the shaft, a pair of supporting plates, each of the said plates having in one end an opening for receiving a reduced end of the shaft, and a guide shaft or roller arranged parallel with the paper supporting shaft and detachably connected at its ends to the plates, each plate having a hook at the end remote from the paper supporting shaft for engaging beneath a portion of the carriage of a typewriter to support the roll of paper above and behind the carriage, said plates resting on the carriage intermediate their ends.

3. An attachment for typewriters, comprising a shaft adapted to support a roll of paper, stops on the shaft and adjustable to engage the ends of the roll, and a plate for connecting each end of the shaft to the carriage of a typewriter, each plate having a detachable connection with the shaft at one end, and having a hook at the other end for detachably engaging beneath a portion of the carriage, the plates engaging and resting on the carriage intermediate their ends.

1,139,368. AMPUL. EDWARD W. PIERCE, Cynwyd, Pa., assignor of one-half to Jesse W. Starr, 3d, Atlantic City, N. J. Filed Nov. 27, 1914. Serial No. 874,099. (Cl. 128—25.)



1. In an ampul, the combination of a substantially cylindrical body portion having a constricted end, removable means normally sealing said end, means on said end operative to removably secure a needle holder thereon, and a plug interiorly adjacent the opposite end normally sealing the same, said plug formed of material in a melted state when introduced into the end of the body portion and which hardens when set and adapted to operate under end pressure as a sliding piston within said cylindrical body portion.

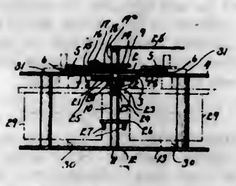
2. In an ampul, the combination of a cylindrical body portion composed of glass, having a rearward open end of like conformation in cross section, and a forward constricted end forming a nipple which is ground exteriorly, removable sealing means operative to hermetically seal said constricted end, a sealing plug within and hermetically sealing the opposite end initially, said plug being composed of material in a melted state when introduced into the end of the body portion and which hardens when set and adapted under end-pressure to operate as a sliding piston to eject the contents of the ampul.

3. In an ampul the combination of a substantially cylindrical body portion having an outwardly projecting flat rim on its rearward open end, and a constricted forward end constituting a nipple, means exterior to said last mentioned end operative to removably retain a needle holder thereon, removable means hermetically sealing said constricted end, and a sealing plug within the opposite end composed of material which is in a melted state when introduced into the end of the body portion and which hardens when set and operative primarily as a seal and secondarily, under end-pressure, as a sliding piston to eject the contents of the ampul.

4. In an ampul, the combination of a cylindrical body portion having a constricted end ground exteriorly and adapted to operatively maintain a needle holder thereon by frictional hold, initially plastic means operating when set to hermetically seal said end, a plug within and adjacent the opposite end operating primarily as a sealing device and secondarily as a sliding piston, composed of wax-like material in a melted state when introduced and which hardens when set, and means to apply end pressure to the plug, consisting of a flanged pin embedded within said plug while in a melted state and having a stem projecting beyond the exterior end of the plug.

5. In an ampul, a cylindrical body portion, composed of glass, and having a constricted end forming a nipple, ground exteriorly and adapted to frictionally maintain a needle holder thereon, removable sealing means on said end, a plug within and adjacent the opposite end of said body portion, composed of material in a melted state when introduced to form the plug and which hardens when set, operating primarily as a hermetic seal and secondarily as a sliding piston under applied end pressure, a projecting pin having its forward end embedded in said plug and means operating as a handle to said pin to cause the plug to aline with said body portion in its traverse thereof as a piston.

1,139,369. STRIKING, LEVER OR MARINE CLOCK. WILSON E. PORTER, New Haven, Conn., assignor to New Haven Clock Co., New Haven, Conn., a Corporation. Filed Mar. 12, 1915. Serial No. 13,982. (Cl. 58—8.)



In a striking, lever or marine clock-movement, a bridge adapted to be removably attached to the front movement-plate, a center-arbor permanently connected with the said bridge, dial-work mounted upon the said bridge and arbor, a center-pinion frictionally mounted upon the arbor, a center-wheel carried by the said pinion, and a strike-releasing device adjustably mounted upon the arbor for being positioned with respect to the minute-hand applied to the forward end thereof, the said parts constituting a self-contained or unitary organization adapted to be handled as one piece in being applied to and removed from the clock-movement.

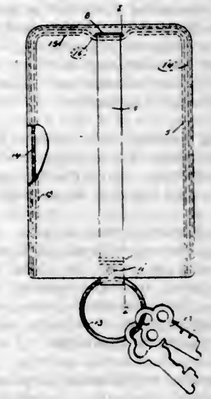
1,139,370. KEY-HOLDER. DEYO W. PUTNAM, Buffalo, N. Y. Filed Mar. 23, 1915. Serial No. 16,474. (Cl. 150—40.)

1. A key holder comprising a front member and a back member stitched together at three sides, a resilient member secured around said stitched sides and an endless strap, for holding a key ring, slidably attached to said back member.

2. A key holder comprising a front member and a back member stitched together at three sides, a resilient member secured around said stitched sides and an endless strap, for holding a key ring, slidably attached to said back member and passing over said resilient member at the closed end of said holder.

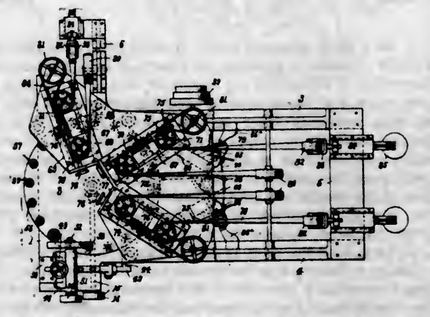
3. A key holder comprising a front member and a back member stitched together at three sides, said back member being so formed as to provide a slot at each end thereof, an endless strap passing through said slots, and means for securing a key ring to said strap.

4. A key holder comprising a front member and a back member stitched together at one end and at two sides, a resilient member, for keeping said front and back members taut, extending across said stitched end and up each of said stitched sides and provided with an offset at said stitched end, an endless strap slidably attached to said back member and passing over said offset in said resilient member, and said strap being so formed as to provide a loop for the reception of a key ring.



5. A key holder comprising a front member and a back member stitched together at one end and at two sides, said back member being formed so as to provide a slot at each end thereof, a resilient member, for keeping said front and back members taut, extending across said stitched end and up each of said stitched sides and provided with an offset at said stitched end and disposed directly beneath the slot at said stitched end, an endless strap slidably arranged through the slots of said back member and passing over said offset in said resilient member, and said strap being so formed as to provide a loop for the reception of a key ring.

1,139,371. BUFFING-MACHINE. FRANK W. RICHARDS, Hotchkissville, Conn., assignor of one-half to Christian M. Newman, Bridgeport, Conn. Filed Sept. 12, 1913. Serial No. 789,494. (Cl. 51—4.)



1. In a buffing-machine of the class described, the combination with a rotary table, a series of rotatable work carrying spindles mounted on the table, means for simultaneously operating all of the said spindles, a horizontally operating buffing-wheel mounted over the table and designed to work against the inner side of the spindles, and a second buffing-wheel to work against the outer side of the spindles.

2. In a buffing-machine of the class described, the combination of a rotary table, a series of rotatable work carrying spindles mounted on the table, means for simultaneously operating all of the said spindles, a horizontally operating buffing wheel mounted over the table and designed to work against the inner sides of the spindles, a second buffing-wheel to work against the outer side of the spindles and a single belt to drive both of the said buffing wheels in opposite directions.

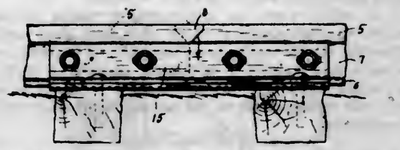
3. In a buffing-machine of the class described, the combination of a rotary table, a series of rotatable work carrying spindles mounted on the table, means for simultaneously operating all of the said spindles, a horizontally operating buffing-wheel adapted to work against the outer side of the work carried on the spindles, and a vertically operating buffing-wheel to work against the end portions of the work carried upon the spindles.

4. In a buffing machine of the class described, the combination with a rotary table, a series of rotatable work carrying spindles mounted on the table, means for simultaneously operating all of the said spindles, a horizontally operating buffing-wheel mounted over the table and designed to work against the inner side of the spindles, a second buffing-wheel to work against the outer side of the spindles, a single belt for driving the said buffing-wheels in opposite directions and a third and vertically arranged buffing-wheel to work against the top of the spindles.

5. In a buffing machine of the class described, the combination with a rotary table, a series of rotatable work carrying spindles mounted on the table, means for simultaneously operating all of the said spindles, a horizontally operating buffing-wheel mounted over the table and designed to work against the inner side of the spindles, a second buffing-wheel to work against the outer side of the spindles, and means for moving the two said buffing-wheels toward and from each other.

[Claims 6 to 24 not printed in the Gazette.]

1,139,372. RAIL-JOINT. CHARLES R. ROBINS, Watertown, Wis. Filed Sept. 26, 1913. Serial No. 791,912. (Cl. 239—8.)



A rail having a base, a web, and a tread portion, the tread portion being formed at its end with a recess having its rear wall inclined upwardly except at the upper extremity thereof where it terminates in a vertically-extending shoulder disposed at an angle to the main incline portion of said wall, and said tread portion also formed at its outer end with a projection having its end wall inclined upwardly except at the upper extremity thereof where it terminates in a vertically-extending shoulder disposed at an angle to the main inclined portion, the inclination of the wall of the projection being in a reverse direction with respect to the inclined wall of the recess.

1,139,373. HAT-PIN-POINT PROTECTOR. NICOLA ROMITO, Newell, Pa. Filed Sept. 16, 1914. Serial No. 862,041. (Cl. 24—155.)



A hat pin point protector comprising a body portion, a coupling member provided with a pair of openings for the passage of the shank of the pin, and a spring hinge connecting said coupling member to said body portion, a

locking member on said body portion projecting through said coupling member and having a slot for the passage of the shank of the pin and further having a hook capable of engaging in the shank of the pin whereby the pin is connected to said coupling member.

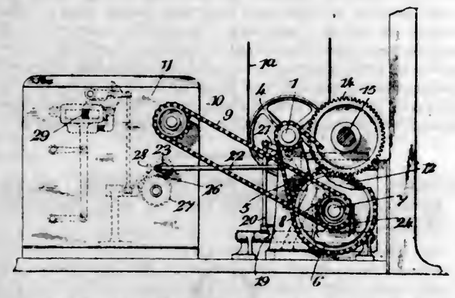
1,139,374. WATCH CASE AND MOVEMENT PROTECTOR. EDWARD A. RONEY, Goldfield, Nev. Filed Sept. 3, 1914. Serial No. 859,989. (Cl. 58—105.)



1. An insulating watch protector comprising a circular back, a front formed thereon, said front being in the shape of a ring to provide an opening through which a watch face may be viewed, stem flaps adapted to overlie the stem and ring of a watch on opposite sides thereof, said flaps being connected to the periphery of the back adjacent an opening therein, said opening adapted to allow the passage of the stem of the watch, the flaps adapted to overlie the stem and ring of the watch and being connected together from a point adjacent the top of the stem downwardly toward the back.

2. A watch protector comprising a casing having an opening through which a watch stem may pass, and flaps connected to the casing and adapted to entirely overlie the stem and ring of a watch for protecting them, said flaps being connected together from a point adjacent the outer end of the stem, to the casing, and being otherwise unconnected.

1,139,375. JACQUARD EMBROIDERING-MACHINE. HIPPOLYT SAURER, Arbon, Switzerland. Filed Mar. 11, 1913. Serial No. 753,541. (Cl. 112—7.)



1. In a jacquard embroidering machine, in combination, a shaft for driving the embroidering apparatus, a toothed wheel thereon, a shaft for driving the automat, a toothed friction clutch member loose on the second shaft and cooperating with the toothed wheel on the first shaft, a second friction clutch member fast on the shaft which drives the automat, a pin slidably mounted in said second clutch member, said first clutch member having a perforation adapted to receive said slidable pin, and means; controlled from the jacquard apparatus, for forcing said friction clutch members into operative engagement.

2. In a jacquard embroidering machine, in combination, a shaft for driving the embroidering apparatus, a toothed wheel fast thereon, a shaft for driving the automat, a toothed friction clutch member loosely mounted on the second shaft and meshing with the toothed wheel fast on the first shaft, a second friction clutch member fixed on the second shaft, a pin slidably arranged in said second clutch member, said first mentioned clutch member having a perforation adapted to receive said sliding pin, a cam surface adapted to cause sliding displacement of said pin, and means, controlled from the jacquard apparatus, for forcing said friction clutch members into operative engagement and closing the pin coupling.

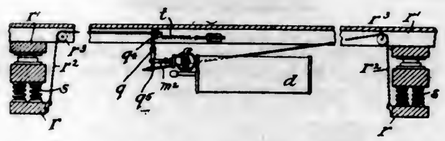
3. In a jacquard embroidering machine, in combination, driving means for the embroidering apparatus, driving means for the jacquard apparatus, a friction clutch for operatively connecting the said two driving means, means for automatically opening said clutch, and means for thereafter automatically closing a positive coupling intermediate the said driving means for the embroidering apparatus and the said driving means for the jacquard apparatus.

4. In a jacquard embroidering machine, in combination, means for driving the embroidering apparatus, means for driving the jacquard apparatus, frictional means for coupling the embroidering apparatus and the jacquard apparatus, and means for thereafter opening said frictional means and then coupling positively the embroidering apparatus and the jacquard apparatus.

5. In a jacquard embroidering machine, in combination, means for driving the embroidering apparatus, means for driving the jacquard apparatus, coupling means intermediate the embroidering apparatus and the jacquard apparatus and comprising a friction coupling and a positive coupling, and means for first closing the friction coupling, and then opening the friction coupling and finally closing the positive coupling.

[Claims 6 to 9 not printed in the Gazette.]

1,139,376. FLUID-PRESSURE BRAKE SYSTEM. WILLIAM H. SAUVAGE, New York, N. Y. Filed July 29, 1913. Serial No. 781,765. (Cl. 188—11.)



1. In a fluid pressure brake system, the combination of a brake cylinder, a primary air reservoir in communication therewith, a secondary air reservoir, ducts connecting the reservoirs, a valve to control the admission of air into the primary reservoir from the secondary reservoir, a diaphragm operatively disposed with respect to the valve and subject on one side to the pressure of the air in the primary reservoir, and a spring in engagement with the other side of the diaphragm, the spring being operative upon the decrease of pressure in the primary reservoir to a predetermined point to open the valve.

2. In a fluid pressure brake system, the combination of a brake cylinder, a primary air reservoir in communication therewith, a secondary air reservoir, ducts connecting the reservoirs, a valve to control the admission of air into the primary reservoir from the secondary reservoir, a spring to hold the valve to its seat, a diaphragm subject on one side to the pressure of the air in the primary reservoir, a spring engaging the other side of the diaphragm, and means connecting operatively the diaphragm and the valve, said diaphragm being operative upon decrease of pressure in the primary reservoir to a predetermined point to open the valve.

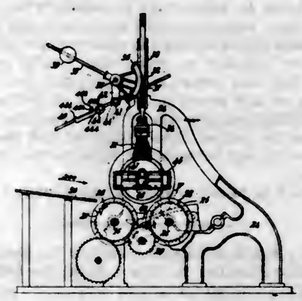
3. In a fluid pressure brake system, the combination of a brake cylinder, a primary air reservoir in communication therewith, a secondary air reservoir, ducts connecting the reservoirs, a valve in said connection to control the admission of air into the primary reservoir from the secondary reservoir and operable automatically upon the reduction of air pressure in the primary reservoir to a predetermined point and means whereby the valve may be opened and retained in opened position to place the reservoirs in constant communication.

4. In a fluid pressure brake system, the combination of a brake cylinder, a primary air reservoir in communication therewith, a secondary air reservoir, ducts connecting the reservoirs, a valve in said connection to control the admission of air into the promary reservoir from the secondary reservoir and operable automatically upon the reduction of air pressure in the primary reservoir to a predetermined point, means whereby the valve may be opened and retained in opened position, and mechanically operable devices to initiate the operation of said last named means.

5. In a fluid pressure brake system, the combination of a brake cylinder, a primary air reservoir, a secondary air reservoir, ducts connecting the reservoirs, a valve to control the admission of air into the primary reservoir from the secondary reservoir, a diaphragm in operative engagement with the valve, a spring engaging the diaphragm on one side, the diaphragm being subject on the other side to the pressure of the air in the primary reservoir, and a valve-controlled passage whereby air may be admitted to the first named side of the diaphragm to equalize substantially the air pressure on its two sides, the spring then being operative to hold the first named valve in opened position.

[Claims 6 to 14 not printed in the Gazette.]

1,139,377. PACKAGE-WASHING MACHINE. GUSTAV SCHOCK and ROBERT C. SCHOCK, New York, N. Y. Original application filed Aug. 6, 1913, Serial No. 783,362. Divided and this application filed Dec. 20, 1913. Serial No. 807,943. (Cl. 141—6.)



1. The combination with a scrubbing platform, of a plurality of brushes each movable toward the working position by gravity independently of the others, automatic mechanism for returning the brushes in unison at timed intervals to initial position, said mechanism comprising means of adjustment for determining the initial position to which the said mechanism shall retract the brushes.

2. The combination with a scrubbing platform, of a plurality of brushes each movable toward the working position by gravity independently of the others, automatic mechanism for returning the brushes in unison at timed intervals to idle position and comprising a rock shaft, connections between the respective brushes and the rock shaft, an arm upon said rock shaft, an oscillatory eye carried by the arm, a reciprocatory bar passing through said eye, and an adjustable tappet mounted upon the bar for engaging the said arm for rocking the said rock shaft.

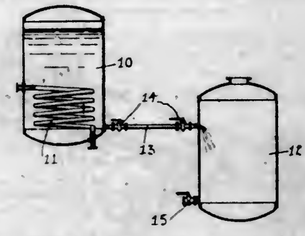
3. In a scrubbing machine the combination with a scrubbing platform, of a plurality of brushes each movable toward the working position by gravity independently of the others, automatic mechanism for returning the brushes in unison at timed intervals to initial position and comprising a rock shaft, a strap associated with each brush for moving the same from working position, and a sector engaging the strap upon its periphery, said sector being mounted upon the rock shaft, an arm upon said rock shaft, an oscillatory eye carried by the arm, a reciprocatory bar traversing such eye, and an adjustable tappet mounted upon the bar for engaging the said eye for rocking the said rock shaft.

4. In a scrubbing machine, the combination with a platform, of a pair of brushes each movable toward the working position by gravity independently of the other, a rack bar associated with each brush, oblique guides for the rack bars, a sector engaging each rack bar, and automatic means for actuating the sectors in unison for drawing the brushes away from working position.

5. In a scrubbing-machine, the combination with a framework, of a platform therein comprising a series of rolls, a brush for the side of the package movable toward and from the said platform in a substantially vertical plane, a bar for guiding said brush in its movement, a strap connected to such bar, a sector engaging the strap upon its periphery, said sector being mounted upon a rock shaft, and adjustable counter weights connected to such rock shaft, a pair of end brushes, a rack bar connected to each of said end brushes, obliquely disposed guides at the ends of the platform for said rack bars, said guides being directed downwardly at their platform ends, a toothed sector meshing with each rack, a sector upon the rock shaft for each of said toothed sectors, and a strap running over the periphery of each of the said sectors attached to one of the toothed sectors, the construction being such that the brushes will move by gravity to their working positions and will be positively returned to idle position in unison.

[Claim 6 not printed in the Gazette.]

1,139,378. METHOD OF SOFTENING WATER. KARL SCHREMPP, Karlsruhe, Germany. Filed Feb. 7, 1914. Serial No. 817,137. (Cl. 210—1.)



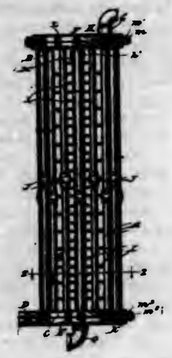
The herein described method of softening water, which consists in subjecting the water to pressure by heating the same in a chamber, and thereafter suddenly relieving the pressure on the water by passing the latter into a chamber wherein the pressure is considerably lower than in the first mentioned chamber, whereby insoluble carbonates are precipitated in said second chamber.

1,139,379. INSTANTANEOUS HOT-WATER HEATER. JOHN OTTO SCHULTE, Cincinnati, Ohio. Filed Dec. 8, 1914. Serial No. 875,392. (Cl. 122—333.)

1. In a water heater, the combination of two water chambers, a water inlet for one of said water chambers, and a water outlet for the other water chamber, a group of spaced water tubes communicating with and connecting the two water chambers, a burner pipe surrounded by the group of tubes and extending substantially the entire distance between the two water chambers, a series of pipes communicating with and extending laterally from the burner pipe, the free ends of said branch pipes terminating adjacent the water tubes and constituting nozzles adapted to discharge burning gases against the water tubes, and a gas inlet for the burner pipe.

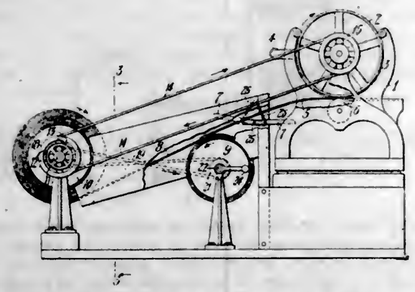
2. In a water heater of the class described, the combination with a lower water chamber having a water inlet, an upper water chamber having a water outlet, a group of spaced vertically disposed water tubes connecting the two chambers and providing water passages between the same, a vertically disposed burner pipe extending between

the two water chambers and surrounded by the group of water tubes, said burner pipe having a gas inlet at its lower end and a series of relatively small branch pipes extending horizontally from the burner pipe and having their



free ends curved and terminating adjacent the water tubes, said curved ends constituting nozzles adapted to discharge the burning gases against the adjacent water tubes.

1,139,380. OFFSET-PREVENTING DEVICE FOR STENCILING-MACHINES. JAMES E. SHAVER, Jr., Philadelphia, Pa., assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Filed July 26, 1912. Serial No. 711,667. (Cl. 34—1.)



1. The combination with a cylinder for making duplicate copies, of a web strip for interleaving said duplicate copies, a receiving reel for said web strip, a supplying reel for feeding said web strip directly to said receiving reel, the relative positions of said reels, said web strip and said cylinder being such that said cylinder will shoot the copies over said supplying reel onto said web and to beneath said receiving reel, means for driving said receiving reel from said cylinder, and means for driving said supplying reel from said receiving reel.

2. The combination with a duplicating cylinder for producing duplicate copies, of a web for interleaving the copies, a reel for winding up said web, a reel for supplying the web to the said first mentioned reel, both of said reels being located on a lower level than said cylinder and in substantial horizontal alinement with each other, the paying-off point of the supply reel being in line with the receiving point of the winding reel and the discharge point of the duplicating cylinder, whereby the copies projected from the cylinder may alight on said supplying reel in their falling transit from said cylinder for carriage to said winding reel, and means for driving said reels.

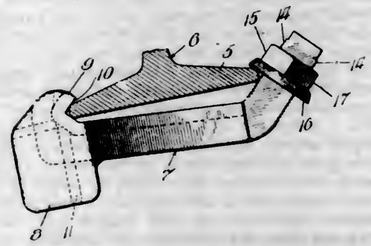
3. The combination with a duplicating cylinder for producing duplicate copies, of an interleaving web for separating said copies one from the other as they are thrown off by said cylinder, a receiving reel for winding up said web with the copies between the layers thereof, and a supplying reel for feeding the web to said receiving reel, the throwing off point of said cylinder and the stripping point of said supplying reel being separated by a space no greater than the extent of the printing field around the cylinder in order that copies leaving said printing field may bridge said space, and the stripping point of said supplying reel, the receiving point of said receiving reel, and the throwing off point of said cylinder being in substantial alinement with each other and the supplying reel being below its stripping point, so that the copies may pass directly from said cylinder onto said web and be carried by the web to the receiving reel.

4. The combination with a duplicating cylinder for producing duplicate copies, of an interleaving web for separating said copies one from the other as they are thrown off by said cylinder, a receiving reel for winding up said web with the copies between the layers thereof, and a supplying reel paying off the web from its upper surface and feeding it to said receiving reel, the stripping point of said supplying reel, and the receiving point of said receiving reel being on a falling diagonal line with the throwing off point of said cylinder, and the space separating said stripping point and throwing off point not exceeding the extent of the printing field around the cylinder in order that copies leaving said printing field may bridge said space.

5. The combination with a duplicating cylinder for producing duplicate copies, of an interleaving web for separating said copies one from the other as they are thrown off by said cylinder, a receiving reel for winding up said web with the copies between the layers thereof, and a supplying reel for feeding the web to said receiving reel, the stripping point of said supplying reel, the receiving point of said receiving reel, and the throwing off point of said cylinder being in substantial alinement with each other, and the space separating said stripping point and throwing off point not exceeding the extent of the printing field around the cylinder in order that copies leaving said printing field may bridge said space, said web passing off at the top of said supplying reel, and on at the bottom of said receiving reel, the top of said supplying reel being lower than the bottom of said cylinder, and the bottom of said receiving reel being lower than the top of said supplying reel.

[Claims 6 to 20 not printed in the Gazette.]

1,139,381. RAIL-ANCHOR. ARTHUR L. STANFORD, Chicago, Ill. Filed Oct. 9, 1914. Serial No. 865,848. (Cl. 238—4.)



1. In a rail anchor the combination of a body portion, a fixed gripping jaw, that end of the body portion opposite from said fixed jaw being angularly disposed with respect to the remainder of the body portion, a threaded surface on the angularly disposed portion and a member arranged to travel upon said threaded surface and constituting a gripping jaw, substantially as described.

2. In a rail anchor comprising a body portion, a V-shaped fixed gripping jaw, that end of the body portion opposite from said fixed jaw being angularly disposed with respect to the remainder of the body portion, a threaded surface on said angularly disposed portion and a member arranged to travel on said threaded surface and constituting the movable gripping jaw, substantially as described.

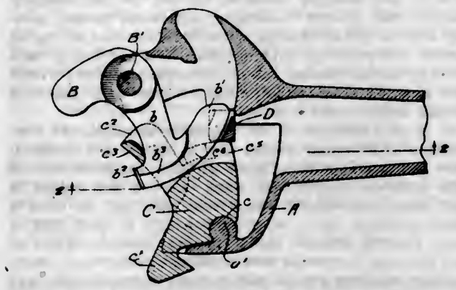
3. In a rail anchor the combination of a body portion, a fixed gripping jaw at one end of the body portion, said body portion tapering toward the opposite end and terminating in an angularly disposed integral threaded portion, and a member arranged to travel upon said threaded portion and constituting the movable gripping jaw, substantially as described.

4. In a rail anchor the combination of a body portion having a fixed gripping jaw at one end, a threaded portion at its opposite end extending obliquely with respect to the remainder of the body, a movable gripping jaw movable up and down upon said oblique portion, said movable jaw embodying a flat face arranged to engage the upper edge of the rail base, substantially as described.

5. In a rail anchor the combination of a body portion having an integral fixed gripping jaw at one end, said jaw being cut away at the center thereof whereby such cut away portion lies out of engagement with the rail base and engagement had between the jaw and rail base only at the extremities of the jaw, a movable gripping jaw at the opposite end of the rail base, and said movable jaw being movable relative to the fixed jaw to vary the distance therebetween, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,139,382. AUTOMATIC CAR-COUPLING. CHARLES H. STARK, Strasburg, Va., assignor to Stark Car Coupler Corporation, Strasburg, Va., a Corporation of Virginia. Filed Mar. 21, 1914. Serial No. 826,217. (Cl. 213—10.)



1. In a coupler, the combination of a draw head, a knuckle pivoted therein at one side and provided with a tail extension, a locking pin movable vertically in the draw head and having a cut out portion for the passage of the said tail extension, a guard arm intermediately fulcrumed within the opposite side of the draw head and having an inwardly projecting portion and an outwardly projecting portion, located upon respectively opposite sides of its fulcrum and the former of which is movable outwardly into engagement with the knuckle when the guard arm is rocked on its fulcrum, and means for raising the locking pin to release the knuckle when the guard arm is rocked on its pivot, all for the purpose described.

2. In a car coupler, the combination of a draw head, a knuckle pivoted at one side of the draw head and having a tail extension, a guard arm located at the opposite side of the draw head, said guard arm and said draw head having relatively engaging portions forming a fulcrum intermediate the ends of the guard arm and upon which the latter is movable, a locking pin movable vertically in the draw head and having a cut out portion for the passage of the knuckle extension, said locking pin and the inner portion of the guard arm having relatively engaging means whereby to lift the locking pin when the guard is rocked on its fulcrum, and said guard arm having an outer portion projecting forwardly beyond the contour lines of the draw head, all for the purpose described.

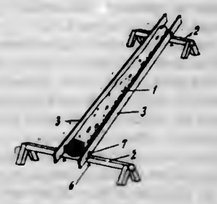
3. In a car coupler, the combination of a draw head, a knuckle pivoted therein at one side and provided with a tail extension, a locking pin movable vertically in the draw head and having means engaging the tail extension to throw the knuckle open, a guard arm intermediately fulcrumed within the opposite side of the draw head and having an inwardly extending portion disposed in the path of movement of the knuckle tail extension and also movable outwardly into engagement with the knuckle when the guard arm is independently rocked on its fulcrum, said guard arm having an outer portion projecting beyond the draw head, and means for raising the locking pin when the guard arm is rocked on its fulcrum, all for the purpose described.

4. In a car coupler, the combination of a draw head having an inner vertical rib at one side, a knuckle pivoted at the opposite side of the draw head and having a tail extension, a guard arm having an intermediate vertical recess engaging the draw head rib to form a fulcrum on which the guard arm is movable, a locking pin movable vertically in the draw head between the guard arm and the knuckle and having a cut out portion for the passage of the knuckle tail extension, said guard arm having an outer portion projecting beyond the draw head and said locking pin and the inner portion of the guard arm having relatively engaging means for lifting the former when the latter is rocked on its fulcrum, all for the purpose described.

5. A car coupling comprising a coupler head having a pivoted knuckle at one side and provided at the opposite side with a guard arm, a locking device for holding the pivoted knuckle in its closed position, and means mounted within the coupler head for operating the locking device to release the knuckle and for opening the latter after the same has been uncoupled, said means including an element projecting at the guard arm and arranged to be engaged and actuated by a companion car coupling to effect the said operations.

[Claims 6 to 10 not printed in the Gazette.]

1,139,383. APPARATUS FOR SMOOTHING BUILDING-WOOD AND FOR TREATING RAW LOGS AND TRUNKS. ALFRED SVENDSEN, Fredericia, Denmark. Filed Aug. 7, 1913. Serial No. 783,572. (Cl. 144—117.)

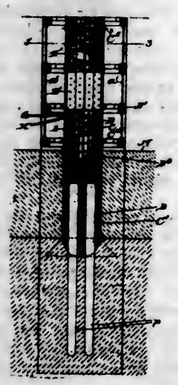


1. Apparatus for smoothing roughly cut wood, raw logs, trunks and the like, comprising stocks for supporting the wood, screw threaded metal bushes carried by said stocks on either side of the wood, a screw threaded rod projecting through each bush, angle irons supported by the stocks on either side of said rod, rails held between said angle irons and resting upon the rods, a hand wheel for adjusting said rods, a platform adapted to be moved along said rails, fixed frames upon said platform on either side of the wood, bearings supported by said frames, a shaft journaled in said bearings, a rotary plane mounted upon said shaft, a screw threaded rod secured to each of said bearings respectively and working in its frame, a hand wheel on each of said rods for adjusting said bearings and means for rotating said plane.

2. Apparatus for smoothing roughly cut wood, raw logs, trunks and the like, comprising stocks for supporting the wood, screw threaded metal bushes carried by said stocks on either side of the wood, a screw threaded rod projecting through each bush, angle irons supported by the stocks on either side of said rod, rails held between said angle irons and resting upon the rods, a hand wheel for adjusting each of said rods, a device adapted to be moved along the rails comprising a platform, wheels supporting said platform upon said rails, fixed frames mounted upon said

platform on either side of the wood, bearings supported by said frames, a shaft journaled in said bearings, a rotary plane mounted upon said shaft, a screw threaded rod secured to each of said bearings and working in its frame, a hand wheel on each of said rods for adjusting said bearings, an electric motor for rotating said plane, and means whereby the device may be moved manually along said rails, substantially as set forth.

1,139,384. APPARATUS FOR CONSTRUCTING CONCRETE COLUMNS. HARRISON S. TAFT, Seattle, Wash. Filed May 22, 1913. Serial No. 769,212. (Cl. 72—81.)



1. In apparatus for constructing reinforced concrete columns, the combination of an outer inclosing form, and a guide, fitted to slide in said outer form, and comprising means to embrace and hold in position the reinforcing members for the column.

2. In apparatus for constructing reinforced concrete columns, the combination of an outer inclosing form, and a perforated guide, fitted to slide in said outer form and comprising means to embrace and hold in position the reinforcing members for the column.

3. In apparatus for constructing concrete columns, the combination of an outer inclosing form, a guide, fitted to slide in said inclosing form, and provided with spacer strips to bear on the interior of said form, said guide also comprising means to embrace and hold in position the reinforcing members for the column.

4. In apparatus for constructing concrete columns, the combination of an outer inclosing form, a perforated guide, fitted to slide in said inclosing form and provided with spacer strips to bear on the interior of said form, said guide also comprising means to embrace and hold in position the reinforcing members for the column.

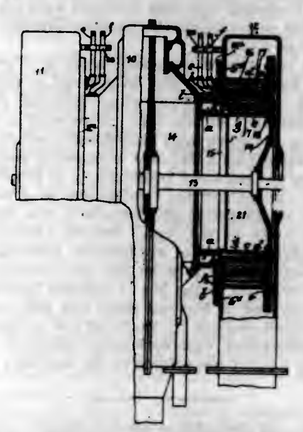
5. In apparatus for constructing reinforced concrete columns, the combination of an outer inclosing form, and a guide, fitted to slide in said outer form, and comprising means to embrace and hold in position the reinforcing members for the column, and a water excluding coffer surrounding the said outer inclosing form.

[Claims 6 to 22 not printed in the Gazette.]

1,139,385. APPARATUS FOR WASHING, CLEANING, AND COOLING GASES. HANS ED. THEISEN, Munich, Germany. Filed Oct. 20, 1913. Serial No. 796,162. (Cl. 48—141.)

1. In an apparatus of the character specified, the combination of a plurality of annular disintegrator members, a perforated disk supporting certain of said members, and means whereby fluid is ejected through the perforations in said disk to act against the ends of said disintegrator members.

2. In an apparatus of the character specified, the combination of a casing divided into a central fan compartment and lateral washing compartments, a fluid channel between each washing compartment and the fan compartment, a disk in each washing compartment having openings therein communicating with said fluid channel, and disintegrator members in said washing compartments adapted to be acted on by the fluid issuing through the openings in said disk.



3. In an apparatus of the character specified, the combination of a casing divided into a central fan compartment and lateral washing compartments, a fluid channel between each washing compartment and the fan compartment, a disk in each washing compartment having openings therein communicating with said fluid channel, spray nozzles connected to said openings and traversing said washing compartments, and disintegrator members within said washing compartments and in line with the fluid issuing through said nozzles.

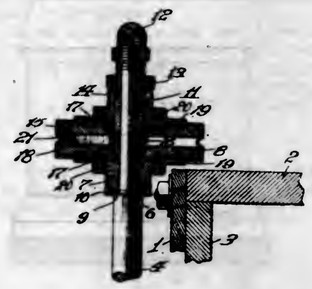
4. In an apparatus of the character specified, the combination of a casing divided into a central fan compartment and lateral washing compartments, the inner wall of each washing compartment being offset, a disk seated in said offset and spaced away from said wall to form a liquid chamber, there being perforations in said disk, a liquid channel adjacent said disk, spray nozzles carried by said disk and traversing said washing compartment, disintegrator members within said washing compartments, and means for supplying fluid to said liquid channel and to said liquid chamber whereby liquid issues through said nozzles and said perforations against said disintegrator members.

5. In an appartus of the character specified, the combination of a casing having a fan compartment and an adjacent washing compartment in communication with each other, annular disintegrator members within said washing compartment, means for supplying washing fluid to said washing compartment, and means within the innermost disintegrator member for preventing the escape of fluid from the washing compartment into the fan compartment.

1,139,386. BELT-POLISHING MACHINE. ERNST FRIDOLF THOREN, St. Louis, Mo., assignor of one-half to Emil E. Laun, Clayton, Mo. Original application filed Aug. 4, 1911, Serial No. 642,899. Divided and this application filed Feb. 15, 1912. Serial No. 677,735. (Cl. 51—1.)

1. In a polishing wheel, the combination with a rotary spindle, of a disk keyed thereto, a hub formed on said disk, a resilient member mounted on said disk over said hub, a second disk mounted on said hub and adapted to engage said resilient member, said resilient member forming means for spacing said disks apart, locking means cooperable with said resilient member, and buffing material secured to the peripheries of said disks, said resilient member and said locking means forming means for controlling the distances said disks are spaced apart.

2. In a device of the character described, the combination with a rotary spindle, of a disk keyed thereto, a second disk spaced therefrom and adjustable axially with respect thereto, resilient means for separating said disks, means for holding said disks against separation, and a buffing strip having its lateral edges secured respectively about the peripheries of said disks; said strip being bulged into the space between said disks to form a groove.



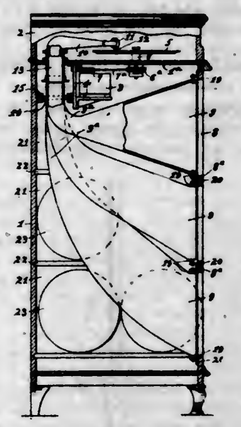
3. In a device of the character described, the combination with a rotary spindle, of a disk provided with a hub portion keyed to said spindle, and having an elongated bearing sleeve, a second disk slidable along said sleeve, a resilient member interposed between said disks to impart a separating tendency, means for locking said disks at any desired distance apart, and a buffing strip secured to the peripheries of said disks.

4. In a device of the character described, the combination with a rotary spindle, of a removable buffer head comprising a disk member provided with a sleeve, a second disk adjustable along said sleeve and spaced apart from said first mentioned disk, and a buffing strip carried by said disks and sagging therebetween to form a buffing groove.

5. In a belt polishing wheel, the combination of relatively movable disks spaced apart, with resilient means for separating said disks, a hub formed on one of said disks, the other of said disks being mounted on said hub, and buffing material carried by said disks and gathered therebetween to form a groove.

[Claims 6 to 10 not printed in the Gazette.]

1,139,387. SOUND-REPRODUCING MACHINE. CHARLES W. WALLER, Chicago, Ill. Filed Dec. 18, 1911. Serial No. 666,326. (Cl. 181—3.)



1. In a sound reproducing machine, a sound reproducer, sound conducting means, a plurality of graduated amplifiers having their open ends superposed, means for movably supporting said amplifiers independently of said sound conducting means, and means for selectively moving the receiving portions of one or more of said amplifiers into communication with said sound conducting means.

2. In a sound reproducing machine, in combination, a sound reproducer, sound conducting means, sound amplifying means comprising a plurality of sound amplifying chambers supported independently of said first mentioned means, and mechanism whereby one of said means may be moved selectively into communication with the other.

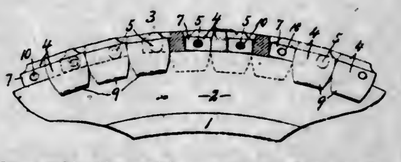
3. In a sound reproducing machine, the combination of a sound reproducer, sound conducting means, a plurality of sound amplifying means, and means whereby one of said means may be moved selectively into communication with the other.

4. In a sound reproducing machine, a cabinet having an open side, graduated amplifiers therein and having their open ends pivotally mounted and superposed along said open side, sound reproducing means, and means for selectively bringing the latter into communication with one or more of said amplifiers.

5. In a sound reproducing machine, a plurality of amplifiers having their open ends superposed, sound reproducing means, sound conducting means, means for movably supporting said amplifiers independently of the latter, and means for selectively moving the receiving portions of one or more of said amplifiers into communication with said sound conducting means.

[Claims 6 to 17 not printed in the Gazette.]

1,139,388. GRIP-TREAD ARMOR FOR ELASTIC TIRES. HARRY D. WEED, Canastota, N. Y., assignor to Walter B. Lashar, Bridgeport, Conn. Filed Nov. 17, 1905. Serial No. 287,868. (Cl. 152—16.)



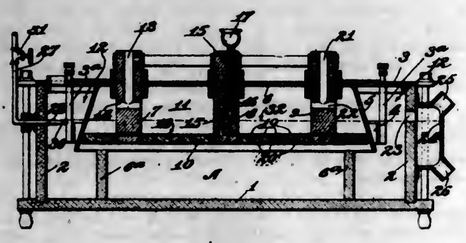
1. In combination with a vehicle wheel having an elastic tire, a grip tread for said tire composed of a series of metal sections arranged circumferentially around and upon the periphery of the tire and having their ends provided with intervening tongues and grooves, the tongues having registering apertures slightly elongated circumferentially, hinge bolts passed through the registering apertures of adjacent tongues to allow the sections to move toward each other when engaging the roadway, said sections having outer flat faces extending along their tongues and also having inner flat faces resting on the periphery of the tire, the opposite ends of each section being provided with inwardly projecting flanges spaced apart from the adjacent sides of the tire, the front and rear edges of the flanges being tapered inwardly to allow flexing action of the tread.

2. A grip tread armor for elastic tires comprising a circular series of wearing plates arranged end to end circumferentially in close juxtaposition and having their meeting ends provided with interfitting tongues and grooves and their sides provided with inwardly projecting flanges, the inner faces of the plates between the flanges being substantially flat, and pivotal bolts passed through apertures in the tongues of adjacent plates, the apertures in the tongues being elongated circumferentially to allow the sections to move toward each other when engaging the roadway.

1,139,389. METHOD OF OPERATING AN ELECTROLYTIC CELL. ERNEST E. WERNER, Indianapolis, Ind. Filed Aug. 3, 1914. Serial No. 854,654. (Cl. 204—58.)

1. The method of generating chlorin electrolytically from a saline solution which comprises continuously removing products formed in the cathode chamber by maintaining, at the surface of the catholyte therein, a flow of a fluid, and continuously discharging said fluid and the

products carried thereby from said chamber at a point above the normal surface of the catholyte.



2. The method of generating chlorin electrolytically from a saline solution which comprises continuously removing waste products formed in the catholyte chamber by maintaining, at the surface of the catholyte therein, a flow of a fluid of less specific gravity than the catholyte, and continuously discharging said fluid and the waste products carried thereby from said chamber at a point above the normal surface of the catholyte.

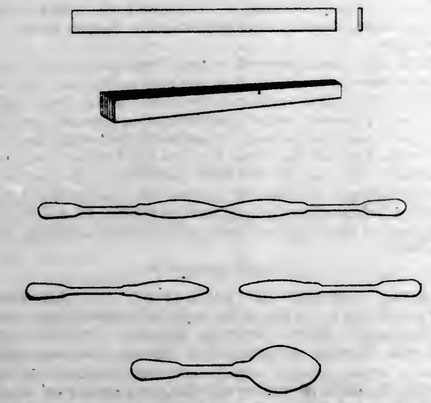
3. The method of generating chlorin electrolytically from a saline solution which comprises continuously removing solid products formed in the cathode chamber by maintaining, at the surface of the catholyte therein, a flow of a fluid capable of dissolving said products, and for continuously discharging said fluid carrying the dissolved products from said chamber at a point above the normal surface of the catholyte.

4. The method of generating chlorin electrolytically from a saline solution which comprises continuously removing solid products formed in the cathode chamber by maintaining, at the surface of the catholyte therein, a flow of a fluid of less specific gravity than the electrolyte, and one capable of dissolving said products and continuously discharging said fluid carrying the dissolved products from said chamber at a point above the normal surface of the catholyte.

5. The method of generating chlorin electrolytically from a saline solution which comprises continuously introducing into the cathode chamber of the cell, at the surface of the catholyte therein, an agent capable of dissolving the solid products formed in said chamber and continuously discharging the dissolved products from said chamber at a point above the normal surface of the catholyte.

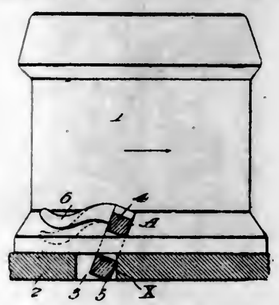
[Claims 6 and 7 not printed in the Gazette.]

1,139,390. MANUFACTURE OF PLATED FLAT-WARE. ARTHUR WILZIN, St.-Ouen, France. Filed Oct. 20, 1913. Serial No. 796,097. (Cl. 76—105.)



In the manufacture of plated flatware, the process which consists in polishing the blank while it is in a flat condition, then plating the polished blank, then polishing the flat plated surface, and thereupon stamping or embossing the article.

1,139,391. ANTICREEPER. BENJAMIN WOLHAUPTER, New Rochelle, N. Y. Filed Feb. 25, 1911. Serial No. 610,908. (Cl. 238—4.)



1. An anti-creeping device including a member having angular edges adapted to grip the rail base flange when the member is canted, and yielding means for normally holding said member canted from a vertical plane.

2. An anti-creeping device including a clip adapted to loosely receive the base flange of a rail and having one of the jaws thereof provided with teeth, and a spring arm projecting laterally from one of the jaws, the said spring arm loosely engaging the rail to cant the clip and cause the same to grip the rail.

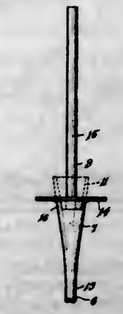
3. An anti-creeping device including a clip adapted to loosely receive the flange of a rail, the jaws of the clip being formed with angular corners and one of the jaws being provided with transverse serrations to form teeth, and yielding means for canting the clip to cause the same to grip the rail.

4. An anti-creeping device including a clip adapted to loosely receive the base flange of a rail, the jaws of the clip being formed with angular edges and the lower jaw being provided with transverse serrations forming teeth, and a spring arm projecting laterally from the upper jaw and bearing loosely against the rail to hold the clip in a canted position.

5. An anti-creeping device including a clip designed to receive the base flange of a rail, and a holding plate formed with a slot receiving the lower arm of the clip, the engagement of the said arm of the clip with a wall of the slot tending to cant the clip so as to cause the same to grip the rail.

[Claims 6 and 7 not printed in the Gazette.]

1,139,392. PROCESS FOR MAKING HAND-TOOLS. GEORGE A. WOOD, Southington, Conn. Filed Feb. 25, 1914. Serial No. 820,989. (Cl. 76—101.)

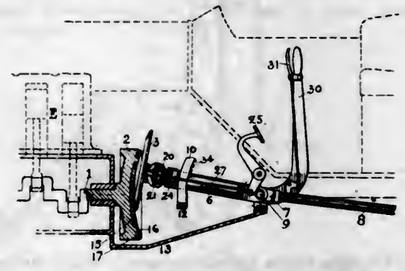


1. The process of making a tool that consists in forming a lateral flange upon a rod of stock at a distance from each end thereof with a shank upon one side of said flange, and then turning said flange to form a socket with its axis coincident with that of the tool shank.

2. The process of making a tool that consists in forming a lateral flange on a rod of stock at a distance from each end thereof, forming an enlargement on said stock at one side of and next to said flange, bending said flange to form a socket with its axis coincident with that of said stock, and forming a cut in the enlarged part and below said flange, said cut constituting a continuation of the socket formed by the flange.

3. The process of making a tool that consists in forming an enlargement upon a rod of stock at a distance from each end thereof, forming the rod into a tool shank upon one side of the enlargement, and then forming said enlargement into a socket with its axis coincident with that of the tool shank.

1,139,393. ROLLING TRANSMISSION MECHANISM. FRANK O. WOODLAND, Worcester, Mass. Filed June 17, 1913. Serial No. 774,227. (Cl. 74—26.)



1. A variable speed transmission mechanism, including a pair of frictionally contacting clutch-members the faces of which conform approximately to a spherical segment, their shafts being arranged in normal axial alinement with each other, a motor-supporting frame having an extension provided with hinging-ears at or near its outer end, the shaft of the motor and driving clutch-member mounted upon said motor-supporting frame, a tubular bearing-member pivotally supported in said hinging ears on the motor-supporting frame, the shaft of the driven clutch-member supported in said tubular bearing-member, said bearing member adapted to swing said driven shaft into oblique or straight relation to the motor-shaft from a point coincident with the axis of said hinging ears, the same being at the center of a circular arc representing the curvature of the frictional contact surface of the clutch-members, a propeller shaft flexibly connected to the end of said driven-shaft coincident with the hinging-axis, a hand-lever connected with said tubular bearing member for raising and depressing the driven-clutch member and its shaft from straight to oblique relation, and vice versa, adjustment-retaining means, and means for closing and releasing the clutch contact.

2. In a transmission mechanism for motor vehicles or the like, the combination with the motor shaft, and the propeller shaft, of a clutch-carrying intermediate shaft, and a frictional disk clutch mechanism forming the operative connection between said motor shaft and intermediate shaft, said intermediate shaft having flexible connection, end to end, with the propeller shaft, a horizontally hinged bearing supporter for said clutch-carrying shaft, and a controlling means connected with said bearing supporter for varying the alinement of the clutch-carrying shaft and axis of the driven clutch member in relation to the driving clutch member and motor shaft.

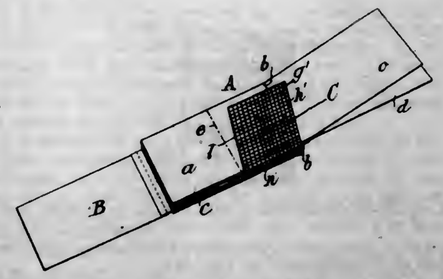
3. In a transmission mechanism for motor vehicles, the combination of a motor-supporting frame provided with an extension, a motor carried upon said frame, the motor-axle having thereon a driving-disk with an approximately spherically concave engaging surface, a swinging bearing-member hingedly connected at its rear end with the extended part of the motor-supporting frame, an operating-shaft carried by said swinging bearing-member, a second disk having a counter-matching engaging surface that coacts with said driving-disk and is united with said operating-shaft by endwise slidable connections, the propeller-shaft universally jointed to said operating-shaft approximately in line with the hinging of the bearing-member and motor-frame extension, yielding devices that permit limited movement of said driven-disk to and from contact with said driving-disk, actuating means for controlling said movement, means for adjusting said swinging bearing-member and parts carried thereon up and down to bring the disks into straight or inclined relation, and means for retaining the same at adjusted position.

4. In an operating mechanism for motor vehicles, the combination as described, with the motor, and the propeller shaft, of a motor supporting frame having a rearward extension forming an under casing with horizontal hinging ears at its rear end, a motor-shaft, a concaved faced driving-disk mounted upon the motor shaft, a swinging supporting member, its rear end pivotally connected with said hinging-ears upon the motor-supporting frame, an operating-shaft carried by said swinging member and its rear end jointedly connected with the propeller shaft, a power-receiving clutch-disk having an annular face for engaging with the driving-disk at varied degrees of inclination, and connected with the operator-shaft by endwise telescoping members, means for varying the inclination of said swinging member and parts carried thereby, and means for retaining the same at adjusted positions, the said mechanisms being mounted upon, and the endwise thrust of the transmission devices sustained by the motor-supporting frame extension.

5. In a transmission mechanism for motor-vehicles or the like, the combination with the engine shaft, and the propeller shaft; of a frictional element fixed to the engine shaft and having a spherically concave contact face, a tubular bearing sleeve transversely fulcrumed to swing up and down at its forward end, a hollow shaft rotatably supported within said sleeve and having its rear end coupled by universal joint to said propeller shaft, a counter frictional element having an annular convex contact face and a projecting axle that is supported and endwise movable within said hollow shaft, an expanding tensional spring within the hollow shaft acting against said axle, and means for adjusting and retaining said bearing-sleeve at different positions of adjustment.

[Claims 6 to 12 not printed in the Gazette.]

1,139,394. TABLET OR THE LIKE. ELMER MCCLELLAN AFRICA, Huntingdon, Pa., and BARTHOLOMEW E. MCSHEEHY, Nutley, N. J., assignors to J. C. Blair Company, Huntingdon, Pa., a Corporation of Pennsylvania. Original application filed Jan. 18, 1908, Serial No. 411,445. Divided and this application filed Apr. 8, 1908. Serial No. 425,906. (Cl. 84—11.)



1. A tablet having a plurality of sheets of paper and having a guide sheet of substantially one-half the area of the tablet, said guide sheet being hinged to a side edge of the tablet, and a guide sheet of substantially the full area of the tablet, said guide sheets having guiding provisions adapted to be visible through one of said sheets of paper.

2. A tablet having a plurality of sheets of paper and having a guide sheet of substantially one-half the area of the tablet, and a guide sheet of substantially the full area of the tablet, said guide sheets being hinged to the tablet at contiguous sides thereof, and each having guiding provisions adapted to be visible through one of said sheets of paper.

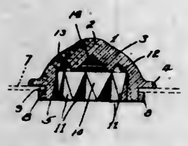
3. A tablet having a sheet having guide lines, and being of substantially the full area of the tablet and connected to the side opposite the binding edge, and a sheet having guide lines and being of substantially half the area of the tablet and connected to a contiguous side.

4. A tablet having a sheet having guide lines, and being of substantially the full area of the tablet and connected to the side opposite the binding edge, and a sheet having guide lines and being of substantially half the area of the tablet and connected to a contiguous side, said guide lines extending longitudinally of the tablet.

5. A tablet having a sheet having guide lines, and being of substantially the full area of the tablet and connected to the side opposite the binding edge, and a sheet having guide lines and being of substantially half the area of the tablet and connected to a contiguous side, said guide lines extending transversely of the tablet.

[Claims 6 to 8 not printed in the Gazette.]

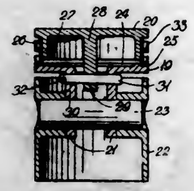
1,139,395. ILLUMINATING-SIGN. JOHN ARMANTAGE and FREDERICK ROEHRIG, Oakland, Cal., assignors of one-half to said Roehrig, and one-half to Walton G. Pearson, Alameda, Cal. Filed July 22, 1913. Serial No. 780,561. (Cl. 240—106.)



1. A lens formed by a plurality of concentric superimposed convex surfaces integrally formed, a central bulge in said lens having a cavity therein provided with lens facets, and a rearwardly extending ring provided on its inner surface with a plurality of lens facets.

2. A lens formed by a plurality of concentric superimposed convex surfaces integrally formed, a central spherical bulge having a cavity therein provided with lens facets, and a rearwardly extending annular ring provided with a plurality of lens facets angularly disposed with respect to each other.

1,139,396. PISTON. OLIVER E. BARTHEL, Detroit, Mich. Filed May 25, 1914. Serial No. 840,681. (Cl. 121—104.)



1. A piston comprising a body having an annular wall formed to a feather edge, and a skirt movable relative to the wall of said piston body, whereby said piston body can adjust itself independent of said skirt.

2. A piston comprising a skirt, and a self adjusting piston body connected thereto.

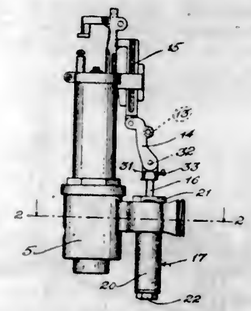
3. A piston comprising a body having a peripheral feather edge, and a skirt movable relative to said body and providing an air gap between said body and said skirt, whereby the piston body can adjust itself independent of said skirt.

4. A piston comprising a body, a tapering wall carried thereby and providing an annular pocket directed toward the longitudinal axis of said body, and a skirt movably connected to said body.

5. A piston comprising a body having a compressible wall, a skirt in proximity to said body, a connecting rod extending into said skirt, and means connecting said rod, piston body and skirt, whereby said piston body can adjust itself independent of said skirt.

[Claims 6 to 17 not printed in the Gazette.]

1,139,397. FLUSHING MECHANISM. BERNARD BENSEN, Chicago, Ill. Original application filed Apr. 25, 1910, Serial No. 557,410. Divided and this application filed Aug. 14, 1911, Serial No. 643,942. Renewed Feb. 23, 1915. Serial No. 10,124. (Cl. 4—18.)

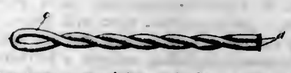


1. As a new article of manufacture, a water delivery conduit for a flushing device, having one end adapted to be connected to a water valve and having its other end terminating in a bowl connection, there being a hollow cylindrical partition extending vertically through the conduit and serving to divide the same into two passage ways, said passage ways being connected together at both ends, the upper portion of the partition being threaded, and a dash pot extended down through the space inclosed by the partition and having its upper end threaded into engagement with the threads on the upper end of the partition.

2. As a new article of manufacture, a water delivery conduit for a flushing device having one end adapted to be connected to a water valve and having its other end terminating in a bowl connection, there being a partition extending vertically through the conduit and serving to divide the same into two passage ways, said passage ways being connected together at both ends, said partition inclosing a vertical space through the body of the conduit, and a dash pot entered into said space and secured to the partition.

3. As a new article of manufacture, a water delivery conduit for a flushing device, having one end adapted to be connected to a water valve and having its other end terminating in a bowl connection, there being a hollow cylindrical partition extending vertically through the upper portion of the conduit and serving to divide the same into two passage ways, said passage ways being connected together at both ends, a dash pot seated in the space inclosed by the partition, and a connection between the dash pot and the partition.

1,139,398. HAIR-WAVER. WILLIAM J. BRETT, Brooklyn, N. Y. Filed July 19, 1913. Serial No. 779,924. (Cl. 132—18.)



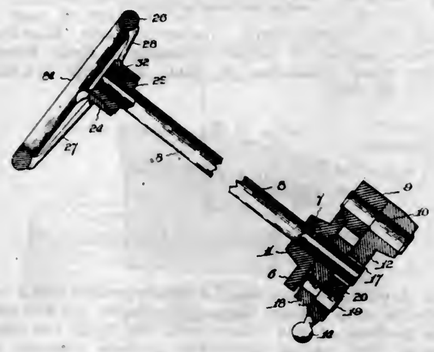
1. A hair-waver comprising a body composed of a flexible non-elastic metallic core and a soft flexible covering thereon, said body being doubled upon itself and the two lengths thus formed being twisted together to produce a variable spiral.

2. A hair-waver comprising a doubled and twisted body portion composed of a flexible non-elastic metallic core, a covering of rubber on the core, and a covering of braided thread on the rubber.

3. A hair-waver comprising a doubled and twisted body portion composed of a flexible non-elastic metallic core, a covering of rubber on the core, and a covering of braided thread on the rubber, said braided thread being extended beyond the extremities of the core to provide a pad or guard for the latter.

4. The herein described hairwaver comprising in combination, a pliable metal core and a pliable non-metallic covering, with a loop at one end and with two parts twisted together from the loop to the opposite end, providing spiral ridges and intervening valleys, substantially as described.

1,139,399. STEERING MECHANISM. EDWARD DWIGHT CLAPP, Washington, D. C. Filed Jan. 18, 1912. Serial No. 671,829. (Cl. 74—33.)



1. In a steering mechanism, a guiding-wheel for the steering-post having a hub at one side of the center of the wheel for attachment to the steering-post, substantially as shown and for the purpose set forth.

2. In a steering mechanism, a guiding-wheel for the steering-post having a hub at one side of the center of the wheel for attachment to the steering-post, and a spoke extending from said hub through the center of the wheel to the rim, substantially as shown and for the purpose set forth.

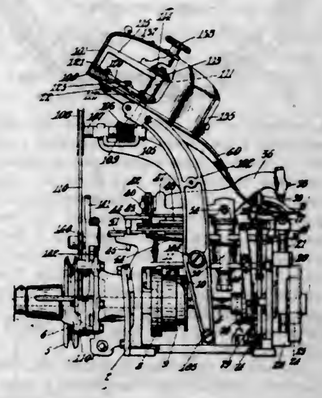
3. In a steering mechanism, a guiding-wheel for the steering-post comprising a circular rim, a hub arranged eccentric to the rim and receiving the steering-post, and means for holding the guiding-wheel in different adjusted positions.

4. In a steering mechanism for motor vehicles, the combination with the steering-post, of a guiding-wheel, comprising a hub connected to the steering-post, a circular rim or ring arranged eccentrically with relation to the hub, a spoke extending from the hub to the rim and connected to the latter at the point farthest from the hub to provide a long indicating spoke, short spokes extending from the hub to other parts of the rim and coöperating with the long spoke to indicate direction, and means for adjustably connecting the wheel to the steering-post to properly position said wheel and its indicating-spokes with relation to the steering mechanism, and steering-wheels of the vehicle, substantially as shown and described.

5. In a steering mechanism for motor vehicles, the combination with the steering-post, of a guiding-wheel comprising a hub, a circular rim or ring arranged eccentrically with relation to the hub, a spoke extending from the hub to the rim and connected to the latter at the point farthest from the hub to provide a long indicating-spoke, and shorter spokes extending from the hub to the rim and coöperating with the long spoke to indicate direction; together with a screw threaded through the hub tangentially, and peripheral threads on the steering-post with which the screw engages to connect the parts, and whereby the wheel may be adjusted on the steering-post to properly position the indicating spokes thereof with relation to the steering-mechanism and steering-wheels of the vehicle, substantially as shown and described

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1,139,400. MACHINE FOR SETTING LACING-HOOKS. DANIEL W. COLBY, Boston, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Aug. 16, 1909. Serial No. 513,078. (Cl. 218—17.)



1. A machine of the class described having, in combination, hook delivering means, hook setting devices including a carrier for receiving a hook from the delivering means and moving it into setting position, and a punch acting automatically to disengage a clenched hook from the carrier, said punch also acting to feed the work a distance equal to the distance desired between two consecutive hooks.

2. A machine of the class described, comprising an upsetting die, a carrier for receiving and setting a hook in coöperation with said upsetting die, means for delivering hooks to said carrier, and feeding means arranged for engaging the work at one side of a clenched hook and feeding the work and thereby moving the clenched hook out of the carrier.

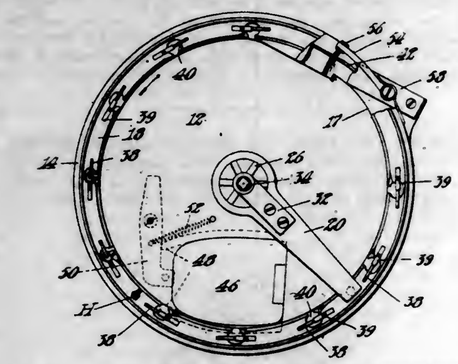
3. A machine of the class described, comprising a carrier, having a slotted anvil-plate, means for delivering successive hooks to said anvil-plate, an upsetting die cooperating with said anvil-plate to set a hook, and work feeding means constructed and arranged to engage the work at one side of a clenched hook for feeding the work and thereby moving the hook off the anvil-plate.

4. A machine of the class described, comprising an anvil-plate, means for delivering successive hooks to said anvil-plate in a direction substantially parallel to the edge of the work, and means for feeding hooks off said plate in a direction opposite to that from which they were delivered to the plate.

5. A machine of the class described, comprising a vertically movable carrier, means for delivering hooks to said carrier in its lower position from one side of the carrier, an upsetting die coöperating with said carrier to set a book when the carrier is in an elevated position, and means for feeding the clenched hook out of said carrier in such elevated position upon the same side that it was received.

[Claims 6 to 27 not printed in the Gazette.]

1,139,401. ASSORTING AND DELIVERING MECHANISM. DANIEL W. COLBY, Boston, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Oct. 31, 1910. Serial No. 589,982. (Cl. 218—17.1.)



1. In a machine of the class described, the combination of a hopper with a separator, said separator comprising a ring having a beveled inner surface and a plurality of recesses extending through the ring from its upper to its lower surfaces and opening into the interior of the ring.

2. In a machine of the class described, the combination of a hopper with a separator comprising a flat ring arranged to rotate with a flat side uppermost and being provided with a plurality of recesses extending from its upper side to its lower side and having the general outline of the fasteners to be handled, and a raceway for receiving fasteners successively as they pass out of the ring through said recesses.

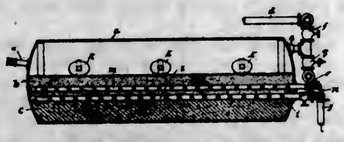
3. In a machine of the class described, the combination of a hopper with a separator comprising a ring provided with a plurality of recesses, each recess having a portion with substantially circular walls which at one point project inwardly and a narrow neck opening into the interior of the ring, said recess being so proportioned as to contain the entire hook body.

4. In a machine of the class described, the combination of a hopper and a raceway extending therefrom, together with a separator located within said hopper and comprising a rotatable ring provided with recesses for receiving hooks from a mass, each recess having an opening through one edge of the ring and a larger inclosed portion within the ring.

5. In a machine of the class described, the combination of a hopper and a raceway extending therefrom, together with a separator located within said hopper and comprising a flat ring having an unobstructed inner edge, the ring being constructed and arranged to receive fasteners at its upper surface and deliver them to the raceway through its lower surface.

[Claims 6 to 22 not printed in the Gazette.]

1,139,402. APPARATUS FOR SEWAGE DISPOSAL. JOHN M. DAVIDSON, Pittsburgh, Pa., assignor to Wm. B. Scaife & Sons Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed Nov. 29, 1912, Serial No. 733,969. Renewed Apr. 9, 1915. Serial No. 20,337. (Cl. 210—1.)



1. Apparatus for saving the solid matter of sewage, comprising a closed tank of relatively large horizontal dimensions, a sand filter therein having multiple strainer outlets at the bottom, a sewage inlet and pump for forcing the liquid through the filter under pressure, a draw-off pipe above the filter bed, an air inlet above the said pipe, a tank having an opening to remove the cake of solid matter remaining after the air forces the suspended water out of the sludge, substantially as described.

2. A sewage disposal plant comprising a pair of closed pressure tanks having sand filter beds therein of large area compared with the volume of the tank and multiple draw-off and washing pipes under the sand, means to force air upward into the sand, a sewage inlet and pump for forcing sewage through the sand, a draw-off pipe near the sand bed, an air pump, an air inlet above said draw-off pipe and manholes for removal of resulting cake located near the level of the filter bed, substantially as described.

3. Apparatus for saving the solid matter of sewage, comprising a closed tank, a sand filter with a surface of large area compared with the capacity of the tank, a water outlet and a sewage inlet and pump for forcing sewage through the sand, a draw-off pipe and an air inlet pipe above and near the filter bed, an air pump, a series of manholes approximately on a level with the top of the filter, whereby to filter under pressure, then draw-off the surplus water, then expel the water in the sludge on the filter and remove the remaining cake, substantially as described.

1,139,403. WELT-STRIP. OSCAR C. DAVIS, Brockton, Mass., assignor of one-half to George E. Keith, Brockton, Mass. Filed Nov. 28, 1914. Serial No. 874,551. (Cl. 36—78.)

1. A welt strip comprising a body of rubber and a reinforcing strip inclosed therein between the top and bottom portions of said rubber body, said body and reinforcing strip having interlocked portions arranged to keep said top and bottom portions against said reinforcing strip.

2. A welt strip comprising a body of rubber and reinforcing means inclosed therein between the top and bottom portions of said rubber body, said body and reinforcing means having interlocked portions arranged to keep said top and bottom portions against said reinforcing means.

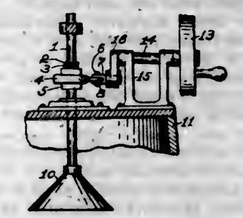
3. A welt strip comprising a body or rubber and a reinforcing strip inclosed therein between the top and bottom portions of said rubber body, portions of said rubber body extending through said reinforcing strip and connecting said top and bottom portions to keep the latter against said reinforcing strip.

4. A welt strip comprising a body of rubber and a reinforcing strip inclosed therein between the top and bottom portions of said rubber body, portions of said rubber body being anchored in said reinforcing strip.

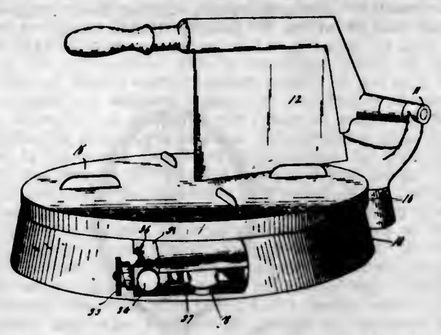
1,139,404. ACTUATING MECHANISM FOR WASHING-MACHINES. CHARLES M. DUMOND, Cedar Falls, Iowa. Filed July 31, 1913. Serial No. 782,301. (Cl. 74—14.)

1. In combination, a plunger-rod mounted suitably for translatory and rocking movements, a body secured about said rod and having transverse bearings on opposite sides, anti-friction means seated within the bearings in said body, a fork whose members are seated slidably in said bearings upon said anti-friction means, and rotary means so movably connected to said fork as to cause the latter to impart simultaneous rocking and translatory movements to said plunger-rod.

2. In combination, a plunger-rod mounted suitably for translatory and rocking movements, a body mounted on said rod and having spaced horizontal flanges near each end thereof, anti-friction rollers seated rotatably between said flanges, a fork whose members embrace said rollers between said flanges slidably, the flanges preventing displacement of the fork-members vertically, a rotary crank, and a swivel connection between said crank and said fork adapted to permit the crank to cause the fork to impart simultaneous rocking and translatory movements to said plunger-rod.



1,139,405. CHEESE-CUTTER. FRANK P. DUNN, Anderson, Ind., assignor to Computing Cheese Cutter Company, Anderson, Ind., a Corporation of Indiana. Filed Sept. 16, 1912. Serial No. 720,447. (Cl. 31—68.)



1. In a cheese cutter, the combination of a base, a cheese-carrying table rotatably mounted thereon, an operating lever, a clutch between said lever and table, means for limiting the movement of said lever in one direction, and a means for limiting the movement of said lever in the opposite direction comprising a threaded gage member carrying gage markings arranged longitudinally of the thread thereof, and means for preventing axial movement of said gage member except upon rotation.

2. In a cheese cutter, the combination of a cheese-carrying table, a supporting base member having a lateral extension bored transversely of the axis of the table, a threaded gage member journaled in said bore and provided at its inner end with an axial temper screw, a clamping and retaining screw projected into said bore in position to lie between the threads of the gage screw, an operating lever arranged to engage said temper screw at one end of its movement, clutching means arranged between the operating lever and table, and means for limiting the throw of said lever in the opposite direction.

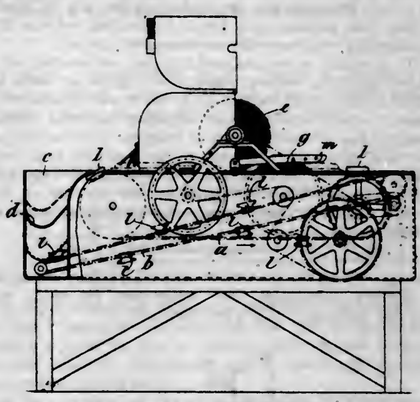
3. In a cheese cutter, the combination of a cheese-carrying table, a supporting base member having a lateral extension bored transversely of the axis of the table, a threaded gage member journaled in said bore, a clamping and retaining screw projected into said bore in position to lie between the threads of the gage screw, an operating lever arranged to engage said gage screw at one end of its movement, clutching means arranged between the operating lever and table, and means for limiting the throw of said lever in the opposite direction.

4. In a cheese cutter, the combination of a cheese-carrying table, a supporting base member having a lateral extension bored transversely of the axis of the table, a threaded gage member journaled in said bore, a clamping and retaining screw projected into said bore in position to lie between the threads of the gage screw, an operating lever arranged to engage said gage screw at one end of its movement, clutching means arranged between the operating lever and table, and means engaging the clutching means to limit the throw of the lever in the forward direction and to simultaneously tighten the clutching means.

5. In a cheese cutter, the combination of a rotary table, having an annular flange, an operating lever swinging in a plane substantially parallel with the table, a clutch plate mounted on said lever and freely movable angularly and radially thereon, clutch pins carried by said clutch plate and engaging the annular flange upon its opposite sides, and a stop arranged in the path of movement of said lever in one direction to engage said clutch plate so as to limit the movement of the lever and simultaneously tighten the clutch pins upon the flange.

[Claims 6 to 17 not printed in the Gazette.]

1,139,406. CLEANING-MACHINE FOR DISHES AND SIMILAR ARTICLES. ERIK ARTUR FAGERLUND and ARVID ADOLF HERIBERT BÖRJESON, Stockholm, Sweden, assignors of one-half to Gustaf Svalling, Stockholm, Sweden. Filed July 9, 1914. Serial No. 850,042. (Cl. 141—9.)



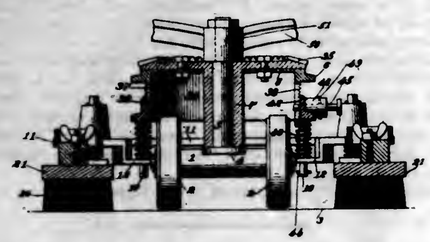
A dish washing machine comprising in combination a tank, a conveyer movably mounted in said tank, cleaning elements mounted in said tank, positioned above and below said conveyer and at least one of said elements extending through said conveyer, retaining members secured to said conveyer and a presser member mounted for vertical movement with respect to said tank engaging one of said elements, serving to force the dishes carried by said conveyer against said cleaning element, substantially as described.

1,139,407. BRUSH ADJUSTMENT FOR SCRUBBING-MACHINES. WALTER S. FINNELL, Hannibal, Mo., assignor of one-half to Finola Manufacturing Company, Hannibal, Mo., a Corporation of Missouri. Filed Dec. 29, 1914. Serial No. 879,429. (Cl. 15—14.)

1. In a rotary scrubing-machine, the combination of wheels to travel on the floor and support the machine; a plural number of scrub-brushes carried by the machine and arranged to bear on the floor; a cylinder exteriorly screw-threaded and carried by said wheels and always having the same height above the floor; an internally screw-threaded ring engaging the screw-thread of said cylinder and which when turned is moved either up or down, and vertical pins attached by their upper end to the said ring and each pin having its lower end attached to a scrub-brush, whereby on turning the said screw-ring all the scrub-brushes may be vertically adjusted.

2. In a rotary scrubbing-machine, the combination of a ring-plate in a horizontal plane; scrub-brushes loosely

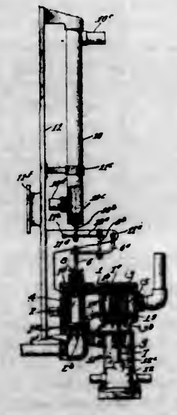
sustained below said ring-plate; a cylinder exteriorly screw-threaded and mounted concentric with respect to said ring-plate; an internally screw-threaded ring engaging the threads of said cylinder, and means connecting between the said threaded ring and the scrub-brushes below whereby all the brushes may be vertically adjusted with uniformity.



3. In a rotary scrubbing-machine, the combination of a ring-plate in a horizontal plane; scrub-brushes loosely sustained below said ring-plate; a cylinder exteriorly screw-threaded and provided with a slot that is open crosswise of said threads; an internally screw-threaded ring engaging the threads of said cylinder and provided with a bolt that engages the said crosswise slot to retain the ring from turning, and means connecting between the said threaded ring and the scrub-brushes below.

4. In a rotary scrubbing-machine, the combination of a cylinder having a vertical position and provided with an exterior screw-thread extending to its lower end; a ring internally screw-threaded and engaging the said screw-threads of the cylinder; a plural number of scrub-brushes below said ring and positioned to bear on the floor, and means connecting between said screw-threaded ring and each of said scrub-brushes, whereby the turning of the ring will vertically adjust the scrub-brushes relative to the floor-level.

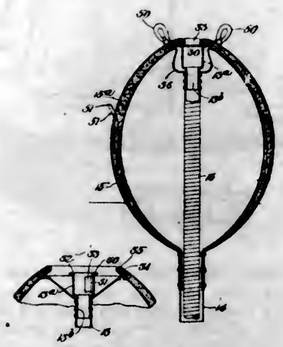
1,139,408. WATER-HEATER REGULATOR. CHARLES S. FOLSOM, San Diego, Cal. Filed Nov. 15, 1911. Serial No. 660,325. (Cl. 126—351.)



1. A water heater regulator comprising, a gas valve casing divided into two separate compartments and provided with an inlet and an outlet, a passage way connecting said compartments, a water pressure actuated gas valve, spring seated on the pressure side in one of said compartments, a water pressure actuated valve for opening said gas valve and permitting the flow of gas from one compartment into the other, a thermostat actuated valve normally seated by a compression spring on the pressure side in the other compartment of said casing and adapted to control the flow of gas to a burner, a thermostat consisting of an elongated hollow casing through which the heated water flows, rigidly mounted on a support at its one end and slidably mounted in a bracket on the same support near its other end and rigidly connected to said casing, and in operative connection with said thermostat operated valve, and said support.

2. A water heater regulator comprising a supporting and connecting frame, provided with a lug near its middle, adapted to be rigidly attached to a water heater, a thermostat consisting of an elongated hollow casing, through which the heated water from the heater flows, rigidly secured to said frame at one of its ends near the end of said frame, a guide rigidly secured to said supporting frame near the middle in which the other end of said thermostat is shiftably mounted, a doubly actuated fuel supply valve rigidly secured to said supporting and connecting frame, operative connections mounted on said frame between said supply valve and said thermostat whereby the movement of said thermostat is enlarged to one of the actuating prtions of said supply valve, and a water pressure actuated valve for actuating the other portion of said gas valve rigidly secured to said supporting frame, whereby said thermostat, fuel supply valve, operative connections and water pressure actuated valve are rigidly secured and connected together.

1,139,409. SAFETY APPLIANCE FOR SUBMARINE VESSELS. JAMES S. FRASER, Boston, Mass., assignor of one-half to Ira C. Moulton, Boston, Mass. Filed June 17, 1914. Serial No. 845,598. (Cl. 114—16.5.)



1. The combination with a submarine vessel, of an elongated flexible ventilating tube secured to the hull of the vessel and communicating with the interior thereof. means controlled from within the vessel for raising the outer end of said tube to the surface of a body of water in which the vessel may be submerged, an inwardly opening, water-excluding stopper at the outer end of the ventilating tube adapted to be opened by gravity, means for confining the stopper in its closed position, and means controlled from within the vessel for releasing the stopper and permitting it to open by gravity and admit air to the tube.

2. The combination with a submarine vessel, of an elongated flexible non-collapsible ventilating tube secured to the hull of the vessel and communicating with the interior thereof, an inherently buoyant, collapsible inflatable bag secured to the outer end portion of the ventilating tube, a collapsible bag-inflating tube inclosing the ventilating tube and extending from the bag to the vessel, means within the vessel for inflating the bag through the inflating tube, a stopper adapted to exclude water from the ventilating tube, and means controlled from within the vessel for opening said stopper to permit air to pass through the ventilating tube.

3. The combination with a submarine vessel, of an elongated flexible non-collapsible ventilating tube secured to the hull of the vessel and communicating with the interior thereof, an inherently buoyant, collapsible inflatable bag secured to the outer end portion of the ventilating

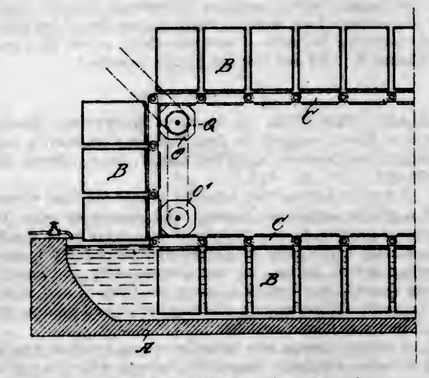
tube, a collapsible bag-inflating tube inclosing the ventilating tube and extending from the bag to the vessel, means within the vessel for inflating the bag through the inflating tube, a stopper adapted to exclude water from the ventilating tube, means controlled from within the vessel for opening said stopper to permit air to pass through the ventilating tube, confining means for holding the said bag and tubes stored compactly on the deck of the vessel when the bag and inflating tube are collapsed, and means controlled from within the vessel for rendering said confining means inoperative, and liberating the bag and tubes.

4. The combination with a submarine vessel, of an elongated flexible non-collapsible ventilating tube secured to the hull of the vessel and communicating with the interior thereof, an inflatable bag secured to the outer end portion of the ventilating tube, a collapsible bag-inflating tube inclosing the ventilating tube and extending from the bag to the vessel, means within the vessel for inflating the bag through the inflating tube, a stopper adapted to exclude water from the ventilating tube, means controlled from within the vessel for opening said stopper to permit air to pass through the ventilating tube, a holder on the deck of the vessel for compactly storing said bag and tubes when the bag and inflating tube are collapsed, said holder having a buoyant cover and cover-securing means, and means controlled from within the vessel for rendering the cover-securing means inoperative and thus releasing and permitting the flotation of said cover and liberating the bag and tubes.

5. The combination with a submarine vessel, of an elongated flexible ventilating tube secured to the hull of the vessel and communicating with the interior thereof, an inflatable bag secured to the outer end portion of the ventilating tube, a bag-inflating tube extending from the bag to the vessel, means within the vessel for inflating the bag through the inflating tube, a stopper hinged in the outer end of the ventilating tube and adapted to swing inwardly, said stopper having a circular outwardly projecting stud member, an expansible socket member on the bag having a spring whereby it is normally closed on the stud member to hold the stopper closed, said socket member being expansible to release the stopper by a predetermined expansion of the bag, and a flexible water excluding diaphragm arranged to prevent the entrance of water into the bag through the opening surrounded by said socket member.

[Claims 6 to 9 not printed in the Gazette.]

1,139,410. APPARATUS FOR DETINNING TIN SCRAP, BOXES, OR THE LIKE. HANS GOLDSCHMIDT, Essen-on-the-Ruhr, Germany, assignor, by mesne assignments, to Goldschmidt Detinning Company, New York, N. Y., a Corporation of New Jersey. Filed Dec. 24, 1906. Serial No. 349,350. (Cl. 204—17.)



1. An apparatus for detinning tin-scraps, boxes or the like in an electrolytic bath, comprising anodes and cathodes movable in a circuit into and out of the bath, and baskets carried by the anodes for containing the articles to be detinned.

2. An apparatus for detinning tin-scraps, boxes or the like in an electrolytic bath, comprising anodes and cathodes movable in a circuit into and out of the bath, baskets carried by the anodes for containing the articles to be detinned, and means extraneous the bath arranged to engage and compress the spongy tin collected on the cathodes.

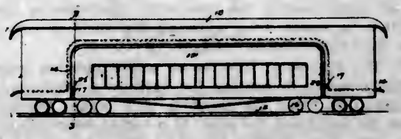
3. An apparatus for detinning tin-scraps, boxes or the like in an electrolytic bath, comprising anodes and cathodes movable in a circuit into and out of the bath, baskets carried by the anodes for containing the articles to be detinned, and adjustable means extraneous the bath arranged to engage and compress the spongy tin collected on the cathodes.

4. Apparatus for detinning tin-scraps, boxes, or the like in an electrolytic alkaline bath, characterized by cathode-plates continuously movable in a circuit into and out of said bath, in combination with rollers for compressing the spongy tin.

5. Apparatus for detinning tin-scraps, boxes or the like in an electrolytic alkaline bath, characterized by cathode-plates and anodes continuously movable in a circuit, in combination with a mechanism for compressing the spongy tin, the mechanism being inaulated.

[Claims 6 to 15 not printed in the Gazette.]

1,139,411. TRANSFER-CAR. JOHN A. GUNN, Des Moines, Iowa, assignor to Nell Gunn. Filed Aug. 3, 1914. Serial No. 854,875. (Cl. 104—205.)



1. In a device of the class described, an arched car having a space in its lower central portion adapted to receive a transfer car, a transfer car adapted to travel in said space in the arched car on the track on which the arched car travels.

2. In a device of the class described, a transfer car, an arched car having a space in its lower portion adapted to receive said transfer car, said transfer car having wheels provided with flanges at their outer peripheries, whereby said transfer car may travel on the track on which the arched car travels, and means for moving the transfer car laterally from or into said apace, to or from a switch track, while the arched car is in motion.

3. In a device of the class described, the combination of means for connecting the cars of an ordinary train, without interfering with the ordinary coupling connections of the cars of said train, and adapted to permit the reception of a transfer car into the train, with a transfer car having wheels with flanges at their outer peripheries, the main track and a switch track arranged substantially on a level with said main track, said transfer car and switch being so constructed as to coact for automatically moving said transfer car laterally from the train, when the train passes the switch track or into the train from the switch track as the case may be.

4. In a device of the class described, a transfer car, an arched car having a space in its lower central portion adapted to receive said transfer car, said arched car being provided with means for engaging said transfer car when the latter is on the side track, and an automatic device for holding the said last named means in inoperative position when said arched car is moving above a certain predtermined speed.

5. In a device of the class described, a transfer car, an arched car having a space in its lower central portion to receive said transfer car, a movable means on said arched

car for engaging said transfer car when the latter is on the side track and for locking the transfer car and the arched car together, and causing them to travel at the same speed on both tracks.

[Claims 6 to 16 not printed in the Gazette.]

1,139,412. MANUFACTURE OF ARMOR-PIERCING PROJECTILES. ROBERT ABBOTT HADFIELD, Westminster, ALEXANDER G. M. JACK, Sheffield, and ISAAC BERNARD MILNE, Totley, England. Filed Aug. 19, 1913, Serial No. 785,466. Renewed Oct. 6, 1914. Serial No. 865,393. (Cl. 148—37.)

1. The process of treating an armor piercing projectile which consists in heating the shell to a hardening temperature, to bring the shoulder to a higher temperature than the point and the point to a higher temperature than the base, then dipping the shell point downward to its base in a cooling medium, maintaining it in that position for a few minutes, raising it about one third of its length more or less and there maintaining it for a few minutes, then raising to about two-thirds of its length more or less and there maintaining for a somewhat longer time, then lowering in the medium to the base end and pouring water into its interior.

2. The process of treating an ormor piercing projectile which consists in heating the shell to a hardening temperature, to bring the shoulder to a higher temperature than the point and the point to a higher temperature than the base, then dipping the shell point downward to its base in oil, maintaining it in that position for a few minutes, raising it step-by-step from the oil and maintaining it in each position for a few minutes, then lowering in the medium to its base end and pouring water into its interior, then heating the base while maintaining the end portion in water, then allowing the shell to cool down and then quenching it outright.

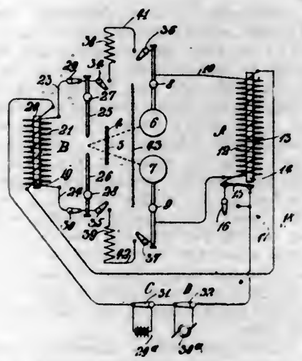
3. The process of treating an armor piercing projectile which consists in heating the shell to a hardening temperature, to bring the shoulder to a higher temperature than the point and the point to a higher temperature than the base, then dipping the shell point downward to its base in a cooling medium, maintaining it in that position for a few minutes, raising it about one third of its length more or less and there maintaining it for a few minutes, then raising to about two-thirds of its length more or less and there maintaining for a somewhat longer time, then lowering in the medium to the base end and pouring water into its interior, then heating the base to a substantially lower temperature than the first heating while maintaining the end portion in a cooling medium, then allowing the shell to cool down and then quenching it outright, substantially as described.

4. The herein described process of hardening an armor piercing projectile which consists in a double treatment substantially as follows, first heating the external shoulder of the shell to about 920° to 930°, more or less, the inner surface adjacent the shoulder to about 900°, more or less, the point to a temperature of about 875° to 880°, more or less, and the base to a temperature substantially lower, then dipping the shell in oil to its base and maintaining it in that position about eight to fourteen minutes, more or less, then raising the shell in the oil about one-third of its length and maintaining it in that position for rather more than eight minutes more or less, then raising it to a zone depth of about one-third of its length, more or less, and maintaining it in that position for a longer time, then lowering the shell into the oil to its base and pouring water into its interior, then reheating the shell base to about 650° to 725°, more or less, and its core to about 600° to 650° more or less, while its point is immersed in water to rather less than one-third the shell length, then permitting the shell to cool to a temperature of from about 250° to about 350° more or less, and then quenching outright in water.

5. The process of treating an armor piercing projectile which consists in heating the shell to bring the shoulder to a higher temperature than the point, dipping the shell point downward in a cooling medium, raising it partially from said medium, then dipping again into the medium.

[Claims 6 to 8 not printed in the Gazette.]

1,139,413. APPARATUS FOR TRANSMITTING SOUNDS BY MEANS OF HERTZIAN WAVES. WALTON HARRISON, New York, N. Y. Original application filed Mar. 11, 1902, Serial No. 97,728. Divided and this application filed Oct. 21, 1914. Serial No. 867,855. (Cl. 250—17.)



1. The combination of a signaling circuit including a gap across which electricity flows for the purpose of controlling the strength of the signals, and means for exposing said gap to the action of varying quantities of light controllable by sounds for affecting the flow of said electricity across said gap.

2. The combination of a signaling circuit including a gap across which electricity flows for the purpose of controlling the strength of the signals, and means for exposing said gap to the action of sound controlled ultra violet light.

3. The combination of a signal circuit including a gap across which electricity flows for the purpose of controlling the strength of the signals, and means for exposing said gap to the action of an ionizing medium controllable quantitatively by sounds for varying the flow of electricity.

4. The combination of a signaling circuit including a gap across which electricity flows for controlling the generation of electromagnetic waves, and means for subjecting said gap to the quantitative action of ultra violet light varied in accordance with sound waves.

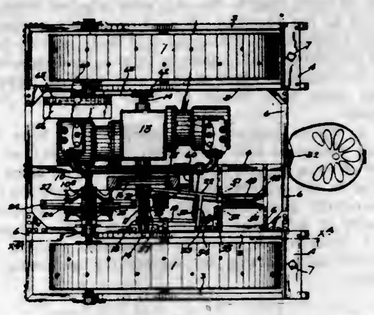
5. The combination of a signaling circuit including a gap across which electricity flows for controlling the generation of electromagnetic waves, and means for throwing into said gap, from a position extraneous thereto, varying quantities of an ionizing medium capable of quantitatively affecting the flow of said electricity across said gap.

[Claims 6 to 32 not printed in the Gazette.]

1,139,414. TRACTOR. D. MAURICE HARTSOUGH, Minneapolis, Minn., assignor to Bull Tractor Company, a Corporation of Minnesota. Filed Oct. 7, 1914. Serial No. 865,463. (Cl. 21—114.)

1. A tractor having two laterally spaced traction wheels and a frame supported thereon and suspended with its center of gravity below the axis of said wheels, in combination with a pivotally supported and rearwardly located steering device, acting, by engagement with the surface of the ground, as a rudder to steer the tractor, and means for laterally adjusting said steering device and holding the same in its adjusted position.

2. A tractor having two laterally spaced traction wheels, and a frame pivotally suspended thereon with its center of gravity below the axis of said wheels, whereby it is normally gravity arighted, in combination with a pivoted rearwardly located steering device, and means for adjusting the steering device laterally in respect to the traction wheels and holding the same against lateral movement in its adjusted position, whereby the steering device is caused to operate as a rudder to steer the tractor.



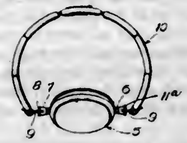
3. A tractor having two laterally spaced traction wheels and a frame pivotally suspended thereon with its center of gravity below the axis of said wheels, whereby it is normally gravity-arighted, in combination with a rearwardly projected bar having a ground-engaging head, means for adjusting said bar laterally in respect to the traction wheels, whereby it is caused to operate as a rudder to steer the tractor, and means for holding said bar against lateral movements in respect to the traction wheels.

4. A tractor having two laterally spaced traction wheels and a frame suspended thereon with its center of gravity below the axis of said wheels, in combination with a pivoted rearwardly located steering device, means for adjusting said steering device laterally and holding it in its adjusted position, whereby the steering device is caused to operate as a rudder to steer the tractor, said traction wheels forming the only means for supporting the forward portion of said tractor.

5. A tractor having two laterally spaced traction wheels and a frame pivotally suspended thereon with its center of gravity below the axis of said wheels, whereby it is normally gravity-arighted, in combination with an engine on said tractor frame having connections for driving said traction wheels at the same or at different speeds, at will, a rearwardly projecting bar having a ground-engaging hend, and means for adjusting said bar laterally in respect to said traction wheels, whereby it is caused to operate as a rudder to steer the tractor.

[Claims 6 to 15 not printed in the Gazette.]

1,139,415. CONVERTIBLE WATCHCASE. THOMAS FLOYD HATHAWAY, Elgin, Ill., assignor to Illinois Watch Case Co., Elgin, Ill., a Corporation of Illinois. Filed Oct. 5, 1914. Serial No. 865,095. (Cl. 224—4.)



1. In a watch case of the character described, the combination of oppositely disposed swiveled means for retaining the ends of a bracelet or strap and one of said retaining means being freely attachable and detachable with respect to the case whereby the type of the watch may be changed, substantially as described.

2. In a watch case of the character described, the combination of oppositely disposed swiveled pendants mounted thereon and one of said pendants being freely attachable and detachable from the case whereby the type of the watch may be changed, substantially as described.

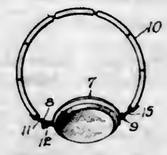
3. In a watch case of the character described, the combination of oppositely disposed swiveled means for retaining the ends of a bracelet or strap and one of said means having a threaded engagement with the case to permit attachment or detachment as respects the case whereby the type of the watch may be changed, substantially as described.

4. In a watch case of the character described, the combination of oppositely disposed swiveled pendants one of said pendants being fixedly secured to the case and the other of said pendants having a threaded engagement with the case whereby it may be attached and detached to change the type of the watch, substantially as described.

5. In a watch case of the character described, the combination of oppositely disposed means for retaining the ends of a bracelet or strap, one of said means having a threaded engagement with the case and a block secured to said case at the point of said threaded engagement to reinforce the case at this point and said threaded engagement permitting the attaching or detaching of said retaining means to change the type of the watch, substantially as described.

[Claim 6 not printed in the Gazette.]

1,139,416. CONVERTIBLE WATCHCASE. THOMAS F. HATHAWAY, Elgin, Ill., assignor to Illinois Watch Case Company, Elgin, Ill., a Corporation of Illinois. Filed Dec. 4, 1914. Serial No. 875,490. (Cl. 224—4.)



1. A watch case having a pendant on one side thereof adapted to receive a bow, a protuberance on the opposite side thereof, a second bow, said protuberance having sockets formed therein to receive the pintles of said second bow, and said protuberance being configured to permit withdrawal of said pintles from engagement therewith when said second bow is turned into a predetermined position, substantially as described.

2. A watch case having a pendant on one side thereof adapted to receive a bow, a protuberance at the other side thereof, a second bow, said pendant and protuberance being swivelly mounted upon said case, recesses in said protuberance adapted to receive the pintles of said second bow, and said protuberance being configured to permit removal of said second bow therefrom when said second bow is turned into a predetermined position, substantially as described.

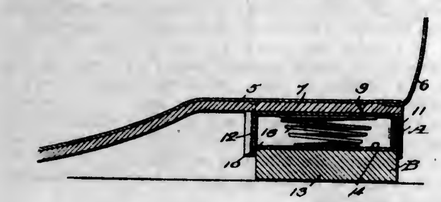
3. A watch case having a pendant on one side thereof adapted to receive a bow, a protuberance on the opposite side thereof, a second bow, recesses in said protuberance to receive the pintles of said second bow, oppositely disposed grooves leading from the outer edge of said protuberance to said recesses whereby said pintles can be withdrawn from said protuberance only when said second bow is turned to aline said pintles with said grooves, substantially as described.

4. A watch case having a pendant on one side thereof adapted to receive a bow, a protuberance in the form of a ball on the other side thereof, a second bow, recesses in said protuberance for receiving the pintles of said second bow, oppositely disposed grooves extending from the outer edge of said protuberance to said recesses and forming passages to permit withdrawal of the pintles from the protuberance when said bow is turned to aline said pintles with said grooves, substantially as described.

5. A watch case having a pendant on one side thereof adapted to receive a bow, a protuberance on the other side thereof, a second bow, wedge shaped pintles extending from said second bow, recesses in said protuberance for receiving said pintles and said protuberance having

oppositely disposed grooves leading from said recesses to the outer edge of said protuberance whereby said pintles may be withdrawn from said protuberance by turning said bow to aline said pintles with said grooves, substantially as described.

1,139,417. SHOE-HEEL. LOUIS FRANK HERING, Pomona, Cal., assignor of one-half to Alfred Konjetzky, Pomona, Cal. Filed May 6, 1914. Serial No. 836,648. (Cl. 36—38.)



A heel comprising a hollow section and a block adapted to slide within the hollow section, a plate positioned on the block, means on the plate engaging the block for securing the plate, and overhanging the block for serving as a stop, means on the hollow section arranged to co-act with first said means for preventing displacement of the block from the heel section, and resilient means disposed between said block and heel section.

1,139,418. BATHING-CAP. ELSIE HILLER, New York, N. Y. Filed Mar. 10, 1914. Serial No. 823,683. (Cl. 2—106.)



1. A cap as characterized, comprising a body portion having elongated end extensions; a plurality of contracting band sections, the ends only of said sections being fixedly secured to said body portion; and means gathering said end extensions intermediate the ends of said band sections to form a head-inclosing portion intermediate said end extensions.

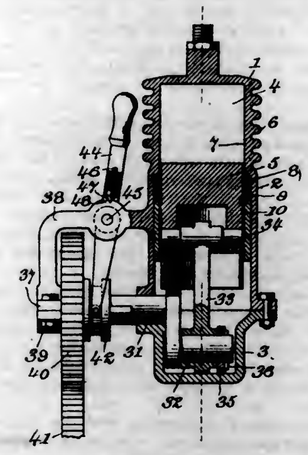
2. A cap as characterized, comprising a body portion having elongated end extensions; a plurality of elastic band sections of equal length, the ends only of said sections being fixedly secured to the opposite edges of said body portion; and means for gathering said body portion intermediate the ends of said band sections to form a head-inclosing portion intermediate said end sections.

3. A cap as characterized, having elongated end extensions; a plurality of contracting elastic band sections, the ends only of said sections being fixedly secured to the body portion at opposite edges thereof, said sections being adapted to contract the body portion between said points of attachment; and means for gathering said extensions intermediate the attached ends of said band sections, to form a head-inclosed portion.

4. A cap as characterized, comprising a body portion having elongated end extensions; a plurality of elastic bands of equal length, the ends only whereof being fixedly secured to the opposite edges of said body portion; and means permanently gathering said body portion intermediate the ends of said bands to form a head-inclosing portion, the opposite edges of said body portion being freely folded over said bands to form containing channels therefor.

5. A cap as characterized, comprising a body portion having elongated end extensions; a plurality of elastic bands of equal length, the ends only whereof being fixedly secured to the opposite edges of said body portion; means permanently gathering said body portion intermediate the ends of said bands to form a head-inclosing portion; and a plurality of covering ornaments adhered to the gathered body portion to conceal the gathering means therefor.

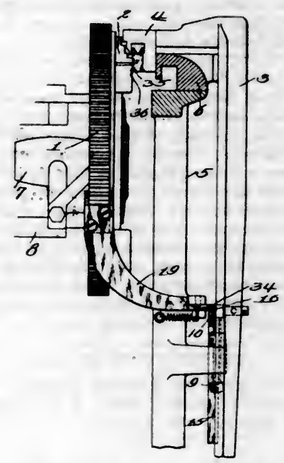
1,139,419. AIR-PUMP. ROLAND C. HILTON, Boston, Mass., assignor to Louis S. Rothenberg, Boston, Mass. Filed Nov. 2, 1914. Serial No. 869,878. (Cl. 230—27.)



1. A pump comprising a casing provided with ways and having a cylinder and a crank case, inlet and outlet valves in the head of the cylinder, a piston reciprocally mounted in the cylinder, said cylinder being of uniform bore throughout the greater portion of its length, but being internally recessed for a portion of its length to provide a portion of larger diameter, packing in said portion of larger diameter to provide a substantially air-tight joint between the piston and cylinder walls, a gland member also positioned in said portion of larger diameter, said gland member having lugs movable in the ways in the casing, screws extending through the walls of the casing and engaging the lugs to adjust the gland to compress the packing, and a crank shaft rotatably mounted in the crank case and connected to the piston to cause reciprocation thereof.

2. A high speed air compressor comprising, in combination, a substantially vertically arranged cylinder closed at the upper end but having an open lower end provided with an annular recess, a piston in the cylinder, a ring of compressible packing and a suitable gland located in the annular recess to form a stuffing box for the piston, a closed crank case forming an extension of the lower end of the cylinder, and adapted to serve as a reservoir for lubricating oil, a crank journaled therein, a connecting rod pivoted to crank and to piston, and a plurality of bolts for adjuating the gland located in the upper part of the crank casing above the level of the crank shaft, and extending through openings in the casing to the exterior thereof, said openings being above the normal level of the oil in the crank casing.

1,139,420. VISE-AUTOMATIC. THOMAS S. HOMANS, Hempstead, N. Y., assignor to International Typesetting Machine Company, New York, N. Y., a Corporation of New York. Filed May 23, 1913. Serial No. 769,537. (Cl. 199—7.)



1. In a machine of the linotype class, the combination with the first elevator for lowering a line of matrices to the casing level, the casing mold, the slide for carrying the mold against the line of matrices, and stopping means for the machine, such means being actuated during the forward movement of the mold and governed solely according to the position occupied by said elevator whereby operation of the machine will be interrupted should the elevator fail to present the matrices properly to the mold.

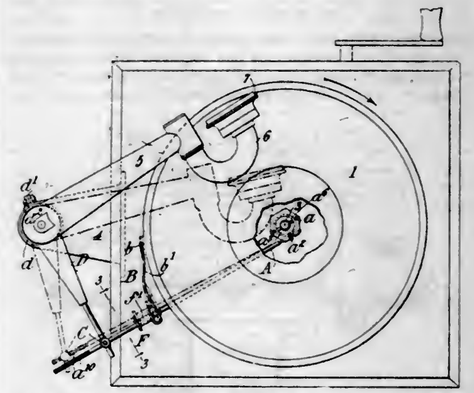
2. In a machine of the linotype class, the combination with the mold, the slide carrying it, and the first elevator, of stopping means for the machine embodying a member acted on by the forward movement of the mold-carrying slide, and a part in the first elevator adapted to form an operative connection for said member, said part being inoperative relatively to said member when the first elevator is lowered to a position to properly present matrices to the mold.

3. In a machine of the linotype class, the combination with the mold, the mold-carrying slide, and the first elevator, of stopping means for the machine embodying a lever arranged to be acted on by said mold slide during its forward movement, and a part on the elevator adapted to coöperate with said lever as a fulcrum, the stopping means being inoperative when said part on the elevator is above or below said lever.

4. In a machine of the linotype class, the combination with the mold, the mold-carrying slide, and the first elevator for presenting a line of matrices to the mold, of stopping means for the machine embodying a member arranged to be actuated by the mold slide as the latter brings the mold against the line of matrices, and a part on the elevator arranged to form an operative connection for said member when the elevator fails to bring the matrices to the proper casting level, said part on the elevator being adjustable to provide for the use of the upper or lower characters of plural-character matrices.

5. In a machine of the linotype class, in combination with matrices having a plurality of characters, the first elevator for bringing a line of matrices down to casting position, and a stop block having two sets of steps, each corresponding to the different character levels on the matrices, one set being adapted to stop the downward travel of the elevator at the different levels as desired, and the other set adapted to control the stopping of the machine in event of the elevator not reaching the stop of its downward travel.

1,139,421. STOPPING DEVICE FOR TALKING-MACHINES. CHARLES C. JAMES, New York, N. Y. Filed Oct. 10, 1912, Serial No. 725,074. Renewed Apr. 2, 1915. Serial No. 18,840. (Cl. 74—46.)



1. A stopping device for machines, comprising a rotatable shaft adapted to be moved longitudinally, a brake shoe movable with said shaft, a rotary part of the machine to which said shaft is rotatably connected, an abutment having a threaded engagement with said shaft, a traveling part of the machine, means for connecting said abutment thereto, whereby said abutment may be moved, and said abutment being adapted when stationary to cause movement of said shaft whereby the brake-shoe is forced into engagement with a moving part of the machine.

2. A stopping device for machines, comprising a rotatable shaft adapted to be moved longitudinally, a brake shoe movable with said shaft and adjustable thereon, a rotary part of the machine to which said shaft is rotatably connected, an abutment having a threaded engagement with said shaft, a traveling part of the machine, means for connecting said abutment thereto whereby said abutment may be moved, and said abutment being adapted when stationary to cause movement of said shaft whereby the brake-shoe is forced into engagement with a moving part of the machine.

3. A stopping device for machines, comprising a rotatable shaft adapted to be moved longitudinally, a brake shoe movable with said shaft, a rotary part of the machine to which said shaft is rotatably connected, an abutment having a swiveled member engaging a thread on said shaft, a traveling part of the machine, means for connecting said abutment thereto whereby said abutment may be moved, and said abutment being adapted when stationary to cause movement of said shaft, whereby the brake shoe is forced into engagement with a moving part of the machine.

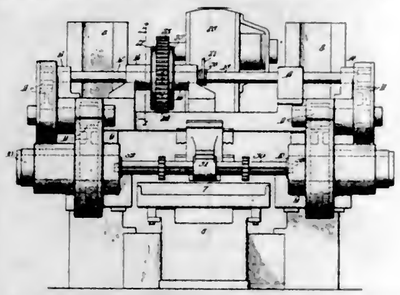
4. A stopping device for machines, comprising a rotatable shaft having a threaded portion and a plane portion and adapted to be moved longitudinally, a brake shoe movable with said shaft, a rotary part of the machine to which said shaft is rotatably connected, an abutment longitudinally movable along said shaft and adapted to slide on the plane part thereof and to engage the threaded part, a traveling part of the machine, means for connecting said abutment thereto whereby said abutment may be moved, and said abutment being adapted when stationary to cause movement of said shaft whereby the brake shoe is forced into engagement with a moving part of the machine.

5. A stopping device for machines, comprising a rotatable shaft adapted to be moved longitudinally, a brake shoe connected to said shaft so as to move therewith and supported thereon so as to have a pull when braking sub-

stantially perpendicular to the axis of said shaft, a rotary part of the machine to which said shaft is rotatable connected, an abutment having a threaded engagement with said shaft, a traveling part of the machine, means for connecting said abutment thereto whereby said abutment may be moved, and said abutment being adapted when stationary to cause movement of said shaft whereby the brake shoe is forced into engagement with a moving part of the machine.

[Claims 6 to 26 not printed in the Gazette.]

1,139,422. MILLING-MACHINE. JOHN R. JOHNSON, Rockford, Ill., assignor to The Ingersoll Milling Machine Company, Rockford, Ill., a Corporation of Illinois. Filed Sept. 9, 1913. Serial No. 788,800. (Cl. 90—18.)



1. In apparatus of the character set forth, the combination of a cutter holding bar, and means for driving said bar at both ends including a differential gearing through which power is transmitted.

2. In apparatus of the character set forth, the combination of a cutter holding bar and a common drive connection including a differential gearing connected with both ends of said cutter holding bar.

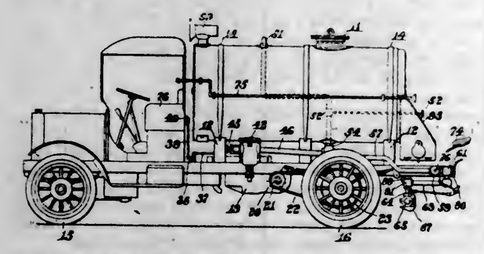
3. In a milling machine, the combination of rotatable cutter spindles, cutter holding means connecting the spindles, a driving connection for rotating both spindles, and a differential gearing operably connected to said driving connection and adapted to be driven to drive said driving connection.

4. In a milling machine, the combination of two rotary cutter spindles, means rigidly connecting the spindles, and a differential mechanism for driving said spindles.

5. In apparatus of the character set forth, the combination of a rotatable cutter holding bar, driving means for rotating said bar from both ends thereof, and means for automatically equalizing the torsional resistance of said driving means coming from both of said bar ends.

[Claims 6 to 12 not printed in the Gazette.]

1,139,423. ROAD-OILER. JUSTUS R. KINNEY, Dorchester, Mass. Filed Apr. 6, 1914. Serial No. 830,076. (Cl. 137—63.)

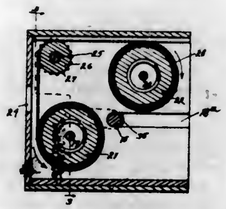


1. In a device of the class described, the combination of a tank; a pump; an inlet pipe leading to the inlet of said pump; a three-way cock in said pipe; a pipe leading from said cock to the bottom of said tank; a pipe from said pump to the top of said tank; a cutoff valve in said pipe; a connecting pipe beneath said valve communicating with the pipe leading to the bottom of said tank; a valve therein; and an outlet pipe communicating with said valve.

2. In a device of the class described, the combination of a tank; an outlet therefrom; a pump therefor; a plurality of alined sprinkler pipes communicating with said outlet pipe and provided with upwardly extending ribs; a drip pan adapted to be positioned beneath said sprinklers to cut off the spray therefrom; pivoted members supporting said drip-pan; a yoke connecting said pivoted members and normally abutting said rib; and means for moving said drip pan from beneath said sprinkler pipes.

3. In a device of the class described, the combination of a tank; an outlet therefor; a transverse pipe communicating with said outlet pipe; parallel longitudinal pipes extending from the ends of said transverse pipe; a bypass pipe connecting the ends of said longitudinal pipes; a relief valve therein; a cross pipe connecting said longitudinal pipes; a pump therein; a pipe extending longitudinally of the device from said transverse pipe; a three-way cock connecting said longitudinally extending pipe to said transverse pipe; a U-shaped pipe at the outer end of said longitudinally extending pipe; a sprinkler system pivotally connected to each end of said U-shaped pipe; means for moving said sprinkler system about said pivots; and means for retaining said sprinkler system in alinement during said pivotal movement.

1,139,424. STATION-INDICATING DEVICE. WILLARD W. KINTNER, Des Moines, Iowa. Filed Apr. 13, 1914. Serial No. 831,672. (Cl. 40—47.)



1. In a device of the class described, a casing, a supporting frame removably received therein, a plurality of rollers mounted in said frame, a flexible device mounted on two of said rollers and extending over the other roller, said last named roller being provided with means for engaging said flexible device, a shaft mounted in said casing and extending through said frame, said frame being provided with suitable slots for permitting the removal of the frame without interfering with the shaft.

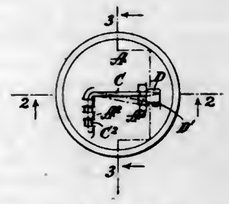
2. In a device of the class described, a casing, supporting members mounted therein and adapted to be slidably removed therefrom, means for connecting said supporting members, a shaft mounted in said supporting members, a second shaft mounted in the walls of said casing, said supporting members being provided with elongated slots to permit the insertion or removal of said supporting members without interfering with said second shaft, and means for imparting motion from said second shaft to said first shaft when said supporting members are installed in position in the casing.

3. In a device of the class described, a casing, supporting members mounted therein and adapted to be slidably removed therefrom, means for connecting said supporting members, a shaft mounted in said supporting members, a second shaft mounted in the walls of said casing, said supporting members being provided with elongated slots to permit the insertion or removal of said supporting members without interfering with said second shaft, means for imparting rotation from the second to the first shaft when said supporting members are installed in said casing, and means outside the space between said supporting members for imparting intermittent rotary motion to said second shaft.

4. In a device of the class described, a casing, supporting members mounted therein and adapted to be slidably removed therefrom, means for connecting said supporting members, a shaft mounted in said supporting members, a second shaft mounted in the walls of said casing, said supporting members being provided with elongated slots to permit the insertion or removal of said supporting members without interfering with said second shaft, means for operatively connecting said shafts when said supporting members are received within said casing, means outside the space between said supporting members for imparting intermittent rotary motion to said second shaft, and means for reversing the direction of movement of said second shaft.

5. In a device of the class described, a casing, supporting members mounted therein and adapted to be slidably removed therefrom, means for connecting said supporting members, three shafts mounted in said supporting members, rollers on said shafts, a fourth shaft mounted in the walls of said casing, said supporting members being provided with elongated slots to permit the insertion or removal of said supporting members without interfering with said fourth shaft, a flexible device wound on the rollers on two of the first described shafts and extending over the roller on the third of said first described shafts, said third shaft having means for engaging said flexible device, means for operatively connecting said fourth and third shafts when the supporting members are received within said casing, means outside the space between said supporting members for imparting intermittent rotary motion to said fourth shaft, and means for controlling the movement of said third shaft to cause it to travel the same distance at each movement.

1,139,425. BUTTON. MORRIS KOPPELMAN, New York, N. Y. Filed Oct. 2, 1914. Serial No. 864,555. (Cl. 24—103.)



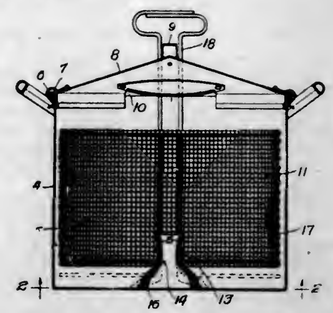
1. In a device of the character set forth, the combination with a plate, of a hook journaled and held against substantial lateral play while capable of swinging movement toward and from the plate, and oppositely extending jaws on the plate and disposed transversely of the free end of the hook, forming between them an entrance throat that is at one side of the plane of normal movement of the hook, whereby said hook must be laterally flexed to be passed therethrough, one of said jaws having a portion inwardly inclined with respect to the plate, and providing means whereby pressure on the hook in the direction of the plate causes it to flex laterally and pass through the jaws.

2. A device of the character set forth, comprising a button having a recess in its back, a resilient hook adapted to be passed through the material of a garment and then engaged in said recess, a pivot mounting for connecting one end of the hook to the button, said mounting permitting the hook to swing toward and from the button but holding it from free lateral play, and a jaw for holding the free end of the hook in the recess, said jaw being formed to automatically flex the hook laterally out of its normal path and against its resilient action, toward the free edge of the jaw until said edge is passed, when said hook is pressed inwardly against said jaw in its normal path of movement, and said hook automatically returning laterally by said resiliency to a position beneath the jaw.

3. In a device of the character set forth, the combination with a plate, of a hook journaled at one end thereon and being held against substantial lateral play, while capable of swinging movement toward and from the plate, and oppositely extending jaws cut from the plate and disposed transversely of the free end of the hook forming between them an entrance throat that is at one side of the plane of normal movement of the hook, whereby said hook must be laterally flexed to be passed therethrough, one of the jaws constituting holding means for the hook and the other acting as a guard for the throat.

4. In a device of the character set forth, the combination with a plate, of a hook journaled at one end thereon, and held against substantial lateral play while capable of swinging movement toward and from the plate, and oppositely extending jaws cut from the plate and disposed transversely of the free end of the hook, forming between them an entrance throat that is at one side of the plane of normal movement of the hook, whereby said hook must be laterally flexed to be passed therethrough, one of said jaws having its free portion inwardly inclined with respect to the plate, and one jaw extending across the plane of movement of the hook and constituting holding means for the hook, the other terminating short of said plane and acting as a guard for the throat.

1,139,426. DISH-WASHING DEVICE. ANNA KRAUT, Chicago, Ill. Filed May 8, 1914. Serial No. 837,136. (Cl. 141—9.)



1. A dish washing device comprising in combination with an imperforate vessel, a perforate basket arranged to fit into the vessel, the bottom of said basket being provided with a plurality of openings through which liquid may pass, and a resilient member carried by said basket bottom having a flaring mouth capable of engaging with the vessel bottom, and provided with an opening leading from the mouth thereof to the vessel interior, whereby the compression of said resilient member causes a stream of water to be forced therethrough into the basket, substantially as described.

2. A dish washing device comprising in combination with a cylindrical imperforate vessel, a perforate cylindrical basket arranged to fit within said vessel, the bottom of said basket being substantially the same in size as the inside diameter of said vessel and being provided with a plurality of openings through which liquid may pass, and a resilient member carried by said basket bottom having a flaring mouth capable of engaging with the vessel bottom, and provided with an opening leading from the mouth thereof to the vessel interior, whereby the compression of said resilient member causes a stream of water to be forced therethrough into the basket, substantially as described.

3. A dish washing device comprising in combination with an imperforate vessel, a perforate basket positioned within said vessel and capable of being moved in longitudinal and rotary directions, said basket being provided with a bottom in which a plurality of openings are formed for the passage of liquid therethrough, and a resilient member carried by said basket bottom having a flaring mouth capable of engaging with the vessel bottom, and provided with an opening leading from the mouth thereof

to the vessel interior, whereby the compression of said resilient member causes a stream of water to be forced therethrough into the basket, substantially as described.

4. A dish washing device comprising in combination with an imperforate vessel, a perforate basket arranged to fit into said vessel, the bottom of said basket being provided with a plurality of openings through which liquid may pass, a hollow resilient member carried by said basket bottom having a neck extending into the interior of the basket, and a flaring mouth arranged exteriorly of the basket bottom capable of engaging with the vessel bottom, whereby the compression of said member causes a stream of water to be delivered into the basket at a point removed from the bottom thereof, substantially as described.

5. A dish washer embodying in combination a vessel, a basket vertically reciprocable therein, the bottom whereof is provided with an opening, and a hollow resilient member secured within said opening arranged to allow passage of liquid therethrough into the basket interior, the resilient member being shaped to provide a flaring mouth extending beneath the basket bottom to engage with the vessel bottom, substantially as described.

[Claim 6 not printed in the Gazette.]

1,139,427. INALTERABLE WHITE PIGMENT AND PROCESS OF MAKING SAME. RAMON BONASTRE LLOPART, Cordoba, Argentina. Filed Feb. 19, 1915. Serial No. 9,300. (Cl. 134—78.)

1. The hereindescribed process of preparing an inalterable white product, said process consisting in treating a pure stable sulfate of zinc solution with a water solution of barium sulfid whereby a lithopone product containing pure stable sulfid of zinc is precipitated; drying the product and calcining it out of contact with air at about 500° to 700° C.; suddenly cooling the calcined product; washing the cooled product; heating to 80° to 100° C.; and preparing the product for use.

2. The herein described process of preparing an inalterable white product, said process consisting in treating a pure stable sulfate of zinc water solution with a water solution of barium sulfid whereby a lithopone product containing pure stable sulfid of zinc is precipitated; drying the product and calcining it at below red heat out of contact with air; and preparing the calcined product for use.

3. A step in the process of manufacturing lithopone, said step consisting in precipitating lithopone, calcining it out of contact with air at 500° to 700° C.; and preparing the calcined product for use.

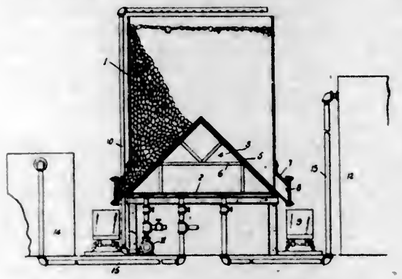
4. A step in the process of manufacturing lithopone, said step consisting in precipitating lithopone; drying the product and calcining it out of contact with air at about 500° to 700° C.; suddenly cooling the calcined product; washing the cooled product; heating to 80° to 100° C.; and preparing the product for use.

5. A step in the process of manufacturing lithopone, said step consisting in precipitating the lithopone; drying and calcining the lithopone; immediately cooling the calcined lithopone by immersing in water and changing the water until the lithopone is cold; grinding; washing in water; heating to about 80° to 100° C.; pressing; and rapidly drying at a heat less than 100° C.

[Claims 6 to 12 not printed in the Gazette.]

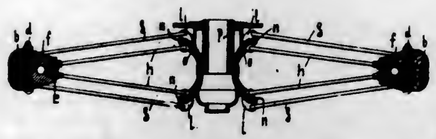
1,139,428. APPARATUS FOR TREATING ORES. BERNARD MACDONALD, South Pasadena, Cal. Filed May 6, 1914. Serial No. 836,622. (Cl. 75—86.)

1. In an apparatus for treating ore, the combination of a tank provided with a water tight bottom, an inclined perforated false bottom within the tank forming a chamber between it and the water tight bottom, into which chamber the liquid with which the ore is treated will percolate, a transfer pipe having its lower end communicating with said chamber and having its upper end arranged to deliver liquid into the tank at the top thereof, means to force the liquid which has percolated into said tank to flow therefrom upwardly through said transfer pipe whereby it will be discharged upon the ore within the tank, a precipitation tank, a pipe having one end communicating with said chamber and having its other end communicating with said precipitation tank, a receptacle for a gas, and a pipe extending between said receptacle and said chamber, substantially as described.



2. In an apparatus for treating ore, the combination of a tank provided with a water tight bottom, an inclined perforated false bottom within the tank forming a chamber between it and the water tight bottom, into which chamber the liquid with which the ore is treated will percolate, a transfer pipe having its lower end communicating with said chamber and having its upper end arranged to deliver liquid into the tank at the top thereof, means to force the liquid which has percolated into said tank to flow therefrom upwardly through said transfer pipe whereby it will be discharged upon the ore within the tank, a discharge chute at the bottom of the inclined false bottom, a closure for the chute adapted to be opened to permit the removal of the treated ore from the tank, a precipitation tank, a pipe having one end communicating with said chamber and having its other end communicating with said precipitation tank, a receptacle for a gas, and a pipe extending between said receptacle and said chamber, substantially as described.

1,139,429. ELASTIC WHEEL. PAUL BERNHARD MARCUS, Neu-Rochwitz, near Dresden, and EUGEN RICHARD BÖHME, Dresden, Germany. Filed Feb. 25, 1914. Serial No. 820,958. (Cl. 152—36.)

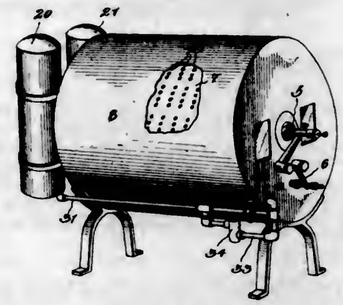


1. An elastic wheel comprising two concentrically arranged and spaced rims, the said rims being connected with each other by means of two spoke systems symmetrically arranged to a vertical plane through the middle of the wheel, said spoke systems comprising each a spoke extending from the outer rim toward the hub and a spoke extending from the inner rim toward the hub, and a double-armed lever, to which the hub-ends of said spokes are hinged.

2. An elastic wheel, comprising two concentrically arranged and spaced rims, the said rims being connected with each other by means of two spoke systems symmetrically arranged to a vertical plane through the middle of the wheel, said spoke systems comprising each a spoke extending from the outer rim toward the hub and a spoke extending from the inner rim toward the hub, and a double-armed lever in form of a rocking member, to which the hub-ends of said spokes are hinged, said rocking member bearing on and supported by a ring fitted around the hub and supported by extensions thereof, said ring adapted to act as abutment and fulcrum for said rocking members.

3. An elastic wheel, comprising two concentrically arranged and spaced rims, the said rim being connected with each other by means of two spoke systems symmetrically arranged to a vertical plane through the middle of the wheel, said spoke systems comprising each a spoke extending from the outer rim toward the hub and a spoke extending from the inner rim toward the hub, and a double-armed lever, to which the hub-ends of said spokes are hinged, the space intervening between the said outer rim and the said inner rim filled by an elastic ring.

1,139,430. STEAM-GENERATOR. WILLIS MITCHELL, Malden, Mass., assignor to Willis Mitchell Company, Inc., New York, N. Y., a Corporation of New York. Filed Sept. 29, 1913. Serial No. 792,297. (Cl. 60—1.)



1. In combination with a series of water-tube helices, means for heating the same and a generator casing surrounding them, a pressure-tank adapted to contain air under pressure and tubularly connected to the inlet end of said series, and means for opening and closing such communication between them at will, but permitting back flow while it is thus closed when the back pressure from the helices exceeds a certain degree.

2. In combination with a series of water-tube helices, means for heating the same and a generator casing surrounding them, a pressure-tank adapted to contain air under pressure, a pipe connecting said pipe to the inlet end of said series, a hand-operated cut-off valve in said pipe, a by-pass branch around said valve and a relief valve in the latter to provide for return of fluid to the tank under pressure exceeding that of the latter.

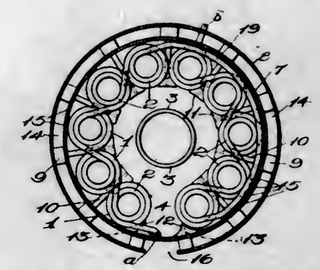
3. In combination with a series of water-tube helices, means for heating the same and a generator casing surrounding them, a pressure-tank tubularly connected to the inlet end of said series and adapted to receive and contain air under pressure, an auxiliary air pressure-tank, means of permitting the passage of air from the former tank to the latter, and the closing of such means of passage at will in order that air pressure may be accumulated in the auxiliary tank to aid the main pressure tank.

4. In combination with a series of water-tube helices, means for heating the same and a generator casing surrounding them, a pressure-tank, a water-tube connecting said tank to the inlet end of said series, an air supply pipe to said tank supplying air under pressure, an inner air pipe extending from said air supply pipe up within said pressure-tank to the upper part of the latter, an auxiliary air-tank, a branch air pipe connecting said inner air pipe to said auxiliary tank, valves controlling at will the latter air pipe and the main air supply pipe, and means for supplying water under pressure to the first pressure tank.

5. A pressure tank in combination with an inlet for air under pressure and means connected to said tank adapted at will to bottle the air under pressure and as needed to let it act on the contents of said tank, a series of water-tube helices supplied by said tank, a water-pipe to said tank from the main source of water supply and a by-pass and relief valve for permitting the return of water under excess of pressure from said tank to said source.

[Claims 6 to 11 not printed in the Gazette.]

1,139,431. STEAM-GENERATOR. WILLIS MITCHELL, Malden, Mass., assignor to Willis Mitchell Company, Inc., New York, N. Y., a Corporation of New York. Original application filed Sept. 29, 1913, Serial No. 792,297. Divided and this application filed July 27, 1914. Serial No. 853,443. (Cl. 122—248.)



1. In combination with a calorific device, a water and steam tube wound into a continuous series of double helices, each consisting of an outer helix and inner helix, each inner helix being connected to the outer helix of a proximate double helix and the direction of winding being reversed in passing from each double helix to the next in order to reverse the flow in each double helix and aid the heat action by the consequent disintegrating friction and strain on the fluid, said series of double helices also being approximately circular and arranged about said calorific device.

2. In combination with a calorific device, a water and steam tube wound into a series of horizontal double helices arranged around said device, the direction of winding being reversed in each double helix in passing from the outer to the inner helix for one half of the series and in passing from the inner to the outer helix for the other half of the series, the general direction of the flow being from the bottom to the top of the series in both halves thereof, and said flow entering the series at the bottom, but leaving it at the top.

3. In combination with a series of continuous tubular double-helices for the passage of water in the process of being transformed into steam and its original gaseous elements, a burner centrally arranged with respect to the series and directing its flames, radiant heat and products of combustion into said helices, the coils of the two concentric helices of each member of the series being reversely inclined with respect to each other in order that they may cross one another for more perfect interruption and utilization of such flames, products and heat.

4. In combination with an approximately circular series of generating helices of a steam-generator and a burner arranged centrally within the same, a cylindrical shell surrounding said helices and having many outlet perforations at divers points which compel the products of combustion to flow through and around all parts of the coils of said helices in addition to the direct action of the burner on the latter and an outer casing which leaves a space between it and said perforated casing.

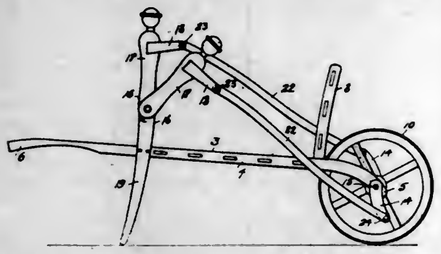
5. In combination with a series of horizontal, connected water-tube helices and a burner approximately surrounded thereby, a horizontal generator casing consisting of two concentric shells, the inner shell being provided with numerous holes at various points of its circumference and the outer shell being arranged to leave an interval between them and provided with a single outlet in its bottom.

[Claims 6 to 10 not printed in the Gazette.]

1,139,432. TOY WHEELBARROW. ANTON MOLNAR, South Bend, Ind. Filed Mar. 3, 1915. Serial No. 11,928. (Cl. 46—45.)

1. A toy wheelbarrow comprising a platform, a wheel for supporting one end of the platform, an axle for the wheel and rotative therewith, crank-arms mounted on the

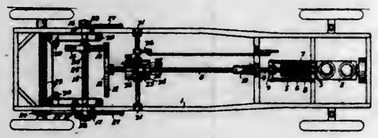
axle ends, leg members for supporting the opposite end of the platform, figures pivotally mounted on the upper ends of the leg members, and link members pivotally connected at their ends with the crank-arms and the figures.



2. A toy wheelbarrow comprising a platform having oppositely disposed spaced side bars, a wheel mounted between said bars having a fixed axle, the ends of which are journaled in and project through said bars, oppositely directed crank-arms mounted on the ends of said axle, oppositely disposed leg members secured to the platform and projecting both above and below the latter, figures pivotally mounted on the upper ends of the leg members, and link members pivotally connected at their ends to the crank-arms and the figures.

3. A toy wheelbarrow comprising a platform, a wheel for supporting one end of the platform, an axle for the wheel and rotative therewith, crank-arms mounted on the axle ends, figures consisting each of a body portion having forwardly extending arms and a leg portion pivotally united, the leg portion of each figure being fixedly secured to the platform, and link members pivotally connected at their ends with the ends of the extended arms of the figures and the crank-arms.

1,139,433. AUTOMATICALLY-VARIABLE GEARING. ARTHUR R. MONRO, Berkeley, Cal. Filed Nov. 18, 1912. Serial No. 731,939. (Cl. 74—26.)



1. In a drive mechanism, the combination with a drive member and means for operating the same, a driven member associated with said drive member and operated thereby, and means for automatically varying the relative speed positions of the drive and driven members in accordance with the load carried by the driven member.

2. In a drive mechanism, the combination with a drive member and means for operating the same, a driven member associated with said drive member and operated thereby, and means for automatically varying the relative speed positions of the drive and driven members, said means being operatable by the load carried by the driven member.

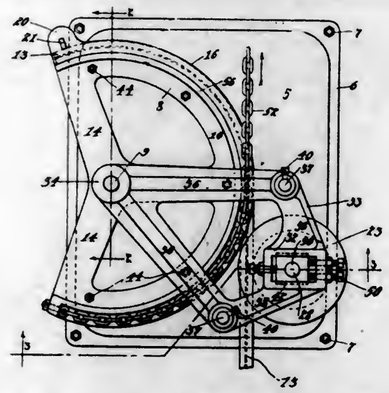
3. In a drive mechanism, the combination with a drive member and means for operating the same, a driven member associated with said drive member and operated thereby, and means for automatically changing the speed position of the driven member relative to the drive member in accordance with the load carried by said driven member.

4. In a drive mechanism, the combination with a drive disk and means for operating the same, a driven disk associated with said drive disk and operated thereby, and means for automatically varying the relative speed positions of the drive and driven disks, said means being operatable by the load carried by the driven disk.

5. In a drive mechanism, the combination with a drive member and means for operating the same, a driven member associated with said drive member and operated thereby, and means for automatically changing the speed position of the drive member relative to the driven member in accordance with the load carried by said driven member.

[Claims 6 to 11 not printed in the Gazette.]

1,139,434. MECHANISM FOR BENDING STRUCTURAL SHAPES. EDWARD Y. MOORE, Cleveland, Ohio. Filed July 15, 1914. Serial No. 851,042. (Cl. 153—40.)



1. In a machine for bending structural beams, the combination of a rotary former composed of two segments, means for adjusting these segments toward and away from each other, means on each segment for embracing the sides and flanges of a structural beam and for engaging the edges of said flanges, means for locking such beam to the former at one point, means for rotating the former, and a coacting member on the opposite side of the beam.

2. In a machine for bending structural beams, the combination of a rotary former composed of two segments, means for adjusting these segments toward and away from each other, means on each segment for embracing the sides and flanges of a structural beam and for engaging the edges of said flanges, means for locking such beam to the former at one point, means for rotating the former, and a rotary member adjacent the former comprising two circular members adjustable toward and away from each other and adapted to embrace the sides and flanges of the beam.

3. In a machine for bending structural shapes, the combination of a rotary former composed of two segments adjustable toward and away from each other, such segments having parallel surfaces and shoulders adapted to engage the sides and flanges respectively of a structural beam, said parallel surfaces being adapted to embrace substantially the full width of the flanges of the beam, means for locking the beam to the segments at one point, a second rotary member composed of two circular parts adjustable toward and away from each other and having parallel surfaces and shoulders adapted to engage the beam, and means for changing the center distance between the rotary members.

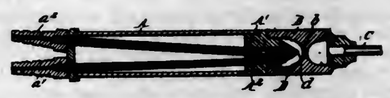
4. In a machine for bending structural beams, the combination of a former comprising two rotary segments, means for changing the distance between these segments, means at the periphery of these segments adapted to embrace the sides and engage the flanges of a beam, a wedge for locking the beam to the segments, a rotary member adapted to engage the sides and abut the flanges of the beam, means for mounting the segments and rotary member including bearings for one of the rotary members, and means for adjusting these bearings toward and away from the other rotary member.

5. In a machine for bending structural beams, the combination of a former comprising two members mounted on a shaft having radial parallel annular flanges adapted to embrace the sides of the beam and having laterally projecting annular flanges engaging the flanges of the beam.

means for locking the beam to the former, an arcual shoulder on the former, a chain adapted to fit against said shoulder for rotating the former, and a rotary member adapted to embrace the beam to cause it to be bent around the former.

[Claims 6 to 11 not printed in the Gazette.]

1,139,435. BLOWPIPE. JOHN MCVICKER MORRIS, London, England, assignor to The Carbic Corporation, Duluth, Minn. Filed July 10, 1914. Serial No. 850,254. (Cl. 158—109.)



1. A blow-pipe, comprising a gas mixing chamber, a body portion or handle having two gas passages therein through which the gases to be mixed are supplied to the mixing chamber, and an axially perforated cone detachably mounted in the outlet port of one gas passage with its base completely overlapping, without however closing, the outlet port of the other passage and leaving an annular space between its periphery and the internal wall of the mixing chamber, the gas issuing from the latter passage being thus baffled and deflected toward the said annular space.

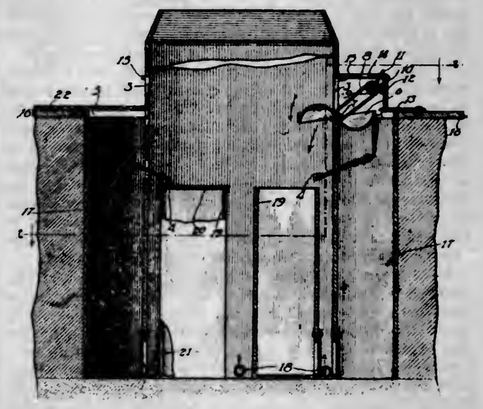
2. A blow-pipe, comprising a gas mixing chamber, a body portion or handle having two gas passages therein through which the gases to be mixed are supplied to the mixing chamber, an axially perforated cone detachably mounted in the outlet port of one gas passage with its base completely overlapping, without however closing, the outlet port of the other passage and leaving an annular space between its periphery and the internal wall of the mixing chamber, the gas issuing from the latter passage being thus baffled and deflected toward the said annular space, a delivery tube detachably connected to the mixing chamber, and a nozzle detachably connected to the end of the delivery tube.

3. A blow-pipe, comprising a gas mixing chamber, a body portion or handle having two rectilinear passages therein through which the gases to be mixed are supplied to the mixing chamber, an axially perforated cone detachably mounted in the outlet port of one gas passage with its base completely overlapping, without however closing, the outlet port of the other passage and leaving an annular space between its periphery and the internal wall of the mixing chamber, the gas issuing from the latter passage being thus baffled and deflected toward the said annular space, a delivery tube detachably connected to the mixing chamber, and a nozzle detachably connected to the end of the delivery tube.

4. A blow-pipe for use with two gases at different pressures, comprising an externally cylindrical internally dome-shaped gas mixing chamber, a cylindrical body portion or handle detachably connected to the gas mixing chamber and having two rectilinear passages through which the gases are conveyed to the base of the dome-shaped mixing chamber, gas supply pipes projecting from the rear end of the body portion or handle and in continuation of the said rectilinear gas passages, an axially perforated cone mounted axially in the outlet port of the gas passage through which the gas at the higher pressure passes, the base of the cone overlapping, without however closing, the outlet port of the other gas passage but leaving an annular space between its periphery and the wall of the dome-shaped cavity, a delivery tube detachably connected to the mixing chamber, and a nozzle detachably connected to the end of the delivery tube.

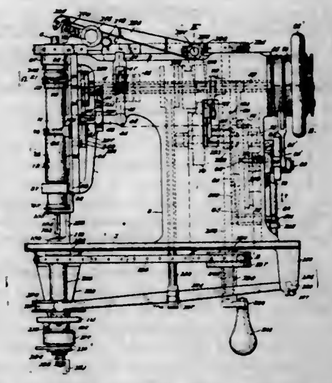
1,139,436. GARBAGE-RESERVOIR. EDWIN NETTER, Aurora, Oreg. Filed June 2, 1913. Serial No. 771,265. (Cl. 220—118.)

In a garbage reservoir, a ventilated housing comprising apertured walls and provided with doors at its base, uprights adjacent opposite sides of said housing creating areaways between said uprights and housing, a removable apertured seat connecting one of said uprights with said housing, a turntable disposed in one apertured wall of said housing below said seat and adapted to receive matter in



the plane of said seat and to deposit it outside the plane of said seat, flexible means disposed in said apertured wall below said turntable and normally in contact therewith to prevent its rotation in other than one direction and a garbage receptacle provided with a door and disposed within said housing below said turntable.

1,139,437. EYELET-SEWING MACHINE. DONALD NOBLE, Bridgeport, Conn., assignor to The Singer Manufacturing Company, a Corporation of New Jersey. Filed Oct. 24, 1911. Serial No. 656,463. (Cl. 112—4.)



1. In a sewing machine, the combination with a stitch-forming mechanism and means for changing the relative position of the latter and the fabric being acted on to effect circularly arranged stitches, of a fabric spur, and means for giving to the latter rotary movements independent of and prior to the stitching operation to provide said circularly arranged stitches with a reinforcing element.

2. In a sewing machine, the combination with a stitch-forming mechanism including a needle-bar provided with an opening within its diameter for the passage of a needle thread, and means for changing the relative positions of the needle-bar and the fabric being acted on to effect circularly arranged stitches, of a fabric spur, and means for giving to the latter rotary movements independent of and prior to the stitching operation to provide said circularly arranged stitches with a reinforcing element.

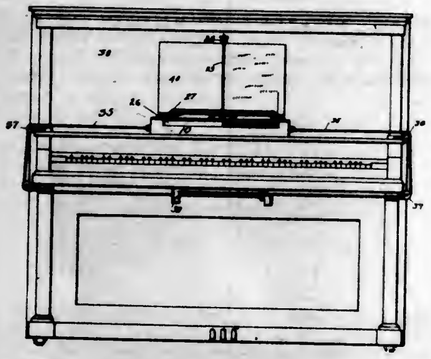
3. In a sewing machine, the combination with a stitch-forming mechanism and means for changing the relative position of the latter and the fabric being acted on to effect circularly arranged stitches, of a spur rod provided with a fabric spur and with an opening located within the diameter of said rod for the passage of a cord, and means for giving to said rod rotary movements independent of and prior to the stitching operation to provide said circularly arranged stitches with a reinforcing element.

4. In a sewing machine, the combination with a stitch-forming mechanism including a needle-bar provided with an opening within its diameter for the passage of the needle thread, and means for changing the relative positions of the needle-bar and the fabric being acted on to effect circularly arranged stitches, of a spur rod provided with a fabric spur and with an opening located within the diameter of said rod for the passage of a cord, and means for giving to said rod rotary movements independent of and prior to the stitching operation to provide said circularly arranged stitches with a reinforcing element.

5. In a sewing machine, the combination with a stitch-forming mechanism and means for changing the relative positions of the latter and the fabric being acted on to effect circularly arranged stitches, of a rotary looper carrier standard provided with a spur rod terminating in a fabric spur, and means for giving to said standard rotary movements independent of and prior to the stitching operation to provide said circularly arranged stitches with a reinforcing element.

[Claims 6 to 10 not printed in the Gazette.]

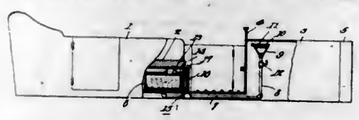
1,139,438. MUSIC-LEAF TURNER. ELIAS OLSON, Jewell Junction, Iowa. Filed Aug. 11, 1913. Serial No. 784,409. (Cl. 84—17.)



In a music leaf turner, a support, a plurality of wires rotatably mounted therein, said wires being in a series from front to rear, each wire having parts in vertical alinement, and having U-shaped rearwardly opening portions formed between said alined portions, said U-shaped portions being graduated in size to clear each other, said wires having horizontal portions formed on the upper alined part of each, upright members on the outer ends of said horizontal portions, a resilient wire mounted to reciprocate past said U-shaped portions, having a catch device thereon adapted to engage the outermost U-shaped portion when said reciprocating member is moved in one direction, said reciprocating member having outwardly curved ends, adapted to engage and slide on said U-shaped members.

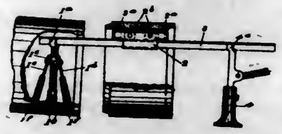
1,139,439. FUEL-TANK FOR AUTOMOBILES. ALFRED ORTON, Cheyenne, Wyo. Original application filed Jan. 23, 1913, Serial No. 743,863. Divided and this application filed Mar. 6, 1914. Serial No. 823,013. (Cl. 21—90.)

The combination with an automobile body including a front seat and a hood, a fuel tank disposed below the said seat, a vent valve carried by the top of the tank and having a stem projecting forwardly from under the seat, a filling pipe disposed below the body and having its respective ends attached to the bottom of the tank and upturned within the hood, a funnel carried by the upturned end of the pipe at a higher level than the tank, a valve



for the upturned end of the pipe below the funnel and at a higher level than the tank, said pipe having an upstanding branch directly in front of the tank, a transparent gage carried by the said branch to indicate the contents of the tank, and a vent valve attached to the upper end of the said branch.

1,139,440. GRAVITY-ACTUATED PIPE-LAYING APPARATUS. JONATHAN PERKINS, Jr., San Diego, Cal. Filed June 2, 1913. Serial No. 771,208. (Cl. 104—4.)



1. In a gravity actuated pipe laying apparatus an adjustable tripod, a normally horizontal bar with one end mounted thereon, a carriage mounted on said bar and provided with rollers to facilitate its movement thereon, horizontal axis rollers mounted on said carriage so that their upper surfaces extend above said carriage and means for raising and lowering the other end of said bar.

2. A gravity actuated pipe laying apparatus, comprising an adjustable tripod with bifurcated upper end, a normally horizontal T bar with one end mounted thereon, a carriage mounted on said T bar and fitted around the same and adapted to travel thereon, and a jack the upper end of which is bifurcated to fit said T bar for raising the end thereof.

3. A gravity actuated pipe laying apparatus, comprising a tripod, each member of which is adjustable, a normally horizontal bar with one end mounted thereon, and adapted to fit the upper end thereof, a carriage provided with horizontal axis rollers, mounted on said bar and adapted to travel thereon, and a jack which is adapted to fit said bar for raising the other end thereof.

1,139,441. SHAFT-GUARD. WILLIS J. PERKINS, Grand Rapids, Mich. Filed Dec. 24, 1909, Serial No. 534,849. Renewed June 3, 1912. Serial No. 701,429. (Cl. 64—12.)

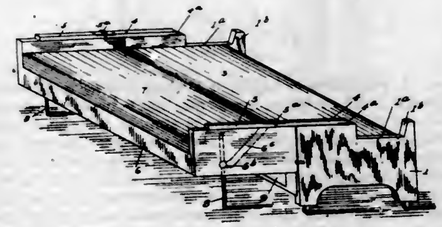


1. In a structure of the class described, the combination with the shaft, of sections of spiral coil arranged loosely thereon; collars having laterally-projecting annular flanges embracing the ends of said coil sections, the intermediate collars being provided with a pair of the laterally projecting annular flanges embracing the adjacent ends of the coil sections, all said parts loosely embracing and freely revoluble on said shaft; and a cushion layer on said shaft within said coil.

2. In a structure of the class described, the combination with the shaft, of sections of spiral coil arranged loosely thereon; collars having laterally-projecting annular flanges embracing the ends of said coil sections, the intermediate collars being provided with a pair of the laterally-projecting annular flanges embracing the adjacent ends of the coil sections, all said parts loosely embracing and freely revoluble on said shaft.

3. In a structure of the class described, the combination with a substantially straight rigid shaft and bearings therefor, of an independently revoluble guard, comprising a spiral coil closed into complete circles forming bearings for said guard at the ends thereof said guard being loosely and revolubly mounted on said shaft, whereby the shaft is freely revoluble within said guard and said guard is adapted to normally revolve with said shaft and is free to revolve on said shaft and relative to said shaft and said bearings when functioning as a guard.

1,139,442. COMBINED COUCH AND BED. CONRAD PESSARRA, San Diego, Cal. Filed Apr. 22, 1914. Serial No. 833,630. (Cl. 5—47.)



1. In a combined couch and bed the combination of a stationary part provided with a recess in the upper portion thereof, a cushion removably mounted in said recess, a movable part adapted to be moved from a vertical to a horizontal position on one side of said stationary part and two members hinged together at their ends, one secured to each of said parts for supporting said removable part in said horizontal position.

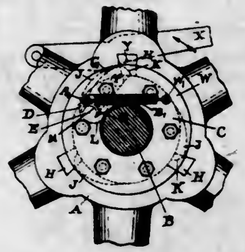
2. In a combined couch and bed the combination of a stationary part provided with a cushion in its upper portion, a movable part adapted to be moved from a vertical to a horizontal position and from the horizontal position to the vertical position, members secured to said stationary part and said movable part hinged together for supporting said movable part in horizontal position beside said stationary part, and on the upper surface of the ends of said stationary part when in a vertical position.

3. In a combined couch and bed the combination of a stationary part provided with notches in the upper surface of its ends, a cushion removably mounted in the upper portion of said stationary part, a member hinged on the upper surface of each end of said stationary part, a removable part, a cushion secured thereto, a member secured to the upper surface of said movable part when in a horizontal position, and mounted pivotally on the free end of each of said members hinged to the upper surface of the ends of said stationary part, and other means for supporting said movable part when in a horizontal position mounted therein.

4. In a combined couch and bed the combination of a stationary part provided with a cushion in a recess in its upper surface and with a notch in each of its ends, a cushioned movable part secured to said stationary part, hinged members so arranged that said movable part may rest in said notches in said stationary part in a vertical position or be supported in a horizontal position adjacent to and along side of said stationary part.

5. In a combined couch and bed the combination of a stationary part provided with a cushion in a recess in its upper surface and with notches in the upper surface of its ends, a cushioned movable part secured to said stationary part, hinged members so arranged that said movable part may rest in said notches in said stationary part in a vertical position or be supported in a horizontal position adjacent to said stationary part and automatic means for supporting said movable part relatively to said stationary part when in a horizontal position.

1,139,443. POSITIVE CLUTCH. GEORGE A. PETERSON, Oakland, Cal., assignor to Unit Brick and Stone Company, San Francisco, Cal., a Corporation of California. Filed Oct. 25, 1913. Serial No. 797,220. (Cl. 192—6.)



1. In a positive clutch abutting surfaces fixed on a driving member, a pawl plug, adapted to turn around a center, on the other member, a spring for keeping said plug in a definite position, a pawl pivoted eccentrically to said plug at one end, the other free end being suited to engage said abutting surfaces on said driving member, the pivot in said plug being so located, as to cause the latter to turn against the action of said spring, when pressure is transmitted through said pawl, and means adapted to operate the free end of said pawl.

2. In a positive clutch a pawl plug, adapted to turn around a center, carried by one member, a spring for keeping said plug in a definite position, a pawl, pivoted eccentrically, carried by said plug and adapted to engage or disengage the other member, the pivot in said plug being so located, as to cause the latter to turn against the action of said spring, when pressure is transmitted through said pawl and means adapted to operate the free end of said pawl.

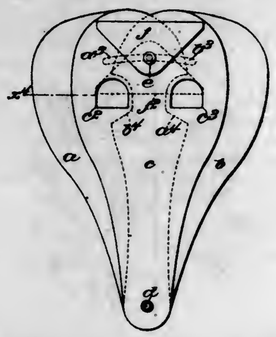
3. A positive clutch comprising a hub provided with one or more abutting surfaces, constituting one member, a collar fixed on a shaft, forming the other member, a pawl plug, adapted to turn around a center, fixed in said collar, a spring for holding said plug in a definite position, a pawl pivoted eccentrically to said plug, and adapted to engage or disengage said abutting surfaces of said hub, the pivot in the plug being so located, as to cause the latter to turn against the action of said spring when power is transmitted through said pawl, and means adapted to operate the free end of said pawl.

4. In a positive clutch a collar fixed on a shaft and provided with one or more abutting surfaces, forming one member, a hub of a wheel forming the other member, a pawl plug adapted to turn around a center, located in said hub, a spring for keeping said plug in a definite position, a pawl pivoted eccentrically to said plug, the free end being adapted to engage or disengage the said abutting surfaces in said collar, the pivot in the plug being so located, as to cause the latter to turn against the action of said spring, when power is transmitted through said pawl, and means to operate said pawl.

1,139,444. EYE-SHIELD. GEORGE TURNER PHELPS, Cambridge, Mass. Filed Apr. 4, 1910. Serial No. 553,434. (Cl. 88—1.)

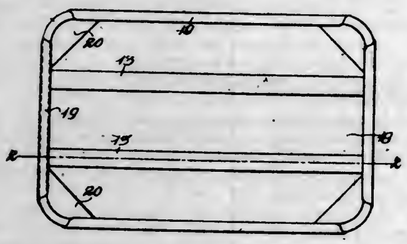
1. An eye shield comprising an opaque screen having an upper portion of sufficient width to shield the upper part of the face and being provided with two openings located at opposite sides of the middle so as to come in front of the eyes; combined with two pivotally supported screens each having an opening substantially at the middle, whereby movements of said screens in opposite directions around their pivotal support uncover the eye-holes in the screen first named.

2. An eye shield comprising an opaque screen having an upper portion of sufficient width to shield the upper part of the face and being provided with two openings located at opposite sides of the middle so as to come in front of the eyes: combined with two concentrically pivoted



screens, each having an opening substantially at the middle, whereby movements of said screens in opposite directions around their pivotal support uncover the eye-holes in the screen first named and a supplemental screen-portion adapted to be moved over the eye-holes to vary the size thereof.

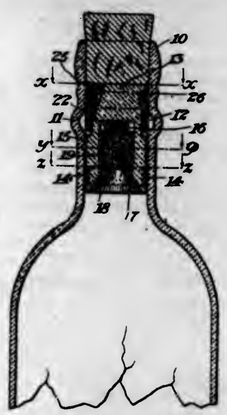
1,139,445. BAKING-PAN. CHARLES E. PIERCE, Cambridge, Mass. Filed Apr. 9, 1914. Serial No. 830,654. (Cl. 53—6.)



1. In a baking pan, in combination, a marginal frame composed of a bent metal rod, a sheet metal reinforcing strip extending across the space bounded by the frame and rigidly secured at its ends thereto, the upper side of the strip being substantially flush with the upper side of the frame and he lower side of the strip being above the lower side of the frame, so that the strip-engaging members of the frame form ribs below the ends of the strip, and a continuous sheet metal body having rolled edges embracing the members of the frame, including said ribs, said frame, the rolled edges, and the reinforcing strip constituting a grid adapted to support the body above and out of contact with an oven shelf or bottom, and permitting the employment of a relatively thin body and of a relatively thick strip which is prevented by the frame from sagging.

2. In a baking pan, in combination, a marginal frame composed of a bent metal rod, a sheet metal reinforcing strip extending across the space bounded by the frame, the ends of the strip being abutted against opposite members of the frame and welded thereto, the upper side of the strip being flush with the upper side of the frame and the thickness of the strip being less than the diameter of the wire of which the frame is made, so that the lower side of the strip is above the lower side of the frame, the strip-engaging portions of the frame forming ribs below the ends of the strip, and a continuous sheet metal body rolled at its edges to embrace the members of the frame, including said ribs.

1,139,446. NON-REFILLABLE BOTTLE. GIUSEPPE F. PINSUTI, New York, N. Y. Filed May 1, 1912. Serial No. 694,446. (Cl. 215—62.)



1. A non-refillable bottle, a stopper having a chamber therein, ports providing communication between the chamber and the opposite ends of the stopper, a member slidable within the said chamber, there being provided recesses forming ports for the passage of liquid by the said slidable member, a valve seat, and a valve of light flexible and yielding material fitting loosely within the said chamber and adapted to be normally maintained against its seat by the said slidable member, and to be returned to its seat, independently of the said slidable member, by liquid flowing into the bottle through the stopper.

2. In a non-refillable bottle, a stopper having a transverse chamber therein opening in the side of the stopper, a port providing communication between the inner end of the stopper and the said chamber, a valve of flexible material provided with recesses in the corners thereof, a seat for the valve and a device within the said chamber adapted to normally maintain the valve against its seat, the said device being provided with recesses in the corners thereof which are relatively deeper than the recesses in the corners of the valve so that in an attempt to refill the bottle the liquid may be brought directly into contact with the face of the valve, and means for normally maintaining the said device against the valve to keep the same on its seat.

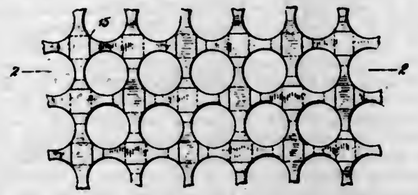
3. In a non-refillable bottle, a stopper having a transverse chamber therein opening in the side of the stopper and a port providing communication between the inner end of the stopper and the said chamber and longitudinal recesses in the surface of the said stopper providing communication between the outer end of the stopper and a recess formed in the neck of the bottle, which latter recess is in communication with the said chamber, a valve of light flexible yielding material, a valve seat therefor, and a device within the said chamber adapted to normally maintain the valve against its seat, the said valve being adapted to seat independently of the said device in an attempt to refill the bottle.

4. In a non-refillable bottle, a stopper having a chamber therein opening in the side of the stopper, and a port providing communication between the said chamber and the inner end of the stopper, a valve of light flexible and yielding material, the edges thereof at the corners being recessed, and a device within the said chamber adapted to normally maintain the valve against its seat, the said device being provided at its corners with recesses which at the surface of the device contacting with the valve, are relatively deeper than the recesses in the corners of the valve, so that in an attempt to refill the bottle the pressure of the liquid will be brought to bear directly upon the surface of the valve.

5. In a non-refillable bottle, a one-piece stopper having a transverse chamber therein opening in the side of the stopper, a port providing communication between the inner end of the stopper and the said chamber, and longitudinal recesses in the surface of the stopper providing communication between the outer end of the stopper and a recess formed in the neck of the bottle, which latter recess is in communication with the said chamber, a valve seat in the inner end of the said chamber, a valve of light flexible and yielding material, and a device within the said chamber adapted to normally maintain the valve against its seat, the contact surface of the said device with the valve being of materially less area than the area of the valve.

[Claims 6 and 7 not printed in the Gazette.]

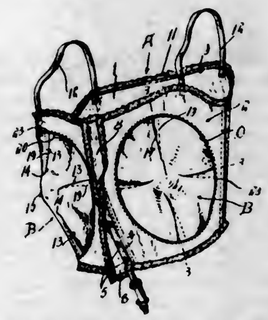
1,139,447. SCREEN. WINFIELD S. POTTER, Pittsburgh, Pa. Filed May 2, 1913. Serial No. 765,038. (Cl. 83—56.)



1. A screen made up of interwoven wrought metal bars shaped to present at the points of crossing abrupt recesses or depressions securely interlocking the intersecting bars against displacement, the underlapping and overlapping bars having arched sections between the crossing points to produce screen orifices having curved outlines.

2. A screen made up of interwoven wrought metal bars shaped to present at the points of crossing abrupt recesses or depressions securely interlocking the intersecting bars against displacement, the underlapping and overlapping bars having sections between the points of crossing shaped to form circular screen orifices.

1,139,448. BUST-SUPPORTER. GOODWIN B. SMITH, Philadelphia, Pa. Filed July 16, 1914. Serial No. 851,366. (Cl. 2—87.)

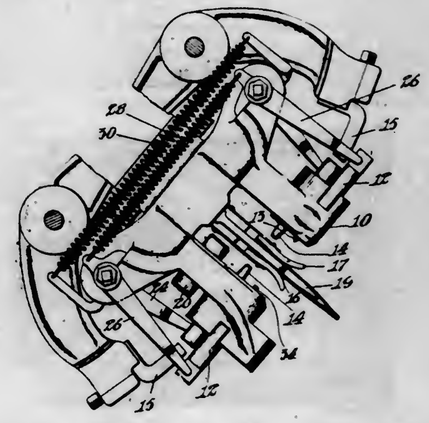


1. In an article of the class described, a body section having breast openings formed therein, a fabric pocket overlying each opening and attached to the body section, the material of each pocket being folded from points adjacent the outer edge thereof to points adjacent the center thereof and secured in such folded position to form a nipple-receiving section at approximately the center of the pocket.

2. In an article of the class described, a body section having bust openings formed therein and fabric pockets of perforate material attached to the body section and overlying the openings, the material of each pocket from the edge toward the center thereof being connected by stitches to form a nipple-receiving section at substantially the center of the pocket.

3. In an article of the class described, a body section having substantially circular breast openings therein and a substantially circular section of fabric forming a pocket for each breast, said section of fabric being attached to the body portion and having radial darts extending from points adjacent the periphery thereof to points adjacent the center thereof, the inner ends of said darts terminating short of the center of the pocket the construction being such that the complete pockets are adapted to conform to the natural contour of the breasts.

1,139,449. FASTENER-SETTING MACHINE. WALTER SHAW, Dedham, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Dec. 9, 1912. Serial No. 735,758. (Cl. 218—15.)



1. A machine for setting blind eyelets having, in combination, a thin projecting member constructed and arranged to be inserted between two layers of partially attached sheet material and having an upsetting die on one side thereof, and a smooth surface on the other, means coöperating with said upsetting die for setting an eyelet in one of said layers, a punch for making the eyelet hole, and an independent punch for punching a hole through the other of said layers in alinement with the eyelet.

2. A machine for setting blind eyelets having, in combination, a thin die-carrying member having an upsetting die on one side and a surface on the other side shaped to facilitate the unimpeded passage of the material, said member projecting so that layers of sheet material may be moved past both sides, means coöperating with the die to set an eyelet in the layer on one side of the member, a punch for making the eyelet hole, and a separate punch for punching a hole through the other layer in alinement with the eyelet.

3. A machine for setting blind eyelets having, in combination, a work separating device having an upsetting die on one side and a smooth surface on the other, means for feeding partially attached layers of sheet material past said device in a step-by-step manner, a set for setting an eyelet in one layer in coöperation with the upsetting die, punching means for making the eyelet hole, and a punch for operating on the layer which engages the smooth face of the separating device.

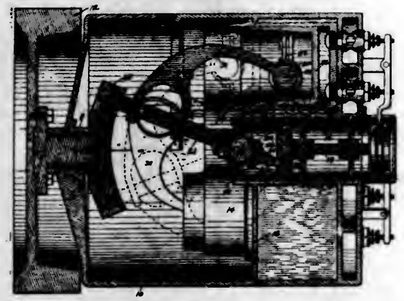
4. A machine for setting blind eyelets in shoe uppers, having, in combination, a projecting plate constructed and arranged to be inserted between the outer and lining parts of an upper, separate punching devices disposed on opposite sides of the plate and coöperating with the plate to punch the outer and lining parts respectively, said plate having an upsetting die on one side and a smooth surface on the other, and an eyelet carrying set constructed and arranged to insert an eyelet barrel through

the lining part of the upper and clench it against the upsetting die on the plate while the outer part of the upper is maintained upon the other surface of the plate.

5. A machine for setting blind eyelets having, in combination, a thin work separating member constructed and arranged to be inserted between two partially attached parts of a shoe upper or the like, an upsetting die on one side of said member and on the other side a surface shaped to facilitate the unimpeded passage of a shoe part, means for simultaneously punching holes in both parts in alinement with each other at one side of the upsetting die, means for relatively moving the upsetting die and the work to bring the punched hole in one part into register with the upsetting die, the other part being moved across the opposite side of the work separating member, and a set coöperating with the upsetting die for inserting and clenching an eyelet in the former part.

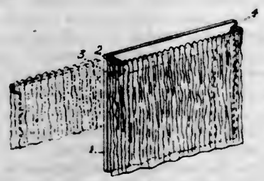
[Claims 6 and 7 not printed in the Gazette.]

1,139,450. MECHANICAL MOVEMENT. OLIVER P. UNDERWOOD, Indianola, Iowa. Filed Feb. 8, 1910. Serial No. 542,781. (Cl. 74—14.)



In a device of the class described, a support, a power shaft mounted thereon, a crank mounted on said power shaft, an operating shaft operatively connected with said crank, and having one end universally movable about the line of the longitudinal axis of said power shaft, a plurality of arms secured to said operating shaft, a plurality of members mounted on said support, a member radially slidable within each of said plurality of members, means for operatively connecting each of said arms with one of said sliding members to permit sliding motion of the arms with relation to said fixed members on radial lines around the line of the longitudinal axis of the power shaft, and also arranged to permit radial pivotal movement of said arms with relation to said sliding members.

1,139,451. CURTAIN-HOLDER. SALLIE B. WALKER, South Berkeley, Cal., assignor to Thomas R. Goth, Santa Rosa, Cal. Filed Dec. 29, 1913. Serial No. 809,300. (Cl. 156—22.)



1. In combination with a frame, two brackets secured on one side of said frame, having apertures in vertical alinement, a hook secured to the other side of said frame, a curtain holder having a horizontal member extending across the frame, two horizontal members at angles to the frame, a vertical member passing through said apertures, and a revoluble member resting in said hook.

2. In combination with a frame, two brackets secured on one side of said frame, having apertures in vertical alinement, a hook secured to the other side of said frame, a tubular curtain holder having a vertical member adapted to fit into said apertures and revoluble therein, a horizontal member at an angle to said frame, and extending outward therefrom, a horizontal member extending partly across said frame and parallel therewith, another horizontal member in line with the last mentioned member, of smaller diameter and fitting into and revoluble therein, extending the rest of the distance across the frame, another horizontal member at an angle to the last mentioned member, of smaller diameter and fitting into and revoluble therein, and another vertical member parallel with said frame and having an elbow at an angle, fitting into and revoluble within said last mentioned member and resting in said hook.

3. In combination with the frame, 1, two brackets, 2, and 3, with apertures, 5 and 6, a hook, 4, a curtain holder, 8—9, curved at the point, 11, at an angle outward, and at the point 12, at an angle, and parallel with the frame, 1, extending partly across the frame, and a part, 9, extending the balance of the distance across, of smaller diameter than the part, 8, and revoluble and movable longitudinally within the part, 8, and curved at an angle toward the frame, and finally the part, 10, with an elbow of smaller diameter than the part, 9, and fitted into and revoluble within the part, 9, and resting on the hook, 4, substantially as shown and described and for the purposes set forth.

4. In a curtain holder, the combination with a frame, of a bracket, 2, and a hook, 15, secured to one side of said frame.

5. In a curtain holder, the combination with a frame, of a bracket, 2, and a hook, 15, secured to one side of said frame, and a hook, 4, secured to the other side of said frame.

1,139,452. COLLAR-CLIP. LOUIS C. WEICHMAN, Youngstown, Ohio. Filed Feb. 12, 1913. Serial No. 748,009. (Cl. 24—101.)

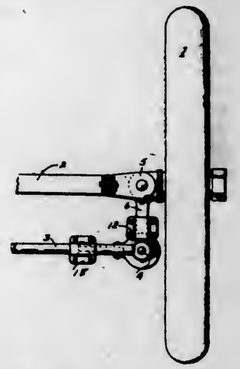


A substantially flat integral sheet metal collar button, comprising an upper body-plate curved slightly longitudinally to conform to the curvature of the collar when arranged substantially horizontally; a depending shank integral with the lower edge of the body plate at a point substantially equidistantly spaced from the opposite ends thereof and vertically inclined outwardly and downwardly with respect to the body plate; and a relatively long head integral with the lower outer end of the depending shank, said head being spaced vertically a substantial distance from the body plate and curved slightly longitudinally to be substantially concentric with the curved body plate and conform to the curvature of the collar, said head extending in one direction laterally beyond the shank and longitudinally of the body plate, and the opposite end of the head terminating with the contiguous vertical edge of the shank to be flush therewith.

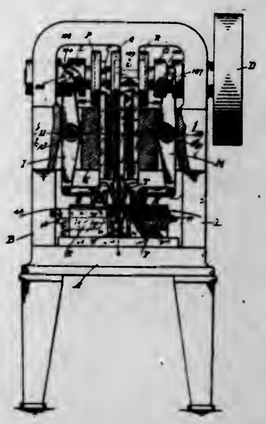
1,139,453. STEERING DEVICE FOR AUTOMOBILES. DUER H. BUCKLEY, Vienna, Ohio, assignor of one-half to John E. Searles, Chicago, Ill. Filed Oct. 2, 1914. Serial No. 864,616. (Cl. 21—200.)

1. In a device of the kind described, a housing adapted for attachment to one arm of a steering rod for vehicles: a rotatable cap for said housing having an arm adapted for attachment to the other arm of said rod at a right angle to said first arm, and spring actuated restraining mechanism in said housing.

2. In combination with a steering rod for automobiles comprising a horizontal rod (3) parallel to the axle (2) of the machine, and pivoted longitudinal arms (6) at its extremities, a housing (7) having a rigid arm (10) clamped to one of said longitudinal arms and having a loose cap (14) pivotally attached to said horizontal rod by a movable arm (8); a centrally disposed peg (21) attached to said cap and rotatively journaled in said housing: a spiral spring surrounding said peg: adjustable means for attaching one end of said spring to said cap: a loose plate (22) pierced by said peg: adjustable means for attaching the other end of said spring thereto, and means for limiting the rotative movement of said housing and said plate therein, for the purpose set forth.



1,139,454. PLAITING-MACHINE. LOUIS T. BULLEY and GARDNER E. WHEELER, New Haven, Conn. Filed Dec. 16, 1912. Serial No. 737,132. (Cl. 153—76.)



1. In a plaiting machine, the combination of means to give an intermittent feed to a long sheet or web, means to grip a portion of the sheet, means to grip the sheet at opposite sides of said first gripping means, and to move the portions so gripped toward said first gripping means to bend two plaits, and means to actuate said gripping and bending means to form two plaits in the sheet during an interval of rest, and to then form two additional plaits in the sheet at other points after the sheet has been advanced by the feeding means; substantially as described.

2. In a plaiting machine, the combination with means for giving an intermittent feeding movement to a long sheet or web, of means acting on the upper and lower surfaces of the sheet to grip a portion of the same, means to grip portions of the sheet at opposite sides of said first gripping means and to bend the sheet by moving said portions toward said gripping means, and means to actuate said bending means to form two plaits in the sheet during one interval of rest, and to form two additional plaits in the sheet at other points during the next interval of rest; substantially as described.

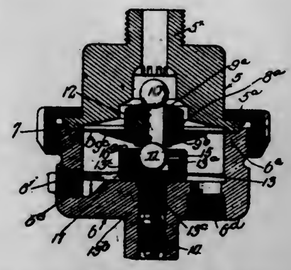
3. In a plaiting machine, the combination with means to give an intermittent feeding movement in a horizontal direction to a long sheet or web, of means to grip the stock, means to actuate said feeding means to bend a portion of the sheet at one side of said gripping means, by moving said portion toward said gripping means, and means at the opposite side of said gripping means to grip another portion of the sheet and bend it by a movement in the opposite direction toward said gripping means; substantially as described.

4. In a plaiting machine, three pairs of gripping members arranged in a row to grip the stock at three different points, and means to move the two end pairs of members toward the intermediate pair of members, one of said end pairs of members having a longer travel than the other to feed the stock into position for plaiting; substantially as described.

5. In a plaiting machine, three pairs of gripping members arranged in a row to grip the stock at three different points, the two end pairs of members being movable toward and away from the intermediate pair of members, one of said end pairs of members having a movement to feed the stock forward, and means to move the two end pairs of members toward the intermediate pair of members, to form plaits at two different points, and to move said end pairs of members again toward the intermediate pair after the feeding movement has been completed, to form plaits in the stock at two other points; substantially as described.

[Claims 6 to 67 not printed in the Gazette.]

1,139,455. CHECK-VALVE. GEORGE A. GASE, Cleveland, Ohio, assignor, by mesne assignments, to The Iceless Machine Company, Cleveland, Ohio, a Corporation of Ohio. Filed Oct. 10, 1912. Serial No. 724,915. (Cl. 137—32.)



1. A check-valve comprising means providing a chamber with inlet and outlet passages, a flexible diaphragm dividing said chamber into inlet and outlet compartments communicating with said passages, a valve plug having an aperture therethrough fixed in an opening in said diaphragm and movable therewith, said valve plug being provided with valve seats at the inlet and outlet ends of the opening therethrough, a movable valve member normally seated upon the outlet end of said valve plug and a second valve member against which the inlet end of said valve plug is adapted to seat when depressed, said last named member being movable to automatically conform to its seat in said valve plug.

2. A check-valve comprising means providing a chamber with inlet and outlet passages, a flexible diaphragm dividing said chamber into inlet and outlet compartments communicating with said passages, a valve plug having an aperture therethrough fixed in an opening in said diaphragm and movable therewith, said valve plug being

provided with valve seats at the inlet and outlet ends of the opening therethrough, a movable valve member normally seated upon the outlet end of said valve plug irrespective of its movement, a second valve member against which the inlet end of said valve plug is adapted to seat when depressed being movable to automatically conform to its seat in the valve plug, and means for adjusting the position of said second valve member with reference to its seat.

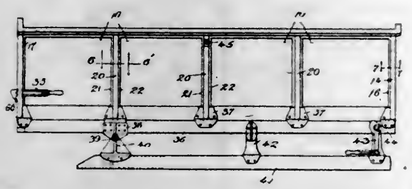
3. A check valve comprising means providing a chamber with inlet and outlet passages, a flexible diaphragm dividing said chamber into inlet and outlet compartments communicating with said passages, a valve plug having an aperture therethrough fixed in an opening in said diaphragm and movable therewith, said valve plug being provided with valve seats at the inlet and outlet ends of the opening therethrough, a movable valve member normally seated upon the outlet end of said valve plug and a second transversely movable valve member against which the inlet end of said valve plug is adapted to seat when depressed.

4. A check valve comprising means providing a chamber with inlet and outlet passages, a flexible diaphragm dividing said chamber into inlet and outlet compartments communicating with said passages, an apertured valve plug fixed in an opening in said diaphragm and movable therewith, said valve plug being provided with valve seats at its inlet and outlet ends, a ball normally seated upon the outlet end of said valve plug, and a second ball capable of limited horizontal rolling movement against which the inlet end of said valve plug is adapted to seat when depressed.

5. A check-valve comprising a casing having a chamber with inlet and outlet passages, a flexible diaphragm dividing said chamber into inlet and outlet compartments communicating with said passages, a valve plug carried by the diaphragm, movable therewith and having an opening therethrough, a movable valve member closing the outlet end of said opening, and a laterally movable valve member closing the inlet end of said opening when the valve plug is depressed, said last named member having a convex surface extending into the opening whereby it may automatically conform to the same.

[Claim 6 not printed in the Gazette.]

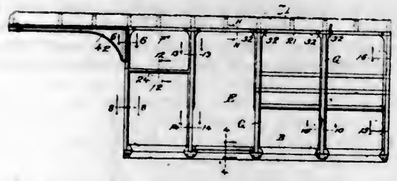
1,139,456. TILTING WAGON-BODY. JOSEPH LEDWINKA, Philadelphia, Pa. Filed Nov. 22, 1912. Serial No. 732,833. (Cl. 21—20.)



1. A tilting wagon body composed of sheet metal plates each shaped to form a portion of the side walls and bottom of the body, the said plates being assembled edge to edge, and having channel shaped reinforcing members applied to the exterior surface thereof at the joints, said channel members having laterally extending edge flanges respectively applied flatwise against the surfaces of adjacent body plates, all of said parts being integrally secured together.

2. A tilting wagon body composed of sheet metal plates each shaped to form a transverse portion of the body, said body having a doorway opening therein, the body plate adjacent the doorway opening being bent into channel shape to form the sill of the doorway opening, the free edge of the channel being formed into a flange to lie flatwise against the bottom surface of the body plate, and integrally secured together.

1,139,457. METALLIC VEHICLE-BODY. JOSEPH LEDWINKA, Philadelphia, Pa. Filed Nov. 22, 1912. Serial No. 732,835. (Cl. 21—7.)



1. The combination with a vehicle body composed of sheet metal sides and bottom, of strengthening ribs secured to the body side and an angle bar secured at its ends to adjacent ribs to form a sill for a doorway through the body side, said angle bar also forming a support for the edge of the body floor.

2. The combination with a chassis frame member, a bracket secured thereto, a channel shaped strengthening rib secured to the bracket, and a sheet metal body secured to said rib.

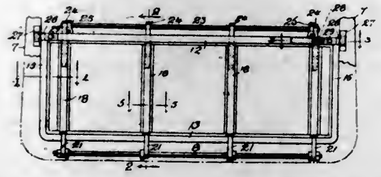
3. The combination with a vehicle body composed of sheet metal sides and bottom and flanged channel shaped strengthening ribs secured thereto, of a top having longitudinally extending side members, the flanges of said ribs being extended laterally at their upper ends to increase the areas thereof and adapted to be attached to said side members.

4. The combination with a vehicle body composed of sheet metal sides, bottom and top or cover, said top or cover extending beyond the end of the body, of a channel shaped strengthening rib for the side of the body and a plate attached to the side of the top extension and to the web portion of said strengthening rib.

5. The combination with a vehicle body composed of sheet metal sides and a transversely extending end plate, of a rib channel shaped in cross section and having a laterally extending flange at one edge and the other edge straight or unflanged, said flange and the other edge of said rib being secured, respectively to said side and end plates.

[Claims 6 to 8 not printed in the Gazette.]

1,139,458. END DOOR FOR DELIVERY-WAGONS. JOSEPH LEDWINKA, Philadelphia, Pa. Filed Nov. 22, 1912. Serial No. 732,836. (Cl. 21—21.)



1. An end door for delivery wagons, comprising sheet metal plates assembled flatwise the one upon the other and secured together, the plate forming the upper horizontal wearing surface of the door when in position for delivery purposes being corrugated.

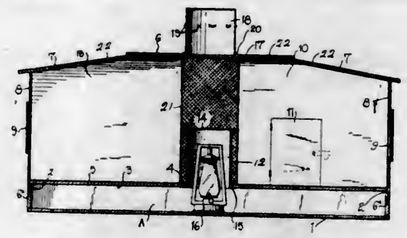
2. An end door for delivery wagons comprising sheet metal plates assembled flatwise the one upon the other and secured together, one of said plates having its edges bent into closed channel shape, the corresponding edges of the other plate being received between the lips of the channel and integrally secured thereto.

3. An end door for delivery wagons comprising sheet metal plates assembled flatwise the one upon the other and secured together, and channel shaped strengthening members laterally flanged at their edges and applied in transverse relation across the door, to the outer plate and secured thereto.

4. An end door for delivery wagons comprising sheet metal plates assembled flatwise the one upon the other and secured together, channel shaped strengthening members laterally flanged at their edges and applied in transverse relation across the door to the outer plate and secured thereto and bars located within said channels and secured to the door plates, the ends of said bars extending beyond the ends of the channels to form hinge connections for the door.

5. A door composed of a sheet metal body having channel ribs extending transversely thereacross, arms extending into the channels of said ribs and secured to the door body, and a lifting rod carried by said arms.

1,139,459. BROODER. HANS M. OPSETH, Madison, Minn. Filed July 18, 1914. Serial No. 851,791. (Cl. 119—32.)



1. A device of the character described comprising a base section provided with upstanding marginal flanges, a floor rested upon said flanges, a top section disposed above the bottom section and overlying the flanges of the bottom section, said top section and floor being provided with alined openings, an upstanding barrel surrounding the opening of the floor, a heating medium adapted to be supported by the base section and insertible through the openings in the top section and the floor, and a cap member adapted to be positioned above the opening in the top section.
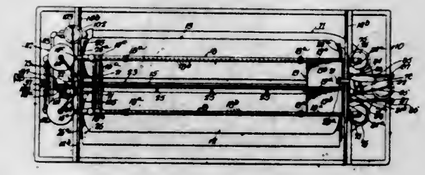
2. A device of the character described comprising a base section provided with upstanding marginal flanges, a floor rested upon said flanges, a top section disposed above the bottom section and overlying the flanges of the bottom section, said top section and floor being provided with alined openings, an upstanding barrel surrounding the opening of the floor, a heating medium adapted to be supported by the base section and insertible through the openings in the top section and the floor, and a cap member adapted to be positioned above the opening in the top section, said top section being provided with a bead to maintain the cap member in operative position.

3. A device of the character described comprising a base section provided with upstanding marginal flanges, a floor rested upon said flanges, a top section disposed above the bottom section, said top section and floor being provided with alined openings, an upstanding barrel surrounding the opening of the floor, a heating medium adapted to be supported by the base section and insertible through the openings in the top section and the floor, a cap member adapted to be positioned above the opening in the top section, and a recticulated body removably disposed across the upper end of the barrel.

1,139,460. REFRIGERATING APPARATUS. HARRISON H. SOUTHWORTH, Cleveland, Ohio, and FRED W. WOLF, Chicago, Ill., assignors, by mesne assignments, to The Iceless Machine Company, Cleveland, Ohio, a Corporation of Ohio. Filed Oct. 23, 1912. Serial No. 727,353. (Cl. 62—5.)

1. In a refrigerating apparatus, the combination with a generator-absorber, of a discharge conduit therefor and a return conduit, means for cooling and heating said generator-absorber in alternation, a valve located in the discharge conduit, and thermostatic means for positively closing the valve in the discharge conduit during the period of absorption.

2. In a refrigerating apparatus, the combination with a generator-absorber, of a discharge conduit therefor and a return conduit, means for cooling and heating said generator-absorber in alternation, a valve located in the return conduit, and thermostatic means for positively closing the valve in the return conduit during the period of generation.



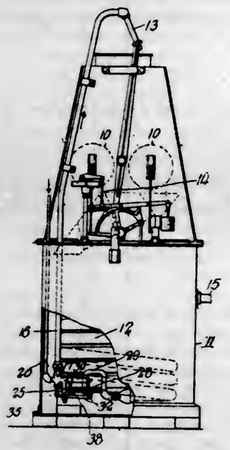
3. In a refrigerating apparatus of the absorption type, including generator-absorbers arranged in pairs, means providing discharge conduits for leading the generated fluid from each of said generator-absorbers, means providing return conduits for leading the expanded refrigerant back to each of the generator-absorbers, means for cooling and heating said generator-absorbers in alternation, valves in each of said conduits, and means operated by the heat means and connected with each of said valves to positively hold closed the valve in the return conduit of the generator-absorber which is being heated, and the valve in the discharge conduit of the generator-absorber which is being cooled until the heating means is applied to the generator-absorber that is being cooled.

4. In a refrigerating apparatus of the absorption type, including generator-absorbers arranged in pairs, means providing discharge conduits for leading the generated fluid from each of said generator-absorbers, means providing return conduits for leading the expanded fluid back to each of the generator-absorbers, means for cooling and heating said generator-absorbers in alternation including a burner member adapted to supply heat to either of said generator-absorbers, said burner member being movable from heating position under one generator-absorber to heating position under the other generator-absorber, check-valves provided in each of said conduits adapted to prevent a back flow of fluid therethrough, movable stop members for each of said check-valves adapted to hold them against opening movement, and thermostatic actuating means associated with said stop members adapted to bring the stop member of the check-valve in the return conduit of the generator-absorber which is being heated and the stop member of the check-valve in the discharge conduit of the generator-absorber which is being cooled into operative position and to retain it there until the burner is shifted to heating position below the generator-absorber that is being cooled.

5. In a refrigerating apparatus of the absorption type, the combination of a pair of generator-absorbers, discharge and return conduits for each generator-absorber, means for cooling and heating said generator-absorbers in alternation including a burner member adapted to supply heat to either of said generator-absorbers, means for moving the burner member from heating position adjacent one absorber to heating position adjacent the other, means for stopping the burner in its movement from one generator-absorber to the other, a valve for controlling the supply of fuel to said burner, means acting on said valve and operated by a movement of the burner to diminish the supply of fuel when the burner is in an intermediate position, valves in each of said conduits, means for positively closing said valves, and thermostatic means operating the closing means and having members adapted to be heated by the burner whereby the closing of the valve is dependent upon the position of the burner.

[Claims 6 to 16 not printed in the Gazette.]

1,139,461. DEVICE FOR SUPPLYING COOLING-WATER. HARRISON H. SOUTHWORTH, Cleveland, Ohio, assignor, by mesne assignments, to The Iceless Machine Company, Cleveland, Ohio, a Corporation of Ohio. Filed Jan. 15, 1913. Serial No. 742,097. (Cl. 257—2.)



1. The combination of a member to be cooled, means for supplying cooling water to such member, a receptacle for receiving the water flowing from such member, means for mixing used water with fresh water and directing the same to the member to be cooled, and means responsive to the temperature of the water in the receptacle for controlling the proportions of the mixture.

2. A device for supplying cooling water, comprising in combination with a receptacle to receive the water, and a main water supply pipe, an auxiliary supply pipe depending into said receptacle below the water level therein, an aspirating device interposed between said two pipes, a valve for controlling the flow through said aspirating device, said valve having limited movement toward its seat, and thermostatic means located in said tank for controlling said valve.

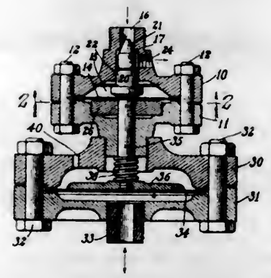
3. A device for supplying cooling water, comprising in combination with a receptacle to receive the water, and a main supply pipe, an auxiliary supply pipe depending into said receptacle below the water level therein, a casing connected to said auxiliary pipe, a nozzle located within said casing adapted to discharge into said auxiliary supply pipe, the casing being provided with inlet openings about said nozzle and with a valve chamber opening into the inlet end of said nozzle, means connecting said main supply pipe with said valve chamber, a valve controlling the flow from the main supply pipe to said nozzle, means limiting the movement of the valve toward its seat, and a thermostatic device located in said receptacle and operatively connected with said valve to control its movement.

4. In a refrigerating apparatus, in combination with a generator-absorber, a device for discharging cooling water on said generator-absorber, a water tank containing said condenser and arranged to receive the cooling water after it leaves said generator-absorber, a main water supply pipe adapted to direct water to said discharging device, means for forcing water from the tank with the water from the main supply pipe, and thermostatic means acting to automatically determine the proportions of water from the main supply pipe and from the tank directed to said discharging device.

5. In a refrigerating apparatus, in combination with a generator-absorber, a device for discharging cooling water on said generator-absorber, a water tank containing said condenser and arranged to receive the cooling water after it leaves said generator-absorber, a main water supply pipe adapted to direct water to said discharging device, means for mixing water from said tank with the water from the main supply pipe and forcing the same to the discharging device, a diaphragm chamber connected with said condenser, a diaphragm located therein, and means actuated by said diaphragm for determining the proportions of water from the main supply pipe and from the tank directed to said discharging device.

[Claims 6 to 12 not printed in the Gazette.]

1,139,462. AUTOMATIC SHUT-OFF VALVE. HARRISON H. SOUTHWORTH and GEORGE A. GASE, Cleveland, Ohio, assignors, by mesne assignments, to The Iceless Machine Company, Cleveland, Ohio, a Corporation of Ohio. Filed June 22, 1914. Serial No. 846,564. (Cl. 236—6.)

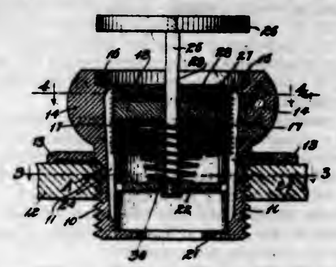


1. In a device of the character described, the combination of a pair of casings each comprising two members clamped together, one of said casings having a central extension by which it is connected directly to the other, each casing having an internal chamber in which is a diaphragm, a distance piece slidably mounted in said extension and bearing against two diaphragms, a spring tending to force one of the diaphragms away from the other, a valve plug in the opposite side of said other diaphragm, a spring acting directly on the valve plug and tending to move it toward its diaphragm, passages to and from the space occupied by the valve plug, a passage to the opposite side of the other diaphragm, and a passage to the atmosphere from the other side of the chamber occupied by the last named diaphragm.

2. In a device of the character described, the combination of a two-part casing having an internal chamber, a diaphragm extending across said chamber, a second two-part casing having a smaller internal chamber, a diaphragm extending across the latter chamber, said second casing being secured to the first casing and having a flat surface adjacent to its diaphragm on the side toward the larger diaphragm and comparatively close to the smaller diaphragm, a slidable distance piece between the diaphragms, and a valve plug abutting the smaller diaphragm on the side opposite the distance piece and controlling a passage adapted when the plug is away from its seat to communicate with the chamber on the valve side of the small diaphragm.

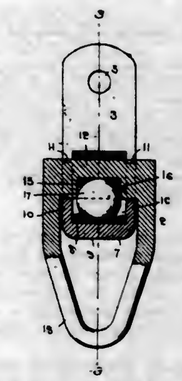
1,139,463. VALVE-PLUG FOR VOLATILE-CONTAINERS. ROY M. TAYLOR and ANDREW G. BROE, Vancouver, British Columbia, Canada. Filed July 16, 1913. Serial No. 779,286. (Cl. 220—120.)

A valve for volatile containers comprising a tubular member having the inner end of its bore contracted to form a valve seat and the outer end of its bore enlarged to form a second valve seat, a valve slidable in the bore and engageable against the first named valve seat to close the inner end of the bore and the wall of the bore being provided with a longitudinal groove, a disk threaded in the bore of said member, a stem secured to said valve and slidably engaged through the disk, a second valve secured to the outer end of said stem and engageable against the second valve seat to close the outer end of



the bore, and means for yieldingly holding said valves to their respective seats.

1,139,464. HANGER. ELIAS J. DAKIN, Washington, D. C. Filed Aug. 5, 1913. Serial No. 788,058. (Cl. 155—35.)



1. A hanger comprised of two portions, each having a recess and an intervening sphere, the diameter of which is less than the width of the recess in one portion.

2. A hanger comprised of two portions, each having a recess, the recess in one portion being greater in width than that in the other portion and an intervening sphere having a diameter less than the width of the greater recess.

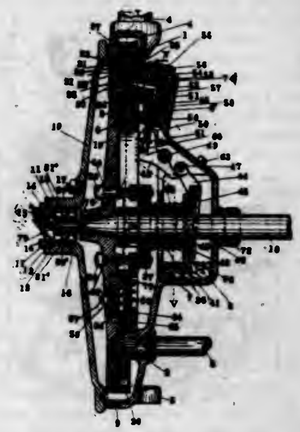
3. A hanger comprised of two portions, one having a circular recess, the other having a cross-bar having a recess in the underside with a width less than that of the circular recess and a sphere in the two recesses having a diameter less than the width of the circular recess.

4. A hanger composed of two portions, one having a curved recess, the other having a cross-bar, and two wings extending from the cross-bar, the cross-bar and the two wings having a recess in the underside and a sphere in the two recesses.

5. A hanger composed of two portions, one having a curved recess and ends, the other having a cross-bar and two wings, extending from the cross-bar, the two wings and the cross-bar having a recess in the underside, that portion of the recess in the cross-bar being less than the distance between the ends of that portion of the hanger having the curved recess, and a sphere in the recesses in the two portions of the hanger.

1,139,465. ELASTIC-FLUID TURBINE. WILFORD W. DAKE, Grand Haven, Mich., assignor to Pyle National Electric Headlight Company, Chicago, Ill., a Corporation of New Jersey. Filed July 7, 1910. Serial No. 570,879. (Cl. 121—60.)

1. In a machine of the character described, a rotor having a continuous series of rotor buckets, and a passage block having a passage through which the driving fluid is redelivered from and to the rotor buckets in said series, said passage at its intake being wider, and at its discharge vent narrower, respectively than the discharge vent and intake of the buckets, the direction of said passage being in a plane at right angles to the rotor's axis.



2. In a machine of the character described, a rotor having a continuous series of rotor buckets, and a passage block having a passage through which the driving fluid is redelivered from and to the buckets in said series, and which passage is narrower at its discharge vent than the intake of the buckets, the direction of said passage being in a plane at right angles to the rotor's axis.

3. In a machine of the character described, a rotor having a continuous series of rotor buckets, and a passage block having a passage through which the driving fluid is redelivered from and to the buckets in said series and which passage is wider at its intake than the discharge vent of the buckets, the direction of said passage being in a plane at right angles to the rotor's axis.

4. In a machine of the character described, a series of buckets mounted on a rotor, said buckets provided with front and rear walls which converge from their middle outwardly and with side walls which diverge from their middle outwardly.

5. In a machine of the character described, a series of buckets mounted on a rotor, said buckets provided with front and rear walls which converge from their middle outwardly and with side walls which diverge from their middle outwardly and passage blocks provided with nozzles narrower than the receiving end of said buckets.

[Claims 6 to 8 not printed in the Gazette.]

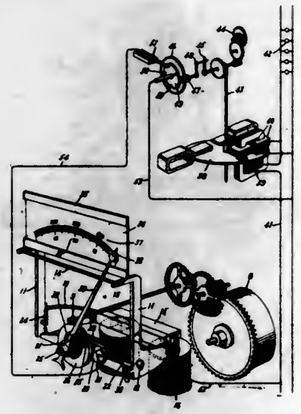
1,139,466. DEMAND APPARATUS. LEWIS T. ROBINSON and JOHN T. DEMPSTER, Schenectady, N. Y., assignors to General Electric Company, a Corporation of New York. Filed Mar. 18, 1913. Serial No. 755,196. (Cl. 234—5.5.)

1. A demand apparatus comprising in combination an electric meter, and means coöperating with said meter for recording the average rate of consumption of energy during each of a number of intervals of time in each of which a predetermined quantity of energy is metered.

2. A demand apparatus comprising in combination an electric meter, a record sheet, and means coöperating with said meter for recording on said record sheet the average rate of consumption of energy during each of a number of intervals of time in each of which a predetermined quantity of energy is metered.

3. A demand apparatus comprising in combination an electric meter, a stationary record sheet, and means coöperating with said meter for recording on said record sheet the times in which equal quantities of energy are metered.

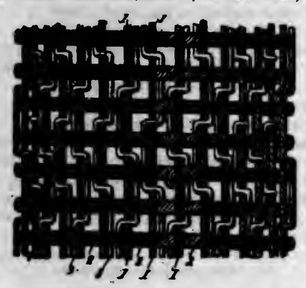
4. A demand apparatus comprising in combination an electric meter, a record sheet having graduations to indicate time and coöperating graduations to indicate the average rate of consumption of energy, and means cooperating with said meter for recording on said record sheet the times in which equal quantities of energy are metered.



5. A demand apparatus comprising in combination an electric meter, a record sheet, means coöperating with said meter for recording on said record sheet the times in which equal quantities of energy are metered, and means on said record sheet for directly indicating the average rate of consumption of energy during each of the time intervals in each of which an equal quantity of energy is metered.

[Claims 6 to 25 not printed in the Gazette.]

1,139,467. HOSE FABRIC. WILLIAM T. COLE, Newtown, Conn., assignor to Fabric Fire Hose Company, New York, N. Y., a Corporation of New York. Filed Aug. 21, 1913. Serial No. 785,847. (Cl. 139—72.)



1. A tubular fabric comprising substantially straight longitudinal warp strands, filler or weft strands wound helically about said warp strands exteriorly thereof, and secondary warp or binder strands looped over the first named warp and filler strands alternately, said strands being closely pressed together to form a closed mesh.

2. A tubular fabric comprising tightly woven strands, forming a closed mesh, said strands consisting of substantially straight warp strands, substantially smooth transverse filler or weft strands and secondary warp strands binding the first named warp and filler strands together, and looping successively over a warp strand and two filler strands.

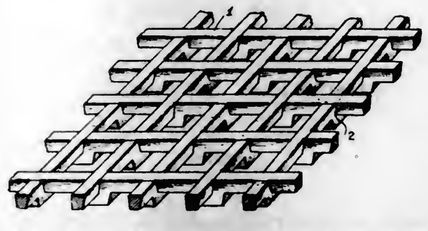
3. A tubular fabric comprising tightly woven strands forming a closed mesh, said strands consisting of substantially straight inner warp strands, substantially helical transverse outer filler or weft strands, and secondary warp strands binding the first named warp and filler strands together, and looping successively over a warp strand and two filler strands.

4. A tubular fabric, comprising tightly woven strands forming a closed mesh, said strands consisting of substantially straight warp strands, substantially helical transverse filler or weft strands, and secondary warp strands binding the first named warp and filler strands together, and looping successively over a warp strand and two filler strands, the loops of adjacent binder strands passing between alternate filler strands.

5. A tubular fabric comprising tightly woven strands forming a closed mesh, said strands consisting of substantially straight inner warp strands, substantially helical transverse outer filler strands, and secondary warp strands binding the first named warp and filler strands together, and looping successively over the warp strands and the filler strands, the loops of adjacent binder strands passing between alternate filler strands.

[Claims 6 and 7 not printed in the Gazette.]

1,139,468. WOVEN BAR SCREEN. WINFIELD S. POTTER, Pittsburgh, Pa. Filed May 2, 1913. Serial No. 765,040. (Cl. 83—56.)



1. A screen made up of interwoven wrought metal bars having flat upper surfaces and shaped to present at the points of crossing abrupt recesses or depressions of sufficient depth to let in the full vertical depth of the intersecting bars, thereby presenting a screening surface devoid of substantial irregularities; substantially as described.

2. A screen made up of interwoven wrought metal bars shaped to present at the points of crossing abrupt recesses or depressions securely interlocking the intersecting bars against displacement, the recesses or depressions being so arranged that the alternately overlapping and underlapping sections of the woven bars contain a plurality of recesses embracing in a single section a plurality of the intersecting bars; substantially as described.

3. A screen made up of interwoven wrought metal bars having flat upper and under surfaces and shaped to present at the points of crossing abrupt complementary interfitting recesses or depressions, the combined depth of each pair of interfitting recesses or depressions being equal to the full vertical depth of the intersecting bars, thereby presenting on both sides of the screen a screening surface devoid of substantial irregularities.

4. A screen made up of interwoven wrought metal bars of which the vertical depth substantially exceeds the thickness and which are shaped to present at the points of crossing abrupt recesses or depressions securely interlocking the intersecting bars against displacement; substantially as described.

1,139,469. WOVEN SCREEN. WINFIELD SCOTT POTTER, Pittsburgh, Pa. Filed Feb. 20, 1914. Serial No. 819,919. (Cl. 83—56.)



1. A screen made up of interwoven bars having straight portions with intervening sharp crimps, the crimps of the one set of bars embracing and locking against displacement the straight portions of the other set of bars, and the upper surfaces of the straight portions of both sets of bars being in substantially the same plane.

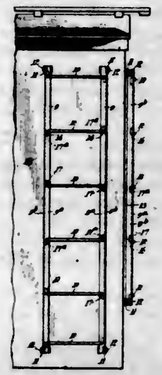
2. A screen made up of interwoven bars having straight portions with intervening sharp crimps forming meshes of a depth substantially equal to the height of the straight portions of the bars, the crimps of the one set of bars embracing and locking against displacement the straight portions of the other set of bars, and the upper surfaces of the straight portions of both sets of bars being in substantially the same plane.

3. A screen made up of interwoven bars having straight portions with intervening sharp crimps, the crimps of the one set of bars embracing and locking against displacement the straight portions of the other set of bars, said screen being substantially flat on its upper surface and having rectangular meshes.

4. A screen made up of interwoven bars having straight portions with intervening sharp crimps, the crimps of the one set of bars embracing and locking against displacement the straight portions of the other set of bars, said screen being flat on one surface and having on its other surface a series of abrupt humps of the full cross-section of the bars.

REISSUES.

13,914. LADDER. HERBERT DUNDERDALE, Cleveland, Ohio, assignor to Chicago Standard Equipment Company, Chicago, Ill., a Corporation of Maine. Filed Mar. 27, 1915. Serial No. 17,552. Original No. 1,118,404, dated Nov. 24, 1914, Serial No. 834,903. (Cl. 228—1.)



1. A ladder comprising stiles and a plurality of detachable rungs, each stile having divergent flanges and formed with a hole in one of its flanges, said rungs having hole engaging portions and oppositely bent end portions each inclining outwardly from said hole engaging portions substantially in a vertical direction to abut the other of the flanges at points respectively above and below the said holes, substantially as and for the purposes set forth.

2. A safety ladder comprising angle bar stiles and a plurality of rungs, each stile having inner and outer flanges and formed with a hole in its inner flange, and each rung comprising a tread having offset bent end portions inclining outwardly from said offset portions substantially in a vertical direction to have an abutting locked relation with the inner face of the outer flange at points respectively above and below the medium line of the tread.

3. In a safety ladder, the combination of a pair of stiles and a plurality of rungs therefor, each of said stiles having inner and outer divergent flanges and formed with holes in its inner flange, one of said rungs being provided with hole-engaging portions and oppositely bent end portions disposed in an abutting relation with the inner faces of the outer flanges at each side of the ladder, and an adjacently positioned rung adapted to engage another pair of holes and having an end portion locking with the outer flange at one side of the ladder, said end portion being oppositely bent with respect to the adjacent end portion of the first mentioned rung to lock the stiles against relative movement in the plane of the ladder.

4. In a safety ladder, the combination of a pair of angle bar stiles each having holes formed in one of its divergent flanges and a pair of rungs having offset portions engaging in said holes, each rung having oppositely bent end portions extending angularly from said offset portions to engage the sides of the stiles, said end portions at one side of the ladder being bent inwardly toward each other and outwardly away from each other at the other side of the ladder to lock the rungs.

5. A ladder comprising stiles and a plurality of rungs, adjacent ends of said rungs at one side of the ladder having offset hole engaging portions and oppositely bent end portions inclining outwardly from said offset portions, and one of the stiles having divergent flanges and formed with vertically alined holes in one of its flanges through which the said offset and bent end portion are initially passed, the other flange of the stile being turnable inwardly on the offset portions to abut the said oppositely bent end portions to lock the rungs, substantially as described.

6. A car ladder comprising in combination a pair of stile members having a plurality of rung holes extending transversely therethrough; and a plurality of detachable rung members provided at each end with a bent hole-engaging portion and a rebent stile-engaging terminal portion of a size capable of being initially passed through a rung hole during assemblage of the said members; the terminal portion at one end of a rung being disposed to one side of the longitudinal axis of the rung and the other terminal portion being disposed to the opposite sides thereof; said members being turnable to properly position the rung terminals when passed through the holes to bring the faces of the stiles in a plane substantially parallel with the longitudinal axes of the rungs, whereby said terminal portions engage the said faces at points respectively above and below the longitudinal axes of the rungs to lock the rungs against rotative movement.

7. A car ladder comprising in combination a pair of stile members having a plurality of rung holes extending transversely therethrough; and a plurality of detachable rung members provided at each end with a bent hole engaging portion and a rebent stile-engaging terminal portion, both portions being of a size capable of initial passage into a rung hole during assemblage of said members; the terminal portion at one end of a rung being disposed to one side of the longitudinal axis of the rung and the other terminal portion being disposed to the opposite side thereof; said ladder members being relatively turnable to properly position the rung terminals when passed through rung holes to bring the faces of the stiles in a plane substantially parallel with the longitudinal axes of the rungs whereby said terminal portions engage the said faces at points respectively above and below the longitudinal axes of the rungs to lock the rungs against rotative movement; all of said members being retained in assembled locked relation when the ladder is attached to the car.

13,915. DOWEL. CHARLES E. EVANS, Weed, Cal. Filed Apr. 5, 1915. Serial No. 19,391. Original No. 1,060,543, dated Apr. 29, 1913, Serial No. 728,649. (Cl. 20—92.)



1. A dowel having a cut therein at an angle to the axis of the dowel, the cut making the portion beyond the cut subject to fracture upon the driving of the dowel, and

forming a wedge member at one side of the cut for the purpose specified.

2. A dowel having an end partially severed, and subject to fracture, the end having a surface, disposed at an angle to the side of the dowel, next to a surface, on the adjacent portion of the dowel, which is also disposed at an angle to the side of the dowel.

3. A dowel having two cuts therein, converging from one end of the dowel, the said dowel being subject to fracture between the cuts, to form the said end of the dowel into a wedge member.

4. A dowel having two cuts converging from one end of the dowel, one of the cuts extending a greater distance from the said end of the dowel than the other cut, the dowel being subject to fracture between the cuts.

5. A dowel having two cuts therein, converging from an end of the dowel, one of the cuts extending a greater distance from the said end of the dowel than the other cut, the dowel being subject to fracture between the cuts, to form the said end of the dowel into a wedge member.

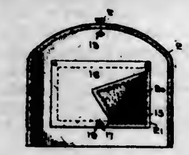
6. In a device of the class described, a member having a partially severed end with a wedge surface, the member being subject to fracture beyond its severed portion to form the said end into a wedge.

7. A dowel having at one or both of its ends an attached wedge which has its connection with the body of the dowel adapted to be broken, whereby the wedge will expand a portion of the body of the dowel upon engagement with the bottom of an opening into which the dowel is driven.

8. The combination with two members to be secured together in abutting relation and having alined openings for a dowel, of a dowel longer than the combined length of said openings and having longitudinally extending slits in its end portions which cause said portions to be expanded laterally and the dowel shortened by the engagement of the ends of the dowel with the bottoms of said openings, when said members are forced into abutting relation.

9. The combination with two members to be secured together in abutting relation and having alined openings for a dowel, of a dowel having integrally formed wedges at the ends thereof, said wedges being arranged between converging surfaces of the dowel and the original length of the dowel including the wedges being greater than the combined length of said openings, whereby said wedges are driven into the dowel and expand the ends thereof by engagement with the bottoms of said openings when said members are forced into abutting relation.

13,916. ENGINE-HOOD COVER. CLINTON D. MILLER, Washington, D. C. Filed May 16, 1913. Serial No. 768,173. Original No. 1,054,592, dated Feb. 25, 1913, Serial No. 724,958. (Cl. 257—132.)

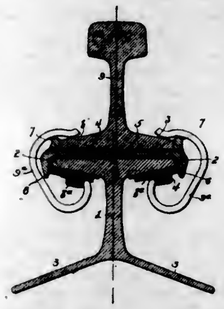


1. An engine hood cover comprising a front portion having an opening, a foraminous flap adapted to swing over said opening, and an impervious flap adapted to swing over the opening.

2. An engine hood cover comprising a front portion having an opening, a pliable foraminous flap adapted to swing over said opening, and an impervious flap adapted to swing over the opening.

3. A protector of the class described, comprising a body adapted to incase the hood of an automobile, a front section associated with said body and adapted to cover the radiator of an automobile, said front section having an opening formed therein to expose a substantial area of the radiator to permit air circulation therethrough, a foraminous closure flexibly connected to the front section of the cover adjacent to said opening for partially cutting off said air circulation, an impervious closure also flexibly connected to the front section of the cover and overlying the foraminous closure for completely cutting off said air circulation, and securing means common to both of said foraminous and impervious closures for retaining the same in either open or closed positions.

13,917. RAILROAD-TRACK CONSTRUCTION. WILLIAM HENRY MORGAN, Alliance, Ohio. Filed May 13, 1913. Serial No. 767,453. Original No. 1,046,837, dated Dec. 10, 1912, Serial No. 688,064. (Cl. 238—4.)



1. The combination of a rail, a tie, a chair located thereon and provided with upwardly projecting flanges, and a spring clip or clamp having two jaws one of which engages a fixed support on the underside of the top flange of the tie and the other rests on an upwardly projecting flange of the chair with its free end projecting over said latter flange and over but not in contact with a part resting on said chair.

2. The combination of a rail, a tie, a chair located thereon and provided with upwardly projecting flanges and a spring clip or clamp having two jaws one of which engages a fixed stop at the underside of the top flange of the tie and the other rests on an upwardly projecting flange of the chair, with its free end projecting over said latter flange and over but not in contact with the base flange of the rail.

3. The combination of a rail, a tie, a chair located thereon and provided at its sides with upwardly projecting flanges and two spring clips or clamps each having two jaws, one of which engages a fixed support on the underside of the top flange of the tie and the other rests on an upwardly projecting flange of the chair, the said clips being located on opposite sides of said chair with their free ends projecting over said latter flanges and over but not in contact with the member resting on said chair.

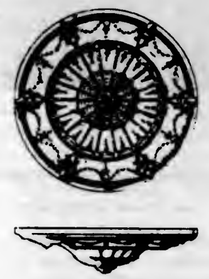
4. The combination of a rail, a tie, a chair located on the tie and having depending flanges overhanging the side edges of the top flange of the tie and upwardly projecting flanges forming side supports for the rail, and two spring clips or clamps each having two jaws one of which engages a fixed support on the underside of the top flange of the tie and the other rests on an upwardly projecting flange of the chair, the said clips or clamps being located on opposite sides of the chair with their free ends projecting over said latter flanges and over but not in contact with the base flange of the rail resting on said chair.

5. The combination of a metal tie and rail supporting chair separate from the tie and having depending integral flanges to engage a part of the tie, and upwardly projecting integral flanges between which the base flange of the rail rests and which form side abutments for said base flange, the rail being unconfined at the top and free to have a vertical movement between said flanges.

6. The combination of a metal tie and a chair carried by the tie but separate from the latter and provided with upwardly projecting integral side flanges between which the base flange of the rail rests, for taking side shear and maintaining the gage of the track, the rail being unconfined at the top and free to have an upward movement between the flanges of the chair.

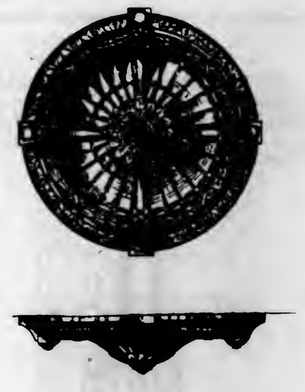
DESIGNS.

47,316. LIGHTING-FIXTURE PART. PERCY L. ANSORGE, Brooklyn, N. Y. Filed Mar. 8, 1915. Serial No. 12,981. Term of patent 3½ years.



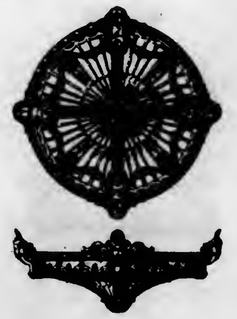
The ornamental design for a lighting fixture part, as shown.

47,317. LIGHTING-FIXTURE PART. PERCY I. ANSORGE, Brooklyn, N. Y. Filed Mar. 8, 1915. Serial No. 12,982. Term of patent 3½ years.



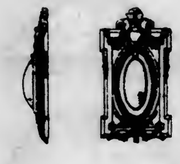
The ornamental design for a lighting fixture part, as shown.

47,318. LIGHTING-FIXTURE PART. PERCY I. ANSORGE, Brooklyn, N. Y. Filed Mar. 8, 1915. Serial No. 12,983. Term of patent 3½ years.



The ornamental design for a lighting fixture part, as shown.

47,319. LIGHTING-FIXTURE PART. PERCY I. ANSORGE, Brooklyn, N. Y. Filed Mar. 8, 1915. Serial No. 12,984. Term of patent 3½ years.



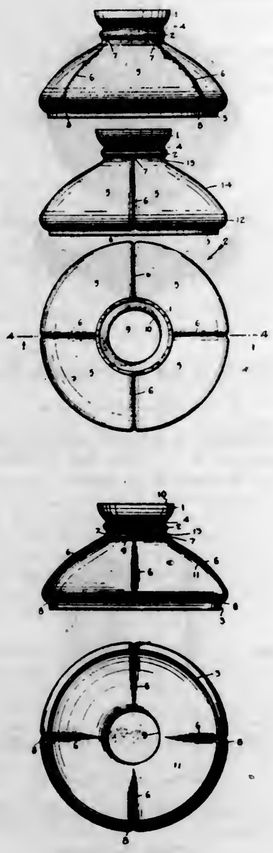
The ornamental design for a lighting fixture part, as shown.

47,320. LIGHTING-FIXTURE PART. PERCY I. ANSORGE, Brooklyn, N. Y. Filed Mar. 8, 1915. Serial No. 12,985. Term of patent 3½ years.



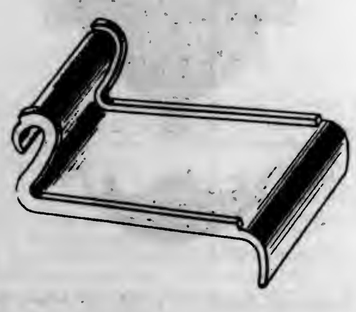
The ornamental design for a lighting fixture part, as shown.

47,321. LAMP-SHADE. JOHN BEISWANGER, Steubenville, Ohio. Filed Mar. 3, 1915. Serial No. 11,873. Term of patent 7 years.



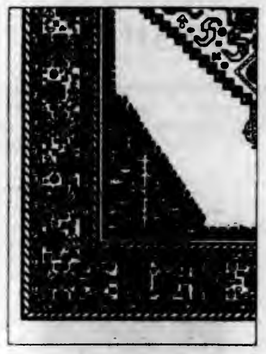
A design for a lamp shade as shown and described.

47,322. BREAD-BOARD. JULIA CAMPBELL, Bath, N. C. Filed Mar. 17, 1915. Serial No. 15,083. Term of patent 7 years.



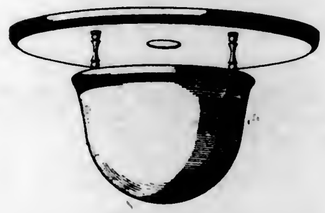
The ornamental design for a bread board, as shown.

47,323. RUG. RAYMOND M. DE HART, Amsterdam, N. Y., assignor to Stephen Sanford & Sons, Inc., Amsterdam, N. Y., a Corporation of New York. Filed Mar. 15, 1915. Serial No. 14,616. Term of patent 3½ years.



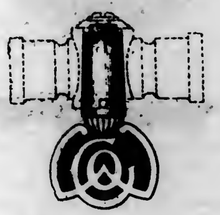
The ornamental design for a rug, substantially as shown.

47,324. LIGHTING-FIXTURE. EDWIN F. GUTH, St. Louis, Mo., assignor to Luminous Unit Company, St. Louis, Mo., a Corporation of Missouri. Filed Mar. 13, 1915. Serial No. 14,255. Term of patent 14 years.



The ornamental design for a lighting fixture, as shown.

47,325. KEY FOR GAS-COCKS OR THE LIKE. HJALMAR HULTGREN, Flushing, N. Y., assignor to Edward J. Schroeder, Jersey City, N. J., and Charles A. Schroeder, Brielle, N. J. Filed Dec. 23, 1914. Serial No. 878,826. Term of patent 7 years.



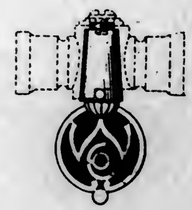
The ornamental design for a key for gas cocks or the like, as shown.

47,326. KEY FOR GAS-COCKS OR THE LIKE. HJALMAR HULTGREN, Flushing, N. Y., assignor to Edward J. Schroeder, Jersey City, N. J., and Charles A. Schroeder, Brielle, N. J. Filed Dec. 23, 1914. Serial No. 878,827. Term of patent 7 years.



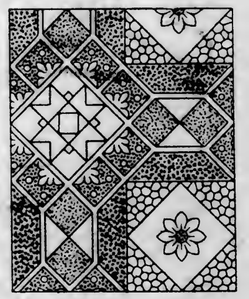
The ornamental design for a key for gas cocks or the like, as shown.

47,327. KEY FOR GAS-COCKS OR THE LIKE. HJALMAR HULTGREN, Flushing, N. Y., assignor to Edward J. Schroeder, Jersey City, N. J., and Charles A. Schroeder, Brielle, N. J. Filed Dec. 23, 1914. Serial No. 878,828. Term of patent 7 years.



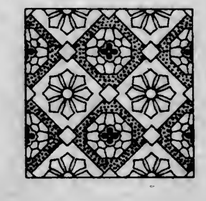
The ornamental design for a key for gas cocks or the like, as shown.

47,328. LINOLEUM, OIL-CLOTH, OR FLOOR-COVERING. CHARLES F. HUMPHREYS, Lancaster, Pa., assignor to Armstrong Cork Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Mar. 19, 1915. Serial No. 15,613. Term of patent 7 years.



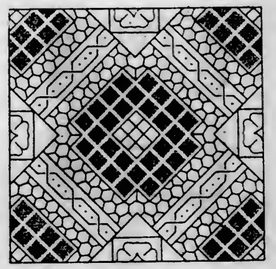
The ornamental design for linoleum, oil cloth or floor covering as shown.

47,329. LINOLEUM, OIL-CLOTH, OR FLOOR-COVERING. CHARLES F. HUMPHREYS, Lancaster, Pa., assignor to Armstrong Cork Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Mar. 19, 1915. Serial No. 15,614. Term of patent 7 years.



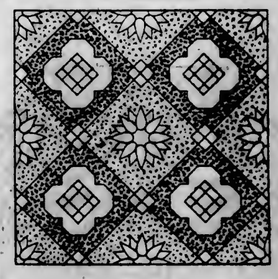
The ornamental design for linoleum, oil cloth or floor covering as shown.

47,330. LINOLEUM, OIL-CLOTH, OR FLOOR-COVERING. CHARLES F. HUMPHREYS, Lancaster, Pa., assignor to Armstrong Cork Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Mar. 19, 1915. Serial No. 15,615. Term of patent 7 years.



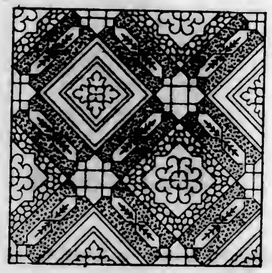
The ornamental design for linoleum, oil cloth or floor covering as shown.

47,331. LINOLEUM, OIL-CLOTH, OR FLOOR-COVERING. CHARLES F. HUMPHREYS, Lancaster, Pa., assignor to Armstrong Cork Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Mar. 19, 1915. Serial No. 15,616. Term of patent 7 years.



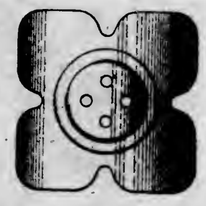
The ornamental design for linoleum, oil-cloth or floor covering as shown.

47,332. LINOLEUM, OIL-CLOTH, OR FLOOR-COVERING. HARRY HUMPHREYS, Lancaster, Pa., assignor to Armstrong Cork Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Mar. 19, 1915. Serial No. 15,618. Term of patent 7 years.



The ornamental design for linoleum, oil cloth or floor covering as shown.

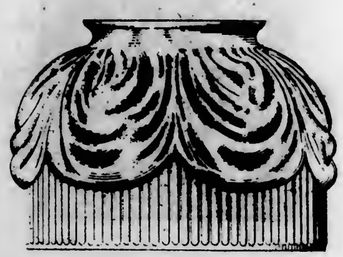
47,333. VACCINATION-SHIELD. EDWARD E. KLEINSCHMIDT, New York, N. Y. Filed Nov. 21, 1912. Serial No. 732,786. Term of patent 14 years.





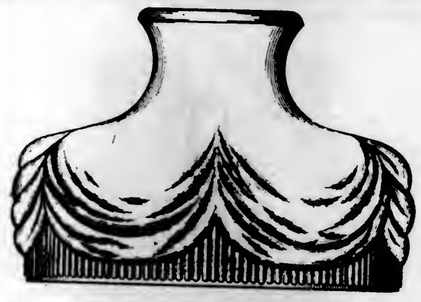
The ornamental design for a vaccination shield, as shown.

47,334. SHADE. NICHOLAS KOPP, Pittsburgh, Pa. Filed Jan. 11, 1915. Serial No. 1,697. Term of patent 3½ years.



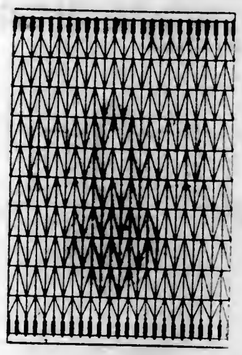
The ornamental design for a shade as shown.

47,335. SHADE. NICHOLAS KOPP, Pittsburgh, Pa. Filed Feb. 9, 1915. Serial No. 7,131. Term of patent 3½ years.



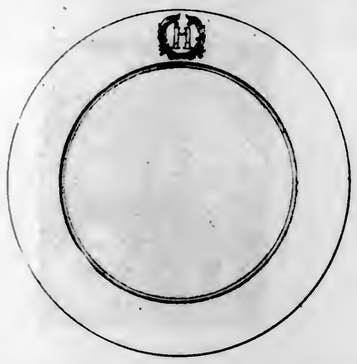
The ornamental design for a shade as shown.

47,336. BED-SPRING. PHILLIP KRAKAUER, New York, N. Y. Filed Oct. 19, 1914. Serial No. 867,543. Term of patent 7 years.



The ornamental design for a bed spring, as shown and described.

47,337. PLATE OR SIMILAR ARTICLE. LE ROY C. LEWIS, St. Paul, Minn., assignor to Koehler & Hinrichs Company, St. Paul, Minn. Filed Jan. 16, 1915. Serial No. 2,771. Term of patent 3½ years.



The ornamental design for a plate or similar article, as shown.

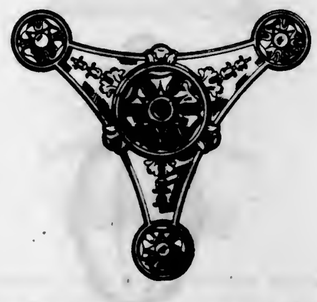
47,338. TEXTILE FABRIC. HIRAM R. MALLINSON, New York, N. Y. Filed Mar. 17, 1915. Serial No. 15,086. Term of patent 3½ years.



The ornamental design for a textile fabric as shown.

47,339. SHOWER-PAN FOR LIGHTING-FIXTURES. PAUL MOHRMANN, Chicago, Ill., assignor to Friedley-Voshardt Co., Chicago, Ill., a Corporation of Illinois. Filed Feb. 27, 1915. Serial No. 11,059. Term of patent 3½ years.





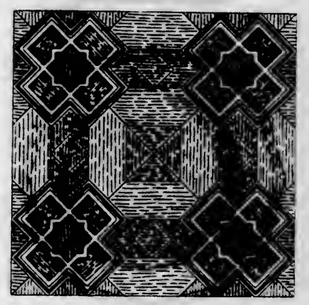
The ornamental design for a shower pan for lighting fixtures, as shown.

47,340. FRONT FENDER. ROY J. MYARS, San Diego, Cal. Filed Dec. 29, 1914. Serial No. 879,607. Term of patent 7 years.



The ornamental design for a front fender, as shown.

47,341. LINOLEUM, OIL-CLOTH, OR FLOOR-COVERING. CORNELIA M. POST, Philadelphia, Pa., assignor to Armstrong Cork Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Mar. 25, 1915. Serial No. 17,061. Term of patent 7 years.



The ornamental design for linoleum, oil cloth or floor covering as shown.

47,342. CUP. FRANK A. SEBRING, Sebring, Ohio. Filed Feb. 17, 1915. Serial No. 8,927. Term of patent 3½ years.



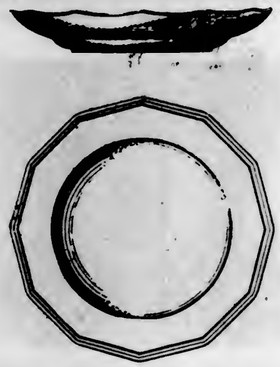
The ornamental design of a cup, substantially as shown.

47,343. SAUCER. FRANK A. SEBRING, Sebring, Ohio. Filed Feb. 17, 1915. Serial No. 8,928. Term of patent 3½ years.



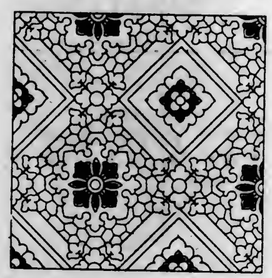
The ornamental design of a saucer, substantially as shown.

47,344. PLATE. FRANK A. SEBRING, Sebring, Ohio. Filed Feb. 17, 1915. Serial No. 8,929. Term of patent 3½ years.



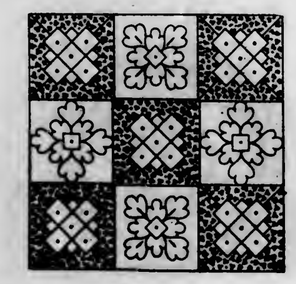
The ornamental design of a plate, substantially as shown.

47,345. LINOLEUM, OIL-CLOTH, OR FLOOR-COVERING. MARTHA H. SOLMS, Philadelphia, Pa., assignor to Armstrong Cork Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Mar. 25, 1915. Serial No. 17,062. Term of patent 7 years.



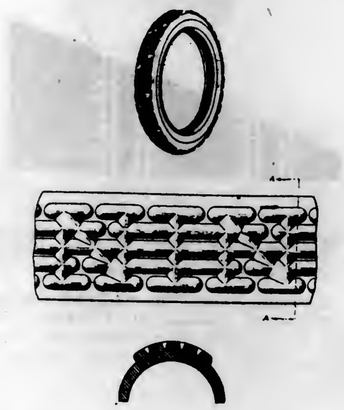
The ornamental design for linoleum, oil cloth or floor covering as shown.

47,346. LINOLEUM, OIL-CLOTH, OR FLOOR-COVERING. MARTHA H. SOLMS, Philadelphia, Pa., assignor to Armstrong Cork Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Mar. 25, 1915. Serial No. 17,063. Term of patent 7 years.



The ornamental design for linoleum, oil cloth or floor covering as shown.

47,347. TIRE. DAVID SPENCE, Norwalk, Conn. Filed Dec. 31, 1914. Serial No. 879,971. Term of patent 3½ years.



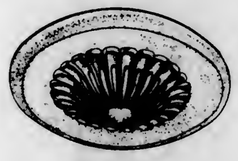
The ornamental design for a tire as shown.

47,348. POISON-BOTTLE. AMADORE F. STEPHENSON, Dumont, N. J. Filed Dec. 3, 1913. Serial No. 804,514. Term of patent 7 years.



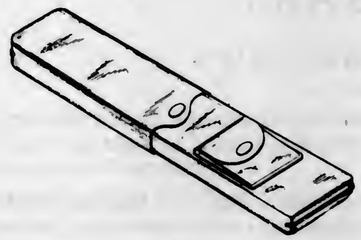
The ornamental design for a poison bottle, as shown and described.

47,349. SHELL FOR LIGHTING-FIXTURES. ALBERT E. TEPFER, New York, N. Y., assignor to National Metal Spinning & Stamping Company, New York, N. Y., a Corporation of New York. Filed Jan. 9, 1915. Serial No. 1,465. Term of patent 7 years.



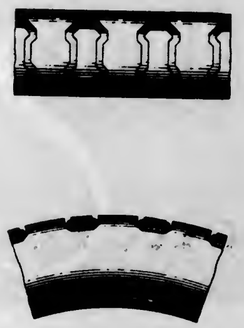
The ornamental design for a shell for lighting fixtures as shown.

47,350. PENCIL-CONTAINER. JOHN MILTON VAN ALST, Jersey City, N. J., assignor to Eberhard Faber Pencil Company, Brooklyn, N. Y., a Corporation of New York. Filed Mar. 5, 1915. Serial No. 12,429. Term of patent 7 years.



The ornamental design for a pencil container as shown.

47,351. VEHICLE-TIRE. ERNEST J. WILLIS, New York, N. Y. Filed Mar. 17, 1914. Serial No. 825,418. Term of patent 7 years.



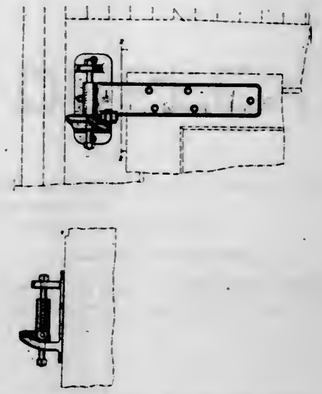
The ornamental design for a vehicle tire, as shown.

47,352. GLASS VESSEL. GLENN G. WILMARTH, Aldenville, Pa., assignor to Clinton Cut Glass Company, Aldenville, Pa., a Corporation of Pennsylvania. Filed Oct. 13, 1914. Serial No. 866,547. Term of patent 3½ years.



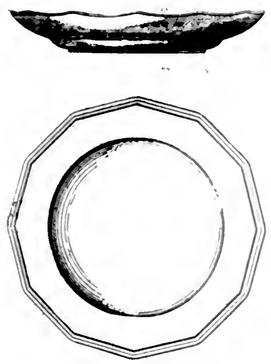
The ornamental design for a glass vessel, as shown.

47,353. HINGE. WALTER W. WOOD, Seattle, Wash. Filed Oct. 12, 1914. Serial No. 866,390. Term of patent 7 years.



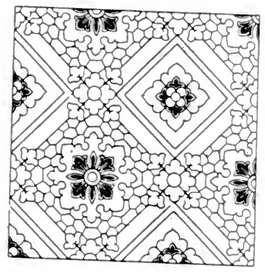
The ornamental design for a hinge, as shown.

47,344. PLATE. FRANK A. SEBRING, Sebring, Ohio. Filed Feb. 17, 1915. Serial No. 8,929. Term of patent 3½ years.



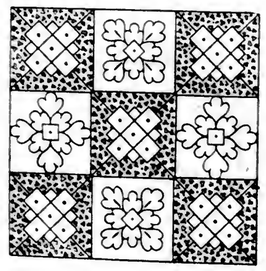
The ornamental design of a plate, substantially as shown.

47,345. LINOLEUM, OIL-CLOTH, OR FLOOR-COVERING. MARTHA H. SOLMS, Philadelphia, Pa., assignor to Armstrong Cork Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Mar. 25, 1915. Serial No. 17,062. Term of patent 7 years.



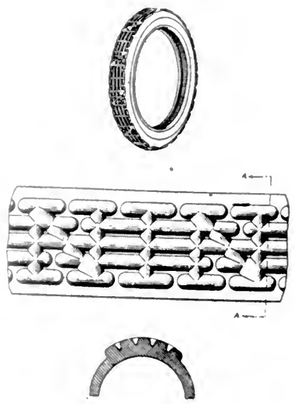
The ornamental design for linoleum, oil cloth or floor covering as shown.

47,346. LINOLEUM, OIL-CLOTH, OR FLOOR-COVERING. MARTHA H. SOLMS, Philadelphia, Pa., assignor to Armstrong Cork Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Mar. 25, 1915. Serial No. 17,063. Term of patent 7 years.



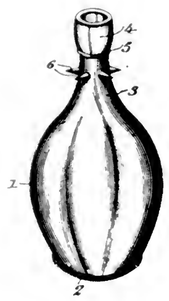
The ornamental design for linoleum, oil cloth or floor covering as shown.

47,347. TIRE. DAVID SPENCE, Norwalk, Conn. Filed Dec. 31, 1914. Serial No. 879,971. Term of patent 3½ years.



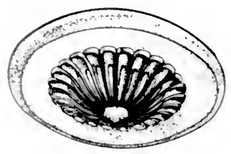
The ornamental design for a tire as shown.

47,348. POISON-BOTTLE. AMADORE F. STEPHENSON, Dumont, N. J. Filed Dec. 3, 1913. Serial No. 804,514. Term of patent 7 years.



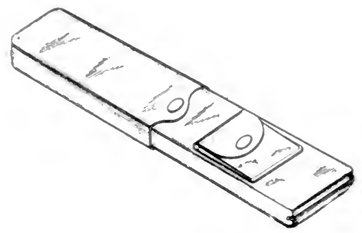
The ornamental design for a poison bottle, as shown and described.

47,349. SHELL FOR LIGHTING-FIXTURES. ALBERT E. TEPFER, New York, N. Y., assignor to National Metal Spinning & Stamping Company, New York, N. Y., a Corporation of New York. Filed Jan. 9, 1915. Serial No. 1,465. Term of patent 7 years.



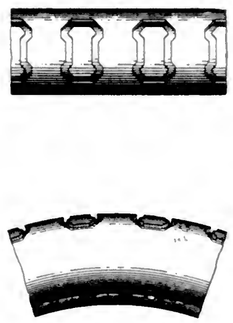
The ornamental design for a shell for lighting fixtures as shown.

47,350. PENCIL-CONTAINER. JOHN MILTON VAN ALST, Jersey City, N. J., assignor to Eberhard Faber Pencil Company, Brooklyn, N. Y., a Corporation of New York. Filed Mar. 5, 1915. Serial No. 12,429. Term of patent 7 years.



The ornamental design for a pencil container as shown.

47,351. VEHICLE-TIRE. ERNEST J. WILLIS, New York, N. Y. Filed Mar. 17, 1914. Serial No. 825,418. Term of patent 7 years.



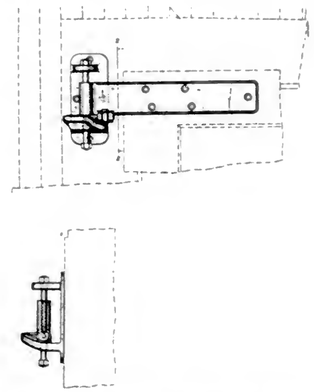
The ornamental design for a vehicle tire, as shown.

47,352. GLASS VESSEL. GLENN G. WILMARTH, Aldenville, Pa., assignor to Clinton Cut Glass Company, Aldenville, Pa., a Corporation of Pennsylvania. Filed Oct. 13, 1914. Serial No. 866,547. Term of patent 3½ years.



The ornamental design for a glass vessel, as shown.

47,353. HINGE. WALTER W. WOOD, Seattle, Wash. Filed Oct. 12, 1914. Serial No. 866,390. Term of patent 7 years.



The ornamental design for a hinge, as shown.

TRADE-MARKS

PUBLISHED MAY 11, 1915.

The following trade-marks are published in compliance with section 6 of the act of February 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of this date.

Marks applied for "under the ten-year proviso" are registrable under the provision in clause (b) of section 5 of said act as amended February 18, 1911.

As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.

Ser. No. 63,311. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) THE SILVEREASE CO., Hartford, Conn. Filed May 4, 1912.



The upper panel being colored blue and the lower panel orange and the letters printed in silver.

Particular description of goods.—Metal-Cleansers.

Claims use since 1901.

Ser. No. 69,330. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) ROJAS ELECTROCHEMICAL CO., New York, N. Y. Filed Mar. 25, 1913.



Particular description of goods.—Electroplated Metals.

Claims use since Feb. 15, 1912.

Ser. No. 74,484. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) GOULD STORAGE BATTERY COMPANY, New York, N. Y. Filed Dec. 5, 1913.

DUPLEX

Particular description of goods.—Plates or Electrodes for Storage Batteries.

Claims use since Apr. 18, 1913.

Ser. No. 76,993. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) KING PHILIP MILLS, Fall River, Mass. Filed Mar. 27, 1914.

FAMILY

The word "Family."

Particular description of goods.—Nainsook.

Claims use since Aug. 14, 1911.

Ser. No. 76,998. (CLASS 37. PAPER AND STATIONERY.) ASAHEL U. MORSE, Kansas City, Mo. Filed Mar. 27, 1914.

SNOPERL

Particular description of goods.—Toilet-Paper.

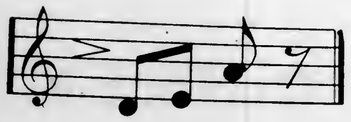
Claims use since Mar. 7, 1914.

Ser. No. 79,086. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) JUAN RODRIGUEZ, Habana, Cuba. Filed June 13, 1914.



Particular description of goods.—Cordial.
Claims use since Jan. 1, 1907.

Ser. No. 79,262. (CLASS 28. JEWELRY AND PRECIOUS-METAL WARE.) C. H. LANDAU-NEWMAN COMPANY, Cleveland, Ohio. Filed June 22, 1914.



Particular description of goods.—Finger-Rings, Bracelets, Breastpins, Scarf-Pins, Cuff-Buttons, and Brooches Made of or Plated with Precious Metal.
Claims use since May 1, 1914.

Ser. No. 80,126. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) J. W. & A. P. HOWARD & CO. LTD., Corry, Pa. Filed July 28, 1914.

RUBBER-KROME

Particular description of goods.—Sole-Leather.
Claims use since Oct. 1, 1910.

Ser. No. 80,406. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) PEPPAS & ALEX COMPANY, Cleveland, Ohio, and Chicago, Ill. Filed Aug. 8, 1914.

Paco

Particular description of goods.—Shoe Polishes and Dressings.
Claims use since April, 1914.

Ser. No. 82,241. (CLASS 39. CLOTHING.) REINS & MEISS, Cincinnati, Ohio. Filed Oct. 28, 1914.



Particular description of goods.—Ladies' Muslin Gowns, Skirts, Drawers, Corset-Covers, Princess-Slips, Children's Muslin Gowns and Drawers, and Ladies' and Children's Gingham and Lawn Dresses.
Claims use since July 1, 1911.

Ser. No. 82,654. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HENRY EAGLE, Newcastle-upon-Tyne, England. Filed Nov. 18, 1914.

IGLODINE

Particular description of goods.—Antiseptic Preparations.
Claims use since Aug. 18, 1914.

Ser. No. 83,199. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) KING PHILIP MILLS, Fall River, Mass. Filed Dec. 10, 1914.

Cherry Blossom

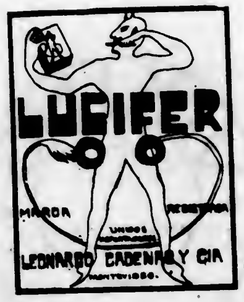
Comprising the words "Cherry Blossom."
Particular description of goods.—Nainsook.
Claims use since Dec. 1, 1914.

Ser. No. 83,250. (CLASS 31. FILTERS AND REFRIGERATORS.) LOETSCHER-RYAN MANUFACTURING COMPANY, Dubuque, Iowa. Filed Dec. 12, 1914.



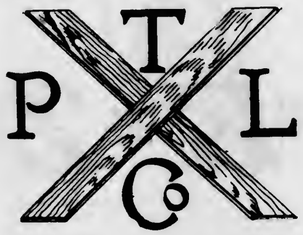
The words "Trade Mark" are disclaimed.
Particular description of goods—Refrigerators.
Claims use since Nov. 25, 1914.

Ser. No. 83,316. (CLASS 15. OILS AND GREASES.) LEONARDO CADENAS & Co., Montevideo, Uruguay. Filed Dec. 16, 1914.



Applicant does not claim for this registration any right to the exclusive use of the words "Marca Registrada Unicos Importadores Montevideo," nor is applicant's name claimed to be a technical trade-mark.
Particular description of goods.—Kerosene-Oil.
Claims use since June 25, 1913.

Ser. No. 83,567. (CLASS 12. CONSTRUCTION MATERIALS.) THE PACIFIC LUMBER COMPANY, San Francisco, Cal. Filed Dec. 29, 1914.



Particular description of goods.—Finished Lumber and Millwork—Namely, Balusters, Battens, Ceilings, Clapboard, Stave-Columns, Doors, Finish, Flooring, Lattice, Moldings, Newels, Pickets, Porch-Posts, Porch-Rails, Baluster-Rails, Shingles, Ship-Lap, Siding, Silo-Stock, Spindles, Tank-Stock.
Claims use since 1909.

Ser. No. 83,696. (CLASS 39. CLOTHING.) THE GLOBE OVERALL COMPANY, Cincinnati, Ohio. Filed Jan. 6, 1915.

"JUNIOR"

Particular description of goods.—Overalls.
Claims use since Mar. 31, 1910.

Ser. No. 83,718. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) LINK-BELT COMPANY, Chicago, Ill. Filed Jan. 7, 1915.

FLINT-RIM

Particular description of goods.—Cast-Metal Machinery-Wheels.
Claims use since the middle of May, 1908.

Ser. No. 83,841. (CLASS 39. CLOTHING.) GUY D. SISSON COMPANY, Los Angeles, Cal. Filed Jan. 13, 1915.

Truso

Particular description of goods.—Women's Corsets, Brassières, and the Following Articles Made of Textile Materials: Union Suits—Namely, Shirts and Drawers Combined—Corset-Covers, Slips, Petticoats, Chemise, Night-Gowns, and Combinations—Namely, Corset-Covers, Combined with Either Drawers or Petticoat or with Both Drawers and Petticoat.
Claims use since Dec. 30, 1914.

Ser. No. 83,896. (CLASS 39. CLOTHING.) DEFIANCE SOCK MILLS, Charlotte, N. C. Filed Jan. 16, 1915.

DOUBBLE DUTY

Particular description of goods.—Hosiery.
Claims use since Aug. 15, 1914.

Ser. No. 83,944. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) WILLIAM B. THURMAN, Madera, Cal. Filed Jan. 18, 1915.

MULTI-BUILDERS

Particular description of goods.—Toy Building-Blocks.
Claims use since August, 1914.

Ser. No. 83,953. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) CORTLAND CARRIAGE GOODS COMPANY, Cortland, N. Y. Filed Jan. 19, 1915.

JIFFY

Particular description of goods.—Bow-Sockets for Vehicle-Tops.
Claims use since Sept. 22, 1914.

Ser. No. 84,084. (CLASS 39. CLOTHING.) HOOD RUBBER COMPANY, Watertown, Mass. Filed Jan. 25, 1915.

BARNSHU

Particular description of goods.—Rubber Boots and Shoes, Rubber Overshoes, and Canvas Boots and Shoes Having Rubber Soles Vulcanized Thereto.
Claims use since Jan. 1, 1915.

Ser. No. 84,120. (CLASS 3. BAGGAGE, HORSE EQUIPMENTS, PORTFOLIOS, AND POCKET-BOOKS.) F. W. KLINGER AND LANGBEIN COMPANY, Philadelphia, Pa. Filed Jan. 26, 1915.

De Luxe

No claim being made for the exclusive use of the words "De Luxe."

Particular description of goods.—Supports for Carrying Artificial Flies.

Claims use since about May, 1914.

Ser. No. 84,173. (CLASS 28. JEWELRY AND PRECIOUS-METAL WARE.) GEORGE W. DOVER COMPANY, Providence, R. I. Filed Jan. 28, 1915.

Wantalite

MATCH CASE

The words "Match Case" being disclaimed.

Particular description of goods.—Gold and Gold-Plated Match-Cases.

Claims use since Jan. 20, 1915.

Ser. No. 84,245. (CLASS 50. MERCHANDISE NOT OTHERWISE CLASSIFIED.) NATIONAL METAL SEAL CORPORATION, Boston, Mass. Filed Feb. 1, 1915.

TITENRITE

Particular description of goods.—Metal Closures for Containing Vessels.

Claims use since Jan. 14, 1915.

Ser. No. 84,289. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) RYAN LEATHER CO., Newark, N. J. Filed Feb. 3, 1915.

ARROW LEATHER BRAND

The right to the exclusive use of the words "Leather" and "Brand" is hereby disclaimed.

Particular description of goods.—Finished Leather.

Claims use since Jan. 1, 1915.

Ser. No. 84,378. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) NORTHRUP, KING & CO., Minneapolis, Minn. Filed Feb. 8, 1915.

VIKING

Particular description of goods.—Seeds.

Claims use since Dec. 15, 1914.

Ser. No. 84,498. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE O. P. SCHRIVER COMPANY, Cincinnati, Ohio. Filed Feb. 12, 1915.

E Z

Particular description of goods.—Cistern and Well Pumps.

Claims use since Jan. 22, 1915.

Ser. No. 84,507. (CLASS 7. CORDAGE.) B. & B. SASH CORD CO., Ansonia, Conn. Filed Feb. 13, 1915.

B&B "READY"

No claim being made to the panel of braided cord or the word "Ready."

Particular description of goods.—Sash-Cords.

Claims use since Apr. 1, 1914.

Ser. No. 84,640. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) SAMUEL E. STAGGS, Liberty, Mo. Filed Feb. 19, 1915.

S

Particular description of goods.—Triangular Aluminum Shingle-Nails.

Claims use since on or about Feb. 1, 1915.

Ser. No. 84,737. (CLASS 28. JEWELRY AND PRECIOUS-METAL WARE.) THE KINNEY COMPANY, Providence, R. I. Filed Feb. 24, 1915.

K Co

Particular description of goods.—Jewelry for Personal Adornment.

Claims use since January, 1908.

Ser. No. 84,740. (CLASS 17. TOBACCO PRODUCTS.) D. MARAGOUSIS CO., Seattle, Wash. Filed Feb. 24, 1915.



The exclusive right to the use of the word "Cigarettes" is hereby disclaimed.

Particular description of goods.—Cigarettes.

Claims use since Jan. 15, 1915.

Ser. No. 84,806. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) AMERICAN FERROTYPE CO., New York, N. Y. Filed Feb. 27, 1915.

Victor

Comprising the word "Victor."

Particular description of goods.—Cameras.

Claims use since Feb. 17, 1915.

Ser. No. 84,869. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) STANDARD MAIL ORDER COMPANY, New York, N. Y. Filed Mar. 1, 1915.

SANI-PANT

Particular description of goods.—Sanitary Napkins and Shields Therefor.

Claims use since Jan. 1, 1915.

Ser. No. 84,874. (CLASS 39. CLOTHING.) J. SILBERMAN & BRO., New York, N. Y. Filed Mar. 1, 1915.

Sportknit

Particular description of goods.—Ladies' Suits Made from Knitted Fabrics.

Claims use since about Jan. 14, 1915.

Ser. No. 84,903. (CLASS 3. BAGGAGE, HORSE EQUIPMENTS, PORTFOLIOS, AND POCKET-BOOKS.) CRESCENT CALK CORPORATION, Syracuse, N. Y. Filed Mar. 3, 1915.

CRESCENT

Particular description of goods.—Calks.

Claims use since about the 1st of February, 1914.

Ser. No. 84,120. (CLASS 3. BAGGAGE, HORSE EQUIPMENTS, PORTFOLIOS, AND POCKET-BOOKS.) F. W. KLINGER AND LANGBEIN COMPANY, Philadelphia, Pa. Filed Jan. 26, 1915.



No claim being made for the exclusive use of the words "De Luxe."

Particular description of goods.—Supports for Carrying Artificial Flies.

Claims use since about May, 1914.

Ser. No. 84,173. (CLASS 28. JEWELRY AND PRECIOUS-METAL WARE.) GEORGE W. DOVER COMPANY, Providence, R. I. Filed Jan. 28, 1915.



The words "Match Case" being disclaimed.

Particular description of goods.—Gold and Gold-Plated Match-Cases.

Claims use since Jan. 20, 1915.

Ser. No. 84,245. (CLASS 50. MERCHANDISE NOT OTHERWISE CLASSIFIED.) NATIONAL METAL SEAL CORPORATION, Boston, Mass. Filed Feb. 1, 1915.

TITENRITE

Particular description of goods.—Metal Closures for Containing Vessels.

Claims use since Jan. 14, 1915.

Ser. No. 84,289. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) RYAN LEATHER CO., Newark, N. J. Filed Feb. 3, 1915.



The right to the exclusive use of the words "Leather" and "Brand" is hereby disclaimed.

Particular description of goods.—Finished Leather.

Claims use since Jan. 1, 1915.

Ser. No. 84,378. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) NORTHRUP, KING & CO., Minneapolis, Minn. Filed Feb. 8, 1915.



Particular description of goods.—Seeds.

Claims use since Dec. 15, 1914.

Ser. No. 84,498. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE O. P. SCHRIVER COMPANY, Cincinnati, Ohio. Filed Feb. 12, 1915.



Particular description of goods.—Cistern and Well Pumps.

Claims use since Jan. 22, 1915.

Ser. No. 84,507. (CLASS 7. CORDAGE.) B. & B. SASH CORD CO., Ansonia, Conn. Filed Feb. 13, 1915.



No claim being made to the panel of braided cord or the word "Ready."

Particular description of goods.—Sash-Cords.

Claims use since Apr. 1, 1914.

Ser. No. 84,640. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) SAMUEL E. STAGGS, Liberty, Mo. Filed Feb. 19, 1915.



Particular description of goods.—Triangular Aluminum Shingle-Nails.

Claims use since on or about Feb. 1, 1915.

Ser. No. 84,737. (CLASS 28. JEWELRY AND PRECIOUS-METAL WARE.) THE KINNEY COMPANY, Providence, R. I. Filed Feb. 24, 1915.



Particular description of goods.—Jewelry for Personal Adornment.

Claims use since January, 1908.

Ser. No. 84,740. (CLASS 17. TOBACCO PRODUCTS.) D. MARAGOUSIS CO., Seattle, Wash. Filed Feb. 24, 1915.



The exclusive right to the use of the word "Cigarettes" is hereby disclaimed.

Particular description of goods.—Cigarettes.

Claims use since Jan. 15, 1915.

Ser. No. 84,806. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) AMERICAN FERROTYPE CO., New York, N. Y. Filed Feb. 27, 1915.



Comprising the word "Victor."

Particular description of goods.—Cameras.

Claims use since Feb. 17, 1915.

Ser. No. 84,869. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) STANDARD MAIL ORDER COMPANY, New York, N. Y. Filed Mar. 1, 1915.

SANI-PANT

Particular description of goods.—Sanitary Napkins and Shields Therefor.

Claims use since Jan. 1, 1915.

Ser. No. 84,874. (CLASS 39. CLOTHING.) J. SILBERMAN & BRO., New York, N. Y. Filed Mar. 1, 1915.

Sportknit

Particular description of goods.—Ladies' Suits Made from Knitted Fabrics.

Claims use since about Jan. 14, 1915.

Ser. No. 84,903. (CLASS 3. BAGGAGE, HORSE EQUIPMENTS, PORTFOLIOS, AND POCKET-BOOKS.) CRESCENT CALK CORPORATION, Syracuse, N. Y. Filed Mar. 3, 1915.



Particular description of goods.—Calks.

Claims use since about the 1st of February, 1914.

Ser. No. 84,907. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) SOUTHERN MACARONI MFG. CO., New Orleans, La. Filed Mar. 3, 1915.

Luxury

Particular description of goods.—Alimentary Paste Products.
Claims use since May 1, 1914.

Ser. No. 84,914. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE N. K. FAIRBANK COMPANY, Union township, near Guttenberg, N. J., and Chicago, Ill. Filed Mar. 3, 1915.

HYDORA

Particular description of goods.—A Cooking Compound Made from Cotton-Seed Oil.
Claims use since Jan. 28, 1915.

Ser. No. 84,928. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE HALEY-HAMMOND COMPANY, Jersey City, N. J., and New York, N. Y. Filed Mar. 4, 1915.

TANOVAL

Particular description of goods.—Tanning Extracts Made from Barks and Woods Used for Tanning Leather.
Claims use since Mar. 15, 1913.

Ser. No. 84,929. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE HALEY-HAMMOND COMPANY, Jersey City, N. J., and New York, N. Y. Filed Mar. 4, 1915.

VALOTAN

Particular description of goods.—Tanning Extracts Made from Barks and Woods Used for Tanning Leather.
Claims use since Aug. 1, 1914.

Ser. No. 84,931. (CLASS 5. ADHESIVES.) INSULATING MATERIALS COMPANY, Detroit, Mich. Filed Mar. 4, 1915.

INDIAN



Particular description of goods.—Sealing-Waxes.
Claims use since Feb. 1, 1915.

Ser. No. 84,955. (CLASS 8. SMOKERS' ARTICLES, NOT INCLUDING TOBACCO PRODUCTS.) DELACOUR BROTHERS, LIMITED, West Kilburn, London, England. Filed Mar. 5, 1915.

Critic

Particular description of goods.—Tobacco-Pipes and Cigar and Cigarette Holders.
Claims use since May 10, 1910.

Ser. No. 84,995. (CLASS 39. CLOTHING.) JNO. J. SCHULTEN & CO., Louisville, Ky. Filed Mar. 8, 1915.

Gladmore

Particular description of goods.—Misses' and Children's Leather Shoes.
Claims use since Jan. 12, 1915.

Ser. No. 85,002. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) A. G. MORSE CO., Chicago, Ill. Filed Mar. 8, 1915.

MOREATA

Particular description of goods.—Candy.
Claims use since about 1903.

Ser. No. 85,003. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) SEARS, ROEBUCK AND CO., Chicago, Ill. Filed Mar. 8, 1915.

CHIEF

Particular description of goods.—Bicycles.
Claims use since Jan. 18, 1915.

Ser. No. 85,005. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) SPARKS MILLING COMPANY, Alton, Ill., and Terre Haute, Ind. Filed Mar. 8, 1915.



Particular description of goods.—Bran and Mixed Feed.
Claims use since Nov. 23, 1912.

Ser. No. 85,008. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) F. S. LOVE MANUFACTURING COMPANY, Johnstown, Pa. Filed Mar. 8, 1915. Under ten-year proviso.

Love's

Particular description of goods.—Candy.
Claims use since March, 1890.

Ser. No. 85,009. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) F. S. LOVE MANUFACTURING COMPANY, Johnstown, Pa. Filed Mar. 8, 1915.

BANQUET

Particular description of goods.—Candy, Popcorn Confections, Buttered and Salted Almonds, and Blanched and Salted Peanuts.
Claims use since March, 1890.

Ser. No. 85,020. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) GERMAN AMERICAN COFFEE COMPANY, Omaha, Nebr. Filed Mar. 8, 1915.

FONTENELLE

Particular description of goods.—Coffee, Tea, Spices, and Flavoring Extracts for Foods.
Claims use since Nov. 25, 1914.

Ser. No. 85,074. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) BARBARA FRITCHIE SHOPS, Chicago, Ill. Filed Mar. 11, 1915.

Barbara Fritchie Shops

Particular description of goods.—Candy.
Claims use since about Jan. 1, 1915.

Ser. No. 85,103. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) J. W. SURBRUG, New York, N. Y. Filed Mar. 11, 1915.

Ecla

Particular description of goods.—Chocolates.
Claims use since Sept. 1, 1914.

Ser. No. 85,108. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) BOOKLOVERS SALES COMPANY, INC., New York, N. Y. Filed Mar. 12, 1915.



The words "A Game of Fitting Book Titles to Pictures," "Educational Pastime for All the Family," "Trade Mark Registered U. S. Pat. Off.," and "Booklovers' Sales Co. Inc. New York, N. Y." being disclaimed.
Particular description of goods.—Games.
Claims use since Feb. 20, 1915.

Ser. No. 85,116. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) LATIN-AMERICAN COFFEE CO., Gulfport, Miss. Filed Mar. 12, 1915.

PARLOR CAR

Particular description of goods.—Coffee and Chicory.
Claims use since Jan. 1, 1915.

Ser. No. 85,123. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) FERDINAND W. SHIELDS, Vicksburg, Miss. Filed Mar. 12, 1915.

WIZZARD

Particular description of goods.—Grease-Guns.
Claims use since Nov. 15, 1914.

Ser. No. 85,129. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) BERLIN MILLS COMPANY, Berlin, N. H. Filed Mar. 13, 1915.

KREAM KRISP

Particular description of goods.—Vegetable-Fats.
Claims use since on or about AUG. 1, 1913.

Ser. No. 85,131. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CLYDE MILLING AND ELEVATOR COMPANY, Clyde, Kans. Filed Mar. 13, 1915.

G.G.

Particular description of goods.—Wheat-Flour.
Claims use since Feb. 27, 1914.

Ser. No. 85,141. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) MICRO PISTON RING CO., New York, N. Y. Filed Mar. 13, 1915.

Micro

Particular description of goods.—Piston-Rings.
Claims use since September, 1913.

Ser. No. 85,143. (CLASS 12. CONSTRUCTION MATERIAL.) PENNSYLVANIA FIRE PROOFING COMPANY, St. Marys, Pa. Filed Mar. 13, 1915.

PENCO

"Penco."
Particular description of goods.—Hollow Building-Tile.
Claims use since February, 1909.

Ser. No. 85,144. (CLASS 12. CONSTRUCTION MATERIALS.) PENNSYLVANIA FIRE PROOFING COMPANY, St. Marys, Pa. Filed Mar. 13, 1915.

ELCO

"Elco."
Particular description of goods.—Hollow Building-Tile.
Claims use since January, 1913.

Ser. No. 85,145. (CLASS 12. CONSTRUCTION MATERIALS.) PENNSYLVANIA FIRE PROOFING COMPANY, St. Marys, Pa. Filed Mar. 13, 1915.

PENTEX

"Pentex."
Particular description of goods.—Hollow Building-Tile.
Claims use since March, 1914.

Ser. No. 85,158. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) BRISTOL-MYERS COMPANY, New York, N. Y. Filed Mar. 15, 1915.

ANALKA

Particular description of goods.—An Alkaline Antiseptic Preparation.
Claims use since Jan. 15, 1915.

Ser. No. 85,192. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) PARRISH MACHINE CO., Waverly, Va. Filed Mar. 16, 1915.

Bill Broadcaster

No claim being made to the exclusive use of the word "Broadcaster."
Particular description of goods.—Planters, Fertilizer-Distributers, Lime-Spreaders, and Insecticide-Distributers.
Claims use since Dec. 1, 1914.

Ser. No. 85,195. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) SALT LICK MILLING COMPANY, Valmeyer, Ill. Filed Mar. 16, 1915.

Nebula

Particular description of goods.—Wheat-Flour.
Claims use since Jan. 4, 1915.

Ser. No. 85,219. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) ROYAL MANUFACTURING COMPANY, Rahway, N. J. Filed Mar. 17, 1915.

ROYAL COTTON WOOL WASTE

The words "Cotton and Wool Waste" being disclaimed.
Particular description of goods.—Cotton and Wool Waste.
Claims use since Feb. 1, 1915.

Ser. No. 85,233. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) RICHARD HUDNUT, New York, N. Y. Filed Mar. 18, 1915.

EROS

Particular description of goods.—Perfume, Toilet Water, Headache-Cologne, Smelling-Salts, Creams for the Skin, Sachet-Powder, Face-Powder, Talcum Powder, Bath-Powder, Bath-Salts, Toilet Cerate, Almond-Meal, Rouge, and Dentifrices.
Claims use since Mar. 5, 1915.

Ser. No. 85,253. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) CURTIS & CO. M'F'G CO., Wellston, Mo. Filed Mar. 19, 1915. Under ten-year proviso.

CURTIS ST. LOUIS

Consisting of the words "Curtis St. Louis."
Particular description of goods.—Saws, Sawmills, Edgers, Trimmers, Shingle-Machines, Planers; Air-Hoists, Air-Compressors, Bridge-Cranes, Pneumatic Elevators, Trolleys, and Sand-Blasts.
Claims use since at least as early as the year 1893.

Ser. No. 85,258. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) LALANCE & GROSJEAN MFG. CO., New York, N. Y. Filed Mar. 19, 1915. Under ten-year proviso.

L & G MFG. CO.

Particular description of goods.—Enamel, Steel, and Tin Ware.
Claims use since 1869.

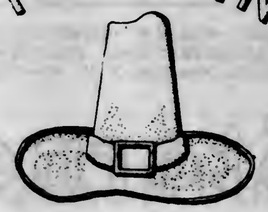
Ser. No. 85,266. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) RICHARD YOUNG COMPANY, New York, N. Y. Filed Mar. 19, 1915.

Youngco

Comprising the word "Youngco."
Particular description of goods.—Leather.
Claims use since Oct. 9, 1914.

Ser. No. 85,274. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) HOOD RUBBER COMPANY, Watertown, Mass. Filed Mar. 20, 1915.

PURITAN



Particular description of goods.—Vulcanized Pneumatic Tires and Tubes Therefor and Vulcanized Cushion-Tires.
Claims use since July, 1914.

Ser. No. 85,284. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) THE J. E. ROBINSON MFG. CO., Chicago, Ill. Filed Mar. 20, 1915.

MOTOREYE

Particular description of goods.—Temperature-Indicators.
Claims use since Feb. 1, 1915.

Ser. No. 85,357. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) BURLINGTON TOY & NOVELTY COMPANY, Burlington, Vt. Filed Mar. 24, 1915.

The Junior Architect

Particular description of goods.—Toy Construction-Blocks.
Claims use since September, 1914.

Ser. No. 85,358. (CLASS 12. CONSTRUCTION MATERIALS.) BARRETT MANUFACTURING COMPANY, New York, N. Y. Filed Mar. 24, 1915.

VITEX

Particular description of goods.—Prepared Roofing.
Claims use since on or about the 15th of February, 1915.

Ser. No. 85,371. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) KIESELGUHR COMPANY OF AMERICA, Los Angeles, Cal. Filed Mar. 24, 1915.

CELITE

Consisting of the word-symbol "Celite."
Particular description of goods.—Crude Kieselguhr and Crushed, Broken, Cut, or Ground Kieselguhr.
Claims use since Feb. 20, 1915.

Ser. No. 85,382. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) S. STERNAU & CO., New York, N. Y. Filed Mar. 24, 1915.

Sterno

Particular description of goods.—Solid Fuel Composed Mainly of Alcohol.
Claims use since Jan. 12, 1915.

Ser. No. 85,439. (CLASS 29. BROOMS, BRUSHES, AND DUSTERS.) JAP-ART BRUSH CO., New York, N. Y. Filed Mar. 26, 1915.

JAP-ART

Particular description of goods.—Artists' Brushes.
Claims use since Jan. 1, 1913.

Ser. No. 85,457. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) SHAPLEIGH HARDWARE COMPANY, St. Louis, Mo. Filed Mar. 26, 1915.

GARLAND

Particular description of goods.—Enameled Metal Ware.
Claims use since Mar. 15, 1915.

Ser. No. 85,458. (CLASS 33. GLASSWARE.) SMALLEY, KIVLAN & ONTHANK, Boston, Mass. Filed Mar. 26, 1915.



Particular description of goods.—Glass Bottles and Jars.
Claims use since May 1, 1914.

Ser. No. 85,467. (CLASS 12. CONSTRUCTION MATERIALS.) BARRETT MANUFACTURING COMPANY, New York, N. Y. Filed Mar. 27, 1915.

PARAGON

Particular description of goods.—Prepared Roofings.
Claims use since on or about Mar. 20, 1915.

Ser. No. 85,488. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) FRANCES M. PUSHIN, Cincinnati, Ohio. Filed Mar. 27, 1915.

Camphor-Lyptus

Particular description of goods.—An Antiseptic Fluid Having Medicinal Properties.
Claims use since Mar. 1, 1915.

Ser. No. 85,494. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) STANDARD OIL COMPANY (NEW JERSEY), Bayonne, N. J. Filed Mar. 27, 1915.

Nujol

Particular description of goods.—Refined Mineral Oil for Use in the Treatment of Constipation.
Claims use since Feb. 27, 1915.

Ser. No. 85,508. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) DAVIES & MEACHAM, Cleveland, Ohio. Filed Mar. 29, 1915.



No claim being made to the use of the word "Brand."
Particular description of goods.—Dry and Ready-Mixed Paints, Wall-Paints, Lacs, Stains, Enamels, Varnishes, and Fillers.
Claims use since Mar. 15, 1915.

Ser. No. 85,524. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) FREDERICK W. SULTAN, St. Louis, Mo. Filed Mar. 29, 1915.

DENTEMET

Particular description of goods.—Dentifrices.
Claims use since Mar. 26, 1915.

Ser. No. 85,529. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) TYLOSE PRODUCTS COMPANY, Boston, Mass. Filed Mar. 29, 1915.



No claim is made to the words "Penetrating," "Concrete and Wood Preservatives," and "Permanent" in said trade-mark.

Particular description of goods.—A Liquid for Preserving and Hardening Wood, Concrete, Artificial Stone, Leather, Linoleum, and Cork.
Claims use since Feb. 17, 1915.

Ser. No. 85,538. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) WILLIAM J. BRETT, New York, N. Y. Filed Mar. 30, 1915.

KURLEY KEW

Particular description of goods.—Hair-Wavers.
Claims use since October, 1911.

Ser. No. 85,551. (CLASS 32. FURNITURE AND UPHOLSTERY.) CHARLES H. STREETT, Minneapolis, Minn. Filed Mar. 30, 1915.



Particular description of goods.—Store and Window-Display Fixtures.
Claims use since May 1, 1914.

Ser. No. 85,613. (CLASS 39. CLOTHING.) KOLB BROTHERS & HULSMAN COMPANY, Pittsburgh, Pa. Filed Apr. 1, 1915.

K.B.&H.Co.



Our trade-mark consists of the initials "K. B. & H. Co." and the arbitrary expression "Character" in plain Roman capital letters, no claim being made to the word "Hats."
Particular description of goods.—Hats.
Claims use since Jan. 1, 1913.

Ser. No. 85,616. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) FRANK T. MURRAY, Chicago, Ill., assignor to Qualityre Rubber Company, a Corporation of Maine. Filed Apr. 1, 1915.

QUALITUBE

Particular description of goods.—Rubber Inner Tubes.
Claims use since Mar. 25, 1915.

Ser. No. 85,620. (CLASS 39. CLOTHING.) GEORGE LYMAN SNOW, Boston, Mass. Filed Apr. 1, 1915.

Elite

Particular description of goods.—Rubber Boots and Shoes.
Claims use since Sept. 1, 1897.

Ser. No. 85,623. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE W. S. TYLER COMPANY, Cleveland, Ohio. Filed Apr. 1, 1915.

RO-TAP

Particular description of goods.—Testing-Sieve Shakers.
Claims use since Oct. 28, 1914.

Ser. No. 85,624. (CLASS 39. CLOTHING.) AMERICAN KNITTING CO., Waltham, Mass. Filed Apr. 2, 1915.

SNOW KING

The words "Snow King."
Particular description of goods.—Sweaters, Leggings, Caps, and Children's Knitted Suits.
Claims use since Sept. 1, 1914.

Ser. No. 85,626. (CLASS 39. CLOTHING.) BONWIT, TELLER & Co., New York, N. Y. Filed Apr. 2, 1915.

Ortho Corsetry

No claim being made to the word "Corsetry" apart from the mark shown in the drawing.
Particular description of goods.—Corsets.
Claims use since about Mar. 18, 1915.

Ser. No. 85,629. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) WILLIAM L. CRONIN, Springfield, Mass. Filed Apr. 2, 1915.

IDEAL

Particular description of goods.—Cleaners for Boiler-Flues or Soot-Cleaners.
Claims use since on or about Feb. 15, 1915.

Ser. No. 85,631. (CLASS 39. CLOTHING.) J. B. GREENHUT CO., SUCCESSORS TO GREENHUT-SIEGEL COOPER CO., INC., New York, N. Y. Filed Apr. 2, 1915.

FOOTMOULD

Particular description of goods.—Men's, Women's, and Children's Leather Shoes.
Claims use since about Jan. 2, 1900.

Ser. No. 85,646. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JULIA M. MOULTON, Melrose, Mass. Filed Apr. 2, 1915.

TUMMYTABS

Particular description of goods.—Tablets for the Treatment of Stomach or Bowel Trouble, Whooping-Cough, Tonsillitis, Diphtheria, Mumps, Measles, Scarlet Fever, Cholera Infantum, Worms, Infantile Paralysis, Acute Indigestion, Malaria, Infectious Fevers, Blood-Poisoning, and Diabetes.
Claims use since Apr. 17, 1913.

Ser. No. 85,647. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JULIA M. MOULTON, Melrose, Mass. Filed Apr. 2, 1915.

GASTRAMINTS

Particular description of goods.—Tablets for the Treatment of Gastritis, Heartburn, Indigestion, Dyspepsia, and Affections of the Nerves of the Heart, Stomach, Liver, Kidneys, and Bowels.
Claims use since July, 1914.

Ser. No. 85,655. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) E. A. WILLIAMS & SON, INC., Jersey City, N. J. Filed Apr. 2, 1915.



Particular description of goods.—Bronze.
Claims use since November, 1914.

Ser. No. 85,737. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) THE STANDARD WELDING COMPANY, Cleveland, Ohio. Filed Apr. 6, 1915.

STANWELD

Particular description of goods.—Metallic Tubing Both Straight and Bent and Structural Elements Fashioned Therefrom.
Claims use since Apr. 15, 1913.

Ser. No. 85,742. (CLASS 12. CONSTRUCTION MATERIALS.) BEAVER CLAY MANUFACTURING COMPANY, New Galilee, Pa. Filed Apr. 7, 1915.

VER-TEX

Particular description of goods.—Bricks Made of Clay.
Claims use since Aug. 1, 1914.

Ser. No. 85,773. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) EMIL BUSCH, AKTIENGESELLSCHAFT OPTISCHE INDUSTRIE, Rathenow, Germany. Filed Apr. 8, 1915.

„Isokrystar"

Particular description of goods.—Eyeglasses.
Claims use since Mar. 24, 1911.

Ser. No. 85,811. (CLASS 12. CONSTRUCTION MATERIALS.) EHRET MAGNESIA MANUFACTURING CO., Philadelphia, Pa. Filed Apr. 9, 1915.

WOOLBESTOS

Particular description of goods.—Insulating Material in Sheet Form Possessing Sound-Deadening and Heat and Cold Resisting Properties.
Claims use since the early part of April, 1914.

Ser. No. 85,822. (CLASS 39. CLOTHING.) HENRY SONNEBORN & CO. INC., Baltimore, Md. Filed Apr. 9, 1915.



The same being the photograph of Henry Sonneborn.
Particular description of goods.—Boys' Suits, Men's Suits, Overcoats, Rain-Coats, Vests, Children's Suits, Slip-Coats, Trousers, Overalls, Drawers, Top-Coats, Women's and Misses' Shoes, (Leather, Rubber, and Canvas,) Outer and Under Skirts, Shirt-Waists, Outer and Under Drawers, and Underwear, (Woven and Knitted.)
Claims use since 1910.

Ser. No. 85,840. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) CAMPBELL, METZGER & JACOBSON, New York, N. Y. Filed Apr. 10, 1915.

INDIAN



Particular description of goods.—Crochet-Needles and Crochet-Hooks.
Claims use since April, 1912.

Ser. No. 85,952. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) YORK MANUFACTURING CO., Saco, Me. Filed Apr. 14, 1915.

VOYLENE

Comprising the word "Voylene."
Particular description of goods.—Cotton Piece Goods.
Claims use since Dec. 11, 1914.

Ser. No. 85,974. (CLASS 12. CONSTRUCTION MATERIALS.) BEAVER CLAY MANUFACTURING COMPANY, New Galilee, Pa. Filed Apr. 16, 1915.

VOLCANIC

Particular description of goods.—Bricks Made of Clay.
Claims use since about the 1st day of March, 1912.

Ser. No. 86,009. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) BENNETT MINERAL AND DISTILLED WATER CO., Hutchinson, Kans. Filed Apr. 17, 1915.

NuLife

Particular description of goods.—Ginger-Ale, Distilled Water, Sarsaparilla, and Celery.
Claims use since Nov. 30, 1914.

Ser. No. 86,023. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) VICTOR MANUFACTURING CO., Greenville, S. C. Filed Apr. 17, 1915.

VALUE

Comprising the word "Value."
Particular description of goods.—Cotton Piece Goods.
Claims use since August, 1908.

Ser. No. 86,024. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) A. WEGENER'S SONS, Detroit, Mich. Filed Apr. 17, 1915.

VIORAY

Particular description of goods.—Natural and Distilled Water and Non-Alcoholic Carbonated Beverages.
Claims use since Feb. 1, 1915.

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TRADE-MARK REGISTRATIONS GRANTED

MAY 11, 1915.

104,193. BATH-SALT. ANNA D. ADAMS, Chicago, Ill.
Filed January 14, 1915. Serial No. 83,847. PUBLISHED March 2, 1915.

104,194. BRAKE-LININGS. AMERICAN ASBESTOS COMPANY, Norristown, Pa.
Filed September 22, 1914. Serial No. 81,401. PUBLISHED March 2, 1915.

104,195. DRIED BREWERS' AND DISTILLERS' GRAINS USED AS CATTLE FEED. ATLANTIC EXPORT COMPANY, New York, N. Y.
Filed September 25, 1914. Serial No. 81,460. PUBLISHED FEBRUARY 23, 1915.

104,196. VARNISHES. BERRY BROTHERS, Detroit, Mich.
Filed January 19, 1915. Serial No. 83,951. PUBLISHED FEBRUARY 23, 1915.

104,197. CERTAIN NAMED KNITTED UNDERWEAR. THE N. L. BIRGE SONS COMPANY, Bristol, Conn.
Filed December 14, 1914. Serial No. 83,283. PUBLISHED MARCH 2, 1915.

104,198. DENTIFRICES AND MOUTH-WASH. ROBERT GARDNER BLACKIE, Halifax, Nova Scotia, Canada.
Filed July 20, 1914. Serial No. 79,933. PUBLISHED MARCH 2, 1915.

104,199. VISES AND LATHE-DOGS. BONNEY VISE & TOOL WORKS INC., Philadelphia and Allentown, Pa., and New York, N. Y.
Filed January 30, 1915. Serial No. 84,213. PUBLISHED MARCH 2, 1915.

104,200. CERTAIN NAMED TOYS. GEO. BORGFELDT & Co., New York, N. Y.
Filed January 3, 1914. Serial No. 74,956. PUBLISHED APRIL 28, 1914.

104,201. STIFFENING CORDS, BLADES, AND TAPES. CASTLEBONE COMPANY, New York, N. Y.
Filed February 2, 1915. Serial No. 84,257. PUBLISHED MARCH 2, 1915.

104,202. SPARK-PLUGS. CHAMPION SPARK PLUG COMPANY, Toledo, Ohio.
Filed January 15, 1915. Serial No. 83,871. PUBLISHED FEBRUARY 23, 1915.

104,203. WEIGHING MACHINES AND SCALES. JOHN CHATILLON & SONS, New York, N. Y.
Filed October 14, 1914. Serial No. 81,861. PUBLISHED FEBRUARY 23, 1915.

104,204. LEATHER AND CANVAS BOOTS AND SHOES. CHIPMAN, HARWOOD & Co., Boston, Mass.
Filed January 25, 1915. Serial No. 84,076. PUBLISHED MARCH 2, 1915.

104,205. CIRCULAR SLIDE-RULES. THE COMMERCIAL CALCULATOR CO., New York, N. Y.
Filed December 31, 1914. Serial No. 83,600. PUBLISHED FEBRUARY 23, 1915.

104,206. CERTAIN NAMED MANUFACTURED RUBBER GOODS. CONTINENTAL RUBBER WORKS, Erie, Pa.
Filed February 21, 1914. Serial No. 76,071. PUBLISHED DECEMBER 29, 1914.

104,207. RUBBER BUMPERS, ANTIRATTLERS, HAND-GRIPS, PEDAL-RUBBERS, AND SPLASHERS. CONTINENTAL RUBBER WORKS, Erie, Pa.
Filed December 19, 1914. Serial No. 83,401. PUBLISHED FEBRUARY 9, 1915.

104,208. FRICTION FABRIC AND INSULATING-TAPE. CONTINENTAL RUBBER WORKS, Erie, Pa.
Filed December 19, 1914. Serial No. 83,402. PUBLISHED FEBRUARY 23, 1915.

104,209. CERTAIN NAMED DENTAL, MEDICAL, AND SURGICAL APPLIANCES. CONTINENTAL RUBBER WORKS, Erie, Pa.
Filed December 19, 1914. Serial No. 83,406. PUBLISHED FEBRUARY 9, 1915.

104,210. RUBBER MATTING, STAIR-TREADS, PRINTERS' BLANKETS, AND HOSPITAL-SHEETING. CONTINENTAL RUBBER WORKS, Erie, Pa.
Filed December 19, 1914. Serial No. 83,407. PUBLISHED JANUARY 26, 1915.

104,211. OLEOMARGARIN. ROBERT B. CRAMER, Philadelphia, Pa.
Filed November 27, 1914. Serial No. 82,929. PUBLISHED FEBRUARY 9, 1915.

104,212. MIXED PAINTS. DONALDSON AND DONALDSON, Decatur, Ill.
Filed January 8, 1915. Serial No. 83,727. PUBLISHED FEBRUARY 23, 1915.

104,213. BOOTS, SHOES, SLIPPERS, MADE OF LEATHER, RUBBER, CANVAS, OR OTHER TEXTILE. LOUIS ECKERT, Pittsburgh, Pa.
Filed August 3, 1914. Serial No. 80,267. PUBLISHED JANUARY 19, 1915.

104,214. RUBBER-COVERED ELECTRICAL WIRES AND CABLES. THE ELECTRIC CABLE COMPANY, New York, N. Y., and Bridgeport, Conn.
Filed December 15, 1914. Serial No. 83,289. PUBLISHED MARCH 2, 1915.

104,215. CREAM SOAP FOR THE FACE AND HANDS, FILLED OUT IN TUBES AND JARS. EMBURY & DE MELT, Syracuse, N. Y.
Filed June 9, 1913. Serial No. 70,971. PUBLISHED JUNE 30, 1914.

104,216. OLIVE-OIL FOR TABLE USE. ENRIQUE GRANA E HIJOS, Malaga, Spain.
Filed December 23, 1913. Serial No. 74,803. PUBLISHED MARCH 2, 1915.

104,217. FUSES. THE ENSIGN-BICKFORD COMPANY, Simsbury, Conn.
Filed October 3, 1914. Serial No. 81,637. PUBLISHED JANUARY 12, 1915.

104,218. OPHTHALMIC LENSES. F. A. HARDY & Co., Chicago, Ill.
Filed December 20, 1914. Serial No. 83,584. PUBLISHED FEBRUARY 23, 1915.

104,219. WAISTBANDS FOR TROUSERS. ISAAK HELLER, New York, N. Y.
Filed December 18, 1913. Serial No. 74,676. PUBLISHED MARCH 2, 1915.

104,220. STAMPED ART NEEDLEWORK AND EMBROIDERY. HOLZER & WICKNER, New York and Brooklyn, N. Y.
Filed November 27, 1914. Serial No. 83,001. PUBLISHED MARCH 2, 1915.

104,221. HATS AND CAPS. KNOX HAT COMPANY, INC., New York, N. Y.
Filed January 25, 1915. Serial No. 84,087. PUBLISHED MARCH 2, 1915.

104,222. PNEUMATIC TIRES AND PARTS THEREOF, TIRE-CASINGS, AND CERTAIN NAMED SUPPLIES. LYON TIRE AND RUBBER CO., Chicago, Ill.
Filed October 30, 1914. Serial No. 82,278. PUBLISHED FEBRUARY 23, 1915.

104,223. SALVE. MARGARET MOAN, Ruthven, Iowa.
Filed November 4, 1914. Serial No. 82,410. PUBLISHED DECEMBER 1, 1914.

104,224. LUBRICATING-GREASE. MOTOR ACCESSORIES, INCORPORATED, Boston, Mass.
Filed May 31, 1912. Serial No. 63,904. PUBLISHED FEBRUARY 23, 1915.

104,225. STEAM-VALVES, CHECK-VALVES, RELIEF-VALVES, GAGE-COCKS, AND STRAINERS. NATHAN MANUFACTURING COMPANY, New York, N. Y.
Filed December 23, 1914. Serial No. 83,494. PUBLISHED FEBRUARY 23, 1915.

104,226. HEADED WIRE PINS FOR TOILET AND DESK USE. THE NATIONAL PIN COMPANY, Derby, Conn.
Filed November 19, 1914. Serial No. 82,691. PUBLISHED MARCH 2, 1915.

104,227. SEWING-MACHINES. NATIONAL SEWING MACHINE CO., Belvidere, Ill.
Filed November 4, 1914. Serial No. 82,406. PUBLISHED FEBRUARY 23, 1915.

104,228. COAL. NEW ENGLAND COAL & COKE COMPANY, Boston, Mass.
Filed January 2, 1915. Serial No. 83,633. PUBLISHED FEBRUARY 23, 1915.

104,229. SHINGLES. NORTH CAROLINA LUMBER CO., Lake Waccamaw, N. C.
Filed October 17, 1914. Serial No. 81,961. PUBLISHED December 15, 1914.

104,230. LIQUID PREPARATION WHEN APPLIED TO WORN CASTINGS OR CAST-IRON MAKES THEM LOOK LIKE NEW. NU-IRON MFG. CO., York, Pa., assignor to Robert O. Stallsmith, York, Pa.
Filed July 6, 1914. Serial No. 79,580. PUBLISHED DECEMBER 1, 1914.

104,231. ANTIFRICTION-BEARINGS. PRESSED STEEL MANUFACTURING COMPANY, Philadelphia, Pa.
Filed February 6, 1915. Serial No. 84,342. PUBLISHED MARCH 2, 1915.

104,232. CHEMICAL SOLUTION FOR STOPPING AND FILLING UP LEAKS IN RADIATORS OF INTERNAL-COMBUSTION ENGINES. RADIATOR-FIX COMPANY, INC., New York, N. Y.
Filed January 13, 1915. Serial No. 83,838. PUBLISHED MARCH 2, 1915.

104,233. FIBER HOOF-PROTECTORS. RUTHERFORD RUBBER COMPANY, Rutherford, N. J.
Filed December 2, 1914. Serial No. 83,027. PUBLISHED MARCH 2, 1915.

104,234. WHEAT-FLOUR. SANDS, TAYLOR & WOOD COMPANY, Boston, Mass.
Filed November 7, 1914. Serial No. 82,474. PUBLISHED FEBRUARY 23, 1915.

104,235. BOOTS, SHOES, SLIPPERS, AND FOOTWEAR MADE OF RUBBER, LEATHER, AND CANVAS. EDWARD C. SIMEN and LOUIS ECKERT, Pittsburgh, Pa.
Filed June 18, 1914. Serial No. 79,206. PUBLISHED NOVEMBER 10, 1914.

104,236. REMEDY FOR OVERCOMING OR CURING THE TOBACCO-HABIT. J. STAMER, Savannah, Ga.
Filed January 2, 1915. Serial No. 83,644. PUBLISHED MARCH 2, 1915.

104,237. WOMEN'S, MISSES', AND CHILDREN'S DRESSES. TEXTILE PRODUCTS COMPANY, Boston, Mass.
Filed January 20, 1915. Serial No. 83,986. PUBLISHED MARCH 2, 1915.

104,238. SOAPS. TRIUMPH LIQUID SOAP COMPANY, Grinnell, Iowa.
Filed November 2, 1914. Serial No. 82,357. PUBLISHED MARCH 2, 1915.

104,239. TEMPERING-LEAD. UNITED LEAD COMPANY, New York, N. Y.
Filed December 11, 1914. Serial No. 83,238. PUBLISHED FEBRUARY 23, 1915.

104,240. CUT GASKETS OF METAL AND OF METAL AND ASBESTOS. VICTOR MANUFACTURING AND GASKET CO., Chicago, Ill.
Filed June 17, 1914. Serial No. 79,185. PUBLISHED FEBRUARY 16, 1915.

104,241. SNAP-FASTENERS. WALDES & CO., Prague-Wrschowitz, Austria-Hungary.
Filed September 20, 1912. Serial No. 65,882. PUBLISHED MARCH 2, 1915.

104,242. CARBON-REMOVER. JAMES J. WALSH, Buffalo, N. Y.
Filed October 19, 1914. Serial No. 82,006. PUBLISHED MARCH 2, 1915.

104,243. LADIES' COATS AND COSTUMES. ALEXANDER WILKIE, Edinburgh, Scotland.
Filed November 17, 1914. Serial No. 82,649. PUBLISHED MARCH 2, 1915.

104,244. SCISSORS AND SHEARS. THE ACME SHEAR COMPANY, Bridgeport, Conn.
Filed January 26, 1915. Serial No. 84,107. PUBLISHED MARCH 2, 1915.

104,245. BARS, BILLETS, CASTINGS, FORGINGS, INGOTS, PLATES, SHAPES, SHEETS, AND WIRE OF PURE IRON. THE AMERICAN ROLLING MILL CO., Middletown, Ohio.
Filed August 3, 1914. Serial No. 80,264. PUBLISHED NOVEMBER 10, 1914.

104,246. PREPARATION FOR THE TREATMENT OF THE TOBACCO HABIT. THE BAKO CO., Oklahoma, Okla.
Filed September 3, 1914. Serial No. 80,962. PUBLISHED DECEMBER 15, 1914.

104,247. CARAMELS. BLANKE-WENNEKER CANDY CO., St. Louis, Mo.
Filed October 12, 1914. Serial No. 81,803. PUBLISHED JANUARY 5, 1915.

104,248. CRUDE PETROLEUMS, FUEL-OILS, LUBRICATING-OILS, ILLUMINATING-OILS, NAPHTHAS, PARAFFIN-WAX, AND PETROLEUM RESIDUUM. CARDALITOS OIL COMPANY, New York, N. Y.
Filed December 23, 1914. Serial No. 83,469. PUBLISHED MARCH 2, 1915.

104,249. SALERATUS, BICARBONATE OF SODA, AND SAL-SODA. CHURCH & DWIGHT COMPANY, New York, N. Y.
Filed January 5, 1915. Serial No. 83,683. PUBLISHED MARCH 2, 1915.

104,250. SALERATUS, BICARBONATE OF SODA, AND SAL-SODA. CHURCH & DWIGHT COMPANY, New York, N. Y.
Filed January 5, 1915. Serial No. 83,684. PUBLISHED MARCH 2, 1915.

104,251. MIXED PAINTS. DETROIT GRAPHITE CO., Detroit, Mich.
Filed January 9, 1915. Serial No. 83,752. PUBLISHED MARCH 2, 1915.

104,252. INCANDESCENT BULBS. EUGENE J. DEUTH, New York, N. Y.
Filed December 8, 1914. Serial No. 83,156. PUBLISHED MARCH 2, 1915.

104,253. TEXTILE RUGS. DICKEY & MCMASTER, Philadelphia, Pa.
Filed December 9, 1914. Serial No. 83,170. PUBLISHED JANUARY 12, 1915.

104,254. SENSITIZED PHOTOGRAPHIC PAPER. EASTMAN KODAK CO., Rochester, N. Y.
Filed October 23, 1914. Serial No. 82,098. PUBLISHED DECEMBER 15, 1914.

104,255. KNIFE-BLADES. JOSEPH FAHYS & COMPANY, New York, N. Y.
Filed February 4, 1915. Serial No. 84,297. PUBLISHED MARCH 2, 1915.

104,256. HATS. THE FAIR, Chicago, Ill.
Filed June 4, 1914. Serial No. 78,789. PUBLISHED MARCH 2, 1915.

104,257. HOLLOW AND SOLID BARS OF STEEL. INTERNATIONAL HIGH SPEED STEEL COMPANY, New York, N. Y.
Filed November 27, 1914. Serial No. 82,936. PUBLISHED MARCH 2, 1915.

104,258. FOOD, CONSISTING OF GRAINS, NUTS, AND FRUIT. BERNARR MACFADDEN, Chicago, Ill.
Filed March 7, 1914. Serial No. 76,444. PUBLISHED JANUARY 12, 1915.

104,259. CURED FISH. THE MEYER & THOMPSON CO., INC., New York, N. Y.
Filed October 3, 1914. Serial No. 81,640. PUBLISHED JANUARY 19, 1915.

104,260. PAPER WRAPPERS FOR FOOD PRODUCTS. NASHUA CARD GUMMED & COATED PAPER COMPANY, Nashua, N. H.
Filed July 3, 1914. Serial No. 79,540. PUBLISHED MARCH 2, 1915.

104,261. SHAPES, BARS, AND SHEETS OF METAL. NORTHFIELD IRON COMPANY, Northfield, Minn.
Filed December 26, 1914. Serial No. 83,540. PUBLISHED MARCH 2, 1915.

104,262. FURNITURE-DRESSING. ROY A. PHILLIPS, Cleveland, Ohio.
Filed February 6, 1914. Serial No. 75,735. PUBLISHED MARCH 2, 1915.

104,263. LADIES' LEATHER SHOES AND CANVAS SHOES. THE A. E. PITTS SHOE COMPANY, Columbus, Ohio.
Filed November 5, 1914. Serial No. 82,426. PUBLISHED MARCH 2, 1915.

104,264. MEN'S LEATHER SHOES AND CANVAS SHOES. THE A. E. PITTS SHOE COMPANY, Columbus, Ohio.
Filed November 5, 1914. Serial No. 82,428. PUBLISHED MARCH 2, 1915.

104,265. BOYS' BLOUSES. RELIANCE MANUFACTURING COMPANY, Chicago, Ill.
Filed February 5, 1915. Serial No. 84,316. PUBLISHED MARCH 9, 1915.

104,266. WOMEN'S, CHILDREN'S, AND INFANTS' COATS, CLOAKS, WRAPS, SUITS, COSTUMES, AND CAPES. THE SALT'S TEXTILE MANUFACTURING COMPANY, Bridgeport, Conn., and New York, N. Y.
Filed February 2, 1915. Serial No. 84,271. PUBLISHED MARCH 9, 1915.

104,267. ORGANS AND PIANOS. THE B. SHONINGER CO., New Haven, Conn.
Filed December 24, 1914. Serial No. 83,518. PUBLISHED MARCH 2, 1915.

104,268. ORGANS AND PIANOS. THE B. SHONINGER CO., New Haven, Conn.
Filed December 24, 1914. Serial No. 83,519. PUBLISHED MARCH 2, 1915.

104,269. POPCORN CONFECTION. CORAL LAVELLE SMITH, Detroit, Mich.
Filed May 18, 1914. Serial No. 78,370. PUBLISHED NOVEMBER 17, 1914.

104,270. CERTAIN NAMED ELECTRICAL APPARATUS AND SUPPLIES. FRANK H. STEWART ELECTRIC CO., Philadelphia, Pa.
Filed January 2, 1913. Serial No. 67,685. PUBLISHED FEBRUARY 23, 1915.

104,271. LUBRICATING-OILS FOR VARIOUS KINDS OF MACHINERY AND VEHICLES. TIONA OIL COMPANY, Binghamton, N. Y.
Filed September 30, 1914. Serial No. 81,588. PUBLISHED DECEMBER 29, 1914.

104,272. COFFEE. HENRY R. TIPPENHAUER, New York, N. Y.
Filed December 23, 1914. Serial No. 83,499. PUBLISHED MARCH 2, 1915.

104,273. VARNISH. THE U-AUTO VARNISH CO., Cleveland, Ohio.
Filed May 7, 1914. Serial No. 78,108. PUBLISHED JANUARY 26, 1915.

104,274. VARNISH. THE U-AUTO VARNISH CO., Cleveland, Ohio.
Filed May 7, 1914. Serial No. 78,109. PUBLISHED JANUARY 26, 1915.

104,275. VARNISH. THE U-AUTO VARNISH CO., Cleveland, Ohio.
Filed May 7, 1914. Serial No. 78,110. PUBLISHED JANUARY 26, 1915.

104,276. VARNISH. THE U-AUTO VARNISH CO., Cleveland, Ohio.
Filed May 7, 1914. Serial No. 78,111. PUBLISHED JANUARY 26, 1915.

104,277. VARNISH. THE U-AUTO VARNISH CO., Cleveland, Ohio.
Filed May 7, 1914. Serial No. 78,112. PUBLISHED JANUARY 26, 1915.

104,278. VARNISH. THE U-AUTO VARNISH CO., Cleveland, Ohio.
Filed May 7, 1914. Serial No. 78,113. PUBLISHED JANUARY 26, 1915.

104,279. VARNISH. THE U-AUTO VARNISH CO., Cleveland, Ohio.
Filed November 25, 1914. Serial No. 82,897. PUBLISHED JANUARY 5, 1915.

104,280. MIRROR-GLASS FOR SHAVING AND TOILET PURPOSES. CLARENCE W. WOOD, Syracuse, N. Y.
Filed August 10, 1914. Serial No. 80,452. PUBLISHED FEBRUARY 23, 1915.

TRADE-MARK REGISTRATIONS RENEWED.

12,252. REFINED PETROLEUM. THE CHESTER OIL COMPANY, Philadelphia, Pa.; Tide Water Oil Company, assignee.
Registered May 19, 1885. Renewed May 19, 1915.

LABELS

REGISTERED MAY 11, 1915.

18,435.—*Title:* "AROMINTS." (For Mints.) THE AROMINT CO., Cincinnati, Ohio. Filed March 4, 1912.

18,436.—*Title:* "CEREAL MEAL." (For a Cereal Health Food.) THE CEREAL MEAL CO., Denver, Colo. Filed January 8, 1915.

18,437.—*Title:* "TANKS FOR THE WORLD." (For Steel Tanks.) COLUMBIAN STEEL TANK CO., Kansas City, Mo. Filed April 14, 1915.

18,438.—*Title:* "FRUT STIX." (For Confections Made from Fruits.) FRANK J. COOPER, San Francisco, Cal. Filed April 10, 1915.

18,439.—*Title:* "HOPEWELL ORCHARDS." (For Fruits.) HERMAN E. ECKSTEIN, New York, N. Y. Filed March 10, 1915.

18,440.—*Title:* "RAINBOW ROOFING." (For Composition Rolled Roofing.) THE EDWARDS & CHAMBERLIN HARDWARE CO., Kalamazoo, Mich. Filed March 27, 1915.

18,441.—*Title:* "CYCLONE ROOFING." (For Composition Rolled Roofing.) THE EDWARDS & CHAMBERLIN HARDWARE CO., Kalamazoo, Mich. Filed March 27, 1915.

18,442.—*Title:* "WHITE SEAL." (For Cigars.) CHRIS. FORTRIEDE, Cincinnati, Ohio. Filed March 10, 1915.

18,443.—*Title:* "BLUE SEAL." (For Cigars.) CHRIS. FORTRIEDE, Cincinnati, Ohio. Filed March 10, 1915.

18,444.—*Title:* "FONTENELLE." (For Coffee.) GERMAN-AMERICAN COFFEE CO., Omaha, Nebr. Filed March 23, 1915.

18,445.—*Title:* "SUPREME SWEETS." (For Confections.) GEO. HAAS & SONS, San Francisco, Cal. Filed March 10, 1915.

18,446.—*Title:* "MIKADO." (For Table Sauce.) FRANK Y. HASHIBA, New York, N. Y. Filed March 19, 1915.

18,447.—*Title:* "HY-GN-IC." (For Paper Napkins.) JAPANESE TISSUE MILLS, Holyoke, Mass. Filed March 30, 1914.

18,448.—*Title:* "VENUS PERFECT WRITING PAPER." (For Writing-Paper.) KALAMAZOO STATIONERY CO., Kalamazoo, Mich. Filed October 22, 1914.

18,449.—*Title:* "SELECTED QUALITY LINEN FINISH WRITING PAPER." (For Writing-Paper.) KALAMAZOO STATIONERY CO., Kalamazoo, Mich. Filed January 4, 1915.

18,450.—*Title:* "KIAMENSI SPRING WATER." (For Spring-Water.) NATIONAL TABLE WATERS CO., Wilmington, Del. Filed March 29, 1915.

18,451.—*Title:* "NATIONAL MOTOR NAPHTHA." (For Motor-Naphtha.) PETROLEUM PRODUCTS COMPANY, San Francisco, Cal. Filed March 29, 1915.

18,452.—*Title:* "NATIONAL BENZINE—THE IDEAL MOTOR SPIRIT." (For Benzene.) PETROLEUM PRODUCTS COMPANY, San Francisco, Cal. Filed March 29, 1915.

18,453.—*Title:* "AMARO ROMANO." (For a Tonic.) A. A. ROMANO & CO., Rochester, N. Y. Filed March 9, 1915.

18,454.—*Title:* "'JITNEY' FIZZ." (For Beverages.) JOHN STANLEY CROW, Memphis, Tenn. Filed March 31, 1915.

18,455.—*Title:* "VIOLET TALCUM POWDER." (For Violet Talcum Powder.) THE S. S. WHITE DENTAL MFG. CO., Philadelphia, Pa. Filed April 8, 1915.

18,456.—*Title:* "THE S. S. WHITE TOOTH BRUSH." (For a Tooth-Brush.) THE S. S. WHITE DENTAL MFG. CO., Philadelphia, Pa. Filed April 8, 1915.

18,457.—*Title:* "THE S. S. WHITE TOOTH BRUSH." (For Tooth-Brushes.) THE S. S. WHITE DENTAL MFG. CO., Philadelphia, Pa. Filed April 8, 1915.

18,458.—*Title:* "ALMOND CREAM." (For Almond Cream.) THE S. S. WHITE DENTAL MFG. CO., Philadelphia, Pa. Filed April 8, 1915.

18,459.—*Title:* "S. S. WHITE TOOTH PASTE." (For a Tooth-Paste.) The S. S. WHITE DENTAL MFG. CO., Philadelphia, Pa. Filed April 8, 1915.

18,460.—*Title:* "WHEELER'S HAIR COLORING." (For Hair-Dye and Hair-Colorings.) WHEELER BEAUTY CO., New York, N. Y. Filed February 15, 1915.

18,461.—*Title:* "COMMUNITY FLAX." (For Stationery.) WHITE & WYCKOFF MFG. CO., Holyoke, Mass. Filed December 8, 1914.

18,462.—*Title:* "GOODY TWO-SHOES." (For Stationery.) WHITE & WYCKOFF MFG. CO., Holyoke, Mass. Filed March 15, 1915.

18,463.—*Title:* "LACQUERSHINE METAL POLISH." (For Metal-Polish.) EDWARD H. WIERSCHING, Binghamton, N. Y. Filed February 6, 1915.

18,464.—*Title:* "GOLDEN FRUIT." (For Chewing-Gum.) ZULU MANUFACTURING COMPANY, Chicago, Ill. Filed December 14, 1914.

PRINTS

REGISTERED MAY 11, 1915.

3,897.—*Title:* "LASTS EVERLASTINGLY." (For Brick.) THE AMERICAN ART WORKS, Coshocton, Ohio. Filed January 7, 1915.

3,898.—*Title:* "EUSOZO." (For a Medicine.) JOHN E. CELLI, Philadelphia, Pa. Filed January 8, 1915.

3,899.—*Title:* "'GIUSEPPI GARIBALDI' BRAND." (For Macaroni.) ANTHONY A. GIUNTA, Philadelphia, Pa. Filed December 21, 1914.

3,900.—*Title:* "LIKE A CLEAN CHINA DISH." (For Refrigerators.) GRAND RAPIDS REFRIGERATOR CO., Grand Rapids, Mich. Filed March 23, 1914.

3,901.—*Title:* "HIS BAIT." (For Cigarettes.) LIGGETT & MYERS TOBACCO COMPANY, Jersey City, N. J., and St. Louis, Mo. Filed October 16, 1914.

3,902.—*Title:* "HICKSON'S TWIN SAGLESS." (For Springs for Beds, Cots, and Couches.) PITTSBURGH HICKSON COMPANY, East Butler, Pa. Filed October 28, 1914.

3,903.—*Title:* "VEEDOL." (For Veedol.) PLATT & WASHBURN REFINING COMPANY, New York, N. Y. Filed April 15, 1915.

DECISIONS

OF THE

COMMISSIONER OF PATENTS

AND OF

UNITED STATES COURTS IN PATENT CASES.

COMMISSIONER'S DECISIONS.

EX PARTE CAPEN.

Decided July 21, 1914.

AMENDMENTS—AFTER DISSOLUTION OF INTERFERENCE—ESTOPPEL.

Where on motion to dissolve an interference the Commissioner held that applicant could not make the claims in issue and thereafter broader claims were presented, with a request that another interference be declared, *Held* that "it is not necessary to decide how long after the time fixed by Rule 109 applicant could have presented other claims with the request to have them made part of the issue of the interference, but certainly if such action was desired it should have been taken while the interference was pending, in order that the question of the admissibility of these claims could have been ruled on *inter partes* and applicant cannot now be allowed these claims."

ON PETITION.

ROCK AND ORE BREAKER.

Mr. G. F. De Wein for the applicant.

WHITEHEAD, *Assistant Commissioner:*

Applicant petitions from the refusal of the Examiner to declare an interference upon present claims 7, 8, 9, 10, and 11 with the application of Simonds and Smith, with which this application was formerly in interference. He also petitions from the refusal of the Examiner to permit him to reinstate claims corresponding to four of the counts of the interference.

This application was involved in interference with the application of Simonds and Smith and the application of Lieber. The interference was declared on five counts. On a motion to dissolve the Examiner held that count 4 was unpatentable and that Capen could not make the other counts. Upon appeal this decision was affirmed by the Examiners-in-Chief and their decision affirmed by the then First Assistant Commissioner on December 5, 1913. Thereafter applicant presented an amendment canceling claims corresponding to the issue of the interference and presented three new and broader claims numbered 7, 8, and 9. The Examiner, after some prosecution and the addition of two claims, numbered 10 and 11, rejected all five of these claims on the ground of estoppel, arising from the fact that applicant did not present them during the time fixed by Rule 109 or at the time the motion for dissolution was presented. Applicant then added claims 12, 13, 14, and 15, which were copies of counts 1, 2, 3, and 5 of the interference. The Examiner held that he had no authority to reinstate these claims.

Applicant contends that he has a right to appeal *ex parte* to the Court of Appeals of the District of Columbia as to the four claims (now numbered 12, 13, 14, and 15) which constitute the issue of the interference and which it was held, on motion to dissolve, he could not make. He also contends that the Examiner having held that claims 7, 8, 9, 10, and 11 are properly readable upon the case of Simonds and Smith he is entitled to further contest priority with respect to them.

The Examiner properly refused to redeclare the interference. It is not necessary to decide how long after the time fixed by Rule 109 applicant could have presented other claims, with the request to have them made part of the issue of the interference, but certainly if such action was desired it should have been taken while the interference was pending, in order that the question of the admissibility of these claims could have been ruled on *inter partes*, and applicant cannot now be allowed these claims. The cases cited in the brief are not in point, since in each of them a motion to present the new claims was brought during the progress of the interference and the only question was whether the showing made by the record was sufficient to excuse the delay in presenting the claims.

It is not believed that by presenting broader claims and canceling the claims corresponding to the issue applicant lost any right that he may have had to appeal, with respect to the latter, to the Court of Appeals of the District of Columbia *ex parte*. The amendment containing claims 12, 13, 14, and 15 will therefore be entered; but in view of the decisions heretofore rendered in this Office in the interference in which this application was involved applicant is refused a patent containing these claims. He is also, for the reasons hereinbefore stated, refused a patent containing claims 7, 8, 9, 10, and 11.

DECISIONS OF THE U. S. COURTS.

Court of Appeals of the District of Columbia.

QUAKER CITY FLOUR MILLS COMPANY *v.* THE QUAKER OATS COMPANY, QUAKER MILLS COMPANY, AMERICAN CEREAL COMPANY.

Decided March 1, 1915.

TRADE-MARKS—"QUAKER" NOT THE SAME AS "QUAKER CITY MILLS" OR "QUAKER CITY."

Where applicant has used only the marks "Quaker City Mills" and "Quaker City," *Held* that it has no right to register the word "Quaker," as the law requires that the mark sought to be registered must be the same as the mark shown to have been used.

Mr. Jas. L. Steuart for the appellant.

Mr. F. M. Phelps for the appellees.

VAN ORSDEL, *J.*:

Appellant appeals from a decision of the Commissioner of Patents in an interference proceeding wherein its application for registration of the word "Quaker" as a trade-mark for flour was refused.

Registrations of the word "Quaker" for flour and flour products extend back to 1895. As no evidence of abandonment of these marks appears, they must be presumed to be still in use. The tribunals of the Patent Office did not consider it necessary to pass upon the question of priority, concerning which a large volume of testimony was taken, for the reason that it does not appear that appellant company or its predecessors ever used the word "Quaker" as a trade-mark for flour.

The evidence shows that the mark used by appellant's predecessor in business down to 1902, when it began to use the mark, was "Quaker City Mills" and "Quaker City," but never "Quaker" alone. We do not find that the word "Quaker" has ever been used by appellant. Appellant must, therefore, stand or fall upon its right to register "Quaker," though only a part of the mark actually used.

Manifestly "Quaker City" could not be registered, for it is of such a geographical signification as to bring it within the prohibition of section 5 of the Trade-Mark Act of 1905. It is settled that the use of a trade-mark in connection with accessory symbols or words still constitutes a use of the mark. (*Walter Baker & Co.* v. *Delapenha*, 160 Fed., 746, 750; *Bass, Ratcliff & Gretton* v. *Feigenspan*, 96 Fed., 206, 212; *Walter Baker & Co.* v. *Puritan Food Co.*, 139 Fed., 680, 682.) On the other hand, it is equally well settled that whatever right an applicant for registration has acquired to the exclusive use of his mark must appear clearly from the use shown. The trade-mark law does not create a trade-mark right, but merely provides for the registration of marks, the right to which has accrued from actual use. It, therefore, appears that appellant is here asking the law to create in it a trade-mark right to the word "Quaker," when it has never used such mark.

The distinction here involved is sharply pointed out by Mr. Justice Robb in the case of *in re Motz Tire & Rubber Co.* (40 App. D. C., 487; 193 O. G., 513; 1913 C. D., 459) as follows:

That the mark which the record discloses the appellant adopted and used is descriptive, and hence nonregisterable, is too plain to admit of argument. Realizing this, the applicant now seeks to register a mark which the record fails to show it has ever used. The Patent Office was therefore quite right in declining to register this fictitious mark, this mere skeleton of the real mark.

Here, it is sought to convert "Quaker City," an unregisterable mark, into a registerable mark by dropping the word "City." As the Commissioner in his opinion pertinently observed:

The word "Quaker" and the words "Quaker City" have different meanings. Use of "Quaker City" on goods does not establish trade-mark use of the word "Quaker" any more than it establishes trade-mark use of the word "City."

Reliance is placed by counsel for appellant on the holding of this court in *in re Standard Underground Cable Co.*, (27 App. D. C., 320; 123 O. G., 656; 1906, C. D., 687.) But in that case, the applicant presented two arbitrary features, and it was held that he had the right to select the portion which he believed to be his trade-mark. There, the word "Eclipse" was printed on a dark background, representing a partial solar eclipse, and underneath this dark background were the words "Black Core." The drawing furnished in the application showed only the word "Eclipse." Holding this mark registerable, the court said:

It is within common knowledge that a trade-mark is ordinarily used upon a label which contains embellishments, ornamentations, and other matter, which, standing by themselves, may often be proper subject-matter for exclusive appropriation as trade-marks, yet such matter is no essential part of the trade-mark claimed and by which the brand, in connection with which they are used, becomes known. This is specially so when the trade-mark is a fanciful name or coined word.

Referring to the power of the Commissioner, the court said:

The Commissioner is vested with power to determine, in the first instance, whether the mark, as described, shown, and claimed is subject to appropriation by the applicant, and may satisfy himself as to whether the trade-mark has been actually used in interstate or foreign commerce. When he finds that the mark as claimed has so been used, it is not for him to turn to the specimen, if one be required by him, and, seeing other matter than the mark claimed, shown on the specimen, require applicant to add any such matter.

But, the difficulty here is that "the mark as claimed" has not been used. It is only part of the mark which actually designated the product to which it was applied. If appellant, for example, had shown a design with the word "Quaker" surrounded by a scroll and underneath the picture of a man in Quaker dress, undoubtedly it would have the right to declare in the Patent Office which design it claimed as its trade-mark; and that, we think, illustrates the distinction between this and the Underground Cable Company case.

We think that the law requires that the mark applied for must be the same as the mark shown to have been used. To hold otherwise would permit appellant, in this instance, to convert a mark which the statute prohibits from being registered, because of its geographical signification, into a technical trade-mark by eliminating the word which makes it geographical, while the geographical term is the one which has actually been used. The law will not permit that which it expressly prohibits to be legally accomplished by indirect methods.

The decision of the Commissioner of Patents is affirmed, and the clerk is directed to certify these proceedings as by law required.

Affirmed.

Court of Appeals of the District of Columbia.

IN RE CAPEN.

Decided March 29, 1915.

AMENDMENTS—AFTER DISSOLUTION OF INTERFERENCE—ESTOPPEL.

As Rule 109 affords either party to an interference full opportunity to put in issue matter which he may think patentable or common to the interfering applications, but which was not included in the interference as originally declared by the Primary Examiner, *Held* that where no motion was made under that rule and the interference was finally dissolved on the ground that one of the parties had no right to make the claims in issue such party is estopped to thereafter present broader claims.

Mr. G. F. De Wein for the appellant.

Mr. M. E. Porter for the Commissioner.

ROBB, *J.*:

Appeal from a final decision of the Patent Office refusing a patent on certain claims. An interference was formerly declared between this application and applications of William H. Lieber and Simonds and Smith. The interference involved five counts. On motion to dissolve as to appellant the Examiner held that count 4 was unpatentable and that appellant was not entitled to make the other counts. All parties acquiesced in the decision as to count 4, and the decision as to the other counts was affirmed by the Examiners-in-Chief, whose decision was in turn affirmed by the First Assistant Commissioner. We reproduce counts 1 and 5 as representative of the group:

1. A rock crusher, comprising a rotatable concave crushing member, a rotatable convex crushing member internal of the concave member, means eccentrically supporting said members with the crushing surfaces nowhere in contact with each other, and means for feeding material from end to end of the members by the rotation thereof.

5. A rock crusher comprising a frame, two parallel rotatable shafts, one internal of the other, eccentrically carried by said frame, and coacting crusher heads carried by said rotatable shafts.

Thereafter appellant presented an amendment containing new and broader claims which the Examiners refused to entertain on the ground that they should have been presented during the time fixed by Rule 109, or at least not later than the time the motion for dissolution was presented. He therefore refused to redeclare the interference. On appeal to the Assistant Commissioner the decision was affirmed, the Assistant Commissioner saying:

The Examiner properly refused to redeclare the interference. It is not necessary to decide how long after the time fixed by Rule 109 applicant could have presented other claims with the request to have them made part of the issue of the interference, but certainly if such action was desired it should have been taken while the interference was pending, in order that the question of the admissibility of these claims could have been ruled on *inter partes* and applicant cannot now be allowed these claims.

We agree with the Patent Office tribunals that appellant had no right to make the claims involved in the interference proceeding. Inasmuch as the Examiner and the Assistant Commissioner have fully and satisfactorily considered this question we will not restate the reasons for our conclusions but merely refer to their decisions.

Rule 109 permits any party to an interference at any time within thirty days after preliminary statements have been received and approved to file an amendment to his application containing any claims which in his opinion should be made the basis of an interference between himself and any of the other parties. It is made the duty of the Examiner of Interferences to transmit the claims thus proposed to the Primary Examiner for his determination. If the claims are allowed the interference will be redeclared, or other interferences will be declared, to include the new claims. The object of this rule obviously is to require the parties to an interference to have determined in that proceeding all rights growing out of their respective applications. In other words, the rule affords either party to an interference full opportunity to put in issue matter which he may think patentable or common to the interfering applications, but which was not included in the interference as originally declared by the Primary Examiner. In this case appellant did not comply with the rules of the Office and file an amendment containing these claims prior to the dissolution of the interference. We therefore agree with the Patent Office that he was thereafter estopped to urge them.

Decision affirmed.

Changes in Classification.

(ORDER NO. 2,198.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., April 24, 1915.

The following changes in the classification of inventions are hereby directed, to take effect immediately:

In class 73, Measuring Instruments, (Division XXXVI,) abolish subclass—

Measures—

123. Speed.

The patents formerly contained in this subclass have been placed for the most part in classes 116, Signals, subclass 65, Speed controlled; 235, Registers, subclass 103.5, Rotation counters, Comparing, and 264, Speed Responsive Devices, all hereinafter established.

In class 74, Machine Elements, (Division XII,) establish subclasses—

Gearing—

95. Speed controlled—
97. Ratio changing,
96. Reversing.

Mechanical movements—

89. Speed controlled—
91. Hit and miss.

Mechanical movements—

Speed controlled—
92. Intermittent grip,
90. Trip.

93. **Trips—**
94. Speed controlled.

The patents contained in these subclasses have been taken for the most part from class 121, Steam Engines, subclasses 112, Speed-governors, Centrifugal, hereinafter abolished, and 97, Valve-gear, and the subclasses thereunder.

In class 116, Signals, (Division XLII,) establish subclass—

65. **Speed controlled.**

The patents contained in this subclass have been taken for the most part from class 73, Measuring Instruments, subclass 123, Measures, Speed, hereinbefore abolished.

In class 121, Steam Engines, (Division XVIII,) abolish subclasses—

Speed-governors—

112. Centrifugal,
114. Pressure.

The patents formerly contained in these subclasses have been placed in classes 74, Machine Elements, subclasses 92, Mechanical movements, Speed controlled, Intermittent grip, and 95, Gearing, Speed controlled, and the subclasses thereunder; 137, Water Distribution, subclass 140, Valve actuation, Speed controlled, and the subclasses thereunder, and 264, Speed Responsive Devices, all established in this order, and class 121, Steam Engines, subclass 111, Speed-governors.

In class 137, Water Distribution, (Division XXXIX,) establish subclasses—

139. **Valve actuation—**	**Valve actuation—**
145. Periodic—	Speed controlled—
146. Rotary,	143. Pressure motor,
140. Speed controlled—	144. Systems.
141. Periodic—	
142. Rotary,	

The patents contained in these subclasses have been taken for the most part from class 121, Steam Engines, subclass 111, Speed-governors, and the subclasses thereunder.

In class 175, Electricity, General Applications, (Division XXXVII,) establish subclass—

Systems—

355. Speed controlled.

The patents contained in this subclass have been taken from various classes.

In class 235, Registers, (Division XXIII,) establish the following subclass and definition:

Rotation counters—

103.5. Comparing.

103.5. ROTATION COUNTERS, COMPARING. Instruments for comparing the number of rotations made by two or more shafts or other pieces of machinery.

The patents contained in this subclass have been taken for the most part from class 73, Measuring Instruments, subclass 123, Measures, Speed, hereinbefore abolished.

Establish in Division XVIII—

CLASS 244.—SPEED RESPONSIVE DEVICES,

with the following subclasses and definitions, the patents contained in this class having been taken for the most part from classes 73, Measuring Instruments, subclass 123, Measures, Speed, hereinbefore abolished, and 121, Steam-Engines, subclass 111, Speed-governors, and the subclasses thereunder:

CLASS 244.—SPEED RESPONSIVE DEVICES. (XVIII.)

Subclasses.

15. **Centrifugal—**	12. **Resistance—**
20. Balanced,	13. Clutch,
19. Fluid,	14. Fluid pressure.
17. Guided,	2. **With driving mechanism.**
16. Parallel pivot,	3. **With modifiers—**
18. Spring support.	4. Automatic—
9. **Differential—**	5. Differential—
0. Brake,	6. Inertia,
11. Inertia.	8. Electric,
1. **Miscellaneous.**	7. Fluid pressure.

THOMAS EWING,
Commissioner.

Interference Notices.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., May 4, 1915.

Abbie Gertrude Baumgarten, her assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of the Minerva Toilet Goods Manufacturing Company, (not incorporated,) of 6250 Drexel avenue, Chicago, Ill., for registration of a trade-mark and trade-marks registered February 4, 1908, Nos. 67,507 and 67,510, to Abbie Gertrude Baumgarten, of Hotel Belmont, New York, N. Y., and a notice of such declaration sent by registered mail to said Abbie Gertrude Baumgarten at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Abbie Gertrude Baumgarten, her assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

J. T. NEWTON, *First Assistant Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., April 24, 1915.

Miller & Miller, their assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Swift and Company, Union Stock Yards, Chicago, Ill., for registration of a trade-mark and trade-mark registered February 23, 1892, No. 20,763, to Miller & Miller, No. 12 North Paca street, Baltimore, Md., and a notice of such declaration sent by registered mail to said Miller & Miller at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Miller & Miller, their assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

J. T. NEWTON, *First Assistant Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., April 19, 1915.

Joseph Meyer, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Schinasi Bros., 32 West One hundredth street, New York, N. Y., for registration of a trade-mark and trade-mark registered May 14, 1889, No. 16,570, to Joseph Meyer, 3 Cross Lane, London, England, and a notice of such declaration sent by registered mail to said Joseph Meyer at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Joseph Meyer, his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

J. T. NEWTON, *First Assistant Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., April 16, 1915.

Leo Prange, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of The International Manufacturers Agency, Inc., 461 Broome street, New York, N. Y., for registration of a trade-mark and trade-mark registered January 7, 1890, No. 17,383, to Leo Prange, 780 Madison street, Brooklyn, N. Y., and a notice of such declaration sent by registered mail to said Leo Prange at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Leo Prange, his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

J. T. NEWTON, *First Assistant Commissioner.*

THE
OFFICIAL GAZETTE
OF THE
United States Patent Office.

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Printed copies of patents are furnished by the Patent Office at 5 cents each. For the latter, address the Commissioner of Patents, Washington, D. C.

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ISSUE OF MAY 18, 1915.

Patents	877	No. 1,139,470 to No. 1,140,346, inclusive.
Designs	18	No. 47,354 to No. 47,371, inclusive.
Trade-Marks	65	No. 104,281 to No. 104,345, inclusive.
Labels	8	No. 18,465 to No. 18,472, inclusive.
Prints	13	No. 3,904 to No. 3,916, inclusive.
Reissues	3	No. 13,918 to No. 13,920, inclusive.
Total	984	

The patents of this issue were pending an average of 22.4 months.

TO RESIDENTS OF THE UNITED STATES.

States	Patents and Designs.	Trade-Marks, Labels, and Prints.	States.	Patents and Designs.	Trade-Marks, Labels, and Prints.
Alabama	7	....	North Carolina	2	2
Arizona	....	....	North Dakota	3	....
Arkansas	4	....	Ohio	56	2
California	32	2	Oklahoma	6	1
Colorado	13	1	Oregon	6	2
Connecticut	33	5	Pennsylvania	74	6
Delaware	2	....	Rhode Island	7	....
Florida	1	....	South Carolina	2	....
Georgia	8	....	South Dakota	2	1
Idaho	2	....	Tennessee	6	....
Illinois	107	6	Texas	21	....
Indiana	17	1	Utah	2	....
Iowa	12	3	Vermont	3	....
Kansas	7	....	Virginia	7	2
Kentucky	6	1	Washington	15	....
Louisiana	3	....	West Virginia	5	....
Maine	3	....	Wisconsin	28	....
Maryland	5	....	Wyoming	....	....
Massachusetts	58	7			
Michigan	30	2	Alaska, District of	....	....
Minnesota	12	6	Canal Zone	....	....
Mississippi	3	....	District of Columbia	6	1
Missouri	24	5	Hawaii Territory	....	....
Montana	5	....	Philippine Islands	....	....
Nebraska	4	....	Porto Rico	....	....
Nevada	2	....	U. S. Army	....	....
New Hampshire	2	....	U. S. Navy	....	....
New Jersey	44	2			
New Mexico	2	....	Total to residents of the United States	810	83
New York	111	25			

TO RESIDENTS OF FOREIGN COUNTRIES.

Countries.	Patents and Designs.	Trade-Marks.	Countries.	Patents and Designs.	Trade-Marks.
Argentina	....	....	Natal	....	....
Austria-Hungary	8	....	Netherlands	1	....
Belgium	2	....	New South Wales	....	....
British India	....	....	New Zealand	....	1
British West Indies	....	....	Norway	1	....
Canada	16	....	Portugal	....	....
Cape Colony	....	....	Queensland	....	....
Chile	....	....	Roumania	....	....
Costa Rica	....	....	Russia	....	....
Cuba	....	....	Scotland	....	....
Denmark	1	....	South Africa	2	....
England	26	2	Spain	....	....
Finland	....	....	Sweden	2	....
France	4	....	Switzerland	2	....
Germany	13	....	Transvaal, South Africa	....	....
Guatemala	....	....	Victoria	....	....
India	1	....	Western Australia	1	....
Ireland	1	....			
Isle of Jersey	....	....	Total to residents of foreign countries	83	3
Italy	2	....			
Japan	....	....			

Changes in Classification.

(ORDER NO. 2,199.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., May 11, 1915.

The following change in the classification of inventions is hereby directed, to take effect immediately:

In class 10, Bolt, Nail, Nut, Rivet, and Screw Making, (Division XIII,) establish the following subclass and definition:

Screw-threading—
Implements—
Dies—
Radial chaser—
120.5. Taper threading.

120.5. SCREW THREADING, IMPLEMENTS, DIES, RADIAL CHASER, TAPER THREADING. Dies in which the immediate thread-cutting portions or chasers gradually recede during the threading operation in order to form a taper thread, either by means which positively withdraws the chasers or by means which controls the withdrawal caused by the pressure of the cut.

The patents contained in this subclass have been taken for the most part from class 10, Bolt, Nail, Nut, Rivet, and Screw Making, subclasses 120, Screw-threading, Implements, Dies, Radial chaser, and 122, Screw-threading, Implements, Dies, Radial chaser, Adjustable, Cam-operated.

THOMAS EWING,
Commissioner.

Delivery of Patent.

RULE 169. The patent will be delivered or mailed on the day of its date to the attorney of record, if there be one; if not, to the patentee; or, if the attorney so request, to the patentee or assignee of an interest therein.

APPLICATIONS UNDER EXAMINATION.

Condition at Close of Business May 15, 1915.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action. New.	Amended	No. of applications awaiting action.
314	1. Fences; Fences, Gates; Harrows and Diggers; Plows; Seeders and Planters; Trees, Plants, and Flowers.	Feb. 8	Feb. 8	465
128	2. Bee Culture; Curtains, Shades, and Screens; Dairy; Label Pasting and Paper Hanging; Paper Files and Binders; Medicines; Pneumatics; Presses; Tents, Canopies, Umbrellas, and Canes; Tobacco.	Dec. 3	Feb. 23	785
175	3. Annealing and Tempering; Electric Heating and Rheostats; Electrochemistry; Metal-Founding; Metallurgy; Plastic Metal Working.	May 3	May 3	112
232	4. Conveyers; Elevators; Excavating; Hoisting; Loading and Unloading; Pneumatic Despatch; Railway Mail Delivery; Traversing Hoists.	Dec. 2	May 1	634
167	5. Bookbinding; Harvesters; Jewelry; Music.	Feb. 4	Apr. 21	327
318	6. Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Liquid Coating Compositions; Plastic Compositions; Preserving; Sugar and Salt; Substance Preparation.	Nov. 18	Apr. 27	522
312	7. Educational Appliances; Clutches; Games and Toys; Motors; Optics; Velocipedes.	Mar. 15	Apr. 15	512
131	8. Beds; Chairs; Furniture; Kitchen and Table Articles; Store Furniture; Supports.	Dec. 3	Apr. 26	1161
142	9. Air and Gas Pumps; Fluid-Pressure Regulators; Hydraulic Motors; Motors, Fluid; Motors, Fluid-Current; Pumps.	Aug. 10	Apr. 22	824
225	10. Carriages and Wagons	Jan. 8	Apr. 22	716
154	11. Boot and Shoe Making; Boots, Shoes, and Leggings; Button, Eyelet, and Rivet Setting; Harness; Leather Manufactures; Nailing and Stapling; Whips and Whip Apparatus.	Apr. 1	May 4	113
322	12. Journal-Boxes, Pulleys, and Shafting; Lubrication; Machine Elements.	Feb. 20	Apr. 27	709
329	13. Arms, Projectiles, and Explosive Charges, Making; Bolt, Nail, Nut, Rivet, and Screw Making; Boring and Drilling; Button Making; Chain, Staple, and Horseshoe Making; Driven, Headed, and Screw Threaded Fastenings; Gear Cutting, Milling, and Planing; Metal Drawing; Metal Forging and Welding; Metal Rolling; Metal Tools and Implements, Making; Metal Working; Needle and Pin Making; Nut and Bolt Locks; Turning.	Mar. 22	Apr. 14	449
307	14. Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal-Bending; Metal-Ornamenting; Sheet-Metal Ware, Making; Tools; Wire Fabrics and Structure; Wire-Working.	Dec. 31	Apr. 12	320
308	15. Bread, Pastry, and Confection Making; Coating; Fuel; Glass; Laminated Fabrics and Analogous Manufactures; Paper-Making and Fiber Liberation; Plastic Block and Earthenware Apparatus; Plastics.	Dec. 21	Apr. 26	661
109	16. Electric Signaling; Radiant Energy; Telegraphy; Telephony.	Jan. 15	Feb. 20	475
303	17. Matrix-Making; Paper Manufactures; Printing; Type-Bar Making.	Mar. 3	May 3	165
337	18. Injectors and Ejectors; Liquid Heaters and Vaporizers; Miscellaneous Heat-Engine Plants; Steam and Vacuum Pumps; Steam-Engines; Steam-Engine Valves.	Apr. 13	Apr. 10	344
236	19. Dampers, Automatic; Furnaces; Heating Systems; Stoves and Furnaces.	Mar. 18	Mar. 26	232
179	20. Artificial Limbs; Builders' Hardware; Cutlery; Dentistry; Locks and Latches; Safes; Undertaking.	Apr. 15	Apr. 16	217

Applications Under Examination—Continued.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action. New.	Amended	No. of applications awaiting action.
112	21. Brakes and Gins; Carding; Cloth-Finishing; Cordage; Felt and Fur; Knitting and Netting; Silk; Spinning; Weaving; Winding and Reeling.	Jan. 25	Apr. 6	422
249	22. Aeronautics; Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Boats and Buoys; Firearms; Marine Propulsion; Ordnance; Ships.	Apr. 13	Apr. 17	255
379	23. Acoustics; Coin-Handling; Horology; Recorders; Registers; Time-Controlling Mechanism.	Nov. 21	Dec. 31	496
144	24. Apparel; Apparel Apparatus; Sewing-Machines.	Jan. 2	Apr. 2	489
315	25. Butchering; Mills; Threshing; Vegetable Cutters and Crushers.	Apr. 14	Apr. 19	143
106	26. Electricity, Generation; Motive Power.	Nov. 9	Jan. 30	539
372	27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus.	Mar. 12	Apr. 16	268
65	28. Internal-Combustion Engines	Feb. 26	Mar. 16	464
147	29. Coopering; Fire-Escapes; Ladders; Roofs; Wheelwright-Machines; Wooden Buildings; Wood-Sawing; Wood-Turning; Woodworking; Woodworking-Tools.	Mar. 24	Mar. 16	333
152	30. Illuminating-Burners; Illumination; Liquid and Gaseous Fuel Burners; Type-Writing Machines.	Jan. 2	May 1	317
172	31. Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas-Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Glue.	Feb. 12	Mar. 17	319
278	32. Agitating; Carbonating Beverages; Dispensing Beverages; Dispensing; Domestic Cooking Vessels; Gas and Liquid Contact Apparatus; Heat Exchange; Ornamentation; Packaging Liquids; Refrigeration.	Dec. 2	May 1	646
71	33. Bridges; Hydraulic Engineering; Masonry and Concrete Structures; Metallic Building Structures; Paving.	Jan. 26	Mar. 26	378
304	34. Railways; Railway-Brakes; Railway Rails and Joints; Railway Rolling-Stock; Railway Ties and Fasteners.	Apr. 12	Apr. 17	214
57	35. Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Garment-Supporters; Toilet.	Feb. 8	May 8	541
264	36. Driers; Geometrical Instruments; Measuring Instruments; Photography.	Mar. 4	Apr. 24	626
107	37. Electric Lamps; Electricity, Conductors; Electricity, Conduits; Electricity, General Applications.	Nov. 17	Mar. 17	676
378	38. Animal Husbandry; Earth Boring; Fishing and Trapping; Stationery; Stone-Working; Wells.	Jan. 2	Apr. 12	511
321	39. Water Distribution	Mar. 1	Mar. 29	443
280	40. Baggage; Bottles and Jars; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Shipping and Storing Vessels; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles.	Nov. 23	Apr. 6	1097
125	41. Railway Draft Appliances; Resilient Tires and Wheels.	Mar. 13	Apr. 17	296
279	42. Railway Signaling; Signals; Electricity-Transmission to Vehicles.	Dec. 2	Feb. 20	735
382	43. Baths and Closets; Electricity, Medical and Surgical; Fire-Extinguishers; Sewerage; Surgery; Water Purification.	Mar. 29	Apr. 7	292

Oldest new case, Aug. 10; oldest amended, Dec. 31.
Total number of applications awaiting action..... 20,243

161	TRADE-MARKS, DESIGNS, LABELS AND PRINTS:			
	Trade-Marks	Mar. 27	Apr. 23	788
	Designs	Feb. 18	Mar. 2	529
	Labels and Prints	May 5	May 5	52

PATENTS

GRANTED MAY 18, 1915.

1,139,470. PROCESS FOR COATING POROUS SUBSTANCES. JONAS W. AYLSWORTH, East Orange, N. J., assignor to Condensite Company of America, Glen Ridge, N. J., a Corporation of New Jersey. Filed Apr. 10, 1912. Serial No. 689,841. (Cl. 91—70.)

1. A process for coating wood consisting in drying the wood at a temperature and for a time sufficient to dry the same, without injury thereto, coating the same while hot with a phenolic varnish solution which is maintained at a temperature lower than that of the wood, and which requires heating to harden the same fully, by chemical reaction and then baking the coated article at a temperature lower than that at which the wood was dried, substantially as described.

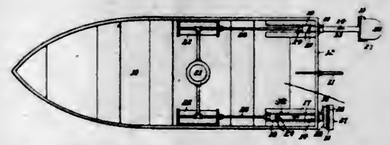
2. A process for coating wood with a phenolic condensation product, consisting in drying the wood at a temperature higher than the reaction temperature of the said product, then coating the wood whil hot with a fluid composition containing ingredients adapted upon heat treatment to react to form an infusible phenolic condensation product, which composition is maintained at a temperature less than that of the wood, and then heating the coated article at a pressure no greater than atmospheric and at a temperature less than that at which the wood was dried, but at a sufficient temperature and for a sufficient time to cause the desired reaction between the ingredients of the coating to render the said coating infusible, the said fluid composition being so chosen as to have the capability of being hardened to infusibility at a temperature less than that at which the wood treated was dried, under atmospheric pressure, substantially as described.

3. A process for coating wood consisting in drying the wood for several hours at a temperature not lower than 220° F., but not high enough to injure the wood, then coating the wood while hot with a fluid composition containing ingredients adapted upon heat treatment to react to form an infusible hard phenolic condensation product, which composition is maintained at a temperature less than that of the wood, and then immediately baking the coated article at a temperature less than that at which the wood was dried, sufficiently to cause the desired reaction between the ingredients of the coating to render the said coating hard and infusible, substantially as described.

4. A process for coating fibrous or porous substances with a phenolic condensation product, consisting in heating the substance for several hours at a temperature higher than the reaction temperature of the said product, then coating the substance while hot with a fluid composition having a temperature less than that of the substance treated, comprising a phenol resin, a methylene-containing hardening agent therefor, and a substance adapted to render the mass fluid at a relatively low temperature, and to constitute a desirable ingredient of the final product, and then immediately baking the coated article at atmospheric pressure and at a temperature less than that at which the substance was dried, but at a sufficient temperature and for a sufficient time to cause the desired reaction between the reacting ingredients of the coating to render the same hard and infusible, substantially as described.

1,139,471. BOAT-PROPELLING MECHANISM. STANISZLAW ARMACZKI, Natrona, Pa. Filed Jan. 18, 1915. Serial No. 2,849. (Cl. 115—31.)

A device of the class described comprising in combination with a boat having the stern thereof provided with opposite perforations therethrough, pusher members having operating shafts slidably mounted through the said perforations and having rearwardly arranged cross heads with tapered rear edges and arranged in the same horizontal plane, dish shaped blades opening rearwardly and hinged to the upper and lower sides of the said heads, spaced strips positioned



within said boat at opposite sides of the lines of movement of the said shafts and provided with guide ways on their adjacent faces, slide blocks movably positioned within the said guide grooves, and secured to the inner ends of the said shafts, and alternating reciprocating power means operatively connected to the said blocks.

1,139,472. HOE. ERICH ARNOLD, Berlin, Germany. Filed Apr. 10, 1914. Serial No. 830,949. (Cl. 55—48.)



The combination of a hoe neck having an inclined groove in its front end, butt-bearings on said neck, one to face said groove and the other below the latter, and a blade having a recess, through which the latter butt-bearing is passed, held by said butt-bearings and firmly clamped into frictional contact with the incline of said groove, substantially as and for the purpose set forth.

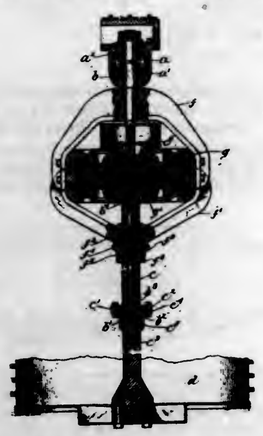
1,139,473. SUSPENSION AND DRIVING MEANS FOR CENTRIFUGAL MACHINES. MELVILLE H. BARKER, Boston, Mass. Filed Nov. 21, 1904. Serial No. 233,591. (Cl. 64—48.)

1. A centrifugal machine embracing in its construction, an oscillatory spindle provided with a bearing for rotatably supporting a basket-carrying shaft, the rotary basket-carrying shaft comprising upper and lower sections detachably secured together and provided with a rotary bearing near their point of connection, substantially as described.

2. A centrifugal machine embracing in its construction an oscillatory non-rotating spindle, a thrust bearing carried by the lower end of said spindle, a rotary sleeve member surrounding said spindle and rotatably supported by said thrust bearing, a basket-carrying shaft adapted to hang beneath said spindle, coupling flanges located at the adjacent ends of said sleeve and basket shaft and adjacent to said bearing to form a detachable connection between said members, substantially as described.

3. A centrifugal machine embracing in its construction a non-rotating oscillatory spindle, a thrust bearing carried

by the lower end of said spindle, a two-part rotary shaft comprising upper and lower members detachably secured to each other adjacent to said bearing, the upper member being supported by said bearing and having direct connection with the rotating means, and a basket secured to the free end of the lower member, substantially as described.

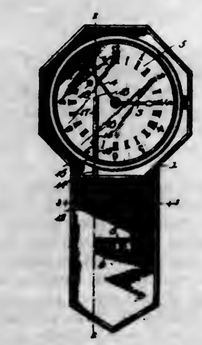


4. A centrifugal machine embracing in its construction an oscillatory non-rotating spindle, a thrust bearing carried at the lower end of said spindle, a rotary driving shaft surrounding said spindle and supported by said bearing, a basket-carrying shaft whose upper end is detachably secured end to end to the lower end of said driving shaft, said driving shaft being provided with oil reservoirs at its upper and lower ends respectively having communication with each other through the interior of said driving shaft at the level of the thrust bearing, substantially as described.

5. A centrifugal machine embracing in its construction an oscillatory spindle, a rotary sectional shaft comprising a hollow upper section surrounding and carried by said spindle, a solid lower section whose lower end is secured to the basket, means for detachably connecting together the adjacent ends of the respective sections, an electric motor whose rotary element is secured to the upper end of the hollow shaft section to rotate with the same and whose non-rotatable element is secured to a yoke secured directly to said oscillatory spindle, substantially as described.

[Claim 6 not printed in the Gazette.]

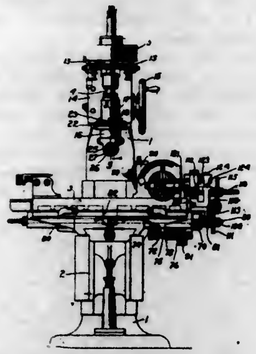
1,139,474. CALENDAR ATTACHMENT FOR CLOCKS. WILLIAM W. BASS, Middle Inlet, Wis. Filed July 22, 1914. Serial No. 852,465. (Cl. 58—6.)



1. A device of the character described comprising a clock work mechanism including a movable hand, an endless indicating web, pawl and ratchet mechanism for shifting said web, a bar carrying the pawl and adapted to be engaged by the hand and moved to shift said pawl on its actuating motion, and means for moving the hand out of engagement with the bar to release the same for return to normal position.

2. A device of the character described including a clock work mechanism having an hour hand, an endless indicating web, shifting mechanism therefor including a ratchet wheel, a feed dog for intermittently turning said ratchet wheel, a sliding bar connected with the dog and provided with a projecting lip adapted to be engaged by the hour hand to transfer motion to said bar, and a trip member for shifting the hand out of engagement with said lip.

1,139,475. UNIVERSAL MILLING-MACHINE. JOHN BECKER, Hyde Park, Mass., assignor to Becker Milling Machine Company, Portland, Me., a Corporation of Maine. Filed Feb. 23, 1909. Serial No. 479,546. (Cl. 90—21.)



1. A machine of the class described comprising, in combination, a spindle; a non-traveling feed screw shaft to transmit a movement of translation to said spindle; and transmission means for imparting a rotative feed to said spindle, said transmission means including means for rotating said shaft.

2. A machine of the class described comprising, in combination, a spindle; a non-traveling feed screw shaft to transmit a movement of translation thereto; and transmission means for imparting rotation to said spindle and shaft having means detachably to connect said transmission means with said shaft whereby to rotate said spindle independently of said shaft.

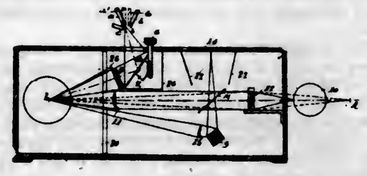
3. The combination of a table and movable means carried thereby, with driving means therefor, including a table feed screw connecting means from the latter to said movable means, and a clutch for detachably connecting said connecting means with said screw, whereby said table and movable means may both be operated simultaneously, or the latter may be operated without operating the table.

4. The combination of a work table and a rotative instrumentality carried thereby having provision for acting on the work, and transmission means for said table and said instrumentality having provision for operating both said instrumentality and table simultaneously, or for operating said instrumentality without operating said table.

5. The combination of a work table and a rotative instrumentality carried thereby having provision for acting on the work, driving means and transmission means extending from said driving means to said table and said instrumentality and including clutch means whereby said instrumentality and table may be operated simultaneously, or said instrumentality may be operated without operating said table.

[Claims 6 to 25 not printed in the Gazette.]

1,139,476. RAPID PHOTOGRAPHIC RECORD OF CURVES OF OSCILLOGRAPHS, RHEOGRAPHS, AND THE LIKE. ANDRÉ E. BLONDEL, Paris, France. Filed Aug. 5, 1913. Serial No. 783,207. (Cl. 234—5.5.)



1. In a photographic recorder for oscillographs, rheographs and like instruments, the combination, with the mirror of the instrument, of a source of light; a movable means for carrying a light-sensitive surface; a lens between said source and said mirror for concentrating rays on the latter; a pair of lenses adapted to concentrate, upon the light sensitive surface, a portion of the bundle of rays reflected from the mirror; a screen; a moving reflector; and a lens adapted to transmit to said last named reflector a portion of said bundle of light to said moving reflector, whence it is condensed on said screen.

2. In a photographic recorder for oscillographs, rheographs and like instruments, the combination, with the mirror of the instrument, of a source of light; a movable means for carrying a light sensitive surface; a lens and slit between said source and said mirror for limiting and concentrating rays on the latter; a pair of lenses adapted to concentrate, upon the light sensitive surface, a portion of the bundle of rays reflected from the mirror; a screen; a moving reflector; and a cylindrical lens adapted to transmit to said last named reflector a portion of said bundle of light to said moving reflector, whence it is condensed on said screen, the bundles of rays incident on and reflected from said mirror lying in nearly the same plane and forming between each other the most acute practicable angle.

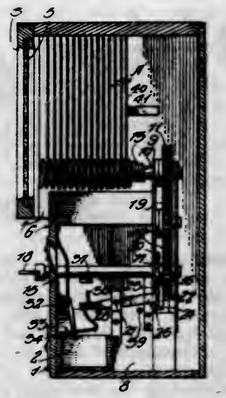
3. In a photographic recorder for oscillographs, rheographs and like instruments, the combination, with the mirror of the instrument, of a source of light; a movable means for carrying a light sensitive surface; a lens and slit between said source and said mirror for concentrating rays of the latter; a pair of cylindrical lenses adapted to concentrate, upon the light sensitive surface, a portion of the bundle of rays reflected from the mirror; a screen; a moving reflector; and a cylindrical lens adapted to transmit to said last named reflector a portion of said bundle of light to said moving reflector, whence it is condensed on said screen, the bundle of rays incident on and reflected from said mirror lying approximately in the same plane.

4. In a photographic recorder for oscillographs, rheographs and like instruments, the combination, with the mirror of the instrument, of a source of light; a movable means for carrying a light sensitive surface; a reflector adapted to reflect light rays from said source; a condensing means for concentrating the rays from said reflector onto the mirror, whence the rays are again reflected; means for condensing one portion of the bundle of again reflected rays upon said light sensitive surface; a condensing means adapted to transmit another portion of said again reflected rays; a screen; and a movable reflector for reflecting the rays from said last named condnesing means onto said screen.

5. In a photographic recorder for oscillographs, rheographs and like instruments, the combination, with the mirror of the instrument, of a source of light; a movable means for carrying a light sensitive surface; a reflector adapted to reflect light rays from said source; a condensing means for concentrating the rays from said reflector onto the mirror, whence the rays are again reflected; means for condensing one portion of the bundle of again reflected rays upon said light sensitive surface; a condensing means adapted to transmit another portion of said again reflected rays; a screen; and a movable reflector for reflecting the rays from said last named condensing means onto said screen, the angle between the axes of the bundle of rays incident to and reflected from said mirror being as acute as practicable.

[Claims 6 and 7 not printed in the Gazette.]

1,139,477. COIN-CONTROLLED MECHANISM FOR VENDING-MACHINES AND THE LIKE. EDWARD V. BODDY, Artesia, N. Mex. Filed May 28, 1914. Serial No. 841,631. (Cl. 194—26.)



1. In a device of the character described, an operating shaft, a radially extending locking arm on said shaft and having an inwardly extending stud at its free end, a trip arm likewise extending radially from said shaft, a lever pivoted intermediate its ends beneath said shaft and having one of its ends overbalanced and located in the rotary path of said stud, a stop for preventing excessive downward movement of said overbalanced end of the lever, a pivot stud formed on the opposite end of said lever, a substantially upright wire having its intermediate portion formed into a pivot coil surrounding said pivot stud, the upper end of said wire constituting a trip arm and being located in the rotary path of the trip arm on said shaft, and a coin receiving ring formed integrally with the lower end of said wire and designed to receive a coin whereby to raise the overbalanced end of said lever out of the path of the first mentioned stud.

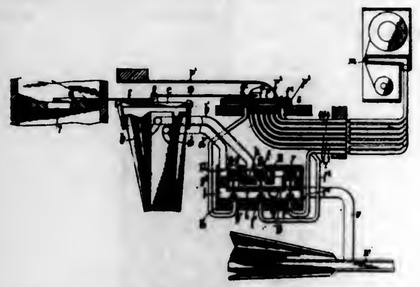
2. In a device of the character described, an operating shaft, locking means therefor, a depressible lever for releasing said locking means, said lever being located beneath the shaft and having one end provided with a pivot stud, a substantially upright wire arm having its intermediate portion loosely coiled around said stud, the lower end of said arm being bent to form a horizontal coin receiving ring, a coin chute above said ring, and a trip arm on the shaft and designed to contact with the upper end of said substantially upright wire arm when said shaft is rotated.

1,139,478. AUTOMATIC THROTTLING MECHANISM. GUSTAV RUDOLF BÖRNER, Leipzig, Eutritzsch, Germany, assignor to the Firm of Ludwig Hupfeld Aktien-Gesellschaft, Leipzig, Germany. Filed Apr. 25, 1908. Serial No. 429,294. (Cl. 84—168.)

1. In pneumatic throttling mechanism for automatic key instruments, the combination with a pair of pneumatically operated moving devices and a throttling element connected thereto; of a suction chamber, a note sheet, a valve mechanism controlled from the note sheet to place said pneumatic moving devices in communication with said suction chamber and means to cut out the note sheet control.

2. In a throttling mechanism for automatic key instruments, the combination with a pair of inflatable and de-

flatable moving devices and a throttling element connected thereto; of a suction chamber, a note sheet, a valve mechanism to connect the inflatable devices with said chamber and operated by the suction in the chamber and pipes to admit atmospheric air to said valves controlled by the note sheet and means intermediate the note sheet and valve mechanism to cut off the note sheet control.



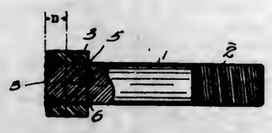
3. In a throttling mechanism for automatic key instruments, the combination with coöperating inflatable and deflatable moving devices and a throttling element connected thereto; of a suction chamber, a note sheet, valve mechanism controlled from the note sheet to place said devices in communication with the suction chamber for varying lengths of time determined by the note sheet and means controlled by the note sheet to more rapidly exhaust said devices and thereby increase the speed of movement of the throttling element whereby the intensity of the tone will be controlled within wide limits from the note sheet.

4. In a throttling mechanism for automatic key instruments, the combination with a suction conduit and throttle valve therefor; of inflatable and deflatable means to which said valve is connected, a note sheet, valve mechanism to place said means under suction, a valve, and conduits controlled by the note sheet for selectively positioning said valve and simultaneously placing said valve mechanism into operation.

5. In a throttling mechanism for automatic key instruments, the combination with pneumatically operated moving devices and a throttling valve connected thereto; of a suction chamber, a slide valve connected to the moving devices, a valve chamber for each moving device, and an intermediate chamber between the valve chambers and suction chamber and vented into the latter chamber, valves controlling the communication between the valve chamber and intermediate chamber, pneumatic valve actuating means controlled by the slide valve, air supply pipes from the note board to the slide valve controlled by the note sheet, a by-pass between the intermediate chamber and suction chamber, and a valve controlling said by-pass and pneumatically controlled from the note sheet.

[Claims 6 to 17 not printed in the Gazette.]

1,139,479. BOLT-HEAD AND PROCESS OF MAKING SAME. LATHAM H. BRIGHTMAN, Columbus, Ohio. Filed Aug. 5, 1914. Serial No. 855,194. (Cl. 10—27.)

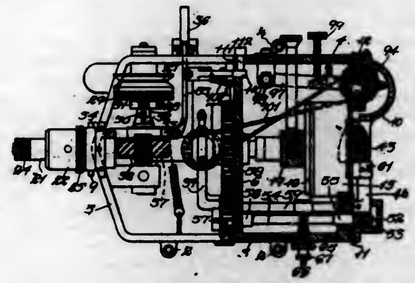


1. The process of making a headed bolt which consists in screwing tight a threaded nut on a threaded stud and leaving a portion of the stud projecting to form material for finishing the head of the bolt, welding the parts together at the threaded joint, and finishing the head by utilizing the material of the projecting stud while soft from the heat of welding to finish the bolt.

2. The process of making a headed bolt which consists in screwing tight a threaded counterbored nut on a threaded stud so that the plane surface of the stud below the threads will enter the counterbore, and welding the parts together.

3. The process of making a headed bolt which consists in screwing tight a threaded and counterbored nut on a threaded stud so that a portion of the plane surface of the stud below the threads will enter the counterbore and a portion of the stud project through the nut, welding the parts together at the thread junctures, and finishing the head by utilizing the projecting material of the stud while soft from the heat of welding.

1,139,480. SKIVING-MACHINE. HAROLD A. BROWN, Brockton, Mass., assignor of one-half to John Burdett and one-half to Arthur B. Alden, Brockton, Mass. Filed Jan. 5, 1914. Serial No. 810,294. (Cl. 69—9.)



1. A skiving machine comprising in combination, a knife, a feed roll arranged in proximity to said knife, a normally stationary gage arranged oppositely to said feed roll, means for adjusting said gage toward and from the feed roll, and means for adjusting the gage angularly about a point lying in the operative portion of the gage and adjacent to one end thereof.

2. A skiving machine comprising a cylindrical knife having an edge at one end, a normally stationary gage mounted near said edge and having its surface adjacent to the edge approximately concentric therewith, a slide on which said gage is mounted movable in a plane perpendicular to the axis of the knife, and means for moving said slide, said gage being adjustably mounted on said slide for movement angularly about a point approximately in its operative edge.
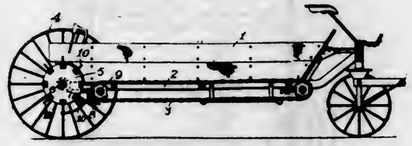
3. A gaging means for a skiving machine comprising a normally stationary top gage, means for adjusting said top gage angularly about a point approximately in its operative surface, and means for adjusting the said gage bodily in a direction transverse to its operative surface.

4. In a skiving machine, the combination with a rotary cutting knife and means for feeding material toward such knife, of a top gage arranged over said feeding means and across the line in which the work is fed, a gaging stop adjacent to one end of said feeding means extending toward and across an adjacent end of the top gage, means for adjusting said top gage in directions approximately parallel to the gaging stop, and means for adjusting the top gage angularly about a center approximately at the point where said top gage and gaging stop meet.

5. In a skiving machine, the combination of a skiving knife, a feed roll at one side of the edge of said knife and a gage overlying said feed roll at the opposite side of the edge of said knife, an edge stop extending from the end of the feed roll across the adjacent end of the gage, a support for the gage, and means for attaching said gage to said support constructed to permit movement of the gage about an axis substantially coincident with the end of the gage next to the edge stop.

[Claims 6 to 16 not printed in the Gazette.]

1,139,481. MANURE-SPREADER. THEOPHILUS BROWN, Worcester, Mass., assignor, by mesne assignments, to Marseilles Company, East Moline, Ill., a Corporation of Illinois. Filed Aug. 25, 1911, Serial No. 646,053. Renewed Oct. 14, 1914. Serial No. 866,733. (Cl. 111—40.)

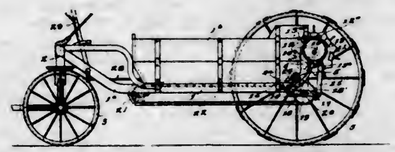


1. In a manure spreader, the combination of a load carrying body, a rotatable beater, a movable apron for advancing the load to the beater and terminating at points adjacent the periphery of the beater, and a guard located beneath the transverse lines at which the periphery of the beater contacts with the load, said guard being provided with two surfaces, one curved forward beneath the apron and the other curved rearward beneath the beater.

2. In a manure spreader, the combination of a load carrying body, a pair of rear ground wheels, a beater journaled on the axis of the ground wheels, a movable apron for advancing the load to the beater, and a guard positioned beneath the lines at which the upward moving parts of the beater contact with the load, said guard extending forward beneath the apron and rearward beneath the beater.

3. In a manure spreader, the combination of a load carrying body, a pair of rear ground wheels, a beater journaled on the axis of the ground wheels, a movable apron the upper surface of which is positioned in a horizontal plane above the axis of the beater, and a guard extending transverse the body at points beneath the lines at which the upward moving portion of the beater contacts with the load, a portion of the guard extending forward beneath the return stretch of the apron, and a second portion of the guard extending rearward beneath and in close proximity to the beater.

1,139,482. MANURE-SPREADER. THEOPHILUS BROWN, Moline, Ill., assignor to Marseilles Company, a Corporation of Illinois. Filed Dec. 29, 1911. Serial No. 668,503. (Cl. 111—40.)



1. In a fertilizer distributer, the combination of the body structure, the rear ground wheels, the through axle extending from one ground wheel to the other, the distributer mounted on an axis remote from the axle and having its outermost parts arranged to move close to the axle, the movable bottom in the body structure arranged to have its uppermost moving parts travel in a horizontal plane approximately tangential to the lower surface of the axle, said axle and movable bottom being arranged and related substantially as set forth whereby they are adapted to have the material which is moved backward by the bottom taken upward over the axle and relatively to the beater, and means for causing said material to move upward over the axle.

2. In a fertilizer distributer, the combination of the body structure, the rear ground wheels, the through axle extending from one ground wheel to the other, the distributer mounted on an axis above the axis of the axle and having its operative parts intersect lines below the plane of the last said axis, the movable bottom in the body structure arranged to have its uppermost moving parts travel in a horizontal plane approximately tangential to the lower surface of the axle, said axle and movable bottom being arranged substantially as set forth whereby they are adapted to permit the material moved backward by the bottom to be taken over the axle and downward to the distributer, and means for causing the material to move over the axle as aforesaid, substantially as set forth.

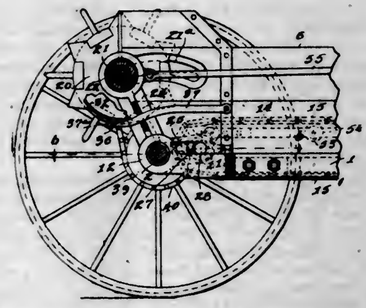
3. In a fertilizer distributer, the combination of the body structure, the rear ground wheels, the through axle extending from one ground wheel to the other, and having its longitudinal central part lying in the horizontal planes of the load mass contained within the body, the distributer mounted on an axis above the axle, and the movable bottom in the body structure for supporting the load mass and causing it to move backward and over the axle to the distributer, substantially as set forth.

4. In a fertilizer distributer, the combination of the body structure, the rear ground wheels, the through axle extending from one ground wheel to the other, the distributer mounted on an axis above and behind the axle, and the movable bottom in the body structure adapted to feed the load mass backward in the horizontal planes of the axle, substantially as set forth.

5. In a fertilizer distributer, the combination of the body structure, the apron at the bottom thereof to support the material and feed it backward, the rear ground wheels, the rotary distributer arranged to engage with the end parts of the backward moving load mass, the through axle extending from one ground wheel to the other and arranged above the apron and intermediately of the apron and distributer, said parts being arranged substantially as set forth whereby the material moved backward by the apron is permitted to be carried over the axle and to be engaged by the distributer at points near the axle and behind the vertical plane of its axis and means for causing the material to move upward over the axle.

[Claims 6 to 25 not printed in the Gazette.]

1,139,483. MANURE-SPREADER. THEOPHILUS BROWN, Moline, Ill., assignor to Marseilles Company, East Moline, Ill., a Corporation of Illinois. Filed Feb. 1, 1912. Serial No. 674,675. (Cl. 111—40.)



1. In a fertilizer distributer, the combination of the body structure, the rapidly rotating beater or distributer, the means for supporting the load in the body, means for feeding the load on horizontal lines toward the beater, and means for elevating the load from one plane to another.

2. In a fertilizer distributer, the combination of the body structure, a rapidly rotating beater, the vertically movable bottom support for the load, and means for feeding the load on horizontal lines toward the beater.

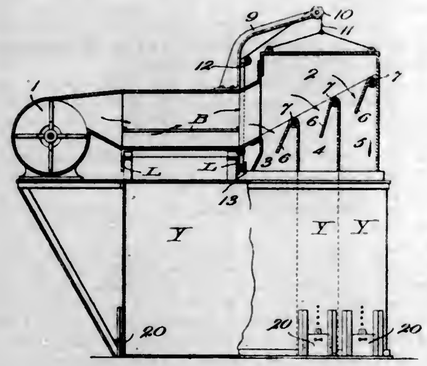
3. In a fertilizer distributer, the combination of the body, the beater, the longitudinally movable bottom support for carrying the load and feeding it to the beater, and means for adjusting the bottom support vertically from one position to another.

4. In a fertilizer distributer, the combination of the body, the beater, and the longitudinally movable bottom support for the load adapted to have its rear end adjusted to either of several positions vertically.

5. In a fertilizer distributer, the combination of the body, the beater, the longitudinally movable bottom support for the load, and means for adjusting the rear end of the bottom support from one position to another vertically.

[Claims 6 to 21 not printed in the Gazette.]

1,139,484. APPARATUS FOR SORTING HETEROGENEOUS MATERIAL. DANIEL R. BRYAN, Chatham, N. J. Filed May 11, 1914. Serial No. 837,851. (Cl. 83—54.)



1. In an apparatus for sorting heterogeneous material, the combination of a chute, a casing opening into said chute and having a series of compartments, said compartments having a plurality of inlet openings arranged therein at relatively different heights, a fan located diametrically opposite the said openings, arranged for blowing a blast of air transversely of the material as it passes down the chute for separating paper and light particles from the mass and directing them into the said inlet openings, and means for adjusting said casing relatively to said chute.

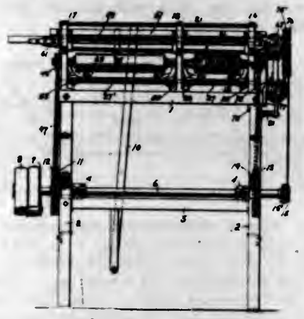
2. In an apparatus for sorting heterogeneous material the combination of a chute; a casing opening into said chute and having a plurality of vertically disposed compartments of relatively different heights; independently adjustable doors for said compartments for varying the area of inlet openings thereof; a fan for causing an air blast in the direction of said compartments; and means for adjusting said casing compartments relatively to said chute, substantially as described.

3. In an apparatus for sorting heterogeneous material the combination of a chute; a casing opening into said chute and having a plurality of vertically disposed compartments of relatively increasing heights from the chute opening; a fan for causing an air blast in the direction of said compartments; and means for adjusting said casing compartments relatively to said chute, substantially as described.

4. In an apparatus for sorting heterogeneous material the combination of a chute; a casing opening into said chute and having vertically arranged partitions providing compartments of relatively increasing heights from the chute opening; a fan for causing an air blast in the direction of said compartments; and means for adjusting said casing compartments relatively to said chute, substantially as described.

5. In an apparatus for sorting heterogeneous material the combination of a chute; a vibrator located within the chute; a fan for causing an air blast transversely of the vibrator; a casing opening into the chute and provided with partitions forming compartments of relatively increasing heights from said chute opening; independently adjustable doors for said compartments for varying the area of inlet openings thereof; and means for adjusting said casing compartments relatively to said chute, substantially as described.

1,139,485. SHARPENING-MACHINE FOR EDGE-TOOLS. HARRY W. BUSLER, Littleton, N. H. Filed Dec. 14, 1914. Serial No. 877,175. (Cl. 51—7.)



1. In a sharpening machine for edge tools a sharpening roll arranged to be movable transversely to its axis, a carrier movable on a line parallel with the axis of the sharpening roll adapted to hold the tool to be sharpened, means for moving the sharpening roll into and out of contact with the tool held in the carrier and means for moving the carrier timed to operate as the sharpening roll is moved out of contact with the tool in the carrier.

2. In a sharpening machine for edge tools a sharpening roll arranged to be movable transversely to its axis and formed of sections of different abrasive quality, a carrier movable on a line parallel with the axis of the sharpening roll adapted to hold the tool to be sharpened, means for moving the sharpening roll into and out of contact with the tool held in the carrier, and means for advancing the carrier from a point opposite one section of the sharpening roll to a point opposite another section arranged to operate as the sharpening roll is moved out of contact with the tool in the carrier.

3. In a machine for sharpening edge tools parallel sharpening rolls arranged in pairs with a space between them movable transversely to their axes, a carrier movable longitudinally of the sharpening rolls adapted to hold the tool to be sharpened in the space between the rolls constituting a pair, means for moving the sharpening rolls transversely to their axes to bring them into and out of contact with the tool in the carrier and means for moving the carrier timed to operate as the sharpening rolls are moved out of contact with the tool in the carrier.

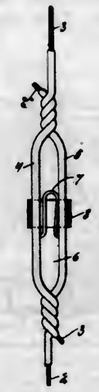
4. In a machine for sharpening edge tools parallel sharpening rolls arranged in pairs having a space between them, the sharpening rolls comprising grinding rolls and stropping rolls, a carrier movable longitudinally of the sharpening rolls adapted to hold the tool to be sharpened on a line between the pairs of rolls, means for moving the sharpening rolls into contact with the tool to be sharpened and means for moving the carrier from the grinding rolls to the stropping rolls.

5. In a machine for sharpening edge tools parallel sharpening rolls arranged in pairs having a space between them, the sharpening rolls comprising grinding rolls and stropping rolls, a carrier movable longitudinally of the sharpening rolls adapted to hold the tool to be sharpened on a line between the pairs of rolls, means for moving the sharpening rolls into contact with the tool to be sharpened, means for moving the carrier from the grinding rolls to the stropping rolls, means for rotating the grinding rolls in one direction, and means for rotating the stropping rolls in the other direction.

[Claims 6 to 9 not printed in the Gazette.]

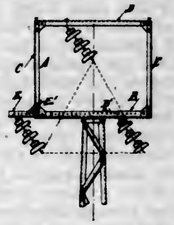
1,139,486. INDICATOR. WILLIAM F. CALDWELL, Hot Springs, Ark., assignor of one-half to John A. Riggs, Hot Springs, Ark. Filed Oct. 30, 1912. Serial No. 728,624. (Cl. 200—33.)

1. An automatic electrical alarm device comprising insulating electrical conductors connected to both sides of an electrical circuit, a U-shaped resilient conducting member adapted to bear upon the insulation of and keep said conductors apart, and an outer ring adapted to limit the parting of said conductors, whereby when said insulation is burnt off said conductors are short circuited through said U-shaped member.



2. An automatic electrical alram device comprising insulating electrical conductors connected to both sides of an electrical circuit, a U-shaped resilient conducting member adapted to bear upon the insulation of and keep said conductors apart, and an outer ring adapted to limit the parting of said conductors, whereby when said insulation is burnt off said conductors are short circuited through said U-shaped member, said U-shaped member having laterally projected contacting terminals.

1,139,487. ELECTRIC-POWER-TRANSMISSION POLE. GIUSEPPE DOMENICO CANGIA, Naples, Italy. Filed Aug. 27, 1913. Serial No. 786,993. (Cl. 178—321.)

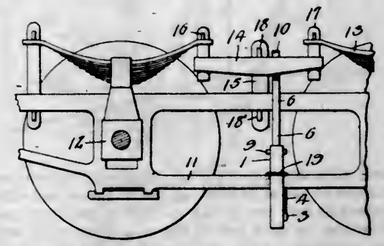


1. Electric power-transmission means comprising, in combination, a pole; a frame mounted on the top thereof and consisting of connected top, bottom and side members, a sliding member mounted upon the bottom member, and means for retaining said sliding member in adjusted position; and suspension-type insulators with chains, at least one of said insulators having its chain connected to said top member and another of said insulators having its chain connected to said sliding member.

2. A frame for suspension-type insulators for electric power-transmission lines comprising connected top, bottom and side members, the bottom member being provided with perforations, an endwise-movable member slidably mounted upon said bottom member and formed with longitudinally-arranged perforations adapted for interchangeable registration with the first-named perforations; and fastening means engaged with said registering perforations to retain said sliding member in adjusted position, the said sliding member and the top member being adapted to support the insulator chains.

3. A frame for suspension-type insulators for electric power-transmission lines comprising horizontal top and bottom members, and vertical side members connecting the same; a horizontal member slidably mounted and guided upon the bottom member; and means for retaining said sliding member in adjusted position, the said sliding member and the top member being adapted to support the insulator chains.

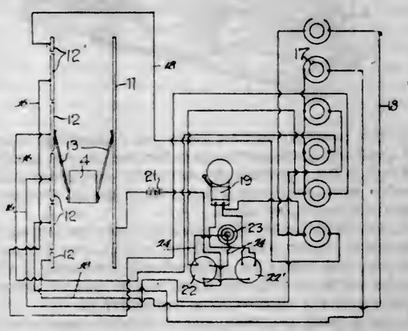
1,139,488. ADJUSTABLE SPRING-PULLER. WILLIAM EMRY CHRISTOPHER, Bessemer, Ala., assignor of one-half to Fred Broderick, Birmingham, Ala. Filed Aug. 26, 1914. Serial No. 858,765. (Cl. 29—87.1.)



1. A spring puller consisting of a hydraulic jack, a lift head mounted in said jack, said jack being formed with an elongated socket, a shank disposed in said socket, means for locking said shank in said jack, and a hook formed integrally at the free end of said shank.

2. A device of the character described comprising a hydraulic jack, a valve carried by said shank, means for controlling said valve, a shank slidably mounted in said jack, a key for holding said shank in adjusted position in said jack, and a laterally disposed hook formed terminally upon said shank.

1,139,489. INDICATOR. LEO CHURCH, Mobridge, S. D. Filed July 16, 1913. Serial No. 779,376. (Cl. 177—351.)

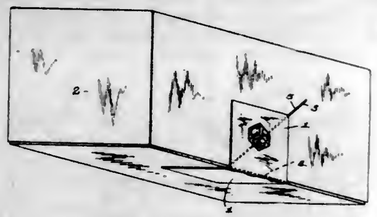


A device of the class described including a casing, a continuous contact arranged in one side of the casing, a series of spaced contacts arranged in the opposite side of the casing, a movable weight within the casing, resilient spring contacts secured to each side of the weight and adapted for engagement with the contacts in the casing, a series of lights and a bell, a battery wires connecting the lights and the spaced contacts, wires connecting the bell with the continuous contact, and switch members arranged between the bell and the battery and between the lights and the battery, as and for the purpose set forth.

1,139,490. SEALING DEVICE. FRANCIS WARD CLARY and CARL H. BISSELL, Syracuse, N. Y., assignors to Crouse-Hinds Company, Syracuse, N. Y., a Corporation of New York. Filed May 29, 1913. Serial No. 770,610. (Cl. 229—45.)

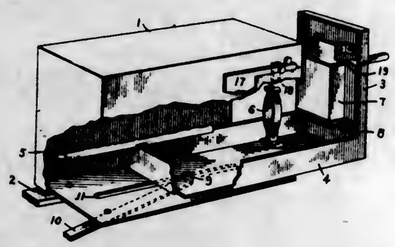
The combination with a box having a displaceable part for exposing the contents of the box, of a sealing strip

extending across a displeaceable edge of the displaceable part and having a section secured to the displaceable part at one side of said edge, and another section secured to the box on the other side of said edge, and a strand having a part extending transversely across the under side of the strip and located in advance of and near said displaceable edge, and another portion of the strand extend-



ing from said displaceable edge diagonally across one of the sections of the strip with an end of the strand exposed at a corner of said one of the sections of the strip, whereby by pulling on said end of the strand the strip will be severed diagonally and transversely along the length of the strand, substantially as and for the purpose described.

1,139,491. MAIL-BOX. ARTHUR D. COON, Ballston Spa, N. Y. Filed Mar. 14, 1913, Serial No. 754,238. Renewed Oct. 8, 1914. Serial No. 865,764. (Cl. 232—40.)



1. The combination of a main box comprising telescoping members, a supporting arm for one of said members, and means for automatically outwardly extending another member when said supporting arm is moved through an angle in a horizontal plane.

2. The combination of a receiving and distributing box, comprising telescoping members, means for supporting said box, and means for automatically extending the telescoping parts of said box with respect to each other by a motion of the support in a horizontal plane.

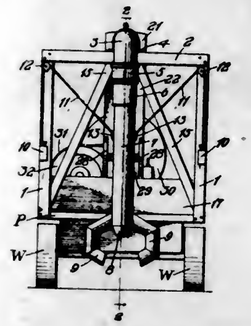
3. In a mail receiving and delivering apparatus, the combination of a box having two relatively movable bottom walls, a movable supporting arm attached to one of said walls, and means coöperating with said arm to extend the other bottom wall outwardly when said supporting arm is moved through an angle of substantially 90° in a horizontal plane.

4. In a mail receiving and delivering apparatus, the combination of a container having relatively movable parts, a rotatably mounted slotted arm supporting said container, a fixed support, a bell crank pivoted thereon and having a pin on its shorter arm moving in the slot in said slotted arm and a rod also pivotally attached to said fixed support at a point farther removed from said box when closed than the arm support whereby the movable part of the container is protruded as the bell crank is moved.

5. In a receiving and distributing device, the combination of a vertical support, a supporting arm pivotally mounted on said support, a box attached thereto having a tray sliding in and out, a rod longer than said arm engaging at one end with said tray, and means for movably engaging with the other end of said rod to hold the rod at an acute angle to the arm.

[Claims 6 and 7 not printed in the Gazette.]

1,139,492. COTTON-PICKER. LOUIS HERMAN CREEKMORE, Bristow, Okla. Filed Aug. 3, 1914. Serial No. 854,786. (Cl. 56—117.)



1. A cotton picker comprising a suction tube, a screen therein, an imperforate four sided discharge chute depending from the tube in advance of the screen and communicating with the interior of the former, two of the opposite side walls of said chute being V-shaped at their lower ends, and a pair of valve members contacting with the inclined edges of said side walls and hinged at their upper edges to the lower ends of the other two walls, said members being normally closed by the suction within the tube and being designed to be opened by the weight of cotton accumulating above the same.

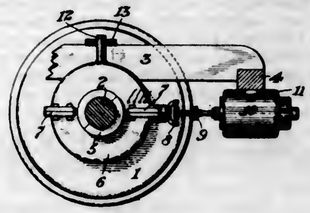
2. In a device of the character described, an upright suction tube having its lower end reduced to provide a suction nozzle, and a pair of substantially C-shaped branch pipes secured at their upper ends to opposite sides of said pipe above the reduction therein and opening thereinto, the upper ends of said pipes facing each other and the lower ends thereof likewise facing each other and being spaced below said reduced end of the tube.

3. A cotton picker comprising a suction tube, a screen therein, an imperforate four sided discharge chute depending from the tube in advance of the screen and communicating with the interior of the former, two of the opposite side walls of said chute having V-shaped lower ends depending below the lower ends of the other two walls, a pair of rectangular frames hinged at their upper sides to said lower ends of the last-named walls, flexible sheets secured to the inner sides of said frames, and springs for normally forcing said frames inwardly to cause the sheets thereon to contact with said V-shaped ends, whereby the lower end of the chute may be normally made air tight, for the purpose set forth.

1,139,493. DYNAMO-DRIVING MECHANISM. JOHN L. CREVELING, New York, N. Y., assignor to Safety Car Heating & Lighting Company, a Corporation of New Jersey. Filed May 28, 1908. Serial No. 435,379. (Cl. 105—238.)

1. The combination with a car truck provided with an axle, of a generator mounted upon the truck, a driving gear mounted upon the axle and means operatively connecting said driving gear with said axle, of means for preventing a portion of said driving gear from revolving with said axle under normal operating conditions and adapted to allow the same to revolve when subjected to excessive strain and means whereby such revolution effects disengagement with the generator without injury to the same.

2. The combination with an axle and a generator, of means for operatively connecting the axle with said generator, comprising a gear operatively connected with said axle, a gear meshed with the first named gear, means for holding said gears in operative relation to each other, means operatively connecting said gears with the generator, means for normally preventing the holding means from revolving and means for permitting disengagement of the generator upon revolution of said holding means.



3. The combination with a car axle and a generator of means for operatively connecting the axle with said generator comprehending a gear driven by said axle, a gear driven by said first named gear, means for holding said gears in operative relation to each other, means for normally preventing said holding means from revolving with said axle, means for yieldingly connecting the dynamo in operative relation with the second named gear comprehending connecting means permitting disengagement upon revolution of the holding means.

4. The combination with a car axle and a generator, of means for operatively connecting said axle and generator, comprising a gear carried by said axle and revolving therewith, a gear meshed with said first named gear, a housing surrounding the first named gear and carrying the second named gear in operative relation thereto, means for normally preventing revolution of said housing, means for operatively connecting the second named gear with the said generator and readily permitting disengagement without injury to either upon revolution of said housing.

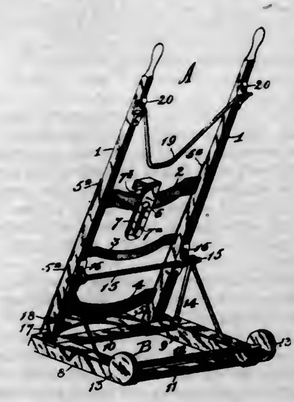
5. The combination with a car axle and a generator having its shaft at a right angle with said axle, of means for driving the said generator comprehending a bevel gear carried upon the said axle, a bevel gear engaging said first named gear and provided with a shaft at a right angle with said axle, means for holding the gears in operative relation to each other, means for preventing said holding means from revolving with said axle, means for connecting the second named gear with the generator comprehending a universal joint and a slip joint adapted to disengage the holding means upon revolution of the latter.

[Claims 6 to 10 not printed in the Gazette.]

1,139,494. ELEVATOR-TRUCK. SOPHIA C. CROPP, Escatawpa, Miss. Filed Sept. 17, 1914. Serial No. 862,148. (Cl. 254—3.)

1. In a device of the character described, an auxiliary frame having a base portion adapted to rest on the floor in frictional engagement therewith, and standards mounted upon said base portion between its ends; a main frame pivotally mounted on said standards at a point spaced from the end thereof a distance approximately equal to the height of said standards to adapt the front ends of the two frames to meet when swung toward each other to an angle approaching a right angle; means for securely connecting said ends together when they meet to cause the two frames to move together as a single frame; and a pair of wheels at the rear end of the auxiliary frame arranged to project beyond the end of said frame.

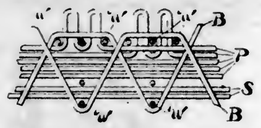
2. In a device of the character described, an auxiliary frame having a base portion with one side of said portion adapted to rest on the floor in frictional engagement therewith, and upwardly extending standards mounted on said portion between its ends; a main frame pivotally mounted on said standards to rock thereupon, and at a point to adapt the front ends of the two frames to meet when swung toward each other; means for securing said ends in engagement with each other when they meet, whereby to cause the two frames to move together as a single frame; and wheels mounted at the rear end of the auxiliary frame and projecting rearwardly beyond the end of the frame, whereby when the two frames, after being united, are moved into position to bring the rear end of the auxiliary frame downwardly, said wheels will be brought into engagement with the floor to support the weight of the truck.



3. In a device of the character described, an auxiliary frame having a base portion with one side of said portion adapted to rest on the floor in frictional engagement therewith, and upwardly extending standards mounted on said portion between its ends;. a main frame pivotally mounted on said standards to rock thereupon and at a point to adapt the front ends of the two frames to meet when swung toward each other, said point being nearer to the front end of the main frame than to the rear end thereof; means for securing said front ends of the two frames together when they meet, whereby to cause the two frames when thus united to move together as a single frame; wheels mounted at the rear end of the auxiliary frame normally out of engagement with the floor, and projecting rearwardly beyond the end of the frame, whereby when the two frames after being united are moved into position to bring the rear end of the auxiliary frame downwardly said wheels will be brought into engagement with the floor to support the weight of the truck; and a support for the rear end of the main frame adapted to swing down into engagement with the floor when the main frame is brought to an approximately horizontal position.

4. In a device of the character described, a main frame and an auxiliary frame, the auxiliary frame having standards mounted thereon, and said frames being pivoted together in said standards, the pivot point on the main frame being spaced from the front end thereof a distance approximately equal to the height of said standards to adapt the forward ends of said frames to meet when swung toward each other to an angle approaching a right angle; means at the meeting ends of said frames for interlocking said frames in engagement with each other to cause the two frames to move together as a unitary frame; and wheels at the rear end of the auxiliary frame adapted to engage the floor and support the forward end of the truck when the main frame is brought to a position approaching the horizontal; the auxiliary frame being adapted, when disengaged at the forward end from the main frame, to swing down into frictional engagement with the floor to form a rocking support for the main frame; said auxiliary frame being also adapted, when said frames are interlocked with each other, to come into frictional engagement with the floor when the main frame is brought to a position approaching the vertical, whereby to cause the auxiliary frame to form a supporting base for the truck when not in use, the wheels at the rear end of the auxiliary frame being arranged to swing out of engagement with the floor as said auxiliary frame is brought into frictional engagement therewith.

1,139,495. WOVEN PILE FABRIC. GEORGE CROSSLAND, Worcester, Mass., assignor to Crompton & Knowles Loom Works, Worcester, Mass., a Corporation of Massachusetts. Filed Sept. 10, 1914. Serial No. 861,131. (Cl. 139—71.)



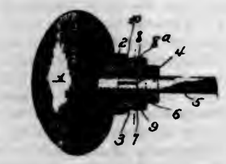
1. A woven pile fabric comprising stuffer, pile and binder warps, and a plurality of filling threads or wefts within each crossing of the binder warps, said pile warps extending through said fabric immediately below the pile surface, said stuffer warps forming the back of said fabric, three of said wefts retaining the pile loops above the pile warp, one of said wefts separating the pile and stuffer warps, and the remaining wefts lying below the stuffer warps.

2. A woven pile fabric comprising stuffer, pile and binder warps, and a plurality of filling threads or wefts within each crossing of the binder warps, said wefts extending in three planes, three of said wefts lying in an upper plane above the pile warps and retaining the pile loops above the pile warps, and the remaining wafts lying in two planes one above and one below the stuffer warps.

3. A woven pile fabric comprising stuffer, pile and binder warps, and a plurality of filling threads or wefts within each crossing of the binder warps, said wefts extending in three planes, three of said wefts lying in an upper plane above the pile warps and retaining the pile loops above the pile warps, and one of said wefts lying in a lower plane below the stuffer warp, and the remaining wefts lying in a plane between the pile and stuffer warps.

4. A woven pile fabric comprising stuffer, pile and binder warps, and five filling threads or wefts within each crossing of the binder warps, said wefts extending in three planes, three of said wefts lying in an upper plane above the pile warps and retaining the pile loops above the pile warps, one of said wefts lying in a lower plane below the stuffer warp, and the remaining weft lying in an intermediate plane between the pile and stuffer warps.

1,139,496. SCREWLESS KNOB-SHANK. THOMAS E. CROUCH, Stamford, Conn., assignor to The Yale & Towne Manufacturing Company, Stamford, Conn. Filed Jan. 12, 1915. Serial No. 1,837. (Cl. 70—85.)



1. The combination of a door knob the shank of which is constructed to receive an end of the spindle, the free end of said shank being angular in cross section, a spindle, a nut having threaded engagement with the spindle and provided with an angular recess to receive the angular end of the shank, and a sleeve mounted to turn on the knob shank and threaded internally to engage the nut.

2. The combination of a door knob the shank of which is constructed to receive an end of the spindle, the free end of said shank being angular in cross section, a spindle, a nut having threaded engagement with the spindle and provided with a recess to receive the angular end of the shank, and a sleeve having threaded engagement with the knob shank and also with the nut.

3. The combination of a door knob the shank of which is constructed to receive an end of a spindle, the free end of said shank being angular in cross section and slotted, a spindle, a nut having threaded engagement with said spindle and provided with a recess to receive the angular end of the shank and a sleeve mounted to turn on the shank and internally threaded to engage external threads on the nut.

4. The combination of a door knob the shank of which is provided with an opening to receive an end of the knob spindle, the free end of said shank being angular in cross section, a spindle, a nut having threaded engagement with the spindle and provided externally with a peripheral rib, and at its outer end with a recess to receive the angular end of the shank, and a sleeve mounted to turn on the shank and internally threaded to engage external threads on the nut.

1,139,497. GAME. HYLAND LEO CUSICK, Pittsburgh, Pa. Filed Feb. 3, 1915. Serial No. 5,919. (Cl. 46—59.)



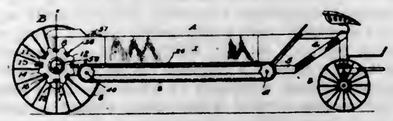
1. A game apparatus comprising a floor with sections thereon and a pocket and socket to each section, a gun adapted to fit in the sockets, an upright wall, and a ring supported in said wall.

2. A game apparatus comprising a base board with a floor laid out thereon, an upright wall hinged to the base board and a removable ring attached to the wall, sockets located at predetermined points on the surface of the floor, and a gun adapted to be swiveled in one of said sockets for the purpose described.

3. A game apparatus comprising a game board having flanged edges with pockets and sockets located at predetermined points on the board, a foldable wall hinged to the board, a ring detachably secured to the wall, and a swivel mounting for a gun adapted to be located in any of said sockets.

4. A game apparatus comprising a flanged base board with a floor laid out thereon and pockets and sockets as described, a foldable wall hinged to the board and a holding bracket therefor, a ring detachably secured to the wall, and a gun having a pivoted support adapted to swivel in said sockets.

1,139,498. MANURE-SPREADER. JOSEPH DAIN, Ottumwa, Iowa, assignor to Deere & Company, Moline, Ill., a Corporation of Illinois. Filed Nov. 3, 1911. Serial No. 658,377. (Cl. 111—40.)



1. In a fertilizer distributer, the combination with the ground wheels, of the rotary beater or distributer mounted on an axis eccentric to the axis of the ground wheels and arranged to rotate around the last mentioned axis, the body for carrying the material to be distributed having the movable bottom arranged to deliver the material to the beater in horizontal planes near that of the axis of the beater, substantially as set forth.

2. In a fertilizer distributer, the combination of the load-carrying body, the power transmitting ground wheels, the rotary distributer, the two independent sets of devices for rotating the distributer actuated respectively by the ground wheels and means extending through the distributer for connecting and disconnecting it from the ground wheels.

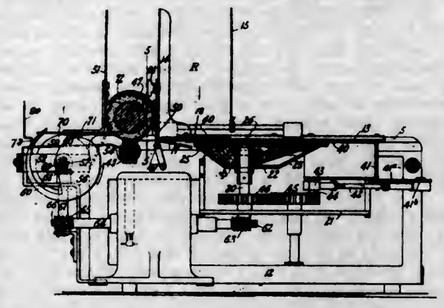
3. In a fertilizer distributer, the combination of the load-carrying body, the power transmitting ground wheels, the distributer, the set of distributer driving devices interposed between one of the ground wheels and the beater, the second set of distributer driving devices interposed between the other ground wheel and the distributer, the said two sets of driving devices being adapted to act separately or simultaneously in actuating the distributer, and means extending through the distributer for connecting and disconnecting it from the ground wheels.

4. In a fertilizer distributer, the combination of the load-carrying body, the power transmitting ground wheels, the rotary distributer, the two sets of distributer driving devices interposed between the ground wheels respectively and the distributer, devices for disconnecting each set of the driving devices from the distributer, and an actuator common to both of the said disconnecting means extending longitudinally through the distributer.

5. In a fertilizer distributer, the combination of the load-carrying body, the ground wheels, the rotary distributer, two sets of distributer driving devices interposed between the ground wheels respectively and the distributer, and means extending longitudinally through the distributer for connecting and disconnecting it from the ground wheels.

[Claims 6 to 22 not printed in the Gazette.]

1,139,499. ENVELOP-SEALING MACHINE. CARL H. DAVIS, Springfield, Mass., assignor to United States Envelop Sealing Machine Company, Springfield, Mass., a Corporation of Massachusetts. Filed May 22, 1913. Serial No. 769,169. (Cl. 120—6.)



1. The combination with means for supporting envelops and to permit the free extension of the flap of the envelop angularly relatively to its body, of a head mounted to rotate on an axis perpendicular to the plane in which the envelop body is supported, provided at its margin with a beveled portion adapted to extend between the projecting flop of the envelop and its body and having at a marginal portion thereof an absorbent moistening member to have, under the rotation of the head, an impingement relatively to the gummed portion of the flap, means for the rotation of the head, and a feed slide movable closely relatively to said head in a line at right angles to the axis of rotation of the latter for engaging the envelop and advancing it beyond the location of the head.

2. The combination with a receptacle for envelops having an opening in the bottom for the flap to project downward beyond the bottom, of a moistening head mounted to rotate adjacent the position of the projecting flap, the head being provided at one portion only of its margin with an absorbent member exposed on a lower face arranged upon rotation of the head to engage the inner gummed face of the projecting flap during one portion only of the revolution of the head, pressing means arranged in proximity to the receptacle, and a feed slide operatively connected with the head to reciprocate at each revolution of the head to engage the envelop flap and advance the moistened envelop to the pressing means.

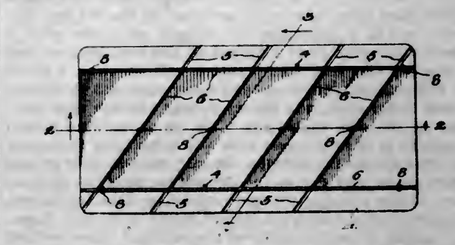
3. The combination with a receptacle for envelops having an opening in the bottom for the flap to project downward beyond the bottom, of a moistening head mounted to rotate adjacent the position of the projecting flap, the head having its margin at one portion arranged to engage the inner gummed face of the projecting flap at one portion of the revolution of the head, the head being of less diameter at another portion to have the margin at such part clear the normal flap position at another stage in the revolution of the head, whereby upon discharge of the moistened envelop from the receptacle bottom the next envelop in the receptacle can present its flap through said opening in the bottom.

4. The combination with a receptacle for envelops having an opening in the bottom for the flap to project downward beyond the bottom, of a moistening head mounted to rotate adjacent the position of the projecting flap, the head having its margin at one portion arranged to engage the inner gummed face of the projecting flap at one portion of the revolution of the head, the head being of less diameter at another portion to have the margin at such part clear the normal flap position at another stage in the revolution of the head, whereby upon discharge of the moistened envelop from the receptacle bottom, the next envelop in the receptacle can present its flap through said opening in the bottom, pressing means, and a feed slide operatively connected with the head to reciprocate at each revolution of the head to engage the envelop flap and advance the moistened envelop to the pressing means.

5. The combination with a receptacle for envelops having an opening in the bottom for the flap to project downward beyond the bottom, of a moistening head mounted to rotate adjacent the position of the projecting flap, the head having its margin at one portion provided with absorbent material exposed on a lower face and arranged to engage the inner gummed face of the projecting flap at one portion of the revolution of the head, the head being of less diameter at another portion to have the margin at such part clear the normal flap position at another stage in the revolution of the head, whereby upon discharge of the moistened envelop from the receptacle the next envelop in the receptacle can present its flap through said opening in the bottom, pressing means arranged in proximity to the receptacle, and a feed slide operatively connected with the head to reciprocate at each revolution of the head to engage the envelop flap and advance the moistened envelop to the pressing means.

[Claims 6 to 11 not printed in the Gazette.]

1,139,500. BUTCHER-BLOCK CLEANER. WILLIAM E. DE GRAFF, Bridgeport, Conn. Filed Jan. 2, 1915. Serial No. 154. (Cl. 145—47.)

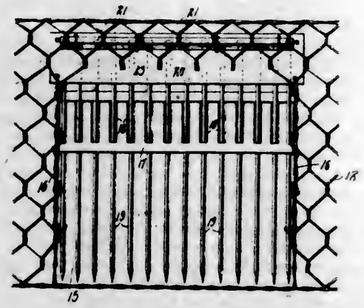


1. In a butcher block cleaner, a wooden block having parallel side grooves and parallel transverse diagonal grooves which intersect the side grooves and saw blades anchored in the grooves, the ends of the transverse blades having their ends abutting the inner sides of the blades in the side grooves, the teeth of the side blades being oppositely disposed and the teeth of the alternate transverse blades being oppositely disposed.

2. In a butcher block cleaner, a wooden block having parallel side grooves, and diagonally disposed transverse grooves which intersect the side grooves, saw blades

mounted in the grooves, the transverse blades having their ends engaged with the inner sides of the parallel side blades, each of said blades having apertures formed therein and adjacent the face of the block, and a series of independent pins driven through the respective apertures into the block and having their upper ends clenched into the apertures and in engagement with the adjacent face of the block.

1,139,501. ANIMAL-TRAP. DECATUR D. DENNIS, Corpus Christi, Tex. Filed June 3, 1914. Serial No. 842,668. (Cl. 43—24.)

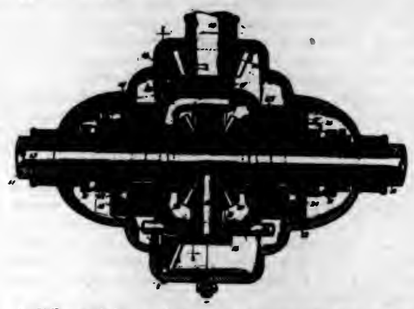


1. An animal trap consisting of a suitable cage provided with one or more openings to form one or more entrances, each entrance having at its opposite sides, triangular walls formed of hexagonal wire fabric, each triangular side wall having at its top, about midway of its length, an upwardly extending hexagonal support, combined with a finger guide plate provided with a series of vertical slots, said finger guide plate being secured at each end to the top and bottom parts of a top hexagonal support on a side wall, a finger-supporting plate attached to the top parts of said triangular side walls and provided with openings, a series of wire fingers pointed at their lower ends and having enlarged upper ends, said fingers passing through said openings in the said supporting plate, so as to form hinged connections of said fingers with said last-named plate, said fingers also passing through the said vertical slots in said guide plate, and means for preventing endwise displacement of said fingers from said supporting plate.

2. An animal trap consisting of a suitable cage provided with one or more openings to form one or more entrances, each entrance having at its opposite sides triangular walls formed of hexagonal wire fabric, each triangular side wall having at its top, about midway of its length, an upwardly extending hexagonal support, combined with a finger guide plate provided with a series of vertical slots, said finger guide plate being secured at each end to the top and bottom parts of a top hexagonal support on a side wall, a finger-supporting plate attached to the top parts of said triangular side walls and provided with openings, a series of wire fingers pointed at their lower ends and having enlarged upper ends, said fingers passing through said openings in the said supporting plate, so as to form hinged connections of said fingers with said last-named plate, said fingers also passing through the said vertical slots in said guide plate, and means for preventing endwise displacement of said fingers from said supporting plate, said means consisting of an inverted trough attached to said finger-supporting plate and covering the enlarged upper ends of said fingers.

3. An animal trap consisting of a suitable cage provided with one or more openings to form one or more entrances, each entrance having, at its opposite sides, walls formed of hexagonal wire fabric, each side wall having at its top, about midway of its length, an upwardly extending hexagonal support, combined with a finger guide plate provided with a series of vertical slots, said finger guide being secured at each end to the top and bottom parts of a hexagonal support on a side wall, a finger-supporting plate attached to the outer end parts of said side walls and provided with openings, a series of wire fingers pointed at their lower ends and having hinged connections with said supporting plate, said fingers passing through the said vertical slots in said guide plate, and means for preventing endwise displacement of said fingers from said supporting plate.

1,139,502. RESILIENT TRANSMISSION-GEARING. AARON F. DICKEY, Somerset, Pa. Filed Nov. 11, 1913. Serial No. 800,280. (Cl. 74—34.)

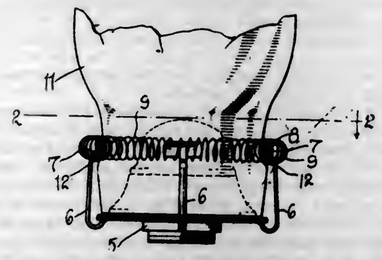


1. A differential transmission gear mechanism, comprising a casing, two oppositely disposed axles, a driving shaft, a centering shaft within said axles, a hub revoluble on said centering shaft, a plurality of pinions carried by said hub, a gear on each axle enmeshed with said pinions, a shell revoluble on said axles, a gear thereon, a pinion on said driving shaft enmeshed with said shell gear, and a coil spring connected with said hub on each side thereof, said shell being provided with a plurality of openings for adjustably receiving corresponding ends of said springs.

2. A differential transmission gear mechanism, comprising a casing, two oppositely disposed axles, a driving shaft, a centering shaft for said axles, a hub revoluble on said centering shaft, a plurality of pinions carried by said hub, a gear on each axle enmeshed with said pinions, a shell revoluble on said axles, a gear thereon, a pinion on said driving shaft enmeshed with shell gear, resilient means connecting said hub and shell, and a pin held in said shell adapted to limit movement of said hub, said hub being segmentally recessed to permit the positioning of said pin.

3. A differential transmission gear mechanism, comprising a casing, two oppositely disposed axles, a driving shaft, a centering shaft, a hub revoluble on said centering shaft, a plurality of pinions carried by said hub, a gear on each axle enmeshed with said pinions, a shell revoluble on said axles, a gear secured to said shell, a pinion on said driving shaft enmeshed with said shell gear, resilient means interposed between said hub and shell, and means for limiting the movement of said hub with respect to said shell, said shell being provided with openings to receive said last named means.

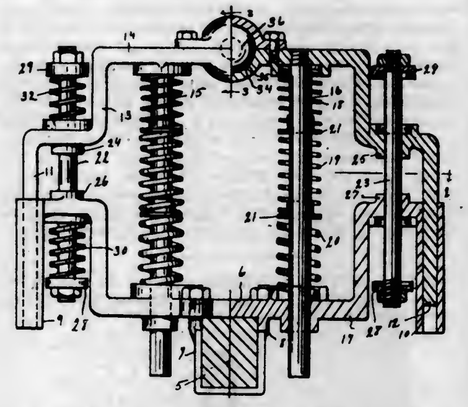
1,139,503. LAMP-CHIMNEY HOLDER. PAUL DODOKIN, Langbank, Saskatchewan, Canada. Filed Mar. 3, 1915. Serial No. 11,887. (Cl. 240—98.)



1. The combination with a lamp burner and chimney, said burner being provided with a series of upwardly extending resilient arms, of an annular coil spring, said arms at their upper ends projecting between the convolutions of the spring, and horizontally disposed plates upon the upper ends of said arms arranged within the spring and yieldably holding the spring coils in engagement with the base of the lamp chimney.

2. A lamp burner and a chimney provided with an annular groove at its base, said burner having a series of upwardly extending resilient arms, in combination with an annular coil spring, said arms projecting between the convolutions of the spring, and longitudinally and transversely curved horizontally disposed plates fixed to the upper ends of said arms and disposed within the spring to yieldingly hold the spring coils within the groove in the base of the lamp chimney.

1,139,504. VEHICLE-SPRING. WILLIAM DORNAN, Pomona, Cal. Filed Apr. 27, 1914. Serial No. 834,735. (Cl. 21—50.)

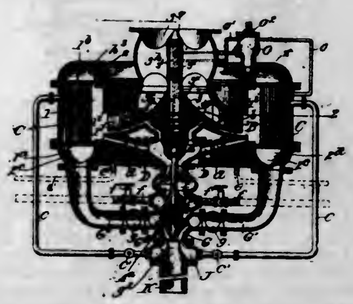


1. A vehicle spring comprising a U-shaped axle frame; said frame having vertically extending guideways at the ends of the legs thereof; an inverted U-shaped spring frame, said spring frame having vertically extending guide members at the ends of its legs adapted to be slidably received in the guideways of the axle frame; guide rods secured at their upper ends in the spring frame and extending downwardly therefrom and passing through holes in the axle frame; a plurality of load carrying springs coiled around each of said guide rods between the axle frame and the spring frame, the springs on each rod being mounted one above the other and having their adjacent ends contacting and being of different load carrying power, the weaker spring being at the top and the strongest spring being at the bottom and the intermediate springs being of intermediate strength; spring rods passing through said frames near the ends of the legs thereof; spring cups on the ends of said rods; rebound springs coiled around said rods between said cups and the frames; a globular socket in the center of the top of said spring frame; and a connection between said socket and the body of the vehicle.

2. A vehicle spring comprising a U-shaped axle frame having the ends thereof bent outwardly and then upwardly; an inverted U-shaped spring frame having the ends of the legs thereof bent outwardly and then downwardly; guideways on the upturned ends of the legs of the axle frame in which are slidably received the downturned ends of the legs of the spring frame; guide rods secured at one end in the cross bar of the spring frame and passing slidably through the cross bar of the axle frame; a plurality of load carrying springs coiled one above the other around said guide rods between the cross bars of said frames, each of said springs being of different load carrying power and having their adjacent ends contacting; rebound spring rods extending slidably through the outturned portions of the ends of said frames; spring retaining cups adjustably secured upon the ends of said spring rods; rebound springs at each end of said spring rods between said retaining cups and the frames; and a connection between the top of the spring frame and the body of the vehicle.

3. A vehicle spring comprising a U-shaped axle frame mounted upon the axle of the vehicle the ends of the legs thereof terminating in guideways; an inverted U-shaped spring frame adapted to be connected to the body of the vehicle having the ends of the legs thereof slidably mounted in the guideways in the ends of the legs of the axle frame, said spring frame being mounted above the axle frame; a plurality of load carrying springs mounted one above the other between the cross bars of said frames and having their adjacent ends contacting, said springs being of varying load carrying resistance from the lowest spring upwardly; rebound springs connecting the ends of said frames; and a connection from the top of said spring frame to the body of the vehicle.

1,139,505. STEAM-CONDENSER. HENRY A. DUC, Jr., Charleston, S. C. Filed May 15, 1907. Serial No. 373,787. (Cl. 257—28.)



1. In a condenser, the combination of an annular condensing chamber, a series of water circulating pipes arranged vertically in said chamber, a turbine wheel in the condenser adapted to be operated by the kinetic energy of the incoming exhaust steam and to discharge such steam centrifugally into said chamber and against the condensing pipes therein.

2. In a condenser, the combination of an annular condensing chamber, a series of water circulating pipes arranged vertically in said chamber, a turbine wheel in the condenser adapted to be operated by the kinetic energy of the incoming exhaust steam and to discharge such steam centrifugally into said chamber and against the condensing pipes therein; with two centrifugal pumps in axial alinement with and driven by said turbine wheel, one of said pumps connected with the condensing chamber to discharge water of condensation therefrom, and the other of said pumps connecting with a water supply and with the condensing pipes to circulate water therethrough.

3. In a condenser, the combination of a condensing chamber, an annular series of tubes extending vertically through said chamber, means operated by the kinetic energy of the exhaust steam entering said condenser for discharging such steam centrifugally outward against the tubes, means for withdrawing water of condensation from the chamber, and means for forcing water through said tubes.

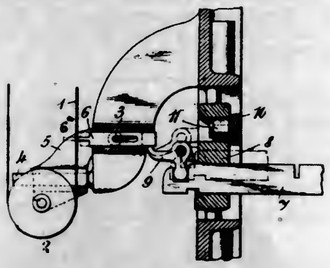
4. In a condenser, the combination of an annular condensing chamber, an annular series of tubes in said chamber extending therethrough, a turbine wheel operated by the kinetic energy of the exhaust steam discharging such steam centrifugally outward against the tubes, a rotary pump for withdrawing water of condensation from the chamber, and a rotary pump for forcing water through the condenser tubes.

5. In a condenser, the combination of an annular chamber, a series of tubes extending therethrough, means oper-

ated by the kinetic energy of the exhaust steam entering said condenser for discharging such steam centrifugally outward against the tubes, a series of pockets above and below the chamber communicating with the tubes, the pockets above the chamber alternating with those below it to cause the water to rise and fall through different successive tubes.

[Claims 6 to 20 not printed in the Gazette.]

1,139,506. AUTOMATIC EMBROIDERING-MACHINE. KARL EGGART, Arbon, Switzerland, assignor to the Firm of Adolph Saurer, Arbon, Switzerland. Filed Aug. 6, 1912. Serial No. 713,597. (Cl. 112—7.)



1. In an automatic mechanism for embroidering machines, the combination with a jacquard card; of two parallel sets of longitudinally movable elements, one set being needle bars selectively controlled by said card, and the other set being blades controlled by said bars, means on the opposed longitudinal edges of the bars and blades arranged for coöperation, and mechanism to bodily move one set of elements against the other to cause the coöperation of said means to longitudinally move elements of the set so bodily moved in accordance with the selection effected by the card.

2. In an automatic mechanism for embroidering machines, a jacquard card, needle-bars directly to be moved by laterally moving the jacquard card, blades for transmitting movement according to the displacement of the needle-bars to the impelling means of the automatic mechanism, a vertically movable frame carrying the blades, the needle-bars and the blades being provided with inclined edges on adjacent ends in order to displace raised blades by needle-bars displaced by the card.

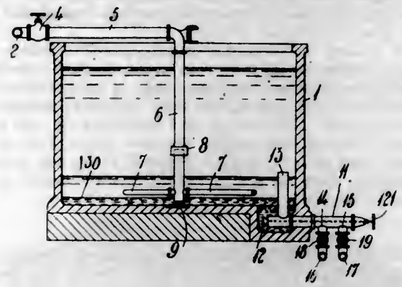
3. In an automatic mechanism for embroidering machines, the combination with a jacquard card; of needle bars selectively controlled by said card, a vertically movable frame, blades in the frame corresponding with the bars, and means actuating the blades in accordance with the selection of the bars upon the vertical movement of the frame.

4. In an automatic mechanism for embroidering machines, a jacquard card, needle-bars directly to be moved by laterally moving the jacquard card, blades for transmitting movement according to the displacement of the needle-bars to the impelling means of the automatic mechanism, a vertically movable frame carrying the blades, the needle-bars and the blades being provided with inclined edges on adjacent ends in order to displace blades by needle bars displaced by the card and to arrest the blades in their extreme positions.

5. In an automatic mechanism for embroidering machines, two sets of longitudinally slidable elements arranged in two parallel planes, one set being jacquard needle bars and the other set being jacquard blades, means to move the blades transversely of their longitudinal movement to and from the needle bars, and means to longitudinally move the blades from the bars upon said transverse movement of said blades.

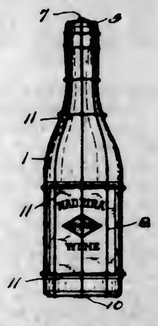
[Claims 6 to 9 not printed in the Gazette.]

1,139,507. APPARATUS FOR FERMENTING SULFITE LIQUOR. PER GÖSTA EKSTRÖM, Harnäs, Sweden. Filed Mar. 2, 1912. Serial No. 681,227. (Cl. 195—17.)



Apparatus for fermenting sulfite liquors and the like which comprises, a vat, a pipe for supplying sulfite liquor centrally of the vat, a rotatable extension on the end of said pipe having substantially horizontal sulfite liquor discharging arms of different lengths rotatable adjacent the bottom of said vat, whose ends are bent to direct the discharging liquor tangentially, means to draw off the liquor from the vat, comprising a straight draw-off pipe below the spent yeast level, a valve to close the inner end of said pipe, and an open-ended pipe extending upwardly from the draw-off pipe, above the healthy yeast level, and two valved discharge pipes connected to the draw-off pipe whereby either fermented liquor or spent yeast may be discharged through either discharge pipe.

1,139,508. BOTTLE-CLOSURE. GEORGE FECZKO, Braddock, Pa. Filed July 16, 1914. Serial No. 851,345. (Cl. 215—27.)



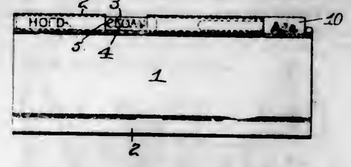
In a device as described the combination with a stopper having a U-shaped looped wire with outwardly bent ends embedded therein, of a series of diametrically arranged wires passing through the looped wire and extending down the sides of the bottle and having their ends hooked together beneath the bottle, a metal seal incasing all the ends of the wires, and a series of transversely arranged spaced wires wrapped about each diametrically arranged wire and extended around the bottle.

1,139,509. FLASH INDEX-PLATE AND APPARATUS FOR USING SAME. ALAN ROBB FERGUSSON, New York, N. Y., assignor to Montague Mailing Machinery Company, a Corporation of Tennessee. Filed Aug. 21, 1912. Serial No. 716,224. (Cl. 129—16.)

1. An address plate having an opening and a tab, adjustable in relation to the opening, and carrying markings to be exposed at said opening, substantially as described.

2. An address plate having a rolled margin provided with an opening with a marked tab adjustable in the margin and in relation to said opening to expose or hide its marking, substantially as described.

3. An address plate having a rolled margin with an opening therein intermediate the ends of said margin, and a tab bearing a marking adjustably held in the rolled margin, and adjustable lengthwise thereof to expose or hide its marking, substantially as described.

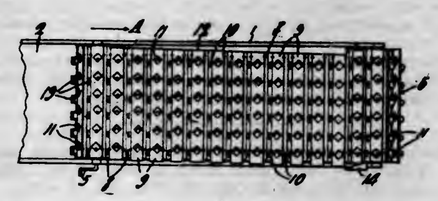


4. An address plate having a rolled margin offset to one side of the body of the plate having the address, said margin having an opening intermediate of its length, with a tab adjustable in the rolled margin, and having an indicating mark to be exposed at said opening, or to be hidden by the wall of the rolled margin, substantially as described.

5. An address plate having a rolled margin with an opening therein, intermediate of the ends of said margin, and a tab having a marking exposed at said opening, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

1,139,510. FRUIT-GRADING MACHINE. HUGH R. FRANCIS, Grand Junction, Colo. Filed Mar. 6, 1913. Serial No. 752,352. (Cl. 130—32.)

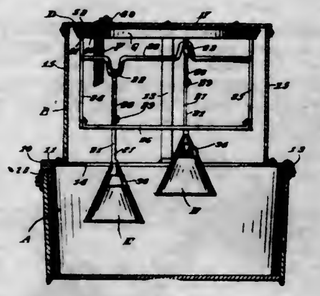


1. In a fruit grader, relatively movable superimposed transverse plates having coöperating apertures intermediate the ends thereof forming grading openings; a means for producing relative movement between said plates in one direction to dispose the apertures in the respective plates progressively into coincidence thereby to increase gradually the size of the grading openings; and means for producing relative movement between said plates in another direction thereby to dispose the apertures in the respective plates out of coincidence and to decrease the size of said grading openings.

2. In a fruit grader, spaced supports; a belt conveyer extended around the supports and including a body and a gate movable upon the body, the body and the gate having coöperating apertures forming a fruit grading opening; a primary actuating member disposed at an angle to the line of advance of the upper run of the belt conveyer and engaging one end of the gate to dispose the apertures progressively in coincidence thereby to increase gradually the size of the grading opening; and a secondary actuating member disposed at an angle to the line of advance of the upper run of the conveyer and engaging the other end of the gate thereby to dispose the apertures out of coincidence and to decrease gradually the size of said grading opening.

3. In a fruit grader, spaced supports; a belt conveyer extended around the supports and including a body and a gate movable upon the body, the body and the gate having coöperating apertures forming fruit grading openings; a fruit supplying means discharging against one end of the conveyer below the upper run of the conveyer; fruit selecting fingers on the gate and coöperating with the fruit supplying means, each finger being individual to one opening and being operative while the fruit is being discharged against the conveyer and below the upper run of the conveyer by the fruit supplying means; gate engaging means for disposing the apertures progressively in alinement; and gate engaging means for disposing the apertures out of alinement.

1,139,511. POUNDER WASHING-MACHINE. NELSON FULCHER and JOHN HERBERT PICKETT, Sault Ste. Marie, Ontario, Canada. Filed Sept. 21, 1914. Serial No. 862,693. (Cl. 68—19.)



1. In a washing machine, a stationary frame, a supporting element revolubly depending therefrom, a crank shaft journaled in said supporting element, clothes pounders suspended from said crank shaft, manual means carried by said stationary frame for directly rotating said supporting element, and means whereby the rotation of said element causes said crank shaft to revolve in its journals to operate the pounders.

2. In a washing macaine and in combination, a supporting member adapted to be clamped to the edge of a tub, an annular gear fixed to the supporting member, a second annular gear supported with freedom to turn from the supporting member, a crank shaft carried by the annular gear which turns, a gear on the crank shaft meshing with the fixed annular gear, and clothes washing elements carried by the crank shaft.

3. In a washing machine and in combination, a fixed annular gear, a rotary annular gear supported therefrom, means for turning the rotary annular gear, a clothes washing element carried by the rotary annular gear, and means for raising and lowering the clothes washing element operated by the fixed annular gear.

4. In a washing machine and in combination, a fixed annular gear, a rotary annular gear mounted therefrom, a frame carried by the rotary annular gear, a crank shaft mounted in the frame, a gear on the crank shaft meshing with the fixed annular gear, a plurality of clothes washing elements, and means connecting the clothes washing element with the crank.

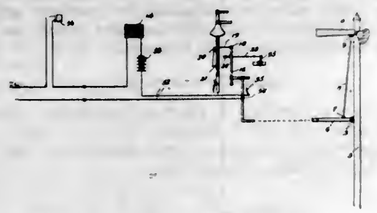
5. In a washing machine and in combination, a fixed annular gear, a rotary annular gear mounted therefrom, a frame carried by the rotary annular gear, a crank shaft mounted in the frame, a gear on the crank shaft meshing with the fixed annular gear, a plurality of clothes washing elements, and adjustable means connecting the clothes washing elements with the cranks.

[Claim 6 not printed in the Gazette.]

1,139,512. TRAIN-STOPPING APPARATUS. MCKENDREE R. FULKS, Gaithersburg, Md. Filed May 16, 1914. Serial No. 839,175. (Cl. 246—59.)

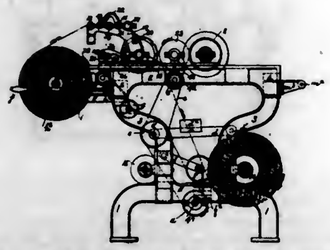
In a train stopping apparatus, car carried mechanism comprising a lever fulcrumed between its ends and having one end projecting outwardly of the car and the opposite end extending into the car, a link, a pin and slot connection between the inner end of said lever and said link, a bar fulcrumed at one end, a connection between

said link and bar, a connection between said bar and a controlling element of the propelling power of the car,



and means for swinging said lever to actuate said bar whereby the propelling power of the car will be cut off.

1,139,513. CLOTH-WINDING MACHINE. DAVID GESSNER, Worcester, Mass. Filed Feb. 7, 1910. Serial No. 542,386. (Cl. 26—2.)



1. In a cloth-winding machine, a web-delivery roll, a web-receiving roll, a spreader roll between the said delivery-roll and receiving-roll and spaced away from the receiving-roll and engaging the web passing between said first-named rolls, means whereby the spreader roll is movable toward and away from the said receiving-roll, and power means for positively and continuously driving said spreader roll during its said movement and while engaging the web.

2. In combination, a cloth-receiving roll, a spreader roll out of contact with the receiving-roll, a support for the spreader roll whereby the spreader roll is moved away from the receiving roll as the latter increases in size, and means for positively driving the spreader roll irrespective of its position relative to the receiving roll.

3. In a cloth-winding machine, in combination, a web-receiving roll, a web-delivery roll, a spreader roll scored to spread the web between said first-mentioned rolls when the web travels in one direction, means whereby the direction of travel of the web may be reversed, and means for continuously driving said spreader roll in one direction at a greater surface velocity than the rate of travel of the web, irrespective of the direction of travel of the web.

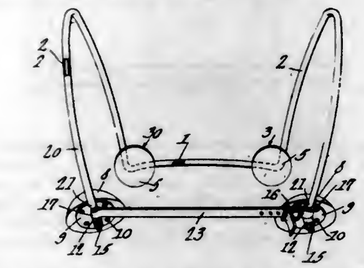
4. In combination, a cloth roll, a spreader roll over which an apron passes to the cloth roll, means whereby the spreader roll is movable toward and away from the cloth roll, and means for continuously revolving the spreader roll during its movement relative to the cloth roll.

5. In combination, a cloth-receiving roll, a spreader roll movable toward and away from the cloth-receiving roll, means for continuously driving said roll during its movement comprising a prime mover, a belt gearing connecting the prime mover and the spreader roll to drive the latter, and means for maintaining the belt gearing effective irrespective of the position of the spreader roll relative to the cloth roll.

[Claims 6 to 19 not printed in the Gazette.]

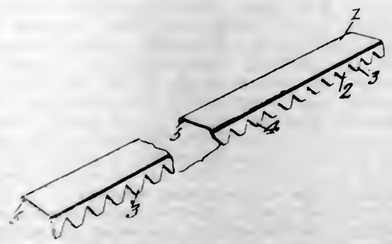
1,139,514. TRUSS. WILLIAM GROSS and ESQUIRE Z. WELLMAN, Sparta, Mich. Filed June 20, 1914. Serial No. 846,346. (Cl. 128—26.)

1. In a truss, a spring comprising a back strip and upwardly and forwardly extended, arched arms connected with the ends of the back strip; a pad; a stud on the pad and provided with an opening receiving one arm and of greater diameter than the arm whereby the arm may be moved toward and away from the pad; a movable member in the stud and engaging the arm to move the arm toward the pad; a connecting element uniting the arms and extended between said arm and the pad and bound between said arm and the pad by the action of the movable member upon the arm.



2. In a truss, a spring comprising a back strip and upwardly arched, forwardly extended arms connected with the ends of the back strip; a pad; a stud on the pad and provided with an opening receiving one arm and of greater diameter than said arm whereby the arm may be moved toward and away from the pad; a movable member in the stud and engaging the arm to move the arm toward the pad; a connecting element extended between the arms and prolonged between the said arm and the pad and bound between said arm and the pad by the action of the movable member upon the arm; a covering on the spring and spaced from the upper edge of the connecting element, whereby the connecting element may be adjusted vertically when the movable member is loosened, the covering being bound between said arm and the pad by the action of the movable member upon the said arm.

1,139,515. BORDER-STRIP FOR WALKS, ROADS, AND THE LIKE. CONRAD E. HAAS, Le Mars, Iowa. Filed Aug. 20, 1914. Serial No. 857,729. (Cl. 72—87.)

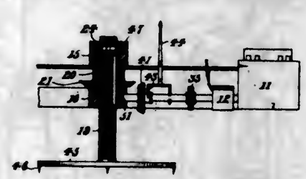


A border strip for walks and the like, including a strip having downturned longitudinal ground engaging flanges, one of said flanges being notched to facilitate its insertion into the ground, said notched flange being wider than the other flange.

1,139,516. VEHICLE JACK AND TURN-TABLE. JOHN HAJDUK, Fayette City, Pa. Filed Dec. 12, 1914. Serial No. 876,999. (Cl. 254—87.)

1. A device of the class described comprising a vehicle having spaced transverse sills positioned one above the other and provided with alining openings therethrough, a jack screw freely slidable within the said openings, an operating nut between the said sills and threaded upon the said screw, and provided with a toothed flange, a ground-engaging base plate upon the lower end of the said screw, a motor, clutching means between the said motor and toothed flange and direction changing means for the said clutching means.

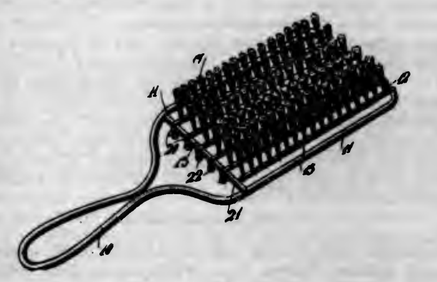
2. A device of the class described comprising a vehicle having spaced transverse sills positioned one above the other and provided with alining openings therethrough, a jack screw freely slidable within the said openings, an operating nut between the said sills and threaded upon the said screw, and provided with a toothed flange, a ground-engaging base plate upon the lower end of the said screw, a motor, a stub shaft, direction changing means between said motor and shaft, a slidable pinion splined to the said shaft adapted to mesh with the said toothed flange and shifting means for the said pinion.



3. A device of the class described comprising a vehicle having spaced transverse sills positioned one above the other and provided with alining openings therethrough, a jack screw freely slidable within the said openings, an operating nut between the said sills and threaded upon the said screw, and provided with a toothed flange, a ground-engaging base plate upon the lower end of the said screw, a motor, a stub shaft, direction changing means between said motor and shaft, a slidable pinion splined to the said shaft adapted to mesh with the said toothed flange, shiftable means for the said pinion, the said screw provided with longitudinal slots therein, a disk having inwardly projecting lugs slidably engaging within the said slots and also having peripheral teeth, a lock bolt slidably mounted upon one of said sills and normally engaging the said disk, and releasing means for the said bolt.

4. A device of the class described comprising a vehicle having spaced transverse sills positioned one above the other and provided with alining openings therethrough, a jack screw freely slidable within the said openings, an operating nut between the said sills and threaded upon the said screw, and provided with a toothed flange, a ground-engaging base plate upon the lower end of the said screw, a motor, a stub shaft, direction changing means between the said motor and stub shaft, a slidable pinion splined to the said stub shaft, and adapted to mesh with the said toothed flange, a gear secured to the said stub shaft, a power shaft for the vehicle, a gear freely journaled upon said power shaft in constant mesh with the said stub shaft gear, a slidable clutch member splined upon said power shaft and adapted for interlocking with the said power shaft gear, and simultaneously operating means for the said pinion and clutch member.

1,139,517. BRUSH. RICHARD HALDENWANG, Jr., Brooklyn, N. Y. Filed Apr. 16, 1914. Serial No. 832,175. (Cl. 15—29.)



1. A brush comprising a rigid frame having an open back, a bar extending from side to side therein at the rear of said frame, rods engaging with said frame and bar extending parallel with the sides, a plurality of brush tuft elements contained in said rods, and means combined with said rods whereby said elements are held perpendicular to said frame.

2. A brush comprising a rigid, substantially rectangular frame having undercut spaced recesses in the end members thereof, brush tuft holders having ends resiliently engageable within the recesses in the end members of said frame, and means combined with said holders engageable with the mentioned recesses.

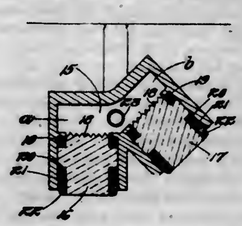
3. A brush comprising a rigid, substantially rectangular frame having an open back and spaced openings formed in two of its oppositely disposed members said openings being angularly disposed, a plurality of solid brush holding elements, and resilient projections formed at an angle upon said elements adapted to removably engage in the mentioned spaced openings.

4. A brush comprising an open frame, its end members having a plurality of angular recesses formed therein, solid, round, brush tuft holders disposed longitudinally of said frame, and resilient book projections formed on the ends of said holders said projections being suited to the mentioned recesses and constituting means for holding said holders in operative position, or permitting removal therefrom.

5. A brush comprising a substantially rectangular open frame having front and rear members at the body portion thereof and a plurality of tuft holding elements, said elements all being held in tension between the said front and rear members and removably therefrom by pressure applied on the side opposite the tufts.

[Claim 6 is not printed in the Gazette.]

1,139,518. GAGE-GLASS. WILLIAM J. HANLON, Fitchburg, and JOHN H. HANLON, Somerville, Mass. Filed July 2, 1914. Serial No. 848,691. (Cl. 73—54.)



1. The improved gage glass comprising a body having an opaque back inclosing a water space, a series of bulls-eyes having vertically arranged prismatic ribs on their rear surface, and a blow off tube extending from the top mounting to a point somewhat above the lower orifice in the bottom mounting.

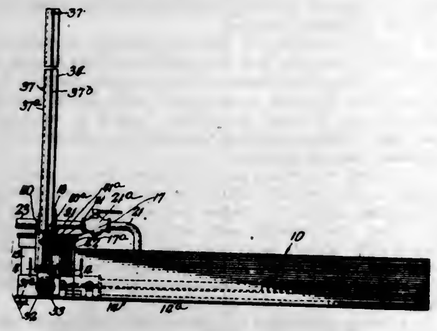
2. The said improved gage glass comprising a body having an opaque back, said body inclosing a water space in two portions, one at an angle to the other, two rows of bulls-eyes one row being opposite one portion of the water space and the other row being opposite the other portion of the water space, said bulls-eyes being provided on their rear surface with vertically arranged ribs.

3. The improved gage glass comprising a body having an opaque back, said body inclosing a water space in two portions, one at an angle to the other, two rows of bulls-eyes, one row being opposite one portion of the water space and the other row being opposite the other portion of the water space, said bulls-eyes being provided on their rear surfaces with vertically arranged ribs, and a blow off tube extending from the top of the water space to a point a short distance above the bottom of the water space.

1,139,519. SPHYGMOMETER. WILLIAM E. HASELTINE, Ripon, Wis. Filed Jan. 10, 1912. Serial No. 670,391. (Cl. 73—44.)

1. A sphygmometer comprising a base, a storage tank rigidly secured to said base and adapted for the storage

of fluid under pressure, a fluid pump supported within said tank and operable from the outside of said tank, a manometer rigidly supported on said base, means providing a conduit leading from said tank to said manometer, a valve located in said conduit adapted for the control of the flow of fluid therethrough, a fluid controlled tourniquet and means for connecting said manometer with said tourniquet.



2. A sphygmometer comprising in combination, an elongated storage tank adapted for containing fluid under pressure, a manometer rigidly connected to one end of said tank, said manometer comprising a mercury chamber and a tube open at its upper end and connected at its lower end to the bottom of said mercury chamber, means rotatively connecting said mercury tube to said mercury cup affording swinging movement of said tube about its lower end to bring it into a position parallel to the length of said tank and adjacent thereto, means providing a conduit between said storage tank and said mercury chamber, a valve located thereoin adapted to control the flow of fluid therethrough, a fluid controlled tourniquet and means for connecting said manometer with said tourniquet.

3. A sphygmometer comprising in combination, a manometer and means for applying fluid pressure thereto, said manometer embracing a cup having a base and containing a chamber located above said base, said base being provided with a passage leading from the bottom of said chamber and through a lateral opening in said base, a plug secured in said lateral opening of the base, said plug having a passage connected with said passage in the base and opening laterally through said plug, a mercury tube open at the top, and means supporting said mercury tube, said means being rotatively mounted on said plug and containing a passage opening into said tube and adapted to register with the passage in said plug.

1,139,520. LAPPING-MACHINE. DONALD T. HASTINGS, Detroit, Mich., assignor to Hupp Motor Car Company, Detroit, Mich., a Corporation of Michigan. Filed June 15, 1914. Serial No. 845,272. (Cl. 51—4.)

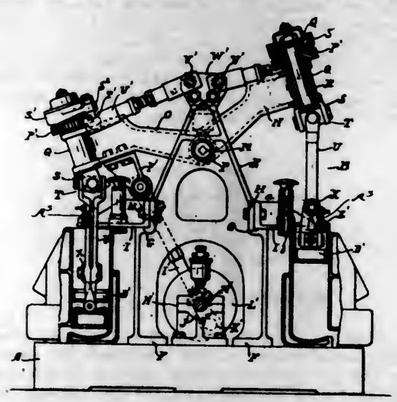
1. The combination with relatively-movable members, of means for lapping said members, comprising means for relatively moving said members to cause points upon one of said members to trace intersecting paths in relation to the other member.

2. The combination with relatively-movable members having contiguous surfaces, of means for lapping said members, comprising means for effecting a relative movement between said surfaces in transverse directions.

3. The combination with relatively-movable members having contiguous surfaces, of means for lapping said members, comprising means for effecting a relative reciprocatory and rotary movement between said surfaces.

4. The combination with relatively-movable members having constant engagement, of means for lapping said members, comprising means for effecting a continuous relative reciprocation between said members, and means for producing a predetermined rotary movement during a portion of the reciprocatory movement.

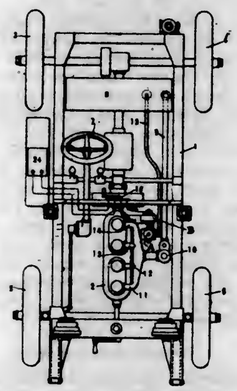
5. The combination with relatively-movable members having constant engagement, of means for lapping said members, comprising means for effecting a continuous relative reciprocation between said members, and means



for automatically effecting a predetermined rotary movement during a portion of the reciprocatory movement.

[Claims 6 to 26 not printed in the Gazette.]

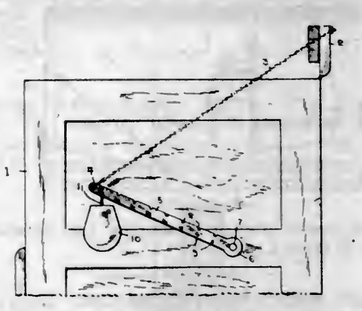
1,139,521. AUTOMATIC IGNITION AND LIGHTING SYSTEM. JOHN ALLEN HEANY, York, Pa., assignor, by mesne assignments, to A. E. L. Leckie, Washington, D. C. Filed Nov. 24, 1909. Serial No. 529,695. (Cl. 123—179.)



In combination with an engine, a lighting and ignition system therefor embodying a unit consisting of a prime mover and a dynamo electric machine, a fuel supply for the prime mover whereby the unit may be operated independently of the engine, a storage battery for driving the dynamo electric machine and thus starting the prime mover, a lighting circuit and an ignition circuit and a unitary switch device for directing a flow of current from the battery severally to the ignition circuit, the dynamo electric machine or the lighting circuit or from the dynamo electric machine to the ignition and lighting circuits jointly or severally.

1,139,522. ICE-SCALE FOR REFRIGERATORS. BERTIE M. HENLEY, Geddes, S. D. Filed Aug. 4, 1914. Serial No. 854,974. (Cl. 73—121.)

1. A scale for refrigerators comprising a weighted scale beam, a shaft upon which the beam is mounted, balancing beams operatively connected with the scale beam by the shaft, a table mounted on the balancing beams and adapted to receive the ice to be weighed, and means including the scale beam, to relieve the balancing beams of the weight of the table and the ice thereon.



2. An ice scale for refrigerators comprising a shaft mounted in the refrigerator, one end of which projects therefrom, a scale beam rigidly secured upon the projecting end of the shaft, a weight adjustable on the beam, balancing beams, arms rigidly mounted upon the shaft, pins projecting from the arms in the path of movement of the balancing beams, an ice table mounted on the balancing beams, and a shelf between the table and the balancing beams to receive and support the table at the end of its downward movement.

3. An ice scale for refrigerators comprising a frame supported from the walls of the refrigerator, a shelf mounted above the frame, balancing beams mounted in the frame, an ice table having legs passing through the shelf and mounted upon the balancing beams, a shaft mounted in the frame, means upon the shaft to be actuated by the balancing beams when ice is placed upon the table, and a scale beam upon the shaft.

4. An ice scale for refrigerators comprising a frame secured to the walls of the refrigerator, brackets attached to the frame, pivot pins mounted in the brackets, balancing beams in pairs mounted on said pins and having notches in their upper edges near their outer ends, pivots connecting the inner ends of each pair of beams, a shaft mounted on the frame, arms rigidly secured on the shaft, pins projecting laterally from the arms in the path of movement of the beams, a scale beam mounted on the shaft, a weight on the scale beam and an ice support acting upon the balancing beams.

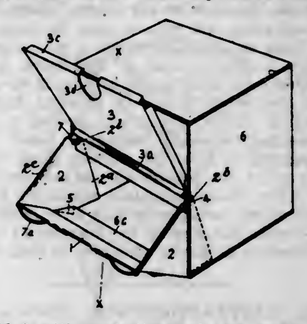
5. An ice scale for refrigerators comprising a frame mounted in the refrigerator, balancing beams pivotally mounted in the frame, an ice table mounted upon the balancing beams, means adapted to relieve the balancing beams of the pressure of the table, said means including a scale beam to indicate the amount of pressure, a shaft to which the scale beam is secured, and means connecting the shaft with the balancing beams to renew the pressure of the weight of the table upon the balancing beams when the scale beam is lowered.

1,139,523. ATTACHMENT FOR SHIPPING-PACKAGES. ALBERT HITZERT, Saginaw, Mich. Filed July 5, 1910. Serial No. 570,509. (Cl. 220—91.)

1. A dispensing attachment for shipping packages, comprising an inclined tray having upwardly and rearwardly projecting sides, a cover hinged to the top edges of said sides, spring members slidably mounted on said sides and adapted to yieldingly press the hinged edge of said cover rearwardly against the side of said package, and means for detachably securing said tray sides to said package.

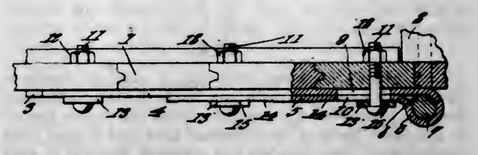
2. A dispensing attachment for shipping packages, comprising an inclined tray formed with upwardly and rearwardly projecting sides; a cover hinged to the top edges of said sides, said cover provided with means whereby its hinged edge is yieldingly pressed rearwardly against the side of said package, and means for detachably securing said tray sides to a shipping package.

3. A dispensing attachment for shipping packages, comprising an inclined tray having upwardly and rearwardly projecting sides, the upper edges of said sides formed with notches adapted to engage the front of the package to hold the upper part of the tray in place, and the lower



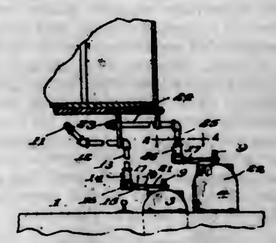
edges provided with projections adapted to engage the lower edges of the package; a cover hinged to the top edges of said sides, said cover provided with means whereby its hinged edge is yieldingly pressed against the side of said package.

1,139,524. ADJUSTABLE HINGE. GEORGE V. HODGIN, Canon City, Colo. Filed July 15, 1914. Serial No. 851,129. (Cl. 16—112.)



In a device of the character described, a hinge comprising a doubled strap forming overlapping leaves having an eye therebetween, the leaves having registering longitudinal slots, one leaf having transverse corrugations adjoining the slot therein, a bolt working within the slots of the leaves, and a washer mounted upon the bolt and having corrugations interengageable with the aforesaid corrugations.

1,139,525. TRAIN-STOPPING APPARATUS. CHARLES C. HOLE, Fremont, Nebr. Filed June 27, 1914. Serial No. 847,657. (Cl. 246—59.)



1. In train stopping apparatus, a car carried controlling valve, a connector carried by said valve, a lever pivoted to said connector and capable of movement relatively to the valve in a path at right angles to the movement of the lever, means holding said lever normally against movement to open the valve, and means for swinging said lever relatively to the valve to relieve said lever of the influence of the holding means and subsequently actuating said lever to open the valve.

2. In train stopping apparatus, a car carried controlling valve, a collar carried by the stem of said valve, a horizontal lever pivoted to said collar and capable of movement relatively to the valve in a path at right

angles to the path of movement of the valve, an arm secured to the stem of said valve below said lever, means carried by said arm and holding said lever normally against movement to open the valve, and means for swinging said lever relatively to the valve to relieve said lever of the influence of the holding means and subsequently actuating said lever to open the valve.

3. In train stopping apparatus, a car carried controlling valve, a collar carried by said valve, a horizontal lever pivoted to said collar and capable of movement relatively to the valve in a path at right angles to the movement of the valve, an arm secured to said valve and projecting outwardly therefrom below said lever, flanges upstanding from the opposite edges of said arm and disposed at the opposite sides of said lever and holding the latter normally against movement to open the valve, and means for swinging said lever relatively to the valve to relieve the same of the influence of said flanges and subsequently actuating said lever to open the valve.

1,139,526. CANVAS-STRETCHER. JOHN G. HOLICKY, Willoughby, Ohio. Filed Feb. 16, 1915. Serial No. 8,611. (Cl. 57—9.)

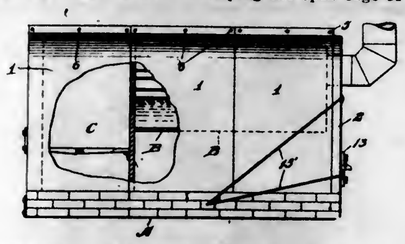


1. A canvas stretcher including a pair of elongated clamping jaws hinged upon one of the longitudinal edges thereof, longitudinally extending clamping strips applied to the inner faces of the clamping jaws and formed with alternately arranged points and openings disposed in such a manner that when the jaws are closed the points upon one of the clamping strips will enter the openings of the opposite clamping strip, a foot plate, and a cable having the intermediate portion thereof loosely connected to the foot plate while the end portions thereof pass loosely through the respective jaws of the clamp and are secured to the opposite jaws so that pressure upon the foot plate tends to force the jaws together.

2. A canvas stretcher including a pair of elongated jaws which have a hinged connection at one of their longitudinal edges, longitudinally extending clamping strips applied to the inner faces of the clamping jaws and provided with alternately arranged points and openings which are disposed in such a manner that when the jaws are closed the points of one clamping strip enter the openings of the opposite clamping strip, pulleys applied to opposite ends of the clamping jaws, a foot plate, pulleys applied to opposite ends of the foot plate, and a pair of flexible cables, intermediate portions of the cables passing around the respective pulleys of the foot plate while the end portions of the cables pass around corresponding pulleys of the respective clamping jaws and are secured to the opposite clamping jaws so that pressure upon the foot plate tends to force the jaws together.

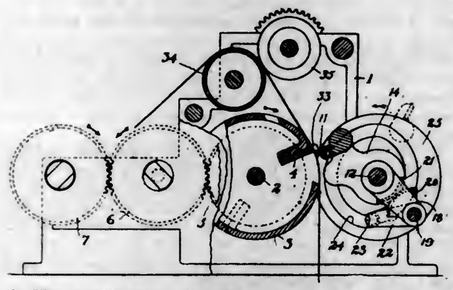
1,139,527. BOILER-CASING. IRA MARTIN HOPE, Chicago, Ill. Filed Sept. 3, 1913. Serial No. 787,980. (Cl. 154—44.)

A boiler casing comprising a plurality of sections arranged at the opposite sides of the boiler and disposed in edge to edge contact, each section comprising a pair of plates spaced apart in parallelism, and a filler of heat insulating material interposed between said plates, each section having an open edge and a closed edge, the closed edge of each section abutting the open edge of the adjacent section, flanges upstanding from the confronting top edges of the sections at the opposite sides of the boiler whereby said sections may be secured together, and a flange on the closed edge of each section and extending outwardly therefrom and underlying the open edge of the



adjacent section whereby an air tight joint between the sections is effected.

1,139,528. WEB-CUTTING MECHANISM. LOUIS HUFFMAN, Toronto, Ontario, Canada. Filed June 30, 1911. Serial No. 636,149. (Cl. 164—66.)



1. The combination of a die-member rotatable on one axis; and movable in a closed path about a second axis; a rotary member fixed relative to its center of rotation and with which the die member is adapted to coöperate as it moves in said closed path; means for causing the die-member to rotate on its axis to maintain it substantially normal to the path of the coöperating member while the two members are in coöperative position; and means for causing the die member to move in its closed path at a speed greater than the speed of the coöperating member to compensate for the rotary movement of said die member on its axis.

2. The combination of a shaft; die-member carriers mounted thereon; a die-member journaled in said carriers; a rotary member fixed relative to its center of rotation and with which the die-member is adapted to coöperate as it is carried around said shaft; means for causing the die-member to rotate on its axis to maintain it substantially normal to the path of the coöperating member while the two members are in coöperative position; and means for causing the die member to move in its closed path at a speed greater than the speed of the coöperating member to compensate for the rotary movement of said die member on its axis.

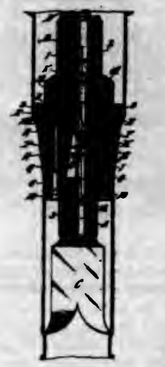
3. The combination of a shaft; die-member carriers mounted thereon; a die-member journaled in said carriers; gearing whereby the die-member is carried about said shaft and simultaneously rotated on its axis thrice as it is carried about said shaft twice; and a rotary member with which the die-member is adapted to coöperate.

4. The combination of a shaft; die-member carriers mounted thereon; a die-member journaled in said carriers; gearing whereby the die-member is carried about said shaft and simultaneously rotated on its axis thrice as it is carried about said shaft twice; and a rotary member with which the die-member is adapted to coöperate, and means for varying the rate of travel of the die-member relative to the shaft to maintain the die-member substantially normal to the path of the coöperating member while the two members are in coöperative position.

5. The combination of a shaft; die-member carriers mounted thereon; a die-member journaled in said carriers; gearing whereby said die-member is carried about said shaft and simultaneously rotated on its axis thrice as it is carried about said shaft twice; and a rotary member geared to said shaft with which the die-member is adapted to coöperate.

[Claims 6 to 10 not printed in the Gazette.]

1,139,529. WELL-REAMER. HOWARD R. HUGHES, Houston, Tex., assignor to Sharp-Hughes Tool Company, Houston, Tex., a Corporation of Texas. Filed Feb. 24, 1914. Serial No. 820,672. (Cl. 255—73.)



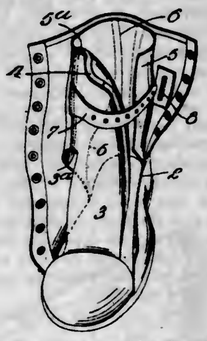
1. A well reamer comprising a head that consists of a casting which is provided with a top portion, a bottom portion and spaced side portions all integrally connected together, upright spindles arranged between said side portions with their ends seated in the top and bottom portions of the head, a tapered cutting device rotatably mounted on each of said spindles and composed of a group of small cutters arranged one above the other, and a transverse tie member arranged intermediate the upper and lower ends of said spindles and engaged with said spindles.

2. A well-reamer consisting of a head provided with a top and bottom portion and spaced side portions integrally connected together, upright shafts or spindles connected to the top and bottom portions of the head, cutters rotatably mounted on said spindles for removing the material from the side of the hole, tie washers arranged between said cutters and serving to tie said spindles together, and steadying rollers projecting laterally from the head intermediate said cutters.

3. A well reamer comprising a head provided with a top portion, a bottom portion and spaced side portions all integrally connected together, said head having water courses or passageways extending longitudinally through same, upright spindles arranged between said side portions with their ends seated in the top and bottom portions of the head, tapered cutting devices rotatably mounted on each of said spindles, a transverse tie member arranged intermediate the top and bottom portions of the head and engaged with said spindles, and a lubricant holder on the head, the head and said spindles being provided with ducts for conveying the lubricant from said holder to the surfaces on which said cutting devices turn.

1,139,530. SKATING AND HOCKEY BOOT. ANDREW LOUIS JOHNSON, Winnipeg, Manitoba, Canada, assignor to Ames Holden McCready, Limited, Montreal, Quebec, Canada, a Corporation. Filed Oct. 8, 1914. Serial No. 865,757. (Cl. 36—71.)

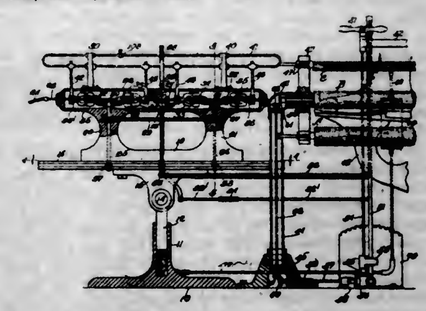
1. In a hockey boot, the combination with the upper provided with the ordinary lacing means, and a tongue extending from the toe-cap to the top of the upper, of an ankle-support secured within the boot and adapted to embrace the ankle of the wearer, such ankle-support extending at the rear from the bottom of the boot upwardly to the top and forwardly toward the tongue to which one edge or margin of the support is secured, the other edge or margin of the support being free from both upper and tongue but adapted to be overlapped by the latter.



2. In a hockey boot, the combination with the upper provided with the ordinary lacing means and a tongue extending from the toe-cap to the top of the upper, of an ankle-support within the boot and adapted to embrace the ankle of the wearer, such ankle-support being stitched to the boot at the back and also at the sides near the bottom of the boot and extending at the rear from the bottom of the boot upwardly to the top and forwardly toward the tongue to which, near the top, one edge or margin of the support is sewed, the other edge or margin of the support being free from both upper and tongue but adapted to be overlapped by the latter.

3. In a hockey boot, the combination with the upper, provided with the ordinary lacing means, and a tongue extending from the toe-cap to the top of the upper, of an ankle-support secured within the boot and adapted to embrace and be tightened about the ankle of the wearer independent of the ordinary lacing means, such ankle-support extending at the rear from the bottom of the boot upwardly to the top and forwardly toward the tongue to which one edge of the support is secured, and means for tightening and fastening the support independent of the ordinary lacing means.

1,139,531. SHOE-POLISHING MACHINE. EZEKIEL JONES, Boston, Mass. Filed May 25, 1914. Serial No. 840,745. (Cl. 15—61.)



1. In a shoe-polishing machine, a table, a carriage movably mounted on said table, a revoluble shaft having bearings in said carriage, a brush-clutch on said shaft, and carriage-moving mechanism arranged to transmit motion from said shaft to move said carriage and shaft bodily with relation to said table.

2. In a shoe-polishing machine, a table, a carriage movably mounted on said table, a revoluble brush-shaft having bearings in said carriage, carriage-moving mechanism arranged to transmit motion from said shaft to move said

carriage and shaft bodily with relation to said table, and manually operative means for raising and lowering said table.

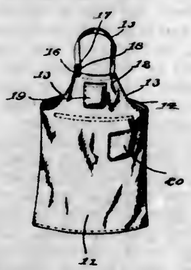
3. In a shoe-polishing machine, a table, a carriage movably mounted on said table, a revoluble brush-shaft having bearings in said carriage, carriage-moving mechanism arranged to transmit motion from said shaft to move said carriage and shaft bodily with relation to said table, and manually operative means for tilting said table.

4. In a shoe-polishing machine, a table, a carriage movably mounted on said table, a revoluble brush-shaft having bearings in said carriage, carriage-moving mechanism arranged to transmit motion from said shaft to move said carriage and shaft bodily with relation to said table, and manually operative means for connecting and disconnecting said carriage-moving mechanism with said shaft.

5. In a shoe-polishing machine, a table, a carriage movably mounted on said table, a revoluble brush-shaft having bearings in said carriage, carriage-moving mechanism arranged to transmit motion from said shaft to move said carriage and shaft bodily with relation to said table, and means for automatically disconnecting said carriage-moving mechanism from said shaft.

[Claims 6 to 14 not printed in the Gazette.]

1,139,532. MECHANIC'S APRON. GEORGE E. KELLY and ELIJAH J. EMERY, Wilkes-Barre, Pa. Filed Mar. 10, 1914. Serial No. 823,803. (Cl. 2—54.)

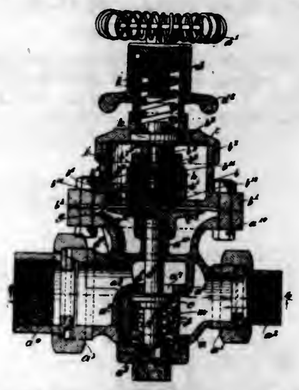


A garment of the class described having trousers provided with legs each having a vertical divided portion and means for holding the divided portion of each leg in a closed condition, and said trousers having securing and adjusting devices on their rear side, and an apron extending over and secured to the front of the trousers at a point along the waist line the apron being open on its rear side and being provided with securing and adjusting means.

1,139,533. REGULATING-VALVE. FREDERICK T. KITCHEN, Orange, N. J., assignor to Gold Car Heating & Lighting Company, New York, N. Y., a Corporation of New York. Filed Sept. 18, 1911. Serial No. 649,928. (Cl. 50—12.)

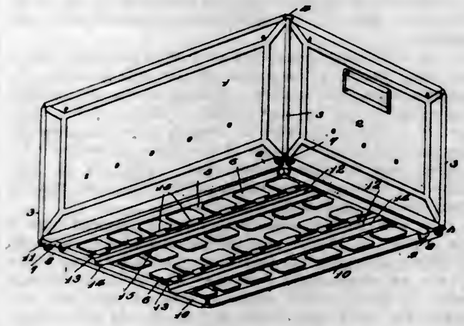
1. In a pressure regulating valve, the combination of a valve casing having an inlet and an outlet and a passage from the inlet to the outlet, a main valve to control said passage, a diaphragm to act upon the main valve and operable by the differential of pressures between the inlet and the outlet pressures and forming two non-communicating chambers, the chamber below the diaphragm being in constant communication with said outlet and the chamber above the diaphragm being in communication with the inlet, a controlling valve to control said last mentioned connection, said casing also having a chamber independent of the said chamber above the diaphragm and communicating therewith through a bleed passage, said independent chamber communicating with the inlet only through the bleed passage and the chamber above the diaphragm and having independent communication with the outlet, and means operable at a predetermined difference in pressure between the inlet and the outlet pressures to force the controlling valve from its seat.

2. In a pressure regulating valve, the combination of a valve casing having the inlet a^2, the outlet a^4, the passage a^7 therebetween, the valve e controlling said passage, the diaphragm g acting on said valve and forming the two non-communicating chambers a^{11} and b^3, the passage a^{12} from said first mentioned chamber to the outlet, the passages b^{10}, b^{11}, b^{12}, b^{13} and a^{15} from said second mentioned



chamber to the inlet, the spring pressed valve h being subject to the changes in the pressure differential between the inlet and the outlet pressures controlling said connection and acting against the high presaure fluid, the independent chamber b^4, the bleed passage b^{16} from said chamber b^3, to said chamber b^4 and the passages b^{14} and a^{16} between said chamber b^4 and the outlet, said last mentioned passage opening into said outlet in the direction of flow from the main valve.

1,139,534. METAL BOX. GOTTLIEB KLENK, Defiance, Ohio, assignor, by mesne assignments, to The Defiance Pressed Steel Company, a Corporation of Ohio. Filed July 13, 1907. Serial No. 383,642. (Cl. 220—111.)



1. A box having a bottom, a skid on the bottom having horizontally projecting edges, tongues secured to the bottom and overlapping the edges of the skid, and a flange depending from the box a short distance from the edges of the latter and adapted to prevent lateral displacement when several boxes are stacked, the ends of the skid abutting against the flange and the bottom planes of the skid and flange being coincident.

2. A metal box including flanges extending across the box bottom parallel to and spaced from the end edges of the latter, and a skid structurally separate from the box bottom but secured thereto with its ends abutting the respective flanges, said flanges and skid being of equal projected depth beyond the bottom of the box.

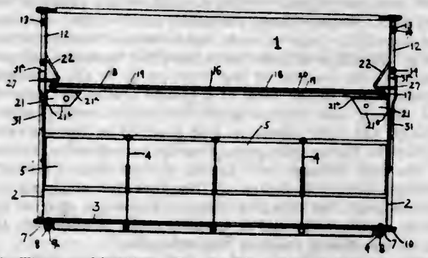
3. A metal box having a bottom formed with projecting tongues, and a skid adapted to be held between the tongues and box bottom, said tongues being crimped into the material of the skid to offset those portions of the skid engaged by the tongue, whereby said tongues interlock with the skid and the engaging portions of the skid lie in the same horizontal plane with the sheet metal of the bottom.

4. A metal box having a bottom formed with projecting tongues, and a skid having wings to be engaged between the tongues and box bottom, the tongues being crimped into the wings to form tongue-receiving recesses in said wings and to cause the tongue engaging parts of the skids to lie in the same horizontal plane with the sheet metal of the bottom.

5. A metal box bottom formed with tongues struck from the material of the bottom, and a skid having laterally-projecting wings to be engaged between the tongues and box-bottom, the tongues being crimped into the wings to form tongue-receiving recesses therein and to cause the tongue engaging parts of the skids to lie in the same horizontal plane with the sheet metal of the bottom.

[Claims 6 to 13 not printed in the Gazette.]

1,139,535. BOTTLE-CRATE. GOTTLIEB KLENK, Defiance, Ohio, assignor to The Defiance Pressed Steel Company, of Ohio. Filed Aug. 18, 1909. Serial No. 513,472. (Cl. 220—111.)



1. The combination of a bottle crate having vertical lateral walls, a horizontal retaining plate snugly fitting and supported therein, the interior faces of the lateral walls being free from rigid inward projections above the said plate, two oppositely disposed horizontally movable latches on the crate walls adapted to normally project within the crate to engage the plate and lock it in position, and springs each arranged to hold one of the latches in innermost position.

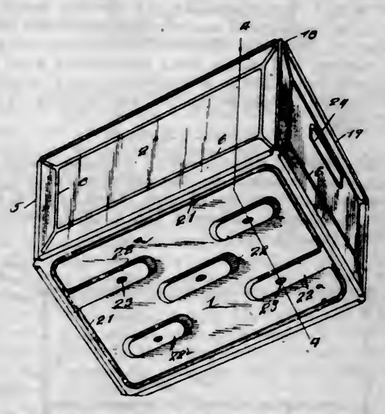
2. The combination of a bottle crate having vertical lateral walls, a horizontal retaining plate snugly fitting between the lateral walls, the interior faces of the walls being free from rigid inward projections above the said plate, two oppositely disposed horizontally movable latches on the crate walls adapted to normally project within the crate to engage the plate and lock it in position, the latches having downward and inward inclined upper faces, and springs each arranged to hold one of the latches in innermost position.

3. The combination of a bottle crate having an apertured lateral wall, a horizontal retaining plate therefor, a latch for the plate comprising a single length of wire bent to have upper horizontal hinge pins, two parallel inward projecting lugs and a lower cross connecting part, the latch being hinged to the crate so that the lugs will move substantially horizontally in arcs of circles in the apertures in the wall, and a spring on the crate exterior engaging the cross connecting part of the latch to hold the lugs in operative position.

4. The combination of a crate, a cellular structure mounted therein, a bottle-retaining plate having openings vertically registering with the cells of the said cellular structure, a latch secured to the crate and movable horizontally into and out of position for locking the plate against upward movement, and a spring mounted on the crate in position to hold the latch in locking position and provided with a stop for limiting the movement of the latch in the direction of unlocking.

5. The combination of a crate, a cellular structure therein, a bottle-retaining plate having openings vertically registering with the cells of the said cellular structure, a latch secured to one of the crate walls and movable horizontally inward into position to lock the plate against upward movement and outward to permit such movement, and a vertically disposed horizontally acting cantaliver spring secured to the crate wall and arranged to press against the latch and hold it in locking position and provided with a stop adapted to engage the latch when the latter is moved in the direction of unlocking and to limit such movement.

1,139,536. SHEET-METAL BOX. GOTTLIEB KLENK, Defiance, Ohio, assignor to The Defiance Pressed Steel Company, Defiance, Ohio, a Corporation of Ohio. Filed Oct. 29, 1909. Serial No. 525,312. (Cl. 220—111.)



1. In a packing box, the combination of lateral sheet metal walls and a sheet metal bottom having a downward projecting rectangularly configurated stacking flange formed integrally from it and arranged to fit within and laterally abut the upper edge parts of a similar box beneath it to prevent lateral displacement of one box with respect to the other and also having downward projecting supporting panels formed integrally from it, at points within the stacking flange, the said panels being horizontally flush with the stacking flange.

2. In a packing box, the combination of lateral sheet metal walls, and a sheet metal bottom having a downward projecting stacking flange formed integrally from it and arranged to fit within and laterally abut the upper edge parts of a similar box vertically beneath it to prevent lateral adjustment of one box with respect to the other and also having downward projecting rectangularly configured supporting panels formed integrally from it, at points within the stacking flange, the said panels being horizontally flush with the stacking flange and so arranged that every transverse line across the bottom of the box will intersect at least one of the said panels.

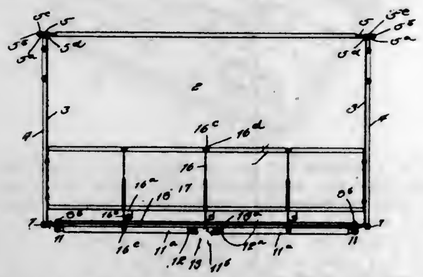
3. In a packing box, the combination of lateral sheet metal walls, and a sheet metal bottom having a downward projecting stacking flange formed integrally from it and arranged to fit within and laterally abut the upper edge parts of a similar box vertically beneath it to prevent lateral displacement of one box with respect to the other and also having a plurality of elongated parallel downward projecting impressed integral panels at points within the stacking flange, each completely surrounded by flat metal in the horizontal plane of the bottom, the panels being horizontally flush with the stacking flange and so arranged that every transverse line across the bottom of the box will intersect at least one of them.

4. In a packing box, the combination of lateral sheet metal walls, and a sheet metal bottom having a downward projecting stacking flange formed integrally from it and arranged to fit within and laterally abut the upper edge parts of a similar box vertically beneath it to prevent lateral displacement of one box with respect to the other

and also having a plurality of elongated parallel downward projecting impressed integral panels at points within the stacking flange and horizontally flush therewith, some of the panels being connected to and continuous with the stacking flange and others being entirely and continuously surrounded within the flange by contiguous flat metal in the horizontal plane of the bottom.

5. In a packing box, the combination of lateral sheet metal walls, and a sheet metal bottom having a downward projecting stacking flange formed integrally from it and arranged to fit within and laterally abut the upper edge parts of a similar box vertically beneath it to prevent lateral displacement of one box with respect to the other and also having a plurality of elongated parallel downward projecting impressed integral panels at points within the stacking flange, some of the panels being connected to and continuous with the stacking flange and others being entirely and continuously surrounded within the flange by contiguous flat metal in the horizontal plane of the bottom, said panels being horizontally flush with the stacking flange and so arranged that every transverse line across the bottom of the box will intersect at least one of them.

1,139,537. SHEET-METAL BOX. GOTTLIEB KLENK, Defiance, Ohio, assignor to The Defiance Pressed Steel Company, a Corporation of Ohio. Filed Apr. 10, 1911, Serial No. 620,068. Renewed Apr. 3, 1915. Serial No. 19,035. (Cl. 220—111.)



1. In a sheet metal box of the class described, comprising side and end sections crimped at their lower edges to form a horizontal flange around the bottom of the box, a rectangular wire stacking base projecting downward below the flange along lines within the periphery thereof, beaded sheet metal strips secured to the side and end sections and serving to hold the wire base in place, a series of vertical transverse partitions provided at their lower edges with beads located above the bottom plane of the said stacking base, a series of vertical longitudinal partitions, the two series of partitions serving to divide the box into bottle compartments, and a series of longitudinal bottle supporting rods having their end parts rigidly secured to the end sections of the box, the intermediate parts of the rods extending through the transverse partitions and being supported thereby.

2. A sheet metal box of the class described, comprising side and end sections crimped at their lower edges to form a horizontal flange around the bottom of the box, a rectangular stacking base formed of two adjacent wire rectangles, the base projecting downward below the flange along lines within the periphery thereof, beaded sheet metal strips secured to the side and end sections and engaging the outer sides of the wire rectangles to hold them in place, a binding strip for holding together the adjacent inner sides of the wire rectangles, a series of vertical transverse partitions terminating at their lower edges in beads above the bottom plane of the base, a series of vertical longitudinal partitions, the two series of partitions serving to divide the box into bottle compartments, and a series of longitudinal bottle supporting rods having their end parts rigidly secured to the end sections of the box, the intermediate parts of the rods extending through the transverse partitions and being supported thereby.

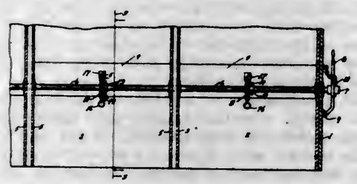
1,139,538. YOKE FOR CATTLE. HENRY RAY KNOX, Limon, Colo. Filed Mar. 6, 1914. Serial No. 822,936. (Cl. 119—139.)



1. A poke comprising a neck yoke member, a fork member swingingly connected to the neck yoke member, the said neck yoke member being formed with a substantially hexagonal shaped frame providing parallel side stretches and oppositely tapered ends, an extension formed at one end of the frame and having a hook-like laterally deflected terminal, the portion of the frame next to the extension thereon being in the form of a hinged section for opening and closing the yoke member, detachable means passed through the said extension and engaged in the swinging section to fasten the same closed, an extension formed on the fork member and having a hook-shaped laterally deflected terminal, means on the fork for engaging the yoke to limit the swinging relation thereof, a spur at the crotch of the fork, and a toothed plate mounted on the end of the frame opposite the extension.

2. A poke comprising a neck yoke member, a fork member swingingly connected to the neck yoke member, the said neck yoke member being formed with a substantially hexagonal shaped frame providing parallel side stretches and oppositely tapered ends, an extension formed at one end of the frame and having a hook-like laterally deflected terminal, the portion of the frame next to the extension thereon being in the form of a hinged section for opening and closing the yoke member, detachable means passed through the said extension and engaged in the swinging section to fasten the same closed, an extension formed on the fork member and having a hook-shaped laterally deflected terminal, means on the fork for engaging the yoke to limit the swinging relation thereof, a spur at the crotch of the fork, a toothed plate mounted on the end of the frame opposite the extension, and tines fixed to the said extensions and having hook portions reversely laterally curved with respect to the hook terminals of said extensions.

1,139,539. ANIMAL-RELEASING DEVICE. THOMAS KOLLNER, Owendale, Mich. Filed May 13, 1914. Serial No. 838,238. (Cl. 119—116.)



1. The combination with a series of stalls in a row and a trough within said stalls, of a rotary shaft extending across the inner ends of said stalls adjacent said trough, manually releasable locking means terminally carried by said shaft, toothed wheels within said stalls made fast to said shaft and chains, provided with hitching rings, in engagement with the teeth of said wheels.

2. The combination with a series of stalls in a row and a trough within said stalls, of a rotary shaft extending across the inner ends of said stalls adjacent said trough, manually releasable locking means for said shaft, toothed wheels within said stalls made fast to said shaft, chains provided with hitching rings in engagement with the teeth of said wheels and chain guards secured to said trough and disposed immediately above said toothed wheels.

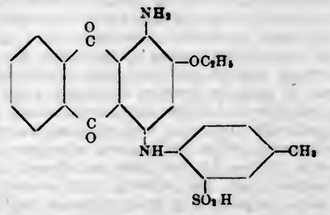
1,139,540. ARYLAMINO-ANTHRAQUINONE DYESTUFFS. GEORG KRÄNZLEIN, Sindlingen, near Höchst-on-the-Main, Germany, assignor to Farbwerke vorm. Meister Lucius & Brüning, Höchst-on-the-Main, Germany, a Corporation of Germany. Filed July 1, 1914. Serial No. 848,474. (Cl. 8—1.)

1. As new products, the herein described dyestuffs, being sulfonic acids of bodies of the general formula:

$$R\begin{cases} NH_2 & (1) \\ \text{alkoxy} & (2) \\ \text{arylamino} & (4) \end{cases}$$

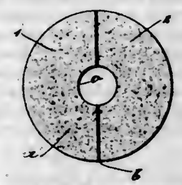
wherein R stands for an anthraquinone residue, which dyestuffs dissolve in water to a violet solution and dye wool in an acid bath violet tints fast to alkalis and being only slightly altered by chroming.

2. As a new product, the herein described dyestuff of the formula:



being a violet powder which dissolves in water to a violet solution and dyes wool in an acid bath violet tints fast to alkalis and being only slightly altered by chroming.

1,139,541. ABRADING-DISK. CARL KAUG, Frankfort-on-the-Main, Mainkur, Germany. Filed June 17, 1913. Serial No. 774,262. (Cl. 51—1.)

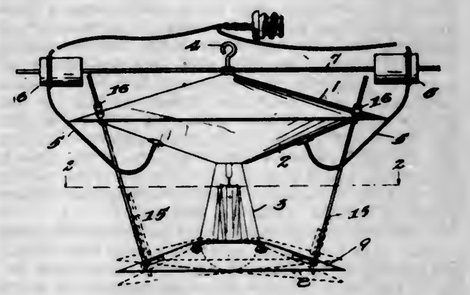


Abrading disk comprising in combination, an abrading layer, a foundation of fibrous material to which said layer is cemented, both provided with a central orifice, said abrading layer being provided with a central crease for allowing the folding of the disk, substantially as described and for the purpose set forth.

1,139,542. REFLECTOR FOR ELECTRIC LIGHTS. DUDLEY J. LAMBERT, Fairburn, Ga. Filed July 8, 1914. Serial No. 849,730. (Cl. 240—103.)

1. The combination in a light reflector with a lamp holder having a reflecting surface, and a lamp, of a second reflector having an open center about the lamp, said second reflector comprising a conical open center divided disk with means for securing together its edges.

2. The combination in a light reflector with a lamp, of a conical open center divided disk forming a reflector and means for holding its edges together, and an adjustable support for said disk having an open center embracing the lamp.

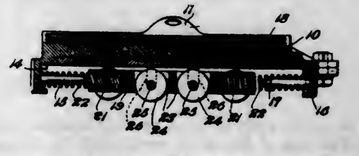


3. The combination with a lamp, of a conical open center divided disk reflector with means for holding its edges together, of an open center adjustable supporting plate for said reflector embracing the lamp bulb.

4. The combination with a lamp and its holder, of a conical open center divided disk reflector with means for holding its edges together, of an open center adjustable support made up of segmental plates each adjustably connected to the disk reflector embracing the lamp bulb.

5. The combination with a lamp and its holder forming a reflector, of an open center divided disk reflector having clamping means and formed with radial slots, adjustable supporting rods suspended from the holder and engaging the slotted disk, and an open center support for the disk embracing the lamp bulb comprising slotted segmental plates with means for clamping each plate in adjusted position to the disk.

1,139,543. SIDE BEARING FOR RAILWAY-CARS. ERNEST A. LE BEAU, Chicago, Ill., assignor to Chicago Railway Equipment Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 12, 1914. Serial No. 824,101. (Cl. 64—64.)



1. The combination with a body bolster, of a side bearing which is fixed to the underside of said body bolster and comprises a housing having side and end walls, a roller carriage arranged for operation within said housing, projections on the side walls of the housing for maintaining the carriage in operative position within said housing, said roller carriage being provided with pockets in its ends, pins projecting inwardly from the end walls of the housing, and compression springs positioned on said pins, the inner ends of which compression springs occupy the pockets in the ends of said roller carriage.

2. The combination with a body bolster, of a side bearing fixed to the underside of said body bolster and comprising a housing, a body bolster, of a roller carriage arranged for operation within said housing, and suspended therefrom, which carriage comprises a plate provided with openings, rollers arranged in said openings, spindles on which said rollers are mounted, and there being slotted bearings for said spindles formed in the plate to the sides of the roller openings, resilient means between the ends of the housing and the roller carriage for normally maintaining said carriage in a central position within the housing, and a hardened metal bearing plate seated in the upper portion of the housing, and with which the rollers of the roller carriage are adapted to engage.

3. The combination with a body bolster, of a side bearing the same being fixed to the underside of said body bolster and comprising a housing having side and end walls one of which is removable, a hardened metal bearing plate fixed to the underside of the top of said housing, a roller carriage arranged for operation within the housing, and suspended from the side walls thereof, which carriage comprises a plate provided with openings, rollers arranged in said openings, spindles on which said rollers are mounted, and there being slotted bearings for said spindles formed in the plate to the sides of the roller openings, the rollers of which carriage are adapted to engage with the bearing plate when the latter is on the bearing, and resilient means between the end walls of the housing and the roller carriage for normally holding said carriage in central position within the housing.

4. The combination with a body bolster, of a housing adapted to be fixed to the underside of said body bolster, said housing having side and end walls, one of which latter is removable, flanges projecting inwardly from the lower portions of the side walls of the housing, a hardened metal plate fixed to the underside of the top of said housing, a roller carriage arranged for operation within the housing, outwardly projecting flanges on the sides of said roller carriage, which flanges normally rest on the inwardly projecting flanges of the housing, said carriage being provided with a series of openings, rollers arranged in said openings, spindles on which said rollers are mounted, there being slotted bearings formed in the carriage to the sides of the openings therein for the spindles of the rollers, pins projecting inwardly from the ends of the housing, and compression springs arranged on said pins and engaging the ends of the roller carriage for normally maintaining the same in central position within the housing.

1,139,544. SELECTIVE ADDRESS-PLATE. ULYSSES G. LEE, Chattanooga, Tenn., assignor to Montague Mailing Machinery Co., a Corporation of Tennessee. Original application filed June 28, 1912, Serial No. 706,521. Divided and this application filed Nov. 6, 1912, Serial No. 729,860. Renewed Nov. 7, 1914. Serial No. 870,938. (Cl. 101—169.)



1. A selective address plate having recesses extending clear to the edge of the plate, with means for obstructing any of said recesses to make contact portions, substantially as described.

2. A selective address plate having recesses, with means for obstructing any of said recesses to make contact portions, said contact portions consisting of a strip or strips adjustable on the plate and lying wholly between the planes of the upper and lower faces of the plate, substantially as described.

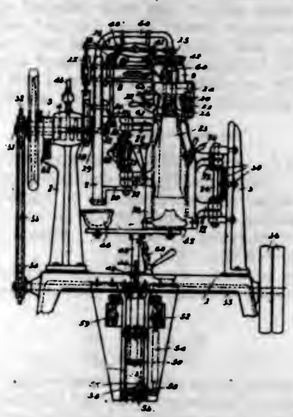
3. A selective address plate having a recessed rolled edge, and means carried within the rolled edge for obstructing any desired recess to provide contact portions, substantially as described.

4. A selective address plate having a rolled margin lying in a plane to one side of the plane of the main impression surface of the plate, said rolled margin having recesses, with means carried within the rolled margin to obstruct the desired recess or recesses, substantially as described.

5. An address plate having a rolled margin with a recess formed therein intermediate of its ends and extending clear to the edge thereof, and a member in said recess with its ends held inserted in the rolled margin of the plate and lying wholly within the line of the outer edge of the plate extended, substantially as described.

[Claims 6 to 9 not printed in the Gazette.]

1,139,545. AUTOMATIC MACHINE FOR BLOWING SEAMLESS BOTTLES AND OTHER ROUND VESSELS. GEORGES LEFORT, Clabecq, Tubize, Belgium. Filed Sept. 15, 1913. Serial No. 789,813. (Cl. 49—13.)



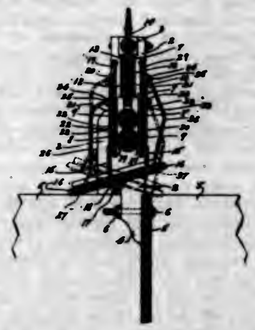
1. A machine for blowing seamless bottles, comprising a base, supporting members carried by said base, a hollow shaft carried by one of said members, means carried by said base adapted to produce air pressure for blowing bottles and connected to said hollow shaft, a working beam pivotally mounted on said hollow shaft, and provided with a mold, non-rotatably mounted thereon, a ring adapted to be secured to said mold, rotatable means with said ring adapted to grip the neck of the bottle to be blown, means for rotating said means and means carried by said beam for vertically displacing said rotating means, driving means for said hollow shaft, a rotatable base support for said bottle carried by said base, and means coacting with said hollow shaft and gripping rings serving to rotate said bottle within said mold, substantially as described.

2. A machine for blowing seamless bottles, comprising supporting members carried by said base, a hollow shaft carried by one of said members, means adapted to produce air pressure for blowing bottles and connected to said hollow shaft, a working beam pivotally mounted on said hollow shaft and provided with a mold, non-rotatably mounted thereon, a ring adapted to be secured to said mold, rotatable means with said ring adapted to grip the neck of the bottle to be blown, means for rotating said last mentioned means, and means carried by said beam for vertically displacing said rotating means, driving means for said hollow shaft, a rotatable base support for said bottle carried by said base, and means co-acting with said hollow shaft and gripping rings serving to rotate said bottle within said mold, substantially as described.

1,139,546. SAFETY ATTACHMENT FOR CLOTHES-WRINGERS. HENRY LOEFFLER, Newark, N. J., assignor to Hurley Machine Company, Chicago, Ill., a Corporation of Illinois. Filed Dec. 18, 1913. Serial No. 807,379. (Cl. 68—32.)

1. The combination with a clothes-wringer having wringer rolls of an oscillatable drip-board, vertically movable guard-plates each provided with an opening, said guard-plates being arranged on opposite sides of said rolls, means for guiding said guard-plates, and means interconnecting said guard-plates respectively with the free ends of said drip-board.

2. The combination with a clothes-wringer comprising vertical standard-members, a pair of transversely mounted wringer-rolls, and a drip-board pivotally mounted beneath said rolls, of guide-members secured to said standard-members, a guard-plate slidably mounted in said guide-members, said guard-plate having a longitudinal opening adapted to be registered in line with the meeting surfaces of said rolls, and connecting-rods between said guard-plate and said drip-board, whereby an oscillatory movement of said drip-board produces a vertical movement of said guard-plate.

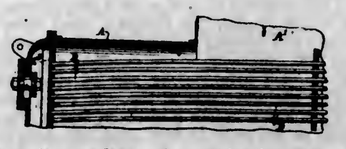


3. The combination with a clothes wringer comprising vertical standard-members, a pair of wringer rolls journaled therebetween, and an oscillatable drip-board pivoted to said standard-members beneath said rolls with its free ends extending from opposite sides of said rolls, vertically grooved guide-members secured upon said standard-members and located upon opposite sides of said rolls, guard-plates vertically movable in said guide-members and disposed transversely upon opposite sides of said rolls, and connecting-rods interconnecting said guard-plates respectively with the oppositely projecting ends of said drip-board, said guard-plates each having a longitudinal slot adapted to be brought in registration with or carried away from registration with the meeting surfaces of said rolls by the oscillatory movements of said drip-board.

4. In a clothes-wringer provided with wringer-rolls, a pair of vertically movable guard-plates having longitudinal openings therein disposed respectively upon opposite sides of said rolls, and means for simultaneously producing vertical movements of said guard-plates respectively in opposite directions to register one of said guard-plates with said rolls on one side of the latter and to remove from registration with said rolls said guard-plate on the opposite side of said rolls.

5. In a clothes wringer provided with wringer-rolls, a pair of vertically movable guard-plates having longitudinal openings therein disposed respectively upon opposite sides of said rolls, means mounted on said clothes-wringer frame for slidably supporting said guard-plates, a drip-board pivoted beneath said rolls so that its free ends extend from opposite sides of said rolls, connecting-rods respectively interconnecting the said guard-plates with the free ends of said drip-board whereby the oscillation of the ends of said drip-board simultaneously produces vertical movements of said guard-plates respectively in opposite directions to register one of said guard-plates with said rolls on one side of the latter and to remove from registration with said rolls said guard-plate on the opposite side of said rolls.

1,139,547. SURFACE CONDENSER. LUTHER D. LOVEKIN, Philadelphia, Pa. Filed Aug. 3, 1911. Serial No. 642,107. (Cl. 257—236.)



1. In a surface condenser the combination with a casing body having an upper steam supply inlet and a lower water of condensation outlet and tube sheets at the ends of said casing, of tubes substantially horizontal but slightly curved in vertical planes rigidly connected at their ends to said tube sheets and interposed between said inlet and outlet passages.

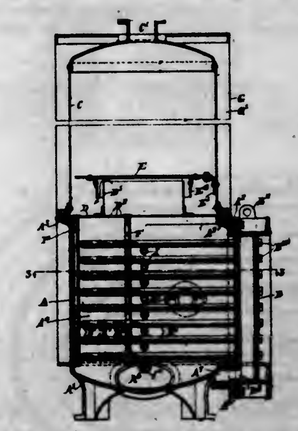
2. In a surface condenser the combination with a casing body having an upper steam supply inlet and a lower water of condensation outlet and tube sheets at the ends of said casing, of tubes substantially horizontal but slightly upwardly bowed, expanded at their ends to rigidly connect them to said tube sheets, said tubes being interposed between said inlet and outlet passages.

3. In a surface condenser the combination with a casing body having an upper steam supply inlet and a lower water of condensation outlet and tube sheets at the ends of said casing, of tubes substantially horizontal but slightly curved in vertical planes arranged within said casing and rigidly connected at their ends to said tube sheets, and floating tube spacers arranged within said casing between said tube sheets and each engaging some of said tubes.

4. In a surface condenser the combination with a casing having an upper steam supply inlet and a lower water of condensation outlet and tube sheets at the ends of said casing, of tubes substantially horizontal, but slightly curved in vertical planes and arranged in horizontal rows within said casing and rigidly connected at their ends to said tube sheets and horizontal floating tube spacers arranged within said casing and between the tube sheets and transverse to said tubes and each engaging a horizontal row of tubes.

5. In a surface condenser the combination with a casing having an upper steam supply inlet and a lower water of condensation outlet and tube sheets at the ends of said casing, of tubes substantially horizontal but slightly curved in vertical planes and arranged in staggered horizontal rows within said casing and rigidly connected at their ends to said tube sheets, horizontal floating spacers arranged between said tube sheets within said casing and transverse to said tubes and each formed with a plurality of hollow bosses receiving the tubes in one horizontal row and with said bosses nesting with the bosses of the spacer for an adjacent row of tubes, and vertical guides for the ends of said spacers, connected to the casing.

1,139,548. HEAT-TRANSFERRING DEVICE. LUTHER D. LOVEKIN, Philadelphia, Pa. Filed Sept. 23, 1911. Serial No. 650,879. (Cl. 257—230.)



1. In a device of the kind described, a plurality of parallel tube groups each including two or more bowed tubes differing in length and nested together and a chambered member into which the tube ends are connected so that adjacent pairs of tube groups are separated by a distance slightly exceeding the diameter of an individual tube.

2. In a device of the kind described, a casing wall formed with a lateral aperture, a chambered member adapted to be secured to said wall to close said aperture and a plurality of parallel tube groups each consisting of

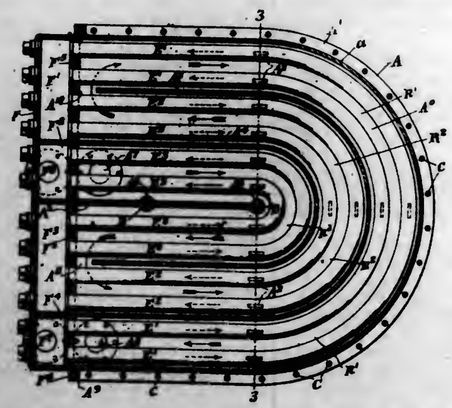
two or more bowed tubes differing in length and nested together and having their ends secured into said member and tube supports connected at their ends into said casing wall and extending between each adjacent pair of tube groups.

3. In a device of the kind described, the combination with a casing wall formed with a lateral aperture, of a member adapted to be detachably secured to said casing wall to close said aperture, and a plurality of parallel tube groups arranged at successively higher levels and each consisting of two or more bowed tubes which differ in length from each other and are nested together and have their ends secured to said chambered member, and a roller support for one of said tube groups secured to said casing wall and adapted to form a support for the corresponding tube group as said member and attached tubes are being moved into and out of the position in which the member closes said aperture.

4. In a device of the kind described, the combination with a casing wall formed with a lateral aperture, a member adapted to be detachably connected to said wall to close said aperture, said member being formed with a plurality of chambers, and a plurality of bowed tubes having their ends connected to said member and connecting the chambers thereof, said member being formed with an inlet port opening into one of said chambers and an outlet port opening from another of said chambers, and said casing wall being formed with ports adapted to register with said inlet and outlet ports when said member is secured in place to close said aperture.

5. In a device of the kind described, the combination of a chambered casing formed with a lateral aperture in the lower portion of its wall, a chambered member detachably attached to said casing to close said aperture, bowed tubes each connected at its opposite ends to said chambered member and extending into the lower portion of said casing when said member is in its aperture closing position, means dividing said casing into a lower boiling compartment containing said tubes and an upper vapor compartment, said means comprising a lower centrally apertured diaphragm extending across said casing and an upper diaphragm also extending across said casing but arranged to provide vapor passages adjacent its periphery, and telescopic tubular baffles connected to the adjacent sides of said diaphragms, and one or more drain connections leading from the space above the lower diaphragm and surrounding the baffle connected thereto to the boiling compartment at a level well below its upper end.

1,139,549. FLUID HEATING AND COOLING APPARATUS. LUTHER D. LOVEKIN, Philadelphia, Pa. Filed July 15, 1912. Serial No. 709,356. (Cl. 257—223.)

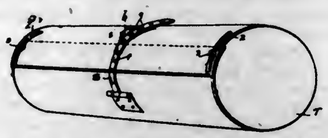


1. In a device of the character described having a chamber into which one of two thermally interacting fluids is directly admitted, the combination of one or more tube groups extending into said chamber, each comprising a plurality of bowed tubes nested together, and connected at their ends to provide a path comprising two or more successive loop sections for the second of said two fluids, and baffle means dividing said chamber into a path for the fluid directly admitted thereto, comprising successive loop sections parallel to, and alongside of the first mentioned loop sections whereby a counter current flow of the two fluids may be obtained.

2. In a device of the kind described, the combination with a chamber of one or more tube groups extending into said chamber, each including a plurality of bowed tubes nested together, and having their ends connected to provide a fluid path comprising two or more successive loop sections, and baffle means disposed in said chamber to provide a serpentine path for fluid directly admitted to the chamber comprising loop sections parallel to and inclosing the corresponding loop sections of the path formed by the tubes, whereby there may be obtained a counter current flow of the two fluids passing through the said chamber one within and the other without said tubes.

3. In a device of the character described, the combination of a casing comprising a pair of casing parts detachably connected together and inclosing, except at one edge, a chamber into which one of two thermally interacting fluids is directly admitted, a chambered member detachably connected to said casing parts and closing the open edge of said chamber, one or more tube groups extending into said chamber and each comprising a plurality of bowed tubes nested together and having their ends secured to said chambered member and connected by the chambers therein so that said tubes form a path comprising successive loop sections for the second of said fluids, and baffle means dividing said chamber into a path for the fluid directly admitted thereto, comprising successive loop sections parallel to and inclosing the loop sections formed by the tubes whereby a counter current flow of the two fluids may be obtained.

1,139,550. COMPRESSION-MOLD FOR BONELESS HAM. MELVIN J. MCCRACKEN, Kent, Ohio. Filed Aug. 31, 1914. Serial No. 859,285. (Cl. 107—19.)

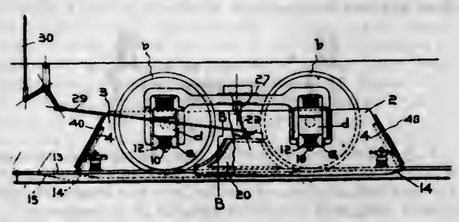


1. A device as described consisting of a cylindrical body having overlapping edges, longitudinal and slotted connections at the ends thereof, a strap pivoted on one side and overlapping the other side of said body, and a keeper pivoted on the opposite side from said strap and adapted to engage at intervals on the back of said strap.

2. A ham compressing and molding cylinder formed in a single piece of sheet metal and having one edge lapped beneath the other and one of said laps having circumferential slots and the other headed rivets engaged in said slots, a curved strap pivoted on one side and a bracket fixed on the other side of said cylinder on opposite sides of said edges, the said strap having projections at intervals on its back, and a keeper of loop form pivoted in said bracket and adapted to lock on said projections.

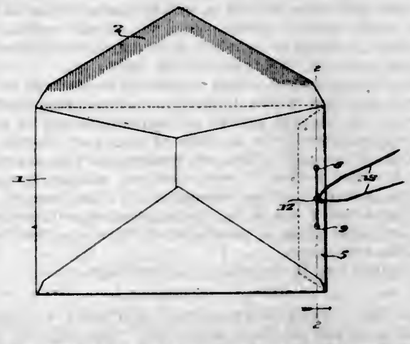
3. A device as described having a sheet metal cylinder with free edges slidably connected to compensate for contraction and expansion of the cylinder, a bracket on one side of the said edges having parallel sides and a strap pivoted on the other side of the said edges having teeth at intervals and a keeper pivoted on said bracket adapted to engage on the teeth on said strap, the sides of the said bracket having open slots at their rear and means to clamp said cylinder on its contents having a fulcrum member engaged in said slots and a lever on which said fulcrum member is pivoted, adapted to engage said teeth to effect clamping.

1,139,551. RAILWAY APPLIANCE. FINLAY A. MCRAE, Montreal, Quebec, Canada. Filed Sept. 27, 1912. Serial No. 722,674. (Cl. 188—6.5.)



The combination with a wheeled railway truck, of an appliance comprising a pair of brake shoes suspended from the truck frame, and formed with wedge-shaped ends, means for shifting said shoes to and from engagement with the wheels, and the portions of the rails on which the wheels bear, and a pair of box-like members carried by the truck and enveloping the brake shoes and overlapping the railheads for the purpose of guiding the brake shoes relatively to the wheels and rails.

1,139,552. PARCEL-POST ENVELOP. MARGARET R. MACE, Philadelphia, Pa. Filed July 7, 1914. Serial No. 849,482. (Cl. 229—74.)

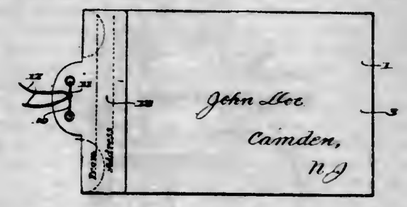


1. An envelop having a reinforcing strip disposed therein and extending along the fold line at the point of juncture of two of its walls, said strip and walls being formed with central and end perforations, eyelets fitted within said perforations and uniting the strip and walls, and a fastening cord passing centrally through the central eyelet, thence having one end extending on one face of the enevelop and through one of the end eyelets to the other face thereof, and having its other end extending across the second-named face to the other end eyelet, thence down through the same and across the first-named face to the intermediate eyelet and through the same back to the second-named face, whereby portions of the cord cross within said central eyelet and reverse bights are formed in the cord engaging the portions of the envelop and strip between the eyelets, the ends of the cord being knotted and provided with free terminals for attachment to a parcel.

2. The combination with an envelop, of a reinforcing strip disposed along one of the folds of the envelop, said strip and walls of the envelop being provided with central registering perforations and end registering perforations on opposite sides thereof, and a cord looped to form a bight extending in opposite directions through said perforations to form reverse bights, said cord being knotted at the joining of the bights and having free end portions for attachment to a parcel.

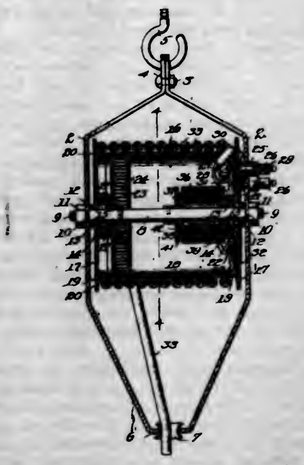
3. An envelop having a reinforcing strip fitted at one end thereof and extending along its end line of fold, said strip and the walls of the envelop being provided with registering central and end perforations, said perforations being reinforced by eyelets, said strip having its outer edge coextensive in length with the fold line and its inner edge relatively shorter, said edges being connected by obliquely cut away end portions, and a cord having looped portions passing through said eyeleted opening, and provided with free end portions adapted for attachment to a parcel.

1,139,553. ENVELOP-TAG. MARGARET R. MACE, Philadelphia, Pa. Filed July 7, 1914. Serial No. 849,483. (Cl. 229—74.)



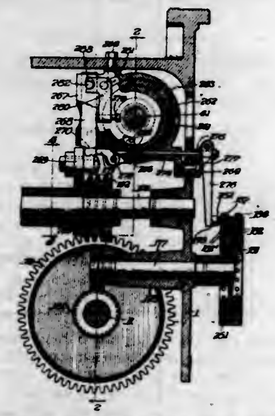
An envelop tag comprising an oblong rectangular body portion gummed upon one face thereof, tabs at the ends of one of the longitudinal edges of said body portion and also having gummed faces on their side adjacent the gummed face of the body portion, said end tabs being foldable in a direction toward said gummed face of the body portion, and a center tab disposed upon the aforesaid longitudinal edge of the body portion between said gummed tabs and having ungummed faces and provided with spaced eyelets for the passage of a fastening cord.

1,139,554. LAMP-CORD REEL. ARCHIBALD MACLEAN, New York, N. Y. Filed June 23, 1911. Serial No. 634,904. (Cl. 173—367.)



In a lamp cord reel, a stationary shaft, a drum loose on said shaft, an electromagnetic clutch within said drum and comprising an electro-magnet disposed concentrically of the shaft, a fixed connection between one end of said magnet and the side wall of said drum, a shell surrounding said magnet and projecting outwardly beyond the pole face thereof, an armature disk splined on said shaft for sliding movement and disposed within the influence of the pole of said magnet and adapted to engage the adjacent edge of the extended end of said shell, whereby a recess is formed between the pole of the magnet and the adjacent face of said disk, and a coiled expansion spring within the space so formed and acting to force the disk away from the magnet upon the deënergization of the latter.

1,139,555. AUTOMATIC BRAKE FOR LATHES. WILLIAM L. MILLER, Madison, Wis., assignor to Gisholt Machine Company, Madison, Wis., a Corporation of Wisconsin. Filed July 18, 1914. Serial No. 851,714. (Cl. 82—21.)



1. In an automatic brake mechanism for lathes, the combination with a tool carrier, of a feed mechanism therefor including a feed-changing mechanism, a brake mounted for engagement with an element of said feed mechanism, and automatic means for applying said brake during the interval in changing from one feed to the other.

2. In an automatic brake mechanism for lathes, the combination with a tool carrier, of a feed mechanism therefor including a rotatable shaft and feed changing mechanism operative to transmit different speeds of rotation to said shaft, a brake in controlling relation to said shaft, and automatic means for applying said brake during the interval in changing from one speed to another.

3. In an automatic brake mechanism for lathes, the combination with a tool carrier, of a feed-screw therefor, a rotatable shaft in driving relation to said feed-screw, a brake drum fast with said shaft, a brake mounted in cooperative relation to said brake drum, mechanism operative to transmit different speeds of rotation to said shaft, and automatic means for applying said brake during the interval in changing from one speed to another.

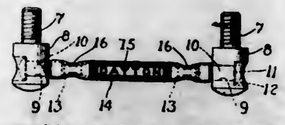
4. In an automatic brake mechanism for lathes, the combination with a tool carrier, of a feed mechanism therefor including a feed-changing mechanism, intermittently operating means for actuating said feed-changing mechanism at predetermined points in the travel of the tool carrier, a brake mounted for engagement with an element of said feed mechanism, and means for applying said brake controlled and operated by said actuating means of said feed-changing mechanism.

5. In an automatic brake mechanism for lathes, the combination with a tool carrier, of a feed screw therefor, a rotatable shaft in driving relation to said feed screw, a brake-drum fast with said shaft, a band-brake mounted on said brake-drum, feed-changing mechanism operative to transmit different speeds of rotation to said shaft, intermittently operating means for actuating said feed-changing mechanism, connections between said intermittently operating means and one end of said band-brake for tightening the latter on said brake-drum, and means for holding the other end of said band-brake against yielding during any predetermined movement or movements of said intermittently operating means.

[Claims 6 to 8 not printed in the Gazette.]

1,139,556. SEAL. PHILIP J. MITTEN, Oakwood Village, Ohio, assignor to The Recording and Computing Machines Company, Dayton, Ohio, a Corporation of Ohio. Filed Apr. 20, 1914. Serial No. 833,068. (Cl. 70—98.)

1. A seal comprising an intermediate member having hollow end portions, and separate end members adapted to be secured respectively to the parts to be fastened and to enter the respective end portions of said intermediate member and having recesses, said intermediate member being adapted to be compressed to cause portions thereof to enter the said recesses.



2. A seal comprising a tube of ductile material, and pins secured, respectively, to parts to be fastened and having recessed end portions extending into the respective ends of said tube, said tube being adapted to be compressed to force portions thereof into said recesses.

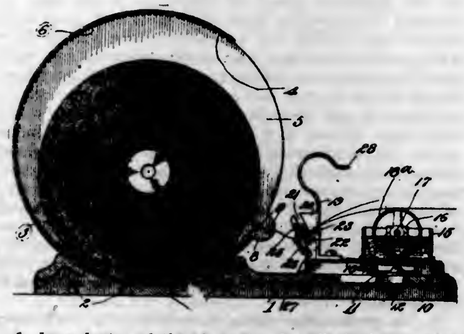
3. The combination, with two parts to be fastened, of a ductile member connected with one of said parts and having its end hollow, and a pin connected with the other of said parts and having one end recessed, one of said members being capable of longitudinal movement to cause the recessed end of said pin to enter the hollow end of said ductile member, said ductile member being adapted to be compressed to force a portion thereof into said recess.

4. The combination, with a fastening device capable of rotary movement to release the part fastened thereby, of a seal comprising two telescoping parts, the inner part having a recess and the outer part having a portion adapted to be compressed into said recess, one part of said seal being secured to a fixed support and the other part of said seal being secured to said fastening device to hold the latter against rotation, and one of said parts being movably mounted to permit it to be moved lengthwise into engagement with the other of said parts.

5. The combination, with a device to be fastened having a part provided with a transverse aperture, said aperture having an enlarged portion at one end thereof, of a pin extending through the operture in said part of said fastening device and having an enlarged portion seated in the enlarged portion of said aperture, said pin having a recess, a body portion mounted on a fixed support and having a hollow end to receive the recessed portion of said pin and adapted to be compressed to force a portion thereof into said recess.

[Claims 6 to 11 not printed in the Gazette.]

1,139,557. TAPE-MOISTENING MACHINE. CHARLES L. MOON and IRA BELL, Joplin, Mo. Filed Sept. 5, 1913. Serial No. 788,232. (Cl. 91—14.)



1. In a device of the character described, the combination with a magazine arranged to receive a roll of tape and a moistening device for supplying moisture to the tape drawn from said magazine, of a pair of standards between said magazine and said roll and provided with notches, a rod seated in said notches and movable therein with respect to said magazine and said roll, a plate attached to said rod, a clamping device coöperating with one of said standards to hold said rod in any of its various adjustments with respect to said magazine and said moistening roll, and an independently movable clamping element operating in said notches and coöperating with said plate to engage and hold the tape.

2. A device of the character described, comprising a receptacle arranged to receive a roll of tape, a container arranged to contain moistening fluid, a roll mounted in said container, a pair of standards between said container and said receptacle and provided with notches, a rod seated in said notches, a plate attached to said rod, an independently movable clamping element extending into said notches and coöperating with said plate to engage and hold the tape, springs for pressing said clamping element against said plate, a severing device supported by said standards above and in front of said plate, and frictional means for holding said container in different adjustments with respect to said plate and said receptacle.

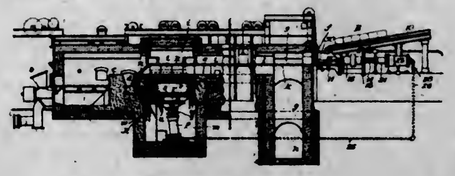
3. A device of the character described, comprising a portable support, a magazine arranged to receive a roll of tape removably mounted on said support, a container slidably mounted on said support, flanges on said support frictionally holding said container in various adjustments, a pair of standards between said magazine and said container, a plate removably supported between said standards, a clamp for holding said plate in different positions between said standards, a clamping device coöperating with said plate to engage and hold the tape, springs pressing said clamping device against said plate, and a severing device supported by said standards above and in front of said plate and clamping device.

4. In a device of the character described, the combination of a unitary portable base, a magazine removably seated on said base and arranged to contain a roll of tape, integral portions on said base preventing lateral movement of said magazine and between which said magazine is removably mounted, supports secured to said base, a tensioning device supported by said supports, a severing device above and in front of said tensioning device, a container mounted on said base and being movable with respect to said magazine and said supports, means holding said magazine in any of its adjustments with respect to said supports, and a roll for supplying moisture to the tape drawn from said magazine, substantially as described.

5. In a device of the character described, the combination with a magazine arranged to receive a roll of tape, and a moistening roll for supplying moisture to the tape drawn from said magazine, of a rod supported between said moistening roll and said magazine, a plate attached to said rod, means for holding said rod and said plate in different positions with respect to said magazine and said moistening roll, a clamping element, and springs for pressing said clamping element against said plate in any position of said plate, substantially as described.

[Claim 6 not printed in the Gazette.]

1,139,558. FURNACE. RALPH S. MOORE, El Paso, Tex. Filed Nov. 18, 1914. Serial No. 872,777. (Cl. 75—40.)



1. In a heating furnace, the combination with suitable ways for supporting the material and for sliding it thereon; of a movable hearth, mechanism for moving the hearth, charging means for progressing the material along said ways, said mechanism arranged for actuation by said charging means.

2. In a heating furnace, the combination with suitable ways for supporting and for sliding material thereon; of a plurality of movable hearths, hydraulic mechanisms for moving the hearths, charging mechanisms for progressing the material along the ways, said hydraulic mechanisms actuated by said charging mechanisms, and coupling means for said charging mechanisms, whereby said charging mechanisms are caused to move in unison to move said hearths in unison.

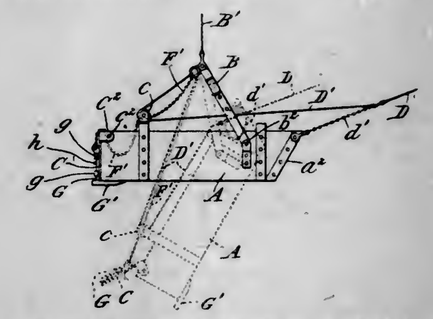
3. In a heating furnace, the combination with suitable ways for supporting and sliding material thereon; of a plurality of movable hearths, hydraulic mechanisms for moving the hearths, charging mechanisms for progressing the material aloug the ways, said hydraulic mechanisms actuated by the charging mechanimsm, and means to permit said charging mechanisms to be actuated either independently or in unison to actuate said hearths either independently or in unison.

4. I a heating furnace, a stationary hearth and a movable hearth near the end thereof, means to move the latter hearth upwardly and at an angle to the vertical away from the end of the stationary hearth, and charging means for progressing the material along the hearths, said movable hearth actuated from said charging means.

5. In a heating furnace, the combination with furnace skidways; of a movable hearth comprising piers between which said skidways extend, an inclined hydraulic piston and cylinder for supporting and moving said piers and means for controlling the supply of liquid to and from said cylinder.

[Claims 6 to 10 not printed in the Gazette.]

1,139,559. EXCAVATING-SHOVEL. CHARLES A. MORRIS, Montclair, N. J., assignor to The Hayward Company, a Corporation of New York. Filed May 20, 1910. Serial No. 562,445. (Cl. 37—54.)



1. An excavating shovel adapted to be loaded at one end and discharged at the opposite end, and having its point of suspension positioned intermediate the loading end and the center of gravity of said shovel, said shovel being provided with a gravity closing tail gate, means for locking the tail gate in its closed position, and mechanically actuated means operated by the tilting movement of the shovel for unlocking and for opening the tail gate.

2. An excavating shovel adapted to be loaded at one end and discharged at the other end, suspending mechanism connected to the shovel intermediate the loading end and the center of gravity of said shovel, a haul cable held under tension during the operations of loading and conveying the shovel, means connected, with the haul cable and coöperating with the shovel for precluding said shovel from dumping when the haul cable is under tension, a tail gate pivoted to close by gravity, and gate-operating cable connected to the auspending mechanism and to the tail gate, said gate-operating cable being operable upon the inclination of the shovel to a dumping position for opening said tail gate.

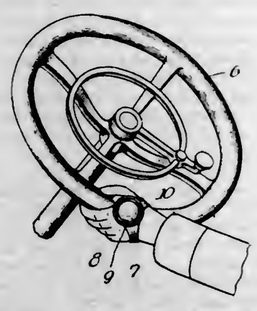
3. In an excavating apparatus, the combination of a shovel adapted to be loaded at one end and to be discharged at the opposite end, a suspending bail pivoted to said shovel intermediate its loading end and the center of gravity of said shovel, a haul line, a tail-gate pivoted to the shovel, the pivotal connection between said tail-gate and the shovel being independent of the pivotal connection between the suspending bail and the shovel and the weight of said tail-gate being carried by the shovel in the operation of loading the latter by the action

of the haul line, a dump-controlling member operated by tension on the haul line for retaining the shovel in a non-dumping relation to the suspending bail, and means for supporting the tail-gate upon the dumping movement of the shovel.

4. In an excavating apparatus, the combination of a shovel adapted to be loaded at one end and to be discharged at the opposite end, a suspending member having pivotal connection with the shovel intermediate the loading end and the center of gravity thereof, a haul line, a tail-gate coöperating with the discharging end of said shovel and supported directly by the shovel and independently of the suspending member when said shovel is being loaded under the pull of the haul line, said tail-gate having a separate pivotal connection with the shovel rearwardly of the pivotal connection between the shovel and the suspending member, a dump controlling member attached at its respective ends to the suspending member and to the haul line, said dump-controlling member having a running connection with the shovel, and a flexible gate lifting member attached to the tail-gate and the suspending member for supporting said tail-gate in a raised position when the shovel is turned to assume a dumping position.

5. In an excavating apparatus, the combination of a shovel adapted to be loaded at one end and discharged at the opposite end, a suspending member connected to said shovel intermediate the loading end and the center of gravity thereof, a tail-gate supported directly by the shovel for closing the discharging end thereof when said shovel is being loaded by the action of the haul line, said tail-gate being pivoted to the shovel independent of the connection of the suspending member thereto, a haul line, a dump controlling member attached at its respective ends to the suspending member and the haul line, said dump-controlling member having running engagement with the shovel rearwardly of the connection thereto of the suspending member, and a flexible member attached to the suspending member and operating to support the tail-gate in a raised position when the shovel turns into a dumping position by slackening the haul line and the dump-controlling member.

1,139,560. AUTOMOBILE-MIRROR. GEORGE W. MOSHER, Chicago, Ill. Filed Oct. 20, 1913. Serial No. 796,361. (Cl. 224—28.)



1. A hand mirror for motorists and the like comprising a mirror, a holder for said mirror, a strap adapted to encircle the wrist of the wearer secured to one side of said holder, and a strap secured to the other side of said holder at one end and engaging the wrist strap at the other end and adapted to pass between the thumb and first finger to secure the mirror in place on the back of the hand and adjacent the thumb of the wearer.

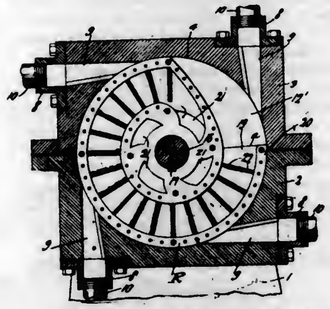
2. A hand mirror for motorists and the like comprising a mirror, a strap adapted to encircle the wrist of the wearer connected to said mirror, and a strap adapted to pass between the thumb and first finger of the wearer connected to said mirror and slidably engaging said first mentioned strap, whereby said mirror may be positioned on the back of either hand of the wearer.

1,139,561. DUST-CLOTH HOLDER. WILLIAM T. MOSS, Denver, Colo., assignor of one-half to Frank Buckman, Denver, Colo. Filed May 2, 1913. Serial No. 765,093. (Cl. 15—42.)



A holder having a plurality of diverging resilient arms provided with gripping means at their free ends, and a ring surrounding the said arms and comprising a wire coil having its terminal portions extended diametrically through the axis thereof and crossed, the said crossed terminal portions engaging a pair of the said arms therebetween.

1,139,562. TURBINE. JOHN NASH, North Yakima, Wash. Filed Sept. 26, 1914. Serial No. 863,681. (Cl. 121—56.)



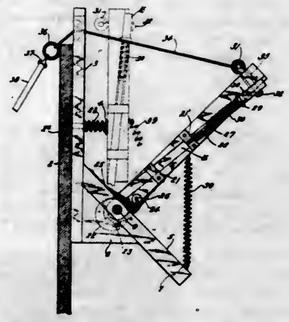
1. A turbine, including a stator provided with a cylindrical rotor chamber and two exhaust chambers, one at each end of and in communication with the rotor chamber, said rotor chamber being provided with a plurality of inlet ports disposed the full length thereof and tangentially thereto, and a rotor having a central partition and two active members one at each side thereof, said partition dividing the pressure fluid to cause it to exhaust equally in each exhaust chamber.

2. A turbine, including a stator provided with a cylindrical rotor chamber and two exhaust chambers, one at each end of and in communication with the rotor chamber, said rotor chamber being provided with a plurality of inlet ports disposed the full length thereof and tangentially thereto, a rotor mounted in the chamber and composed of a centrally disposed partitional disk, a segmental member at each side of the disk, said member being divided into a plurality of active pressure receiving spaces, and having means for guiding the exhaust toward the center of the rotor, the rotor being hollow at the center and being in communication at its ends with the respective exhaust chambers.

3. A turbine, including a stator provided with a cylindrical rotor chamber and two exhaust chambers, one at each end of and in communication with the rotor chamber, said rotor chamber being provided with a plurality of inlet ports disposed the full length thereof and tangentially thereto, and a rotor composed of a central partitional disk, and two active members one upon each side of the disk each of said members being composed of a plurality of circular sections, and each section having an impact surface and provided with a pressure fluid passage leading therefrom to the center of the rotor, said rotor at each side of the partitional disk being provided with a pressure fluid directing port in communication with the respective exhaust chambers.

4. A turbine, including a stator provided with a cylindrical rotor chamber and two exhaust chambers, one at each end of and in communication with the rotor chamber, said rotor chamber being provided with a plurality of inlet ports disposed the full length thereof and tangentially thereto, a rotor having a central partition and two active members one at each side thereof, said partition dividing the pressure fluid to cause it to exhaust equally in each exhaust chamber, each active member, including a plurality of disks and interposed vane carrying annuli, the vanes of which are alternating so as to produce and to cause the steam to follow a zig-zag course from its point of impact to the point of exhaust.

1,139,563. ANIMAL-RELEASING DEVICE. ERNST NOENNIG, Wittenberg, Mo. Filed Oct. 31, 1914. Serial No. 869,572. (Cl. 119—116.)

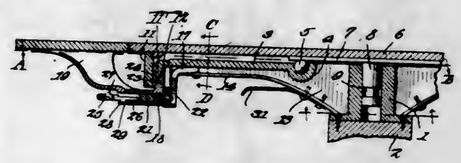


1. In an animal releasing device, the combination of a support, a legged frame carried thereby, a rotary shaft journaled in said legs, a guide beam loose upon said shaft, a flexible connection between said guide beam and legs, a slide carried by said guide beam, a cam wheel fast upon said shaft in the plane of said slide, tension mechanism connecting said guide beam and slide whereby the latter member is retained in frictional engagement with said cam wheel, an eye-bolt releasably carried by said slide and guide beam and means associated with said rotary shaft for rotating the same to cause the cam wheel carried thereby to move said slide out of normal position and thereby release said eye-bolt.

2. In an animal releasing device, the combination of a support, a legged frame carried thereby, a rotary shaft journaled in said legs, a terminally apertured guide beam loose upon said shaft, a flexible connection between said guide beam and legs, a terminally bifurcated slide carried by said guide beam, said bifurcation being larger at its inception than at its termination; a cam wheel fast upon said shaft in the plane of said slide, tension mechanism connecting said guide beam and slide whereby the latter member is retained in frictional engagement with said cam wheel, an eye-bolt projected through the apertured portion of said guide beam and through the diminished bifurcation in said slide which member while in normal position retains said eye-bolt fast and means associated with said shaft for rotating the same to cause the cam wheel carried thereby to move said slide out of normal position to cause the release of said eye-bolt.

3. In an animal releasing device, the combination with a support, of a legged frame carried thereby, a rotary shaft journaled in said legs, a guide beam loose upon said shaft, a flexible connection between said guide beam and legs, a slide carried by said guide beam, tension mechanism connecting said guide beam and slide whereby the latter member is impelled toward said shaft, an eye-bolt releasably carried by said guide beam and slide while the latter member is in normal position, means for rotating said shaft and means carried by said shaft for frictional engagement with said slide whereby the same is moved out of normal position to effect the release of said eye-bolt.

1,139,564. REVOLVING DINING-ROOM TABLE. JOHN ANTON OBERG, Bremerton, and JOHN R. ECKMAN, Puyallup, Wash. Filed July 2, 1914. Serial No. 848,611. (Cl. 45—9.)



1. The combination with a table top and radial top supporting arms fixedly mounted thereunder, of brackets slidably and pivotally engaging the fixed arms, segmental leaves carried by the respective brackets, means upon each bracket for detachably engaging the adjacent arm for supporting said bracket with its segmental leaf flush with the top when extended, and means upon each arm and coöperating with the adjacent bracket for holding said bracket and its leaf beneath the table top and the arm.

2. The combination with a support and a table top, of fixed supporting and guiding arms radiating from the support and having downwardly and inwardly inclined guide portions, a bracket slidably engaging each of said arms and its guide portions, a segmental supporting leaf carried by each bracket, means upon each bracket and adapted to coöperate with the adjacent supporting means for holding the bracket with its leaf flush with the top of the table when extended, and yielding means upon each arm for engagement by the bracket supported leaf to hold said leaf under and close to its guiding means.

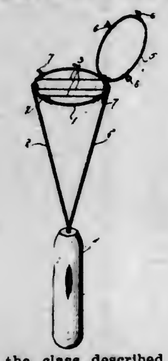
3. The combination with a supporting member and guide arms radiating therefrom, each arm including a depending web and downwardly and inwardly curved flanges, of a table top supported by said member, a bracket having a base, a yoke extending from the bracket and slidably engaging the arm, said yoke having inturned terminals movable above the flanges of the arm, a latch member carried by the base and movable into engagement with the web of the arm thereby to hold the bracket fixed relative to the arm, a segmental supporting leaf carried by the bracket and adapted to be held thereby flush with the top of the table, and means upon said arm for engaging the leaf to support the bracket and leaf in position under and close to the arm.

4. The combination with a supporting member, arms radiating therefrom, each of said arms including a web and inwardly and downwardly extended flanges, and a table top supported above the supporting member and arms of a bracket for each arm, each bracket including a base, a yoke extending from the base and having inturned terminals movable above the flanges and at opposite sides of the web of the arm, a latch carried by the base and movable into engagement with the arm thereby to hold the bracket against movement relative to the arm, means for locking said latch member in engaging position, and a segmental supporting leaf carried by each bracket and adapted to be supported thereby flush with the table top.

1,139,565. DISH-RAG HOLDER. RACHEL C. ODOMS, Gibbon, Nebr. Filed Apr. 10, 1914. Serial No. 831,067. (Cl. 141—10.)

1. A dish rag holder comprising a ring, wires secured to the said ring and extending transversely thereacross,

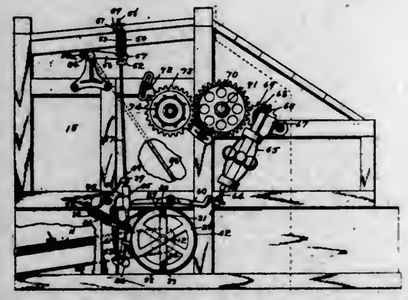
arms formed on the said ring and converging downwardly, a handle attached to the said arms, a second ring hinged to the first mentioned ring at a point adjacent one of the arms, the space within the said second mentioned ring being entirely free and unclosed, hooks slidably and rotatably mounted on the first mentioned ring, and hook-shaped loops slidably and rotatably mounted on the last mentioned ring arranged to be interengaged with the hooks to hold the rings in operative position.



2. A device of the class described comprising a stationary ring, a handle attached thereto, a ring hinged to the first mentioned ring, the space within said second mentioned ring being entirely free and unclosed, and means pivotally attached to the last mentioned ring to engage the first mentioned ring to hold the same in operative position, a dish rag therebetween, and means to prevent the displacement of the said first mentioned means, the said rings being constructed and arranged so as to lie parallel and in spaced relation whereby the dish rag will be entirely free to protrude from the second mentioned ring and the edges of the said rag will extend between the said rings

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1,139,566. MACHINE-BRAKE. ARTHUR R. OGBURN, Newton, Iowa. Filed Mar. 2, 1907. Serial No. 360,209. (Cl. 74—37.)



1. In a machine of the class described, the combination of a shaft, a friction clutch on said shaft, said friction clutch having a control band, a ball governor having an upwardly extending axis of rotation, a lever, adjusting means for connecting said lever with said governor, the opposite end of said lever being operatively connected with one end of said friction clutch band to loosen the clutch and stop the shaft when the speed of the governor drops below normal.

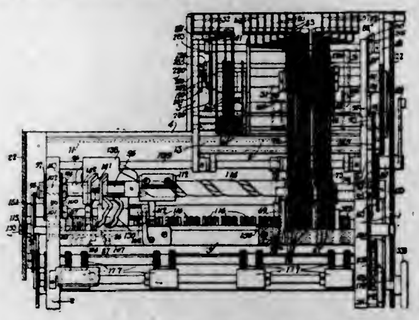
2. In a machine of the class described, the combination of a driving shaft, a friction clutch on said driving shaft and having a control band, a spring-pressed lever connected with both ends of said band and positioned to swing when the band is to be tightened or loosened, a ball governor, means for driving said governor in accordance with the speed of the machine, a rock lever pivoted to swing on a horizontal axis, one end of said lever being adjustably connected to said ball governor and the other end being operatively connected to tighten or loosen the band by swinging the lever to which the ends of the band are connected.

3. In a machine of the class described, the combination with a driving shaft, a frictional clutch carried thereby and having a control band, of a pivotally mounted lever, a lever pivotally secured to the first mentioned lever, means for connecting the last mentioned lever to the control band, means for connecting said levers, a governor, a horizontal lever connected at one end of said governor, and the opposite end of said horizontal lever being connected to the means for connecting the first mentioned levers for the purpose specified.

4. In a machine of the class described, the combination with a drive shaft, a frictional clutch having a control band, of a spring actuated lever connected to the control band, a yoke pivotally connected to said lever, a centrifugal governor vertically arranged, and a horizontally arranged lever operated upon at one end by said governor connecting said yoke with the governor for the purpose specified.

5. In a machine of the class described, the combination with the drive shaft, a friction clutch having a control band, of a pivotally mounted lever, a second lever fulcrumed upon the first lever, a coil spring connecting said levers, the second lever being connected to both ends of the control band, a yoke connected to the second lever, a horizontally arranged lever, a centrifugal governor connected to one end of said horizontally arranged lever, and the opposite end of said horizontally arranged lever being adapted to rest within said yoke substantially as and for the purpose specified.

1,139,567. MACHINE FOR MAKING AND RECORDING CERTIFICATES AND THE LIKE. WILFRED I. OHMER and JOHN E. MCALLISTER, Dayton, Ohio, assignors to The Recording and Computing Machines Company, Dayton, Ohio, a Corporation of Ohio. Filed Feb. 24, 1912. Serial No. 679,659. (Cl. 235—3.)



1. The combination, with devices for marking on certificate-forming material to make a certificate of any one of a plurality of denominations, which certificate has a denomination mark to indicate its value and a mark to identify the certificate, of devices for printing a record of the number of certificates issued of each denomination and of the identifying mark for each certificate.

2. The combination, with devices for marking on certificate-forming material to make a certificate of any one of a plurality of denominations, which certificate has a denomination mark to indicate its value and a mark to identify the person to whom the certificate is issued, of devices for printing a record of the number of certificates issued of each denomination and of the identifying mark for each certificate.

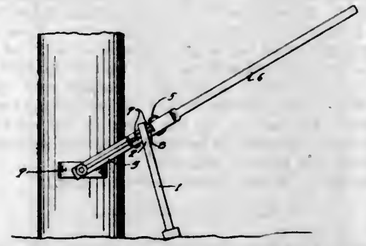
3. The combination, with devices for marking on certificate-forming material to make a certificate of any one of a plurality of denominations, which certificate has a denomination mark to indicate its value, a mark to identify the certificate, and a mark to identify the person to whom the certificate is issued, of devices for printing a record of the number of certificates issued of each denomination and of each identifying mark.

4. The combination, with devices for marking on certificate-forming material to make a certificate of any one of a plurality of denominations, which certificate has a denomination mark to indicate its value, and a mark to identify the person to whom the certificate is issued, of devices to print a record of the denomination and identifying mark of each certificate and to compute and print a record of the number of certificates issued of each denomination.

5. The combination, with devices for marking on certificate-forming material to make a certificate of any one of a plurality of denominations, which certificate has a denomination mark to indicate its value, a mark to identify the certificate and a mark to identify the person to whom the certificate is issued, of devices to print a record of the denomination and identifying marks of each certificate issued and to compute and print a record of the number of certificates issued of each denomination.

[Claims 6 to 63 not printed in the Gazette.]

1,139,568. LIFTING-JACK. FREDRIK OLSON, Stony Butte, Mont. Filed July 23, 1914. Serial No. 852,556. (Cl. 254—132.)



1. A lifting jack comprising a fulcrum block, lifting jaws pivoted together, one of said jaws terminating in a handle, gripping jaws pivotally carried by said lifting jaws and means carried by said lifting jaws for frictional engagement with said fulcrum block whereby said last named jaws may be forced toward each other to cause said gripping jaws to engage an object.

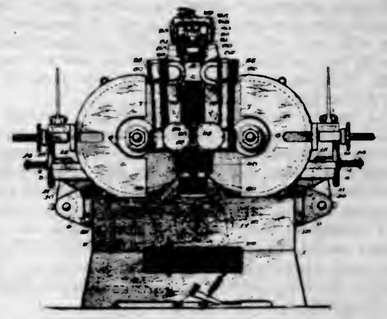
2. A lifting jack comprising a fulcrum block, lifting jaws pivoted together, one of said jaws terminating in a handle, gripping jaws pivotally carried by said lifting jaws, a pair of ears carried by each of said lifting jaws, and a roller carried by each pair of said ears for frictional engagement with said fulcrum block to pivotally support said lifting jaws.

1,139,569. DISK-GRINDING MACHINE. WILLIAM C. OSTERHOLM, Chicago, Ill., assignor to International Harvester Company of New Jersey, a Corporation of New Jersey. Filed Aug. 12, 1912. Serial No. 714,499. (Cl. 51—7.)

1. A disk grinding machine having, in combination, two opposed rotatable grinding wheels, a disk carrier movable toward and from said grinding wheels in the direction of the axes thereof, and unitary means operative simultaneously to cause said grinding wheels to move bodily toward and from each other and said carrier to approach and recede therefrom.

2. A disk grinding machine having, in combination, two opposed rotatable grinding wheels, a disk carrier movable toward and from said grinding wheels in the direction of the axes thereof, means operative simultaneously to cause said grinding wheels to move bodily toward and from each other and said carrier to approach and recede therefrom, and means carried by said carrier and operative to rotate a disk placed thereon.

3. A disk grinding machine having, in combination, two opposed rotatable grinding wheels, a disk carrier provided with a series of rotatable disk supporting wheels having grooved peripheries and movable toward and from said grinding wheels in the direction of the axes thereof, means operative simultaneously to cause said grinding wheels to move bodily toward and from each other and said carrier to approach and recede therefrom, and means carried by said carrier and operative to rotate a disk placed thereon.

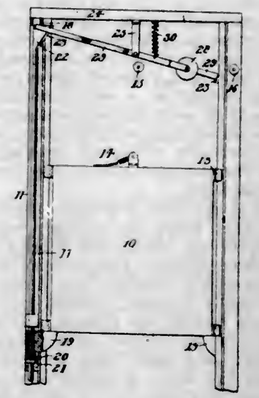


4. A disk grinding machine having, in combination, two opposed rotatable grinding wheels, a swinging disk carrier movable toward and from said grinding wheels in the direction of the axes thereof, means operative simultaneously to cause said grinding wheels to move bodily toward and from each other and said carrier to approach and recede therefrom, friction wheels rotatably mounted upon said carrier and adapted to engage opposite surfaces of the disks and cause a rotative movement thereof.

5. A disk grinding machine having, in combination, opposed grinding wheels, a disk carrier movable toward and from said grinding wheels, means operative to engage with and rotate a disk placed on said carrier, and means operative simultaneously to cause said grinding wheels to move toward and from each other and said carrier to approach and recede therefrom and said disk rotating means to engage with the disk.

[Claims 6 to 19 not printed in the Gazette.]

1,139,570. ELEVATOR SAFETY DEVICE. FRANK PASTOR, Cleveland, Ohio, assignor of one-half to John Patinka, Nesquehoning, Pa. Filed Sept. 8, 1914. Serial No. 860,631. (Cl. 187—73.)



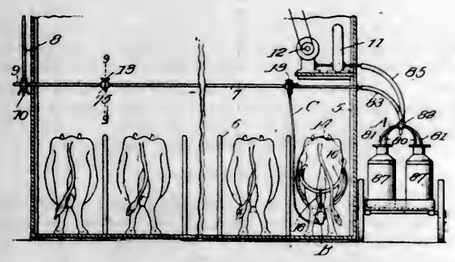
1. An elevator safety device comprising in combination with the shaft timbers and a car with its hoisting cable arranged in connection therewith, vertically shiftable rods journaled upon alternate sides of said timbers, spaced abutments carried by said rods, cushioning springs encircling said rods contacting beneath the said abutments, and automatic actuating means for said rods pivoted to

said timbers and engaging said cable when the latter is unsevered.

2. An elevator safety device, comprising oppositely positioned rods journaled for partial rotation, a car vertically shiftable between said rods, a hoisting cable for said car, abutments carried by said rods normally outwardly of the path of travel of the car, a pivoted lever normally engaging said cable with said lever horizontally positioned, triangular actuating plates carried by said rods and turned slightly inwardly out of horizontal alinement with each other and shiftably engageable with the opposite end portions of the said lever, and an expansion spring engaging said lever whereby said lever is tilted upon a severing of the said cable.

3. A safety device solely carried by elevator shaft members and comprising partially revoluble longitudinally shiftable oppositely positioned rods, opposite abutments inwardly shiftable and carried by said rods, cushioning means beneath said abutments, engaging plates adjacent the upper ends of said rods, a pivoted angular lever normally horizontal and contacting said plates, and an expansion means engaging said lever whereby the latter is tilted upon a severing of the hoisting cable of the elevator whereby the said abutments inwardly project within the line of movement of the elevator car.

1,139,571. MILKING-MACHINE. LEWIS PRESTON PATTERSON, Springfield, Mo., assignor of one-fourth to Nancy C. Patterson, one-fourth to Eva E. Coover, and one-fourth to Thomas W. Garoutte, Springfield, Mo., and one-fourth to William B. Garoutte, Carthage, Mo. Filed July 20, 1914. Serial No. 851,936. (Cl. 31—99.)



1. A milking system including a plurality of receptacles, a plurality of pulsators, a delivery pipe connected to the pulsators, an inverted U-shaped pipe connected to the end of the delivery pipe, said U-shaped pipe projecting at its ends within the receptacles, a second inverted U-shaped pipe projecting at its ends within the receptacles, means for placing the second U-shaped pipe under suction, and means for automatically cutting off the suction at each end of the second U-shaped pipe as the receptacles respectively become filled.

2. A system of the class described comprising a plurality of receptacles, means for creating a vacuum in the receptacles, means for filling the receptacles as the vacuum is created therein, said vacuum forming and receptacle filling means comprising can closures having a pair of substantially inverted U-shaped pipes extending each at its ends through the closures, and a tube connected with each of the U-shaped pipes and controlled by a two-way valve, said tubes being connected one to a source of supply and one to a suction pump, and cut off float valves associated with one of the tubes for automatically cutting off the suction in the receptacles when they become filled.

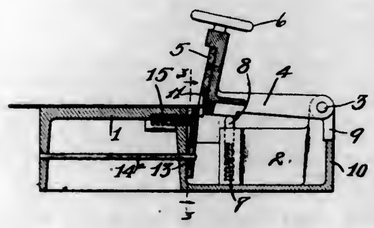
3. A system of the class described including a delivery mechanism, a plurality of receptacles for receiving milk connected with the delivery mechanism, means for creating a suction within the receptacles, a delivery pipe, connecting means between the delivery pipe and delivery mechanism, a plurality of pulsators, teat cups carried by said pulsators, connecting means between the pulsators and delivery pipe, a cluster of pipe sections connected with the delivery pipe, and an air vent tube connected with said pipe, and means for controlling the communication between the cluster and delivery pipe, and between the air tube and delivery pipe, substantially as described.

4. A milking system including means for creating a suction within milk receiving receptacles, and means for delivering milk to the receptacles, said suction creating and milk delivering means comprising a plurality of can closures, a plurality of pipes communicating at their ends with the receptacles through the closures, said pipes being carried by said closures, a delivery tube connected with one of the pipes, a valve for controlling the passage from said tube through the branches of its pipe, a suction tube connected with the other pipe, a valve for controlling the communication between the suction tube and its pipe, a float valve carried by each branch of the suction tube and adapted to close the communication to that branch upon the filling of the receptacle to which the branch is connected.

5. A system of the class described comprising a pulsator provided with teat cups, means for securing said pulsator, said means comprising a back strap adapted to span the back of an animal, said strap being provided with a pair of buckles at its ends, supporting straps adjustably carried by said buckles, said supporting straps extending one beneath and one behind the cow, a supporting rod having its rear end curved upwardly and provided with a hook adapted to engage one of the supporting straps, said rod at its opposite end provided with an opening through which the other supporting strap is adapted to engage, said rod provided with a slot therein having an enlargement at one end, and a cap carried by the pulsator and adapted to enter said enlargement to be moved into engagement with the rod on both sides of said slot.

[Claims 6 to 19 not printed in the Gazette.]

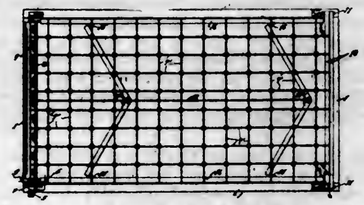
1,139,572. ENVELOP-OPENER. EUGENE L. PERRY, Warren, Pa., assignor to The Rogers-Shear Company, Warren, Pa., a Corporation of Delaware. Filed Apr. 3, 1914. Serial No. 829,173. (Cl. 164—43.)



1. An envelop cutter, comprising a stationary rigid frame embodying a stationary table portion constituting a support for the envelop, and a waste receptacle in rear of said table portion, a reciprocatory knife member fulcrumed on said frame at the rear of said waste receptacle and bearing an upper blade removed from and approximately parallel to its fulcrum, a lower knife blade on the frame disposed in a substantially upright position at the back of the table portion and tiltable so as to carry its upper edge transversely toward and from the receprocatory blade, and springs at the table side of the lower knife blade for pressing the same against the reciprocatory blade.

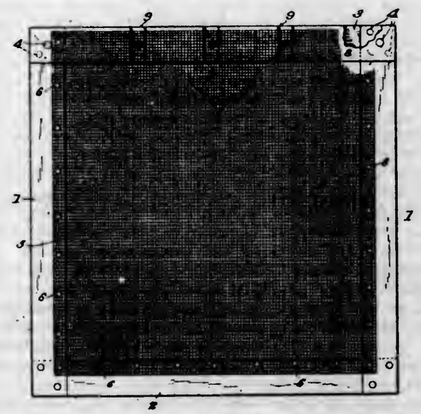
2. An envelop cutter, comprising a frame embodying a support for the envelop, a lower knife mounted on the frame, and a reciprocatory knife having an oblique cutting edge and a downwardly and rearwardly beveled gage surface beneath said edge operative to push the envelop outward beneath the cutting edge of the reciprocatory knife as the latter descends.

1,139,573. BED-SPRING. JOHN PETERSON, Felch, Mich. Filed Aug. 3, 1914. Serial No. 854,744. (Cl. 5—68.)



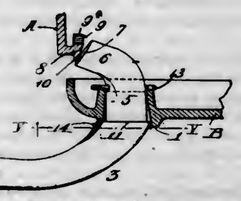
An adjustable bed spring comprising in combination, a shafted roller, a stationary shaft, a wire fabric forming a mattress connecting said shaft and roller and adapted to be wound upon the latter, a flexible member disposed in the plane of said mattress and connected to said shafted roller and toggle bars connecting said flexible member and the sides of said mattress.

1,139,574. FLY-SCREEN. RALPH N. PITCHER, Milwaukee, Wis. Filed Jan. 8, 1914. Serial No. 810,930. (Cl. 156—37.)



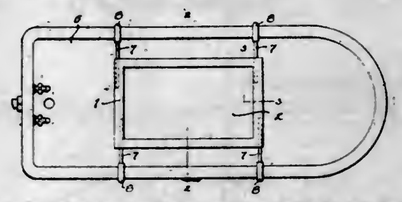
In a device of the described class, the combination of a frame, a wire screen, a metallic opaque member adapted to partially inclose and darken an outlet opening between the upper frame member and the upper edge of said screen and a plurality of supporting brackets formed integral with said metallic member and interposed between said screen and the upper end of the screen supporting frame.

1,139,575. STOVE. VICTOR A. PITSCH, Leavenworth, Kans. Filed Feb. 9, 1914. Serial No. 817,515. (Cl. 126—197.)



In combination with a stove door having a keeper on the door jamb, said keeper having a beveled side face inclined outwardly toward the jamb and an inclined rear edge, a boss carried by the door and having a bore and an outer segmental recess the ends of which form stops, a shank rotatably mounted in the boss, a hook formed on the inner end of the shank having a free end face of greater inclination than that of the beveled face of the keeper, a lever carried by the outer end of the shank, said lever being adapted to move upwardly as the hook rides over the beveled face of the keeper, and being adapted to swing downwardly under its weight upon disengagement of the hook with said beveled face upon engagement of the hook with the inclined edge of said keeper and a lug on the shank operating in said segmental recess and engageable with the stops thereof.

1,139,576. COLLAPSIBLE BATH-TUB. ALFRED E. PRESSON, Gloucester, Mass. Filed May 21, 1914. Serial No. 840,096. (Cl. 4—27.)



1. A portable and collapsible infant's bath tub including a main frame, a flexible waterproof basin applied thereto, plates applied to opposite ends of the main frame and each formed with double tubular guide sleeves, and supporting members adapted to detachably engage the guide sleeves.

2. A portable and collapsible infant's bath tub including a main frame, a flexible waterproof basin applied thereto, sheet metal plates applied to opposite ends of the frame and having opposite sides thereof returned to provide double tubular guide sleeves, and supporting members having end portions adapted to be loosely and detachably received within the said tubular guide sleeves.

3. A portable and collapsible infant's bath tub including a main frame, a flexible waterproof basin applied thereto, metal plates applied to opposite ends of the main frame and each formed with double tubular guide sleeves, supporting arms loosely received within the tubular guide sleeves so as to slide freely therein and projecting laterally upon opposite sides of the tub, the projecting ends of the supporting arms terminating in hook members adapted to be properly adjusted to engage the sides of an adult's bath tub.

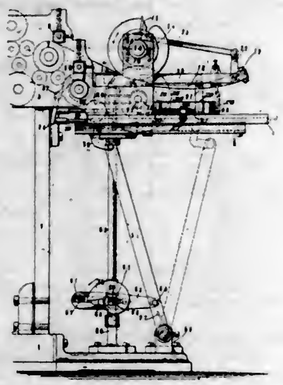
4. A portable and collapsible infant's bath tub including a main frame, a flexible waterproof basin applied to the main frame and having the edges thereof folded around the sides of the frame, metal plates applied to the lower faces of the sides of the frame at opposite ends thereof so as to clamp the edges of the flexible waterproof basin against the frame, each of the plates being formed with a double set of tubular guide sleeves, and supporting arms loosely received within the tubular guide sleeves so as to slide freely therein and project laterally upon opposite sides of the frame, the projecting ends of the supporting arms terminating in hook portions adapted to be properly adjusted for engagement with the sides of an adult's bath tub.

1,139,577. DELIVERY MECHANISM FOR PRINTING-PRESSES. WILLIAM A. PRINGLE, Niagara Falls, N. Y., assignor, by mesne assignments, to American Sales Book Company, Limited, a Corporation of Ontario, Canada. Filed Feb. 7, 1907. Serial No. 356,181. (Cl. 101—29.)

1. In delivery mechanism for printing presses, in combination, a table for receiving sheets which have been cut from a traveling web, means for piling the sheets upon said table, intermittently acting means adapted to engage the pile of sheets and move it along the table in one direction bodily away from the place where the sheets are delivered, and means adapted to subsequently act on said pile of sheets and move the same along said table in another direction.

2. In delivery mechanism for printing presses, in combination, a stationary table adapted to receive sheets which have been cut from a traveling web, means for depositing said sheets in a pile upon said table, means

adapted to engage the pile of leaves and move it along said table bodily away from the path of the leaves as they are deposited on said table, and means adapted to subsequently act upon said pile of sheets and carry the same laterally from said table.



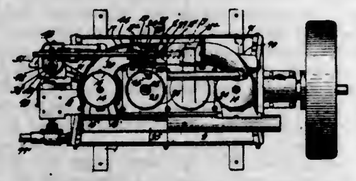
3. In delivery mechanism for printing presses, in combination, means for severing sheets from a traveling web, a table arranged in advance of said severing means, means for discharging said sheets from said table in superimposed relation, means for jogging the pile of sheets upon said table whereby said sheets are caused to register one with another, means adapted to become operative at predetermined intervals to carry a pile of sheets along said table, and means for conveying said sheets from said table.

4. In delivery mechanism for printing presses, in combination, a fixed cutter, a rotary cutter adapted to co-act therewith to cut sheets from a traveling web, a table for receiving said sheets, means for striking said sheets and causing them to fall upon the table in superimposed relation, means for jogging the edges of said sheets whereby they are caused to register one with another, means normally lying beneath said table adapted to be projected therethrough at intervals and then moved forward whereby a pile of sheets upon the table is carried along the same, and means adapted thereafter to carry the pile of sheets from the table.

5. In delivery mechanism for printing presses, in combination, rotary cutting means adapted to sever sheets from a traveling web, a table upon which said sheets are received, movable means for limiting the forward movement of the sheets, means for jogging said sheets whereby they are caused to register one with another, and means for carrying said sheets along said table to permit of fresh sheets being received thereon.

[Claims 6 to 29 not printed in the Gazette.]

1,139,578. EXPLOSIVE-ENGINE. RALPH RAGAN, Atlanta, Ga. Filed Nov. 14, 1912. Serial No. 731,397. (Cl. 123—61.)



1. An explosive engine, including a base a crank shaft mounted therein, a carbureted air compressing and supplying cylinder, a piston mounted therein and operably connected to the crank shaft, a power cylinder, a power piston mounted therein and operably connected to the crank shaft, an intake manifold, said power cylinder being provided with intake and exhaust ports intermediate of its ends, the intake port being in communication with the intake manifold, two oppositely disposed pipes led from the intake manifold to the respective ends of the air compressing and supplying cylinder, a valve mounted for rotation within the manifold and divided into two oppositely open ended chambers, each of said chambers being provided with a port for registration with the pipes of the carbureted air supplying and compressing cylinder, and means for operably connecting the valve to the crank shaft.

2. An explosive engine, having a power cylinder, and a carbureted air compressing and supplying cylinder, an intake manifold in communication with the intake port of the power cylinder, two pipes leading from the intake manifold to the respective ends of the air compressing and supplying cylinder, a valve mounted for rotation within the intake manifold adjacent the point of connection of the two pipes therewith, said valve being divided into two open ended chambers, each of said chambers being provided with a port for registration with the pipes of the carbureted air supplying and compressing cylinder.

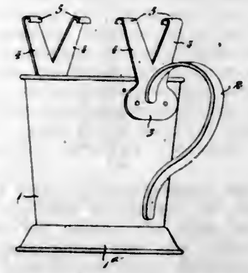
3. An explosive engine, including a base, a crank shaft mounted therein, a carbureted air compressing and supplying cylinder, a piston mounted therein and operably connected to the crank shaft, a power cylinder, a piston mounted in the power cylinder and operably connected to the crank shaft, an intake manifold disposed longitudinally of the engine, said power cylinder being provided with intake and exhaust ports intermediate of its ends, the intake port being in communication with the intake manifold, two oppositely disposed pipes led from the intake manifold to the respective ends of the air compressing and supplying cylinder, the portion of the manifold adjacent to said pipes being enlarged, a frusto-conical valve mounted for rotation within the enlarged portion of the manifold and divided into two oppositely open ended chambers, each of said chambers being provided with a port for registration with the pipes of the carbureted air supplying and compression cylinder, and means for operably connecting the valve to the crank shaft.

4. An explosive engine, including a base, a crank shaft mounted therein, a carbureted air compressing and supplying cylinder, a piston mounted therein and operably connected to the crank shaft, a power cylinder, a piston mounted in the power cylinder and operably connected to the crank shaft, an intake manifold disposed longitudinally of the engine, said power cylinder being provided with intake and exhaust ports intermediate of its ends, the intake port being in communication with the intake manifold, two oppositely disposed pipes led from the intake manifold to the respective ends of the air compressing and supplying cylinder, the portion of the manifold adjacent to said pipes being enlarged, a frusto-conical valve mounted for rotation within the enlarged portion of the manifold and divided into two open ended chambers, each of said chambers being provided with a port for registration with the pipes of the carbureted air supplying and compression cylinder, a shaft connected to the frusto-conical valve and extending exteriorly of the engine, and means operably connecting the extended end thereof with the crank shaft.

5. An explosive engine, including a base, a crank shaft mounted therein, a carbureted air compressing and supplying cylinder, a piston mounted therein and operably connected to the crank shaft, a power cylinder, a piston mounted in the power cylinder and operably connected to the crank shaft, an intake manifold disposed longitudinally of the engine, said power cylinder being provided with intake and exhaust ports intermediate of its ends, the intake port being in communication with the intake manifold, two oppositely disposed pipes led from the intake manifold to the respective ends of the air compressing and supplying cylinder, the portion of the manifold adjacent to said pipes being enlarged, a frusto-conical valve mounted for rotation within the enlarged portion of the manifold and divided into two oppositely open ended chambers, each of said chambers being provided with a port for registration with the pipes of the carbureted air supplying and compressing cylinder, a gear

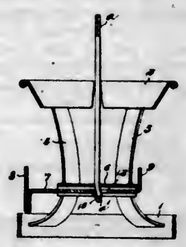
upon the crank shaft, a vertical shaft operably connected to the crank shaft, and coacting means for connecting the vertical shaft with the frusto-conical valve.

1,139,579. HOLDER FOR FOLDING PAPER VESSELS. BERTON I. RIKE, Dayton, Ohio, assignor to The Germless Paper Cup Company, Dayton, Ohio, a Corporation of Ohio. Filed Feb. 29, 1912. Serial No. 680,733. (Cl. 65—61.)



In a holder for folded paper vessels, an inclosing frame, a handle projecting from said frame, a pair of rigid projections on said frame arranged diametrically opposite each other and projecting above said frame, one of said projections being arranged coincident with said handle, and each of said projections having a bifurcated hook-shaped upper end, the arrangement of said projections being such that they will engage the rim of said vessel and hold the same in position in said holder by the elasticity of said vessel, leaving substantially half of the rim of said vessel on each side of said handle unobstructed for the lips of the user.

1,139,580. HOLDER FOR FOLDING PAPER VESSELS. BERTON I. RIKE and JOHN R. KLIN, Dayton, Ohio, assignors to The Germless Paper Cup Company, Dayton, Ohio, a Corporation of Ohio. Filed Feb. 29, 1912. Serial No. 680,735. (Cl. 65—13.)



1. In a holder for a cone-shaped paper vessel, an upper supporting rim portion having a slotted opening, a base portion, and releasable devices for securing the apex portion of said vessel located on said base portion.

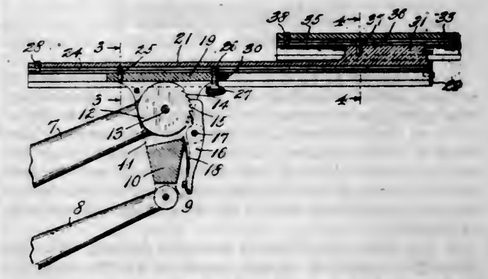
2. In a holder for cone-shaped paper vessels, an upper rim portion having a slotted opening, a base portion, a holding device located on said base portion having an opening, said openings being adapted to receive the cone-shaped cup in folded position, and means in said holding device for securing the apex portion of said cup in position therein.

3. In a holder for cone-shaped paper vessels, an inclosing frame for said vessels, a base portion having an opening to receive the apex portion of said cup, and a sliding clamp adapted to clamp said apex portion of the cup to said base.

4. In a holder for cone-shaped paper vessels, an inclosing frame for said vessels, a base portion having an opening to receive the apex portion of said cup, a movable clamp slidingly supported by said base, said clamp having an inclined tongue normally standing beneath the opening in said base whereby when said slide is moved the apex of said cup will be bent at right-angles and clamped to said base.

5. In a holder for cone-shaped vessels, an inclosing frame, means at the lower end of said frame for clamping the apex portion of the cup, and a spring finger supported by said frame adapted to exert a pressure on said cup, as and for the purpose specified.

1,139,581. DENTAL TRAY. THOMAS L. RILEY, East Cleveland, Ohio, assignor to The Cleveland Dental Manufacturing Company, Cleveland, Ohio, a Corporation of Ohio. Filed Dec. 22, 1913. Serial No. 808,174. (Cl. 248—1.)



1. A supporting bracket for tables or trays comprising a member comprising a supporting bracket mounted upon a fixed support and having a guiding head, a bar having on its underside a longitudinal guideway and recess for said head and on its upper surface near the outer end a guiding head projecting upward therefrom, a second bar having a guiding recess therein for engagement with the second mentioned guiding head, and a work table or tray support carried by the end of said second mentioned bar.

2. A support for work tables and trays comprising a supporting bracket having a guiding head with laterally rounded guiding portions, a pin extending upward from the top of said head, a slidable bar having ways for receiving the rounded portions of said guiding head and also having a longitudinal recess for receiving said pin, a suitable stop at the end of the bar for engaging said pin, a plate at the forward end of said bar for closing the opening forming the guideway, a guiding head mounted on the upper side of said bar and near one end thereof, guiding portions carried by said second mentioned guiding head, a pin carried by this same head, the second mentioned bar having guideways for receiving the guiding portions of the second mentioned guiding head, a recess for receiving a pin carried thereby, a stop carried by one end of the second mentioned bar for engaging the corresponding pin carried by the second mentioned guiding head, and a work table or tray supporting socket mounted on the end of said second mentioned bar.

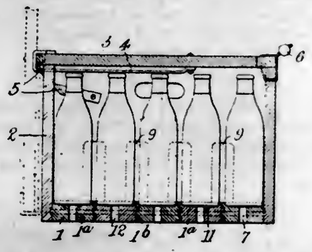
3. A work table or tray comprising a suitable support, a tray supporting web mounted upon said support and having upturned guiding portions, a plate arranged upon said web within the upturned portions, a clamping ring engaging the plate, and suitable latches between the clamping ring and the supporting web.

4. In a work table or tray, a support, a table or tray web carried by said support and comprising a central portion, and a peripheral shoulder for engaging the outer edge of the plate, a clamping ring engaging over the edge of said plate and projecting above the surface of the plate, and suitable clamping devices for holding the ring and the plate rigidly to the web.

5. A work table or tray comprising a supporting web having radially disposed arms, an upturned portion carried by each arm, a plate mounted upon said web and engaging within said upturned portions, a ring extending about the edge of the plate and having downwardly extending portions engaging with the upwardly extending portions of the web, and clamping devices carried by the ring and adapted to engage under the ends of the arms of the table or tray web.

[Claims 6 to 8 not printed in the Gazette.]

1,139,582. BOTTLE-SHIPPING CASE. GEORGE G. ROBERTS, Toledo, Ohio. Filed Apr. 1, 1912. Serial No. 687,735. (Cl. 217—19.)



1. A bottle shipping case having its bottom composed of sections joined together by longitudinal interlocking tongue-and-groove connections, said sections each having a series of cavities formed therein to provide seats for the bases of bottles and drain openings extending through the sections concentric with said cavities, said sections also having sockets alternating with said cavities; and bottle-supporting partitions secured in said sockets, substantially as described.

2. A bottle case having a sectional bottom, said sections having cavities formed therein to provide seats for the bases of bottles, and drain openings concentric with said cavities extending through said sections, together with bottle supports arranged between said cavities.

3. A bottle case having cavities in its bottom arranged in rows to provide seats for the bases of bottles, said cavities having drain openings extending through said bottom, sockets arranged in rows between and alternating with said cavities, and bottle supports secured in said sockets.

1,139,583. CUSHION-RIM FOR PNEUMATIC TIRES. WALLACE W. ROBINSON, Portland, Me. Filed Jan. 11, 1915. Serial No. 1,526. (Cl. 152—21.)



1. In a device of the character described, a tire retaining flange provided with a radially outwardly extending retaining wall on the outside thereof, a resilient ring located on said flange inside of and projecting radially beyond said wall, whereby when the tire is deflated and collapsed it folds around said ring.

2. In a device of the character described, a tire retaining flange provided with a ring receiving recess on the outside and a resilient ring located in said recess and projecting above the sides of the recess, whereby, when the tire is deflated and collapsed, it folds around said ring.

1,139,584. INKING MECHANISM FOR PLATEN PRINTING-PRESSES. MAX ROCKSTROH, Klein Sedlitz, near Pirna, Germany. Filed Jan. 26, 1914. Serial No. 814,590. (Cl. 101—71.)

1. In platen printing presses having a double acting inking device, in combination with the inking rollers, their riders and ductors, an endless web intimately contacting with said inking rollers, means for guiding said web, and means for tensioning the same and for uniformly distributing ink over its face for distribution over the inking rollers during their contact therewith.



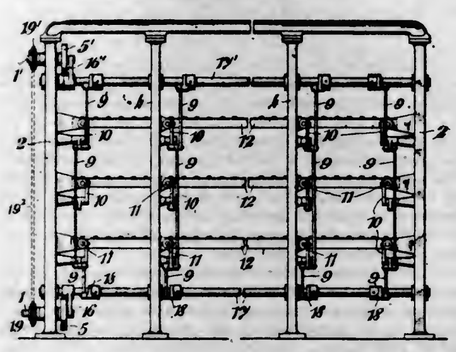
2. In platen printing presses having a double acting inking device, in combination with the inking rollers thereof, their riders and ductors, an endless web intimately contacting with said inking rollers while passing the same, revolving drums for guiding said web past said rollers, and an adjustable tension- and inking roller adapted to regulate the tension of said web, and to uniformly distribute ink over the same for distribution over the ink rollers during their contact with said web.

1,139,585. TIE-CLASP. JOHN L. SCHEU, Susanville, Cal. Filed Dec. 29, 1913. Serial No. 809,150. (Cl. 24—253.)



A tie clasp comprising two members pivoted together between their ends, jaws formed on one end of said members, a spring arranged between said members adapted to press the jaws together, a screw threaded member concentric with said pivot secured to the opposite end of one of said members, the other member being provided with a circular aperture through which said threaded member passes, and a nut on said screw-threaded member for engaging the inner face of said apertured member to lock said jaws against opening movement.

1,139,586. EMBROIDERING-MACHINE. MORRIS SCHOENFELD, Rorschach, Switzerland. Filed Sept. 19, 1910. Serial No. 582,810. (Cl. 112—7.)



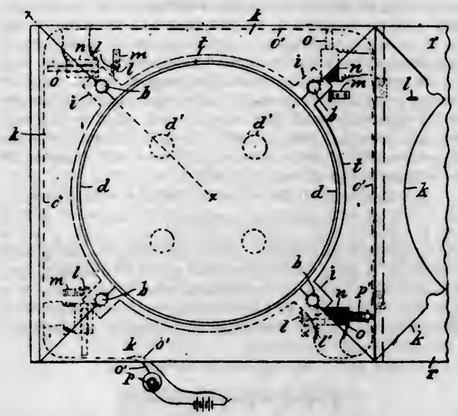
1. In a shuttle embroidering machine, main driving means, two groups of supplementary driving means extending over the whole length of the machine, one of the groups receiving its drive from the main driving means independently of the other group, a plurality of rows of superimposed operative devices, vertical motion transmitting means each operatively connected at its upper end to one of said groups and at its lower end to the other of said groups, and a plurality of means on said vertical means each transmitting the motion of a vertical means to a row of operative devices.

2. In a shuttle embroidering machine, main driving means provided at one side of the machine, supplementary driving means extending over the whole length of the machine, and provided at the upper and lower end of the machine respectively, the upper supplementary driving means receiving their drive from the main driving means independently from the drive for the lower driving means, a plurality of rows of superimposed carriers for the needle bars, and a plurality of means each connecting a part of the upper auxiliary driving means with a part of the lower auxiliary driving means and transmitting the motion of the auxiliary means to the rows of superimposed carriers for the needle bars, substantially as described.

3. In a shuttle embroidering machine, a main horizontal driving shaft, a horizontal auxiliary rock shaft, means actuated by the main shaft for rocking the auxiliary shaft, groups of operative devices, a plurality of levers mounted at suitable distances apart throughout the length of the auxiliary shaft, and a plurality of levers for transmitting the motion of the latter to the groups of operative devices.

4. In a shuttle embroidering machine, a horizontal driving shaft, a horizontal auxiliary shaft mounted at the bottom of the machine, a second auxiliary shaft mounted at the top of the latter, means actuated by the main shaft for rocking the two auxiliary shafts simultaneously, groups of operative devices, a plurality of double-armed levers mounted at suitable distances apart throughout the length of each rock-shaft, pairs of tension-rods connecting each double-armed lever of the one rock-shaft with the corresponding lever of the other rock-shaft, and means for transmitting the motion of each pair of rods to different groups of the operative devices, substantially as described.

1,139,587. ANIMAL-TRAP. WALTER A. SEELEY and HENRY M. VETTERLEIN, Newark, N. J. Filed May 8, 1914. Serial No. 837,355. (Cl. 43—19.)



1. In an animal trap, the combination, with a bait-platform and a roof over the same, of a drum sustained below the level of the platform and adapted to move upwardly and inclose the space between the platform and the roof, and packings for making a tight joint between the drum at the platform and roof.

2. In an animal trap, the combination, with a bait-platform and a roof over the same, of a drum sustained below the level of the platform, means for moving the drum upwardly to inclose the space between the platform and the roof, and a connection for injecting a volatile poison into such space when the drum is raised.

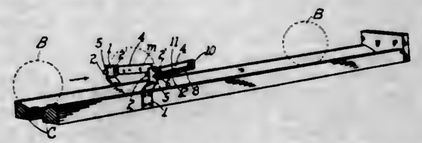
3. In an animal trap, the combination, with a bait-platform and a roof held permanently over the same, of a drum sustained below the level of the platform and adapted to move vertically upward and inclose the space between the platform and the roof, posts adjacent to the exterior of the drum, lugs projected from the top of the drum and encircling the posts, springs fitted to the posts beneath the lugs to elevate the drum, means for holding the drum locked in its lowest position, and means for unlocking the drum when desired.

4. In an animal trap, the combination, with a bait-platform and a roof held permanently over the same, of a drum sustained below the level of the platform adapted to move vertically upward past the margin of the platform into contact with the roof, springs for normally elevating the drum, flaps hinged upon the base-board and fitted over the upper edge of the drum to hold it in its lowest position, locking devices for the several flaps to hold the drum locked, and means operated by hand for unlocking the flaps and permitting the springs to lift the drum.

5. In an animal trap, the combination, with a bait-platform and a roof held permanently over the same, of a telescopic drum having packings at the joints of its sections and sustained below the level of the platform, means for moving the drum upwardly against the roof, and means for packing the joint of the end-section with the platform and the roof respectively to confine a gas or vapor within the drum.

[Claim 6 not printed in the Gazette.]

1,139,588. BOWLING-ALLEY ACCESSORY. MARTIN SEITZ, St. Louis, Mo. Filed Jan. 8, 1915. Serial No. 1,149. (Cl. 46—66.)

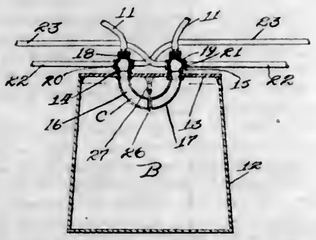


1. In combination with a bowling-alley return-chute, traversed by a ball, a pair of spring-controlled laterally oscillating members yieldingly engaging the surface of the ball from opposite sides, during the travel of the ball, whereby the velocity of the ball is retarded.

2. In combination with a bowling-alley return-chute, traversed by a ball, a bracket securable to the side of the chute and projecting above the chute, an arm hinged to said bracket and extending across the path of the ball traversing the chute, a pair of posts projecting from the outer face of the bracket at a point opposite the hinge-axis of the arm, a rocker-bearing mounted between the posts a suitable distance from the bracket, a stem leading from said rocker-bearing to a point adjacent the free end of the arm and pivotally coupled to said arm, said stem having a screw-threaded portion adjacent its point of connection with the arm, a ring passed loosely over the stem, a spring coiled about the stem and interposed between the ring and the rocker-bearing, and adjusting nuts on the threaded portion of the stem engaging the ring and regulating the tension of the spring.

3. A bowling-alley return-chute attachment comprising a bracket securable to the chute-wall, perforated ears or loops disposed on each side of the bracket, a pair of posts projecting from the outer face of the bracket at a point intermediate the loops, an arm hinged to one of the loops aforesaid, a rocker bearing between the posts, screw-studs or spindles passed through the posts for supporting the rocker-bearing, a stem centrally traversing the rocker bearing, and extending therefrom along the outside of the arm and oscillatable conjointly therewith, the end of the stem opposite the rocker-bearing being pivotally coupled to the arm, an adjustable abutment on the stem, and a spring coiled about the stem and having its ends bearing respectively against the abutment and rocker-bearing.

1,139,589. MILKING APPARATUS. GEORGE SINCLAIR, St. Paul, Minn., assignor of one-third to William J. Babcock and one-third to Emil R. Brokoff, St. Paul, Minn. Filed Oct. 26, 1914. Serial No. 868,677. (Cl. 31—98.)



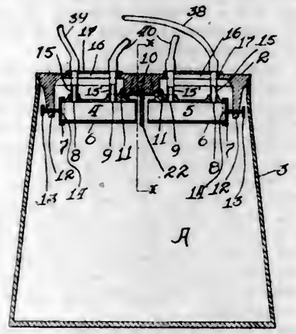
1. A milking apparatus, comprising in combination, a milking receptacle, a pair of coupling elements mounted upon said receptacle having milk pocket ducts extending downwardly from said coupling elements into said receptacle and terminating with their lower ends adjacent and spaced apart, a flap valve hung between said adjacent ends of said milk pocket ducts and adapted through the alternate drawing of air upwardly through said ducts to close one of said ducts and assist in forming a trap therein for milk and open the other and permit milk therein emptying into said receptacle, milking and suction tubes connected with said coupling elements and a pump connected with said suction tubes adapted to reciprocate said valve and to produce a suction action first in one and then another of said milking tubes, for the purposes specified.

2. Milking apparatus, comprising, in combination, a milk receptacle, a pair of coupling elements mounted upon a wall of said receptacle and having milk receiving ports, a pair of milk pocket ducts in communication with said ports and extending down into said receptacle, said milk pocket ducts being placed with their lower ends opening into said receptacle and positioned substantially adjacent and spaced slightly apart, a flap valve hung freely in the interval between the lower ends of said milk receiving pockets and adapted to move freely to alternately open and close each of the openings in the lower ends of said milk receiving pockets, a double acting pump having a pair of cylinder chambers with pistons reciprocable therein, flexible connections leading from said chambers and connected with said coupling elements and a reciprocable prime mover with which said piston elements are adapted to be separably coupled, said piston elements being adapted to alternately exhaust air upwardly through first one of said milk receiving pockets and then the other.

3. In apparatus of the class set forth, a pulsator comprising in combination with a receptacle, a pair of coupling elements mounted upon a wall of said receptacle having milk receiving and air suction ports and downwardly and inwardly extending milk pocket ducts having openings at their lower ends facing together and spaced apart, and a flap valve movably supported to reciprocate freely in the interval between said openings and adapted to alternately close and open each of said openings.

1,139,590. MILKING APPARATUS. GEORGE SINCLAIR, St. Paul, Minn., assignor to Frederick G. Bradbury, St. Paul, Minn. Filed Nov. 12, 1914. Serial No. 871,711. (Cl. 31—98.)

1. Apparatus of the class set forth, comprising, in combination, a main milk receptacle, a pair of milk containers mounted upon said receptacle, comprising a pair of tubes arranged endwise and having a pair of their ends facing together and spaced slightly apart, a valve hung freely in the interval between said tubes, said tubes being formed with ingress ports for air and milk and with egress ports for air, teat cups connected with said ingress ports and means for exhausting air through said egress ports, said valve being free to move and alternately close the adjacent ends of said tubes to the ingress of air whereby during the open positioning of said valve, the contents of the open container are released into said main receptacle.



2. In apparatus of the class set forth, a main milk receptacle, a cover over said receptacle having a pair of depending supports, a milk container in the form of a tube having a protuberance adapted to engage one of said supports and a pair of ingress and egress ports respectively for milk and air, a cap over one end of said tube, a thumb screw passing through the other of said supports and engaging said cover to hold it closed with said tube supported upon said cover, a milking duct connected with said ingress port, an air exhaust duct connected with said egress port and a valve freely hung in front of the open end of said tube and adapted through the exhaust of air from said milk container to close the open end of said tube.

3. In an apparatus of the class set forth, an air pipe system for milking apparatus, comprising, a pair of trunk pipes, means for alternately exhausting air from first one and then the other of said pipes and a plurality of branches connected with said pipes, each pair of said branches leading from both of said trunk pipes and adapted for connection with a milking device, whereby air is exhausted in a series of pulsations from said device by said trunk pipes.

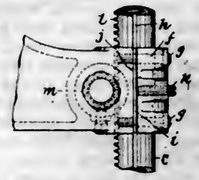
4. In apparatus of the class set forth, a closed receptacle having spaced nipples opening thereinto, a milk container supported within said receptacle and having an open and a closed end, a milk ingress port and an air egress port, said egress port being connected with one of said nipples, a valve freely hung adjacent the open end of said container and between said nipples, and means for causing suction first through one of said nipples upon one face of said valve and then through the other of said nipples upon another face of said valve to alternately move said valve into closed and open positions with respect to the adjacent end of said container.

5. In apparatus of the class set forth, a closed receptacle, a pair of milk containers removably supported within said receptacle and having adjacent open ends, a valve having pivotal and sliding movement hung between said open ends, each of said containers having an egress port, and means for creating an exhaust first through one and then the other of said egress ports to alternately move said valve into closed positions with respect to the adjacent ends of said containers.

[Claims 6 and 7 not printed in the Gazette.]

1,139,591. MEANS FOR GUIDING A RECIPROCATING NON-ROTATING MACHINE ELEMENT. GRANT SIPP, Paterson, N. J. Filed July 25, 1914. Serial No. 853,068. (Cl. 74—84.)

1. In combination, a guiding arm formed with a split guiding portion, a reciprocating member guided in said portion and having a longitudinal spline, a contracting screw tapped into said portion of the arm and traversing the split, a feather device arranged in said split and engaging the spline, and an expanding screw tapped into said arm at one side of the split and bearing against the feather.



2. In combination, a guiding arm formed with a split guiding portion, a reciprocating member guided in said portion and having a longitudinal spline, the part of said guiding portion at one side of the split being a rigid part of the arm and the part at the opposite side of the split being movable to expand and contract said portion, a feather device arranged in the split and held bearing against the fixed part of said guiding portion and snugly fitting the spline, and means to expand and contract said split portion.

1,139,592. METHOD OF PREPARING CATALYZERS. AUGUST J. SPIELER, Celina, Ohio. Filed Mar. 22, 1913. Serial No. 756,124. (Cl. 23—28.)

1. The method of preparing a catalyst herein described which consists in incorporating a colloid of aluminum and silicon with an organic salt of nickel, and in subjecting the same to decomposition by heat.

2. The herein described method of preparing a catalyst which consists in incorporating a colloid of aluminum and silicon with salts of nickel decomposable by heat alone at a comparatively low temperature when under the influence of heat below the temperature of decomposition of the nickel salts.

3. The herein described method of preparing a catalyst which consists in incorporating a colloid of aluminum and silicon with salts of nickel decomposable by heat alone at a comparatively low temperature and decomposing the salts by the aid of heat.

4. The herein described method of preparing a catalyst which consists in incorporating a colloid of aluminum and silicon with salts of nickel decomposable by heat alone at a comparatively low temperature when suspended in a medium of an oleaginous substance, which is a fluid and non-volatile at the temperature necessary to decompose the salts.

5. The herein described method of preparing a catalyst which consists in incorporating a colloid of aluminum and silicon with salts of nickel decomposable by heat alone at a comparatively low temperature when suspended in a medium of an oleaginous substance which is fluid and non-volatile at the temperature necessary to decompose the salts, and decomposing the salts by the aid of heat.

[Claims 6 to 11 not printed in the Gazette.]

1,139,593. RULE-HOLDING SLUG-FORM FOR LINOTYPE-MACHINES AND PROCESS OF PRODUCING SAME. HARRY A. SPURGEON, ALVIN T. HUNT, and WILLIAM G. BAKER, Indianapolis, Ind. Filed May 21, 1913, Serial No. 769,100. Renewed Jan. 25, 1915. Serial No. 4,401. (Cl. 101—179.)
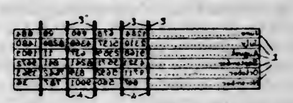


1. A printing form having a plurality of slugs bearing printing characters arranged with their adjacent faces in contact, said form having a continuous line of rule locking recesses formed in the bodies of the individual printing character slugs and between the ends of the respective slugs and below the quad surfaces thereof, whereby the rule is locked to each slug through which it passes, in combination with a rule extending at right angles to the lengths of the slugs and formed to engage said recesses, substantially as described.

2. A printing form having a plurality of printing character slugs disposed face to face, said form having a continuous line of slots for holding the rule, each of said slots being formed in the body of and between the ends of a printing character slug, said slots extending downwardly from the quad surfaces and below the same, and being narrower at their upper ends than at the lower ends, in combination with a rule extending at right angles to the lengths of the slugs and formed complementarily to the slots and engaging the latter, substantially as described.

3. In combination with a printing form, a rule adapted to extend at right angles to the lengths of the slugs composing the form, in combination with a printing character bearing slug in said form, provided with a rule locking recess in the body of the slug between the ends thereof, and extending downwardly from the quad surface of the slug, said recess being formed to retain the rule against withdrawal in a line perpendicular to the printing face, but permitting the insertion of the rule through the side of the slug, substantially as described.

4. A printing form having a plurality of slugs bearing printing characters, said slugs being provided with dovetailed slots formed in the bodies of the slugs and extending from and below the quad surfaces thereof, and between the ends of the slugs, in combination with a vertical rule complementarily formed to fit said slots, the latter being alined in a line at right angles to the lengths of the slugs, substantially as described.

1,139,594. RULE FOR TYPE-SLUGS. HARRY A. SPURGEON, ALVIN T. HUNT, and WILLIAM G. BAKER, Indianapolis, Ind. Filed July 20, 1914. Serial No. 851,929. (Cl. 101—179.)



1. A rule for type slugs having a lower type slug engaging portion provided with an upwardly and inwardly inclined side face and a rule edge-forming upper portion having a side face extending angularly to said face of said lower portion, substantially as described.

2. A rule for type slugs having a lower type slug engaging portion which is adapted to extend below the quad surface and which has a base and sides inclined to the base, said rule having an upper portion adapted to extend above the quad surface and having side faces angularly joining the sides of said lower portion, substantially as described.

3. A rule for type slugs having a portion adapted to engage the body of a type slug below the quad surface only and having a side face inclined inwardly from the base upwardly, to engage a slot wall of the slug, and said rule having an upper portion providing a rule edge and adapted to extend above the quad surface to the level of the type face, said upper portion having a side face meeting the side of the lower portion at an acute angle, substantially as described.

4. A rule for type slugs having a lower type slug engaging portion in the form of a truncated pyramid and an upper portion equal in height to that of the type faces having side faces joining the sides of the lower portion at acute angles and converging to form a ruling edge, substantially as described.

1,139,595. CLUTCH-CLAMP. FRED STARR, Sacramento, Cal. Filed Feb. 24, 1914. Serial No. 820,546. (Cl. 24—136.)

1. A clamp of the character described, comprising a casing, a centrally located element associated therewith

and presenting at each side thereof an inclined surface, said surfaces being inclined in the same general direction, and a roller interposed between each inclined surface and the adjacent portion of the casing.

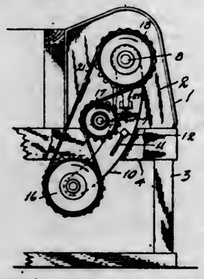


2. A clamp of the kind described, comprising a casing having curved lateral walls to accommodate the cables or the like to be clamped, a block disposed within the casing and presenting inclined surfaces to the cables or the like when the clamp is applied to the same, and rollers associated with the clamp and disposed between the inclined surfaces and said lateral walls and adapted to be engaged by the cables or the like and wedged between the same and the inclined surfaces when strain is applied to the cables.

3. A clamp of the kind described, comprising a rear casing having curved lateral edge portions adapted to accommodate cables or the like to be clamped, an element secured to said casing and presenting oppositely disposed inclined surfaces to said curved edge portions of the casing, rollers adapted to coöperate with said inclined surfaces and so disposed as to engage the cables or the like when the clamp is applied to the same, and a front casing adapted to be applied to the clamp having curved lateral edge portions adapted to overlie the corresponding curved portions of the first-named casing to thereby reinforce the casing adjacent the cables.

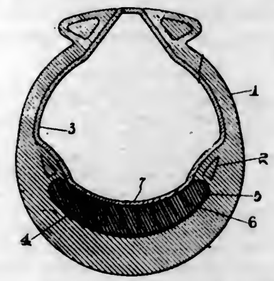
4. A clamp of the kind described, comprising a casing, an element associated therewith presenting oppositely disposed inclined surfaces to the objects to be clamped, rollers coöperating with said surfaces and so positioned as to be engaged by the objects to be clamped when the clamp is applied to the same, and springs tending to hold said rollers in their farthest positions up their respective inclines.

1,139,596. LINTER-FLOAT-DRIVING MECHANISM. LOUIS K. STEPHENS, Dallas, Tex. Filed July 13, 1911. Serial No. 638,279. (Cl. 74—31.)



In a device of the character described, the combination with a driving shaft and a driven shaft, and supports in which the shafts are mounted, the driven shaft support being movable relatively to the other support, of sprocket wheels mounted on said shafts, a curved bar mounted at its upper end on the driven shaft, an idler sprocket mounted on the lower end of the bar in line with the other sprockets, the bar having a limited longitudinal movement relative to the driving shaft support, an endless chain passed around the driven shaft sprocket and the idler sprocket and passing over the driving shaft sprocket, the driven sprocket being loose on the driven shaft and having a clutch hub, a clutch member keyed on the driven shaft, a clutch tripping device mounted on the bar and having connection with the clutch member, and means mounted on the driving shaft support for operating the tripping device when the bar is raised longitudinally.

1,139,597. PNEUMATIC TIRE. ROBERT S. STRATTON, Orillia, Ontario, Canada. Filed May 25, 1914. Serial No. 840,945. (Cl. 152—13.)



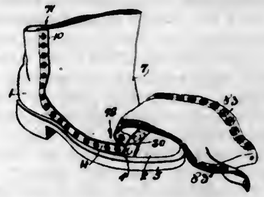
1. A puncture closing pneumatic tire comprising a tire cover, an annular lug inside the cover at each side adjacent the tread, an inner tube, and an annular rubber tread cushion secured to the tread surface of the inner tube, said tread cushion being normally of greater width at its inner side than the arc between said lugs which it follows when in place, and held between the said lugs with its inner side in a state of compression.

2. In a puncture closing pneumatic tire the combination of a tire cover, an annular lug inside the cover at each side adjacent the tread, and an annular tread cushion fitted between said lugs comprising a plurality of circumferential ribs connected at their outer circumferences and normally separated by spaces and a band-shaped compressible inner rubber cushion to which the inner sides of the ribs are connected, the tread cushion being so shaped and proportioned that when in position in the tire the ribs are pressed into contact toward their inner circumferences and the inner rubber cushion is in a state of compression; and an inner tube with which the aforesaid inner rubber cushion is integral.

3. In a puncture closing pneumatic tire the combination of a tire cover, an annular lug inside the cover at each side adjacent the tread, and an annular tread cushion fitted between said lugs comprising a band of flexible nonstretchable material and a rubber cushion connected thereto, said rubber cushion being divided circumferentially into a plurality of ribs each connected with the band, the tread cushion being so shaped that when fitted between said lugs the rubber is in a state of compression, and an inner tube with which the aforesaid inner rubber cushion is integral.

4. In a puncture closing pneumatic tire the combination of a tire cover, an annular lug inside the cover at each side adjacent the tread, and an annular tread cushion fitted between said lugs comprising a band of flexible nonstretchable material, a plurality of circumferential ribs normally separated by spaces and a band-shaped compressible inner rubber cushion to which the inner sides of the ribs are connected, the tread cushion being so shaped and proportioned that when in position in the tire the ribs are pressed into contact and the inner rubber cushion is in a state of compression.

1,139,598. SHOE. SEIZI TADAKUMA, Portland, Oreg. Filed Jan. 8, 1915. Serial No. 1,196. (Cl. 36—50.)

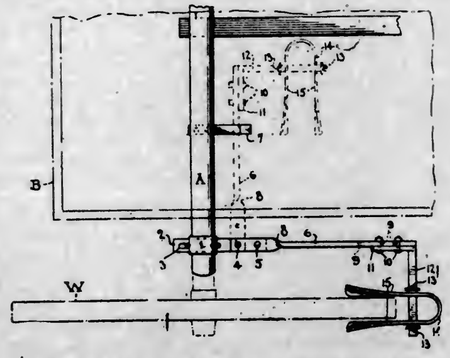


1. A shoe construction, comprising a foundation that includes a counter or quarter portion having opposite front edges and a toe cap, a flexible member having its side edges secured to the opposite edges of the counter portion and its front edge to the toe cap, and a vamp or upper section fixedly connected to the toe cap only, the said vamp or upper section being shaped to fit the space between the opposite sides of the counter portion, and means for holding the adjacent edges of the vamp or upper section and the counter portion closed against each other.

2. A shoe comprising a foundation that includes a shoe counter or quarter portion, a sole portion and a toe cap, said counter portion having opposite edges extending downwardly in a substantially vertical plane to a point near the sole portion of the foundation and thence forwardly to the toe cap in a plane substantially parallel with the said sole portion, a flexible member having its side edges secured to the opposite edges of the counter portion and having its front end secured to the toe cap and an upper or vamp member having a shape to fit over the said flexible member with its side edges adjacent to the opposite side edges of the counter portion, the front end of the said vamp extending under the toe cap and being secured to the said toe cap, and means for joining the adjacent edges of the vamp or upper portion and the counter portion to hold them in a closed relation.

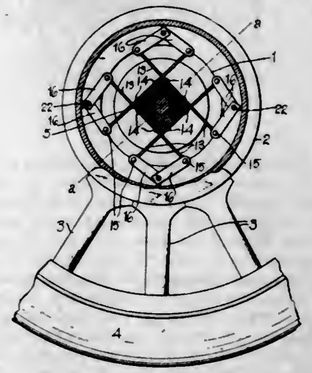
3. In a shoe of the character stated, a foundation that includes a sole portion, a toe cap, a counter portion whose upper front edges are extended downwardly to a point near the sole portion of the shoe, and a flexible member whose opposite side edges are fixedly connected to the front edges of the counter portion and whose front end is fixedly joined to the toe cap, a vamp or upper section having a shape to fit over the flexible member and within the space between the opposite edges of the counter portion, means fixedly securing the lower front end thereof to the underside of the toe cap and other means that coöperate with the adjacent edges of the counter portion and the vamp or upper portion for holding the said edges in a closed relation.

1,139,599. WHEEL-SCRAPER. GEORGE W. TAYLOR, Fayette, Mo. Filed June 5, 1913. Serial No. 771,965. (Cl. 21—23.)



A wheel scraper comprising an attaching bar having a laterally extending arm angular in cross section, a U-shaped scraping element having registering apertures in the legs thereof intermediate of their ends conforming in shape to the cross sectional shape of said arm and in which said arm is mounted, whereby the scaping element is held against turning, said legs diverging from a point midway their length toward their free ends and each free end being curved transversely from its lower toward its upper edge providing transversely convexed inner faces forming a flared curved mouth.

1,139,600. SPRING-HUB FOR WHEELS. GEORGE HARRISON THOMAS, Mineral Ridge, Ohio. Filed Sept. 19, 1914. Serial No. 862,624. (Cl. 152—44.)



1. In a spring wheel, a many-sided hub, an annulus concentric to the hub but independent thereof, a pair of flat springs attached edge by edge to each face of the hub and projecting in opposite directions therebeyond, each spring on one face of the hub crossing the spring on an adjacent face, and a pair of links for each pair of crossed springs, said links being disposed side by side and pivoted at their outer ends to the annulus and extending inward in divergent relation, the inner end of each link being pivoted to the outer end of the corresponding spring.

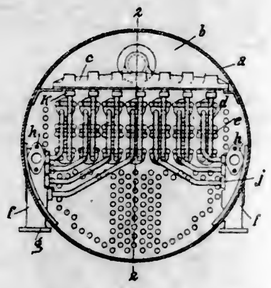
2. In a spring wheel, a many-sided hub, an annulus concentric to the hub but independent thereof, a pair of flat springs attached edge by edge to each face of the hub and projecting in opposite directions beyond the hub, each spring on one face of the hub crossing the spring on an adjacent face, a pair of U-shaped links for each pair of crossed springs, the closed ends of said links being disposed side by side and being pivoted to each other and to the annulus, the inner ends of the legs of each link being pivoted to the outer ends of the corresponding spring.

3. In a spring wheel, a many-sided hub, an annulus concentric to the hub but independent thereof, a pair of springs attached edge by edge to each face of the hub and projecting in opposite directions beyond the hub, each spring on one face of the hub crossing the spring on an adjacent face, each spring at its end being bent upon itself to form a bead, and a pair of U-shaped links for each pair of crossed springs, the closed ends of said links being pivoted to each other and to the annulus, the inner ends of the legs of each link being pivotally connected to the corresponding outer end of the corresponding spring through said bead.

1,139,601. SUPERHEATER. PETER THOMSEN, Cassel-Wilhelmshöhe, Germany, assignor to Schmidt'sche Heissdampf-Gesellschaft M. B. H., Cassel-Wilhelmshöhe, Germany, a Corporation of Germany. Filed Oct. 17, 1914. Serial No. 867,092. (Cl. 122—462.)

1. A steam superheater for fire tube boilers consisting of a saturated steam header located above the fire tubes, superheated steam headers disposed laterally thereto, and of superheater elements adapted to be inserted into the upper horizontal fire tube rows, and arranged in vertical rows, the elements of each vertical row terminating in

the superheated steam header in such a way that the ends of the elements of the row nearest to the superheated steam header open into them at the same level with the lowest fire tube row containing superheating elements while the rows of elements more remote open at lower levels.



2. A steam superheater for fire tube boilers in combination with the usual tube sheet, consisting of a saturated steam header located above the fire tubes and extending across said tube sheet, of superheated steam headers disposed on both sides of the tube sheet and of superheater elements adapted to be inserted into the upper horizontal fire tube rows, and arranged in vertical rows the elements of each vertical row terminating in the superheated steam header in such a way that the ends of the elements of the row nearest to the superheated steam header open into them at the same level with the lowest fire tube row containing superheating elements while the rows of elements more remote open at lower levels.

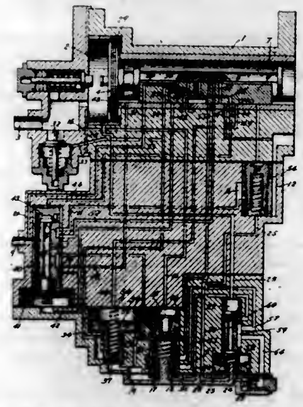
3. A steam superheater for fire tube boilers in combination with the usual tube sheet, consisting of a saturated steam header located above the fire tubes and extending across said tube sheet, of superheated steam headers arranged on both ends of the saturated steam header, perpendicularly thereto but spaced apart therefrom, each of said superheated steam headers provided with a face perpendicular to the tube sheet and of superheater elements in the upper horizontal fire tube rows arranged in vertical rows, the elements of each vertical row terminating in said faces in such a way that the ends of the elements of the row nearest to the superheated steam header open into them at the same level with the lowest fire tube row containing superheating elements while the rows of elements more remote open at lower levels.

4. A steam superheater for fire tube boilers parts of which are adapted to be inserted into the smoke box in front of the tube sheet, consisting of a saturated-steam header located above the fire tubes and extending across the smoke box, of superheated steam headers arranged on both ends of the saturated steam header spaced apart therefrom, partly located inside and partly outside the smoke box, each of the superheated steam headers provided with a face perpendicular to the tube sheet and of superheater elements adapted to be inserted into the upper horizontal fire tube rows and arranged in vertical rows the elements of each vertical row terminating in the superheated steam header in such a way that the ends of the elements of the row nearest to the superheated steam header open into them at the same level with the lowest fire tube row containing superheating elements while the rows of elements more remote open at lower levels.

5. A steam superheater for fire tube boilers parts of which are adapted to be inserted into the smoke box in front of the tube sheet, consisting of a header for saturated steam located in the steam space of the boiler, of superheated steam headers on each side of the smoke box, provided with a face perpendicular to the tube sheet and of superheater elements adapted to be inserted into the upper horizontal fire tube rows and arranged in vertical rows the elements of each vertical row terminating in the superheated steam header in such a way that the ends of the elements of the row nearest to the superheated steam header open into them at the same level with the lowest fire tube row containing superheating elements while the rows of elements more remote open at lower levels.

[Claims 6 to 8 not printed in the Gazette.]

1,139,602. RELIEF-VALVE DEVICE. WALTER V. TURNER, Edgewood, Pa., assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Sept. 20, 1911. Serial No. 650,483. (Cl. 188—15.)



1. In a fluid pressure brake, the combination with a train pipe, a pressure chamber, and a valve device subject to the opposing pressures of the train pipe and pressure chamber and operated by a differential in pressures between the train pipe and chamber for effecting an application of the brakes, of a valve mechanism controlling communication through which fluid is supplied to apply the brakes and adapted upon a predetermined reduction in train pipe pressure to close said communication and vent fluid from the train pipe.

2. In a fluid pressure brake, the combination with a train pipe, an auxiliary reservoir, and a valve device subject to the opposing pressures of the train pipe and auxiliary reservoir and operated by a reduction in train pipe pressure to a degree less than the auxiliary reservoir pressure for effecting an application of the brakes, of a valve mechanism controlling communication through which fluid is supplied to the brake cylinder and a train pipe vent port and adapted upon a predetermined reduction in train pipe pressure to close said communication and vent fluid from the train pipe to effect the movement of said valve device to a position for applying the brakes.

3. In a fluid pressure brake, the combination with a train pipe, an auxiliary reservoir, and a valve device having a piston subject to the opposing pressures of the train pipe and auxiliary reservoir and operating upon a gradual reduction in train pipe pressure for effecting a service application of the brakes and upon a sudden reduction in train pipe pressure for effecting an emergency application of the brakes, of a valve mechanism controlling communication through which fluid is supplied to the brake cylinder and operating upon a predetermined reduction in train pipe pressure for closing said communication and for effecting a sudden reduction in train pipe pressure, and thereby the movement of said valve device to emergency position.

4. In a fluid pressure brake, the combination with a train pipe, pressure chamber, and a valve device subject to the opposing pressures of the train pipe and pressure chamber and adapted to supply fluid to the brake cylinder upon a reduction in train pipe pressure, of a valve mechanism subject to the opposing pressures of the auxiliary reservoir and brake cylinder and adapted normally to provide communication for supplying fluid from the pressure chamber to the brake cylinder and operating upon equalization of the pressure chamber into the brake cylinder to close communication from the pressure chamber to the brake cylinder and open communication from the pressure chamber to the atmosphere.

5. In a fluid pressure brake, the combination with a train pipe, and a valve device operated upon a reduction in train pipe pressure for supplying fluid through a supply passage to the brake cylinder, of a valve mechanism subject to the opposing pressures of the train pipe on one side and the pressure of a spring and atmospheric pressure on the opposite side for controlling communication through said passage and valve means subject to the opposing pressures of the auxiliary reservoir and brake cylinder for also controlling communication through said passage to the brake cylinder and adapted upon equalization of the auxiliary reservoir and brake cylinder pressures to connect said supply passage to the atmosphere.

[Claims 6 to 9 not printed in the Gazette.]

1,139,603. WAX. HARVEY P. VEST, Estelline, Tex., assignor of one-half to Archie D. Hanna. Filed Dec. 13, 1913. Serial No. 806,635. (Cl. 134—8.)

The herein described wax compound embodying the following ingredients mixed in substantially the proportions specified: gasolene 62½%, rosin 31½%, pine tar 6½%.

1,139,604. COIN TUBE AND TRAY. FRANK VOGEL, Chicago Junction, Ohio. Filed Apr. 7, 1914. Serial No. 830,190. (Cl. 133—7.)

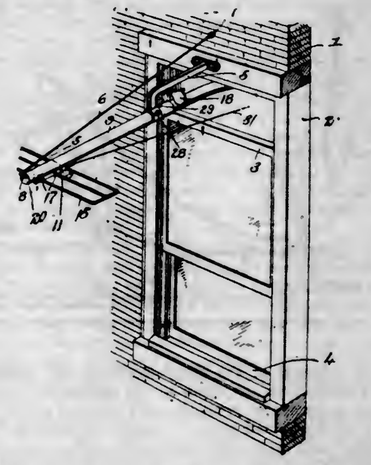
1. A tray for money receiving receptacles comprising a segmental cylindrical pipe, a circular end wall carried by said pipe, closing one end thereof, and a key hingedly secured to said end wall, foldable thereagainst and foldable therebeneath, said key when disposed in the latter position preventing the rotation of said tray when positioned upon a plane surface.

2. A device of the character described, comprising an outer shell with a broken slot extending in from one end thereof, a tray insertible within said shell and adapted to receive coins therein, a projection carried by the end plate of said tray adapted to enter within the said broken slot and prevent the accidental detachment of said tray from said shell, and a key hingedly secured to said end plate providing for the manual rotation of said tray to the locked position of said projection within said slot, said key movable beneath said tray for the supporting of the same in a non-rotatable manner upon a plane surface.

3. A device of the character described, comprising a tray, a casing adapted to receive said tray therein, means carried by the tray for locking the same in said casing, said means further adapted to maintain said tray in a normal upright position when detached from said casing, and resilient means positioned within said casing, contacting with the end wall of the tray and resiliently holding the same in locked position.

4. A device of the class described, comprising a segmental pipe, a casing receiving said pipe therein, said casing provided with an aperture in the end wall thereof, said segmental pipe provided with outwardly extending projections extending through said casing end wall aperture, and means engaging the ends of said projections, holding the pipe within said casing.

1,139,605. CLOTHES-DRIER. MARTIN W. WALKER, Ossining, N. Y. Filed Aug. 21, 1913. Serial No. 785,999. (Cl. 68—12.)



1. In a clothes drier, an exterior support projecting from a window, a plurality of sections attached for slidable engagement with said support in end to end abutting relation, clothes supporting racks for said sections, and an extension support adapted for removable attachment to said exterior support and for a similar accommodation of said sections.

2. In a clothes drier, an exterior slotted tubular support disposed adjacent a window, an extension support adapted to be removably alined with said exterior support through said window, flanged sections adapted to be fed through said extension into said exterior support, and clothes racks carried by each section.

3. In a clothes drier, a tubular exterior support disposed adjacent a window, a loading support removably connecting therewith through said window, clothes suspension sections slidable through one into the other of said supports, and means pivotally mounted on first said support to prevent movement of said sections therefrom upon removal of second said support.

4. In a clothes drier, an exterior tubular support, means for suspending the same adjacent to but outside of a window, a tubular extension support adapted to telescope the exterior support and project through the window, said supports having registering slotted portions, and clothes suspension means adapted for sliding engagement through the slotted portions of said supports from the interior along said extension to said exterior support, substantially as described.

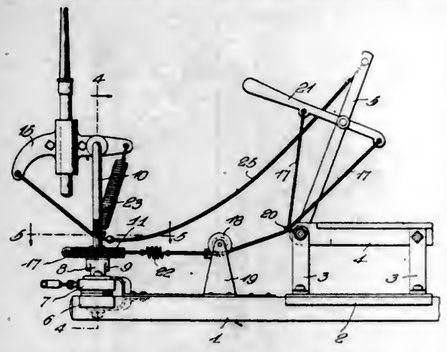
5. In a clothes drier, a tubular slotted support, a sleeved and removable extension for said support and registeringly slotted, flanged sections adapted to be interiorly accommodated within said support and extension, webs formed on each section to depend through said slots, and coupling hooks formed integrally on the extremities of each web to interconnect said sections.

[Claims 6 to 10 not printed in the Gazette.]

1,139,606. WHIPPING DEVICE. JOHN T. WALSH, Ottawa, Ill. Filed Aug. 31, 1914. Serial No. 859,462. (Cl. 21—129.)

1. In a device of the class described, the combination with a supporting rod mounted for oscillation on a vertical axis, said rod being distorted intermediate of its ends and bent laterally at its upper end; of a member mounted for oscillation vertically on the upper bent end of said rod and supporting a whip socket thereon, yielding means for normally retaining said oscillating member in a prede-

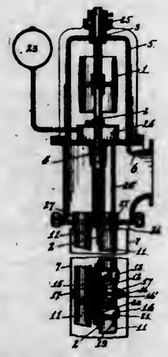
termined position with respect to the supporting rod, means for oscillating said supporting rod, and additional means for actuating the oscillating member on said rod.



2. In a device of the class described, the combination with a supporting rod mounted for oscillation on a vertical axis, a segmental grooved pulley mounted on the rod adjacent the lower end thereof, flexible connections engaged at their ends with said segmental pulley and trained through the grooves of the periphery thereof, and means in connection with said flexible connections for manually actuating the same and oscillating the supporting rod on its axis; of an oscillating whip support mounted on the upper end of said rod, and means for actuating said support.

3. The combination with a member mounted for oscillation upon a vertical axis, a second member mounted on the first named member for oscillation on a horizontal axis, a whip socket carried by the second member, and a spring for returning said second member to normal position, of a pulley secured to the first named member and designed to oscillate the same, a pair of cables leading rearwardly from said pulley, a third cable leading rearwardly from the second named member, an upright lever fulcrumed at its lower end and connected to said third cable, and a second lever fulcrumed between its ends to the first named lever, said second lever being connected with said pair of cables.

1,139,607. DEEP-WELL PUMP. FRANKLIN BERTRAND WARRING, San Jose, Cal., assignor to Bean Spray Pump Co., San Jose, Cal., a Corporation of California. Filed Apr. 15, 1914. Serial No. 831,995. (Cl. 103—43.)



1. In a deep-well pump of the described class, the combination of a pump; a plurality of discharge pipes connected with and supporting said pump; a discharge member fixed at the well mouth, said member being common to and suspending all of said discharge pipes; and provided with a central bearing; a pump-operating line-shaft mounted in the central bearing of the discharge member; other bearings for the line-shaft at intervals within the well; and means for supporting said other bearings from the discharge-pipes.

2. In a deep-well pump of the described class, the combination of a pump; a plurality of discharge pipes connected with and supporting said pump; a fixed flange at and covering the well-mouth, the discharge-pipes being suspended from said flange and said flange having a central bearing; a discharge elbow carried by the fixed flange, said elbow communicating with all of the discharge pipes and provided with a central bearing; a pump-operating line-shaft mounted in the central bearings of the flange and discharge elbow; other bearings for the line-shaft at intervals within the well; and means for supporting said other bearings from the discharge-pipes.

3. In a deep-well pump of the described class, the combination of a pump; a plurality of symmetrically disposed discharge pipes connected with and supporting said pump; a discharge member fixed at the well mouth, said member being common to and suspending all of said discharge pipes, and provided with a central bearing; a pump-operating line-shaft mounted in the central bearing of the discharge member and thence extending in the axis of said plurality of discharge pipes; other bearings for the line-shaft at intervals within the well; and means for supporting said other bearings from the discharge-pipes, comprising symmetrically disposed clamps, each bearing upon a pair of adjacent discharge pipes, bolts connected with and extending from the bearings outwardly between adjacent discharge pipes and passing through the clamps, and nuts on the outer ends of the bolts to set the clamps up to the discharge pipes and to draw the bearings to and against said pipes.

4. In a deep-well pump of the described class, the combination of a pump; a plurality of discharge pipes connected with and supporting said pump; a fixed flange at and covering the well-mouth, the discharge pipes passing upwardly through said flange and suspended therefrom by nuts on their upper ends and said flange having a central bearing; a discharge elbow resting upon and bolted to the fixed flange, said elbow communicating with all the discharge pipes and provided with a central bearing; a pump-operating line-shaft mounted in the central bearings of the flange and discharge elbow; other bearings for the line-shaft at intervals within the well; and means for supporting said other bearings from the discharge-pipes.

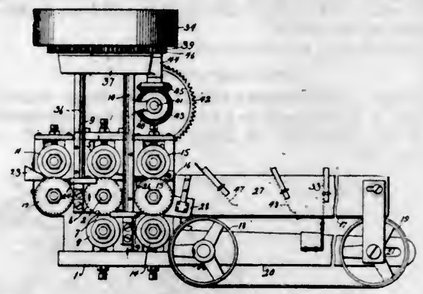
5. In a deep-well pump of the described class, the combination of a pump; a discharge pipe from said pump; a pump-operating line-shaft parallel with and exterior to said discharge pipe; bearings at intervals along the length of the line shaft in which said shaft is journaled, each of said bearings having an upper chamber open to the shaft journal, and a lower chamber also open to said journal, said chambers having a communicating passage; a pipe to supply a lubricant to the upper chamber of the first bearing; and a pipe connecting the lower chamber of each bearing with the upper chamber of the next lower bearing.

[Claims 6 to 11 not printed in the Gazette.]

1,139,608. MACHINE FOR APPLYING TIPS TO GARMENT-STAYS. MARTIN D. WATROUS, Ansonia, Conn. Filed Sept. 1, 1911. Serial No. 647,299. (Cl. 153—1.)

1. In a machine of the type set forth, in combination, tip applying rolls arranged in upper and lower passes, a tip magazine arranged in advance of each pass, a belt upon which the stays which have been acted on in the upper pass of said rolls are delivered and by which said stays are carried to the lower pass, and a belt trough located above the upper run of the belt and having at its lower end a slot of a width to accommodate a stay.

2. In a machine of the type set forth, in combination, tip applying rolls arranged in upper and lower passes, a tip magazine arranged in advance of each pass, a belt upon which the stays which have been acted on in the upper pass of said rolls are delivered and by which said stays are carried to the lower pass, a belt trough located above the upper run of the belt and having at its lower end a slot of a width to accommodate a stay, and a transverse wall adjustably associated with the belt trough.



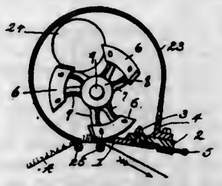
3. In a machine of the type set forth, in combination, tip applying rolls arranged in upper and lower passes, the adjacent rolls being coaxial and the rolls of the upper pass being in a different plane from the rolls of the lower pass, a belt upon which the stays which have been acted on in one pass of said rolls are delivered and by which said stays are carried to the other pass, gearing for driving the rolls and the belt and means associated with the belt to aline the stays passed thereto with the plane of the rolls to which they are to be passed by the belt.

4. In a machine of the type set forth, in combination, tip applying rolls arranged in upper and lower passes, the adjacent rolls being coaxial and the rolls of the upper pass being in a different plane from the rolls of the lower pass, a belt in the plane of the lower pass to deliver stays thereto, and a belt trough arranged above the belt and having at its lower end a slot of a width to accommodate a stay, the belt trough serving to guide the stays discharged by the upper pass upon the belt.

5. In a machine of the type set forth, in combination, tip applying rolls arranged in upper and lower passes, the adjacent rolls being coaxial and the rolls of the upper pass being in a different plane from the rolls of the lower pass, stay feed rolls arranged in upper and lower passes corresponding to the passes of the first named rolls, a belt upon which the stays which have been acted on in one pass of said rolls are delivered and by which said stays are carried to the other pass and means associated with the belt to aline the stays passed thereto with the plane of the rolls to which they are to be passed by the belt.

[Claims 6 to 13 not printed in the Gazette.]

1,139,609. FIBER-TRIMMING APPARATUS. MARVIN S. WEAVER, Johnson City, Tenn. Filed Sept. 8, 1911, Serial No. 648,368. Renewed Feb. 5, 1915. Serial No. 6,372. (Cl. 26—6.)



1. An apparatus adapted to relatively traverse the surface of a sheet form fiber fabric and comprising means operating parallel to said surface for removing surface fiber ends along said surface and means for moving air and limiting such movement to a course through said fabric and adjacent and toward said fiber end removing means, whereby surface fiber ends may be directed outward from said surface into position to be removed by the fiber end removing means, substantially as described.

2. An apparatus adapted to relatively traverse the surface of a sheet form fiber fabric and comprising means operating parallel to the fabric for cutting surface fiber ends along said surface and means for moving air and limiting such movement to a course through said fabric and adjacent and toward said fiber and removing means, whereby surface fiber ends may be directed outward from said surface into position to be cut by the cutting means, substantially as described.

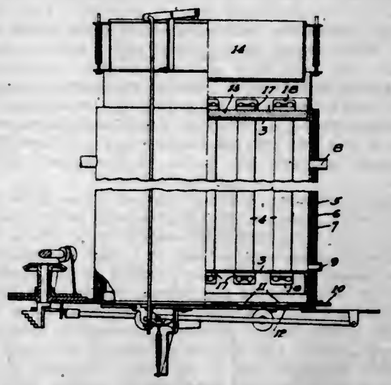
3. An apparatus adapted to relatively traverse the surface of a sheet form fiber fabric and comprising means operating parallel to said surface for removing surface fiber ends along said surface and means for moving air by exhaustion and limiting such movement to a course through said fabric and adjacent and toward said fiber and removing means, whereby surface fiber ends may be directed outward from said surface into position to be removed by the fiber end removing means, substantially as described.

4. An apparatus adapted to relatively traverse a sheet form fiber surface and comprising means operating parallel to the fabric for cutting surface fiber ends along said surface, and means for moving air by exhaustion and limiting such movement to a course through said fabric and adjacent and toward said fiber end removing means, whereby surface fiber ends may be directed outward from said surface into position to be cut by the cutting means, substantially as described.

5. An apparatus adapted to relatively traverse a sheet of fiber fabric and comprising surface fiber end cutting means located opposite and near said surface and outside of the plane of said fabric and consisting of a relatively stationary knife and a relatively movable knife set for cutting parallel to the plane of the fabric, and said apparatus also comprising means for moving air and limiting such movement to a course through said fabric and adjacent and toward said knives, whereby such fiber ends may be directed outward from said surface into position to be cut by said knives, substantially as described.

[Claims 6 to 9 not printed in the Gazette.]

1,139,610. GRAIN-CONDITIONER. FREDERICK A. WEGNER, Buffalo, N. Y., assignor to Mary E. Wegner, Buffalo, N. Y. Filed June 9, 1913. Serial No. 772,652. (Cl. 34—34.)



1. The combination, in a grain heater, with a heating chamber, provided with heads and an inclosing shell, of tubes extending through said heads, open caps arranged on the projecting ends of said tubes, and cores arranged in said tubes and consisting of spirally coiled wires having their ends engaging said caps.

2. The combination, in a grain heater, with a heating chamber, of heating tubes extending therethrough and having ends projecting beyond the walls of said chamber, open caps fitting over the ends of said tubes, and a spirally coiled wire core in each tube having its ends engaging said caps.

3. The combination, in a grain heater, with a heating chamber, of tubes extending therethrough and having

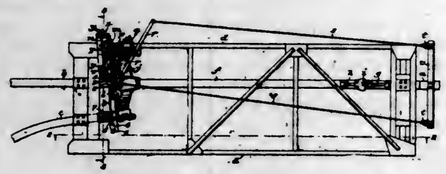
ends projecting beyond the walls of said chamber, open caps each provided with a ring engaging the projecting end of a tube, and with a diametrically arranged cross bar, and an inwardly projecting lug, and a core formed of a spirally coiled wire arranged in each tube with its ends engaging the lugs on said caps.

4. The combination, in a grain heater, with a heating chamber, provided with heating tubes, of a spirally coiled wire core arranged in each tube, and an open cap at the end of each tube, engaging the ends of said core and centering the same in said tube.

5. The combination, in a grain heater, with a heating chamber, of a tube extending therethrough, an open cap arranged on each end of said tube, and a spirally coiled wire core arranged in said tube and having its ends engaging said caps.

[Claim 6 not printed in the Gazette.]

1,139,611. SWITCH AND SAFETY-STOP FOR ELEVATED CONVEYER-TRACKS. HENRY WEICKEL, Milwaukee, Wis., assignor to Pawling and Harnischfeger Company, West Milwaukee, Wis., a Corporation of Wisconsin. Filed July 17, 1913. Serial No. 779,441. (Cl. 104—180.)



1. The combination with an elevated frame, main and branch tracks suspended therefrom and a switch tongue pivoted to the main track and adapted to be turned into register with either branch track, of a swinging arm connected by a link with the switch tongue and provided with a pinion, a gear of larger radius meshing with the pinion, and operating connections attached to the gear on opposite sides of its center and leading to an approach to the switch.

2. The combination with an elevated frame, main and branch tracks suspended therefrom and a switch tongue pivoted to the main track and adapted to be turned into register with either branch track, of a cross rail mounted on the branch tracks and supporting the movable end of the switch tongue, a vertically journaled swinging arm connected by a link with the switch tongue, and operating connections with said arm leading to an approach to the switch.

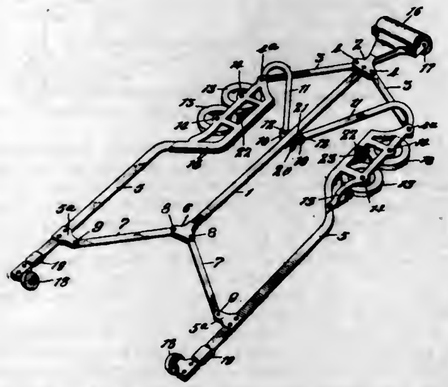
3. The combination with an elevated frame, main and branch tracks suspended therefrom and a switch tongue pivoted to the main track and adapted to be turned into register with either branch track, of a cross rail mounted on the branch tracks, a roller mounted on the movable end of the switch tongue and bearing on the cross rail, a vertically journaled swinging arm connected by a link with the switch tongue, operating connections with said arm leading to an approach to the switch, and stops cooperating with said arm to limit the movement of the switch tongue in opposite directions in register with the branch tracks.

4. The combination with elevated main and branch tracks and a switch tongue pivoted at one end to the main track and adapted to be turned horizontally at the other end into register with either branch track, of a vertically journaled swinging arm connected by a link with the switch tongue, stops for limiting the movement of said arm and arresting the switch tongue in register with either branch track, and means for shifting the switch tongue.

5. The combination with elevated main and branch tracks and a switch tongue pivoted to the main track and adapted to be turned into register with either branch track, of a vertically journaled arm connected by a link with the switch tongue and provided with a pinion, a gear of larger radius than the pinion meshing therewith and operating cables attached to the gear on opposite sides of its center and leading over guides adjacent to an approach to the switch.

[Claims 6 to 12 not printed in the Gazette.]

1,139,612. GOODS-SPREADER. JOHN PETER WEIS, Nyack, N. Y., assignor to Lucius N. Littauer, Gloversville, N. Y. Filed Apr. 29, 1914. Serial No. 835,207. (Cl. 26—16.)



1. A spreader for flexible tubular goods comprising a central lengthwise-extending rib; a member slidable on the rib; a pair of side bars; and connections between the slidable member and each side bar, such connections being pivoted to said member and to the side bars; and other pivoted connections between the rib and side bars; all constructed and operating to permit lateral distension and contraction of the spreader while maintaining the side bars parallel; said member sliding on the rib when such adjustments are made.

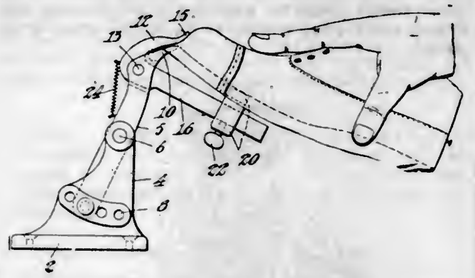
2. A spreader for flexible tubular goods comprising a central lengthwise-extending rib; a member slidable on the rib; a pair of side bars; and connections between the slidable member and each side bar, such connections being pivoted to said member and to the side bars; and other pivoted connections between the rib and side bars; all constructed and operating to permit lateral distension and contraction of the spreader while maintaining the side bars parallel; said member sliding on the rib when such adjustments are made; the side bars each having an inward roller-containing offset, and rollers mounted in the offset.

3. In a goods-spreader, a set side-bar having a lengthwise-extending cutter-receiving groove opening along the outer edge of the bar.

4. A spreader for flexible tubular goods comprising a central lengthwise-extending rib; a member slidable on the rib; a pair of side bars; and connections between the slidable member and each side bar, such connections being pivoted to said member and to the side bars; and other pivoted connections between the rib and side bars; all constructed and operating to permit lateral distension and contraction of the spreader while maintaining the side bars parallel; said member sliding on the rib when such adjustments are made; the rib having at one end a roller-supporting extension and a roller journaled therein.

1,139,613. UPPER-PULLING MECHANISM. PEARL J. WENTWORTH, Boston, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Apr. 14, 1911, Serial No. 621,104. Renewed Dec. 11, 1911. Serial No. 665,027. (Cl. 12—112.)

1. Means for pulling an upper on a last, having in combination, a fixed jaw, a pivoted jaw having a finger extending above the fixed jaw and against which the end of the shoe may be abutted to guide the upper between the jaws, and means through which movements may be had to close the jaws and to pull the upper.



2. Apparatus for pulling an upper, having in combination, a base arranged to be secured to a support, a gripper jaw fixed thereon, a coöperating gripper jaw pivotally supported by said base and movable against the fixed jaw to seize an upper, and means connected with the pivoted jaw and arranged to be engaged by the shoe to effect upper seizing movement of the pivoted jaw by force transmitted from the shoe through said means.

3. Apparatus for pulling an upper on a last, having, in combination, a base arranged to be secured to a support, a gripper jaw thereon, and a coöperating gripper jaw pivoted relatively to the base jaw and having a rearwardly extending arm provided with a shoe bottom resting face to receive pressure from the last to swing the arm to close the jaws.

4. Apparatus for pulling an upper on a last, having, in combination, a base arranged to be secured to a support, a lower gripping jaw stationary relative to the base, and an upper jaw movable toward the fixed jaw and having an operating arm extending at a substantial angle to the gripping face of the upper jaw and upon which a shoe can be rested to effect closing of the jaws and which is formed to permit the last that is within the shoe to be fulcrumed thereon to pull the upper between the jaws and the last.

5. Apparatus for pulling an upper on a last, having, in combination, a base arranged to be secured to a support, a stationary jaw thereon, a companion jaw pivoted to the base and having an angular arm, and a shoe rest on the arm substantially as and for the purpose described.

[Claims 6 to 20 not printed in the Gazette.]

1,139,614. ELECTRIC SIGN. HARRY S. WILLIAMS, Ithaca, N. Y. Filed July 18, 1914. Serial No. 851,766. (Cl. 240—93.)



1. In an illuminating device, a lens, and a reflector having as its sole means of support, an attachment to the axis of the lens.

2. In an illuminating device, a lens, a reflector, and a supporting element projecting from the axis of the lens and secured to said reflector.

3. In an illuminating device, a lens, a stud projecting rearwardly therefrom, and a reflector in rear of the lens, said reflector having an opening receiving said stud.

4. In an indirect radiation illumination device, a lens and a reflector carried thereby, in combination with a source of light spaced laterally from the axes of the lens and reflector.

5. In an illuminating device, a lens and a substantially cone-shaped reflector in rear thereof, the apex of the reflector being located adjacent the lens.

[Claims 6 to 13 not printed in the Gazette.]

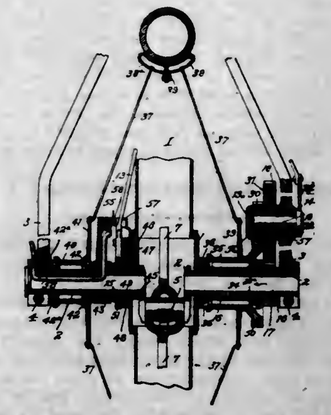
1,139,615. ARTIFICIAL TOOTH. JAMES LEON WILLIAMS, New York, N. Y., assignor to The Dentists' Supply Company, a Corporation of New York. Filed Mar. 7, 1914. Serial No. 823,073. (Cl. 32—9.)



1. An artificial tooth having its entire labial portions formed with a glossy surface said surface provided at and near one end with large transverse ribs and at and adjacent its other or biting end with a relatively smooth reflecting surface and also having its middle surface between the end portions formed with a plurality of transversely arranged shallow light dispersing striations blending into the large transverse rib portions and terminating at a distance from the smooth reflecting surface of the biting end of the tooth.

2. As an article of manufacture, an artificial tooth in which its labial surface at and immediately adjacent to its biting end is formed smooth and reflecting and the medial portion of said labial surface formed with irregularly disposed light dispersing portions to reduce the brilliancy of the said labial surface at a distance from the biting end, said light dispersing portions separated from said biting end by the smooth reflecting surface aforesaid.

1,139,616. MOTOR-CYCLE. JOHN NEWTON WILLIAMS, Derby, Conn. Filed July 24, 1912, Serial No. 711,267. Renewed Nov. 28, 1913. Serial No. 803,599. (Cl. 123—44.)



1. In combination, a motor vehicle wheel of the suspension type having lateral supports, a revolving cylinder motor, having a crank and a crank casing and being placed within and between the spokes of said wheel, and arranged

to revolve independently thereof, and having suitable transmission between the motor and the wheel; of a divided hub having two separated and independent spoke-flanges, one on either side of said motor and concentric with its crank-shaft, a thrust bearing disposed on either side of the motor for holding apart said spoke flanges to maintain the tension of the spokes and the rigidity of the wheel.

2. A motor vehicle wheel of the suspension type, having lateral supports, a revolving cylinder motor having a crank and a crank casing, and being placed within and between the spokes of said wheel, and revolving independently thereof and having its crank fixed to the wheel supports, and serving as a fixed axle of the wheel, the crank casing of said motor having sleeves forming bearings upon said crank shaft, suitable transmission between the motor and the wheel to permit revolving at different speeds relating to each other, said wheel having a divided hub and a spoke flange on each division and thrust bearing for holding said flanges apart to preserve the tension of the spokes and the rigidity of the wheel.

3. In combination, a motor vehicle wheel of the suspension type, having lateral supports, a revolving cylinder motor having a crank and a crank casing, and being placed within and between the spokes of said wheel, and revolving independently thereof, suitable transmission between the motor and the wheel, a divided hub with two separated spoke flanges, one on either side of the motor and concentric with the crank shaft, said shaft being fixed to the wheel supports, and serving as the axle of the wheel, two separate thrust bearings for supporting and holding apart said spoke flanges, a fixed distributer arm mounted on the crank shaft between one of the spoke flanges and the motor and having on its outer end an insulated, metallic distributer, from which an insulated conducting wire passes into and through the crank shaft, and outward beyond the revolving wheel hub.

4. In combination, a motor cycle having a wheel with a divided hub, each hub half having a spoke flange, a valve controlled revolving cylinder motor, mounted between said hub halves and having its crank shaft fixed and serving as a support for said divided hub, a valve operating cam mounted revolubly on and concentrically with said crank shaft between the motor and one of said spoke flanges, thrust bearings for holding said hub valves apart and in place, and suitable transmission between the motor, said cam and said wheel to permit their revolving at different speeds relatively to each other.

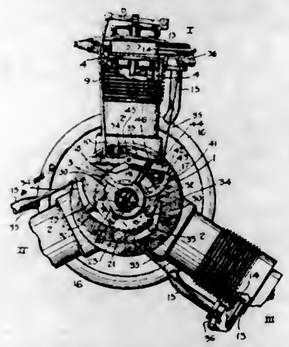
5. In a motor cycle having a wheel of the suspension type, having lateral supports, the combination with a revolving cylinder motor having exhaust valve, a crank and a crank casing and being disposed within said wheel and having its crank shaft fixed and serving as an axle for the wheel, said wheel having a divided hub, each half provided with a spoke flange disposed on one side of the motor, thrust bearings for holding each half in place to maintain the tension of the spokes, a cam gear and intermediate gearing in mesh with said cam gear and operated by the relative motion between the crank case and the crank shaft, the cams on said gear adapted to operate the exhaust valves of said motor in timed relation to its revolution.

[Claims 6 to 9 not printed in the Gazette.]

1,139,617. INTERNAL-COMBUSTION ENGINE. JOHN NEWTON WILLIAMS, Derby, Conn. Filed Sept. 5, 1914. Serial No. 860,406. (Cl. 123—105.)

1. A multiple cylinder internal combustion motor having means for taking in combustible mixture, a by-pass independent from said intake means and adapted to communicate with any of the motor cylinders, and means for controlling such communication to cause discharge of a predetermined amount of mixture into said by-pass from one cylinder at the compression stroke of its piston and to permit the discharge of mixture from said by-pass into another cylinder at the suction stroke of its piston.

2. A multiple cylinder internal combustion motor having means for taking in combustible mixture, a by-pass independent from said intake means and adapted to communicate with any of the motor cylinders, and auxiliary valves for controlling such communication to cause discharge of a predetermined amount of mixture into said by-pass from one cylinder at the compression stroke of its piston and to permit the discharge of mixture from said by-pass into another cylinder at the suction stroke of its piston.



3. A multiple cylinder internal combustion motor having means for taking in combustible mixture, a by-pass independent from said intake means and adapted to communicate with any of the motor cylinders, and means for controlling such communication to cause discharge of a predetermined amount of mixture into said by-pass from one cylinder at the compression stroke of its piston and to permit the discharge of mixture from said by-pass into another cylinder at the suction stroke of its piston, and means for adjusting said controlling means to vary said predetermined amount of mixture.

4. A multiple cylinder internal combustion motor having means for taking in combustible mixture, a by-pass independent from said intake means and adapted to communicate with any of the motor cylinders, and auxiliary valves for controlling such communication to cause discharge of a predetermined amount of mixture into said by-pass from one cylinder at the compression stroke of its piston, and to permit the discharge of mixture from said by-pass into another cylinder at the suction stroke of its piston, and means for varying the opening and closing of said auxiliary valves in timed relation to the operation of the motor to vary said predetermined amount of mixture.

5. A multiple rotating cylinder internal combustion motor having a mixture intake valve for each cylinder, a by-pass independent of the control of said intake valves and adapted to communicate directly with each cylinder, an auxiliary valve for each cylinder controlling such direct communication to cause discharge of a predetermined amount of the mixture into said by-pass from one cylinder at the compression stroke of its piston and to permit the discharge of mixture from said by-pass into another cylinder at the suction stroke of its piston, a push rod and a cam shoe lever for each auxiliary valve, cam rollers movably disposed and operated at a suitably rotative speed relatively to the rotating speed of the motor and adapted to coöperate with said cam shoe levers when passing same, and a cam, stationary relatively to said rollers and cam shoe levers, adapted to coöperate with said rollers to move them into the path of said levers to cause the operation of said valves.

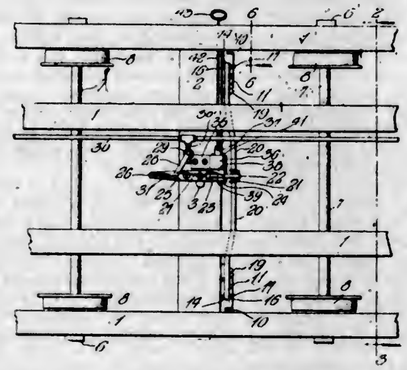
[Claims 6 and 7 not printed in the Gazette.]

1,139,618. METHOD OF TREATING WATER. WILLIAM H. WILLIAMS, Sharpsburg, Pa. Filed May 4, 1914. Serial No. 836,346. (Cl. 20—1.)

1. The method of utilizing slag, consisting of bringing the same in a molten condition into contact with water and thereby reducing the slag to a finely divided condition and producing a solution impregnated with certain of the mineral or chemical constituents of the slag, and utilizing said solution for industrial purposes.

2. The method of utilizing slag, consisting of bringing the slag while hot into contact with water in a pit or tank and thereby reducing the slag to a finely divided condition and producing a solution containing certain of the mineral or chemical constituents of the slag, drawing off portions of said solution from time to time and utilizing the same for industrial purposes, and replenishing the supply of liquid in the pit or tank with natural water.

1,139,619. SAFETY ATTACHMENT FOR RAILWAY-COACHES. OTA ALONZO WOLFE, Van Wert, Ohio, assignor of one-fourth to Frank J. Lordier, Greenville, Ohio. Filed Sept. 28, 1914. Serial No. 863,910. (Cl. 188—2.)



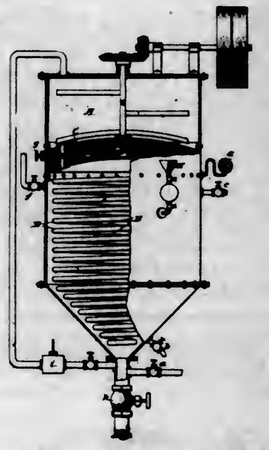
1. The combination with a vehicle having wheels designed to run upon a track, of a pipe beneath the vehicle and adapted to contain a brake applying medium, a valve in said pipe and having a laterally projecting operating arm, a plate secured to the vehicle adjacent the free end of said arm and having one of its ends bifurcated, its other end being bent laterally and formed into a hook, a coiled spring secured at its opposite ends to said hook and to said arm, an operating lever fulcrumed within the bifurcated end of the plate, a link connecting said lever with the arm on the valve, and mechanism also connected with the lever for rocking the same in a direction to operate the valve.

2. The combination with a vehicle having wheels designed to run upon a track, of a pipe beneath the vehicle and containing a brake applying medium, a valve in said pipe having a laterally projecting operating arm, a plate secured to the vehicle adjacent the free end of said arm, a post rising from one end of said plate, an operating lever fulcrumed to the other end thereof, a coiled spring connecting the post and the operating lever, an operating member connecting said lever with the arm on the valve, and mechanism also connected with the lever for rocking the same in a direction to operate the valve.

1,139,620. PRODUCTION OF GLUCOSE FROM STARCH. HEINRICH WULKAN, Budapest, Austria-Hungary, assignor to Dextrin Automat, Gesellschaft M. B. H., Vienna, Austria-Hungary, a Corporation of Austria-Hungary. Filed Nov. 7, 1912. Serial No. 730,071. (Cl. 127—10.)

1. The process of producing directly concentrated solutions of glucose which comprises treating starch with dilute acid to produce a dilute inversion solution, and treating fresh quantities of starch with such dilute solution to produce a more concentrated solution of glucose, whereby a concentrated solution of glucose is produced directly without evaporation.

2. The process of producing directly concentrated solutions of glucose which comprises treating starch with dilute acid to produce a dilute diversion solution, and treating fresh quantities of starch containing a small amount of acid with such dilute solution to produce a more concentrated solution of glucose, whereby a concentrated solution of glucose is produced directly without evaporation.



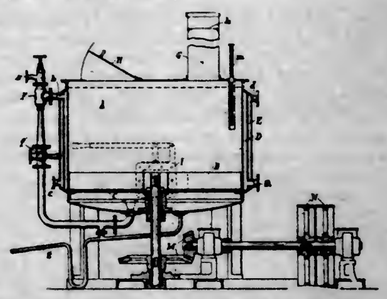
3. The process of producing concentrated inversion solutions which comprises reacting with a dilute acid inversion solution on fresh quantities of starch whereby a more concentrated inversion solution is obtained and reacting with the resulting inversion solution on a further quantity of fresh starch to produce a more concentrated inversion solution.

4. The process of producing concentrated inversion solutions which comprises reacting repeatedly with a dilute inversion solution upon fresh quantities of starch to produce a solution of gradually increasing concentration until a concentrated solution is obtained.

5. The process of producing concentrated inversion solutions which comprises reacting repeatedly with a dilute acid inversion solution upon fresh quantities of starch to produce a solution of gradually increasing concentration until a concentrated solution is obtained, and neutralizing the resulting concentrated solution by means of borax.

[Claims 6 and 7 not printed in the Gazette.]

1,139,621. PROCESS FOR MOISTENING AND COOLING DEXTRIN. HEINRICH WULKAN, Budapest, Austria-Hungary, assignor to Dextrin Automat, Gesellschaft M. B. H., Vienna, Austria-Hungary, a Corporation of Austria-Hungary. Filed Aug. 13, 1913. Serial No. 784,635. (Cl. 127—11.)



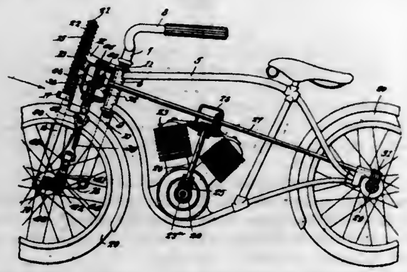
1. The process of moistening dextrin which comprises subjecting the dextrin while maintained in a state of agitation to the action of heated supersaturated air and to the action of a cooling medium sufficient to maintain the temperature of the dextrin below about 60° C. without direct contact of the cooling medium with the dextrin treated.

2. The process of moistening dextrin which comprises subjecting the dextrin while maintained in a state of agitation to the action of heated supersaturated air and to the action of a cooling medium sufficient to maintain the temperature of the dextrin between 40° and 50° C. without direct contact of the cooling medium with the dextrin treated.

3. The process of moistening dextrin which comprises maintaining the dextrin in constant agitation in a vessel maintained by external cooling means at a temperature between 40° and 50° C. and introducing into the dextrin while so cooled and agitated a heated supersaturated air mixture in regulated amounts.

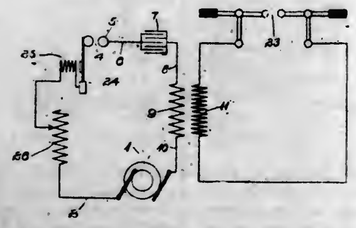
4. The process of moistening and cooling dextrin which comprises subjecting the dextrin to agitation in a vessel provided with means for circulating externally thereof a current of a gaseous cooling medium, circulating therethrough such gaseous cooling medium until the temperature of the apparatus is about 40° to 50° C., mixing the resulting cooling medium with steam, and subjecting the dextrin while so cooled and agitated to the action of the resulting mixture of steam and gaseous cooling medium.

1,139,622. MOTOR-CYCLE. ARTHUR H. W. YORDI, Clintonville, Wis. Filed May 2, 1914. Serial No. 835,891. (Cl. 21—90.)



The combination with the frame and the axle and steering wheel of a motor-cycle; of a drive shaft supported by and extending in the direction of the length of the frame, a bevel gear on the forward end of said shaft, a driven shaft, a bevel gear on said driven shaft meshing with the first-mentioned bevel gear, a second driven shaft, a flexible connection between said driven shafts, a third driven shaft, a sliding driving connection between the second and third-mentioned driven shafts, a shaft geared to the axle of the steering wheel, and a flexible connection between the last-mentioned shaft and the third-mentioned driving shaft.

1,139,623. SYSTEM FOR PRODUCING HIGH-TENSION CURRENTS. CLARENCE I. ZIMMERMAN, deceased, Madison, Wis., by James G. Zimmerman, administrator, assignor, by mesne assignments, to said James G. Zimmerman, Chicago, Ill., individually. Filed Aug. 25, 1909. Serial No. 514,548. (Cl. 250—37.)



1. In an electrical translating system, a circuit, a source for impressing upon said circuit a periodic electromotive force, a translating device in such circuit, a spark gap and condenser in series with said source and said translating device in such circuit for developing in the translating device an electromagnetic force wave, the complete active portion of each period of which is of shorter duration than the period of the applied force, and means for varying the length of the spark gap by the current flowing through the circuit.

2. In an electrical translating system, a circuit, a source for impressing upon said circuit a periodic electromotive force, a translating device in such circuit, a spark gap and condenser in series with said source and said translating device in such circuit for developing in the translating device an electromagnetic force wave, the complete active portion of each period of which is of shorter duration than the period of the applied force, and a magnet in such circuit for increasing the length of the spark gap when current flows across such gap.

3. In an electrical translating system, a source of alternating current, a circuit extending from said source, an inductive device in such circuit, a spark gap and a condenser in series with said source and said inductive device in such circuit, such spark gap and condenser together adapted to change the effect of the alternating current in such inductive device to vary the inductive effect of such device, and means for varying the length of the spark gap by the current flowing through the circuit.

4. In an electrical translating system, a source of alternating current, a circuit extending from such source, an inductive device in such circuit, a spark gap and a condenser in series with said source and said inductive device in such circuit, such spark gap and condenser together adapted to change the effect of the alternating current in such inductive device to vary the inductive effect of such device, and a magnet in such circuit for increasing the length of the spark gap when current flows across such gap.

5. In an electrical translating system, a circuit including in series arrangement a prime source of current, a translating device, spark terminals, and a condenser.

[Claims 6 to 11 not printed in the Gazette.]

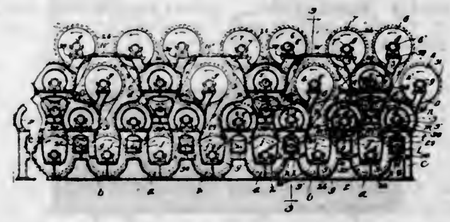
1,139,624. LIFE-SAVING DEVICE. BALTHASAR ZOPFI, Santa Rosa, Cal. Filed Dec. 1, 1913. Serial No. 803,952. (Cl. 9—17.)



In combination with a traveling case of comparatively strong material having a slot opening in an edge thereof, a rubber bag contained therein and having a filling tube extending through said slot and a pneumatic tire valve in said tube, and a loose sheet of protective material in said case secured to one side thereof independently of the bag and extending over the bag.

1,139,625. PAPER-DRYING MACHINE. ALONZO ALDRICH, Beloit, Wis. Filed Feb. 24, 1914. Serial No. 820,479. (Cl. 34—48.)

1. In a machine of the class described, the combination of a frame, a set of drying cylinders comprising four tiers of cylinders rotatively supported by the frame, each tier comprising at least two cylinders spaced apart with respect to each other and with respect to the cylinders of the adjacent tiers, the cylinders in the second and fourth tiers having their axial centers offset laterally with respect to the axial centers of the adjacent cylinders of the lower and third tiers, and driving mechanism operatively connected with and acting to rotate all of said cylinders in operative feeding engagement with a strip of paper trained part way around each of said cylinders, and threaded in position to extend between a cylinder in the first tier and a cylinder in the third tier, between the latter and an adjacent cylinder in the second tier, between the latter and a cylinder in the fourth tier, between the latter and an adjacent second cylinder in the third tier, between the latter and an adjacent second cylinder in the fourth tier, between the latter and a second cylinder in the first tier, and between the latter and a second cylinder in the second tier.



2. In a machine of the class described, the combination of a plurality of sets of parallel rotary cylinders, each set comprising four superposed tiers of cylinders, each tier comprising at least two cylinders spaced apart with respect to each other and with respect to the cylinders of the adjacent tiers, the cylinders of each tier having their axial centers offset laterally with respect to the axial centers of the adjacent cylinders of the next adjacent tiers, all of said cylinders being constructed and arranged in position to operatively engage a strip of paper threaded between the cylinders and part way around and in engagement with a cylinder in the first tier of each set and extending between said cylinder and a cylinder in the third tier, between the latter cylinder and an adjacent cylinder in the second tier, between the latter cylinder and a cylinder in the fourth tier, between the latter and an adjacent second cylinder in the third tier, between the latter and an adjacent second cylinder in the fourth tier, between the latter and a second cylinder in the first tier, between the latter and a second cylinder in the second tier, and into position to engage a cylinder in the next adjacent set of cylinders, a set of sectional frame members for each set of drying cylinders and in supporting engagement with the latter, means for securing the sectional frame members together in sets, and driving mechanism operatively connected with and acting to rotate all of said cylinders.

3. In a machine of the class described, the combination of a frame, a set of drying cylinders comprising four tiers of cylinders rotatively supported by the frame, each tier comprising two cylinders, the cylinders in the second and fourth tiers having their axial centers offset laterally with respect to the axial centers of the adjacent cylinders of the first and third tiers, each of said cylinders being provided at one end with a gear wheel concentric therewith, a pinion pivoted equidistantly from the axes of and meshed with the two gear wheels in the first tier and the adjacent gear wheel in the second tier, a second pinion pivoted between the cylinders of the second tier and equidistant from the axes of the adjacent gear wheel in the third tier and the aforesaid pinion-connected gear wheel in the second tier, said pinions being operatively engaged with said gear wheels in the second and third tiers and both gear wheels in the first tier so as to turn all of their respective cylinders in the same direction, and each of the remaining four cylinders having their gears meshed directly with an adjacent pinion-connected gear so as to turn its respective cylinder in the opposite direction, and driving means connected with one of said pinion gears for operating all of said cylinders, said cylinders being so arranged and driven as to operatively engage a strip of paper threaded in engagement with and part way around each cylinder.

4. In a machine of the class described, the combination of a frame, a plurality of sets of drying cylinders rotatively supported by the frame, each set comprising four tiers of two cylinders each, the cylinders in the second and fourth tiers of each set having their axial centers laterally offset with respect to the axial centers of the adjacent first and third tiers, each of said cylinders being provided with a gear wheel concentric therewith, each set having two gear pinions mounted on the frame, one of which enmeshes with the two cylinder gears in the first tier and the adjacent gear in the second tier, the other pinion positioned between the cylinders in the second tier and enmeshed with said cylinder gear in the second tier and the adjacent cylinder gear in the third tier, so that all four of said cylinder gears are adapted to turn in the same direction, the remaining four cylinder gears in each set being directly enmeshed each with an adjacent pinion-driven cylinder gear so as to turn in the opposite direction thereto, means for connecting the plurality of sets together, and driving mechanism operatively connected with and acting to rotate all of the cylinders, so connected, in operative engagement with a strip of paper trained part way around each cylinder.

1,139,626. PRESSER-FOOT MECHANISM. HARRIS A. BALLARD, Boston, Mass., assignor to The Boylston Mfg. Company, South Boston, Mass., a Corporation of New Jersey. Original application filed Aug. 21, 1906, Serial No. 331,529. Divided and this application filed Jan. 28, 1909. Serial No. 474,670. (Cl. 112—20.)



1. In a machine of the character described, a presserfoot carrier, a hand lever, said carrier being arranged to be movable independently of said hand lever and said hand lever being arranged to be movable independently of said presserfoot carrier, means arranged to lock said presserfoot carrier, and means arranged to be operated by said hand lever to move said locking means to unlock said carrier, said carrier having an abutment arranged to be engaged by said hand lever to retract said carrier.

2. In a machine of the character described, a shaft, a work support, a presserfoot, a carrier for said presserfoot, a spring arranged to cause said presserfoot to coact with said work support, means arranged to lock said carrier, driven means arranged to act upon said locking means periodically to unlock said carrier when said machine is operating, a rotary driven member, a movable member arranged to be moved by said rotary driven member when said shaft is turned opposite to its operating direction, and means arranged to transmit such movement from said movable member to impart unlocking movement to said locking means and to impart retractory movement to said carrier, said movable member being ineffectual to operate said transmitting means when said shaft is turning in said operating direction.

3. In a machine of the character referred to, complemental stitch-forming mechanism, a presserfoot, a presserfoot lever, a fulcrum for said lever, a stationary ratchet, a spring-pressed pawl on said presserfoot-lever for normally engaging said ratchet, automatic means for periodically disengaging said pawl from said ratchet, and a thread-clamp in combination with means on the main

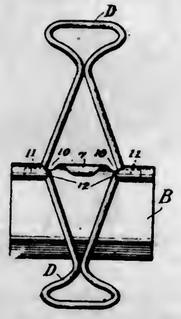
shaft for simultaneously unlocking and lifting the presserfoot and unlocking the thread-clamp upon a reverse movement of said shaft.

4. In a machine of the character described, a presserfoot and lever therefor, a fulcrum for said lever, normally coacting members for locking said lever, an abutment on said lever, a hand lever mounted on said fulcrum independently of said presserfoot lever, said hand lever being adapted to engage said abutment to move said presserfoot lever, and means operable by said hand lever for actuating one of said locking members to unlock said presserfoot lever.

5. In a machine of the character referred to, a shaft, stitch-forming mechanism driven thereby, a presserfoot, a presserfoot carrier, a fulcrum for said carrier, normally coacting ratchet and pawl members of which one is mounted on said carrier and the other on a fixture, and automatic means for periodically disengaging one of said coacting members from the other to unlock said carrier; in combination with a rotatable member having an operating surface, said member being driven by said shaft, and means adapted to be actuated by said surface, when the shaft is reversely rotated, to disengage one of said coacting locking members from the other and retract said presserfoot carrier.

[Claims 6 to 16 not printed in the Gazette.]

1,139,627. PAPER-BINDING CLIP. LOUIS E. BALTZLEY, Washington, D. C. Filed July 2, 1910. Serial No. 570,201. (Cl. 24—259.)



1. A spring clip having converging sides, handle holding means formed from the sides, and removable resilient handles having spring arms the extremities of which are journaled in said handle holding means and confined therein under spring stress due to said resiliency, said handle holding means being provided with edges operating against said arms to prevent free swinging movement of the handles.

2. A spring clip having its extremities provided with spaced hollow members for handles, turned over portions of the extremities located between said spaced members and spaced away from the sides of the clip, the edges thereof forming guards for handles, handles journaled in said members and arranged to be removed only when turned rearwardly so that portions of them may pass beneath said turned over portion.

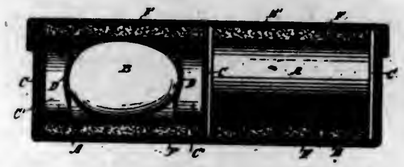
3. A binder clip for loose papers comprising a section of sheet metal having converging sides, each side provided with spaced handle receiving and retaining means located thereon, and a spring handle for each side having oppositely disposed ends journaled in said means.

4. A spring clip having converging sides, handle receiving and retaining means formed from the extremities of said sides, the means of each side comprising spaced jaws, and handles each having oppositely disposed ends journaled in the spaced jaws, the ends of each of said handles being of a combined length less than the space between the jaws of one side, whereby the handles may be removed.

5. A sheet metal resilient binder clip for loose paper comprising a back and integral sides, said sides provided with integral, oppositely disposed jaws having cam surfaces, and spring handles journaled in said jaws having portions thereof in contact with said cam surfaces, whereby the handles are maintained in any one of a plurality of positions through their resiliency.

[Claims 6 to 14 not printed in the Gazette.]

1,139,628. EGG-CARRIER. MORRIS BARROW, New York, N. Y. Filed Mar. 9, 1914. Serial No. 823,389. (Cl. 217—29.)



1. An egg carrier, comprising a tubular shell adapted to contain a single egg, and heads closing the ends of the said shell and extending beyond the outer face of the shell to rest on a supporting surface and to support the shell out of contact with the said supporting surface, the heads being provided at their inner ends with crossed fabric strips forming cushions adapted to engage the ends of the egg contained in the shell.

2. An egg carrier, comprising a tubular shell adapted to contain a single egg, and heads closing the ends of the said shell, the heads being larger than the shell and the edges thereof being a distance from the outer surface of the shell, the heads having hubs extending into the ends of the shell and cushions on the inner ends of the hubs and formed of strips of fabric material, the strips crossing each other and being secured to the hub.

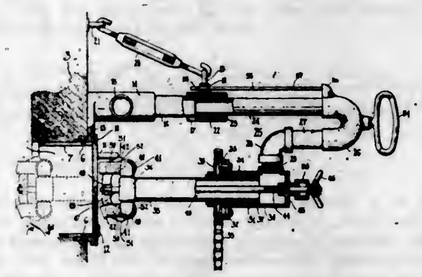
3. An egg carrier comprising a tubular shell adapted to contain an egg, and enlarged heads closing the ends of said shell, the edges of the heads being a distance from the outer surface of the shell entirely therearound whereby to support the latter out of contact with the surrounding parts, the heads also having hollow hubs closely fitting within the ends of the shell, and fabric strips extending across the entire ends of said hubs and forming cushions across the whole interior of the shell.

1,139,629. CARTRIDGE-BELT. FRANK ROE BATCHELDER, Worcester, Mass. Filed Mar. 29, 1911. Serial No. 617,655. (Cl. 224—23.)



A pocketed carrier woven with a pocket and having one of its web-portions woven for a portion of its depth in divided plies with an integral junction located above the bottom of the said pocket, and having combined therewith a cover-flap having its attaching end inserted between said plies and bottoming against said junction, and means engaging with the inserted portion and attaching the cover-flap to such web-portion.

1,139,630. BLOWER FOR BOILERS. JAMES C. BENNETT, Detroit, Mich. Filed Oct. 28, 1914. Serial No. 868,925. (Cl. 122—392.)



1. In a blower, a reciprocal steam injector member, a rotary injector head carried thereby, and oscillatory nozzles carried by said head and capable of being swung to and from each other.

2. In a blower, a reciprocal steam injecting member, a rotary injector head carried thereby, oscillatory nozzles carried by said head and capable of being swung to and from each other, and means for revolving said head.

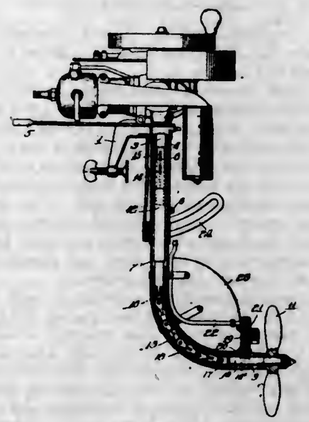
3. In a blower, a reciprocal steam injecting member, a rotary injector head carried thereby, oscillatory nozzles carried by said head and capable of being swung to and from each other, and means for oscillating said nozzles simultaneous with the rotary movement of said head.

4. In a blower, a rotary head, oscillatory nozzles carried thereby and capable of being swung to and from each other, and means extending through said head adapted to oscillate said nozzles simultaneous with the rotary movement of said head.

5. A fuel economizing apparatus including an inclosed water circulating structure located in the path of travel of products of combustion, a rotary head adapted to be projected into said structure, and oscillatory nozzles carried by said head and capable of being swung to and from each other and adapted to be oscillated during a rotary movement of said head.

[Claims 6 to 24 not printed in the Gazette.]

1,139,631. BOAT-MOTOR. EDWARD B. BLAKELY, Muskegon, Mich., assignor to Gray Motor Company, Detroit, Mich., a Corporation of Delaware. Filed Jan. 9, 1914. Serial No. 811,140. (Cl. 115—18.)



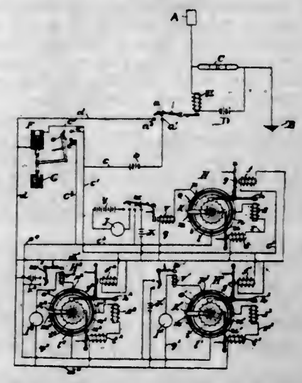
1. In a boat motor, a motor, a vertical shaft driven by the motor, a propeller shaft extending at an angle to the vertical shaft, flexible shafting connecting said shafts, means inclosing said flexible shafting, a removable wear-receiving lining for said inclosing means, and a propeller on the propeller shaft.

2. In a boat motor, a motor, a vertical shaft driven by the motor, a propeller shaft extending at an angle to the vertical shaft, flexible shafting connecting said shafts, means inclosing said flexible shafting, a coiled spring surrounding the flexible shafting within the inclosing means, said spring constituting a wear-receiving lining for the inclosing means and being free from connection with the shafting, and a propeller on the propeller shaft.

3. In a boat motor, a motor, a vertical shaft-section driven by the motor, a rigid tube having a straight upper portion inclosing said shaft-section and a rearwardly curved lower portion, a bearing sleeve detachably connected to the rear end of the tube, a propeller shaft mounted in the bearing sleeve, a flexible shaft-section in the curved portion of the tube, the upper end of said flexible shaft-section being connected to the lower end of the vertical shaft-section, a detachable connection between the rear end of the flexible shaft-section and the forward end of the propeller shaft, said detachable connection being rendered accessible when the bearing sleeve is detached from the tube, and a propeller on the propeller shaft.

4. In a boat motor, a motor, a rigid tube having a straight upper portion and a rearwardly curved lower portion, a bearing sleeve the forward end of which is connected to the rear end of said tube, a propeller shaft mounted in the bearing sleeve, the forward end of said propeller shaft extending forwardly of the forward end of the sleeve, shafting driven by the motor and inclosed within said tube, said shafting being detachably connected to the forward end of the propeller shaft, and a propeller on the propeller shaft.

1,139,632. ELECTRICAL RECEIVING APPARATUS. THOMAS B. BOOTH, Newton Center, Mass. Filed June 21, 1902, Serial No. 112,636. Renewed Apr. 7, 1915. Serial No. 19,818. (Cl. 250—2.)



1. In a receiver for Hertzian waves, a plurality of translating devices, controlling switches therefor, an electromotive device operated by impulses transmitted from a distance and adapted to cause said controlling switches to assume successively a series of different positions, a second electromotive device also operated by impulses transmitted from a distance and adapted to energize a selected translating device and return the controlling switches for the remaining translating devices to their initial positions.

2. In a receiver for Hertzian waves, a plurality of translating devices, a controlling device for each translating device, and means for simultaneously actuating said controlling devices through impulses transmitted and, at the conclusion of a definite wave transmission, for causing the energization, through its controlling device of any particular translating device and the return of the remaining cotnrolling devices to their initial positions.

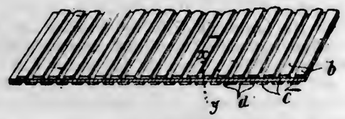
3. In a receiver for Hertzian waves, a plurality of translating devices, a controlling device for each translating device, adapted to assume a plurality of positions and means for returning each controlling device to its initial position from any position except its operative position on a given wave transmission.

4. In a receiver for Hertzian waves, a circuit controlling actuated device having a plurality of positions, means tending to return said device to its initial position, locking means to prevent the return of said device to its initial position and means responsive to impulses of a peculiar character to release said locking means.

5. In a signaling apparatus a plurality of translating devices, a controlling device for each translating device, means for energizing a selected translating device through its respective controlling device, and means for restoring the controlling device to its initial condition on the energization of said translating device.

[Claims 6 to 16 not printed in the Gazette.]

1,139,633. FILM FOR COLOR PHOTOGRAPHY AND METHOD OF MAKING THE SAME. RICHARD GILES BRADSHAW and JOHN CLARENCE LYELL, London, England. Filed Mar. 7, 1914. Serial No. 823,204. (Cl. 95—2.)



1. The method of manufacturing films for color photography and cinematography, which consists in applying color to one side of a film and a different color to the other side, and then scraping away portions of the said color in such manner that the parts from which the color has been removed on each side expose the color on the other side.

2. The method of manufacturing films for color photography and cinematography, which consists in applying a uniform depth of color to one side of a film and a uniform depth of a different color to the other side, and then scraping away portions of the said color in such manner that the parts from which the color has been removed on each side expose the color on the other side.

3. The method of manufacturing films for color photography and cinematography, which consists in applying color to one side of a colored film and a different color to the other side, and then scraping away portions of the said color in such manner that the parts from which the color has been removed on each side expose the color on the other side.

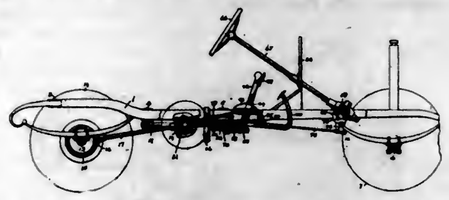
4. The method of manufacturing films for color photography and cinematography, which consists in applying color to one side of a flat film and a different color to the other side, and then scraping away portions of the said color in such manner that the parts from which the color has been removed on each side expose the color on the other side.

5. The method of manufacturing films for color photography and cinematography, which consists in applying color to one side of a film and a different color to the other side, and then scraping away portions of the said color in substantially parallel stripes and in such manner that the stripes from which the color has been removed on each side expose the color on the other side.

[Claims 6 to 12 not printed in the Gazette.]

1,139,634. DRIVING MECHANISM. JOSEPH T. BRISSON, Detroit, Mich., assignor of one-half to Maurice F. Kelly, Detroit, Mich. Filed Aug. 12, 1914. Serial No. 856,321. (Cl. 21—90.)

1. In a driving mechanism, the combination with the driving shaft, a driving member mounted thereon, two disks frictionally engaging the driving member, means for simultaneously disengaging both of the disks from the driving member, and means whereby either one of the disks can be disengaged from the driving member at will.



2. In a driving mechanism, the combination with the driving shaft, a driving member mounted thereon, two disks frictionally engaging the driving member, means for simultaneously disengaging both of the disks from the driving member, a steering wheel, and means connected to the steering wheel whereby either one of the disks can be disconnected from the driving member at will.

3. In a driving mechanism, the combination of a revoluble shaft, a friction wheel slidable thereon but revoluble therewith, two friction disks in engagement with said friction wheel, springs to hold said disks in engagement with said wheel, a steering wheel and post, and means connected to said steering wheel whereby either of said friction disks may be disconnected from said friction wheel, depending upon the direction of movement of said steering wheel, a foot pedal, and means connected to said foot pedal for simultaneously disengaging both of the disks from the friction wheel.

4. In a driving mechanism, the combination with a driving shaft, a friction wheel mounted thereon, two disks frictionally engaging the friction wheel, a shaft, a foot-pedal lever connected thereto, means connecting the shaft and the disks whereby movement of the lever may cause the disks to move away from the friction wheel, springs to normally hold the disks in engagement with the friction wheel, and means whereby either one of the disks can be disengaged from the driving member at will.

5. In a driving mechanism, the combination with a driving shaft, a friction wheel mounted thereon, two disks frictionally engaging the friction wheel, a shaft, a foot-pedal lever connected thereto, means connecting the shaft and the disks whereby movement of the lever may cause the disks to move away from the friction wheel, springs to normally hold the disks in engagement with the friction wheel, a steering device, and means connected to the steering device whereby either of the disks can be disconnected from the friction wheel at will.

[Claims 6 to 8 not printed in the Gazette.]

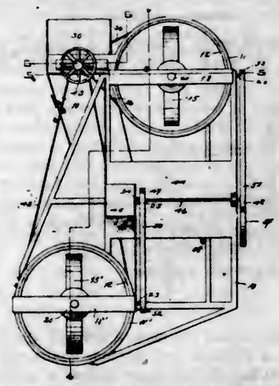
1,139,635. MOTOR-TRUCK. FRANK DELBERT BURRIS, Waukegan, Ill. Filed Nov. 2, 1911. Serial No. 658,268. (Cl. 21—114.)

1. In a truck the combination with a truck frame, of a pair of traction wheels one at each end of the frame and out of line with each other, a third wheel out of line with the other two wheels and adapted to run on a higher level, and means for driving said traction wheels.

2. In a truck the combination with a truck frame, of two traction wheels, one at each end of the frame and mounted in revoluble rings adapted to turn on vertical axes, a third wheel out of line with the other two wheels and adapted to run on a higer level, and means for simultaneously driving said traction wheels.

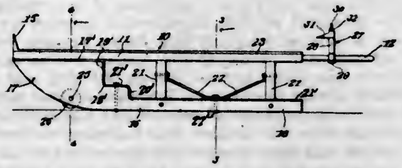
3. In a truck the combination with a truck frame, of forks pivoted to the front and rear end of the frame and adapted to turn on vertical axes, traction wheels in said forks, and a train of gears on the forks adapted to drive said wheels comprising, in each case, a bevel gear on the top of the fork, shafts on the frame having bevel gears meshing with the bevel gears on the forks, and means for simultaneously driving said shafts.

4. In a truck the combination with a truck frame, of a pair of forks pivoted to the front and rear end of the frame so as to stand out of line with each other and adapted to turn on vertical axes, traction wheels in said forks, trains of gears on the forks adapted to drive said wheels comprising, in each case, a bevel gear on the top of the fork, shafts on the frame having bevel gears meshing with the bevel gears on the forks, and means for simultaneously driving said shafts.



5. In a truck the combination with a truck frame, of a pair of revoluble rings arranged one at each end of the frame and out of line with each other, traction wheels provided with shafts mounted in said rings, forks engaging said shafts adapted to pivotally connect said rings to the frame so as to turn on vertical axes, trains of gears on the forks adapted to drive said wheels comprising, in each case, a bevel gear on the top of the forks, shafts on the frame having bevel gears meshing with the bevel gears on the forks, and means for simultaneously driving said shafts.

1,139,636. HAND-TRUCK. CURTIS S. CALHOUN, Decatur, Ill. Filed Dec. 1, 1911. Serial No. 663,330. (Cl. 21—65.)



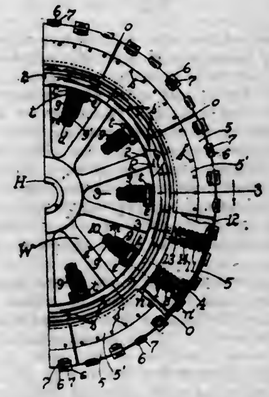
A truck comprising a pair of runners each having segmentally-shaped solid heads gradually stepped down to provide reduced rear ends of substantially rectangular configuration, a bed secured at its forward end to the upper straight edge of each of the heads, cross pieces securing said beds together, a pair of uprights secured between the upper and lower longitudinal edges of the reduced ends and bed respectively, the gradually stepped portion of each head presenting a plurality of vertical shoulders of varying lengths and a horizontally connecting shoulder, a reinforcing strip secured to the upper longitudinal edge of the runners throughout its entire length, a continuous reinforcing band secured to the bottom surfaces of the cross pieces and the opposed surfaces of said uprights, a brace rod connected to the medial and terminal portions of the said band, and another brace secured to the reinforcing strip and the longitudinally alined opposed surfaces of said uprights.

1,139,637. PROCESS OF MAKING MOLDED ARTICLES. TREVOR M. CAVEN, Chicago, Ill., assignor to Kieselguhr Company of America, Los Angeles, Cal., a Corporation of California. Filed Apr. 1, 1914. Serial No. 828,875. (Cl. 106—42.)

1. The process of making a material for molded articles which consists in mixing diatomaceous material with sufficient water to form a slightly plastic mass, then subjecting the mixture to mechanical agitation until it is broken down and assumes a state of increased fluidity, then adding more solid material to reduce the fluidity, reagitating to again increase the fluidity and repeating the addition of solid material and agitation until the requisite uniform mixture together with proper fluidity for molding is attained.

2. The process of making molded articles which consists in mixing divided kieselguhr with divided vegetable fibrous material and sufficient water to form a plastic mass, subjecting the mixture to mechanical agitation until the mixture is broken down and assumes a state of increased fluidity, then adding a further quantity of divided vegetable fibrous material and repeating the agitating action, continuing this successive addition of vegetable fibrous material until the required proportion of such material is obtained, in suitable condition for molding then molding the resulting composition, drying the same, and then subjecting the molded composition to the action of sufficient heat to decompose the vegetable fibrous material.

1,139,638. VEHICLE-WHEEL. JOSEPH CERNY and CHARLES CERNY, St. Louis, Mo. Filed Dec. 5, 1914. Serial No. 875,689. (Cl. 152—8.)

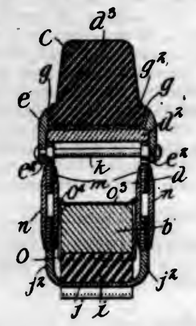


In combination with a vehicle wheel provided with a felly, a tread member disposed exteriorly to the felly and spaced therefrom, a hollow member or sleeve passed radially through the felly and projecting on either side thereof, a stem coupled to the tread member and freely reciprocable through the sleeve and projecting a suitable distance beyond each end of the sleeve, a compression spring coiled about the outer portions of the sleeve and stem and interposed between the felly and the tread member, a second spring coiled about the inner ends of the sleeve and stem and provided with an outer coil terminal spaced from the body of the spring, a nut passed over the inner end of the sleeve and operating to secure the coil terminal to the felly, the connecting member between said coil and body of the spring clearing said nut, the inner end of the spring being provided with an annular offset or shoulder for the support of the inner end of the stem, and provided with a reduced inner terminal beyond said offset, and lock-nuts on the stem for maintaining the shoulder in permanent engagement with the stem terminal, the part operating substantially as and for the purpose set forth.

1,139,639. RESILIENT WHEEL. HERBERT CLIFFORD, Jersey City, N. J. Filed Aug. 1, 1913. Serial No. 782,422. (Cl. 152—36.)

1. A wheel provided with a main inner rim member and a supplemental outer rim member on which the tire is mounted, and which incloses but is separated from the main inner rim member by an annular space, said outer

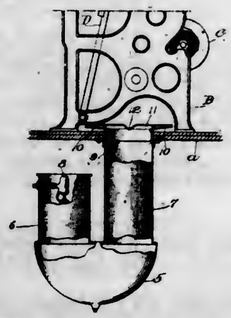
rim member being provided on its outer surface with transverse tire saddles which hold the tire in place, and some of which are secured to said rim member, and others of which are provided with inwardly directed ears, and the main inner rim member being also provided with elastic saddles which are secured on the inner side thereof, and on which are mounted transverse yoke members, the sides of which extend outwardly and are connected with said ears by turn buckle devices, whereby said elastic saddles may be put under greater or less compression.



2. In a wheel of the class described, a main inner rim member and a supplemental outer rim member which incloses, but is separated from the main inner rim member by an annular space, said outer rim member being provided on its outer surface with transverse tire saddles having inwardly directed ears, and the main inner rim member being also provided on the inner side thereof with elastic saddles which are secured thereto and on which are mounted yoke members the sides of which extend outwardly and are connected with said ears by turn buckle devices, involving transverse rods passed through said ears and through the outer members of the turn buckle devices.

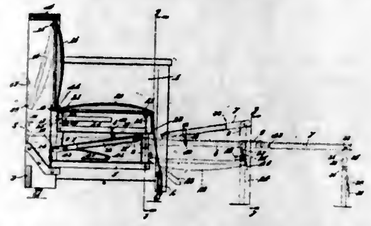
3. A wheel provided with a main inner rim member and a supplemental outer rim member on which the tire is mounted, and which incloses, but is separated from, the main inner rim member by an annular space, said outer rim member being provided on its outer surface with transverse saddles which hold the tire in place, and some of which are provided with inwardly directed ears, and the main inner rim member being also provided on its inner surface with elastic saddles which are secured thereto, and on which are mounted transverse yoke members, the sides of which extend outwardly and are connected with the said tire saddle ears by radially adjustable devices.

1,139,640. HUMIDIFIER. FRANK B. COMINS, Newton, Mass. Filed Mar. 10, 1913. Serial No. 753,156. (Cl. 98—43.)



In a humidifier the combination with a floor having an opening, of an air distributer comprising a pipe fixed to said floor and extending through said opening, a mouth piece slidably engaged with the upper end of said pipe and having lateral outlets and a drip member, a chamber attached to the lower end of said pipe, and a second pipe mounted on said chamber and extending toward said floor but spaced therefrom to permit entrance of air to said second pipe.

1,139,641. SOFA-BED. CHARLES J. CONSER, Chicago, Ill. Filed Apr. 17, 1914. Serial No. 832,442. (Cl. 5—51.)



1. In a structure of the class described, the combination of a frame; a foldable bed bottom connected with said frame so as to be adapted to be folded to position in said frame or unfolded to a position extending forwardly from said frame, said bed bottom consisting of a plurality of foldably connected sections; a connection between the innermost of said sections and said frame whereby, when said bed bottom is unfolded, said section will be moved rearwardly and, when said bed bottom is folded, said section will be moved forwardly; a sofa back member mounted in said frame to permit of forward and rearward movement of the lower end thereof; and a connection between said end of said back member and said section of said bed bottom whereby, said parts will move forwardly and rearwardly in unison, substantially as described.

2. In a structure of the class described, the combination of a frame; a foldable bed bottom connected with said frame so as to be adapted to be folded to position in said frame or unfolded to a position extending forwardly from said frame, said bed bottom consisting of a plurality of foldably connected sections; a connection between the innermost of said sections and said frame whereby, when said bed bottom is unfolded, said section will be moved rearwardly and, when said bed bottom is folded, said section will be moved forwardly; a sofa back member mounted in said frame to permit of forward and rearward movement of the lower end thereof; and a connection between said end of said back member and the rearward end of said section of said bed bottom whereby said parts will move forwardly and rearwardly in unison, substantially as described.

3. In a structure of the class described, the combination of a frame; a foldable bed bottom connected with said frame so as to be adapted to be folded to position in said frame or unfolded to a position extending forwardly from said frame, said bed bottom consisting of a plurality of foldably connected sections; a connection between the innermost of said sections and said frame whereby, when said bed bottom is unfolded, said section will be moved rearwardly and, when said bed bottom is folded, said section will be moved forwardly; a sofa back member mounted in said frame to permit of forward and rearward movement of the lower end thereof; an arm arising from the rearward end of said section of said bed bottom; and a loop at the lower end of said back member with which engages the upper end of said arm whereby said parts will move forwardly and rearwardly in unison, substantially as described.

4. In a structure of the class described, the combination of a frame; a foldable bed bottom comprising a section foldably connected with said frame whereby, when said section is moved to unfolded position, the same will be moved rearwardly and, when said section is moved to folded position, the same will be moved forwardly; a sofa back member mounted in said frame to permit of forward and rearward movement thereof; and a connection between said back member and said section whereby said parts will move forwardly and rearwardly in unison, substantially as described.

5. In a structure of the class described, the combination of a frame; a foldable bed bottom connected with said frame so as to be adapted to be folded to position in said frame or unfolded to a position extending forwardly from said frame, said bed bottom consisting of a plurality of foldable connected sections; a connection between the innermost of said sections and said frame whereby, when said bed bottom is unfolded, said section will be moved rearwardly and, when said bed bottom is folded, said section will be moved forwardly; a sofa back member mounted in said frame to permit of forward and rearward movement of the lower end thereof; and a connection between said back member and said section of said bed bottom whereby said parts will move forwardly and rearwardly, substantially as described.

1,139,642. MILITARY UNIFORM OR THE LIKE. ALBERT S. COX, Grantwood, N. J. Filed Oct. 17, 1913, Serial No. 795,620. Renewed Mar. 3, 1915. Serial No. 11,875. (Cl. 2—144.)



1. A military uniform or the like, having irregularly disposed stripes up and down of dark and relatively light colors with irregular wavy outlines, the continuity of the stripes of one color being broken at irregular intervals by transverse irregular portions of the other color.

2. A military uniform or the like, having irregularly disposed stripes up and down of substantially army olive drab and light greenish yellow colors with irregular wavy outlines, the continuity of the stripes of one color being broken at irregular intervals by transverse irregular portions of the other color.

3. A military uniform or the like, having irregularly disposed stripes up and down of dark and relatively light colors with irregular wavy outlines, the continuity of the stripes of one color being broken at irregular intervals by transverse irregular portions of the other color, and isolated patches of one color superposed on the other.

4. A military uniform or the like, having irregularly disposed stripes up and down of dark and relatively light colors with irregular wavy outlines, the continuity of the stripes of one color being broken at irregular intervals by transverse irregular portions of the other color, some of the colors being outlined by still darker colors.

5. An article of the character described rendered less easy visible by pronounced irregular alternating patches of contrasting light and dark colors with wavy outlines, some of the darker patches being outlines in a still darker color, the color effect of some of said patches being broken up by smaller spots of contrasting color and all producing the effect of uncertain light and shade.

[Claims 6 and 7 not printed in the Gazette.]

1,139,643. ANIMATED TOY BOOK. WILLIAM R. CROSS, Minneapolis, Minn. Filed Sept. 21, 1914. Serial No. 862,868. (Cl. 46—40.)

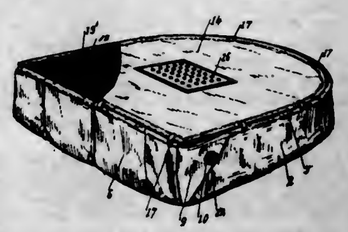


1. A book having leaves, to certain of which object representative figures are pivotally mounted and provided with yielding means tending to move the said figures into projected positions, the said figures being adapted to be turned into position between the folded leaves.

2. In a book provided with leaves, the adjacent faces of which are marked to represent a ring or stage, a figure of a human being marked on one of the said leaves, an animal representing figure pivotally mounted on the adjacent leaf, and a yielding device tending to rotate said animal representing figure into a projected position, and which figure is adapted to be turned between the folded leaves against the tension of the said yielding means.

3. In a book having a plurality of leaves, the combination with an object representing figure, and an elastic band pivotally connecting said figure to one of the said leaves and tending to rotate the same into a projected position, and which figure is adapted to be turned between the adjacent folded leaves.

1,139,644. SEAT-CUSHION STRUCTURE. FRANK P. D'ARCY, Kalamazoo, Mich. Filed Feb. 26, 1914. Serial No. 821,152. (Cl. 155—25.)



1. In a structure of the class described, the combination of a top portion, side wall portions comprising side and front strips secured at their upper edges to said top portion, flaps carried by said front strip and adapted to overlap the adjacent ends of the side strip, fastening means securing said flaps to said side strip, pockets provided in the lower edges of said side and front strips, an auxiliary bottom frame comprising a U-shaped section disposed in the pocket in the lower edge of said side strip, and a cross bar section disposed in the pocket in the lower edge of said front strip, the ends of said U-shaped section being hollow, the ends of said cross bar section being bent at right angles and inserted in the hollow ends of the

U-shaped section, a set of springs disposed in the chamber formed by said top portion and said side wall portions, said set of springs having a border wire around the edge thereof, a bottom provided with a bottom frame around the edge thereof, and split ring fastenings embracing said auxiliary bottom frame, said bottom frame and said border wire, and attaching the bottom to said side wall portions, all coacting substantially as described for the purpose specified.

2. In a structure of the class described, the combination of a top portion, side wall portions comprising side and front strips secured at their upper edges to said top portion, pockets provided in the lower edges of said side and front strips, an auxiliary bottom frame comprising a U-shaped section disposed in the pocket in the lower edge of said side strip, and a cross bar section disposed in the pocket in the lower edge of said front strip, the ends of said U-shaped section being hollow, the ends of said cross bar section being bent at right angles and inserted in the hollow ends of the U-shaped section, a set of springs disposed in the chamber formed by said top portion and said side wall portions, said set of springs having a border wire around the edge thereof, a bottom provided with a bottom frame around the edge thereof, and split ring fastenings embracing said auxiliary bottom frame, said bottom frame and said border wire and attaching the bottom to said side wall portions, all coacting substantially as described for the purpose specified.

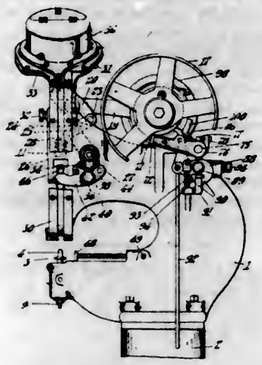
3. In a structure of the class described, the combination of a top portion, side wall portions comprising side and front strips secured at their upper edges to said top portion, an auxiliary bottom frame comprising a U-shaped section carried by the lower edge of said side strip and a cross bar section carried by the lower edge of said front strip, the ends of said U-shaped section being hollow and the ends of said cross bar section being bent at right angles and inserted in the hollow ends of said U-shaped section, a set of springs disposed in the chamber formed by said top portion and said side wall portions, said set of springs having a border wire around the edge thereof, a bottom provided with a bottom frame around the edge thereof, and split ring fastenings embracing said auxiliary frame, said bottom frame and said border wire, and securing the bottom to said side wall portions, all coacting substantially as described for the purpose specified.

4. In a structure of the class described, the combination of a top portion, side wall portions comprising side and front strips secured at their upper edges to said top portion, an auxiliary bottom frame comprising a U-shaped section carried by the lower edge of said side strip and a cross bar section carried by the lower edge of said front strip, said sections being detachably connected together, a set of springs disposed in the chamber formed by said top portion and said side wall portions, said set of springs having a border wire around the edges thereof, a bottom provided with a bottom frame around the edges thereof, and split ring fastenings embracing said auxiliary frame, said bottom frame and said border wire, and securing the bottom to said side wall portions, all coacting substantially as described for the purpose specified.

5. In a structure of the class described, the combination of a top portion, side wall portions comprising side and front strips secured at their upper edges to said top portion, flaps carried by said front strip and adapted to overlap the adjacent ends of the side strip, fastening means securing said flaps to said side strip, pockets provided in the lower part of said side and front strips, an auxiliary bottom frame comprising a U-shaped section disposed in the side strip pocket and a cross bar section disposed in the front strip pocket, said sections being detachably connected together, a set of springs disposed in the chamber formed by said top portion and said side wall portions, said set of springs being provided with a border wire around the edge thereof, and split ring fastenings embracing said auxiliary bottom frame and said border wire for securing said springs in place in said chamber, all coacting substantially as described for the purpose specified.

[Claims 6 to 10 not printed in the Gazette.]

1,139,645. MACHINE FOR SETTING GROMETS AND THE LIKE. JOHN F. DAVEY, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Aug. 28, 1909. Serial No. 514,180. (Cl. 218—15.)



1. A machine of the class described having, in combination, coöperating setting dies, a thrust receiving device for one of said dies, a spring disposed in alinement with said device, an apertured adjustable stop for supporting said spring at its side remote from said device, and a spindle constructed and arranged to extend through the aperture in said stop and serving to adjust the relative position of said setting die and thrust receiving device.

2. A machine of the class described, having, in combination, a frame having a shoulder, coöperating setting dies, a thrust receiving device yieldingly mounted within said frame and held positively against movement in one direction by said shoulder, and a bearing member for one of said dies adjustable with respect to said thrust receiving device and extending outside said frame.

3. A machine of the class described, having, in combination, a frame, coöperating setting dies, an axially movable thrust receiving device mounted within said frame, said device being positively limited in its movement in one direction by said frame, and apertured to receve one of said setting dies, and a bearing member adjustably mounted in said aperture and extending axially with respect to said thrust receiving device.

4. A machine of the class described, having, in combination, coöperating setting dies, and actuating means for moving one of said setting dies in a vertical path comprising a toggle, a link connection between said toggle and setting die, and means for straightening said toggle for effecting the setting operation, including a power driven shaft and a horizontally movable operating rod.

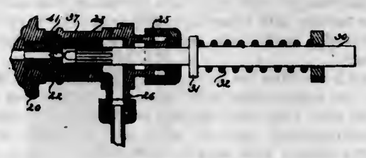
5. A machine of the class described, having, in combination, coöperating setting dies, and actuating means for one of said setting dies comprising a toggle, a radius rod for determining the path of one end of said toggle, a link connection between said toggle and setting die, and means for straightening said toggle for effecting the setting operation.

[Claims 6 to 20 not printed in the Gazette.]

1,139,646. APPARATUS FOR TREATING MILK AND OTHER FLUIDS. JOHN W. DAVIES, Reading, Mass. Filed Nov. 22, 1909. Serial No. 529,244. (Cl. 99—2.)

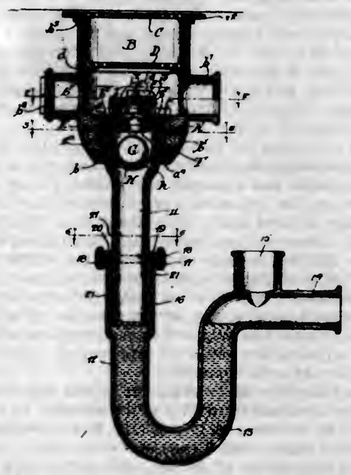
An apparatus for treating fluids containing fat globules comprising a pump, a pipe connected with said pump, a second pipe of larger diameter than said first pipe into which said first pipe leads whereby a flat annular shoulder is formed around the end of said first pipe, a flat cylindrical valve closely fitting said second pipe and fitting against said shoulder, said valve having peripherally

disposed channels approximately parallel to its axis and an axially disposed stem extending into said first pipe



and having a conical end, and means for pressing said valve against said shoulder.

1,139,647. DRAIN. GEORGE J. DEHN, Chicago, Ill. Filed Mar. 28, 1910. Serial No. 552,000. (Cl. 182—12.)



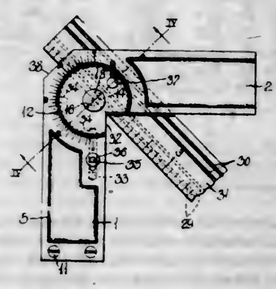
1. In a drain, the combination of a receiver-basin, a drain-pipe connected to receive drainage from said basin, a water-trap, a back-water valve, an upwardly extending register valve secured at the upper end of the inlet-terminal of the drain-pipe for preventing escape of the gas through the drain-pipe when the water trap is inoperative.

2. In a drain, the combination of a receiver-basin, a drain-pipe connected to receive drainage from said basin, a water-trap, a back-water valve, and a register-valve comprising a body secured at the upper end of the inlet-terminal of the drain-pipe, and having an upwardly extending perforated annular wall and a correspondingly perforated coöperating valve-member rotatably mounted in said body.

3. The combination of a drain-pipe having an upwardly extending inlet-terminal, a back-water valve in said pipe, a ring secured to said pipe and provided with a valve-seat, a valve cage in said terminal, and a wedge and interlocking connection between said ring and said cage for removably securing the cage and ring together.

4. In a floor drain, the combination of a receiver-basin, having an open top, a strainer-top in said opening, and connections at either side below said top, a drain-pipe connected to receive drainage from said basin and having a trap therein, shoulders on the receiver-basin above said inlet connections and the inlet terminal of the drain-pipe, a removable strainer-plate adapted to rest on said shoulders, the latter strainer having a perforated portion above the inlet terminal of the drain pipe, and means at the inlet terminal of said pipe having a closed top and vertically extended openings in its side, leading to the passage in said drain-pipe for preventing the escape of gas through the drain pipe when the water trap is inoperative.

1,139,648. COMBINATION-TOOL. HENRY M. DEMMER, Detroit, Mich. Filed Nov. 27, 1914. Serial No. 874,143. (Cl. 33—94.)



1. A combination tool comprising spaced top and bottom plates provided with legs, an adjustable member rotatably supported by said top and bottom plates, a scale slidable in said member and between legs of said top and bottom plates, and capable of being positioned to bisect the angle formed by the legs of said top and bottom plates, a yieldable tongue forming part of said member and engaging in the bottom side of said scale, and means carried by said member for holding said scale in adjusted position.

2. A combination tool comprising a top and bottom plate each having legs disposed at right angles to one another, a rotatable member supported by said plates at the juncture of the legs thereof and having a limited movement relative to said plates, a scale slidable in said members and between legs of said top and bottom plates, a tongue and groove connection between said member and said scale, means carried by said member for holding said scale in adjusted position, and means carried by one of the legs of said top plate for locking said rotatable member in adjusted position.

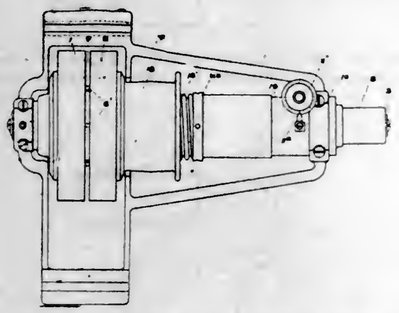
3. A combination tool comprising top and bottom plates having legs disposed at right angles to each other, a rotatable member supported by said top and bottom plates having a notch in the periphery thereof adapted to form the angle between the legs of said top and bottom plates, a slide detachably and adjustably held by said member and capable of being positioned to bisect the angle of the notch of said member, a yieldable tongue carried by said member and engaging in said slide, means carried by said member for locking the slide in adjusted position, and means for holding said rotatable member in adjusted position.

1,139,649. MACHINE FOR GRINDING THE LATERAL FACES OF PISTON-RINGS. DAVID F. DOMIZI, Franklin, Pa. Filed Jan. 20, 1912. Serial No. 672,508. (Cl. 51—4.)

1. In a machine for grinding the lateral edges of piston rings, the combination of two abrasive wheels adjustably mounted upon one mandrel, and arranged for simultaneously grinding the lateral edges of a piston ring, a frame for said wheels arranged to be movable in a line transverse to the axis of said wheels, and means for revolving such ring during the grinding operation.

2. In a machine for grinding the lateral edges of piston rings, the combination of two abrasive wheels adjustably mounted side by side upon one mandrel, with their contiguous faces arranged to simultaneously grind the lateral faces of such ring, and means for varying the distance between said contiguous faces, a frame in which said wheels are mounted, movable in a line transverse to

the axis of said wheels, and means revolving such ring during the grinding operation.

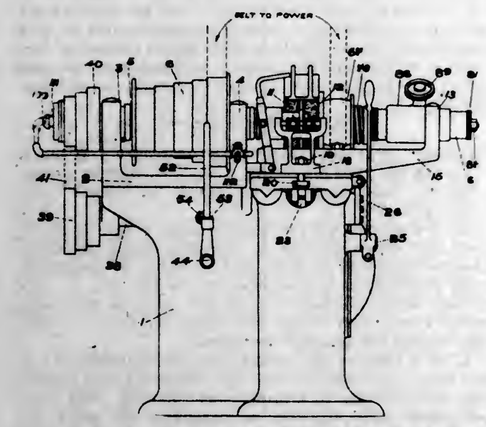


3. In a machine for grinding the lateral faces of piston rings, the combination with two abrasive wheels contiguously mounted upon a mandrel, and relatively adjustable thereon, of a frame arranged for the operative reception of said mandrel and wheels, and for their attachment to a suitable machine tool, having a work-spindle or live center whereby said wheels are adapted to operate upon a ring, when revolved by said spindle.

4. In a machine for grinding the lateral faces of piston rings, the combination with the slide-rest, of a lathe, which lathe is equipped with means for holding and revolving such ring during the grinding operation, of a frame attached to said rest, and movable therewith, a mandrel revolubly mounted in said frame, abrasive wheels contiguously and adjustably mounted upon said mandrel, means for varying the contiguity of said wheels, and means for driving said wheels.

5. In a machine for grinding the lateral faces of piston rings, the combination of two abrasive wheels, contiguously, adjustably mounted upon a mandrel, and arranged to simultaneously grind the lateral faces of such ring, means for varying the degree of said contiguity, means indicating the amount of said variation and means automatically preventing possible relative, lateral play between wheels, which might be caused by wear of operative parts.

1,139,650. MACHINE FOR FINISHING THE LATERAL EDGES OF PISTON-RINGS. DAVID F. DOMIZI, Franklin, Pa. Filed Jan. 20, 1912. Serial No. 672,504. (Cl. 51—4.)



1. In a machine for finishing the lateral edges of piston rings, the combination with means for so holding and revolving such ring that the two lateral edges thereof may be simultaneously operated upon, of a plurality of pairs of width-reducing means, each of said pairs being adjustable as to said width, and arranged to operate upon the two edges of such ring simultaneously, and perform a step in the reduction of such ring to a predetermined width, and means moving said reducing means respectively into operative relation with said ring, alternately, in the proper sequence.

2. In a machine for finishing the lateral edges of piston rings, the combination with means for so holding and revolving such ring that the two lateral edges thereof may be simultaneously operated upon, of a plurality of width-reducing means, each adjustable as to said width, and arranged to operate upon the two edges of such ring simultaneously, and perform a step in the reduction of said ring to a predetermined width, and means automatically moving said reducing means respectively into operative relation with said ring, alternately, in the proper sequence.

3. In a machine for finishing the lateral edges of piston rings, the combination with means for holding and revolving a ring in such a manner that the lateral edges thereof may be simultaneously operated upon, of a plurality of width-reducing means, each adjustable transversely to the axial line of said holding means, and arranged to operate upon the two edges of such ring simultaneously and perform a step in the reduction of said ring to a predetermined width, and means automatically moving said reducing means respectively into operative relation with said ring alternately in the proper sequence.

4. In a machine for finishing the lateral edges of piston rings, the combination with a chuck attached to a suitably driven spindle and arranged for holding a ring in such manner that the two lateral edges thereof, may be simultaneously operated upon, of a plurality of devices, each adapted to operate upon both edges of said ring simultaneously for the purpose of reducing the width thereof, each of said devices being arranged to perform a step in the reduction of said ring to a predetermined width, means automatically moving said devices into operative relation with said ring alternately and in the proper sequence, and means arresting the action of said moving means at the completion of such sequence.

5. In a machine for finishing the lateral edges of piston rings, the combination with a chuck attached to a driven spindle and arranged to hold a ring in such manner that the lateral edges thereof may be simultaneously operated upon, of a plurality of devices, each adapted to operate upon both edges of said ring simultaneously for the purpose of reducing the width thereof, each of said devices being arranged to perform a step in the reduction of such ring to a predetermined width, manually-actuated means for moving said devices into operative relation with said ring, and means limiting the extent of said movement.

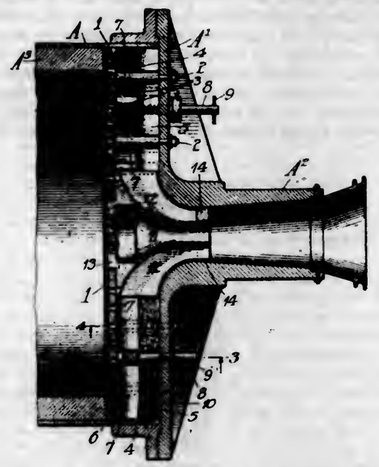
[Claims 6 to 8 not printed in the Gazette.]

1,139,651. TUBE-MILL. WILLIAM B. EASTON, Chicago, Ill. Filed June 8, 1914. Serial No. 843,782. (Cl. 83—9.)

1. In a tube mill, the combination of a perforated plate secured in the shell of said tube mill and which forms a chamber at the discharge end thereof, a vane or vanes in said chamber comprising relatively adjustable sections, adjusting means, and means for delivering water and material raised by said vanes into the discharge opening from said tube mill, substantially as described.

2. In a tube mill, the combination of a perforated plate secured in the shell of said tube mill and which forms a chamber at the discharge end thereof, a vane or vanes in said chamber each comprising a fixed section and an adjustable section, adjusting means for said adjustable section, and means for delivering water and material raised by said vanes into the discharge opening from said tube mill, substantially as described.

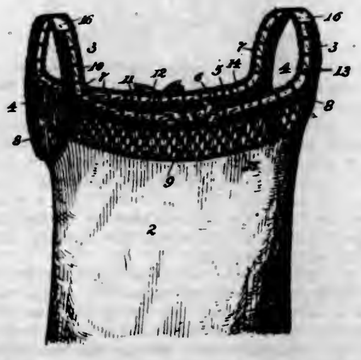
3. In a tube mill, the combination of a perforated plate secured in the shell of said tube mill and which forms a chamber at the discharge end thereof, a vane or vanes in said chamber each comprising a section which is adjustable transversely of said chamber and the front or advancing surface of which declines toward its free edge, adjusting means therefor, and means for delivering water and material raised by said vanes into the discharge opening from said tube mill, substantially as described.



4. In a tube mill, the combination of a perforated plate secured in the shell of said tube mill and which forms a chamber at the discharge end thereof a vane or vanes in said chamber each comprising a fixed section and a section which is adjustable transversely of said chamber, the adjustable sections being in front of the fixed sections and the front or advancing sides thereof declining toward their free edges, adjusting means therefor, and means for delivering water and material raised by said vanes into the discharge opening from said tube mill, substantially as described.

5. In a tube mill, the combination of a perforated plate secured in the shell of said tube mill and which forms a chamber at the discharge end thereof, a vane or vanes in said chamber each comprising a fixed section adjacent to the head of the tube mill, and a transversely adjustable section which rests upon the front or advancing side of said fixed section and the front or advancing side of which declines toward its free edge, adjusting means therefor, and means for delivering water and material raised by said vane or vanes into the discharge opening from said tube mill, substantially as described.

1,139,652. WOMAN'S UNDERGARMENT. EDWARD EMMERS, Royersford, Pa. Filed Apr. 21, 1914. Serial No. 833,363. (Cl. 2—41.)



1. In an undergarment having low-cut back and bust portions, the combination of the body part provided with shoulder straps formed with open work edging which also extends along the upper edges of the back and bust portions, with two drawing tapes for the back and two drawing tapes for the bust, said tapes threaded through the open work edging of the shoulder straps and bust and back portions, and in which one of the back tapes and one of the bust tapes are secured to one of the shoulder straps and the other back and bust tapes are secured to the other shoulder strap and in which further, the free ends of the two bust tapes are adjustably secured together for adjusting the width of the bust portion of the garment and the two free ends of the back tapes are adjustably secured together for adjusting the width of the back portion of the garment, whereby the width of both the back and the bust portions may be independently adjusted and the adjustment of the one shall not affect the adjustment of the other.

2. In an undergarment having low-cut back and bust portions, the combination of the body part provided with shoulder straps formed with open work edging which also extends along the upper edges of the back and bust portions, with two tapes respectively threaded through the open work edging of the shoulder straps and a portion of the back and bust whereby said tapes provide four free ends, two for the bust portion and two for the back portion, said ends at the bust portion being adjustably tied to adjust the width of the bust portion of the garment and the ends at the back portion being adjustably tied to adjust the width of the back portion of the garment, and means for securing the tapes against being shifted longitudinally from the back portion to the bust portion or vice versa.

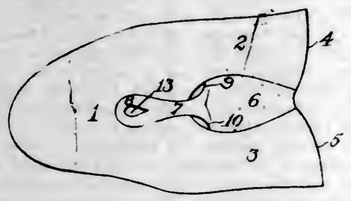
3. In an undergarment having low-cut back and bust portions, the combination of the body part provided with shoulder straps formed with open work edging which also extends along the upper edges of the back and bust portions, with two tapes respectively threaded through the open work edging of the shoulder straps and a portion of the back and bust whereby said tapes provide four free ends, two for the bust portion and two for the back portion, said ends at the bust portion being adjustably tied to adjust the width of the bust portion of the garment and the ends at the back portion being adjustably tied to adjust the width of the back portion of the garment, and means for securing the tapes against being shifted longitudinally from the back portion to the bust portion or vice versa, said means consisting of fabric bars secured to the shoulder straps by stitching to form anchoring pieces and said bars also firmly stitched to the tapes whereby said tapes cannot be shifted longitudinally through the shoulder straps.

4. In an undergarment having low-cut back and bust portions and suitable arm-holes and the said back and bust portions having open lace edging, combined with two drawing tapes for the bust portion providing two free ends at the front and two drawing tapes for the back portion providing two free ends at the back, said drawing tapes threaded through the open-work lace edging with the free ends brought into adjacent relation in pairs at front and back and adjustably tied at said portions of the garment and said tapes held at the arm-hole portions against being drawn longitudinally through the lace edging, whereby the bust portion and the back portion may be independently adjusted as to width.

1,139,653. PROCESS OF MAKING SHOE-UPPERS. KARL ENGEL, Arlington, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Dec. 21, 1912. Serial No. 738,025. (Cl. 12—146.)

1. That improvement in the art of making shoe uppers which consists in forming a vamp blank extended to provide side portions of suitable length and end contour for attachment to an insertion of predetermined shape and size at the heel of the shoe, providing said blank with an ankle opening by removing a piece of material of said predetermined shape and size to serve as said insertion and suitably proportioned to leave the side extensions of the vamp of the desired width and edge contour at the

ankle opening, and securing said piece at its sides to the ends of said extensions to complete the heel portion of the upper.



2. That improvement in the art of making shoe uppers which consists in forming a vamp blank extended to provide side portions of suitable length for attachment to an insertion of predetermined width at the heel of the shoe and of an end contour conformable to the predetermined contour of the sides of said insertion, providing said blank with an ankle opening by removing a piece of material of the predetermined width and shape to serve as said insertion and having its sides convexly curved so as to insure a suitable curve at the rear end face of the heel of the completed shoe and provide a suitable outline for the upper edge portions of the vamp extensions, and securing said piece at its sides to the ends of said extensions to complete the heel portion of the upper.

3. That improvement in the art of making shoe uppers which consists in forming a vamp blank extended to provide side portions of suitable length and end contour for attachment to an insertion of predetermined shape and size at the heel of the shoe, providing said blank with an ankle opening by removing a piece of material of predetermined shape and size to serve as said insertion and suitably proportioned to leave the side extensions of the vamp of the desired width and with the edges of said extensions at the ankle opening suitably shaped to incline upwardly toward the rear of the completed shoe, and securing said piece at its sides to the ends of said extensions to complete the heel portion of the upper.

4. That improvement in the art of making shoe uppers which consists in forming a vamp blank extended to provide side portions shaped for attachment at their ends to an insertion at the heel of the shoe, providing said blank with an ankle opening and a throat opening by removing portions of material shaped respectively for attachment to said extensions as the heel insertion and to serve as a back-stay, and uniting said heel insertion to said extensions and the back-stay to the quarters of the upper.

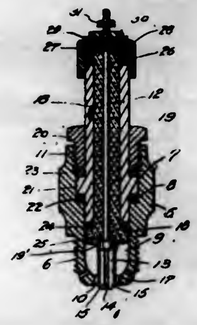
5. That improvement in the art of making shoe uppers which consists in forming a vamp blank extended to provide side portions shaped for attachment at their ends to an insertion at the heel of the shoe, providing said blank with an ankle opening and a throat opening by removing portions of material shaped respectively for attachment to said extensions as the heel insertion and to serve as a back-stay and strap, and uniting said heel insertion to said extensions and the back-stay to the quarters of the upper with the strap portion projecting above said quarters.

[Claims 6 and 7 not printed in the Gazette.]

1,139,654. SPARK-PLUG. RAYMOND J. FARRELL and FAY A. ARDRON, Seattle, Wash. Filed May 23, 1914. Serial No. 840,419. (Cl. 123—169.)

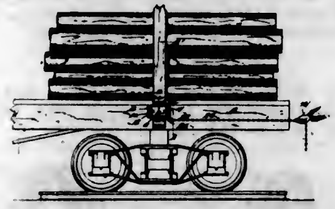
1. In a spark-plug of the class described, the combination with a shell forming one electrode, a rod forming the other electrode of the device, of an insulating sleeve surrounding said rod, a metal casing surrounding said sleeve and extending from within said shell to a short distance below the top of the sleeve, means coöperating with said rod for securing the latter to the sleeve and also serving to secure the sleeve to the casing, means for securing the casing to the shell, and a cap overlapping the upper end of the casing serving as a cover for the upper ends of the sleeve and casing to close the interstice between the same.

2. In a spark-plug of the class described, the combination with a shell forming one electrode, and a rod forming the other electrode of the device, of an insulating sleeve surrounding said rod, a metal casing surrounding said sleeve and extending from within said shell to a short distance below the top of the sleeve, means coöperating with said rod for securing the latter to the sleeve and also serving to secure the sleeve to the casing, means for securing the casing to the shell, and a cap overlapping the upper end of the casing serving as a cover for the upper ends of the sleeve and casing to close the interstices between the same.



3. In a spark-plug of the class described, a shell constituting one electrode, a screw-threaded rod having an enlarged head and serving for the other electrode, a porcelain sleeve inclosing said rod and provided at one end with a recess to accommodate the head thereof, a metal casing inclosing said sleeve and extending into said shell, a nut engaging a screw-thread provided in the shell for coupling the casing to the latter, means superposed on said casing for insulating the sleeve with respect to said rod, a cap provided to cover such insulating means and likewise the interstice between said means and the casing, and a clamping nut engaging the screw-threads of the rod for securing the same within the sleeve.

1,139,655. BOLSTER-STAKE HOLDER. CASPER FAUST, Oshkosh, Wis. Filed Mar. 25, 1915. Serial No. 16,980. (Cl. 105—173.)



1. In a bolster stake holder having a bracket provided with cheek-pieces, a saddle adapted to bridge the cheek-pieces in swinging union with one of the same, a lug carried by the opposite cheek-piece, and a link connected to the saddle engageable with the lug; the combination of a cast-off mechanism for the link comprising a depending dog in swinging union with the associated cheek-piece adapted to nest over the end of said link, a trigger carried by the dog and engageable with the cheek-piece, and a manually controlled pull runner for releasing the trigger from its cheek engagement.

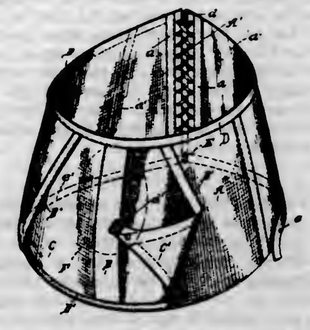
2. In a bolster stake holder having a bracket provided with cheek-pieces, a saddle adapted to bridge the cheek-pieces in swinging union with one of the same, a lug carried by the opposite cheek-piece, and a link connected to the saddle engageable with the lug; the combination of a cast-off mechanism for the link comprising a depending dog in swinging union with the associated cheek-piece adapted to nest over the end of said link, a trigger carried by the dog and engageable with the cheek-piece, a manually controlled pull runner for releasing the trigger from its cheek engagement, and a manually controlled locking templet carried by said dog for engagement with the trigger, whereby the latter is held against movement.

3. In a bolster stake holder having a bracket provided with cheek-pieces, a saddle adapted to bridge the cheek-pieces in swinging union with one of the same, a lug carried by the opposite cheek-piece, and a link connected to the saddle engageable with the lug; the combination of a cast-off mechanism for the link comprising a depending dog in swinging union with the associated cheek-piece adapted to nest over the end of said link, a trigger carried by the dog and engageable with the cheek-piece, a lever-link fulcrumed to the dog, means extending from the trigger for engagement with the lever-link, and a manually controlled runner adapted to be connected to said link for operating the cast-off mechanism.

4. In a bolster stake holder having a bracket provided with cheek-pieces, a saddle adapted to bridge the cheek-pieces in swinging union with one of the same, a lug carried by the opposite cheek-piece, and a link connected to the saddle engageable with the lug; the combination of a cast-off mechanism for the link comprising a depending dog in swinging union with the associated cheek-piece adapted to nest over the end of said link, a trigger in slidable union with the dog adapted to engage the cheek-piece, whereby said dog is locked, an elbow link in pivotal union with said dog, a shoulder projecting from the trigger for engagement with the elbow link, and means for exerting pull upon the link at a distance, whereby the cast-off mechanism is operated.

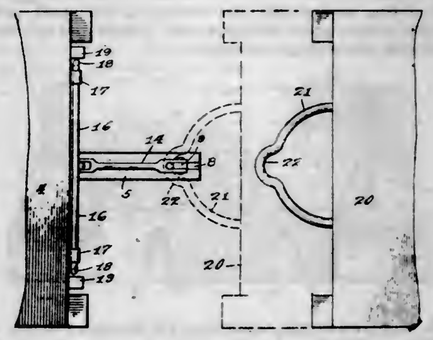
5. In a bolster stake holder having a bracket provided with cheek-pieces, a saddle adapted to bridge the cheek-pieces in swinging union with one of the same, a lug carried by the opposite cheek-piece, and a link connected to the saddle engageable with the lug; the combination of a cast-off mechanism for the link comprising a dog in pivotal union with the lug-carrying cheek-piece, the dog being provided with a depending neck and short nose portion forming a throat therebetween, a tongue extending from the link adapted to nest within the throat, a trigger carried by the dog and engageable with the cheek-piece, and a manually controlled pull runner for releasing the trigger from its cheek engagement.

1,139,656. ABDOMINAL SUPPORT. IDA M. FINCH, Chicago, Ill. Filed Apr. 10, 1913. Serial No. 760,148. (Cl. 128—3.)



An abdominal supporter formed of a piece of material adapted to encircle the body below the waist line, vertical stays at the center back of the support, a single stay upon each side of the center back which extends from the waist line forwardly and downwardly to the bottom of the same, triangular shaped reinforcing flaps secured from the waist line to the bottom at the center front of the support, the backwardly extending corners thereof being free, means secured to the body of the supporter for engaging the free ends of the reinforcing strips to provide lateral compression around the body, and a detachable pad secured inside said support, substantially as described.

1,139,657. TRUCK-COUPLING. EDWARD FITZGERALD, Chicago, Ill. Filed Nov. 5, 1914. Serial No. 870,336. (Cl. 21—114.)



1. A truck coupling comprising a draw-bar head having a horizontal slot extending inwardly from its outer end; a bail adapted to be received by said slot at any point of the bail intermediate the ends thereof, and a catch mounted in said head and adapted to lock said bail in said slot.

2. A truck coupling comprising a draw-bar head having a horizontal slot extending inwardly from its outer end; a bail wider than the width of the draw-bar head and disposed in said slot; and a catch mounted in said head and locking said bail in said slot.

3. A truck coupling comprising a draw-bar head having a horizontal slot extending inwardly from its outer end; a bail comprising an elongated member diverging from a substantially central point to its ends and extending through said slot, the latter being adapted to engage said bail at any point intermediate the ends thereof; and a catch mounted in said head and locking said bail in said slot.

4. A truck coupling comprising a draw-bar head having a horizontal slot extending inwardly from its outer end; a bail comprising an elongated member disposed in a curve with a recess at its central portion and said central portion extending through said slot, said slot being adapted to be engaged by the bail at any point intermediate the ends thereof; and a catch mounted in said head and locking said bail in said slot.

5. A truck coupling comprising a draw-bar head having a horizontal slot extending inwardly from its outer end; a bail wider than the draw-bar head and disposed in said slot; and a catch mounted in said head and locking the bail in said slot, said slot being adapted to be engaged by the bail at any point intermediate the ends thereof, and the bail being adapted to slide on the catch to its central portion upon force being applied to the draw-bar head in use.

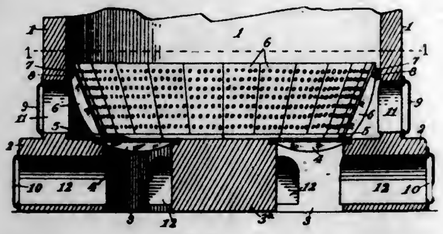
[Claims 6 and 7 not printed in the Gazette.]

1,139,658. REFUSE-BURNER. EDWARD E. FITZGERALD, Minden, La., assignor to Muskegon Boiler Works, Muskegon, Mich., a Corporation of Michigan. Filed Apr. 18, 1914. Serial No. 832,724. (Cl. 110—8.)

1. A refuse burner comprising a cylindrical chamber, an annular bottom grate in the same, a truncated conical grate extending upward from the margin of the bottom grate, and a ring surrounding the conical grate and supported thereby out of contact with the wall of the chamber.

2. A refuse burner having a vertical cylindrical chamber, an annular grate formed of a plurality of segments, each supported upon the bottom of the burner a truncated conical grate composed of segments inclined upward and outward from the annular grate toward the wall of the chamber, a band surrounding the upper ends of said last named segments, and means for admitting air to the grates.

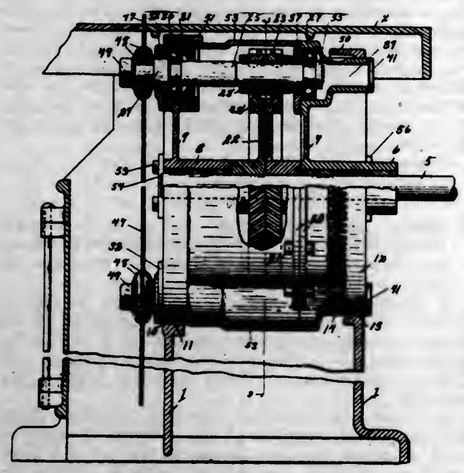
3. A refuse burner comprising a vertical cylindrical chamber, an annular ash pit below the same, an annular grate above the ash pit, a segmental truncated conical grate supported on the outer margin of the annular grate, and a ring surrounding and supporting the upper part of the conical grate and supported thereby out of contact with the wall of the chamber.



4. A refuse burner comprising an annular ash pit, a vertical cylindrical chamber above the ash pit and of greater diameter than the same, a horizontal segmental grate having lugs near its outer margin, a segmental truncated conical grate engaging and held in place by the lugs at its lower end, a ring surrounding the upper end of said conical grate and having an inwardly projecting rib engaging recesses in the conical grate, said ring being of less diameter than the interior of the chamber and spaced apart therefrom.

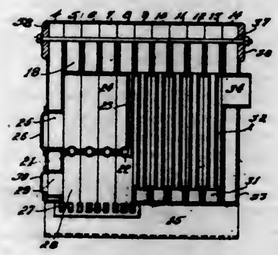
5. A refuse burner comprising an annular ash pit having radially disposed air inlet openings, a vertical cylindrical chamber of greater diameter than the ash pit and having radially disposed air inlet openings above the level of the ash pit, a segmental annular grate horizontally disposed above the ash pit and having lugs near its outer margin, a truncated conical segmental grate above the annular grate and having recesses at its lower end to receive the lugs and recesses near its upper end, and a ring surrounding the upper end of the conical grate and having an inwardly projecting rib engaging the upper recesses in the conical grate, whereby the ring supports the said grate and the grate supports the ring.

1,139,659. SAW-BENCH STRUCTURE. WILLIAM R. FOX and EDGAR W. CLEVELAND, Grand Rapids, Mich.; said Cleveland assignor to said Fox. Filed Aug. 26, 1912. Serial No. 717,124. (Cl. 143—45.)



In a saw bench structure, the combination of a frame, bearing apertures in said frame, a drum journaled in said bearing apertures, said drum being adapted to retain oil, a plurality of saw arbors journaled in said drum, means for rotating said drum, means for retaining said drum in position in said bearing apertures, a central shaft in the axis of said drum, means for driving said shaft, a gear on said shaft within the said drum, and a pinion provided on each of said saw arbors meshing with said gear, all coacting substantially as described for the purpose specified.

1,139,660. HEATING APPARATUS. GEORGE W. FRANZHEIM, Pittsburgh, Pa. Filed July 9, 1914. Serial No. 850,012. (Cl. 122—229.)



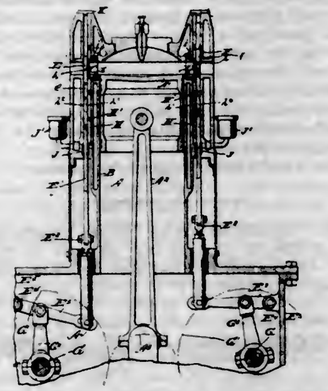
1. A heating apparatus having at its front end a furnace portion, and at its rear end a boiler portion, the furnace portion comprising a down draft grate, a lower up draft grate beneath the down draft grate and an outlet for the gases at the rear of and between the grates; the boiler portion including a water heater or boiler consisting of a heating chamber provided with hollow top and bottom walls for containing water, a battery of vertical water tubes connecting the bottom wall of the heating chamber with the top wall, and an exhaust for the gases through the rear wall of the heating chamber adjacent the top thereof arranged so the gases from the furnace will diagonally traverse the heating chamber from the bottom thereof toward the top and transversely engage the vertical water tubes, the said bottom wall lying at a level adjacent that of the lower grate.

2. A heating apparatus having at its front end a furnace portion and at its rear end a boiler portion, the furnace portion comprising a down draft grate, a lower up draft grate beneath the down draft grate and an outlet for the gases at the rear of and between the grates; the boiler portion including a water heater or boiler consisting of a heating chamber provided with hollow top and bottom walls for containing water, a battery of vertical water tubes connecting the bottom wall of the heating chamber at a point below the down draft grate, with the top wall of the heating chamber above the down draft grate and an exhaust for the gases through the rear wall of the heating chamber adjacent the top wall of the heating chamber arranged so the gases from the furnace will diagonally traverse the heating chamber and transversely engage the vertical water tubes.

1,139,661. VALVE FOR INTERNAL-COMBUSTION ENGINES. GEORGE E. FRAZER, Flint, Mich. Filed July 6, 1914. Serial No. 849,038. (Cl. 123—188.)

1. In an internal combustion engine, a sliding valve, means for actuating the valve, an adjustable plate adapted to bear against the valve having an opening registering with the gas port leading to the cylinder, resilient elements to force said plate into contact with the valve, means surrounding the opening in the adjustable plate and co-acting means surrounding the gas port connected with the cylinder respectively adapted to overlap, whereby the joints between the abutting plates and the cylinder wall are broken.

2. In an internal combustion engine, a sliding valve, means for actuating the valve, an adjustable plate adapted to bear against the valve having an opening registering with the gas port leading to the cylinder, resilient elements to force said plate into contact with the valve, rings surrounding its gas ports carried by the wall of the cylinder adapted to overlap the edge of the adjustable plate, co-acting rings located between the plate and the wall of the cylinder adapted to encircle said first named rings, and means for forcing said rings apart and in abutting contact with the adjustable plate and cylinder wall.



3. In an internal combustion engine, a reciprocating valve provided with a port designed to register with the gas port leading to the cylinder, said valve being adapted to close said cylinder port when said valve port is either above or below the gas port in the cylinder, means for actuating the valve, an adjustable plate adapted to bear against the valve having an opening registering with the gas port, means adapted to break joints between the adjustable plate and the abutting face of the cylinder wall surrounding the ports, and resilient elements to force said plate into contact with the valve.

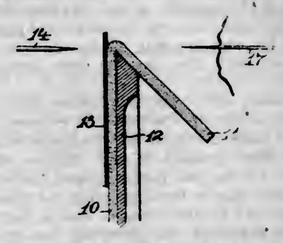
4. In an internal combustion engine, a sliding valve, means for actuating the valve, an adjustable plate adapted to bear against one face of the valve having an opening registering with the gas port leading to the cylinder and provided also with an annular recess surrounding the opening, resilient elements to force said plate into contact with the valve, means carried by the wall of the cylinder adapted to project into the recess formed in the adjustable plate, an annular ring adapted to encircle the opening in the plate located between the plate and the wall of the cylinder, and means for forcing said ring into abutting contact with the adjustable plate.

5. In an internal combustion engine, a sliding valve, means for actuating the valve, an adjustable plate adapted to bear against one face of the valve having an opening registering with the gas port communicating with the cylinder and provided also with an annular recess surrounding the opening, resilient elements to force the plate into contact with the valve, a flanged ring partially lodged in the wall of the cylinder surrounding the gas port, its projecting flange extending into the recess in the adjustable plate, whereby the joint between the wall of the cylinder and the face of the plate may be broken, a ring concentric with the flange ring adapted to bear against the face of the adjustable valve plate, and suitable resilient elements between said rings to force them apart and in respective contact with the adjustable plate and the wall of the cylinder.

[Claim 6 not printed in the Gazette.]

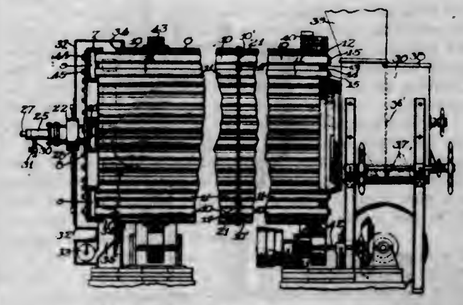
1,139,662. METHOD OF SEWING HAT-LEATHERS INTO HAT-BODIES. WELCOME P. GAMMONS, Jr., New York, N. Y.; Cordelia F. Gammons and William W. Gammons, executors of said Welcome P. Gammons, Jr., deceased, assignors to W. P. Gammons, Jr., and F. W. Cole, Inc., Wilmington, Del., a Corporation of Delaware. Filed May 3, 1913. Serial No. 765,237. (Cl. 112—34.)

1. The improved method of securing hat leathers into hat bodies consisting in placing the leather in the hat with the edge of the leather adjacent to the juncture of the crown of the hat with its brim, subjecting the leather to a puncture first through the leather toward the hat, withdrawing the punch, sewing through the body and then through the puncture in the leather when the punch is withdrawn, then advancing the hat and leather for the length of a stitch and then repeating the puncture and sewing operation described.



2. The improved method of securing hat leathers into hat bodies consisting in placing the leather in the hat with the edge of the leather adjacent to the juncture of the crown of the hat with its brim, folding the brim toward the hat, puncturing the leather toward the fold of the hat and partially into the hat body, withdrawing the punch, then sewing through the hat body and then through the perforation in the hat leather when the punch is withdrawn, then advancing the hat and leather for the length of a stitch and then repeating the puncturing and sewing operation described above.

1,139,663. DRIER. CHARLES E. GEIGER, Louisville, Ky., assignor of one-third to William E. Koop and one-third to G. Walter Fiske, Louisville, Ky. Filed Apr. 10, 1911. Serial No. 619,978. (Cl. 34—6.)



1. In a rotary steam drier, the combination with a rotary cylinder, of steam pipes within said cylinder, a manifold connected to said pipes at one end of each, means coacting with said manifold for directing the water of condensation to the axis of said manifold, a cylindrical water collection receptacle connected to rotate with the cylinder, steam pipes and manifold; a steam supply pipe extending into the manifold, a stationary casing forming a chamber around a portion of said steam pipe, and extending outside of the water collection receptacle, an open pipe communicating with the lower portion of said cylindrical collecting chamber and the said casing, and a water discharge pipe connected to the outer portion of said stationary casing.

2. In rotary steam driers, the combination with a manifold, of a stationary steam supply pipe, a stationary casing connected to said steam supply pipe to form a chamber around a portion of the same, a cylindrical receptacle into which the casing extends, partitions and passageways connected to said manifold to convey the water of condensation to said cylindrical receptacle, an open pipe connecting the lower portion of said cylindrical receptacle to said stationary casing, a water discharge pipe connected to

the outside of said stationary casing, and a ball bearing stuffing-box connecting the chamber and said casing.

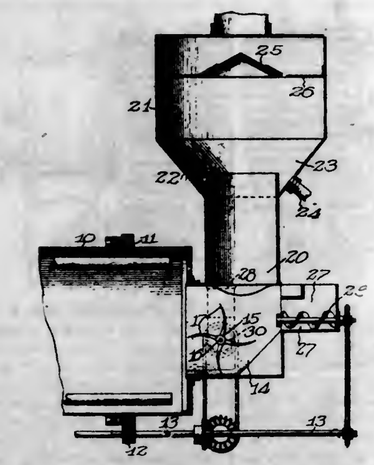
3. In a rotary drier, the combination with a rotary cylinder, of heating pipes or flues within said cylinder, a manifold secured to said flues, the flues being of different sizes radially arranged with the smaller flues nearer the axis of the cylinder, discharge openings in the cylinder near the manifold but on the side facing toward the receiving end of the cylinder, a shell for receiving the dried material from said discharge openings, and mountings for the flues at the ends opposite the manifold for permitting elongation of said flues due to their expansion when heated.

4. In a rotary drier, the combination with a rotatable cylinder, of heating pipes within said cylinder, a manifold connected to said pipes near the discharge end of the cylinder, discharge openings in the cylinder adjacent the manifold but on the side facing toward the receiving end of the cylinder, means for supporting the tubes freely at the receiving end of the cylinder, and a stationary shell inclosing the manifold and receiving the dried material discharged from said discharge openings in said cylinder.

5. In a rotary steam drier, the combination with a rotatable cylinder, of steam pipes within said cylinder, a steam manifold connected on one side to said steam pipes at one end of the cylinder with openings in the other side opposite the ends of the pipes, an annular plate for receiving loosely the opposite ends of the steam pipes, removable plugs in the last named end of said steam pipes, and removable plugs in the manifold for openings registering with the opposite ends of said pipes.

[Claims 6 to 10 not printed in the Gazette.]

1,139,664. FEEDER FOR DRYING-MACHINES. CHARLES E. GEIGER, Louisville, Ky., assignor of one-third to William E. Koop and one-third to G. Walter Fiske, Louisville, Ky. Filed Aug. 30, 1911. Serial No. 646,797. (Cl. 34—5.)



1. The combination with a drier, of a revoluble blade positively to charge material to be dried within the drier at the end thereof, said blade being formed with spaced sections to permit the egress of vapors between the sections at the same time the said material is discharged into the drier.

2. The combination with a revoluble drier, of charging means therefor, comprising a rotatable member with radial blades each comprising sections spaced apart to permit the escape of vapors when the drier is being charged.

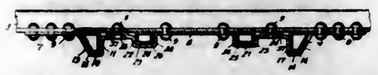
3. The combination with a revoluble drier, of charging means therefor comprising a rotatable member with sectional blades having alined and spaced sections to force the material to be dried into the drier, said member permitting vapors to escape between the sections of said blades.

4. The combination with a revoluble drier, of charging means therefor, comprising a bladed transversely rotatable member, the said blades being formed in separate alined axially spaced sections with interstices therebetween to permit the escape of gases and vapors therethrough simultaneously with the charging of the drier by said means.

5. The combination with a revoluble drier and means for driving the same, of charging means comprising a transversely rotatable bladed member each blade of which is formed with alined sections axially spaced apart to permit the escape of vapors in a direction opposite to the direction of charging, and means to connect the said member with the driving means.

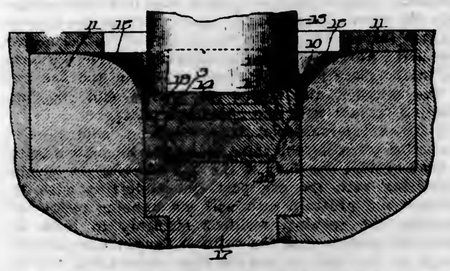
[Claims 6 to 16 not printed in the Gazette.]

1,139,665. DRAFT-RIGGING STOP MEMBER. WILLIAM A. GEIGER, Chicago, Ill., assignor to William H. Miner, Chazy, N. Y. Filed May 11, 1914. Serial No. 837,689. (Cl. 213—42.)



In a draft rigging for railway cars, the combination with a draft member, of a stop member secured thereto, said stop member having lateral offsets between its ends to provide abutments, and a filler piece in each of the openings formed between the draft member and the lateral offsets, each filler piece being provided with a flange at its upper end overlapping the edge of the stop member whereby the fillers are secured in place.

1,139,666. APPARATUS FOR MAKING RACEWAY-WALLS FOR BEARINGS. ISAAC A. GEORGE, Hamilton, Ohio. Original application filed Oct. 17, 1912, Serial No. 726,291. Divided and this application filed Sept. 20, 1913. Serial No. 790,839. (Cl. 78—60.)



1. A structure for producing race-way walls for bearings of external cylindrical formation and having tapering bores including a die having a cylindrical bore portion conforming to the external formation of the race-way wall to be formed, and a punch having a tapering portion corresponding to the bore of the race-way wall to be formed and receivable within the cylindrical bore of the die the punch and die coöperating to work upon a ring interposed therebetween to effect the flow of metal thereof into the desired shape for the race-way wall.

2. A structure for producing race-way walls for bearings of external cylindrical formation and having tapering bores including a die having a cylindrical bore portion conforming to the external formation of the race-way wall to be formed, and a punch having a tapering portion corresponding to the bore of the race-way wall to be formed and receivable within the cylindrical bore of the die, said punch also having a portion overhanging its tapering portion, these portions of the punch and die cooperating to work upon a ring interposed between the punch and die to effect the flow of metal thereof into the desired shape for the race-way wall.

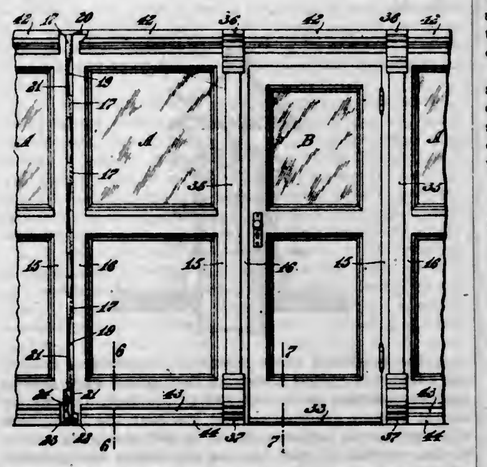
3. A structure for producing race-way walls for bearings of external cylindrical formation and having tapering bores including a die having a cylindrical bore portion conforming to the external formation of the race-way wall to be formed and receivable within the cylindrical bore of the die, this die having a seat taking part in determining the shape of the race-way wall, and a punch having a tapering portion corresponding to the bore of the race-way wall to be formed, the punch and die cooperating to work upon a ring interposed therebetween to effect the flow of metal thereof into the desired shape for the race-way wall, the end of the punch being adapted to be brought substantially to rest within the die seat.

4. A structure for producing race-way walls for bearings of external cylindrical formation and having tapering bores including a die having a cylindrical bore portion conforming to the external formation of the race-way wall to be formed, this die having a seat taking part in determining the shape of the race-way wall, and a punch having a tapering portion corresponding to the bore of the race-way wall to be formed, and receivable within the cylindrical bore of the die, said punch also having a portion overhanging its tapering portion, these portions of the punch and die coöperating to work upon a ring interposed between the punch and die to effect the flow of metal thereof into the desired shape for the race-way wall, the end of the punch being adapted to be brought substantially to rest within the die seat.

5. A structure for producing race-way walls for bearings of external cylindrical formation and having tapering bores including a die having a cylindrical bore portion conforming to the external formation of the race-way wall to be formed, and a punch having a tapering portion corresponding to the bore of the race-way wall to be formed and receivable within the cylindrical bore of the die, said punch terminating in a substantially cylindrical extension merging with the tapered portion of the punch, the punch and die coöperating to work upon a ring interposed therebetween to effect the flow of metal thereof into the desired shape for the race-way wall.

[Claims 6 to 8 not printed in the Gazette.]

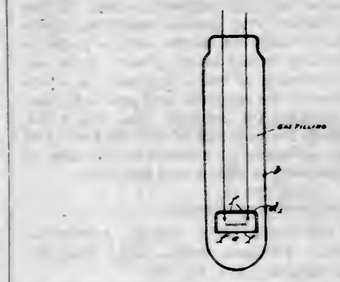
1,139,667. SECTIONAL PARTITION. ALBERT D. GERBER, Philadelphia, Pa. Filed Aug. 16, 1912. Serial No. 715,373. (Cl. 20—1.)



1. A partition structure comprising interchangeable sections, and means for securing said sections to each other and to the floor, said means consisting of a flexible wire or cable, devices engaged by said wire carried by adjoining portions of the sections, said devices carried by one section being arranged out of alinement with those carried by the other section, and devices mounted in the floor engaged by said wire.

2. A partition structure comprising interchangeable sections, a flexible wire or cable for securing said sections to each other, hooks alternately disposed out of alinement with each other on the adjoining ends of the sections and engaged by said wire, and spacing blocks mounted on the adjoining ends of the sections to form a space for said wire and hooks.

1,139,668. ELECTRICAL INCANDESCENT LAMP. HANS GERDIEN, Berlin-Schmargendorf, and MARCELLO VON PIRANI, Berlin-Wilmersdorf, Germany, assignors to Siemens & Halske A.-G., Berlin, Germany, a Corporation of Germany. Filed Feb. 16, 1915. Serial No. 8,626. (Cl. 176—16.)



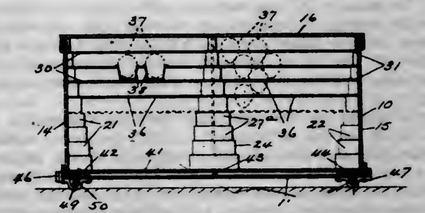
1. In an electric incandescent lamp the combination of a bulb, a gas filling, a filament mounted within said bulb, and a separating wall mounted near said filament and dividing the interior of said bulb into two spaces, said wall being adapted to permit a limited exchange of gas between said spaces.

2. In an electric incandescent lamp the combination of a bulb, a gas filling, a filament mounted within said bulb, an economizing device partly or wholly surrounding said filament, said economizing device forming a space or chamber around said filament and being adapted to permit a limited exchange of gas between said space or chamber and the remaining part of the space within said bulb.

3. In an electric incandescent lamp the combination of a bulb, a gas filling containing mercury, a filament mounted within said bulb, and a separating wall mounted above said filament and dividing the interior of said bulb into two spaces, said wall being adapted to permit a limited exchange of gas between said spaces.

4. In an electric incandescent lamp the combination of a bulb, a gas filling containing mercury, a filament mounted within said bulb, and a separating wall mounted above said filament and having openings whereby a limited exchange of gas will be permitted between the two spaces which are formed by said separating wall.

1,139,669. EGG-CRATE. THOMAS H. GIBBON, Astoria, N. Y. Filed Feb. 4, 1914. Serial No. 816,535. (Cl. 217—27.)



1. In an egg crate, a rectangular casing, a plurality of vertically disposed supports removably disposed in the casing, one at each corner and one midway of each of the

sides of the casing, all of said supports having a series of angular steps tapering from the bottom to the top thereof, and all of said supports being disposed upon a false bottom removably positioned within the casing, a plurality of trays removably supported on the angular steps of the supports one above another and each having a plurality of openings for receiving eggs and holding them at suitable distances from one another whereby the eggs are prevented from coming in contact; in combination with means comprising springs secured to the under side of the false bottom for preventing jarring the eggs when the crate is handled, and buffers secured to the corners of the bottom of the crate, substantially as shown and described.

2. In an egg crate of the character described, having a substantially rectangular casing, a bottom, and a false bottom, upright tapering stepped supports, one in each of the corners of the crate, two supports, one midway of each of the side walls thereof, said supports being disposed upon the false bottom, and said supports midway of the side walls being provided with grooves extending vertically in the side thereof adjacent to the wall, a guide on each side wall removably fitting in the groove of the adjoining support, a plurality of trays disposed one above the other on the steps of the supports, and each tray having a plurality of openings for receiving eggs, and a plurality of cups fitting in the openings of the trays so as to vary the size of the openings for accommodating eggs of various sizes, substantially as shown and described.

1,139,670. CHIN-SUPPORT FOR DEAD PERSONS. JOHN H. GILBAUGH, Portland, Oreg. Filed June 18, 1914. Serial No. 845,985. (Cl. 27—13.)



1. A device of the character specified comprising a band made of two members; means fastening the inner ends of said members together but permitting the same to be longitudinally moved over each other, for lengthening and shortening the band; the exteremities of one member being provided with lateral portions for bearing on the top of the head, the extremities of said portions being made with tooth-like projections, and the extremity of the other member being made with a plate for bearing on the chin.

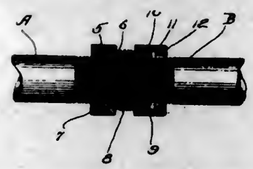
2. A device of the character specified comprising a band made of two articulated resilient members; means fastening the inner ends of said members together but permitting the same to be longitudinally moved over each other, for lengthening and shortening the band; the extremities of one member being provided with lateral portions for bearing on the top of the head, and the extremity of the other member being made with a plate for bearing on the chin.

3. A device of the character specified comprising a band made of two articulated resilient members; means holding the inner ends of said members in sliding engagement with each other, other means for locking said ends together as adjusted; the extremities of one member being provided with lateral portions for bearing on the top of the head, the extremities of said portions being made with tooth-like projections and the extremity of the other member being made with a plate for bearing on the chin.

4. A device of the character specified comprising a band made of two members; the inner end of one band being made with longitudinal slots having enlargements spaced apart; the companion inner end of the other member being made with a stud fitting said enlargements of said slots, and also having a transverse bar adapted for passing through the slot when longitudinally alined therewith.

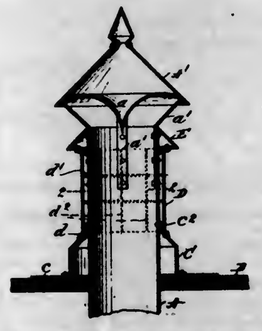
5. A device of the character specified comprising a band made of two members; the inner end of one band being made with longitudinal slots, having enlargements spaced apart, the companion inner end of the other member being made with a stud fitting the enlargements of said slots, and also having a transverse bar adapted for passing through the slot when longitudinally alined therewith; the extremities of one member being provided with lateral portions for bearing on the top of the head, the extremities of said lateral portions being made with tooth-like projections, and the extremity of the other member being made with a plate for bearing on the chin.

1,139,671. PIPE-COUPLING. JOHN N. GOODALL, Melrose, Mass. Filed Apr. 7, 1913. Serial No. 759,350. (Cl. 137—28.)



A coupling comprising a coupling sleeve having outer and inner parallel screw threaded surfaces, one end of said sleeve having a reduced diameter constituting a continuous wall having a smooth exterior, and a compression nut having an internal screw thread adapted to engage the external screw thread of said sleeve, and a smooth conical bore extending toward one end of said compression member the least diameter of said bore being less than the diameter of the smooth exterior of said sleeve and bearing on said wall at a point spaced from said external thread.

1,139,672. VENTILATOR. DANIEL P. GOSLINE, Boston, Mass. Filed Aug. 11, 1911. Serial No. 643,527. (Cl. 98—4.)



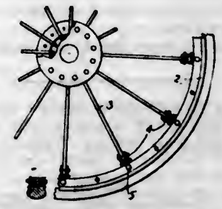
1. The ventilator above described comprising a central flue adapted to project through a roof, a base plate around said flue adapted to be attached to the roof, an annular lateral support attached to said flue near the lower part of its projecting portion and also to said base plate whereby the junction of said flue and the roof is strengthened, said lateral support forming with the outside of said flue and said base plate an air chamber, a jacket mounted on said lateral support, vertical and horizontal partitions attached to the outside of said flue and to the inside of said jacket whereby said jacket will be centered and said flue supported and air chambers will be formed between said jacket and said flue, a wind shield mounted on said jacket and extending outwardly therefrom and inwardly and upwardly to engage said flue along its upper portion whereby its upper portion is strengthened, and a hood attached to the upper portion of said flue and said wind shield.

2. In a metallic ventilator, the combination with a metal pipe forming a ventilating flue, of a metallic casing surrounding said pipe and spaced therefrom, and means within said casing for forming a series of isolated dead air spaces for insulating said pipe from the exterior atmosphere.

3. In a metallic ventilator, the combination with a metal pipe forming a ventilating flue, of a metallic casing surrounding said pipe and spaced therefrom, and longitudinal and circumferential partitions in said casing forming a series of isolated dead air spaces for insulating said pipe from the exterior atmosphere.

4. In a metallic ventilator, the combination with a metal pipe forming a ventilating flue, of a hollow metallic base section surrounding the lower part of said pipe and provided with means for attachment to a roof, a hollow metallic wind shield surrounding the upper end of said pipe, and a metallic casing surrounding said pipe intermediate said base section and wind shield and secured thereto, said base section, wind shield, and casing forming air chambers for insulating said pipe from the exterior atmosphere.

1,139,673. RESILIENT WHEEL. WILLIAM B. GRAY, Chicago, Ill. Filed Jan. 30, 1913. Serial No. 745,099. (Cl. 152—28.)



1. A wheel comprising a hub member, a rim member, spring spokes extending radially across the space between said members, one end of each spoke being secured to one of said members and free from the other member, sockets swiveled to the latter member adjacent to and embracing the free end of each spoke, each of said sockets including parts yieldable from and toward each other and yieldingly pressed against opposed faces of the corresponding spoke.

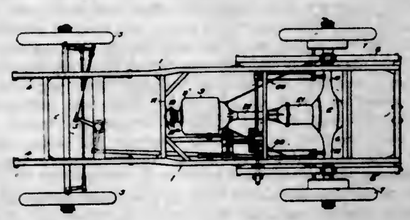
2. A wheel comprising a hub member, a rim member, spring spokes extending radially entirely across the space between the said members, one end of each spoke being secured to one of said members and socket devices swiveled on the other of said members for receiving the other ends of said spokes, each socket device including spring pressed parts yieldable from and toward each other yieldingly engaging opposed faces of the corresponding spoke.

3. A wheel comprising a hub member, a rim member, spring spokes extending radially across the space between said members, one end of each spoke being secured to one of said members and the other end being free, a socket swiveled upon the other member at and embracing the free end of each of the spokes, the sockets being in the form of U-shaped plates of spring metal having their arms pressed against opposite sides of the spokes and means cooperating with said arms to limit their spreading movements.

4. A wheel comprising a hub member, a rim member, spring spokes extending radially across the space between said members, one end of each spoke being secured to one of said members and the other end being free, a socket swiveled upon the other member at and embracing the free end of each of the spokes, the sockets being in the form of U-shaped plates of spring metal having their arms pressed against opposite sides of the spokes and a bolt passing through the arms of each socket to limit the separation of the arms.

5. A wheel comprising a hub member, a rim member, spring spokes extending radially across the space between said members, one end of each spoke being secured to one of said members and the other end being free, a socket swiveled upon the other member at and embracing the free end of each of the spokes, the sockets being in the form of U-shaped plates of spring metal having their arms pressed against opposite sides of the spokes, a bolt passing through the arms of each socket to limit the separation of the arms, and a spring associated with each of the bolts and exerting a force tending to draw the arms of the sockets together.

1,139,674. MOTOR-VEHICLE. EMIL GRUENFELDT, Cleveland, Ohio, assignor to The Baker Motor Vehicle Company, Cleveland, Ohio, a Corporation of Ohio. Filed Mar. 17, 1913. Serial No. 754,982. (Cl. 21—90.)



1. In an electric motor vehicle, the combination with a vehicle frame, a wheeled support for the front end of said frame, and a wheeled support for the rear end of said frame including a rear drive axle having a housing with live axle sections and differential mechanism incased thereby, of a ball and socket universal joint supported by said frame, an electric motor arranged entirely between said ball and socket joint and said rear axle housing, the said universal joint being arranged in alinement with the armature shaft of said motor and supporting the motor from its front end, gearing connections between the rear end of said armature shaft and said differential mechanism, a rigid support between the motor casing and said rear axle housing, whereby the motor casing and axle housing always swing together as a unitary structure, and connections between the wheeled supports at the rear end of said frame and said frame permitting free relative longitudinal movement of said frame and supports so that the propelling force for the vehicle is transmitted to the frame solely through the elements of said universal joint.

2. In an electric motor vehicle, the combination with a vehicle frame and a rear drive axle for supporting same at its rear end, said rear axle having a housing with live axle sections and differential mechanism incased thereby, of an electric motor rigidly connected to and supported at its rear end by said housing and having its armature shaft disposed longitudinally of said frame, gearing connections between the rear end of said armature shaft and said differential mechanism, a universal joint, one element of said joint being connected with the motor and arranged in alinement with the armature shaft of the motor and entirely in front thereof and the other element of said joint being rigidly connected to said frame, and connections between said rear axle housing and said frame permitting free relative movement of said housing and frame so that the propelling force for the vehicle is transmitted to the frame solely through the elements of said universal joint.

3. In a motor vehicle, the combination with a rear drive axle mechanism including a housing with live axle sections and differential mechanism incased thereby, yielding supports interposed between said housing and frame and connections between said frame and yielding supports permitting the free relative longitudinal movement of said frame and supports, of a universal joint one element of

which is rigidly secured to said frame in the vertical longitudinal plane of said differential mechanism, an electric motor arranged entirely between said universal joint and said rear axle mechanism, said motor being supported at its front end by the other element of said universal joint and having the axis of its armature shaft extending through said universal joint, a driving connection between the rear end of said armature shaft and said differential mechanism, and a rigid connection between said motor and said rear axle housing, whereby the motor casing and rear axle housing always move together as a unitary structure and the propelling force for the vehicle is transmitted to the frame solely through the elements of said universal joint.

4. In an electric motor vehicle, the combination with a vehicle frame, a wheeled support for the front end of said frame, and a wheeled support for the rear end of said frame including a rear drive axle having a housing with live axle sections and a differential mechanism incased thereby, of a universal joint one element of which is rigidly connected to said frame, an electric motor arranged entirely between said universal joint and said rear axle housing, said universal joint being arranged in alinement with the armature shaft of said motor and having its movable element supporting the motor from the front end thereof, gearing connections between the rear end of the armature shaft of said motor and said differential mechanism, and a rigid support between the motor casing and said rear axle housing whereby the motor casing and axle housing always swing together as a unitary structure.

5. In an electric motor vehicle, the combination with a vehicle frame, a wheeled support for the front end of said frame, a wheeled support for the rear end of said frame including a rear drive axle having a housing with live axle sections and differential mechanism incased thereby, and resilient supporting means interposed between said axle housing and frame and connected with said frame to permit free relative longitudinal movement between said resilient supporting means and said frame, of an electric motor rigidly connected to and supported at its rear end by said rear axle housing and having its armature shaft disposed longitudinally of said frame, gearing connections between the rear end of said armature shaft and said differential mechanism, and a universal joint, one element of which supports said motor at its front end, and the other element of which is rigidly connected to said frame so that the propelling force for the vehicle is transmitted to the frame solely through the elements of said universal joint and said motor and rear axle always swing together relative to said frame as a unitary structure.

[Claims 6 to 21 not printed in the Gazette.]

1,139,675. HEAD WEARING-APPAREL. MARY FRANCES HARRIS and WILLIAM DABNEY LEWIS, Carthage, Ill. Filed Dec. 1, 1913. Serial No. 803,868. (Cl. 2—118.)



1. A cap or hood for receiving the entire head and face and having an opening in its front through which the eyes, nose and mouth may be exposed, a mouth tab extending from one side of said opening adapted to be swung across the mouth, means for securing said tab in closed position across the mouth, and means for securing said tab in open position away from the mouth.

2. A cap or hood for receiving the entire head and face and having a front opening through which the eyes, nose and mouth may be exposed, mouth tabs extending from the opposite edges of said opening and adapted to be swung laterally to over-lapping engagement with each other and across the mouth, and means for securing the tabs in such closed position.

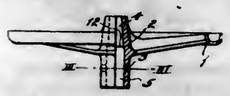
3. A cap or hood for receiving the entire head and face and having an opening in its front through which the eyes, nose and mouth may be exposed, mouth tabs secured to the opposite lateral edges of said opening, said tabs being adapted to be swung downwardly away from the mouth, means to secure said tabs in such position, said tabs being adapted to be swung laterally across the mouth, and means for holding the tabs in this lateral position.

4. A cap or hood for receiving the entire head and face and having an opening in its front through which the eyes, nose and mouth may be exposed, mouth tabs secured to the opposed lateral edges of said opening and each having button receiving means at its end, buttons on said hood below said opening to which the tabs may be secured when in open position to expose the mouth, and buttons adjacent the sides of said opening to which the tabs may be secured when swung across the mouth.

5. A cap or hood for receiving the entire head and face and having a front opening, a vizor hinged to said cap or hood along the front edge of said opening and adapted to be swung to upper position outside of the hood and above the eyes and to be swung into lower position across the eyes, and means for securing said vizor in its upper position and said same means serving to secure the vizor in its lower position.

[Claims 6 to 8 not printed in the Gazette.]

1,139,676. HAND-BRAKE WHEEL. FREDERICK J. HARBISON and WILLIAM J. KNOX, Dubois, Pa. Filed Nov. 14, 1914. Serial No. 872,081. (Cl. 74—33.)

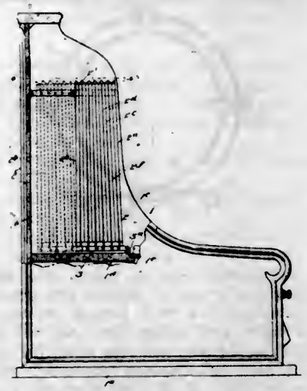


1. In combination, a brake wheel comprising a rim and a hub portion, the said hub portion having a shaft receiving perforation with its upper portion tapering and angular in cross section to fit the upper tapered and angular end of a round brake shaft, and with its lower portion of uniform angular cross section to fit the upper end of a brake shaft angular in cross section, each of the side walls of the said lower portion being recessed on a curve intermediate the corners of said lower portion.

2. In combination, a brake wheel comprising a rim and a hub portion, the said hub portion having a shaft receiving perforation with one part tapered and square in cross section to fit the tapered and squared end of a round brake shaft, and with another part untapered and of square cross section to fit the end of a brake shaft quare in cross section, the portion of the hub having the untapered part of the perforation being transversely perforated to receive a member for holding the wheel against upward movement, and a shoulder being provided at the intersection of the two parts of the said perforation.

1,139,677. FILING APPLIANCE. HARRY J. HICK, Alliance, Ohio, assignor, by mesne assignments, to The McCaskey Register Company, (incorporated in 1914,) Alliance, Ohio, a Corporation of Ohio. Filed Feb. 13, 1913. Serial No. 748,145. (Cl. 45—2.)

1. In a filing appliance, the combination with a casing having sides, of a set of holders having a support at its front end in the casing, pivotal connections between the holders permitting them to swing relatively to each other, and a normally rigid supporting member projecting laterally from one side of said casing and arranged to be engaged by the rear end holder, the said member being adjustable forward and rearward and coöperating with the front end support to sustain the set of holders normally in upright position and permitting the rear end holder to move vertically with respect to said supporting member as any of the remaining holders are operated.



2. In a filing appliance, the combination of a casing having sides, a set of holders having connections between them permitting the holders to swing relatively to each other, means for supporting the front end holder of the set of holders in the casing, a device for supporting and guiding the rear end holder, and means adjustable forward and rearward for supporting the said device in fixed relation in the casing.

3. In a filing appliance, the combination of a casing having sides, a set of holders having connections between them permitting the holders to swing relatively to each other, means for supporting the front end holder of the set of holders in the casing, and means for guiding and supporting the rear end holder, the said means comprising a horizontal bar arranged between the set of holders and one side of the casing, a supporting member, and means permitting adjustment of said member along said bar.

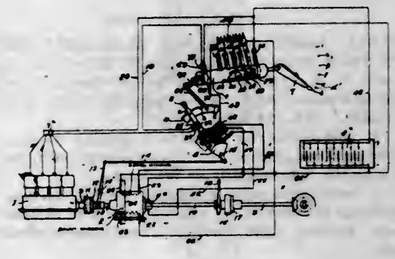
4. In a filing appliance, the combination of a casing having sides, a set of holders having connections between them permitting the holders to swing relatively to each other, means for supporting the front end holder of the set of holders in the casing, and means for guiding and supporting the rear end holder, the said means comprising a horizontal bar arranged between the set of holders and one side of the casing, and formed with a series of openings, and a supporting member arranged to be removably mounted in any one of said openings, the said openings permitting the said member to be adjusted along the bar.

5. The combination of a casing, a set of holders having connections between them permitting said holders to swing relatively to each other, the connections between two of said holders being detachable, means for supporting the front end holder of the set of holders in the casing, a normally rigid member for supporting and vertically guiding the rear end holder of the set of holders, and means for adjustably supporting said member, the said adjustable supporting means coöperating with the detachable connections between two of the holders to permit the number of holders in the set to be increased or diminished.

[Claims 6 to 10 not printed in the Gazette.]

1,139,678. MOTOR-CAR DRIVE SYSTEM. HARRY F. HITNER, Mount Vernon, Ohio. Filed Nov. 10, 1913. Serial No. 800,034. (Cl. 171—315.)

1. In combination in a mixed drive, a drive shaft, a compound wound motor dynamo having its armature in driving engagement with the drive shaft, an explosion engine, a clutch for connecting the engine with the drive shaft, a storage battery and controller in the dynamo motor series circuit, and a shifting member arranged to control the said circuit and the clutch, said shifting member in one position causing driving engagement of the clutch and leaving the circuit unbroken, and in another position throwing the clutch out of driving engagement but still leaving the circuit unbroken as in the first position, and in a third position maintaining the clutch out of engagement but shifting the direction of the current through the armature so that the motor dynamo runs backward.



2. In combination in a mixed drive for a vehicle, a drive shaft connected with the wheels of the vehicle, a compound wound motor dynamo having its armature in driving engagement with the drive shaft, an explosion engine, a clutch for connecting the engine with the drive shaft, a storage battery and controller in the dynamo motor series circuit, and a shifting member arranged to control the said circuit and the clutch, said shifting member in one position causing driving engagement of the clutch and leaving the circuit unbroken and under the control of the controller with the current from the battery driving the motor dynamo and the vehicle forward, and in another position throwing the clutch out of driving engagement and reversing the direction of current through the armature so that the motor dynamo runs backward driving the vehicle backward.

3. In combination in a mixed drive, a drive shaft, a compound wound motor dynamo having its armature in driving engagement with the drive shaft, an explosion engine a clutch for connecting the engine with the drive shaft, a storage battery and controller in the dynamo motor series circuit, an electric igniter adapted to be operated from the battery, and a shifting member arranged to control the said circuit the clutch and the application of current to the igniter, said shifting member in one position causing driving engagement of the clutch and leaving the motor dynamo circuit and igniter circuit unbroken, and in another position breaking the igniter circuit and throwing the clutch out of driving engagement, but still leaving the motor dynamo circuit unbroken as in the first position.

4. In combination in a mixed drive, a drive shaft, a compound wound motor dynamo having its armature in driving engagement with the drive shaft, an explosion engine, a clutch for connecting the engine with the drive shaft, a storage battery and controller in the dynamo motor series circuit, and a shifting member arranged to control the said circuit and the clutch, said shifting member in one position causing driving engagement of the clutch and leaving the circuit unbroken and under the control of the controller, in another position throwing the clutch out of driving engagement but still leaving the circuit unbroken as in the first position, and in a third position maintaining the clutch out of engagement but shifting the direction of the current through the armature so that the motor dynamo runs backward, and interlocking means whereby a shift from the second to the third position is prevented until the controller is moved to neutral position.

3. In combination in a mixed drive, a drive shaft, a compound wound motor dynamo having its armature in driving engagement with the drive shaft, an explosion engine, a clutch for connecting the engine with the drive shaft, a storage battery and controller in the dynamo motor series circuit, a shifting member arranged to control the said circuit and the clutch, said shifting member in one position causing driving engagement of the clutch and leaving the circuit unbroken and under the control of the controller, and in another position throwing the clutch out of driving engagement but still leaving the circuit unbroken as in the first position, and a second independently operable clutch in the drive between the said armature and the drive shaft.

1,139,679. RESTORATIVE FOR BLEMISHED MOVING-PICTURE FILMS. FREDERICK W. HOCHSTETTER, New York, N. Y., assignor to Paul M. Pierson, Scarboro-on-the-Hudson, N. Y. Filed Nov. 20, 1912. Serial No. 732,465. (Cl. 134—1.)

1. A restorative for blemished moving picture films consisting of petrolatum, spirits of camphor, sulfuric ether, and glycerin, substantially as set forth.

2. A restorative for blemished moving picture films comprising petrolatum six ounces, spirits of camphor two ounces, sulfuric ether one-half ounce, and glycerin one ounce.

1,139,680. RESTORATIVE FOR BLEMISHED MOVING-PICTURE FILMS. FREDERICK W. HOCHSTETTER, New York, N. Y., assignor to Paul M. Pierson, Scarboro-on-the-Hudson, N. Y. Filed May 27, 1913. Serial No. 770,177. (Cl. 134—1.)

1. The herein described restorative for blemished moving picture films comprising in combination, a fatty base, camphor, alcohol, sulfuric ether, and glycerin, substantially as set forth.

2. The herein described restorative for moving picture films comprising in the following proportions, a fatty base six ounces, camphor five drams, alcohol two ounces, sulfuric ether one-half ounce, and glycerin one ounce, substantially as described.

1,139,681. RESTORATIVE FOR BLEMISHED MOVING-PICTURE FILMS. FREDERICK W. HOCHSTETTER, New York, N. Y., assignor to Paul M. Pierson, Scarboro-on-the-Hudson, N. Y. Filed June 4, 1913. Serial No. 771,689. (Cl. 134—1.)

1. The herein described restorative for moving picture films comprising in combination, an oil, spirits of camphor, sulfuric ether, and glycerin, substantially as set forth.

2. The herein described restorative for moving picture films comprising an oil six ounces, spirits of camphor two ounces, sulfuric ether one-half ounce, and glycerin one ounce, substantially as described.

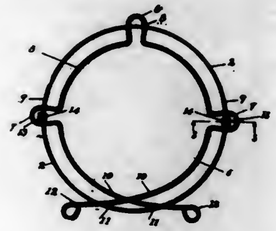
1,139,682. COMPOSITION OF MATTER FOR RESTORING THE PICTURES ON FILMS. FREDERICK W. HOCHSTETTER, New York, N. Y., assignor to Paul M. Pierson, Scarboro-on-the-Hudson, N. Y. Filed Oct. 7, 1913. Serial No. 793,892. (Cl. 134—1.)

A restorative for moving picture films comprising a fatty base six ounces, and alcohol two ounces, substantially as described and for the purpose specified.

1,139,683. COMPOSITION OF MATTER FOR RESTORING THE PICTURES ON FILMS. FREDERICK W. HOCHSTETTER, New York, N. Y., assignor to Paul M. Pierson, Scarboro-on-the-Hudson, N. Y. Filed Oct. 7, 1913. Serial No. 793,933. (Cl. 134—1.)

A restorative for moving picture films comprising a fatty base six ounces, and sulfuric ether one ounce, substantially as described and for the purpose specified.

1,139,684. GLOBE-HOLDER. FREDERICK J. HUMPHREY, Kalamazoo, Mich., assignor to General Gas Light Company, Kalamazoo, Mich. Filed June 24, 1914. Serial No. 847,108. (Cl. 240—115.)



1. The combination with the collar of a light fixture having a rear slot, a pair of opposed side slots and front slots, of a contractive ring formed of wire disposed within the collar and having side and rear supporting loops engaged in the side and rear slots, the ends of the ring being crossed and disposed tangentially through the front slots, the length of the side slots being greater than the width of the side loops permitting lateral and longitudinal movement of the side loops in the side slots as the ring contracts and expands, the ends of the ring being held normally in engagement with the outer ends of the front slots and the side loops against the front ends of the side slots by the contraction of the ring, and retaining members carried by the collar disposed through the loops and engaging the side slots for sliding movement therein.

2. The combination with the collar of a light fixture having a rear slot and a pair of opposed side slots, of a ring formed of wire disposed within the collar and having side and rear supporting loops engaged in the side and rear slots, the length of the side slots being greater than the width of the side loops permitting lateral and longitudinal movement of the side loops in the side slots as the ring contracts and expands, and retaining members carried by the collar disposed through the loops and engaging the side slots for sliding movement therein.

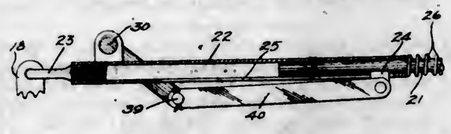
3. The combination with the collar of a light fixture having a slot therein, of a supporting ring formed of wire having a loop therein disposed in the slot for lateral and longitudinal movement in the slot, and a retaining member formed of a strip of metal folded upon itself to provide a cross head at one end arranged through the slot between the arms of the loop, the ends of the retaining member being folded in opposite directions against the side of the collar whereby it is retained in the slot for sliding movement therein, the rotative movement of the retaining member in the slot being limited by the loop.

4. The combination with the collar of a light fixture having a slot therein, of a supporting ring formed of wire having a loop therein disposed in the slot, and a retaining member formed of a strip of metal folded upon itself to provide a cross head at one end arranged through the slot with its cross-head between the arms of the loop, the ends of the retaining member being folded against the side of the collar whereby it is slidably retained in the slot and so as to permit its lateral movement with the lateral movement of the loop.

5. The combination with the collar of a light fixture having a slot therein, of a supporting ring formed of wire having a loop therein disposed in the slot, and a retaining member provided with a cross head at one end arranged through the slot with its cross head between the arms of the loop the end of the retaining member being turned laterally on the other side of the collar whereby it is slidably retained in the slot and so as to permit its lateral movement with the lateral movement of the loop.

[Claims 6 and 7 not printed in the Gazette.]

1,139,685. CONTROLLING MECHANISM FOR THROTTLE-VALVES. FRANK E. JUDD, Windom, Minn. Filed Sept. 8, 1914. Serial No. 860,503. (Cl. 137—4.)

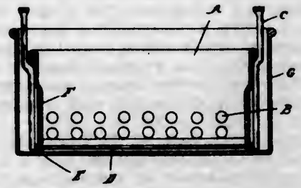


1. The combination with the throttle valve of an explosive engine, said valve having a crank, of a hand-controlled rod having a crank, a longitudinally extensible connection between said two cranks, a spring tending to hold said connection extended, and a foot controlled device for actuating said throttle valve independently of said hand-controlled rod.

2. The combination with the crank-equipped throttle valve of an explosive engine, of a hand-controlled rod having a crank, a longitudinally extensible connection between said two cranks, a spring tending to hold said connections extended, and a foot-controlled device operative on said connection to contract the same, against the tension of said spring, and thereby actuate said throttle valve independently of said hand-controlled rod.

3. The combination with the crank-equipped throttle valve of an explosive engine, of a hand-controlled rod having a crank, a connecting rod comprising telescopically-connected primary and secondary sections, the primary section of said rod being secured to the crank of said throttle valve, the secondary section of said rod being secured to the crank of said hand controlled rod, a spring tending to separate the sections of said rod, and a foot-controlled device, operative on the primary section of said rod, to move the same against the tension of said spring and thereby actuate said throttle valve, independently of said hand-controlled rod.

1,139,686. APPARATUS FOR REMOVING TARNISH FROM METALS. MARSHALL H. KEYT, Chicago, Ill. Filed Feb. 14, 1913. Serial No. 748,340. (Cl. 204—7.)



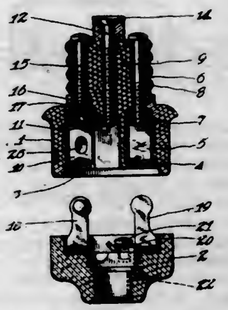
1. An apparatus for cleaning and removing tarnish from metals, comprising a basket or contaner formed of an electro-positive metal, the bottom of said basket being detachable and formed of a flat plate of the same metal, and means integral with said container for locking said plate from accidental disengagement.

2. An apparatus for cleaning and removing tarnish from metals, comprising a basket or container having ledges or shoulders extending inward therefrom, and a detachable bottom plate resting upon said ledges or shoulders, both elements being formed of the same electro-positive metal.

3. An apparatus for cleaning and removing tarnish from metals, comprising a basket or container having perforated side walls and ledges or shoulders extending inward therefrom, a perforated bottom plate resting upon said ledges or shoulders, and a spring clip struck up from a portion of the side for retaining said bottom plate from disengagement, all being formed of the same electro-positive metal.

4. An apparatus for cleaning and removing tarnish from metals, comprising a basket or container having perforated sides with inwardly extending ledges or shoulders, handles secured to and extending upward beyond said sides, a detachable bottom plate resting upon said ledges or shoulders, and spring clips struck out from the opposite sides for holding said bottom plate from accidental disengagement.

1,139,687. SEPARABLE CIRCUIT DEVICE. CHARLES J. KLEIN, Milwaukee, Wis., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed Jan. 11, 1912. Serial No. 670,572. (Cl. 173—343.)



1. In combination a multipart circuit device, one part having a rigid contact and the other having a resilient contact to coöperate therewith, one of said contacts having a substantially conical projection and the other having a recess to receive said projection for alining said contacts when brought together and for releasably locking said parts against separation.

2. A multipart circuit device, one part having a longitudinally disposed recess therein, a pair of resilient contact fingers mounted in said recess, one of said fingers having an opening and the other part having a pair of longitudinally projecting rigid contact fingers, one of said rigid fingers having a conical projection thereon, said rigid contact fingers fitting over said resilient contact fingers and compressing the same and said conical projection entering said opening in one of said resilient fingers to hold the parts together, said recess being larger than said contact fingers whereby separation of the parts is permitted either by an axial pull or by leverage.

3. A multi-part circuit device, one part having parallel spring fingers adapted to yield laterally and the other having rigid parallel fingers adapted to slide over said spring fingers, coöperating fingers being provided with a yielding lock comprising a projection on one adapted to enter a recess in the other, said projection tending by its engagement with the recessed portion of its coöperating finger to aline all of said fingers.

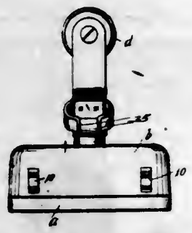
4. A two part circuit device, one part being provided with a pair of parallel yielding contacts having inturned portions at their extremities offset with respect to each other and the other part being provided with a pair of parallel rigid contacts adapted to be plugged onto said yielding contacts and compress the same.

1,139,688. SAD-IRON SUPPORT. JOSEPH F. LAMB, New Britain, Conn., assignor to Landers, Frary & Clark, New Britain, Conn., a Corporation of Connecticut. Filed Feb. 17, 1914. Serial No. 819,189. (Cl. 68—27.)

1. The combination with an electrical sad iron including a cover and a handle, of a support therefor comprising a pair of spaced supporting members secured to the end of said cover, a protective socket secured to said handle with its ends outturned and projecting rearwardly of the iron to constitute a third supporting member which is above the first mentioned supporting members and located at a position approximately midway between them.

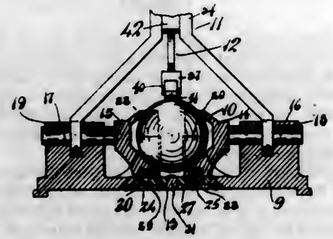
2. The combination with a sad iron including the main body of the iron, a heat-insulated cover therefor and a

handle, of supports spaced from one another and secured at the end of said cover, said supports each comprising a strip of metal bent to U-shape, the ends thereof being



riveted in apertures in the cover, and a third support arranged above and approximately midway between the first mentioned supports.

1,139,689. GOLF-BALL MARKER. JESSE D. LYON, Cincinnati, Ohio. Filed Jan. 31, 1914. Serial No. 815,584. (Cl. 101—83.)



1. In a marking device the combination of a base, a die-operating mechanism pivoted upon the base, a die, means for mounting the die upon the operating mechanism in a plane which crosses the axis of rotation of the operating mechanism, and clamps upon the base adapted coincidentally to bring the center of the article to be marked into the axis of rotation of the operative mechanism and the plane of the die.

2. In a marking device the combination of a base, a die-operating mechanism pivoted upon the base, a die, means for mounting the die upon the operating mechanism in a plane at right angles to the axis of rotation of the operating mechanism, and clamps upon the base adapted coincidentally to bring the center of the article to be marked into the axis of rotation of the operative mechanism and the plane of the die.

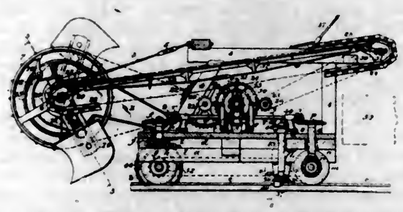
3. In a ball marking device the combination of a base, two longitudinal pivot shafts upon the base, a die-operating mechanism journaled upon the pivot shafts, a clamping jaw mounted reciprocally upon each pivot shaft, a die mounted upon the operating mechanism, and a handle adapted to reciprocate the jaws upon the pivot shafts.

4. In a ball marking device the combination of a base, two longitudinal pivot shafts upon the base, a die-operating mechanism journaled upon the pivot shafts, a clamping jaw mounted reciprocally upon each pivot shaft, each jaw being flared so as to bring the diameters of balls of varying sizes into alinement with the axis of the pivot shafts when the ball is clamped between the jaws, a die mounted upon the operating mechanism, and a handle adapted to reciprocate the jaws upon the pivot shafts.

5. In a ball marking device the combination of a base, two longitudinal pivot shafts upon the base, a die-operating mechanism journaled upon the pivot shafts, a clamping jaw mounted reciprocally upon each pivot shaft, a die mounted upon the operating mechanism in a plane at right angles to the axis of the pivot shafts, and a handle adapted to reciprocate the jaws upon the pivot shafts.

[Claims 6 and 7 not printed in the Gazette.]

1,139,690. EXCAVATING-MACHINE. HENRY MCDERMOTT, Iron Mountain, Mich., assignor to McDermott Mechanical Company, Iron Mountain, Mich., a Corporation of Michigan. Filed July 5, 1913. Serial No. 570,263. Renewed Sept. 4, 1913. Serial No. 788,160. (Cl. 214—10.)



1. In an excavating machine the combination of angularly movable members, means for swinging said members back and forth, a scoop carried by and movable radially with respect to said members, and relatively fixed guides adapted to direct and hold said scoop in a path of longer radius during its advance than its return angular movement.

2. In an excavating machine the combination of pivotally mounted members having radially disposed parallel guide ways, slides mounted on said guide ways, a scoop pivotally connected at the sides with said slides, relatively fixed guides engaging projections from said slides and adapted to direct and hold said scoop in a path of longer radius during its advance than its return angular movement, and a flexible connection between the scoop and a part of the machine capable of swinging therewith and nearer the axis around which said pivoted members swing.

3. In an excavating machine the combination of a laterally swinging support, vertically swinging members mounted on said support, a scoop carried by said members and movable radially toward and from the axis around which they swing, means for guiding and holding said scoop in a path of longer radius during its advance and in a path of shorter radius during its return by the angular movement of its carrying members, means for swinging the scoop with its carrying members vertically, and means for swinging the same with said support horizontally.

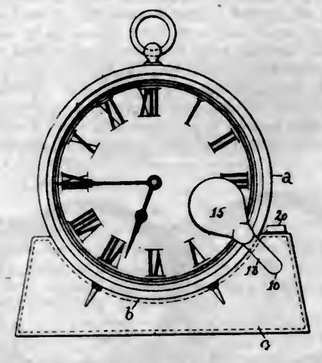
4. In an excavating machine the combination of a carriage, means for advancing said carriage, a horizontally swinging support mounted on said carriage, means for swinging said support, vertically swinging members pivotally mounted on said support, a scoop carried by said members and movable radially with relation to their pivotal axis, means for swinging said members with the scoop vertically, and means for guiding and holding said scoop in a path of longer radius during its advance and in a path of shorter radius during its return movement with said vertically swinging members.

5. In an excavating machine the combination of a carriage, a conveyer mounted thereon, a bucket movable from a position below to a position over the front end of the conveyer, guides mounted on said carriage and having advance ways adapted to direct the bucket forward, upward and backward into dumping position over the conveyer, and return ways arranged to direct the bucket in its return movement in a path behind that of its advance movement, and means for actuating said bucket.

[Claims 6 to 16 not printed in the Gazette.]

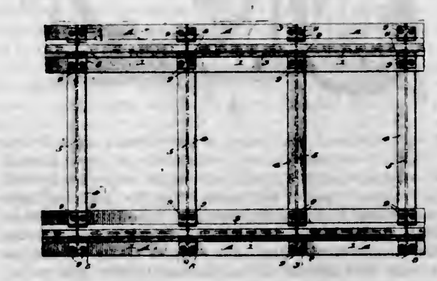
1,139,691. LAMP. GEORGE D. MCPHAIL, Boston, Mass. Filed Mar. 24, 1914. Serial No. 826,983. (Cl. 240—2.)

A lamp for an alarm clock, comprising a hollow base for containing an illuminant and provided with a concavity in its upper surface for the reception of the clock, and having a wick tube extended upwardly away from said base, and a reflector coöperating with the free end of said



wick tube and adapted to throw the light upon the face of the clock supported by the said base.

1,139,692. ROAD-BED. SHERMAN MAHURIN, Rockford, Ill. Filed Feb. 2, 1914. Serial No. 815,986. (Cl. 238—5.)

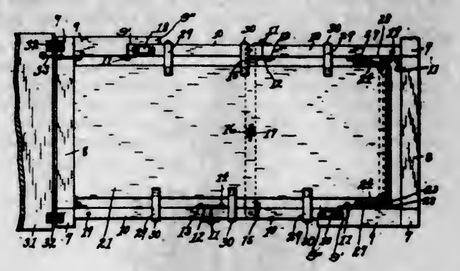


1. The combination of a plurality of stringers and ties consisting of a bearing surface and web, the webs of the stringers and ties adapted to enter the ground, the webs of the stringers being of less length than the bearing surfaces for forming recesses in which the ties are received for supporting the stringers, rails mounted on the stringers, and means passing through the bearing surfaces of the stringers and ties for fastening the rails thereto and locking the stringers and ties together.

2. The combination of a plurality of stringers and ties consisting of a bearing surface and web, the webs of the stringers and ties adapted to enter the ground, the webs of the stringers being of less length than the bearing surfaces for forming recesses at the ends, the bearing surface of the ties received in the recesses of adjacent stringers, and the bearing surfaces of the stringers resting on the ties, rails on the stringers, clamps engaging the rails, and means passing through the bearing surfaces of the ties and stringers and through the clamps for fastening them together.

1,139,693. CONVERTIBLE BENCH. OSCAR F. MALMBERG, Chicago, Ill. Filed Apr. 24, 1913. Serial No. 763,273. (Cl. 5—5.)

1. In a device of the kind described, the combination of a frame having rigid end portions and foldable side rails, each side rail comprising three pivotally connected sections, one section of each rail being rigidly connected to the adjacent end portion; a catch at the pivotal point between two of the sections in each side portion locking such members in alining relation; and an extension on one member in each side portion extending beyond the pivotal point of such member and its next adjacent member and engaging one side of the latter, substantially as described.



2. In a device of the class described, a pair of transverse end members each provided with a pair of legs, a side rail section rigidly connected to each of said end members and upon opposite sides of the device, a pair of hingedly connected side rail sections hingedly connected at one end to the respective first mentioned sections and at the other end to the opposite end members, the hinges being arranged to permit said sections to fold inwardly, catches adapted to rigidly connect the upper edges of the last mentioned sections at points adjacent the ends connected to said first mentioned sections and points adjacent said end members respectively and pivotally mounted bars on the lower edges of the end members adapted to connect the same when the device is in folded position, substantially as described.

3. In a device of the class described, a pair of transverse end members each provided with a pair of legs, a side rail section rigidly connected to each of said end members and upon opposite sides of the device, with its upper and lower edges in the same plane with the upper and lower edges of said end members respectively, a pair of hingedly connected side rail sections hingedly connected at one end to the respective first mentioned sections and at the other end to the opposite end members, with their upper edges in a plane below that of the upper edges of the first mentioned sections and their lower edges in a plane above the lower edges of said first mentioned sections, the hinges being arranged to permit said sections to fold inwardly, catches adapted to rigidly connect the upper edges of the last mentioned sections and points adjacent the ends connected to said first mentioned sections and points adjacent said end members respectively, pivotally mounted bars on the lower edges of the end members adapted to connect the same when the device is in folded position, and a seat portion hingedly connected to one of said end members, substantially as described.

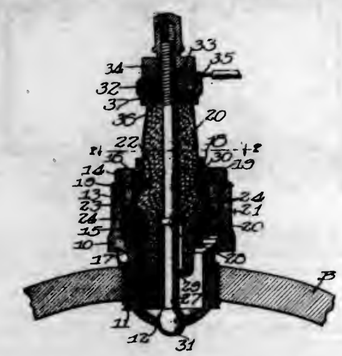
1,139,694. SPARK-PLUG. WILLIAM M. MARRAN, Belvidere, Ill., assignor of one-half to Willis S. Brown, Belvidere, Ill. Filed Sept. 29, 1911. Serial No. 651,945. (Cl. 123—169.)

1. In a device of the class described, the combination of an electrode, an insulating sleeve with an enlargement inclosing said electrode, a metallic shell threaded on the inside and surrounding the sleeve, adjustable means in the ends of the shell to secure and position the sleeve in the shell, and means adapted to be secured in the wall of a combustion chamber for supporting the shell and forming the second electrode for the device.

2. A sparking device comprising an electrode, an insulating sleeve with an outside enlargement and inclosing said electrode, a metal shell threaded on the inside and surrounding said sleeve, adjustable means for engaging the enlargement at both sides and for adjusting the position of the sleeve and the electrode with respect to the shell, and means to secure the shell to the wall of a combustion chamber and to form a second electrode.

3. A sparking device comprising an electrode, an insulating sleeve with an outside enlargement and inclosing

said electrode, a metal shell threaded on the inside at both ends and surrounding the said enlargement, adjustable members threaded in the ends of the shell and engaging both sides of the enlargement to position the sleeve in the shell, and an outer metallic casing to receive the shell and to form the other electrode for the sparking device.



4. In a sparking device the combination with an outer casing having a central aperture therein at one end, of a threaded shell adapted to screw into and abut said casing, an electrode having a tip adapted to be positioned in proximity to the said aperture, an insulating sleeve inclosing the electrode, and means carried by said shell for engaging said sleeve and for adjusting it in said shell whereby the electrode may be positioned with respect to the casing which forms the second electrode.

5. In a device of the class described the combination with a casing adapted to be positioned in communication with a combustion chamber, formed with a central aperture at one end and threaded internally at the other end, of a shell externally and internally threaded and adapted to fit within the casing and having a shouldered end to abut the said casing, an electrode having a tip smaller than the said aperture, an insulating sleeve in which said electrode is mounted and having an enlarged portion adapted to be inserted in the shell, members threaded to fit inside the shell and to be moved against the enlarged portion on both sides to position the sleeve and the tip with respect to the aperture in the casing.

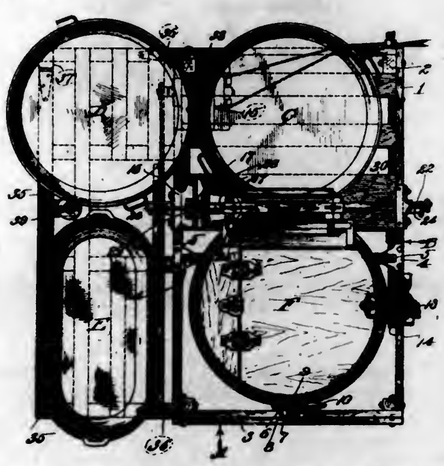
[Claims 6 to 14 not printed in the Gazette.]

1,139,695. GEARING. CHARLES J. MARTH, St. Louis, Mo., assignor to Wayne Manufacturing Company, St. Louis, Mo., a Corporation of Missouri. Filed July 24, 1912. Serial No. 711,246. (Cl. 74—59.)

1. A device of the character described comprising a main support, a drive shaft supported by said support, a vertical sleeve attached to said support, an upright shaft journaled in said sleeve at right angles to said drive shaft and extending above said sleeve, gearing whereby said upright shaft may be rotated in either direction by the continuous rotation of the drive shaft in one direction, a frame bearing upon said sleeve and having one end pivoted upon said upright shaft, a plurality of upright elements mounted on said support at equal distances from said upright shaft, means for interlocking said frame with said elements, a shaft mounted in said frame, and gearing for driving said last named shaft from said upright shaft, substantially as described.

2. In a device of the character described, a support, a drive shaft carried by said support, a frame pivoted above said support, a plurality of elements mounted on said support at equal distances from the pivot of said frame, means for locking said frame in engagement with said elements, respectively, a shaft in said frame, and means for driving said shaft in either direction by the constant rotation of said drive shaft in one direction, substantially as described.

3. In a device of the character described, the combination of a stationary support, a frame pivotally supported above said stationary support, a shaft in said frame, a plurality of upright elements mounted on said stationary support at equal distances from the pivot of said frame, means for locking said frame in engagement with said upright elements, respectively, a support pivoted to said stationary support, an element on said pivoted support also engageable by said locking means, and means for driving the shaft in said frame from said drive shaft in whatever position said frame may be adjusted, substantially as described.



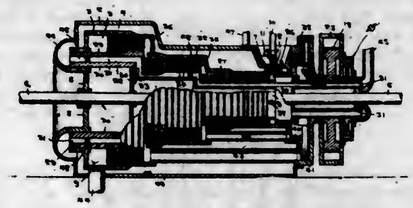
4. In a device of the character described, a main frame, a drive shaft mounted on said main frame, a frame pivoted above said main frame, upright elements supported by said main frame at equal distances from the pivot of said pivoted frame, an upright element movable into and out of position to be locked in engagement with said pivoted frame, means for locking said pivoted frame in engagement with said upright elements, respectively, mechanism in said pivoted frame, and means for driving said mechanism from said drive shaft in whatever position said pivoted frame and said mechanism may be adjusted.

5. In a device of the character described, a main support, a drive shaft supported by said support, an upright shaft mounted on said support at right angles to said drive shaft, gearing whereby said upright shaft may be rotated in either direction by the continuous rotation of the drive shaft in one direction, a frame pivoted on said upright shaft, a plurality of upright elements mounted on said support at equal distances from said upright shaft, an element movable to and from an upright position, means for interlocking said frame with said first-named elements, respectively, and with said last-named element when the latter is upright, a shaft in said frame, and gearing for driving said last-named shaft from said upright shaft, substantially as described.

[Claims 6 to 12 not printed in the Gazette.]

1,139,696. GAS TURBINE-ENGINE. ERASTUS M. MAXWELL and JAMES F. MAXWELL, Cardinal, Va. Filed July 3, 1914. Serial No. 848,821. (Cl. 123—9.)

1. A gas turbine engine, comprising a double-walled casing in successively enlarged sections, the outer wall being backturned and overlapping the inner wall, and said walls forming a water-chamber therebetween, and a double-walled rotor in successively enlarged sections mounted within said casing, the said rotor sections matching the sections of the casing and the ends of the rotor walls seated between the end of the inner wall of said casing and the backturned portion of the outer wall of said casing, said double walls of said rotor forming a water chamber therebetween directly and continuously communicating with the water chamber in said casing.



2. A turbine gas engine comprising a rotative shaft, a plurality of rotor supports rigidly mounted upon said shaft, a rotor rigidly mounted upon said supports, an auxiliary wall to said rotor forming a water chamber therebetween, a casing to said rotor having one end backturned inside of the end of said rotor with a support attachment loosely mounted upon said snaft, and an interior auxiliary wall to said casing forming a water chamber therebetween, said last mentioned water chamber directly and continuously communicating with said first mentioned water chamber.

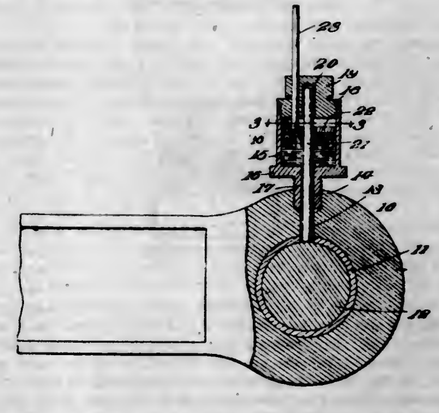
3. A gas turbine engine, comprising a rotative shaft, a rotor rigidly mounted upon said shaft and adapted to rotate said shaft having successively enlarged sections, a spaced auxiliary wall to said rotor having correspondingly successively enlarged sections forming a water chamber therebetween, said successively enlarged sections adapted to force water forwardly under centrifugal action derived from the rotation of the rotor, a casing having the end backturned inside of the end of the rotor, and an auxiliary wall to said casing forming a water chamber therebetween, said last mentioned water chamber directly and continuously communicating with said first mentioned water chamber to receive the flow of water therefrom.

4. A turbine gas engine comprising a rigid casing having a rigid internal water chamber, and a rotor having an internal water chamber rotating with said rotor with successively enlarged sections to force water forwardly under centrifugal action, when said rotor is rotated, said water chamber of the rotor directly and continuously communicating with and feeding water to the water chamber of said casing.

5. A turbine gas engine comprising a casing having a water chamber therein, one end of said casing being backturned, a rotative shaft, a rotor mounted upon said shaft within the confines of said casing having an internal water chamber with successively enlarged sections, said water chamber directly and continuously communicating with said water chamber of said casing by means of the backturned end of said casing, and said rotor being in spaced relationship to said casing, blades arranged upon said rotor in said space, blades arranged upon said casing in said space and alternating with the blades upon the rotor, a combustion chamber communicating with said space, safety controlled supply means to inject fuel into said combustion chamber, safety controlled supply means to inject air into said combustion chamber, safety controlled supply means to inject steam into said combustion chamber, and firing means within said combustion chamber adapted to continuously fire said injected fuel, air and steam, said firing forcing the burned gases by said blades to rotate said rotor, and the rotation of said rotor forcing water from the water chamber in said rotor to the water chamber in said casing through centrifugal action derived from the enlarged sections of the water chamber of the rotor.

1,139,697. AUTOMATIC LUBRICATOR. AUGUSTUS MERTSHEIMER, Salt Lake City, Utah. Filed June 2, 1914. Serial No. 842,485. (Cl. 184—98.)

1. A lubricator including a cup arranged upon a bearing and adapted to have communication with the journal engaged by the bearing, a thermostatic element mounted in said cup and arranged to contact with the journal, a cap fitting within the cutter extremity of the cup and closing the cup, the said cap being provided with a head and having a recess formed therein extending into the head, the said recess freely receiving and entirely inclosing the adjacent upper extremity of said thermostatic element whereby the said cap will receive and tend to retain within the cup, heat communicated thereto and rising through the said thermostatic element, and a second thermostatic element surrounding said first mentioned element and longitudinally movable thereon.



2. A lubricator including a cup arranged upon a bearing and adapted to have communication with the journal engaged by the bearing, a thermostatic element mounted in said cup, said element including a rod having slidable connection with the cup and arranged to contact with said journal, a cap carried by the cup, said cap being recessed to receive the adjacent extremity of said rod and providing a guide therefor, and a lubricant indicator mounted for vertical movement within the cup, said indicator being slidably mounted upon said rod and having slidable connection with said cap.

3. A lubricator including a cup arranged upon a bearing and adapted to have communication with the journal engaged by the bearing, a rod detachably connected with the cup, said rod being arranged to contact with the journal and disposed to extend through the cup to project exteriorly thereof, a cap carried by the cup and having free connection with said rod, said cap being adapted to form a housing for the projecting extremity of the rod and providing a guide therefor, and a lubricant indicator slidably mounted within the cup and having slidable connection with said cap.

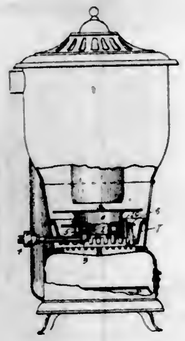
4. A lubricator including a cup arranged upon a bearing and adapted to have communication with the journal engaged by the bearing, a thermostatic element disposed to extend within the cup and arranged to contact with the journal, a guide for the outer extremity of said element, said guide forming a closure for the cup and a housing for the outer extremity of said element, and a lubricant indicator arranged for vertical movement within the cup and having slidable connection with said element, said indicator including a rod projecting normally exteriorly of the cup and having slidable connection with said guide.

5. A lubricator including a cup arranged upon a bearing and adapted to have communication with the journal engaged by the bearing, a thermostatic element having free connection with the cup, said element including a rod arranged to contact with the journal and disposed to extend within the cup, a cap carried by the cup, and a lubricant indicator detachably connected to the cup, said indicator including a disk arranged for vertical movement within the cup and having an aperture formed therein to receive said

rod, and a rod having detachable connection with said disk and arranged to extend through said cap, said rod projecting normally exteriorly of the cap.

[Claims 6 to 13 not printed in the Gazette.]

1,139,698. GAS-BURNER. ALFRED H. MERRILL, Adrian, Mich. Filed Sept. 11, 1914. Serial No. 861,188. (Cl. 158—108.)



1. In a device of the described character, a member providing a gas-chamber having a gas supply inlet and an outlet orifice, there being a combustion chamber into which said orifice leads, and an air-tube supported in front of said orifice, there being a second combustion chamber in communication with the combustion chamber first mentioned and into which said tube leads.

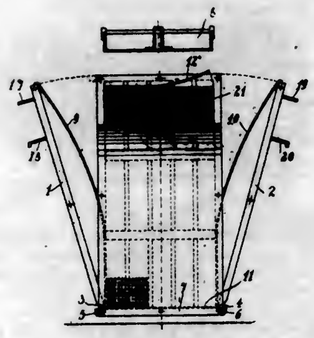
2. In a device of the described character, a hollow member whose chamber has a gas inlet and a series of discharge orifices, means which provide a primary combustion chamber and a secondary combustion chamber in communication with each other, and a series of air-tubes leading to the secondary combustion chamber and supported in the path of gases issuing from said orifices.

3. In a device of the described character, a gas-conduit terminating in a discharge orifice, members which provide a primary combustion chamber and a supplemental combustion chamber, an air-tube disposed in said primary combustion chamber and leading into said supplemental chamber, the arrangement being such that air passing through said tube is heated by the combustion of gases in said primary chamber and mingles with the products of combustion in said supplemental chamber.

4. A device of the described character, comprising a hollow ring having a gas inlet and discharge orifices, a fire-pot, a flange on the ring having its edge close to the fire-pot, said ring, fire-pot and flange forming a lower combustion-chamber, members which together with said flange and fire-pot form an upper combustion-chamber, the top of said upper combustion chamber being close to the fire-pot, and a series of air-tubes disposed in the path of gases issuing from said orifices and leading into said upper combustion chamber.

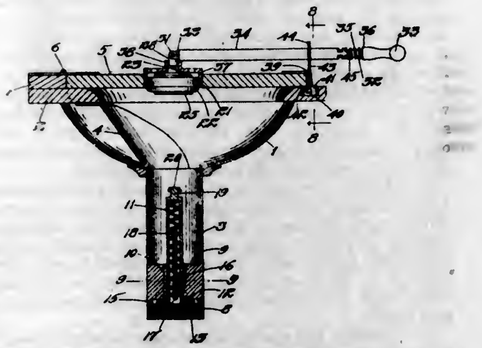
1,139,699. MOLD FOR FORMING BLOCKS OF CORK. FRIEDRICH RUDOLF METZ and EMIL HORNSTEIN, Mödling, near Vienna, Austria-Hungary, assignors to the Firm of Aktiengesellschaft für patentierte Korksteinfabrikation und Korkstein-Bauten vormals Kleiner & Bokmayer, Vienna, Austria-Hungary. Original application filed May 14, 1912, Serial No. 697,313. Divided and this application filed July 3, 1913. Serial No. 777,140. (Cl. 18—34.)

A knockdown or collapsible mold for forming blocks composed of comminuted cork and an adhesive binding material, said mold comprising walls readily separable one from another; flexible lining strips for lining the inner surfaces of said walls, said flexible lining strips being susceptible of being readily torn from the hardened molded



block; and a perforate wall through the perforations in which flows the binding material into and from the mold.

1,139,700. WATER-CLOSET FOR YACHTS AND OTHER SMALL BOATS. PHILIP E. MONROE, Weymouth, Mass. Filed July 14, 1914. Serial No. 850,908. (Cl. 4—16.)



1. In a water closet for use on boats, a bowl, a discharge pipe leading from said bowl, a valve controlling the discharge opening of the said pipe and a piston normally above the entrance to said pipe but adapted and arranged to descend through the bowl into said pipe, closing it and forcing the contents of it past said valve.

2. In a water closet for use on boats, a bowl, a discharge pipe connected with the bowl, a valve controlling the discharge opening of the said pipe, a support above the bowl, and a piston mounted on the said support normally out of engagement with the said pipe but adapted and arranged to descend through the bowl into the pipe closing it and forcing the contents of the pipe past the said valve.

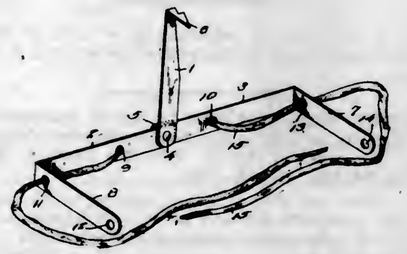
3. In a water closet for use on boats, a bowl and seat, a discharge pipe connected with the bowl, a valve controlling the discharge opening of the said pipe, a cover for the bowl and seat, a piston mounted on the said cover normally out of engagement with the said pipe but located over it and adapted and arranged to descend into the pipe closing it and forcing the contents of the pipe past the said valve.

4. In a water closet for use on boats, a bowl, a discharge pipe connected with the bottom of the bowl, a valve controlling the discharge opening of the said pipe, a support above the bowl, a piston, a hinged piston rod mounted on the said support and normally lying parallel therewith, said piston being normally out of engagement with the said pipe but located over it and adapted and arranged to descend through the bowl into the pipe closing it and forcing the contents of the pipe past the said valve.

5. In a water closet for use on small yachts and other boats, a bowl, a discharge pipe connected with the bottom of the bowl, a valve which normally closes the outlet of said pipe, a piston which has a sliding fit in said pipe but which is normally above the entrance to said pipe, means for moving said piston down through the bowl into the pipe, and means whereby the downward movement of the said piston within the pipe opens the valve which controls the outlet.

[Claims 6 to 25 not printed in the Gazette.]

1,139,701. BROOM-BRIDLE. RICHARD W. MORGAN, Sunbury, Pa., assignor of one-half to A. W. Vogel, Sunbury, Pa. Filed May 27, 1914. Serial No. 841,227. (Cl. 15—23.)

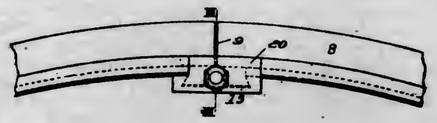


1. A broom bridle comprising a plurality of pivotally connected members, and a binding cord, the ends of said pivoted members turned at right angles to the same adapted to be inserted into and through a broom and held in place by said binding cord passing through openings in two of said members and around the broom.

2. A broom bridle comprising a vertical and two transverse members pivotally connected at their ends, said members having their free ends turned at right angles to the same, the vertical member adapted to engage the side of a broom, and the transverse members adapted to pass through a broom, a binding cord passing through openings in the transverse members and around the broom.

3. A broom bridle comprising a plurality of members pivotally connected at their ends arranged in an inverted T shape, the vertical member adapted to engage the side of the broom, and the transverse members adapted to pass through a broom, a binding cord passing around the broom and through openings in the transverse members.

1,139,702. VEHICLE WHEEL-RIM. EDMUND QUINCY MOSES, New York, N. Y., assignor, by mesne assignments, to The B. F. Goodrich Company, a Corporation of New York. Filed Apr. 21, 1910. Serial No. 556,693. (Cl. 152—21.)



1. In a vehicle wheel rim, in combination, a tire-seating member, a split detachable flange mounted thereon, a locking piece comprising a pair of wedges and a connecting portion, for drawing the ends of said flange together, said locking piece being movable from inoperative to operative position in a plane approximately perpendicular to a radius of the rim drawn to the point where the flange is split, and means for positively securing said locking piece in operative position, said locking piece when secured in such position holding the ends of the flange drawn together.

2. In a vehicle wheel rim, in combination, a slotted tire seating member, a split detachable flange mounted on said member and having at its ends lugs projecting through the slotted portion of said member, a locking piece comprising a pair of wedges and a connecting portion engaging said lugs, and a bolt whose axis is substantially parallel to the tire seating surface of said rim for securing said locking piece in position.

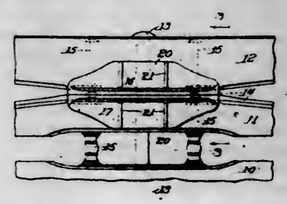
3. In a vehicle wheel rim, in combination, a slotted tire seating member, a split tire retaining flange mounted on said member and provided with lugs projecting through the slotted portion of said member and a laterally applied locking piece for securing said lugs together, said locking piece comprising a plurality of lug engaging members connected by a web located beneath the ends of said lugs, said locking piece when in unlocking position being substantially parallel to the lateral face of the rim.

4. In a vehicle wheel rim, in combination, a slotted tire seating member, a split tire retaining flange mounted on said member and provided with lugs projecting through the slotted portion of said member, and a locking piece for engaging and drawing together said lugs, said locking piece comprising a back having projecting therefrom a pair of wedges, the wedging surfaces of which face each other and diverge toward their free ends, and a web passing under the ends of said lugs connecting said wedges, said locking piece when in unlocking position being substantially parallel to the lateral face of the rim.

5. In a vehicle wheel rim, in combination, a slotted tire seating member, a split tire retaining flange mounted upon said member and provided with lugs passing through the slotted portion of said member, and a locking piece for securing said lugs together, said locking piece comprising a back having projecting therefrom a pair of lug engaging members, and a bolt arranged substantially parallel with the tire seating surface of said rim for securing said locking piece in position, said bolt passing through an opening in the back of said locking piece and between said lugs.

[Claims 6 to 15 not printed in the Gazette.]

1,139,703. FIFTH-WHEEL. JAMES A. MOXEY, Chicago, Ill., assignor to International Harvester Corporation, a Corporation of New Jersey. Filed Oct. 24, 1913. Serial No. 797,039. (Cl. 21—24.)



1. In a vehicle, a bolster, a sandboard, wearing plates for the adjacent surfaces thereof, and an upper and a lower wheel member coöperating with the surfaces of said wearing plates to form a fifth wheel.

2. In a vehicle, a bolster, a sandboard, wearing plates for the adjacent surfaces thereof, and an upper and a lower wheel member extending between said bolster and sandboard to either side thereof and forming smooth bearing surfaces with said wearing plates.

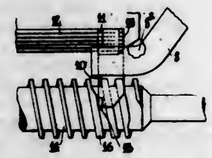
3. In a vehicle, a bolster, a sandboard, wearing plates for the adjacent surfaces thereof, and an upper and a lower wheel member extending between said bolster and sandboard to either side thereof and forming smooth bearing surfaces with said wearing plates and held in position by said wearing plates.

4. In a vehicle, a bolster, a sandboard, wearing plates therefor, fastening means for said wearing plates, and a fifth wheel held in place by said fastening means.

5. In a vehicle, a bolster, a sandboard, wearing plates therefor, a king bolt, bolts at either side of said king bolt for holding the wearing plates in position, and a fifth wheel held in place by said bolts.

[Claims 6 to 17 not printed in the Gazette.]

1,139,704. DISTRIBUTING MECHANISM OF TYPOGRAPHICAL COMPOSING AND CASTING MACHINES. CARL MUEHLEISEN, Berlin, Germany, assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed July 23, 1914. Serial No. 852,542. (Cl. 199—7.)



1. In the distributing mechanism of a typographical composing and casting machine, the combination with a pair of guide rails adapted to support matrices by engaging under their upper lugs, matrices which, when so supported, unless prevented from so doing, would hang in an oblique position, a distributer rail adapted to receive matrices from the guide rails and suspend them by their distributing teeth, and means adapted to propel matrices along the said guide rails and distributer rail, of a means adapted to keep the matrices in a substantially vertical position during the time at which they are suspended from the guide rails.

2. In the distributing mechanism of a typographical composing and casting machine, the combination with a pair of guide rails adapted to support matrices by engaging under their upper lugs, matrices which, when so supported, unless prevented from so doing, would hang in an oblique position, distributing teeth on the matrices, a distributer rail having ribs for the engagement therewith of the distributing teeth of the matrices and distributer screws adapted to propel matrices along the guide rails and distributer rail, of means to engage the matrices and keep them in a substantially vertical position during the time at which they are suspended from the guide rails.

3. In the distributing mechanism of a typographical composing and casting machine, the combination with a pair of guide rails adapted to support matrices by engaging under their upper lugs, matrices which, when so supported, unless prevented from so doing, would hang in an oblique position, distributing teeth on the matrices, a distributer rail having ribs for the engagement therewith of the distributing teeth of the matrices, a distributer screw adapted, by engagement with their upper lugs, to propel matrices along the guide rails and distributer rail, of a distributer screw adapted to engage one of the lower lugs of each such matrix, said screw having its thread thickened at the part which engages such lower lug during the time at which the upper lugs are traveling over the guide rails.

4. In the distributing mechanism of a typographical composing and casting machine, the combination with matrices adapted to be propelled through the distributing mechanism, of a distributer screw adapted to so propel the matrices, having part of its thread at its receiving end of one thickness and the remaining part of its thread of less thickness.

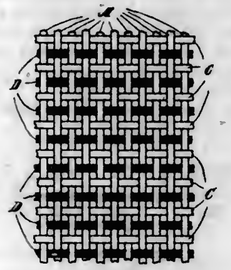
5. In the distributing mechanism of a typographical composing and casting machine, the combination with matrices adapted to be propelled through the distributing mechanism, of a distributer screw adapted to so propel the matrices, having part of its groove at its receiving end of one width and the remaining part of its groove of a greater width.

[Claims 6 to 8 not printed in the Gazette.]

1,139,705. TEXTILE FABRIC. FRANK G. MURCH, Methuen, Mass. Filed Jan. 2, 1915. Serial No. 317. (Cl. 139—9.)

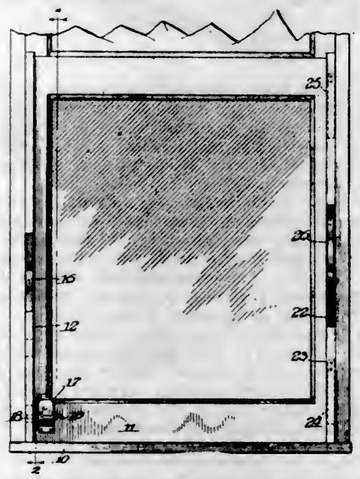
1. A woven fabric consisting of a warp of two ply cotton threads and a weft having alternate picks of mohair and of artificial silk.

2. A woven fabric consisting of a warp of cotton threads and a weft having picks of mohair alternating with picks of artificial silk.



3. A woven fabric consisting of a warp of cotton threads and a weft having picks of mohair and of silky fiber.

1,139,706. SASH-FASTENER. ALFRED H. NEWPHER, Chicago, Ill., assignor to The Adams & Westlake Company, a Corporation of Illinois. Filed May 22, 1914. Serial No. 840,200. (Cl. 16—119.)



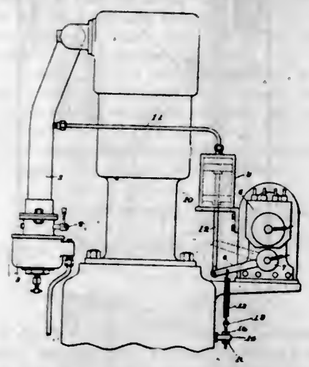
1. In a window, in combination, a casing having stops, the inner face of one of the stops having recesses decreasing in depth downwardly, a sash slidable between the stops, and a reciprocable bolt carried by the sash and adapted to project into the recesses, an inwardly bowing spring secured at its upper end within one of the recesses, the lower end of the spring forming an abrupt shoulder.

2. In a window, in combination, a casing having stops, the inner face of one of the stops having recesses decreasing in depth downwardly, a sash slidable between the stops, and a reciprocable bolt carried by the sash and adapted to project into the recesses, and a downwardly facing spring supported shoulder secured within one of the recesses.

1,139,707. IGNITION-TIMING DEVICE FOR INTERNAL-COMBUSTION MOTORS. WILLIAM E. NICKERSON, Cambridge, Mass., assignor to Everett D. Chadwick, trustee, Winchester, Mass. Filed May 1, 1913. Serial No. 764,805. (Cl. 123—117.)

1. In an internal combustion motor having a cylinder and an intake passage leading thereto, the combination with means for igniting the explosive mixtnre in the cylinder of means controlled by the intake suction for timing the ignition.

2. In an internal combustion motor having a cylinder and an intake passage leading thereto, the combination with means for igniting the explosive mixture in the cylinder of means controlled by the intake suction for advancing the ignition as the suction increases and retarding the ignition as the suction diminishes.

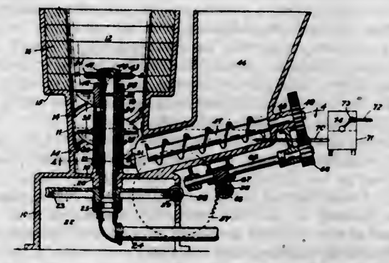


3. In an internal combustion motor having a cylinder and an intake passage leading thereto, the combination with means for igniting the explosion mixture in the cylinder of a suction-operated device subjected to the intake suction and movable thereby in one direction, means for moving said device in the opposite direction, and means operated by said device for timing the ignition.

4. In an internal combustion motor having a cylinder and an intake passage leading thereto, the combination with means for igniting the explosive mixture in the cylinder of a supplementary cylinder containing a piston and provided with a passage connecting it to said intake passage, means tending to move said piston in opposition to the suction developed in the supplementary cylinder, and means operated by said piston for timing, the ignition.

5. In an internal combustion motor having a cylinder and an intake passage leading thereto, the combination with an ignition device and a timer therefor of a supplementary cylinder containing a piston and provided with a passage connecting it to the intake passage of the motor, connections between said piston and the timer for moving the latter in one direction, and a spring for moving said timer in the opposite direction.

1,139,708. FUEL-FEEDING APPARATUS. ROBERT NIEDERGESAESS, Seattle, Wash., assignor to American Smokeless Burner Company, a Corporation of Washington. Filed Jan. 15, 1914. Serial No. 812,254. (Cl. 110—45.)



1. In a fuel-feeding device, the combination of a vertically arranged fuel-receptacle provided with means for moving the fuel progressively toward the top thereof, of a fuel-supply hopper associated with said receptacle provided with an opening communicating with the bottom of said fuel-receptacle, and means to supply a liquid to said receptacle to seal said opening and means to maintain said liquid at a predetermined level.

2. In a fuel-feeding device, the combination of a vertically arranged fuel-receptacle provided with means for moving the fuel progressively toward the top thereof, of a fuel-supply hopper associated with said receptacle provided with an opening communicating with the bottom of said fuel-receptacle, and means to supply a liquid to said receptacle to seal said opening.

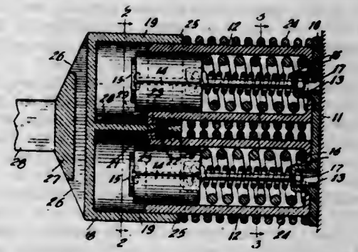
3. In a fuel-feeding device, the combination of a vertically arranged fuel-receptacle, a lifting screw therein, of a fuel-supply hopper associated with said receptacle provided with an opening communicating with the bottom of said fuel-receptacle, a feed-screw in the bottom of said hopper, means to actuate said screws in unison, and means to supply a liquid to said receptacle to seal said opening and means to maintain said liquid at a predetermined level.

4. In a fuel-feeding device, the combination of a vertically arranged fuel-receptacle, provided with means for moving the fuel progressively toward the top thereof, of a fuel-supply hopper associated with said receptacle provided with an opening communicating with the bottom of said fuel-receptacle, a feed-screw in the bottom of said hopper, means to actuate said screw, and means to supply a liquid to said receptacle to seal said opening.

5. In a fuel-feeding device, the combination of a vertically arranged fuel-receptacle, an air-supply pipe rotatably mounted in said receptacle, a burner head rotatable with said supply pipe having laterally directed openings for the discharge of air from said supply pipe and a concentric lifting screw rotatably mounted in said receptacle, a fuel supply hopper, a communicative passage between said hopper and the bottom of said receptacle, a feed-screw in said passage, and means to rotate said supply-pipe and said screws.

[Claims 6 to 12 not printed in the Gazette.]

1,139,709. BUFFING MECHANISM. JOHN F. O'CONNOR, Chicago, Ill., assignor to William H. Miner, Chicago, Ill. Filed Feb. 28, 1914. Serial No. 821,667. (Cl. 213—39.)



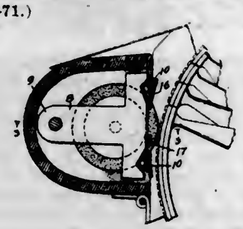
1. A buffing mechanism including, in combination: two sets of twin arranged telescoped casings; springs normally tending to separate said casings; and a key in engagement with all of said casings and preventing separation thereof, substantially as specified.

2. In a shock absorbing device of the character described, in combination: a plate having a pair of integral bosses formed thereon; twin arranged combined friction shells and spring casings mounted on said plate, each of said combined shells and casings having a perforated inner end fitting over one of said bosses; springs and friction mechanism within each of said friction shells and casings; a connecting bolt extending through each friction mechanism and the corresponding boss; and a member for engaging and operating said friction mechanism, substantially as specified.

3. In a device of the character described, in combination: a pair of separable friction shells arranged in twin; friction mechanism and springs within each of said shells; and a member telescoped over both of said shells, said member having twin arranged portions corresponding in shape and size to the shape and size of the shells and thereby assisting in maintaining said shell in proper position, substantially as specified.

4. A buffing mechanism including in combination: twin arranged friction shells; friction devices and springs within each of said shells; a member having two integral cylindrical portions arranged in twin and telescoping over the ends of said casings; and detachable means for preventing accidental separation of said member from said shells, substantially as specified.

1,139,710. INK-ROLLS FOR PRINTING-MACHINES. EDMUND OCUMPAUGH, Rochester, N. Y., assignor to Defiance Machine Company, Rochester, N. Y., a Corporation of New York. Filed Nov. 19, 1913. Serial No. 801,779. (Cl. 101—71.)



1. In combination with a plurality of independently rotatable type wheels, an ink roll for each wheel, an independent spring for each roll, and a case adjustable with respect to said type wheels in which said ink rolls are reciprocatively supported.

2. In combination with a plurality of independently rotatable type wheels, an ink roll for each wheel, a case or housing for said ink rolls, and ink roll supports yieldingly carrying said ink rolls adjustably secured within said case whereby the same housing and supports may be used for various lengths of ink rolls.

3. In combination with a plurality of independently rotatable type wheels, an ink roll for each wheel, a hinged case for said rolls, shafts upon which said rolls are mounted, adjustable supports for said shafts, a spring within each support, each acting upon one end of one of said shafts and means to adjust the position of said case to regulate the pressure of said springs upon said shafts and of the rolls upon said type wheels.

4. In combination with a check printing machine, an ink roll carrying case hinged to the frame of the machine, ink rolls yieldingly carried in said case, type wheels in the machine but outside said case, a slotted latch pivoted to the frame, a thumb screw carried by the case engaging said latch and extending through the slot therein for holding the case in various positions whereby the ink rolls may be moved toward or away from said type wheels and caused to engage therewith with varying pressures.

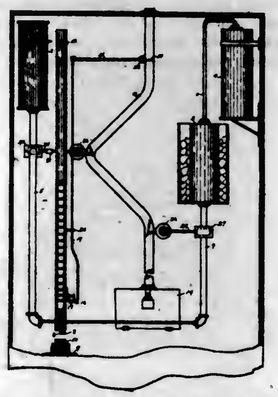
5. In an inking device for printing machines the combination with a casing, of a plurality of ink roll supports mounted within said casing, means for securing the supports at any position along the casing, ink roll shafts extending between said supports and yieldingly supported therein, and ink rolls journaled on said shafts.

[Claims 6 to 11 not printed in the Gazette.]

1,139,711. VENDING-MACHINE. CARLTON N. OGDEN, Houston, Tex. Filed Aug. 13, 1914. Serial No. 856,587. (Cl. 194—2.)

1. A vending machine embodying a casing, a coin chute supported therein, a cup container therein provided to contain cups; a platform underneath the container; a mechanism for retaining said cups in said container, a means actuated by the coin passing through said chute for releasing said retaining mechanism, and simultaneously forcing the lower cup onto the platform.

2. A vending machine embodying a casing; a coin chute supported therein; a cup container in the casing provided to contain cups; a platform underneath the container; a mechanism for retaining said cups in said container; a means actuated by the coin passing through said chute for releasing said retaining mechanism; and simultaneously forcing said cups singly from the container onto said platform.



3. A vending machine embodying a casing, a coin chute supported therein; a tubular cup container supported vertically in the casing and provided to contain cups, a platform supported by the casing and arranged to receive the cups from said container; a mechanism for retaining said cups in said container; a means actuated by a coin passing through said chute for releasing said retaining mechanism and simultaneously therewith forcing a single cup from the container on to the platform.

4. A vending machine embodying a casing; a coin chute supported therein; a tubular cup container fixed in the casing and provided to contain cups which are discharged from the lower end thereof, a receiving platform underneath the container; a trigger engaging with the lower cup; a mechanism actuated by the coin passing through said chute for releasing said trigger and simultaneously forcing the lower cup on to the platform; a latch actuated by said mechanism and securing the next succeeding cup in the container while the lower cup is being discharged therefrom.

1,139,712. EXPANSION-BOLT. HENRY G. OSBORNE, Brooklyn, N. Y. Filed July 1, 1913. Serial No. 776,746. (Cl. 85—2.4.)



1. The combination in an expansion bolt of, a tapered nut, a tapered collar, expansible members engaged by said nut and collar, a longitudinally extending bridle frame adapted to hold the anchor parts in assembled relation, and a bolt coacting with the nut and bridle frame to expand the anchor on parallel lines, said bridle frame being engaged with said collar and adapted on the screwing inwardly of the bolt to force said collar between the rear ends of said expansible members.

2. The combination in an expansion bolt of, a tapered nut, a tapered collar, a bolt, separable shell members adapted to be expanded by the said nut and collar, and a bridle frame having a transverse portion for engagement with the end of the bolt and side portions adapted to be expanded by the shell members as said shell members are separated by the nut and collar.

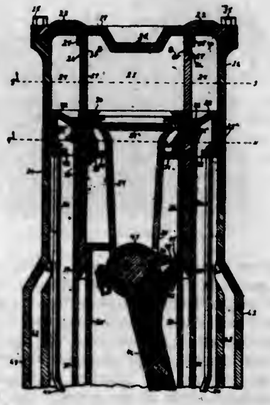
3. The combination in an expansion bolt of, a threaded bolt, a wedge shaped collar loosely mounted on the bolt, a wedge shaped nut for engagement with the threaded portion of said bolt, lugs projecting forward of the body portion of said nut for abutment against the bottom of the hole, shell members adapted to be separated by said collar and nut, and a bridle frame having a narrow central transverse portion for engagement with the forward end of the bolt, parallel curvilinear sides partially enveloping and adapted to be separated by the shell members, the free ends of said bridle frame forming hooks for engagement with the wedge collar.

4. The combination in an expansion bolt of, a nut, a collar, shell members coacting with said nut and collar, a bridle frame having a central transverse portion for engagement with the end of a bolt, side members terminating in hooks for engagement with the collar, and means to expand the shells as the bolt advances.

5. The combination in an expansion bolt of, a plurality of expansible members adapted to be expanded by wedges, a bridle frame coacting with the end of a bolt and a nut, and means permitting the bolt to advance with respect to the expansible members as the anchor is expanded.

[Claims 6 and 7 not printed in the Gazette.]

1,139,713. INTERNAL-COMBUSTION ENGINE. WILLIAM H. OSTERMAN, Fonda, Iowa. Filed May 7, 1913. Serial No. 766,201. (Cl. 123—65.)



1. An internal combustion engine, comprising a crank case, a crank shaft journaled therein, concentric cylinders communicating with said crank case, concentric piston members arranged for reciprocation in said cylinders, driving connections between said crank shaft and piston, and a muffling chamber concentric with and communicating from the outer cylinder.

2. An internal combustion engine, comprising a crank case, a crank shaft journaled therein, a cylinder communicating with said crank case, a divisible piston in said cylinder, a cylinder arranged concentric with and outside of said first cylinder, a divisible piston of annular form in the outer cylinder, connections between said pistons, and driving connections between the innermost piston and the crank shaft.

3. An internal combustion engine, comprising a crank case, a crank shaft journaled therein, a cylinder communicating with said crank case, a divisible piston in said cylinder, a cylinder concentric with and outside of the first cylinder, a divisible piston of annular form in the latter cylinder, rigid connections between the innermost sections of the respective pistons, and driving connections between the innermost piston section and the crank shaft.

4. An internal combustion engine, comprising a crank case, a crank shaft journaled therein, a cylinder communicating with said crank case, a divisible piston in said cylinder, a cylinder concentric with and outside of the first cylinder, a divisible piston of annular form in the latter cylinder, rigid connections between the innermost sections of the respective pistons, yielding connections between the innermost and outermost piston sections, driving connections between the innermost piston section and the crank shaft, and means connected with said driving connections for varying the speed of the outermost piston section.

5. An internal combustion engine, comprising a crank case, a crank shaft journaled therein, a cylinder communicating with said crank case, a divisible piston in said cylinder, a cylinder concentric with and outside of the first cylinder, a divisible piston of annular form in the latter cylinder, rigid connections between the innermost sections of the respective pistons, yielding connections between the innermost and outermost piston sections, driving connections between the innermost piston section and the crank shaft, means connected with said driving connections for varying the speed of the outermost piston section, and separate means connected with said driving connections for varying the speed of the outermost section of the inner piston.

[Claims 6 to 11 not printed in the Gazette.]

1,139,714. FRUIT-GRADER. GEORGE D. PARKER, Riverside, Cal. Filed July 21, 1914. Serial No. 852,240. (Cl. 130—32.)



1. An apparatus of the described class, comprising a supporting frame, a stationary guide member supported thereby, rotatably mounted rolls positioned adjacent the longitudinal side edges of said guide member, means for rotating said rolls in a direction toward said stationary guide member, adjustable grader members carried by said supporting frame and extending longitudinally of said rolls in spaced relation, said grader members overlying the sides of the stationary guide member and coöperating therewith to provide a fruit runway of variable width, and an endless conveyer projecting into said fruit runway between the rolls and said grader members for conveying the fruit longitudinally of said runways.

2. An apparatus of the described class, comprising a supporting frame, a stationary guide member supported thereby, a pair of rotatably mounted rolls of substantially the same diameter from end to end, one positioned adjacent each longitudinal side edge of said guide member, and therebelow means for rotating said rolls in a direction toward said stationary guide member, grader members carried by said supporting frame and extending longitudinally of each side edge of said stationary guide in spaced relation to said rolls, said members consisting of a plurality of independently adjustable sections, an endless conveyer supported by said frame, and conveyer fingers carried by said conveyer at spaced intervals and adapted for extending between said rolls and said grader members for conveying the fruit longitudinally of said rolls.

3. An apparatus of the described class, the same comprising a supporting frame, a stationary guide member supported thereby and formed with an upper surface inclined toward the opposite longitudinal side edges thereof, a pair of rotatably mounted rolls, one positioned immediately below the longitudinal side edges of said guide and projecting outwardly beyond the longitudinal side edges thereof, grader members carried by said supporting frame and extending longitudinally of each side edge of said stationary guide member in spaced relation to said rolls, said grader members being of substantially the same length as the stationary guide and coöperating therewith to form a fruit runway of variable width, said members consisting of a plurality of independently adjustable sections, an endless conveyer supported by said frame and provided with means adapted to operate in said fruit runways to convey the fruit therein longitudinally of said runways.

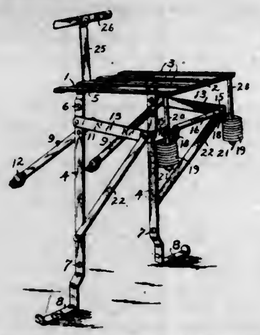
4. An apparatus of the described class, comprising a supporting frame, a stationary guide carried thereby, transversely adjustable end to end grader members supported by said frame and extending longitudinally of the

longitudinal side edges of said guide in spaced relation thereto, the said guide and said grader members providing a pair of fruit runways of variable width, a longitudinally disposed rotary member situated within each of the runways and a single conveyer common to both of said runways for conveying the fruit longitudinally thereof.

5. An apparatus of the described class, comprising a supporting frame, a stationary guide supported by said frame, a plurality of independently adjustable grader members supported by said frame and extending longitudinally of the longitudinal side edges of said guide in spaced relation thereto, said guide and grader members providing therebetween a plurality of fruit runways of a variable width for the passage of fruit therethrough, a rotatable roll at the base of each runway and a single conveyer provided with links having transverse projections and upwardly extending arms projecting through said runways for conveying the fruit longitudinally thereof.

[Claims 6 to 9 not printed in the Gazette.]

1,139,715. MOTOR-CYCLE SEAT AND CARRIER ATTACHMENT. EWALD PAWSAT and HERMAN PAWSAT, Sheboygan, Wis. Filed Dec. 16, 1912. Serial No. 736,911. (Cl. 208—24.)



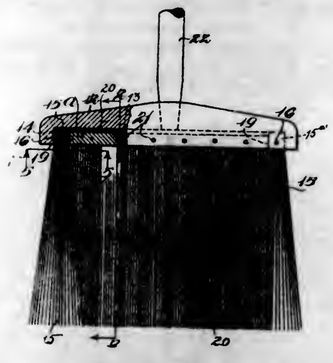
1. An attachment for a motor-cycle comprising a pair of substantially upright standards, adapted to be connected with a wheel axle, links adapted to support said standards from a motor-cycle frame, a sub-frame connected with the standards, braces connecting the rear end of the sub-frame with the standards, a seat or carrier having its front end portions pivotally supported directly from the standards, posts depending from the rear end of the seat or carrier and tension springs connecting the posts with the sub-frame.

2. An attachment for a motor-cycle comprising a pair of standards, adapted to be connected with a wheel axle, links adapted to support said standards from a motor-cycle frame, a sub-frame connected with the standards, braces connecting the rear ends of the sub-frame with the standards, a seat or carrier supported from the standards and sub-frame with its front end pivotally connected to the standards, and its rear end having posts depending from the rear end of the seat or carrier, and tension springs connecting the posts with the sub-frame, said sub-frame having its side bars elbowed near their rear ends to form notched corners receiving said springs.

3. An attachment for a motor-cycle comprising a set of flat bars connected to form a seat frame, a pair of standards pivotally connected to end portions thereof in the rear of their front extremities and provided with means for connection with a motor-cycle frame at a plurality of points, a sub-frame comprising a set of flat bars with their flat sides in a vertical plane, connected to the standards and having their rear ends connected with each other, a set of similarly arranged braces, connecting the last mentioned bars near their opposite ends with the standards, and tension springs supporting the rear end of the seat frame from the sub-frame.

4. An attachmant for motor-cycles comprising a set of standards adapted to be connected with a motor-cycle frame, a sub-frame carried thereby, a seat frame pivotally connected intermediate of its ends with the standards, rods depending from the rear corners of the seat frame and tension springs supporting the rear ends of the seat frame from the sub-frame, the side bars of the sub-frame being elbowed at their rear ends to form notches for the rods, and said springs being located below said notches and suspended from the sub-frame at the junction of the side and cross bars thereof, substantially as described.

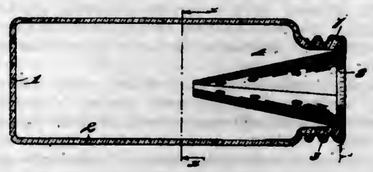
1,139,716. BROOM. FREDERICK W. PENDERGAST, Cambridge, Mass. Filed July 10, 1914. Serial No. 850,085. (Cl. 15—21.)



1. A broom comprising a head having a longitudinal groove in one side, a key formed to enter said groove and a layer of brush filaments extending across the back of the key and bent outwardly across opposite sides of the key by the operation of inserting the key in the groove, the key and the filaments engaged therewith being secured in the groove, and bunches of brush filaments secured in opposite ends of the groove and bearing on the edges of said layer, said bunches covering the ends of the spaces adjacent to the key between the outwardly extending portions of said layer.

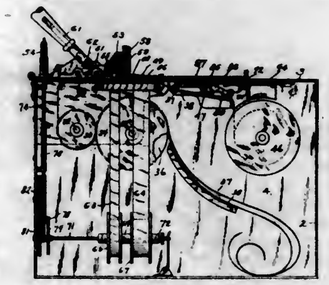
2. A broom comprising a head having a longitudinal groove in one side, bunches of brush filaments inserted and independently fastened in the end portions of said groove, a key formed to enter the groove between said bunches, and of such length that its ends bear on the bunches and press the same against the ends of the groove, and a layer of brush filaments extending across the back of said key and bent outwardly across opposite sides of the key by the operation of inserting the key in the groove, the key and the filaments engaged therewith being independently secured in the groove.

1,139,717. INSECT-TRAP. CHARLES A. PIPENHAGEN, Chicago, Ill. Filed Mar. 3, 1913. Serial No. 751,958. (Cl. 43—22.)



An insect trap comprising a body having a threaded mouth; an inwardly tapering plastic inlet in said mouth having a slit extending longitudinally thereof and its edges along said slit overlapping each other permitting the bending of said inlet to vary the degree of overlapping of said edges and change the size of the opening of said inlet; a perforated cap threaded on said mouth; and a flange on said threaded cap engaging the inner side of said inlet preventing collapsing the outer end of the latter, substantially as described.

1,139,718. TIME-COST METER. JOHN T. QUIGLEY, San Francisco, Cal., assignor to The Costmeter Company, San Francisco, Cal., a Corporation of California. Filed June 3, 1912. Serial No. 701,202. (Cl. 234—53.)



1. In a system for producing comparable records of the time costs of different operations under different rates, the combination of a plurality of measuring machines each comprising a casing having an aperture therein; means for moving a tape under said aperture, the rate of movement in each case being proportioned to elapsing time and the characteristic rate of time cost for the operation being performed, a shutter arranged on the casing and adapted to open and close said aperture, and means operated by the movement of the shutter in opening said aperture to prevent the movement of the tape.

2. In a system for producing comparable records of the time costs of different operations under different rates, the combination of a plurality of measuring machines each comprising a casing having an aperture therein; means for moving a tape under said aperture, the rate of movement in each case being proportioned to elapsing time and the characteristic rate of time cost for the operation being performed, a shutter arranged on the casing and adapted to open and close said aperture, a pin in operative relation to the shutter, and means operated by the movement of the shutter in opening said aperture to move the pin into engagement with the tape.

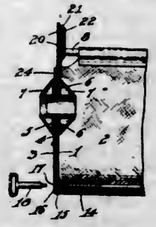
3. In a system for producing comparable records of time cost of different operations under different rates, the combination of a plurality of tapes, means for each tape for simultaneously perforating a transverse line therein, means for automatically feeding said tapes each relative to its respective perforating means, the rate of feed in each case being proportional to elapsing time and the characteristic rate of time cost for the operation being performed, and means automatically to place identification marks upon the tape simultaneously with the perforation thereof.

4. In a system for producing comparable records of time cost of different operations under different rates, the combination of a plurality of measuring machines each comprising a machine having a length determining element, clockwork mechanism for automatically feeding a tape relative to its length determining element, the rate of feed in each case being proportional to elapsing time and the characteristic rate of time cost for the operation being performed, means for applying said length determining element to its tape, and means for simultaneously applying identification marks thereon.

5. In a system for producing comparable records of time costs of different operations under different rates, the combination of a plurality of measuring machines each comprising a casing having an aperture therein, means for moving a tape under said aperture the rate of movement in each case being proportioned to elapsing time and the characteristic rate of time cost for the operation being performed and means arranged on the casing above the aperture for simultaneously perforating a transverse line in the tape and printing identification marks thereon.

[Claims 6 to 16 not printed in the Gazette.]

1,139,719. COLLAPSIBLE BED-BOLSTER. FRIDRICH W. RAHN, Chicago, Ill. Filed Feb. 20, 1914. Serial No. 819,918. (Cl. 5—15.)

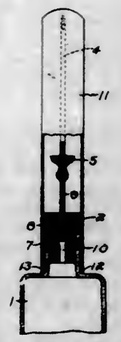


1. A device of the class described comprising two end members; a flexible member secured to said end members to form a receptacle open at one side; stretcher members attached to said flexible member at the edges of said opening and bearing against the inner face of one of said end members; extensible heads threaded to the other ends of said stretcher members and provided with key holes in their ends, there being corresponding openings in the abutting end member; and shoulders on said heads engaging against the inner sides of said end members, substantially as described.

2. A device of the class described comprising two end members; a flexible member secured to said end members to form a receptacle open at one side; stretcher members attached to said flexible member at the edges of said opening and bearing against the inner face of one of said members; extensible heads threaded to the other ends of said stretcher members and provided with key holes in their ends, there being corresponding openings in the abutting end member and said heads extending into said openings; and stop flanges on said heads abutting the end member, substantially as described.

3. A device of the class described comprising two centrally perforated end members; a flexible head having its ends folded in over said end members; and metal rings having tangs at their outer edges clenched through said folded ends and tangs at their inner edges clenched through the perforations in said end members, substantially as described.

1,139,720. SERUM CONTAINER AND INJECTOR. HARRY L. REED, Dorchester, Mass. Filed Oct. 2, 1914. Serial No. 864,689. (Cl. 128—25.)



1. In an apparatus of the class described the combination of a container having an opening, a needle-gripping closure therefor having a passage therethrough, the container adapted to receive means for expelling the contents

therefrom, and a needle having a passage closing member thereon, a passage-sealing and needle-retaining member also thereon, and a passage extended longitudinally of the needle and laterally of the passage-sealing member.

2. In an apparatus of the class described the combination of a container having an opening, an expansible needle receiving and carrying closure therefor having a slit therethrough, the container adapted to receive means for expelling its contents therefrom, and a needle having a slit closing member thereon, a slit-sealing and needle-retaining member adjacent one end of the needle, and a passage extended longitudinally of the needle and laterally of the slit-sealing member.

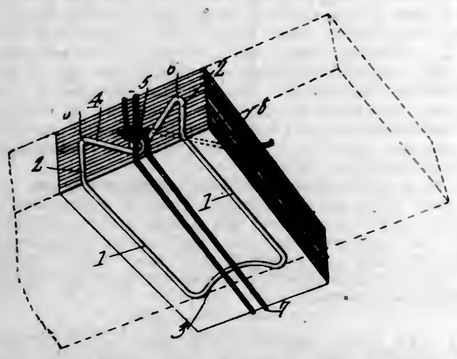
3. In an apparatus of the class described, the combination of a container having an opening, a closure therefor having a passage therethrough, a needle in said passage and normally sealing the same and closing communication with the container, and adapted to be thrust through the mouth of the passage into the container to establish communication therewith.

4. A hypodermic needle having a passage-closing member thereon, and a passage-sealing and needle-retaining member also thereon having the needle passage extended laterally therethrough.

5. A hypodermic needle having a passage-closing member thereon, a passage-sealing and needle-retaining member also thereon, the needle passage extended laterally through said passage-sealing member.

[Claims 6 to 9 not printed in the Gazette.]

1,139,721. TYING DEVICE. HUGH ALIAON REYNOLDS, Anniston, Ala. Filed Mar. 4, 1914. Serial No. 822,425. (Cl. 24—18.)



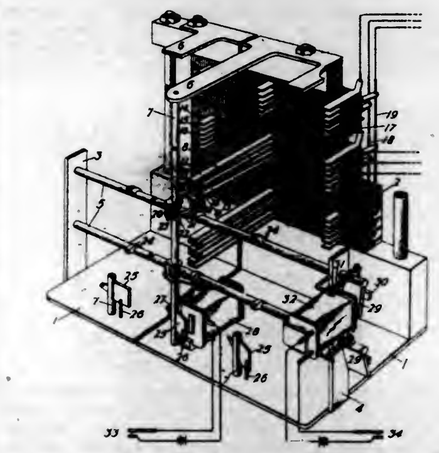
1. A tying device embodying a body adapted to rest against one face of a bundle of articles and having an angularly extended portion to rest against certain edges of the articles, and a flexible binding element attached to the body and adapted to be wrapped around the bundle and body, the said angularly extended portion having means for the engagement of the binding element thereover to enable the binding element to be drawn between the articles.

2. A tying device including a frame comprising a body having an angularly extended end adapted to be applied over the corner of a bundle, said angularly extended end having a reëntrant V-shaped portion, and a flexible binding element attached to the frame.

3. A tying device embodying a frame including a pair of side bars having angularly extended portions at one end, a yoke connecting the other ends of the side bars, and a reëntrant V-shaped yoke connecting the said angularly extended portions, and a flexible binding element attached to the said frame.

4. A tying device embodying a frame including a pair of side bars having angularly extended portions at one end, a yoke connecting the other ends of the side bars, and a reëntrant V-shaped yoke connecting the said angularly extended portions and having an eye in its crotch, and a flexible binding element attached to the said eye.

1,139,722. SELECTOR-SWITCH. JOHN N. REYNOLDS, Greenwich, Conn., assignor to Western Electric Company, New York, N. Y., a Corporation of Illinois. Filed May 10, 1913, Serial No. 766,880. Renewed Mar. 25, 1915. Serial No. 17,052. (Cl. 179—27.5.)



1. In a telephone switch, sets of rotatable bars, contact springs adjacent and individual to said bars respectively, and means for rotating a bar of each set to effect interengagement of their respective contact springs.

2. In a telephone switch, sets of rotatable bars, contact sets adjacent to said bars, and means whereby the rotation of a bar of each set will actuate a contact set.

3. In a telephone switch, sets of rotatable bars, stationary contact sets adjacent to said bars, and means whereby the rotation of a bar of each set in a definite order only will actuate one of said contact sets.

4. In a telephone switch, sets of rotatable bars, the bars of one set being at an angle to those of the other, contact springs individual to each of said bars and in proximity to their adjacent points, and means for rotating a bar of each set to effect interengagement of their respective contact springs.

5. In a telephone switch, sets of rotatable bars, the bars of one set being at an angle to those of the other, contact springs adjacent and individual to said bars respectively, and means whereby rotating a bar of each set in a definite order only will effect interengagement of their respective contact springs.

[Claims 6 to 20 not printed in the Gazette.]

1,139,723. ILLUMINATED SIGN. ELMER A. RICH, Jr., Chicago, Ill. Filed July 31, 1914. Serial No. 854,212. (Cl. 40—130.)



An illuminated sign comprising a tubular member having longitudinally extending flanges forming an aperture, caps secured to the opposite ends of said tubular member, and a plate of light pervious material having an edge

inserted between said flanges, and a tubular shield confined within said tubular member and having an open side adjacent said plate, said shield and tubular member being provided with non-registering apertures.

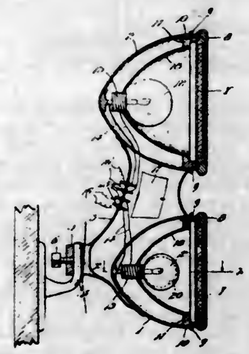
1,139,724. IMPLEMENT-SOCKET FASTENING. JOHN WALTER RIDDELL, Felton, England. Filed Feb. 17, 1914, Serial No. 819,180. Renewed Mar. 16, 1915. Serial No. 14,772. (Cl. 55—101.)



1. An implement socket having a divided portion, ribs extending contiguous with the edges of the division respectively, and a U-shaped clamping member embracing said ribs.

2. An implement socket having a divided portion, ribs extending contiguous with the edges of the division respectively, a U-shaped clamping member embracing said ribs, and coöperating teeth on the abutting faces of the ribs and clamping member.

1,139,725. VEHICLE-LAMP. MARTIN M. RIPHAHN, Waunakee, Wis. Filed May 29, 1914. Serial No. 841,757. (Cl. 240—46.)

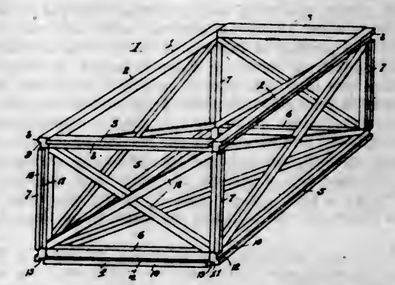


A lamp comprising two lamp sections; a hollow neck rigidly connecting said sections; binding posts extending through the wall of said neck; supply wires connected with the outer ends of said binding posts; wires connected with the inner ends of said binding posts and leading to said lamp sections; and a door giving access to said neck, substantially as described.

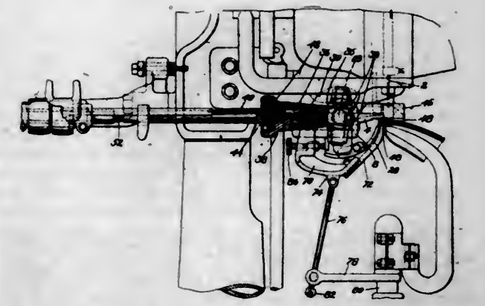
1,139,726. TRUNK. WILBERT R. ROBERTS, South Bend, Ind. Filed May 31, 1913. Serial No. 770,971. (Cl. 190—24.)

1. A trunk including an upper rectangular frame comprising side and end strips, each of said strips being rabbeted on the outer surface to present an upper ledge, a lower rectangular frame comprising side and end strips, each of said strips being rabbeted on the outer and lower surfaces to form lower and outer ledges respectively, and uprights connecting the frames, said uprights being rabbeted on the relatively outer surfaces thereof to present outer lips for coöperation respectively with the lips of the side strips of the upper and lower frames and with the end strips of the upper and lower frames, the side and end strips of the respective frames and the uprights having their rabbeted portions equal in length to the full length of the respective strips and uprights, the meeting ends of the strips and uprights providing a square abutting edge of the full surface of the strip or upright beyond the rabbeted portion.

2. A trunk including an upper rectangular frame comprising side and end strips, each of said strips being rabbeted on the outer surfaces to present an upper ledge, a lower rectangular frame comprising side and end strips, each of said strips being rabbeted on the outer lower surfaces to form lower and outer ledges respectively, uprights connecting the frames, and brace strips diagonally connected to said frame strips, each of said brace strips having a width equal to the similar dimensions of the side and end strips beyond the rabbeted portion thereof, whereby the respective side surfaces of the brace strips aline with the outer surfaces of the frame portions.



1,139,727. SOLE FASTENING AND TRIMMING MACHINE. WILLIAM THOMAS BUCKINGHAM ROBERTS, Leicester, England, assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Aug. 7, 1912. Serial No. 713,785. (Cl. 12—17.)



1. In a sole fastening and trimming machine, a work abutment, sole supporting means operating within the shoe and between which and the work abutment the sole to be fastened is clamped, and an oscillating sole trimming knife having its operative movement about an axis outside, approximately in the plane of, and substantially parallel to the portion of the sole to be trimmed, whereby the sole cutting stroke of said knife is substantially normal to the sole, the path of travel of said knife being nearest to said work support substantially at the point of operation upon the sole.

2. In a sole fastening and trimming machine, a work support, a work abutment between which and the work support the portion of the sole to be fastened is clamped and an oscillating trimming knife arranged to enter the sole from the rand side and to coöperate with said work abutment in trimming the edge of the sole and having its operative movement about an axis that is approximately in the plane of, and parallel to, the portion of the sole that is being trimmed, whereby the nearest point of approach of said knife to said work support is where it cuts the sole.

3. In a sole fastening machine, a work support, a work abutment between which and the work support the portion of the sole to be fastened is clamped and an oscillating

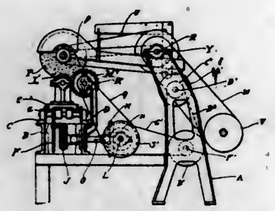
trimming knife arranged to enter the sole from the rand side and to coöperate with said work abutment in trimming the edge of the sole and having its operative movement about an axis that is approximately in the plane of, and parallel to, the portion of the sole that is being trimmed, and means for adjusting said knife toward and away from the shoe.

4. In a sole fastening and trimming machine, a work support, a work abutment between which and the work support the portion of the sole to be fastened is clamped and an oscillating trimming knife arranged to enter the sole from the rand side and to coöperate with said work abutment in trimming the edge of the sole and having its operative movement about an axis that is approximately in the plane of, and parallel to, the portion of the sole that is being trimmed, and a guard for said knife arranged to enter the rand crease between the upper and the sole and to serve as a gage for the sole fastening operation and also to determine the width of the trimmed portion of the sole.

5. In a sole fastening and trimming machine, a work support, a work abutment between which and the work support the portion of the sole to be fastened is clamped and an oscillating trimming knife having its operative movement about an axis substantially in the plane of the portion of the sole to be trimmed, a plate against which the bottom of the sole abuts and over the edge of which said knife is adapted to effect a shearing cut, and means for simultaneously adjusting said knife and plate to vary the width of the trimmed sole margin.

[Claims 6 to 9 not printed in the Gazette.]

1,139,728. POLISHING OR GRINDING MACHINE. WILLIAM V. ROBINSON, Lansing, Mich. Filed Aug. 21, 1914. Serial No. 857,863. (Cl. 51—4.)



1. The combination with a grinder or polishing member, of means for feeding work longitudinally of said member, means for rotating said work during the longitudinal feeding thereof, and means for shifting the work clear of said member at a predetermined point in the longitudinal movement of the work.

2. The combination with a grinder or polishing member, of means for feeding work longitudinally of said member, means for rotating said work during the longitudinal feeding thereof, and means for shifting the work clear of said member when the end of the work is reached.

3. The combination with a grinder or polishing member, of a work-holder, means for reciprocating said work-holder longitudinally of said member, means for rotating said work during the longitudinal feeding thereof, and means for disengaging the work and said member at spaced points in the longitudinal reciprocation of said holder.

4. The combination with a grinder or polishing member, of a work-holding carriage reciprocating longitudinally of said member, and means for actuating said carriage to move the work carried thereby out of engagement with said member at a predetermined point in the travel of said carriage.

5. The combination with a grinder or polishing member, of a work-holding carriage reciprocating longitudinally of said member, and means for lowering said carriage at a predetermined point in the travel of said carriage to disengage the work from said member.

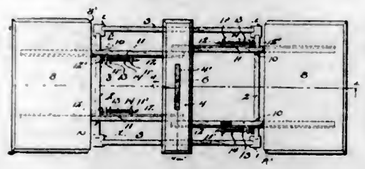
[Claims 6 to 21 not printed in the Gazette.]

1,139,729. SHADE-FIXTURE. JAMES A. ROUNDS, Atlantic City, N. J. Filed Oct. 10, 1913. Serial No. 794,444. (Cl. 156—24.)



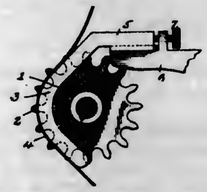
A curtain bracket formed of a blank having parallel side edges with an approximately centrally disposed transverse slit, and a projecting ear portion adjacent said slit with rounded corners, said ear being provided with means for engaging and supporting a curtain roller, and being bent at right angles to the main body portion along the medial line of said body portion, the front edge of said body being serrated and bent to bring said teeth or serrations into spaced parallel relation with said body, said bracket thus being formed from a blank of substantially rectangular outline.

1,139,730. EXTENSION-TABLE. CHARLES F. SCHLUETER, Milwaukee, Wis. Filed Nov. 17, 1913. Serial No. 801,458. (Cl. 45—113.)



In an extension table having recessed end strips, pairs of rails in slidable union with the end strips the opposite pairs of rails having side faces in sliding contact with each other whereby they are guided, means for supporting the inner ends of the rails, a table leaf carried by each of said rails, and a table-top arranged to be fitted between the leaves; the combination of brackets secured to the outer side faces of one pair of the rails and to the inner side faces of the companion pair of rails, and spring-controlled plungers mounted in the brackets, the opposite pairs of said plungers being adapted to pass each other when the rails are contracted and to engage the end strips at four points when said rails are distended, whereby a draw pressure is exerted upon the four points mentioned.

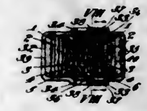
1,139,731. FILM-FEEDING MECHANISM. ANDREW SCHUSTEK, Chicago, Ill. Filed Mar. 18, 1914. Serial No. 825,458. (Cl. 88—18.2.)



1. In a film feeding mechanism, a revoluble sprocket having a disk like margin formed with sprocket teeth, a non-revoluble film support the bearing surface of which has adjacent relation to the peripheral teeth of the sprocket, and means for adjusting said film support to and from the axis of rotation of the sprocket to effect an increase or a decrease in the radial distances at which the teeth of the sprocket wheel will have driving engagement with the sprocket orifices of the film and attain a common factor in the distances of both elements, substantially as set forth.

2. In a film feeding mechanism, a revoluble sprocket having a disk like margin formed with sprocket teeth, a non-revoluble film support the bearing surface of which has adjacent relation to the peripheral teeth of the sprocket, and means for adjusting said film support to and from the axis of rotation of the sprocket to effect an increase or a decrease in the radial distances at which the teeth of the sprocket wheel will have driving engagement with the sprocket orifices of the film and attain a common factor in the distances of both elements, the same comprising an angular extension on the film support, a stationary slideway supporting said extension and an adjusting screw for imparting adjustment to said extension, substantially as set forth.

1,139,732. SPRING. EDWIN E. SLICK, Westmont borough, Pa. Filed Feb. 28, 1914. Serial No. 821,769. (Cl. 105—123.)



1. A spring comprising a plurality of corrugated spring plates, the corrugations of adjacent plates being angularly disposed with respect to each other.

2. A spring comprising a group of plates each provided with a plurality of corrugations, the direction of the corrugations of one plate crossing that of the corrugations of the adjoining plate.

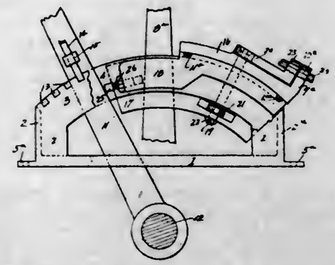
3. A spring comprising a group of adjoining plates each provided with a plurality of parallel corrugations, the direction of the corrugations of one plate crossing that of the adjacent plate.

4. A spring comprising a group of opposed plates each provided with a plurality of substantially parallel corrugations, the direction of the corrugations in adjacent plates being angularly disposed with respect to each other, and means for holding and guiding the said plates by the edges thereof.

5. A spring comprising a group of plates of different thicknesses, each provided with a plurality of corrugations, the direction of the corrugations of one plate crossing that of the direction of the corrugations of the adjoining plate, whereby cumulative and friction spring action is provided.

[Claims 6 to 12 not printed in the Gazette.]

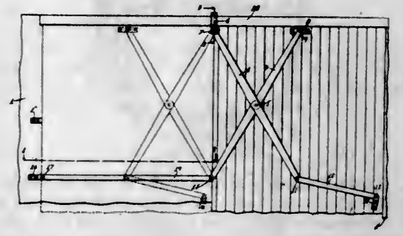
1,139,733. AUTOMOBILE-LOCK. PASCHALL W. SMITH, Seattle, Wash. Filed Apr. 16, 1914. Serial No. 832,182. (Cl. 70—90.)



1. In a locking device for levers which move in the usual H shaped segment, the combination of a plate and parallel blades thereon, which are in spaced relation to each other and adapted to be thrust through the openings in the segment, the lengths of the said blades corresponding to the approximate forward travel of the lever, means for adjusting the lengths of the blades and means for locking the said plate against vertical movement with respect to the segment, the last mentioned means including a hasp and a bolt which moves with the said hasp and which coöperates with the bottom of the segment.

2. In a locking device for levers which move in the usual H shaped segment, the combination of a plate and parallel blades thereon, which are in spaced relation to each other and adapted to be thrust through the openings in the segment, the lengths of the said blades corresponding to the approximate forward travel of the lever; screw and jam nut means for adjusting the lengths of the blades and means for locking the said plate against vertical movement with respect to the segment, the last mentioned means including a hasp and a bolt which moves with the said hasp and which coöperates with the bottom of the segment.

1,139,734. DOOR-HANGER MEANS. ABRAM B. SPRINGSTEAD, Kalamazoo, Mich., assignor of one-half to Charles A. Gifford, Kalamazoo, Mich. Filed Mar. 5, 1915. Serial No. 12,375. (Cl. 16—156.)



1. The combination of a door, a supporting hanger bracket therefor, cross arms pivoted to each other, the outer hanger arm of which is pivotally secured to the said hanger bracket at its upper end and the inner door carrying link of which at its upper end is pivotally secured to the upper central portion of the said door, the said hanger bracket projecting outwardly to a position to clear the said door carrying arm, a laterally disposed link from the lower end of the hanger arm to a pivot on said door, disposed below the path of the lower end of the door carrying arm, a laterally disposed link from the lower end of the door carrying arm to a pivot beyond the area of the said door when in its open or closed position, coacting substantially as described for the purpose specified.

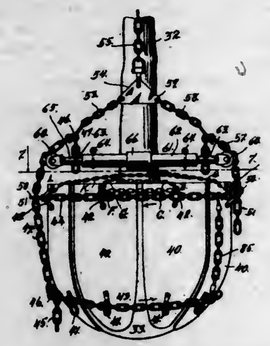
2. The combination of a door, a supporting hanger bracket therefor, cross arms pivoted to each other, the outer hanger arm of which is pivotally secured to the said hanger bracket at its upper end and the inner door carrying link of which at its upper end is pivotally secured to the upper central portion of the said door, the said hanger bracket projecting outwardly to a position to clear the said door carrying arm, a laterally disposed link from the lower end of the hanger arm to a pivot on said door, a laterally disposed link from the lower end of the door carrying arm to a pivot beyond the area of the said door when in its open or closed position, coacting substantially as described for the purpose specified.

3. The combination of a door, a support therefor, a pivot fixed on said support, a hanger arm on said pivot, a door carrying arm disposed across said hanger arm and pivoted thereto, a pivot fixed on said door for the upper end of said carrying arm, a laterally disposed link connecting the lower end of said hanger arm to the said door, and a laterally disposed link connecting the lower end of the carrying arm to the said support outside the path of said door.

1,139,735. APPARATUS FOR TRANSPLANTING TREES. JOHN B. SPUHR, Denver, Colo. Filed June 13, 1914. Serial No. 844,985. (Cl. 55—119.)

1. In apparatus of the class described, a basket composed of a series of distinct sections, flexible devices surrounding the basket in running relation at two circumferences, the said devices being carried upwardly above the basket, for the purpose set forth.

2. A basket adapted to be applied to the root-ball of a tree, the same being composed of a series of distinct sections, a cover adapted to be applied to the top of the ball and composed of two plates connected and centrally recessed to make room for the trunk of the tree, flexible devices surrounding the basket at two circumferences, and other flexible devices connected with the uppermost flexible device and extending across the top of the basket, whereby the cover is held in place, substantially as described.



3. A basket adapted to be applied to the root-ball of a tree, the said basket being composed of distinct and separate sections, flexible devices connecting the said sections in running relation near the top and bottom of the basket, a cover applied to the top of the ball of the tree and having an opening to receive the trunk thereof, and a flexible device connected with the basket sections and passing over the basket cover, whereby the said cover is held in place, substantially as described.

4. A basket composed of a series of distinct sections adapted to be applied to the root-ball of the tree, the said sections having hooks near their lower extremities and loops near their upper extremities, and flexible devices passed around the basket sections and respectively engaging the hooks and loops in running relation, for the purpose set forth.

5. A basket composed of a series of sections, a flexible device passed around the said sections in running relation with the bottom thereof and carried upwardly on one side of the basket, a second flexible device passed around the sections near their upper extremities and engaging the same in running relation, the second flexible device being carried upwardly on the opposite side from the first named flexible device, means located above the basket for spacing the two flexible devices, and means for connecting the two flexible devices with hoisting mechanism.

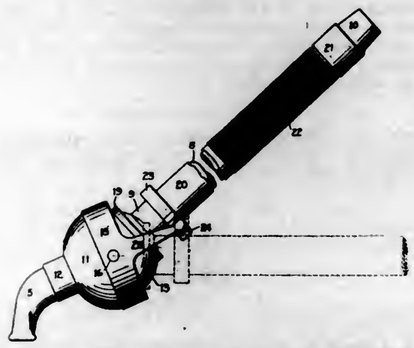
[Claims 6 to 8 not printed in the Gazette.]

1,139,736. CLEANING-TOOL. JOSEPH M. STABEL, Rochester, N. Y., assignor to Domestic Appliances Company, Rochester, N. Y., a Corporation of New York. Filed Oct. 16, 1912. Serial No. 726,165. (Cl. 15—60.)

1. In a cleaning-tool, the combination, with a hollow head and a tubular shaft angularly adjustable in a vertical plane, of a manually-rotatable sleeve surrounding the shaft, and connections between the sleeve and the head adapted to produce angular adjustment of the head when the sleeve is rotated upon the shaft.

2. In a cleaning-tool, the combination, with a hollow head and a tubular shaft angularly adjustable in a vertical plane, of a manually-rotatable sleeve surrounding the shaft, and inter-engaging arms connected with the head and the sleeve whereby the head is angularly adjusted by rotation of the sleeve.

3. In a cleaning-tool, the combination of a pivotal joint comprising two members, the first of said members being adapted for detachable connection with a cleaning-head; a tubular shaft connected, by a slip-joint, with the second of said members; and manually-operable means, mounted upon the shaft, for producing angular adjustment of the joint, said means having operative connections with the first joint-member which are disengageable when the shaft is disengaged from the second member at said slip-joint.

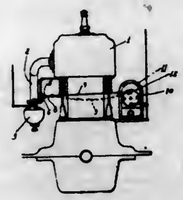


4. In a cleaning-tool, the combination of a pivotal joint comprising two members, the first of said members being adapted for connection with a cleaning-head; a shaft connected with the second joint-member; a manually-rotatable member journaled on the shaft; and connections between the first joint-member and the manually-rotatable member comprising inter-engaging arms, for angularly adjusting the head and the shaft about said joint, one of the arms having a recessed extremity which embraces the extremity of the other arm.

5. In a cleaning-tool, the combination of a pivotal joint comprising two air-conducting joint-members, the first of said members being adapted for connection with a cleaning-head; a shaft removably connected with the second joint-member; a member journaled longitudinally on the shaft and manually rotatable; and interengaging means connecting the first joint-member and the rotatable member whereby rotation of the latter may cause angular movement of the pivotal joint, said connecting means being disengageable when the shaft is removed from the second joint-member.

[Claim 6 not printed in the Gazette.]

1,139,737. GAS-SAVER FOR EXPLOSIVE-MOTORS. GEORGE E. THOMPSON, Stockton, Cal. Filed Feb. 16, 1914. Serial No. 818,859. (Cl. 123—99.)

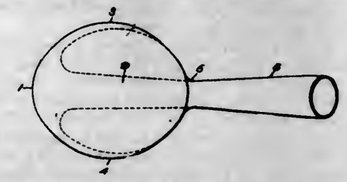


1. A device of the character described comprising the combination with an explosive motor having a carbureter and a pipe leading from the carbureter to the motor, and an ignition system, such ignition system having a rotatable timer, of a valve communicating with said pipe between said carbureter and said motor, such valve comprising a casing having an opening in its side, a piston slidably mounted in said casing to control the communication between said opening and said casing, a stem on said piston and a flexible cable connected between said stem and said rotatable timer, as described.

2. A device of the character described comprising the combination with an explosive motor having a carbureter and a pipe leading from the carbureter to the motor, and an ignition system, such ignition system having a rotatable timer, of a valve communicating with said pipe between said carbureter and said motor, such valve comprising a casing provided with an opening in its side, a heating medium, means communicating from said heating medium to said opening, a piston movable in said casing and controlling the size of said opening, a stem on said piston and a flexible cable connected between said stem and said rotatable timer, as described.

3. A device of the character described comprising the combination with an explosive motor having a carbureter and a pipe leading from the carbureter to the motor, and an ignition system, such ignition system having a rotatable timer, of a valve communicating with said pipe between said carbureter and said motor, such valve comprising a casing having an opening in its side, a cap on the end of said casing, a piston movable in said casing, a plurality of shims removably disposed within said casing between said piston and said cap, a stem on said piston and means connected between said stem and said rotatable timer whereby said piston will move with the movement of said timer, as described.

1,139,738. GOLF-CLUB. RALPH G. TYLER, Exeter, N. H. Filed Feb. 12, 1914. Serial No. 818,403. (Cl. 46—4.)



1. As an article of manufacture, a niblick golf club head having an oval playing face, and a shank extended upwardly and forwardly therefrom in a plane substantially longitudinally axial with the length of the playing face.

2. As an article of manufacture, a niblick golf club head having a playing face substantially oval in outline, and a shank extended therefrom at one end substantially axially and longitudinally of, and at an angle to the playing face.

3. As an article of manufacture, a niblick golf club head having a substantially oval playing face forming a toe and heel, and a shank extended upwardly and forwardly therefrom substantially in a plane central to the toe and heel.

4. As an article of manufacture, a niblick golf club having a shank, a playing face carried thereby the edges of which are curved laterally from the shank substantially equal in opposite directions and then inwardly and downwardly forming a narrow toe, having an upwardly and rearwardly receding lower face.

5. As an article of manufacture, a niblick golf club head provided with a toe and heel, and having a normally ground contacting upwardly receding curved surface beneath its toe, the playing face extended angularly upwardly therefrom in the line of play and a shank extended forwardly from the heel substantially in the vertical plane of the toe and heel.

[Claims 6 to 11 not printed in the Gazette.]

1,139,739. PROCESS OF FORMING AND BINDING MATERIAL FOR USE IN ABRASIVE WHEELS AND THE LIKE. JAMES G. VAIL, Chester, and JOHN D. CARTER, Lansdowne, Pa. Filed Nov. 4, 1913. Serial No. 799,105. (Cl. 51—1.)

1. The process of forming an abrasive wheel or the like, which comprises the use of carborundum, an alkaline solution of a silicate and an oxidizing agent soluble therein.

2. The process of forming an abrasive wheel or the like, which comprises the use of an alkaline solution of sodium silicate, and potassium permanganate.

3. The process of forming an abrasive wheel or the like which consists in combining an abradant capable of yielding hydrogen gas when in contact with an alkali with a binding material comprising an alkaline solution of a silicate and an oxidizing agent soluble therein, and then baking the resulting mass in molds suitable to produce articles of the shape desired.

4. The process of forming an abrasive wheel or the like, which consists in mixing carborundum with a suitable filler, reducing the mixture thus formed to a plastic consistency by the addition of an alkaline solution of a silicate in combination with a suitable oxidizing agent, introducing the plastic mass into suitable molds, and baking the same at a relatively low temperature.

5. The process of forming an abrasive wheel or the like which consists in mixing carborundum with a suitable filler reducing the mixture to a suitable consistency by the addition of a binding material comprising a solution of sodium silicate and potassium permanganate, introducing the resulting product into suitable molds and baking the same at relatively low temperatures.

[Claim 6 not printed in the Gazette.]

1,139,740. DISINFECTING APPARATUS. JOHN R. VAN DYNE, Sedalia, Mo. Filed Apr. 23, 1912, Serial No. 692,650. Renewed Oct. 26, 1914. Serial No. 868,740. (Cl. 167—3.)



1. A disinfectant container comprising a cylindrical body having at one end a cylindrical extension of less diameter than said body and at the other end an opening through which it may be filled, an open top cup of substantially the same diameter as said body wholly inclosing said extension, the edges of said cup and body being in frictional engagement, means controlled by the liquid level in said cup for governing the flow of liquid from said extension into the cup, whereby a substantially constant level in said cup is maintained, a delivery tube opening through the bottom of said cup, and disposed within the annular space between said extension and the sides of said cup, and a siphon wick in said tube.

2. Disinfecting apparatus comprising a liquid container, means for maintaining a constant normal liquid level in said container, and a delivery wick supported at such a height that its end is just above such normal level.

3. Disinfecting apparatus comprising a liquid container, a delivery tube carried thereby, a siphon wick having one end lying in said tube, a second tube also supported by said container and having an opening to admit liquid, the other end of said wick being inclosed in said second tube, and means for limiting the extent to which the wick may be inserted in such tube.

4. Disinfecting apparatus comprising a liquid container, a vertical delivery tube carried thereby, a second tube in fixed spaced relation to the first and having an opening adjacent the bottom of said container, a third tube, open at both ends, and adapted to telescope within said second tube, a siphon wick having one end inserted in said delivery tube and the other end inclosed within said third tube, and an annular shoulder on such third

tube, adapted to engage the edge of the second named tube and limit the movement of the third tube and wick relative thereto.

5. Disinfecting apparatus comprising a liquid container, a delivery tube carried thereby, a wick in said delivery tube, and means normally maintaining said wick out of contact with the liquid when said container is at rest, said wick being so positioned as to be impregnated whenever the container is jolted.

1,139,741. SODIUM-SILICATE COMPOSITION. JAMES G. VAIL, Chester, and JOHN D. CARTER, Lansdowne, Pa. Filed Sept. 3, 1914. Serial No. 860,027. (Cl. 23—13.)

1. A dry water soluble sodium silicate composition containing sodium silicate and an efflorescent salt which does not react with sodium silicate.

2. A dry efflorescent powder freely soluble in cold water and comprising sodium silicate and sodium sulfate.

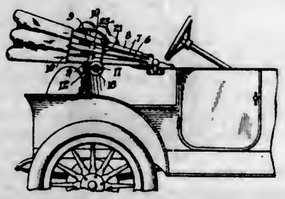
3. A dry water soluble composition containing sodium silicate and sodium sulfate.

4. A sodium silicate composition comprising sodium silicate and sodium sulfate and having the appearance of a dry powder and a solubility greater than commercial sodium silicate containing an equivalent amount of silica.

5. The method of producing a cold water soluble sodium silicate composition which consists in adding sodium sulfate to a solution of sodium silicate and then removing sufficient water from the solution to form a product of apparent dryness.

[Claims 6 and 7 not printed in the Gazette.]

1,139,742. TOP-HOLDER FOR VEHICLES. ROBERT C. WALL, Philadelphia, Pa. Filed May 19, 1914. Serial No. 839,486. (Cl. 21—61.)



1. In a device of the character stated, a body part provided with a seat to receive a bow of a top, a spindle carried by said body part, a winding device rotatably mounted on said spindle and having a disk forming a part of said winding device said disk provided with a friction surface, a flexible member secured at one end to said winding device and having its opposite end arranged for connection with another bow of said top, a second disk non-rotatably mounted on said spindle and also provided with a friction surface juxtaposed with respect to said winding disk friction surface, a disk of relatively yielding material interposed between said friction surfaces, and means to clamp the friction surface of the non-rotatable disk upon said soft disk and force it into friction engagement with the friction surface of the winding disk to lock said winding device, and means to support said body part on a vehicle.

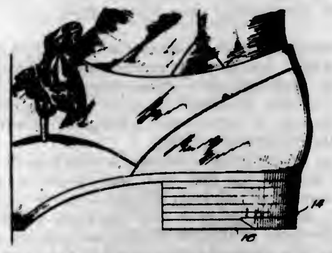
2. In a device of the character stated, a body part, a spindle carried thereby, a winding device rotatably mounted on said spindle, a disk forming a part of said winding device and provided with a set of teeth, a flexible member secured at one end to said winding device and having its opposite end arranged for connection with a bow of a top, a second disk mounted on said spindle provided with a set of teeth juxtaposed with respect to said winding disk teeth, means intermediate of said sets of teeth to transmit a clamping action from one set of teeth to the other, means to clamp said sets of teeth to lock said winding device, and means to support saidy body part.

3. In a device of the character stated, a body part, a spindle carried thereby, a winding device rotatably mounted on said spindle, a disk forming a part of said winding device and provided with a set of teeth, a flexible member secured at one end to said winding device and having its opposite end arranged for connection with a bow of a top, a second disk mounted on said spindle provided with teeth juxtaposed with respect to said winding disk teeth, a disk of relatively soft material interposed between said sets of teeth, means to clamp said teeth upon said soft disk to lock said winding device, and means to support said body part on a vehicle.

4. In a device of the character stated, a body part provided with a seat to receive a bow of a top, a spindle carried by said body part, a winding device rotatably mounted on said spindle, a disk forming a part of said winding device and provided with a set of teeth, a flexible member secured at one end to said winding device, and having its opposite end arranged for connection with another bow of said top, a second disk mounted on said spindle with provision against rotation, and provided with a set of teeth juxtaposed with respect to said winding disk teeth, a disk of relatively soft material interposed between said sets of teeth, a clamping nut threaded on said spindle, a yielding member between said nut and the second disk to exert a clamping pressure upon the disks to lock the winding device, a nut oppositely threaded on the end of said spindle for limiting the unscrewing adjustment of said clamping nut, and means to support said body part on a vehicle.

5. In a device of the character stated, a body part having a chambered portion, and provided with a stud, a winding disk having a handle rotatably mounted on said stud and provided with a hub within the chambered portion of the body part, said winding disk also provided with teeth, a flexible mechanism secured at one end to the hub of said winding device and having its free end arranged for connection with a bow of a vehicle top, a second disk mounted on said stud and held against rotation and provided with teeth juxtaposed with respect to said winding disk teeth, a disk of relatively soft material interposed between said sets of teeth, means to adjust the second disk to cause the teeth to bite upon said soft disk to lock said winding device, and means to attach said body part on a vehicle.

1,139,743. WEAR-PLATE FOR SHOE-HEELS. ALMOND J. WHITE and FREDERIC A. HAWLEY, Chillicothe, Mo. Filed Mar. 5, 1914. Serial No. 822,739. (Cl. 36—75.)



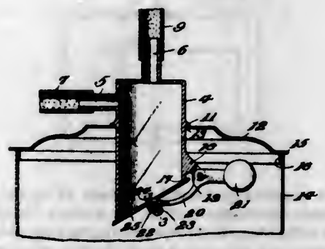
1. A wear plate for shoe heels including a body plate, a wear flange, and a flange connecting the plate and wear flange, the second mentioned flange being substantially semi-circular in shape and having its terminals inclined in a direction forwardly from the wear flange to the body plate.

2. A wear plate for shoe heels including a substantially semi-circular body plate having a substantially semi-circular opening, a flange depending from the body plate and having its terminals inclined in a direction forwardly toward the body plate, and a wear flange of substantially semi-circular shape extending laterally and inwardly from the first mentioned flange.

3. The combination with a shoe heel having one tap cut-away at its rear portion to produce forwardly inclined shoulders, of a wear plate including a body portion arranged to engage against the upper face of the said tap, a flange depending from the body plate and embracing the cut-away portion of the tap, the terminals of said flange being inclined forwardly toward the body portion, whereby they may engage against the inclined shoulders of said tap, and a wear flange formed on the first mentioned flange and extending inwardly and laterally therefrom.

4. A wear plate for shoe heels including a body plate having a laterally enlarged wear surface and a flange portion connecting the wear surface and the body plate, said flange portion being substantially semi-circular in shape and having its terminals inclined in a direction forwardly from the extremities of the wear surface to the extremities of the body plate.

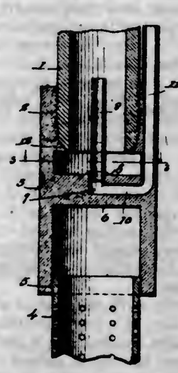
1,139,744. MILKING APPARATUS. AUGUST W. ZERATSKY, La Crosse, Wis. Filed Sept. 5, 1914. Serial No. 860,430. (Cl. 31—98.)



1. In a milking apparatus, a receptacle having its bottom inclined and adapted to initially receive the milk drawn from the cow, an inclined flat valve closing on the inclined bottom of said receptacle, a pivoted arm carrying said valve, a weight on said arm adapted to hold said valve in closed position, the weight of the milk in said receptacle at predetermined periods being adapted to overcome the balancing action of said weight to open said receptacle.

2. In a milking apparatus, a vertically disposed milk chamber having its bottom inclined and open, a gravity operated flat valve at the open end of the vertically disposed milk chamber, a milk tube disposed at the top of the milk chamber to deliver milk directly onto the flat valve, and a suction tube extending from the upper portion of the vertically disposed milk chamber.

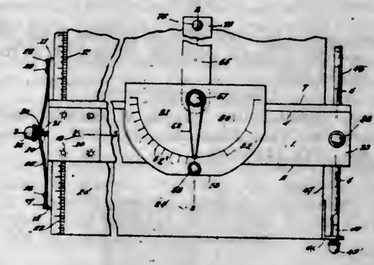
1,139,745. MEANS PREVENTING THE ACCUMULATION OF GAS WITHIN OIL-WELLS. ALEXANDER AMES, Alluwe, Okla. Filed Mar. 10, 1914. Serial No. 823,819. (Cl. 103—61.)



1. In means preventing the accumulation of gas within oil wells, a sectional well structure, a bridge wall provided with a longitudinal bore open to the atmosphere exteriorly of the well, and a pipe section open to the bore and to the interior of the well for the purpose specified.

2. In means preventing the accumulation of gas within oil wells, a sectional oil well structure, a bridge wall extending transversely across the bore of one of the said sections, said bridge wall having a bore therein, said bore discharging into a vertical bore within the wall of the said section, and a pipe extension carried by said bridge wall and removable therefrom, as and for the purpose set forth.

1,139,746. COMBINATION DRAFTING IMPLEMENT. JOHN E. BAILEY, Milwaukee, Wis. Filed Dec. 12, 1912. Serial No. 736,373. (Cl. 33—80.)



1. In a drafting implement, a board, guide members extending along two opposite sides of said board, a T-square slidably mounted on said guide members, a flat spring mounted upon the head of said T-square, a stud, said stud being slidably engaged with one of said guide members and passing through said spring, and a nut for engagement with said stud for tensioning said spring.

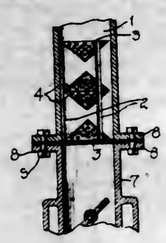
2. In a drafting implement, a board, guide members extending along two opposite sides of said board, a T-square slidably mounted on said guide members, a spring mounted upon the head of said T-square, said spring having an opening formed therein, one of said guide members having a slot formed therein, a stud slidably arranged in said slot, said stud extending through the opening in said spring, and a thumb nut threaded on said stud for regulating the tension of said spring.

3. In a drafting implement, a board structure, having guide members extending along two opposite sides thereof, a straight edge slidably guided by said guide members, and means for holding one end of said straight edge in adjusted position on one of said guides comprising, a thumb nut, a shaft having a shank and an enlarged head which encompasses said guide, said shank extending through said straight edge and adjustably seated in said thumb nut, a washer interposed between said thumb nut and said straight edge and, a spring seated in a recess in said thumb nut about said shank and engaging said washer for forming a firm connection between the washer and the straight edge and means for holding the other end of the straight edge in engagement with the other of said guides.

1,139,747. GASEOUS-FUEL MIXER. PERRY H. BAYLEY, West Alexandria, Ohio; Mary A. Bayley executrix of said Perry H. Bayley, deceased. Filed May 4, 1914. Serial No. 836,232. (Cl. 48—180.)

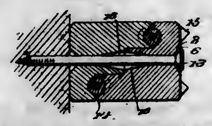
In a device of the character described, the combination with a fuel intake pipe, of a sectional fuel mixer arranged within the pipe, said mixer comprising a plurality of spaced elongated parallel bars adapted to frictionally engage against the inner face of the pipe, foraminated cones connected at the edges of their bases to the bars at their opposite ends, said cones being arranged with their apices extending inwardly of the bars, and a pair of foraminated cones connected at the edges of their bases to the bars midway of their ends, the apices of the last mentioned cones extending outwardly of the bars whereby the same are opposed to the apices of the cones carried on the ends

of the bars, said bars being of sufficient length whereby the apices of the intermediate cones are spaced from the apices of the end cones, the lowermost cone having its



marginal portion provided with an annular flange adapted to be extended between adjacent extremities of the sectional intake pipe.

1,139,748. INSULATOR. THOMAS W. BEATTY, New Cumberland, W. Va. Filed Jan. 31, 1912. Serial No. 674,624. (Cl. 173—314.)



1. An insulator comprising assembled sections having abutment portions and having registering openings extending through their abutment portions for the passage of a securing element, the openings being increased in diameter in the direction of their inner ends.

2. An insulator comprising sections of counterpart form, each section having a stepped abutment portion, having one face located in a plane parallel to the base of the section and its other face located in a plane at right angles thereto, each section having a conductor gripping portion laterally offset with respect to the second mentioned face of the said abutment portion and having another conductor gripping portion offset beyond the first mentioned face of the said abutment portion, and each section being formed with a nail opening extending centrally thereof from the base face of the section to the first mentioned face of the said abutment portion.

3. An insulator comprising sections of counterpart form, each section having a stepped abutment portion having one face located in a plane parallel to the base of the section and its other face located in a plane at right angles thereto, each section having a conductor gripping portion laterally offset with respect to the second mentioned face of the said abutment portion and having another conductor gripping portion offset beyond the first mentioned face of the said abutment portion, and each section being formed with a nail opening extending centrally thereof from the base face of the section to the first mentioned face of the said abutment portion, the said abutment portions extending continuously from side to side of the respective sections and having their said faces smooth and unbroken.

4. An insulator comprising sections to be assembled, each of said sections having an abutment portion having one face located in a plane parallel to the base of the section and its other face located in a plane at right angles thereto, each section having a conductor gripping portion laterally offset with respect to the section-mentioned face of the said abutment portion and having another conductor gripping portion offset beyond the first-mentioned face of the said abutment portion.

1,139,749. SWITCH-POINT CONTROLLER. ELZEAR BEAUPRÉ, St. Boniface, Manitoba, Canada. Filed Aug. 31, 1914. Serial No. 859,353. (Cl. 104—171.)

1. The combination with the floor of a car provided with a suitable sight opening, of a slotted plate located in the floor of the car, the slot passing in a direction across the floor, a hanger suspended beneath the floor of the car and fitted with an offset arm provided with an opening located vertically beneath the slot, a vertically disposed shaft passing through the slot and opening, said shaft having the lower end thereof flattened and the upper end thereof provided with a suitable hand piece and a spring enveloping the shaft and suspending the same from the floor, as and for the purpose specified.



2. The combination with the floor of a car provided with a suitable sight opening, of a plate located in the car floor adjoining the sight opening and provided with a slot passing in a direction across the car, a hanger located beneath the floor and provided with an offset arm having an opening therein located beneath the slot, a vertically disposed shaft passing through the slot and opening and having the lower end thereof flattened and the upper end thereof provided with a hand piece, a washer on the shaft and playing over the slot, a collar fixed on the shaft at a point above the floor and a spiral spring enveloping the shaft and located between the washer and the collar, as and for the purpose specified.

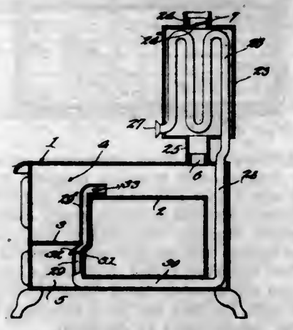
3. The combination with the floor of a car having a portion thereof cut away, of a plate covering the opening and provided with a sight opening and a slot, the slot passing in a direction across the car, a hanger secured to the under side of the car and fitted with an offset arm provided with an opening alined with the slot, a vertically disposed shaft passing through the slot and the opening, said shaft having the lower end thereof flattened and the upper end thereof provided with a hand piece, a washer on the shaft and playing over the slot, a collar on the shaft and within the car and a spiral spring enveloping the shaft and inserted between the collar and the washer, as and for the purpose specified.

4. The combination with the floor of a car having a portion thereof cut away, of a plate covering the opening in the floor and provided with a sight opening and a slot, the slot passing in a direction across the car, a hanger secured to the under side of the car and fitted with an offset arm provided with an opening alined with the slot, a vertically disposed hollow shaft passing through the slot and the opening and having the lower end thereof flattened and the upper end thereof provided with a hand piece, a washer on the shaft and playing over the slot, a collar on the shaft above the floor, a spiral spring enveloping the shaft and bearing against the collar and the washer, an adjustable rod located within the hollow center of the shaft and bearing against the collar and the washer, and a brush located on the flattened end of the shaft and secured to the lower end of the rod, as and for the purpose specified.

5. The combination with the floor of a car having a portion thereof cut away, of a plate covering the opening and provided with a sight opening and a slot, the slot passing in a direction across the car, a hanger secured to the under side of the car and fitted with an offset arm provided with an opening alined with the slot, a vertically disposed shaft passing through the slot and the opening, said shaft having the lower end thereof flattened and the upper end thereof provided with a hand piece, a washer on the shaft and playing over the slot, a collar on the shaft and within the car, a spiral spring enveloping the shaft and inserted between the collar and the washer and an adjustable brush located on the lower or flattened end of the shaft, as and for the purpose specified.

[Claims 6 and 7 not printed in the Gazette.]

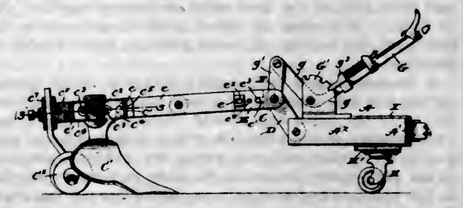
1,139,750. STOVE. JACOB BREWER, Hazleton, Pa. Filed Sept. 17, 1913. Serial No. 790,276. (Cl. 126—15.)



1. In a device of the class described, a heater having a grate defining an ash-pit and a combustion space, the heater having an outlet communicating with the combustion space; a drum resting on the heater and surrounding the outlet, the drum having an opening in its top; a flue supported on the drum and surrounding the opening therein; a pipe curved within the drum and having its ends extended through the wall of the drum at the bottom of the drum, one end of the pipe constituting an air inlet and being located close to the top of the heater and directly above the top of the heater whereby the hot air rising from the top of the heater may be drawn into the air inlet, the other end of the pipe having a pair of outlets, one of which outlets communicates with the combustion space of the heater, the other of which outlets communicate with the space below the grate; and a means for individually controlling the outlets.

2. In a device of the class described, a heater having a grate and provided with an outlet flue for the products of combustion; a casing interposed in the flue; a conduit passing through the casing, one end of the conduit being open to the atmosphere and the other end of the conduit passing into the heater below the grate and being upwardly extended above the grate, the conduit having an opening located below the grate; and a damper controlling the opening; the grate acting as a stop for the damper when the latter is moved to an open position, whereby to maintain the damper above the opening and to prevent ashes from falling from the grate into the conduit through the opening.

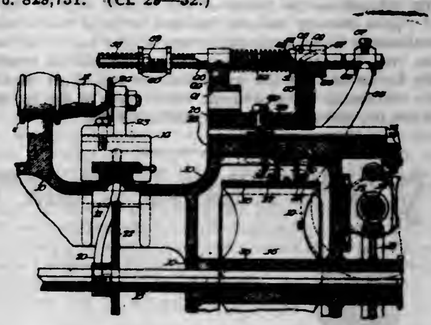
1,139,751. GANG-PLOW. CARL A. BROSTROM, Moline, Ill. Filed Nov. 16, 1911. Serial No. 660,570. (Cl. 97—60.)



1. In a plow, a frame, a pair of parallel links of substantially the same length pivotally connected at their forward ends to the frame, and extending rearwardly therefrom, the pivots of the links being in alinement, a plow beam pivotally connected at its forward end to the free ends of said links for movement independently thereof, a lever pivotally mounted on the frame and provided with a portion extending rearwardly therefrom, a link pivotally connected at its upper end with the rearwardly extending portion of the lever and at its lower end to the said first mentioned links, and means for locking the lever in different positions of adjustment.

2. In a plow, a frame, a pair of spaced parallel link-members of substantially the same length pivotally connected to the frame at their inner ends and extending rearwardly therefrom, a plow beam comprising two bars arranged side by side in spaced relation and rigidly secured together, a transverse pivot connecting the forward ends of the said bars with the outer ends of the respective link members, a lever pivotally mounted on the frame and provided with a portion extending rearwardly therefrom, a link having its upper end pivotally connected with said rearwardly extending portion and having its lower end pivotally connected with the said transverse pivot, and means for locking the lever in different positions of adjustment.

1,139,752. STOCK-STOP FOR SCREW-MACHINES. RICHARD R. BROWN, Belvidere, Ill., assignor to Belvidere Screw & Machine Company, Belvidere, Ill., a Corporation of Illinois. Filed Apr. 6, 1914. Serial No. 829,731. (Cl. 29—52.)



1. In a device of the class described, the combination with a frame and a tool block slidable on the latter, of a bar rotatably mounted in the tool block, an arm adjustable upon the bar, an adjustable stop for the bar and mounted on the frame, and means in connection with the tool block to rotate the bar and the arm when the block is moved to contact the bar with the stop.

2. In a device of the class described, the combination with a tool block slidable in the lathe, of a bar rotatably mounted in the tool block, a stop for the bar comprising the bracket and a pin adjustable in the bracket, and means to rotate the bar when it is in contact with the pin.

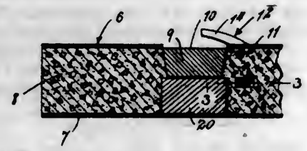
3. The combination with a lathe, of a stock stop comprising a slidable tool block having bearing mountings, a sleeve secured in one of said bearings and having oppositely extending cam slots, a bar mounted in said bearings and extending through said sleeve, a pin extending through said sleeve, a pin extending through said bar and into the slots in the sleeve, a stop for the bar, an arm secured to the bar, and means to effect the movement of the tool block, said movement being effective to cause the rotation of the bar in the bearings when it is in contact with the stop.

4. In a device of the class described, the combination with a slidable tool block having bearing mounts spaced apart, of a bar rotatably mounted therein having an arm secured thereto, a stop for the bar, means tending to press the bar against the stop, and means to effect the rotation of the bar when the tool block is moved in one direction, the said pressing means being operative with the other to rotate the bar in the other direction.

5. In a device of the class described, the combination with a slidable tool block having bearing mounts spaced apart, of a bar rotatably mounted therein having an arm secured thereto, a stop for the bar, a collar secured to the bar and positioned between the bearing mounts, a spring positioned between the collar and the bearing mount remote from the said stop, said spring tending to press the bar against the said stop, and means to effect the rotation of the bar in accordance with the movement of the block.

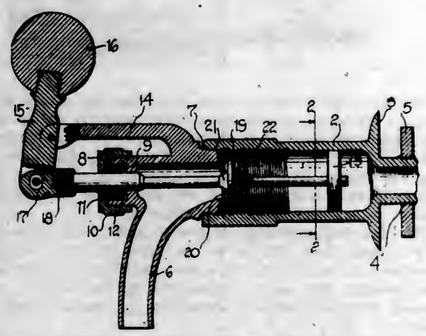
[Claims 6 to 10 not printed in the Gazette.]

1,139,753. RAILROAD-TIE. WILLIAM W. COOPER, Harrisburg, Pa. Filed Dec. 23, 1913. Serial No. 808,319. (Cl. 238—5.)



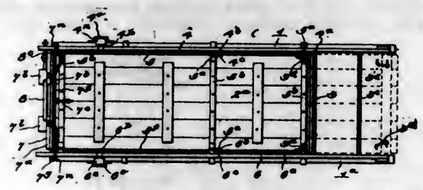
A rail tie comprising a hollow rectangular body formed of sheet metal, the top and side walls being cut away near each end to permit a rail to seat therein, transverse ribs formed on the inside of the bottom wall of the tie at points directly beneath the end walls of the recesses, cushioning blocks arranged to seat within the tie between the ribs, bearing blocks arranged to rest on the cushioning blocks and fill the space between the upper faces of the cushioning blocks and the under faces of the top wall of the tie, and a plastic filler within the tie.

1,139,754. FAUCET. MICHAEL DENZINGER, Louisville, Ky. Filed Feb. 21, 1914. Serial No. 820,271. (Cl. 137—4.)



A device of the character described comprising detachably connected sections, one of said sections being provided with a discharge, a guide member in the bore of the other section intermediate the length thereof adjacent the inner extremity thereof, the inner end of the first named section provided with a valve seat, a rod disposed within the bores of the connected sections and coacting with the guide member and mounted for reciprocatory movement, the intermediate portion of the rod being provided with an annular shoulder, the peripheral portion of the rod adjacent the shoulder being threaded, a valve disk surrounding the rod and adapted to abut the shoulder, a member in engagement with the threaded portion of the rod to clamp the disk against the shoulder thereof, an arm connected with the first named section intermediate the length thereof and having its major portion arranged in longitudinal alinement with the section and terminating in advance thereof, an operating lever pivotally secured intermediate its length to the outer extremity of the arm, said lever having one extremity pivotally engaged with the outer extremity of the rod.

1,139,755. FOLDING STOCK CHUTE-LOADER AND HOG-HOLDER. ROSS L. DILLINGER, Decatur, Ill. Filed Feb. 3, 1914. Serial No. 816,216. (Cl. 119—82.)



1. A foldable stock chute, comprising opposite side bars, opposite foldable side members hingedly connected with said side bars, a floor secured between said bars and shorter than said bars and side members, and a combined gate and floor member hingedly connected at the inner end of the said floor section and adapted when lowered to form part of the floor, and when raised to close the lower part of the chute; said side members being foldable one over the other and over both the floor and floor member when the latter is lowered, substantially as described.

2. A foldable stock chute comprising opposite side bars, one of said bars projecting above the floor, opposite side members hinged to said side bars in such manner as to fold inwardly over the floor and one over the other, and when raised to stand above said bars, a floor fixedly connected to said bars and shorter than said bars and side members, and a combined gate and floor member hingedly connected to the inner end of the floor and adapted when in lowered position to form part of the floor, and when in raised position to stand between the sides, and means for securing said member in raised position, substantially as described.

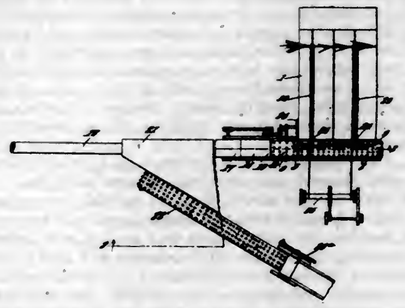
3. A foldable stock chute comprising opposite side bars, one of said bars projecting above the floor, opposite side members hinged to said side bars in such manner as to fold inwardly over the floor and one over the other, and when raised to stand above and upon the upper edges of said bars thereby preventing their dropping outwardly; a floor fixedly connected to but shorter than said bars and side members, an adjustable member hingedly connected to the lower end of the floor, and adapted when lowered to form part of the floor, and when raised to stand as a gate between the sides; with a gate removably attached to the upper end of the chute and provided with a stock passage, and a slide for closing or regulating the size of said passage, substantially as described.

4. The herein described stock chute comprising opposite side bars, a floor connected with but shorter than said bars, metal straps extending across the floor having eyes on their ends, side members provided with hinge pieces, and rods transfixing the eyes on said straps and said hinge pieces to hingedly connect the said members to the respective bars, whereby the side members can fold inwardly one over the other but are prevented from swinging outwardly; a floor and gate member hingedly connected to one end of the floor and adapted to lie between the side bars and form part of the floor when in lowered position and to form a gate when in raised position, and means for fastening this member in raised position, substantially as described.

5. In combination with a stock loader or chute, having bottom and side members, of a gate member detachably attached to the upper end of said chute and having a vertical opening or slot provided with a V-shaped lower end, a slide for closing said slot, guides for said slide attached to the gate, means to operate the slide, and a rod attached to the upper end of said gate projecting beyond the edges thereof adapted to engage corresponding apertures in the sides of the chute to fasten the gate in place and means adapted to engage said rod to hold the sides together.

[Claim 6 not printed in the Gazette.]

1,139,756. CANE-STRIPPER. FRANKLIN DOZE, Walnut, Kans. Filed Aug. 1, 1914. Serial No. 854,492. (Cl. 130—31.)



1. In a cane stripping apparatus, a casing having an upper mouth, a stripping cylinder mounted within the casing, means for passing cane stalks over the mouth of the casing, and means for creating a current of air through the mouth of the casing to bring the leaves of the stalks into engagement with the stripping cylinder.

2. In a cane stripping apparatus, a casing having an upper mouth and a lower discharge chute, a stripping cylinder mounted within the said casing, a blower connected to the said chute for drawing a current of air through the said casing, and means for passing stalks of sugar cane over the mouth of the said casing.

3. In a cane stripping apparatus, a casing having an upper mouth, a stripping cylinder mounted within the cylinder, means for passing cane stalks over the mouth of the said casing, and a blower having a delivery conduit extending downwardly toward the mouth of the said casing for forcing the leaves of the stalks into said casing for the engagement of the said cylinder.

4. In a cane stripping apparatus, a feed belt, a delivery belt, a casing disposed therebetween and having an upper mouth, a stripping cylinder mounted within the said casing, one side of the said casing having a curved flange extended to the delivery end of the feed belt and adapted to support the cane stalks, the other side of the said casing having an inclined lip extended to the receiving end of the delivery belt to direct the cane stalks onto the said belt, and means for creating a current of air through the mouth of the said casing to bring the leaves of the stalks into engagement with the said cylinder.

5. In a cane stripping apparatus, a feed belt, a delivery belt, a casing disposed between the said belts and having an upper mouth, a stripping cylinder within the said casing, means disposed over each of the said belts for holding the cane stalks thereon, and a blower conduit extending downwardly between the said means toward the mouth of the said casing.

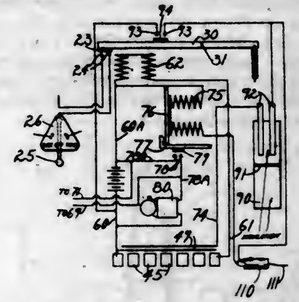
[Claim 6 not printed in the Gazette.]

1,139,757. THEFT-PREVENTION DEVICE FOR AUTOMOBILES. FRANCIS K. FASSETT, Dayton, Ohio, assignor to Leo Ehrlich, St. Louis, Mo. Filed Feb. 6, 1914. Serial No. 816,901. (Cl. 177—314.)

1. A theft prevention device for self-propelled vehicles, comprising means for disabling the vehicle, a plurality of manually operated elements, means for removing said disability by operating a predetermined one or ones of said elements, and means for making an alarm if one of said elements other than said predetermined one or ones are operated.

2. A theft prevention device for self-propelled vehicles, comprising means for disabling the vehicle, a plurality of independent manually operated elements, means for removing said disability by operating a predetermined one or ones of said elements, means for making an alarm if one of said elements other than said predetermined one or ones are operated, and means for stopping the alarm by operating the said predetermined element or elements.

3. A theft prevention device for self-propelled wheeled vehicles, comprising means for disabling the vehicle, a plurality of independent manually operated elements, means for removing said disability by operating a predetermined one or ones of said elements, and means for making an alarm if the vehicle is moved while it is disabled.

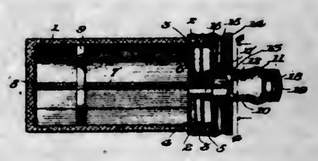


4. A theft preventing device for self-propelled wheeled vehicles, comprising means for disabling the vehicle, a plurality of independent manually operated elements, means for removing said disability by operating a predetermined one or ones of said elements, means for making an alarm if the vehicle is moved while it is disabled, and means for stopping the alarm by operating the said predetermined element or elements.

5. In a theft prevention device for automobiles, the combination of means for disabling the automobile, an electrically controlled restoring mechanism for restoring the disability; a circuit including the restoring mechanism, a source of current and a controller whereby the circuit is broken in a series of places; a plurality of push buttons each of which is adapted to close one of said breaks, means for preventing the depression of all of the buttons simultaneously, means independent of the buttons for closing continuously any one or more of the breaks, and means for making an alarm if a button belonging to one of closed break is pressed.

[Claims 6 to 19 not printed in the Gazette.]

1,139,758. DISPENSING DEVICE. LOUIS FISENNE, New York, N. Y., assignor of one-half to Charles Goldman, New York, N. Y. Filed July 18, 1913. Serial No. 779,726. (Cl. 221—79.)



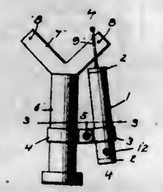
1. A dispensing device comprising a container, a screw-rod carrying a plunger and having at its outer end a propeller and a rotatable nozzle to which the propeller is attached to rotate therewith, substantially as described.

2. A dispensing device comprising a container, a plunger within the said container, a screw-rod for moving the plunger, a nozzle attached to the screw-rod, a propeller within and rotatable with the nozzle, and a disk connected with the nozzle to rotate the latter, substantially as described.

3. A dispensing device comprising a container, a closure-cap fitting within one end of the container and having a centrally disposed nipple, a discharge nozzle sleeved to the nipple of the closure-cap, a plunger within the container, a screw-rod for moving the plunger and fitting within the nipple and nozzle, and a propeller in the nozzle and connected with it and the screw-rod, substantially as described.

4. A dispensing device comprising a container, a plunger, a screw-rod for moving the plunger, an internal closure-cap fitting within one end of the container and having a centrally disposed nipple, an external cap secured to the end of the container, a rotatable discharge nozzle provided with an operating disk and having a swiveled connection with said cap, said screw-rod and rotatable nozzle being operatively connected with each other, substantially as described.

1,139,759. ELECTRICAL IGNITING DEVICE FOR AUTOMOBILE-LAMPS AND THE LIKE. FRANCIS N. FOX, Woodstock, Ohio. Filed June 30, 1914. Serial No. 848,240. (Cl. 175—115.)



1. A device of the class described, comprising the combination with a burner and an insulating wire support for sparking wires engaged over the burner; and a clamp member engaged around said burner, a clamp member engaged around said insulating wire support, said clamp members having interlocking ears, and means engaged through said interlocking ears to secure the clamp members in adjusted position for the purpose of supporting the sparking wires in position over said burner.

2. A device of the class described comprising the combination with a burner and an insulating wire support having sparking wires projecting from the same and engaged over said burner; and a clamping ring engaged around said burner and having spaced parallel ears directed outwardly from its opposite ends, a clamping ring engaged around said insulating member and having spaced parallel ears projecting outwardly from its opposite ends and engaged between the ears of the first mentioned clamping ring, and means engaged through the ears of the clamping rings to secure said clamping rings in adjusted position upon the burner and the insulating member and support the insulating member in proper position with respect to the burner to support the sparking wires over said burner.

1,139,760. GRIPPING DEVICE. WILLIAM C. GLASS, Roslindale, Mass., assignor to United Printing Machinery Company, Boston, Mass., a Corporation of Maine. Original application filed Nov. 8, 1912, Serial No. 730,165. Divided and this application filed Oct. 23, 1913. Serial No. 796,965. (Cl. 101—115.)



1. The combination of a carrier, a plurality of grippers mounted thereon, a lever connected with said grippers, by a stroke of which lever said grippers are operated, and cam-mechanism adapted to operate said lever positively for both opening and closing said grippers, the connections between said grippers and said lever comprising a spring adapted to cause said grippers to close upon the complete closing movement of said lever.

2. The combination of a carrier, a plurality of grippers mounted thereon, a lever connected with said grippers, by a stroke of which lever said grippers are operated, and cam-mechanism adapted to operate said lever positively for both opening and closing said grippers, the connections between said grippers and said lever comprising a spring adapted to be moved bodily by the operative movement of said lever and adapted to cause said grippers to close upon the complete closing movement of said lever.

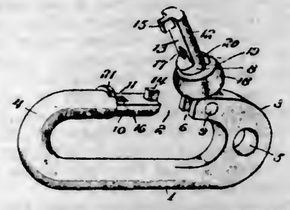
3. The combination of a carrier, a plurality of grippers mounted thereon, an actuating member connected with said grippers, by a stroke of which member said grippers are operated, and mechanism adapted positively to operate said member for both opening and closing said grippers, the connections between said grippers and said member comprising yielding means adapted to cause said grippers to close upon the complete closing movement of said member.

4. The combination of a carrier, a plurality of grippers mounted thereon, an actuating member connected with said grippers, by a stroke of which member said grippers are operated, and mechanism adapted positively to operate said member for both opening and closing said grippers, the connections between said grippers and said member comprising yielding means adapted to be moved bodily by the operative movement of said member and adapted to cause said grippers to close upon the complete closing movement of said member.

5. The combination of a carrier, a plurality of grippers mounted thereon, an actuating member connected with said grippers, by a stroke of which member said grippers are operated, and mechanism adapted to operate said member for both opening and closing said grippers, said mechanism comprising a positively acting fixed travel actuator, and the connections between said actuator and said grippers comprising yielding means adapted to cause said grippers to close upon complete closing movement of said member.

[Claims 6 to 8 not printed in the Gazette.]

1,139,761. LOGGING-HOOK. HENRY HARDISTY, Raymond, Wash., assignor of one-half to Elias Pierson, South Bend, Wash. Filed May 4, 1914. Serial No. 836,250. (Cl. 24—241.)

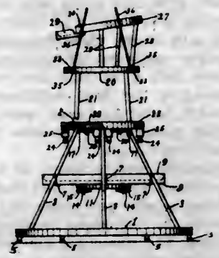


1. A hook of the class described comprising a body having an opening at one side and provided at one of its terminals with a reduced extension having a flat outer face, a latch member pivoted at the other terminal and extending across the said opening and provided with a reduced portion having a flat inner face, the flat faces of the two reduced parts being in contact when they are overlapped, said latch member being provided adjacent to its pivoted end with a longitudinal rib extending from the pivoted end of the latch member to the reduced portion, and a sleeve arranged on the latch member and provided with a groove adapted to receive the said rib, whereby the sleeve is slidable along the latch member and is movable to and from the said reduced portions, said sleeve when arranged on the overlapped reduced parts being located beyond the rib, whereby the sleeve is adapted to be rotated to carry the groove thereof away from the rib and thereby retain the sleeve on the said reduced parts for holding the latch member in its closed position.

2. A hook of the class described comprising a body provided at one side with an opening and having a reduced extension at one side of the opening, said extension being provided at one end with an outwardly projecting lug and having a transverse slot at its inner end, a latch member pivoted at the other side of the opening and having a reduced portion overlapping the said reduced extension, and provided at its inner end with a transverse slot and having an inwardly projecting lug at its outer end, the slots of the said overlapped portion and extension receiving the lugs thereof and interlocking the said parts at each end of the same, and a sleeve slidable on the latch member and movable to and from the overlapped portion and extension and adpted to retain the latter in their interlocked relation.

3. A hook of the class described comprising a body having an opening at one side, and provided at one of its terminals with a reduced extension, a latch member pivoted at the other terminal and extending across the said opening and provided with a reduced portion which is caused to overlap the said reduced extension, the combined diameter of the reduced portion and extension being substantially equal to the diameter of the adjacent portion of the body from which the said extension projects, interfitting lugs and slots provided in the reduced extension and reduced portion to provide an interlocking of the parts, a longitudinal rib provided on the latch member, a sleeve having a groove to receive the rib, and a stop provided on the body adjacent to the reduced extension and spaced from the rib.

1,139,762. INFANT'S COMBINATION-CARRIER. ALBIN HELLFRITZSCH, Milwaukee, Wis. Filed June 15, 1914. Serial No. 845,068. (Cl. 155—12.)



1. An infant's combination carrier, including a baby's walker unit, and a table top unit adjustable to either a superposed position of the baby walker unit or to a suspended position within the baby walker unit, and means for securing said table top unit in either position, substantially as described.

2. An infant's combination carrier, including a baby walker unit, a table top unit adjustable to either a superposed position of the baby walker unit or to a suspended position within the baby walker unit, means for securing said table top unit in either position, and a chair unit interchangeable with the table top unit in said superposed position, substantially as described.

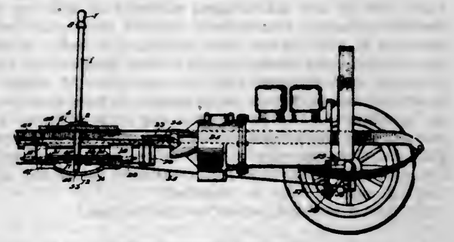
3. An infant's combination carrier, including a baby walker unit, a table top unit adjustable to either a superposed position of the baby walker unit or to a suspended position within the baby walker unit, means for securing said table top unit in either position, and a chair unit interchangeable with the table top unit in said superposed position, said chair unit and said baby walker unit each having a base provided with casters, the casters upon the chair unit being spaced from the base sufficiently to support the base from a floor at a higher level than the base of the baby walker unit, and the baby walker unit base being apertured to permit one or more of the casters on the chair base to pass through it, when said bases are adjusted in interacting relation, together with means for connecting the chair unit and baby walker unit above the bases when in such relation, substantially as described.

4. The combination of a baby walker unit provided with a caster supported base ring and also having a top ring, a chair unit provided with a base having an annular channel therein to receive the top ring of the baby walter unit, and casters connected with said chair unit base and adapted to support the latter at a sufficient height to allow it to overlap the base ring of the baby walker unit when the casters on both units are supported directly from the floor, whereby said units may interlap to form a combined chair and table, substantially as described.

5. The combination of a baby walker unit provided with a caster supported base ring, a chair unit provided with a caster supported base adapted to lap over one side of the baby walker base, and means for connecting the chair unit and baby walker unit above their bases, together with a table top unit normally connected with the baby walker unit intermediate of its top and bottom, and adapted to be adjusted to a superposed position upon the baby walker unit to constitute a table, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,139,763. AUTOMOBILE. FRANK HEMENWAY, Chicago, Ill. Filed Oct. 13, 1913. Serial No. 794,907. (Cl. 21—90.)



1. The combination with a motor driven vehicle provided with transmission gearing and steering mechanism, of a lever mounted on said vehicle to swing in two different directions; two plates slidably mounted on said vehicle, one of said plates being mounted to slide in one direction of swing of said lever and the other plate being mounted to slide in the other direction of swing of said lever, said plates being provided with intersecting slots arranged to correspond with the directions of swing of said lever and said lever being passed through said slots; and operative connections between said plates and said gearing and steering mechanism, whereby the movement of one plate shifts said gearing and the movement of the other plate operates said steering mechanism, substantially as described.

2. The combination with a motor driven vehicle provided with transmission gearing and steering mechanism, of a lever pivoted on said vehicle on two different axes; two plates slidably mounted on said vehicle, one of said plates being mounted to slide in one direction of swing of said lever and the other plate being mounted to slide in the other direction of swing of said lever, said plates being provided with intersecting slots arranged to correspond with the directions of swing of said lever and said lever being passed through said slots; and operative connections between said plates and said gearing and steering mechanism, whereby the movement of one plate shifts said gearing and the movement of the other plate operates said steering mechanism, substantially as described.

3. The combination with a motor driven vehicle provided with transmission gearing and steering mechanism, of a support on said vehicle mounted to swing in one direction; a lever mounted in said support to swing in a different direction; two plates slidably mounted on said vehicle, one of said plates being mounted to slide in one direction of swing of said lever and the other plate being mounted to slide in the other direction of swing of said lever, said plates being provided with intersecting slots arranged to correspond with the directions of swing of said lever and said lever being passed through said slots; and operative connections between said plates and said gearing and steering mechanism, whereby the movement of one plate shifts said gearing and the movement of the other plate operates said steering mechanism, substantially as described.

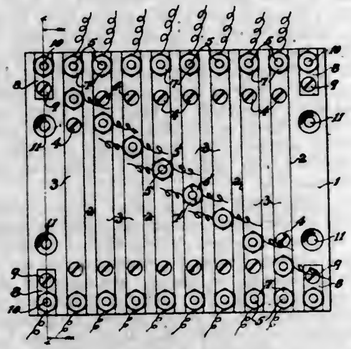
4. The combination with a motor driven vehicle provided with transmission gearing and steering mechanism,

of a support on said vehicle pivoted to swing on one axis; a lever pivoted in said support to swing on a different axis; two plates slidably mounted on said vehicle, one of said plates being mounted to slide in one direction of swing of said lever and the other plate being mounted to slide in the other direction of swing of said lever, said plates being provided with intersecting slots arranged to correspond with the directions of swing of said lever and said lever being passed through said slots; and operative connections between said plates and said gearing and steering mechanism, whereby the movement of one plate shifts said gearing and the movement of the other plate operates said steering mechanism, substantially as described.

5. The combination with a motor driven vehicle provided with transmission gearing and steering mechanism, of a lever mounted on said vehicle to swing in two different directions; two plates slidably mounted on said vehicle, one of said plates being mounted to slide in one direction of swing of said lever and the other plate being mounted to slide in the other direction of swing of said lever, said plates being provided with intersecting slots arranged to correspond with the directions of swing of said lever and said lever being passed through said slots; an operative connection between one of said plates and said steering mechanism; a tortuous guide on said other plate; a lever operable by said guide; and an operative connection between said last mentioned lever and said gearing, substantially as described.

[Claims 6 to 9 not printed in the Gazette.]

1,139,764. JUNCTION-BOARD. HAROLD HODGSON, ROY HODGSON, and JOHN GLAZBROOK, Chicago, Ill. Filed Mar. 1, 1912. Serial No. 680,818. (Cl. 247—13.)

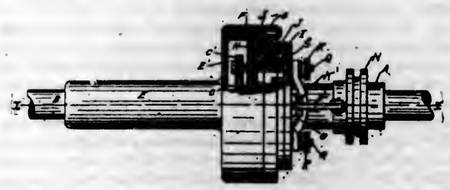


A device of the kind described comprising a base of insulating material having parallel grooves in one side thereof; a bus bar in and snugly fitting each of said grooves, the tops of said base and bus bars being substantially co-planar; screws securing each bus bar to said base, and binding posts secured to and extending outwardly from said bus bars, there being one binding post at each end of each bar, and one binding post intermediate the ends thereof, substantially as described.

1,139,765. FRICTION-CLUTCH. ADOLPH JAECKEL, Milwaukee, Wis., assignor to Verges Manufacturing Company, Milwaukee, Wis., a Corporation of Wisconsin. Filed June 30, 1913. Serial No. 776,473. (Cl. 192—7.)

1. The combination with a set of interacting driving and driven clutch disks, of an equalizing ring, clamping devices for the clutch disks, connected to opposite sides of the equalizing ring, and means for applying pressure to the ring at opposite sides thereof and between the clamping device connections.

2. The combination with a shaft, of a sleeve mounted thereon and provided with a fixed and a loose friction disk, an equalizing ring encircling said sleeve, levers pivotally connected with the loose disk and each having an arm engaging said ring, and clamping connections between the ring and the fixed disk engaging the ring between the points of lever engagement.



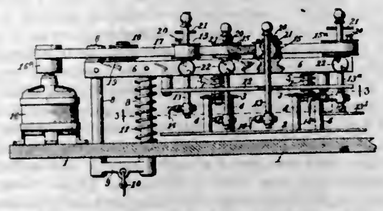
3. The combination with a shaft, of a sleeve mounted thereon and provided with a fixed and a loose friction disk, an equalizing ring encircling said sleeve, levers pivotally connected with the loose disk and each having an arm engaging said ring, clamping connections between the ring and the fixed disk, engaging the ring between the points of lever engagement, and means for adjusting the length of said connections.

4. The combination with a shaft, of a sleeve mounted thereon and provided with fixed and loose friction disks, a set of elbowed levers pivoted to one of said disks, with one arm of each extending along said sleeve, an equalizing ring encircling said sleeve and loosely engaged by the other arms of said levers, clamping means for drawing said disks together connected with the equalizing ring between the levers, and a shifting member provided with means for spreading the first mentioned arms of said levers, said levers being arranged, when spread, to impart a separating movement to the loose disk and equalizing ring respectively.

5. The combination with a shaft, of a sleeve mounted thereon and provided with fixed and loose friction disks, an equalizing ring loosely encircling said sleeve and connected therewith by clamping connections extending through said disks, and means for separating the ring and loose disk, operative upon the ring at points between the clamping connections, whereby, when a separating pressure is applied between the loose disk and ring, the disk will be forced inwardly and the ring will draw upon the clamping connections, substantially as described.

[Claims 6 to 11 not printed in the Gazette.]

1,139,766. HOST-CUTTER. JOSEPH JAKSA, Grand Rapids, Mich., assignor to Society of the Redemptorist Fathers, Grand Rapids, Mich., a Corporation of Michigan. Filed Sept. 25, 1913. Serial No. 791,725. (Cl. 107—20.)



1. A host cutter, comprising a table having an opening therethrough, rotary spindles yieldably supported above the table and each provided with a downwardly projecting spur or point forming a cutter, means for depressing the spindles and means for simultaneously rotating the same.

2. A host cutter, comprising a table having openings therethrough, a spring supported head above the table, means for depressing the head, a series of spindles journaled in the head, a clamp yieldably carried by the head, adapted to hold the material upon the table, downwardly projecting spur cutters on the respective lower ends of the spindles and belt gearing to simultaneously rotate the spindles.

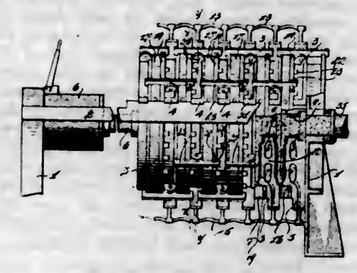
3. A host cutter, comprising a table, a vertically movable head above the table, a spring yieldably supporting the head, spindles journaled in the head and longitudinally movable therein, cutters on the lower end of the respective spindles, pulleys rotatable on the spindles, a stud in each pulley, a pin in each spindle to engage the stud and detachable therefrom and thumb screws in the head to engage and hold the respective spindles out of action.

4. A host cutter, comprising a table, posts vertically slidable in the table, a head carried by the post, a spring to yieldably support the head, a series of spindles journaled in the head, a downwardly projecting spur cutter on the lower end of each spindle, a clamp carried by the head, springs between the clamp and head to yieldably depress the clamp toward the table, and belt gearing to drive the spindles.

5. A host cutter, comprising a table having an opening therein, a vertically movable head above the table, spindles journaled in the head, rotating spur cutters on the spindles, a spring to support the head, means for depressing the head, a clamp on each side of the opening in the table, cross bars connecting clamps, pins fixed in the head supporting the cross bars and slidable therein, springs between the bars and the head and belt gearing for rotating the spindles.

[Claim 6 not printed in the Gazette.]

1,139,767. FILTER-PRESS. JOHN JOHNSON, Brooklyn, N. Y. Filed Feb. 9, 1912. Serial No. 676,478. (Cl. 100—50.)



1. In a force filter-press in combination, a compartment formed of separable side walls, collapsible joint-structure for closing the peripheral opening between said side walls, comprising a packing member, a carrying shoulder upon which said member is slidably mounted, an abutting face portion opposed to said packing member, means for locking the front of said packing member against said face portion, and a spacing device therefor separable from said side walls mounted upon said carrying shoulder at the rear of said packing member.

2. In a force filter press in combination, a compartment formed of separable side walls, collapsible joint-structure for closing the peripheral opening between said side walls, comprising a packing member, a carrying shoulder upon which said member is slidably mounted, an abutting face portion opposed to said packing member, means for locking the front of said packing member against said face portion, a spacing device mounted upon said carrying shoulder at the rear of said packing member, and retaining means for holding said packing member, locking means, and spacing device upon said carrying shoulder.

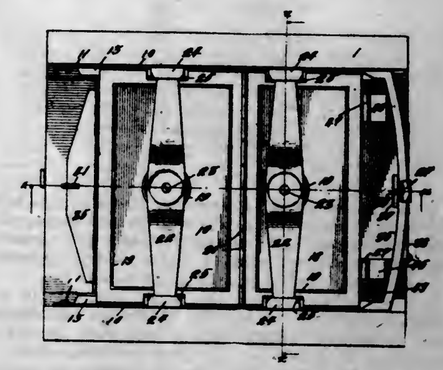
3. A force filter press comprising in combination a collapsible tank of one or more compartments, each formed of separable side walls substantially lined with filtering material, collapsible joint-structure for closing the peripheral openings between the coöperating side walls, comprising one or more packing members and corresponding carrying shoulders upon which said packing members are slidably mounted, an abutting face portion opposed to each packing member with the filter lining of the corresponding compartment extending therebetween, cam means for locking the front of each packing member against said opposed face portion upon the interposed filter lining for sealing the joint, a spacing device mounted upon said carrying shoulder at the rear of each packing member, and retaining means for holding each associated packing member, cam means, and spacing device upon its corresponding carrying shoulder.

4. A force filter press comprising in combination, a collapsible tank of one or more compartments, each formed of separable opposed filter plates substantially lined with filtering material, and having an inlet through their centering for substance to be filtered, collapsible joint-structure for closing the peripheral openings between said coöperating filter plates, comprising a packing ring, a carrying shoulder formed adjacent the periphery of said plates upon which said packing ring is slidably mounted, an abutting face portion formed upon the opposed plate, the filter lining of said compartment extending between said abutting face portion and packing ring, a cam ring behind said packing ring for locking its front against said opposed face portion upon the interposed filter lining for sealing the joint, a toothed spacing ring located behind said packing ring and coöperating with notches in said carrying shoulder for varying the space between said opposed filter plates, and retaining means for holding said associated packing ring, cam ring, and spacing ring upon said carrying shoulder.

5. In a force filter-press in combination, a compartment formed of separable side walls, a collapsible joint-structure for closing the peripheral opening between said walls, comprising a toothed spacing device and an opposed portion having notches coöperating therewith.

[Claims 6 to 12 not printed in the Gazette.]

1,139,768. PRINTING-FRAME. WALFRED JOHNSON, Milwaukee, Wis. Filed Mar. 27, 1911. Serial No. 617,090. (Cl. 95—77.)



1. A printing apparatus, comprising a main frame, an auxiliary frame pivoted to the main frame near one end, a set of press boards mounted in the auxiliary frame, independent connections between each of the press boards and the auxiliary frame, adapted to permit each press board to be lifted relatively to the auxiliary frame and independeptly of the other press board, and means for detachably securing the frames together at the end opposite the pivoted end.

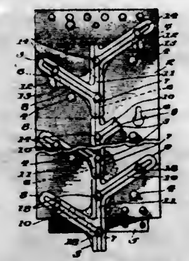
2. A printing apparatus, comprising a main frame, an auxiliary frame pivoted to the main frame near one end, a set of press boards mounted in the auxiliary frame, and a hasp for detachably securing the frames together at the end opposite the pivoted end, said auxiliary frame being provided with resilient clamping members for the press boards and having retaining ears for said clamping members, provided with downturned corners.

3. A printing apparatus, comprising a main frame, an auxiliary frame pivoted to the main frame near one end, a set of press boards mounted in the auxiliary frame, and a hasp for detachably securing the frames together at the end opposite the pivoted end, together with a margin former provided with a slot and comprising a thin open metal frame, adjustably mounted on the main frame between it and the auxiliary frame and press boards and swiveled latches for holding the margin former in position, one of said latches extending through the slot in the margin former.

4. A printing apparatus, comprising a main frame, an auxiliary frame pivoted to the main frame near one end, a set of press boards mounted in the auxiliary frame, and a hasp for detachably securing the frames together at the end opposite the pivoted end, together with a margin former, comprising a thin open metal frame, adjustably mounted on the main frame between it and the auxiliary frame and press boards, said margin former having gage members at one end and at one side adjacent to such end.

5. A printing apparatus, comprising a main frame, an auxiliary frame, having angle metal side bars with horizontal flanges pivoted to the main frame near one end, a set of press boards mounted in the auxiliary frame and having portions overlapping the horizontal flanges of the side bars, and a hasp for detachably securing the frames together at the end opposite the pivoted end, said main frame being shouldered to receive a negative supporting plate, and channeled in front of the shoulder to receive a slide.

1,139,769. TRACTION-WHEEL. EDWARD A. JOHNSTON, Chicago, Ill., assignor to International Harvester Corporation, a Corporation of New Jersey. Filed Feb. 3, 1913. Serial No. 745,843. (Cl. 21—215.)



1. In a traction wheel, a tire having elongated slots with locking portions, a plurality of traction lugs having portions thereof protruding through said slots and normally engaging said locking portions, and a locking lug bolted to said tire and locking all of said lugs to said tire.

2. In a traction wheel, a tire having longitudinally extending slots therein, a plurality of traction lugs having portions movable longitudinally of said slots, and a key lug locking all of said lugs in a predetermined position.

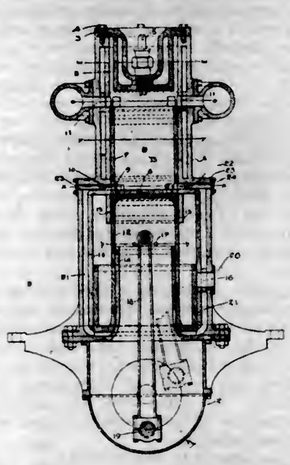
3. In a traction wheel, a tire, a plurality of spokes having their ends riveted to the outer surface of said tire, a plurality of lugs, each provided with means for removably attaching the same to said tire, and a key lug locking all of said lugs to said tire and itself connecting the ends of said tire.

4. In a traction wheel, a tire, a plurality of spokes protruding through the outer surface of said tire, a plurality of lugs removably attached to said tire and freely movable over the extremities of said spokes, and a key lug locking all of said lugs in position upon said tire.

5. A traction lug comprising a longitudinally disposed body portion having a plurality of integral arms protruding angularly therefrom in opposite directions adjacent the opposite ends of the same, and means carried by the lug for removably attaching it to a support by shifting said lug relative to the support.

[Claims 6 to 10 not printed in the Gazette.]

1,139,770. INTERNAL-COMBUSTION ENGINE. FELIX JOSWICH, St. Paul, Minn. Filed Feb. 10, 1912. Serial No. 676,917. (Cl. 123—65.)



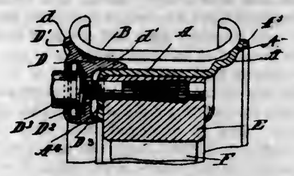
An engine of the class described, comprising a cylinder provided with an explosion chamber in one of its ends and a compression chamber in its opposite end, said explosion chamber having opposed exhaust ports at one of its ends and opposed inlet ports at its other end, a piston slidably mounted within said explosion chamber, an upwardly extending sleeve carried by said piston and cooperating with the inlet ports and the exhaust ports of the explosion chamber, and a plunger carried by said piston at the side thereof opposite to said sleeve, said plunger being slidably mounted within the compression chamber of the cylinder, the cylinder being provided with communicating passages arranged between the lower end of the compression chamber and the inlet ports of the cylinder for conveying the gases from the compression chamber to said inlet ports, said compression chamber being formed with an inlet port above its lower end, and said plunger being formed with a return wall overlapping said port when the piston is in lowered position.

1,139,771. HINGE. THOMAS J. KEHOE, Toledo, Ohio. Filed Mar. 4, 1914. Serial No. 822,325. (Cl. 16—5.)



A hinge having a socket member provided with spaced walls, a plate for securing to the edge of a door, a tongue projecting from an edge of said plate at right angles thereto and having ears projecting therefrom in the direction of projection of said plate, said ears being spaced to fit loosely between the spaced walls of the socket member, said walls and ears having axially registering pintle receiving openings, a pair of pintles removably inserted into said openings from between said ears and having portions for limiting their outward movements, and a spring member removably positioned between the inner ends of said pintles in end thrust contact therewith to retain them in assembled relation.

1,139,772. FELLY-BAND. JOHN KELSEY, Detroit, Mich. Filed Aug. 29, 1914. Serial No. 859,257. (Cl. 152—21.)



1. As an article of manufacture, a sheet metal felly band for a wheel, said band having an inclined flange upon its inner edge, said flange provided with two spaced annular rim seats or abutments thereon, said abutments positioned at different distances from the axis of said wheel.

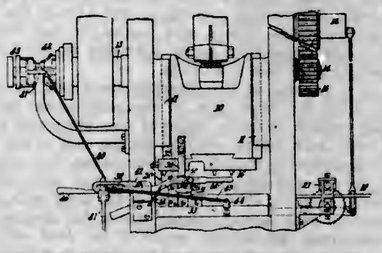
2. The combination with a felly band, of a flange upon one edge thereof, and annular rim seats upon said flange, said rim seats spaced from each other and from the axis of the wheel.

3. The combination with the felly and felly band of a wheel, of a flange upon said felly band, said flange having spaced annular rim seats thereon for clencher and straight side rims respectively, bolts passing through said felly, and clamps thereon, said clamps having each a flange, and each flange having corresponding spaced seats thereon for clencher and straight side rims respectively.

4. The combination with a wheel felly, of a felly band therefor having an outwardly inclined inner flange thereon and annular seats respectively for clencher and straight side rims, the outer edge of said flange being laterally extended, substantially as and for the purpose set forth.

5. The combination with a felly band, of a flange upon the outer edge thereof, extending toward the axis thereof, an inclined flange upon the inner edge of said felly band and independent annular seats for clencher and straight side rims respectively spaced apart in said inner flange and clamps for securing said rims to said felly band, each clamp provided with corresponding independent seats for said respective rims.

1,139,773. AUTOMATIC STOP MECHANISM FOR PRESSES OR THE LIKE. WILLIAM J. KENT, New York, N. Y. Filed Oct. 28, 1912. Serial No. 728,270. (Cl. 74—46.)



1. A press having means for stopping it, a part moving in unison with the press plunger and tending to operate said stopping means, and means adapted to contact with the work fed to the press, and when displaced thereby, to render said part moving in unison with the press plunger inoperative to affect said stopping means, whereby the stopping of the press is prevented when the work is properly fed.

2. A stopping mechanism for presses, comprising a clutch, means adapted to throw said clutch into and out of operation, said means operating normally to maintain said clutch in operation, a part adapted to move in unison with the press plunger and tending to operate said means to throw said clutch out of operation, and means adapted to contact with the work fed to the press and when displaced thereby, to render said part moving in unison with the press plunger inoperative to affect said clutch operating means, whereby the stopping of the press is prevented when the work is properly fed.

3. A press having means for stopping it, and an arm for operating said stopping means, said means being normally in a position to operate the press, means adapted to move in unison with the plunger of the press, and adapted to control the operation of said arm, and means adapted to engage an article fed to the press and when displaced thereby to render the same part moving in unison with the plunger, inoperative to affect said arm, whereby the stopping of the press is prevented when the press is properly fed.

4. A press having means for stopping it, a part moving in unison with the press plunger and tending to operate said stopping means, and means adapted to contact with the work fed to the press, comprising a stop, adapted when displaced by said work, to render said part moving in unison with the press plunger inoperative to affect said stopping means, whereby the stopping of the press is prevented when the work is properly fed.

5. A press having means for stopping it, a part moving in unison with the press plunger and tending to operate said stopping means, and means adapted to contact with the work fed to the press, comprising a spring-pressed stop normally pressed into position to render said part moving in unison with the plunger operative to affect said stopping means, and adapted when displaced by said work, to render said part moving in unison with the press plunger inoperative to affect said stopping means, whereby the stopping of the press is prevented when the work is properly fed.

[Claims 6 to 23 not printed in the Gazette.]

1,139,774. ANTISEPTIC COMPOUND. WILLIAM JOHN KNOX, Goldfield, Nev., assignor, by direct and mesne assignments, to Knox Thenardine Chemical Company, New York, N. Y., a Corporation of West Virginia. Filed Apr. 20, 1909. Serial No. 491,205. (Cl. 167—9.)

1. An antiseptic surgical dressing consisting of concentrated hydrogen peroxid in finely-divided globules enmeshed in a paraffin chemically of the methane series and which is chemically inert to the hydrogen peroxid.

2. An antiseptic surgical dressing consisting of concentrated hydrogen peroxid in finely-divided globules inclosed in an elastic neutral vehicle which is chemically inert to the hydrogen peroxid.

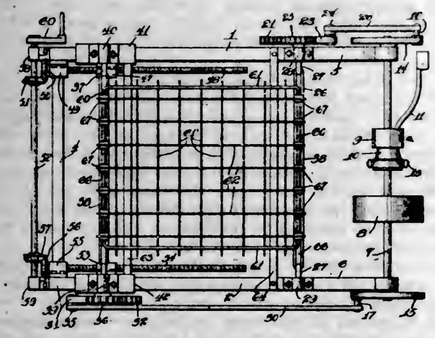
1,139,775. MACHINE FOR MAKING GRILLE WORK. FRANK A. KORLASKY, Rhinelander, Wis. Filed Jan. 16, 1914. Serial No. 812,549. (Cl. 140—24.)

1. In a machine for anchoring the terminals of grille rods or wires to a grille frame, means for supporting a grille frame with the grille rods or wires below the frame, jaw devices for engaging opposing sides of the frame and opposite ends of the wires or rods, and means for moving said devices about the frame portions engaged thereby as axes to bend the ends of the wires or rods about said frame portion, substantially as described.

2. In a machine for anchoring the terminals of grille rods or wires to a grille frame, means for supporting the frame with the grille rods or wires below the frame, jaw devices for engaging opposing sides of the frame and opposite ends of the wires or rods, and means for moving said devices about the frame portions engaged thereby as axes to simultaneously bend each end of the wires or rods about said frame portions, substantially as described.

3. In a machine for anchoring the terminals of grille rods or wires to a grille frame, means for supporting the

frame and grille rods or wires, jaw devices for engaging opposing sides of the frame and opposite ends of the wires or rods, and means for moving said devices about the frame portions engaged thereby as axes to bend the ends of said wires or rods about said frame portions substantially as described.

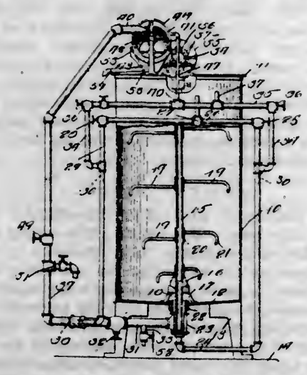


4. In a machine for anchoring the terminals of grille rods or wires to a grille frame, devices for engaging the opposing sides of the frame and opposite ends of the wires or rods, and means for moving said devices about the frame portions engaged thereby as axes to bend the ends of said wires or rods about said frame, substantially as described.

5. In a machine for anchoring the terminals of grille rods or wires to a grille frame, devices engaging opposing sides of the frame and opposite ends of the wires or rods, and means for moving said devices toward each other and about the frame portions engaged thereby as axes to bend the ends of said wires or rods about said frame portions, substantially as described.

[Claims 6 to 17 not printed in the Gazette.]

1,139,776. FILTER-MASS WASHER. JOSEPH KRAUS, Anaconda, Mont. Continuation of application Serial No. 566,991, filed June 15, 1910. This application filed June 5, 1913. Serial No. 771,910. (Cl. 141—12.)



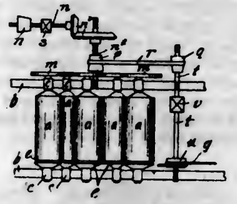
1. A filter mass washing machine comprising a vertical casing constructed and arranged to contain a filter mass, means to inject water into said casing, a pipe having communication with said casing arranged to convey the filter mass from the bottom to the top thereof, means connected to the said pipe and to the injecting means to supply the said injecting means and pipe with water to simultaneously convey water into the casing and force the filter mass upwardly through the said pipe.

2. A filter mass washing machine, comprising a vertical casing, a vertically extending injecting pipe in said casing, a pipe connected to the bottom of the said casing and extending upwardly externally thereof to the top of the casing and constructed and arranged to convey water and filter mass from the bottom of the casing to the top thereof, a water supply pipe connected to the said injecting pipe and to the said conveying pipe, a steam pipe connected to the water supply pipe to inject steam thereinto whereby the temperature of the water will be raised, the water injected into the casing and the filter mass forced upwardly through the conveyer pipe.

3. A filter mass washing machine comprising a casing, a hollow shaft in said casing, a conveyer pipe connected to the lower end of the said casing and extending upwardly to the upper end thereof, a U-shaped pipe extending into the said conveyer pipe and the said hollow shaft, a steam main located in the bight portion of the said pipe, a second U-shaped pipe having the ends of its legs connected to the legs of the first-mentioned U-shaped pipe between the ends thereof to supply the said legs with water, the said pipes being so arranged that when steam and water are conveyed therethrough the temperature of the water will be raised, the hollow shaft supplied with heated water and the filter mass forced upwardly through the conveyer pipe.

4. A filter mass washing machine comprising a casing, a hollow shaft therein, a pipe for conveying the filter mass from said casing connected to the lower end thereof and extending upwardly and emptying into the upper end, a U-shaped pipe having one open end thereof extending into the said conveyer pipe adjacent its connection with the casing and the other end thereof connected to the hollow shaft, a steam main connected to the bight portion of said pipe, nozzles arranged in the legs of the said pipe and extending downwardly, water pipes connected to the legs of the said U-shaped pipe adjacent the ends of the nozzles whereby when steam and water are simultaneously injected into said legs the casing will be supplied with heated water and the filter mass forced upwardly through the conveyer pipe.

1,139,777. DRIER-ROLLS OF PAPER-MAKING MACHINES. PHILIP J. LAMOUREUX, Camas, Wash. Filed Aug. 20, 1914. Serial No. 857,753. (Cl. 34—48.)



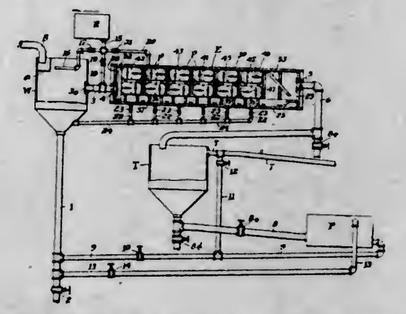
1. In a machine of the character described, the combination with the drier rolls, of rotatable means for supporting endless carriers adjacent the periphery of the drier rolls, such means rotating on the axis of the latter but independently thereof, and means for independently driving said supporting means relatively to the speed of the periphery of said drier rolls.

2. In a machine of the character described, the combination with the drier rolls, of rotatable means for supporting endless carriers adjacent the periphery of the drier rolls, such means rotating on the axis of the latter but independently thereof, driving means, for said carriers, such means adapted to be connected with and disconnected from the driving means of the drier rolls, means included in said carrier driving means for disconnecting the same from the driving means of the drier rolls, and means for varying the speed of the driving means of the carrier.

3. In a machine of the character described, the combination with the drier rolls and the fixed bearings in which the same are journaled, of pulleys mounted on said fixed bearings and rotating about the axis of the drier rolls, and means for independently driving said pulleys relatively to the speed of the periphery of said drier rolls.

4. In a machine of the character described, the combination with the drier rolls and the fixed bearings in which the same are journaled, of pulleys mounted on said fixed bearings and rotating about the axis of the drier rolls, driving means, for said carriers, such means adapted to be connected with and disconnected from the driving means of the drier rolls, and means for varying the speed of the driving means of the carrier.

1,139,778. ELECTROCHEMICAL PROCESS OF TREATING WATERS, LIQUIDS, AND SEWAGE. CLARENCE P. LANDRETH, Philadelphia, Pa. Filed Oct. 12, 1914. Serial No. 866,198. (Cl. 204—25.)



1. The method of treating sewage or liquid containing putrescible material, which consists in adding thereto a material of such character and in such quantity as to insure free alkali in the liquid, passing electric current through the liquid to produce nascent oxygen, and subjecting putrescible material to the effects of nascent oxygen, whereby said material is rendered non-putrescent.

2. The method of treating sewage or liquid containing putrescible material, which consists in adding thereto a material of such character and in such quantity as to insure free alkali in the liquid, said added material and content of said liquid yielding a flocculant, and passing an electric current through said liquid, whereby putrescible material is subjected to the effects of resultant nascent oxygen and the liquid clarified by said flocculent, the effluent being alkaline.

3. The method of treating putrescible material, which consists in adding alkali to liquid containing said material in such quantity as to insure free alkali in the liquid, passing electric current through the liquid, whereby said material is subjected to the effects of resultant nascent oxygen, and thereafter separating the liquid from the solid content.

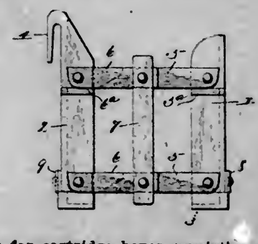
4. The method of treating putrescible material, which consists in adding to the liquid containing the putrescible material a material of such character and in such quantity as to insure free alkali in the liquid, and passing an electric current therethrough, whereby said putrescible material is subjected to the effects of resultant nascent oxygen, the liquid after the electric treatment containing free alkali.

5. The method of treating sewage or liquid containing putrescible material, which consists in adding thereto calcium hydroxid in such quantity as to insure free alkali in the liquid, and passing electric current through the liquid, whereby nascent oxygen is produced and the putrescible material rendered non-putrescent and the effluent caused to contain ample oxygen.

[Claims 6 to 70 not printed in the Gazette.]

1,139,779. CARTRIDGE-BOX CARRIER. JOSEPH PETER LENHARTH, St. Louis, Mo. Filed June 17, 1914. Serial No. 845,693. (Cl. 224—13.)

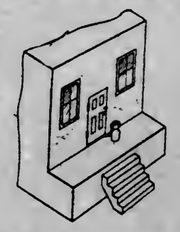
1. A cartridge box carrier comprising corner posts having at their lower ends box supporting webs, and pivoted links connecting said posts respectively to each other, each link having one end connected to a post and the other end portion to an adjacent link, said links resting in a horizontal position when the device is in use, the posts being movable toward a common center when the links are in folded position.



2. A carrier for cartridge boxes consisting of four corner members adapted to maintain a vertical position and to support a box when in open position, pivoted links connecting said corner members, and means carried by two of said corner members for attaching them to a garment, said corner members when in closed position being movable toward each other and toward a common center.

3. A device of the kind described comprising angled corner posts, the rear posts having their upper ends extended and bent to form hooks, links pivotally connected to each other, and to the front corner posts, links pivotally connected to each other and to the rear posts, links pivotally connected respectively to each other and to the front and rear posts, and upright bars pivotally connected to the links last mentioned, as and for the purpose set forth.

1,139,780. SAFETY-LOCK FOR MILK-BOTTLES. LOUIS LEVITT and ISIDOR RENDELMAN, New York, N. Y. Filed Apr. 4, 1914. Serial No. 829,409. (Cl. 232—42.)



1. A safety lock for milk bottles comprising a cap formed of a plurality of sections, flexible means disposed within the latter to snap oved the neck of a bottle, registering ears at the free edges of the sections, and means passing through said registering ears and engaging under a door to lock the sections together and prevent theft of the bottle.

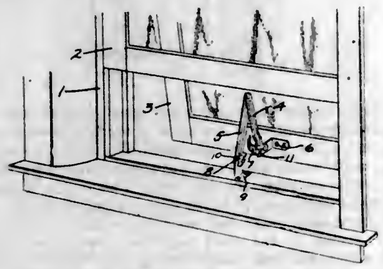
2. A safety lock for milk bottles comprising a cap formed of a plurality of sections, said sections having means for snapping over the neck of a bottle, registering ears at the free edges of the sections, and flexible means passing through said registering ears engaging under a door to lock the sections together and prevent theft of the bottle.

3. A safety lock for milk bottles comprising a cap formed of a plurality of sections which fit about the neck of a bottle, registering ears at the free edges of the sections, and flexible means passing through said registering ears comprising a link having a flattened portion passing under a door to lock the sections together and prevent theft of the bottle.

4. A safety lock for milk bottles comprising a cap formed of a plurality of sections said cap having means for snapping over the neck of a bottle, registering ears at the free edges of the sections, and a chain comprising a plurality of links passing through said registering ears engaging under a door to lock the sections together to prevent theft of the bottle.

5. A safety device for milk bottles comprising a plurality of caps, each cap formed of a plurality of sections adapted to snap over the neck of a bottle, registering ears at the free edges of the sections, and a flexible member passing through the registering ears in all of the caps to maintain the latter locked about the necks of the bottles.

1,139,781. STAY AND FASTENER FOR STORM-SASH. VERNIE LOCKWOOD, Motley, Minn. Filed May 11, 1914. Serial No. 837,645. (Cl. 16—22.)



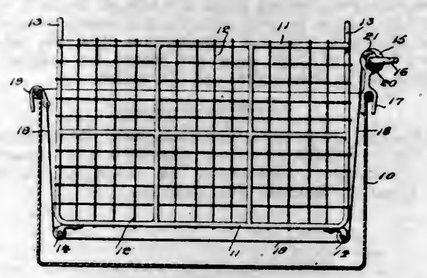
1. The combination with a window frame and sash, the latter being hinged to the former, of a frame bracket and a sash bracket, secured, respectively, to said frame and sash, a toggle, one member of which is pivotally secured to said sash bracket, and a clamp pivotally connecting the other member of said toggle to said frame bracket, in different angular adjustments, to hold said sash open, and for clamping the outer ends of both members of said toggle to said frame bracket, for holding said sash closed.

2. The combination with a window frame and sash, the latter being hinged to the former, of a frame bracket and a sash bracket, secured, respectively, to said frame and sash, a toggle, one member of which is pivotally secured to said sash bracket, and a clamp pivotally and detachably connecting the other member of said toggle to said frame bracket, in different angular adjustments, to hold said sash open, and for clamping the outer ends of both members of said toggle on opposite sides of said frame bracket, for holding said sash closed.

3. The combination with a window frame and sash, the latter being hinged to the former, of a frame bracket and a sash bracket, secured, respectively, to said frame and sash, a toggle, one member of which is pivotally secured to said sash bracket, and a thumb-nut-equipped bolt pivotally and detachably connecting the other member of said toggle to said frame bracket, in different angular adjustments, to hold said sash open, and for clamping both members of said toggle to said frame bracket, for holding said sash closed, the member of said toggle which is pivoted to said sash bracket having a notch embracing said bolt, when said sash is closed.

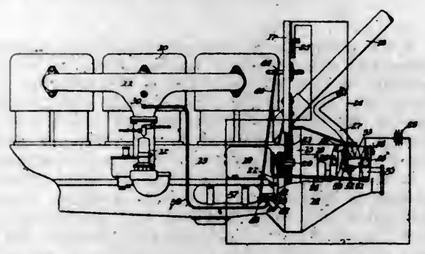
1,139,782. WASHBOILER CLOTHES-DRAINER. MARY A. LONG, Fargo, N. D. Filed Sept. 3, 1912. Serial No. 718,311. (Cl. 68—30.)

The combination with a wash boiler and a foraminous holder adapted to be removably positioned within the boiler, of means detachably connected with the boiler and detachably engaging the holder for lowering the holder into or lifting it out of the boiler, said means including a flexible element passing beneath the holder and carrying a hook member for securing the adjacent end of said element to the upper edge of the boiler at one end thereof, and a winding device connected with the said element at its opposite extremity, said winding device including a pair of bracket plates having their lower terminals bifurcated to form arms arranged to embrace the upper edge of the boiler at the end thereof opposite to said hook member with the said arms extending vertically of the wall of the boiler upon opposite sides thereof, an axle journaled in the brackets, a drum carried by the axle and arranged between the bracket plates, a crank formed on one terminal of the axle, a ratchet disk carried



by the axle, and a pawl pivoted to one of the bracket plates and engageable with the ratchet disk for holding the drum against movement in one direction.

1,139,783. STARTING MECHANISM FOR INTERNAL-COMBUSTION ENGINES. ALLEN LOOMIS, Detroit, Mich., assignor to Packard Motor Car Company, Detroit, Mich., a Corporation of Michigan. Filed Apr. 25, 1912. Serial No. 693,059. (Cl. 123—179.)



1. The combination with an internal combustion engine, of an electric motor, sliding connections for gearing said motor to said engine, a storage battery and connections and switches in circuit with said motor for operating the latter, a gas supply and valve for injecting an explosive gas into the intake manifold of said engine, means for operating the sliding connection of said motor, and connections from said means to said valve for operating the latter.

2. The combination with an internal combustion engine, of an electric motor adapted to be connected thereto for cranking the engine, a storage battery and connections for operating said motor, a switch to control the battery circuit, a gas tank and connections for supplying an explosive gas to said engine, a valve in said tank connections, a manually operable device, and means whereby said device is adapted to actuate said valve only when said electric motor is connected to said engine for cranking the latter.

3. The combination with an internal combustion engine, of an electric motor adapted to be connected thereto for cranking the engine, a storage battery and connections for operating said motor, a switch to control the battery circuit, a gas tank and connections for supplying an explosive gas to said engine, a valve in said tank connections, a manually operable device, means whereby said device is adapted to actuate said valve only when said electric motor is connected to said engine for cranking the latter, and manually controlled means for independently actuating said valve.

4. The combination with an internal combustion engine, of means for cranking said engine including an auxiliary motor, a gas tank and connections for supplying an explosive gas to said engine, a valve in said tank connections, a manually operable device, connections between said device and said auxiliary motor and said valve for controlling them, and a hand lever for independently operating said valve to open it and for positioning it so that it is inoperative with the auxiliary motor.

5. The combination with an internal combustion engine, of an electric motor adapted to be connected thereto for cranking the engine, a storage battery and connections for operating said motor, a switch to control the battery circuit, a gas tank and connections for supplying an explosive gas to said engine, a valve in said tank connections, a device under the control of the operator, means whereby said device is adapted to actuate said valve when said electric motor is connected to said engine for cranking the latter, and means under the control of the operator for independently actuating said valve.

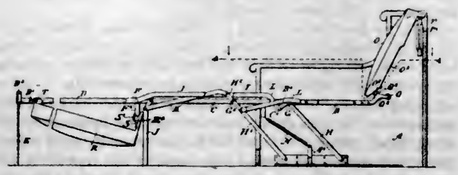
1,139,784. COMBINATION STEP-LADDER AND IRONING-BOARD. RICHARD C. LOWE, Virginia, Ill. Filed Sept. 8, 1914. Serial No. 860,754. (Cl. 228—32.)



1. A combined ironing-board and step-ladder comprising a main frame, an auxiliary frame pivotally mounted therein, a strut hingedly connected at one end to the main frame and provided with a keeper, a latch bar carried by the auxiliary frame and engageable with said keeper, and means whereby the keeper may be positively engaged with one end of the auxiliary frame when the latter is swung to an angular position relative to the main frame, as and for the purpose described.

2. A combined ironing-board and step-ladder embodying a main frame, an auxiliary frame pivotally connected thereto, a board hingedly connected at one end to one end of the main frame and provided on its face with a keeper projecting therefrom, and a latch bar carried by the auxiliary frame and engageable with said keeper, the auxiliary frame being provided at one end with a recess adapted to receive said keeper with the auxiliary frame swung to an angular position relative to the main frame, as and for the purpose set forth.

1,139,785. CONVERTIBLE BED AND DIVAN OR SOFA. JOSEPH LUPPINO, New York, N. Y., assignor to Manhattan Divanette Co., Brooklyn, N. Y., a Corporation of New York. Filed May 29, 1914. Serial No. 841,830. (Cl. 5—49.)



1. A convertible bed and divan, comprising a stationary main frame, a head section, a middle section pivotally connected with the said head section, a foot section, a connecting link pivotally connecting the middle section with the said foot section, parallel bars fulcrumed on the said main frame, and of which the rear bar is pivotally connected with the joint of the head section and middle section, and the forward bar is pivotally connected with the middle section at a point between the ends, and a link connecting the said head section with the said connecting link.

2. A convertible bed and divan, comprising a stationary main frame, a head section, a middle section pivotally connected with the said head section, a foot section, a connecting link pivotally connecting the said middle section with the said foot section, parallel bars fulcrumed on the said main frame and of which the rear bar is pivotally connected with the joint of the head section and middle section, and the forward bar is pivotally connected with the middle section at a point between the ends, a link connecting the said head section with the said connecting link, and a link connecting the forward bar with the said head section.

3. A convertible bed and divan, comprising a stationary main frame, a head section, a middle section pivotally connected with the said head section, a foot section, a connecting link pivotally connecting the said middle section with the said foot section, parallel bars fulcrumed on the said main frame, and of which the rear bar is pivotally connected with the joint of the head section and middle section and the forward bar is pivotally connected with the middle section at a point between the ends, a link connecting the said head section with the said connecting link, a leg pivoted on the outer end of the middle section, and a link connecting the said leg with an extension on the upper end of the said forward bar.

4. A convertible bed and divan, comprising a stationary main frame, a head section, a middle section pivotally connected with the said head section, a foot section, a connecting link pivotally connecting the said middle section with the said foot section, parallel bars fulcrumed on the said main frame and of which the rear bar is pivotally connected with the joint of the head section and middle section and the forward bar is pivotally connected with the middle section at a point between the ends, the said head section having a forward extension, and a link pivotally connecting the head section extension with the said connecting link at a point between the ends of the said connecting link.

5. A convertible bed and divan, comprising a stationary main frame, a head section, a middle section pivotally connected with the said head section, a foot section, connecting links pivotally connecting the said middle section with the said foot section, an angular bar connecting the said links, parallel bars fulcrumed on the said main frame, and of which the rear bar is pivotally connected with the joint of the head section and middle section and the forward bar is pivotally connected with the middle section at a point between the ends, links connecting the said head section with the said connecting links, a divan back, and a slide on the upper end of the said main frame and to the upper end of which the upper end of the said divan back is pivoted, the lower end of said back being engaged by the said head section.

[Claims 6 to 11 not printed in the Gazette.]

1,139,786. CANDY-PULLING MACHINE. EDWARD F. MCCARTHY and EDWARD W. WILSON, Chicago, Ill. Filed July 28, 1914. Serial No. 853,685. (Cl. 107—30.)

1. A candy pulling machine comprising a standard, a vibratory lever fulcrumed upon said standard, a candy engaging pin at the free end of said lever, a rotary arm mounted upon the standard above the fulcrum of the lever, a pin carried by said arm, brackets secured rigidly to the standard respectively above and below said arm, pins fixed to said brackets, and means for rotating said arm and vibrating said lever simultaneously.

2. A candy-pulling machine comprising a support, stationary pins mounted in reëntrant relation to the said support, a rotatable arm mounted upon the support and adapted to move past the ends of said stationary pins,

pins carried by the said rotatable arm and movable past the stationary pins above and below the same, and a vibratory lever mounted upon the support and having its free end provided with a pin adapted to move between the stationary pins and intersect the paths of the pins carried by the rotatable arm.



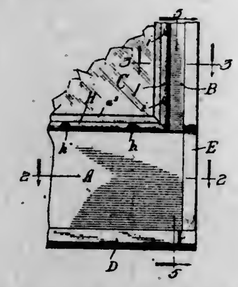
3. In a candy-pulling machine, the combination of a pair of stationary pins, and movable pins coacting with the stationary pins and disposed diametrically opposite each other, one of said pins describing a circle lying entirely between the stationary pins and the other of said movable pins describing a circle inclosing both said stationary pins.

4. In a candy-pulling machine, the combination of a pair of stationary pins, movable pins describing circular paths, one of said paths lying between the stationary pins and the other of said paths inclosing the pair of stationary pins, and an oscillatory pin traversing an arc passing between the stationary pins and intercepting the circular paths of the first-mentioned movable pins.

5. In a candy-pulling machine, the combination of a pair of pins traveling in independent concentric circles, and a vibratory pin traversing an arc intersecting said circles.

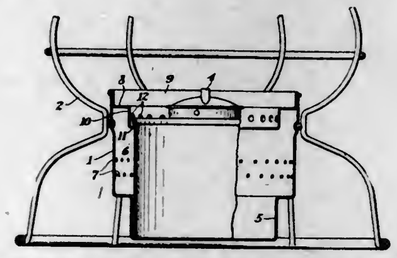
[Claims 6 to 11 not printed in the Gazette.]

1,139,787. METAL WINDOW-SASH. BENJAMIN S. MCCLELLAN, Chicago, Ill. Filed Jan. 17, 1913. Serial No. 742,568. (Cl. 189—76.)



A window sash, comprising horizontal and vertical sheet metal body members, each having side walls joined at their inner edges by a connecting portion, the connecting portion of said vertical body member extending to the end of such member and the connecting portion of the horizontal body member terminating short of the end of such member, said members being secured together with the end portions of their side walls in overlapping relation, and with the end margin of the connecting portion of said horizontal body member abutting edgewise against and intermediate the ends of the connecting portion of the vertical body member, and means for holding the connecting portions of said members in abutting relation, embracing filling pieces of wood or the like inserted between the side walls of said members with the connecting portion of said vertical body member interposed therebetween, and fastening members inserted into said filling pieces and through the connecting portion of said vertical body member therebetween.

1,139,788. LANTERN. EDWARD J. MCDADE and FARNUM F. DORSEY, Rochester, N. Y., assignors to Pritchard-Stamping Company, Rochester, N. Y., a Corporation of New York. Filed Jan. 22, 1915. Serial No. 3,817. (Cl. 240—50.)



1. In a lantern, the combination, with an oil-font and a body in which the oil-font is removably mounted, the body being of substantially greater diameter than the oil-font so as to provide an annular air-chamber, and having openings for the admission of air to said chamber, and a flat imperforate ledge, constituting a globe-seat, partly closing the top of the body and located above the top of the oil-font; of a sleeve extending downwardly, from the inner margin of the globe-seat, and close to the sides of the oil-font and provided with a series of perforations, located partly above and partly below the upper extremity of the oil-font, for the admission of air from said air-chamber to the space above the oil-font.

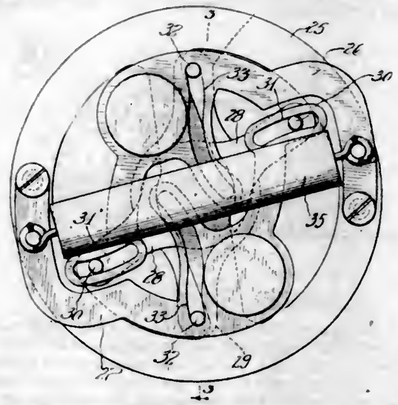
2. In a lantern, the combination, with an oil-font and a body in which the oil-font is removably mounted, the body being of substantially greater diameter than the oil-font so as to provide an annular air-chamber, and having openings for the admission of air to said chamber, and a flat imperforate ledge, constituting a globe-seat, partly closing the top of the body and located above the top of the oil-font; of a sleeve, of substantially greater diameter than the oil-font, extending downwardly from the inner margin of the globe-seat, to a point below the top of the oil-font, and thence inwardly into close proximity to the oil-font, said sleeve having a series of perforations, opening above the top of the oil-font, for the admission of air from said air-chamber to the space above the oil-font.

1,139,789. CIRCUIT-BREAKER. RALPH B. MACNISH, St. Louis, Mo. Filed May 1, 1911, Serial No. 624,440. Renewed Apr. 10, 1915. Serial No. 20,548. (Cl. 123—117.)

1. In an ignition system, a circuit-breaker comprising a lever and a cam, a circuit-closing contact on one end of said lever, a member coacting with said cam mounted on said lever intermediate its ends, said cam having a depression on its surface, means for varying the length of said depression, said circuit being closed when said member coacts with said depression.

2. In an ignition system, a circuit-breaker, a rod carrying said breaker, said breaker comprising members rotatable with reference to said rod and having a common axis therewith, said members forming a depression cam, a member adapted to co-act with said cam, the cam-forming members on the one hand, and the coacting member on the other hand being rotatable with reference to each other, and speed-controlled means for varying the length of the depression in said cam, while maintaining constant the distance of said cam from the axis of said rod.

3. In an ignition system, a circuit-breaker comprising a lever and a cam, a shaft for rotating one of said circuit-breaker parts with reference to the other, said cam comprising a plurality of members rotatable on the axis of the shaft with reference to each other and coacting to form an active portion of variable length, and speed-controlled means for thus rotating said cam-members with reference to each other.

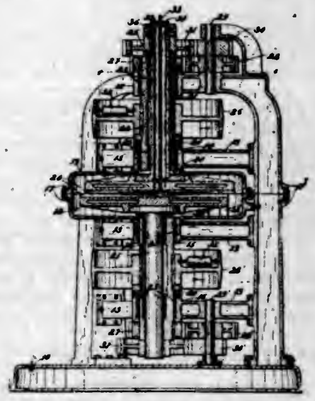


4. In an ignition system, a circuit-breaker, a shaft for actuating said breaker, said breaker comprising members rotatable with the shaft and having a common axis therewith, said members forming a depression cam, and speed-controlled means for varying the length of the depression in said cam, while maintaining constant the distance thereof from the axis of said shaft.

5. In an ignition system, a circuit-breaker, a shaft for actuating said breaker, the latter comprising means rotatable with the shaft and forming a depression cam, and speed-controlled means for varying the length of depression of said cam and for shifting the depression circumferentially of the shaft, while maintaining constant the distance of said depression from the axis of said shaft.

[Claims 6 to 19 not printed in the Gazette.]

1,139,790. CRUSHING-MILL. JAMES D. MILLAR, Milwaukee, Wis., assignor to Edward F. McCool, Victor, Colo. Filed Sept. 26, 1908. Serial No. 454,908. (Cl. 83—10.)



1. A crushing mill, comprising a pair of crushing heads, a spindle on which one of the crushing heads is mounted, a suitably journaled sleeve having an eccentric bearing in which the spindle is mounted, and driving means connected with the sleeve.

2. A crushing mill, comprising a pair of crushing heads, crushing faces on the crushing heads with dished center portions surrounded by a flat surface, the flat surfaces of the two crushing faces being in parallel planes, a tubular spindle on which one of the crushing heads is mounted forming a passage leading to the space between the crushing heads formed by the dished parts of their crushing faces, and means for imparting a revolving movement to one of the crushing heads.

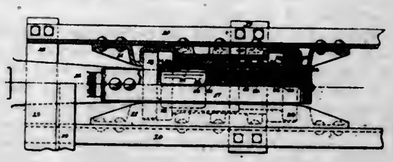
3. A crushing mill, comprising a pair of crushing heads, having dished center parts with surrounding flat surfaces, a tubular spindle on which one of the crushing heads is mounted forming a passageway for material leading to the space between the crushing heads formed by the dished portions thereof, a tube passing through the tubular spindle for injecting a fluid under pressure to the space between the crushing heads, and means for rotating one of the crushing heads.

4. In an ore grinder, a sleeve, a shaft eccentrically mounted within said sleeve with its axis constantly parallel to the axis of the sleeve, means for rotating said sleeve and shaft at different speeds, a grinding disk supported upon said shaft and a grinding disk arranged to bear against the face of said first disk.

5. In an ore grinder, a sleeve, a shaft eccentrically mounted within said sleeve and with its axis constantly parallel to the axis of the sleeve, means for rotating said sleeve and shaft, a grinding disk supported upon said shaft, and a grinding disk arranged to bear against the face of said first disk.

[Claims 6 to 11 not printed in the Gazette.]

1,139,791. DRAFT-RIGGING FOR RAILWAY-CARS. WILLIAM H. MINER, Chicago, Ill. Filed July 22, 1912, Serial No. 710,839. Renewed Apr. 5, 1915. Serial No. 19,333. (Cl. 213—64.)



1. In a railway draft rigging, a compression resisting member comprising a friction shell, a wedge, friction shoes, springs and resilient disks within the shell, the shell being provided with an internal shoulder between which and the rear end of the friction shoes the resilient disks are compressed upon the full compression of the spring.

2. In a railway draft rigging, a compression resisting device comprising a friction shell provided with an internal annular shoulder in front of which the shell is of a larger internal diameter than back of the said shoulder, and a wedge, friction shoes, springs and resilient disks within the friction shell, the springs being seated at their rear end against the internal rear face of the friction shell, and at their forward end against the said disks, the disks being between the rear end of the friction shoes and the said springs, and being capable of full compression only when engaged between the said shoulder and the friction shoes.

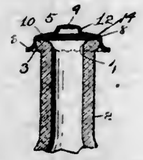
3. In a railway draft rigging, a compression resisting member comprising a shell, friction mechanism, friction shoes and springs within the shell, a resilient member interposed between said springs and friction mechanism, said shell being provided with a seat between which and the friction shoes the said resilient member is engaged and adapted to be compressed.

4. In a railway draft rigging, a compression resisting member comprising a shell, friction mechanism and springs within the shell, a resilient member interposed between said springs and the friction mechanism, said shell having an internal seat against which the said resilient member is compressed by the friction mechanism after compressing movement of the springs.

5. In a draft gear, a shell having an internal shoulder in front of which the shell is of larger internal width than back of said shoulder, a wedge, friction shoes and a

resilient member within the shell and springs, the said resilient member being seated between the friction shoes and said springs, the said resilient member being adapted to move with the friction shoes, and to be compressed thereby upon engaging said shoulder.

1,139,792. BOTTLE-CAP. GEORGE W. MITCHELL, New York, N. Y., assignor to Levi M. Rosenthal, Mount Vernon, N. Y. Filed July 24, 1912, Serial No. 711,293. Renewed Sept. 20, 1913. Serial No. 790,854. (Cl. 215—10.)



1. A closure for bottles and like receptacles, comprising a sheet metal bottle cap adapted for use with a packing, comprising a raised boss centrally of the cap, and having a rigid wall extending donwwardly from the raised top of said boss, the inner end of the said boss having a diameter less than that of the orifice of the bottle to which the cap is to be applied, an annulus extending circumferentially away from the lower end of said rigid wall of the said boss, and bendable by the downward and inward movement of the boss to an upward slope away from the said lower end of the said rigid wall of the said boss, the said rigid wall of the said boss during and after the downward movement thereof extending downwardly from the top of said boss to said annulus, and gripping means at the periphery of the said annulus.

2. A closure for bottles and like receptacles, comprising an elastic member, means for holding the peripheral portion of said member against the external walls of the orifice of the bottle, and means for maintaining the central portion of the said member tensed and extended, and depressed with respect to the peripheral portion thereof, said central portion being within the orifice of the bottle.

3. A closure for bottles and like receptacles, comprising a stretchable disk, means for holding the peripheral portion of said disk against the external walls of the orifice of the bottle, and means for maintaining the central portion of the disk tensed and extended, and depressed with respect to the peripheral portion thereof, said central portion being within the orifice of the bottle, the part of said central depressed portion of the said disk adjacent the internal walls of the orifice of the said bottle being forced against said internal walls.

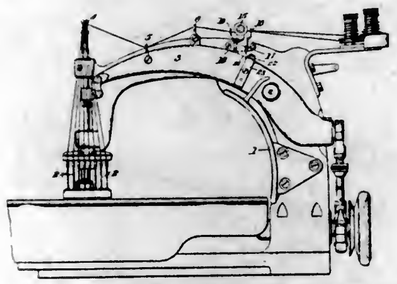
4. A closure for bottles and like receptacles, comprising an elastic member, a cap, the peripheral portion of said cap being adapted to hold the peripheral portion of said elastic member against the external walls of the orifice of the bottle, the central portion of said cap being driven below the peripheral portion thereof, the said elastic member being extended and maintained in a tensed condition within the orifice of the bottle.

5. A closure for bottles and like receptacles, comprising an elastic disk, a cap, the peripheral portion of said cap holding the peripheral portion of the elastic disk against the external walls of the orifice of the bottle, the central portion of said cap being driven below said peripheral portion thereof, the said elastic disk being extended and maintained in a tensed condition within the orifice of the bottle.

[Claims 6 and 7 not printed in the Gazette.]

1,139,793. DEVICE FOR CONTROLLING THE UPPER THREADS ON SEWING-MACHINES. JAMES R. MOFFATT, Chicago, Ill., assignor to Union Special Machine Company, Chicago, Ill., a Corporation of Illinois. Filed May 11, 1911. Serial No. 626,511. (Cl. 112—39.)

1. A sewing machine comprising stitch-forming mechanism including a plurality of reciprocating needles, means for drawing thread from the supply, a plurality of clamping devices for the needle threads, and means operating simultaneously on all of said clamping devices at each reciprocation of the needle for causing the clamping devices to alternately clamp and release the threads, said means including a sliding rod upon which the clamping devices are supported.



2. A sewing machine comprising stitch-forming mechanism including a plurality of needles, a needle lever for reciprocating the same, means for drawing thread from the supply, clamping devices for the needle threads located between the supply and the means for drawing off the thread, means operated by the movement of the needle lever for operating simultaneously all said clamping devices to cause them to clamp the thread, and a spring for keeping the clamping devices normally open, said means including a sliding rod upon which the clamping disks are supported with washers on said sliding rod between the respective pairs of clamping disks.

3. A sewing machine comprising stitch-forming mechanism including a plurality of needles, means for drawing thread from the supply, a clamping device for each needle thread located between the supply and the means for drawing off the thread, a sliding rod upon which the clamping devices are supported, a spring controlling said rod and keeping it normally in one position, and means for sliding the rod against the pressure of the spring, said rod having a shoulder adapted in its movement to engage the adjacent clamping device and transmit uniform clamping action to the clamping devices.

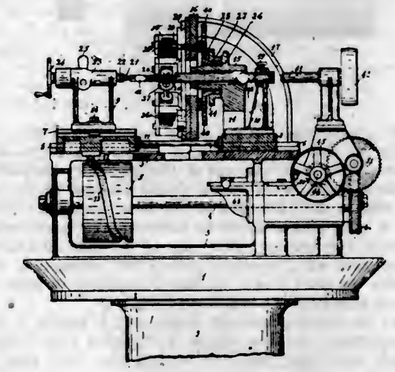
4. A sewing machine comprising stitch-forming mechanism including a needle lever and a plurality of needles, means for drawing thread from the supply, a clamping device for each needle thread located between the supply and the means for drawing off the thread, means operated by the movement of the needle lever for operating simultaneously all said clamping devices to cause them to clamp the thread, and a spring for keeping the clamping devices normally open, said means including a member on the needle lever and a pivoted lever engaged by said member and operatively engaging the clamping device support.

5. A sewing machine comprising stitch-forming mechanism including a plurality of needles, and means for drawing thread from the supply, a clamping device for each needle thread located between the supply and the means for drawing off the thread, a sliding rod upon which the clamping devices are supported, and means for sliding the rod in one direction at each reciprocation of the needles, including a pivoted lever adapted to be brought by the action of a moving part of the machine into engagement with the rod to positively slide it in one direction.

[Claims 6 to 11 not printed in the Gazette.]

1,139,794. MACHINE-TOOL. FRIEDERICH MÜLLER, Elizabeth, N. J., assignor to Niles-Bement-Pond Company, Jersey City, N. J. Filed May 27, 1904, Serial No. 210,024. Renewed Nov. 29, 1905. Serial No. 289,668. (Cl. 90—16.)

1. A milling machine including in combination, a plurality of rotary cutters symmetrically arranged on independent axes around a common center, means for rotating said cutters, means for supporting at their opposite ends the blank to be milled, said supporting means including a pair of oppositely arranged blank engaging members and a guide for one of said members in fixed relation to the plane of and concentric with said cutters and means for producing a relative feeding movement between the cutters and the blanks lengthwise of the latter.



2. A milling machine including in combination, a plurality of rotary cutters symmetrically arranged on independent axes around a common center, means for supporting at their opposite ends the blanks to be milled, said supporting means including a pair of oppositely arranged blank engaging members and a guide for one of said members in fixed relation to the plane of and concentric with said cutters, means mounted on said guide for rotating said cutters, and means for giving the blank engaging members a feeding movement with relation to the cutters and guide.

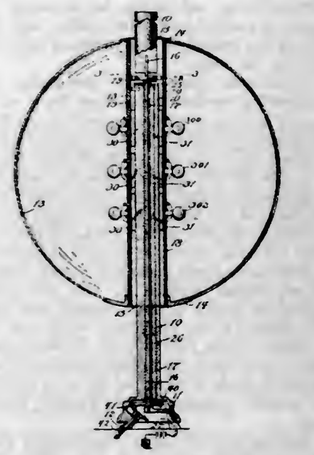
3. A groove milling machine including in combination a plurality of rotary cutters mounted on independent axes to operate in a single plane and symmetrically arranged around a central line extending at substantially right angles to said plane, means for supporting at their opposite ends the blanks to be grooved, said supporting means including a pair of oppositely arranged rigidly connected blank engaging spindles, a stationary guide member for one of said spindles, located adjacent to the plane of and in concentric relation with said cutters, means for producing a relative movement between said spindles to engage the blanks and means for simultaneously moving the spindles endwise with relation to the cutters and guide.

4. A milling machine including in combination, a work-holding member comprising a pair of rigidly connected brackets, one of which carries a movably mounted work engaging spindle, an intermediate tool carrying member comprising a bracket formed with an opening one of said members being movable relative to the other, a plurality of rotary cutters arranged on independent axes around a common center and carried by said tool carrying member, a support having a rigid relation to said tool-carrying member and provided with a guide disposed in axial alinement with the opening in said tool-carrying member, and a work-engaging spindle fitted to and passing through said guide and the opening in the tool carrying member and rigidly mounted in the other of said work-holding brackets.

5. In a milling machine, the combination with the frame, a work-holding member comprising a pair of rigidly connected brackets each carrying a work-engaging spindle, and an intermediate tool-carrying member comprising a bracket formed with an opening, the one of said members being movable relatively to the other upon said frame, a post provided with a hollow hub through which and the opening in the tool-carrying member one of the work-engaging spindles is projected from its holding bracket, an actuating gear mounted upon said hollow hub, a plurality of cutter spindle-heads mounted upon said tool-carrying member and provided each wiht a rotary cutter and connected mechanism comprising a gear meshing with said actuating gear, means for rotating said actuating gear, and means for communicating feeding movements to the said movable member.

[Claims 6 to 14 not printed in the Gazette.]

1,139,795. ADVERTISING APPARATUS. RAYMOND OVERFIELD, LAWRENCE B. HAMSLEY, and ELLIOTT BURNS, Brooklyn, N. Y. Filed Mar. 11, 1915. Serial No. 13,794. (Cl. 46—37.)



1. An apparatus for producing illusion comprising a supporting column of suitable form having a suitable opening, a suitable movable body mounted thereon so as to conceal said opening, and means extending through said column and engaging a portion of said body at said opening adapted to impart motion to said movable body.

2. An apparatus for producing illusion comprising a supporting column of suitable form having a suitable opening, a suitable movable body mounted thereon so as to conceal said opening, a rotary concealed driving member extending along said column, and means mounted on said member at said opening for rotating said movable body.

3. An apparatus for producing illusion comprising a supporting column of suitable form having an opening, a suitable movable body mounted thereon so as to conceal said opening, a rotary concealed driving member extending along said column, means mounted on said member at said opening for rotating said movable body, and means on said column adapted to coöperate with said body, when in rotation, to produce reciprocation thereof along said column.

4. An apparatus for producing illusion comprising a supporting column of suitable form having an opening, a suitable movable body mounted thereon so as to conceal said opening, and means engaging said movable body near the opening of said column adapted to reciprocate said body on said column and reverse its movement just before the body uncovers said means, whereby the illusion is produced of an apparent uncovering of the entire column.

5. An apparatus for producing illusion comprising a column in two parts slightly separated, a supporting rod passing through one part and into the other, a movable body mounted on said column so as to conceal the point of separation, and means, extending along one portion of said column and surrounding said rod, adapted to impart motion to said body.

[Claims 6 to 18 not printed in the Gazette.]

1,139,796. DETACHABLE-BLADE KNIFE. MORGAN PARKER, Newport, R. I. Filed Apr. 21, 1914. Serial No. 833,347. (Cl. 30—9.)



1. A detachable blade knife comprising a handle, a blade-supporting member projecting from one end of the handle in substantial continuation of the handle and having a blade-supporting surface which is flat throughout the major portion thereof and is inclined in the direction of its length at the end thereof adjacent to the handle, a thin flexible blade, and means for securing the blade to the handle in contact with said surface and flexed in the direction of its length by the shape of said surface, substantially as set forth.

2. A detachable blade knife comprising a handle, a blade-supporting member projecting from one end of the handle and having a blade-supporting surface which is flat throughout the major portion thereof and is inclined in the direction of its length at its end adjacent to the handle, a thin flexible blade, means for securing the blade to the handle in contact with said surface and flexed in the direction of its length by the shape of the surface, and a retainer for preventing disengagement of the blade from said securing means, substantially as set forth.

3. A detachable blade knife comprising a handle having a blade-supporting surface at one end which is flat throughout the major portion thereof and is inclined at one end, headed studs projecting from said surface, and a thin flexible blade having slots therein opening at the rear edge of the blade, said blade being adapted to be held by the headed studs in fixed condition in contact with the flat and inclined portions of said surface, substantially as set forth.

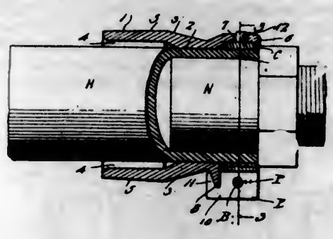
4. A detachable blade knife comprising a handle having a blade-supporting surface at one end which is flat throughout the major portion thereof and is inclined at one end, headed studs projecting from said surface, a thin flexible metallic blade having slots therein to coact with said studs, said blade being adapted to be held in contact with the flat and inclined portions of said surface by said studs, and coacting parts on the handle and blade for preventing movement of the blade to detach it from the studs, substantially as set forth.

5. A detachable blade knife comprising the combination of a handle having a supporting surface thereon which is flat throughout its major portion and inclined at one end, headed studs projecting from said surface, a thin flexible blade slotted to coact with said studs and adapted to be held against the flat and inclined portions of said surface in flexed condition by said studs, and a retainer for holding the blade against movement in a direction to detach it from the handle consisting of coacting parts on the blade and handle which are brought into coaction by movement of the blade into position upon the supporting surface and which are held in engagement by the tension of the blade, substantially as set forth.

[Claims 6 and 7 not printed in the Gazette.]

1,139,797. AIR-BRAKE-HOSE PROTECTOR. ANDREW R. PEFFERS, Aurora, Ill. Filed June 3, 1912, Serial No. 701,334. Renewed June 7, 1913. Serial No. 772,422. (Cl. 137—28.)

1. In a protector for air brake hose and the like, the combination with a tubular shell adapted to surround the hose and having at one end a longitudinally projecting lug pierced with an eye and diametrically opposite thereto a radially projecting lip; of a nipple adapted to be positioned within the extremity of the hose, a collar consisting of a split ring adapted to surround the hose outside said nipple and having radial ears at its ends, hooks projecting from said ears and having their bills engaging the lip on the protector, and a pin projecting radially from the clamp and engaging the eye in the lug on said shell.



2. In a protector for air brake hose and the like, the combination with a tubular shell adapted to surround a hose and having at one end a longitudinally projecting lug pierced with an eye; of a nipple adapted to be positioned within the extremity of the hose, a clamp consisting of a split ring adapted to surround the hose outside the nipple and having radial ears at its ends, means for drawing said ears together, means for connecting said ears with the shell, and a pin projecting radially from the ring and engaging the eye in said lug.

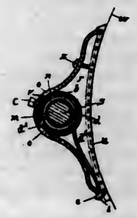
3. An air brake connection comprising a nipple, a hose pipe engaging over said nipple, a clamping ring directly engaging said hose pipe for holding the hose pipe on said nipple, and a non-flexible protector rigidly held in place by said ring, but separable therefrom, said protector and ring having rigid interlocking portions whereby the two are held in proper relation to each other, but with a sliding connection between them, permitting contraction of said ring without tending to distort said protector.

4. An air brake connection comprising a nipple, a hose pipe engaging over said nipple, a clamping ring directly engaging said hose pipe, for holding the hose pipe on said nipple, and a non-flexible protector rigidly held in place by said ring, but separable therefrom without flexing said ring when removed from said nipple and pipe, having an interlocking connection with opposite sides thereof, the said connection depending on the hose pipe to hold the protector and ring together.

5. An air brake connection comprising a nipple, a hose pipe engaging over said nipple, a clamping ring directly engaging said hose pipe, for holding the hose pipe on said nipple, and a non-flexible protector rigidly held in place by said ring, but separable therefrom, having a sliding connection therewith, said ring being thereby adjustable without tending to distort said protector.

[Claims 6 to 11 not printed in the Gazette.]

1,139,798. BRAKE-SHOE. WILLIAM LADUE POST, Cold Spring, N. Y. Filed July 25, 1914. Serial No. 853,041. (Cl. 21—82.)

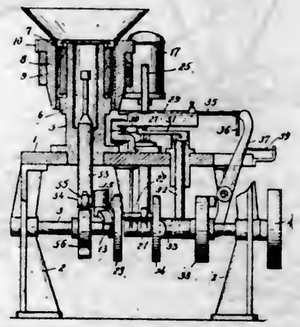


1. The combination in a brake shoe of a casing, means in the casing for holding a rubbing shoe, shaft bearings in the casing to receive a shaft, a shaft through the casing, a collar on the shaft within the casing and a segmental projection on the collar, a slot in the back of the casing to admit the extension on the collar, a spiral spring on the shaft acting between the collar and the casing, and a set-screw in the collar.

2. The combination comprising the automatic adjusting parts of a brake shoe, of a shaft, a casing on the shaft, a collar on the shaft within the casing, a projection on the collar, a slot in the casing to admit the collar projection, a set-screw in the collar, and a spring on the shaft within the casing to act between the collar and the casing.

3. The combination in a brake shoe of a shaft, a casing movable on the shaft, a rubbing shoe attached to the casing, a collar on the shaft within the casing, an extension on the collar and a set-screw in the collar, a slot in the back of the casing to receive the projection on the collar, a spiral spring on the shaft within the casing, a lug on the end of the casing, one end of the spring engaged with the collar projection the other end of the spring attached to the lug on the end of the casing.

1,139,799. MACHINE FOR MAKING LINK MESH. ALPHONSO C. PRATT, Montclair, N. J. Filed Jan. 29, 1912, Serial No. 673,999. Renewed Oct. 11, 1913. Serial No. 794,717. (Cl. 140—3.)



1. In a link-mesh machine, the combination of means for supporting a piece of link-mesh, means for advancing links successively into coöperative relation to the links of the mesh, and means for turning each link so fed about an axis parallel to the surface of the piece of mesh and thereby linking it with the mesh, substantially as set forth.

2. In a link-mesh machine, the combination of means for supporting a piece of link-mesh and moving it step by step in the direction of the length and in the direction of the width of the mesh, means for advancing links successively into coöperative relation to the links of the mesh, and means for turning each link so fed about an axis parallel to the surface of the piece of mesh and thereby linking it with the mesh, substantially as set forth.

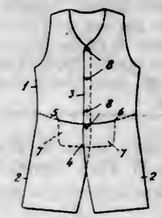
3. In a link-mesh machine, the combination of means for supporting a piece of link-mesh, each link of the mesh having loops at its ends, means for positioning links successively in coöperative relation to the links of the mesh, and means for turning each link so positioned about an axis parallel to the surface of the piece of mesh and thereby threading its end through loops of the links of said mesh, substantially as set forth.

4. In a link-mesh machine, the combination of means for supporting a piece of link-mesh, each link having its ends depending and having loops in such ends, means for advancing links successively and projecting the end of each link between the depending looped ends of a link of said mesh, and means for turning each link so advanced about an axis parallel to the surface of the piece of mesh and thereby threading its end through the loops in links of said mesh, substantially as set forth.

5. In a link-mesh machine, the combination of means for supporting a piece of link-mesh, each link having its ends depending and having loops in such ends, means for advancing links successively and projecting the end of each link between the depending looped ends of a link of said mesh, and means for turning the links so advanced about an axis and thereby threading their ends through the loops in the links of said mesh, substantially as set forth.

[Claims 6 to 47 not printed in the Gazette.]

1,139,800. COMBINATION-GARMENT. EDWARD J. QUIGLEY, New York, N. Y. Filed Oct. 19, 1914. Serial No. 867,280. (Cl. 2—144.)



1. A combination garment comprising in a one piece suit, shirt and drawers, open from the neck to the crotch, and continuous along the sides of the garment, but separated from each other for a portion of the front to each side of the center, whereby relative vertical movement of the shirt and drawers at said separated portion is permitted, and aprons on the front of said shirt extending below said separated portion.

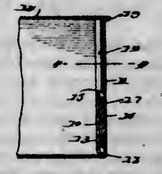
2. A combination garment comprising in a one piece suit, shirt and drawers, open from the neck to the crotch, and continuous along the sides of the garment, but separated from each other for a portion of the front to each side of the center at the waist-line, whereby relative vertical movement of the shirt and drawers at said separated portion is permitted, and aprons on the front of said shirt extending below said separated portion.

3. A combination garment comprising a one piece suit consisting of shirt and drawers combined, the central portion of the front of the shirt extending downward to at least the waistline, the drawers being secured to the shirt in the vicinity of the waist-line and adjacent the central portion of the shirt, and at least one plait where the drawers are secured to the shirt, as and for the purposes set forth.

4. A combination garment comprising a one-piece suit consisting of shirt and drawers combined, the central portion of the front of the shirt extending downward to the vicinity of the crotch, the drawers being secured to the shirt in the vicinity of the waist line and adjacent the central portion of the shirt, and at least one plait where the drawers are secured to the shirt as and for the purposes set forth.

5. A combination garment comprising a one-piece suit consisting of shirt and drawers combined, the central portion of the front of the shirt extending downward to the vicinity of the crotch, the drawers being secured to the shirt, in the vicinity of the waist line and adjacent the central portion of the shirt, at least one plait where the drawers are secured to the shirt and means for retaining said plait in position as and for the purposes set forth.

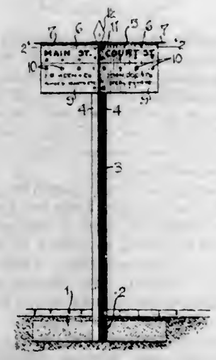
1,139,801. BOX. PAUL RICHARD, Lebanon, Pa. Filed May 19, 1914. Serial No. 839,637. (Cl. 229—45.)



In a box, the combination with a box body provided at each end with an outwardly struck portion, extending

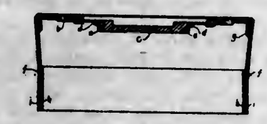
downwardly from the edge of the end, with the inner extremity of the outwardly struck portion provided with a slot, of a cover for the box body, and locking tongues, one arranged on the inner face of each end of the cover, each locking tongue projecting upwardly from the lower edge of the cover and adapted to have its free end bear against the face of the outwardly struck portion when the cover is arranged upon the body so that when the cover is in closed position the free end of the tongue will lie in the plane of the slot and extend therein upon an attempt to remove the cover from the box, thereby holding the cover in locked position on the box, said outwardly struck portions and tongues lying in the same vertical plane and arranged centrally with respect to the ends of the box body and cover, respectively, upon which they are formed.

1,139,802. SIGN-POST. JOHN H. RIDENOUR, Muskogee, Okla. Filed Sept. 17, 1914. Serial No. 862,220. (Cl. 40—145.)



A device of the character described comprising an angular post, an angular sign plate secured to the upper end of the post, strips secured to the lower edges of the angularly extending portions of the plate, said strips projecting below the lower edge of said plate, and sign plates detachably connected to said strips.

1,139,803. PROTECTOR FOR THE CROWN OF HEADWEAR. JONES H. ROBERTS and GUS ROLNICK, Houston, Tex. Filed Mar. 7, 1914. Serial No. 823,053. (Cl. 2—113.)



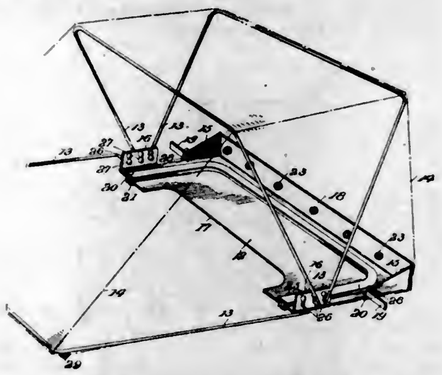
1. A device of the character described including a disk, a plurality of ribs secured thereto and radiating therefrom, a corresponding number of supporting legs whose upper ends are turned inwardly and united by means of slip joints to the respective ribs and a circular flexible member supported by said legs, said framework consisting of a plurality of radiating legs, adjustable lengthwise, and a circular, flexible member supported by the legs.

2. A device of the character described including a disk formed of light material, an adjustable framework adapted to fit within the crown of a hat or cap and hold said disk centered relative to the top of said crown, said framework including a plurality of ribs secured to said disk and radiating therefrom, a corresponding number of supporting legs whose upper ends are turned inwardly and adjustably secured to the respective ribs, each leg having a projecting barb which engages in the fabric of the crown and holds said device in place.

3. A device of the character described including a disk, formed of light material, whose upper side is concaved, an adjustable frame work adapted to fit within the crown of a hat or cap and hold the said disk centered relative to the top of said crown, said frame work consisting of a plurality of radiating legs, adjustable lengthwise, and a circular flexible member, supported by legs.

4. A device of the character described, including a disk, a plurality of ribs, secured thereto and radiating therefrom a corresponding number of supporting legs, whose upper ends are turned inwardly and united by means of slip joints to the respective ribs and a circular flexible member supported by said legs.

1,139,804. TYPE-WRITER COVER. RAYMOND C. ROCHELLE, Hubbard, Tex. Filed Feb. 3, 1914. Serial No. 816,271. (Cl. 45—120.)



1. A cover for typewriters including a base provided at its sides with upturned tongues having key-hole slots, a plurality of bows having inturned bailed terminals engageable in the slots, and a fabric covering mounted on the bows and secured at its rear edge to the rear edge of the base.

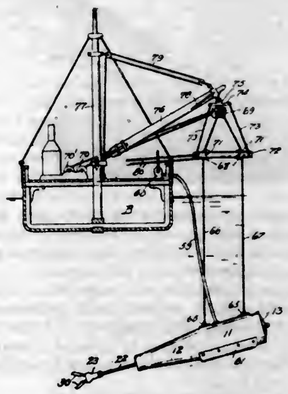
2. A cover for typewriters including a sheet metal base upstruck to provide a marginal channel in its lower face, a packing strip seated in the channel and extending below the lower face of the base, and a cover carried by the base.

3. A cover for typewriters including a base formed from a single blank of sheet metal bent to provide an upturned rear wall having forwardly directed wings with laterally directed terminals forming rests and also upturned to provide at the sides tongues having key-hole slots, a plurality of bows having inwardly directed bailed terminals engageable in the slots of the tongues, said bows being adapted to swing into engagement with the rests, and a fabric covering carried by the bows and detachably connected to the rear wall of the base.

1,139,805. DIVING APPARATUS. WILLIAM J. ROGERS, Seattle, Wash. Filed Apr. 2, 1914. Serial No. 829,007. (Cl. 61—7.)

1. In apparatus of the character described, a diving vessel having a cylindrical rear end and a tapering forward portion, cables depending from a boat and respectively connected with the cylindrical portion of the vessel in proximity to the forward and rear ends of such cylindrical portion for sustaining the vessel at predetermined depths and also serving to regulate the longitudinal inclination of the vessel at selected inclinations and grappling devices operable from within the vessel and extending through the forward end of the same.

2. In apparatus of the character described, a diving vessel, cables operable from above the water surface for regulating the movements of the vessel when submerged, one of said cables being connected to the vessel in proximity to its rear end and the other cable being connected to the vessel at a distance from its front end to afford a relatively long end which projects in front of the adjacent cable to enable such end of the vessel to be introduced within and beneath a sunken boat, said cables also affording means whereby the vessel may be inclined or turned about horizontal and vertical axes.



3. In apparatus of the class described, a diving vessel provided with grappling devices extending from one end thereof, and cables operable from above the water surface for regulating the movements of the vessel when submerged, one of said cables being connected to the vessel in proximity to its rear end and the other cable being connected to the vessel at a distance from its front end to afford a relatively long end which projects in front of the adjacent cable to enable such end of the vessel to be introduced within and beneath a sunken boat, said cables also affording means whereby the vessel may be inclined or turned about horizontal and vertical axes.

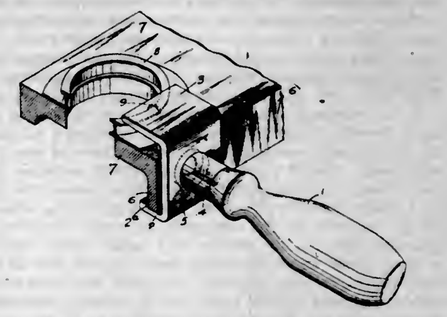
4. In apparatus of the character described, a diving vessel, means operable above the water surface for controlling all of the movements of the vessel when submerged, grappling devices extending through the shell of the vessel and connected with the latter so as to be maintained in approximately parallel relations to the vessel's axis, means provided within the vessel for effecting the rotary and longitudinal movements of said devices with respect to the vessel, means for projecting light in front of said devices, and means whereby the action of the grappling devices may be observed from within the vessel.

5. In apparatus of the class described, a diving vessel having a wall at a distance from its forward extremity, devices extending through said wall and adapted to be manipulated from within the vessel, a plurality of lamps provided within the space in front of said wall and inclosed by the peripheral wall of the part of the vessel structure which is in advance of the first named wall and arranged to illuminate the operating end of said devices, and means provided in the first-named wall for observing the operations of said devices.

[Claims 6 to 13 not printed in the Gazette.]

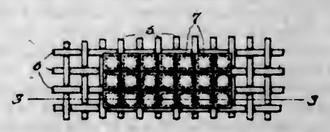
1,139,806. RING-FRAME TOOL. LUKE H. ROONEY, New Bedford, Mass., assignor to The Whitin Machine Works, Whitinsville, Mass., a Corporation of Massachusetts. Filed Oct. 22, 1912. Serial No. 727,161. (Cl. 29—84.)

A tool for crushing travelers upon spinning rings, comprising a handle, an upper longer part projecting therefrom and adapted to cover a portion of the ring a lower shorter part opposed to the upper part and projecting from the handle in the same direction, and an upward projecting shoulder on said lower part, the handle side of which shoulder serves as a fulcrum bearing upon the support of the spinning ring, whereby the upward movement



of the handle serves to press the said upper part against the ring.

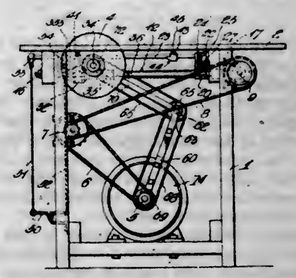
1,139,807. PUNCTURE-PROOF TIRE. DANIEL M. ROTHENBERGER, Reading, Pa., assignor of one-half to George W. Heffelfinger, Wyomissing, Pa. Filed June 1, 1914. Serial No. 842,217. (Cl. 152—18.)



1. In a pneumatic tire, a shoe having embedded therein a puncture-proof reinforcing fabric, said fabric comprising spaced warps and weft strands woven around circumferentially grooved armor-disks; the head portions of each of said disks overlapping four engaging strands so as to abut adjacent disks and form a substantially continuous armor surface as set forth.

2. In a pneumatic tire, a shoe having embedded therein a blow-out and puncture-proof reinforcing fabric, said fabric comprising spaced warp and weft strands and circumferentially grooved armor-disks interwoven therewith intermediate of the width of said fabric; the head portions of each of said disks overlapping four engaging strands so as to abut adjacent disks and form a substantially continuous armor surface, and the unarmored edge portions of said fabric extending around the cross-section of the tire and being anchored therein substantially as set forth.

1,139,808. GEARING. ANDREW RYCKMAN, Waukegan, Ill. Filed Sept. 13, 1912. Serial No. 720,221. (Cl. 74—26.)



1. In combination a fixed support, a reciprocating element movable thereon, a feed screw engaging a threaded opening in said reciprocating element, a beveled wheel on said screw, spaced beveled friction wheels adjacent said first wheel, a rocking shifter extending across the sup-

port, stops thereon struck by the reciprocating element at the extreme of its movement in either direction, a cross-bar fast on the shifter, two toggle levers pivoted at their outer extremes to a fixed support and having their inner extremes pivotally connected with said screw, and connections between said cross-bar and the intermediate pivots of said toggles whereby the latter are actuated oppositely to each other, for the purpose set forth.

2. In combination a fixed support, a reciprocating element movable thereon, a feed screw engaging a threaded opening in said reciprocating element, a beveled wheel on said screw, spaced beveled friction wheels adjacent said first wheel, a rocking shifter extending across the support, stops thereon struck by the reciprocating element at the extreme of its movement in either direction, a cross-bar fast on the shifter, two toggle levers pivoted at their outer extremes to the fixed support and having their inner extremes pivotally connected with said screw, and links pivoted to their upper ends to opposite extremities of said cross-bar and at their lower ends to the intermediate pivots of said toggles for actuating the latter, for the purpose set forth.

3. The combination with a support and reciprocating element movable thereon, of a feed screw engaging a threaded opening in said reciprocating element, a beveled wheel on said screw, spaced beveled friction wheels adjacent said first wheel, a rocking shifter extending across the support, stops thereon struck by the reciprocating element at the extremes of its movement in either direction, a cross-bar fast on said shifter, a swinging box pivoted on the shifter and having a bearing at its lower end in which said screw is journaled, two toggle levers whose outer extremes are pivoted to a fixed support and whose inner extremes are pivoted to said box, and links connecting the opposite extremes of said cross-bar with the intermediate pivots of said toggles for the purpose set forth.

4. The combination with a slotted support carrying parallel guides, of a carriage having sleeves moving on said guides and bearing fast on the sleeves, a feed screw disposed between said guides, a beveled wheel on said screw, spaced beveled friction wheels adjacent said first wheel, and means for moving the latter into contact with either of said friction wheels or to a neutral position between them, of a bar in the carriage having a threaded opening engaged by said screw, and lost-motion connections between the extremities of said bar and said sleeves.

5. The combination with a support having parallel guides, of a carriage having sleeves moving on said guides, a feed screw between said guides, a wheel on said screw, spaced friction wheels adjacent said first wheel, means for moving the latter into contact with either of said friction wheels or to a neutral position between them, and a bar having a threaded opening with which said screw engages and elongated openings near its ends, said sleeves having portions extending into said elongated openings and thus having lost-motion connection with said bar.

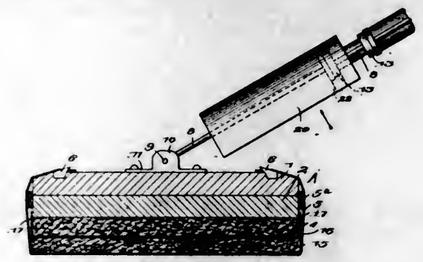
[Claims 6 to 9 not printed in the Gazette.]

1,139,809. FLOOR-POLISHER. FREDERICK A. SCHULTZ, Rochester, N. Y., assignor to Rocheater Shellac Company, Rochester, N. Y., a Corporation of New York. Filed June 16, 1913. Serial No. 773,883. (Cl. 15—13.)

1. A polisher comprising a support, a pad secured to said support over the under side thereof, a coating device having an absorbent material on one face and a sheet of non-absorbent material on the other face abutting the pad, and means for detachably holding the coating device in abutting relation to the pad.

2. A polisher comprising a support, a pad secured to the support and a coating device loosely abutting the pad, a cloth fitting over said coating device, and means for detachably holding the cloth to permit the coating device to be removed from the pad.

3. A polisher comprising a support, cloth securing devices on the support, a coating device having an absorbent material on one face and also having a sheet metal plate having upwardly-turned flanges to prevent lateral movement of the coating device on the support, and a cloth secured over the coating device and held by the securing devices to hold the coating device to the support.

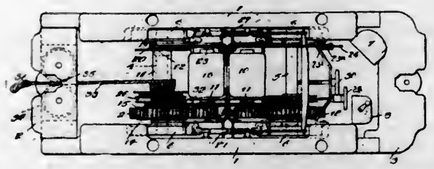


4. A polisher comprising a support, cloth securing devices thereon, a coating device removably secured to the support, and a cloth held by the securing devices and holding the coating device to the support.

5. A polisher comprising a support, a sheet of felt secured to said support, a sheet metal plate separate from the felt and abutting the under side of the latter, said plate having upturned flanges to prevent lateral movement of the plate on the felt, and a sheet of absorbent material secured to said plate.

[Claim 6 not printed in the Gazette.]

1,139,810. LOCOMOTIVE WITH HAULAGE MECHANISM. FRANK L. SESSIONS, Columbus, Ohio, assignor to The Jeffrey Manufacturing Company, a Corporation of Ohio. Filed Feb. 13, 1909. Serial No. 477,817. (Cl. 254—166.)



1. In a gathering locomotive, the combination with a frame, axles and track wheels, of a motor connected to the track wheels, a rotatable drum, a cable connected at one end to the drum to be wound thereon and adapted to be attached at the other end to a car, power transmitting mechanism comprising a friction clutch between the motor and drum, means for controlling the clutch, and means for resisting the movement of the clutch element operatively nearest the motor, the clutch being thus adapted for resisting the rotation of the drum in the unwinding direction.

2. In a gathering locomotive, the combination of a frame, a pair of axles, drive wheels on the axles, a motor geared to one axle and rotatable independently thereof, a motor geared to the other axle and rotatable independently thereof, a rotatable drum, a cable connected at one end to the drum to be wound thereon and adapted to be attached at the other end to a car, power transmitting mechanism between one motor and the drum, and power transmitting mechanism between the other motor and the drum.

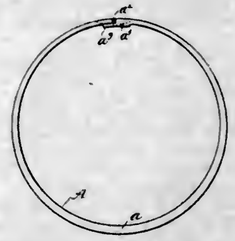
3. In a gathering locomotive, the combination with a frame, axles and drive wheels, of a rotatable drum, brake mechanism for the drive wheels, brake mechanism for the drum, a motor, and power transmitting mechanism connecting the motor with the drive wheels and with the drum, the said mechanism being arranged to automatically drive the wheels when the drum brake mechanism is applied and to automatically drive the drum when the wheel brake mechanism is applied.

4. In a gathering locomotive, the combination with a frame, an axle and two track wheels rigidly connected to the axle, of a motor, a rotatable drum, a cable connected at one end to the drum to be wound thereon and adapted to be attached at the other end to a car, a differential power transmitting mechanism, a power connection between the motor and the driving element of the said differential mechanism, a power connection between one driven element of the differential mechanism and the drum, a permanently engaged power connection between the other driven element of the differential mechanism and the axle and track wheels, means for braking the wheels, and means for braking the drum.

5. In a gathering locomotive, the combination with a frame, axles and track wheels, of a rotatable drum, a haulage cable connected at one end to the drum to be wound thereon and adapted to be connected at the other end to a car, manually controllable means for resisting the rotation of the track wheels, a motor, a differential power transmitting mechanism having its driving element connected to the motor, a connection between one driven element of the differential mechanism and the track wheels, a connection comprising a manually controllable friction clutch between the other element of the differential mechanism and the drum, and manually controllable means for resisting the rotation of the element of the friction clutch which is operatively nearer the differential mechanism.

[Claims 6 to 13 not printed in the Gazette.]

1,139,811. PISTON-RING. MICHAEL SETTER, Chicago, Ill. Filed Nov. 14, 1914. Serial No. 872,078. (Cl. 121—108.)



1. A split piston ring provided with a groove extending across the joint thereof, at a point between the sides of the ring, a tongue inserted in said groove, and means for rigidly securing said tongue at one side only of said joint, the tongue being a sliding fit in the groove at the other side of said joint.

2. A split piston ring provided with a groove extending across the joint thereof, a tongue in said groove, and means for securing said tongue at one side of said joint, said groove having the bottom thereof formed on the line of a true circle struck from an axis outside of said ring, when said joint is closed, and said tongue having its opposite edges curved to conform to said circle and the periphery of the ring.

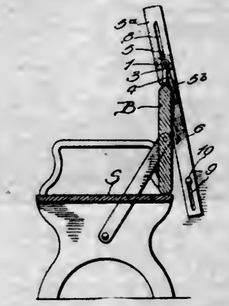
3. A split piston ring provided with a groove extending across the joint thereof, a tongue in said groove, and means for securing said tongue at one side of said joint, said ring having a portion extending along the inner edge of said tongue to overlap the joint.

4. A split piston ring provided with a groove extending across the joint thereof, at a point between the sides of the ring, a tongue inserted in said groove, and means for rigidly securing said tongue at one side only of said joint, the tongue being a sliding fit in the groove at the other side of said joint, said means consisting of a rivet extending through a portion of the ring, said rivet being fixed against movement in the ring.

5. A split piston ring provided with a groove extending across the joint thereof, a tongue in said groove, and means for securing said tongue at one side of said joint, said ring having a portion forming the bottom of said groove, when said joint is closed, which portion is integral with the ring at the fixed end of said tongue.

[Claims 6 to 8 not printed in the Gazette.]

1,139,812. ADVERTISING DEVICE. HOWARD S. SHAFER, Nazareth, Pa. Filed Sept. 3, 1914. Serial No. 860,057. (Cl. 40—28.)



1. The combination with a reciprocatory supporting structure, a shaft revolubly mounted thereon, a card holder fixed to said shaft, a gear fixed to said shaft, a pivotally mounted operating lever having teeth for engagement by said gear whereby said shaft is turned on the reciprocation of said supporting structure to turn said card holder, said lever being slotted at its opposite ends for the passage of said shaft and for its pivot respectively.

2. The combination with a shiftable support of a shaft revolubly mounted on said support, a gear fixed to said shaft, a display member carried by said shaft, an operating lever pivotally mounted adjacent said support and having rack teeth positioned for intermeshing engagement with the gear carried by said shaft, said lever being slotted for the passage of the gear carrying shaft.

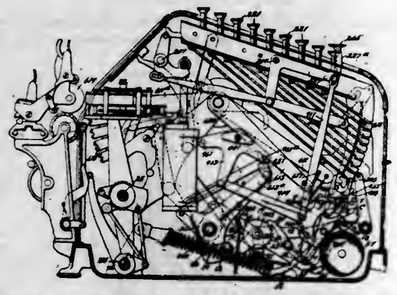
3. A car seat back having longitudinally spaced bearings on its upper edge, a shaft revolubly mounted in said bearings, a display device fixed on said shaft, a gear fixed to said shaft and extending beyond the end of said car seat back, an operating lever U-shaped in cross section at one end and pivotally mounted at its other end adjacent said seat, and slotted longitudinally at its opposite ends, the connecting portion or cross bar of said U-shaped end having perforations therein for intermeshing engagement with the gear on said shaft, said shaft extending through the slots in the walls of the U-shaped end of said lever with its gear positioned between the walls thereof.

4. The combination with a car seat back, of longitudinally spaced bearings mounted on the upper edge thereof, a shaft revolubly mounted in said bearings, a card holder fixed to said shaft, one end of said shaft projecting beyond the end of the car seat back, a gear mounted on said projecting end and fixed thereto, a lever substantially U-shaped in cross section at one end and having registering slots in the side members thereof and having its opposite end slotted, a pivot pin extending through the slot at one end thereof, said shaft extending through the slots at the other end of said lever with the gear thereon positioned between the side members of said U-shaped lever end, and rack teeth on said lever for engagement by said gear.

1,139,813. SIGNAL MECHANISM FOR ADDING-MACHINES. DANIEL W. SHIRK, Indianapolis, Ind., assignor to Walter L. Milliken, Barnstable, Mass. Filed July 20, 1908. Serial No. 444,462. (Cl. 235—60.)

1. In a device of the kind described, an adding machine comprising mechanism arranged to accumulate and totalize individual items and print the total thereof either with clearing the adding mechanism or retaining the total thereon, and controlling means for the total printing mechanism in combination with means operative on the retention of a total for rendering a signal at the next succeeding operation of the printing mechanism, comprising a

plurality of arms 1 and 2 operatively associated with the totalizing mechanism, a bell crank lever 15—16 controlled thereby, and means for transmitting the movement of lever 15—16 to a bell.



2. In a device of the kind described, an adding machine comprising mechanism arranged to accumulate and totalize individual items and print the total thereof either with clearing the adding mechanism or retaining the total thereon, and controlling means for the total printing mechanism, in combination with signal mechanism normally operative on the retention of a total for rendering a signal at the next succeeding operation of the printing mechanism, comprising a plurality of arms 1 and 2, a bell crank lever 15—16 controlled thereby, and means operatively associated with the totalizing mechanism for actuating said bell crank lever.

3. In a device of the kind described, an adding machine comprising mechanism arranged to accumulate and totalize individual items and print the total thereof either with clearing the adding mechanism or retaining the total thereon, and controlling means for the total printing mechanism, in combination with signal mechanism normally operative on the retention of a total for rendering a signal at the next succeeding operation of the printing mechanism, comprising a plurality of arms 1 and 2, a bell crank lever 15—16 controlled thereby, actuating mechanism for said lever operatively associated with the totalizing mechanism coöperating with the operating mechanism of the machine, and means for operatively transmitting the movement of the lever to a bell.

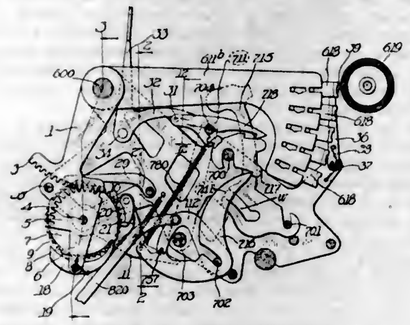
4. In a device of the kind described, an adding machine comprising mechanism arranged to accumulate and totalize individual items and record the total thereof either with clearing the adding mechanism or retaining the total thereon, and controlling means for the total recording mechanism, in combination with means operative on the retention of a total for rendering a signal at a succeeding operation of the printing mechanism comprising a plurality of arms 1 and 2 operatively connected with the totalizing mechanism, an arm controlled thereby, means for transmitting the movement of said arm to give a signal, and means for resetting said signal mechanism to operative position substantially simultaneously with the operation thereof.

5. In an adding machine comprising printing and adding mechanism arranged to accumulate and totalize individual items, and means for recording the total and retaining said total on the register after it has been recorded, in combination with a bell, an elongated arm pivoted intermediate its ends having a hammer at one end, and means actuated by the totalizing mechanism key for engaging the free end of said arm to move the hammer into engagement with the bell whenever a total has been retained by a previous printing operation.

[Claims 6 to 17 not printed in the Gazette.]

1,139,814. ADDING-MACHINE OR THE LIKE. DANIEL W. SHIEK, Indianapolis, Ind., assignor to Walter L. Milliken, Barnstable, Mass. Filed July 16, 1909. Serial No. 507,926. (Cl. 235—60.)

1. In an adding machine mechanism arranged to print a series of individual items and also the total thereof on a paper strip, the combination of means actuated by said mechanism for consecutively numbering the individual items as they are printed and also numbering the totals thereof with the next consecutive number whereby the several operations of the machine including the printing of the total are consecutively numbered.



2. In a machine of the character described the combination of printing mechanism arranged to record on a paper strip a series of individual items and to record the total thereof, said mechanism including spring actuated movable type hammers, releasing means for the latter, and automatic mechanism actuated by said releasing means arranged to consecutively print on the strip a number for each recording operation of the total or individual items.

3. In a device of the kind described having means for printing on a paper strip a series of individual items and printing the total thereof, said means including type hammers, means for moving the same to striking position, and means for returning the same to normal position, in combination with means for printing a distinguishing character on the strip at each operation of the machine with the item or total printed at said operation, the last mentioned means including type hammers actuated by the releasing means for the first mentioned hammers, and means for positioning the type carrier in the return movement of said first mentioned hammers.

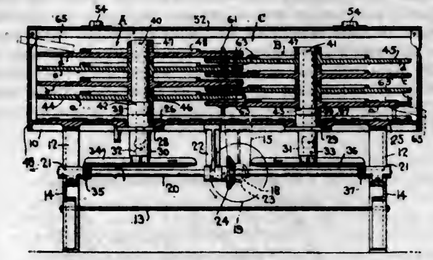
4. In a device of the kind described for printing individual items on a strip to be detached from the machine and printing the total thereof, the combination of operating means therefor including hammer releasing devices and means actuated by said devices for printing an independent number on the strip at each operation of the machine with the item or total printed at said operation.

5. In a device of the kind described provided with printing mechanism for printing a series of individual items and accumulating and printing the total thereof on a strip to be detached, and operating means therefor, the combination of means actuated by the first mentioned printing mechanism for automatically printing characters coincident with the operation of the machine to indicate the various operations of the machine in the printing of said items and total.

[Claims 6 to 25 not printed in the Gazette.]

1,139,815. DRIER. ALEXANDER SLAYSMAN, Jr., Hamilton, Md. Filed Dec. 15, 1914. Serial No. 877,398. (Cl. 34—32.)

1. In a can end drier, a suitably supported table, a casing on the table whose bottom is formed by said table and providing a heating chamber having an inlet at one end and an outlet at its opposite end, sets of oppositely disposed disks arranged within the heating chamber, means for rotating the sets of disks in opposite directions, one set of disks overlapping the other set of disks at one point in their turn of rotation, means for heating the chamber, and means for transferring the can ends from one set of disks to the other set of disks alternately to cause the can ends to travel over a zig-zag course through said chamber from the inlet to the outlet opening of the chamber.



2. In a drier, a chamber, means to heat the chamber, sets of rotatable disks in the chamber, means for rotating the disks in opposite directions, and means to transfer articles from one disk of one set to a disk of the other set.

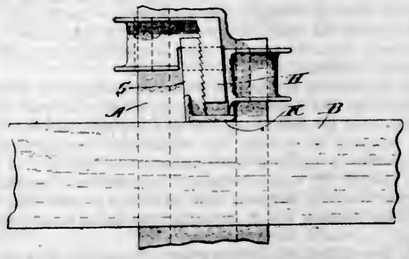
3. In a drier, a chamber, means to heat the chamber, sets of rotatable disks in the chamber, the disks of one set having a portion of their peripheral edges overlapping similar portions of the disks of the other set, means to feed articles to the uppermost disk of one set, and means to transfer the articles from the disks of one set to the disks of the other set alternately to transfer the articles over a zig-zag course from the uppermost disk of one set to the lowermost disk of the other set.

4. In a drier, a chamber, means to heat the chamber, sets of rotatable disks in the chamber, means for rotating the disks in opposite directions, and means to transfer articles from one disk of one set to a disk of the other set, each disk of each set being mounted one upon another and each having an annular flange formed on its upper face.

5. In a drier, a chamber, means to heat the chamber, sets of rotatable disks in the chamber, the disks of one set having a portion of their peripheral edges overlapping similar portions of the disks of the other set, means to feed articles to the uppermost disk of one set, and means to transfer the articles from the disks of one set to the disks of the other set alternately to transfer the articles over a zig-zag course from the uppermost disk of one set to the lowermost disk of the other set, each disk of each set being mounted one upon another and each having an annular flange formed on its upper face.

[Claims 6 to 10 not printed in the Gazette.]

1,139,816. RAIL-ANCHOR. ADOLPH H. SMITH and GEORGE W. NIBBE, Chicago, Ill. Filed Aug. 26, 1914. Serial No. 858,645. (Cl. 238—4.)



1. The combination with a railroad rail and supporting tie therefor, of a pair of clamping members engaging the opposite sides of the rail base comprising transversely overlapping portions extending beneath the rail base, the ends of said overlapping portions having interlocking depending wedge elements.

2. The combination with a railroad rail and supporting tie therefor, of a pair of clamping members engaging the opposite sides of the rail base comprising transversely overlapping portions extending beneath the rail base, the ends of said overlapping portions having interlocking depending wedge elements, and the said overlapping portions being cut away to permit the relative longitudinal adjustment of said wedge elements.

3. The combination with a railroad rail and supporting tie therefor, of a pair of clamping members engaging the opposite sides of the rail base comprising transversely overlapping portions extending beneath the rail base, the ends of said overlapping portions having interlocking depending wedge elements, the end of each of said wedge elements extending beneath the transversely overlapping portion of the other member.

4. The combination with a railroad rail and supporting tie therefor, of a pair of clamping members engaging the opposite sides of the rail base comprising transversely overlapping portions extending beneath the rail base, the ends of said overlapping portions having interlocking wedge elements, each of said members having a chamber to receive the end of the wedge element of the other member so as to permit the relative longitudinal adjustment of the wedge elements.

5. The combination with a railroad rail and supporting tie therefor, of a pair of clamping members engaging the opposite sides of the rail base comprising transversely overlapping portions extending beneath the rail base, the ends of said overlapping portions having interlocking wedge elements, the vertical contacting surfaces of which are provided with serrations.

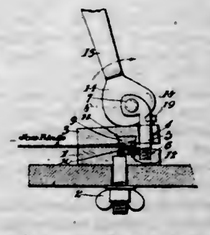
[Claims 6 and 7 not printed in the Gazette.]

1,139,817. ABRASIVE IMPLEMENT. JAMES C. SMITH, San Francisco, Cal. Filed July 2, 1913. Serial No. 776,953. (Cl. 143—140.)



The combination with a saw blade having oppositely set peripheral teeth, of abrasive disks secured to the opposite sides of the saw blade, with their outer peripheries flush with the inner ends of the teeth, and the outer sides thereof disposed in the same plane as the outer points of said teeth.

1,139,818. SAW-SET. JAMES MILLER SMITH, Wengler, Cal., assignor of one-half to John Griffard, Wengler, Cal. Filed July 15, 1914. Serial No. 851,157. (Cl. 76—63.)

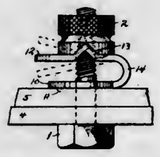


1. In a saw set, a fixed block, standards projecting from said block, a setting die carried by said block to one side of said standards, a movable block loosely slidable on the standards and a die on the movable block opposing the die on the fixed block, said standards having a fulcrum bearing projected in the plane of the dies, and a cam lever mounted on said fulcrum to engage the movable block to first cause said movable block to clamp the saw blade against the fixed block and upon further movement to cause said dies to set the saw teeth.

2. A saw setting means that comprises a fixedly held jaw, an opposing movable jaw, guides for relatively holding the jaws in their opposing alinement, a setting die mounted on each jaw, a cam lever so fulcrumed when moved in one direction to first cause the movable jaw to clamp the blade against the fixedly held jaw and upon further movement in the same direction to cause the setting dies to set the saw teeth.

3. A saw setting device comprising a fixedly held jaw, an opposing movable jaw, standards for relatively holding the jaws in their opposing alinement, a setting die mounted on each jaw, said dies opposing each other, a lever device fulcrumed on the standards for moving the movable jaw and die against the other jaw and die, when swung in one direction, and connections between the said lever and the movable jaw that provide for tilting the movable jaw upon the fixed jaw to release the blade when the lever is swung in the other direction.

1,139,819. NUT-LOCK. JOHN SMITH, New York, N. Y., assignor to said John Smith and Henry Utard, New York, N. Y. Filed Feb. 4, 1914. Serial No. 816,605. (Cl. 151—41.)



1. A nut lock having a bolt and a nut operable thereon, said nut being provided with a recess extending across the axial line of said nut, a perforated resilient member provided with a plurality of perforations arranged upon said bolt and provided with a raised portion extending across the axial line of one of said perforations and coöperating with the recess of said nut as and for the purpose set forth.

2. A nut lock consisting of a resilient member folded or bent upon itself so that the ends extending approximately parallel to each other, said resilient member being provided with a plurality of perforations and an angular depression extending across the axial line of one of said perforations as herein specified.

3. A nut lock comprising a resilient metallic member provided with a plurality of perforations and having one end enlarged a depression formed in the smaller portion of said member and a bend produced in said member alining the perforations to allow a screw-threaded part to extend therethrough, said depression lying partly on each of two sides of said screw-threaded part as herein specified.

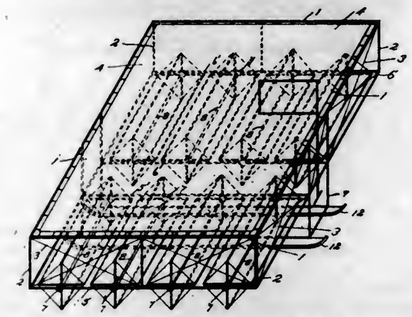
1,139,820. FLYING-MACHINE. SAM R. SMITH, Los Angeles, Cal., assignor of five one-hundredths to Paul G. Hoffman, Pasadena, Cal. Filed Jan. 30, 1914. Serial No. 816,642. (Cl. 244—13.)

1. A flying machine having a series of revoluble collapsible planes arranged in pairs and series of pairs, which when caused to revolve will raise said machine from the surface in a substantially vertical direction, compressed air means for collapsing and spring means for spreading said planes.

2. A flying machine having a series of revoluble collapsible planes arranged in pairs, and series of pairs, operably connected to a series of compressed air actuated pistons by which said planes may be collapsed, and a series of springs by which said planes may be spread, and means for revolving said planes.

3. A flying machine having a series of revoluble collapsible planes arranged in pairs, and series of pairs, compressed air means for collapsing said planes, and spring means for spreading said planes automatically when the engine is accidentally stopped, whereby the descent of said machine may be gradually accomplished.

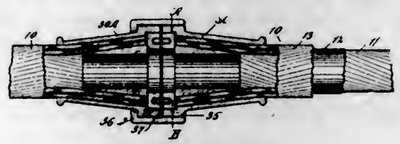
4. A flying machine having a series of revoluble collapsible planes arranged in pairs and series of pairs, spring means for spreading and compressed air means for collapsing said planes alternately and regularly, at opposite points in their revolution, and means attached to or near the operator's seat whereby the spreading or collapsing of said planes may be regulated or the point in their revolution at which said spreading or collapsing occurs may be changed at the will of the operator to produce a forward or upward movement of said machine.



5. A flying machine having a series of revoluble collapsible planes arranged in pairs and series of pairs, spring means for spreading and compressed air means for collapsing said planes alternately and regularly at opposite points, in their revolution, and means whereby said spreading and collapsing points may be regulated or moved around the axis of said planes to produce a forward, backward, upward or downward direction of flight.

[Claim 6 not printed in the Gazette.]

1,139,821. COUPLING FOR FLEXIBLE TUBING. AUGUST SUNDH, Hastings-upon-Hudson, N. Y. Filed Oct. 22, 1913. Serial No. 796,565. (Cl. 137—28.)



1. A coupling for flexible tubing comprising an external member having a conically shaped interior adapted to be placed over the end of the tubing, a conically shaped bushing adapted to fit into the tubing and arranged to be forced into the tubing under pressure to expand said tubing against the inner surface of said external member and a plastic material between said external member and the internal bushing.

2. A coupling for flexible tubing comprising an external member having a conically shaped interior adapted to be placed over the end of the tubing, a conically shaped bushing adapted to fit into the tubing and arranged to be forced into the tubing under pressure, to expand said tubing against the inner surface of said external member, a plastic material between said external member and the internal bushing and a threaded bushing arranged to securely hold said parts together.

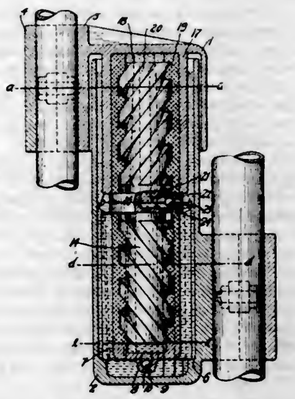
3. A coupling for flexible tubing comprising an external member having a conically shaped interior adapted to be placed over the end of the tubing, a conically shaped bushing adapted to fit into the tubing and arranged to be forced into the tubing under pressure to expand said tubing against the inner surface of said external member, a plastic material between said external member and the internal bushing and a threaded bushing arranged to hold said parts securely together, said external member being provided with means for attaching said member to another external member.

4. A coupling for flexible tubing comprising an external member having a conically shaped interior adapted to be placed over the end of the tubing, a conically shaped bushing adapted to fit into the tubing and arranged to be forced into the tubing under pressure to expand said tubing against the inner surface of said external member, a plastic material between said external member and the internal bushing and a threaded bushing arranged to hold the parts securely together, said external member being provided with screw-threads with which said threaded bushing engages.

5. A coupling for flexible tubing comprising a pair of external members each having a conically shaped interior adapted to be placed over the respective ends of the tubing, a pair of conically shaped bushings each adapted to fit into the tubing within one of said external members and arranged to be forced into the tubing under pressure to expand the tubing against the inner surface of its respective external member, a plastic material between said external members and the internal bushings, threaded bushings arranged to securely hold said parts together and means for attaching the two external members together.

[Claim 6 not printed in the Gazette.]

1,139,822. GATE-HINGE. AUGUST SUNDH, Hastings-upon-Hudson, N. Y. Filed Jan. 11, 1915. Serial No. 1,527. (Cl. 16—88.)



1. A gate hinge, comprising a stationary member and a manually operable member, screw threads in said members, and a screw with right and left hand threads coacting with said members.

2. A gate hinge comprising a stationary member and a manually operable member with telescoping inclosures, screw threads in said members, a screw with right hand threads on one end and left hand threads on the other, coacting with said members.

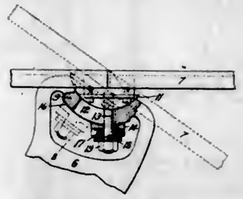
3. A gate hinge, comprising one stationary member and one manually operable member, said members having screw threads, a screw threaded member fitting in said threads, a central projection on said last named member adapted to maintain the members at rest.

4. A gate hinge, comprising one stationary member and one manually operable member, multiple screw threads in said members, one member having multiple right hand screw threads, and one member having multiple left hand screw threads, and a multiple screw threaded member fitting the multiple threads of said members.

5. A gate hinge, comprising members, one adapted to be held stationary and adapted to carry the load, the other adapted to be manually operated, screw threads in said members, a screw for said screw threads coacting with said members, and means to force lubricant between the threads of the screw and the threads of the members.

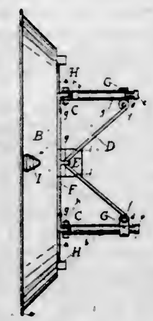
[Claims 6 to 10 not printed in the Gazette.]

1,139,823. BAND-SAW MACHINE. ARTHUR P. THOMAS and GEORGE CARLSON, San Francisco, Cal. Filed Apr. 24, 1913. Serial No. 763,269. (Cl. 248—30.)



In means for frictionally holding an article to a slotted support having a convex lower surface, a threaded stem secured to the article and passing through said slot, an inverted cup around said stem having an upper surface curved to conform to said lower surface, a spring around the stem within said cup, and a nut screwed on the threaded lower end of the stem and pressing against said spring.

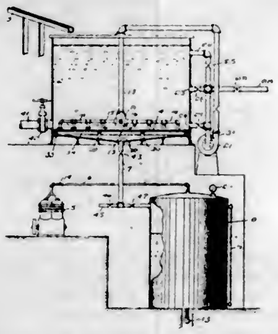
1,139,824. TUB-SEAT. GEORGE W. TURNER, Minneapolis, Minn. Filed Sept. 23, 1914. Serial No. 863,153. (Cl. 4—27.)



1. A tub seat, comprising, in combination, a seat body having an edge adapted to engage over the rim of a tub, a pair of legs hinged to the lower outer portion of the seat, a brace consisting of an arm having its ends secured to the outer extremities of said legs and the portion between its ends shaped at an angle and hinged to the bottom of the seat, and a lock member adapted to releasably engage the angle portion of said brace to hold the legs in standing position, and permitting them when the lock member is released and while said brace remains attached to said legs and seat body to fold against the seat.

2. A tub seat, comprising, in combination, a seat body having an edge adapted to engage over the rim of a tub, a pair of legs hinged to the lower outer portion of the seat permitting them to assume standing or folded position, the lower portions of said legs being tubular and split to permit said tubular portions being contracted, extensible elements secured in the tubular portions of said legs, clamps over the slit ends of said tubular portions to hold the extensible leg sections in adjusted position, a brace arm having its ends secured to said clamps and shaped at an angle between its ends, a fastener on said seat in which the angle portion of said brace is hinged permitting the legs to fold and a spring lock member adapted to releasably engage said brace and hold said legs in standing position.

1,139,825. METHOD OF TREATING MIXTURES OF LIQUIDS AND SOLIDS. ALBERT E. VANDERCOOK, Alameda, Cal., assignor to California Macvan Co., San Francisco, Cal., a Corporation of California. Original application filed Mar. 9, 1914, Serial No. 823,507. Divided and this application filed Apr. 14, 1914. Serial No. 831,758. (Cl. 75—86.)



1. The process of filtering pulp and the like, which consists in covering a filtering medium with pulp, forcing the liquid being filtered through said medium and simultaneously discharging a plurality of streams of said pulp directly against the filtering medium whereby the formation of a cake on the filtering medium is prevented.

2. The process of filtering pulp and the like, which consists in covering a filtering medium with pulp, forcing the liquid being filtered through said medium and discharging a plurality of moving streams of said pulp directly against the filtering medium, whereby the formation of a cake of unfiliterable material on said medium is prevented.

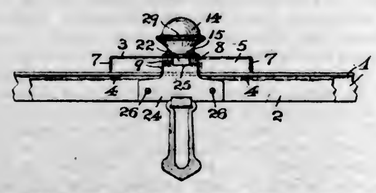
3. The process of filtering pulp and the like, which consists in submerging a filtering medium in a vessel of pulp, forcing the liquid being filtered through said medium, withdrawing a portion of said pulp from said vessel and forcing it in a plurality of streams against the surface of said filtering medium whereby a deposit of unfilterable material on said medium is prevented.

4. The process of preventing the formation of a cake in the filtration of pulp and the like, which consists in sweeping the surface of the filtering medium during filtration with a plurality of streams of pulp directly discharged against said surfaces.

5. The process of preventing the formation of a cake in the filtration of pulp and the like, which consists in directing a plurality of moving streams of said pulp against the filtering surface during the filtering operation.

[Claims 6 to 9 not printed in the Gazette.]

1,139,826. BAG-FRAME FASTENER. BENNO VOM EIGEN, Newark, N. J., assignor to August Goertz & Co., a Corporation of New Jersey. Filed Aug. 19, 1914. Serial No. 857,452. (Cl. 70—116.)



1. A bag-frame fastener comprising a shell or box formed in its upper face with openings, and in its front face being formed with an opening, a fingerpiece loosely mounted upon said upper face and over the openings in said upper face, a spring-engaging post extending from said fingerpiece into and through one of the openings in the upper face, a spring within said shell or box having a portion in engagement with said post, and a hasp-receiving stud extending from said fingerpiece into the other opening in said upper face and into the opening in the front face of the shell or box, substantially as and for the purposes set forth.

2. A bag-frame fastener comprising a shell or box formed in its upper face with openings, and in its front face being formed with an opening, a fingerpiece loosely mounted upon said upper face and over the openings in said upper face, a spring-engaging post extending from said fingerpiece into and through one of the openings in the upper face, a spring within said shell or box having a portion in engagement with said post, a hasp-receiving stud extending from said fingerpiece into the other opening in said upper face and into the opening in the front face of the shell or box, and means connected with said spring-engaging post adapted to be brought into arrested engagement with a portion of said shell or box to prevent movement of the fingerpiece in a forward direction.

3. A bag-frame fastener comprising a shell or box formed in its upper face with openings, and in its front face and in its rear face with other openings, a fingerpiece loosely mounted upon said upper face and over the openings in said upper face, a spring-engaging post extending from said fingerpiece into and through one of the openings in the upper face, a spring within said shell or box having a portion in engagement with said post, a hasp-receiving stud extending from said fingerpiece into the other opening in said upper face and into the opening in the front face of the shell or box, and a stop-pin extending rearwardly from said spring-engaging post, said pin projecting into the opening of the rear face of said shell or box and being adapted to be brought into arresting engagement with a marginal portion of said rear face surrounding said opening to prevent movement of the fingerpiece in a forward direction, substantially as and for the purposes set forth.

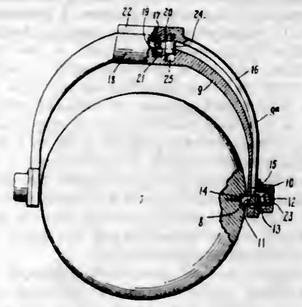
4. A bag-frame fastener comprising a shell or box formed in its upper face with an opening, a fingerpiece loosely mounted upon said upper face, a spring-engaging post extending from said fingerpiece into and through the opening in the upper face, said post being provided near its lower end with a laterally extending slot, a bowed torsional spring having its central portion arranged in said slot, and the end-portions of said spring extending in upward directions of said shell or box and resting in frictional engagement with the inner and upper corner-portions of said shell or box, and a hasp-receiving stud extending from said fingerpiece, substantially as and for the purposes set forth.

5. A bag-frame fastener comprising a shell or box formed in its upper face with an opening, a fingerpiece loosely mounted upon said upper face, a spring-engaging post extending from said fingerpiece into and through the opening in the upper face, said post being provided near its lower end with a laterally extending slot, a bowed portion arranged in said slot, and the end-portions of said spring extending in upward directions within the shell or box and resting in frictional engagement with the inner and upper corner-portions of said shell or box, and a hasp-receiving stud extending from said fingerpiece, and means connected with said spring-engaging post adapted to be brought into arrested engagement with a portion of said shell or box to prevent movement of the fingerpiece in a forward direction.

[Claim 6 not printed in the Gazette.]

1,139,827. GRIP FOR BOWLING-BALLS AND THE LIKE. ALEXANDER J. WATSON, Plainfield, N. J. Filed Oct. 28, 1913. Serial No. 797,705. (Cl. 46—4.)

1. A gripping device for bowling balls, embodying a rigid yoke adapted to span the ball and provided at its extremities with yieldingly mounted means to engage with the ball and hold it within the yoke, and resiliently mounted means carried by said yoke and adapted to engage with said yieldingly mounted means, whereby a single movement of said resiliently mounted means relative to said yoke will effect the release of the ball.



2. In a device of the character described, the combination with a ball, provided with diametrically opposed sockets, of a gripping device therefor, said gripping device comprising a rigid member and a resilient member mounted thereon and movable relatively thereto, means carried by said rigid member adapted to engage with the sockets in said balls, and means on said movable member whereby the actuation of said movable member will operate to withdraw said engaging means from the sockets in said ball.

3. In a device of the character described, the combination with a ball, of a gripping device therefor having a rigid member and a relatively movable member, means carried by said rigid member having portions normally adapted to engage with said ball at two points thereof and grip the same, and means for operating said movable member to actuate the said gripping means to withdraw them from engagement with the ball and release the same.

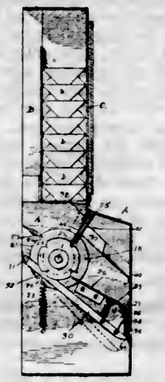
4. In a device of the character described, the combination with a ball, provided with diametrically opposed sockets, of a gripping device therefor, having a fixed member and a relatively movable member, means carried by said fixed member and adapted to engage with the sockets in said ball, and means for operating said movable member to actuate said engaging means to withdraw them from engagement with the sockets and release said ball.

5. In a device of the character described, the combination with a bowling ball provided with diametrically opposed sockets, a gripping device therefor embodying a frame, gripping means carried thereby and adapted to engage the sockets in said ball, yielding means for normally maintaining said gripping means in engagement with the sockets in said ball, and a yielding member mounted on said frame and operable to engage with said gripping means to move them out of engagement with the sockets in said ball and release the same.

1,139,828. RAISIN-VENDING MACHINE. ARTHUR F. WELLS and JOSEPH SAXTON, San Francisco, Cal., assignors to James C. Paine, E. G. Hoag, Fred Nelson, and Paul Hutchinson, Fowler, Cal. Filed Aug. 18, 1910. Serial No. 577,843. (Cl. 194—85.)

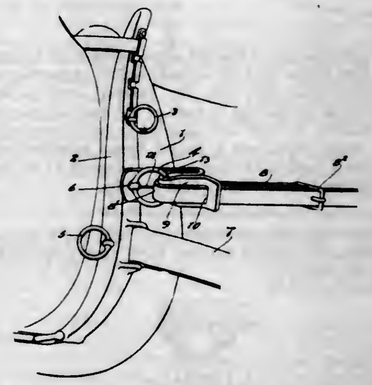
1. In a vending machine, a casing, a shaft in the casing, said shaft carrying a hollow drum, an operating arm, a drum carried by the operating arm, said drums having means for holding a coin to make a connection therebetween, said hollow drum having V shaped notches in its periphery, an arm pivotally supported in the casing, a projection on the arm, said projection adapted to engage with the V shaped notches, means for holding the projection normally into engagement with one of the notches, means for directing a coin to one end of the arm, means on the arm for engaging the coin and forcing the same into engagement with one of the walls of the casing, and means for preventing reverse movement of the operating arm.

2. In a vending machine, a casing, a shaft in the casing, a drum on the shaft, an operating arm, said arm having one end thereof extending into the casing, a drum carried by the operating arm, means on the drum whereby a coin may form a connection therebetween, one of the drums having notches, a coin chute in the casing, an arm having one of its ends pivotally secured within the casing,



the opposite end of said arm having a step, said step being disposed under one end of the coin chute, to receive a coin from the chute, a projection on the arm, said projection adapted to engage one of the notches of the drum, and means for preventing the reverse movement of the operating arm.

1,139,829. ATTACHMENT TO HARNESS. CLYDE EDSON WHEELER, Gull Lake, Saskatchewan, Canada. Filed Apr. 8, 1914. Serial No. 830,488. (Cl. 54—1.)



1. The combination with the hame of a horse collar provided with the usual side strap ring and a side strap connected to the ring by a loop, of a wearing strap applied on the side strap and passing between the loop of the strap and the ring and between the inner side of the loop and the face of the collar, as and for the purpose specified.

2. The combination with the hame of a horse collar provided with the usual side strap ring and a side strap connected to the ring by a loop, of a wearing strap having a portion thereof inserted within the loop of the side strap and bearing on the ring and a portion thereof extending between the loop of the side strap and the collar and connected to the hame, as and for the purpose specified.

3. The combination with the hame of a horse collar provided with the usual side strap ring and a side strap connected to the ring by a loop, of a wearing strap passed through the ring between the loop of the side strap and

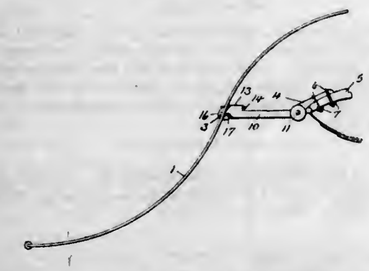
the ring and having cross slots therein receiving the sides of the loop and an extending end passed between the inner side of the loop and the collar and fastened to the hame, as and for the purpose specified.

4. The combination with the hame of a horse collar provided with the usual side strap ring fastened by an eye bolt to the hame and a side strap looped through the ring, of a wearing strap looped through the ring between the loop of the side strap and the ring and having cross slots therein receiving the sides of the side strap loop and being provided further with an extending slitted end located between the inner side of the loop and the collar, said slitted end being passed over the ring and anchored on the eye bolt, as and for the purpose specified.

5. A wearing strap for harness having a longitudinal slot in one end of sufficient length to slip over a strap ring in one end, a cross slot in the opposite end of sufficient width to receive the harness strap and an intermediate cross slot also of sufficient width to receive the harness strap as and for the purpose described.

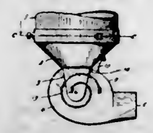
[Claim 6 not printed in the Gazette.]

1,139,830. FENDER FOR AUTOMOBILES. CECIL K. WHITE, Norfolk, Va. Filed Aug. 26, 1914. Serial No. 858,720. (Cl. 105—33.)



The combination of bracket arms adapted to be secured to the side frame bars of an automobile, supporting arms adjustably connected with the bracket arms, a clamp-hook pivoted at one end to each of the supporting arms, a screw passing through and adapted to hold the other end of the clamp hook, and a fender frame provided with a transversely extending central bar adapted to fit in the clamp hooks and be rigidly held thereby.

1,139,831. MEASURING DEVICE. WALTER A. BARROWS, Belvidere, Ill. Filed July 20, 1911. Serial No. 639,680. (Cl. 221—98.)



1. A receptacle having an open lower end, ears depending from the receptacle, a tilting section connected to the ears, spring connection between the tilting section and the receptacle, a closure for the tilting section pivotally connected to the receptacle and means for holding the closure in its adjusted position.

2. A receptacle having an open lower end, ears depending from the receptacle, a tilting section located between the ears and pivoted thereto, a spring connection between the tilting section and the receptacle, the tilting section having a wall adapted to close the lower end of the receptacle, and a closure for the tilting section connected to the receptacle.

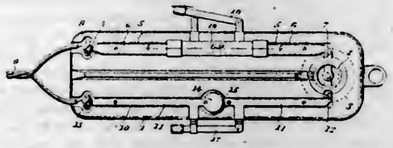
3. A receptacle having an open lower end, ears depending from the receptacle, a tilting section pivotally connected to the ears, a spring connection between the tilting section and the receptacle, a closure for the tilting section pivotally connected to the receptacle, a bar pivotally connected to the receptacle, and an adjustable connection between the closure and bar.

4. A dispensing device, comprising a hopper provided with an opening at its bottom portion, a discharge receptacle pivotally mounted below the hopper, the receptacle being constructed to permit contents of the hopper to pass thereinto, and being provided with a curved wall concentric with its pivot axis, the curved wall being positioned to permit said passage of contents when the receptacle is in a normal position, but to stop said passage when the receptacle is swung on its pivot to a discharge position, the receptacle being provided with a discharge opening, and means comprising an adjustable wall-portion of the receptacle for closing said discharge opening when the receptacle is in its normal position and for permitting discharge from the receptacle when the same has been swung to its said discharge position.

5. A dispensing device, comprising a hopper having a discharge opening at its bottom, a discharge receptacle pivoted to and beneath said hopper and having a receiving opening at its top normally registering with the discharge opening of said hopper and a lateral delivery opening, and a depending guard for said delivery opening secured at its upper end to said hopper and extending within and constituting a wall member for said receptacle to cut off said delivery opening when said discharge receptacle is in receiving position relatively to said hopper.

[Claim 6 not printed in the Gazette.]

1,139,832. TESTING DEVICE FOR ELECTRIC-CURRENT-TRANSLATING DEVICES, FUSES, &c. HOWARD LEE BARTLETT, Devils Lake, N. D. Filed Feb. 11, 1914. Serial No. 818,088. (Cl. 175—183.)



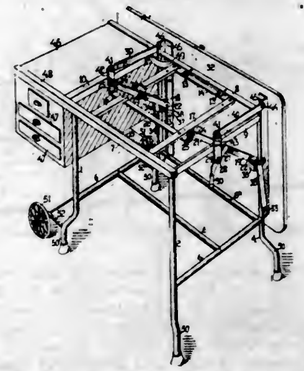
In a testing device, a base of insulating material having grooves formed therein adjacent to the opposite longitudinal edges thereof, a lamp socket connected to the base at one end thereof between the adjacent ends of said grooves, a test lamp within said socket, contacts connected with one side of said lamp and disposed within one of said grooves and spaced apart and adapted to be bridged by an element to be tested, a second set of contacts connected with the other side of said lamp and spaced apart and disposed within the remaining groove and adapted to be bridged by an element to be tested, and switches extending outwardly from the opposite longitudinal edges of said base, one switch for each set of contacts whereby the sets of contacts may be used independently of each other.

1,139,833. STAND FOR TYPE-WRITING MACHINES. HARRY BATES, East Orange, N. J., and ALFRED G. F. KUROWSKI, New York, N. Y., assignors to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Filed May 26, 1910. Serial No. 563,501. (Cl. 45—52.)

1. A table frame, a floating table cover, a machine support pivoted to the rear of the table frame tiltable rearwardly and downwardly in the same plane as that in which the cover floats, and a link connection between the cover and support whereby the said cover and support may balance each other there being a bell crank lever in said link connection pivoted to the frame so as to control the functioning of the links, the cover and support being substantially counterbalanced and so arranged that when one is in horizontal the other is in substantially vertical position.

2. A stand or table for typewriting and keyboard machines comprising a frame, a swinging machine support

hinged at its rear to the rear portion of said frame, a top or cover adapted to float from rear to front, toggles arranged in the rear connecting the swinging support and the frame, and arms pivotally connecting the top to the toggles and to the frame, respectively, to effect the elevation of the support as the top is lowered.



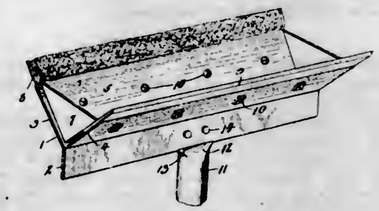
3. A stand or table, a swinging frame hinged at its rear to the rear of said stand to support a machine, and a toggle device extending between the swinging frame and stand and movable to position to lock the swinging frame in raised position, and a top connected to said toggle device and to said stand to float up from the stand and back and down to a pendent position behind the stand.

4. In a stand or table, the combination of a frame, a swinging leaf hinged at its rear to the frame, a locking toggle connecting the swinging leaf with a bearing on the frame and movable to extended position to lock the swinging leaf in raised position, a top, arms pivotally connecting the forward ends of said top with the frame, and other arms connected to swing with the toggles and pivotally secured to the rear of the top to lower the top behind the frame when the leaf is raised.

5. In a stand or table, the combination of a frame, a swinging leaf hinged at its rear to the frame, a locking toggle connecting the swinging leaf with a bearing on the frame and movable to extended position to lock the swinging leaf in raised position, a top, arms pivotally connecting the forward ends of said top with the frame, other arms connected to swing with the toggles and pivotally secured to the rear of the top to lower the top behind the frame when the leaf is raised, and a rest on the leaf to contact with the stand when the pivotal points of the toggle are in line.

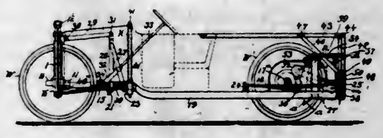
[Claims 6 to 10 not printed in the Gazette.]

1,139,834. WINDOW-CLEANER. WILLIAM THOS. BAUGH, Madison, Ga. Filed Mar. 14, 1914. Serial No. 824,744. (Cl. 15—59.)



In a device of the class described, a holder for cleaning elements comprising a member formed from a single piece of material bent upon itself at its longitudinal center to provide a lip, relatively yieldable diverging flanges formed on the upper longitudinal edge of the lip, a second member of a length equal to the former mentioned member and having diverging side flanges arranged inwardly of and in spaced relation to the yieldable diverging flanges of the lip, end plates combining with said second member to form therewith a trough, means passing thruogh the flanges of the first member and the flanges of the 2nd member for causing the flanges of the 1st member to move in a direction toward the diverging side flanges of the second member, said means also serving to connect and retain the second member to the first member, and a rubber strip secured between said members and adapted to coöperate with the trough, whereby the excess moisture removed from a window pane by said strip will be delivered into said trough.

1,139,835. MOTOR-TRICYCLE. EDWARD S. BEACH, Ridgefield, Conn. Filed Oct. 24, 1914. Serial No. 868,376. (Cl. 21—90.)



1. The combination of a wheel fork; a wheel journaled therein; a spring-supporting fork; the wheel fork being journaled in the spring-supporting fork and the latter having laterally projecting opposite spring-supporting feet, and the wheel fork having at each end both end-thrust and lateral bearings in the spring-supporting fork.

2. The combination of a wheel fork; a wheel journaled therein; a spring-supporting fork; the wheel fork being journaled in the spring-supporting fork and the latter having laterally projecting opposite spring-supporting feet below the axis of the wheel journal, and the wheel fork having at each end both end-thrust and lateral bearings in the spring-supporting fork.

3. The combination of a wheel fork; a wheel journaled therein; a spring-supporting fork; the wheel fork being journaled in the spring-supporting fork and the latter having laterally projecting opposite spring-supporting feet; the free end portions of the wheel fork having bearing feet mounted in bearing recesses in the heel portions of the spring-supporting fork.

4. The combination of a wheel fork; a wheel journaled therein; a spring-supporting fork; the wheel fork being journaled in the spring-supporting fork and the latter having laterally projecting opposite spring-supporting feet; the free end portions of the wheel fork having bearing feet mounted in bearing recesses in the heel portions of the spring-supporting fork; and detachable means for keeping the bearing end portions of the assembled forks together.

5. The combination of a wheel fork; a wheel journaled therein; a spring-supporting fork; the wheel fork being journaled in the spring-supporting fork and the latter having laterally projecting opposite spring-supporting feet; the free end portions of the wheel fork having bearing feet mounted in bearing recesses in the heel portions of the spring-supporting fork; and the wheel-fork-bearing feet being formed with alined holes for the wheel journal.

[Claims 6 to 30 not printed in the Gazette.]

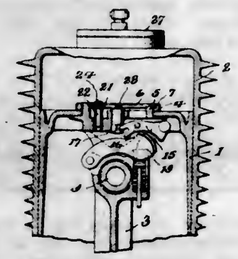
1,139,836. SAFETY-PIN CATCH. THOMAS S. BENNETT, Seattle, Wash. Filed Apr. 2, 1914. Serial No. 836,975. (Cl. 24—157.)



In a device of the class described, the combination with the body provided with depending apertured ears, of a rotary sheath comprising two side members, a pair of bars

connecting said side members, and trunnions provided on the members to serve as axle elements in the apertured ears, said sheath being unprovided with an axle extending between the side members to afford an open space between said bars whereby the tongue-point may be unobstructedly swung across the axis of the sheath in successively engaging the aforesaid bars.

1,139,837. VALVE FOR GAS-ENGINES. EMILE BERLINER and HOWARD D. CHAPMAN, Washington, D. C., assignors to The Gyro Motor Company, Washington, D. C., a Corporation of Delaware. Filed Mar. 21, 1912. Serial No. 685,275. (Cl. 123—188.)



1. A gas engine including in combination a valve seat, a valve for engaging said seat, means connected to the valve for operating the same, the connection between the valve and the operating means being so constructed that said valve may be disconnected from said operating means by a rotation of the valve on its seat.

2. A gas engine including in combination a valve seat, a valve for engaging said seat, means connected to the valve for operating the same, the connection between the valve and the operating means being so constructed that said valve may be disconnected from said operating means by a rotation of the valve on its seat, and means for locking the valve against rotation on its seat, said locking means being constructed to permit the valve to move toward and from its seat.

3. A gas engine including in combination a valve seat, a valve for engaging said seat, means connected to the valve for operating the same, the connection between the valve and the operating means being so constructed that said valve may be disconnected from said operating means by a rotation of the valve on its seat, a locking pin for preventing the valve from turning on its seat, and means for holding said pin in said valve.

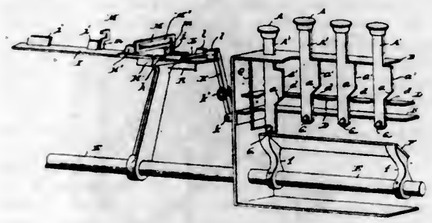
4. A gas engine including in combination, a valve seat, a valve for engaging said seat, a stem carried by the valve, said stem having a notch at its lower end and the side of the stem adjacent the notch cut away, an operating lever for the valve having an end adapted to engage said notch and said cut away portion, whereby when said valve is rotated, said stem may be disconnected from said lever.

5. A gas engine including in combination, a valve seat, a valve for engaging said seat, a stem carried by the valve, said stem having a notch at its lower end and the side of the stem adjacent the notch cut away, an operating lever for the valve having an end adapted to engage said notch and said cut away portion, whereby when said valve is rotated, said stem may be disconnected from said lever, and means for locking said valve from rotation on its seat.

[Claims 6 and 7 not printed in the Gazette.]

1,139,838. COIN-DELIVERING MACHINE. EDWARD B. BIRKENBEUEL, Portland, Oreg., assignor to Coin Machine Manufacturing Company, Portland, Oreg., a Corporation of Oregon. Filed Aug. 8, 1912. Serial No. 714,084. (Cl. 133—4.)

1. In a key operated coin delivering machine, the combination with a plurality of coin holders and a separate ejector for discharging coins from each coin holder, of a longitudinally and laterally movable selector adapted to coöperate with each of said ejectors, a plurality of keys and operating connections intermediate the keys and selector for imparting, first, a differential longitudinal movement to position the selector and then a lateral movement to operate the selected ejectors.



2. In a key operated coin delivering machine, the combination with coin holders and ejectors for discharging coins therefrom, of a longitudinally movable selector adapted to coöperate with the ejectors, an angularly movable frame in which said selector is movable longitudinally, a plurality of keys, and differential operating connections intermediate the keys and selector for differentially positioning the same longitudinally, and operating connections intermediate the keys and angularly movable frame for imparting angular movement to the selector for operating the ejectors.

3. In a key operating coin delivering machine, the combination with coin holders and ejectors for discharging the coins therefrom, of a longitudinally movable selector having projections thereon for coöperating with the ejectors to operate the same, a laterally movable frame in which said selector is mounted having a projection thereon for coöperating with the ejectors to return them to normal position, and a plurality of keys for controlling the longitudinal movement of the selector and the lateral movement of the frame and selector.

4. In a key operated coin delivering machine, the combination with coin holders and ejectors for discharging coins therefrom, of a series of keys, inclines on said keys, an ejector operating selector with connections operated by said inclines for positioning the selector longitudinally, a rock shaft, a frame carried by said rock shaft, and in which the selector is mounted, and an incline with which the keys coöperate to impart angular movement to the shaft and selector.

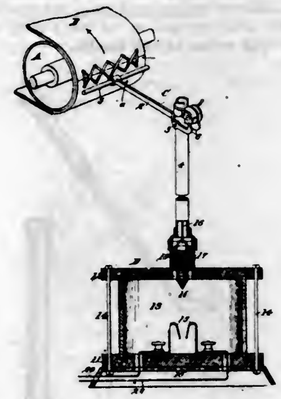
5. In a key operated coin delivering machine, the combination with coin holders, ejectors for discharging coins therefrom, and a series of keys, of a selector for coöperating with the ejectors, an angularly movable frame in which said selector is mounted, a selector operating plate, inclines on the keys for moving said plate to position the selector longitudinally, and an incline connected with the selector carrying frame and with which the keys coöperate for imparting angular movement to the selector for operating the ejector.

[Claim 6 not printed in the Gazette.]

1,139,839. SAFETY DEVICE. MICHELE J. BOTTINELLI, Kellogg, Idaho. Filed Apr. 9, 1914. Serial No. 830,674. (Cl. 177—10.)

1. In a safety device, the combination of a standard, an arm pivotally mounted in said standard, a feeler arm secured on one end of the pivoted arm, a hook formed on the other end of the arm, a pulley journaled in the standard having a catch formed thereon with which the hooked end of the arm is adapted to engage, and means controlled by the pulley for closing an electric circuit.

2. In a safety device, the combination of a standard, an arm pivotally mounted in said standard, a feeler arm secured on one end of the pivoted arm, a hook formed on the other end of the arm, a pulley journaled in the standard having a catch formed thereon with which the hooked end of the arm is adapted to engage, a cord secured to the pulley, a weight on the cord, and means controlled by the weight for closing an electric circuit.

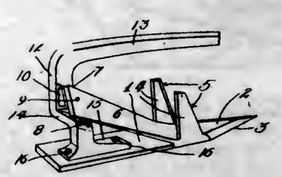


3. In a safety device, the combination of a standard, an arm pivotally mounted in said standard, a feeler arm secured on one end of the pivoted arm, a hook formed on the other end of the arm, a pulley journaled in the standard having a catch formed thereon with which the hooked end of the arm is adapted to engage, a cord secured to the pulley, a weight on the cord, a carbon secured on the end of the weight, a pair of flexible contact members with which the carbon is adapted to engage, and an electric circuit controlled by said contact members.

4. In a safety device, the combination of a standard, an arm pivotally mounted in the standard, a feeler arm secured on one end of the standard, a latch engageable with the other end of the arm, and means controlled by said latch when released by the arm for closing an electric circuit.

5. In a safety device, the combination of a standard, an arm pivotally mounted in the standard, a feeler arm secured on one end of the standard, a hook formed on the other end of the arm, a latching member engageable with said hook, and means controlled by said latch when released by the hook for closing an electric circuit.

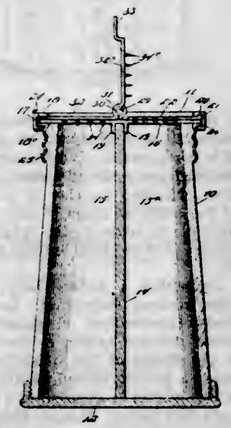
1,139,840. CULTIVATOR OR PLOW ATTACHMENT. WILLIAM WILBER E. BOYER, Oklahoma, Okla. Filed Aug. 20, 1914. Serial No. 857,620. (Cl. 97—32.)



1. In a device as set forth, a plow beam post having a foot at its lower end, a flat base cutting member having a V-shaped forward end provided with cutting edges, cutting blades rising vertically from and forming an integral part of the base cutting member and disposed diametrically opposite one another and provided with forward inclined cutting edges, a mold board merging into and forming an integral part with the base cutting member adjacent the vertical cutting members, said mold board extending upwardly and rearwardly and rising flatwise from the base member, means for supporting the rear upper portion of the mold board in a lateral position above the furrow, and means for fastening the mold board to the plow beam post.

2. A plow comprising a flat base cutting member having a V-shaped forward end provided with cutting edges; cutting blades, one upon each side of the base rising vertically from and forming an integral part of the base cutting member adjacent the terminus of each cutting edge of the V-shaped forward end, said vertical rising blades being disposed directly opposite one another and provided with downwardly and forwardly cutting edges, said vertically rising blade being in parallelism; a mold board merging into and forming an integral part with the base cutting member, immediately adjacent where the vertically rising blade connect to the base, said mold board extending upwardly and rearwardly from the base cutting member; and means between the rear upper end of the mold board and the base cutting member for supporting the mold board in a position above the furrow.

1,139,841. CONDIMENT-HOLDER. GEORGE MICHAEL BRIGHT, Roanoke, Va. Filed Nov. 25, 1911, Serial No. 662,416. Renewed Oct. 8, 1914. Serial No. 865,770. (Cl. 65—45.)



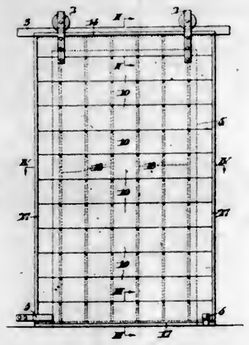
In combination with a container having the ends thereof open, a partition for slidable reception in the said container, a base for removable connection with the container to close the lower end thereof, a cap for removable connection with the upper end of the container, a perforated plate forming a part of the said cap and extending across the opening in the upper end of the container, a closure mounted to swing on the cap, wings forming parts of the said closure and projecting therefrom at right angles, pins projecting from the under sides of the said wings to depend through perforations in the said plate, a perforated slide movable on the said plate to cover one portion thereof, and a handle for moving the said slide so that the perforations thereof will register with the perforations in the mentioned portion of the plate when the pins on one of the said wings extend through the perforations in another portion of the said plate.

1,139,842. SHEET-METAL FIRE-RESISTING CLOSURE. JOAH BROGDEN and JOHN W. WATKINS, Philadelphia, Pa., assignors to David Lupton's Sons Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Aug. 22, 1908. Serial No. 449,819. (Cl. 189—46.)

1. In a fire resisting closure in combination sheet metal non-integral surfaces, and composite partitions uniting the same at intervals, formed by the interlocking of a union with two corresponding flange pieces affixed one to each surface.

2. A hollow fire-resisting closure formed wholly of non-combustible material and consisting of separated faces,

each of which is composed of a number of sheet metal pieces of comparatively small superficial area of sufficient weight and strength to be self-sustaining, said pieces being connected together by the infolding and interfolding of the adjacent edges of said pieces, and composite partitions formed by interfolding sheet metal parts, said partitions being fastened to the metal pieces forming the faces by rivets which pass through the interfolded edges of said pieces.



3. A hollow fire-resisting closure formed wholly of non-combustible material and consisting of separated faces, each of which is composed of a number of self-sustaining sheet metal pieces of comparatively small superficial area, said pieces being connected together by the infolding and interfolding of the adjacent edges of said pieces and partitions extending at an angle to the interlocked edges of said metal pieces, across said interlocked edges, and riveted thereto.

4. A door comprising a hollow body, two partition spacing members secured respectively to opposite inner sides of the body, intermediate of opposite edges of the body each spacing member having a lateral flange which abuts against the flange of the other spacing member, each flange having a portion turned toward the side of the body to which the member is secured, and a channel member having inwardly turned flanges which embrace the flanges of said spacing members and hold said members from relative lateral movement and from movement away from each other.

5. A door comprising a hollow body, two partition spacing members of channel form having their outer flanges secured respectively to opposite inner sides of the body intermediate of opposite edges of the body, and a member having interlocking engagement with the inner flanges of said members for holding them from relative lateral movement and from movement away from each other.

[Claims 6 to 8 not printed in the Gazette.]

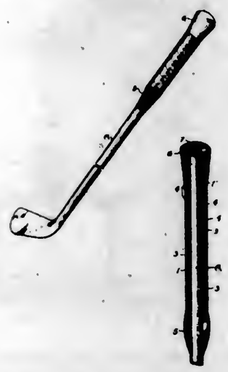
1,139,843. HANDLE-GRIP. ROBERT B. BROWN, Washington, D. C. Filed Oct. 16, 1913. Serial No. 795,584. (Cl. 46—4.)

1. A non-slipping handle grip including in combination with the handle, an absorbent base, a surface of non-yielding wear resisting material applied over and about said absorbent base and including means to expose said base, and means for attaching said materials to the handle.

2. A non-slipping handle grip including in combination with a handle, an absorbent base, a surface of non-yielding perforated wear resisting material applied over and about said absorbent base, and means for attaching said materials to said handle.

3. A non-slipping handle grip including in combination with a handle, an absorbent base, a strip of non-yielding material presenting a friction surface wound spirally about said absorbent base, and means for securing said base and strip to the handle.

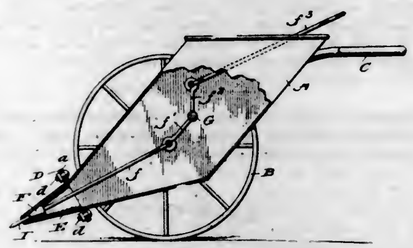
4. A non-slipping handle grip including in combination with a handle, an absorbent base in the form of a strip wound spirally around the handle, a non-yielding grip strip wound spirally around the absorbent base, and including means to expose said base, the convolutions of the outer strip being opposed to the inner strip, and means for securing both strips to the handle.



5. A non-slipping handle grip including in combination with a handle, an absorbent base in the form of a strip wound spirally about the handle, a non-yielding grip strip having a plurality of openings and wound spirally around the absorbent base and exposing portions thereof, the convolutions of the outer strip being opposed to those of the inner strip, and means for securing both strips to the handle.

[Claims 6 to 8 not printed in the Gazette.]

1,139,844. PORTABLE DISTRIBUTING-MACHINE. WILLIAM H. CALNAN, Clinton, Iowa. Filed Aug. 30, 1913. Serial No. 787,484. (Cl. 94—6.)

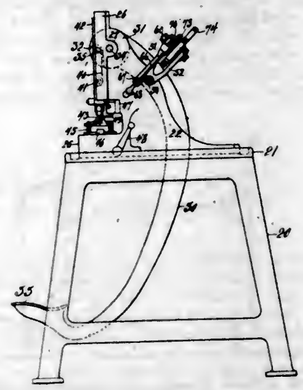


1. In a machine of the character described, a substantially rectangular reservoir, one end of which is contracted to form an elongated discharge mouth, a flange protruding from the wall of the reservoir at the discharge mouth, a single discharge spout plate adapted to be removably secured to said flange to close said mouth, a plurality of nozzles carried by the spout plate, a valve for each nozzle, separate actuating devices for each of said valves to operate the valves independently, a pivot rod common to all of said actuating devices, and means whereby all of said valve actuating devices may be operated simultaneously.

2. In a machine of the character described, a reservoir, the base of which is out of parallel alinement with top thereof, said base and front wall being projected forwardly and converging toward an elongated mouth, a spout plate adapted to be secured to said mouth, a plurality of nozzles carried by the spout plate, a valve for each nozzle, separate actuating devices for each of said

valves to operate the valves independently, a pivot rod commmon to all of said actuating devices, and means whereby all of said valve actuating devices may be operated simultaneously.

1,139,845. PRESS. WILLIAM H. CHAPMAN and WALTER W. CHAPMAN, Newark, N. J.; said Walter W. Chapman assignor to said William H. Chapman. Filed Dec. 22, 1913. Serial No. 808,097. (Cl. 164—97.)



1. In an apparatus of the character described the combination of a reciprocating element, a frame for the element, a lever fulcrumed in the frame, a connection between one end of the lever and said element, a cam positioned in the path of the element and means to adjust the cam to different positions to control the strokes of said element.

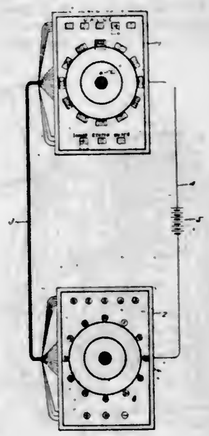
2. In an apparatus of the character described the combination of a slide, a punch for the slide, a frame with a guide for the slide, a lever fulcrumed in the frame, a connection between one end of the lever and said slide, a yoke pivoted to the frame, a cam pivoted to the yoke with its edge in the path of said lever and means to adjust the cam.

3. In an apparatus of the character described the combination of a frame having a guide, a slide guided in said guide, a foot lever pivoted in said frame, a link connecting one end of the foot lever and said slide, a yoke pivoted to the frame, a bolt connecting a pair of members of the yoke, a worm wheel and a cam supported on the bolt, means connecting the wheel and cam, a spindle supported in bearings on the yoke, a worm at one end of the spindle meshing with the worm wheel and an operating handle at the other end of the spindle.

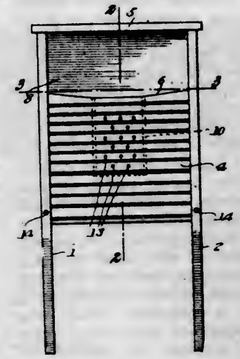
4. In an apparatus of the character described the combination of a frame having a guide, a slide guided in said guide, a foot lever pivoted in said frame, a connection between one end of the lever and said slide, an element pivoted to the frame, and an adjustable cam carried by said element and located in the path of said foot lever.

1,139,846. RIFLE-RANGE SHOT-INDICATOR. EARL D. CHURCH, Hartford, Conn. Filed Apr. 15, 1910. Serial No. 555,697. (Cl. 177—345.)

A rifle range indicator including an indicator bearing a miniature target and provided with value-indicating annunciators, radial position annunciators and diagrammatically arranged annunciators to indicate the annular location, said value-indicating annunciators being disposed along one side of the miniature target and said radial position annunciators being arranged along another side of said miniature target, and a manually operated transmitter bearing a miniature target having push buttons arranged for controlling the value-indicating annunciators and also a radial position annunciator and having push buttons diagrammatically arranged for controlling the annunciators indicating the annular location.

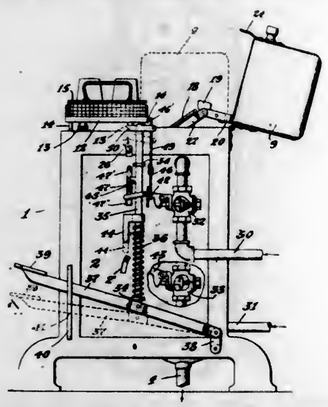


1,139,847. WASHBOARD. EDWARD W. CLINCHARD, Sedro Woolley, Wash. Filed Dec. 3, 1913. Serial No. 804,504. (Cl. 68—29.)



In a wash board, a pair of supporting legs having longitudinal grooves therein, a rubbing board arranged within the grooves between the supporting legs and provided in its central upper portion with apertures, flanges upon the upper and lower edges of said rubbing board for holding the face of the rubbing board against the front wall of said grooves, the upper of said flanges being extended to the rear edge of the supporting legs to form a supporting ledge and inclined from its opposite ends in a direction toward its center and provided in its horisontal central portion with an opening, a casing open on its face and top having an inclined bottom and closed sides and back secured in the opening in the upper flange and over the openings in the rubbing board as and for the purpose set forth.

1,139,848. WATER-DISTRIBUTING MECHANISM. WILLIAM COBURN and CHARLES W. DAVIS, Seattle, Wash., assignors to Universal Sterilizing Company, Seattle, Wash., a Corporation of Washington. Original application filed Jan. 26, 1914, Serial No. 814,502. Divided and this application filed Apr. 15, 1914. Serial No. 831,992. (Cl. 137—78.)



1. In a machine of the character described, liquid directing means, a conduit connected thereto, valve means in the conduit, an actuator, means on the actuator for opening the valve means, means for releasing the valve means from the actuator means, means for maintaining the valve means opened subsequent to releasing of the same by the actuator means, and means operable by the actuator for positively releasing the valve means from said means maintaining the latter opened.

2. In a machine of the character described, liquid directing means, a conduit connected thereto, valve means in the conduit, an actuator, means on the actuator for opening the valve means, means for releasing the valve means from the actuator means, means for positively maintaining the valve means opened subsequent to releasing of the same by the actuator means, and means operable by the actuator for positively releasing the valve means from said means maintaining the latter opened.

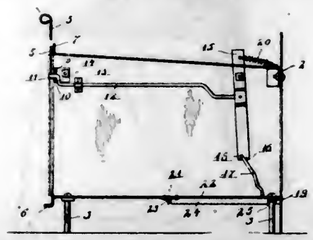
3. In a machine of the character described, liquid directing means, a conduit connected thereto, valve means for controlling the flow of liquid, an actuator for opening the valve means, means for locking the valve means opened, and cam means operable by the actuator to release the valve means from the lock means.

4. In a machine of the character described, liquid directing means, conduits connected therewith, valve means for the conduits, an actuator for opening the valve means of each conduit in succession, means independent of the actuator for locking one valve means opened, and means operable by the actuator for releasing the valve means from the lock means.

5. In a machine of the character described, liquid directing means, conduits connected therewith, valve means for the conduits, an actuator for opening the valve means of each conduit in succession, means for closing one valve means prior to the opening of the succeeding valve means, and stop means adapted to stop the actuator intermediate the opening of the first valve means and the succeeding valve means.

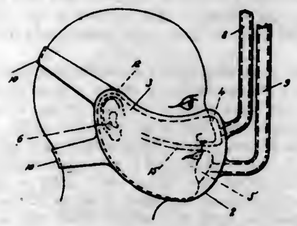
1,139,849. TRAP FOR HENS' NESTS. WILLIAM H. COLLINS, Meriden, Conn. Filed Nov. 26, 1912. Serial No. 733,695. (Cl. 119—49.)

A trap for hens' nests comprising a sheet metal casing open at its inner end and having guideways at its outer end and a slot in its bottom, said bottom having depending flanges at the sides and forward end of said slot, a self-dropping door slidably mounted in said guides, a cross piece adjacent the doorway having a guide opening therein, a depressible platform within the opening in the bottom of the casing, said platform being pivoted at its forward edge to the said forward flange and guided for movement between said side flanges, a rock shaft journaled upon the bottom of the casing and having a crank portion extending transversely of the slot beneath said side flanges and provided at one end with a crank arm projecting upwardly into the casing, an intermediately pivoted lever mounted upon the interior of the casing at one side thereof, said lever having a lower long arm provided with an angularly bent and forked portion extending inwardly therefrom and slidably and pivotally engaging said crank arm and having an upper short arm projecting exteriorly through the top of the casing, a guide member upon the adjacent side of the casing, a



locking rod slidable through said guide member and pivoted at its iner end to the lower arm of the lever between said forked portion and the pivot point of the lever, said rod having an angularly bent outer end forming a detent movable through said guide opening in the cross bar, and a spring connecting the short arm of the lever with the casing and acting on said lever to hold the platform normally elevated and the locking rod normally projected.

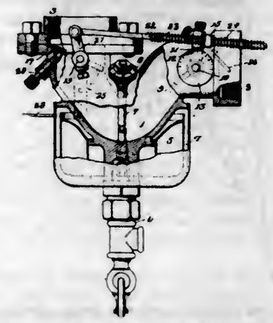
1,139,850. MASK FOR DIVERS. CHARLES H. CONKLE, Cleveland, Ohio. Filed Oct. 20, 1914. Serial No. 867,602. (Cl. 61—7.)



A breathing device, comprising a mask of flexible material adapted to fit over the bridge of the nose, and over the cheeks and ears, and under the chin, said mask having an air space provided with a rib or diaphragm adapted to bear on the upper lip and on the cheeks, thereby dividing it into two chambers which are connected together at their end portions only where they overlap the ears, inlet and outlet pipes connected to the front and middle portions of the respective chambers, and means for holding the said mask and its rib in air-tight contact with the face.

1,139,851. CARBURETER. JAMES M. DAYTON, Torrington, Conn., assignor to Excelsior Needle Company, Torrington, Conn., a Corporation of Connecticut. Filed Apr. 6, 1912. Serial No. 688,997. (Cl. 48—155.1.)

1. A carbureter including in combination, a carbureting chamber having a gas outlet, an air inlet, a throttle valve for said gas outlet, an air valve for said air inlet, means for operating said valves including a device connected to and moving with one of said valves and having a movable connection with the other valve, yielding devices for holding the movable connection between said valve and said device in a predetermined position when the valves are open, and devices for independently limiting the closed position of said valves.



2. A carbureter including in combination, a carbureting chamber having a gas outlet, an air inlet, a throttle valve for said gas outlet, and an air valve for said air inlet, means for operating said valves including a rod connected to and moving with one of said valves and having a sliding connection with the other valve, and yielding devices for holding the sliding connection between said valve and said rod in a predetermined position.

3. A carbureter including in combination, a carbureting chamber having a gas outlet, an air inlet, a throttle valve for said gas outlet, an air valve for said air inlet, means for operting said valves including a rod connected to and moving with one of said valves and having a sliding connection with the other valve, yielding devices for holding the sliding connection between said valve and said rod in predetermined position, and means for adjusting the position of the valve relative to said predetermined position.

4. A carbureter including in combination, a carbureting chamber having a gas outlet, an air inlet, a throttle valve for said gas outlet, and an air valve for said air inlet, means for operating said valves including an arm fixed to one of said valves, an arm adjustably connected to the other valve, a rod pivoted to one arm and having a sliding connection with the other arm, and yielding devices for maintaining said sliding arm in a predetermined position on said rod.

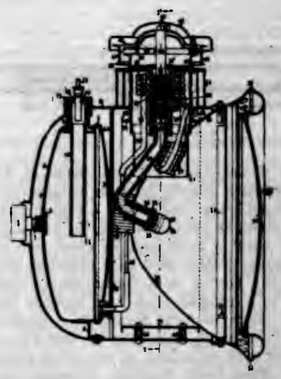
5. A carbureter including in combination, a carbureting chamber having a gas outlet, an air inlet, a throttle valve for said gas outlet, and an air valve for said air inlet, means for operating said valves including an arm carried by one of said valves, stops for limiting the movement of said valve, stops for limiting the movement of the other valve, an arm adjustably connected to said last named valve, a rod pivoted to one arm and having a sliding connection with the other arm, and springs for holding said sliding arm in a predetermined position on said rod.

[Claims 6 and 7 not printed in the Gazette.]

1,139,852. SELF-CONTAINED PROJECTING-LANTERN. ROBERT M. DIXON, East Orange, N. J. Filed Aug. 12, 1910. Serial No. 576,859. (Cl. 240—41.)

1. A device of the nature disclosed combining a reflector, a vapor burner having its burner tube extending into said reflector, a mantle carried at the end of said tube and arranged in operative relation with said reflector, a reservoir adapted to contain under pressure liquid fuel for said burner and positioned whereby the level of the liquid will underlie said burner, a valve for admitting air under pressure into said reservoir, and connections for enabling the liquid to flow upwardly under pressure to said burner.

2. A device of the nature disclosed combining a reflector, a chimney projecting downwardly through said reflector and terminating above the focus thereof, a burner body overlying said reflector having portions within said chimney and having a burner tube extending into said reflector, and a mantle secured to the end of said burner tube at a point directly underlying said chimney at a distance from the lower end thereof and in the focus of said reflector.



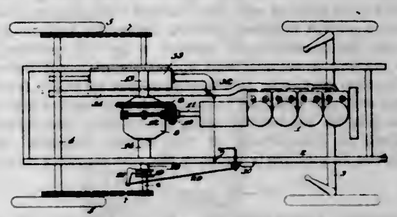
3. A device of the nature disclosed combining a casing, a removable reflector in said casing, a heat insulated shell interposed between and spaced away from both said casing and reflector and circumscribing the rear of the latter, and a vapor burner supported by said heat insulated shell in front of said reflector.

4. A device of the nature disclosed combining a reflector, a reservoir adapted to contain fluid under pressure having its center in line with the axis of said reflector, and a burner body positioned above said line and having a burner tube terminating adjacent the focus of said reflector.

5. A device of the nature disclosed combining a lantern body, a burner mounted in an upper portion thereof and having a depending chimney, a reflector removable from said lantern body and cut away in its upper part to receive the lower portion of said chimney, and means for supplying said burner with combustible vapor.

[Claims 6 to 24 not printed in the Gazette.]

1,139,853. MOTOR-VEHICLE. LEONARD H. DYER, Greenwich, Conn., assignor to Enterprise Automobile Company, Hoboken, N. J., a Corporation of New Jersey. Original application filed May 23, 1908, Serial No. 434,505. Divided and this application filed Nov. 19, 1914. Serial No. 872,906. (Cl. 21—90.)



1. In a motor vehicle, the combination with a motor having a muffler, and a driving gear, including a differential, and means operative at will for simultaneously locking the parts of the differential and for cutting out the muffler.

2. In a motor vehicle, the combination with a motor having a muffler and a driving gear, including a differential, a lock for locking the parts of the differential, a

pedal, connections between the pedal and the lock, a muffler cut out, and connections between the pedal and the muffler cut out, whereby the parts of the differential may be locked simultaneously with the cutting out of the muffler.

1,139,854. LIFTER. ARTHUR S. EVANS, Reading, Kans. Filed June 30, 1913. Serial No. 776,593. (Cl. 65—32.)



A lifter of the class described made of wire including in combination, a handle forming member comprising two parallel stems, each ending in a clench ear, a yoke including a straight portion ending in two guide eyes from which the wire is continued to form two outwardly directed carrying hooks, said ears clenched into said guide eyes, a collar having ears encompassing said stems and continued in a twisted stem held parallel with said first mentioned stems to form therewith a double handle and continued in opposite directions to form two curved shoulder portions each including an eye encompassing said first mentioned stems, said shoulder portions being continued in two straight guide stems slidably held within said guide eyes, and a second yoke including a portion coiled about said shoulder forming portions and ending in two inwardly directed carrying hooks inclined toward said first mentioned hooks, arranged as set forth.

1,139,855. METALLIC TIE. GEORGE A. FARRELL, Altoona, Pa. Filed Mar. 25, 1914. Serial No. 827,149. (Cl. 238—5.)

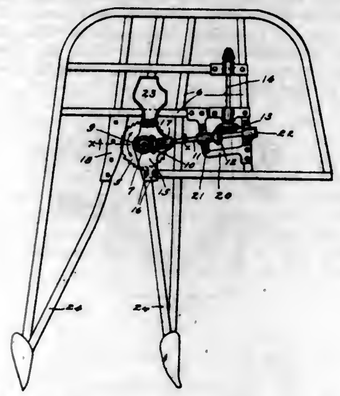


1. A metallic railway tie comprising a lower ballast engaging member having upwardly extending socket portions located adjacent the opposite ends thereof, a rail carrying member having oppositely located socket portions telescoping with the said socket portions on the base member, and springs arranged in the sockets of the ballast engaging member adapted to yieldingly support the rail carrying member.

2. A metallic railway tie including a bottom ballast engaging member of dished formation and having a central transverse bracing web, said ballast engaging member also having socket members formed therewith and located adjacent the opposite ends thereof, a top rail carrying member having a vertical and oppositely disposed lateral reinforcing webs, and also having socket members formed at each end and adapted to telescopically receive the socket members on the ballast engaging member, and springs arranged in the sockets of the ballast engaging member adapted to yieldingly support the rail carrying member.

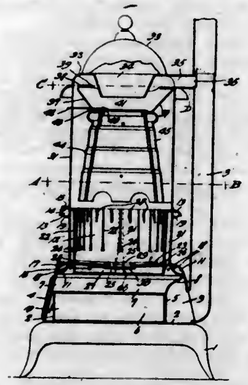
1,139,856. CORN-CUTTER. FRANK FOURNIER, Puyallup, Wash. Filed Sept. 10, 1913. Serial No. 789,208. (Cl. 56—130.)

In a corn cutter, the combination with a supporting frame, provided with forwardly extending divergent guides, of a rotary disk-cutter, disposed horizontally to project into the space between the rear ends of said guides and two horizontally-disposed plates secured upon the upper side of the rear portions of said guides, the confronting edges of said plates diverging to constitute continuations of said guides, one of said plates being secured to the



frame over said cutter, and the other having a channel on its inner side within which said rotary cutter projects.

1,139,857. HEATING STOVE AND FURNACE. GEORGE G. GAREY, Indianapolis, Ind. Filed June 22, 1914. Serial No. 846,632. (Cl. 126—146.)



1. The combination with an ash pit having an air conduit at the top thereof, said conduit being provided with an air inlet in its outer wall and air outlets in its inner wall, of a fire pot bearing downwardly on the ash pit and projecting thereinto, ribs upon the outer surface of the fire pot and forming air flues discharging into the space between the conduit and that portion of the fire pot projecting into the ash pit, and a grate supported within the fire pot, said fire pot having slots in the upper portion of the wall thereof and communicating with the respective flues thereby to direct gases into the upper portion of the fire pot and on top of the fuel contained within the fire pot, said slots terminating at points above and spaced from the grate, the lower ends of the slots being widened downwardly, the greatest width of each slot being equal to the width of the interior of the flue with which it communicates.

2. The combination with an ash pit having an air conduit at the top thereof, said conduit being provided with an air inlet in its outer wall and air outlets in its inner wall, of a fire pot bearing downwardly on the ash pit and projecting thereinto, ribs upon the outer surface of the fire pot and forming air flues discharging into the space between the conduit and that portion of the fire pot projectig into the ash pit, and a grate supported within the

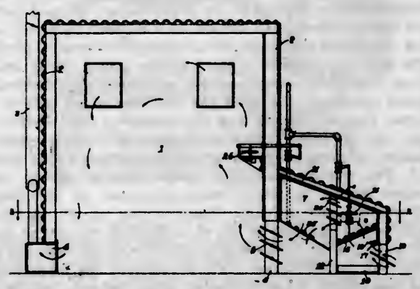
fire pot, said fire pot having slots in the wall thereof and communicating with the respective flues, said slots terminating at points above and spaced from the grate, the lower ends of the slots being widened downwardly, those portions of the flues below the slots being gradually enlarged downwardly.

3. In a heating stove the combination with an ash pit and an air conduit at the top thereof and provided with an inlet in the outer wall thereof and outlets in its inner wall, of a fire pot bearing upon the ash pit and extending downwardly thereinto, said fire pot having air flues on the outside thereof, said flues discharging into the space between the lower portions of the fire pot and the apertured wall of the conduit, a conduit extending around the upper portion of the fire pot and having an inlet in its outer wall and outlets in the inner wall, said outlets opening into the flues, there being slots within the wall of the fire pot and extending longitudinally of the respective flues, the lower end portions of the slots being gradually widened downwardly and terminating between the ends of the flues, those portions of the flues between the slots and the bottom of the fire pot being gradually widened downwardly.

4. In a heater, the combination with an ash pit and a conduit at the top thereof and discharging into the ash pit, said conduit having a valved air inlet, of a fire pot supported by the ash pit and projecting downwardly thereinto, ribs upon the outer side of the fire pot and forming air flues discharging into the space between the conduit and the lower end portion of the fire pot, openings in the wall of the fire pot and discharging into the respective flues, an outlet flue extending from the ash pit, a transverse partition extending across the inlet of said outlet flue, and side partitions extending from the ends of the transverse partition and forwardly within the ash pit, said partitions and the walls of the ash pit coöperating to form a combustion chamber for the reception of gases mixed between the conduit and the lower ends of the flues on the fire pot.

5. In a heater, a fire pot formed in a single casting and having exterior ribs extending from the upper to the lower edge thereof and provided with air flues therein, there being a conduit discharging into the upper end portions of the flues, said flues being open at their lower ends, there being slots in the wall of the fire pot and opening into the respective flues, said slots extending longitudinally of the flues and having their lower end portions gradually widened to the width of the flues, those portions of the flues below the slots being gradually widened downwardly toward their open ends.

1,139,858. VARNISH-DRYING OVEN. JOHN C. GILLETTE, Lakewood, Ohio, assignor to The Glidden Varnish Company, Cleveland, Ohio, a Corporation of Ohio. Filed July 22, 1912. Serial No. 710,803. (Cl. 34—19.)



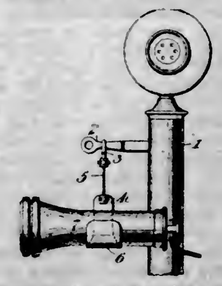
1. The combination, with a varnish drying oven provided with air induction and eduction passageways, of a chamber with which said air induction passageway communicates, heating means in said chamber, thermostatic means in said oven and operatively connected to said heating means, a preliminary heating chamber communicating with said first chamber, means for admitting air to said preliminary heating chamber, means for maintaining said preliminary heating chamber at a fixed temperature, and means for saturating with moisture the air in said preliminary heating chamber.

2. The combination, with a chamber having an air induction and an air eduction opening, of a heating device between said openings, a steam pipe in said chamber and having jet apertures, a drip pan beneath said jet apertures, baffle plates between said heating device and said eduction opening, a second chamber with which said eduction opening communicates, a varnish drying oven, means establishing communication between said second chamber and said oven, heating devices in said second chamber between said eduction opening and said oven, and thermostatic means in said oven and connected to said last heating means.

3. The combination, with a varnish-drying oven having at its lower portion an air inlet opening, of a chamber communicating with said opening, a second chamber communicating with said first chamber at a point not materially lower than said opening, said second chamber having communication with the outside air at a point not higher than its point of communication with said first chamber, air heating devices in said first chamber and interposed between said oven opening and said point of communication with the second chamber, air heating devices in said second chamber and interposed between its point of communication with the outer air and its point of communication with said first chamber, temperature controlling means in said oven operatively connected to said first heating devices, other temperature controlling means located between the two sets of heating devices and operatively connected to said last named heating devices, means for aspirating air from said oven, and means for imparting an excess of water vapor to the air in said second chamber.

4. The combination, with a drying oven having inlet and outlet openings and means for creating a current of air therethrough, of a pair of inter communicating chambers, one of which communicates with said inlet opening and the other of which communicates with the outside air, a pipe coil in each of said chambers and interposed between the inlet and outlet thereof, means for admitting heating fluid separately to said coils whereby the air passing through said chambers may be brought to different temperatures, means for injecting into said second chamber an amount of moisture greater than the air passing therethrough can absorb at the temperature of that chamber, and means for separating excess of entrained moisture from the air stream prior to its entrance into said first chamber.

1,139,859. AUTOMATIC FIRE-ALARM SYSTEM. FELIX GOTTSCHALK, Stirling, N. J. Filed Feb. 18, 1914. Serial No. 818,503. (Cl. 179—5.)



1. In an alarm system of the character described, in combination, a receiver hook, a weight, and means for attaching said weight to said hook comprising a member adapted to release said weight in the presence of abnormal heat.

2. In an alarm system of the character described, a telephone having a gravity switch hook, a telephone receiver,

means for holding said receiver clamped to said hook, said means comprising a member adapted to relieve said switch hook of the weight of said receiver in the presence of abnormal heat.

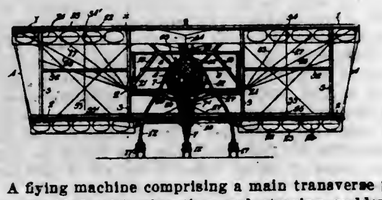
3. In an alarm system of the character described, in combination with a telephone instrument having a gravity hook switch, of a telephone receiver and means for supporting said receiver, said means being connected to said hook switch by a member adapted to melt in the presence of abnormal heat.

4. In an alarm system of the character described, a telephone receiver, a support therefor, a fusible link removably connected to said support and means for removably connecting said fusible link to the switch hook of said telephone instrument, substantially as described.

5. In an alarm system of the character described, a telephone having a switch hook, means for clamping the switch hook to the telephone, said means including a member adapted to release said hook in the presence of abnormal heat.

[Claims 6 and 7 not printed in the Gazette.]

1,139,860. FLYING-MACHINE. GIOVANNI GRANDINI, Chicago, Ill. Filed Oct. 8, 1914. Serial No. 865,613. (Cl. 244—29.)



1. A flying machine comprising a main transverse plane, a car provided with elevating and steering rudders, an intermediate frame of a skeleton arch form connected at its crown to the car by a longitudinal pivot and at its depending side portions to the main plane by transverse pivots, and a transverse bracing connection attached to the respective ends of the main plane and having a sliding bearing at the underside of the car, substantially as set forth.

2. A flying machine comprising a main transverse plane, a car provided with elevating and steering rudders, an intermediate frame of a skeleton arch form connected at its crown to the car by a longitudinal pivot and at its depending side portions to the main plane by transverse pivots, a transverse bracing connection attached to the respective ends of the main plane and having a sliding portion moving in a guideway on the underside of the car, and means on the car for latching said sliding portion against movement, substantially as set forth.

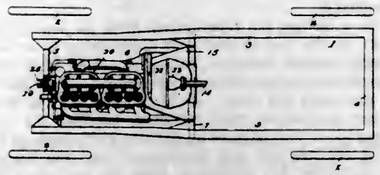
3. A flying machine comprising a main transverse plane, a car provided with elevating and steering rudders, an intermediate frame connected to the car by a longitudinal pivot and to the main plane by transverse pivots, a transverse bracing connection attached to the respective ends of the main plane and having a sliding portion moving in a guideway on the underside of the car, and means on the car for latching said sliding portion against movement, the same comprising a latching lever engaging said sliding portion and an operating lever disposed adjacent to the operator's seat and operatively connected to said latching lever, substantially as set forth.

4. A flying machine comprising a main transverse plane, a car provided with elevating and steering rudders, an intermediate frame connected to the car by a longitudinal pivot and to the main plane by transverse pivots, a transverse bracing connection attached to the respective ends of the main plane and having a sliding portion moving in a guideway on the underside of the car, and means on the car for latching said sliding portion against movement, the same comprising a latching lever engaging said sliding portion and a laterally shifting seat having operative connection with said latching lever, substantially as set forth.

5. A flying machine comprising a main transverse plane, a car provided with elevating and steering rudders, an intermediate frame connected to the car by a longitudinal pivot and to the main frame by transverse pivots, a transverse bracing connection attached to the respective ends of the main plane and having a sliding portion moving in a guideway on the underside of the car, and means on the car for latching said sliding portion against movement, the same comprising a latching lever engaging said sliding portion, an operating lever disposed adjacent to the operator's seat and operatively connected to said latching lever and a laterally shifting operator's seat having operative connections with said latching lever, substantially as set forth.

[Claims 6 to 21 not printed in the Gazette.]

1,139,861. AUTOMOBILE. EUGENE GRUENEWALD, Moline, Ill., assignor to Moline Automobile Co., East Moline, Ill., a Corporation of Illinois. Filed June 25, 1912. Serial No. 705,760. (Cl. 21—90.)



1. The combination in a motor vehicle, of the four ground wheels, the main frame supported on the ground wheels, the power plant frame having at one end two transversely opposite points of unyielding connection with the main frame, connecting means interposed between the other end of the power plant frame and the main frame and comprising a hemispherical socket member rigidly secured to one frame and a mating hemispherical ball member rigidly secured to the other frame, the said socket and ball members each having an unbroken spherical surface extending uniformly in all directions from a vertical axis and the member secured to the power plant frame being uppermost, and adjustable means positively engaging the two frames at points adjacent the said socket and ball members and serving to hold the spherical surfaces thereof in contact without limiting relative movement about the common center point.

2. The combination in a motor vehicle, of the four ground wheels, the main frame supported on the ground wheels, the power plant frame having at one end two transversely opposite points of unyielding connection with the main frame, connecting means interposed between the other end of the power plant frame and the main frame and comprising a hemispherical socket member rigidly secured to one frame and a mating hemispherical ball member rigidly secured to the other frame, the said socket and ball members each having an unbroken spherical surface extending uniformly in all directions from a vertical axis and the member secured to the power plant frame being uppermost, and resilient automatically adjustable means positively engaging the two frames at points adjacent the said socket and ball members and serving to hold the spherical surfaces thereof in contact without limiting relative movement about the common center point.

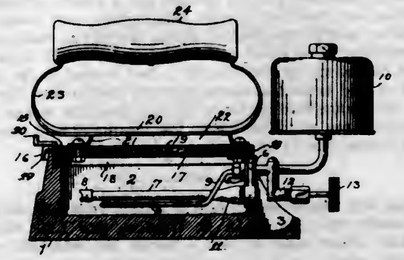
3. The combination in a motor vehicle, of the four ground wheels, the main frame supported on the ground wheels, the power plant frame having at one end two transversely opposite points of unyielding connection with the main frame, connecting means interposed between the other end of the power plant frame and the main frame and comprising a hemispherical socket member rigidly secured to one frame and a mating hemispherical ball member rigidly secured to the other frame, the said socket and ball members each having an unbroken spherical surface extending uniformly in all directions from a vertical axis and the member secured to the power plant frame being uppermost, a yoke engaging one of the frames adjacent the corresponding member and extending vertically beyond the other member, and a compression spring interposed between the yoke and the last said member, whereby the spherical surfaces of the said ball and socket members are held in contact without the limiting of relative movement about the common center point.

4. The combination in a motor vehicle, of the four ground wheels, the main frame supported on the ground wheels, the power plant frame having at one end two transversely opposite points of unyielding connection with the main frame, connecting means interposed between the other end of the power plant frame and the main frame and comprising a hemispherical socket member rigidly secured to one frame and a mating hemispherical ball member rigidly secured to the other frame, the said socket and ball members each having an unbroken spherical surface extending uniformly in all directions from a vertical axis and the member secured to the power plant frame being uppermost, a yoke engaging the power plant frame adjacent the member secured thereto and extending downward therefrom, and a compression spring interposed between the yoke and the member secured to the main frame, whereby the spherical surfaces of the said ball and socket members are held in contact without the limiting of relative movement about the common center point.

5. The combination in a motor vehicle, of the four ground wheels, the main frame supported on the ground wheels, the power plant frame having at one end two transversely opposite points of unyielding connection with the main frame, connecting means interposed between the other end of the power plant frame and the main frame and comprising a hemispherical socket member rigidly secured to one frame and a mating hemispherical ball member rigidly secured to the other frame, the said socket and ball members each having an unbroken spherical surface extending uniformly in all directions from a vertical axis and the member secured to the power plant frame being uppermost, a yoke in the form of an inverted U engaging the power plant frame adjacent the member secured thereto and extending downward therefrom, and a compression spring interposed between the yoke and the member secured to the main frame, whereby the spherical surfaces of the said ball and socket members are held in contact without the limiting of relative movement about the common center point.

[Claims 6 to 8 not printed in the Gazette.]

1,139,862. SELF-HEATING IRON. FORREST H. HARTZELL, Dayton, Ohio, assignor to The Crown Hardware Manufacturing Company, Dayton, Ohio, a Corporation of Ohio. Filed May 6, 1914. Serial No. 836,805. (Cl. 158—28.2.)



1. In a self heating iron, a chambered main body, a burner therein for liquid or gaseous fuel comprising a perforated tubular member flattened throughout a portion of its length and cylindrical throughout the remainder of its length, a reservoir for fuel, and a conduit leading from the reservoir and extending in parallel relation with the perforated member at one side thereof and in a plane below that of the perforations of the member then formed into a U-shaped bight beneath the burner member and returning on the opposite side thereof in parallel relation therewith, but in a plane beneath that of the perforations of the member and discharging into the cylindrical extremity of the burner member.

2. In a self heating iron, a chambered main body, a perforated burner member located therein comprising a cylindrical tubular member flattened throughout a portion of its extent, a fuel conduit formed into a U-shaped bight extending in parallel relation with the perforated burner member and the bottom of the main body, said fuel conduit discharging into the perforated burner member, and a fuel reservoir with which the conduit communicates.

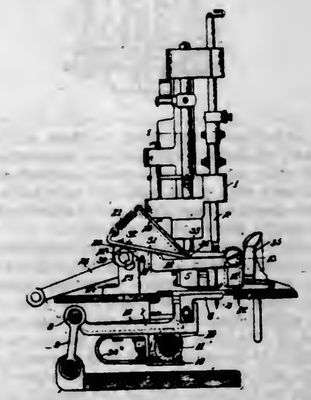
3. In a self heating iron, a chambered main body, a heating member therein, a cover for the chambered body, an elongated shield plate having its opposite ends upturned, a handle supported by the upturned ends, and integral dependent lugs connecting the shield plate with the body cover but spaced away therefrom.

4. In a self heating iron, a chambered main body, a heating member therein, a cover for the main body, a shield plate located in spaced relation above the cover, integral dependent tongues connecting the plate with the cover, the opposite ends of the plate being bent upward, and a handle interposed between the upturned ends of the plate.

5. In a self heating iron, a chambered main body having a recessed upper edge, a heater therein, and a cover plate having a down turned marginal flange extending below the level of the recesses of the upper edge of the main body but spaced away therefrom.

[Claims 6 to 12 not printed in the Gazette.]

1,139,863. FEEDING MECHANISM FOR SEWING-MACHINES. JOHN HAYES, Jr., Amsterdam, N. Y., assignor to Union Special Machine Company, Chicago, Ill., a Corporation of Illinois. Filed Feb. 6, 1909. Serial No. 476,574. (Cl. 112—8.)



1. The combination of a stitching mechanism, a work support, and a feeding mechanism including a feed dog, a bar to which said feed dog is pivoted, means for moving said bar back and forth and up and down, to impart to said feed dog its feeding movements, means for swinging said feed dog about its pivot, whereby a horizontal feeding movement in addition to the movement derived from the feed bar is imparted to the feed dog, and means whereby the oscillating movement of the feed dog about its pivot may be varied without stopping the stitching mechanism.

2. The combination of a work support, stitch forming mechanism, and feeding mechanism including a main feeding member, an auxiliary feeding member, means for moving said auxiliary member in unison with the main feeding member, and normally inactive means independent of the means for moving the auxiliary member back and forth adapted to be brought into operation at the will of the operator, for giving to said auxiliary feeding member, a different rate of movement relative to the main feeding member.

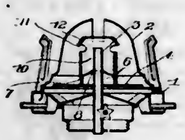
3. The combination of a work support, and a feeding mechanism including a main feed dog, an auxiliary feed dog, means for moving said auxiliary feed dog faster than the main feed dog, including an abutment and means under the control of the operator for varying the position of said abutment, whereby the speed of the auxiliary feed dog relative to the main feed dog, may be varied.

4. The combination of a work support and a feeding mechanism, including a main feed dog, an auxiliary feed dog, means for giving said auxiliary feed dog, a feeding movement in unison with the main feed dog, an abutment and means under the control of the operator for causing said abutment to impart a different rate of movement to the auxiliary feed dog relative to the main feed dog.

5. The combination of a work support, stitch forming mechanism and a feeding mechanism, including a main feed dog, an auxiliary feed dog engaging the material in advance of the stitching mechanism, a feed bar to which said auxiliary feed dog is pivoted, means for moving said feed bar back and forth and up and down for imparting feeding movements to said auxiliary feed dog, means for oscillating said auxiliary feed dog on its pivot in the direction of the line of feed, whereby a differential feeding movement is imparted to the auxiliary feed dog, and means whereby the oscillating movement of said auxiliary feed dog, may be varied without stopping the stitching mechanism.

[Claims 6 to 22 not printed in the Gazette.]

1,139,864. ATTACHMENT FOR LAMP-BURNERS. JOHN HEBERLING, Rochester, N. Y. Filed Oct. 5, 1914. Serial No. 865,079. (Cl. 67—72.)



1. An attachment for lamp burners comprising an open-ended body formed with air inlet notches in its lower edge and with side and end walls extending vertically from the lower edge of the body, the side walls being provided with openings near their upper edges and being deflected inwardly above said openings.

2. An attachment for lamp burners comprising an open-ended body formed with air inlet notches in its lower edge and with side and end walls extending perpendicularly from the lower edge of the body, the side walls being provided with horizontal slots at points opposite the upper end of the wick tube of the burner to which the attachment is to be applied, and said side walls also being bent above said slots so that the upper edge of each bent portion lies on the inner side of the vertical plane of the lower portion of such side wall and the lower edge lies on the outer side of the plane.

3. An attachment or lamp burners comprising an open ended body having horizontal slots in opposite side walls, the portions of the side walls above each slot being bent at an angle to the plane of the portions of the side walls below such slot.

4. An attachment for lamp burners comprising an open-ended body having horizontal slots in opposite side walls, the portions of the side walls above each slot being bent at an angle to the plane of the portions of the side walls below such slot and projecting on opposite sides of said plane.

5. An attachment for lamp burners comprising an open-ended body having horizontal slots in opposite side walls, a tongue extending inwardly from the lower edge of each slot, and the portions of the side walls above each slot being bent at an angle to the plane of the portions of the side walls below such slot and projecting on opposite sides of said plane.

1,139,865. GREASE-GUN. ROBERT S. HICKISH, Tuckahoe, N. Y., assignor of one-half to Edward M. Benford, one-fourth to David Benford, and one-fourth to Sarah Benford, Mount Vernon, N. Y. Filed Feb. 6, 1914. Serial No. 816,872. (Cl. 221—47.)



1. A grease gun comprising a cylinder having a piston therein and a threaded sliding and rotatable piston rod therefor, and means for holding said piston against sliding movement, said means including a ball and a rotatable holding member.

2. A grease gun comprising a cylinder having a piston therein and a threaded sliding and rotatable piston rod therefor, and means for holding said piston against sliding movement, said means including a ball and a knurled rotatable holding member.

3. A grease gun comprising a cylinder, having an extension provided with an opening, and a piston, a threaded sliding and rotatable piston rod therefor, and means for holding said piston against sliding movement, said means comprising a rotatable member located on said extension and having an opening therein and a ball located in the opening of said extension.

4. A grease gun comprising a cylinder, having an extension provided with an opening, and a piston, a threaded sliding and rotatable piston rod therefor, and means for holding said piston against sliding movement, said means comprising a rotatable member located on said extension and having an opening therein, a ball located in the opening of said extension, and means for maintaining the ball in place when said openings register.

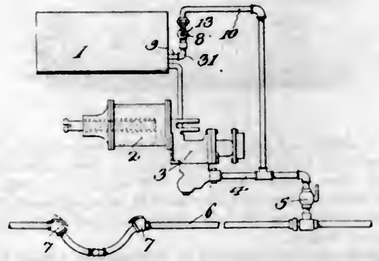
5. A grease gun comprising a cylinder having an extension provided with an opening and a piston, a threaded sliding and rotatable piston rod therefor, and means for holding said piston against sliding movement, said means comprising a rotatable member located on said extension and having an opening therein, a ball located in the opening of said extension, and means for maintaining the ball in place when said openings register, said last means comprising a pin extending across the opening of said member.

[Claims 6 to 11 not printed in the Gazette.]

1,139,866. RELEASING MECHANISM FOR AIR-BRAKE SYSTEMS. NICHOLAS E. HIRSCH, San Luis Obispo, Cal. Filed May 4, 1914. Serial No. 836,297. (Cl. 188—10.)

1. In an air brake system the combination with a reservoir, train pipe and the brake controlling mechanism, of a release valve mechanism including an air connection between said reservoir and the train pipe, and a differential release valve located in said air connection for controlling the passage of the air from the reservoir to the atmosphere for releasing the brakes.

2. In an air brake system the combination with a reservoir, train pipe and the brake-controlling mechanism, of a release valve mechanism including an air connection between said reservoir and the train pipe, and a differential release valve located in said air connection, said valve being so proportioned as to remain closed until a reduction in the train line is made equal to atmospheric pressure.



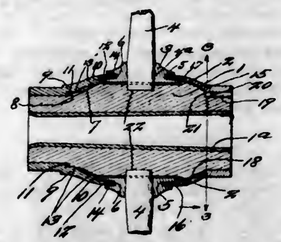
3. In an air brake system, the combination with a reservoir, train pipe and the brake-controlling mechanism, of a release valve mechanism including an air connection between said reservoir and the train pipe, a differential release valve located in said air connection, and means independent of said differential valve for opening said reservoir to the atmosphere.

4. In an air brake system, the combination with a reservoir, train pipe and the brake-controlling mechanism, of a release valve mechanism including an air connection between said reservoir and the train pipe, a differential release valve located in said air connection, and means independent of said differential valve for opening said reservoir and the passageway leading from the differential valve to the atmosphere.

5. In an air brake system, the combination with a reservoir, train pipe and the brake-controlling mechanism, of a release valve mechanism including an air connection between said reservoir and the train pipe, a differential release valve located in said air connection, and means independent of said differential valve located between the reservoir and the said differential valve for opening said reservoir and the passageway leading from the differential valve to the atmosphere.

[Claims 6 to 9 not printed in the Gazette.]

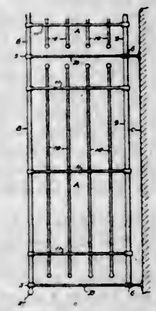
1,139,867. WHEEL-HUB. WALTER P. HOPWOOD and PHILIP H. KROH, Baltimore, Md. Filed Aug. 26, 1911. Serial No. 646,227. (Cl. 21—31.)



1. In combination, a hub member, a central hub sleeve section on the hub member and spaced apart therefrom including a deposit of white lead therebetween, said central hub sleeve section having an annular groove at each end, a sleeve fitting the outer end of the hub member and seated in one of the grooves of the central hub section, an enlargement of white lead between the hub member and the outer sleeve, an inner sleeve fitting the inner end of the hub member and seated in the other groove of the central hub section, deposits of white lead in said grooves to seal the inner and outer sleeves to the central hub section, the central hub section having radial tapering openings, the hub member having recesses registering with said openings, and spokes corresponding in shape to fit said openings and said recesses, thereby constituting means to hold the central hub section spaced apart equally from the hub member, so that the deposit of white lead may be arranged in the hub section and hub member when assembling such parts.

2. In combination, a hub member, a central hub sleeve section on the hub member and spaced apart therefrom including a deposit of white lead therebetween, said central hub sleeve section having radial tapering openings, the hub member having recesses registering with said opening, spokes having their inner ends shaped to fit the openings and said recesses, thereby constituting means to hold the central hub sleeve section spaced apart equally from the hub member, so that the deposit of white lead may be arranged between the hub sleeve section and the hub member when assembling such parts, and sleeves, one secured to each end of the hub member and being secured to the central hub sleeve section to hold the central section in place.

1,139,868. BAGGAGE-RACK. FRANK E. HOWARD, Hartford, Conn., assignor to James L. Howard & Company, Hartford, Conn., a Corporation of Connecticut. Filed Mar. 8, 1911. Serial No. 613,017. (Cl. 105—5.)



1. The combination, in a baggage rack, of wall brackets, a rack bottom made in a unitary structure, including a non-extensible rear member, socket joints directly connecting the said wall brackets with the ends of the rear member, preventing displacement of said rear member in any lateral direction, and longitudinal front member, the ends of which have a shouldered tying connection with the outer ends of the wall bracketa.

2. The combination, in baggage racks, of wall brackets, a rack bottom made in a unitary structure having a substantial front member, a less substantial rear member, direct socket connections between the ends of the rear member and the brackets, and means forming a positive tying connection holding the outer ends of the brackets against the ends of the said front member of the rack bottom.

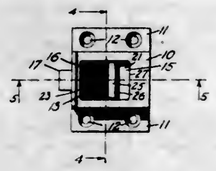
3. The combination, in baggage racks, of a rack bottom having a hollow tubular rear member, and an internally reinforced tubular front member, and wall brackets having direct socket connections with the ends of the said rear member and means for positively clamping the outer ends of the brackets against the ends of the said front member.

4. In a baggage rack, the combination of a wall bracket, a rack bottom made in a unitary structure including non-extensible longitudinal rail members, a socket joint connection between one of the rail members and a portion of the bracket preventing displacement of said rail member from said bracket excepting in a longitudinal direction, and a shouldered tying connection between another rail member and another portion of the bracket preventing longitudinal displacement of said second rail member from said bracket.

5. In a baggage rack, the combination of a wall bracket, a rack bottom made in a unitary structure, including longitudinal rail members, a socket joint connection between the rearward rail member and the base portion of the

bracket preventing displacement of said rail member from said bracket excepting in a longitudinal direction, and a threaded connection clamping the end of the front rail member against the outer end of the bracket and preventing both lateral and longitudinal displacement of the said front member from said bracket.

1,139,869. DOOR-CATCH. FRANK E. HOWARD, Hartford, Conn., assignor to James L. Howard & Company, Hartford, Conn., a Corporation of Connecticut. Filed Aug. 1, 1914. Serial No. 854,536. (Cl. 70—42.)

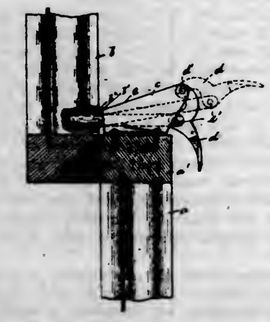


1. In a door catch, the combination of a casing provided with a seat for receiving and guiding a sliding latch, a latch mounted in the said seat for sliding movement in the casing, and a finger aperture extending through the latch from front to back, and surrounded by a wall, the outer sides of which form sliding surfaces of the latch.

2. In a door catch for swinging doors, the combination with a casing, of a latch slidably mounted in the casing and having a finger aperture extending through the latch, the rearward wall of the aperture being undercut to provide a finger hold for pulling the door open after sliding the latch back.

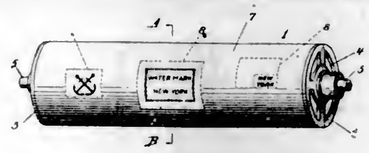
3. In a door catch, the combination of a casing having a finger aperture in its face and apertures in its front and rearward ends, and a latch slidably mounted in the casing with its ends projecting through the said end apertures of the casing, and having a finger aperture, the sides of which approximately coincide with the sides of the aperture in the casing.

1,139,870. LOCK FOR WINDOWS. ADOLF HUNDERT, New York, N. Y. Filed Nov. 26, 1913. Serial No. 803,127. (Cl. 16—143.)



The combination with window sashes, of a hollow casing fixed to one of the sashes and having a guide opening at one end, a handle fulcrumed at the opposite end of said casing, a bolt pivoted to said handle at a point intermediate between the fulcrum and the free end thereof and movably extending through said casing and guided in said end opening thereof, a plate spring in said casing having an outwardly projecting nose and engaging a notch of said bolt in locking position and a socket in the other sash engaging the bolt in locking position.

1,139,871. MEANS FOR WATERMARKING PAPER. CHARLES D. JACOBS, South Orange, N. J. Filed Aug. 21, 1913. Serial No. 785,868. (Cl. 92—48.)



1. A dandy roll including in combination a body having a depressed area in its periphery, a cover sheet fitting closely over the periphery of said dandy roll body, said cover sheet having therein a sunken or intagliated design, the depressed area in said dandy roll containing the intagliated design.

2. A dandy roll including in combination a body having a depressed area in its periphery, a cover sheet fitting closely over the periphery of said dandy roll body, said cover sheet having therein a sunken or intagliated design, the depressed area in said dandy roll containing the intagliated design, the design being of less extent than said area, and supporting members arranged beneath said cover and about said design within said depression.

3. The combination with a dandy roll body having a depressed area in its periphery, of a plurality of interchangeable cover sheets, each of said sheets adapted to fit closely around the dandy roll body, and each sheet carrying a sunken or intagliated design adapted to be contained within said depressed area, said designs varying in area or extent and occupying correspondingly more or less of said depression.

4. The combination with a dandy roll body having a depressed area in its periphery, of a plurality of interchangeable cover sheets, each of said sheets adapted to fit closely around the dandy roll body, and each sheet carrying a sunken or intagliated design adapted to be contained within said depressed area, said designs varying in area or extent and occupying correspondingly more or less of said depression and supports beneath a cover sheet around said sunken design and within said depressed area in the periphery of the dandy roll body when the design is of less area or extent than said depressed area in the dandy roll body.

5. The combination with a dandy roll body having a plurality of depressed areas formed in its periphery, of a plurality of interchangeable cover sheets, each of said sheets adapted to fit closely around the dandy roll body, said cover sheets each carrying a plurality of intagliated or sunken designs, said designs being of various sizes and variously arranged upon the respective sheets, but all being arranged so as to fit within said depressions in said dandy roll body when the particular cover sheet is mounted upon the dandy roll body.

1,139,872. MECHANISM FOR COILING WIRE. EDWARD JAMES, Cleveland, Ohio. Filed Oct. 6, 1910. Serial No. 585,601. (Cl. 153—65.)

1. In a machine of the class described, a wire-coiling roll comprising a plurality of axially alined, independently rotatable sections, each formed with encircling corrugations and adapted to coöperate with the turns of a wire being coiled, the corrugations on one section being differently spaced axially of the roll than those on the other section, but the corrugations on the respective sections being substantially uniformly spaced.

2. In a machine of the class described, the combination of a plurality of rolls mounted with their peripheral faces adjacent to each other and adapted to coil a wire therebetween, said rolls respectively comprising two axially alined, independently rotatable sections, each formed with encircling corrugations and adapted to coöperate with the turns of a wire being coiled, the corrugations on one section being more closely spaced axially of the roll than those on the other section, but the corrugations on the respective sections being substantially uniformly spaced.

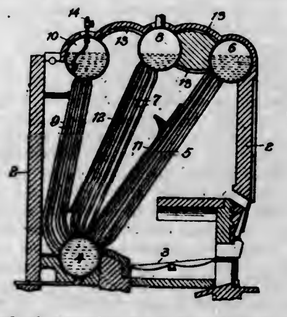
3. In a machine of the class described, the combination of three substantially cylindrical rolls having parallel axes and mounted with their cylindrical faces adjacent to each other and adapted to coil a wire therebetween, the axes of two of said rolls being fixed and the third being movable toward and away from such two, two of said rolls respectively comprising two axially alined, independently rotatable sections, each formed with encircling corrugations and adapted to coöperate with the turns of a wire being coiled, the corrugations on one section being more closely spaced axially of the roll than those on the other section, but the corrugations on the respective sections being substantially uniformly spaced.

4. In a machine of the class described, a wire-coiling roll comprising two sections, each formed with encircling corrugations adapted to coöperate with the turns of the wire being coiled, the corrugations on one section being more closely spaced axially of the roll than those on the other section, the section bearing the more closely spaced corrugations being positively driven and the other rotatable independently thereof.

5. In a machine of the class described, a wire-coiling roll comprising two independently rotatable sections, each formed with corrugations adapted to coöperate with the turns of a wire being coiled, the corrugations on one section being more closely spaced axially of said roll than those on the other section; and other corrugations, between the more widely spaced corrugations on said last-named section, adapted to coöperate with the turns of a second wire.

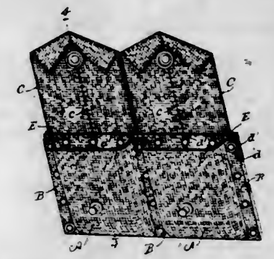
[Claims 6 to 15 not printed in the Gazette.]

1,139,873. METHOD OF REMOVING SCALE FROM BOILERS. GEORGE JAYME, Pittsburgh, Pa. Filed July 21, 1914. Serial No. 852,281. (Cl. 210—22.)



The method of removing scale from boilers, consisting in introducing into the lower end of the boiler a mixture of crude-oil and kerosene, introducing water, raising the oil by the introduction of the water, and introducing steam at the upper end of the boiler to agitate the liquid.

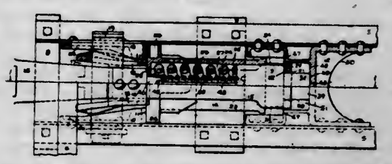
1,139,874. CARTRIDGE BELT OR CARRIER. VICTOR H. JENNINGS, Worcester, Mass., assignor to Mills Woven Cartridge Belt Company, Worcester, Mass., a Corporation of Massachusetts. Filed May 10, 1911. Serial No. 626,188. (Cl. 224—23.)



1. A pocketed carrier woven with a pocket and having one of its web-portions for a portion of its depth in divided plies with a junction located above the bottom of the said pocket and with portions of said plies projecting above the top of the opposite pocket-wall, and having combined with such web-portions a cover-flap having its attaching end inserted between said plies, and fastening means engaging with the inserted portion above said top and attaching the cover-flap to the said web-portion.

2. A pocketed carrier woven with a series of pockets and having one of the web-portions of the respective pockets for a portion of the pocket-depth in divided plies with a junction located above the bottom of the pocket, and with portions of said plies projecting above the tops of the opposite pocket-walls, and having combined with the said web-portions cover-flap material having the attaching portion thereof inserted between said plies, and fastening means engaging with the inserted portion above said tops and attaching the cover-flap to the said web-portion.

1,139,875. DRAFT-RIGGING FOR RAILWAY-CARS. GEORGE A. JOHNSON, Chicago, Ill., assignor to William H. Miner, Chicago, Ill. Filed May 24, 1913, Serial No. 769,574. Renewed Apr. 5, 1915. Serial No. 19,347. (Cl. 213—64.)



1. In a draft rigging for railway cars, in combination, a draw bar, a draft yoke, front and rear stop members, a shell, springs, friction shoes and wedge within the shell, the said draft yoke being in engagement with the friction shoes, the wedge passing through said yoke and adapted to spread the friction shoes only on rearward movement of the draw bar.

2. In a draft rigging for railway cars, the combination of stop members and draft yoke with a draft gear, the draft gear comprising a shell having a rearward opening, friction shoes, springs and wedge within the shell, the springs being seated between the shell and friction shoes, the wedge engaging the rear stop member, said wedge being adapted to spread the friction shoes only on rearward movement of the shell.

3. In a draft rigging for railway cars, in combination, a draft yoke, stop members, a rearwardly opening shell, springs and friction shoes within the shell, a wedge interposed between the friction shoes and rear stop member, the forward movement of the yoke compressing the springs without spreading the friction shoes, and the rearward movement of the shell compressing the springs

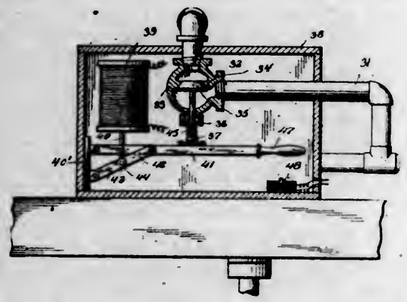
and forcing the friction shoes into spreading engagement with the wedge.

4. In a draft rigging for railway cars, in combination, a draw bar, draft yoke, stop members, a rearwardly opening shell, springs, friction shoes within the shell, a wedge interposed between the friction shoes and rear stop members, the draft yoke being in engagement with the friction shoes and provided with an opening for the passage of the wedge.

5. In a draft rigging for railway cars, in combination, stop members, a draw bar, shell and means for connecting the same, of spring mechanism and friction mechanism within the shell, the friction mechanism including a wedge adapted to directly engage the rear stop member, and to spread the friction mechanism only on rearward movement of the draw bar.

[Claims 6 to 12 not printed in the Gazette.]

1,139,876. CONTROLLING-VALVE. LLEWELLYN E. JONES, JOHN W. BREAKEY, and WILLIAM F. CASEY, Philadelphia, Pa. Filed Nov. 26, 1913. Serial No. 803,307. (Cl. 137—4.)

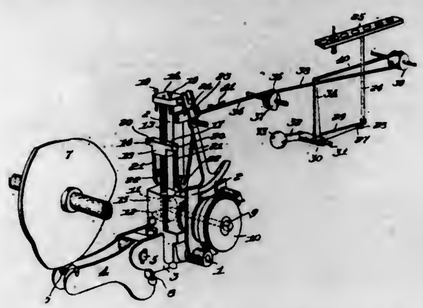


1. A fluid controlling valve, mechanism for holding said valve normally closed comprising a lever, a link having one end pivoted to said lever, a stationary support, a second link having one end pivoted to said stationary support, and a break joint connection between the remaining ends of said links, a core connected to said links at the break joint therein, a solenoid controlling said core, means for energizing said solenoid whereby the joint between said links will be broken, and means for actuating said valve to open position succeeding the breaking of the joint.

2. A fluid controlling valve, mechanism for holding said valve normally closed comprising a lever, a link having one end pivoted to said lever, a stationary support, a second link having one end pivoted to said stationary support, and a break joint connection between the remaining ends of said links, a core connected to said links at the break joint therein, a solenoid controlling said core, means for energizing said solenoid whereby the joint between said links will be broken, and a spring for actuating said valve to open position succeeding the breaking of said joint.

1,139,877. BUILDER-MOTION. EMMERICH H. KRISTEK, North Grosvenor Dale, Conn., assignor to Draper Company, Hopedale, Mass., a Corporation of Maine. Filed Nov. 21, 1914. Serial No. 873,277. (Cl. 118—1.)

1. In a spinning machine, the combination of a builder frame having an upright arm, a cam for rocking said arm, a screw carried by said arm, means for rotating said screw step-by-step, a block threaded on said screw, guide rolls mounted at the lower portion of said upright arm, a finger deflecting roll mounted at the top portion of said upright arm, flexible connections secured at one end to said block and passing downward therefrom about said guide rolls then upward to said finger deflecting roll, a ring-rail, flexible connections between the ring-rail and said finger deflecting roll, and a deflecting finger carried by said flexible connections and adapted to be engaged and deflected by said finger deflecting roll.



2. In a spinning machine, the combination of a ring-rail, a builder motion comprising a rocking frame, having an upright arm, a cam for rocking said frame, a block movable downward from an initial position near the top of said frame as the latter is rocked, a finger deflecting roll carried at the upper portion of said upright arm, flexible connections between said movable block and said finger deflecting roll, guides for said flexible connection at the lower part of said upright arm for directing said flexible connections downward from said block, a flexible connection between said finger deflecting roll to the ring-rail, and a finger secured to said last-named flexible connection and adapted to be engaged by said finger deflecting roll during the building of a bunch and then to be disengaged therefrom.

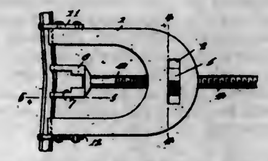
3. In a spinning machine, the combination of a ring-rail, a weight for lifting said ring-rail, and a builder motion for controlling the lifting action of said weight comprising a rocking builder frame, a block carried thereby, means for moving said block toward the fulcrum of the rocking builder frame as the latter is rocked during the operation of the builder motion, a finger deflecting roll, a flexible connection between the said roll and ring-rail to control the lifting action of said weight, a finger secured to said flexible connection and adapted to be engaged by said roll to deflect the flexible connection during the building of a bunch and to be then disengaged therefrom, flexible connections between said block and said finger deflecting roll, and means for deflecting said flexible connections downwardly from the block and finger deflecting roll.

4. In a spinning machine, the combination of a ring-rail, a weight for lifting said ring-rail, and a builder motion for controlling the lifting action of said weight comprising a rocking builder frame, a block carried thereby, means for moving said block toward the fulcrum of the rocking builder frame as the latter is rocked during the operation of the builder motion, brackets carried at the upper portion of the builder frame, a finger deflecting roll carried by said brackets, flexible connections between said block and finger deflecting roll, guides for deflecting said flexible connections downward from said block as they pass to said roll, a flexible connection between said finger deflecting roll and the ring-rail, and a finger carried by said flexible connection and adapted to be engaged and deflected by said finger deflecting roll during the building of a bunch and to be then disengaged therefrom.

5. In a builder motion, the combination of a rocking builder frame, a ring-rail, a weight for raising the ring-rail, a finger deflecting roll carried by the rocking builder frame, a flexible connection between said roll and ring-rail, a finger carried by said flexible connection and engaging said roll during the building of a bunch and then being disengaged therefrom, means carried by the rocking frame and movable along said frame step-by-step during the operation of the builder motion, and a flexible connection between said means and said finger deflecting roll for controlling the turning action of said roll by the said weight.

[Claim 6 not printed in the Gazette.]

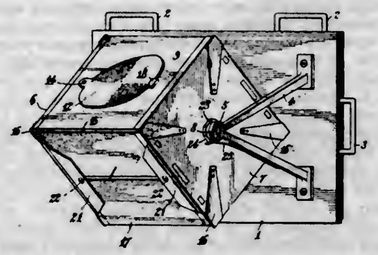
1,139,878. IMPLEMENT FOR BENDING OR STRAIGHTENING RAILS. GEORGE T. MCELROY, Maben, W. Va. Filed Apr. 4, 1914. Serial No. 829,653. (Cl. 153—38.)



1. In a device of the character described, a body portion engageable with the article acted upon, an operating element movable relatively to said body, the said element having alined openings formed therein, detachable means secured to said body and engageable with the article acted upon, said means maintaining the article in engagement with said body, the said screw being further provided with intersecting transverse grooves, one of the said grooves being adapted to receive the article acted upon when bending said article vertically and the other of the said grooves being shaped to receive the said article when bending the article laterally, and a removable element fitting the alined opening aforesaid to maintain the said article within one of the said grooves when bending the said article vertically, as and for the purposes set forth.

2. In a device of the character described, a body portion engageable with the article acted upon, an operating element movable relatively to said body, pins projecting laterally from said body, detachable means secured to the pin and engageable with the article acted upon, said means maintaining the article in engagement with said body, a head formed upon said operating screw, the said head having alined openings formed therein, the said head being further provided with intersecting transverse grooves, one of the said grooves being shaped to receive the article acted upon when bending the said article vertically and the other of the said grooves being shaped to receive the said article when bending the article laterally, and a removable element fitting the opening aforesaid to maintain the said article within one of the said grooves when bending the said article vertically, as and for the purpose set forth.

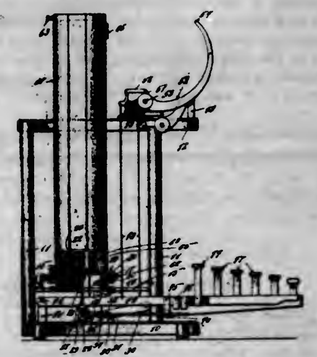
1,139,879. NAIL HOLDER AND CARRIER. ULYSSES G. MCJUNKIN, Ignacio, Colo. Filed Nov. 24, 1913. Serial No. 802,827. (Cl. 1—6.)



A rotatable nail holder of box like form having relatively fixed end walls and two opposing side walls, the remaining side walls being formed of sections adjustable with relation to each other to space the meeting edges of the side walls to provide slots.

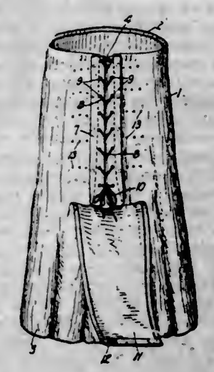
1,139,880. TYPE-WRITER. JOHN MCRAVEN, Little Rock, Ark. Filed Mar. 17, 1914. Serial No. 825,391. (Cl. 197—10.)

1. In a typewriter, a vertically disposed and rotatable platen, a plurality of key bearing levers, type bearing elements connected for operation with certain of said key bearing levers, a vertically disposed rack connected for vertical movement with said platen, a pawl arranged for coaction with said rack, a rod connected with said pawl, said rod being arranged to be freely movable axially relative to the platen, but fixed to rotate therewith, a shaft, a support for said shaft permitting of rotation and a bodily tilting of the shaft, a gear connection between said shaft and rod, and independent devices associated with certain of said key bearing levers for engagement with said shaft, one of said devices arranged to simply tilt the shaft for an elevation of the platen and the other device arranged to tilt and rotate said shaft for the elevating and rotating of the platen.



2. In a type writer, a revoluble base, vertical guides revoluble with the base, a tubular platen surrounding and movable with respect to the guides and base, a number of racks secured within the platen, a dog for each rack, means for collectively elevating and rotating said dogs, for the elevation of the platen one line space and the rotation of the platen from the terminal end of one printing line to the initial end of the next succeeding printing line, and means for rotating the platen for letter spacing independently of the rotating means, including the dogs and racks.

1,139,881. GARMENT. ALBERT MALSIN, New York, N. Y. Filed Nov. 26, 1912. Serial No. 733,623. (Cl. 2—41.)



1. In a skirt, the combination with the body of the same, having a vertical opening, of plaits at the sides of said opening and a flap attached to the lower part of the skirt and capable of folding upwardly to cover said plaits.

2. In a skirt, the combination with the body of the same, having a vertical opening, of plaits at the sides of said opening and a flap attached to the lower part of the skirt and capable of folding upwardly and having fastening means for fastening it in its lifted position.

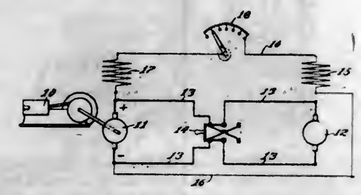
3. In a skirt, the combination with the body of the same, having a vertical opening, of plaits at the sides of said opening, fastening means for connecting the adjoining edges of said plaits together and a flap attached to the lower part of the skirt and capable of folding upwardly to cover said plaits.

4. In a skirt, the combination with the body of the same, having a vertical opening, of plaits at the sides of said opening, and adapted to be connected to the body of the skirt, and a flap attached to the lower part of the skirt and capable of folding upwardly and adapted to cover said plaits.

5. In a skirt, the combination with the body of the same, having a rear vertical opening, of plaits at the edges of said opening, said plaits having fastening means for connecting them to the body of the skirt and a flap attached to the lower part of the rear of the body of the skirt, capable of folding upwardly to cover said plaits.

[Claims 6 to 8 not printed in the Gazette.]

1,139,882. ELECTRIC POWER-TRANSMISSION SYSTEM. JOHN R. MARKLE, Chicago, Ill. Filed May 13, 1911. Serial No. 626,971. (Cl. 172—239.)



1. A system of the class described, comprising a conveyance having propelling means; a prime mover, a generator driven thereby and a motor having connection with the propelling means, all mounted on the conveyance and constituting a self-contained power driving unit therefor; the generator and motor having their fields and armatures interconnected to enable the generator simultaneously and independently to energize its own field and the field of the motor in advance of the energization of the motor armature; and a switching mechanism for abruptly closing and opening the motor armature circuit from said generator independently of the motor field to start and stop the motor.

2. A system of the class described, comprising a conveyance having propelling means; a prime mover, a generator driven thereby and a motor having connection with the propelling means, all mounted on the conveyance and constituting a self-contained power driving unit therefor; the generator and motor having their fields and armatures interdependently connected by two independent branch circuits, one containing the armature of the motor and the other the motor field winding; and switching mechanism for abruptly closing and opening the armature branch circuit independently of the branch containing the said motor field winding, for starting and stopping the motor.

3. A system of the class described, comprising a conveyance having propelling means; a prime mover, a generator driven thereby and a motor having connection with the propelling means, all mounted on the conveyance and constituting a self-contained power driving unit therefor; the generator and motor having their fields and armatures interconnected by two independent branch circuits, one of which includes a motor field winding and the other the motor armature; and circuit closing and reversing switch mechanism of the armature branch circuit for abruptly closing and reversing the same to start, stop and reverse the motor.

4. A system of the class described, comprising a conveyance having propelling means; a prime mover, a generator driven thereby and a motor having connection with the propelling means, all mounted on the conveyance and constituting a self-contained power driving unit therefor; the generator and motor having their fields and armatures interconnected by two independent branch circuits, one of which includes the motor field winding and the other the armature of the motor; and means for varying the output of the generator to vary the speed and torque of the motor.

5. In a system of the class described, a conveyance having propelling means, a prime mover, a generator driven thereby, a motor connected to the propelling means, and two independent circuits connecting the motor to the generator armature, one of which includes a motor field winding and a generator field winding in series and the other the armature of the motor, and means for varying the output of the generator to vary the speed or torque of the motor.

[Claims 6 to 27 not printed in the Gazette.]

1,139,883. WINDOW AND VERANDA BOX. ALBERT J. MARTIN, Dayton, Ohio. Filed Mar. 2, 1915. Serial No. 11,601. (Cl. 47—41.)



1. A window and veranda box for plants, comprising a plurality of sections, a sectional reservoir adapted to be placed therein, means secured within said sections for removably supporting said reservoir, and a sectional cover for said reservoir, disposed below the tops of said sections, substantially as described.

2. A window and veranda box for plants, comprising a frame, a reservoir adapted to be placed therein, means secured within said frame for removably supporting said reservoir, a cover for said reservoir, disposed below the top of said frame, and capillary liquid-conducting means extending downwardly through said cover into the reservoir, substantially as described.

3. A window and veranda box for plants, comprising an oblong frame, a reservoir adapted to be placed therein, means secured within said frame for removably supporting said reservoir, a cover for said reservoir disposed below the top of said frame, means for conducting a liquid from the reservoir upwardly through said cover, said frame provided on one side with a liquid receiving opening, a shield extending from said opening to the cover, and over an aperture in the latter to admit water to the reservoir, substantially as described.

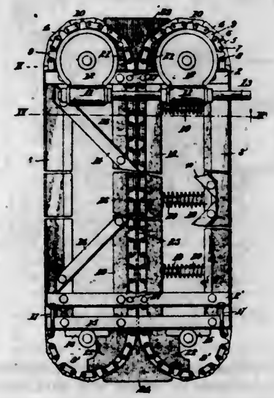
4. A window and veranda box for plants, comprising a plurality of sections, a sectional reservoir adapted to be placed therein, means secured within said sections for removably supporting said reservoir, a sectional cover for said reservoir disposed below the tops of said sections, and liquid-conducting tubes containing a porous substance, secured to said cover and projecting downwardly therethrough into the reservoir, substantially as described.

5. A window and veranda box for plants, comprising two end sections and an oblong middle removable section, L-shaped tongues formed on those ends of the middle section which engage the corresponding ends of the end sections, devices adapted to pass through the last named ends and the L-shaped tongues to removably secure said middle section to the end sections, a similarly formed sectional reservoir adapted to be placed within said frame, ledges formed on the interior of the latter to support said reservoir, and a sectional cover for said reservoir disposed below the top of said frame, substantially as described.

[Claim 6 not printed in the Gazette.]

1,139,884. APPARATUS FOR MAKING RODS AND TUBES FROM PLASTIC METAL. GRENVILLE MELLEN, East Orange, N. J., assignor to Continuous Casting Corporation, Richmond, Va., a Corporation of Virginia. Filed Feb. 13, 1913. Serial No. 748,251. (Cl. 207—12.)

1. In an apparatus of the class described, a plurality of separable movable molds, beveled ends on said molds, shafts through said molds, rolls on said shafts, and slotted links engaging a shaft on one mold and a shaft on another mold, thereby permitting a bending of the chain-mold at the beveled ends on said molds.



2. In an apparatus of the class described, the combination of a frame comprising fixed and movable members, sprocket wheels supported by said frame, a plurality of traveling confronting chain-molds supported upon and moved by said sprocket wheels, and guide members to raise said chain-molds from said sprocket wheels and to bring said confronting chain-molds into contact with each other.

3. In an apparatus of the class described, the combination of a frame having a fixed guiding member, a movable guiding member, a set of traveling molds arranged to move along said fixed member, a corresponding set of molds arranged to move along said movable member, means for pressing said movable member toward the fixed member, and lateral guides for maintaining the molds in alinement.

4. In an apparatus of the class described, the combination of a frame having rigid and movable guiding members, traveling molds comprising mold-sections arranged to pass between and be held in alinement by said guide members, means to propel said molds, means to press said mold-sections tightly together, and lateral guides bearing against said mold-sections.

5. In an apparatus of the kind described, a plurality of separate movable molds, shafts through said molds, rolls on said shafts, and slotted links engaging a shaft on one mold and a shaft on another mold.

[Claims 6 to 8 not printed in the Gazette.]

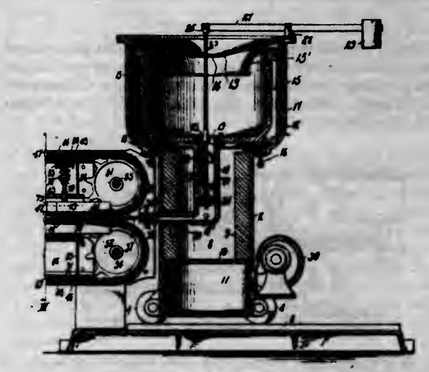
1,139,885. METHOD OF AND APPARATUS FOR CONTINUOUS CASTING. GRENVILLE MELLEN, East Orange, N. J., assignor to Continuous Casting Corporation, Richmond, Va., a Corporation of Virginia. Filed May 16, 1914. Serial No. 839,045. (Cl. 22—76.)

1. In a casting machine, a mold, a feed-conduit, and means providing an oscillatable joint between said feed-conduit and mold.

2. In a casting machine, a mold, a feed-conduit, means providing an oscillatable joint between said feed-conduit and mold, and means providing an air-space between the feed-conduit and mold.

3. In a casting machine, a mold, a feed-conduit projecting into said mold, means extending from the discharge end of said feed-conduit to support said feed-conduit in said mold, said means providing air spaces between it and the feed-conduit, and between it and the mold.

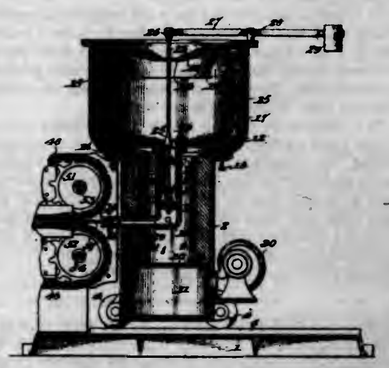
4. In a casting machine, a mold, a feed-conduit of thin wall projecting into said mold, spaced means extending from the discharge end of said feed-conduit to support said feed-conduit, said means contacting with said mold to form an oscillatable joint therewith.



5. In a casting machine, a plurality of mold-sections, and a feed-conduit, said feed-conduit contacting with said mold-sections with an oscillatable joint.

[Claims 6 to 46 not printed in the Gazette.]

1,139,886. CASTING-POT. GRENVILLE MELLEN, East Orange, N. J., assignor to Continuous Casting Corporation, Richmond, Va., a Corporation of Virginia. Original application filed May 16, 1914, Serial No. 839,045. Divided and this application filed June 29, 1914. Serial No. 848,013. (Cl. 22—80.)



1. The combination of a casting-pot, an extension thereto and in closed communication therewith, a valve closing the entrance to said extension, and adjustable float in said extension, said valve opened and closed by the movement of said float.

2. The combination of a casting-pot, an extension thereto and in closed communication therewith, a valve closing the entrance to the extension, a float in said extension connected to said valve, said valve opened and closed by the movement of said float.

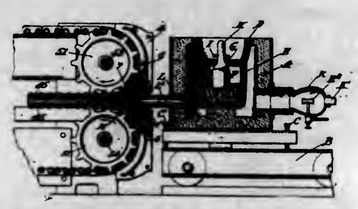
3. The combination of a casting-pot, an extension thereto and in closed communication therewith, means to supply molten metal from said casting-pot to said extension, and means to automatically maintain a predetermined quantity of molten metal in said extension.

4. The combination of a casting-pot, an extension thereto, a controlling valve therefor, a valve-plug, a float, a supporting-rod, counterpoise means on said supporting-rod, said valve-plug and float supported by said supporting-rod and arranged to coöperate to open and close said valve.

5. A casting-pot having a delivery tube for molten metal and a feed conduit universally joined to said delivery tube.

[Claims 6 to 12 not printed in the Gazette.]

1,139,887. CONTINUOUS CASTING-MACHINE. GRENVILLE MELLEN, West Orange, N. J., assignor to Continuous Casting Corporation, Newark, N. J., a Corporation of Virginia. Filed Nov. 28, 1914. Serial No. 874,400. (Cl. 22—66.)



1. In a continuous casting machine comprising series of traveling mold sections fitting together to form a continuous mold, the combination of means for delivering the molten metal under a constant hydraulic head, and a variable speed motor for driving the mold sections, the motor having means for controlling its speed.

2. In a continuous casting machine comprising series of traveling mold sections fitting together to form a continuous mold, a shield having an opening in line with the axis of the mold cavity.

3. In a continuous casting machine comprising series of traveling mold sections fitting together to form a continuous mold, a shield having an opening in line with the axis of the mold cavity and a delivery tube extending through said opening into the mold cavity.

4. In a continuous casting machine comprising series of traveling mold sections fitting together to form a continuous mold, a shield having an opening in line with the axis of the mold cavity and a delivery tube extending through said opening into the mold cavity and having an enlarged ball-shaped head outside said opening.

5. In a continuous casting machine comprising series of traveling mold sections fitting together to form a continuous mold, the combination of a delivery tube extending into said mold cavity and having a ball-shaped head thereon, and a second tube having at one end a socket to cooperate with said head and at its other end a ball-shaped head, and a molten-metal discharge tube having a socket to coöperate with the head of said second tube.

[Claims 6 to 8 not printed in the Gazette.]

1,139,888. AUTOMATIC METAL-FEED FOR CONTINUOUS CASTING-MACHINES. GRENVILLE MELLEN, West Orange, N. J., assignor to Continuous Casting Corporation, Newark, N. J., a Corporation of Virginia. Filed Feb. 2, 1915. Serial No. 5,772. (Cl. 22—79.)

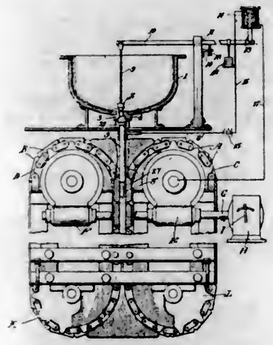
1. The combination with a vertically arranged mold, of means for delivering metal thereinto and means controlled by variations of level of molten metal in the mold for determining the supply of metal thereto.

2. The combination with a vertically arranged mold, of means for delivering metal thereinto and means controlled by variations of level of molten metal in the mold for automatically controlling the supply of metal thereto.

3. The combination with a vertically arranged mold, of a metal receptacle, a tube extending therefrom into the mold, a valve controlling the flow of metal into the tube, and means controlled by variations of level of molten metal in the mold for automatically operating said valve.

4. The combination with a vertically arranged mold, of a metal receptacle, a tube extending therefrom into the mold, a valve controlling the flow of metal into the tube, and means controlled by variations of level of molten metal in the mold for automatically operating said valve, said means comprising a wire extending into said mold and electromagnetic mechanism connected to said valve.

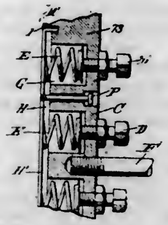
5. The combination of a metal receptacle, an opening therein, a valve, a mold, a delivery tube extending into the mold, a wire having its terminal near the end of the



tube, and electromagnetically operating means for actuating the valve included in circuit with said valve.

[Claims 6 to 8 not printed in the Gazette.]

1,139,889. GUIDE FOR CONTINUOUS CASTING-MACHINES. GRENVILLE MELLEN, West Orange, N. J., assignor to Continuous Casting Corporation, Newark, N. J., a Corporation of Virginia. Filed Feb. 2, 1915. Serial No. 5,773. (Cl. 22—66.)



1. A guide for continuous casting machines having movable mold-sections, comprising a body portion, a bottom therefor consisting of a sheet of resilient material, and a series of springs pressing against said sheet.

2. A guide for continuous casting machines having movable mold-sections, comprising a body portion, a bottom therefor consisting of a sheet of resilient material, and a series of springs pressing against said sheet, said body portion being held unyieldingly near one end and yieldingly at the other end.

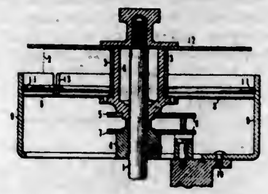
3. A guide for continuous casting machines having movable mold-sections, comprising a body portion, a bottom therefor consisting of a sheet of resilient material movably secured to said body portion, and a series of springs pressing against said sheet.

4. A guide for continuous casting machines having movable mold-sections, comprising a body portion having sockets near each end thereof, a resilient metal sheet having its bent ends loosely engaging said sockets, means for preventing disengagement of said sheet from said portion comprising bolts secured to said sheet, the shanks of said bolts being free to move in said body portion, the heads of said bolts adapted to engage the body portion, and a series of springs pressing against said sheet.

5. In a continuous casting machine having movable mold-sections, the combination with a series of molds of a guide, rigid holding means near one end thereof, resilient holding means near the other end of the guide, and means for adjusting each of said holding means.

[Claims 6 to 8 not printed in the Gazette.]

1,139,890. TYPE-WRITING MACHINE. WILLIAM METZROTH, Middletown, Conn., assignor, by mesne assignments, to The Noiseless Typewriter Company, Middletown, Conn., a Corporation of Connecticut. Filed Apr. 23, 1910. Serial No. 557,131. (Cl. 242—70.)



1. In a ribbon mounting in combination, rotatable means adapted to support a ribbon, a wall extending opposite a portion of said means adapted to confine the ribbon and permit rotation of said means, and a guard adapted positively to protect the ribbon from becoming disposed between said means and said wall while said means rotates.

2. In a ribbon mounting, in combination, rotatable means adapted to support a ribbon, a wall extending opposite a portion of said means adapted to confine the ribbon and permit rotation of said means, and means adapted to guard said ribbon from becoming disposed between said rotatable means and said wall and simultaneously secure said member against displacement with respect to said cup.

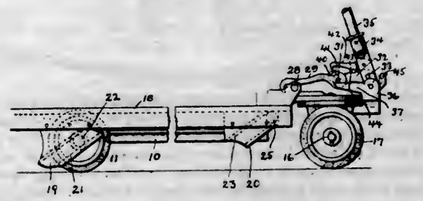
3. In a ribbon mounting, in combination, a fixed circumferential wall, means adapted to support a ribbon comprising a member disposed for rotation within said wall, and means comprising an arcuate guard detachably secured to said wall adapted positively to protect the ribbon from becoming disposed between said member and said wall while said member rotates.

4. In a ribbon mounting, in combination, a fixed circumferential wall, means adapted to support a ribbon comprising a member disposed for rotation within said wall, and means comprising an arcuate uncontinuous guard adapted to protect the ribbon from becoming disposed between said member and said wall while said member rotates.

5. In a ribbon mounting, in combination, a ribbon cup, means comprising a member disposed for rotation in said cup adapted to support a ribbon, and means comprising an arcuate guard detachably secured to said cup adapted to guard said ribbon from becoming disposed between said member and the inner peripheral wall of said cup and simultaneously secure said member against displacement with respect to said cup.

[Claims 6 to 11 not printed in the Gazette.]

1,139,891. LIFTING-TRUCK. CARL E. M. MILLER, New York, N. Y. Filed July 3, 1914. Serial No. 848,729. (Cl. 254—5.)



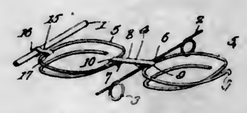
1. In a truck of the kind described, the combination with the upper and lower frames, the upper frame being movable longitudinally and vertically with relation to the lower frame, of a vertically swinging handle connected to the front end of the truck, a cross-bar on the top frame, a hook riding on and engaging the cross-bar, said hook having a link connection with the handle, a second hook pivoted to the handle and riding above the first hook, and means controlled from the handle for placing the second hook into or out of engagement with the first hook whereby the latter may be raised or lowered.

2. The combination with the truck and its movable top frame, of a handle pivoted on the front part of the truck, a link carried by the handle, a hook pivoted to the link and adapted to engage with the movable top frame, said hook having a tooth thereon, a second hook pivoted in the handle above the link and adapted to drop into engagement with the aforesaid tooth, and a pawl pivoted in the hook and adapted to drop between the tooth and the aforesaid second hook.

3. The combination with the truck having a movable top frame, of a handle pivoted on the front portion of the truck, a link pivotally connected with the handle, a hook pivoted to the link and provided with a tooth near its hub, means on the top frame to engage the hook, a second hook pivotally connected with the handle and adapted to engage the aforesaid tooth, means on the link and second hook to control the movement of the second hook with relation to the aforesaid tooth, and a pawl on the first hook adapted to drop between the tooth and the second hook.

4. The combination with the truck, its movable top frame, and the pivoted handle near the front end of the truck, of the link pivoted to the handle and provided with projections on its top side, the hook pivoted to the link and provided with a tooth, means on the top frame to engage the hook, a second hook pivoted to the handle and provided with projections riding on those of the link, and a pawl on the first hook adapted to drop between the tooth of said hook and the second hook.

1,139,892. RESILIENT BED. CLARENCE D. MILLER, PERRY D. MILLER, and JOHN O. GADBERRY, Carthage, Mo. Filed Jan. 15, 1914. Serial No. 812,299. (Cl. 5—29.)



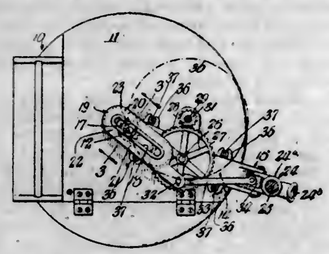
1. In a spring bed, a stay having an offset bend; and a pair of springs, the terminal convolution of one spring being disposed adjacent the bend; and a strap link provided at one end with an S-shaped hook engaging the bend and said spring and passing therebetween, the link being provided at its other end with a hook engaging the terminal convolution of an adjoining spring, the terminal convolution of said spring ending in an angular finger projecting through the hook.

2. In a device of the class described, a spring one convolution of which is provided with a laterally offset bend; a stay wire having a lateral bend offset in the same direction as the bend in said convolution of the spring; a link terminated at one end in an S-shaped hook engaging the interior of the bend in the spring and the exterior of the bend in the stay and passing between the bend in the spring and the bend in the stay, the bend in the stay affording a space whereby the hook may pass between the spring and the stay.

1,139,893. OPERATING-GEARING FOR WASHING-MACHINES. GLENN MORE, Jamestown, N. Y., assignor to The Blackstone Manufacturing Company, Jamestown, N. Y., a Corporation of New York. Filed Nov. 9, 1914. Serial No. 870,973. (Cl. 74—50.)

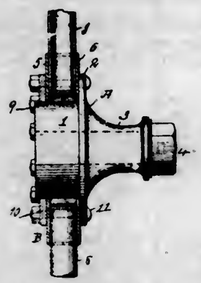
A gearing for washing machines and the like, comprising, in combination with a support and a member hinged to said support a base plate fixed to the top of said hinged member and having an arm projecting beyond and below said hinged member, a prime moving lever fulcrumed at the lower end of said arm, an operating shaft depending through said hinged member and having bearing in said base plate, a pinion fixed to said operating shaft, a hori-

zontal fly wheel rotatably mounted upon said base plate at a point between but spaced to one side of the vertical plane of said prime moving lever and said operating shaft, a large gear operatively connected with said fly wheel located in a horizontal plane below said fly wheel and in a position intermediate said operating shaft and said



prime moving lever, a slotted rack bar operatively connected with said pinion, a crank pin on said large gear, and a link connected with said prime moving lever, said rack bar and link being pivotally connected to said large gear by said crank pin and being both located intermediate the planes of said large gear and fly wheel.

1,139,894. VEHICLE-WHEEL. THOMAS E. MURRAY, New York, N. Y. Filed Oct. 2, 1914. Serial No. 864,558. (Cl. 21—69.)



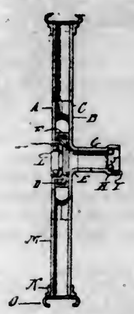
1. A vehicle wheel, comprising a hub formed with two annular disks having their outer circumferential edges inwardly turned and homogeneously united and provided with spoke openings in said edges, a circular band interposed between said disks and united thereto at its edges, and a tubular axle-receiving member entering the central opening in said disks and detachably secured thereto.

2. A vehicle wheel, comprising a hub formed of two annular disks having their outer circumferential edges inwardly turned and homogeneously united and provided with spoke openings in said edges, a circular band interposed between said disks and united thereto at its edges, a tubular axle-receiving member entering the central opening in said disks and protruding beyond said opening, a flange on said axle-receiving member, a ring on said protruding end of said tubular member, and removable bolts extending through said disks, said flange and said ring.

1,139,895. VEHICLE-WHEEL. THOMAS E. MURRAY, New York, N. Y. Filed Dec. 22, 1914. Serial No. 878,486. (Cl. 21—69.)

1. A sheet metal wheel for vehicles, comprising two hub plates having inturned circumferential edges and semi-tubular projections on said edges, and tubular spokes; the inturned edges of said plates being homogeneously united and the edges of said projections being homogeneously united to form tubular projections and the said spokes being homogeneously united at their ends to said tubular projections.

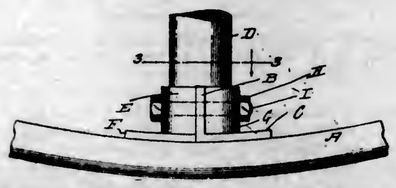
2. A sheet metal wheel for vehicles, comprising two hub plates having inturned circumferential edges and semi-tubular projections on said edges, and tubular spokes, the inturned edges of said plates being homogeneously united and the edges of said projections being homogeneously united to form tubular projections and the said spokes being homogeneously united at their ends to said tubular projections, a rim, and sockets on the inner periphery of said rim receiving the outer ends of said spokes.



3. A sheet metal wheel for vehicles, comprising two hub plates having inturned circumferential edges and semi-tubular projections on said edges, a central tubular flange on one of said plates, tubular spokes, and a sleeve; the inturned edges of said plates being homogeneously united and said semi-tubular projections being homogeneously united to form tubular projections and said spokes being homogeneously united at their inner ends to said tubular projections and said sleeve being homogeneously united to said central tubular flange.

4. A sheet metal wheel for vehicles, comprising two hub plates having inturned circumferential edges and semi-tubular projections on said edges, a central tubular flange on one of said plates, and tubular spokes, the inturned edges of said plates being homogeneously united and said semi-tubular projections being homogeneously united to form tubular projections and said spokes being homogeneously united at their ends to said tubular projections, and an annular box seated on said inturned central tubular flange and having its walls in contact with the inner faces of said hub plates.

1,139,896. VEHICLE-WHEEL. THOMAS E. MURRAY, New York, N. Y. Filed Feb. 1, 1915. Serial No. 5,580. (Cl. 21—69.)

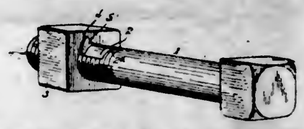


1. A vehicle wheel, comprising a rim, a transverse projection on the inner periphery thereof, a spoke having at its outer end a longitudinal recess adapted to receive said projection, curved plates on opposite sides of said spoke, and a fastening bolt extending through openings in the wall of said spoke and in said projections and said plates.

2. A vehicle wheel, comprising a rim, an angle piece having a portion welded to the inner periphery of said rim and a portion inwardly projecting therefrom, a spoke having at its outer end a longitudinal recess adapted to receive said projection, two curved plates fitting upon and respectively disposed on opposite sides of said spoke, and a fastening bolt extending through the openings in the wall of said spoke and in said projection and said plates.

3. A vehicle wheel, comprising a rim, an angle piece having a portion welded to the inner periphery of said rim and a portion inwardly projecting therefrom, a spoke having at its outer end a longitudinal recess adapted to receive said projection, a curved plate fitting upon said spoke and bearing at one end upon the welded portion of said angle piece, a second curved plate fitting upon the opposite side of said spoke and having a flange bearing upon the inner periphery of said rim, and a fastening bolt extending through openings in the wall of said spoke and in said projection and said plates.

1,139,897. NUT-LOCK. ALBERT ELLSWORTH MYERS, West Alexander, Pa. Filed June 16, 1914. Serial No. 845,383. (Cl. 151—10.)



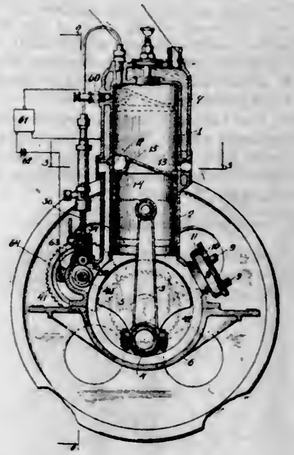
The combination with a threaded bolt having a thread-intersecting recess formed therein, one wall of said recess being substantially radial and the other wall being gradually inclined forward therefrom to the outer edges of the threads of a nut having a substantially rectangular cavity formed in its inner face and in open communication throughout its length with its bore, said cavity being of greater depth at its rear edge than at its front edge, and a substantially rectangular gravity-actuated key loosely mounted in said cavity, said key having a greater thickness at its rear edge than at its front edge and also a greater thickness than the depth of the recess in the bolt, said key having its inner face arcuately curved and in contact throughout its length with the bolt, said key being adapted when said recess in the nut is moved into a position registering with the recess in the bolt to have its rear edge drop into the latter while its front edge remains in a substantially unchanged position.

1,139,898. INTERNAL-COMBUSTION ENGINE. EDWARD C. NEWCOMB, North Scituate, Mass., assignor to Newcomb Engine Company, New York, N. Y., a Corporation of New York. Filed May 1, 1909, Serial No. 493,287. Renewed Sept. 9, 1913. Serial No. 788,937. (Cl. 123—132.)

1. An internal combustion engine of the compression type including in combination, means for supplying charges of air to the combustion chamber, and means for injecting charges of a liquid fuel into said chamber, said last-mentioned means comprising a pump barrel having a bore terminating in a delivery port, a plunger in said barrel having an inlet port, a valve seated in said inlet port, said plunger and valve being fitted to displace practically all of the fluid therein, means driven by the engine for producing a relative reciprocating movement between the barrel and the plunger, and a nozzle communicating with said delivery port and arranged to direct the fuel into said combustion chamber.

2. An internal combustion engine of the compression type including in combination, means for supplying charges of air to the piston chamber, and means for injecting charges of a liquid fuel into said chamber, said last-mentioned means comprising a pump barrel having a bore terminating in a delivery port, a valve seated in said delivery port, a plunger in said barrel having an inlet port, a valve seated in said inlet port, said plunger and valve being fitted to displace practically all of the fluid therein, means driven by the engine for producing a relative reciprocating movement between the barrel and the plunger, and a nozzle communicating with the said delivery port and arranged to direct the fuel onto a wall in said piston chamber which is swept by the incoming air charges, said wall being shaped to restrain the extent of diffusion of the fuel by impact therewith.

3. An internal combustion engine of the compression type including in combination, means for supplying charges of air to the piston chamber, and means for injecting charges of a liquid fuel into said chamber, said last-mentioned means comprising a pump barrel having a bore terminating in a delivery port, a plunger in said barrel having an inlet port, a valve seated in said inlet port, means driven by the engine for producing a relative reciprocating movement between the barrel and the plunger, means for varying the length of said reciprocating movement to vary the sizes of the fuel charges, a nozzle communicating with said delivery port and arranged to direct the fuel in compact jets onto a wall in said chamber which is swept by the incoming air charges, said wall being shaped to restrain the extent of the diffusion of the fuel by impact therewith, and means for advancing the fuel injecting period as the sizes of the fuel charges increase.



4. An internal combustion engine of the compression type including in combination, means for supplying charges of air to the piston chamber, said means being constructed to admit the air under pressure into said chamber near the ends of the working strokes of the piston, and means for injecting charges of a liquid fuel into said chamber, said last-mentioned means comprising a pump barrel having a bore terminating in a delivery port, a valve seated in said delivery port, a plunger in said barrel having an inlet port, a valve seated in said inlet, said plunger and valve being fitted to displace practically all the fluid therein, means driven by the engine for producing a relative reciprocating movement between the barrel and the plunger, and a nozzle communicating with said delivery port and arranged to direct the fuel in compact jets onto a wall in said chamber which is swept by the incoming air charges, said wall being shaped to restrain the extent of the diffusion of the fuel by impact therewith.

5. An internal combustion engine of the compression type including in combination, means for supplying charges of air to the piston chamber, said means being constructed to admit the air under pressure into said chamber near the ends of the working strokes of the piston, and means for injecting charges of a liquid fuel to the said chamber, said last-mentioned means comprising a pump barrel having a bore terminating in a delivery port, a valve seated in said delivery port, a plunger in said barrel having an inlet port, a valve seated in said inlet port, means driven by the engine for producing a relative reciprocating movement between the barrel and the plunger, a nozzle communicating with said delivery port and arranged to direct the fuel in compact jets onto a wall in said chamber which is swept by the incoming air charges, said wall being shaped to restrain the extent of the diffusion of the fuel

by impact therewith, and means for advancing the fuel injecting periods with relation to the piston as the speed of the engine increases.

[Claims 6 to 26 not printed in the Gazette.]

1,139,899. DOOR-MAT. HOWARD JENKINS OTIS, Denver, Colo. Filed May 18, 1914. Serial No. 839,270. (Cl. 15—62.)



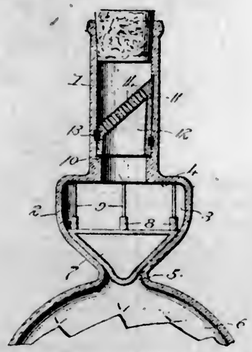
1. A mat composed of pile fabric woven to form ribs and grooves alternately arranged, the surfaces of the ribs and grooves being composed of the tops of the pile material.

2. A mat composed of pile fabric having ribs and grooves alternately arranged, the surfaces of the ribs and grooves being composed of the tops of the pile fabric.

3. A mat composed of a pile fabric having a self sustained rib formed therein and constituting a part thereof the surface of the said mat below the rib composed of the tops of the pile fabric.

4. A door mat having a series of parallel ridges on its outer surface, said ridges being spaced apart a distance slightly greater than the width of an ordinary shoe sole, the said ridges having fastenings extending through the two layers forming the same.

1,139,900. NON-REFILLABLE BOTTLE. FRANK J. PARDINI, Carson City, Nev. Filed Oct. 17, 1914. Serial No. 867,151. (Cl. 215—69.)

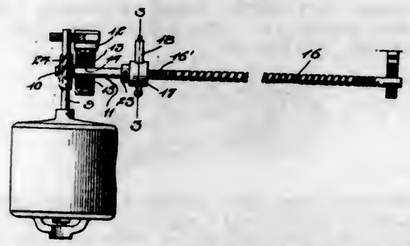


1. A non-refillable bottle comprising a stopper mounted in an enlarged portion of the neck of said bottle, lugs formed on said stopper and carrying flexible members for engagement with a shoulder formed by said enlarged portion to hold the stopper normally in engagement with the enlarged portion, a gasket carried within a groove formed in said guard and adapted to engage a groove in the bottle neck, and a cut-out portion in said bottle neck against which the upper end of the guard is adapted to abut and prevent removal of the same.

2. A bottle including an enlarged neck portion, the interior of said enlarged portion tapering toward the upper extremity thereof, lugs formed on the upper face of said stopper, means connecting said lugs and the upper shoulder of said enlarged portion, and a guard disposed in the neck of said bottle as and for the purpose set forth and described.

3. A bottle including an enlarged neck portion, a stopper in said enlarged portion, the interior wall of said enlarged portion tapering outwardly toward the upper portion thereof, a series of lugs carried on the upper face of said stopper, flexible means connecting said lugs and the upper shoulders of said enlarged portion, a guard in the neck of said bottle above said enlarged portion, said guard and said neck being provided with a complemental groove, said groove extending at an angle relative to the base of said guard, a gasket arranged in said groove, a cut-out portion in said neck, for the reception of the upper extremity of said guard, substantially as described.

1,139,901. ELEVATOR-DOOR-OPERATING APPARATUS. HOOD PITTS, Austin, Tex., assignor, by direct and mesne assignments, of one-half to Frank M. Covert. Filed May 13, 1912, Serial No. 697,011. Renewed Sept. 23, 1914. Serial 863,218. (Cl. 187—54.)



1. In a door operating apparatus, an operating shaft having a spiral groove, a sleeve surrounding the shaft, and means for imparting relative rotative movement of the sleeve and shaft, of a device carried by the sleeve for imparting relative longitudinal movement of the sleeve and shaft, and means carried by the shaft for raising the last mentioned means from engagement with the groove.

2. In a door operating apparatus, a threaded operating shaft, a sleeve surrounding the shaft and means for imparting relative rotative movement of the sleeve and shaft, of a device carried by the sleeve for engaging the threads and causing relative longitudinal movement of the sleeve and shaft, and means carried by the shaft for automatically raising the device from the thread.

3. The combination with a door, a threaded shaft, a sleeve surrounding the shaft, and means for imparting relative rotative movement of the shaft and sleeve, of a pin carried by the sleeve for engagement with the thread to impart relative longitudinal movement of the sleeve and shaft, connections whereby the door will partake of the longitudinal movement and means carried by the shaft for raising the pin from the thread and stopping the longitudinal movement without stopping the rotative movement.

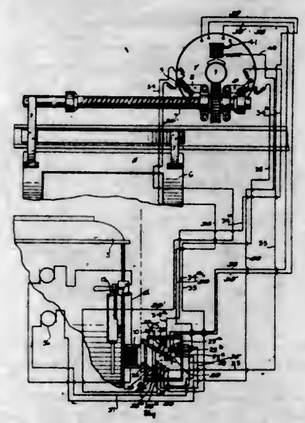
4. In a door operating apparatus, an operating shaft having a spiral groove, a sleeve surrounding the shaft, means for imparting relative rotative movement to the shaft and sleeve, means carried by the sleeve to engage the groove to impart relative longitudinal movement to the sleeve and shaft, the depth of the groove decreasing at the end thereof to force the groove engaging means from the groove and arrest the longitudinal movement.

5. In a door operating apparatus, an operating shaft having a spiral groove, a sleeve surrounding the shaft, means for imparting relative rotative movement to the shaft and sleeve, means carried by the sleeve to engage the groove to impart relative longitudinal movement to the sleeve and shaft, the depth of the groove decreasing at each end thereof to force the groove engaging means from the groove and arrest the longitudinal movement.

[Claims 6 to 11 not printed in the Gazette.]

1,139,902. FLOOR SELECTOR-SWITCH FOR ELECTRIC DOOR-OPERATING APPARATUS. HOOD PITTS, Austin, Tex., assignor of one-half to Frank M. Covert, Austin, Tex. Filed Dec. 24, 1912. Serial No. 738,494. (Cl. 187—54.)

1. The combination with elevator door operating means and an electric circuit therefor, of a floor selector switch including a plurality of series of contacts arranged in said circuit, a movable contact carrying member arranged between said contacts, means normally holding the contacts on said movable member in engagement with one series of the stationary contacts to close the circuit and operate said door, actuating mechanism to close the door, and manually controlled electrically operated means carried by the elevator car to move said movable member and engage the contacts thereon with the other series of contacts and reverse the operation of the actuating mechanism and open the door.



2. The combination with electrically controlled door operating mechanism and a circuit therefor cut out devices in said circuit to break the same at the end of the opening and closing movements of the door, of oppositely disposed series of stationary contacts arranged in said circuit, movable contact members arranged between said series of stationary contacts, means normally holding said movable contacts in engagement with one series of stationary contacts to close the circuit and move the elevator door to its closed position, and electrically operated, manually montrolled means to engage the movable contacts with the other series of stationary contacts and reverse the operation of said door operating mechanism to move the door to its open position.

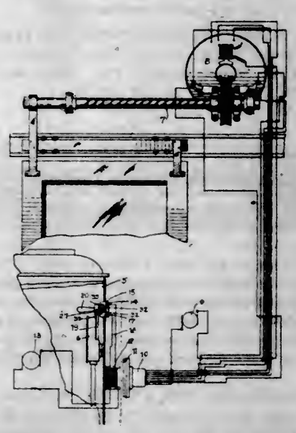
3. The combination with electrically controlled elevator door operating mechanism and a circuit therefor, cut out devices in the circuit to break the same at the end of the opening and closing movements of the door, of a floor selector switch located in said circuit comprising oppositely disposed series of stationary contacts, movable contact members arranged between said series of stationary contacts, an armature plate and connections between the same and the movable contacts, means normally holding said movable contacts in engagement with one series of stationary contacts to close said circuit for the closing movement of the door, and a manually controlled electromagnet carried by the elevator car to attract said armature plate and move the movable contacts into engagement with the other series of stationary contacts and reverse the operation of said door operating mechanism to open the door.

4. The combination with electrically controlled elevator door operating mechanism and an electric circuit therefor, cut out devices in the circuit to break the same at the end of the opening and closing movements of the door, of a floor selector switch including oppositely disposed series of contacts located in the operating circuit, a shaft, a contact carrying arm fixed to said shaft and disposed between said spaced series of contacts, an armature plate mounted upon the arm, means normally holding the contacts on said arm in engagement with one series of stationary contacts to close the electric circuit for the closing movement of the door, and a manually controlled electromagnet carried by the elevator car to attract the armature plate and move the arm to engage the contacts thereon with the other series of stationary contacts and reverse the operation of the door operating mechanism to open the door.

5. The combination with electrically controlled elevator door operating mechanism, and a circuit therefor, cut out devices in said circuit, of spaced series of contacts wired in the circuit with said cut out devices, an armature plate, movable contact members connected to said armature plate, and disposed between the spaced series of stationary contacts, means yieldingly holding said movable contacts in engagement with one series of the stationary contacts to close the circuit for the closing movement of the elevator door, and manually controlled electromagnet carried by the elevator car to attract the armature plate and move the movable contacts into engagement with the other series of stationary contacts to reverse the operation of the door operating mechanism and move the door to its open position.

[Claims 6 to 14 not printed in the Gazette.]

1,139,903. SWITCH. HOOD PITTS, Austin, Tex., assignor of one-half to Frank M. Covert, Austin, Tex. Filed Dec. 24, 1912. Serial No. 738,495. Renewed Dec. 10, 1914. Serial No. 876,471. (Cl. 172—179.)



1. The combination with a moving element, a device for controlling the movements of the element, of an electric circuit carried by the element, a magnet in the circuit, a switch in the circuit, means carried by the movable element of the device for engaging the contacts of said switch, and an armature coöperating with said magnet, the armature being stationary relatively to the movement of the element.

2. The combination with a moving element, a device for controlling the movements of the same, and a lever for operating the device, of an electro-magnet carried by the element, a circuit for the magnet, an operator's switch including stationary and movable contacts arranged in the circuit, and means mounted on the lever and movable in relation thereto to engage the contacts and close the magnet circuit, and an armature coöperating with the magnet, said armature being stationary relatively to the movement of the element.

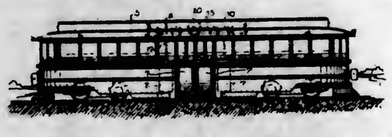
3. The combination with a moving element, a device for controlling the movements of the same and a lever for operating the device, of an electro-magnet carried by the element, a circuit for the magnet, a switch including stationary and movable contacts arranged in the magnet circuit, and means mounted upon the end of the lever and movable with relation thereto to engage the movable contact with the stationary contact and close the magnet circuit and an armature coöperating with the magnet, said armature being stationary relatively to the movement of the element.

4. The combination with a moving element, a device for controlling the movements of the same and a lever for operating the device, of an electro-magnet carried by the element, a circuit for the magnet, a switch including stationary and movable contacts arranged in the circuit, means carried by and movable relatively with the lever and operating to engage the movable contact with the stationary contact and close the circuit, means for permitting such engagement only when said lever is in position to stop the moving element, a handle on the lever, said handle carrying the contact operating means and an armature coöperating with the magnet.

5. The combination with a moving element, a device for controlling the movements of the same and a lever for operating the device, of an electro-magnet carried by the element, a circuit for the magnet, a switch including stationary and movable contacts arranged in the circuit, means carried by and movable relatively with the lever and operating to engage the movable contact with the stationary contact and close the circuit, means for permitting such engagement only when said lever is in position to stop the moving element, a relatively movable handle on the lever, said handle carrying the contact operating means and an armature coöperating with the magnet.

[Claims 6 to 24 not printed in the Gazette.]

1,139,904. CAR-DOOR OPERATING AND LOCKING DEVICE. HOOD PITTS, Austin, Tex., assignor of one-half to Frank M. Covert, Austin, Tex. Filed Jan. 11, 1913. Serial No. 741,603. (Cl. 39—92.)



1. The combination with a sliding door, of electrically operated mechanism for actuating said door and a circuit therefor, a switch in said circuit, means for locking the switch in position to open the door, and an auxiliary circuit in which said means are included, said circuit including means for making and breaking the auxiliary circuit.

2. The combination with a sliding door, of a motor for actuating said door, an electric circuit for the motor, a reversing switch in said circuit, an electro-mechanical device to prevent operation of the switch and maintain the door in an open position, and a circuit for said device said circuit including means whereby the switch is released to permit the reversal of the motor whereby the door is moved to its closed position.

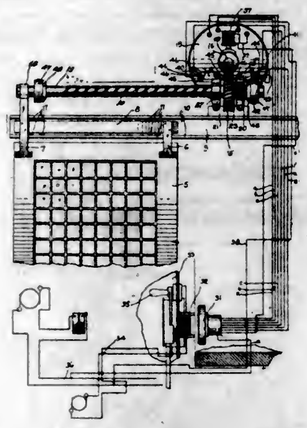
3. The combination with a sliding door, a reversible operating means for opening and closing the door, of a switch for controlling the movements of the door operating means, means for locking the switch when the door is in its open position, said locking means including an electro-mechanical device, a circuit for said locking means, means in the circuit for operating the device whereby the switch may be moved to actuate the operating means to close the door.

4. The combination with a door, a motor for actuating the door, an electric circuit for the motor, of a manually operated reversing switch in said circuit, a lock for the switch, said lock tending to maintain the switch in position to maintain the door in open position, means for manually disengaging the lock to permit the reversal of the motor to close the door.

5. The combination with a door, a motor for actuating the door, an electric circuit for the motor, of a manually operated reversing switch in said circuit, a lock for the switch, said lock tending to maintain the switch in position to maintain the door in open position, means for electrically disengaging the lock to permit the reversal of the motor to close the door.

[Claims 6 to 25 not printed in the Gazette.]

1,139,905. DOOR OPERATING AND LOCKING DEVICE. HOOD PITTS, Austin, Tex., assignor of one-half to Frank M. Covert, Austin, Tex. Filed Jan. 11, 1913. Serial No. 741,604. (Cl. 39—94.)



1. The combination with a slidably mounted door, of a shaft connected at one of its ends to said door and provided with a spiral groove, a gear loosely mounted upon said shaft, means mounted in said gear to rotate therewith and engaging in the groove of said shaft, and a reversible motor to drive said gear and move the shaft axially to move the door to its open or closed postion and means for automatically disengaging the groove engaging means.

2. The combination with a slidably mounted door, of a shaft connected at one of its ends to said door and provided with a spiral groove, a gear loosely mounted upon said shaft, a spring pressed pin mounted within the gear and normally engaging in the groove of said shaft, means mounted upon the gear to move the pin out of engagement with said groove, and a reversible motor to drive said gear and move the shaft axially to move said door to its open or closed position.

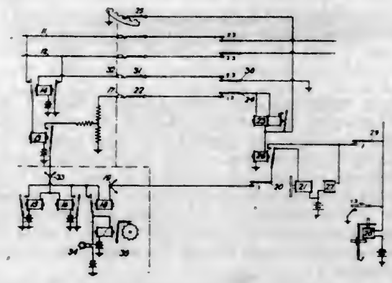
3. The combination with a slidably mounted door, of a shaft connected to said door at one of its ends and provided with a spiral groove, a gear loosely mounted upon said shaft, radially movable spring held means arranged within the gear and normally engaged in the groove of said shaft, a reversible motor to drive said gear and move the shaft axially to open or close the door, and means for holding said means within the gear out of engagement with the groove in the shaft to permit of the manual operation of the door.

4. The combination with a slidably mounted door, of a spirally grooved shaft connected at one of its ends to said door, a worm gear loosely mounted upon said shaft and provided with a radially extending chamber, a spring pressed pin mounted in said chamber to engage in the groove of the shaft, a laterally projecting arm fixed to the outer end of said pin and extending exteriorly of said chamber, means mounted upon the gear to engage said arm and move the pin out of engagement with the groove in said shaft, and a reversible motor to drive the gear and move the shaft axially to open or close the door.

5. The combination with a slidably mounted door, of a spirally grooved shaft connected at one of its ends to said door, a worm gear loosely mounted upon said shaft, a reversible motor to drive said gear, means carried by the gear normally engaged in the groove of said shaft to move the same axially in either direction and open or close the door, means for automatically disengaging the groove engaging means, and additional means mounted upon the gear for movement with respect thereto and coacting with said first named means to disengage the same from the groove in the shaft to permit of the manual operation of the door.

[Claims 6 to 15 not printed in the Gazette.]

1,139,906. TELEPHONE-EXCHANGE SYSTEM. LIPA POLINKOWSKY, Brussels, Belgium, assignor to Western Electric Company, New York, N. Y., a Corporation of Illinois. Filed Aug. 17, 1914. Serial No. 857,131. (Cl. 179—18.)



1. In a telephone exchange system, the combination with a plurality of lines, a plurality of finder switches in which said lines terminate, means for causing one of said switches to connect with a calling line upon the initiation of a call upon such line, indicating means, and means actuated in initiating a call upon any of said lines to operate said indicating means each time there is not available a definite number of such switches to connect with such calling line.

2. In a telephone exchange system, the combination with a group of lines, finder switches for said group, means for causing one of said switches to connect with a calling line of the group of lines upon the initiation of a call upon such line, indicating means for said group of lines, and means actuated in initiating a call upon any of said lines to operate the indicating means each time there is not available a definite number of switches to connect with such calling line.

3. In a telephone exchange system, the combination with a plurality of lines, finder switches to which such lines are multiplied, means for starting the switches in motion upon the initiation of a call in any of the lines, and indicating means individual to said lines and operated each time there is not available a definite number of switches to connect with a calling line.

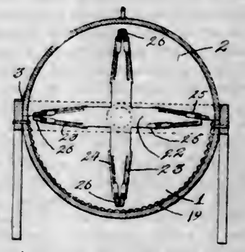
4. In a telephone exchange system, the combination with a plurality of lines, a plurality of finder switches in which said lines terminate, means for causing one of said switches to connect with a calling one of said lines upon the initiation of a call by such line, a registering device, a signal, and means for operating said signal and registering device each time there it not available a definite number of such switches to contact with a calling line.

5. In a telephone exchange system, the combination with a plurality of lines, finder switches in which said lines terminate, means for causing one of said switches to connect with a calling line upon the initiation of a call upon such line, indicating means and a pilot relay for said lines, said pilot relay being energized upon the initiation of a call upon any line and closing at one point the circuit of said indicating means, a contact closed when any of said switches is idle, and a relay controlled by said contact to open at another point the circuit of said indicating means.

[Claims 6 and 7 not printed in the Gazette.]

1,139,907. WASHING-MACHINE. MOLLIE L. RAMEY, Artesia, N. Mex. Filed Sept. 8, 1914. Serial No. 860,726. (Cl. 68—18.)

1. An agitator for a washing machine comprising a revoluble member having a plurality of radial arms at each end of said member, the arms of one end being in registration with the arms of the other end, each arm being tapered toward its outer end, each tapered edge of each arm being provided with a flange, which is directly opposite the flange of the other edge, said flanges of each arm diverging toward the center of the revoluble member, slots formed in each arm, each slot being in parallelism with its adjacent flange, owing to which the slots diverge toward the center of the revoluble member, paddle blades arranged in pairs, the ends of the blades of each pair having projections which together with the ends of the blades engage the flanges of the opposing arms to assist in preventing displacement of the blades and to prevent wabbling of the same relative to each other and the arms, said blades when adjusted toward the center of the member acting to spread apart, and when adjusted outwardly adapted to be brought together, and means extending through the projection and the slots to hold the blades in adjusted positions radially.



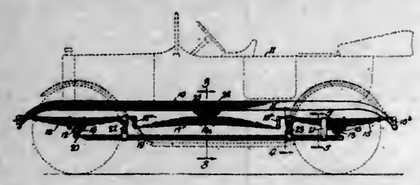
2. In a washing machine, a frame, a cylindrical closed receptacle on the frame provided with a rubbing surface, a revoluble agitating frame comprising radial arms and being mounted in bearings of the receptacle, clothes' clamps carried by the outer portions of the arms for clamping the clothes, whereby the clothes may be rubbed against the rubbing surface, said arms being provided with converging guides in which said clamps are mounted, said clamps being so arranged as to firmly clamp the clothes to the agitating frame.

1,139,908. CLOTHES-LINE CLIP. EUGENE W. SALKELD, Washington, D. C., assignor of one-third to Airey E. Chaffee and one-third to Ernest W. Bradford, Washington, D. C. Filed July 31, 1907. Serial No. 386,893. (Cl. 24—139.)



As an article of manufacture a clothes line clip adapted to normally slide freely on a line comprising a single piece of wire doubled intermediate of its ends to form branches having a narrow clothes holding slot therebetween and each of said branches being bent at its free end to form an eye, which eyes are adapted to normally register with each other for receiving the line and the bends being in opposite directions whereby they are adapted to clamp said line between said eyes when an article to be supported thereby is inserted between said branches, whereby said clip is held against a sliding movement when in use, substantially as set forth.

1,139,909. SPRING SUSPENSION DEVICE FOR VEHICLES. VICTOR H. SEARS, Chicago, Ill. Filed Dec. 31, 1914. Serial No. 879,827. (Cl. 21—101.)



1. A spring suspension device for vehicles, comprising in combination with the vehicle body and the wheels on which said body is mounted, a frame member connected with the body and interposed between said body and two of the said wheels, an equalizing spring device interposed between said two wheels and said frame member, a truck member movable vertically with said two wheels, and means associated with each of said two wheels limiting the upward movement of said equalizing spring device intermediate its ends relative to said truck member but permiting free downward movement of said equalizing spring devive intermediate its ends relative to said truck member.

2. A spring device for vehicles, comprising in combination with the vehicle body and the wheels on which said body is mounted, a frame member connected with the body and interposed between said body and two of said wheels, an equalizing spring device interposed between said two wheels and said frame member adapted to equally distribute the impact imparted to said two wheels over said frame member, a truck member connected to said two wheels in such manner that the two wheels may move laterally or longitudinally relative to said truck member but are immovable vertically with reference to said truck member, and means associated with each of said two wheels limiting the upward movement of said equalizing spring device intermediate its end relative to said truck member but permitting free downward movement of said equalizing spring device intermediate its ends relative to said truck member.

3. A spring suspension device for vehicles comprising in combination with the vehicle body and the wheels on which said body is mounted, a frame member connected with the body and interposed between said body and two of the said wheels, an equalizing spring device interposed between said two wheels and said frame member, said equalizing device comprising a half elliptical upwardly facing spring associated with each wheel and pivotally connected at one end to said frame member, and an intermediate half elliptical downwardly facing spring pivotally connected intermediate its ends to said frame member and pivotally connected at its ends to said upwardly facing spring member, a truck member movable vertically with said two wheels, and means associated with each upwardly facing spring limiting the movement of its end adjacent said intermediate spring in an upward direction relative to said truck member but permitting free movement of said end in a downward direction relative to said truck member.

1,139,910. APPARATUS FOR CLEANING SMOKE-TUBES OF MARINE AND OTHER MULTITUBULAR BOILERS. CHARLES H. SHEPLER and JOSEPH W. SHEARER, San Francisco, Cal. Filed Sept. 19, 1913. Serial No. 790,692. (Cl. 137—97.)

1. Apparatus for cleaning smoke tubes comprising in combination a hollow shaft adapted to be passed through one of the smoke tubes, a blower head projecting radially therefrom at one end and adapted to blow a jet of pressure fluid toward the tubes, and means for advancing the hollow shaft longitudinally and at the same time rotating it, so that the range of the nozzle with respect to the smoke tubes can be increased without changing the center of rotation.

2. Apparatus for cleaning smoke tubes comprising in combination, a tubular member or barrel adapted to be clamped to a part of the boiler front, a hollow shaft passed through the barrel and so journaled therein as to be central with respect to the barrel and in line with a smoke tube, a forwardly projecting nozzle at the rear end of the hollow shaft located exteriorly of the barrel so as to discharge toward the barrel, means for causing the hollow shaft to move longitudinally when rotated, and manually actuated means for operating the hollow shaft.



3. In apparatus for cleaning smoke tubes, a hollow shaft adapted to be passed through the smoke tube, a barrel adapted to be clamped in a fixed position to the boiler front and having a screw thread inside thereof, a cylindrical nut fixed to the hollow shaft and screwed into the threaded bore of the barrel so as to be capable of being turned from end to end thereof, and a handle at the front end of the hollow shaft, whereby the turning of the handle simultaneously rotates the shaft and traverses it longitudinally.

4. Apparatus for cleaining smoke tubes comprising in combination, a hollow barrel adapted to be fixed to the boiler front in line with a smoke tube, a hollow shaft journaled in the said barrel and adapted to be traveled longitudinally through the smoke tube, a rotary nozzle at one end of the shaft, a nut threaded externally and secured to the shaft within the barrel so as to engage screwed threads on the inside of the barrel, there being a port in the shaft at each side of the nut and said nut having longitudinal channels in the exterior thereof through which pressure fluid can pass to either side of the same so as to balance the nut.

5. In a tube cleaner, a steam conductor having a discharge, and means to both rotate and simultaneously move said conductor in step-by-step order longitudinally of the tube in a single operation, said means when rotated in one direction moving the conductor continuously inward and when rotated in the opposite direction moving the conductor continuously outward.

[Claims 6 and 7 not printed in the Gazette.]

1,139,911. APPARATUS FOR CLEANING SMOKE-TUBES OF BOILERS. CHARLES H. SHEPLER and JOSEPH W. SHEARER, San Francisco, Cal. Filed Mar. 24, 1914. Serial No. 826,952. (Cl. 137—97.)



1. The combination in a flue cleaning apparatus, of a tubular body member attachable to a convenient portion of the boiler or other structure, the tubes of which are to be cleansed, said tubular member being internally threaded, a tubular conductor mounted within and having a discharge projecting from the inner end of said body member and having a part operatively engaging said threads, and a crank-shaft turnably supported against longitudinal movement in said body member and operating to revolve said conductor and cause its longitudinal movement within the internally threaded tubular body member and to move its discharge toward and away from the inner end of the body member.

2. In an apparatus for cleaning boiler flues or the like, a tubular body member non-rotatably attachable to a convenient part of the boiler, said body member being internally threaded, a tubular conductor turnably and slidably mounted within said member and having a disconnectible extension insertible into one of the boiler flues, and means for rotating and longitudinally moving said conductor, said means comprising a crank-shaft rotatably and non-shiftably mounted in the body member and operatively engaging the conductor with non-rotative relation, said conductor having a threaded part engaging complementary threads in the tubular body member whereby, when the crank-shaft is rotated, said conductor is caused to shift longitudinally independently of and rotatively with the crank-shaft.

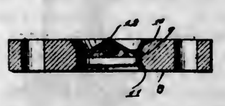
3. The combination in an apparatus for cleaning boiler flues, of a body member attachable to a convenient portion of the boiler, means for supplying a fluid under pressure to said body member, a conductor slidably and rotatively connected to and extending from one end of said body member and carrying a spray nozzle for directing a spray of fluid under pressure obliquely toward the adjacent ends of the boiler flues, an operating shaft held against longitudinal movement and having free rotary movement in said body member and turnably engaging the inner and adjacent end of said conductor, and means for shifting the conductor and therewith the nozzle longitudinally independently of said operating shaft while the latter and the conductor are rotatively operating.

4. Means for sweeping a boiler flue or tube plate with a jet of steam directed at an oblique angle to said plate, comprising a conductor having a nozzle at one end for directing the jet obliquely, said conductor being insertible and supported in one of the flues, and non-slidable means for revolving said conductor to move the jet of steam in a circle and for longitudinally moving the nozzle from and toward said flue or tube plate to increase or decrease the diameter of the circle.

5. Means for sweeping a boiler flue or tube plate with a jet of steam directed at an oblique angle to said plate, comprising a conductor having a nozzle at one end for directing the jet obliquely, said conductor being insertible and supported in one of the flues, and means for revolving said conductor to move the jet of steam in a circle and for moving the nozzle from and toward said flue or tube plate to increase or decrease the diameter of the circle, said last named means including threads on the inner end of the conductor, a stationary part engaged by said threads, and a crank-shaft operative rotatively upon said threaded part and being held against longitudinal movement.

[Claims 6 to 11 not printed in the Gazette.]

1,139,912. GASEOUS-FUEL MIXER. FRANK W. SIMONS, Vallejo, Cal., assignor to Natan Fink, Vallejo, Cal. Filed Sept. 20, 1913. Serial No. 790,926. (Cl. 48—180.)



A gaseous fuel mixer consisting of a plate in the conduit through which the fuel mixture is conducted from a carbureter to an engine and having an aperture, and a plurality of converging flexible baffle rods extending across said aperture and having their outer ends rigidly secured in the wall of the aperture and their inner ends free and brought close together at one side of the plane of their outer ends whereby a hollow cone is interposed in the path of the fuel mixture with its apex extended in the direction of the flow.

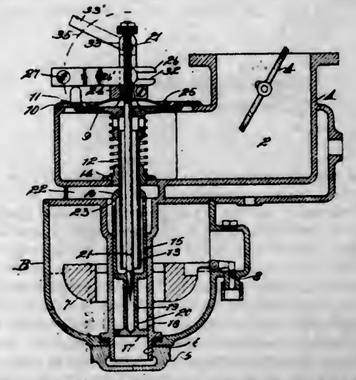
1,139,913. FOLDING UMBRELLA. THOMAS SLATTER, San Francisco, Cal. Filed Sept. 15, 1914. Serial No. 861,794. (Cl. 135—46.)

In a folding umbrella, the combination with a hollow rod, of a tip movable into and out of the lower end of the rod, links pivotally connected to the tip, a handle having a hollow rod extension removably engaged in the upper end of the rod, said extension having a slot formed therein, a latch pivotally connected interiorly of the extension, a sleeve slidably mounted on the rod, said sleeve and rod having registering slots which also register with the slot of the extension, said latch being adapted to engage in said slots to hold the sleeve, rod and extension in fixed relation, said rod having a pair of slots formed therein, a pin slidably engaged in said slots and having



its ends fixed to the sleeve, and a rod mounted interiorly of the hollow rod and having its lower end connected to the inner one of said links and its upper end connected centrally of said pin.

1,139,914. CARBURETER. ROBERT H. SMILIE, Berkeley, Cal. Filed Feb. 12, 1912. Serial No. 677,198. (Cl. 48—154.1.)



1. In a carbureter, the combination of a casing having an air inlet and a fuel inlet, with corresponding air and fuel valves, of a lever which is slotted at one end, a pin carried by the air valve fitting the slot, said lever having a fulcrum adjustable in an arc which is concentric with said pin in the closed position of the air valve, and means connected with the fuel inlet valve whereby the opening of the latter is made to vary with respect to the opening of the air valve accordingly as the fulcrum of said lever is moved.

2. In a carbureter, the combination with a casing having an air inlet and a fuel inlet, with corresponding air and fuel valves, of a lever which has a sliding connection with the air valve, the lever having one end fulcrumed on a swinging arm, and connections between the lever and fuel valve whereby as the arm is swung in one direction the fuel valve opens more for a given opening of the air valve than for the same opening of the air valve in another position of the lever, and vice versa when the lever swings in the opposite direction it opens proportionally less.

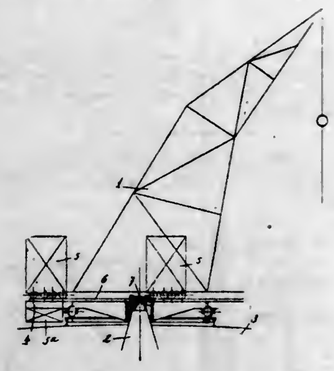
3. In a carbureter, the combination of a mixing chamber, an air valve, a fuel valve, a lever having a fulcrum at one end movable in an arc, means for varying the position of said fulcrum in said arc, the opposite end of the lever having a connection with the air valve and said lever forming an abutment to limit the opening movement of the fuel valve whereby the air valve operates through the lever to control the fuel valve.

4. In a carbureter, the combination of a mixing chamber, an air inlet valve and a fuel inlet valve, a lever having a movable fulcrum at one end, the locus of said fulcrum being an arc, the opposite end of the lever having a connection with the air valve, and means whereby the air valve operating through the lever controls the fuel valve.

5. In a carbureter, the combination of a mixing chamber, an air inlet valve, a fuel inlet valve and a lever which connects with and controls the fuel inlet valve and whose position is arcuately adjustable about a means provided for said lever's operation by the air valve.

[Claims 6 to 15 not printed in the Gazette.]

1,139,915. SLUING CRANE. FRANS SMULDERS, Rotterdam, Netherlands. Filed Dec. 10, 1912. Serial No. 735,904. (Cl. 212—49.)

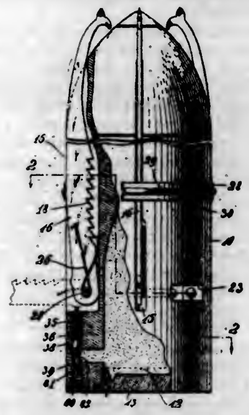


In a floating sluing crane, the combination of a crane support, a crane extending upwardly from said support, a substantially central pivot about which said support and crane are revoluble, a fixed counterweight depending from the lower face of said crane support near one edge thereof, said fixed counterweight being of such a weight as to balance the entire weight of the crane and a part of the weight of the load to be handled by the latter, a movable counterweight on the upper face of said crane support, said movable counterweight being of such a weight as to balance the remainder of the load, both of said counterweights being below the lowermost portion of said crane, and means on the upper face of said crane support upon which said movable counterweight may be moved beyond said pivot.

1,139,916. PROJECTILE. JOHN JOSEPH STOEHR, Brooklyn, and FRANZ HEINRICH SAUERMANN, New York, N. Y. Filed Nov. 27, 1914. Serial No. 874,284. (Cl. 102—29.)

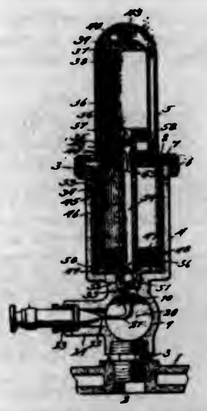
1. In a projectile, the combination with a hollow integral body of a plurality of saw toothed, knife edged hooked-ended arms normally contained within said body, a metallic strap, having engaging ends, surrounding the said body and arms, powder chambers at the rear of said body in alinement with each of said arms, firing means combined with each powder chamber, said firing means being operable by the movement of said arms and a central powder chamber communicating with the first named powder chambers.

2. In a projectile, the combination with an elongated body having a powder chamber extending therewithin, of a plurality of knife edged arms pivotally secured within recesses in said body, an auxiliary powder chamber, rearward of each of said arms, a firing means combined therewith, said firing means being operable by said arms, detonators for each firing means, sleeves containing said detonators, means for removably engaging said sleeves within said body and passage-ways extending between said firing means and said main powder chamber.



3. In a projectile, the combination with a longitudinally recessed, hollow body, containing an explosive, of a plurality of hook ended arms pivoted in the mentioned recesses, springs adapted to move said arms outwardly when released, a plurality of firing devices set at the rear of the recesses, means combined with said arms for operating said devices and means communicating between the explosive chamber in said hollow body and said firing devices whereby the contact with one or more of said arms will cause an explosion.

1,139,917. SPARK-PLUG PUMP. FRANK C. H. STRASBURGER, Knox, Ind. Filed Feb. 12, 1915. Serial No. 7,747. (Cl. 123—198.)



1. In a device of the character described, the combination of a chamber, having an outlet and an inlet, a movable closure for said outlet, and a pair of electric terminals within said chamber, one of said terminals being movable into sparking relation with the other simultaneously with the closure of said outlet.

2. In a device of the character described, the combination of a chamber, having an outlet and an inlet, a movable closure for said inlet, and a pair of electric terminals within said chamber, one of said terminals being movable into sparking relation with the other simultaneously with the closure of said inlet.

3. In a device of the character described, the combination of a chamber having an outlet and an inlet, a movable closure for said outlet and inlet, and a pair of electric terminals within said chamber, one of said terminals being movable into sparking relation with the other simultaneously with the closure of said outlet and inlet.

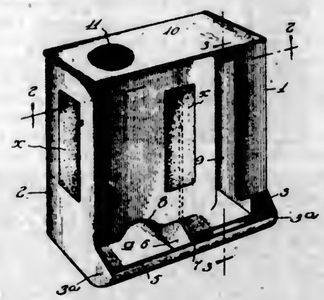
4. In a device of the character described, the combination of a chamber, having an outlet and an inlet, a movable closure for said outlet, a stationary electric terminal within said chamber, and an electric terminal secured to said movable closure and adapted to be disposed in sparking relation with said stationary terminal when said outlet and inlet are closed.

5. In a device of the character described, the combination of a chamber, having an outlet and an inlet, a movable closure for said inlet, a stationary electric terminal within said chamber, and an electric terminal secured to said movable closure and adapted to be disposed in sparking relation with said stationary terminal when said inlet is closed.

[Claims 6 to 18 not printed in the Gazette.]

1,139,918. [WITHDRAWN.]

1,139,919. MATCH-SAFE. RICHARD HENRY TATLOW, Jr., Denver, Colo. Filed Apr. 22, 1914. Serial No. 833,582. (Cl. 206—31.)



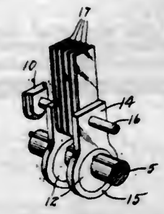
1. A device of the kind specified comprising a substantially rectangular receptacle divided transversely by a vertical partition into two compartments, the lower portions of the front walls of both of which are cut away in substantially the same horisontal plane, a tray disposed across the entire width of said receptacle below the cutaway portions of said compartments, a cover for said receptacle provided with an opening above one of said compartments, and the front wall of the opposite compartment provided with means whereby the interior thereof is disclosed.

2. A match-safe comprising two compartments disposed side by side one of which is adapted to receive a box of matches, a cover therefor provided with an opening above the compartment next the match-box compartment, both of said compartments having the lower portions of their front walls cut away in substantially the same horizontal plane, and a laterally disposed tray common to both compartments extending across the entire width of said match-safe below the plane of the cutaway portions of the front walls thereof.

1,139,920. ADJUSTABLE HAMMER-MILL. GEORGE S. TEBBETTS, Jr., St. Louis, Mo., assignor to Milton F. Williams, St. Louis, Mo. Filed Jan. 16, 1913. Serial No. 742,465. (Cl. 83—11.)

1. In a rotary hammer mill the combination, of a grinding surface, a rotary shaft, beaters operated by said shaft and coöperating with the grinding surface, and means whereby said beaters may be adjusted relative to said grinding surface by movement of said shaft relative to said beaters.

2. In a device of the class described, a rotary shaft, beaters mounted upon said shaft, and means whereby said beaters may be adjusted radially of said shaft by movement of said shaft relative to said beaters.



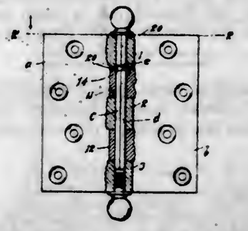
3. In a device of the class described, the combination of a shaft, beaters, means whereby said beaters may be rotated by said shaft, and means whereby said beaters may be adjusted radially of said shaft by movement of said shaft.

4. In a device of the class described, a shaft, beaters, means whereby said beaters may be rotated by the rotation of said shaft, and means whereby said beaters may be extended and retracted by rotation of said shaft.

5. In a device of the class described, a shaft, beaters supported by said shaft, disks carried by said shaft for guiding said beaters radially of the shaft, and cams carried by the shaft and adapted to coöperate with the beaters to move the same radially of the shaft.

[Claims 6 to 10 not printed in the Gazette.]

1,139,921. BUTT-HINGE. ERNEST L. TEICH, New Britain, Conn., assignor to The American Hardware Corporation, New Britain, Conn., a Corporation of Connecticut. Filed May 16, 1914. Serial No. 839,033. (Cl. 16—107.)

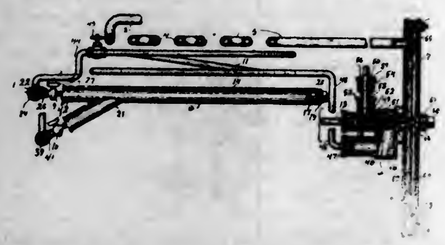


1. The combination with butt leaves and their alined knuckles, and a pin passing through said knuckles to connect said leaves together, of a ledge formed in a knuckle of one leaf, said pin being of proper cross-sectional shape to enter the knuckles and pass said ledge, and a circumferential groove in said pin in alinement with said ledge.

2. The combination with butt leaves provided with knuckles, and a pin passing through said knuckles to connect said leaves together, of a recess in the end of a knuckle of one leaf, a washer fitting in said recess provided with an irregular opening, a wall of which overlies the aperture in said knuckle at one side to form a ledge, means for fastening said washer to said knuckle, a pin extending through the alined knuckles of both leaves to secure them together, said pin being shaped on one side to pass said ledge and circumferentially grooved opposite thereto, and means for fastening said pin to the other leaf.

3. The combination with butt leaves provided with alined knuckles, one knuckle of each leaf being provided with a transverse interruption in its bore, the said interruptions being in alinement in the assembly position of the leaves, a pin of proper cross section to enter said knuckles and pass said interruptions in the assembly position of the leaves, and a circumferential groove in said pin registering with and adapted to receive one of the said interruptions.

1,139,922. OIL-BURNER. ALEXANDER O. TESCH, Milwaukee, Wis. Filed Jan. 15, 1915. Serial No. 2,314. (Cl. 158—11.)



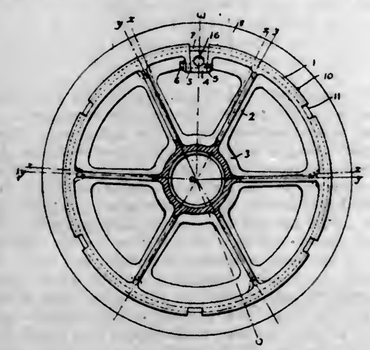
The combination, with a heating system, of an oil burner for heating the heating medium within said system comprising a series of pipes connected together and having a plurality of burner openings therein and a plurality of inclined branch pipes communicating with said pipes, a vaporizing coil disposed above the burner, means for conducting the oil to the vaporizing coil, means comprising a series of nozzles for injecting the vaporized oil into said burner pipes, and means comprising a series of nozzles for injecting coal gas into the burner through said inclined branch pipes to initially heat the vaporizing coil.

1,139,923. COMPOUND FOR WELDING ALUMINIUM AND ALUMINIUM-CONTAINING ALLOYS. ERLAND THAULOW, Frederiksberg, near Copenhagen, Denmark. Filed Mar. 4, 1914. Serial No. 822,499. (Cl. 75—187.)

1. A welding compound for aluminum and aluminum-containing alloys, including a borate and a bisulfate of an alkali metal.

2. A flux for welding aluminum, consisting of a mixture of borax and bisulfate of an alkali metal, the mixture having a lower melting-point than that of aluminum.

1,139,924. WHEEL FOR ROAD-VEHICLES. EDWARD WILLIAM THOMAS, Luton, England. Filed Feb. 24, 1912. Serial No. 679,692. (Cl. 152—21.)



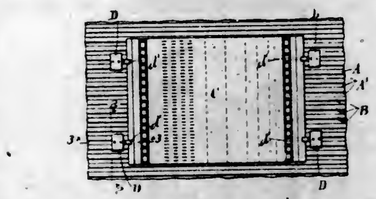
1. A road vehicle wheel comprising a discontinuous rim whose diameter can be varied, and whose greatest thickness is at that part remotest from the gap which breaks its continuity, a hub, spokes integral with the hub and the rim, and means for causing said rim to expand or contract, said spokes yielding sufficiently to permit of the necessary change in conformation of the rim.

2. A road vehicle wheel comprising a discontinuous rim whose diameter can be varied, and which has hollow spaces adjacent to its junction with the spokes in order to facilitate the contraction or expansion of the rim, a hub and spokes integral with the hub and the rim and capable of yielding sufficiently to permit of the change in conformation of the latter.

3. A road vehicle wheel comprising a discontinuous rim whose diameter can be varied and whose greatest thickness is at that part remotest from the gap which breaks its continuity, a hub, spokes integral with both the hub and the rim, said spokes being so proportioned that they normally tend to remain in a somewhat bent position but will tend to straighten under the forcible expansion of the rim, and means for causing said rim to expand, said spokes yielding sufficiently to permit of the necessary change in conformation of the rim.

4. A road vehicle wheel comprising a discontinuous rim whose diameter can be varied and whose greatest thickness is at that part remotest from the gap which breaks its continuity, a hub, spokes integral with both the hub and the rim, said spokes having an S curvature and tending normally to remain in a bent position, but being adapted to yield under the forcible expansion of the rim, and means for causing said rim to expand, said spokes yielding sufficiently to permit of the necessary change in conformation of the rim.

1,139,925. FASTENING DEVICE FOR ELECTROTYPES. CHARLES J. THOMSON, Philadelphia, Pa. Filed Jan. 14, 1915. Serial No. 2,099. (Cl. 101—169.)

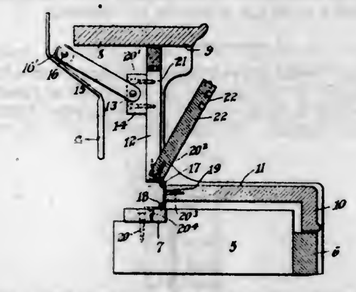


1. A plate fastening device of the kind specified comprising a body portion provided with a laterally enlarged head at one end, and at the other end with a spring clip and having a finger extending from said body portion in a direction generally parallel to the length of the latter from a point intermediate its ends, said finger being separated from said body portion by a plate receiving space and being adapted to bear against the side of a plate inserted in said space at some distance from the inserted edge of said plate.

2. In combination with a support formed with an undercut groove, of a device for securing a plate against said support, said device comprising a portion adapted to project into said groove and extend under the plate, and formed with a laterally enlarged head at one end adapted to bear against the undercut walls of said groove, and provided at its other end with means adapted to engage, and yieldingly hold that end of the device against movement outward from said support, and provided with a finger intermediate said ends adapted to project over the edge of the plate and engage the upper side of said plate at some distance from its margin and press said plate directly toward said support.

3. In a printing press, the combination with a support formed with parallel under cut grooves, of a device for securing a plate against said support comprising a body portion having a laterally enlarged head adapted to be inserted in one of said grooves when the lateral enlargements of said head extend parallel to the length of the groove and to be rotated with said head so inserted to bring said lateral enlargements transverse to the length of the groove, said lateral enlargements being then adapted to bear against the inner edges of the under cut walls of the groove to prevent the removal therefrom of said head, a spring clip secured to the opposite end of said head from said body portion and having portions adapted to enter the grooves at the opposite sides of the groove at which said head is entered to yieldingly hold the corresponding end of said body portion against movement outward from said portion, said body portion being formed with a finger projecting from it between its ends and adapted to lie or bear against the side edge of said plate to thereby hold the latter against said support.

1,139,926. PIANO FALL-BOARD. HAROLD B. TODD, Philadelphia, Pa. Filed Aug. 1, 1912. Serial No. 712,636. (Cl. 84—119.)



1. An upright piano case having a pivoted fall board, a backboard hinged to the fall board and having an opening extending a part of the height of the backboard, beginning at the horizontal edge adjacent to the fall board, and a door for the backboard opening.

2. An upright piano case having a hinged flat topped fall board adapted to cover the piano keys, a backboard hinged at its lower front edge to the upper back edge of the fall board, as it rests in its lowered position substantially in the plane of the flat top, and a guide for the backboard so that movement of the fall board causes guided movement of the backboard.

3. An upright piano casing having a fall board support, a flat topped fall board hinged thereto substantially in the plane of the fall board's lower rear edge when in lowered position, a back board hinged at its front edge to the fall board substantially in the plane of the flat top of the fall board and at the rear thereof when in lowered position and a guide for the upper part of the fall board.

4. An upright piano case having a fall board support, a fall board hinged thereto in proximity to its lower rear edge when in lowered position, a back board hinged at its lower front edge to the fall board in proximity to the upper rear edge of the fall board when in lowered position and having an opening, and a door for the opening covered by the fall board when in raised position.

5. An upright piano case having a hinged fall board, a movable backboard hinged to the fall board and a connection pivoted at one end to the upper part of the backboard and at its other end pivoted to fixed parts of the case, automatically shifting the upper end of the backboard as the lower end is shifted by movement of the fall board.

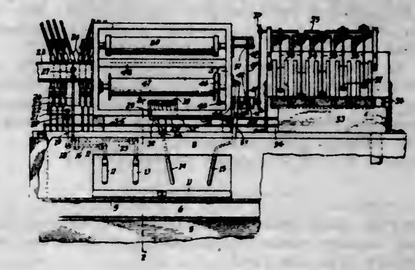
[Claims 6 and 7 not printed in the Gazette.]

1,139,927. CONTROL-LEVER MOUNTING FOR PLAYER-ACTIONS. HAROLD B. TODD, Philadelphia, Pa. Filed Aug. 7, 1912. Serial No. 713,697. (Cl. 84—160.)

1. In a player piano action, piano keys and operating connections for producing sound thereby, a player piano action, a plurality of control levers and connections therefor located above the keys, a casing having an opening through which these levers are accessible, a closure for the opening and a fall board covering the closure when in a raised position.

2. In an automatic player piano, a plurality of motor bellows, a control box therefor, a rod to control the motive power and operating within the control box, a tempo indicator comprising a rod and pointer rigid therewith, pivotally connected with the rod to have lateral movement about the point of connection and a lever for operation of the rod engaging the indicator to move it and the rod.

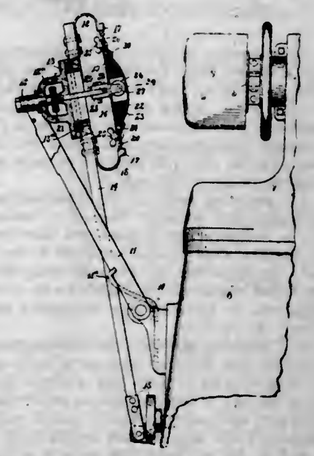
3. In an automatic piano player provided with keys for manual playing, a player piano action, levers and connections for operating the same and a piano casing having a fall bord covering the ends of the keys in lowered position, in combination with a backboard behind the fall board located over the rear ends of the keys and in front of the levers, said backboard being maintained in approximately vertical position, whether the fall board be in raised or in lowered position and having therein an opening opposite the levers to permit access thereto.



4. In an automatic player piano, piano mechanism, a player piano action therefor provided with operating levers located above the piano keys, a backboard providing an opening through which the levers are accessible and a fallboard covering the opening when in raised position and the outer ends of the keys when in lowered position.

5. In an automatic player piano, piano mechanism, a player piano action coöperating therewith and provided with operating levers above the piano keys, a pivoted backboard provided with an opening through which the levers are accessible, a movable cover for said opening and a fallboard connected with the backboard to move the latter backward as the fall board is moved and adapted in raised position to stand in front of the opening and cover.

1,139,928. POUNCING-PAD. ARNOLD TURNER, Danbury, Conn. Filed Mar. 31, 1911. Serial No. 618,233. (Cl. 223—30.)



1. In a hat pouncing pad, the combination with a frame, and a suitable sand paper carried upon the pad, of a guide arranged centrally with respect to the pad and designed to directly engage the hat body when the pad is compressed to limit the amount of pressure of the paper upon the hat.

2. In a hat pouncing pad, the combination with a reciprocating frame and pad, a smoothing paper carried there-

by, of a guide arranged between the edges of the sand paper and adapted to be extended past the paper to engage the hat body.

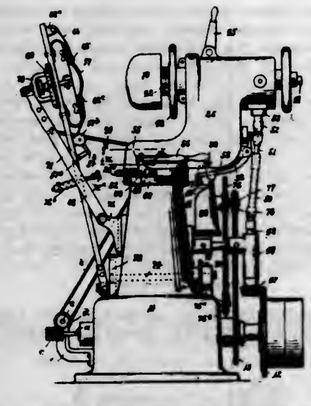
3. In a hat pouncing pad, the combination with a suitable frame, of a flexible pad mounted thereon, a piece of finishing paper, and a guide mounted centrally with the pad to engage the hat body.

4. A hat pouncing pad comprising a frame, a flexible pad mounted thereon, and having a hole therethrough, a smoothing paper placed upon the pad, and also having an opening therethrough, a guide extending through the pad and paper and so arranged as to engage the hat body to relieve the pressure of the pad and to reduce the amount of work of the pouncer upon the corners of the hat.

5. In a hat pouncing pad, the combination with a reciprocating pouncing pad, of a piece of operative finishing paper secured thereto and having the two side portions of its operative face sanded but having no sand intermediate of said sides.

[Claims 6 to 28 not printed in the Gazette.]

1,139,929. HAT-POUNCING MACHINE. ARNOLD TURNER, Danbury, Conn. Filed June 28, 1911. Serial No. 635,771. (Cl. 223—30.)



1. In a hat pouncing machine, the combination with a horizontally disposed lathe for rotating a hat body, of a pouncer pad mounted to operate upon the surface of the crown of a hat when carried on the lathe, sprockets and chain connections for operating said pouncer, a clutch interposed between the sprockets, and means for automatically disengaging the clutch to stop the pouncer pad when the pouncing operation is finished.

2. In a hat pouncing machine, the combination with a base, a swinging arm mounted thereon, a lathe carried in the arm, a reciprocating pouncer pad mounted to operate upon the hat when carried upon the lathe, clutched faced wheels for operating the pouncer, connections with said clutch wheel adapted to be engaged and operated by the swinging arm to automatically disconnect the clutch wheels to stop the pouncer.

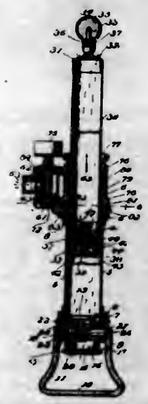
3. In a hat pouncing machine, the combination with a base, a swinging arm mounted thereon, a lathe carried in the arm, a reciprocating pouncer pad, a clutch face wheel for operating the pad, a co-acting clutch face wheel, a slip shaft upon which the co-acting clutch member is mounted, a lever disposed to be engaged and operated by the arm and connected to slip the shaft and connect or disconnect the clutch faced wheel for the purpose of driving or disconnecting the pouncer pad.

4. In a hat pouncing machine, the combination with a base, a swinging arm mounted thereon, a lathe carrying a hat block, a driving shaft, means for rotating the lathe including a telescopic shaft for operatively connecting the driving shaft and movable lathe shaft, a pouncer pad for operating upon the hat block, and sprocket and chain connections for driving the pouncer pad.

5. In a hat pouncing machine, the combination with a base, a swinging arm mounted thereon, a main driving shaft, a lathe shaft within the arm, gear connections for operating the lathe shaft at different speeds, a slip clutch on the lathe shaft for engaging or disengaging either of the said speed gears, a telescopic shaft connecting the main shaft with one of the said speed gear connections.

[Claims 6 to 32 not printed in the Gazette.]

1,139,930. PNEUMATIC PUMP. AARON J. TYLER, Rochester, N. Y., assignor of two-thirds to Howard L. Bidelman, Rochester, N. Y. Filed July 24, 1912. Serial No. 711,296. (Cl. 230—27.)



1. In a double acting air pump, a plunger having spaced plunger faces of different area and formed with inner valve seats, about in the planes of the respective plunger faces, and spaced valves arranged within the plunger and adapted to close upon the respective valve seats in the same direction.

2. A pneumatic pump including a cylinder, a differential plunger operating within the cylinder, an intake valve arranged at one end of the cylinder, an outlet arranged near the other end of the cylinder, and coacting independently moving valve disks disposed one above the other in the lower end of the plunger and movable to open position upon a down stroke of the plunger.

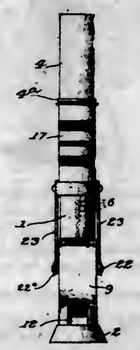
3. A pneumatic pump including a cylinder, an intake valve disposed at one end of the cylinder, a differential plunger operating within the cylinder and including a relatively thick head having a passage therethrough, and coacting valve disks disposed one above the other in the said head and movable to open position upon the down stroke of the piston and to closed position upon the up stroke of the piston.

4. A pneumatic pump including a cylinder having an outlet at one end, the other end of the cylinder being closed by a cylinder-head having an inlet passage, an inwardly opening valve controlling said passage, a differential plunger mounted for reciprocation within the cylinder and including a plunger head having a passage therethrough formed with a valve seat at its outer end and at its inner end, and a double vlave comprising an upper and a lower valve disk, and a stem operatively connecting the valve disks, said double valve opening inward, and one of said valve disks seating against the seat at one end of the passage, the other of said valve disks seating against the seat formed at the other end of the passage.

5. A pneumatic pump including a cylinder having an outlet at one end, the other end of the cylinder having an inlet passage, an inwardly opening valve controlling said passage, a differential plunger mounted for reciprocation within the cylinder and including a plunger head having a passage therethrough, the outer end of the passage being formed with a valve seat and the inner end of the passage being also formed with a valve seat, and a double valve controlling said passage comprising an upper disk and a lower disk seating respectively against said upper and lower seats, said valve disks being independently movable with relation to each other but connected, and springs urging said valve disks to their respective seats.

[Claims 6 to 11 not printed in the Gazette.]

1,139,931. BOTTLE-CAPPING MECHANISM. THEODORE L. VALERIUS and OLAF LARSEN, Fort Atkinson, Wis., assignors to The Creamery Package Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Nov. 28, 1913. Serial No. 803,378. (Cl. 226—5.)



1. A bottle-capping mechanism comprising a centering bell, a body portion, and a cap magazine, all of said parts being axially alined, cap-feeding means including a guide extending laterally outside said body portion, cap-seating means, and means for actuating said feeding and seating means.

2. A bottle-capping mechanism comprising a body portion and a cap magazine axially alined, a cap-feeding device, a vertically movable cap-seating plunger within said body portion, and means for actuating the cap-feeding device on the upstroke of the plunger.

3. A bottle-capping mechanism comprising a portion adapted to be applied to the mouth of a bottle, a cap-magazine, a cap-feeding device all of said parts being axially alined, and a yieldingly mounted guide for directing the cap discharged by the cap-feeding device to proper position above the mouth of the bottle.

4. A bottle-capping implement comprising a tubular body portion adapted to be applied to the mouth of a bottle, a tubular cap magazinne alined with said body portion, a cap-feeding device, a cap-seating plunger in the body portion, an actuating handle connected to the plunger, and an operative connection between the handle and the cap-feeding device.

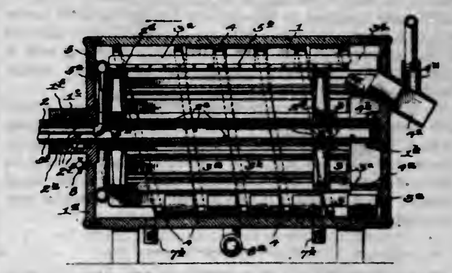
5. A bottle-capping mechanism comprising a body portion adapted to be applied to the mouth of a bottle, a cap magazine attached to said body portion in vertical alinement therewith, a cap-feeding device, a cap-seating plunger reciprocable vertically in said body portion, and a single device for actuating said cap-feeding device and said cap-seating plunger.

[Claims 6 to 13 not printed in the Gazette.]

1,139,932. AUTOMATIC COOKER. OWEN ELSWORTH VANCE and PAUL STANLEY BAKER, Muscatine, Iowa. Filed Dec. 2, 1914. Serial No. 875,155. (Cl. 126—272.)

1. In combination, a cooking chamber, a rotatable can carrier or conveyer therein, and steam jet pipes attached to the conveyer and moving therewith to direct jets of steam onto the cans being moved by the conveyer.

2. In combination, a cooker, a cylindric chamber having an interior spiral can guide extending from the feed to the discharge end thereof, a rotatable carrier in said chamber adapted to receive the cans and compel them to turn with the carrier while the spiral compels the cans to move lengthwise of the carrier, and jet pipes moving with the carrier adapted to direct jets of steam upon the cans, substantially as described.



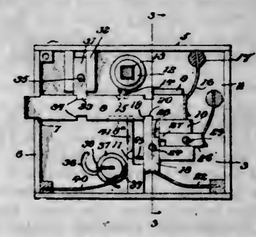
3. In combination, a cooker, a cylindric chamber having an interior spiral guideway extending from the feed to the discharge end thereof, a rotatable carrier in said chamber provided with longitudinal grooves to receive the cans and compel them to turn with the carrier while the spiral compels the cans to move lengthwise thereof and longitudinally disposed jet pipes extending beside the grooves and adapted to direct jets of steam upon the cans therein, and means for supplying steam to such jet pipes.

4. In combination, a cylinder having opposite heads, a spiral guide therein, a can carrier within the cylinder comprising a shaft, and parallel flanged bars mounted on said shaft, a feed inlet, a discharge outlet at one end of the cylinder, an annular flange attached to the cylinder adjacent the discharge and projecting under the adjacent ends of the flanged bars and adapted to support the cans that reach that end of the cylinder until they drop into the discharge.

5. In combination, a cylindric cooking chamber; a carrier therein comprising a shaft, spiders thereon, and parallel flanged bars supported on said shaft; with steam jet pipes arranged intermediate the said bars, a header connected with said pipes, and a steam supply connected with said header.

[Claims 6 to 11 not printed in the Gazette.]

1,139,933. LOCK. BENJAMIN VAN HORSEN, Ulmer, Tex. Filed Feb. 17, 1914. Serial No. 819,242. (Cl. 70—76.)



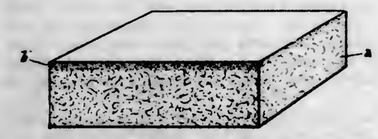
1. In a lock of the character described, a casing including side-plates, a bolt within the casing, a tumbler engaging the bolt, a barrel rotatably mounted in the casing and having a longitudinally extending slit therein adapted to receive the shank of a key, the side wall of the casing being formed with a slot adapted to receive the bit of the key and to register with the slot in the barrel, and a spring having a detent portion engaging the barrel, the barrel being provided with a longitudinally extending notch engaged by said spring and so disposed that the spring yieldably holds the barrel with its slot in registration with the slot in the side wall of the casing.

2. In a lock of the charatcer described, a casing including side walls, one of the side walls being formed with a

slot to receive the bit of a key, a longitudinally movable bolt mounted in the casing, a vertically movable tumbler disposed in the casing and shiftable into or out of engagement with the bolt to lock it in a projected position, a spring normally urging the tumbler into engagement with the bolt, a ward disposed between said tumbler and the slot in the wall of the casing, a rotatable barrel having reduced ends mounted in the walls of the casing, said barrel having a longitudinal slot adapted to register with the slot in said casing wall, the barrel also being provided with a longitudinally extending notch, and a resilient detent yieldably engaging said notch.

3. In a lock of the character described, a casing, a slidable lock bolt having a longitudinally extending recess formed in its under face, a vertically movable tumbler engageable with the bolt, and a ward member disposed in advance of the tumbler, the upper edge of the said ward member being disposed in the recess of the bolt and constituting a guide therefor.

1,139,934. ARTIFICIAL-STONE SLAB, PLATE, AND THE LIKE. FRANZ MUSIL EDLER VON MOLLENBRUCK, Linz-on-the-Danube, Austria-Hungary. Filed Aug. 22, 1907. Serial No. 389,736. (Cl. 72—36.)



1. An artificial stone slab or plate consisting of a main body and an outer colored layer united therewith, the said main body being composed of a fibrous material and a hydraulic binding material, the said outer layer being composed of fibrous material, the same hydraulic binding material and coloring matter, the fibrous material of the main body extending into and being set in the binding material of the outer colored layer, and the fibrous material of the outer colored layer extending into and being set in the binding material of the main body.

2. An artificial stone slab or plate consisting of a main body and an outer colored layer united therewith, the main body being composed of a fibrous material and a hydraulic binding material, the said outer layer being composed of fibrous material binding material and coloring matter, the binding material of the main body and of the outer colored layer having subetantially the same coefficiency of expansion and contraction, the fibrous material of the main body extending into and being set in the binding material of the outer colored layer and the fibrous material of the outer colored layer extending into and being set in the binding material of the main body.

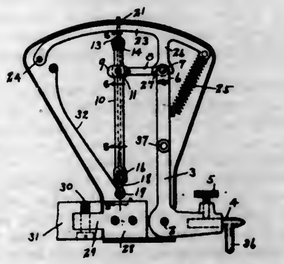
1,139,935. INLET AND RELIEF VALVE FOR PNEUMATIC TIRES. ANTON F. VOSS, San Francisco, Cal. Filed Nov. 30, 1914. Serial No. 874,677. (Cl. 152—12.)

A device of the type described including a tubular member having a plurality of differently diametered bores in stepped relation to each other, the upper resultant shoulder forming a valve-seat, a second tubular member positioned with the aforesaid tubular member and having an annular valve-formation intermediate its ends, the lower end portion of said second tubular member extending into the intermediate lesser diametered bore, a third tubular member receiving said second tubular member and having threaded connection with the upper inner surface of the first referred to tubular member, a pressure exerting member intermediate said valve formation and the lower end of said third referred to tubular member, said third referred to tubular member having a longitudinal air passage traversing the threads thereof, a cap or closure for said third tubular member and an inclosure for the latter referred to members and the upper portion of the first referred to member, said inclosure forming a chamber receiving the air pressure via said longitudinal air passage of said third tubular member, and a spindle extending through said second tubular member and into the most constricted bore of said first referred to bore and having a loose collar applied to its lower end, resting upon the



resultant lower shoulder of the first referred to tubular member, said spindle having a fixed valve thereon engaging the lower end of said second tubular member and a pressure exerting member applied to said spindle intermediate said collar and the latter valve.

1,139,936. UNIVERSAL TEST-INDICATOR. JOSEPH N. WARNER, Detroit, Mich. Filed Dec. 28, 1912. Serial No. 738,973. (Cl. 33—172.)



1. In a test indicator, a suitable case, a bell crank lever fulcrumed therein adapted to carry a testing tool, a multiplying lever fulcrumed in said case, means connecting said levers, a graduated arc, a pivoted pointer arm having a pointer adapted to traverse said arc, and connecting means between said multiplying lever and said pointer arm.

2. In a test indicator, a pivotally mounted work engaging member, a scale, a pointer movable on said scale, mechanism connecting said pointer with said testing tool to multiply the movement of said tool in said pointer, a frame carrying said mechanism, a fixed support, and a pivot connecting said support and frame.

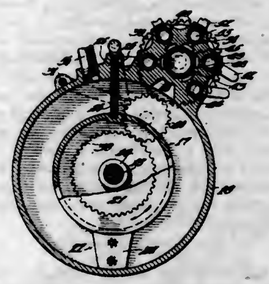
3. In a test indicator, a testing tool movably mounted to conform to the variations of the work, a multiplying lever, means effecting a jointed connection between said tool and lever to multiply the movement of the former in the latter, a scale, a movable pointer adapted to traverse said scale, a jointed connection between the multiplying lever and the pointer, and means for shifting the fulcrum of said lever.

4. In a test indicator, a case, a pivotally mounted member within the case, a testing tool carried by said member, a scale on the case, a movable pointer adapted to traverse the scale, means effecting a jointed connection between said pointer and tool-carrying member, and means for locking said tool carrying member against movement.

5. In a test indicator, a bell crank lever adapted to carry a testing tool, a multiplying lever jointedly connecting to the bell crank lever, a scale, a pointer arm having a pointer adapted to traverse said scale, means effecting a jointed connection between the multiplying lever and the pointer arm, a centralizing lever connected with the bell crank lever, and means for yieldingly maintaining said parts in working relation.

[Claims 6 to 11 not printed in the Gazette.]

1,139,937. ROTARY MACHINE. JOHN L. WEBB, Sawtelle, and CHARLES C. MURDY, Westminster, Cal. Filed Mar. 23, 1914. Serial No. 826,817. (Cl. 121—70.)



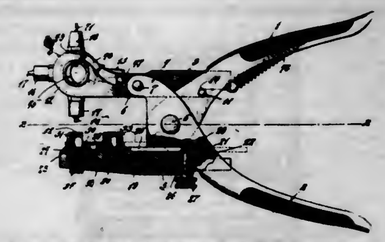
1. A rotary machine comprising casing members forming an annular cylinder, a shaft at the axis of said cylinder, a rotor on said shaft and projecting into said cylinder, a piston attached to the projection on said rotor, means for introducing and withdrawing fluid from said cylinder, a gate valve radially placed in said cylinder and forming a tight closure therewith, links connected to the outer end of said gate valve, levers actuating said links to move said gate valve in and out of the cylinder, a connecting rod attached to one of said levers, and means for actuating said connecting rod.

2. A rotary machine comprising casing members forming an annular cylinder, a shaft at the axis of said cylinder, a rotor on said shaft and projecting into said cylinder, a piston attached to the projection on said rotor, means for introducing and withdrawing fluid from said cylinder, a gate valve radially placed in said cylinder and forming a tight closure therewith, links connected to the outer end of said gate valve, levers actuating said links to move said gate valve in and out of said cylinder, a connecting rod pivoted at one end on one of said levers and having a slot in the other end surrounding and sliding on said shaft, two rollers on opposite sides of said connecting rod and on either side of said shaft, and two cams attached to said shaft and engaging said rollers to actuate said connecting rod.

3. A rotary machine comprising an annular cylinder, a piston mounted on a shaft and moving in said cylinder, a gate valve radially placed in said cylinder and forming a tight closure with the walls thereof, means for moving said gate valve in and out of the cylinder, means forming an exhaust opening into said cylinder, a valve driven from said shaft, walls forming a series of stationary ports through which the valve successively discharges an elastic fluid into said cylinder, and means for closing one or more of said ports.

4. A rotary machine comprising an annular cylinder, a piston mounted on a shaft and moving in said cylinder, a gate valve radially placed in said cylinder and forming a tight closure with the walls thereof, means for moving said gate valve in and out of the cylinder, means forming an exhaust opening into said cylinder, a valve driven from said shaft, walls forming a series of stationary ports through which the valve successively discharges an elastic fluid into said cylinder, a port valve adapted to close each of said ports, and means for regulating the position of said port valves.

1,139,938. COMBINATION-TOOL. LEON WEINSTEIN, St. Louis, Mo. Filed July 11, 1914. Serial No. 850,492. (Cl. 1—50.)



1. In a tool of the kind described, the combination with a pair of coöperating pivoted jaws and means for pivotally actuating said jaws, of a disk rotatably mounted on one of said jaws, an elongated plate slidably mounted on the other of said jaws, a member pivotally mounted on said plate, said member being also slidably movable on said jaw with said plate, and a plurality of sets of cooperating material-operating members carried by said disk and member; substantially as described.

2. In a tool of the kind described, the combination with a pair of coöperating pivoted jaws and means for pivotally actuating said jaws, of a disk rotatably mounted on one of said jaws, an elongated plate slidably mounted on the other of said jaws, a member pivotally mounted on said plate, said member being also slidably movable on said jaw with said plate, a plurality of sets of coöperating material-operating members carried by said disk and member, means for releasably locking said disk against rotatory movement, means for releasably locking said plate against slidable movement, and means for releasably locking said member against pivotal movement on said plate; substantially as described.

3. In a tool of the kind described, the combination with an elongated jaw, of an elongated plate longitudinally slidable on said jaw, a member pivotally mounted on said plate and slidable therewith on said jaw, and a material-operating member carried by said pivoted member.

4. In a tool of the kind described, the combination with an elongated jaw, of an elongated plate longitudinally slidable on said jaw, a member pivotally mounted on said plate, said member being also slidably movable on said jaw with said plate, and a plurality of material-operating members carried by said member; substantially as described.

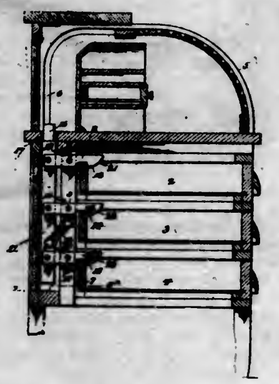
5. In a tool of the kind described, the combination with an elongated jaw, of an elongated plate longitudinally slidable on said jaw, a member pivotally mounted on said plate, said member being also slidably movable on said jaw with said plate, a plurality of material-operating members carried by said member, means for releasably locking said plate and its carried member against slidable movement on said jaw, and means for yieldingly looking said member against pivotal movement on said plate: substantially as described.

[Claims 6 to 12 not printed in the Gazette.]

1,139,939. LOCKING DEVICE FOR DESKS AND THE LIKE. CRAWFORD THEODORE WESTMORELAND, High Point, N. C., assignor to Myrtle Desk Company, a Corporation of North Carolina. Filed Jan. 3, 1913. Serial No. 740,081. (Cl. 45—94.)

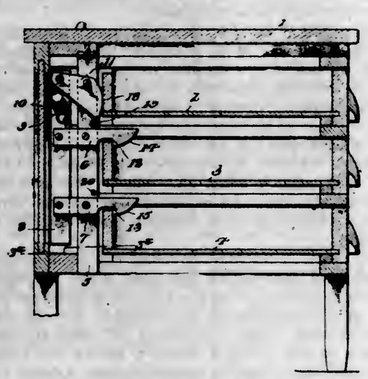
A desk having a plurality of drawers and a roll top, in combination with an upright bar rigidly secured to the desk in the rear of said drawers, a plurality of locking dogs fulcrumed intermediate their ends upon said bars, each dog being provided with a locking head adapted to engage with the rear end of an individual drawer, an upright bar pivotally connected to the tails of all said dogs and extending upward through an opening in said desk in position to be struck directly upon its top by the roll top of said desk, a spring connected to both said bars and

forming a yielding connection between them against the resistance of which any of the dogs in the locking position may yield to receive and lock an individual drawer, means on the first mentioned bar to limit the movement of said



dogs by said spring, said bars, dogs, spring and limiting means adapted to be assembled completely outside of the desk and inserted into an operative position therein thus assembled.

1,139,940. LOCKING DEVICE FOR DESKS AND THE LIKE. CRAWFORD THEODORE WESTMORELAND, High Point, N. C., assignor to Myrtle Desk Company, a Corporation of North Carolina. Filed Jan. 3, 1913. Serial No. 740,082. (Cl. 45—94.)



1. A desk having a plurality of drawers, in combination with a locking device therefor comprising a stationary support, a plurality of dogs fulcrumed thereon and adapted to lock said drawers, a movable member to which the tails of all said dogs are pivotally connected, means operative by a movable portion of the desk and operatively connected to said movable member, and a spring mounted wholly on said movable member and forming a portion of said operative connection to lift said movable member.

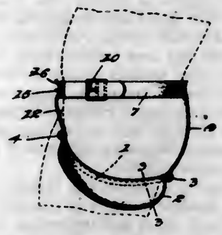
2. A desk having a plurality of drawers, in combination with a locking device therefor comprising a stationary support, a plurality of dogs fulcrumed thereon and adapted to lock said drawers, a movable member to which the tails of all said dogs are pivotally connected, a lever adapted to be operated by a movable portion of the desk, and a yielding connection between said lever and said movable member through which said movable member is lifted by said lever.

3. A desk having a plurality of drawers, in combination with a locking device therefor, comprising a stationary support, a plurality of dogs fulcrumed thereon and adapted to lock said drawers, a separable movable member at one section of which the tails of all said dogs are pivotally connected, a spring mounted wholly on said movable member and forming a connection between the separable sections of said member, and means connected to one of the sections of said member and operative by a movable portion of the desk to lift the other section through said spring.

4. A desk having a plurality of drawers, in combination with a locking device therefor comprising a stationary support, a plurality of locking dogs fulcrumed on said support and adapted to engage the rear ends of said drawers, a movable member pivotally connected to the tails of the several dogs, a lever fulcrumed on said support, and operable by a movable portion of said desk to operate all of said dogs simultaneously, and a spring mounted wholly on said movable member and forming a portion of the connection between said lever and member, and against which any of said dogs in the locking position may yield to receive the rear end of the drawers to lock the same.

5. A locking device for desks or the like, comprising a rod or bar, a series of locking dogs fulcrumed on said bar, a bar made in two separable sections to one of which the tails of all said dogs are pivotally connected, a lever fulcrumed on the first named bar and pivotally connected to the other sections of the separable bar, and a spring forming a yielding connection between the sections of said separable bar.

1,139,941. EXCREMENT-RECEPTACLE. JAMES COLLARD WHITE, Sewickley, Pa. Filed Mar. 14, 1914. Serial No. 824,712. (Cl. 2—131.)



1. In an excrement receptacle, a supporting frame formed of a length of wire being bent to form a substantially rectangular diaper support, a nonporous diaper detachably secured to said support and means for attaching said support to the body of an infant.

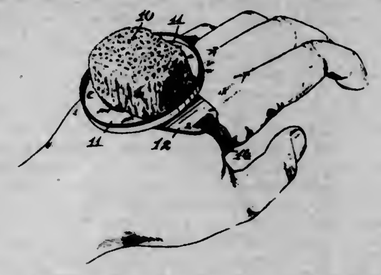
2. In an excrement receptacle, a supporting frame formed of a length of wire being bent to form a substantially rectangular diaper support for positioning beneath the anus of an infant, said wire being further bent to form an elongated extension for positioning adjacent the penis, and a non-porous diaper secured to said supporting frame and forming an excrement container.

3. In an excrement receptacle, a supporting frame formed of a length of wire being bent to form a substantially rectangular diaper support for positioning beneath the anus of an infant, said wire being further bent to form an elongated extension for positioning adjacent the penis, a non-porous diaper secured to said supporting frame and forming an excrement container, and adjustable flexible straps secured to said supporting frame for attaching it to the body of an infant.

1,139,942. MOISTENING DEVICE. ROBERT J. WIGHTMAN, Newark, and WILLIAM B. POWELL, East Orange, N. J. Filed Jan. 8, 1913. Serial No. 740,798. (Cl. 120—75.)

A moistening device comprising a broad thin strip of material flexible enough to conform to the back of the hand and approximately as long as the width of the hand, an open cup substantially centrally arranged on the strip, the cup having a vertical marginal rim, a fastening means

arranged substantially central of the cup and securing it to the strip, a compressible absorbent pad arranged in the



cup, and a fastening means connecting the ends of the strip.

1,139,943. DESK. WAYNE WILLS, Chicago, Ill. Filed Jan. 17, 1913. Serial No. 742,667. (Cl. 155—34.)



1. A structure comprising an open tube formed of a strip of metal, the meeting edges of which are turned outwardly in the form of a flange, said tube being curved in a plane passing through said flange and substantially bisecting the cross section of said tube, and comprising another member overlapping and secured to the flange of said tube.

2. A structure comprising open tube members, said open tube being formed of a strip of metal, the meeting edges of which are turned outwardly in the form of a flange, one or more of said open tube members being curved in a plane passing through said flange and substantially bisecting the cross section of said tube, the flanges of said tube members overlapping and being secured together.

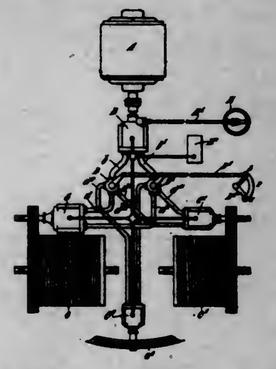
3. A structure comprising an open tube formed of a strip of metal, the meeting edges of which are turned outwardly in the form of a flange, said tube being curved in a plane passing through said flange and substantially bisecting the cross section of said tube, and comprising another tubular member having a flattened end overlapping and secured to the flange of said first mentioned open tube.

4. In a school desk and seat, rear members of curved flanged open tubing having their flanges directed forwardly, said rear members extending to the rear of the desk top, forward members of curved flanged open tubing having their flanges directed rearwardly, said forward members extending upwardly to a point beneath the seat level, cross members connecting and secured to the flanges of said rear and front members, intermediate members curved downward and rearward from the upper part of said forward members to said cross members and thence upward to the front of said desk top, and a seat hinged at the upper ends of said forward and intermediate members.

5. In a school desk and seat, rear members of curved flanged open tubing having their flanges directed forwardly, said rear members extending to the rear of the desk top, forward members of curved flanged open tubing having their flanges directed rearwardly, said forward members extending upwardly to a point beneath the seat level, flanged tubular cross members connecting and secured to the flanges of said rear and front members, intermediate members curved downward and rearward from the upper part of said forward members to said cross members and thence upward to the front of said desk top, said intermediate members consisting of flanged open tubing and the flanges thereof overlapping and being secured to the flanges of said cross members, and a seat hinged at the upper ends of said forward and intermediate members.

[Claims 6 and 7 not printed in the Gazette.]

1,139,944. CRANE AND OTHER HOISTING APPARATUS. ARTHUR WILSON and JOHN ROBSON, Westminster, London, England, assignors to The Variable Speed Gear, Limited, Westminster, England. Filed Sept. 29, 1913. Serial No. 792,288. (Cl. 138—13.)



1. In a hoisting apparatus, the combination with a prime mover, a variable supply fluid pump, and a plurality of motors for effecting the working of the apparatus, of conduits between the pump and the motors and means for preventing the pump from being in fluid connection with more than one motor at the same time.

2. In a hoisting apparatus, the combination with a prime mover, a variable supply fluid pump, and a plurality of motors for effecting the working of the apparatus, of conduits between the pump and the motors, and valve mechanism for preventing the pump from being in fluid connection with more than one motor at the same time.

3. In a hoisting apparatus, the combination with a prime mover, a variable supply fluid pump, and a plurality of motors for effecting the working of the apparatus, of conduits between the pump and the motors, and rotary valve mechanism for preventing the pump from being in fluid connection with more than one motor at the same time.

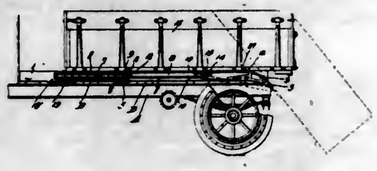
4. In a hoisting apparatus, the combination with a prime mover, a variable supply fluid pump and a plurality of motors for effecting the working of the apparatus, of conduits between said pump and the motors, a device for varying the supply of pressure fluid from the pump, means for distributing the said pressure fluid to any one of the motors, a device for actuating said means, and means cooperating between said devices for limiting the movement of the first mentioned device when the motor that is for the time being in communication with the pump has a smaller receiving capacity than the maximum output of the pump.

5. In a hoisting apparatus, the combination with a prime mover, a variable supply fluid pump, and a plurality of motors for effecting the working of the apparatus, of conduits between said pump and the motors, a device for varying the supply of pressure fluid from the pump, means for preventing the pump unit from being in fluid connection with more than one motor at the same time, a device

for actuating said means, and means coöperating between said devices for limiting the movement of the first mentioned device when the motor that is for the time being in communication with the pump has a smaller receiving capacity than the maximum output of the pump.

[Claims 6 and 7 not printed in the Gazette.]

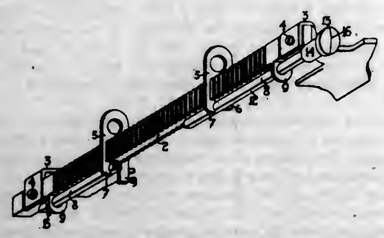
1,139,945. DUMPING-WAGON. THOMAS WRIGHT, Jersey City, N. J. Filed Dec. 17, 1912. Serial No. 737,300. (Cl. 21—20.)



1. A dumping attachment for trucks, including rails having downwardly curved spaced rear terminals adapted to lap the sides of and be secured to the chassis of a truck, means extending transversely under the rails for engaging said chassis to support the rails, a body normally bearing downwardly on the rails, gearing supported by the rails and below the upper edges thereof, means operated by the gearing and connected to the body for shifting said body longitudinally of the rails in both directions, and means carried solely by said rails for lifting the body off of the rails to facilitate the longitudinal movement of the body.

2. An attachment for the chassis of a motor vehicle, said attachment including rails having their rear ends turned downwardly and adapted to be secured to the rear portion of a chassis insertible therebetween, a slide upon the outer side of each rail, guide lugs outstanding from the rails for holding the slides to the rails, a rack bar carried by each slide, a shaft journaled upon the rails, means revoluble with the shaft and engaging the racks for shifting the slides simultaneously in the direction of the length of the rails, a link slidably and pivotally connected to each slide, and a dumping body normally bearing upon the rails, said links being pivotally connected to the body.

1,139,946. TYPE-WRITING MACHINE. FRANK A. YOUNG, New York, N. Y., assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of New Jersey. Filed Mar. 5, 1910. Serial No. 547,416. (Cl. 197—70.)



1. In a tabulator, the stop-carrying rack-bar, combined with a stop slotted to straddle said bar between teeth thereof, the slot of said stop being widened at a point between the open and the closed ends thereof, and a journaled stop-lock of a width or thickness in one direction greater than the width of the open end of said stop-slot and adapted to engage in said widened part of said slot to lock said stop in place.

2. In a tabulator, the stop-carrying rack-bar, combined with a series of stops, each slotted to straddle said bar between teeth thereof, the slot of said stop being widened at a point between the open end of said slot and said rack-bar, and a journaled stop-lock common to said stops and of a thickness in one direction greater than the width of the open ends of the stop-slots and adapted to engage in said widened parts of said slots to lock said stops in place.

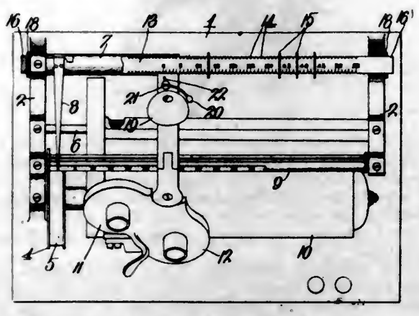
3. In a tabulator, the stop-carrying rack-bar, combined with a stop-lock slotted to straddle said rack-bar between teeth thereof, the slot in said stop being widened at a point between the open and the closed ends thereof, and a rod wider in one direction than the open end of said slot and journaled parallel to said rack-bar to rotate about its own axis and engage with said widened part of said slot in any position of said stop along said bar.

4. In a tabulator, the stop-carrying rack-bar, and a stop slotted to straddle said bar at any point therealong and provided with a notch in an edge thereof, combined with a rotary rod pivoted at its ends to revolve clear of said bar and by its rotation to enter and leave said notch to lock and unlock said stop.

5. In a tabulator, the stop-carrying rack-bar and a stop slotted to straddle said bar at any point therealong and having the slot thereof widened at a point between the open and closed ends thereof, combined with a rotary rod pivoted at its ends to revolve clear of said bar and by its rotation to engage with and be disengaged from said widened portion of said slot to lock and to release said stop.

[Claims 6 to 14 not printed in the Gazette.]

1,139,947. COMMERCIAL TALKING-MACHINE. ALMA A. ZAISS, Kansas City, Mo. Filed May 11, 1914. Serial No. 837,793. (Cl. 181—2.)



1. The combination with a talking machine having a traveling carriage, of a signal mechanism adapted to be automatically operated at one or more predetermined changeable points in a single travel of the carriage without interfering with the travel of the latter.

2. The combination with a talking machine having a traveling carriage, of a signal, and adjustable means adapted to be actuated by the carriage in its travel, to operate the signaling device without interfering with the travel of the carriage.

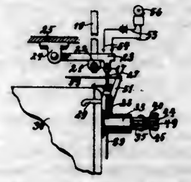
3. The combination with a talking machine having a traveling carriage, of a scale and a signal, one of said elements being stationary and the other movable with the said carriage, and means adjustable along the scale for effecting the operation of the signal at a particular but changeable point in the travel of said carriage without interfering with the travel of the latter.

4. The combination with a talking machine having a traveling carriage, of a scale bar, one or more devices adjustable with respect to the scale bar, means for engagement with said device or devices at points in the travel of the carriage corresponding to the positions of the said device or devices with respect to the scale bar, and a signaling device for automatic operation through such engagement.

5. The combination with a talking machine having a traveling carriage, of a scale bar, one or more devices adjustable with respect to the scale bar, means for engagement with said device or devices, the said bar and device-engaging means having relative movement whereby the latter and the device or devices are caused to engage at a predetermined changeable point or points, through the travel of the carriage, and a signal to be automatically operated whenever such engagement occurs.

[Claims 6 to 8 not printed in the Gazette.]

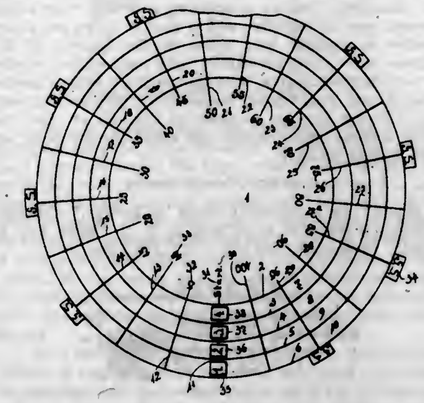
1,139,948. AUTOMATIC TRAIN-CONTROLLING DEVICE. LEONARD ATWOOD, Farmington, Me. Filed Mar. 14, 1913. Serial No. 754,207. (Cl. 246—59.)



1. A train controlling device automatically operated by tripping mechanism partly on the engine and partly permanently mounted on a semaphore, comprising a rod with valve head at its bottom actuated by the impact of the tripping mechanism, a steam chest in connection with the boiler with a valve seat at its bottom normally closed by the valve head of said rod, a horizontal cylinder with spring actuated plunger head, a stop-pin within and a stem extending beyond the cylinder, a pivotally secured hand lever contacting with said stem, and a throttle controlling rod in pivotal connection with said hand lever.

2. A train controlling device automatically operated by tripping mechanism partly on the engine and partly permanently mounted on a semaphore, comprising a rod with valve head at its bottom actuated by the impact of the tripping mechanism, a steam chest in connection with the boiler with a valve seat at its bottom normally closed by the valve head of said rod, a horizontal cylinder with spring actuated plunger head, a stop-pin within, and a stem extending beyond the cylinder, a pivotally secured hand lever contacting with said stem, and a throttle controlling rod in pivotal connection with said hand lever.

1,139,949. GAME APPARATUS. JOSEPH S. BETSCHART, Bridgeville, Pa. Filed Dec. 9, 1914. Serial No. 876,213. (Cl. 46—63.)



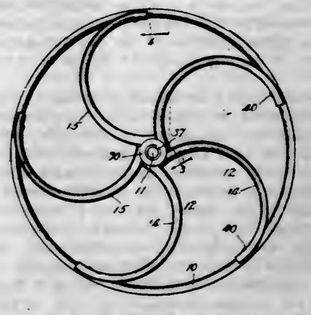
A game apparatus of the class described, comprising a base designed with concentric and radial lines constituting a plurality of racing courses, the radial lines designating distances on the courses and numbered, a plurality of playing pieces for position on the various courses of the base, certain radial lines being designated as stopping points, a starting dial provided with a spinning pointer for use at the start of the game to designate the starting positions of the various playing pieces, and a racing dial with a spinning pointer for controlling and designating the movements of the various playing pieces, said last mentioned dial indicating certain advantages and disadvantages in the movements of said pieces.

1,139,950. INSULATOR-BRACKET. FRANK A. BOWDLE, Cerro Gordo, Ill. Filed Feb. 18, 1913. Serial No. 749,127. (Cl. 173—321.)



An insulator bracket comprising a semi-circular arm for engagement with a support, the ends of said arm having apertures therein whereby to secure the same to the support, a depending shank formed integral with said arm midway of its ends, the inner face of said shank being arcuate in transverse section and tapered in thickness toward its lower outer end to conform to the outline of a support to be engaged thereby, the extreme lower end of said shank being also provided with an aperture whereby to secure the same to the support and a threaded insulator finger also formed integral with said semi-circular arm intermediate of its ends, said finger alining with the shank to form substantially a continuation of the latter and bent outwardly and upwardly with respect to the arm to facilitate the application to and removal of an insulator thereon.

1,139,951. WHEEL. CHARLES E. BRIDGES, Chicago, Ill., assignor to Burgess-Norton Company, Geneva, Ill., a Corporation of Illinois. Filed Mar. 11, 1912. Serial No. 683,140. (Cl. 21—69.)



1. In a wheel, the combination with a rim, of a plurality of spokes, the inner end portions of said spokes terminating in offset relation to the axis of the wheel, and meeting to form a hub, the inner end of each of said spokes abutting against the lateral surface of an adjacent spoke, and means for rigidly connecting the inner portions of said spokes comprising a continuous connecting member secured to each of said spokes adjacent to their inner ends.

2. In a wheel, the combination with a rim, of a plurality of spokes, the inner end portions of said spokes terminating in offset relation to the axis of the wheel, and meeting to form a hub, the inner end of each of said

spokes abutting against the lateral surface of an adjacent spoke, and an annular ring having interlocking engagement with said spokes adjacent to their inner ends.

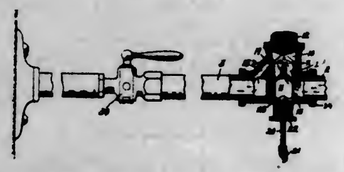
3. In a wheel, the combination with a rim, of a plurality of spokes, the inner end portions of said spokes terminating in offset relation to the axis of the wheel, the inner end of each of said spokes abutting against the lateral surface of the end portion of an adjacent spoke, an annular ring having interlocking engagement with said spokes adjacent to their inner ends, and a sleeve inserted within the opening formed by the inner end portions of said spokes.

4. In a wheel, the combination with a rim, of a plurality of spokes, each of said spokes terminating at its inner end in offset relation to the axis of said wheel and in abutting relation to an adjacent spoke, an annular ring having interlocking engagement with said spokes adjacent to their inner ends, and a sleeve inserted within the opening formed at the inner ends of said spokes, said sleeve having rigid connection with said annular ring and tangential bearing with the said spokes adjacent to their ends.

5. In a wheel, the combination with a rim and a hub, of a plurality of spokes bearing tangentially at their ends upon said hub and rim, the inner end of each spoke abutting against the adjacent spoke, and connecting means rigidly secured to the hub and in interlocking engagement with the margins of said spokes.

[Claims 6 to 10 not printed in the Gazette.]

1,139,952. SAFETY-VALVE FOR FLUID-PRESSURE MAINS. JAMES R. CABLE, Toledo, Ohio, assignor to Peter Petersen, Toledo, Ohio. Filed Dec. 27, 1913. Serial No. 808,959. Renewed Apr. 5, 1915. Serial No. 19,346. (Cl. 67—115.)



1. The combination of a casing having a frusto-conical chamber, a frusto-conical cup movable in the chamber, the chamber having an inlet port closed by the wall of the cup when the cup is in its lower position and an outlet port located in the upper end of the chamber, and a channel extending from above the cup to a point near the lower edge of the cup when the cup is in its lowermost position.

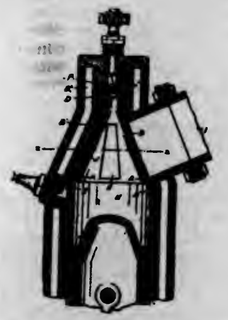
2. The combination of a casing having a frusto-conical chamber, an inverted frusto-conical chamber, an inverted frusto-conical cup located in the chamber, the chamber having an inlet port closed by the wall of the cup when the cup is in its lowermost position, means for directing an incoming fluid upward, the chamber having an outlet port located in its upper end, and a channel extending from the upper end of the chamber to the lower end of the chamber and to a point near the lower edge of the cup when the cup is in its lowermost position.

3. The combination of a casing having a frusto-conical chamber, an inverted frusto-conical cup located in the said chamber, the bottom of the cup having an opening, the chamber of the inlet port closed by the wall of the cup when the cup is in its lowermost position, the chamber having an outlet port located at its upper end, the chamber having a channel extending from the outlet port to a point near the lower edge of the cup when the cup is in its lowermost position.

4. In an automatic valve, the combination of a body having a frusto-conical chamber, a frusto-conical inverted cup located in the chamber, an inlet port inclined upward and having its inner opening located below the bottom of the cup when the cup is in position to close the chamber, an outlet passage extending to a point near the lower edge of the cup when the cup is in closed position, a mechanical means for raising the cup, the cup being held in an open position by the circulation of the fluid therethrough and the cup having a pointed bottom the upper end of the said chamber being provided with a spherical surface the cup being centered in its uppermost position by the movement of the gas in the said chamber.

5. In an automatic valve, the combination of a body having a frusto-conical chamber, a frusto-conical inverted cup located in said chamber, an inlet port inclined upward and having its inner opening located below the bottom of the cup when the cup is in position to close the chamber, an outlet passage extending to a point near the lower edge of the cup when the cup is in closed position, a mechanical means for raising the cup, the cup being held in an open position by the circulation of the fluid therethrough, said valve having an outlet port extending diagonally downward from the upper end of the chamber.

1,139,953. ROTARY CONICAL VALVE FOR INTERNAL-COMBUSTION MOTORS. OSMON B. CAMPBELL, Jr., Kansas City, Mo. Filed Mar. 26, 1912. Serial No. 686,228. (Cl. 123—80.)



1. The combination in a rotary conical valve for internal combustion motors comprising a cone shaped portion expanding toward the engine cylinder, a cylindrical portion of the valve, the small end of said cone merging into said cylindrical portion of the valve, a shaft carried at the center by said cylindrical portion of said valve and a flat thrust bearing on said cylindrical portion at the opposite end from the cone.

2. The combination in a rotary conical valve for internal combustion motors comprising a hollow cone shaped member open at the large end, a port in said cone shaped member to register with ports in the housing of said member and a shaft for driving said cone shaped member, of a cylindrical portion forming an intermediate portion between said cone shaped member and said driving shaft and a thrust bearing provided at the end of the cylindrical member opposite the end which merges with said cone shaped member.

1,139,954. SWITCH-BOX FOR ELECTRIC TRUCKS. WILLIAM CHARLES CARR, Buffalo, N. Y. Filed Apr. 16, 1913. Serial No. 761,453. (Cl. 175—284.)



1. A switch mechanism consisting of a stationary element and a movable element and adapted to be moved into and out of circuit closing position with reference to the stationary element, said movable element including a slide and connecting rod having a slotted block loosely

bolted to the slide, and a spring for yieldingly tensioning said connecting rod against a pull.

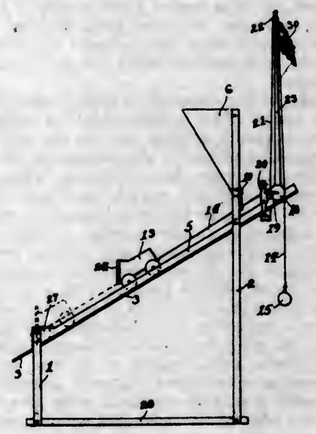
2. A switch mechanism including a casing, a slide movable therein, contact fingers carried by the slide, a projection movable with the slide and extending laterally of the contact fingers, a member carried by the casing to interlock with the projection, an operating rod and a spring connection between said rod and slide.

3. A switch mechanism including a casing, a slide mounted therein, spaced electric contact fingers carried by the slide, fixed contacts arranged in the path of movement of said contact fingers, said fixed contacts including a pair of contacts to be engaged by one finger and a single contact to be engaged by the other finger, the pair of contacts having the same dimension in the plane of movement of the finger as the single contact, a rod for operating the slide, and a spring yieldingly connecting said rod and slide.

4. A switch mechanism consisting of a stationary contact, a slide, a movable contact element, a spring strip forming the sole connection between said slide and movable element, a connecting rod, and a spring forming the operative connection between said rod and slide.

5. A switch mechanism including a casing, a slide mounted for movement therein, a block secured by the slide, said block having a lateral projection formed with a notch in its under surface, a spring fixed to the casing and having the terminal form to engage the notch, fixed contact elements, and movable contact elements, having spring connection with the slide for movement therewith.

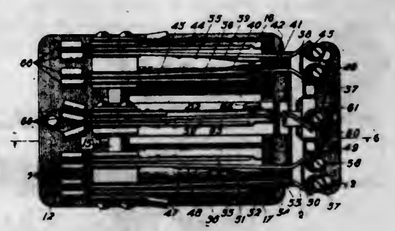
1,139,955. AUTOMATIC TOY. JOHN W. COLGLAZIER, Springfield, Ill. Filed Sept. 14, 1914. Serial No. 861,733. (Cl. 46—40.)



1. In a mechanical toy, the combination of a frame-work, an inclined track mounted on said frame-work, a shaft mounted across the upper end of said track, a pulley in the center of said shaft, a car on said track, a cable attached to said car and carried over the pulley on the shaft, a weight on the rear end of said cable to normally draw the car upward along the track, pulleys on each end of said shaft, flagstaffs mounted above the inclined track, pulleys on the upper ends of the flagstaffs, and cables carrying flags trained over the pulleys on the ends of the shaft and pulleys on the flagstaffs, substantially as described.

2. In a mechanical toy, a frame-work, an inclined track thereon, a car adapted to travel on said track, and means for dumping said car comprising a vertically sliding endgate on the car having projecting end portions, and a flange on each side of the track providing up-raised portions adapted to engage the under side of the projecting ends of the endgate to actuate said endgate upward, substantially as described.

1,139,956. ELECTROMAGNETIC DEVICE. EDWARD B. CRAFT, Hackensack, N. J., assignor to Western Electric Company, New York, N. Y., a Corporation of Illinois. Filed Mar. 17, 1910. Serial No. 549,964. (Cl. 175—281.)



1. An electromagnetic device comprising substantially parallel cores, means for magnetically connecting one end of said cores, a coil on at least one of said cores, an armature mounted for movement toward and away from the free end of said cores, a third core and a coil thereon between the first named cores, and an armature mounted in operative relation to said second core for movement in a plane substantially at right angles to the plane defined by the axes of the first named cores.

2. An electromagnetic device comprising substantially parallel cores, means for supporting and magnetically connecting one end of said cores, a coil on at least one of said cores, an armature, means for mounting said armature for movement toward and away from the free end of said cores, a third core and coil therefor between the first named cores, a second armature lying substantially parallel to the third core, and means for mounting said armature for movement toward and away from said third core in a plane substantially at right angles to the plane defined by the axes of the first named cores.

3. An electromagnetic device comprising substantially parallel cores, a yoke supporting and magnetically connecting one end of said cores, a coil on each of said cores, an armature, means for mounting said armature for movement toward and away from the free end of said cores, a third core between the first named cores secured at one end to said yoke, a coil for said third core, a second armature flexibly supported by said yoke and lying substantially parallel to said third core and adapted for movement toward and away from said third core in a plane substantially at right angles to the plane defined by the axes of the first named cores.

4. In an electromagnet device, the combination with an operating magnet, of an armature therefor, a release magnet, an armature for said release magnet, means controlled by the release magnet for holding the armature of the operating magnet in its actuated position, and switch springs successively actuated by the armatures of said magnets upon the energization of said operating magnet.

5. In an electromagnetic device, the combination with an operating magnet, of an armature therefor provided with a holding member, a release magnet, an armature for said release magnet provided with a catch adapted to engage said holding member, and a switch actuated subsequently to the engagement of said catch and holding member by the joint operation of said armatures.

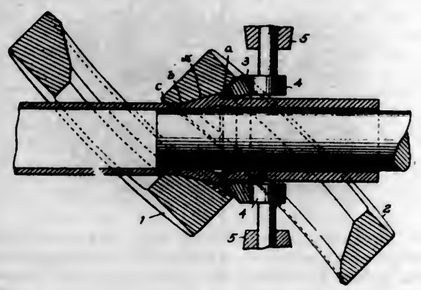
[Claims 6 to 9 not printed in the Gazette.]

1,139,957. MANUFACTURE OF SEAMLESS TUBES. SAMUEL E. DIESCHER, Pittsburgh, Pa. Filed May 22, 1914. Serial No. 840,190. (Cl. 80—13.)

1. As an improvement in the art of manufacturing tubes, the method herein described, which consists in subjecting the hollow articles to the action of reducing surfaces rotating on axes at an angle less than a right angle to the axis of such articles and subjecting the metal while acted on by the reducing surfaces to longitudinal tension governed by the circumferential flow of the metal.

2. An improvement in the art of manufacturing tubes, the method herein described which consists in applying

reducing pressure to a hollow article at an angle less than a right angle to the axis of the article and progressively around the article and longitudinally stretching the metal while being reduced, and governing the stretching by the circumferential flow of the metal.



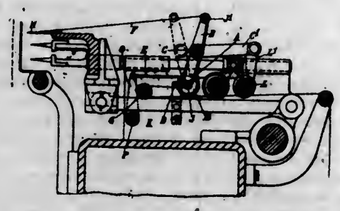
3. As an improvement in the art of manufacturing tubes, the method herein described which consists in subjecting a hollow article to concave reducing surfaces rotating in planes at acute angles to the axis of the articles, longitudinally stretching the metal while being acted on by such surfaces and governing the stretching action by the circumferential flow of the metal.

4. As an improvement in the art of manufacturing tubes, the method herein described which consists in applying reducing pressure to a hollow article at an angle less than a right angle to the axis of the article and progressively around the article, and diverting the circumferential flow of metal induced by the reducing surfaces by retarding the onward movement of the billet.

5. As an improvement in the art of manufacturing tubes, the method herein described which consists in applying reducing pressure to a hollow article at an angle less than a right angle to the axis of the article and progressively around the article, applying a retarding pressure to the billet and automatically varying such pressure.

[Claims 6 to 10 not printed in the Gazette.]

1,139,958. TAKE-UP MECHANISM FOR EMBROIDERY-MACHINES. CHARLES FARMER, Nottingham, England. Filed July 25, 1913. Serial No. 781,104. (Cl. 112—7.)

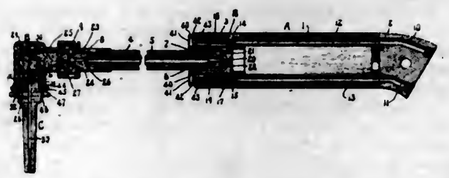


1. In a take-up mechanism, the combination, with a pivoted main lever, of a supplementary lever having its middle portion pivoted to one end portion of the main lever and provided at each end with means for supporting the thread, and a spring and a stop which normally hold the supplementary lever substantially in parallel relation with the said end portion of the main lever and permit it to be moved pivotally out of parallel relation therewith in one direction.

2. In needle thread take-up mechanism of embroidering machines, the combination of two longitudinal thread take-up bars, a shaft, levers on said shaft for carrying the respective take-up bars, means for reciprocating the shaft bodily about a fixed point coincident with that in which one of the longitudinal bars is normally held, and means for returning the latter to its normal position again when moved therefrom, substantially as described.

3. In needle thread take-up mechanism of embroidering machines, the combination of two longitudinal thread take-up bars, a shaft, arms on said shaft for carrying the respective take-up bars, means for reciprocating the shaft about a fixed point coincident with that in which one of the take-up bars is normally held, a stop up to which said bar is normally held, a spring for returning said bar to the stop when moved therefrom, and constant tension devices from which the threads are carried first to the bar coincident with the fixed point about which the shaft moves and then over the other bar, substantially as described.

1,139,959. TORCH. ARTHUR J. FAUSEK and IRWING F. FAUSEK, St. Louis, Mo. Filed Aug. 12, 1914. Serial No. 856,326. (Cl. 158—109.)



1. A torch having a handle, a nozzle, conductors leading from said handle to said nozzle, the handle being provided with passageways through which oxygen gas and acetylene gas may be forced to said conductors, and check valves arranged in said handle at points adjacent to said conductors to prevent gas from being forced backwardly into the handle.

2. A torch having a nozzle, a gas conductor leading to said nozzle, said gas conductor being provided with an exhaust port, and a sheet metal closure for said exhaust port, adapted to be ruptured when the gas is exploded in said conductor.

3. A device of the character described comprising fluid conductors, one of which is provided with a screw threaded opening, a smooth annular seat at the outer end of said opening and a protective rib surrounding said smooth annular seat; the other fluid conductor being provided with a screw threaded neck adapted to fit into said screw threaded opening and an abutment adjacent to said screw threaded neck, said abutment being provided with a smooth face adapted to engage said annular seat.

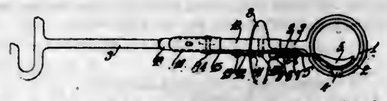
4. A device of the character described comprising fluid conductors, one of which is provided with a screw threaded opening, a smooth annular seat at the outer end of said opening and a protective rib surrounding said smooth annular seat; the other fluid conductor being provided with a screw threaded neck adapted to fit into said screw threaded opening, an extended abutment, adjacent to said screw threaded neck, said abutment being provided with a smooth face adapted to engage said annular seat, and a protective rib extending from said abutment.

5. A torch nozzle having a screw threaded neck at its inner end, an abutment shoulder extending from said screw threaded neck, said abutment shoulder being provided with a smooth face for the purpose described, and a protective rib for shielding the smooth face of said abutment shoulder.

[Claims 6 to 10 not printed in the Gazette.]

1,139,960. MECHANICAL LADLE-SKIMMER AND HEAT-PROTECTOR. JOSEPH EDWARD FAZAKERLEY, Pittsfield, Mass. Filed May 4, 1914. Serial No. 836,248. (Cl. 22—83.)

1. The combination with a molder's ladle and handle therefor, a member removably attached to said handle, a blade pivotally attached to said member and adapted normally to be held away from said ladle, means on said handle to move said blade to a position within said ladle and partially below the surface of the molten metal therein, whereby when the metal is poured from said ladle, all dirt and dross is held back and prevented from flowing into the mold.



2. The combination with a molder's ladle and a handle therefor, of a frame removably attached to said handle, a lever pivoted to said frame, a spoon shaped blade attached to said lever, said blade adapted normally to be held away from said ladle, and means to force said blade within said ladle adjacent the mouth thereof and partially below the surface of the molten metal therein, whereby when the metal is poured from said ladle, said blade skims and holds back the dross and prevents the same from flowing from the ladle with the metal.

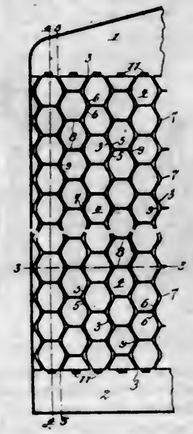
3. The combination with a molder's ladle and a handle therefor, said ladle being formed with a lip thereon, of a frame adapted to be clamped to said handle, a lever pivoted on said frame, an operating handle pivoted on said frame, a link connecting said handle and said lever, a spoon shaped blade on said lever, adapted, normally, to be held away from said ladle and adapted, when said handle is operated, to be lowered into said ladle to a position partly below the surface of the molten metal therein, and closely adjacent to the lip of said ladle, whereby said blade withholds the dross on the surface of the molten metal from passing with the metal when the latter is poured from the ladle.

4. The combination with a molder's ladle and a handle therefor, said ladle being formed with a lip thereon, of a frame adapted to be clamped to said handle, a lever pivoted thereon, an operating handle pivoted on said frame, a link connection between said lever and said operating handle, a skimming blade removably attached to said lever, a spring interposed between said frame and said operating handle, said spring adapted to hold said blade normally away from said ladle, a deflector also attached to said lever and adapted to protect the molder's hand from heat, when using said operating handle, said operating handle adapted, when depressed, to lower said blade within said ladle to a position partially beneath the upper level of the molten metal therein and closely adjacent the lip of said ladle, whereby said blade withholds all flux, dirt, and dross from leaving said ladle with the metal when the latter is poured into a mold.

5. The combination with a molder's ladle and handle therefor, a member removably attached to said handle, a blade pivotally attached to said member and adapted normally to be held away from said ladle, means on said handle to move said blade to a position within said ladle and partly below the surface of the molten metal therein, whereby when the metal is poured from said ladle, all dirt and dross is held back and prevented from flowing into the mold, and a heat deflector located on said blade and adapted to shield the molder's hands from the heat of the metal within said ladle.

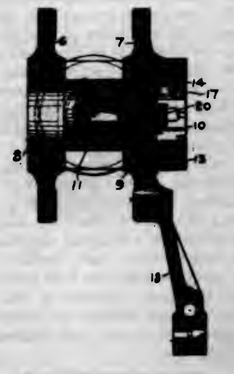
1,139,961. RADIATOR. JOHN M. FEDDERS, Buffalo, N. Y., assignor to Fedders Manufacturing Company, Inc., Buffalo, N. Y., a Corporation of New York. Filed July 31, 1914. Serial No. 854,266. (Cl. 257—130.)

1. A radiator core having water and air passages arranged at right angles to each other and comprising a plurality of strips each of which is bent to form a plurality of webs arranged zig-zag relatively to each other so that each web constitutes one wall of a hexagonal air passage and the several webs form a plurality of pairs of seat webs and a plurality of plait webs, said pairs of seat webs alternating with the pairs of plait webs, a plurality of concave seats each arranged at the adjacent longitudinal edges of a pair of seat webs, and a plurality of plaits forming walls of adjacent air tubes and each plait having the crown of its sides connected and the base thereof connected respectively with the opposing longitudinal edges of a pair of plait webs, said strips being assembled so that the crown of each plait engages with one of the concave seats of one adjacent strip and forms a plurality of hexagonal air passages therewith and is spaced apart from another adjacent strip to form a zig-zag water passage therebetween, each of the corners between the meeting edges of a plait web and an adjacent seat web of one strip which is opposite the seat of another strip being flattened so as to space said corner apart from the convex side of said seat.



2. A radiator core having water and air passages arranged at right angles to each other and comprising a plurality of strips which are of zig-zag form and assembled so that each strip forms a plurality of air passages with one adjacent strip and a water passage with another adjacent strip, and one strip of each pair having some of its corners deflected to form concave seats which are engaged by parts of an adjacent strip and the companion strip of said pair having some of its corners deflected to form clearance spaces between the same and an adjacent seat of the other strip.

1,139,962. WRIST-PIN FASTENING. MICHAEL D. FRANEY, Cleveland, Ohio. Filed Oct. 21, 1912. Serial No. 726,915. (Cl. 121—106.)

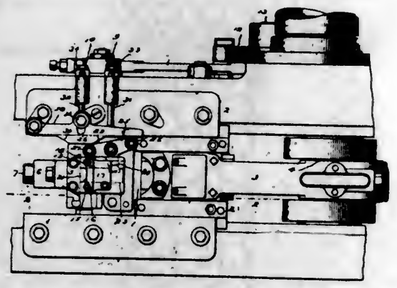


1. In a wrist pin connection, the combination with a supporting wall having a tapered socket opening, and a hollow internally threaded boss around said opening and projecting outward from the face of said wall, of a wrist pin having a tapered portion fitting said socket, and a threaded nut mounted in said boss and bearing against the face of said pin for forcing the same into said socket.

2. In a wrist pin connection, the combination with a supporting wall having a tapered socket opening, and a hollow internally threaded boss around said opening and

projecting outward from the face of said wall, of a wrist pin having a tapered portion fitting said socket, a hollow threaded nut mounted within said boss and bearing against the face of said pin, and radial cotter pins extending through said nut and boss.

1,139,963. HEADING-MACHINE. ALBERT H. GAESS, Waterbury, Conn., assignor to The E. J. Manville Machine Company, Waterbury, Conn., a Joint-Stock Corporation of Connecticut. Filed Apr. 30, 1914. Serial No. 835,451. (Cl. 10—11.)



1. The combination in a heading machine of a reciprocatory ram, a reciprocatory slide carried thereby, means for limiting the downward movement of the slide, means for limiting the upward movement of the slide, a bolt carried by the ram and adapted to coöperate with said limiting means for locking the slide in its upper and lower positions, means for reciprocating the bolt, and yielding means arranged to hold said bolt reciprocating means in operative position.

2. The combination in a heading machine of a reciprocatory ram, a reciprocatory slide carried thereby, means for limiting the downward movement of the slide, means for limiting the upward movement of the slide, a bolt carried by the ram and adapted to engage the slide and cooperate with said limiting means for locking the slide in its upper and lower positions, a rocker for reciprocating the bolt, a lever for oscillating the rocker, and yielding means holding said lever in operative position.

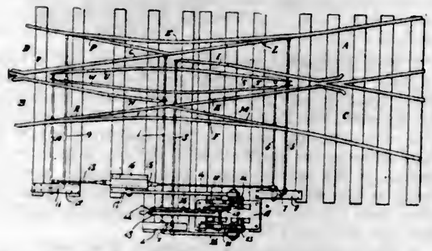
3. The combination in a heading machine of a reciprocatory ram, a reciprocatory slide carried thereby, means for limiting the downward movement of the slide, means for limiting the upward movement of the slide, a bolt adapted to engage the slide and in conjunction with said limiting means lock the slide in its upper and lower positions, a rocker adapted to oscillate said bolt, a wedge adapted to oscillate said rocker, pins bearing against said wedge, and springs thrusting said pins against the wedge.

4. The combination in a heading machine of a reciprocatory ram, a reciprocatory slide carried thereby, a bolt carried by the ram and adapted to lock the slide, a rocker for reciprocating the bolt, a wedge for oscillating the rocker, pins holding the wedge in operative position, and springs thrusting the pins against the wedge.

5. The combination in a heading machine of a reciprocatory ram, a reciprocatory slide carried thereby, a bolt and means for reciprocating the bolt into and out of engagement with the slide, carried by the ram, a lever mounted on the bed and adapted to operate said bolt reciprocating means, and spring pins holding said lever in operative position.

1,139,964. SWITCH-STAND. NATHANIEL O. GOLDSMITH, Norwood, Ohio, assignor to The Weir Frog Company, Norwood, Ohio, a Corporation of Ohio. Filed Oct. 23, 1914. Serial No. 868,151. (Cl. 104—25.)

1. In combination with a railway crossing having switch points and turn-outs for crossing and turning out, of a switch stand comprising a pair of segment driving gears with segment driven gears therefor arranged to engage their respective driving gears at different points during the common actuation of the driving gears, and connecting rods, one for each driven gear, with a single lever for actuating both driving gears whereby the tracks may be set for either crossing line or the turn-outs.



2. In combination with a railway crossing having two pairs of movable switch points for the crossing and four pairs of movable switch points and turn-out rails for the turn-outs, a crank lever with connecting rods, one for each pair of crossing switch points, a pair of crank levers with connecting rods, one for each pair of switch points and turn-outs, of a switch stand comprising a pair of segment driving gears, with coöperating segment driven gears set to engage their corresponding driving gears at different points during the common actuation of the driving gears, a single lever for actuating the driving gears, and a single connecting bar for each driven gear with couplings therefor to the several pairs of switch points and turn-outs whereby the tracks may be set for either crossing line or the turn-out.

3. In combination with a railway crossing having two pairs of movable switch points for the crossing and four pairs of movable switch points and turn-out rails for the turn-outs, a crank lever with connecting rods, one for each pair of crossing switch points, a pair of crank levers with connecting rods, one for each pair of switch points and turn-outs, and a connecting bar coupling the latter connecting rods together, of a switch stand comprising a pair of segment driving gears with connecting segment driven gears set to engage their corresponding driving gears at different points during the common actuation of the driving gears, a single lever for actuating the driving gears, and connecting bars coupling the driven gears one to the crank lever for the crossing switch points, and the other to the crank levers for the turn-outs, whereby the actuation of the single switch lever will set the rails for either crossing line or the turn-outs.

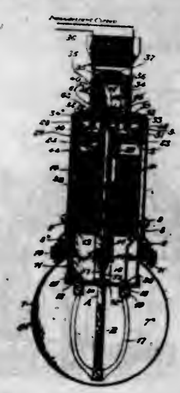
4. In a device af the character specified, a switch stand base, a rock shaft mounted thereon, with a lever for operating the same, said shaft carrying a mutilated driving gear having a flange in a plane adjacent to and parallel with the gear, in combination with a mutilated driven gear having a roller in a plane adjacent to and parallel with its gear, the two parts so arranged that the flange of the driving gear coöperates with the roller of the driven gear, for the purpose described.

5. In a device of the character specified, a switch stand base, a rock shaft mounted thereon, with a lever for operating the same, said shaft carrying a mutilated driving gear having a flange in a plane adjacent to and parallel with the gear, in combination with a mutilated driven gear having a roller in a plane adjacent to and parallel with its gear, the two parts so arranged that the flange of the driving gear coöperates with the roller of the driven gear, said gears also provided with lugs to throw same into mesh.

[Claims 6 to 9 not printed in the Gazette.]

1,139,965. ELECTRIC-ARC LAMP. FREDERICK W. GORE, New York, N. Y., assignor of one-fourth to Harry F. Asbury, Brooklyn, N. Y., and one-fourth to Frank Asbury, Huntington, N. Y. Filed May 2, 1906. Serial No. 314,785. (Cl. 176—57.)

1. In an arc lamp, a casing, a hanger plug attached thereto, a platform within said casing, circuit terminals on the plug, and circuit contacts positioned on the platform and coöperating with said circuit terminals, said hanger plug and the platform being relatively adjustable one to the other whereby the circuit terminals may be reversed with relation to the circuit contacts.



2. In an arc lamp, a casing, a hanger plug attached to said casing, circuit terminals on said plug, a platform positioned within the casing, and contacts supported on said platform and coöperating with said circuit terminals, said hanger plug and the circuit terminals thereon being reversible with reference to the platform and the contacts thereof.

3. In an arc lamp, a casing, a hanger plug attached to said casing, circuit terminals on said plug, a supporting member in fixed position within said casing, and contacts carried by said supporting member and coöperating with the circuit terminals, whereby the relation of the circuit terminals may be reversed to the contacts by changing the position of the hanger plug.

4. In an arc lamp, a casing, a hanger plug attached to said casing, circuit terminals on said plug, contacts supported on the hanger plug and positioned within the casing, a supporting member within said casing and below said hanger plug, and other contacts carried by the plug, said second named contacts having detachable engagement with the contacts of the hanger plug.

5. In an arc lamp, a casing, a hanger plug detachably fastened to the casing and adapted to be reversed thereon, exposed circuit terminals on said hanger plug, contacts secured to the hanger plug and positioned within the casing, a platform fixed in said casing below the hanger plug, other contacts carried by the platform, and means for detachably connecting the contacts of the platform with the contacts of the hanger plug.

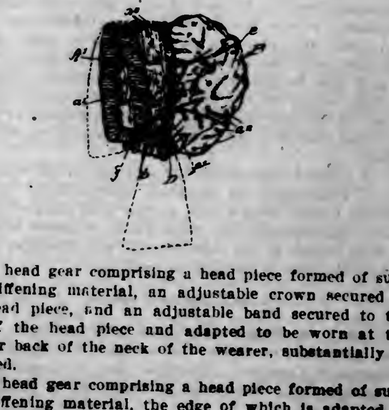
[Claims 6 to 24 not printed in the Gazette.]

1,139,966. RAIL-SUPPORTING STRUCTURE. JOHN G. HAILSTONE and CHARLES DIETZ, Chicago, Ill. Filed Sept. 12, 1913. Serial No. 789,487. (Cl. 239—6.)

1. In a device of the class described, a plate, diagonally opposed engaging means carried by said plate to overhang and engage a portion of a rail, a reinforcing member, and means to detachably secure said reinforcing member to an engaging means and to the web of said rail.

2. In a device of the class described, a plate, diagonally opposed engaging means carried by said plate to overhang and directly engage a portion of a rail, a reinforcing member, and means to detachably secure said reinforcing member to an engaging means.

3. In a device of the class described, a plate member, members carried thereby adapted to partially fit over and directly engage a rail base, said members being diagonally opposed and arranged to permit placing of said plate in position beneath said rail and rotation thereof to position wherein said members will engage said rail base, a reinforcing member, and means integral with said plate and independent of said engaging means to detachably secure said reinforcing member to said plate.



4. In a device of the class described, a plate member, members carried thereby adapted to partially fit over and directly engage a rail base, said members being diagonally opposed and arranged to permit placing of said plate in position beneath said rail and rotation thereof to position wherein said members will engage said rail base, a reinforcing member, and means integral with said plate and independent of said engaging means to detachably secure said reinforcing member to said plate, said reinforcing member being arranged for attachment to the web of a rail.

5. In a device of the class described, a plate member, members carried thereby adapted to partially fit over and engage a rail base, said members being diagonally opposed and arranged to permit placing of said plate in position beneath said rail and rotation thereof to position wherein said members will engage said rail base, said plate being provided with a grooved portion, and a detachable reinforcing member having a portion adapted to fit the groove in said plate, said reinforcing member being arranged for fastening to a rail web.

[Claims 6 to 14 not printed in the Gazette.]

1,139,967. HEAD-GEAR. SARAH E. HALL, Chicago, Ill. Filed Aug. 1, 1914. Serial No. 854,581. (Cl. 2—118.)

1. A head gear comprising a head piece formed of suitable stiffening material, an adjustable crown secured to said head piece, and an adjustable band secured to the ends of the head piece and adapted to be worn at the front or back of the neck of the wearer, substantially as described.

2. A head gear comprising a head piece formed of suitable stiffening material, the edge of which is adapted to be turned or rolled upon itself to form a hat rim, an outer and an inner adjustable crown detachably secured to said head piece, and a neck band having the ends thereof secured at each end of the head piece, substantially as described.

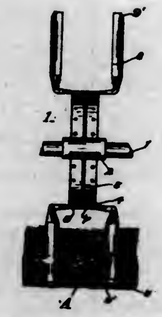
3. A head gear comprising a head piece formed of stiffening material, an outer and an inner crown detachably secured to said head piece, and means for increasing or decreasing the size of said crowns, substantially as described.

4. A head gear comprising a head piece formed of suitable stiffening material, an adjustable crown detachably secured to said head piece, said crown formed with an elongated portion forming the neck piece in the bonnet and an upturned front when converted into a hat, and an elastic band extending across the same and holding it in place, substantially as described.

5. A convertible head gear having a head piece formed of suitable stiffening material, an adjustable crown detachably secured thereto, the edge of said head piece adapted to be rolled or turned upon itself to form the rim of a hat, and means for securing said rim in upturned position, substantially as described.

[Claim 6 not printed in the Gazette.]

1,139,968. TRACTION-WHEEL. RUSH E. HAMILTON, Geyserville, Cal. Filed Dec. 11, 1914. Serial No. 876,619. (Cl. 21—215.)



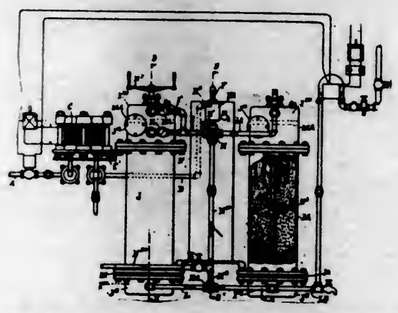
1. In combination, a wheel, a plurality of tractors detachably secured thereto and each comprising a base member extending transversely of the wheel for the full width thereof and formed at each end with an integral prong, said prongs extending therefrom at substantially right angles to the face of the periphery of the wheel and the faces thereof disposed at an angle to each other.

2. In combination with a wheel formed with transverse depressions extending the full width thereof, a tractor detachably secured in each of said depressions and each comprising a base member extending transversely of the wheel rim and projecting beyond the side edges thereof, a substantially flat prong formed integral with each end of said base member and extending therefrom outwardly at right angles to the periphery of the wheel, the said prongs at the joint with said base being twisted to dispose the faces thereof at an angle to the path of travel of the wheel.

3. A tractor attachment for securing to the tread of a wheel, comprising an inverted substantially U-shaped member formed with a base portion and integral parallel spaced substantially flat faced prong members extending at right angles to the base member, and the faces of said prongs disposed at an angle to each other.

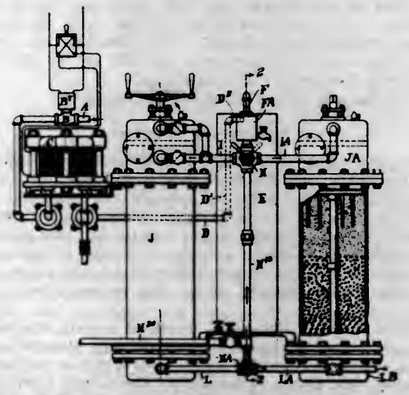
1,139,969. WATER-PURIFYING APPARATUS. HARRY B. HARTMAN, Scottdale, Pa., assignor to Electric Water Sterilizer Company, Scottdale, Pa., a Corporation of Pennsylvania. Filed Aug. 12, 1913. Serial No. 784,300. (Cl. 210—1.)

1. In a water purification system the combination with a coagulation chamber of a filter chamber, a filter bed contained therein, and a filter screen located within the chamber above said bed, means for passing water in series through said coagulation chamber and filter chamber in normal operation and for passing water through the filter chamber in a reverse direction in cleaning said filter bed comprising a pipe connection for conveying water from said coagulation chamber to the filter chamber and opening to the latter above the filter bed and below the filter screen therein, means for preventing flow out of the filter chamber through said connection, and a valved outlet from said filter chamber opening from the latter above said filter screen.



2. In a water purification system the combination with a coagulation chamber of a filter chamber, a filter bed and a filter screen above the filter bed located in said chamber, and means for causing water to flow from the coagulation chamber into the filter chamber above the filter bed and thence down through the latter in normal operation and for causing a reverse flow of water through the filter bed in cleaning the latter, said means comprising a conduit conveying water from the coagulation chamber to the filter chamber in normal operation and opening to said filter chamber above the filter bed and below the filter screen, an automatic non-return valve in said conduit for preventing the outflow of water from said filter chamber through said connection and a valved outlet from said filter chamber opening from the latter above said filter screen.

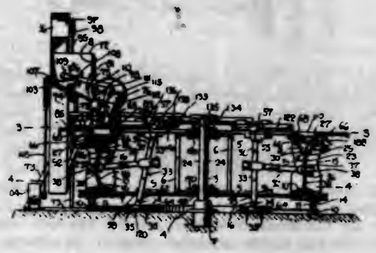
1,139,970. WATER-PURIFYING APPARATUS. HARRY B. HARTMAN, Scottdale, Pa., assignor to Electric Water Sterilizer Company, Scottdale, Pa., a Corporation of Pennsylvania. Original application filed Aug. 12, 1913, Serial No. 784,300. Divided and this application filed June 11, 1914. Serial No. 844,403. (Cl. 204—25.)



1. In a water purifying system, the combination with means for electrolyzing the water treated, of a filter bed, a coagulation chamber, means for introducing the electrolyzed water into the upper end of said chamber, means for withdrawing water from said chamber at a level or levels adjacent but somewhat above its lower end, whereby coagulum resulting from the electrolytic action to which the water is subjected may be continuously admixed with water intermittently withdrawn from said chamber, notwithstanding the tendency of said coagulum to slowly settle to the bottom of said chamber, and means for passing the withdrawn water to said filter bed.

2. In a water purifying system, the combination with means for electrolyzing the water treated, of a filter bed, a coagulation chamber, means for introducing the electrolyzed water in distributed streams into the upper end of said chamber and means for withdrawing water from said chamber in distributed streams at a level or levels adjacent but somewhat above its lower end whereby coagulum resulting from the electrolytic action to which the water is subjected may be continuously admixed with water intermittently withdrawn from said chamber, notwithstanding the tendency of said coagulum to slowly settle to the bottom of said chamber, and means for passing the withdrawn water to the filter bed.

1,139,971. MOLDING APPARATUS. GEORGE EMORY HECKERT, Port Royal, Pa. Filed Nov. 3, 1913. Serial No. 798,958. (Cl. 25—66.)



1. A device of the character described including a mold having its upper face open, a pressure block mounted for recurrent movement within the mold, a slide capable of adjustment to close the open face of the mold, a pallet within the mold and rested upon the pressure block means for imparting reciprocatory movement to the slide whereby the same may be withdrawn to uncover the open face of the mold, the upper face of such compression block being provided with a recess, a trigger mounted for rocking movement within such recess, a tongue provided on the under surface of the pallet and adapted to project within the recess of the pressure block and with which the trigger is adapted to contact to elevate the pallet within the mold independently of the movement imparted thereto by the pressure block, and means for imparting movement to the trigger.

2. A device of the character described including a frame member mounted for axial movement, a plurality of molds carried by such member, delivery means discharging within such molds, a compression means coacting with each of the molds, and a downwardly and outwardly directed flange carried by the upper peripheral marginal portion of the frame member.

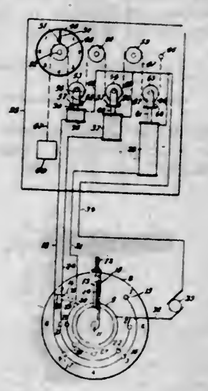
3. A device of the character described including a mold having its upper face open, a pressure block mounted for recurrent movement within the mold, a slide capable of adjustment to close the open face of the mold, a pallet within the mold and rested upon the pressure block, means for imparting reciprocatory movement to the slide whereby the same may be withdrawn to uncover the open face of the mold, a trigger mounted for rocking movement upon the pressure block and adapted to engage the under portion of the pallet, means for normally maintaining the trigger out of contact with the pallet, and means for imparting upward movement to the trigger independently of the movement of the pressure block to impart independent movement to the pallet.

4. A device of the character described including a mold, means for imparting movement thereto, said mold having its upper face open, a pressure block mounted for recurrent movement within the mold, a slide capable of adjustment to close the open face of the mold, a pallet within the mold and rested upon the pressure block, means for imparting reciprocatory movement to the slide whereby the same may be withdrawn to uncover the open face of the mold, means carried by the pressure block to elevate the pallet within the mold independently of the movement imparted thereto by the pressure block, and stationary means coacting with the last named means during movement of the mold for operating the same.

5. A device of the character described including a mold, means for imparting movement thereto, said mold having its upper face open, a pressure block mounted for recurrent movement within the mold, a slide capable of adjustment to close the open face of the mold, a pallet within the mold and rested upon the pressure block, means for imparting reciprocatory movement to the slide whereby the same may be withdrawn to uncover the open face of the mold, a trigger carried by the pressure block and adapted to contact with the pallet thereon to elevate the same independently of the movement imparted thereto by the pressure block, and a stationary member coacting with the trigger during the movement of the mold for operating said trigger.

[Claims 6 to 15 not printed in the Gazette.]

1,139,972. GEOMETRICALLY-PROGRESSIVE CONTROL SYSTEM. CHARLES J. HENSCHEL, Bloomfield, and CHARLES MESSICK, Hackensack, N. J., assignors to said Henschel. Filed Mar. 24, 1914. Serial No. 826,862. (Cl. 177—337.)



1. The combination of a sending indicator provided with and capable of indicating several characters at a sending station, another indicator provided with and capable of indicating several corresponding characters at a receiving station, and a geometrically progressive series of means whereby the receiving indicator may be operated at the sending indicator to indicate a character similar to the character indicated by the sending indicator.

2. The combination of a sending indicator provided with and capable of indicating several characters at a sending station, another indicator provided with and capable of indicating several corresponding characters at a receiving station, and a geometrically progressive series of electromagnetic means whereby the receiving indicator may be operated at the sending indicator to indicate a character similar to the character indicated by the sending indicator.

3. In a geometrically progressive signaling system the combination of an indicator located at a sending station and provided with a plurality of legends and with means for indicating said legends individually, an indicator located at a receiving station and likewise provided with a plurality of legends and with means for indicating the same individually, and a plurality of electrically operated

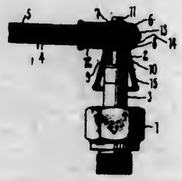
controlling members each under control of said indicator at said sending station and electrically connected with said indicator at said receiving station, each of said controlling members being provided with means for actuating said last mentioned indicator quantitatively to a predetermined extent independently of the others.

4. In a geometrically progressive signaling system, a sending station provided with a plurality of legends and with means for indicating said legends individually, an indicator located at a receiving station and likewise provided with a plurality of legends and with means for indicating the same individually, a plurality of electrically operated magnetic members severally connected to said second mentioned indicator for actuating the same quantitatively either singly or in groups, and electrical connections from said first mentioned indicator to said controlling members, for energizing the latter.

5. The combination of a receiving indicator provided with a number of legends and with means including a driven member for indicating said legends individually, a plurality of solenoids, a movable core for each solenoid, each of said cores having a limit of travel varying in geometrical ratio from the limit of travel of others of said cores, means for enabling movements of said cores to actuate said driven member so as to cause said driven member to make a quantitative movement commensurate with the aggregate travel of all of said cores which may be actuated at a particular movement, circuits connected with said solenoids and extending to a distance from said indicator for energizing said solenoids, and a sending indicator connected with all of said circuits for selectively energizing predetermined groups of said circuits, said sending indicator being provided with legends and with means for indicating said legends in the same order of succession as the legends indicated at the receiving station.

[Claims 6 to 8 not printed in the Gazette.]

1,139,973. ELECTRIC-CABLE TERMINAL. GUSTAVE L. HERZ, Vienna, Austria-Hungary. Filed Mar. 25, 1913. Serial No. 756,720. (Cl. 173—269.)

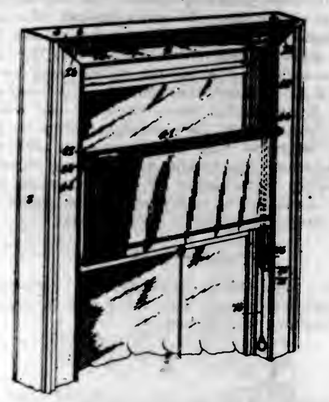


1. A cable terminal comprising a conducting socket piece for removably receiving a spark plug electrode, a non-conducting casing having a cable receiving recess and a wood screw arranged to pass through the casing and socket piece into engagement with the cable for holding the cable within the casing in electrical contact with the socket piece.

2. A cable terminal comprising a conducting socket piece for removably receiving a spark plug electrode, a non-conducting casing having a cable receiving recess and a socket piece receiving recess, a screw arranged to pass through the casing and socket piece into engagement with the cable and a screw arranged to pass through the casing into engagement with the socket piece for holding it in its recess.

3. A cable terminal comprising a conducting socket piece having means for frictionally engaging a spark plug electrode, a non-conducting casing having a cable receiving recess and a socket piece recess, a screw arranged to pass from one side of the casing through the socket piece into engagement with the cable on the other side of the casing and a screw arranged to pass through the casing into engagement with the socket piece for holding it in its recess.

1,139,974. WINDOW-SHADE HANGER. CHARLES N. HINER, Staunton, Va., assignor to The Hiner Specialty and Manufacturing Co., Inc., Staunton, Va., a Corporation of Virginia. Filed Apr. 24, 1914. Serial No. 834,197. (Cl. 156—27.)



1. In a device of the class described, the combination of a window frame provided at the top with a horizontal chamber extending entirely across the window frame and over the sides of the said frame and having a removable inner wall forming a closure, hollow guides located at opposite sides of the window frame and extending downwardly from the terminal portions of the top chamber and communicating therewith, said guides being open at the jambs of the window frame, bearing brackets mounted within the end portions of the chamber beyond the vertical guides, a spring roller supported by the bearing brackets, flexible connections wound on the spring roller and extending downwardly into the hollow guides, a window shade support extending across the window frame and slidable in the guides and connected with and supported by the said flexible connections, and operating means connected with the said supports.

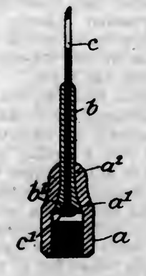
2. In a device of the class described, the combination of a window frame provided at the top with a chamber extending entirely across the window frame and over the sides thereof, said sides being provided with extended jambs and having vertical channels therein extending downwardly from the said chamber, hollow guides arranged in the channels and communicating at their upper ends with the said chamber, said guides being open at the jamb of the window frame, a spring roller arranged within the top chamber and supported at its terminals beyond the guides, flexible connections wound on the spring roller and extending into the hollow guides, a window shade support extending across the window frame between the sides thereof and slidable along the guides and having portions extending into the same and connected with and supported by the said flexible connections, and operating means connected with the shade support.

3. In a device of the class described, the combination of a window frame provided with a horizontal top chamber extending entirely across the window frame and over the sides thereof, said sides being provided with extended jamb portions provided with vertical channels extending downwardly from the terminal portions of the said chamber, one of the channels having a lower extension terminating at the face of the jamb, a spring roller arranged within the said chamber and supported beyond the said channels, hollow guides mounted in the said channels and communicating at their upper ends with the said chamber and open at the jambs of the window frame, flexible connections wound on the spring roller and extending into the hollow guides, a window shade support extending across the window between the sides thereof and having portions slidable in the hollow guides, said window shade support being connected with and supported by the said flexible connections, and an operating connection passing through the said channel extension and extending through the adjacent hollow guide to and connected at its upper end with the window shade support.

4. In a device of the class described, the combination of a window frame having a transverse chamber extending entirely across the top of the frame and over the sides thereof, the latter being provided with channels extending downwardly from the terminal portions of the said chamber, one of the channels being provided at its lower end with an extension terminating at the face of the jamb, a spring roller arranged within the said chamber, hollow guides mounted in the channels and open at the jambs of the window frame, flexible connections wound around the spring roller and extending into the hollow guides, a window shade support extending across the window frame between the sides thereof and having portions slidable in the guides and connected with the said flexible connections, a bearing plate mounted in the channel extension and having an opening, guide pulleys carried by the bearing plate and arranged at the opening thereof, and a flexible operating connection passing between the guide pulleys and extending through the adjacent hollow guide to the shade support and connected with the same.

5. A device of the class described including a pair of window shade supporting brackets, one of the brackets being provided with a plurality of round openings arranged in an inclined series and the other bracket being provided with a plurality of rectangular openings also arranged in an inclined series and having a connecting slot and an entrance slot, said inclined series of openings permitting an inward and outward and an upward and downward adjusting of a window shade.

1,139,975. HYPODERMIC-NEEDLE MOUNT. REGINALD F. HOPPER, St. Albans, England. Filed Mar. 4, 1915. Serial No. 12,112. (Cl. 128—25.)

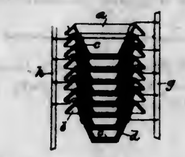


1. In a hypodermic needle mount, the combination of a cap having an aperture therein, a suitable seating in said cap, a detachable tube provided with an enlargement to accurately fit against the said seating and within the said aperture, a hypodermic needle fitting within the detachable tube, and a soft metal head on said needle fitting against the inner end of said detachable tube, substantially as set forth.

2. In a hypodermic needle mount, the combination of a cap having an aperture therein, a seating in said cap, a longitudinally split detachable tube, an enlargement on said tube accurately fitting against the said seating and within the said aperture, a hypodermic needle fitting within the detachable tube, and an enlargement upon said needle fitting against the inner end of said detachable tube, substantially as set forth.

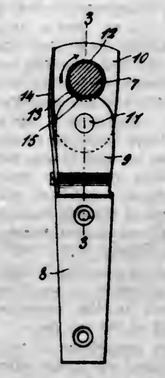
1,139,976. ELECTRIC CONDENSER OR LEYDEN JAR. ABRAHAM NILSEN HOVLAND, Christiania, Norway. Filed May 26, 1911. Serial No. 629,730. (Cl. 250—41.)

1. A Leyden-jar battery composed exclusively of solid materials consisting of a number of contacting elements all of the same shape and size, each comprising a hollow dielectric rigid body provided with interior and exterior metal coatings, the interior coating of one element contacting with the exterior coating of the next element and the rims of said elements provided with an outwardly extending collar.



2. A Leyden-jar battery consisting of a number of contacting elements all of the same shape and size, each of said elements comprising a hollow di-electric body provided with interior and exterior metal coatings, the interior coating of one element contacting with the exterior coating of the adjacent element, said elements having outwardly and downwardly extending rims free from coating, and conductors to which the coatings between alternate elements are electrically connected.

1,139,977. CLUTCH. JOE HRIBAR, Waukegan, Ill. Filed Sept. 17, 1914. Serial No. 862,199. (Cl. 74—13.)



1. The combination with a shaft, of means for locking the same against rotation in one direction, said means comprising a stationary and a movable member, through one of which members the shaft passes, the other member having a cam surface which is in frictional contact with the shaft.

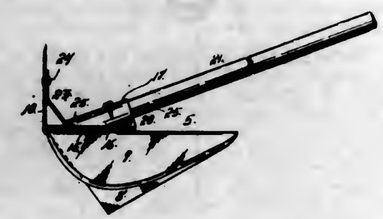
2. The combination with a shaft, of means for locking the same against rotation in one direction, said means comprising a stationary and a movable member, through one of which members the shaft passes, the other member having a cam surface which is in frictional contact with the shaft, and resilient means forcing the movable member in a direction to establish such frictional contact.

3. The combination with a shaft, of means for locking the same against rotation in one direction, said means comprising a stationary member having a cam surface, a pivoted member through which the shaft passes, and resilient means forcing the pivoted member in a direction to establish frictional contact between the shaft and the cam surface.

4. The combination with a shaft, of means for locking the same against rotation in one direction, said means comprising a stationary member having branches, the outer ends of which have depressions forming cam surfaces, a member pivoted between said branches and having an aperture through which the shaft passes, and resilient means forcing said member in a direction to establish frictional contact between the shaft and the aforesaid cam surfaces.

5. The combination with a shaft, of means for locking the same against rotation in one direction, said means comprising a stationary and a movable member, through one of which members the shaft passes, the other member having a cam surface which is in frictional contact with the shaft, and reversible resilient means forcing the movable member in a direction to establish such frictional contact.

1,139,978. LAWN-EDGER. PETER IMHOF and WILLIAM J. KELLY, Denver, Colo. Filed June 29, 1914. Serial No. 847,876. (Cl. 97—28.)



1. A lawn edger comprising a top plate having downwardly extending spaced blades arranged on opposite sides, and an upwardly extending blade located at one end of the plate.

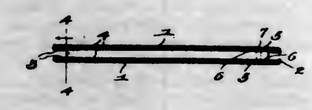
2. A lawn edger comprising a top plate having downwardly extending spaced blades arranged on opposite sides, and an upwardly extending blade located at one end of the plate, the shape of the upwardly bent blade conforming approximately with the cross sectional area of the space between the two downwardly bent blades.

3. A lawn edger comprising a top plate having downwardly bent side blades arranged in opposing relation and suitably spaced, one of said blades being inclined to the vertical and extending toward the other blade, and an upwardly extending blade located at one end of the plate and having one vertical edge and another edge inclined to the vertical to conform approximately to the inclination of the inclined side blade.

4. A lawn edger comprising a top plate having side blades extending therefrom in one direction, an end blade extending therefrom in the opposite direction, and a socket plate applied to the top plate.

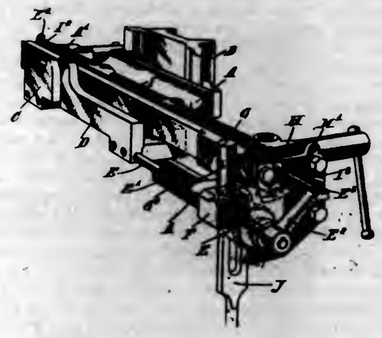
5. A lawn edger comprising a top plate having side blades extending therefrom in one direction, an end blade extending therefrom in the opposite direction, and a socket plate applied to the top plate, and having an upwardly projecting brace secured to the end blade, substantially as described.

1,139,979. KNIFE. GEORGE J. KELLEY, Attleboro, Mass. Filed Nov. 10, 1914. Serial No. 871,391. (Cl. 30—10.)



In a knife having flat straight side plates, a pair of finishing side plates each having a permanent open main pocket formed by a continuous bounding wall, said wall having an inward extension at one end which forms an auxiliary pocket whereby the knife side plates at their adjacent ends can be initially placed in the auxiliary pockets and then be moved into the main pockets whereby the walls of the main pockets completely cover the side edges of the knife side plates and are connected to the latter without bending of the finishing plates or any part thereof, and means passed through registering apertures provided therefor in the finishing plates and knife at their opposite ends to secure the opposite ends of the finishing plates to the knife.

1,139,980. TYPOGRAPHICAL MACHINE. DAVID S. KENNEDY, Brooklyn, N. Y., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed Feb. 5, 1915. Serial No. 6,210. (Cl. 199—7.)



1. In a typographical machine, the combination of a line confining jaw, a sustaining nut therefor, an adjustable toothed rod located between said parts, and a locking bolt mounted in the nut and having a central elongated slot through which the rod passes and formed with teeth at the upper end of the slot to engage the teeth of the rod.

2. In a typographical machine, the combination of a line confining jaw, a sustaining nut therefor, an adjustable toothed rod located between said parts, and a locking bolt mounted in the nut and having a slot through which the rod passes, said bolt being formed with teeth to coöperate with those on the rod.

3. In a typographical machine, the combination of an adjustable line confining jaw, a latch to hold the jaw in its adjusted position, a longitudinally movable bar for adjusting the jaw, a second bar seated upon the first and movable longitudinally and relatively thereto, means whereby the longitudinal relative movement of the second bar also effects its lateral or sidewise movement, and devices actuated by the sidewise movement of the second bar for moving the latch.

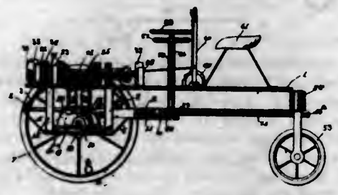
4. In a typographical machine, the combination of the vise-frame, a line confining jaw slidably arranged therein, a sustaining nut therefor, an adjustable rod located between the jaw and nut, a locking bolt mounted in the nut and movable so as to be engaged with and disengaged from the rod, and means for effecting the movement of said bolt, said means including a longitudinally movable bar extending toward the right across the vise-frame and located within the reach of the operator seated at the keyboard, and devices connected to the locking bolt and actuated by the longitudinal movement of the bar.

5. In a typographical machine, the combination of a line confining jaw, a sustaining nut therefor, an adjustable rod located between said parts, a locking bolt mounted in the nut and movable so as to be engaged with and disengaged from the rod, a longitudinally movable bar, means whereby the longitudinal movement of said bar will also effect its lateral or sidewise movement, and devices actuated by the lateral movement of the bar for moving the locking bolt.

[Claims 6 to 15 not printed in the Gazette.]

1,139,981. MOTOR-DRIVEN TRUCK. JOHN G. KERST, Springfield, Ill. Filed Sept. 20, 1913. Serial No. 790,817. (Cl. 21—114.)

1. In a motor driven truck, a motor driven forward axle carried by an axle housing casting, an axle housing casting having box bearings and truck supporting faces at each end, a central housing bowl in said housing casting providing pivoting means therefor, a fifth wheel bearing plate carried by a truck frame providing a female bearing ring for the lower side of said housing bowl, a bearing cylinder further supporting a truck frame and providing a male bearing ring for the upper side of said housing bowl, a steering gear carried by truck supporting faces on said axle housing casting, a bearing ring suspended beneath a truck frame and supported by said steering gear, said fifth wheel bearing plate and said bearing cylinder together with said bearing ring forming a stationary bearing unit, said axle housing casting rotatable in said stationary bearing unit for the steering of the truck, a truck frame, traction wheels on said forward axle, and a trailing steering wheel, substantially as described.



2. In a motor driven truck, a truck frame supported at the rear by a trailing caster wheel, a fifth wheel bearing plate suspended beneath the forward end of said truck, a bearing cylinder supported from said truck parallel to and above said fifth wheel bearing plate, a motor driven forward axle, an axle housing casting carrying said axle positioned between said bearing cylinder and said fifth wheel bearing plate, a central bowl on said axle housing adapted to mesh with and to rotate between said bearing cylinder and said fifth wheel bearing plate, box bearings on said axle housing casting having supporting faces for a steering gear, a steering gear fixed to said supporting faces, a circular bearing ring suspended from a truck frame and adapted to rest on said steering gear, means for rotating said axle housing in said fifth wheel bearing plate and said bearing cylinder and beneath said bearing ring, traction wheels on said axle, and a trailing steering wheel, substantially as described.

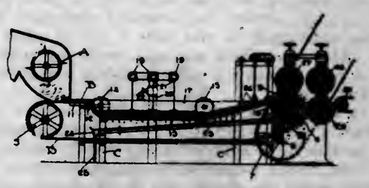
3. In a motor driven truck, the combination with a forward axle, of a bevel gear carried by said axle, a vertical shaft at right angles to said axle, a bevel gear on the lower end of said vertical shaft adapted to mesh with the bevel gear carried by said axle, a bevel drive gear on the upper end of the vertical shaft, a longitudinally extending shaft carried above said bevel drive gear, and bevel and spur gear unit keyed to said longitudinally extending shaft, the bevel gear of said keyed gear unit being in mesh with said bevel drive gear, a bevel and spur gear unit loosely carried by said longitudinally extending shaft and freely rotatable on said shaft, the bevel gear of said loose gear unit being in mesh with said bevel drive gear, a third spur gear keyed to said shaft and rotatable therewith, a motor actuated pulley, a shaft actuated by said pulley, a spur gear carried by said pulley actuated shaft, a transmission shaft parallel to said longitudinally extending shaft, a spur gear on said transmission shaft adapted to mesh with the gear carried by said pulley actuated shaft, a shifting sleeve carried by said transmission shaft, spur gears on said transmission shaft adapted to mesh with spur gears carried by said longitudinally extending shaft when the shifting sleeve is suitably placed, a yoke and lever controlled by a link and hand lever for actuating said shifting sleeve, taction wheels on said forward axle, a truck frame, and a trailing steering wheel, substantially as described.

1,139,982. WINDOW-SCREEN. GEORGE H. LAMBERT, East Berne, N. Y. Filed May 2, 1914. Serial No. 835,973. (Cl. 156—14.)

The combination with a window, the frame, sash and glass thereof and a window screen, slidably mounted upon the inner edges if said frame, of an insect guard bar hingedly mounted upon the upper cross bar of said screen, removably contacting the inner surface of the glass of the lower sash comprising a single piece and formed to fit the configuration of the beaded portion of the sash construction, whereby insects are prevented from entering between the said screen and the said glass.



1,139,983. MACHINE FOR MAKING FIBER INSULATING-SHEETS. JAMES E. LAPPEN, Winona, Minn., assignor to Union Fibre Company, Winona, Minn., a Corporation of Minnesota. Filed May 15, 1913. Serial No. 767,858. (Cl. 154—27.)



1. In a machine for making fiber insulating sheets, the combination with a traveling foraminous apron adapted to carry loose fibrous material, of means arranged above the apron for driving jets of water upon the material carried thereon with sufficient force to deflect and intertangle the fibers.

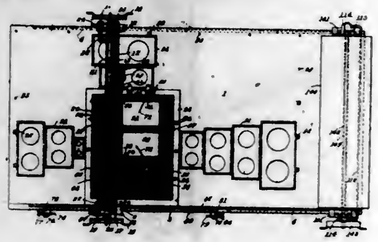
2. In a machine for making fiber insulating sheets, the combination with fiber feeding and fiber felting instrumentalities, of an endless foraminous conveyer traveling from said feeding instrumentality to a point below the level thereof and then up again to said felting instrumentality, and means arranged above the apron for delivering jets of water thereon during the depressed portion of its travel.

3. In a machine for making fiber insulating sheets, the combination with fiber feeding and fiber felting instrumentalities, of an endless foraminous conveyer apron adapted to carry fibrous stock from said fiber feeding instrumentality to said fiber felting instrumentality, means for depressing said apron intermediately of said instrumentalities, and means arranged above the apron for driving jets of water upon the depressed portion of the apron with sufficient force to deflect and intertangle the fibers carried along thereby.

4. In a machine for making fiber insulating sheets, the combination with fiber feeding and fiber felting instrumentalities, of an endless foraminous conveyer apron traveling from said feeding instrumentality to said felting instrumentality, means for depressing said apron intermediately of said instrumentalities, a sprayer arranged

above the depressed portion of the apron and adapted to discharge water thereon, and retaining walls on both sides of the apron for preventing the water from escaping at the sides.

1,139,984. IMPOSING-TABLE AND PROOF-PRESS. FRANK C. LEETHEM, Middletown, N. Y., assignor to Latham Automatic Registering Company, a Corporation of Illinois. Filed Mar. 20, 1912, Serial No. 685,047. Renewed Apr. 9, 1915. Serial No. 20,339. (Cl. 101—166.)



1. An imposing machine, comprising a table, means for securing a chase thereupon, a gage overhanging the table mounted to travel longitudinally on said table, a pair of gages mounted to travel transversely of said table, said first gage having an alining edge extending transversely to the table and adapted to lie adjacent the table to aline the edges of the printing plates transversely to said table, said second gages having alining edges extending longitudinally with the table and adapted to aline the edges of the printing plates extending longitudinally with said table.

2. An imposing machine, comprising in combination, a table, a gage movable longitudinally thereupon and extending transversely to said table, a pair of gages mounted to slide on said first gage and means for locking said pair of gages together to move in unison independently of said first gage.

3. In an imposing machine, in combination, a table, a carriage, a gage carried thereby overhanging said table, said carriage being adapted to travel longitudinally along said table, means for moving said gage relatively to said carriage, means for moving said carriage longitudinally of said table, a pair of gages mounted to move along said first gage and having parallel gage bars extending substantially parallel with the longitudinal axis of said table, said gage bars having means coöperating to aline a plate lying therebetween.

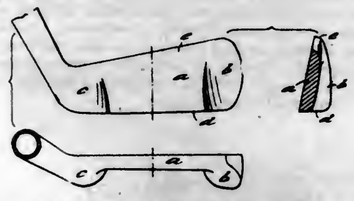
4. In an imposing machine, in combination, a table, a gage adapted to travel longitudinally along said table, a pair of gages mounted to slide on said first gage and having parallel gage bars extending substantially parallel with the longitudinal axis of said table, gage plates carried by said last named gages, and means for locking said last named gages together at predetermined distances apart.

5. In an imposing machine, in combination, a table having an alining head near one edge thereof, adapted to aline a chase supported on said table, a gage traveling longitudinally on said table, a scale extending longitudinally on said table for ascertaining the position of said gage, a pair of gages traveling on said first gage and having gage plates extending substantially parallel with said alining head.

[Claims 6 to 36 not printed in the Gazette.]

1,139,985. GOLF-CLUB. GILBERT LEGH, King's Lynn, England. Filed July 5, 1913. Serial No. 777,397. (Cl. 46—4.)

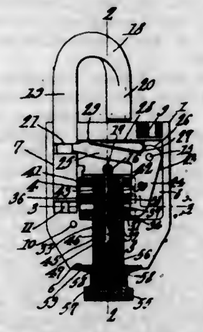
1. A metal golf club head of the kind referred to, comprising a blade having a comparatively thin striking face and rearwardly extending toe and heel portions flanking a recess that is open at the top and rear, said toe and heel portions being separate one from the other and tapering upwardly from the bottom to the thickness of the striking face.



2. A metal golf club head of the kind referred to, comprising a blade having a comparatively thin striking face and rearwardly extending toe and heel portions flanking a recess that is open at the top and rear, said toe and heel portions being separate one from the other and tapering upwardly from the bottom to the thickness of the striking face and the said recess increasing in width upwardly from the bottom or sole of the head.

3. A metal golf club head of the kind referred to, comprising a blade having a comparatively thin striking face and rearwardly extending toe and heel portions flanking a recess that is open at the top and rear, said toe and heel portions being separate one from the other and tapering upwardly from the bottom to the thickness of the striking face, the said recess increasing in width upwardly from the bottom or sole of the head, and a non-metal filling piece fixed in said recess.

1,139,986. PERMUTATION-PADLOCK. MORRIS J. LOVETT, Randsburg, Cal. Filed Jan. 8, 1914. Serial No. 811,067. (Cl. 70—113.)



1. In a pad lock, a case comprising coöperating parts; a removable element engaging the case parts to hold the same together; a shackle carried by the case; and movable means for locking the shackle in a closed position, said means engaging the removable element independently of the shackle to hold the same in the case when the shackle is in a closed position.

2. In a pad lock, a case comprising coöperating parts; a screw uniting the case parts and having a flat side; a shackle carried by the case; and means for holding the shackle in a closed position, said means engaging the flat side of the screw when the shackle is in a closed position.

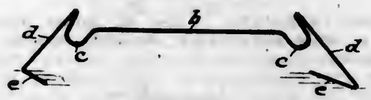
3. In a pad lock, a case comprising coöperating parts; a removable element engaging the case parts to hold the same together, a shackle carried by the case; a tumbler journaled in the case; and a detent pivoted in the case and coöperating with the tumbler and the shackle, the detent engaging the removable element to hold the same in the case when the shackle is in a closed position.

4. In a pad lock, a case comprising coöperating parts; a screw connecting the case parts and having a flat side; a shackle carried by the case; a tumbler journaled in the case; a detent pivoted in the case and coöperating with the tumbler and the shackle, the detent engaging the flat side of the screw when the shackle is in a closed position.

5. In a lock, a case; a shaft journaled therein; a tumbler carried by the shaft; locking mechanism coöperating with the tumbler; a pair of rings mounted on the shaft and provided with projections; a nut threaded on the shaft and binding the rings between the tumbler and the nut; and movable elements carried by the case, said movable elements being accessible from the outside of the case and coperating, respectively, with the projections on the rings.

[Claims 6 and 7 not printed in the Gazette.]

1,139,987. DEVICE FOR SPACING AND SUPPORTING REINFORCING-BARS IN CONCRETE WORK. LEWIS N. LUKENS, Philadelphia, Pa. Filed Feb. 16, 1915. Serial No. 8,495. (Cl. 72—122.)



1. A device for supporting and spacing bars in reinforced concrete construction, comprising a wire extending between its end portions horizontally to form a connecting member, and beyond the end of the latter bent successively downward and upward to form a retaining eye opening upward, and thence downward with a lateral inclination and laterally in the opposite direction to form a supporting member.

2. A device for supporting and spacing bars in reinforced concrete construction, comprising a wire extending between its end portions horizontally to form a connecting member and beyond the end of the latter bent downward below the level of the connecting member and thence upward substantially above the level of the connecting member to form a retaining eye, and thence downward in a direction inclining both laterally and outwardly to form a supporting leg.

3. A device for supporting and spacing bars in reinforced concrete construction, comprising a wire extending between its end portions horizontally to form a connecting member, and beyond the end of the latter bent downward below the level of the connecting member and thence upward substantially above the level of the connecting member to form a retaining eye, and thence downward with a lateral inclination to form a supporting leg and laterally in an opposite direction to form a supporting foot.

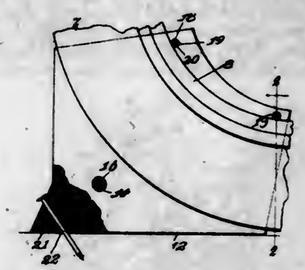
4. A device for supporting and spacing bars in reinforced concrete construction, comprising a wire extending between its end portions horizontally to form a connecting member, and beyond the end of the latter bent successively downward and upward to form a retaining eye opening upward, and thence downward in a direction inclining both laterally and outwardly to form a supporting leg and thence laterally in the opposite direction to form a supporting foot.

5. A device for supporting and spacing bars in reinforced concrete construction comprising a wire extending between its end portions horizontally to form a connecting member and beyond the end of the latter successively downward and outward and upward and inward to above the level of the connecting member to form a retaining eye, and thence bent successively downward in a laterally inclined direction and laterally in the opposite direction to form a supporting member.

[Claims 6 to 8 not printed in the Gazette.]

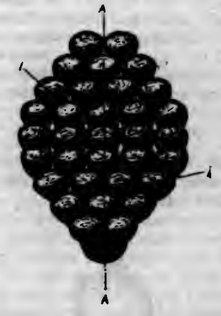
1,139,988. SHIPPING-SHOE FOR AUTOMOBILE-WHEELS AND THE LIKE. ARCHIBALD S. MCMILLAN and JOSEPH F. CURDIE, St. Louis, Mo. Filed Feb. 2, 1914. Serial No. 815,908. (Cl. 21—8.)

1. A shoe of the class described comprising two members, the surface of the inner circumferential edge of each shaped to conform with the outer contour of the tire and rim of a wheel, a screw threaded adjusting stud for regulating the width of the members and bolts for locking the same over the rim, substantially as specified.



2. A shipping shoe for automobiles and the like comprising two members each constructed of rigid material, their inner surfaces arranged to conform with the contour of the tire of a vehicle wheel, an adjusting screw for regulating the width of the two members, bolts for securing said members together on the wheel, each member having apertures through which fastening devices are passed for supporting the shoe in rigid position on the floor of a freight car.

1,139,989. CROCHETED ARTICLE AND METHOD OF PRODUCING THE SAME. FLORA MAHNKEN and LOUISE L. VAN NICE, Denver, Colo., assignors to Hunt and Van Nice, Denver, Colo., a Copartnership composed of George A. Hunt, Louise L. Van Nice, and Emma E. Hunt. Filed Apr. 2, 1914. Serial No. 829,153. (Cl. 66—4.)



1. A method of producing imitation petals by crocheting, consisting of forming a base portion, forming chains from said base portion to the rim of the petal, terminating said chains in loops, forming said loops into a chain rim for said petal and contracting said rim to produce convexity or concavity in said petal.

2. The method of producing an imitation petal consisting in crocheting the body of the petal, crocheting a rim about such body, and then contracting the rim and thereby producing a convexity of the body.

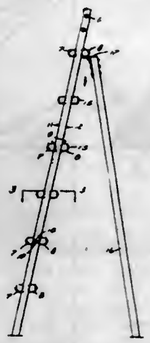
3. A method of producing imitation petaled objects by crocheting consisting of crocheting one petal at a time, forming each with a base portion and crocheting the base portions together, each petal being formed by forming chains from said base portion to the rim of the petal, terminating said chains in loops, forming said loops into a chain rim for said petal and contracting said rim to produce convexity or concavity in said petal.

4. An imitation petal comprising a crocheted body and a crocheted rim, the rim being under sufficient tension to produce convexity of the body.

5. As a new article of manufacture, an imitation pine cone formed of a plurality of petals each comprising a

crocheted body and a crocheted rim, the latter being under tension whereby the body is held in convexed position.

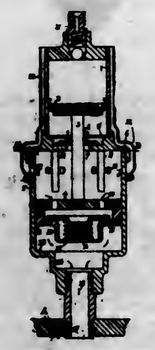
1,139,990. ORCHARD-LADDER. JOHN F. MERRILL, Wenatchee, Wash., assignor to Harry T. Trunkey, Wenatchee, Wash. Filed July 21, 1914. Serial No. 852,151. (Cl. 228—14.)



1. A ladder comprising two leg members which are secured together at their upper ends, a series of steps, each of said steps being formed of two bars having beveled notches at their ends to fit against front and rear faces of said leg members, means to secure the bars of a step together and to the leg members, and a prop hingedly connected at its upper end to one of said steps.

2. In a ladder, the combination with the leg members, of a series of steps respectively comprising two bars, said bars being formed with a notch at each end having a bevel face to fit against the front or back face of a leg-member and terminating in shoulders adapted to be juxtaposed with the opposing inner faces of the leg-members, and step-securing bolts extending through the leg members and the adjacent ends of the associated step bars.

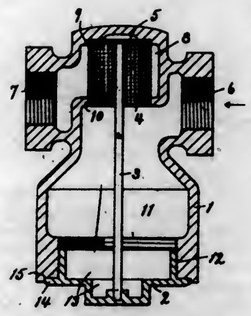
1,139,991. AIR-COMPRESSOR. WILLIAM MORTIMER MELMORE, London, England. Filed Nov. 25, 1913. Serial No. 802,340. (Cl. 230—27.)



1. In an air-compressor comprising a pump cylinder seated on the end of an operating cylinder to be connected with one of the cylinders of a motor vehicle, the combination with a pump piston, a rod depending from the piston, a disk-valve frictionally mounted on the piston rod, and means for limiting the travel of said valve, of an operating piston fast to said piston rod and comprising a perforated top plate, a centrally perforated cup-shaped piston body, a non-return valve at the inner face of said plate, and a spring for supporting the non-return valve, as described.

2. An air-compressor comprising in combination with one another a lower large cylinder, peripheral air-inlets, internal longitudinal grooves extending from the forward end of the cylinder to the rear of said inlets, a hollow piston capable of covering simultaneously the inlets and the rear end of said grooves, a suction valve covering a passage in said piston, a piston rod fast to the latter, a connecting disk at the forward end of the cylinder, a valve applied to the upper face of said disk, a grid fast to the latter, a small pump cylinder fast to said disk, a pump piston at the end of said piston rod, a valve-checked delivery at the front end of the pump cylinder, and a jacket fast on the large cylinder and extending with its open end to the front end of the pump, as and for the purpose described.

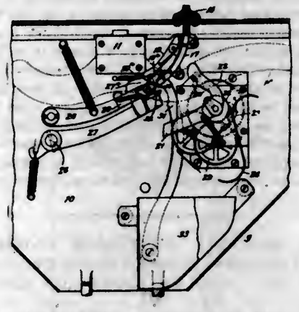
1,139,992. STRAINER. HENRY W. MILLER, Brooklyn, N. Y. Filed Aug. 5, 1914. Serial No. 855,125. (Cl. 210—16.)



1. The combination, in a device of the class described, with a casing having therein an open-bottom strainer chamber, and below said chamber an open bottom sediment chamber, and provided with oppositely-disposed inlet and outlet connections, said inlet connection communicating with said strainer chamber through the bottom thereof by way of said sediment chamber, and said strainer chamber opening laterally into said outlet connection, of a removable closure for the bottom of said sediment chamber, a spindle fixed to said closure, and a perforated cylindrical member mounted on said spindle and receivable in said strainer chamber, with the base of said member fitting the bottom opening in said strainer chamber, said spindle with said closure being the sole axial support for said member, and the arrangement of parts being such that said spindle and member come away with said closure, and said member is returned to place by the act of replacing said closure.

2. The combination, in a device of the class described, with a casing having therein an open-bottom strainer chamber, and below said chamber an open-bottom sediment chamber, and provided with oppositely-disposed inlet and outlet connections, said inlet connection communicating with said strainer chamber through the bottom thereof by way of said sediment chamber, and said strainer chamber opening laterally into said outlet connections, of a removable closure for the bottom of said sediment chamber, a vertical spindle rising from said closure and having its base permanently attached thereto, and a perforated cylindrical member provided with a top mounted on said spindle, the latter passing through the axial center of said member and with said closure serving as the sole support for said member, and said member being receivable in said strainer chamber, with the base of said member fitting the bottom opening in said chamber, the arrangement of parts being such that said spindle and member come away with said closure, and said member is returned to place by the act which replaces said closure.

1,139,993. COIN-OPERATED WEIGHING-SCALE. HERBERT S. MILLS, Chicago, Ill. Filed Dec. 1, 1914. Serial No. 874,992. (Cl. 194—83.)



1. In a weighing-scale, a poising scale-beam, a spring-retracted lever for locking the beam against accurate balancing, spring-retracted lever-mechanism rendered operable by the insertion of a coin to trip said lever and unlock the beam, and retarding means connected with said lever for timing the return thereof, under the retractive force of its spring, to normal locking position.

2. In a weighing-scale, a poising scale-beam, timing-means comprising a train of gears and a fan-brake on an arbor of said train, a spring-retracted lever on another arbor of said train, for locking the beam against accurate balancing, and spring-retracted lever-mechanism rendered operable by the insertion of a coin to trip said lever and unlock the beam.

3. In a weighing-scale, a poising scale-beam and an operating lever therefor provided with a projection, timing-means comprising a train of gears and a fan-brake on an arbor of said train, a spring-retracted lever on another arbor of said train normally engaging said projection to lock the beam against accurate balancing, and spring-retracted lever-mechanism rendered operable by the insertion of a coin to trip said lever out of engagement with said projection.

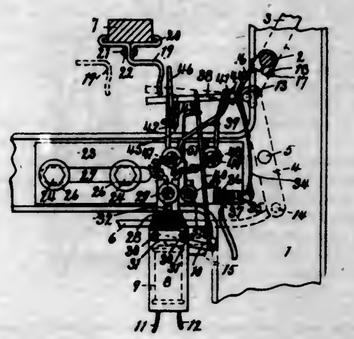
4. In a weighing scale, a poising scale-beam and an operating lever therefor provided with a projection, a spring-retracted lever having a hook normally engaging said projection to lock the beam against accurate balancing, spring-retracted lever-mechanism rendered operable by the insertion of a coin to trip said lever out of engagement with said projection, and retarding means connected with said lever for timing the return thereof under the retractive force of its spring to normal locking position.

5. In a weighing-scale, a poising scale-beam and an operating lever therefor provided with a projection, timing-means comprising a train of gears and a fan-brake on an arbor of said train, a spring-retracted lever on another arbor of said train, having a hook on one end normally engaging said projection to lock the beam against accurate balancing, spring-retracted lever-mechanism rendered operable by the insertion of a coin to trip said lever, said mechanism comprising a lever fulcrumed on one center and provided on one end with a bent finger, a second lever fulcrumed on another center and terminating in a slotted coin-seating head through which said finger normally projects, and a pivotal tongue on said head into the path of which the other end of said locking lever normally projects, an operating handle connected with said finger-carrying lever, and spring-held means for retaining said last-named lever in its downwardly-thrown position until released by said headed lever in regaining its normal position.

[Claim 6 not printed in the Gazette.]

1,139,994. WARP STOP MECHANISM. THOMAS J. O'CONNELL, Ware, Mass. Filed June 16, 1914. Serial No. 845,385. (Cl. 139—91.)

1. The combination, in warp-stop mechanism, with a shipping mechanism member and the lay of the loom, and an electromagnetically-operated member, of an apertured bearing member attached to the loom, and a free plunger loosely mounted, with its axis approximately coinciding with the axis of the aperture in said bearing member, to slide and tilt in said bearing member, said plunger being located with one end in position to contact with said shipping mechanism member and adapted thereby to have the other end thrust into the path of said lay.



2. The combination, in warp-stop mechanism, with a shipping mechanism member and the lay of a loom, and an electromagnetically-operated member, of an apertured bearing member attached to the loom, a free plunger loosely mounted, with its axis approximately coinciding with the axis of the aperture in said bearing member, to slide and tilt in said bearing member, said plunger being located with one end in position to contact with said shipping mechanism member, and connected with said electromagnetically-operated member and adapted thereby to have the other end thrust into the path of said lay, and resilient means tending to force said plunger away from said shipping mechanism member.

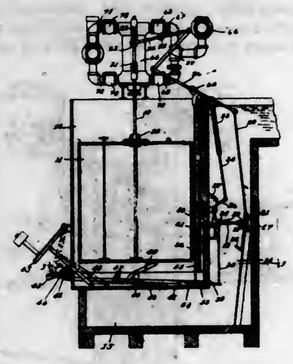
3. The combination, in warp-stop mechanism, with the shipping mechanism and the lay of a loom, and an electromagnetically-operated member, of a loosely-mounted sliding and tilting plunger arranged in operative position relative to said shipping mechanism when disposed to start the loom, said plunger being connected with said member and adapted to be thrust into the path of said lay, means to hold said plunger from longitudinal movement away from said shipping mechanism until said plunger is tilted, means to move said plunger longitudinally into supported position when tilted, and stationary means, independent of said member, to support said plunger in the path of said lay, when said plunger is tilted and moved longitudinally into supported position.

4. The combination, in warp-stop mechanism, with the shipping mechanism and the lay of a loom, and an electromagnetically-operated member, of a loosely-mounted sliding and tilting plunger arranged in operative position relative to said shipping mechanism when disposed to start the loom, resilient means tending to force said plunger away from said shipping mechanism, said plunger being connected with said member and adapted thereby to be thrust into the path of said lay, means to restrain said plunger from longitudinal movement away from said shipping mechanism until said plunger is tilted, and stationary means, independent of said member, to support said plunger in the path of said lay, when said plunger is tilted and moved longitudinally into supported position.

5. In warp-stop mechanism, a loosely-mounted sliding and tilting plunger, means to tilt said plunger, means to restrain said plunger from longitudinal movement until said plunger is tilted, means to move said plunger longitudinally into supported position when tilted, and stationary means, independent of said tilting means, to support said plunger when tilted and moved longitudinally into supported position.

[Claims 6 to 10 not printed in the Gazette.]

1,139,995. HYDRAULIC MOTOR. FREDERICK J. OSTERHOLTZ, Bucoda, Wash., assignor to Alaska Hydraulic Motor Company, Tacoma, Wash., a Corporation. Filed Jan. 26, 1914. Serial No. 814,587. (Cl. 253—12.)



1. In a structure of the class described, the combination with a casing having an opening in the bottom thereof, of a float disposed in said casing, a water intake connected with said opening, a slotted bar pivotally mounted in said water intake, a plate slidably disposed in said intake opposite said slotted bar, a gate adapted to slide within the slot in said bar, said gate being adapted when closed to rest one of its edges on said plate, a discharge gate provided at the bottom of said casing, means associated with said discharge gate for moving said sliding plate to release said intake gate, and means whereby the closing of said intake gate shall release said discharge gate and permit it to open.

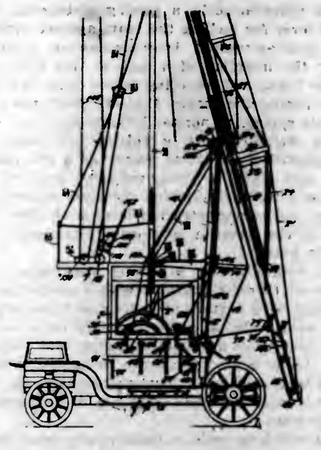
2. In a structure of the class described, the combination with an inclosure having an opening in the bottom side thereof, of a float disposed in said inclosure, an intake for water connected with said opening, a gate provided in said intake, means adapted to open said gate in response to the falling of said float, a discharge gate provided in one side of said inclosure, a toothed ratchet bar connected with said discharge gate, a pawl adapted to engage with the teeth of said ratchet bar to hold said discharge gate open, said pawl being adapted when engaged by said float to release said ratchet bar to permit said discharge gate to close when said float falls to the bottom of said inclosure.

3. In a structure of the class described, the combination with a tank adapted to contain water and having an inlet passageway through its bottom, of a float disposed in said tank, an intake conduit for water connected with said inlet and a gate provided in said intake said gate being adapted to swing downwardly to permit water to flow through said intake and being further adapted to be slidingly raised edgewise in the operation of closing said intake whereby said gate may offer but little resistance to the downwardly flowing water in said intake.

4. In a hydraulic motor the combination with a conduit which is adapted to conduct water, of a shaft disposed therein and journaled to extend from one side to the opposite side thereof to adapt it to revolve, a gate valve slidably mounted on said shaft to adapt it to be reciprocally movable edgewise thereon, detent means disposed in the wall of said conduit and adapted to engage with an edge portion of said gate valve to support said gate valve in a position to stop the flow of water through said conduit, mechanism adapted to slidably move said gate valve in an edgewise direction and mechanical means associated with said mechanism and with said detent means which mechanical means is adapted to operate said mechanism to slidably move said gate valve at required instants of time and further adapted to actuate said detent means to release said gate valve at other and different instants of time in response to changes in the altitude of water that has passed by said gate valve in said conduit.

5. In a hydraulic motor the combination with a conduit which is adapted to conduct water, of a shaft disposed therein and journaled to extend from one side to the opposite side thereof to adapt it to revolve, a gate valve slidably mounted on said shaft to adapt it to be reciprocally movable edgewise thereon, detent means disposed in the wall of said conduit and adapted to engage with an edge portion of said gate valve to support said gate valve in a position to stop the flow of water through said conduit, and mechanism adapted to slidably move said gate valve as required, and further adapted to actuate said detent means to release said gate valve as required.

1,139,996. MOVABLE EXTENSION-LADDER. GIOVANNI PREDONZAN, Trieste, Austria-Hungary. Filed Dec. 26, 1912. Serial No. 738,662. (Cl. 228—28.)



1. Apparatus of the character described comprising a suitable truck, a casing mounted thereon, a ladder carried by the casing, the said casing being mounted to oscillate on the truck under the influence of gravity, whereby the said casing remains level no matter what the angle of the truck, and means for securing the casing in various adjustments in a vertical plane.

2. Apparatus of the character described comprising a suitable truck, a casing mounted thereon, a ladder carried by the casing, the said casing being mounted to oscillate on the truck in any vertical plane under the influence of gravity, whereby the said casing remains level no matter what the angle of the truck, and means for securing the casing in various adjustments in any vertical plane.

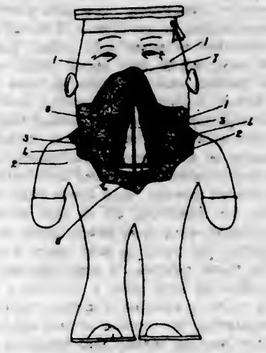
3. Apparatus of the character described comprising a suitable truck, a rotatable casing mounted thereon, a ladder carried by the casing, the said casing being mounted to oscillate on the truck under the influence of gravity, whereby the said casing remains level no matter what the angle of the truck, and means for securing the casing in various adjustments in a vertical plane.

4. Apparatus of the character described comprising a suitable truck, a hollow casing pivotally supported thereon at its upper central portion whereby it is free to oscillate under the influence of gravity, a ladder carried by said casing, and means for securing the casing in various oscillatory adjustments.

5. Apparatus of the character described comprising a suitable truck, a rotatable hollow casing pivotally supported thereon at its upper central portion whereby it is free to oscillate under the influence of gravity, a ladder carried by said casing, and means for securing the casing in various oscillatory adjustments.

[Claims 6 to 14 not printed in the Gazette.]

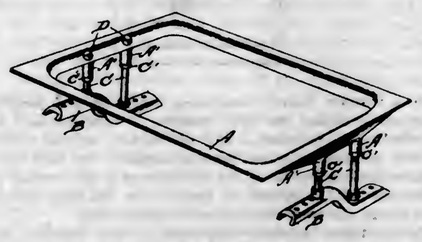
1,139,997. STUFFED DOLL, PUPPET, TOY FIGURE, AND THE LIKE. LEON REES, London, England. Filed Oct. 17, 1914. Serial No. 867,137. (Cl. 46—40.)



1. A figure toy comprising a body provided with a cup-shaped member; a head provided upon said body and having its lower end resting in said cup-shaped member, a tubular member provided in said head and having its lower end opening out into said cup-shaped member, and elastic connecting means having one of its ends secured to said head at approximately the center of the same and having its other end secured to said cup-shaped member.

2. A figure toy comprising a body provided with a cup-shaped member, a head provided upon said body and having one of its ends so shaped as to snugly engage said cup-shaped member, a cone provided in said head and having its apex at approximately the center of said head, the large end of said cone opening out into said cup-shaped member, and elastic connecting means having one of its ends secured to the center of said cup-shaped member and extending through said cone and having its other end secured to the apex of said cone.

1,139,998. SCALE. CHARLES EDWARD RIEDEL, Detroit, Mich., assignor to Detroit Scale Manufacturing Company, Detroit, Mich., a Corporation of Michigan. Filed Sept. 8, 1914. Serial No. 860,528. (Cl. 73—121.)



1. In a scale, an integral platform frame having depending sockets to receive the ends of a plurality of downwardly projecting legs, adjustable legs fitted within the depending sockets, bolts having a screw threaded connection with the legs for adjustably connecting the legs with the frame, means for locking the legs in their adjustment against accidental displacement, means connected with the legs and adapted to support a plurality of swinging bearings, and swinging frames linked to said means and carrying agate bearings adapted to rest upon the knife edge bearings of the scale mechanism.

2. In a scale, an integral platform frame having depending integral sockets formed thereon for receiving the ends of a plurality of downwardly projecting legs, adjustable legs threaded in said sockets for adjustment relative to the platform frame, bolts threaded in said frame and having threaded engagement with the upper ends of the legs and means on the bolts for locking the legs against movement in their adjusted positions, a pair of stepped members connected with the legs and adapted to support a plurality of swinging bearings, and swinging frames linked to the stepped members and carrying agate bearings adapted to rest upon the knife edge bearings of the scale mechanism.

3. In a scale, a platform frame formed from one piece of material and having depending sockets formed thereon and countersunk recesses provided in its upper side in alinement with said sockets, threaded bolts seated in said countersunk portions of the frame and extending into the sockets, adjustable legs threaded in said sockets and having threaded engagement with said bolts, a pair of stepped members connected with the legs and adapted to support a plurality of swinging bearings, and swinging frames linked to the stepped members and carrying agate bearings adapted to rest upon the knife edge bearings of the scale mechanism.

4. In a scale, an annular integral platform frame having depending sockets to receive the ends of a plurality of downwardly projecting legs, adjustable legs fitted to the depending sockets, bolts having a screw threaded connection with the legs for adjustably connecting the legs with the frame, means for locking the legs when adjusted against accidental displacement, a pair of stepped members connected with the legs adapted to support a plurality of swinging bearings, and swinging frames linked to the stepped members carrying agate bearings adapted to rest upon the knife edge bearings of the scale mechanism.

5. In a scale, an annular integral platform frame having depending sockets to receive the ends of a plurality of downwardly projecting legs, adjustable legs fitted to the sockets, depending bolts having a screw threaded connection with the legs for adjustably connecting the legs with the frame, means for locking the legs when adjusted against accidental displacement comprising a nut having a screw threaded engagement with the respective legs and adapted to bear against the ends of the depending sockets of the frame when adjusted, a pair of stepped members connected with the legs adapted to support a plurality of swinging bearings, and swinging frames linked to the stepped members carrying agate bearings adapted to rest upon the knife edge bearings of the scale mechanism.

[Claims 6 and 7 not printed in the Gazette.]

1,139,999. UNION SUIT. MORRIS G. ROSENTHAL, Mentor, Ohio. Filed Dec. 19, 1914. Serial No. 878,077. (Cl. 2—144.)



1. A garment provided with a neck opening and having inner and outer flaps below said opening, the outer flap having a free edge extending at an inclination from said opening downwardly and laterally toward the waist line, the other edges of said flap being fixed to the body of the garment, and the inner flap comprising a triangular piece sewed to the body along one edge and being free along its other edges.

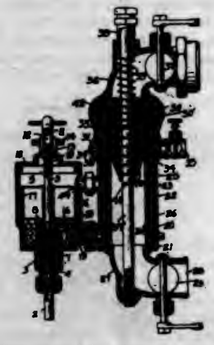
2. A garment provided with a neck opening, and a front opening extending at an inclination downwardly and laterally from said neck opening toward the waist line and one side of the body, and an inner triangular flap sewed at one edge to the edge of said opening and free at its other edges underlying the breast of the garment, the point of the triangular flap extending toward the waist line on the opposite side of the body.

3. A garment having inner and outer breast flaps crossed diagonally below the neck opening, the inner flap having a point extending adjacent to the waist line, an upper fastening between said flaps at the point of the neck opening, and a lower fastening between the point of the inner flap and the side of the body of the garment near the waist line, each of said fastenings being adjustable in position to vary the size of the neck opening.

4. A garment having inner and outer breast flaps crossed diagonally below the neck opening, the inner flap comprising an inserted triangular piece sewed along one lateral edge to the body of the garment and having the other lateral and the bottom edges free, and sets of adjustable fastening devices between the inner flap and the body of the garment, one set being located just below the point of the neck opening, and the other set being located adjacent to the free inner point of said flap.

5. A garment having inner and outer breast parts, the outer part being formed by the body of the garment, said body having a cut extending downwardly and laterally from the neck opening toward the waist line at one side, and the inner part being formed by a triangular flap sewed along one side edge to the edge of said cut, and free along its other edges, and a fastening device between the free point of said flap and the body of the garment at the other side.

1,140,000. CARBURETER FOR EXPLOSIVE-ENGINES. WILLIAM J. RUBESKY, Minneapolis, Minn. Filed Oct. 11, 1909. Serial No. 522,200. Renewed June 17, 1914. Serial No. 845,722. (Cl. 48—158.)



1. A carbureter comprising inner and outer wick tubes and wicks having a fibrous core and a metallic covering therefor disposed between said tubes, means for delivering oil to said wicks, said tubes having ports in their upper walls and said inner tube having an air intake, a valve arranged to close the ports in said inner tube, said valve being adapted to open on the suction stroke of the engine and permitting currents of air to said wicks, substantially as described.

2. A carbureter comprising inner and outer wick tubes, a wick located between the same, means for supplying oil to said wick, the upper walls of said tubes having a series of ports therein, said inner tube having an air intake, a valve arranged to close the ports in said inner tube and open with the suction stroke, and permitting currents of air to be established through said ports to said wick.

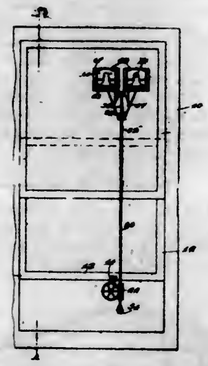
3. A carbureter comprising inner and outer wick tubes, a wick disposed between the same, means for delivering oil thereto, the upper walls of said wick tubes having a series of ports, said inner tube having an air intake and a flaring upper end and a cone shaped valve fitting the flared end of said inner tube and normally closing the ports therein, said valve opening by suction and permitting currents of air to pass through said ports to said wick.

4. A carbureter comprising inner and outer wick tubes, said inner tube having an air intake, a series of metal covered wicks disposed between said tubes, means for supplying oil to said wicks, the upper walls of said tubes having ports therein, and the upper portion of said inner tube being flared, a cone shaped valve normally closing the ports of said inner tube and fitting said flaring surface, said valve opening on the suction stroke and permitting the passage of air through said ports to said wicks.

5. A carbureter comprising inner and outer wick tubes and wicks inclosed thereby, said inner tube having an air intake, means for supplying oil to said wicks, the upper walls of said inner wick tube being flared and said tubes having air ports, the ports in said inner wick tube being located in its flared portion, a cone shaped valve fitting the flared surface of said tube, a vertically arranged rod whereon said valve is slidable, a spring coiled on said rod, means for regulating the tension of said spring, said valve opening on the suction stroke and exposing the ports in said inner tube and permitting currents of air to flow therethrough to wicks.

[Claims 6 to 23 not printed in the Gazette.]

1,140,001. WINDOW-CLEANING DEVICE. CHARLES B. RUNGE, Chicago, Ill. Filed Aug. 3, 1914. Serial No. 854,800. (Cl. 15—59.)



1. A window cleaner comprising a pivoted base member, supporting means for said member, a reciprocatory bar carried by the member, a pair of cleaning devices carried by the reciprocatory bar, pivoted supports for said cleaning devices connected to the reciprocatory bar, means for operating said supports to spread the cleaning devices, and means for operating the reciprocatory bar.

2. A window cleaner comprising a base member, supporting means for said member, a reciprocatory bar carried by the member, a pair of cleaning devices carried by the reciprocatory bar, pivoted supports for said cleaning devices connected to the reciprocatory bar, means for operating said supports to spread the cleaning devices, and means for operating the reciprocatory bar.

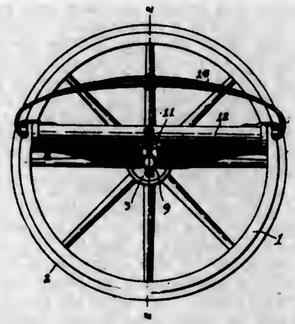
3. A window cleaner comprising a base member, supporting means for said member, a reciprocatory bar carried by said member, a pair of pivoted arms carried by the bar, a slidable rod carried by the bar, pivoted spreader links connecting the rod to the respective arms, cleaning devices carried by the arms, means for operating the reciprocatory bar, and means for operating the slidable rod.

4. A window cleaner comprising a base member, supporting means for said member, a reciprocatory bar carried by the base member, a pair of pivoted arms carried by the bar, an abutment carried by the bar, a slidable rod carried by the bar, said rod having an abutment, a spring interposed between the aforesaid abutments, pivoted spreader links connecting the aforesaid rod to the respective arms, cleaning devices carried by the arms, means for operating the reciprocatory bar, and means for operating the slidable rod.

5. A window cleaner comprising a base member, supporting means for said member, a rack-bar carried by the base member, guides on the base member for the rack-bar, an actuating gear for the rack-bar carried by the base member, a pair of pivoted arms carried by the rack-bar, a slidable rod carried by the rack-bar, pivoted spreader links connecting the rod to the respective arms, and means for operating the slidable rod.

[Claim 6 not printed in the Gazette.]

1,140,002. PNEUMATIC CUSHIONING DEVICE FOR VEHICLES. EARL V. SANDERS, Pawnee, Ill. Filed Dec. 22, 1913. Serial No. 808,293. (Cl. 21—50.)

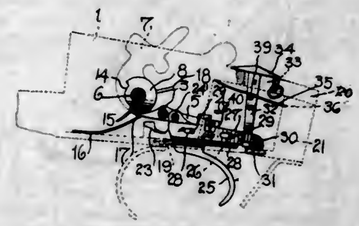


1. In a pneumatic cushioning device for vehicles, the combination with a vehicle wheel and axle, of an elongated cylindrical pneumatic cushion supported by and carried across said axle, an elongated semi-cylindrical housing resting on said cushion and positioned to support the main body of a vehicle, vertical guide pins carried by said axle and adapted to receive said housing, buffer head on said guide pins adapted to limit upward and downward movement of the housing, vertically perforated slide means on the housing whereby said housing may move upward and downward on the guide pins carried by said axle, cushioning means positioned between the slide means on the housing and the buffer heads on the guide pins, substantially as described.

2. In a pneumatic cushioning device for vehicles, the combination with a vehicle wheel and axle, of an elongated cylindrical pneumatic cushion supported at right angles to said axle, an arcuate block anchored to said axle and adapted to support a pneumatic cushion, an elongated housing supported at right angles to the axle by said cushion, guide pins anchored to said axle on each side of said housing, slide members on said housing positioned to slide upward and downward on said guide pins, a buffer head on the upper end of each of said guide pins, coil springs about said guide pins between the buffer heads and the slide members on said housing, and a scroll elliptical leaf spring supported at each end by said housing and adapted to support the body of a vehicle thereon, substantially as described.

3. In a pneumatic cushioning device for vehicles, the combination with a vehicle wheel and axle, of an elongated cylindrical pneumatic cushion supported at right angles to said axle, an arcuate block anchored to said axle and adapted to support a pneumatic cushion, an elongated housing supported at right angles to the axle by said cushion, vertical guide pins anchored to said axle on each side of said housing, vertically perforated slide members fixed on each side of said housing and positioned to slide vertically on the guide pins, a buffer head on the upper end of said guide members, coil springs about said guide pins between the buffer heads and slide members on the housing, and a scroll elliptical leaf spring supported on each end by said housing and adapted to support the body of a vehicle thereon, substantially as described.

1,140,003. SINGLE-TRIGGER MECHANISM FOR DOUBLE-BARREL GUNS. MARVIN C. SANDERSON, Hackleburg, Ala. Filed Sept. 26, 1914. Serial No. 863,685 (Cl. 42—42.)



1. In a single trigger mechanism for double-barrel guns, a pair of parallel sears, each having an inwardly extending lug, said lugs being disposed in vertically spaced registering relation, and a sear actuating and selecting member having a notch and a projecting lug disposed in such relation to each other that when the lug is beneath one sear the notch will be coincidently beneath the other sear, a trigger operatively connected with the actuating member to raise the latter, and means for longitudinally shifting the sear actuating member.

2. In a single trigger mechanism for double-barrel guns, a pair of parallel sears, each having an inwardly extending lug, said lugs being disposed in vertically spaced registering relation and a longitudinally shiftable sear actuating and selecting member having a notch upon its upper edge and an upwardly projecting lug forward of the notch, said lug having a rearwardly projecting portion at its upper end partially overhanging the notch, the rear end of the notch providing a shoulder adapted, when the actuating member is shifted forward to carry its lug from beneath one sear, to be carried forward beneath the other sear.

3. In a single trigger mechanism for double-barrel guns, a pair of oppositely disposed pivoted sears, a trigger, a medially disposed longitudinally extending sear actuating and selecting member mounted on the trigger, the tails of the sears extending rearward and having laterally extending terminals disposed in overlapping vertically spaced relation, the sear actuating member having a notch and an annular lug disposed in such relation to the notch that when the upper angularly extending end of the lug is disposed beneath one sear the notch will be disposed beneath the other sear, and when the sear selecting and actuating member is longitudinally shifted the angularly extending lug will be disposed out of registration with the first named sear and the shoulder at the rear end of the notch will be disposed beneath the other sear.

4. A single trigger mechanism for double-barrel guns comprising a gun frame, pivoted hammer holding sears having inturned rear ends mounted within the frame, a sear actuating bar slidably connected to the trigger, said sear actuating bar having a notch formed in its upper edge, a stem projecting upwardly from the bar forwardly of the notch, a rearwardly projecting lug formed on the upper end of said stem, said sear actuating bar being disposed below the sears, and the rearwardly extending lug being adapted for engagement with the inturned end of one of the sears, with the notch disposed below the inturned end of the other sear when the bar is in one of its positions, the upper edge of the sear actuating bar adjacent the notch being disposed below the inturned end

of said other sear and the rearwardly extending lug being removed from its position below the first mentioned sear when said sear actuating bar is in its other position.

1,140,004. ROTATABLE SHOE-HEEL. JOHN SCHALL, Evergreen Park, Ill. Filed Nov. 12, 1914. Serial No. 871,658. (Cl. 36—39.)



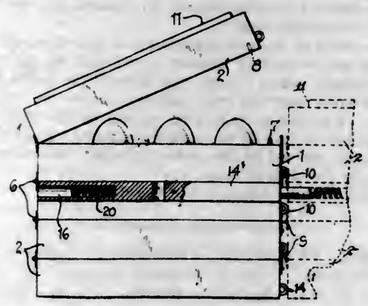
1. In a shoe, a heel having a tread portion and a fixed portion rotatable relatively to each other, said portions having respectively equal substantially polygonal meeting faces, and provided with interengaging formations adapted to maintain said faces in register with each other, the formations of at least one member corresponding in number and with the edges of the same and positioned relatively to the latter and the axis of rotation to cause said formations to register after each partial turn of said tread member through a given arc, and a spring for normally maintaining the meeting faces of said members in contact and said formations interengaged, said spring constituting the pivot about which said tread member is rotatable.

2. In a shoe, a substantially triangular heel having equal sides and angles and divided horizontally into two parts, plates mounted in recesses in the meeting faces of said parts and having registering central opening concentric with the axis of the heel, there being three sets of interfitting formations in said plates disposed equidistantly from said axis and from each other and arranged to interengage as the peripheral edges of the respective parts of the heel register, a spring for maintaining the meeting faces of said heel parts in contact with each other passing through said central openings in said plates and constituting the pivot about which the tread member is rotatable, and means rotatable relatively to said plates with which said spring is engaged at its ends.

3. In a shoe, a substantially triangular heel having equal sides and angles and divided horizontally into two parts, plates mounted in recesses in the meeting faces of said parts and having registering central openings concentric with the axis of the heel, there being three sets of interfitting formations in said plates disposed equidistantly from said axis and from each other and arranged to interengage as the peripheral edges of the respective parts of the heel register, a tension spring for maintaining the meeting faces of said heel parts in contact with each other passing through said central openings in said plates and constituting the pivot about which the tread member is rotatable, and means rotatable relatively to said plates with which said spring is engaged at its ends.

4. In a shoe, a heel divided horizontally into two parts, plates mounted in recesses in the meeting faces of said parts and having registering central openings concentric with the axis of the heel, there being interfitting formations in said plates disposed equidistantly from said axis and from each other and arranged to interengage as the parts of the heel are rotated relatively to each other through an arc equal to that separating contiguous pairs of said formations, and a spring for maintaining the meeting faces of said heel parts in contact with each other passing through said central openings in said plates and constituting the pivot about which the tread member is rotatable.

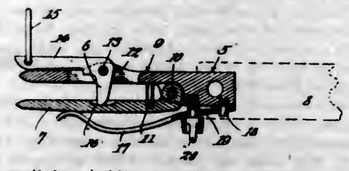
1,140,005. EGG-CARRIER. BOHUMIL SCHVERMA, Two Rivers, Wis. Filed May 2, 1914. Serial No. 836,015. (Cl. 217—13.)



1. The combination of a plurality of article carriers each provided with parallel side bars, each bar having a socket in one end and a longitudinally projecting lug on its other end, shock absorbing springs arranged in the sockets, the lugs on the bars of one carrier being adapted to be fitted into the sockets on the bars of an adjacent carrier, a vertically disposed lug on one of the side bars of each carrier, the other side bar of each carrier being provided with an opening to receive the lug of the bar on an adjacent carrier, and latching devices on the latter bars to engage the lugs thereon.

2. The combination of a plurality of carriers each including a plurality of hingedly connected frames, said frames being provided with means for detachably connecting the same together at their free ends, side bars secured to one frame of each carrier each provided upon one end with a longitudinally projecting lug and in its other end with a socket, the lugs of the bars of one carrier being adapted for engagement in the sockets of the bar of an adjacent carrier, the side bars of the adjacent carriers being provided with additional means to hold the carriers against relative movement in one direction, and latch devices for connecting the several carriers to each other.

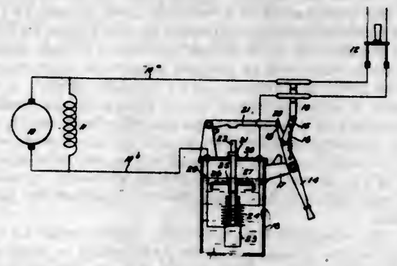
1,140,006. MAIL-BAG HOLDER. GEORGE IRA SHUMAKER, Longpoint, Iowa. Filed May 11, 1914. Serial No. 837,789. (Cl. 258—23.)



1. A mail bag holder comprising a body portion having a projecting finger, a pivoted hook carried by said finger and projecting from one side thereof, a pivoted guard member carried by the body portion and extending along the finger in spaced relation therewith, a pin carried by the guard member and engageable with the finger for limiting the swing of said guard member in the direction of the finger, and means for yieldingly holding the guard member against the projecting end of the hook.

2. A mail bag holder comprising a body portion having a projecting finger, a pivoted hook carried by said finger and projecting from one side thereof, a pivoted guard member carried by the body portion and extending along the finger in spaced relation therewith, means for yieldingly holding the guard member against the projecting end of the hook, said means comprising a flat spring carried by the aforesaid body portion and having an aperture, a threaded pin carried by the body portion and passing through said aperture, and a nut screwed on said pin and engageable with the spring to vary the degree of pressure of the latter against the guard member.

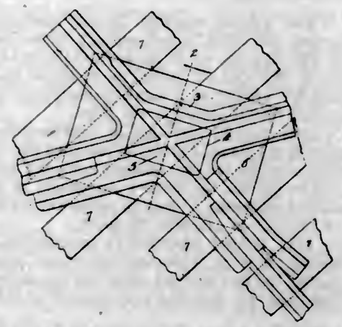
1,140,007. TIME-LIMIT CIRCUIT-BREAKER. HALFDAN A. STEEN, Milwaukee, Wis., assignor, by mesne assignments, to Allis-Chalmers Manufacturing Company, a Corporation of Delaware. Filed Apr. 8, 1911. Serial No. 619,692. (Cl. 175—270.)



1. A time element device comprising a receptacle containing a liquid, a movable member disposed outside of said casing, an electromagnet in said casing, the core of said magnet having a projection extending through said casing and movable into engagement with said movable member to actuate the same, and a suction member normally immersed in said liquid and movable by said core out of said liquid, said suction member being provided with a leak opening permitting the equalization of pressures within and without the suction member.

2. In combination, a receptacle partly filled with liquid, a cover for said receptacle, a movable member disposed outside said receptacle, an electromagnet having a coil and a core therefor mounted in said receptacle, a suction member normally immersed in said liquid and movable with said core, said suction member comprising a hollow element closed at its upper end and provided with a restricted opening between its upper and under sides and with means for varying the depth of the imperforate portion of said hollow element below said restricted opening, and an extension from said core passing through said cover and engageable with said movable member to actuate the same.

1,140,008. RAILWAY-CROSSING. EUGENE N. STROM, Chicago, Ill., assignor to Pettibone Mulliken Company, Chicago, Ill., a Corporation of Illinois. Filed Feb. 3, 1913. Serial No. 5,885. (Cl. 104—40.)

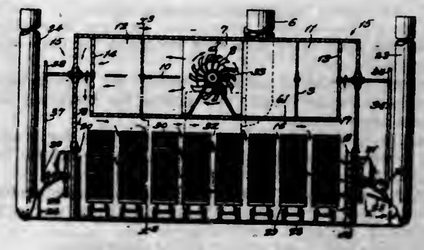


1. A cast hard-metal crossing-section provided with an opening extending through it at the crossing point, and a hard-metal insert fitting and confined in said opening, said section and insert containing grooves for the flanges of wheels traversing the crossing, and said insert being supported to take the wheel-blows at the intersecting grooves therein and shield the remainder of said section against transmission thereto of said blows.

2. A cast hard-metal crossing-section provided with an opening extending through it at the crossing point, and a hard-metal insert fitting and confined in said opening and provided with an expanded seating base extending underneath said section, said insert and section containing grooves for the flanges of wheels traversing the crossing.

3. A cast hard-metal crossing-section provided with an upwardly tapering opening extending through it at the crossing point, and a hard-metal insert fitting and confined in said opening and provided with an expanded seating lug base extending underneath said section, said insert and section containing grooves for the flanges of wheels traversing the crossing.

1,140,009. METHOD OF AND APPARATUS FOR CURING RAISINS AND OTHER FRUIT. OHANES TASHJIAN, Fresno, Cal. Filed Aug. 12, 1913. Serial No. 784,422. (Cl. 34—46.)



1. The method set forth of curing fruit which consists in subjecting the fruit in stacks of superposed trays in a chamber to hot dry air; supplying the air to the top of the chamber and causing it to flow laterally from stack to stack and to descend and travel along the trays from top to bottom, and alternating the current from end to end of the chamber.

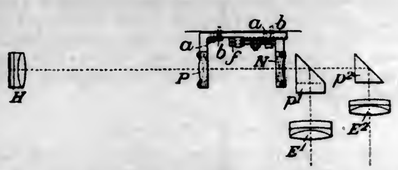
2. The method set forth of curing raisins and other fruit which consists in subjecting stacks of the fruit on superposed trays in a curing chamber to hot, dry air; supplying the air to the top of the chamber and causing it to flow laterally from stack to stack and to descend and travel along the trays from top to bottom, and producing a tendency to rarefaction at the lower part of the curing chamber.

3. The method set forth of curing raisins which consists in subjecting stacks of raisins on superposed trays in a curing chamber to hot, dry air; supplying such air to the top of the chamber and causing it to flow laterally from stack to stack and to descend and travel along the trays from top to bottom; producing a tendency to rarefaction at the lower part of the curing chamber; and alternating the flow from end to end of the chamber, substantially as and for the purpose set forth.

4. The fruit curing apparatus set forth comprising an air heater, a hot air tempering trunk connected with the heater, a mixing chamber, a fan to draw air from the tempering trunk and to force it into the mixing chamber, a curing chamber below the mixing chamber, means to deliver air from the mixing chamber to the curing chamber, means to support fruit in the curing chamber, and means at the lower portion of the curing chamber to exhaust air therefrom.

5. The fruit curing apparatus set forth comprising an air heater, a tempering trunk connected with the heater, a mixing chamber, a fan to draw air from the tempering trunk and to force it into the mixing chamber, a curing chamber below the mixing chamber, means to deliver air from the mixing chamber alternatively to first one end and then the opposite end of the curing chamber, means to support fruit in intercommunicating stacks in the curing chamber, means at the lower portion of the curing chamber to exhaust air therefrom, and means to cause the air to pass first in one then in the other direction through said curing chamber.

1,140,010. OPTICAL INSTRUMENT ESPECIALLY APPLICABLE TO RANGE-FINDERS. HAROLD DENNIS TAYLOR, Bishophill, England, assignor of one-half to Arthur Hungerford Pollen, London, England. Filed Oct. 4, 1913. Serial No. 793,293. (Cl. 88—2.7.)



1. An optical instrument including means for producing an emergent beam non-circular in form in combination with means for rendering the beam more circular in form.

2. An optical instrument including means for producing an emergent beam non-circular in form in combination with magnifying means for rendering the beam more circular in form.

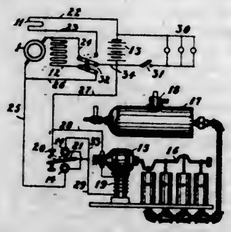
3. An instrument including means for superimposing two non-circular beams, and means for rendering said beams more circular.

4. An optical instrument including means for producing a non-circular emergent beam, and a cylindrical lens system for rendering the beam more circular.

5. An instrument including means for superimposing two non-circular beams, and a cylindrical lens system for rendering the beam more circular.

[Claims 6 to 9 not printed in the Gazette.]

1,140,011. COMBINED GAS-ENGINE STARTER AND ELECTRIC GENERATOR. JOHN D. TAYLOR, Wilkinsburg, Pa.; Mary E. Taylor executrix of said John D. Taylor, deceased. Filed May 20, 1913. Serial No. 768,729. (Cl. 171—315.)



1. The combination of a variable speed engine, an electric dynamo operatively connected to said engine to either drive the same or to be driven thereby, a storage battery electrically connected to the said dynamo to either receive current from the dynamo or to furnish current to the dynamo, a motor connected in series between the dynamo and the battery, a constant load device connected to the motor, and automatic means for putting the motor into and out of operative circuit according to the action of the dynamo, substantially as described.

2. The combination of a variable speed engine, an electric dynamo operatively connected to said engine to either drive the same or to be driven thereby, a storage battery electrically connected to the said dynamo to either receive current from the dynamo or to furnish current to the dynamo running as a generator exceeds the electro-motive and the battery, a constant load device connected to the motor, and means for automatically putting the motor into circuit when the electro-motive force developed in the dynamo running as a generator exceeds the electro-motive force of the battery, substantially as described.

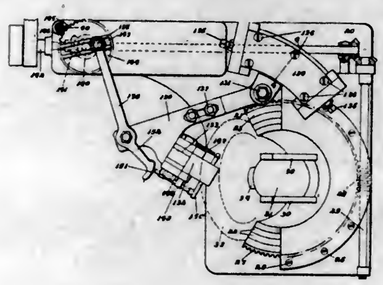
3. The combination of a variable speed engine, an electric dynamo operatively connected to said engine to either drive the same or to be driven thereby, a storage battery electrically connected to the said dynamo to either receive current from the dynamo or to furnish current to the dynamo, a motor arranged to be driven by the dynamo when acting as a generator but normally inoperative, and means for putting the motor operatively into circuit when the electro-motive force developed in the generator exceeds that of the battery, substantially as described.

4. The combination of a variable speed engine, an electric dynamo operatively connected to said engine to either drive the same or to be driven thereby, a storage battery electrically connected to the said dynamo to either receive current from the dynamo or to furnish current to the dynamo, a motor arranged to be driven by the dynamo when acting as a generator but normally inoperative, and means for putting the motor operatively into circuit when the electro-motive force developed in the generator exceeds that of the battery, together with an air pump connected with said motor to be driven thereby, substantially as described.

5. The combination of a variable speed engine, an electric generator operatively connected thereto to drive said engine under certain conditions and to be driven by the engine under other conditions, a storage battery electrically connected to the said generator to receive current therefrom and also to furnish current thereto, and a motor and polarized controller in series between the generator and battery.

[Claims 6 to 8 not printed in the Gazette.]

1,140,012. GEAR-CUTTING MACHINE. MILTON TIBBETTS, Detroit, Mich., assignor to Packard Motor Car Company, Detroit, Mich., a Corporation of Michigan. Filed Apr. 7, 1914. Serial No. 830,232. (Cl. 90—9.)



1. In a gear cutting machine, in combination, means for supporting the blank, a tool support, means for oscillating the tool support so as to move the tool in a path concentric to the axis of oscillation to shape the tooth, and means for producing a relative movement between the blank and tool to generate the tooth.

2. In a gear cutting machine, in combination, means for supporting the blank, a pivotally mounted tool support, means for oscillating the tool support upon and concentric to its pivot to provide the cutting movements of the tool, and means for producing a relative movement between the blank and the tool to generate the tooth.

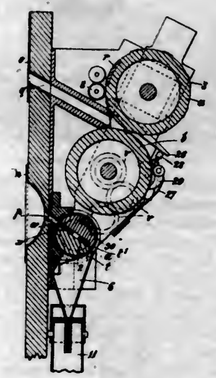
3. In a gear cutting machine, in combination, means for supporting the blank, a pivoted tool support, and means for oscillating the tool support upon and concentric to its pivot comprising an eccentric and connecting rod mechanism.

4. In a gear cutting machine, in combination, means for supporting the blank, a pivoted tool support, and means for oscillating the tool support on its pivot comprising a shaft parallel with the pivot of said tool support, an eccentric on said shaft, and a connecting rod connecting said eccentric and the tool support.

5. In a gear cutting machine, in combination, means for supporting the blank, a tool support, a tool holder pivoted on said support, means for oscillating the tool support so as to move the tool in a path concentric to the axis of oscillation to cut the tooth, and means operated by said oscillating means for lifting the tool holder on the return oscillating stroke of the support.

[Claims 6 to 21 not printed in the Gazette.]

1,140,013. STAMPING MECHANISM. FREDERICK WILKINSON, Glazenwood, near Braintree, England. Filed May 11, 1912. Serial No. 696,699. (Cl. 194—1.)



1. In a coin controlled apparatus, a casing provided with a coin slot, a cylinder comprising separate sections mounted in said casing and provided with a coin slot between said sections adapted to normally register with the coin slot in the casing, a member having notches therein, and a yielding element disposed within the coin slot and normally engaging the notches in said member for locking the cylinder against rotation.

2. In a coin controlled apparatus, a casing having a coin slot therein, a rotatable cylinder disposed within said casing and having a coin slot therein disposed normally in registration with the coin slot in said casing, a lever disposed within the coin slot of the cylinder for limiting the movement of a coin therein, a notched member, and a spring pressed element engaging said notched member for holding the cylinder against rotation, and a portion of said spring pressed member being disposed within the slot in the path of said coin, whereby upon the insertion of a coin in the slot the spring pressed element will be moved from engagement with the notched member permitting the rotation of said cylinder.

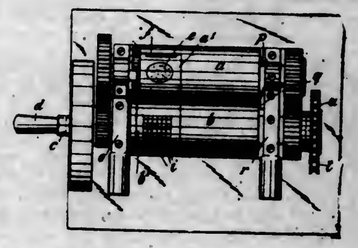
3. In a coin controlled apparatus, a casing having a coin slot therein, a cylinder disposed adjacent said coin slot in the casing said cylinder comprising two sections having a coin slot disposed therebetween, a lever disposed within said coin slot of the cylinder for limiting the movement of a coin therein, said cylinder further having a recess provided therein, a spring pressed element disposed within said recess, a notched member arranged for engagement with the spring pressed element whereby the cylinder will be locked against movement, and a portion of said element being disposed within the slot in the cylinder in the path of a coin, whereby upon the insertion of a coin in said coin slot, the spring pressed element will be disengaged from the notches in said notched member.

4. In a coin controlled apparatus, the combination of a casing having a coin slot therein, of a rotatable cylinder disposed within the casing and having a coin slot formed therein for normally registering with the coin slot in said casing, a movable lever disposed within said cylinder for limiting the movement of a coin within the coin slot of said cylinder, said cylinder having a recess provided therein and opening into the coin slot, a locking element disposed within said recess and having a portion thereof projecting into the coin slot, a notched member designed to receive one end of the locking element for holding said cylinder against rotation, and a spring disposed within the recess for normally and yieldingly holding the locking element in engagement with said notched member.

5. In a coin controlled apparatus, a casing having a coin slot provided therein, a rotatable cylinder including two detachable sections spaced apart and forming a coin slot mounted in said casing with its coin slot normally in registration with the coin slot of the casing, a movable lever projecting into the coin slot of the cylinder for limiting the movement of a coin therein, said cylinder having a recess in one section thereof opening into the coin slot therein, a locking element disposed within said recess, a portion of the same projecting into the coin slot of the cylinder, a spring disposed in said recess and normally forcing the locking element in a predetermined direction, a circular member disposed at one end of the coin slot and having notches formed therein for receiving a portion of the locking element, and means for supporting said cylinder.

[Claims 6 and 7 not printed in the Gazette.]

1,140,014. MECHANISM FOR THE STAMPING OF LETTERS, POST-CARDS, AND THE LIKE. FREDERICK WILKINSON, Glazenwood, near Braintree, England. Filed July 30, 1912. Serial No. 712,305. (Cl. 194—1.)



1. Means for stamping letters, post cards and the like comprising a pair of feed rolls between which the letters or the like are fed, a die slidably mounted in one of the rolls, a resilient surface on the other roll adapted to register with the die upon rotation of the rolls, the roll which carries the die having a slot for the reception of a coin adapted to engage the die and hold it out of the slot and thereby cause the die to make an impression upon the letter or the like when the die is brought into registration with said resilient surface.

2. Means for stamping letters, post cards and the like comprising a pair of feed rolls between which the letters or the like are fed, a die slidably mounted in one of the rolls, a resilient surface on the other roll adapted to register with the die upon rotation of the rolls, the roll which carries the die having a slot for the reception of a coin adapted to engage the die and hold it out of the slot and thereby cause the die to make an impression upon the letter or the like when the die is brought into registration with said resilient surface, and means for ejecting the coin after said impression has been made.

3. Means for stamping letters, post cards and the like comprising a pair of feed rolls between which the letters or the like are fed, a die slidably mounted in one of the rolls, a resilient surface on the other roll adapted to register with the die upon rotation of the rolls, the roll which carries the die having a slot for the reception of a coin adapted to engage the die and hold it out of the slot and thereby cause the die to make an impression upon the letter or the like when the die is brought into registration with said resilient surface, and means for returning the rolls to their initial position after each operation.

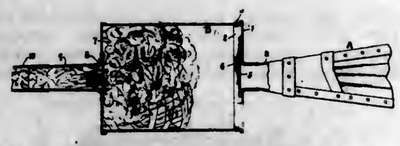
4. A coin-controlled apparatus including a roll provided with an open-ended coin slot, a cam operated lever to prevent movement of the coin through one end of the slot and to eject the coin from the other end of the slot at a predetermined time, and a spring pressed element adapted to be projected into the slot to prevent accidental displacement of the coin through the opposite end of the slot until said predetermined time, and means to project and hold

projected the spring pressed element until said predetermined time whereupon said spring pressed element is released to permit ejection of the coin through the cylinder by said cam operated lever.

5. In a coin controlled apparatus, a roll provided with an open ended coin slot, automatically operating means cooperating with the roll to prevent passage of the coin through one end of the slot and operable to eject the coin from the roll through the opposite end of the slot at a predetermined time, and automatically operating means connected to the roll and projecting into said slot to prevent accidental displacement of the coin through said opposite end of the slot until said predetermined time.

[Claims 6 to 9 not printed in the Gazette.]

1,140,015. SMOKE-PRODUCING DEVICE FOR ROUTING WILD ANIMALS. ALBERT M. AHERN, St. Louis, Mo. Filed Oct. 17, 1912. Serial No. 726,228. (Cl. 43—5.)



The combination in a smoke producing device, of a bellows having a discharge nozzle formed with a peripheral flange providing a flat valve seat at its end, a combustion chamber head having a neck surrounding said discharge nozzle and closely fitted thereto, the said peripheral flange being arranged within said head and closely fitted to the inner face thereof so as to firmly secure said head to said nozzle, and a spring controlled valve secured to said head and seated on the peripheral flange at the end of said nozzle.

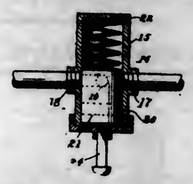
1,140,016. BOX-OPENER. ROLLYN H. BAKER, Dayton, Ohio. Filed Mar. 21, 1914. Serial No. 826,859. (Cl. 220—6.)



In combination with a box comprising a pair of members arranged so that one partly overlaps the other, a triangular opener pivotally mounted on the overlapped member and presenting a straight edge to the edge of the overlapping member the pivot of said opener being at a point between its upper corners and the lower corner of said opener being outturned to form an operating handle, the overlapped member having a bead thereon coincident with the upper edge of the opener and the overlapping member having an outturned flange at the edge of its skirt to bear on and overhang the straight edge of the opener when the latter is in normal position.

1,140,017. VALVE. WALTER BALLARD, Oakland, Cal., assignor of one-half to George Ballard, Oakland, Cal. Filed Sept. 10, 1913. Serial No. 789,112. (Cl. 137—4.)

A valve for the purpose described comprising a cylindrical casing having axially alining inlet and discharge ports formed therein and a port opening into the atmosphere and disposed between the first-mentioned ports and in the same plane with such ports, a plug within said casing and adapted to slide therein and formed with a bore adapted to register with said inlet and discharge ports, and with an angle passage disposed above the bore therein, a spring interposed between one end of said casing and the adjacent end of the plug and acting upon the plug to hold the bore therein normally out of engagement with the inlet and discharge ports and the angle passage in communication with the discharge port and the atmospheric port whereby the discharge port will be



opened to the atmosphere and the stem connected to the remaining end of said plug and projecting outwardly of the adjacent end wall of said casing whereby the plug may be actuated against the action of the spring.

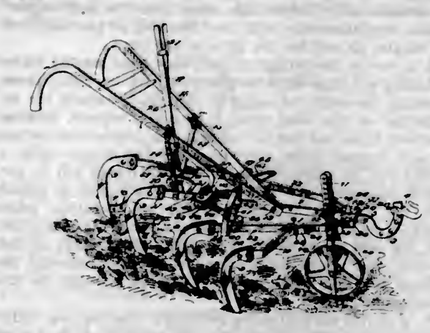
1,140,018. WRENCH. JESSE A. BEAN, Texarkana, Tex., assignor of one-half to Charles R. Montgomery, Texarkana, Tex. Filed Dec. 8, 1913. Serial No. 805,413. (Cl. 81—77.)



A wrench of the class described including a hollow handle having a longitudinal opening extending entirely through it and enlarged at one end, said handle being provided at a point intermediate of its ends with a transverse opening and having its terminal portions enlarged to form inner relatively fixed jaws, outer relatively slidable jaws having shanks extending into the longitudinal opening from the opposite ends thereof, the shank of one of the jaws being relatively long and provided with a threaded portion and extending inwardly beyond the transverse opening, the shank of the other outer jaw being relatively short and pivotally connected to the threaded shank and adapted to oscillate in the enlarged end of the longitudinal opening of the handle, an adjusting nut operating in the transverse opening of the handle and engaging the threads of the relatively long shank, and an exteriorly arranged spring piercing the hollow handle at the enlarged portion of the longitudinal opening and bearing against the said relatively short shank.

1,140,019. ADJUSTABLE-FRAME CULTIVATOR. FRANK BEASLEY, Richmond, Va. Filed Jan. 7, 1913. Serial No. 740,685. (Cl. 97—10.)

1. A cultivator of the character described including a main cultivator beam, lateral cultivator beams hinged to the main cultivator beam for movement in a horizontal plane, handles extending up from the main cultivator beam and pivoted thereto at their forward ends, braces attached to the handles rearward of the pivot thereof and extending laterally out therefrom and over the lateral cultivator beams and having sliding engagement therewith, a lever mounted upon the main beam, and link connections between said lever and the lateral beams, whereby to provide means for manually operating said links to laterally adjust the lateral cultivator beams relative to the main beam.



2. A cultivator of the character described including a main supporting beam, a main cultivator beam, lateral cultivator beams hingedly connected to the main cultivator beam for movement in a horizontal plane, handles projecting upwardly and rearwardly from the main beam, braces for said handles extending downward and then out at right angles and resting upon but slidingly engaged with the upper edges of the lateral cultivator beams, slides on the laterally extending portions of the braces and attached to the lateral cultivator beams, a longitudinally movable slide mounted upon the main beam, a lever mounted on the main beam, a link connection between said lever and the slide and link connections between said last named slide and the first named slides.

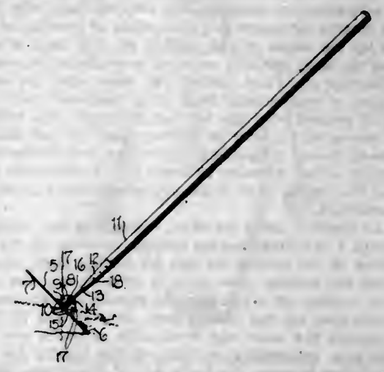
3. A cultivator of the character described including a main cultivator beam, lateral cultivator beams hingedly connected to the main beam near the forward end of the latter, braces disposed on each side of the main beam and extending laterally over and having sliding engagement with the upper edges of the lateral beams, a slide mounted upon the main beam, a lever pivoted to the main beam, a link connecting the slide and lever, outwardly and forwardly extending links pivotally connected to the slide, and members attached to the lateral cultivator beams and having sliding engagement with the said braces and pivotal engagement with the links

4. A cultivator of the character described including a main cultivator beam, lateral cultivator beams hinged to the main beam for movement in a horizontal plane, upwardly and rearwardly extending handles mounted upon the main beam, opposed braces, each being approximately triangular in form and attached at one side to the corresponding handle and having its base extending over the corresponding lateral beam, a slide mounted upon the main beam and having sliding engagement therewith, manually operable means for shifting said slide, links extending outward and forward from the slide, and members attached to the lateral beams and having sliding engagement with the base of the triangular braces, to which members the forward ends of the links are pivoted.

5. In a cultivator comprising a main beam and lateral beams connected at their front ends to the main beam and laterally adjustable at their rear ends, a slide mounted upon the main beam and comprising upper and lower ears, coupling members secured against the inner sides of the lateral beams and formed with outwardly extending ribs engaging the upper and lower edges of such lateral beams and formed with inwardly extending upper and lower ears, links having eyes at opposite ends and having their rear eyes arranged between the ears of the slide, said links extending forwardly and outwardly and having the eyes at their front ends arranged between the ears of the coupling members, fastenings pivotally connecting the eyes of the links to the ears of the slide and coupling members, respectively, and means for moving the slide upon the main beams to effect horizontal adjustment of the lateral beams.

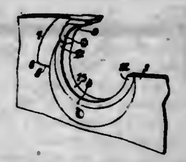
[Claims 6 to 11 not printed in the Gazette.]

1,140,020. ADJUSTABLE HOE. CHARLES A. BRADLEY, Burnstad, N. D., assignor of one-half to Nels Frisk, Burnstad, N. D. Filed June 27, 1914. Serial No. 847,692. (Cl. 55—38.)



The combination of a hoe blade, a plate of substantially circular form projecting from one face of said blade in a plane at right angles thereto and provided with oppositely extending attaching flanges, a handle, a shank secured in one end of said handle and having a bifurcated end to receive said plate, a pivot bolt extending through the end of the shank and said plate, said plate being provided with a semi-circular series of openings in concentric relation to the pivot, the opposed arms of the bifurcated end of said shank being also provided with openings to register with any one of said openings in the plate, a leaf spring fixed at one of its ends to said shank and having its other end outwardly curved, and a pin fixed to said spring adjacent to its latter end and normally projected by the spring through the coinciding openings in the shank and plate to retain the hoe blade in various angular positions with respect to the shank.

1,140,021. INSERTED TOOTH FOR SAWS. SAMUEL J. BROWN, Vancouver, British Columbia, Canada, assignor of one-half to Zibea Giberson, Vancouver, Canada. Filed Aug. 4, 1913. Serial No. 782,905. (Cl. 143—151.)



1. An inserted tooth for saws, comprising the combination with a saw blade having a circular arc recess for the locking piece and a recess for the cutting bit which is outside the circle of the locking bit recess of a cutting bit fitting its recess and an end for end reversible locking piece for securing it therein.

2. An inserted tooth for saws, comprising the combination with a saw blade, of a tooth or cutting bit having a shank the inner and outer sides of which are concentric curves said bit being inserted in a recess provided for it in the blade at an angle to afford the maximum pitch desired, and a locking piece the outer side of which is a circular arc which corresponds with the inner side of the cutting bit shank, said locking piece fitting a recess provided for it in the blade of the saw and susceptible of rotation from that recess up the shank of the cutting bit the tooth or cutting end of the bit being laterally enlarged to overhang and protect the end of the locking piece.

3. An inserted tooth for saws, comprising the combination with a saw blade, of a tooth or cutting bit having

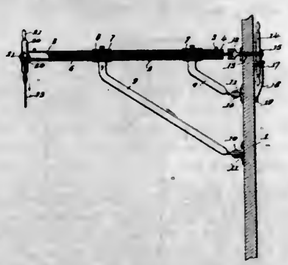
a shank and a cutting head, the inner and outer edge faces of the shank being formed as concentric curves, said blade having a bit receiving recess, and having a locking piece receiving recess, a locking piece inserted in the locking piece recess, the outer edge face of said locking piece being a circular arc corresponding with the inner edge face of the cutting bit shank and susceptible of rotation in its recess up the shank of the cutting bit, the head of said cutting bit being laterally enlarged to overhang the end of said locking piece and protect the same, and the outer edge face of said cutting head being concaved above the plane of contact with the locking piece end, said locking piece having at its outer or exposed edge, on each side of the blade, lateral projections conforming in thickness substantially to the thickness or width of the contacting portion of the cutting head of the bit, substantially as shown and described.

4. An inserted tooth for saws, comprising the combination with a saw blade having suitable recesses cut for the reception of the cutting bit and its locking piece, the recess for the locking piece being a circular arc and that for the cutting bit a circular arc outside of and concentric with that for the locking piece, of a cutting bit having a shank the outer and inner sides of which are concentric arcs conforming to those of the cutting bit and locking piece recesses, the inner side of the cutting bit on the front or face side being carried forward to project over the end of the locking piece when in position and concavely curved between that projection and the cutting face of the bit, and a locking piece shaped as a symmetrical crescent so as to be reversible in its application to secure the cutting bit.

5. The combination with a saw blade, of a cutting bit having a shank and a shouldered cutting head, the inner and outer sides of the shank being formed as concentric curves, said blade having a bit receiving recess, and having a locking piece receiving recess, a locking piece, the outer side of said locking piece being a circular arc corresponding with the inner side of the cutting bit shank and susceptible of rotation in its recess up the shank of the cutting bit to engage the shoulder of the cutting head.

[Claims 6 and 7 not printed in the Gazette.]

1,140,022. DEVICE FOR DELIVERING POUCHES FROM MOVING TRAINS. GEORGE BURRELL, Durban, Natal, South Africa. Filed Dec. 6, 1913. Serial No. 805,050. (Cl. 258—1.)



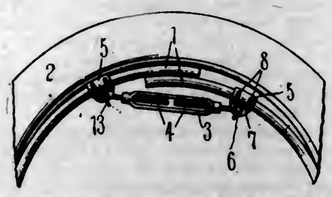
1. A device for delivering mail-bags from moving trains including a hollow arm, an operating rod extending therethrough and projecting beyond the arm extremities, mail bag support means arranged upon one end of said rod, means including a member rotatable upon the car interior, said member having a plurality of openings formed therein, and means normally fitting said openings to lock the rod immovable with respect to the arm, the said rod when unlocked adapted to automatically release the said mail bag, as and for the purpose set forth.

2. A device for delivering mail-bags from moving trains including a hollow arm, bearings disposed within the said arms, an operating rod journaled within the said bearing, and extending throughout the entire length of the said arm, mail-bag support means arranged upon one end of the said rod, a second rod to which the said first mentioned rod is pivotally secured, means arranged upon the interior of the mail-car for locking the said last mentioned rod against rotation, the weight of the mail-bag adapted to automatically deliver the same from the said support means simultaneously with the unlocking of the said locking means, as and for the purpose set forth.

3. A device for delivering mail-bags from moving trains including a hollow arm, an operating rod extending therethrough, the said rod adapted to project beyond the extremities of the said arm, a mail-bag support member mounted upon one end of the said rod, projections formed on said support from which the mail-bag is suspended, a second rod to which the said first mentioned rod is pivotally connected, the said second rod adapted to extend into the interior of the mail-car, an operating wheel mounted upon the inner end of the said last mentioned rod, the said wheel having a plurality of openings formed therein, and means adapted to fit the said openings for locking the said wheel against rotation, as and for the purpose set forth.

4. A device for delivering mail-bags from moving trains including a hollow arm, an operating rod journaled within the said arm and extending throughout the entire length thereof, a mail-bag supporting wheel mounted upon one end of the said rod, projections formed upon the periphery of the said wheel from which the mail-bag acted upon is suspended, a second rod extending into the interior of the mail-car to which the said first mentioned rod is pivotally secured, an operating wheel mounted upon the inner end of the said second rod, the said wheel having a plurality of openings formed therein, a pin adapted to extend transversely through one of the openings to lock the support means against rotation, the weight of the mail-bag adapted to automatically release the same the moment the pin is withdrawn from engagement with the said operating wheel.

1,140,023. RIM-TOOL. AMOS CALLESON, New York, N. Y. Filed Feb. 9, 1915. Serial No. 7,152. (Cl. 29—84.)



1. A rim tool including a turn-buckle and its rods, two pairs of rim clamping members connected to said rods whereby the rim may be positively contracted and expanded.

2. A rim tool including a turn-buckle and its rods, two pairs of rim clamping members, cross bolts and their thumb nuts serving the double purpose of connecting the clamping members to the rods and for securing the clamping members to the rim.

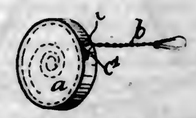
3. A rim tool including a turn-buckle and its rods, two pairs of rim clamping members, cross bolts connecting the rods and rim clamping members, each cross bolt having its head held against turning in one rim clamping member and a thumb nut for drawing each pair of clamping members into engagement with the rim.

4. A rim tool including a turn-buckle and its rods, two pairs of rim clamping members, cross bolts connecting the rods and rim clamping members, each cross bolt having its head held against turning in one rim clamping member, a thumb nut for drawing each pair of clamping members into engagement with the rim, and a spacing sleeve on said cross bolt between its thumb nut and rim clamping member for properly positioning the thumb nut to permit its manipulation.

5. In a rim tool, a rim engaging member comprising a longitudinally extended hook portion, a seat portion and strengthening ribs connecting the ends of the hook portion with the sides of the seat portion.

[Claim 6 not printed in the Gazette.]

1,140,024. HOLDER FOR EYEGLASSES AND THE LIKE ARTICLES. GEORGE HERBERT CLAPHAM, Manchester, England. Filed May 26, 1910. Serial No. 563,580. (Cl. 242—98.)



1. A device of the class described comprising in combination, a cord or chain-like guard for connection with the article to be held, a casing, and a spring-controlled reel mounted in said casing and normally acting to reel-in the guard, said casing being provided with an aperture presenting a single, unrestricted and undivided opening for passage of the guard, one portion of said opening being relatively enlarged with respect to the diameter of the guard to afford free passage therethrough, the other portion of said opening being contracted in a V-shaped form to check the passage of the guard, the walls of the V-shaped portion merging into the walls of the free passage portion on gently curved lines.

2. A device of the class described comprising in combination, a chain or cord-like guard for connection with the article to be held, a casing, and a spring-controlled reel mounted in said casing and normally acting to reel-in the guard, said casing having an elongated aperture presenting a single, undivided and unrestricted opening having an enlarged guard passage portion and a relatively contracted guard-checking portion, the walls of the free passage portion converging substantially uniformly on both sides toward and merging into the walls of said contracted checking portion on gently curved guiding or cam-like lines.

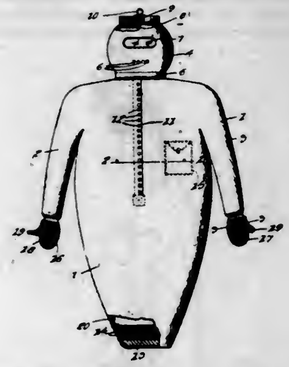
3. A device of the class described comprising in combination, a cord or chain-like guard for connection with the article to be held, a casing, and a spring-controlled reel mounted in said casing and normally acting to reel-in or wind in the guard, said casing having a single aperture for passage therethrough of the guard comprising an undivided opening having a free guard passage portion and a contracted guard checking portion, whereby movement of one end of the guard in a straight direction will permit movement of the guard from one portion of the opening to the opposite portion thereof.

4. A device of the class described comprising in combination, a cord or chain-like guard for connection with the article to be held, a casing, and a spring-controlled reel in said casing normally acting to wind-in the guard, said casing having a single aperture provided with a relatively enlarged free passage guard portion and a relatively contracted guard checking portion with the walls of one portion merging into the walls of the other portion on gently curved lines to permit free lateral passage of the guard from one portion to the other, the guard-checking portion being angularly disposed with respect to the normal line of travel of the guard.

5. A device of the class described comprising in combination, a casing, a spring-controlled reel rotatively mounted in said casing, and a chain attached at one end to said reel and having its adjoining links set in planes substantially at right angles to each other, said reel being so arranged as to normally reel in said chain, said casing being provided with an oblong opening with rigid edges and having two portions in substantially longitudinal alinement with respect to each other, one portion of said opening being relatively enlarged with respect to the diameter of the chain both laterally and longitudinally of the longitudinal axis of the oblong opening to afford free passage of the chain therethrough, the other portion of said opening having parallel edges and being restricted laterally to such an extent as to prevent the passage of the chain therethrough, the walls of said restricted portion merging into the walls of said enlarged portion on gently curved lines to guide the chain into locked relation with said parallel edges.

[Claims 6 and 7 not printed in the Gazette.]

1,140,025. LIFE-SAVING SUIT. ANNABEL CRINNION, Flushing, N. Y. Filed Sept. 18, 1914. Serial No. 862,353. (Cl. 9—20.)



1. In a life saving suit, a substantially sack shaped body portion, arms formed upon said body portion, gloves formed at the terminals of said arms, layers of cork formed upon the palms of said gloves.

2. In a life-saving suit, a substantially sack shaped body portion, arms formed upon said body portion, gloves formed at the terminals of said arms, layers of cork formed upon the palms of said gloves, and a weight mounted in the lowermost portion of said body portion.

3. In a life-saving suit, a substantially sack shaped body portion coated with non-combustible material, arms formed upon said body portion, gloves formed at the terminals of said arms, layers of cork formed upon the palms of said gloves, a weight mounted in the lowermost portion of said body portion, a detachable cushion mounted in the lower portion of said body portion and upon said weight.

4. In a life-saving suit, a substantially sack shaped fabric body portion coated with non-combustible material, arms formed upon the sides of said body portion, hand coverings formed at the terminals of said arms, a layer of cork mounted upon the palms of said hand coverings, a helmet secured to the uppermost portion of said body portion, a neck band connecting said helmet and said body portion, and a weight mounted in the lowermost portion of said body portion.

5. In a life-saving suit, a substantially sack shaped body portion coated with non-combustible material, arms formed upon the sides of said body portion, hand coverings formed at the terminals of said arms, a layer of cork mounted upon the palms of said hand coverings, a helmet secured to the uppermost portion of said body portion, a neck band connecting said helmet and said body portion, a weight mounted in the lowermost portion of said body portion, cushions mounted in the lower portion of said body portion and resting upon said weight, and a detachable cushion mounted in the upper portion of said helmet.

[Claim 6 not printed in the Gazette.]

1,140,026. BY-PASS GAS-COCK. JOHN ELSER, Gloucester City, N. J., assignor to Welsbach Light Company, Gloucester City, N. J., a Corporation of New Jersey. Filed Feb. 27, 1915. Serial No. 10,933. (Cl. 240—123.)

1. A gas cock having a rotating valve plug, a clutch lever loosely mounted on the stem of said valve and having an operating connection therewith in one direction of movement, a spring for returning the lever to normal position after each operation, and a braking device arranged to prevent backward movement of the plug and being inoperative in the other direction, substantially as described.

2. A gas cock comprising a rotary valve plug, a clutch lever for actuating the plug in one direction, a spring for

returning the lever to normal position after operation, and a braking device connected to the valve plug and arranged to be put under increased tension by any reverse movement of the plug, substantially as described.

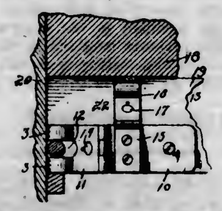


3. A gas cock comprising a rotary valve plug, a clutch lever for actuating the plug, a spring for returning the lever to normal position after each operation, and a braking spring coiled upon the stem of the plug in a reverse direction to the first named spring and in engagement with the periphery thereof, said spring being inoperative when the plug is rotated in one direction and adapted to clamp the plug and restrain it from movement in the other direction, substantially as described.

4. A gas cock having a rotary valve plug, a device for turning said plug in one direction, a spring for returning said device to normal position after each operation, and another and reversely operating spring in engagement with the periphery thereof for preventing reverse movement of the plug, substantially as described.

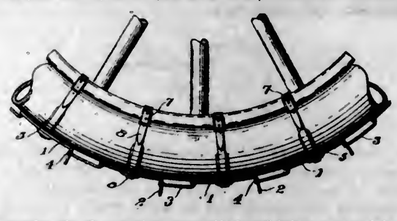
5. A gas cock having a rotating valve plug, a clutch lever loosely mounted on the stem of said plug and having an operating connection therewith in one direction of movement, a spring for returning the lever to normal position after each operation, and a helical spring surrounding the stem of the plug, one end of said spring being secured against movement, said spring being arranged to permit the plug to move freely in one direction and to grip the plug and restrain it from movement in the other direction; substantially as described.

1,140,027. SASH-LOCK. FRANK T. FREICHT, Canton, Ohio. Filed Sept. 18, 1913. Serial No. 790,493. (Cl. 16—52.)



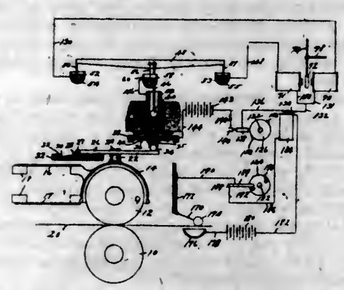
The combination with a window frame and upper and lower sashes slidably mounted therein, of a toothed rack secured against the inner side of the upper sash adjacent the lower end thereof, a plate secured to the top of the lower sash, an arm hinged to one end of said plate and having its free end provided with a recess and with teeth and adapted for engagement with the window frame, said recess being adapted to receive a sash cord, a second plate mounted on the first named plate transversely of the latter, and an arm hinged to one end of the second plate and engageable with said rack.

1,140,028. MUD-GRIP FOR AUTOMOBILES. JAMES M. FRASER, Empress, Alberta, Canada. Filed Dec. 6, 1913. Serial No. 805,182. (Cl. 152—16.)



A mud grip for motor propelled vehicles, comprising a chain of mud gripping elements each embodying a body portion and a flange extending substantially at right angles thereto on the outer exposed side, a U-shaped stirrup secured to the inner face of each of the gripping elements, links arranged in parallel relation to each other and connecting the gripping elements, and straps passing through each of said elements and embracing said stirrups, substantially as described.

1,140,029. STOCK-GATE CONTROLLER FOR PAPER-MAKING MACHINES. TOM FRENCH, Rumford, Me., assignor of one-third to Fred J. Lathan and one-third to James W. Harris, Rumford, Me. Filed Sept. 19, 1913. Serial No. 790,787. (Cl. 92—46.)



1. In a paper making machine the combination of self-adjusting means for engaging a moving web of paper, means for regulating the amount of paper stock fed to said machine, means for controlling the actuation of said regulating means in accordance with the thickness of the paper at said engaging means, and means operative upon the breakage or failure of said web arranged to render said controlling means inoperative.

2. In a paper making machine the combination of self-adjusting means for engaging a moving web of paper, a stock-gate for regulating the amount of paper stock fed to said machine, means for actuating said gate, means for controlling the actuation of said gate in accordance with the thickness of the paper at said engaging means, and means operative upon the breakage or failure of said web arranged to render said controlling means inoperative.

3. The combination of self-adjusting means for engaging a web of paper, a pair of opposed electromagnets, circuit connections by which either of said magnets may be energized according to any variations in the thickness of said web, and means for preventing the energization of either of said magnets when said web fails or breaks.

4. The combination with a stock-gate for regulating the amount of stock fed to a paper making machine, of a shaft operatively connected to said gate to open and close the same, a double-faced ratchet wheel on said shaft, a pair of dogs adapted to engage said ratchet wheel, means for reciprocating said dogs, and means having provision for engaging the paper sheet for controlling the movements of said dogs to cause one or the other to engage said ratchet wheel if the paper varies in thickness, to actuate said stock-gate.

5. The combination with a stock-gate for regulating the amount of stock fed to a paper making machine, of a pair of rolls adapted to engage the paper made on said machine, one of said rolls being self-adjusting, electro-responsive means for controlling the actuation of said gate, contact-members associated with said electro-responsive means, a chamber having one wall adapted to move with said self-adjusting roll, and a fluid contained in said chamber adapted to actuate said contact-members upon the movement of said wall.

[Claims 6 to 17 not printed in the Gazette.]

1,140,030. SHAVING SET. HENRY J. GAISMAN, New York, N. Y. Filed May 27, 1908. Serial No. 435,265. (Cl. 132—11.)



1. The combination of a box comprising a plurality of members, each member having partitions providing a compartment adapted to register with a compartment in the other members, and springs normally pressing a plurality of said partitions outwardly to engage opposing partitions in said other member.

2. The combination of a box comprising a plurality of members, each member having partitions providing a compartment adapted to register with a compartment in the other member, springs normally pressing a plurality of said pratitions outwardly to engage opposing partitions, and stops to limit the outward movement of said partitions.

3. The combination in a box, of two members adapted to form a closed receptacle, partitions in one of the members, partitions in the other member opposite to and adapted to engage the partitions in the other member when the receptacle is closed, and means for yieldingly holding the partitions of one member in contact with the partitions of the other member.

4. In a box, two members adapted to form a closed receptacle, partitions in the said members adapted to aline when the members are assembled to form a closed receptacle, and yieldable means for forcing the opposed edges of the alined partitions together.

5. A box having two members adapted to form a closed receptacle, partitions in one of the members, partitions in the other member adapted to engage the partitions of the companion member when the receptacle is closed, and means for creating air tight joints at the points of engagement of the said partitions.

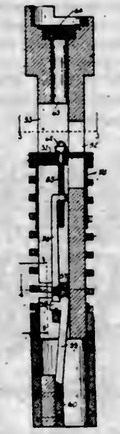
[Claims 6 and 7 not printed in the Gazette.]

1,140,031. BOTTLE-CAPPING MACHINE. JOHN J. GAYNOR, Indianapolis, Ind., assignor to Progress Machine Company, Indianapolis, Ind., a Corporation. Filed July 20, 1914. Serial No. 851,966. (Cl. 113—2.)

1. A bottle capping machine including a tubular bottle support, an elevating member on which it is mounted, yielding resistance between said members, means accessible through the top of said bottle support for adjusting said resisting means, and a removable plug in the upper end of the bottle support for closing the opening therethrough and providing a bottom support for the bottles.

2. A bottle capping machine including a tubular bottle support, an elevating member on which it is mounted, a spring surrounding said bottle support and bearing against said elevating means, a plate extending through the bottle support at the other end of the spring, and centrally located means in the bottle support for adjusting the tension of the spring and accessible through the top of the bottle support for its adjustment.

3. A bottle capping machine including a tubular bottle support, an elevating member on which it is mounted, a spring surrounding said bottle support and bearing against said elevating means, a fixed beveled plate on said elevating means, a dog with a beveled end engaging said beveled plate and its other end engaging said bottle support, and means centrally located within the bottle support and spring for transmitting the action of the spring to said dog for holding it normally in engagement with said plate.



4. A bottle capping machine including a tubular bottle support, an elevating member on which it is mounted, a spring surrounding said bottle support and bearing against said elevating means, a plate extending through the bottle support at the other end of the spring, a plate in said elevating means with the upper end beveled, a dog with its upper end bearing against said bottle support and its lower end beveled to engage the bevel on said beveled plate on the elevating means, a lateral arm on said dog, a connection extending from said dog arm up through said plate at the upper end of said spring, and means for adjusting the length of said latter connection, whereby said spring will yieldingly hold the dog in position to engage said plate and the tension of said spring may be regulated.

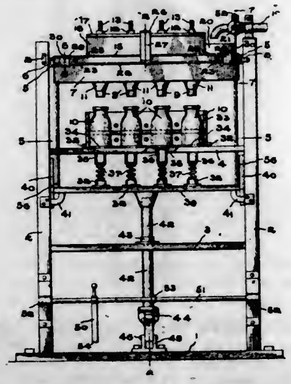
5. A bottle capping machine including a tubular bottle support, an elevating member on which it is mounted, a spring surrounding said bottle support and bearing against said elevating member, a plate extending through the bottle support at the other end of the spring, a plate in said elevating means with the upper end beveled, a dog with its upper end bearing against said bottle support and its lower end beveled to engage the bevel on said beveled plate on the elevating means, a lateral arm on said dog, a connecting rod with one end engaging said dog arm, and a threaded bolt extending through said plate and the other end of said connecting rod, substantially as set forth.

[Claim 6 not printed in the Gazette.]

1,140,032. BOTTLE-FILLING MACHINE. SAMUEL B. GOFF, Camden, N. J. Filed Dec. 29, 1913. Serial No. 809,263. (Cl. 226—21.)

1. A bottle filling machine comprising a tank having a plurality of transverse series of nozzles in its bottom, of valves in the tank normally closing the nozzles, rods connected to the valves and projecting through the top of the tank, a single plate connecting all of said rods above the tank, guides on the sides of the tank, horizontal bars vertically movable in said guides, a transverse bar secured between its ends to the plate, and at its ends to said horizontal bars, a vertically movable elevator below the tank, and upwardly projecting rods on the elevator adapted to engage and elevate the horizontal bars, substantially as described.

2. A bottle filling machine, comprising a tank having a plurality of transverse series of nozzles in its bottom, of valves in the tank normally closing the nozzles, rods connected to the valves and projecting through the top of the tank, a single plate connecting all of said rods above the tank, guides on the sides of the tank, horizontal bars vertically movable in said guides, a transverse bar secured between its ends to the plate and at its ends to said horizontal bars, said guides having openings therein, pins on the horizontal bars movable through the guides and preventing longitudnal movement of the horizontal bars, a vertically movable elevator below the tank, and upwardly projecting rods on the elevator adapted to engage the horizontal bars and move them vertically when the elevator is moved upwardly, substantially as described.

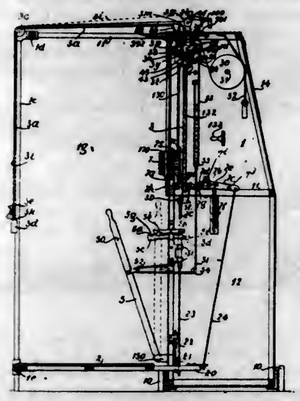


3. A bottle filling machine, comprising a tank having a plurality of transverse series of nozzles in its bottom, of valves in the tank normally closing the nozzles, rods connected to the valves and projecting through the top of the tank, a single plate connecting all of said rods above the tank, guides on the sides of the tank, horizontal bars vertically movable in said guides, a transverse bar secured between its ends to the plate and at its ends to said horizontal bars, a vertically movable elevator below the tank, upwardly projecting rods on the elevator adapted to engage the horizontal bars, and a crate supporting platform having openings therethrough for the passage of the rods and having openings therethrough for bottle supporting means on the elevator, substantially as described.

4. A bottle filling machine, comprising a tank having nozzles in its bottom, valves normally closing the nozzles, rods connected to the valves, a plate above the tank connecting all of the rods, a member connected to the plate and projecting from both sides of the tank, horizontal bars at opposite sides of the tank connected to said member, guides on the sides of the tank limiting the upward movement of the bars, a vertically movable elevator below the tank, and upwardly projecting rods on the elevator normally spaced from the bars and adapted to engage the said bars to elevate all of the valves when the elevator is in bottle filling position, substantially as described.

5. A bottle filling machine, comprising a tank having nozzles in its bottom, valves normally closing the nozzles, rods connected to the valves, a plate above the tank connecting all of the rods, a member connected to the plate and projecting from both side of the tank, horizontal bars at opposite sides of the tank connected to said member, guides on the sides of the tank through which the bars project, said guides having openings therein, upwardly projecting fingers on the bars extending through the openings in the guides and holding the bars against longitudinal movement, a vertically movable elevator below the tank, and upwardly projecting rods on the elevator normally spaced from the bars and adapted to engage the said bars to elevate all of the valves when the elevator is in bottle filling position, substantially as described.

1,140,033. BALLOT-VOTE MACHINE. WILLIAM HANEY, Newark, N. J., assignor to Mary C. Haney and Margaret E. Banta, Newark, N. J. Filed Apr. 21, 1914. Serial No. 833,358. (Cl. 235—57.)



1. A voting machine adapted to receive a strip of attached ballots, means for feeding such strip of attached ballots into vote recording position, and means for severing a ballot from such strip after a vote has been marked, the strip feeding means being operated by the severing means when said severing means are returned to initial position.

2. In a voting machine adapted to receive a strip of attached ballots on which a vote may be recorded, the combination with means for severing a ballot from such strip after a vote has been recorded thereon, of a counter operated by such severing means and adapted to keep a consecutively-readable record of the number of voters who have voted.

3. A voting machine adapted to receive a strip of attached ballots, means for feeding such strip of attached ballots into vote recording position, vote recorders for recording votes on the ballots so fed, and vote counting means adapted to count and carry totals of such votes operated by such vote recorders.

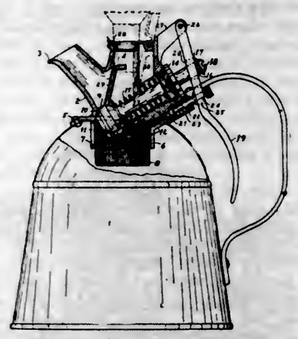
4. A voting machine adapted to receive a strip of attached ballots, means for feeding such strip of attached ballots into vote recording position, vote recorders for recording votes on the ballots so fed, means for severing a ballot from such strip after a vote has been recorded thereon, a counter operated by such severing means adapted to keep a consecutively-readable record of the number of voters who have voted, and vote counting means adapted to count and carry totals of such votes operated by such vote markers.

5. A voting machine having means to support a supply of customary ballots having blank spaces thereon opposite names of candidates, ballot-feed means, vote-markers for marking votes on ballots so supplied and fed, and register-adjustment means operable to correct faulty registering of such ballots and markers, so that said spaces will register with corresponding vote markers.

[Claims 6 to 24 not printed in the Gazette.]

1,140,034. SAFETY OIL-CAN. AUGIE L. HANSEN, Chicago, Ill., assignor to Justrite Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Aug. 2, 1912. Serial No. 712,838. (Cl. 221—16.)

1. A safety can having a casing secured thereto, a spout leading from said casing, a cylindrical sleeve formed in said casing, a valve seat at its lower end, an outwardly opening valve slidable in said cylinder fitting to the valve seat, a plug closing said cylindrical sleeve, a coil spring surrounding the valve stem, which holds said valve to its seat, a manually operated lever pivotally attached to said casing wall, there being a slot formed therein through which the valve stem passes, an air vent valve seated in a cylindrical passage, the stem of which passes through a slot in the lever, a coil spring which holds the vent closed under normal conditions and means to attach both valve stems to the lever.



2. A safety can having a casing secured thereto, a spout leading from said casing, a cylindrical sleeve formed in said casing, a valve seat at its lower end, a valve slidable in said cylinder fitting to the valve seat, a plug closing said cylindrical sleeve, a coil spring surrounding the valve stem, which holds said valve to its seat, a manually operated lever pivotally attached to said casing wall, there being a slot formed therein through which the valve stem passes, an air vent valve seated in a cylindrical passage, the inner end of which is separated from the interior of the can by wire gauze and the stem of which passes through a slot in the lever, a coil spring which holds the vent closed under normal conditions and means to attach both valve stems to the lever, whereby they can move freely outwardly without moving the lever.

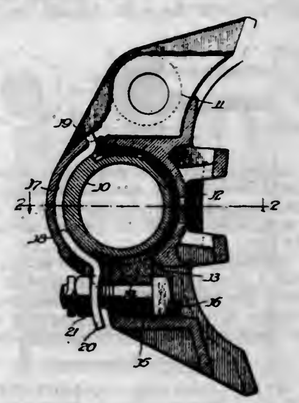
3. A safety can having a casing secured thereto, a spout leading from said casing, a cylindrical sleeve formed in said casing, a valve seat at its lower end, an outwardly opening valve slidable in said cylinder fitting to the valve seat, a plug closing said cylindrical sleeve, a coil spring surrounding the valve stem, which holds said valve to its seat, a manually operated lever pivotally attached to said casing wall, there being a slot formed therein through which the valve stem passes, an air vent valve, seated in a cylindrical passage, the stem of which passes through a slot in the lever, a coil spring which holds the vent closed under normal conditions, means to attach both valve stems to the lever, a flange having a plurality of openings in its wall depending downwardly from said casing and a cap of wire gauze secured to said flange.

4. A safety can having a casing secured thereto, a spout leading from said casing, a cylindrical sleeve formed in said casing, a valve seat at its lower end, a valve slidable in said cylinder fitting to the valve seat, a plug closing said cylindrical sleeve, a coil spring surrounding the valve stem which holds said valve to its seat, a manually operated lever pivotally attached to said casing wall there being a slot formed therein through which the valve stem passes, an outwardly opening air vent valve, seated in a cylindrical passage, the stem of which passes through a slot in the lever, a coil spring which holds the vent closed under normal conditions, means to attach both valve stems to the lever, a flange having a plurality of openings in its wall depending downwardly from said casing, a cap of wire gauze secured to said flange, both the air vent and the main valve passage leading from said gauze protected chamber.

5. A safety can having a casing secured thereto, a spout leading from said casing, a cylindrical sleeve formed in said casing, a valve seat at its lower end, a valve opening outwardly and slidable in said cylinder fitting to the valve seat, there being a vertical passage extending up from said cylindrical passage having a recess at one side, a rod secured to the main valve extending up into said passage adapted to enter said recess when the valve is open, a plug closing said cylindrical sleeve, a coil spring surrounding the valve stem, which holds said valve to its seat, a manually operated lever pivotally attached to said chamber wall, there being a slot formed therein through which the valve stem passes, an air vent valve seated in a cylindrical passage, the stem of which passes through a slot in the lever, a coil spring which holds the vent closed under normal conditions and means to attach both valve stems to the lever.

[Claims 6 and 7 not printed in the Gazette.]

1,140,035. ADJUSTABLE BRAKE-HEAD. WILLIAM C. HEDGCOCK, Chicago, Ill., assignor to American Steel Foundries, New York, N. Y., a Corporation of New Jersey. Filed Nov. 28, 1914. Serial No. 874,508. (Cl. 188—28.)



1. In a device of the class described, the combination of a head having a central aperture and provided with recesses communicating therewith, a block held in one recess, a spring mounted in another recess, and a single means for actuating and holding both said block and said spring, substantially as described.

2. In a device of the class described, the combination of a bearing having a groove, a head mounted on said bearing, said head being provided with recesses, a block mounted in one recess and having a portion projecting into the groove in said bearing, a spring mounted in another recess, and a bolt engaging both said block and said spring, substantially as described.

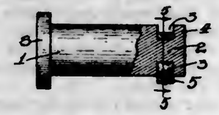
3. In a device of the class described, the combination of a bearing having a peripheral groove, a head, a block carried by said head, said block engaging said bearing in said groove and preventing the removal of said head, a leaf spring located in the back of the head and having an extended contact with the periphery of said bearing, and a single bolt for maintaining said block in position and for exerting tightening force on said spring, substantially as described.

4. In a device of the class described, the combination of a bearing having a peripheral groove, a head on said bearing, said head having a recess, a block mounted in said recess and adapted to project into the groove in said bearing, said head having an internal groove, a leaf spring mounted in said head and exerting its force in a substantially horizontal line passing through the axis of the bearing, and a bolt for holding said block and exerting force on said spring, substantially as described.

1,140,036. RETAINING MEANS. ANTON HELLA, Chicago, Ill. Filed Mar. 21, 1913. Serial No. 755,862. (Cl. 85—5.)

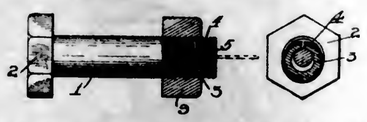
In a device of the class described a shaft having a peripheral groove therein, and a rotatable ring permanently

and loosely engaged around the shaft in said groove and adapted to move from a concentric position relative to the shaft in any direction radially of the shaft without rotating into locking position to prevent movement of ele-



ments on or off said shaft, the outer diameter of said ring being not greater than the diameter of said shaft permitting insertion of elements thereover upon said shaft, when the ring is in a concentric position thereon.

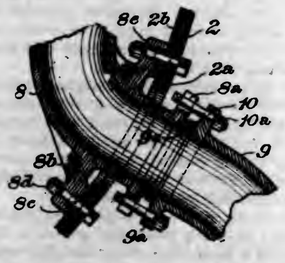
1,140,037. NUT-LOCK. ANTON HELLA, Chicago, Ill. Filed Mar. 21, 1913. Serial No. 755,863. (Cl. 151—14.)



1. In a device of the class described a threaded bolt, an eccentrically and loosely mounted threaded split ring thereon adapted when the thread thereon is out of register with the threads on the bolt to prevent movement of a nut on said bolt.

2. In a device of the class described a fixed threaded member, and a loose threaded ring member of the same outer diameter thereon adapted when the thread thereof is out of register with the thread of said fixed member to prevent movement of a nut on said fixed member.

1,140,038. STEAM-PIPE FOR LOCOMOTIVE-ENGINES. GEORGE F. HESS, Pittsburg, Kans. Filed Sept. 16, 1914. Serial No. 861,975. (Cl. 121—14.)



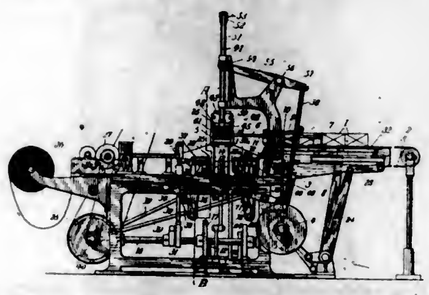
1. The combination, with a boiler having an opening in its shell, of a steam supply pipe which projects outwardly through said opening and is provided with a circumferential flange secured directly to the shell around said opening, and a distribution valve chest connected to said pipe exteriorly to said opening.

2. The combination, with a boiler smoke box having an opening in its shell, of a steam supply pipe which projects outwardly through said opening and is provided with a circumferential flange secured directly to the smoke box around said opening, and a distribution valve chest connected to said pipe exteriorly to said opening.

3. The combination of a boiler smoke box, a distribution valve chest, a steam supply pipe, and means for forming an air joint directly between said pipe and the smoke box, and connecting said pipe and the valve chest through a steam joint wholly exterior to the smoke box.

4. The combination, with a boiler smoke box having an opening in its shell, of a steam supply pipe which projects outwardly through said opening and is provided with a circumferential flange secured directly to the smoke box around said opening and a circumferential flange on its end exterior thereto, a distribution valve chest, and a joint section interposed between, and connected at its opposite ends to, the outer end flange of the steam pipe and the valve chest.

1,140,039. WRAPPING-MACHINE. EMIL JAGENBERG, Dusseldorf, Germany. Filed Mar. 10, 1914. Serial No. 823,672. (Cl. 93—2.)



1. In a wrapping machine, a plate adapted to engage the wrapper at the end of a package, a pair of additional plates extending outwardly at right angles thereto and adapted to double portions of the wrapper protruding from said end, means for forcing the first named plate against the package, and additional means for forcing the last named plates against said doubled wrapper-portions.

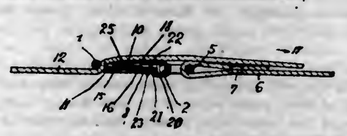
2. In a wrapping machine, a resilient folding plate, a pair of additional resilient folding plates extending outwardly at right angles thereto, a roller engaging the first named plate, a pair of rollers engaging the last named plates, means for sliding the plates along a package and means for advancing the rollers against the plates.

3. In a wrapping machine, a resilient folding plate, a pair of additional folding plates extending at right angles thereto, slidable rods carrying all of said plates, rollers engaging the plates, second slidable rods carrying the rollers, and apertured members on the first named rods that engage the last named rods.

4. In a wrapping machine, a pair of folding walls adapted to engage the sides of a package, one of said walls being movable, a carriage, a slide fitted to the carriage and adapted to push the package from out between the walls, and means actuated by the carriage for retracting the movable wall.

5. In a wrapping machine, a pair of folding walls adapted to engage the sides of a package, one of said walls being movable, a pair of hinged folding plates adapted to engage the top of said package, a carriage, a slide connected to the carriage, means on the carriage for retracting the movable folding wall, and means for lifting one of the folding plates.

1,140,040. BUCKLE. CHARLES G. JOHNSON, Bridgeport, Conn., assignor to Warner Brothers Company, Bridgeport, Conn., a Corporation of Connecticut. Filed June 3, 1914. Serial No. 842,549. (Cl. 24—194.)



1. In a buckle for webbing or the like, the combination with a frame, of a clamping member comprising a body portion and a clamping portion extending upward at an angle to the plane of said body portion, means for slidably mounting said clamping member on said frame, a stop for opposing movement of said clamping portion in a direction opposite to the direction of said angle when said

clamping member is in closed position, said clamping portion being free to yield to movement in the direction of said angle, and a lever comprising a cam portion for controlling said sliding member.

2. In a buckle for webbing or the like, the combination with a frame, of a clamping member comprising a body portion and a clamping portion in fixed relation to said body portion extending upward at an angle to the plane of said body portion, means for slidably mounting said clamping member on said frame, a stop in the path of said clamping portion for opposing movement thereof in a direction opposite to the direction of said angle when said clamping member is in closed position, said clamping portion being free to yield to limited movement in the direction of said angle, and a lever comprising a cam portion for controlling said sliding member.

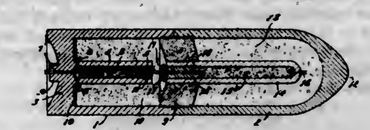
3. In a buckle for webbing or the like, the combination with a frame comprising longitudinal bars and a transverse bar, a clamping member coöperating with said transverse bar to form clamping means, means for slidably mounting said clamping member on said longitudinal bars, a bar connected to said longitudinal bars serving to resist movement of the clamping member in a certain direction when the clamping member is in closed postion, a lever member comprising a cam portion controlling the sliding movement of said clamping member and means for pivotally mounting said lever member on said longitudinal bars, said movement resisting bar and said pivotally mounting means being disposed on opposite sides of said slidable mounting means.

4. In a buckle for webbing or the like, the combination of a frame of the buckle comprising longitudinal bars and a relatively displaced transverse bar, a clamping member comprising a body portion and a clamping portion extending from said body portion in the direction of said displaced transverse bar, said clamping portion forming with said transverse bar a clamp, means for slidably mounting said clamping member on said longitudinal bars, a bar carried by said longitudinal bars and disposed relatively thereto in the direction opposite to the direction of displacement of said displaced bar and adapted to be engaged by said clamping member when said clamping member is in closed position and a lever member comprising a cam portion for controlling the sliding movement of said clamping member.

5. In a buckle for webbing or the like, the combination of a frame comprising longitudinal bars and a transverse relatively displaced bar, a clamping member comprising a body portion and a clamping portion integrally connected to said body portion and extending angularly therefrom in the direction toward said transverse displaced bar, means fixed to said longitudinal bars for slidably mounting said clamping member thereon, a bar fixed to said longitudinal bars and positioned adjacent said transverse displaced bar and adapted to be engaged by said clamping portion when the same is in closed position, a lever member comprising a cam portion for controlling the sliding movement of said clamping member and means for pivotally mounting said lever member on said longitudinal bars.

[Claim 6 not printed in the Gazette.]

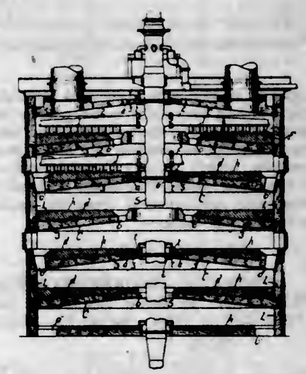
1,140,041. PROJECTILE. JOHAN KARLIK, McKees Rocks, Pa., assignor of one-half to D. L. Rosenstein, McKees Rocks, Pa. Filed Nov. 12, 1914. Serial No. 871,656. (Cl. 102—29.)



1. In combination in a projectile, a cylindrical shell having its rear end closed, a plug fitting into the front end of the shell, an interior cylindrical shell secured to the rear end of the first shell and projecting forwardly, but terminating short of the said plug, a plug in the forward end of said interior shell, an explosive in each shell, and means whereby the explosive in the interior shell is detonated.

2. In combination in a projectile, a cylindrical shell having its rear end closed, a plug fitting into the front end of the shell, an interior cylindrical shell secured to the rear end of the first shell and projecting forwardly, but terminating short of the said plug, a plug in the forward end of said interior shell, a third cylindrical shell having its rear end fitting over said first mentioned plug, an interior shell extending forward from said plug, an explosive in all four shells, and means whereby the explosives in the front and rear shells are detonated successively.

1,140,042. FURNACE-HEARTH. JOHN H. KLEPINGER, Great Falls, Mont., and FRANK R. CORWIN, Douglas, Ariz. Filed Dec. 17, 1914. Serial No. 877,704. (Cl. 75—148.)



1. In a furnace, a hearth, comprising a concrete monolithic unit extending over the major portion of the hearth area and provided with openings for the discharge of the material treated.

2. In a furnace, a hearth comprising a concrete monolithic unit extending over the area of the hearth and provided with openings for the discharge of the material treated.

3. In a furnace of the character described, a central rabble shaft, a monolithic hearth maintained about the shaft and having a passage-way for the shaft, the walls of the passage being spaced from the shaft, and suitable removable sectors closing said passage around the shaft and supported at one end by the walls of the opening formed in the hearth.

4. In a furnace of the character described, an arched monolithic hearth provided with a central passage-way or opening, series of concentric rings embedded therein at points above the bottom surface and below the top surface respectively, radially disposed rods embedded in the hearth and having their terminals hooked over the inner and outer rings of each series respectively, and means for supporting the hearth at points along the circumference thereof.

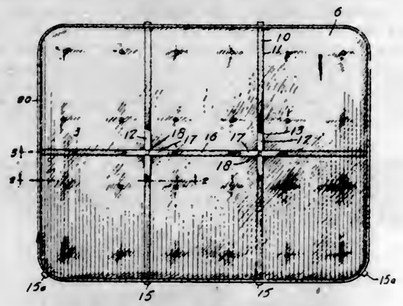
5. In a furnace of the character described, a monolithic hearth provided with a central opening bounded by a downwardly inclined wall, said wall forming a ledge for the support of the outer ends of suitable sector blocks.

[Claim 6 not printed in the Gazette.]

1,140,043. MATTRESS. NANNIE VERGINIA KNICKMEYER, Millville, Fla. Filed June 4, 1914. Serial No. 842,893. (Cl. 5—13.)

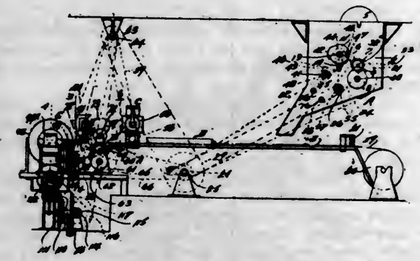
1. A mattress of the class described including cross strips secured in spaced relation to each other and to the ends of said mattress transversely of the latter, on each

side thereof, a longitudinal strip disposed on each side of the mattress, said longitudinal strips crossing said cross strips in the medial line of the mattress, said cross and longitudinal strips being secured to the outside of said mattress except at and adjacent to the intersecting points, said cross and longitudinal strips being connected together at the intersecting points.



2. A mattress of the class described including spaced transversely disposed cross strips secured to the outside of said mattress except at their central portions, longitudinally disposed strips secured to said mattress except at the intersecting points of the longitudinally disposed strips and the cross strips, said strips at their intersecting portions being disconnected from the mattress and adapted to form hand holds.

1,140,044. AUTOMATIC ABSORBENT-COTTON-WRAPPING MACHINE. IGNATIUS KORNBLÜH, New York, N. Y. Filed July 1, 1914. Serial No. 848,358. (Cl. 93—2.)



1. In a wrapping machine, means to feed a paper container at a variable speed, means to supply a filler to said container, and means to feed said filler to said container at a constant speed.

2. In a wrapping machine, means to feed a paper container at a variable speed, means to supply a filler to said container, means to feed said filler to said container at a constant speed, and a receiving chamber adapted to permit said filler to pile up during the time that said container is being fed at its minimum speed.

3. In a wrapping machine, means to feed a substantially continuous container, a winding device adapted to grip the end of said container and wind it into a roll, whereby the speed of the feeding of said container will gradually increase, and means to feed a filler to said container before it is wound, the speed of the feeding of said filler to said container being constant.

4. In a wrapping machine, a frame, a feeding device located at one end of the frame to engage the end of a container, means to rotate said feeding device and roll said container upon itself to form a roll, whereby the speed of the feeding of said container will gradually increase as the roll increases in size, and means to supply a filler to said container during the rolling operation.

5. In a wrapping machine, a frame, a feeding device located at one end of the frame to engage the end of a container, means to rotate said feeding device and roll said container upon itself to form a roll, whereby the speed of the feeding of said container will gradually increase as the roll increases in size, means to supply a filler to said container during the rolling operation and means to sever said container, and filler carried thereby, when said roll has reached a predetermined size.

[Claim 6 not printed in the Gazette.]

1,140,045. CORE-RETAINING DEVICE. MARTIN D. KUHLKE, Akron, Ohio. Filed Feb. 14, 1914. Serial No. 818,637. (Cl. 18—45.)



1. The combination, with a core comprising a plurality of segments each having a wall, said walls forming jointly a complete circular wall, of a split ring adapted to engage said wall with its inner peripheral edge, and means connected to one of the core segments and adjustable with respect thereto and adapted by such adjustment to bring the ends of the ring into closer relation to each other and to clamp the ring in place against the wall.

2. The combination, with a core comprising a plurality of segments each having an arcuate recess therein, said recesses forming jointly a complete annular recess, of a split ring in said annular recess, and means associated with one of the core segments and adjustable at right angles to the plane of said ring and adapted to engage opposed portions of said ring and, by such adjustment, to move said portions toward each other.

3. The combination, with a core comprising a plurality of segments each having an arcuate recess therein, said recesses forming jointly a complete annular recess, of a split ring in said annular recess, said ring having near each end portion thereof a recess provided with an inclined surface, and a clamping device associated with one of said segments and adjustable transversely with respect thereto and having inclined surfaces coöperating with the inclined surfaces of the ring whereby to vary the distance between the ends of the ring.

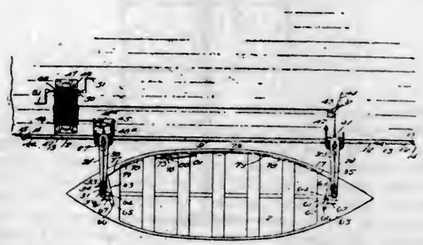
4. The combination, with a core comprising a plurality of segments each having an arcuate recess therein, said recesses forming jointly a complete annular recess, of a split ring in said annular recess, said ring having near each end portion thereof an inclined surface, and a clamping device associated with one of said segments and adjustable transversely with respect to the ring and having inclined surfaces coöperating with the inclined surfaces of the ring whereby to contract the ring.

5. The combination, with a core comprising a plurality of segments each having an arcuate recess therein, said recesses forming jointly a complete annular recess, of a split ring in said annular recess, said ring having in each end portion a recess the face whereof which is nearest the end of such portion being inclined toward such end, and a stud adjustable transversely with respect to the ends of the ring and having an annular flange adapted to enter the said recesses, said flange having an inclined surface adapted to coöperate with the inclined surfaces of the recess to draw the ends of the ring in closer proximity to each other.

[Claims 6 to 11 not printed in the Gazette.]

1,140,046. DEVICE FOR LAUNCHING LIFE-BOATS. ROBERT WILLIAM LEEMING, Brantford, Canada. Filed July 7, 1914. Serial No. 849,480. (Cl. 9—22.)

1. A pair of davits, each of the said davits comprising a column or upright of channel shape, an arm rotatably connected with the upper end of the column or upright to revolve around the upright, a bracket adapted to be secured to a fixed support at each davit, a hinge connection between each column and the adjacent bracket for permitting the upper end of the column to swing outwardly and downwardly, said column being adapted to extend above the boat deck of a vessel, a pulley journaled at the outer end of each arm, a pulley journaled on the arm near the top of each column, a pulley journaled on each column intermediate the ends thereof, a flexible member passing over the pulleys and having a davit hook at its outer end for engaging a boat to support the same, and brake mechanism in connection with each column for preventing movement of the flexible member, said mechanism being arranged on the column between the last-named pulleys and comprising a pair of blocks having registering grooves for receiving the flexible member, the blocks being connected to the column and being movable laterally with respect to each other, and means for clamping the outer block on the inner block.



2. A pair of davits, each of the said davits comprising a column or upright of channel shape, an arm rotatably connected with the upper end of the column or upright to revolve around the upright, a bracket for each davit adapted to be secured to a fixed support, a hinge connection between each column and the adjacent bracket for permitting the upper end of the column to swing outwardly and downwardly, said column being adapted to extend above the boat deck of a vessel, a pulley journaled on the arm near the outer end of each arm, a pulley journaled at the top of each column, a pulley journaled on each column intermediate the ends of the column, a flexible member passing over the pulleys and having a davit hook at its outer end for engaging a boat to support the same, and brake mechanism in connection with each column for preventing movement of the flexible member, said mechanism being arranged between the last-named pulleys.

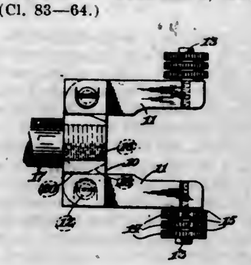
3. A pair of davits, each of the said davits comprising a column or upright of channel shape, an arm rotatably connected with the upper end of the column or upright to revolve around the upright, a bracket adapted to be secured to the side of a vessel at each davit, a hinge connection between each column and the adjacent bracket for permitting the upper end of the column to swing outwardly and downwardly, said column being adapted to extend above the boat deck of a vessel, a pulley journaled at the outer end of each arm, a pulley journaled on the arm near the top of each column, a pulley journaled on each column near the intermediate ends of the column, a flexible member passing over the pulleys and having a davit hook at its outer end for engaging a boat to support the same, and brake mechanism in connection with each column for preventing movement of the flexible member.

4. In combination with a vessel, a pair of davits, each davit consisting of a column hinged to the side of the vessel at the lower end of the davit and with the davit extending above the deck from which the boats are to be lowered, an arm rotatably connected with the upper end of each column for swinging movement around the column, a flexible member in connection with each davit for connection with the boat at one end to support the same, a common means for simultaneously moving the flexible members of both davits in the same direction, direction elements for the flexible members, one of the said elements being at the outer end of the arm, another of the said elements being near the top of the column, the other direction element being on the column near the level of the deck from which the boats are to be launched, and means on the column between the last-named elements for clamping the flexible member to the column, each of the said clamping mechanisms consisting of a pair of superposed blocks having coöperating grooves for receiving the flexible members, means for forcing the blocks toward the column, and means for bracing the davits against each other and against the vessel to prevent lateral movement of the davits.

5. In combination with a vessel, a pair of davits, each davit consisting of a column hinged to the side of the vessel at the lower end of the davit and with the davit extending above the deck from which the boats are to be lowered, an arm rotatably connected with the upper end of each column for swinging movement around the column, a flexible member in connection with each davit for connection with the boat at one end to support the same, a common means for simultaneously moving the flexible member of both davits in the same direction, direction elements for the flexible members, one of the said elements being at the outer end of the arm, another of the elements being on the arm adjacent to the column, the other direction element being on the column at the level of the deck from which the boats are to be launched, and means on the column between the last-named elements for clamping the flexible member to the column.

[Claims 6 to 12 not printed in the Gazette.]

1,140,047. BOILER-CLEANING TOOL. MELVILLE O. LEWIS, Brooklyn, N. Y. Filed Oct. 4, 1911. Serial No. 652,871. (Cl. 83—64.)



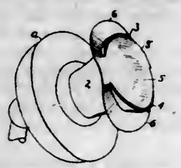
1. A tool for cleaning the header of a boiler having a hand hole, comprising an axially extended rotatable support adapted to be connected to driving means for imparting rotary movement thereto, arms mounted on said support to move toward and from each other, and cutters mounted on and projecting laterally from said arms and extending rearwardly, said support being insertible into the header through the hand hole, said cutters being adapted to engage and scrape the inside header wall, and said arms being adapted to engage the inside edge of the hand hole as said support is rotated.

2. A tool for cleaning the header of a boiler having a hand hole, comprising an axially extended rotatable support adapted to be connected to driving means for imparting rotary movement thereto, arms pivoted on said support and extending forwardly along the axis thereof, and cutters extending laterally from said arms, the operative cutting edges of said cutters extending rearwardly to engage and scrape the inside header wall surrounding the hand hole as said support is rotated.

1,140,048. TELEPHONE-GUARD. EDGAR O. LOEBER, Cleveland, Ohio. Filed Feb. 5, 1913. Serial No. 746,261. (Cl. 179—185.)

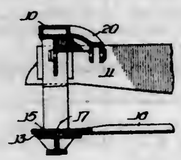
A guard for the mouth of a telephone transmitter consisting of a light flexible material, such as paper, and having a middle portion adapted to cover the said mouth and

provided with two oppositely disposed segmental slits eccentric to each other and terminating in the sides of the guard, the space between the middle of said slits being less than the space between the ends of each slit across



said middle portion, whereby the said guard can be hooked over the edge of the transmitter through said slits and both lock the same thereon and spread the middle portion over the mouth of the transmitter.

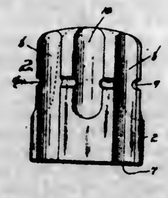
1,140,049. SIDE-FRAME CROSS CONNECTION. WARREN J. LYNCH, New York, N. Y., assignor to American Steel Foundries, New York, N. Y., a Corporation of New Jersey. Filed June 13, 1914. Serial No. 844,874. (Cl. 105—243.)



1. In a car truck the combination of side frames each thereof having a recessed spring seat a boss located centrally within said recess, and a round rod provided with eyes in its ends connecting said side frames, said eyes being seated in the recesses in said spring seats and engaging said boss substantially as described.

2. In a car truck, the combination of side frames, each thereof having a spring seat provided with a recess therein, said recess being rounded at its bottom and providing a central boss, and an eye-bar connecting-rod for said frames, the eyes of said bar being rounded on one side and flat on another side and being adapted to being seated in the recesses provided therefor in said frames, substantially as described.

1,140,050. INSULATOR. ROBERT A. MANWARING and JAMES T. HESSEL, New Haven, Conn. Filed Apr. 23, 1914. Serial No. 834,011. (Cl. 173—28.)

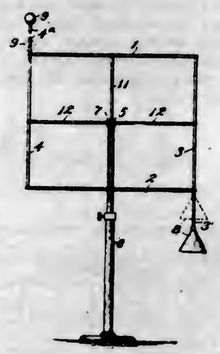


1. A single piece insulator having substantially straight sides, a central pin recess entering the lower end, and formed in its outer surface with a conductor groove extending throughout its length in a plane substantially parallel with the axis of the central recess.

2. A single piece insulator having substantially straight sides, a central pin recess entering the lower end, and formed in its outer surface with a plurality of conductor grooves extending throughout its length in a plane substantially parallel with the axis of the central recess.

3. A single piece insulator having substantially straight sides, a central pin recess entering the lower end and formed in its outer surface with a plurality of vertically arranged conductor grooves extending throughout its length in a plane substantially parallel with the axis of the central recess, and with an annular groove arranged at right angles to the conductor grooves and intersecting the same.

1,140,051. ADJUSTABLE SUPPORT OR BRACKET FOR LAMPS, SHADES, MIRRORS, OR THE LIKE. HENRY MACNAUGHTON MACNAUGHTON-JONES, Hampstead, London, England. Filed Aug. 27, 1914. Serial No. 858,834. (Cl. 248—5.)



1. An adjustable support or bracket; comprising in combination a plurality of rigid members, pivotal connections between said members to form a parallelogram structure, a support for said structure, means for pivotally connecting the said structure to the said support so that the said structure is rotatable in its own plane, an article such as a lamp at one end of said structure, and means at the other end of said structure to counterbalance the weight of said lamp, substantially as set forth.

2. An adjustable support or bracket; comprising in combination a plurality of rigid members, pivotal connections between said members to form a parallelogram structure, a support for said structure, a pivotal connection between said structure and said support to enable said structure to be rotated and expanded and contracted in a vertical plane and also to be rotated in a direction at right angles to the plane containing the said structure, an article such as a lamp at one end of said structure, and means at the other end of said structure to counterbalance the weight of said lamp, substantially as set forth.

3. An adjustable support or bracket; comprising in combination a plurality of rigid members, pivotal connections between said members to form a parallelogram structure, a support for said structure, a pivotal connection between said structure and said support so that said structure is rotatable in its own plane, an extension to the member at one end of said structure, an article such as a lamp connected to said extension, an extension to the parallel member at the other end of said structure, and a weight secured to said extension to counterbalance the weight of said lamp, substantially as set forth.

4. An adjustable support or bracket; comprising in combination a plurality of rigid members, pivotal connections between said members to form a parallelogram structure, a vertical tubular support, a head rotatably carried at the upper end of said support, a horizontal pivot pin passing through said structure at right angles to the plane containing the latter and entering said head so that the said structure is rotatable in its own plane, an article such as a lamp at one end of said structure, and means at the other end of said structure to counterbalance the weight of said lamp, substantially as set forth.

5. An adjustable support or bracket; comprising in combination a plurality of rigid members, pivotal connections between said members to form a parallelogram structure,

a vertical tubular support, a head rotatably carried at the upper end of said support, a horizontal pivot pin passing through said structure at right angles to the plane containing the latter said pin entering said head and forming means upon which said parallelogram structure can be rotated and expanded and contracted in the plane containing the same, an extension to the member at one end of said structure, an article such as a lamp connected to said extension, an extension to the opposite and parallel member at the other end of said structure, and a weight secured to said extension to counterbalance the weight of said lamp, substantially as set forth.

1,140,052. COUPLING FOR SECTIONAL RODS. LOUIS L. MAST, West Milton, Ohio. Filed Feb. 19, 1914. Serial No. 819,669. (Cl. 173—31.)



1. The combination, with a rod comprising a plurality of sections, the adjacent ends of said sections having openings, of a coupling for connecting said sections comprising two members having means for connecting them one to the other, each of said members having a part arranged to extend into the opening in one of said sections and also having a second part arranged to be pressed against the exterior of said sections to clamp the material of said section between the two parts of said coupling member.

2. The combination, with a rod consisting of a plurality of sections, the adjacent ends of said sections having openings therein, of a coupling comprising two members, each member having a core to enter the opening in the adjacent end of one of said sections and having projections arranged to extend on the exterior of said section and to be pressed against the same to clamp the wall of the rod section between the core and the projections, the two members of said coupling having coöperating parts to detachably connect them one to the other.

3. In a lightning rod, the combination, with a plurality of hollow longitudinal corrugated sections, of a coupling to connect the adjacent ends of two of said sections comprising two members, each member having a core to extend into the adjacent end of one of said hollow sections and having a series of fingers arranged to extend into the exterior grooves of said corrugated rod sections and to be pressed inward to clamp said hollow rod between said fingers and said core, the two members of said coupling having coöperating parts to connect said members one to the other.

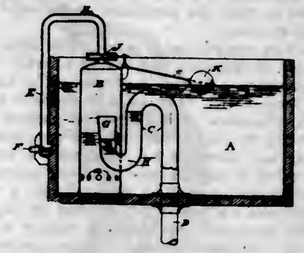
4. The combination, with a section of a rod having an opening in one end thereof, of a coupling member having a core extending into said opening and having fingers extending on the outside of said rod and adapted to be pressed inward to clamp the wall of said opening between said core and said fingers.

5. A coupling member comprising a core, and a plurality of fingers arranged substantially parallel with said core, spaced away therefrom and movable toward said core.

[Claim 6 not printed in the Gazette.]

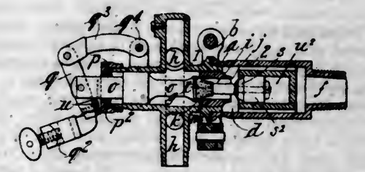
1,140,053. FLUSH-TANK. DAVID SUTTIE MCILROY and WILLIAM GIBB, Calgary, Alberta, Canada. Filed Apr. 20, 1914. Serial No. 833,281. (Cl. 4—5.)

In flush tanks, a tank having a water inlet and outlet, an air chamber within said tank having water inlets adjacent to the lower end and an air outlet at the upper end an outlet water pipe in S-shape having its inner end projecting upwardly in said air chamber and the other end projecting downwardly to the tank outlet, an air pipe extending upwardly from said air outlet and downwardly to a suitable support, an air valve at the lower end of said air pipe, a



float operated valve gear, and an air valve above said air outlet operatively connected with said float valve gear.

1,140,054. BALL-COCK. GEORGE B. MOORE and AUSTIN J. PRATT, Springfield, Mass. Filed May 13, 1913. Serial No. 767,377. (Cl. 137—104.)



1. A ball cock comprising in combination with a casing having a pair of chambers, one having a water inlet and the other a discharge outlet, and a passage formed with valve seats at opposite ends connecting said chambers, of a valve stem having a portion of less diameter than and extending through, the connecting passage; a valve on said rod adjacent the inlet valve-seat end of the connecting passage and coacting therewith; a member on the valve rod at the opposite end of said passage adapted on the opening of the valve to have an approximately closed relation to said opposite end of the passage to restrict the inflow of water, substantially as and for the purpose specified.

2. A ball cock comprising in combination with a casing having a pair of chambers, one having a water inlet and the other a discharge outlet, and a bushing formed with valve seats at opposite ends connecting said chambers, of a valve stem having a portion of less diameter than the internal diameter of and extending through the bushing; a valve on said rod adjacent the inlet valve-seat end of the bushing and coacting therewith; a valve member on the valve rod at the opposite end of said bushing adapted on the opening of the valve to have an approximately closed relation to said opposite end of the bushing to temporarily restrict the inflow of the water; means connected to the valve stem externally of the casing to impart endwise movement to the valve stem, and adjustable means carried by the valve stem moving means to limit the movement of the valve stem in the opening direction.

3. A ball cock comprising in combination with a casing having a pair of chambers, one having a water inlet and the other a discharge outlet, and a bushing formed with valve seats at opposite ends connecting said chambers, of a valve stem having a portion of less diameter than the internal diameter of and extending through the bushing; a valve on said rod adjacent the inlet valve seat end of the bushing and co-acting therewith; a valve member on the valve rod at the opposite end of said bushing adapted on the opening of the valve to have an approximately closed relation to said opposite end of the bushing to temporarily restrict the inflow of the water; a lever pivotally connected to the valve stem externally of the cas-

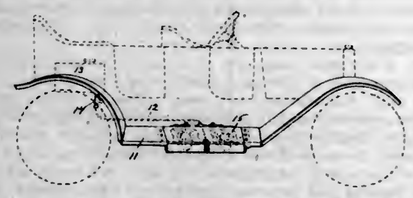
ing and having a link connection with the casing; and a set screw carried by the lever adapted to abut against the casing and coöperate therewith under proper adjustment thereof to limit the movement of the valve stem in the opening direction.

4. A ball cock comprising in combination with a casing having a pair of chambers, one having a water inlet and the other chamber a discharge outlet, and a bushing in the casing formed with valve seats at opposite ends connecting said chambers, of a cylindrical member in the chamber having the water inlet with an open end toward said bushing and closed at its other end; a valve stem having a portion of less diameter than the internal diameter of and extending through the bushing; a valve on said rod adjacent the inlet valve-seat end of the bushing and co-acting therewith and having a portion to slidably engage in the cylindrical member; a valve member on the valve rod at the opposite end of said bushing adapted on the opening of the valve to have an approximately closed relation to said opposite end of the bushing to temporarily restrict the inflow of water, a portion on the valve rod beyond said valve member having a sliding fit in the valve casing; and means connected to the valve stem externally of the casing to impart endwise sliding movement to the valve stem.

5. In a ball cock, the combination with a casing having an inlet, and a water way therethrough connecting with said inlet, said water way being formed with a main valve seat and with a supplemental seat in axial alinement with such main seat, of a valve stem extending within and along the water way and through said valve seats, and of smaller diameter than the openings thereof, and having a valve for positively closing at the main valve seat, and having a valve member for coaction with and to approximately close at the supplemental seat, when the main valve is moved to the maximum of its opening relation to temporarily restrict the inflow of the water, and means externally of the casing for endwise moving the valve stem.

[Claim 6 not printed in the Gazette.]

1,140,055. STOVE ATTACHMENT FOR AUTOMOBILES. EMANUEL S. MUMMA, Rock Hill, Pa. Filed Mar. 12, 1914. Serial No. 824,309. (Cl. 21—55.)

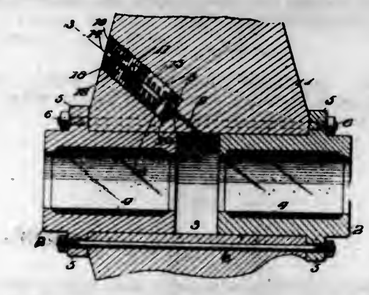


A combined automobile running board and stove, comprising a running board having a cut away portion hinged on one edge, and forming the cover of the stove, a stove member secured to the ends of the running board adjacent the cut out portion and under the same, and means for supplying fuel to said stove.

1,140,056. MEANS FOR LUBRICATING BEARING-SURFACES. MARVIN A. NICOL, Willamina, Oreg. Filed May 27, 1914. Serial No. 841,303. (Cl. 184—45.)

1. A body provided with a compression chamber having a grease offtake duct leading therefrom, a removable plug for normally closing the outer end of said chamber, a grease compressing disk movable longitudinally in said chamber for compressing the grease therein and provided with a spring for actuating the same, a stem carrying said disk and extending through and movable longitudinally in said plug and provided with and carrying a swingable detent to engage the plug to hold said spring compressed and having a T shaped head to limit the inward movement of the disk under the pressure of said spring.

2. A closure for a grease chamber, a grease compressing disk having a stem extending through and movable longitudinally in the closure, an expansion spring between the disk and closure for driving the disk on its grease compressing stroke, and a detent carried by the stem and pivotally mounted thereon to swing laterally and project its inner end to engage the closure and hold the disk at its limit of movement toward the closure and at its outer end having a projecting head to engage the closure and limit the movement of the disk away from the closure.



3. A closure for a grease chamber having a longitudinal bore, a grease compressing disk having a stem extending through and movable in said bore, said stem beinv longitudinally slotted, an elongated detent arranged in said slot and between its ends pivoted to the stem to swing laterally to and from its normal position arranged longitudinally of and within the stem, said closure having a socket at its inner end, and a coiled expansion spring arranged between the disk and closure with its outer end losated within said sodket.

4. In combination, a closure for a lubricant chamber, a lubricant compressing member having a stem extending through and projecting beyond said closure and normally freely movable longitudinally of said closure, a spring for driving said member on its lubricant compressing movement, and a detent carried by and normally arranged within said stem to move therewith through said closure on the normal operation of said member, said detent being laterally movable with respect to said stem and from said normal position to engage the outer end of the closure to hold the stem approximately at its limit of outward movement through the closure, substantially as described.

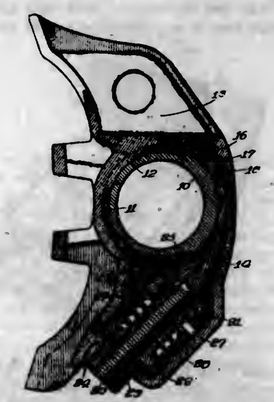
5. In combination, a closure for a lubricant chamber, said closure having a longitudinal passage therethrough, a lubricant compressing member provided with a stem extending through said passage and slidably arranged therein, a spring interposed between said member and the closure for forcing the member inwardly on its compressing movement, and a detent carried by and pivoted in said stem and normally arranged longitudinally thereof to move with the stem through said passage, said detent having a free inner end, said detent arranged to be moved from normal position to project said end laterally beyond the stem to engage the closure and hold the member approximately at its limit of outward movement.

[Claims 6 to 8 not printed in the Gazette.]

1,140,057. ADJUSTABLE BRAKE-HEAD. ARMAND H. PEYCKE, Chicago, Ill., assignor to American Steel Foundries, New York, N. Y., a Corporation of New Jersey. Filed Nov. 28, 1914. Serial No. 874,522. (Cl. 188—28.)

1. In a device of the class described, the combination of a sleeve, a head, a pair of wedges, means for positively forcing said wedges against said sleeve, and additional means for compensating for wear in the parts and for maintaining said wedges tightly against said sleeve, substantially as described.

2. In a device of the class described, the combination of a sleeve, a head, a pair of oppositely disposed wedges mounted to act against said sleeve above and below the rotative axis of the head, means for positively forcing said wedges against said sleeve, and an elastic take-up element for compensating for wear, substantially as described.



3. In a device of the class described, the combination of a bearing, a rotatable head mounted on said bearing, wedge means exerting force substantially in line with the line of force exerted in braking, positive means for advancing said wedge, and elastic means acting on said wedge means and adapted to maintain said wedge means in engagement with said bearing when the efficiency of said positive means is reduced, substantially as described.

4. In a device of the class described, the combination of a bearing, a rotatable head mounted on said bearing, wedge means exerting force substantially in line with the line of force exerted in braking, positive means for advancing said wedge, and compensating means mounted for action in conjunction with and as an adjunct to said positive means, substantially as described.

5. In a device of the class described, the combination of a bearing, a rotatable head mounted on said bearing, wedge means acting upon said bearing and said head, the resultant of the force exerted by the wedge means being a substantially horizontal line, and combined means for positively advancing and elastically maintaining said wedge means in engagement with said bearing, substantially as described.

[Claims 6 to 10 not printed in the Gazette.]

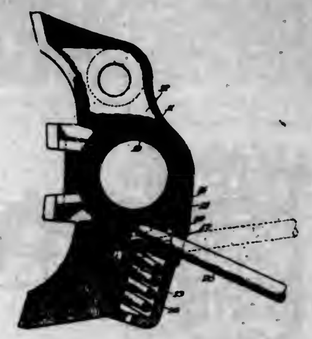
1,140,058. BRAKE-HEAD. ARMAND H. PEYCKE, Chicago, Ill., assignor to American Steel Foundries, New York, N. Y., a Corporation of New Jersey. Filed Nov. 28, 1914. Serial No. 874,523. (Cl. 188—28.)

1. In a device of the class described, the combination of a bearing having a groove therein, a head mounted on said bearing, and a spring-advanced locking-block, said block being wedge shaped and so located as to maintain said head and bearing in engagement on the inner side thereof, substantially as described.

2. In a device of the class described, the combination of a bearing having a peripheral groove, a head mounted on said bearing, a spring-advanced wedge-shaped locking block carried by said head and normally occupying the groove in said bearing, the arrangement being such that said head and bearing are maintained in engagement on the face side of said head, substantially as described.

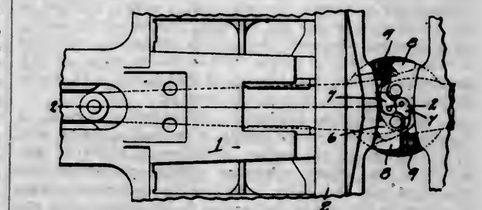
3. In a device of the class described, the combination of a sleeve, a head mounted on said sleeve, a spring-advanced locking block carried by said head and bearing against said sleeve, said head having an opening for receiving a bar for prying said block out of engagement with said sleeve, substantially as described.

4. In a device of the class described, the combination of a sleeve, a head mounted on said sleeve, a spring-advanced locking block carried by said head and bearing against said sleeve, said head and block being provided with registering openings, the material surrounding the opening in said head acting as a fulcrum point, and a



bar insertible through said openings and adapted to pry said block out of engagement with said sleeve, substantially as described.

1,140,059. ANTITELESCOPIC CAR CONSTRUCTION. HARRY M. PFLAGER, St. Louis, Mo., assignor to Commonwealth Steel Company, St. Louis, Mo., a Corporation of New Jersey. Filed Nov. 8, 1912. Serial No. 730,223. (Cl. 213—13.)



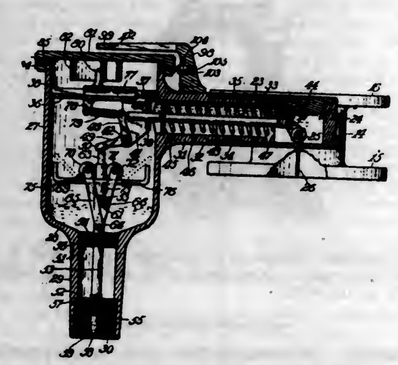
In an anti-telescopic car construction, a coupler-head having a concentrically disposed lug extending forwardly from one side, the thickness of which lug is substantially less than the height of the coupler head, a pair of concentrically disposed lugs extending from the opposite side of said coupler head, the space between which last mentioned pair of lugs is substantially greater than the height of the first mentioned lug, said space being free and open to permit free horizontal movement of the interengaging single lug when a pair of the heads are coupled, the lugs of said pair being respectively above and below the horizontal plane of the single opposing lug, the concentricity of said lugs being described from the axis of movement of the coupler-head relative to its companion when in operative position.

1,140,060. SPEED-LIMITING APPARATUS FOR MOTOR-VEHICLES. GEORGE W. PIERCE, Anderson, Ind., assignor to The Pierce Speed Controller Company, Anderson, Ind., a Corporation. Filed Apr. 12, 1912. Serial No. 690,321. (Cl. 121—112.)

1. Speed-limiting apparatus including a movable valve-controlling rod, an inclosure for the rod, a resistance spring for the rod within the inclosure, a movable device mounted in the inclosure and connected with the spring, and a dial-plate adjustably connected with the housing and having a scroll on the inner side thereof coöperating with the movable device for varying the tension of the spring.

2. Speed-limiting apparatus including a movable controlling valve, a controlling rod for the valve, an inclosure

for the valve and the rod, centrifugally influenced means in the inclosure for actuating the rod, a spring in the inclosure for yieldingly resisting the actuating means, a dial-plate rotatably connected with and closing the inclosure and having a scroll on the inner side thereof and indicating marks on the outer side thereof, and means for effecting operative connection between the scroll and the spring.



3. Speed-limiting apparatus including a movable controlling valve, an inclosing housing, a valve-rod operatively connected with the valve and extending into the housing, centrifugally influenced means inclosed in the housing for actuating the valve-rod, a spring inclosed in the housing for yieldingly resisting the actuating means, an indicating dial-plate adjustably connected with the housing and having means within the housing for adjusting and fixing the tension of the spring, and means for locking the dial-plate to the housing.

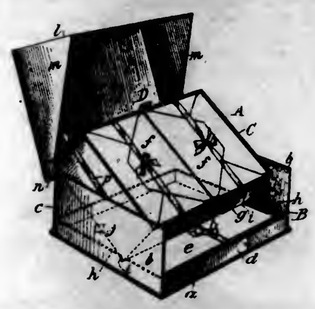
4. Speed-limiting apparatus including a casing, a housing connected to the casing, a controlling valve movably mounted in the casing, a bell-crank pivotally supported in the casing, operating connections between the bell-crank and the valve, centrifugally influenced means mounted in the casing and acting in connection with the bell-crank for moving the valve, a head adjustably supported in the casing and having a finger thereon, a spring between the head and the bell-crank, a dial-plate rotatively secured on the housing and having a cam on the inner side thereof that has contact with the finger for varying the tension of the spring, and means for fixedly locking the dial-plate to the housing.

5. Speed-limiting apparatus including a casing, a housing having a hollow arm connected to the casing, a controlling valve movably mounted in the casing, a connecting device movably mounted in the housing, a valve rod operatively connected with the valve and extending through the hollow arm to the connecting device, centrifugally influenced means mounted in the housing and acting in connection with the connecting device for moving the valve, a spring seated in the hollow arm and coöperating with the valve rod to partially resist action of the moving means, an auxiliary spring connected to the connecting device for variably augmenting the resisting force of the main spring, and means for variably adjusting and fixing the tension of the auxiliary spring.

[Claims 6 to 12 not printed in the Gazette.]

1,140,061. DISPLAY-BOX FOR WRITING-PAPER. WILLIAM A. PIKE, Pittsfield, Mass. Filed Feb. 2, 1912. Serial No. 674,937. (Cl. 206—44.)

1. A display box having an opening in its front, a front wall below said opening, a ledge substantially the height of said front wall, a space below said ledge constituting a lower compartment, a cover, a tray, separate from said cover, of substantially the length and breadth of said box adapted in one position to rest upon said ledge, above said lower compartment, and said tray being movable to an inclined position with its front edge at the rear of said front wall of the box whereby to simultaneously expose to view the contents of said lower compartment and its own contents, so that the contents of both said tray and lower compartment may be seen together and at one time.



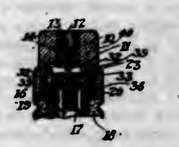
2. A display box having an opening in is front, a front wall below said opening, a ledge substantially the height of said front wall, a space below said ledge constituting a lower compartment, a cover, a tray, separate from said cover, of substantially the length and breadth of said box adapted in one position to rest upon said ledge above said lower compartment, said tray being movable to an inclined position with its front edge at the rear of said front wall of the box, whereby to simultaneously expose to view the contents of said lower compartment and its own contents, said cover having a depending portion adapted to fit over said opening in the front of said box for preventing said tray from slipping through said front opening when the tray rests flat upon said ledge and the box is closed by said cover.

3. A display box having an opening in its front, a front wall below said opening, a ledge within said box, a space below said ledge constituting a lower compartment, a cover, and a tray, separate from said cover, of substantially the length and breadth of said box adapted to rest upon said ledge above said lower compartment, said ledge having recesses adapted to receive the lower front edge of said tray whereby to support said tray in an inclined position in said box to simultaneously expose to view the contents of said lower compartment and its own contents, so that the contents of both said tray and lower compartment may be seen together and at one time.

4. A display box having an opening in its front, a front wall below said opening, a ledge within said box, a space below said ledge constituting a lower compartment, a cover, and a tray, separate from said cover, of substantially the length and breadth of said box adapted to rest upon said ledge above said lower compartment, said ledge having recesses adapted to receive the lower front edge of said tray, and said tray having lugs at its bottom adapted to engage said recesses when the tray is resting flat upon said ledge, a corner of said tray being adapted, when the tray is inclined, to fit in said recesses, whereby to support said tray in an inclined position in said box to simultaneously expose to view the contents of said lower compartment and its own contents, so that the contents of both said tray and lower compartment may be seen together and at one time.

5. A display box having a cover, a tray, separate from said cover, of substantially the length and breadth of said box and adapted to fit in the upper part thereof, said box having an open side, and a space below said tray constituting a lower compartment, said tray being movable to a position to simultaneously display the contents of said lower compartment through said open side and its own contents, so that the contents of both said tray and lower compartment may be seen together and at one time, said cover having a depending portion adapted to cover the opening in the front of said box and constituting a means for preventing the tray from passing out through said opening when the cover is closed.

1,140,062. BOTTLE-STOPPER. GIUSEPPE F. PINAUTI, New York, N. Y. Filed Aug. 27, 1914. Serial No. 858,853. (Cl. 215—62.)



1. A bottle stopper comprising a body member having a chamber with which communication is provided through a port in the stopper, the walls of which are inclined and diverge from the said port, a flat valve seat, a flat valve, and a valve controller adapted to bear against the said valve and to normally maintain the same against its seat, the said valve being movable independently of the said valve controller, the periphery of the said valve controller being tapered at an inclination corresponding to that of the walls of the chamber of the stopper so that the said valve controller may slide on the said walls in returning to the position in which it normally maintains the valve against its seat.

2. A bottle stopper comprising a body member having a chamber therein with which communication is provided through a port in the stopper, the walls of which chamber are inclined and diverge from the said port, a flat valve seat, a flat valve, a valve controller having a flat base adapted to bear against the said valve to normally maintain the same against its seat and to slide against the said inclined walls of the stopper, and a removable member normally held in position frictionally in a recess provided therefor in the outer portion of the said valve controller.

3. A bottle stopper comprising a body member having a chamber therein with which communication is provided through a port in the stopper and adjacent which a projection extends from the said body member into the said chamber, a valve seat, a compressible valve, a valve controller adapted to normally maintain the said valve against its seat and to slide on the walls of the said chamber, and a removable member held frictionally in position in a recess provided therefor in the outer portion of the said valve controller and prevented from being removed from its said recess by the aforesaid projection.

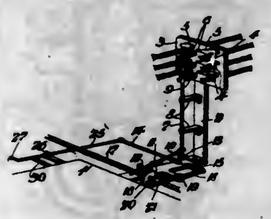
4. A bottle stopper comprising a body member having a chamber therein with which communication is provided through a port in the stopper and the walls of which are inclined, diverging from the said port, a flat valve seat, a flat compressible valve, a valve controller having a flat base adapted to bear against the said valve, the periphery of the said valve controller being tapered at an inclination corresponding to that of the inclined walls of the stopper so that the said valve controller may slide on the said inclined walls to its seated position, and a removable member held frictionally in position in a recess provided therefor in the outer portion of the said valve controller.

5. A bottle stopper comprising a body member having a chamber therein with a port providing communication between the said chamber and the outer end of the said body member, a flat valve seat, a flat compressible valve, a valve controller having a flat base adapted to bear against the said valve and normally maintain the same in position against its seat, and a removable member normally held in position frictionally within a recess provided therefor in the outer side of the said valve controller.

[Claim 6 not printed in the Gazette.]

1,140,063. STOP MECHANISM FOR TEXTILE-MACHINES. JOSEPH C. PRATT, Philadelphia, Pa. Filed Feb. 12, 1914. Serial No. 818,303. (Cl. 118—12.)

1. In a device of the character stated, the combination of a plate having two rows of openings therein, a detector pivoted adjacent each opening and having a portion projecting between the rows of openings, each of said detectors being normally supported by a sliver passing through the adjacent opening, a rod slidably mounted adjacent said plate and in alinement with the space between said rows of openings, means to normally balance said rod in raised position, a plurality of trip arms carried by said rod and laterally disposed toward said plate, and located respectively in the path of movement of said detectors when released by the breaking of a sliver or slivers, and means controlled by the lowering of said rod caused by the dropping of one or more of said detectors into engagement with said trip arms for automatically stopping said machine.



2. In a device of the character stated, the combination of a fixed plate having a plurality of openings therein, a detector pivoted adjacent each opening and having a portion projecting between juxtaposed openings, each of said detectors being normally supported by a sliver passing through the adjacent opening, a rod slidably mounted adjacent said plate and in alinement with the space between said openings, means to normally maintain said rod in raised position, a plurality of laterally disposed trip arms carried by said rod and located respectively below and in the path of movement of said detectors, and means controlled by the lowering of said rod, caused by the release of any of said detectors, for automatically stopping said machine.

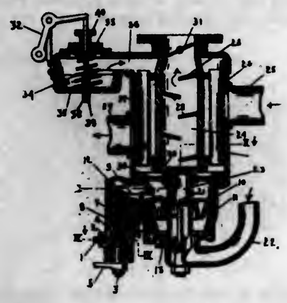
3. In a device of the character stated, the combination of a fixed plate having a plurality of openings therein arranged in pairs, a detector pivoted adjacent each opening and having a portion projecting to one side of the opening, each of said detectors being normally supported by a sliver passing through the adjacent opening, a rod slidably mounted adjacent said plate and in alinement with the space between said openings, means to normally maintain said rod in raised position, a plurality of laterally disposed trip arms carried by said rod, each trip arm having a portion located below and in the path of movement of a pair of said detectors, and means controlled by the lowering of said rod, caused by the release of any of said detectors, for automatically stopping said machine.

4. In a device of the character stated, a fixed plate having a plurality of openings to guide a number of slivers, detectors pivoted upon said plate respectively above said openings and each having a laterally disposed extension projecting to one side of the adjacent opening, each detector being normally supported by the sliver passing through the respective plate opening, a rod movably mounted in a position to be controlled by all of said detectors, means to normally maintain said rod in one position, a plurality of trip arms carried by said rod and arranged to be engaged by the respective detectors, said trip arms being adapted to actuate said rod upon the release of a detector caused by the breaking of a sliver, a feeding mechanism for all of said slivers, and means actuated by the movement of said rod for automatically stopping said feeding mechanism.

1,140,064. CARBURETER. HARRISON L. RAKESTRAW, Toledo, Ohio. Filed Feb. 7, 1914. Serial No. 817,138. (Cl. 48—148.)

1. A carburetor embodying a centrally disposed upwardly opening fuel supply passage, an air supply passage thereabout for initially bringing the fuel into suspension, a chamber to which said passages deliver, said chamber provided with baffles inwardly and downwardly extending, the undersides of said baffles upwardly extending from

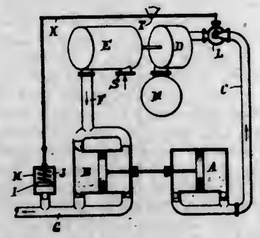
central of the chamber, each lower baffle having its free edge overlapped by the drip edge of the next baffle above, whereby any condensation and liquid is directed to flow away from the chamber wall and off the baffles into a tortuous incoming gaseous mixture current, and heating means enveloping the chamber walls from which the baffles extend for heating the baffles and facilitating complete vaporization.



2. A carbureter embodying a fuel supply passage, a reservoir, a float in said reservoir, a float actuated valve in said passage controlling the supply to said reservoir, a plurality of fuel supply ducts for said passage, control means for selecting the duct to supply the passage, an air supply passage, and a fuel by-pass duct direct from the valve to the air supply passage.

3. The combination in a carbureter of a float reservoir and a mixing chamber, of heating means for the chamber, and a heat insulating partition between the chamber and reservoir.

1,140,065. MULTISTAGE COMPRESSOR. AUGUSTE C. E. RATEAU, Paris, France, assignor to Rateau Battu Smoot Company, New York, N. Y., a Corporation of New York. Filed Apr. 16, 1914. Serial No. 832,289. (Cl. 230—32.)



1. Apparatus for compressing air or other gases comprising in combination, a rotary compressor, a piston compressor receiving and further compressing the fluid compressed and discharged by the rotary compressor, a steam turbine driving the rotary compressor, a separate motor driving the reciprocating compressor, and means responsive to the delivery pressure of the reciprocating compressor for regulating the admission of steam to the turbine.

2. Apparatus for compressing air or other gases comprising in combination, a rotary compressor, a piston compressor receiving and further compressing the fluid compressed and discharged by the rotary compressor, a reciprocating steam engine driving the reciprocating compressor, a turbine utilizing exhaust steam from said engine, and driving said rotary compressor and means responsive to the delivery pressure of the reciprocating compressor for regulating the admission of steam to the turbine.

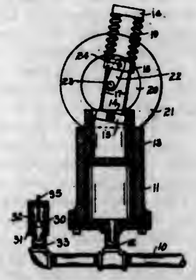
3. Apparatus for compressing air and other gases comprising in combination, a rotary compressor, a piston compressor receiving and further compressing the fluid compressed and discharged by the rotary compressor, a steam turbine adapted to utilize exhaust steam and driving said rotary compressor, a reciprocating engine driving said piston compressor, a conduit through which exhaust steam from the reciprocating engine passes to the turbine inlet, means responsive to the delivery pressure of the reciprocating compressor for regulating the admission of steam from said conduit to said turbine, a condenser and means responsive to the difference between the pressure in said conduit and in the turbine for regulating the passage of steam from said conduit to said condenser.

4. Apparatus for compressing air and other gases comprising in combination, a rotary compressor, a piston compressor receiving and further compressing the fluid compressed and discharged by the rotary compressor, a steam turbine adapted to utilize the exhaust steam and driving said rotary compressor, a reciprocating engine driving said piston compressor, a condenser, and means responsive to the delivery pressure of the reciprocating compressor for governing the passage of exhaust steam from the reciprocating engine to, and its distribution between said turbine and condenser.

5. Apparatus for compressing air or other gases comprising in combination, a rotary compressor, a piston compressor receiving and further compressing the fluid compressed and discharged by the rotary compressor, a reciprocating engine driving said piston compressor, a mixed pressure turbine driving said rotary compressor, and governing mechanism for said turbine responsive to the delivery pressure of the reciprocating compressor.

[Claim 6 not printed in the Gazette.]

1,140,066. MILKING-MACHINE. BENJAMIN P. REMY and FRANK I. REMY, Anderson, Ind. Filed Jan. 11, 1912. Serial No. 670,698. (Cl. 31—98.)



1. In a milking machine, an air tube adapted to be connected with a milker, a cylinder connected with said air tube, a closed piston therein, and yielding means for causing relative movement of the cylinder and piston inversely proportionate to the rarefaction of the air in the milker tube.

2. In a milking machine, a tube adapted to be connected with the milker, a cylinder connected with the tube, a closed piston therein, a driving shaft, and yielding means for operating the piston from said driving shaft whereby the movement of the piston will be inversely proportionate to the rarefaction of the air in the milker tube.

3. In a milking machine, an air tube adapted to be connected therewith, a pump for regulating air rarefaction in the milker consisting of a cylinder connected with said air tube, a closed piston in said cylinder, a driving shaft, a frame pivoted to one end of the piston, a sliding head thereon, a crank on the driving shaft pivoted to said head for actuating the same, and yielding means on said frame for transmitting movement thereto from said head, substantially as set forth.

4. In a milking machine, a pump for regulating the air rarefaction in the milker consisting of a cylinder, a piston therein, a driving shaft with a crank thereon, a frame having a pair of parallel rods and said frame at one end pivoted to the piston, a head slidable on said rods and pivoted to the crank of the driving shaft, and springs on the outer end of said rods tending to resist the movement of said head during the outward stroke of the piston.

1,140,067. TRACTION-WHEEL CLEAT. FRANK I. REMY, BENJAMIN P. REMY, and ARTHUR BERGER, Anderson, Ind., assignors to Remy Brothers Company, Anderson, Ind., a Copartnership. Filed Dec. 9, 1912. Serial No. 735,739. (Cl. 21—211.)



1. A tractor wheel having a rim provided with an elongated recess therein, a cleat adapted to fit in said recess and mounted in connection with the wheel rim so that it may have radial and rotary adjustment, and yielding means tending to force said cleat radially inward and permitting said adjustment so that when the cleat is turned in one position it will lie in said recess and when turned in another position it will extend across and beyond said recess and wheel rim.

2. A tractor wheel having a rim provided with an opening therein, a rotatable rod radially movable therethrough, a cleat on the outer end of said rod adapted to fit in said opening, and a spring tending to force said rod and cleat inward, whereby when the cleat is turned to one position, it will lie in said opening and when turned to another position, it will project beyond the wheel rim.

3. A tractor wheel having a rim provided with transverse and longitudinal recesses in the periphery thereof, one of said recesses being deeper than the other, a rod extending through the rim, a cleat on the outer end of the rod and adapted to fit in either of said recesses and having a thickness in excess of the depth of one of said recesses, and a spring for forcing said rod and cleat inward, whereby when the cleat is in one position, it will embed itself in the deeper recess and when in the other position, it will partially embed itself in the recess and partially project beyond the wheel rim.

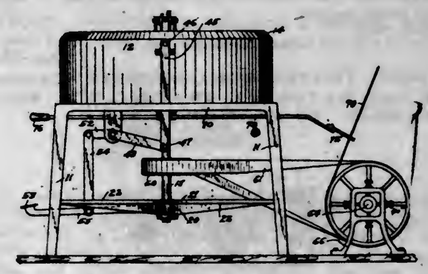
4. A tractor wheel having a rim provided with an opening, a bearing bracket on the inner surface of said rim, a rotatable rod radially movable in said bearing bracket, a cleat on the outer end of said rod having substantially the same conformation and dimensions as the opening, and a spring tending to force said rod inward, so that when turned in one position the cleat will be held embedded in the opening and in another position of the rod the cleat will project beyond the periphery of the wheel.

5. A tractor wheel having a rim, an inwardly extending bearing bracket in connection therewith, said rim and bearing bracket having an external opening therein with an elongated portion circumferential of the rim and a deeper transverse portion extending laterally beyond the longitudinal portion and having the same width as the longitudinal portion, a cleat having the same dimensions as said opening with a transverse portion thicker than the longitudinal portion, a spring held means rotatable in said bearing bracket on which said cleat is secured so that when the cleat is in one position it will be embedded in said opening and when turned 90° therefrom the thicker portion will rest in the outer longitudinal opening and the cleat will project beyond the periphery of the wheel.

[Claim 6 not printed in the Gazette.]

1,140,068. MACHINE FOR DIPPING AND DRYING ARTICLES. DANIEL W. ROBERTS, Cleveland, Ohio, assignor to The Billings-Chapin Company, Cleveland, Ohio, a Corporation of Ohio. Filed Oct. 6, 1913. Serial No. 793,533. (Cl. 91—42.)

1. In a device of the character described, the combination of a cylindrical container for liquid, a basket within the container, a support for the container, a shaft carried by the support extending through the bottom of the container and having spring supports carried by the shaft and adapted to engage the basket more tightly by centrifugal force when rotated, and means for rotating the shaft to spin the basket.



2. In a device of the character described, the combination of a vessel for liquid having a side wall and central opening in the bottom, a sleeve mounted in said opening and extending upwardly, a shaft extending through said sleeve, a support carried by said shaft and depending outside of said sleeve, and a basket having a central opening adapted to be engaged by said support, while within said wall.

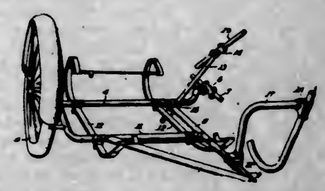
3. In a device of the character described, the combination of a vessel for liquid having a side wall and a central opening in the bottom, a sleeve mounted in said opening and extending upwardly, a shaft within said vessel, depending arms carried by said shaft and springing outwardly, a basket having a central opening adapted to be engaged by said arms, means for bringing the basket and liquid together and means for rotating the shaft while the basket is within said wall.

4. In a device of the character described, the combination of a cylindrical tank, a support for said tank, a shaft mounted in said support and extending through the bottom of the tank, a sleeve mounted in the bottom of the tank surrounding said shaft, a basket within the tank having a central opening, and a support adapted to removably engage said opening whereby the basket is held normally above the liquid, a pulley on said shaft, links pivotally attached to the sides of the tank whereby the tank may be raised to immerse the basket, and a treadle for operating said means.

5. In a device of the character described, the combination of a container for liquid having bottom and side walls and an opening in the bottom, a sleeve surrounding said opening, and extending upwardly within the container, a shaft within said sleeve, and spring arms carried by said shaft and depending around said sleeve.

[Claims 6 to 8 not printed in the Gazette.]

1,140,069. MOTOR-CYCLE SIDE-CAR FRAME. RALPH F. ROGERS, Chicago, Ill. Filed May 23, 1914. Serial No. 840,414. (Cl. 208—45.)



A motor-cycle side car frame comprising a main frame member having an angular surface formed at its forward end, a rear axle member, an intermediate frame member arranged parallel to said rear axle member for a portion

of its length and secured to said main frame member at one end and to the rear axle member at its other end, a brace rod extending from said intermediate frame member to the forward end of said main frame member, an arm connected to said main frame member near the rear axle and an arm provided with a clamp having angular jaw surfaces for attachment to the angular surface of said main frame member.

1,140,070. TELEPHONE-CALL RECORDER. CHARLES M. ROSE, New York, N. Y. Filed July 11, 1914. Serial No. 850,385. (Cl. 234—33.5.)



1. In a device of the character set forth, a casing having a record opening and a cancellation opening therein, one in advance of the other, a strip of paper within said casing, a feeding mechanism for moving said strip, a counter, a push-pin and means actuated by the latter for operating said counter and feeding mechanism, whereby an inscription written on said strip at the record opening is subsequently presented for verification or for cancellation at the cancellation opening by the action of said feeding mechanism.

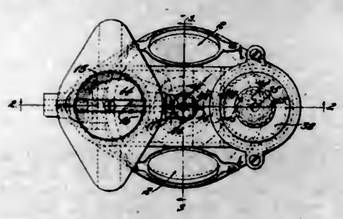
2. In a device of the character set forth, a casing having a record opening and a cancellation opening therein, one in advance of the other, a strip of paper within said casing and presented at such openings, a feeding mechanism for moving said strip, a counter, a pair of push-pins, mechanism actuated by either of said push-pins for operating said feeding mechanism, and means actuated by one of said push-pins alone for also operating said counter, whereby an inscription written on said strip at the record opening is presented at the cancellation opening for verification and is registered by the counter, or for cancellation without such registration.

3. In a device of the character set forth, a casing having a record opening and a cancellation opening therein, one in advance of the other, a strip of paper within said casing and presented at such openings, a feeding mechanism for moving said strip, a counter, a pair of push-pins, mechanism actuated by either of said push-pins for operating said feeding mechanism, means actuated by one of said push-pins alone for also operating said counter, and means actuated by the other of said push-pins alone for marking said strip at said cancellation opening, whereby an inscription written on said strip at the record opening is presented at the cancellation opening for verification and is registered by the counter, or for cancellation by such marking without such registration.

4. In a device of the character set forth, a casing, a cover therefor having a record opening and a cancellation opening therein, one in advance of the other, a platform beneath said cover adapted to carry a rolled strip of paper extended along said platform and presented at such openings, rollers in said casing for feeding said strip, a counter, a push-pin and means actuated by the latter for operating said counter and feed rollers whereby an inscription written on said strip at said record opening is presented for verification or cancellation at said cancellation opening.

5. In a device of the character set forth, a casing, transverse bars therein, a pair of slides mounted in said bars, arms on said slides, a rolled strip of paper in said casing, feed rollers for said strip, a tilting frame in said casing arranged to be engaged by said arms and actuate said feed rollers by the movement of either slide, a counter and actuating connections therefrom to one of said slides, means actuated by the movement of the other of said slides for perforating said strip, a lever arranged with one end in the path of one of said slides, a lever for actuating said perforating means, and a loose connection between the adjacent ends of said levers.

1,140,071. CARBURETER. WILLIAM F. ROTHE, East St. Louis, Ill. Filed May 1, 1912. Serial No. 694,892. (Cl. 48—155.1.)



1. A carbureter comprising an outer shell and an inner shell spaced therefrom, said outer shell having an air intake opening therein, said inner shell having a horizontal passageway therethrough communicating at both ends with the space between said outer and inner shells, a downwardly looped passageway constituting a carbureting chamber, said last-mentioned passageway communicating at one end with said horizontal passageway, and at its opposite end with an upwardly flaring mixing chamber, said carbureting chamber having an oil inlet at the bottom thereof, an auxiliary air chamber communicating with said mixing chamber above said carbureting chamber and having an opening communicating with said air space between said outer and inner shells, a suction valve normally closing said opening, and a throttle-valve controlling the flow through said carbureter.

2. A carbureter comprising an outer shell and an inner shell spaced therefrom, said outer shell having an air intake opening therein, said inner shell having a horizontal passageway therethrough communicating at both ends with the space between said outer and inner shells, a downwardly looped passageway constituting a carbureting chamber, said last-mentioned passageway communicating at one end with said horizontal passageway, and at its opposite end with an upwardly flaring mixing chamber, said carbureting chamber having an oil inlet at the bottom thereof, a valve for controlling said oil inlet, an auxiliary air chamber communicating with said mixing chamber above said carbureting chamber and having an opening communicating with said space between said outer and inner shells, a suction valve normally closing said opening, a throttle-valve controlling the flow through said carbureter, and means controlled by said throttle-valve for opening and closing said oil inlet valve simultaneously with and proportionately to the opening and closing of said throttle-valve.

3. A carbureter comprising an outer shell and an inner shell spaced therefrom, said outer shell having an air intake opening therein, said inner shell having a horizontal transverse passageway communicating at opposite ends with the space between said outer and inner shells, a passageway constituting a carbureting chamber, said last-mentioned passageway communicating at one end with said horizontal transverse passageway, and at its opposite end with a mixing chamber, an auxiliary air chamber communicating with said mixing chamber beyond the first point of communication between said mixing chamber and said carbureting chamber, said auxiliary air chamber having an opening communicating with said air space between said outer and inner shells, said opening being normally closed by an upwardly opening suction valve, a spring acting continuously to seat said suction valve, an auxiliary spring for said suction valve, said auxiliary spring being inoperative while the suction valve is seated, and a throttle-valve for controlling the flow through said carbureter.

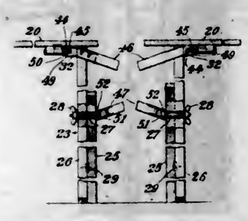
1,140,072. CIGARETTE-SUPPORTER. HERMAN SAART, Attleboro, Mass., assignor to The W. H. Saart Company, a Corporation of Massachusetts. Filed Mar. 26, 1914. Serial No. 827,258. (Cl. 131—51.)



1. A cigarette supporter comprising a ring, two resilient arms fixed to said ring and provided with clamping fingers upon their free ends, lateral bends intermediate said fingers and ring, and lateral means rigid with one of said arms between said bends and fingers to both elevate and prevent tilting of the supporter.

2. The cigarette supporter described comprising in a single element a pair of substantially parallel arms united at one end by a loop and the free ends formed into curved clamping fingers, said arms having lateral projections adjacent the loop, lateral lugs on one arm adjacent the fingers and a projection upon the other arm opposite said lugs.

1,140,073. COLLAPSIBLE TABLE FOR PAPER-HANGERS' USE. PIETRO SCARDINO, New York, N. Y. Filed Feb. 21, 1914. Serial No. 820,145. (Cl. 45—116.)



1. A collapsible table having a top composed of longitudinal sections, hinges joining the sections to permit the same to fold one upon the other and having projecting pintles, and collapsible end-horses having transverse upper members provided with means to engage the said projecting pintles to detachably secure the top of the said end-horses.

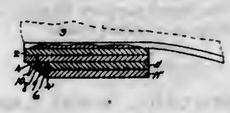
2. A collapsible table comprising a top composed of longitudinal sections, hinges joining the sections to permit the same to fold one upon the other and having projecting pintles, collapsible end-horses having upper members provided with means to engage the said pintles to detachably secure the top to the said end-horses, and a collapsible spreader between the end-horses and having means to detachably engage the end-horses, the said upper members, and the said pintles; said end-horses and spreader being adapted to be stowed, when collapsed, between the folded sections of the top.

1,140,074. CURTAIN-POLE. ADALBERT SCHMALZ and ALBAN SCHMALZ, Chicago, Ill. Filed June 10, 1914. Serial No. 844,132. (Cl. 156—25.)



A curtain-clamping device formed of one piece of spring material and consisting of two oppositely-located U-shaped terminal members bent medially to form angular sides, said U-shaped terminal members being adapted to straddle a curtain pole, two parallel side members extending between and connected to the lower ends of the angular sides of the U-shaped terminal members, and central stirrups adapted to straddle the curtain pole; said stirrups being formed by bending the side members to cross each other at an angle and curving said bent portions to fit the contour of the curtain pole.

1,140,075. ICE-CREEPER. CHARLES R. SEYBERT, Syracuse, N. Y. Filed Jan. 16, 1915. Serial No. 2,711. (Cl. 36—59.)

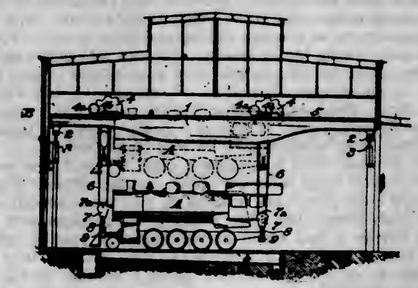


1. An ice-creeper, comprising a horse-shoe-shaped body having a flat surface for engaging the tread-face of a heel, and having its undersides beveled, and a plurality of spikes projecting at right angles from said beveled surfaces, said spikes arranged in staggered rows and the spikes of the several rows being of different lengths.

2. An ice-creeper for attachement to the heel of a shoe, including a body having the general shape of a horse-shoe, the upper face of said body being flat for engaging the tread surface of the heel, the under face of said body being beveled toward the middle of the heel, and a plurality of spikes of different lengths projecting from said beveled surface.

3. An ice-creeper for attachment to the heels of boots and shoes, comprising a horse-shoe-shaped body, one face of which engages the tread-face of the heel, the other face being beveled toward the middle of the heel, spikes projecting from the beveled face of the body, the free ends of said spikes all terminating in a common plane parallel to the plane of the tread of the heel, and a filler disposed in the bight of the body flush with the tread edge of the body.

1,140,076. TRAVELING CRANE. HARVEY SHOEMAKER, Middletown, N. Y. Filed Aug. 19, 1913. Serial No. 785,452. (Cl. 212—11.)

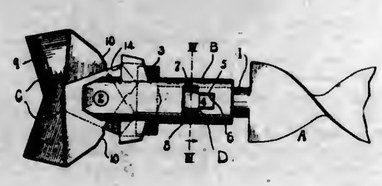


1. In an installation for the overhead transfer of loads, the combination of a plurality of parallel railroad floor tracks, runways supported above and transversely to said tracks, two overhead traveling cranes, connected and adapted to traverse coincidently on said runways and separated by a gap or space sufficient to admit between them a vehicle of the maximum width admissible on a floor track, and hoisting apparatus mounted on said traveling cranes, by which a load may be elevated, from one of the floor tracks, sufficiently far into the space between the traveling cranes, to be carried by said cranes over the top of a vehicle standing on another track.

2. A traveling crane for overhead load transfer installation, comprising two connected overhead traveling cranes, separated by a gap or space sufficient to admit between them a vehicle of the maximum width admissible on railroad tracks served by said cranes, and hoisting apparatus mounted on said traveling cranes and adapted to elevate such a vehicle into the space between said cranes.

3. In an installation for the overhead transfer of loads, the combination of a plurality of parallel railroad floor tracks, runways supported above and transversely to said tracks, a traveling crane transfer appliance adapted to traverse on said runways and comprising beam members extending parallel with said tracks and separated by a gap or space sufficient to admit between them a vehicle of the maximum width admissible on a floor track, and mechanism, mounted on said transfer appliance, whereby a load may be lifted, from one track, sufficiently far into the gap between the beam members to pass over the top of a vehicle standing on another track.

1,140,077. MINER'S DRILL. SAMUEL T. SKEEN, Sandoval, Ill. Filed Apr. 24, 1914. Serial No. 834,035. (Cl. 255—69.)



1. A miner's drill comprising a stem, a thrust member at an end of said stem, a blade holder slidably fitted to said thrust member, blades pivoted to said blade holder and adapted to be extended in response to a movement of the drill, said blade holder being provided with a slot having a wall which lies substantially parallel with the axis of the blade holder and a pocket at the end of said wall, and a projection carried by the thrust member adapted to ride along said wall when the blades are moving to their extended positions and adapted to enter said pocket to lock the blades in their extended positions.

2. A miner's drill comprising a blade holder, blades pivoted to said blade holder, a thrust member slidably fitted to said blade holder and adapted to turn independently of the blade holder, the blade holder being provided with a slot having a wall which lies substantially parallel with the axis of said thrust member and also provided with a pocket at an end of said wall, and a projection carried by the thrust member adapted to ride along said wall when the thrust member slides in said blade holder and adapted to enter said pocket to lock the blades when the thrust member turns independently of said blade holder.

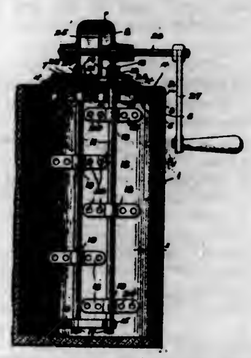
3. A miner's drill comprising a blade holder, blades pivoted to said blade holder, a thrust member slidably fitted to said blade holder and adapted to turn independently of the blade holder, the blade holder being provided with a slot having a wall which lies substantially parallel with the axis of said thrust member and also provided with a pocket at an end of said wall, and a projection having a flat bearing face adapted to ride along said wall when the thrust member slides in said blade holder and adapted to enter said pocket to lock the pivoted blades when the projection reaches the end of said wall.

4. A miner's drill comprising a stem, a thrust member at an end of said stem, a blade holder slidably fitted to said thrust member, blades pivoted to said blade holder and adapted to be extended in response to a movement of the drill, said thrust member being movable independently of the blade holder while the blades are moving to their extended positions, and a locking pin for locking said thrust member to secure the blades in their extended positions, said locking pin being carried by the thrust member, and the blade holder being provided with a pair of pockets one of which is adapted to receive said locking pin during the operation of the drill, the other pocket being adapted to receive the locking pin when the blade holder is turned to sharpen the blades, substantially as described.

5. A miner's drill comprising a stem, a thrust member at an end of said stem, a blade holder slidably fitted to said thrust member, blades pivoted to said blade holder and adapted to be extended in response to a movement of the drill, said blade holder being provided with a substantially T shaped slot forming a pair of pockets and having a wall which lies substantially parallel to the axis of said thrust member, and a projection carried by said thrust member adapted to ride along said wall and adapted to enter said pockets at the end of said wall, said projection serving as means for locking the blades in their extended positions when it lies within either of said pockets.

[Claims 6 to 11 not printed in the Gazette.]

1,140,078. GEARING. TAYLOR J. SMITH, Union City, Ga., assignor of one-half to Samuel M. Cown, Union City, Ga. Filed Dec. 8, 1913. Serial No. 805,207. (Cl. 74—7.)



A housing comprising a plate provided with a pocket in its upper face, and a superimposed member detachably secured thereto, an arbor projecting upwardly from the bottom of said pocket, a gear wheel rotatably mounted on said arbor and arranged within said pocket, said gear wheel being provided with an integral beveled pinion, a transverse shaft in said super-imposed member, a beveled gear fixed to said shaft and meshing with said beveled pinion, alined bearings in said plate and super-imposed member respectively, a shaft mounted in said bearings, and a pinion on said shaft within said pocket and meshing with the first said gear, substantially as described.

1,140,079. BINDER. WALTER SPARKS, New York, N. Y., assignor of one-half to George A. Annable. Filed July 20, 1912. Serial No. 710,583. (Cl. 129—13.)



1. A binder for sheets comprising an outer shell adapted to embrace the margins at one side of said sheets, a bayonet lock upon one side of said shell, binding means adapted to be secured within said bayonet lock and having means adapted to engage the other side of said shell and to pass through and retain said sheets within said shell.

2. A binder for sheets comprising an outer shell adapted to embrace the margins at one side of said sheets, a bayonet lock upon one side of said shell, binding means adapted to be secured within said bayonet lock and having means adapted to engage the other side of said shell and to pass through and retain said sheets within said shell, and means at the edges of said shell to provide supports for the covers of a book.

3. A binder for sheets comprising an outer shell adapted to embrace the margins at one side of said sheets, a bayonet lock upon one side of said shell, binding means adapted to be secured within said bayonet lock and having means adapted to engage the other side of said shell and to pass through and retain said sheets within said shell, and means at the edges of said shell adapted to provide supports for the covers of a book, engaging plates adapted to engage the edges of said sheets and adapted to be bound thereupon by said binding means.

4. A binder for sheets comprising an outer shell adapted to embrace the margins at one side of said sheets, a bayonet lock upon one side of said shell, binding means adapted to be secured within said bayonet lock and having means adapted to engage the other side of said shell and to pass through and retain said sheets within said shell, and means at the edges of said shell adapted to provide supports for the covers of a book, engaging plates adapted to engage the edges of said sheets and adapted to be bound thereupon by said binding means, said engaging plates having laterally projecting portions adapted to conform to and fit into the interior of said shell.

1,140,080. OIL-INDICATOR FOR INTERNAL-COMBUSTION ENGINES. HORACE N. SPEER, New York, N. Y. Filed Nov. 29, 1913. Serial No. 803,652. (Cl. 73—82.)

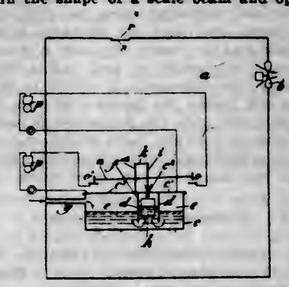


An oil indicator comprising a casing, a tube extending upwardly above the casing and having a slot, a transparent protector carried by and within the tube and opposed to said slot, said tube having a portion dented beneath said protector to support the latter upon the tube, a float within the casing, and a rod connected with the float and passing through the casing into such tube in position to be seen through said slot.

1,140,081. BURGLAR OR FIRE ALARM. GUSTAV SPITZ, Brünn, Austria-Hungary. Filed Apr. 17, 1912. Serial No. 691,451. (Cl. 177—202.)

1. In a circuit controlling apparatus, the combination of, a closed container partly filled with liquid and comprising two communicating compartments, one of which is adapted to communicate with the outside air; a float in the other compartment; a contact balance-lever outside of the container and connected to the float; and an alarm circuit adapted to be closed or opened by the balance-lever.

2. An apparatus for controlling the closing of the circuit in burglar and fire alarms, consisting of a closed container partly filled with fluid and arranged in the room to be protected and comprising two compartments, one of which is connected with the outside atmosphere; a float in the other compartment; an alarm circuit; and a contact-lever constructed in the shape of a scale beam and operatively



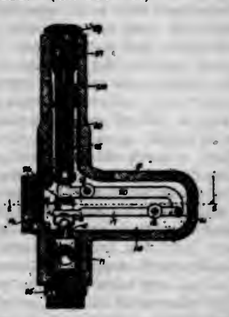
connected to the float and adapted to close or break said circuit according to the position of the float.

1,140,082. CORK-EXTRACTOR. JOHN HENRY AUBREY STAPLEY, Horley, England. Filed Mar. 25, 1914. Serial No. 827,070. (Cl. 65—46.)



A cork extractor comprising a hollow needle adapted to be forced through a cork closing a bottle, a cross handle on the said needle of greater length than the inner diameter of the neck of the bottle, the said needle having a port formed therein near its lower end and at a distance from the handle less than the length of the neck of the bottle, a flexible tube connected at one end to the outer end of the said needle, a valve casing, to the outlet from which the other end of said flexible tube is connected, a non-return valve in said casing, a hand-operated compression pump, and a tube connecting the outlet from said pump to the inlet to said valve casing, as substantially set forth.

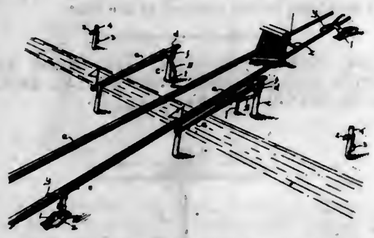
1,140,083. THERMOSTATIC RADIATOR-VALVE. COLE STICKLE, Indianapolis, Ind. Filed Dec. 26, 1913. Serial No. 808,813. (Cl. 236—9.)



1. A thermostatic valve including a casing with an inlet opening, a ball valve for closing said opening by gravity and so as to be opened by the incoming fluid, a lever for limiting the movement of said ball valve, and downwardly extending pins from said lever surrounding the ball valve to prevent the escape thereof during the operation of the lever.

2. A thermostatic valve including a casing with an inlet opening and a discharge opening, a tubular valve seat in the opening and projecting above the wall of the casing and on a lower level than the discharge opening, a ball valve on said seat for closing the inlet, a thermostatically actuated lever fulcrumed on said casing with one end adapted when the thermostat is cooled to lie above the ball valve and permit the opening of said valve by an incoming fluid and when the thermostat is heated to actuate said lever to hold the valve closed, and downwardly extending pins from said lever surrounding the valve seat to prevent the escape of the valve when the lever is elevated.

1,140,084. RAILROAD-GATE. JAMES H. TAYLOR and ALBERT H. MANSELL, Detroit, Mich. Filed July 25, 1914. Serial No. 853,039. (Cl. 39—43.)



1. In an automatically operated railroad gate, the combination of a swinging gate for closing or leaving open a road over the railroad track, a pair of trips located at remote points, one on either side of the gate along the railroad track, and pivoted to swing toward and away from the gate, and connections between the two trips and the gate, the said connections being arranged to cause the trips to swing together in either direction and to cause the gate to close when the trips are swung toward the gate and open when the trips are swung away from the gate, each of said trips being provided with a device adapted to be struck by the train but part of the device moving relatively to the trip when the trip is at the limit of its movement in the direction toward which the train is going and part of the device moving the trip when the trip is tipped toward the oncoming train.

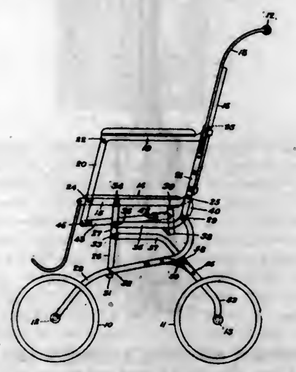
2. In an automatically operated railroad gate, the combination of a gate, remotely placed trips, and connections between the trips and the gate for opening or closing the gate, said trips operating to swing toward or from the gate together by reason of the said connections, each trip comprising a lever provided with two pivoted bellcrank arms on its upper end, each bellcrank arm being provided with a lower weighted end and adapted to actuate the lever when struck upon its top surface, but adapted to swing inactively when struck upon its lower surface.

3. In an automatically operated railroad gate, the combination of a gate, a pivoted spindle journaling the gate and adapted to be tipped to one side or the other to open or close the gate, a crank shaft, a link connecting the spindle with the crankshaft for tipping the spindle when the crankshaft is oscillated, a second gate on the opposite side similarly mounted, a second crankshaft, a link connecting the second crankshaft and the second gate spindle, upper and lower actuating arms on both the first and second crank shaft, draft connections between the upper actuating arm of one crankshaft and the lower actuating arm of the other crankshaft, a main crankshaft, cranks on the main crankshaft one above and the other below the main crankshaft, draft connections between the lower crank and the lower actuating arm of the first-mentioned crankshaft, draft connections between the upper crank of the main crankshaft and the upper actuating arm of the second crankshaft, remotely placed trips pivotally mounted, lever arms mounted upon the main crankshaft and connections between the upper and lower actuating levers of the main crankshaft, one pair of connections being between the upper actuating arm and above the pivotal point of one trip and the lower actuating arm and below the pivotal point of the same trip, and the other pair of connections being between the upper actuating arm and below the pivotal point of the other trip and between the lower actuating arm and above the pivotal point of this same trip.

4. In an automatically operated railroad gate, the combination of a gate, a tipping spindle therefor on which the gate is journaled, means for automatically operating said tipping spindle and a catch for holding the gate in one of these positions, comprising a post, a bellcrank lever pivoted thereon, a weight on the lower end of the bellcrank lever, a beveled face on the other end of the lever with a notch back of the same, whereby the gate in swinging toward the catch drops into the notch, is held in position until the spindle is tipped when it is lifted out of the notch.

5. In an automatically controlled railroad gate, the combination of a post, a bellcrank lever pivoted to the top of the post, having one arm formed into a spindle, a gate rotatably mounted upon said spindle, a link vertically disposed and connected at its upper end with the lower arm of said bellcrank lever, and means operated by a passing train for forcing the link up or drawing it down.

1,140,085. PERAMBULATOR. ORA N. TURNER, Templeton, Mass., assignor to Bay State Metal Wheel Company, Templeton, Mass., a Corporation of Maine. Filed Apr. 4, 1913. Serial No. 758,852. (Cl. 21—83.)



1. A folding perambulator comprising wheel axles, frame elements fastened respectively to said axles and connected to each other by a pivotal joint arranged to enable said axles to move toward and from each other, jointed elements carried by said frame elements, and a seat carried by said jointed elements, said jointed elements being connected to said frame elements by pivot connections arranged to cause bodily movement of said seat toward said frame elements as said axles move toward each other.

2. A folding perambulator having wheel axles movable toward and from each other, a folding running frame connecting said axles, and folding seat-supporting means connected to said frame so as to fold in unison therewith, said frame being arranged to move said seat-supporting means bodily toward said axles as said axles approach each other.

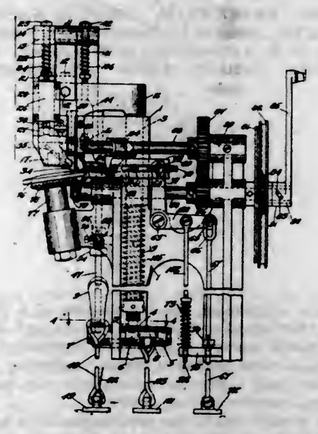
3. A folding perambulator having wheel axles movable toward and from each other, a folding running frame connecting said axles, and folding seat-supporting means pivotally connected to said means so as to be folded and moved bodily toward said axles by said running frame as said axles approach each other.

4. A folding perambulator comprising a running frame having front and rear sections and wheel axles secured respectively to said sections, said frame being capable of folding to move said axles toward each other, and folding seat-supporting means connected to said front and rear sections so as to be moved bodily toward said axles as said axles approach each other.

5. A folding perambulator comprising a running frame having front and rear sections and wheel axles secured respectively to said sections, said sections being relatively movable to carry said axles toward and from each other, and folding seat-supporting means connected to said front and rear sections to be folded into more compact form and moved bodily toward said axles as said axles approach each other.

[Claims 6 to 15 not printed in the Gazette.]

1,140,086. SOLE-CHANNELING MACHINE. FELIX E. VALOIS, Haverhill, Mass., assignor to Hamel Shoe Machinery Company, Lynn, Mass., a Corporation of Massachusetts. Filed Jan. 2, 1914. Serial No. 809,811. (Cl. 12—27.)



1. In a sole channeling machine, a feed wheel, a channeling knife, a shoulder knife, and an edge guide, a pedal and connections whereby the actuation of the pedal will during a part of its movement raise the shoulder knife vertically and move the edge guide laterally with relation to the channeling knife and the further movement of the pedal will raise the channeling knife and feed wheel and further raise the shoulder knife thereby permitting removal of the shoe sole from engagement with the channeling knife in a lateral direction on the opposite side of the feed wheel from the channeling knife.

2. In a sole channeling machine, a feed wheel, a channeling knife, a shoulder knife and an edge guide, mechanisms for raising the feed wheel, channeling knife, and shoulder knife and moving laterally the edge guide, a common actuating mechanism therefor and connections therewith so arranged that after the sole has been channeled the operation of said actuating mechanism will raise the shoulder knife and move the edge guide laterally out of engagement with the sole while the channeling knife is still engaged therewith, and the continued movement of said actuating mechanism will then raise the channeling knife and feed wheel while the sole is still engaged with the channeling knife and still further raise the shoulder knife sufficient to permit withdrawal of the sole away from the channeling knife in a lateral direction on the opposite side of the feed wheel from the channeling knife.

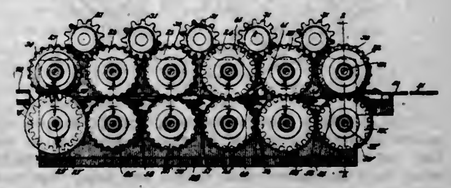
3. In a sole channeling machine, feed mechanism, a channeling knife, means for vibrating said channeling knife in the line of the channel, a shoulder knife and means for vibrating said shoulder knife in a line parallel with the feed, said vibrating mechanisms being so constructed and arranged that the forward cutting stroke of each of said knives will occur during the backward stroke of the other of said knives.

4. In a sole channeling machine the combination of a rotary feed wheel, a work table, a vibrating channeling knife, means for vibrating said channeling knife in the line of the channel, a shoulder knife and means for vibrating said shoulder knife in the line of the shoulder of the sole, said vibrating mechanisms being so constructed with relation to each other that the said channeling knife and shoulder knife will move in opposite directions to each other.

5. In a sole channeling machine, a work table, feed mechanism, an edge guide, a shoulder knife, a channeling knife, common actuating mechanism and means connected therewith whereby the shoulder knife may be raised and the edge guide may be moved laterally to withdraw them from the work while the channeling knife remains stationary with relation to the work, and whereby the continued movement of the said actuating mechanism on the same stroke raises vertically the feed mechanism and channeling knife without lateral movement of the channeling knife.

[Claims 6 to 14 not printed in the Gazette.]

1,140,087. ART OF ROLLING HOLLOW-HEADED METAL BARS. SILAS R. VANNAMAN, Chicago, Ill., assignor to American 3-Way Prism Company, Laporte, Ind., a Corporation of Pennsylvania. Filed Apr. 15, 1914. Serial No. 831,917. (Cl. 153—3.)



1. The art of rolling muntin strips in the form of a double channel bar with hollow heads, which consists in rolling a flat strip into a central channel, flanged by half-heads with wings extending back past the bottom bar of the channel; reëntrantly rolling one wing to complete a head and to lay the wing border on the said bottom bar; and thereafter reëntrantly rolling the other wing in like fashion.

2. The method of rolling double channel strips having hollow heads flanging an intermediate bar, which consists in rolling a flat strip into a form presenting a central bar and flanking half-beads, having wings extending back past the bar; reëntrantly rolling the two wings successively each to complete a head and lay its wing-border flat on said bottom bar with the wing-margins confronting and closely contiguous.

3. The method of rolling double channel strips which consists in rolling a flat strip into a form presenting a central bar and flanking half-heads having wings extending back past the bar, mutually in-bending said wings nearly to contacting position, and successively reëntrantly rolling one wing to complete a head and lay the wing border on said bottom bar, and reëntrantly rolling the other wing in like fashion.

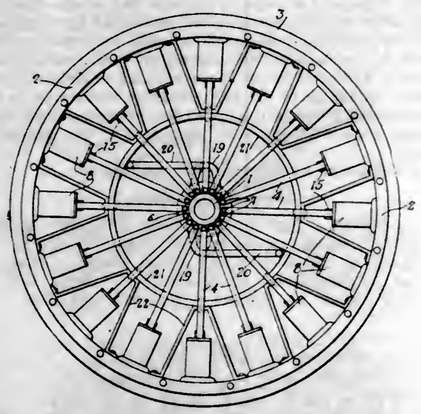
4. The method of rolling double channel strips which consists in rolling a flat strip into a form presenting a central bar and flanking half-heads having wings extending back past the bar, and thereafter mutually in-bending said wings nearly to contacting position, and successively reëntrantly rolling one wing to complete a head and lay the wing border on said bottom bar, and reëntrantly rolling the other wing in like fashion while guiding the strip interiorly on a forming-core.

5. A machine for rolling muntin strips in the form of a double channel bar with hollow heads, comprising in combination successive roll couples including certain rolls

adapted and arranged to bend the strip into a central channel flanked by half-heads having wings extending back past the bottom bar of the channel; other succeeding rolls adapted and arranged reëntrantly to roll one wing to complete a head and lay the wing border on said bottom bar, and other succeeding rolls adapted and arranged reentrantly to roll the other wing in like fashion.

[Claims 6 to 16 not printed in the Gazette.]

1,140,088. RESILIENT WHEEL. BERT WALTERS, Springfield, Ohio, assignor to Clarence H. Kay, Springfield, Ohio. Filed Mar. 29, 1912. Serial No. 686,998. (Cl. 152—53.)



1. In a wheel, the combination, with a hub, a rim, spokes pivotally connected at their inner ends to said hub and at their outer ends with said rim, said spokes being rigid throughout their length and being capable of radial movement relatively to said rim, and resilient devices interposed between the outer ends of said spokes and said rim, of a positive driving connection between said hub and said rim.

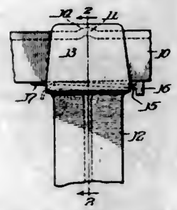
2. In a wheel, the combination, with a hub, a rim, a spoke pivotally connected with said hub, said spoke being rigid throughout its length, a connecting device interposed between the outer end of said spoke and said rim and comprising a yielding device to cushion the movement of said spoke in either direction, of a positive driving connection interposed between said hub and said rim.

3. In a wheel, the combination, with a hub, a rim, and a spoke pivotally connected with said hub, of a casing rigidly secured to said rim and having a guideway in one end thereof to receive the outer end of said spoke, said outer end of said spoke having an opening therein, a spring mounted within said casing and having one end supported by the end of said spoke, a pin having sliding movement in the opening in said spoke having means to limit the relative movement of said parts, extending through said spring and having a part to engage that end of said spring opposite the end supported by said spoke, whereby the movement of said spoke in either direction relatively to said casing will cause said spring to be compressed.

4. In a wheel, the combination, with a hub, a rim, and a spoke comprising diverging members pivotally connected to said hub on opposite sides of the transverse center thereof, said spoke having a guideway in the outer end thereof, of a connecting device interposed between said spoke and said rim and comprising a cylindrical casing having an opening in the inner end thereof to loosely receive the outer end of said spoke, whereby said spoke may have pivotal movement relatively to said casing, a pin extending through the guideway in said spoke and having a part to engage the end portion of said spoke to limit the movement of the spoke relatively to the pin and having at its opposite end a head, and a spring coiled about said pin between said head and the end of said spoke.

5. In a wheel, the combination, with a hub, a rim, and a spoke comprising diverging members pivotally connected to said hub on opposite sides of the transverse center thereof, said spoke having a guideway in the outer end thereof, of a connecting device interposed between said spoke and said rim and comprising a cylindrical casing having an opening in the inner end thereof to loosely receive the outer end of said spoke, whereby said spoke may have pivotal movement relatively to said casing, a pin extending through the guideway in said spoke and having a part to engage the end portion of said spoke to limit the movement of the spoke relatively to the pin and having at its opposite end a head, a spring coiled about said pin between said head and the end of said spoke, a ring rigidly secured to said rim and arranged between the same and said hub, arms rigidly secured to said hub, and link connections between said arms and said rim.

1,140,089. BRAKE-BEAM. LOREN L. WHITNEY, Hammond, Ind., assignor to American Steel Foundries, New York, N. Y., a Corporation of New Jersey. Filed Aug. 12, 1914. Serial No. 856,338. (Cl. 188—22.)



1. In a brake beam, the combination of a compression member formed of a commercial shape and imperforate at its middle portion, a projection outwardly from said member, a strut having a recess registering with said projection, and a key for maintaining said parts in engagement, substantially as described.

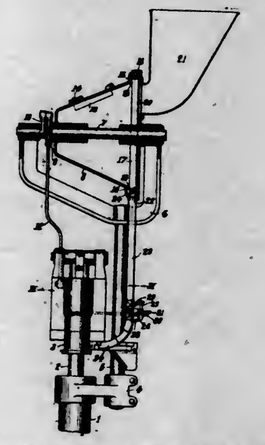
2. In a brake beam, the combination of a compression member having a projection, a strut having a portion surrounding said compression member, and provided with a recess registering with said projection, and a key adapted to maintain said parts in engagement, substantially as described.

3. In a brake beam, the combination of a compression member having a protuberance, a strut having a yoke surrounding said compression member and provided with a recess registering with said protuberance, the opening through said strut being of a greater height than the height of the compression member, and a key filling the space between said compression member and said strut and preventing the disengagement of the parts, substantially as described.

1,140,090. SEAL-FEED FOR BOTTLE-CAPPING MACHINES. CHARLES WINTER, Woodbury, N. J., assignor to Star Seal Company, a Corporation of New York. Filed May 25, 1909, Serial No. 498,282. Renewed Oct. 17, 1914. Serial No. 867,242. (Cl. 113—114.)

1. An apparatus for feeding seals of the character described to a bottle sealing device, comprising a receptacle for the mass of seals, a chute communicating with said receptacle of a width to comfortably convey the seals only in endwise positions, and an entrance to said chute having an obstruction to said seals making the width of the chute at that point less than the height of the seals, and enlarged parts above and below said obstruction to receive respectively the upper and lower tongues directed thereto of endwise positioned seals to permit said positioned seals to rock around said obstruction to pass said tongues thereby in tilted positions.

2. An apparatus for feeding seals of the character described to a bottle sealing device, comprising a receptacle for the mass of seals, a chute communicating with said receptacle of a width to comfortably convey the seals only in endwise positions, an entrance to said chute having an obstruction to said seals making the width of the chute at that point less than the height of the seals, and enlarged parts above and below said obstruction to engage respectively the upper and lower tongues directed thereto of endwise positioned seals to permit said positioned seals to worm around said obstruction to pass said tongues thereby in tilted positions, and means for agitating said mass of seals at said entrance.



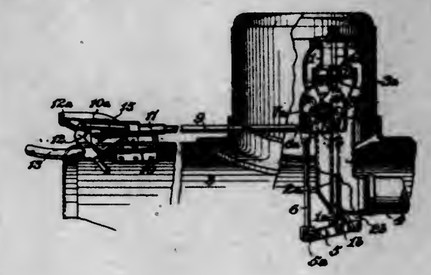
3. An apparatus for feeding seals of the character described to a bottle sealing device comprising a receptacle for the mass of seals, a chute communicating with said receptacle of a width to comfortably convey the seals only in endwise positions, a contracted entrance to said chute making the width of the chute at that point less than the height of the seals, said entrance having a zig-zag side wall to permit endwise positioned seals having tongues directed toward said wall to worm their way past said zig-zag wall to carry their tongues past said contracted entrance in tilted positions.

4. An apparatus for feeding seals of the character described to a bottle sealing device comprising a receptacle for the mass of seals, a chute communicating with said receptacle of a width to comfortably convey the seals only in endwise positions, a contracted entrance to said chute with a side face having an upper part flaring upwardly away from said chute, a second part below and adjacent said contracted entrance flaring downwardly away from said chute and another part below and adjacent said second part flaring downwardly to said chute forming a zig-zag entrance to permit endwise positioned seals having flanges directed toward said zig-zag entrance having a tumbling motion to pass the said contracted entrance in tilted positions.

5. An apparatus for feeding seals of the character described to a bottle sealing device comprising a receptacle for the mass of seals, a chute communicating with said receptacle of a width to comfortably convey the seals only in endwise positions, a contracted entrance to said chute with a side face having an upper part flaring upwardly away from the said chute, an adjacent lower part flaring downwardly away from said chute and a part below and adjacent said last part flaring downwardly to said chute forming a zig-zag entrance to permit edgewise positioned seals having flanges directed toward said zig-zag entrance having a tumbling motion to pass the said contracted entrance in tilted positions, and means for moving said upper part.

[Claims 6 to 9 not printed in the Gazette.]

1,140,091. THROTTLE-VALVE MECHANISM FOR LOCOMOTIVES. WILLIAM E. WOODARD, Schenectady, N. Y. Filed June 26, 1914. Serial No. 847,538. (Cl. 137—4.)



1. In a throttle valve mechanism, the combination of a throttle pipe adapted to be supported in the steam dome of a boiler, a throttle valve manually operable to control said pipe, an oscillatory throttle shaft extending through the dome and journaled in a support adapted to be secured to the outside thereof, connections coupling the throttle valve to the inner end of the throttle shaft, an exterior operating lever adapted to impart opening and closing movements to the throttle valve, and connections positively coupling said lever to the outer end of the throttle shaft.

2. In a throttle valve mechanism, the combination of a throttle pipe adapted to be supported in the steam dome of a boiler, a throttle valve controlling said pipe, a rod fixed to said valve and extending downwardly through a passage in the throttle pipe, an oscillatory throttle shaft journaled in a support adapted to be secured to the outside of the steam dome, a lever pivoted on the throttle pipe and coupled to the throttle rod, a link coupled to said lever and to an inner arm on the throttle shaft, an exterior operating lever, and connections coupling said lever to an outer arm on the throttle shaft.

3. In a throttle valve mechanism, the combination of a throttle pipe adapted to be supported in the steam dome of a boiler, a throttle valve controlling said pipe, an operating throttle lever pivoted to a support adapted to be located exterior to the dome, connections through which said lever is coupled to the throttle valve, and through which decreasing leverage may be imparted in the outward movement of the lever from the normal position which it occupies when the throttle valve is closed.

4. In a throttle valve mechanism, the combination of a throttle pipe adapted to be supported in the steam dome of the boiler, a throttle valve controlling said pipe, a support adapted to be located exterior to the dome, a cross head fitted to be guided by and to traverse longitudinally in said support, connections coupling said cross head to the throttle valve, a pivoted throttle operating lever, and links coupling the cross head to a lateral arm on said lever.

1,140,092. SHADE. YUKINOBU YAMAMOTO, St. Louis, Mo. Filed Feb. 26, 1915. Serial No. 10,662. (Cl. 240—108.)

1. A rotatable shade for a light, said shade comprising a top and a skirt supported by said top, a plurality of propeller blades borne by said shade adapted to propel said shade by means of the action of air currents by the heat of said light, each blade being formed integrally with said shade, a bearing borne by said top over an appropriate opening in said top, said bearing having a peak and a lateral rim, means adapted to engage said rim, said means bearing a plurality of prongs adapted to secure said bearing to said top, and an axis supported above said light adapted to engage said bearing through said opening and adapted, also, rotatably to support said shade.

2. A rotatable shade for a light, said shade comprising a top and a skirt supported by said top, a plurality of propeller blades borne by said shade adapted to propel said shade by means of air currents caused by the heat of said light, means adapted rotatably to support said shade axially about said light, a member borne by said top adapted releasably to engage an adjacent portion of said axial support to brake and arrest the rotary motion of said shade, means borne by said top adapted to limit the movement of said member toward said axial support, said member having one end pivotally attached to said top, and means borne by the other end of said member adapted to engage said limiting means.



3. In a rotatable shade for a light, the combination with a hollow member having a top and an open bottom adapted to be rotatably supported axially about said light, of means borne by said top adapted releasably to engage an adjacent portion of the axial support of said member to brake and arrest the rotary motion of said member.

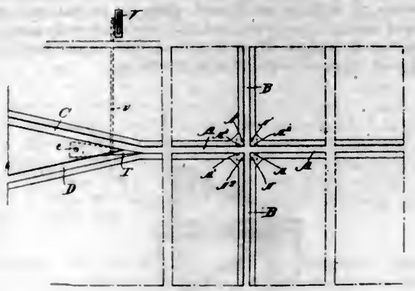
4. In a rotatable shade for a light comprising a hollow member adapted to be rotatably supported axially about said light, rotary motion being imparted to said member by the action of air currents caused by the heat of said light, the combination with a top for said hollow member, said top having a central opening, of a bearing borne by said top over said central opening, said bearing consisting of a hollow peak having a laterally extending base-rim, an annular member adapted to rest upon said base-rim, said annular member having a plurality of prongs adapted to pierce said top and adapted, also, to hold said rim with said annular member upon said rim adjacent the surface of said top, an axis having an end adapted to bear upon the concavity of the peak of said bearing through said central opening rotatably to support said hollow member, means borne adjacent the base of said light and extending upwardly therefrom adapted rigidly to support said axis, a member borne by said top adapted releasably to engage an adjacent portion of said axis to break and arrest the rotary motion of said hollow member, one end of said braking member being pivotally attached to said top, and means borne by said top adapted to limit the movement of said brake-member toward and away from said axis, portions adjacent the other end of said brake-member being adapted to engage said limiting means.

5. In a rotatable shade for a light, the combination with a hollow member having a top and an open bottom adapted to be rotatably supported about said light, of means borne by said top adapted releasably to engage an adjacent portion of the axial support of said member to brake and arrest the rotary motion of said member, and means rigidly borne by said axial support adapted to shield said member from the flame of the shaded light.

1,140,093. ELECTRIC-RAILWAY SYSTEM. ANDREW YUROW, New York, N. Y. Filed May 5, 1914. Serial No. 836,495. (Cl. 191—28.)

1. The combination, with spaced conducting rail sections, of vertically yielding contact devices arranged between said rail sections and electrically connected thereto, a plow having lateral means for engagement with the rail sections, and horizontal plates for engagement with said contact devices, the horizontal plates being electrically connected to the respective lateral means for the purpose specified.

2. The combination, with spaced conducting rail sections, of vertically arranged contact devices overhanging said rail sections and located between the same, means for electrical connection between said rail sections and contact devices, a plow having lateral means for engaging the rail sections, and horizontal plates on the top of the plow electrically connected respectively to the lateral means for bridging the gap between the rail sections without interrupting the circuit.



3. The combination, with spaced conducting rail sections, of spring pressed conducting devices arranged vertically above and in line with the respective rail sections and between the same, means for electrical connection between said rail sections and contact devices, a plow having lateral means for engaging the rail sections, and horizontal plates on the plow electrically connected to the respective lateral means thereon for bridging the gap between the rail sections without interrupting the circuit, the ends of said plates being curved to guide the conducting devices onto the same.

4. The combination, with spaced main line conducting rail sections, of similar cross line rail sections, auxiliary contact devices arranged at the crossing, certain of said devices being arranged in line with and electrically connected to the respective rail sections of the main line, and others of said devices being arranged in line with and electrically connected to the respective rail sections of the cross line, each of said sets of contact devices being out of line with the other rail sections, and a plow having lateral means for engaging the rail sections of either line and plates for engaging the contact devices of the line engaged by said lateral means, whereby the gap between the rail sections may be bridged and crossed without interrupting the circuit.

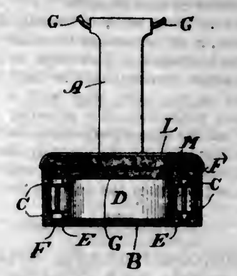
5. The combination, with spaced main line conducting rails and spaced cross line rail sections, of contact devices arranged in pairs at each of the four corners of the crossing, one contact device of each pair being disposed in line with the corresponding rail of the main line and the other in line with a rail of the cross line, each of said contact devices being electrically connected to one of the rail sections in line therewith, and a plow having means for collecting current from said rails and means for engaging said contact devices for the purpose specified, said latter means being electrically connected to said collecting means.

[Claims 6 to 9 not printed in the Gazette.]

1,140,094. PLOW FOR ELECTRIC CONDUIT-RAILWAYS. ANDREW YUROW, New York, N. Y. Original application filed May 5, 1914, Serial No. 836,495. Divided and this application filed Aug. 25, 1914. Serial No. 858,464. (Cl. 191—49.)

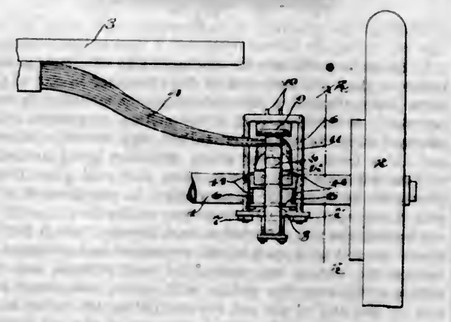
A plow for conduit railways having pairs of bored lugs on the opposite faces thereof, bowed collecting plates each made of a single piece of resilient metal having a central portion wider than the space between the lugs of each pair, and reduced end portions to fit loosely between said lugs, abrupt shoulders being formed at the junction of said reduced ends with the central portions of the plates

for contacting with the lugs and thereby limiting the endwise movement of said plates with respect to the plow,



and removable pins passed through the bores in the lugs for detachably retaining said plates in operative position.

1,140,095. VEHICLE-SPRING WITH AIR-CUSHION. DONNISON B. ADAMS, Minneapolis, Minn., assignor of one-half to Edward B. Douglas, Minneapolis, Minn. Filed May 19, 1913. Serial No. 768,541. (Cl. 21—50.)



1. In a vehicle, the combination with an axle and a body, spring-supported therefrom, of a saddle bracket secured on said axle, a pneumatic tube supported by said saddle bracket, a spring supporting said body, provided with a stirrup embracing said pneumatic tube, and an auxiliary spring interposed between said stirrup and pneumatic tube.

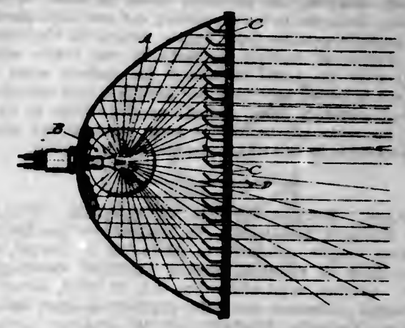
2. In a vehicle, the combination with an axle and a body, spring-supported therefrom, of a saddle bracket secured on said axle, an elongated pneumatic tube supported by said saddle bracket, a spring supporting said body, provided with a stirrup embracing said pneumatic tube, and a semielliptical spring carried by said stirrup, with its intermediate portion bearing on said pneumatic tube.

1,140,096. NON-BLINDING DEVICE. EUGENE ADRIENTE, Jersey City, N. J. Filed Feb. 17, 1915. Serial No. 8,701. (Cl. 240—47.)

1. The combination of a headlight including a source of light, and a plurality of reflector bars disposed in front of the said source and having upwardly-bent rear edges for receiving upwardly radiated light and directing it horizontally.

2. The combination of a reflector, a source of light disposed in the focal center thereof, and a plurality of reflecting bars arranged in front of the source of light and spaced apart to permit the passage of rays of light from the lamp and from the reflector, said bars having upwardly-bent rear portions whereby rays of light striking the rear portion of one bar will be reflected upon the rear portion of an adjacent bar and thereby reflected forwardly.

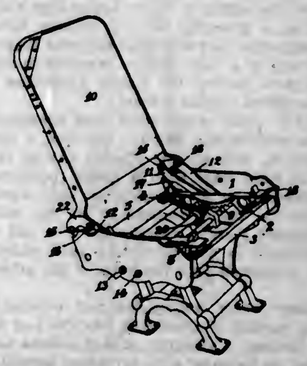
3. An attachment for lamps, comprising a ring having parallel reflecting bars spaced apart, the rear edges of the bars being bent upwardly in parallel relation.



4. An attachment for lamps, comprising a ring having parallel reflecting bars spaced apart, the rear edges of the bars being bent upwardly in parallel relation, the upper edge of the upwardly-bent portion of one bar being wholly below the superimposed adjacent bar.

5. The combination of a reflector, a source of light disposed at the focal center thereof, and a plurality of reflecting bars arranged in front of the source of light and spaced apart to permit parallel rays of light from the lamp and reflector to pass without reflection by the bars, each bar having one edge bent out of the plane of the bar, the bent edges of all bars being parallel, and the bent edge of one bar being spaced from an adjacent bar, and both surfaces of the bent portion of each bar being a reflector, whereby rays striking one bar will be reflected against an adjacent bar and thereby reflected parallel with the rays of light passing directly between the bars from the lamp and reflector.

1,140,097. REVERSIBLE SEAT FOR TRAM-CARS AND OTHER PURPOSES. JOHN EDWARD ANGER, Preston, England. Filed Oct. 28, 1913. Serial No. 797,814. (Cl. 155—2.)

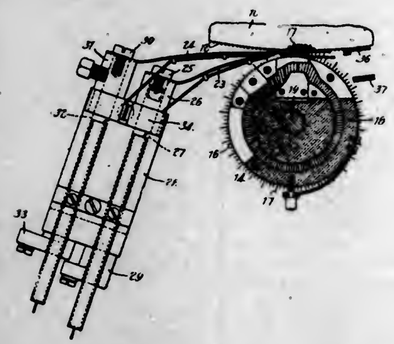


1. In a reversible seat of the type referred to, the combination with the rockers that support the seat member having toothed racks intermediate their ends the cross shafts which support the seat back through substantially parallel links, guides for preventing lateral displacement of the rockers of pinions or toothed segments made slidable on the said shafts so as to clear the racks on the rockers when required, and enable the rockers to be slid lengthwise clear of the guides.

2. In a reversible seat of the type referred to, the combination with the rockers for supporting the seat member having cut-away portions intermediate their ends and in-

clined under faces at their ends resting upon inclined upper faces of the sills, guides secured to said sills for preventing the lateral displacement of the rockers of toothed racks in the cut away space between the said inclines, cross shafts for supporting the seat back through substantially parallel links fixedly secured to the shafts, and pinions or toothed segments on the shafts which co-act with the racks to operate the rockers when the set back is swung over in either direction, said pinions or toothed segments being slidable on the shafts so as to clear the racks on the rockers when required and enable the rockers to be slid lengthwise clear of the guides.

1,140,098. SINKER-WHEEL MECHANISM. WILLIAM T. BARRATT, Bennington, Vt., assignor of one-third to Annie Cooper, one-third to Alexander J. Cooper, and one-third to Elisabeth Cooper Stoddard, Bennington, Vt. Original application filed Oct. 19, 1912, Serial No. 726,668. Divided and this application filed Jan. 2, 1914. Serial No. 809,897. (Cl. 66—27.)



1. A sinker wheel constructed and arranged to feed yarn to the needles of a knitting machine, a plurality of sinkers thereon, each of said sinkers having a projection on its outer edge adjacent to the upper edge thereof, said projection on a plurality of said sinkers being longer than the projection on the sinkers adjacent thereto whereby the free end of a yarn may be gathered in and carried by said sinkers having the longer projection into the path of the others of said sinkers.

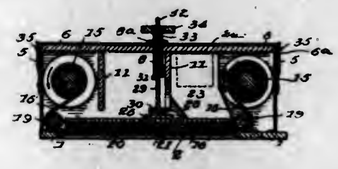
2. A sinker wheel constructed and arranged to feed yarn to the needles of a knitting machine, a plurality of sinkers thereon, each of said sinkers having two projections on its outer edge with a notch therebetween, the upper projection on a plurality of said sinkers being longer than the upper projections on the ends of the sinkers adjacent thereto whereby the free end of a yarn may be gathered in and carried by said sinkers having the longer projection into the path of the others of said sinkers.

3. A sinker wheel constructed and arranged to feed yarn to the needles of a knitting machine and a plurality of sinkers thereon, a plurality of said sinkers each having a projection on its outer edge extending beyond the outer edges of the sinkers adjacent thereto whereby the free end of a yarn may be gathered in and carried by said sinkers having the longer projection into the path of the others of said sinkers.

4. A circular knitting machine having, in combination, a needle cylinder, a set of needles therefor, a sinker wheel constructed and arranged to feed yarn to said needles, a plurality of sinkers thereon, a plurality of said sinkers each having a projection on its outer edge extending beyond the outer edges of the sinkers adjacent thereto and a yarn guide adapted to guide yarn having a free end extending therefrom, in to line with the ends of said sinkers, whereby said free end will be gathered in and carried by said sinkers having the projection aforesaid into the paths of the others of said sinkers.

5. A circular knitting machine having, in combination, a needle cylinder, a set of needles therefor, a sinker wheel constructed and arranged to feed yarn to said needles, a plurality of sinkers thereon, each of said sinkers having two projections on its outer edge with a notch therebetween, the upper projection on a plurality of said sinkers being longer than the upper projections on the outer edges of the sinkers adjacent thereto whereby the free end of a yarn may be gathered in and carried by said sinkers having the longer projections into the path of the others of said sinkers.

1,140,099. PHOTOGRAPHIC-ROLL HOLDER. HORACE B. BARRIER, Spokane, Wash. Filed Nov. 12, 1913. Serial No. 800,492. (Cl. 95—34.)

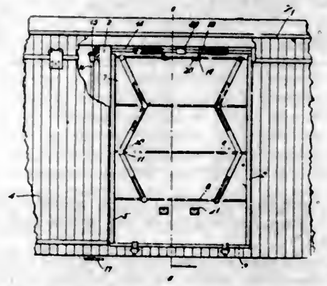


1. In an attachment for photographic cameras, a container, a glass plate carried by the container in one of the outer walls thereof, a film roll rotatably mounted in said container, a winding roll, guide rollers, a presser plate disposed between the guide rollers and movable toward and away from the glass plate, said film being arranged to pass between said presser plate and said glass plate, means for locking said presser plate in engagement with said films, said last named means comprising a slidable rod having one end swiveled to said presser plate, a slotted sleeve carried by a wall of the container and arranged to receive the rod, a lug carried by said slidable rod and arranged to enter the slot in said sleeve, and means carried by one end of the rod for permitting the latter to be forced toward the plate, the movement of the rod toward the plate serving to bring the lug out of the slot, and the rotation of the rod serving to cause the lug to engage the end of the sleeve, thereby locking the presser plate in position.

2. In an attachment for photographic cameras, a container, a glass plate carried by the container in one of the outer walls thereof, a film roll rotatably mounted in said container, a winding roll, guide rollers, a presser plate disposed between the guide rollers and movable toward and away from the glass plate, said film being arranged to pass between said presser plate and said glass plate, means for locking said presser plate in engagement with said films, said last named means comprising a slidable rod having one end swiveled to said presser plate, a slotted sleeve carried by a wall of the container and arranged to receive the rod, a lug carried by said slidable rod and arranged to enter the slot in said sleeve, a thumb nut carried by the rod for reciprocating and rotating the latter, the movement of the rod toward the glass plate serving to bring the lug out of the slot in the sleeve, and the subsequent rotation of the thumb nut and rod serving to bring the lug into engagement with the end of the sleeve thereby locking the presser plate in position, and a spring disposed between said thumb nut and the end of the sleeve for automatically releasing the presser plate when the lug is in alinement with the slot in the sleeve.

3. In an attachment for photographic cameras, a container, a glass plate carried by the container in one of the outer walls thereof, a film roll rotatably mounted in said container, a winding roll, guide rollers, a presser plate disposed between the guide rolls and movable toward and away from the glass plate, said film being arranged to pass between said presser plate and said glass plate, means for locking said presser plate in engagement with said film, said last named means comprising a slidable rod having one end swiveled to said presser plate, a slotted sleeve carried by the wall of the container and arranged to receive the rod, and means carried by the rod and arranged to engage a portion of the sleeve during the movement of the rod for locking the latter to the sleeve.

1,140,100. GRAIN-CAR DOOR. CHARLES W. BASH and AMBROSE BASH, Kansas City, Kans. Filed Nov. 14, 1912. Serial No. 731,400. (Cl. 20—32.)



1. A grain door comprising a plurality of individual sections each having a laterally turned flange at its upper edge, lugs on said flanges having outstanding studs and keeper collars on said studs, and a pair of links pivotally mounted on one of said studs and each having a slotted portion overlying the stud on an adjacent section and retained in place by the collars on said last named studs, substantially as set forth.

2. In a grain door, the combination with a plurality of individual door sections, having apertured brackets on the upper and lower section thereof, of a shaft, ropes on said shaft, hooks on said ropes adapted for engagement with either of said apertured brackets, and means for turning said shaft, whereby the sections may be nested by lowering from the top or by raising from the bottom, substantially as described.

3. The combination with a door frame having a door opening, of a sectional door comprising a plurality of sections, a winch for engaging either the lower or upper section for nesting the said sections at the top or bottom of the door opening, means for latching the sections in nested position, a hinge at the top of said door opening, and means for removably connecting said hinge to said door, for the purpose set forth.

4. The combination with a door frame having a door opening, of a collapsible door, and means for collapsing said door to expose either the top or bottom portion of said door opening.

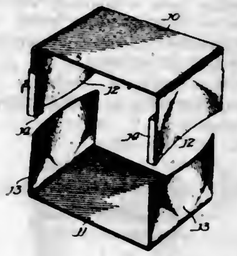
5. The combination with a door frame having a door opening, of a door for inclosing said door opening, comprising a plurality of sections, and means for nesting said sections at the top or bottom of the door frame to expose the bottom or top portion of the door pening.

[Claim 6 not printed in the Gazette.]

1,140,101. SPRING-DAMPENER. CARL E. BAUER, Hammond, Ind., assignor to American Steel Foundries, New York, N. Y., a Corporation of New Jersey. Filed Mar. 1, 1915. Serial No. 11,259. (Cl. 105—118.)

1. In a spring controller, the combination of upper and lower inclosing members, each of said members being provided with end portions adapted to interengage and interlock with an adjacent portion, said end portions being initially distorted, whereby the parts normally tend to be brought into close frictional engagement, substantially as described.

2. In a spring dampener, the combination of a pair of plates having ends bent at right angles to the plates and adapted to interengage with each other, interlocking devices on said end portions, adjacent end portions being oppositely bent with relation to a transverse plane passing through said plates whereby said portions, after having been assembled, tend to separate from each other and thereby cause frictional contact, substantially as described.

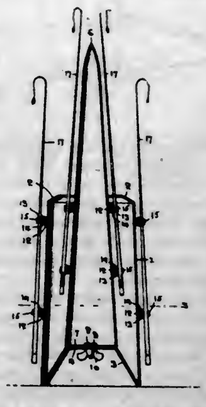


3. In a spring controller, the combination of a pair of inclosing members having interlocking side portions, the side portions of one member being initially formed with a concave set and the corresponding portion of the opposed member being given an initial convex set, substantially as described.

4. In a spring controller, the combination of a pair of U-shaped members, the ends of which are adapted to interlock and permit relative movement between the members, an end portion of one member being formed with an initial distortion with relation to the end portion with which it coöperates, substantially as described.

5. In a spring dampener, the combination of upper and lower U-shaped members adapted, when assembled, to accommodate a nest of springs therebetween, the engaging portions of one member being given an initial curve with relation to the portion engaged thereby, whereby one of said engaging portions must be bent in order to accomplish such engagement, substantially as described.

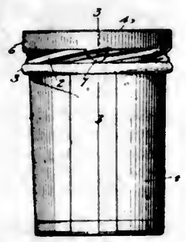
1,140,102. DISPLAY-RACK FOR WHIPS. CHRISTIAN H. BAUMEISTER, Des Moines, Iowa. Filed Jan. 15, 1914. Serial No. 812,845. (Cl. 211—14.)



1. In combination with an outer cylinder and an inner conical cylinder rigidly secured therein, of a plurality of retaining means attached to said cylinders for holding articles securely, placed for display upon the said cylinders, each of said retaining means comprising a flexible inner member; a plurality of metal loops arranged in pairs and secured to the said flexible member by a second flexible member passed through said metal loops and fixedly secured to the first mentioned flexible member between each pair of metal loops; a lacing strap surrounding the said cylinders and being disposed within the said metal loops, and suitable means for securing the ends of said lacing strap together.

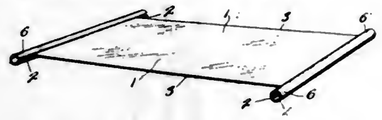
2. In a display rack of the class described comprising an outer cylinder and an inner conical cylinder, a plurality of retaining means attached thereto, each of said retaining means comprising a plurality of metal loops, secured in pairs to a flexible supporting member, said supporting member being adjusted to the diameter of the cylinders whereon they rest; a lacing strap disposed through the said metal loops, and suitable means to secure the ends of the said lacing strap.

1,140,103. BOTTLE AND JAR CLOSURE. OTTO A. J. BECHER, Coplague, N. Y. Filed Feb. 6, 1914. Serial No. 816,908. (Cl. 215—85.)



A cap for bottles and jars having a circumferential flange provided with spaced depending lugs, each of which lugs has an intermediate corrugation extending transversely of and entirely across the same below the lower edge of the flange, said corrugation being of uniform width throughout and having its ends opening at the side edges of the respective lug, and each of which lugs has a free end below its corrugation, the said lugs having their lateral resilience unimpaired by the corrugations, whereby such resilience may be utilized within limits to permit the fitting of the cap to bottle and jar necks slightly varying in size.

1,140,104. BRICK-PALLET. ANSON J. BENTLEY, Niles, and FRANK F. BENTLEY, Warren, Ohio. Filed Oct. 26, 1914. Serial No. 868,783. (Cl. 34—17.)



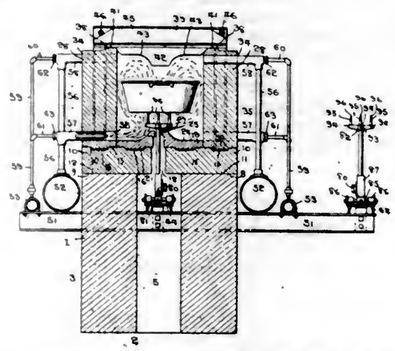
1. A reversible pallet having a flat body portion having two unobstructed flat surfaces and two cut away side edges; and a rolled handle portion integral with and extending across each end of said body portion, each of said handle portions also extending beyond each side edge, and above and below each flat surface of said body portion, whereby said pallet may be readily reversed in use, substantially as described.

2. A reversible brick pallet comprising a metal sheet having a body portion with flat surfaces cut away at the sides leaving unobstructed edges and providing extensions on either side thereof; and said extensions being bent at an angle to said body portion and formed into a tube extending beyond each flat surface of said body portion, substantially as described.

3. A reversible brick pallet comprising a body portion having two flat unobstructed surfaces and cut away side edges combined with integral hollow rolled handle members extending beyond said side edges, and also beyond said flat surfaces, substantially as described.

1,140,105. CONTINUOUS-BURNING FURNACE FOR BURNING ENAMEL WARE. CHARLES BICKMEIER and DANIEL A. LISTON, Bellaire, Ohio. Filed Oct. 29, 1913. Serial No. 798,095. (Cl. 25—142.)

1. A continuous burning furnace buggy, provided with a frame having a stem rising therefrom, and a standard supported by said stem, such standard having a three-armed frame from the end of the arms of which rise fingers having finely pointed tops.



2. A continuous burning furnace, provided with a top having a depending tongue in the middle, and curves on each side.

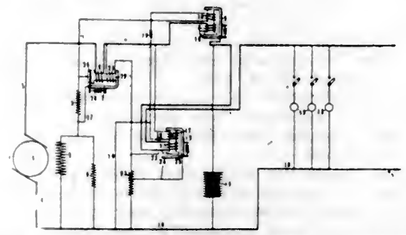
3. A continuous burning furnace, having a top provided with a depending tongue in the middle, curves on each side and also provided with a curved bottom.

4. A continuous burning furnace, having a top provided with a depending tongue in the middle, curves on each side of the tongue, and provided with a curved bottom having projections rising from the middle.

5. A continuous burning furnace, having its bottom consisting of two blocks, spaced apart, such blocks having at their inner edges, top projections, and on their tops, curves extending downward and backward from the top projections, and a cover having on the underside a tongue in the middle, and curves on each side of the tongue.

[Claims 6 to 9 not printed in the Gazette.]

1,140,106. REGULATING SYSTEM. JOSEPH BIJUR, New York, N. Y., assignor to The Safety Car Heating and Lighting Co., New York, N. Y., a Corporation of New Jersey. Filed Jan. 27, 1911. Serial No. 604,958. (Cl. 171—313.)



1. In apparatus of the class described, in combination, a generator, a storage battery connected to be charged from said generator, a regulating device for said generator comprising a voltage coil, and a generator current coil coacting to control its action, a resistance in series with said voltage coil, and means controlled in accordance with the voltage of said generator adapted to shunt said resistance.

2. In apparatus of the class described, in combination, a generator, a battery connected to be charged from said generator, a regulator for said generator comprising a voltage coil, and a generator current coil coacting to control its action, a resistance in series with said voltage coil across the generator mains, and voltage-controlled means adapted to shunt a portion of said resistance.

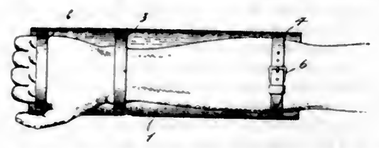
3. In apparatus of the class described, in combination, a generator, a regulating device for said generator comprising a voltage coil, a resistance in series with said voltage coil, voltage-controlled means adapted to shunt said resistance, a storage battery adapted to receive current from said generator, translating devices adapted to receive current from said generator or battery, and means acting in accordance with the current flowing to said translating devices adapted to oppose the action of said voltage-controlled means.

4. In apparatus of the class described, in combination, a generator, a regulator for said generator comprising a voltage coil, a resistance in series with said voltage coil across the generator mains, voltage-controlled means adapted to shunt a portion of said resistance, a storage battery adapted to receive current from said generator, transmitting devices adapted to receive current from said generator or battery, and means acting in accordance with the current flowing to said translating devices adapted to oppose the action of said voltage-controlled means.

5. In apparatus of the class described, in combination, a generator having a shunt field winding, means comprising a vibratory member adapted to affect the output of said generator, an electro-magnetic device having a current coil and a voltage coil adapted jointly to tend to attract said vibratory member and reduce the generator output, means adapted abruptly to strengthen said voltage coil upon the voltage across the mains reaching a predetermined value, translating devices adapted to receive current from said generator, and means acting in accordance with the current flowing to said translating devices to oppose said second means.

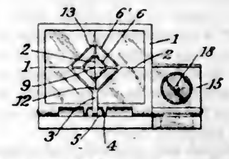
[Claims 6 to 15 not printed in the Gazette.]

1,140,107. SWIMMING DEVICE. ALFRED H. BROWN, Jersey City, N. J. Filed Nov. 28, 1914. Serial No. 874,363. (Cl. 9—21.)



A swimming device adapted to be secured to the front of the forearm and hand of the user, comprising a board of a length sufficient to extend from the elbow down over the palm of the hand, and having on its rear face a hand strap arranged adjacent one end of the board, an arm strap arranged adjacent the other end of the board, and a wrist strap intermediate the two, said hand strap engaging over the back of the hand of the user just above the knuckle joints when said wrist and arm straps engage, respectively, the wrist and the arm of the user adjacent the elbow, whereby the device is securely held to the user with the fingers free to engage over the lower edge of the board.

1,140,108. DIRECT-VIEW FINDER FOR CAMERAS. STANLEY BROWN, Garden City, N. Y. Filed Jan. 20, 1915. Serial No. 3,217. (Cl. 88—1.5.)

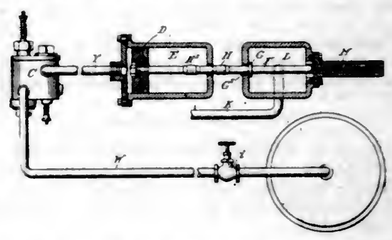


1. In a direct view finder, crossing devices, a support therefor and a sight member provided with a series of fixed sight points whereby the divergence of the subject from the axis of the camera may be determined.

2. A direct view finder provided with a level and having crossing devices, a support therefor and a sight member provided with a series of fixed sight points whereby the divergence of the subject from the axis of the camera may be determined.

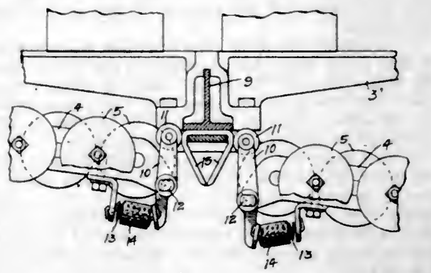
3. In combination with a camera having a movable lens, a direct view finder having crossing devices, a support therefor and a sight member provided with a series of fixed sight points whereby the divergence of the subject from the axis of the camera may be determined for the adjustment of the lens.

1,140,109. AUTOMATIC TRAIN-STOPPING MECHANISM. GEORGE W. BROWNELL, St. Albans, Vt. Filed Dec. 31, 1913, Serial No. 809,779. Renewed Mar. 29, 1915. Serial No. 17,894. (Cl. 246—59.)



In an automatic train-stopping mechanism, a track detent, a trip, a tank containing compressed air, a piston and cylinder, a train pipe containing compressed air, means operated by said trip for admitting compressed air from the compressed-air tank to the piston, means whereby one complete continuous movement of the piston automatically and repeatedly opens and closes the air release from the train-pipe, thereby releasing air from the train-pipe gradually and intermittently.

1,140,110. ELEVATOR. HERMAN J. BUCK, Ellwood City, Pa., assignor to Mathews Gravity Carrier Company, Ellwood City, Pa., a Corporation of Pennsylvania. Filed Oct. 23, 1914. Serial No. 868,159. (Cl. 193—8.)



1. The combination, with an elevator provided with a movable carriage, and with gravity carrier bars extending into said elevator and arranged with spaces between their ends permitting the passage of said carriage, of movable wheels or rolls arranged in the spaces between the ends of said bars, substantially as described.

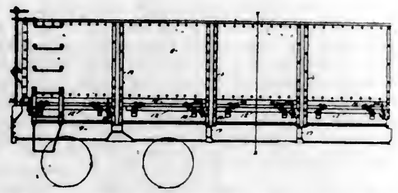
2. The combination, with an elevator provided with a movable carriage, and with gravity carrier bars extending into said elevator and arranged with spaces between their ends permitting the passage of said carriage, of movable wheels or rolls arranged in the spaces between the ends of said bars, and means provided upon said carriage for moving said wheels or rolls out of the path of the carriage, substantially as described.

3. The combination, with an elevator provided with a movable carriage and with gravity carrier bars extending into said elevator and arranged with spaces between their ends permitting the passage of said carriage, of movable wheels or rolls arranged in the spaces between the ends of said bars, means provided upon said carriage for moving said wheels or rolls out of the path of the carriage, and means for returning said wheels or rolls to their normal position, substantially as described.

4. The combination, with an elevator, provided with a movable carriage and with gravity carrier bars extending into said elevator, and arranged with spaces between their ends permitting the passage of said carriage, of supporting means arranged between the ends of said bars and adapted to hold small articles that may be deposited upon said carriage, and means upon said carriage for moving said supporting means out of the path of the carriage.

5. The combination, with an elevator provided with a movable carriage, and with gravity carrier bars extending into said elevator and arranged with spaces between their ends permitting the passage of said carriage, of supporting means arranged between the ends of said bars, and adapted to hold small articles that may be deposited upon said carriage, means upon said carriage for moving said supporting means out of the path of the carriage, and means for restoring said supporting means to normal position.

1,140,111. DOOR-OPERATING MECHANISM FOR DUMP-CARS. ARGYLE CAMPBELL, Chicago, Ill., assignor to Enterprise Railway Equipment Company, Chicago, Ill. Filed June 12, 1914. Serial No. 844,627. (Cl. 105—14.)



1. In a dump car, the combination with a car body having doors therein, side stakes and diaphragms, operating shafts, flexible members connecting said shafts to said doors, said shafts resting on said diaphragms adjacent to said side stakes and straps connecting said diaphragm and said side stakes for the purpose of holding in position said shafts.

2. In a dump car of the class described, the combination of drop doors, diaphragms attached to side stakes, operating shafts attached to the car doors by flexible connections, said shafts resting upon said diaphragms adjacent to said side stakes and being held in position by straps connected to said side stakes and diaphragms.

3. In a dump car, the combination with a car body having doors, side stakes, diaphragms, operating shafts and flexible members connecting the doors to the operating shafts, said operating shafts being at rest upon said diaphragms and adjacent to said side stakes and held in position by strap members attached to said diaphragms and side stakes.

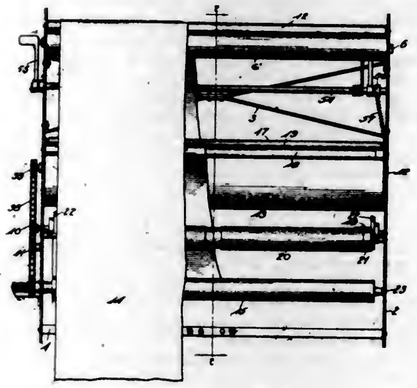
4. In a dump car, the combination with a car body having doors therein, of an operating shaft and flexible members connecting the operating shaft to the door, side stakes, lateral members connected thereto, straps connected to the side stakes and lateral members, and surrounding the operating shaft.

5. In a dump car, the combination with a car body having doors, side stakes and diaphragms, of an operating shaft and flexible members connecting the doors to the operating shaft and members connecting the diaphragm to the side stakes, the operating shaft resting upon said diaphragms and passing through said connecting members.

[Claims 6 to 13 not printed in the Gazette.]

1,140,112. PAPER-HANGING DEVICE. JOSEPH N. CAMPBELL, Linden, N. J. Filed Oct. 26, 1914. Serial No. 868,641. (Cl. 216—6.)

1. In a device of the character described, a frame, a paste roller arranged in the frame, a paper supporting roller, means connecting the paper supporting roller and the paste roller whereby when said paper supporting roller is rotated the paste roller will also be rotated, means for guiding the paper from said paper supporting roller past said paste roller to one face of the device so as to engage the wall on that face, and a knife arranged adjacent one end of the frame adapted to sever the paper, said paper roller being arranged so as to press against the paper as the same is applied to said wall, whereby the paper roller acts as a presser roller and also as a power member for causing the rotation of the paste roller.



2. In a device of the character described, a frame, a spindle for receiving a paper roll journaled in said frame, a rotatable paste device, means for connecting said spindle and said paste device so that when said paper roll is rotated the paste device will also be rotated, means for guiding the paper from said roll past said paste device so as to receive adhesive therefrom, means for guiding the paper after it leaves said paste roll so that it will pass beneath said roll of paper, whereby said roll of paper will press the same against a wall, and means for severing said paper into strips as the same is fed from the device.

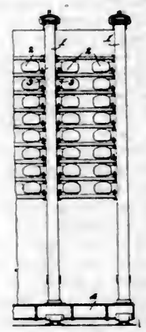
3. In a paper hanging device of the character described, a frame, a spindle arranged near one end of said frame, a guiding roller arranged near the opposite end of the frame, said spindle being designed to receive a roll of paper, said guiding roller and said roll of paper acting as means for pressing a strip of paper against a wall, a plurality of guiding rollers for guiding a strip of paper from said paper roll to said guiding roller, a paste applying device arranged in the path of movement of said strip of paper, a reciprocating knife arranged adjacent said guiding roller for severing the paper at that point, and means for operating said knife at any time.

4. In a paper hanging device of the character described, a frame, a spindle arranged in said frame for receiving a roll, said spindle being formed with a notched end, a spring pressed reciprocating member formed with lugs adapted to be forced into said notched end for holding said spindle in place, said reciprocating member being designed to be retracted when said spindle is being removed, said spindle being formed with means for frictionally gripping said roll of paper so that when friction is brought to bear on the roll of paper the spindle will be rotated, a rotatable paste applying device, means connecting said paste applying device and said spindle whereby when said spindle is rotated said paste applying device will also be rotated, and means for guiding paper from said roll of paper past said paste applying device.

5. In a device of the character described, a frame, a paste applying device, a paper receiving spindle, means for guiding paper from said spindle to said paste applying device, said means including a cutting device for trimming the edge of said paper, means for pressing a strip of paper from said roll of paper against a wall, said roll of paper also pressing said strip of paper against said wall, and a knife for severing said strip of paper from the roll of paper on said spindle.

[Claim 6 not printed in the Gazette.]

1,140,113. METHOD OF MANUFACTURING GAS. HENRY A. CARPENTER, Sewickley, Pa., and DANA D. BARNUM, Worcester, Mass., assignors to Riter-Conley Manufacturing Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed July 24, 1913. Serial No. 780,996. (Cl. 48—210.)



1. In the manufacture of coal gas, the method herein described of reducing stand-pipe stoppage, consisting in discharging gas from a plurality of generating retorts directly into a vertical path formed by a stand-pipe and common to all of said retorts, and timing the charging with coal of each retort relatively to the charging of all the other retorts to maintain the temperature of said vertical path substantially uniform.

2. In the manufacture of coal gas, the method herein described of reducing stand-pipe stoppage, consisting in discharging gas simultaneously from a plurality of generating retorts directly and through relatively short lateral paths into a vertical path, said vertical path being formed by a stand-pipe and common to all the retorts, and timing the charging with coal of each retort relatively to the charging of all the other retorts to maintain the temperature of said vertical path substantially uniform.

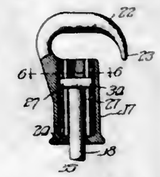
3. In the manufacture of coal gas, the method herein described of reducing stand-pipe stoppage, consisting in discharging gas from a plurality of generating retorts directly and in lateral direction into a vertical path formed by a stand-pipe and with the gas entering said path at different elevations, and timing the charging of each retort with coal relatively to the charging of every other retort to maintain the temperature of said vertical path substantially uniform.

4. In the manufacture of coal gas, the method herein described of reducing stand-pipe stoppage, consisting in charging a group of retorts with coal at different times and thereby creating overlapping carbonization periods, the time of charging each retort of the group being remote from the time of charging the retorts nearest thereto and thereby minimizing variation in temperature of the retorts and of the gaseous output thereof, maintaining direct communication between each retort during its carbonization period and a vertical path with said path formed by a stand-pipe common to all the retorts, and timing the charging of each retort relatively to the charging of all the other retorts to maintain the temperature of said path substantially uniform.

5. In the manufacture of coal gas, the method herein described which consists in charging in sequence a plurality of gas generating retorts with coal and retaining the charges within the retorts for corresponding periods of time and thereby maintaining overlapping carbonization periods of corresponding duration for all the retorts, discharging the gas from all the retorts directly into a vertical path with said path inclosed by a stand-pipe and common to all the retorts, and timing the charging of each retort relatively to charging of all the other retorts to maintain the composite gaseous stream within said vertical path substantially uniform in quality, temperature and volume.

[Claim 6 not printed in the Gazette.]

1,140,114. UNCOUPLING DEVICE. CHARLES A. CARSCADEN and GEORGE A. WOODMAN, Chicago, Ill., assignors of one-third to Raymond C. Dudley, Chicago, Ill. Filed Sept. 18, 1912. Serial No. 720,938. (Cl. 213—59.)



1. An uncoupling device for railway cars comprising a rod adapted to be secured to a car and having an arm extending outwardly at right angles from the main portion of the rod, and an extensible member formed of relatively rigid parts adapted for unrestrained relative movement, one of said parts being provided with an integral means for connecting it with the locking pin of the coupler, and the other of said parts being provided with integral means for pivotally and interlockingly connecting it with said outwardly extending arm of the operating rod to permit relative oscillatory movement of the rod and member while preventing removal of the parts when the rod and member are secured respectively to the car and to the locking pin of the coupler.

2. An uncoupling device for railway cars comprising a rod having an arm extending outwardly therefrom and provided with an aperture, an extensible member formed of relatively rigid parts adapted for unrestrained relative movement, one of said parts being provided with an integral means for connecting it with the locking pin of the coupler and the other of said parts being provided with an integral hook for engaging said aperture to permit relative oscillatory movement of said rod and member, the end of said hook being curved downwardly to prevent removal of the parts when said parts are mounted on a car in assembled relation.

3. An uncoupling device for railway cars comprising a rod adapted to be secured to the car and having an end disposed outwardly at right angles to the main portion of the rod, and a pair of rigid, loosely engaged and interlocked telescoping elements, means integral with one of said elements for interlockingly engaging the outwardly extending arm of the rod and means integral with the other of said elements for interlockingly engaging the locking pin of the coupler, all of said interlocking connections being separable only when the coupling device is disconnected from the car or the locking pin from the coupler.

4. An uncoupling device for railway cars comprising a rod adapted to be secured to a car and having an arm extending outwardly from the main portion of the rod, a hollow member suspended from and interlocked with said arm, and an element having an end extending into said hollow member and detachable therefrom only upon relative rotary movement of said member and element, said element being connected to and held against rotary movement by the locking pin of the coupler.

5. An uncoupling device for railway cars comprising a rod adapted to be secured to a car and having an arm extending outwardly from the main portion of the rod, a hollow member connected with the end of said arm and detachable therefrom only upon rotary movement about the arm, an element formed at one end for engagement with the locking pin of the coupler and interlockingly engaged within said hollow member at the other end, thereby holding said hollow member against rotation relatively to the arm of the operating rod when the parts are in operative position.

[Claims 6 to 9 not printed in the Gazette.]

1,140,115. WIRE STRETCHING OR PULLING DEVICE. LOWELL E. CARSON, Cleveland, Ohio. Filed Aug. 10, 1914. Serial No. 855,987. (Cl. 254—81.)

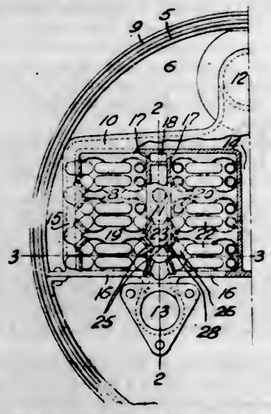
A stretcher for a wire or the like, comprising a lever having a curved fork at one end, oppositely extending

gripping connections pivotally connected to said lever at the same point, a connection provided with a grip, piv-



oted to the branches of said fork at the free end thereof, said connection including an openable member to permit the wire to be entered between the arms of the fork.

1,140,116. STEAM-SUPERHEATER. WILLIAM F. J. CASEY, Kingston, Ontario, Canada, assignor to Locomotive Superheater Company, New York, N. Y., a Corporation of Delaware. Filed Oct. 27, 1913. Serial No. 797,598. (Cl. 122—462.)



1. In a superheater, the combination with fire tubes arranged in horizontally separated groups each group having a plurality of horizontally disposed tubes, of a wet steam distributing header having branches depending integrally from said header in line with alternate spaces between tube groups, an engine steam pipe for each side of the engine having a single vertical prolongation in line with one of the remaining spaces between tube groups, and superheating units connected between a branch and one of the said prolongations, each unit traversing all the horizontally disposed tubes of the group.

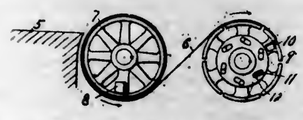
2. In a superheater, the combination with fire tubes arranged in horizontally separated groups each group having a plurality of horizontally disposed tubes, of a wet steam distributing header having branches depending integrally from said header in line with alternate spaces between tube groups, an engine steam pipe for each side of the engine having a single vertical prolongation in line with one of the remaining spaces between tube groups, and superheating units connected between a branch and one of the said prolongations, each unit traversing all the horizontally disposed tubes of the group, the header, branches, and prolongations being integrally united together.

3. In a superheater, the combination with four horizontally disposed and spaced groups of flue tubes each group having two vertical rows and the distance between groups being greater than the distance between rows, of a wet steam distributing header having a branch depending integrally from said header on each side of all the groups and a third branch depending integrally between the second and third groups, an engine steam pipe for each side of the engine having a single vertical prolongation in line with the spaces between the first and second and between the third and fourth groups respectively, and superheating units connected between the branches and the prolongations, each unit traversing each horizontal flue tube of the group.

4. In a superheater, the combination with fire tubes arranged in horizontally separated groups each group comprising a plurality of vertical rows of horizontally disposed tubes, of a wet steam distributing header having branches depending integrally from said header in line with alternate spaces between tube groups, an independent steam conduit for each side of the engine leading to the steam chest and having a portion in line with one of the remaining spaces between tube groups, and superheater units connected between branches and engine pipes, each unit traversing all the horizontally disposed tubes of the group.

5. In a superheater, the combination with fire tubes arranged in horizontally separated groups, each group comprising a plurality of vertical rows of horizontally disposed tubes, of a wet steam distributing header having branches depending integrally from said header in line with alternate spaces between tube groups, an independent steam conduit for each side of the engine leading to the steam chest and having a portion in line with one of the remaining spaces between tube groups, and superheater units connected between branches and engine pipes.

1,140,117. EXPANDED-METAL MANUFACTURE. NORRIS ELMORE CLARK, Plainville, Conn., assignor to The National Metal Fabric Company, New York, N. Y., a Corporation of New York. Filed Aug. 25, 1906. Serial No. 331,981. (Cl. 164—6.6.)

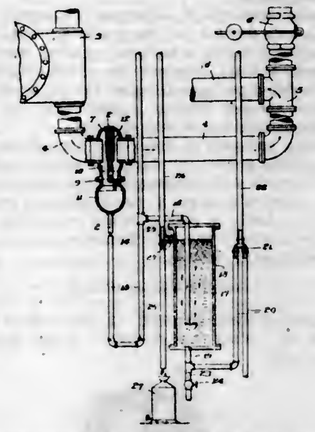


1. The improvement in the art of forming expanded metal which consists in retarding the feed of a transversely slitted sheet and in advance thereof applying tension at one face only of the sheet whereby the forward part of the sheet is fed at a greater rate than the retarded portion of the sheet and the slitted sheet is opened into meshwork.

2. The improvement in the art of forming expanded metal which consists in retarding the feed of a transversely slitted sheet and in advance thereof applying a uniform positive tension across the entire sheet at one face only of the sheet whereby the forward part of the sheet is fed at a greater rate than the retarded portion of the sheet and the slitted sheet is opened into meshwork.

1,140,118. APPARATUS FOR RECLAIMING OIL FROM EXHAUST-STEAM. MICHAEL COLLINS, Philadelphia, Pa. Filed Feb. 20, 1914. Serial No. 819,907. (Cl. 210—5.)

1. In apparatus of the character described and in combination, a tank adapted to receive oil and water and provided with overflow portions maintaining oil and water levels therein, a source of supply for oil and water under varying pressures, and means to permit oil and water to flow constantly from said source of supply to said tank, said means discharging oil and water into said tank at a point below the water level maintained therein and preventing the pressure within said source of supply above the level of the oil and water therein from reaching said tank.



2. In apparatus of the character described and in combination, a tank adapted to receive oil and water and provided with overflow portions maintaining oil and water levels therein, a source of supply for oil and water under varying pressures, and a pipe affording communication between said source of supply and said tank, said pipe having a downwardly-extending loop formed therein one side of which communicates with said tank at a point below the water level maintained therein and has an overflow portion above said water level, and the other side of which is connected to said source of supply above the overflow portion of said loop.

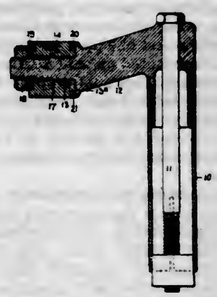
3. In apparatus of the character described and in combination, a tank adapted to receive oil and water and provided with means to maintain a liquid level therein, and an inlet pipe having a downwardly-extending loop formed therein, one side of which has an overflow portion above the bottom of the loop and communicating with the tank and the other side of which extends above the overflow portion and is adapted to be connected to the steam exhaust pipe of an engine.

4. In apparatus of the character described and in combination, a tank adapted to receive oil and water and provided with means to maintain a liquid level therein, and an inlet pipe having a downwardly-extending loop formed therein, one side of said loop communicating with the tank below the liquid level maintained therein and having an overflow portion above said liquid level, and the other side of said loop extending above the overflow portion and being adapted to be connected to the steam exhaust pipe of an engine.

5. In apparatus of the character described and in combination, a tank adapted to receive oil and water and provided with means to maintain a liquid level therein, and an inlet pipe having a downwardly-extending loop formed therein below the liquid level maintained within the tank, one side of said loop communicating with the tank below the liquid level maintained therein and having an overflow portion above said liquid level, and the other side of said loop extending above the overflow portion and being adapted to be connected to the steam exhaust pipe of an engine.

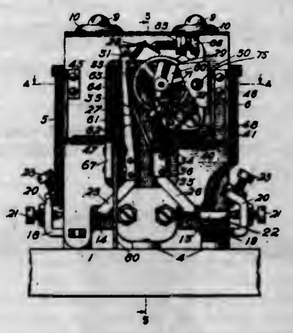
1,140,119. HANDLE-BAR. ERNEST JOSEPH CORTINES, Dallas, Tex. Filed Dec. 24, 1914. Serial No. 878,903. (Cl. 208—116.)

In a device of the character described, a handle bar, a securing stem therefor, and means to confine the handle bar to one of the two positions on the stem and rigidly secure the same, said stem having an arm terminating in a reduced threaded end and presenting a shoulder at the base of the threaded end, the said handle bar having a central rigid forging formed with a transverse bore fitting the threaded end of the stem arm, and rigid handle arms integral with the forging at opposite sides, said forging having on its rear face, on a single line, V-shaped rib elements disposed in alinement with each other at



diametrically opposite sides of the bar, the shoulder of the stem having thereon corresponding V-shaped groove members disposed in alinement at diametrically opposite sides of the threaded end of the said stem arm; together with means to clamp the handle bar on the stem arm with the rib elements engaged in the groove members.

1,140,120. SELECTIVE CALLING APPARATUS. EDWARD B. CRAFT, Hackensack, N. J., and GREGORY BROWN, Brooklyn, N. Y., assignors to Western Electric Company, New York, N. Y., a Corporation of Illinois. Filed June 30, 1910. Serial No. 569,685. (Cl. 177—332.)



1. In a selector device the combination with a frame embracing top and side members, of magnet coils suspended from said top member, armatures pivotally supported between said side members below said coils, arms formed integrally with said armatures and extending outwardly and upwardly along the outer face of one of the side members, an auxiliary frame removably mounted upon the side member of the first mentioned frame adjacent to said arms, a ratchet wheel pivotally supported upon said auxiliary frame, spring pressed pawls operated by said arms for turning said ratchet wheel in one direction, and a helical spring operating to turn said ratchet wheel in the opposite direction.

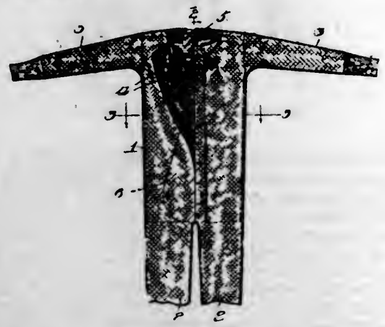
2. In a selector device, the combination with a frame, of a ratchet wheel mounted thereon, an oscillating operating arm adapted to be moved to step said ratchet wheel around, an arm carried by said ratchet wheel, said arm having an offset portion at its outer end, a contact carried by said offset end, a flexible spring mounted on said frame, a laterally projecting finger on said spring, an insulating knob on the back of said operating arm against which said finger normally bears, and a contact on said flexible spring adapted to be brought into engagement with the contact carried on the ratchet wheel arm during one step only of said wheel.

3. In a selector device, the combination with electromagnets and a frame therefor, of an auxiliary frame mounted upon said magnet frame, a ratchet wheel mounted in said auxiliary frame and adapted to be stepped around under action of said electromagnets, a contact arm movable with said ratchet wheel, a spring contact mounted upon the magnet frame near the periphery of said ratchet wheel and with which said movable contact arm registers when said ratchet wheel has been moved through a definite angle, a stop arm mounted on said auxiliary frame and insulated therefrom, an insulated stop on said arm against which the movable contact arm rests when in normal position, and a contact on said stop arm adapted to be engaged by the contact on the arm carried by the ratchet wheel when said ratchet wheel has been rotated the full extent of its movement.

4. In a selector device the combination with an inverted U-shaped frame, of an electromagnet suspended therein, an armature responsive to said electromagnet pivotally supported in said frame below said electromagnet, a ratchet wheel removably supported upon said frame, operative connections between said armature and said ratchet wheel, and means for varying the extent and position of the angle of movement of said armature, said means comprising set screws carried upon said frame and engaging the upper and lower face of said armature.

5. In a selector device the combination with an inverted U-shaped frame, of an electromagnet suspended therein, an armature responsive to said electromagnet pivotally supported in said frame below said magnet, said armature being provided with a beveled portion, a ratchet wheel mounted upon one side of said frame, operative connections between said ratchet wheel and said armature, a cross bar mounted upon said frame adjacent to said armature, an upwardly and inwardly extending member carried by said cross bar, a conical ended set screw extending through the upwardly extending portions of said member and engaging the beveled portion of said armature, and a set screw extending through said inturned portion of said member in position to engage the upper face of said armature.

1,140,121. UNDERWEAR. LINDSAY H. CRAWFORD, Chicago, Ill. Filed Dec. 26, 1913. Serial No. 808,683. (Cl. 2—144.)



1. A union suit of underwear having an opening down the front of the body, the arm and leg portions being of single thickness and the body being of double thickness, the inner thickness consisting of a separate piece of fabric sewed to the outer thickness along the upper edge of the garment at the junction of the arms and the body, and also at the edges of said opening, the lower portion of the inner thickness extending down to a point adjacent to the crotch, whereby to protect the abdomen and the lower portion of the back of the wearer.

2. An article of underwear having a body of ribbed fabric and a lining of ribbed fabric, said lining being substantially co-extensive with the front, back and sides of the body and terminating at its lower end adjacent to the crotch of the garment so as to protect the abdomen and the lower portion of the back of the wearer, the ribs of the two fabrics intermeshing, whereby the spaces between the ribs on one fabric will be filled or closed by the ribs on the other fabric.

3. A union garment of underwear comprising, in combination, a body portion and leg portions connected thereto, said garment having a posterior opening extending upwardly from a point adjacent the crotch region, and a lining comprising portions lying on the inside of the body portion and secured thereto longitudinally of the garment at opposite sides of said opening.

4. A union garment of underwear comprising, in combination, a body portion of elastic fabric and leg portions connected thereto, said garment having a posterior opening extending upwardly from a point adjacent the crotch region, and a lining of elastic fabric comprising portions lying on the inside of the body portion and secured at opposite sides of said opening.

1,140,122. UNDERGARMENT. LINDSAY H. CRAWFORD, Chicago, Ill. Filed Nov. 6, 1914. Serial No. 870,578. (Cl. 2—144.)



1. A union garment of underwear comprising, in combination, a body portion and leg portions connected thereto, said garment having a posterior opening extending upwardly from the crotch region, and a lining lying loosely on the body portion, extending to approximately the horizontal plane of the crotch region and secured in part to the body portion by an extensible seam disposed transversely of the garment.

2. A union garment of underwear comprising, in combination, a body portion of elastic fabric and leg portions connected thereto, said garment having a posterior opening extending upwardly from the crotch region, and a lining of elastic fabric lying loosely on the body portion and secured in part thereto by an extensible seam disposed transversely of the garment.

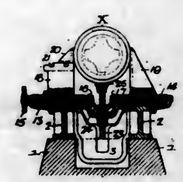
3. A union garment of underwear comprising, in combination, a body portion of elastic fabric and leg portions connected thereto, said garment having a posterior opening extending upwardly from the crotch region, and a lining of elastic fabric comprising portions lying on the inside of the body portion and secured adjacent opposite sides of said opening, said lining lying loosely on the body portion and secured in part thereto by an extensible seam disposed transversely of the garment.

4. A union garment of underwear comprising, in combination, a body portion of knitted fabric having the wales disposed longitudinally of the garment and leg portions connected to said body portion, said garment having a posterior opening extending upwardly from the crotch region, and a lining of knitted fabric of finer mesh than the mesh of the body portion lying on the inside of the body portion and secured thereto at opposite sides of said opening, the wales of the lining fabric being disposed longitudinally of the garment, said lining lying loosely on the body portion and secured in part thereto by an extensible seam permitting both the lining and the body portion to extend and contract transversely of the garment.

5. A union garment of underwear comprising, in combination, a body portion and leg portions connected thereto, said garment having a posterior slit extending upwardly from the crotch region, and an elastic fabric lining lying on the inside of the body portion and attached thereto by an extensible and contractible seam lying transversely of the garment, said lining lying on the garment below said seam and extending to substantially the horizontal plane of the crotch region and adapted to play on said garment adjacent said seam, the lower transversely disposed edge of said lining being, at places, unsecured to said garment.

[Claim 6 not printed in the Gazette.]

1,140,123. CENTERING DEVICE. ALFRED CROOK, Philadelphia, Pa., assignor to Philadelphia Roll and Machine Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Aug. 12, 1914. Serial No. 856,471. (Cl. 82—39.)



1. The combination in a centering device of a supporting frame open at the top; two jaws mounted on the frame and movable horizontally toward and from each other; mechanism connecting the jaws; with a centering head actuated by said mechanism and placed to support an object mounted between said jaws.

2. A combination in a centering device of a supporting frame open at the top; two jaws mounted thereon and movable horizontally toward and from each other; mechanism for simultaneously moving said jaws including gearing; and a centering head placed to support an object entered between the jaws and movable by said gearing in a line at right angles to the line of movement of said jaws.

3. The combination in a centering device of a supporting structure; three centering members thereon; and means for simultaneously moving said members consisting of three intermeshing gears, threaded spindles rigedly fixed to two of said gears and threaded in two of the members respectively; with a threaded spindle attached to the third member and threaded through the third gear.

4. The combination in a lathe centering device of a supporting frame open at the top; jaws mounted thereon and movable in the same horizontal line; a centering head carried by the frame and movable in a line at right angles to the line of movement of the jaws, said head being placed to support an article entered between the jaws; with means for simultaneously moving the jaws and the centering head.

5. The combination in a centering device of a supporting frame; two jaws slidably mounted thereon; shafts threaded respectively through said jaws; gears respectively connected to said shafts; a third gear rotatable in a plane at right angles to the plane of the other shafts and jaws; a centering head; with a third shaft threaded through the third gear and carrying said centering head.

[Claims 6 to 9 not printed in the Gazette.]

1,140,124. STORING MASS FOR ACETYLENE GAS. GUSTAF DALÉN, Stockholm, Sweden. Filed June 17, 1912. Serial No. 704,229. (Cl. 23—29.)

1. A porous mass for storing acetylene dissolved in acetone, containing a hydraulic cement which does not contain free oxids.

2. A porous mass for storing acetylene dissolved in acetone containing a hydraulic cement in which the otherwise free oxids are bound by substances adapted to form compounds with the said oxids.

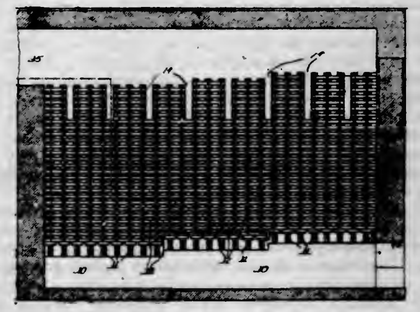
3. A porous mass for storing acetylene dissolved in acetone, containing hydraulic cement in which the otherwise free oxids are compounded with pozzuolanic material.

4. A porous mass for storing explosive gas dissolved in acetone, comprising charcoal, silicious earth and hydraulic cement which does not contain free oxids.

5. A porous mass for storing explosive gas dissolved in acetone, comprising charcoal, silicious earth, fibers of elastic material and hydraulic cement which does not contain free oxids.

[Claim 6 not printed in the Gazette.]

1,140,125. REGENERATOR. GEORGE L. DANFORTH, Jr., South Chicago, Ill. Filed May 22, 1914. Serial No. 840,148. (Cl. 75—94.)



1. In a regenerator, bricks forming checkerwork, said bricks being laid on their flat sides and with their adjacent ends separated to leave a material passageway therebetween, substantially as described.

2. In a regenerator, bricks forming checkerwork, said bricks being laid on their flat sides and with their adjacent ends separated to leave a material passageway therebetween whereby said bricks in alternate courses are laid with their corners only in engagement, substantially as described.

3. In a regenerator having checkerwork, a course of bricks laid flatwise with their inner ends separated, and a second course of bricks laid flatwise and at right angles to the first course, the ends of the bricks in said second course likewise being materially separated whereby said checkerwork is built up with bricks the corners of which are in engagement, substantially as described.

4. A regenerator having checkerwork and provided with a main channel leading thereto and with an auxiliary passage communicating with said main channel and with the body of the checkers at a point removed from the point of the gas inlet whereby additional entrance is provided to the adjacent checker flues, substantially as described.

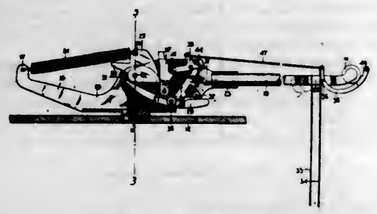
5. A regenerator having checkerwork provided with a longitudinal channel, and with a plurality of transverse channels, substantially as described.

[Claim 6 not printed in the Gazette.]

1,140,126. TROLLEY-POLE. JOHN DE ANGELIS, Mount Vernon, N. Y. Filed Jan. 15, 1915. Serial No. 2,372. (Cl. 191—88.)

1. In a device of the kind set forth, the combination with a turntable having a pair of spaced vertical side plates and a forwardly extending arm, of a pole pivoted between said plates for free movement in a vertical plane, an anchor member pivoted upon the same pivot as the pole and adapted to move around said pivot independently

of the pole, a spring having its ends connected respectively to said arm and said anchor member, and locking devices connected to the lower end of the trolley pole serving to prevent movement of the anchor member relatively to the pole whereby the force of the spring tends to lift the pole.



2. In a device of the character set forth, the combination of a turntable, a trolley pole mounted on a horizontal pivot of the turntable and adapted to move freely with respect thereto in a vertical plane, a lever pivoted to the turntable below the pole, an anchor member pivoted upon the same pivot as the pole and adapted to rotate on its pivot independently of the movement of the pole, said lever coöperating with the anchor member in front of its pivot when the pole is down, a spring acting between the front portion of the turntable and the upper portion of the anchor member tending to elevate the pole, and locking devices serving to prevent the rotation of the anchor member independently of the pole.

3. In a trolley pole construction, the combination of a turntable, a pole pivoted at its lower end to the turntable and adapted to move freely around its pivot in a vertical plane, an anchor member pivoted on the same pivot as the pole and adapted to move independently thereof around said pivot, a supporting spring extending between the front portion of the turntable and the upper portion of the anchor member and tending to lift the pole, means to lower the upper end of the pole, means carried by the turntable serving to move the anchor member into locking polisition, and trigger devices made effective by said downward movement of the pole to lock the anchor member in fixed position with respect to the pole.

4. In a device of the character set forth, the combination with a turntable having a forward extension, of a pole pivoted to the turntable for free movement in a vertical plane, a lever of the first class pivoted to the turntable below the pole, means to draw the pole downwardly into engagement with the rear end of the lever thereby lifting the front end of the lever, an anchor member pivoted adjacent the lower end of the pole and adapted to turn on its pivot independently of the pole, said front end of the lever serving when elevated to rotate the anchor member in a certain direction, a spring extending between the forward extension of the turntable and the anchor member and tending to swing the anchor member in the opposite direction, and locking devices carried by the pole to prevent the force of the spring to turn the anchor member independently of the movement of the pole.

5. In a device of the kind set forth, the combination with a turntable having a forward extension, of a pole pivoted at its lower end to the turntable, an anchor member pivoted on the same pivot as the pole and adapted to move independently thereof around its pivot, a spring extending between the extension of the turntable and the anchor member and tending to lift the anchor member, means to lower the pole, means carried by the turntable and adapted when the pole is lowered forcibly to cause the movement of the anchor member against the force of the spring, and locking devices carried by the pole serving to set the anchor member rigidly with respect to the pole when so moved, said locking devices including an abutment member contacting with the anchor member and a trigger member movably preventing the movement of the abutment.

[Claims 6 and 7 not printed in the Gazette.]

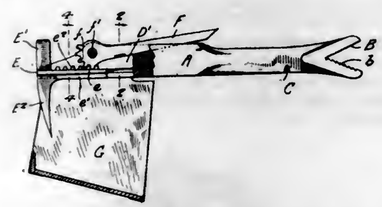
1,140,127. WOOD-PRESERVATIVE. JUDSON A. DE CEW, Montreal, Quebec, Canada. Filed June 25, 1913. Serial No. 775,793. (Cl. 99—12.)

1. A preservative material comprising a mixture of waste sulfite liquor and creosote oil.

2. A preservative material comprising a mixture of waste sulfite liquor, oil and a soluble salt.

3. A preservative material comprising a mixture of waste sulfite liquor, creosote oil and chlorid of zinc.

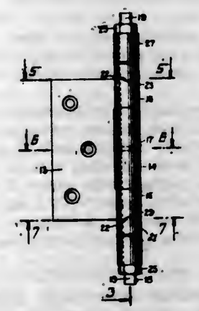
1,140,128. COMPOUND TOOL. STROTHER E. DENT, Little Rock, Ark. Filed Apr. 29, 1914. Serial No. 835,155. (Cl. 254—28.)



1. An implement of the character described, comprising a hammer head, a handle longitudinally slotted at one end to provide spaced side portions between which the head is movable, the outer extremities of which side portions are adapted to engage a suitable support when the head is moved inwardly between the said side portions so as to operate both as a stationary abutment and a fulcrum upon which the handle with its head may be moved, and means for forcibly moving the head in the slot longitudinally of the handle, all substantially as and for the purpose set forth.

2. An implement of the character described, comprising a hammer head, a handle longitudinally slotted at one end to provide spaced side portions between which the head is movable, the outer extremities of which side portions are adapted to engage a suitable support when the head is moved inwardly between the said side portions so as to operate both as a stationary abutment and a fulcrum upon which the handle with its head may be moved, and means for forcibly moving the head in the slot longitudinally of the handle, said means comprising a lever fulcrumed on the handle and engaging a portion of the hammer head, all substantially as and for the purpose set forth.

1,140,129. SELF-LOCKING HINGE. CHARLES DIENER, New York, N. Y. Filed Jan. 18, 1915. Serial No. 2,845. (Cl. 16—111.)

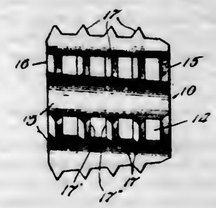


1. A self-locking hinge, comprising a pair of leaves provided, each, with interengaged knuckle portions, a pintle passed through said knuckle portions and provided with angular extensions above and below said sleeve portions, means for securing said pintle to a knuckle portion of one of said leaves, a dog slidably mounted on each of said angular pintle extensions and held against rotation thereon, a nut threaded on each angular pintle extension, a spring interposed between the respective dogs and nuts for forcing the respective dog against the respective knuckle portion of the other leaf, the coacting edges of said nuts and knuckle portions having interfitted camming notches and projections.

2. A self-locking hinge, comprising a pair of leaves provided, each, with interengaged knuckle portions, a pintle passed through said knuckle portions and provided with angular extensions above and below said knuckle portions, means for securing said pintle to a knuckle portion of one of said leaves, a dog slidably mounted on each of said angular pintle extensions and held against rotation thereon, a nut threaded on each angular pintle extension, a spring interposed between the respective dogs and nuts for forcing the respective dog against the respective knuckle portion of the other leaf, the coacting edges of said nuts and knuckle portions having interfitted camming notches and projections, and a casing inclosing each of said springs.

3. A self-locking hinge, comprising a pair of leaves provided, each, with interengaged knuckle portions, a pintle passed through said sleeve portions and provided with angular extensions above and below said knuckle portions, means for securing said pintle to a knuckle portion of one of said leaves, a dog slidably mounted on each of said angular pintle extensions and held against rotation thereon, a nut threaded on each angular pintle extension, a spring interposed between the respective dogs and nuts for forcing the respective dog against the respective knuckle portion of the other leaf, the coacting edges of said nuts and sleeve portions having interfitted camming notches and projections, a casing inclosing each spring, and a washer interposed between the respective casings and knuckle portions.

1,140,130. MILLING-CUTTER. CHARLES A. DYER, Evanston, Ill., assignor to Clayton Mark, Evanston, Ill. Filed Dec. 31, 1912. Serial No. 739,436. (Cl. 29—108.)

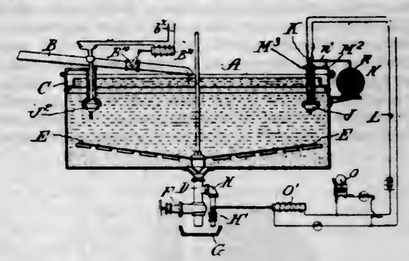


1. A milling cutter adapted for use in cutting threads, said cutter comprising a body fluted to form longitudinal shoulders on the outer periphery thereof, each of said shoulders being provided with a series of cutting teeth and having the forward side thereof inclined relatively to a plane containing the longitudinal axis of said cutter, each of said shoulders having its rear side lying in a plane containing said longitudinal axis.

2. A milling cutter comprising a plurality of concentric series of teeth, the teeth of adjacent series lying in rows longitudinally of said cutter, each of said concentric series of teeth being spaced from the adjacent series a distance between their points approximately equal to twice the pitch of the thread to be cut by said cutter.

3. A milling cutter adapted for use in cutting threads, said cutter being tapered toward its front portion, shoulders formed on said cutter, teeth carried by each of said shoulders, said teeth being arranged in concentric series, each series being spaced from the adjacent series a distance between their points equal to twice the pitch of the thread to be cut.

1,140,131. APPARATUS FOR CONTINUOUSLY SEPARATING SOLIDS FROM LIQUIDS. JOHN VAN NOSTRAND DORR, Denver, Colo. Filed May 8, 1914. Serial No. 837,304. (Cl. 75—18.)



1. The combination with a vessel for separating underflowing settling solids from overflowing liquids or for separating underflowing quickly settling from slowly settling overflowing solids suspended in liquids, of a hydrometer suspended in a selected zone below the plane of the overflow, an electric circuit, means operated by the hydrometer for closing the circuit when the density of the liquid in said selected zone changes, and an audible alarm included in said circuit.

2. The combination with a vessel for separating settling solids from overflowing liquids of means operated by a change of density of the liquid in a selected zone for automatically regulating the discharge of the settled material.

3. The combination with a vessel for separating settling solids from overflowing liquids of a hydrometer operated by a change of density of the liquid in a selected zone, and means actuated by the hydrometer for automatically regulating the discharge of the settled material.

4. The combination with a vessel for separating settling solids from overflowing liquids of means operated by a change of density of the liquid for sounding an alarm and regulating the discharge of the settled material.

5. The combination with a vessel for separating underflowing settling solids from overflowing liquids or for separating underflowing quickly settling from slowly settling overflowing solids suspended in a liquid, of a hydrometer suspended in a selected zone of said liquid below the plane of the overflow, a recorder, and devices connecting the hydrometer with the recorder and operating it whereby a change of density in said selected zone is indicated.

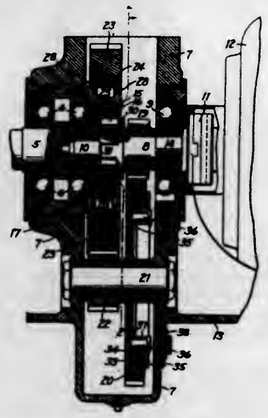
[Claims 6 to 18 not printed in the Gazette.]

1,140,132. POWER-TRANSMISSION MECHANISM. FARNUM F. DORSEY, Rochester, N. Y., assignor to North East Electric Company, Rochester, N. Y., a Corporation of New York. Filed May 28, 1913. Serial No. 770,527. (Cl. 74—59.)

1. Power-transmission mechanism having, in combination, a first rotary element; a second rotary element; and connections, between said elements, through which the first rotary element may drive the second rotary element, and through which the second rotary element may drive the first rotary element in the same direction but at a reduced speed-ratio; said connections including a clutch operative in the normal direction of rotation of said elements, and a third rotary element coaxial with one of the first two rotary elements and normally rotative therewith, but capable of a limited rotation relatively thereto, the third rotary element being connected with the clutch and adapted, as a result of such relative rotation, to throw the clutch out of operation when the first rotary element is rotated in a reverse direction.

2. Power-transmission mechanism having, in combination, a first rotary element; a second rotary element; and connections, between said elements, through which the first rotary element may drive the second rotary element,

and through which the second rotary element may drive the first rotary element in the same direction, but at a reduced speed-ratio; said connections including a one-direction clutch adapted to permit one rotary element to overrun when driven by the other, a third rotary element coaxial with one of the first two rotary elements and normally rotative therewith, while capable of a limited rotation relatively thereto, and means, connected with the third rotary element and coöperating with said clutch, to throw the clutch into inoperative position, as a result of such relative rotation of the third rotary element, when the first rotary element is rotated in a reverse direction.



3. Power-transmission mechanism having, in combination, a first rotary element; a second rotary element; and connections between said rotary elements, through which the first rotary element may drive the second rotary element, and through which the second rotary element may drive the first rotary element in the same direction, but at a reduced speed-ratio; said connections including a roller-wedge clutch adapted to permit one rotary element to overrun when driven by the other, a third rotary element coaxial with one of the first two rotary elements and rotatable relatively thereto, and fingers projecting from the third rotary element into the path of movement of the rollers in said clutch and adapted to force the rollers to inoperative position, as a result of such relative rotation, upon a reverse rotation of the first rotary element.

4. Power-transmission mechanism having, in combination, a first rotary element; a second rotary element; means, including a one-direction clutch, through which the first rotary element may actuate the second rotary element; means, including speed-reducing gearing and a one-direction clutch, through which the second rotary element may actuate the first rotary element in the same direction of rotation; said means including also a third rotary element coaxial with one of the first-mentioned two rotary elements and rotatable normally therewith, while capable also of a limited rotation relatively thereto; and means, connected with the third rotary element and cooperating with one of said clutches, for throwing said clutch into inoperative position, as a result of said relative rotation, when the first rotary element is rotated in a reverse direction.

5. Power-transmission mechanism having, in combination, a first rotary element; a second rotary element coaxial with the first; a one-direction clutch through which the first rotary element may drive the second, while the latter is free to overrun; gearing through which the second rotary element may drive the first, at a reduced speed-ratio but in the same direction, said gearing including a gear on the first rotatable element and a pinion journaled coaxially with the second rotary element but capable of a limited rotation relatively thereto; and means, connected with said pinion and coöperating with said clutch, for throwing the clutch into inoperative position, as a result of such relative rotation of the pinion, when the first rotary element is rotated in a reverse direction.

[Claim 6 not printed in the Gazette.]

1,140,133. SEAL. ROBERT A. EDGAR, Carlyle, Kans., assignor of two-fifths to Jared C. Hadley, Chanute, Kans. Filed Jan. 18, 1915. Serial No. 2,828. (Cl. 70—98.)



1. A seal, comprising a strip of sheet metal, having one end reduced laterally to form a tongue, and the said tongue being notched at each side edge near its inner end, the strip having near the opposite end a transverse slot for permitting the passage of the tongue, and having a notch extending longitudinally of the strip at the end adjacent to the slot, said notch being of less width than the tongue, the tongue being reduced to permit it to pass through the notch.

2. A seal, comprising a strip having one end reduced laterally to form a tongue, and having near the opposite end a transverse slot for permitting the passage of the tongue, the tongue being adapted to be passed through the slot and bent around the adjacent end of the strip back upon the body of the strip, the said end of the strip being notched and the notch being of less width than the tongue and the tongue being notched at its opposite side edges to permit it to pass through the notch at the end of the strip, said strip being notched at each side between the slot and the inner end of the recess at the end of the strip.

1,140,134. INCANDESCENT LAMP. BYRON E. ELDRED, New York, N. Y., assignor to The Commercial Research Company, New York, N. Y., a Corporation of New York. Filed Dec. 30, 1914. Serial No. 879,734. (Cl. 176—36.)

1. The combination, with a gas-tight receptacle having a wall of vitreous material, of a composite leading-in wire sealed therein, said wire comprising a core of metallic material having a coefficient of expansion whose average from the setting temperature of the glass down to normal is less than that of the glass through the same range of temperatures, said wire having an external metallic sheath consisting of metal of high electrical conductivity, said sheath having a coefficient of expansion whose average for the said temperature range is greater than that of said glass, the said sheath being united to the core to give a resultant average coefficient of expansion of the wire for the said temperature range such that a union may be made and maintained between said sheath and the glass.

2. The combination, with a gas-tight receptacle having a wall of vitreous material, of a composite leading-in wire sealed therein, said wire comprising a core of an alloy of nickel and iron in such proportions as to give the core an average coefficient of expansion, from the setting temperature of the glass down to normal temperature, which is less than that of the glass for the same range of temperature, said wire having an external copper sheath united to the core and of such thickness as to give to the complete wire a resultant average coefficient of expansion over the said range, intermediate those of the copper and the particular alloy.

3. The combination, with a gas-tight receptacle having a wall of vitreous material, of a composite leading-in wire sealed therein, said wire comprising a core of nickel-steel having a rate of expansion less than that of the glass and an external copper sheath welded thereto and forming the surface of the wire.

4. The combination, with a gas-tight receptacle having a wall of vitreous material, of a composite leading-in wire sealed therein, said wire comprising a core of nickel-steel having a rate of expansion less than that of the glass and an external sheath consisting of metal of the copper class welded thereto and forming the surface of the wire.

5. The combination, with a gas-tight receptacle having a wall of vitreous material, of a composite leading-in wire sealed therein, said wire having a surface of copper and a core having a rate of expansion less than that of the glass.

[Claims 6 to 13 not printed in the Gazette.]

1,140,135. PROCESS FOR THE PRODUCTION OF COMPOUND METAL ARTICLES. BYRON E. ELDRED, New York, N. Y., assignor to The Commercial Research Company, New York, N. Y., a Corporation of New York. Filed Dec. 30, 1914. Serial No. 879,733. (Cl. 29—188.)

1. The process of producing a composite metallic body with a predetermined coefficient of expansion, which consists in uniting a sheath of one kind of metallic material to a core of a different kind of metallic material, the core and sheath having different coefficients of expansion, one being greater and the other less than the required predetermined coefficient of expansion, the thickness of the sheath being so adjusted relative to the size of the core as to give to the composite metallic body a resultant coefficient of expansion substantially that predetermined.

2. The process of producing a composite metallic body with a predetermined coefficient of expansion, which consists in forming a core of alloy whose constituents are proportioned to give approximately a predetermined coefficient of expansion different from that required for the metallic body, and uniting to this core a sheath of metallic material whose coefficient of expansion is different from that of the core, the coefficients of expansion of the core and sheath being one greater and the other less than the required predetermined coefficient of expansion of the composite metallic body, the thickness of the sheath being so adjusted relatively to the diameter of the core as to give to the composite metallic body a resultant coefficient of expansion substantially that predetermined.

3. The process of producing a high-conductive wire having a predetermined coefficient of expansion through a required temperature range, which consists in combining nickel and iron in such proportions as to form an alloy having an average coefficient of expansion, through the same temperature range, distinctly below the predetermined average, and uniting with said core a sheath of high-melting, high-conductive material whose average coefficient of expansion through the required range of temperatures is distinctly above the predetermined average, the thickness of said sheath being so adjusted as to give a resultant average coefficient of expansion of the compound wire substantially that predetermined.

4. The process of producing a high-conductive high-melting wire of predetermined average coefficient of expansion through a required temperature range, which consists in forming a billet core of an alloy of nickel and iron, having the constituent metals so proportioned as to give a resultant average coefficient of expansion through the required temperature range materially below the predetermined average, uniting with said core a sheath of high-melting high-conductive material whose average coefficient of expansion through the required temperature range is distinctly above the predetermined average, the thickness of the sheath being adjusted so as to give a resultant average coefficient of expansion of the composite wire substantially that predetermined, then working the compound billet so formed into wire of the required size.

5. The process of producing a high-conductive high-melting wire of a predetermined average coefficient of expansion through a required temperature range, which consists in uniting nickel and iron in such proportions as to form an alloy whose average coefficient of expansion is below the required predetermined value, forming a core of this alloy, uniting to the core a sheath of high-melting high-conductive material having a coefficient of expansion distinctly above the required predetermined value, adjusting the thickness of the sheath relatively to the core to give a resultant coefficient of expansion of the compound metal article substantially equal to the required predetermined value, and then working the compound metal article to wire of the desired size.

1,140,136. LOW-EXPANSION WIRE. BYRON E. ELDRED, New York, N. Y., assignor to The Commercial Research Company, New York, N. Y., a Corporation of New York. Filed Dec. 22, 1913. Serial No. 808,259. (Cl. 29—181.)



1. A composite low expansion wire comprising a core of nickel steel and an external copper sheath welded thereto, said wire as a whole having less expansion than platinum.

2. A composite low expansion wire comprising a core of nickel steel and an external sheath of a metal of the copper class welded thereto, said wire as a whole having less expansion than platinum.

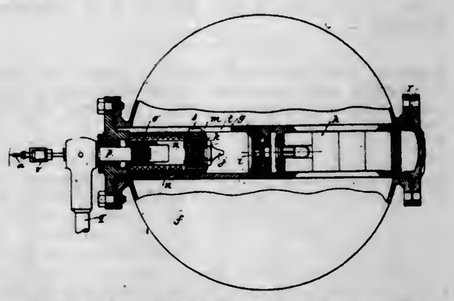
3. As a new article of manufacture, a copper surfaced wire having a rate of expansion as a whole below that of platinum.

4. As a new article of manufacture, a composite wire having a surface of base metal and having a rate of expansion as a whole below that of platinum.

5. As a new article of manufacture, a wire having a surface of metal of the copper class and a rate of expansion as a whole below that of platinum.

[Claims 6 to 9 not printed in the Gazette.]

1,140,137. EXPLOSIVE BARRIER. GIOVANNI EMANUELE ELIA, Rome, Italy, assignor to Vickers Limited, London, England. Filed Jan. 18, 1915. Serial No. 2,970. (Cl. 102—3.)



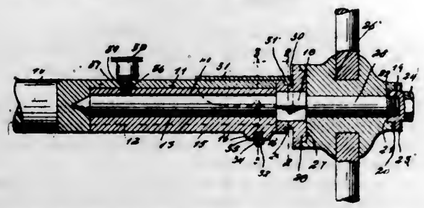
1. In an explosive barrier, a floating cable, and a rotatable explosive device carried by the cable, said explosive device having a sliding and spring pressed hammer, a non-rotatable member, and a member interposed between the hammer and non-rotatable member and connected with the said parts so as to be detached from one or the other of the parts according to the direction the device is rotated.

2. In an explosive barrier, a floating cable, and a rotatable explosive device interposed in the cable, said explosive device having a sliding and spring pressed hammer, a non-rotatable member, and a member having a right and left hand screw connection with the hammer and the non-rotatable member respectively, whereby when the device is rotated the hammer will be released.

3. In an explosive barrier, a rotatable explosive device having a sliding and spring pressed hammer, a loosely mounted member having a weighted arm exterior of the device for preventing the member from turning, and a member interposed between the said member and hammer and having a right and left hand screw connection with the said parts.

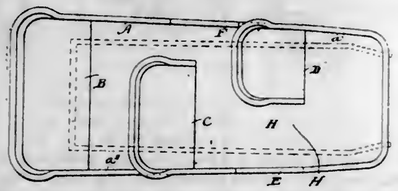
4. In an explosive barrier, an explosive device, comprising a hollow sphere having a transverse channel, a detonator in one end of the channel, a spring pressed hammer carrier mounted to slide but not to turn in the channel, a rod projecting into the spherical body and having on its inner end a right hand thread and an arm on its outer end, and a member screwing on the said rod and having on its other end a left hand screw thread screwing into the hammer carrier.

1,140,138. BUGGY-AXLE. CLAUDE B. ELLIOTT and EDWARD KURTZ, Hempstead, Tex. Filed Mar. 7, 1914. Serial No. 823,209. (Cl. 21—153.)



A device of the class described comprising an axle, having an opening at its end, said end of said axle also having a longitudinally extending slot formed therein, a filler having a longitudinally extending flange positioned in said opening in said axle and having said longitudinally extending flange positioned in said longitudinally extending slot, downwardly projecting lugs adjacent the end of said filler, a second axle in said filler, a wheel on said second axle, a clamping plate engaging said wheel having downwardly projecting arms threaded at their lower extremity, a block positioned between said downwardly projecting lugs on said filler, said arms of said plate passing through said block, and means for holding said arms in engagement with said block whereby said plate may be held securely on said axle to hold said wheel in engagement therewith.

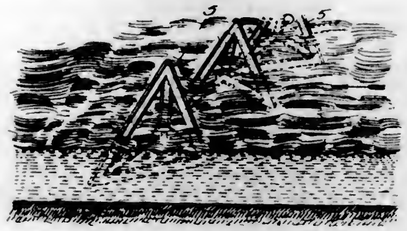
1,140,139. AUTOMOBILE-BODY. JUSTUS B. ENTZ, Cleveland, Ohio, assignor to The White Company, Cleveland, Ohio, a Corporation of Ohio. Filed Nov. 20, 1913. Serial No. 802,013. (Cl. 21—7.)



1. An automobile body having a rear seat, a single driver's seat extending from one side of the body part way across the same, and an intermediate seat located behind the driver's seat and extending from the opposite side of the body part way only across said body,—thereby leaving an aisle between the driver's seat and one side of the car, and another aisle between the intermediate seat and the other side of the car, the opposite sides of the body having each one door opening,—which doors are located one in advance of the other, one communicating with the aisle by the side of the driver's seat, and the other with the aisle by the side of the intermediate seat.

2. An automobile body having through each side one door opening only, which two door openings are not located oppositely but are located one in advance of the other, a rear seat extending from one side of the body to the other, a driver's seat located just in front of one of the door openings and transversely in line with the other door opening, which driver's seat extends from the first named side part way only across the body, and an intermediate seat located behind the last mentioned door opening and extending from the side in which that door opening is located part way only across the body toward the other side thereof.

1,140,140. DEVICE USED IN THE FORMATION OF JETTIES. ERNEST E. EVERETT and DANIEL F. SHELDON, San Buenaventura, Cal. Filed Aug. 15, 1914. Serial No. 856,970. (Cl. 61—29.)



1. A jetty comprising a plurality of skeleton frameworks of a specific gravity greater than that of water, said frameworks adapted to be disposed in rows in a stream bed in such manner as to settle under their own weight to a permanent anchorage upon washing away of the material below the frameworks, said frameworks being open on all sides and being unconnected with each other, and being artificially unanchored.

2. A jetty comprising a plurality of skeleton frameworks adapted to be disposed in rows in a stream bed in such manner as to settle under their own weight to a permanent anchorage upon washing away of the material beneath the frameworks, said frameworks being of a specific gravity greater than that of water and being open on all sides and being unconnected with each other.

1,140,141. DEVICE TO PREVENT THEFT OR UNAUTHORIZED USE OF AUTOMOBILES, MOTOR-BOATS, AND THE LIKE. HENRY F. FAGAN, New York, N. Y. Filed Dec. 5, 1913. Serial No. 804,843. (Cl. 70—20.)



1. A device to prevent the theft or unauthorized use of automobiles and the like, having a steering wheel with a rim of oval cross section, consisting of a permanent connection with the body of the vehicle in front thereof and means including a part fixed to the rim of the steering wheel against rotation to lock the connection to the steering wheel whereby rotation of the latter and steering of the vehicle is obviated.

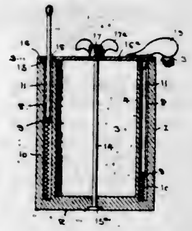
2. A locking device for vehicles having a steering wheel, comprising a jointed connection having means to permanently attach the same to the body of the vehicle in front of the wheel and a locking member to attach the connection to the rim of the steering wheel to prevent turning thereof, said locking member being held against rotation on the rim.

3. A locking device of the class described, comprising a jointed connection having means to permanently attach the same to the body of the vehicle in front of the steering wheel and a locking device to attach the connection to the steering wheel of a vehicle to prevent turning thereof, said locking device comprising a sleeve encircling the rim of the wheel and held against rotation and means carried by the sleeve to lock the same to the jointed section.

4. A locking device of the class described, comprising a jointed connection having means to permanently attach the same to the body of the vehicle in front of the steering wheel and a locking device to attach the connection to the steering wheel of a vehicle to prevent turning thereof, said locking device comprising a sleeve encircling the rim of the wheel and having a locking part projecting therefrom, said connection being provided to coöperate with said locking part and to connect the two and conceal one within the other.

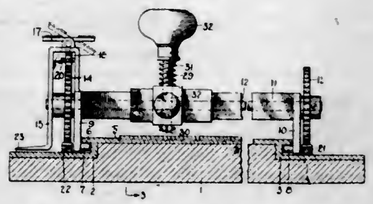
5. The combination with a vehicle body and an adjacent steering post having a steering wheel thereon; of a jointed connection permanently secured to the body and a locking mechanism for joining the steering wheel and connection to prevent separation of the two, said locking mechanism comprising a sleeve encircling the rim of the wheel, a bolt fixed to the sleeve and rim against rotation, a casing movably carried by the jointed connection to fit over the bolt to conceal the attachment means thereof and means to lock said bolt and casing together to prevent turning of the steering wheel.

1,140,142. MATCH-BOX. GEORGE W. FAILE, Jr., Taxahaw, S. C. Filed Feb. 21, 1914. Serial No. 820,202. (Cl. 206—21.)



A match box, comprising; a hollow cylindrical body portion having a thick surrounding wall, said body portion having an open end, and a bottom inclosing the opposite end, a broad annular recess formed in the inner edge of the open end of said body portion and providing an annular flange therearound, a lid rotatably mounted upon said body portion within said annular recess and said annular flange, a rod projecting centrally through said body portion and having a head embedded in the bottom of said match box, the upper end of said rod having screw threads thereon and projecting through a central aperture formed in said lid and extending above the upper surface thereof, a wing nut screwed upon said rod for retaining said lid within the recess of said body portion, a plurality of circular bores formed in the thickened wall of said body portion and slightly spaced apart, a follower in each of said bores upon which the wood end of the match is designed to rest, a compression spring mounted in each of said bores and interposed between the respective followers and the bottom of said bores for forcing said followers together with the matches upwardly, said lid being provided with a single aperture adjacent the periphery thereof and adapted to be brought into consecutive registration with the respective bores to provide for the ejection of the match therethrough, and a thumb piece secured upon the upper surface of said lid at a point opposite to the single aperture for conveniently rotating said lid by the thumb of the user for bringing the single aperture in registration with the respective bores, when desirous of obtaining a match from within said match box.

1,140,143. GLASS-CUTTING MACHINE. HUMPHREY FALVEY, New York, N. Y. Filed Nov. 19, 1914. Serial No. 872,996. (Cl. 33—32.)



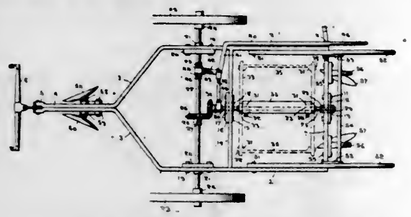
1. In a device of the character described, a base, a straight edge arranged on said base, a pair of racks arranged on said base and extending longitudinally thereof, said straight edge extending transversely thereof, a gear wheel journaled on said straight edge adjacent each end thereof, said gear wheels meshing with said racks, a bracket connected with said straight edge adjacent one end thereof, a pivotally mounted locking member arranged on said bracket and designed to engage the gear wheel at that end for preventing rotation thereof when the cut is being made transversely of the base, and a sliding cutting structure arranged on said straight edge, said sliding cutting structure being formed so as to cut transversely of the base when set in one position and longitudinally of the base when set in another position.

2. In a device of the character described, a base, a pair of rack bars arranged on said base and extending longitudinally thereof, a transversely arranged straight edge positioned on said base, a gear wheel arranged adjacent each end of said straight edge meshing with the teeth of said racks whereby said straight edge is maintained parallel with the end of the base as the straight edge moves back and forth over the base, means for supporting a cutting member on said straight edge, a bracket arranged on said straight edge, and a lock mounted on said bracket adapted to engage one of said gear wheels for locking the same against rotation when said cutting member is being moved transversely of said straight edge.

3. In a device of the character described, a base, a pair of rack bars arranged on said base and extending longitudinally thereof, a gear wheel arranged on each of said rack bars, a transversely arranged straight edge supported by said gear wheels, a cutting member arranged on said straight edge and adapted to cut both longitudinally and transversely of said base according to the movement thereof, a bracket secured to said straight edge at one end, a pivotally mounted locking member arranged on said bracket provided with a pair of thumb operating extensions, a lug engaging the teeth of said last mentioned gear wheel, a pin extending through said lug, and a spring connected with said bracket and acting on said pin for resiliently locking said lug in engagement with said last mentioned gear wheel and out of engagement therewith according to the position of the lug.

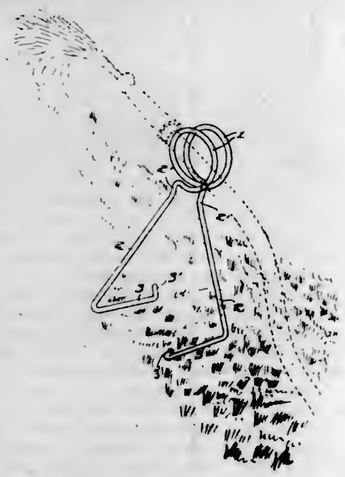
4. In a device of the character described, a base, a pair of edge members arranged on said base, said edge members having overhanging longitudinal shoulders, racks arranged on said base parallel with said shoulders, a gear wheel arranged on each of said racks, a transversely arranged straight edge supported by said gear wheels, a bracket arranged adjacent each end of said straight edge, a projection extending from each of said brackets to a position beneath said overhanging shoulders whereby said gear wheels cannot leave said racks and said straight edge cannot move away from said base, and a cutting member arranged on said straight edge.

1,140,144. COTTON-CHOPPER. JOHN P. FINDLEY, Crossville, Ala. Filed Mar. 10, 1914. Serial No. 823,745. (Cl. 97—46.)



In combination a frame, an axle journaled therein, a pair of wheels and an intermediate bevel gear on the axle, a longitudinal shaft, a bearing in the frame for the rear end of the shaft, a bearing for the front end of the shaft having a horizontal slot to receive the front journal of the shaft, a bevel gear on the shaft adapted to engage the bevel gear on the axle, a chopping head on the shaft, a clamp on the axle, a clamp on the shaft, an angular lever pivotally connected to the clamp on the axle, a link pivotally connecting the lever at its angle with the clamp on the shaft, and a bar projecting laterally from the frame having notches in its face to receive and hold the lever in adjusted positions.

1,140,145. HOSE-NOZZLE SUPPORT. FREDERICK W. FINGER, Louisville, Ky. Filed Nov. 11, 1914. Serial No. 871,481. (Cl. 248—29.)



1. A hose stand comprising a helical body, and divergent legs extending from the ends of the body, said legs diverging both laterally and axially.

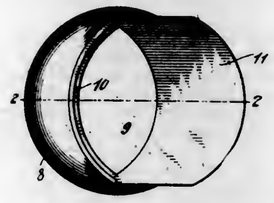
2. A hose stand comprising a helical spring body, and divergent legs extending respectively from the ends of the body, said legs diverging both laterally and axially.

3. A hose stand comprising a helical spring body, legs diverging both laterally and axially from the ends of the body, and a foot extending from the lower end of each leg, each foot extending toward the plane of the other leg.

4. A hose stand comprising a helical spring body, legs diverging both laterally and axially from the ends of the body, and a foot for each leg extending toward the plane of the other leg, said feet being disposed substantially parallel to each other.

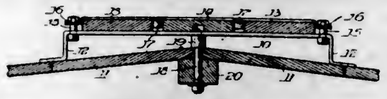
5. A hose stand comprising a single spring metal stand bent into helices forming a body portion and having portions extending from the helices in the form of legs diverging from the body portion both axially and laterally and most nearly approaching each other substantially at the point of juncture with the body portion.

1,140,146. SAD-IRON STAND. SARAH A. FLETCHER, Chicago, Ill. Filed June 25, 1914. Serial No. 847,219. (Cl. 126—228.)



A sad-iron stand comprising a dome-shaped member open at its bottom and closed at its side, and having a top opening, and a shelf projecting from one side of the top opening, the other side of said opening being shouldered said shoulder rising above the plane of the top of the shelf and the bottom of the shoulder being level with said shelf top.

1,140,147. RUNNING-BOARD BRACKET. WILLIAM E. FOWLER, Sr., Chicago, Ill., assignor to The Fowler Car Company, Chicago, Ill., a Corporation of Illinois. Filed Nov. 20, 1914. Serial No. 873,144. (Cl. 105—194.)



1. In a device of the class described, the combination of a saddle a running board laid thereon, a separate strip, and means for exerting an adjustable downward pull on the ends of said strip and thereby clamping said strip, boards and saddle together, substantially as described.

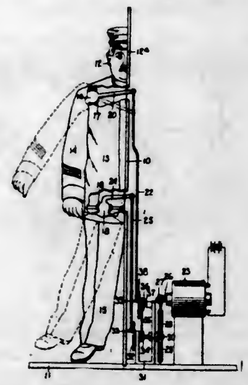
2. In a device of the class described, the combination of a saddle mounted at the ridge of a car, a running board laid on said saddle, a strip laid transversely over and engaging said running board, and a bolt at the end of the saddle said bolt engaging an end of and adapted to exert an adjustable downwardly-directed clamping force on said strip, substantially as described.

3. In a device of the class described, the combination of a metallic saddle secured to a car roof at its two ends and middle portion, boards laid on said saddle, means for spacing said boards, a metallic strap laid on said boards, and means at the ends of the strips for exerting an adjustable downwardly directed clamping action on said boards, substantially as described.

1,140,148. ADVERTISING DEVICE. JAMES B. FUERER, Rahway, N. J. Filed Jan. 21, 1915. Serial No. 3,560. (Cl. 46—40.)

1. An advertising device comprising a manikin representing a half figure, presenting a vertical side edge, a mirror at substantially right angles to the manikin and juxtaposed to its said vertical side edge to reflect the manikin, so that the manikin and its reflection combined present a complete figure, the said manikin having a member thereof movably mounted, actuating means at the back of the mirror to move said member, and operative connections between said actuating means and said movable member for the manikin, said connections extending transversely of the mirror.

2. An advertising device comprising a manikin representing a half figure with one leg and one arm, and presenting a vertical edge, said leg being movably mounted on the torso of the manikin, an upright mirror disposed transversely to the plane of the manikin and juxtaposed to said side edge to reflect the manikin in a way that the said manikin and its reflection present together a complete figure, and actuating means connected with the movable leg of the manikin and concealed from view by the mirror.



3. An advertising device comprising a manikin representing a half figure with one leg and one arm, and presenting a vertical edge, said leg being movably mounted on the torso of the manikin, an upright mirror disposed transversely to the plane of the manikin and juxtaposed to said side edge to reflect the manikin in a way that the said manikin and its reflection present together a complete figure, the leg of the manikin having a length to position the foot thereof adjacent to the bottom line of the mirror whereby to give the illusion of ground support for the figure through the medium of the foot, a leg-lifting device extending laterally from the leg beyond the vertical side edge of the manikin and transversely to the back of the mirror, actuating means at the back of the mirror, and operative connections between the said actuating means and the leg-lifting device.

4. An advertising device comprising a manikin representing a half figure with a vertical side edge, an arm and a leg pivotally mounted on the torso of the figure to rock vertically, an upright mirror juxtaposed to said side edge and disposed in a plane transecting the plane of the manikin, lateral lifting members connected respectively with the arm and leg, and extending beyond said side edge and transversely of the mirror to the back of the latter, a motor at the back of the mirror, and separate drive connections between the motor and the arm and leg.

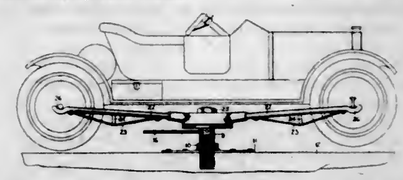
5. An advertising device comprising a manikin representing a half figure and having a vertical side edge, a mirror disposed in a plane transecting the plane of the manikin and juxtaposed to the vertical side edge of the latter to reflect the manikin so that the latter and its reflection present a complete figure, one of the members of the manikin being movably mounted, and concealing means to move said movable member of the manikin.

1,140,149. AUTOMOBILE-JACK. ISAAC WATTS FURMAN, Bay Shore, N. Y. Filed Nov. 18, 1914. Serial No. 872,735. (Cl. 254—89.)

1. A jack as characterized, comprising a spider frame; a jack screw; and a table mounted on said jack screw and rotatively supporting said frame.

2. A jack as characterized, comprising a spider frame; a jack screw; a table mounted on said screw for supporting said frame; and rolling devices disposed between said table and said frame to carry said frame.

3. A jack as characterized, comprising a spider frame; a jack screw; a table mounted on said screw, having an annular groove; and a series of balls disposed in said groove to carry said frame.

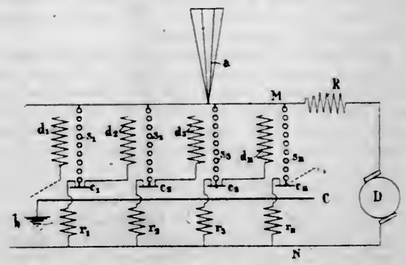


4. A jack as characterized, comprising a jack screw; a table mounted on said screw; a spider body rotatively mounted on said table; and a plurality of arms adjustably mounted on said body to accommodate vehicles of various sizes.

5. A jack as characterized, comprising a jack screw; a table mounted on said screw; a spider body having divergent open-ended socket bores; and a plurality of arms slidably mounted in said socket bores.

[Claims 6 and 7 not printed in the Gazette.]

1,140,150. WIRELESS TRANSMISSION OF ELECTRIC ENERGY. ROBERTO C. GALLETTI, London, England, assignor to Galletti's Wireless Telegraph & Telephone Company Limited, London, England. Filed Feb. 18, 1913. Serial No. 749,150. (Cl. 250—2.)



1. A method of transmitting electric energy at a distance without connecting wires consisting in charging a transmitting aerial relatively slowly and in one sense only, and impulsively discharging it also in one sense only, as set forth.

2. A method of electric signaling without connecting wires, consisting in charging a transmitting aerial relatively slowly and in one sense only, and impulsively discharging it also in one sense only, and in receiving the electric energy transmitted by the transmitting aerial in the form of uni-directional currents, as set forth.

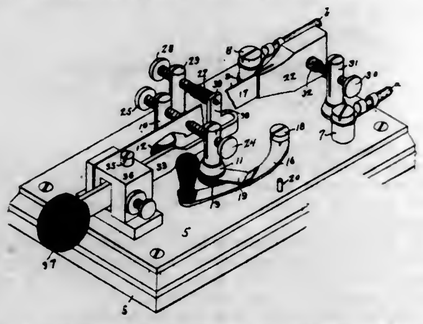
3. A method of transmitting electric energy at a distance without connecting wires, consisting in charging a transmitting aerial relatively slowly and in one sense only, and automatically and partially discharging it at very small intervals of time, also in one sense only, as and for the purpose set forth.

4. Apparatus for transmitting electric energy at a distance without connecting wires, comprising in combination a continuous current dynamo, an aerial connected with said dynamo, a plurality of discharge circuits, each of which comprises a quenched spark gap and a condenser having two armatures, one armature being connected with the ground and the other armature being connected with the dynamo, and a resistance between the latter armature and the dynamo, all the discharge circuits being connected in parallel with one another and in series with the aerial, as and for the purpose set forth.

1,140,151. TELEGRAPHIC INSTRUMENT. JOHN J. GHEGAN, Newark, N. J. Filed Apr. 25, 1913. Serial No. 763,605. (Cl. 178—82.)

1. A telegraphic instrument of the type described, comprising a stationary frame, a flexible vibrator rigidly

secured at one end therein, a pair of transmitter terminals arranged on opposite sides of said vibrator and a pivot lever for deflecting said vibrator into contact with one of said terminals for signals of prolonged duration.



2. A telegraphic instrument of the type described, comprising a flexible vibrator, a pair of transmitter terminals arranged on opposite sides thereof and a lever for deflecting said vibrator into contact with one of said terminals for signals of prolonged duration, in combination with a spring normally flexing said vibrator and means in connection with said lever for freeing the vibrator from the action of said spring to permit said vibrator to automatically contact intermittently with the other transmitter terminal, for the purpose specified.

3. A telegraphic instrument of the type described having a flexible vibrator, comprising a strip of flexible metal, a weight permanently fixed at one end thereof and a stationary frame in which the other end of said strip is clamped together with independent terminals arranged on opposite sides of said vibrator and means for bringing the latter in continued contact with one to effect dash signals and into intermittent contact with the other to effect dot signals, substantially as described.

4. A telegraphic instrument of the type described, comprising a frame, a flexible vibrator mounted therein, a pivoted lever, a spring maintaining said lever in contact with said vibrator, a contact adjacent the latter and a handle on said lever for moving the same in the direction of the effort of said spring to deflect the vibrator against said contact.

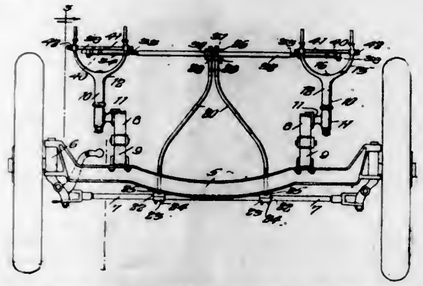
5. A telegraphic instrument of the type described, comprising a frame, a flexible vibrator mounted therein, a pivoted lever, a spring maintaining said lever in contact with said vibrator, a contact adjacent the latter and a handle on said lever for moving the same in the direction of the effort of said spring to deflect the vibrator against said contact, a switch terminal in electrical connection with said contact and a pivoted switch bar for closing the transmitter circuit through said terminal and vibrator, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,140,152. OPERATING DEVICE FOR MOVABLE HEADLIGHTS. MATTHEW GRIMORD, Iron River, Mich. Filed Aug. 1, 1914. Serial No. 854,487. (Cl. 240—62.)

1. A device of the class described comprising a pair of uprights adjustably secured in spaced relation at their lower ends to the reach rod of a vehicle, said uprights extending in front of the axle of a vehicle and being bent toward each other into parallel relation at their upper ends, a connecting rod, an adjustable pivotal connection between the connecting rod and the upper ends of the uprights, yokes disposed behind each of the head lights of the vehicle and pivotally connected thereto, said yoke provided with balls, tubes adjustably supported on the ends of said connecting rod, sockets carried by said tubes and engaging the balls, and resilient cushioning means for said sockets.

2. A device of the class described including a pair of uprights disposed in parallel proximate relation at their upper ends, and in spaced relation at their lower ends, the lower portions of said uprights being bent at right angles to the upper portions thereof means for adjustably securing the lower ends of the uprights to the reach rod of a vehicle, said uprights extending above the axle and in front of the radiator of said vehicle, a connecting rod, a link connection between said rod and the head lights of the vehicle and means for adjustably and pivotally attaching the said connecting rod to said uprights at the upper ends of the latter.



3. A device of the class described including a pair of uprights secured to the reach rod of a vehicle, a connecting rod adapted to operate the vehicle head lights, and a pivotal and adjustable connection between the connecting rod and uprights, said connection comprising a pair of plates adapted to engage the opposite sides of said uprights near the ends of the latter, means for securing said plates together, ears carried by one of said plates in spaced relation to each other, a lug carried by said connecting rod and disposed between said ears, and a pintle projecting through said ears and lug.

4. The combination with swiveled head lights of a vehicle, of yokes pivotally connected to said head lights and projecting rearwardly therefrom, a connecting rod between the yokes, ball and socket connections between the rod and yokes, said ball and socket connections being adjustable longitudinally of the rod, uprights connected to the reach rod of the vehicle, and a pivotal connection between said uprights and connecting rod.

5. The combination with the pivoted lamp brackets of a vehicle, of yokes pivotally connected to said brackets, a connecting rod, tubes disposed on the ends of said rod and adjustable longitudinally thereof, said tubes having squared bores at their outer ends, a pair of blocks disposed in the squared bore of each tube, the blocks being hollowed to form a socket, said tube provided with a slot in registration with said socket, a cap threaded on the outer open end of each tube, a spring disposed between said cap and the adjacent block, balls carried by said brackets and adapted to be engaged in the socket formed by the blocks, and means for operating said connecting rod from the reach rod of the vehicle.

[Claim 6 not printed in the Gazette.]

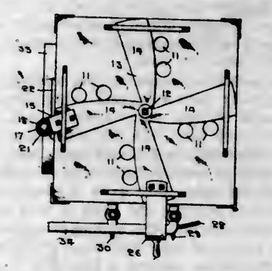
1,140,153. CHEESE-COVER. CELLEN MINERVA HANK, Oakland, Cal. Filed May 13, 1914. Serial No. 838,315. (Cl. 45—103.)



A cheese cover comprising a curved glass side, a glass disk top secured to the upper edge of the side, said side

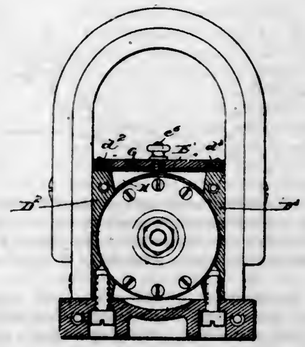
having a door-opening therein, and a door for closing said opening, said door being provided with divergent arms pivoted centrally to the top, depending arms connected to the divergent arms and provided with a channel for receiving the edge of the door, said depending arms being offset to form a close contact of the door against the side, a guide for said door, and stops to limit the outward and inward movement of said door.

1,140,154. HEAT-RETAINING OVEN. ANNE P. HAWLEY, Bridgeport, Conn. Filed June 3, 1914. Serial No. 842,578. (Cl. 126—39.)



A device of the character described comprising a stove having a plurality of groups of apertures through the bottom thereof at widely separated points, each group consisting of a plurality of apertures positioned approximately at right angles to the edge of the bottom, a bracket having a slotted portion and two offset attaching end portions positioned adjacent each group at approximately right-angles thereto and parallel with said edge, and a plurality of oppositely disposed damper blades adapted to close the apertures in each group, the ends of each blade playing in said brackets.

1,140,155. MAGNETO-GENERATOR. OTTO H. H. HEINS, Edgewater-on-Hudson, N. J. Filed Mar. 9, 1909. Serial No. 482,358. (Cl. 171—227.)



1. In a magneto-generator, the combination, with a permanent field-magnet, and an armature, of a reversible polarized magnetic short-circuiting device arranged to short-circuit the flux through said armature.

2. In a magneto-generator, the combination, with a permanent field-magnet having pole-pieces, and an armature between said pole-pieces, of a reversible polarized magnetic short-circuiting device arranged to be adjusted to vary the reluctance of the magnetic short-circuit.

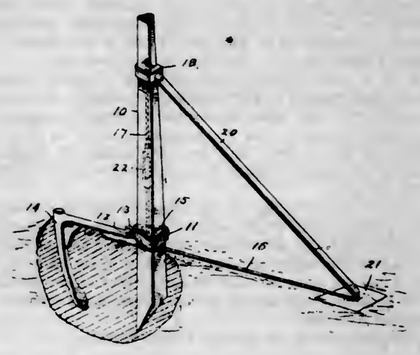
3. In a magneto-generator, the combination, with a permanent field-magnet, and a continuously rotatable armature coil in the field of said permanent magnet, of a plate longitudinally adjustable between the limbs of said field-magnet, and means for holding said plate in any desired position.

4. In a magneto-generator, the combination, with a permanent field-magnet, and an armature coil in the field of said permanent magnet, of a polarized plate longitudinally adjustable between the limbs of said field-magnet, and means for holding said plate in any desired position.

5. In a magneto-generator, the combination, with a permanent field magnet having poles, and a continuously rotatable armature coil in the field of said permanent magnet, of a magnetic short-circuiting device arranged transversely to the direction of the flux and parallel to the axis of the armature, said magnetic short-circuiting device being adjustable in the direction of the axis of the armature to vary the reluctance of the magnetic shunt circuit to standardize the circuit through the armature, and means for securing said short circuiting device in adjusted position.

[Claims 6 to 9 not printed in the Gazette.]

1,140,156. FENCE-POST. PERCY J. HINDMARSH, Lincoln, Nebr., assignor to The American Steel & Wire Company of New Jersey, Hoboken, N. J., a Corporation of New Jersey. Filed Nov. 1, 1913. Serial No. 798,693. (Cl. 189—31.2.)



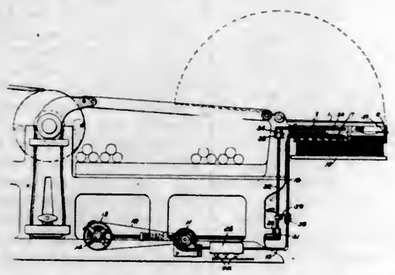
1. As an improvement in posts, the combination of a post, an anchor comprising a horizontal ground-engaging arm and a downwardly and inwardly extending fluke-forming arm, a collar on the post to which the anchor is connected, the post being of sheet metal and V-shaped in cross section, a filling block within the post and in the plane of the collar and a brace having a horizontal member that has a post bearing at one end substantially at the ground level, and an inclined member having its lower end engaging the outer end of the horizontal member and its upper end supporting the post.

2. As an improvement in posts, the combination of a post of sheet metal and V-shaped in cross section, and a brace comprising an L-shaped rod, one member of which extends horizontally from the post and the other vertically within the channel thereof, blocks within the post channel through which said vertical member passes, and a downwardly and outwardly inclined bar that is connected with the ends of the vertical and horizontal members of said rod, said vertical member having a turnbuckle for varying the length thereof.

1,140,157. SHEET-PILING MECHANISM FOR PRINTING-PRESSES. WILLIS K. HODGMAN, Taunton, Mass., assignor to The Huber-Hodgman Printing Press Company, Taunton, Mass., a Corporation of Massachusetts. Filed Sept. 12, 1913. Serial No. 789,538. (Cl. 101—84.)

1. In a sheet piling mechanism for printing presses, a delivery table, means to drop the sheets in superposed

alinement thereon, means to discharge a jet of air wholly under the freely dropping sheet, and means temporarily to confine said air beneath the dropping sheet.



2. In a sheet piling mechanism for printing presses, a delivery table, means to deposit sheets in superposed alinement thereon, means to discharge a jet of air wholly under the depositing sheet while in substantial alinement with the previously discharged sheets, and means temporarily to confine said air beneath the dropping sheet.

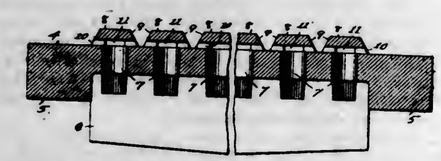
3. In a sheet piling mechanism for printing presses, a delivery table having a receiver into which the sheets are adapted to be piled in alinement and whereby the air between the sheets is temporarily confined, sheet piling means to deposit the sheets in superposed alinement therein, and means to discharge a jet of air wholly beneath a sheet as it is received in said receiver.

4. In a sheet piling mechanism for printing presses, sheet piling means to pile sheets in superposed alinement, a receiver for the piled sheets having means temporarily to confine the entrained air beneath a sheet as it is received by the receiver, and co-acting means to discharge a jet of air wholly beneath the said sheet while it is being so received.

5. In a sheet piling mechanism for printing presses, sheet piling means to pile sheets in superposed alinement, a receiver for the piled sheets having means temporarily to confine the entrained air beneath a sheet as it is received by the receiver, and co-acting means to discharge a jet of heated air wholly beneath said sheet while it is being so received.

[Claims 6 to 17 not printed in the Gazette.]

1,140,158. GRATE-BAR. CHARLES WILLIAM HOPES, Glens Falls, N. Y. Filed July 21, 1914. Serial No. 852,176. (Cl. 126—167.)



1. As an article of manufacture, a grate bar having a main body portion and a raised portion thereover provided with a series of substantially horizontal, parallel, passages therethrough in one direction, and a supplemental series of similar passages therethrough at an angle to the passages of said first named series, said body portion having a vertical bore beneath and joining each intersection of the respective passages of each series, said raised portion being grooved in its upper surface between adjacent passages of each series to intercept all the passages of the other series, to insure complete diffusion of air passing through said grate bar.

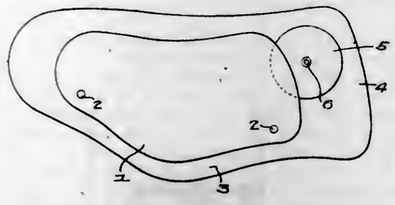
2. As an article of manufacture, a grate bar having a main body portion and a raised portion thereover having a series of grooves in the upper surface thereof in one direction and a supplemental series of similar grooves at an angle to the grooves of said first named series, to form a multiplicity of bosses therebetween, each of said bosses having a plurality of substantially horizontal passages therethrough arranged at an angle to each other, the open ends of the passages of each boss being in register with the open ends of corresponding passages in adjacent bosses, and said main body portion having a vertical bore, beneath each boss, joining the passages through said boss, whereby a thorough diffusion of air results through the fuel over said grate bar.

3. As an article of manufacture, a grate bar comprising a main body portion having a plurality of geometrically arranged vertical bores therethrough, and an integral cap over each bore, each cap consisting of an imperforate plate substantially parallel to said body portion and a plurality of spaced supports of relatively small area for maintaining said plate at a predetermined distance above said body portion and to form air passages therebetween communicating with the respective bore.

4. As an article of manufacture, a grate bar comprising a main body portion having a plurality of geometrically arranged vertical bores therethrough, and an integral cap over each bore, each cap consisting of an imperforate plate substantially parallel with said body portion and a plurality of spaced supports of relatively small area for maintaining said plate at a predetermined distance above said body portion, the sides of said cap plates and supports being downwardly and outwardly inclined.

5. As an article of manufacture, a grate bar comprising a main body portion having a plurality of geometrically arranged vertical bores therethrough, and an integral cap over each bore, each cap consisting of an imperforate plate substantially parallel with said body portion and a plurality of spaced supports of relatively small area for maintaining said plate at a predetermined distance above said body portion, the corresponding supports of adjacent caps being arranged in groups whereby the air passages formed between the supports of each cap register with the corresponding passages of adjacent caps.

1,140,159. INSTEP-SUPPORT. WILLIAM H. HORN, Jr., Philadelphia, Pa., assignor to Wm. H. Horn & Brother, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Aug. 21, 1913. Serial No. 786,029. (Cl. 36—71.)

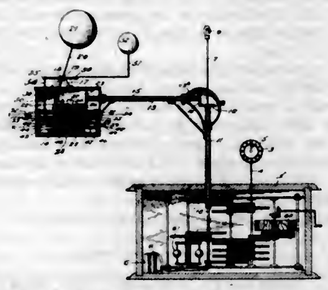


1. The combination of an arch support including a sole piece; and a metatarsal arch-supporting piece in the form of a disk tapering from its center to its edges; with means passing through its center whereby it is attached to said sole piece.

2. The combination of an arch-support including a leather sole piece; with a substantially circular piece on the under side of the front portion of said sole piece in position to locally support the metatarsal arch; and an eyelet connecting the sole piece and said circular piece.

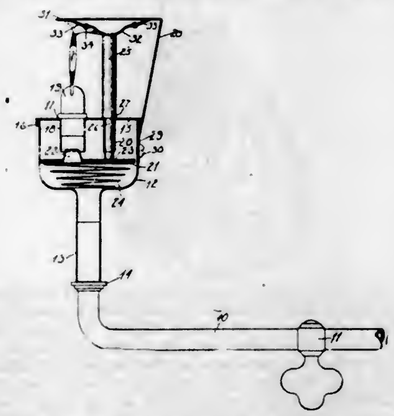
1,140,160. ASTRONOMICAL EDUCATIONAL APPARATUS. LLOYD M. HOUSEKNECHT, Picayune, Miss. Filed Apr. 23, 1914. Serial No. 833,912. (Cl. 35—3.)

The combination of a suitable support, a stand arranged thereon and having a socket bearing, a globe, a shaft fixed with respect to the globe and having a ball disposed in said socket bearing and also having a gear, a gear intermeshed with the gear on the globe shaft, means for driving the last-named gear, a revoluble arm receiving the globe shaft and adapted to hold the gear on the same in mesh with its complementary gear and also adapted



to hold the globe shaft at an angle of inclination, and means for revolving said arm.

1,140,161. GAS-BURNER AND AUTOMATIC CUT-OFF THEREFOR. JULIUS E. JARGSTORFF, New York, N. Y. Filed July 27, 1914. Serial No. 853,413. (Cl. 67—116.)

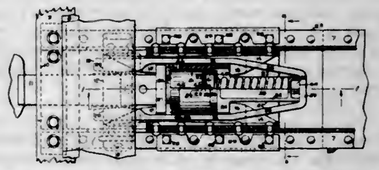


1. A gas burner and automatic cutoff therefor, comprising a casing adapted for application to a burner pipe, a pair of independent tubes depending from the edge of the casing and into the same at equi-distances, a burner tip in one of the tubes, a pin in the other tube, a horizontally disposed expansible element adjustably supported above the pin and having a restricted expansible area, means in the casing acting against the pin to raise the same as far as the lower end of its containing tube and simultaneously closing the lower ends of the tube at spaced points, said expansible element upon being heated being adapted to expand to move said tube closing means through the instrumentality of the pin to unseat the same and permit the escape of gas through the tube for ignition and means to hold the closing means for the lower ends of the tube against rotation.

2. The combination with a supply pipe having a cut-off and a shell having a reduced portion fitted to the pipe, said shell having a top portion with a pair of openings therethrough; of a burner fitted in one opening, an expansible element supported by the casing above the other opening for movement downward when expanded, a spring-pressed valve in the casing for normally closing the openings, and vertically operable means between the expansible element and the valve for depressing and opening the latter upon heat being applied to said element to expand the same, whereby gas will escape to the burner to be lighted.

3. A burner and automatic cut-off for gas as described, comprising a sheet metal casing having a central neck portion depending therefrom, a plate clamped to the top of the casing and having a pair of depending tubes drawn therefrom to either side of its center, a tip in one of said tubes, a pin in the other of said tubes and having a reduced portion forming a shoulder limiting its downward displacement, a valve disk loosely mounted in the casing and having an extension adapted to extend into the first-mentioned tube, a packing gasket on the disk to form an air-tight union with the tubes, a spring in the casing beneath the disk to hold the latter upwardly displaced as specified, an angular bracket secured for vertical adjustment to one side of the casing and having a part overhanging the pin, said overhanging part having stamped-out tongues, and an expansible element between the tongues whereby when said element is heated it will expand between the tongues to engage the pin and unseat the valve downwardly to permit the escape of gas for ignition, the element serving to contract when the gas is extinguished, whereby the spring will act against the pin to again cut off the supply of gas to the tip.

1,140,162. DRAFT-RIGGING FOR RAILWAY-CARS. GEORGE A. JOHNSON, Chicago, Ill., assignor to William H. Miner, Chicago, Ill. Filed Mar. 10, 1913. Serial No. 753,246. (Cl. 213—64.)



1. In a draft gear, in combination, a friction shell, a spring loop connected to said shell, friction mechanism within the friction shell and springs within the loop, a movable spring seat between the friction mechanism and the springs, the friction shell being rearwardly provided with a shoulder, and the spring seat being provided with a shoulder adapted to engage therewith in normal position of the parts of the draft gear.

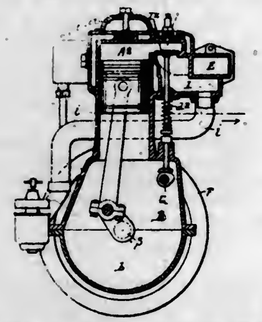
2. In a draft rigging, the combination with stop members, of a friction shell mounted between said stop members, the shell being provided with a loop extending to the rear of the rear stop members, friction mechanism within the shell, twin arranged springs within the loop, and a yoke encircling said shell and loop and arranged in a plane perpendicular to the plane of the loop, said yoke having the rear portions of the arms thereof inclined toward each other, at the rear of the friction shell whereby the rear connecting member for the arms is shorter than the distance between the arms where the arms pass by the friction shell.

3. In a railway draft rigging, the combination with stop members, of a friction shell having a vertically arranged loop extending from the rear thereof and to the rear of the stops, said loop being open on the sides thereof, friction mechanism within the friction shell, springs within the loop, and a horizontally arranged yoke extending around the friction shell and the loop.

1,140,163. GAS-ENGINE. WILLIAM KELLY, Detroit, Mich., assignor to Maxwell Motor Company, Incorporated, Detroit, Mich. Filed Feb. 28, 1910. Serial No. 546,295. (Cl. 123—59.)

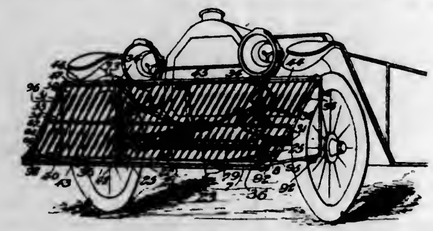
1. In an explosion engine, a plurality of cylinders, an exhaust and intake manifold cast integral and upon one side of the cylinders, one of said manifolds being located above the other, a row of exhaust and intake ports located side by side upon said side of said cylinders, in one plane, passages leading from said exhaust ports to said exhaust manifold, and passages leading from said intake port to said intake manifold, valves controlling said ports, and a single cam shaft adapted to actuate said valves.

2. In an explosion engine, a plurality of cylinders, an exhaust and intake manifold cast integral and upon one side of the cylinders, one of said manifolds being located above the other, a row of exhaust and intake ports located side by side upon said side of said cylinders, in one plane, passages leading from said exhaust ports to said exhaust manifold, and passages leading from said intake port to



said intake manifold, valves controlling said ports, and a single cam shaft adapted to actuate said valves, valve stems extending vertically between said valves and said cam shaft, a part of said valve stems being located outside of the lower manifold and a part extending through a solid portion of the casting filling said lower manifold adjacent to said stems.

1,140,164. FENDER FOR AUTOMOBILES AND OTHER VEHICLES. ARTHUR M. KENNEDY, Philadelphia, Pa. Filed July 5, 1913. Serial No. 777,425. (Cl. 21—90.)



1. In a device of the character stated, supports, a fender movable thereon, a tension device for said fender, a hook to retain said fender in normal position, a plunger, means in the path of said plunger to release said hook, brake controlling means positioned to be operated simultaneously or independently with said releasing means, and a single foot control for both the fender and brake.

2. In a device of the character stated, supports, a fender movable thereon, a tension device for said fender, a hook to retain said fender in normal position, a plunger, means to vary the length of said plunger, means in the path of said plunger to release said hook, brake controlling means positioned to be operated simultaneously or independently with said releasing means, and a single foot control for both the fender and brake.

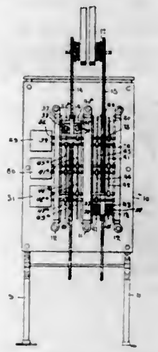
3. In a device of the character stated, supports, a fender movable thereon, a tension device for said fender, a hook to retain said fender in normal position, a plunger, means in the path of said plunger to release said hook, brake controlling means positioned to be operated simultaneously or independently with said releasing means, means to return said fender into locking engagement with said hook, and a single foot control for both the fender and brake.

4. In a device of the character stated, supports, a fender vertically movable therewith, a tension device for said fender, a hook to retain said fender in normal position, a plunger, means in the path of said plunger to release said hook, a tension device to return said means to normal position, brake controlling means positioned to be operated simultaneously or independently with said releasing means, and a single foot control for both the fender and brake.

5. In a device of the character stated, a fender, supports therefor, locking means for said fender, a connection to release said locking means, a plunger in the path of which said connection is mounted and adapted to be operated by the heel of the operator, and braking means located to be operated by the toe of the same foot of the operator, either independently of or simultaneously with said plunger.

[Claims 6 to 8 not printed in the Gazette.]

1,140,165. SIGNALING DEVICE FOR ELEVATORS. HERBERT L. KILBOURNE, Memphis, Tenn. Filed July 2, 1912. Serial No. 707,236. (Cl. 177—336.)

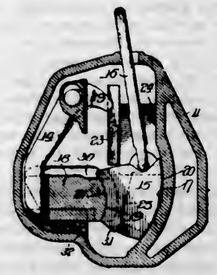


1. An electric signaling device for elevators comprising; a plurality of floor signals, a positive and a negative side circuit connected to said floor signals, to signal up or down upon a floor of a building, a plurality of car signals, a circuit connected to said car signals to signal in synchronism with the first mentioned circuit within the car of an elevator, a plurality of switch boxes to close either the positive or the negative side of said first mentioned circuit, each box registering with a signal upon a floor, and means in said circuit to close said first circuit in synchronism with said second mentioned circuit, and to actuate said switchboxes, said means consisting of a movable casing, pivoted brush contacts mounted in said casing, a movable contact attached to said brush contacts to close the positive or the negative side of said second mentioned circuit, and a plurality of means mounted in said casing to project through said casing and actuated alternately from the positive side or from the negative side of said second mentioned circuit to actuate said switchboxes to close the positive side or the negative side of the first mentioned circuit in synchronism with the second mentioned circuit.

2. An electric signaling device for elevators comprising; a plurality of floor signals, a floor signaling circuit connected to said floor signals, a plurality of elevator signals, an elevator signaling circuit connected to said elevator signals, each of said circuits having a positive and a negative side, movable means in said second mentioned circuit to close either the positive or negative side, and means within said first mentioned circuit and actuated by said first mentioned means to close the positive or negative side of said first mentioned circuit in synchronism with the side of said second mentioned circuit, said last mentioned means consisting of a two-chambered switchbox, a magnetic actuated contact means in one chamber to close the positive side of said first mentioned circuit, a magnetic actuated contact means in said second chamber to close the negative side of said first mentioned circuit, means actuated by said afore mentioned movable means to actuate said first mentioned contact means to close the positive side and means actuated by the afore mentioned movable means to actuate said second mentioned contact means to close the negative side of said first mentioned circuit.

3. An electric signaling device for elevators comprising; a plurality of signals, two circuits connected to said signals each having a positive and a negative side, one to signal from a floor of a building and the other to signal from the car of an elevator, movable means in said second circuit to close either side, and means in said first circuit actuated by said movable means to close either side of the first circuit in synchronism with the side of the second circuit consisting of a partitioned switchbox, contact means in one side of said partition to close the positive side of the first circuit, operating means thereto, means to actuate said operating means, and like devices on the opposite side of the partition to close the negative side of the first circuit.

1,140,166. COUPLING-LOCK. EDMUND P. KINNE, Alliance, Ohio, assignor to American Steel Foundries, New York, N. Y., a Corporation of New Jersey. Filed Aug. 26, 1912. Serial No. 716,993. (Cl. 213—14.)



1. In a car coupler, the combination of a coupler head having a curved locking face, a knuckle pivoted in said head, a locking block having a portion coöperating with the curved surface of said locking face, and means for rotating said lock, the center of rotation of said lock falling within the plane of the knuckle tail, substantially as described.

2. In a car coupler, the combination of a coupler head, having a curved locking face, a knuckle pivoted in said head, said knuckle having a curved lock-engaging face, a locking member having portions coöperating with the curved surfaces on said head and said knuckle, and means for rotating said lock, the center of rotation of said lock falling within the plane of the knuckle tail, substantially as described.

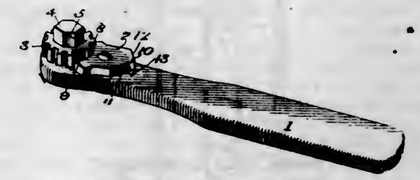
3. In a car coupler, the combination of a coupler head, having a curved locking face, a knuckle pivoted in said head, said knuckle having a curved lock-engaging face, a locking member having portions coöperating with the curved surfaces on said head and said knuckle, the curves of said head and said knuckle having different radii, and means for rotating said lock, the center of rotation of said lock falling within the plane of the knuckle tail, substantially as described.

4. In a car coupler, the combination of a coupler head having a curved locking face, a knuckle pivoted in said head, said knuckle having a curved lock-engaging face, a wedge-shaped lock, the locking surfaces of said lock being curved to correspond to the surfaces engaged thereby, and means for rotating said lock, the center of rotation of said lock falling within the plane of the knuckle tail, substantially as described.

5. In a car coupler, the combination of a coupler head having a curved locking face, a knuckle pivoted in said head, said knuckle having a curved lock-engaging face, a wedge-shaped lock having locking surfaces curved to correspond with the surfaces engaged thereby, and means for lifting said lock from a point removed from its center of gravity, whereby the lock is rocked in the arc of the curves thereof, the center of rotation of said lock falling within the plane of the knuckle tail, substantially as described.

[Claim 6 not printed in the Gazette.]

1,140,167. RATCHET-WRENCH. HENRY M. KOLB and REGINALD F. SEDGLEY, Philadelphia, Pa.; said Sedgley assignor to said Kolb. Filed Apr. 24, 1914. Serial No. 834,101. (Cl. 74—16.)



1. A device of the character stated, comprising a handle, a hub journaled in the end of said handle and having a ratchet-wheel upon it, a pawl pivoted upon said handle and having two dogs at one end adapted to alternately engage the ratchet and having oblique edges at the other end, and a stop yieldingly supported in the side of the handle and having its outer face rounded and projecting beyond the plane of said handle and being adapted to engage either of said edges and to be depressed to allow the pawl to pass over it in shifting such pawl, said stop movable transversely of said handle and laterally of said pawl and adapted to engage the inner face of the pawl, whereby, when said pawl is so positioned, the said stop will hold said pawl by its engagement with the inner face thereof, with both dogs in inoperative position.

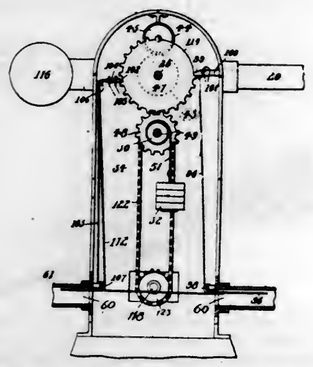
2. A device of the character stated comprising a handle, a ratchet wheel thereon, a pawl pivoted upon said handle and having two dogs on the head thereof adapted alternately to engage the teeth of said ratchet, and a tail formed with oppositely oblique abutments, and a ball adapted to occupy an opening in said handle and having its outer face projecting partly beyond the plane of said handle, limited by an overlapping portion of the latter on the wall of said opening, and a resilient device in said opening on which said ball is yieldingly seated to force said ball outwardly against said overlapping portion to engage either of said abutments of the tail of the pawl to lock the same and to yield to allow said tail to pass over the same.

1,140,168. AUTOMATIC GATE FOR RAILWAY-CROSSINGS. STEPHEN KRNA and PAUL TURZIK, Binghamton, N. Y. Filed Aug. 20, 1914. Serial No. 857,709. (Cl. 39—35.)

1. A crossing gate comprising in combination with a track rail having spaced perforations therethrough, of normally elevated wheel engaging trips vertically movable within said openings, a casing positioned adjacent the track, a power shaft within said casing, a gear secured to said shaft, a gate secured to an outwardly projecting end of said shaft, an operating dog pivoted within said casing and engaging the teeth of said gear, releasing means within said casing engaging said gear, operative connections between said dog and releasing means and one of said trips whereby said gear and power shaft and gate are turned in the gate closing direction during the passage of car wheels over the said trip, connections between said releasing means and the other one of said track trips and means for turning the said gear in the gate opening direction upon a disengagement of said releasing means.

2. A trip device comprising in combination with a rail having a vertical opening therethrough terminating at its upper end in a socket open at the tread portion of the rail, a rod slidably movable within the said opening, a convex head upon the upper end of the said rod and mov-

ably positioned within the said socket, a plurality of rollers journaled in the said head and projecting upwardly therefrom, a disk having a peripheral groove journaled beneath the said rail, a link pivotally connecting the lower end of the said rod with a radial point upon the adjacent



face of the said disk, automatic projecting means for the said rod whereby the upper faces of the said rollers are normally resiliently supported above the rail tread and a gate actuating cord having one end thereof positioned and secured within the said disk groove.

1,140,169. FILLING APPARATUS. NORBERT M. LA PORTE, Baltimore, Md., assignor to The Crown Cork and Seal Company of Baltimore City, Baltimore, Md., a Corporation of Maryland. Filed July 28, 1911. Serial No. 641,172. (Cl. 226—15.)



1. In a filling apparatus, the combination with a tank containing liquid under pressure, of a filling tube connecting with the tank, a conduit in communication with the gas containing space above the liquid in the tank, means for maintaining a container in gas tight relation with the tube and conduit, a filling tube controlling valve, a conduit controlling valve arranged to be opened by the insertion of the container when the gas tight relation with the container is established, the opening of said valve effecting a balance of gas pressures per unit of area on opposite sides of the filling tube controlling valve, and a spring for automatically opening the filling tube controlling valve when the balance of pressures is effected.

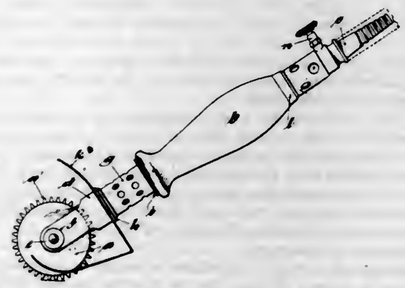
2. In a filling apparatus the combination with a tank, of a filling tube connecting with the tank, a filling tube controlling valve arranged to open against the pressure of the contents of the tank, a spring for opening the valve, a spring controlled sleeve surrounding the filling tube, a gasket carried by the sleeve and serving to seal the mouth of the container to be filled, and a conduit of which the sleeve forms a part and which is opened and closed by the movement of the sleeve, said conduit being in free communication with the gas containing space above the liquid in the tank.

3. The combination with a tank containing liquid under pressure, of a barrel secured to the under side of the tank and provided with a valve-seat, a valve located in said seat and arranged to open upward and to be closed by the pressure of the contents of the tank, a spring for opening the valve, a shell connected to said barrel, a sleeve movable in said shell and having a valve-seat, a conduit communicating with the interior of the shell and sleeve and opening above the liquid level in the tank, a filling tube connected with the barrel and extending through the shell and sleeve, a valve secured to said filling tube and cooperating with the valve-seat in the sleeve, and a container-operated means for moving the sleeve to open the valve whereby the conduit is put in communication with the interior of the container.

4. In a filling apparatus, the combination, with a tank, a barrel secured to the underside of the tank and in open communication therewith, and a valve for controlling the communication between the barrel and the tank, said valve being arranged to open against the pressure of the contents of the tank and to be closed thereby, of a spring for opening the valve, a conduit for admitting gas to the barrel, a sleeve movable longitudinally in the barrel, a packing device carried by the sleeve below the barrel and arranged to contact with the container to be filled, a valve seat carried by the sleeve, a fixed valve arranged to cooperate therewith, and means for producing a relative movement of the container and the barrel to bring the container in contact with the packing device and thereafter to move the sleeve, whereby the valve seat is moved from the valve and the gas-pressure is admitted to the container.

5. In a filling apparatus, the combination, with a tank arranged to contain liquid under pressure, a barrel secured to the underside of the tank and having its interior arranged to communicate with the tank, a valve located in the barrel and arranged to open toward the tank, and a spring arranged to force the valve in the direction of opening, of a shell secured to the barrel and having its interior in communication with the gas space above the liquid in the tank, a filling tube secured to the barrel and extending downward through the shell and below the same, a valve fixed to the filling tube within the shell, a sleeve longitudinally movable in the shell and provided with a valve seat arranged to coöperate with the valve on the filling tube, and a nipple adjustably connected to the sleeve and extending downward around the filling rod, the interior diameter of the nipple being greater than the exterior diameter of the filling tube and opened to the interior of the sleeve.

1,140,170. PATTERN-PERFORATING. FREDERICK MAURICE LASERSON, Manchester, England. Filed Nov. 5, 1912. Serial No. 729,559. (Cl. 164—123.)



1. A hand pattern perforating tool comprising a wheel formed with teeth corresponding to the required perforations, a frame in which such wheel is rotatable, a handle for the same by which the said wheel is guided in the required directions to follow lines marked on the material to be perforated and means associated with the handle frame and wheel for continually heating the latter to incandescence.

2. A hand tool for perforating stencil material by burning, comprising a perforator, means for holding and guiding the perforator, and means integral with the tool for enabling the perforator to be continually heated to incandescence and a handle for the complete tool, such as to permit of the perforator readily following lines marked on the stencil material and producing, by contact with the material, a consecutive series of perforations along such lines.

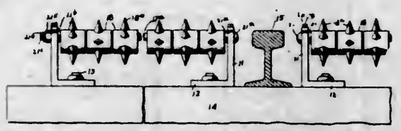
3. A hand pattern perforating tool comprising a wheel formed with teeth corresponding to the required perforations, a frame in which such wheel is rotatable, a handle for the same by which the said wheel is guided in the required direction to follow lines marked on the material to be perforated and means spaced from said wheel to heat the teeth thereof to incandescence, whereby as the wheel travels over the material so marked, sharp and clear-cut perforations will be produced therethrough.

4. A hand perforating tool for perforating stencil material by burning, comprising a rotatable perforator movable along a line marked on the stencil material and contacting with the said material at points in the said line to rapidly produce a consecutive series of perforations, means for enabling the perforator to be continually heated to incandescence and a handle capable of angular movement at any one of said points of contact, and thereby to vary the direction of movement of the perforator to permit the same to be accurately moved along said marked lines.

5. A perforating hand tool for perforating stencil materials along lines marked on the material, comprising a perforator adapted to rapidly and intermittently make contact with and burn perforations without bur in the material as it is traveled along the lines marked on the material, means for holding and guiding the perforator and means carried by the tool for heating the perforator to and maintaining it at incandescence whereby the material will be perforated by contact, thereby avoiding the exertion of undue pressure.

[Claims 6 to 9 not printed in the Gazette.]

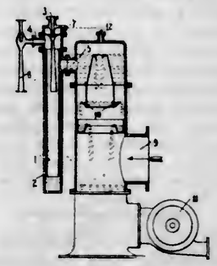
1,140,171. CATTLE-GUARD. JOHN LAWRIE and DAVID FREDERICK BRAZEL, Thabanchu, Orange Free State, South Africa. Filed Mar. 19, 1913, Serial No. 755,357. Renewed Oct. 21, 1914. Serial No. 867,902. (Cl. 256—16.)



1. A cattle guard, comprising longitudinal frame bars forming the sides of the guard and having legs thereon formed with securing flanges constituting feet, said bars being formed at intervals between their ends with vertical slots extending through the tops of the bars and forming bearings at the bottom, one of the bars being furthermore pierced near the ends, thus presenting holes below the top of the bar, the holes being substantially in the horizontal plane of the bearings at the bottoms of the slots; transverse bars of substantially round cross section extending between the frame bars, certain of the transverse bars being received at one end in the adjacent slots of the frame bars and formed at said end with a pair of fixed shoulders spaced to receive a frame bar therebetween, and at the opposite ends with an inner fixed shoulder and with a threaded end adapted to pass through the mentioned holes of the adjacent frame-bar, the threaded ends being provided with nuts to clamp the frame bars; the intermediate transverse bars having at both ends pairs of fixed shoulders spaced to receive the frame-bars therebetween, those portions of the intermediate transverse bars between the fixed shoulders being adapted to the adjacent slots, to be dropped thereinto, and to be lifted therefrom; cap plates overhanging the tops of the frame-bars and closing the ends of the slots; fastening devices for securing the cap plates to the frame bars; and removable rings provided with radiating spurs, the rings being loosely hung along the length of the transverse bars and having an inner diameter or bore materially larger than the diameter of the transverse bars, the rings being adapted to swing transversely of the transverse bars in one direction and to rise bodily on the said transverse bars.

2. A cattle guard, comprising side members, transverse bars supported by said side members and spaced from each other, and guard elements mounted on the transverse bars, the guard elements each consisting of a ring having a bore of a diameter materially greater than the diameter of the bar, the rings freely and eccentrically hanging on the bar to swing transversely thereof in either direction and being free to be moved bodily in a vertical direction.

1,140,172. CONDENSING APPARATUS. MAURICE LEBLANC, Croissy, France, assignor to La Societe Anonyme Pour L'Exploitation des Procedes Westinghouse-Leblanc, Paris, France. Filed Sept. 15, 1909. Serial No. 517,844. (Cl. 261—2.)



1. The combination with a condenser, of a chamber for the reception of the condensing liquid, an inlet into said chamber adapted to admit the condensing liquid thereto in a finely divided state, an outlet for the condensing liquid leading from said chamber to the condenser, and means for extracting the air separated from the liquid in said chamber.

2. The combination with a condenser, of a chamber for the reception of the condensing liquid, an inlet into said chamber adapted to admit the condensing liquid thereto in a finely divided state, an outlet for the condensing liquid leading to the condenser, a connection between the condenser and said chamber and means for extracting the air from said chamber and from the condenser.

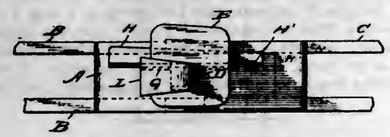
3. The combination with a condenser, of a chamber for the reception of the condensing liquid, an inlet into said chamber adapted to admit the condensing liquid thereto in a finely divided state, an outlet for the condensing liquid leading to the condenser, a connection leading from the condenser to said chamber, and means actuated by the condensing water admitted to said chamber for effecting the removal of the air from the condenser.

4. The combination with a condenser, of a chamber for the reception of the condensing liquid, an air extractor connected to said chamber, a connection between said chamber and the condenser, means actuated by the condensing liquid passing into said chamber for withdrawing the air from the condenser and forcing the same into said chamber, an outlet leading from said chamber, and means dependent upon the difference of pressure in the chamber and that in the condenser for effecting the passage of the condensing liquid through said outlet into the condenser.

5. The combination with a condenser, of a chamber maintained at a pressure less than atmospheric pressure, an inlet into said chamber for admitting the condensing liquid in a finely divided state, an outlet from said chamber leading to the vacuum chamber of the condenser, and means dependent upon the difference of pressure between the pressure in the chamber and that in the condenser for raising the condensing liquid above the level of the liquid in said chamber.

[Claims 6 to 15 not printed in the Gazette.]

1,140,173. BIT-HOLDER FOR MINING-MACHINES. NILS D. LEVIN, Columbus, Ohio, assignor to The Jeffrey Manufacturing Company, a Corporation of Ohio. Filed Jan. 8, 1909. Serial No. 471,298. (Cl. 125—14.)



The combination in a mining machine bit and holder, of a bit carrying element having an inward extending aperture for receiving a bit shank and a second aperture at one side of the first aperture but communicating therewith, the first aperture being at an angle to the line of motion of the carrying element and the second aperture being substantially parallel with the said line, a bit having its shank positioned in the first or shank receiving aperture, and a rearward tapering friction held wedge in the second aperture, one side of the wedge being in forced engagement with the shank of the bit and the opposite side being in forced engagement with the aperture wall opposite the shank, the whole arrangement being such that any accidental engagement of the moving wedge with relatively stationary external objects will tend to force the wedge into firmer engagement with the bit shank.

1,140,174. ARTIFICIAL LEATHER AND PROCESS OF MAKING THE SAME. LEON LILIENFELD, Vienna, Austria-Hungary. Original application filed Dec. 11, 1912, Serial No. 736,222. Divided and this application filed July 11, 1914. Serial No. 850,384. (Cl. 91—68.)

1. The process for the manufacture of artificial leather and the like, which consists in coating suitable materials with layers composed of a colloided cellulose ester mass and a phenol ester which remains liquid at a temperature of 0° Cent. alternating with layers composed of a mixture of viscose (cellulose xanthogenate) and the products obtained from Chinese wood oil and aromatic amins in the presence of a condensing agent.

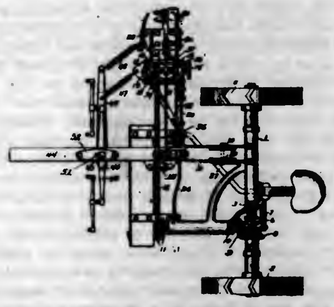
2. The process for the manufacture of artificial leather and the like, which consists in coating suitable materials with layers composed of a mixture of a colloided ester mass, a phenol ester which remains liquid at a temperature of 0° Cent. and a solvent common to both, alternating with layers composed of a mixture of viscose (cellulose xanthogenate) and the products obtained from Chinese wood oil and aromatic amins in the presence of a condensing agent.

3. The process for the manufacture of artificial leather and the like, which consists in coating suitable materials with layers composed of a mixture of a colloided ester mass, a phenol ester which remains liquid at a temperature of 0° Cent. acting as a softening agent, further softening agents, binding agents, filling substances and coloring matters, alternating with layers composed of a mixture of viscose (cellulose xanthogenate) and the products obtained from Chinese wood oil and aromatic amins in the presence of a condensing agent.

4. The process for the manufacture of artificial leather and the like, which consists in coating suitable materials with layers composed of a mixture of a colloided cellulose ester mass and orthotricresylphosphate alternating with layers composed of a mixture of viscose (cellulose xanthogenate) and the products obtained from Chinese wood oil and aromatic amins in the presence of a condensing agent.

5. As a new product artificial leather comprising a fabric coated with layers of a mixture of a colloided cellulose ester mass and a phenol ester which remains liquid at 0° Cent. alternating with layers composed of a mixture of viscose (cellulose xanthogenate) and the products obtained from Chinese wood oils and aromatic amins in the presence of a condensing agent.

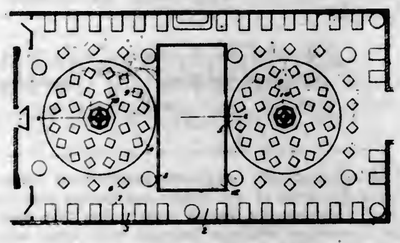
1,140,175. MOWING-MACHINE. CARL LORENSON, Davenport, Iowa. Filed Nov. 20, 1913. Serial No. 802,048. (Cl. 56—78.)



1. In a mowing machine, a wheel frame; an upright guide member carried by said frame; a crank-shaft vertically adjustable in said guide member; a finger-bar carrier pivoted on a straight portion of said crank-shaft; a finger-bar; a knife-bar; a face plate carried by said guide member, between the same and said finger-bar carrier; and means for adjusting said plate to compensate for the drag of said finger-bar.

2. A mowing machine comprising a wheeled frame; a finger-bar; a supporting member for said finger-bar, said member being secured to said frame; and a spacing member between said supporting member and said frame, for laterally adjusting said finger-bar to provide various working areas for said finger-bars.

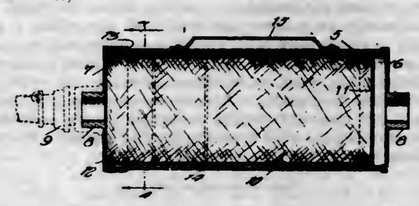
1,140,176. REVOLVING DINING-ROOM FLOOR. ANTOINE MARTZOLF, New York, N. Y. Filed May 21, 1914. Serial No. 840,138. (Cl. 20—1.)



1. In a dining room floor of the character described, a stationary section, a plurality of rotating sections, a plurality of tables arranged on said stationary section, a dancing floor structure arranged on said stationary section between said rotating sections, a plurality of tables arranged on each of said rotating sections, a serving table arranged centrally of each of said rotating sections and rigidly secured thereto so as to rotate therewith, and a dumb waiter arranged centrally of each of said serving tables whereby the serving tables may be supplied during the rotation of the rotating sections.

2. In a dining room floor of the character described, a stationary section for receiving tables, a plurality of rotating sections adapted to receive tables, a serving table arranged in the center of each of said rotating sections and rigidly secured thereto so as to rotate therewith, a dumb waiter arranged centrally of each of said serving tables whereby the serving tables may be supplied notwithstanding the rotation of said sections, and means operating on said sections for rotating the same.

1,140,177. SPRAYER. NELLIE M. MCCAULEY, Kalispell, Mont. Filed Oct. 14, 1914. Serial No. 866,598. (Cl. 137—67.)



1. A sprayer of the class described comprising a cylinder, a cap disposed on one end of said cylinder for closing the same, a threaded nipple carried by said cap, whereby the sprayer may be attached to a hose, a cover removably disposed upon the opposite end of the cylinder, a threaded nipple carried by said cover whereby a spraying nozzle may be connected with the sprayer, a container disposed within said cylinder and including a flexible body portion, a piston disposed at one end of said container and acting as a closure therefor, said piston being movable longitudinally of said cylinder, a collar carried by the opposite end of the body portion and connected to the cylinder internally thereof, and rings carried in spaced relation by said flexible body portion and fitting within said cylinder.

2. A device of the class described comprising a cylinder closed at one end, means at the closed end of the cylinder for connecting the same with a fluid conduit, a cover removably secured upon the opposite end of the cylinder, means carried by said cover for connection with a sprayer nozzle, a compressible container removably disposed within the cylinder, a piston carried by one end of said container within the cylinder and adjacent the closed end thereof, means for removably disposing said container within the cylinder and means for preventing collapse of the container.

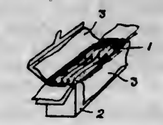
3. A device of the class described comprising a cylinder closed at one end, means at the closed end of the cylinder for connection with a fluid supply, a flexible container removably disposed within the cylinder, a piston secured to said container at one end within the cylinder and adapted to be actuated upon entrance of the fluid into the cylinder, for contracting the container, means for preventing collapse of the container and means for establishing communication with said container at the end opposite the piston, with a sprayer nozzle.

4. A device of the class described, comprising a cylinder, a flexible and collapsible container disposed therein and provided at one end with a ring snugly engaging within the cylinder, the end of the container adjacent the ring being open and being adapted to communicate with a sprayer nozzle, a piston connected to the opposite end of the container and closing the same and slidably engaging within the cylinder, rings carried by the container in spaced relation and engaged within the cylinder and adapted to prevent collapse of the container, and means whereby fluid may be forced into the cylinder against the piston whereby to collapse the container for ejecting the contents thereof.

1,140,178. METHOD OF PRESERVING AND MARKETING FRESH FISH. ALEXANDER MILLER MCDOUGALL, Duluth, Minn. Filed Jan. 16, 1914. Serial No. 812,552. (Cl. 99—8.)

1. The herein described method of preserving fish consisting of placing the fish within an air-tight carton and placing a number of cartons within a larger package and freezing the series of cartons into a solid unit or mass.

2. The herein described method of preserving fish consisting of placing the fish within the cartons and placing a series of cartons within a larger receptacle and freezing several cartons into a solid unit or mass.

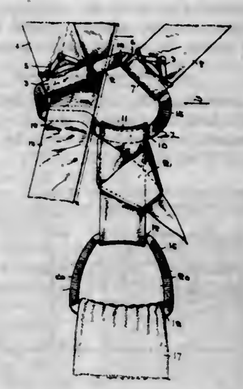


3. The herein described method of preserving fish consisting of placing the fish within an air-tight carton just after being washed and placing a series of cartons within a larger receptacle and freezing the series of cartons into a solid unit or mass by the frost forming on the outside of the cartons.

4. The herein described method of preserving fish consisting of placing the fish within a carton lined with oil paper just after being washed and plasing the cartons within a larger package lined with oil paper and freezing the series of cartons into a solid mass by the frost formed on the outside of the cartons.

5. The herein described method of preserving and marketing fish, consisting of snugly filling a paper lined carton with fresh fish having their tails overlapping, as nearly a possible hermetically sealing the closed carton, subjecting the carton to a freezing temperature until the fish are frozen into a solid mass, placing the frozen carton within a second carton and shipping to the consumer.

1,140,179. METAL CINCH RIGGING-RING. FREDERICK JOHN MCMONIES, JOHN JAMES HAMLEY, and LESTER HENRY HAMLEY, Pendleton, Oreg. Filed Aug. 13, 1914. Serial No. 856,615. (Cl. 54—46.)



1. In a device of the class described, the combination with a saddle, and the rigging straps and the girth thereof, of a rigging ring secured in the looped ends of said straps, a cinch ring secured in the looped end of said girth, and a tie strap for connecting said rigging ring and said cinch ring together, said rigging ring and said cinch ring being provided with offsets for securing said rigging straps, said girth and said tie strap thereto for preventing the looped ends of said rigging straps, said girth and said tie strap from chafing the hide of an animal, the upper forward offset of said rigging ring projecting sufficiently outwardly beyond the vertical plane of the lower forward bar of said ring to provide for the passage of the stirrup straps under said offset and over said bar.

2. In a device of the class described, the combination with a saddle, and the rigging straps and the girth thereof, of a rigging ring secured in the looped ends of said straps, a cinch ring secured in the looped end of said girth, and a tie strap for connecting said rigging ring and said

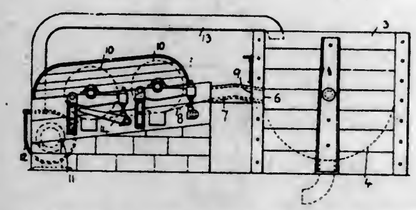
cinch ring together, said rigging ring and said cinch ring being provided with offsets for securing said rigging straps, said girth and said tie strap thereto for preventing the looped ends of said rigging straps, said girth and said tie strap from chafing the hide of an animal, said offsets at the upper portion of said rigging ring comprising straight bars, located at right angles to the longitudinal direction of the respective rigging straps to thereby distribute the wear uniformly throughout the inner surfaces of the looped ends of said rigging straps.

1,140,180. AEROPLANE-BALANCE. GASPAR MEZZATESTA, New York, N. Y. Filed Oct. 6, 1913. Serial No. 793,641. (Cl. 244—29.)



In an aeroplane balancing device, the combination of the usual balancing and steering planes of an aeroplane, of mechanism for actuating said planes, said mechanism comprising a pair of reciprocating members for the plane controlling the lateral balance of the aeroplane, a pair of reciprocating members for actuating the plane controlling the pitching of the aeroplane, means for supplying power to all of said reciprocating members, a pair of gravity actuated power controlling members for turning on and off the power as the aeroplane tosses or pitches, and manually controlled means for disconnecting the power from all of said reciprocating members, said manually controlled means comprising a pair of valves, a connection between said valves for causing the same to act simultaneously, whereby one is closed as the other is opened, and means for moving said connection.

1,140,181. APPARATUS FOR REFINING PULP STUFF AND THE LIKE. THOMAS HENRY NASH, St. Pauls Cray, England. Filed July 24, 1914. Serial No. 852,907. (Cl. 92—20.)



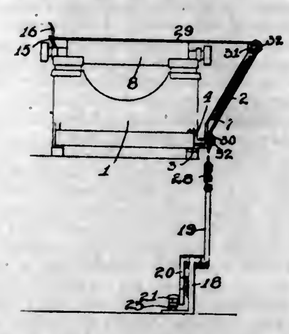
1. Apparatus for refining pulp, stuff and the like for use in the manufacture of paper comprising, in combination, a mixing container, a beating engine arranged approximately on a level therewith and in such manner that the stuff gravitates through the beating engine, a regulable chute connecting the container to the beating engine, a circulator connected to the beating engine, and an uptake connecting the circulator to the container, for returning the stuff from the beating engine to the container, substantially as described.

2. Apparatus for refining pulp, stuff and the like for use in the manufacture of paper comprising, in combination, a mixing container, a beating engine arranged approximately on a level therewith, a chute connecting the container to the beating engine, an adjustable valve for controlling the amount of stuff flowing from the container through the chute to the beating engine, and means for returning the stuff from the beating engine to the container, substantially as described.

3. Apparatus for refining pulp, stuff and the like for use in the manufacture of paper comprising, in combination, a mixing container, a beating engine arranged approximately on a level therewith, a regulable chute connecting the container to the beating engine, said beating engine having an inclined feed plate, and means for returning the stuff from the beating engine to the container, substantially as described.

4. Apparatus for refining pulp, stuff and the like for use in the manufacture of paper comprising, in combination, a mixing container, a beating engine arranged approximately on a level therewith and comprising a plurality of beater rolls and a plurality of bed plates arranged in tandem, inclined feed plates leading to each beater roll and bed plate, a regulable chute connecting the container to the first feed plate, means for independently adjusting the beater rolls with regard to the bed plates, and means for returning the stuff from the beating engine to the container, substantially as described.

1,140,182. CARRIAGE-RETURN MECHANISM FOR TYPE-WRITERS. JOHN G. NATTINGER, Chicago, Ill. Filed Feb. 3, 1913. Serial No. 745,762. (Cl. 197—65.)



1. In a device of the class described a bracket adapted to be releasably secured to the frame of a typewriter and projecting upwardly and outwardly therefrom at an angle therewith, sheaves journaled on said bracket, a cable connected at one of its ends to the actuating lever of a typewriter carriage and trained about said sheaves on said bracket, a pivotally mounted bell crank having the other end of said cable yieldably connected thereto, and a foot pedal pivoted on said bell crank.

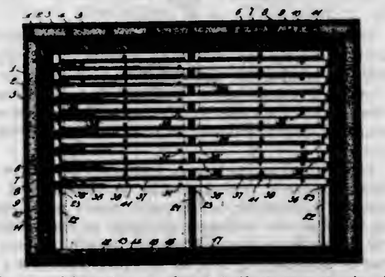
2. In a device of the class described a cable connected to the actuating lever of a typewriter carriage, a bell crank, stops permitting an adjustable amplitude of movement therefor, and a spring connecting said cable and said bell crank.

3. In a device of the class described the combination with a typewriter and its carriage movable thereon, of a bracket rigidly secured to the frame of the typewriter near the front thereof and projecting at an angle outwardly and rearwardly to a point substantially in line with said carriage, sheaves journaled on said bracket, a cable trained about said sheaves and secured at one of its ends to the actuating lever of said typewriter carriage, a frame member adapted to rest on the floor beneath the typewriter, a bell crank pivotally mounted thereon, with one end of said cable yieldably connected to one arm of said bell crank, and foot actuating means connected to the other arm of said bell crank.

4. In a device of the class described the combination of a typewriter and its carriage movable thereon, of a bracket rigidly and releasably secured to the frame of the typewriter and projecting upwardly and rearwardly thereof to a point substantially in line with said carriage, sheaves journaled on said bracket, a cable trained about said sheaves and connected at one of its ends to the actuating lever of said typewriter carriage, a bell crank pivotally mounted beneath said typewriter, a foot pedal having an offset heel piece formed thereon pivotally mounted upon said bell crank, and with the other end of said cable connected also to said bell crank, an inclined lug mounted in the path of movement of said foot pedal whereby said heel piece is elevated and engages thereover during a return movement of the bell crank to initial position, thereby affording a sensible signal to the operator by such elevation, of the complete return of the bell crank to initial position, and mechanism adjustable to limit the amplitude of movement of said bell crank.

5. In a device of the class described the combination with a typewriter, of foot actuated means for returning the carriage thereon to initial position, said means comprising in part a bell crank pivotally mounted and operatively connected to said carriage, a foot pedal pivotally mounted upon said bell crank to actuate the same, an offset heel piece formed on said foot pedal, and fixed means in the path of movement of said pedal adapted to coact with said offset heel piece to elevate the pedal, affording a sensible signal for the operator of the complete return movement of the bell crank and said heel piece then acting together with said fixed means to retain said bell crank in initial position.

1,140,183. REFRIGERATING APPARATUS. EDWARD W. NEUMAN, York, Pa. Filed Nov. 9, 1912. Serial No. 730,332. (Cl. 62—6.)



1. In a refrigerator, a closed hollow pan, a pipe leading into the lower portion of the same, a second pipe connected with the first-mentioned pipe and extending along the pan and having openings, a pipe leading out of the upper opposite portion of the pan and connected with a pipe located in the pan which is provided with openings.

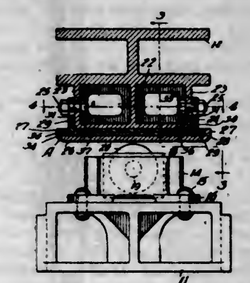
2. In a refrigerator, a pan, a pipe leading into the intermediate portion of one side thereof, a pipe connected with the first mentioned pipe and located in the vicinity of the bottom of the pan and having openings, a pipe located in the vicinity of the top of the pan at the rear-portion thereof and having openings, and pipes connected with the end portions of the last mentioned pipe.

3. In a refrigerator, a closed refrigerating receptacle, a perforated supply pipe mounted within the receptacle adjacent the bottom thereof and extending longitudinally of the receptacle for the greater portion of the length of said receptacle, a supply pipe connected with the perforated supply pipe and extending exteriorly of the receptacle, and means to withdraw gas from the top of the receptacle.

4. In a refrigerator, a closed refrigerating receptacle adapted to be approximately horizontally arranged, a perforated supply pipe disposed within the receptacle adjacent the bottom thereof and extending longitudinally of the receptacle for the greater portion of its length, and a perforated exhaust pipe mounted in the receptacle adjacent the top thereof and extending longitudinally of the receptacle for the greater portion of the length of the receptacle.

5. In a refrigerator, a closed refrigerating receptacle adapted to be horizontally arranged, means to spray a liquid freezing medium upon the bottom of the receptacle through the greater portion of its length, and exhaust means arranged adjacent the top of the receptacle and having communication with the same adjacent said top at a plurality of points and for the greater portion of its length.

1,140,184. RAILWAY-CAR ADJUSTABLE SIDE BEARING. CALVIN B. PATCH, Glenellyn, Ill., assignor to William H. Miner, Chazy, N. Y. Filed July 25, 1914. Serial No. 853,001. (Cl. 105—115.)



1. In a side bearing for railway cars, the combination with a box-like member having a series of notches on the end walls thereof, of a wear plate adjustably mounted on said box-like member, said wear plate being provided with end walls having notches coöperable with said first named notches whereby the wear plate is adjustable with respect to the box-like member.

2. In a side bearing for railway cars, the combination with a hollow box-like member, of a wear plate, detachable upstanding plates secured to the wear plate and adjustable on the box-like member, removable shims, and means for holding said members in adjusted position.

3. In an adjustable side bearing, the combination with two telescoped members arranged to receive one or more shims therebetween, the outer of said members having walls detachably secured thereto, and means for locking said members in adjusted positions.

4. In an adjustable side bearing, the combination with two telescoped members arranged to receive one or more shims therebetween, the outer of said members having walls detachably secured thereto, and means for locking said members in adjusted positions, said means including bolts passing through said detachable walls and the walls of the inner telescoped members.

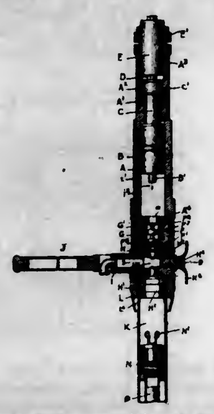
5. In an adjustable side bearing, the combination with a bolster, of two telescoped members having provision to receive one or more shims therebetween, the inner of said members being formed integrally with the bolster and the outer of said members having detachable walls, and means for locking said members in adjusted positions.

1,140,185. POWER ROCK-DRILL. FREDERICK PERLEY PORTER, Kellogg, Idaho. Filed Mar. 1, 1913. Serial No. 751,441. (Cl. 121—10.)

1. A power rock drill, comprising a main cylinder having in its wall a longitudinal channel communicating therewith, a hammer piston in the cylinder, an admission and exhaust valve on one end of the cylinder, and consisting of a valve casing provided with a central bore in two diameters, a plurality of longitudinal ports leading to the smaller bore and a port leading from the channel of the cylinder to the larger bore, and a piston valve in said bore and having spaced pistons fitting in the said bore, a throttle valve casing held on the piston valve casing and having a channel in its top leading to the longitudinal ports of the valve casing and a longitudinal port leading to the channel, and a throttle valve in the said casing, said valve controlling said port and connected with a fluid supply.

2. A power rock drill, comprising a main cylinder, a hammer piston on the cylinder, a piston valve casing on one end of the cylinder, a piston valve in the casing, a muffler chamber surrounding the piston valve casing and

communicating with the bore thereof, a throttle valve casing on the piston valve casing, and having ports communicating with the muffler chamber and leading to the atmosphere, and a throttle valve in the casing and connected with a fluid supply.



3. A power rock drill, comprising a main cylinder a hammer piston mounted to reciprocate in the said cylinder, and an admission and exhaust valve held on one end of the said main cylinder, said valve comprising a body having a central bore, in two diameters, ports leading to the bore, and a chamber in the bottom thereof, and a piston valve in the bore of the body and having three pistons of which one is larger than the other two, said piston valve having its lower end reduced and extending into the chamber of the body and provided with a transverse opening and a central longitudinal channel leading from said opening out through its lower end.

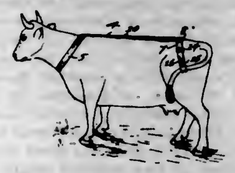
4. A power rock drill, comprising a main cylinder provided at its outer and inner ends with admission ports for the motive agent to alternately pass into the ends of the cylinder, the said outer end port also serving as an exhaust port for the outer end of the cylinder, the latter also having an inner exhaust port leading from the cylinder intermediate the ends thereof, and the said cylinder also having a valve port leading from the cylinder at a point above the said inner exhaust port, a hammer piston reciprocating in the said cylinder, a main valve having a valve casing provided with ports and attached to the inner end of the cylinder, and a piston valve reciprocating in the said valve casing, the said piston valve having three pistons fittings in said bore and controlling the said casing ports, the latter connecting with the said cylinder ports, a throttle valve connected with a motive agent supply and connected with the said main valve, and a muffler shell surrounding the said valve casing and forming a muffler chamber therewith, the exhaust ports opening into the said muffler chamber and the latter opening into the atmosphere.

5. A power rock drill, comprising a cylinder having inlet and exhaust ports, a hammer piston in the cylinder, an admission and exhaust valve governing the inlet and exhaust of the cylinder, an annular muffler chamber surrounding the valve and a throttle valve casing and having ports communicating with the muffler chamber and extending through the said casing to the atmosphere.

[Claims 6 to 9 not printed in the Gazette.]

1,140,186. COW'S-TAIL HOLDER. ELMER QUICK, Trinidad, Colo. Filed Aug. 26, 1914. Serial No. 858,621. (Cl. 119—105.)

1. A device of the class described, comprising a back-strap, a neck-strap connected to one end thereof, means for securing said neck-strap in position, a tail-strap on the other end of said back-strap, means for holding a tail therein, a positioning-strap also secured to the rear end of said back-strap, and means for holding the same around a hind leg of a cow.



2. A device of the class described, comprising a back-strap, a neck-strap at the front end thereof, and a tail-strap and a positioning-strap at the rear end thereof, means for holding said neck and positioning straps on a cow, means for holding the tail in said tail-strap, and means for adjusting each of said straps.

1,140,187. METHOD OF MAKING LAMINATED STRUCTURES. JOSEPH EDGAR RHOADS, Wilmington, Del. Filed Aug. 15, 1914. Serial No. 856,952. (Cl. 154—40.)



1. The method of making a laminated structure which consists in loosely superimposing a plurality of layers of material; trimming the same while superimposed to cause the combined thickness of said layers to be accurately uniform throughout the length thereof; and thereafter permanently uniting said layers to form a single composite structure.

2. The method of making a laminated structure which consists in loosely superimposing a plurality of layers of material; trimming one of said layers while superimposed to cause the combined thickness of the several layers to be uniform throughout the length thereof; and thereafter permanently uniting said layers to form a single composite structure.

3. The method of making a laminated structure which consists in approximately fitting together a plurality of layers of material of varying thickness to form a loose laminated structure of substantially uniform thickness when said layers are superimposed; trimming said structure to make it accurately uniform in thickness; and thereafter permanently uniting the layers to form a single composite structure.

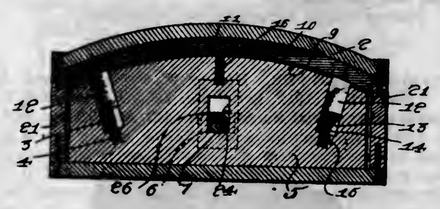
4. The method of making a laminated structure which consists in approximately fitting together a plurality of layers of material to make their combined thickness substantially uniform; reversing said layers to bring their outside surfaces into engagement; operating on the layers to make the combined thickness of said layers accurately uniform; reversing said layers to restore them to their original relative positions; and permanently uniting the layers.

5. The method of making a laminated structure which consists in approximately fitting together a plurality of layers of material to form a loose laminated structure of substantially uniform thickness; cutting from one of said layers an amount automatically determined by the remainder of said structure to make their combined thicknesses accurately uniform; and thereafter permanently uniting said layers.

[Claim 6 not printed in the Gazette.]

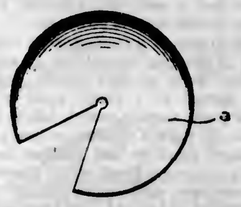
1,140,188. BALANCE SLIDE-VALVE. HERMAN P. ROBINSON, Bristol, Tenn. Filed Sept. 16, 1913. Serial No. 790,091. (Cl. 136—1.)

A valve comprising a casing, a sliding head positioned therein, said head provided with a plurality of channel portions upon the upper face thereof, packing strips positioned therein, means for normally exerting an outward pressure thereon, said head provided with vertically-extending grooves upon the side portions thereof adjacent said first mentioned packing strips, vertically-extending packing strips positioned within said vertically-extending grooves, said head provided with notched portions adja-



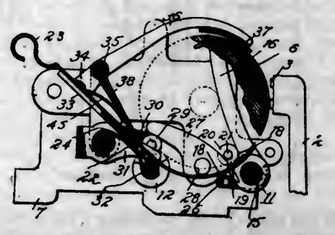
cent said vertically-extending grooves, a vertically-extending strip positioned within each vertically-extending groove, each vertically-extending packing strip provided with a laterally-extending rib portion fitting in said notches of said head, and spring means engaging said vertically-extending packing strips for normally exerting a lateral pressure thereon.

1,140,189. HEADLIGHT FOR VEHICLES. FRANKLIN P. SACKETT, Washington, D. C. Filed Sept. 2, 1914. Serial No. 859,796. (Cl. 240—41.)



A reflector for vehicle lamps comprising a concave plate, a portion of the face of which is reflective of light and the balance of which is non-reflective, the reflective portion of which comprises a sector extending from approximately the center of the plate to its outer edge, and the balance of which comprises a non-reflective sector of less than one half the surface on the lower portion of the plate adapted to eliminate the upwardly projecting rays from the projected beam and retain the rays directed on the roadway, substantially as described.

1,140,190. TYPE-WRITING MACHINE. JEROME B. SECOR, Derby, Conn., assignor to Secor Typewriter Company, Derby, Conn., a Corporation of Connecticut. Filed July 28, 1910. Serial No. 574,258. (Cl. 197—128.)



1. In a typewriting machine, the combination of a platen, a rock shaft journaled on an axis parallel thereto, arms extending forwardly from said rock shaft above said platen, a clamping bar carried by said arms, yieldable means acting on said rock shaft to normally hold said clamping bar away from said platen, and means for overcoming said yieldable means to force the clamping bar against said platen.

2. In a typewriting machine, the combination of a platen, a rock-shaft mounted parallel therewith, arms rigidly attached thereto and extending forwardly to a point intermediate the writing point and the top of said platen, a clamping bar extending intermediate the arms, an operating lever for said rock-shaft yieldingly attached thereto, a spring acting on said lever to normally maintain said clamping bar out of engagement with said platen and hand operated means for engaging said clamping bar with the platen.

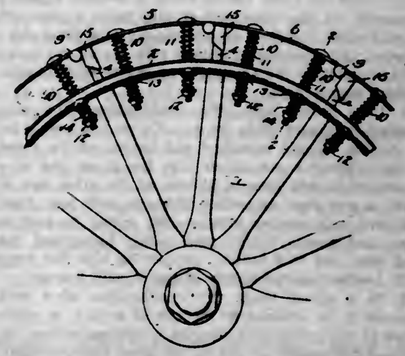
3. In a typewriting machine, the combination of a platen, a rock shaft mounted parallel therewith, a non-rotatable clamping member attached thereto and extending forwardly to a point intermediate the writing point and the top of said platen, an operating lever for said rock shaft yieldingly attached thereto, a spring acting on said lever to normally maintain said clamping member out of engagement with said platen and hand operated means for engaging said clamping member with the platen.

4. In a typewriting machine, the combination of a carriage, a platen rotatably mounted on said carriage, paper feed-rolls normally under spring pressure coöperating therewith, a rock shaft on which said feed-rolls are rotatably mounted, radial slots in said carriage for the support of said rock shaft, cam plates rigidly attached to said rock shaft having a plurality of concaved surfaces different radial distances from the axis of said rock shaft, roller studs mounted on said carriage and coöperating with said cam plates to force the rock shaft radially away from the platen.

5. In a typewriting machine, the combination of a carriage, a platen rotatably mounted on said carriage, paper feed-rolls normally under spring pressure coöperating therewith, a rock shaft on which said feed rolls are rotatably mounted, radial slots in said carriage for the support of said rock shaft, cam plates rigidly attached to said rock shaft having a plurality of concaved surfaces different radial distances from the axis of said rock shaft, detents intermediate said concaved surfaces, roller studs mounted on said carriage and coöperating with said cam plates to force the rock shaft to a locked position radially away from the platen.

[Claim 6 not printed in the Gazette.]

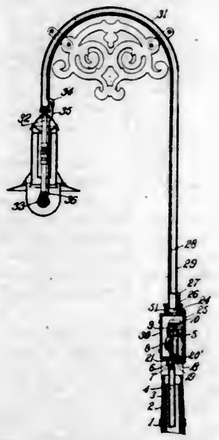
1,140,191. VEHICLE AND AUTO TIRE. JOHN F. SHAFER, Adeline, Ill. Filed Sept. 13, 1912. Serial No. 720,289. (Cl. 152—8.)



The combination with a vehicle wheel having its felly provided with a metal rim, said rim being formed with outwardly projecting members, a tire, said tire being formed with a plurality of metal sections having their ends pivotally connected, hollow sleeve members formed upon the inner face of each of the metal sections of the tire arranged adjacent one of its pivots and receiving each one

of the projecting members of the rim and snugly engaging with the said projecting member, each of the sleeves having its face adjacent the pivot open, said projecting member having its upper end arranged within the path of contact of the said pivotal connection between the sections, and means including guide and spring members for retaining the tire upon the felly of the wheel in spaced relation to and surrounding the rim of the wheel.

1,140,192. STREET-LAMP. AI B. SHAW, West Medford, Mass., assignor to Automatic Gas Lighting Equipment Co., Boston, Mass., a Corporation of Massachusetts. Filed Apr. 8, 1911. Serial No. 619,859. (Cl. 240—84.)



1. In a street lamp, the combination of a standard adapted to be secured to the top of a post and provided with a casing naving at its upper end a closed boss; a gas supply pipe the lower end of which is secured in said boss: a lantern supported by said supply pipe; a pipe exterior to said casing leading to said gas supply pipe from the main supply; and means located within said casing for automatically controlling the supply of gas to the lantern.

2. In a street lamp, the combination of a standard adapted to be secured to the top of a post and provided with a casing having at its upper end a closed boss; a gas supply pipe the lower end of which is secured to said boss; a lantern on the other end of said pipe; a pipe exterior to said casing leading to said supply pipe from the main supply; and mechanism within said casing for automatically controlling the admission of gas to said lantern supporting supply pipe.

3. In a street lamp, the combination of a standard adapted to be secured to the top of a post; a casing secured to the top of said standard and having at its upper end a closed boss; a gas supply pipe the lower end of which is secured to said boss; a lantern on the other end of said pipe; a gas riser extending through said post into said standard and passing around said casing to said supply pipe; and means within said casing interposed between said riser and said lantern supporting pipe for automatically controlling the supply of gas to said lantern.

4. In a street lamp, the combination of a standard adapted to be secured to the top of a post; a casing secured to the top thereof adapted to inclose devices for controlling the supply of gas to the lamp and provided with a closed threaded boss extending from its upper side; a supply pipe threaded to said boss; a lantern carried thereby; and a pipe exterior to said casing leading to said supply pipe from the main supply having a valve therein operable by said controlling devices.

5. In a street lamp, the combination of a standard adapted to be secured to the top of a post and provided with a casing to receive the devices for controlling the supply of gas to the lamp, said casing having a closed boss at its upper end; a gas supply pipe extending upwardly from said boss; a lantern carried thereby; a gas riser extending through the bottom of said standard; and a supplemental pipe extending around said casing and connecting said riser and pipe.

[Claims 6 to 13 not printed in the Gazette.]

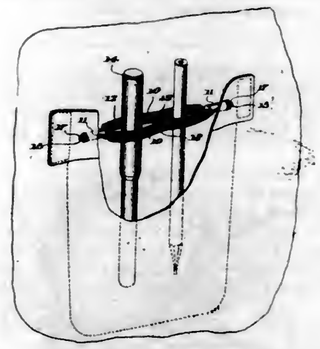
1,140,193. SLIPPER. HORACE W. SHINN, Paducah, Ky. Filed Oct. 1, 1912, Serial No. 723,360. Renewed Dec. 14, 1914. Serial No. 877,271. (Cl. 36—9.)



1. As a new article of manufacture, a slipper consisting of two pieces of material comprising an upper and a sole, said sole being made of a piece of relatively thin flexible leather, and said upper being formed of a single piece of textile fabric which is curved at its central portion to form a counter or heel portion and has its ends brought together and stitched to form a seam which extends down the front of the upper from the foot opening to the sole, said upper having its lower edge folded and turned outwardly over the sole, such folded edge being secured to the sole by a line of stitching adjacent the wall of the upper whereby a wide welt is provided.

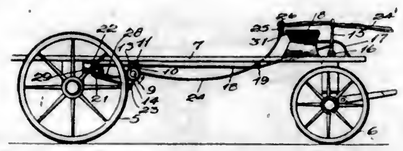
2. As a new article of manufacture, a slipper consisting of two pieces of material comprising an upper and a sole, said sole being made of thin flexible leather and said upper being formed of a single piece of textile fabric with a fleeced inner surface, which fabric is curved at its central portion to form a counter or heel portion and has its ends brought together and stitched to form a seam which extends down the front of the upper from the foot opening to the sole, said upper having its lower edge folded and turned outwardly over the sole, such folded edge being secured to the sole in line with the margin of the latter by a row of stitches adjacent the wall of the upper whereby a wide welt is provided.

1,140,194. PEN AND PENCIL HOLDER. SARKIS SIMONIAN, East Cambridge, Mass. Filed July 28, 1914. Serial No. 853,686. (Cl. 24—10.)



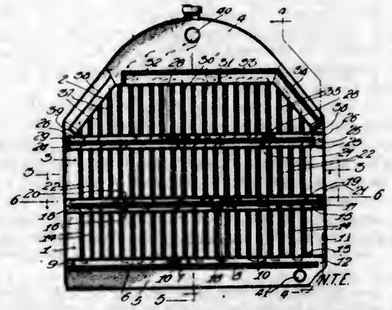
A pen and pencil holder comprising a plurality of similar opposed spring-like tubular gripping members, means connecting the adjacent ends of said members, and an intermediately arranged transversely extending tubular spacing member, spreading and holding said gripping members apart at their medial portions and having its ends rigidly secured to the medial portions of said gripping members.

1,140,195. COMBINED WAGON-BRAKE AND HORSE-HITCHING APPARATUS. CHAUNCEY M. SINGLETON, Lincoln, Nebr. Filed July 7, 1914. Serial No. 849,384. (Cl. 21—36.)



The combination with a vehicle body, wheels therefor, and a seat rigidly mounted upon the forward portion of the body; of vertically swinging bearings arranged near and in advance of the rear wheels; a transverse rotatable shaft journeled through the bearings; brake pulleys carried by the shaft to rotate therewith; a pulley secured to the lower side of the body rearwardly of the shaft; a cable pivotally connected with the shaft, passed about the said pulley and extended forwardly of the seat; a manually operated lever connected with the body forwardly and near the seat and attached to the cable; a hook attached to the rear portion of the seat; a second cable connected with the shaft to be wound thereon and extending forwardly and having a loop element for detachable connection with the hook whereby when a sufficient amount of the second named cable is wound upon the shaft said second named cable will positively prevent further rotation of the shaft; and means for permanently connecting the lines with the second named cable.

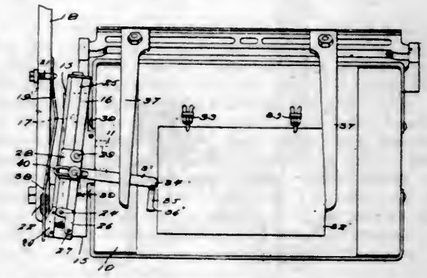
1,140,196. AUTOMOBILE-RADIATOR. NOAH T. E. SKINNER, Newark, Ohio. Filed May 14, 1914. Serial No. 838,598. (Cl. 257—131.)



1. A radiator including upper and lower water receptacles, a lateral conduit forming the lower end of the upper receptacle and having one of its ends inclined downwardly and outwardly, both ends of the conduit being closed, a passage spaced from and inclining downwardly and outwardly from the rectilinear end of the conduit and closed at its lower end, its upper end communicating with the upper water receptacle, a lower conduit beneath the two inclined passages, a number of upright circulating members establishing communication between the upper and lower conduits and between the inclined passages and the lower conduit, alternately arranged partitions in the upper and lower conduits and a passageway from the lower conduit to the lower receptacle.

2. A radiator including a lower section comprising upper and lower conduits, upright circulating members establishing communication between the two, the upper conduit having an inlet opening and the lower conduit having an outlet opening, a number of partitions in each conduit and disposed in staggered relation, an upper section including a lower conduit resting on the upper conduit of the lower section and in communication therewith through its opening, a number of partitions in said lower conduit of the upper section and disposed above those in the upper conduit of the lower section, a number of circulating members rising from said lower conduit of the upper section, an uppermost conduit communicating with said last mentioned members, a number of partitions in said uppermost conduit and disposed above those in the lowermost conduit and a water inlet into said uppermost conduit.

1,140,197. PRINTING-PRESS ATTACHMENT. ALTA L. SMITH, Richmond, Va. Filed May 4, 1914. Serial No. 836,241. (Cl. 101—22.)



1. In an attachment for printing press platens, a member rigidly secured to the end of the platen; a lever pivoted upon the member and having a shoe; a cam carried by the inking arm adjacent the platen and in position to be engaged by said shoe on the lever; a strip extending longitudinally of the lever and carried removably by the lever; and an arm carried by the strip extending transversely thereof and under the grip and over the platen.

2. An attachment for printing press platens comprising a lever pivotally connected with and swinging in the plane of the platen; a cam spaced from the platen and in position to be engaged by the lever as the platen swings upon its hinge; a strip extending longitudinally of the lever and removably connected at one end thereto, a latch detachably connecting its other end to said lever, a slide adjustable on the strip, and an arm carried by the slide and extending transversely of the strip and over the platen.

3. An attachment for printing press platens comprising a lever pivotally connected with and moving in the plane of the platen; a cam located adjacent the platen; a shoe on the lever and in position to be engaged by the cam as the platen swings upon its hinge; a strip removably carried by the lever; a slide movable upon the strip, and an arm adjustably carried by the slide and extending over the platen.

4. An attachment for printing press platens comprising a lever fulcrumed to swing adjacent the platen, means to swing the lever as the platen swings upon its hinge, an arm carried by the lever, means permitting the adjustment of the arm longitudinally of said lever, and a spring finger standing upwardly from the arm.

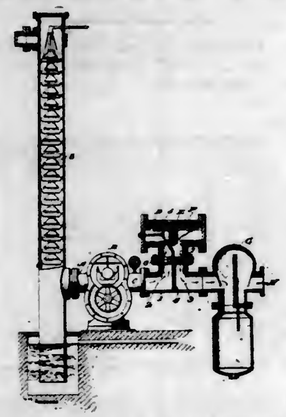
5. An attachment for printing press platens comprising a lever pivotally connected with the platen; a strip extending longitudinally of the lever at the side of the platen; means to removably connect the strip to the lever; a slide movable longitudinally of the strip and lever; and an arm carried by the slide movable longitudinally in a direction transverse to the strip and extending over the platen.

[Claims 6 to 8 not printed in the Gazette.]

1,140,198. PURIFICATION OF GAS. HARRY FORD SMITH, Lexington, Ohio. Filed Oct. 12, 1912. Serial No. 725,444. (Cl. 48—220.)

1. The herein described process of removing tar particles and the like from gas which consists in passing the gas through a pervious medium causing the particles of tar to coalesce and the coalesced particles of tar being separated from the pervious medium by the flowing gas.

2. The herein described process of removing tar particles and the like from gas which consists in passing the gas through a pervious medium causing the particles of tar to coalesce and the coalesced particles of tar being separated from the pervious medium by the flowing gas, and separating the coalesced particles of tar from the gas.



3. The herein described process of removing tar particles and the like from gas which consists in passing the gas through a pervious medium causing the particles of tar to coalesce and the coalesced particles of tar being separated from the pervious medium by the flowing gas, and separating the coalesced particles of tar from the gas by gravity.

4. The herein described process of removing tar particles and the like from gas which consists in passing the gas through a pervious medium causing the particles of tar to coalesce and the coalesced particles of tar being separated from the pervious medium by the flowing gas, and separating the coalesced particles of tar from the gas by inertia.

5. The herein described process of removing tar particles and the like from gas which consists in obstructing the particles whereby they are made to coalesce and the coalesced particles being carried beyond the obstruction by the gas.

[Claims 6 to 14 not printed in the Gazette.]

1,140,199. RATCHET-CLUTCH. JOHN H. SMITH, Hammond, Tex. Filed July 21, 1913. Serial No. 780,355. (Cl. 192—20.)



1. A clutch comprising an axle, a casing fixed to the axle, a sleeve rotatable on the axle, a head on the sleeve disposed in the casing and provided with ratchet teeth, a pawl pivoted to the casing to selectively engage the ratchet teeth to prevent the rotation of the sleeve in either direction, and resilient means for maintaining said pawl in engagement with the ratchet teeth.

2. A clutch comprising the combination with an axle, of a casing clamped thereon, a sleeve rotatable on the axle, a head on the sleeve provided with ratchet teeth on its periphery and disposed in the casing, a pawl pivoted to the casing and having its inner end bifurcated and means for resiliently holding the pawl to selectively lock the sleeve against clockwise or counter-clockwise motion.

1,140,200. TONGS. WAYNE SMITH, Altheimer, Ark., assignor of one-half to Henry P. Penny, Altheimer, Ark. Filed Sept. 19, 1914. Serial No. 862,617. (Cl. 81—43.)



1. In a tool of the class described, the combination of a stationary jaw, a movable jaw for coöperating therewith, means for actuating the movable jaw to effect relative opening movement of the jaw members, an oscillatory member for operating the actuating means aforesaid whereby upon continuous oscillation of said member to effect progressive opening movement of the movable jaw, said actuating means including locking elements for holding the movable jaw at adjusted positions, release means co-acting with the actuating means for disengaging the locking elements, and means for automatically operating said movable jaw upon release of the locking elements.

2. In a tool of the class described, the combination of a relatively stationary member including a handle, a movable member arranged to coact with said stationary member, rotatable means carrying said movable member, a lever operatively connected with the rotatable means for actuating the movable member aforesaid, a spring adapted to be placed under tension upon actuation of the lever, said spring being adapted to exert tension on the rotatable means, ratchet means intermediate of the lever and the rotatable means aforesaid, and a trigger adapted to release said ratchet means to permit actuation of the movable member under tension of the spring.

3. In a tool of the class described, a relatively stationary jaw member, a handle connected thereto, a relatively movable jaw member, a screw shaft for moving said movable jaw member, an operating lever associated with the handle, a gear for rotating said screw shaft, and means intermediate of the gear and the lever for actuating said gear, whereby to cause actuation of the movable jaw with respect to the stationary jaw member.

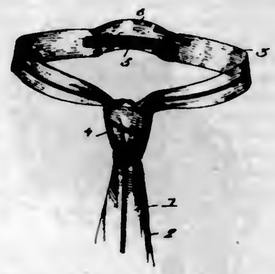
4. In a tool of the class described, a relatively stationary jaw member, a handle connected thereto, a relatively movable jaw member, a screw shaft for moving said movable jaw member, an operating lever associated with the handle, a gear for rotating said screw shaft, a slide member arranged intermediate of the gear and the lever and connected to the latter whereby upon oscillation of said lever to actuate the gear, and means carried by said slide member for locking the gear against movement in one direction.

5. In a tool of the class described, a relatively stationary jaw member, a handle connected thereto, a relatively movable jaw member, a screw shaft for moving said movable jaw member, an operating lever associated with the handle, a gear for rotating said screw shaft, a slide member arranged intermediate of the gear and the lever and connected to the latter whereby upon oscillation of said lever to actuate the gear, means carried by said slide member for locking the gear against movement in one direction, and means for releasing the locking means aforesaid to permit movement of the gear in a direction opposite that incidental to movement thereof upon actuation of the operating lever.

[Claims 6 to 8 not printed in the Gazette.]

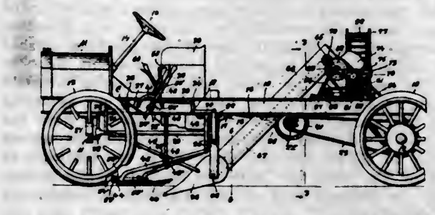
1,140,201. NECKTIE. WILLIAM H. SMITH, Springfield, Mass. Filed Sept. 30, 1911. Serial No. 652,173. (Cl. 2—11.)

A necktie adapted to be inserted between the inner and outer folds of a collar including a neck band and tying ends, and a broadened elastic band secured at its opposite ends to the outer face of the neck band of the tie and arranged in opposed relation with the inner surface of the inner fold of the collar permitting said band to engage under the collar button for preventing any upward movement of the tie, said elastic band being attached to points of the neck band which are farther apart than



the normal length of said elastic band, thereby permitting the tie to be stretched between the folds of the collar.

1,140,202. BEET-HARVESTER. WILLIAM H. SMITH, Joliet, Mont., assignor of one-half to John W. Stewart, Joliet, Mont. Filed July 31, 1914. Serial No. 854,338. (Cl. 55—9.)



1. In a beet harvester, a wheel supported frame, a pair of lifting members, a shaft extending through the lifting members, and limbs connected with said shaft and guided on the frame for vertical movement.

2. In a beet harvester, a wheel supported frame, a pair of ground engaging beet lifting elements, a shaft extending transversely through said lifting elements, limbs connected with the shaft and guided on the frame for vertical movement, a sleeve supported for vertical movement in advance of each of the limbs, a bar connecting said sleeve with the limb, an inclined brace connecting the bar with the lifting element associated with the limb, and means for effecting vertical adjustment simultaneously to the front and rear ends of the bar to thereby vertically adjust the lifting element.

3. In a beet harvester, a wheel supported frame, a pair of lifting elements, a shaft extending transversely through said elements, limbs connected with the shaft and guided on the frame for vertical adjustment, means for effecting vertical adjustment of the limbs and the lifting elements, and the conveyer casing having one end supported on the transverse shaft.

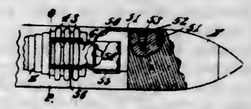
4. In a beet harvester, a wheel supported frame, a pair of lifting elements, a shaft extending transversely through the latter, limbs connected with said shaft and guided on the frame for vertical adjustment, an obliquely disposed cutter supported in advance of the lifting elements, and obliquely disposed guides extending from the back of the cutter substantially at right angles to the latter.

5. In a beet harvester, a pair of vertically adjustable beet lifting elements, a shaft extending transversely through the same, a conveyer casing supported at its lower end on said shaft, and means for movably supporting the upper end of the conveyer casing.

[Claims 6 to 8 not printed in the Gazette.]

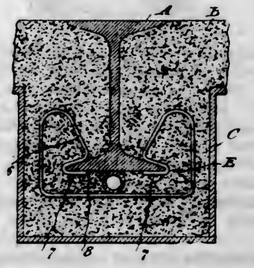
1,140,203. BOBBIN-HOLDER. ISAAC SNOW, Lawrence, Mass. Filed May 22, 1913. Serial No. 769,247. (Cl. 139—27.)

1. A holding device for bobbins stamped from one piece of sheet metal with a holding branch, a middle portion and a tail piece so bent as to fit the wood of the shuttle, together with side branches which are bent backward and then forward and have near their ends one or more transverse slots of such width as to receive snugly the bobbin rings and shaped at their ends to fit said rings.



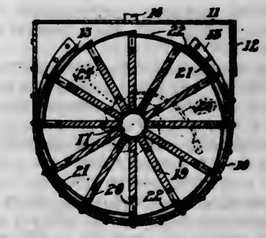
2. In a shuttle, a holding device for bobbins stamped from one piece of sheet metal having a holding branch, a middle portion bent at an angle therewith and having a base directing slot, and a tail piece so bent that the holding branch the middle portion and the tail piece closely fit the wood of the shuttle, together with side branches which are bent backward and then forward said branches being curved near their ends and having one or more transverse slots of such width as to receive snugly the bobbin rings and shaped at their ends to fit said rings the metal adjoining the ends of such slots being bent sharply backward and having tapering ring directing grooves cut therein, together with means for attaching the holder to the shuttle as described.

1,140,204. REINFORCING-CLIP. HOMER I. STEFFA, Chicago, Ill. Filed Apr. 10, 1914. Serial No. 830,992. (Cl. 72—109.)



As an article of manufacture, a soffit clip comprising a single length of metal material bent to form a substantially U-shaped frame having portions of its limbs bent inwardly and downwardly in convergent relation to each other, and hook terminals formed on the convergent portions of the limbs, the bills of the hook terminals being reversely extended and are disposed in the same plane parallel with each other so as to lie crosswise of the frame to project beyond opposite sides thereof.

1,140,205. MAIL-RECEPTACLE. JOSEPH SUTKAY, Lake Arthur, La., assignor of one-half to Fulbert P. Gibbs, Lake Arthur, La. Filed Nov. 2, 1914. Serial No. 869,820. (Cl. 150—14.)



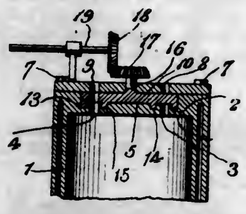
1. A mail receptacle comprising an outer casing, a horizontally revolving mail receptacle within said casing, said

receptacle divided into independent mail receiving compartments, a swinging cover for each compartment and a cover for the outer casing.

2. A mail receptacle comprising an outer casing including end walls, a tubular shaft journaled in said walls, disks positioned on said shaft, radial longitudinally disposed blades arranged between the disks, providing independent mail receiving compartments, a cover for each of the compartments, and a cover for the casing.

3. The combination with a flexible receptacle having rigid end walls, of a horizontally disposed revolving mail-receiving member journaled in said receptacle, said member comprising a rotatable shaft, radial partitions carried by said shaft, disks providing end walls for the partitions, a flexible covering for each partition compartment, and a covering for the receptacle.

1,140,206. ROTARY VALVE. CHARLES A. SWACKHAMMER, Cottam, Ontario, Canada. Filed Aug. 11, 1914. Serial No. 856,267. (Cl. 123—80.)

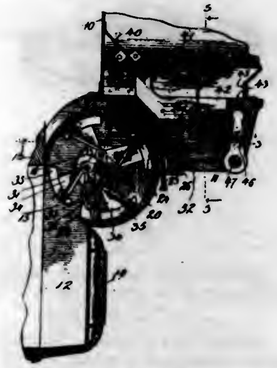


1. The combination with an engine cylinder of a disk having a plurality of spaced apertures therein, the upper wall of said cylinder being provided with a recess to rotatably receive said disk, said cylinder having opposed intake and exhaust ports in its upper wall, a plate removably secured to said cylinder and engaging said disk, said plate having openings therein alining with the intake and exhaust ports, means for rotating said disk and spaced circumferential flanges formed on said disk and rotatably mounted in grooves in the upper wall of said cylinder.

2. The combination with an engine cylinder having its upper wall provided upon its outer face with a circular recess and circular grooves in said upper wall communicating with said recess and spaced from each other of a circular disk rotatably mounted within said recess and provided with a plurality of spaced openings, intake and exhaust ports formed in the upper wall of said cylinder and adapted to communicate with the openings in said disk, and plates having openings therein alining with the intake and exhaust ports secured upon the upper wall of said cylinder and engaging the outer face of said disk, a pin rigid with the central portion of said disk and extending upwardly through said plate, means for rotating said disk and operatively connected with said pin and spaced circumferential flanges formed upon one side of said disk and rotatably mounted within said grooves.

1,140,207. FUEL-FEEDING APPARATUS. GEORGE LATHROP SWIFT, Chicago, Ill. Filed June 16, 1910. Serial No. 567,149. (Cl. 110—115.)

1. In a fuel feeding apparatus, a hopper to receive the fuel, a horizontally extending platform located beneath the hopper and provided with a delivery edge, a reciprocatory frame arranged above said platform to move transversely to the delivery edge thereof, pusher bars carried by said frame the one arranged above the other, and having reversely presenting pusher surfaces, the lowermost pusher bar operating upon and along the surface of the platform to push the fuel over the delivery edge thereof, and the upper pusher bar operating to deliver the fuel to the platform in front of the lower bar, a deflector plate arranged, within the hopper above the uppermost bar to direct the fuel thereto, and fuel feeding devices located below the delivery edge of said platform.



2. In a fuel feeding apparatus, a hopper to receive the fuel, a horizontally arranged platform located below the hopper and having a delivery edge, a frame carried by the hopper, means for reciprocating the same in a direction transverse to the delivery edge of the platform, pusher bars carried by said frame and arranged within the hopper, the one above the other, said bars having reversely presenting pusher surfaces, the lowermost bar operating upon and along the surface of the platform to push the fuel over the delivery edge thereof, the uppermost bar operating to deliver the fuel upon, or to the platform in front of, the lower bar, and fuel feeding devices located below the delivery edge of said platform to receive the fuel therefrom.

3. In a fuel feeding apparatus, a hopper to receive the fuel, a frame mounted to move horizontally in the lower part of the hopper, and provided with reversely acting fuel moving devices the one arranged above the other, means for reciprocating said frame, and fuel feeding devices located below said frame to receive the fuel therefrom and to deliver the same into a furnace.

4. In a fuel feeding apparatus, a hopper to receive the fuel, a frame mounted to move horizontally in the lower part of the hopper, and provided with a forwardly operating part and a rearwardly operating part, the one located above the other, means for reciprocating said frame and fuel feeding devices located below said frame to receive the fuel therefrom and deliver the same into a furnace.

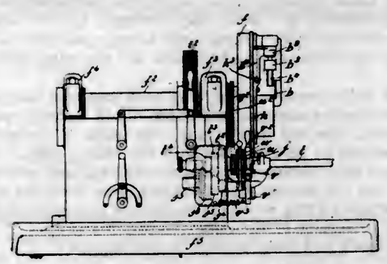
5. In a fuel feeding apparatus, a hopper to receive the fuel, a frame mounted to move horizontally in the lower part of the hopper, and provided with a rearwardly acting pusher device, a forwardly acting device also carried by said frame and located above said pusher device, means for reciprocating said frame, and fuel feeding devices located below said frame to receive the fuel therefrom and deliver the same into a furnace.

[Claims 6 and 7 not printed in the Gazette.]

1,140,208. MACHINE FOR TURNING AND CUTTING OFF PIECES FROM A BAR OR TUBE. GEORGE BENJAMIN TAYLOR, Birmingham, England. Filed Nov. 30, 1914. Serial No. 874,883. (Cl. 82—20.)

1. In a machine for turning and cutting off pieces from a bar, the combination of a hollow spindle, a face plate revolved thereby, a plurality of cutting tools arranged on said face plate, screws for moving said tools radially, bearing carriers for said screws, a shiftable ring connecting all of said bearing carriers of the screws, means for causing said bearing carriers and shiftable ring to offer considerable resistance to movement on said face plate, and gears to collectively revolve all the screws and so provided that the idle movement for the equalization of the tool feed takes place therein without any disconnection of said gears.

2. In a machine for turning and cutting off pieces from a bar, the combination of a hollow spindle, a face plate revolved thereby, a plurality of cutting tools arranged on said face plate and having screws for moving them radially, bearing carriers for said screws, a shiftable ring connecting all the bearing carriers of the screws, means for causing said bearing carriers and shiftable ring to offer considerable resistance to movement on said face plate, gear wheels carried upon the back and front of the face plate and on the screws to collectively revolve said screws and so provided that the idle movement for the equalization of the tool feed takes place therein without any disconnection of said gear wheels, and an annulus freely and concentrically surrounding the hollow spindle at the back of the face plate to drive said gear wheels.



3. In a machine for turning and cutting off pieces from a bar, the combination of a hollow spindle, a face plate revolved thereby, a plurality of cutting tools arranged on said face plate and having traversing screws for moving them radially, bearing carriers for said screws, a shiftable ring connecting all the bearing carriers of the traversing screws, means for causing said bearing carriers and shiftable ring to offer considerable resistance to movement on said face plate, gears to collectively revolve all the traversing screws and so provided that the idle movement for the equalization of the tool feed takes place therein without any disconnection of said gears, means for driving said gears including stopping means and a controlling device therefor embodying an adjustable piece connected to move with one of the cutting tools, and a trip arm carried upon the face plate and movable into action by said adjustable piece to operate said stopping means to interrupt the feed of the tools.

4. In a machine for turning and cutting off pieces from a bar, the combination of a hollow spindle, a face plate revolved thereby, a plurality of cutting tools arranged on said face plate and having screws for moving them radially, bearing carriers for said screws, a shiftable ring connecting all the bearing carriers of the screws, means for causing said bearing carriers and shiftable ring to offer considerable resistance to movement on said face plate, gear wheels carried upon the back and front of the face plate and on the screws to collectively revolve said screws and so provided that the idle movement for the equalization of the tool feed takes place therein without any disconnection of said gear wheels, an annulus freely and concentrically surrounding the hollow spindle at the back of the face plate to drive said gear wheels, and a brake device to hold the annulus stationary while the tool spindle continues to revolve, substantially as described.

1,140,209. ARMOR FOR PIN-TUMBLER LOCKS. WARREN H. TAYLOR, deceased, Stamford, Conn., by Virginia B. Taylor, executrix, Stamford, Conn., assignor to The Yale & Towne Manufacturing Company, Stamford, Conn. Filed July 22, 1914. Serial No. 852,443. (Cl. 70—47.)

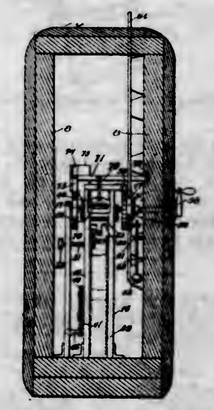
1. As a new article of manufacture, a pin tumbler lock having a protecting armor located within the face plate of the cylinder and wholly in advance of the tumbler space.

2. As a new article of manufacture, a pin tumbler lock, the cylinder of which is provided with a recess closed at its top and communicating with the cylindrical opening in which the plug rests and turns, and an armor located within said recess.



3. In a pin tumbler lock, a cylinder, a plug therein, the said plug having a slot adjacent its outer end in advance of the tumbler space, a hardened steel armor plate in said slot, and means for locking said plate within the slot, the said plate having a key slot for the passage of a key.

1,140,210. STAMP-VENDING MACHINE. JOHN FRANK TEFFT, St. Charles, Mich. Filed July 3, 1914. Serial No. 848,986. (Cl. 211—33.)



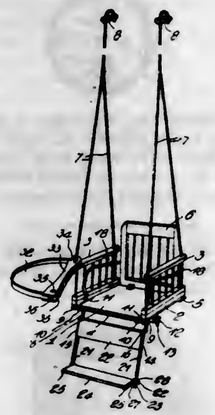
1. In a stamp vending machine, a casing having a delivery opening in the front wall thereof, feed and pressure rollers journaled in said casing at the rear of the delivery opening, a shaft carrying said feed roller, driving connections between said shaft and pressure roller, means for actuating said shaft to rotate said rollers, a knife normally obstructing the delivery opening and movable out of the latter in the operation of the feed and pressure rollers, and means operable from said shaft for moving the knife out of the opening and restoring the same to normal position succeeding the operation of the feed and pressure rollers.

2. In a stamp vending machine, a casing having a delivery opening in the front wall thereof, feed and pressure rollers journaled in said casing at the rear of the delivery opening, a shaft carrying said feed roller, driving connections between said shaft and pressure roller, means for actuating said shaft to rotate said rollers, a knife normally obstructing the delivery opening and movable out of the latter in the operation of the feed and pressure rollers, a horizontal lever pivoted within said casing, a connection between said lever and knife, a block connected to said lever and capable of sliding movement, and a disk fixed to said shaft and sliding said block to move the knife out of the opening during the operation of the feed and pressure rollers and restore the knife to normal position succeeding the operation of the feed and pressure rollers.

1,140,211. SWING. MICHAEL THOMAS, Blairsville, Pa. Filed Nov. 3, 1913. Serial No. 798,953. (Cl. 155—16.)

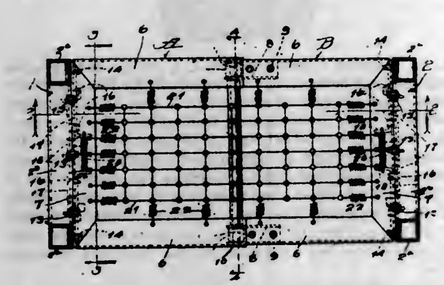
A foldable swing comprising a supported rectangular seat having a pair of cleats rising from its side edges,

and a pair of longitudinally extending slots at its front corners, a pair of inwardly foldable arm sections hinged at their lower edges to said cleats, a foot rest below the front edge of the seat, a pair of substantially upright pivotally supported bars rising from said foot rest through the aforesaid slots and abutting the inner sides of said



arm sections to normally prevent inward movement thereof, a rearwardly foldable back hinged to the rear edge of the seat, and a pair of arched links disposed adjacent the inner side of said arm sections and pivoted at their front ends to the upper ends of the aforesaid bars, and at their rear ends to opposite sides of the back.

1,140,212. FOLDING METAL BED. EDVARD M. S. THOMESEN, Chicago, Ill. Filed Jan. 3, 1914. Serial No. 810,157. (Cl. 5—9.)



1. A bed comprising head and foot members; cross bars hinged to the head and foot members to turn upon their longitudinal axes; lugs secured to the inner sides of the head and foot members and arranged in proximity to the cross bars; movable bolts secured to the cross bars and movable into and out of engagement with the lugs; side rails connected with the cross bars, comprising sections which are pivotally connected; and a bed bottom coöperating with the cross bars.

2. A bed comprising head and foot members, cross bars hinged to the head and foot members, eyes carried by the head and foot members, spring pressed bolts carried by the cross bars and engageable with the eyes, side rails connected with the cross bars and comprising sections pivotally connected together, and a bed bottom connected with the cross bars.

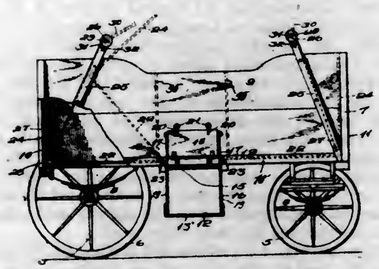
3. A bed comprising head and foot members, cross bars hingedly connected with the head and foot members, eyes carried by the head and foot members and adapted to pass through the cross bars, bolts slidably mounted upon the cross bars and having inwardly disposed extremities at their inner ends, springs interposed between the extremities of the adjacent bolts and being under tension with a tendency to force the bolts away from each other and through the said eyes, side rails connected with the cross bars and composed of sections hingedly connected together and a spring fabric connected with the side rails and cross bars.

4. A bed structure, comprising head and foot members, rails having their outer ends permanently pivotally connected with the head and foot members and adapted to swing in a substantially vertical plane, a bed-bottom, resilient means connecting the bed-bottom with the head and foot members, and a transverse member serving to permanently pivotally connect the inner ends of the rails and having its intermediate portion depressed to be spaced a substantial distance below the bed-bottom when said bed-bottom is horizontally arranged and to engage the bed-bottom when the rails are swung upwardly in the folding operation of the bed with all the parts thereof intact.

5. A bed structure, comprising head and foot members, rails pivotally connected therewith, a bed bottom, means connecting the bed bottom with the rails, a transverse rod serving to pivotally connect the inner ends of the rails and bent downwardly between the rails and arranged below the bed bottom, and a spacing tube arranged upon the rod and serving as means to prevent improper relative lateral movement of the rails.

[Claims 6 and 7 not printed in the Gazette.]

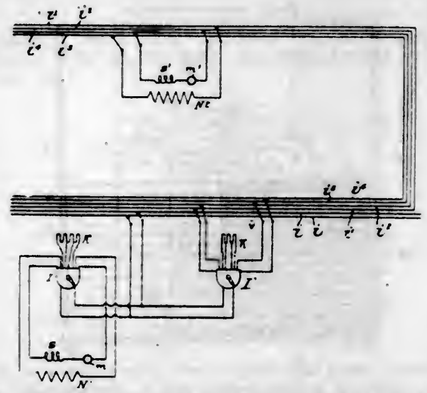
1,140,213. DUMPING-WAGON. JAMES THOMPSON, Greeley, Colo. Filed Aug. 21, 1914. Serial No. 857,870. (Cl. 21—86.)



1. In a dumping wagon of the character described, the combination with a body, of a transverse chute depending therefrom, a vertically swinging bottom for the transverse chute having one end thereof arranged adjacent one side of the body, a locking lever pivotally connected with the outer side of the body at a point spaced a substantial distance from the top of the body and adapted to swing in a substantially vertical plane transversely thereof and to assume a substantially vertical active position in engagement with the outer side of the body to be held against movement in one direction thereby, a releasable latch to hold the locking lever in the substantially vertical active position, and a link pivotally connecting the locking lever with the vertically swinging bottom.

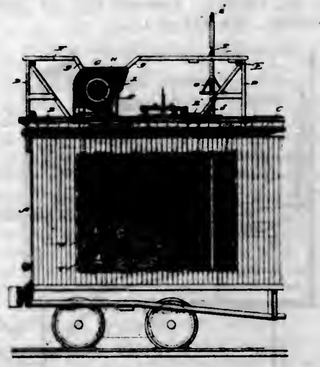
2. In a dumping wagon of the character described, the combination with a body, of a transverse chute depending therefrom, a vertically swinging bottom for the transverse chute, a plate arranged above and extending transversely of the chute for substantially its entire width and pivotally connected with the side of the body whereby the same is adapted to assume a substantially vertical active position and a downwardly inclined position to deflect the upper portion of the discharging material into the chute, links pivotally connecting the ends of the plate with the edges of the bottom, and releasable means to lock the plate in the substantially vertical active position.

1,140,214. CHARGING RAILWAY SYSTEM. GEORGE E. TITCOMB, Philadelphia, Pa., assignor, by mesne assignments, to Link-Belt Company, Chicago, Ill., a Corporation of Illinois. Filed Feb. 17, 1911. Serial No. 609,126. (Cl. 104—210.)



The combination of two tracks; a car arranged to travel on each track; electric mechanism for driving the cars; and two controllers mounted on one car for controlling the movement of both cars.

1,140,215. REICING CARS. PATRICK H. TOBIN, Denison, Tex. Filed Aug. 24, 1914. Serial No. 858,405. (Cl. 214—1.)



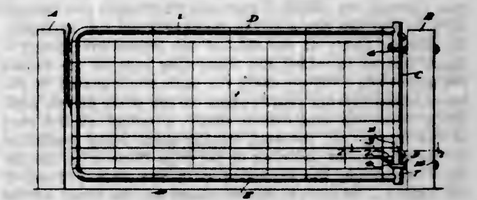
1. Means for re-icing a refrigerator car or the like while in position on a railway track, said means including an icing car adapted to travel on a track which is parallel to that on which the refrigerator car is mounted, said icing car having a roof structure provided with an elevated ice-receiving platform; means for elevating the cakes of ice from the interior of the car to said elevated ice-receiving platform; means for crushing the cakes of ice, said ice-crushing means being supported on the roof of the car and directly receiving the cakes of ice from said platform; and means adapted to extend from said car to a car on an adjacent parallel track for conveying the crushed ice from said crushing means to the ice bunkers of said adjacent car.

2. Means for re-icing a refrigerator car or the like while in position on a railway track, said means including an icing car adapted to travel on a track which is parallel to that on which the refrigerator car is mounted, said icing car having a roof provided with an elevated ice-receiving platform; an elevator mounted in the car and extending through the roof thereof to a point above and adjacent said platform; an ice-crusher mounted on said platform having an ice-inlet connecting with said platform, and having an outlet for crushed ice; and a chute connecting with the outlet of the crusher and adapted to bridge the space between the icing car and the bunkers of the refrigerator car to be re-iced.

3. A railway icing car having a frame-work or superstructure on the roof thereof, said framework including an elevated ice-receiving platform, an elevator within the car operating through the roof thereof and extending to a point above said platform, and a chute or runway leading from said frame and adapted to bridge the space between the icing car and a car to be re-iced.

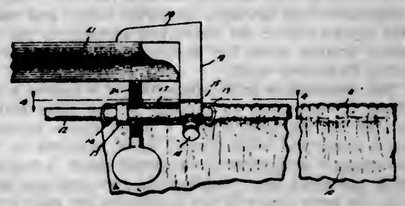
4. A railway icing car having a framework or superstructure on the roof thereof, said framework including an elevated ice-receiving platform, an elevator within the car operating through the roof thereof, and extending to a point above said platform, an ice-crusher connecting with and directly receiving ice deposited on said platform, said crusher having a crushed ice outlet, and a chute having one end connecting with the outlet of the crusher and the opposite end adapted to connect with the ice bunkers of an adjacent parallel car.

1,140,216. HINGE. WILLIAM FRANK TROUTMAN, Boston, Ky. Filed Mar. 24, 1914. Serial No. 826,999. (Cl. 16—49.)



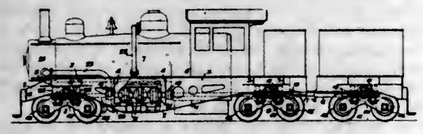
The combination with a swinging gate having a vertical rod at one end, of superposed horizontally adjustable hinge elements mounted on the supporting post of the gate and having substantially spiral positions receiving the vertical rod of the gate, a roller carried by the vertical rod of the gate and traveling over the spiral portion of one of said hinge elements, the said hinge element having a notch in its spiral portion for receiving the roller on one adjusted position of the gate so as to hold the gate against closing movement.

1,140,217. WORK-HOLDER FOR SEWING-MACHINES. JAMES E. VAN DEVENTER, Anderson, Ind., assignor of one-half to Nellie Van Deventer Smith. Filed June 28, 1913. Serial No. 776,269. (Cl. 45—75.)



A work holder comprising a bag of flexible material having two opposite portions of its mouth formed into casings, each of said casings being provided near one end with a pair of eyelets, a rod extending through each of said casings and through the eyelets and outside of the casing across the space between the two eyelets, a pair of clamps one for each rod, each clamp having a guideway for the reception of a rod and fitting over the rod in the space between the two eyelets, a clamping screw for engaging said rod and holding the same in adjusted position in the guide-way, and a separate clamping screw independent of the rod and its clamping means, for clamping the clamp upon a work table.

1,140,218. GEARED LOCOMOTIVE. SAMUEL M. VAUCLAIN and KENNETH RUSHTON, Philadelphia, Pa., assignors to The Baldwin Locomotive Works, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Mar. 11, 1915. Serial No. 13,706. (Cl. 105—227.)



1. The combination in a geared locomotive, of a frame; a boiler mounted thereon and having a fire box; a truck located in advance of the fire box structure and a truck located at the rear thereof; an engine transversely arranged and located between the fire box and the forward truck; a longitudinal driving shaft at one side of the locomotive having a crank section to which the connecting rods of the engine are attached; a driven shaft for each truck geared to the driving shaft; and axles on the truck; with means for positively driving the axles from the said driven shaft.

2. The combination in a geared locomotive, of a frame; a boiler mounted thereon and having a fire box; a truck located in advance of the fire box structure and at the rear thereof; an engine transversely arranged and located between the fire box and the forward truck; a longitudinal driving shaft at one side of the locomotive having a crank section to which the connecting rods of the engine are attached; a driven shaft for each truck geared to the longitudinal driving shaft; axles on the truck driven positively from the said driven shaft; a tender at the rear of the locomotive, the said driving shaft being continued to the tender and mounted in bearings thereon; a flexible joint connecting the extension with the main portion of the shaft; a transverse driven shaft for the truck of the tender; axles on the said truck; and means for positively driving the axles from the said driven shaft.

3. The combination in a geared locomotive, of a frame; a longitudinal driving shaft at one side of the frame; an engine for driving said frame; a truck having axles thereon and pivotally mounted under the frame; a transverse shaft carried partly by the frame and partly by the truck; a universal coupling in the shaft; and means for driving the axles from the said transverse shaft.

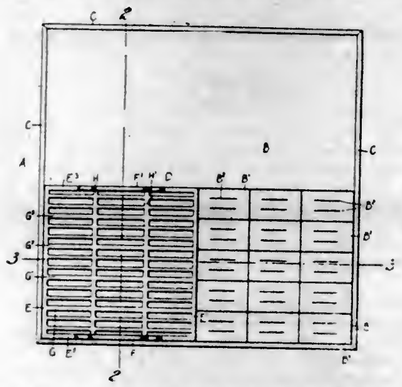
4. The combination in a locomotive, of a frame; a longitudinal driving shaft mounted thereon; an engine carried by the frame for driving the shaft; a truck frame mounted under the frame; a truck frame mounted under the main frame; axles; means for yieldingly supporting the truck frame on the axles; a frame at one side of the truck frame and carried by the axles; a transverse shaft carried partly by said latter frame and the main frame of the locomotive and having a universal joint; and means located on the side of the locomotive opposite to the longitudinal driving shaft for positively driving the axles from the transverse shaft.

5. The combination in a locomotive, of a frame; a longitudinal driving shaft at one side of the main frame; means for driving said shaft; a truck frame pivotally mounted under the main frame; axles mounted on the truck frame; a transverse driving shaft made in two sections; a universal joint coupling the two sections; bearings on the main frame of the locomotive for one of said sections, the other section having its bearings carried by the truck; and means for positively driving the axles from the said transverse shaft.

[Claims 6 to 9 not printed in the Gazette.]

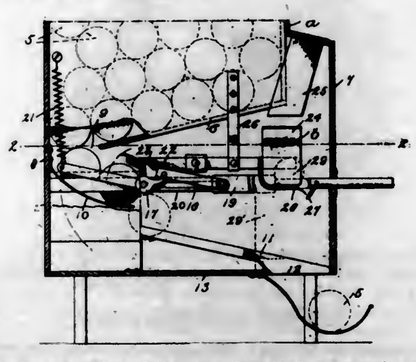
1,140,219. CRULLER-CUTTER. ARTHUR VERSTRAETE, New Rochelle, N. Y. Filed Nov. 13, 1914. Serial No. 871,871. (Cl. 107—21.)

A cruller cutter, comprising a rectangular frame provided at the top with handles, the sides and ends of the frame having knife edges at the bottom, longitudinal and transverse partitions extending within the said frame and attached to the outer sides and ends of the frame, the said partitions dividing the frame into a plurality of contiguous blank cutters, each of the size of a cruller blank, the partitions having knife edges at the bottom and spaced slitting knives in each individual die, the ends of the cut



ting edge of each slitting knife being spaced from the adjacent sides of the cutter and the backs of the said slitting knives having sidewise projecting end portions integral with the corresponding sides of the cutter, the cutting edges of the frame, partitions and slitting knives extending in the same horizontal plane.

1,140,220. VENDING-MACHINE. SAMUEL WEIN and JOHN HLUDA, Port Chester, N. Y. Filed Oct. 1, 1913, Serial No. 792,908. Renewed Oct. 21, 1914. Serial No. 867,899. (Cl. 211—8.)

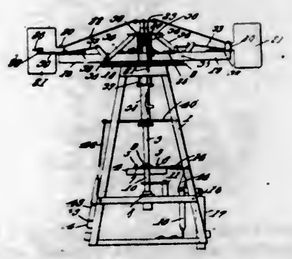


1. In a machine of the class described, a magazine provided with an outlet opening, a yielding support positioned below the outlet opening and adapted for receiving the material from the magazine, means for holding the material on the support, and means for depressing the support by bearing on the material whereby to move the material away from the holding means.

2. In a machine of the class described, the combination of a magazine provided with an outlet opening, a yieldable support disposed below the outlet opening and arranged for receiving the material from the magazine, means for holding the material against movement in one direction on the support, and means including a turnable presser foot adapted for depressing the support by moving into contact with the material thereon, for the purpose described.

3. In a machine of the class described, the combination of a magazine provided with an outlet opening, a yieldable support disposed below the outlet opening and arranged for receiving the material from the magazine, means for holding the material against movement in one direction on the support, a presser foot arranged for turning into contact with the material on the support whereby to depress the support and move the material clear of the holding means, and means including a push rod for operating the presser foot.

1,140,221. WINDMILL. WILLIAM WEINER, Guymon, Okla. Filed May 16, 1914. Serial No. 839,083. (Cl. 170—26.)



1. In a device of the class described, a frame; a shaft journaled therein; an arm projecting from the shaft; cooperating elements comprising a blade pivoted to the arm and a primary lever fulcrumed on the arm; a connection pivoted to one of said coöperating elements and slidable in the other of said coöperating elements to permit a feathering of the blade, the connection having a shoulder adapted to engage said other coöperating element to swing the blade into an inoperative position when the lever is actuated; a secondary lever fulcrumed on the arm; a connection between the levers; a slide mounted to reciprocate on the shaft and adapted to engage the secondary lever; yieldable means for moving the slide away from the secondary lever; and means under the control of the operator for moving the slide into engagement with the secondary lever.

2. In a device of the class described, a frame; a shaft journaled therein; an arm projecting from the shaft; cooperating elements comprising a blade pivoted on the arm and a primary lever fulcrumed on the arm; a connection pivoted to one of said coöperating elements and slidable in the other of said coöperating elements to permia a feathering of the blade, the connection having a shoulder adapted ot engage said other coöperating element to swing the blade into an inoperative position when the lever is actuated; a secondary lever fulcrumed on the arm; a connection between the levers; a slide mounted to reciprocate on the shaft and adapted to engage the secondary lever; and means under the control of an operator for actuating the slide with respect to the secondary lever.

3. In a device of the class described, a frame; a shaft journaled therein; an arm projecting from the shaft; cooperating elements comprising a blade pivoted on the arm and a primary lever fulcrumed on the arm; a connection pivoted to one of said coöperating elements and slidable in the other of said coöperating elements to permit a feathering of the blade, the connection having a shoulder adapted to engage said other coöperating element to swing the blade into an inoperative position when the lever is actuated; and means for actuating the lever.

4. In a device of the class described, a frame; a shaft journaled therein; an arm projecting from the shaft; cooperating elements comprising a blade pivoted on the arm and a lever fulcrumed on the arm; a connection pivoted to one of said coöperating elements and slidable in the other of said coöperating elements to permit a feathering of the blade, the connection having a shoulder adapted to engage said other coöperating element to swing the blade into an inoperative position when the lever is actuated; a bell crank fulcrumed on the arm and movable in a plane at an angle to the plane of movement of the lever; a connection between the bell crank and the lever; and movable means mounted on the shaft for engaging the inner end of the bell crank.

5. In a device of the class described, a frame; a shaft journaled therein; an arm projecting from the shaft; a blade pivoted to the arm; a lever fulcrumed on the arm; a connection pivoted to the blade and slidable in the lever, the connection having shoulders adapted to engage opposed portions of the lever to permit a sliding movement of the connection; and means for actuating the lever.

1,140,222. DEFLATING-TOOL FOR PNEUMATIC TIRES. JOHN SCOTT WILEY, Hillsboro, Ill. Filed July 17, 1914. Serial No. 851,588. (Cl. 152—12.)



1. A tool of the character described comprising a shank having one end bent at right angles and then parallel with the main portion of the shank, a valve stem engaging finger extended from the last mentioned portion and formed on said end, and tube clamping arms formed by the opposite bifurcated end of said shank.

2. A device of the class described comprising a tool stem, clamping arms carried by one end of said stem to engage a tube, a valve stem engaging finger carried by the opposite end of said tool stem to retain a valve stem and valve within the tube in inoperative position.

3. A device of the class described comprising a tool formed of resilient material and consisting of a stem having clamping arms projecting laterally from one end for engagement with a valve tube to clamp the tool in position upon a valve tube, the opposite end of said stem being bent for engagement over the end of the tube upon which the clamping arms are engaged, a valve stem engaging finger extended from the last mentioned end of said stem of the tool to retain the valve stem and the valve mounted thereon in operative position, and a protecting sleeve engaged around the main portion of said stem of the tool.

4. A tool of the character described comprising a single piece of resilient metal bent centrally upon itself to place the legs thereof parallel with one another, the main portions of said legs forming the stem of the tool, the connected ends of said legs being extended at an angle from one end of said stem and turned parallel with said stem, the connected ends of said legs being bent to form a valve stem engaging finger to retain a valve within a valve tube in inoperative position, the free ends of said legs being extended laterally from the opposite end of said stem of the tool and curved in opposite directions to form clamping arms with their free extremities flared outwardly to permit said clamping arms to be readily engaged around the tube of the valve, said arms serving to retain the tool in operative position, and a sleeve engaged around the central portions of the legs forming the stem to retain said legs against spreading.

1,140,223. CAR-COUPLING. GEORGE J. WILLETT, Milwaukee, Wis. Filed Sept. 19, 1914. Serial No. 862,481. (Cl. 213—40.)



1. In a coupler, the combination of a recessed head, an arrow head coupling member pivoted in said head at a point intermediate of the length of the coupling member, a link pivoted to the rear end of said member, and a

weighted bell crank acting upon said link and tending to maintain said link and coupling member in alinement, substantially as described.

2. In a coupling device, the combination of a pocket, a coupler pivoted therein, a link pivoted to the rear of the coupler and in line therewith, and a weighted bell-crank pivoted at the rear of the pocket and directly connected to said link, substantially as described.

3. In a coupling device, the combination of a pocket, a coupler having a fixed pivot in said pocket, a link connected to said coupler and normally in alinement therewith, and a weighted bell-crank pivoted on a transverse horizontal pivot at the rear of the pocket and directly connected to said link, substantially as described.

1,140,224. SANITARY ATTACHMENT FOR MILK-PAILS. JOHN THOMAS WILLIAMS, San Antonio, Tex. Filed Oct. 29, 1914. Serial No. 869,226. (Cl. 31—70.)

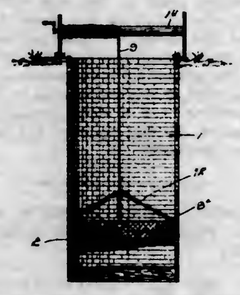


1. A sanitary attachment for milk-pails consisting of a flexible sleeve or tube having a lengthwise slit and provided interiorly with a loop which is spaced from the slit and secured to the upper portion of the sleeve, as and for the purpose specified.

2. A sanitary attachment for milk-pails consisting of a flexible sleeve or tube having a lengthwise slit and provided at the lower end with a draw-string for securing the sleeve detachably to fixed tubes on a milk-pail cover, as specified.

3. A sanitary attachment for a milk-pail comprising a detachable pail cover having flared tubes, flexible sleeves provided with lengthwise side slits and at the lower ends with a draw-string by which the sleeves may be detachably secured to the flared tubes, as described.

1,140,225. WELL-CLEANER. JEREMIAH L. WILSON, Spread, Ga. Filed Apr. 14, 1914. Serial No. 831,796. (Cl. 210—8.)



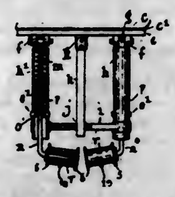
A well cleaner consisting of a pan having a cross sectional area about equal to that of the well and normally resting upon the bottom of the well, said pan comprising a bottom wall and a side wall and being fully open on its upper side, said bottom wall being provided with a single opening to permit the pan to be lowered into the well, an upwardly opening valve controlling said opening to prevent water leaving the pan through said opening during the removal of the pan from the well, said side wall being provided with a single horisontal row of openings located therein at a point above the bottom wall, a screen secured to the inner face of the side wall over the opening therein, and means by which the pan may be lowered into or withdrawn from the well.

1,140,226. SPOOL-CLIP. MOSES L. WOOD, New York, N. Y. Filed Nov. 19, 1914. Serial No. 873,029. (Cl. 242—136.)



A resilient holder for spools comprising a rod or wire made of resilient material and provided with a central loop with outwardly curved portions beyond said loop terminating in members crossing each other, said members terminating in longitudinally-projecting legs bent inwardly to bear against the ends of the spool, and having their ends adapted to project into the bore of the spool, substantially as described.

1,140,227. RAILWAY SIGNALING APPARATUS. WALTER WRIGHT, Kalgoorlie, Western Australia, and LOUIS LANGFORD, South Yarra, Victoria, Australia. Filed Aug. 1, 1914. Serial No. 854,598. (Cl. 246—25.)



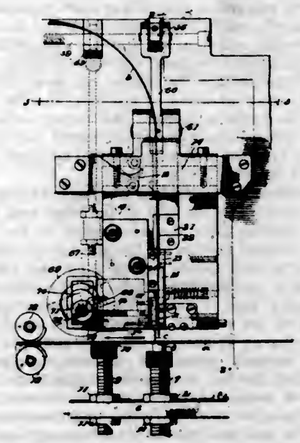
1. A current collector including a base, a telescopic arm hinged to said base, wire engaging means carried by said arm, a spring urging said arm into extended position, and means yieldably holding said arm from movement on its hinge.

2. A current collector including a base, a tube hinged to the base, a plunger in the tube, a spring in the tube urging said plunger outward, a rod carried by said plunger and projecting from the tube, a trolley wheel on the outer end of the rod, and means yieldably holding the tube from movement on the hinge.

3. A current collector including a base, a pair of telescopic arms, each having one section hinged to the base, and a second section slidable longitudinally with reference to the first section, trolley wheels mounted on the outer ends of the second section, springs urging the first and second sections into extended positions, a yoke connecting the first sections and provided with a centrally disposed slot, a lug on said base, and a leaf spring having one end fixed to the lug and its other end extending through the slot.

1,140,228. MECHANISM FOR PRODUCING AND APPLYING WIRE LENGTHS OR OTHER STRIPS. WILBUR L. WRIGHT, Washington, D. C., assignor to Ajax Manufacturing Company, Washington, D. C., a Corporation of Maryland. Filed Mar. 27, 1914. Serial No. 827,721. (Cl. 1—1.)

1. In combination, a head movable toward the work, said head provided with and carrying a fixed wire cutter, and a movable wire cutter having an independent movement in the head toward and from the fixed cutter and provided with operating means for timing the movement thereof, said head embodying means to clamp and feed the wire forward on the movement of the head toward the work and to release the wire and permit the head to slide freely thereon on its movement away from the work, said last mentioned means being controlled by said operating means.



2. In combination, a stock support, a wire-cutting-feeding and-driving head movable toward and from said support and provided with and carrying wire clamping means, means for reciprocating said head, and operating and timing devices for said clamping means arranged to operate said means to clamp and feed said wire forward on the stroke of the head toward said support and to operate said means to release the wire so that the head can slide freely on the wire on the return stroke of the head.

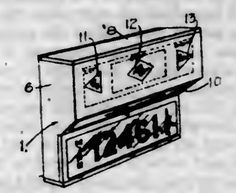
3. In combination, a wire-cutting-feeding and-driving head, actuating means for reciprocating the head on its wire feeding and driving stroke and on its return stroke, said head being provided with and carrying a wire clamp having an independent movement in said head, and operating and timing means for said clamp to cause the clamp to grip the wire on the driving stroke of the head, whereby the head then feeds the wire forward, and to then release the wire so that the head on its return stroke will move freely with respect to the wire.

4. In combination, a wire-cutting feeding-and-driving head provided with wire cutting and clamping means, operating mechanism for moving said head on its wire feeding and driving stroke and on its return stroke, and timing means controlling the operation of said wire cutting and clamping means to clamp the wire and the length cut therefrom on the wire feeding and driving stroke of said head and to then release the cut wire length and the wire, whereby said head feeds the wire forward on its feeding stroke and moves freely on the wire on its return stroke.

5. In combination, a wire-feeding-cutting-and driving head provided with and carrying a wire guide, a wire tension device, a fixed wire cutting die, and a combined wire gripping and cutting slide movable in said head to and from wire cutting and gripping position; operating means for moving said head on wire feeding and driving stroke and on return stroke; and operating and timing means for moving said slide to wire cutting and gripping position to grip the wire and the length cut from the same on the feeding and driving stroke of the head and to then move to inoperative position, whereby the head moves freely along the wire on its return stroke.

[Claims 6 to 39 not printed in the Gazette.]

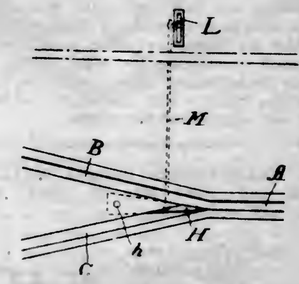
1,140,229. VEHICLE DIRECTION-INDICATOR. AMANDUS W. YOUNGKVIST, Duluth, Minn. Filed Dec. 23, 1913. Serial No. 808,498. (Cl. 240—47.)



1. In a direction indicator for vehicles, a light casing having three openings formed in the front wall thereof, a shutter slidable against the interior of said front wall to normally close the end openings, a rack bar carried by said shutter, a rotatable shaft, means for rotating said shaft and an arm rigidly secured to the shaft formed with teeth for engagement with the rack bar, a rotation of the shaft causing the arm to move the shutter longitudinally.

2. In a direction indicator for vehicles, a light casing having a front wall formed with three alined openings, a shutter slidably secured to the inner face of said front wall of sufficient size to simultaneously close the end opening, means for moving said shutter longitudinally to uncover the end opening, the shutter being formed with a central opening, a plate hinged to said front wall and swinging within the opening in the shutter to close the central opening in the front wall, and means independent of the shutter operating means for swinging said plate to uncover the opening in the front wall.

1,140,230. SWITCH FOR ELECTRIC CONDUIT-RAILWAYS. ANDREW YUROW, New York, N. Y. Original application filed May 5, 1914, Serial No. 836,495. Divided and this application filed Aug. 25, 1914. Serial No. 858,463. (Cl. 191—38.)



1. In a conduit electric railway, the combination with a main line conduit and a branch line conduit, each having surface slots for the passage of the standard of a plow, of a pair of conducting rails arranged parallel to each other in the main line conduit and diverging at the junction with the branch line conduit, supplemental conducting rails arranged parallel with the diverging portions of the main rails, a contact point of conducting material adapted to be placed in the circuit of either of the main rails and supplemental rail which forms a continuation thereof, a switch point below the surface slots of the conduits, means for moving said switch point and contact point in unison, and means for automatically actuating said contact point before the plow reaches the same for the purpose specified.

2. In a conduit electric railway, the combination with a main line conduit and a branch line conduit, each having surface slots for the passage of the standard of a plow, of a pair of conducting rails arranged parallel to each other in the main line conduit and diverging at the

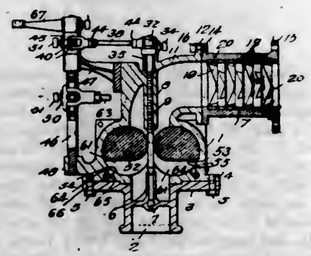
junction with the branch line conduit, supplemental conducting rails arranged parallel with the diverging portions of the main rails, a contact point of conducting material adapted to be placed in the circuit of either of the main rails and supplemental rail which forms a continuation thereof, a switch point below the surface slots of the conduits, means of connection between the switch point and contact point whereby movement of one will be communicated to the other, a pair of strips pivotally connected at one end of the switch point and extending along the edges of the diverging surface slots, means to guide the other ends of said strips, and cams on said strips adapted to project into said slots to be engaged by the standard of the plow for actuating the contact point before the plow reaches the same for the purpose specified.

1,140,231. SHIPPING-CRATE. CALVIN A. AGAR, East Orange, N. J. Filed July 22, 1914. Serial No. 852,446. (Cl. 229—49.)



A shipping case of the class described comprising in combination with the spacing member, closures for the open ends of said spacing member, said closures combining a central portion of dimensions to cover the openings of the ends of said spacing member, side walls extending perpendicularly from said central portion, said side walls having the ends thereof secured to one another as by a continuous strip of staying material extending over the opposite sides of the ends of said side walls, reinforcing strips secured to said closures in the angle formed by said central portion and said side walls, said angular reinforcements being of a material of a tougher character than that of which the closures are made, parts of said angular reinforcements overlapping the edges of the side walls and thereby strengthening the corners of the closures and staples passing through said side walls and some of the flanges of said angular reinforcements.

1,140,232. CARBURETER. HERBERT WILLIAM ALLEN, Coalinga, Cal. Filed May 22, 1914. Serial No. 840,237. (Cl. 48—155.1.)



1. A carbureter comprising a casing having a lateral outlet at its top and an inlet at the lower end, a fuel supply pipe opening into the carbureter at the inlet and having a vertical portion at the axis of the inlet, means for supplying fuel to the supply pipe and for retaining the fuel at a predetermined level in the vertical portion of the supply pipe, a needle valve coöperating with the upper end of the vertical portion of the supply pipe, the casing having an internally threaded sleeve in alinement with the vertical portion of the supply pipe and the needle valve having a threaded engagement with the sleeve, said casing having cylindrical chambers between the sleeve and the inlet and extending transversely of the needle valve and on opposite sides thereof, approximately cylindrical dampers in the chambers and contacting at their adjacent sides, each damper having a circumferentially extending passage intermediate its ends, the passages registering, and gradually increasing in cross sectional area toward one end, a controlling shaft journaled parallel with the needle valve, the needle valve and the shaft having registering radial arms, and an extensible and contractible connection between the arms, a lever secured to the shaft intermediate the ends of the lever, each damper having an axial extension at one end, and the extensions being at the opposite ends of the casing, each extension having a radial arm, and an extensible and contractible connection between each arm and the adjacent end of the last named lever.

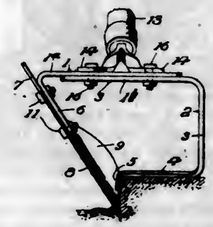
2. A carbureter comprising a casing having a lateral outlet at its top and an inlet at the lower end, a fuel supply pipe opening into the carbureter at the inlet and having a vertical portion at the axis of the inlet, means for supplying fuel to the supply pipe and for retaining the fuel at a predetermined level in the vertical portion of the supply pipe, a needle valve coöperating with the upper end of the vertical portion of the supply pipe, the casing having an internally threaded sleeve in alinement with the vertical portion of the supply pipe and the needle valve having a threaded engagement with the sleeve, said casing having cylindrical chambers between the sleeve and the inlet and extending transversely of the needle valve and on opposite sides thereof, approximately cylindrical dampers in the chambers and contacting at their adjacent sides, each damper having a circumferentially extending passage intermediate its ends, the passages registering, and gradually increasing in cross sectional area toward one end, a controlling shaft journaled parallel with the needle valve, the needle valve and the shaft having registering radial arms, and an extensible and contractible connection between the arms, and a connection between the controlling shaft and the dampers for simultaneously moving the dampers in the same direction.

3. A carbureter comprising a casing having a lateral outlet at its top and an inlet at the lower end, a fuel supply pipe opening into the carbureter at the inlet and having a vertical portion at the axis of the inlet, means for supplying fuel to the supply pipe and for retaining the fuel at a predetermined level in the vertical portion of the supply pipe, a needle valve coöperating with the upper end of the vertical portion of the supply pipe, the casing having an internally threaded sleeve in alinement with the vertical portion of the supply pipe and the needle valve having a threaded engagement with the sleeve, said casing having cylindrical chambers between the sleeve and the inlet and extending transversely of the needle valve and on opposite sides thereof, approximately cylindrical dampers in the chambers and contacting at their adjacent sides, each damper having a circumferentially extending passage intermediate its ends, the passages registering, and gradually increasing in cross sectional area toward one end, and a common means for simultaneously moving the dampers in oppposite direction and for controlling the needle valve.

4. A carbureter comprising a casing having an inlet at its lower end and a lateral outlet at its upper end, a fuel supply pipe held at the axis of the inlet, means in connection with the carbureter for retaining fuel at a predetermined level in the said supply pipe, a valve coöperating with the upper end of the supply pipe for controlling the fuel supply, said casing having cylindrical chambers extending transversely of the supply pipe and between the same and the outlet, cylindrical dampers in the chambers and contacting at their adjacent surfaces, each damper having intermediate its ends a circumferential passage extending over approximately half the circumference of the damper and gradually increasing in cross sectional area

in one direction, a common means for simultaneously moving the dampers in a direction to open or close the communication between the inlet and outlet and to simultaneously open and close the valve, said casing having at the outer side of said chambers and near the lower side thereof a passage extending longitudinally of the chamber, a shoe within each recess and contacting with the face of the adjacent damper, and springs seated in the recesses beneath the shoes.

1,140,233. EDGE-TRIMMER. JOHN ANDERSON, Saratoga Springs, N. Y. Filed Mar. 8, 1915. Serial No. 12,958. (Cl. 97—28.)



1. In an edge trimmer, a bracket comprising a main arm, a substantially right-angular arm projecting laterally from one end thereof and having one of its halves disposed substantially parallel to said main arm, a guide flange projecting laterally from the free end of the aforesaid half of the right-angular arm and extending away from the main arm, a cutting blade projecting laterally from the other end of the main arm to a point adjacent the aforesaid guide flange, and a handle secured to the bracket.

2. In an edge trimmer, a bracket comprising a main arm, a substantially right-angular arm projecting laterally from one end thereof and having one of its halves disposed substantially parallel to said main arm, a guide flange projecting laterally from the free end of the aforesaid half of the right-angular arm and extending away from the main arm, an inclined arm projecting laterally from the other end of the main arm toward the guide flange, an inclined cutting blade carried by said inclined arm and terminating adjacent said guide flange, and an operating handle secured to the bracket.

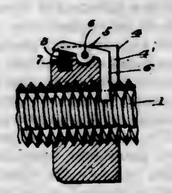
3. In an edge trimmer, a bracket comprising a main arm, a substantially right-angular arm projecting laterally from one end thereof and having one of its halves disposed substantially parallel to said main arm, a guide flange projecting laterally from the free end of the aforesaid half of the right-angular arm and extending away from the main arm, an inclined arm projecting laterally from the other end of the main arm toward the guide flange, an inclined cutting blade contacting with said inclined arm and terminating adjacent said flange, said blade having an adjusting slot, an adjusting bolt passing therethrough and through the inclined arm, and an operating handle secured to the bracket.

4. In an edge trimmer, a bracket comprising a main longitudinally extensible and contractible arm, a supporting shoe carried by one end of said arm, a cutting blade carried by the other end thereof and terminating adjacent the shoe, and an operating handle secured to the bracket.

5. In an edge trimmer, a bracket comprising a main extensible and contractible arm formed of a pair of overlapped arm sections adjustably secured together, a substantially right-angular arm projecting laterally from one end of the main arm and having one of its halves lying subatantially parallel to said main arm, an inclined arm projecting laterally from the other end of the main arm toward the aforesaid half of the right-angular arm, a cutting blade carried by said inclined arm and terminating adjacent the free end of said half of the right-angular arm, and an operating handle secured to the bracket.

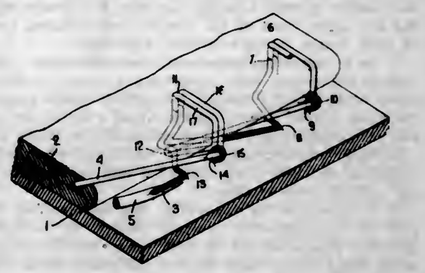
[Claims 6 and 7 not printed in the Gazette.]

1,140,234. LOCK-NUT. OWEN ANDERSON, Corona, Ala. Filed Oct. 3, 1913. Serial No. 793,232. (Cl. 151—12.)



In combination with a bolt having its shank provided with spaced longitudinal depressions, each of which provides a straight wall, a nut for the bolt, said nut having one of its faces and one of its sides to one side of the center of its bore formed with an L-shaped pocket, one of the portions of which enters the bore of the nut, an L-shaped spring pressed dog pivoted within the pocket, the engaging arm of the dog having its end notched to provide an angular wall and a shoulder, the straight wall of the depression in the bolt when in contact with the angular wall of the engaging arm of the dog being disposed at an angle with relation to the sides of the dog, so as to prevent the dog from moving to unlocking position.

1,140,235. SEAM FOR SEWED ARTICLES. WOLF ARBETTER, Roxbury, Mass., assignor to Arbetter Felling Machine Company, Boston, Mass., a Corporation of Maine. Filed June 7, 1913. Serial No. 776,029. (Cl. 112—34.)

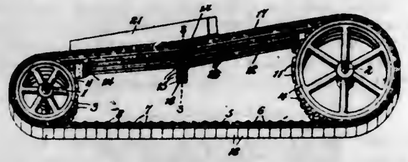


1. A seam for sewed articles comprising a main layer, a superimposed layer presenting an edge, a thread presenting two rows of loops, the loops of one row each entering and emerging from the top surface of the main layer close to said edge, the loops of the second row entering the superimposed layer under said edge and lying respectively opposite the first loops and inclined thereto, a second thread passing through said loops in alternation and in its course from each loop of the first row to the succeeding loop of the second row extending around the first thread where the first thread connects opposite loops of its two rows whereby the thread is caused to extend in substantially parallel double runs over the superimposed edge and whereby the balance of the two threads is substantially concealed from view.

2. A seam for sewed articles comprising a main layer, a superimposed layer presenting an edge, and two threads, the first thread presenting two rows of loops, the loops of one row each entering and emerging from the top surface of the main layer parallel and close to said edge, the loops of the second row entering the superimposed layer under said edge, emerging from the top of said layer and lying inclined to and respectively opposite the first loops, the second thread passing in sequence first through an inclined loop then through a straight loop then through an inclined loop and then through a straight loop and so on, and in its passage from each straight to each succeeding inclined loop being interlocked with and drawn beneath the superimposed edge by the run of first thread extending between adjacent straight and inclined loops.

3. A seam for sewed articles comprising a main layer, a superimposed layer presenting an edge, and secured to said base layer by two interlocked threads, the first thread forming two rows of loops each loop of one row lying in the main layer and entering and emerging from the upper surface thereof, each loop of the other row passing through the superimposed layer and emerging from the upper surface thereof, the loops in the superimposed layer being substantially opposite or along side of the loops in the main layer, and the second thread interlocking with the loops in the main layer and extending from the points of emergence of the loops in the superimposed layer over the edge of the superimposed layer with its runs in substantially straight parallel lines, whereby the appearance of a single row of short parallel stitches of the superimposed layer at the edge as in hand felling is produced.

1,140,236. ENDLESS FLOOR. WALLACE S. AYRES, Hazleton, Pa. Filed Mar. 13, 1907, Serial No. 362,170. Renewed Apr. 14, 1915. Serial No. 21,459. (Cl. 83—54.)



1. In a separating apparatus, a pair of parallel shafts, sprocket wheels mounted thereon, endless chains passing around the wheels, slats carried by corresponding links of said chains to form a separating floor, and tracks supporting the upper runs of the chains, the adjoining sections of such tracks being relatively adjustable.

2. In a separating apparatus, the combination with an endless separating floor comprising a series of slats disposed longitudinally thereof, of endless chains supporting the slats, tracks supporting the upper runs of the chains and each comprising relatively adjustable sections, devices extending longitudinally of the slats, and a plurality of adjusting members connected with said devices and bearing against such sections.

3. In a separating apparatus, the combination with a pair of longitudinally inclined shafts, of a series of sprocket wheels carried by each shaft, the wheels of one series being larger than those of the other series, endless chains passing around corresponding sprockets of the two series, slats forming an endless separating floor and each carried by corresponding links of the several chains, a track supporting the upper run of each chain and comprising sections adapted to assume various angular positions with respect to one another, and track adjusting means.

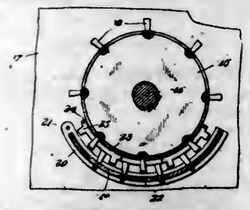
4. A separating floor comprising slats disposed side by side and having their adjacent edges beveled, said slats being inclined both laterally and longitudinally, and means for increasing the inclination of certain of the slats with reference to each other.

5. A separating floor comprising a plurality of slats having their longitudinal edges beveled and a lip or apron extended from a beveled edge of each slat, said lip or apron being curved and the curve offset from the upper surface of the slat and contacting at all times with one edge of the beveled surface of the adjoining slat.

1,140,237. THRESHING-MACHINE AND GRAIN-SEPARATOR. REASH B. BABB, Blackwell, Okla. Filed Jan. 19, 1915. Serial No. 3,147. (Cl. 130—27.)

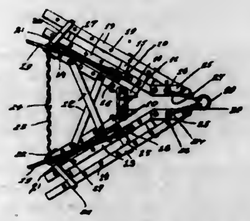
1. In a threshing machine, an arcuate guard plate secured on the side wall of the casing concentric with and in close relation to the lower portion of the cylinder to occupy the space between the end teeth of the cylinder and the side wall of the casing, said guard member having radially extending teeth.

2. In a threshing machine, an arcuate guard plate secured on the side wall of the casing concentric with and in close relation to the lower portion of the cylinder to occupy the space between the end teeth of the cylinder and the side wall of the casing, said guard member having radially extending teeth, said teeth being positioned adjacent to the inner face of the guard member to leave spaces between said teeth and the proximate face of the side wall of the casing.



3. In a threshing machine, a threshing cylinder, a concave including tooth carrying bars supported at each end by a plate pivoted on a side wall of the casing to the rearward of the cylinder, and a guard member consisting of an arcuate bar secured on the side wall of the casing closely adjacent to the lower portion of the cylinder and concentric therewith, said guard member having radially extending teeth that are spaced from the proximate side wall of the casing.

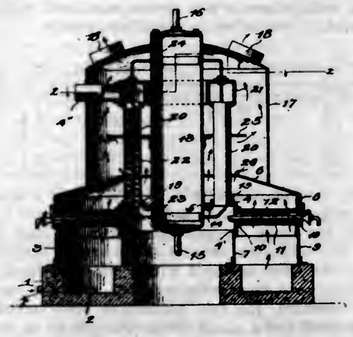
1,140,238. HARROW. JOHN W. BARNARD, Trenton, Tenn., assignor of one-half to William T. Ingram, Trenton, Tenn. Filed July 7, 1914. Serial No. 849,456. (Cl. 55—29.)



A harrow comprising forwardly convergent sill members pivotally connected at their forward ends, detachable means for holding the sills in convergent relation, harrow frames hinged to the said sills, the forward ends of the harrow frames carrying apertured plates for attachment of draft means, handles rigidly connected with the inner sides of the harrow frames and braced at their upper portions to the outer sides of the frames, bracing and spacing means rigidly connected to the handle members and loosely connected to the sills, and flexible spacing and retaining members carried by the handles and arranged for interlocking connection with each other.

1,140,239. COMBINED HOT-WATER OR STEAM AND HOT-AIR HEATER. ERNEST C. BARTH, Providence, R. I. Filed May 21, 1914. Serial No. 840,076. (Cl. 126—101.)

1. In a heater, a base having an air chamber, a supporting element on the base embodying inner and outer rings, a flanged top for the inner ring, a ring engaged with the outer ring, a top part having a central opening on the last named ring, a hot air drum on the last named top part, gas burners connected to the last-named ring and to the flange of said top part, a water drum connected to the top part and having its lower end extending below said last named top part and arranged to aline with said burners, a manifold surrounding the upper part of the water drum, a series of open-ended tubes connected to the manifold and to the flanged top part and projecting through the opening in the last named top part and surrounding the water drum, a water coil in each tube connected at its lower end to the water drum and at its upper end having a part extending through the manifold and connected to the upper end of the water drum, and a deflector on the water drum having openings through which the tubes extend, the deflector terminating in spaced relation to the first named drum.



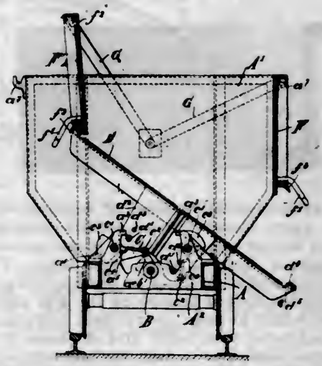
2. In a heater, the combination of a base, a hollow supporting element thereon having an opening in its top, a hot air drum mounted upon said element, a water drum disposed within said air drum, a plurality of open-ended vertical tubes surrounding said water drum, said water drum and said tubes projecting at their lower ends through said opening, a plurality of gas burners disposed within said element and discharging adjacent the projecting ends of said water drum and said tubes, a manifold surrounding the upper portion of said water drum and having the upper ends of said tubes connected to it, and a water coil in each tube having its lower end connected to the lower portion of the water drum, each coil being provided at its upper end with a part which projects through said manifold and is connected to the upper portion of said water drum.

3. In a heater, the combination of a base, a hollow supporting element thereon having an opening in its top, a hot air drum mounted upon said element, a water drum disposed within said air drum, a plurality of open-ended vertical tubes surrounding said water drum, said water drum and said tubes projecting at their lower ends through said opening, a plurality of gas burners disposed within said element and discharging adjacent the projecting ends of said water drum and said tubes, a manifold surrounding the upper portion of said water drum and having the upper ends of said tubes connected to it, a water coil in each tube having its lower end connected to the lower portion of the water drum, each coil being provided at its upper end with a part which projects through said manifold and is connected to the upper portion of said water drum, and a deflector on said water drum having openings through which said tubes pass, said deflector terminating in spaced relation to said air drum.

1,140,240. SELF-UNLOADING RECEPTACLE. KARL BARTH, Essen-on-the-Ruhr, Germany, assignor to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Filed June 9, 1914. Serial No. 844,065. (Cl. 105—191.)

1. In a self-unloading receptacle constructed to discharge selectively in two opposite directions; a main frame, an oscillating bottom, bearings for the bottom mounted on said frame, said bearing members being movable in an approximately vertical direction and arranged on both sides of the middle line of the receptacle; movable side walls, interlocking connections between the bottom and the side walls, said connections during the tilting of the bottom for unloading, being automatically broken between said bottom and that side wall which at the time, is situated on the discharging side.

2. In a self-unloading receptacle constructed to discharge selectively in two opposite directions; a main frame, an oscillating bottom, bearings for the bottom mounted on said frame, said bearing members being movable in an approximately vertical direction and arranged symmetrically on both sides of the middle line of the receptacle; movable side walls, interlocking connections between the bottom and the side walls, said connections during the tilting of the bottom for unloading, being automatically broken between said bottom and that side wall which at the time, is situated on the discharging side; said movable bearing members comprising a pair of opposing levers, the axes of revolution of which run in the longitudinal direction of the receptacle, a supporting member, situated centrally in said frame; said member simultaneously supporting the free ends of said levers when the receptacle is in loading position and said supporting member, on being displaced in the direction of one of said levers, disengaging the other, during the opening operation.

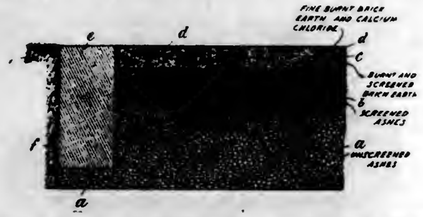


3. In a self-unloading receptacle constructed to discharge selectively in two opposite directions; a main frame, an oscillating bottom, bearings for the bottom mounted on said frame, said bearing members being movable in an approximately vertical direction and arranged symmetrically on both sides of the middle line of the receptacle; movable side walls, interlocking connections between the bottom and the side walls, said connections during the tilting of the bottom for unloading, being automatically broken between said bottom and that side wall which at the time is situated on the discharging side; said movable bearing members comprising a pair of opposing levers, the axes of revolution of which run in the longitudinal direction of the receptacle, a supporting member situated centrally in said frame; said member simultaneously supporting the free ends of said levers when the receptacle is in loading position and said supporting member, on being displaced in the direction of one of said levers, disengaging the other, during the opening operation, said levers being provided with cup-shaped bearings and the bottom with corresponding journals, said main frame being provided with recesses adapted to receive the journals of the bottom, the bearing, on the lever, which is at the time disengaged, permitting the corresponding journal to leave it and to enter the corresponding recess provided in said main frame.

4. In a self-unloading receptacle constructed to discharge selectively in two opposite directions; a main frame, an oscillating bottom, bearings for the bottom mounted on said frame, said bearing members being movable in an approximately vertical direction and arranged symmetrically on both sides of the middle line of the receptacle; movable side walls, interlocking connections between the bottom and the side walls, said connections during the tilting of the bottom for unloading, being automatically broken between said bottom and that side wall which at the time, is situated on the discharging side; said movable bearing members comprising a pair of opposing levers, the axes of revolution of which run in the longitudinal direction of the receptacle, a supporting member, situated centrally in said

frame; said member simultaneously supporting the free ends of said levers when the receptacle is in loading position and said supporting member, on being displaced in the direction of one of said levers, disengaging the other, during the opening operation; projections on said bottom and corresponding stops on said frame, said projections and stops preventing any tilting of the bottom when in loading position but permitting such tilting directly said support has been displaced to release one of said levers.

1,140,241. CONSTRUCTION OF PROMENADES AND PLAYING-COURTS. WILLIAM GEORGE KIRKLEY BIRKINSHAW, Wolverhampton, and CLAUDE ARTHUR BROWN, Syston, England. Filed Feb. 18, 1914. Serial No. 819,566. (Cl. 94—1.)



The herein-described process of constructing playing grounds which consists in successively applying to the surface of the selected site a layer of unscreened ashes of a thickness or depth of about three inches, a layer of screened ashes of a thickness or depth of about one and a half inches obtained by passing the said ashes over a screen of a half to three quarter inch mesh and a layer of screened burnt brick earth of a thickness or depth of about three quarters of an inch, the said brick earth being screened in a sieve of a quarter to an inch mesh or thereabouts, applying a dressing of deliquescent substance to the last named layer, and finally applying a dressing of powdered burnt brick earth to the surface thus dressed, the material for the last named dressing being preferably obtained by blowing the material through a sieve of one sixteenth of an inch mesh.

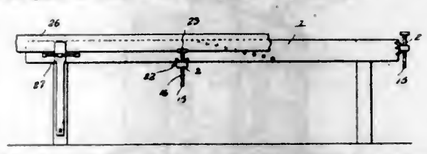
1,140,242. TIRE-CORE. MONSEL BRACEY, Thomasville, Ga. Filed Nov. 4, 1913. Serial No. 799,208. (Cl. 152—5.)



As a new and improved article of manufacture, a tire core filler comprising a body of resilient material of substantially circular form in cross section, said body being provided at its base portion with a transverse arcuate row of longitudinally extending curved passages, the remainder of the body being formed with transverse rows of radial cells opening through and toward the tread surface and sides thereof, the cells of each row radiating from an arcuate line concentric with said row of passages in fan-like arrangement, said cells being of conical form and flaring in an outward direction, the cells of each transverse row being arranged on lines between the cells of adjacent rows.

1,140,243. WORK-BENCH ATTACHMENT. LEE H. BRIMHALL, Spanish Forks, Utah. Filed May 29, 1914. Serial No. 841,876. (Cl. 144—287.)

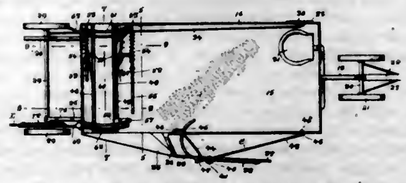
1. The combination with a work-bench, of a supporting device therefor comprising an attaching member adapted to be secured to the bench, an arm mounted in the said member, a head provided upon one end of said arm, a vertically adjustable standard mounted within the said head, a supporting head provided upon the upper end of the standard, the said standard being provided with a plurality of longitudinally spaced notches, a releasable pawl mounted within the first-named head for engagement with the said notches to support the standard in adjusted position, and yieldable means for maintaining the pawl normally in operative position, the first head having a supporting surface upon which the engaging end of the pawl is adapted to bear when in operative position.



2. The combination with a work-bench, of a supporting device comprising an attaching member adapted to be secured to the bench, an arm mounted in the said member, a head provided upon one end of the arm, a vertically adjustable standard mounted within the said head, and a supporting head detachably mounted upon the upper end of the standard, the said supporting head including an inclined shelf and a guard flange disposed at an acute angle to the shelf.

3. The combination with a work-bench, of a supporting device comprising an attaching member adapted to be secured to the bench, an arm mounted in the said member, a head provided upon one end of the arm, a vertically adjustable standard mounted within the said head, and a supporting head detachably mounted upon the upper end of the standard, the said supporting head including an inclined shelf and a guard flange disposed at an acute angle to the shelf, the adjacent faces of the shelf and guard flange being convex.

1,140,244. CORN-HARVESTER. ENOCH S. BROWN, Afton, Iowa, assignor of one-half to William M. Shields, Afton, Iowa. Filed May 29, 1914. Serial No. 841,856. (Cl. 56—5.)



1. In a corn harvester, a wheel supported bed having cross bars, a spring actuated yoke supported pivotally between the cross bars and adapted to be moved by its actuating spring in an upward direction, and a cradle hinged on the bed independently of the yoke and adapted to be supported on the latter.

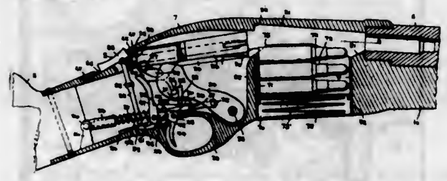
2. In a corn harvester, a bed having cross bars, a yoke mounted pivotally between said cross bars, said yoke being spring-actuated in an upward direction and having an upturned nose, latch means to retain the yoke against upward movement, and a cradle suported hingedly adjacent to the pivoted end of the yoke and including a base plate adapted to be supported on the upturned nose of the yoke.

3. In a corn harvester, a bed having cross bars, a yoke having pivot members supported for oscillation in the cross bars, said yoke having an upturned nose, arms connected with the pivot members, and retracting springs connected with the arms to move the yoke in an upward direction, one of said arms being extended to form a hand lever, a latch member to retain the yoke against the tension of the springs, and a cradle supported hingedly adjacent to the pivoted end of the yoke, said cradle including a base plate adapted to rest on the upturned nose of the yoke.

4. In a corn harvester, a bed, a pivotally supported yoke, springs for actuating said yoke in an upward direction, latch means to retain the yoke against the action of the springs, and a cradle supported hingedly adjacent to the pivoted end of the yoke and including a base plate adapted to rest on the free end of the yoke, said base plate having pairs of butt arms and pairs of tying arms spaced apart, compression means operatively connected with the butt arms, and compression means connected with the bed independently of the tying arms.

5. In a corn harvester, a bed, a hingedly supported cradle including a base plate, pairs of tying arms and pairs of butt arms mounted on said base plate and spaced apart, and a compression lever operatively connected with the butt arms, an arm pivotally connected with the bed, levers fulcrumed on said arm, one of said levers having a long arm constituting a handle and the other lever having a long arm constituting an arcuate compression member, and each of said levers being provided with a short arm, a link connecting said short arms together, and a retracting spring connected with the lower end of said link.

1,140,245. MAGAZINE-RIFLE. DEAN BRABSON BUBAR, Roseburg, Oreg. Filed Apr. 7, 1914. Serial No. 830,174. (Cl. 42—3.)

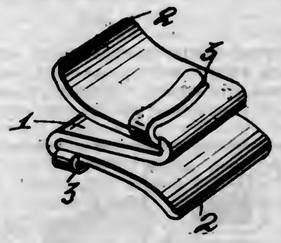


1. A magazine rifle, comprising a gun having a barrel with a beveled recess across the under portion of same with a gas passage leading from the rifle bore to said recess and having a breech block casing connected to the rear end of the barrel with a breech block reciprocating therein, a block having beveled sides inserted in said recess, said block having a bore adapted to register with the gas passage of said recesses when said block is properly mounted and leading to one side of said block, a second block arranged upon said first block, a tube mounted in said casing having a closed outer end seated over said blocks with means arranged therein to fasten said tube to both of said blocks so that said bore in said first mentioned block will communicate with said tube, and devices mounted in said tube and connected to said breech block adapted to automatically return to normal position after said devices have been actuated by the exploded gases of said gun passing into said tube through said gas passage and said bore in said first mentioned block.

2. A magazine rifle, comprising a gun having a barrel with a breech block casing attached thereto, a breech block reciprocatingly mounted in said casing, a hammer pivoted in the lower part of said casing having means to throw said hammer within the path of said breech block, said breech block lowering said hammer upon the rearward reciprocation thereof, a triple-armed sear pivoted in said casing, one of said arms adapted to latch said hammer into lowered position, the second of said arms coacting with a spring to retain said first mentioned arm in latching position, a trigger pivoted in said casing having a lugged arm, a lever pivoted upon said arm and coöperating with the third arm of said sear to unlatch said first mentioned arm to release said hammer, said lever having a spring mounted between the lug on said trigger arm and the end of said lever adapted to engage said lever with said third arm of said sear.

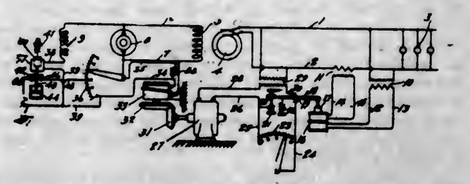
3. A magazine rifle, comprising a gun having a breech block casing with a breech block reciprocatingly mounted therein, a hammer pivoted therein adapted to be lowered by said breech block, pivoted means mounted in said casing adapted to lock said hammer into lowered position, a trigger pivoted in said casing having an arm thereto with a pivoted lever arranged thereupon adapted to unlock said hammer locking means, and means pivoted in said casing, adapted at one end to engage said trigger arm to prevent the operation of said trigger, and at the opposite end pivotally connected with a thumb latch adapted to move said pivoted means into or out of engagement with said trigger arm, said thumb latch having oppositely disposed flanges adapted to slidingly seat in suitable recesses in said casing to retain said thumb latch in position.

1,140,246. BUNDLE-TYING DEVICE. STEPHEN C. BURLINGAME, Sterling, Conn. Filed Jan. 8, 1914. Serial No. 811,048. (Cl. 24—18.)



A package tie comprising a fastener formed from a blank sheet of material having a body portion terminating at its opposite ends in backwardly-bent, oppositely-extending, outwardly-curved lips, each lip provided with a backwardly-folded tongue-portion extending from the side edge of said lip adjacent the junction of the lip with the body portion of the fastener and adapted to receive a cord for holding the same in a set position.

1,140,247. ELECTRIC COMPENSATOR. GEORGE A. BURNHAM, Cliftondale, Mass., assignor to Sears B. Condit, Jr., Boston, Mass. Filed Sept. 15, 1909. Serial No. 517,821. (Cl. 171—229.)



1. An apparatus of the kind described including a main circuit, a field circuit, a field resistance, and automatic make and break means for varying the value of the field strength, containing means for varying the length of interruption, said last mentioned varying means being controlled by a speed changing device for simultaneously changing the speed of interruption and also governing said controlled varying means to change the length of interruption.

2. An apparatus of the kind described including a main circuit, a field circuit, a field resistance, automatic make and break means for varying the value of the field strength responsive to a variable speed actuator and containing means under the control of said variable speed actuator to vary the length of interruption, said variable speed actuator simultaneously changing the speed of interruption of said make and break means and also governing said controlled varying means to vary the length of interruption.

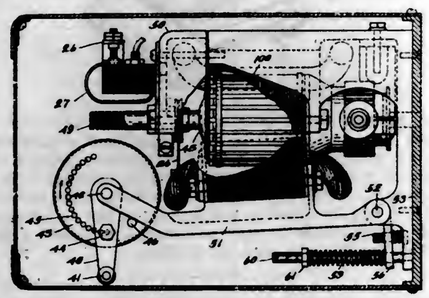
3. An apparatus of the kind described, including a main circuit, a field circuit and automatic means for varying the value of the field strength including make and break mechanism, and a variable speed device responsive to variations in voltage in the main circuit for changing the proportion of the make and break.

4. In an apparatus of the kind described, including a main circuit, a field circuit, automatic make and break means for varying the value of the field current, and a variable speed operating device for operating said make and break means variable in response to variations in voltage in said main circuit, the relative duration of make and break being dependent upon the speed changes of said operating device.

5. An apparatus of the kind described including a main circuit, a generator, a field circuit for said generator, means for varying the value of the field strength in accordance with speed changes including a make and break device whose relative duration of make and break is dependent upon speed changes in said device, and operating means for the latter having a variable speed in response to variations of voltage in the main circuit.

[Claims 6 to 35 not printed in the Gazette.]

1,140,248. TIME-LIMIT CONTROLLING DEVICE FOR ELECTRIC SWITCHES. GEORGE A. BURNHAM, Saugus, Mass., assignor to Sears B. Condit, Jr., Brookline, Mass. Filed Jan. 8, 1913. Serial No. 740,766. (Cl. 175—270.)



1. A selective time-limit controlling-device for electric switches, having an operating-device requiring a prolonged period of time to operate the switch, and means responsive to an overload current to actuate said operating-device, which means is constructed and arranged to consume varying periods of time in causing the operating-device to operate the switch according to the current value of the overload up to a point relatively corresponding to or in synchronism with the frequency of the current and constant periods of time regardless of the current value of the overload on overloads of higher current values, substantially as described.

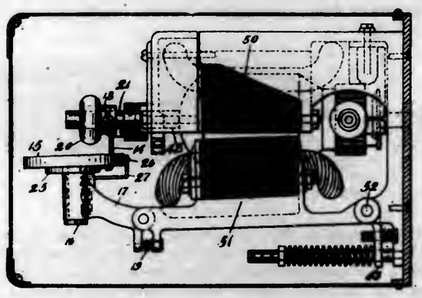
2. A selective time-limit controlling-device for electric switches, comprising switch-operating means requiring a prolonged period of time to operate the switch, and an electro-magnetic device responsive to an overload current to actuate said switch operating-means, which is constructed and arranged to exert a force proportionate to the current value of an overload up to a point relatively corresponding to or in synchronism with the frequency of the current where it exerts its maximum force, and to exert its maximum force on overloads of higher current value, substantially as described.

3. A selective time-limit controlling-device for electric switches comprising switch-operating means requiring a prolonged period of time to operate the switch, an electro-magnetic device responsive to an overload current which is constructed and arranged to actuate said switch-operating means at a variable speed according to the current value of the overload up to a point relatively corresponding to or in synchronism with the frequency of the current, at which point its maximum speed is attained, and to actuate said switch-operating-means at its maximum speed on overloads of higher current value, substantially as described.

4. A selective time-limit controlling-device for electric-switches comprising operating-means for the switch, a movable element to control said operating-means, a coil for said movable element having its magnetic-circuit and windings proportioned relatively so that upon the occurrence of an overload the force exerted by the movable element is proportionate to the current value of the overload up to a point corresponding with the frequency of the current and above said point is constant regardless of the current value of the overload, substantially as described.

5. A selective time-limit controlling-device for electric-switches consisting of a self-restoring operating-device requiring a prolonged period of time to operate the switch, a rotary electric-motor to actuate said operating-device, which is constructed and arranged to variably respond to an overload current according to the value thereof up to a point where the motor runs in synchronism with the frequency of the current, and to definitely respond to overloads of higher current values, said operating-device being movable into and out of coöperative relation with its actuating-means by means controlled by the overload, and caused to resume its normal position when the overload ceases, substantially as described.

1,140,249. TIME-LIMIT RELAY. GEORGE A. BURNHAM, Saugus, Mass., assignor to Sears B. Condit, Jr., Brookline, Mass. Filed Feb. 5, 1913. Serial No. 746,282. (Cl. 175—270.)



1. In a time-limit relay, a friction-wheel, means responsive to an overload to rotate said wheel, a rotatable friction-disk arranged with its axis at right angles to the axis of said wheel and movable into and out of engagement with the periphery of said wheel, and when in engagement therewith to be rotated by it, and a controller for the switch operated by said friction-disk, substantially as described.

2. In a time-limit relay, a rotatable friction-wheel, a rotatable friction-disk arranged with its axis at right angles to the axis of said wheel and movable into and out of engagement with the periphery of said wheel and when in engagement therewith to be rotated by it, means responsive to an overload to move said disk into engagement with said wheel, permitting disengagement upon cessation of the overload, and a controller for the switch operated by said disk, substantially as described.

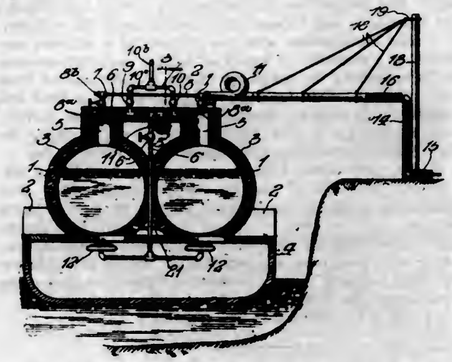
3. In a time-limit relay, a rotatable friction-wheel and a rotatable friction-disk arranged with its axis at right angles to the axis of said wheel and movable into and out of engagement with the periphery of said wheel and when in engagement therewith to be driven by it, means responsive to an overload to move said disk into engagement with said wheel and also to rotate said wheel, and a controller for the switch operated by said friction-disk, substantially as described.

4. In a time-limit relay, a rotatable friction-wheel, a rotatable friction-disk arranged with its axis at right angles to the axis of said wheel and movable into and out of engagement with the periphery of said wheel and when in engagement therewith to be rotated by it, means responsive to an overload to move said disk into engagement with said wheel, permitting disengagement therefrom upon cessation of the overload, a spring to return said disk to normal position when disengaged from the wheel, and a controller for the switch operated by said disk, substantially as described.

5. In a time-limit relay, a rotatable friction-wheel, a rotatable friction-disk arranged with its axis at right angles to the axis of said wheel and movable into and out of engagement with the periphery of said wheel and when in engagement therewith to be rotated by it, a yielding arm bearing said disk, means responsive to an overload and connected with said arm to move said disk into engagement with said wheel, permitting disengagement therefrom upon cessation of the overload, and a controller for the switch operated by said disk, substantially as described.

[Claims 6 to 11 not printed in the Gazette.]

1,140,250. MEANS FOR HANDLING AND TRANSPORTING LIQUID GAS. GODFREY L. CABOT, Boston, Mass. Filed Oct. 12, 1914. Serial No. 866,415. (Cl. 60—25.)



1. In an apparatus of the class described, a supporting member, a pair of intercommunicating tanks mounted thereon, heat insulation completely incasing said tanks to retain the contents thereof at predetermined temperatures, means for simultaneously filling the tanks on either side thereof, an insulated pipe connection between said tanks, and expansion valves mounted in the length of said pipe connection for the escape of volatilized contents of said tanks, for maintaining said other contents at a continuing low pressure.

2. The combination with an insulated vertically disposed supply pipe having a swivelly mounted right angularly projecting extension, the latter being provided at its outer extremity with a flexible attaching member, and means for supporting said right angular extension member; of a supporting member, a pair of tanks mounted thereon, each having a dome, heat insulation completely incasing said tanks to retain the contents thereof at predetermined temperatures, means for simultaneously filling said tanks, the latter being adapted to receive said flexible attaching member, a pipe connection between the domes of said tanks, said pipe connection being also insulated, and a pair of safety valves arranged in the length of said pipe connection for escape of the volatilized contents of said tanks.

3. An apparatus for transporting liquefied gas in bulk at a predetermined temperature and continuing low pressure consisting of a transporting member, a tank thereon, a dome disposed upon said tank and communicating with the interior of the latter, heat insulation completely enveloping said tank and dome, means for filling said tank, an outlet pipe communication with the upper portion of said dome, and an expansion valve included in said outlet pipe whereby the products of volatilization may be conveyed from said tank to a distant point for maintaining a continuing low presure within the latter substantially as and for the purpose set forth.

4. An apparatus for transporting liquefied gas in bulk at a predetermined temperature and continuing low pressure consisting of a transporting member, a tank thereon, a dome disposed upon said tank and communicating with the interior of the latter, heat insulation completely enveloping said tank and dome, an outlet pipe communicating with the upper portion of said dome, means connected with said outlet pipe for conveying the contents of said pipe to a distant point for utilization, and a blow-off pipe connected with said outlet pipe and including in the length thereof a safety valve whereby when the pressure within said tank exceeds a predetermined amount the latter may escape through said valve substantially as and for the purpose set forth.

5. An apparatus for transporting liquefied gas in bulk at a predetermined temperature, a pair of tanks contiguously disposed thereon, a dome disposed upon the upper portion of each of said tanks, heat insulation partially enveloping said tanks, means for simultaneously filling both of said tanks, a short section pipe interposed between said tanks having its extremities communicating with the domes of the latter, heat insulation disposed around said pipe, means connected with said short section pipe for conveying the volatilized contents of said tanks to a distant point for utilization, a blow-off pipe also connected with said short section pipe and including safety valves in the length thereof whereby to automatically control the pressures in said tanks, a burner disposed beneath each of said tanks, and means connecting said burners with said outlet pipe whereby to supply the former with the products of volatilization issuing from the contents of said tanks substantially as and for the purpose set forth.

[Claim 6 not printed in the Gazette.]

1,140,251. TROUSERS ATTACHMENT. JAMES J. CARNEY, Haverhill, Mass. Filed Feb. 7, 1914. Serial No. 817,244. (Cl. 2—126.)



1. The combination with a trouser leg of a shape retaining device including a flexible strip secured at its ends, vertically and interiorly of the forward knee portion of the trouser leg, the ends being spaced a distance less than the length of the strip, and a second flexible strip secured transversely at its ends to the trouser leg to extend straight across the leg in a vertical plane spaced from the forward knee portion of the trouser leg, the inturned portion of the straps being secured to each other.

2. The combination with a trouser leg of a shape retaining device including an elastic strip secured at its ends, vertically and interiorly of the forward knee portion of the trouser leg, the ends being spaced a distance less than the length of the strip and a second elastic strip secured transversely at its ends to the trouser leg to extend straight across the leg in a vertical plane spaced from the forward knee portion of the trouser leg, the intermediate portion of the strips secured to each other.

3. The combination with a trouser leg of a shape retaining device including an oval shaped body portion, said body portion provided with elongated slits near the edges thereof, a vertical elastic strip adapted to extend through the upper and lower slits of said body portion, a horizontal elastic adapted to extend through slits on the sides of the body portion and between the vertical elastic strip and body portion forming a reinforcement in the center of said body portion, means for securing the free ends of said elastic strips to the trousers.

1,140,252. WATER-CLOSET. IRA P. CLARK, Decatur, Ill., assignor of one-fourth to William B. Hunter, Hagarstown, Ill. Filed May 20, 1914. Serial No. 839,831. (Cl. 4—5.)

The combination of a tank, a supply pipe leading into the tank, an outlet from the tank, a flushing valve within

the tank arranged to open or close said outlet, means for establishing or arresting flow through the supply pipe and simultaneously actuating the flushing valve, a tank valve chamber rising within the tank over the supply pipe and provided with a minute permanently open vent in its side near its lower end, a collar depending from the top of the tank valve chamber and spaced from the wall of the same, said chamber being otherwise unobstructed and the space

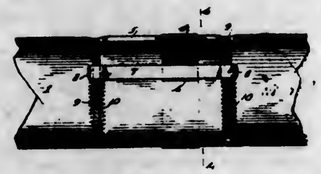


between the collar and the wall of the chamber being restricted transversely of the chamber but somewhat extended longitudinally thereof, a single valve in the tank valve chamber adapted to seat against the lower end of the collar, a stem rising from said valve to the collar, a guiding support for said stem above the tank and valve chamber, and a float on said stem above said support, the diameter of the stem being very slight relative to the collar.

1,140,253. PROCESS OF TREATING WRITING-PAPER. EMMETT H. CLIFTON, Boston, Mass., assignor of one-half to J. M. Hester, Boston, Mass. Filed Aug. 26, 1913. Serial No. 786,780. (Cl. 8—20.)

The process of treating calendered printing papers to be used, as checks, drafts and the like, which consists in immersing the papers in a bath composed of approximately six parts of sulfuric acid, twenty-four parts of muriatic acid, and seven hundred parts of water, permitting the papers to remain in the bath until permeated with the compound, removing the papers and drying the same.

1,140,254. BEARERS. ELLIS W. COOPER, Bloomfield, N. J., assignor to R. Hoe and Co., New York, N. Y., a Corporation of New York. Filed Aug. 26, 1913. Serial No. 786,668. (Cl. 101—36.)



1. The combination with a hollow roll, of a plurality of supporting bars located within the roll, a plurality of endless flexible bands, one for each support, looped under the support and passing around the periphery of the roll at different points thereon, and means whereby the supports may be adjusted for tightening or loosening the bands so that the bands may be moved to varying positions along the roll.

2. The combination with a hollow roll provided with a peripheral slot, of a supporting bar located within the roll, an endless band of webbing looped under the bar and passing through the slot around the outer periphery of the roll, set screws by which the supporting bars may be adjusted to tighten or loosen the band of webbing so that it may be moved to varying positions along the roll, and springs between the supporting bar and the inner wall of the roll.

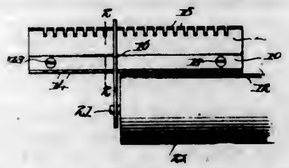
3. The combination with the cylinder of a printing machine, of a plurality of bands of flexible material substantially encircling the periphery of the cylinder and spaced from each other the width of the printed matter on a sheet, and supporting devices located within the cylinder for tightening and loosening the bands about the cylinder.

4. The combination with the cylinder of a printing machine, of a plurality of bands of flexible material substantially encircling the periphery of the cylinder spaced from each other the width of the printed matter on a sheet and adjustable to varying positions along the cylinder surface, and supporting devices located within the cylinder for tightening and loosening the bands about the cylinder.

5. In combination with the cylinder of a printing machine, a plurality of margin bearers spaced from each other the width of the printed matter on a sheet, said bearers each including a band of flexible material substantially encircling the periphery of the cylinder and coöperating with a suitable support located within the cylinder, the said support being movable to tighten or loosen the band about the cylinder.

[Claim 6 not printed in the Gazette.]

1,140,255. CURTAIN-POLE SUPPORT. JOHN W. CORDINGLEY, Methuen, Mass., assignor of one-half to William Cordingley, Methuen, Mass. Filed Nov. 6, 1913. Serial No. 799,563. (Cl. 156—24.)



1. A curtain support comprising a plate having its side portions cut to form fingers, said plate being bent longitudinally to form upper and lower flanges, the lower flange extending at substantially right angles to the central portion of the plate and the upper flange extending at substantially an angle of forty five degrees, and a bracket fitting between the fingers of said upper and lower flanges and provided with a slot to receive said upper flange whereby when said bracket is connected with said plate, said bracket will be prevented from having longitudinally and transverse movement upon said plate.

2. A curtain support of the character described comprising an attaching plate provided with upper and lower flanges, said flanges being provided with slots forming fingers, the fingers of said lower flange extending the full depth of the flange and the fingers of the upper flange being relatively short to leave the inner portion of the upper flange unbroken, a curtain pole supporting means fitting between the fingers of said two flanges and provided with a slot in which the unbroken inner portion of said upper flange fits.

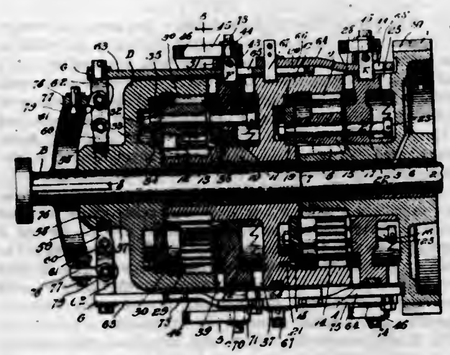
3. A curtain support of the character described comprising supporting means provided with upper and lower flanges having relatively long and short fingers, and curtain pole supporting means fitting between said fingers and having its upper end portion provided with a slot to receive said upper flange.

4. A curtain support of the character described, comprising supporting means provided with upper and lower fingers, and curtain pole supporting means fitting between said fingers and engaging the upper portion of said supporting means.

5. A curtain support of the character described comprising supporting means provided with upper and lower flanges, curtain pole supporting means removably connected with said upper flange, said flanges being provided with means for engaging opposite side portions of said curtain pole supporting means to prevent longitudinal movement of said curtain pole supporting means upon said first mentioned supporting means.

[Claim 6 not printed in the Gazette.]

1,140,256. TRANSMISSION-GEARING. GEORGE W. DRAPER, Fair Haven, Vt. Filed Jan. 24, 1914. Serial No. 814,166. (Cl. 74—34.)



1. In transmission gearing, a central shaft, a driving wheel normally loose on said shaft, a pinion having a fixed and concentric relation to said driving wheel, an internal gear wheel normally loose on said shaft, planetary pinions meshing with said pinion and internal gear wheel, means to control the operation of the said planetary pinions, and means interposed between said internal gear wheel and shaft for causing them to rotate together.

2. In transmission gearing, a central shaft, a driving wheel normally loose on said shaft, a reducing pinion having a fixed and concentric relation to said driving wheel, an internal gear wheel normally loose on said shaft, a revoluble ring supported by said internal gear wheel, planetary pinions journaled on and carried by said ring and meshing with said reducing pinion and internal gear wheel, means coöperating with the revoluble ring to control the operation of the planetary pinions, and means interposed between said internal gear wheel and shaft causing them to rotate together.

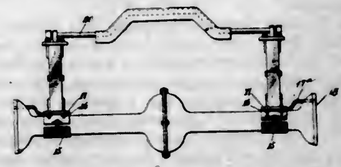
3. In a transmission gearing, a central shaft, a driving wheel normally loose on said shaft, a reducing pinion fast on the hub of said driving wheel and concentric therewith, an internal gear wheel normally loose on said shaft, a revoluble ring supported by said internal gear wheel, planetary pinions journaled on and carried by said ring and meshing with said reducing pinion and internal gear wheel, means coöperating with the revoluble ring to control the operation of the planetary pinions, means interposed between said internal gear wheel and shaft causing them to rotate together, said driving wheel having a clutch face, said internal gear wheel having a clutch face, a clutch collar between said clutch faces, and means for shifting said internal gear wheel and clutch collar to throw the clutch faces thereof into and out of engagement.

4. In transmission gearing, a central shaft, a driving wheel normally loose on said shaft, a reducing pinion fast on the hub of said driving wheel and concentric therewith, an internal gear wheel normally loose on said shaft, a revoluble ring supported by said internal gear wheel and arranged at one side thereof, planetary pinions carried by said ring, means coöperating with the revoluble ring to control the operation of the planetary pinions, a second internal gear wheel, a second set of planetary pinions meshing therewith, means to control the last named set of planetary pinions, and a second reducing pinion fast on the hub of the first named internal gear wheel, the second internal gear having a keyed and sliding connection with said shaft.

5. In transmission gearing, a central shaft, a driving wheel normally loose on said shaft, a reducing pinion fast on the hub of said driving wheel and concentric therewith, an internal gear wheel normally loose on said shaft, a revoluble ring supported by said internal gear wheel and arranged at one side thereof, planetary pinions carried by said ring, means coöperating with the revoluble ring to control the operation of the planetary pinions, a second internal gear wheel, a second set of planetary pinions meshing therewith, means to control the last named set of planetary pinions, a second reducing pinion fast on the hub of the first named internal gear wheel, the second internal gear having a keyed and sliding connection with said shaft, the first named internal gear wheel having clutch faces on both sides thereof, said driving wheel and second internal gear wheel having clutch faces, clutch collars between said clutch faces, and means for shifting both internal gear wheels and clutch collars to engage and disengage said clutch faces.

[Claims 6 to 11 not printed in the Gazette.]

1,140,257. SPRING SUSPENSION SYSTEM. ADOLPHUS WALTERS DREYFUS, Delhi, N. Y. Filed June 26, 1913. Serial No. 775,845. (Cl. 21—50.)

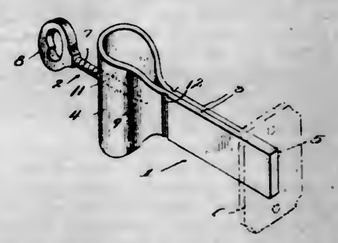


1. A spring suspension comprising a spring and a clamping bracket for attaching it to the axle, the bracket having a stud extending laterally into the axle to hold it in position on the axle.

2. A spring suspension system comprising a U-shaped cross arm, full elliptic springs attached thereto at the top of the springs, and means for attaching the bottoms of the springs to the axle, said means comprising a clamping bracket having a stud extending laterally into the axle to hold it in position on the axle.

3. A spring suspension system comprising a U-shaped cross arm, full elliptic springs attached thereto at the top of the springs, and means for attaching the bottoms of the springs to the axle, the U-shaped cross arm having an upwardly directed pin to attach it to the body, said means comprising a clamping bracket having a stud extending into the axle to hold it in position on the axle.

1,140,258. KEYHOLE-GUARD. THOMAS E. DUNLAP, New Orleans, La. Filed June 12, 1914. Serial No. 844,789. (Cl. 70—8.)



1. A key-hole guard comprising a pair of jaws arranged with their inner longitudinal faces in mutual contact and adapted for insertion through the key-hole in the escutch-

eon plate, said jaws having their outer ends rigidly fastened together; and a spring bow connected with the inner ends of said jaws for normally holding the said faces thereof in such contact.

2. A key-hole guard comprising a pair of jaws arranged with their inner longitudinal faces in mutual contact and adapted for insertion through the key-hole in the escutcheon plate, said jaws having their outer ends rigidly fastened together and being provided with locking means for engagement with said plate at the edges of said key-hole; and a bow connected with the inner ends of said jaws for normally holding the said faces thereof in such contact.

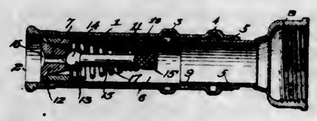
3. A key-hole guard comprising a pair of jaws arranged with their inner longitudinal faces in mutual contact and adapted for insertion through the key-hole in the escutcheon plate, said jaws having their outer ends rigidly fastened together and being provided with locking means for engagement with said plate at the edges of said key-hole; a bow connected with the inner ends of said jaws for normally holding the said faces thereof in such contact; and means for separating said jaws, to bring said locking means into such engagement.

4. A key-hole guard comprising a pair of jaws arranged with their inner longitudinal faces in mutual contact and adapted for insertion through the key-hole in the escutcheon plate, said jaws having their outer ends rigidly fastened together; a spring bow connected with the inner ends of said jaws for normally holding the said faces thereof in such contact; and means for expanding said jaws, to cause the same to grip said plate at the edges of said key-hole.

5. A key-hole guard comprising a pair of jaws arranged with their inner longitudinal faces in mutual contact and adapted for insertion through the key-hole in the escutcheon plate, said jaws having their outer ends rigidly fastened together; a spring bow connected with the inner ends of said jaws for normally holding the said faces thereof in such contact; and an endwise-movable element having a pointed end adapted for introduction between the inner ends of said jaws, to spread the latter and cause them to grip said plate at the edges of said key-hole.

[Claims 6 and 7 not printed in the Gazette.]

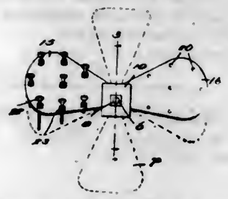
1,140,259. HOSE-NOZZLE. SAMUEL K. ELLIOTT, San Diego, and LINNAEUS C. POND, Los Angeles, Cal.; said Pond assignor to said Elliott. Filed May 4, 1914. Serial No. 836,221. (Cl. 137—81.)



1. A nozzle comprising a tube having an annular seat in its outer end, a spreader engaged with said seat and adapted to move outwardly therefrom, a stem extending inwardly from the spreader into the tube, a stop on the inner end of said stem, and a conical spring whose contracted end encircles said stem and bears against the same and against said stop, its expanded end bearing against the inner end of the annular seat, whereby water forced through the tube must pass between the convolutions of the spring, and whereby said convolutions will be forced toward each other when the spreader is moved excessively outward thereby decreasing the amount of water discharged from the nozzle.

2. A hose nozzle comprising a tube having a spreader seat at its outer end, a spreader engaged with said seat and adapted to move outwardly therefrom, and a conical coiled spring disposed within the tube and through the convolutions of which water discharged therefrom must pass, said spring exercising its tension to retain the spreader in engagement with its seat, whereby excessive outward movement of the spreader will compress the spring and check the discharge of water therethrough.

1,140,260. PROPELLER-PITCHOMETER. LAWRENCE FRANK, Galveston, Tex. Filed Oct. 21, 1914. Serial No. 867,882. (Cl. 33—174.)



1. The herein described pitchometer for propeller blades, the same comprising a hub member having a pin adapted to enter the hole in the propeller hub, a plate having a series of threaded holes through it, screws through said holes with their tips adapted to contact with the face of the propeller blade, a shank connected with the plate, and adjustable connections between the shank and hub member whereby the position of the plate with respect to the blade may be changed.

2. The herein described pitchometer for propeller blades, the same comprising a hub member having a pin adapted to enter the hole in the propeller hub, a plate having a series of pendant elements adapted to contact with the face of the propeller blade, a support for the plate, and movable threaded connections between the support and hub member whereby the position of the plate with respect to said member is rendered adjustable.

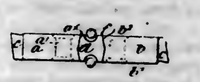
3. In an instrument of the class described, the combination with a hub member comprising a lower block with a beveled upper face, a pin depending from said block, an upper block with a beveled lower face, and means for drawing said blocks toward each other; of a plate having a shank adapted to be clamped between said beveled faces and a series of holes through its body, and set screws through said holes, for the purpose set forth.

4. In an instrument of the class described, the combination with a hub member consisting of a lower block having a beveled upper face and a tubular pin projecting from its lower face, an upper block having a beveled lower face and a hole through its body, a bolt extending through said hole and through the lower block and pin and having a reduced head at the lower end of said bolt; of a jam nut on the upper end of said bolt; of a plate having a shank adapted to be clamped between said beveled faces and a series of holes through its body, and set screws through said holes, for the purpose set forth.

5. In an instrument of the class described, the combination with a hub member consisting of a lower block having a beveled upper face and a tubular pin projecting from its lower face, an upper block having a beveled lower face and a hole through its body, a bolt extending through said hole and through the lower block and pin and having a reduced head at the lower end of said pin, and a jam nut on the upper end of said bolt; of a plate conforming in contour with the propeller blade and having an offset shank pierced with a hole and adapted to pass over said bolt, and a series of adjustable elements on said plate adapted to contact with the face of the propeller blade.

[Claims 6 to 8 not printed in the Gazette.]

1,140,261. ADJUSTABLE CUTTER FOR BORING-BARS AND THE LIKE. THOMAS EDWARD PATTINSON, Walthamstow, London, England, assignor of one-half to Charles Fletcher Lumb, London, England. Filed Dec. 16, 1913. Serial No. 806,956. (Cl. 77—56.)



1. A double ended cutter for a boring bar comprising two cutting members and an intermediate member of softer extensible metal attached at each end to one of the cutting members.

2. A double ended cutter for a boring bar, comprising two cutting members of hard steel, the ends thereof being recessed, an intermediate member of softer metal, projections on the ends of said intermediate member engaging said recesses in the ends of the cutting members.

3. A double ended cutter for a boring bar, comprising two cutting members of hard steel, the ends thereof being recessed, an intermediate member of solder, projections upon the ends of said intermediate member engaging said recesses in the ends of the cutting members.

1,140,262. METHOD OF MANUFACTURING BASE-EXCHANGING SUBSTANCES. ROBERT GANS, Grunewald-Berlin, Germany. Filed Oct. 27, 1913. Serial No. 797,664. (Cl. 23—13.)

1. The process of producing base-exchanging substances containing silica, alumina and other bases which consists in lixiviating a melt of the above substances with water containing substances preventing the dissolution of silica.

2. The process of producing base-exchanging substances containing silica, alumina, and other bases which consists in lixiviating a melt of the above substances with a water solution containing active silica.

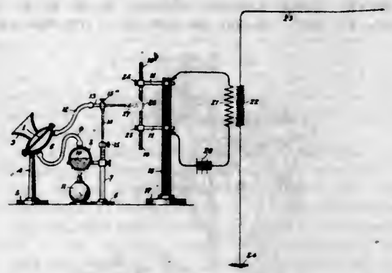
3. The process of producing base-exchanging substances containing silica, alumina, and other bases which consists in lixiviating a melt of the above substances with an aqueous solution of water glass.

4. The process of producing base-exchanging substances containing silica, alumina and other bases which consists in lixiviating a melt of the above substances with a solution containing substances capable of precipitating silica from solutions.

5. The process of producing base-exchanging substances containing silica, alumina and other bases which consists in lixiviating a melt of the above substances with a solution of substances of acid nature.

[Claim 6 not printed in the Gazette.]

1,140,263. LOUD-SPEAKING TELEPHONE. WALTON HARRISON, New York, N. Y. Filed Aug. 21, 1905, Serial No. 275,107. Renewed Oct. 14, 1914. Serial No. 866,728. (Cl. 179—1.)



1. In an apparatus for the transmission of signals, a circuit including an arc, means for supplying an atmosphere containing hydrogen to said arc, and means for varying such supply according to the signals to be transmitted.

2. In an apparatus of the character described, a circuit including an arc, means for supplying an atmosphere containing hydrogen to said arc, and voice-controlled means for varying such supply according to the signals to be transmitted.

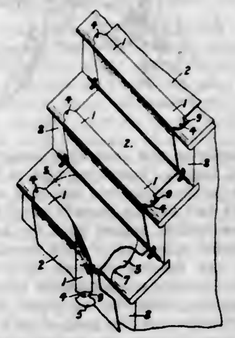
3. In an apparatus of the character described, the combination of a continuous closed electric circuit including an arc, and means including a movable diaphragm for directing toward said arc an aeriform body impressed with variations analogous to sound waves.

4. In an apparatus of the character described, the combination of a continuous closed electric circuit including an arc, and means including a movable diaphragm for directing toward said arc varying quantities of an aeriform body capable of affecting the resistance thereof.

5. The combination, with a source for supplying an aeriform body and means for varying the quantity of said aeriform body, of a continuous electric circuit including an arc the resistance of which is sensitive to variations in the supply of said aeriform body.

[Claims 6 to 24 not printed in the Gazette.]

1,140,264. DEVICE OR MEANS FOR THE PROTECTION OF CARPETS AND THE LIKE. NATHAN HARROP, Stoneycroft, Liverpool, England. Filed May 29, 1914. Serial No. 841,895. (Cl. 20—79.)



1. A stair carpet protection device comprising members placed adjacent and above and below the carpet, the ends of said members extending beyond the edges of the carpets and having their ends connected together.

2. A stair carpet protection device comprising members placed adjacent and above and below the carpet at the tread of the stairs, one of said members having a recess in one edge, means for connecting the said members near one end, and a latch pivoted to one of said members and fitting in the recess in the adjacent member.

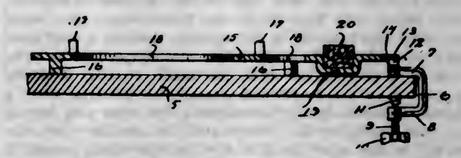
3. A stair carpet protection device comprising members placed adjacent and above and below the carpet and having their ends projecting beyond the edges thereof, and means for connecting the said projecting ends.

4. A stair carpet protection device comprising members placed adjacent, and above and below the carpet, and having their ends projecting beyond the edges thereof the ends of the said members being removably connected.

5. A stair carpet protection device comprising members placed adjacent above and below the carpet, the ends of the members projecting beyond the edges of the carpet, the said projecting ends connected, one of the said connections being detachable.

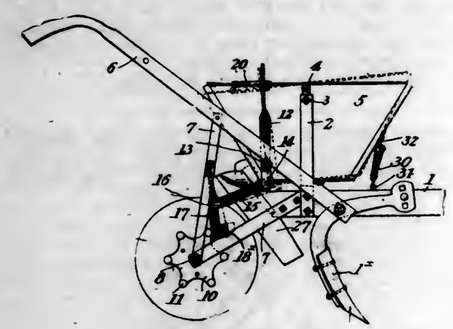
[Claim 6 not printed in the Gazette.]

1,140,265. FLAT-IRON HOLDER AND WAXER. GEORGE WALTER HAWKINS, Providence, R. I. Filed Aug. 3, 1914. Serial No. 854,758. (Cl. 68—27.)



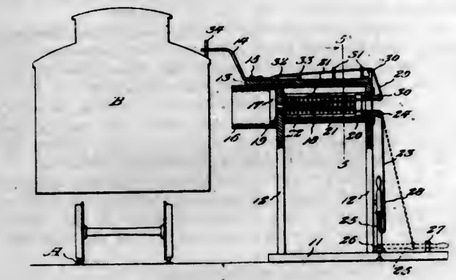
An iron holding attachment for an ironing board, comprising a clamp engageable upon the ironing board, an ear formed on said clamp, a flat plate having ears pivoted upon said first named ear, lugs on the lower side of said plate and resting upon the top of the board, and upstanding projections at the edges of said plate for preventing displacement of an iron disposed thereon.

1,140,266. GUANO-DISTRIBUTER AND GRAIN-DRILL. CLAUDE HENNESSEE, Tifton, Ga. Filed Jan. 14, 1915. Serial No. 2,169. (Cl. 111—33.)



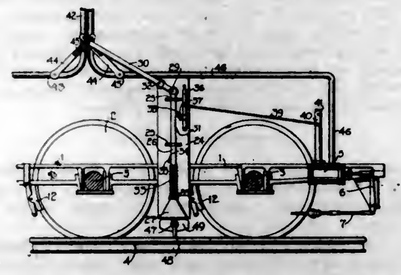
A guano distributer and seed drill comprising a beam, handles secured thereto, braces secured to the beam and handle, a shaft journaled in said braces, a wheel mounted upon said shaft and having tappets projecting from the face thereof, a vibrating hopper upon the beam, a slotted crosspiece mounted upon two of said braces, a longitudinally movable bar passing through said slotted crosspiece, means for limiting the downward movement of said bar, a lug projecting from the lower end of the bar and adapted to be thrown into the path of said tappets, a lever pivotally mounted upon the hopper, and pivotal link connections between said lever and longitudinally movable bar.

1,140,267. MAIL-DELIVERING DEVICE. SAMUEL R. HEARING, Morton, Miss. Filed Apr. 7, 1914. Serial No. 830,216. (Cl. 258—7.)



A mail bag delivering device comprising a supporting frame, a barrel on said frame and adapted to be directed toward a track, a piston working within the barrel and having a stem slidable in one member of the frame, a cross head on said stem and having notches in opposite ends, guide rods disposed in the frame above and below the head and received in the notches therein, a trip lever pivotally supported on the frame and adapted to be actuated by a passing car upon the track, an arm pivotally supported on the frame and engaged by the trip lever, a coiled retractile spring surrounding the stem and having one end engaging the frame and its opposite end connected to the cross head, a flexible connection joined to the cross head and also to the pivoted arm for retracting the piston on the movement of the arm into position for engaging the trip lever, keepers permanently mounted in spaced relation to each other, and means connected with the cross head and engageable with either keeper for holding the piston retracted or permitting it to be extended on the release of the arm from the trip lever.

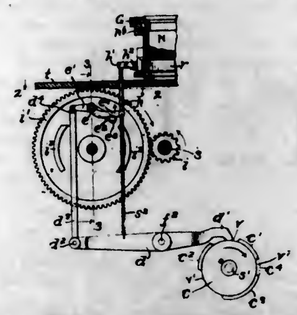
1,140,268. AUTOMATIC TRAIN-STOP. ALBERT JOHNSON, Coleman, Alberta, Canada. Filed Aug. 16, 1913. Serial No. 785,028. (Cl. 246—59.)



1. In a device of the character described a track trip, a plate secured to a locomotive, a rocker arm adapted to be engaged by said track trip, a bar slidably mounted on said plate, means on the rocker arm to engage the bar and slide the same vertically, a spring adapted to exert downward pressure on the bar, a lever pivotally secured to the upper extremity of the bar and adapted to operate valves in the steam and air pipes, a pawl adapted to engage notches in the bar, a lever connected to said pawl, and means connected to said lever to exhaust the air from a brake cylinder.

2. In a device of the character described a track trip, a plate secured to a locomotive, a rocker arm pivoted near the lower end of the plate, a brake cylinder carried by said locomotive, a bar slidably mounted on said plate, ratchet teeth formed integrally with said bar intermediate its ends, an enlarged portion formed at the lower extremity of the bar and adapted to be engaged by the rocker arm, a lever pivotally secured to the upper extremity of the bar, said lever being adapted to actuate valves in the steam and air pipes, a pawl pivotally secured to the plate, a lever operatively connected with the pawl, a releasing valve connected to the brake cylinder, and a link connecting the lever and the air releasing valve.

1,140,269. AUTOMATIC CIRCULAR-KNITTING MACHINE. JOHN LAWSON, Central Falls, R. I. Filed June 17, 1911. Serial No. 633,720. (Cl. 66—21.)



1. In an automatic circular knitting-machine having a revolubly mounted knitting cylinder provided with uniformly spaced grooves in which only latch needles are mounted, the latches of one or more of said needles exceeding in length the respective latches of the other needles, the combination with means coöperating with all the needles for converting a thread into a plain circular course of knitting, of a tucking-cam, revoluble cam mechanism operatively connected with the tucking-cam so as to temporarily prevent the latter from moving upward to cast loops from the latches of the tuck needles in tuck-knitting, a block member provided with stitch-cams, and means connected with said tucking-cam and block member for moving the latter radially in and out with relation to the knitting cylinder, said last mentioned means being arranged to position a member of the tucking-cam whereby it is adapted to operatively engage the block member when the latter is moved inward.

2. In an automatic circular knitting-machine having a revoluble needle cylinder provided circumferentially with uniformly spaced all-latch-needles, one or more of them being tuck-needles, the combination therewith of a vertically slidable tucking-cam, an actuated main cam-shaft, means controlled from said cam-shaft for positioning the tucking-cam upward in the path of the tuck-needles whereby the engagement of the latter with the tucking-cam operates to cast the loops from the latches of the last named needles to produce, in coöperation with the other needles, a course of plain, circular knitting, a spring for retracting the tucking-cam back to its normal position, continuously revoluble cams and instrumentalities connected therewith and with the tucking-cam for reciprocating the latter to produce tuck-stitches at predetermined intervals in alternate courses of circular knitting, and means for moving the knitting-cams into and out of action.

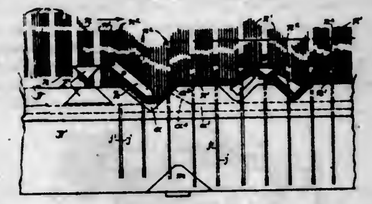
3. In an automatic circular knitting-machine having a revoluble needle cylinder provided circumferentially with uniformly spaced all-latch-needles, one or more of them being tuck-needles, the combination therewith of a vertically slidable tucking-cam, main rotary cam mechanism for positioning the tucking-cam for engagement with said tuck-needles, continuously revoluble independent cam mechanism rotating at less speed than the revoluble needle-cylinder, and means operatively connecting said main and independent rotary cam mechanisms, said last named means having a member thereof provided with a slotted joint and connecting lever, whereby the said main cam acts to place the tucking-cam upward to produce normal knitting at one point in the production of the tubular web and acts to place the tucking-cam in position so as to be acted upon by said independent rotary-cam mechanism to produce tuck stitch knitting at predetermined other points in the web, substantially as herein set forth.

4. In an automatic circular knitting-machine, the combination with the knitting-cylinder having long-butt and short-butt needles movably mounted therein, and devices, including stitch-cams, secured to a slidable cam-block, adapted to coöperate with the needles for producing circular knitting, of an independent supplemental or tuck cam arranged to be engaged by the long-butt needles, means for automatically actuating the last-named cam at predetermined points in knitting continuous circular courses, and means coöperating with said cam-block for automatically rendering the supplemental cam inactive concurrently with the act of retracting the cam-block from the cylinder.

5. In a circular knitting-machine provided with a needle-carrying cylinder, and stitch-cams movable in and out with respect to the face of the cylinder, the combination therewith of a supplemental or tuck cam disposed in the path of, and when in use, adapted to be engaged by certain of the needles, means for automatically moving the said supplemental cam into the operative and inoperative positions, and means for rendering the supplemental cam temporarily inoperative concurrently with the act of moving the stitch-cams outward from the cylinder.

1,140,270. DROP-STITCH KNITTING-MACHINE. JOHN LAWSON, Central Falls, R. I. Filed Nov. 8, 1911. Serial No. 659,117. (Cl. 66—24.)

1. In an automatic knitting machine provided with a revoluble needle-cylinder, knitting-cams, and means for normally actuating the same, the combination therewith of groups of long, medium and short-butt needles mounted in said cylinder, jacks vertically mounted in the cylinder grooves carrying the short-butt needles, the latter, when idle, normally resting on the upper end of the jacks, a radially movable jack-cam disposed at the base of the cylinder, a main cam-shaft, means for moving said shaft in an intermittent angular manner, and means, actuated by said shaft, for moving said jack-cam into position to be engaged by the jacks in the revolving cylinder, whereby the short-butt needles are moved upward into knitting action.



2. In an automatic knitting-machine of the general character described, provided with a revoluble needle-carrying cylinder having some of its needle-grooves needleless, and devices coöperable with the same adapted to produce longitudinal rows of plain stitches, the combination therewith of suitably disposed jacks mounted in grooves formed in the needle-cylinder, short-butt needles mounted in said jack-carrying grooves and in alinement therewith, a radially movable jack-cam for temporarily elevating the jacks to place said short-butt needles in the normal knitting plane, means for positioning said jack-cam, means for elevating above the knitting plane other or long-butt needles to render them idle, as when the cylinder is reciprocating in producing the heel and toe parts of a stocking, means for successively moving all the needles downward below the normal knitting plane, and means for elevating all the needles, except the short-butt jack-needles, back to the normal knitting plane.

3. In a drop-stitch knitting-machine of the general character described, the combination of a revoluble knitting-cylinder having mounted in one portion of its circumference a plurality of groups of long-butt needles, each group alternating with one or more needless grooves, and having mounted in the other portion of the cylinder a plurality of groups of both medium and short-butt needles, the short-butt needles being arranged in the cylinder in grooves diametrically opposite the said needleless grooves, means adapted to coöperate with the medium-butt and long-butt needles to produce a knitted tubular web having drop-stitches in one portion thereof, jacks mounted in the same grooves in which the short-butt needles are placed, means for elevating the jacks to place the short-butt needles upward in knitting action, and means for moving the short-butt needles downward below the knitting plane to render them temporarily inoperative in order to produce corresponding rows of drop-stitches in the back of the leg part of the stocking.

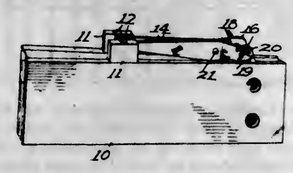
4. In a drop-stitch knitting-machine of the general character described, the combination with a revoluble knitting-cylinder having groups of suitably arranged long, medium and short-butt needles mounted therein, of jacks mounted in the cylinder-grooves in which the said short-butt needles are located, a jack-cam movably positioned at the base of the cylinder, an intermittingly movable main cam-shaft, and means actuated by said shaft for changing the position of the jack cam both inward and outward, whereby when moved inward the jacks, upon engaging the cam, are deflected upward to place the short-butt needles in knitting action, and when positioned outward, the jacks are adapted to freely move in the space thus formed between the outer face of the cylinder and the inner face of the cam.

5. In a revoluble needle-cylinder drop-stitch knitting machine of the general character described, the said cylinder having groups of long, medium and short-butt needles and needle-jacks mounted therein, said jacks being disposed in the grooves carrying the short-butt needles, and an intermittingly movable main cam-shaft, the combination therewith of a stepped cam fixed to said shaft, and a radially movable jack cam positioned at the base of the needle-cylinder and actuated and controlled by the stepped cam, whereby, when in use, the jack-cam is caused

to be positioned inward at predetermined intervals to deflect the jacks upward, thereby moving the short-butt needles into the knitting plane.

[Claim 6 not printed in the Gazette.]

1,140,271. GOVERNOR-SPRING. JOHN A. LE CATO, New York, N. Y., assignor to Standard Pneumatic Action Co., New York, N. Y., a Corporation of New York. Filed Sept. 10, 1914. Serial No. 861,157. (Cl. 74—68.)



1. As an article of manufacture, a double leaf spring for a governor pneumatic having means connected with the two leaves thereof for adjusting the tension of the spring.

2. As an article of manufacture, a spring for a governor pneumatic comprising two spring leaves pivoted together and both extending beyond the pivot, and means connected with the extending portions of said leaves for regulating the tension of the spring.

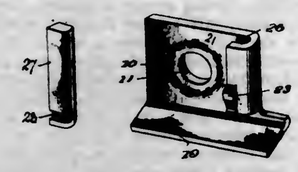
3. In a spring for a governor pneumatic or the like, the combination of a pair of spring leaves pivoted together and extending beyond the pivot, said leaves being separated beyond the pivot, and an adjusting device for connecting the separated ends, whereby the tension of said spring can be adjusted.

4. In a spring for a governor pneumatic, the combination with a pair of spring leaves pivoted together and both projecting beyond the pivot, the two projecting ends of said spring being separated from each other, one having a slot therein, of a screw extending through said slot and screwing into the other projecting end for regulating the tension of the spring.

5. In a spring for a governor pneumatic or the like, the combination of a pair of spring leaves pivoted together and extending beyond the pivot, said leaves having respectively a projection and indentation constituting the pivot, and an adjusting device for connecting the ends, whereby the tension of said spring can be adjusted.

[Claim 6 not printed in the Gazette.]

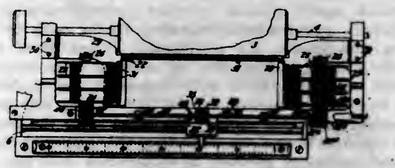
1,140,272. NUT-LOCK. ROBERT T. MCCLURE, Grandview, W. Va. Filed Nov. 21, 1914. Serial No. 873,348. (Cl. 151—62.)



1. A nut lock comprising a body apertured to receive a bolt and with a key receiving channel opening toward the bolt receiving aperture, a resilient tongue carried by said body and projecting into said channel, and a key engaging in said channel and engaged by said tongue, said key being adapted to engage a nut upon said bolt.

2. A nut lock comprising a body apertured to receive a bolt and with a key receiving channel opening toward the bolt receiving aperture, one wall of said channel having a cleft to produce a resilient tongue adapted to be projected into the channel, and a key engaging in said channel and engaged by said tongue, said key being adapted to engage a nut upon said bolt.

1,140,273. TYPE-WRITING MACHINE. JOHN C. MCLAUGHLIN, Jersey City, N. J., assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Filed Sept. 25, 1911. Serial No. 651,029. (Cl. 197—153.)



1. In a typewriting machine, the combination with a carriage, sets of parallel ribbon spools mounted on each end of said carriage, ribbons extending between spools on opposite ends of the carriage, means whereby said ribbons are brought into vertical parallelism, mechanism between the said spools adapted to wind one or the other of said sets of spools, and connections between said mechanism and the frame whereby on movement of the carriage one or the other sets of spools may be wound.

2. In a front-strike typewriting machine, the combination with a traveling carriage, of a rail at the front of the machine on which said carriage is carried, a rack on said rail, a pinion on said carriage arranged to mesh with said rack, ribbon spools journaled on horizontal shafts on said carriage, there being one shaft at each end of said carriage, and a shaft extending between said shafts, arranged to be driven from said pinion, and to drive said shafts.

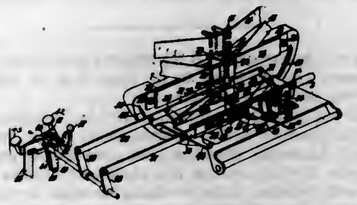
3. In a typewriting machine, the combination with a traveling carriage, of a plurality of ribbon spools on said carriage at each end thereof, a horizontal shaft at each end of said carriage on which said spools are journaled, means for locking said spools to said shaft, guides for turning said ribbons to a vertical position, and a rack on the frame of the machine for driving said shafts.

4. In a front-strike typewriting machine, the combination with a traveling carriage, of a rail adjacent the front of the machine on which said carriage travels, a ribbon mechanism, and a rack on said rail to drive said ribbon mechanism.

5. In a front-strike typewriting machine, the combination with a machine frame and carriage, of ribbons extending along the printing line for writing several copies simultaneously, spools for said ribbons mounted with their axes substantially horizontal on said carriage, means to guide the ribbons into vertical planes in front of the platen, a rack on said frame, and mechanism extending between said spools actuated by said rack to wind said ribbons by movement of the carriage.

[Claims 6 to 28 not printed in the Gazette.]

1,140,274. TYPE-WRITING MACHINE. JOHN C. MCLAUGHLIN, Jersey City, N. J., assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Filed Oct. 29, 1913. Serial No. 797,963. (Cl. 197—156.)



1. In ribbon-vibrating mechanism, the combination of ribbon guides shiftable alternately to active position, mechanism to vibrate said guides, and means to automatically disconnect said mechanism from either guide when the latter is moved to inactive position.

2. In ribbon-vibrating mechanism, the combination of ribbon guides, a vibrator therefor, means to simultaneously shift the guides to active and inactive positions respectively, and means to simultaneously shift the connections of the vibrator from one to the other of the ribbon guides.

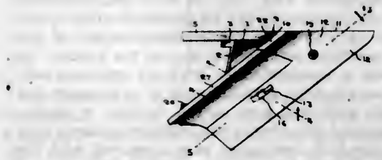
3. In ribbon-vibrating mechanism, the combination of a ribbon guide, means to shift said guide into and out of position to be vibrated over the printing point, an actuator to vibrate said guide, and means to automatically connect the actuator and guide when the latter is moved to operative position, and to disconnect the actuator and guide when the latter is moved to inoperative position.

4. In ribbon-vibrating mechanism, the combination of ribbon guides vertically shiftable alternately into and out of active position, and an actuator extending between said guides and laterally shiftable alternatively into and out of operative connection with the guides.

5. In ribbon mechanism, the combination of ribbon guides having notches therein, means to shift said guides alternatively to active position, and an actuating lever shiftable to alternatively engage said notches and automatically connect the actuating lever to the active guide.

[Claims 6 to 33 not printed in the Gazette.]

1,140,275. PLOWSHARE. MATTHEW MARES, Racine, Wis. Filed July 11, 1914. Serial No. 850,444. (Cl. 97—21.)



1. A plow share comprising a frog having an angular land side section and a plow share section, a land side having a double beveled forward edge, outwardly and inwardly sloped, and a plow share upon said plow share section having a laterally projecting edge-like portion to meet and seat upon said beveled surfaces.

2. A plow share comprising a frog having a land side and a plow share surface, a substantially rectangular plow share section upon the upper portion of the share surface of said frog, and a plow share having an offset portion attached to the plow share surface of said frog in such manner as to overlap said land side, said plow share having a right angular offset portion adapted to seat around said plow share section.

3. A plow share comprising a frog having a threaded aperture in the forward portion and having a slot beveled at the rear edge, in the rearward portion, a land side having two beveled faces upon its forward edge, a plow share having a laterally projecting edge to seat over one of the beveled edges of said land side, and having a threaded aperture therethrough adapted to register with the aperture in said frog, a squared lug having one side beveled, projecting therefrom to seat and lock in said beveled slot, and means threaded in said registering apertures to lock the forward portion of said plow share.

4. A plow share comprising a frog having approximately right angular sections with a threaded aperture through the forward portion and a slot, having a beveled rear edge, through the rearward portion, a land side having an angular forward edge upon one of the angular sections of said frog, so that one of the angles of said forward edge is flush with the opposite angular section of said frog, a substantially rectangular share section upon the upper portion of said frog, a plow share having a right angular offset portion adapted to seat around said share section, and having an angular seat over the angular edge of said land side, and with an aperture adapted to register with the aperture in said frog, a projection, beveled upon one side, projecting from the rear portion of said plow share and adapted to enter and be locked in said slot means, threaded in said apertures to lock the forward portion of said plow share, and a reinforcing bar locking the rearward portions of said share section and said plow share.

1,140,276. WRENCH. JOSEPH E. MILCOFF, Leetsdale, Pa. Filed Dec. 1, 1913. Serial No. 803,049. (Cl. 81—138.)



1. A wrench including a stationary jaw having a toothed shank, a movable jaw upon the shank, a cam roller arranged in an opening in the movable jaw, a shaft for the cam journaled in bearings in the jaw, a handle for the shaft, the opposite walls formed by the opening being flared toward the outer end of the opening and the said outer end communicating with the teeth of the shank, a pawl journaled upon the cam roller, said pawl being formed with a knob which normally contacts with one of the walls provided by the opening and whereby the toothed or engaging end of the pawl is guided into or out of engagement between the teeth of the shank when the shaft is rotated to actuate the cam roller and pawl.

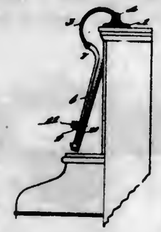
2. A wrench including a stationary jaw having a toothed shank, a movable jaw upon the shank, a pawl carried by the movable jaw for co-acting with the teeth of the shank, a cam roller journaled in bearings upon the movable jaw and passing through a round opening in the pawl, said movable jaw having inclined guide walls, a knob upon one of the edges of the pawl, and a spring contacting with the opposite edge of the pawl to space the pawl proper from the guide walls and permit of the pawl being brought into or out of engagement with the teeth of the shank when the cam roller is rotated.

3. In a wrench, the combination with a toothed shank of a jaw slidably mounted upon the shank, said jaw having a chamber which communicates with the teeth of the shank, the opposite walls of said chamber being inclined, a cam roller within the chamber, said roller being provided with laterally extending shafts which are arranged in bearings in the said walls of the chamber, a pawl mounted upon the cam roller, said pawl having a knob adjacent its engaging face which contacts with one of the walls of the chamber, a spring upon the second wall contacting with the pawl to force its knob into engagement with the first mentioned wall of the chamber, a cam handle for one of the lateral shafts of the cam roller, a spring pressed pin within the handle, and spaced openings upon the side of the movable jaw to receive the spring pressed pin to hold the crank handle after the same has been rotated to bring the pawl into or out of tooth engaging position.

1,140,277. MUSIC-HOLDER. CARL G. MORRAO, Chicago, Ill. Filed Dec. 12, 1913. Serial No. 806,170. (Cl. 45—61.)

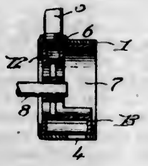
1. A device of the class described comprising a base adapted for arrangement upon the top of a piano or like instrument; an arm pivotally connected at one end with said base at substantially the center thereof; means for releasably clamping said arm in positions of pivotal adjustment relative to said base, said arm being curved so as to permit of the free end thereof projecting below said base and overhanging the front edge of the piano top; an arm having one end pivotally connected with the free end of said first mentioned arm, said second mentioned arm being adapted to assume a position substantially parallel

with the music rest of the instrument; means for releasably clamping said second mentioned arm in positions of pivotal adjustment relative to said first mentioned arm; a cross bar slidably mounted intermediate its ends upon said first mentioned arm; and means for releasably securing said bar in positions of sliding adjustment upon said second mentioned arm, substantially as described.



2. A device of the kind described comprising a base adapted for arrangement upon the top of a piano or like instrument; an arm pivotally connected at one end with said base; means for releasably clamping said arm in positions of pivotal adjustment relative to said base, said arm being curved so as to permit of the free end thereof passing around the front edge of the piano top; an arm having one end pivotally connected with the free end of said first mentioned arm, the free end of said second mentioned arm being straight and adapted to assume a position parallel with the music rest of the instrument; means for releasably clamping said second mentioned arm in positions of pivotal adjustment relative to said first mentioned arm; and a cross bar carried by said second mentioned arm, substantially as described.

1,140,278. GAS-DISTRIBUTING MECHANISM. DUDLEY E. MURRAY, Roanoke, Ind. Filed June 15, 1914. Serial No. 845,226. (Cl. 123—190.)



1. A mechanism to be used in connection with a gas engine comprising a case connected to have communication with the explosion chamber, an explosive mixture supply connected with said case, a cylinder revolubly mounted in said case and connected to have turning movement during the normal operation of the engine, a duct formed around the periphery of said cylinder to be at all times in communication with the explosive mixture supply, and a branch provided from said duct to register with the communicating passage to the explosion chamber as the cylinder is turned and to thus permit the supply of the explosive mixture from the duct to supply the engine.

2. A mechanism to be used in connection with a gas engine having a common intake and exhaust port comprising a case constructed to be connected adjacent said ports and having an opening to establish communication therewith, an explosive mixture supply connected with the case, a cylinder revolubly mounted in the case, a duct formed around said cylinder to be at all times in communication with said explosive mixture supply, a branch provided from said duct to come into registry with the port as the cylinder is turned, an exhaust passage provided in said cylinder, and means connected to cause a turning of said cylinder during the normal operation of the engine.

3. A mechanism to be used in connection with a gas engine having a common inlet and exhaust port comprising a case constructed to be secured adjacent this port and provided with an opening to establish communication therewith, a cylinder rotatably mounted within the case, an explosive-mixture supply connected with the case, a duct provided to extend around the periphery of the cylinder at a point to be at all times in communication with the explosive mixture supply and having a branch formed to extend in the direction of the longitudinal extent of the cylinder to establish communication between the duct and the port at the proper intake interval as the cylinder is turned, and an exhaust passage formed in the cylinder to establish communication from the port to the exhaust as this cylinder is given a further turning movement.

4. A mechanism to be used in connection with a gas engine comprising a case constructed to be secured adjacent the intake port to the engine and provided with an opening to establish communication therewith, a cylinder made in the form of an open ended ring mounted in said case to be capable of revoluble movement, an explosive mixture supply connected with the case adjacent the mounting of said cylinder, a duct provided peripherally around said cylinder to be at all times in registry with said explosive mixture supply, and a branch provided from said duct to open communication to the intake port as the cylinder is turned at the proper intake interval.

5. A mechanism to be used in connection with a gas engine having a common intake and exhaust port comprising a case to be secured adjacent this port and provided with an opening to establish communication therewith, a cylinder revolubly mounted within the case, an explosive-mixture supply connected with the case at a point opposite and offset in the direction of the longitudinal extent of the case from the opening establishing communication to the port, a duct provided peripherally around the cylinder to be at all times in communication with the explosive-mixture supply and provided with a branch to be brought into communication with said port as the cylinder is turned, an exhaust passage provided in the cylinder adjacent said branch from the duct, and means to be connected with the moving parts of the engine to cause the cylinder to be turned to bring said fluid-supply duct and said exhaust passage into registry with said port at the proper intervals.

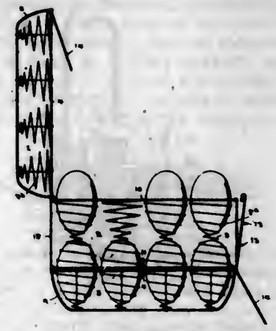
1,140,279. ARTIFICIAL BAIT. EDWARD D. MYERS, Shelby, Mich. Filed July 31, 1914. Serial No. 854,334. (Cl. 43—30.)



An artificial bait comprising a rod or stem having front and rear eyes and an intermediate arm terminating in an eye, the front eye being adapted for the attachment of a line, hooks engaging the other eyes, and a bait body composed of a pair of serpentine shaped sections revolubly mounted upon the rod in front and rear of said arm, said sections having blades for revolving the same in opposite directions.

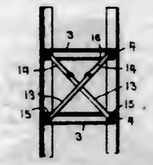
1,140,280. EGG-SHIPPING CONTAINER. EDWARD T. NOWELL, Stotts City, Mo. Filed May 28, 1914. Serial No. 841,585. (Cl. 220—111.)

An egg shipping container comprising a resilient body consisting of a fabricated rectangular portion, oppositely acting fastening members attached to one end thereof, double helical springs carried thereoy, coöperating fabricated members, single helical springs carried by said coöperating member adapted to coöperate with the double helical springs when the members are in closed position and bails attached to the ends of the coöperating members, opposite to the hinged end thereof whereby said



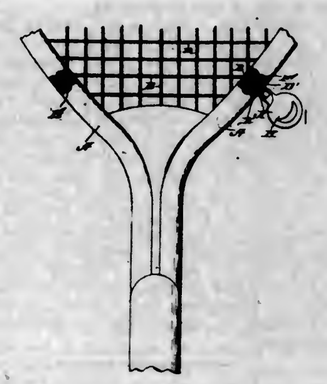
members are drawn toward each other when handled by the bails.

1,140,281. FIRE-ESCAPE. ISAAC FORREST OTTO, Taneytown, Md. Filed Aug. 20, 1912. Serial No. 716,057. (Cl. 228—3.)



In combination, a fire escape of the folding ladder type comprising, parallel upright members, a plurality of tread members pivoted at each end to, and connecting said upright members, adapted to permit of the collapsing of the ladder, and a plurality of brace members pivoted within one of said tread members each having a folding hook section hooked within the neighboring tread member to brace said device in open position.

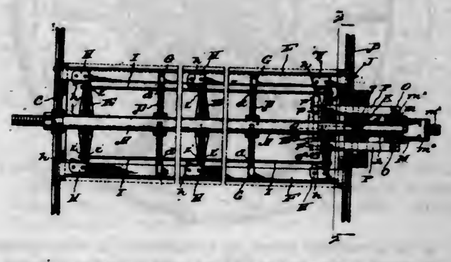
1,140,282. TENSION MEANS FOR LAWN-TENNIS RACKETS. PHILIP DOUGLAS PARSONS, Philadelphia, Pa. Filed May 2, 1914. Serial No. 836,005. (Cl. 46—24.)



In combination with the frame of a racket having cylindrical apertures therein enlarged at the outer ends, a screw provided with a rounded unthreaded end which is apertured, a strand passing through one aperture and having a knot engaging a shoulder therein and passing through the aperture in said screw, the unthreaded end of the screw being adapted to engage and hold the strand

frictionally at points diametrically opposite against the marginal edge of the aperture in which the screw is located, a washer engaging a shoulder in the aperture in which the screw is mounted, and a hollow nut, interiorly threaded, engaging the screw and bearing against said washer, the outer end of the nut having notches therein for the reception of a key.

1,140,283. SPREADER ATTACHMENT FOR COLLAPSIBLE BEAMS FOR DYEING-MACHINES. JESSE M. PAYNE, Summerville, Ala., assignor to Perfection Dyeing Machine Company, Columbus, Ga., a Corporation of Georgia. Filed Oct. 8, 1914. Serial No. 865,673. (Cl. 8—18.)



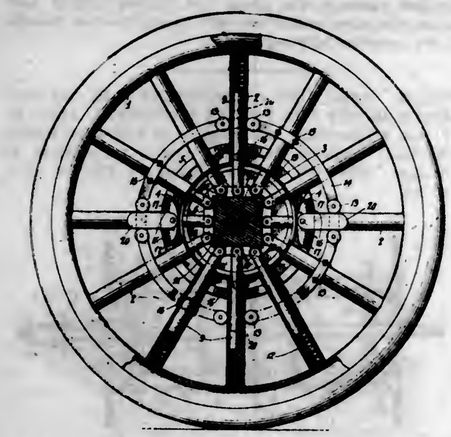
1. The combination in a hollow warper beam of a central shaft with heads mounted thereon, a plurality of slats extending between said heads and forming the periphery of said warper beam, and mounted to move radially away from the axis thereof, and means for reciprocating said slats outwardly and inwardly away from or toward the axis of said warper beam, said means comprising a series of shoes provided with wedge faces mounted on the inner edges of said slats, a frame provided with a series of separators connected together and adapted to slide relative to said slats and to engage said wedge faces on said shoes, a hollow screw mounted concentric with said shaft and exterior to one of the heads thereof, a hollow nut mounted on said screw, a band loosely mounted on said nut but held against longitudinal movement thereon, and hooks connecting said band and one of said separators, substantially as described.

2. The combination in a hollow warper beam of a central shaft with heads mounted thereon, a plurality of slats extending between said heads and forming the periphery of said warper beam, and mounted to move radially away from the axis thereof, and means for reciprocating said slats outwardly and inwardly away from or toward the axis of said warper beam, said means comprising a series of shoes provided with wedge faces mounted on the inner edges of said slats, a frame provided with a series of separators connected together and adapted to slide relative to said slats and to engage said wedge faces on said shoes, a hollow screw mounted concentric with said shaft and exterior to one of the heads thereof, a hollow nut engaging said screw and provided with an annular groove therein, a band loosely mounted in said groove and provided with outwardly-projecting flanges, and hooks connecting said flanges to said frame, with means for turning said nut, substantially as described.

1,140,284. VEHICLE-WHEEL. CHARLES V. POPP, Charleston, W. Va. Filed Apr. 11, 1914. Serial No. 831,221. (Cl. 152—28.)

1. In a resilient wheel, in combination, a wheel proper comprising a rim, hollow spokes carried by the rim and a concentric ring provided at the inner ends of the spokes, hub plates arranged at each side of and projecting beyond said ring, a hub body arranged between said plates and inclosed by said rings, the hub body having a plurality of co-extensive angularly disposed faces, plungers arranged within said hollow spokes, springs arranged within said spokes and tending to force the plungers inwardly, and

anti-friction rollers provided on the inner ends of the plungers to directly engage the angular faces of said hub body, a like number of plungers coacting with each face of said hub body.



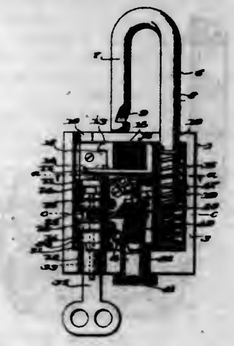
2. In a resilient wheel, in combination, a wheel proper comprising a rim, hollow spokes carried by the rim and a concentric ring provided at the inner ends of the spokes, hub plates arranged at each side of and projecting beyond said ring, a hub body arranged between said plates and inclosed by said ring, plungers arranged within said hollow spokes, springs arranged within said spokes and tending to force the plungers inwardly, the inner ends of the plungers engaging against said hub body, one of the hub plates being utilized to drive the wheel proper and yieldable power-transmitting connections between said driving hub plate and the wheel proper, the connections including pivoted radially disposed arms mounted on said driving hub plate, springs acting upon said arms and rollers carried by the wheel proper and arranged in pairs, each arm working between a pair of rollers.

3. In a resilient wheel, in combination, a wheel proper comprising a rim and hollow spokes carried by the rim, an axle, a hub body mounted thereon, in the plane of the wheel, the hub body having a plurality of co-extensive angularly disposed faces, plungers arranged within said hollow spokes, springs arranged within said spokes and tending to force the plungers inwardly and anti-friction rollers provided on the inner ends of the plungers to directly engage the angular faces of said hub body, a like number of plungers co-acting with each of said angular faces of said hub body.

1,140,285. SLIDING-SHACKLE PADLOCK. FRANK PROKOP, Milwaukee, Wis. Filed July 7, 1914. Serial No. 849,531. (Cl. 70—108.)

1. In a lock, a bolt, a key operated tumbler to actuate the bolt, a key operated false tumbler, a key stop movable into and out of position to prevent the engagement of the key with the tumbler, said stop having a traveling arm and also having an actuating arm, the latter provided with a non-circular opening, and a knob mounted for rotation and having a shaft provided with a non-circular portion to engage the opening of the actuating arm and with a threaded portion to engage a threaded opening in the traveling arm.

2. In a lock, a bolt, a key operated tumbler to actuate the bolt, a key operated false tumbler, a key stop movable into and out of position to prevent the engagement of the key with the tumbler, said stop having a traveling arm and also having an actuating arm, the latter provided with a non-circular opening, and a knob mounted for rotation and having a shaft provided with a non-circular portion to engage the opening of the actuating arm and with a threaded portion to engage a threaded opening in the traveling arm, a spring to normally move the knob out of such engaged position and a spring to normally hold



the stop in position to prevent the insertion of the key in the tumbler.

1,140,286. LOCK-NUT. GEORGE W. RHOADS and CURRY S. SMALL, Franklin, Pa. Filed Sept. 10, 1913. Serial No. 789,115. (Cl. 151—39.)

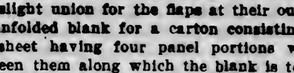


1. In combination, a plate, a bolt passing through the plate, a pocket provided upon the plate of two depths, a dog comprising a member having its outer face curved inwardly from its ends and including a body and a reduced tongue adapted to be received within the pocket and fulcrumed therein at the juncture of the shallow and deep portion of the pocket to normally permit of both of the ends of the dog projecting beyond the plate, a nut for the bolt, said nut having its inner face formed with spaced depressions which terminate in shoulders, and which are adapted to ride over the dog to rock the dog to alternately bring its ends to within the depressions and to cause one of the ends of the dog to contact with the shoulder of one of said depressions.

2. In combination, a plate, a bolt passing through said plate, a bolt plate arranged between the head of the bolt and the first mentioned plate, a pocket provided upon the said first mentioned plate and being of two depths, a dog comprising a member having its outer face curved from its opposite ends, and including a body having an outer rounded corner and a reduced tongue, the said dog adapted to be received within the pocket and fulcrumed therein at the juncture of the shallow and deep portions of the pocket to permit one of the ends of the dog projecting beyond the plate, a nut for the bolt, said nut having its inner face formed with concentrically arranged spaced depressions which terminate in shoulders, and which are adapted to ride over the dog, when the nut is screwed upon the bolt to rock the dog to alternately bring its ends to within the depressions, and to cause the end provided with the tongue to engage with the shoulder of one of said depressions.

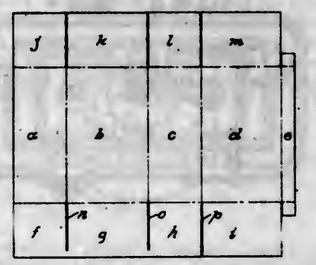
1,140,287. THREADING ATTACHMENT FOR SHUTTLES. WILLIAM J. ROBERTS, Pawtucket, R. I. Filed Mar. 5, 1914. Serial No. 822,677. (Cl. 139—46.)

The combination with a shuttle having a recess in its upper face at one end thereof and an opening through one of its upright sides communicating with said recess, an open guide eye located in the bottom of said recess near one side of the shuttle, another open guide eye located in the bottom of the side opening of said shuttle in a plane below the plane of said first mentioned eye and disposed in transverse alinement therewith, of a thread guide formed of a single piece of wire bent upon itself intermediately of its ends to form an elongated loop, the closed end of which is inclined upwardly and one arm shorter than the other, the short arm of said loop having its terminal bent downwardly to form an attaching prong for insertion in the bottom of the recess near the guide



eye therein, said arm also having a downwardly bent portion adjacent its terminal to form a downwardly opening guide arranged in alinement with said guide eye to direct the thread into said guide eye, the long arm of the loop being bowed outwardly from a point midway its length to its free end, said bowed portion extending obliquely across the side opening of the shuttle and having its free end disposed outside of said shuttle, said arm being disposed above the eye located in said opening and having its terminal formed into an attaching prong inserted in the side of the shuttle at the rear of the opening therein.

1,140,288. CARTON-BLANK. GEORGE A. ROBINSON, Boston, Mass., assignor to Pneumatic Scale Corporation, Limited, Quincy, Mass., a Corporation of Maine. Original application filed July 7, 1914, Serial No. 849,396. Divided and this application filed Dec. 14, 1914. Serial No. 877,033. (Cl. 229—37.)

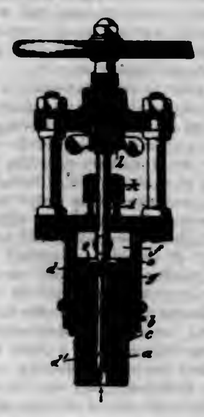


1. An unfolded blank for a carton consisting of a flat unfolded sheet having scored lines along which the sheet is to be folded to form the body of the carton, flaps at one end of the blank for forming the bottom of the carton, said bottom forming flaps being extensions respectively of the panels for the body of the carton, an intermediate one of said bottom forming flaps being partially separated from the adjacent flap by a slit at the side of said intermediate flap and in alinement with the said folding line between the panels and which extends from the end of said folding line between the panels and the flaps toward the outer end of the flap but stopping short of the end, thereby leaving a slight union for the flaps at their outer ends.

2. An unfolded blank for a carton consisting of a flat unfolded sheet having four panel portions with scored lines between them along which the blank is to be folded to form the body of the carton, a sealing lap portion on one side of one of the outer panel portions of the blank, flaps at one end of the blank for forming the bottom of the carton, said bottom forming flaps being extensions respectively of the panels for the body of the carton, an intermediate one of said bottom forming flaps being partially separated from the two adjacent flaps by slits at both sides of said intermediate flap in alinement with the said folding lines and which extend from the ends of the said folding lines between the panels and between the flaps toward the outer end of the flap but stopping short of the end thereby leaving a slight union for the flaps at their outer ends.

3. An unfolded blank for a carton consisting of a flat unfolded sheet having four panel portions with scored lines between them along which the blank is to be folded to form the body of the carton, a sealing lap portion on one side of one of the outer panel portions of the blank, flaps at one end of the blank for forming the bottom of the carton, said bottom forming flaps being extensions respectively of the panels for the body of the carton, an intermediate one of said bottom forming flaps being partially separated from the two adjacent flaps by slits at both sides of said intermediate flap in alinement with the said folding lines and which extend from the ends of the said folding lines between the panels and between the flaps toward the outer end of the flap but stopping short of the end, thereby leaving a slight union for the flaps at their outer ends, the bottom forming flap which is an extension of one of the outside panel portions being separated from the flap of the adjacent panel by a slit in continuation of the folding line between said panels which continues clear to the outer end of the flap.

1,140,289. APPARATUS FOR HOMOGENIZING MILK AND OTHER LIQUIDS. WILHELM GOTTHILF SCHRÖDER, Lübeck, Germany. Filed Nov. 26, 1913. Serial No. 803,187. (Cl. 99—3.)



1. In a homogenizing apparatus, the combination with a casing, of two series of coacting working members carrying double working surfaces, located within said casing, the members of each series adapted to be placed in alternate relation with the members of the other series.

2. In a homogenizing apparatus, the combination with a casing, of two series of coacting working members carrying double working surfaces, located within said casing, the members of each series adapted to be placed in alternate relation with the members of the other series, and further adapted to space apart the members of the other series from one another.

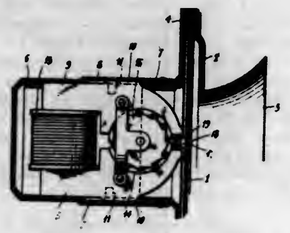
3. In a homogenizing apparatus, the combination with a casing, of a series of equal sized working members carrying double working surfaces, located within said casing, and a second series of equal sized coacting working members carrying double working surfaces, the members of each series adapted to be placed in alternate relation with the members of the other series.

4. In a homogenizing apparatus, the combination with a casing, of a series of equal sized working members carrying double working surfaces, located within said casing, and a second series of equal sized coacting working members carrying double working surfaces, the members of each series adapted to be placed in alternate relation with the members of the other series and further adapted to space apart the members of the other series from one another.

5. In a homogenizing apparatus, the combination with a casing carrying internal longitudinal grooves, of two series of coacting working members located within said casing.

[Claims 6 to 13 not printed in the Gazette.]

1,140,290. SIGNAL-HORN. SALVATORE SCOGNAMILLO, New York, N. Y. Filed Sept. 5, 1913. Serial No. 788,336. (Cl. 177—7.)



1. In a signal of the class described, a vibratory sound-producing diaphragm, an actuating projection secured at one point to the diaphragm and having an arm extending toward the periphery of the diaphragm and out of contact with the adjacent face thereof, and an electric motor having a revoluble toothed wheel coöperative with said actuating projection and having field pieces located at opposite sides of said projection.

2. In a device of the class described, a vibratory sound-producing diaphragm, an actuating projection secured to the center of the diaphragm and having an arm extending radially in a direction parallel to the plane of the diaphragm but out of contact with the face thereof, the outer extremity of said projection being formed with an operating tooth, and an electric motor having a revoluble toothed wheel coöperative with said actuating tooth and having its field pieces straddling said projection.

3. In a signal of the class described, the combination with a motor having field pieces, an armature and a toothed wheel revoluble therewith, a vibratory sound-producing diaphragm located opposite to the poles of the motor field pieces, and an actuating projection secured to the center of the diaphragm at a point between the poles of the motor field pieces and having an arm extending radially of the diaphragm and out of contact with the face thereof, the outer end of said projection coöperating with said toothed wheel.

4. In a signal of the class described, the combination with a vibratory sound-producing diaphragm, a member having a pair of lugs extending in parallelism therefrom, a motor having an armature provided with a toothed wheel to operate the diaphragm and having a field provided at opposite sides with pairs of flanges to slidably engage said lugs to position the motor relatively to the diaphragm.

5. In a signal of the class described, the combination with a vibratory sound-producing diaphragm, a member having a pair of lugs extending in parallelism therefrom, a motor having an armature provided with a toothed wheel to operate the diaphragm and having a field composed of assembled plates, the outer plates formed with flanges adapted to coöperate with said lugs to position the motor and permit adjustment thereof in a direction toward or from the diaphragm.

[Claims 6 and 7 not printed in the Gazette.]

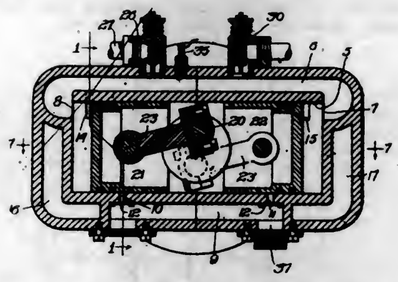
1,140,291. FASTENING DEVICE. WALTER THOMAS SCOTT, Gloucester, Mass. Filed Nov. 19, 1912, Serial No. 732,339. Renewed Nov. 28, 1914. Serial No. 874,559. (Cl. 24—225.)

A garment fastener comprising a plate of sheet material adapted to be secured to one margin of a garment in flat-abutting relation and having a pair of lugs struck up therefrom with the ends of the lugs approaching but not meeting to thereby form an entrance passage between said lugs, and a substantially U-shaped resilient element adapted to be secured to another margin of the garment at the crotch of said element, the ends of said U-shaped element being adapted to be contracted for insertion through said entrance passage and thereafter spreading to engage the bases of the lugs at the juncture thereof with said plates, the terminal ends of said element being



coiled to hook around said lugs and prevent displacement of said plate and element away from each other and also hold the legs of the U-shaped elements under said lugs, and the legs of the U-shaped element diverging outwardly from the lugs to prevent relative displacement of said plate and element toward each other, substantially as described.

1,140,292. INTERNAL-COMBUSTION ENGINE. FRANK A. SHARPNECK and LEE O. GILLILAND, Chicago, Ill.; said Sharpneck assignor to said Gilliland. Filed Nov. 10, 1913. Serial No. 800,057. (Cl. 123—53.)



In an internal combustion engine, a cylinder and a piston reciprocable relative to each other, a combustion chamber in open communication with the compression end of the cylinder, a second combustion chamber shut off entirely from the first combustion chamber having a passage leading into the cylinder at such a point that it would be covered by the piston when the latter is at the beginning of its working stroke and be uncovered by the piston after the latter has partially completed its working stroke, means for admitting a combustible mixture directly into each of said chambers, and means for igniting the combustible mixture in each of the combustion chambers.

1,140,293. CLUTCH FOR WINDING-ENGINES OR OTHER MACHINES. WILLIAM FREDERICK SMEETH, Bangalur, India. Filed Dec. 30, 1914. Serial No. 879,760. (Cl. 192—9.)



1. In clutches for winding engines, the combination of driving and driven elements, toothed clutch members cooperative with the respective elements and relatively movable in a direction toward or from one another to engage and disengage them, and means between one of the clutch members and its respective element for connecting such clutch member in different positions of rotation relatively to said element.

2. In clutches for winding engines, the combination of driving and driven elements, toothed clutch members cooperative with the respective elements and movable relatively toward and from one another, said clutch members being capable of engagement in a plurality of positions of relative rotation, and means for connecting one of said clutch members to its respective element in a number of positions which is not a multiple of the number of positions of engagement of the clutch members.

3. In clutches for winding engines, the combination of driving and driven elements, a clutch member connected to one of said elements, and a coöperative clutch member on the other element shiftable to connect and disconnect it relatively thereto and to the clutch member first mentioned and also capable of being rotated and engaged in different relations relatively to the element carrying it and to the clutch member first mentioned.

4. In clutches for winding engines, the combination of driving and driven elements, a toothed clutch member connected to one of said elements, and a coöperating toothed clutch member shiftable relatively to the other element to connect and disconnect it relatively thereto and to the clutch member first mentioned and also rotatable relatively to its respective element to engage it in different driving relations therewith and with the clutch member first mentioned.

5. In clutches for winding engines, the combination with driving and driven elements, of toothed clutch members capable of engaging one another in a plurality of positions of relative rotation and relatively movable toward and from one another to engage and disengage one another, and a connection between one of the clutch members and its respective element whereby said clutch member may be connected in a plurality of positions of relative rotation on said element, said connection being disengaged by relative separation of the clutch members.

[Claim 6 not printed in the Gazette.]

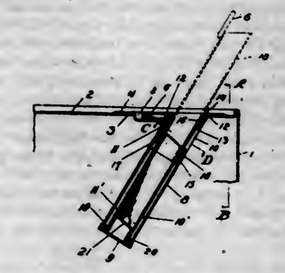
1,140,294. VACUUM-CLEANER. ROBERT R. SMITH, Philadelphia, Pa., assignor to Miller Lock Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Jan. 9, 1912. Serial No. 670,208. (Cl. 15—60.)



1. In a vacuum-cleaner, a casing, wheels journaled in said casing, a pump cylinder in said casing, a piston in said cylinder and operatively connected to said wheels, a vacuum-chamber detachably secured to the front of said casing and arranged longitudinally in line with said pump cylinder and communicating with the intake of said pump cylinder, and a nozzle detachably secured to and communicating with said vacuum-chamber.

2. In a vacuum-cleaner, a casing having a forward wall, wheels mounted in said casing, a dust-separating vacuum chamber having a rear wall juxtaposed to said casing wall, bolts passing through the front wall of the casing and the rear wall of the vacuum-chamber and provided with nuts for detachably clamping said walls together, a suction-device operatively connected to the wheels and supported within the casing in the rear of said vacuum-chamber to have its intake communicate with the vacuum-chamber through the walls, and a suction-nozzle secured to the forward end of the vacuum-chamber and discharging into the same.

1,140,295. CAN-CLOSURE. DANIEL B. TAMAGNO, New York, N. Y., assignor to Lydie Tamagno, New York, N. Y. Filed Aug. 2, 1913. Serial No. 782,603. (Cl. 221—21.)



1. A can closure comprising a tube extending into the can from the top thereof, a port in one side thereof adjacent the top of the can, packing surrounding the port and held in fixed relation thereto by inset ribs or flanges, a telescoping pouring spout fitting within said tube, having a port adapted when the spout is drawn out to register with the port in the fixed tube, the wall of the spout in which said port is located moving in intimate contact with said packing, said spout also having a bottom or floor which when the spout is drawn out is substantially opposite the bottom edge of the two said ports.

2. A can closure comprising a tube extending into the can from the top thereof, a port in one flat side thereof adjacent the top of the can, a flat packing surrounding the port and held in fixed relation thereto by inset ribs or flanges, a telescoping pouring spout fitting within said tube, having in a flat side a port adapted when the spout is drawn out to register with the port in the fixed tube, the wall of the spout in which said port is located moving in intimate contact with said packing, said spout also having a bottom or floor which when the spout is drawn out is substantially opposite the bottom edge of the two said ports.

3. A can closure comprising a tube extending into the can from the top thereof and which is rectangular in cross-section, a port adjacent the top of the can in one flat wall of the tube and a vent substantially opposite said port in the opposite flat wall of the tube, flat packings surrounding the port and vent, means on the tube for locking or holding the packings in position, and a telescoping pouring spout having flat walls slidable within the tube in contact with the packings and provided with port and vent openings adapted to aline with the port and vent of the tube when the spout is withdrawn for pouring.

4. A can closure comprising a rectangular tube extending into the can from the top thereof, a port in one of the flat walls of the tube adjacent the top of the can and a vent in the tube substantially opposite said port, packings surrounding the port and vent, means in the tube for holding the packings in position, a telescoping pouring spout slidable within the tube and having opposite flat walls that run in intimate contact with the packings surrounding the vent and port and having corresponding vent and port openings adapted to be brought opposite said port and vents when the spout is withdrawn for pouring, said spout being otherwise closed except at its mouth and having a bottom or floor closely adjacent the lower edge of the port-opening therein and inclined downwardly toward said port.

1,140,296. RETTING PROCESS. MATTHEW ATKINSON ADAM, London, England, and WILLIAM JAMES FERNIE, Dromara, Ireland. Filed Jan. 9, 1905. Serial No. 1,442. (Cl. 92—5.)

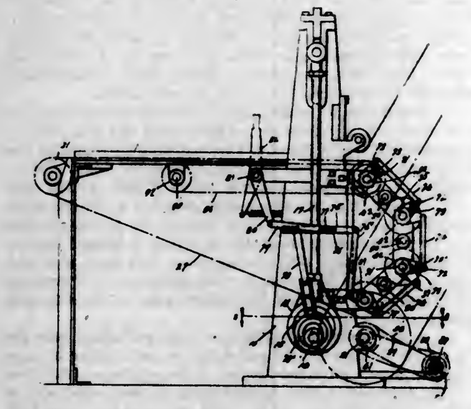
1. A method of retting flax or the like in which the temperature of the retting water is at first elevated above that during the normal retting and is subsequently during the latter stages of retting lowered to about that at which river retting is normally carried out, as set forth.

2. The method of retting flax or the like in which the temperature of the retting water is maintained at an elevated temperature of about 37° C. during the first part of the retting and is maintained at only about 20 to 25° C. in the second part of the retting, as set forth.

3. The method of retting flax straw consisting in immersing it in flowing water, maintaining the temeperature of the water at obout 37° C. for less than half the total retting period and lowering the temperature to say 20 to 25° for the remainder of the retting period, as set forth.

4. A method of retting flax straw consisting in immersing flax straw vertically in flowing water constraining the liquid to flow uniformly through the straw in the direction of the length of the straws from above downward, maintaining the temperature of the water at about 37° C. for some 8 hours and thereafter maintaining the temperature of the water at about 20 to 25° C. as set forth.

1,140,297. BOX-BLANK MACHINE. HUGH BROWN, Battle Creek, Mich., assignor to The Greenstreet Folding Box Machine Company, Indianapolis, Ind., a Corporation of Arizona. Filed Oct. 6, 1913. Serial No. 793,786. (Cl. 1—14.)



1. The combination of material-guiding means, means for operating upon the material, a plurality of independently movable material-feeding members traversing to the same extent the guiding means, and two driving mechanisms for each material-feeding member, one of said driving mechanisms operating through the feeding members to drive the material in the guiding means, and the other of said driving mechanisms operating to move the feeding member through a portion of its path of travel.

2. The combination of material-guiding means, means for operating on the material, a plurality of feed-chains each carrying a member traversing the material-guiding means, and a plurality of driving couples, one couple for each feed-chain, one member of each driving couple comprising intermittently operating driving mechanism operating to drive its feed-chain and material engaged thereby intermittently through the guiding means, and the other member of each couple comprising yielding driving mechanism capable of driving its feed-chain when sufficiently unopposed.

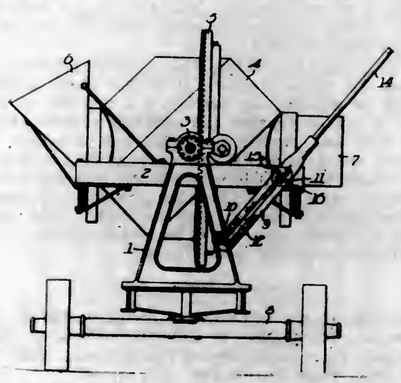
3. In a box blank machine, the combination of stapling mechanism, a cleat guide leading thereto, and a plurality of feed chains each having a portion traversing the cleat guide, a plurality of driving couples for the said feed-chains, each couple comprising driving mechanism operating upon its feed-chain to drive the same positively step-by-step, and the other member of each driving couple comprising yielding driving means acting upon its feed-chain to advance the same when sufficiently unopposed at an average speed greater than the speed of the step-by-step driving mechanism, and means for synchronizing two or more of the step-by-step driving means.

4. In a box blank machine, the combination of a stapling mechanism, a cleat guide leading thereto, a plurality of independently moving feed-chains each having a portion traversing the cleat guide to the same extent, ratchet mechanism operating at times upon the feed-chains to positively advance the same step-by-step, and other yielding driving means operating upon the feed-chains to drive the same when sufficiently unopposed at an average speed greater than that obtained by the step-by-step driving means.

5. In a box blank machine, the combination of stapling mechanism, cleat guides leading thereto, a plurality of feed-chains each having a portion traversing the cleat guide, a plurality of driving shafts each supporting and controlling one of the feed-chains, ratchet driving mechanism operating upon each drive shaft to advance the same step-by-step, and friction driving means operating upon each drive shaft to advance the same when sufficiently unopposed at an average speed greater than the speed of the ratchet mechanism.

[Claim 6 not printed in the Gazette.]

1,140,298. ACTUATING MEANS FOR DUMPING CONCRETE-MIXERS. JOHN M. BRUNS, Waterloo, Iowa, assignor to Waterloo Cement Machinery Corporation, Waterloo, Iowa. Filed Feb. 14, 1910. Serial No. 543,865. (Cl. 74—5.)

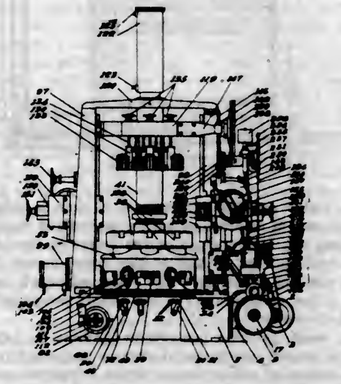


1. In a device of the kind described and in combination, a supporting frame, a tiltable member pivotally supported on a substantially horizontal line on the supporting frame, and means for moving said tiltable member, said means consisting of a lever having at one end a sliding pivotal connection with the supporting frame, and at a point intermediate of its ends also pivotally connected to the tilting member, said lever being provided with a longitudinal slot in which one of said pivots is positioned, and the other pivot being in fixed relation to the lever regarding movement longitudinally of the lever, whereby upon operating the lever the fulcrum and weight are caused to approach each other to modify the operative power required.

2. In a device of the kind described, and in combination, a supporting frame, a member pivotally supported in said frame for tilting movement about a horizontal axis and means for tilting said member comprising a lever having a connection at one end with the supporting frame at a point below the pivotal connection of the tiltable member with the supporting frame, and said lever also having a connection with the tilting member below the pivotal connection of the tilting member with the frame, both of said lever connections being positioned at the same side of a vertical plane passing through the pivot of the tilting member, one of said lever connections being a pivotal sliding connection, and the other of said lever connections being a fixed pivotal connection, whereby upon operating the lever the fulcrum and weight are caused to approach each other to modify the operative power required.

3. In a device of the kind described and in combination, a supporting frame, a tiltable member pivotally supported on a substantially horizontal line on the supporting frame, and means for moving said tiltable member, said means consisting of a lever having at one end a sliding pivotal connection with the supporting frame, and at a point intermediate of its ends also pivotally connected to the tilting member, said lever being provided with a longitudinal slot in which one of said pivots is positioned, said slot having an angular extension in line with the said pivot when the parts are in operative position, and the other pivot being fixed to the lever respecting movement of the same longitudinally of the lever, whereby upon operating the lever the fulcrum and weight are caused to approach each other to modify the operative power required.

1,140,299. AUTOMATIC MULTIPLE-SPINDLE LATHE. CONRAD M. CONRADSON, Madison, Wis. Filed Mar. 30, 1914. Serial No. 828,369. (Cl. 29—38.)



1. In a multiple spindle lathe, a revolving carrier having a step by step movement, a plurality of revolving driving spindles having a stationary support, a plurality of work-holding spindles mounted in said carrier to revolve therewith and encircling said driving spindles and geared thereto to be revolved thereby, means for operating said spindles at variable speeds, and a tool carrier having a reciprocating movement toward and from said work-holding spindles, and tool holders mounted in said tool carrier to register respectively with said work-holding spindles.

2. In a multiple spindle lathe, a plurality of driving spindles having a stationary support, a revolving work carrier having a step by step movement around said spindles, a plurality of work-holding spindles mounted in said carrier at a uniform distance from the axis thereof and from one another, said driving spindles having gearing whereby one or more of them may be stationary and all the others driven simultaneously, said work-carrying spindles being geared to and encircling said driving spindles to be revolved successively thereby only during the stationary or intermediate periods between the steps of said work carrier, the stationary period of each work-carrying spindle, when opposite the stationary driving spindle, permitting the convenient mounting or removal of the work, and a reciprocating tool carrier having tool holders supported opposite and registering with said work-carrying spindles.

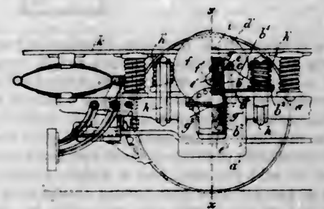
3. The combination, with a revolving carrier having an intermittent movement, of a central driving gear, a plurality of work-carrying spindles mounted in said carrier and having gears thereon, a corresponding number of driving spindles mounted in fixed bearings between said central gear and said work-carrying spindles and having gears meshing continuously with said central driving gear and intermittently with said work-carrying spindle gears in the revolution of said carrier.

4. The combination, with a revolving carrier having an intermittent movement, of a central driving gear, a plurality of driving spindles having a stationary support and variable speed driving connections with said central driving gear, a corresponding number of work-carrying spindles mounted in said carrier to revolve therewith around said driving spindles, gears for said work-carrying spindles, variable speed driving connections between said driving spindles and said work-carrying spindles for operating the latter during the stationary periods of said carrier, the gears of said work-carrying spindles moving out of engagement with the gears of said driving spindles during the revolving movement of said carrier.

5. The combination, with a revolving carrier having an intermittent movement, of a central driving gear, a plurality of driving spindles mounted in fixed bearings and uniformly spaced apart around said central driving gear, a plurality of work-carrying spindles mounted in said carrier to revolve therewith, gears of different sizes for said work-carrying spindles and gears of different sizes for said driving spindles mounted to mesh with said central driving gear and with the gears of said work-carrying spindles for operating any one of said work-carrying spindles or any group of said spindles at the same or variable speeds, or allowing any one of said work-carrying spindles or any group of said spindles to remain stationary during the revolution of said carrier, said work-carrying spindles passing out of driving connection with said driving spindles and being stationary on their own axes during the movement of said carrier.

[Claims 6 to 92 not printed in the Gazette.]

1,140,300. ANTIFRICTION MECHANISM FOR CAR TRUCKS. JOHN EDWARD COOPER, Stratford, London, England. Filed Mar. 17, 1915. Serial No. 15,040. (Cl. 105—135.)



1. The combination with a pair of truck wheels, their axle and its axle boxes, of the side frames of the truck having recessed portions below said axle boxes to receive them, antifriction wheels resting on the axle and having shafts connecting them, journal boxes for said shafts mounted over said axle boxes, spring-supporting flanges projecting laterally from the boxes, vertically arranged springs thereon, and swinging links supported by said springs and extending under the side frames.

2. The combination with a pair of truck wheels, their axle and its boxes, of side frames having recessed portions below said axle boxes to receive them, anti-friction wheels resting on the axle and having shafts connecting them, journal boxes for said shafts mounted over said axle boxes and formed with spring-supporting laterally projecting flanges extending over the upper edges of the side frames but a short distance above them, springs mounted on said flanges, vertically arranged supporting springs carried by the side frames, and swinging links supported by the springs on said flanges and extending under the side frames.

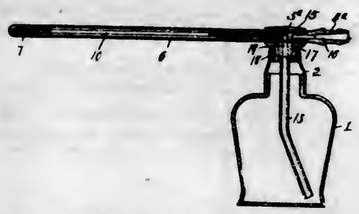
3. The combination with a pair of truck wheels, their axle and its boxes, of side frames having recessed portions below said axle boxes to receive them, journal boxes mounted above said axle boxes, a pair of anti-friction wheels resting on the axle near each end thereof, one of which wheels in each pair is outside its adjacent box and which is formed with holes for introducing a bearing and

lubricating material to said box, and a shaft for each pair of anti-friction wheels extending through its journal box, and means for suspending the side frames from the boxes.

4. The combination with a pair of truck wheels, their axle and its boxes, of anti-friction wheels resting on said axle near each end thereof, a shaft for each pair of wheels which is detachably connected with one of them and which is provided with lubricant channels or passages, a journal box for each shaft interposed between the wheels and above each of said axle boxes and side frames suspended from said journal boxes.

5. The combination with a pair of truck wheels, their axle and its axle boxes, of a journal box above each of said axle boxes, a pair of anti-friction wheels resting on said axle near each end thereof, and one of which has openings for the introduction of a bearing block and lubricating material, a shaft connecting each pair of wheels, a journal box for each of said shafts arranged between the wheels, dust-shields for said anti-friction wheels having openings for the introduction of a bearing block and lubricating material and side frames suspended from said journal boxes.

1,140,301. ATOMIZER OR THE LIKE. ALLEN DE VILBISS, Toledo, Ohio, assignor to The De Vilbiss Manufacturing Company, Toledo, Ohio, a Corporation of Ohio. Filed Dec. 18, 1913. Serial No. 807,432. (Cl. 128—2.)



1. In an instrument of the class described, a head, an air tube rigidly projecting from said head and in communication with a source of air supply, said head having a passage in communication at one end with a source of liquid supply and opening at its other end into said air tube, a liquid tube disposed within said air tube and having its inner end removably seating against the head around the outlet end of said passage, and a nozzle carried by the outer end of the air tube and having thrust contact with the outer end of the liquid tube to retain its inner end seated against the head.

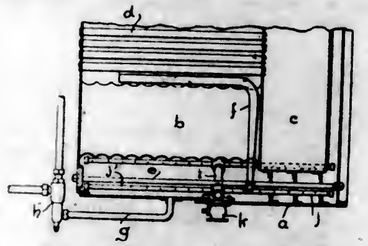
2. In an instrument of the class described, a head having an opening therethrough and air and liquid passages in communication with said opening, an air-discharge tube and a heel-piece projected into said opening from opposite ends thereof and coöperating to secure themselves therein, said tube and heel-piece having their passages in communication with the respective passages in said head.

3. In an instrument of the class described, a liquid receptacle, a head carried thereby and having a plurality of air passages and a liquid passage in communication with the interior of the receptacle, a heel-piece and an air-discharge tube carried by the head and having their bores in communication through the air passages of said head and the interior of the receptacle, and a liquid-discharge tube removably mounted in the air-discharge tube and having its bore in connection with the interior of the receptacle through the liquid passage of the head, and a discharge nozzle for said tubes.

4. In an instrument of the class described, a head having an opening therethrough and liquid and air passages leading transversely therefrom, an air-tube projecting from within said head opening, a heel-piece projected into the air-tube within said opening, said tube and heel-piece having ports in communication with respective air passages of the head, said heel-piece having its inner end provided with a passage in communication with the liquid passage of the head, a liquid-discharge tube seated at its inner end against the inner end of the heel-piece with its bore in communication with the liquid passage therein, and a nozzle for the discharge ends of said tubes.

5. In an instrument of the class described, a liquid receptacle and means forming an air passage in communication at one end with a source of air supply and having a discharge nozzle at its other end, said air passage being formed in part by the interior of the receptacle whereby all of the air passing through said passage enters the receptacle, and means coöperating with said first means to form a liquid discharge passage leading from the interior of the receptacle to said nozzle.

1,140,302. WATER-PURIFIER. JAMES C. ECKLIFF, Detroit, Mich., assignor to Eckliff Automatic Boiler Circulator Company, Detroit, Mich., a Corporation of Michigan. Filed Aug. 23, 1913. Serial No. 786,242. (Cl. 122—379.)



1. A water purifier for boilers, having in combination with the steam generating boiler, means for substantially equalizing the temperature of the water at the top of the water level and the bottom of the boiler, means for introducing the feed water into the boiler adjacent the bottom of the boiler, and means for completely sweeping the bottom of the boiler.

2. A water purifier for boilers, having in combination with the steam generating boiler, a temperature balance for maintaining substantially equal temperatures for the water in all parts of the boiler, means for introducing the feed water into the boiler adjacent the bottom of the boiler, and a blow off for completely sweeping the bottom of the boiler.

1,140,303. APPARATUS FOR MAKING CONCRETE PILES IN THE GROUND. GOTTFRIED FEDER, Munich, Germany. Filed Apr. 10, 1913. Serial No. 760,292. (Cl. 189—23.1.)



1. Apparatus for making concrete piles in the ground comprising a casing pointed at its lower end, a ramming core within said casing consisting of a number of girders having flanges constituting a circle and radially disposed webs having recesses, wedges arranged in said recesses, shackles surrounding said casing at predetermined intervals, a means for adjusting said wedges for spreading the girders against the action of said shackles to constitute a hollow shell, means for holding the upper ends of said girders together and means for receiving the blows of the ram.

2. Apparatus for making concrete piles in the ground comprising a casing pointed at its lower end, a ramming core within said casing consisting of a plurality of T-shaped girders forming a cylinder, a spindle guided within said cylinder for spreading said girders apart, removable shackles constituting with said girders a hollow shell under spreading action, means for holding the upper ends of the girders together, a cover for the upper end of said casing adapted to receive the blows of a ram, means secured to said spindle for permitting the withdrawal of the core from said casing and means for preventing said casing from following the upward movement of said core during its withdrawal.

3. Apparatus for making concrete piles in the ground, comprising a casing pointed at its lower end, a ramming core within said casing consisting of a plurality of T-shaped girders provided with flanges adapted to form with their outer faces curved on a circular arc, a cylinder, webs radially disposed and secured to said flanges, a spindle within said cylinder for spreading said girders apart, removable means constituting with said girders a hollow shell under said spreading action, a ring surrounding the upper ends of said girders for holding the same together, a cover for the top of said casing adapted to receive the blows of a ram and to snugly fit with its upper stepped part against said ring holding the same in position, means secured to said spindle for permitting the withdrawal of said core from said casing, and barbs for preventing said casing from following the upward movement of said core during its withdrawal from the casing.

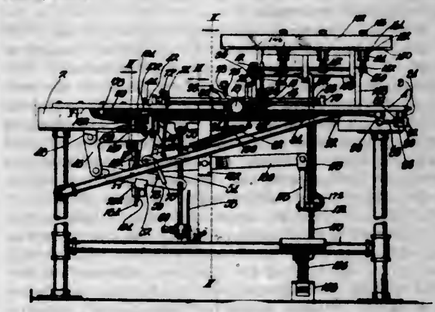
4. Apparatus for making concrete piles in the ground, comprising a casing pointed at its lower end, a ramming core within said casing consisting of a plurality of T-girders provided with flanges adapted to form with their outer faces curved on a circular arc, a cylinder, webs radially disposed and secured to said flanges, a spindle within said cylinder for spreading said girders apart, removable shackles surrounding said casing at predetermined intervals, constituting with said girders a hollow shell under said spreading action, a ring surrounding the upper ends of said girders for holding the same together, a cover for the top part of said casing adapted to receive the blows of a ram and to snugly fit with its upper stepped part against said ring holding the same in position, rings secured to said spindle for permitting the withdrawal of said core from said casing, and barbs for preventing said casing from following the upward movement of said core during said withdrawal.

5. Apparatus for making concrete piles in the ground, comprising a casing pointed at its lower end, a ramming core within said casing consisting of a plurality of T-shaped girders provided with flanges adapted to form with their outer faces curved on a circular arc, a cylinder, webs radially disposed and secured to said flanges having tapering, oppositely directed recesses, truncated conical wedges with central longitudinal holes and fitting in said recesses, a spindle secured to one of said wedges and extending through the other, a square head upon said spindle near its upper end presenting a means to rotate said spindle for approximating the two wedges, and a collar on said spindle supporting the conical wedge through which said spindle is extended, and means for withdrawing said spindle and core from said casing.

[Claim 6 not printed in the Gazette.]

1,140,304. BUTTON AND BUTTONHOLE MARKING DEVICE. WILLIAM S. FREDLAND, Kansas City, Mo. Filed July 26, 1913. Serial No. 781,290. (Cl. 33—190.)

1. The method of marking button and button-hole plaits, consisting in placing said plaits in superposed relation against a suitable support, and then marking said plaits at the points where the buttons and button-holes are to be located by piercing said plaits simultaneously at said points.



2. In a button-buttonhole marking machine, marking mechanism, a work supporting arm, means adjustable on said arm for clamping one portion of the work to be marked, means engaging another portion of the work and coöperating with said clamping means for securing the work in position, and separate means acting automatically to lock the said clamping means and said coöperating means after the same has been engaged with the work.

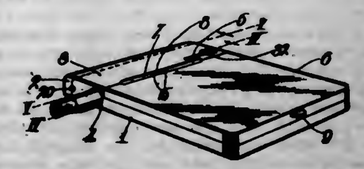
3. In a button-buttonhole marking machine, marking mechanism, a work supporting arm, means adapted to engage a portion of the work to be marked and clamp the same upon said arm, a gage adapted to be lowered upon the work whereby to aline the same, means for operating said clamping means, and connections between said operating means and said gage whereby the gage is lowered prior to the operation of the clamping means.

4. In a button-buttonhole marking machine, a work support, marking mechanism, means adapted to engage a portion of the work to be marked and clamp the same upon said support, means engaging another portion of the work and coöperating with said first means for securing the work in position, a gage adapted to be lowered upon the work whereby to aline the same, means for operating said clamping means, connections between said operating means and said gage whereby the gage is lowered prior to the operation of the clamping means, and separate means acting automatically to lock the said clamping means and said coöperating means after the work has been positioned.

5. In a button-buttonhole marking machine, marking mechanism, a work supporting arm, means adapted to engage a portion of the work to be marked and clamp the same upon said arm, means for operating said clamping means, an awl, means for projecting said awl through said arm after the operation of the clamping means in position to engage another portion of the work, and separate means acting automatically to lock the said operating means and said projecting means after the same have been operated.

[Claims 6 to 11 not printed in the Gazette.]

1,140,305. CIGARETTE CASE. SIDNEY HOLTZCLAW, Kansas City, Kans., and DAVID H. GARNETT, Kansas City, Mo. Filed May 25, 1914. Serial No. 840,943. (Cl. 206—41.)



1. A shallow case, provided with an opening in one side wall thereof, a hinged lid for the case, a yieldingly actuated presser for engaging and moving sidewise within the

case one or more cigarettes until the cigarette or cigarettes are successively alined with said opening, and a guard interposed between the lid and the cigarette or cigarettes whereby to retain the same in position in the case when the lid is open.

2. A shallow cigarette case comprising a body and a lid, the former being provided with an ejectment opening in one side, a partition within and extending parallel with cigarettes in the body of the case and adjacent the rear margin of said opening, a presser in the body paralleling said partition, yielding means for causing said presser to press one cigarette or a line of cigarettes laterally until arrested by said partition, and a guard overlying the cigarette or cigarettes in and carried by said body to retain the cigarettes in position when the lid is open.

3. A shallow cigarette case comprising a body and a lid, the former being provided with an ejectment opening in one side, a partition within and extending parallel with cigarettes in the body of the case and adjacent the rear margin of said opening, a presser in the case paralleling said partition, yielding means for causing said presser to press one cigarette or a line of cigarettes laterally until arrested by said partition, and a guard overlying the cigarette or cigarettes in and carried by said body to retain the cigarettes in position when the lid is open, said guard being hinged to the body at one end and detachably engaging it at the other end.

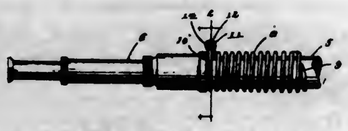
4. A shallow cigarette case provided in one side wall with a cigarette ejectment opening, a partition dividing the case into two compartments and located tangentially of the rear margin of said opening and provided with an opening adjacent the bottom of the body, a spring actuated drum in the compartment partition from said opening, a presser arranged in the other compartment and extending parallel with said partition, and a flexible connection extending through the opening of the partition and along the bottom of the case between the drum and the presser for causing the latter to press one or more cigarettes sidewise until arrested by said partition.

5. A shallow cigarette case provided in one side wall with a cigarette ejectment opening, a partition dividing the case into two compartments and located tangentially of the rear margin of said opening, a spring actuated drum in the compartment located back of said partition, a presser arranged in the other compartment and extending parallel with said partition, a flexible connection between the drum and the presser for causing the latter to press one or more cigarettes sidewise until arrested by said partition, and means for applying endwise pressure on the cigarette in contact with said partition to project said cigarette through the said opening.

[Claim 6 not printed in the Gazette.]

1,140,306. [WITHDRAWN.]

1,140,307. HOSE COUPLING AND GUARD. ALBERT B. HURLEY, Seaford, Del., assignor of one-half to Luther W. Hurley, Seaford, Del. Filed June 10, 1913. Serial No. 772,877. (Cl. 137—28.)



1. As an article of manufacture, a hose coupling comprising a single strand of relatively stiff wire of uniform size in cross section throughout its extent and bent to form a clamping loop and a convoluted portion at one side of said loop, the said wire being further bent to form double and single eyes disposed opposite each other, the double eye being located between the clamping loop and the convoluted portion, one end of the wire being beveled to lie substantially in the plane of the outermost convolution, and means passed through the said eyes for contracting the clamping loop.

2. A combined hose brace and coupling member comprising an elongated spiral bracing member constructed of a single strand of wire and bent back upon itself adjacent one terminal thereof to form a clamping loop and a bolt receiving eye, and a second opposed bolt receiving eye formed at the free terminal of said loop.

1,140,308. SINGLE-ACTING JAMB-HINGE. OSCAR KATZENBERGER, Chicago, Ill. Filed July 18, 1914. Serial No. 851,745. (Cl. 16—25.)



A spring hinge, comprising a leaf formed with a barrel having a notch in each end, a second leaf formed with apertured ears, a coil spring in the barrel, an apertured head, provided with a reduced portion extending into one end of the barrel and having means to engage one end of the spring and a pin engaging one of the notches of the barrel, a rotatable and apertured disk provided with a reduced portion extending into the other end of the barrel and having means to engage the other end of the spring, said disk being provided with a plurality of radial openings, a pintle extending through the head, disk, barrel, and ears, and a pin adapted to be inserted in one of the radial openings of the disk, whereby provision is made for interchanging the head and disk to permit the leaves of the hinge to be forced together or apart.

1,140,309. UMBRELLA ATTACHMENT. JAMES J. KIRBY, Boone, Iowa. Filed Mar. 26, 1913. Serial No. 756,972. (Cl. 135—28.)



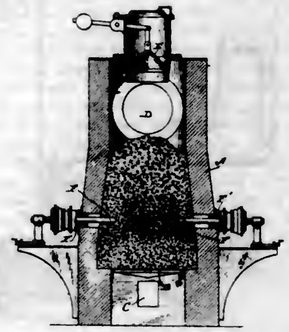
An umbrella attachment, comprising a tube having a relatively shallow circumferential groove, a flange located at one side of the groove and having an upstruck peripheral portion, an upstruck portion on the tube at the other side of the groove, a concavo-convex cap embracing the tube and confined thereto by the mentioned first and second upstruck portions, the cap having slots therein disposed opposite the groove of the tube, and ribs freely movable in the slots and provided with spherical inner terminals interposed between the cap and the groove and bearing against the walls of the latter.

1,140,310. PROCESS FOR RECOVERING ELEMENTAL SULFUR FROM SULFUR-GASES. WILLIAM FRANCIS LAMOREAUX and CHARLES WILLIAM RENWICK, Isabella, Tenn. Filed June 21, 1913. Serial No. 774,970. (Cl. 204—63.)

1. The process of reducing sulfur dioxid to elemental sulfur, which consists in maintaining the sulfur dioxid in contact with incandescent carbon for a predetermined

period, and supplying the increment of heat necessary to secure practically complete reduction of the sulfur dioxid from a source independent of the oxidation of said carbon.

2. The process of reducing sulfur dioxid to elemental sulfur, which consists in maintaining the sulfur dioxid in contact with incandescent carbon for a predetermined period, and supplying electrically the increment of heat necessary to secure practically complete reduction of the sulfur dioxid.



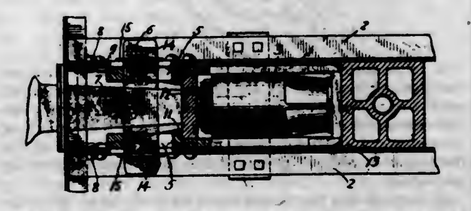
3. The process of reducing sulfur dioxid to elemental sulfur, which consists in passing the sulfur dioxid through a bed of incandescent carbon and maintaining it in contact therewith for a predetermined period, and supplying the increment of heat required to secure practically complete reduction of the sulfur dioxid by passing an electric current through said bed.

4. The process of reducing sulfur dioxid to elemental sulfur, which consists in maintaining the sulfur dioxid, commingled with atmospheric oxygen, in contact with incandescent carbon for a predetermined period, and supplying the increment of heat necessary to secure practically complete reduction of the sulfur dioxid from a source independent of the oxidation of said carbon.

5. The process of reducing sulfur dioxid to elemental sulfur, which consists in maintaining the sulfur dioxid, commingled with atmospheric oxygen, in contact with incandescent carbon for a predetermined period, and supplying electrically the increment of heat necessary to secure practically complete reduction of the sulfur dioxid.

[Claim 6 not printed in the Gazette.]

1,140,311. DRAFT-GEAR. CHARLES J. NASH, Chicago, Ill., assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Mar. 31, 1911. Serial No. 618,251. (Cl. 213—42.)



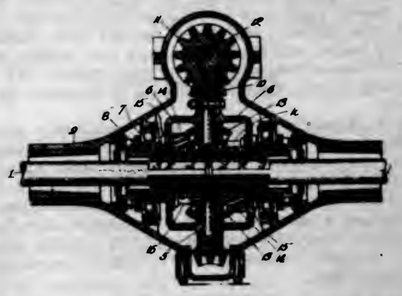
1. The combination with a yoke and a draft gear inclosed within the yoke, of a member mounted between the car center sills and provided with opposite longitudinal ledges and a transverse ledge forming a support for the rear end of the yoke.

2. In a draft gear and a buffing apparatus for cars, the combination of a center sill composed of two parallel members, an abutment for the yoke located between and connecting said sill members, a yoke adapted to bear at its rear end against said abutment, a follower passing through the yoke, stops on the sill members in advance of the abutment for the rear end of the yoke for limiting the forward movement of said follower, shock absorbing means within the yoke and bearing at its front end against said follower and at its rear end against the rear end of the yoke, and a coupling connected with the yoke and having a limited movement independent of the latter, the said coupling adapted to bear against the follower and move same rearwardly under buffing stresses.

3. The combination of a center sill composed of parallel members, a combined stop and car body center bearing located between and secured to said members, a yoke adapted to bear against said combined stop and bearing in buffing and move away from same under pulling stresses, a coupler connected with the yoke and having a limited movement independent of the yoke, a follower passing through the yoke and adapted to be engaged by the rear end of the coupler, side stops for limiting the forward movement of said follower, and shock absorbing means within the yoke and bearing against the follower and rear end of the yoke.

4. The combination with a center sill, a member rigidly attached thereto and forming a part of them, a yoke adapted to bear at its rear end against the outer face of said member for transmitting buffing shocks to said sill, a coupler secured to said yoke and having a movement independent of the same, a front follower, stops located at the sides of the yoke and engaging the opposite ends of the follower for limiting the forward movement of said follower and shock absorbing means within the yoke and bearing at one end against the follower and at its other end against the rear end of the yoke.

1,140,312. DIFFERENTIAL GEARING FOR AUTOMOBILES. AN DOR T. NOGRADY, Kansas City, Mo., assignor, by direct and mesne assignments, to Double Drive Differential Company, Kansas City, Mo., a Corporation of Maine. Filed Aug. 3, 1914. Serial No. 854,770. (Cl. 74—34.)



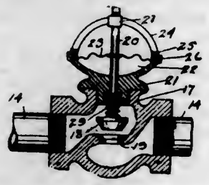
1. A differential gearing, comprising a master gear, a pair of alined axle sections, a radially arranged spiral gear rotatable with the master gear and also rotatable around its own axis, a pair of similar spiral gears meshing with and located at opposite sides of the radially arranged spiral gear and paralleling the axle sections, and gearing between said pair of spiral gears and said axle sections.

2. A differential gearing comprising a master gear, a pair of alined axle sections arranged centrally of the master gear, a pair of radially arranged spiral gears rotatable with the master gear and also rotatable independent thereof around their own axes, a pair of spiral gears meshing with each radial gear and located at opposite sides of the same and extending parallel with the axle sections, and gearing connections between one of each pair of said pairs of spiral gears with one of said axle sections and between the remaining gears of said pairs of spiral gears and other axle section.

3. A differential gearing, comprising a pair of alined axle sections, a pair of gear wheels mounted thereon and rotatable therewith, a casing bearing a journaled relation to said gear wheels and inclosing the teeth thereof, a cross-shaped frame journaled on said gear wheels inward

of the teeth thereof, and secured to said casing, inwardly tapering radially arranged spiral gear wheels journaled on said cross-shaped frame, a pair of spiral gear wheels paralleling the first-named gear wheels and each meshing with one of the latter, and with the opposite sides of one of the radially arranged gear wheels, and journaled in and carried by said casing, and a master gear wheel rigidly secured to said casing concentrically of the axis thereof.

1,140,313. SAFETY DEVICE FOR CONTROLLING THE FLOW OF COMBUSTIBLE FLUIDS. WILLIAM HOWARD PAINE, Providence, R. I., assignor to Fire Prevention Company, a Corporation of Rhode Island. Filed Feb. 3, 1913, Serial No. 745,831. Renewed Oct. 10, 1914. Serial No. 866,137. (Cl. 137—92.)



1. The combination with a valve casing, a valve mounted therein and provided with a stem, and a spring acting to seat said valve, of a diaphragm through which said stem projects, means for securing said diaphragm in position, said means including a yoke member, and a thermal connection between said yoke member and the stem normally holding the valve retracted in opposition to said spring.

2. The combination with a valve casing provided with a valve bonnet having a cupped portion, a valve mounted in said casing and provided with a stem, and a spring acting to seat said valve, of a diaphragm extending across the cupped portion of said bonnet and through which said stem projects, means for securing said diaphragm to said bonnet, said means including a yoke member, and a thermal connection between said yoke member and stem normally holding the valve retracted in opposition to said spring.

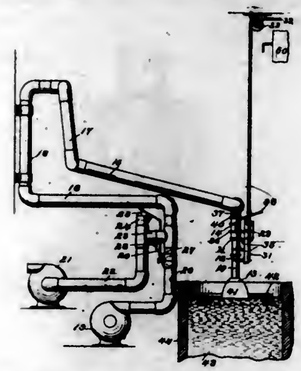
3. A thermally controlled valve comprising a valve casing having a removable cap, a yielding diaphragm, means for connecting said diaphragm to said cap with a gas-tight joint, a yoke member above said cap, a valve in said casing provided with a stem connected to said diaphragm, a spring acting on said valve to close it, and a thermal connection between said yoke member and the stem normally holding the valve retracted in opposition to said spring.

1,140,314. GLASS-BLOWING APPARATUS. PIERRE J. PAQUET, Salem, W. Va. Filed Jan. 5, 1914, Serial No. 810,487. Renewed Apr. 16, 1915. Serial No. 21,847. (Cl. 49—17.1.)

1. A glass apparatus comprising in combination with a blow pipe and bait, an air tube communicating with said pipe, suction and blowing air pipes communicating with said tube, means for vertically moving said blow pipe, a regulating valve automatically openable upon the extreme upward movement of said air tube, and means carried by said vertical moving means and engaging said air tube adapted for automatically disconnecting the same from the blow pipe.

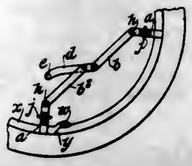
2. A glass apparatus comprising a blow pipe and bait, an air tube adapted to fit over said blow pipe, a vertically movable hoist block, supporting means carried by said block and engaging said blow pipe, a pivoted means carried by said block and adapted for automatically imparting separating relative movement between said tube and pipe at the uppermost point of movement of the block.

3. A glass apparatus comprising a blow pipe, a bait at the lower end of said pipe and an annular ring adjacent its upper end, a vertically movable hoist block, a hook secured to said block supportingly engaging said ring, an air tube mounted over said pipe and upon said ring, an annular ring upon said tube, a pivoted hook upon said hoist block in engagement with said tube ring and adapted for automatically imparting separating movements between said tube and pipe at the extreme upper position of said block.



4. A glass apparatus comprising a blow pipe, a bait at the lower end of said pipe and an annular ring adjacent its upper end, a vertically movable hoist block, a hook secured to said block supportingly engaging said ring, an air tube mounted over said pipe and upon said ring, an annular ring upon said tube, suction and blowing air pipes communicating with said tube, a regulating valve automatically openable upon the extreme upward movement of said air tube, a pivoted hook upon said hoist block, a stationary member in the line of movement of said hook and adapted for contacting thereby at the extreme upper position of said block, said hook upon such contact being adapted for automatically imparting relative movement between said tube and pipe.

1,140,315. DEVICE FOR DETACHMENT OF RIMS FROM TIRES. FRED PERKINS, Warren, Mass., assignor to Georgia W. Perkins, Warren, Mass. Filed Sept. 25, 1914. Serial No. 863,593. (Cl. 29—84.)



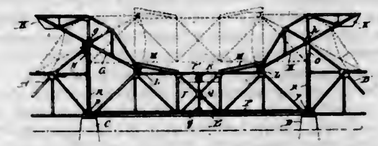
1. In a device for detaching rims from tires, the combination with a pair of clamps adapted for engagement with a split rim at points on opposite sides of the cleft, links pivotally connected to the clamps, and a lever having an end portion thereof pivotally connected to one of the links and to which the end of the other link is pivotally connected.

2. In a device for detaching rims from tires, the combination with a duplicate pair of clamps, each comprising resilient flat metal members formed with upper portions convergently arranged and outwardly extended portions terminating in curved extremities adapted to engage the opposite sides of the rim, links pivotally connected to the upwardly convergently arranged portions of said members, a lever having the end thereof pivotally connected to one of the links and to which the end of the other link is pivotally connected, and means for causing the transverse contraction of said members.

3. In a device for detaching rims from tires, the combination with a duplicated pair of clamps, each comprising resilient flat metal members formed with upper portions convergently arranged and outwardly extended portions terminating in curved extremities adapted to engage the opposite sides of the rim, links pivotally connected to the upwardly convergently arranged portions of said members, a lever having the end thereof pivotally connected to one of the links and to which the end of the other link is pivotally connected, and an apertured plate embracing convergent portions of said members and adapted, upon being forced downwardly, to contract same for their clamping engagement with the rim.

4. In a device for detaching rims from tires, the combination with a duplicated pair of clamps, each comprising resilient flat metal members formed with upper portions convergently arranged and outwardly extended portions terminating in curved extremities adapted to engage the opposite sides of the rim, and having serrations on their outer sides, links pivotally connected to the upwardly convergently arranged portions of said members, a lever having the end thereof pivotally connected to one of the links and to which the end of the other link is pivotally connected, and a plate provided with separate apertures, and having its separately apertured portions in embracing engagements about said clamp members, the outer margins of said apertures being of V-shape for engagement in said serrations.

1,140,316. VERTICAL-LIFT BRIDGE. THEODOR RALL, Chicago, Ill. Filed May 19, 1913. Serial No. 768,551. (Cl. 14—42.)



1. In a bridge of the class described, the combination with a vertically movable span, of stationary supports at each end of said span, and counterbalance levers pivotally mounted upon said supports and pivotally connected directly with the opposite ends of said span, the pivotal connections of one of said levers comprising one fixed pivot and one pivot in freely movable engagement with a substantially horizontal track for automatically varying the horizontal distance between the fulcrum point of said lever and its point of pivotal connection with the adjacent end of the span to compensate for the pivotal movement of said lever during the vertical movement of said span.

2. In a bridge of the class described, the combination with a vertically movable span, of stationary supports at each end of said span, and counterbalance levers pivotally mounted upon said supports and pivotally connected directly with the opposite ends of said span, and the pivotal connections of each of said levers comprising one fixed pivot and one pivot in freely movable engagement with a substantially horizontal track for automatically varying the horizontal distance between the fulcrum point of each lever and its pivotal connection with the adjacent end of the span to compensate for the pivotal movement of the levers during the vertical movement of the span.

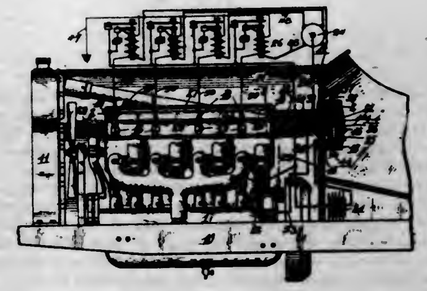
3. In a bridge of the class described, the combination with a vertically movable span, of stationary supports at each end of said span, counterbalance levers pivotally mounted upon said supports, and means for pivotally connecting said levers directly with the opposite ends of said span, the means for pivotally connecting one of said levers with the adjacent end of the span consisting of a pivot in freely movable engagement with a substantially horizontal track to compensate for the pivotal movement of said lever during the vertical movement of the span.

4. In a bridge of the class described, the combination with a vertically movable span, of stationary supports at each end of said span, counterbalance levers pivotally mounted upon said supports, substantially horizontal tracks upon the opposite ends of said span, and pivots on the ends of said levers in freely movable engagement with said substantially horizontal tracks, the point of pivotal connection between each of said levers and the adjacent end of the movable span to compensate for the pivotal movement of said levers during the vertical movement of the span.

5. In a bridge of the class described, the combination with a vertically movable span, of stationary supports at each end of said span, counterbalance levers pivotally mounted upon said supports and pivotally connected with the opposite ends of said span, the pivotal connection between the end of one of said levers and the adjacent end of said span comprising a rolling bearing and a member engaged thereby whereby the horizontal distance between the fulcrum point of said lever and its connection with the span will automatically vary during the vertical movement of the span to compensate for the pivotal movement of said lever.

[Claims 6 to 9 not printed in the Gazette.]

1,140,317. CURRENT-DIVERTER. THEODORE D. ROBINSON, Lockport, N. Y., assignor, by mesne assignments, to Amper Electric Co., Inc., Lockport, N. Y., a Corporation of New York. Filed Nov. 8, 1911. Serial No. 659,167. (Cl. 123—198.)



1. The combination with an explosive engine having a plurality of cylinders, each cylinder being provided with a spark device, of a primary circuit, a switch to open or close said primary circuit, a secondary circuit including said spark devices, and a current diverter in said secondary circuit adapted to simultaneously short circuit the sparking elements of said spark devices when the switch in said primary circuit is in inoperating position.

2. The combination with an explosive engine having a spark device, of a primary circuit, a switch in said circuit, a secondary circuit in which said spark device is included, and a current diverter in said secondary circuit adapted to short circuit the sparking elements of said spark device when the switch in said primary circuit is in inoperating position.

3. The combination with a multiple-cylinder engine, each cylinder having a spark device, of a primary circuit, a switch in said primary circuit, means to lock said switch in inoperating position, a secondary circuit including said spark devices and a current diverter in said secondary circuit adapted to short circuit the sparking elements of said spark devices when the switch in said primary circuit is in inoperating position.

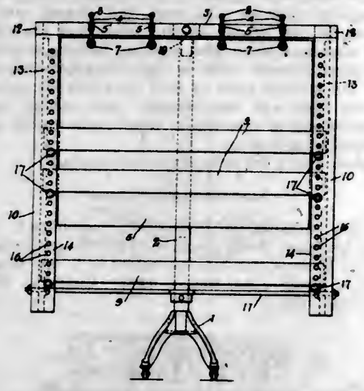
4. The combination with a multiple-cylinder explosive engine having spark devices, of a primary circuit, a lock switch in said primary circuit, a secondary circuit including said spark devices, a current diverter in said secondary circuit, and means actuated by said lock switch adapted to place said current diverter into operating position when said lock switch is locked.

5. The combination with a multiple-cylinder explosive engine, each cylinder having a spark plug, of a primary circuit, a switch in said primary circuit, a secondary cir-

cuit, and a current diverter in said secondary circuit adapted to be brought into contact with one part of each spark plug by manipulation of said switch.

[Claims 6 to 19 not printed in the Gazette.]

1,140,318. DISPLAY DEVICE. ORTON G. RUST, Springfield, Ohio, assignor of one-half to Theodore J. Rebert, Springfield, Ohio. Filed May 29, 1914. Serial No. 841,931. (Cl. 40—61.)



1. In a device of the character described, the combination, with a supporting frame, of hangers carried thereby to support a series of charts in a vertical position and having portions forming guides to enable the outermost chart on one side of said frame to be transferred to the outermost position on the opposite side of said frame, without removing any of said charts from said hangers, and a screen adjustably mounted close to the outermost position of the chart on one side of said frame, said hangers having means to cause each chart on said side of said frame to automatically move toward said outermost position.

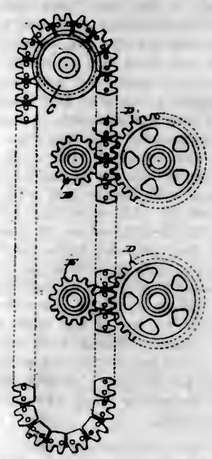
2. In a device of the character described, the combination, with a supporting frame, of hangers carried thereby to support a series of charts in a vertical position and having portions forming guides to enable the outermost chart on one side of said frame to be transferred to the outermost position on the opposite side of said frame, without removing any of said charts from said hangers, and a screen adjustably mounted close to the outermost position of said chart on one side of said frame, said hangers having their supporting portions inclined on said side of said frame to cause said charts to move toward said screen.

3. In a device of the character described, a pedestal comprising a standard, a frame member secured to the upper end of said standard, hangers secured to said frame members and charts carried by said hangers, other frame members supported by said pedestal, arranged at the vertical edges of said charts and having parts forming guides, a screen extending across the face of said chart and supported in the guideways of said last-mentioned frame members, and means to retain said screen in adjusted positions along said guide.

4. The combination with a chart, of a display frame therefor having hangers to support said chart in a substantially vertical position, guides arranged at the vertical edges of said charts, screens movably mounted on said guides, and devices for retaining a screen in adjusted positions.

5. In a device of the character described, a hanger for supporting charts and the like comprising a loop-shaped member having an opening to permit the charts to be placed on the same and having its lower portion provided with inclined supporting surfaces arranged on opposite sides of the center thereof to cause the charts to move toward the respective ends of said hanger.

1,140,319. DRIVING MECHANISM. FRANK H. VAN HOUTEN, Fishkill-on-the-Hudson, N. Y. Filed June 7, 1913. Serial No. 772,441. (Cl. 74—31.)



1. A driving mechanism embodying a flexible rack composed of a series of links pivotally connected on transverse axes intersecting the longitudinal axis of the rack, said links each having oppositely disposed tooth projections extending in opposite directions from the longitudinal center of the rack, and pairs of gear wheels arranged with the spaces between the wheels of each pair in alinement and the wheels of each pair being in mesh with the tooth projections on diametrically opposite sides of the rack.

2. In a driving mechanism, the combination with an endless flexible rack composed of a series of links pivotally connected on transverse axes intersecting the longitudinal axis of the rack, said links each embodying a plurality of oppositely disposed tooth projections extending in opposite directions from the longitudinal center of the rack, a supporting sheave on which said endless rack is suspended, and a plurality of pairs of gear wheels, the wheels of each pair meshing with the diametrically opposite tooth projections on opposite sides of the rack, said pairs of gear wheels being arranged in alinement whereby the power transmitting reach of the rack is maintained in substantially a straight line.

3. In a driving mechanism, the combination with an endless flexible rack embodying a series of links each formed with a plurality of oppositely disposed tooth projections extending in opposite directions from the longitudinal center of the rack, and edge links bridging the tooth recesses in alternate links on one side of the rack only, whereby the tooth recesses on the opposite side of the rack are left open transversely of the rack, a supporting sheave with which the edge links coöperate to support the rack in a pendent loop, and a plurality of pairs of gear wheels meshing respectively with the diametrically opposite tooth projections on opposite sides of the rack, the teeth of the gear wheels on one side of the rack being confined between the edge links.

4. An endless flexible rack embodying a series of links each having a plurality of diametrically oppositely disposed tooth projections extending in opposite directions from the longitudinal center of the rack, said links being pivotally connected together on axes coincident with the intersection of the axes of the tooth projections and longitudinal axis of the link and edge links having the projections bridging the alternate tooth recesses on one side of the rack, the ends of the tooth recesses on the opposite side of the rack being open.

1,140,320. DOOR-CHECK. DONALD E. WILLARD, Danville, Ill. Filed June 15, 1914. Serial No. 845,131. (Cl. 16—88.)

1. In a checking device, the combination of a cylinder and a piston therein, said piston having a notched stem, a shaft having a lever said lever being provided with at least three arms projecting therefrom and adapted to cooperate with the notches in said stem the first of said arms to come into action being relatively long, the second arm being of a length no greater than the length of the third arm, substantially as described.



2. In a checking device, the combination of a cylinder, a spring-advanced piston having a notched stem, a transverse shaft provided with a lever, said lever having at least three arms projecting therefrom, the first lever to come into action being relatively long, the second lever being shorter than the third lever, substantially as described.

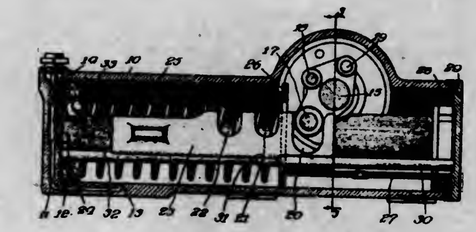
3. In a checking device, the combination of a cylinder having an open end, a piston and a spring both of which are adapted to be inserted through said open end, said piston having a stem, and a spring-retaining barrel likewise insertible through the open end of said cylinder, a closing cap for the open end of said cylinder, and means independent of said closing cap for maintaining said barrel in position, substantially as described.

4. In a checking device, the combination of a cylinder, a piston having a stem, a spring and a spring-retaining and piston-guiding block, all of which parts are insertible through the open end in said cylinder, a closing cap, and a rotatable lock for maintaining said block and associated parts in position, substantially as described.

5. In a door check, the combination of a cylinder, a piston having a stem, a spring and a spring-retaining barrel, said barrel being provided with a guideway with which the guiding member of said stem may coöperate, and means independent of the cylinder closing means for maintaining the parts in operative relation, substantially as described.

[Claims 6 to 9 not printed in the Gazette.]

1,140,321. DOOR-CHECK. DONALD E. WILLARD, Danville, Ill. Filed Mar. 22, 1915. Serial No. 16,017. (Cl. 16—88.)

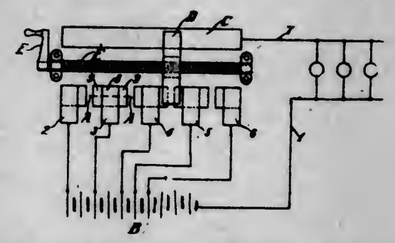


1. In a checking device, the combination of a casing having a by-pass, a piston having a relief opening, and a tapered controlling valve passing through the relief opening, said relief opening and by-pass being so arranged that both thereof are closed in one position of said piston, substantially as described.

2. In a checking device, the combination of a cylinder having a by-pass, one entrance to which is within the length of the cylinder, a piston in said cylinder adapted to cover and uncover said entrance, said piston having a relief port, means for varying the area of said relief port in different positions of said piston, said relief port being entirely closed at a point in the travel of the piston which immediately precedes the uncovering of said entrance, substantially as described.

3. In a checking device, the combination of a cylinder having a by-pass, one entrance to which is within the length of the cylinder, a piston arranged to cover and uncover said entrance, said piston having an aperture, a tapered rod in said cylinder and mounted in the aperture in said piston, said rod in its untapered portion substantially closing the port through said piston, the full diameter of said rod and said entrance being so positioned that said piston at one position thereof may close said entrance and be positioned on a portion of the full diameter of said rod, substantially as described.

1,140,322. END-CELL SWITCH. JOHN W. ACHARD, Philadelphia, Pa. Filed Mar. 9, 1911. Serial No. 613,255. (Cl. 171—314.)



1. In a multiple point switch including a series of stationary main contact terminals spaced apart and coöperating therewith a traveling brush narrower than the space between said terminals, the combination with said main terminals of auxiliary contacts consisting of conducting blocks of comparatively high resistance rigidly attached to and in electrical contact with said main terminals, each block extending across the corresponding terminal beneath the contact surface thereof, and projecting on either side, the projections being brought flush with said main contact surface, so as to form high resistance auxiliary contacts for the brush between the main contact terminals, substantially as described.

2. In a multiple point switch, a main contact terminal forked by a slot beneath the contact surface in combination with a conducting block of comparatively high resistance rigidly fastened in the fork, and extending on either side thereof, said block being notched to receive the fork, substantially as described.

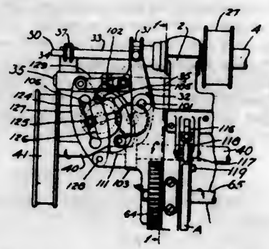
3. In combination an end cell switch having a series of stationary contacts spaced apart, a storage battery divided into groups containing different numbers of cells, connections between the adjacent switch contacts and the adjacent groups and stationary conducting members of comparatively high resistance arranged between the contacts and respectively electrically connected thereto, said members differing in resistance between themselves to correspond with the different numbers of cells in said groups.

1,140,323. METAL-SCREW MACHINE. BENGT M. W. HANSON, Hartford, Conn., assignor to Pratt & Whitney Company, Hartford, Conn., a Corporation of New Jersey. Original application filed Apr. 7, 1910, Serial No. 553,965. Divided and this application filed Apr. 25, 1914. Serial No. 834,321. (Cl. 29—44.)

1. The combination, in a screw machine, of a chuck carrying spindle, and chuck-operating mechanism, including a plurality of cams disposed on an axis substantially at right angles with that of the chuck carrying spindle, and a chuck operating yoke provided with a plurality of cam arms extending on opposite sides of and engaging with the respective cams.

2. The combination, in a screw machine, of a chuck carrying spindle for the work, and chuck operating mechanism comprising a plurality of cams journaled below and substantially at right angles with the said spindle, a chuck operating yoke journaled on an axis substantially

parallel with that of the cams and provided with a plurality of arms extending on opposite sides of and engaging with the said cams.



3. The combination, in a screw machine, of a work carrying spindle, and combined chuck operating and work feeding mechanisms for the spindle, including a shaft journaled substantially at right angles with the said spindle, cam devices on said shaft, a chuck operating yoke engaging with the said cam devices, a crank plate carried by the said shaft, a swinging work feeding lever mounted to oscillate alongside of the crank plate, and a revolving crank pin carried by the plate and engaging with the said feeding lever.

4. The combination, in a screw machine, of a work carrying spindle, and combined chuck operating and work feeding mechanism, including a shaft journaled substantially at right angles with the said spindle, a plurality of cams on said shaft, a chuck operating yoke provided with arms extending on opposite sides of and engaging with the said cams, a crank plate carried by the said shaft, a work feeding lever pivoted adjacent to and extending alongside of the crank plate, and a crank pin revolving with the plate and engaging with the said work feeding lever.

5. The combination, in a screw machine, of a work carrying spindle, and combined chuck operating and work feeding mechanism for the spindle, including a shaft journaled substantially at right angles with the said spindle, a plurality of cams on said shaft, a chuck operating yoke pivotally mounted on an axis parallel with the said shaft and provided with arms extending on opposite sides of and engaging with the respective cams, a slotted crank plate carried by the shaft, a slotted work feeding lever mounted to swing on an axis parallel with said shaft, and extending alongside of the crank plate, and an adjustable crank pin carried by the slotted crank plate and engaging in the slot of the work feeding lever.

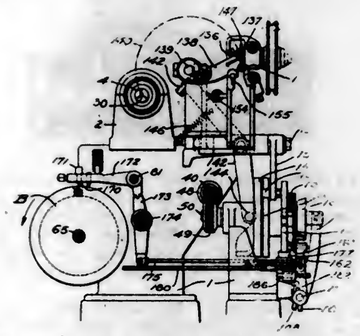
[Claims 6 to 23 not printed in the Gazette.]

1,140,324. METAL-SCREW MACHINE. BENGT M. W. HANSON, Hartford, Conn., assignor to Pratt & Whitney Company, Hartford, Conn., a Corporation of New Jersey. Original application filed Apr. 7, 1910, Serial No. 553,965. Divided and this application filed Apr. 25, 1914. Serial No. 834,322. (Cl. 10—5.)

1. The combination, with a screw machine, of transfer mechanism for removing the completed articles, including in combination a swinging arm for receiving the said articles, mechanism for imparting swinging movement to the said arm, clutch mechanism for starting and stopping the transfer mechanism, and a control device driven with the machine for governing the clutch mechanism.

2. The combination, with a screw machine, of transfer mechanism, including a swinging arm for receiving the articles as they are completed, mechanism for swinging said arm through its transferring movement, clutch devices for stopping and starting the said mechanism, and unitary control devices for the entire machine, including a special control device for operating the said transferring mechanism in predetermined time relation to the movements of the screw machine.

3. The combination, with a screw machine, of transferring mechanism, including a swinging arm, transfer mechanism for swinging the said arm through its transferring movement, mechanism for moving the said arm in an axial direction relative to its swinging movement, clutch devices for stopping and starting the said mechanisms, and a control device driven with the screw machine for governing the time of operation of the said transfer mechanism.

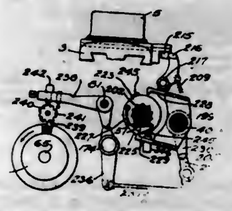


4. The combination, with a screw machine, of transfer and slotting mechanism, including a swinging arm for receiving and transferring the articles laterally away from the end of the rod, mechanism for swinging the arm through its transferring movement, auxiliary mechanism for operating upon the said article, mechanism for moving the arm to carry the article into engagement with the said auxiliary mechanism, clutch devices for starting and stopping the said mechanism, and a control device for governing the time of operation of the clutch devices.

5. The combination, with a screw machine, of auxiliary transfer and cutting mechanism, including a swinging transfer arm for moving the said arm both in lateral and axial direction, means for imparting intermittent operations to the said mechanism, including a rotating driver, and a dog mounted to revolve with the said mechanism concentrically with the said driver, and stop pins disposed in the path of revolution of the dog, and movable out of and into that path, whereby partial revolutions may be imparted to said mechanism.

[Claims 6 to 12 not printed in the Gazette.]

1,140,325. METAL-SCREW MACHINE. BENGT M. W. HANSON, Hartford, Conn., assignor to Pratt & Whitney Company, Hartford, Conn., a Corporation of New Jersey. Original application filed Apr. 7, 1910, Serial No. 553,965. Divided and this application filed Apr. 25, 1914. Serial No. 834,323. (Cl. 29—50.)



1. The combination, in a screw machine, of a tool carrying turret, a turret slide, locking devices carried with the turret, including an operating member, movable transversely of the turret slide, an operating arm pivotally supported to swing transversely of the turret slide movement, and extending along the pathway of the said operating member, a multiple lobe cam for operating the said arm by partial revolution of the cam, and limited action clutch devices for imparting the said partial revolutions to the cam.

2. The combination, in a screw machine, of a tool carrying turret, a turret slide, locking devices carried with the turret, including an operating connection movable transversely of the turret slide, an operating arm pivotally supported to swing transversely of the turret slide movement, and extending along the pathway of the said operating member, a multiple lobe cam for operating the said arm by partial revolution of the cam, limited action clutch devices for imparting the said revolutions to the cam, and a control device driven with the machine for governing the time of the said partial revolutions.

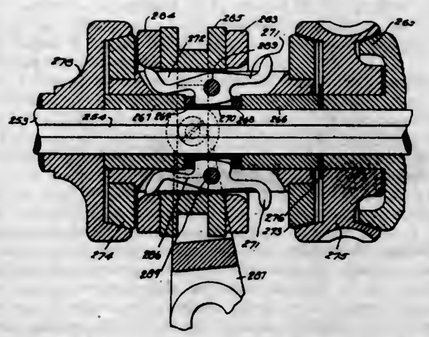
3. The combination, in a screw machine, of a tool carrying turret, a turret slide, locking devices carried with the turret, including a member movable transversely of the turret slide movement, a spring yieldingly holding the lock in its locking position, means for manually retracting the lock, and means for retracting the lock automatically, including an operating arm extending along the pathway of the said member, intermittently operating clutch mechanism for moving the said arm, and a control device for governing the time of the said clutch mechanism.

4. The combination, in a screw machine, of a tool carrying turret, a turret slide, locking devices carried with the turret, including an operating connection movable transversely of the turret slide, an operating arm pivotally supported to swing transversely of the turret slide movement, and extending along the pathway of the said operating member, intermittent driving mechanism for moving said arm, and a control device driven with the machine for governing the operation of the said driving mechanism.

5. The combination, in a screw machine, of a turret, means for rotating the turret in timed relation to the other parts of the machine, and a manually operable clutch connection registering the turret in a definite rotary relation to its rotating means, whereby the turret may be temporarily disconnected from its said rotating means and reconnected only in the same register therewith.

[Claims 6 to 21 not printed in the Gazette.]

1,140,326. CLUTCH MECHANISM. BENGT M. W. HANSON, Hartford, Conn., assignor to Pratt & Whitney Company, Hartford, Conn., a Corporation of New Jersey. Original application filed Apr. 7, 1910, Serial No. 553,965. Divided and this application filed Apr. 25, 1914. Serial No. 834,324. (Cl. 192—8.)



1. The combination, in clutch mechanism, of a plurality of clutch operating fingers, and means for operating the said fingers with equal pressure, including an unyielding unitary floating member appurtenant to the finger operating means.

2. The combination, in clutch mechanism, of a plurality of clutch operating fingers, means for operating the said fingers, including an unyielding unitary floating member loosely appurtenant to the operating means, and engaging with the fingers to equalize the operating pressure between the said fingers.

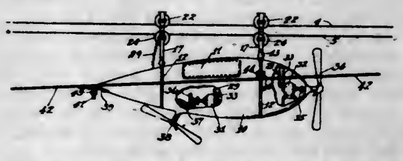
3. The combination, in clutch mechanism, of a plurality of clutch operating fingers, means for operating the said fingers, including a floating member loosely appurtenant to the operating means, and engaging with the said fingers to equalize the pressure upon the fingers, and means for adjusting the said floating member to vary its pressure on the fingers.

4. The combination, in clutch mechanism, of a plurality of clutch operating fingers and means for operating the fingers, including a loosely connected floating member engaging with the fingers to equalize the pressure thereon, and means for adjusting the finger engaging portions of the said floating member toward and from each other to vary the pressure on the fingers.

5. The combination, in clutch mechanism, of oppositely disposed clutch operating fingers, and means for operating the said fingers, including a loosely connected floating member having oppositely disposed portions engaging with the fingers, and means for adjusting the said engaging portions of the floating member toward and from each other to vary the pressure upon the fingers.

[Claims 6 to 14 not printed in the Gazette.]

1,140,327. OVERHEAD TRANSPORTING MEANS. EDWARD WARD HAYS, Riverside, Ala., assignor of one-half to J. B. Robertson, Seddon, Ala. Filed Apr. 24, 1914. Serial No. 834,270. (Cl. 104—154.)



1. In combination, a car, an aerial suspension means therefor comprising a pair of superposed spaced cables, hanger means on the car comprising roller supports which receive said cables between them, said supports being flanged and held by their flanged edges against disengagement from said suspension means and being spaced to cause only one at a time to engage the suspension means.

2. In an aerial conveyer, an overhead track, supports therefor, a car, means to suspend and guide the car by engagement with said track, power driven propelling means carried by the car, and a gliding plane hinged to and surrounding the car.

3. In combination, an aerial car having a supporting plane and motor driven air propellers, an overhead track, means on the car which are adapted to engage and follow said track, said plane being in one piece, means to hinge the formed end of the plane to the car, and means to adjustably connect the rear end of the plane to the car, substantially as described.

4. In combination, an aerial car having a rigid supporting plane, means to angularly adjust said plane surrounding it, motor driven air propeller means, an overhead track, and means on the car which are adapted to engage and follow said track.

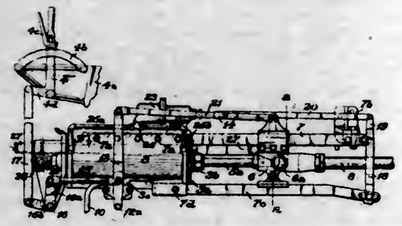
5. In combination, a car, a guiding plane adjustably connected to and surrounding the car, said plane having a transverse slot in its forward end, a lifting propeller and a forward driving propeller carried by the car, the lifting propeller being below the plane and the forward driving propeller disposed within the slot in the plane, power means to drive said propellers, and means to guide the car comprising a suspended way and superposed rollers on the aeroplane which receive said way between them.

[Claims 6 and 7 not printed in the Gazette.]

1,140,328. STEAM-ENGINE VALVE-REVERSING GEAR. CARL J. MELLIN, Schenectady, N. Y., assignor to American Locomotive Company, New York, N. Y., a Corporation of New York. Filed Dec. 30, 1914. Serial No. 879,677. (Cl. 121—98.)

1. In a valve reversing mechanism, the combination of a fluid pressure reversing motor, a manually operable valve controlling said motor, a link pivoted to the cross

head and to the controlling valve, for automatically effecting the closure of said valve, and means, automatically operable upon the closure of said valve, for locking the motor in desired position.



2. In a valve reversing mechanism, the combination of a fluid pressure reversing motor, a manually operable valve controlling said motor, a link pivoted to the cross head and to the controlling valve for automatically effecting the closure of said valve, means automatically operable upon the closure of said valve for locking the motor in desired position, means, automatically operable by the admission of motive fluid to the motor, for releasing said locking means, and means, operable by the closure of the controlling valve, for engaging said locking means.

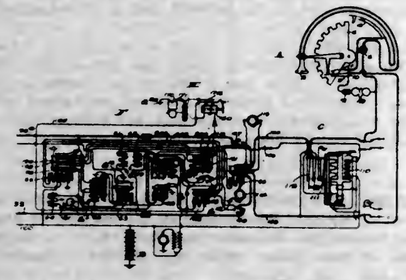
3. In a valve reversing mechanism, the combination of a fluid pressure reversing cylinder, a piston fitting therein, a piston rod fixed to said piston, a cross head thereon adapted for connection to a valve gear, a cross head guide bar fixed to the reversing cylinder, a cross head guide bar pivotally connected to said cylinder, and means for clamping the cross head between said guide bars.

4. In a valve reversing mechanism, the combination of a fluid pressure reversing cylinder having longitudinal bearing faces at an angle one to the other, a piston fitting said cylinder, a piston rod fixed to said piston, a cross head thereon adapted for connection to a valve gear, a cross head guide bar fitted against the longitudinal bearing faces of the reversing cylinder, bolts securing said guide bar to the cylinder, a cross head guide bar pivotally connected to said cylinder, and means for clamping the cross head between said guide bars.

5. In a valve reversing mechanism, the combination of a fluid pressure reversing cylinder, a piston fitting therein, a piston rod fixed to said piston, a cross head thereon adapted for connection to a valve gear, a cross head guide bar fixed to the reversing cylinder, a cross head guide bar pivotally connected to said cylinder, a movable abutment, connections coupling said abutment to the pivotally connected guide bar, and a spring acting on said abutment in direction to exert clamping action of said pivotally connected guide bar on the cross head.

[Claims 6 to 15 not printed in the Gazette.]

1,140,329. TELEPHONE SIGNALING SYSTEM. EDWARD A. MELLINGER, Chicago, Ill. Filed May 9, 1913. Serial No. 766,558. (Cl. 179—27.)



1. In a telephone system, a subscriber's line, automatically progressively movable means for establishing connection with said line, a signal, means for preventing the display of the signal when connection is first made with said line, and means for displaying said signal upon the subscriber replacing his receiver upon the switch hook after said connection has been established.

2. In a telephone system, a subscriber's line, means for establishing a connection with said line, a signal, and slow acting means for operating said signal after the subscriber on said line replaces his receiver upon the switch hook after connection has been established.

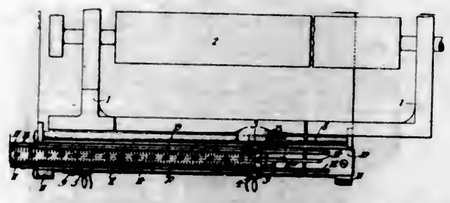
3. In a telephone system, a subscriber's line, an automatic connector switch for establishing connection with said line, a signal, and slow acting means for operating said signal after said subscriber has replaced his receiver upon the switch hook after the establishment of said connection.

4. In a telephone system, a subscriber's line, a connector switch for establishing connection with said line, a relay in said connector, means for energizing said relay upon the response of the subscriber after connection has been established with the line, means for maintaining said relay in an energized position until said switch is released, a second relay, means for energizing said second relay upon the response of the subscriber, means for de-energizing said second relay when said subscriber replaces his receiver upon the hook, a signaling relay, and a circuit for said signaling relay controlled by said first two relays.

5. In a telephone system, a subscriber's line, a connector switch for establishing connection with said line, a relay in said connector, means for energizing said relay upon the response of the subscriber after connection has been established with the line, means for maintaining said relay in an energized position until said switch is released, a second relay, means for energizing said second relay upon the response of the subscriber, means for de-energizing said second relay when said subscriber replaces his receiver upon the hook, a signaling relay, and a circuit for said signaling relay including normally open contacts of said first relay and normally closed contacts of said second relay.

[Claims 6 to 12 not printed in the Gazette.]

1,140,330. TYPE-WRITING MACHINE. SIDNEY L. W. MERLIN, Paris, France, assignor, by mesne assignments, to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Filed Nov. 26, 1912. Serial No. 733,568. (Cl. 197—194.)



1. In a typewriter, the combination of margin stops, a carriage traveling between the limits of said stops; a scale-bearing device; pointers for said carriage and margin stops to indicate their position upon the scale, said scale-bearing device being shiftable with one of said margin stops; and guideways for said scale-bearing device upon the typewriter, to keep said scale-bearing device in position.

2. In a typewriter, the combination, with movable margin stops; of a centering device movable with one of said margin stops and provided with two scales, each consisting of a series of numbered graduations, the space between numbers on one scale being twice that between the same numbers on the other scale.

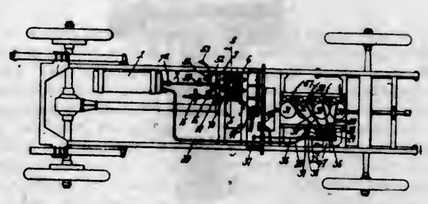
3. In a typewriter, the combination, with movable margin stops; of a centering device movable with one of said margin stops and movable independently of the other stop, said device being provided with two scales, each consisting of a series of graduations and designating characters therefor, the space between any two designated graduations on one scale being twice that between the correspondingly-designated graduations on the other scale.

4. In a typewriting machine, the combination with a scale-bearing device, of a margin stop controlling the location of the zero point of the scale with reference to the machine frame.

5. In a typewriting machine, the combination with a scale-bearing device, of a shiftable margin stop, and means connecting said scale-bearing device to said margin stop so that the zero point of the scale is always at the margin stop.

[Claims 6 to 37 not printed in the Gazette.]

1,140,331. DEVICE FOR STARTING INTERNAL-COMBUSTION ENGINES. ODILON BRISBOIS, Chicago, Ill., assignor of fifty-one one-hundredths to John H. Ware, Chicago, Ill. Filed Aug. 4, 1911. Serial No. 642,265. (Cl. 123—180.)



1. A device for starting internal combustion engines comprising a source of supply of combustible gas, a connection between said source of supply and each of the several cylinders of the engine, manually controlled valves by means of which said connections are controlled and additional valves in said connections, said connections constructed to permit a flow of said gas therethrough when said manually controlled valves are open and said additional valves are closed, and said additional valves so constructed that through the agency thereof the proper charge of gas is automatically inserted in the proper cylinder of the engine when the manually operated valves are opened.

2. A starting device for internal combustion engines comprising a source of supply of explosive gas, a connection leading from said source of supply to each of the cylinders of the engine and an automatic valve in each of said connections adapted to be opened by the pressure in the engine cylinders so as to permit the flow of gas into the engine cylinders when the pressure therein reaches a predetermined amount.

3. A starting device for internal combustion engines comprising a receptacle for receiving explosive gas, a pump for pumping such gas into said receptacle, a quantity of coke in said receptacle, a connection between said receptacle and each of the engine cylinders, an automatic valve in each of said connections adapted when the pressure in any cylinder reaches a predetermined amount to automatically open and permit the flow of the gas into said cylinder.

4. A device for starting internal combustion engines comprising a source of supply of explosive gas, a connection from said source of supply to each of the cylinders of the engine, two sets of valves in said connections, means on the car for simultaneously opening one set of the valves, the valves of the other set being automatic so as to be automatically opened when the pressure in the cylinder associated therewith reaches a predetermined point during the period the first set of valves are opened.

5. A starting device for internal combustion engines comprising a source of supply of explosive gas, a connection leading from said source of supply to each of the cylinders of the engine, a manually operated valve in each of said connections, an automatic valve associated with each of said connections arranged normally to permit a small quantity of gas to flow through the said connections, and means for automatically opening said valves responsive to the pressure in said cylinders.

[Claims 6 to 14 not printed in the Gazette.]

1,140,332. VALVE. ODILON BRISBOIS, Chicago, Ill., assignor of fifty-one one-hundredths to John H. Ware, Chicago, Ill. Filed June 11, 1914. Serial No. 844,429. (Cl. 137—69.)



1. A shell provided with a passage way therein, and said passage way having a conical portion thereto, at the discharge end thereof, in combination with a valve longitudinally movable in said passage way and adapted to be retracted from said discharge end, said valve provided with a conical portion adapted to co-act with said conical portion of said passage way to restrict said passage way when in an advanced position, said valve provided with an annular groove adjacent to said conical portion, means to yieldingly hold said valve in an advanced position, and said shell provided with an additional passage way communicating with said annular groove when said valve is in an advanced position, and with said first named passage way when said valve is in a retracted position.

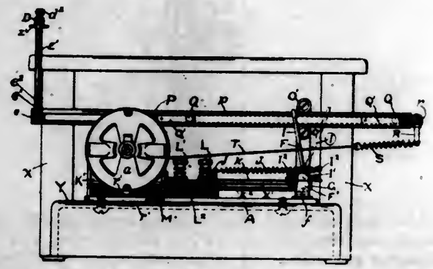
2. A shell provided with a passage way therein, and said passage way having a conical portion thereto, in combination with a valve longitudinally movable in said passage way, and provided with a conical end adapted to co-act with said conical portion of said passage way, and said valve provided with an annular groove adjacent to said conical end, a stem to said valve, a spring on said stem adapted to yieldingly hold said valve in an advanced position, means to adjustably determine the position of said conical end of the valve to the conical portion of the passage way when said valve is in said advanced position and said shell provided with an additional passage way communicating, at substantially right angles thereto, with said first named passage way, and with said annular groove.

3. A device comprising a shell provided with a passage way therein having a conical portion at the discharge end thereof, in combination with a valve provided with an annular groove and with a conical portion between said annular groove and the end thereof, said conical portion adapted to coact with said conical portion of said passage way, and obtain a restricted passage way from said discharge end of said shell when said valve is in an advance position, and with said annular groove in communication with said restricted passage way, and said valve adapted to obtain a maximum discharge passage way from said discharge end when in a retracted position, means to yieldingly hold said valve in an advanced position, and said shell provided with an additional passage way communicating with said first named passage way and said annular groove when said valve is in an advanced position and with said maximum discharge passage way when said valve is in a retracted position.

1,140,333. TYPE-WRITER CARRIAGE-RETURN DEVICE. ODILON BRISBOIS, Chicago, Ill., assignor of fifty-one one-hundredths to John H. Ware, Chicago, Ill. Filed Oct. 3, 1914. Serial No. 864,816. (Cl. 197—66.)

1. The combination of a switch, a resistance coil, a motor, and conductors, all arranged to obtain circuits, in one of which circuits said motor is a member and in the other of which said motor and resistance coil are elements, a shaft to control said switch, and thereby successively open and close said circuits, means to yieldingly hold said shaft in an operated position, a longitudinally movable bar, a flexible connection between said bar and said motor,

and a connection between said bar and a type writer carriage, means on said bar to automatically operate said shaft when said bar is moved in one direction, and means on said bar to automatically operate said shaft when said bar is moved in the opposite direction, and means to manually operate said shaft.



2. The combination of a switch, a resistance coil, a motor, and conductors, all arranged to obtain an electric circuit in which said motor is an element and a circuit in which said resistance coil and motor are elements, a shaft to control said switch, means to yieldingly hold said shaft in an operated position, a longitudinally movable bar, a connection between said bar and said motor to move said bar in one direction by said motor, and a connection between said bar and the carriage of a type writer to move said bar in the opposite direction by the movement of said carriage, means on said bar to automatically move said shaft to successively open said circuits when said bar is moved longitudinally by said motor, and means on said bar to automatically move said shaft to successively close said circuits when said bar is moved by said carriage.

3. The combination of a switch, a resistance coil, conductors arranged to obtain a circuit in which said resistance coil and said motor are elements, and a circuit in which said motor is an element, a longitudinally movable bar, a spring attached to one end of said bar and a connection between said spring and said motor, a connection between said bar and a type writer carriage, adjustable abutments on said bar, a shaft, arms to said shaft, one of said arms in the path of movement of said abutments, and an additional one of said arms adapted to close said switch, means to yieldingly hold said shaft in an operated position, a manually operated key, and an additional one of said arms in the path of movement of said key.

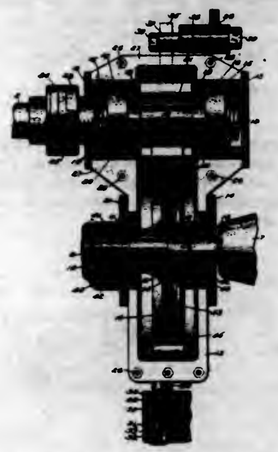
4. The combination of a switch, a motor, a resistance coil, conductors arranged to obtain an electric circuit in which said resistance coil and said motor are elements, and a circuit in which said motor is an element, a longitudinally movable bar, a connection between said bar and said motor, a typewriter carriage, a connection between said bar and said type writer carriage, adjustable abutments on said bar, a shaft, arms to said shaft, one of said arms in the path of movement of said abutments, and an additional one of said arms adapted to close said switch, and means to yieldingly hold said shaft in an operated position.

5. The combination of a rock shaft, means to yieldingly hold said shaft in a given position, a switch, means to move said rock shaft from said given position, to close said switch, an electric circuit in which said switch and an electric motor are members, and a connection between said motor and a type writer carriage, to move said carriage when said motor is energized, and means to automatically return said rock shaft to its initial position, when said motor has returned said carriage to its initial position.

[Claim 6 not printed in the Gazette.]

1,140,334. MOTOR GEAR-DRIVE FOR PLANERS. WILLIAM C. FARNUM, Winchendon, Mass., assignor of one-half to William M. Whitney, Winchendon, Mass. Filed May 5, 1914. Serial No. 836,430. (Cl. 74—7.)

1. In a motor gear driving mechanism, the combination of a motor shaft, a motor shaft gear mounted to rotate therewith, a floating casing associated with said shaft, a spindle shaft mounted on said casing at one side of the motor shaft carrying a gear meshing with said motor shaft gear, a driven shaft, means for connecting the spindle shaft and driven shaft end to end, and means to prevent rotation of the casing about the motor shaft.



2. In a mechanism of the character described, the combination of a motor shaft, a motor shaft gear mounted to rotate therewith, a spindle shaft, a gear fixed thereon and operatively connected to the motor shaft gear, and rigid means mounted to float upon the motor shaft and carrying the spindle shaft to transmit to said motor shaft a lateral thrust in opposition to the lateral thrust on said shaft produced by power transmitted through said motor shaft gear.

3. In a driving mechanism for the cutter cylinder of a planing machine, the combination of a motor shaft, a motor shaft gear mounted thereon, a spindle shaft having a gear fixed thereon and operatively engaged with the motor shaft gear, a member loosely mounted on the motor shaft and projecting to one side thereof, said member carrying the spindle shaft and its gear, and means for locking said member from rotative movement about the axis of the motor shaft to cause said member to partly counterbalance the lateral thrust on the motor shaft due to power transmitted through said motor shaft gear.

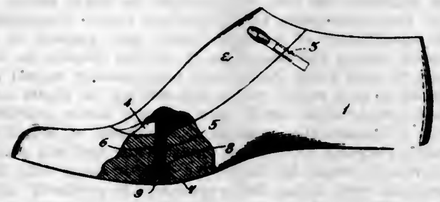
4. In a motor driving mechanism for the cutter cylinders of planing machines, the combination of the motor shaft having a gear to rotate therewith, a spindle shaft carrying a gear meshing with said first-named gear, and means in addition to said spindle shaft and its gear for transmitting part of the lateral thrust of the motor shaft gear back to the motor shaft in a direction opposite to the lateral thrust on said shaft due to its power transmission.

5. In a motor driving mechanism for the cutter cylinders of planing machines, the combination of the motor shaft having a gear fast thereon, a spindle shaft having a gear meshing with the first-named gear, a member pivotally floating on the motor shaft and carrying said spindle shaft and its gear, and means at a greater radial distance from the motor shaft than the spindle shaft to prevent rotative movement of said member about the motor shaft.

[Claims 6 to 12 not printed in the Gazette.]

1,140,335. LAST. JAMES W. MCDEVITT, Brockton, Mass., assignor to Ellery C. Wright, Brockton, Mass. Filed Dec. 12, 1913. Serial No. 806,143. (Cl. 12—137.)

1. A last having a removable instep block, and a last-part to receive said instep block, said last-part being provided with a bored and counter-bored socket extending from the bottom thereof and the instep block having a cooperating recess, the counter bore arranged to provide in the last-part an annular shoulder in the length of the socket, and a dowel fitting the bored and counter-bored parts of the socket and having a shoulder bearing upon said first mentioned shoulder, the dowel being driven in from and flush with the bottom surface of said last-part and projecting above the latter to coöperate with said recess of the instep block, whereby displacement of the dowel below said surface during leveling machine pressures is prevented.



2. A last having a removable instep block, and a last-part to receive said instep block, said last-part being provided with a bored and counter-bored socket extending from the bottom thereof and the instep block having a cooperating recess, the counter bore arranged to provide in the last-part an annular shoulder in the length of the socket, and a dowel fitting the bored and counter-bored parts of the socket in both the last part and instep block and having a shoulder bearing upon said first mentioned shoulder and glued in place, the dowel being driven in from and flush with the bottom surface of said last-part and projecting above the latter to coöperate with said recess of the instep block, whereby displacement of the dowel below said surface during leveling machine pressures and loosening of the glued joint by machine pressures or by alternate swelling and drying of the wood is prevented.

1,140,336. FENDER OR THE LIKE. OSCAR A. ROSS, Chicago, Ill., assignor of one-half to C. Vallette Kasson, Chicago, Ill. Filed Aug. 20, 1910. Serial No. 578,217. (Cl. 213—39.)



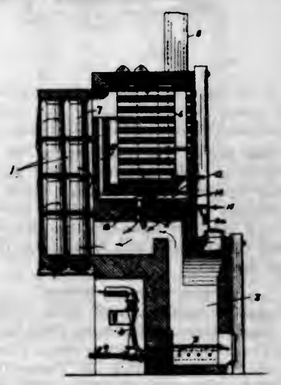
1. A vehicle fender comprising an impact bar, and means for adjustably and resiliently attaching the bar to the vehicle, said means comprising a pair of coiled springs, means for securing said springs to the bar, a part secured to the opposite end of each of said springs and provided with a serrated face, a coöperating part provided with an engaging serrated face, and means for securing said parts to the vehicle frame with said faces in operative engagement.

2. A vehicle fender comprising an impact bar, and means for supporting said bar from the vehicle frame, comprising a fixed part on said frame provided with a serrated face, and adjustable coöperating part provided with a serrated face, means for securing said adjustable coöperating part to the frame with its serrated face engaging the similarly formed face on said fixed part, and a spring having one end secured to the bar and the opposite end secured to said coöperating part.

3. A vehicle fender comprising an impact bar and means for supporting said bar, said means comprising a part on the frame at each side of the vehicle provided with a serrated face, means coöperating with the frame for limiting the movement of said parts, an adjustable coöperating part for each of said first mentioned parts, each of said adjustable coöperating parts provided with a serrated face, means extending through the frame and said coöperating parts for securing each of said coöperating parts to the vehicle frame with its serrated face engaging the similarly formed face of said first mentioned part, and resilient means for securing said bar to said coöperating parts.

4. A vehicle fender, comprising an impact bar and resilient arms adjustably secured to said bar and supporting means for said arms secured thereto and to the vehicle frame, said means comprising mating parts provided with coöperating serrated faces, one of said parts being arranged to coöperate with the vehicle frame and means for securing said engaging parts to the frame.

1,140,337. HEATING COAL-GAS-RETORT CHAMBERS AND THE LIKE. JOHN M. RUSBY, Philadelphia, Pa., assignor to The United Gas Improvement Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed June 27, 1914. Serial No. 847,566. (Cl. 110—31.)



1. The process of heating coal carbonizing chambers which consists in generating producer gas from a fire with air, burning the producer gas with secondary air to heat said chamber and separately controlling the fire and chamber temperatures by passing sufficient steam through the fire to keep its temperature below that required for the formation of clinker or for injury to structural material and by adding to the burning producer gas a diluent consisting of incombustible products of combustion, substantially as described.

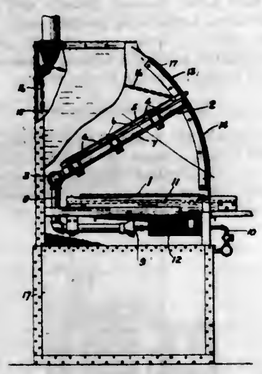
2. The process of heating coal carbonizing chambers which consists in generating producer gas from a fire with air, burning the producer gas with secondary air to heat said chamber and separately controlling the fire and chamber temperatures by passing sufficient steam through the fire to keep its temperature below that required for the formation of clinker or for injury to structural material and by adding to the combustion of producer gas an incombustible diluent, substantially as described.

1,140,338. GAS-BROILER. WILLIAM J. SERRILL, Haverford, Pa., assignor to The United Gas Improvement Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Jan. 25, 1911. Serial No. 604,554. (Cl. 126—41.)

1. In a gas broiler the combination of a housing having an opening at the front, a vertically immovable grill or grid, heating means pivotally supported above the grill or grid and having a swinging movement up and down in respect thereto, and a cover for said opening immovably attached to the heating means, substantially as described.

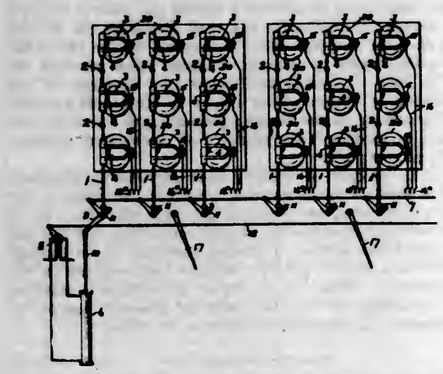
2. The combination in a gas broiler of an open front housing, a vertically immovable grill or grid slidably mounted in the housing and adapted to be inserted and withdrawn through the open front, and upwardly and downwardly swinging heating means arranged above the grill or grid and provided at the front edge with a cover, substantially as described.

3. In a gas broiler the combination of a housing having an opening at the front thereof, a grill or grid, and pivoted counterweighted upwardly and downwardly swinging heating means arranged above the grill or grid and provided at its front edge with a cover for said opening, substantially as described.



4. In a gas broiler the combination of a vertically immovable grill or grid, heating means including a reflector having openings and arranged above the grill or grid and pivotally mounted at one edge thereof, so as to be capable of a range of upwardly and downwardly turning movement toward and away from the grill or grid, substantially as described.

1,140,339. DOOR MECHANISM FOR VERTICAL RETORTS. JOHN HAWLEY TAUSSIG, Philadelphia, Pa., assignor to The United Gas Improvement Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Jan. 20, 1913. Serial No. 743,025. (Cl. 48—124.)



1. Door mechanism for vertical gas retorts comprising the combination of a row of independently hinged door carriers, means common to said carriers for turning all of them, devices for adjusting each carrier in respect to said means, and an individual clamp for each cearrier.

2. Door mechanism for vertical gas retorts comprising the combination of a row of independently hinged door carriers, flexible means common to said carriers for turning all of them into clamp engaging position, devices for adjusting each carrier in respect to said means, and individual long range clamps for engaging each carrier even though warped.

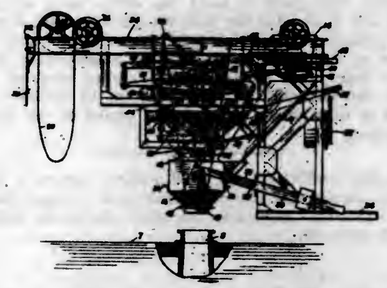
3. Door mechanism for vertical gas retorts comprising the combination of a revoluble shaft, a cotter bar hinged to said shaft, a projection on the shaft for lifting the cotter bar, a clamp for clamping the cotter bar, and a removable liner between the bar and projection, substantially as described.

4. Door mechanism for vertical gas retorts comprising the combination of revoluble shafts each common to a row of retorts, cotter bars independently hinged in respect to said shafts, projections between the shafts and their complemental cotter bars, a power device provided with a transmission common to a number of revoluble shafts, couplings between the transmission and each shaft, individual clamps for the cotter bars, separate rods for operating each clamp, and a controller in proximity with the couplings and rods for operating the power device.

5. Door mechanism for vertical gas retorts comprising the combination of revoluble shafts each common to a row of retorts and consisting of sections movable in respect to each other, cotter bars independently hinged in respect to said shafts, projections between the shafts and their complemental cotter bars, a power device provided with a transmission common to a number of revoluble shafts, couplings between the transmission and each shaft, individual clamps for the cotter bars, separate rods for operating each clamp, and a controller in proximity with the couplings and rods for operating the power device.

[Claims 6 to 9 not printed in the Gazette.]

1,140,340. MEANS FOR CHARGING VERTICAL RETORTS. JOHN HAWLEY TAUSSIG, Philadelphia, Pa., assignor to The United Gas Improvement Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Jan. 20, 1913. Serial No. 743,028. (Cl. 214—23.)



1. Means for charging vertical retorts which comprises the combination of a retort mouth, a chute funnel movable in respect to the retort mouth and adapted to closely fit the same, and a hopper discharging into the funnel and having a discharge opening exceeding in area the discharge area of the funnel, whereby a charge from the hopper backs up in and seals the funnel, substantially as described.

2. Means for charging vertical retorts comprising the combination of a movable carriage, a coal hopper carried by the carriage, means for changing the volumetric capacity of the hopper, and devices for weighing the contents of the hopper, whereby the charge may be fixed volumetrically and its weight ascertained, substantially as described.

3. Means for charging vertical retorts comprising the combination of a movable carriage, a row of coal hoppers carried by the carriage, means for varying the volumetric capacity of each hopper, devices for weighing the contents of the hoppers, breeze pockets carried by the carriage independently of the coal hoppers and provided with a row of chute funnels common to the chutes and hopper discharges, whereby a row of retorts may be simultaneously charged, substantially as described.

1,140,341. EGG-BEATER OR THE LIKE. ARTHUR W. JOHNSTON and ALEXANDER A. NORTON, Chicago, Ill. Filed Jan. 20, 1913. Serial No. 743,080. (Cl. 107—39.)

1. In a device of the kind described and in combination, a suitable handle, a shaft rotatably secured therein, said shaft comprising a pair of twisted wires, one wire bent at its lower end about the shaft to form a plurality of loops, extending transversely and parallel with the shaft, with the upper parts offset relative the lower parts, a coiled wire cutter carried by said loops, a cap slidably mounted upon the free end of one of said shaft wires, a resilient support between said cap and said wire, and a foot piece loosely connected to said cap.



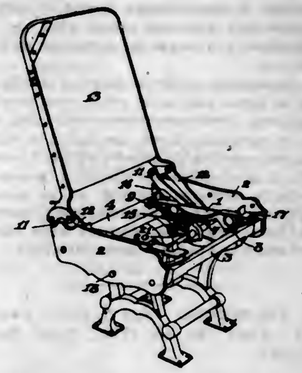
2. In a device of the kind described and in combination, a suitable handle, a shaft rotatably secured therein, and comprising a plurality of wires twisted about each other, one wire bent at its lower end to form a plurality of loops about the shaft, the other wire extended parallel with the shaft and provided with a collar thereon proximate the end, a cap slidably mounted upon the free end of said wire, a spring arranged between said cap and collar and secured thereto, and a foot piece pivotally secured to said cap.

3. In a device of the kind described and in combination, a hollow handle, a shaft rotatably secured therein, and comprising a plurality of wires twisted about each other, one wire terminating at its lower end in a straight portion and the other at its lower end terminating in a plurality of substantially U-shaped loop portions extending transversely relative to the shaft with opposite arms offset vertically, a tubular cap member having a slidable connection with the lower straight portion of said shaft wire, a spring interposed between said cap and said shaft wire, and a disk supported upon said cap.

1,140,342. REVERSIBLE SEAT FOR TRAM-CARS AND OTHER PURPOSES. JOHN EDWARD ANGER, Preston, England. Filed Jan. 29, 1914. Serial No. 815,202. (Cl. 155—2.)

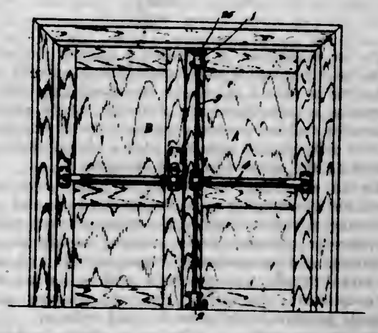
1. A reversible seat of the type referred to, comprising in combination side frames, sills extending between the side frames, rockers for supporting the seat member having inclined under faces at their ends resting upon inclined upper faces of the sills, toothed racks on the underside of the rockers between the said inclines, stub shafts formed integral with or secured to the side frames, and pinions or toothed segments mounted freely on said stub shafts so as to co-act with the racks on the rockers, whereby such pinions or segments can be readily removed by sliding them off the free ends of the stub shafts.

2. A reversible seat of the type referred to, comprising in combination side frames, sills extending between the side frames, rockers for supporting the seat member having inclined under faces at their ends resting upon inclined upper faces of the sills, toothed racks on the under side of the rockers between the said inclines, a cross shaft extending between and journaled in the side frames and carrying pinions or toothed segments, a stub shaft formed integral with or secured to each side frame, pinions or toothed segments mounted freely on the said stub shafts and adapted to co-act with the racks and the other pinions.



3. A reversible seat of the type referred to, comprising in combination side frames, sills extending between the side frames, rockers for supporting the seat member having inclined under faces at their ends resting upon inclined upper faces of the sills, toothed racks on the under side of the rockers between the said inclines, a cross shaft extending between and journaled in the side frames and carrying pinions or toothed segments, a stub shaft formed integral with or secured to each side frame, pinions or toothed segments mounted freely on the said stub shafts and adapted to co-act with the racks and the other pinions, and links for coupling the free ends of the stub shafts to the cross shaft for the purpose of retaining the said stub shafts in parallelism with the cross shaft.

1,140,343. LOCK-BOLT. AUGUST ARENS, New Britain, Conn., assignor to The American Hardware Corporation, New Britain, Conn., a Corporation of Connecticut. Filed Feb. 3, 1914. Serial No. 816,208. (Cl. 70—64.)



1. A bolt casing, a bolt therein, means for moving said bolt rotarily, means for moving said bolt longitudinally, interengaging means on said bolt and casing to retain said bolt when it has reached the limit of its combined rotary and longitudinal motion in one direction, and releasing means for said retainer.

2. In a device of the character described, a bolt casing, a bolt mounted therein and adapted for a combined rotary and longitudinal motion within said casing, interengaging means on said bolt and casing for holding said bolt in its retracted position, and automatic means for releasing said bolt.

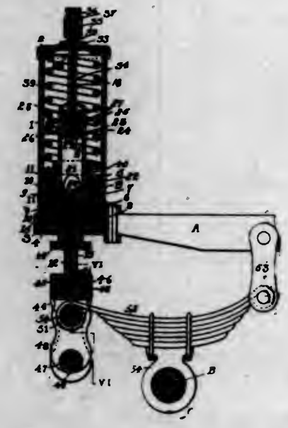
3. In a device of the character described, a bolt casing, a retractable bolt mounted therein, automatically operating means carried by said bolt to hold it in retracted position, and releasing means for said bolt.

4. In a device of the character described, a bolt casing, a bolt mounted therein and adapted for a combined rotary and longitudinal movement, to move it into and out of locking position, a spring detent carried by said bolt and adapted to interlock with said casing when the bolt is in retracted position, and means for actuating said detent to release said bolt.

5. The combination with a door of locking devices therefor at its upper and lower edges, comprising casings, lock bolts therein, a rod operatively connecting said bolts, and means for turning said rod, means for causing the longitudinal movement of said bolts to retracted position upon the rotation of said rod in one direction, means for holding said bolts in retracted position, means operable upon the closing of the door to release said bolts, and means for moving said bolts into locking position when released.

[Claims 6 and 7 not printed in the Gazette.]

1,140,344. AIR-SPRING. JOHN G. FUNK, Swissvale borough, Pa. Filed Dec. 13, 1912. Serial No. 736,462. (Cl. 21—50.)



1. In an air-spring, a cylinder, a piston reciprocable therein, an air-pumping chamber mounted on said piston and having a valved inlet-port communicating with the atmosphere, a pumping-piston working in said air-pumping chamber and mechanically connected with and moving with said cylinder and provided with a valved outlet port, constituting the outlet from said chamber.

2. In an air-spring, a cylinder, a piston reciprocable therein, an air-pumping chamber mounted on said piston and having a valved inlet-port communicating with the atmosphere, a pumping-piston working in said air-pumping chamber and mechanically connected with and moving with said cylinder and provided with a valved outlet-port, constituting the outlet from said chamber, and an automatic pressure-relief valve for said cylinder.

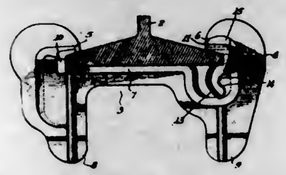
3. In an air-spring, a cylinder, a piston reciprocable therein, an air-pumping chamber mounted on said piston and having a valved inlet-port communicating with the atmosphere, a pumping-piston working in said air-pumping chamber and mechanically connected with and moving with said cylinder and provided with a valved outlet-port, constituting the outlet from said chamber, and a coiled spring interposed between said cylinder-piston and the end of said cylinder.

4. In an air-spring, a cylinder, a piston reciprocable therein, an air-pumping chamber mounted on said piston and having a valved inlet-port communicating with the atmosphere, a pumping-piston working in said air-pumping chamber and mechanically connected with and moving with said cylinder and provided with a valved outlet-port, constituting the outlet from said chamber, an automatic pressure-relief valve for said cylinder, and a coiled spring interposed between said cylinder-piston and the end of said cylinder.

5. In combination with the cylinder, piston and piston rod of an air-spring, a mounting for said piston rod consisting of a block having a longitudinal bore and a transverse slot intersecting said bore, and a rock-shaft seated in said bore and having a radial port, the end of said piston rod extending through said slot and being secured in said port.

[Claims 6 to 10 not printed in the Gazette.]

1,140,345. ANTICREEPER. PHILIP W. MOORE, Evanston, Ill., assignor to The P. & M. Co., Chicago, Ill., a Corporation of Illinois. Filed Aug. 31, 1914, Serial No. 859,289. Renewed Apr. 3, 1915. Serial No. 18,920. (Cl. 238—4.)



1. An anti-creeper comprising a yoke arranged to engage a rail base above and below the same and having a tie engaging flange beneath the rail, the parts being so disposed as to cause a tendency of said anti-creeper to tilt about a transverse horizontal axis when the rail tends to creep, to increase the grip of the anti-creeper on said rail base and means for preventing tilting in a reverse direction.

2. An anti-creeper comprising a yoke having a wedging member received within one of its jaws and adapted to grip the rail base between itself and the opposite jaw, a tie engaging flange beneath said rail base, and an auxiliary jaw to engage the top of the rail base to the rear of the before mentioned rail engaging parts.

3. An anti-creeper comprising a yoke having a hook at each end, one of which is larger than the other, a wedging element received within said larger hook and arranged to grip the rail base, the smaller hook engaging the opposite side of the rail base at the side and top thereof and an auxiliary jaw also arranged to engage said rail base and located to the rear of said smaller hook.

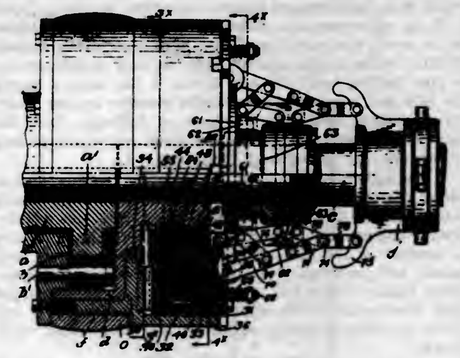
4. An anti-creeper comprising a yoke and a mate, said yoke consisting of a cross bar having a pair of jaws integrally connected with one end thereof and arranged one in advance and one to the rear of said cross bar, the latter having also a jaw at its opposite end which clears the rail base, said member being received loosely within said jaw and diagonally arranged under-cut walls associated with said larger jaw and said mate, which engage each other to cause an inward movement of said mate when thrust toward said larger jaw.

5. An anti-creeper comprising a yoke and a mate, a small jaw at one end of said yoke arranged to engage the rail base directly and a large jaw at the other end thereof arranged to partially inclose said mate, said yoke and said mate having sliding wedging engagement beneath the plane of the rail base to grip the latter between said mate and said small jaw and an additional jaw on said yoke arranged to the rear of the other jaws.

[Claims 6 to 23 not printed in the Gazette.]

1,140,346. CLUTCH FOR REVERSING-GEARING. HENRY A. TUTTLE, Taunton, Mass. Filed Aug. 2, 1912. Serial No. 712,890. (Cl. 192—10.)

1. A clutch-mechanism for reversing gearing and the like consisting of a toothed clutch-member connected with one of the shafts, a coöperating toothed clutch-member made as a carrier, a set of annular friction-disks arranged in said carrier, some slidably connected with the carrier and others slidably connected with the other shaft, a member arranged in front of the set of disks, means to move said member, disks and carrier as a unit to cause the toothed clutch-member of the carrier to engage its fellow clutch-member and to move said member axially, independently of the carrier, to apply pressure to the friction-disks, substantially as described.



2. A clutch-mechanism for reversing-gearing and the like consisting of a toothed clutch-member connected with one of the shafts, a coöperating toothed clutch-member made as a carrier, a set of annular friction-disks arranged in said carrier, some slidably connected with the carrier and others slidably connected with the other shaft, a member arranged in front of the set of disks, means to move said member, disks and carrier as a unit to cause the toothed clutch-member of the carrier to engage its fellow clutch-member and to move said member axially, independently of the carrier, to apply pressure to the friction-disks, said moving-means upon return movement operating to move said member independently of the carrier to relieve the pressure upon the friction-disks and to move said member, disks and carrier as a unit to disconnect the toothed clutch-members, substantially as described.

3. A clutch-mechanism for reversing-gearing and the like consisting of a toothed clutch-member connected with one of the shafts, an axially movable disk-carrier having a toothed end-wall for coöperation with said toothed clutch-member, a set of annular friction-disks arranged in said carrier, some slidably connected with the carrier and others slidably connected with the other shaft, an actuating-member arranged in front of said disks, means to movably connect said member with the carrier and means to move said member axially first to move the carrier and disks borne by it as a unit and then to move the disks independently of the carrier for engaging the clutch-mechanism, substantially as described.

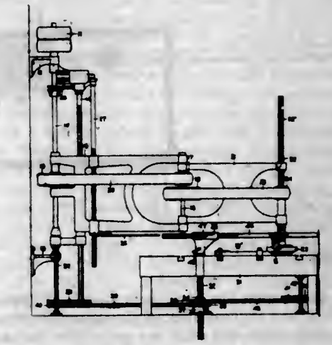
4. A clutch-mechanism for reversing-gearing and the like consisting of a toothed clutch-member connected with one of the shafts, having two sets of teeth, an axially movable disk-carrier having a side-wall and two toothed end-walls for coöperation with said toothed clutch-member, a set of annular friction-disks arranged in said carrier, some slidably connected with the carrier and others slidably connected with the other shaft, a plate arranged in said carrier in front of said disks, means to movably connect said plate with the carrier, and means to move said plate axially first to move the carrier and disks borne by it as a unit and then to move the disks independently of the carrier for engaging the clutch-mechanism, substantially as described.

5. A clutch-mechanism for reversing-gearing and the like consisting of a toothed clutch-member connected with one of the shafts, a coöperating toothed clutch-member made as a carrier, and having an end-wall, a set of annular friction-disks arranged in said carrier, some slidably connected with the other shaft, a plate arranged in said carrier between the set of disks and the end-wall of the carrier, means extended through the end-wall of the carrier to slidably connect said plate therewith, and means to move said plate axially first to move the carrier and disks borne by it as a unit and then to move the disks independently of the carrier for engaging the clutch-mechanism, substantially as described.

[Claims 6 to 14 not printed in the Gazette.]

REISSUES.

13,918. UNIVERSAL STONEWORKING-MACHINE. OSCAR BAUER, New York, N. Y. Filed Feb. 17, 1915. Serial No. 8,939. Original No. 1,112,250, dated Sept. 29, 1914, Serial No. 823,539. (Cl. 51—3.)



1. The combination with a driving shaft, a grinding wheel, driving means extending from the shaft to said wheel, supporting devices for the driving means, and a power screw adapted to vertically adjust said driving means and supporting devices, of a hand controlled guide member associated with said grinding wheel, and means extending from said main power screw to cause the adjustment of said guide member and wheel simultaneously with the adjustment of the driving means.

2. The combination with a driving shaft, a frame connected to the driving shaft and adapted to be swung laterally around the axis thereof, a grinding wheel associated with the outer end of said frame, a power screw coöperating with said frame for lifting or lowering it, and a work supporting bed beneath the wheel, of an auxiliary screw associated with the bed, a guide bar connected to said auxiliary screw and to the axis of the grinding wheel, and means to operate the main and auxiliary screws simultaneously for lifting and lowering the guide bar simultaneously with the aforesaid movements of the frame.

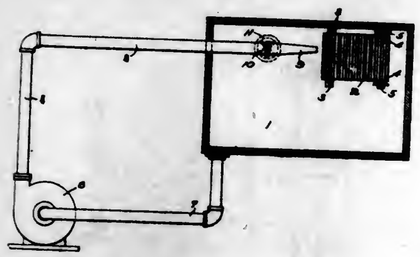
3. In a device of the character set forth, the combination of a guide bar, main and auxiliary screws arranged parallel to each other, said guide bar being associated with the auxiliary screw, and means for rotating the two screws simultaneously in the same direction either by power or by hand, substantially as set forth.

4. In a machine for forming irregular or molded surfaces on stone, a rigid vertical shaft adapted to rotate at high speed, a grinding wheel rigidly secured to the lower end of said shaft and having a periphery of required shape, a vertically adjustable guide arm for said shaft and wheel, means for supporting said guide arm and providing for free movement of the wheel in all directions in a certain plane, whereby the wheel may be operated to cause its periphery to produce a complemental result on the work, and means serving to maintain the wheel absolutely in said plane irrespective of its rapid rotation and the aforesaid free movement.

5. In a universal stone working machine, the combination of a horizontal bed for supporting the work, a grind-

ing wheel having a molded cutting periphery, a shaft perpendicular to the bed to which said wheel is rigidly connected, a rigid arm supporting the shaft and wheel for free movement in any direction parallel to the bed, a guiding support for said arm adjustable perpendicularly of the bed but maintaining the wheel in an absolutely fixed plane determined by such adjustment, and means to rotate the shaft and wheel at high speed irrespective of said free movement and said adjustment, the cutting action of the wheel being in directions parallel to the bed.

13,919. APPARATUS FOR DISINTEGRATING FIBROUS MATERIAL USED IN THE MANUFACTURE OF PAPER-PULP. WILLIAM H. STOBIE, Waterville, Me., assignor to Hollingsworth & Whitney Company, Boston, Mass. Filed July 13, 1914. Serial No. 850,814. Original No. 1,062,306, dated May 20, 1913, Serial No. 693,477. (Cl. 92—20.)



1. In apparatus for disintegrating or dividing fibrous paper stock, the combination of a serrated surface, a pump and a nozzle connected with the pump for discharging the stock against said serrated surface, means for returning the paper stock to the pump, the said nozzle being so located with relation to the serrated surface that the stock will strike the latter a glancing blow.

2. In apparatus for disintegrating or dividing fibrous paper stock, the combination of a tank, a pump, a pipe leading from the tank to the pump, a pipe leading from the pump to the first said tank, a nozzle on said last mentioned pipe, and a serrated plate located in the path of discharge from said nozzle.

3. In apparatus for disintegrating or dividing fibrous paper stock, the combination of a serrated surface, means for adjusting same, a pump, a nozzle connected with the pump for discharging the stock against said serrated surface, and means for changing the position of the nozzle with relation to said serrated surface whereby the angle of incidence may be changed.

4. In apparatus for dividing or separating the fibers of paper stock without severing them, the combination of a surface provided with individual resistant, fiber-retaining or tenacious projections, a nozzle, a tank and a pump connected with said nozzle and tank for discharging said stock forcibly against said projections, and thereby effecting the rapid, thorough division or separation of the fibers of the stock.

5. In apparatus for dividing or separating the fibers of paper stock without severing them, the combination of a surface intersectingly serrated into a multiplicity of spaced projecting points, a nozzle, a tank and a pump connected with said nozzle and tank for discharging said stock forcibly against said projections, and thereby effecting the rapid, thorough division or separation of the fibers of the stock.

6. In apparatus for disintegrating or dividing paper stock, the combination of a member having projections to effect separation of the fibers without severing them, a nozzle relatively stationarily positioned with respect to said member, a tank and a pump connected with said nozzle and tank for forcibly discharging the pulpy stock therefrom against said member to separate said stock into its fibers and to felt the latter.

7. In apparatus for disintegrating or dividing fibrous paper stock, the combination of a member having a surface intersectingly serrated into spaced or individual projections to effect separation of the fibers without severing them, a nozzle relatively stationarily positioned with respect to said member, a tank and a pump connected with said nozzle and tank for forcibly discharging the pulpy stock therefrom against said member to separate said stock into its fibers and to felt the latter.

8. In apparatus for disintegrating or dividing fibrous paper stock, the combination of a tank, a circulation-establishing device, a pipe leading from the tank to said device, a pipe leading from the said device to the tank, a nozzle on said last mentioned pipe, and a member having a serrated surface located in the path of discharge from the nozzle, whereby the fibers of the stock are separated and roughened but maintained undivided.

9. In apparatus for disintegrating or dividing fibrous stock, the combination of a tank, means including a nozzle and a forcing device for forcibly circulating and recirculating said stock into, through and out of said tank, and a member in the path of the stock discharged from said nozzle and provided with a multiplicity of spaced projections against which the stock is adapted to be discharged and disintegrated into fibers whereby the fibers of the stock are separated and roughened but maintained undivided.

10. In apparatus for dividing or separating the fibers of paper stock without severing them, the combination of a roughened surface, a nozzle, a tank and means adapted to circulate liquid material and connected with said nozzle and tank for discharging said stock forcibly against said surface and thereby effecting the division or separation of the fibers of said stock and the roughening of said fibers and a pipe for returning said liquid material to the said circulation means.

11. In apparatus for dividing or separating the fibers of paper stock without severing them, the combination of a roughened surface, a nozzle, a tank and a pump connected with said nozzle and tank for discharging said stock forcibly against said surface, and thereby effecting the division or separation of the fibers of said stock and the roughening of said fibers.

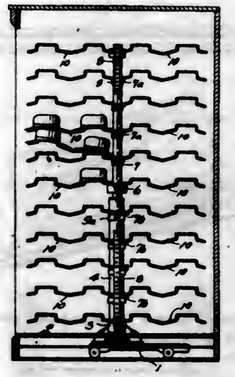
12. In apparatus for dividing or separating the fibers of paper stock without severing them, the combination of roughened, impact-receiving means, a nozzle, a tank, means adapted to circulate liquid material and connected with said nozzle and tank for discharging said stock forcibly against said impact-receiving means, and thereby effecting the division or separation of the fibers of said stock and the roughening of said fibers, and a pipe for returning said liquid material to said circulating means.

13. In apparatus for dividing or separating the fibers of paper stock without severing them, the combination of an impact-receiver having spaced projections, a nozzle, a tank, and a pump connected with said nozzle and tank for discharging said stock forcibly against said impact-receiver, and thereby effecting the division or separation of the fibers of said stock and the roughening of said fibers.

13,920. ROTARY DISPLAY-RACK. ANTHONY VANDERVELD, Grand Rapids, Mich., assignor to Grand Rapids Show Case Co., a Corporation of Michigan. Filed Feb. 8, 1913. Serial No. 747,210. Original No. 1,004,605, dated Oct. 3, 1911, Serial No. 608,202. (Cl. 211—16.)

1. A display rack comprising a plurality of supporting elements located one above the other, a plurality of article supports mounted side by side on said elements, said supports having portions projecting therefrom for engagement with the interior of the crown of a hat or like articles, and means whereby said supports normally extend in substantially a horizontal plane from the supporting elements, but may have upward pivotal movement with relation to said supporting elements, to provide space for the insertion and removal of the articles and for their engagement with and disengagement from the projecting portions of the article supports.

2. A display rack comprising a plurality of supporting elements located one above the other and adjustable toward and from each other, a plurality of article supports pivotally mounted side by side on said elements, means normally causing the article supports to extend from the supporting elements in substantially horizontal planes, and upwardly extending hat interior crown engaging portions having concave formation underneath located on the article supports, with the upwardly extending portion of a hat support located immediately beneath the similar portion of the support next above.



3. A display rack, comprising a rotatable post, horizontally disposed T-bars carried by the post, each having a series of openings near the web and supports consisting of wires bent at the end to enter said openings and laterally engage the web of the bars, and also extending laterally from the T-bars.

4. A display rack, comprising a rotatable post, T-bars extending horizontally from the post and carried thereby, vertically disposed bars attached to the outer ends of the T-bars, intermediate T-bars attached to the vertical bars at their respective ends, and wire supports inserted in openings in the T-bars and extending laterally therefrom.

5. A display rack comprising a rotatable post, collars on the post, oppositely projecting T-bars inserted in the collars, two set screws in one of the collars spaced apart and parallel, said screws also engaging flat surfaces on the post arranged at right angles to the screws, vertical bars attached to the outer ends of the T-bars, other T-bars attached to the vertical bars and bent to engage one side of the post, clamps on the last-named T-bars engaging the other side of the post and supports extending laterally from the T-bars.

6. A display rack comprising a rotatable post, a tubular column in which the lower part of the post is rotative, collars on the post above the column and spaced apart, T-bars extending horizontally and oppositely from the collars, vertically disposed bars attached to the outer ends of the T-bars and extending downward opposite the column, other T-bars attached at intervals to the vertical bars, those extending across the post being bent to engage one side thereof and clamped thereto, and those extending across the column being bent opposite the same and out of contact therewith, and supports mounted on the T-bars and extending laterally therefrom.

7. A display rack comprising a horizontally disposed series of superposed T-bars spaced apart and each having openings therein close to the vertical web, and wire supports of less diameter than the openings bent downward at the ends to enter said openings and laterally engage the web of the bar to hold the support horizontally extended from the bar and also to permit the support to be lifted at its free end.

8. In a display rack, a T-bar having openings near the web, and a wire hat support having its ends bent downward and inserted in said openings and laterally engaging the web of the bar and also having side portions bent upward to form raised portions to enter the crown of a hat and hold the same in place on the support.

9. In a display rack, a horizontally disposed T-bar, a vertically disposed flat bar, a plate secured to the flat bar and having lugs bent at right angles and riveted to the head of the T-bar and also having other lugs struck up at each side of the web of the T-bar.

10. A display rack, comprising a rotatable post, oppositely projecting horizontal T-bars carried by the post, vertically disposed flat bars attached to the outer ends of the T-bars and having openings at intervals, other T-bars extending between the vertical bars, plates attached to the ends of the last named T-bars and fastenings to secure the plates to the vertical bars adjustable in said openings.

11. A display rack, comprising a horizontally disposed series of superposed bars, and adjustable to vary the vertical distance between them, a plurality of openings in said bars, wire hat supports mounted side by side on each bar and having ends inserted in the openings of the bars and also having raised portions to enter the crown of a hat and hold the same on the support, and means whereby said hat supports are normally retained in substantially horizontal position on the bars but are permitted pivotal movement in a vertical plane to and from such position.

12. In a display rack, a horizontally disposed series of bars, a plurality of hat supports each having raised portions to enter the crown of a hat a limited distance mounted on the bars and extending normally in substantially horizontal planes to either side thereof, and means permitting said hat supports to have pivotal movement in vertical planes to and from said normal positions whereby movement of a single hat support in a vertical direction will allow the putting on or taking off of the hat from the support immediately beneath.

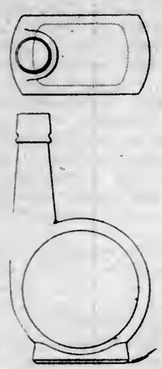
DESIGNS.

47,354. DRINKING-GLASS. FREDERICK E. ANDERSON, Pittsburgh, Pa., assignor to United States Glass Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Aug. 11, 1914. Serial No. 856,314. Term of patent 7 years.



The ornamental design for a drinking glass, substantially as shown.

47,355. BOTTLE. ROBERT COANE, Philadelphia, Pa. Filed Mar. 24, 1915. Serial No. 16,810. Term of patent 14 years.



The ornamental design for a bottle as shown.

47,356. FABRIC. SOPHIE L. CROWNFIELD, New York, N. Y., assignor to Victoria Plush Mills, Swarthmore, Pa., a Corporation of Pennsylvania. Filed Feb. 12, 1915. Serial No. 7,888. Term of patent 7 years.



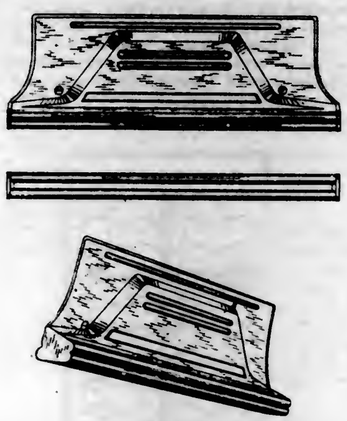
The ornamental design for a fabric as shown.

47,357. TOY BANK OR SIMILAR ARTICLE. GRACE G. DRAYTON, New York, N. Y. Filed Mar. 1, 1915. Serial No. 11,382. Term of patent 3½ years.



The ornamental design for a toy bank or similar article as shown.

47,358. SUCTION-NOZZLE FOR PNEUMATIC SWEEPERS. LEONARD L. FERGUSON, Chicago, Ill., assignor to John W. Duntley, Chicago, Ill. Filed Dec. 12, 1914. Serial No. 876,990. Term of patent 7 years.



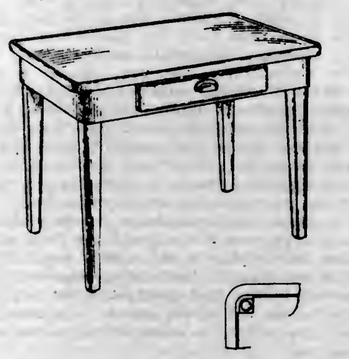
The ornamental design for a suction nozzle for a pneumatic sweeper as shown.

47,359. HAT-RACK. JOHN FETZER, Los Angeles, Cal. Filed Dec. 12, 1914. Serial No. 876,989. Term of patent 7 years.



The ornamental design for a hat rack, as shown.

47,360. TABLE. GEORGE L. HARRISON, East Cleveland, Ohio. Filed Feb. 24, 1914. Serial No. 820,764. Term of patent 14 years.



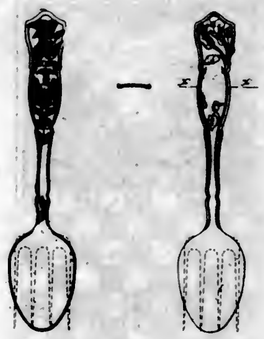
The ornamental design for a table as shown.

47,361. DOLL. THOMAS H. HINDLE, Jr., New York, N. Y. Filed Feb. 11, 1915. Serial No. 7,607. Term of patent 7 years.



The ornamental design for a doll as shown.

47,362. HANDLE FOR SPOONS, FORKS, OR SIMILAR ARTICLES. WILLIAM A. JAMESON, Niagara Falls, N. Y. Filed Feb. 19, 1915. Serial No. 9,456. Term of patent 7 years.



The ornamental design for a handle for a spoon, fork or similar article, as shown.

47,363. PLATE. ANDREW J. KNOPF, Maywood, Ill. Filed Nov. 10, 1914. Serial No. 871,406. Term of patent 3½ years.



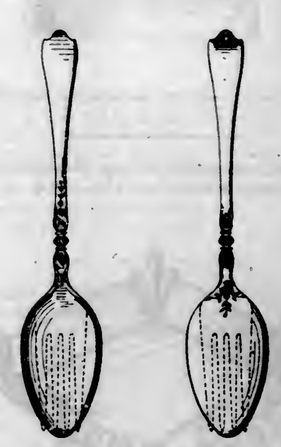
The ornamental design for a plate as shown.

47,364. HANDLE FOR SPOONS, FORKS, OR SIMILAR ARTICLES. THOMAS B. LASHAR, Bridgeport, Conn., assignor to International Silver Company, Bridgeport, Conn., a Corporation of New Jersey. Filed Apr. 9, 1915. Serial No. 20,342. Term of patent 7 years.



The ornamental design for a handle for spoons, forks or similar articles, substantially as shown.

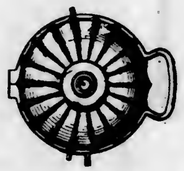
47,365. HANDLE FOR SPOONS, FORKS, OR SIMILAR ARTICLES. GEORGE C. LUNT, Greenfield, Mass., assignor to Rogers, Lunt & Bowlen Company, Greenfield, Mass., a Corporation of Massachusetts. Filed Feb. 12, 1915. Serial No. 7,885. Term of patent 7 years.



The ornamental design for a handle for spoons, forks, or similar articles, as shown.

47,366. CASING FOR SOAP-DISTRIBUTERS. MOSES M. MARCUSE, New York, N. Y., assignor to West Disinfecting Company, a Corporation of New York. Filed Mar. 10, 1913. Serial No. 753,433. Term of patent 14 years.





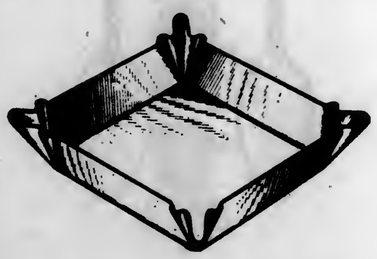
The ornamental design for a casing for soap distributers, substantially as shown and described.

47,367. SHADE FOR ELECTRIC LIGHTS. HARRY PICKHARDT, New York, N. Y., assignor to The Phoenix Glass Company, Pittsburgh, Pa., a Corporation of West Virginia. Filed Feb. 12, 1915. Serial No. 7,884. Term of patent 7 years.



The ornamental design for a shade for electric lights as shown.

47,368. DISH. ROBERT H. STOLTZ, Richmond, Va. Filed Feb. 19, 1915. Serial No. 9,461. Term of patent 14 years.



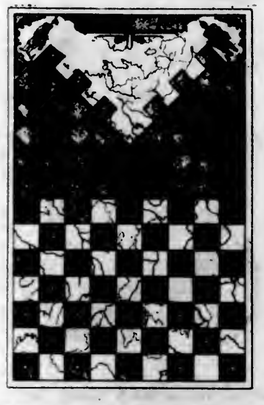
The ornamental design for a dish, as shown.

47,369. TABLE-ORNAMENT. ABRAHAM G. WEISER, Los Angeles, Cal. Filed Mar. 1, 1915. Serial No. 11,369. Term of patent 7 years.



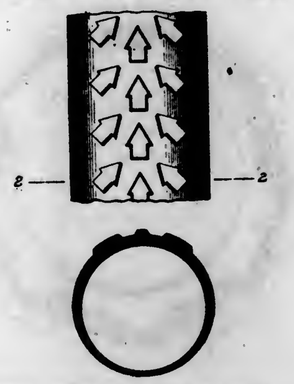
The ornamental design for a table ornament, as shown.

47,370. GAME-BOARD. DUDLEY H. WIGGINS, Washington township, Marion county, Ind. Filed Jan. 28, 1915. Serial No. 4,957. Term of patent 7 years.



The ornamental design for a game board, as shown.

47,371. TIRE. WILLIAM H. YULE, New York, N. Y., assignor to The B. F. Goodrich Company, New York, N. Y., a Corporation of New York. Filed Dec. 26, 1913. Serial No. 808,913. Term of patent 7 years.



The ornamental design for a tire as shown.

TRADE-MARKS

PUBLISHED MAY 18, 1915.

The following trade-marks are published in compliance with section 6 of the act of February 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of this date.

Marks applied for "under the ten-year proviso" are registrable under the provision in clause (b) of section 5 of said act as amended February 18, 1911.

As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.

Ser. No. 66,686. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) HENRY B. WEED, Williamsport, Pa. Filed Nov. 4, 1912.



Particular description of goods.—A Carbonated Non-Alcoholic Beverage and Syrup for Making the Same.
Claims use since July 15, 1912.

Ser. No. 71,686. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) KLEENO-GLASS-KLOTH MFG. CO., St. Louis, Mo. Filed July 14, 1913.

KLEENO

Particular description of goods.—Cloth for Polishing Glasses.
Claims use since about June 1, 1911.

Ser. No. 71,825. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) HAMMOND, STANDISH & CO., Detroit, Mich. Filed July 18, 1913.



Particular description of goods.—Lard, Hams, Bacon, Dried Beef, and Loins.
Claims use since June 25, 1913.

Ser. No. 72,186. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CARL LUDWIG HERRMANN, Breslau, Germany. Filed Aug. 6, 1913.

„Novo-Pin"

Particular description of goods.—Preparations to be Added to Bathing-Water for the Purpose of Refreshing the Human Body and for Strengthening the Nerves.
Claims use since August, 1911.

Ser. No. 73,495. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) AMOSKEAG MANUFACTURING COMPANY, Manchester, N. H. Filed Oct. 20, 1913.



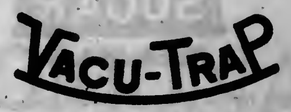
Particular description of goods.—Cotton Cambric.
Claims use since Jan. 1, 1904.

Ser. No. 73,939. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ACME PACKING COMPANY, Chicago, Ill. Filed Nov. 13, 1913.



The trade-mark in which the transversely-lined parts are printed in red, the longitudinally-lined parts being in blue, and the checkered parts being in gold.
Particular description of goods.—Canned Sliced Beef, Hamburger Steak, Corned-Beef Hash, Hash, Sausage, and Potted-Meat Products Made from Hearts, Livers, and other Internal Organs, and Cereals.
Claims use since January, 1910.

Ser. No. 74,906. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) THE BISHOP BABCOCK BECKER CO., Cleveland, Ohio. Filed Dec. 31, 1913.



No claim is made to the use of the word "Trap."
Particular description of goods.—Metallic Valves.
Claims use since about June 1, 1913.

Ser. No. 74,989. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HOLLANDSCHE MELKSUIKERFABRIEK, Amsterdam, Netherlands. Filed Jan. 6, 1914.

HMS

Particular description of goods.—Milk-Sugar.
Claims use since Nov. 22, 1913.

Ser. No. 75,138. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) STRATTON & JOHNSON, Paris, Tex. Filed Jan. 12, 1914.

Cere Flake

Particular description of goods.—Mush-Bread.
Claims use since Dec. 1, 1913.

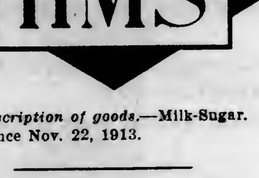
Ser. No. 75,149. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) DANIEL M. MIERS, New York, N. Y. Filed Jan. 13, 1914.

WAW-WAW

Particular description of goods.—Sauces for Use in Flavoring Foodstuffs.
Claims use since on or about Sept. 18, 1909.

Ser. No. 76,238. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE FRANKLIN SUGAR REFINING Co., Philadelphia, Pa. Filed Feb. 28, 1914.

XXXX



·Standard of Purity·

The right to the exclusive use of the words "Confectioners," "Sugar," and "Standard of Purity" is hereby disclaimed.
Particular description of goods.—Confectioners' Sugar.
Claims use since Apr. 9, 1912.

Ser. No. 76,273. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) FRIEDBERGER-AARON MANUFACTURING COMPANY, Philadelphia, Pa. Filed Mar. 2, 1914.

F-A QUALITY

No claim being made to the word "Quality" apart from the mark shown in the drawing.
Particular description of goods.—Lace Edgings and Insertions and Ribbons.
Claims use since Apr. 24, 1913.

Ser. No. 76,529. (CLASS 17. TOBACCO PRODUCTS.) A. BATSCHARI CIGARETTENFABRIK G. M. B. H., Baden-Baden, Germany. Filed Mar. 11, 1914.

„Princesse Charlotte"

Particular description of goods.—Cigarettes.
Claims use since May, 1912.

Ser. No. 76,650. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) G. LINDBERG, Tacoma, Wash. Filed Mar. 14, 1914.

STADIUM

Particular description of goods.—Canned Fruits, Canned Vegetables, and Coffee.
Claims use since Feb. 25, 1914.

Ser. No. 76,742. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) LUYTIES PHARMACY COMPANY, St. Louis, Mo. Filed Mar. 18, 1914.

CREOZONE MEDICATED UTERINE WAFERS

No claim is made to the exclusive use of the words "Medicated Uterine Wafers" in the trade-mark.
Particular description of goods.—A Uterine Wafer, Indicated in Cervical Inflammation, Vaginitis, Vulvitis, Leucorrhea, Ulcerations, Menstrual Disorders, Displacements, &c.
Claims use since November, 1913.

Ser. No. 77,540. (CLASS 39. CLOTHING.) FRANK MELVILLE, Jr., New York, N. Y. Filed Apr. 17, 1914.



Particular description of goods.—Leather Shoes.
Claims use since January, 1911.

Ser. No. 77,662. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WILLIAM JAY SCHIEFFELIN, New York, N. Y. Filed Apr. 22, 1914.

RAMA

Particular description of goods.—A Radio-Active Medicinal Water for Use as a Beverage or Table-Water or as a Tonic.
Claims use since Apr. 1, 1914.

Ser. No. 78,262. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) SCHIEFFELIN & COMPANY, New York, N. Y. Filed May 13, 1914.

KREMO

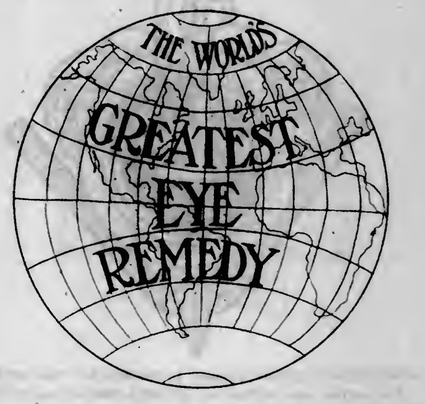
Particular description of goods.—Toilet Lotions, Facial and Massage Preparations, and Ointments.
Claims use since Apr. 1, 1914.

Ser. No. 78,535. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) THE SALT'S TEXTILE MANUFACTURING COMPANY, Bridgeport, Conn., and New York, N. Y. Filed May 25, 1914.

SEALO

Particular description of goods.—Velvets and Plushes in the Piece.
Claims use since about Mar. 1, 1914.

Ser. No. 79,410. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JOHN AMPEY, Chicago, Ill. Filed June 27, 1914.



No claim being made for the use of the words "Greatest Eye Remedy."
Particular description of goods.—An Eye Remedy.
Claims use since July, 1914.

Ser. No. 80,479. (CLASS 2. RECEPTACLES.) SEBALPHA A. BUCK, Monroe, Wash. Filed Aug. 12, 1914.



The words "Parcels Post Egg Crate" being disclaimed.
Particular description of goods.—Egg-Crates.
Claims use since July 1, 1914.

Ser. No. 80,569. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) ARTHUR G. SPEAR, Portland, Me. Filed Aug. 14, 1914.

POMONA

Particular description of goods.—Fruit-Punch.
Claims use since 1899.

Ser. No. 80,589. (CLASS 39. CLOTHING.) H. M. LINDENTHAL & SONS, Chicago, Ill. Filed Aug. 15, 1914.



No exclusive claim is made to the words "The Tailors."
Particular description of goods.—Men's Coats, Vests, Trousers, and Overcoats.
Claims use since Aug. 1, 1914.

Ser. No. 80,856. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) GOWAN-LENNING-BROWN CO., Duluth, Minn. Filed Aug. 28, 1914.

HONOR

Particular description of goods.—Coffee, Tea, Cocoa, Chocolate, Mince-Meat, Olive-Oil, Pickles, Pepper Sauce, Salad-Dressing, Peanut-Butter, Plum-Pudding, Honey, Olives, Chilli Sauce, Prepared Mustard, Salad-Mustard, Fruit Jellies, Preserved Fruits, Canned Sliced Beef, Spices, Flavoring Extracts for Foods, Poultry-Seasoning, Vinegar, Tomato Catsup, Canned Lobster, Molasses, Maple-Syrup, Canned Fruits, Canned Vegetables, Corn-Starch, Evaporated Fruits, Dried Fruits, Brick-Cheese, Rice, Cocoanut, Powdered Sugar, Popcorn, Tapioca, Raisins, Currants, Breakfast-Wheat, Bird-Seed, Codfish, Rolled Oats, Macaroni, and Spaghetti.
Claims use since May, 1906.

Ser. No. 81,131. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) "HEN-CACKLE" POULTRY SUPPLY CO., Raleigh, N. C. Filed Sept. 9, 1914.



The right to the exclusive use of the words "Hen-Cackle" is disclaimed.
Particular description of goods.—Poultry.
Claims use since Mar. 1, 1913.

Ser. No. 81,379. (CLASS 39. CLOTHING.) MISHAWAKA WOOLEN MANUFACTURING COMPANY, Mishawaka, Ind. Filed Sept. 21, 1914.

YUKON

Particular description of goods.—Rubber Footwear—Namely, Rubber Boots and Shoes, as well as Boots and Shoes Having the Lower Portions of Rubber and the Upper Portions of Leather or Knitted or Textile Fabrics.
Claims use since the 1st day of January, 1906.

Ser. No. 81,482. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) ARION MANUFACTURING COMPANY, Boston, Mass. Filed Sept. 26, 1914.

ARIONOLA

Particular description of goods.—Talking-Machines.
Claims use since June 1, 1914.

Ser. No. 81,541. (CLASS 39. CLOTHING.) BEACON FALLS RUBBER SHOE CO., Beacon Falls, Conn. Filed Sept. 29, 1914.

GRIP-SURE

Comprising the words "Grip Sure."
Particular description of goods.—Basket-Ball Shoes.
Claims use since about Aug. 10, 1914.

Ser. No. 81,560. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) THE UNITED STATES GRAPHITE COMPANY, Saginaw, Mich. Filed Sept. 29, 1914.



Particular description of goods.—Pulverized Graphite.
Claims use since Aug. 1, 1914.

Ser. No. 81,621. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ERNEST A. HAMWI, St. Louis, Mo. Filed Oct. 2, 1914.

DIAMOND

Particular description of goods.—Pastry Cones.
Claims use since Mar. 1, 1912.

Ser. No. 81,644. (CLASS 42. KNITTED, NETTTED, AND TEXTILE FABRICS.) THE MILLVILLE MANUFACTURING COMPANY, Philadelphia, Pa. Filed Oct. 3, 1914.

SOUDAN

Particular description of goods.—Cotton Piece Goods.
Claims use since Mar. 22, 1906.

Ser. No. 81,910. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NEW ORLEANS IMPORT CO., LT'D., New Orleans, La. Filed Oct. 15, 1914.



Particular description of goods.—Tea.
Claims use since July 22, 1913.

Ser. No. 82,029. (CLASS 39. CLOTHING.) THE MAYO MILLS, Mayodan, N. C., and New York, N. Y. Filed Oct. 20, 1914.

Mayo

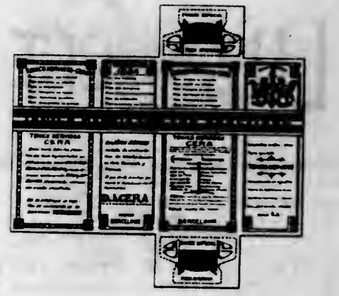
Particular description of goods.—Underwear for Men, Women, and Children in Single Garment and Union Suits of Knitted Fabric, and Hosiery.
Claims use since Aug. 24, 1914.

Ser. No. 82,310. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE STERLING GUM COMPANY, INC., New York, N. Y. Filed Oct. 31, 1914.

WORLD'S 1915 FAIR

No claim is made to the exclusive use of the numeral "1915" except in connection with the words "World's Fair."
Particular description of goods.—Chewing-Gum.
Claims use since February, 1911.

Ser. No. 82,653. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ENRIQUE CERA, Barcelona, Spain. Filed Nov. 18, 1914. Under ten-year proviso.



Particular description of goods.—Tonics for the Nerves.
Claims use since February of 1894.

Ser. No. 82,679. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WILLIAM H. WILLIAMS, Danville, Va. Filed Nov. 18, 1914.



Particular description of goods.—An Insect-Exterminator.
Claims use since May 1, 1914.

Ser. No. 83,116. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) KOENIGSMARK MILL COMPANY, Waterloo, Ill. Filed Dec. 7, 1914.

Koenigsmark's

The trade-mark being a facsimile of the name "Koenigsmark's" as written by Alios J. Koenigsmark, secretary of applicant.
Particular description of goods.—Wheat-Flour.
Claims use since Aug. 22, 1914.

Ser. No. 83,387. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) WESTINGHOUSE ELECTRIC & MANUFACTURING COMPANY, East Pittsburgh, Pa. Filed Dec. 18, 1914.

LUXSOLITE

Particular description of goods.—Fixtures for Electric Lights.
Claims use since July 24, 1914.

Ser. No. 83,438. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ROSA B. FRESE, Santa Rosa, Cal. Filed Dec. 21, 1914.

Frese's PURE KETSUP GRAPE

The words "Frese's Pure Grape Ketsup" is no part of the trade-mark claimed.
Particular description of goods.—Grape Catsup.
Claims use since Oct. 10, 1914.

Ser. No. 83,501. (CLASS 12. CONSTRUCTION MATERIALS.) TRUSSED CONCRETE STEEL COMPANY, Detroit, Mich. Filed Dec. 23, 1914.

STONETEX

Particular description of goods.—A Liquid-Cement Wall-Coating.
Claims use since March, 1910.

Ser. No. 83,637. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) HORLICK'S MALTED MILK COMPANY, Racine, Wis. Filed Jan. 2, 1915. Under ten-year proviso.

HORLICK'S

The trade-mark consists of the word "Horlick's."
Particular description of goods.—Prepared Milk Products, Food Products Containing Extract of Malt, Barley, and Wheat-Flour, and Dry Extract of Malt.
Claims use since the year 1874.

Ser. No. 83,850. (CLASS 39. CLOTHING.) EARNSHAW KNITTING COMPANY, Chicago, Ill. Filed Jan. 14, 1915.

Vanta Baby

Particular description of goods.—Children's and Infants' Underwear and Undergarments—Namely, Knitted Shirts, Knitted Gertrudes, Knitted Binders, Knitted Bands.
Claims use since Aug. 1, 1913.

Ser. No. 83,894. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ABRAHAM L. BORR, Wausau, Wis. Filed Jan. 16, 1915.

CROWN PURE ECONOMICAL WHOLESOME WHOLE EGG SUBSTITUTE

The words "Pure," "Wholesome," "Economical," "Trade Mark," and "Whole Egg Substitute" being disclaimed.
Particular description of goods.—Whole-Egg Substitute.
Claims use since Nov. 1, 1914.

Ser. No. 84,130. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) L. FRANK & SON CO., Milwaukee, Wis. Filed Jan. 27, 1915.

·CEROMETE·

Particular description of goods.—A Meat Food Product Made from Cereal and Meat.
Claims use since Jan. 15, 1915.

Ser. No. 84,193. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) HAWKS, INCORPORATED, Bloomington, Ill. Filed Jan. 29, 1915.

BOBOLINK



Particular description of goods.—Canned Fruits, Including Berries, Canned Vegetables, Canned Baked Beans with Tomato Sauce, Canned Pork and Beans, Canned Pork and Beans with Tomato Sauce, Canned Sliced Beef, Canned Mackerel, Canned Salmon, Canned Sardines, Canned Caviar, Canned Clams, Canned Codfish, Canned Crabs, Canned Fish Flakes, Canned Kippered Herring, Canned Lobsters, Canned Oysters, Canned Mushrooms, Canned Soup, Canned Sauer-Kraut, Canned Maraschino Cherries, Canned Hominy, Canned Apple-Butter, Canned Pimentoes, Canned Raspberry Jam, Canned Currant Jelly, Canned Strained Honey, Canned Fruit Preserves, Canned Cane-Syrup, Canned Maple-Syrup, Canned Milk, Vinegar, Alimentary Pastes, Peanut-Butter in Glass, Catsup in Glass, Mustard in Glass, Pickles in Glass, Salad-Dressing in Glass, Table-Sauce in Glass, Olives in Glass, Shredded Cocoanut, Gelatin, Flavoring Extracts for Food, Fruit and Nut Essences for Food, Rice, Sugar, Spices, Cheese, Rolled Oats, Wheat-Flour, Cocoa, Coffee, Chocolate, Tea, Figs, and Olive-Oil.
Claims use since July, 1914.

Ser. No. 84,259. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) DILSIZIAN BROS., New York, N. Y. Filed Feb. 2, 1915.



Particular description of goods.—Cotton Piece Goods.
Claims use since 1905.

Ser. No. 84,260. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) DILSIZIAN BROS., New York, N. Y. Filed Feb. 2, 1915.



Particular description of goods.—Cotton Piece Goods.
Claims use since 1905.

Ser. No. 84,276. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CHARLES E. CORMIER RICE CO. LTD., New Orleans, La. Filed Feb. 3, 1915.

Deelishus



The rose being printed in blue.
Particular description of goods.—Rice.
Claims use since Jan. 11, 1915.

Ser. No. 84,313. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) LAUDERBACH BARBER CO., Philipsburg, Pa. Filed Feb. 5, 1915.

WHITE SUMMIT

Particular description of goods.—Corn Flakes, Rolled Oats, Cheese, Mustard, Vinegar, Cocoa, Condensed Mince-Meat, Tapioca, Pickles, Catsup, Powdered Sugar, Cube-Sugar, Canned Oysters, Canned Sardines, Evaporated Milk, Olives, Horse-Radish, Peanut-Butter, Corn-Starch, Apple-Butter, and Table-Syrup.
Claims use since June 30, 1914.

Ser. No. 84,315. (CLASS 39. CLOTHING.) RELIANCE MANUFACTURING COMPANY, Chicago, Ill. Filed Feb. 5, 1915.



No claim is made for the exclusive right to the use of the words "Work Shirt."
Particular description of goods.—Work-Shirts.
Claims use since Oct. 1, 1914.

Ser. No. 84,346. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) SOMERSET STOVE FOUNDRY CO., Somerset, Mass. Filed Feb. 6, 1915.

GLENDALE

Particular description of goods.—Coal-Burning and Gas-Burning Stoves and Ranges.
Claims use since Jan. 1, 1900.

Ser. No. 84,383. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) PACIFIC COAST BISCUIT COMPANY, Seattle, Wash. Filed Feb. 8, 1915.

Thomsen's

The facsimile signature being that of Mr. Moritz Thomsen.
Particular description of goods.—Bitter Sweets, Whipped Cream, Fruit-Chocolates, Assorted Chocolates, and Milk-Chocolates.
Claims use since Oct. 30, 1913.

Ser. No. 84,387. (CLASS 39. CLOTHING.) M. E. SMITH & CO., INC., Omaha, Nebr. Filed Feb. 8, 1915.



The picture shown being fanciful.
Particular description of goods.—Women's House-Dresses, Wash-Dresses, Aprons, Ladies' Muslin Underwear, Wrappers, Kimonos, Waists, Children's Dresses and Rompers.
Claims use since Nov. 1, 1914.

Ser. No. 84,393. (CLASS 12. CONSTRUCTION MATERIALS.) WARREN-EHRET COMPANY, Philadelphia, Pa. Filed Feb. 8, 1915. Under ten-year proviso.

EHRET'S SLAG ROOFING

Particular description of goods.—Roof-Covering.
Claims use since on or about Jan. 1, 1880.

Ser. No. 84,401. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) HILLS BROS., San Francisco, Cal Filed Feb. 9, 1915.

BLUE CAN

The applicant hereby disclaims the right to the exclusive use of a blue can.
Particular description of goods.—Coffee.
Claims use since Oct. 15, 1908.

Ser. No. 84,402. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) HILLS BROS., San Francisco, Cal. Filed Feb. 9, 1915.

Red Can

The applicant hereby disclaims the right to the exclusive use of a red can.
Particular description of goods.—Coffee.
Claims use since Dec. 13, 1913.

Ser. No. 84,417. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) WARD BROS. CO., INC., Buffalo, N. Y. Filed Feb. 9, 1915.

WELCOME

Particular description of goods.—Bread.
Claims use since Jan. 18, 1915.

Ser. No. 84,419. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) WARD BROS. CO., INC., Buffalo. N. Y. Filed Feb. 9, 1915.

DREAM

Particular description of goods.—Bread.
Claims use since Jan. 18, 1915.

Ser. No. 84,432. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CLIFFORD B. MILLER, Buffalo, N. Y. Filed Feb. 10, 1915.

BAKING NOEG COOKING

Exclusive right to the use of the words "Baking" and "Cooking" being disclaimed.
Particular description of goods.—A Baking and Cooking Compound to be Used as a Substitute for Eggs.
Claims use since June 30, 1914.

Ser. No. 84,512. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) PENNSYLVANIA CHOCOLATE COMPANY, Pittsburgh, Pa. Filed Feb. 13, 1915.

VOTES FOR WOMEN

Particular description of goods.—Chocolate and Candy.
Claims use since about Jan. 16, 1915.

Ser. No. 84,522. (CLASS 39. CLOTHING.) CHICAGO HAT MANUFACTURING AND BLEACHING COMPANY, Chicago, Ill. Filed Feb. 15, 1914.



Particular description of goods.—Ladies' Hats.
Claims use since May 25, 1913.

Ser. No. 84,543. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) WALLACE NOVELTY COMPANY, New York, N. Y. Filed Feb. 15, 1915.



No claim being made to the exclusive use of the representation of the lamp and plug.
Particular description of goods.—Electric-Lamp-Supporting Stands or Electric-Lamp Supports.
Claims use since the latter part of December, 1914.

Ser. No. 84,689. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) GRIMM & GORLY, St. Louis, Mo. Filed Feb. 23, 1915.

WE GIVE THE EARTH WITH EVERY PLANT

Particular description of goods.—Cut Flowers.
Claims use since about June, 1900.

Ser. No. 84,711. (CLASS 38. PRINTS AND PUBLICATIONS.) THE STUYVESANT CO., New York, N. Y. Filed Feb. 23, 1915.

GOLF ILLUSTRATED & OUTDOOR AMERICA

"Golf Illustrated and Outdoor America."
Particular description of goods.—A Periodical Publication Issued Monthly.
Claims use since Apr. 1, 1914.

Ser. No. 84,733. (CLASS 39. CLOTHING.) R. CINELLI & SONS, Signa, Italy, and New York, N. Y. Filed Feb. 24, 1915.



Particular description of goods.—Hats.
Claims use with the United States and between the several States thereof since May, 1914, and in Italy since 1885.

Ser. No. 84,741. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) MCLEOD & ORMSBEE, Utica, N. Y., assignors to Boonville Creamery & Cold Storage Co., Boonville, N. Y., a Corporation of New York. Filed Feb. 24, 1915.

MEADOW SWEET

Particular description of goods.—Cheese.
Claims use since 1895.

Ser. No. 84,771. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) EDWARD J. REILLY, Baltimore, Md. Filed Feb. 25, 1915.

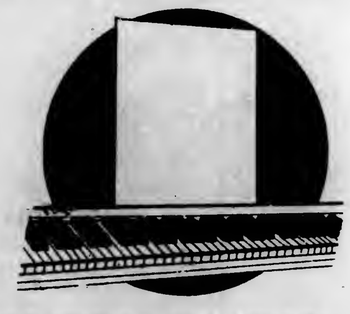
4 EVER

TRADE—MARK



The words "Trade Mark" being hereby disclaimed.
Particular description of goods.—Liquid Leather-Dye.
Claims use since July, 1901.

Ser. No. 84,833. (CLASS 38. PRINTS AND PUBLICATIONS.) WATERSON-BERLIN & SNYDER COMPANY, New York, N. Y. Filed Feb. 27, 1915.



Particular description of goods.—Sheet-Music.
Claims use since Dec. 28, 1914.

Ser. No. 84,837. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CABLE-DRAPER BAKING CO., Detroit, Mich. Filed Mar. 1, 1915.

HOLAND HARTH

Particular description of goods.—Bread.
Claims use since Jan. 10, 1915.

Ser. No. 84,867. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) REPUBLIC CHEMICAL PRODUCTS COMPANY, Chicago, Ill. Filed Mar. 1, 1915.

AUTOCRAT

Particular description of goods.—Metal-Polish and Aluminum-Polish.
Claims use since Dec. 21, 1914.

Ser. No. 84,875. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE WOOLSON SPICE COMPANY, Toledo, Ohio. Filed Mar. 1, 1915.

KAREX

Particular description of goods.—Coffee.
Claims use since Feb. 21, 1910.

Ser. No. 84,876. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE WOOLSON SPICE COMPANY, Toledo, Ohio. Filed Mar. 1, 1915.

NAVARRE

The trade-mark being the name of famous scouts now deceased.
Particular description of goods.—Coffee.
Claims use since Feb. 21, 1910.

Ser. No. 84,888. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WILLIAM HERMAN SELF, Barham, La. Filed Mar. 1, 1915.



Particular description of goods.—Venereal Diseases.
Claims use since about January, 1913.

Ser. No. 84,915. (CLASS 38. PRINTS AND PUBLICATIONS. THE NOVELTY NEWS CO., Chicago, Ill. Filed Mar. 3, 1915.

The PREMIUM BUYERS' GUIDE

The Premium Trade Journal

Particular description of goods.—Monthly Trade Magazines.
Claims use since Jan. 4, 1915.

Ser. No. 84,921. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) BROOKS BARLEY CO., Boston, Mass. Filed Mar. 4, 1915.

BROOKS BABY BARLEY BOSTON

The words "Brooks' Baby Barley," "Boston," forming no part of the mark.
Particular description of goods.—Prepared Barley, a Food for Infants.
Claims use since Dec. 15, 1913.

Ser. No. 84,953. (CLASS 37. PAPER AND STATIONERY.) CENTRAL PAPER COMPANY, Muskegon, Mich. Filed Mar. 5, 1915.

IAMA

Particular description of goods.—Paper Towels and Paper Napkins.
Claims use since about Jan. 31, 1915.

Ser. No. 84,959. (CLASS 39. CLOTHING.) GEORGE THOMAS HAWKINS, Northampton, England. Filed Mar. 5, 1915.



Particular description of goods.—Boots, Shoes, and Slippers Made of Leather, Canvas, Cloth, Buckskin, and Rubber.
Claims use since the year 1889.

Ser. No. 85,004. (CLASS 37. PAPER AND STATIONERY.) SAUQUOIT TOILET PAPER CO., New Hartford, N. Y. Filed Mar. 8, 1915.



No claim being made to the words "Crepe Toilet Tissue."
Particular description of goods.—Toilet-Paper.
Claims use since Mar. 14, 1914.

Ser. No. 85,023. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) NEUSS HESSLEIN & CO., New York, N. Y. Filed Mar. 8, 1915.



Particular description of goods.—Woven Cotton Plaids.
Claims use since December, 1910.

Ser. No. 85,035. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) N. ERLANGER, BLUMGART & CO., New York, N. Y. Filed Mar. 9, 1915.

SUNWASH

Particular description of goods.—Cotton Dress Fabrics.
Claims use since on or about the 15th day of January, 1915.

Ser. No. 85,068. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) AMERICAN BEAD COMPANY, INC., New York, N. Y. Filed Mar. 11, 1915.



Particular description of goods.—Ornamental Beads and Buttons Made of Glass, Composition, or Base Metal.
Claims use since 1906.

Ser. No. 85,142. (CLASS 3. BAGGAGE, HORSE EQUIPMENTS, PORTFOLIOS, AND POCKET-BOOKS). THE MENDEL-DRUCKER COMPANY, Norwood, Ohio. Filed Mar. 13, 1915.

AUTO-LOCK

Particular description of goods.—Trunks.
Claims use since Jan. 2, 1915.

Ser. No. 85,183. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) JESSE FRENCH PIANO AND ORGAN COMPANY, St. Louis, Mo. Filed Mar. 16, 1915.

MELOTONE

Particular description of goods.—Talking-Machines.
Claims use since Feb. 27, 1915.

Ser. No. 85,194. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) SCHOENING-KOENIGSMARK MILLING COMPANY, Prairie Du Rocher, Ill. Filed Mar. 16, 1915.

ESKAY

Particular description of goods.—Wheat-Flour.
Claims use since about July, 1906.

Ser. No. 85,200. (CLASS 39. CLOTHING.) CHARLES J. BAILEY, Boston, Mass. Filed Mar. 17, 1915.



No claim being made to the representation of the goods apart from the mark shown on the drawing and to the legend "Bailey's Pat'd Apr. 12 1910 'Wont Slip'" and to the figures "7" and "8," and to the words "Wont Slip."
Particular description of goods.—Heels and Soles for Boots and Shoes, Wholly or in Part of Rubber.
Claims use since January, 1915.

Ser. No. 85,236. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) JOHN OLIVER JOHNSON, Chicago, Ill. Filed Mar. 18, 1915.

LINCOLN PARK

Particular description of goods.—Lawn-Seeds.
Claims use since about the 15th day of January, 1913.

Ser. No. 85,247. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE THELAH CO., St. Marys, Ohio. Filed Mar. 18, 1915.

Thelah

Particular description of goods.—Catarrhal Powders, Hair-Tonic and Scalp-Stimulant, Camphor Ointment, Anticough, Rheumatic Syrup, Corn-Ease, Menthol Ointment, Vegetable Laxative Tablets, Dyspepsia and Indigestion Tablets, and Headache and Neuralgia Tablets.
Claims use since Feb. 27, 1915.

Ser. No. 85,248. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) WASHBURN CROSBY COMPANY, Minneapolis, Minn. Filed Mar. 18, 1915.

Breadwinner

Particular description of goods.—Wheat-Flour.
Claims use since about the year 1893.

Ser. No. 85,250. (CLASS 50. MERCHANDISE NOT OTHERWISE CLASSIFIED.) GEO. BORGFELDT & CO., New York, N. Y. Filed Mar. 19, 1915.

MARMONYX

Particular description of goods.—Urns, Vases, Trays, Pedestals for Statuary, Lamps, &c., and Statuary Made from Natural Translucent Stone.
Claims use since Feb. 1, 1915.

Ser. No. 85,276. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS) JOHN OLIVER JOHNSON, Chicago, Ill. Filed Mar. 20, 1915.

BOULEVARD

Particular description of goods.—Lawn-Seeds.
Claims use since about the 15th day of March, 1915.

Ser. No. 85,289. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) BONNEY VISE & TOOL WORKS INC., Philadelphia and Allentown, Pa., and New York, N. Y. Filed Mar. 22, 1915.

TOMAHAWK

Particular description of goods.—A Combination-Tool Embodying the Following Members in One: a Hammer, Hatchet, Pincers, Wire-Cutter, Belt-Punch, Tack-Claw, Screw-Driver, and Wire-Splicing Clamp.
Claims use since about April, 1908.

Ser. No. 85,313. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) S. W. LONG & CO. INC., New York, N. Y. Filed Mar. 22, 1915.

LONGTEX

Particular description of goods.—Linen, Cotton, and Silk Piece Goods and Mixtures of Linen and Cotton, Linen and Silk, and Cotton and Silk Piece Goods.
Claims use since Jan. 11, 1915.

Ser. No. 85,324. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) A. J. SHELDON CO., New York, N. Y. Filed Mar. 22, 1915.

DEPENDON

Particular description of goods.—Coffee, Tea, Olive-Oils, and Cocoa.
Claims use since March, 1913.

Ser. No. 85,326. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) J. W. SURBRUG, New York, N. Y. Filed Mar. 22, 1915.



The words "Biscuit" and "Creates Health Strength Vigor" being disclaimed.
Particular description of goods.—Biscuits.
Claims use since Sept. 1, 1914.

Ser. No. 85,349. (CLASS 27. HOROLOGICAL INSTRUMENTS.) LOUIS F. SACKERMAN, Baltimore, Md. Filed Mar. 23, 1915.

SLEEP-BREAKER

Particular description of goods.—Alarm-Clocks.
Claims use since Feb. 23, 1915.

Ser. No. 85,389. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) BEST-CLYMER MANUFACTURING COMPANY, St. Louis, Mo. Filed Mar. 25, 1915.

INSPECTOR

Particular description of goods.—Sorghum with Corn-Syrup.
Claims use since December, 1914.

Ser. No. 85,390. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) BEST-CLYMER MANUFACTURING COMPANY, St. Louis, Mo. Filed Mar. 25, 1915.

MARIGOLD

Particular description of goods.—A Table-Syrup Prepared from Corn-Syrup, Sorghum, and Molasses.
Claims use since December, 1914.

Ser. No. 85,392. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) BEMMELS MILLING COMPANY, Lisbon, N. D. Filed Mar. 25, 1915.

CHEER-UP

Particular description of goods.—Wheat-Flour and Self-Rising Pancake-Flour.
Claims use since Jan. 1, 1911.

Ser. No. 85,406. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) ILLINOIS ELECTRIC PORCELAIN CO., Macomb, Ill. Filed Mar. 25, 1915.



Particular description of goods.—Knobs, Cleats, Tubes, Switch-Bases, Ceiling-Buttons, and Porcelain Insulators and Insulations, All for Electrical Use.
Claims use since Jan. 1, 1915.

Ser. No. 85,445. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) H. R. MALLINSON & Co., New York, N. Y. Filed Mar. 26, 1915.

KREPE KOKETTE

No claim being made to the word "Krepe" apart from the mark shown in the drawing.
Particular description of goods.—Silk Piece Goods.
Claims use since Aug. 15, 1914.

Ser. No. 85,484. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) LYON & HEALY, Chicago, Ill. Filed Mar. 27, 1915.

Guydyn

Particular description of goods.—Mandolins and Guitars.
Claims use since Jan. 18, 1915.

Ser. No. 85,526. (CLASS 3. BAGGAGE, HORSE EQUIPMENTS, PORTFOLIOS, AND POCKET-BOOKS.) SCHEFFER & ROSSUM COMPANY, St. Paul, Minn. Filed Mar. 29, 1915.



The representation of the horse-collar shown in the drawing is hereby disclaimed.
Particular description of goods.—Horse-Collars, Harness, and Riding-Saddles.
Claims use since July 1, 1914.

Ser. No. 85,596. (CLASS 28. JEWELRY AND PRECIOUS-METAL WARE.) B. ALTMAN & Co., New York, N. Y. Filed Apr. 1, 1915.

Pera

Particular description of goods.—Pearl Jewelry.
Claims use since Mar. 10, 1915.

Ser. No. 85,607. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) FRIEDBERGER-AARON MANUFACTURING COMPANY, Philadelphia, Pa. Filed Apr. 1, 1915.

F-A QUALITY

No claim being made to the word "Quality" apart from the mark shown in the drawing.
Particular description of goods.—Braids.
Claims use since Apr. 24, 1913.

Ser. No. 85,639. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) THE HIND & HARRISON PLUSH CO., New York and Clark Mills, N. Y. Filed Apr. 2, 1915.

SABELAM

Particular description of goods.—Plushes in the Piece.
Claims use since the 18th day of March, 1915.

Ser. No. 85,667. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) FRED M. GIDDINGS, Galesburg, Ill. Filed Apr. 3, 1915.

GIDZ

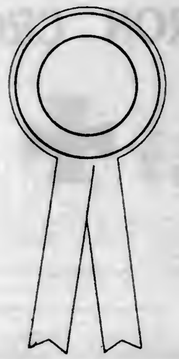
Particular description of goods.—Fuel for Increasing the Efficiency of Gasolene-Engines.
Claims use since on or about Feb. 10, 1915.

Ser. No. 85,692. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) THE BUCKLEY-NEWHALL COMPANY, New York and Brooklyn, N. Y. Filed Apr. 5, 1915.

BLUE RIBBON

Particular description of goods.—Baby-Carriages and Go-Carts.
Claims use since Aug. 10, 1910.

Ser. No. 85,695. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) THE BUCKLEY-NEWHALL COMPANY, New York and Brooklyn, N. Y. Filed Apr. 5, 1915.



The trade-mark consists of a medallion with pendant streamers, both being printed in blue.
Particular description of goods.—Phonographs, Talking-Machines, Pianos, Organs, and Music-Boxes.
Claims use since Aug. 10, 1910.

Ser. No. 85,696. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) THE BUCKLEY-NEWHALL COMPANY, New York and Brooklyn, N. Y. Filed Apr. 5, 1915.

BLUE RIBBON

Particular description of goods.—Phonographs, Talking-Machines, Pianos, Organs, and Music-Boxes.
Claims use since Aug. 10, 1910.

Ser. No. 85,722. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) SALLEO & SHAUGHNESSY Co., Detroit, Mich. Filed Apr. 5, 1915.

S & S

Particular description of goods.—Hair-Tonic.
Claims use since Apr. 1, 1915.

Ser. No. 85,729. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) GEORGE T. HASTINGS, New York, N. Y. Filed Apr. 6, 1915.



Particular description of goods.—Dental Cream.
Claim use since Mar. 2, 1915.

Ser. No. 85,730. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) GEORGE T. HASTINGS, New York, N. Y. Filed Apr. 6, 1915.

SNOWITE

Particular description of goods.—Dental Cream.
Claims use since Mar. 2, 1915.

Ser. No. 85,751. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) KOPPE CHEMICAL & OIL COMPANY, INC., New York, N. Y. Filed Apr. 7, 1915.

KOPPELINE

Comprising the word "Koppeline."
Particular description of goods.—Sizing and Softeners for Textile Fabrics.
Claims use since Mar. 20, 1915.

Ser. No. 85,779. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) KLOCZEWSKI & CRISP, Washington, D. C. Filed Apr. 8, 1915.

ALKACIDE

Particular description of goods.—Antiseptic Mouth-Wash.
Claims use since Mar. 10, 1915.

Ser. No. 85,792. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE J. B. WILLIAMS COMPANY, Glastonbury, Conn. Filed Apr. 8, 1915.

Iridesca

Particular description of goods.—Talc Powder, Face-Powder, Toilet Water, and Dental Cream.
Claims use since about Mar. 8, 1915.

Ser. No. 85,799. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) SIDNEY BLUMENTHAL & COMPANY, New York, N. Y. Filed Apr. 9, 1915.

LAPINEX

Particular description of goods.—Plushes and Velvets in the Piece.
Claims use since the 30th day of January, 1915.

Ser. No. 85,807. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE BAYER COMPANY, INC., New York, N. Y. Filed Apr. 9, 1915.

SAIODINA

Particular description of goods.—A Substitute for the Iodids.
Claims use since Oct. 19, 1905.

Ser. No. 85,842. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) THE EDDYSTONE MANUFACTURING COMPANY, Eddystone and Philadelphia, Pa. Filed Apr. 10, 1915.

PONGEEA

Particular description of goods.—Printed and Dyed Cotton Goods.
Claims use since Aug. 1, 1914.

Ser. No. 85,846. (CLASS 39. CLOTHING.) GREENWALD PETTICOAT CO., INC., New York, N. Y. Filed Apr. 10, 1915.

RITE-MAID

Particular description of goods.—Petticoats.
Claims use since Mar. 31, 1915.

Ser. No. 85,859. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MOHAWK MFG. CO., Torrington, Conn. Filed Apr. 10, 1915.

MOHAWK



Particular description of goods.—Baking-Powder.
Claims use since Jan. 29, 1915.

Ser. No. 85,864. (CLASS 39. CLOTHING.) PARKER HOSIERY MILL & DYE WORKS, INC., Portsmouth, Va. Filed Apr. 10, 1915.

248

Particular description of goods.—Hosiery.
Claims use since 1901.

Ser. No. 85,878. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) SEARS, ROEBUCK AND CO., Chicago, Ill. Filed Apr. 10, 1915.

IRON CROSS



Particular description of goods.—Lye, Chlorid of Lime, Cold-Water Starch, Laundry Starch, Powdered Borax, Wash-Blue in Balls.
Claims use since at least 1914.

Ser. No. 85,908. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) PACIFIC AMMONIA & CHEMICAL CO., St. Louis, Mo., and Seattle, Wash. Filed Apr. 12, 1915.



Particular description of goods.—Aqua-Ammonia and Anhydrous Ammonia.
Claims use since Mar. 1, 1915.

Ser. No. 85,926. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) RICHARD HUDNUT, New York, N. Y. Filed Apr. 13, 1915.

GREEN ROSE

Particular description of goods.—Perfume, Toilet Water, Headache-Cologne, Smelling-Salts, Creams for the Skin, Sachet-Powder, Face-Powder, Talcum Powder, Bath-Powder, Bath-Salts, Toilet Cerate, Almond-Meal, Rouge, and Dentifrices.
Claims use since Apr. 3, 1915.

Ser. No. 85,963. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) COLGATE & CO., Jersey City, N. J., and New York, N. Y. Filed Apr. 15, 1915.

ARCTIC

Particular description of goods.—Soda for Washing and Scouring Uses.
Claims use since the 2d day of March, 1915.

Ser. No. 85,972. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) AMERICAN CHEMICAL COMPANY, Philadelphia, Pa. Filed Apr. 16, 1915.



Particular description of goods.—Witch-Hazel.
Claims use since Dec. 10, 1914.

Ser. No. 85,975. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE CLOVER MANUFACTURING COMPANY, Cincinnati, Ohio. Filed Apr. 16, 1915.

GASO-TONIC

Particular description of goods.—A Liquid Carbon-Remover for Internal-Combustion Engines.
Claims use since Mar. 25, 1915.

Ser. No. 85,978. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) CONNORIZED MUSIC COMPANY, New York, N. Y. Filed Apr. 16, 1915.

Dominant

Particular description of goods.—Perforated Music-Sheets for Piano-Players.
Claims use since Apr. 5, 1915.

Ser. No. 85,988. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) STEFAN HEINDL, Pittsburgh, Pa. Filed Apr. 16, 1915.



Particular description of goods.—Foot-Powder.
Claims use since Mar. 29, 1915.

Ser. No. 85,990. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) KEBH-BIEL-METZLER ROACH BUTTER CO., St. Louis, Mo. Filed Apr. 16, 1915.

ROACH-BUTTER



Particular description of goods.—Insecticides.
Claims use since on or about the 1st day of April, 1915.

Ser. No. 86,003. (CLASS 39. CLOTHING.) THE SALT'S TEXTILE MANUFACTURING COMPANY, Bridgeport, Conn., and New York, N. Y. Filed Apr. 16, 1915. Under ten-year proviso.

SALT'S

Particular description of goods.—Women's, Children's, and Infants' Coats, Cloaks, Wraps, Capes, Suits, Costumes, and Hats.
Claims use since 1885.

Ser. No. 86,017. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) IMPERIAL BIRCH BEER CO., Dickson City, Pa. Filed Apr. 17, 1915.

Birch-Ola

Particular description of goods.—Soda-Water Syrup and Non-Alcoholic Carbonated Beverages.
Claims use since Jan. 1, 1914.

Ser. No. 86,018. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS. KRINOL CHEMICAL CO., Minneapolis, Minn. Filed Apr. 17, 1915.

KRINOL

Particular description of goods.—An Ointment.
Claims use since the 5th day of April, 1915.

Ser. No. 86,033. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) EMECOL CHEMICAL CO., Asheville, N. C. Filed Apr. 19, 1915.

EMECOL

Particular description of goods.—Tooth-Paste.
Claims use since Jan. 1, 1915.

Ser. No. 86,040. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) KONGO PRODUCTS COMPANY, Pittsburgh, Pa. Filed Apr. 19, 1915.



Particular description of goods.—Hair-Tonic.
Claims use since Dec. 15, 1914.

Ser. No. 86,079. (CLASS 39. CLOTHING.) THE BELGRADE SHOE MANUFACTURING COMPANY, Portland, Me. Filed Apr. 21, 1915.

YORE SPORT

Particular description of goods.—Boots and Shoes Made Wholly or Partly of Leather and Fabric.
Claims use since Jan. 1, 1915.

Ser. No. 86,093. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) SO-JER MANUFACTURING COMPANY, Baldwinsville, N. Y. Filed Apr. 21, 1915.



No claim being made to the exclusive use of the words "Brand" and "Trade-Mark Registered."
Particular description of goods.—Ammonia and Bluing.
Claims use since about Apr. 1, 1915.

Ser. No. 86,134. (CLASS 39. CLOTHING.) JACOB ELISHEWITZ, New York, N. Y. Filed Apr. 23, 1915.

LEGHORNETTE

Particular description of goods.—Hats.
Claims use since Feb. 15, 1915.

Ser. No. 86,193. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) FERDINAND WESTHEIMER & SONS, St Joseph, Mo., and Cincinnati, Ohio. Filed Apr. 24, 1915.



Particular description of goods.—Whisky, Gin, Rum, Brandy, and Cordial.
Claims use since Apr. 16, 1915.

Ser. No. 86,210. (CLASS 39. CLOTHING.) KOPS BROS., New York, N. Y. Filed Apr. 26, 1915.

WONDERLIFT

Particular description of goods.—Corsets, Corset-Covers, and Corset-Pads.
Claims use since Apr. 1, 1915.

TRADE-MARK REGISTRATIONS GRANTED

MAY 18, 1915.

104,281. CERTAIN NAMED HARDWARE SUPPLIES. THE AMERICAN HARDWARE CORPORATION, New Britain, Conn.
Filed September 24, 1914. Serial No. 81,436. PUBLISHED MARCH 9, 1915.

104,282. ASPHALTUM. ANGLO MEXICAN PETROLEUM PRODUCTS COMPANY LIMITED, London, England, and New York, N. Y.
Filed August 15, 1914. Serial No. 80,577. PUBLISHED MARCH 2, 1915.

104,283. GINGHAMS, SEERSUCKERS, PLAIDS, OUTING-FLANNELS, CHEVIOTS, SHIRTINGS, AND COTTON DRESS GOODS. AURORA COTTON MILLS, Burlington, N. C.
Filed March 20, 1914. Serial No. 76,787. PUBLISHED MAY 19, 1914.

104,284. BRICK AND CONSTRUCTION-TILE. BOONE BRICK TILE AND PAVING COMPANY, Boone, Iowa.
Filed August 24, 1914. Serial No. 80,423½. PUBLISHED MARCH 9, 1915.

104,285. APPLE-BUTTER. ROBERT F. BRINTON, West Chester, Pa.
Filed May 26, 1913. Serial No. 70,652. PUBLISHED JANUARY 26, 1915.

104,286. FUSES. THE ENSION-BICKFORD COMPANY, Simsbury, Conn.
Filed October 3, 1914. Serial No. 81,629. PUBLISHED MARCH 2, 1915.

104,287. GOLF-BALLS. THE B. F. GOODRICH COMPANY, New York, N. Y.
Filed January 12, 1915. Serial No. 83,798. PUBLISHED MARCH 9, 1915.

104,288. HAIR-RESTORER. HERMAN KALLENBERG, Jr., New Rochelle, N. Y.
Filed March 10, 1914. Serial No. 76,501. PUBLISHED MARCH 2, 1915.

104,289. APRONS. ABRAHAM KAPLON, Summit, N. J.
Filed February 6, 1915. Serial No. 84,341. PUBLISHED MARCH 9, 1915.

104,290. FURNITURE-POLISH. JULIA H. VAN TINE MOODY, New York, N. Y.
Filed July 3, 1914. Serial No. 79,537. PUBLISHED JANUARY 12, 1915.

104,291. TOILET SOAP. MARTIN OSTERMAN, Jamestown, N. Y.
Filed September 21, 1914. Serial No. 81,882. PUBLISHED DECEMBER 1, 1914.

104,292. ROASTED COFFEE AND RICE. THE QUERBACKER COFFEE CO., Louisville, Ky.
Filed December 10, 1914. Serial No. 83,204. PUBLISHED FEBRUARY 16, 1915.

104,293. CERTAIN NAMED CUTLERY AND TOOLS. SARGENT & COMPANY, New Haven, Conn.
Filed August 5, 1914. Serial No. 80,339. PUBLISHED MARCH 9, 1915.

104,294. CERTAIN NAMED HARDWARE SUPPLIES. SARGENT & COMPANY, New Haven, Conn.
Filed August 10, 1914. Serial No. 80,443. PUBLISHED MARCH 9, 1915.

104,295. COMBINATION-GARMENT. D. E. SICHER & Co., New York, N. Y.
Filed February 12, 1915. Serial No. 84,497. PUBLISHED MARCH 9, 1915.

104,296. WOOD PAVING-BLOCKS. AMERICAN CREOSOTING COMPANY, New York, N. Y.
Filed December 8, 1914. Serial No. 83,145. PUBLISHED MARCH 2, 1915.

104,297. MILK AND CREAM. THE BELLE VERNON MAPES DAIRY CO., Cleveland, Ohio.
Filed September 28, 1914. Serial No. 81,506. PUBLISHED MARCH 2, 1915.

104,298. WASTE PRINTED PAPERS FOR REMANUFACTURE. W. V. BOWATER & SONS LTD., London, England.
Filed November 17, 1914. Serial No. 82,637. PUBLISHED MARCH 9, 1915.

104,299. CERTAIN NAMED PAINTS AND PAINTERS' MATERIALS. THE BRIDGEPORT WOOD FINISHING Co., New Milford, Conn.
Filed December 19, 1914. Serial No. 83,397. PUBLISHED MARCH 9, 1915.

104,300. ATHLETIC ANKLE-SUPPORTERS AND ATHLETIC WRISTBANDS. HENRY JAMES COLLIS, Taunton, Mass.
Filed December 23, 1914. Serial No. 83,470. PUBLISHED MARCH 2, 1915.

104,301. SHOES AND SLIPPERS MADE WHOLLY OR PARTLY OF LEATHER, AND FELT SHOES AND SLIPPERS. DANIEL GREEN FELT SHOE COMPANY, Boston, Mass., and Dolgeville, N. Y.
Filed February 8, 1915. Serial No. 84,358. PUBLISHED MARCH 9, 1915.

104,302. RICE. GANNON GROCERY COMPANY, Marquette, Mich.
Filed December 5, 1914. Serial No. 83,089. PUBLISHED FEBRUARY 23, 1915.

104,303. BEER. GERMAN AMERICAN BREWING Co., Buffalo, N. Y.
Filed January 26, 1915. Serial No. 84,115. PUBLISHED MARCH 9, 1915.

104,304. CANDIES IN TABLET FORM. E. GREENFIELD'S SONS, New York, N. Y.
Filed December 23, 1914. Serial No. 83,471. PUBLISHED MARCH 2, 1915.

104,305. LEATHER IN UNMANUFACTURED FORM. THOMAS JANNEY & Co., Philadelphia, Pa.
Filed December 8, 1914. Serial No. 83,157. PUBLISHED MARCH 9, 1915.

104,306. CANNED SALMON. THE MACLEAY ESTATE Co., Portland, Oreg.
Filed February 2, 1914. Serial No. 75,622. PUBLISHED JUNE 9, 1914.

104,307. CHEESE. CHARLES C. MARTIN, Denver, Colo.
Filed September 22, 1914. Serial No. 81,409. PUBLISHED FEBRUARY 23, 1915.

104,308. CERTAIN NAMED ROOFING MATERIALS. PEYTON PAPER Co., Duluth, Minn.
Filed December 8, 1914. Serial No. 83,163. PUBLISHED MARCH 2, 1915.

104,309. TEXTILE CARPETS AND RUGS. WILLIAM M. STEVENSON, Springfield, Mass.
Filed February 5, 1915. Serial No. 84,324. PUBLISHED MARCH 9, 1915.

104,310. DISINFECTANT, SANASEPTIC, AND GERMICIDE FOR HOUSEHOLD PURPOSES. THORNTON SANITARY DRINKING DEVICE CO., Kansas City, Mo.
Filed January 7, 1915. Serial No. 83,710. PUBLISHED MARCH 2, 1915.

104,311. MEDICINAL TONICS. ALONZO FRANK RICHARDSON, New York, N. Y.
Filed February 3, 1915. Serial No. 84,288. PUBLISHED MARCH 9, 1915.

104,312. FERTILIZERS. AMERICAN AGRICULTURAL CHEMICAL CO., New York, N. Y.
Filed October 24, 1914. Serial No. 82,121. PUBLISHED MARCH 2, 1915.

104,313. MANUFACTURED FLAGS. ANNIN & CO., New York, N. Y.
Filed August 11, 1914. Serial No. 80,453. PUBLISHED MARCH 2, 1915.

104,314. CANNED FRUITS. BENTON COUNTY GROWERS' ASSOCIATION, Corvallis, Oreg.
Filed December 1, 1913. Serial No. 74,280. PUBLISHED FEBRUARY 23, 1915.

104,315. MONTHLY SHOE-TRADE PUBLICATION. BOOT AND SHOE RECORDER PUBLISHING COMPANY, Boston, Mass.
Filed January 21, 1915. Serial No. 83,995. PUBLISHED MARCH 2, 1915.

104,316. CANDY. BUNTE BROTHERS, Chicago, Ill.
Filed November 18, 1912. Serial No. 66,961. PUBLISHED DECEMBER 30, 1913.

104,317. CANDY. BUNTE BROTHERS, Chicago, Ill.
Filed November 18, 1912. Serial No. 66,962. PUBLISHED DECEMBER 30, 1913.

104,318. WRENCHES, TIRE-TOOLS, PLIERS, HAND-PUMPS, HAMMERS, AND SCREW-DRIVERS. CENTRAL AUTOMOBILE SUPPLY COMPANY, Des Moines, Iowa.
Filed February 8, 1912. Serial No. 61,356. PUBLISHED DECEMBER 8, 1914.

104,319. COTTON-SEED MEAL AND CAKE. CHOCTAW SALES COMPANY, Kansas City, Mo.
Filed December 31, 1914. Serial No. 83,601. PUBLISHED MARCH 2, 1915.

104,320. SALERATUS, BICARBONATE OF SODA, AND SAL-SODA. CHURCH & DWIGHT COMPANY, New York, N. Y.
Filed January 5, 1915. Serial No. 83,682. PUBLISHED MARCH 9, 1915.

104,321. FERTILIZERS. COLUMBIA GUANO CO., Norfolk, Va.
Filed June 16, 1914. Serial No. 79,145. PUBLISHED AUGUST 25, 1914.

104,322. BRONZING-POWDER. CROWN BRONZE POWDER COMPANY, Minneapolis, Minn.
Filed December 17, 1914. Serial No. 83,343. PUBLISHED MARCH 9, 1915.

104,323. VARNISHES. W. P. FULLER & CO., San Francisco, Cal.
Filed January 10, 1914. Serial No. 75,070. PUBLISHED FEBRUARY 23, 1915.

104,324. VARNISHES. W. P. FULLER & CO., San Francisco, Cal.
Filed January 10, 1914. Serial No. 75,071. PUBLISHED FEBRUARY 23, 1915.

104,325. SECONDARY BATTERIES AND ARC-LAMPS. HELIOS MANUFACTURING COMPANY, Philadelphia, Pa.
Filed September 20, 1913. Serial No. 72,973. PUBLISHED AUGUST 18, 1914.

104,326. TAPIOCA. THE HILLS BROS. CO., New York, N. Y.
Filed September 19, 1913. Serial No. 72,954. PUBLISHED FEBRUARY 2, 1915.

104,327. WHEAT-FLOUR. WM. S. HILLS COMPANY, Boston, Mass.
Filed November 28, 1914. Serial No. 82,947. PUBLISHED MARCH 2, 1915.

104,328. MIXED FEED FOR LIVE STOCK. INTERNATIONAL SUGAR FEED NO. TWO CO., Minneapolis, Minn.
Filed October 15, 1914. Serial No. 81,901. PUBLISHED FEBRUARY 23, 1915.

104,329. MIXED FEED FOR LIVE STOCK. INTERNATIONAL SUGAR FEED NO. TWO CO., Minneapolis, Minn.
Filed October 15, 1914. Serial No. 81,902. PUBLISHED FEBRUARY 23, 1915.

104,330. TRAVELERS' BAGS AND HAND-GRIPS. KENNEDY MANUFACTURING COMPANY, Fort Wayne, Ind.
Filed July 17, 1914. Serial No. 79,877. PUBLISHED MARCH 2, 1915.

104,331. BREAD. L. & A. BAKING COMPANY, Sioux Falls, S. D.
Filed November 18, 1914. Serial No. 82,662. PUBLISHED FEBRUARY 23, 1915.

104,332. STICK-CANDY. LOOSE-WILES BISCUIT COMPANY, Kansas City, Mo.
Filed June 15, 1914. Serial No. 79,109. PUBLISHED NOVEMBER 10, 1914.

104,333. LADIES', MISSES', AND CHILDREN'S SHOES MADE OF RUBBER, LEATHER, OR CANVAS. MILLER, HESS & COMPANY, INCORPORATED, Akron, Pa.
Filed February 8, 1915. Serial No. 84,377. PUBLISHED MARCH 9, 1915.

104,334. BED-SPRINGS. MINNEAPOLIS BEDDING COMPANY, Minneapolis, Minn.
Filed April 13, 1914. Serial No. 77,446. PUBLISHED MARCH 2, 1915.

104,335. WASHBOARDS. NATIONAL WASHBOARD COMPANY, Chicago, Ill.; Saginaw, Mich., and Memphis, Tenn.
Filed April 27, 1914. Serial No. 77,795. PUBLISHED AUGUST 11, 1914.

104,336. CHEWING-GUM. CALVIN PRICE, Chicago, Ill.
Filed December 28, 1914. Serial No. 83,554. PUBLISHED MARCH 2, 1915.

104,337. WEEKLY PERIODICALS. PUCK PUBLISHING CORPORATION, New York, N. Y.
Filed June 1, 1914. Serial No. 78,751. PUBLISHED MARCH 9, 1915.

104,338. MEDICINES OR SPECIFICS FOR THE RELIEF OF CERTAIN NAMED DISEASES. THE RENZIE DRUG COMPANY, LIMITED, Wellington, New Zealand.
Filed December 18, 1912. Serial No. 67,481. PUBLISHED MARCH 9, 1915.

104,339. MALT AND WHEAT BREAKFAST FOOD. SIMS CEREAL COMPANY, INC., Minneapolis, Minn.
Filed December 10, 1914. Serial No. 83,211. PUBLISHED MARCH 2, 1915.

104,340. BRICK. SIOUX CITY BRICK AND TILE COMPANY, Sioux City, Iowa.
Filed December 17, 1914. Serial No. 83,355. PUBLISHED MARCH 2, 1915.

104,341. WHEAT-FLOUR. ST. JACOB ENTERPRISE MILL CO., St. Louis, Mo., and St. Jacob, Ill.
Filed August 1, 1914. Serial No. 80,248. PUBLISHED NOVEMBER 3, 1914.

104,342. GRANULATED-COMPOSITION-CORK DISKS AND TIN BOTTLE-CAPS MADE UP WITH GRANULATED-CORK DISKS. JOHN TORRES, Brooklyn, N. Y.
Filed October 28, 1914. Serial No. 82,243. PUBLISHED MARCH 2, 1915.

104,343. COAL. UNITED FUEL & SUPPLY CO., Detroit, Mich.
Filed January 15, 1915. Serial No. 83,886. PUBLISHED MARCH 9, 1915.

104,344. MONTHLY HOUSE ORGANS. YOUNG, SMYTH, FIELD COMPANY, Philadelphia, Pa.
Filed December 8, 1914. Serial No. 83,168. PUBLISHED MARCH 9, 1915.

104,345. COFFEE. BOWERS BROS., INC., Richmond, Va.
Filed November 23, 1914. Serial No. 82,776. PUBLISHED FEBRUARY 23, 1915.

TRADE-MARK REGISTRATIONS RENEWED.

12,279. HARD SOAP. CURTIS DAVIS & CO., Boston, Mass.; Lever Brothers Company, assignee.
Registered June 2, 1885. Renewed June 2, 1915.

LABELS

REGISTERED MAY 18, 1915.

18,465.—*Title:* "N. A. S. O. STANDARD FIRST AID JAR." (For Standard First-Aid Jars.) M. W. ALEXANDER, West Lynn, Mass. Filed November 20, 1914.

18,466.—*Title:* "O-CEDAR COMBINATION SET." (For Mops and Dust-Cloths.) CHANNELL CHEMICAL COMPANY, Chicago, Ill. Filed April 19, 1915.

18,467.—*Title:* "AUTO-O-MINT, A DAINTY CONFECTION." (For Lozenges.) MINT PRODUCTS COMPANY, INCORPORATED, New York, N. Y. Filed April 20, 1915.

18,468.—*Title:* "MONTAGU MELLO." (For Confectionery Coating.) JULIA C. MONTAGUE, Philadelphia, Pa. Filed April 21, 1915.

18,469.—*Title:* "RED HORSE INN." (For Foods.) THE TEBBETTS AND GARLAND STORES, Chicago, Ill. Filed October 5, 1914.

18,470.—*Title:* "VOLA." (For Chianti Wine.) VOLA IMPORTING COMPANY, New York, N. Y. Filed April 23, 1915.

18,471.—*Title:* "107." (For Cigars.) FRANK A. YOUNG, Lawton, Okla. Filed April 14, 1915.

18,472.—*Title:* "BONITA." (For a Cleaner.) WM. E. HAWLEY, St. Louis, Mo. Filed February 23, 1915.

PRINTS

REGISTERED MAY 18, 1915.

3,904.—*Title:* "AMAZON." (For Knitting-Yarns.) AMAZON COTTON MILLS, Thomasville, N. C. Filed April 24, 1915.

3,905.—*Title:* "EARLY TO BED EARLY TO RISE SHORT LENGTH SLEEPING SUITS—NOW YOU'RE WISE." (For Sleeping-Suits.) THE B. V. D. COMPANY, New York, N. Y. Filed April 24, 1915.

3,906.—*Title:* "TONIGHT'S THE NIGHT." (For Sleeping-Suits.) THE B. V. D. COMPANY, New York, N. Y. Filed April 24, 1915.

3,907.—*Title:* "'BETWEEN YOU AND THE SUN' STANDS B. V. D." (For Athletic Underwear.) THE B. V. D. COMPANY, New York, N. Y. Filed April 24, 1915.

3,908.—*Title:* "SOME NAP!" (For Sleeping-Suits.) THE B. V. D. COMPANY, New York, N. Y. Filed April 24, 1915.

3,909.—*Title:* "FIRST AID TO THE LIGHT SLEEPER." (For Sleeping-Suits.) THE B. V. D. COMPANY, New York, N. Y. Filed April 24, 1915.

3,910.—*Title:* "BE PREPARED!" (For Athletic Underwear.) THE B. V. D. COMPANY, New York, N. Y. Filed April 24, 1915.

3,911.—*Title:* "THIS MAN FEELS FINE." (For Athletic Underwear.) THE B. V. D. COMPANY, New York, N. Y. Filed April 24, 1915.

3,912.—*Title:* "GOODRICH SAFETY TREAD." (For Pneumatic Tires.) THE B. F. GOODRICH CO., Akron, Ohio. Filed March 24, 1915.

3,913.—*Title:* "THE INDIAN." (For Motor-Cycles.) THE HENDEE MFG. CO., Springfield, Mass. Filed April 24, 1915.

3,914.—*Title:* "DUKE'S MIXTURE." (For Smoking-Tobacco.) LIGGETT & MYERS TOBACCO COMPANY, Jersey City, N. J., and St. Louis, Mo. Filed April 19, 1915.

3,915.—*Title:* "TO GREEN RIVER." (For Whisky.) E. LA MONTAGNE'S SONS, New York, N. Y. Filed April 21, 1915.

3,916.—*Title:* "THE SWEATER SHOP." (For Sweater-Garments.) JULIUS A. WEST, Washington, D. C. Filed November 19, 1914.

DECISIONS

OF THE

COMMISSIONER OF PATENTS

AND OF

UNITED STATES COURTS IN PATENT CASES.

DECISIONS OF THE U. S. COURTS.

Court of Appeals of the District of Columbia.

ALASKA PACKERS ASSOCIATION *v.* ADMIRALTY TRADING COMPANY.

Decided February 1, 1915.

TRADE-MARKS—OPPOSITION.

Where the opposer has itself used several different flags in the sale of different brands of its goods and the flag used by the applicant differs from each of the flags used by the opposer as much as they differ from one another, *Held* that the opposer is not in a position to contend that the mark of the applicant will be likely to cause confusion in trade, and the opposition is properly dismissed.

Mr. G. W. Ramsey, *Mr. Melville Church*, *Mr. F. M. Phelps*, *Mr. Alex. Britton*, and *Mr. Evans Browne* for the appellant.

Mr. E. T. Fenwick and *Mr. L. L. Morrill* for the appellee.

ROBB, *J.*:

Appeal from a decision of the Commissioner of Patents in a trade-mark opposition proceeding sustaining the applicant's (appellee here) motion to dismiss the opposition.

The mark of the applicant consists of the representation of a flag—

having a blue background with a horizontally arranged white stripe with three white stars,

together with the red monogram "A. T. Co." This mark is used on canned salmon. In its notice of opposition appellant alleges the ownership and use on canned salmon of the following marks: a mark consisting of a flag with bottom, top and end triangular panels, and a central circular portion bearing the letter "C," the flag being accompanied by the words "The Coleman Flag," this mark being known as the "Coleman Flag Brand;" a mark consisting of the representation of—

a red flag having a blue diamond imposed upon its central portion, with the letter "H" within the diamond, said brand being known as "Hume's Flag Brand;"

of another mark—

as a brand for canned salmon the representation of a flag, with its free portion wound around the flagstaff, said flag being colored red and black, and having the letter "A" imposed upon the body of the flag, said brand being known as "Ensign Brand;"

of another mark consisting of two eccentric circles bearing between the same the name and address of the appellant and within the circle a flag having two triangular red fields and a triangular black field, the fields being surrounded by a blue stripe with the letter "A" being arranged upon the black triangle; of still another fish-tail flag.

The Examiner of Interferences held that there was nothing in common between the marks used by the appellant and that of the applicant but the body of the flag broadly, and concluded:

It is not believed that persons using any degree of care whatever would confuse the mark of the applicant with any of the several marks of the opposer, and inasmuch as this is the only question which the case presents, no necessity exists for the taking of proofs.

His decision was affirmed by the Commissioner.

Since appellant has itself used the several different flags above described, in the sale of different brands of its goods, it is hardly in a position here to contend that the mark of the applicant will be likely to cause confusion in trade, since that mark differs from each of its marks as much as they differ from one another. In other words, having sold these different brands of salmon under as many different flags, appellant is here estopped to contend that it will be damaged by the registration of applicant's mark, and, having no standing to be heard, its petition was rightly dismissed. With the dismissal of the opposition the question whether applicant's mark should be registered becomes one for the determination of the Patent Office and not for this court. We therefore express no opinion upon that question.

Decision affirmed.

Court of Appeals of the District of Columbia.

UNITED STATES, *ex rel.* DWIGGINS, *v.* EWING, COMMISSIONER OF PATENTS.

Decided March 1, 1915.

1. INTERFERENCE—PRIORITY AWARDED BY EXAMINER OF INTERFERENCES—RIGHT OF THE COMMISSIONER TO DISSOLVE.

Where the Examiner of Interferences awarded priority to D. and at the same time called the attention of the Commissioner to the fact that D.'s right to a patent was probably barred because of public use and the Commissioner ordered that the interference be dissolved and directed the Primary Examiner to reject all claims embodied in the machine found to have been in public use, *Held* that "it was well within the jurisdiction of the Commissioner to order a dissolution of the interference and the rejection of plaintiff's claims, if convinced that the issues were barred by public use and, therefore, not patentable."

2. MANDAMUS—CANNOT BE SUBSTITUTED FOR APPEAL.

Where the Commissioner dissolved an interference and directed that the Primary Examiner reject certain claims in the application of D. and D. had a right of appeal through the tribunals of the Patent Office to the court of appeals and if it should be found that the claims are patentable another interference would be declared, *Held* that as D. has a statutory right of appeal mandamus cannot be substituted for the adequate remedy thus afforded.

Mr. Wm. S. Hodges for the appellant.
Mr. R. F. Whitehead for the appellee.

VAN ORSDEL, *J.*:

This is an appeal by the plaintiff below from a judgment of the Supreme Court of the District of Columbia dismissing his petition for a peremptory writ of mandamus to compel the Commissioner of Patents to set aside certain orders made in an interference proceeding declared in the Patent Office between plaintiff's application for a patent for an improvement in means for making wire fence and an application for a patent on a similar invention by applicants Reid, Reid and Kelley.

On the evidence, the Examiner of Interferences awarded priority as to certain counts to plaintiff, and, as to the remaining counts, to Reid, Reid and Kelley. At the same time, the Examiner called the attention of the Commissioner of Patents to the probability of plaintiff's right to a patent being barred because of public use. It appearing, as shown by the order of the Commissioner, that a machine had been built, sold and used in the years 1903 to 1909, embodying all the issues respecting which judgment had been rendered in plaintiff's favor, excepting count 15, and that it constituted a public use, it was held that he was not entitled to an award of priority, except as to count 15. The Commissioner then vacated the order of the Examiner awarding priority to plaintiff, and directed that, if he should attempt to appeal from the decision of the Examiner of Interferences as to the claims awarded Reid, Reid and Kelley, the appeal should be dismissed, and further advised that, if Reid, Reid and Kelley did not appeal within the period allowed, the applications and the interference records should be remanded to the Primary Examiner for rejection of all claims embodied in the machine found to have been in public use. Plaintiff appealed to the Board of Examiners-in-Chief, and the Board, in compliance with the order of the Commissioner, dismissed the appeal. But nothing further has been done in the Patent Office pending the termination of this proceeding.

It was well within the jurisdiction of the Commissioner to order a dissolution of the interference and the rejection of plaintiff's claims, if convinced that the issues were barred by public use, and, therefore, not patentable. From the decision of the Primary Examiner rejecting plaintiff's claims, when the case goes back from the Board of Examiners-in-Chief, plaintiff would have an appeal through the tribunals of the Patent Office to this court, and, if it should ultimately be found that his claims are patentable, it would probably result in the declaration of another interference. Plaintiff, therefore, having a statutory right of appeal, mandamus cannot be substituted for the adequate remedy thus afforded. (*Moore, Commissioner of Patents*, v. *United States, ex rel. Chott*, 40 App. D. C., 591; 192 O. G., 520; 1913, C. D., 427.)

The judgment is affirmed with costs.

Affirmed.

Court of Appeals of the District of Columbia.

MANN *v.* BROWN.

Decided April 19, 1915.

1. COURT OF APPEALS OF THE DISTRICT OF COLUMBIA—APPEALS—EX PARTE CASES—CONDITIONS PRECEDENT.

Before the Court of Appeals can take jurisdiction of an *ex parte* appeal to pass upon the question of patentability there must have been at least a substantial compliance with the requirements of sections 4909, 4910, and 4911, Revised Statutes, and the claim of the applicant for a patent shall have been twice rejected by the Primary Examiner.

2. INTERFERENCES—DISSOLUTION BY THE COMMISSIONER—ORDER REFUSING A PATENT—NOT DIRECTLY APPEALABLE TO THE COURT OF APPEALS.

Where an interference was appealed to the Commissioner of Patents and he dissolved the interference on account of a reference which applied to M. and entered an order in the application of M. refusing him a patent and M. appealed from that order to the Court of Appeals, *Held* that the proceeding cannot be changed from one statutory class to another, and the appeal is dismissed.

Mr. A. G. Davis, Mr. J. F. Bartlett, and *Mr. A. D. Lunt* for the appellant.

Mr. E. H. Fairbanks for the appellee.

SHEPARD, *C. J.*:

This is an appeal from the decision of the Commissioner of Patents in an interference proceeding. The appellant, Mann, filed an application October 5, 1907, for patent for a device which relates to a draft-regulator for boiler-furnaces. An interference was declared between this application and a patent to Brown which issued during the pendency of Mann's application.

Evidence was taken and Brown moved to dissolve the interference. There were six claims involved.

The Primary Examiner, to whom the motion was referred, held that Mann was entitled to make five of the claims but denied his right to make the sixth one. The Examiners-in-Chief, on the appeal of Brown, held that Mann was not entitled to make claim 6. The Examiner of Interferences decided the question of priority in favor of Brown. On appeal to the Commissioner he did not decide the question of priority, but taking up Mann's claims held that the date established by Mann does not overcome the date of the Quinn patent or the date of filing the Johnson patent. Mann's claims were rejected and referred to the Primary Examiner for further action in the light of this opinion. No award of priority was made.

Mann then filed the following petition:

Referring to the decision of the Commissioner of Patents in the above-entitled interference, dated February 17, 1914, it is respectfully requested in order that there be no possible doubt of the right of the applicant to appeal

to the Court of Appeals of the District of Columbia, that the Commissioner, if he be now of the opinion that claims corresponding to the counts of the issue of the above-entitled interference are not patentable to the applicant, now enter in the application a final order refusing to the applicant a patent containing such claims.

The petition was granted by the Commissioner, who finally ordered that he be denied the claims in the language of any part of the issue. Mann appealed from this decision, assigning the following reasons of appeal:

1. The Commissioner erred in finding that Mann was not entitled to make claims corresponding to the counts of the interference or any of said counts.

2. The Commissioner erred in finding that there was no interference in fact between the application of Mann and the patent to Brown.

3. The Commissioner erred in not finding that Mann was the first inventor of the subject-matter defined in the counts of the interference issue or any of said counts.

4. The Commissioner erred in not awarding priority of invention to Mann as to all of the counts of the issue of the above-entitled interference.

5. The Commissioner erred in finally refusing the grant of a patent, on the application of Mann, containing as claims the counts of the interference issue.

The appellee has moved to dismiss the appeal for want of jurisdiction. This court has held that its jurisdiction in appeals from the Patent Office is strictly limited to two classes of cases, defined in *in re Fullagar*, (32 App. D. C., 222, 228; 138 O. G., 259; 1909, C. D., 270,) as follows:

The first is where the claims of an applicant for a patent or the reissue of a patent, after having been twice rejected, have been finally rejected on an appeal to the Commissioner in due course of procedure. The second is where, on an appeal to the Commissioner in an interference proceeding, there has been a final decision of priority in favor of one of the parties thereto. (Rev. Stat., secs. 4909–4911; U. S. Comp. Stat., 1901, pp. 3390, 3391; *Westinghouse* v. *Duncan*, 2 App. D. C., 131, 132; 66 O. G., 1009; 1894, C. D., 170; *Allen* v. *United States*, 26 App. D. C., 8, 17, 26; 116 O. G., 2253; 1905, C. D., 643; *Union Distilling Co.* v. *Schneider*, 29 App. D. C., 1; 129 O. G., 2503; 1907, C. D., 613.)

Had the Commissioner awarded priority to Brown on the ground that Mann had no right to make the claims an appeal would lie to this court from that decision. Had this been the substantial and necessary effect of his decision, the court would look to that and entertain jurisdiction. (*Moore* v. *Heany*, 34 App. D. C., 31; 149 O. G., 831; *in re Selden*, 36 App. D. C., 428, 431; 164 O. G., 741; 1911, C. D., 306; *Cosper* v. *Gold*, 36 App. D. C., 302, 308; 168 O. G., 787; 1911, C. D., 387.)

But the Commissioner declined to hold that Mann was not entitled to make the claims, and hence his decision did not necessarily amount to an award of priority.

The appellant, instead of moving the Commissioner to make an award of priority asked that his claim be denied.

The issue was converted into one of patentability and the attempt has been made to convert this into an *ex parte* appeal. But can it be regarded as an *ex parte* appeal? Before this court can take jurisdiction of an *ex parte* appeal to pass upon the question of patentability, certain statutory conditions must be complied with. Section 4909, Revised Statutes, provides:

Every applicant for a patent or for the reissue of a patent, any of the claims of which have been twice rejected, and every party to an interference, may appeal from the decision of the Primary Examiner, or of the Examiner in charge of interferences in such case, to the Board of Examiners-in-Chief.

Section 4910 provides for appeal from the Board of Examiners-in-Chief to the Commissioner of Patents, and section 4911 provides for an appeal from the decision of the Commissioner of Patents to this court.

It will be observed that there must be at least a substantial compliance with these legal requirements before this court can assume jurisdiction to determine the question of patentability. That the claim of the applicant for a patent shall have been twice rejected by the Primary Examiner is jurisdictional and a condition precedent to any right of appeal whatever. Such rejection has not been made in this case, and it cannot be substituted by an order of rejection by the Commissioner.

It is urged that this case is controlled by the decision of this court in the case of *Moore* v. *United States, ex rel. Chott*, (40 App. D. C., 591; 192 O. G., 520; 1913, C. D., 427;) but we find no difficulty in distinguishing that case. That was an *ex parte* proceeding involving the patentability of an invention. The claims were rejected by the Primary Examiner under section 4909. Appeal was taken to the Board of Examiners-in-Chief, where the decision of the Primary Examiner was reversed. Acting under the direction of the Commissioner, the Primary Examiner made an additional investigation and cited to the Commissioner additional patents showing the alleged invention to be old, whereupon the Commissioner took the case from the Board of Examiners-in-Chief, and approved the action of the Primary Examiner. On hearing, the Commissioner decided that, notwithstanding the protest of the applicant and his contention that the decision of the Board of Examiners-in-Chief was final, relator was not entitled to a patent, and finally disallowed the claims. We held that from such an order in an *ex parte* proceeding appeal would lie to this court.

It will be observed that there no attempt was made to shift from one statutory proceeding to another. The case had proceeded in the orderly course provided until it was ready for the Commissioner in his general supervisory power to pass upon the question of patentability.

It is true that there was evidence in the case from which the Commissioner could have made the award of priority; but he did not consider it, but taking up Mann's claims on the references to former patents held that he was not entitled to a patent. Such a decision does not necessarily adjudicate the question of priority. (*Gold* v. *Gold*, 34 App. D. C., 229, 236, 238; 150 O. G., 570; 1910, C. D., 269; *Moore* v. *Colburn Machine Glass Co.*, 40 App. D. C., 201; 191 O. G., 293; 1913, C. D., 398; *Rotter* v. *Hodgkinson*, present term.)

The sole question decided was that of patentability and Mann's claims were rejected on that ground.

The case we think is governed by the ruling in *ex parte Fullagar*, (32 App. D. C., 222; 138 O. G., 259; 1909, C. D., 270.)

As the claims have not been twice rejected the motion to dismiss must be sustained.

Dismissed.

ADJUDICATED PATENTS.

(U. S. C. C. A.) The Ashley design patent, No. 42,077, for a design for an inkstand, *Held* valid and infringed. *Ashley* v. *Weeks-Numan Co.*, 220 Fed. Rep., 899.

(U. S. C. C. A.) The Baker design patent, No. 45,249, for a design for sets of character-blocks, *Held* void for lack of invention. *Baker & Bennett Co.* v. *N. D. Cass Co.*, 220 Fed. Rep., 918.

(U. S. C. C. A.) The Gathright patents, No. 436,916, for a tabulating mechanism for typewriters, and No. 452,268, for improvements thereon, *Held* valid, and claims 4 and 6 of the former *Held* infringed and the latter not infringed. *Underwood Typewriter Co.* v. *Fox Typewriter Co.*, 220 Fed. Rep., 880.

(U. S. C. C. A.) The Simmons, Forgham, and Bennett patent, No. 633,348, for a coal unloading and distributing apparatus for use in ballast-burning, *Held* void for prior use. *American Ballast Co.* v. *Davy Burnt Clay Ballast Co.*, 220 Fed. Rep., 887.

(U. S. C. C. A.) The Bennett and Forgham patent, No. 686,964, for apparatus for use in producing burnt-clay ballast, *Held* not infringed. *American Ballast Co.* v. *Davy Burnt Clay Ballast Co.*, 220 Fed. Rep., 890.

(U. S. D. C.) The Ellis patent, No. 714,880, for a paint and varnish remover and process of making same, *Held* valid and also infringed as to claims 6, 7, and 8. *Chadeloid Chemical Co.* v. *F. W. Thurston Co.*, 220 Fed. Rep., 685.

(U. S. D. C.) The Vogel patent, No. 737,796, for a flushing apparatus, *Held* valid, but not infringed. *James A. Vogel Co.* v. *A. Weiskittel & Son Co.*, 220 Fed. Rep., 939.

(U. S. D. C.) The Ellis patent, No. 714,880, for a paint-remover, *Held* valid and infringed. *Chadeloid Chemical Co.* v. *Wilson Remover Co.*, 220 Fed. Rep., 681.

(U. S. D. C.) The Coleman patent, No. 745,157, for automatic starting systems for motor-cars, *Held* valid and infringed. *Dayton Engineering Laboratories Co.* v. *Sidney B. Bowman Automobile Co.*, 220 Fed. Rep., 927.

(U. S. D. C.) The Vogel patent, No. 801,754, for a flushing apparatus, *Held* valid and claim 5 *Held* infringed. *James A. Vogel Co.* v. *A. Weiskittel & Son Co.*, 220 Fed. Rep., 939.

(U. S. D. C.) The Coleman patent, No. 842,827, for automatic starting systems for motor-cars, *Held* valid, but not infringed. *Dayton Engineering Laboratories Co.* v. *Sidney B. Bowman Automobile Co.*, 220 Fed. Rep., 927.

(U. S. D. C.) The Robbins patent, No. 902,452, for davit-supporting means for sharp-stern boats. *Held* valid and infringed. *Robbins* v. *Webster*, 220 Fed. Rep., 943.

(U. S. D. C.) The Champ patent, No. 956,285, for a bottle-filling machine, *Held* valid and infringed. *Bishop-Babcock-Becker Co.* v. *Arnholt & Schaefer Brewing Co.*, 220 Fed. Rep., 675.

(U. S. C. C. A.) The Blackman patent, No. 963,352, for a sheet-metal junction-box, *Held* void for lack of invention. *Columbia Metal Box Co.* v. *Halper*, 220 Fed. Rep., 912.

(U. S. C. C. A.) The Woerheide patent, No. 973,902, for a cleat for securing prepared roofing, *Held* valid and infringed. *Woerheide* v. *H. W. Johns-Manville Co.*, 220 Fed. Rep., 674.

(U. S. C. C. A.) The Tilt patent, No. 988,229, for an auxiliary automobile side spring or shock-absorber, construed and *Held* not infringed. *J. M. Shock Absorber Co.* v. *Blackledge*, 220 Fed. Rep., 921.

(U. S. C. C. A.) The Williams patent, No. 1,011,892, for a wind-shield for vehicles, *Held* not for a useful invention and also, as limited by the prior art, not infringed. *20th Century Motor Car & Supply Co.* v. *Holcomb Co.*, 220 Fed. Rep., 669.

Interference Notices.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., May 4, 1915.

Abbie Gertrude Baumgarten, her assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of the Minerva Toilet Goods Manufacturing Company, (not incorporated,) of 6250 Drexel avenue, Chicago, Ill., for registration of a trade-mark and trade-marks registered February 4, 1908, Nos. 67,507 and 67,510, to Abbie Gertrude Baumgarten, of Hotel Belmont, New York, N. Y., and a notice of such declaration sent by registered mail to said Abbie Gertrude Baumgarten at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Abbie Gertrude Baumgarten, her assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

J. T. NEWTON, *First Assistant Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., April 24, 1915.

Miller & Miller, their assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Swift and Company, Union Stock Yards, Chicago, Ill., for registration of a trade-mark and trade-mark registered February 23, 1892, No. 20,763, to Miller & Miller, No. 12 North Paca street, Baltimore, Md., and a notice of such declaration sent by registered mail to said Miller & Miller at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Miller & Miller, their assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

J. T. NEWTON, *First Assistant Commissioner.*

THE
OFFICIAL GAZETTE
OF THE
United States Patent Office.

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Printed copies of patents are furnished by the Patent Office at 5 cents each. For the latter, address the Commissioner of Patents, Washington, D. C.

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Trade-Marks	86—	No. 104,246 to No. 104,331, inclusive.
Labels	17—	No. 12,473 to No. 12,489, inclusive.
Prints	14—	No. 3,917 to No. 3,930, inclusive.
Reissues	None.	
Total	887	

The patents of this issue were pending an average of 21.7 months.

TO RESIDENTS OF THE UNITED STATES.

States.	Patents and Designs.	Trade-Marks, Labels, and Prints.	States.	Patents and Designs.	Trade-Marks, Labels, and Prints.
Alabama	3	....	North Carolina	3	....
Arizona	2	....	North Dakota	2	....
Arkansas	2	....	Ohio	54	7
California	36	3	Oklahoma	2	1
Colorado	8	....	Oregon	4	1
Connecticut	29	2	Pennsylvania	72	2
Delaware	....	3	Rhode Island	5	....
Florida	3	....	South Carolina	3	....
Georgia	3	....	South Dakota	1	....
Idaho	3	....	Tennessee	3	....
Illinois	80	26	Texas	12	1
Indiana	9	2	Utah	4	1
Iowa	9	1	Vermont	2	1
Kansas	7	....	Virginia	10	1
Kentucky	4	1	Washington	15	1
Louisiana	6	....	West Virginia	3	....
Maine	1	....	Wisconsin	19	....
Maryland	3	1	Wyoming	2	....
Massachusetts	40	11			
Michigan	33	6	Alaska, District of	....	....
Minnesota	13	2	Canal Zone	....	....
Mississippi	1	....	District of Columbia	3	1
Missouri	22	6	Hawaii Territory	....	....
Montana	1	....	Philippine Islands	1	....
Nebraska	7	....	Porto Rico	....	....
Nevada	1	....	U. S. Army	....	....
New Hampshire	5	1	U. S. Navy	2	....
New Jersey	35	3			
New Mexico	....	....	Total to residents of the United States	690	113
New York	102	28			

TO RESIDENTS OF FOREIGN COUNTRIES.

Countries.	Patents and Designs.	Trade-Marks.	Countries.	Patents and Designs.	Trade-Marks.
Argentina	2	....	Netherlands	....	....
Austria-Hungary	2	....	New South Wales	....	....
Belgium	2	....	New Zealand	....	....
British India	....	....	Norway	2	....
British West Indies	....	....	Portugal	....	....
Canada	16	....	Queensland	....	....
Cape Colony	....	....	Roumania	....	....
Chile	....	....	Russia	....	....
Costa Rica	....	....	Scotland	1	....
Cuba	1	....	South Australia	....	....
Denmark	....	....	Spain	....	....
England	18	4	Sweden	1	....
France	6	....	Switzerland	....	....
French Indo-China	....	....	Transvaal, South Africa	....	....
Germany	19	....	Victoria	3	....
Guatemala	....	....	Wales	....	....
India	....	....	Western Australia	....	....
Ireland	1	....			
Italy	3	....	Total to residents of foreign countries	79	4
Japan	....	....			
Mexico	2	....			

Notice—Attorneys.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., May 18, 1915.

By direction of the Secretary of the Interior the departmental order of June 28, 1907, disbarring Geundry W. Bingham, now of West Palm Beach, Fla., from practice before this Department and its Bureaus, was on the 12th of May, 1915, canceled and revoked, and he has been from that date restored to practice.

W. F. WOOLARD,
Chief Clerk.

Coupon Orders for Copies of Patents.

(ORDER No. 2,198.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., March 16, 1915.

The practice of ordering a small number of printed copies of patents, to be charged against the deposit accounts which are maintained by this Office for the accommodation of inventors and attorneys, involves an inordinate amount of clerical labor in a very large number of small transactions. The necessary bookkeeping incident thereto has attained such proportions that the Office does not feel justified in permitting this practice. Coupon orders have been provided with a view to affording a convenient means for ordering less than twenty copies of patents; but the purpose of the coupon has been largely subverted by the extensive practice of ordering single copies of patents to be charged to account.

Coupon orders are sold by the Office in pads of twenty for one dollar and in stub-books of one hundred for five dollars. These coupons may be filled in, signed or stamped with the name of the sender, and mailed without a letter of transmittal.

Hereafter no requests that less than twenty copies of patents be charged to account will receive attention.

THOMAS EWING,
Commissioner of Patents.

APPLICATIONS UNDER EXAMINATION.

Condition at Close of Business May 22, 1915.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action. New.	Amended.	No. of applications awaiting action.
314	1. Fences; Fences, Gates; Harrows and Diggers; Plows; Seeders and Planters; Trees, Plants, and Flowers.	Feb. 25	Feb. 10	477
128	2. Bee Culture; Curtains, Shades, and Screens; Dairy; Label Pasting and Paper Hanging; Paper Files and Binders; Medicines; Pneumatics; Presses; Tents, Canopies, Umbrellas, and Canes; Tobacco.	Dec. 3	Feb. 23	777
175	3. Annealing and Tempering; Electric Heating and Rheostats; Electrochemistry; Metal-Founding; Metallurgy; Plastic Metal Working.	May 6	May 11	103
232	4. Conveyers; Elevators; Excavating; Hoisting; Loading and Unloading; Pneumatic Despatch; Railway Mail Delivery; Traversing Hoists.	Dec. 14	May 7	647
167	5. Bookbinding; Harvesters; Jewelry; Music.	Feb. 10	May 1	323
318	6. Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Liquid Coating Compositions; Plastic Compositions; Preserving; Sugar and Salt; Substance Preparation.	Nov. 27	May 3	549
312	7. Educational Appliances; Clutches; Games and Toys; Motors; Optics; Velocipedes.	Mar. 18	Apr. 27	463
131	8. Beds; Chairs; Furniture; Kitchen and Table Articles; Store Furniture; Supports.	Dec. 17	May 1	1146
142	9. Air and Gas Pumps; Fluid-Pressure Regulators; Hydraulic Motors; Motors, Fluid; Motors, Fluid-Current; Pumps.	Aug. 27	May 3	803
225	10. Carriages and Wagons	Jan. 10	May 4	685
154	11. Boot and Shoe Making; Boots, Shoes, and Leggings; Button, Eyelet, and Rivet Setting; Harness; Leather Manufactures; Nailing and Stapling; Whips and Whip Apparatus.	Apr. 10	May 10	107
322	12. Journal-Boxes, Pulleys, and Shafting; Lubrication; Machine Elements.	Mar. 4	May 5	686
329	13. Arms, Projectiles, and Explosive Charges, Making; Bolt, Nail, Nut, Rivet, and Screw Making; Boring and Drilling; Button Making; Chain, Staple, and Horseshoe Making; Driven, Headed, and Screw Threaded Fastenings; Gear Cutting, Milling, and Planing; Metal Drawing; Metal Forging and Welding; Metal Rolling; Metal Tools and Implements, Making; Metal Working; Needle and Pin Making; Nut and Bolt Locks; Turning.	Apr. 14	Apr. 22	438
307	14. Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal-Bending; Metal-Ornamenting; Sheet-Metal Ware, Making; Tools; Wire Fabrics and Structure; Wire-Working.	Jan. 15	Apr. 17	300
308	15. Bread, Pastry, and Confection Making; Coating; Fuel; Glass; Laminated Fabrics and Analogous Manufactures; Paper-Making and Fiber Liberation; Plastic Block and Earthenware Apparatus; Plastics.	Jan. 11	May 5	650
109	16. Electric Signaling; Radiant Energy; Telegraphy; Telephony.	Feb. 5	Feb. 24	481
303	17. Matrix-Making; Paper Manufactures; Printing; Type-Bar Making.	Mar. 5	May 10	162
327	18. Injectors and Ejectors; Liquid Heaters and Vaporizers; Miscellaneous Heat-Engine Plants; Steam and Vacuum Pumps; Steam-Engines; Steam-Engine Valves.	Apr. 17	Apr. 21	321
236	19. Dampers, Automatic; Furnaces; Heating Systems; Stoves and Furnaces.	Mar. 20	Mar. 26	231
179	20. Artificial Limbs; Builders' Hardware; Cutlery; Dentistry; Locks and Latches; Safes; Undertaking.	Apr. 22	Apr. 24	208

Applications Under Examination—Continued.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action. New.	Amended.	No. of applications awaiting action.
112	21. Brakes and Gins; Carding; Cloth-Finishing; Cordage; Felt and Fur; Knitting and Netting; Silk; Spinning; Weaving; Winding and Reeling.	Jan. 25	Apr. 15	404
249	22. Aeronautics; Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Boats and Buoys; Firearms; Marine Propulsion; Ordnance; Ships.	Apr. 22	Apr. 24	255
379	23. Acoustics; Coin-Handling; Horology; Recorders; Registers; Time-Controlling Mechanism.	Dec. 22	Mar. 10	496
144	24. Apparel; Apparel Apparatus; Sewing-Machines.	Jan. 4	May 1	483
315	25. Butchering; Mills; Threshing; Vegetable Cutters and Crushers.	Apr. 26	Apr. 19	152
106	26. Electricity, Generation; Motive Power.	Nov. 13	Jan. 30	530
372	27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus.	Mar. 25	Apr. 19	263
65	28. Internal-Combustion Engines	Feb. 27	Mar. 26	456
147	29. Coopering; Fire-Escapes; Ladders; Roofs; Wheelwright-Machines; Wooden Buildings; Wood-Sawing; Wood-Turning; Wood-working; Woodworking-Tools.	Mar. 24	Mar. 18	329
152	30. Illuminating-Burners; Illumination; Liquid and Gaseous Fuel Burners; Type-Writing Machines.	Jan. 27	May 12	312
172	31. Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas-Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Glue.	Mar. 2	Apr. 6	307
278	32. Agitating; Carbonating Beverages; Dispensing Beverages; Dispensing; Domestic Cooking Vessels; Gas and Liquid Contact Apparatus; Heat Exchange; Ornamentation; Packaging Liquids; Refrigeration.	Dec. 15	May 3	652
71	33. Bridges; Hydraulic Engineering; Masonry and Concrete Structures; Metallic Building Structures; Paving.	Feb. 11	Mar. 26	400
304	34. Railways; Railway-Brakes; Railway Rails and Joints; Railway Rolling-Stock; Railway Ties and Fasteners.	Apr. 22	Apr. 26	221
57	35. Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Garment-Supporters; Toilet.	Feb. 15	May 14	534
264	36. Driers; Geometrical Instruments; Measuring Instruments; Photography.	Mar. 4	Mar. 7	621
107	37. Electric Lamps; Electricity, Conductors; Electricity, Conduits; Electricity, General Applications.	Dec. 2	Mar. 19	608
378	38. Animal Husbandry; Earth Boring; Fishing and Trapping; Stationery; Stone-Working; Wells.	Jan. 7	Apr 23	519
321	39. Water Distribution	Mar. 1	Apr. 10	455
280	40. Baggage; Bottles and Jars; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Shipping and Storing Vessels; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles.	Dec. 1	Apr. 12	1112
125	41. Railway Draft Appliances; Resilient Tires and Wheels.	Mar. 18	Apr. 24	294
279	42. Railway Signaling; Signals; Electricity-Transmission to Vehicles.	Dec. 9	Feb. 13	723
382	43. Baths and Closets; Electricity, Medical and Surgical; Fire-Extinguishers; Sewerage; Surgery; Water Purification.	Apr. 12	Apr. 15	285

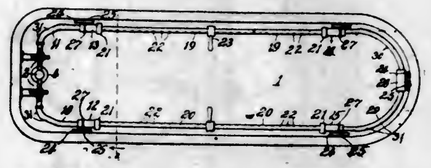
Oldest new case, Aug. 27; oldest amended, Jan. 30.
Total number of applications awaiting action..... 20,028

161	TRADE-MARKS, DESIGNS, LABELS AND PRINTS:			
	Trade-Marks	Mar. 27	May 1	706
	Designs	Feb. 24	Mar. 2	643
	Labels and Prints	May 5	May 8	70

PATENTS

GRANTED MAY 25, 1915.

1,140,347. SPRAYING ATTACHMENT FOR BATH-TUBS. HENRY BARNES, Brooklyn, N. Y. Filed July 10, 1914. Serial No. 850,090. (Cl. 4—26.)



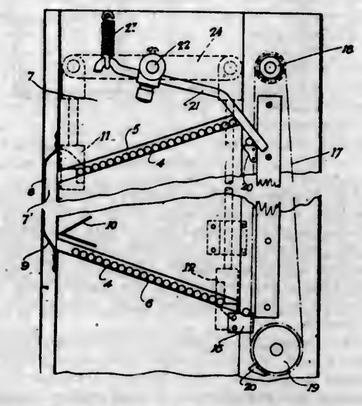
1. In a bath tub spraying attachment, the combination with the faucet of a distributing bulb communicating therewith, outwardly projecting branch pipes secured to the bulb, holding pads adapted to contact with the sides of the tub housings attached to the pads, the ends of the branch pipes secured to the housings and adapted to exert an outward pressure against the pads.

2. In a bath tub spraying attachment, branch pipes located at the foot of the tub, a support, a holding pad connected therewith, the inner ends of the branch pipes secured to the support, holding pads located at the sides of the tub, housings connected therewith, the outer ends of the branch pipes sprung into the mouths of the housings and adapted thereby to exert an outward pressure against the pads.

3. In a bath tub spraying device, rigidly secured branch pipes located at the ends of the tub, holding pads resting against the sides of the tub, housings carried by the pads, the ends of the branch pipes forcibly secured to the housings so as to exert pressure against the pads, and horizontal spray pipes rotatably inserted in the housings.

4. In a bath tub spraying device, holding pads resting against the sides of the tub, and means for exerting a holding pressure against said pads.

1,140,348. CARD-DISPLAYING APPARATUS. DAVID W. BARROW, Chattanooga, Tenn. Filed July 22, 1914. Serial No. 852,505. (Cl. 40—79.)



1. A card displaying apparatus comprising in combination, a casing arranged to hold a plurality of cards and having at least one aperture therein for the display of cards, a pair of guides sloping downwardly from the rear to the front of said casing in such position as to hold the cards in the guides in front of the aperture, a second pair of guides in said casing below the display aperture and inclined downwardly from the rear, means for elevating cards from the lower guides to the upper guides, and escapement means for controlling the exit of cards from said top and bottom guides, said escapement means comprising escapement blocks having oblique slots therethrough for holding the cards or permitting the same to pass along the guides according to the position of the blocks, and means whereby the escapement blocks may be operated to permit the passage of cards at intervals.

2. In a device of the class described, an escapement mechanism comprising a block having an angular slot therethrough, and automatic means for operating said block to permit the passage of a card.

3. A card displaying apparatus comprising in combination, a casing provided with at least one aperture for the display of cards therethrough, a pair of guides sloping downwardly from rear to front of said casing in such a position as to hold the front card in the guide in front of said aperture, a second pair of guides below said aperture and inclining downwardly from front to rear, means for elevating cards from said lower guide to said upper guide, escapement means for controlling the exit of cards from the top and bottom guides, and automatic means for operating said escapement means, said escapement means comprising a pivoted lever, a pair of rods depending from said lever and pivoted thereto, escapement blocks fixed at the lower ends of said rods, said blocks having angular slots therethrough for holding said cards or permitting the same to pass along the guides according to the position of the blocks.

4. In a device of the class described, an escapement mechanism comprising a block having an angular slot therethrough, said slot being so arranged as to form a shoulder for holding cards and also a point on the opposite side of the slot from the shoulder for insertion between the end card and the remainder of the row of cards, and automatic means for operating said blocks to permit the passage of a card.

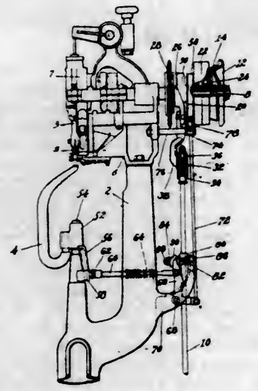
5. A card displaying apparatus comprising in combination, a casing provided with an upper and a lower aperture, a pair of guides sloping downwardly from rear to front of said casing in the upper part thereof in such position as to hold the front card in the guide in front of the top aperture, a second pair of guides in said casing inclining downwardly from front to rear and in such position as to hold the front card therein so as to be seen in said lower aperture, means for elevating cards from said lower guide to said upper guide, escapement means for controlling the exit of cards from said top and bottom guides, automatic means for operating said escapement means, said escapement means comprising a pivoted lever, a pair of rods depending from said lever and pivoted thereto, escapement blocks fixed at the lower ends of said rods, said blocks having angular slots therethrough for holding a card or permitting the same to pass along the guides according to the positions of the blocks.

[Claims 6 to 8 not printed in the Gazette.]

1,140,349. MACHINE FOR USE IN THE MANUFACTURE OF BOOTS AND SHOES. ARTHUR BATES, Leicester, England, assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed June 29, 1911. Serial No. 636,009. (Cl. 1—19.)

1. In a machine of the class described, means for operating upon a boot or shoe, means for automatically varying the speed of operation as different portions of the boot

or shoe are presented to the operating means, and means under the control of the operator and operable while the machine is in operation for varying the action of said automatic means.



2. In a machine of the class described, mechanism for operating upon a boot or shoe, means for automatically varying the speed of operation of said mechanism as different portions of the boot or shoe are presented to said mechanism, and means under the control of the operator and operable as the machine is actuated for selectively determining the initial speed of operation.

3. In a machine of the class described, mechanism for perforating successive operations upon a boot or shoe, means for feeding the boot or shoe between the successive operations to present successive portions thereof for the successive operations, and means acting automatically to vary the speed of operation of the operating mechanism as different portions of the boot or shoe are presented to said mechanism, said means being arranged to effect a corresponding variation in the speed of operation of the feeding means.

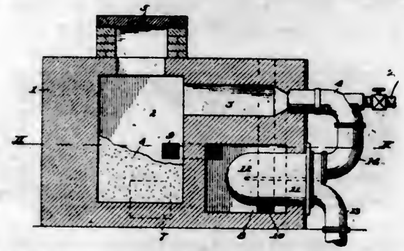
4. In a machine of the class described, mechanism for performing successive operations upon a boot or shoe, means for automatically varying the rate at which the successive operations are performed as different portions of the boot or shoe are presented to the operating mechanism, and means for rendering said mechanism operative or inoperative having provision for preventing, at the will of the operator, the automatic variation of the rate of operation, while permitting the mechanism to continue in operation.

5. In a machine of the class described, mechanism for performing successive operations upon a boot or shoe, a work support arranged to turn as successive portions of the work are presented to said mechanism, a cam arranged to turn with said work support, and means operated from said cam for varying the rate at which the successive operations upon the work are performed.

1,140,350. FURNACE OR FORGE. GEORGE F. BEACH, Norfolk, Va., assignor to Mires Fuel-Oil Equipment Company, Incorporated, Norfolk, Va., a Corporation of Virginia. Filed Nov. 4, 1912. Serial No. 729,447. (Cl. 75—84.)

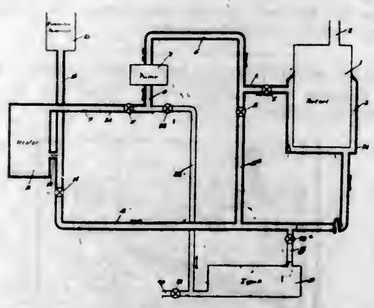
1. In a hydrocarbon furnace or forge, a combustion chamber, a burner in operative relation thereto, a downdraft heating chamber, said combustion chamber opening into the upper part of said heating chamber, a vent flue communicating with said heating chamber below the opening of the combustion chamber, a preheating chamber directly beneath and in proximity to said combustion chamber, a preheater in said preheating chamber, and an air conduit between said preheater and burner.

2. In a hydrocarbon furnace or forge, a combustion chamber, a burner in operative relation thereto, a downdraft heating chamber, said combustion chamber opening into the upper part of said heating chamber, a vent flue communicating with said heating chamber below the opening of the combustion chamber, a down-draft preheating chamber directly beneath and in proximity to said combustion chamber, said vent flue opening into the upper part of said preheating chamber, the outlet of said vent flue extending from the lower part of said preheating chamber upwardly and in proximity to said combustion chamber, and an air conduit between said preheater and burner.



3. In a hydrocarbon furnace or forge, a combustion chamber, a burner in operative relation thereto, a downdraft heating chamber, said combustion chamber opening into the upper part of said heating chamber, vent flues communicating with said heating chamber extending from the side walls thereof and below the opening of the combustion chamber, a down-draft preheating chamber directly beneath and in proximity to said combustion chamber, said vent flues opening into the upper part of the sides of said preheating chamber, the outlet of said vent flue extending from the lower part of the sides of said preheating chamber upwardly and in proximity to said combustion chamber, and an air conduit between said preheater and burner.

1,140,351. PROCESS FOR HEATING RETORTS. FRANK TROXELL BEERS, Barksdale, Wis., assignor to E. I. du Pont de Nemours Powder Company, Wilmington, Del., a Corporation of New Jersey. Filed Nov. 15, 1913. Serial No. 801,175. (Cl. 23—1.)



1. The process which comprises distilling nitric acid by heating a still containing nitric acid by a heated liquid circulated in a closed circle by an extraneous force.

2. The process which comprises distilling nitric acid by heating a still containing nitric acid by a circulated heated liquid, and controlling the temperature of said still by varying the quantity of liquid brought into contact with the still.

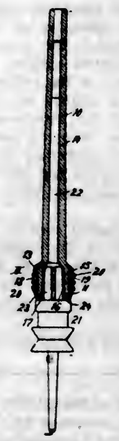
3. The process which comprises distilling nitric acid by heating a still containing nitric acid by a heated liquid circulated in a closed circle by an extraneous force, and controlling the temperature of said still by varying the temperature of the liquid brought into contact with the still.

4. The process which comprises distilling nitric acid by heating a still containing nitric acid by a circulated heated liquid, controlling the temperature of said still by heating the liquid, and varying the quantity and temperature of the liquid brought into contact with the still.

5. The process which comprises distilling nitric acid by heating a still containing nitric acid by a heated oil circulated in a closed circle by an extraneous force.

[Claims 6 to 10 not printed in the Gazette.]

1,140,352. BOBBIN. GEORGE HILLARD BENJAMIN, New York, N. Y. Filed Oct. 31, 1911. Serial No. 657,781. (Cl. 242—120.)



1. A bobbin comprising a shank having a head portion, a base lineally, substantially co-extensive with the head portion, and shaped to inclose the outer and inner surfaces and bottom thereof, and a series of rings which overlie the exterior surface of the base.

2. A bobbin comprising a shank having a head portion, a base lineally, substantially co-extensive with the head portion, and shaped to inclose the outer and inner surfaces and bottom thereof, the outer portion of the base having formed therein a series of spaced grooves and a series of rings located in said grooves.

3. A bobbin comprising a shank having an enlarged head portion, a base having such shape as to inclose substantially the entire outer and inner surfaces and bottom of the head portion, and a series of rings which overlie the exterior portion of the base.

4. In a bobbin the combination with a shank having an enlarged head provided with horizontal grooves and vertical grooves, of a base portion comprising a tubular member located within the head, and carried to the top of the head, a bottom member covering the bottom of the head, arm members located in the vertical grooves on the exterior of the head and provided with horizontal grooves adapted to register with the horizontal grooves of the head, together with a series of rings located and secured in position in said horizontal grooves.

5. In a bobbin the combination with a shank having an enlarged head, of a base portion comprising a tubular inner member carried through the head, a substantially horizontally disposed bottom member, a series of spaced arms extending vertically upward from said bottom portion, said arms provided with horizontal grooves, together with a series of rings adapted to be located and secured in the horizontal grooves of the arms and around the exterior of the head of the shank.

[Claims 6 to 11 not printed in the Gazette.]

1,140,353. PROCESS OF PRODUCING SUGAR-BEARING BODIES. GEORGE HILLARD BENJAMIN, New York, N. Y. Filed May 21, 1912. Serial No. 698,685. (Cl. 127—17.)

1. The process of treating sugar bearing bodies, which consists in dividing said bodies into small pieces, introducing phosphate of lime in sufficient quantity to neutralize the normal acids and diatomaceous earth in sufficient quantity to absorb any free juices, and finally mixing and pressing the mass to form packages.

2. The process of treating sugar bearing bodies, which consists in comminuting or dividing the body, introducing phosphate of lime in sufficient quantity to neutralize the body and diatomaceous earth in sufficient quantity to absorb any free juices, dehydrating the mass, and finally mixing and pressing the mass to form packages.

3. The process of treating sugar bearing bodies, which consists in separating the sugar bearing bodies into small particles, introducing sufficient phosphate of lime to neutralize the normal acidity of the sugar juices, introducing sufficient diatomaceous earth to absorb any free juices, dehydrating the mass to remove any excess of water, and finally mixing and pressing the mass to form packages.

4. A step in the process of treating sugar bearing bodies, which consists in subjecting the comminuted body to the action of a sufficient amount of phosphate of lime to neutralize the normal acidity of the juices of the sugar bearing bodies.

5. As a new product, a body consisting of comminuted sugar bearing bodies, sugar derived from said bodies, phosphate of lime and diatomaceous earth, all in a dry and solid condition but soluble and separable under the action of heat, water and steam.

[Claims 6 to 8 not printed in the Gazette.]

1,140,354. PRODUCTION OF ZINC SULFATE. RAMÓN BONASTRE LLOPART, Cordoba, Argentina. Filed Mar. 16, 1915. Serial No. 14,777. (Cl. 23—13.)

1. A step in the herein described process of preparing an inalterable white product, said step consisting in treating a water solution of zinc sulfate with bioxids, air bubbles, and injections of steam.

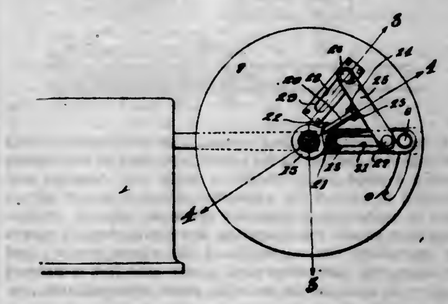
2. A step in the herein described process of preparing an inalterable white product, said step consisting in treating a water solution of zinc sulfate with an oxidizing agent and air bubbles.

3. A step in the herein described process of preparing an inalterable white product, said step consisting in treating a water solution of zinc sulfate with an oxidizing agent, air bubbles and steam.

4. A step in the herein described process of preparing an inalterable white product, said step consisting in treating a water solution of zinc sulfate with an oxidizing agent, air bubbles and heat.

5. A step in the herein described process of preparing an inalterable white product, said step consisting in treating a water solution of zinc sulfate with an oxidizing agent and heat.

1,140,355. MECHANISM FOR MOVING ENGINES OFF A DEAD-CENTER. GEORGE C. BRITTAIN, Oxford, Kans. Filed May 17, 1913. Serial No. 768,322. (Cl. 74—20.)



1. In a device of the character described, a driven crank means, a circular means for transmitting power from said crank means, said circular means having an

arcuate slot formed therein and extending parallel with the periphery thereof, connecting means arranged in said slot and having connection with said crank means, and means for moving said connecting means and for adjusting said crank means, substantially as described.

2. In a device of the character described, a driven crank means, a circular means for transmitting power from said crank means, said circular means having an arcuate slot formed therein and extending parallel with the periphery thereof, connecting means arranged in said slot and having connection with said crank means, and means slidable on said circular means for moving said connecting means and adjusting said crank means, substantially as described.

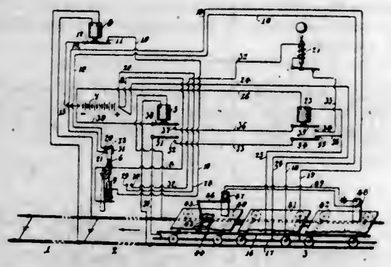
3. In a device of the character described, a driven crank means, circular means for transmitting power from said crank means, a driven shaft revoluble with said circular means, said circular means having an arcuate slot formed therein and extending parallel with the periphery thereof, connecting means arranged in said slot and having connection with said crank means, and means slidable longitudinally of said driven shaft for moving said connecting means and adjusting said crank means, substantially as described.

4. As a means for starting an engine from a dead center, a crank wheel, a power shaft, a connecting rod, said connecting rod being connected to said wheel for independent arcuate movement thereon, a casing disposed about said power shaft, a bar connected to said connecting rod and said casing, a bracket and means slidable upon said casing for moving said rod arcuately of said wheel to start the engine from a dead center.

5. As a means for starting an engine from a dead center, a crank wheel, a power shaft, a connecting rod, said connecting rod being connected to said wheel for independent arcuate movement thereon, a casing disposed about said power shaft, a bar connected to said connecting rod and loosely mounted upon said casing, a bracket mounted on said wheel, a plate slidably connected with said bar and said bracket, and means to move said plate for moving said rod arcuately of said wheel to start the engine from a dead center.

[Claims 6 to 10 not printed in the Gazette.]

1,140,356. SYSTEM FOR VEHICLE CONTROL. JOHN T. CADE, Arcola, N. J., assignor to Federal Signal Company, a Corporation of New York. Filed Oct. 4, 1912. Serial No. 723,852. (Cl. 246—30.)



1. In a vehicle control system, the combination of an alarm device distinct in its action from that of the signals usually carried on a vehicle or train and designed and arranged to attract the attention of occupants of the vehicle or train other than the operators thereof; vehicle controlled means for operating the alarm device; means for preventing the operation of the alarm device; and provisions for controlling said means, said last mentioned means and said provisions being under the operative control of different persons.

2. In a vehicle control system, the combination of an alarm device distinct in its action from that of the signals usually carried on a vehicle or train and designed and arranged to attract the attention of occupants of the vehicle or train other than the operators thereof; vehicle controlled means for operating the alarm device; means operable from the vehicle for preventing the operation of the alarm device; and provisions for controlling said means.

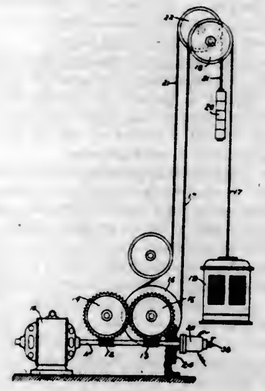
3. In a vehicle control system, the combination of an alarm device distinct in its action from that of the signals usually carried on a vehicle or train and designed and arranged to attract the attention of occupants of the vehicle or train other than the operators thereof; vehicle controled means for operating the alarm device; means for preventing the operation of the alarm device; and provisions on the vehicle for controlling said means.

4. In a vehicle control system, the combination of an alarm device distinct in its action from that of signals usually carried on a vehicle or train and designed and arranged to attract the attention of occupants of the vehicle or train other than the operators thereof; vehicle controlled means for operating the alarm device; means operable from the vehicle for preventing the operation of the alarm device; and provisions on the vehicle for controlling said means.

5. In a vehicle control system, the combination of an alarm device located on the trackway; vehicle controlled means for operating the alarm device; means operable from the vehicle for preventing the operation of the alarm device; and provisions on the vehicle for controlling said means.

[Claims 6 to 19 not printed in the Gazette.]

1,140,357. SHOCK-ABSORBER. WILLIAM T. CLARK, Philadelphia, Pa., assignor to Otis Elevator Company, Jersey City, N. J., a Corporation of New Jersey. Filed Nov. 28, 1913. Serial No. 803,385. (Cl. 74—36.)



1. In an elevator, tandem gearing comprising a shaft having oppositely pitched worms thereon, and magnetic means for applying a longitudinal stress in said shaft.

2. In an elevator, a shaft having right and left hand worms, gears meshing with said worms and connected with each other, and electrical means for applying a longitudinal stress in said shaft.

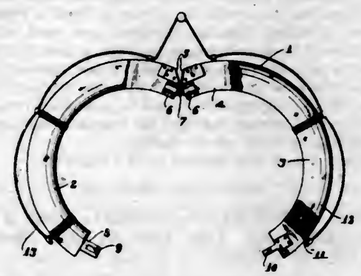
3. In an elevator, a shaft having right and left hand worms, gears meshing with said worms and connected with each other, and electrical means tending to effect a longitudinal movement of said shaft.

4. In an elevator, a shaft having right and left hand worms, gears meshing with said worms and with each other, and magnetic means for exerting a longitudinal pull on said shaft.

5. In an elevator, a shaft having right and left hand worms, gears meshing with said worms and with each other, and magnetic means for exerting a longitudinal pull on one end of said shaft.

[Claims 6 to 13 not printed in the Gazette.]

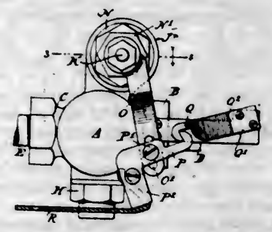
1,140,358. LIFE-PRESERVER. ARTHUR HAROLD WYLD CLEAVE, Ottawa, Ontario, Canada. Filed Mar. 30, 1914. Serial No. 828,382. (Cl. 9—17.)



1. A life buoy comprising a pair of semi-circular frames hinged together at one extremity of each, a pair of spring plates secured to the opposite extremity of one frame and having orifices therethrough, a spear-shaped catch secured to the opposite extremity of the other frame and interlocking between said spring plates, a buoyant filling covering said frames and a textile casing inclosing said filling and frames.

2. A life buoy comprising a plurality of semi-circular frames hinged together at one extremity of each, a spiral spring located between the hinged ends of said frames and normally holding the same in open position, a pair of spring plates secured to the opposite extremity of one frame and having orifices therethrough, a spear-shaped catch secured to the opposite extremity of the other frame and interlocking between said spring plates, a buoyant material covering said frames and a textile casing inclosing said material and frames.

1,140,359. VALVE. NELSON B. CREIGHTON, New York, N. Y. Filed Dec. 29, 1913. Serial No. 809,262. (Cl. 137—92.)



1. A valve, comprising a valve body having an inlet, an outlet and a valve seat intermediate the said inlet and outlet, a spring-pressed valve disk adapted to be seated on the said valve seat, means including an arm for engaging the valve disk for moving it off its seat, and a locking and releasing catch mounted on the said arm, a fixed retaining means adapted to be engaged by the said catch so as to hold the valve off its seat, said retaining means comprising fusible solder whereby the said retaining means is held in its normally fixed position under ordinary temperature but detached at a higher temperature.

2. A valve, comprising a valve body having an inlet, an outlet and a valve seat intermediate the said inlet and outlet, a spring-pressed valve disk adapted to be seated on the said valve seat, means including an arm for engaging the valve disk for moving it off its seat, a catch pivoted on the said arm, a retaining hook adapted to be engaged by the said catch so as to hold the valve off its seat and a flexible connection connected with the said catch to permit of swinging the catch out of engagement with the said hook.

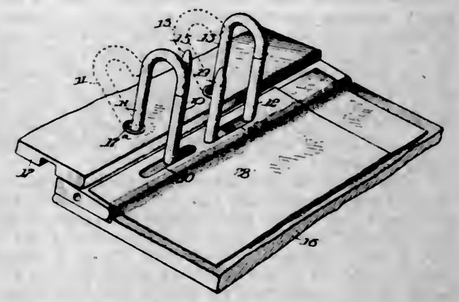
3. A valve, comprising a valve body having an inlet, an outlet, and a valve seat intermediate the said inlet and outlet, a spring-pressed valve disk adapted to be seated on the said valve seat, means including an arm for engaging the valve disk for moving it off its seat, a catch pivoted on the said arm, a fixed retaining hook adapted to be engaged by the said catch so as to hold the valve off its seat, a flexible connection connected with the said catch to permit of swinging the catch out of engagement with the said hook, said retaining hook comprising fusible solder whereby the said hook is held in its normally fixed position under ordinary temperature, but detached at a higher temperature.

4. A valve, comprising a valve body having an inlet, an outlet and a valve seat intermediate the said inlet and outlet, a spring-pressed valve disk adapted to be seated on the said valve-seat, means including an arm for engaging the valve disk for moving it off its seat, a catch pivoted on the said arm, a hook adapted to be engaged by the said catch so as to hold the valve off its seat, a fixed support, and fusible solder fastening the said hook to the said support under ordinary temperature but detaching the hook from the support at a higher temperature.

5. A valve comprising a valve body having an inlet and outlet and valve seat intermediate the said inlet and outlet, a spring pressed valve disk adapted to be seated on the said valve seat, means including an arm for engaging the valve disk for moving it off its seat, an angular catch adjustably and pivotally mounted in said arm, a fixed retaining hook adapted to be engaged by the said catch and a flexible connection connected with the said catch out of engagement with the said hook.

[Claims 6 and 7 not printed in the Gazette.]

1,140,360. SHIFTABLE-SHEET BINDER. JAMES C. DAWSON, Kirkwood, Mo. Filed Jan. 26, 1914. Serial No. 814,448. (Cl. 129—1.)



1. In a shiftable sheet binder, in combination, a pair of filing prongs and a sheet having a slotted aperture, the spacing of the prongs and the length and location of the said aperture being such that the sheet is adapted to be held in one position by the engagement of both of the prongs with the said aperture and to assume a different position when only one of the prongs is engaged with the said aperture.

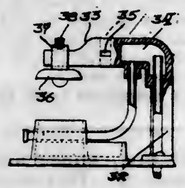
2. In a shiftable sheet binder, in combination, a pair of filing prongs, a sheet having a slotted aperture, the spacing of the prongs and the length and location of the said aperture being such that the sheet is adapted to be held in one position by the engagement of both of the prongs with the said aperture and to assume a different position when only one of the prongs is engaged with the said aperture, and means for positively holding the sheet in the last mentioned position.

3. In a shiftable sheet binder, in combination, three filing prongs and a sheet having two slotted filing apertures, the spacing of the said prongs and the length and spacing of the said filing apertures being such that the sheet is adapted to be held in one position by the engagement of two of the prongs with one of the apertures and the engagement of the remaining prong with the other aperture and in a different position by the engagement of the last-mentioned prong and one of the said other two

prongs with the last mentioned aperture of the sheet and the engagement of the remaining one of the said other two prongs with the other aperture of the sheet.

4. In a shiftable sheet binder, in combination, three pairs of coöperating filing prongs arranged in parallel planes, the prongs of each of the two outer pairs mating to form a closed filing arch, and a sheet having two slotted filing apertures, the spacing of the said pairs of prongs and the length and spacing of the said filing apertures being such that the sheet is adapted to be held in one position by the engagement of one of the said filing arches and one of the prongs of the intermediate pair with one of the apertures of the sheet and the engagement of the other filing arch with the other aperture of the sheet and in a different position by the engagement of the last mentioned filing arch and one of the prongs of the intermediate pair with the last mentioned aperture of the sheet and the engagement of the other filing arch with the other aperture of the sheet.

1,140,361. KEROSENE-GAS BURNER. WILBUR F. DAY, St. Paul, Minn. Filed Nov. 23, 1914. Serial No. 873,429. (Cl. 158—64.)



1. A device of the class described comprising a base, a standard mounted upon said base having a pair of outwardly spreading retort chambers, an air mixing chamber positioned to one side from immediately below the outer end of each of said retort chamber, a fuel supply duct leading upwardly into each of said retort chambers and emptying thereinto and a downwardly extending gas conducting tube opening into and leading from the outer end of each of said retort chambers and extending outwardly across and formed with an outlet into the coöperating mixing chamber.

2. A device of the class described comprising a base, a standard mounted upon said base, an arm carried by and extending to one side of said standard and having at one end a deflector, said arm being partially hollowed out to form a retort chamber provided with a well, a mixing chamber supported by said base below said deflector, a fuel supply duct to deliver into the well of said retort chamber, and a gas conducting tube leading from said retort chamber into said mixing chamber, aa and for the purposes specified.

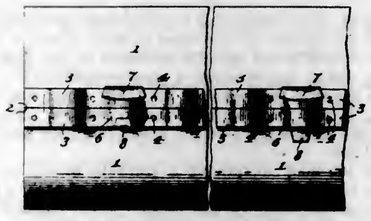
3. A device of the class described comprising a base, a standard mounted upon said base, an arm carried by and extending to one side of said standard, said arm having a retort chamber therein formed with a well, a mixing chamber supported by said base at a point remote from said retort chamber, a fuel supply duct to deliver into said retort chamber, a gas conducting tube leading from said retort chamber into said mixing chamber, and means disposed above said mixing chamber and associated with said arm for transmitting heat from said mixing to said retort chamber.

4. A device of the class described comprising a base, a standard mounted upon said base, an arm carried by and extending to one side of said standard, said arm having a retort chamber formed therein adjacent said standard and projecting outwardly therefrom to form a supporting member, a mixing chamber mounted upon said base at a point remote from said retort chamber, a fuel supply duct to deliver into said retort chamber, a gas conducting tube leading from said retort chamber into said mixing chamber, and means disposed above said mixing chamber and adjustably associated with said supporting member for transmitting heat from said mixing to said retort chamber.

5. A device of the class described comprising a base, a standard mounted upon said base, an arm carried by and extending to one side of said standard, said arm having a retort chamber formed therein adjacent said standard and projecting outwardly therefrom to form a supporting member, a mixing chamber mounted upon said base at a point remote from said retort chamber, a fuel supply duct to deliver into said retort chamber, a gas conducting tube leading from said retort chamber into said mixing chamber, and a deflector adjustably carried by said supporting member above said mixing chamber for transmitting heat from said mixing to said retort chamber.

[Claims 6 to 8 not printed in the Gazette.]

1,140,362. SHEET-METAL CULVERT. JOHN H. DEAN, Birmingham, Ala. Filed Sept. 22, 1913. Serial No. 791,078. (Cl. 61—9.)



1. A smooth or flat surfaced culvert having longitudinal edges adapted to be connected together, and a metal strip or bar of sinuous formation spot-welded to the culvert along the longitudinal edges thereof, whereby key-receiving sockets or passageways are formed.

2. A smooth or flat surfaced culvert having longitudinal abutting edges, a metal strip or bar of sinuous formation spot-welded to the culvert along the longitudinal edges thereof and forming with the culvert key-receiving sockets or passage ways arranged at intervals throughout the length of said culvert, and keys or clips adapted to engage within said passageways for holding and retaining the longitudinal edges of the culvert in connected relation.

3. A smooth or flat surfaced metal culvert having longitudinal abutting edges, a metal strip or bar of sinuous formation spot-welded to the culvert along each longitudinal edge thereof, the strips along longitudinally adjacent edges of the culvert being also arranged to lie in abutting relation, whereby coöperating key-receiving sockets or passageways are formed at the abutting edges of said culvert, and keys or clips adapted to engage within said coöperating passageways for connecting adjacent strips together for completing the culvert joint.

4. A sheet metal culvert comprising complementary sections having smooth or flat surfaces at or near their longitudinal edges, a metal strip or bar secured to each of said sections, said strip being so formed as to leave a space at intervals between the culvert and the strip, and means for fastening the strips or bars of adjacent sections together.

5. A sheet metal culvert comprising complementary sections having smooth or flat surfaces at or near their longitudinal edges, a corrugated metal strip or bar secured to each of said sections whereby key-receiving sockets or passageways are formed along the longitudinal edges of said sections, and means engaging within said passageways for fastening the strips or bars of adjacent sections together.

[Claims 6 to 8 not printed in the Gazette.]

1,140,363. IMPRESSION-HOLDER FOR DENTAL WORK. ARTHUR L. DEARTH, Boston, Mass. Filed Dec. 30, 1914. Serial No. 879,790. (Cl. 32—6.)

1. An impression holder for dental work having, in combination, a pair of oppositely disposed plates and a plurality of minute flexible means connecting said plates together.

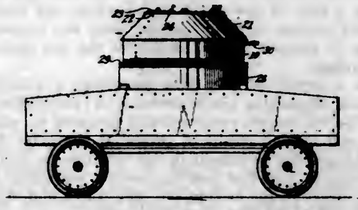
2. An impression holder for dental work having, in combination, a pair of oppositely disposed plates and a thread connecting said plates together.



3. An impression holder for dental work having, in combination, a pair of oppositely disposed plates and a thread connecting said plates together, that portion of said thread connecting said plates together being capable of adjustment whereby the distance of said plates apart may be varied.

4. An impression holder for dental work having, in combination, a pair of oppositely disposed plates and a thread connecting said plates together, said thread having a stop at one end thereof and passing forwardly and backwardly through said plates from one side to the other thereof to form a plurality of loops, the opposite end of said thread being fastened to said thread between the opposite ends thereof whereby the distance of said plates apart may be varied.

1,140,364. REVOLVING TURRET FOR MOTOR-CARS. JERAY W. DE COU, Kenosha, Wis., assignor to The Thomas B. Jeffery Company, Kenosha, Wis., a Corporation of Wisconsin. Filed Feb. 11, 1915. Serial No. 7,646. (Cl. 89—40.)



1. A revolving turret for motor vehicles comprising, a base, supports secured to said base, a vertical axle, a two part turrent one part of which is secured to said supports and the other part revolubly mounted on said axle and a seat revolubly mounted on said axle.

2. A revolving turret for motor vehicles comprising, a base, supports secured thereto and extending outwardly and upwardly from said base, a vertical axle, a two part turret one part of which is secured to said supports and the other part revolubly mounted on said axle and a seat revolubly mounted on said axle and arranged to travel above the outwardly extended portions of said supports.

3. A revolving turret for motor vehicles comprising, a base, supports secured thereto and extending outwardly and upwardly from said base, a vertical axle secured to said base, a two part turret, one part of which is secured to said supports and the other part revolubly mounted on said axle, roller bearings secured to one part of said turret and adapted to bear against the other part and a seat revolubly mounted on said axle.

4. A revolving turret for motor vehicles comprising, a base, supports secured to said base, a two part turret one part of which is fixed to said supports, a vertical axle mounted upon said base, the other part of said turret being revolubly mounted on said axle, a seat revolubly mounted on said axle and a shell surrounding said base and having its upper edge projecting above the lower edge of the fixed portion of the turret.

5. A revolving turret for motor vehicles comprising, a base, supports secured to said base, a two part turret one part of which is fixed to said supports, a vertical axle mounted upon said base, the other part of said turret being revolubly mounted on said axle, a seat revolubly mounted on said axle and a shell surrounding said base and having its upper edge projecting above the lower edge of the fixed portion of said turret but spaced therefrom and a flange secured to said turret and overlying the upper edge of said shell.

[Claim 6 not printed in the Gazette.]

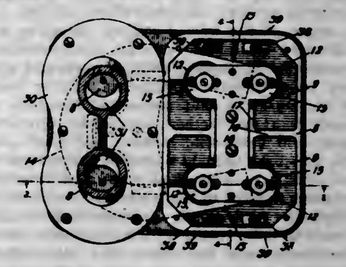
1,140,365. ELECTRIC WHIP. HENRY CARLTON DIXON, Oil City, La. Filed July 27, 1914. Serial No. 853,378. (Cl. 175—311.)



1. The combination with a whip, of a pair of conducting rings disposed on the whip near one end thereof, said rings being insulated from each other, a battery, an induction coil, the terminals of the secondary of the induction coil being connected to said rings, and means carried by the handle of the whip for making and breaking the current through the primary of the induction coil.

2. The combination with a whip, of a pair of conducting rings disposed on the whip near one end thereof, said rings being insulated from each other, a battery, an induction coil, the terminals of the secondary of the indduction coil being connected to said rings, means carried by the handle of the whip for making and breaking the current through the primary of the induction coil, said last named means comprising a stationary contact, and a spring contact arranged to engage said stationary contact for completing the circuit through the primary of the coil.

1,140,366. TELEPHONIC APPARATUS. HENRY CLIFFORD EGERTON, Passaic, N. J., assignor to Western Electric Company, New York, N. Y., a Corporation of Illinois. Filed Jan. 22, 1914. Serial No. 813,662. (Cl. 179—105.)



1. Two independently operable telephone receivers having a common differential magnetic circuit.

2. Two independently operable telephone receivers having in common a permanent magnet and a magnetic return path.

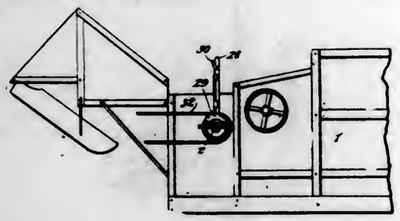
3. Two independently operable telephonic receivers having in common a permanent magnet, a magnetic return path and a sound deflector.

4. In a telephonic device, a pair of diaphragms, independently operable electromagnets controlling the operation of said diaphragms, and means forming a differential magnetic circuit for said electromagnets.

5. In a telephonic device, a pair of diaphragms, independently operable electromagnets controlling the operation of said diaphragms, and a magnetic circuit common to said independently operable electromagnets.

[Claims 6 to 9 not printed in the Gazette.]

1,140,367. CLUTCH. JOHAN DYKE ENS, Hague, Saskatchawan, Canada. Filed June 27, 1912. Serial No. 706,305. (Cl. 192—7.)

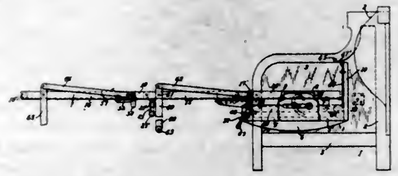


1. A device of the type described, including a shaft, complementary cone-ended members, one fixed upon said shaft, and the other slidable thereon, means for moving said slidable member with respect to said shaft, a perimetric member applied to, and independently rotatable of said cone-ended members, end-disks rotatably mounted upon said shaft and adjunctive of said cone-ended members, end-bearings receiving said shaft, and bearing-balls interposed between said end-disks and said cone-ended members, said bearing-balls allowing of the rotation of the latter, and said perimetric member when said end-disks are frictionally engaged with said end-bearings, as under certain conditions.

2. A device of the type described, including a shaft, complementary cone-ended members, one slidably mounted upon said shaft, and the other keyed thereon, means for shifting said slidable member with respect to said shaft, a perimetric member encompassing said cone-ended members, bearing-balls intermediate of said cone-ended members, and said perimetric member, end-bearings for said shaft, end-disks applied to said cone-ended members and receiving said shaft, one of said disks acting on a bearing and the other on the actuating means, and bearing-balls housed intermediate said end-disks and said cone-ended members, said perimetric member and said cone-ended members being adapted for independent rotation.

3. A device of the type described, including a rotary shaft mounted upon end-bearings, complemental cone-ended members, one mounted slidably upon said shaft, and the other keyed thereto, a perimetric member conforming to, and encompassing said cone-ended members, and independently rotatable thereon, bearing-ball connections intermediate said perimetric member and said cone-ended members, end-disks each having a peripheral groove, and adjuctive of said complemental cone-ended members, end-plate members applied to the latter and receiving at their inner edges the peripherally grooved edges of said end-disks, bearing-balls interposed intermediate said cone-ended members, said end plates and said end-disks, a shifting member mounted upon said shaft, and in contact with an end-disk, and means for the actuation and retention of said shifting member in place.

1,140,368. SOFA-BED. WILLIAM M. FISCHOFF, Chicago, Ill., assignor to Pullman Couch Company, Chicago, Ill., a Corporation of Illinois. Filed June 5, 1914. Serial No. 843,181. (Cl. 5—50.)



1. In a device of the class described, a stationary member and a rotary seat frame supported thereby, in combination with a foldable bed bottom carried reciprocatably by said seat frame.

2. In a device of the class described, a stationary member and a rotary seat frame supported thereby, in combination with a foldable bed bottom carried reciprocatably by said seat frame, and means for locking said bed bottom in its retracted position.

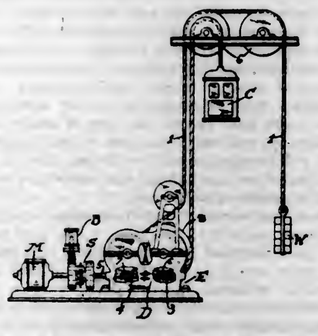
3. In a device of the class described, a stationary member and a rotary seat frame supported thereby, in combination with an extensible bed bottom carried reciprocatably by said seat frame.

4. In a device of the class described, a stationary member and a rotary seat frame supported thereby, in combination with an extensible bed bottom movable forward and backward on said frame to its bed and sofa positions respectively, and a short carriage interposed between said bed bottom and frame and movable with said bed bottom through a part of the travel of the latter, and vertically journaled rollers coacting between said bed bottom and carriage to prevent lateral binding of the bed bottom on said carriage.

5. In a device of the class described, a rotary seat frame and supporting means therefor, in combination with a foldable bed bottom reciprocatably mounted on said seat frame, and locking means of reversible character formed and arranged for movement in one direction to secure the bed bottom in retracted position and for movement in the reverse direction for locking the seat frame non-rotatably with respect to its said supporting means.

[Claims 6 to 29 not printed in the Gazette.]

1,140,369. GEARING. ERNEST L. GALE, Sr., Yonkers, N. Y., assignor to Otis Elevator Company, Jersey City, N. J., a Corporation of New Jersey. Filed Oct. 31, 1913. Serial No. 798,407. (Cl. 74—36.)



1. In a gearing, the combination with intermeshing gears, a shaft, means for retarding the shaft, and a yielding driving connection between the shaft and one of the gears for permitting a partial rotation of the latter named gear, upon the application of the retarding means.

2. A shaft, intermeshing gears driven from the said shaft, means for retarding the shaft, and means co-acting with said shaft and one of the gears for effecting a further rotation of the last named gear upon the application of the retarding means.

3. In a gearing, the combination with a driving member, of a brake therefor, intermeshing gears rotated by the said driving member, and means operable intedpendently of the said driving member for applying a torque of a predetermined strength to one of the said gears, upon the application of the brake.

4. In a shock eliminator, the combination with a shaft, tandem gearing comprising oppositely pitched worms driven from the said shaft, means for retarding the shaft, and means co-acting with the said shaft and the worms for effecting a further rotation of the worms upon the application of the retarding means.

5. In a shock eliminator, the combination with tandem gearing comprising oppositely pitched worms, a shaft adapted to rotate the worms, a connection between the shaft and the worms for permitting a partial rotation of the worms independently of the rotation of the said shaft, and means for effecting the said partial rotation of the worms.

[Claims 6 to 21 not printed in the Gazette.]

1,140,370. VEHICLE-TIRE. JOHN R. GAMMETER, Akron, Ohio, assignor, by mesne assignments, to The B. F. Goodrich Company, a Corporation of New York. Filed Nov. 3, 1910. Serial No. 590,414. (Cl. 152—7.)



1. As an article of manufacture, a detachable vehicle tire comprising a ring of resilient material forming the tire tread, metallic rings secured to the sides of said resilient ring, and rods for securing said metallic rings to said resilient ring, said rods passing transversely through the said resilient ring and fitting loosely within enlarged openings in said metallic rings, said rods being capable of movement in said enlarged openings in directions radial to said rings, the ends of said rods being provided with enlarged heads of such diameter as to be incapable of passage through said openings in said metallic rings, said metallic rings being movable toward each other along said rods, whereby said resilient ring may be compressed between said metallic rings.

2. As an article of manufacture, a detachable vehicle tire comprising a resilient ring forming the tire tread and provided with annular laterally projecting beads, metallic rings secured to the sides thereof provided with channels to receive said beads and having transverse slots passing therethrough, said slots being elongated in radial directions, and rods passing through said slots and embedded in said resilient ring, said rods being capable of movement in said elongated slots in directions radial to said rings, sad rods havng enlarged heads of such diameter as to be incapable of passage through said slots, said metallic rings being movable toward each other along said rods, whereby said resilient ring may be compressed between said metallic rings.

3. The combination with a vehicle wheel of a rim having at one edge thereof an outwardly projecting flange and at the other edge thereof a depressed channel, a tire mounted on said rim comprising a resilient tread member having metallic rings secured to the sides thereof, one of said rings engaging and being retained against lateral movement by said outwardly projecting flange, a locking ring adapted to be inserted in said channel when the second of said metallic rings is moved toward the ring in engagement with said flange and said resilient member compressed laterally, said locking ring limiting the lateral movement of said second ring when the same is urged laterally by the resiliency of said resilient member and being retained in said channel by said second ring when so forced laterally, the width of said tire between the outer wall of one of said metallic rings and the outer wall of the other of said metallic rings, before said tire is mounted upon the rim, being greater than the distance between the inner wall of said outwardly projecting flange and the wall of said locking ring, which engages the metallic ring of the tire, whereby when said tire is mounted in finally operative position upon the rim, the resilient tread member will be held in partially compressed condition.

4. The combination with a vehicle wheel of a rim having at one edge thereof an outwardly projecting flange and at the other edge thereof a depressed channel, a tire mounted on said rim comprising a resilient tread member having metallic rings secured to the sides thereof, rods passing transversely through said resilient member and through enlarged openings in said metallic rings, said rods being movable in said openings in directions radial to said rings, said rods having enlarged heads of such diameter as to be incapable of passage through said openings, said metallic rings being movable toward each other along said rods, whereby said resilient member may be compressed between said metallic rings, one of said rings when said tire is mounted upon said rim engaging and being retained against lateral movement by said outwardly projecting flange of said rim, and a locking ring adapted to be inserted in said channel when the second of said metallic rings is moved toward the ring in engagement with said flange and said resilient member compressed laterally, said locking ring limiting the lateral movement of said second ring when the same is urged laterally by the resiliency of said resilient member and being retained in said channel by said second ring when so forced laterally, the peripheries of said rim flange and said locking ring lying within or below the line of the heads of said rods, the width of said tire from the outer face of one of said metallic rings to the outer face of the other of said metallic rings before said tire is mounted upon said rim, and the lengths of said rods between the heads thereof, being greater than the distance from the inner side of said outwardly projecting rim flange to the portion of said locking ring which engages one of the metallic rings of said tire.

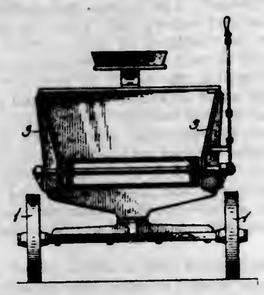
5. The combination with a vehicle wheel of a rim having at one edge thereof an outwardly projecting flange, a tire mounted on said rim comprising a resilient tread member resting upon said rim and having metallic rings secured to the sides thereof, one of said rings engaging and being retained against lateral movement by said outwardly projecting flange, said rings being provided with enlarged transverse openings therethrough, rods passing through said openings and through said resilient member and securing said rings permanently to said resilient member, said rods being capable of movement in said openings in directions radial to said rim, and a flange or locking ring detachably secured to said rim and engaging the second of said rings, the periphery of at least one of said flanges lying within or below the line of the ends of said rods.

[Claims 6 to 9 not printed in the Gazette.]

1,140,371. MANURE-SPREADER. DUDLEY GARST, Waterloo, Iowa. Filed Sept. 8, 1913. Serial No. 788,530. (Cl. 111—40.)

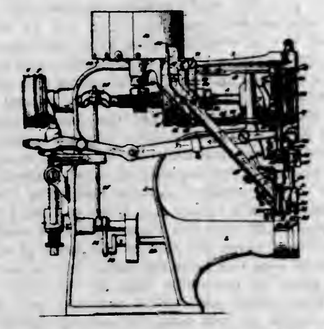
A manure spreader comprising traction bearing wheels, a box supported thereon and provided with longitudinally parallel sides that are slightly and regularly flared from top to bottom, an endless conveyer that forms the bottom of the box and is so disposed in relation to the sides that subetantially the entire weight of the load rests thereon, the sides having frictional engagement with the load

throughout the length of the box, distributing means at the discharge end of the box, and mechanism driven by



the traction bearing wheels and adapted to operate the conveyer and distributing means.

1,140,372. BUTTON-SEWING MACHINE. GEORGE S. GATCHELL, Roselle Park, N. J., assignor to The Singer Manufacturing Company, a Corporation of New Jersey. Filed June 29, 1912. Serial No. 706,566. (Cl. 112—32.)



1. The combination with button-fastening means including a reciprocating needle, of a button-feeding device comprising a guideway inclined to the needle-path and leading toward the needle and into fastening position, and a button-propelling member movable in a path substantially corresponding in inclination with said guideway and adapted to propel buttons along said guideway to said fastening means and to sustain said buttons during the fastening thereof.

2. The combination with button-fastening means, including a reciprocating needle, of a button feeding device comprising a guideway inclined to the needle-path and leading toward the needle, a button propelling member, a support for said member, actuating means for said member, and means independent of said guideway and actuating means and adapted to act upon said support to guide the button propelling member in a path corresponding in inclination with said guideway.

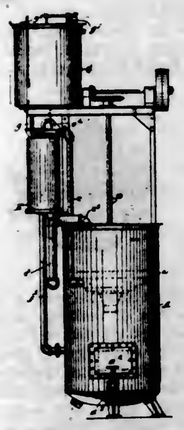
3. The combination with button-fastening means including a reciprocating fastening member, of a button-feeding device comprising a guideway inclined to the path of movement of said fastening member and leading toward the latter, a button-propelling member adapted to propel the buttons along said guideway to said fastening means, means for imparting to said button-propelling member feeding movements from a retracted position toward said button-fastening means, and means independent thereof for imparting simultaneously to said propelling member movements substantially in the direction of reciprocation of said fastening member for production of a resultant movement corresponding with the inclination of said guideway.

4. The combination with a button-fastening means including a button-fastening member, of a button-feeding device comprising a guideway inclined to the path of movement of said fastening member and leading toward the latter, a rock-shaft substantially parallel with the path of reciprocation of said fastening member, a button-pusher carried by said shaft, means for oscillating the rock-shaft, and means for imparting endwise movements to the rock-shaft.

5. The combination with button-fastening means including a button-fastening member, of a button-feeding device comprising a guideway inclined to the path of movement of said fastening member and leading toward the latter, a rock-shaft substantially parallel with the path of reciprocation of said fastening member, a button-pusher carried by said shaft, a lateral stud carried by said rock-shaft, means for oscillating the rock-shaft, and a stationary cam engaging said stud and adapted to impart to the rock-shaft endwise movements simultaneously with its oscillatory movements.

[Claims 6 to 13 not printed in the Gazette.]

1,140,373. OXYGEN-GENERATOR. THOMAS GRISWOLD, Jr., and EDWIN O. BARSTOW, Midland, Mich., assignors, by mesne assignments, to The Cleveland Trust Company, trustee, Cleveland, Ohio, a Corporation of Ohio. Filed Aug. 18, 1910. Serial No. 577,818. (Cl. 23—10.)



1. A gas generator, comprising a generating chamber, a mixing chamber separate therefrom but connected therewith, a mixing device in said mixing chamber, a washing chamber, connections from the washing chamber to the mixing chamber and connections from the generating chamber to the washing chamber.

2. A gas generator, comprising a generating chamber, a mixing chamber separate therefrom but connected therewith, a mixing device in said mixing chamber, a washing chamber, connections from the washing chamber to the mixing chamber, said connections being sealed against the escape of gas therethrough, and connections from the generating chamber to the washing chamber.

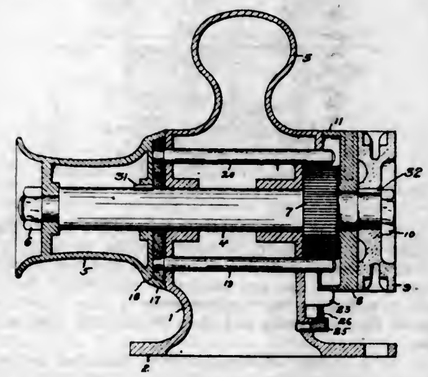
3. A gas generator, comprising a generating chamber, a mixing chamber separate therefrom but connected therewith, a washing chamber connected with said generating and mixing chambers, and means for heating said generating chamber.

4. A gas generator, comprising a generating chamber, a mixing chamber separate therefrom but connected therewith, a washing chamber connected with said generating and mixing chambers, and a steam pipe connected to said generating chamber and to a suitable source of supply.

5. A gas generator, comprising a generating chamber, a mixing chamber connected therewith, a washing chamber, a stand-pipe in said washing chamber and opening into the mixing chamber, said pipe being sealed against the escape of gas therethrough, and a pipe extending from the generating chamber into the washing chamber and opening into the latter chamber near the bottom thereof.

[Claims 6 to 22 not printed in the Gazette.]

1,140,374. WINDLASS BRAKE MECHANISM. HENRY HANSON, Middletown, Conn. Filed Jan. 26, 1914. Serial No. 814,356. (Cl. 74—46.)



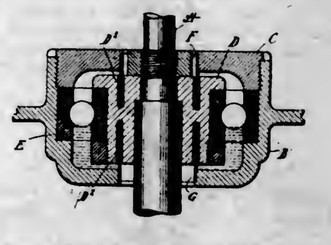
1. In a windlass, the combination with a body member; of a shaft rotatably mounted therein; a drum fixed to said shaft and held against endwise movement thereon; a ratchet disk connected with said shaft; a heaving ring rotatably mounted upon said shaft and held against endwise movement; a pawl connected with said heaving ring and having engagement with the teeth in said ratchet disk; and brake mechanism for holding the said drum against rotation, having a part that engages the inner end of said drum and actuated from the said heaving ring in a line parallel with said shaft.

2. In a windlass, the combination with a body member; of a shaft rotatably mounted therein; a drum fixed to said shaft and held against endwise movement; a ratchet disk connected with said shaft; a heaving ring rotatably mounted upon said shaft and held against endwise movement; a pawl connected therewith and engaging the teeth of said ratchet disk; brake means having connection at one end with said drum and actuated by said heaving ring in a line parallel with said shaft; and means for holding said pawl out of engagement with said ratchet disk while said brake mechanism is being operated.

3. In a windlass, the combination with a body member; of a shaft rotatably mounted therein; a drum fixed to said shaft and held against endwise movement in relation to said body member; a brake disk at the inner end of said drum; one or more members connected with said brake disk and projecting through the opposite side of said body member; a ratchet disk fixed to said shaft; a heaving ring rotatably mounted upon said shaft, having cams thereon corresponding in number with said members; a pawl connected with said heaving ring and engaging the teeth in said ratchet disk and means for moving said pawl out of engagement with the teeth in said ratchet disk, the relative location of the mounting of said pawl and the said cams being such that the said pawl is out of engagement with said ratchet disk while said cams are in engagement with said members.

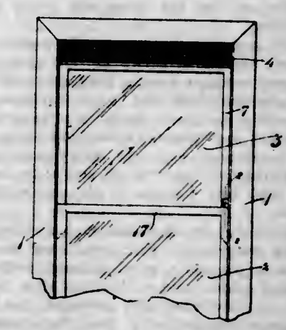
1,140,375. LUBRICATING DEVICE FOR BEARINGS. HENRY HESS, Wawa, Pa., assignor to The Hess-Bright Manufacturing Company, Philadelphia, Pa., a Corporation of Delaware. Filed Feb. 27, 1909. Serial No. 480,455. (Cl. 64—56.)

1. In a device of the type described, the combination of a surrounding casing, a rotatable member within the same, the outer side of said member and the inner side of said casing being spaced radially and axially from each other to form an annular oil space between them continuous from one side of the casing to the other, and through which the oil is adapted to freely flow in the reverse positions of the casing and member, an antifriction bearing comprising rolling members mounted in said continuous oil space midway or substantially so between its ends, cylindrical oil retaining projections on the casing extending inwardly from opposite ends on the same and fitting closely within circular recesses in the opposite ends of the rotatable member, the inner ends of said projections terminating respectively at such points relatively to the said rolling members and the normal oil level, that the latter will be retained at such height in either side of the oil chamber as to contact with said rolling members and lubricate them.



2. In a lubricating device, the combination of two relatively rotatable elements, one of said elements extending through a closed lubricating space in the other, and one of the elements being provided with cylindrical projections on both ends thereof which enter correspondingly shaped recesses in the other element to prevent the escape of the lubricant from the lubricating space, the inner adjacent ends of said cylindrical projections overlapping each other.

1,140,376. WINDOW-SCREEN ATTACHMENT. HENRY HIGGIN, Newport, Ky., assignor to The Higgin Manufacturing Company, Newport, Ky., a Corporation of West Virginia. Filed Sept. 12, 1913. Serial No. 789,404. (Cl. 156—14.)

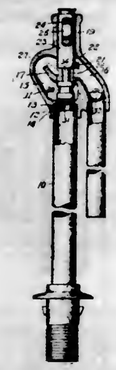


1. In a device of the character described, the combination of a sliding window sash and casing therefor, with a narrow screen secured across the upper end of the window casing, of a stop on the window casing and a latch on the sash in opposed relation to each other, said latch and stop located in such a position that when the sash is fully raised they are separated from each other the distance of the width of the screen.

2. In a device of the character described, the combination of a sliding window sash and casing therefor, with a narrow screen secured across the upper end of the window casing, of a stop on the window casing and a latch on the sash in opposed relation to each other, said latch and stop located in such a position that when the sash is fully raised they are separated from each other the distance of the width of the screen, the latch and atop being

beveled in opposite directions whereby when the latch is depressed and the sash has been lowered below the width of the screen the sash may be returned to its normal position without interference between the latch and the stop.

1,140,377. BALL-COCK. JOHN H. JOHNSON, Chicago, Ill., assignor to Federal-Huber Company, Chicago, Ill., a Corporation of Illinois. Filed Apr. 12, 1913. Serial No. 760,627. (Cl. 137—104.)



1. In a ball cock, a casing having a cylindrical bore at its upper end, transverse baffles in said casing forming a water channel having a reverse bend, said baffles having openings in alinement with said bore, a valve at the lower end of said casing, said valve having a valve stem adapted to be introduced and removed from said casing through said alined openings, the portion of said valve stem positioned in the water channel when the valve is open being recessed, said recessed portion terminating in edges at the diametrically opposite sides of the stem which when in position for operation will present an edge to the direction of flow so that the water will freely pass with little impediment.

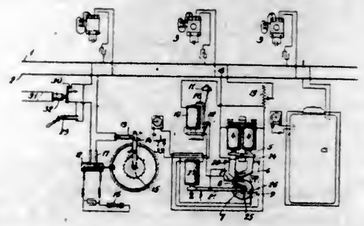
2. In a ball cock, a casing having a cylindrical bore at its upper end, transverse baffles in said casing forming a water channel having a reverse bend, said baffles having openings in alinement with said bore, a valve at the lower end of said casing, said valve having a valve stem adapted to be introduced and removed from said casing through said alined openings, one of said baffles being positioned below the cylindrical bore which serves to deflect the water from said bore thereby to dispense with packing at such place.

3. In apparatus of the class described, a casing, a valve in said casing comprising a cylindrical stem having a cut away portion to provide a water passage, baffles in said casing through which said cylindrical stem is slidably mounted, all so constructed and arranged that the valve may be removed longitudinally from the casing as one piece.

4. In apparatus of the class described, a casing having an inlet and an outlet, a goose-neck passage between the inlet and the outlet, an extension on the casing in line with the inlet, a cylindrical valve stem slidably mounted in said extension and passing through said goose-neck passage, said valve stem having cut away portions to cooperate with said goose-neck passage, all for the purpose described.

5. In apparatus of the class described, a casing having an inlet and an outlet, and reverse bend therein, an extension in said casing in line with the inlet, a cylindrical aperture communicating from said inlet to the end of said extension, a cylindrical valve stem slidably mounted in said aperture and having a cut away portion forming a water passage, substantially as described.

1,140,378. SELECTIVE SIGNALING SYSTEM. EDWARD E. KLEINSCHMIDT, New York, N. Y., assignor, by mesne assignments, to Hall Switch & Signal Company, a Corporation of Maine. Original application filed Feb. 25, 1910, Serial No. 545,808. Divided and this application filed Apr. 7, 1913. Serial No. 759,482. (Cl. 177—342.)



1. In a system of the character described, a despatcher's station and a plurality of local stations, including signaling devices, a main line uniting said stations, selectors bridged on said line and adapted to connect all the signals to said main line simultaneously, a time circuit and means for associating said time circuit with said main line.

2. In a system of the character described, a main circuit, a main station and a plurality of substations connected by said circuit, a signaling circuit bridged onto the main line at each substation, a circuit closer for closing each signaling circuit, a step-by-step mechanism for operating the circuit closer, a time signal circuit and means controlled by the step-by-step mechanisms for connecting all the signaling devices to the main circuit simultaneously and means at the main station for associating the time circuit with said main circuit.

3. In a system of the character described, a central and a plurality of substations, a main circuit uniting said stations, a signaling circuit at each substation bridged onto the main circuit, a time circuit, a selector circuit, a circuit closed for each said signaling circuit, magnets for operating said circuit closers whereby said signals are simultaneously connected to the main circuit for single stroke operation in response to impulses on said time circuit.

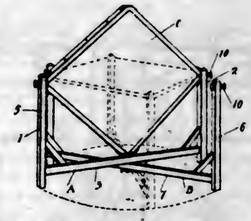
4. In a system of the character described, a main circuit, a signaling circuit bridged onto the main circuit, a circuit closer for closing the signaling circuit, a step-by-step mechanism for operating the circuit closer, a time signal circuit, means for associating the time signal circuit with the main circuit, and means controlled by the step-by-step mechanisms for connecting all the signals to the main line for simultaneous single stroke operation in response to impulses on said time circuit.

5. In a system for receiving time signals, a despatcher's station and a plurality of local stations, a main line circuit connecting said stations, circuits at the local stations bridged on the line circuit and including a signal, and means at the despatcher's station for preparing the circuits at the local stations to receive time signals and for associating the standard time circuit with the line circuit.

[Claims 6 to 12 not printed in the Gazette.]

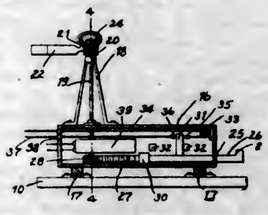
1,140,379. TABLE. ULRICH J. KLIX, Utica, N. Y., assignor to Joseph Wurz, Utica, N. Y. Filed Mar. 4, 1912. Serial No. 681,450. (Cl. 45—11.)

1. A dismountable table comprising two standards of equal size each having vertical portions and a horizontal connecting member between the vertical portions of each standard, the said horizontal members being disposed so that one rests upon the other when the table is assembled, means pivotally and detachably connecting the two horizontal members when the table is assembled, a table top pivotally supported between the tops of the two vertical portions of either one of said standards and means detachably securing the free corners of the table top to the vertical portions of the other standards.



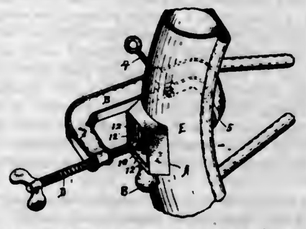
2. A table having oppositely disposed legs united by a transverse bar at the base and connected in pairs by a removable central pivotal connection through said bars, a table top pivotally and removably mounted at opposite corners between the tops of either pair of said oppositely disposed legs and means removably securing the top at its other opposite corners to the tops of the other oppositely disposed legs and adapted to pivotally connect said last corners to said legs.

1,140,380. AUTOMATIC TRAIN-STOP. HENRY F. W. KOHLBACH, New Bedford, Mass. Filed Apr. 25, 1913. Serial No. 763,598. (Cl. 246—59.)



In a device for actuating the angle cock of a railway brake system, a housing mounted adjacent the railway, a semaphore signal including a vertical shaft extending into the housing, a pinion carried by the lower end of the shaft within the housing, a horizontally slidable rack bar arranged in the housing and engaging said pinion, one end of said rack bar projecting beyond the housing, a vertical post carried by the rack bar, stops for engagement by the post to limit the movement of the rack bar, and cables connected to the post for moving the rack bar.

1,140,381. PORTABLE VULCANIZING DEVICE. LEWIS CHARLES LAWALL, Wayne township, Wayne county, Ind. Filed Apr. 28, 1914. Serial No. 835,027. (Cl. 18—18.)

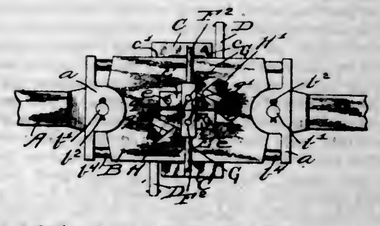


1. A vulcanizing device comprising a vulcanizing plate, heat transmitting rib-plates attached to the rear side thereof, a flange extending back from the margins of the vulcanizing face plate to form therewith an open receptacle terminating at the bottom in a narrow deep well having a constricted mouth in combination with a wide shallow overflow basin at the mouth of the well; a central pressure swiveling clamp and a foot plate as herein set forth and described.

2. A vulcanizing device having in combination a central pressure clamp with a swiveling joint comprising a clamp bar having a perforation and cross grooves, a swivel rod passing through the perforation, a spring, and a locking pin on said rod so constructed as to allow the swivel joint to unlock and allow the clamp to turn from the upright to the horizontal position and again lock and vice versa as herein set forth.

3. A vulcanizer having in combination a liquid fuel heated member, a swiveling clamp having a slot adjacent the foot and a detachable foot plate with wire snap spring fitting the said slot at the foot of the swivel clamp as shown and herein described.

1,140,382. COMBINED DRAW-HEAD AND AIR COUPLING. LOUIS LE COMPTE and JOSEPH LE COMPTE, Aurora, Ill., assignors to The Le Compte Company, Chicago, Ill., a Corporation of Illinois. Filed June 4, 1909. Serial No. 500,219. (Cl. 213—40.)



1. In a device of the class described the combination of a draw head, connecting mechanism adapted to connect said draw head in rigid relation to a similar draw head, a coupler shoe having a side opening and pivotally mounted upon and supported by and movable transversely on its axis with respect to the draw head independently of the draw head connecting mechanism, and adapted to be held in engagement with a similar coupler shoe of a mating draw head by said connecting mechanism, a boss mounted adjacent to the pivoted coupler shoe, said coupler shoe and boss being so constructed and arranged as to admit therebetween and engage the coupler shoe of a mating draw head, and a conduit in said side opening of the coupler shoe and movable with the latter into operative engagement with a similar conduit of a mating coupler shoe.

2. In a device of the class described the combination of a pair of draw heads, a coupler shoe pivotally supported by and movable on its axis transversely with respect to each draw head, respectively, each of said coupler shoes having a side opening adapted to communicate with a similar side opening of a mating coupler shoe, a hose pipe supported by and movable with each coupler shoe, respectively, transversely with respect to the draw heads, and each forming a passage communicating with one of said side openings, a boss mounted adjacent to the pivoted coupler shoe of each draw head, respectively, said coupler shoe and boss of each draw head being so constructed and arranged as to admit therebetween and engage the coupler shoe of a mating draw head to hold the coupler shoes in position to present the side openings thereof in position to communicate with each other, and connecting mechanism mounted on each draw head, respectively, and movable independently of the coupler shoes, for connecting said draw heads in rigid relation to each other.

3. In a device of the class described the combination of a pair of draw heads, a coupler shoe mounted on and movable transversely with respect to each draw head, a hose pipe supported by and movable with each coupler shoe transversely with respect to the draw heads and into and out of position to communicate with the hose pipe of an opposite coupler shoe, a boss mounted adjacent to the pivoted coupler shoe of each draw head, respectively, said coupler shoe and boss being so constructed and arranged as to admit therebetween and engage the coupler shoe of a mating draw head, valve mechanism on each coupler shoe, for opening and closing the passages formed by said

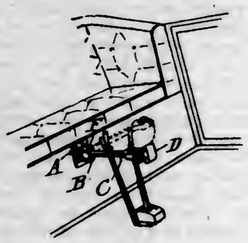
pipes, means for automatically operating the valve mechanism, and locking mechanism mounted on each draw head, respectively, and movable independently of the coupler shoes into and out of locking engagement with the opposite draw head and adapted to connect the draw heads in rigid relation to each other.

4. In a device of the class described, the combination of a pair of draw heads, a coupler shoe pivotally mounted on and movable transversely with respect to each draw head, a hose pipe supported by and movable with each coupler shoe transversely with respect to the draw heads, a passage in each coupler shoe adapted to communicate with the corresponding hose pipe in the same coupler shoe, a valve in each coupler shoe, a valve operating lever connected with each valve, a boss on each coupler shoe adapted to engage the valve operating lever of the opposite coupler shoe, and means for rigidly connecting the draw heads.

5. In a device of the class described, the combination of a pair of draw heads, a coupler shoe pivotally mounted on and movable transversely with respect to each draw head, a hose pipe supported by and movable with each coupler shoe transversely with respect to the draw heads, a valve on each coupler shoe for opening and closing the passage formed by the hose pipe, a lever on each valve, movable into and out of engagement with a valve-operating member, located on the opposite coupler shoe, a boss mounted adjacent to the pivoted coupler shoe of each draw head, respectively, said coupler shoe and boss being so constructed and arranged as to admit therebetween and engage the coupler shoe of a mating draw head, and connecting mechanism mounted on each draw head, respectively, and movable independently of the coupler shoes into and out of coupling position.

[Claim 6 not printed in the Gazette.]

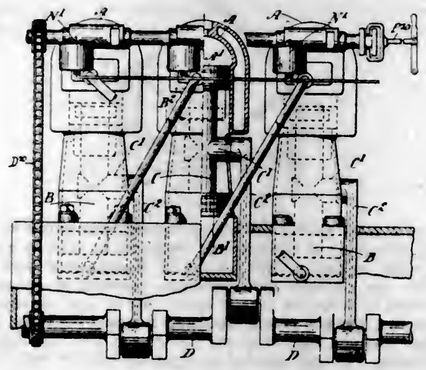
1,140,383. LOCKING DEVICE FOR AUTOMOBILES. ALBERT H. LEEKER, St. Bernard, Ohio. Filed Jan. 16, 1915. Serial No. 2,641. (Cl. 70—90.)



In a device for securing a lever, a base plate adapted to be secured to an element adjacent a lever by elements removable only from the surface thereof, a covering plate pivoted to said base plate at one edge thereof and of a size to cover said securing elements, an arm pivoted on said covering plate by a pivot whose axis intersects that of the axis of said first mentioned pivot, said arm having at a suitable location thereon remote from said second mentioned pivot, elements for interlocking engagement with a lever.

1,140,384. INTERNAL-COMBUSTION ENGINE. CHARLES SCOTT LINDSAY and DOUGLAS HEDLEY OLIVER, London, England. Filed Sept. 3, 1913. Serial No. 787,870. (Cl. 123—67.)

1. In a two-cycle internal combustion engine the combination of a plurality of explosive cylinders, an equal number of open-ended pump-cylinders, disposed one opposite each of said explosion cylinders with its closed end directed away therefrom, a piston common to each explosion cylinder and its corresponding pump-cylinder, a conduit connecting each pump-cylinder with an explosion cylinder, and a single distributing and controlling valve controlling the supply of air to and from said pump cylinders and the supply of scavenging air and mixture to said explosion cylinders substantially as set forth.



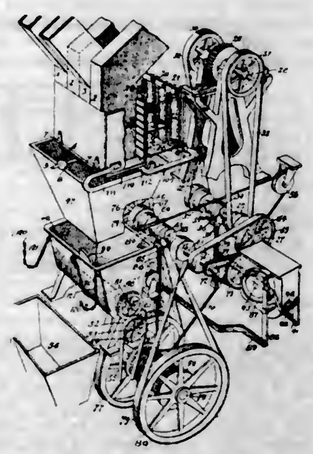
2. In a two-cycle internal combustion engine the combination of an open-ended explosion cylinder, an opposed open-ended pump-cylinder having its closed end directed away from said explosion cylinder, a piston having one end in said explosion cylinder and the other end in said pump cylinder, a crank-shaft, means operatively connecting said crank-shaft to said piston at a point between its ends, a bifurcated conduit connecting said pump cylinder to said explosion cylinder, a fuel-supply device in one branch of said conduit, and a single distributing and controlling valve controlling the supply of air to and from said pump cylinder and the supply of scavenging air and explosive mixture to said explosive cylinder, substantially as set forth.

3. In a two-cycle internal combustion engine the combination of, a plurality of single-ended explosion cylinders, an open-ended pump-cylinder disposed opposite each explosion cylinder and having its closed end directed away therefrom, a piston having one end in said explosion cylinder and the other end in said pump cylinder, a crank-shaft, means operatively connecting said crank shaft to said piston at a point between its ends, a bifurcated conduit connecting each pump cylinder to an explosion cylinder, a fuel supply device in one branch of said conduit, a single distributing and controlling valve controlling the supply of air to and from said pump cylinder and the supply of scavenging air and explosive mixture to said explosive cylinder, a cylinder port, and a non-return valve situated in the fuel supply device substantially as set forth.

4. In a two-cycle internal combustion engine the combination of, a plurality of exposion cylinders, an equal number of open-ended pump-cylinders disposed one opposite each of said explosion cylinders, with its closed end directed away therefrom, a piston common to each explosion cylinder and its corresponding pump-cylinder, a bifurcated conduit connecting each pump cylinder with an explosion cylinder and a single distributing and controlling valve, controlling ports allocated one to each compressor and communicating with atmosphere, further ports one of which communicates with each of the working cylinders and pairs of ports communicating with the branches of each of the said bifurcated conduits substantially as set forth.

5. In a two-cycle internal combustion engine the combination, of an open-ended explosion cylinder, an opposed open-ended pump cylinder having its closed end directed away from the explosion cylinder, a piston having one end in said explosion cylinder and the other end in said pump cylinder, a crank-shaft, means operatively connecting said crank-shaft to said piston at a point between its ends, a cylindrical valve chest adjacent said cylinder, a bifurcated conduit connected to the pump cylinder and opening into ports longitudinally disposed in said valve chest, a further port in said valve chest communicating with atmosphere, and situated in the same transverse plane of said valve chest as one of said ports of the bifurcated conduit from the compressor, a port spaced longitudinally from said other ports and communicating with said explosion cylinder, a fuel supply device in the branch to the other of said ports of said bifurcated conduit, a cylindrical valve in said chest, an internal passage in said valve having three outlets on the circumferential face thereof, said outlets being spaced longitudinally apart, and in the same transverse planes respectively as the cylinder port and the ports for the bifurcated conduit in said valve chest, a partial circumferential groove communicating with one of the outlets of said internal passage in said valve and in the same transverse plane as the port open to atmosphere in said valve chest, means operatively connecting said rotary valve to said crank shaft, controlling means operating to move said valve longitudinally, substantially as set forth.

1,140,385. MIXING-MACHINE. MALCOLM J. MACLENNAN, Buffalo, N. Y., assignor to Arthur V. Bogge, Toronto, Ontario, Canada. Filed May 26, 1913. Serial No. 769,830. (Cl. 99—2.)



1. A mixing machine comprising a spout, a door for closing the lower end of the spout, and a valve adapted to be moved across said spout at different places above said door.

2. A mixing machine comprising a spout provided with a vertical row of slots in its side, a door for closing the lower end of said spout, and a valve adapted to be moved through one or the other of said slots and across said spout.

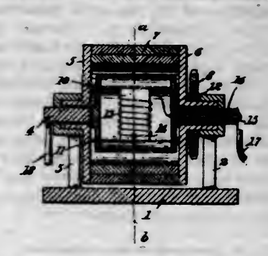
3. A mixing machine comprising a spout provided with a vertical row of slots in its side, a door for closing the lower end of said spout, a valve adapted to be moved through one or the other of said slots and across said spout, and means for closing those slots which are not occupied by said valve.

4. A mixing machine comprising a spout provided with a vertical row of slots in its side, a door for closing the lower end of said spout, a valve adapted to be moved through one or the other of said slots and across said spout, and means for closing those slots which are not occupied by said valve comprising lids pivoted on said spout and a turn button for holding each lid across its companion slot.

5. A mixing machine comprising a spout, a door for closing the lower end of the spout, a valve adapted to be moved across said spout at different places above said door, a reciprocating head, and means for adjustably securing said valve to said head.

[Claims 6 to 23 not printed in the Gazette.]

1,140,386. IGNITION-DYNAMO. CHARLES THOMAS MASON, Sumter, S. C., assignor to Sumter Electrical Company, a Corporation of South Carolina. Filed June 1, 1912. Serial No. 700,933. (Cl. 171—209.)



In an ignition dynamo, an armature, a shaft therefor, supports for said shaft, a field structure revoluble about said armature comprising a plurality of circular permanent magnets, end plates secured to said magnets and forming therewith a housing for said armature, supports said field structure concentric with said armature supports and clear from said shaft, driving means secured to said field structure whereby same may be revolved, means connected to said armature whereby its position may be manually varied, and a circuit connection through said shaft to said armature.

1,140,387. FLUE CLEANING AND STRAIGHTENING MACHINE. KARL MATHEUS, Chicago, Ill. Filed Jan. 12, 1914. Serial No. 811,771. (Cl. 29—81.)

1. A machine of the character described comprising a bed, a plate revolubly mounted thereupon, said plate being perforated to permit passage of the flue, a holder, cutting wheels secured in said holder, an arm connected with said back-plate from which said holder is supported, resilient means interposed intermediate said holder and the support therefor, a cam, and means intermediate said holder and said cam adapted to control the position of said holder.

2. The combination with a bed, of a plate revoluble thereon, provided with an eccentric slot, a second plate revoluble with said first plate and bodily adjustable relative thereto, a slidable bracket carried by said second plate, an arcuate holder carried by said bracket, wheels rotatably mounted in said holder, and means coöperable with said bracket and said eccentric slot whereby the relative bodily adjustment of said second plate will move said bracket and associated parts upon said second plate.

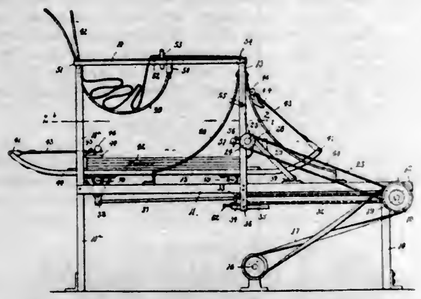
3. In a machine of the character described, the combination of a bed, a revoluble plate thereon provided with an eccentric slot, a second plate revoluble with said first plate and bodily adjustable thereto, guides secured to said second plate, a bracket plate slidable between said guides, a bracket extending therefrom, a holder carried by said bracket, wheels rotatably mounted in said holder, and means adapted to coöperate with said bracket plate and said eccentric slot whereby said second plate is adapted to produce reciprocation of the bracket plate between the guides aforesaid.

4. In a machine of the character described, the combination of a bed, a revoluble plate thereon provided with an eccentric slot, a second plate revoluble with said first plate and bodily adjustable thereto, guides secured to said second plate, a bracket plate slidable between said guides, a bracket extending therefrom, an arcuate holder, a one-way yielding connection between said bracket and said

holder, wheels rotatably mounted in said holder, and means adapted to coöperate with said bracket plate and said eccentric slot whereby the relative bodily adjustment of said second plate will reciprocate the guides aforesaid.

5. In a machine of the character described, the combination of a bed, a revoluble plate thereon provided with an eccentric slot, a second plate revoluble with said first plate and bodily adjustable thereto, guides secured to said second plate, a bracket plate slidable between said guides, a bracket extending therefrom, an arcuate holder, a one way yielding connection between said bracket and said holder, wheels rotatably mounted in said holder, and a stud secured to said bracket, piercing said second plate and extending into the said eccentric slot whereby the relative adjustment of said plates reciprocates said bracket plate between said guides.

1,140,388. FABRIC-FOLDING MACHINE. WILLIAM S. MILLS, Bridgeport, Conn. Filed Sept. 6, 1913. Serial No. 788,479. (Cl. 223—3.)



1. In a fabric folding machine of the class described, the combination with a table having centrally arranged uprights of a carriage mounted upon the table to travel between said uprights, means for feeding a continuous strip of fabric to and piling it upon the said carriage, means for reciprocating the carriage backward and forward upon the table while the said fabric is being fed thereto, inclined strips secured to the table and uprights, weights carried by the carriage for retaining the layers of fabric in position and adapted to engage the inclined strips in a manner to be raised from the fabric.

2. In a fabric folding machine of the class described, the combination with a table, of a carriage mounted thereon, means for feeding a continuous strip of fabric to and piling it upon the said carriage, means for reciprocating the carriage backward and forward upon the table while the said fabric is being fed thereto, weights carried by the carriage to engage the fabric and hold it upon the carriage, means fixed to the table to raise and lower the weights at each end of the movement of the carriage and adjustable guides through which the fabric is fed to the said carriage.

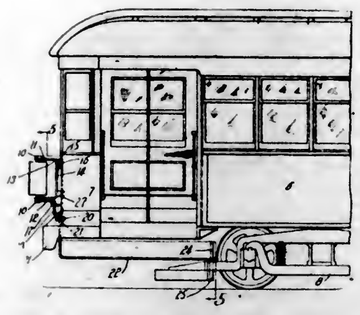
3. In a fabric folding machine, the combination with a suitable table, of a carriage mounted to travel thereon, means for reciprocating the carriage, frames pivoted upon each end of the carriage, weights pivotally hung upon the frames and adapted to be carried with the carriage and to normally rest upon the carriage or layers of fabric piled upon the carriage to hold the same in position, stationary means in the line of travel of the frames and weights to alternately engage and raise the frames and weights from the fabric to permit the same to be folded at each end of the movement of the carriage.

4. In a fabric folding machine, the combination with a table, a carriage mounted thereon, means for moving the carriage backward and forward, means for feeding a continuous strip of fabric to and piling it upon said carriage in layers one upon the other, eccentrically hung weights carried by the carriage and adapted to engage the top layers of fabric to stretch them out and hold them in position, and fixed means mounted on the table to be alternately engaged to raise and lower the weights from the pile of fabric as the carriage is fed backward and forward.

5. In a fabric folding machine of the class described, the combination with a table, of a carriage mounted thereon and adapted to receive the fabric, means for reciprocating said carriage upon the table, a frame pivoted to each end of the carriage and each frame having a free end also adapted to rest upon the carriage, guide rolls mounted upon the frames, weights hung from the said frames and adapted to normally rest upon the pile of fabric when contained upon the carriage, guide strips secured to the table and engaged by the rolls on the frames to alternately raise the weights from the fabric at proper intervals to allow the incoming fabric to be spread upon the pile.

[Claims 6 and 7 not printed in the Gazette.]

1,140,389. DIRIGIBLE HEADLIGHT. JOHN F. MORIARTY and LESTER L. KNEELAND, Lynn, Mass. Filed May 21, 1914. Serial No. 840,030. (Cl. 240—62.)



1. A device of the character described having, in combination, a U-shaped bracket constituting a holder and consisting of two horizontal arms connected by a vertical cross-bar, with a hook on said cross-bar, whereby said holder may be detachably fastened to the dashboard of a car, a vertical pivot on the arms of said holder, a lantern fast to said pivot and mechanism connected to said pivot and constructed and arranged to engage the front truck of said car whereby said lantern may be rocked by said truck to assume different positions.

2. A device of the character described having, in combination, a holder constructed and arranged to be detachably attached to the dashboard of a car, a vertical pivot on said holder, a lantern fast to said pivot, a horizontal arm fast to said pivot and extending rearwardly therefrom, a lever pivoted to the body portion of said car and arranged to swing about a horizontal axis, the upper end of said lever having a slot therein into which the free end of said horizontal arm is arranged to project, the lower end of said lever having a horizontally and rearwardly extending arm adapted to engage a projection on the forward truck of said car whereby said lantern may be rocked by said truck to assume different positions.

3. In combination, a car, a dashboard for said car, a socket piece fast to the front of said dashboard, a front truck pivotally connected to said car, a U-shaped bracket constituting a holder and consisting of two horizontal arms connected by a vertical cross-bar, a hook on said holder adapted to engage said socket piece and a plate on the lower end of said cross-bar arranged to bear against said dashboard, whereby said holder may be detachably fastened to said dashboard, a vertical pivot on the arms of said holder, a lantern fast to said pivot and mechanism connected to said lantern pivot and arranged to engage said front truck, whereby said lantern may be rocked by said truck to assume different positions.

1,140,390. EXTENSION-TRESTLE. FRED H. MOULTON, Lexington, Mass. Filed Apr. 29, 1913. Serial No. 764,319. (Cl. 228—19.)

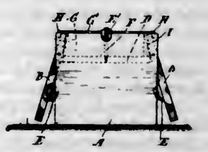


1. An extension trestle comprising two pairs of divergent legs hinged together, an extension member of substantially the width of the top of the leg pairs, an extension guide slidably receiving the side of said extension member, a pair of leaves one pivotally connected at one end to one leg and the other similarly connected to the opposite leg, said leaves having their inner ends overlapped, and a pivotal fastening through said overlapped ends.

2. An extension trestle comprising two pairs of divergent legs hinged together, an extension member of substantially the width of the top of the leg pairs, a pair of leaves one pivotally connected at one end to one leg and the other similarly connected to the opposite leg, said leaves having their inner ends overlapped, a pivoted fastening through said overlapped ends, and an extension guide carried by said leaves and slidably receiving the sides of said extension member, and having an inclined surface adapted for frictional binding engagement with a leaf.

3. In trestle construction, two pairs of divergent legs hinged together near their tops, an extension member of substantially the width of the top of the leg pairs, hinge leaves for said pairs of legs pivoted to said legs at their outer ends and overlapping and pivoted to each other at their inner ends, and guides carried by said levers and slidably receiving said extension, and each comprising a bearing wall having an inclined face adapted for binding engagement with one of the hinge leaves, lateral walls terminating in inturned ends for guiding said extension, and a stop effectively disposed to keep the hinge leaves in line.

1,140,391. DEVICE FOR MAKING DAMP-SAND BRICKS AND THE LIKE. ALBERT EDWARD NICKLIN, Goodmayes, England, assignor, by mesne assignments, to Monroe M. Schwarzschild, New York, N. Y. Filed Oct. 4, 1913. Serial No. 793,363. (Cl. 25—121.)



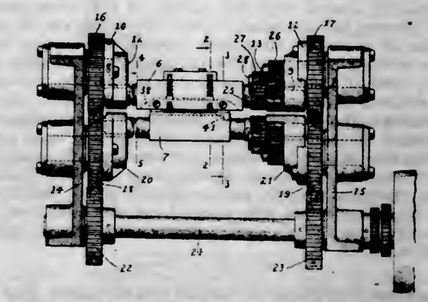
1. A mold box for forming bricks and the like, comprising a bottom, and laterally arranged side and end walls, extending above and below the bottom, one pair of said walls opposite to each other being pivoted between their longitudinal edges, and a locking device secured to said bottom, on the outer side thereof and between projecting portions of said pivoted walls, by a pivotal connection having its axis perpendicular to said bottom, and provided with portions for engaging the inner faces of the exterior projecting portions of said pivoted walls beyond their pivotal axes for rocking said walls on said axes into and holding said walls in operative position.

2. A mold box for forming bricks and the like, comprising a bottom, and laterally arranged side and end walls, extending above and below the bottom, one pair of said walls opposite to each other being pivoted between their longitudinal edges, and a locking device secured to said bottom, on the outer side thereof and between projecting portions of said pivoted walls, by a pivotal connection having its axis perpendicular to said bottom, and provided with portions at each end for engaging the inner and outer faces of the exterior projecting portions of said pivoted walls beyond the pivotal axes for rocking said walls on said axes into and holding them in operative position and to positively swing them on their pivots to discharge the molded form.

3. A mold box for forming bricks and the like, comprising a bottom, end walls and side walls having portions extending above and below said bottom, said end walls being rigidly secured to said bottom and said side walls being pivoted horizontally between their upper and lower edges, a locking bar pivoted on the outer face of the bottom, between the exterior projecting portions of the pivoted side walls, by a vertical pivot and having end portions to engage the inner faces of said pivoted walls and hold them in closed position, said locking bar being provided at its ends with hook portions for engaging the outer faces of said pivoted walls to positively draw them toward each other and separate the opposite portions which engage the molded form, said side walls being provided with recessed portions to engage the locking bar when in open position.

4. A mold box for forming bricks and the like, comprising a bottom, end walls and side walls having portions extending above and below said bottom, said end walls being rigidly secured to said bottom and said side walls being pivoted horizontally between their upper and lower edges, a locking bar pivoted on the outer face of the bottom, between the exterior projecting portions of the pivoted side walls, by a vertical pivot and having end portions to engage the inner faces of said pivoted walls and hold them in closed position, said locking bar being provided at its ends with hook portions for engaging the outer faces of said pivoted walls to positively draw them toward each other and separate the opposite portions which engage the molded form, said side walls being provided with recessed portions to engage the locking bar when in open position, and said pivoted side walls having their inner faces provided with projecting portions extending into the mold box to form recesses in the molded form, and assist in retaining it in the mold box when the said pivoted walls are in closed position.

1,140,392. WEB-CUTTING MECHANISM. ABRAHAM NOVICK, New York, N. Y., assignor to F. L. Schmidt Company, New York, N. Y., a Corporation of New York. Filed Nov. 25, 1913. Serial No. 802,874. (Cl. 168—68.)



1. Web cutting mechanism including in combination means for advancing a web of material, means for severing the web during its advancement comprising a pair of opposite coacting cutters each of which is pivotally

mounted on an axis eccentric to a fixed axis, means for revolving each eccentric axis in one direction about its fixed axis, and means for rotating each cutter in the other direction on its eccentric axis.

2. Web cutting mechanism including in combination a pair of opposite coacting cutters each of which is pivotally mounted on an axis eccentric to a fixed axis, and means for rotating said cutters on the eccentric axes at twice the speed of the revolution of said eccentric axes about the fixed axes and in directions opposite to those of their respective eccentric axes about said fixed axes.

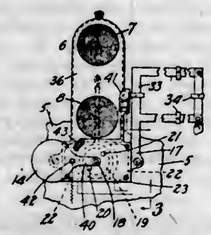
3. Web cutting mechanism including in combination a pair of opposite coacting cutters each of which is pivotally mounted on an axis eccentric to a fixed axis, means for revolving each eccentric axis continuously in one direction about its fixed axis, and means for rotating each cutter continuously in the opposite direction on its eccentric axis.

4. Web cutting mechanism including in combination a pair of carriers rotatably mounted in fixed bearings, equal intermeshing gears fixed to said carriers, a cutter rotatably mounted on each carrier on an axis parallel with its carrier axis and eccentric thereto, a gear mounted concentrically with each carrier axis and fixed relatively thereto, an equal gear fixed coaxially on each cutter, and an intermediate gear operably connecting each cutter gear with its respective fixed carrier gear.

5. Web cutting mechanism including in combination means for advancing a web of material, means for severing the web during its advancement comprising a pair of opposite coacting cutters each of which is pivotally mounted on an axis eccentric to a fixed axis, means for revolving each eccentric about its fixed axis, means for rotating each cutter on its eccentric axis, and means for actuating said advancing means at a speed equal to the speed of revolution of said eccentric axis about said fixed axis.

[Claims 6 to 10 not printed in the Gazette.]

1,140,393. VEHICLE-SIGNAL. LEO O'BRIEN, Montclair, N. J. Filed Dec. 22, 1910. Serial No. 598,723. (Cl. 177—329.)



In a vehicle signal, the combination of a casing having signal lights located in the same vertical plane, a lamp in said casing, a disk moving up and down in a vertical plane which is parallel to the plane in which the signal lights are located, said disk having an arm, fixed stops for limiting the movement of said disk at one end or the other of an arc of 90 degrees, against which stops the arm strikes, one stop having the function of stopping it in a vertical position, and the other having the function of stopping it in a horizontal position, a horizontal shaft carrying said disk and rigidly secured to the arm thereof, a spring surrounding said shaft and tensioned to be normally held in such a manner that the disk will normally cover one of the lights, a magnet whose central revolving core carries said shaft, and an electric circuit including the magnet, together with means for closing and breaking the circuit at times, in order that the risk may be properly actuated.

1,140,394. INTERNAL-COMBUSTION ENGINE. PHILIP PRINGLE, Lipton, Canada. Filed May 27, 1914. Serial No. 841,345. (Cl. 123—74.)

1. The combination with a suitably mounted crank case, a crank shaft mounted in the crank case, a cylinder secured to the crank case and provided at the one end with suitable air inlet openings and at the other end with suitable exhaust ports, of a valve sleeve slidably mounted in the cylinder and provided at one end with air inlet openings designed to register with the aforesaid air inlet openings and at the other end with exhaust ports designed to register with the exhaust ports and having transfer slots appearing on the inner wall thereof, means for reciprocating the sleeve to effect the opening and closing of the air inlet openings and the exhaust ports, and a piston slidably mounted within the sleeve and connected to the crank shaft, said piston being arranged to be spanned by the transfer slots in the outstroke thereof, as and for the purpose specified.



2. The combination with a suitably mounted crank case, a crank shaft mounted in the crank case, a cylinder secured to the crank case and provided at the one end with suitable air inlet openings and at the other end with suitable exhaust ports, of a valve sleeve slidably mounted in the cylinder and provided at the one end with air inlet openings designed to register with the aforesaid air inlet openings and at the other end with exhaust ports designed to register with the exhaust ports and having transfer slots appearing on the inner wall thereof, means for reciprocating the sleeve to effect the opening and closing of the air inlet openings and the exhaust ports, a piston slidably mounted within the sleeve and connected to the crank shaft, said piston being arranged to be spanned by the transfer slots in the outstroke thereof, and means for varying the stroke of the sleeve, as and for the purpose specified.

3. The combination with a suitably mounted crank case, a crank shaft mounted in the crank case, a cylinder secured to the crank case and provided at the one end with suitable air inlet openings and at the other end with suitable exhaust ports, of an outer valve sleeve slidably mounted in the cylinder and provided at the one end with air inlet openings designed to register with the aforesaid air inlet openings and at the other end with exhaust ports designed to register with the exhaust ports and having transfer slots appearing on the inner wall thereof, means for reciprocating the sleeve to effect the opening and closing of the air inlet openings and the exhaust ports, an inner valve sleeve slidably mounted within the outer sleeve and provided with air inlet valve ports designed to register with the air inlet ports, means for reciprocating the inner valve sleeve to control the admission of air through the inlet openings to the lower end of the cylinder, a piston slidably mounted in the outer sleeve and means connecting the cylinder with the crank shaft, said piston being arranged to be spanned by the transfer slots in the working stroke thereof, as and for the purpose specified.

4. The combination with a crank case and a crank shaft mounted in the crank case, of a cylinder mounted on the crank case and fitted at the one end with suitable air inlet openings and at the other end with suitable exhaust ports and provided at the former end with a head carrying an extending short sleeve contained within the cylinder, an outer sleeve slidably mounted in the cylinder and provided at one end with air inlet openings and at the opposite end with exhaust ports and having the inner wall thereof fitted with transfer slots, means for reciprocating the sleeve to effect the registration of the respective inlet openings and the respective exhaust ports, an inner sleeve slidably mounted within the outer sleeve and contained between the outer sleeve and the short sleeve of the cylinder head, said inner sleeve being fitted with air inlet openings, means for reciprocating the inner sleeve to control the time of admission of air through the inlet openings to the lower end of the cylinder and a piston slidably mounted within the outer sleeve and connected with the crank shaft through the head, said piston being designed to be spanned by the transfer slots in the working stroke thereof, as and for the purpose specified.

5. The combination with a crank case and a crank shaft mounted in the crank case, of a cylinder mounted on the crank case and fitted at the one end with suitable air inlet openings and at the other end with suitable exhaust ports and provided at the former end with a head carrying an extending short sleeve contained within the cylinder, an outer sleeve slidably mounted in the cylinder and provided at one end with air inlet openings and at the opposite end with exhaust ports and having the inner wall thereof fitted with transfer slots, an eccentric mounted on the crank shaft and connected through a suitable link with the outer sleeve, said eccentric controlling through the sleeve the registration of the respective inlet openings and the respective exhaust ports, an inner sleeve slidably mounted within the outer sleeve and contained between the outer sleeve and the short sleeve of the cylinder head, said inner sleeve being fitted with air inlet openings, an eccentric mounted on the crank shaft and connected with the inner sleeve, said latter eccentric controlling the admission of air through the inlet openings to the lower end of the cylinder and a piston slidably mounted within the outer sleve and connected with the crank shaft through the head, said piston being designed to be spanned by the transfer slots in the working stroke thereof, as and for the purpose specified.

[Claims 6 and 7 not printed in the Gazette.]

1,140,395. FUEL-BRICK. WLADISLAUS RAKOWSKI, Logan, W. Va. Filed May 20, 1913. Serial No. 768,883. (Cl. 44—1.)

1. Fuel consisting of comminuted combustible particles united by a binder which is a decoction of bran.

2. Fuel consisting of comminuted coal and a binder which is a decoction of bran.

3. Fuel consisting of coal-dust, saw-dust, and a binder which is a decoction of bran.

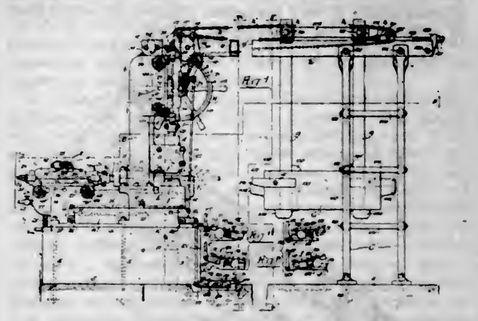
4. Fuel consisting of a mixture of coal dust and saw-dust and a binder which is an unstrained decoction of bran.

1,140,396. MACHINE FOR MAKING AND SHARPENING DRILL-BITS. SAMUEL V. RAWLINGS, Calumet, Mich. Filed Mar. 29, 1909. Serial No. 486,354. (Cl. 76—5.)

1. In drill shaping machines, the combination with the frame, of a horizontal upset hammer mounted on said frame, an anvil arranged in front of said frame for engaging the tail end of the drill, an overhead support from which said anvil is suspended and means for adjusting said anvil to and from said frame.

2. In drill shaping machines, the combination with the frame, of a horizontal upset hammer mounted thereon, an overhead support extending forward from said frame, a pendulum anvil hung from said support in front of said upset hammer, means for adjusting said anvil along said support and a shifter for said adjusting means at the front portion of said frame.

3. In drill shaping machines, the combination with the frame, of a horizontal upset hammer mounted thereon, an overhead track extending forwardly from said frame, rollers on said track, depending hangers connected to said rollers, a pendulum anvil sustained by said hangers in front of said upset hammer, and means connected to said rollers for adjusting said hangers and anvil along said track.

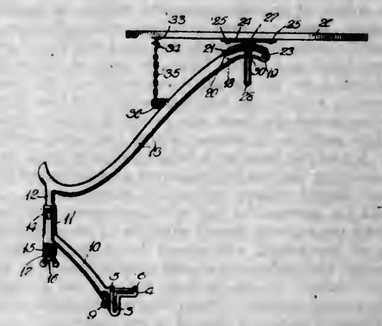


4. In drill shaping machines, the combination with the frame, of a horizontal upset hammer mounted thereon, an overhead track extending forwardly from said frame, rollers on said track, depending hangers having connected upper end portions of inverted U-shape in which said rollers are journaled, a pendulum anvil sustained by said hangers in front of and in line with said upset hammer, means for adjusting said hangers and anvil along said track, and a shifter for said adjusting means at the front of said machine frame.

5. In drill shaping machines, the combination with the frame, of a horizontal upset hammer mounted thereon, an overhead track extending forwardly from said frame, two connected rollers on said track, hangers depending from said rollers, a pendulum anvil carried by said hangers in front of and in line with said upset hammer, a hand wheel journaled at the front of the machine, a guide wheel at the other end of said track and a flexible connection extending between said hand wheel and said rollers and over said guide wheel for adjusting said hangers and anvil back and forth along said track.

[Claims 6 to 16 not printed in the Gazette.]

1,140,397. BED-TABLE. LOUIS RIBAR, Detroit, Mich. Filed Aug. 6, 1914. Serial No. 855,398. (Cl. 45—82.)

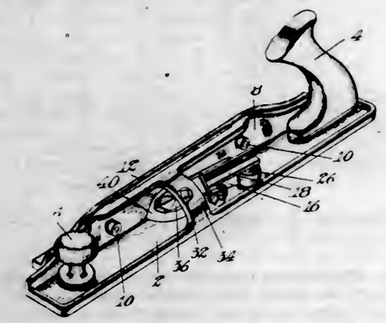


An attachment for beds comprising a curved arm having the upper end thereof curved and bifurcated, a tiltable segment shaped support normally resting upon said arm, a web carried by said support and extending into the bifurcation of said arm and having an end thereof pivotally held therein whereby said support can be swung away from said arm, and a table carried by said support.

1,140,398. RESURFACING-TOOL. JOHN H. RICHARDSON, Melrose, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Aug. 4, 1913. Serial No. 782,855. (Cl. 145—10.)

1. A resurfacing tool having, in combination, guiding means for positioning the tool laterally with reference to

the edge of the surface to be finished, and a cutter suitably projected to operate upon said surface, said cutter having provision for lateral adjustment with reference to said guiding means to vary the lateral range of operation thereof without varying the depth of the cut.



2. A resurfacing tool having, in combination, guiding means for positioning the tool laterally with reference to the edge of the surface to be finished, a cutter arranged with reference to said guiding means to remove a portion of the material at the edge of said surface on an operative movement of the tool, and means for varying the relative positions of said cutter and guiding means to vary the width of the portion so removed without varying the depth of the cut.

3. A resurfacing tool having, in combination, guiding means for positioning the tool laterally with reference to the edge of the surface to be finished, said means comprising a member having a lateral edge arranged to contact with the object to be finished at the edge of the unfinished surface, and a cutter projecting lateraly beyond the edge of said member so as to remove a portion of the material at the edge of said surface on a forward movement of the tool, said cutter having provision for adjustment to vary the extent of its projection beyond said lateral edge without varying the extent of downward projection of the cutter.

4. A tool of the class described having, in combination, a cutter, guiding means arranged with reference to the cutter to cause the latter to remove a portion of predetermined depth and width from one edge of the surface to be finished on an operative movement of the tool, and means for varying the relative positions of said cutter and guiding means to cause the cutter to remove from said surface portions of varying widths and equal depths.

5. A tool for forming a finished surface upon an object by removing successive increments of material of predetermined lateral extent having, in combination, a cutter, means for guiding the tool in its movement with reference to both the top and lateral surfaces of the unfinished portion of the object, and means for adjusting the cutter laterally with reference to said guiding means to vary the lateral extent of the portion removed on an operative movement of the tool without varying the depth of the cut.

[Claims 6 to 18 not printed in the Gazette.]

1,140,399. GOLF-CLUB. WALTER L. RIGHTER, Plainfield, N. J. Filed Oct. 19, 1914. Serial No. 867,306. (Cl. 46—4.)

1. A golf club having a striking head provided with a substantially flat lower face and a shaft to which the head is secured, said shaft having means for supporting it freely from and between two fingers of a player, and the axis of said shaft passing through the center of gravity of said head and being substantially perpendicular to said lower face.

2. In a golf club, the combination of a striking head provided with a substantially flat lower face, a shaft to which the head is secured, the axis of said shaft passing through the center of gravity of said head and being substantially perpendicular to said lower face, and means for supporting the club freely from and between two fingers of a player.



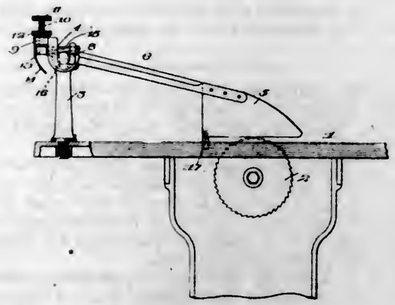
3. In a golf club, the combination of a striking head provided with a substantially flat lower face, a shaft to which the head is secured, the axis of said shaft passing through the center of gravity of said head and being substantially perpendicular to said lower face, and means extending transversely of the shaft to be engaged by and between the crooked fingers of a player, whereby the club may be swung freely with pendulum-like motion in a vertical plane about the said means as a pivot.

4. A golf club having a striking head and a shaft to which the head is secured, said shaft having means for supporting it freely in a substantially vertical position from and between two fingers of a player.

5. A golf club having means extending transversely of the shaft to be engaged by the crooked fingers of the player whereby the club may be swung freely with pendulum-like motion in a vertical plane about the said means as a pivot.

[Claims 6 to 10 not printed in the Gazette.]

1,140,400. SAW-GUARD. ALFRED A. RUTTAN, Rochester, N. Y. Filed July 22, 1912. Serial No. 710,850. (Cl. 143—159.)



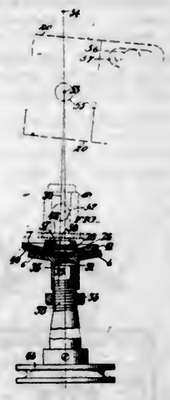
1. The combination with a saw table, of a pair of vertically arranged posts mounted thereon in spaced relation to each other, a horizontally disposed support pivotally arranged on said posts, a guard rigidly carried by said support, and adjustable means for limiting the rotative movement of the support.

2. The combination with a saw table, and a rotary saw arranged therebeneath, of a support pivotally mounted on the saw table and adjustable in a direction transverse to the cutting plane of the saw, adjustable means for limiting the movement of the support in the direction of the plane of the saw, and a guard rigidly carried by the support.

3. The combination with a saw table, of a pair of vertically disposed posts mounted thereon in spaced relation to each other and provided with bearings, a horizontally disposed support mounted in said bearings, and adjustable in the direction of its length, the support being rotatable in said bearings, an adjustable stop carried by one of said posts, an arm on the support adapted to engage said stop, and a guard rigidly mounted on the support.

4. In combination with a saw table, a pair of vertically disposed posts mounted thereon in spaced relation to each other and provided with bearings arranged above the table, a horizontally disposed support rotatably mounted in said bearings, the support being adjustable in said bearings in the direction of its length or transversely of the plane of the saw, a guard rigidly mounted on the support intermediate the ends thereof, an adjustable stop arranged on one of the posts, and an arm or extension on the support having engagement with said stop.

1,140,401. MECHANISM FOR MAKING BIFOCAL LENSES. HENRY A. SCHEUERLE, Philadelphia, Pa. Original application filed Mar. 18, 1914, Serial No. 825,604. Divided and this application filed Apr. 17, 1914. Serial No. 832,439. (Cl. 51—3.)



1. In mechanism for making bifocal lenses, the combination with means for holding a pair of lens blanks with their respective minor areas adjoining each other and between their respective major areas; of means arranged to rotate said blanks, together, upon an axis extending through centers of curvature of all the major and minor areas of both blanks; means common to both blanks arranged to abrade them at their major areas, while preventing abrasion of their minor areas, including a rotary lap having an annular convex abrading surface, with a central recess coextensive with said minor areas; means arranged to contemporaneously rotate said lap upon an axis extending through the center of curvature common to the major areas of both blanks, but different from the axis of rotation of said blanks; means arranged to prevent any change in the direction of said axes during the abrading operation; means arranged to variably determine the angular relation of the respective axes of rotation of said blanks and lap, including an axial bearing for said lap, which is adjustable both longitudinally and angularly with respect to the axis of rotation of said blanks, and means arranged to secure said bearing in adjusted position; means arranged to variably limit the axial extent of the abrading action of said lap on the major areas of said blanks, in definite relation to the extent of the minor areas thereof, including an axially adjustable screw threaded member, carried by said lap, arranged to be set in accordance with the curvature of said minor areas; a normally stationary but adjustable stop device, supported independently of said lap, and a gage element whereby the coöperative relation of said screw threaded member and adjustable stop is predetermined; whereby the major areas on both of said blanks are circularly abraded at the same time and by the same lap, without concentric rotation of the glass and abrading elements, although the glass is thus circularly abraded throughout a circular zone concentric with the axis of rotation of the glass and including all of said major areas.

2. In mechanism for making bifocal lenses, the combination with means for holding a pair of lens blanks with their respective minor areas adjoining each other and between their respective major areas; of means arranged to rotate said blanks, together, upon an axis extending through centers of curvature of all the major and minor areas of both blanks; means common to both blanks arranged to abrade them at their major areas, while preventing abrasion of their minor areas, including a rotary lap having an annular convex abrading surface, with a central recess coextensive with said minor areas; means arranged to contemporaneously rotate said lap upon an axis extending through the center of curvature common to the major areas of both blanks, but different from the axis of rotation of said blanks; means arranged to prevent any change in the direction of said axes during the abrading operation; means arranged to variably determine the angular relation of the respective axes of rotation of said blanks and lap, including an axial bearing for said lap, which is adjustable both longitudinally and angularly with respect to the axis of rotation of said blanks; means arranged to secure said bearing in adjusted position; and means arrranged to variably limit the axial extent of the abrading action of the side lap on the major areas of said blanks, in definite relation to the extent of the minor areas thereof.

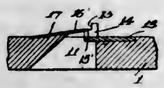
3. In mechanism for making bifocal lenses, the combination with means for holding a pair of lens blanks with their respective minor areas adjoining each other and between their respective major areas; of means arranged to rotate said blanks, together, upon an axis extending through centers of curvature of all the major and minor areas of both blanks; means common to both blanks arranged to abrade them at their major areas, while preventing abrasion of their minor areas, including a rotary lap having an annular convex abrading surface, with a central recess coextensive with said minor areas; means arranged to contemporaneously rotate said lap upon an axis extending through the center of curvature common to the major areas of both blanks, but different from the axis of rotation of said blanks; means arranged to prevent any change in the direction of said axes during

the abrading operation; means arranged to variably determine the angular relation of the respective axes of rotation of said blanks and lap, including an axial bearing for said lap, which is adjustable both longitudinally and angularly with respect to the axis of rotation of said blanks; and means arranged to secure said bearing in adjusted position.

5. In mechanism for making bifocal lenses, the combination with means for holding a pair of lens blanks with their respective minor areas adjoining each other and between their respective major areas; of means arranged to rotate said blanks, together, upon an axis extending through the centers of curvature of all the major and minor areas of both blanks; means common to both blanks arranged to abrade them at their major areas, while preventing abrasion of their minor areas, including a rotary lap having an annular convex abrading surface, with a central recess coextensive with said minor areas; means arranged to contemporaneously rotate said lap upon an axis extending through the center of curvature of the major areas of both blanks, but different from the axis of rotation of said blanks; means arranged to prevent any change in the direction of said axes during the abrading operation; and means arranged to variably determine the angular relation of the respective axes of rotation of said blanks and lap.

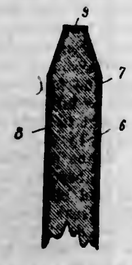
[Claims 6 to 12 not printed in the Gazette.]

1,140,402. CUTTER. CHARLES A. SCHMITT, Anaconda, Mont. Filed Jan. 17, 1914. Serial No. 812,737. (Cl. 146—11.)



A vegetable cutter comprising a base having a slot, a horizontal knife carried by the base, a series of spaced vertical knives secured to the base at a point forwardly of the horizontal knife, said vertical knives projecting above the horizontal knife and having inclined shoulders upon which rests the cutting edge of the horizontal knife.

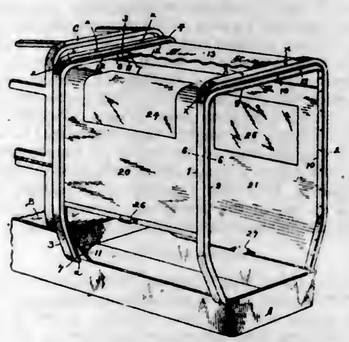
1,140,403. BATTERY - ELECTRODE. CHARLES B. SCHOENMEHL, Waterbury, Conn. Filed May 26, 1913. Serial No. 769,816. (Cl. 204—50.)



A plate form of negative electrode for primary batteries, comprising a compressed mass of oxid of copper, and a woven wire member embedded in the sides and edge surfaces of the said copper plate to inclose the mass and having a filling of oxid of copper covering the said wire gauze to form all of the side and edge portions of the plate smooth.

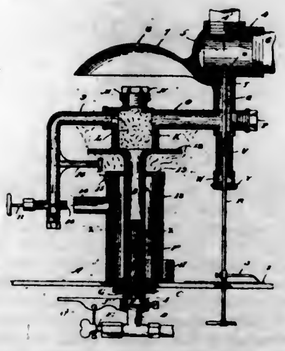
1,140,404. VEHICLE-TOP. GEORGE E. SEIDEL, Richmond, Ind. Filed Apr. 20, 1914. Serial No. 833,032. (Cl. 21—62.)

A vehicle top comprising a pair of spaced supporting bows adapted to be placed upon a vehicle body, each bow comprising two separatable members, each member being L-shaped in cross section and having a vertical and horizontal portion, a plate secured to the short arm of the L of each member and extending parallel with the long arm of the L to form a guide channel, the horizontal portions of the members of each bow overlapping one another and



being secured together, a partition connecting the bows and having its opposite ends connected to the horizontal portions of the members, flexible curtains adapted to travel in said channel guides and the opposite ends of said members of each bow being bent inwardly to close the ends of the channel guides substantially as described.

1,140,405. LIGHTING APPARATUS. EDWARD SEITZ, Peoria, Ill. Filed Dec. 12, 1910. Serial No. 597,006. (Cl. 158—58.)



1. In a lighting apparatus, the combination of a conduit for conveying liquid fuel including a valve-seat therein, a valve, a float carrying said valve and adapted to seat the same, a vapor generator included with the conduit, a sub-burner inclosing that part of the conduit in which the float lies and having an inlet opening in its side, and a vapor discharge pipe connected with the vapor generator and terminating opposite the said opening and adapted to discharge vapor into the same.

2. In a lighting apparatus, the combination of a conduit for conveying liquid fuel including a valve-seat therein, a valve, a float carrying said valve and adapted to seat the same, a vapor generator included with the conduit, the same having a flange extending laterally from it, a sub-burner inclosing that part of the conduit in which the float lies and terminating at its top in close proximity to the flange of the generator burner, said sub-burner having an opening in its side, and a vapor discharge pipe connected with the vapor generator and terminating opposite the said opening for discharging vapor into the same.

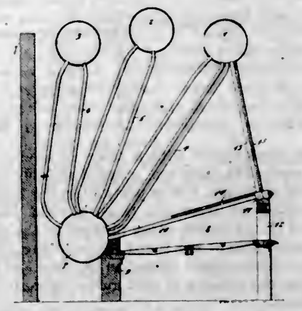
8. In a generating apparatus for a lamp system, the combination of a single substantially vertical conduit arranged to receive a fluid hydrocarbon, and having an enlarged upper end including a circumferential flange, and also including an outlet for vapor, a burner beneath the enlargement and flange, a pipe extending from said conduit, a part constituting a mixing chamber with which the pipe communicates, an integral extension carried on said part and overhanging the conduit and the burner, and having a cavity in its under side.

4. In a generating apparatus for a lamp system, the combination of a single substantially vertical conduit arranged to receive a fluid hydrocarbon, and having an enlarged upper end including a circumferential flange, and also including an outlet for vapor, a burner beneath the enlargement and flange, a pipe extending from said conduit, a part constituting a mixing chamber with which the pipe communicates, and an integral extension carried on said part and overhanging the conduit and the burner and having a cavity in its under side, said extension having an aperture communicating with said cavity.

5. In a generating apparatus for a lamp system, the combination of a vapor generator, a burner for heating the same, a pipe leading from the generator, a part constituting a chamber for mixing air and vapor, and an integral extension on said part overhanging the generator and the burner and provided with a concave under surface.

[Claim 6 not printed in the Gazette.]

1,140,406. STEAM-BOILER. MINOTT W. SEWALL, deceased, New York, N. Y., by Susan E. Sewall, executrix, New York, N. Y., assignor to The Babcock & Wilcox Company, Bayonne, N. J., a Corporation of New Jersey. Filed July 30, 1914. Serial No. 854,155. (Cl. 122—302.)

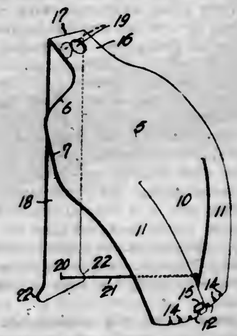


1. A water tube boiler having upper transverse steam and water drums and a lower mud drum, banks of generating tubes connecting said drums, a transverse water chamber intermediate the levels of the upper and lower drums, a row of tubes connecting the mud drum and said chamber and extending over the boiler furnace, and a row of tubes connecting said chamber with one of the upper drums.

2. A water tube boiler having a plurality of upper transverse steam and water drums and a lower mud drum, banks of generating tubes connecting said drums, a transverse water chamber intermediate the levers of the upper and lower drums, a row of tubes connecting the mud drum with said chamber, and a baffle extending from said chamber rearwardly, said row of tubes and baffle constituting the roof of the combustion chamber.

3. A water tube boiler having a plurality of upper transverse steam and water drums and a lower mud drum, banks of generating tubes connecting said drums, a transverse water chamber intermediate the levels of the upper and lower drums, a row of tubes connecting the mud drum with said chamber, a baffle extending from said chamber rearwardly, said row of tubes and baffle constituting the roof of the combustion chamber, and a row of tubes connection said chamber and the front steam and water drum.

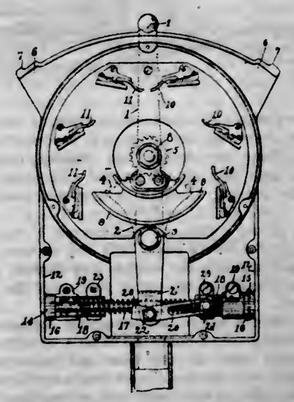
1,140,407. GARMENT-FORM. DAVID H. SHAPIRO, Montreal, Quebec, Canada. Filed May 4, 1914. Serial No. 836,364. (Cl. 211—13.)



1. A garment form comprising a flat sheet shaped at its upper portion to represent garment shoulders and having a lower portion thereof divided into three tongues and adjustable means for varying the lateral curvature of the form comprising a series of open ended notches cut in the lower edge of the tongues, the outer tongues being adapted to overlap each other over the central tongue and a detachable fastening device inserted in the registering notches of the three tongues when in overlapped position.

2. A garment form comprising a sheet shaped at its upper portion to represent garment shoulders and having its lower portion divided into three tongues, the outer tongues being provided with recesses, and means on the central tongue adapted to coöperate with said recesses for securing the outer tongues in overlapped position over each other and jointly over the central tongue.

1,140,408. CENTERING DEVICE FOR ELECTRIC SWITCHES. ALLEN C. SMITH, Yonkers, N. Y., assignor to Otis Elevator Company, Jersey City, N. J., a Corporation of New Jersey. Filed Jan. 5, 1911. Serial No. 600,878. (Cl. 74—5.)



1. In a centering device, the combination of a member movable to either side of a central position, a compressible coil spring, sleeve-shaped abutting members at the ends thereof, nuts threaded on said abutting members and forming adjustable extensions to vary the position of the abutting members and thereby vary the compressible strength of the spring, stops for said nuts, and slotted links connecting each abutting member with the first-named member.

2. In a centering device, the combination of a member movable to either side of a central position, a compres-

sible coil spring to return the member to central position, an abutting member at each end of the spring, slotted links connected to said first-named member, and connecting devices between the abutting members and said links, said connecting devices being adjustable with respect to said abutting members to vary the effective length of said links.

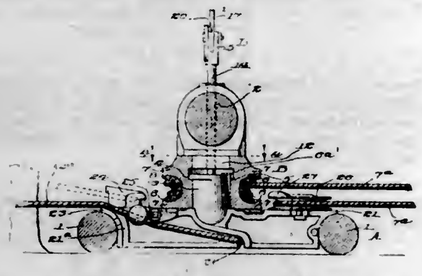
3. In a centering device, the combination of a member movable to either side of a central position, a compressible coil spring, abutting members at the ends thereof formed with a sleeve shaped projection threaded on the outside, a nut movable on said threaded portion, and slotted links connecting the said nuts and the first named member to effect the automatic return of the latter to central position when moved therefrom.

4. In a centering device, the combination of a member movable to either side of a central position, a fixed rod, a compressible coil spring mounted upon the rod, a sleeve-shaped abutting member at each end of the spring provided with outside threads, nuts movable on said threads, and slotted links connecting the nuts and the first named movable member.

5. In a centering device, the combination of a hand lever movable to either side of a central position, a rod, a coil spring about the rod, threaded sleeve-shaped abutting members at each end of the spring and movable on the said rod, adjustable nuts mounted on the said threaded members, and slotted links connecting the hand lever to one of the nuts at each end of the spring.

[Claims 6 to 11 not printed in the Gazette.]

1,140,409. STUMP-PULLER. FRANK R. SMITH, La Crescent, Minn., assignor to W. Smith Grubber Company, La Crescent, Minn., a Corporation of Minnesota. Filed Oct. 16, 1912. Serial No. 726,049. (Cl. 57—105.)



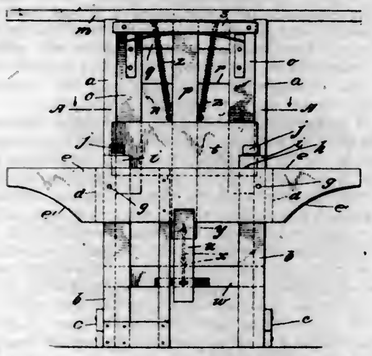
1. In a stump puller, in combination, a base having a transverse groove on its under side beyond the center of said base from the anchor end thereof; upper lateral flanges on said base at the anchor end thereof; and an anchor-rope passing through said groove and over said flanges.

2. In a stump puller, a base having a transverse anchor-rope groove on its under side and between the center and the end opposite the anchor end thereof and lateral anchor-rope flanges at the upper portion of the anchor end of said base.

3. In a stump puller, an integrally formed base comprising recessed frame-receiving ends, a winding drum axle on the upper side of said base and between the ends thereof, said base having a transverse anchor-rope groove on the lower side of said base and beyond the center from the anchor end thereof; and upper lateral anchor-rope flanges on the anchor end thereof.

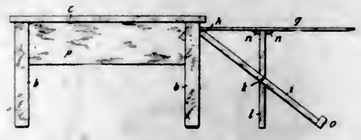
4. In a stump puller, in combination, a base having a transverse anchor-rope groove on its under side and beyond the center from the anchor end of said base; upper lateral flanges at the anchor end of said base; an axle connected to the upper side of said base; a winding drum on said axle; a pulling rope adapted to be wound on said drum; and an anchor-rope adapted to engage the said groove and the said lateral flanges to provide substantially parallel resistance to the pull of said pulling rope.

1,140,410. BOX-PRESS. S. GRANT SMITH, North Yakima, Wash. Filed Oct. 27, 1914. Serial No. 868,847. (Cl. 100—57.)



A fruit-box press having a traveling carriage; foot-operated means for actuating the same; and a curved hood attached to said carriage and arranged to hold down the top of the box and to impart thereto a bulge within which lies the topmost part of the fruit.

1,140,411. DISAPPEARING IRONING-BOARD ATTACHMENT FOR KITCHEN-TABLES. LUDWIG SPADY, Portland, Oreg. Filed July 14, 1914. Serial No. 851,003. (Cl. 68—10.)



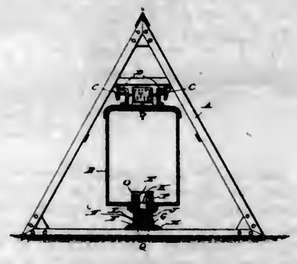
1. The combination with a table, of guide elements extending under the table-top, a board slidably supported by such guide elements, a stop preventing the board being entirely withdrawn from the table, a strut hinged to the inner end of the board, a leg pivoted to the strut, a stop on the under side of the board for receiving the top of the leg, and a closing piece affixed on the free end of the strut for closing the opening to said guide elements through the table frame.

2. The combination with a table, of guide elements extending under the table-top, a carrier slidably supported by such guide elements, a board affixed at one end to the carrier, a strut hinged to the inner end of the board, a leg pivoted to the strut, and a closing piece affixed on the free end of the strut for closing the opening to said guide elements through the table frame.

3. The combination with a table, of guide bars arranged under the table top and near the sides, a carrier slidably supported by such guide-bars, the latter comprising each two pieces spaced apart, and the carrier having laterally extending portions sliding in the space between the pieces of the guide bars, a board affixed at one end of the carrier, a strut hinged to the inner end of the board, a leg pivoted to the strut, and a closing piece affixed on the free end of the strut for closing the opening to said guide elements through the table frame.

4. The combination with a table, of guide bars arranged under the table top and near the sides, a carrier slidably supported by such guide bars, the latter comprising each two pieces spaced apart, and the carrier having laterally extending portions sliding in the space between the pieces of the guide bars, a board affixed at one end to the carrier, a strut hinged to the inner end of the board, the strut having a longitudinal portion cut out, a leg pivoted in such cut-out part of the strut, a stop on the under side of the board for receiving the top of the leg, and a closing piece affixed on the free end of the strut for closing the opening to said guide elements through the table frame.

1,140,412. MONORAILROAD. THOMAS C. SPELLING, New York, N. Y. Filed Feb. 27, 1915. Serial No. 10,966. (Cl. 105—228.)



1. In a mono-railroad, a vehicle, a traction wheel therefor having a grooved peripheral portion and peripherally toothed flanges, and a rail having a tread portion adapted to enter the grooved portion of the wheel and oppositely disposed toothed ledges adapted to engage the peripherally toothed flanges of the wheel, the toothed flanges and the toothed ledges being rounded longitudinally of the teeth to permit the wheel to rock while maintaining intermeshing engagement, substantially as and for the purposes described.

2. In a mono-railroad, a vehicle, a traction wheel therefor having a grooved peripheral portion and peripherally toothed flanges, and a rail having a tread portion adapted to enter the grooved portion of the wheel and oppositely disposed toothed ledges adapted to engage the peripherally toothed flanges of the wheel, the tread portion and the base of the grooved portion of the wheel being smooth, the toothed flanges and the toothed ledges being rounded longitudinally of the teeth to permit the wheel to rock while maintaining intermeshing engagement, substantially as and for the purposes described.

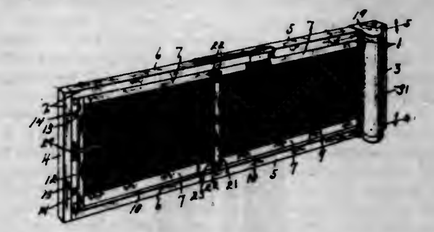
3. In a mono-railroad, a vehicle, a traction wheel therefor having a grooved peripheral portion and peripherally toothed flange, and a rail having a rounded tread portion adapted to enter the peripheral grooved portion of the wheel to permit the wheel to rock thereon, and a toothed ledge adapted to be engaged by the peripherally toothed flange, the peripherally toothed flange and the toothed ledge being rounded to maintain intermeshing engagement in the varying positions of the wheel.

4. In a mono-railroad, a vehicle, a traction wheel therefor having a grooved peripheral portion and peripherally toothed flange, and a rail having a rounded tread portion adapted to enter the peripheral grooved portion of the wheel to permit the wheel to rock thereon, and a toothed ledge adapted to be engaged by the peripherally toothed flange, the peripherally toothed flange and the toothed ledge being rounded to maintain intermeshing engagement in the varying positions of the wheel, the tread portion and the base of the peripheral groove of the wheel being smooth, substantially as and for the purposes described.

5. In a mono-railroad, a vehicle, a traction wheel therefor having a grooved peripheral portion and peripherally toothed flange, a rail having a rounded tread portion adapted to enter the peripheral grooved portion of the wheel to permit the wheel to rock thereon, a toothed ledge adapted to be engaged by the peripherally toothed flange, the peripherally toothed flange and the toothed ledge being rounded to maintain intermeshing engagement in the varying positions of the wheel, the tread portion and the base of the peripheral groove of the wheel being smooth, and a portion of the rail being devoid of the toothed ledge, substantially as and for the purposes described.

[Claims 6 to 11 not printed in the Gazette.]

1,140,413. WINDOW-SCREEN. RAY J. STANLEY, Canenovia, N. Y. Filed Oct. 24, 1914. Serial No. 868,396. (Cl. 156—38.)



1. A window screen, comprising two frame sections, slidable one upon the other, an upright roller housing on one end of one section, a roller in said housing, and a screen having one end attached to the roller to wind thereon, and its other end movable across the frame and provided with means for attaching it to the opposite side of said frame, spring means for automatically retracting the roller to tension the screen in any relative position of the frame sections.

2. A window screen, comprising a frame, having lengthwise channels in adjacent edges of opposite sides thereof, a roller housing on one end of the frame, an upright roller journaled in said housing, a screen attached at one end to the roller, and movable across the frame and having its opposite edges guided in said channels, the opposite end of the screen being provided with means for attaching it to the corresponding end of the frame.

3. A window screen, comprising two frame sections slidable one upon the other, a cross bar connecting opposite sides of one of the sections, adjustable connections between said cross bar and the end of the other section, and a screen stretched across the openings in both frame sections.

4. A window screen, comprising two frame sections slidable endwise one upon the other, a roller housing on one end of one of the sections, a roller journaled in said housing, a screen attached at one end to the roller, and having its other end provided with means for attaching it to the opposite end of the frame, retracting means for the roller to automatically wind the screen thereon, and adjustable connections between the frame sections for holding the latter in their extended position against the action of the roller-retracting means.

5. A window screen, comprising a frame composed of sections adjustable endwise one upon the other, a screen covering the opening in the frame, a cross bar on one of the frame sections, a crank-arm journaled on the cross bar, and connections between said crank-arm and the other frame section for moving the last named section as the crank-arm is rotated.

[Claims 6 and 7 not printed in the Gazette.]

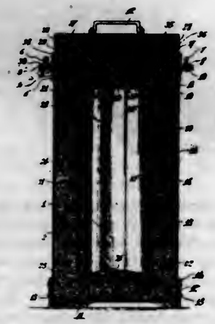
1,140,414. SHIPPING-CAN. LEONARD R. STEBI, Chicago, Ill. Filed Oct. 22, 1913. Serial No. 796,084. (Cl. 220—98.)

1. A shipping can comprising an outer vessel, an inner vessel, a lining wholly embracing an inner vessel and removable therefrom and from the outer vessel and provided with a removable closure section, and a basket removably mounted in the lining and having extended portions fitting in the closure of said lining.

2. A shipping can comprising an outer vessel, an inner vessel, a closure for the outer vessel, a lining receiving the inner vessel and removably fitted in the outer section, a closure removably fitted to the lining and extending into the closure of the outer section, and a basket having extended portions lying above the upper end of the outer vessel and removably fitted in the cover of the lining.

3. A shipping can comprising an outer vessel having a removable closure, an inner vessel, a sectional lining re-

ceiving the inner vessel and removably fitted in the outer vessel, and a basket mounted in the lining and supporting the inner section therein and having portions extending above the outer vessel when the cover section of the latter is removed.

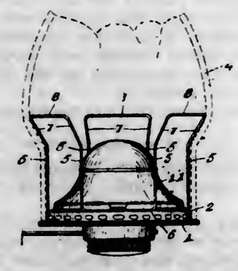


4. A shipping can comprising an outer vessel, an inner vessel, a lining wholly embracing the inner vessel and removable therefrom and from the outer vessel and provided with a removable closure section having a receiving passage, and means removably mounted in the lining and having diametrically opposed extended portions projecting above the upper edge of the outer vessel fitting in the receiving passage of the closure of said lining.

5. A shipping can comprising an outer vessel, an inner vessel, a lining wholly embracing the inner vessel and removable therefrom and from the outer vessel and provided with a removable closure section, and means removably mounted in the lining and having extended portions fitting in the closure of said lining, said extended portions having openings for permitting of the insertion of a lifting element.

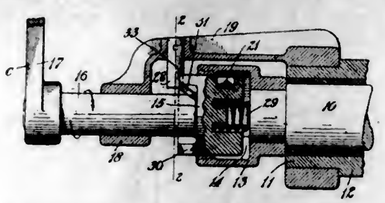
[Claim 6 not printed in the Gazette.]

1,140,415. LAMP-BURNER. HORACE F. STEVENS, St. Jacob, Ill., assignor of one-half to Lillian Stevens and one-fourth to Nellie Stevens, St. Jacob, Ill. Filed Aug. 2, 1912. Serial No. 712,991. Renewed Oct. 21, 1914. Serial No. 867,900. (Cl. 240—98.)



In a chimney holder, the combination of a burner having an annular flange formed thereon, a groove formed in said flange, a holder consisting of a single length of resilient wire and comprising a plurality of pairs of vertical arms arranged in parallel spaced relation, the lower ends of said arms being connected by horizontally disposed arms, which are secured in the groove, said vertical arms having their upper ends terminating in outwardly inclined portions, said portions being connected at their upper ends by bars adapted to yieldably engage the interior surface of a lamp chimney when the same is placed upon a burner.

1,140,416. STARTING MECHANISM FOR EXPLOSIVE-ENGINES. SILAS A. STRICKLAND, Detroit, Mich., assignor to Alfred C. Waters, Detroit, Mich. Filed June 24, 1911, Serial No. 635,071. Renewed Mar. 31, 1915. Serial No. 18,410. (Cl. 123—185.)



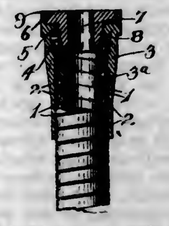
1. In a starting device for explosive engines, the combination with the engine shaft, of a rotatably mounted and endwise slidable starting shaft provided with a crank, coöperating clutch members at the adjacent ends of the shafts adapted to engage and disengage by an endwise sliding movement of the starting shaft, a cam on said starting shaft, a fixed pin, a spring holding the cam in engagement with said pin and a notch in the cam for engagement with the pin.

2. In a starting device for explosive engines, the combination with the engine shaft, of a rotatably mounted and endwise slidable starting shaft provided with a crank, a female clutch member at the end of the engine shaft, a male clutch member at the end of the starting shaft and provided with a key pocket and a ball key adapted to cooperate with the female clutch member by the endwise sliding movement of the starting shaft, a cam on the starting shaft and a fixed pin coöperating therewith to impart an endwise movement to the starting shaft at predetermined positions in the movement of the crank in starting the engine.

3. In a starting device for explosive engines, the combination with an engine shaft, of a rotatably mounted and endwise slidable starting shaft, clutch members at the adjacent ends of said shafts with one of said members extending into the other, a movable key arranged between the walls of said member and adapted to lock one of said members relatively to the other, and means including a cam member adapted to slide said starting shaft and place said movable key in operative relation to said members.

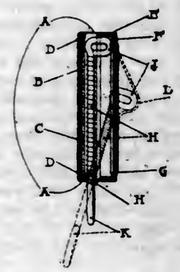
4. In a starting device for explosive engines, the combination with an engine shaft, of a rotatably mounted and endwise slidable starting shaft, coöperating clutch members at the adjacent ends of said shafts, and locking means interposed between the walls of said clutch members and placed in an operatable position by an endwise movement of said starting shaft whereby said starting shaft is locked relatively to said engine shaft for rotative continuity in one direction.

1,140,417. FLEXIBLE TUBING. CHARLES WALFRID SVENSON, New Britain, Conn., assignor to The American Hardware Corporation, New Britain, Conn., a Corporation of Connecticut. Filed Feb. 9, 1914. Serial No. 817,452. (Cl. 64—30.)



In a device of the character described, a flexible spiral tubing, a sleeve inclosing the outer face of said tubing at one end thereof, said sleeve having an internal annular flange adjacent one end thereof, and having its internal face beveled at a point adjacent to said flange, and a hollow plug inserted within said tubing end, said plug having an external bevel portion coöperating with said sleeve bevel and with that portion of the tube between said bevels to wedge adjacent walls of said tubing between said plug and sleeve bevels, said plug also having a plain surfaced head arranged to seat against said sleeve flange and to be frictionally engaged with and held by the inner face of said sleeve.

1,140,418. TOY OR JOKE ARTICLE. ARTUR TALKE, Nieder-Goellschau, Kreis Goldberg-Haynau, Silesia, Germany. Filed May 25, 1914. Serial No. 840,872. (Cl. 46—40.)



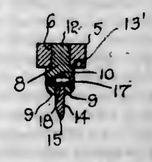
1. A toy comprising a casing having an open front and an aperture in its lower part, an elastic cover over said front opening and a rod, extending through said aperture and adapted to be pressed by hand, against said elastic cover.

2. A toy comprising a casing having an open front and an aperture through its lower part, an elastic cover secured to said casing and extending over said front opening, a rod having a blunted end and extending upwardly through said aperture, a spring to hold said rod normally in said aperture and a finger hold on said rod extending below said casing.

3. A toy comprising a casing having an opening in its front side and having apertures in its rear side and bottom, an elastic cover over said front opening, a ring holding said elastic cover on the casing, a rod having a vertical and a rocking movement in the bottom slot and turnable to all sides on its fulcrum, and extending horizontally and upwardly through said rear side and bottom, a nose-shaped blunted end on said rod, a coil spring on said rod, to hold the latter normally within said casing, a finger hold on said rod extending below said casing, a mirror in the rear side of said casing and any preferred representation on the outer surface of said elastic cover.

4. A toy comprising a casing having a front opening and an opening rearward of its front opening, an elastic cover over said front opening and a rod extending through said rearward opening whose inner end is adapted to be pressed against said elastic cover, for the purpose specified.

1,140,419. CALK ATTACHMENT FOR HORSESHOES. EDWARD C. TOBIN, Stockton, Cal. Filed Oct. 26, 1914. Serial No. 868,724. (Cl. 168—42.)

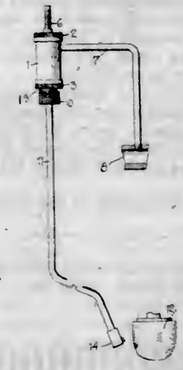


1. The combination with a horseshoe, of a socket member mounted to turn thereon, a calk removably arranged in said socket member, means on the socket member for immovably securing the calk in place therein, and said calk being provided with means upon one of its ends cooperating with means on the shoe to prevent turning movement of the socket member.

2. The combination with a horseshoe, of a socket member mounted to turn thereon, a calk adapted to be arranged in the socket member, the shoe bar being provided with a recess, means on one end of the calk for engagement in said recess to prevent turning movement of the socket member, and means carried by the socket member to immovably secure the calk therein.

3. The combination with a horseshoe, of a socket member mounted to turn thereon, said socket member including spaced ears, the base wall of said member being provided with a notch in one of its ends, a calk adapted to be arranged between the ears of the socket member, the shoe bar being provided with a recess, said calk having a lug formed upon one end to extend through the notch in the base wall of the socket and into the recess in said shoe, and means mounted in the ears of the socket member to immovably secure the calk therein.

1,140,420. GAS-REGULATING VALVE. COLUMBUS A. THOMAS, Fayetteville, N. C. Filed May 16, 1914. Serial No. 839,100. (Cl. 67—121.)



. A valve of the character described comprising a tubular member closed at opposite ends, a screw threaded through one end of the member, the opposite end being provided with a discharge opening, said member being provided in a side thereof with an induction opening, a permeable and compressible body positioned within the tubular member and interposed between the end provided with the discharge opening and the induction opening, the space between the inner end of the compressible body and the end of the tubular member affording an expansion chamber, an expansible member embedded within the compressible body, and a perforated member disposed in contact with the inner end of the compressible body and with which the inner end of the screw is adapted to contact.

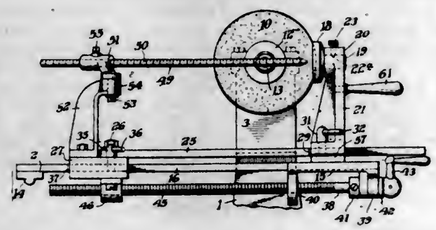
1,140,421. DOUBLE-RADIUS GRINDING-MACHINE. CHARLES F. WALL and FREDERICK HANKER, Philadelphia, Pa. Filed May 2, 1914. Serial No. 835,852. (Cl. 51—4.)

1. The combination of a revoluble grinding wheel, an oscillatable member pivoted in rear of and in the plane of said grinding wheel, a work support secured upon said oscillatable member in front of said grinding wheel and means whereby said work support may be adjusted toward or from said grinding wheel.

2. The combination of a revoluble grinding wheel, an oscillatable member pivoted in rear of and in the plane of said grinding wheel, a work support secured upon said oscillatable member in front of said grinding wheel, means whereby said oscillatable member may be adjusted so as to

move the said work support toward or from the said grinding wheel without altering the radius of oscillation of the said work support and means whereby said work support may be independently adjusted upon the said oscillatable member toward or from the said grinding wheel.

3. The combination of a revoluble grinding wheel, an oscillatable member pivoted in rear of said grinding wheel, a work support secured upon said oscillatable member in front of said grinding wheel, and means whereby said oscillatable member may be manually oscillated.

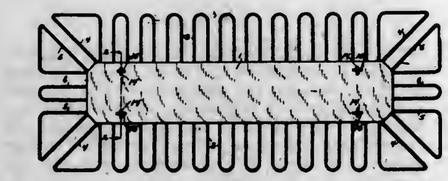


4. The combination of a revoluble grinding wheel, an oscillatable bar pivoted in rear of and in the central plane of the said grinding wheel, a work supporting member secured upon said oscillatable bar in front of said grinding wheel, and means whereby said work supporting member may be adjustably secured on said bar in operative relation to said grinding wheel, and means whereby the said oscillatable bar may be oscillated.

5. The combination of a revoluble grinding member, a stationary bar, a slidable member supported on said bar, a work supporting member having pivotal connection with the said slidable member, and means for adjusting the said slidable member longitudinally of the said stationary member.

[Claims 6 to 15 not printed in the Gazette.]

1,140,422. BROOM RACK AND HOLDER. FRANK F. WARD, Schoolcraft, Mich. Filed May 11, 1914. Serial No. 837,694. (Cl. 211—17.)

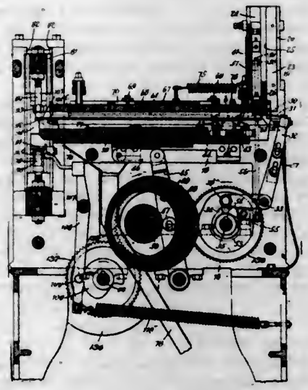


1. In a structure of the class described, a broom holding frame comprising a pair of members superimposed one upon the other, one of said members being provided with a plurality of channels extending transversely thereof, a plurality of closed loops disposed in said channels, the ends of said loops extending beyond the sides of said members, suitable channels, provided at the ends of one of said members, wires bent to form oppositely disposed and substantially triangular loops and disposed in said end channels with the loops extending from the corners thereof, U-shaped channels provided in the ends of the other members, wirea disposed in said U-shaped channels and bent to form substantially triangular loops extending from the corners thereof, said last named triangular loops being disposed between said first named triangular loops when the members are superimposed, U-shaped channels provided in the ends of said members and extending longitudinally thereof, and U-shaped loops disposed in said channels and extending from the ends of said members, U-shaped clips having their ends extending through said superimposed members and clamping them together, the ends of said clips being bent over to form eyes, all of said loops being so spaced apart as to provide recesses therebetween adapted to receive the body portion of a broom, all coacting substantially as described for the purpose specified.

2. In a structure of the class described, a broom holding frame comprising a pair of members superimposed one upon the other, a plurality of channels extending transversely of one of said members, a plurality of closed loops disposed in said channels, the ends of said loops projecting beyond the sides of said members, wires bent to form three connected loops disposed in suitable channels in one of said members at the ends thereof, a U-shaped clip passing through said superimposed members and clamping them together, the ends of said clips being turned over to form eyes and said clips being so bent as to form a pair of eyes below the lower member, all coacting substantially as described for the purpose specified.

3. In a structure of the class described, a broom holding frame comprising a pair of members superimposed one upon the other, a plurality of channels extending transversely of one of said members, a plurality of closed loops disposed in said channels, the ends of said loops projecting beyond the sides of said members, wires bent to form three connected loops disposed in suitable channels in one of said members at the ends thereof, a U-shaped clip passing through said superimposed members and clamping them together, the ends of said clips being turned over to form eyes and said clips being so bent as to form a pair of eyes below the lower member, a bail connected to the uppermost eyes of each clip, and a suspension link connected to each of said bails, all coacting substantially as described for the purpose specified.

1,140,423. MACHINE FOR FASTENING METAL STIFFENERS TO SHOE-SHANKS. BRADFORD B. WATERMAN, East Bridgewater, Mass., assignor to The American Shoe Finding Company, a Corporation of Maine. Filed Feb. 3, 1914. Serial No. 816,327. (Cl. 1—18.)



1. In a machine for fastening stiffeners to shoe shanks, a pair of parallelly arranged guides, means adapted to move a plurality of stiffeners individually along said guides step by step, and means to feed tacks to said stiffeners at each step of said movement.

2. In a machine for fastening stiffeners to shoe shanks, a pair of parallelly arranged guides, means adapted to feed stiffeners from a mass of stiffeners one at a time to said guides, a slide arranged above said guides, a plurality of pairs of feed fingers pivotally arranged on said slide to engage said stiffeners from above, means adapted to reciprocate said slide to cause said several pairs of feed fingers to progressively feed said stiffeners from one end of said guides to the other, and instrumentalities adjacent said other end adapted to fasten said stiffeners to shoe shanks.

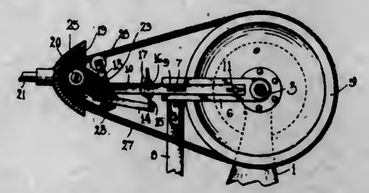
3. A machine for fastening perforated stiffeners to shoe shanks having, in combination, a support for said shanks, means adapted to guide a column of stiffeners, means adapted to support the stiffeners constituting said column with one of the ends thereof elevated, means to advance the elevated end of the lowermost stiffener in said column from beneath said column, means adapted to support the advanced end of said lowermost stiffener substantially on a level with the opposite end thereof, means adapted to feed said lowermost stiffener intermittently from the aforesaid position into a position above said shank support, means for supplying tacks to said stiffeners during the intermittent feeding movement thereof, means adapted to move said stiffeners from the position above said shank into engagement therewith, and means to drive the tacks therein into said shanks.

4. In a machine for fastening perforated stiffeners to shoe shanks, means to support a shank, a raceway for said stiffeners, means to feed tacks to said stiffeners, means to feed said stiffeners one at a time from said raceway to an intermediate position in advance of said tack feeding means, a plurality of sets of feed fingers, means to move said feed fingers to successively engage said stiffeners and move the same step by step from said intermediate position to a point above said shank, and means to fasten said stiffeners to said shank.

5. In a machine for fastening stiffeners to shoe shanks, means adapted to guide a stack of stiffeners, means adapted to support said stiffeners in said guides with one end elevated above the other, a pair of parallelly disposed guides arranged on a level with the lower end of the lowermost stiffener in said stack and in alinement with the sides of said stack guiding means, means to advance the elevated end of the lowermost stiffener in said stack onto one of said guides to separate said lowermost stiffener from the next stiffener in said stack, means adapted to move said advanced stiffener step by step along said parallel guides, and means arranged at the ends of said guides adapted to secure said stiffener to said shoe shank.

[Claims 6 to 16 not printed in the Gazette.]

1,140,424. POLISHING-MACHINE. HARRY J. WEBB, Detroit, Mich. Filed July 13, 1914. Serial No. 850,538. (Cl. 51—3.)



1. In a machine of the character described, the combination of an endless taut abrasive member, a pulley over which said member travels to drive said member, extension members and a forming member tiltable at the outer ends of said extension members and over which said member travels to cause the same to travel in a path throughout a portion of its length conforming to the surface of work.

2. In a machine of the character described, the combination of an endless abrasive belt, a drive pulley for the belt, a forming member having a surface conforming to the surface of work, and a series of friction reducing devices interposed between said belt and said forming member.

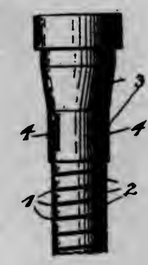
3. In a machine of the character described, the combination of an abrasive belt, a forming member having a surface curved to conform to the surface of work, an endless chain having a series of rollers adapted to travel over said surface of the forming member between the belt and said forming member, and means for driving the belt.

4. In a machine of the character described, the combination of an endless abrasive belt, a driving pulley for said belt, a pivoted forming member movable to and from said pulley and having a surface curved to correspond with the curvature of the surface of work and over which curved surface the belt is adapted to pass, and means for adjustably supporting said forming member to increase and decrease the abrading area of said belt relative to a piece of work.

5. In a machine of the character described, the combination of an endless flexible abrasive belt, a driving pulley for said belt, a block having a formed surface over which said belt is adapted to pass, a chain provided with a series of rollers surrounding said block and passing between said belt and said formed surface.

[Claims 6 and 7 not printed in the Gazette.]

1,140,425. FLEXIBLE TUBING. AUGUSTUS W. WASSOLECK, New Britain, Conn., assignor to The American Hardware Corporation, New Britain, Conn., a Corporation of Connecticut. Filed Jan. 31, 1914. Serial No. 815,680. (Cl. 64—30.)



1. In a device of the character described, a flexible spiral tubing, and a sleeve member inclosing one end of said tubing, said sleeve member and adjacent coils of said spiral tubing having corresponding interengaging and interlocking deformations, said deformations extending longitudinally of the sleeve and tubing and transversely of at least two adjacent spiral coils.

2. In a device of the character described, a spiral tubing, and a sleeve member inclosing one end of said tubing, said sleeve member having an indentation therein extending in a direction to bridge adjacent coils of said spiral tubing, said adjacent coils being provided with corresponding indentations interlocked with said sleeve indentation, said last named indentation interlocking said coils with each other and against relative movement.

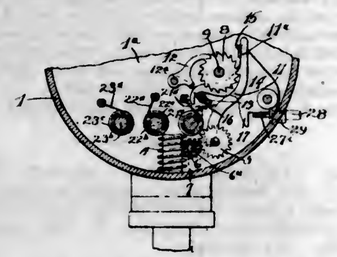
3. In a device of the character described, a spiral tubing, and a sleeve member inclosing one end of said tubing, said member and adjacent coils of said tubing being provided with a series of spaced interlocking indentations, said indentations extending transversely of adjacent coils of the tubing to interlock said coils with each other.

4. In a device of the character described, a spiral tubing, and a sleeve member inclosing one end of said tubing, said member and adjacent coils of said tubing being provided with a series of spaced interlocking indentations, said indentations extending transversely of adjacent coils of the tubing to interlock said coils with each other and to said sleeve, said series of indentations extending around said sleeve.

1,140,426. ODOMETER. AUGUSTUS W. WASSOLECK, New Britain, Conn., assignor to The American Hardware Corporation, New Britain, Conn., a Corporation of Connecticut. Filed Mar. 16, 1914. Serial No. 824,922. (Cl. 235—95.)

1. In combination, a spindle having a numeral disk thereon and arranged to be rotated in one direction to give an indication, means normally tending to reversely rotate said spindle, means coöperating with said spindle and normally tending to hold the same against reverse rotation while permitting rotation in the first direction to indicate, a rotatable actuator operatively connected with said spindle and arranged to rotate the same in said first or indicating direction, means arranged to hold said actuator against reverse rotation, and means operative to

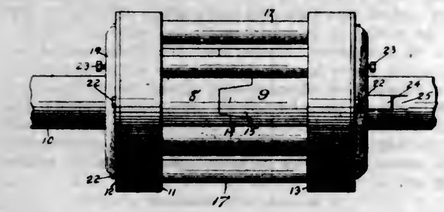
release the holding means of said spindle and of said actuator, whereby said spindle and disk may be reversely rotated.



2. In combination, a spindle having a numeral disk thereon and arranged to be rotated in one direction to give an indication, means normally tending to reversely rotate said spindle, means coöperating with said spindle and normally tending to hold the same against reverse rotation while permitting rotation in the first direction to indicate, a rotatable actuator eccentrically positioned relative to said spindle and connected thereto and arranged to rotate the same in said first or indicating direction, means arranged to hold said actuator against reverse rotation, and means manually operable to release the holding means of said spindle and of said actuator, substantially simultaneously, whereby said spindle and disk may be reversely rotated.

3. In combination, a spindle having a numeral disk thereon and having a driving gear thereon, a driving shaft having an actuator thereon arranged to engage said spindle gear and rotate said spindle in a direction to indicate by said disk, means for rotating said shaft in such indicating direction, means normally tending to reversely rotate said spindle, means co-acting with said spindle and normally holding the same against reverse rotation while permitting rotation in the indicating direction, means arranged to hold said shaft against reverse rotation, and means manually operative to release said holding means for said spindle and operative to substantially simultaneously release the holding means of such shaft, whereby said spindle, disk and gear may be reversely rotated.

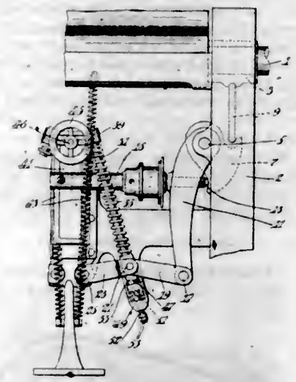
1,140,427. ROLLER GEAR-WHEEL. GEORGE H. WILSON, Minneapolis, Minn. Filed Oct. 4, 1913. Serial No. 793,410. (Cl. 74—41.)



1. A roller gear wheel comprising a hub which is transversely divided into separable sections, each section being provided with an annular flange, the flanges having correspondingly positioned bearing recesses extending from the inner surface of said flange to a point adjacent the outer surface thereof and having lubricating ducts extending from the center of said recesses to the outside of the flange, roller teeth having their ends journaled in corresponding pairs of said recesses, said teeth being shorter than the distances between the bottoms of said pairs of recesses, and a circular channel member removably secured to the ends of said flanges so that said member will overlie and inclose all of said ducts and a closed channel in communication with said ducts will be formed between the channel of the member and the face of the flange.

2. A roller gear wheel comprising a hub which is transversely divided into separable sections, each section being provided with an annular flange, the flanges having correspondingly positioned bearing recesses extending from the inner surface of said flange to a point adjacent the outer surface thereof and having lubricating ducts extending from the center of said recesses to the outside of the flange, roller teeth having their ends journaled in corresponding pairs of said recesses, said teeth being shorter than the distance between the bottoms of said pairs of recesses, a circular channel member removably secured to the ends of said flanges so that said member will overlie and inclose all of said ducts and a closed channel in communication with said ducts will be formed between the channel of the member and the face of the flange, and a screw-bolt threaded through the wall of said member and into said channel for forcing lubricant into the ducts.

1,140,428. TOGGLE. HENRY W. WINTER, Methuen, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Aug. 19, 1910. Serial No. 578,004. (Cl. 74—5.)



1. The combination with a toggle, a member arranged to move the knuckle of said toggle, actuating means for said member, and a stop for engaging said member whereby the parts of the toggle are relieved of strain.

2. The combination with a toggle of a spring for normally holding said toggle in a given position, and means for relieving the parts of said toggle from the thrust of said spring while the toggle is in said position.

3. The combination with a stop, a rod and yielding means for normally causing said rod to contact with said stop, of a toggle operably connected therewith, the knuckle of which is movable with said rod away from said stop.

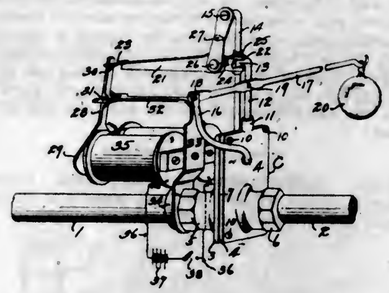
4. The combination with a yielding stop, a rod and yielding means for normally causing said rod to contact with said stop, of a toggle operably connected with said rod.

5. The combination with a member to be moved of a toggle for moving said member, a rod arranged to engage the knuckle of said toggle, yielding means for actuating said rod and a stop engaging said rod and normally relieving the parts of said toggle from strain.

[Claims 6 to 10 not printed in the Gazette.]

1,140,429. AUTOMATIC VALVE. FRANK E. WOODRUFF and WILLIAM K. BISHOP, Binghamton, N. Y. Filed July 8, 1914. Serial No. 849,780. (Cl. 137—92.)

1. In an automatic valve actuating mechanism the combination with a valve casing, of a weighted valve slidable in said casing, a support carried by said casing, keeper means slidably arranged on said support and adapted to maintain the valve proper in its open position, fusible means for suspending said keeper means from said support, and a magnet controlled device releasably engaging the said keeper means.



2. In an automatic valve actuating mechanism the combination with a valve casing, of a valve element slidable therein, a support carried by the casing, keeper means pivotally and slidably mounted on said support for maintaining the valve element in its normal open position, a fusible connection between said support and said keeper means for suspending the latter, and a magnet controlled device for releasably engaging the said keeper means.

3. In an automatic valve actuating mechanism, the combination with a weighted valve element of a valve casing, a standard carried by the valve casing, a sliding sleeve mounted on said standard, a keeper arm pivotally connected to said sliding sleeve and detachably receiving a portion of the valve element to one end, a fusible link loosely connected at its terminal ends to said standard and keeper arm so as to normally hold the valve in open position, and magnet controlled means for releasably engaging the said keeper means.

4. In an automatic valve actuating mechanism the combination with a weighted valve element of a valve casing, a standard carried by the valve casing having an angularly disposed end portion, a sliding sleeve mounted on said standard, a keeper arm pivotally connected to said sliding sleeve and having a bifurcated keeper end for detachably receiving a part of the weighted valve element, a stud carried by said arm, a fusible link loosely connecting said stud with the angular end of the standard so as to normally hold the valve in its open position, and magnet controlled means for releasably engaging the said keeper arm.

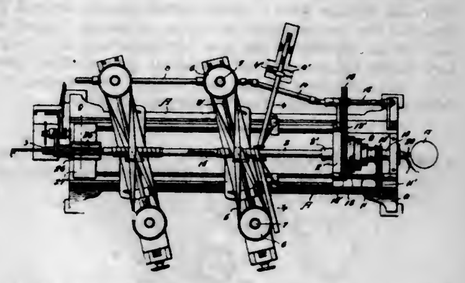
5. In an automatic valve actuating mechanism the combination with a weighted valve element of a valve casing, a standard carried by the valve casing having an angularly disposed end portion, a sliding sleeve mounted on said standard, a keeper arm pivotally connected to said sliding sleeve and having a bifurcated keeper end for detachably receiving a part of the weighted valve element, a latch projection on the keeper arm, a stud carried by said arm, a fusible link loosely connecting said stud with the angular end of the standard so as to normally hold the valve in open position, a magnet supported at one side of the valve casing, a lever supporting arm, a release lever pivoted in said arm and having an armature portion at one end and a holding slot at the other for receiving the latch projection of the keeper arm, and means for energizing the magnet to actuate the release arm for causing the same to disengage from the keeper arm.

[Claims 6 to 8 not printed in the Gazette.]

1,140,430. TUBE FORMING AND COATING MACHINE. MARK R. WOODWARD, Washington, D. C. Filed Apr. 17, 1908. Serial No. 427,592. (Cl. 93—80.)

1. In a machine of the character described, the combination of a former, means for forming a tube thereon and feeding it along the former, the said former being formed with a channel or opening in its surface, and means for supplying a suitable material to said channel.

2. In a machine of the character described, the combination of a former, means for forming a tube thereon and feeding it along the former, the said former being formed with an elongated channel in its surface, means for supplying a suitable material to said channel, and a valve for regulating the amount of material delivered to said channel.



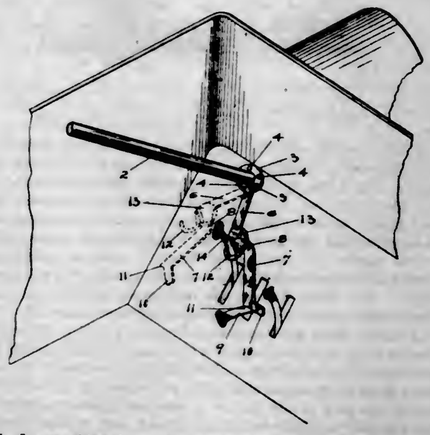
3. The combination of a mandrel having an elongated material holding channel in its peripheral surface, means for continuously forming a tube on the mandrel and feeding it therealong, a reservoir, and connections between the reservoir and the channel formed in the mandrel for supplying the material thereto.

4. The combination of a mandrel having an elongated material holding channel in its peripheral surface, means for continuously forming a tube on the mandrel and feeding it therealong, a reservoir, connections between the reservoir and the channel formed in the mandrel for supplying the material thereto, and means for heating the mandrel.

5. In a machine of the character described, the combination of a mandrel having a channel formed in its surface between its opposite ends, adapted to hold a coating material, means for forming a tube on the mandrel and feeding it therealong and relative to the channel formed in the mandrel, whereby the internal surface of the tube will receive an application of the coating material, a reservoir and connections between the reservoir and the channel for supplying material thereto.

[Claims 6 to 29 not printed in the Gazette.]

1,140,431. LOCK FOR TWO RELATIVELY MOVABLE LEVERS. BENJAMIN P. YOUMANS, Vancouver, Wash. Filed May 26, 1914. Serial No. 841,046. (Cl. 70—90.)

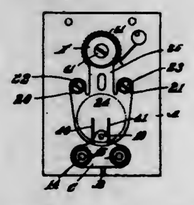


1. In combination with a fixed body, and two levers movable relatively thereto, and an arm, pivoted to said fixed body, having means to engage and secure said levers

in a certain relative position thereof; said means consisting of a shackle adapted for encircling one of said levers, lock means to secure the shackle in such encircling position, and a shoulder located for engaging the other lever and obstructing the movement thereof.

2. In combination with a fixed body, and two levers movable relatively thereto, an arm pivoted to said fixed body and formed with a medial offset portion located to obstruct the movement of one lever, a shackle hinged to said off-set portion of the arm for encircling said lever; lock means for securing the shackle in its encircling position, and a shoulder on the arm located for engaging the other lever and obstructing the movement thereof.

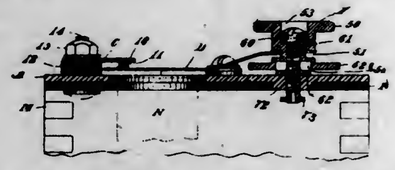
1,140,432. ARMATURE-SPRING. BUTLER AMES, Lowell, Mass. Filed May 21, 1913. Serial No. 769,043. (Cl. 175—349.)



1. A spring armature formed from one piece of sheet metal and which comprises a body portion, three leaves forming the front thereof, two ears at the back thereof, and a tail which extends backward between said ears.

2. The combination in a spark coil having a core and a top plate with an opening opposite the core, of a bridge with a wing and a contact tip, an adjusting nut, and a spring armature, the body portion of which extends over the opening for the core between the adjusting nut and bridge said spring armature being formed of sheet metal and elastically attached behind its body portion to the top plate and having a tail at the back which engages the adjusting nut said body portion on the front being split into three leaves the middle leaf having a contact tip which engages the contact tip on the wing as described.

1,140,433. ADJUSTING-POST. BUTLER AMES, Lowell, Mass. Filed May 21, 1913. Serial No. 769,045. (Cl. 175—349.)

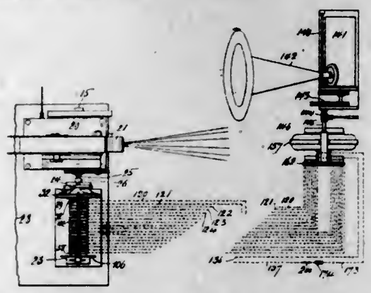


1. In a spark coil having a core and a top plate, the combination of a spring armature having a tail which terminates in arms, a lock screw which passes through the top plate and has a bottom collar fixed at its lower end and has a head at its upper end, and an adjusting nut through which the lock screw passes having a top cylindrical cavity for the screw head, a bottom cylindrical cavity and an annular groove on the outside for the arms, with a thin check nut on the lock screw adapted to enter the bottom cavity in the adjusting nut as described.

2. In a spark coil having a core and a top plate, the combination of a lock screw which passes through the top plate and has a bottom collar fixed at its lower end and has a head at its upper end, with an adjusting nut through which the lock screw passes having an annular groove on the outside, a thin check nut on the lock screw between the adjusting nut and the top plate, and a spring armature having a tail which enters the annular groove on the adjusting nut as described.

3. In a spark coil having a core and a top plate, the combination of a lock screw which passes through the top plate and has a bottom collar fixed at its lower end and has a head at its upper end, with an adjusting nut through which the lock screw passes having an annular groove on the outside and a toothed rim at the bottom, a thin check nut on the lock screw between the adjusting nut and the top plate, a spring which engages the toothed rim of the adjusting nut, and a spring armature having a tail which enters the annular groove on the adjusting nut as described.

1,140,434. SYNCHRONIZING APPARATUS. CHARLES SIDNEY ANDRES, Philadelphia, Pa. Filed Apr. 13, 1914. Serial No. 831,394. (Cl. 172—293.)

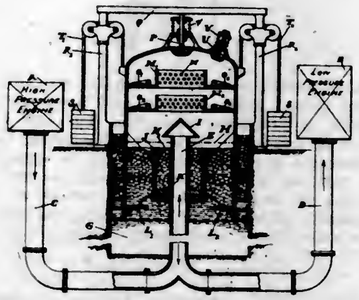


1. In a synchronizing apparatus the combination of a current transmitter, a stationary shaft for the transmitter, a barrel of insulating material journaled on said shaft, metallic rings on the barrel, a collector disk of insulating material connected to the barrel, metallic segments extending from the disk, contact rings on the disk, conductors for electric current connecting the rings on the barrel with the segments and rings on the disks, brushes for the segments and the rings on the disk, brushes for the rings on the barrel, means to turn the barrel with its disk and their appurtenances, wires with a source of electricity connected to a pair of brushes of the barrel, wires for electric current extending from the remaining brushes of the barrel, and an electric motor with the fields thereof connected to the latter wires and an armature for the motor in circuit with the wires having the source of electricity.

2. In a current transmitter the combination of a stationary shaft, a barrel of insulating material journaled on the shaft, metallic rings on the barrel, a collector disk of insulating material connected to the barrel, metallic segments and contact rings extending from the disk, conductors for electric current connecting the rings of the barrel with segments and rings of the disk, a rotatable brush bracket for the disk, brushes extending from the latter and bearing on the rings and segments of the disk, means to vary the distance of the brush bracket from the disk, a secondary shaft journaled adjacent to the stationary shaft, gearing connecting the secondary shaft with the said barrel, means to rotate the secondary shaft and thereby shift the location of the brushes with respect to the segments and thereby alter the lead of the current transmitter.

3. In a synchronizing apparatus the combination of a shaft, a current transmitter journaled on the shaft comprising a barrel of insulating material, metallic rings on the barrel, a collector connected to the barrel, metallic segments extending from the disk, contact rings on the disk, conductors for electric current connecting the rings on the barrel with the segments and rings on the disk, a rotatable brush bracket axially adjustable on the shaft, brushes extending from the bracket and bearing on the segments and rings of the disk, brushes for the rings on the barrel, means to rotate the barrel with its disk on its shaft, wires with a source of electricity connected to a pair of brushes of the barrel, wires for electric current extending from the remaining brushes of the barrel, and an electric motor with the fields thereof connected to the latter wires and an armature for the motor in circuit with the wires having the source of electricity.

1,140,435. STEAM-REGENERATIVE ACCUMULATOR. LEONCE P. L. BATTU, New York, N. Y., assignor to Rateau Steam Regenerator Company, New York, N. Y. Filed Sept. 27, 1911. Serial No. 651,545. (Cl. 121—95.)



1. A steam regenerator comprising a vessel containing liquid, an inverted bell having its open portion immersed in the liquid and means controlled by the displacement of the bell under the action of the steam pressure, adapted to raise with and inside the bell a portion of the liquid contained in the vessel.

2. A steam regenerator comprising a vessel containing liquid, an inverted bell having its open portion immersed in the liquid and means controlled by the displacement of the bell under the action of the steam pressure, adapted to raise with and inside the bell a portion of the liquid contained in the vessel and means allowing the portion of the liquid so raised to fall through the steam.

3. A steam regenerator comprising a vessel containing liquid, an inverted bell having its open portion immersed in the liquid and means controlled by the displacement of the bell under the action of the steam pressure, adapted to raise with and inside the bell a portion of the liquid contained in the vessel and means allowing the portion so raised to fall through the steam in divided streams.

4. In a steam regenerator a vessel having a varying capacity, a liquid contained in said vessel, means to direct the steam to be treated into said vessel, means responsive to the increase or decrease of steam pressure in the vessel controlling the capacity of said vessel, means to promote rapid heat interchanges between the liquid and the steam undergoing treatment and means to discharge steam from said vessel.

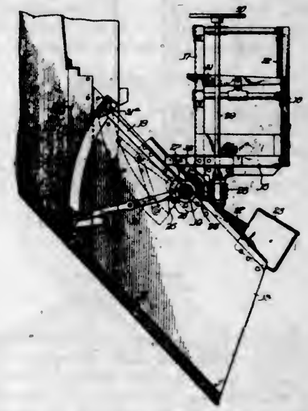
5. A steam regenerator comprising a vessel containing liquid, an inverted bell having its open portion immersed in the liquid and plates affixed to the bell under the liquid level adapted to promote circulation of the liquid contained in the vessel when said baffles rise and fall as the bell moves upward and downward.

[Claims 6 to 9 not printed in the Gazette.]

1,140,436. ORE-POCKET DOOR. CHARLES G. BAUMGARTNER, Chicago, Ill. Filed June 19, 1914. Serial No. 846,142. (Cl. 193—46.)

1. In a device of the class described, the combination of a wall having an opening therein, a closure for said opening, actuating means for said closure, said means including a pivoted member having an arcuate portion, a rigid link, a pair of links having a knuckle joint connection, both said link and said pair of links being secured to said closure and mounted for actuation by said arcuate member, and means for actuating said arcuate member and said links for opening and closing said door, substantially as described.

2. In a device of the class described, the combination of a wall having an opening, a segmental closure for said opening, a shaft, a rigid link connecting said shaft and said closure, a broken link also connecting said shaft and closure, means for operating said broken link, and means for effecting the movement of the closure, substantially as described.



3. In a device of the class described, the combination of a wall having an opening, a closure for said opening, a shaft, links connecting said door and shaft, one of said links being rigid and the other link having a knuckle joint, a counter-weight for said closure, and means for actuating said jointed link, substantially as described.

4. In a device of the class described, the combination of a door member, a shaft, links connecting said door to said shaft, the lower link having a joint therein, a counter-weight pivoted on said shaft and acting on said door, and means for breaking the joint in said lower link and allowing said door to swing on the outer end of the upper link as a pivot, substantially as described.

5. In a device of the class described, the combination of a door, a shaft, a rigid link connecting the upper edge of said door to said shaft, and a jointed link connecting the lower edge of the door to the shaft, a counter-weight pivoted on said shaft and acting upon said door through said links, the counter-weight being insufficient to cause movement of the door when said lower link is extended but of sufficient weight to lift the door when said lower link is broken and the lower edge of the door swung toward the shaft, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,140,437. FERTILIZER AND PROCESS OF PRODUCING SAME. CARL A. BLACK and WILLIAM H. TEARE, Cleveland, Ohio, assignors of one-third to said Black and two-thirds to John R. Cowell, Toledo, Ohio. Original application filed May 9, 1914. Serial No. 823,573. Divided and this application filed July 24, 1914. Serial No. 852,865. (Cl. 71—6.)

1. A fertilizer or fertilizer material, comprising loggerhead sponge treated with an acid capable of disintegrating cellulose.

2. A fertilizer or fertilizer material, comprising loggerhead sponge treated with sulfuric acid.

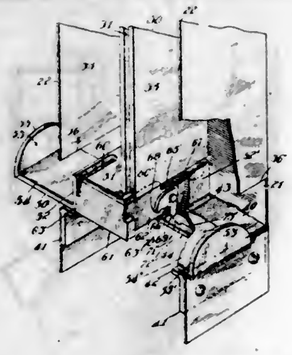
3. A fertilizer or fertilizer material, comprising loggerhead sponge dried and treated with an acid capable of disintegrating cellulose.

4. A fertilizer or fertilizer material, comprising loggerhead sponge granulated and treated with an acid capable of disintegrating cellulose.

5. A fertilizer or fertilizer material, comprising loggerhead sponge dried, granulated and treated with an acid capable of disintegrating cellulose.

[Claims 6 to 16 not printed in the Gazette.]

1,140,438. COIN-CONTROLLED VENDING-MACHINE. EMERSON A. BOLEN, Morris, Ill., assignor to North Western Novelty Company, Morris, Ill., a Corporation of Illinois. Filed Oct. 26, 1912. Serial No. 727,820. (Cl. 194—93.)



1. In a machine of the character described, the combination of a coin controlled slide, having a coin pocket therein; a guide, for said slide, having a fixed cam bar; and a coin disabled dog, engaging said cam bar, locking the slide in the absence of a coin and on the continuous movement of the slide moved by the cam to coin release position.

2. In a machine of the character described, the combination of a coin controlled slide, having a coin pocket therein; a guide, for said slide, having a fixed cam bar; a coin disabled dog, normally in contact with said cam bar; a stop, on said cam bar, engaged by the dog in the absence of a coin; and means, on said cam bar beyond said stop, to move the dog into coin release position.

3. In a machine of the character described, the combination of a coin controlled slide, having a coin pocket therein; a guide, for said slide, having a fixed cam bar; a coin disabled dog, one part of which is normally in contact with said cam bar, another part of which extends into the coin pocket; a projection, on said cam bar, for moving said dog into position to be engaged by a coin when the slide is in coin-receiving position; a second projection, on said cam bar, engaged by said dog at the end of its movement to release the coin; and a stop, on said cam bar intermediate the two projections and engaged by the dog in the absence of a coin.

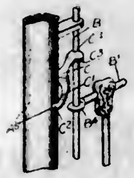
4. The combination of a coin controlled slide; a support therefor; coin disabled locking means, carried by the slide, said support having a slot therein to receive a projecting part of said locking means; said support at the edge of the slot being cam-shaped, to coact with said projecting part.

5. The combination of a coin controlled slide; a support therefor; coin disabled locking means, carried by the slide, said support having an opening therein to receive the coin when released and a slot therein to receive a projecting part of said locking means; said support at the edge of the slot being cam shaped to coact with said projecting part.

[Claims 6 to 18 not printed in the Gazette.]

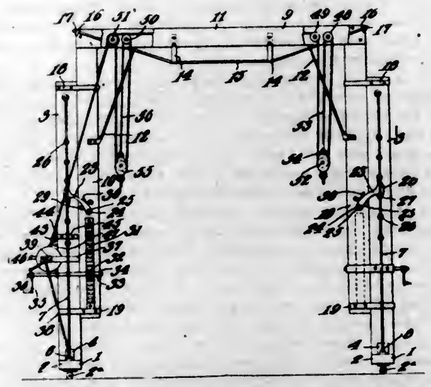
1,140,439. CHILD'S CRIB. RICHARD BRADSHAW, Toronto, Ontario, Canada. Filed Dec. 4, 1913. Serial No. 804,672. (Cl. 5—58.)

1. An automatic lock for children's cribs comprising a corner post having a vertical rod suitably supported in proximity thereto, a side gate the upper bar of which is provided with an eye through which said vertical rod extends, and a latch provided with a forked lower end having trunnions fitting into holes in the post and forming a pivot for the latch, and the upper end provided with a recess forming a jaw to normally straddle said vertical rod and bind on the same to support the eye of the top bar of the gate, and yet when swung back from the rod upon the top bar of the gate being raised will permit the eye to descend on the rod to the lowermost position as and for the purpose specified.



2. In a fastener for sliding side cribs, the combination of a crib post, a guide rod supported in spaced relation therefrom, a projection from the crib side slidingly mounted on said guide rod and a latch having its lower end bifurcated and pivotally connected to opposite sides of the post and its upper end normally leaning against said guide rod and adapted in such position to support the projection thereabove and to be swung back from said guide rod and allow said projection to pass thereon.

1,140,440. HOIST. ALFRED L. BROUILLETTE, Campbell, Nebr., assignor of one-half to Romulus C. Chevalier. Filed Feb. 17, 1914. Serial No. 819,230. (Cl. 254—145.)

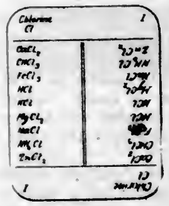


In a device of the class described, a main frame comprising supports; a U-shaped auxiliary frame comprising arms slidable upon the supports; a plurality of superposed projections on the supports; pivot elements on the arms and disposed out of vertical alinement with the projections; upwardly extended, laterally inclined pawls carried by the pivot elements, the pawls including hooks adapted to engage automatically with the projections, and cams adapted to engage the projections and to tilt the pawls, thereby to disengage the hooks from the projections when the auxiliary frame is raised; racks on the arms; shafts on the supports; pinions on the shafts and engaging the racks; and a hoisting mechanism on the auxiliary frame.

1,140,441. PLAYING-CARDS. ARTHUR W. BROWNE, Ithaca, N. Y. Filed Mar. 31, 1914. Serial No. 828,464. (Cl. 46—25.)

1. A deck of cards comprising a plurality of cards each bearing a chemical notation corresponding to a certain chemical element and a list of chemical compounds containing said certain chemical element, and a plurality of cards each bearing a chemical notation corresponding to a certain other chemical element and a list of chemical compounds containing said certain other element, at least one of said last-named chemical compounds containing said certain chemical element.

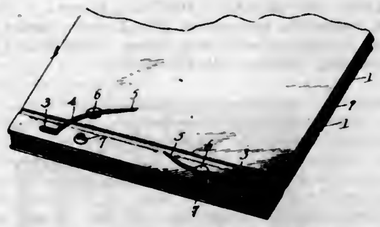
2. A deck of cards comprising a plurality of cards each corresponding to a certain chemical element and bearing a notation of its valence and a list of chemical compounds containing said certain chemical element in the said valence, and a plurality of cards each corresponding to a certain other chemical element and bearing a notation of its valence and a list of chemical compounds containing said certain other element in its said valence, at least one of said last-named chemical compounds containing also said certain chemical element in its said valence.



3. A deck of cards comprising a plurality of cards each bearing the chemical symbol corresponding to a certain chemical element, a notation of its valence and further a set of chemical compounds containing said certain chemical element in its said valence, and a plurality of cards each bearing the chemical symbol corresponding to a certain other chemical element, a notation of its valence and further a list of chemical compounds containing said certain other element in its said valence, at least one of said last-named chemical compounds containing also said certain chemical element in its valence.

4. A deck of cards comprising a plurality of sets of cards, said sets respectively corresponding to certain chemical elements, the cards of the respective sets bearing the chemical symbol and valence of the chemical element to which it corresponds and a list of chemical compounds containing such chemical element in its designated valence with the remaining of said certain chemical elements in their respective designated valences.

1,140,442. LOOSE-LEAF BINDER. FRED E. CARDY, Chicago, Ill. Filed Nov. 16, 1914. Serial No. 872,336. (Cl. 129—41.)



1. In a loose leaf binder, suitable covers, a flexible cord passing through openings therein, an eyelet and a stud adapted to be snapped together, one of said parts being slidably mounted on said cord and the other being permanently secured to one of said covers, said parts, when snapped together, serving to prevent further sliding of said cord.

2. In a loose leaf binder, the combination with loose leaves and covers having alined openings therethrough, of a flexible cord having an eyelet slidably mounted thereon and of a size adapted to pass through said openings.

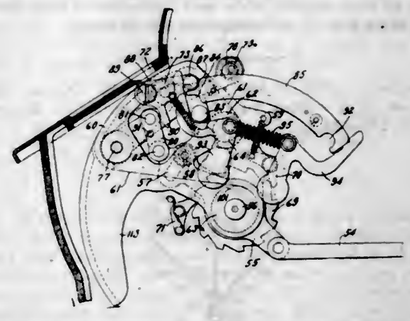
3. In a loose leaf binder, a flexible cord, an eyelet comprising a cap, a ring, tongues extending from said cap through said ring and bent outwardly to retain the latter in place, two of said diametrically opposed tongues being omitted to provide openings through which said cord may pass freely.

4. The combination with a stud and an eyelet adapted to snap together, of a cord passing loosely through openings in said eyelet and so disposed as to be frictionally held against further sliding when said eyelet and stud are snapped together.

5. In a device of the class described, an eyelet having a head with a central depression, a ring spaced therefrom, means connecting said head and said ring, alined openings in said means, a cord passing loosely through said openings and a stud adapted to snap through said ring into firm engagement with said eyelet and compress said cord between itself and said central depression.

[Claims 6 to 8 not printed in the Gazette.]

1,140,443. CASH AND AUTOGRAPHIC REGISTER. WILLIAM A. CHRIST, Dayton, Ohio, assignor to The National Cash Register Company, Dayton, Ohio, a Corporation of Ohio, (incorporated in 1906.) Filed Apr. 22, 1910. Serial No. 556,947. (Cl. 235—2.)



1. In a cash register, the combination with a main operating member, of a type carrier, a movable printing and writing table carrying record material adapted to receive printed and written records, said table normally being out of printing position, and in a position to receive a written record, impression means also carried by said table, and connections controlled by said main operating member for moving said table to printing position, and operating said impression means.

2. In a cash register, the combination with a main operating member, of a type carrier, a movable printing and writing table carrying record material adapted to receive printed and written records, said table normally being out of printing position, and in a position to receive a written record, impression means also carried by said table, connections controlled by said main operating member for moving said table to printing position, and operating said impression means, and means for locking said table in printing position during the operation of said impression means.

3. In a cash register, the combination with a type carrier, a movable printing and writing table carrying record material adapted to receive printed and written records, an impression means carried by said table for taking an impression from said type carrier, operating mechanism for moving said table and impression means, and connections intermediate said operating means and table permitting a movement of said operating mechanism in excess of the movement of said table, and connections intermediate said operating mechanism and impression means for operating the latter independent of the table to take an impression during such excess movement of the operating mechanism when the table is in printing position.

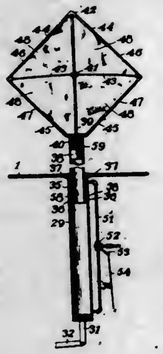
4. In a cash register, the combination with a type carrier, a movable printing and writing table carrying record material adapted to receive printed and written records, an impression means for taking an impression from said type carrier, operating mechanism for moving said table, connections intermediate said operating means and table permitting a movement of said operating mechanism in excess of the movement of said table, connections

intermediate said operating mechanism and impression means for operating the latter to take an impression during such excess movement of the operating mechanism when the table is in printing position, and means preventing an operation of said impression means to take an impression when the platen is out of alinement with the proper type on the type carrier.

5. In a cash register, the combination with a type carrier, a movable printing and writing table carrying record material adapted to receive printed and written records, an impression means for taking an impression from said type carrier, operating mechanism for moving said table, connections intermediate said operating means and table permitting a movement of said operating mechanism in excess of the movement of said table, connections intermediate said operating mechanism and impression means for operating the latter to take an impression during such excess movement of the operating mechanism when the table is in printing position, and means for locking the table in such position while said impression is beng taken.

[Claims 6 to 17 not printed in the Gazette.]

1,140,444. AEROPLANE. MERRILL E. CLARK, New York, N. Y. Filed Aug. 5, 1912. Serial No. 713,240. (Cl. 244—21.)



1. In an apparatus of the kind specified, a framework, a series of vanes mounted in intersecting planes, means for supporting the vanes above the framework, and means for varying the elevation of the vanes in a line coincident with their axis of intersection.

2. In an apparatus of the kind specified, a series of vanes located in intersecting planes having substantially a vertical axis of intersection, and means for lowering said vanes in a line coincident with their axis of intersection.

3. In an apparatus of the kind specified, a framework, a stabilizing device above said framework, comprising a series of vanes in intersecting planes with substantially a vertical axis of intersection, means for raising and lowering said vanes in a line coincident with their axis of intersection, and means for collapsing said vanes by their downward movement and expanding them by their upward movement.

4. In an apparatus of the kind specified, a stabilizer disposed above the framework of the apparatus, and means for raising and lowering said stabilizer, comprising a double acting cylinder, a second cylinder telescopically mounted within said first cylinder, and a piston within said second cylinder having an operative connection with the stabilizer, and means for admitting a fluid under pressure above and below said piston at will.

5. In an apparatus of the kind specified, a piston equipped cylinder hinged at its upper end to the framework of the machine, a stabilizer supported upon the piston rod and comprising a series of vanes mounted in intersecting planes, and means for moving said cylinder on its hinged connection.

1,140,445. WIRE FABRIC FOR ORNAMENTAL WEAR. FRED P. COLLINGWOOD and HAROLD W. COLLINGWOOD, Attleboro, Mass. Filed Apr. 2, 1913. Serial No. 758,381. (Cl. 245—6.)



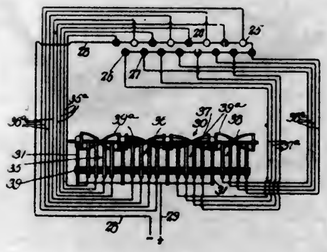
1. An article of manufacture comprising an extendible wire fabric constructed of a plurality of wire helices losely woven one into another and extending transversely of the fabric, and an elastic member attached to said fabric for drawing together said helices in the direction of their width and normally holding the same in contracted relation.

2. An article of manufacture comprising an extendible wire fabric constructed of a plurality of wire helices loosely woven one into another and extending transversely of the fabric, portions of said fabric being permanently bent longitudinally of the fabric and transversely with respect to said helices to form folds, and an elastic member within said folds for drawing said helices together in the direction of their width and normally holding the same in contracted relation.

3. An article of manufacture comprising an extendible wire fabric constructed of a plurality of wire helices losely woven one into another and extending transversely of the fabric, the opposite edges of said fabric being permanently bent longitudinally of the fabric and transversely with respect to said helices to form folds, and an elastic member within said folds for drawing said helices together in the direction of their width and normally holding the same in contracted relation.

4. An article of manufacture comprising an extendible wire fabric constructed of a plurality of wire helices lossely woven one into another and flattened, said helices extending transversely of the fabric, and an elastic member attached to said fabric for drawing together said helices in the direction of their width and normally holding the same in contracted relation.

1,140,446. ADVERTISING DEVICE. HAROLD J. CUSACK, Oak Park, Ill., assignor to The Thomas Cusack Company, a Corporation of New Jersey. Filed July 9, 1913. Serial No. 778,044. (Cl. 177—348.)



An advertising device comprising an elongated placard, upon which a representation is depicted, an inverted trough-like reflector arranged in front of and on an approximate level with the upper edge of said placard, a plurality of electric lamps having bulbs of different colors, arranged in longitudinal rows in said reflector, the lamps in one row being staggered relative to the lamps in the adjacent row, each row of lamps having lamps of several colors arranged in succession, the light rays of all of said lamps being reflected upon the representation depicted upon said placard by said reflector, a switch device in circuit with said lamps adapted to control the on and off period of said lamps in succession, to cause bands of light of different color to appear in succession over the length of said placard.

1,140,447. ELECTRIC HAMMER. ACHILLES DE KHOTINSKY, Chicago, Ill. Filed June 10, 1907. Serial No. 378,126. (Cl. 172—126.)



1. In an electric hammer, in combination: a reciprocatory magnetic percussion-core within, and itself about two-thirds the length of, three axially alined and contiguous equal coils adapted to be alternately energized in series in pairs; a peripheral, end and intermediate jacketing of magnetic material, constituting said coils ironclad; connections of one polarity leading to the free ends of the end coils, and of opposite polarity tapping the connections between the middle and end coils, whereby the coils may be energized in pairs to produce in alternation a driving and a retracting motor-magnet of reverse polarity and having a half-part of their fields superposed; a blow-transmitter of magnetic material at the impact end of the driving magnet, constituting said magnet of stopped type, the retracting magnet being of open type; automatic diverter-mechanism, self-contained in the device, for diverting the current alternately from one field to the other, said mechanism being mechanically controlled by the reciprocating core and having an oscillating diverter adapted to be shifted to the alternately active contacts and to span the space between them, and a stop-rod coöperating with said diverter and freely inserted longitudinally through the core and provided with opposed stops and with opposed cushioning means to cushion the movement of said stop-rod, and a spring-trigger mechanism for snap-shifting the diverter and for detaining the diverter at either limit of its throw; and optionally operable means for graduating the impact of the core upon the blow-transmitter, said means including a slidably movable member, for approximately the point of impact and the diverter mechanism, and a coil spring normally holding the parts in such relation as to give the lighter impact but compressibly yielding to permit heavier impact; substantially as specified.

2. In an electric hammer, in combination: a reciprocatory magnetic percussion-core reciprocating within, and itself about two-thirds the length of, three axially alined and contiguous equal coils adapted to be alternately energized in series in pairs; and connections whereby the coils may be energized in pairs to produce in alternation a driving and a retracting motor-magnet of respectively completely reverse polarity and having a half-part of their fields superposed in respect to the successive positions thereof; substantially as specified.

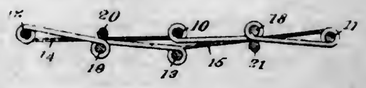
3. In an electric hammer, in combination: a reciprocatory magnetic percussion-core reciprocating within three axially alined and contiguous coils adapted to be alternately energized in series in pairs; and connections of one polarity leading to the free ends of the end coils, and of opposite polarity tapping the connections between the middle and end coils, whereby the coils may be energized in pairs to produce in alternation a driving and a retracting motor-magnet of respectively completely reverse polarity and having a half-part of their fields superposed in respect to the successive positions thereof; substantially as specified.

4. In an electric hammer, in combination: a reciprocatory magnetic percussion-core reciprocating within three axially alined and contiguous coils adapted to be alternately energized in series in pairs; and connections of one polarity leading to the free ends of the end coils, and of opposite polarity tapping the connections between the middle and end coils, whereby the coils may be energized in pairs to produce in alternation a driving and a retracting motor-magnet of respectively completely reverse polarity and having a part of their fields superposed in respect to the successive positions thereof; substantially as specified.

5. In an electric hammer, in combination: a reciprocatory magnetic percussion-core reciprocating within axially alined and contiguous coils adapted to be alternately energized in series in groups; and connections whereby the coils may be energized to produce in alternation a driving and a retracting motor-magnet of respectively completely reverse polarity and having a half-part of their fields superposed in respect to the successive positions thereof; substantially as specified.

[Claims 6 to 39 not printed in the Gazette.]

1,140,448. COLLAPSIBLE METALLIC STRUCTURE. JULIAN O. ELLINGER, New York, N. Y. Filed Oct. 15, 1912. Serial No. 725,795. (Cl. 72—76.)



1. In a device of the class described, a series of parallel longitudinal members, a series of cross members spaced apart and having their ends rigidly connected to a pair of said longitudinal members, another series of cross members spaced apart located opposite the first mentioned cross members and having their ends rigidly connected to a second pair of longitudinal members, a third series of cross members spaced apart having each end turned around the adjacent longitudinal members of each pair and also around the adjacent ends of the respective rigid members, a fourth series of cross members opposite the last mentioned cross members, also having their ends respectively turned around the opposite pair of longitudinal members, the ends of the two last mentioned series of cross members forming pivotal connection with the longitudinal members.

2. In a device of the class described; a series of parallel longitudinal members, a series of cross members spaced apart and having their ends rigidly connected to a pair of said longitudinal members, another series of cross members spaced apart located opposite the first mentioned cross members and having their ends rigidly connected to a second pair of longitudinal members, a third series of cross members spaced apart having each end turned around the adjacent longitudinal members of each pair and also around the adjacent ends of the respective rigid members to form pivotal connections, a fourth series of cross members opposite the last mentioned cross members, also having their ends turned around the opposite longitudinal members to form pivotal connections, a longitudinal member between the first pair of longitudinal members rigidly connected to the first mentioned cross members, another longitudinal member located between the second pair of longitudinal members and rigidly connected to the second mentioned series of cross members, and longitudinal members intermediate the ends of the respective series of pivoted cross members, each of said cross members being provided with eyes intermediate the ends thereof to loosely receive the last mentioned longitudinal members.

3. In a collapsible metallic reinforcement for concrete, side frames comprising longitudinal and transverse members rigidly united together and independent members pivotally connecting said side frames to each other, whereby one pair of the diagonally opposed longitudinal members will collapse toward each other.

4. In a collapsible metallic reinforcement for concrete columns, the combination of spaced apart parallel lon-

gitudinal bars arranged in pairs, transverse members attached to the bars of each pair to form separate frames and members pivotally connecting said frames together whereby two of the diagonally opposed longitudinal bars will collapse toward each other.

5. In a collapsible metallic reinforcement for concrete, the combination of spaced apart longitudinal members arranged in pairs, transverse members welded to the members of each pair to form separate rigid frames and straps pivotally connecting said frames together whereby the structure will collapse by one longitudinal member of each pair approaching one longitudinal member of the other pair and the other longitudinal members will move away from each other.

[Claim 6 not printed in the Gazette.]

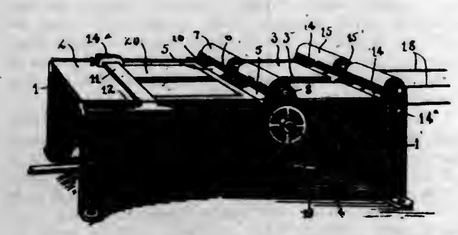
1,140,449. FINISH-REMOVER. CARLETON ELLIS, Larchmont, N. Y., assignor to Chadeloid Chemical Company, New York, N. Y., a Corporation of West Virginia. Filed May 22, 1907. Serial No. 375,014. (Cl. 87—5.)

1. The finish remover formed by incorporating approximately benzol 15 gallons, methyl acetone 10 gallons, paraffin wax 4 pounds, oleic acid ½ pound and 26-degrees ammonia 2 quarts.

2. The finish remover formed by incorporating substantially as described benzol 15 gallons, loosening finish solvent material 10 gallons, oleaginous thickening material and 2 quarts of ammonia water of about 26° strength.

3. The substantially fluent finish remover consisting substantially of composite volatile energetic finish solvent material and formed by incorporating penetrating and loosening finish solvent material, waxy stiffening material and ammonia.

1,140,450. DEVICE FOR APPLYING GLUE TO BOOK-COVERS. THEODORE S. ETHERIDGE, Grand Rapids, Mich. Filed June 4, 1913. Serial No. 771,745. (Cl. 91—51.)



1. A device for applying glue to book covers, comprising a pair of superimposed feeding rollers, a wheel in axial alinement with the lower roller and rotating with the same, and a glue pot beneath the glue wheel.

2. A device for applying glue to book covers, comprising two pair of superimposed feeding rollers, spaced apart, a wheel in axial alinement with the lower rollers and in the space between them, and a glue pot beneath the glue wheel.

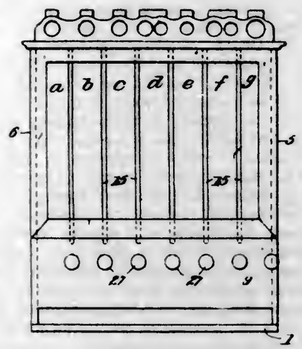
3. A device for applying glue to book covers, comprising two pair of superimposed feeding rollers spaced apart, a wheel between the lower rollers and in axial alinement therewith, two pair of superimposed conveying rollers spaced apart and arranged less than the length of a book cover from said feeding rollers, and a glue pot beneath said wheel.

4. A device for applying glue to book covers, comprising two pair of superimposed feeding rollers spaced apart, a wheel between the lower feeding rollers and in axial alinement therewith, a glue pot beneath the glue wheel, two pair of superimposed conveying rollers spaced apart and arranged less than the length of a book cover from the feeding rollers, and means for rotating the conveying rollers at a greater peripheral speed than that of the feeding rollers.

5. A device for applying glue to book covers, comprising two pair of superimposed feeding rollers spaced apart, a wheel between the lower feeding rollers and in axial alinement therewith, a glue pot beneath the wheel, two pair of superimposed conveying rollers spaced apart and arranged less than the length of a book cover from the feeding rollers, a belt running in a shallow groove in one of the lower feeding rollers and in a deeper groove in one of the lower conveying rollers to drive the latter, and means for rotating the feeding rollers.

[Claims 6 to 8 not printed in the Gazette.]

1,140,451. COIN-VENDING MACHINE. JOSEPH W. FORBES, Norfolk, Va., assignor of one-third to James A. Ridgwell and one-third to William H. Ridgwell, Norfolk, Va. Filed Mar. 12, 1914. Serial No. 824,187. (Cl. 194—80.)

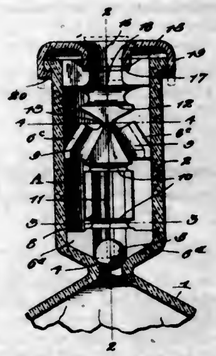


1. In a coin vending machine a cabinet provided with a plurality of pockets, a plurality of cylinders having a flat top surface provided with a central slot forming the bottom for said pockets, said cylinders extending parallel with each other, an article ejector comprising a horizontal member and disk members suitably connected, adapted to reciprocate in said slot, a plunger having a plurality of disks formed therewith, said disks adapted to reciprocate within said cylinders, and coin chutes communicating with each cylinder adapted to convey a coin to the cylinder between the article ejector and the plunger disks, as and for the purpose set forth.

2. In a coin vending machine a cabinet provided with a plurality of partitions forming pockets, a plurality of cylinders having a flat top surface provided with a central longitudinal groove, said flat top surface having extensions provided with a cut away edge portion, adapted to abut against the edge of the adjacent extension, forming a seat for the pocket partition, an article ejector comprising a horizontal member having a vertical member extending through the said groove, and provided with disks, a plunger having a plurality of disks adapted to reciprocate within said cylinder, coin chutes connecting with each cylinder and adapted to convey coins to the cylinders between the article ejector and plunger disks, as and for the purpose described.

3. In a coin vending machine, a cabinet provided with a plurality of partitions forming pockets, a plurality of cylinders having a flat top surface provided with a central slot extending longitudinally between the cylinders, said flat surface having edges abutting against the edge of the adjacent cylinder forming a groove for the pocket partitions, an article ejector comprising a horizontal member and adapted to reciprocate in said slot, a plunger having a plurality of disks formed therewith, said disks adapted to reciprocate within said cylinder, coin chutes communicating with each cylinder and adapted to convey a coin to the cylinder between the article ejector and plunger disk, as and for the purpose set forth.

1,140,452. NON-REFILLABLE BOTTLE. CHARLES A. FORD, Newark, N. J., assignor to Ford Manufacturing Company, a Corporation of New Jersey. Filed June 19, 1913. Serial No. 774,595. (Cl. 215—65.)



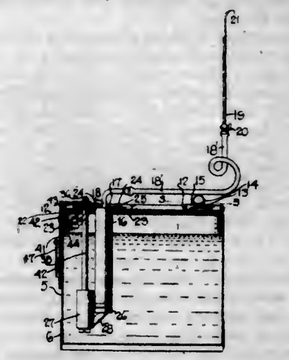
1. A non-refillable bottle including a bottle neck having a contracted portion forming a valve seat, a valve resting upon the valve seat, a substantially cylindrical cage member slipped into the bottle neck over the valve and divided longitudinally to provide complemental semi-cylindrical sections adapted to be assembled from opposite sides, the said sections being provided at the lower ends thereof with corresponding depressions to provide a cage for the reception of the valve, longitudinal grooves being provided at the sides of the said depressions, and transverse grooves being formed in the meeting faces of the semi-cylindrical sections, said transverse grooves coöperating with each other to provide transverse outlet possages leading from the cage and communicating with the longitudinal grooves, and means for retaining the cage member in position.

2. A non-refillable bottle including a bottle neck formed with a contracted portion providing a valve seat, a valve resting upon the valve seat, a cage member slipped into the bottle neck and divided longitudinally to provide complemental semi-cylindrical skeleton sections, said skeleton sections being formed at intervals with exterior annular enlargements engaging the interior of the bottle neck to hold the sections in operative position, the lower ends of the skeleton sections being formed with corresponding depressions to provide a cage for the valve, while the upper portions of the skeleton sections are formed upon their opposed faces with corresponding sinuous grooves adapted to provide sinuous passages connecting the annular chambers provided by the before mentioned exterior annular enlargements upon the interior of the bottle neck.

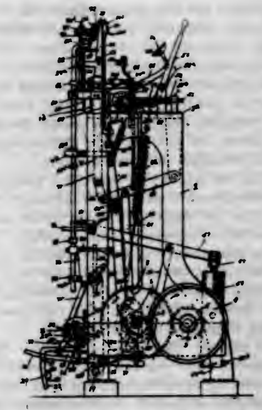
3. A non-refillable bottle including a bottle neck formed with a contracted portion providing a valve seat, a ball resting upon the valve seat, a skeleton cage slipped into the bottle neck and divided longitudinally to provide complemental semi-cylindrical sections adapted to be assembled from opposite sides thereof, the said cage being formed upon the exterior thereof with a series of annular enlargements engaging the interior of the bottle neck to hold the sections in operative position, and the base of the cage member being formed with a valve receiving chamber and transverse outlet passages leading from the valve chamber, a transverse abutment being formed opposite the mouth of the cage and the body of the cage being contracted under the abutment and provided with a substantially frusto-conical baffle, and means for retaining the cage member in position.

1,140,453. INSECTICIDE-DISTRIBUTER. JOSEPH FRANK, Pittston, Pa. Filed Sept. 30, 1914. Serial No. 864,325. (Cl. 137—67.)

The combination with a supply tank having an opening in its top and a detachable cover plate for said opening, of a pump including a barrel engaged at its upper end against the under side of the cover plate, a piston cylinder detachably connected to the lower end of the pump barrel said connection comprising a conduit affording communication between the interior of the cylinder and the barrel, a piston to reciprocate in said cylinder having a rod, a tube surrounding said rod and engaged at its lower end against the piston, means for operating the piston including a lever removably engaged at its upper end upon the piston rod, said cover plate being provided with a guide boss through which said tube is slidably disposed, and nuts threaded upon the piston rod to hold the tube against movement with relation to the rod and adjustably secure the lever in connection with said rod.



1,140,454. SHOE-TURNING MACHINE. GEORGE B. GARDNER, Haverhill, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Apr. 16, 1909. Serial No. 490,375. (Cl. 12—57.)



1. A machine for turning the foreparts of shoes, having, in combination, a forepart turning post, means including a forepart engaging tool for holding the shoe relatively to the post in position to have its forepart turned by the post, and automatic means for relatively moving the post and shoe holding devices operating to turn the forepart without manipulation by the operator, substantially as described.

2. A machine for turning the foreparts of shoes, having, in combination, a forepart turning post, means for holding the shoe relatively to the post in position to have its forepart turned by the post, including a forepart engaging tool and a heel clamp, and automatic means for relatively moving the post and heel clamp, whereby the forepart is turned over the post without manipulation by the operator, substantially as described.

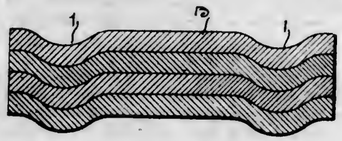
3. A machine for turning the foreparts of shoes, having, in combination, a forepart turning post, means for holding the shoe relatively to the post in position to have its forepart turned by the post, including a forepart engaging tool and a heel clamp, and automatic means for closing said clamp on the heel and thereafter relatively moving the post and heel clamp, whereby the forepart is turned over the post without manipulation by the operator, substantially as described.

4. A shoe-turning machine comprising turning devices, a shaft, operating mechanisms disposed to be actuated by said shaft upon rotation thereof in one direction to move said devices from an initial position, to perform the turning operation, and means for automatically stopping the advance of the turning devices and then rotating said shaft in the opposite direction to return said parts to their initial positions, substantially as described.

5. A shoe-turning machine comprising turning devices, power-actuated devices, a controlling device movable to connect said power-actuated devices and said turning devices to move said turning devices from an initial position to perform the turning operation, and means controlled by the advance of the turning device for automatically disconnecting said power actuated and said turning devices to permit said turning devices to be returned to their initial position, substantially as described.

[Claims 6 to 139 not printed in the Gazette.]

1,140,455. SPRING. GEORGE F. GARRITY, Scranton, Pa. Filed Oct. 26, 1914. Serial No. 868,712. (Cl. 105—121.)



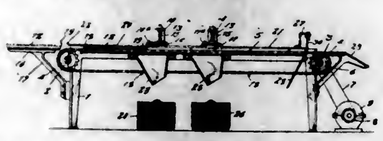
1. A spring of the character described comprising an elongated member having longitudinal depressions disposed therein and extending entirely therealong, said depressions being adjacent the longitudinal marginal portions of the member and equidistantly spaced relative to the transverse center thereof, the opposed faces of the member being in continuity and being free and unobstructed, said member being of the same thickness at all points, the portion of the member intermediate the depressions being straight in cross section.

2. A spring of the character described comprising a plurality of superimposed blades, each of said blades being provided adjacent its longitudinal marginal portions with depressions therein disposed longitudinally thereof and entirely therealong, said depressions being parallel with the longitudinal edges of the blades and with each other and equidistantly spaced from the transverse center of the blade, the portion of the member intermediate the depressions being straight in cross section.

3. A spring of the character described comprising a plurality of superimposed blades, each of said blades being provided adjacent its longitudinal marginal portions with depressions therein disposed longitudinally thereof and entirely therealong, said depressions being parallel with the longitudinal edges of the blades and with each other and equidistantly spaced from the transverse center of the blade, the portion of the member intermediate the depressions being straight in cross section, the opposed faces of the blades being in contact one with the other at all points, the interlocking of the depressions of the blades serving to hold such blades against relative transverse movement, and means at substantially the longitudinal center of the blades for holding the same in assembled relation.

4. A spring of the character described comprising an elongated member having longitudinal depressions disposed therein and extending entirely therealong, said depressions being adjacent the longitudinal marginal portions of the member and equidistantly spaced relative to the transverse center thereof, the opposed faces of the member being in continuity and being free and unobstructed, said member being of the same thickness at all points, said depressions being disposed on the same curvatures whereby the depths and transverse diameters thereof are identical, the portion of the member intermediate the depressions being straight in cross section.

1,140,456. TOBACCO-STRIPPING MACHINE. WILLIAM P. HAMMOND, Passaic, N. J. Filed Sept. 19, 1913. Serial No. 790,768. (Cl. 131—57.)



1. A tobacco leaf stripping machine including a movable conveyer, stationary leaf stripping means arranged upon one side of the path of the conveyer, a leaf clamping member, and means for obtaining a detachable and interlocking connection between the leaf clamping member and the conveyer for bringing the leaves into coöperative relation with the leaf stripping means.

2. A tobacco leaf stripping machine including a movable conveyer, a guide member at one side of the conveyer, stationary leaf stripping means at one side of the path of the conveyer, a leaf clamping member, and means for detachably connecting the leaf clamping member to the conveyer to bring the leaves into coöperative relation with the leaf stripping means, said leaf clamping member engaging the before mentioned guide member while being moved by the conveyer.

3. A tobacco leaf stripping machine, including a movable conveyer, a stationary stripping brush arranged upon one side of the path of the conveyer, a guide member at one side of the conveyer, a leaf clamping member formed with coöperating jaws for gripping the leaves, and means upon the conveyer for detachably engaging the leaf clamping member to move the leaves into coöperative relation with the stripping brush, the said leaf clamping member engaging the before mentioned guide while being moved by the conveyer and the said guide serving to lock the jaws of the leaf clamping member in a closed position.

4. A tobacco leaf stripping machine including a tray formed with a leaf supporting surface and stem clamping means, stripping means, and means for moving the tray into coöperative relation with the stripping means.

5. A tobacco leaf stripping machine including a tray formed with a leaf supporting surface and a normally open stem clamp, stripping means, means for moving the tray into coöperative relation with the stripping means, and means for automatically closing the stem clamp as the tray is advanced.

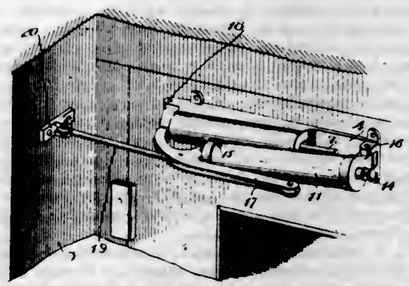
[Claims 6 to 22 not printed in the Gazette.]

1,140,457. DOOR CHECK AND CLOSER. WILLIAM K. HENRY, New Britain, Conn., assignor to American Hardware Corporation, New Britain, Conn., a Corporation of Connecticut. Filed Oct. 7, 1914. Serial No. 865,428. (Cl. 16—87.)

1. In a combined door check and closer, a frame, a checking cylinder pivoted thereto near one end thereof, a lever pivoted at its inner end near the opposite end of said frame, a piston within said cylinder connected to said lever between its ends, a closer spring carried by said frame and operatively connected with said lever also between its ends and nearer to the pivoted end thereof than said piston connection, means for connecting the frame with one of two complementary movable parts, and means for connecting the free end of said lever to the other of said complementary parts.

2. In a combined door check and closer, a frame, a checking cylinder pivoted thereto near one end thereof, a lever pivoted at its inner end near the opposite end of said

frame, a piston within said cylinder connected to said lever between its ends, a compression closer spring carried by said frame and operatively connected with said lever also between its ends and nearer to the pivoted end thereof than said piston connection, means for connecting the frame with one of two complementary movable parts, and means for connecting the free end of said lever to the other of said complementary parts.



3. In a combined door check and closer, a frame, a checking cylinder pivoted thereto near one end thereof, a lever pivoted at its inner end near the opposite end of said frame, a piston within said cylinder connected to said lever between its ends, a closer spring carried by said frame and operatively connected with said lever also between its ends and nearer to the pivoted end thereof than said piston connection, means for connecting the frame with one of two complementary movable parts, and means for connecting the free end of said lever to the other of said complementary parts, the connection for said spring with said lever comprising a rotatable rod slidable in said frame.

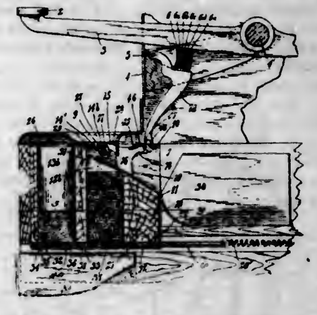
4. In a combined door check and closer, a frame, a checking cylinder pivoted thereto near one end thereof, a lever pivoted at its inner end near the opposite end of said frame, a piston within said cylinder connected to said lever between its ends, a closer spring carried by said frame and operatively connected with said lever also between its ends and nearer to the pivoted end thereof than said piston connection, means for connecting the frame with one of two complementary movable parts, and means for connecting the free ends of said lever to the other of said complementary parts, the connection for said spring with said lever comprising a rotatable rod slidable in said frame, a spring supporting abutment nonrotatably mounted upon said rod and arranged to be shifted longitudinally thereon to vary the degree of compression of said spring.

5. In a door check and closer, a frame, a checking cylinder hinged near one end of said frame, a lever pivoted at its inner end near the opposite end of said frame, a checking piston within the cylinder and means for connecting said piston to said lever between its ends, a spring actuated sliding rod supported at one end by said frame and having a universal joint connection with said lever near the pivoted end of the latter, a compression spring mounted upon said rod and bearing at one end against the frame, an abutment mounted on said rod by a screw thread connection and supporting the opposite end of said spring.

[Claims 6 and 7 not printed in the Gazette.]

1,140,458. AUTOMATIC CHANGE-MAKER. GEORGE W. HOLLINGSWORTH, Cincinnati, Ohio, assignor to The National Cash Register Company, Dayton, Ohio, a Corporation of Ohio. (Incorporated in 1906.) Filed Mar. 9, 1909. Serial No. 482,222. Renewed Sept. 28, 1912. Serial No. 722,955. (Cl. 194—68.)

1. In an automatic change maker, the combination of a housing comprising two coin tubes holding coins of like denomination and having a discharge outlet therefor, whereby said coins are discharged bodily from either of said tubes through said outlet, a discharge slide common to both tubes provided with a coin receiving aperture, said aperture oscillating between and registering with each of said tubes, and means for operating said slide, substantially as set forth and for the purposes specified.



2. In an automatic change maker, the combination of a housing comprising two coin tubes holding coins of like denomination and having a discharge outlet therefor, discharge slides common to both of said tubes for discharging coins bodily therefrom, each slide being provided with a coin receiving aperture for each coin to be discharged from either of the tubes by said slide at a single operation thereof comprising movement of the apertures of the slides from one tube to the other and return, thereby insuring the filling of said apertures and the discharge of said coins at a single operation, and means for operating said slide, substantially as set forth and for the purposes specified.

3. In an automatic change maker, the combination of a housing comprising a current coin tube and an auxiliary tube and having a discharge outlet common to both, a slide common to both tubes having an aperture oscillating between and registering with each of said tubes for discharging coins from the current tube until it is exhausted, and then for discharging coins from the auxiliary coin tube, substantially as set forth and for the purposes specified.

4. In an automatic change maker, the combination of a housing comprising two coin tubes and having a discharge outlet common to both, a discharge slide common to both tubes having an aperture oscillating between and registering with each of said tubes adapted to discharge coins from one of the tubes until said tube is empty and then from the other tube until all the coins are discharged, and a slug in said last mentioned tube adapted to be discharged after all the coins are discharged to indicate that both tubes are empty, substantially as set forth and for the purposes specified.

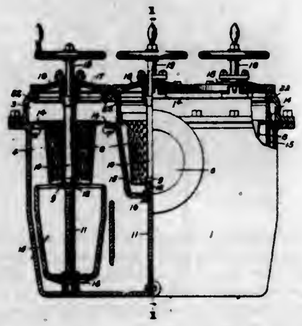
5. In an automatic change maker, the combination of a housing comprising two coin tubes holding coins of like denomination and having a discharge outlet therefor situated in the base intermediate between the two coin tubes, whereby said coins are discharged bodily from either of said tubes through said outlet, a discharge slide common to both tubes provided with a coin receiving aperture, said aperture oscillating between and registering with each of said tubes, and means for operating said slide, substantially as set forth and for the purposes specified.

[Claims 6 to 40 not printed in the Gazette.]

1,140,459. STRAINER. HARRIS B. HOLT, Dormont borough, Pa. Filed Mar. 2, 1915. Serial No. 11,551. (Cl. 210—16.)

1. In a strainer, the combination of a casing having a partition dividing it into inlet and outlet chambers, an orifice through such partition, a straining basket in fixed position within said orifice, a cleanout opening in the casing wall, and a basket-containing casing movable through said orifice and when in one position forming a cleanout chamber surrounding said basket and separating it from the inlet and outlet chambers.

2. In a strainer, the combination of a casing having a partition dividing it into inlet and outlet chambers, an orifice through such partition, a strainer basket in fixed position within such orifice and extending into the outlet chamber, a cleanout opening, a basket-containing receptacle normally disposed within the outlet chamber and below said basket, and means for moving said receptacle through said orifice and to a position adjacent to the cleanout orifice.



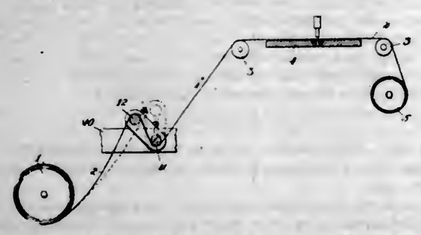
3. In a strainer, the combination of a casing having a partition dividing it into inlet and outlet chambers, an orifice through such partition, a straining element in fixed position within such orifice, a cleanout opening in the casing, and a movable chambered member affording when in one position a receptacle for particles passing through and falling downwardly from the straining elements and in the other position a cleanout chamber surrounding said element.

4. In a strainer, the combination of a casing having a partition dividing it into inlet and outlet chambers, an orifice through said partition, a straining element in fixed position within the casing and through which fluid passes from the inlet to the outlet chamber, a cleanout opening in the casing, and a single movable element for closing said orifice and inclosing the basket in a cleanout chamber adjacent to said opening.

5. In a strainer, the combination of a casing having a partition dividing it into inlet and outlet chambers, an orifice through said partition, a cleanout opening in the casing disposed oppositely to the partition orifice, a rotatable shaft projecting through said orifice, a straining bucket supported by said shaft but longitudinally immovable by the rotation thereof, and means for forming a cleanout chamber surrounding said bucket and partly within each of said chambers.

[Claims 6 and 7 not printed in the Gazette.]

1,140,460. TRACKER AND TENSION DEVICE. GEORGE A. JAEGER, Hackensack, N. J. Filed Dec. 10, 1913. Serial No. 805,746. (Cl. 242—75.)



1. A combined tracker and tension-device, comprising two stationary members, a bar journaled therethrough, set-screws for securing said bar rigidly in place, two guide-arms journaled on said bar and adjustable longitudinally thereof to contact with the respective edges of the sheet or strip of any desired width as lateral guides for the same, a set-screw for holding each arm rigidly in place, a second bar journaled in the outer ends of said arms, and a set-screw for holding the same rigidly to each arm.

2. A combined tracker and tension-device, comprising a bar axially and longitudinally adjustable in stationary bearings, means for securing it rigidly in any desired adjustment, two guide-arms carried by said bar and independently adjustable both axially and longitudinally thereof and adapted to contact with the respective edges of the sheet or strip as lateral guides for the same, independent means for securing said arms rigidly in any desired adjustment, a second tension-bar held adjustably by the outer ends of said arms, and means for securing the same rigidly in any desired adjustment.

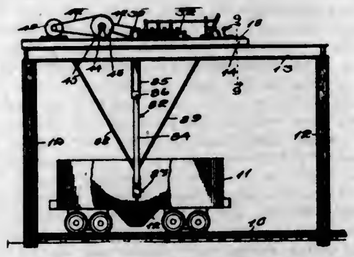
3. A combined tracker and tension-device, comprising an axially-adjustable tension-bar, two guide-arms carried adjustably thereby and adapted to contact with the respective edges of the sheet or strip of any desired width as lateral guides for the same, means for securing said arms rigidly in place, and a second tension-bar carried by the outer ends of said arms.

4. A combined tracker and tension-device, comprising two laterally-adjustable arms adapted to contact with the respective edges of the sheet or strip of any desired width as lateral guides for the same, a bar carried thereby and movable for varying the tension, and means for holding said bar rigidly in any desired adjustment.

5. A combined tracker and tension-device, comprising two laterally-adjustable arms adapted to contact with the respective edges of a sheet or strip of any desired width as guides for the same, in combination with a tension-bar movable for varying the tension of said sheet or strip, and means for holding said bar rigidly in any desired adjustment.

[Claims 6 and 7 not printed in the Gazette.]

1,140,461. CAR-UNLOADING MACHINE. MARVIN B. JENNINGS, Omaha, Ark., assignor of one-half to John H. Middleton, Omaha, Ark. Filed Apr. 14, 1914. Serial No. 831,881. (Cl. 37—50.)



1. In a machine of the character described, a supporting frame arranged near and extending above and across a track adapted to receive a car thereon to be unloaded, a carriage mounted upon the supporting frame to travel longitudinally thereof, a supplemental carriage mounted upon the first named carriage to travel transversely thereof, a vertically movable frame depending from the supplemental frame, guide means secured to the supplemental carriage and engaging the vertically movable frame, a plurality of substantially vertical agitator elements connected with the lower end of the vertically movable frame and rotatable with relation to the same, means to rotate the agitator elements, downwardly converging angularly arranged arms pivotally connected near their lower ends with the vertically movable frame, and means to move the upper diverging ends of the arms toward and away from each other.

2. In a machine of the character described, a vertically movable frame, a plurality of rotatable agitator elements connected therewith and rotatable with relation thereto, means to rotate the agitator elements, downwardly converging arms arranged upon opposite sides of the vertically movable frame and pivotally connected near their lower ends with the same to raise and lower the frame and to hold the same against improper lateral movements, and means including substantially horizontally movable members connected with the upper diverging ends of the arms to move the same toward and away from each other.

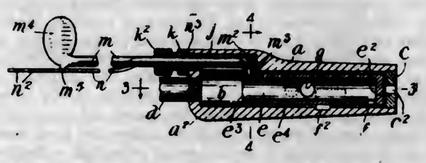
3. In a machine of the character described, a vertically movable frame, a plurality of substantially vertical agitator elements connected therewith rotatable with relation thereto and adapted to be forced into material held in the car to break up the same, means to rotate the agitator elements, downwardly converging arms arranged upon opposite sides of the frame and connected therewith to raise and lower the same and prevent improper lateral movements, substantially horizontally movable members connected with the upper diverging ends of the arms, and means to move the members.

4. In a machine of the character described, a vertically movable frame, a substantially vertical rotatable agitator element connected with the vertically movable frame and rotatable with relation thereto, means to rotate he agitator element, downwardly converging arms arranged upon opposite sides of the frame and pivotally connected near their lower ends with the frame to raise and lower the same and prevent improper lateral movements, substantially horizontally movable members embodying superposed rack-bars pivotally connected with the upper diverging ends of the arms, a drive shaft extending between the superposed rack-bars, and pinions carried by the drive shaft and engaging the superposed rack-bars to simultaneously move the same in opposite directions.

5. In a machine of the character described, a substantially horizontally movable carriage, a vertically movable frame connected therewith and provided near its lower end with a housing, a train of substantially horizontal gears mounted within the housing substantially vertical agitator elements attached to certain of the gears and depending therefrom to extend beyond the housing, substantially vertical rotatable shafts extending longitudinally of the vertically movable frame and connected with the outer gears to drive the same, driving gears arranged upon the carriage and splined upon the substantially vertical shafts, means to rotate the driving gears, and means to raise and lower the vertically movable frame.

[Claims 6 to 12 not printed in the Gazette.]

1,140,462. BLOWER-CLEANER. AUGUSTUS M. JOHNSON, Jamaica, N. Y. Filed Mar. 21, 1914. Serial No. 826,186. (Cl. 137—17.)



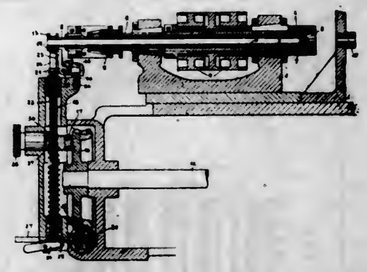
1. A device of the class described, comprising a barrel having a longitudinal bore one end of which is provided with a discharge port and the other end with a hose coupling attachment which communicates with said bore, said barrel being also provided in its sides with a plurality of lateral discharge ports, a sleeve valve movable longitudinally in said barrel and provided in its sides with ports adapted to register with the lateral discharge ports in the barrel, and means independent of the hose coupling for moving said sleeve valve longitudinally.

2. A device of the class described, comprising a barrel having a longitudinal bore one end of which is provided with a discharge port and the other end with a hose coupling attachment which communicates with said bore, said barrel being also provided in its sides with a plurality of lateral discharge ports, a sleeve valve movable longitudinally in said barrel and provided in its sides with ports adapted to register with the lateral discharge ports in the barrel, and means independent of the hose coupling for moving said sleeve valve longitudinally, said barrel being also provided in the inner walls thereof and adjacent to the end thereof having a discharge port with an L-shaped chamber or recess with which one of the ports in the valve is adapted to communicate.

3. A device of the class described, comprising a barrel having a longitudinal bore in which is mounted a longitudinally movable sleeve valve, said barrel and valve being provided with discharge ports and said barrel being provided at one end with a hose coupling which communicates with said bore, said barrel being also provided at said end with a longitudinal off-set, a handle rod movable longitudinally in said off-set and connected with said valve, and by means of which said valve may be moved longitudinally in said barrel.

4. A device of the class described, comprising a barrel having a longitudinal bore in which is mounted a longitudinally movable sleeve valve, said barrel and valve being provided with discharge ports and said barrel being provided at one end with a hose coupling which communicates with said bore, said barrel being also provided at said end with a longitudinal off-set, a handle rod movable longitudinally in said off-set and connected with said valve, and by means of which said valve may be moved longitudinally in said barrel, and means connected with said barrel and operating in connection with the handle rod for locking it in any desired position.

1,140,463. AUTOMATIC LATHE. KARL JUNG, Berlin, Germany, assignor to The General Composing Company, Gesellschaft mit beschrankter Haftung, Berlin, Germany, a Corporation of Prussia. Filed Mar. 14, 1914. Serial No. 824,675. (Cl. 29—62.)



1. An automatic lathe containing in combination, a spindle, movable to and fro in the course of the working, a feed spindle sleeve within said spindle, means behind the spindle for the purpose of locking the feed spindle sleeve and releasing it at each stroke for a short time, and being movable down out of the path of the spindle for the purpose specified, said feed spindle sleeve being held within the said spindle as long as there is any material, means for pushing it out of the said spindle when there is a failure of material, means for bringing the lathe to a standstill controlled by the pushing out of the feed spindle sleeve and being turnable down around a horizontal axis out of the path of the spindle, and means for locking the first mentioned means in the lower position.

2. An automatic lathe containing in combination a spindle, movable to and fro in the course of the working, a feed-spindle sleeve within said spindle, means behind the spindle for the purpose of locking the feed-spindle sleeve and releasing it at each stroke for a short time and being movable down out of the path of the spindle for the purpose specified, and means for locking the first mentioned means in the lower position.

3. An automatic lathe containing in combination a spindle, movable to and fro in the course of the working, a feed-spindle sleeve within said spindle, means behind the spindle for the purpose of locking the feed-spindle sleeve and releasing it at each stroke for a short time and being

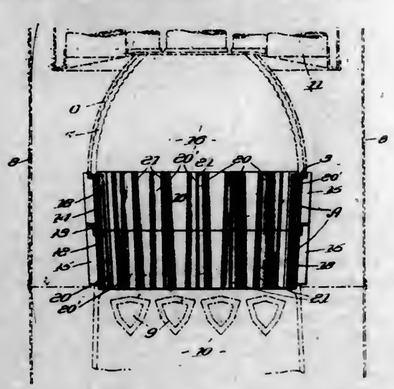
movable down out of the path of the spindle for the purpose specified, and hand actuated means for lowering the first mentioned means and locking it in the lower position for the purpose specified.

4. An automatic lathe containing in combination a spindle movable to and fro in the course of the working, a feed-spindle sleeve within said spindle, means behind the spindle for the purpose of locking the feed-spindle sleeve and releasing it at each stroke for a short time, said feed-spindle sleeve being held within the said spindle as long as there is any material, means for pushing it out of the said spindle when there is a failure of material and means for bringing the lathes to a standstill, containing a member brought by the pushing out of the feed-spindle sleeve in the way of the said means for locking and releasing the feed-spindle sleeve and being positively moved by said last mentioned means thereby bringing the lathe to a standstill.

5. An automatic lathe containing in combination a spindle, a spindle support movable to and fro in the course of the working, a feed-spindle sleeve within said spindle, a bolt behind the spindle for the purpose of locking the feed-spindle sleeve and releasing it at each stroke for a short time, means for holding the feed-spindle sleeve within the said spindle as long as there is any material, means for pushing it out of the said spindle when there is a failure of material, and a bolt controlled by the pushing out of the feed-spindle sleeve and bringing the lathe to a standstill, said first mentioned bolt being movable down out of the path of the spindle for the purpose specified, and means for locking it in the lower position for the purpose specified.

[Claim 6 not printed in the Gazette.]

1,140,464. FIRE-POT FOR STOVES AND FURNACES. JOSEPH F. KERNAN and WILLIAM J. OWENS, Utica, N. Y. Filed Oct. 6, 1909, Serial No. 521,197. Renewed Oct. 30, 1914. Serial No. 869,487. (Cl. 126—146.)



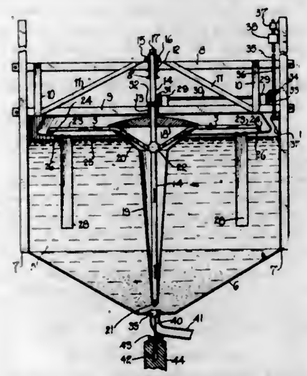
1. A fire-pot having a wall of substantially uniform thickness and extending in a substantially uniform curve throughout its entire periphery, and having small, integral, supplementary, curved ribs inwardly projecting from its interior surface and reversely arranged with their edges adjacent and suitably spaced to form air passages within the ribs and longitudinal slots from the air passages to the combustion chamber, said air passages being larger at the bottom and gradually diminishing toward the top, substantially as described and shown.

2. A sectional fire pot composed of circular sections each having a wall of substantially uniform thickness and having small integral, supplementary, curved ribs inwardly projecting from its interior surface and reversely arranged with their edges adjacent and suitably spaced to form air passages within the ribs and longitudinal slots from the air passages to the combustion chamber, said air passages being larger at the bottom and gradually diminishing toward the top and the air passages of the lower section communicating with the upper section to form continuous passages, substantially as described.

3. A fire-pot having a wall of substantially uniform thickness and extending in a substantially uniform curve throughout its entire periphery, and having small, supplementary, curved ribs inwardly projecting from its interior surface and reversely arranged with their edges adjacent and suitably spaced to form air passages within the ribs and longitudinal slots from the air passages to the combustion chamber, said air passages being larger at the bottom and gradually diminishing toward the top, substantially as described and shown.

4. A sectional fire-pot composed of circular sections each having a wall of substantially uniform thickness and having small, supplementary, curved ribs inwardly projecting from its interior surface and reversely arranged with their edges adjacent and suitably spaced to form air passages within the ribs and longitudinal slots from the air passages to the combustion chamber, said air passages being larger at the bottom and gradually diminishing toward the top and the air passages of the lower section communicating with the upper section to form continuous passages, substantially as described.

1,140,465. AGITATOR. JESSE C. KING, La Junta, Colo., assignor of one-third to Frank Freyler, La Junta, Colo. Filed Dec. 5, 1914. Serial No. 875,696. (Cl. 83—87.)



1. In a machine of the character described, a tank to contain the fluid mixture, a vertically disposed rotatable pipe, horizontally extending pipes connected to said vertical pipe and having their upper ends angularly extended in opposite directions and downwardly inclined, said vertical pipe being open at its lower end, a distributing plate upon which the fluid is discharged by said horizontal pipe and returned to the tank, and means for mounting said pipes whereby the same may be vertically moved with respect to the tank to position the lower open end of said vertical pipe at various distances below the fluid level.

2. In a machine of the character described, a fluid containing tank, a frame structure above said tank, a vertically disposed pipe mounted in said frame structure and extending downwardly into the tank, said pipe being open at its lower end and disposed contiguous to the bottom of the tank, a tube spaced from and surrounding said pipe and fixed at its upper end thereto, horizontally disposed pipes extending through the upper end of said tube and connected to said vertical pipe, the outer ends of said horizontal pipes being angularly extended in a direction opposite to the rotation of said pipe to discharge the sediment impregnated fluid entering the vertical pipe at its lower end into a comparatively clear upper strata of the fluid, and means mounted upon said frame for rotating said vertical pipe.

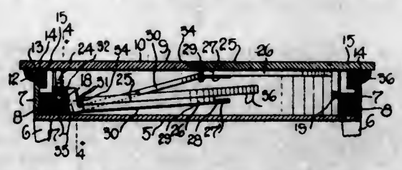
3. In a machine of the character described, a fluid containing tank, a frame mounted above said tank, a vertical pipe rotatably mounted in said frame and having its lower

open end disposed contiguous to the bottom of the tank, an elongated funnel shaped tube surrounding said pipe and fixed at its upper end thereto, horizontally disposed pipes connected to said vertical pipe, an annular plate mounted upon said frame and having an inwardly and downwardly inclined perforated portion, the outer ends of said horizontal pipes being disposed above said inclined portion of the plate to discharge the sediment impregnated fluid upon the same and distribute said fluid back into the tank, and means for rotating said vertical pipe.

4. In a machine of the character described, a fluid containing tank, a vertically disposed rotatably mounted pipe having its lower open end contiguous to the bottom of the tank, an elongated funnel shaped tube having its upper end flared and mounted upon said vertical pipe, the lower end of said tube closely engaging the pipe at its open end, horizontal pipes extending through the upper end of the tube and connected to said vertical pipe, an inwardly and downwardly inclined perforated plate disposed above the fluid level, the outer open ends of said horizontal pipes being angularly extended in relatively opposite directions above said plate to discharge the sediment impregnated fluid upon the same whereby such fluid is directed back into the comparatively clear upper strata of fluid in the tank, means suspended from said plate for agitating the fluid in the tank, and means for rotating said vertical pipe.

5. In a machine of the character described, a fluid containing tank, a vertically movable frame arranged above said tank, a vertical pipe rotatably mounted in said frame and having its lower open end disposed contiguous to the bottom of the tank, an inwardly and downwardly inclined perforated annular plate secured to said frame and disposed above the fluid level, an elongated funnel shaped tube flared at one end, a disk fixed upon said vertical pipe to which the flared end of the tube is secured, horizontally disposed pipes extending through the flared end of the tube and connected to said vertical pipe, the outer ends of said horizontal pipes being angularly disposed in a direction opposite to the rotation of said vertical pipe to discharge the sediment impregnated fluid withdrawn from the bottom of the tank upon said perforated plate, agitating members loosely suspended from said plate, and means for rotating said vertical pipe and the parts mounted thereon.

1,140,466. EXTENSION-TABLE. JOHN KRASNODEMSKI, Wausau, Wis. Filed June 3, 1914. Serial No. 842,735. (Cl. 45—9.)



1. In an extension table, relatively movable top sections each having a longitudinally extending arm, said arms being slidably engaged with each other and normally disposed in the same plane, and a pair of slidably mounted supplementary table leaves arranged beneath each of said arms and movable with the respective table sections, said pairs of leaves being adapted to be extended with respect to said arms when the top sections are separated to occupy the space vacated by the arm of the other top section.

2. In an extension table, relatively movable top sections each having a longitudinally extending arm, said arms being slidably engaged with each other and normally disposed in the same plane, a pair of transversely disposed bars mounted beneath the arms of said top sections, a table leaf longitudinally movable upon each of said bars, and means carried by the respective table top sections for sliding said pairs of supporting bars in relatively opposite directions when the top sections are separated, the table leaves mounted upon the respective pairs of bars being adapted to be extended in relatively opposite directions to occupy the space vacated by one of the arms of the table top sections.

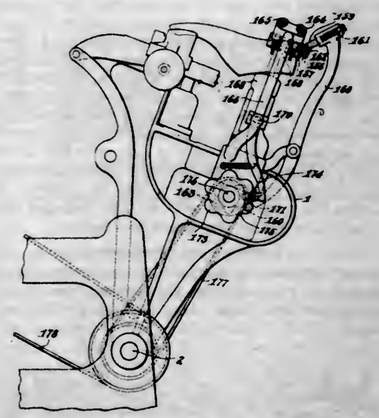
3. In an extension table, two relatively movable top sections having slidably engaged longitudinal extensions, slidably mounted blocks, the respective top sections being provided with means engaging said blocks to slide the same, and a transversely movable table leaf carried by each of said blocks and adapted to be extended when the top sections are separated to occupy the space vacated by one of said top sections.

4. In an extension table, relatively movable table top sections, slide blocks movable with the respective top sections, a transversely disposed bar hingedly mounted upon each of the slide blocks, and a supplementary table leaf mounted for longitudinal sliding movement upon each of said bars, said table leaf being adapted to be extended upon the hinged bar when the table top sections are separated to occupy the space vacated by one of the top sections.

5. In an extension table, relatively movable top sections, a slide block slidable with each of said top sections, a pair of transversely disposed bars hingedly mounted upon each of said slide blocks, supplementary table leaves longitudinally slidable upon said bars and adapted to be extended with relation thereto when the top sections are separated to occupy the spaces vacated by said top sections.

[Claims 6 to 11 not printed in the Gazette.]

1,140,467. MACHINE FOR OPERATING ON SHOES. EUCLID I. LA CHAPELLE, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Original application filed May 21, 1908, Serial No. 434,042. Divided and this application filed Feb. 15, 1913. Serial No. 748,563. (Cl. 12—51.)



1. A machine for operating upon shoes, having, in combination, a series of tools arranged to embrace the end of a lasted shoe and to act on the side of the last, and means for actuating the tools to hammer and apply a rubbing pressure to the shoe upper.

2. A machine for operating upon shoes, having, in combination, a series of side hammers arranged to embrace the end of a lasted shoe, and means for actuating the hammers to deliver blows upon the upper about the edge of the last and to move away from the edge of the last while in engagement with the upper.

3. A machine for operating upon shoes, having, in combination, a support, a series of hammers arranged to embrace the heel of a shoe supported on the support, and means for actuating said hammers to deliver blows upon the heel about the edge of the heel seat and to move away from the heel seat while in engagement with the heel.

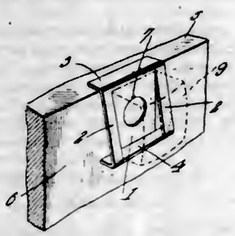
4. A machine for operating upon shoes, having, in combination, a series of hammers arranged to operate upon a

lasted shoe, means for actuating said hammers to shape and smooth the upper about the edge of the last, and means for shifting the hammers to vary the point of operation of the hammers longitudinally of the shoe.

5. A machine for operating upon shoes, having, in combination, a shoe support, a series of hammers arranged to operate upon the heel of a shoe supported on the support, means for actuating said hammers to shape and smooth the heel about the heel seat, and means for shifting the hammers to vary the point of operation of the hammers longitudinally of the shoe.
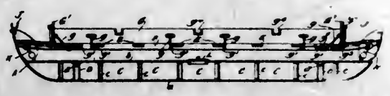
[Claims 6 and 7 not printed in the Gazette.]

1,140,468. NUT-LOCK. WILLIAM FRANKLIN LUDWICK, Beaumont, Kans., assignor of one-half to Charles G. Miller, Enid, Okla. Filed Feb. 5, 1914. Serial No. 816,784. (Cl. 151—53.)



In a device of the class described, a section of material; a bolt and nut structure engaged therewith and including a rotatable element; and a nut lock comprising a tongue through which the bolt passes, the tongue being interposed between the rotatable element and the material, the tongue being provided with an angularly disposed primary flange engaging one edge of the material, there being arms projecting from the primary flange adjacent its ends, the arms engaging opposed edges of the rotatable element, the arms being disposed at an acute angle to the tongue, there being a secondary flange which connects the arms, the secondary flange being extended in the same general direction as the primary flange and being disposed at an angle to the plane defined by the arms, the secondary flange bearing against another edge of the rotatable element to constitute a means for preventing a rotation thereof, and bearing against the material to act as a brace for the arms, whereby the latter will be held engaged with the first specified edges of the rotatable element.

1,140,469. BOAT. ANDREAS P. LUNDIN, Bayside, N. Y., assignor to Welin Marine Equipment Company, a Corporation of New York. Filed May 1, 1912. Serial No. 694,432. (Cl. 9—3.)



1. A lifeboat comprising a metallic shell having a well, polygonal in conformation, air-tight compartments beneath the well, marginal and cross seats connected to the shell at the upper edge of the well, a superstructure composed of rigid side and end members hinged to the shell and adapted to fold inwardly and means for automatically locking such side and end members when the same are moved into raised position.

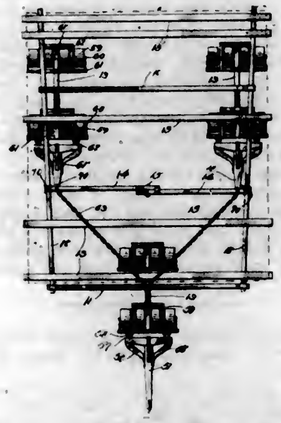
2. A boat comprising a rigid metallic shell comprising rounded fore and aft sections and an amidship section having a well polygonal in conformation, provided with seats and having flat outer sides, supplementary sides of highly buoyant material connected to the amidship section outer sides of the metallic shell to round out the contour of the boat, add to its stability and serve as fenders.

3. A lifeboat comprising a metallic shell having a well, polygonal in conformation, air-tight compartments beneath the well, marginal and cross seats connected to the shell at the upper edge of the well, a superstructure composed of side and end members hinged to the shell and adapted to fold inwardly, a stiffening rib on each side and end members for reinforcing the same when in raised position and serving as an elevated support for another boat when in folded position, and means for automatically locking such side and end members when the same are moved into raised position.

4. A boat embodying a rigid metallic shell comprising rounded fore and aft sections and an amidship section provided with a well polygonal in conformation and having flat sides, and supplementary sides composed of balsa wood having its pores closed against the admission of water and attached to said flat outer sides to round out the contour of the boat, add to its stability and serve as fenders.

5. A lifeboat embodying therein a metallic shell having a well polygonal in conformation, air tight compartments beneath the well, a superstructure composed of side and end members each of which is rigid over its entire surface and is hinged to the shell to permit raising and lowering thereof and means for automatically locking such side and end members when the same are moved into raised position.

1,140,470. TRUCK. NEIL MCDOUGALL, Minot, N. D. Filed Sept. 27, 1913. Serial No. 792,237. (Cl. 21—115.)



1. A truck comprising a main beam, transversely extending beams secured to the rear portion of said main beam, yokes passing over said main beam and having their end portions secured to said transversely extending beams to brace the same, bracing rods connected with the forward transversely extending beam and with the forward portion of said main beam, wheel carrying beams pivotally connected with said transversely extending beams and extending parallel to said main beam, axles connected with said pivotally mounted beams, wheels mounted upon said axles, and rods loosely connected with the forward transversely extending beam and provided with eyes through which said axles pass.

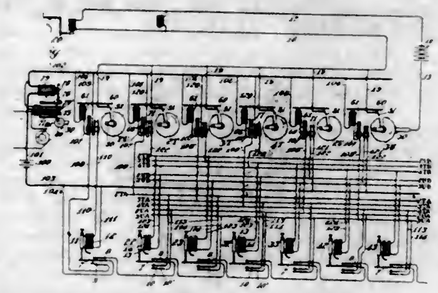
2. A truck comprising a main beam, supporting wheels connected with the rear end portion of said main beam, a wheel supporting frame at the forward end portion of said main beam and comprising a plurality of transversely extending beams, a center beam rigidly secured to said transversely extending beams and pivotally connected with said main beam, yokes passing over said center beam and having their end portions secured to said transversely extending beams, arcuate supporting strips having their end portions secured to said yokes and positioned beneath said main beam to form supports for said main beam, wheel carrying beams pivotally connected with said transversely extending beams, axles connected with said pivotally mounted beams, and wheels mounted upon said axles.

3. A truck comprising a main beam, supporting means at the rear portion of said main beam, a wheel carrying frame pivotally connected with the forward end portion of said main beam and comprising a plurality of transversely extending beams, beams connecting said transversely extending beams, axles connected with certain of said last mentioned beams, yokes extending over the remaining one of said last mentioned beams and having their end portions connected with said transversely extending beams, supporting strips connected with said yokes and passing beneath said main beam, and supporting wheels mounted upon said axles.

4. A building moving device of the character described comprising a forward truck, a plurality of rear trucks, a rear bolster having its end portions pivotally connected with said rear trucks, a forward bolster pivotally connected with said forward truck, side timbers having their end portions supported by said bolsters and transversely extending bars secured to said timbers and having their inner end portions positioned in overlapped relation and adjustably connected together.

5. A truck comprising a main beam, transversely extending beams secured to the rear portion of said main beam, means engaging said transversely extending beams and passing over said main beams for bracing the beams, wheel carrying beams pivotally connected with said transversely extending beams, axles connected with said pivotally mounted beams, wheels carried by said axles, and brace means loosely connected with the forward transversely extending beam and said axles.

1,140,471. SIGNAL-TRANSMISSION MEANS. JUDSON MCFELL, Chicago, Ill. Filed Oct. 21, 1912. Serial No. 726,951. (Cl. 177—380.)



1. Signal transmitting mechanism comprising a plurality of number wheels and complementary line-switch means, a magnet for each wheel and switch means controlling the operative association of its respective wheel with the line, and key means respectively controlling the appropriate magnets for the number wheels and also controlling one another in predetermined succession.

2. In a device of the character described, the combination with a plurality of number wheels, means to rotate them, signal switches associated therewith, and means to control the operative association of the signal wheels with a signaling line, of a plurality of signal-initiating devices controlling the control means for appropriate signal wheels, and means governed by each signal-initiating device for disabling said control means of all subsequent signal-initiating devices.

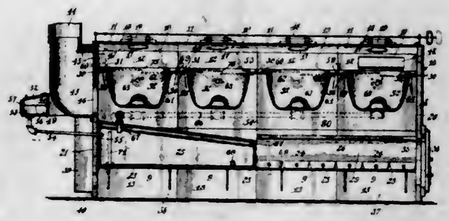
3. In a device of the character described, the combination with a plurality of signal wheels, driving means therefor, complemental line-switch mechanism, and controlling means for connecting the respective wheels in operative relation with the line, of a plurality of signal-initiating devices each operatively associated with the controlling devices of appropriate wheels to transmit a predetermined signal in the line, said initiating devices being manually movable to set or operative position, means automatically to hold said devices in set position each until the completion of the signal operation which it initiates, means to prevent the initiation of any signal until the release of all prior signal-initiating means, and means for releasing each said signal-initiating device upon completion of its signal.

4. In a device of the character described, the combination with a plurality of signal wheels, driving means therefor, complemental line switch mechanism, and electro-responsive controlling means for connecting the respective wheels in operative relation with the line, of a plurality of signal initiating devices manually movable to set or operative position and each controlling certain of the electro-responsive controlling means, means automatically to hold each said signal initiating device in set position, and means automatically to release and restore the signal initiating device to normal condition upon completion of its signal.

5. In a device of the character described, the combination with a plurality of signal wheels, driving means therefor, complemental line switch mechanism, and controlling means for connecting the respective wheels in operative relation with the line, of a plurality of signal initiating devices manually movable to set or operative position, latch means automatically to hold each said signal initiating device in set position, a latch-releasing electro-magnet associated with each latch, a circuit therefor and switch means timed in operation by the rotation of the wheels for controlling the operations of said electro-magnet.

[Claims 6 to 25 not printed in the Gazette.]

1,140,472. INCINERATOR. WILLIAM C. MCKEOWN, Buffalo, N. Y., assignor to United States Incinerator Company, Buffalo, N. Y., a Corporation of New York. Filed July 15, 1911. Serial No. 638,723. (Cl. 110—9.)



1. In an incinerator, a casing formed of a plurality of connected units or sections, each comprising spaced side members, a top plate having an opening, a back plate and a front plate closing the space separating said side members, the connected side members at each side of the casing having a passage therethrough and one of said units or sections having an opening connecting said passage with the space between opposite side members, a liquid receiving tank in communication with the passages in said side members, a fire box within said casing, a kettle pivotally-mounted within each unit or section, said kettles being separated from said top plates by an intervening space, flues connecting said intervening space with the fire box from beneath, a smoke pipe in communication with said fire box and with the space between said kettles and top plates, and means for closing communication with said last-mentioned space and said smoke pipe.

2. An incinerator comprising a casing having a plurality of kettles, a fire box in a plane beneath said kettles, a liquid capacity tank in rear of said fire box serving as a bridge wall, and evaporating tanks at opposite sides of said fire box and in connection with said capacity tank.

3. An incinerator comprising a casing having a plurality of kettles with spaces above and beneath the same, a fire box in a plane beneath said kettles, a smoke pipe for said casing in communication with the spaces above and beneath said kettles, means for closing communication between said smoke pipe and the space above said kettles,

a liquid-receiving tank in communication with the space above said kettles and having a discharge pipe attached thereto, a liquid evaporating tank in operative relation to said fire box and having communication with said discharge pipe, means of communication between the space above said kettles and said fire box, and an overflow pipe common to said kettles and in communication with said liquid evaporating tank.

4. An incinerator comprising a casing, a plurality of kettles within said casing having spaces above and beneath the same and being provided with hollow pivots, a smoke pipe in communication with the spaces above and below said kettles, a fire box in a plane beneath said kettles, and a liquid evaporating tank having communication with the hollow pivots of said kettles.

5. An incinerator comprising a casing having side members separated by an intervening space, a top plate closing the top of said space, a back plate closing the rear end of said space and a front plate closing the forward end of said space and having an opening therein, said side members having inwardly directed ledges, a fire grate supported by said ledges, a kettle in a plane above said grate, and a liquid evaporating tank inserted through the opening of said front plate and resting upon one of said inwardly-directed ledges, said liquid evaporating tank being in communication with said kettle to receive the liquid overflow therefrom.

[Claims 6 to 9 not printed in the Gazette.]

1,140,473. ANKLE-BRACE FOR SKATES. DE WITT TALMAGE MCLONEY, Florence, Colo. Filed Apr. 11, 1914. Serial No. 831,323. (Cl. 46—53.)



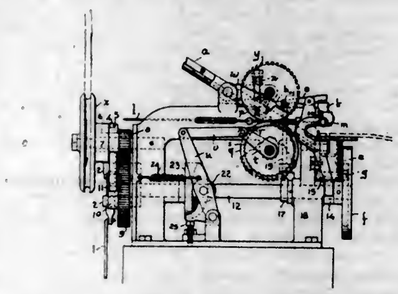
The combination with a skate, of an ankle bracing bar having its lower end laterally curved, the curved end being bifurcated to provide a pair of spaced arms, said arms being pivotally connected to the heel portion of the skate, the intermediate portion of the bar being offset inwardly and adapted to lie flat against the leg of the wearer, and attaching means carried by the upper portion of the bar.

1,140,474. METHOD AND APPARATUS FOR ATTACHING BUTTONS TO FABRICS. FRANK A. MINER, Windsor, Ontario, Canada, assignor of one-third to John Green and one-third to R. J. Brace, Pontiac, Mich. Filed Dec. 24, 1914. Serial No. 878,846. (Cl. 218—4.)

1. The method of fastening buttons with eye-shanks to a fabric, comprising the thrusting of the eye of the button through the fabric and the forming of a ring through the eye of the button.

2. The method of fastening buttons with eye-shanks to a fabric, comprising the thrusting of the shank of the button through the fabric, and the forming of a split or spiral ring through the eye.

3. The method of fastening buttons having eye-shanks upon a fabric, comprising the thrusting of the button shank through the fabric, and the pushing and guiding of a wire through the eye of the shank and into the formation of a split or spiral ring.

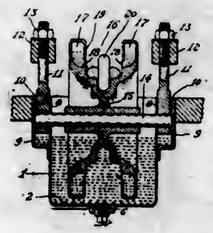


4. The method of fastening buttons with eye-shanks upon a fabric, comprising the thrusting of the button shank through the fabric, and the causing of a wire to travel through the eye of the button shank and properly guiding it to form a split ring or spiral, then cutting the wire to complete the split ring or spiral.

5. In apparatus of the class described, the combination of mechanism for feeding buttons having eye-shanks one at a time, mechanism for thrusting the shank of the button through a fabric, mechanism for forming a split ring or spiral through the eye of the shank, and mechanism for feeding the wire to such forming mechanism.

[Claims 6 to 19 not printed in the Gazette.]

1,140,475. SHEAVE-LUBRICATING DEVICE. MATHEW MULHOLLAND, Cleveland, Ohio. Filed Mar. 31, 1914. Serial No. 828,582. (Cl. 184—17.)



1. In a sheave-lubricating device, a sheave provided with pockets each having an outlet intersecting the side wall of the sheave-groove, said outlet being intermediate of the closed end of the pocket and the axis of the sheave.

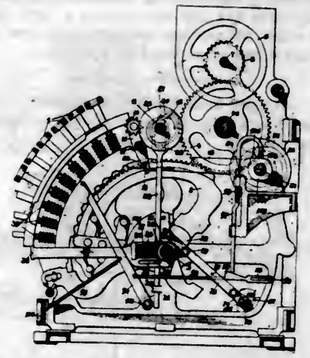
2. In a sheave-lubricating device, the combination with an oil receptacle; of a sheave mounted so as to have its lower portion project into said receptacle, said sheave-being provided with pockets, each having a lateral outlet intersecting the walls of the sheave-groove.

3. In a sheave-lubricating device, the combination with an oil receptacle; of a sheave mounted so as to have its lower portion project into said receptacle, said sheave being provided with a plurality of cavities, each having an outlet at that end nearest the axis of the sheave.

4. In a sheave-lubricating device, the combination with an oil receptacle; of a sheave mounted so as to have its lower portion project into said receptacle, said sheave being provided with a plurality of cavities, each having an outlet at that end nearest the axis of the sheave, said outlets interesting the walls of the sheave-groove.

5. In a sheave-lubricating device, the combination with an oil receptacle; of a sheave mounted in said oil receptacle and having an unobstructed groove for the reception of a chain or cable, and mounted so as to project into said receptacle; said sheave being provided with pockets for elevating the oil from the latter.

1,140,476. CASH-REGISTER. WILLIAM H. MUZZY, Dayton, Ohio, assignor to The National Cash Register Company, Dayton, Ohio, a Corporation of Ohio, (incorporated in 1906.) Filed Aug. 3, 1907. Serial No. 386,855. (Cl. 235—2.)



1. In a machine of the class described, the combination with an accumulating mechanism, of a printing mechanism coöperating therewith and including different distinguishable type characters, and connections for printing details and totals one below the other from said characters respectively.

2. In a machine of the class described, the combination with an accumulating mechanism, of a printing mechanism coöperating therewith and having distinguishable detail and total types and devices for effecting the printing of the details and totals one below the other.

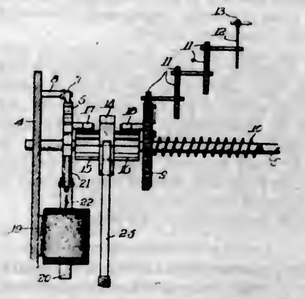
3. In a machine of the class described, the combination with an accumulating mechanism, of a printing mechanism coöperating therewith and having type carriers with corresponding and distinguishable detail and total printing types and devices for effecting the printing of the details and totals one below the other.

4. In an accounting mechanism, the combination of type carriers each having corresponding and distinguishable detail and total printing types, of means for taking impressions one below the other from said types.

5. In an accounting mechanism, the combination with type carriers each bearing detail and total types of different characters, of a plurality of platens operable at will for taking impressions one below the other from the detail or the total types.

[Claims 6 to 39 not printed in the Gazette.]

1,140,477. SELF-WINDING CLOCK. GEORGE H. MYRICK, Chicago, Ill., assignor, by mesne assignments, to Mineraliac Electric Company, Chicago, Ill., a Corporation of Illinois. Filed Aug. 18, 1913. Serial No. 785,296. (Cl. 58—41.)



1. In a self-winding clock, a shaft, a driving spring having one end thereof secured to the shaft, a wheel loosely mounted upon the shaft, said wheel being fastened to the other end of the spring, a ratchet wheel also loosely mounted upon said shaft, mechanism whereby the first wheel is unable to move under the influence of the spring without rotating the ratchet wheel, a third wheel rigidly mounted upon the shaft, mechanism whereby the third wheel is unable to move independently of the ratchet wheel in the direction in which the spring tends to move the first wheel, said ratchet wheel being adapted to move in said direction independently of the other wheels, electromagnetic mechanism adapted when operated to advance the third wheel, a circuit for said electromagnetic mechanisms, and a pair of contact springs controlling said circuit riding upon the periphery of the ratchet wheel, an annular space being interposed between the ratchet engaging surfaces of said springs.

2. In a self-winding clock, a shaft, a wheel loosely mounted upon the shaft, a driving spring having one end thereof secured to the shaft and the other end to said wheel, a second wheel rigidly mounted upon the shaft, and a third wheel loosely mounted upon the shaft disposed between said first and second wheels, ratchet mechanism for preventing either of said first mentioned wheels from moving independently of the third wheel in the direction in which the driving spring tends to move the first wheel, said third wheel being adapted to move in said direction independently of the first and second wheels, electromagnetic mechanism arranged when operated to advance the second wheel, a circuit for said electromagnetic mechanism, and contacts for controlling said circuit bearing on said third wheel and controlled thereby, an annular space being interposed between the wheel engaging surfaces of said springs.

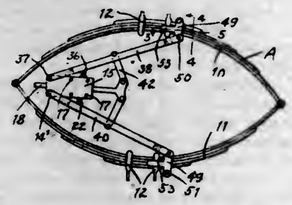
3. A self-winding clock comprising a shaft, a wheel loosely mounted on the shaft, a spring connecting the wheel and shaft, a ratchet wheel loosely mounted on said shaft, mechanism whereby the shaft and said first wheel are unable to move in one direction independently of said ratchet wheel, said ratchet wheel being adapted to move in said direction independently of the first gear and the shaft, electromagnetic means arranged when operated to rotate the shaft to wind the spring, a circuit for said electromagnetic mechanism, and spring contacts controlling said circuit riding on the periphery of said ratchet wheel, an annular space being interposed between the ratchet wheel engaging surfaces of the said contact springs.

4. A self-winding clock comprising a shaft, a gear loosely mounted upon said shaft, escapement mechanism, operative connection between said gear and said escapement mechanism, a driving spring connecting the shaft and gear, a ratchet wheel, another wheel so related to the shaft that the shaft is rotated when the wheel is rotated, mechanism whereby the gear and said last mentioned wheel are unable to rotate in one direction independently of the ratchet wheel, the ratchet wheel being adapted to rotate in said direction independently of the gear and the other wheel, electromagnetic means for rotating the shaft to wind the spring, a holding pawl to prevent rotation of the shaft in a reverse direction, a circuit for said electromagnetic means, and contact mechanism controlling said circuit, said contact mechanism being operated by the ratchet wheel and arranged to have two ratchet wheel engaging surfaces, an annular space being interposed between the ratchet engaging surfaces of said contacts.

1,140,478. SHOCK-ABSORBER FOR VEHICLES. FRANCIS V. PHILLIPS, Orlando, Fla. Filed Apr. 14, 1914. Serial No. 831,782. (Cl. 21—105.)

1. In a shock absorber, the combination of a body, a piston slidably mounted in the body, a friction shoe slidably mounted in the body and engaging said piston, a roller mounted in the body and engaging said friction shoe, spring means energized by said roller during the movement thereof in one direction, said spring means reacting to force the shoe into engagement with the piston, and means for connecting the piston to a vehicle spring.

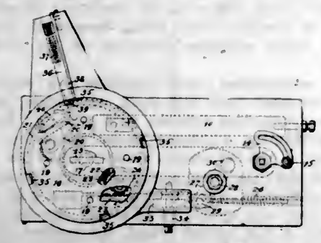
2. In a shock absorber, the combination of a body, a piston slidably mounted in the body, a friction shoe slidably mounted in the body and engaging said piston, a pair of rollers mounted in the body and engaging said friction shoe, independent spring means energized alternately by the movement of said rollers under the influence of the movement of said shoe, each of said spring means reacting when energized to force the shoe into engagement with the piston, and means for connecting said piston to a vehicle spring whereby the compression and rebound of the spring will slide the piston.



3. In a shock absorber, the combination of a body, a piston slidably mounted in the body, a friction shoe slidably mounted in the body and engaging said piston, a pair of opposed V-shaped springs mounted in the body having corresponding arms inclined toward opposite ends of the shoe respectively, a roller interposed between each spring and the shoe, and means for connecting said piston to a vehicle spring whereby the compression and rebound of the spring will slide the piston.

4. A pivot clamp for attaching a pivoted member to a spring comprising spaced plates, bolts connecting said plates, and a hook extension on one of said plates adapted to engage over the securing clip of a spring.

1,140,479. TURRET-SLIDE MECHANISM FOR TURRET-LATHES. JAMES CHARLES POTTER, Providence, R. I. Filed Jan. 31, 1911. Serial No. 605,819. (Cl. 29—49.)



1. The combination of a turret slide, a turret, a turret lock, a lock releasing dog, a turret rotating pawl normally in turret rotating position, and automatic means to render said pawl inactive during a feeding movement on a failure of the turret to be unlocked consisting of a part lying in the path of the pawl in turret rotating movement, and operatively connected with the turret lock.

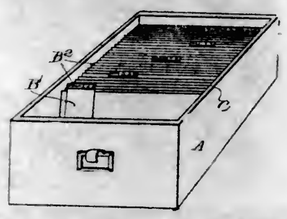
2. The combination of a turret slide, a turret, a locking bolt having a prolongation or extension, a bolt releasing dog, a feeding pawl in whose path said bolt prolongation lies when the bolt is in locking position.

3. The combination of a turret slide, a turret, a locking bolt having a prolongation or extension, a bolt releasing dog, a feeding pawl in whose path said bolt prolongation lies when the bolt is in locking position, and an oscillatory carrier for said dog and said pawl.

4. The combination of a turret slide, a turret, a stud rising from the slide on which the turret is pivoted, a clamping bolt contained in a chamber in said stud having a turret engaging head, a cam carrying ring pivoted upon said stud, and portions carried by said bolt adapted to be engaged by the cam of said ring, a gear to which said ring is attached, a locking bolt, a bolt releasing dog, a feed pawl, a carrier to which said pawl and dog are attached, said carrier being connected with said gear.

5. The combination of a turret slide, a turret, a locking bolt, bolt releasing means, turret rotating means, a carrier for said releasing and rotating means, a rack bar gearing between the rack bar and the carrier, a lever pivoted to the turret slide, connections between said lever and said rack bar, and a cam co-acting with said lever.

1,140,480. GUIDE FOR INDEX SYSTEMS. JAMES H. RAND, Jr., North Tonawanda, N. Y. Filed May 8, 1914. Serial No. 837,305. (Cl. 129—16.)



1. In an index system, in combination with a series of indexed elements, a divider comprising a base, the length of which is substantially the same as the width of the indexed elements and the breadth of which is substantially less than the height of the indexed elements, and a materially narrower guide member extending upward from said base beyond the tops of the said indexed elements.

2. In an index system, in combination with a series of indexed elements, a divider comprising a base, the length of which is substantially the same as the width of the indexed elements and the breadth of which is substantially less than the height of the indexed elements, and a materially narrower guide member extending upward from said base beyond the tops of the said indexed elements and adjustable thereon.

3. In an index system, in combination with a series of indexed elements, a divider comprising a base, the length of which is substantially the same as the width of the indexed elements and the breadth of which is substantially less than the height of the indexed elements, and a materially narrower guide member extending upward from said base beyond the tops of the said indexed elements and having at its lower end between the indexed elements and covered thereby a guideway embracing said base and adapted to slide lengthwise thereof.

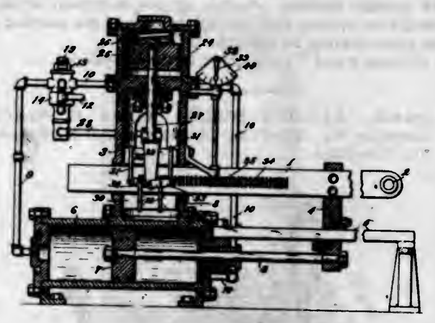
4. In an index system, in combination with a series of indexed elements, a divider comprising a base, the length of which is substantially the same as the width of the indexed elements and the breadth of which is substantially less than the height of the indexed elements, and a materially narrower guide member extending upward from said base beyond the tops of the said indexed elements and having at its lower end between the indexed elements and covered thereby a guideway embracing said base and making close frictional engagement therewith but adapted to slide lengthwise thereof.

5. In an index system, in combination with a series of indexed elements, a divider comprising a base formed of a narrow bar, the length of which is substantially the same as the width of the indexed elements and the breadth of which is substantially less than the height of the indexed elements, and a materially narrower guide member formed of sheet material mounted at its lower end upon said bar between said indexed elements and covered thereby and slidable lengthwise thereon.

[Claim 6 not printed in the Gazette.]

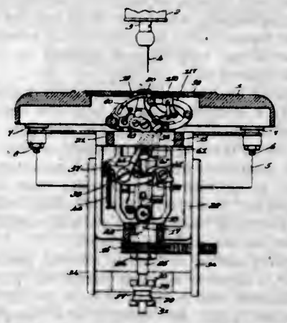
1,140,481. LINK-OPERATING MECHANISM FOR LOCOMOTIVES. JOHN RANK, Olympia, Wash. Filed Jan. 27, 1913. Serial No. 744,389. (Cl. 121—99.)

1. In a machine of the class described, the combination with a bar adapted to be actuated longitudinally through a frame; of clamp blocks confined from longitudinal motion by the frame, said blocks being on opposite sides of and adapted to engage the bar; oppositely acting loops engaging said blocks and adapted to draw them into clamping contact with the bar; and fluid pressure actuated means whereby said loops are actuated.



2. In a machine of the class described, the combination with a bar adapted to be actuated longitudinally through a frame; of clamp blocks confined from longitudinal motion by the frame, said blocks being on opposite sides of and adapted to engage the bar; oppositely acting loops engaging said blocks and adapted to draw them into clamping contact with the bar; a cylinder; a piston therein connected to said loops whereby the clamping pressure of the loops is determined by the position of the piston; a spring acting on the piston to release the clamping pressure of the loops; and means for admitting fluid pressure on the opposite side of the piston whereby the spring is compressed and the loops are actuated to clamp the bar.

1,140,482. BUTTONHOLE-STITCHING MACHINE. FRED A. READ, Lynn, Mass., assignor to The Reece Button Hole Machine Company, Boston, Mass., a Corporation of Maine. Filed May 23, 1913. Serial No. 769,375. (Cl. 112—4.)



1. A buttonhole stitching machine including in combination, a work support, a bodily shiftable stock below the work support, means for shifting the stock during stitching operations, a curved needle adapted to be oscillated along a curved path for forming stitches, a combined carrier, spoke and hub constituting a single rigid member when in operation, an upstanding extension provided on said stock against which said carrier has a sliding face contact, and a bearing engaged by said hub located wholly beneath said work support in a fixed position on said extension; said extension consisting of a frame, and having an elongated opening, and said carrier having an actuating projection movable freely within said opening.

2. A buttonhole stitching machine including in combination, a work support, a bodily shiftable stock below the work support, means for shifting the stock during stitching operations, a curved needle adapted to be oscillated along a curved path for forming stitches, a combined carrier, spoke and hub constituting a single rigid member when in operation, and an opposed-cone bearing between said hub and stock located wholly beneath said work support in a fixed position on said stock.

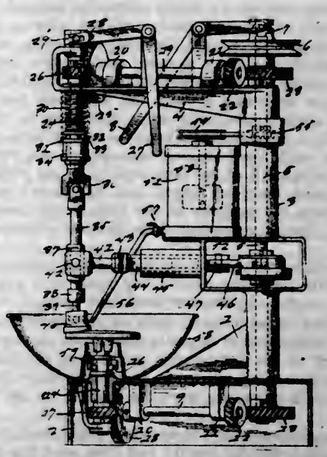
3. A buttonhole stitching machine including in combination, a work support, a bodily shiftable stock below the work support, means for shifting the stock during stitching operations, a curved needle adapted to be oscillated along a curved path for forming stitches, a combined carrier, spoke and hub constituting a single rigid member when in operation, an upstanding fixed extension provided on said stock against which said carrier in its movements has face bearing at one side, and an opposed-cone bearing between said hub and stock located wholly beneath said work support in a fixed position on said extension; said extension provided with a bridge piece spaced apart from the extension, with said hub and opposed cones between them.

4. A buttonhole stitching machine including in combination, a work support, a bodily shiftable stock below the work support, means for shifting the stock during stitching operations, a curved needle adapted to be oscillated along a curved path for forming stitches, a combined carrier, spoke and hub constituting a single rigid member when in operation, and a bearing between said hub and stock located wholly beneath said work support and comprising a pair of opposed points oppositely engaging the hub, one of said points adjustable transversely to the axis of swinging for positioning the needle's path.

5. A buttonhole stitching machine including in combination, a work support, a bodily shiftable stock below the work support, means for shifting the stock during stitching operations, a curved needle adapted to be oscillated along a curved path for forming stitches, a combined carrier, spoke and hub constituting a single rigid member when in operation, and a bearing between said hub and stock located wholly beneath said work support and comprising a pair of opposed points oppositely engaging the hub, one of said points adjustable transversely to the axis of swinging for positioning the needle's path, and the other point adjustable axially for securing suitable relation to said hub.

[Claims 6 to 10 not printed in the Gazette.]

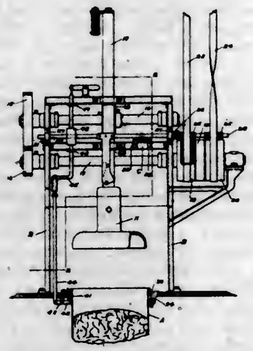
1,140,483. LENS-GRINDING MACHINE. WALTER K. ROGERS, Toledo, Ohio, assignor to The Rogers Automatic Lens Company, Toledo, Ohio, a Corporation of Ohio. Filed June 9, 1913, Serial No. 772,573. Renewed Feb. 10, 1914. Serial No. 817,920½. (Cl. 51—31.)



In a lens grinding machine, the combination of a vertical main driving shaft, upper and lower horizontal counter

shafts, a jointed lens block spindle slidable longitudinally, a coiled spring about the lens block spindle adapted to subject the same to tension, a tool spindle, spiral gearing to transmit motion from the main driving shaft to the tool spindle and also the lens block spindle, a sliding shaft operating transverse to the lens block spindle, a sliding sleeve upon the lens block spindle, an adjustable connection between the sleeve and the sliding shaft, an inner accentric fixed upon the main driving shaft, an outer eccentric adjustable upon the fixed inner eccentric, and an eccentric strap mounted upon the outer eccentric and connecting with the sliding shaft, substantially as described.

1,140,484. BAGGING-MACHINE. ALLAN C. SARGENT, Westford, Mass., assignor to C. G. Sargent's Sons Corporation, Graniteville, Mass., a Corporation of Massachusetts. Filed Nov. 2, 1914. Serial No. 869,789. (Cl. 100—57.)



1. A bagging machine comprising a bag support, a plunger, means to move said plunger vertically, means to automatically reverse the direction of movement of said plunger at its lower and upper limits of travel, and means adjustable to permit the continuous operation of said plunger or to stop said plunger at its upper limit of travel.

2. A bagging machine comprising a bag support, a plunger, means to move said plunger vertically, means controlled by the pressure on the bag support for reversing the movement of the plunger at its lower limit of travel, and additional means for reversing its movement at the upper limit of travel, comprising a shipper rod, a member secured to said rod and having an inclined guiding surface formed thereon, a block pivotally secured to said member and having oppositely inclined guiding surfaces and a stud or roll on said plunger coöperating with said inclined guiding surfaces to move said shipper rod.

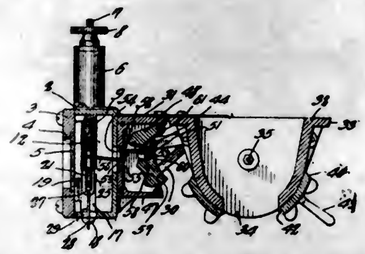
3. A bagging machine comprising a bag holder, a plunger movable vertically toward and from said bag holder, a driving shaft connected to move said plunger, tight and loose pulleys on said shaft, belts on said pulleys effective to rotate said shaft in opposite directions, means to change the position of the belts relative to the tight pulley at the lower limit of travel, and additional means to again change the position of the belts at the upper limit of travel, thereby restoring them to their former driving position.

4. A bagging machine comprising a bag holder, a plunger movable vertically toward and from said bag holder, a driving shaft connected to move said plunger, tight and loose pulleys on said shaft, belts on said pulleys effective to rotate said shaft in opposite directions, means to move one belt off of the tight pulley at the uper limit of travel of the plunger, and means to thereafter move the other belt onto said pulley to drive the plunger in the opposite direction.

5. A bagging machine comprising a bag holder, a plunger movable vertically toward and from said bag holder, a driving shaft connected to move said plunger, tight and loose pulleys on said shaft, belts on said pulleys effective to rotate said shaft in opposite directions, means to move one belt off of the tight pulley at the uper limit of travel of the plunger, and means to thereafter move the other belt onto said pulley to drive the plunger in the opposite direction, said latter means comprising a movable member connected to position said belts and a stud or rool on the plunger rendered effective by the movement of said plunger to actuate said member to reverse the position of the belts relative to the tight pulley.

[Claims 6 and 7 not printed in the Gazette.]

1,140,485. BAGGING-SCALE. WALTER H. SAWYER, Americus, Ga. Filed Jan. 26, 1914. Serial No. 814,493. (Cl. 73—175.)



1. In bagging scales, a feeding element having an outlet, opposed cut-offs, a pivoted member, a connection between said member and each cut-off, means for engaging said member to hold the cut-offs in open position, and means under the control of a receptacle being filled for releasing said holding means, thereby to release the member and cut-offs.

2. In bagging scales, a feeding element having an outlet, a cut-off, a member movable with the cut-off, means for engaging said member to hold the cut-off in open position, and means under the control of a receptacle being filled for actuating said holding means to release the member and cut-off.

3. In bagging scales, a feeding element having an outlet opening, a cut-off, a member movable with the cut-off, a pivoted element, means adjustably mounted on said element for engaging said member to hold the cut-off in open position, and means under the control of a receptacle being filled for actuating said pivoted element to release the member and the cut-off.

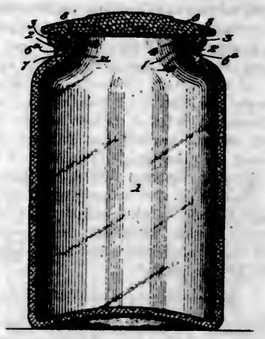
4. In bagging scales, a feeding element having an outlet, a cut-off, a member movable with the cut-off, a pivoted element, a shoulder therein for engaging said member to hold the cut-off in open position, means under the control of a receptacle being filled for actuating said pivoted element to withdraw the shoulder from engagement with the member, and means for adjusting said shoulder to vary its period of engagement with the member during the actuation of the pivoted element.

5. In bagging scales, a feeding element having an outlet, a cut-off, a member movable therewith, a pivoted element for engaging said member to hold the cut-off in open position, means under the control of a receptacle being filled for actuating said element to release the member, a pivoted element for engagement by the released member to hold the cut-off in partly closed position, the first named pivoted element constituting means for holding the last named pivoted element against movement, and said last named element being movable to release the said cut-off member when the first named pivoted element is shifted a predetermined distance.

[Claims 6 to 12 not printed in the Gazette.]

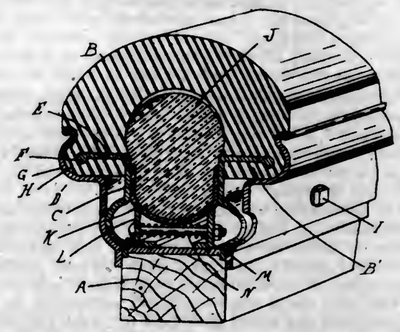
1,140,486. FRUIT-JAR. LOUIS A. SCHOLZ, Roanoke, Va. Filed Aug. 19, 1913. Serial No. 785,495. (Cl. 215—60.)

The combination with a fruit jar having an annular groove at the mouth so formed that an inner and outer rim are provided, the inner rim to be of less height than the outer rim, of a lid having a ring on the lower side, the ring made to be of less transverse extent than the groove for forming a continuous channel beneath the ring, and said ring of such diameter that when fitted to the groove a greater channel is left on the inside of the ring than



on the outside, an enlargement provided on the lower inner edge of the ring, and said lip adapted, when in place, to rest on the outer rim of the jar so that as a sealing medium is placed in the groove and the lid is fitted to the jar, the sealing medium will close up around the ring and over the enlarged portion.

1,140,487. TIRE-SECURING DEVICE. BENJAMIN COPLIN SEATON, Detroit, Mich. Filed Oct. 16, 1909. Serial No. 523,029. (Cl. 152—7.)



The combination with a felly, of side plates secured thereto having upwardly and outwardly-extending portions, a tire positioned intermediate of said side plates and seated upon the outwardly-extending portions thereof, inner plate members positioned upon opposite sides of the felly intermediate of said side plates and having upwardly and outwardly-extending portions, said outwardly-extending portions extending above and being spaced from said side plate extensions and being embedded in the tire for clamping the latter to the extensions.

1,140,488. GREASE-CUP. VANCE SHEARER, Bridgeport, Conn. Filed Dec. 12, 1914. Serial No. 876,782. (Cl. 184—38.)

1. In a stationary grease cup of the class described, the combination of a cylindrical reservoir having an opening in one side and an annular flange around each peripheral end portion, a rotatable jacket mounted upon the outside of the reservoir between the two said flanges and having an opening to register with that in the side of the reservoir, said jacket being threadably attached to the said body of the reservoir in a manner to cause the edge of the jacket to bind against the flange when in a closed position.



2. In a stationary grease cup of the class described, the combination of a cylindrical reservoir having an opening in one side, a shouldered flange around its periphery below the opening, an adjustable screw journaled in the end of the body, a piston fitted in the reservoir and its opening and engaged by the screw and adapted to be moved up and down by the said screw, a rotatable jacket mounted upon the outside of the reservoir and having an opening to register with that of the side of the reservoir, and means to cause the jacket to move longitudinally when the same is turned upon the body.

3. In a stationary grease cup of the class described, the combination of a cylindrical reservoir having an opening in one side and an annular flange around each peripheral end portion, a rotatable jacket mounted upon the outside of the reservoir between the two said flanges and having an opening to register with that in the side of the reservoir, said jacket being threadably attached to the said body of the reservoir in a manner to cause the edge of the jacket to bind against one of the said flanges when in a closed position and against the other when in an open position, an adjustable screw journaled in the end of the body and a piston fitted in the reservoir and its opening and engaged by the screw and adapted to be moved up and down by the said screw.

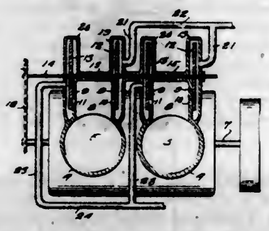
4. In a stationary grease cup of the class described, the combination of a cylindrical reservoir portion having an elongated opening in one side, a shouldered flange around its periphery below the opening and adapted for attachment to a bearing, a closure cap to cover one end of the reservoir and to overlap its periphery to form a shoulder, an adjusting screw journaled in the cap, a piston fitted in the reservoir and its opening and engaged by the screw and adapted to be moved up and down by the said screw, and a rotatable jacket mounted upon the outside of the reservoir between the shoulders of the cap and flange and having an opening to register with that of the side of the reservoir.

5. In a stationary grease cup of the class described, the combination of a cylindrical reservoir portion having an elongated opening in one side, a shouldered flange around its periphery below the opening and screw threads upon its opposite peripheral end portions one for the attachment of the cup to a bearing and the other for the attachment of a closure cap, a closure cap to engage the latter threads and overlapping the periphery of the reservoir to form a shoulder, an adjusting screw journaled in the cap, a piston fitted in the reservoir and its opening and engaged by the screw and adapted to be moved up and down by the said screw, and a rotatable jacket mounted upon the outside of the reservoir between the shoulders of the cap and flange and having an opening to register with that of the side of the reservoir.

1,140,489. INTERNAL-COMBUSTION ENGINE. LOYAL W. SHERIDAN, Mediapolis, Iowa. Filed Nov. 7, 1912. Serial No. 730,015. (Cl. 123—59.)

1. In an internal combustion engine, the combination with the drive shaft thereof, of a second shaft parallel thereto and abutting the combustion chambers of the cylinders of said engine, intake disk valves for each cylinder provided with intake ports, a portion of each of said valves abutting its respective combustion chamber, the latter being provided with intake ports for intermittent

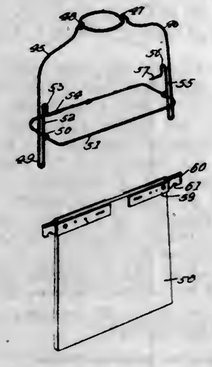
registration with first said ports, a casing surrounding each of said valves and spaced therefrom to permit of the passage of a fluid thereabout, and manifold ducts similarly connecting said intake casings.



2. In an internal combustion engine, the combination with the drive shaft thereof, of a second shaft parallel thereto and abutting the combustion chambers of the cylinders of said engine, exhaust disk valves for each cylinder provided with exhaust ports, a portion of each of said valves abutting its respective combustion chamber, the latter being provided with exhaust ports for intermittent registration with first said ports, a casing surrounding each of said valves and spaced therefrom to permit of the passage of a fluid thereabout, and manifold ducts similarly connecting said exhaust casings.

3. In an internal combustion engine, the combination with the drive shaft thereof, of a plurality of cylinders, each having two plane faces in parallelism to which the intake and exhaust ports open, the said faces of all of said cylinders being in parallelism; a second shaft having its axis parallel to the axis of said drive shaft; a plurality of valves, rotatable with said second shaft, one for each port of said cylinders, and each having a transverse way to open to its respective port during a predetermined period of rotation of said shaft; a way about the face of each valve opposite to its contact with the said faces of its respective cylinder, for conducting fluid; and, means for driving said second shaft from said drive shaft at a less velocity, substantially as and for the purpose set forth.

1,140,490. ATTACHMENT FOR BROOMS. ERIK G. SKRODER, Winchendon, Mass. Filed Dec. 5, 1913. Serial No. 804,892. (Cl. 15—28.)



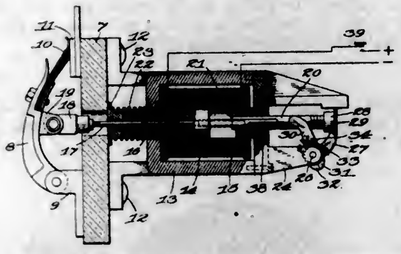
1. In an attachment for brooms, hangers each having extensions terminating at one end in an anchoring tang and at the other end in a hook, a loop intermediate the length of each hanger, a yoke lying in the loop of each hanger and engaging the broom fiber, and a dusting and cleaning element supported on said hooks.

2. In an attachment for brooms, hangers having loops, a member adapted to engage the side of a broom, said member passing through the loops of the hangers, hooks on the lower ends of the hanger, a dusting and cleaning element supported on said hooks, and means adapted to be embedded in the broom fiber for suspending the said hangers.

3. In an attachment for brooms, hangers, means for supporting the hangers from a broom, said hangers having curved lower ends, a dusting and cleaning element, means connected to the said dusting and cleaning element engaging the curved lower ends of the hangers for supporting the said dusting and cleaning element, and means extending at an angle to the hangers for engaging the outer surface of the broom fiber for retaining the said hangers in proper position with relation to the broom.

4. The combination with a broom bridle having side members which extend beyond the stitches through the broom and means for attaching the same to a broom, of a dusting and cleaning element which is adapted to be seated within the straws of a broom and to extend beyond the floor engaging ends of said straw, such dusting and cleaning element having attached thereto laterally extending means for engagement with the aforesaid side members of the broom bridle.

1,140,491. SWITCH. CARL J. ANDERSON, Chicago, Ill., assignor, by mesne assignments, to The Cutler-Hammer Mfg. Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed Mar. 3, 1911. Serial No. 612,032. (Cl. 175—281.)



1. In combination, an electric switch, mechanical means for automatically locking said switch in a predetermined position and a device reciprocable in a single path to actuate said switch and to trip said means alternately upon successive movements in the same direction and to the same limit of travel.

2. In combination, an electric switch, mechanical means for automatically locking said switch in a predetermined position, a device movable relatively to said means and rectilinearly movable back and forth between predetermined limits of travel to alternately actuate said switch and trip said means upon successive movements in the same direction and to the same limit of travel, and means for controlling said reciprocable device from a distant point.

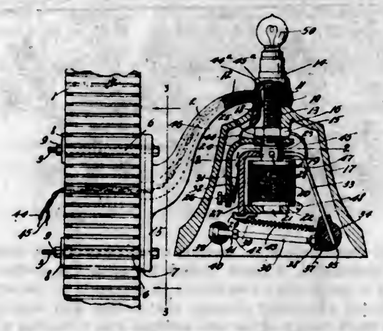
3. In combination, a switch, a movable member connected thereto and movable therewith, an operating member for said switch, a second movable member automatically engaging said first movable member in a predetermined position of the latter to lock the same, and means engaged by said operating member only upon alternate operations of the latter to move said second movable member out of engagement with said first movable member to release the same.

4. In combination, a switch, a latch for locking said switch in a predetermined position, a tripping member for said latch, a member movable in the one direction to actuate said switch and said tripping member alternately, and means normally maintaining said tripping member out of operative relation with said operating member and automatically moving the same into operative relation therewith after the return of said operating member toward initial position.

5. In combination, a switch, a latch for automatically locking said switch in a predetermined position, a tripping member for said latch, a member movable in one direction and in one path for actuating said switch and said tripping member alternately, and means moving said tripping member out of the path of said operating member upon release of said switch and moving the same into the path of said operating member when said switch is locked and said operating member has returned toward initial position.

[Claims 6 to 10 not printed in the Gazette.]

1,140,492. SIGNALING DEVICE. HAROLD B. ANDERSON, Cleveland, Ohio. Filed Aug. 15, 1913. Serial No. 785,006. (Cl. 177—7.)



1. A device of the character set forth comprising, in combination, a sound producing element, a principal hammer which is adapted to be swung thereagainst, and an auxiliary hammer adjustably carried by the principal hammer and adapted to be swung against the sound producing element upon the recoil of the principal hammer.

2. A device of the character set forth comprising, in combination, a sound producing element, a principal hammer which is adapted to be swung thereagainst, an auxiliary hammer carried by the principal hammer and adapted to be swung against the sound producing element upon the recoil of the principal hammer, said auxiliary hammer being movable to and from the principal hammer, and means for swinging the principal hammer.

3. A device of the character set forth comprising, in combination, a sound producing element, a principal hammer which is adapted to be swung thereagainst, an auxiliary hammer carried by the principal hammer and adapted to be swung against the sound producing element upon the recoil of the principal hammer, said auxiliary hammer being movable to and from the principal hammer, means for adjusting the extent of movement of the former from the latter, and means for swinging the hammers.

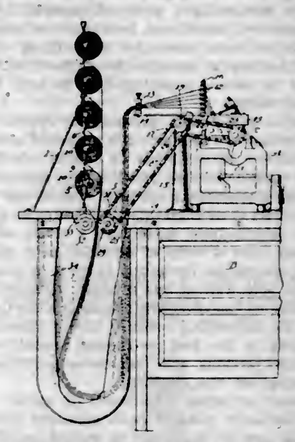
4. A device of the character set forth comprising, in combination, a sound producing element, a principal hammer having a flexible stem and adapted to be swung against the sound producing element, a rod carried by the principal hammer, and an auxiliary hammer supported by the end of the rod remote from the principal hammer and adapted to be swung against the sound producing element upon the recoil of the principal hammer.

5. A device of the character set forth comprising, in combination, a sound producing element, a principal hammer having a flexible stem and adapted to be swung against the sound producing element, a rod carried by the principal hammer and adjustable with respect thereto, and an auxiliary hammer supported by the end of the rod remote from the principal hammer and adapted to be swung against the sound producing element upon the recoil of the principal hammer.

[Claims 6 to 11 not printed in the Gazette.]

1,140,493. ATTACHMENT FOR TYPE-WRITERS, ADDING-MACHINES, AND THE LIKE. ENGLAND J. BARKER, Chicago, Ill. Filed Jan. 2, 1914. Serial No. 809,848. (Cl. 197—133.)

1. The combination with a writing machine of the kind specified having a rotary platen and means movable with said platen for directing a continuous web of paper thereto, a roller from which said paper is supplied having stationary bearing the axes of which are parallel to that of the platen and which are situated at the rear of said machine, and means for maintaining a hanging slack portion of said paper between said supply-roller and said machine.



2. The combination with a writing machine of the kind specified having a platen, of a supply roller upon which is mounted a continuous paper strip having stationary bearings adjacent said machine, and means for maintaining a hanging slack portion of said paper strip between said supply roller and the machine.

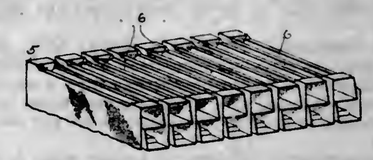
3. The combination with a writing machine of the kind specified having a platen, of a support for said machine consisting of a flat top having a transversely elongated slot, a supply roller upon which is mounted a continuous paper strip having stationary bearings adjacent said slot, a hanging slack portion of which between said roller and the machine descends down into and up out of said slot, and means for maintaining said slack.

4. The combination with a writing machine of the kind specified having a rotary platen, of a supply roller upon which is mounted a continuous paper strip having stationary bearings adjacent said machine, and means actuated by and rotatable simultaneously with said platen for maintaining a hanging slack portion of said paper strip between said roller and the machine.

5. The combination with a writing machine of the kind specified having a reciprocable carriage and a rotary platen journaled therein, and a sprocket wheel on one of its journals, of a supply roller upon which is mounted a continuous paper strip having stationary bearings adjacent said machine, a sprocket actuating said roll, and means including a chain connecting said first-mentioned and last-mentioned sprockets during the reciprocable movements of the carriage whereby a hanging slack portion of said paper strip is constantly maintained between the supply roller and platen.

[Claims 6 to 14 not printed in the Gazette.]

1,140,494. RADIATOR. KINDERMAN M. BOBLETT, Toledo, Ohio. Filed Apr. 1, 1912. Serial No. 687,619. (Cl. 257—130.)



1. A radiator including a plurality of spaced conduits the side walls of succeeding conduits comprising a strip of material bent upon itself to form a succession of oppositely disposed loops, each loop having a flat side, the

flat sides of alternate loops being alined one with the other to form side walls of succeeding conduits.

2. A radiator including a plurality of spaced conduits formed by a series of radiator units arranged side by side and connected one to the other in spaced relation, each of said units comprising a strip of material bent upon itself throughout a meandrous formation to form a succession of loops each successive loop being oppositely disposed and having an exterior face alined with the exterior face of the second preceding loop to form two separated parallel walls.

3. A radiator including a plurality of spaced conduits formed by a series of radiator units arranged side by side and connected one to the other in spaced relation, each of said units comprising two parallel side walls constituting side walls of succeeding conduits spaced one from the other and connected at intervals by transverse partitions dividing the intermediate space into a series of cellular spaces, formed from a strip of material bent upon itself throughout a meandrous formation to form in succession a portion of the side wall of one conduit, a transverse partition extending to the succeeding conduit a portion of the side wall of the succeeding conduit, and a transverse partition returning to the first mentioned conduit such succession of side portions and transverse partitions being repeated throughout the conduits.

4. A radiator including a plurality of spaced conduits formed by a series of radiator units arranged side by side and connected one to the other in spaced relation, each of said units comprising a continuous piece of material bent upon itself throughout a meandrous formation, the material being first extended to form a portion of one side of one conduit, thence transversely to the adjacent side of the succeeding conduit, thence in a direction parallel with the first mentioned portion to form a portion of the parallel side of the adjacent conduit, thence returning to the first mentioned conduit and extending in a plane common with the first mentioned section, such meandrous convolutions being continued throughout the length of the conduits.

5. A radiator including a plurality of spaced conduits formed by a series of radiator units arranged side by side and connected one to the other in spaced relation, each of said units comprising a continuous piece of material bent upon itself throughout a meandrous formation, said piece of material being extended longitudinally to form a portion of one side of the unit, thence transversely a distance equal to half the thickness of the unit, thence in a longitudinal direction, substantially parallel to the first mentioned section to form a portion of an intermediate septum, thence transversely to the opposite side of the unit where the material is extended longitudinally parallel to the formerly mentioned longitudinal sections, the material being extended thence transversely to the initial side, such successions of angular bends being successively repeated throughout the length of the unit.

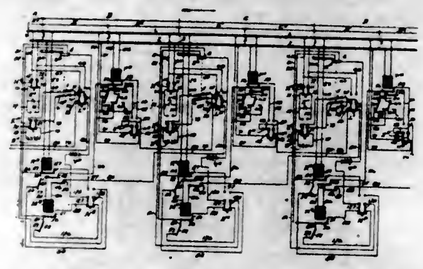
[Claims 6 to 9 not printed in the Gazette.]

1,140,495. RAILWAY SIGNALING. JOHN P. BUCHANAN, Cleveland, Ohio, assignor to The Union Switch & Signal Company, Swissvale, Pa., a Corporation of Pennsylvania. Filed Jan. 22, 1915. Serial No. 3,739. (Cl. 246—30.)

1. In combination, a section of railway track, a track circuit and a line circuit for the section, a signal for the section, and means for controlling said signal by the track circuit alone or by the track circuit and the line circuit.

2. In combination, a section of railway track, means for dividing the same into subsections, a track circuit for each sub-section, a line circuit for the section, a signal for the section, and means for controlling said signal by the track circuits alone or by the track circuits and the line circuit.

3. In combination, a section of railway track, a track circuit for the section including a track relay responsive to reversals of current, a line circuit extending through the section and controlled by said track relay and including a line relay responsive to reversals of current, means for supplying current to either the track circuit alone or to both the track circuit and the line circuit, means for reversing the current in the track circuit when current is supplied to the track circuit only and for reversing the current in the line circuit when current is supplied to both circuits, a signal for the section, and means for controlling said signal by the track relay or by the line relay according as the track circuit alone is energized or both circuits are energized.

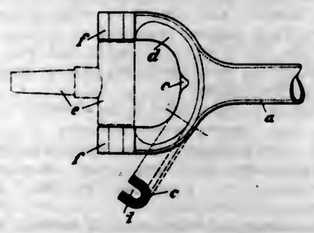


4. In combination, a section of railway track divided into sub-sections, a track circuit for each sub-section including a track relay responsive to reversals of current, a line circuit extending through the section and controlled by the track relays of the sub-sections and including a line relay responsive to reversals of current, means for all sub-sections except the last in advance for supplying current to the corresponding track circuits, means comprised in each track relay for reversing the flow of current in the track circuit for the next sub-section in the rear, means for supplying current to either the track circuit of the last sub-section alone or to both the said track circuit and the line circuit, means for reversing the current in the last-mentioned track circuit when current is supplied to the track circuit only and for reversing the current in the line circuit when current is supplied to the track circuits and the line circuit, a signal for the section, and means for controlling said signal by the track relay of the first subsection or by the line relay according as the track circuits alone are energized or both the line circuit and the track circuits are energized.

5. In combination, a section of a railway track, a track circuit for the section including a track relay responsive to reversals of current, a track battery, a line circuit for the section controlled by said track relay and including a line relay responsive to reversals of current, a line battery for the line circuit, a pole-changer, switches and conductors for connecting the track battery directly with the track rails and the line battery with the line circuit through the pole-changer, or for disconnecting the line battery from the line circuit and connecting the track battery with the track rails through the pole-changer, a signal, and means for controlling said signal by the track relay or by the line relay.

[Claims 6 to 10 not printed in the Gazette.]

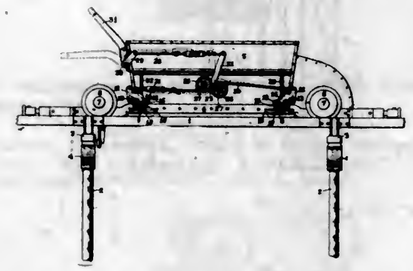
1,140,496. CONNECTION OF AXLE PARTS. ETTORE BUGATTI, Molsheim, Germany. Filed Aug. 26, 1913. Serial No. 786,810. (Cl. 21—141.)



1. As an improved connection of axle parts in moto. vehicles, in combination, a tubular front axle terminally split and splayed, the two resulting trough-shaped ends of said axle being bent to form a continuous arcuate housing, and a correspondingly arcuate swivel bearing yokes rigidly retained in said housing.

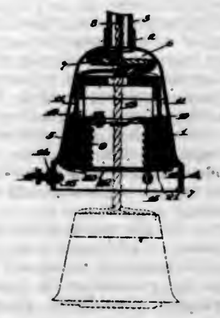
2. As an improved connection of axle parts in motor vehicles, in combination, a tubular front axle terminally split and splayed to form an arcuate troughed housing, and a correspondingly arcuate swivel bearing yoke, the said two arcuate parts being permanently joined by being clamped and brazed or welded together.

1,140,497. ORE-CAR. WILLIAM C. CARR, Buffalo, N. Y. Filed Apr. 19, 1913. Serial No. 762,284. (Cl. 188—47.)



In combination, a track-traveling car, angle levers mounted adjacent the respective ends of the car, brake shoes, a flange member pivotally connected to the brake shoes, means for connecting said flange members to the angle levers, insulating material interposed between said flanges and angle levers, a flexible element connecting said levers, means for adjusting the length of said element, an operating arm pivotally mounted intermediate said levers, and spaced rollers carried by and movable with said arm, said arm being normally held to position one of said rollers above and other below said element.

1,140,498. SOCKET FOR ELECTRIC LAMPS. CHARLES L. CASSIDY, Orange, N. J. Filed Feb. 28, 1914. Serial No. 821,815. (Cl. 173—358.)
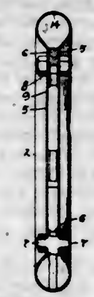


1. In a socket for an electric lamp, the combination with an electric cable, of a metallic shell closed at one end and open at the other end, an insulating plug introducible into the open end of the shell to close the opening, and having connecting means for the cable, said plug extending only part way to the closed end of the shell, leaving a space for a coil of the cable of sufficient length to permit the withdrawal of the plug to render the connecting means accessible: and means for removably securing the plug to the shell, and means for preventing rotation of the plug.

2. In an electric lamp socket, the combination with an electric cable, of a shell, a plug partly filling the shell and leaving a space between it and the shell for a coil of the electric cable, a ring engaging with the plug and holding it in place, means for securing the ring within the shell and means on the ring to prevent the plug from rotating.

3. In an electric lamp socket, the combination with a shell with eyelets adjacent to the free end thereof, of a plug within the shell, said plug having notches in its exposed face, a ring having openings adapted to engage with the eyelets, and having ears adapted to engage the notches of the face of the plug.

4. In an electric lamp socket, the combination with a shell with eyelets adjacent to the free end thereof, of a plug within the shell, said plug having notches in its exposed face, an annular groove adjacent to its periphery, a ring having openings adapted to engage with the eyelets, and ears adapted to engage with the notches on the face of the plug, said ears being offset to engage with the annular groove.

1,140,499. CORE FOR USE IN MOLDS AND FORMS. JOSEPH G. CHALFANT and HARVE G. HAUN, Akron, Ohio. Filed Dec. 13, 1913. Serial No. 806,384. (Cl. 18—45.)



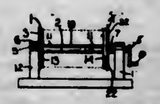
1. A core for the manufacture of tires comprising a set of hollow sections having connecting members at their ends, said connecting members comprising a plate having threaded projections semi-circular in cross-section, in combination with threaded nuts to unite juxtaposed projections.

2. In a collapsible core for the manufacture of tires, a separable section comprising sheet metal plates having curved edges united together and flanges having spacing members united therewith at the extremities of said section, said members having lateral projections semi-circular in cross section and threaded.

3. A separable section for a collapsible core, comprising a pair of sheet-metal plates welded together and provided with flat plates welded thereto at the extremities thereof, and connecting members united with said extremities comprising lateral screw-threaded projections.

4. A collapsible core comprising separable sections having abutting end plates provided with ribs and channels, and connecting members at the extremities of said sections having lateral screw-threaded projections of semi-circular cross section adapted to be brought together and engaged by nuts, in combination with screw-threaded nuts for said projections.

1,140,500. PHOTOGRAPHIC-FILM DEVELOPING AND FIXING APPARATUS. HARRY A. R. CORNU, Mattapan, Mass. Filed Nov. 20, 1914. Serial No. 873,102. (Cl. 95—90.5.)



1. A photographic film developing and fixing apparatus, comprising a standard, a reel adapted to be demountably

journaled in said standard, means for securing a photographic film on said reel, a receptacle adapted to receive said reel and said film, a second receptacle adapted to receive said reel receptacle, said receptacles being adapted to receive a fluid, whereby said film may be chemically treated.

2. A photographic film developing and fixing apparatus, comprising a standard, a reel adapted to be demountably journaled thereon, means for actuating said reel, means on said reel for receiving and retaining a photographic film in a series of convolutions whereby space is afforded between each successive film convolution, a receptacle to receive said film-carrying reel, a second receptacle adapted to receive said reel receptacle, said receptacles being adapted to receive a fluid whereby said fluid may chemically treat all portions of said film.

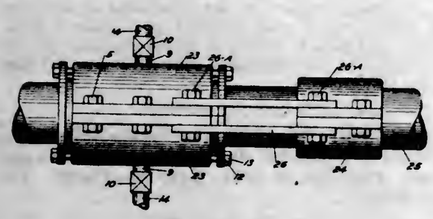
3. In a photographic film developing and fixing apparatus of the character described including a standard, a reel adapted to be demountably journaled thereon, means for actuating said reel, said reel comprising a shaft and means on said shaft for securing a film end thereto, a pair of heads on said shaft, a spiral guide on each of said heads adapted each to receive and retain the edge of a film whereby the image bearing portions of said film when wound on the reel may be held out of contact and be freely presented to the chemical action of a fluid.

4. In a photographic film developing and fixing apparatus of the character described including a standard, a reel adapted to be demountably journaled thereon, means for actuating said reel whereby a film may be wound thereon, said reel including a shaft, means for securing a film end thereto, opposed heads on said shaft and revoluble therewith, opposed spiral guides on each of said heads adapted convolutely to receive and secure a film on said reel with space between successive convolutions whereby all parts of the image bearing portion of the film are held out of contact.

5. In a photographic film developing and fixing apparatus of the character described including a standard, a reel adapted to be demountably journaled thereon, means for actuating said reel, said reel comprising a shaft and means on said shaft for securing a film end thereto, opposed heads on said shaft and revoluble therewith, said heads being secured to said shaft a distance apart substantially equal to the width of the film to be secured on said reel, opposed film retaining means on each of said shaft heads comprising a guide strip spirally secured to said heads, and projecting therefrom, said guide strip being of sufficient width convolutely to retain a film between said heads, whereby all parts of the image bearing portion of the film are held out of contact.

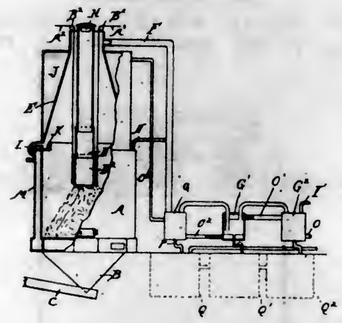
[Claims 6 to 14 not printed in the Gazette.]

1,140,501. PIPE-REPAIR SLEEVE. EDMUND M. COYNE, Birmingham, Ala., assignor of one-half to William V. Mentsell. Filed Jan. 2, 1914. Serial No. 810,001. (Cl. 137—33.)



A repair equipment for pipes comprising in combination a repair sleeve formed of longitudinal half sections, each half section having side flanges adapted to abut, means to bolt the flanges together to fasten the sleeve about the pipe to be repaired, a sectional pipe clamp formed of half sections having flanged meeting edges, means to bolt said flanges together to attach said clamp to the pipe, and connecting bars having their ends bolted to the flanges of the sleeve and clamp, substantially as and for the purposes described.

1,140,502. APPARATUS FOR THE PRODUCTION OF VALUABLE PRODUCTS FROM REFUSE ORGANIC MATTER. THOMAS CRANEY, Bay City, Mich. Filed June 28, 1913. Serial No. 776,263. (Cl. 203—6.)



1. An apparatus for the treatment of refuse organic matter, comprising a furnace having a closed upper end, an inlet conduit for the refuse material passing through said upper end, a vapor chamber surrounding said inlet conduit, a condenser surrounding said inlet chamber, a conduit for the passage of vapors from said vapor chamber above said condenser, and means for collecting the condensate in said chamber below said condenser.

2. An apparatus for the treatment of refuse organic matter, comprising a furnace having a chamber at the upper end thereof, an inlet conduit for the material passing axially through said chamber, a vapor and gas discharge conduit connecting with the upper end of said chamber, a condenser surrounding said chamber, means for collecting the condensate below said condenser, a chamber surrounding the furnace below said collecting means, and means for passing the distillate into said lower chamber to redistill the same.

3. In an apparatus for treating refuse organic matter, a furnace having an active combustion zone at the lower end thereof and a destructive distillation zone thereabove, an inner conduit passing downward through the upper end of the furnace, a condenser surrounding a portion above said destructive distillation zone, a collector for the condensate at the lower end of said condenser, a chamber surrounding the zone of active combustion, means for conducting the condensate into said chamber, and a vapor discharge conduit from said chamber and from the upper end of said furnace.

4. An apparatus for the treatment of organic matter, comprising a furnace, an inlet conduit for said matter extending downward through the top of said furnace, a surrounding chamber for condensing the gases and vapors, and means below said chamber for collecting the condensate.

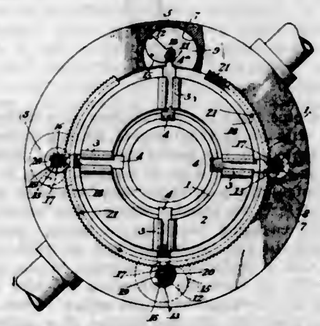
1,140,503. HOOD-FASTENER FOR AUTOMOBILES. NORMAN W. CUMMINS, Bridgeport, Conn., assignor to The Burns & Bassick Company, Bridgeport, Conn., a Corporation of Connecticut. Filed May 27, 1914. Serial No. 841,204. (Cl. 70—82.)

1. In a hood fastener, a hand grip for securement to the hood having a slot which terminates in a depressed seat to form a keeper, a shank for connection to the automobile movable into said slot, and a spring held member slidable on the shank and having a part to engage in said seat.

2. In a hood fastener, a hand grip for the hood having an upwardly facing keeper, and a fastener element movably connected at a point below said grip and movable to engage the keeper.



1,140,504. DIE-STOCK. LEWIS B. CURTIS, Bridgeport, Conn. Filed July 31, 1914. Serial No. 854,317. (Cl. 10—121.)



1. A thread cutter comprising a work holder, a die guide carried thereby, a die carrier having a threaded connection with the work holder, and die-engaging and adjusting blocks pivotally connected to the guide and each provided with a continuous die-engaging surface that is curved on an arc of a circle and longitudinally inclined.

2. A thread cutter comprising a work holder, a die guide having a rotatable connection with the work holder, a die carrier having a movable connection with the work holder, and die-engaging and adjusting blocks eccentrically pivoted to the guide and having curved and longitudinally inclined surfaces for engaging dies.

3. A thread cutter comprising a work holder, a die guide and a die carrier connected to the work holder, and die-adjusting blocks eccentrically pivoted to the guide and provided with die-engaging surfaces that are transversely curved and longitudinaly inclined.

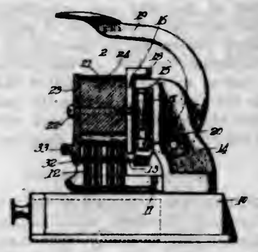
4. A thread cutter comprising a work holder, a die guide rotatably connected therewith, a die carrier movable longitudinally of the work holder, and die-engaging and adjusting blocks eccentrically connected to the guide and provided with longitudinally inclined elongated continuously curved die-engaging surfaces.

5. A thread cutter comprising a work holder, a die guide, a die carrier, longitudinally inclined die-engaging and adjusting blocks pivotally connected to the guide, and means for simultaneously effecting pivotal adjustments of the blocks.

[Claims 6 to 10 not printed in the Gazette.]

1,140,505. PERFORATING-MACHINE. ALFRED L. DAY, Chicago, Ill. Filed Nov. 4, 1913. Serial No. 799,092. (Cl. 101—57.)

1. In a perforating machine, a group of punches, an operating head therefor, a readily removable key plate mounted on said head and having openings therethrough to receive the non-perforating punches in said group and serving to operate the remainder of the group.
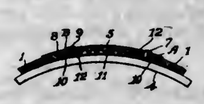


2. In a perforating machine, the combination with groups of punches, of an operating head therefor having adjustable matrices provided with openings therethrough to receive the non-perforating punches of said groups and operating the remainder of the groups, and a readily removable key plate mounted on said head and having openings therethrough to receive non-perforating punches of said groups and serving to operate certain punches of the groups.

3. In a perforating machine, a group of punches, an operating head therefor, a plurality of matrices mounted on said head and having openings therein to receive the non-perforating punches of the group, and a readily removable key plate mounted on said head and provided with perforations to receive the non-perforating punches and serving to operate certain of the punches.

4. In a perforating machine, a group of punches, an operating head therefor, a plurality of rotatable matrix rings having perforations to receive the non-perforating punches of the group and serving to operate certain of the punches of the group, and a readily removable key plate provided with perforations for receiving non-perforating punches of the group and serving to operate certain of the punches of the group.

5. In a perforating machine, the combination with groups of punches, of an operating head therefor, an adjustable matrix comprising a thin ring provided with openings therethrough to receive the non-perforating punches of certain of said groups, and operating the remainder of said groups, a flat readily removable key-plate having openings therethrough to receive the non-perforating punches of other groups, and operating the remaining punches of said groups, and means whereby said key plate may be mounted on said head in a plane tangential to the bottom of said ring.

1,140,506. EMBROIDERY-RINGS. CHRISTOPHER DONAHUE, Bridgeport, Conn., assignor to The Thomas P. Taylor Co., Bridgeport, Conn., a Corporation of Connecticut. Filed Sept. 20, 1913. Serial No. 790,831. (Cl. 45—24.)

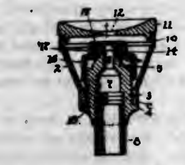


1. In a material holder for embroidery frames, the combination with a resilient split ring, of a spring lying in the plane of and between the ends of the ring for resisting the relative movement of the same; a casing formed of a single piece of sheet metal transversely bent to provide a flat portion that overlaps one flat surface of the ring ends and having side flanges that overlap the sides and the other flat surfaces of the same; means for rigidly fastening one of the ends of the ring within one end of the casing, the other end of the casing slidably inclosing the other end of the ring and being provided with a longitudinally extending slot, and a stud carried by the last-mentioned end of the ring and slidably engaging the slot.

2. A material holder for embroidery rings comprising

a split ring having its ends shaped to form spring abutments and being circumferentially reduced, a casing inclosing the ends of the split ring and having one end provided with a slot, studs projecting through the reduced portions of the ring and extending through one portion of and into the casing, one of said studs permanently fastening the casing to one end of the ring, the other stud engaging the slot of the casing to slidably connect the casing to the other end of the ring, and a spring within the casing and having its end convolutions bearing on the abutments and provided with hooks that rest on the reduced portions of the ring ends and engage the studs.

1,140,507. DRINKING FOUNTAIN OR FAUCET. ARTHUR I. FISCHER, Cleveland, Ohio, assignor to Glauber Brass Manufacturing Company, Cleveland, Ohio, a Copartnership consisting of Joseph H. Glauber and Morris Glauber. Filed Aug. 24, 1912. Serial No. 716,800. (Cl. 137—110.)



1. A drinking device comprising a flaring cup having a removable top provided with a central discharge opening, a supporting body provided with a conical upper end and a central water passage with an outlet at the apex of said end, a hood having threaded engagement with said body and provided with a conical recess inside over said outlet and a series of outlet openings at its side, and said body provided with an external groove on its outside adapted to drain the bottom of the cup.

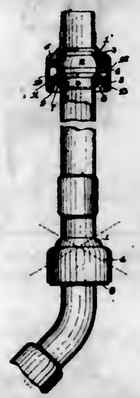
2 A drinking device comprising a body having an annular shoulder and an external screw-thread extending from said shoulder to the end of said body and having a conical nipple provided with a central water passage, a flaring cup having an internal screw-thread at its reduced end engaged with said body in abutting relations with said shoulder, a hood having a conical recess over said nipple and adjustably mounted in respect thereto by screw-engagement with said body and provided with side outlets, and a screw cap for said cup having a central water outlet over the closed top portion of said hood.

3. A drinking device comprising a shell-shaped cup gradually enlarged from bottom to top and having internal screw-threads at both ends, a screw-threaded body engaged by the smaller end of said cup having a conical nipple with a passage through the same and having a small external groove at its bottom, in combination with an internally screw-threaded hood adjustably seated over said body and having a conical recess opposite said nipple and openings for the discharge of water at its sides, and a cap for said cup engaging the screw threads at the larger end and provided with a discharge opening at its center.

1,140,508. PIPE-JOINT. CHARLES FORTH, Ottawa, Ontario, Canada. Filed Nov. 24, 1913. Serial No. 802,617. (Cl. 137—88.)

1. In a pipe joint the combination of a socket member formed with an external curved bearing surface, a ball member seated therein and rockable universally, a surrounding circumferentially movable connecting device formed to loosely engage said curved bearing surface and provided with an inwardly extending shoulder, and a flat spring washer between the shoulder and ball member and operatively interlocked with the connecting device to move circumferentially with the same.

2. In a pipe joint, the combination of a socket member formed with an external bearing surface, a ball member seated therein and rockable therein universally, a surrounding circumferentially movable sleeve formed to loosely engage the said bearing surface and provided with an inwardly extending flat shoulder, an annular flat washer detachably interlocked with said sleeve and movable circumferentially with the same and engaging the ball member, and a flat spring washer between the shoulder and annular washer, said spring washer being detachably interlocked with the annular washer so as to move circumferentially with the same and the sleeve.



3. In a pipe joint the combination of a socket member provided with an external curved bearing surface, a ball member seated in the socket member and rockable universally and provided with an annular ledge, a surrounding circumferentially movable sleeve engaging the curved bearing surface, an annular washer interlocked with the sleeve and engaging the ledge, a spring washer interlocked with the annular washer and provided with corrugations, and a confining nut screwed in the sleeve and formed with an inwardly extending shoulder roughened to engage the corrugations in the spring washer.

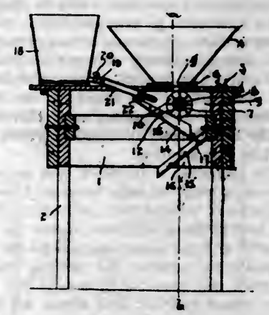
4. In a pipe joint the combination of a socket member provided with an external curved bearing surface, a ball member seated and rockable universally in the socket member, a surrounding circumferentially movable sleeve, a spring washer movable circumferentially with the sleeve and acting on the ball member, said washer having a roughened surface, and a confining nut screwed in the sleeve and provided with a roughened shoulder engaging the roughened surface of the spring washer.

5. In a pipe joint the combination of a socket member provided with an external curved bearing surface, a ball member seated in the socket member and rockable universally, a surrounding circumferentially movable connecting sleeve, a spring washer movable circumferentially with the sleeve and acting on the ball member, and a confining nut screwed in the sleeve and yieldingly interlocked with the washer.

1,140,509. GRAIN-PICKLING DEVICE. GEORGE H. FRENCH, Lake Centre, Saskatchewan, Canada. Filed July 17, 1914. Serial No. 851,506. (Cl. 83—28.)

1. A grain pickling device, comprising, a frame, a hopper supported on said frame, means for regulating the flow of grain from said hopper, an inclined trough shaped member arranged below the hopper, a horizontally rotatable member adapted to intercept the grain falling from the hopper and to discharge same intermittently upon the inclined surface of the trough, and means for directing a spray of pickling fluid upon said grain as it falls upon said trough.

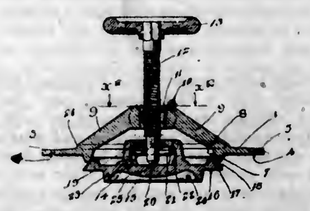
2. A grain pickling device, comprising, a frame, a hopper supported on said frame, means for regulating the flow of grain from said hopper, a horizontally rotatable drum arranged below the discharge from said hopper and having pockets in the periphery adapted to receive the falling grain and to discharge same in separated quantities, an inclined trough shaped member arranged below said drum adapted to receive the grain discharged therefrom, a spray nozzle arranged above said chute adjacent to said drum, and a supply of pickling fluid connected to said spray nozzle.



3. A grain pickling device, comprising, a frame, a hopper supported on said frame, a horizontally rotatable member arranged below the discharge from said hopper adapted to intermittently scatter the grain, an inclined chute arranged below said scattering device open at the lower end, a spray nozzle arranged above said chute adjacent to said scattering device, a fluid supply connected with said spray nozzle, and an oppositely inclined chute spaced from and extending across the open lower end of the upper chute adapted to intercept and effect the further scattering and spraying of the grain.

4. A grain pickling device, comprising, a rectangular frame, a hopper supported at one end of said frame, an inclined trough arranged below said hopper, means orranged between the hopper and trough for scattering the grain, a spray nozzle extending completely across said trough adjacent to said scattering means, and a fluid supply connected with said spray nozzle.

1,140,510. IRRIGATING-VALVE. HENRI F. GARDNER, Orange, Cal. Filed Apr. 21, 1913. Serial No. 762,755. (Cl. 137—13.)



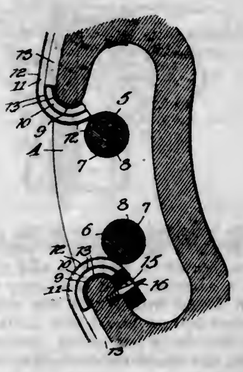
1. In an irrigation valve, a seat adapted to rest within an irrigation pipe, a loosely mounted valve below said seat, and means for enabling the water pressure to act upon the valve to center the valve.

2. In an irrigation valve, a seat adapted to rest within an irrigation pipe, a screw, a support for the screw, a nut for said screw, a valve loosely mounted on said screw below the seat and adapted to be moved away from and drawn toward said seat by said screw, and means for enabling the water pressure to act upon the valve to center the valve.

3. In an irrigation valve, a seat adapted to rest within an irrigation pipe, a loosely mounted valve movable below the seat and adapted to rest against said seat, said valve provided with a pocket on its under side, having a convex wall against which the water in the pipe is adapted to act to center the valve.

4. In an irrigation valve, a seat adapted to rest within an irrigation pipe, a loosely mounted valve movable below said seat and adapted to rest thereagainst, said valve provided with a pocket on its under side having diverging walls against which the water is adapted to act to center the valve.

1,140,511. BLANKET FOR PRINTING-PRESS CYLINDERS. NORMAN J. GAUTHIER, Berwyn, and FRANK J. GAUTHIER, Chicago, Ill. Filed July 3, 1914. Serial No. 848,707. (Cl. 101—113.)



1. A blanket for a printing-press cylinder formed with a layer of cushioning material subject to impairment by contact with oil, or grease, with impervious sheet material of a character not subject to the deleterious action of oil or grease superposed on the cushioning layer and incasing the edges thereof at the ends of the cylinder, for the purpose set forth.

2. A blanket for a printing-press cylinder formed with a layer of cushioning material subject to impairment by contact with oil, or grease, with impervious sheet material of a character not subject to the deleterious action of oil or grease incasing said cushioning layer against contact with deleterious substances contacting with the blanket at its circumference or at its end.

3. A blanket for a printing-press cylinder formed with a layer of cushioning material subject to impairment by contact with oil, or grease, with sheet-material of a character not subject to the deleterious action of oil or grease extending entirely, or substantially entirely, over both surfaces of said cushioning layer and incasing the latter at the ends of the cylinder, for the purpose set forth.

4. A blanket for a printing-press cylinder formed with a layer of cushioning material subject to impairment by contact with oil, or grease, with pliable sheet-metal superposed on said cushioning layer and protecting it against the action of deleterious substances contacting with the blanket.

5. A blanket for a printing-press cylinder formed with a layer of cushioning material subject to impairment by contact with oil, or grease, with pliable sheet-metal superposed on said cushioning layer and incasing the edges thereof at the ends of the cylinder, for the purpose set forth.

[Claim 6 not printed in the Gazette.]

1,140,512. FIREARM. GRANT HAMMOND, Hartford, Conn., assignor of one-third to Alva C. Washburne, Pittsfield, Mass., and one-third to Frederick G. Crane, Dalton, Mass. Filed Mar. 17, 1914. Serial No. 825,248. (Cl. 42—3.)

1. A firearm including a breech-bolt, a hammer, a spiral spring, a rod extending from the hammer through said spring and connected to the latter to receive its force, a member resting upon said spring, connections between said member and the breech-bolt to impart the force of said spring to the bolt, and means for controlling the movement of the hammer.

2. A firearm including a breech-bolt, a hammer, a breech-bolt actuating lever, a spiral spring located in the handle of the firearm, a cap fitting over the top of said spring, a lug from said lever to receive thrust upon said cap, a rod resisting the force of the spring at its lower end, said rod being connected with the hammer, and means for controlling the movement of the hammer.



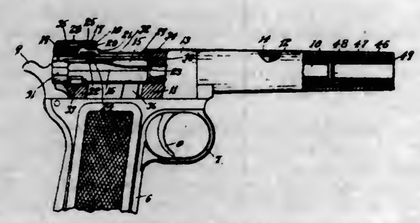
3. A firearm including a handle having a well extending lengthwise therein, a main spring located in said well, a headed sleeve located in said well and upon which said spring rests, a hammer, a rod connecting said sleeve and and hammer, a cap fitting over the upper end of the spring, a breech-bolt, a breech-bolt actuating lever connected with the breech-bolt, a lug upon the lever overlying said cap, and means for controlling the movement of the hammer.

4. A firearm including a breech-bolt, a hammer, a main spring, a flexible rod extending through said spring and connected with one end thereof for imparting the force of said spring to the hammer, a connection between the opposite end of the spring and breech-bolt for imparting the force of the spring to the breech-bolt, and means for controlling the movement of the hammer.

5. A firearm including a breech-bolt, a hammer, hammer actuating means including a movably mounted member, a rod connecting said member with the hammer, said rod being flexible to travel in a curved path with respect to its points of connection to said member and hammer, and means for controlling the movement of the hammer.

[Claims 6 to 21 not printed in the Gazette.]

1,140,513. FIREARM. GRANT HAMMOND, Hartford, Conn., assignor of one-third to Alva C. Washburne, Pittsfield, Mass., and one-third to Frederick G. Crane, Dalton, Mass. Filed June 9, 1914. Serial No. 843,992. (Cl. 42—3.)



1. A firearm including a frame, a case movably mounted thereon, a longitudinally movable breech-bolt, a locking bolt mounted on the case, means for locking the locking bolt with and for unlocking it from the breech-bolt, means for positively holding the locking bolt in locked engagement with the breech-bolt, means for moving the breech-bolt to a closed position, and means for locking it in its closed position.

2. A firearm including a frame, a case movably mounted thereon, a longitudinally movable breech-bolt, a locking bolt support carried by the case, a locking bolt movably mounted on said support, means for locking the locking bolt with and for unlocking it from the breech-bolt, means for positively holding the locking bolt in engagement with the breech-bolt, means for moving the breech-bolt to closed position, and means for locking it in its closed position.

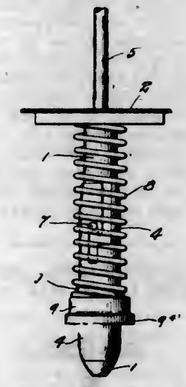
3. A firearm including a frame, a case movably mounted on the frame, a longitudinally movable breech-bolt having a cam groove, a locking bolt carried by the case and projecting into said jam groove, means for locking the locking bolt with and for unlocking it from the breech-bolt, means for moving the breech-bolt to closed position, and means for locking it in this position.

4. A firearm including a frame, a case movably mounted on the frame, a longitudinally movable breech-bolt having a cam groove and a hole in said groove, a locking bolt carried by the case, means for engaging the locking bolt within said hole and for disengaging it therefrom, means for moving the breech-bolt to closed position, and means for holding it in this position.

5. A firearm including a frame, a case movably mounted on the frame, a longitudinally movable breech-bolt having a cam groove, a locking bolt carried by the case and with its end located in said groove, means for locking the locking bolt with and for unlocking it from the breech-bolt, means for positively holding the locking bolt in locked engagement with the breech-bolt, means for moving the breech-bolt to closed position, and means for locking it in this position.

[Claims 6 to 15 not printed in the Gazette.]

1,140,514. SANITARY FILLING-VALVE. GEORGE W. HAVERSTICK and THOMAS J. MCKEE, St. Louis, Mo. Filed Feb. 2, 1914. Serial No. 816,035. (Cl. 226—12.)

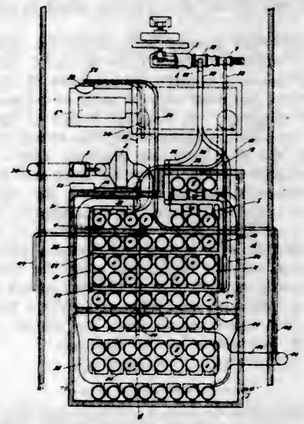


1. A filling valve comprising a stationary tubular member provided with a valve opening near its lower extremity, a slidable member mounted on said stationary member intermediate its extremities and adapted to form a closure for said valve opening, yielding pressure means impelling said slidable member to cover said valve opening, said stationary and slidable members being provided with retaining means disposed above the valve opening for retaining the latter upon the former, and said slidable member being removable over the lower end of said stationary member upon disengagement of the retaining means.

2. A filling valve comprising a stationary tubular member provided at its lower extremity with a valve opening and an air exhaust opening, a slidable member mounted on said stationary member and adapted to form a closure for said valve opening, said slidable member terminating short of said air exhaust opening, the slidable member being removable over the lower extremity of the stationary member, and said members being provided with retaining means disposed above the valve opening for retaining the slidable member on the stationary member.

1,140,515. PRIME MOVER. MARK W. JOHNSON, Jr., Atlanta, Ga. Filed Nov. 2, 1911. Serial No. 658,242. (Cl. 60—9.)

1. An external combustion gas engine comprising a chamber wherein the energy of heat in non-condensing gases is converted into motion, a working element in said chamber driven by said gases, means to compress said gases, a heat transfer apparatus and means to cause both the compressed supply gases for and the exhaust gases from said chamber to flow therethrough in such proximity as to conduct heat from the exhaust gases to the compressed gases to assist in raising the temperature of the latter when about to enter said chamber, an extraneous source of heat to raise said compressed gases to the desired temperature before delivering them to said chamber, and means to transfer heat from the exhaust gases, leaving said heat transfer to said extraneous source of heat to augment it, substantially as described.



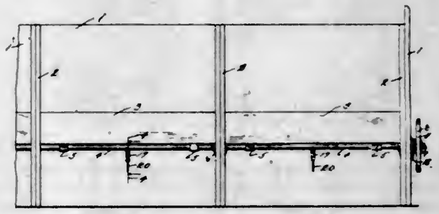
2. A gas engine having an external combustion furnace, a heat insulated non-cooled working cylinder, a compression cylinder, means to pass a body of non-condensing working gas operating under varying pressure and temperature through the cylinders but separated from admixture with the fuel, air and products of combustion, a blower adapted to force a blast of air always at atmospheric pressure through said furnace, a main heater into which the heat from the furnace is conveyed by said air blast and conducted therefrom to the working gas, a heat transfer in which the heat of the exhaust is conducted from the low pressure to the high pressure side of the working gas, an air heater, a cooler in which the working gas before compression is cooled by the air blast and the heat therefrom conducted by the air blast to said air heater, means to further heat the air blast in said heater by the return blast from the main heater, and means to conduct the air blast thus highly heated into the furnace.

3. In a power generating apparatus, a closed circuit piping system for the motor fluid, means to compress the fluid, and a heater to heat the compressed fluid which comprises a gas furnace, means to pass the products of combustion therefrom successively through said heater, an air heater and a gas heater, and means to supply air and gas to said furnace in a pre-heated condition by passing same through said air and gas heaters respectively.

4. In a power generating apparatus, a closed circuit piping system for the motor fluid, a compressor, a heater, an expansion cylinder, and cooling means which are severally connected up in said piping system, said cooling mechanism comprising an air cooler and a heat exchanger having juxtaposed conduits through one set of which the motor fluid flows from the expansion cylinder and through the other of which it flows from the compression cylinder to the heater, said heater comprising a gas furnace, an air heater through which the products of combustion pass from said heater, and means to take the air primarily warmed in its passage through said air cooler and through said air heater and deliver it to the gas furnace, substantially as described.

5. In a power generating apparatus, a closed piping system for the motor fluid, means to compress the fluid, and a heater to heat compressed fluid which comprises a gas furnace, an air heater, means to pass the products of combustion from said furnace through said heater and air heater, and means to supply air to said furnace in a preheated condition by passing the same through said air heater, substantially as described.

1,140,516. HORSE-RELEASER. EMANUEL KOSTA, Monticello, Wis. Filed Nov. 27, 1914. Serial No. 874,219. (Cl. 119—115.)



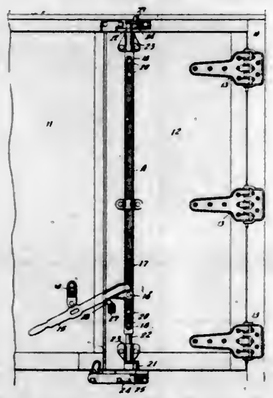
1. The combination with a series of stalls, of a pipe extending therethrough and formed with a series of slots terminating in enlarged openings and in offsets, an inner pipe formed with a plurality of slots registering with the slots of the first named pipe and of narrower formation than said slots and terminating at one extremity in enlarged openings, one end of said inner pipe being projected beyond the termination of the first named pipe and threaded and formed with a longitudinal slot, means terminally carried by said inner pipe for moving the same longitudinally of said first named pipe, means disposed about the threaded extremity of said inner pipe and projected through the slotted portion of that extremity whereby movement of said pipe with relation to the first named pipe is limited in one direction, bolts projected through the alined slotted portions of said pipes, the heads of said bolts being of greater diameter than the slots of said inner pipe but of less diameter than the slots of said first named pipe and means carried by said bolts and disposed in the offset slotted portions of said first named pipe whereby movement longitudinally thereof by said bolts is arrested.

2. The combination with a series of stalls and of a stable wall, of a pipe extending through said stalls and formed with a series of slots terminating in enlarged openings and in offsets, an inner pipe movably disposed in said first named pipe and projected through the stable wall and formed with a plurality of slots registering with the slots of the first named pipe and of narrower formation than said slots and terminating in enlarged openings, the free end of said inner pipe being threaded and formed with a longitudinal slot, means terminally carried by said inner pipe for moving it longitudinally, a collar encircling said inner pipe and abutting said stable wall, a lug formed integral with said collar and projected through the slotted portion of said inner pipe end, bolts projected through the alined slotted portions of said pipes, the heads of said bolts being of greater diameter than the slots of said inner pipe but of less diameter than the slots of said first named pipe, and bars slidably carried by said bolts and projected into the offset slotted portions of said first named pipe whereby movement longitudinally thereof by said bolts is arrested.

1,140,517. REFRIGERATOR-CAR-DOOR-LOCKING MECHANISM. GOODRICH Q. LEWIS, Wheaton, Ill., assignor to William H. Miner, Chazy, N. Y. Filed July 25, 1914. Serial No. 853,246. (Cl. 16—61.)

1. The combination with a hinged door, of a door operating mechanism therefor comprising a shaft rotatably mounted on said door, said shaft having crank pins at

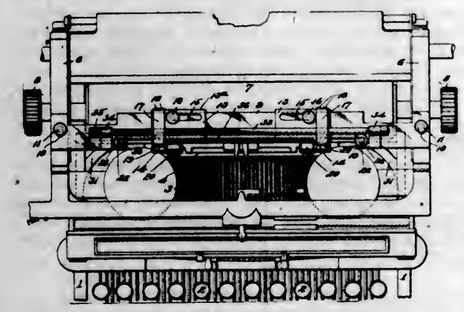
the ends thereof normally extending above and below the door, said shaft being longitudinally slidably mounted relatively to said door whereby the lower crank pin may be moved to a position flush with or above the lower edge of the door to thereby permit the door to be swung out over a platform or the like on a level with the lower edge of the door.



2. The combination with a hinged door, of a door operating mechanism comprising a shaft rotatably and longitudinally slidably mounted on said door, means for shifting said shaft longitudinally of the door, said means including a lever pivotally connected to the shaft, and a fulcrum bracket secured to the door with which said lever is adapted to coöperate.

3. In a refrigerator car, the combination with a hinged door, of a shaft mounted on said door, said shaft having journals at each end thereof, bearings mounted on said door within which said journals are rotatably and longitudinally slidably mounted, a lever pivotally connected to said shaft, and a fulcrum bracket secured to said door and below the normal position of said lever, said bracket serving as a fulcrum for said lever when the latter is swung downwardly to thereby lift the shaft vertically.

1,140,518. STENCIL-CARD-FEEDING ATTACHMENT FOR TYPE-WRITERS. ALFRED L. MCCAWLEY, Jefferson City, and WILLIAM W. PHILLIPS, St. Louis, Mo., assignors to Frank W. Buffum, Louisiana, Mo. Filed Mar. 22, 1913. Serial No. 756,131. (Cl. 197—135.)



1. A stencil-card feeding attachment for typewriters comprising a member adapted to be mounted on the machine and carrying feed-rollers, and a pair of vertical guides depending from said member that are provided with continuous flange portions between which the stencil-card passes as it is inserted in the device.

2. A stencil-card feeding attachment for typewriters comprising a member adapted to be mounted on the machine and carrying feed-rollers, a pair of guides depending from said member and between which the stencil-card passes as it is inserted in the device, and a stencil support carried by and extending between said guides and adapted to have the lower edges of the stencil-cards rest thereon.

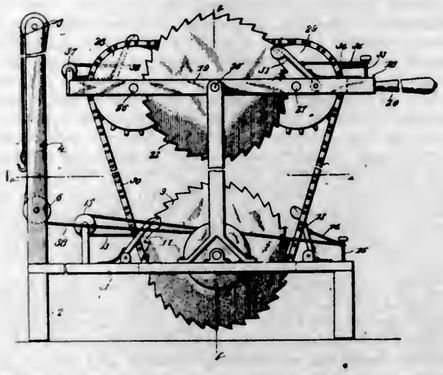
3. A stencil-card feeding attachment for typewriters comprising a member adapted to be mounted on the machine and having a vertically-disposed flange depending therefrom to serve as a support for the back of the stencils, feed-rollers carried by said member for holding the stencils in feeding contact with the platen of the machine, and guides for the ends of the stencils depending from said member and located in a vertical plane in advance of said flange.

4. A stencil-card feeding attachment for typewriters comprising a member adapted to be mounted on the machine and affording a support for the back of the stencil, a pair of guides mounted on said member between which the stencil is adapted to be inserted, a pair of feed rollers mounted on said member for holding the stencil in feeding contact with the platen of the machine, and a horizontally-disposed stencil support pendent from said member.

5. A stencil-card feeding attachment for typewriters comprising a supporting plate for attachment to a machine, a pair of guide plates mounted thereon, a stencil support carried by said supporting plate, a pair of feed rollers mounted on said supporting plate for holding the stencil in feeding contact with the platen of the machine, and means mounted on said supporting plate for moving at will the feed rollers away from the platen when the attachment is in position on the machine.

[Claim 6 not printed in the Gazette.]

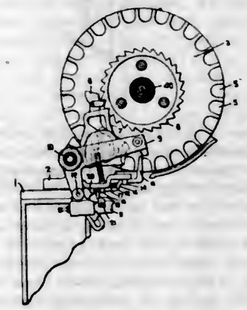
1,140,519. INTERMITTENT-GRIP DEVICE FOR HOISTING MECHANISM. ROBERT J. MCCOY, Fort Smith, Ark., assignor of one-half to William M. Cravens, Fort Smith, Ark. Filed Jan. 3, 1913, Serial No. 740,043. Renewed Mar. 4, 1915. Serial No. 12,175. (Cl. 74—54.)



1. In a machine of the class described, the combination of a master sprocket wheel arranged to be connected to a rotary driven element for rotation therewith, a ratchet wheel also arranged to be connected to the driven element, a pawl to engage the ratchet wheel, and an oscillating lever, a gear concentric with the pivot of the lever, a ratchet wheel fast to said gear, a pawl carried by the lever to engage said ratchet wheel, sprocket wheels mounted on the lever, gears mounted on the lever and engaging opposite sides of the first-named gear, and an endless sprocket chain connecting the said sprocket wheels.

2. In a machine of the class described, the combination of a master gear arranged to be connected to a rotary driven element for rotation therewith, a pair of reversely arranged ratchet wheels for rotation with said master gear and driven element, pawls for engagement respectively with said reversely arranged ratchet wheels, a lever mounted for oscillation, a spur gear concentric with the pivot of said lever, reversely arranged ratchet wheels also concentric with the pivots of the lever and connected to said spur gear for rotation therewith, pawls carried by the lever for engagement respectively with the last mentioned ratchet wheels, spur gears mounted on the lever for rotation and also for oscillation by the lever and engaged with opposite sides of the first-mentioned spur gear, sprocket wheels also mounted on the lever and respectively connected to the oscillatory spur gears for rotation therewith, and an endless sprocket chain connecting the sprocket wheels.

1,140,520. FILLING-REPLENISHING LOOM. THELESTHARE MARTIN, Lawrence, Mass., assignor to Draper Company, Hopedale, Mass., a Corporation of Maine. Filed May 16, 1914. Serial No. 839,144. (Cl. 139—85.)



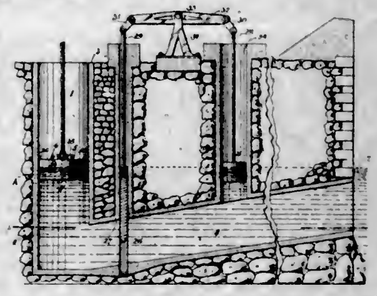
1. In a loom, automatic filling replenishing mechanism including an intermittingly movable feeder to contain a plurality of filling carriers, an abutment movable by the filling carrier into position to guide the filling carrier when transferred, and means to prevent the operation of said mechanism upon failure of the feeder to position properly a filling carrier and thus move the abutment into proper guiding position.

2. In a loom, automatic filling replenishing mechanism including an intermittingly movable feeder to contain a series of filling carriers, a transferrer to transfer a filling carrier therefrom, controlling means for said transferrer including a dog pivoted thereon and movable into position to be struck by a bunter on the lay when the operation of said mechanism is called for, a yieldingly projected slidably mounted abutment movable by the filling carrier into position to guide the filling carrier when transferred, a lug carried by said dog, a yielding latch carried by the abutment and coöperating with said lug to hold the dog out of operative position until the abutment has been slid into a position properly to guide the filling carrier when transferred.

3. In a loom, automatic filling replenishing mechanism including an intermittingly movable feeder to contain a series of filling carriers, a transferrer to transfer a filling carrier therefrom, controlling means for said transferrer including a dog pivoted thereon and movable into position to be struck by a bunter on the lay when the operation of said mechanism is called for, a yieldingly projected slidably mounted abutment movable by the filling carrier into position to guide the filling carrier when transferred, a lug carried by said dog, a yielding latch carried by the abutment and coöperating with said lug to hold the dog out of operative position until the abutment has been slid into a position properly to guide the filling carrier when transferred, and a stop for limiting the retracted movement of said abutment.

1,140,521. WAVE-MOTOR. LUIS MAYOLINO, Habana, Cuba. Filed Nov. 13, 1913. Serial No. 800,785. (Cl. 253—10.)

1. A wave motor comprising a well excavated in proximity to the shore of a body of water, a piston movable in said well, a pump, means connecting said piston with the pump, a tunnel connecting the lower end of the well with the body of water and means controlled by the water passing through said tunnel for regulating the amount of water entering the well.

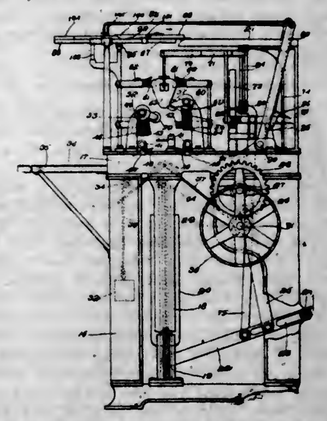


2. A wave motor comprising in combination with a well excavated in proximity to the shore of a body of water, a piston slidably movable in said well, a machine operatively connected with said piston, a tunnel connecting the lower end of said well with the body of water and means controlled by the water flowing through said tunnel for regulating automatically the amount of water entering the well.

3. A wave motor comprising in combination with a well excavated in proximity to the shore of a body of water, a piston slidably movable in said well, a machine driven by said piston, a tunnel connecting the lower end of said well with the body of water, a gate guided in said tunnel and means controlled by the water flowing through the tunnel for raising and lowering said gate to regulate the amount of water entering the well.

4. A wave motor comprising in combination with a well excavated in proximity to the shore of a body of water, a piston slidably movable within said well, a machine driven by the movement of said piston, a tunnel connecting the lower end of the well with said body of water, a second well communicating with said tunnel, a piston movable in said second well, said second well being excavated closer to the body of water than the first named well, a gate movable through said tunnel and means connecting said second piston with said gate for displacing the latter vertically with respect to the tunnel.

1,140,522. BREAD-WRAPPING MACHINE. CASPAR METTLER, New Haven, Conn., assignor to Benjamin A. Ball, Boston, Mass. Filed Oct. 12, 1909. Serial No. 522,329. (Cl. 93—2.)



1. In a machine for wrapping a sheet of paper about an article, means for moving the article, means adapted to

fold the wrapper against the article, and means adapted to be engaged by the foremost face of the article and to be displaced thereby from the path of the article, said displaceable means being connected with said folding means to actuate the latter under the impulse of the moving article to fold the wrapper against another face of the article.

2. In a machine for wrapping a sheet of paper about an article, the combination with an elevator for the article, and wipers adapted to be engaged by the article, of means adapted to be engaged and moved by the foremost face of the article, and additional wipers connected to said means to be operated thereby.

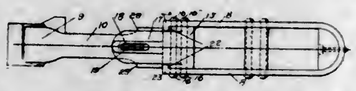
3. In a machine for wrapping a sheet of paper about an article, means for moving the article bodily, wipers for folding a sheet over edges of the article transverse to the direction of movement, and folding means operated by the foremost face of the article for folding the sheet over edges of the article extending in the direction of movement.

4. In a machine for wrapping a sheet of paper about an article, means for moving the article, and movable means mounted in different positions longitudinally of the path of movement of the article and adapted to be actuated successively by side portions of the moving article for folding portions of the sheet successively against end portions of the article.

5. In a machine for wrapping a sheet of paper about an article, pivotally mounted wipers adapted to be operated by movement of the article to fold a sheet over transverse edges of the article, and means for folding previously folded parts of the sheet over said wipers.

[Claims 6 to 16 not printed in the Gazette.]

1,140,523. RAILWAY DRAFT-RIGGING. JOHN R. MITCHELL, Chicago, Ill., assignor to W. H. Miner, Chicago, Ill. Filed Sept. 28, 1911, Serial No. 651,719. Renewed Aug. 12, 1914. Serial No. 856,489. (Cl. 213—42.)

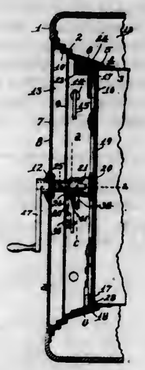


1. In a railway draft rigging, in combination, a draw-bar, a draft yoke forwardly provided with inturned gibs, an extension block secured between the limbs of the yoke having shoulders engaging said gibs, said extension block being provided with forwardly extended lateral plates spaced apart to receive the draw-bar, the rear face of the draw-bar abutting the gibs of the yoke.

2. In a railway draft rigging, in combination, a U-shaped draft yoke, a draw-bar abutting against the free ends thereof, an extension block secured between the limbs of the yoke, a key, forward slotted extensions from said block spaced apart to receive the draw-bar, the key passing through the said extensions and draw-bar.

1,140,524. SAFE CONSTRUCTION. MOSES MOSLER, Cincinnati, and CARL BARTELS, Hamilton, Ohio, assignors to The Mosler Safe Company, New York, N. Y. Filed Jan. 2, 1915. Serial No. 72. (Cl. 109—1.)

1. In a safe door, the combination with a main door, bolting and locking mechanism carried thereby, a water-tight inner compartment, an auxiliary door carried by the main door but entirely separable therefrom and adapted to move away from the main door and close against the front of the inner compartment, bolting mechanism carried by the auxiliary door and adapted to force the auxiliary door to closure against the front of the inner compartment, and actuating mechanism carried by the main door to serve in operating the bolting mechanism of the auxiliary door, of separable clutch-members carried by said actuating mechanism and the bolting mechanism of the auxiliary door, whereby the bolts of the auxiliary door may be thrown and drawn while the two doors are in association and whereby said actuating mechanism may move with the main door away from the auxiliary door so as to leave the auxiliary door bolted while the main door is open, substantially as set forth.



2. In a safe door, the combination with a main door, bolting and locking mechanism carried thereby, a water-tight inner compartment, an auxiliary door carried by the main door but entirely separable therefrom and adapted to move away from the main door and close against the front of the inner compartment, bolting mechanism carried by the auxiliary door and adapted to force the auxiliary door to closure against the front of the inner compartment, and actuating mechanism carried by the main door to serve in operating the bolting mechanism of the auxiliary door, of separable clutch-members carried by said actuating mechanism and the bolting mechanism of the auxiliary door, and a dog carried by the auxiliary door and actuated by contact with the surface of the door-jamb and adapted to prevent the releasing movement of the bolting mechanism of the auxiliary door except when the auxiliary door is out of the door-jamb, whereby the bolts of the auxiliary door may be thrown and drawn while the two doors are in association and whereby said actuating mechanism may move with the main door away from the auxiliary door so as to leave the auxiliary door bolted while the main door is open and whereby the bolts of the auxiliary door may not be drawn while the main door is open and the auxiliary door closed, substantially as set forth.

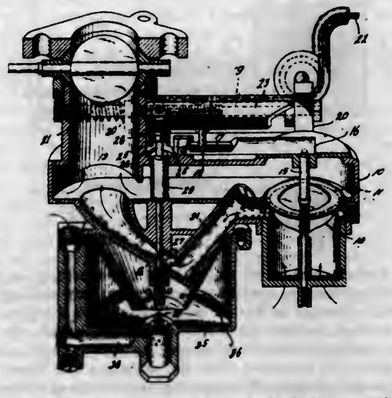
3. In a safe door, the combination with a main door, bolting and locking mechanism carried thereby, a water-tight inner compartment, an auxiliary door carried by the main door but entirely separable therefrom and adapted to move away from the main door and close against the front of the inner compartment, bolting mechanism carried by the auxiliary door and adapted to force the auxiliary door to closure against the front of the inner compartment, and actuating mechanism carried by the main door to serve in operating the bolting mechanism of the auxiliary door, of separable clutch-members carried by said actuating mechanism and the bolting mechanism of the auxiliary door, and coöperating hooking members carried by the main door and auxiliary door and adapted to disengage when the doors are taken out of association with each other, whereby the bolts of the auxiliary door may be thrown and drawn while the two doors are in association and whereby said actuating mechanism may move with the main door away from the auxiliary door so as to leave the auxiliary door bolted while the main door is open, and whereby the main door supports the auxiliary door when the two doors are in association, substantially as set forth.

4. In a safe door, the combination with a main door, bolting and locking mechanism carried thereby, a water-tight inner compartment, an auxiliary door carried by the main door but entirely separable therefrom and adapted to move away from the main door and close against the front of the inner compartment, bolting mechanism carried by the auxiliary door and adapted to force the auxiliary door to closure against the front of the inner compartment, operative mechanism connecting the bolting mechanism of the main door and the bolting mechanism of the auxiliary door and serving to lock the auxiliary bolting mechanism in drawn position so long as the bolting mechanism of the main door is in drawn position, and actuating mechanism carried by the main door to serve in operating the bolting mechanism of the auxiliary door, of separable clutch-members carried by said actuating mechanism and the bolting mechanism of the auxiliary door, and coöperating hooking members carried by the main door and the auxiliary door and adapted to engage with each other when the bolts of the auxiliary door are drawn and to disengage from each other when they are thrown, whereby the bolts of the auxiliary door may be thrown and drawn while the two doors are in association and whereby said actuating mechanism may move with the man door away from the auxiliary door so as to leave the auxiliary door bolted while the main door is open, and whereby the auxiliary door when unbolted becomes hooked to the main door, substantially as set forth.

5. In a safe door, the combination with a main door, bolting mechanism carried thereby, a water-tight inner compartment, an auxiliary door carried by the main door but entirely separable therefrom and adapted to move away from the main door and close against the front of the inner compartment, bolting mechanism carried by the auxiliary door and adapted to force the auxiliary door to closure against the front of the inner compartment, and actuating mechanism carried by the main door to serve in operating the bolting mechanism of the auxiliary door, of separable clutch-members carried by said actuating mechanism and the bolting mechanism of the auxiliary door, and locking mechanism carried by the main door and connected with the bolting mechanism thereof and said actuating mechanism, whereby the bolts of the auxiliary door may be thrown and drawn while the two doors are in association and whereby said actuating mechanism may move with the main door away from the auxiliary door so as to leave the auxiliary door bolted while the main door is open and whereby the bolts of both doors may be locked, substantially as set forth.

[Claims 6 to 12 not printed in the Gazette.]

1,140,525. PROPORTIONING DEVICE ESPECIALLY DESIGNED FOR CARBURETERS. HOMER N. MOSSINGER, La Fayette, Ind. Filed Jan. 10, 1913, Serial No. 741,185. Renewed Apr. 21, 1915. Serial No. 22,944. (Cl. 48—154.1.)



1. A carbureter comprising an air passage, an automatically-operating, inwardly-opening air valve for controlling the inlet area of the air passage, a fuel passage delivering into the air passage on the vacuum side of the air valve, a fuel valve for controlling the outlet area of the fuel passage, and intermediate connections between the air valve and the fuel valve whereby minute arithmetically-varying effective-delivery inlet areas of the air passage will be accompanied by corresponding minute arithmetically-varying effective-delivery outlet areas of the fuel passage, said intermediate connections comprising an adjustable member whereby the ratio between the movement of the air valve and the fuel valve may be varied.

2. A carbureter comprising an air passage, an automatically-operating, inwardly-opening valve for controlling the inlet area of the air passage, a fuel passage delivering into the air passage beyond the air valve, a fuel valve for controlling the outlet area of the fuel passage, and intermediate connections between the air valve and fuel valve whereby minute arithmetically-varying effective-delivery inlet areas of the air passage will be accompanied by corresponding minute arithmetically-varying effective-delivery outlet areas of the fuel passage, said intermediate connections comprising an adjustable member whereby the ratio between the movement of the air valve and the fuel valve may be variably adjusted, one of said valves comprising a paraboloid.

3. A carbureter comprising an air passage, an air valve for controlling the inlet area of the air passage, said valve being operable inwardly by suction, means normally moving said valve toward closing position, a fuel passage delivering into the air passage on the vacuum side of the air valve, a fuel valve for controlling the outlet area of the fuel passage, and intermediate connections between the air valve and the fuel valve whereby minute arithmetically varying inlet areas of the air passage will be accompanied by corresponding minute arithmetically varying outlet areas of the fuel passage, said intermediate connections comprising an adjustable member whereby the ratio between the movements of the air valve and the fuel valve may be varied.

4. A carbureter comprising an air passage, an automatic suction-controlled throttling valve associating with said passage and having a form such that equal minute successive lifts of the valve will add successive equal minute increments to the effective area of the air passage, a fuel passage, a throttling valve associating with said passage and having a form such that equal minute successive lifts of the valve will add successive equal minute increments to the effective area of the fuel passage, and means for simultaneously operating said valves, said operating means comprising an adjustable member by which the total lift of one valve relative to the other may be varied.

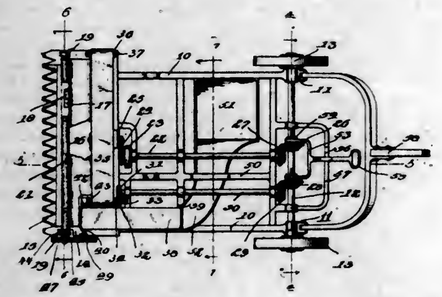
5. A carbureter comprising an air passage, an automatically-operating, inwardly-opening air valve for controlling the inlet area of the air passage, a fuel passage delivering into the air passage on the vacuum side of the air valve, a fuel valve of the coaxial-plug type for controlling the outlet area of the fuel passage, and intermediate connections between the air valve and the fuel valve whereby simple arithmetically-varying effective-delivery inlet areas of the air passage will be accompanied by corresponding simple arithmetically-varying effective-delivery outlet areas of the fuel passage, said intermediate connections comprising an adjustable member whereby the ratio between the movement of the air valve and the fuel valve may be varied.

[Claims 6 to 12 not printed in the Gazette.]

1,140,526. LAWN-MOWER. JOSEPH P. PATTERSON, Milwaukee, Wis. Filed July 3, 1914. Serial No. 848,897. (Cl. 56—19.)

1. A lawn mower comprising a frame, a driving shaft journaled at its rear end, traction wheels fixed to said shaft, a finger bar formed at the front end of the frame, a reciprocating sickle bar working upon said finger bar, bearings at opposite ends of the finger bar, a rotary brush journaled in said bearings and superposed above the sickle bar, a driven shaft journaled centrally in the frame, connections between the driven shaft and the sickle bar, a second driven shaft journaled in the frame, a trough supported by the frame and having a curvilinear chute directed laterally and forwardly of the said frame, independent conveyer means, one of said conveyer means ar-

ranged transversely of the frame rearwardly of the sickle bar, the other conveyer means arranged longitudinally of the frame and extending from the forward end of the chute and beyond one end of the first-named conveyer means so as to lie at right angles thereto, and connections between the brush, the said conveyer means and the second-named shaft.

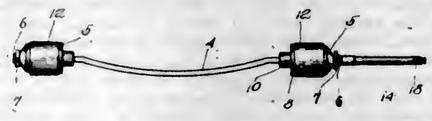


2. A lawn mower comprising a frame, a driving shaft journaled at its rear end, traction wheels fixed to said shaft, a finger bar formed at the front end of the frame, a reciprocating sickle bar working upon said finger bar, bearings at opposite ends of the finger bar, a rotary brush journaled in said bearings and superposed above the sickle bar, a driven shaft journaled centrally in the frame, connections between the driven shaft and the sickle bar, a second driven shaft journaled in the frame, a trough supported by the frame and having a curvilinear chute directed laterally and forwardly of the said frame, independent conveyer means, one of said conveyer means arranged transversely of the frame rearwardly of the sickle bar, the other conveyer means arranged longitudinally of the frame and extending from the forward end of the chute and beyond one end of the first-named conveyer means so as to lie at right angles thereto, connections between the brush, the said conveyer means and the second-named shaft, and connection between the first and second-named driven shafts and the driving shaft.

3. A lawn mower comprising a frame, a driving shaft journaled at its rear end, traction wheels fixed to said shaft, a finger bar formed at the front end of the frame, a reciprocating sickle bar working upon said finger bar, bearings at opposite ends of the finger bar, a rotary brush journaled in said bearings and superposed above the sickle bar, a driven shaft journaled centrally in the frame, connections between the driven shaft and the sickle bar, a second driven shaft journaled in the frame, a trough supported by the frame and having a curvilinear chute directed laterally and forwardly of the said frame, independent conveyer means, one of said conveyer means arranged transversely of the frame rearwardly of the sickle bar, the other conveyer means arranged longitudinally of the frame and extending from the forward end of the chute and beyond one end of the first-named conveyer means so as to lie at right angles thereto, connections between the brush, the said conveyer means and the second-named shaft, connection between the first and second-named driven shafts and the driving shaft, and hand operated means for throwing out the connections between the said shafts simultaneously with each other.

1,140,527. DISTENTION DEVICE FOR TUBULAR STRUCTURES. PETER POWELL, Cambridge, Mass., assignor to Standard Tire and Rubber Company, Boston, Mass., a Corporation of Massachusetts. Filed Aug. 22, 1912. Serial No. 716,372. (Cl. 18—45.)

1. A distention device for tubular structures comprising an elongated air tight bag, outwardly expansible cylindrical heads located within and secured to the ends of said bag to tightly close the same, and a rod conforming to the curvature of said tubular structure and having its extremities connected with the respective heads.



2. A distention device for tubular structures comprising an elongated air tight bag, outwardly expansible cylindrical heads located within and secured to the ends of said bag to tightly close the same, a rod conforming to the curvature of said tubular structure and having its extremities connected with the respective heads, one of said heads being provided with an air valve, and means whereby air may be introduced through the last mentioned head.

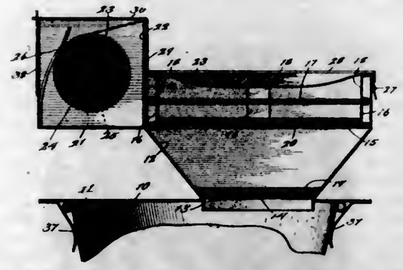
3. A distention device for tubular structures comprising an elongated air tight bag, outwardly cylindrical heads located within and secured to the ends of said bag to tightly close the same, a curved rod conforming to the curvature of said tubular body, and connections between the extremities of said rod and the respective heads, said connections permitting the heads to conform to the inner surface of the tubular structure.

4. In a device for distending the wall of tubular structures, a collapsible tube, two cylindrical members each having a recess in one side thereof and located within said tube at one of its ends, a curved rod the ends of which are enlarged and are secured within said recesses, said recesses permitting free movement of said members upon the ends of said rod.

5. In a device for distending the wall of tubular structures, a curved rod, the ends of which terminate in heads, two spool shaped members each of which bears a boss movably secured to one of said heads, and which carries upon its shank a collar of expansible material, said shank being threaded at one end, and a nut engaging with the threaded portion of said shank, combined with a collapsible tube covering said rod and members and rings securing the ends of said tube to the periphery of said collars.

[Claims 6 to 8 not printed in the Gazette.]

1,140,528. ATTACHMENT FOR MILKING-PAILS. ELMER G. POWERS, Ogden, Iowa. Filed Nov. 4, 1914. Serial No. 870,194. (Cl. 210—16.)



1. An attachment for milking pails, embodying an open bottom receiver, a container arranged at one side of the receiver, a supply of flexible screening disposed within the container, a screen removably supported within the receiver, supports projecting above the screen, said screening adapted to be drawn from the container and across the receiver to rest upon the supports, and clamping means cooperating with the supports for holding the screening in position.

2. An attachment for milking pails, embodying an open bottom receiver, a container arranged at one side of the receiver, a supply of flexible screening disposed within the container, a screen removably supported within the receiver, support projecting above the screen, said screening adapted to be drawn from the container and across the receiver to rest upon the supports, clamping means cooperating with the supports for holding the screening in position, and a cover for the container, said clamping means connected to and removable with the cover.

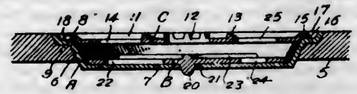
3. An attachment for milking pails, embodying an open bottom receiver, a container supported thereby, one edge of the container adjacent to and projecting above the inlet of the receiver, a supply of flexible screening disposed within the container, said screening adapted to be drawn from the container over said edge and down to and across the inlet of the receiver, means for securing the free end of said screening, a removable screen within the receiver, supports projecting from the screen and upon which the flexible screening rests, and a clamping device coöperating with the said supports for holding the screening in position.

4. An attachment for milking pails, embodying an open bottom receiver, a container, a supply of flexible screening in the container, and adapted to be drawn therefrom and across the inlet of the receiver, means for securing the free end of the screening, a removable clamping device for securing the edges of the screening, and a cover for the container, connected with the clamping device and removable therewith.

5. An attachment for milking pails, embodying an open bottom receiver, a container, a supply of flexible screening in the container, and adapted to be drawn therefrom and across the inlet of the receiver, means for securing the free end of the screening, a removable clamping device securing the edges of the screening, a cover for the container connected with the clamping device and removable therewith, clips on the receiver, and projections on the clamping device and coöperating with the clips for removably holding the clamp in position.

[Claims 6 and 7 not printed in the Gazette.]

1,140,529. STOVE-LID. NORMAN E. RICE, Eureka, Cal. Filed June 20, 1914. Serial No. 846,310. (Cl. 126—220).



1. A stove lid including a body comprising outwardly inclined side walls and a horizontal bottom, an outwardly extending flange on the upper edge of the side walls, an upwardly extending inclined flange at the outer edge of the first said flange, a top plate provided with lugs adapted to engage the said first flange whereby the plate may be supported on the lid, said plate being disposed in spaced relation with the bottom, said plate provided with centrally and with radially disposed spaced openings, radially disposed ribs provided on said top plate and extending from the outer edge thereof to the central opening, and being disposed between the radially disposed openings, an inner rib disposed concentrically and in spaced relation with the central opening and connecting the radially disposed ribs, a damper plate positioned on said bottom, said plate provided with a centrally disposed depending lug adapted to extend through an opening in the bottom, said bottom provided with a plurality of radially spaced openings, said damper plate provided with a plurality of radially disposed spaced openings of less area than the openings in the bottom, diametrically disposed ribs provided on said damper plate, and interlocking means provided on the top plate and outer flange.

2. A stove lid including a body having an upwardly extended marginal flange, a shoulder within the flange, a top plate adapted to rest on said shoulder, said top plate provided with a central and with a plurality of radially disposed spaced openings, radially disposed ribs provided on the top plate and extending from the central opening to the margin of said plate, an inner rib concentric with and disposed in spaced relation with the central opening, and interlocking means between the top plate and lid, said means including a plurality of outwardly extending lugs provided on the top plate and a plurality of inwardly extending lugs provided on the lid, said lugs adapted to be brought into engagement with each other for locking the plate on the lid.

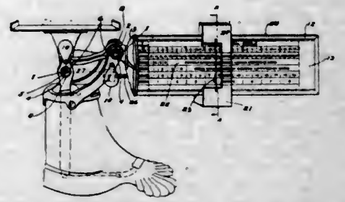
3. A stove lid including a hollow body having a fixed bottom provided with openings, a removable top plate provided with openings and with upwardly extending ribs, and a damper plate disposed between the bottom and upper plate and movable relatively to the bottom, and provided with openings and upwardly extending ribs.

4. A stove lid comprising a hollow body having a fixed bottom, a plate forming the top of the lid, said plate being removable, means for locking the plate with the lid at will, and a damper plate positioned between the bottom and the top plates and movable relatively thereto, means for journaling the damper plate relatively to the lid, said damper plate, bottom and top plate provided with openings therein, said damper plate adapted to be adjusted for regulating passage through the openings.

5. A stove lid comprising a body portion, having a bottom provided with openings and a damper plate removably and rotatably disposed upon the bottom and provided with openings adapted to be moved into and out of registration with the openings in the bottom and further provided with a plurality of upwardly extending ribs.

[Claims 6 and 7 not printed in the Gazette.]

1,140,530. SCALE. FRED T. RICHARDS, Chicago, Ill., assignor to Pelouze Manufacturing Co., Chicago, Ill., a Corporation of Illinois. Filed Apr. 6, 1914. Serial No. 829,878. (Cl. 73—104.)



1. In a scale, a scale-beam, and an indicator pivotally connected thereto on an axis extending longitudinally of the scale-beam, one of said connected parts having an extended disk bearing and the other of said connected parts having a complementary bearing with an arcuate flange engaging the edge of said disk bearing.

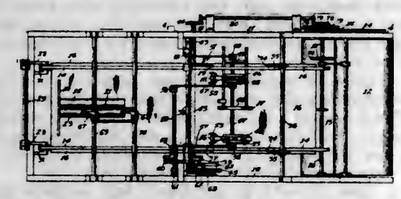
2. In a scale, a scale-beam, and an indicator pivotally connected thereto on an axis extending longitudinally of the scale-beam, one of said connected parts having an extended disk bearing and the other of said connected parts having a complementary bearing with an arcuate flange engaging the edge of said disk bearing and a tightening spring interposed between said connected parts.

3. In a scale, a scale-beam having perforations, a counterpoise thereon, and an indicator plate having ears adapted to engage said perforations and to be bent into supporting position to hold the indicator in predetermined fixed relation to the scale-beam.

4. In a scale, a scale-beam having a longitudinally extending screw-post, a balance-adjusting nut threaded on said post and split transversely of its axis to form a body portion and a nut-locking portion relatively movable, and means for moving the locking portion relatively to the body portion to lock the nut against turning movement on the post.

5. In a scale, a scale-beam having a longitudinally extending screw-post, a balance-adjusting nut threaded on said post and split transversely of its axis to form a body portion and a nut-locking portion relatively movable, and a screw operatively engaging said portions and adapted to move them relatively to lock the nut against turning movement on the post.

1,140,531. STITCHING-MACHINE. FRED A. RISBERG, Chicago, Ill. Filed May 20, 1914. Serial No. 839,817. (Cl. 1—7.)



1. In a stitching machine, the combination of a work support along which work is adapted to be fed, stitching mechanism operatively related to said support, work-engaging stops on opposite sides of said stitching mechanism and operative to engage said support in a line transverse to the direction of feed to position the work relatively to said stitching mechanism, an actuating shaft substantially parallel to said line, an independent support on said shaft for each of said stops, and means for shifting said stops relatively to said shaft to change the positions of different pieces of work relative to said stitching mechanism.

2. In a stitching machine, the combination of a work support, stitching mechanism operatively related to said support, a stop for engaging the work to position it relative to said stitching mechanism, a delivery device for conducting the work from the stitching mechanism, means for bringing said device into operative relation to the work at regular intervals, and means bearing a timed relation to said bringing means for shifting said stop to change the position of the work relative to said stitching mechanism.

3. In a stitching machine, the combination of a work support along which the work is adapted to be fed, stitching mechanism operatively related to said support, means for conveying the work along said support, means for supplying the work at intervals to said conveying means, work-engaging stops on opposite sides of said stitching mechanism and operative to engage said support in a line transverse to the direction of feed to position the work relatively to said stitching mechanism, an actuating shaft substantially parallel to said line, an independent support on said shaft for each of said stops, and means bearing a timed relation to said supplying means for shifting said stops relatively to said shaft to change the positions of different pieces of work relative to said stitching mechanism.

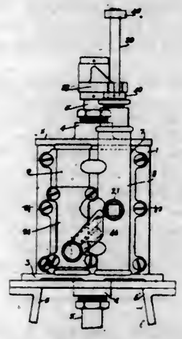
4. In a stitching machine, the combination of a work support, stitching mechanism operatively related to said support, a rock shaft, a stop finger movably secured to said shaft, means for rocking said shaft at regular intervals to bring said finger into engagement with said support to stop the work in operative position relative to said stitching mechanism, and means bearing a timed relation to said rocking means for moving said finger transversely of said shaft to change the position of the engagement of said finger with said support and thus change the position of the work relative to said stitching mechanism.

5. In a stitching machine, the combination of a work support, stitching mechanism operatively related to said support, a rock shaft, a stop finger movably secured to said shaft, work conveying tapes at opposite sides of said support, drop rolls for engaging said tapes to deliver the work from said stitching mechanism, means for actuating said drop rolls at regular intervals and means bearing a time relation to said roll actuating means to shift said stop finger relative to said shaft to change the position of the work relative to said stitching mechanism.

[Claims 6 to 9 not printed in the Gazette.]

1,140,532. MOTOR. LOUIS S. RIZER, Springfield, Ohio. Filed Mar. 2, 1914. Serial No. 821,973. (Cl. 138—2.)

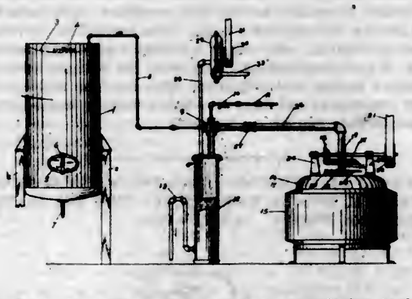
1. In a motor, the combination with a cylinder and a piston mounted therein, of a casing having two parallel valve chambers arranged along side of said cylinder, one of said valve chambers communicating with said cylinder on opposite sides of said piston and with an exhaust chamber, a piston valve mounted in said valve chamber and having an inlet port, the second of said valve chambers communicating with a source of fluid supply and having a port in permanent communication with the inlet port of said piston valve and also having other ports communicating with said first mentioned valve chamber at the opposite ends of said piston valve, a piston valve mounted in said last mentioned valve chamber and having a port to permanently connect said source of fluid supply with the inlet port for the first mentioned valve chamber, said piston valve having an axial conduit connected with said source of fluid supply, said last mentioned valve chamber having relief ports at the opposite ends thereof and said last mentioned piston valve being constructed to alternately connect the ports leading to the ends of the first mentioned valve chamber with said axial conduit and said relief ports, and a motor controlled device for actuating said last mentioned piston valve.



2. In a motor, the combination with a cylinder, and a piston mounted therein, of a casing secured to said cylinder and having two parallel valve chambers, two-part chambers interposed between the respective valve chambers and said cylinder, the two parts of one of said two-part chambers communicating, respectively, with said motor cylinder on opposite sides of the piston, and each having an inlet port and an exhaust port connecting the same with the corresponding valve chamber, a piston valve mounted in said valve chamber and having an inlet port adapted to be moved into registration with either of the inlet ports leading to said two-part chamber, and having exhaust ports to be moved into registration with the respective exhaust ports of said two-part chamber, the other of said valve chambers communicating with a source of fluid supply, having a passageway in permanent communication with the inlet port of said piston valve and having relief ports connected respectively to the two parts of the second two-part chamber, other ports connecting said last mentioned valve chamber with the first mentioned valve chamber at the opposite ends of said piston valve, a piston valve mounted in said last mentioned valve chamber to control said ports, and a device actuated by the motor piston for operating said last mentioned piston valve.

3. In a motor, the combination, with a cylinder, and a piston mounted therein, of a casing secured to said cylinder and having two parallel valve chambers, two part chambers interposed between the respective valve chambers and said cylinder, the two parts of one of said two part chambers communicating, respectively, with said motor cylinder on opposite sides of the piston and each having an inlet port and an exhaust port, connecting the same with the corresponding valve chamber, a piston valve mounted in said valve chamber and having an inlet port adapted to be moved into registration with either of the inlet ports leading to said two part chamber and having exhaust ports to be moved into registration with the respective exhaust ports of said two part chamber, the other of said valve chambers communicating with a source of fluid supply, having a passageway in permanent communication with the inlet port of said piston valve and having relief ports connected, respectively, to the two parts of the second two part chamber, other ports connecting said last-mentioned valve chamber with the first-mentioned valve chamber at the opposite ends of said piston valve, a valve mounted in said last-mentioned valve chamber and having a longitudinal passageway communicating with said source of fluid supply and having outlet ports near the opposite ends of said valve, said last-mentioned valve being arranged to alternately connect the ports leading to the opposite ends of the first-mentioned valve chamber with said longitudinal passageway and the respective relief ports, and a connection between said last-mentioned valve and the motor piston.

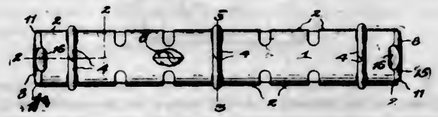
1,140,533. DEODORIZING DEVICE. WILLIAM H. SABTAIN, Columbus, Ohio. Filed Sept. 29, 1913. Serial No. 792,438. (Cl. 87—13.)



1. In a refuse disposal apparatus, a rendering tank, a drier, a jet condenser, outlet pipes from both said rendering tank and said drier leading to said condenser, an air tight tank in communication with said condenser, a water outlet pipe for said air tight tank, and a suction fan in communication with the upper portion of said air tight tank independent of said condenser.

2. In a refuse disposal apparatus, a rendering tank, a drier, a four-way fitting, outlet pipes from both said rendering tank and said drier leading to said fitting, a water inlet pipe leading into the upper portion of said fitting, an air tight tank forming the fourth connection with said fitting, a water outlet pipe for said air tight tank, and a suction fan in communication with the upper portion of said air tight tank independent of the connection with said fitting.

1,140,534. LOOSE-LEAF BINDER. JOHN SCHADE, Jr., Brooklyn, N. Y., assignor to National Blank Book Company, a Voluntary Trust Association of Copartnership, having as trustees J. W. Towne, F. B. Towne, E. S. Towne, J. M. Towne, and F. W. Wilson, Holyoke, Mass. Continuation of application Serial No. 836,835, filed May 6, 1914. This application filed July 27, 1914. Serial No. 853,434. (Cl. 129—24.)



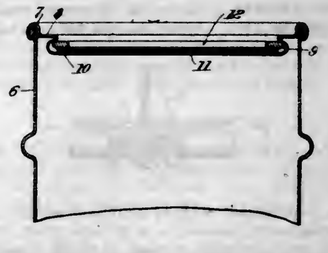
1. A loose leaf binder, comprising a resilient housing, hinged prong carrying members within the housing, and combined means for closing the ends of the housing and for positively operating said members to open the prongs.

2. A loose leaf binder, comprising a resilient housing, hinged prong carrying members within the housing, and levers having pivotal supports at the ends of said housing and having portions which close said ends, said levers having extensions beneath the hinge members for positively operating the latter to open the prongs.

3. A loose leaf binder, comprising a resilient housing, prong carrying members within the housing having their longitudinal side edges arranged in side by side relation, and levers fulcrumed on the ends of the housing and having parts which close the ends of said housing, the lower portions of said levers engaging the under faces of said members whereby the latter are positively opened by the lever movements.

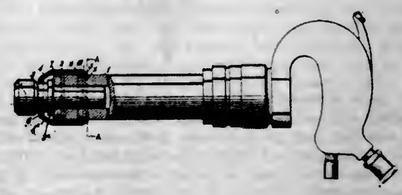
4. In a loose leaf binder, a resilient housing, a pair of hingedly connected prong bearing elements in the housing, and means movably connected to the ends of the housing to close the latter and to engage below each of said elements for positively moving the latter into position to open the prongs.

1,140,535. REMOVABLE COVER FOR METAL BARRELS. ANTHONY SCHROEDER, Cleveland, Ohio. Filed Feb. 9, 1914. Serial No. 817,462. (Cl. 220—64.)



The combination of a metal barrel or the like having an annular end piece 7 which is sunk into the body of the barrel and folded at its outer edge over the end of said body, said end piece being folded at its inner end to form an integral converging channel 9 at the inside thereof, said channel being of greater diameter than the opening in the end piece at the fold, whereby said fold overhangs the channel, and the inner flange of said channel being extended inwardly or toward the axis of the barrel, so that it is of less diameter than said opening, a head plate adapted to be inserted through said opening and to rest on said extended flange, and means coöperating with the channel to clamp the head plate against said flange.

1,140,536. RIVET-SET RETAINER. WENDEL H. SHIPLER, New Castle, Pa. Filed Jan. 2, 1915. Serial No. 247. (Cl. 78—44.5.)



1. In a pneumatic tool retainer, a split ring constructed to interlock with the tool and barrel of said pneumatic tool, a continuous ring member arranged to slip over said split ring, and a spring member adapted to prevent the withdrawal of the said continuous ring member.

2. The combination of a pneumatic riveter barrel, grooved at the tool end, a flanged tool for said riveter, a split ring having a collar for engaging said flanged tool; a sleeve enveloping said split ring, and a spring member for holding said sleeve in position.

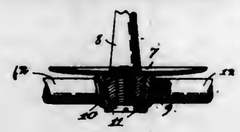
1,140,537. DENTAL BRIDGE AND CROWN. FRANK H. SKINNER, Chicago, Ill. Filed Dec. 19, 1913. Serial No. 807,580. (Cl. 32—12.)



1. The combination with a dental bridge-plate, of a clamp having a pair of spring arms adapted to engage an anchor bar secured to one or more natural teeth, said clamp being detachably secured to said bridge-plate.

2. The combination with a dental bridge-plate, of a base-plate soldered to said bridge-plate, a clamp formed with a body member resting on said base-plate and with a pair of integral spring arms adapted to engage an anchor bar secured to one or more natural teeth, and screw means attaching said body member to said base-plate.

1,140,538. ANCHORAGE FOR DENTAL BRIDGE AND CROWN PLATES. FRANK H. SKINNER, Chicago, Ill. Filed Dec. 19, 1913. Serial No. 807,581. (Cl. 32—12.)



1. The combination with an abutment member adapted to be permanently secured to a natural tooth, of a boss carried by said abutment member, a sleeve removably attached to said boss, and an anchor bar attached to said sleeve.

2. The combination with an abutment member adapted to be permanently secured to a natural tooth, of an internally threaded boss carried by said abutment member, a sleeve fitted to said boss, a screw threaded into said boss and having its head engaging and clamping said sleeve onto said boss, and an anchor bar attached to said sleeve.

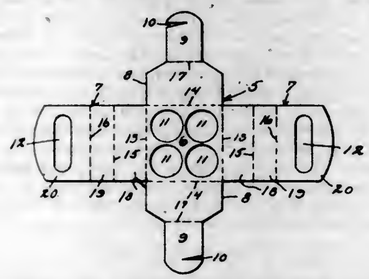
1,140,539. REMOVABLE DENTAL BRIDGE ATTACHMENT. FRANK H. SKINNER, Chicago, Ill. Filed Jan. 2, 1914. Serial No. 809,850. (Cl. 32—12.)



1. In a removable dental bridge attachment, the combination with an abutment plate adapted to be secured to the exposed end of a natural root, of a longitudinally split spring post, an externally threaded post rigid with one of said parts, and a coöperating internally threaded boss rigid with the other of said parts, a root pin on the inner side of said abutment plate adapted to be cemented in the canal of the root, and a socketed bridge-plate frictionally engaging said spring post.

2. In a removable dental bridge attachment, the combination with an abutment plate having on one side thereof a pin adapted to be cemented in the canal of a natural root and on the opposite side an internally threaded boss, of a longitudinally split spring post having a threaded shank of reduced diameter engaging said boss, and a socketed bridge-plate frictionally engaging said spring post.

1,140,540. ICE-CREAM-CONE CARRIER. DELL R. SMITH, Blanchard, Wash. Filed Aug. 31, 1914. Serial No. 859,531. (Cl. 229—16.)



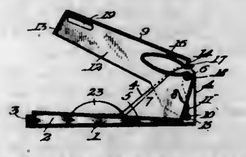
An ice cream cone device formed integral and comprising a bottom having a plurality of openings formed therein for the reception of ice cream cones, end members extending vertically from the bottom and provided with mutually engageable and bendable tabs, sides extending vertically from the bottom, converging portions extending from the tops of the sides and part-way over the bottom, said end portions having inclined upper edge portions upon which said converging portions lie, and bendable hand-holding edges on said converging portions.

1,140,541. TRIPLE-HOOK COLLAR-FASTENER. FRANK E. SPRAGUE, Nashua, N. H. Filed Aug. 15, 1913. Serial No. 784,929. (Cl. 24—101.)



A collar fastener comprising a base having a narrow central portion the upper edge of which is substantially straight and wide rounded lateral wings, a straight shank extending rearwadly from the narrow portion of the base, and a buttonhole-engaging tongue having a tapered rearwardly curved tip extending downwardly from said shank, the entire base including the wings being vertically straight and laterally curved from end to end to correspond to the curvature of the neckband of a shirt, the said shank being straight and flat from end to end, one end thereof meeting the base, and the other the tongue at substantially a right angle, the upper end of the tongue being wider than the shank to form buttonhole-engaging shoulders.

1,140,542. MOUSE-TRAP. HORACE M. SPRAGUE, Denver, Colo. Filed Dec. 17, 1913. Serial No. 807,277. (Cl. 43—21.)



1. A mouse trap comprising a base plate, a jaw hinged thereto, a pin mounted in said base plate, a combined trip and bait holder mounted on said pin, a spring interposed between said pin and the rear end of the jaw and adapted when compressed by the opening of the jaw to hold said jaw open when its rear end passes a given point, and means connected with the trip for engaging said spring, when the trip is depressed, whereby the rear end of the jaw is moved out of line with said point, permitting the spring to expand and forcibly close said jaw.

2. A mouse trap comprising upper and lower jaws in hinged relation, a transverse pin supported by the lower jaw, a spring interposed between said pin and the rear end of the upper jaw, which is compressed when the upper jaw is raised, and swung upon said pin, until said rear end passes the outer line of said pin and the pivotal point of the upper jaw, a combined trip and bait holder pivotally mounted on said pin, having a portion which is engaged by one end of said spring, by which said trip is tilted, and which acts to rock the spring when the trip is depressed, whereby the rear end of the upper jaw is moved beyond said center line, permitting the spring to expand and thereby forcibly close the jaw.

3. In a mouse trap, a stationary jaw having upward extensions, a pin mounted in said extensions, a jaw pivotally connected to the stationary jaw at points beneath and in line with said pin, whose rear end is forward of said pin, an expansion spring, the ends of which bear upon said pin and the rear end of said pivoted jaw, and which is comrpessed and swung upon said pin when the pivotal jaw is raised, means for stopping the upward movement of said jaw when its rear end passes the center line of its pivotal points and of said pin, a combined trip and bait holder pivotally mounted on said pin having a rear extension which is engaged by one end of said spring, whereby the trip is tilted, the depressing of said trip causing its rear extension to move the spring whereby the rear end of the pivoted jaw is moved beyond said center line, permitting the spring to expand, thereby forcibly closing the jaw.

4. In a mouse trap, a stationary jaw having side extensions at its rear end, a pin mounted in said extensions, a movable jaw having depending members pivotally connected to said stationary jaw below said pin, the rear end of which terminates forward of said pin, the upward movement of said jaw being defined by the engagement of its depending members with said pin, in which position its rear end is back of a center line extending through its pivotal points, and the axial center of said pin, an expansive spring the ends of which bear upon said pin and the rear end of the movable jaw, which is compressed and swung upon said pin as the jaw is raised, and locks the same when its rear end passes said center line, a combined trip and bait holder, having a rear extension which is engaged by one end of said spring to tilt said trip, and which moves said spring to shift the position of the rear end of said jaw, whereby the spring is permitted to expand and thereby forcibly close the jaw.

5. In a mouse trap, a stationary jaw having parallel ears, a pin mounted in the upper ends of said ears, a swinging jaw having downward extensions, the ends of which are pivotally connected to said ears below said pin, the rear end of said swinging jaw being forward of said pin, said extensions being arranged to engage said pin when the rear end of the jaw is swung past a line extending through its pivotal axis, and the axial center of said pin, a V-shaped spring, the ends of which engage said pin and the rear end of the jaw, and which is swung by the raising of the jaw and locks the same in a raised position when its rear end passes the said line, and a combined trip and bait holder having an upturned rear end which is engaged by one end of said spring and the trip thereby tilted when the jaw is raised, said upturned end being arranged to move the spring when the trip is depressed, thereby shifting the position of the said rear end, whereby the spring is permitted to expand and forcibly close the jaw.

[Claim 6 not printed in the Gazette.]

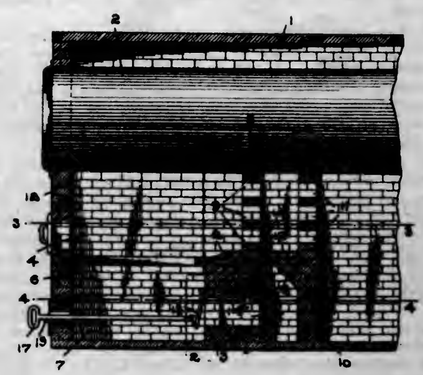
1,140,543. BROOM. LOREN WATTS STANLEY, Gloucester, City, N. J. Filed Dec. 3, 1913. Serial No. 804,403. (Cl. 15—19.)

The combination with a handle divided at one end to provide separate attaching ends, and a broom for said handle, of a divided head comprising two correspondingly formed sections consisting of elongated body portions having their side edges and a portion of their top edges provided with inturned flanges for enveloping the upper portion of said broom, and their upper central portions tapering upwardly to provide curved recessed attaching members for securely seating therein the respective attaching ends of said handle, registering apertured bosses formed upon said sections at the base of said attaching



members and abutting the respective ends of said handle, one of said bosses being internally screw-threaded, a screw coöperating with said apertured bosses for clamping said head sections to said broom, and teeth upon said sections for penetrating the outer surfaces of said broom.

1,140,544. SMOKE AND GAS CONSUMER. WILLIAM H. TOPLEY, Philadelphia, Pa., assignor of one-half to Joseph W. Smith, Philadelphia, Pa. Filed Aug. 26, 1914. Serial No. 858,595. (Cl. 110—73.)

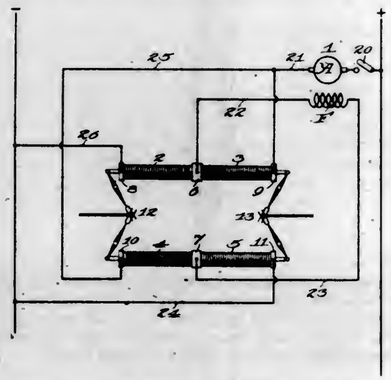


1. The combination with a furnace having a double wall at the rear of the fire box, said double wall having openings therethrough for the passage of smoke and gases, one of said walls spaced from the other and having an opening therein for the admission of air into the space between the walls at a point below the said openings, the rear of said pair of walls having a ledge on its forward face at a point above the plane of the air inlet and extending to a point adjacent the front wall, whereby a relatively narrow opening is provided between the ledge and the front wall at a point below the first-mentioned openings in the walls, substantially as described.

2. The combination with a furnace having a double wall at the rear of the fire box, said double wall having openings therethrough for the passage of smoke and gases, one of said walls spaced from the other and having an opening therein for the admission of air into the space between the walls at a point below the said openings, the rear of said pair of walls having a ledge on its forward face extending to a point adjacent the front wall, whereby a relatively narrow opening is provided between the ledge and the front wall at a point below the first-mentioned openings

in the walls, said ledge having an inclined lower face directing the air from below in a forward direction, substantially as described.

1,140,545. MOTOR-CONTROLLER. FRANK P. TOWNSEND, Elyria, Ohio, assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed Oct. 15, 1910. Serial No. 587,178. (Cl. 172—179.)



1. The combination with a motor having a series field winding, of a plurality of compressible resistances connected to the armature and series field winding of said motor and means to compress said resistances to vary the potential impressed on said motor and to vary the direction of flow of current through one of the elements thereof.

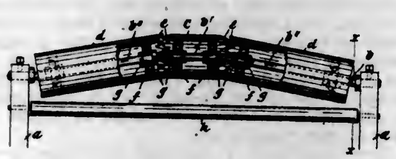
2. The combination with a motor having a series field winding, of a plurality of compressible resistances connected in circuit with said motor, and means for independently compressing said resistances in sets to vary the potential impressed upon the armature and series field winding of said motor and to reverse the flow of current through one of the same.

3. In combination, a series motor, two compressible resistance devices connected in series with the motor armature and having the motor field interposed between the same, two other compressible resistance devices each connected in parallel to one of said first mentioned devices, but arranged to have current flow therethrough in a reverse direction, said first mentioned devices when compressed increasing the potential impressed upon the motor armature to cause the motor to operate in one direction and said second mentioned devices when compressed increasing the potential impressed upon the motor armature and reversing the polarity of the field of the motor to reverse the direction of operation of the motor armature.

4. In combination, a series motor, two compressible resistance devices connected in series with the motor armature and having the motor field interposed between the same, two other compressible resistance devices each connected in parallel to one of said first-mentioned devices but arranged to have current flow through in a reverse direction, said first-mentioned devices when compressed increasing the potential impressed upon said motor to cause the same to operate in one direction and said second mentioned devices when compressed increasing the potential impressed on said motor and reversing the polarity of the motor field to cause said motor to operate in an opposite direction, and means for controlling said devices.

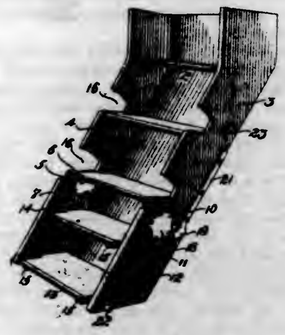
1,140,546. EXPANDING-ROLLER. CLAUDIUS UGNON, Paterson, N. J. Filed June 24, 1914. Serial No. 847,020. (Cl. 26—8.)

1. In combination, with a supporting means, a set of three smooth rollers journaled therein with their axes end to end and in substantially the same plane but disalined with each other, said rollers having intermeshing teeth at their adjoining ends, and the two outermost rollers being each appreciably longer than the third or intermediate roller.



2. In combination, with a supporting means, a set of three smooth rollers journaled therein with their axes end to end and in substantially the same plane but disalined with each other, said rollers having intermeshing tapered teeth at their adjoining ends, and the two outermost rollers being each appreciably longer than the third or intermediate roller.

1,140,547. EXTENSION CAR-STEP. BROOKS UNDERWOOD, Birmingham, Ala. Filed Feb. 27, 1915. Serial No. 11,097. (Cl. 105—86.)



1. In an extension car step, the combination with fixed steps and their risers, of one or more extension steps, risers for said extension steps, and fixed pivots connecting the upper ends of the extension risers to the lower ends of the fixed step risers, said pivot point being disposed to permit the extension step or steps when swung upwardly about the pivot to lie upon the fixed steps, one set of the steps and one set of the risers being notched to permit the extension steps to assume an overlapping position on the fixed steps, substantially as described.

2. In an extension car step, the combination with fixed steps and side members forming risers therefor, of one or more extension steps and side members rigidly connected to said extension steps and forming risers therefor, said fixed and extension risers being offset and connected at their meeting ends by fixed pivots, one of the sets of risers having notches to receive the other steps, and the said other steps having notches to receive the unnotched risers, substantially as described.

3. In an extension car step, the combination with fixed steps and their risers, of one or more extension steps and risers therefor, the fixed risers having outwardly facing openings adjacent to the lower step or steps, and the extension steps having outwardly opening notches adjacent to their risers, means to pivotally connect the fixed and extension risers to adapt the notched parts of the extension steps to swing into said openings in the fixed risers, substantially as described.

4. In an extension car step, the combination with fixed steps and their risers, of a back plate connected to said risers, an extension step or steps, risers therefor pivotally connected near the lower ends of the fixed risers, the rear end of the upper extension step being adapted to engage and bear against the back plate and the fixed risers when in its lowered operating position.

5. In an extension car step, the combination with fixed steps and their risers, of a plurality of extension steps and risers therefor, means to pivotally connect the fixed and extension risers in position to adapt the extension steps to fold upwardly and rest upon the tread faces of the lower fixed steps, the extension steps and fixed risers being cut away to permit the extension steps to fold over and upon the fixed steps, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

1,140,548. DEVICE FOR COMBINING AND EMULSIFYING SUBSTANCES. JOHN B. VOGELSANG, Webster Groves, Mo. Filed June 8, 1914. Serial No. 843,668. (Cl. 99—2.)



1. A device of the character described comprising a tube, a pressure-fluid supply-pipe connected therewith, a nozzle disposed between said tube and pipe, a chamber adjacent said nozzle, a pipe extending from said chamber adapted to convey thereto the substances to be emulsified, and a perforate cylinder disposed within said tube.

2. A device of the character described comprising a tube, a pressure-fluid supply-pipe connected therewith, a nozzle disposed between said tube and pipe, a chamber adjacent said nozzle, a pipe extending from said chamber adapted to convey thereto the substances to be emulsified, and a perforate cylinder disposed within said tube having a roughened interior surface.

3. A device of the character described comprising a tube, a pressure-fluid supply-pipe connected therewith, a nozzle disposed between said tube and pipe, a chamber adjacent said nozzle, a pipe extending from said chamber adapted to convey thereto the substances to be emulsified, a perforate cylinder disposed within said tube, and a stopper removably secured at one extremity of said cylinder.

4. A device of the character described comprising a tube, a pressure-fluid supply-pipe connected therewith, a nozzle disposed between said tube and pipe, a chamber adjacent said nozzle, a pipe extending from said chamber adapted to convey thereto the substances to be emulsified, a perforate cylinder disposed within said tube, and means for preventing the displacement of said cylinder.

1,140,549. GREASE-CUP. FRANK E. WATTS, Detroit, Mich., assignor to Hupp Motor Car Company, Detroit, Mich., a Corporation of Michigan. Filed Nov. 30, 1914. Serial No. 874,633. (Cl. 64—27.)

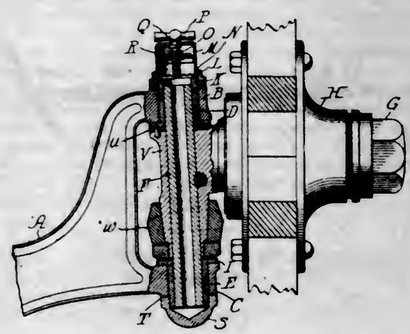
1. The combination with a bearing, a bushing therein, means for securing said bushing in place, and a grease cup attached to said bushing.

2. The combination with a member to be lubricated, of a nut for securing said member in place, and a grease cup attached to said member.

3. The combination with a bearing, of a bushing therein having a threaded end, a threaded nut engaging said threaded end for securing the bushing in place, and a grease cup having a threaded portion for engaging the threads of the nut.

4. The combination with a bearing, of a bushing therein, a hollow pin journaled in the bushing, a nut for securing said bushing in place, and a grease cup attached to said nut and in alinement with said hollow pin.

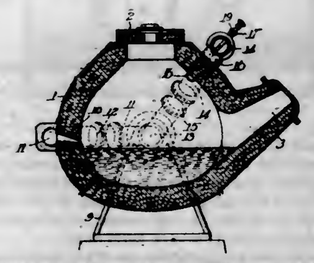
5. The combination with bearings, of bushings therein, a hollow pin journaled in the bushing, a nut for securing one of said bushings in place, a grease cup attached to one



of the bushings, and a cap nut for securing the other bushing in place.

[Claim 6 not printed in the Gazette.]

1,140,550. PROCESS FOR MAKING STEEL. GEORGE E. WEISSENBURGER, Berlin, Germany, assignor of one-half to Otis Elevator Company, New York, N. Y., a Corporation of New Jersey. Filed Feb. 29, 1912. Serial No. 680,766. (Cl. 75—44.)



A method of making steel which comprises applying heat to a charge of iron low in oxidizable agents within a Bessemer converter until oxidation of the carbon begins, then discontinuing the application of heat and directing a blast of air against the charge until substantially all of the oxidizable agents have been eliminated by oxidation.

1,140,551. SADDLE-PRESS. HENRY L. WENDORF, Ballinger, Tex. Filed July 23, 1914. Serial No. 852,711. (Cl. 69—1.)

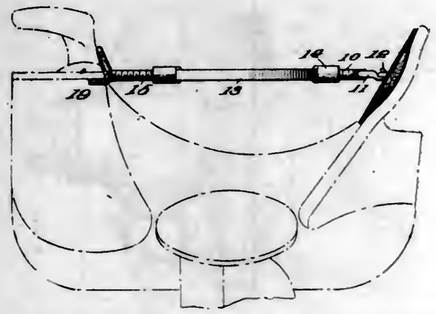
1. In a device of the class described, a presser head designed to bear against the cantle of a saddle, a foot to engage with the forward side of the saddle, and means connecting the head and foot adjustable to force the same apart.

2. In a device of the class described, a presser head designed to bear against the cantle of a saddle, a foot to engage with the forward side of the saddle, and means connecting the head and foot adjustable to force the same apart, the head being angularly adjustable with respect to the said means.

3. In a device of the class described, a presser head designed to engage against the cantle of a saddle, a threaded stem pivotally connected to the head, a foot to coöperate with the front of the saddle and provided with a threaded stem, and a turn buckle adjustable fitting the said stems.

4. In a device of the class described, a foot to coöperate with the front of a saddle, a presser head designed to bear against the cantle of the saddle, and adjusting means extending between the foot and head and including a member to which the head is pivotally connected.

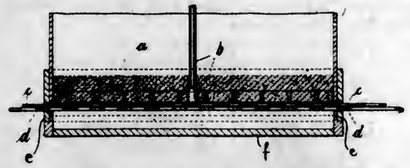
5. In a device of the class described, a foot having relatively angularly disposed heel and toe portions, a presser head to engage against the cantle of a saddle, and



means extending between the foot and head and adjustable to force the same apart.

[Claims 6 and 7 not printed in the Gazette.]

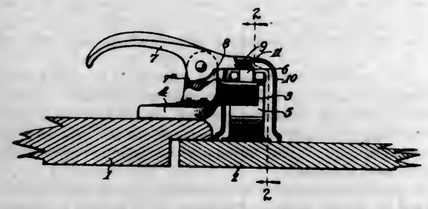
1,140,552. MOLDING APPARATUS. PAUL WERNICKE, Eilenburg, Germany. Filed July 17, 1912. Serial No. 709,853. (Cl. 25—104.)



1. In mold filling apparatus the combination of a container consisting of a wall and a horizontally slidable perforated floor, and a vertically movable agitating appliance in said container adapted to rest on said floor, the wall of said container having means below said floor for engagement with the rim of a mold box.

2. In mold filling apparatus the combination of a container consisting of a wall and a horizontally slidable perforated floor, and a vertically movable grid in said container adapted to be lowered on to said floor, the wall of said container having means below said floor for engagement with the rim of a mold box.

1,140,553. LATCH. WALTER H. WHITTIER, Grand Rapids, Mich., assignor to Grand Rapids Refrigerator Company, Grand Rapids, Mich., a Corporation of Michigan. Filed Apr. 13, 1914. Serial No. 831,529. (Cl. 70—119.)



1. A latch, comprising an arm adapted to be attached to a door and having oppositely inclined inner and outer surfaces retaining members yieldably forced toward each other and adapted to be attached to a door casing and a lever opposite the arm having oppositely inclined surfaces to engage and separate the retaining members.

2. A latch, comprising a rigid arm adapted to be attached to a door, retaining members yieldably forced toward each other, means for attaching the same to a door casing, and a pivoted lever opposite the arm having oppositely inclined inner surfaces to separate said retaining members and release the arm.

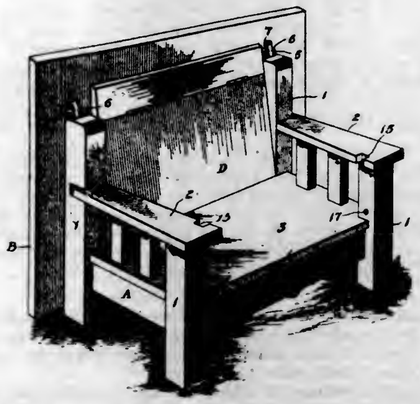
3. A latch, comprising an arm, means for rigidly attaching the same to a door, said arm having inclined inner and outer oppositely inclined surfaces, retaining members yieldably forced toward each other, means for attaching the same to a door casing, said members being separated by the inner inclined surfaces of the arm and engaging the outer surfaces of the same, and a pivoted lever extending paralel with the arm and having oppositely inclined inner surfaces; for engaging and separating said members to release the arm.

4. A latch, comprising an arm rigidly attached to a door and having oppositely inclined inner and outer surfaces, retaining members yieldably forced toward each other and attached to a door casing, said members being separated by the inner inclined surfaces of the arm and engaging the outer surfaces thereof, and a lever pivotally attached to the door and having one end serving as a handle for manually opening and closing the door and the other end having oppositely inclined surfaces to engage and separate said retaining members.

5. A door latch, comprising a base adapted to be attached to a door, an arm projecting therefrom, said arm having oppositely inclined inner and outer surfaces, retaining rollers journaled on the respective ends of a spring adapted to be attached to a casing and yieldably moving the rollers toward each other, said rollers being separated by the inner inclined surfaces of the arm and engaging the outer inclined surfaces thereof, and a lever pivoted intermediate its ends to said base, one of its ends serving as a handle for a door and the other end having a releasing portion with oppositely inclined surfaces by which the said rollers may be separated to release the arm.

[Claim 6 not printed in the Gazette.]

1,140,554. COMBINATION FURNITURE. JAMES W. WOODARD, New York, N. Y. Filed May 29, 1913. Serial No. 770,629. (Cl. 155—6.)

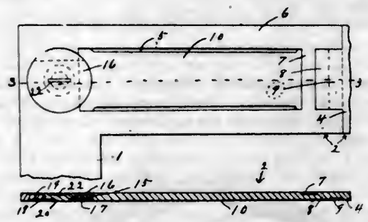


1. A piece of combination furniture comprising, a main supporting frame consisting of a seat portion, an arm at each end of the seat portion, the inner sides of said arms being nearer together at the front of the seat than at the back, and each arm being provided with a recess near its outer end, a movable member pivotally and slidably connected to said supporting frame, said movable member having secured to its inner surface a hinged member adapted to rest between said arms when at the back thereof and to fit in the recesses in said arms when at the front.

2. A piece of combination furniture comprising, a main supporting frame having a seat portion, upright posts for supporting said seat, an arm at each end of the seat portion, the inner sides of said arms being nearer together at the front of the seat than at the back, and each arm being provided with a recess near its outer end, a movable member pivotally and slidably connected to said supporting frame, means for fastening said movable member to the rear of the supporting frame, said movable member having secured to its inner surface a hinged member adapted to rest between said arms when at the back thereof and to fit in the recesses in said arms when at the front, said members being adapted to form either a settee or table.

3. A piece of combination furniture comprising, a main supporting frame consisting of a seat portion, an arm at each end of the seat portion, the inner sides of said arms being nearer together at the front of the seat than at the back, and each arm being provided with a recess near its outer end, a movable member pivotally and slidably secured to said supporting frame, means for fastening said movable member to the rear of the supporting frame, means for supporting the movable member in an upright position, said movable member having secured to its inner surface a hinged member adapted to rest between said arms when at the back thereof and to fit in the recesses in said arms when at the front.

1,140,555. SEPARABLE STEEL SQUARE. JAMES A. WRAY, Los Angeles, Cal., assignor of one-half to Walter H. Hazlett, Los Angeles, Cal. Filed May 11, 1914. Serial No. 837,782. (Cl. 33—114.)

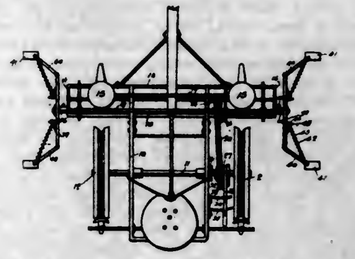


1. A separable steel square comprising a first leg; a second leg integral portion extending from the first leg; a second leg removable portion fitting against the end of the integral portion, there being an opening through the integral portion, a cross-bar flush with the upper face of the integral portion, a cross-bar flush with the lower face of the integral portion, forming a second opening between the cross-bars; there being a tongue extending through the second opening from the removable portion of the second leg over one cross-bar and under the other cross-bar into the first opening; and a button carried by the second integral portion for engaging said tongue and locking it in said first opening.

2. A separable steel square comprising a first leg; a second leg integral portion extending from the first leg; a second leg removable portion fitting against the end of the integral portion, there being an opening through the integral portion; a cross bar flush with the upper face of the integral portion; a cross bar flush with the lower face of the integral portion, forming a second opening between the cross bars; a tongue extending through the second opening from the removable portion of the second leg under one cross bar and over the other cross bar into the first opening, there being a recess in the upper face of the tongue to fit the first cross bar and a recess in the lower face of the tongue to fit the second cross bar; and a button carried by the second leg integral portion for engaging said tongue and locking it in the first opening.

3. A separable steel square comprising a first leg; a second leg integral portion extending from the first leg; a second leg removable portion fitting against the end of the integral portion, there being an opening through the integral portion; a cross bar flush with the upper face of the integral portion; a cross bar flush with the lower face of the integral portion, forming a second opening between the cross bars; a tongue extending through the second opening from the removable portion of the second leg under one cross bar and over the other cross bar into the first opening, there being segmental recesses extending from the end edge of the tongue on its upper and lower sides, the web between the recesses being wedged-shaped in elevation; a disk recessed into the upper face of the body of the square; a second disk recessed into the lower face of the body of the square; and a stud extending through the body of the square and connecting the disks, the second disk being cut away to form a straight side so as to allow the end face of the tongue to pass and so that when the button thus constructed is rotated, the tongue will be locked in the second opening.

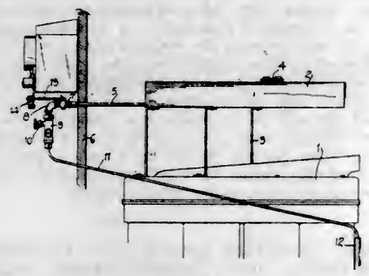
1,140,556. WIRELESS CHECK-ROW ATTACHMENT FOR ROTARY DROP CORN-PLANTERS. GEORGE S. WYATT and CLARENCE R. FARMER, Albia, Iowa. Filed Apr. 7, 1914. Serial No. 830,297. (Cl. 111—6.)



1. In a device of the class described, a corn planter having a shaft for operating dropping mechanism and having an axle, a transverse shaft, means for rotatably mounting the same on said planter, marker devices on said transverse shaft, gearing devices on said transverse shaft and said axle, the gearing devices on the axle being rotatably and slidably mounted, means for operatively connecting said gearing devices including a lever having pivotal and sliding movements, a clutch device fixed on the axle, a clutch device formed on the gearing device on the axle, a sleeve formed on the gearing device on the axle, a ratchet wheel formed on said sleeve, the lever having on one end a collar with an elongated opening formed therein and receiving said sleeve, a lug on said lever designed in one position of the sliding movement of said lever to engage the teeth on said ratchet and in another position of said movement to clear said teeth, a bracket mounted on said planter, having an elongated slot, said lever being extended through said elongated slot, means for locking said lever in one position of its movement and means for intermittently transmitting motion from said transverse shaft to said first shaft.

2. In a device of the class described, a corn planter having a shaft for operating dropping mechanism and having an axle, a transverse shaft, means for intermittently transmitting motion from said transverse shaft to said first shaft, means for rotatably mounting the transverse shaft on said planter, marker devices on said transverse shaft, a gearing device on said transverse shaft, a gearing device slidably and rotatably mounted on said axle, means for operatively connecting said gearing devices, a clutch device fixed on the axle, a coacting clutch device formed on the gearing device on the axle, a ratchet operatively connected with the gearing device on said axle, means mounted on said axle for sliding the gearing device thereon and for cocating with said ratchet device for rotating said last named gearing device, said means comprising a lever slidably mounted on said axle to permit the rotation thereof, means for fulcruming said lever on said planter, a lug on said lever designed in one position of the sliding movement of the lever to engage the teeth of said ratchet, and means for locking said lever in one position of its movement.

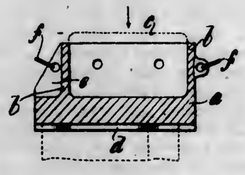
1,140,557. LUBRICATOR. ORLAF ANDERSON, Wausau, Wis. Filed Apr. 18, 1914. Serial No. 832,933. (Cl. 184—6.)



1. A device of the class described including a supply tank, and a valve member arranged at the outer end thereof, a feed device, means connecting the valve with the feed device, a tube having connection with the breather pipe of an engine and having connection with the feed device, a movable arm connected with the valve, a rod loosely connected to the outer end of said arm and means having loose connection with the rod, whereby to actuate said arm and open and close the valve to regulate the supply of oil from the tank to the breather pipe.

2. The combination with the operating arm of a magneto, of a supply tank, a discharge pipe connected therewith, a valve member arranged within the outer end of the discharge pipe, a feed device having connection with the valve, a discharge tube connected with the feed device, an arm connected with said valve, an operating rod loosely connected to the outer end of said arm, and a second arm having one end loosely connected to the outer end of the arm and its other end rigidly connected to the magneto arm, whereby to open and close said arm upon the actuation of the magneto arm, as and for the purpose set forth.

1,140,558. DRIVING-HOOD FOR PILES. RICHARD HENRY ANNISON, London, England. Filed Feb. 27, 1914. Serial No. 821,458. (Cl. 61—37.)

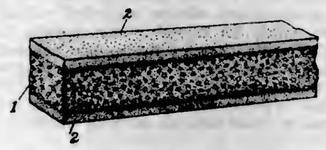


1. A cap for piles, comprising a dolly, a box formed in said cap adapted to receive said dolly, a blow transmitter formed on said cap, said box and its complemental dolly positioned non-symmetrical with respect to said driving means, substantially as and for the purpose set forth.

2. A cap for piles, comprising a dolly, a box slidably mounted in a transverse plane on said cap adapted to receive said dolly, a blow transmitter formed on the opposite side of said cap, said box and its complemental dolly adjustably positioned with respect to the cap, substantially as and for the purpose specified.

3. A cap for piles, comprising a dolly, a box formed in said cap adapted to receive said dolly, a blow transmitter formed in the opposite side of said cap, a sheet of kamptulicon, said blow transmitter forming a box, adapted to finally retain said kamptulicon, a filler positioned intermediate said cap and kamptulicon, substantially as described.

1,140,559. ARTIFICIAL STONE. GROSVENOR ATTERBURY, New York, N. Y. Filed Oct. 30, 1912. Serial No. 728,683. (Cl. 106—24.)



1. An artificial stone comprising cement and asbestos tailings and having a specific gravity substantially less than the average concrete mixture, and a texture such that nails, screws and tacks may be driven therein, substantially as described.

2. An artificial stone comprising cement and asbestos tailings, a filler and having a specific gravity substantially less than the average concrete mixtures, and a texture such that nails, screws and tacks may be driven therein, substantially as described.

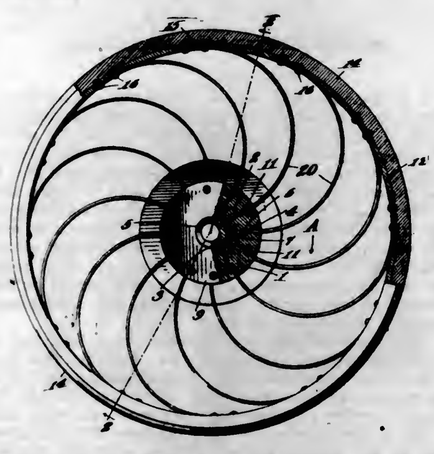
3. An artificial stone comprising cement and asbestos tailings in the proportions substantially as specified.

4. An artificial stone, comprising cement and asbestos tailings, in which the amount of asbestos tailings exceeds in volume the amount of cement, substantially as described.

5. An artificial stone, comprising cement, a filler, and asbestos tailings, in which the amount of asbestos tailings exceeds in volume the amount of cement, substantially as described.

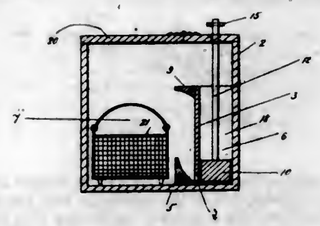
[Claims 6 to 10 not printed in the Gazette.]

1,140,560. AUTOMOBILE-WHEEL. JAMES CLINTON AWALT and THOMAS FREDERICK STEVENS, Braman, Okla. Filed Sept. 12, 1914. Serial No. 861,403. (Cl. 152—50.)



A vehicle wheel embodying a solid annular hub having a slot therein, the slot being terminated at its inner end in a circumferentially extended pocket and the walls of the slot being parallel between the periphery of the hub and the pocket, the hub having a recess opening into the slot, all portions of the recess lying upon the opposite side of the slot from the pocket; a spoke comprising a straight, parallel walled portion terminally mounted in the slot and including a finger lodged in the pocket; a hub plate applied to one end of the hub and constituting a closure for the slot and a spoke engaging means; a securing element mounted in the recess and projecting into the slot into engagement with the hub plate, the securing element bearing directly against the straight parallel walled portion of the spoke and constituting the sole means for holding the spoke against movement circumferentially of the hub in one direction and a rim assembled with the spoke the finger constituting the sole means for preventing the spoke from moving endwise.

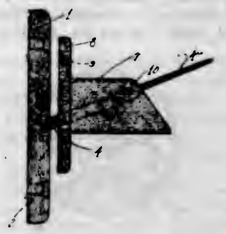
1,140,561. DISH-WASHER. CLINTON H. BAER, Shickshinny, Pa. Filed Dec. 23, 1914. Serial No. 878,734. (Cl. 141—9.)



1. In a dish washer, the combination, with a casing provided with a partition dividing it into a pump chamber and a washing chamber, said partition having an outlet opening for water at its lower part, of a deflector arranged in the washing chamber at the upper part of the partition, a plunger in the pump chamber for forcing the water through the outlet opening, and a splasher arranged in the washing chamber below and in front of the outlet opening and adapted to direct the water upwardly toward the deflector.

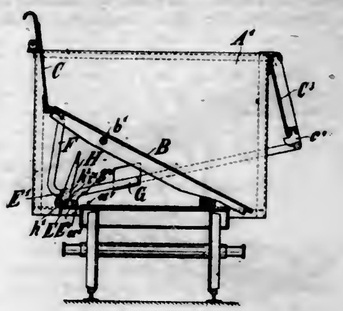
2. In a dish washer, the combination, with a casing provided with a partition dividing it into a rectangular pump chamber and a washing chamber, said pump chamber having end portions between the partition and the adjacent wall of the casing to reduce the length of the pump chamber, and said partition having an outlet opening for water at its middle and lower part, of a deflector arranged in the washing chamber at the upper part of the partition, a plunger in the pump chamber for forcing the water through the outlet opening, and a splasher arranged in the washing chamber below and in front of the outlet opening and adapted to direct the water upwardly toward the deflector.

1,140,562. GATE-LATCH. LEROY E. BAILEY, Madera, Cal. Filed June 23, 1914. Serial No. 846,769. (Cl. 70—28.)



A device of the character described comprising the combination with a pivoted catch, of a keeper plate provided with a keeper slot adapted to receive said catch, said plate being provided with a guide slot communicating from each outer edge of the plate to said keeper slot, the outer terminals of said guide slots flaring on their lower sides to a plane below the bottom plane of the keeper slot the inner terminals of said guide slots having their upper sides terminating in a point centrally above the keeper slot, the lower plane of such point being in substantially the same plane as the lower sides of said guide slots, said guide slots between the outer and inner terminals thereof having their sides extending substantially parallel with each other, the end of said catch being of such width as to engage such parallel sides in sliding contact as it moves through said guide slots, as described.

1,140,563. SELF-UNLOADING RECEPTACLE. KARL BARTH, Essen-on-the-Ruhr, Germany, assignor to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Filed June 9, 1914. Serial No. 844,064. (Cl. 105—191.)



1. In a self-unloading receptacle having an oscillating bottom; an operating gear for said bottom, a hand lever mounted to rock freely relative to said gear; means for locking said gear when the receptacle is in loading position, a coupling device connecting said hand lever and said gear upon the release of said locking means, subsequently disconnecting them when the bottom has started to oscillate and finally again connecting them upon the reversing of the hand lever after the unloading of the receptacle.

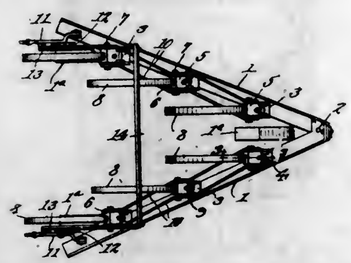
2. In a self-unloading receptacle having an oscillating bottom; an operating gear for said bottom comprising a rocking shaft and link connection between the bottom and the shaft; a hand lever mounted to revolve freely around said shaft; means actuated by the hand lever for locking said gear when the receptacle is in loading position, a coupling connecting said hand lever and said shaft upon the release of said locking means on the starting of the hand lever, said coupling subsequently disconnecting the hand lever and the shaft as soon as the bottom has started to open and finally again connecting them upon the reversing of the hand lever for closing the bottom.

3. In a self-unloading receptacle having an oscillating bottom; an operating gear for said bottom comprising a rocking shaft and link connection between the bottom and the shaft; a hand lever mounted to revolve freely around said shaft; means actuated by the hand lever for locking said gear when the receptacle is in loading position, a coupling connecting said hand lever and said shaft upon the release of said locking means on the starting of the hand lever, said coupling subsequently disconnecting the hand lever and the shaft as soon as the bottom has started to open and finally again connecting them upon the reversing of the hand lever for closing the bottom; said coupling comprising two opposing shoulders on said shaft and a two armed pawl on said hand lever, one of the pawl arms constructed to engage with the one, and the other pawl arm with the other of said shoulders.

4. In a self-unloading receptacle having an oscillating bottom; an operating gear for said bottom comprising a rocking shaft and link connection between the bottom and the shaft; a hand lever mounted to revolve freely around said shaft, means actuated by the hand lever for locking said gear when the receptacle is in loading position, a coupling connecting said hand lever and said shaft upon the release of said locking means on the starting of the hand lever, said coupling subsequently disconnecting the hand lever and the shaft as soon as the bottom has started to open and finally again connecting them upon the reversing of the hand lever for closing the bottom; said coupling comprising two opposing shoulders on said shaft

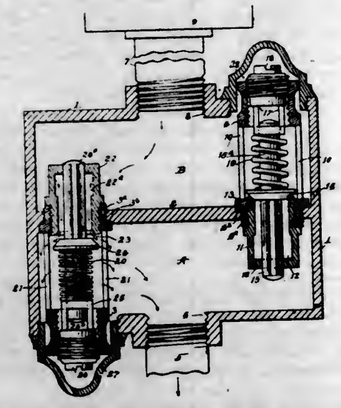
and a two armed pawl on said hand lever, one of the pawl arms constructed to engage with the one, and the other pawl arm with the other of said shoulders; one of the side walls of the receptacle being mounted pendulum wise therein, a push bar attachment for operating said side wall; said locking means comprising a lug on said push rod and a flange on the hand lever constructed to engage with each other, when the parts are in loading position.

1,140,564. HARROW. EDWARD H. BAWEL, Boonville, Ind. Filed Dec. 24, 1914. Serial No. 878,906. (Cl. 55—7.)



In an earth tilling implement, a diagonally arranged beam, a plurality of levers fulcrumed to and projecting upwardly therefrom and arranged to swing in oblique planes relative to the beam, spring teeth attached to the said levers and curved rearwardly and downwardly therefrom in rear of the beam, the upper ends of the levers having loops through which the said teeth extend, an actuating means carried by the beam and operatively connected to the said levers for swinging them forwardly and rearwardly.

1,140,565. REGULATOR FOR HOT-WATER SYSTEMS. WILLIAM L. BELKNAP and MICHAEL G. CUNNINGHAM, Bridgeport, Conn. Filed June 15, 1910. Serial No. 566,901. (Cl. 137—53.)



In a regulator of the class described, the combination with a casing having a partition extending across the middle thereof and dividing its interior into a pair of chambers of substantially the same volume, the walls of said casing at opposite sides of said partition having ports adapted for the fitting of the casing to a circulatory system, said partition also having ports to establish communication between said chambers, the walls of the casing at opposite sides of said partition each having an opening in alinement respectively with the ports of said partition, of caps for closing said openings, and a valve structure removably mounted in each port of the partition and displaceable through the opening in the casing which is opposite said port, said valve structures projecting in opposite directions from the partition, and each permitting a flow in one direction, the flows being in opposite directions and said valve structures being responsive to different pressures.

1,140,566. DENTAL PLATE-HOLDER. HENRY P. BOOS, Minneapolis, Minn. Filed Nov. 5, 1914. Serial No. 870,430. (Cl. 32—4.)



1. In combination with a removable dental plate and the teeth thereon, means for anchoring said plate at both sides of the jaw, and a member connecting said anchoring means comprising portions adapted to permit movement of the plate relative to the points of anchorage so that said plate may accommodate itself to the gum surfaces to which it is applied.

2. In combination with a removable dental plate and the teeth thereon, means for anchoring the plate to a permanent root in the jaw adjacent the point of application of the plate, a curved arm extending forwardly from said plate and adapted to occupy a position back of the front teeth extending to a point near the jaw at the other side of the mouth, a retaining piece movably secured to a permanent root or roots of the jaw at such other side, and means connecting said arm and retaining piece to permit relative movement thereof.

3. In combination with a removable dental plate and the teeth thereon, means for anchoring the plate to a permanent root in the jaw adjacent the point of application of the plate, a curved arm extending forwardly from said plate and adapted to occupy a position back of the front teeth extending to a point near the jaw at the other side of the mouth, a retaining piece movably secured to a permanent root or roots of the jaw at such other side, said retaining means having a socket on the end thereof, a head on the end of the arm of less diameter than said socket extending within the socket, and a pin fast in the end of the retaining piece extending across said socket and loosely through said head.

1,140,567. CHUCK. HERBERT BORING, Portsmouth, Ohio, assignor of one-half to Herbert H. Hart, Chicago, Ill. Filed Apr. 9, 1909. Serial No. 488,858. (Cl. 81—53.)



1. A chuck comprising a frame or support, a pair of jaws arranged to oscillate therein and adapted to grip an object and rotate it in one direction, and a second pair of jaws also arranged to oscillate therein and adapted to grip an object and rotate it in the opposite direction, a member of one pair being yieldingly connected with the corresponding member of the other pair.

2. A chuck comprising a frame or support, a pair of jaws arranged to oscillate therein and adapted to grip an object and rotate it in one direction, and a second pair of jaws also arranged to oscillate therein and adapted to grip an object and rotate it in the opposite direction, and springs connecting adjacent members of the two pairs.

3. A chuck comprising a frame or support, pairs of oppositely acting oscillating jaws for gripping an object and rotating the same in either direction, means for oscillating said jaws in unison for releasing them from their gripping engagement, and means for holding the jaws to a gripping position with a yielding pressure.

4. A chuck comprising a frame or support, pairs of oppositely acting jaws arranged to oscillate therein for gripping an object and rotating the same in either direction, said jaws being normally held to a gripping position with a yielding pressure, and means for operating the jaws to a non-gripping position.

5. A chuck comprising a frame or support, pairs of oppositely acting and oscillatory jaws for gripping an object and rotating the same in either direction, said jaws being normally spring-pressed to gripping position, and means for operating the jaws to a non-gripping position.

[Claims 6 to 17 not printed in the Gazette.]

1,140,568. PROCESS OF HARDENING IRON. SANTIAGO LUIS BROWN, New York, N. Y. Filed Apr. 16, 1915. Serial No. 21,757. (Cl. 148—37.)

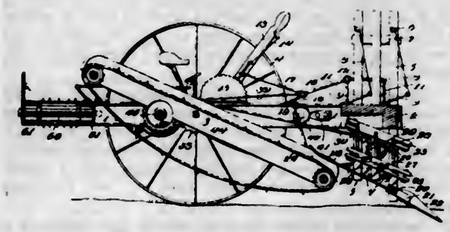
1. The process of hardening iron which consists in heating the iron and then immersing the same when heated into a vat of boiling salt (sodium chlorid).

2. The process of hardening iron which consists in heating the iron to a white heat and then immersing the same into a vat of boiling sodium chlorid (common salt).

3. The process of hardening iron which consists in heating the iron to a white heat and then immersing it into a vat of boiling salt, (sodium chlorid) retaining the iron in said vat for a short period of time.

4. The process of treating metals which consists in heating the metal and then immersing it when heated into a vat of boiling sodium chlorid.

1,140,569. PEANUT-HARVESTER. SINCLAIR H. BRUMMETT, Scranton, Tex. Filed May 12, 1914. Serial No. 838,127. (Cl. 55—53.)



1. The combination of a main frame, standards mounted in the main frame and extending above and below the same, a plow carried by the lower ends of the standards, feeders carried by the standards below the main frame, and means on the main frame connected with the upper ends of the standards to move the same vertically.

2. In a peanut harvesting machine, the combination of a main frame, a plow supporting frame mounted upon and depending from the front end of the main frame, a plow carried by the lower end of the plow supporting frame and projecting forwardly therefrom, feeders counted upon the said frame above and in rear of the plow, and means for operating the said feeders from the main frame.

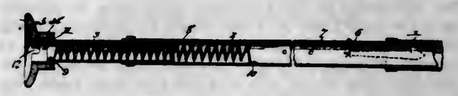
3. In a peanut harvesting machine, the combination of a main frame, a driving shaft thereon, a vertically-slidable plow carrying frame at the front end of the main frame, a plow carried by and projecting forwardly from the lower end of the plow-carrying frame, a feeder mounted in the said frame above and in rear of the plow means for moving the plow-carrying frame vertically, and operative connections between the said feeder and the driving shaft.

4. The combination of a main frame, a vertical frame mounted in the front end of the main frame, a plurality of transverse crank shafts mounted in the vertical frame below the main frame, a series of longitudinally extending feeders mounted on the cranks of the said shafts, means for rotating the said shafts, a plow secured to and projecting forwardly from the lower end of the vertical frame at the front side of the same, and fingers projecting rearwardly from the plow in proximity to the path followed by the feeders in the lower portions of their movement.

5. The combination of a main frame, a series of standards mounted in the front end of the main frame, transverse and longitudinal connections between the said standards, the forward standards being extended below the rear standards, a plurality of crank shafts mounted in the standards below the main frame and disposed transversely with respect to the main frame, a series of feeders mounted upon the cranks of said shafts, means for rotating the said shafts, a plow carried by the lower ends of the forward standards and projecting forwardly beyond the same, and fingers projecting rearwardly from the plow beyond the rear standards.

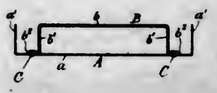
[Claims 6 and 7 not printed in the Gazette.]

1,140,570. DOUBLE-SPRING ADJUSTABLE CURTAIN-ROD. GEORGIANA A. BUCKLEY, Montrose, Colo. Filed July 3, 1914. Serial No. 848,988. (Cl. 156—19.)



A curtain rod comprising a plurality of telescoping tubular sections, an expansible member positioned within the outer sections and secured thereto whereby the outer sections are normally forced outwardly, engaging means carried by the outer sections, said outer sections being provided with a sleeve provided with open slots, and a compression cap capable of removable engagement with the sleeve.

1,140,571. REINFORCED-CONCRETE FLOOR AND CEILING CONSTRUCTION. FERDINAND BURCHARTZ, New York, N. Y., assignor to Burcharts Fireproofing Company, Inc., New York, N. Y., a Corporation of New York. Filed Jan. 10, 1912. Serial No. 670,352. (Cl. 72—66.)



1. The combination of two channeled units, one unit being located within the other and inverted with respect thereto, said inner unit being of less width than the outer and forming therewith an open ended complete block provided with open channels extending lengthwise thereof at opposite sides.

2. The combination of two channeled units, one unit being located within the other and inverted with respect thereto, said inner unit being of less width than the outer and forming therewith an open ended complete block provided with open channels extending lengthwise thereof at opposite sides, and means for securing said units together.

3. The combination of two channeled units, one unit being located within the other and inverted with respect thereto, said inner unit being of less width than the outer and forming therewith an open ended complete block provided with open channels extending lengthwise thereof at opposite sides, flanges extending at opposite sides of said inner unit and arranged to rest upon a portion of the outer unit and means for securing said flanges to said outer unit.

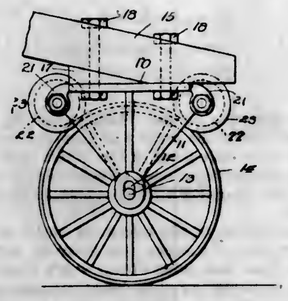
1,140,572. HAND-DRILL. JOSEPH BUSCAVAGE, Tamaqua, Pa. Filed Nov. 18, 1914. Serial No. 872,733. (Cl. 255—61.)



1. A drill adapted to be operated by hand and comprising a bar having a cutting edge on one end provided with three integral triangular cutting teeth arranged in line, the points of the two outer teeth being in substantially the same plane on a line drawn perpendicular to the axis of the drill, and the central tooth being located at one side of the axial line of the drill and projecting beyond the plane of the points of the two outer teeth, substantially as described.

2. A drill for the purpose specified having its working end tapered and broadened and the edge thereof divided into three irregularly spaced triangular teeth, the points of the two outermost teeth being in substantially the same plane on a line drawn perpendicular to the axis of the drill, and the point of the intermediate tooth projecting beyond the plane of the said line, the opposed sides of the central tooth and the farthest removed outer tooth being sharpened, and the inner side of the other outer tooth being also sharpened, substantially as described.

1,140,573. WHEEL-MOUNT. PAUL F. CHANUTE, New Orleans, La., assignor of one-half to Gustave A. Liambias, New Orleans, La. Filed Mar. 21, 1914. Serial No. 826,378. (Cl. 21—39.)

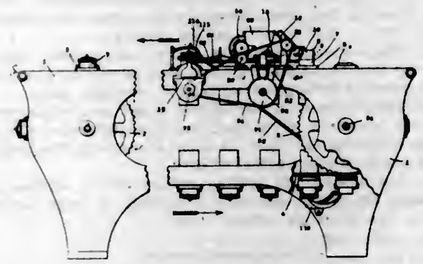


1. In a device of the class described, a supporting body, a supporting member depending from said body and having bearings in its upper portion spaced apart and in alinement horizontally and with an intermediate vertically extending bearing in its lower part, the sides of said vertical bearing being disposed in parallel relation, bearing rollers carried by said spaced bearings, an axle engaged by its journal in said vertical bearing and held from lateral movement thereby, and a bearing wheel mounted upon said axle and engaged by said rollers.

2. A support including bearings spaced apart and in horizontal alinement and a depending portion having a vertically elongated bearing adapted to receive an axle, and bearing rollers mounted for rotation in said spaced bearings and having spherical faces and spaced flanges, said spherical faces adapted to engage the periphery of a wheel mounted upon said axle and said flanges adapted to bear over the sides of the rim of the wheel.

3. In a device of the character described, a supported member, a bracket attached to said supported member, said bracket being triangular, the apex of the bracket extending downward, bearings formed upon said bracket, adjacent the base of said triangle, rollers mounted in said bearings, the lower end of the bracket being formed with a vertical slot, a wheel, and an axle, the axle passing through the slot and supporting the wheel in contact with said rollers, the axle being vertically movable.

1,140,574. PACKAGE-SEALING MACHINE. CHARLES F. CHAPMAN, Newark, N. J. Filed Nov. 15, 1912. Serial No. 731,480. (Cl. 93—6.)



1. In a carton sealing machine, continuously moving means for conveying cartons, a sweep pivoted to swing longitudinally of the path thereof, and means for swinging said sweep to and from rearwardly retracted position and to and from forward vertical position with a motion on the forward stroke faster than that of the cartons and a motion on the rearward stroke slower than that of the cartons.

2. In a carton sealing machine, continuously moving means for conveying a carton, a sweep pivoted to swing longitudinally of the path thereof, and means for swinging said sweep to and from rearwardly retracted position and to and from forward vertical position with a faster motion on the forward stroke than on the rearward stroke.

3. In a carton sealing machine, means for conveying a carton, a support projecting beyond the path of the carton, a sweep pivoted on said support to swing longitudinally of the path of said carton, a rotary member journaled in said support, and means connecting said rotary member to said sweep to oscillate the same.

4. In a carton sealing machine, means for conveying a carton, a support projecting beyond the path of the carton, a slotted sweep pivoted on said support to swing longitudinally of the path of said carton, a crank mounted in said support intermediate the ends of the slot, and means for turning said crank.

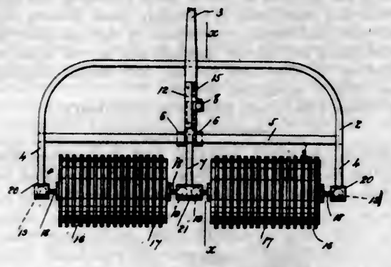
5. In a carton sealing machine, means for conveying a carton, a plow adjacent the path of the carton comprising a skeleton frame and a sheet metal body bent over and secured to said frame, and means to adjust the plow to the path of the carton.

[Claims 6 to 39 not printed in the Gazette.]

1,140,575. LAND-ROLLER. EARL COCKRUM, Sheller, Ill. Filed Aug. 10, 1914. Serial No. 856,022. (Cl. 55—21.)

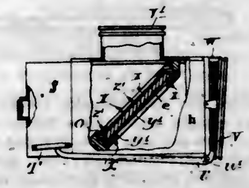
The combination, with an arch-shaped main frame provided with rearwardly and downwardly extending side

means for pivoting the front end of the center arm to the arms having bearing blocks at their ends, and a crossbar secured between the middle parts of the side arms; of guides secured to the middle part of the crossbar, a center arm movable longitudinally and vertically between the guides and having a double bearing block at its rear end,



frame and adjusting it longitudinally, and two roller sections provided with projections on their peripheries and having spherical bearings at their ends which are respectively journaled in the said bearings blocks on the center and side arms.

1,140,576. COLOR PHOTOGRAPHY. ALEXANDER EUGEN CONRADY and ARON HAMBURGER, London, England. Filed Apr. 4, 1913. Serial No. 758,828. (Cl. 95—2.)



1. A method of obtaining negatives for color photographs consisting in intercepting the rays proceeding from the object by an inclined colored transparent reflector, placing light sensitive media to receive the transmitted and reflected rays respectively and distorting aforesaid reflector by pressure applied thereto so as to produce identity in the reflected and transmitted images, the plane of the light sensitive medium exposed to the transmitted ray being given an inclination to an imaginary axis joining the optical center of the medium, the filter and the object and of the same sense as the inclination of the filter, as set forth.

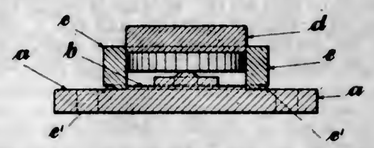
2. A reflector filter device for color photography, comprising a frame, a reflector filter within said frame, stops and springs supporting said reflector filter rigidly within the frame, and a number of pressure applying devices adapted for independent adjustment mounted in said frame and capable of bearing upon aforesaid reflector filter about its edges, as set forth.

3. A reflector filter camera for obtaining negatives for color photography having two separate light sensitive media, an inclined reflector filter adapted to intercept the rays entering the camera and to distribute them by reflection and transmission respectively between the two sensitive media, a pivotally mounted plate holding device, holding the aforesaid light sensitive medium receiving the transmitted rays from the reflector filter, said device being situated at the extremity of the longitudinal axis of the camera, a focusing element and a member transmitting the motion of the focusing element to the pivotal plate holding device, substantially as described.

4. A reflector filter camera for obtaining negatives for color photography having a focusing element, two separate plate holding elements one of which is pivotally mounted, an inclined reflector filter adapted to intercept the rays entering the camera and to distribute them upon the two plate holding elements by reflection and transmission respectively, said pivotally mounted plate holding element being adapted to receive the transmitted rays, and a lever partaking of the motion of the focusing element and adapted to tilt the pivotally mounted elements toward or from the inclined reflector filter according as to the focusing element effects increase or decrease of focus, as set forth.

5. A camera for color photography, comprising a main camera box having two openings in the walls thereof, an inclined reflector adapted to distribute to these two openings by reflection and transmission respectively rays falling upon it, and truncated pyramidal plate-holding boxes applied to aforesaid openings, the plate-holding plane of that plate-holding box receiving the transmitted rays from the reflector filter having somewhat less than perpendicular inclination toward the axis of the rays passing into the reflector filter, said inclination being in the same sense as that of the reflector filter to said axis, as set forth.

1,140,577. HEEL-PAD MOLD. SAMUEL COOKE and WILLIAM CHARLES DAVIS, Gorton, Manchester, England. Filed Mar. 24, 1911. Serial No. 616,721. (Cl. 18—42.)



A mold for use in molding heel pads and the like from waste vulcanized india-rubber comprising, in combination, a steel base part having holes for rods to pass through whereby a series of molds may be held one above another, a straight, parallel-sided cylinder resting on said base part and having an annular recess in its periphery at its lower edge, a circular boss integral with the base part projecting into and closely fitting the lower end of the said cylinder, a further boss integral with and central to the said circular boss and having a raised central conical part, a solid steel piston in the said cylinder of uniform diameter, against the top of which the base part of the mold above may bear when a series of molds are placed one above another and which stands above the cylinder when the mold is in use, and is of a length which allows of a full pressing operation to be performed before the base part of the mold above can touch the top of the cylinder, substantially as herein set forth.

1,140,578. NOISELESS GUN. JOSEPH C. COULOMBE, Northfield, Vt. Filed Feb. 23, 1909. Serial No. 479,671. (Cl. 89—31.)



1. In a silencer for compressed gases freed from a conducting tube, a casing into which the gases are discharged of relatively large cross sectional area as compared with the tube, and partitions arranged within the casing and dividing it into a plurality of chambers of successively smaller size from the first into which the tube discharges, and perforated in line with the axis of discharge from the tube, the said chambers being closed to the open and to each other except through the said perforations in the partitions.

2. In a silencer for compressed gases freed from a conducting pipe or tube, a cylindrical casing into which the gases are discharged of relatively large cross area as compared with the said conducting pipe or tube and partitions within the casing having frusto-conical heads and cylindrical extensions, the said cylindrical extensions being concentric, and the partitions being closed except at the ends of the frusto-conical sections, whereby there are formed

within the casing successive chambers close except at the ends of the frusto-conical sections where one chamber communicates with the next.

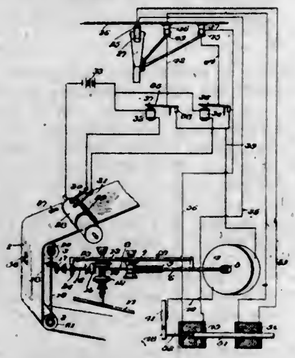
3. The combination of a cylindrical casing, frustums having tubes attached to their bases, and the innermost of said tubes having frustums attached therein at intervals.

4. The combination of a cylindrical casing, a perforated exhaust pipe running through said casing, and having fitted therein, between said casing and said pipe, frustums having tubes attached to their bases and the innermost tube having frustums fitted therein at intervals.

5. The combination of a cylindrical casing, a partially and slantingly perforated exhaust pipe running through said casing, being imperforate for a distance at both extremities, and having fitted between said casing and said pipe or barrel, consecutively, a frustum, one or more frustums having attached tubes, and frustums attached to the innermost of said tubes.

[Claim 6 not printed in the Gazette.]

1,140,579. SWITCH-OPERATING MECHANISM FOR ELECTRIC RAILWAYS. RICHARD M. CRAIG, San Antonio, Tex. Original application filed Feb. 1, 1910, Serial No. 541,307. Divided and this application filed Jan. 20, 1912. Serial No. 672,379. (Cl. 104—155.)



1. The combination with a feed wire, a traction vehicle having a trolley engaging with said feed wire and a track on which said vehicle moves, of a switch located in the track, a movable member carried by the car, means for moving the member in correspondence with the progress of the car, and means controlled by the movable member acting to automatically shift said switch when the vehicle has arrived in proximity to the switch.

2. A switch operating mechanism comprising electrically actuated switch point operating mechanism disposed in a normally open circuit with a source of power, and means carried on and actuated by a car in correspondence with its movement for automatically closing said circuit at predetermined intervals corresponding to certain positions of the car on its route.

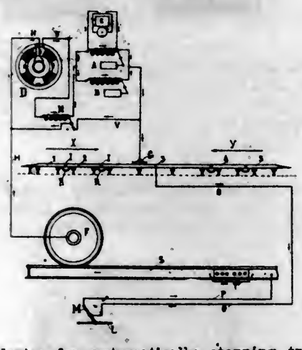
3. A switch operating mechanism comprising an electrically actuated switch point operating device, a feed wire connected in open circuit with said actuating device, means on a car for closing said circuit to energize the point actuating mechanism, and shiftable means on the car driven in correspondence with the rate of travel of the car for controlling said circuit closing means at predetermined points along the route of the car.

4. A switch operating mechanism comprising electrically actuated mechanism for shifting a switch point, a feed wire connected in a normally open circuit with said actuating mechanism, means on a car for closing said circuit, a member on the car driven in correspondence with the progress of the car along its route, a normally closed switch interposed in said circuit, and means actuated by said member for opening said switch.

5. The combination with a line conductor, a traction vehicle having a trolley engaging with said conductor, a track on which the vehicle moves, of a switch located in said track, a movable member on the car, means for moving the member in correspondence with the progress of the car, opposed electrically operated switch actuating devices for shifting a switch point in one or the other direction and connected in normally open circuits with the feed wire, and means controlled by the movable member for breaking the circuit through one or the other of said actuating devices, and closing the circuit through the other of said actuating devices.

[Claims 6 to 11 not printed in the Gazette.]

1,140,580. SAFETY DEVICE FOR RAILROAD-TRAINS. OWEN M. DE MUNNICK, New York, N. Y. Filed Jan. 11, 1913. Serial No. 741,394. (Cl. 246—58.)



1. In a device for automatically stopping trains the combination of a main track and a regulating apparatus consisting of a third rail of a predetermined limited length extending over a short distance near signal locations, composed of sections insulated from each other and connected in series by means of resistances, a connecting circuit capable of conducting current between said regulating apparatus and the main track, and a switch for closing said connecting circuit.

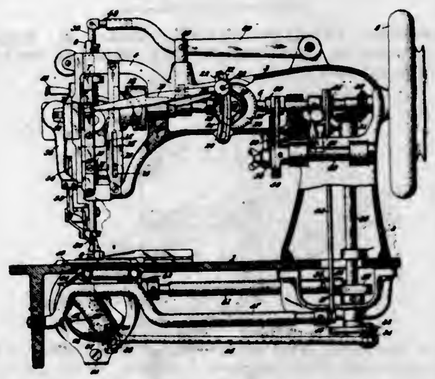
2. In a device for automatically stopping trains the combination with a block signal of a main track and a regulating apparatus consisting of a third rail of predetermined limited length extending over a short distance near the signal location, composed of sections insulated from each other and connected in series by means of resistances, a connecting circuit capable of conducting current between one of the sections of said regulating apparatus and the main track and a switch interposed in said connecting circuit adapted to complete the metallic connection therein when the block signal is set at danger.

3. In a device for automatically stopping trains the combination of a main track and a regulating apparatus consisting of a third rail of predetermined limited length extending over a short distance near signal locations, composed of sections insulated from each other and connected in series by means of resistances, a connecting circuit capable of conducting current between said regulating apparatus and the main track, a dynamo operated by the movement of the train, electric connections between said dynamo and the train wheel, operating devices to check the movement of the train terminating in a contact device for the regulating apparatus and an electric connection between the dynamo and said operating devices whereby the current is adapted to operate the operating device.

4. In a device for automatically stopping trains the combination of a main track and a third rail composed of sections insulated from each other and connected in series by means of resistances, a conductor capable of conducting current between said third rail and the main track, a dynamo operated by the movement of the train, electric connections between said dynamo and the train wheel, operating devices to check the movement of the train terminating in a contact device for the third rail, an electric connection between the dynamo and said operating devices and an additional circuit line adapted to complete the circuit through said operating devices and means controlled by said electrical connections for automatically switching in said additional circuit line when the contact device reaches a predetermined section of the third rail.

5. In a device for automatically stopping trains the combination with a block signal of a main track, a third rail composed of sections insulated from each other, resistance for connecting said insulated sections in series, an electrical connection between the main track and said third rail, there being a plurality of sections between the end of the third rail and the point at which said circuit is connected thereto, a switch in said connection controlled by said block signal and adapted to be closed when the signal is set at danger, electrical connections from the source of current to the train wheel and to a shoe adapted to contact with said third rail, brake controlling means in the said connections whereby when said block signal switch is closed and the shoe is in contact with the third rail, current will flow through the circuit and operate the brake controlling means, the strength of the current varying with the distance the shoe has advanced along the third rail and an auxiliary connection between said wheel and shoe and means controlled by current in the circuit whereby the auxiliary connection is adapted to be closed when said shoe has advanced along the third rail to the section of least resistance, whereby said brake controlling means will continue to be operated independently of the third rail and the block signal circuit.

1,140,581. SEWING-MACHINE. ALBERT H. DE VOE, Westfield, N. J., assignor to The Singer Manufacturing Company, a Corporation of New Jersey. Filed Oct. 25, 1912. Serial No. 727,638. (Cl. 112—26.)



1. In a sewing machine, the combination with a needle-bar provided with a thread-carrying needle, a needle-thread take-up, a loop-taker, means for actuating said needle-bar, take-up and loop-taker, and a thread-case for carrying a mass of under thread, of a loop-engaging finger controlled to place its free end within the shell comprising said thread-case to draw thread from the supply, and means for withdrawing said free end to release said drawn thread to the action of the take-up.

2. In a sewing machine, the combination with a needle-bar provided with a thread-carrying needle, a needle-thread take-up, a loop-taker, means for actuating said needle-bar, take-up and loop-taker, and a thread-case for carrying a mass of under thread, of a loop-engaging finger having oscillatory movements in one direction to engage said thread-case to draw thread from the supply, and in the opposite direction to release said drawn thread to the action of the take-up.

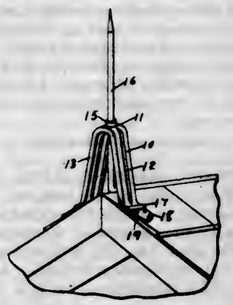
3. In a sewing machine, the combination with a needle-bar provided with a thread-carrying needle, a needle-thread take-up, a loop-taker, means for actuating said needle-bar, take-up and loop-taker, and a thread-case for carrying a mass of under thread, of a loop-engaging finger having oscillatory movements in one direction to engage said thread-case to draw thread from the supply, and in the opposite direction to release said drawn thread to the action of the take-up, the oscillatory movements of said finger being in a plane substantially at right angles to the plane in which the loop-taker is actuated to form stitches.

4. In a sewing machine, the combination with a needle-bar provided with a thread-carrying needle, a needle-thread take-up, a loop-taker, means for actuating said needle-bar, take-up and loop-taker, and a thread-case for carrying a mass of under thread, of a loop-engaging finger having oscillatory movements, and means for controlling said movements including tripping members mounted on a stationary part of the sewing machine, the oscillatory movements of said finger in one direction causing it to engage said thread-case to draw thread from the supply, and in the opposite direction to release said drawn thread to the action of the take-up.

5. In a sewing machine, the combination with a needle-bar provided with a thread-carrying needle, and a needle-thread take-up, of a loop-taker provided with a thread-case having an elongated opening and for carrying a mass of under-thread, and a loop-taker carrier, the latter provided with a loop-engaging finger controlled to be moved into effective relationship with the elongated opening formed in said thread-case to draw thread from the supply, and in the opposite direction to release the thread drawn from said supply to the action of the take-up.

[Claim 6 not printed in the Gazette.]

1,140,582. BRACKET FOR LIGHTNING-ROD POINTS. THOMAS W. DODD, Des Moines, Iowa, assignor to Dodd & Struthers, Des Moines, Iowa, a Corporation. Filed Mar. 17, 1913. Serial No. 755,025. (Cl. 173—31.)

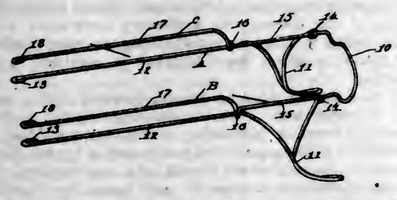


A lightning rod support comprising a single strip of comparatively thin metal bent substantially the shape of an inverted U, having downwardly and outwardly extending arms and a curved central portion at the upper ends of said arms, inwardly extending flanges at the edges of said arms and connecting portions, each of the said arms being formed with a central longitudinal outwardly extending bead and with a flat portion at its lower end, extending at an acute angle from the main part of said arm, the said flat portion, and of such material as to be readily bent to different angles, being provided with openings to receive fastening devices, for securing said flat portions to a roof, said central portion being formed with a central opening and an upwardly extending cylindrical portion, adapted to receive a rod and form a bearing and support therefor.

1,140,583. PILLOW-HOLDER. GERTRUDE A. ELLIOTT, Detroit, Mich. Filed Feb. 7, 1914. Serial No. 817,372. (Cl. 5—15.)

1. In a pillow holder a body portion including a neck-engaging member, chest-engaging means for preventing transverse movement of the holder when in use, pillow-

engaging arms, and auxiliary pillow-engaging arms carried by said body portion and coöperating with the pillow-engaging arms of said body portion for releasably holding a pillow.



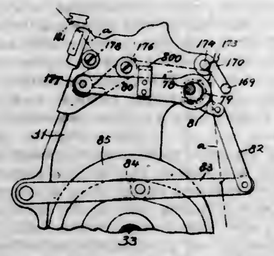
2. A pillow holder comprising a body portion including a neck-engaging member, body engaging clamping means, resilient pillow-engaging means, and auxiliary pillow-engaging means carried by said body portion and coöperating with the resilient pillow-engaging means of said body portion whereby a pillow may be held between the resilient pillow-engaging means by the resiliency of said means.

3. A pillow holder comprising a body portion formed from a strip of resilient wire bent intermediate its length to form a neck yoke having arms extending therefrom, said arms being bent upon themselves adjacent the neck yoke to form body-engaging clamps and being then bent to form pillow-engaging arms, and auxiliary pillow-engaging arms formed of strips of resilient wire having their inner end portions connected with the arms of said body portion at points adjacent the inner end portions of said body clamps and being then bent to extend in spaced relation to the pillow-engaging arms of said body portion whereby a pillow may be held between the auxiliary clamping arms and the clamping arms of said body portion.

4. In a pillow holder a plurality of sets of resilient pillow-engaging arms extending in spaced relation whereby a pillow may be releasably held by being placed between the sets of resilient pillow-engaging arms.

5. In a pillow holder a plurality of sets of pillow-engaging arms extending in spaced relation and having their outer end portions bent to prevent the tearing of a pillow or pillow case.

1,140,584. SEWING-MACHINE TAKE-UP. EDWARD ERICKSON, West Lynn, Mass., assignor, by direct and mesne assignments, to Victor Shoe Machinery Company, Boston, Mass., a Corporation of Massachusetts. Original application filed Aug. 18, 1911, Serial No. 644,769. Divided and this application filed Dec. 4, 1911. Serial No. 663,941. (Cl. 112—20.)



1. In a sewing machine, the combination with the stitch-forming mechanism thereof, of a work support, and a presser for holding the work on said support, said presser comprising a pivoted arm having a toothed segment connected to said arm, an eccentric, a pinion connected with said eccentric and meshing with said toothed segment, a movable take-up lever mounted on said eccentric, and means coacting with said lever whereby the amount of thread taken up in the work during the setting of the stitch is varied according to the thickness of the work between the presser and work support.

2. A sewing machine having a presser foot, an eccentric, connections whereby said eccentric is rotatively adjusted according to the position of the presser foot, stitch-forming mechanism including a take-up lever mounted on said eccentric, an actuating lever, a link connecting the two levers, and means coacting with the takeup lever whereby the amount of thread taken up in the work during the setting of the stitch is varied according to the thickness of the work between the presser and work support.

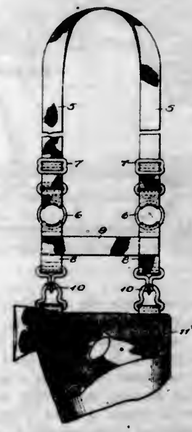
3. In a sewing machine, the combination with the stitch-forming mechanism thereof, of a work support, a presser for holding the work on said support, an eccentric, connections whereby said eccentric is rotatably adjusted according to the position of the presser, a movable take-up lever mounted on said eccentric, and means coacting with said lever whereby the amount of thread taken up in the work during the setting of the stitch is varied according to the thickness of the work between the presser and the work support.

4. In a sewing machine, a takeup mechanism comprising a pivoted lever having a roller at the free end thereof; two stationary rolls coacting with said roller; a thread lock, and an arm secured to said lever and adapted to be moved therewith into the path of the thread between one of said stationary rolls and said thread lock.

5. In a sewing machine, a takeup mechanism comprising a pivoted lever having a roller at the free end thereof; two stationary rolls coacting with said roller; an eccentrically mounted fulcrum for said lever; means for shifting said fulcrum to vary the position of said lever; a thread lock, and an arm secured to said lever and adapted to be moved therewith into the path of the thread between one of said stationary rolls and said thread lock.

[Claims 6 to 10 not printed in the Gazette.]

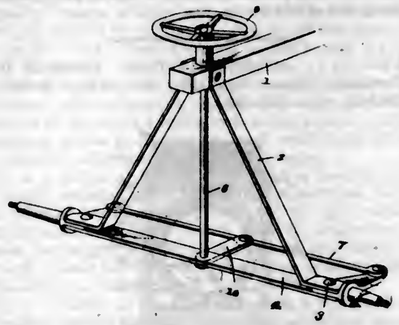
1,140,585. ARTICLE-CARRIER. GEORGE M. EUSON, Chicago, Ill. Filed May 18, 1914. Serial No. 839,313. (Cl. 224—5.)



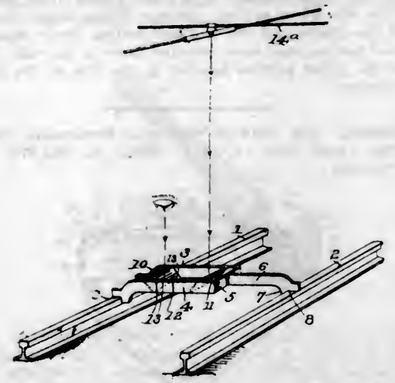
An article carrier comprising a looped strap spaced at its ends and having rings thereat, tabs carried by said rings, fasteners on the tabs for the article to be carried, and a spreader band fastened to the tabs intermediate the ends thereof for connecting the same in spaced relation.

1,140,586. STEERING-GEAR FOR TOY VEHICLES. MARTIN V. B. EVESSON, North Bergen, N. J. Filed Apr. 17, 1914. Serial No. 832,609. (Cl. 21—197.)

In combination with a vehicle frame, braces depending therefrom, an axle located below the lower ends of the braces, rivets connecting the axle with the braces, spindles pivoted upon the rivets and having inner end portions located between the axle and the braces, said spindles having rearwardly disposed arms, a single rod pivotally connected at its ends with the said arms, a shaft journaled in the frame, a wheel carried at the upper portion of the shaft, an arm carried at the lower portion of the shaft and located below the axle the last mentioned arm being pivotally connected with the said rod at a point between the ends thereof.



1,140,587. DEVICE FOR CENTERING TROLLEY-WIRES. REINHARD T. FINGADO, Mexico, Mexico. Filed Mar. 30, 1914. Serial No. 828,329. (Cl. 88—2.2.)



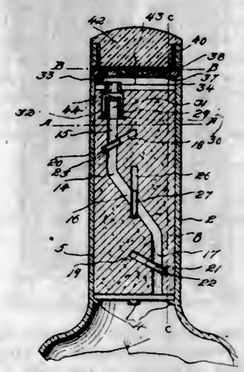
1. A centering device for trolley wires comprising a supporting frame, reflecting means carried by the frame and provided with a fiducial line, and a scale co-acting with the line.

2. A centering device for trolley wires comprising a supporting frame, confronting mirrors carried by the frame and arranged at angles to each other, each of the mirrors bearing a central longitudinal indicating line and a graduated scale co-acting with the line, and means for holding the frame against lateral movement on the rails of a track.

3. A centering device for trolley wires comprising the combination with a supporting frame, of confronting mirrors arranged at angles to each other, each of said mirrors bearing a central longitudinal indicating line, and a graduated scale co-acting with said indicating line.

1,140,588. NON-REFILLABLE BOTTLE. THOMAS F. FREWEN, Wilkinsburg, Pa. Filed Feb. 24, 1913. Serial No. 750,267. (Cl. 215—68.)

1. A bottle and neck therefor formed semicylindrical and each having a flat surface, an opening in the flat surface of said neck, a guard member adapted to be inserted into said neck through said opening, said guard being sealed into said neck, a valve member seated in said neck, a channel passing through said member and valves adapted to close said channel, said guard having openings therein inclined away from the mouth of said channel, said channel having an extension above the surface of said member, said channel having an enlargement therein, a projecting member seated in said enlargement, said projecting member being formed thimble shaped, the cylindrical walls thereof being perforated, said perforations being inclined, the diameter of said enlargement being greater than the diameter of said walls, the upper surfaces of said projecting member being imperforate, pockets in which said valves are seated.



2. A bottle and neck therefor formed semicylindrical and each having a flat surface, an opening in the flat surface of said neck, a guard member adapted to be inserted into said neck through said opening, said guard being sealed into said neck, a valve member seated in said neck, a channel passing through said member and valves adapted to close said channel, said guard having openings therein inclined away from the mouth of said channel, said channel having an extension above the surface of said member, said channel having an enlargement therein, a projecting member seated in said enlargement, said projecting member being formed thimble shaped, the cylindrical walls thereof being perforated, said perforations being inclined, the diameter of said enlargement being greater than the diameter of said walls, the upper surfaces of said projecting member being imperforate, pockets in which said valves are seated, certain of said pockets being inclined, one of said pockets being vertically disposed, all of said pockets being elliptical having their enlarged ends crossing said channel.

3. A bottle and neck therefor, a plug having valves thereon, said neck having an opening in its side wall above said plug and a guard adapted to be inserted in said opening to hold said plug from removal.

4. A bottle and neck therefor, a plug having valves therein, said neck having an opening in its side walls above said plug and a guard adapted to be inserted in said opening to hold said plug from removal, said neck having an internal groove adapted to receive the edges of said guard.

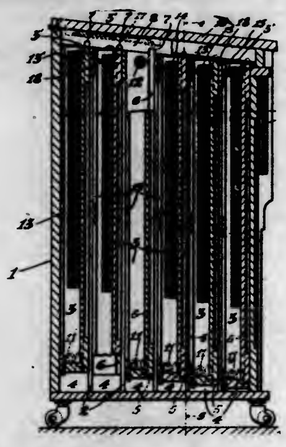
5. A bottle and neck therefor, a plug having valves therein, said neck having an opening in its side walls above said plug and a guard adapted to be inserted in said opening to hold said plug from removal, said neck having an internal groove adapted to receive the edges of said guard, said guard being perforated.

[Claim 6 not printed in the Gazette.]

1,140,589. FILING-CABINET. VICTOR G. GILBREATH and SAMUEL T. WILLIAMSON, Seattle, Wash. Filed Jan. 3, 1914. Serial No. 810,181. (Cl. 45—2.)

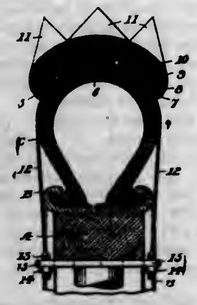
1. A filing cabinet comprising a cabinet body having grooves therein, a plurality of filing drawers mounted for

sliding movement in the body, a plate provided with a series of bearings spaced lengthwise thereof and disposed across one end of the grooves whereby the bearings will constitute continuations of the latter, and outstanding trunnions on the drawers slidable in the grooves and adapted to engage in the bearings of the plate to permit of swinging the drawer to an angular position subsequent to removing the latter from the grooves.



2. A filing cabinet comprising a cabinet body having vertical grooves therein, a plurality of filing drawers mounted for sliding movement in the body, a plate provided with a series of notches spaced along one edge thereof and disposed across the upper end of the grooves, whereby the notches will constitute continuations of the latter, and projecting trunnions on the lower or inner end of the drawers slidable in the grooves, and adapted to engage in the notches in the plate whereby the drawers may be swung to an angular position subsequent to removing the latter from the grooves.

1,140,590. ANTISKID ATTACHMENT FOR TIRES. ANTONI GORECKI, Buffalo, N. Y. Filed Feb. 10, 1915. Serial No. 7,286. (Cl. 152—16.)

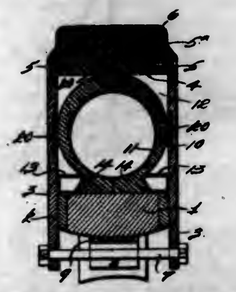


1. An anti-skidding attachment for tires comprising a shield formed of a thin metal plate having its inner edges overlapping, fastening means for the overlapping ends of said shields, layers of cushioning material between the walls of the shield, and fastening means carried by the shield for engaging the wheel felly.

2. In a device of the class described, a shield formed of metal bent to have its opposite edges overlapped and providing spaced inner and outer walls, alternate layers of rubber and leather disposed between the walls of said shield, a layer of canvas disposed to contact the inner face of the outer wall, a band disposed on the tire and engaged by the aforesaid fastening means, and retaining means for the inner end of the band.

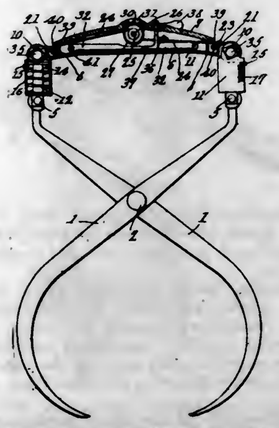
3. In a device of the class described, a shield section formed of metal and bent to provide spaced inner and outer walls, outwardly directed calks carried by the outer wall, cushioning means within said shield, and means for securing the shield to the tire.

1,140,591. AUTOMOBILE-TIRE. TRYGVE A. HALL, Cleveland, Ohio. Filed July 10, 1912. Serial No. 708,582. (Cl. 152—35.)



In a vehicle wheel, in combination, a circular tread portion, a concentric wheel portion within the tread portion, a pneumatic tire between the two, a pair of circular plates secured at opposite sides to said tread portion and inclosing the tire and wheel portion and sliding on the latter within the limits of the resiliency of the tire, means securing the inner edges of the side plates freely movable within the wheel portion, clencher filling means between the side plates and the tire and resting freely upon the wheel portion, and inset wearing faces in the side plates and the tread portion tangent to the tire at the points of contact.

1,140,592. ICE-TONGS. DOUGLAS HENDERSON, Dallas, Tex. Filed July 21, 1914. Serial No. 852,278. (Cl. 73—46.)



1. In a device of the class described, a handle; a pair of tongs comprising coöperating members; means for connecting one of said members to one end of the handle; a spring forming an operative connection between the other of said members and the handle; a weight indicating device responsive to the spring; a link pivoted to the other of said members, the link and the handle having openings; and a shiftable connecting element mounted on the handle and adapted to move into and out of the openings, thereby to connect and disconnect the link with the handle.

2. In a device of the class described, a pair of tongs; a handle; springs forming operative connections between the ends of the handle and tongs; weight indicating devices responsive to the action of the springs; links pivoted to the tongs, the links and the handle being provided with openings; a yoke mounted in the handle and including fingers adapted to move into and out of the openings thereby to connect and disconnect the links from the handle; and a means carried by the handle for operating the yoke.

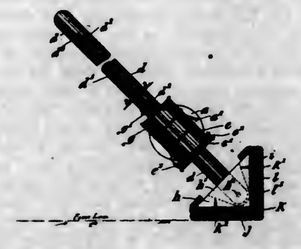
3. In a device of the class described, a handle; a pair of tongs; springs forming operative connections between the ends of the tongs and the ends of the handle; a weight indicating device in the handle; and connections between the weight indicating device and the tongs.

4. In a device of the class described, a handle; a pair of tongs; springs forming operative connections between the ends of the tongs and the ends of the handle; a weight indicating device in the handle; connections between the weight indicating device and the tongs; and movable means for connecting the tongs to the handle independently of the springs.

5. In a device of the class described, a handle; a pair of tongs; springs forming operative connections between the ends of the tongs and the ends of the handle; a weight indicating device in the handle; connections between the weight indicating device and the tongs; and latch mechanism carried by the handle, the latch mechanism being detachably interlocked with the tongs independently of the springs.

[Claims 6 to 8 not printed in the Gazette.]

1,140,593. POLISHING DEVICE. CHARLES EDWARD HOUSTON, London, England. Filed Mar. 14, 1914. Serial No. 824,612. (Cl. 15—51.)



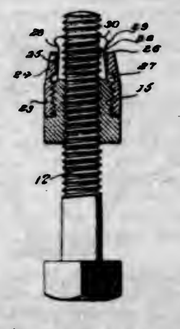
1. A polishing device of the character specified comprising a receptacle for polishing fluid, a stationary member adapted for attachment to a polishing implement, and having a peripheral depression forming shoulders at its ends, an axially rotatable member carried by said fixed member and serving as a support for the receptacle, a flexible member for operating the rotatable member in one direction, a spring adapted to return said rotatable member to normal position and an abutment on said rotatable member adapted to engage the shoulders on the stationary member for limitation of its rotary movement in both directions.

2. A polishing device of the character specified comprising a receptacle for polishing fluid, an axially rotatable member, a holder for said receptacle secured to said rotatable member, means for rotating the latter to cause discharge of a quantity of a fluid from the receptacle directly on to the surface to be polished and means for automatically returning the rotatable member, holder and receptacle to normal position after a discharging operation.

3. A polishing device of the character specified comprising a receptacle for polishing fluid, a stationary member adapted for attachment to the handle of a manually operated polishing implement and having a peripheral segmental cut away portion forming shoulders at its ends, an axially rotatable member carried by said fixed member, a holder for said receptacle detachably secured to said rotatable member, a cord secured to said rotatable member and extending along said handle for rotating the rotatable member, holder and receptacle in one direction to discharge a quantity of fluid from said receptacle on to the surface to be polished, a spring connected at opposite ends to the fixed member and rotatable member respectively for returning the rotatable member, holder and receptacle to normal position on release of the cord, and a pin on the rotatable member adapted to engage the aforesaid shoulders on the stationary member to limit the movement of rotation of said rotatable member in both directions.

4. In a device of the class described, the combination with a polishing implement provided with a handle, of a rotatable holder mounted on said handle, said holder being adapted to detachably support a container of conventional type, means for normally maintaining the holder in such position that the container is substantially upright, and means for rotating the holder for the purpose of inverting the receptacle, whereby the contents thereof is deposited directly upon the surface to be polished.

1,140,594. NUT-LOCK. GEORGE E. HOWE, East Smethport, Pa. Filed Feb. 3, 1914. Serial No. 816,218. (Cl. 151—19.)



1. A nut lock including a nut, an extension formed thereon, resilient gripping jaws formed on the extension, a locking sleeve threaded on the extension, and an unthreaded extension formed on the locking sleeve, said extension being adapted to engage the jaws when the sleeve is threaded outwardly on the extension and to compress the jaws into locking engagement with a bolt shank, and outwardly extending beads formed on the outer terminals of the jaws for normally holding the sleeve against removal from the extension.

2. A nut lock including a nut, an extension formed thereon, a plurality of resilient gripping jaws extending longitudinally from the extension, said gripping jaws, extension, and nut being internally threaded to receive a bolt shank, a sleeve threaded on the extension, said sleeve having a convexed portion adapted to engage the outer faces of the jaws for compressing the jaws into locking engagement with a bolt shank.

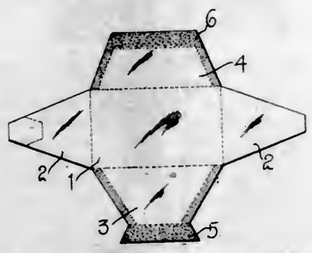
3. A nut lock including a nut, an extension formed thereon, resilient gripping jaws extending longitudinally from the extension, said jaws, extension and nut being internally screw threaded to receive a bolt shank, said extension being also externally threaded, an internally threaded sleeve mounted on the extension, an unthreaded flange carried by the sleeve, said flange being disposed to encircle the jaws, the outer faces of the jaws being concave whereby the sleeve may be rotated on the extension to move the flange into engagement with the outer faces of the jaws for compressing the jaws into locking engagement with a bolt shank.

4. A nut lock including a nut, an extension formed thereon, said extension being internally and externally

threaded, resilient gripping jaws formed on the extension, the outer faces of said gripping jaws being concaved adjacent their outer terminals, an arcuate bead formed at the outer terminal of each jaw, said beads being concaved at their lower edge portions to merge into the concave portions of the jaws, and a sleeve having threaded engagement at its inner terminal with the extension, the outer terminal portion of the sleeve being smooth on its inner face and being of an internal diameter less than the normal diameter of the jaws at the bead portions thereof, whereby the sleeve, when threaded outwardly on the extension will be engaged at its outer terminal portion with the concave portions of the jaws and will force the free terminals of the jaws into locking engagement with a bolt shank.

5. A nut lock including a nut, an extension formed thereon, a plurality of resilient gripping jaws having their outer faces concaved, said nut, extensions and jaws being internally threaded to receive a bolt shank, and a sleeve threaded upon the extension, the inner face of the sleeve being convexed to correspond with the concavity of the jaws whereby the sleeve upon being threaded into engagement with the jaws will compress the same into locking engagement with the bolt shank.

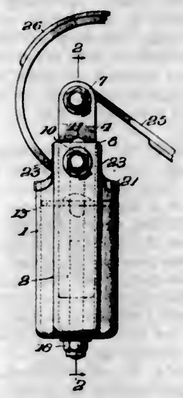
1,140,595. SAFETY-ENVELOP. THOMAS O. HUSTON, Geneva, Nebr. Filed Aug. 19, 1914. Serial No. 857,556. (Cl. 229—82.)



An envelop comprising a blank having a body portion, overlapping end flaps formed on the body portion, tapering side flaps formed on the body portion and being of relatively different lengths, sealing tongues carried upon the free end edges of the side flaps, the longer of said side flaps being folded against the end flaps and having its sealing tongue bent backwardly upon itself, and the sealing tongue of the shorter flap being engaged between the outer face of the longer flap and the inner face of the sealing tongue of the longer flap when said shorter flap is in folded position, the sealing tongue of said shorter flap being longer than the sealing tongue of said longer flap whereby the ends of the longer tongue project beyond the side edges of the longer flap for engagement against the outer faces of the end flaps and against the inner face of the shorter side flap whereby the interlocking sealing tongues are entirely hidden from view.

1,140,596. SHOCK-ABSORBER. JOSEPH W. JONES, New Rochelle, N. Y. Filed Mar. 11, 1915. Serial No. 13,678. (Cl. 21—50.)

1. In a shock-absorber of the character described, the combination of a tubular casing closed at its bottom and having two oppositely disposed grooves formed in its wall, a stirrup sliding vertically in said grooves with its ends projecting above said casing, a volute spring in said casing above and resting on the bottom of said stirrup, a washer resting on the top of said spring and having faces engaging the sides of said stirrup, and a bolt passing through an opening in said washer, means for restraining said bolt from turning in relation to said washer, said bolt also passing through said spring and the bottom of said stirrup and casing, a nut screw-threaded to the outer projecting end of said bolt, and bolts securing the casing and the stirrup to the body and the spring respectively of a vehicle.



2. In a shock-absorber of the character described, the combination of a tubular casing closed at its bottom and having two oppositely disposed grooves formed in its wall, a stirrup sliding vertically in said grooves with its ends projecting above said casing, a volute spring in said casing above and resting on the bottom of said stirrup, a washer resting on the top of said spring and having faces engaging the sides of said stirrup, and a bolt passing through an opening in said washer, engaging surfaces on the bolt and washer restraining the former from turning in relation to the latter, said bolt also passing through said spring and the bottom of said stirrup and casing, a nut screw-threaded to the outer projecting end of said bolt, and bolts securing the casing and the stirrup to the body and the spring respectively of a vehicle.

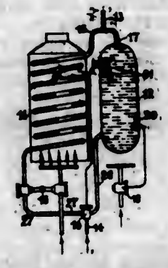
3. In a shock-absorber of the character described, the combination of a tubular casing closed at its bottom and having ears projecting upwardly from its walls, two oppositely disposed grooves formed in said casing, a stirrup sliding vertically in said grooves with its ends projecting above said casing, a volute spring in said casing above and resting on the bottom of said stirrup, a washer resting on the top of said spring and having faces engaging the sides of said stirrup, means restraining said bolt from turning in relation to said washer, said bolt also passing through said spring and the bottom of said stirrup and casing, a nut screw-threaded to the outer projecting end of said bolt, and a cover plate for said casing provided with upwardly projecting flanged portions embracing said stirrup and closing the vertical joints between the latter and the ears of the casing.

4. In a shock-absorber of the character described, the combination of a tubular casing closed at its bottom and having ears projecting upwardly from its walls, and two oppositely disposed grooves formed in said casing and said projecting ears, a stirrup sliding vertically in said grooves with its ends projecting above said casing, a volute spring in said casing beneath said stirrup, a volute spring in said casing above and resting on the bottom of said stirrup, a washer resting on the top of said last-named spring, an angular opening through said washer, a bolt passing therethrough and having shoulders engaging the angular opening in said washer, said bolt also passing through said springs and the bottom of said stirrup and casing, and a nut screw-threaded to the outer projecting end of said bolt.

5. In a shock-absorber of the character described, the combination of a ubular casing closed at its bottom and having ears projecting upwardly from its walls, two oppositely disposed grooves formed in said casing and said projecting ears, a stirrup sliding vertically in said grooves with its ends projecting above said casing, a volute spring in said casing above and resting on the bottom of said stirrup, a washer resting on the top of said spring and having faces engaging the sides of said stirrup, and a bolt passing through and engaging angular walls of an opening in said washer and also passing through said spring and the bottom of said stirrup and casing, a nut screw-threaded to the outer projecting end of said bolt, a cover plate for said casing provided with upwardly projecting flanged portions embracing said stirrup and closing vertical joints between the latter and the ears of the casing, downwardly turned flanges embracing the casing between said ears, and bolts securing the casing and the stirrup to the body and the spring respectively of a vehicle.

[Claims 6 to 8 not printed in the Gazette.

1,140,597. INSTALLATION FOR WARM-WATER SUPPLY. HUGO JUNKERS, Aachen, Germany. Filed Mar. 19, 1914. Serial No. 825,884. (Cl. 126—351.)



1. Water heating apparatus comprising the combination of a current heater for heating water flowing through it, a storage heater for heating water stored therein, heating devices for said heaters and a discharge pipe for withdrawing water from the heaters so arranged that water drawn therethrough will be supplied initially by the storage heater and thereafter by the current heater; substantially as described.

2. Water heating apparatus comprising the combination of a current heater for heating water flowing through it, a storage heater for heating water stored therein, heating devices for the heaters, automatic regulating means for the heating devices, a discharge pipe connected to the heaters and automatic means for causing water supplied through the discharge pipe to be drawn first from the storage heater and afterward from the current heater; substantially as described.

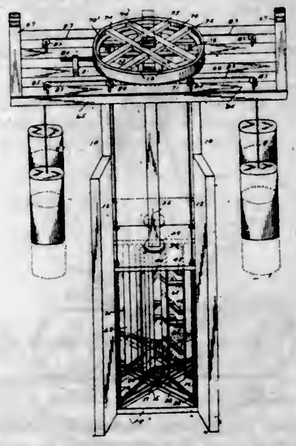
3. Water heating apparatus comprising the combination of a current heater for heating water flowing through it, a storage heater for heating water stored therein, heating devices, thermostatic controlling means for the heating devices, a discharge pipe connected to said heaters and thermostatic controlling means for causing water supplied through the discharge pipe to be drawn first from the storage heater and afterward from the current heater; substantially as described.

4. Water heating apparatus comprising the combination of a current heater for heating water flowing through it, a storage heater for heating water stored therein, heating devices for the heaters, a water supply pipe connected to the heaters, means for controlling the supply of water from said pipe to one or the other of said heaters, and a discharge pipe connected to the heaters for conveying water therefrom; substantially as described.

5. Water heating apparatus comprising the combination of a current heater for heating water flowing through it, a storage heater for heating water stored therein, heating devices for the heaters, a water supply pipe connected to the heaters, a valve in said pipe controlling the flow of water from the pipe to one or the other of said heaters, a thermostat in the storage heater controlling said valve and a discharge pipe connected to the heaters for withdrawing water therefrom; substantially as described.

[Claims 6 to 10 not printed in the Gazette.]

1,140,598. WATER-MOTOR. RICHARD E. KIETLEY, Kansas City, Mo. Filed July 29, 1913. Serial No. 781,889. (Cl. 170—117.)



1. In a motor for fluid energy, the combination with a frame for the motor comprising a top member, and a base frame, corner posts supporting the top member connected with the base frame, a pivot post on the base frame, a rotary motor shaft journaled in the top member, and mounted rotatably on the pivot post.

2. In a motor for fluid energy, the combination with a frame for the motor comprising a top member, a base frame, corner posts supporting the top member and connected with the base frame, a pivot post on the base frame, a rotary motor shaft journaled in the top member and mounted rotatably on the pivot post, arms on said rotary shaft, and doors hinged to said arms and foldable upon the arms in the rotation of said shaft, and from the impact of the fluid energy.

3. In a motor for fluid energy, the combination with a frame for the motor comprising a top member, a base frame, corner posts supporting the top member connected with the base frame, a pivot post carried by the base frame, and a motor shaft journaled in the top member and mounted rotatably on the pivot post, arms connected with and extending tangentially to said shaft, and doors hinged to said arms.

4. In a motor for water courses, the combination with a frame for the motor having top and bottom members composed of parallel crossed beams, a centrally positioned pivot post connected with the bottom member, corner posts between the outer ends of said parallel crossed beams of the top and bottom members, and truss bars connected with the pivot post and abutting against the portions of said corner posts between the parallel arms of said bottom member.

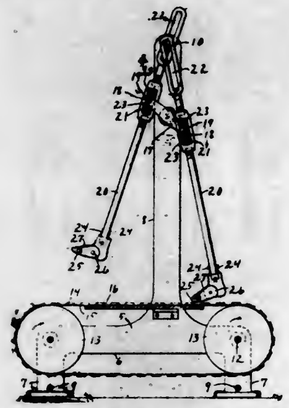
5. A motor for water courses, comprising a frame for the motor having a floating top member; and a base member composed of crossed beams, a pivot post carried by said beams, a motor shaft having angular side portions mounted on the pivot post at an end, and having the other end extending through the top member of said frame, and a journal bearing for said shaft in said top member, arms on said shaft and doors hinged to said arms, with which the water comes into contact, and means for transmitting power from said shaft during its rotation.

[Claims 6 to 8 not printed in the Gazette.]

1,140,599. MACHINE FOR BREAKING IN SHOES. HARRY M. KLINGENFELD and ARTHUR H. INSUSCH, Milwaukee, Wis. Filed June 2, 1913. Serial No. 771,170. (Cl. 12—128.)

1. A machine for breaking in shoes comprising a frame, a movable member and a movable arm mounted on the

frame, and a last movably and yieldingly connected to the arm which is adapted to carry a shoe, the movable member yieldingly engaged by the shoe.



2. A machine for breaking in shoes comprising a frame, an arm yieldingly and movably secured to said frame, a last movably and yieldingly connected to the arm and adapted to carry a shoe, and a member engaged by the shoe.

3. A machine for breaking in shoes comprising a frame, an oscillating arm carried thereby, a last movably and yieldingly connected to the arm and adapted to carry a shoe, and a movable member yieldingly engaged by the shoe.

4. A machine for breaking in shoes, comprising a frame, an oscillating arm carried thereby and having a movable yielding last on its lower end adapted to carry a shoe, and an endless belt mounted on the frame and yieldingly engaged by the shoe and moving in the same direction as the last for a portion of its travel.

5. A machine for breaking in shoes, comprising a frame, an oscillating arm yieldingly carried thereby and having a jointed last on its lower end adapted to carry a shoe, and a movable member yieldingly engaged by the shoe.

[Claims 6 to 19 not printed in the Gazette.]

1,140,600. PUZZLE. CHARLES H. KRAMB, San Diego, Cal. Filed Nov. 3, 1914. Serial No. 870,103. (Cl. 46—41.)



1. A puzzle comprising a pair of elongated members, means carried by each of said members for detachably connecting the same, and a key detachably connected and held by said members removal of the key being rendered impossible by the connection of the said members.

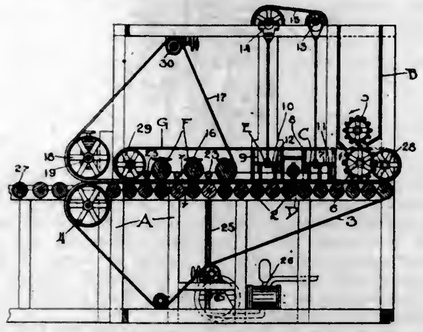
2. A puzzle comprising a pair of detachably connected members, each of said detachably connected members being provided with openings, a key member passing through the opening in each member and held therein by virtue of their connection, said members being detachable so as to release the key member when the openings register.

3. A puzzle comprising a pair of detachably connected members, each of said members being provided with an opening, said openings adapted to register at times, a key held in one of said openings and extending through the other of said openings and means associated therewith for connecting said members and preventing accidental disengagement of the same for retaining the key in position.

4. A puzzle comprising a pair of detachably connected members, each of said members being provided with openings disposed normally out of registration, a key element disposed in said openings and normally prevented from disengagement, the face of one of said detachably connected members being provided with recesses and the opposing face of the other member having complemental studs or projections thereon for engagement with the recesses to prevent disengagement of the members, and extraction of the key.

5. A puzzle comprising a pair of detachably connected members, each of said members being provided with an opening, a key member disposed in said openings when the detachably connected members are locked together, one portion of said key being secured within one of the openings of one of the members and the other portion engaging over the opening of the other member when the openings in the two members are out of registration, said openings being adapted at times to register and allow of detachment of the members and extraction of the key.

1,140,601. MACHINE FOR FORMING CEMENTITIOUS INSULATING-SHEETS. JAMES E. LAPPEN, Winona, Minn., assignor to Union Fibre Company, Winona, Minn., a Corporation of Minnesota. Filed May 15, 1913. Serial No. 767,859. (Cl. 92—38.)

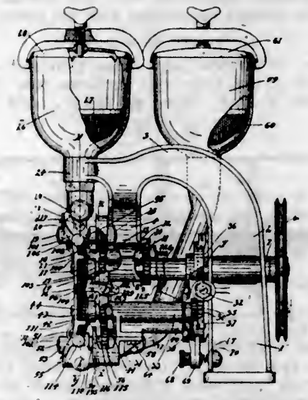


1. In a machine for forming cementitious material into compressed sheets, the combination with lower press rolls, of a supporting screen traveling over said rolls, a cooperating screen arranged above said supporting screen and traveling therewith, said screens being adapted to carry cementitious material between them, a succession of press rolls arranged above said upper screen and opposing said lower rolls whereby to press and work the material carried between said screens, and a succession of suction devices arranged between said upper rolls and in proximity to said upper screen, whereby to draw off the water forced up therethrough.

2. In a machine for forming cementitious material into compressed sheets, the combination with pressure instrumentalities, of an endless traveling apron adapted to carry said material into position to be acted upon by said instrumentalities, a feed hopper arranged above said apron, a pair of toothed wheels running in the same direction and oppositely to the direction of travel of the apron, one of said wheels working within the hopper near the mouth thereof, and the other wheel being arranged between said hopper wheel and said apron and working in close proximity to said hopper wheel and to said apron and adapted to pick the material from said hopper wheel and deliver it upon said apron and lay backward the fibers thereof.

1,140,602. CEMENT-APPLYING MACHINE. WILLIAM F. LAUTENSCHLAGER, Cincinnati, Ohio, assignor to Lorenz Muther, Boston, Mass. Filed May 7, 1910. Serial No. 560,013. (Cl. 91—40.)

1. In a duplex cement applying machine for flexible material, the combination of opposed feeding means having opposed feeding-faces for the material arranged to contact said material in a line slightly removed from the edge of the material, whereby a narrow margin of said material overhangs said feeding means, and opposed cement-applying means provided with cement-applying faces closely adjacent to said opposed feeding-faces, said cement-applying faces being resilient throughout their areas and solely supporting said overhanging margin at both sides of the latter whereby to flex said overhanging margin from the point of contact with the material by said opposed feeding-faces selectively throughout the width of said margin into the normal planes of opposite ones of said cement-applying faces.



2. In a duplex cement applying machine for flexible material, the combination of opposed feeding means having opposed feeding-faces for the material arranged to contact said material in a line slightly removed from the edge of said material whereby a narrow margin of said material overhangs said feeding means, and opposed rotary cement-applying brushes, said rotary cement-applying brushes solely supporting both sides of said overhanging margin whereby to flex said overhanging margin selectively toward both said brushes, said feeding faces defining the limit of extent of flexing of said margin at one side thereof, said rotary brushes acting as cushioning means throughout their widths for selective flexure toward either brush of the various portions in width of said margin.

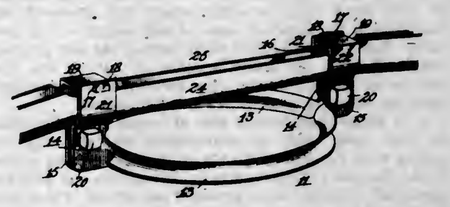
3. In a duplex cement applying machine for flexible material, the combination of opposed feeding means having opposed feeding-faces for the material arranged to contact said material in a line slightly removed from the edge of the material, whereby a narrow margin of said material overhangs said feeding means, and opposed cement-applying means provided with cement-applying faces closely adjacent to said opposed feeding-faces, said cement-applying faces being resilient through their areas and solely supporting said overhanging margin at both sides of the latter whereby to flex said overhanging margin from the point of contact with the material by said opposed feeding-faces selectively throughout the width of said margin into the normal planes of opposite ones of said cement-applying faces, a gage for the edge of the material, the said flexure of the margin of the material located between said opposed feeding-faces and said gage.

4. In a duplex cement applying machine for flexible material, the combination of opposed feeding means having opposed feeding-faces for the material arranged to contact said material in a line slightly removed from the edge of said material whereby a narrow margin of said material overhangs said feeding means, and opposed rotary cement-applying brushes, said rotary cement-applying brushes solely supporting both sides of said overhanging margin whereby to flex said overhanging margin selectively toward both said brushes, said feeding-faces defining the limit of extent of flexing of said margin at one side thereof, said rotary brushes acting as cushioning means throughout their widths for selective flexure toward either brush of the various portions in width of said margin, a gage for the edge of the material, the said flexure of the margin of the material located between said opposed feeding-faces and said gage.

5. In a cement applying machine, the combination of a rotary cement-applying brush arranged to apply cement to the margin of material and provided with a flange and bristles extending beyond the periphery of said flange, cement-feeding means for said brush, and a cement-wiping finger acting on said flange for directing the cement on said flange toward said bristles after the contact of said bristles with said cement-feeding means and prior to the contact of said bristles with said material.

[Claims 6 to 22 not printed in the Gazette.]

1,140,603. INSULATOR-CLAMP. WILLIAM S. LEE, Charlotte, N. C. Filed July 8, 1913. Serial No. 777,867. (Cl. 173—313.)



1. An insulator clamp comprising a pair of like separable sections adapted to grip a conductor and embrace an insulator, separable integral connecting means connecting said sections on one side of said conductor, and removable connecting means on the other side.

2. An insulator clamp comprising a pair of like separable sections adapted to grip a conductor and embrace an insulator, integral lugs on the ends of said sections provided with inter-engaging connecting means connecting said sections, and removable connecting means between said sections for securing them together.

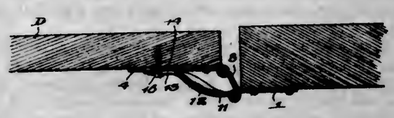
3. An insulator clamp comprising a pair of like separable sections adapted to grip a conductor and embrace an insulator, an extension on one end of each section provided with a hook-ended projection, an extension on the other end of each section having means for engaging said hook-ended projection, and removable connecting means between the complemental extensions of each section.

4. An insulator clamp comprising a pair of like separable sections, each having an integral conductor gripping extension on one end connected on one side of the conductor to a complemental extension on the other section, and removable securing means between the sections on the other side of the conductor for fastening said gripping extensions firmly to the conductor and the clamp sections together upon an insulator.

5. An insulator clamp comprising a pair of like separable sections, each having an integral conductor gripping extension with a slot therein on one end and formed on the other end with a hook to connect to the slot in a complemental member on the other section, and removable securing means between said sections for fastening said gripping extension firmly to the conductor and attaching the clamp sections together upon an insulator.

[Claims 6 to 9 not printed in the Gazette.]

1,140,604. HINGE. OSCAR W. MCALPIN, Roseville, Cal. Filed Mar. 4, 1915. Serial No. 12,124. (Cl. 16—106.)



1. A hinge comprising leaves for attachment to a door and casing respectively, an intermediate leaf connecting the inner ends of said first-mentioned leaves, and a lever

mounted on the connecting pintle of one of said first-mentioned leaves, and means for connecting said lever with the other leaf.

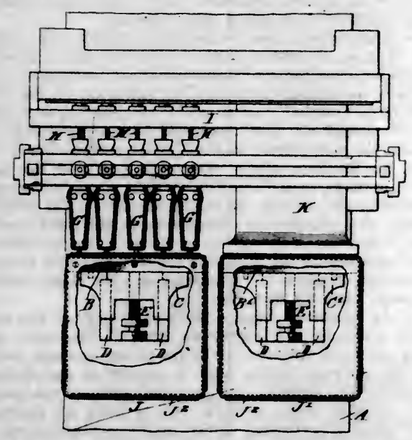
2. A hinge comprising leaves for attachment to a door and casing respectively, an intermediate leaf connecting the inner ends of said first-mentioned leaves, a lever mounted on the connecting pintle of one of said first-mentioned leaves, and means for adjustably connecting the other end of said lever with the other leaf.

3. A door hinge comprising two leaves having knuckles at their inner ends, another leaf disposed between the knuckled ends of said leaves and pivotally connected therewith, a lever pivoted at one end to the knuckled end of one of said leaves and having a longitudinally extending slot in its free end, and a fastening element extending through said slot and engaging the other leaf whereby said lever and leaf are adjustably connected.

4. A hinge comprising a pair of leaves having knuckles at their inner ends, an intermediate leaf pivotally connected with the knuckled ends of said leaves, and a lever in the form of a compound curve having one end pivotally connected with the inner knuckle of one of the first-mentioned leaves, and its other end adjustably connected with the other of said first-mentioned leaves.

5. A hinge comprising a pair of leaves having knuckles at their inner ends, an intermediate leaf pivotally connected with the knuckled ends of said leaves, and a lever in the form of a compound curve having one end pivotally connected with the inner knuckled end of one of said first-mentioned leaves, and its other end longitudinally slotted and provided on its inner face around said slot with a plurality of serrations, and fastening elements extending through said slot and leaf for adjustably connecting said lever and leaf.

1,140,605. NAILING-MACHINE. HENRY W. MORGAN, Rochester, N. Y. Filed Mar. 5, 1914. Serial No. 822,554. (Cl. 1—10.)



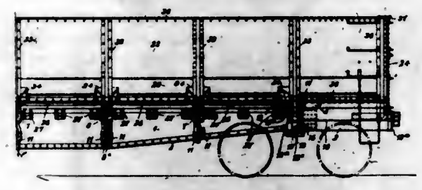
1. In a nailing machine, the combination with a main frame, of a pair of anvils supported on said frame in juxtaposition to each other, nailing chucks arranged above one of said anvils, a reciprocating cross-head mounted on the frame, a series of hammers carried by the cross-head and coöperating with said chucks, and a plunger also carried by the cross-head and coöperating with the other anvil.

2. In a nailing machine, the combination with a main frame, of a pair of anvils supported on said frame in juxtaposition to each other, nailing chucks arranged above one of the anvils, reciprocating hammers coöperating with said chucks, and a reciprocating plunger coöperating with the other anvil.

3. In a nailing machine, the combination with a main frame, of a pair of anvils supported on said frame in juxtaposition to each other, one of the anvils having a plurality of nail deflecting recesses in its working face, nailing chucks arranged above said recesses, hammers coöperating with said chucks, and a reciprocating plunger coöperating with the other anvil.

4. In a nailing machine, the combination with a main frame, of a pair of anvils supported on said frame in juxtaposition to each other, one of the anvils having a plurality of nail deflecting recesses which are widest at their receiving ends and tapered from their receiving ends toward their opposite ends, chucks arranged above said recesses, hammers coöperating with said chucks, and a reciprocating plunger coöperating with the other anvil.

1,140,606. DUMPING-CAR. ALLEN E. OSTRANDER, Ridgewood, N. J., and FREDERICK H. GIBBS, New York, N. Y. Filed Feb. 4, 1913. Serial No. 746,211. (Cl. 105—14.)



1. A car construction comprising a center sill construction, side and end walls, transverse members inclined upwardly from said center sill and attached to said side walls, and a bottom wall composed of a series of doors operating in either direction through and beyond a horizontal plane.

2. A car construction comprising a center sill construction and transverse members, side and end walls, a bottom wall composed of a series of doors operating in either direction through and beyond a horizontal plane and stops fixed to the transverse members adapted to limit the opening throw of the doors.

3. A car construction comprising a series of drop doors hinged below the compression element of the center sill construction and having their centers of gravity above the extended plane of said compression element.

4. A car construction comprising a center sill, upright side walls having inwardly and downwardly extending lower portions, a bottom wall extending from the bottom of each side wall downwardly to and being connected with said center sill.

5. A car construction comprising side walls each occupying a pair of vertical planes and an intermediate inclined plane, end walls, a center sill construction parallel to said side walls and midway therebetween and an incavated bottom wall horizontal at said center sill construction.

[Claims 6 to 22 not printed in the Gazette.]

1,140,607. EARTH-AUGER. BENJAMIN B. PHILLIPS, Greensboro, N. C., and CHARLIE W. EVANS, Norfolk, Va. Filed Mar. 5, 1914. Serial No. 822,710. (Cl. 255—70.)

1. An earth auger comprising a stock, a main member connected to said stock and formed with a plurality of radially disposed cutting portions, and an auxiliary member of less size than the main member and connected to the stock and formed with a plurality of radial cutting portions operating between the stock and the cutting portions of the main member, the cutting portions of said main member operating in advance of the cutting portions of the auxiliary member.

2. An earth auger comprising a stock, a main member connected to said stock and formed with a plurality of radially disposed cutting portions and with radially directed sockets, and root severing devices each including a base portion seated in one of said sockets and a downwardly directed cutting blade.

3. An earth auger comprising a stock, a main member connected to said stock and formed with a plurality of radially disposed cutting portions and with radially directed sockets, each socket having a recess at its outer



end, and root severing devices each including a base portion seated in one of said sockets and a downwardly directed blade engaging in one of said sockets and supported thereby from lateral displacement.

1,140,608. FISHING-REEL. FRANCIS V. PHILLIPS, Orlando, Fla. Filed May 18, 1914. Serial No. 839,367. (Cl. 43—16.)



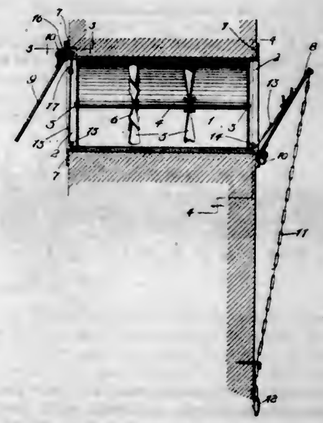
1. A bait caster comprising a supporting structure, a line projecting arm, a coiled spring connected at one end with one end of said arm, laterally spaced bearings formed at the other end of said spring, pins extending through said bearings and carried by said supporting structure, a yoke encircling said spring and fulcrumed intermediately of its ends on one of said pins with the free ends of the arms projecting beyond said fulcrum, apertured means on said structure through which said arms extend, and means for adjustably locking said arms in said apertured means for varying the tension of said spring.

2. A caster comprising a supporting structure, a line projecting arm merging at one end into a coiled spring terminating in laterally spaced bearings, pins extending through said bearings carried by said supporting structure, a yoke encircling said spring and fulcrumed intermediately of its ends on one of said pins with the free ends of the arms projecting beyond said fulcrum, apertured means on said structure through which said arms extend, and means for adjustably locking said arms in said apertured means for varying the tension of said spring.

1,140,609. VENTILATING APPLIANCE. JAHN RAZNTCH, Cloquet, Minn. Filed June 4, 1914. Serial No. 843,038. (Cl. 98—27.)

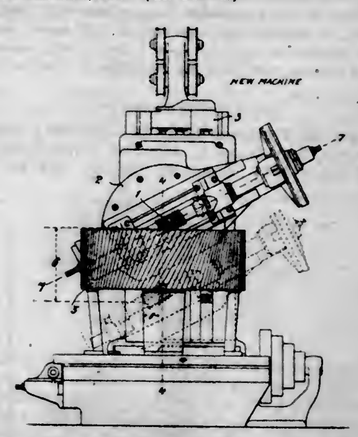
1. A ventilator of the character described comprising a tubular casing, a bar at each extremity of said casing coincident with the vertical axis thereof, an outwardly opening closure hingedly connected to each extremity of said casing, spring means in connection with said closure to retain the latter over the extremities of said casing, a flexible member connected at one end to one of said closures and extending longitudinally of said casing, means at the lower extremities of said bars for coöperation with said member to guide the same, and a clip at the hinged end of the remaining closure for engagement with the free end of said member whereby said closures may be simultaneously opened substantially as and for the purpose set forth.

2. A ventilator of the character described comprising a tubular casing, a bar at each end of said casing coincident with the vertical axis thereof, an outwardly opening closure hingedly connected at each extremity of said casing, spring means in connection with said closures to normally retain the latter over the extremities of said casing, a flexible member connected at one end to the inner sur-



face of one of said closures and extending longitudinally of said casing, a guide roller at the lower extremity of each of said bars over which said member is directed, a downwardly depending extension disposed contiguous to the hinged edge of the remaining closure and connected to the free end of said member whereby said closures may be simultaneously operated substantially as and for the purpose set forth.

1,140,610. METHOD OF AND APPARATUS FOR CUTTING THE TEETH OF GEAR-WHEELS. RICHARD REINECKER, Chemnitz, Germany. Filed Sept. 22, 1914. Serial No. 862,980. (Cl. 90—4.)

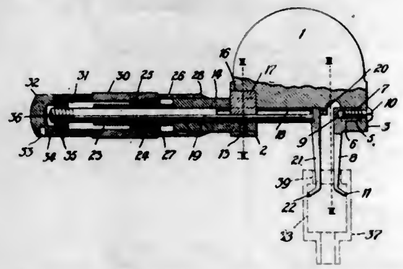


1. The herein described method of cutting the teeth of spur gears or screw gears, which consists in moving a helical cutting tool with its threads in the direction of the teeth being cut over the rim of the blank in a direction parallel to the axis of the latter while rotating the tool and the blank, and imparting axial displacement to the tool and corresponding additional rotary movement to the blank.

2. In an apparatus of the class described, the combination with a helical cutting tool, and a support for the blank, of means to impart rotary or cutting movement to

the tool, means to impart relative shifting movement to the tool and blank support in the direction of the axis of the blank placed on the support, means to rotate the blank support relatively to the tool, means to axially displace the tool in the direction of its axis, and means to impart additional rotary movement to the blank support corresponding to the axial displacement of the tool.

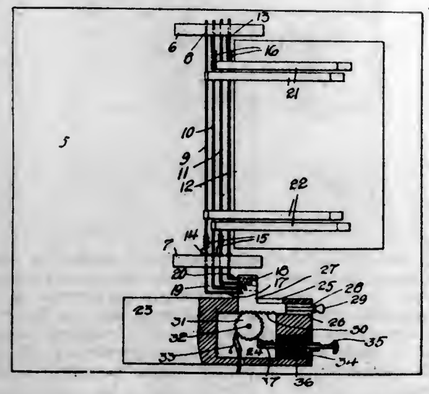
1,140,611. MICROMETER-CALIPERS. CHARLES RESCHKE, Detroit, Mich. Filed Dec. 17, 1914. Serial No. 877,720. (Cl. 33—164.)



1. A micrometer caliper comprising a hand piece, a stationary jaw carried thereby, a tubular guide connected to said hand piece, a rod movable longitudinally of said guide, a jaw carried by said rod and confronting said stationary jaw, a sleeve rotatable and reciprocable upon said tubular guide and adapted to impart movement to said rod, a cap at the inner end of said sleeve, and means housed by said cap and connected to said rod for adjustably holding said rod relatively to said sleeve.

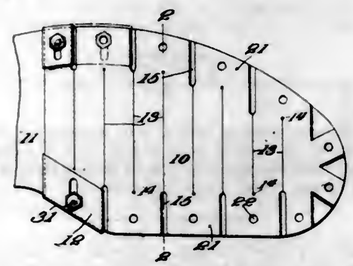
2. A micrometer caliper comprising a hand piece, barrels carried thereby, a stationary jaw fixed to one of said barrels, a tubular guide mounted in the other of said barrels, a rod shiftable longitudinally of said guide, a jaw carried by said rod and confronting said stationary jaw, diverging contact pieces carried by said jaws, a sleeve rotatable and reciprocable upon said tubular guide, a nut in said sleeve in screwthreaded engagement with said tubular guide, a cap on the inner end of said sleeve, and adjustable means on said rod held between said sleeve and said cap whereby said rod can be adjusted relative to said sleeve.

1,140,612. MUSIC-LEAF TURNER. JOSEPH J. RETZLER, Swissvale, and JAMES L. SHELTON, Turtle Creek, Pa. Filed Oct. 9, 1913. Serial No. 794,323. (Cl. 84—135.)



A music leaf turner comprising a plurality of spring controlled turning shafts, music leaf shifting arms carried by said shafts angular extensions carried by the lower ends of the shafts and each arranged in a different horizontal and vertical plane relative to the other, a slidably mounted stop member engaging the lower angle ends of the shafts, the inner face of the stop member having formed therein a series of recesses in different horizontal and vertical planes adapted to receive the angle ends of the shafts, and means for moving the stop member to successively release the shafts.

1,140,613. DETACHABLE METALLIC SHOE-SOLE. ALBERT N. RING, Buhl, Idaho, assignor of one-fourth to Fred A. Ring and one-fourth to Otto W. Ring, Buhl, Idaho. Filed Feb. 17, 1914. Serial No. 819,266. (Cl. 36—73.)



1. A shoe protecting device including a metallic plate having a plurality of transversely extending slits, the slits being enlarged at their outer terminals to produce finger members, and clamping means adapted to embrace the finger members and to be engaged with the shoe for holding the plate thereon.

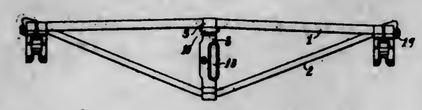
2. A shoe sole protector including a flexible metallic body plate having a plurality of longitudinally spaced transversely extending slits which are enlarged at their terminals to produce finger members, clamping devices embracing the fingers, and means for connecting the clamp devices to the fingers, said clamping devices being mounted for longitudinal adjustment with respect to the fingers and for lateral adjustment with respect to the body plate, said clamping devices being engageable with the shoe for detachably securing the plate thereto.

3. A shoe sole protector including a flexible metallic body plate, laterally extending fingers formed on the edge of the body plate, and a plurality of clamping devices embracing the fingers and engageable with the sole of the shoe for holding the plate in position thereon, each of said clamping devices including a body member engaging against the outer face of the finger, wing members embracing the edges of the fingers and engaging against the upper face thereof, and hooks extending from the body member and embracing the edge of the shoe sole.

4. A shoe sole protector including a flexible metallic body plate, laterally extending fingers formed on the edge of the body plate, and a plurality of clamping devices embracing the fingers and engageable with the sole of the shoe for holding the plate in position thereon, each of said clamping devices including a body member having an elongated slot engaging against the outer face of the finger, wing members embracing the edges of the fingers and engaging against the upper face thereof, hooks extending from the body member and embracing the edge of the shoe sole, and a stud having a threaded shank insertible through the slot of the clamping device and adapted to be threaded into the finger whereby the clamping device may be secured in adjusted position on the finger.

1,140,614. BRAKE-BEAM. JOHN M. ROHLFING, St. Louis, Mo., assignor to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed June 24, 1911. Serial No. 635,218. (Cl. 188—22.)

1. A brake beam comprising a compression member and a tension member, a thrust block carried by one of said members and engaging an end and a side of the other of said members, and a brake head retained by said thrust block, partly within said compression member.



2. A brake beam comprising a compression member and a tension member, a thrust block carried by one of said members and engaging an end and a side of the other of said members, and a brake head formed with an aperture adapted to receive said thrust block, said compression member extending parallel with and at the outer side of said brake head.

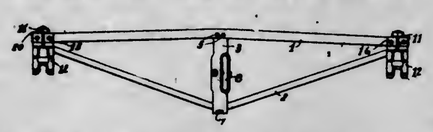
3. A brake beam comprising a compression member and a tension member, a thrust block between said members and a brake head independent of said thrust block extending between the thrust block and the compression member and being formed with an aperture to receive the thrust block, said thrust block having a hooked extension adapted to receive an end portion of the compression member.

4. A brake beam comprising a compression member and a tension member, a thrust block, comprising a sleeve adapted to receive an end portion of one of said members, and a brake head retained on said sleeve, partly within the compression member.

5. A brake beam comprising a compression member and a tension member, a thrust block comprising a sleeve adapted to receive an end portion of one of said members, and a brake head retained between said sleeve and the other of said members.

[Claims 6 to 11 not printed in the Gazette.]

1,140,615. BRAKE-BEAM. JOHN M. ROHLFING, St. Louis, Mo., assignor to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed June 24, 1911. Serial No. 635,219. (Cl. 188—22.)



1. A brake beam comprising a brake head, a compression member, and a tension member terminating between opposite ends of said compression member, said tension member having end portions extending through said brake head and through said compression member.

2. A brake beam comprising a brake head, a channel compression member, and a tension member, said brake head having a portion extending into the channel of said compression member and said tension member being extended through the extended portion of said brake head and through said compression member.

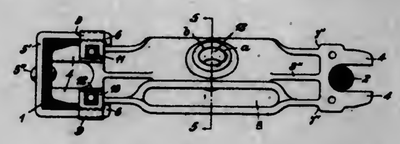
3. A brake beam comprising a brake head, a compression member, a tension member terminating between opposite ends of the compression member, said tension member having end portions extending through said brake head and through said compression member, and independent means connecting said brake head to said compression member.

4. A brake beam comprising a brake head, a channel compression member, a tension member, and means for connecting said brake head to said compression member partly within said channel, said tension member having a single bend at its end and extended through the web of said compression member.

5. A brake beam comprising a channel compression member, a brake head partly within said channel, a tension member, and securing means extending through the flanges of said compression member and through said brake head, said tension member extending through said brake head and through the web of said compression member.

[Claims 6 to 21 not printed in the Gazette.]

1,140,616. BRAKE-BEAM STRUT. JOHN M. ROHLFING, St. Louis, Mo., assignor, by mesne assignments, to Chicago Railway Equipment Company, a Corporation of Illinois. Original applications filed June 24, 1911, Serial Nos. 635,218 and 635,219. Divided and this application filed Sept. 12, 1912. Serial No. 720,027. (Cl. 188—22.)



1. A one piece reversible strut for brake beams having seats for tension and compression members of different sectional areas at each end, said strut also having an angulated brake lever slot whereby it may be reversed and used for right or left hand beam.

2. A strut having seats for the compression and tension members at the same end.

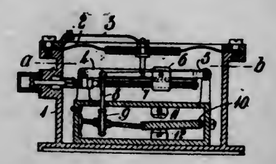
3. A strut having seats for the compression and tension members at both ends.

4. A brake beam comprising a compression member and a tension member, a strut between said members, a strap embracing one of said members and having one of its ends extended over said strut, and a binding member engaging said end and being fixed to opposite sides of said strut.

5. A brake beam comprising a compression member and a tension member, a strut between said members, a strap embracing one of said members and having one of its ends extended over said strut, a binding member engaging said end and being bent upon opposite sides of said strut, and means extending through said strut for fixing said binding member to said strut.

[Claims 6 to 18 not printed in the Gazette.]

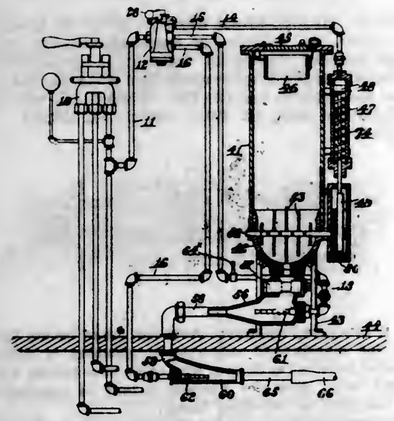
1,140,617. AUTOMATIC INTERMITTENT-LIGHT APPARATUS. FRANS JOHAN HENRIK RUSTIGE, Stockholm, Sweden. Filed Feb. 21, 1914. Serial No. 820,168. (Cl. 67—111.)



1. In automatic intermittent light apparatus, a casing, a movable wall therein, said casing having a chamber provided with an inlet and an outlet, a valve controlling the said inlet and outlet of the chamber, two levers connecting said movable wall to said valve, and a link connecting said levers and displaceable along them so as to control the operative lengths thereof.

2. In automatic intermittent light apparatus, a casing, a movable wall therein, said casing having a chamber provided with an inlet and an outlet, a valve controlling the inlet and outlet of the chamber, two levers connecting said movable wall to said valve, a link connecting said levers and displaceable along them so as to control the operative lengths thereof, and a screw accessible from the exterior of the apparatus acting to displace the link.

1,140,618. SANDING DEVICE FOR STREET-CARS. WILLIAM A. SAULT, Worcester, Mass., assignor of two-fifths to Ernest Whitehead, Worcester, Mass. Filed July 21, 1913, Serial No. 780,362. Renewed Apr. 13, 1915. Serial No. 21,130. (Cl. 105—263.)



1. In a sanding device for cars, the combination with a supply pipe, and a plurality of discharge pipes; of a valve having passages in position to connect the supply pipe with either of said discharge pipes and provided with other passages in position to communicate with two of said discharge pipes while the supply pipe is cut off, thereby permitting the pressure confined in one pipe to be discharged through the other pipe.

2. In a sanding device for cars, the combination with a supply pipe, and a plurality of discharge pipes; of a hollow valve having passages in position to connect the supply pipe with either of said discharge pipes and provided with other passages in position to communicate with two of said discharge pipes while the supply pipe is cut off, thereby permitting the pressure confined in one pipe to be discharged through the other pipe.

3. In a sanding device for cars, the combination with a supply pipe; of a valve casing communicating therewith; a sand hopper; a sand-mixing device therein; a reciprocating piston for operating said mixing device; a cylindrical casing in which said piston operates; a pipe connecting said casings; an ejector casing beneath said hopper; a pipe leading therefrom to said valve casing; and a valve in said valve casing having passages in position to provide a communication between said supply pipe and either of said connecting pipes, and another passage in position to connect said connecting pipes upon the turning of said valve.

4. In a sanding device for cars, the combination with a supply pipe, and a plurality of discharge pipes; of a valve casing with which said pipes communicate, provided with a segmental flange; a valve within said casing provided with passages, forming communications between said supply pipe and either of said discharge pipes and having a plurality of locking depressions in its periphery; an operating handle on said valve provided with a shoulder engaging the under side of said flange to prevent the accidental displacement thereof; and a spring pressed ball adapted to engage either of said depressions to lock said valve in adjusted position.

5. In a sanding device for cars, the combination with a supply pipe, and a plurality of discharge pipes; of a valve casing with which said pipes communicate provided with a segmental flange and shouldered end stops one of which is separated from the end of said flange; a valve within said casing provided with passages forming communications between said supply pipe and either of said discharge pipes; and an operating handle on said valve provided with a shoulder engaging the under side of said flange to prevent the accidental displacement thereof.

[Claims 6 to 14 not printed in the Gazette.]

1,140,619. VALVE. GOTTFRIED SCHMIDT, Hazleton, Pa., assignor of one-half to R. B. Barber, Hazleton, Pa. Filed Dec. 19, 1913. Serial No. 807,626. (Cl. 137—7.)



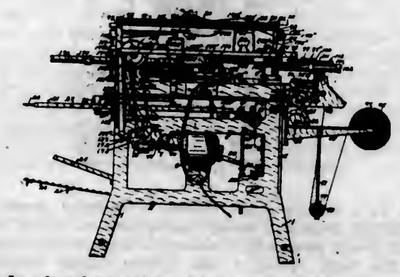
1. A valve comprising a riser having a coaxial passage therein, and having a recess in one side of the upper end thereof intersecting the upper end of the coaxial passage whereby to establish communication between said coaxial passage and the recess, a disk valve seated in the recess having a through port in one side thereof, a cap on the riser inclosing the disk in the recess and having an outlet opening opposite to the upper end of said coaxial passage, and means connected to said disk for turning the same whereby to register the port therethrough with said coaxial passage and outlet opening.

2. A valve comprising a riser having a coaxial passage therein extending throughout substantially the entire length of the riser and having a circular recess in one side of the upper end thereof, the inner wall of said recess being interrupted by the upper end of said coaxial passage whereby to provide an inlet port in coaxial alinement with the riser opening into said recess, a disk seated in said recess to close said inlet, a cap secured to the side of the riser over said disk to house the same in said recess and having an outlet opening in registry with said inlet opening, said disk having a through port in one side thereof, and means for turning said disk whereby to register said port with said inlet and outlet openings.

3. A valve comprising a riser having a coaxial passage therein and having a recess in one side of the upper end thereof intersecting the upper end of the coaxial passage whereby to establish communication between the coaxial passage and the recess, a disk valve seated in said recess and having a through port in one side thereof, a disk retaining cap secured to the upper end of the riser and provided with a central bearing, and an outlet port to be engaged by the port in said disk, and a disk-operating shaft extending outwardly through said cap-bearing.

1,140,620. BREAD-WRAPPING MACHINE AND MACHINE FOR SIMILAR PURPOSES. ROBERT J. SEATOR, Battle Creek, Mich., assignor to Seator Machine Mfg. Company, Battle Creek, Mich., a Corporation of Michigan. Filed July 26, 1913. Serial No. 781,303. (Cl. 93—2.)

1. In a bread wrapping machine, the combination with a suitable framework, of an endless loaf feed conveyer with transverse slats thereon for engaging loaves of bread; a yielding loaf operated trip to be acted upon by the loaf; a wrapper paper feed device comprising a roller, a tensioning device and an automatic cut-off; a clutch for actuating the said paper feed and cut-off; a connection from the clutch to the loaf operated trip whereby the paper feed device is released by the action of the loaf; a cam for controlling said paper fed and cut-off means; a suitable endless conveyer for conveying the cut-off wrapper paper into the machine; stop means for locating it in proper position; an elevator with a platform for receiving the loaf as it is advanced intermittently by the loaf feeding carrier; a cam means upon the driven shaft of the machine connected and timed for elevating the loaf against the wrapper; a loaf shifting carrier at the top of the machine, with downwardly depending arms and pivoted side folders for receiving the upwardly moving loaf and folding the wrapper down to the sides thereof; folding means for wrapping the paper around the loaf; a knotter carriage disposed in proximity to the folder table and coöperating with the loaf shifter carrier to receive the loaf; a cam roll with suitable connection to the said loaf shifting carriage at the top of the machine for carrying the loaf from the initial position in the folder to the carriage of the knotter; a suitable projection on the said knotter carriage coöperating with said cam roll; knotter means for tying a cord on said loaf; suitable ejector means for ejecting the loaf from the said carriage, timed to coöperate on the completion of the knotting; an automatic clutch for driving said folders and knotters; connections therefrom to the paper feed cam, all coacting substantially as described and for the purpose specified.



2. In a bread wrapping machine, the combination with a suitable framework, of an endless loaf feed conveyer with transverse slats thereon for engaging loaves of bread; a yielding loaf operating trip to be acted upon by the loaf, a wrapper paper feed device; a clutch for actuating the said paper feed; a connection from the clutch to the loaf operated trip whereby the paper feed device is released by the action of the loaf; a cam for controlling said paper feed; a suitable endless conveyer for conveying the wrapper paper into the machine; stop means for locating it in proper position; an elevator with a platform for receiving the loaf as it is advanced intermittently by the loaf feeding carrier; a cam means upon the driven shaft of the machine connected and timed for elevating the loaf against the wrapper; a loaf shifting carrier at the top of the machine, with downwardly depending arms and pivoted side folders for receiving the upwardly moving loaf and folding the wrapper down to the sides thereof; folding means for wrapping the paper around the loaf; a knotter carriage disposed in proximity to the folder table and coöperating with the loaf shifter carrier to receive the loaf; a cam roll with suitable connection to the said loaf shifting carriage at the top of the machine for carrying the loaf from the initial position in the folder to the carriage of the knotter; a suitable projection on the said knotter carriage coöperating with said cam roll; knotter means for tying a cord on said loaf; suitable ejector means for ejecting the loaf from the said carriage, timed to coöperate on the completion of the knotting; an automatic clutch for driving said folders and knotters; connections therefrom to the paper feed cam, all coacting substantially as described and for the purpose specified.

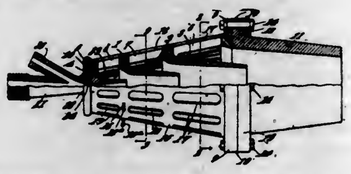
3. In a bread wrapping machine, the combination with a suitable framework, of an endless loaf feed conveyer with transverse slats thereon for engaging loaves of bread; a yielding loaf operating trip to be acted upon by the loaf, a wrapper paper feed device; a clutch for actuating the said paper feed; a connection from the clutch to the loaf operated trip whereby the paper feed device is released by the action of the loaf; a cam for controlling said paper feed; a suitable endless conveyer for conveying the wrapper paper into the machine; stop means for locating it in proper position; an elevator with a platform for receiving the loaf as it is advanced intermittently by the loaf feeding carrier; a cam means upon the driven shaft of the machine connected and timed for elevating the loaf against the wrapper; a loaf shifting carrier at the top of the machine, with downwardly depending arms and pivoted side folders for receiving the upwardly moving loaf and folding the wrapper down to the sides thereof; folding means for wrapping the paper around the loaf; a cam roll with suitable connection to the said loaf shifting carriage at the top of the machine for carrying the loaf through the folder; an automatic clutch for driving said folder; and connections therefrom to the paper cam, all coacting substantially as described and for the purpose specified.

4. In a bread wrapping machine, the combination with a suitable framework, of an endless loaf feed conveyer with transverse slats thereon for engaging loaves of bread; a yielding loaf operated trip to be acted upon by the loaf; a wrapper paper feed device comprising a roller, a tensioning device and an automatic cut-off; a clutch for operating the said paper feed; a connection from the clutch to the loaf operated trip whereby the paper feed device is released by the action of the loaf; a cam for controlling said paper feed and cut-off means; a suitable endless conveyer for conveying the cut-off wrapper paper into the machine; stop means for locating it in proper position; an elevator with a platform for receiving the loaf as it is advanced intermittently by the loaf feeding carrier; a cam means upon the driven shaft of the machine connected and timed for elevating the loaf against the wrapper; a loaf shifting carrier at the top of the machine, with downwardly depending arms and pivoted side folders for receiving the upwardly moving loaf and folding the wrapper down to the sides thereof; folding means for wrapping the paper around the loaf; a cam roll with suitable connection to the said loaf shifting carriage at the top of the machine for carrying the loaf through the folder; an automatic clutch for driving said folder; and connections therefrom to the paper cam, all coacting substantially as described and for the purpose specified.

5. In a bread wrapping machine, the combination with a suitable framework, of an endless feed conveyer with transverse slats thereon for engaging loaves of bread; a yielding loaf operating trip to be acted upon by the loaf, a wrapper paper feed device; a clutch for actuating the said paper feed; a connection from the clutch to the loaf operated trip whereby the paper feed device is released by the action of the loaf; a cam for controlling said paper feed; a suitable endless conveyer for conveying the wrapper paper into the machine; stop means for locating it in proper position; an elevator with a platform for receiving the loaf as it is advanced intermittently by the loaf feeding carrier; a cam means upon the driven shaft of the machine connected and timed for elevating the loaf against the wrapper; a loaf shifting carrier at the top of the machine, with downwardly depending arms and pivoted side folders for receiving the upwardly moving loaf and folding the wrapper down to the sides thereof; folding means for wrapping the paper around the loaf; a knotter carriage disposed in proximity to the folder table and coöperating with the loaf shifter carrier to receive the loaf; a cam roll with suitable connection to the said loaf shifting carriage at the top of the machine for carrying the loaf from the initial position in the folder to the carriage of the knotter; a suitable projection on the said knotter carriage coöperating with said cam roll; knotter means for tying a cord on said loaf; suitable ejector means for ejecting the loaf from the said carriage, timed to coöperate on the completion of the knotting; an automatic clutch for driving said folders and knotters; connections therefrom to the paper feed cam, all coacting substantially as described and for the purpose specified.

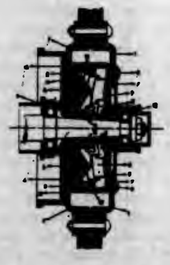
[Claims 6 to 17 not printed in the Gazette.]

1,140,621. HYDROCARBON-BURNER. JAMES E. SHEAFFER, Burnham, Pa., assignor of forty-five one-hundredths to Albert B. Long, Lewistown, Pa. Filed Dec. 17, 1914. Serial No. 877,718. (Cl. 158—74.)



A hydrocarbon burner embodying a casing having a nozzle therein projecting toward one end, said end of the casing having an outturned annular flange provided with an annular lip, a discharge nozzle having its basal end seated against said end of the casing and provided with an outstanding annular flange fitting within said lip, a ring of angular cross section fitting over the basal portion and flange of the discharge nozzle, and securing elements engaged through said ring and first mentioned flange.

1,140,622. RESILIENT-HUB WHEEL. DANTE SILVESTRI, Rome, Italy. Filed Dec. 6, 1911. Serial No. 664,146. (Cl. 152—45.)



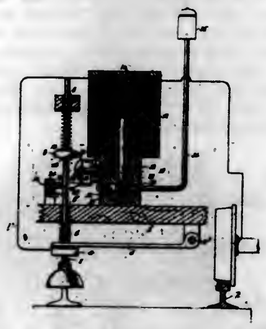
1. A self-centering resilient hub for vehicles comprising an outer and an inner hub-box, a wheel-body firmly connected with the outer box, the central sleeve connected with the inner box, two friction disks within the latter having a plurality of inclined contact surfaces of radial prismatic form in the faces of said disks, a sliding connection between one of said disks and the inner hub-box, and elastic means for pressing the said disks together, as and for the purpose stated.

2. In a resilient wheel, the combination with a wheel-body and an outer divided hollow metallic hub-box, of an inner hub-box, an integral concentric hollow boss on the latter, a sleeve fast in the inner hub-box, a rear plate integral with said sleeve, an alternately recessed and embossed flanged friction disk seated upon said sleeve and slidably held in the inner hub-box, a spiral spring between the side wall of the latter and the adjacent face of said friction disk, a corresponding rear friction disk at the opposite face of said friction disk, a large central opening in the rear friction disk, and a rigid connection between the latter and the said outer hub-box.

1,140,623. CAB SIGNAL SYSTEM. PAUL J. SIMMEN, Los Angeles, Cal. Filed Jan. 22, 1909. Serial No. 473,711. (Cl. 246—26.)

1. In a railway signal system, a trackway, means for producing electrical energy emanations at spaced separated points along said trackway, a movable part carried by the train having a bias toward danger indicating position, means on the train actuated by such energy emanations for holding said part in safety indicating position during the continuance of such emanations, and mechanically operated means for normally holding said part in said safety indicating position throughout the intervals between said emanations.

2. In a railway signal system, a trackway, means for producing electrical energy emanations at spaced separated points along said trackway, a movable part carried by the train having a bias toward danger indicating position, means on the train actuated by such energy emanations for holding said part in safety indicating position during the continuance of such emanations, mechanically operated means for normally holding said part in safety indicating position throughout the intervals between said emanations, and means for releasing said movable part from the action of said mechanically operated means during said emanations.



3. In a railway signal system, a trackway, means for producing electrical energy emanations at spaced separated points along said trackway, a movable part carried by the train having a bias toward danger indicating position, means on the train actuated by such energy emanations for holding said part in safety indicating position during the continuance of such emanations, mechanically operated means for normally holding said part in said safety indicating position throughout the intervals between said emanations, and positively acting means for releasing said movable part from the action of said mechanically operated means during said emanations.

4. In a railway signal system, a trackway, means for producing electrical energy emanations at spaced separated points along said trackway, a movable part carried by the train having a bias toward danger indicating position, means on the train actuated by such energy emanations for holding said part in safety indicating position during the continuance of such emanations, mechanically operated means for normally holding said part in safety indicating position throughout the intervals between said emanations, and means displaced by the passage of a train past said points for releasing said movable part from the action of said mechanically operated means.

5. In a railway signal system, a trackway, means for producing electrical energy emanations at spaced separated points along said trackway, a magnet on the train energized by such energy emanations, an armature attracted by said magnet, and mechanically operated means for maintaining said armature in such attracted relation during the intervals between said emanations.

[Claims 6 to 22 not printed in the Gazette.]

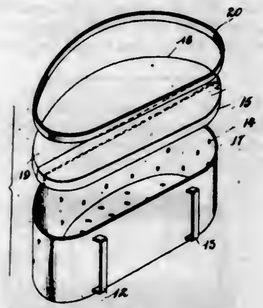
1,140,624. AUTOMATIC AUTOMOBILE-JACK. STUART D. SMITH, Kansas City, Mo., assignor, by direct and mesne assignments, of two-thirds to Charles W. Bechtel, Kansas City, Mo. Filed Apr. 23, 1914. Serial No. 833,899. (Cl. 254—89.)

1. A jack of the class described comprising a stationary frame having housings at its rear ends, said housings having sockets formed therein, bell cranks loosely pivoted in the housings and having fulcrum points for alternately engaging said sockets, oscillatory arms carried by the forward end of said frame, a transverse pipe supported by said arms, a sleeve loosely engaging said pipe, a movable frame having its forward end connected to the pipe and its rear end to the bell cranks, and means carried by the sleeve for rocking the movable frame and shifting the fulcrum points of the bell cranks in the sockets of the housings when the front axle of a vehicle engages said means.



2. A jack of the class described comprising a stationary frame having housings at its rear ends, said housings have sockets formed therein, bell cranks loosely pivoted in the housings and having fulcrum points for alternately engaging said sockets, oscillatory arms carried by the forward end of said frame, a transverse pipe supported by said arms, a sleeve loosely engaging said pipe, a movable frame having its forward end connected to the pipe and its rear end to the bell cranks, a bumper carried by the sleeve, and having a sleeve thereon, a supporting bar having its forward end slidably and yieldably engaged in the second named sleeve, the rear end of said supporting bar being pivotally connected to the rear end of the stationary frame, a keeper carried by the forward end of the supporting bar, a pivoted latch adapted to engage said keeper, for holding the movable frame elevated after the front axle of a vehicle has engaged the bumper.

1,140,625. BAIT-RECEPTACLE. ERNEST SPITZLER, Boise, Idaho. Filed Sept. 23, 1913. Serial No. 791,393. (Cl. 43—28.)

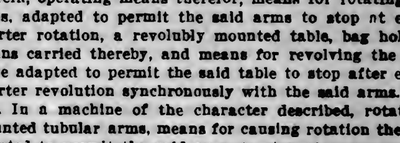


1. A bait receptacle including a body member having an open top, and a closure for said top, said closure being formed entirely of elastic material adapted to yield throughout its entire area for affording access to the interior of the receptacle, and a clamping ring for maintaining the closure in position over the top of the receptacle.

2. A bait receptacle including an open topped body member and a closure for the open top, said closure consisting in two substantially semicircular sheets of elastic material, the straight edge portion of said sheets being arranged to overlap and yieldably engage each other for normally forming a sealed seam between the sheets, and a clamping ring for securing the curved edge portions of the sheets against the upper edge of the receptacle, said overlapping straight edge portions of the sheets being adapted to yield throughout their length whereby an opening may be created between the two sheets of elastic material to permit access to the interior of the receptacle.

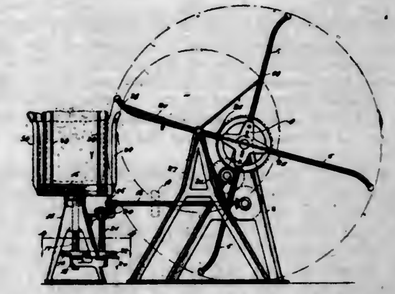
3. A bait receptacle including a body member having an open top, a closure for the open top, said closure consisting of two sheets of elastic material having adjacent edge portions overlapped to normally form a closed seam between the sheets, said straight edge portions being adapted to separate under force whereby an opening is provided to permit access to the interior of the receptacle, said sheets yielding throughout their entire area when such opening is created, and a clamping member for holding the sheets of material in position over the top of the receptacle.

1,140,626. APPARATUS FOR TREATING ARTICLES OF PAPER, CARDBOARD, AND THE LIKE WITH WATERPROOFING MATERIAL. ALEXANDER STEPHEN, London, England. Filed Jan. 9, 1913. Serial No. 740,944. (Cl. 34—12.)



An apparatus for treating articles of paper, cardboard and the like with waterproofing material comprising the combination with an impregnating and drying chamber, a hot air pocket in the upper part of said chamber and inlet and outlet openings in the end walls thereof of a conveyer adapted to receive the articles to be treated at the inlet opening and convey same in an upward direction to the top of said pocket, then in a horizontal path along the upper part of said pocket and finally in a downward direction to said outlet opening, a trough for receiving the superfluous waterproofing material while the articles are so conveyed and returning the same to the vessel containing the waterproofing material and means for heating said trough and said vessel, substantially as specified.

1,140,627. BAG-TURNING MACHINE. DAVID F. STEIN, Montreal, Quebec, Canada. Filed Nov. 14, 1914. Serial No. 872,271. (Cl. 139—47.)



1. In a machine of the character described, rotatably mounted turning arms, gripping members carried thereby, operating means therefor, means for rotating the arms, adapted to permit the said arms to stop at every quarter rotation, a revoluble table, bag holding means carried thereby, and means for revolving the table synchronously with the said turning arms.

2. In a machine of the character described, rotatably mounted arms, gripping members slidably operative therein, operating means therefor, means for rotating the arms, adapted to permit the said arms to stop at every quarter rotation, a revolubly mounted table, bag holding means carried thereby, and means for revolving the said table adapted to permit the said table to stop after every quarter revolution synchronously with the said arms.

3. In a machine of the character described, rotatably mounted tubular arms, means for causing rotation thereof, adapted to permit the said arms to stop at every quarter rotation, gripping members slidably operative in the said arms, means for extending and retracting the said members in the said arms, means for opening and closing the said gripping members, a revoluble table mounted in back of the said arms, bag holding means carried thereby, and means for revolving the said table adapted to permit stop-

ping of the same after every quarter revolution synchronously with the said arms.

4. In a machine of the character described, a rotatably mounted shaft, tubular arms secured thereon, means for rotating the said shaft, adapted to permit stopping the same at every quarter rotation, gripping members slidably mounted in the said arms and adapted to be extended and retracted therein, rods having their outer ends pivotally connected to the said gripping members and their inner ends loosely mounted about a stub shaft located above and in back of the first mentioned shaft, means for closing each gripping member when it reaches its most extended position, means for opening the said gripping member at a point slightly in advance of its most retracted position, and a revolubly mounted bag holder adapted to receive the ends of the said arms, and means for revolving the said bag holder adapted to permit the said holder to stop at every quarter revolution synchronously with the rotating and stopping of the first mentioned shaft.

1,140,628. SHAFT-COUPLING. HERMANN STEINHART, Stuttgart, Germany, assignor to the Firm of Robert Bosch, Stuttgart, Germany. Filed Jan. 31, 1912. Serial No. 674,548. (Cl. 64—13.)



1. A flexible coupling for abutting shafts comprising a coupling part fastened to each shaft, a diametrically-disposed flat spring of metal fastened intermediate of its ends to one coupling part, and coöperative engaging means lying entirely on the same side of the spring and on opposite sides of the axis of rotation so as to have driving engagement with a single end of the spring at a time, the driving engagement occurring at one end of the spring upon angular displacement of the coupling parts in one direction and occurring at the other end of the spring upon angular displacement of the coupling parts in the other direction, and the spring being free to flex in the direction of the displacement of the coupling parts; substantially as described.

2. A flexible coupling for abutting shafts comprising a coupling part fastened to each shaft, two diametrically-disposed springs of metal fastened to one coupling part, and a rigid abutment on the other coupling part extending in an axial direction between the ends of the two springs so as to have driving engagement with a single one of the springs at a time, the driving engagement occurring at one spring during angular displacement of the coupling parts in one direction and occurring at the other spring during angular displacement of the coupling parts in the other direction, and the springs being free to flex in the direction of the displacement of the coupling parts; substantially as described.

3. A flexible coupling for abutting shafts comprising a coupling part fastened to each shaft, two diametrically-disposed flat springs of metal fastened intermediate of their ends to one coupling part, and coöperative abutments of rigid material on the other coupling part having driving engagement with one end of each spring upon angular displacement of the coupling parts in one direction and with the other end of each spring upon angular displacement of the coupling parts in the reverse direction so as to avoid reverse flexure in both ends of the springs upon reversal of the driving and driven functions of the coupling parts, the arrangement being such that the ends of the springs are free to flex in the direction of the displacement of the coupling parts; substantially as described.

4. A flexible coupling for abutting shafts comprising a coupling part fastened to each shaft, axially extending projections on one of the coupling parts, two diametrically disposed magazines of flat metal springs fastened intermediate of their ends to said projections, and diametrically disposed abutments of rigid material on the other coupling part arranged to project between said magazines to effect driving engagement with one end of each magazine upon angular displacement of the coupling parts in one direction and with the other end of each magazine upon angular displacement of the coupling parts in the reverse direction so as to avoid reverse flexure in both ends of the magazines upon reversal of the driving and driven functions of the coupling parts, the arrangement being such that the ends of the magazines are free to flex in the direction of the displacement of the coupling parts; substantially as described.

1,140,629. PROCESS OF AROMATIZING FATS AND OILS AND THE PRODUCTS DERIVED FROM THE SAME. NATHAN SULZBERGER, New York, N. Y. Filed Aug. 9, 1911. Serial No. 643,104. (Cl. 99—13.)

1. Cotton-seed oil flavored with aromatic principles of animal food-stuffs of vegetable origin.

2. Cotton seed oil flavored with aromatic principles of hay and clover.

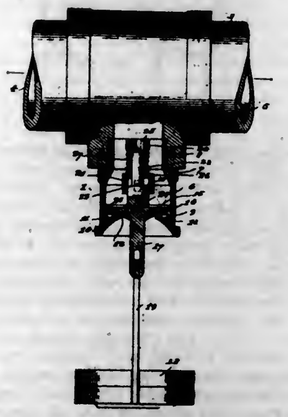
3. An oil or fat to be used in the manufacture of butter-substitutes, flavored with aromatic principles artificially separated from ordinary food-stuffs of leguminous and graminaceous origin of milk-producing animals.

4. An oil or fatty material artificially flavored with aromatic principles, as such occur in ordinary feeding material of leguminous and graminaceous origin of milk-producing animals.

5. Process for preparing a material of a fatty and oily nature, possessing the flavor and aroma of ordinary feeding material of leguminous and graminaceous origin of milk-producing animals, consisting in extracting with said fatty and oily material such feeding material.

[Claims 6 and 7 not printed in the Gazette.]

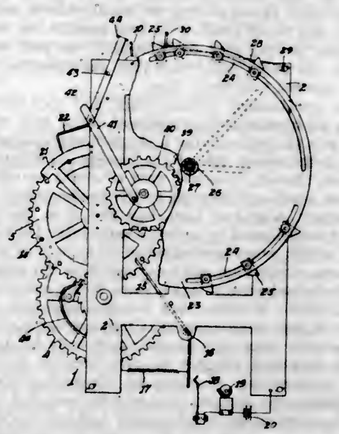
1,140,630. VALVE. WILLIAM S. SUTTON, Rockford, Ill., assignor to American Radiator Company, Chicago, Ill., a Corporation of New Jersey. Filed Apr. 4, 1912. Serial No. 688,426. (Cl. 137—53.)



1. A vacuum relief valve comprising a frame, an annular flange extending radially inward from the walls of said frame and providing a flat annular seating surface, a flat valve disk within said frame, yielding means tending to hold said disk on said seat to close the opening surrounded by said seat flange, a second annular flange extending radially inward above said valve seat and surrounding said valve disk and having a diameter only slightly greater than that of the valve disk, the peripheral surfaces of said flat disk and second annular flange being in parallel relation and the upper surface of said flat disk disposed below the upper surface of said flange when said disk is in closed position whereby the flow of air past the valve disk into the frame is restricted during the greater part of the movement of said valve disk away from its seat to thus provide substantial change in pressure against the valve during such travel thereof, said restricted passage way being increased only when the valve disk rises above the second flange to then allow substantial change in the pressure.

2. In combination, a conduit through which air at less than atmospheric pressure is traveling, a valve frame tapped to said conduit, an annular flange at the inlet end of said frame providing a flat valve seat about the inlet opening, a valve in the form of a flat disk slidable within said frame, yielding means tending to hold said valve on said seat, a second annular flange on said frame projecting radially inwardly above said valve seat, and surrounding said valve and of a diameter only slightly greater than that of the valve disk, the peripheral surfaces of said valve disk and annular flange being in parallel relation and the upper surface of said valve disk disposed below the upper surface of said annular flange when the valve disk is in closed position whereby the flow of air into the valve frame is restricted when said valve is lifted from its seat and thus prevent a substantial increase in pressure in said conduit during the greater part of the travel of said valve from its seat and until said valve has moved past said second annular flange.

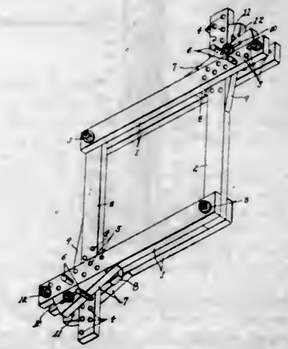
1,140,631. MECHANICAL ANNUNCIATOR. LEWIS C. SWAIN, Oakland, Cal. Filed Mar. 20, 1913. Serial No. 755,617. (Cl. 161—3.)



In an alarm apparatus in combination, mechanism for sounding an alarm, a stop normally interrupting the operation of said mechanism, an hour shaft, a disk rigidly mounted on said hour shaft provided with projecting dogs, means operated by said dogs for withdrawing said stop from its normal position at predetermined intervals, a gear carried by said hour wheel, a gear meshing with said first mentioned gear, and revolving at half the speed of said first mentioned gear, and a second stop operated from said second mentioned gear wheel and adapted to prevent the operation of said mechanism during one half the revolution of said second mentioned gear wheel irrespective of the position of said first mentioned stop.

1,140,632. CLAMP. JOHN J. TRACY, Chicago, Ill. Filed Jan. 24, 1914. Serial No. 814,146. (Cl. 144—291.)

A clamp comprising a rectangular frame formed of slats, opposite sides consisting of superposed slats and the remaining sides consisting of single slats pasing between said superposed slats, said slats being pivoted together at opposite corners and perforated at the remaining corners of said frame; pins in said perforations; two superposed wedges embracing the free end of each single slat and bearing against the corresponding frame side, said wedges being connected together by a block sliding between the corresponding superposed slats; a single wedge for each corner of said frame, said single wedge



sliding between the corresponding superposed slats and bearing against the corresponding single slat, all of said wedges being provided with coöperating slots; and a clamping bolt passed through said slots, and connecting the several wedges at the respective corners, substantially as described.

1,140,633. INSULATING SYSTEM. CHARLES J. TRUCANO, Cle Elum, Wash. Filed Oct. 19, 1914. Serial No. 867,465. (Cl. 137—75.)

In an insulating system for pipes, the combination of an exterior covering for each pipe section, said covering being continuous and shorter than the section so as to allow each end of the section to project beyond each end of the covering, insulating washers interposed at the ends of each covering in air tight relation between the pipe section and its covering, there being an outlet in the covering which is adapted to be closed after the air is extracted from between the pipe and its covering, lugs integral with the covering and which project inwardly along the interior of the same and interposed along the covering between the insulating washers, attachable insulating tips upon the ends of the lugs, whereby the pipe section is maintained concentrically with its covering and yet insulated therefrom, a coupling for the projecting ends of the pipe sections, and an insulating coupling adapted to be slipped over the ends of each of the coverings which are nearest each other, there being an outlet in the said insulating coupling and the ends of the said coupling being outwardly flared to receive calking material.

1,140,634. PNEUMATIC VALVE. AARON J. TYLER, Rochester, N. Y., assignor of two-thirds to Howard L. Bidelman, Rochester, N. Y. Filed July 23, 1912. Serial No. 711,125. (Cl. 152—12.)

1. A pneumatic valve including a casing, a plug engaging the casing and provided with a valve seat, a guiding member disposed within the casing and provided with spaced ribs defining intermediate air passages, a sectional valve stem extending from the guiding member, a cage

loosely mounted on one section of the valve stem, a valve carried by the other section of the stem, and a spring interposed between the guiding member and cage for normally and yieldably holding the valve to its seat.



2. A pneumatic valve including a casing, a plug engaging the casing and provided with a valve seat, a guiding member disposed within the casing and provided with spaced ribs defining intermediate air passages, a sectional stem extending from the guiding member, one section of said stem being threaded in an opening in the guiding member, a cage loosely mounted on one of the stem sections, a valve carried by the threaded stem section, and a spring interposed between the guiding member and cage for normally and yieldably holding the valve to its seat.

3. A pneumatic valve including a casing, a plug threaded in one end of the casing and provided with a valve seat, a guiding member disposed within the casing and having an upstanding flange defining a depression, said guiding member being provided with spaced ribs forming intermediate air passages, a valve stem depending from the guiding member, a second valve stem threaded in the guiding member and provided with a projection, a valve seated in the depression of the guiding member and bearing against said projection, a cage slidably mounted on the first mentioned stem section, and a spring interposed between the cage and guiding member.

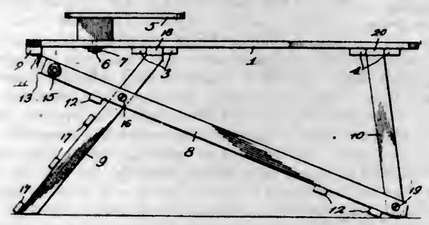
4. A pneumatic valve including a casing, a plug seated in the casing and provided with a valve seat, a guiding member disposed within the casing and provided with longitudinal ribs defining intermediate air passages, the ribs being extended below the bottom of the guiding member to form centering lugs, a valve stem formed integral with the guiding member and having its lower end provided with a stop, a cage engaging said stop, the upper end of the guiding member being provided with a seating recess, a valve seated in said recess, and a coil spring interposed between the cage and guiding member and centered on the stem by engagement with the lugs.

1,140,635. RUBBER HEEL. JOHN M. VAN HEUSEN, Jamaica Plain, Mass. Filed Mar. 5, 1915. Serial No. 12,257. (Cl. 36—75.)



A rubber heel provided at its outer edge, at that portion which first touches the ground in the act of walking, with a metallic tread element whose tread surface is flush with the bottom of the heel and which is provided with an anchoring portion embedded within the rubber body of the heel and yieldingly supported therein by the cushioning effect of the rubber, the tread element being of such a metal and having such a tread area that it will wear away in substantial coincidence with the adjacent rubber, and, in walking, will give an audible click closely simulating the noise made by a leather heel; substantially as described.

1,140,636. COMBINATION IRONING-TABLE AND STEP-LADDER. EDUARDO VELARDE, Kansas City, Mo. Filed May 27, 1914. Serial No. 841,246. (Cl. 228—32.)



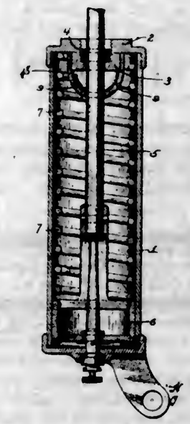
1. A combination ironing-board and step-ladder, consisting of an ironing-board capable of acting as a step-ladder leg, a pair of main legs coacting with said ironing-board to support the same while acting either as an ironing-board or as a step-ladder, hinges connecting said pair of main legs to the ironing-board, steps on said main legs, a pair of supplemental legs pivoted to the main legs to coact therewith in supporting the ironing-board, said supplemental legs being adapted to fold against the main legs, and steps uniting said supplemental legs and adapted to overlap the main legs when the supplemental legs are folded against said main legs.

2. A combination ironing-board and step-ladder, comprising an ironing-board capable of acting as a step-ladder leg, a pair of cleats spaced a short distance apart and secured to the under side of the ironing-board intermediate the ends thereof, a second pair of cleats spaced a short distance apart and secured to the ironing-board near one end thereof, a pair of main legs hinged to the underside of the ironing-board to assist in supporting the same while acting either as an ironing-board or as part of a step-ladder, steps connecting said main legs near the ends thereof, a pair of supplemental legs pivoted to the main legs to coact therewith in supporting the ironing-board, said supplemental legs being adapted to fold against the main legs, a transverse piece uniting the upper ends of said supplemental legs and adapted to pass between the pairs of cleats intermediate the ends of the ironing-board, steps also uniting the supplemental legs and adapted to lap the main legs when the supplemental legs are folded against the main legs, a second pair of supplemental legs pivoted to the lower ends of the main pair of legs, and a transverse piece uniting the upper ends of the second pair of supplemental legs and adapted to pass between the second pair of cleats adjacent one end of the ironing-board, substantially as described.

1,140,637. COMBINED DOOR CLOSER AND CHECK. HENRY G. VOIGHT, Hartford, Conn. Filed Apr. 7, 1914. Serial No. 830,191. (Cl. 137—115.)

1. In a liquid door check and closer, a cylinder, a piston therein, a spring for moving the piston in a direction to close the door, and a rigid unyielding deflector secured to the head and forming a chamber around the piston rod opening through the head the said chamber having restricted communication with the interior of the cylinder and no communication with the outside of the cylinder.

2. In a liquid door check and closer, a cylinder, a piston therein, a spring for moving the piston in a direction to close the door, and a rigid unyielding deflector secured to the head of the cylinder and having an opening for the piston rod and a restricted opening for the liquid, the said deflector forming a partly closed chamber around the piston rod opening through the head.



3. In a liquid door check and closer, a cylinder the head of which is provided with an inwardly projecting boss concentric with the piston rod opening in said head, a piston within said cylinder, and a cylindrical deflector having a curved end, the said deflector being secured to the boss on the cylinder head and provided with an opening for the piston rod, and with a restricted opening for the liquid, the said deflector forming a partly closed chamber around the piston rod opening through the head.

1,140,638. STOCK FOOD AND METHOD OF PREPARING THE SAME. THOMAS BAILEY WALKER, Austin, Tex. Filed May 29, 1913. Serial No. 770,736. (Cl. 99—11.)

1. The process of making stock food consisting in subjecting comminuted cellulose waste materials to the action of acid liquors under heat and pressure thereby breaking up resistive incrusting substances of the cellulose, partially converting the cellulose into saccharine bodies and rendering the material porous and friable, then removing the moisture as described.

2. The process of making stock food consisting in subjecting comminuted cellulose waste materials to the action of acid liquors under heat and pressure thereby breaking up resistive incrusting substances of the cellulose, partially converting the cellulose into saccharine bodies and rendering the material porous and friable, freeing from the resulting product any resinous bodies and then removing the moisture as described.

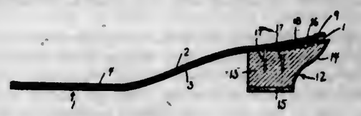
3. The process of making stock food consisting in subjecting cellulose to the action of a hydrolyzing solution to partially convert the cellulose into saccharine bodies and render the fiber friable, separating the solid from the liquid portion, evaporating the latter and incorporating the evaporated product with said solid portion.

4. The process of making stock food from cellulose containing incrusting substances, consisting in subjecting the cellulose in comminuted condition to a liquor containing hydrochloric acid in the presence of heat and pressure to hydrolyze the same and break up the incrusting bodies, neutralizing the acidity by an alkaline sodium compound and then removing the moisture.

5. The process of making stock food from cellulose containing incrusting substances, consisting in subjecting the cellulose in comminuted condition to an acid liquor under heat and pressure to hydrolyze the same and break up incrusting bodies, adding an alkali to neutralize excess of acidity, and then removing the moisture.

[Claim 6 not printed in the Gazette.]

1,140,639. SOLE AND HEEL FOR SLIPPERS. JOHN HUNTER WALLACE, Gloversville, N. Y. Filed Sept. 12, 1914. Serial No. 861,407. (Cl. 36—25.)



1. An article of manufacture comprising a sole, a soft inner sole connected to said sole along a portion of its length, the heel portion of said inner sole being unsecured to said sole, and a heel secured to said sole beneath the heel portion of said inner sole.

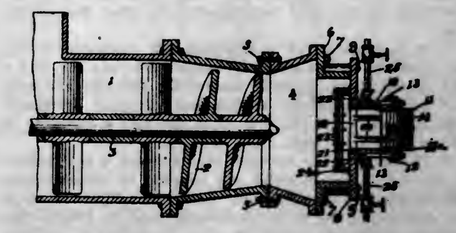
2. An article of manufacture comprising a sole, said sole consisting of two layers of leather, one superposed upon the other and cemented together, a soft inner sole secured to the upper layer along a portion of its length, the heel portion of said inner sole being unsecured to said sole, a binding strip covering the edges of said upper layer beneath the heel portion of the inner sole, and a heel secured to the sole beneath the heel portion of the inner sole.

3. An article of manufacture comprising a sole, said sole consisting of two layers of leather, one superposed upon the other and cemented together, a soft inner sole secured to the upper layer along a portion of its length, the heel portion of said inner sole being unsecured to said sole, a binding strip covering the edges of said upper layer beneath the heel portion of the inner sole, and a heel provided with a recess in which the heel portion of the sole is countersunk and secured.

4. An article of manufacture comprising a sole, said sole consisting of two layers of leather, one superposed upon the leather and cemented together, a soft inner sole secured to the upper layer along a portion of its length, the heel portion of said inner sole being unsecured to said sole, a binding strip covering the edges of said upper layer beneath the heel portion of the inner sole, and a heel provided with a recess in which the heel portion of the sole is countersunk and secured, the binding strip being flush with the top of said heel.

5. An article of manufacture comprising a sole, said sole consisting of two layers of leather, one superposed upon the other and cemented together, a soft inner sole secured to the upper layer along a portion of its length, the heel portion of said inner sole being unsecured to said sole, a binding strip covering the edges of said upper layer beneath the heel portion of the inner sole, and a heel provided with a recess in which the heel portion of the sole is countersunk and secured, the binding strip being flush with the top of said heel, and having its ends concealed in notches in said sole.

1,140,640. BRICK-FORMING DIE. LEVI WARSTLER and PAUL F. LOICHOT, Louisville, Ohio, assignors to The Louisville Machine Company, Louisville, Ohio, a Corporation of Ohio. Filed Aug. 25, 1913. Serial No. 786,368. (Cl. 25—20.)



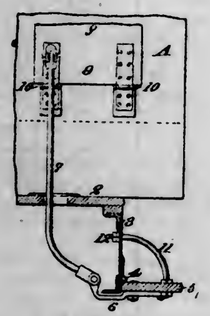
1. In a brick forming die of the class described, the combination of an auger frame and casing, a die held in

fixed relationship with said auger casing, said die provided with grooves, rollers located in close proximity with the delivery end of the die, said rollers provided upon their peripheries with elongated depressions, said depressions located in alinement with the grooves formed in the die.

2. In a brick forming die of the class described, the combination of an auger frame and casing, a die held in fixed relationship with said auger casing, said die provided with grooves, rollers located in close proximity with the delivery end of the die, said rollers provided upon their peripheries with elongated depressions, said depressions located in alinement with the grooves formed in the die, said depressions formed of a depth substantially equal to the depth of the grooves formed in the die.

3. In a brick forming die of the class described, the combination of an auger frame and casing, a die held in fixed relationship with said auger casing, said die provided with grooves, a roller located in close proximity with the delivery end of the die, its periphery provided with elongated depressions located in alinement with the grooves in the die, said roller provided with flanges upon its ends, said flanges adapted for contact with the plastic clay.

1,140,641. COMBINED FOLDING DOOR-STEP AND SEAT FOR CARS. CHARLES G. WEATHERLY, San Francisco, Cal. Filed Jan. 5, 1915. Serial No. 592. (Cl. 105—19.)



1. In a railway car, a step hingedly connected to the platform thereof, an arm fixed to the step, a seat hingedly connected to the car, and a rigid link having its upper end pivotally connected to the seat, and its lower end pivotally connected to the inner end of the arm, whereby when the seat is swung to its operative position the step is folded, and conversely when the seat is in its inoperative position the step is in operative position.

2. In a railway car, a riser supported by the platform thereof, a step hingedly connected to the riser, an arm fixed to the step, a seat hingedly connected to the car, a single link pivotally connecting the seat and step, curved rods rigidly connected to the step and slidably connected to the riser, and adjustable stops carried by the free ends of the rods for engaging the rear face of the riser.

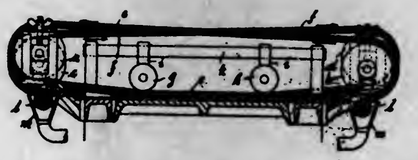
3. In a railway car, a step hingedly connected to the car platform, a seat hingedly connected to the car, and a link directly and pivotally connecting the seat and step and being adapted for sliding and swinging movement with respect to the platform when the seat is operated to fold or unfold the step.

4. In a railway car having a side doorway, a seat hinged at one end to the doorway and adapted to extend across said doorway, a step hingedly connected to the car below the doorway so as to longitudinally fold up toward the doorway, and rigid means pivotally connected to the seat and to the step at its ends for actuating the seat and step in unison.

5. In a railway car having a side doorway, a seat hinged at one end to the doorway and adapted to extend across said doorway, a step hingedly connected to the car below the doorway so as to longitudinally fold up toward the doorway, and a rigid link pivoted at its upper end to the seat and having its lower end curved and pivoted to the step.

[Claim 6 not printed in the Gazette.]

1,140,642. BRONZING OR METAL-SURFACING MACHINE. EDUARD WEINGÄRTNER, Leipzig-Plagwitz, and WILHELM FRIESS, Leipzig-Lindenau, Germany. Filed Apr. 19, 1913. Serial No. 762,868. (Cl. 91—59.)



1. A dust wiping device for bronzing and like machines, comprising endless wiping bands, means for moving said bands transversely to the path of the sheets, guide rollers for said bands arranged so as to cause the bands to be brought into contact with the sheets slantingly over one edge thereof so that the bands come into contact with the sheets inside but near one edge thereof and then move across the sheet in contact therewith and over its other edge in the plane of the sheet, substantially as set forth.

2. A dust wiping device for bronzing and like machines comprising endless wiping bands, means for moving said bands transversely to the path of the sheets, an adjustable guide roller mounted at one side of the machine, and a fixed guide roller mounted at the other side of the machine for each band, one of said guide rollers being arranged at a higher level than the other, means for adjusting the height of said adjustable roller, and auxiliary guide rollers arranged within said wiping bands.

3. A dust wiping device for bronzing and like machines comprising endless wiping bands, means for moving said bands transversely to the path of the sheets, an adjustable guide roller mounted at one side of the machine, and a fixed guide roller mounted at the other side of the machine for each band, one of said guide rollers being arranged at a higher level than the other, means for adjusting the height of said adjustable roller, auxiliary guide rollers arranged within said wiping bands, and a rotary brush located below said guide rollers and in contact with the surface of said bands.

4. A dust wiping device for bronzing and like machines comprising endless wiping bands, means for moving said bands transversely to the path of the sheet, an adjustable guide roller mounted at one side of the machine, and a fixed guide roller mounted at the other side of the machine for each band, one of said guide rollers being arranged at a higher level than the other, means for adjusting the height of said adjustable roller, auxiliary guide rollers arranged within said wiping bands, and a rotary brush located below said guide rollers and in contact with the surface of said bands, said brushes being arranged in a casing connected to a suction apparatus by which the bronze dust or powder removed from the bands is conveyed to a collecting receptacle.

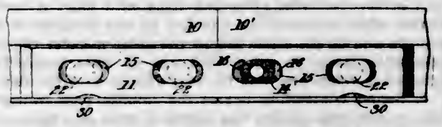
5. A dust wiping device for bronzing or like machines, comprising endless wiping bands, means for moving said bands transversely to the path of the sheets, an adjustable guide roller mounted at one side of the machine, and a fixed guide roller mounted at the other side of the machine for each band, one of said guide rollers being arranged at a higher level than the other, means for adjusting the height of said adjustable roller, auxiliary guide rollers arranged within said wiping bands, and open conduits located outside of the machine and connected to a suction apparatus across which said bands are guided.

1,140,643. CELL-CASE FILLER. FRANK O. WEIS, Coffeyville, Kans., assignor to North Star Manufacturing Company, Coffeyville, Kans., a Corporation of Illinois. Filed Dec. 7, 1910. Serial No. 595,991. (Cl. 217—31.)



A cell-case filler comprising two series of crossing strips, the strips of the first series having straight slots extending inwardly from one edge thereof and having deep and wide flaring throat-ways, said strips of the first series further having narrow rectangular locking slots therein spaced from the inner ends of the first mentioned slots, the strips of the second series having irregular slots extending inwardly from one edge thereof and having wide flaring throat-ways, the depth of said throat-ways being substantially one-third the total depth of the slots, one wall of each of said slots in the second series of strips extending in a single unbroken curve from the inner end of the throat-way to the inner end of the slot, the opposite wall of each slot providing a locking tongue 7 with a square inner shoulder, and the latter wall extending in an unbroken line from the tip of said tongue outwardly in alinement with the adjacent side of the throat-way, an off-set straight portion 5^a being provided at the inner end of the locking tongue 7, whereby said strips may be intermeshed while the two separate series are traveling along in the continuously traveling strip holders of an assembling machine.

1,140,644. RAIL-JOINT. WILLIAM F. WIDMER, Brackenridge, Pa. Filed July 3, 1914. Serial No. 848,810. (Cl. 239—9.)



1. An improvement in rail joints comprising a fish plate having openings therein and elongated recesses coinciding with said openings, a second fish plate also provided with chambers corresponding to said recesses, bolts having heads located in and rotatable within said chambers, nuts having elongated heads located in said recesses, said nuts having threaded portions engaging said bolts, and a cover plate for said chambers.

2. An improvement in rail joints comprising a fish plate having openings therein and elongated recesses coinciding with said openings, a second fish plate also provided with openings and coinciding chambers, bolts having heads located in and rotatable within said chambers, nuts having reduced portions extending into the openings in the first mentioned fish plate and engaging said bolts, said nuts having heads located within said recesses, and a cover plate for said chambers.

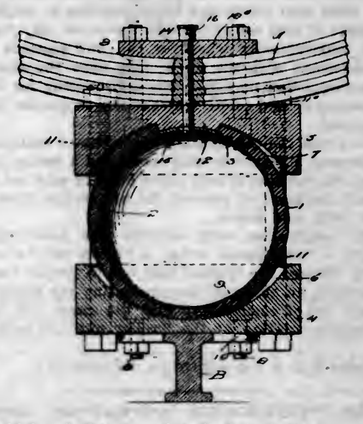
3. An improvement in rail joints comprising a fish plate having openings therein said openings being enlarged to form recesses and shoulders, a second fish plate also provided with openings and coinciding chambers, headed nuts located in said recesses and provided with reduced portions extending into the coinciding openings, threaded bolts engaging said extensions and having heads located in and rotatable within said chambers, and a cover plate for said chambers.

4. An improvement in rail joints comprising two fish plates provided with bolt openings, bolts passed through said openings and having heads bearing against one of said fish plates, the other fish plate being provided with recesses, and nuts having heads fitting within said recesses and provided with extensions inclosing the threaded portions of said bolts, said nuts having closed outer walls to protect the threads of the bolt from the atmosphere.

5. An improvement in rail joints comprising two fish plates provided with bolt openings, bolts passed through said openings and having heads bearing against one of said fish plates, the other plate being provided with elongated recesses, and nuts having elongated heads located within said recesses, and provided with sleeve like extensions inclosing the threaded portions of said bolts, said nuts having closed outer walls to protect the threads of the bolt from the atmosphere.

[Claims 6 to 10 not printed in the Gazette.]

1,140,645. PNEUMATIC CUSHION FOR AUTOMOBILES. EDWARD A. WILCOX, Carthage, Ill. Filed Feb. 12, 1914, Serial No. 818,316. Renewed Mar. 26, 1915. Serial No. 17,237. (Cl. 21—50.)



A vehicle of the type described including a resilient hollow spherical member, upper and lower concaved members applied to the corresponding surfaces of said resilient member, an inflatable resilient member within the first named resilient member, said upper concaved member having a central depending portion serving as a stopper or plug for the orifice in the upper portion of said spherical member, through which said inner resilient member is inserted, and upper and lower concaved members applied to the corresponding surfaces of said first named resilient member, said upper and lower concaved members being applied to the axle and vehicle-body, respectively.

1,140,646. RAPID-ACTING VISE. HUGH H. ABERNATHY, Chicago, Ill. Filed Oct. 1, 1906. Serial No. 336,959. (Cl. 81—36.)



1. In a vise the combination with suitable jaws and a continuous screw rotatably mounted in said jaws, of a sleeve supported by and rotatable in either direction through the frictional contact between said screw and sleeve and a nut segment on the inner surface of said

sleeve capable of engagement and disengagement with said screw by the rotation of said sleeve.

2. In a vise the combination of a screw, a cylindrical ring rotatively mounted thereon with a central hole of larger diameter than the screw, of a nut segment mounted longitudinally upon the inner surface of the ring and an abutment placed above the screw and the ring in such a way as to prevent the disengagement of the threads of the nut from the threads of the screw through an approximate vertical movement of the said ring.

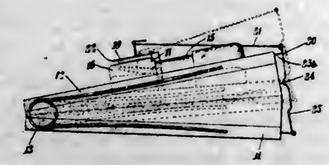
3. In a vise the combination of a screw, a collar rotatably mounted upon said screw and rotatable in either direction by the respective rotation of the said screw through the frictional contact between the collar and the screw due to the weight of the collar hanging upon said screw, a nut segment upon the inner surface of the said collar capable of engagement with said screw through the rotation of said collar, a housing formed about said screw and collar with means for preventing the rising of said collar from said screw and for preventing a longitudinal movement of said collar through the screw may be freely moved longitudinally whenever the nut segment is not in engagement with the screw, lugs upon the said collar and corresponding lugs upon the said housing for limiting the rotation of said collar substantially as and for the purpose named.

4. In a vise the combination of a screw, a sectional nut, an abutment adjacent to said screw and a wedge inserted through the rotation of said screw between said nut section and said abutment to prevent the nut section from disengaging with said screw.

5. In combination with suitable vise jaws and their supports, a compression screw, a "roller nut," a suitable housing adapted for holding said nut in proper longitudinal position, an abutment for preventing the rising of the said nut out of engagement with the screw and lugs for limiting the rotation of the "roller nut" in both directions.

[Claims 6 to 8 not printed in the Gazette.]

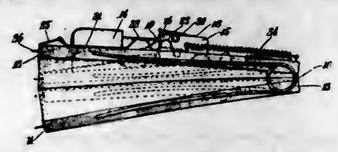
1,140,647. TALKING-TOY MECHANISM. LOUIS V. ARONSON, Newark, N. J. Filed Sept. 19, 1914. Serial No. 862,425. (Cl. 46—37.)



1. Sound controlling device for talking toys, comprising: a reed pipe or the like provided with an orifice, and a suitable bellows carrying said reed pipe and adapted to operate the same; a spring pressed flap normally closing said orifice; a control piece pivotally attached to the stationary member of said bellows and provided with inwardly directed projections; an operating rod to coöperate therewith and attached to the movable member of said bellows transversely to said control piece; and a link connecting the free end of said control piece with said flap.

2. Sound controlling device for talking toys, comprising: a suitable bellows, and a spring attached at the sides of the top and bottom of said bellows and normally distending the same; a reed pipe or the like provided with an orifice and adapted to be operated by the said bellows, being carried by the top of the same; a spring pressed flap normally closing said orifice; a control piece pivotally attached at one end to the front of the bottom member of said bellows and provided with inwardly directed projections; an operating rod to coöperate therewith and attached to the front of the top member of said bellows transversely to said control piece; and a link pivotally attached at one end to the other end of said control piece and pivotally attached at its other end to the said flap and extending over the top of the bellows.

1,140,648. TALKING-TOY MECHANISM. LOUIS V. ARONSON, Newark, N. J. Filed Oct. 2, 1914. Serial No. 864,583. (Cl. 46—46.)



1. Sound controlling device for talking toys, comprising: a reed piece or the like provided with an orifice, and a suitable bellows carrying said reed pipe and adapted to operate the same; a flap controlling said orifice; an arm extending from said flap; and a slidable member actuated as the bellows is compressed and adapted to coöperate with the said arm to open the flap.

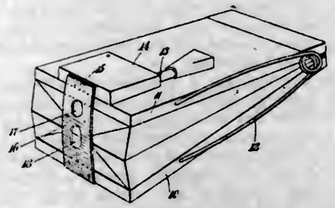
2. Sound controlling device for talking toys, comprising: a reed pipe or the like provided with an orifice, and a suitable bellows carrying said reed pipe and adapted to operate the same; a spring pressed flap normally closing said orifice; an arm extending from said flap; and a slidable member actuated as the bellows is compressed and adapted to coöperate with the said arm to open the flap.

3. Sound controlling device for talking toys, comprising: a reed pipe or the like provided with an orifice, and a suitable bellows carrying said reed pipe and adapted to operate the same; a spring pressed flap normally closing said orifice; an arm extending from said flap; a spring drawn slide connected at one end to one member of the bellows and at the other end to the other member thereof and adapted to coöperate with the said arm to open the flap.

4. Sound controlling device for talking toys, comprising: a reed pipe or the like provided with an orifice, and a suitable bellows carrying said reed pipe and adapted to operate the same; a spring pressed flap normally closing said orifice; an arm extending from said flap; a spring drawn slide connected at one end to one member of the bellows and at the other end to the other member thereof, said slide being provided with one or more projections adapted to coöperate with the said arm to open the flap.

5. Sound controlling device for talking toys, comprising: a reed pipe or the like provided with an orifice, and a suitable bellows carrying said reed pipe and adapted to operate the same; a spring pressed flap normally closing said orifice; an arm extending from said flap; a slide provided with one or more projections adapted to coöperate with said arm to open the flap; a spring connected to one end of said slide and to the movable member of the bellows; and a non-rigid member connected to the other end of said slide and to the base member of said bellows.

1,140,649. TALKING-TOY MECHANISM. LOUIS V. ARONSON, Newark, N. J. Filed Feb. 8, 1915. Serial No. 6,951. (Cl. 46—46.)



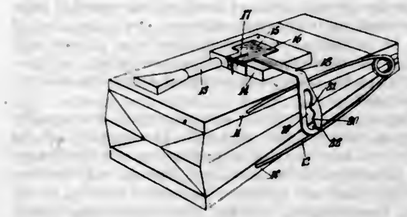
1. Sound controlling device for talking toys, comprising: a reed pipe or the like provided with an orifice, and a suitable bellows carrying said reed pipe an dadapted to operate the same; and a control piece fixed to one member of the bellows and provided with suitable openings adapted to register with the said orifice of the reed pipe or the like when the bellows is compressed.

2. Sound controlling device for talking toys, comprising: a reed pipe or the like provided with an orifice, and a suitable bellows carrying said reed pipe and adapted to operate the same; and a control piece attached to one member of the bellows and provided with a plurality of openings of different length adapted to successively register with the said orifice of the reed pipe as the bellows is compressed.

3. Sound controlling device for talking toys, comprising: a reed pipe or the like provided with an orifice, and a suitable bellows carrying said reed pipe and adapted to operate the same; and a resilient control piece secured to one member of the bellows and normally closing said orifice of the reed pipe or the like and provided with suitable openings adapted to register with said orifice as the bellows is compressed.

4. Sound controlling device for talking toys, comprising: a reed pipe or the like provided with an orifice, and a suitable bellows carrying said reed pipe and adapted to operate the same, the orifice of said reed pipe or the like being located substantially at the front of one member of the bellows; and a resilient control piece secured to the front of the other member of said bellows, curved to conform substantially to an arc described about the axis of said bellows and extending over the front of the bellows to normally close the said orifice of the reed pipe and provided with suitable openings adapted to successively register with the said orifice as the bellows is compressed.

1,140,650. TALKING-TOY MECHANISM. LOUIS V. ARONSON, Newark, N. J. Filed Feb. 8, 1915. Serial No. 6,952. (Cl. 46—46.)



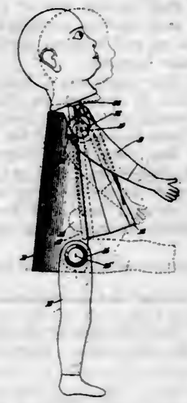
1. Sound controlling device for talking toys, comprising: a rede pipe or the like provided with an orifice, and a suitable bellows carrying said reed pipe and adapted to operate the same; a valve piece normally closing said orifice and provided with an outwardly extending arm; and a control piece carried by one member of said bellows, unattached to said arm but adapted to directly engage the same to operate the valve piece as the bellows is compressed.

2. Sound controlling device for talking toys, comprising: a reed pipe or the like provided with an orifice, and a suitable bellows carrying said reed pipe and adapted to operate the same; a valve piece normally closing said orifice and provided with an outwardly extending arm provided with suitable projections; and a control piece carried by one member of said bellows, unattached to said arm but adapted to directly engage the projections of the same to operate the valve piece as the bellows is compressed.

3. Sound controlling device for talking toys, comprising: a reed pipe or the like provided with an orifice, and a suitable bellows carrying said reed pipe and adapted to operate the same; a pivoted, spring held valve piece normally closing said orifice and provided with an outwardly extending arm provided with suitable projections; and a control piece carried by one member of said bellows, unattached to said arm but adapted to directly engage the projections of the same to operate the valve piece as the bellows is compressed.

4. Sound controlling device for talking toys, comprising: a reed pipe or the like provided with an orifice, and a suitable bellows carrying said reed pipe and adapted to operate the same; a pivoted, spring held valve piece normally closing said orifice and provided with an arm piece extending outwardly over said bellows and then turned downwardly toward the bottom thereof, the outer end of said arm being slotted and having projections extending into the slot; and a pin attached to the bottom member of the bellows and extending into said slot to engage the projections thereof to operate the valve piece as the bellows is compressed.

1,140,651. DOLL. LOUIS V. ARONSON, Newark, N. J. Filed Feb. 27, 1915. Serial No. 10,914. (Cl. 46—40.)



1. A figure toy, comprising a body and one or more movable parts attached thereto, sound emitting mechanism mounted on said body and having a portion adapted to be moved to cause said mechanism to respond, said movable part or parts being connected to said movable portion of the sound emitting mechanism, and means for holding said movable part or parts in different adjustments.

2. A figure toy, comprising a body and one or more movable parts attached thereto, sound emitting mechanism mounted on said body and having a portion adapted to be moved to cause said mechanism to respond, said movable part or parts being connected to said movable portion of the sound emitting mechanism, and resilient washers between said movable part or parts and the said body.

3. A doll, comprising a body portion, sound emitting mechanism mounted thereon and having a portion adapted to be moved to cause said mechanism to respond, and arms pivotally attached to said movable member.

4. A doll, comprising a body portion, sound emitting mechanism mounted thereon and having a portion adapted to be moved to cause said mechanism to respond, a head attached to said movable member, and arms pivotally attached to said movable member.

5. A doll, comprising a body portion, and a bellows and sound emitting device attached thereto, legs pivotally attached to said body portion, a head fixedly attached to the movable member of said bellows, and arms pivotally attached to said member.

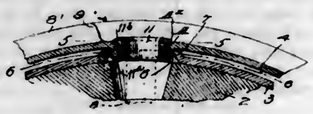
[Claims 6 and 7 not printed in the Gazette.]

1,140,652. DEMOUNTABLE RIM FOR AUTOMOBILE-WHEELS. ERLE K. BAKER, Chicago, Ill., assignor to Universal Rim Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 10, 1914. Serial No. 823,806. (Cl. 152—21.)

1. A transplit rim having in one end a hole which opens into the split in the rim, in combination with a rim-end interlocking member in said hole and permanently fastened to one end of the rim.

2. A transplit rim having in one end a hole which opens into the split of the rim, in combination with a rim-end

interlocking member and driver in said hole and rigidly fixed to one end of the rim.



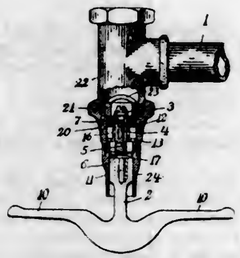
3. A transplit rim containing a hole which opens into the split of the rim, in combination with a member occupying said hole fixed to one end of the rim and interlocking the rim ends against accidental lateral displacement, and means on and integral with the rim ends for fastening said ends together.

4. A transplit rim containing a hole which opens into the split of the rim, in combination with a rim-end interlocking and valve-stem containing member occupying said hole and rigidly fixed to one end of the rim.

5. A transplit rim containing a hole which is segmentally intersected by and forms a part of the split of the rim, in combination with an interlocking member secured in the major part of said hole and having shoulders or flanges that radially interlock with the opposed end of the rim.

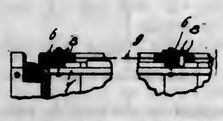
[Claims 6 to 20 not printed in the Gazette.]

1,140,653. VALVE. ROBERT P. BARNSTEAD, Boston, Mass. Filed Nov. 12, 1914. Serial No. 871,830. (Cl. 137—4.)



A valve comprising a casing, a spool therein having radial openings through its body and openings in its lower flange, a valve opening and seat above said spool, a slender post having a head larger than the valve opening and coöperating therewith, a neck smaller than the interior of the spool and a body portion fitted to enter said interior, and means for raising said post to put said head out of engagement with said valve opening.

1,140,654. CONVERTIBLE CAR. PAUL M. BEARD, St. Louis, Mo., assignor to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed June 12, 1911. Serial No. 632,745. (Cl. 119—8.)



1. In a convertible car, a pair of posts, a pair of plates fixed to the outer face of each post, both edges of each plate being bent inwardly so that said edges occupy planes inside the plane occupied by the outer faces of the posts, said bent edges being spaced apart to form guide ways, and a curtain, the side edges of which occupy said guideways.

2. In a convertible car, a pair of posts, a pair of plates fixed to the outer face of each post, which plates extend downward on the posts below the floor line of the car, both edges of each plate being bent inwardly so that said edges occupy planes inside the vertical plane occupied by the outer faces of the posts, said bent edges being spaced apart to form guideways, and a curtain, the edges of which occupy said guideways.

3. In a convertible car, the combination with posts having guideways, on their side faces, which guideways are composed of a pair of plates, one of which overlies the other, both edges of each plate being bent inwardly so that said edges occupy planes inside the vertical plane occupied by the outer face of the post, said bent edges being spaced apart, spring-actuated rollers arranged for operation between the upper portions of said posts, flexible curtains attached to and adapted to wind onto said rollers, the edges of which curtains occupy and traverse the guideways between the edges of the plate, and means coöperating with said ro..ers for holding the same against rotary movement in one direction.

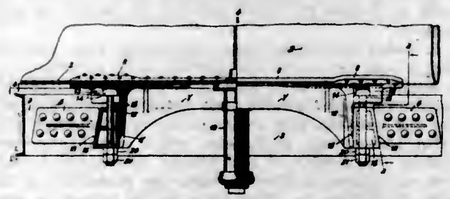
1,140,655. GAS-BURNER TIP. THOMAS ADDISON BELL, New York, N. Y. Filed July 27, 1914. Serial No. 853,375. (Cl. 67—112.)



1. A burner tip embodying a tube having opposite sides thereof pressed close together adjacent the upper end of the tube to provide an elongated transverse narrow slot longer than the diameter of the tube, and having a transverse outlet at its upper end arranged angularly relative to the said slot.

2. A burner tip embodying a tube having its opposite sides pressed close together adjacent the upper end of the tube to provide an elongated transverse narrow slot longer than the diameter of the tube, and having a transverse outlet at its upper end arranged angularly relative to the said slot, the terminals of the outlet extending downwardly partially into the said pressed portions.

1,140,656. TANK-CAR. GEORGE P. BENDER, Berwick, Pa., assignor to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed Dec. 6, 1912. Serial No. 735,292. (Cl. 105—264.)



1. In a car, the combination with an underframe, fixed spaced stop members, of a car body anchor disposed between said stop members and spaced from and movable relative thereto, the spaces between the members being wider at the bottom than at the top, and a wedging element carried by one of said members adapted to be drawn into one of said spaces to lock the members together.

2. In a car, the combination with fixed stop members, of a longitudinally movable car body anchor disposed between said stop members and limited in its movement in one direction by one of said stops, the space between the other stop and the car body anchor being wider at one place than at another place, and a wedge carried by one of said members adapted to be drawn into said space to lock the members together.

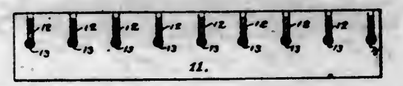
3. The combination with an underframe, of a tank supported thereby and removable therefrom without destructive effort, and a vertically movable wedge locking said tank to the underframe against separation in a vertical direction.

4. The combination of an underframe having a stop, of a car body, an anchor for said car body facing said stop, the facing surfaces of said stop and anchor being inclined relative to each other, and a member adapted to be forced vertically between said stop and anchor.

5. The combination with spaced center sills having a plurality of spaced apart stops carried therebetween, of a tank having an anchor attached thereto and depending therefrom between said center sills and between said stops, and a plurality of vertically movable locking means disposed between the stops and the adjacent parts of the anchor.

[Claims 6 to 21 not printed in the Gazette.]

1,140,657. GRATING. ISRAEL BENJAMINS, Brooklyn, N. Y., assignor to Mark & Mobl, Inc., Brooklyn, N. Y., a Firm. Filed June 9, 1914. Serial No. 844,101. (Cl. 189—82.)



1. A grating comprising bearer bars having suitable slots, spacing bars and keybars passing through said slots, said keybars having portions, inclosed between said bearer bars, expanded in the direction of said spacing bars, thereby securing said spacing bars in position.

2. A grating comprising bearer bars having suitable slots, spacing bars and keybars passing through said slots, said keybars being situated under said spacing bars, when the said grating is horizontal, and having portions, inclosed between said bearer bars, expanded vertically, thereby securing said spacing bars in position.

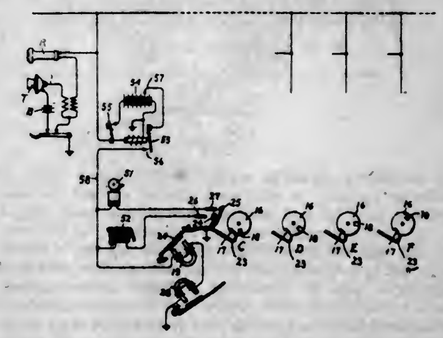
3. A grating comprising bearer bars, spacing bars and keybars, said bearer bars having slots enlarged at their lower ends, when said grating is horizontal, said spacing bars passing through the upper ends of said slots, said keybars, being initially thicker than said spacing bars, passing through said enlargements in said slots and having portions, inclosed between said bearer bars, expanded vertically by compressing the sides of said keybars after the said spacing bars are in place, thereby securing said spacing bars in position.

4. A grating comprising bearer bars, spacing bars and keybars, said bearer bars having slots, said spacing bars and keybars passing through said slots, said keybars, being initially round, having portions inclosed between said bearer bars expanded in the direction of said spacing bars by compressing the suitable sides of said keybars after the said spacing bars are in place, thereby securing said spacing bars in position.

1,140,658. TELEPHONE SYSTEM. PHILIP G. BRANHOLZ, Schenectady, N. Y. Filed July 3, 1909. Serial No. 505,908. (Cl. 177—342.)

1. In a signaling system for telephones or the like, the combination of a plurality of stations each having a suitable call bell, a spring motor, an indicator driven thereby, an electromagnetic device provided with a switch and means controlled by said switch for starting said motors, and electromagnetic means controlled by said switch for energizing the line and ringing a call bell in a station when the indicator in said station reaches a predetermined position.

2. In a signaling system for telephones or the like, the combination of a plurality of stations each having a suitable call bell, of a spring motor and an indicator driven thereby, a switch and electromagnetic means controlled thereby for energizing the line and simultaneously starting said motors and an electromagnetic circuit closer in each station for energizing the bell circuit and having its energizing circuit controlled by said switch, and means functionally related to the indicator in a station for preventing the operation of said circuit closer until the indicator in said station has moved to a predetermined position, said position being different in the various stations, so that only one circuit can be operated at a time.



3. In a signaling system for telephones or the like, the combination of a plurality of stations each having a suitable call bell, a normally locked motor and an indicator driven thereby, a switch for energizing the line means controlled by said switch to unlock said motors and start the same, an electromagnetic circuit closer in each station controlled by said switch for energizing the bell circuit and means driven by said motor for preventing the operation of said circuit closer until the indicator has moved to a predetermined position, said position being different in the various stations so that no two circuit closers can be operated simultaneously.

4. In a signaling system for telephones or the like, the combination of a plurality of stations each having a suitable call bell, a normally locked motor and an indicator driven thereby, electromagnetic means for energizing the line and simultaneously unlocking and starting said motors, a switch for controlling said electromagnetic means, an electromagnetic circuit closer energized upon the closing of said switch for energizing the bell circuit, and means driven by said motor for preventing the operation of said circuit closer until the indicator has moved to a predetermined position, said position being different in the various stations so that no two closers can be operated simultaneously.

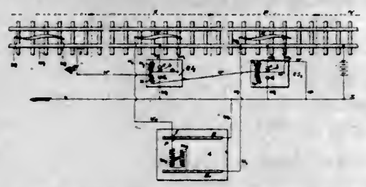
5. In a signaling system for telephones or the like, the combination of a plurality of stations each having a suitable call bell, a spring motor normally locked in initial position, means including an electromagnetic device energized through the line for unlocking said motor when energized, and starting the same when deënergized, a switch for controlling said electromagnetic device, an electromagnetic circuit closer energized upon the closing of said switch for energizing the bell circuit, and means driven by said motor for preventing the operation of said circuit closer until the indicator has moved to a predetermined position.

[Claims 6 and 7 not printed in the Gazette.]

1,140,659. ELECTRICALLY-OPERATED SYSTEM OF AND APPARATUS FOR AUTOMATIC SIGNALING ON RAILWAYS. EDWARD WHITTAKER BOTTLE, London, England. Filed Oct. 31, 1914. Serial No. 869,536. (Cl. 246—25.)

1. A railway signaling system divided into a series of blocks or stations; a source of electric current for said stations; each of said stations including a ramp rail, a switch movable in reverse directions and connected to said ramp rail, a pair of oppositely disposed electromagnetic means for actuating said switch, and a track-switch; and means electrically connecting said track-switch with al

ternate members of the pairs of said electromagnetic means at each of two stations succeeding that at which said track-switch is installed whereby, when said track-switch is operated, the ramp rail in the next succeeding station will be connected with said source of current and the ramp rail at the second succeeding station will be disconnected from said source of current.



2. A railway signaling system divided into a series of blocks or stations; a source of electric current for said stations; each of said stations including a ramp rail, a pair of fixed contacts connected, respectively, to the positive and negative sides of said source of current, a switch connected to said ramp rail and movable against said fixed contacts, a pair of oppositely disposed electromagnetic means for actuating said switch, and a track-switch; and means electrically connecting said track-switch with alternate members of the pairs of said electromagnetic means at each of two stations succeeding that at which said track-switch is installed whereby, when said track-switch is operated, the switch at the next succeeding station will be moved against the fixed contact connected with the positive side of the source of current and the switch at the second succeeding station will be moved against the fixed contact connected with the negative side of said source of current.

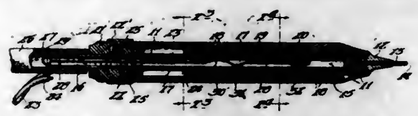
3. A railway signaling system divided in a series of blocks or stations; a source of electric current for said stations, each of said stations including a ramp rail; a pair of fixed contacts connected respectively to the positive and negative sides of said source of current, a switch movable into engagement with said contacts and connected to said ramp rail, flexible means carried by said switch for immediately returning the latter to neutral position after making contact with the contact connected to the negative side of said source of current, oppositely disposed solenoids adapted to move said switch against said contacts, and a track-switch; and means electrically connecting said track-switch with alternate solenoids at two stations succeeding that at which the track-switch is installed whereby, when said track-switch is operated, the switch at the first succeeding station will be moved against the contact connected with the positive side of said source of current to electrically charge the ramp rail at said station and the switch at the second succeeding station will be momentarily moved against the contact connected with the negative side of said source of current whereby the ramp rail at that station will be electrically discharged.

4. A railway signaling system divided into a series of blocks or stations; a source of electric current for said stations, each of said stations including a ramp rail, a switch connected to said ramp rail, oppositely disposed fixed contacts against which said switch may be moved and which contacts are connected respectively to the positive and negative sides of said source of current, a pair of solenoids at opposite sides of said switch for moving the same into engagement with said contacts, and a spring returned track-switch adjacent the railway tracks; and means electrically connecting the said track-switch with alternate solenoids of each of the pairs of solenoids at two stations succeeding that at which the track-switch is installed whereby, when the track-switch is operated by a passing vehicle, the switch at the first succeeding station will be moved to connect the ramp rail with the positive side of the source of current and the switch at the second succeeding station will be moved to disconnect the ramp rail of that station from the positive side of the source of current.

5. A railway signaling system divided into a series of blocks or stations; a source of electric current for said stations; each of said stations including a ramp rail; a switch movable in reverse directions and connected to said ramp rail, a pair of oppositely disposed electromagnetic means for actuating said switch, and a track-switch; means electrically connecting said track-switch with alternate members of the pairs of said electromagnetic means at each of two stations succeeding that at which said track-switch is installed whereby, when said track-switch is operated, the ramp rail in the next succeeding station will be connected with said source of current and the ramp rail at the second succeeding station will be disconnected from said source of current, and electrically operated means connected to the ramp rails for indicating the condition of the blocks in said system.

[Claim 6 not printed in the Gazette.]

1,140,660. WAX-EXTRACTOR. WILLIAM J. BRIZIUS, Los Angeles, Cal. Filed Jan. 9, 1915. Serial No. 1,474. (Cl. 219—21.)



1. A wax extractor comprising a handle, a small heated metal point carried in said handle and having an opening therein, and means for drawing the heated wax through said opening away from said point.

2. A wax extractor comprising a handle, a small heated metal point carried in said handle and having an opening therein, means for drawing the heated wax through said opening away from said point, and absorbent means adjacent to said point for collecting and retaining the heated wax.

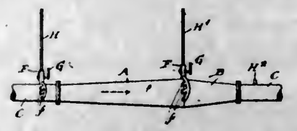
3. A wax extractor comprising a metal tube, means for heating said tube, an extracting tube having a small opening therein secured in said metal tube, the opening in the extracting tube communicating with the interior of the metal tube, and means for causing a partial vacuum in the interior of the metal tube.

4. A wax extractor comprising a metal tube, means for heating said tube, an extracting tube having a small opening therein secured in said metal tube, the opening in the extracting tube communicating with the interior of the metal tube, means for causing a partial vacuum in the interior of the metal tube, and absorbent means in said metal tube for collecting and retaining the melted wax drawn into said metal tube through said extracting tube.

5. A wax extractor comprising a metal tube having an extracting tube secured in one end thereof, said extracting tube having an opening communicating with the interior of said metal tube, insulating material wound on said metal tube, an electric heating element wound on said insulating material, means for supplying electricity to said heating element, and means for causing a partial vacuum in the interior of said metal tube.

[Claims 6 to 8 not printed in the Gazette.]

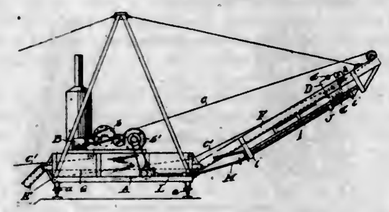
1,140,661. WATER-METER. CHARLES GORDON BRODIE, Fernhill, Wootton Bridge, Isle of Wight, England. Filed Mar. 7, 1914. Serial No. 823,178. (Cl. 73—167.)



1. In an apparatus for measuring fluid passing through a conduit, a pair of conical tubes having their larger ends facing each other, the smaller end of each tube being connected to the conduit whereby fluid passing through the conduit will pass through said tubes, the tubes providing divergent and convergent fluid conductors, the fluid to be measured passing first through the diverging and then through the converging tubes, and means for conducting the fluid to be measured from a point adjacent the juncture of the larger ends of the tubes and from a point in the conduit.

2. In an apparatus for measuring fluid passing through a conduit, a pair of conical tubes having their larger ends facing each other, the smaller end of each tube being connected to the conduit whereby fluid passing through the conduit will pass through said tubes, the tubes providing divergent and convergent fluid conductors, the fluid to be measured passing first through the diverging and then through the converging tubes, and means for conducting the fluid to be measured from a point adjacent the juncture of the larger ends of the tubes and from a point in the conduit, said means in each instance comprising a high pressure tube branching at its connecting end into a plurality of branches, substantially as and for the purpose described.

1,140,662. EXCAVATOR. MORTON G. BUNNELL, Chicago, Ill., assignor to Frederick C. Austin, Chicago, Ill. Filed Feb. 23, 1909. Serial No. 479,322. (Cl. 37—39.)



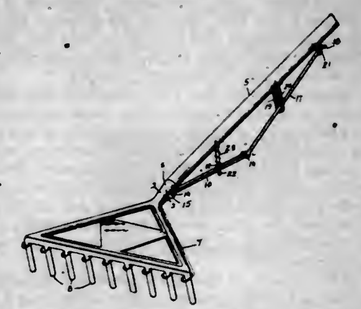
1. An excavator comprising a runway, a bucket mounted to travel back and forth on said runway, a tripper for upsetting the bucket to dump the load provided with a sliding track section, serving to limit the travel of the bucket in one direction, means for operating the bucket back and forth on the runway, and on the tripper, and mechanism for adjusting the said tripper along the runway to vary the point of discharge.

2. An excavator comprising a runway, a bucket mounted to travel back and forth on said runway, a tripper for upsetting the bucket to dump the load, provided with a sliding track section, serving to limit the travel of the bucket in one direction, means for operating the bucket back and forth on the runway, and on the tripper, mechanism for adjusting the said tripper along the runway to vary the point of discharge, said mechanism including a pair of screws carried by the runway, disposed at opposite sides and extending longitudinally thereof, means on the tripper for engaging said screws, and means for rotating the screws in unison.

3. An excavator comprising a runway, a bucket mounted to travel back and forth on said runway, a tripper for upsetting the bucket to dump the load, serving to limit the travel of the bucket in one direction, means for operating the bucket back and forth on the runway, and mechanism for adjusting the said tripper along the runway to vary the point of discharge, said tripper providing a track depression in which the bucket upsets and comes to rest to dump the load.

4. An excavator comprising a runway, a bucket mounted to travel back and forth on said runway, a tripper for upsetting the bucket to dump the load, provided with a sliding track section, serving to limit the travel of the bucket in one direction, means for operating the bucket back and forth on the runway, and on the tripper, and mechanism for adjusting the said tripper along the runway to vary the point of discharge, said mechanism being carried on the runway and operative for holding the tripper in position thereon.

1,140,663. RAKE-CLEANER. JOSEPH LEE BYRAM, Clements, Kans. Filed May 26, 1914. Serial No. 841,018. (Cl. 55—146.)



A device of the character described comprising a handle, a rake head secured to said handle, teeth on said head, a cleaner frame including a plurality of loops receiving said teeth and a shank pivotally secured adjacent its inner end to said handle and extending angularly therefrom, said shank having an elongated opening adjacent its medial portion, a pin secured to said handle and extending through said opening for limiting the lateral movement of said shank, a spring positioned on said pin between said shank and said handle for normally retaining the cleaner frame in inoperative position, a slide bar pivotally secured to the free end of said shank, brackets secured to said handle and slidably receiving said slide bar, a handle on said slide bar adapted to engage one of said brackets to limit the movement of said slide bar in one direction.

1,140,664. SAFETY-RAZOR. ERNEST H. COOPER and STANLEY B. EARLE, London, England. Filed Oct. 6, 1913. Serial No. 793,687. (Cl. 30—12.)



1. A safety razor of the kind described including in combination, a handle, a guard, a blade holder and a blade carried thereby, said blade being movable independently of the guard into the "shaving" and "stropping" positions, means passing down and movable longitudinally of the handle and connected to the blade holder for rotating it, and means for holding said blade holder actuating means against movement to prevent any substantial displacement of the blade when in either its "shaving" or "stropping" position.

2. A safety razor of the kind described including in combination, a handle, a guard, a blade holder and a blade carried thereby, said blade being movable independently of the guard into the "shaving" and "stropping" positions, means passing down and movable longitudinally of the handle and linked to the blade holder for rotating it, and means for holding said blade holder actuating means against movement to prevent any substantial displacement of the blade in either its "shaving" or "stropping" position.

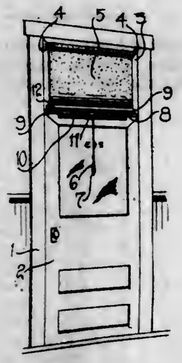
3. A safety razor of the kind described including in combination, a handle, a guard and a blade carried thereby, said blade being movable independently of the guard into the "shaving" and "stropping" positions, a blade holder having a tail piece lying in the plane of the blade and means for exerting end tension on said tail piece to rigidly hold the blade holder against displacement in either direction when in the "stropping" position.

4. A safety razor of the kind described including in combination, a handle, a guard and a blade carried thereby, said blade being movable independently of the guard into the "shaving" and "stropping" positions, a blade holder having a tail piece lying in the plane of the blade and means passing down and movable longitudinally of the handle and linked to the tail piece for exerting end tension on said tail piece to rigidly hold the blade holder against displacement in either direction when in the "stropping" position.

5. A safety razor of the kind described including in combination, a handle, a guard, a blade holder and a blade carried thereby, said blade being movable independently of the guard into the "shaving" and "stropping" positions, means passing down and movable longitudinally of the handle and connected to the blade holder for rotating it, and means for effecting an adjustment of the parts in the shaving position thereof by manipulation of the said blade holder actuating means whereby the amount of projection of the guard beyond the edge of the blade may be varied.

[Claims 6 to 10 not printed in the Gazette.]

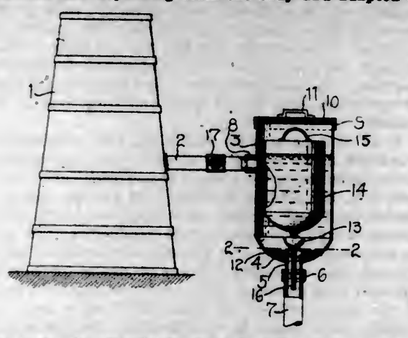
1,140,665. COMBINED TRANSOM AND DOOR CURTAIN. EDMUND J. CROFT, Tacoma, Wash. Filed July 2, 1914. Serial No. 848,621. (Cl. 156—10.)



In a combined transom and door curtain, the combination with a curtain hung on a hinged transom, an idler roller secured to the bottom of the transom against which the curtain bears, a weighted operating cord suspended from the curtain, and an idler roller secured to the door over which the weighted cord or curtain moves when the door is opened to prevent the cord or curtain becoming caught between the door and its frame when the door is opened and closed, said weighted cord serving to hold the curtain taut.

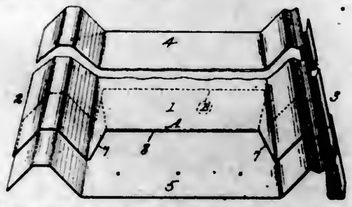
1,140,666. AUTOMATIC CUT-OFF. ALVA A. CUMMINGS, Delaware, Okla. Filed Dec. 19, 1913. Serial No. 807,778. (Cl. 137—68.)

The combination with a storage tank and a supply pipe, of an exterior valve casing disposed between the storage tank and supply pipe, said valve casing having a concave valve seat on its lower end communicating with the supply pipe and the casing and connected to the storage tank, a buoyant body supported in the casing of less diameter than the casing and having a rod extending therefrom and through said seat, said rod being of less diameter than the seat, and a downwardly convex valve surrounding the rod and depending from the body and adapted to
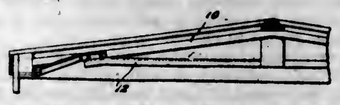


fit the seat, whereby the buoyant body may tip without unseating the valve.

1,140,667. SHEET-METAL ROOFING. CHRISTOPHER B. EDWARDS, Covington, Ky., assignor to The Moeschl-Edwards Corrugating Company, Covington, Ky., a Corporation of Kentucky. Filed Mar. 13, 1915. Serial No. 14,263. (Cl. 108—18.)



A metal-roofing sheet having longitudinal crimps along its opposite edges, and a backwardly and forwardly extending underfold made near the lower end thereof and with the plane body portion transversely notched and diagonally cut out at its side-edges from the said corrugated side-edges whereby a shallow transverse pocket is provided at the lower end of the sheet that is adapted to receive the upper end of the next succeeding lower-sheet in making a ready end-slip transverse joint between sheets and with the fastening-nails duly covered and concealed by the said upper end of the said lower-sheet.

1,140,668. BRACING FOR CARLINES. ROBERT G. ELLIS, St. Louis, Mo., assignor to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed Apr. 15, 1912. Serial No. 691,035. (Cl. 108—5.)

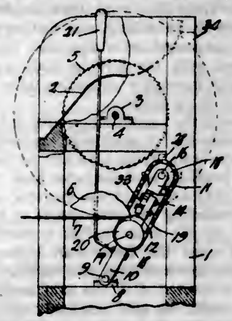


1. The combination with a carline having its ends fixed to the side plates of a car body, of diagonally disposed braces arranged between the end portions of the body of the carline and the side plates of the car body, the outer ends of which braces occupy a plane below the plane occupied by the ends of the carline.

2. The herein described carline comprising a truss member, the ends of which are adapted to be fixed to the side plates of a car body, and braces fixed to said member and projecting outwardly and downwardly from the end portions thereof.

3. The herein described carline comprising a truss member, the ends of which are adapted to be fixed to the side plates of a car body, and diverging braces fixed to the end portions of said member, the outer ends of which braces occupy a plane below that occupied by the end of the truss member.

1,140,669. GIN-SAW CLEANER. MALON I. FLOWERS and WILLIAM S. LYNCH, Waelder, Tex. Filed June 25, 1914. Serial No. 847,274. (Cl. 13—14.)

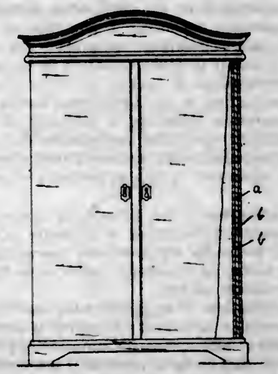


1. A gin saw cleaner embodying a man frame; a gin saw thereon; a vertically swinging radius frame; a pivot element connecting the lower end of the radius frame with the main frame; and a cleaner upon the radius frame, the cleaner being movable with the radius frame toward and away from the saw in an arc of which the pivot element is the center, the radius frame comprising longitudinally extensible parts, and a connection between said parts, thereby to permit an adjustment in the radius of the arc in which the cleaner swings, and to position the cleaner for engagement with the saw, when the radius frame is swung.

2. A gin saw cleaner embodying a main frame; a gin saw thereon; a vertically swinging radius frame; a pivot element connecting the lower end of the radius frame with the main frame; and a cleaner upon the radius frame, the cleaner being movable with the radius frame toward and away from the saw in an arc of which the pivot element is the center, the radius frame being inclined with respect to the vertical to rest gravitationally in engagement with the main frame and out of operative relaion with the saw; the radius frame embodying longitudinally extensible parts and a connection between said parts, thereby to vary the length of the radius frame and to maintain the cleaner out of engagement with the saw when the radius frame is swung into engagement with the main frame and out of operative relation to the saw.

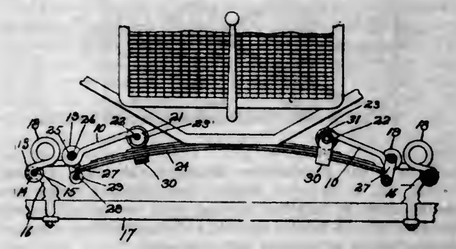
3. A gin saw cleaner embodying a shaft; abutting disks on the shaft and equipped with peripheral, diverging fingers outstanding beyond the peripheries of the disks; supports engaging the outer faces of the disks and mounted on the shaft; and securing devices engaging the supports and the disks independently of the shaft.

1,140,670. FIREPROOF CABINET. ROBERT FRIEDRICH, Leipzig-Plagwitz, Germany. Filed Jan. 6, 1914. Serial No. 810,556. (Cl. 109—2.)



In a cabinet the combination of wooden walls and fireproof coatings applied internally and externally to said walls, said coatings consisting of textile fabric embedded in artificial stone adhering to the wood.

1,140,671. SUSPENSION-SPRING FOR VEHICLES. EUGENE FULLER, Providence, R. I., assignor of one-third to Charles F. Butterworth, Pawtucket, R. I., and one-third to Joseph Webb, Thornton, R. I. Filed Nov. 12, 1914. Serial No. 871,650. (Cl. 21—10.)



1. In a vehicle spring the combination with a main spring of an auxiliary spring having one end pivotally supported on a vehicle element and its opposite end bearing against said main spring, the end of the main spring being supported from the auxiliary spring at a point intermediate the ends of the latter.

2. A compound spring for vehicles comprising a main spring, an auxiliary spring at either end of said main spring, each of said auxiliary springs having one end pivotally supported on a vehicle element and its opposite end bearing against said main spring, the main spring being supported from the auxiliary spring at a point intermediate its ends.

3. A compound spring for vehicles comprising a main spring, an auxiliary spring at either end of said main spring, each of said auxiliary springs having one end pivotally supported on a vehicle element and its opposite end bearing against said main spring, the main spring being supported from the auxiliary spring at a point intermediate the ends of the auxiliary spring, and a coil in the auxiliary spring between the pivoted point and the point of support of said main spring.

4. A compound spring for vehicles comprising a main spring, an auxiliary spring at either end of said spring, each of said auxiliary springs having one end pivotally supported on a vehicle element and its opposite end bearing against said main spring, the main spring being supported from the auxiliary spring at a point intermediate the ends thereof, and means on said opposite ends for preventing the auxiliary spring from leaving the main spring as the latter recoils.

5. A shock absorbing device comprising a vehicle spring, a yieldable member at one end of the vehicle spring, said member having one end supported by a vehicle element, and its opposite end supported by said spring, and means connecting one end of said spring to said member at a point intermediate the ends of the latter.

[Claims 6 to 8 not printed in the Gazette.]

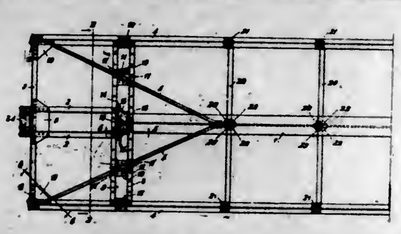
1,140,672. UNDERFRAME. FREDERICK H. GIBBS, New York, N. Y., assignor to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed Nov. 8, 1912. Serial No. 730,225. (Cl. 105—76.)

1. An underframe construction comprising draft sills, a single center sill and a through bolster, and a center casting spacing and supporting the bolster webs and adapted to converge the crushing stresses transmitted to the draft sills into the center sills.

2. In an underframe, a bolster provided with pockets, a single center sill comprising a vertical web and a plurality of diagonal braces resting in said pockets and being connected together through said web.

3. In an underframe, a bolster provided with pockets, end sills, a plurality of diagonal braces connected together at their inner ends and extending outwardly through said bolster and being connected with said end sills at their outer ends.

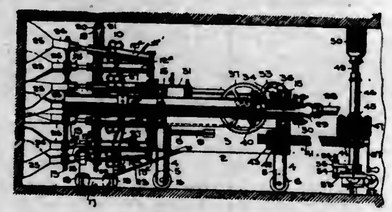
4. In an underframe, a single center sill, spaced draft sills, end sills, pocketed bolsters and diagonal braces connected to said single center sill and extending through the pockets of said bolsters to connect with said end sills.



5. In a car underframe, Z-shaped side sills, a single center sill, a pocketed bolster and diagonal braces connected directly together through said center sill extending through the bolster pockets and terminating below one of the flanges of each of said side sills.

[Claims 6 to 28 not printed in the Gazette.]

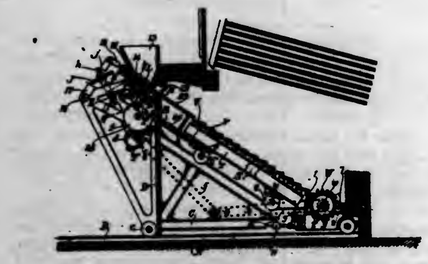
1,140,673. TUNNELING-MACHINE. WALTER W. GIGGEY, Netherland, Colo. Filed Mar. 13, 1912. Serial No. 683,520. (Cl. 125—14.)



1. In a tunneling machine, the combination with a carrying truck, of a wheeled carrier independently supported in advance thereof, a bearing suspended from the said carrier, a shaft rotatably supported upon the truck, a head on said shaft supported within the said bearing, and a plurality of reciprocating hammers on said head.

2. In a tunneling machine, the combination with a carrying truck, of a carrier independently supported in advance thereof and comprising a circular member having surface wheels and a ball bearing ring suspended therein, a shaft rotatably supported upon the truck, a head rotatably supported upon balls within the said ring, and a plurality of reciprocating hammers on said head.

1,140,674. STEAM-BOILER FURNACE. CHARLES E. GOGGINS, Brooklyn, N. Y. Filed June 15, 1914. Serial No. 845,134. (Cl. 110—33.)



1. In a furnace, the combination with the front wall, of parallel transverse shafts rotatively supported on the outside of the front wall, arms attached to the said shafts, a grate having portions each movable back and forth, rods connecting the said arms and the movable portions of the grate, gears connecting the said shafts, a second arm attached to one of the said shafts, a transverse driving shaft arranged upon the front wall below said parallel shafts, an upwardly extending arm having its upper portion pivotally connected with the said second arm, and means connected with the driving shaft and constructed to move the said upwardly extending arm up and down in the direction of its length.

2. In a furnace, the combination with the front wall, of parallel transverse shafts rotatively supported on the outside of the front wall, arms attached to the said shafts, a grate having portions each movable back and forth, rods connecting the said arms and the movable portions of the grate, gears connecting the said shafts, a second arm attached to one of the said shafts, a transverse driving shaft arranged upon the front wall below said parallel shafts, an upwardly extending arm having its upper portion pivotally connected with the said second arm, means constructed to move the said upwardly extending arm up and down in the direction of its length and actuated by the driving shaft, and means carried by the said arm for changing its length between the driving shaft and the pivotal connection with said second arm.

3. In a furnace, the combination with the front wall, of parallel transverse shafts rotatively supported on the outside of the front wall, arms attached to the said shafts, a grate having portions each movable back and forth, rods connecting the said arms and the movable portions of the grate, gears connecting the said shafts, a second arm attached to one of the said shafts, a transverse driving shaft arranged upon the front wall below said parallel shafts, an upwardly extending arm, and an eccentric upon the driving shaft connected with the said upwardly extending arm for moving the said arm up and down in the direction of its length, the upper portion of the said upwardly extending arm being adjustable in the direction of the length of the arm and having a pivotal connection with the said second arm.

1,140,675. ADVERTISING MECHANISM. ALBERT GOTTSCHALK and JAMES S. HOLLOWELL, Philadelphia, Pa. Filed May 2, 1914. Serial No. 835,897. (Cl. 46—37.)



1. The combination in an advertising device of a pictured representation including a plurality of members; and automatically operating mechanism for repeatedly moving said members to cause variation in the appearance of said representation.

2. The combination in an advertising device of a pictured representation including a plurality of members; and automatically operating mechanism for repeatedly moving said members toward and away from a common center to cause variation in the appearance of said representation.

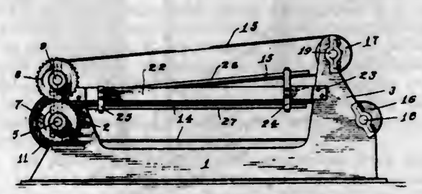
3. The combination in an advertising device of a pictured representation including a plurality of series of members; and means for automatically operating the members of each series to repeatedly move them toward and away from common centers.

4. The combination in an advertising device of a pictured representation including a plurality of series of overlapping members; and means for automatically operating the members of each series to repeatedly move them toward and away from common centers.

5. The combination in advertising mechanism of a pictured representation having a plurality of series of overlapped leaves; and mechanism common to all of said series for continuously varying the amount of their overlap.

[Claims 6 to 12 not printed in the Gazette.]

1,140,676. MECHANISM FOR COMPRESSING CAN-BODIES. JAMES A. GRAY, San Francisco, Cal., assignor to American Can Company, San Francisco, Cal., a Corporation of New Jersey. Filed Apr. 16, 1914. Serial No. 832,259. (Cl. 153—10.)



1. A machine of the class described, the same comprising a tubular rigid reducing matrix through which the can bodies are propelled, a conveyer associated with said matrix for propelling the can bodies therethrough, certain of the opposing walls of said matrix converging in a direction from the inlet toward the discharge end thereof for the compressing of the can body as propelled through the matrix.

2. A machine of the class described, the same comprising a tubular rigid reducing matrix through which the can bodies are propelled, a conveyer associated with the matrix for propelling the can bodies therethrough, certain of the opposing walls of said matrix converging in a direction from the inlet toward the discharge end thereof, and compressing means associated with the discharge end of said matrix for acting on the compressed can bodies as discharged therefrom.

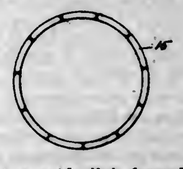
3. A machine of the class described, the same comprising a tubular rigid reducing matrix through which the can bodies are propelled, a conveyer associated with the matrix for propelling the can bodies therethrough, certain of the opposing walls of said matrix converging in a direction from the inlet toward the discharge end thereof, and compressing rolls associated with the discharge end of said matrix and between which the compressed can bodies pass after being conveyed through said matrix.

4. An apparatus for converting cylindrical can bodies into a substantially flattened condition for shipment, the same comprising an open rigid non-traveling reducing instrumentality, mechanism for conveying can bodies therethrough, and means associated therewith for receiving the partially flattened bodies discharged therefrom for finally compressing the same.

5. An apparatus for the described purpose, the same comprising an open, tapering rigid matrix for gradually compressing a cylindrical can body into a substantially flattened condition, and mechanism associated therewith for delivering and conveying can bodies through said means.

[Claims 6 to 14 not printed in the Gazette.]

1,140,677. BRACELET. ART HADLEY, Providence, R. I. Filed Nov. 5, 1914. Serial No. 870,513. (Cl. 74—74.)



1. In a bracelet, a guide link formed of two separate, oppositely disposed spaced apart trough-shaped members, each end of each member being provided with an integral extension, the extensions of each member being interlocked with the opposite extensions of the other member.

2. In a bracelet, a guide link formed of two separate spaced apart oppositely disposed trough-shaped members, each end of each member being provided with an integral extension, an extension on each member being offset inwardly from the plane of its complemental extension, the extensions of each member being interlocked with opposite extensions of the other member.

3. In a bracelet, a guide link comprising two separate oppositely disposed spaced apart trough-shaped members, each end of each member having an integral extension and one of said extensions being offset inwardly from the plane of its complemental extension and said extensions being formed to be connected one with the other to join the ends of said members permanently and rigidly together, a link slidably mounted in the space between said guide link members, said extension members also serving to guide said slide link, and a spring for normally retaining said slide link in contracted position.

4. In a bracelet, a guide link formed of two separate spaced apart oppositely disposed trough-shaped members, each end of each member being provided with an integral extension, one extension on each member being offset, the other extension being provided with ears, the offset extension of each member being engaged by the ears of the other extension of the opposite member.

1,140,678. STRAINER ATTACHMENT FOR PUMPS. CHARLES H. HANSHAW, Beloit, Wis., assignor of one-half to John Nielsen, Beloit, Wis. Filed Sept. 21, 1914. Serial No. 862,746. (Cl. 83—26.)



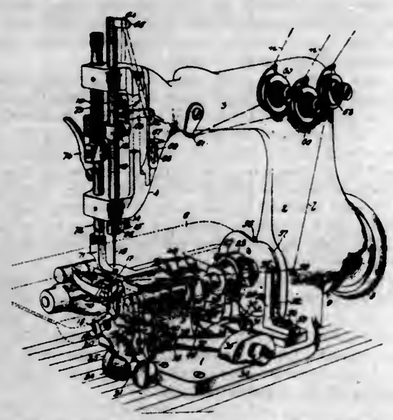
1. An appartus of the character described, comprising a pair of coils arranged adjacent each other and adapted to receive and hold therebetween a section of foraminous material, a shank attached to the coils, and means connected with the shank to secure the same upon a support.

2. Apparatus of the character described, comprising a section of wire bent upon itself to provide a frame with its portions bound together near the frame and projecting therebeyond for a substantial distance providing extensions carrying upwardly projecting arms secured thereto by means of substantially vertical coil springs and having lateral extensions at their upper ends, substantially as described.

1,140,679. DOUBLE-CHAIN-STITCH SEWING-MACHINE. MARTIN HEMLES, Elizabeth, N. J., assignor to The Singer Manufacturing Company, a Corporation of New Jersey. Filed Jan. 6, 1910. Serial No. 536,748. (Cl. 112—6.)

1. In a sewing machine, the combination with the frame and a work-plate mounted thereon, a rotary shaft, and a reciprocating needle operatively connected therewith, of a looper coöperating with said needle in seizing needle-thread loops therefrom and presenting looper-thread loops thereto in the production of stitches, a carrier for said looper provided with a fixed stud, a fulcrum upon which said carrier is mounted to oscillate, a rock-shaft upon which said fulcrum is supported, actuating means for said rock-shaft, a plural-armed rock-lever mounted upon a fixed fulcrum below the work-plate, a link connected at one end with an arm of said rock-lever and apertured at the other end to embrace said fixed stud of the looper-carrier, and a connection intermediate said rotary shaft and another

arm of said rock-lever whereby the rock-lever is vibrated to move the first-named arm of the rock-lever and its link connection with the looper-carrier into and out of alinement for imparting operative loop-seizing and -shedding movements to the looper.



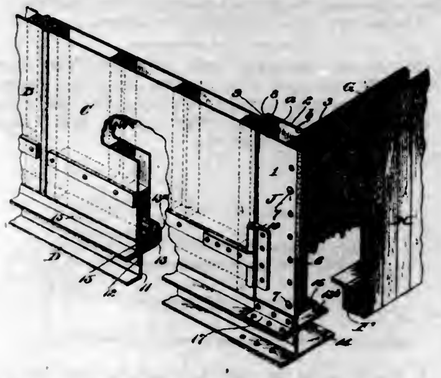
2. In a sewing machine, the combination with the frame and a work-plate mounted thereon, a rotary shaft, and a reciprocating needle operatively connected therewith, of a looper coöperating with said needle in the production of stitches, a carrier for said looper, a vibratory fulcrum for said carrier, means for imparting vibratory movements to said fulcrum, a plural-armed rock-lever mounted upon a fixed fulcrum below the work-plate, a link connection intermediate an arm of said rock-lever and the looper-carrier, and a connection intermediate said shaft and another arm of said rock-lever whereby the rock-lever is vibrated to move the first-named arm of the rock-lever and its link connection with the looper-carrier into and out of alinement for imparting operative loop-seizing and -shedding movements to the looper.

3. In a sewing machine, the combination with the frame and a work-plate mounted thereon, a rotary shaft, and a reciprocating needle operatively connected therewith, of a looper coöperating with said needle in the production of stitches, a carrier for said looper, a fulcrum for said carrier disposed transversely to said shaft and movable in a plane embracing its own axis, a plural-armed rock-lever mounted upon a fixed fulcrum below the work-plate, a link connection intermediate an arm of said rock-lever and the looper-carrier, and a connection intermediate said shaft and another arm of said rock-lever whereby the rock-lever is vibrated to move the first-named arm of the rock-lever and its link connection with the looper-carrier into and out of alinement for imparting operative loop-seizing and -shedding movements to the looper.

4. In a sewing machine, the combination with the frame provided with a work-plate, a rotary shaft journaled beneath the same, and a reciprocating needle operatively connected with said shaft, of a looper coöperating with said needle in the production of stitches, looper-actuating mechanism connected with said shaft independently of the needle-actuating mechanism and including means disposed wholly beneath the work-plate for imparting to the looper an advance operative movement followed by a dwell, and a looper-thread pull-off comprising an operative thread-engaging member fixed upon and rotating with said shaft and timed to act during the dwell of the looper in drawing off a supply of looper-thread.

1,140,680. CAR END FRAMING. OSCAR HOCHBERG, St. Louis, Mo., assignor to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed June 17, 1912. Serial No. 704,255. (Cl. 105—192.)

1. A car end framing comprising an end plate, an end sill, and stepped uprights, each of said uprights being made up of a plurality of similar sections provided with seats for the end plate.



2. A car end framing comprising an end plate, an end sill, and stepped uprights, each of said uprights being made up of a plurality of sections having the same general configuration and coped at their upper ends to provide seats for the end plate.

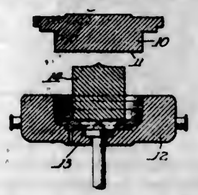
3. A car end framing comprising an end plate, an end sill, and hollow stepped uprights, each of said uprights being made up of a plurality of similar sections coped to receive the end plate.

4. A car end framing comprising an end plate, an end sill, and a pair of hollow stepped uprights, each of said uprights being made up of a plurality of sections having the same general configuration and coped to receive portions of the end plate, said coped sections combining to provide a seat for said end plate.

5. A car end framing comprising an end plate, an end sill, and a pair of hollow stepped uprights of box or rectangular section, each of said uprights being made up of a plurality of similar sections coped to receive the end plate and combining to provide a seat therefor.

[Claims 6 to 20 not printed in the Gazette.]

1,140,681. METHOD OF FORGING WHEELS. AZOR R. HUNT and JAMES H. GROSE, Munhall, Pa. Filed Aug. 1, 1911. Serial No. 641,782. (Cl. 29—168.)



In the manufacture of forged wheels the steps consisting in subjecting a cylindrical blank having substantially flat plane end surfaces to a series of successive forging steps to lessen the thickness and increase the diameter of the blank, shaping one end surface of the blank without shaping the opposite end surface in the first of the series of steps, and then further reducing the thickness and increasing the diameter and shaping the opposite end surface of the blank in a later step and then subjecting the blank to further forging steps in shaping the rim or periphery of the blank to size and contour.

1,140,682. PROCESS OF EXTRACTING COPPER FROM A SULFATE SOLUTION. NOAK VICTOR HYBINETTE, Christiansand, Norway. Filed Mar. 6, 1912. Serial No. 682,077. (Cl. 204—15.)

1. The process of treating sulfid copper ores, which consists in adding sodium sulfate thereto according to the content of copper in the ores, roasting the ore and sulfate, thereby uniting said sulfate with copper sulfate to form an easily fusible compound for readily dissolving sulfids, leaching the product with dilute sulfuric acid, thereby simultaneously dissolving said added sodium sulfate with the sulfates formed during the roasting, and electrolyzing the solution obtained to separate the copper and form free sulfuric acid.

2. The process of treating sulfid copper ores, which consists in adding sodium sulfate thereto according to the content of copper in the ores, roasting the ore and sulfate, leaching the product with dilute-sulfuric acid thereby simultaneously dissolving said added sodium sulfate with the sulfates formed during the roasting, and electrolyzing the solution obtained to separate the copper and form free sulfuric acid and to convert the ferrous sulfate into ferric sulfate, using the resulting electrolyte containing the ferric sulfate and liberated sulfuric acid for leaching the roasted ore and sulfate of sodium for producing an electrolyte richer in copper and other metals.

3. The process of treating sulfid copper ores, which consists in adding sodium sulfate thereto, roasting the ore and sulfate, leaching the product with dilute sulfuric acid thereby simultaneously dissolving said added sodium sulfate with the sulfates formed during the roasting, and electrolyzing the solution obtained to separate the copper and form free sulfuric acid and to convert the ferrous sulfate into ferric sulfate, repeatedly using the resulting electrolyte for the leaching of fresh quantities of roasted ore and sodium sulfate after electrolysis until the electrolyte has a high content of sodium sulfate and then using the solution with raw ore, and roasting the same to eliminate increasing quantities of iron in the solution while maintaining the content of other valuable metals.

4. The process of treating sulfid copper ores containing iron which have been roasted with an alkali metal salt, the step which comprises electrolyzing a leaching solution from said ores to remove the copper and convert the ferrous sulfate content into ferric sulfate while maintaining the content of alkali metal sulfate and remixing the electrolyte when it attains a high content of sodium sulfate, with raw ore, and roasting the mixture.

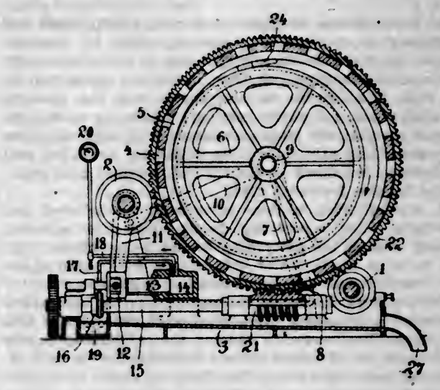
5. The process of treating sulfid ores containing copper and other values and iron, which comprises roasting the ore in the presence of a small percentage of sodium sulfate, thereby uniting said sulfate with the sulfate of copper formed by the roasting to form an easily fusible compound, producing a sulfate solution from the roasted product, removing the copper therefrom while converting the iron from the ferrous to the ferric state and maintaining sodium sulfate in solution, using the resulting solution as a leaching solution when permissible, and returning the solution when its sodium sulfate content has largely increased to the furnace with raw ore for roasting.

1,140,683. PRESS HAVING REVOLVING PRESSING-SURFACES. MICHEL JOHANSEN, Christiania, Norway. Filed July 30, 1914. Serial No. 854,092. (Cl. 100—47.)

1. In a press of the character described, a rotatable ring, a pressing roller yieldingly suspended therein, an annular rack fixed on the ring, a screw shaft for rotating the rack, hydraulic mechanism connected with and adapted to yieldingly press the roller against the ring, and means operated by the shaft for operating the hydraulic mechanism.

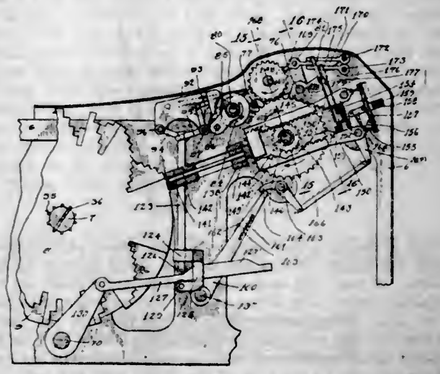
2. In a press of the character described, a rotatable ring, a pressing roller yieldingly suspended therein, an annular rack fixed on the ring, a screw shaft for rotating the rack, a pressure cylinder, a piston therein operatively connected with the roller, and a force pump connected with the cylinder and actuated by the screw shaft.

3. In a press of the character described, a rotatable ring, a pressing roller, swinging bearings on which the latter is yieldingly suspended within the ring, an annular rack fixed on the ring, a screw shaft for rotating the annular rack, a pivoted lever, draw rods connecting the latter to said bearings, hydraulic mechanism for actuating said lever, and a force pump operated by the screw shaft for operating the hydraulic mechanism.



4. In a press of the character described, a rotatable ring, a pressing roller, swinging bearings on which the latter is yieldingly suspended within the ring, an annular rack fixed on the ring, a screw shaft for rotating the annular rack, a pivoted lever, draw rods connecting the latter to said bearings, a pressure cylinder, a piston therein connected to the lever, and a force pump operatively connected with the cylinder and actuated by the screw shaft.

1,140,684. COMPUTING-MACHINE. HARRY WALTER JONES, San Francisco, Cal. Filed Nov. 26, 1913. Serial No. 803,265. (Cl. 235—82.)



1. A calculating machine comprising multiplicand and multiplier keys, controlling means, means for simultaneously setting the controlling means in accordance with the operated multiplicand keys, means for operating the set controlling means in accordance with the operated multiplier key, and means for displaying the resultant sum represented by the depressed keys.

2. A calculating machine comprising multiplicand and multiplier keys, controlling means, means for simultaneously setting the controlling means in accordance with the operated multiplicand keys, means for operating the set controlling means in accordance with the operated multiplier key, and means controlled by the controlling means for displaying the resultant sum represented by the depressing keys.

3. A calculating machine comprising multiplicand and multiplier keys, controlling means, means for simultaneously setting the controlling means in accordance with the operated multiplicand keys and for locking the said set controlling means to be operated in unison, means for operating the set and locked controlling means in accord-

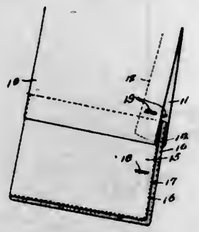
ance with the operated multiplier keys, and means for displaying the resultant sum represented by the depressed keys.

4. A calculating machine comprising multiplicand and multiplier keys, controlling means, means for simultaneously setting the controlling means in accordance with the operated multiplicand keys, means for operating the set controlling means in accordance with the operated multiplier key, a movable carriage, indicating mechanism carried thereby, and means associated with said indicating mechanism and said controlling means for operating said indicating mechanism to display the resultant sum represented by the depressed keys.

5. A calculating machine comprising multiplicand and multiplier keys, controlling means, means for simultaneously setting the controlling means in accordance with the operated multiplicand keys, means for operating the set controlling means in accordance with the operated multiplier key, a movable carriage, indicating mechanism carried thereby, means operated on each operation of said set controlling means for moving the carriage by a step motion in one direction, means associated with said indicating mechanism and coöperating with said controlling means for operating said indicating mechanism to display the resultant sum represented by the depressed keys, means for reversing the direction of movement of the carriage, and means operated on each operation of said set controlling means for moving the carriage by a step motion in a reverse direction to clear said indicating mechanism.

[Claims 6 to 21 not printed in the Gazette.]

1,140,685. SLEEVE. HERMAN KAMINKOWITZ, Brooklyn, N. Y. Filed June 19, 1913. Serial No. 774,686. (Cl. 2—79.)

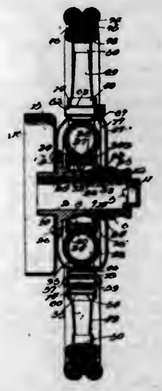


In a sleeve, a cuff secured to the lower edge thereof, and extensions of unequal widths, being formed by the union of said cuff and sleeve, which extensions are extensible below said sleeve at will and provided with button holes which match other button holes in the sleeve when the cuff is turned backward, the button hole in the sleeve being equidistant with the button holes in the cuff, from the line of junction of the sleeve with the cuff.

1,140,686. RESILIENT WHEEL. MARTIN F. KETTLER, Houston, Tex., assignor to Downing Pneumatic Wheel Company, Houston, Tex. Filed Mar. 28, 1914. Serial No. 827,971. (Cl. 152—142.)

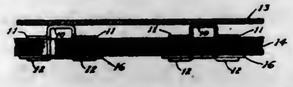
1. In a wheel of the character described, a hub screw threaded upon one end, a pneumatic cushion surrounding the hub, an inner casing plate having an annular margin, an outer casing plate slidably removably fitted upon said hub, a nut holding said outer casing plate in place, a ring plate disposed opposite the annular margin of the inner casing plate, a rim section including a rim proper disposed between the confronting faces of the margin of the inner casing plate and the ring plate, the inner edge of the ring plate being formed with an outstanding flange provided with bayonet slots, the outer casing plate having an inwardly turned flange fitting over the outstanding flange of the ring plate and provided with studs engageable in said slots.

2. In a wheel of the character described, a hub, a cushioning member supported upon the hub, outer and inner casing plates supported upon the hub and housing the cushioning member, and a rim section supported between the casing plates and upon the cushioning member, said section comprising a hollow rim proper, hollow spokes and a hollow felly, the rim section being formed of lateral halves connected to each other, and transversely extending sleeves disposed at intervals through the rim proper and bracing the sides of the rim.



3. In a wheel of the character described, a hub, a cushioning member supported upon the hub, outer and inner casing plates supported upon the hub and housing the cushioning member and a rim section supported between the casing plates and upon the cushioning member, said section comprising a hollow rim proper, hollow spokes and a hollow felly, the rim section being formed of lateral halves connected to each other, and transversely extending sleeves disposed at intervals through the rim proper and bracing the sides of the rim, the side walls of the rim section being formed with longitudinally extending grooves whereby to further strengthen the side walls of the rim section.

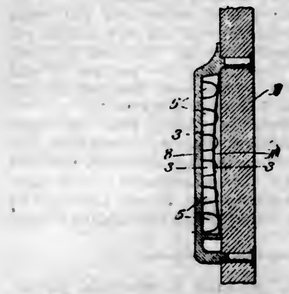
1,140,687. INSULATED WALL STRUCTURE. VICTOR E. LANE, New York, N. Y., assignor to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed Apr. 6, 1912. Serial No. 689,012. (Cl. 72—17.)



1. In an insulated wall structure for cars and the like, the combination with a metallic side plate and a spaced insulated sheet, of means for maintaining the plate and sheet in spaced relation and for securing the same together at different points consisting of a plurality of members, each having flat base parts fixedly secured to the said metal plate, outstanding sheet supporting parts spaced from the base parts, and prongs passing through the perforations in the insulated sheet having their outer ends bent to overlie the sheet, substantially as described.

2. In an insulated wall structure for cars and the like, the combination with a metallic side plate, of a plurality of spaced insulating supporting and securing members welded to the side plate, each member having an attaching base part, intermediate outstanding supporting portions separated from the base part, and prongs projecting outwardly, and an insulated sheet through the material of which the prongs of said supporting and securing devices pass, said sheet resting against said outstanding parts and being secured in place by the prongs, substantially as described.

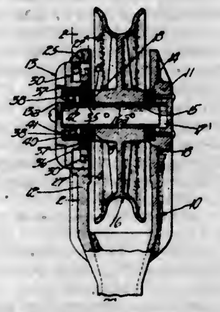
1,140,688. HAME AND TRACE CONNECTOR. PHILIP S. LASSELL, Baltimore, Md. Filed Dec. 2, 1914. Serial No. 875,148. (Cl. 54—31.)



1. The combination of a hame, a staple secured to and extending longitudinally of the hame and including a hollow body having its side walls provided with transversely alined openings, an elongated, longitudinally bowed, spring plate confined within the body of the staple and arranged to have a limited bodily movement therein in the direction of its length, and a trace connection arranged to engage the staple through the opening in either side wall of the body thereof and to be held in such engagement by the action of the spring plate.

2. The combination of a hame, a staple secured to and extending longitudinally of the hame and including a hollow body having its side walls provided with transversely alined openings, an elongated, longitudinally bowed, spring plate confined within the body of the staple in contact with the hame, said plate having its ends deflected slightly in a direction opposite that in which it is bowed and being arranged to have a limited bodily longitudinal movement within the staple body, and a trace connection arranged to engage the staple body through the side openings and to bear on the outer face of the spring plate.

1,140,689. TROLLEY. MARK LEV, Jr., Los Angeles, Cal. Filed July 22, 1914. Serial No. 852,528. (Cl. 191—61.)



1. The combination of a wheel and supporting frame therefor, a stationary removable contact carrying head mounted on the frame and removable therefrom only by movement toward the wheel, a contact plate movably mounted in the head and adapted to press against the wheel, and a spring in the head exerting force outwardly on the head away from the wheel and inwardly on the contact plate toward the wheel.

2. The combination of a wheel and a supporting frame therefor, a stationary removable contact and shaft carrying head mounted in the frame and removable therefrom only by movement toward the wheel, a shaft for the wheel carried by said head, a contact plate mounted in the head with freedom to move with reference to the head to and from said wheel and adapted to press against the wheel, and a spring in the head confined between the head and said contact plate and exerting force outwardly on the head away from the wheel and inwardly on the contact plate toward the wheel.

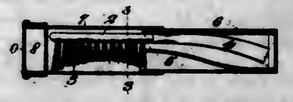
3. The combination of a wheel and a supporting frame therefor, a stationary removable contact carrying head mounted in the frame, said frame having slots therein with recesses extending outwardly away from the wheel, lugs on said head adapted to pass through said slots and fit into said recesses, the lugs being removable from the recesses only by inward movement of the head toward the wheel, a contact plate mounted in the head with freedom to move with reference to the head to and from the wheel and adapted to press against the wheel, and a spring confined between the head and the contact plate exerting force inwardly on the contact plate to press it against the wheel and outwardly on the head to press it away from the wheel.

4. The combination of a bifurcated frame, a wheel shaft removably mounted at one end in one of the furcations of the frame, a wheel on said shaft between the furcations, a removable shaft and contact carrying head mounted in the other furcation, the other end of the shaft being rigidly mounted in said head, said head being removable from said frame furcation only by movement inwardly toward the wheel, a stationary contact plate mounted on the one furcation against which the wheel may press, another contact plate mounted in said head and movable with reference thereto to and from the wheel, and a single spring means for pressing outwardly on the head and inwardly on said contact plate.

5. The combination of a bifurcated frame, a wheel shaft removably mounted at one end in one of the furcations of the frame, a wheel on said shaft between the furcations, a removable shaft and contact carrying head mounted in the other furcation, the other end of the shaft being rigidly mounted in said head, said frame furcation having a slot therein with a recess extending outwardly away from the wheel, a lug on the head extending through said slot and resting in said recess, the lug being removable from the recess only by inward movement of the head toward the wheel, a contact plate mounted in the head with freedom of movement with reference thereto to and from the wheel, said plate adapted to be pressed into contact with the wheel, and a spring confined between the head and the contact plate exerting force inwardly on the contact plate to press it against the wheel and outwardly on the head to press it away from the wheel.

[Claim 6 not printed in the Gazette.]

1,140,690. TOOTH-BRUSH. HARRY LIPARI, San Francisco, Cal. Filed July 1, 1914. Serial No. 848,401. (Cl. 15—39.)



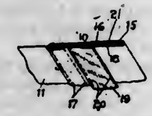
1. A tooth brush comprising a bristle head part with a tapering and curved shank, an intermediate tubular tapering handle section coöperating with said shank, when extended, to hold the latter, a tubular end section or shell coöperating with the intermediate section, when extended, to hold the latter, said sections being disposed in angular relation to said shank, said sections and shank being telescopic, and a cap for covering the bristle end of the brush extending from the telescoped parts.

2. A tooth brush comprising a bristle bearing head having a shank, a sectional handle telescopically connected to the shank, a cap having a hollow head portion, and a lower trough integral with the head portion, said cap being removably connected to one of the sections of the handle when the same is telescoped and receiving the brush head in the hollow head portion thereof so that the bristles thereof are engaged by the side walls of the trough.

3. A tooth brush comprising a bristle-carrying head having a shank, an intermediate tubular handle section

connected to the shank and adapted to telescopically receive the latter so that the head projects without the outer end of the intermediate section, a tubular end section connected to the intermediate section and adapted to telescopically receive the intermediate section, and a cap for inclosing the head adapted to fit over the end section.

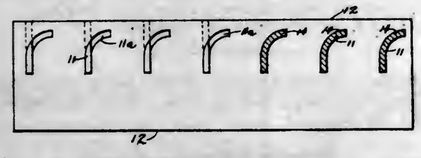
1,140,691. REINFORCED CORSET. FRANCIS J. McDERMOTT, New Haven, Conn., assignor to Birdsey, Somers Company, Bridgeport, Conn., a Corporation of New York. Filed Jan. 21, 1915. Serial No. 3,600. (Cl. 2—73.)



1. In combination in a corset, a side section, a front section folded upon itself to form a pocket, a clasp in said pocket terminating above the lower end thereof, a flexible reinforce folded upon itself and inclosing the lower end of the front section from above the lower end of the clasp to the lower end of the section, a strip and seams securing the sections to each other and securing the strip to the front section.

2. In combination in a corset, a side section, a front section folded upon itself to form a pocket, the plies being of uneven width, a clasp in said pocket terminating above the lower end thereof, a flexible reinforce folded upon itself and inclosing the lower end of the front section from above the lower end of the clasp to the lower end of the section, a strip covering the edge of the inner ply of the front section and the reinforce and seams securing the strip and securing the sections to each other.

1,140,692. GRATING. JACOB MARK, Brooklyn, and EMANUEL N. MOHL, New York, N. Y., assignors to the Firm of Mark & Mohl, Inc., Brooklyn, N. Y. Filed July 6, 1914. Serial No. 849,324. (Cl. 189—82.)



1. A grating comprising longitudinal bars and transverse bars, said longitudinal bars having slots adapted to fit the initial shape of said transverse bars, the upper ends of said slots extending in a direction, which is at an angle to the lower ends of said slots, said transverse bars passing through said slots, and said transverse bars having slits on their edges flush with the surface of said longitudinal bars, the stripe of said transverse bars inclosed between said slits being bent out of the line of said slots.

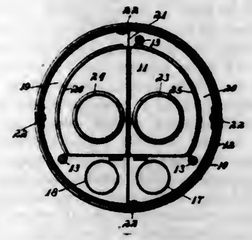
2. A grating comprising longitudinal bars and transverse bars, said longitudinal bars having curved slots adapted to fit the initial shape of said transverse bars, said transverse bars passing through said slots, and said transverse bars having slits on their edges flush with the surface of said longitudinal bars, the stripe of said transverse bars inclosed between said slits being bent out of the line of said slots.

3. A grating comprising longitudinal bars and transverse bars, said longitudinal bars having slots adapted to fit the initial shape of said transverse bars, the lower ends of said slots being in a vertical plane when said grating is horisontal, and the upper ends of said slots being at an angle to said lower ends, said transverse bars passing through said slots, and said transverse bars having slits on their edges flush with the surface of said longitudinal bars, the strips of said transverse bars inclosed between said slits being bent out of the line of said slots into a vertical plane when said grating is horizontal.

4. A grating comprising longitudinal bars and transverse bars, said longitudinal bars having curved slots, and said transverse bars passing through said slots and having tongues anchored therein, and the portions of said transverse bars inclosed betwen said longitudinal bars being vertical, when said grating is horizontal.

5. A grating comprising longitudinal bars and transverse bars, said longitudinal bars having curved slots, and said transverse bars passing through said slots and having on their upper edges tongues anchored in said slots, the portions of said transverse bars inclosed between said longitudinal bars being vertical when said grating is horizontal.

1,140,693. MUFFLER. WILLIAM R. MCCULLA, Detroit, Mich., assignor to Packard Motor Car Company, Detroit, Mich., a Corporation of Michigan. Filed Sept. 25, 1913. Serial No. 791,751. (Cl. 121—116.)



1. A muffler comprising a casing having an imperforate dividing wall therein, and independent exhaust passages in said casing, separated by said wall.

2. A muffler comprising a casing having an imperforate dividing wall therein, and symmetrical exhaust passages on opposite sides of said wall.

3. A muffler comprising a casing having an imperforate dividing wall therein, and symmetrical independent exhaust passages on opposite sides of said wall.

4. A muffler comprising a cylindrical casing having a dividing wall therein separating said casing into semi-cylindrical compartments, and symmetrical exhaust passages in said compartments.

5. A muffler comprising a cylindrical casing having an imperforate dividing wall therein, and a plurality of inlet and outlet passages for exhaust gas, the respective inlets and outlets being separated by said dividing wall.

[Claims 6 to 8 not printed in the Gazette.]

1,140,694. ENGINE-STOP. GEORGE HAMILTON MCFEATERS, Johnstown, Pa. Filed Sept. 25, 1908. Serial No. 454,694. (Cl. 121—103.)

1. An engine having a pressure cylinder, a piston in said cylinder, oscillating valves for controlling the admission of pressure fluid to said cylinder, actuating levers connected to said valves, projections on said levers, valve shifting devices movable about the axes of said valves for engaging the projections to open the valves to admit pressure to the cylinder, means to oscillate the valve shifting devices, guards movable about the axes of the valves and arranged to prevent the shifting devices engaging the projections, a gravity-actuated device movably mounted between said guards, links connecting the guards to the gravity actuated device, and means for releasing the device to permit it to drop to move the guards into the path of movement of the valve-shifting devices; substantially as described.

2. An engine having a pressure cylinder, a piston in said cylinder, oscillating valves for controlling the admission of pressure fluid to said cylinder, actuating levers connected to said valves, projections on said levers, valve shifting devices movable about the axes of said valves for engaging the projections to open the valves to admit pressure to the cylinder, means to oscillate the valve shifting devices, guards movable about the axes of the valves and arranged to prevent the shifting devices engaging the projections, a gravity-actuated device movably mounted between said guards, links connecting the guards to the gravity actuated device, and electrical means for releasing the device to permit it to drop to move the guards into the path of movement of the valve-shifting devices; substantially as described.

3. An engine stop of the character described, comprising oscillating valve-actuating devices, guards movable about the axes of the valve shifting devices arranged to be shifted into the path of movement of said valve-actuating devices, a gravity-actuated rod slidably mounted between the valve-actuating devices, links pivoted to the guards and the gravity-actuated rod, an electric magnet surrounding said rod, a spring catch pivotally connected to the rod, a projection arranged to be engaged by the catch, a pivoted armature, and means on said armature for releasing the catch; substantially as described.

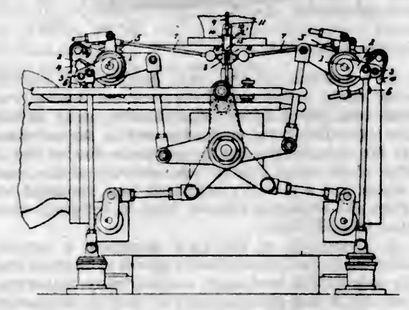
4. An automatic stop for engines of the Corliss type having oscillating valves, a stem on each of said valves, a lever on each of said stems, lifting projections on said levers, an oscillating device for each valve having a lifting hook for moving the valves to their open positions, and oscillating guards movable about the axes of said valves arranged to be moved to points adjacent to said projections and into the path of the hooks to prevent the hooks from engaging the projections; substantially as described.

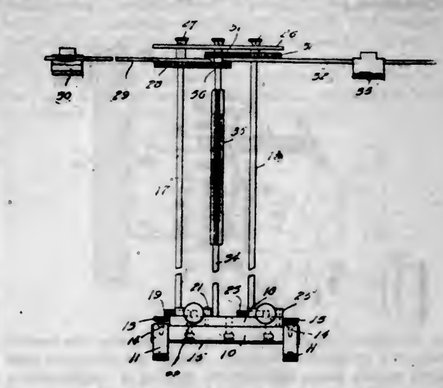
5. An automatic stop for engines of the Corliss type having oscillating valves, a stem on each of said valves, a lever on each of said stems, lifting projections on said levers, an oscillating device for each valve having a lifting hook movable about the axes of said valves for moving the valves to their open positions, oscillating guards arranged to be moved to points adjacent to said projections and into the path of the hooks to prevent the hooks from engaging the projections, a gravity-actuated device for moving said guards, means for holding said gravity-actuated device in its elevated position, and an electro-magnet for releasing said gravity-actuated device; substantially as described.

[Claim 6 not printed in the Gazette.]

1,140,695. MUSIC-LEAF TURNER. SAM B. MARBLE, Ilion, N. Y. Filed Aug. 19, 1913. Serial No. 785,534. (Cl. 84—17.)

A music leaf turner comprising a base adapted to be supported on the music shelf of a piano, vertical shafts journaled in the base, spacing means for holding the upper ends of the shafts, pinions rigidly mounted on the upper ends of the shafts, pinions rigidly mounted on the lower ends of the shafts, rack bars engaged with the lower pinions, a vertical bar disposed between the shafts, pinions loosely rotatable on the upper end of the said vertical bar and engaging with the upper of the first named pinions, music leaf turning arms mounted on the loosely rotatable pinions, and a clamp carried by the vertical bar for holding the hinged portion of a piece of sheet music.



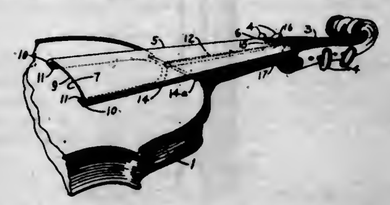


1,140,696. HAND-ATTACHABLE BLOTTER. HYOKICHI MARUI, New York, N. Y. Filed Feb. 26, 1913. Serial No. 750,781. (Cl. 120—25.)



A hand attachable blotter having in combination a plurality of flexible and oppositely arched members, one of which is provided with a plurality of bent up portions resulting in perforations, and projections, the other member of which is provided with centrally disposed recesses engaged by said projections and a blotter having a projection at each end received into said perforation in one of said members, as and for the purpose set forth.

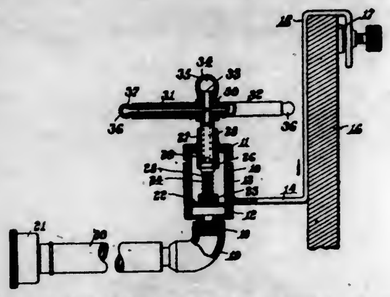
1,140,697. VIOLIN. FRANCIS M. MECARTEA, San Juan Bautista, Cal., assignor of one-fourth to Milton L. Lawrence, Los Gatos, Cal. Filed July 15, 1914. Serial No. 851,159. (Cl. 84—44.)



1. A violin finger-board having the under side of its overhanging end hollowed out and having an undercut channel formed in the edge of said hollowed-out portion and one or more longitudinal channels formed in the under side of the fixed end of said fingerboard having open communication with the atmosphere, substantially as shown and described.

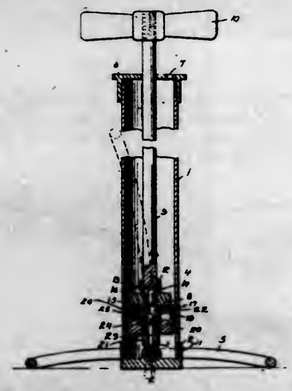
2. A violin finger-board having the under side of its overhanging end hollowed out and one or more longitudinal channels formed in the under side of the fixed end of said finger-board having open communication with the atmosphere, and a nut having a longitudinal bore therein closed at both ends and having open communication with said channel or channels in said fingerboard, substantially as shown and described.

1,140,698. GLASS-WASHER. JAMES F. MERRIGAN, Boston, Mass. Filed May 26, 1913. Serial No. 770,063. (Cl. 141—3.)



In a portable device for washing tumblers, the combination of a cylindrical member; means for clamping said member to the inner face of the wall of a receptacle; a cylindrical casing positioned in said cylindrical member and provided with a perforated partition having a central depression; a flexible tubular member extending from said casing provided with means for connecting with a service faucet; a cap for said casing provided with a central tubular hub extending into said casing and terminating in a valve seat; a tubular valve member reciprocable in said hub and provided with a stem; a spring surrounding said stem and resting in said depression adapted to retain said valve on its seat; and tumbler supporting arms secured to said tubular valve and provided with passages therethrough communicating with said valve and adapted to eject water upon the interior or exterior of the tumbler supported on said arms.

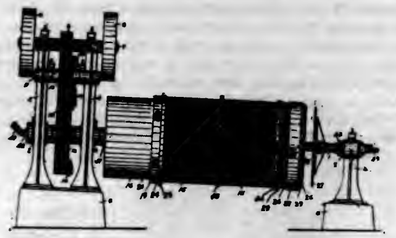
1,140,699. AIR-PUMP. JOHN J. MESSERLI, Kingsville, Tex., assignor of one-half to Frederick H. Eickhoff, Kingsville, Tex. Filed Aug. 21, 1913. Serial No. 786,023. (Cl. 230—27.)



1. In an air pump, the combination with a pump cylinder, of a detachable cap forming a closure for the lower end of said cylinder, a pin rotatably journaled in said cap and having eyelets formed upon its ends, a foot rest slidably supported by said eyelets for movement transversely to or parallel with said cylinder.

2. In an air pump, the combination with a pump cylinder, of a detachable cap forming a closure for the lower end of said cylinder, a pin rotatably journaled in said cap and having eyelets formed upon its ends, a foot rest slidably supported by said eyelets for movement transversely to or parallel with said cylinder, said cylinder being provided with transverse openings near the base thereof, said pin extending through said openings for locking said cap against rotation upon said cylinders.

1,140,700. ROTARY CLASSIFIER. CHARLES O. MICHAELSEN, Omaha, Nebr. Filed Aug. 26, 1913. Serial No. 786,806. (Cl. 83—56.)



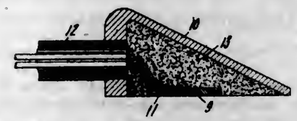
1. In a machine of the class described, a revolubly mounted shaft, cylindrical shells mounted concentrically thereon and spaced apart longitudinally, rings mounted on the respective shells, means for varying the position of one of the rings longitudinally and means for varying the position of the other ring circumferentially of the respective shells, and a plurality of flexible bars connected with the rings and extending between them in uniformly-spaced relation to each other.

2. In a machine of the class described, a revolubly mounted shaft, two longitudinally-spaced cylindrical shells fixedly mounted on said shaft concentrically therewith, a ring on one of said shells secured to variable circumferential relation thereto, a ring on the other shell, means connecting said ring and shell for moving the ring longitudinally of the shell, a series of flexible screen-bars, and means detachably connecting the ends thereof with said rings.

3. In a machine of the class described, a revoluble shaft, two longitudinally-spaced cylindrical shells mounted thereon concentrically therewith, a pair of circumferentially-channeled rings mounted on the adjacent ends of said shells, a series of pivot-blocks disposed in the channels of the rings, screen-bars having their ends connected with said pivot-blocks and extending between the rings, clamping means for holding the screen-bars and pivot-blocks in adjusted relations to the rings, means for securing one of the rings in various circumferential relations to the shell, and means for moving the other ring longitudinally of the shell.

4. In a machine of the class described, a pair of rings having annular peripheral channels formed therein, means for supporting the rings in axially-alined and longitudinally-spaced relation to each other, series of blocks disposed in the annular channels in the rings, means for retaining the blocks in the channels, flexible screen-bars having their end-portions pivotally connected with the blocks, the bars extending across the space between the rings, and means for adjusting the relative positions of the rings so as to hold the bars thereby in various helical forms.

1,140,701. PROTECTING-HOOD FOR THERMO-COUPLES. ANDREW F. MITCHELL, Homestead, Pa. Filed June 23, 1914. Serial No. 846,776. (Cl. 171—73.)



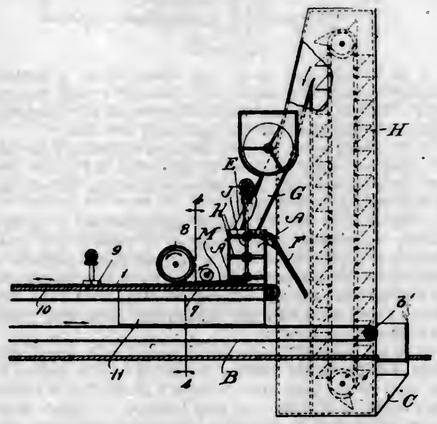
1. In an electric pyrometer a thermo-couple having lead wires and a hood encircling the hot end of the thermo-couple, said hood having an open side enabling the thermo-couple to contact directly with the surfaces of heated articles.

2. In an electric pyrometer a thermo-couple having lead wires and a hood encircling the hot end of the thermo-couple, said hood having an open side enabling the thermo-couple to contact directly with the surfaces of the heated articles and an insulating medium within the hollow protecting hood arranged to engage with and hold the hot end of the thermo-couple in position within the protecting hood.

3. In an electric pyrometer a thermo-couple having lead wires and a hood encircling the hot end of the thermo-couple, said hood having an open side enabling the thermo-couple to contact directly with the surfaces of heated articles and a handle secured to the protecting hood by which the hot end of the thermo-couple is manipulated.

4. In an electric pyrometer a thermo-couple having lead wires and a hood encircling the hot end of the thermo-couple, said hood having an open side enabling the thermo-couple to contact directly with the surfaces of heated articles and a hollow handle secured to the protecting hood by which the hot end of the thermo-couple is manipulated, the lead wires from the hot end of the couple extending through said hollow handle.

1,140,702. MACHINE FOR MAKING CONCRETE SLABS OR PLATES. CHARLES L. NORTON, Hudson, N. H., assignor to Asbestos Shingle Company, Nashua, N. H., a Corporation of New York. Filed July 15, 1914. Serial No. 851,223. (Cl. 25—1.)



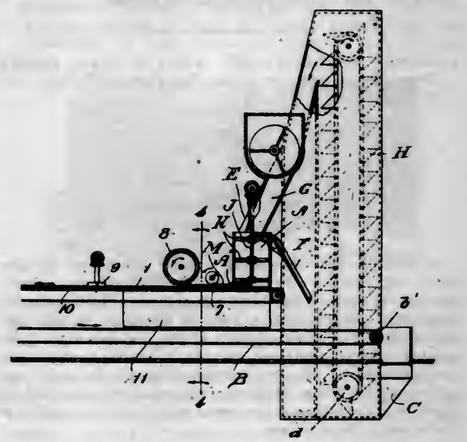
1. In a machine of the character described, the combination of a conveyer, a tubular hopper with a delivery orifice at one side at its lower end and a spill opening at a point above its lower end, the conveyer constituting the bottom closure of the hopper, and means to feed dry material to the hopper, in excess of the material-removing capacity at said lateral orifice at the lower end of the hopper.

2. In a machine of the character described, the combination of a conveyer, a tubular hopper with a delivery orifice at one side at its lower end and a spill opening at a point above its lower end, the conveyer constituting the bottom closure of the hopper, means to feed dry material to the hopper, in excess of the material-removing capacity at said lateral orifice at the lower end of the hopper, and means to agitate the material in the hopper.

1,140,703. METHOD OF PRODUCING UNIFORM DENSITY IN CONCRETE MATERIAL. CHARLES L. NORTON, Hudson, N. H., assignor to Asbestos Shingle Company, Nashua, N. H., a Corporation of New York. Filed July 15, 1914. Serial No. 851,224. (Cl. 25—1.)

1. The method of producing a uniformly dense layer of substantially dry comminuted material, which consists in maintaining a column of said material at constant vertical height while laterally confining the column and causing it to descend by continuously laterally removing the material from the bottom of the confined column, and conserving in the removed layer the density acquired at the bottom of the column.

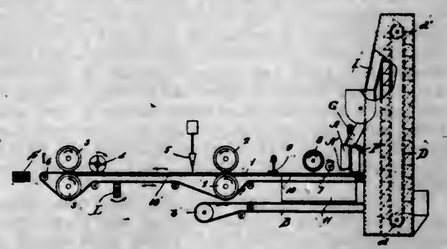
2. The method of producing a uniformly dense layer of substantially dry comminuted material, which consists in maintaining a column of said material at constant vertical height while laterally confining the column and causing it to descend by continuously laterally removing the material from the bottom of the confined column, and conserving in the removed layer the density acquired at the bottom of the column and meanwhile maintaining the fluidity within the column by agitating the material therein.



3. The method of producing a uniformly dense layer of substantially dry comminuted material, which consists in maintaining a column of said material at constant vertical height and of substantially uniform horizontal cross section while laterally confining the column and causing it to descend by continuously laterally removing the material from the bottom of the confined column, and conserving in the removed layer the density acquired at the bottom of the column.

4. The method of producing a uniformly dense layer of substantially dry comminuted material, which consists in maintaining a column of said material at constant vertical height and of substantially uniform horizontal cross section while laterally confining the column and causing it to descend by continuously laterally removing the material from the bottom of the confined column, and conserving in the removed layer the density acquired at the bottom of the column and meanwhile maintaining the fluidity within the column by agitating the material therein.

1,140,704. MACHINE FOR MAKING CONCRETE SLABS OR PLATES. CHARLES L. NORTON, Hudson, N. Y., assignor to Asbestos Shingle Company, Nashua, N. H., a Corporation of New York. Filed July 20, 1914. Serial No. 851,858. (Cl. 25—1.)

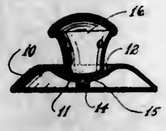


1. In a machine of the character described, the combination of an endless belt conveyer, means to supply material to the conveyer, dry-press rolls, wetting devices,

wet-press rolls, a delivery roll, and means to confine a cloud of cement-dust about the conveyer, between the delivery roll and the material-supplying means.

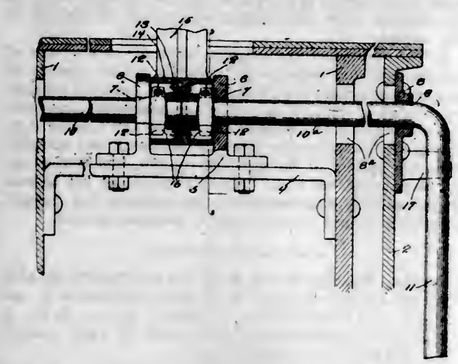
2. In a machine of the character described, the combination of an endless belt conveyer, means to supply material to the conveyer, dry-press rolls, wetting devices, wet-press rolls, a delivery roll, a mechanical device for removing moisture from the conveyer, and means to confine a cloud of cement-dust about the conveyer, between the delivery roll and the material-supplying means.

1,140,705. DARNING-LAST. EMMA M. OLSON, Carlton, Oreg. Filed May 13, 1914. Serial No. 838,329. (Cl. 223—14.)



A darning last comprising a body egg-shaped in plan view, and concavo convex longitudinally and transversely, the convex side of the body being formed with a central depression resulting in a central elevation in the concaved side, the central portion of the said elevation being formed with an elongated opening, a handle having a pin provided with a head for passage through the said opening, said head being elongated and formed with beveled undersurfaces for wedging engagement with the body portion at the sides of the opening.

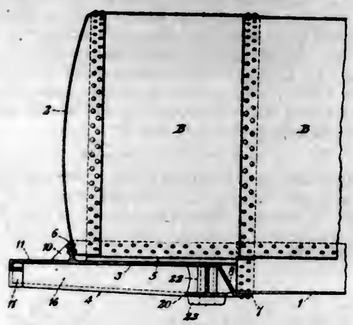
1,140,706. UNCOUPLING DEVICE FOR CARS. ALLEN EDWARD OSTRANDER, Ridgewood, N. J., assignor to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed Nov. 17, 1910. Serial No. 592,928. (Cl. 213—59.)



1. In an uncoupling device, a support, a pair of spaced journal members on said support, one of said members comprising a pair of upstanding arms, each having a key hole slot therein, an uncoupling lever having a hub fitting between said arms and centered thereby, a shaft supported in said journal members and forming a bearing for said hub, a lever actuating finger carried by said shaft within said hub insertible through said key hole slots, whereby said shaft may be moved to permit said lever to be dismounted without displacing said shaft from said support.

2. In combination, side sills and draft sills having alined perforations, a support between said draft sills, a bracket having two upstanding spaced arms carried on said support, an uncoupling lever positioned between said arms and provided with a journal portion and a pocket, a rockable operating shaft mounted in some of said perforations and extending through said pocket into said journal portion, and co-acting radial extensions projecting from said lever and shaft in said pocket adapted to actuate the lever during rocking of said shaft.

1,140,707. END CONSTRUCTION FOR TANK-CARS. HARRY E. PARSONS, Berwick, Pa., assignor to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed Nov. 22, 1913. Serial No. 802,471. (Cl. 105—264.)



1. In a tank car, as an end construction, a unitary casting comprising a bottom end plate of a tank integral with a bolster, a flange integral with said end plate and adapted to be secured to the head plate of a tank.

2. In a tank car, a unitary casting comprising a bolster, a bottom end plate of a tank integral with the bolster and extending horizontally and obliquely upwardly beyond and around the end of the tank.

3. In a tank car, as an end construction, a unitary casting comprising a body bolster, a bottom end plate forming a portion of a tank, a vertical flange adapted to connect the bottom end plate to the head of a tank and a side longitudinal flange adapted to connect the end side plate of said tank with the bottom end plate with which said flange is integral.

4. In a tank car, the combination of a tank, supporting unitary end castings forming the entire bottom portion of the ends of the tank each forming a portion of a bottom tank plate, a platform, a body bolster, a bolster filler, an end sill and draft sills, said unitary castings being connected in the under end portions of said tank to secure a low center of gravity to said tank car.

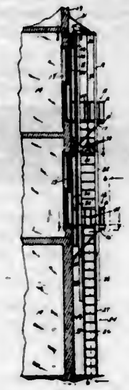
5. In a tank car, the combination of a tank comprising cylindrical sheet metal plates, a bottom plate of less length than said tank, and supporting unitary end castings each comprising an extension of said bottom tank plate but in a higher plane, said unitary end castings forming a portion of the under end portion of said tank.

[Claims 6 to 11 not printed in the Gazette.]

1,140,708. EXTENSION FOR FIRE-ESCAPES. JULIUS PAULY, Los Angeles, Cal. Filed Mar. 1, 1915. Serial No. 11,377. (Cl. 227—5.)

1. A fire escape including a balcony, substantially vertical bars movably mounted adjacent to the balcony and provided with guideways, counterbalanced stairs provided with hand rails, projecting parts on the upper end portions of the stairs and hand rails fitted freely in said guideways, and links pivotally connected to said bars and to the stairs and hand rails, said links causing the stairs and hand rails to swing away from said bars when the stairs are lowered in position, and causing the stairs and hand rails to swing toward said bars when the stairs are raised in position.

2. A fire escape including balconies, substantially vertical guideways arranged adjacent thereto, substantially vertical bars movably mounted on the guideways, counterbalanced stairs provided with hand rails, guideways on the bars, projecting parts on the stairs and on the hand rails fitted freely in the last mentioned guide-ways, and links pivotally connected to the lower end portions of the bars and to the stairs and hand rails, said links causing the stairs and the hand rails to swing away from the bars when the stairs are lowered in position, and causing the stairs and the hand rails to swing toward said bars when the stairs are raised in position.



3. A fire escape including a balcony, substantially vertical guideways arranged adjacent thereto, substantially vertical bars movably mounted on the guideways, a cross bar at the upper end of said vertical bars, sheaves mounted at the ends of the cross bar, a counterweight, stairs provided with hand rails, guideways on said vertical bars, projecting parts on the stairs and on the hand rails fitted freely in the last mentioned guideways, a cable connected to the counterweight and having branches in contact with said sheaves and connected to the top of said stairs at the sides of the stairs, and links pivotally connected to the lower end portions of the vertical bars and to the stairs and hand rails, said links causing the stairs and the hand rails to swing away from the vertical bars when the stairs are lowered in position, and causing the stairs and the hand rails to swing toward said vertical bars when the stairs are raised in position.

4. A fire escape including a balcony, substantially vertical guideways arranged adjacent thereto, stops at the lower ends of said guideways, substantially vertical bars provided with rollers fitted in the guideways and adapted to engage said stops to limit the downward movement of said vertical bars, counter-balanced stairs, hand rails, links having one end portion thereof offset and pivoted on the stairs and having the other end portion thereof pivoted on the hand rails guideways on said vertical bars, projecting parts on the upper ends of the stairs and the hand rails fitted freely in the last mentioned guideways, and links pivotally connected to said vertical bars and to the stairs and hand rails, and causing the stairs and the hand rails to swing away from the vertical bars when the stairs are lowered in position and causing the stairs and the hand rails to swing toward said vertical bars when the stairs are raised in position.

5. A fire escape including a balcony, substantially vertical guideways arranged adjacent thereto, stops at the lower ends of said guideways, substantially vertical bars provided with rollers fitted in said guideways and adapted to engage said stops to limit the downward movement of said vertical bars, a cross bar at the upper end of said vertical bars, sheaves mounted at the ends of said cross bar, a counterweight, stairs, handrails, links having one end portion thereof offset and pivoted on the stairs and having the other end portion thereof pivoted on the hand rails, guideways on said vertical bars, projecting parts on the upper ends of the stairs and the hand rails fitted freely in the last mentioned guideways, a cable connected to the counterweight and having branches in contact with said sheaves and connected to the top of said stairs at the sides of the stairs, and links pivotally connected to the lower end portions of said vertical bars and to the stairs and hand rails, and causing the stairs and the hand rails to swing away from said vertical bars when the stairs are lowered in position and causing the stairs and the hand rails to swing toward said vertical bars when the stairs are raised in position.

1,140,709. KNITTING-MACHINE. JOHN B. PAXTON and JOSEPH T. PAXTON, Philadelphia, Pa.; said Joseph T. Paxton assignor to Ellis I. O'Neill, Philadelphia, Pa. Filed Mar. 12, 1908. Serial No. 420,752. (Cl. 66—24.)



1. In a circular automatic stocking knitting machine, the combination of a series of needles having alternately long and short butts, means coöperating with said needles whereby adjacent needles may be thrown out of action for producing drop stitch knitting, a cam for throwing said needles into action, and means for moving said cam whereby first the needle with the long butt is thrown into action, and then the needle with the short butt.

2. In an automatic circular knitting machine, the combination of a series of double butt needles; means for engaging the upper butts of said needles for throwing the same into and out of operation; a controlling stem provided with means for operating said means; pattern mechanism controlled by said stem; and a second pattern mechanism coöperating with said controlling stem.

3. In an automatic circular knitting machine, the combination of a group of single butt and a group of double butt needles; means for putting the double butt needles out of action; means for bringing one half of said double butt needles into action; and means for controlling one half of the single butt needles to produce tuck work.

4. In a circular knitting machine, the combination of a pattern mechanism, a controlling stem, means for operatively controlling the stem, said means being controlled by the pattern mechanism, a needle cylinder having two sets of needles, and means controlled by said stem for operating said sets of needles independently, said means including vertically movable members, one of which cooperates with each set of needles, said members being so formed and controlled as to be moved independently.

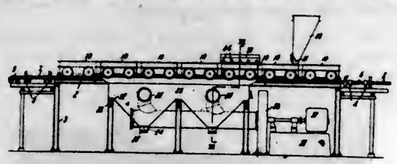
5. In a circular knitting machine, the combination of a pattern mechanism, a controlling stem, a pawling mechanism for turning said stem, means for controlling the pawling mechanism from said pattern mechanism, a needle cylinder having two sets of needles, and means controlled by said stem for operating each set of needles independently for producing tucked work, said means including vertically movable members, one of which coöperates with each set of needles, said members being movable independently of each other.

[Claims 6 to 19 not printed in the Gazette.]

1,140,710. APPARATUS FOR SINTERING ORES. ALBERT F. PLOCK, Pittsburgh, Pa., assignor to The Pittsburgh Metallurgical Company, Incorporated, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed July 14, 1914. Serial No. 850,883. (Cl. 75—134.)

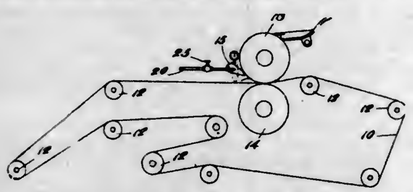
1. Sintering apparatus comprising, in combination, a sintering track, sintering cars movably mounted thereon, said cars having openings in the bottom thereof for the passage of waste gases, an ignition furnace above the sintering track, the cars in passing over the sintering track

successively forming the bottom of said ignition furnace, means for firing said furnace, means at the sides of the furnace engaging the sides of the cars to form a seal and limit ingress of air passing between the adjacent side edges of the furnace and cars beneath the furnace, into the furnace, and means for withdrawing waste gases from the furnace through the successive cars beneath the furnace.



2. Sintering apparatus comprising, in combination, a sintering track, sintering cars movably mounted thereon, said cars having openings in the bottom thereof for the passage of waste gases, an ignition furnace above the sintering track, the cars, in passing over the sintering track, successively forming the bottom of said ignition furnace, means for firing said furnace, yielding means at the sides of the furnace mechanically engaging the sides of the cars to form a seal and limit ingress of air passing between the adjacent side edges of the furnace and cars beneath the furnace, into the furnace, and means for withdrawing waste gases from the furnace through the successive cars beneath the furnace.

1,140,711. METHOD AND MACHINE FOR MAKING PAPER. CHARLES E. POPE, Holyoke, Mass. Filed Feb. 19, 1914. Serial No. 819,826. (Cl. 92—49.)



1. A Fourdrinier paper-making machine having in combination an upper press-roll and felt, and pneumatic means arranged to remove the web adhering to the press-roll and carry it to the felt, substantially as described.

2. A Fourdrinier paper-making machine having in combination an upper press-roll and felt, and pneumatic means arranged to forcibly deliver a current of air against said press-roll in a direction toward the felt, substantially as described.

3. A Fourdrinier paper-making machine having in combination a rotatable press-roll and a felt in moving engagement with said roll, and means arranged to forcibly deliver a thin sheet of air substantially tangential to the cylindrical surface of said roll, substantially as described.

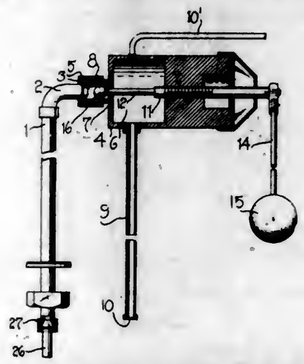
4. A Fourdrinier paper-making machine having in combination a rotatable press-roll and a felt in moving engagement with said roll, and means arranged to forcibly deliver a thin sheet of air substantially tangential to the cylindrical surface of said roll and in a direction toward the felt, substantially as described.

5. A Fourdrinier paper-making machine having in combination a pair of rotatable press-rolls and a moving felt arranged between them, and means associated with the upper press-roll of the pair and arranged to forcibly deliver a thin sheet of air substantially tangential to the cylindrical surface of said press-roll and in a direction toward the felt, substantially as described.

[Claims 6 to 15 not printed in the Gazette.]

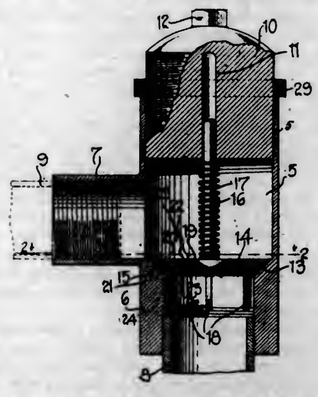
1,140,712. VALVE. BINGHAM S. PRICE, Rawlins, Wyo. Filed Apr. 8, 1914. Serial No. 830,499. (Cl. 137—104.)

A device of the character described comprising a casing provided with a restricted opening in an end thereof and having a discharge in a side adjacent the end provided with the opening, an outwardly disposed nipple surrounding said restricted opening, the transverse diameter of the bore of the nipple being in excess of the diameter of the restricted opening, a freely movable valve within the nipple, a supply pipe operatively engaged with the outer extremity of the nipple whereby the pressure within the supply pipe serves to normally maintain the valve in closed position, an elongated member threaded through the opposite end of the casing, the inner extremity thereof



being reduced and adapted to project through the restricted opening to contact with the valve to unseat the same, the transverse diameter of the reduced portion of the elongated member being less than the diameter of the restricted opening, a rod secured to the outer extremity of the elongated member and disposed perpendicularly thereof and a float secured to the outer extremity of the rod, the threaded engagement between the elongated member and the coacting end of the casing being such, as to cause outward travel of the elongated member upon upward movement of the rod, under the influence of the float.

1,140,713. PRESSURE-VALVE. BINGHAM S. PRICE, Rawlins, Wyo. Filed May 18, 1914. Serial No. 839,393. (Cl. 137—53.)

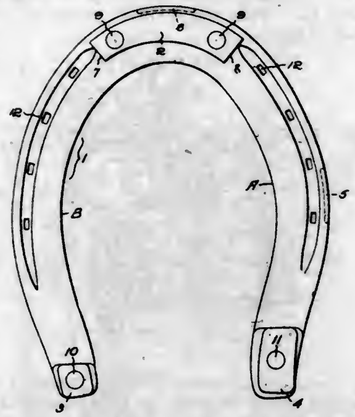


1. In a pressure regulating valve, a valve casing provided with an inlet and an outlet port, a spring pressed valve normally closing the inlet port and adapted to be opened under pressure, said valve being provided with an opening, a sleeve removably arranged in the opening, a seat member detachably arranged in the sleeve, an auxiliary valve movable in said sleeve and having a longitudinal fluted stem extending loosely through the seat member, the sleeve member being provided with stop lugs to limit the movement of the valve, the seat member having a seat formed thereon upon which the valve is forced by

pressure against the pressure valve in a direction to lift the same from its seat, the auxiliary valve moving to its open position by gravity to permit water to drain from the valve casing through the opening in the pressure valve into the inlet port.

2. In a pressure regulating valve, a valve casing having an inlet port and an outlet port, a valve arranged in the casing, a spring for normally holding the valve upon its seat, means for regulating the tension of the spring to vary the pressure necessary to open the valve, said valve having an opening therein, a sleeve removably threaded in said opening, a seat member threaded in said sleeve and provided with a valve seat, an auxiliary valve arranged in the sleeve, the valve being provided with a stem consisting of a plurality of spaced blades extending the length of the stem and movable through the seat member, and stop lugs formed on the sleeve to limit the opening movement of the valve, said valve being forced against its seat by pressure in a direction to open the spring held valve, the valve member moving to its open position by gravity to permit water in the valve casing to drain through the pressure valve into the outlet port.

1,140,714. HORSESHOE. JAMES PULLAR, Hartford, Conn. Filed Sept. 15, 1914. Serial No. 861,902. (Cl. 168—24.)



1. In combination with a horseshoe having its sides of uneven weight, a toe calk symmetrically arranged at the front of the shoe and gradually tapering in thickness and evenly from the lighter to the heavier end thereof.

2. In combination with a horseshoe having its sides of uneven weight, a toe calk symmetrically arranged at the front of the shoe and gradually tapering in thickness and evenly from the lighter to the heavier end thereof, the ends of said toe calk being abrupt to prevent shifting of the horseshoe.

3. A horse-shoe body composed of cast malleable metal having toe and heel calks integral therewith, the said body being of greater width at the outside than at the inside, but of substantially equal thickness throughout, whereby to add to the weight for the purpose of controlling the hoof action without throwing the hoof out of level when brought into contact with the road bed, the said toe calk being of curved contour and having a flat, broad tread surface throughout, said toe calk being of gradually increasing width in cross section from its inside edge to its outside edge, whereby to add to the weight at the outside of the shoe, and thus to aid in controlling the hoof action.

1,140,715. FIREARM. LEE B. PURCELL, U. S. Navy. Filed Sept. 2, 1914. Serial No. 859,803. (Cl. 42—3.)

1. In a fire arm the combination of an action slide; a breech bolt provided with a groove and a hammer; a cocking member carried by said breech bolt; and a pin connection between said slide and cocking member passing through said groove, adapted to turn said bolt, move the same to the rear and to cock the hammer, substantially as described.



2. In a fire arm the combination of an action slide; a receiver provided with a slot; a sliding block connected to said slide and provided with a pin; a breech bolt provided with a cam groove through which said pin passes; a hammer carried by said bolt; and a cocking member also carried by said bolt, connected to said pin and adapted to cock said hammer, substantially as described.

3. In a fire arm the combination of an action slide; a receiver provided with a slot; a sliding block connected to said slide and provided with a pin; a breech bolt provided with a cam groove through which said pin passes; a hammer provided with an extension carried by said bolt; a hand operated cocking lever connected to said extension; and a cocking member also carried by said bolt, connected to said pin and adapted to cock said hammer, substantially as described.

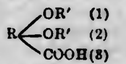
4. In a fire arm the combination of an action slide; a receiver provided with a slot; a sliding block connected to said slide and provided with a pin; a breech bolt provided wtih a cam groove through which said pin passes; a hammer provided with an extension carried by said bolt; an extension provided with a slot associated with said receiver adapted to house said hammer extension; a hand operated cocking means connected to said hammer extension and passing through said slot in said receiver extension; and a cocking member also carried by said bolt, connected to said pin and adapted to cock said hammer, substantially as described.

5. In a fire arm the combination of a receiver; a cartridge feed roller associated therewith; an operating means; connections between said means and roller for rotating the same; flexible means adapted to be ripped for carrying a cartridge to said receiver; and means associated with said roller for causing said flexible means to be ripped and said cartridge to be brought into position to be fed into the breech of the gun, substantially as described.

[Claims 6 to 26 not printed in the Gazette.]

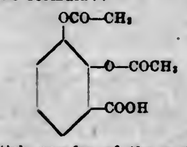
1,140,716. DIACIDYLPYROCATECHIN-ORTHO-CARBOXYLIC-ACID COMPOUND. ERICH RIETZ, Elberfeld, Germany, assignor to Synthetic Patents Co., Inc., New York, N. Y., a Corporation of New York. Filed Oct. 6, 1914. Serial No. 865,292. (Cl. 23—24.)

1. The herein described new antipyretics being chemically acidylized pyrocatechin-ortho-carboxylic acid compounds having most probably the following formula:



which are whitish crystalline substances soluble in the usual organic solvents, practically insoluble in water, substantially as described.

2. The herein described new antipyretic being chemically diacetyl-pyrocatechin-ortho-carboxylic acid having most probably the formula::



which is a whitish powder of the melting point 148 to 150° C. soluble in the usual organic solvents, practically insoluble in water, substantially as described.

1,140,717. PROCESS OF STERILIZING MILK, CREAM, BEVERAGES, AND OTHER ALIMENTARY SUBSTANCES. ALFRED RUTTER, Mentone, Victoria, Australia. Filed Dec. 19, 1913. Serial No. 807,692. (Cl. 99—1.)

1. In the sterilization of alimentary liquids, treating such liquids at atmospheric pressure by gradually adding thereto and thoroughly mingling therewith a small proportion of sodium peroxid, and heating the said substance substantially as herein set forth.

2. In the sterilization of alimentary liquids, treating such liquids at atmospheric pressure by gradually adding thereto and thoroughly mingling therewith small proportions of sodium peroxid and an acid, and heating the said substance, substantially as herein set forth.

3. The improvements in and relating to the sterilization of alimentary liquids by the production therein of nascent oxygen and ozone without the production of hydrogen peroxid to a prejudicial or undesirable extent in the manner herein specified.

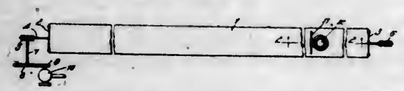
1,140,718. PUNCTURE-CLOSER FOR PNEUMATIC TIRES. ROBERT WILLIAM SAMPSON, Westmount, Quebec, Canada. Filed Feb. 8, 1912. Serial No. 676,200. (Cl. 152—26.)



1. The combination, in a pneumatic tire plug embodying a head, a cap and a clamping shank, of a flexible cover attached to one side of the outer face of the cap.

2. The combination in a pneumatic tire plug embodying a head, a shank disseverable above the cap, and a cooperative cap provided with a fender covering over its shank receiving perforation.

1,140,719. DOWNDRAFT CONTINUOUS KILN. FRANCES D. SHAW, Chicago, Ill. Filed May 1, 1912. Serial No. 694,551. (Cl. 25—142.)



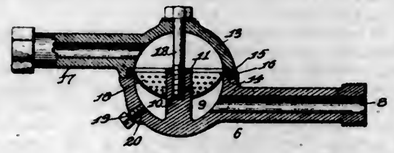
1. In a continuous kiln, the combination of a masonry tunnel, cars for closing the bottom of the tunnel, ledges projecting inward from the side walls of the tunnel into rabbets formed in the cars to receive the same, projecting flanges extending from the cars below the side walls of the tunnel, and resilient sealing devices between the flanges and the bottom of said side walls.

2. In a continuous kiln, the combination of a masonry tunnel, cars for closing the bottom of the tunnel, the side walls of the tunnel and the edges of the cars being conformed to coöperate to form a broken surface to prevent the ready passage of gases therethrough, and resilient sealing devices between the cars and the side walls of the tunnel along the lower portion of the broken surfaces.

3. As a means for sealing the bottom of a continuous kiln, a plurality of cars for carrying articles to be burned through the kiln, a flap of resilient material extending downward transversely of the car at one end of each of said cars, and a plate carried by the other end of each of said cars for engaging one of said flaps to press it between the plate and the bottom of the car to which it is secured.

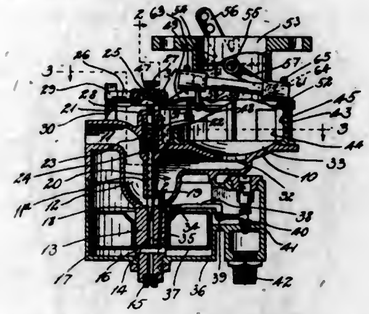
4. As a means for sealing the bottom of a continuous kiln, a plurality of cars having their sides of irregular conformation to coöperate with similar irregularities formed in the kiln, and resilient sealing material carried by the sides of the cars near the bottoms thereof for engaging the bottom portion of the kiln.

1,140,720. UNIVERSAL COUPLING. FRANK SIMONS, St. Louis, Mo. Filed May 31, 1912. Serial No. 700,877. (Cl. 137—34.)



A universal coupling comprising a cup-shaped inlet member, a cup-shaped outlet member, the contacting surfaces of each having a portion of its material cut away forming projecting flanges, a bushing located between the cups, a central internally screw-threaded projection formed integral and within one of the cup-shaped members and extending to the center of the coupling, a cap-screw extending through the other cup-shaped member and seated in the internally screw-threaded projection, in combination with a cup-shaped strainer located in one of the cup-shaped members and around the screw threaded projection substantially as specified.

1,140,721. CARBURETER. NATHANIEL C. STAMPS, Los Angeles, Cal. Filed Aug. 7, 1911. Serial No. 642,781. (Cl. 48—155.1.)



1. A carbureter for explosive engines, comprising a casing provided with a circuitous air inlet passage having a depending portion forming a carbureting chamber, and having an aperture therein, a fuel feeding mechanism adapted to admit fuel through said aperture, a throttle mechanism, a secondary air feeding mechanism intermediate the inlet passage and the throttle mechanism, and means for simultaneously operating said fuel feeding mechanism and air feeding mechanism for delivering the materials composing the explosive mixture in the proper quantities in proportion to the inflow of air through the air feeding mechanism.

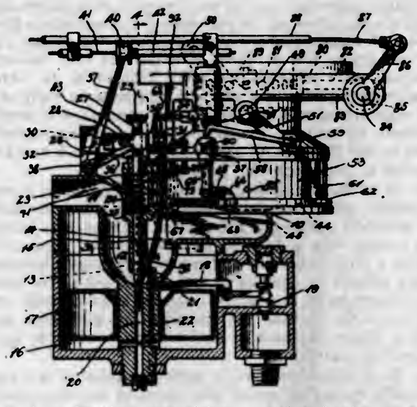
2. A carbureter comprising a casing having a mixing chamber formed with an apertured, centrally depressed floor, the said chamber also having openings in its side walls communicating with the atmosphere, the casing also having a circuitous carbureting passage leading from an independent air inlet to the bottom of said mixing chamber, a gasolene supply arranged to enter the lower portion of said passage, a spring controlled valve regulating said supply, an exterior shutter arranged to control the passage of air through the opening in the walls of the mixing chamber, said shutter having a cam path thereon and means carried by the needle valve adapted to engage said cam path for causing the admission of gasolene in accordance with the inflow of air in the mixing chamber.

3. A carbureter mechanism comprising a casing having a primary air inlet passage, and a secondary air inlet passage, a gasolene supply arranged for delivering gasolene into said primary inlet passage, the secondary inlet passage having cylindrical walls formed with a series of

openings adapted to communicate with the atmosphere, and an apertured wall between it and said primary air inlet passage, a sliding sleeve mounted outside said openings in the cylindrical wall and adapted to control them, connecting means between said sleeve and the throttle mechanism of the engine upon which the carbureter is placed, whereby said sleeve will be moved when the throttle is operated, an adjustable cam spring mounted on said sleeve, a needle valve arranged to control the gasolene supply, means for guiding it in vertical movement, and a roller carried thereby and adapted to engage said cam spring, the structure being such, that when an auxiliary supply of air is introduced through the secondary air inlet passage, a corresponding additional quantity of gasolene will be admitted into and held in the primary air passage.

4. A carbureter, comprising a casing having a mixing chamber in open communication with the atmosphere, said casing also having a circuitous carbureting passage leading from a separate primary air inlet to the bottom of said mixing chamber, a gasolene feed supply entering the lower portion of said passage, a valve in said supply, a shutter for controlling the passage of air to the mixing chamber, and means on said shutter coöperating with the valve, whereby the admission of gasolene to the passage is automatically proportioned to the inflow of air to the mixing chamber.

1,140,722. CARBURETER. NATHANIEL C. STAMPS, Los Angeles, Cal. Filed Feb. 24, 1912. Serial No. 679,684. (Cl. 48—155.1.)



1. A carbureter, comprising a casing having a gasolene inlet, a valve controlling the same, a mixing chamber having air inlet apertures in its walls, a throttle valve, an apertured slide for controlling the air inlet opening, means connecting the throttle valve with said slide, an adjustable cam plate carried by said slide, adapted to operate the needle valve for introducing more gasolene when the air inlets are opened by registering said apertures, and a lever manually operated independent of the slide for lifting said needle valve.

2. A carbureter, comprising a casing having a gasolene inlet, a needle valve controlling the same, a spring normally tending to close the same, a cam plate operable by the movement of the throttle mechanism of the engine for lifting the needle valve, and an auxiliary lifting means made up of an arm, means projecting from the needle valve engaging said arm, and means for operating said arm.

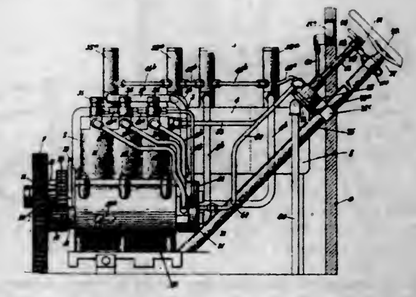
3. A carbureter, comprising a casing having a gasolene inlet and an air inlet, a mixing chamber connected with said air inlet and having air openings in its walls, a circular slide adapted to control said air openings and having openings in its walls, an auxiliary slide mounted outside the said circular slide and having openings, the first mentioned circular slide having a stud projecting therefrom, a lug carried upon the outer slide and adapted to engage said stud, a spring normally tending to hold the lug against said stud for holding the openings of the slide in coincidence, means for moving the outer slide against the action of the said spring for moving the slides with respect to each other, and means for moving the said slides in correspondence with the movement of the engine throttle mechanism.

4. A carbureter, comprising a casing having a circuitous passage therethrough, a gasolene feed controlling valve, a mixing chamber having two series of air inlets in its walls, a throttle valve mounted in the passage intermediate said series of air inlets to said mixing chamber, means for operating the gasolene valve, in accordance with the movement of the throttle mechanism, means for controlling the air inlets in accordance with the movement of said throttle mechanism, a by-pass connecting the mixture passage on either side of the throttle, and means for carrying to and controlling a priming charge passed through said by-pass in starting the engine.

5. A carbureter, comprising a casing having an air and gasolene inlet, a valve controlling the inlet of gasolene, the air inlet having a goose neck chamber therein adapted to receive a priming liquid, a priming mechanism, the casing being provided with a passage extending around said throttle mechanism, a priming feed pipe extending from said passage to the goose neck of the air inlet, for directing the priming material to the passage around said throttle, and means for controlling the said throttle and gasolene inlet in accordance with each other.

[Claims 6 and 7 not printed in the Gazette.]

1,140,723. COMBINED AIR-PUMP AND STARTER FOR EXPLOSIVE-ENGINES. FRANK E. TEN EYCK, Auburn, N. Y., assignor to Auto Air-Rotor Company, Chicago, Ill., a Corporation of Maine. Filed June 12, 1914. Serial No. 844,611. (Cl. 123—179.)



1. In starting mechanism for an explosive engine, the combination with a compressed fluid motor, means for supplying compressed fluid thereto, means for operatively connecting the motor with the crank shaft of the engine, connections from the means for supplying compressed fluid to the motor, extending directly to a cylinder of the engine, independent of any supply of explosive mixture thereto for positively operating the engine by fluid pressure.

2. In starting mechanism for an explosive engine, the combination with a compressed fluid motor, a storage tank, means for supplying compressed fluid from said tank to said motor, means for operatively connecting the motor with the crank shaft of the engine, and means operatively controlled by the operation of the motor for supplying compressed fluid from the tank directly to a cylinder of the engine, independently of the supply of the explosive mixture thereto, whereby said motor will operate to rotate the engine shaft and will also supply the said engine cylinder with compressed fluid acting directly therein.

3. The combination with an explosion engine provided with a plurality of cylinders, of a compressed fluid mo-

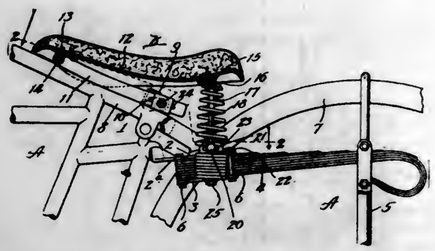
tor, means for operatively connecting the same with the engine crank shaft, a storage tank connected with the motor, a distributer operatively controlled by the motor, connections from the said distributer to the cylinders of the engine independent of any means for supplying explosive mixture thereto for positively operating the engine by fluid pressure, and a connection from the storage tank to said distributer.

4. The combination with an explosion engine provided with a plurality of cylinders, each of said cylinders having an auxiliary inlet for compressed fluid, of a combined pump and motor, means for operatively connecting the same with the crank shaft of the engine, a storage tank connected with the said pump and motor, a distributer operatively controlled by said pump and motor, connections from said distributer to the auxiliary air inlets of the engine cylinder, a connection from the tank to said distributer, normally closed valves for closing said inlets, and means for automatically opening said valves.

5. The combination with an explosion engine provided with a plurality of cylinders, each of said cylinders having an auxiliary inlet for compressed fluid, of a combined pump and motor, means for operatively connecting the same with the crank shaft of the engine, a storage tank connected with said pump and motor, a distributer operatively controlled by said pump and motor, connections from said distributer to the auxiliary air inlets of the engine cylinder, a connection from the tank to said distributer, normally closed valves for closing said inlets, a cylinder and piston for opening each of said valves, and a by pass for connecting the tank with said valve-controlling cylinders for automatically opening said valves.

[Claims 6 to 16 not printed in the Gazette.]

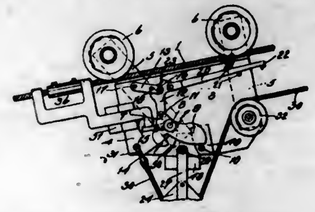
1,140,724. MOTOR-CYCLE AND SADDLE THEREFOR. DAVID S. TROXEL, Elyria, Ohio. Filed Aug. 19, 1914. Serial No. 857,487. (Cl. 208—15.)



1. In means of the character set forth, the combination with a motorcycle frame comprising a tubular structure equipped at its rear portion with a yoke, leaf-springs secured to the arms of said yoke, and frame-members rising from the rear axle and supporting said springs, of a stub-post carried by the said tubular structure, a pair of arms clampingly secured at their rear ends to said post, a saddle-body pivotally joined to the front ends of said arms, clips mounted at the junction of said leaf-springs with the yoke arms, compression coils below the rear end of the saddle-body, having their lower ends mounted on said clips, tension coils below said compression coils having their upper ends connected with said clips, and pivoted arms depending from the saddle through said coils and mounted at their lower ends on the lower ends of said tension coils.

2. In means of the character set forth, the combination with a motorcycle frame comprising a tubular structure and leaf-springs secured to the rear portion thereof, of a stub-post carried by said tubular structure, a clamping device mounted on said post, a pair of arms having their rear portions provided with slots engaged by said clamping device, a seat-body having its front portion pivotally connected with the front ends of said arms, clips mounted on the frame structure at the front portions of said leaf-springs and provided with slots, a yoke pivotally connected with the rear portion of the saddle-body and whose arms afford depending rods, bolts mounted in the slots of said clips, compression coils beneath the saddle-body encircling said rods and having their lower ends connected with said bolts, tension coils encircling the lower ends of said rods and having their upper ends secured to said bolts, and connections between the lower ends of said rods and the lower ends of said tension coils.

1,140,725. AERIAL CONVEYER. ROBERT WADDELL, Seattle, Wash., assignor to Washington Iron Works Company, Seattle, Wash., a Corporation of Washington. Filed Dec. 11, 1913. Serial No. 805,898. (Cl. 212—98.)



1. In an aerial conveyer, a carriage consisting in a pair of rigidly connected spaced side plates, a knuckle-member pivotally connected to oscillate between said plates and formed with a hook on its underside for supporting a load, a pair of toggle-members pivotally connected at one end to said plates and at their other end to said knuckle-member, their intermediate joint adapted to be flexed upon opposite sides of a straight line between their said end connections, and inter-engageable stops on said toggle-members for limiting the movement of said intermediate joint in one direction to secure the hook of said knuckle-member in load-supporting position.

2. In an aerial conveyer, a carriage consisting of a pair of rigidly connected spaced side plates, a knuckle-member pivotally connected to oscillate between said plates and formed with a hook on its underside for supporting a load, a lever pivoted at one end to said knuckle-member, a link pivoted at one end to said plates and at its other end to said lever, and inter-engageable stops on said link and lever for limiting the movement of said lever and link to secure the hook of said knuckle member in load-supporting position.

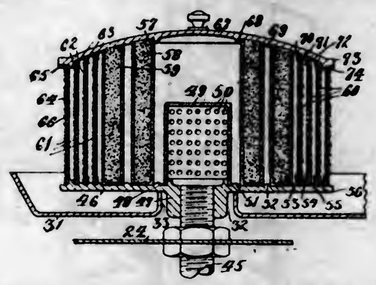
3. In an aerial conveyer, a carriage consisting of a pair of rigidly connected spaced side plates, a knuckle-member pivotally connected to oscillate between said plates and formed with a hook on its underside for supporting a load, a lever pivoted at one end to said knuckle-member, a link pivoted at one end to said plates and at its other end to said lever, the pivot point of said lever and link being adapted to be flexed upon opposite sides of a straight line through their other pivot points, and iterengageable stops on said link and said lever to limit the movement of said lever and link to secure the hook of said knuckle-member in load-supporting position.

4. In an aerial conveyer, a carriage consisting of two spaced side plates, a knuckle-member pivotally connected to oscillate between said plates and formed with a hook for supporting a load, toggle-members connected at one end to said plates and at their other end to said knuckle-member, and a dog pivoted to one of said toggle members and adapted to engage with a stop to releasably secure said carriage in a predetermined position.

5. In an aerial conveyer, a carriage consisting of two spaced side plates, a knuckle-member pivotally connected to oscillate between said plates and formed with a hook for supporting a load, toggle-members connected at one end to said plates and at their other end to said knuckle-member, their intermediate joint adapted to be flexed upon opposite sides of a straight line between their said end connections, and a dog pivoted to one of said toggle members and adapted to engage with a stop to releasably secure said carriage in a predetermined position.

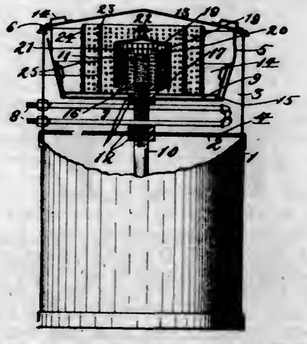
[Claims 6 and 7 not printed in the Gazette.]

1,140,726. FILTER. WILLIAM F. WARDEN, Akron, Ohio. Filed Jan. 5, 1914. Serial No. 810,865. (Cl. 210—16.)



A filtering unit comprising a base plate provided with an opening to receive a discharge pipe, the upper face of the plate being provided with an upwardly-projecting flange and with a plurality of upwardly-projecting concentric ribs, an inverted cup-shaped strainer engaging the flange, the space between the ribs constituting seats, a plurality of separate filtering media mounted on the seats and each freely and independently removable, and a top plate having its under surface provided with separated concentric ribs, the spaces between which constitute seats to receive the upper ends of the filtering media.

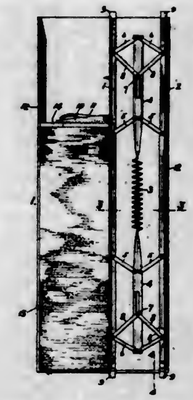
1,140,727. OIL-FILTER. WILLIAM F. WARDEN, Akron, Ohio. Filed May 11, 1914. Serial No. 837,648. (Cl. 210—16.)



1. An oil filter comprising a hollow casing divided horizontally by a partition into upper and lower compartments, the latter constituting a receptacle for filtered oil, a receiving receptacle for dirty oil positioned in the upper compartment, a pipe extending from the lower compartment and terminating in said receptacle, a wide collar detachably secured on said pipe within said receptacle, a pair of tube-like members of foraminous material mounted on said collar and separated from each other to provide an annular space for the reception of comminuted filtering material, a cover for closing the upper open end of the outer member, an annular sleeve-like member of foraminous material supported by said receiving receptacle inclosing, spaced from and independent of said collar and a layer of fibrous material secured to said annular members, all of said members being positioned in the path of oil flowing horizontally in said receiving receptacle and each independently removable.

2. An oil filter comprising a hollow casing divided horizontally by a partition into upper and lower compartments, the latter constituting a receptacle for filtered oil, a receiving receptacle for dirty oil positioned in the upper compartment, a pipe extending from the lower compartment and terminating in said receptacle, a wide collar detachably secured on said pipe within said receptacle, a pair of tube-like members of foraminous material mounted on said collar and separated from each other to provide an annular space for the reception of comminuted filtering material, a cover for closing the upper open end of the outer member, a pair of annular sleeve-like members formed of foraminous material mounted on said receiving receptacle inclosing, spaced from and independent of said collar and its mechanism, means carried by one of said annular members adapted to hold said members in spaced relation, a layer of fibrous material secured to each of said annular members, all of said members being positioned in the path of oil flowing horizontally in said receiving receptacle, and each independently removable.

1,140,728. PRINTER'S GALLEY-LOCK. EMIL WEITZEL, Philadelphia, Pa. Filed Sept. 1, 1914. Serial No. 859,617. (Cl. 101—54.)



1. A gallery lock comprising a pair of bars, a spring, a float at each end of the spring, and a system of levers connecting the floats with the bars.

2. A galley lock comprising a pair of bars, a spring between the bars, a float connected at each end of the spring, and means pivotally connecting the floats with the bars.

3. A galley lock comprising a pair of bars, a spring between the bars, a float at each end of the spring, a pair of levers pivotally connected at each float, and levers pivotally connecting each float with the bars.

4. A galley lock comprising a pair of bars, a spring, a pair of floats, a pair of levers pivotally connecting the bars with each float, and a pair of levers pivotally connected with the bars and connected together by a floating pivot.

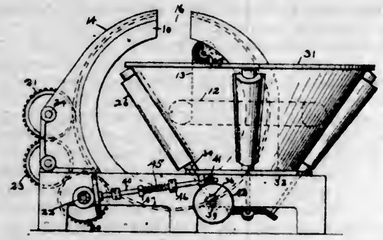
5. A galley lock comprising a pair of bars, means yieldingly holding the bars apart, a runner carried by one of said bars, and means for clamping the runner along the bar.

[Claim 6 not printed in the Gazette.]

1,140,729. MACHINE FOR WRAPPING ANNULI. PARK E. WELTON, Akron, Ohio. Filed Aug. 25, 1913. Serial No. 786,480. (Cl. 242—6.)

1. In a machine for wrapping annuli, the combination of a mutilated annular shuttle, a mutilated circular guide member lying in a vertical plane and rotatably supporting said shuttle, a plurality of inclined rolls for supporting the annulus to be wrapped, which rolls are arranged with their axes converging downward toward a common point, means for slowly turning the annulus which said rolls support about a vertical axis, means for supporting

a roll of the wrapping strip upon the shuttle, and a tension take-up device acting to turn said roll in the direction to wind the wrapping strip upon said roll.



2. In a machine for wrapping annuli, the combination of a mutilated annular shuttle, a mutilated circular guide member lying in a vertical plane and supporting the shuttle, and guiding it to rotate about a horizontal axis, an inclined driving roll for the annulus to be wrapped, and a plurality of inclined conical annulus supporting rolls which are set with their small ends down; all of said conical rolls being set at such inclinations that their axes converge downward to a common point, means for turning the feed roll, mechanical connections between the several conical rolls which compel them all to turn at the same rate when either is turned, means for supporting a roll of the wrapping strip upon the shuttle, and a tension take-up device coacting with said roll.

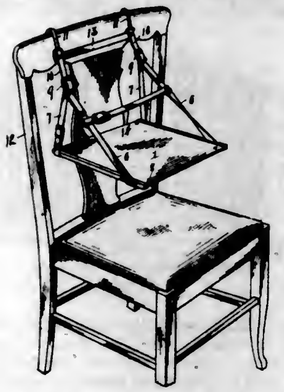
3. In a machine for wrapping annuli, the combination of a mutilated annular shuttle, a mutilated circular guide member standing in a vertical plane and supporting the shuttle in such manner that its axis is horizontal, two frame members lying in horizontal planes which intersect the plane in which the shuttle stands, each of said frame members being cut away at points within the circle of the shuttle and in the vertical plane at which it turns, two inclined feed rolls mounted in said horizontal frame members and lying on opposite sides of the plane in which the shuttle turns, means for turning said feed rolls, a plurality of inclined conical annulus supporting rolls mounted in said horizontal frame members, said conical rolls being set at such inclinations that their axes converge downward toward a common point, means compelling the conical rolls to turn in unison and at the same rate,, means for supporting a roll of the wrapping strip upon the shuttle, and a tension take-up device coöperating with said roll.

4. In a machine for wrapping annuli, and as a means for supporting and slowly turning the annulus to be wrapped in a horizontal plane, the combination of an inclined feed roll, a plurality of inclined conical rolls arranged with their large ends outermost, the inclination of said conical rolls being such that they converge downward toward a common point, means compelling the conical rolls to turn in unison and at the same rate, and driving mechanism for said feed roll.

5. In a machine for wrapping annuli, and as a means for supporting and slowly turning the annulus to be wrapped in a horizontal plane, the combination of inclined feed rolls, a plurality of inclined conical rolls arranged with their large ends outermost, the taper and inclination of the conical rolls and the inclination of the feed rolls being such that longitudinal lines on their surfaces which intersect the points at which various sized tires will touch said surfaces, will all converge toward a common point, and means compelling said conical rolls to rotate in unison and at the same rate when either roll is turned.

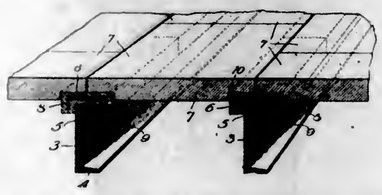
1,140,730. CHILD'S SEAT. CARLOS H. WOLFERT, Toledo, Ohio, assignor to Toledo Folding High Chair Company, Toledo, a Partnership composed of himself and George C. Penney. Filed Nov. 28, 1913. Serial No. 803,533. (Cl. 155—26.)

In a device of the class described, a seat portion comprising a plurality of hingedly connected slat members extending transversely of said portion, channel bars for fitting over respective side edges of said portion to prevent a relative movement of the seat members, said bars each having at its outer closed edge a strap receiving eye and also having an inturned stop tongue at one end of its channel, and a suspending harness for said seat portion



having suspending members at each side thereof extending around the respective channel bar and attaching to the under side of the seat portion whereby such suspending members serve to maintain the channel bars in position on the seat edges, one of the suspending members at each side being extended through the eye of the respective channel bar.

1,140,731. ROOF OR FLOOR STRUCTURE. LEROY BAUMGARTL, Chicago, Ill. Filed Oct. 19, 1914. Serial No. 867,480. (Cl. 72—66.)



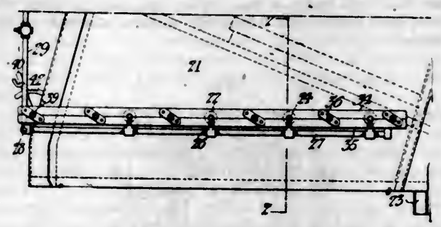
1. In building construction, in combination, flanged beams or girders, shoes of a width exceeding that of the beams or girders and adapted to rest on and extend along the upper surfaces thereof whereby to afford an increased bearing area, and slabs or tiles spanning the space between said beams or girders with their ends bearing on said shoes.

2. In building construction, in combination, flanged beams or girders, shoes of a width exceeding that of the beams or girders and adapted to rest on and extend along the upper surfaces thereof whereby to afford an increased bearing area, and slabs or tiles spanning the space between said beams or girders and having shouldered ends bearing on said shoes.

3. In building construction, in combination, flanged beams or girders, shoes of a width exceeding that of the beams or girders and having channels on their under sides and adapted to rest over the upper surfaces thereof and extend along the same whereby to afford an increased bearing area, and slabs or tiles spanning the space between said beams or girders with their ends bearing on said shoes.

4. In building construction, in combination, flanged beams or girders, reinforced shoes of a width exceeding that of the beams or girders and having channels on their under sides and adapted to rest over the upper surfaces thereof and extend along the same whereby to afford an increased bearing area, and slabs or tiles spanning the space between said beams or girders with their ends bearing on said shoes.

1,140,732. FURNACE. WILLIAM N. BEST, New York, N. Y., assignor of one-third to Edgar S. Hammond, Wilmington, Del. Filed Feb. 5, 1914. Serial No. 816,691. (Cl. 110—61.)



1. A furnace having a series of air inlet passages through the wall thereof from the atmosphere to the fire box above the fire bed, a tube extending into each inlet and adapted to deliver a jet of aeri-form fluid through said inlet to induce the entrance of air to said fire box from the atmosphere, two members disposed adjacent opposite sides of said tubes for covering the outer ends of said passages and each having a series of notches adapted to receive said tubes, a plurality of links each pivotally supported intermediate of its ends and each having its opposite ends connected to said members, and means for simultaneously swinging said links to move said members toward and from each other.

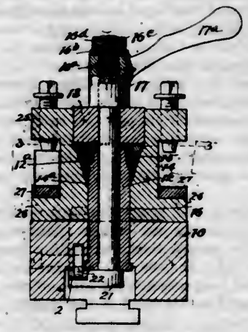
2. A furnace having air inlet passages through the opposite walls thereof from the atmosphere to the fire box above the fire bed, a tube extending into each of said passages for delivering a jet of aeri-form fluid through the passage to induce the entrance of air to said fire box from the atmosphere, a pair of bars disposed along each side of the furnace, one bar of each pair being disposed above the corresponding tube, and the other disposed below, links pivotally supported intermediate of their ends and having their opposite ends connected to said bars, and a single handle for swinging the links at both sides of said furnace for simultaneously bringing together or separating the two bars of each pair and closing or opening said passages.

3. A furnace having an air inlet through the wall thereof from the atmosphere to the fire box above the fire bed, said inlet being oblong in shape and of greater height at its ends than at the intermediate portion, and a jet directed toward the center portion of said inlet and having a delivery opening oblong in form and of greater height at its ends than at the intermediate portion.

1,140,733. TOOL-HOLDING TURRET. EDWARD P. BURRELL, Cleveland, Ohio, assignor to The Warner and Swasey Company, Cleveland, Ohio, a Corporation of Ohio. Filed Dec. 18, 1913. Serial No. 807,368. (Cl. 29—49.)

1. In a lathe the combination of a turret base which is provided with an outwardly extended cylindrical post having a conically tapered upper end, a turret which is supported on said base member and is provided with a cylindrical hole through which said post passes, which hole adjacent to the tapered end of the post is reversely tapered, segmental wedges in the V-shaped recess between said post and turret, and means for driving said wedges down in said recess.

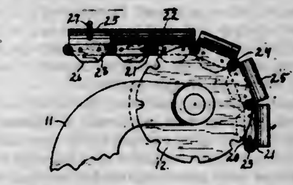
2. In a latehe the combination of a turret base which is provided with an outwardly extended cylindrical post having a conically tapered upper end, a turret which is supported on said base member and is provided with a cylindrical hole through which said post passes, which hole adjacent to the tapered end of the post is reversely tapered, segmental wedges in the V-shaped recess between said post and turret, a shaft which projects up from said post and is externally threaded, and a nut which is screwed onto said threaded part of said shaft.



3. In a lathe the combination of a turret base which is provided with an outwardly extended cylindrical post having a conically tapered upper end, a turret which is supported on said base member and is provided with a cylindrical hole through which said post passes, which hole adjacent to the tapered end of the post is reversely tapered, segmental wedges in the V-shaped recess between said post and turret, a shaft which projects up from said post and is externally threaded, a nut which is screwed onto said threaded part of said shaft, and a pressure block which loosely embraces said shaft and is interposed between said nut and wedges.

4. In a lathe the combination of a turret base which is provided with an outwardly extended cylindrical post having a conically tapered upper end, a turret which is supported on said base member and is provided with a cylindrical hole through which said post passes, which hole adjacent to the tapered end of the post is reversely tapered, segmental wedges in the V-shaped recess between said post and turret, a shaft which passes axially through said post and is rotatable therein, which shaft has an externally threaded upward projection and above that an external annular shoulder, a nut which is screwed onto said threaded portion of the shaft below said annular shoulder, a vertically movable spring actuated index pin mounted in the base for engagement with the turret, an arm fixed to the lower end of said shaft, and means whereby said arm in turning will draw said index pin down.

1,140,734. CONVEYER FOR BOOK-STITCHING MACHINES. MARTIN CHRISTENSEN, Racine, Wis. Filed Apr. 24, 1913. Serial No. 763,207. (Cl. 193—8.)



1. A conveyer for a book stitching machine, comprising a supporting means, an endless belt carried thereon, and a plurality of hood members extending over one portion of the belt and below the belt to form a smooth uninterrupted sheet supporting wall on the portion of the belt traveling in its upper path of travel.

2. A conveyer for a book stitching machine, comprising a supporting means, an endless chain carried thereon, and a plurality of hood members connected to the links of the chain and extending over the upper portions of

the links when traveling in its upper path of travel and having extensions forming guides which project below the links to form side guides for engaging a support upon which the chain travels.

3. A conveyer for a book stitching machine, comprising a supporting means, an endless chain carried thereon, and a plurality of V-shaped hoods extending over three sides of the chain links and having downwardly projecting extensions to form side guides for engaging a support upon which the chain travels.

4. A conveyer for a book stitching machine, comprising a supporting means, a guide bar carried thereon, an endless chain supported in part on said bar, and a plurality of hoods carried by the chain and extending in inverted V formation over the portion of the chain resting on the bar and projecting downwardly on both sides of the bar.

5. A conveyer for a book stitching machine, comprising a supporting means, an endless chain carried thereon, a plurality of V-shaped hoods extending over three sides of the chain links and having extensions to form side guides, and pins projecting from some of the hoods.

[Claims 6 and 7 not printed in the Gazette.]

1,140,735. PROCESS FOR CONVERTING FINE COAL INTO A MARKETABLE FUEL. JOHN EVANS, Melbourne, Victoria, Australia. Filed Aug. 14, 1913. Serial No. 784,718. (Cl. 44—1.)

1. In the manufacture of compressed fuel, the process of coating compressed fine coal compounded with an adhesive with fluid tar and pitch, then heating the said coating to a temperature not less than 400° F. which will partially volatilize the tar and leave a film of pitch and finally chilling the said coating by passing the fuel through a current of cold air and for the purpose herein described.

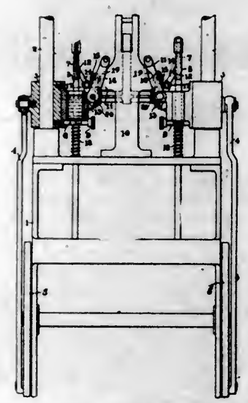
2. The process for converting fine coal into a marketable fuel consisting in first finely pulverizing black coal, lignite or brown coal in a suitable machine, then mixing with it an adhesive material or binder which is soluble in water in the proportion of from 2 to 5 per cent. of its bulk, then compressing the mixture in a suitable molding appliance, then passing the so far formed fuel through a chamber heated to about 212° Fah., then coating it with an admixture of fluid tar and pitch, then further submitting it to a temperature not less than 400° F. which will partially volatilize the tar converting the coating into a film of pitch and finally passing it through a current of cold air to chill the coating, all substantially as and for the purposes herein described.

1,140,736. BOTTLE-LABELING MACHINE. ARTHUR LESLIE FLOWER, Glasgow, Scotland. Filed Dec. 1, 1913. Serial No. 804,008. (Cl. 216—54.)

1. In a bottle labeling machine, the combination of a plate; a pot adapted to be moved vertically to cause the plate to be dipped thereinto; a gumming pad adapted to be moved into contact with the plate and to be turned away again; means for moving the gumming pad into contact with a label supply and for moving the pad away from the label supply, the pad being adapted on its movement away from the label supply to carry away a label therefrom and to place the label on a bottle; and means for applying the label to the bottle.

2. In a bottle labeling machine, the combination of a plate mounted between two supports; a bracket adapted to be moved upward and downward; a pot arranged on said bracket; a pivotally mounted arm on said bracket; a gumming pad on said arm; means for moving said gumming pad into contact with the plate; means for moving the gumming pad away from said plate; means for moving the gumming pad into contact with a label supply and for moving the pad away from the label supply, the pad being adapted on its movement away from the label supply to carry away a label therefrom and to place the label on a bottle; and means for applying the label to the bottle.

3. In a bottle labeling machine, the combination of a plate mounted between two supports; a bracket adapted to be moved upward and downward; a pot arranged on said bracket; a pivotally mounted arm on said bracket; a gumming pad on said arm; an arm rigid with said first-mentioned arm and having a roller thereon adapted to contact with a shoulder whereby the gumming pad is moved into contact with the plate; a spring for moving said pad away from the plate; means for moving the gumming pad into contact with a label supply and for moving the pad away from the label supply, the pad being adapted on its movement away from the label supply to carry away a label therefrom and to place the label on a bottle; and wipers for applying the label to the bottle.

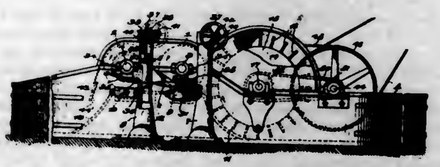


4. In a bottle labeling machine, the combination of a pair of plates; a pair of vertically reciprocating brackets; adhesive receptacles on said brackets adapted to be moved into contact with the plates; spring controlled gumming pads on said brackets; a part having sloping surfaces; means connected with the gumming pads and adapted to engage the sloping surfaces to push the pads into contact with the plates; means for moving the gumming pads into contact with a label supply, the pad being adapted on its movement away from the label supply to carry away a label therefrom and to place the label on a bottle; and means for applying the label to the bottle.

5. A bottle labeling machine comprising a main frame; vertical guides upon same; brackets on the guides; gum pots supported by the brackets, wheels adapted to move the brackets up and down the guides; vertically arranged and movable plates mounted on the frame and adapted to enter the gum pots and to be moved with same through part of their travel; and pivoted pads adapted to contact with the plates when the latter are removed from the gum pots.

[Claims 6 to 9 not printed in the Gazette.]

1,140,737. MACHINE FOR BEATING PAPER-STOCK. HENRY A. FRAMBACH, Cheboygan, Mich. Filed Mar. 26, 1914. Serial No. 827,369. (Cl. 92—24.)



1. In a beating engine, the combination with the vat or tank, of a beater roll mounted above said tank or vat in such position that its lower side will extend only slightly below the designed level of the contents of the vat or tank, said roll comprising heads secured to rotate with the beater shaft provided with transverse peripheral slots, fly-bars secured in said slots, said fly-bars being arranged in pairs to form spaces the sides of which converge outwardly, blocks of abrasive material secured in said spaces, and key plates secured to said heads between adjacent fly-bars of adjacent pairs so as to exert a wedging action thereon, a bed plate supported within said tank in operative relation to said beater roll, a paddle wheel rotatably mounted in said vat or tank at the front side of said beater roll and bed plate, means for rotating said beater roll and paddle wheel, and an upwardly and rearwardly inclined surface arranged between the under side of said paddle wheel and said bed plate, whereby the material which passes said paddle wheel will be guided between said beater roll and bed plate, substantially as described.

2. A beater roll for a beating engine, comprising heads secured to rotate with the beater shaft, provided with transverse peripheral slots, fly-bars secured in said slots, said fly-bars being arranged in pairs to form spaces, the sides of which converge outwardly, blocks of abrasive material secured in said spaces, and key plates secured to said heads between adjacent fly-bars of adjacent pairs, so as to exert a wedging action thereon, substantially as described.

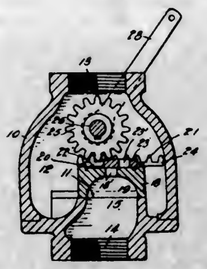
3. In a beating engine, a vat, beating means operating therein, and means located at the receiving side of said beating means for disintegrating the stock as it is fed thereto, said disintegrating means consisting of a toothed rotary device.

4. In a beating engine, a vat, beating means operating therein, and means located at the receiving side of said beating means for disintegrating the stock as it is fed thereto, said disintegrating means consisting of a toothed rotary device located close to and under the beater roll of the beating mechanism.

5. In a beating engine, a vat, a plurality of bed plates mounted therein approximately in the same plane as the normal level of the stock in the tank, a pair of beater rolls arranged in tandem, one operating with each of said bed plates, means in front of the first beater roll for lifting continuously a layer of stock above the normal level of the stock and delivering it to the first beater roll, said first beater roll serving to beat the stock and then feed the raised up layer of stock directly to the receiving side of the second roll, the passage way between the two rolls being free and unobstructed so that the pulp may be fed to the second roll without lifting the pulp, means being provided at the discharge side of said second beater roll and bed plate to permit quick discharge of the pulp down into the mass in the vat.

[Claim 6 not printed in the Gazette.]

1,140,738. THROTTLE-VALVE. GERALD FRINK, Seattle, Wash. Filed July 2, 1913. Serial No. 776,914. (Cl. 137—5.)



1. In a throttle valve of the class described, the combination with the body having a valve seat disposed at a distance above the bottom of the body chamber, a main slide valve having a port therein and mounted upon said seat, said valve being formed with a cavity in its under side which communicates with said valve-port and with the beater shaft provided with transverse peripheral slots, fly-bars secured in said slots, said fly-bars being arranged in pairs to form spaces the sides of which converge outwardly, blocks of abrasive material secured in said spaces, and key plates secured to said heads between adjacent fly-bars of adjacent pairs so as to exert a wedging action thereon, a bed plate supported within said tank in operative relation to said beater roll, a paddle wheel rotatably mounted in said vat or tank at the front side of said beater roll and bed plate, means for rotating said beater roll and paddle wheel, and an upwardly and rearwardly inclined surface arranged between the under side of said paddle wheel and said bed plate, whereby the material which passes said paddle wheel will be guided between said beater roll and bed plate, substantially as described.

2. A beater roll for a beating engine, comprising heads secured to rotate with the beater shaft, provided with transverse peripheral slots, fly-bars secured in said slots, said fly-bars being arranged in pairs to form spaces, the sides of which converge outwardly, blocks of abrasive material secured in said spaces, and key plates secured to said heads between adjacent fly-bars of adjacent pairs, so as to exert a wedging action thereon, substantially as described.

3. In a beating engine, a vat, beating means operating therein, and means located at the receiving side of said beating means for disintegrating the stock as it is fed thereto, said disintegrating means consisting of a toothed rotary device.

4. In a beating engine, a vat, beating means operating therein, and means located at the receiving side of said beating means for disintegrating the stock as it is fed thereto, said disintegrating means consisting of a toothed rotary device located close to and under the beater roll of the beating mechanism.

5. In a beating engine, a vat, a plurality of bed plates mounted therein approximately in the same plane as the normal level of the stock in the tank, a pair of beater rolls arranged in tandem, one operating with each of said bed plates, means in front of the first beater roll for lifting continuously a layer of stock above the normal level of the stock and delivering it to the first beater roll, said first beater roll serving to beat the stock and then feed the raised up layer of stock directly to the receiving side of the second roll, the passage way between the two rolls being free and unobstructed so that the pulp may be fed to the second roll without lifting the pulp, means being provided at the discharge side of said second beater roll and bed plate to permit quick discharge of the pulp down into the mass in the vat.

[Claim 6 not printed in the Gazette.]

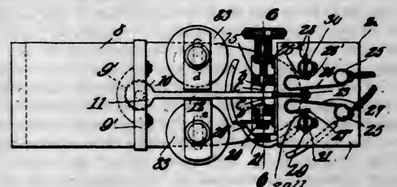
1,140,738. THROTTLE-VALVE. GERALD FRINK, Seattle, Wash. Filed July 2, 1913. Serial No. 776,914. (Cl. 137—5.)

1. In a throttle valve of the class described, the combination with the body having a valve seat disposed at a distance above the bottom of the body chamber, a main slide valve having a port therein and mounted upon said seat, said valve being formed with a cavity in its under side which communicates with said valve-port and with the spaced abutments extending upwardly from the valve, of a supplemental ported valve slidably mounted on the aforesaid valve, rack bars formed integral with the supplemental valve, and means engaging with said bars whereby the supplemental valve is moved to first present the valve ports in register and subsequently effect the movement of the main valve to admit steam from both ends of the valve likewise through the port of the main valves to the port of said seat.

2. In a throttle valve of the class described, the combination with a body having an inlet opening at the top and an outlet opening at the bottom, and spaced walls extending upwardly from the bottom of the body chamber, of a ported main valve slidably mounted upon a seat provided on the upper ends of said walls, said valve being provided with a cavity in its under side, a supplemental valve slidably mounted on the main valve, abutments provided on the main valve and engageable by the supplemental valve, and means whereby said supplemental valve is actuated to primarily uncover the port of the main valve and ultimately cause the main valve to be shifted into position to admit steam from both ends of the valve into the space inclosed by said walls.

3. In a throttle valve of the class described, the combination with the body provided with a valve seat and a main valve having a port therethrough and slidably mounted on said seat, said valve being provided with a cavity in its under-side of a supplemental valve having a port therethrough and slidably mounted on the main valve, means provided on the main valve and engageable by the supplemental valve whereby motion given to the latter will primarily present the ports of the two valves into coincidence and ultimately effect the movement of the main valve into position to admit steam from both ends of the main valve through the port of the seat valve.

1,140,739. POLARIZED RELAY. GARDNER B. GRAY, Pittsburgh, Pa., assignor, by mesne assignments, to Automatic Train Control & Signal Company, Pittsburgh, Pa., a Corporation of Delaware. Filed Sept. 1, 1911. Serial No. 647,277. (Cl. 175—327.)

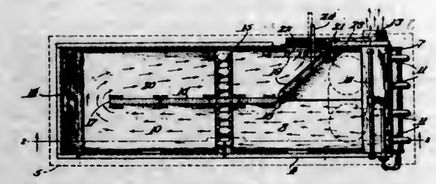


1. A relay, having a bracket, an open ring permanent magnet depending therefrom, two coils and two cores connected to one pole of said permanent magnet, core plates carried by each core and extending toward each other in spaced relation, an armature pivoted for horizontal oscillation in the other end of the permanent magnet and having its free end projected between the core plates to be influenced thereby, a post depending from the bracket upon the opposite side to the coil from the pivotal point of the armature, means disposed in the lower end thereof for limiting the oscillatory movement of the armature, a block of insulation connected to said post, a plurality of terminal posts carried by said block of insulation and disposed upon opposite sides of the extreme end of the armature, a rod mounted in the extreme end of the armature, a block of insulation carried upon the extreme end of said rod, two oppositely disposed spring contact plates carried by two of said posts and disposed one upon each side of the block of insulation carried by the rod of the armature, and adjustable contacts one to each contact spring carried by the remaining terminal posts, for coaction with the respective spring contacts on the oscillation of the armature.

2. A switch comprising: a permanent magnet, an electro-magnet comprising two coils connected to one pole of

said permanent magnet, pole pieces on the opposite end of said magnets, an armature pivoted for oscillation in the other end of the permanent magnet and having its free end extending between the pole pieces of the electromagnet so as to be influenced thereby, a terminal connected to the armature, contact points arranged in spaced relation on either side of the pivoted armature whereby a circuit may be established through said contacts and the armature, two sets of second contact points insulated from each other, one set on either side of the armature, and an insulated portion on the armature to engage with certain of said second contact points whereby the contact points of each set may be brought into contact with each other to establish a circuit independent of the circuit established through the armature by the movement thereof.

1,140,740. GAS-RANGE. MICHAEL J. GREEN, Rockford, Ill., assignor to Eclipse Gas Stove Company, Rockford, Ill., a Corporation of Illinois. Filed Nov. 23, 1914. Serial No. 873,628. (Cl. 126—39.)



1. In a gas range, the combination of a cooking top, a heating compartment arranged below the same, gas burners at one end of said compartment, a flue outlet at the back of the compartment adjacent to the burners, a partition extending lengthwise of the compartment intermediate the sides of the same and terminating short of the ends of the compartment, and means for closing the burner end of the compartment from the flue opening by a movable partition extending from the back of the compartment to the said first named partition, whereby heated air may pass from the burners lengthwise of the compartment at the front side of said first named partition and thence to the back side of said partition and to said flue outlet and whereby upon moving the second named partition out of coöperation with the first named partition the heated air may pass from the burners lengthwise of the compartment at both sides of the first named partition.

2. In a gas range, the combination of a cooking top, a heating compartment arranged below the same, gas burners extending crosswise of the compartment at one end thereof, a flue outlet at the back portion of the compartment adjacent to the burner end thereof, a vertical wall extending lengthwise of the compartment intermediate the sides thereof and terminating within the ends of the compartment whereby air may pass crosswise of the compartment at both ends thereof, and means extending from the back of the compartment forwardly to said wall and arranged to cut off direct communication between the burner portion of the compartment and said flue outlet and the adjoining end of the compartment at the rear of the vertical wall, said means being operable to permit passage of heated air from the burners lengthwise of the compartment directly to both sides of the vertical wall.

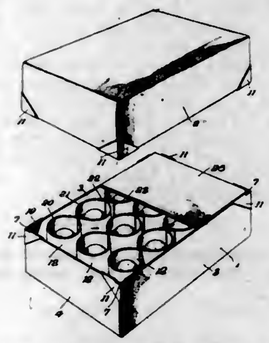
3. In a gas range, the combination of a cooking top, a heating compartment arranged below the same, gas burners extending crosswise of the compartment at one end thereof, a flue outlet at the back portion of the compartment adjacent to the burner end thereof, a vertical wall extending lengthwise of the compartment intermediate the sides thereof and terminating within the ends of the compartment whereby air may pass crosswise of the compartment at both ends thereof, and a gate or closure pivotally mounted at the back of the compartment at the burner side of the flue outlet and being arranged to close said outlet and to swing to an open position wherein to cut off direct passage of air from the burner end of the compartment to the compartment at the back of the vertical wall.

4. In a gas range, the combination of a cooking top, a heating compartment arranged below the same, one end of the compartment constructed to permit heated air to enter the same throughout substantially the entire width thereof, a flue outlet at the back portion of the compartment adjacent to the inlet end thereof, means dividing the compartment lengthwise into a front and back compartment and permitting heated air to pass from said entrance end to both of said compartments and to communicate between the said two compartments at the opposite end thereof, and means for closing the flue outlet and the back compartment at the air entrance end thereof from communication with the air entrance of the heating compartment.

5. A range comprising a cooking top, a heating compartment disposed immediately below the same and having an entrance at one end throughout substantially the entire width of the compartment and an outlet at its opposite end, means for entering heated air into said compartment through its entrance end throughout substantially the entire width of said end or a limited portion thereof whereby said heated air may pass lengthwise of the compartment to the outlet at its opposite end, and means whereby heated air entered through said entrance end may be guided at will in a current passing lengthwise of the compartment along the front portion thereof to said opposite end and crosswise in the compartment to the back portion thereof and then lengthwise of the compartment at the said back portion and toward the entrance end thereof, and means for discharging the said current of air from the rear portion of the compartment at a point adjacent to the entrance end thereof.

[Claims 6 to 8 not printed in the Gazette.]

1,140,741. FOLDING BOX. WILLIAM GRUNOW, Jr., New York, N. Y. Filed Dec. 3, 1914. Serial No. 875,311. (Cl. 229—31.)

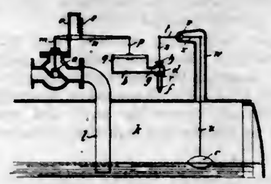


1. A folding box comprising a bottom, side and end walls, and corner flaps formed integral with said bottom, side and end walls, said flaps being foldable against the inner face of the side and end walls, and having a portion foldable over the upper edge of said side and end walls and against the outer faces thereof, each of said flaps having a slot formed therein in line with the upper edges of the side and end walls and extending a short distance each side of the central line of fold in the flap.

2. A folding box comprising a body portion and a cover, said body portion and cover being similar in construction and having the side and end walls thereof substantially the same height, said body portion including a bottom, side and end walls and corner flaps formed integral with said bottom, side and end walls, said flaps being foldable against the inner faces of the side and end walls and having a portion foldable over the upper edges of said side and end walls and against the outer faces thereof, each of said flaps having a slot formed therein in line with the upper edges of the side and end walls and extending a short distance each side of the central line of fold in the flap.

3. The combination of a box, of spacers located therein for articles to be shipped, said spacers comprising a strip of cardboard having slots adjacent each end and leading from the same edge substantially half way across the strip and a slot at the center of the strip leading from the opposite edge substantially half way across the strip, and having also interlocking slots between the end slots and center slot, said strip being bent and interlocked at the slots to form cylindrical cells for the articles to be shipped, the end slots being interlocked with the middle slot.

1,140,742. AUTOMATIC FEED-REGULATOR FOR STEAM-BOILERS AND THE LIKE. EMIL HANNEMANN, Hermsdorf, near Berlin, Germany. Filed Dec. 9, 1913. Serial No. 805,484. (Cl. 137—101.)



1. In an apparatus of the class described, the combination with a receptacle, of a liquid supply to said receptacle, a fluid operated motor for throwing said supply into or out of operative position, means counteracting said motor and tending to throw said liquid supply out of operation, means independent of the receptacle to provide a supply of a motive fluid, and means controlled by the level of the liquid within the receptacle to provide and initially slow and subsequently accelerated degree of communication between said motive fluid supply and motor as the liquid level falls below a predetermined position.

2. In an apparatus of the class described, the combination with a receptacle, of a liquid supply to said receptacle, a fluid operated motor for throwing said supply into or out of operative position, elastic means counteracting said motor and tending to throw said liquid supply out of operation, means independent of the receptacle to provide a supply of a motive fluid, and means controlled by the level of the liquid within the receptacle to provide an initially slow and subsequently accelerated degree of communication between said motive fluid supply and motor as the liquid level falls below a predetermined position.

3. In an apparatus of the class described, the combination with a receptacle, of a source of liquid supply for said receptacle, a valve for controlling the communication of said source with the receptacle, elastic means tending normally to maintain the said valve in closed position, a fluid operated motor including a cylinder and a piston movably mounted within the cylinder, and connected operatively with the said valve, a source of supply of motive fluid, and means controlled by the level of the liquid within the receptacle for establishing communication between one end of motor cylinder and the source of supply of motive fluid and the atmosphere simultaneously at first and then between the said end of the cylinder and the source of supply of motive fluid alone as the liquid level falls below a predetermined position.

4. In an apparatus of the class described, the combination with a receptacle, of a source of liquid supply for said receptacle, a valve for controlling the communication of said source with the receptacle, elastic means tending normally to maintain the said valve in closed position, a fluid operated motor including a cylinder and a piston movably mounted within the cylinder, and connected operatively with the said valve, a source of supply of motive finid, a valve chamber having three ports communicating with one end of the motor cylinder, with the source of supply of motive fluid, and with the atmosphere, respectively, a double acting valve member movably mounted within the said chamber and being adapted normally to seat at the second named port to close the same, and means controlled by the level of the liquid within the receptacle for operating the last named valve member to withdraw the same from the second named port and to move the same into a position wherein it will seat at the third port to close the same as the liquid level falls below a predetermined position.

1,140,743. REVERSE-LEVER-LATCHING MECHANISM. CHARLES L. HEISLER, Schenectady, N. Y. Filed Nov. 5, 1913. Serial No. 799,258. (Cl. 74—39.)



1. The combination with a fixed quadrant, of a lever having a thickened portion with a transverse slot formed therein and through which said quadrant passes, a latch block slidably mounted in said slot longitudinally of the lever, said thickened portion having a longitudinal groove formed in its side and intersecting said slot, a latch handle pivoted to the upper end of said lever, a link connecting said handle to said block and running in said groove, and a pin connecting said link to said block, the ends of said pin playing between the walls of said slot.

2. The combination with a fixed quadrant, of a lever having a thickened portion with a transverse slot formed therein and through which said quadrant passes, a latch block slidably mounted in said slot longitudinally of the lever, said thickened portion having a longitudinal groove formed in its side and intersecting said slot, a latch handle pivoted to the upper end of said lever, a link connecting said handle to said block and running in said groove, and cover plates engaging the faces of said thickened portion to maintain said block in said slot.

3. The combination with a fixed quadrant, of a lever having a thickened portion with a transverse slot formed therein and through which said quadrant passes, a latch block slidably mounted in said slot longitudinally of the lever, said thickened portion having longitudinal grooves formed in its sides and intersecting said slot, a latch handle pivoted to the upper end of said lever, links pivoted to said handle and running in said grooves, a pin connecting the lower ends of said links to said block, the ends of said pin normally engaging the sides of said slot below the bottom of said grooves, and spring means tending to press said block into engagement with said quadrant.

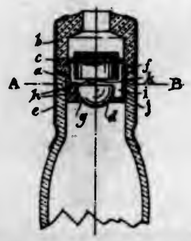
4. The combination with a fixed quadrant, of a lever having a thickened portion with a transverse slot formed therein and through which said quadrant passes, a latch block slidably mounted in said slot longitudinally of the lever, said thickened portion having longitudinal grooves formed in its sides and intersecting said slot, a latch handle pivoted to the upper end of said lever, links pivoted to said handle, the sides of said block also having grooves for the reception of the lower ends of said links, a pin connecting said lower ends to said block and normally lying below the bottom of the grooves in the lever,

cover plates for the ends of said slot to maintain said block therein, and springs between the top of said slot and said block tending to maintain it in engagement with said quadrant.

5. The combination with a fixed quadrant, of a lever having a thickened portion with a transverse slot formed therein and through which said quadrant passes, a latch block slidably mounted in said slot longitudinally of the lever, springs between the top of said slot and said block, manually operable means to raise said block, cover plates fitting over the ends of said slot, a single bolt securing the lower ends of said plates to said block, and dowels securing the upper ends of the cover plates to said block, whereby a close sliding fit can always be maintained.

[Claims 6 to 11 not printed in the Gazette.]

1,140,744. DEVICE FOR PREVENTING THE FRAUDULENT REFILLING OF BOTTLES. FRANK CLAYTON HERBERT, Hampstead, London, England. Filed Sept. 27, 1913. Serial No. 792,123. (Cl. 215—103.)



1. In a device for preventing the fradulent refilling of bottles, the combination of a cup-shaped cradle adapted to be seated in the bottle neck and provided on its inner face with spaced vertical ribs and at its bottom with a central opening forming an annular seat comprising a portion of a spherical surface, the outer edge of which is adjacent to the inner face of said ribs; a valve member comprising a portion of a sphere slightly greater than a hemisphere and adapted to seat snugly in said annular seat; and a cap joining the upper part of the cradle and provided with a central opening in its top and having in its lower part a cylindrical body held spaced from the walls and top of the cap and having its lower part projecting into said cradle to a level a slight distance above said ribs and valve member, and provided with a small central projection.

2. In a device for preventing the fraudulent refilling of bottles, the combination of, a bottle neck, a cup shaped cradle resting on top of the bottle neck and projecting downwardly therein, and provided at the bottom with an annular seat forming a portion of a spherical surface; a valve member comprising a portion of a sphere greater than a hemisphere and resting in said seat; and a cap resting on the upper part of said cradle and having therein a body piece spaced and supported from the walls thereof by means of radial arms and having its lower face disposed above said valve member.

1,140,745. SULFUR DYE. BERNHARD JAECKEL, Elberfeld, Germany, assignor to Synthetic Patents Co., Inc., New York, N. Y., a Corporation of New York. Filed Sept. 11, 1914. Serial No. 861,284. (Cl. 8—1.)

1. The new sulfur dyes obtainable by heating with sulfur and benzidin compounds aromatic bases having most probably the formula:

$$R{-}N\begin{matrix}CH_2{-}CH_2{-}X\\ Y\end{matrix}$$

in which X includes hydrogen and alkyl, Y stands for a substituent, and R stands for an aromatic hydrocarbon radical which dyes are after being dried and pulverized yellowish powders being insoluble in water and soluble in concentrated sulfuric acid generally with a yellowish-brown coloration; and dyeing unmordanted cotton generally yellow shades fast to chlorin and to boiling, substantially as described.

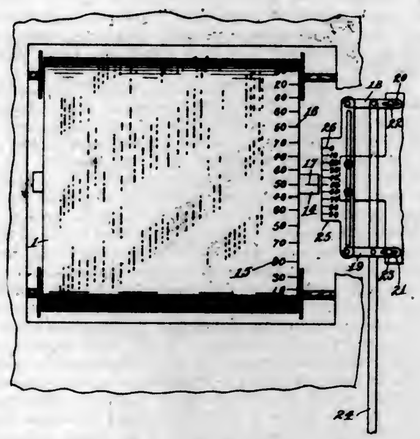
2. The new sulfur dyes obtainable by heating with sulfur and benzidin compounds aromatic bases having most probably the formula

$$R{-}N\begin{matrix}CH_2{-}CH_2{-}X\\ Y\end{matrix}$$

in which X includes hydrogen and alkyl, Y stands for a substituent, and R stands for an aromatic hydrocarbon radical of the benzene series, which dyes are after being dried and pulverized yellowish powders being insoluble in water and soluble in concentrated sulfuric acid generally with a yellowish-brown coloration; and dyeing unmordanted cotton generally yellow shades fast to chlorin and to boiling, substantially as described.

3. The new sulfur dye obtained from ethylanilin and benzidin, which is after being dried and pulverized a yellow powder insoluble in water and soluble in concentrated sulfuric acid with a yellowish-brown coloration; and dyeing unmordanted cotton in pure and greenish-yellow shades fast to chlorin and to boiling, substantially as described.

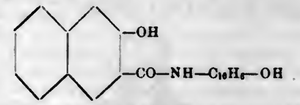
1,140,746. EXPRESSION-MARKINGS FOR PLAYER-PIANO MUSIC-ROLLS. CHARLES SCHULTZ JASSEY, Edgewater, N. J. Filed May 23, 1911. Serial No. 628,915. (Cl. 84—162.)



In perforated music sheets for player pianos provided with a gage mark on the tracker bar and with settable tempo-, and expression-graduation mechanism and a graduated scale whose graduations are marked with characters of a sequence in common use, whereby such mechanism may be properly set at such gage mark, the combination, on a margin of such sheets of a tempo and expression scale, and the graduations thereof, with printed characters of the same sequence as used on the mechanism scale, the marks and numbers of said sheet-scale adapted during the use of such sheets in the player, to register successively with said gage-mark and to thereby indicate to the performer the instant, and the speed at which to move such mechanism and the scale thereof, to register with the gage mark the same character of the mechanism-scale as registers therewith on the sheet-scale.

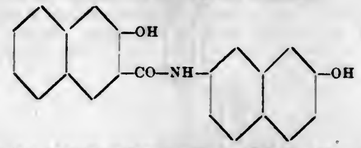
1,140,747. 2.3-OXYNAPHTHOIC-ACID DERIVATIVE. MYRTIL KAHN and ANTON OSSENBECK, Cologne, Germany, assignors to Synthetic Patents Co., Inc., New York, N. Y., a Corporation of New York. Filed Sept. 11, 1914. Serial No. 861,280. (Cl. 23—24.)

1. The new compounds having most probably the following general formula:



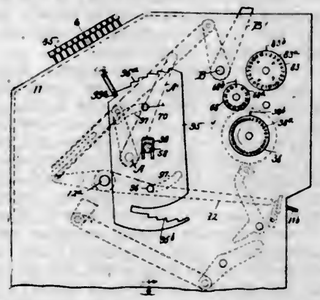
being derived from the 2.3-oxynaphthoic acid and an aminonaphthol, which are after being dried and pulverized grayish powders soluble in a hot sodium carbonate solution; yielding on cotton fiber upon treatment with diazo compounds valuable full, pure and fast yellowish-red to brownish-red shades, substantially as described.

2. The new compound having the formula:



which is a grayish-yellow powder soluble in a hot sodium carbonate solution; yielding on unmordanted cotton impregnated with this solution upon treatment with diazotized para-nitranilin fast scarlet-red shades, substantially as described.

1,140,748. TRANSFER-PRINTING MACHINE. ROBERT E. KIMBALL, Cleveland, Ohio. Filed Sept. 23, 1910. Serial No. 583,414. (Cl. 101—187.)



1. In a transfer printing machine, line and time printing members independently movable during the operation of the machine, a movable line selecting mechanism associated with the line printing member, and means whereby the movement of the line selecting mechanism controls the movement of the time printing member.

2. In a transfer printing machine, line and time printing members independently movable during the operation of the machine, and means associated with both printing members whereby when a transfer is printed for any particular line the time printing member is caused to print a time which has a definite relation to the time that the car is scheduled to arrive at that transfer point.

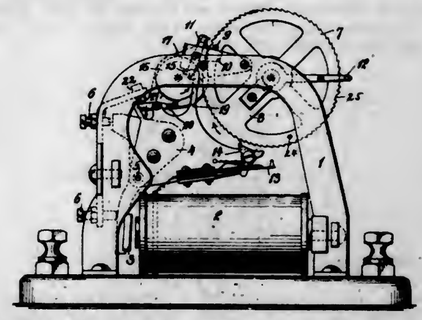
3. In a transfer printing machine, line and time printing members relatively movable during the operation of the machine for printing line and time data for a number of transfer lines, and means comprising a selecting mechanism for controlling the movement of the line and time printing members so that when a transfer is printed for any particular line the time printing member is shifted an amount sufficient to cause the time which is printed on the transfer to be a predetermined amount later than the time that the car is scheduled to arrive at the transfer point.

4. In a transfer printing machine, independently movable printing members for printing line and time designations, a line selecting mechanism for controlling the movement of the line printing member, and means actuated by the line selecting mechanism for controlling the movement of the time printing member.

5. In a transfer printing machine, movable printing members for printing line and time designations, a line selecting mechanism for controlling the movement of the line printing member, a stop mechanism for controlling the movement of the time printing member, said stop mechanism being controlled by the line selecting mechanism.

[Claims 6 to 51 not printed in the Gazette.]

1,140,749. SELECTIVE SWITCH. EDWARD E. KLEINSCHMIDT, New York, N. Y., assignor to Hall Switch and Signal Company, a Corporation of Maine. Filed Apr. 7, 1913. Serial No. 759,484. (Cl. 177—332.)



1. In a selector the combination of a magnet, an armature lever therefor, a toothed member having a contact thereon, a stepping pawl on said lever for imparting an intermittent movement to said member, a back lash pawl, a tripping device to hold said pawl normally out of engagement wtih said member, means for moving said tripping device away from normal position on the coming in of an impulse, and means for moving the tripping device in the same direction, away from normal position on the breaking of an impulse.

2. In a selector the combination of a magnet, an armature lever therefor, a toothed member having a contact thereon, a stepping pawl on said lever for imparting an intermittent movement to said member, a back lash pawl, a tripping device to hold said pawl normally out of engagement with said member, means for moving said back lash pawl into engagement with said member and for moving said tripping device away from normal position on the coming in of an impulse, and means for moving said tripping device in the same direction away from normal position on the breaking of an impulse.

3. In a selector the combination of a magnet, an armature lever therefor, a toothed member having a contact thereon, a stepping pawl on said lever for imparting an intermittent movement to said member, a back lash pawl, a tripping device to hold said back lash pawl normally out of engagement with said member, means actuated by said lever to move said tripping device away from normal position on the coming in of an impulse and to move it in the same direction still farther away from normal position upon the breaking of an impulse.

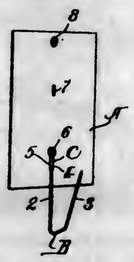
4. In a selector the combination of a magnet, an armature lever therefor, a ratchet wheel, a stepping pawl on said lever for imparting an intermittent rotation to said wheel, a back lash pawl for said wheel, a tripping device to hold said back lash pawl normally out of engagement with said wheel and comprising a toothed member, means for moving said tripping device out of engagement with said wheel upon the coming in of an impulse, a pawl carried by said lever and adapted to engage said toothed

member and to be held in engagement therewith while said magnet is energized, and to impart a further movement to said tripping device away from its normal position when the impulse is broken and the magnet deënergized.

5. In a selector the combination of a magnet, an armature lever therefor, a ratchet wheel having a contact thereon, a stepping pawl on said lever for imparting an intermittent rotation to said wheel, a back lash pawl for said wheel, a tripping device for holding said back lash pawl normally out of engagement with said wheel, means for moving said tripping device away from normal position on the coming in of an impulse, said tripping device comprising an overbalanced toothed member, a pawl carried by said lever and adapted to engage said toothed member when it is moved on the coming in of an impulse and for imparting a positive feeding movement to said member in the same direction upon the breaking of an impulse.

[Claims 6 to 12 not printed in the Gazette.]

1,140,750. BILL-FILE. FRANK J. KRISTOFEK, St. Paul, Minn., assignor to Brown and Bigelow, St. Paul, Minn., a Corporation of Minnesota. Filed May 31, 1913. Serial No. 770,859. (Cl. 129—21.)



A bill file consisting of a back, a hook having a substantially straight shank and means for supporting said hook having a sleeve secured to said back in which said shank is adapted to slide longitudinally, said shank being formed with a transverse member on its upper end lying in a plane substantially parallel with the plane of the surface of said back when said hook is turned out and serving to prevent said hook turning when slid into outermost extended position and said back being formed with an opening positioned to receive and form a locking connection with an edge of said transverse member when said transverse member is slid back and folded upon said back whereby unintentional turning and sliding movement of said hook is prevented when the parts assume folded position.

1,140,751. PERMUTATION-LOCK. ALEXANDER LEKSUCZIN, Detroit, Mich. Filed Dec. 12, 1914. Serial No. 876,905. (Cl. 70—53.)

1. A lock comprising a tubular casing, a bolt slidably positioned longitudinally through said casing and provided with a flattened portion having notches therein, spring-pressed tumblers tranversely slidable within said casing and seated within said notches when the bolt is projected, a retracting spring for said bolt, and permutation disengaging means for the said tumblers.

2. A lock comprising a tubular casing having side openings and a side slot therein, a bolt slidably positioned through the said casing and having a flattened portion provided with notches, a retracting spring for said bolt, transversely slidable tumblers positioned within said casing and engaging said notches when the bolt is in its locked position, extensions upon said tumblers positioned within said openings of the casing, permutation shifting means for the said tumblers and a projecting latch pivoted within the said casing and engaging said bolt and extending through said casing slot.

3. A lock comprising a tubular casing, having side openings, a normally resiliently retracted bolt slidably mounted through said casing and having a flattened portion within said casing, a guard plate longitudinally secured within the said casing, tumblers transversely slidable within said casing and spanning said bolt and positioned within said guard plate and openings, expansion springs carried by opposite sides of the bolt and engaging the said tumblers and permutation means upon said casing engageable with the said tumblers.

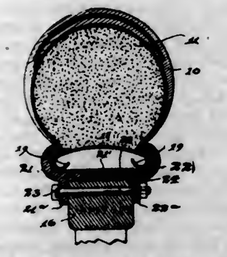


4. A lock comprising casing, a normally retracted bolt slidably mounted in said casing, engaging tumblers for said bolt transversely slidable within the said casing, permutation actuating means for said tumblers peripherally carried by the said casing, the said bolt provided with a transverse opening at a point within said casing, the said casing having a side slot therethrough and an inner socket therein, a latch extending transversely through the said casing and said bolt opening and having its inner end pivoted in said socket and its outer end slidably projecting through the said slot and a transverse stop pin carried by said latch interiorly of said casing.

5. A lock comprising a tubular casing having side openings, a side slot and an internal socket therein, a removable cap ring at the top of said casing, a similar integral ring at the bottom of said casing, outer and inner rings journaled upon said casing between the said outer and inner ring, a bolt slidably positioned through the said casing, bolt-engaging tumblers within said casing and projecting into the said casing openings, shiftable pins carried by said outer ring and positionable in alinement with said casing openings, a latch extending within said casing in engagement with the said bolt and having its inner end pivoted within said socket and its outer end projecting through the said slot.

[Claims 6 and 7 not printed in the Gazette.]

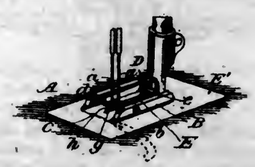
1,140,752. VEHICLE-TIRE. WILLIAM K. LEONARD, Piqua, Ohio. Filed Aug. 25, 1911. Serial No. 645,988. (Cl. 152—5.)



1. A tire comprising an outer casing, a core of rubber substitute within said casing, a continuous annular core-expanding member of resilient metal within said casing engaging the inner periphery of said core and provided with inturned marginal edges, in combination with a two-part clamping rim having inturned marginal edges in overlapping relation to the inturned edges of said expanding member, and means for drawing the two parts of said clamping rim together for expanding said expanding member.

2. A tire comprising an outer casing, a core of rubber substitute within said casing, a core-expander consisting of a thin steel hoop having a transversely convex outer side slotted transversely at intervals engaging the inner periphery of said core and provided with inturned marginal edges, in combination with a two-part clamping rim having inturned marginal edges in overlapping relation to the inturned edges of said expander, and means for drawing the two parts of said clamping rim together for expanding said expander.

1,140,753. PRESSER-FOOT FOR SEWING-MACHINES. CHESTER MCNEIL, Chicago, Ill., assignor to Union Special Machine Company, Chicago, Ill., a Corporation of Illinois. Filed Dec. 6, 1909. Serial No. 531,581. (Cl. 112—13.)



1. In a sewing machine adapted for making imitation buttonholes and the like, stitch-forming mechanism including a pair of closely spaced needles, a presser foot and throat plate, and a vertically arranged center guide attached to one of said elements and located in a plane intermediate of and in advance of the needles with its rear end terminating substantially in the vertical plane including the two needles, whereby the folded gimp for the buttonhole is initially positioned.

2. In a sewing machine adapted for making imitation buttonholes and the like, stitch-forming mechanism including a pair of closely spaced needles, a presser foot and throat plate, and a yielding vertically arranged center guide attached to one of said elements and located in a plane intermediate of and in advance of the needles with its rear end terminating substantially in the vertical plane including the two needles, whereby the folded gimp for the buttonhole is initially positioned.

3. In combination with a sewing machine having stitch-forming mechanism including a pair of closely spaced needles, a presser foot and throat plate and a vertically arranged center guide attached to one of said elements and located in a plane in advance of said needles and extending between them, with means for adjusting said center guide longitudinally.

4. In combination with a sewing machine having stitch-forming mechanism, including a pair of closely spaced needles, a presser foot and a throat plate, and a yielding vertically arranged center guide attached to one of said elements and located in a plane in advance of said needles and extending between them, and means for adjusting said center guide longitudinally with respect to the needles.

5. In combination with a sewing machine having stitch-forming mechanism including a pair of closely spaced needles, a presser foot and throat plate, one of said elements having a longitudinal channel, a vertical guide for the fabric in said channel, and means for adjusting the same longitudinally.

[Claims 6 to 9 not printed in the Gazette.]

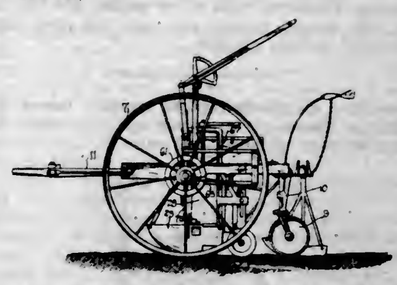
1,140,754. TRUSS. THOMAS A. MACDONALD, Paterson, N. J. Filed Sept. 3, 1914. Serial No. 859,991. (Cl. 128—26.)

In a truss, a backing plate provided with laterally extending peripheral flanges, an outer continuous wall disposed within said flanges, said wall being of circular cross section, a bracket carried by said backing and provided with a threaded opening, a screw bolt arranged to extend through said threaded opening and through said backing, a pad disposed within the outer wall and spaced from the



latter, said pad being secured to said screw bolt, a supporting member carried by said backing on the opposite side from said pad, a nut on said screw bolt arranged to bear against said backing, and a spring disposed between said nut and said supporting member.

1,140,755. CORN-PLANTER. GEORGE C. MAGERL, Necedah, Wis. Filed June 27, 1914. Serial No. 847,712. (Cl. 111—6.)



1. In a corn planter, a wheel supported axle, a frame mounted upon said axle, planting mechanism mounted in said frame, a gear secured upon one of the supporting wheels, a bodily movable spindle, a pinion fixed upon said spindle to mesh with said gear, means connecting the pinion to the planting mechanism, manually operable means to move the spindle longitudinally of the wheel axle and engage the same with said gear in the movement of the spindle in one direction, and a finger formed upon the axle and coöperating with said spindle to move the pinion out of engagement with the gear when said spindle is moved in an opposite direction.

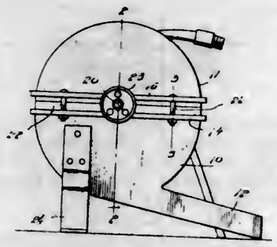
2. In a corn planter, a wheel supported axle, a frame mounted upon said axle, planting mechanism mounted in said frame, a gear secured upon one of the supporting wheels, a vertically disposed spindle swiveled intermediate of its ends upon the frame, said axle being provided with a recess through which said spindle extends, a pinion fixed upon said spindle, means connecting said pinion to the planting mechanism, and manually operable means connected to the spindle to move the same in the recess of the axle to engage or disengage said pinion with or from said gear.

3. In a corn planter, a wheel supported axle, a main frame mounted upon said axle, planting mechanism mounted in said frame, a gear secured upon one of the supporting wheels, said axle being provided with a recess, a vertically disposed spindle swiveled upon the main frame and engaged in one end of said recess, a pinion fixed upon the lower end of said spindle, said axle being formed with an obliquely inclined projection at the latter end of the recess therein, means connecting said pinion to the planting mechanism to actuate the same, and manually operable means for oscillating said spindle whereby the same is directed by said finger to disengage the pinion from said gear or direct the same into mesh therewith.

1,140,756. WATER-MOTOR. TOD MALTBY, McGill, Nev. Filed Oct. 30, 1913. Serial No. 798,313. (Cl. 138—18.)

A water motor comprising a two-part cylindrical casing, longitudinal bars arranged in parallel relation and

secured respectively to the sections of the casing at suitable distance from their abutting edges, the lower edges of the upper section being offset inwardly to receive the upper edges of the lower section, journal bearings car-



ried by the bars of the lower section, the ends of the bars engaging around the ends of the section, and the clamping bolts engaged through the upper and lower bars to secure the sections together.

1,140,757. CHAIN-ENGAGING TOOL. HENRY T. C. MEYER, Detroit, Mich. Filed Apr. 17, 1914. Serial No. 832,451. (Cl. 254—78.)



1. A chain engaging tool, comprising a member having a hooked jaw at one end and spaced side bars longitudinally slotted and provided with notched bearings on one side of the slot, a bar insertible between said spaced side bars having a jaw at its end, and a cross pin engageable with said slots and adjustable into the various notched bearings.

2. A chain engaging tool, comprising a member having a jaw at one end and spaced side bars longitudinally slotted and provided with notched bearings on one side of the slot, a bar having a jaw at the end thereof insertible between said spaced side bars and provided with a cross pin, and outwardly-bent portions of said side bars forming an entrance slot for said cross pin to engage the same with said longitudinal slots to permit of adjustment of said pin into engagement with the various notched bearings.

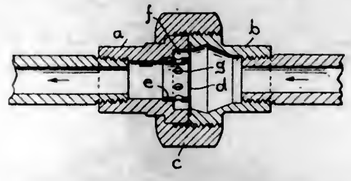
3. A chain engaging tool, comprising a member having a hooked jaw at one end and spaced parallel side bars longitudinally slotted and provided with notched bearings along one side of the slot, said bars being also provided with laterally deflected portions forming entrance slots into said longitudinal slots, a bar having a hooked jaw at one end insertible between said spaced bars, and a cross pin on said bar insertible through said entrance slot into said longitudinal slot and engageable with the various notched bearings.

4. A chain engaging tool, comprising a membmer having a hooked jaw at one end and spaced parallel side bars, each having a longitudinal slot notched on one side, a portion of said bar one one side of said slot at one end being laterally deflected to form an entrance slot, a bar having a hooked jaw at its end insertible between said spaced bars, and a cross pin on said bar insertible through said entrance slot into said longitudinal slot and engageable with the notched bearings thereof.

5. A chain engaging tool, comprising a member having a hooked jaw at one end and spaced parallel side bars longitudinally slotted and provided with a series of notched bearings on one side of the slot, a member insertible between said bars, having a hooked jaw at its end, a cross pin on said member engageable with said slots and adjustable into the various notched bearings to form a fulcrum for the rocking of said bar, and a stop member secured to said bar adjustable to hold the same in locked position.

[Claim 6 not printed in the Gazette.]

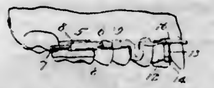
1,140,758. STRAINER. CARL G. MILLER, Mount Clemens, Mich. Filed Feb. 15, 1915. Serial No. 8,167. (Cl. 210—16.)



1. A strainer for pipe lines, having in combination, an externally threaded tubular spud, a shouldered tubular spud, the interiors of the two spuds enlarged at their meeting ends, a perforated sleeve secured in the spud farther removed from the source of flow, said sleeve forming on its outside in said tubular spud an annular chamber, a straining fabric between the two tubular spuds and supported by the end of said sleeve, and a union nut for bringing the two tubular spuds together.

2. A strainer for pipe lines, having in combination, a pair of tubular spuds, one of which is threaded and the other shouldered, a wire mesh seated in the recess on the end of one of the spuds, each of the spuds interiorly enlarging at the meeting ends, a perforated sleeve secured in the enlargement of one of the tubular spuds and forming an annular chamber thereabout, the said perforated sleeve serving also to support the wire mesh against the pressure generated from the flow of liquid against the opposite side of the screen, and a union nut for drawing the two tubular spuds together.

1,140,759. ORTHODONTIA APPLIANCE. CHRISTOPH FRIEDRICH MONTAG, Blue Island, Ill., assignor to Blue Island Specialty Company, Blue Island, Ill., a Corporation of Illinois. Filed Aug. 11, 1913. Serial No. 784,244. (Cl. 32—19.)



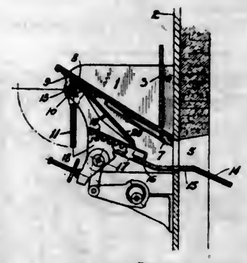
1. In an orthodontia appliance a band adapted for attachment to the tooth to be moved, a tube thereon, generally parallel to the axis thereof, an arch band oval in cross-section, a sleeve thereon of oval cross-section fitting the arch band to be non-rotatable thereon, a pin projecting radially from said sleeve and entering the tube upon the aforesaid band, said pin being split at its outer end to afford elasticity and having enlarged heads formed on the split ends to spring over the end of said tube.

2. In an orthodontia appliance, an anchor-band, a tube attached thereto, a threaded bar adjustably secured in said tube, an adjusting member threaded on the end of said threaded bar and having a socket at its opposite end, and an arch having its end seated in said socket to be adjusted thereby.

1,140,760. LUTING COMPOSITION. JOSEPH CHARLES MORRIS, Rock Creek, Ohio. Filed Sept. 17, 1914. Serial No. 862,164. (Cl. 106—8.)

The herein described composition of matter, consisting of sulfur, aluminum metal powder, plaster of Paris and borax, substantially as described and for the purpose specified.

1,140,761. MECHANICAL STOKER. JOHN EDWARD MURPHY, Winnipeg, Manitoba, Canada. Filed Mar. 10, 1914. Serial No. 823,731. (Cl. 110—109.)



1. In a mechanical stoker, a furnace wall having a feed opening therethrough, a hopper having side walls extending outwardly from said furnace wall, an inner wall secured to said side walls a short distance from said furnace wall and terminating above said feed opening and a chute bottom formed of a rigid plate and a pivoted plate, a cut off plate extending across said hopper and beneath said inner wall to said furnace wall above the feed opening and slidably supported, and means for operating said cut off plate.

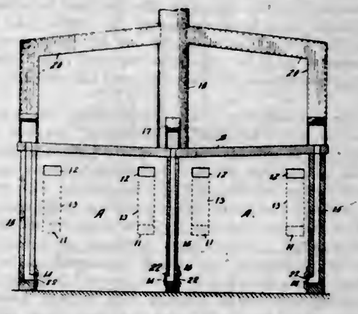
2. In a mechanical stoker, an inner wall rigidly secured and terminating at its lower end above the feed opening to the firebox, side walls rigid with said inner wall and extending outwardly therebeyond and projecting therebelow, a shaft journaled in the outer upper end portions of the said side walls, pinions fixedly secured on said shaft, a cut off plate slidably supported by the side walls and extending downwardly from above said shaft beneath the lower end of said inner wall, toothed racks on said cut off plate co-acting with said pinions, a plate pivotally supported from said shaft and extending downwardly therefrom below said cut off plate, and a rigid inclined plate extending to said feed opening under said pivoted inclined plate.

3. In a mechanical stoker, an inner wall rigidly secured to and spaced from the furnace wall above the feed opening to the firebox, side walls standing out between said inner wall and rigid therewith, a shaft journaled in the outer upper ends of said side walls, a plate slidably supported from said side walls and extending downwardly from above said shaft under the lower end of said inner wall, means operatively connecting said plate and said shaft, a permanent inclined plate extending upwardly from the lower end of said feed opening, a pusher suitably operated over said inclined plate, an upper inclined plate having lugs extending therefrom pivotally supporting said plate from said shaft under the aforesaid plate, said upper inclined plate at its lower end resting on the upper side of said pusher, and means for operating said shaft.

1,140,762. LUMBER-DRYING APPARATUS. AARON SAWYER NICHOLS, New York, N. Y. Filed Feb. 5, 1914. Serial No. 816,673. (Cl. 98—27.)

1. A lumber drying apparatus comprising a drying room having an air inlet ventilating means, a plurality of air ventilating outlets at the sides of said room and at a substantial distance beneath the tops of said sides, flues extending upwardly of the walls thereof, a stack, a conduit communicating with all of said outlets and to said stack whereby to prevent any of said outlets acting as air inlets.

2. A lumber drying apparatus comprising a drying room provided with an air inlet ventilating means, a plurality of air ventilating outlets located at the side of a room and spaced well below the ceiling, and a stack connected to all of said outlets by independent flues extending upwardly of the walls of said room.

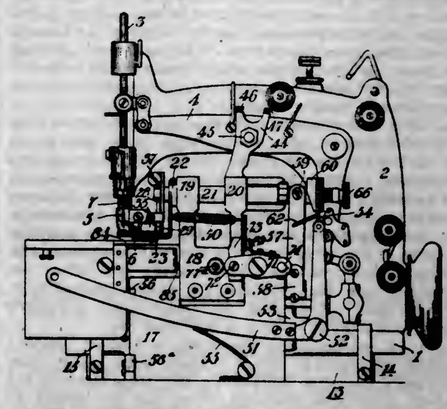


3. A lumber drying apparatus comprising a drying room having an air inlet ventilating means and a plurality of air ventilating outlets near the floor thereof, flues extending upwardly of the walls thereof, a hood into which said flues open and discharge the air, a stack, a passageway from said flue to said stack whereby to prevent any of said outlets acting as air inlets, and means for controlling the outlets individually.

4. A lumber drying apparatus comprising a drying room having an air inlet ventilating means and a plurality of air ventilating outlets near the floor thereof, flues extending upwardly of the walls thereof, a hood into which said flues open and discharge the air, a stack, a passageway from said flue to said stack whereby to prevent any of said outlets acting as air inlets, and means for controlling the outlets individually and collectively.

5. A lumber drying apparatus comprising a plurality of drying rooms each having air inlets and a plurality of air ventilating outlets near the bottom of the vertical walls thereof, a stack, hoods at the top of said vertical walls with which said outlets communicate, a passageway from each hood to said stack, each of said hoods serving to prevent any of the outlets connected to it from acting as inlets.

1,140,763. RUFFLING SEWING-MACHINE. LANSING ONDERDONK, New York, N. Y., assignor to Union Special Machine Company, Chicago, Ill., a Corporation of Illinois. Filed Dec. 13, 1909. Serial No. 532,751. (Cl. 112—10.)



1. The combination with a work support, stitch-forming mechanism, a trimmer operating in advance of the stitch-forming mechanism, a ruffler operating upon the

material in advance of the trimmer, and means for moving the ruffler laterally out of engagement with the material without stopping the stitch-forming mechanism.

2. The combination with stitch-forming mechanism, of a trimmer operating in advance of the stitch-forming mechanism, a ruffler engaging the material in advance of the trimmer, means for operating the ruffler, and means for moving the ruffler laterally out of engagement with the material and for disconnecting the ruffler from its operating mechanism without stopping the stitching mechanism.

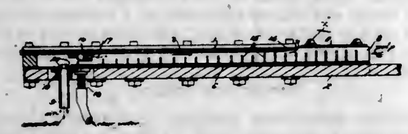
3. The combination with overseaming stitch-forming mechanism, of a trimmer operating in advance of the overseaming mechanism and a ruffler operating upon the material in advance of the trimmer and means for moving said ruffler laterally out of engagement with the material without stopping the overseaming mechanism.

4. The combination with a work support, stitch forming mechanism, a cover plate in front of certain parts of the stitch forming mechanism for covering the same, a ruffling mechanism having parts thereof in front of said cover plate, and means whereby said ruffling mechanism and said cover plate may be moved away from the parts of the machine in rear thereof, whereby access to the same may be had.

5. The combination with a work support, an overhanging arm, a needle lever carried thereby and a needle vibrated by said needle lever, of a ruffling mechanism, including a ruffling blade, and means for operating said ruffling blade from said needle lever to give said ruffling blade positive movement in both directions, a support for said ruffling mechanism, and means whereby said support, together with said ruffling mechanism, may be moved away from the needle lever without stopping the needle.

[Claims 6 to 47 not printed in the Gazette.]

1,140,764. CONCENTRATOR. CHARLES F. PAIGE, Oakland, Cal., assignor of one-third to Adolph W. Jones, Oakland, Cal. Filed May 5, 1914. Serial No. 836,444. (Cl. 83—88.)



1. In a concentrating apparatus, the combination with a suitable concentrating surface over which the material to be separated is adapted to flow, of means including an open-mouth pocket in the path of the materials passing over the concentrating surface having a cover, a discharge for the values collecting in the pocket, and means for creating a counter-current of air and water through the pocket in the direction of the mouth of the pocket to carry the flocculent material out of the pocket onto the concentrating surface again.

2. In a concentrating apparatus, the combination with a movable support, of a substantially closed chamber or box having an opening at one end for infeeding pulp and a discharge aperture for concentrates at the opposite end and an orifice at the top of the chamber for the discharge of that portion of the pulp from which the concentrates have been separated, and means for introducing a stream of water in and between the top and bottom of the box in counter-direction to the pulp, whereby the values are separated from the pulp and the gangue washed back through said orifice while the values move downward along the bottom of the box to said aperture.

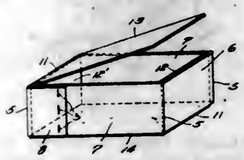
3. In a concentrating apparatus, a shallow, slightly inclined, substantially closed chamber with a pulp inlet aperture, a discharge aperture for the concentrates at the bottom, a variable discharge orifice for the gangue at the top, and means for producing counter-currents of air and water in the pulp in the chamber, including an angularly adjustable jet nozzle and an air inlet fitting.

4. In a concentrating apparatus, a substantially closed chamber with a pulp inlet aperture, a discharge aperture for the concentratec at the bottom, a discharge orifice for the gangue at the top, and means for producing counter-currents in the pulp in the chamber and for inducing air into the chamber and mixing it with the counter-currents.

5. In a concentrating apparatus, a substantially closed, shallow chamber having a feed inlet, a discharge outlet for concentrates at the opposite end of the chamber from the inlet, a discharge orifice at the top for the discharge of gangue, and means for producing an aerated counter-current in the chamber.

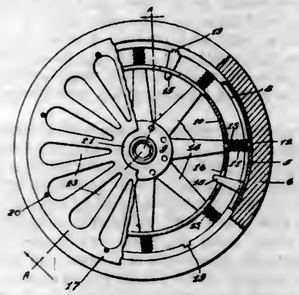
[Claims 6 to 12 not printed in the Gazette.]

1,140,765. SHIPPING-BOX. WILLIAM S. PAYNE, Sherlock, Wash. Filed May 21, 1914. Serial No. 839,929. (Cl. 229—23.)



A two-part box, one of said parts forming the side and outer end walls, and the other part being formed with recessed portions folded and positioned against the inner faces of the outer end walls and also formed with relatively wider portions which serve as the top and bottom walls of the box, said wider portions being adapted to bear against the upper and lower edges of the first-named part.

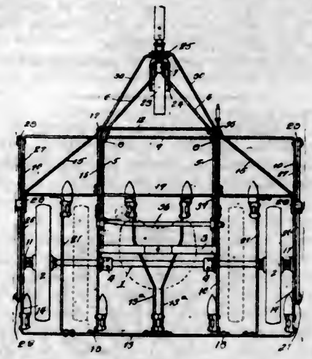
1,140,766. VEHICLE-WHEEL. CHRISTIAN M. PETERSEN, Seattle, Wash., assignor, by direct and mesne assignments, to Theodore E. Ostlund, Seattle, Wash. Filed July 6, 1914. Serial No. 849,047. (Cl. 152—38.)



The combination with a vehicle wheel, of an outer rim, of larger diameter than the wheel-rim of said wheel, disposed to surround said wheel and spaced therefrom, said outer rim being provided with inturned notched edges, springs interposed between said rim and the tire of said wheel, tires provided on said outer rim, and side plates provided with catch hooks that are adapted to engage with the inner faces of the inturned edges of said outer rim to secure said side plates to said wheel.

1,140,767. CULTIVATOR. STALEY DANE POOLE, Moline, Ill., assignor to Deere & Company, a Corporation of Illinois. Filed Mar. 30, 1909. Serial No. 486,780. (Cl. 97—35.)

1. In a cultivator, the combination of the framework, rear supporting wheels, a front supporting and steering wheel, a vibratable carrier for the steering wheel journaled in the framework on an upright axis, a laterally swinging draft link pivoted to the framework independently of the steering wheel and its vibratable carrier so that the force of the draft is applied independently of the steering wheel and its carrier, and connections between the draft link and the said vibratable carrier for transmitting to the latter the swinging movements of the link to steer the machine.



2. In a cultivator, the combination of a supporting frame, rear ground wheels and a front steering wheel on which said frame rests, an upright spindles upon which the steering wheel is mounted, a tool frame adapted to be bodily raised and lowered relative to the supporting frame, a draft link connected to the tool frame by an upright pivot to permit the link to swing laterally, and an arm connected to the steering wheel spindle and loosely connected to the draft link whereby the wheel is turned by the swinging of the draft link.

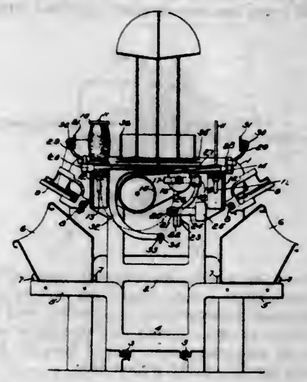
3. In a cultivator, the combination of a supporting frame, rear supporting wheels and a front steering wheel upon which the frame rests, an upright spindle upon which the steering wheel is mounted, a tool frame arranged above the supporting frame, means connecting the tool frame and supporting frame comprising parallel link bars arranged to extend downward and forward from the tool frame to the supporting frame, a laterally swinging draft link connected to the tool frame, and an arm pivoted on a horizontal axis to the steering wheel spindle at its upper end and extending downwardly and forwardly and connected at its lower end with the draft link, substantially as set forth.

4. In a cultivator, the combination of a main frame, means for holding the main frame at all times in fixed relation to the surface of the ground comprising supporting wheels for the rear part of the frame and a supporting and steering wheel for the front part of the frame, a horizontally vibratable frame in which the said steering wheel is mounted, a vertically movable tool frame mounted on the main frame and held positively in parallelism to the main frame and the ground, laterally swinging draft devices connected directly to the tool frame and adapted to apply the force of the draft thereto independently of the steering wheel frame, and means for transmitting the swinging movement of the draft devices to the steering wheel frame.

5. In a cultivator, the combination of a main frame, supporting wheels arranged to maintain the main frame at all times in fixed relation to the ground surface, a vertically movable tool frame carried by the main frame, connections between the tool frame and the main frame adapted to hold the former positively in parallelism to the main frame and to the ground, and draft devices connected directly to the tool frame, the connections between the tool frame and the main frame being constructed and arranged to cause the force of the draft to lift the tool frame when the latter is freed for adjustment.

[Claims 6 to 11 not printed in the Gazette.]

1,140,768. SPOOLER. ALONZO E. RHOADES, Hopedale, Mass., assignor to Draper Company, Hopedale, Mass., a Corporation of Maine. Filed Aug. 6, 1913. Serial No. 783,385. (Cl. 242—44.)



1. In a spooler, the combination of the spindle rails and spindles, a tin-roller and belt tightener between the spindle rails at opposite sides of the longitudinal center of the machine, a flat band or tape passing about the tin-roller and belt tightener for driving said spindles, yarn guides for directing the yarn as it is wound by rotation of said spindles, a rock-shaft connected to the yarn guides, a single goose-neck arm extending down from said rock-shaft between the tin-roller and the adjacent spindle rail, and means for operating the said goose-neck arm.

2. In a machine for winding yarn or thread onto spools, spindle rails and spindles adapted to receive and rotate spools, yarn guides for directing the yarn as it is wound on said spools, a tin-roller and belt-tightener disposed between the spindle rails, a belt passing about the tin-roller and belt tightener and operatively connected to said spindles, a yarn guide rock-shaft extending transversely of the machine and connected to the yarn guides, a single goose-neck arm extending downward from said rock-shaft between the tin-roller and adjacent spindle rail, and a rod forming part of a traverse motion connected to said single goose-neck arm.

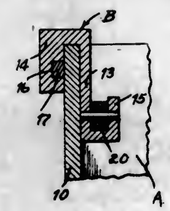
3. In a spooler, the combination of a tin-roller and belt tightener, spindle rails separated to receive between them said tin-roller and belt tightener, the tin-roller being nearer one of said spindle rails and the belt tightener nearer the other, spindles supported by said rails and adapted to receive spools, means for directing the yarn to the spools as it is wound thereon including a rock-shaft, a single goose-neck arm extending from said rock shaft between the tin-roller and the nearer spindle rail, and an operating rod connected to said single goose-neck arm.

4. In a spooler, the combination of a tin-roller and belt tighteners, spindle rails separated to receive between them said tin-roller and belt tighteners, the tin-roller being nearer one of said spindle rails and the belt tighteners nearer the other, spindles supported by said rails and adapted to receive spools, yarn guides, a rock shaft extending transversely of the machine frame, a single arm extending downwardly from said rock shaft between the tin roller and adjacent spindle rail, means for operating said arm, and flat bands passing about the tin roller and belt tighteners.

1,140,769. WAGON-SEAT SUPPORT. CARL R. SACHS, Fremont, Ohio. Filed Aug. 6, 1913. Serial No. 783,398. (Cl. 21—44.)

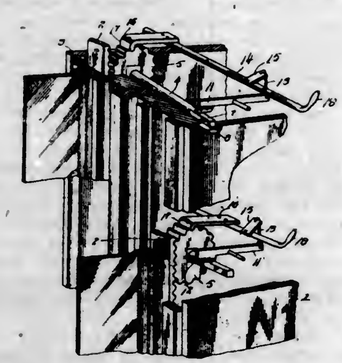
In a structure of the class described the combination of a wagon body including side members, a longitudinal rib mounted on the outer side of each side member and extending longitudinally thereof, a bracket engaged with each side member, said bracket including an intermediate portion disposed against the inner side of the adjacent

side member and oppositely disposed L-shaped terminals at the upper and lower ends of the intermediate portion respectively, the upper L-shaped terminal being engaged over the side member and having its arm which extends contiguous with the side member provided with a trans-



verse groove in which the adjacent longitudinal rib is slidably engaged, a spring supporting bar having its forward end pivotally secured to the bracket, and means carried by the rear end of each spring supporting bar for engaging the adjacent wagon side to hold the bar in position longitudinally of the wagon side.

1,140,770. WINDOW-SASH LIFT AND LOCK. LOUIS SCHMIDT and SAMUL BUUNSTIEN, Lakewood, N. J. Filed Mar. 28, 1914. Serial No. 827,963. (Cl. 16—53.)



1. In a device of the class described, a sash, a rack bar secured on one edge of said sash, a sash frame having an aperture therein, a cog wheel pivoted on the rear side thereof and extending through said aperture and into engagement with the rack bar, means for operating the cog wheel, a lever operated by said means, a locking pawl operated by said lever to lock said cog wheel against motion, means connected to said pawl to operate the same independently of the cog actuating means.

2. In a device of the class described, means for raising or lowering a window, means for locking said means, means to actuate said first mentioned means and to release the locking means, and independent means for actuating said locking means.

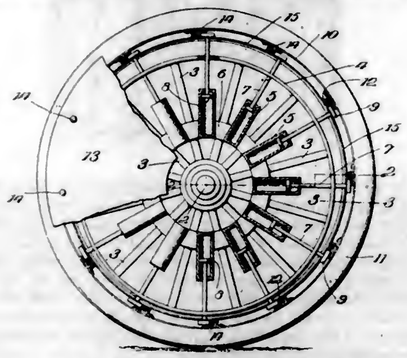
3. In a device of the class described, means for raising a window comprising a rack bar and a cog wheel, a lever, a rod connected thereto, a pivoted member having an extension engaging said rod, an arm integral with said member, a pawl on said arm arranged to engage said cog wheel and means to operate said lever to disengage the pawl from the said wheel, and independent means to actuate the pawl.

4. In a device of the class described, a rack bar adapted to be secured to a window sash, a shaft revolubly mounted in the sash frame, a cog wheel secured to the shaft, a rod pivotally mounted in the frame, a pawl secured to the rod and adapted to engage the cog wheel, a lever pivoted to the frame between its ends, and operatively connected to the rod, an enlargement having a cam face thereon formed on the lever and adapted to rest on the shaft, said enlargement adapted to return the lever and pawl to their initial position.

5. In a device of the class described, a rack bar adapted to be secured to a window sash, a shaft revolubly mounted on the sash frame, a cog wheel secured to the shaft, a pawl mounted within the sash frame and adapted to engage the cog therein, an operating handle slidably mounted on the shaft, and means connected to the pawl and engageable with the operating handle to simultaneously cause the pawl to engage the cog and throw the operating handle out of operative position.

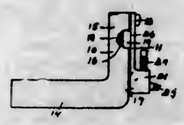
[Claims 6 and 7 not printed in the Gazette.]

1,140,771. CUSHION-WHEEL. EARNEST H. SCHUR, Hibbing, Minn., assignor of one-fourth to Moritz Keller and one-fourth to Bailey Keller, Hibbing, Minn. Filed Apr. 22, 1913. Serial No. 762,957. (Cl. 152—48.)



A cushion wheel including a hub, an inner rim, rigid spokes connecting the hub and the inner rim, an annular web providing a channel mounted upon said rigid spokes adjacent their inner extremities and concentric to the hub, cushioning cylinders disposed between each pair of rigid spokes, each of said cylinders seating at one extremity within the channel of said web, a series of piston spokes projecting radially from the opposite extremities of said cylinders and passing loosely through the inner rim, said spokes each including a piston head within the cylinder, the outer extremity of each of said spokes being formed with a transversely extending cross bar, an outer rim, a series of circumferentially spaced hollow abutments secured to the inner face of the outer rim, opposed annular side plates seating against the sides of the outer rim and extending over said web, bolts passing through said side plates and through said abutments and holding the said plates to the outer rim, and annular inwardly extending oppositely disposed ledges formed on the said side plates adjacent the outer margins thereof, the said ledges being disposed immediately inward of the abutments and arranged to engage said cross bars, the said cross bars being mounted to move freely upon said ledges between the abutments.

1,140,772. TOOL-HOLDER. CLAYTON B. SECHREST, New Britain, Conn. Filed July 16, 1914. Serial No. 851,368. (Cl. 29—99.)



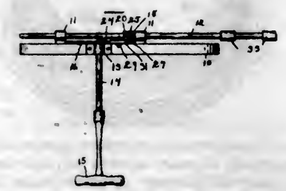
1. A tool holder comprising a shank member having a shank and an arm at one end thereof, and a tool member having a tool at one end, means for securing the other end of the said tool member to the free end of the said arm, and means separate from the said last named means for guiding the said tool member relatively to the said shank.

2. In a tool holder comprising a shank member and a tool member separably mounted thereon, the said shank member comprising a shank and an arm extending upwardly from the free end thereof, the said tool member extending along adjacent the front face of the said arm and having a tool head at the lower end, a spacing member positioned between the upper ends of the said arm and tool member, a screw securing the said upper ends and spacing member, and means for guiding the lower end of the said tool membmer relatively to the said shank member.

3. A tool holder comprising a shank member having a shank and an arm at one end thereof, and a tool member having means for holding a tool at one end, means for securing the other end of the said tool member to the free end of the said arm so that the major portion of the said tool member will be in spaced relation to the said shank member, and means for guiding the said major portion relatively to the said shank member in movements responsive to pressure on the said tool member.

4. A tool holder comprising a shank member having a shank and an arm positioned at one end thereof and having a free end, and a tool member extending along the outer face of the said arm and having means for holding a tool at one end, the other end of the said tool member being secured to the said free end of the arm, and means for guiding the other portions of the said tool member laterally relatively to the said arm, and permitting freely relative movement thereof in the direction of the said shank.

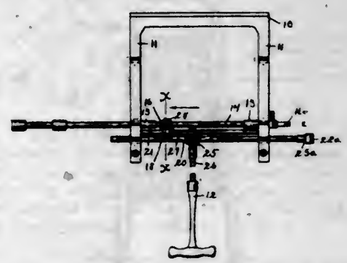
1,140,773. BELT-SHIFTER. JOHN SMEDMAN, Forestville, Conn., assignor of one-third to Patrick Engelwood, Bristol, Conn. Filed Oct. 24, 1914. Serial No. 868,482. (Cl. 64—4.)



1. A belt shifter comprising a rod slidably mounted, and having belt engaging arms, a laterally extending arm mounted on the said rod and provided with a slot, a handle rod operatively mounted in a plane at right angles to the said rod and having a radial arm, a pin on the said radial arm engaged with the said slot, and the said radial arm being composed of an inner portion and an outer portion having overlapping ends, one of the said ends having a hole for a screw, the other of the said ends having a slot in registration with the said hole, a channel piece extended along the said other end, having a slot in registration with the said first slot and hole, and having sides engaged with the edges of the said ends, and a screw passing through the said slots and engaged with the said hole.

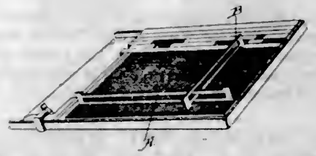
2. A belt shifter comprising a rod slidably mounted, belt engaging arms mounted on the said rod, and means for moving the said rod, the said arms comprising a hub portion, slidably mounted on the said rod, and having a boss, the said boss being provided with a radial threaded hole extending through the side wall of the said hub, an arm proper suitable for engaging with a belt, and having a threaded portion at the inner end, the said threaded portion fitting the said threaded hole, and the said threaded portion being suitably formed to permit the extreme inner end of the said arm proper to engage with the said rod.

1,140,774. BELT-SHIFTING DEVICE. JOHN SMEDMAN, Forestville, Conn., assignor of one-third to Patrick Engelwood, Bristol, Conn. Filed Oct. 24, 1914. Serial No. 868,483. (Cl. 64—4.)



A belt shifting device comprising a set of supporting arms, bearings in the said arms, a sliding rod engaged with the said bearings and having belt engaging devices, a laterally extending arm on the said rod having a radial slot, a lug fixed on the said arm having an open slot, and a pair of fixed rods on the said supporting arms, one of the said rods being in sliding engagement with the said open slot, a handle device operatively mounted on the other of the said fixed rods and having a pin, and the said pin being engaged with the said slot.

1,140,775. DIVIDER FOR FORMS OF TABULAR QUADS. WINTON L. SPRINGER, Chicago, Ill., assignor to American Type Founders Company, Jersey City, N. J., a Corporation of New Jersey. Filed July 12, 1913. Serial No. 778,696. (Cl. 101—52.)



1. An implement for use in the art of printing, for separating into sections a loosely assembled stock form of spacing elements, comprising two bars loosely and slidably interlocked and adapted to be positoined at right angles to each other and formed at their lower edges to be inserted between said spacing elements, substantially as set forth.

2. A printer's implement of the character described comprising two bars loosely and slidably connected one to the other adapted to be adjusted at right angles to each other in different relations, with their lower edges formed for insertion between forms of typotabular squares, substantially as set forth.

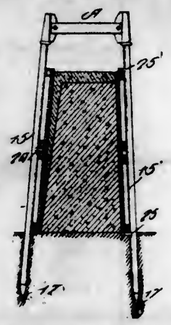
3. A divider for use in separating portions of a loosely assembled stock form of typotabular squares comprising two interlocking bars adapted to slide freely, one in relation to the other, and be adjusted at right angles to each other, and adapted for insertion between rows of said typotabular squares, substantially as set forth.

4. The combination with a form of typotabular squares, of a divider comprising two bars slidable in relation to each other in right angular position, and means for securing said divider in position to hold the remaining portions of the original form after dividing out a given section, substantially as set forth.

1,140,776. CONCRETE-FORM FOR CURBS, WALKS, &c. ALVIN R. TETERS, Boise, Idaho. Filed Feb. 6, 1914. Serial No. 816,980. (Cl. 25—118.)

1. A concrete form comprising a pair of rows of stakes, and side members detachably interlocking with each row of stakes respectively, the interlocking connection between

the stakes and side members being releasable by a partial axial rotation of said stakes.

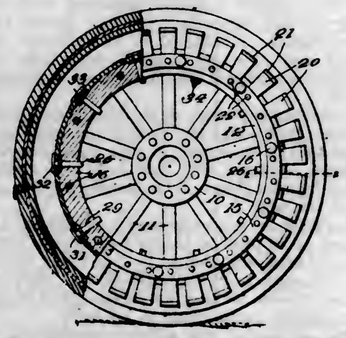


2. A concrete form comprising a pair of rows of stakes, side members formed of a plurality of sections having longitudinal ribs on the faces thereof adjacent the stakes, said ribs having one end projecting beyond the adjacent end of the section and their other ends disposed inwardly of the other section, a metallic sheathing covering the section and ribs and having its end edges flush with the end edges of the section whereby sockets are formed at one end of the ribs to receive the projecting ends of the ribs of an adjacent section, and lugs on the stakes interlocking with the sections of the side members to support the latter in position.

3. A concrete form comprising a pair of rows of stakes, lugs on said stakes respectively, and side members detachably engaged by said lugs, said lugs being disengaged from the side members by partial axial rotation of the stakes.

4. A concrete form comprising a pair of rows of stakes, side members provided with grooves in the face thereof adjacent the stakes, and lugs on the stakes engaged in said grooves and movable out of the grooves by partial rotation of the stakes.

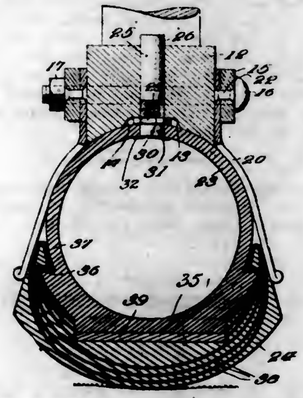
1,140,777. PNEUMATIC TIRE. WALTER D. TRIGALET, Mamaroneck, N. Y. Filed Aug. 27, 1913. Serial No. 786,984. (Cl. 152—8.)



1. The combination with a wheel rim, of rings adapted to be secured upon the opposite sides of the rim, said rings having their inner faces recessed at intervals to provide spaced radial sockets closed at their inner ends and opening through the inner faces and outer edges of the rings, the radial sides of such sockets converging inwardly, and a plurality of resilient metallic shield members tapering from their outer to their inner ends secured to the rings with their inner ends seating in the sockets thereof, said shields extending at their free ends beyond the rim to receive and support a tire.

2. A tire retaining flange adapted for attachment to the side of a wheel rim including an annular body member having that face which will engage against the wheel rim recessed at intervals to provide spaced radial sockets closed at their inner ends and opening through the inner face and outer edge of the body, the radial sides of said sockets converging inwardly, the body member being formed with an opening through each socket portion and with openings through certain of the thicker portions between the sockets, the latter openings being adapted to receive fastening devices for securing the flange to the wheel rim, a plurality of resilient metallic tire engaging shield members tapering from their outer to their inner ends with their inner ends seated in the sockets theerof, said inner ends of the shield members having openings which aline with the openings through the socket portions of the body member, said shields extending at their free ends beyond the body to supportingly engage a tire, the closed inner ends of the sockets taking up the thrust exerted upon the shields by the tire, and fastening devices passed through the alined openings of the body member and shield members.

1,140,778. TIRE CONSTRUCTION. WALTER D. TRIGALET, Mamaroneck, N. Y. Continuation of application Serial No. 786,984, filed Aug. 27, 1913. This application filed Dec. 17, 1913. Serial No. 807,270. (Cl. 152—17.)

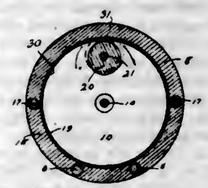


1. A tire construction including a pneumatic tube thickened to provide a tread portion having circumferential shoulders and to provide circumferential locking ribs spaced from the shoulders, and a separable tread provided at its free edges with inwardly directed circumferential locking beads for engagement with the locking ribs of the tube and cut-away interiorly to provide shoulders engaging the shoulders of the tube, said tread being reinforced by a plurality of fabric layers, the peripheral edges of which are extepded into and about the beads and then separated and extended in spaced relation to additionally reinforce those portions of the tread between the beads and shoulders.

2. A tire construction including a pneumatic tube thickened to provide a tread portion having circumferential shoulders and to provide circumferential locking ribs spaced from the shoulders, and a separable tread provided at its free edges with inwardly directed circumferential locking beads for engagement with the locking ribs of the tube and cut-away interiorly to provide shoulders engaging the shoulders of the tube, the tread portion being thickened exteriorly adjacent its peripheral edges, whereby its side faces extend tangentially toward the intermediate portions of the side faces of the tube.

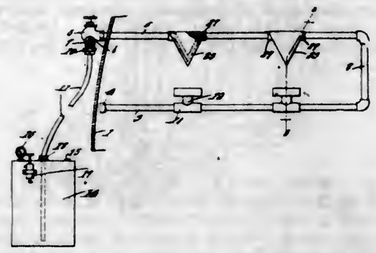
1,140,779. FISHING-TACKLE. GEORGE W. UPTON, Warren, Ohio. Filed Apr. 27, 1914. Serial No. 834,666. (Cl. 242—84.5.)

1. In a fishing reel the combination of a spool provided with a flange; a circular governor member eccentrically pivoted near the circumference of said flange; and an overhanging circular lip against which said circular governor member is adapted to be thrown by centrifugal force when said spool is rotated in either direction and thereupon exert a braking action on said spool, substantially as described.



2. In a fishing reel the combination of a spool provided with a flange; a circular governor member eccentrically pivoted near the circumference of said flange; an end plate having a recess providing an overhanging circular lip against which said circular governor member is adapted to be thrown by centrifugal force when said spool is rotated in either direction and thereupon exert a braking action on said spool and means for securing said reel to a fishing rod, substantially as described.

1,140,780. OIL-HEATER. SCOTT VANNATTA, Marcellus, Mich. Filed Sept. 14, 1914. Serial No. 861,709. (Cl. 158—63.)



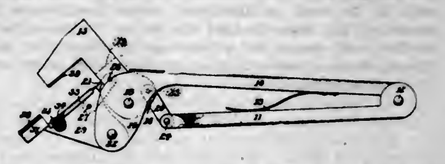
1. In a device of the class described, a supply pipe including a neck; a cup resting on the neck; and a plug inserted into the neck, the plug having a flange engaging the bottom of the cup to hold the cup on the neck, the upper end of the plug being free and being located below the upper edge of the cup, the plug having an opening defining a combustion mouth within the contour of the cup.

2. In a device of the class described, a delivery pipe comprising upper and lower arms; a burner in the lower arm; and a depending conical flame spreader in the upper arm above the burner, the flame spreader having a depending loop-shaped passage forming a continuation of the bore of the upper arm and of substantially the same cross section as the bore of the arm.

3. In a device of the class described, a delivery pipe comprising upper and lower arms; a burner in the lower arm; a depending conical flame spreader in the upper arm above the burner, said spreader having a depending loop-shaped passage forming a continuation of the bore of the upper arm and of substantially the same cross sectional area as the bore of the arm; and filtering material in the passage.

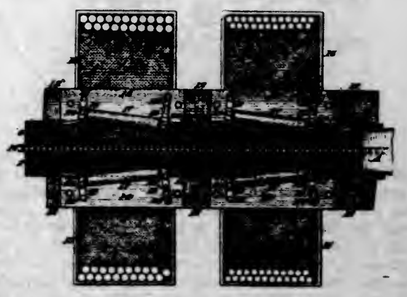
1,140,781. PAN-LIFTER. JACOB WASIK, West Hammond, Ill. Filed July 27, 1914. Serial No. 853,516. (Cl. 65—32.)

1. In a pan lifter, a pair of handles pivoted at their ends, a bifurcated head carried by the forward end of one of the handles, a pair of jaws pivoted in said head, a link connecting the jaws, a second link connected to one of the jaws and to the forward end of the other of said handles and a spring for holding the jaws in normally separated condition.



2. In a pan lifter, a pair of handle arms, a pair of jaws pivoted in the outer end of one of said arms, a link connecting the jaws beyond the pivot points, a second link connecting the other of said handle arms to one of said jaws and adapted to close the jaws by moving them in the same general direction at different speeds.

1,140,782. FRUIT-GRADING MACHINE. HAROLD W. WELTON, Redlands, Cal. Filed Feb. 4, 1914. Serial No. 816,477. (Cl. 130—32.)



1. In a fruit grading machine, a laterally inclined fruit conveying belt, and a plurality of idle grading elements angularly disposed with realtion to the line of travel of the belt.

2. In a fruit grading machine, a laterally inclined fruit conveying belt, a plurality of grading elements, and adjustable supports for said elements by which the elements may be angularly adapted with relation to the line of travel of the belt.

3. In a fruit grading machine, a supporting frame, an endless fruit conveying belt having portions disposed at an angle to each other throughout its length mounted on said frame, and a plurality of grading elements angularly disposed with relation to the line of travel of the belt.

4. In a fruit grading machine, a supporting frame, an endless laterally inclined fruit conveying belt mounted on said frame, a plurality of idle grading elements angularly disposed with relation to the line of travel of the belt, and telescoping guide members connecting the grading elements.

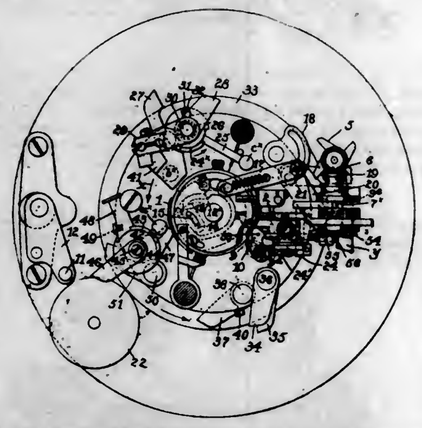
5. In a fruit grading machine, a plurality of idle sizing or grading members, and a laterally inclined fruit conveying belt for successively delivering fruit to said grading members, the line of travel of said belt being angularly disposed with relation to the longitudinal axis of the grading members.

[Claims 6 to 17 not printed in the Gazette.]

1,140,783. WELT-KNITTING MACHINE. FRANK B. WILDMAN and GEORGE L. BALLARD, Norristown, Pa., assignors to Wildman Mfg. Co., Norristown, Pa., a Corporation of Pennsylvania. Filed Sept. 28, 1911. Serial No. 651,813. (Cl. 66—22.)

1. A latch needle knitting machine having a single main thread feed, the combination of the dial needles having their hooks directed radially outward, cylinder needles, means for feeding a single main thread, means for making a rib fabric from said single thread compris-

ing cams in the cylinder and dial, cams in the cylinder for knitting from an additional thread to make the outer wall of the welt, an additional thread feed, means for operating the same to feed the thread to the cylinder needles, and means for adjusting the cams, first mentioned, of the cylinder to form the inner wall of the welt on the dial needles.



2. In a latch needle rib knitting machine, dial needles, cylinder needles, a main thread feed, an additional thread feed, a single stitch cam and a single advancing cam for the dial needles, means for adjusting the advancing cam for welting on the cylinder needles, a stitch cam and an advancing cam for the cylinder needles, a second advancing and a second retracting cam for the cylinder needles, said second advancing cam being normally depressed during rib knitting with the main thread, means for advancing said cam for clearing the cylinder needles, while the first advancing cam remains in operative position to cause the cleared cylinder needles to take the thread, means for then lowering the first advancing cam for the formation of the welt on the dial needles with the main thread, means for operating the additional feed for presenting the additional thread to the cylinder needles at the clearing course cam, said clearing course cam causing the cylinder needles to take the thread from the additional feed for the formation of the outer wall of the welt on the cylinder needles, and means for giving the first and second advancing cylinder cams their independent automatic adjustment, substantially as described.

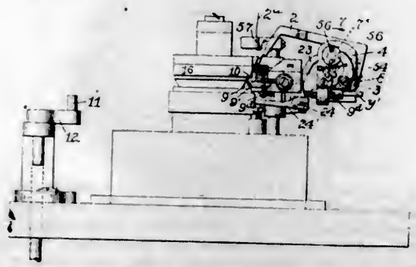
3. In a latch needle rib knitting machine, dial needles, cylinder needles, a main thread feed, an additional thread feed, a stitch cam and an advancing cam for the dial needles, a stitch cam and an advancing cam for the cylinder needles, a second advancing and a second retracting cam for the cylinder needles, said second advancing cam being normally depressed during rib knitting with the main thread, and said second retracting cam being normally above its stitch forming position, means for advancing said second advancing cam for clearing the cylinder needles in conjunction with said second retracting cam, means for lowering the first advancing cam for the formation of the welt on the dial needles with the main thread, means for operating the additional feed for presenting the additional thread to the cylinder needles at the clearing course cam, said clearing course cam causing the cylinder needles to take the thread from the additional feed for the formation of the outer wall of the welt on the cylinder needles, and means for depressing the second retracting cam from its clearing position to draw stitches from the additional thread on said cylinder needles.

4. In a latch needle rib knitting machine, dial needles, cylinder needles, a main thread feed, an additional thread feed normally inactive, an advancing cam and a stitch cam for the dial, an advancing cam and a stitch cam for the cylinder needles at the main feed, a second advancing cam and a second retracting cam for the cylinder needles at the additional thread feed, means for advancing the second advancing cam for clearing the cylinder needles, which are then advanced by the first advancing cam to take on a foundation thread for the outer wall of the welt at the main feed, means for presenting the additional thread to the cylinder needles, said cylinder needles being advanced and retracted at the second cams to form stitches from the additional thread for the outer wall of the welt, means for depressing the first advancing cam for the formation of the welt on the dial needles, and means for giving the first and second advancing cams of the cylinder their adjustments independently, substantially as described.

5. In a latch needle rib knitting machine dial needles, cylinder needles, a main thread feed, and additional thread feed, a stitch cam and an advancing cam in each cam carrier, a second advancing and retracting cam in one cam carrier normally inactive, said second set of cams serving both for clearing the needles operated thereby and for formation of stitches on said needles for one wall of the welt, means for throwing in the additional thread feed after the clearing action, means for placing the first advancing cam out of action for the formation of the other wall of the welt on the other set of needles, and means for operating the first and second advancing cams independently, substantially as described.

[Claims 6 to 14 not printed in the Gazette.]

1,140,784. KNITTING-MACHINE. FRANK B. WILDMAN and GEORGE LAWSON BALLARD, Norristown, Pa., assignors to Wildman Mfg. Company, Norristown, Pa., a Corporation of Pennsylvania. Original application filed Sept. 28, 1911, Serial No. 651,813. Divided and this application filed Oct. 16, 1912. Serial No. 726,186. (Cl. 66—12.)

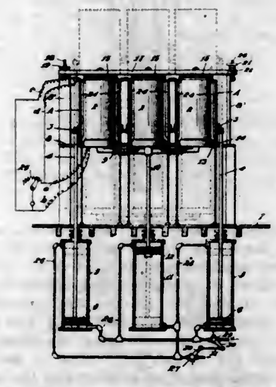


1. In combination with a circular knitting machine, a main thread feed, an arm swinging in a plane substantially radially of the machine and having a guide for an additional thread at its free inner end, a cam shaft for operating the said arm, a thread clamp, and cutter means, tappet means for operating the said clamp and cutter to sever and clamp the thread, means controlling the clamp and cutter, said means being in turn controlled from said cam shaft, a needle cam, and means for depressing the needle cam when the additional thread is presented to the needles, said means being operated from the cam shaft, substantially as described.

2. In combination with a circular knitting machine, a main thread feed, a pivotally mounted arm serving as an additional thread feed, a cam shaft for operating the said arm, a thread cutter and clamp, means for operating the cutter to sever the thread and setting the clamp to hold it, a detent device for holding the clamp in set position, said detent device being operated from the cam shaft to release the clamp when the thread feed arm is moved to the needles to supply the additional thread, an arm for depressing one of the needle cams when the additional thread is thrown in, and a connection between said arm and the cam shaft for operating the needle cam when the additional thread is introduced.

3. In combination with a circular knitting machine, a main thread feed, a pivotally mounted arm serving as an additional thread feed, a cam shaft for operating the said arm, a thread cutter and clamp, means for operating the cutter to sever the thread and setting the clamp to hold it, a detent device for holding the clamp in set position, said detent device being operated from the cam shaft to release the clamp when the thread feed arm is moved to the needles to supply the additional thread, an arm for depressing one of the needle cams when the additional thread is thrown in, and a connection between said arm and the cam shaft for operating the needle cam when the additional thread is introduced, said connection including a rock shaft arranged parallel with the cam shaft and having an arm extending therefrom to be operated by the cam shaft, substantially as described.

1,140,785. MOLDING-MACHINE. EDWARD L. WILLIAMS, Jr., Santa Cruz, Cal., assignor of one-half to Edward L. Williams, Sr., Santa Cruz, Cal. Filed Feb. 5, 1913. Serial No. 746,349. (Cl. 25—30.)



1. The combination in a molding machine of an external mold, a reciprocating carriage carrying the mold, a core adapted to extend into the mold, a reciprocating frame on which said core is mounted, heating coils within and exterior to the mold form, and means for reciprocating the carriage and frame by which the mold and core may be moved simultaneously in opposite directions in relation to each other, said means including cylinders having pistons and piston rods connecting respectively with the molds and cores, and adapted to be propelled in opposite directions.

2. The combination in a molding machine of an exterior mold, a carriage upon which the mold is mounted, a core adapted to extend into the mold, a carriage on which the core is mounted, a movable cap mounted above the carriage for compressing materials between the mold and core, heating coils within and exterior to the mold forms, and pressure impelled pistons and rods, for reciprocating the carriages to move the mold and core simultaneously in opposite directions in relation to each other.

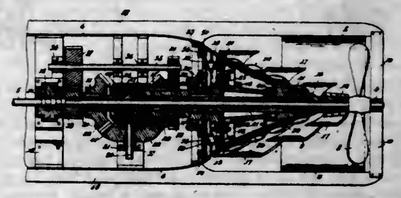
3. In a molding machine the combination of a mold open at both ends, a vertically movable carriage on which the mold is mounted, a pallet adapted to be surrounded by the lower end of the mold, means for supporting the pallet, said pallet and supporting means formed with openings leading to the interior of the mold, a core adapted to extend through the openings in the pallet and pallet-supporting means into the interior of the mold, a frame adapted to be reciprocated in a vertical direction to insert and withdraw the core from the mold, means for closing the upper end of the mold adapted to compress the materials between the mold and core, heating coils within and exterior to the mold form for accelerating the set of the materials therebetween, and means for reciprocating the mold and core simultaneously in opposite directions in relation to each other.

4. In a molding machine, the combination with an exterior mold and a core, of means for heating the mold and core, means for reciprocating the mold and core simultaneously in opposite directions in relation to each other, and means for holding the plastic body between the mold and core against longitudinal movement.

5. The combination in a molding machine of an external mold, a reciprocating carriage carrying the mold, a core adapted to extend into the mold, a reciprocating frame on which said core is mounted, heating coils within and exterior to the mold forms, means for reciprocating the carriage and frame by which the mold and core may be moved simultaneously in opposite directions with relation to each other, adjustable caps for holding the plastic body between the mold and core against individual movement.

[Claims 6 to 14 not printed in the Gazette.]

1,140,786. MEANS FOR PROPELLING STEAMSHIPS OR OTHER VESSELS. BENJAMIN F. WRIGHT, Elk Hill, Va. Filed Apr. 26, 1913. Serial No. 763,899. (Cl. 115—37.)



1. In ship propelling means, a rotatable spiral apparatus arranged at the forward end of the vessel, and a rotatable exteriorly corrugated cone member disposed within the said apparatus, the said apparatus and the said cone adapted to be simultaneously rotated from the same source in opposite directions.

2. In ship propelling means, a rotatable conically shaped spiral apparatus arranged at the forward end of the vessel, a rotatable corrugated cone member mounted for rotation within the said spiral apparatus, the said apparatus and the said cone member adapted to be simultaneously rotated in opposite directions from the same source, as and for the purpose set forth.

3. In a ship propelling means, a rotatable conically shaped spiral apparatus arranged at the bow of the ship, and a rotatable corrugated cone member arranged upon the interior of the said spiral apparatus, the said apparatus and cone adapted to be simultaneously rotated in opposite directions.

4. In a ship propelling means, a supplementary hull disposed beneath the water line of the ship, a propeller disposed at the forward extremity of the said hull, a rotatable conically shaped spiral apparatus arranged adjacent the said propeller, and a rotatable corrugated cone member disposed within the said spiral apparatus, the said apparatus and cone adapted to be simultaneously rotated in opposite directions.

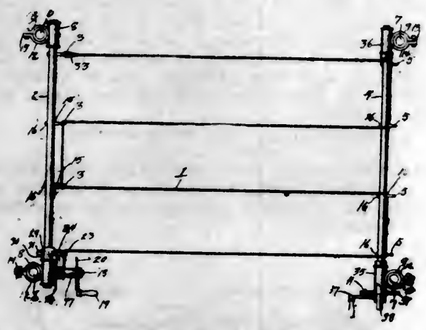
5. In a ship propelling means, a supplementary hull disposed beneath the water line of the ship, a cylindrical casing formed at the forward extremity of the said hull, a propeller mounted within said casing, a rotatable conically shaped spiral apparatus carried by the said hull and disposed adjacent the said propeller, and a rotatable corrugated cone member arranged upon the interior of the said spiral apparatus, the said apparatus and cone adapted to be simultaneously rotated in opposite directions.

[Claims 6 to 25 not printed in the Gazette.]

1,140,787. CLOTHES-LINE HOLDER. JOHN BAUMLE, Milwaukee, Wis. Filed Dec. 30, 1912. Serial No. 739,175. (Cl. 68—3.)

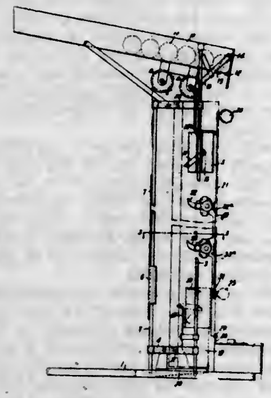
1. In a clothes line holder, the combination of a plurality of series of vertical posts, a revoluble shaft sup-

ported from one of said series of posts, a stationary bar rigidly secured to the upper ends of the other series of posts, a crank connected with said revoluble shaft, means for preventing said crank and revoluble shaft from being turned back by the tension of a clothes line wound thereon, a clothes line reel connected with said stationary bar, a crank for winding said reel and a plurality of line supporting hooks connected with said revoluble shaft and stationary bars.



2. In a clothes line holder, the combination of a plurality of series of vertical posts, a shaft revolubly supported from one of said series of posts, a crank connected with said shaft, means for holding said crank at any desired point of adjustment, a stationary bar rigidly affixed to the other series of posts, a plurality of line retaining hooks affixed to both of said shafts, a single clothes line supported from such hooks, a line supporting reel and a hook supported from one of said posts, an eccentric cam pivotally connected with said last named hook, said cam being adapted, when said line is in place in said hook, to prevent said line from being withdrawn from said reel, all substantially as and for the purpose specified.

1,140,788. MECHANICAL TOY. BENJAMIN F. BAIN, Pittsburgh, Pa. Filed Sept. 19, 1914. Serial No. 862,552. (Cl. 46—37.)



1. In a toy elevator, the combination of an upright frame, a car arranged to travel up and down in said frame, an electric lamp on said frame, a source of current for said lamp, and a switch for controlling the circuit through said lamp located near one end of said frame and arranged to be operated by the movement of said car, whereby said car by its travel in opposite directions in said frame produces a flash of said lamp.

2. In a toy elevator, the combination of an upright frame, a car arranged to travel up and down in said frame, two electric lamps on said frame, a source of current for said lamps, and switches for controlling the circuits through said lamps located adjacent the upper and lower ends of said frame, said switches being operated by the up and down movement of said car in said frame and arranged when operated to produce alternate flashes of said lamps.

1,140,789. ANCHOR FOR WELL-TUBING. REUBEN C. BAKER, Coalinga, Cal. Filed Aug. 12, 1914. Serial No. 856,458. (Cl. 103—65.)



1. The combination with a tubing section, of an anchor including a spreading element secured to the section, casing engaging members slidable relative to the tubing section and adapted to be engaged and shifted by the spreading element, means for holding said members against movement longitudinally of the section, and means operated by the upward pressure against the anchor during its rapid descent, for releasing the jaws to permit relative movement of the spreading element and the jaws thereby to shift the jaws to casing engaging position.

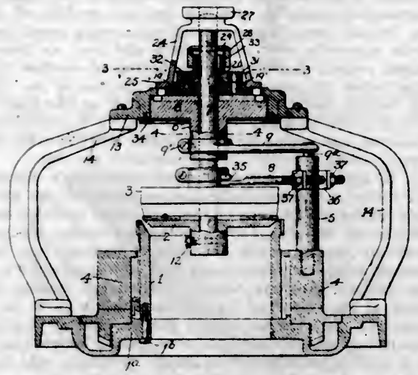
2. The combination with a tubing section, of an anchor including a spreading element secured to the section, a member slidably mounted on the tubing section, casing engaging devices flexibly connected to the said member, means upon said member for frictionally engaging a casing to retard the descent of the member, coöperating means upon said member and the tubing section for holding the member against longitudinal movement relative thereto, and means operated by upward pressure against the anchor during its rapid descent within the casing, for releasing said member from the tubing section to permit relative movement of the spreading element and the casing engaging devices.

3. The combination with a tubing section, of an anchor including a spreading element movable with the tubing section, a sleeve slidably mounted on said section, means upon the sleeve for frictionally engaging a well casing to retard the descent of the sleeve, coöperating means upon the tubing section and the sleeve for holding said section and sleeve against relative movement, casing engaging jaws flexibly connected to the sleeve and normally below and in the path of the spreading element, and means operated by upward pressure against the anchor during the rapid descent of the anchor within a casing, for releasing the sleeve from the tubing section thereby to permit downward movement of the tubing section and the spreading element relative to the sleeve and jaws.

4. The combination with a tubing section, of an anchor including a conical spreading element fixedly connected to the section, a sleeve slidably and revolubly mounted on the section, means upon the sleeve for engaging a well casing to retard the descent of the sleeve, coöperating means upon the section and sleeve for holding said sleeve against longitudinal movement relative to the section, jaws flexibly connected to the sleeve and below and in the path of the spreading element, said jaws being shiftable outwardly by the spreading element into engagement with the well casing, and means operated by upward pressure against the anchor during the rapid descent thereof, for producing relative rotation of the tubing section and sleeve thereby to release the sleeve from the tubing and permit independent longitudinal movement of the tubing section relative to the sleeve.

5. The combination with a tubing section, of anchoring means including a conical spreader fixedly connected to the tubing section, a sleeve slidably and revolubly mounted on the section, jaws below and in the path of the spreader and flexibly connected to the sleeve, means upon the sleeve for frictionally engaging the inner side of a casing, there being an angular slot within the sleeve, means upon the tubing section and shiftable into the slot to hold the sleeve and tubing section against independent longitudinal movement, a lever fulcrumed upon the sleeve, a collar slidably mounted on the sleeve and engaging the lever, said lever being normally positioned out of parallel with the sleeve, means for holding the collar against rotation upon the sleeve, said sleeve being shiftable by upward pressure thereagainst to actuate the lever and produce relative rotation of the sleeve and tubing section, thereby to disengage the sleeve from the tubing section and permit the descent of the spreader relative to the jaws.

1,140,790. DOGLESS CIRCULAR-KNITTING MACHINE. GEORGE LAWSON BALLARD, Norristown, Pa., assignor to Wildman Mfg. Co., a Corporation of Pennsylvania. Filed May 22, 1914. Serial No. 840,379. (Cl. 66—22.)



1. In combination in a circular knitting machine, a fixed cylinder, a cylinder cam ring, a dial, a dial cap carrying cams, a dial post, a frame ring, means for supporting said frame ring from the fixed frame against vertical or circumferential displacement and independent of the cylinder cam ring, a plurality of shiftable connections between said frame ring and the dial post, a rotary thread guide plate also supported by the said frame ring against vertical displacement and independently of the cylinder cam ring, said dial post being sustained by said thread guide plate and frame ring against vertical displacement, cam means carried by the rotary thread guide plate for operating the shiftable connections, and driving means for the rotary thread plate and the dial cam cap extending from the cam cylinder.

2. In combination in a circular knitting machine, a fixed needle cylinder, a dial, a dial cam carrier, a dial post, a cylinder cam ring, a frame ring, supporting means extending to the fixed frame for holding said ring against vertical and circumferential displacement, a connection between said frame ring and the dial post for holding the same against rotation, a rotary thread guide plate sustained by the frame ring and in turn sustaining the dial post, and driving means between the rotary thread guide plate and dial cam carrier and the cylinder cam ring, substantially as described.

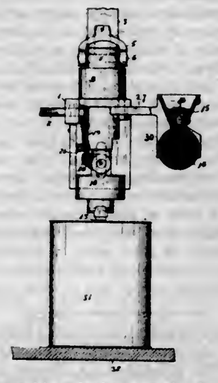
3. In combination in a circular knitting machine, a fixed needle cylinder, a dial, a dial cam carrier, a dial post, a cylinder cam ring, a frame ring, supporting means extending to the fixed frame for holding said ring against vertical and circumferential displacement, a connection between said frame ring and the dial post for holding the same against rotation, a rotary thread guide plate, supported on the fixed frame ring and in turn holding the dial post against vertical displacement and driving means between the rotary thread guide plate and dial cam carrier and the cylinder cam ring, said driving means compensating for any irregularities in the movement of the rotary cylinder cam ring, substantially as described.

4. In combination in a circular knitting machine, a fixed needle cylinder, a rotary cylinder cam ring, a dial and dial post, a dial cam cap, a frame ring, a support extending therefrom to the fixed frame of the machine for holding the frame ring against circumferential and vertical displacement, a connection between said frame ring and the dial post for holding the same against rotation, a rotary thread guide plate within the frame ring, a compensating connection between the thread guide plate and the cylinder cam ring, and a second compensating connection between the dial cam cap and the said cylinder cam ring, substantially as described.

5. In combination in a circular knitting machine, a fixed needle cylinder, a rotary cam ring therefor, a dial and dial post, a dial cam cap, a rotary thread guide plate, a frame ring within which said thread guide plate rotates and is supported against vertical displacement, supporting means between the frame ring and the fixed frame of the machine for holding the frame ring against vertical and circumferential displacement, a cap piece above the thread guide plate fixed to the dial post, radially movable locking means between the fixed frame ring and the cap piece, a cam on the thread guide plate for retracting said locking means in succession for the passage of the thread guide, and compensating driving means between the thread guide plate and the dial cam cap and the revolving cylinder cam ring, substantially as described.

[Claims 6 to 13 not printed in the Gazette.]

1,140,791. MACHINE FOR STAMPING OR MARKING CANS. BERNHARDT HENRY BARTHOLD, San Jose, Cal. Filed Apr. 27, 1914. Serial No. 834,712. (Cl. 101—88.)



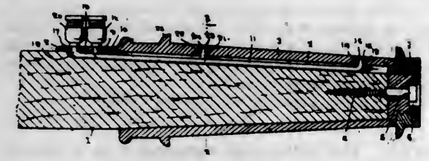
1. In a can-marking device a main frame, a vertically extending plunger in said frame, means for the vertical movement of said plunger connected upwardly thereto, a turnable stamp-holder having a cam pivotally secured to the lower end of said plunger, a spring-pressed stamp in said stamp-holder, an inking-device for said stamp supported by said frame, a stop for turning said holder carrying said stamp into a horizontal position for engagement with said inking-device upon the upward movement of said plunger and resilient means for returning said holder and said stamp into a vertical position upon the downward stroke of said plunger.

2. In a can-marking device a frame, having a vertical slideway in its upper portion and a stop in its lower portion, a vertically slidable plunger in said slideway and

projecting therethrough; a piston cylinder having an opening in its lower end and pivotally secured to and penetrated by the lower end of said plunger; a piston in said piston-cylinder under said end of said plunger, provided with an upwardly open box, and having a short rod projecting through the lower end of said piston-cylinder; a stamp removably secured in the lower end of said rod; a spring in said box; a cam on the wall of said piston-cylinder engageable with said stop; a spring upwardly secured to said frame and downwardly secured to said plunger in proximity to said cam, and an inking-device secured to said frame and positioned for engagement with said stamp.

3. In a cam-marking device a frame having a slideway in its upper portion and a stop in its lower portion; a vertically slidable plunger having a recess in its lower portion in said slideway; a piston-cylinder turnable into said recess having an opening in its lower end and pivotally secured to the lower end of said plunger, a piston in said piston-cylinder having an upwardly open box and a short rod projecting through the lower end of said piston cylinder; a stamp removably secured in the lower end of said rod, a spring in said box bearing against the base thereof; a cam on the wall of said piston-cylinder engageable with said stop; a spring upwardly secured to said frame and downwardly secured to the wall of piston-cylinder, and an inking device secured to said frame and positioned for engagement with said stamp.

1,140,792. VEHICLE-SPINDLE. WALTER L. BLACK, Allen, Nebr. Filed Apr. 7, 1914. Serial No. 830,175. (Cl. 64—27.)



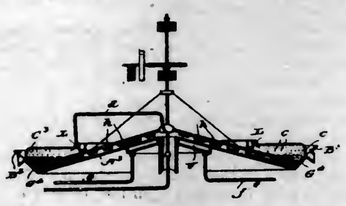
1. A lubricating spindle for vehicles, in combination with an axle, a spindle thereon, said axle and said spindle having coöperating channels, pipes within said channels for independently conveying a lubricant to each of the respective ends of said spindle, one of said pipes being of less length than the other of said pipes, a lubricating cup for each of the said pipes and a restricted nozzle on the end of each of said pipes, whereby the flow of the lubricant is retarded and controlled in the said pipes.

2. A lubricating spindle for vehicles, in combination with an axle, a spindle thereon, said axle and said spindle having coöperating channels, pipes within said channels for independently conveying a lubricant to each of the respective ends of said spindle, one of said pipes being of less length than the other of said pipes, a lubricating cup for each of said pipes, a restricted nozzle on the end of each of said pipes and a recess formed in the surface of the spindle at the end of each pipe.

1,140,793. CLASSIFIER AND DEWATERER. WALKER J. BOUDWIN, Salt Lake City, Utah. Filed Nov. 23, 1914. Serial No. 873,615. (Cl. 83—81.)

1. In apparatus of the character described, a circular pan having a conical portion and an upturned rim forming a gutter at the base of the cone, and members operable over the conical surface of the pan having means for progressively moving sands and slimes upwardly over the inclined surface of the pan and over an unsubmerged portion thereof, said pan having means for discharging solids at its apex and having an overflow lying in a plane below the plane of the apicial portion of the cone.

2. In apparatus of the character described, a circular pan having a conical portion and an upturned rim forming a gutter at the base of the cone, said up-turned portion having a vertical flange extending from an intermediate part over the edge of which water and slimes overflow, and members operable over the conical surface of the pan having means for progressively moving sands and slimes upwardly over the inclined surface of the pan and over an unsubmerged portion thereof, the overflow of the pan being in a plane below the plane of the apicial portion of the pan and said apicial portion of the pan having means for discharging solids.



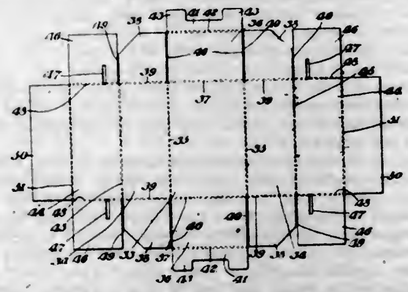
3. In apparatus of the character described, a circular pan having a conical portion and an upturned rim forming a gutter at the base of the cone, said up-turned portion having a vertical flange extending from an intermediate part over which water and slimes overflow, and arms operable over the conical surface of the pan having means for progressively moving sands and slimes upwardly over the inclined surface and over an unsubmerged portion thereof, said overflow being in a plane below the plane of the apicial portion of the cone and said pan having a discharge opening for solids in its apex.

4. In apparatus of the character described, a circular pan having a conical portion, an up-turned rim forming a gutter at the base of the cone, inclined arms arranged substantially parallel with the inclined surface of the pan having means for progressively moving sands and slimes upwardly over said surface and over an unsubmerged portion thereof, said pan having an overflow in a plane below the plane of the apicial portion of the cone and having means for discharging solids at the apex, a vertical shaft to which the inner ends of the arms are connected, and means for rotating said shaft to cause the arms to sweep over the conical portion of the pan.

5. In apparatus of the character described, a circular pan having a conical portion and an upturned rim forming a gutter at the base of the cone, arms operable over the conical surface of the pan having means for progressively moving sands and slimes upwardly over the inclined surface of the pan and over an unsubmerged portion thereof, said pan having a discharge opening for solids at its apex and having an overflow in a plane below the plane of the apicial portion, and an annular feed trough movable with the arms having outlets adapted to deliver pulp upon the inclined surface of said pan.

[Claims 6 and 7 not printed in the Gazette.]

1,140,794. KNOCKDOWN BOX. ROBERT P. BROWN, Philadelphia, Pa., assignor to Brown & Bailey Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Sept. 10, 1913. Serial No. 789,019. (Cl. 229—34.)



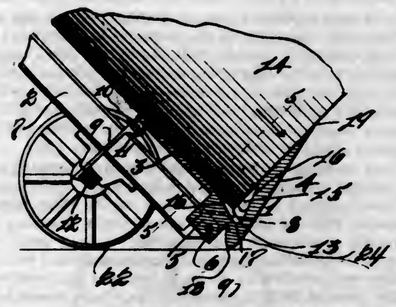
1. In a knock down box, a rectangular bottom section, substantially parallel sections hinged to edges of said bottom section, substantially parallel sections hinged to edges of said parallel sections first named, substantially parallel sections hinged to edges of said parallel sections second named, substantially parallel sections hinged to edges of said bottom section transverse to said edges first named, end sections hinged to said parallel sections second named and engaging said parallel sections fourth named, and means for holding said end sections and said parallel sections fourth named in engagement.

2. In a knock down box, a bottom section, side sections hinged on parallel lines to said bottom section, end sections hinged to said side sections, side sections hinged on parallel lines to said side sections first named, end sections hingel to said side sections second named and having slots therein, sections hinged to said side sections second named on lines parallel to the aforesaid parallel lines, end sections hinged to said bottom section, end sections hinged to end sections last named and having lips engaging said slots.

3. In a knock down box, a bottom section, side sections hinged thereto, side sections hinged to and folded within said side sections first named, end sections hinged to the respective side sections second named, bottom sections hinged to said second named side sections and engagin gin abutting relation on said bottom section, end sections hinged to said bottom section, and sections hinged to said end sections last named and overlapping and interlocking with end sections first named.

4. In a knock down box, a bottom section, side sections hinged thereto, side sections hinged relatively to and folded within said first named side sections, ends sections hinged to said bottom section, end sections hinged to said second named side sections and disposed in abutting relation to each other against said first named end sections, and bottom sections hinged to said second named side sections and disposed in abutting relation against said first named bottom section.

1,140,795. HAND-TRUCK. ALEXANDER HAMILTON CAMPBELL, Woodmere, N. Y. Filed Sept. 1, 1914. Serial No. 859,598. (Cl. 21—65.)



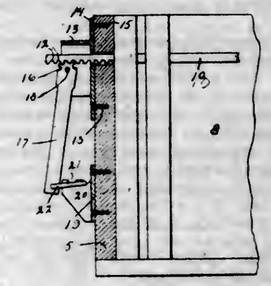
1. In combination with a transporting device, a supporting cradle pivotally secured thereto at one end thereof, said cradle consisting of a table portion and a flange located at a right angle thereto, said cradle being provided with a recess or pocket to receive the edge of the article to be transported and keep same out of contact with said cradle, and releasable means to lock said cradle against pivotal movement.

2. In combination with a transporting device, a supporting cradle pivotally secured thereto, said cradle consisting of a table portion and a flange located at an angle thereto, said cradle being provided with a pocket or recess, the bottom of said pocket or recess being out of alinement with the adjacent surfaces of said table and flange, a latch, carried by said cradle, and a keeper carried by the transporting device adapted to engage said latch.

3. In combination with a transporting device, a supporting cradle pivotally secured thereto, said cradle consisting of a table portion and a flange located at an angle thereto, said cradle being provided with a pocket or recess, the bottom of said pocket or recess being out of alinement with the adjacent surfaces of said table and flange, a latch carried by said cradle, and a projection or fulcrum point carried by said cradle projecting downwardly therefrom.

4. In combination with a transporting device, a supporting cradle pivotally secured thereto, means to lock said cradle against movement and a projection or fulcrum point carried by said cradle projecting downwardly therefrom.

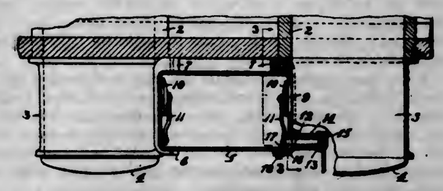
1,140,796. END-GATE ROD AND LOCK. EDMUND P. CARLIN, La Prairie, Ill., assignor of one-half to Albert N. Carlin, St. Louis, Mo. Filed July 17, 1914. Serial No. 851,614. (Cl. 21—21.)



1. In combination with a wagon body having an end gate thereon, means for locking said end gate in position relative to said body, said means comprising a rod extending through the body and the end gate, a rack on one end of said rod, a hand engaging loop on the other end of said rod, a bracket secured upon said body and receiving said rack, a lever pivoted within said bracket and having a segmental gear formed on its inner end and meshing with said rack, downward movement of said lever drawing said rod partially through said bracket and clamping said body against said end gate, and means for holding the free end of said lever upon said body.

2. In combination with a wagon body having an end gate thereon, means for locking said end gate in position relative to said body, said means comprising a rod extending through the body and the end gate, a rack on one end of said rod, a hand engaging loop on the other end of said rod, a bracket secured upon said body and receiving said rack, a lever pivoted within said bracket and having a segmental gear formed on its inner end and meshing with said rack, downward movement of said lever drawing said rod partially through said bracket and clamping said body against said end gate, and means for holding the free end of said lever upon said body, said means comprising a plate secured upon the body and provided with a plurality of notches, and a latch on the free end of said lever engageable within a selected one of said notches.

1,140,797. COAL-GAS-GENERATING APPARATUS. HENRY A. CARPENTER, Sewickley, Pa., assignor to Riter-Conley Manufacturing Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed Sept. 14, 1914. Serial No. 861,493. (Cl. 48—126.)



1. In a gas generating apparatus, a horizontal retort, and a stand-pipe at one side of the retort and extending above and below the same with a vertical wall of the pipe

abutting against one side of the retort and in ported communication therewith.

2. In gas generating apparatus, a horizontal retort having an open side wall, and a stand-pipe at one side of the retort and extending above and below the same with a vertical wall of the pipe abutting against and closing the open side wall of the retort, said side wall having a port for establishing communication between the retort and stand-pipe.

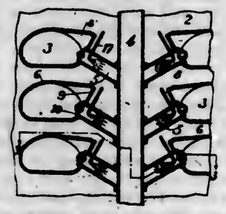
3. In gas generating apparatus, a plurality of horizontal retorts arranged one above the other, and a stand-pipe at one side of and extending above and below the retorts and in abutting relation therewith, the abutting portions of the stand-pipe and retorts being ported to place each retort in direct communication with the stand-pipe.

4. In gas generating apparatus, a horizontal retort and retort mouth-piece, and a stand-pipe at one side of the mouth-piece with a vertical wall of the pipe abutting against one side of the mouth-piece and in ported communication therewith, the mouth-piece flanged to overlap the stand-pipe with the flanged portion secured thereto.

5. In gas generating apparatus, a horizontal retort and retort mouth-piece, a stand-pipe at one side of the mouth-piece with a vertical wall of the pipe abutting against one side of the mouth-piece and in ported communication therewith, and flanges projecting from the pipe-abutting side of the mouth-piece with the flanges overlapping and secured respectively to the front and rear walls of the stand-pipe.

[Claims 6 to 10 not printed in the Gazette.]

1,140,798. COAL-GAS-GENERATING APPARATUS. HENRY A. CARPENTER, Sewickley, Pa., assignor to Riter-Conley Manufacturing Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed Jan. 2, 1915. Serial No. 118. (Cl. 48—172.)



1. In gas generating apparatus, the combination of a retort, a stand-pipe, a gas conduit connecting the retort and stand-pipe, a valve for the conduit spaced from the point of communication between the latter and the stand-pipe, and means for discharging a cooling medium into the conduit intermediate the valve and stand-pipe.

2. In gas generating apparatus, the combination of a retort, a stand-pipe, a gas conduit connecting the retort and stand-pipe and constantly open to the latter, a valve for the conduit located at the rear end thereof, and means for spraying liquid into the conduit intermediate the valve and stand-pipe.

3. In gas generating apparatus, the combination of a retort, a stand-pipe, a gas conduit at one end in communication with the retort and inclined downwardly therefrom and at its opposite end in communication with the stand-pipe, a valve for the conduit spaced from the stand-pipe end of the latter, and means for discharging a cooling medium into the conduit intermediate the valve and stand-pipe.

4. In gas generating apparatus, the combination of a retort having a door-closed opening, a stand-pipe, a gas conduit in communication with the stand-pipe and with the retort adjacent to its door-closed opening, a valve for the conduit spaced from the stand-pipe, and means for discharging a cooling medium into the conduit intermediate the valve and stand-pipe.

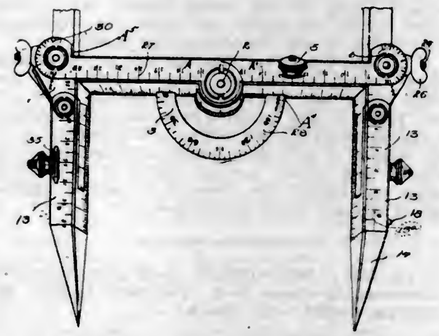
5. In gas generating apparatus, the combination of a stand-pipe, a retort and a retort mouth-piece, the latter having a door-closed opening and an offset located inwardly from said opening and in communication with the stand-pipe, a valve for the conduit spaced from the stand-pipe, and means for admitting fluid to the conduit between the valve and stand-pipe.

[Claims 6 to 12 not printed in the Gazette.]

1,140,799. HYDRATED CELLULOSE OR LIGNOCELLULOSE MATERIAL. JUDSON A. DE CEW, Montreal, Quebec, Canada. Filed May 11, 1912, Serial No. 696,787. Renewed Apr. 27, 1915. Serial No. 24,353. (Cl. 92—21.)

The herein described product consisting of a cellulose or lignocellulose material treated with an alkali and carbon bisulfid, the proportion of alkali being such that the material will absorb approximately 2% by weight of alkali.

1,140,800. COMBINATION COMPASSES AND DIVIDERS. THEODORE CHABRE, Alameda, Cal. Filed June 9, 1913. Serial No. 772,576. (Cl. 33—154.)



1. A combination compass and divider comprising a pair of pivotally connected beams, a protractor secured to one of said beams, a clamping member on the other beam engageable with the edge of the protractor, a secondary beam pivotally mounted in the outer end of each main beam, means for adjusting the angular position of said secondary beams with relation to the main beams, and a leg member pivotally secured to each secondary beam.

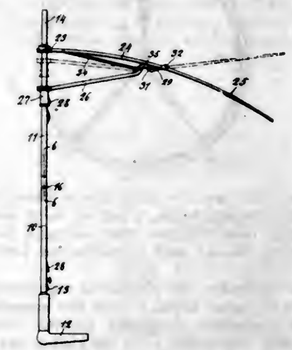
2. A combination compass and divider comprising a pair of pivotally connected beams, a protractor secured to one of said beams, a clamping member on the other beam engageable with the edge of the protractor, a secondary beam pivotally mounted in the outer end of each main beam, means for adjusting the angular position of said secondary beams with relation to the main beams, a leg member pivotally secured to each secondary beam, and means for adjusting the angular position of said legs with relation to the secondary beams.

3. A combination compass and divider comprising a pair of pivotally connected beams, a protractor secured to one of said beams, a clamping member on the other beam engageable with the edge of the protractor, a secondary beam pivotally mounted in the outer end of each main beam, means for adjusting the angular position of said secondary beams with relation to the main beams, a leg member pivotally secured to each secondary beam, springs interposed between the leg members and the secondary beams, and adjusting screws operable in conjunction with said springs.

4. A combination compass and divider comprising a pair of pivotally connected beams, a protractor secured to one of said beams, a clamping member on the other beam engageable with the edge of the protractor, a secondary beam pivotally mounted in the outer end of each main beam, a spring clamp member mounted on each secondary beam, a stud screw mounted on the outer end of each main beam over which the spring clamps extend, nuts on said stud screws operable to move the spring clamps into locking engagement with the main beams, and a leg member pivotally secured to each secondary beam.

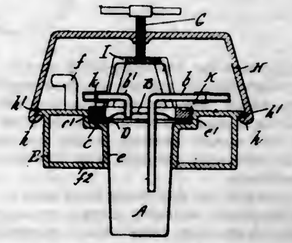
5. A combination compass and divider comprising a pair of pivotally connected beams, a protractor secured to one of said beams, a clamping member on the other beam engageable with the edge of the protractor, a secondary beam pivotally mounted in the outer end of each main beam, a spring clamp member mounted on each secondary beam, a stud screw mounted on the outer end of each main beam over which the spring clamps extend, nuts on said stud screws operable to move the spring clamps into locking engagement with the main beams, a leg member pivotally secured to each secondary beam, and means for adjusting and securing each leg in an angular position with relation to the secondary beams.

1,140,801. UMBRELLA. HENRY COHIC, Cleveland, Ohio. Filed July 2, 1914. Serial No. 848,587. (Cl. 135—23.)



In an umbrella, a stick, a runner on the stick, sectional ribs consisting of inner and outer pivotally connected sections, the outer rib section having its inner end extending back of the pivotal connection, and stretchers connected to said inner ends of the outer rib sections, the outer ends of the stretchers adjacent to their pivotal connection with the outer rib sections having a cam surface for flexing the rib sections at their pivotal connection, said cam surface engaging the under side of the inner rib sections when the umbrella is open.

1,140,802. COMBUSTION APPARATUS. JOHN S. COX, Buffalo, N. Y. Filed June 21, 1913. Serial No. 775,033. (Cl. 75—182.)



1. The combination of a cooling chamber provided with a crucible opening, a crucible located in said opening and having a rim overhanging said cooling chamber, a cover for said crucible, packing between said cover and said rim, and means for pressing said cover toward said rim and compressing said packing, said overhanging flange holding said crucible from movement relative to the cooling chamber by said cover pressing means, substantially as set forth.

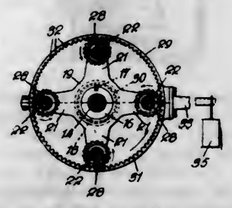
2. The combination of a cooling chamber provided with a crucible opening, a crucible located in said opening and having an outwardly projecting rim adapted to bear against said cooling chamber, a cover for said crucible having an outwardly projecting rim disposed opposite said crucible rim, a packing gasket between said crucible and cover rims, and means for pressing said cover against said gasket, substantially as set forth.

3. The combination of a cooling chamber provided with a crucible opening and with a depression surrounding the upper end of said opening, a crucible supported in said opening with the rim thereof located in said depression, a cover for said crucible, a packing gasket between said cover and said crucible, said cover and gasket being confined in said depression, and means for securing said cover, substantially as set forth.

4. The combination of a crucible, a cover therefor, a packing gasket between said cover and said crucible, a separate cooling chamber surrounding said crucible and extending above the same forming a recess in which said cover and packing gasket are confined, and means for securing said cover which react against said cooling chamber, substantially as set forth.

5. The combination of a crucible, a cover therefor, said crucible and cover having outwardly projecting rims, a cooling chamber surrounding said crucible beneath said rims, a bearing ring resting on said cover rim, and clamping means for said cover in connection with said cooling chamber and acting against said bearing ring, substantially as set forth.

1,140,803. BRUSH-HOLDER FOR MOTORS AND DYNAMOS. JOHN B. CULLEN, New York, N. Y. Filed Mar. 4, 1912. Serial No. 681,337. (Cl. 171—210.)



1. An electrical machine with a commutator and a plurality of brush holders arranged circumferentially around the latter each holder of which is capable of a limited amount of rotation, a member for rotating the several holders concurrently, and gravitative members for holding the brushes in contact with the commutator yieldingly.

2. An electrical machine with a commutator and brush holders each of which is provided with a pinion, a gear in mesh with the several pinions, and adjustable means for holding the gear movable against variable degrees of resistance.

3. An electrical machine provided with a commutator, a spider rotatable coaxially with the commutator, brush holders each of which is provided with a pinion rotatable in the arms of the spider, an internally toothed gear in mesh with the said pinions, an arm extending from the said gear, and a weight movable on the said arm for imparting different degrees of pressure of the said brushes on the commutator.

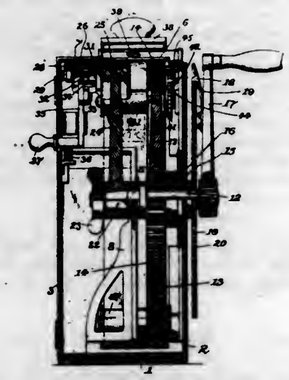
1,140,804. TICKET-PRINTER. PARKER DODGE, Washington, D. C., assignor to Robert E. Kimball, Cleveland, Ohio. Filed Feb. 12, 1910. Serial No. 543,527. (Cl. 101—187.)

1. In a device of the character described, the combination of a time die carrier; time dies appropriately spaced upon said carrier; a station die carrier; station dies spaced upon the station die carrier proportionately to the running times of a vehicle between the corresponding stations; and means for connecting said carriers to move at rates proportional to the scales of spacing of their respective dies.

2. In a device of the character described, the combination of a time die carrier; time dies appropriately spaced upon said carrier; a station die carrier; station dies spaced upon the station die carrier proportionately to the

running times of a vehicle between the corresponding stations; and means for connecting said carriers to move at rates proportional to the scales of spacing of their respective dies, said connecting means being adjustable to determine the initial relative positions of said carriers.

3. In a device of the character described, the combination of a time die carrier; time dies appropriately spaced upon said carrier; a station die carrier; station dies spaced upon the station die carrier proportionately to the running times of a vehicle between the corresponding stations; means for connecting said carriers to move at rates proportional to the scales of spacing of their respective dies; and means for adjusting the initial relative positions of the carriers.

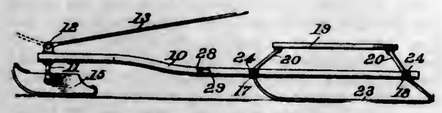


4. In a device of the character described, the combination of a time die carrier; time dies appropriately spaced upon said carrier; a station die carrier; station dies spaced upon the station die carrier proportionately to the running times of a vehicle between the corresponding stations; means for connecting said carriers to move at rates proportional to the scales of spacing of their respective dies; means for adjusting the initial relative positions of the die carriers; a detent for holding said carriers when the station dies are at the printing point; a limit stop adapted to limit the movements of the carriers to a portion of their full range; and means for taking impressions of the time and station dies upon a ticket.

5. In a device of the character described, the combination of a time die carrier; time dies appropriately spaced upon said carrier; a station die carrier; station dies spaced upon the station die carrier proportionately to the running times of a vehicle between the corresponding stations; means for connecting said carriers to move at rates proportional to the scales of spacing of their respective dies; means for adjusting the initial relative positions of the die carriers; a limit stop adapted to limit the movements of the carriers to a portion of their full range; and means for taking impressions of the time and station dies upon a ticket.

[Claims 6 to 42 not printed in the Gazette.]

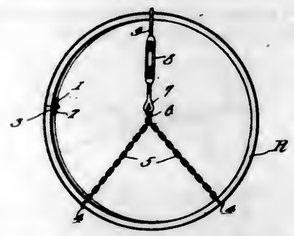
1,140,805. CONVERTIBLE COASTER. EDWARD ELLERMAN, Denver, Colo. Filed Apr. 28, 1913. Serial No. 764,185. (Cl. 21—94.)



1. In a convertible coaster, a tubular beam, a vertical pivot at the forward end of the beam, a steering rod connected to the pivot, a single traction member carried by the pivot beneath the beam, a pair of axles engaged through the beam horizontally and spaced apart with relation to each other, a seat, inverted U-shaped braces connecting the seat to the axles and traction members engaged with the axles.

2. In a convertible coaster, a beam, a pivot at the forward end of said beam, a steering rod connected to said pivot, a single traction member carried by the pivot beneath the beam, spaced axles supported by the beam, a seat, braces connecting the seat to aforementioned axles, and traction members carried by the axles.

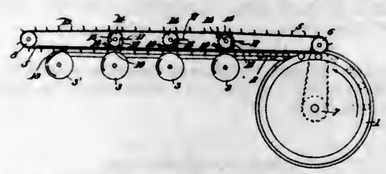
1,140,806. RIM-TOOL. HARRY C. EMERICK, Harrisburg, Pa. Filed Aug. 22, 1914. Serial No. 858,100. (Cl. 29—84.)



1. A rim collapsing tool comprising a plurality of chains having rim engaging hooks, a pair of bolts, one having a rim engaging hook and the other having a hook engageable with the chains, and a turnbuckle connecting the bolts.

2. A rim collapsing tool embodying a plurality of chains having rim engaging hooks, a hook rim engaging bolt, an eyebolt, a turnbuckle connecting the two bolts, and an S-shaped hook engageable with the chains and the eye of the eye bolt.

1,140,807. DEVICE FOR FEEDING FILLED CANS TO CLOSING-MACHINES. CLAYTON H. ENGLAR, Baltimore, Md., assignor to Continental Can Company, Incorporated, Syracuse, N. Y., a Corporation of New York. Filed July 29, 1913. Serial No. 781,848. (Cl. 193—8.)



1. An apparatus for delivering filled cans to a plurality of closing machines, including a track or support for the cans along which they travel when received from the filling machine, a conveyer for moving the filled cans along the track, and means operated by the movement of the conveyer for delivering the cans from the conveyer to the closing machines.

2. An apparatus for delivering filled cans to a plurality of closing machines, including a track or support for the cans along which they travel when received from the filling machines, a conveyer for moving the filled cans along the track, and mechanism arranged opposite each closing machine for engaging and delivering the cans to the closing machines.

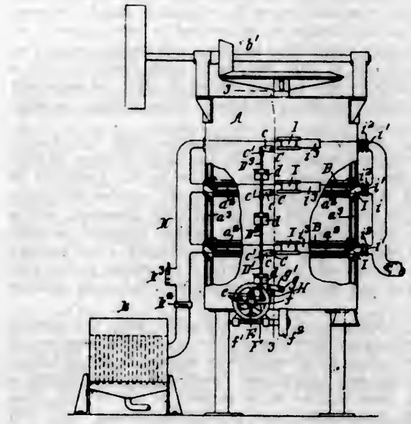
3. An apparatus for delivering filled cans to a plurality of closing machines, including a track or support for the cans along which they travel when received from the filling machines, a conveyer for moving the filled cans along the track, and cam and lever mechanism arranged opposite each closing machine for engaging and delivering the cans to the closing machines.

4. An apparatus for delivering filled cans to a plurality of closing machines, including a track or support for the cans along which they travel when received from the filling machines, a conveyer for moving the filled cans along the track, and mechanism arranged opposite each closing machine for engaging and delivering the cans to the closing machines, said mechanisms being so timed as to operate in succession.

5. An apparatus for delivering filled cans to a plurality of closing machines, including a track or support for the cans along which they travel when received from the filling machines, a conveyer for moving the filled cans along the track, and cam and lever mechanism arranged opposite each closing machine for engaging and delivering the cans to the closing machines, said cam and lever mechanisms being so timed that they have respectively idle and operative movements in alternation.

[Claims 6 to 12 not printed in the Gazette.]

1,140,808. METHOD OF AND APPARATUS FOR COOKING OIL-BEARING MATERIAL. ALFRED W. FRENCH, Piqua, Ohio. Filed Apr. 17, 1911. Serial No. 621,452. (Cl. 87—6.)



1. The combination with a plurality of cooking kettles or chambers of solid material arranged in a descending series and provided with means for heating the material, of mechanism for discharging material from the kettles above the bottom kettle in succession and for positively stopping the discharge of the material from one kettle before the discharge of material commences from the kettle above, and means for definitely regulating the moisture in the material in at least some of said kettles.

2. The combination with a plurality of cooking kettles or chambers for solid material provided with discharge openings and with means for heating the material and arranged to discharge the material from one kettle into another, of mechanism for discharging the kettles above the bottom one periodically one after the other commencing with the second kettle and for positively closing the discharge opening of one kettle before the discharge of material commences from the kettle above, whereby the material is discharged first from the second kettle into the bottom kettle, then from the third kettle into the second kettle and so on and the quantity of the material in the kettles is regulated, and means for exhausting air from the upper portions of at least some of said kettles to carry off the moisture from the material.

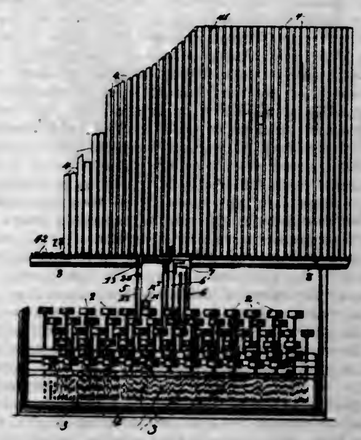
3. The combination with a plurality of cooking kettles or chambers for solid material provided with discharge openings and with means for heating the material and arranged to discharge the material from one kettle into another, of automatic mechanism which operates to discharge material from the kettles above the bottom one periodically one after another commencing with the second kettle when a predetermined quantity of the material has been withdrawn from the bottom kettle and for closing the discharge opening of one kettle before the discharge of material commences from the kettle above, whereby the material is discharged first from the second kettle into the bottom kettle, then from the third kettle into the second kettle and so on and the quantity of the material in the kettles is regulated, and means for exhausting the moisture arising from the material in at least some of said kettles.

4. The combination with a plurality of closed cooking kettles or chambers for solid material provided with discharge openings and with means for heating the material and arranged to discharge the material from one kettle into another, of means for discharging the kettles above the bottom one periodically one at a time commencing with the second kettle and for closing the discharge opening of one kettle before the discharge of material commences from the kettle above, whereby the material is discharged first from the second kettle into the bottom kettle, then from the third kettle into the second kettle and so on and the quantity of material in the kettles is regulated, and means for causing a current of air to flow over the material in at least some of said kettles to carry off the moisture arising from the material in said kettles.

5. The combination with a plurality of cooking kettles or chambers for solid material provided with discharge openings and with means for heating the material and arranged in a descending series to permit the material to discharge from one kettle into another, of gates for the discharge openings of the kettles above the bottom one, mechanism for actuating said gates for discharging material from the kettles one after another commencing with the second kettle and closing the gate for one kettle before the gate of the kettle above is opened, whereby the material is discharged first from the second kettle into the bottom kettle, then from the third kettle into the second kettle and so on, and means for exhausting air from the upper portions of at least some of said kettles for definitely regulating the moisture of the material.

[Claims 6 to 21 not printed in the Gazette.]

1,140,809. TYPE-SETTING DEVICE. ERNEST H. FREY, Cleveland, Ohio. Filed Apr. 21, 1908. Serial No. 428,394. (Cl. 101—195.)



1. In combination in a type setting device, a series of key levers, an elevated series of type channels, a frame in which said key levers and type channels are secured, a carriage transversely movable across said frame, intermediate between said key levers and type channels, a type holder thereof situated on a plane spaced from the plane of said type channels, a plate on said carriage adapted to normally close the inner ends of said type channels and provided with a single opening adapted to receive the type one at a time from said channels, a device on said

carriage for feeding said type received from said channel to the plane of the type holder, a device on said carriage for removing said type from said type elevating device to said type holder, a tilting arm in operative connection with both of said devices, and adapted to engage with each of said key levers in turn.

2. In combination, in a type setting machine, a frame, a set of finger operated keys mounted therein, a set of type storage channels on the frame, and elevated above the finger keys, transverse guides on the frame, a carriage movable therein, between said key levers and type storage channels, a channeled type holder detachably mounted on said carriage on a plane parallel with the plane of said storage channels, a stop plate secured to said carriage and adpted to close the inner ends of said type storage channels and provided with a single opening adapted to aline with one of the channels in said type holder and in turn with said type storage channels, a tilting lever on said carriage with which said key levers are adapted to engage in turn, an arm secured to said tilting lever, adapted to feed the type as it has passed through said opening in said stop plate, to the plane of said type holder, and a second arm secured to said tilting lever and an intermediate device adapted to eject said type into said type holder.

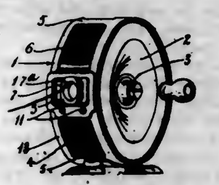
3. In a type setting machine, adapted to feed type into a type holder, said type holder adapted to receive lines of type, a frame, a series of type storing channels thereon, a carrier adapted to move transversely thereto and closely adjacent to the inner ends thereof and placed on a plane parallel with said type storing channels, a stop plate secured to the carrier and adapted to normally close the open ends of said channels, and provided with a type receiving opening, said carrier provided with a type guiding opening, a member adapted to feed the type from said type receiving opening into alinement with said type guiding opening, a member adapted to eject said type into said type guiding opening, a type holder on said carrier and a support for said holder, said support adjustable to bring the positions for lines of type into alinement one at a time with said type guiding opening, a tilting lever adapted to control the movements of both said members and key levers adapted to engage said tilting lever in turn.

4. In a machine for setting lines of type upon a type holder provided with channels therefor, the combination with a series of key operated levers, and a corresponding number of type storage channel bars, of a frame upon which said levers and channels are supported, a carrier adapted to move transversely across the inner ends of said series of storage channel bars, a channeled type holder adjustably secured to said carrier, type receiving and ejecting devices in said carrier, and mechanisms mounted upon said carrier and operating said type receiving and ejecting devices whereby one type at a time is transferred from said series of type storage channels into position upon said type holder, a common operating lever for said mechanisms, the said key operated levers having operative connection with said common lever, in turn.

5. In a machine for setting type in a type holder provided with line positions for type, the combination with a frame, of key operated levers and a series of type storage channel bars mounted on said frame, a transversely movable carrier intermediate between the adjacent ends of the said levers and storage channels, a type holder on said carriage, a plate movable conjointly with said carrier and adapted to close normally the open inner extremities of said storage channels, the said plate being provided with a receiving opening for type, said opening adapted to register in turn with the said type storage channels in said channel bars and the said carrier provided with a type guide slot adapted to aline with one of the positions for a line of type in said type holder, a follower adapted to move a type deposited in the type receiving opening into alinement with said type guiding opening, a follower adapted to move said type through said guiding opening, a common tilting arm, key operated levers adapted to engage said common tilting arm in turn and mechanism operatively connecting said tilting arm with said followers.

[Claims 6 to 11 not printed in the Gazette.]

1,140,810. SELF-PILING REEL. HERBERT J. FROST, New York, N. Y. Filed June 26, 1914. Serial No. 847,368. (Cl. 242—84.4.)



1. In a fishing reel, the combination with the parallel peripheral cross members of the stationary member of such reel, of an attachment to be secured to the periphery of said reel, said attachment having a rail member extending parallel to one of said peripheral cross members, and a movable line guide mounted to slide between said rail member and the peripheral cross member parallel thereto.

2. In a fishing reel, the combination with the parallel peripheral cross members of the stationary member of such reel, of an attachment to be secured to the periphery of said reel, said attachment having a rail member extending parallel to one of said peripheral cross members, and a glazed movable line guide mounted to slide between said rail member and the peripheral cross member parallel thereto.

3. In a fishing reel, the combination with the parallel peripheral cross members of the stationary member of such reel, of an attachment to be secured to the periphery of said reel, said attachment having a rail member extending parallel to one of said peripheral cross members, and a movable line guide of shell formation mounted to slide between said rail member and the peripheral cross member parallel thereto, said guide having a peripheral groove into which said rail member and said peripheral cross member engage.

4. In a fishing reel, the combination with the parallel peripheral cross members of the stationary member of such reel; of an attachment to be secured to the periphery of said reel, said attachment comprising a plate having a securing plate portion to be secured to one of said cross members, two lateral plate portions extending from said securing portion, and a rail portion; and a movable line guide, the rail portion being spaced apart from one of said cross members just sufficient to slidably accommodate said guide between them.

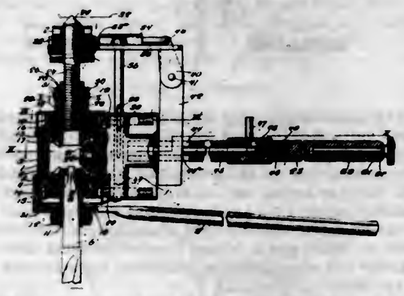
5. In a fishing reel, the combination with the stationary member of said reel having the parallel peripheral cross members extending axially of said reel, and annular side members; of an attachment to be secured to the periphery of said reel, said attachment comprising a plate having a securing portion to be secured to one of said cross members, two lateral curved plate portions extending from said securing portion and lying along the annular side members, and a rail portion; and a movable line guide, the rail portion being spaced apart from one of said cross members just sufficient to slidably accommodate said guide between them, the end of said rail portion being deflected inward and having lateral extensions to project under said annular side members to assist in firmly positioning said attachment on said reel.

[Claims 6 and 7 not printed in the Gazette.]

1,140,811. DRILL-OPERATING TOOL. RICHARD GABRIELSKY, Jersey City, N. J. Filed Apr. 17, 1912, Serial No. 691,450. Renewed Oct. 21, 1914. Serial No. 867,904. (Cl. 77—47.)

1. In a drill operating tool, the combination with a head for carrying the drill; of means for adjusting said drill to the work comprising a screw; a separately formed member carried by said head having threads adapted to engage the threads of said screw; and means for disengaging the threads of said separately formed member from the threads of said screw at will whereby said screw may be free to move longitudinally without rotation.

2. In a drill operating tool, the combination with a head, of a handle for oscillating said head to rotate said drill; and selective means for feeding said drill into the work comprising, a screw; a ratchet for rotating said screw; a dog movable with said head for engaging said ratchet; and means extending along said handle controllable by the fingers of the operator for moving said dog into engaging relation with said ratchet at will.



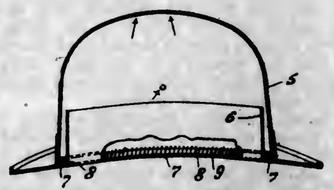
3. In a drill operating tool, the combination with a head for carrying the drill; of means for adjusting said drill to the work comprising a screw; a pair of diametrically opposed members carried by said head having threads on their inner surfaces adapted to engage the threads of said screw; means intermediate said members for normally holding said members so that the threads thereof are out of engagement with threads of the screw to leave said screw free to be moved longitudinally without rotation; and means engaging said members adapted to be moved relatively thereto for forcing said members toward each other so as to move the threads of said members into engagement with the threads of said screw.

4. In a drill operating tool, the combination with means adapted for retaining a drill, an operating handle therefor, a screw for feeding said drill to the work, said screw being rotatable for effecting longitudinal adjustment thereof, and means for rotating said screw, of means for effecting longitudinal adjustment of said screw without rotation thereof.

5. In a drill operating tool, the combination with means adapted for carrying a drill, an operating handle therefor, a screw for feeding the drill to the work, means engaging the threads of said screw whereby rotation of the screw will effect vertical adjustment thereof, and means for rotating the screw, of means for releasing said thread engaging means from said screw whereby said screw may be capable of longitudinal adjustment without rotation.

[Claims 6 to 12 not printed in the Gazette.]

1,140,812. VENTILATOR FOR HATS. CHARLES FRANCIS GETLER, Matteawan, N. Y. Filed July 6, 1914. Serial No. 849,204. (Cl. 2—32.)



1. A ventilator for hats, comprising a strip of metal, a coiled spring surrounding the strip of metal, and means whereby the ends of the strip of metal may be adjustably connected to alter the diameter of the strip in accordance with the size of the hat in which the ventilator is to be used.

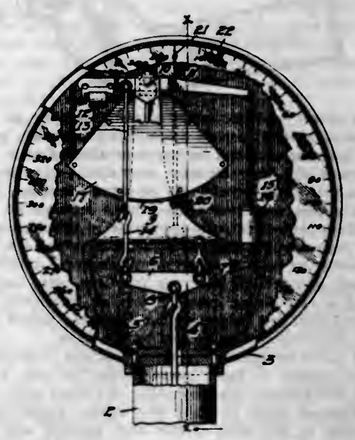
2. A ventilator for hats, comprising a flat strip of metal, a spring wound helically around said strip and connected at one end to one end of said strip, a slotted plate located over the other end of the strip and having the other end of the spring connected thereto, and means for adjustably connecting the ends of the strip to alter the diameter of the strip in accordance with the size of the hat in which the ventilator is to be used.

3. A ventilator for hats, comprising a flat strip of metal having slots at one end and a projection adapted to coact with said slots at the other end to change the diameter of the strip, and a wire wound helically around said strip connected at one end to one end of the strip, a perforated plate located over the other end of the strip, and the other end of the wire connected to said strip.

4. A ventilator for hats, comprising a flat strip of metal, means whereby said strip of metal may be adjusted in size to correspond to the size of the hat in which the ventilator is placed, a wire wound helically around such strip normally longer than such strip and adapted to accommodate itself to the diameter of the strip when placed in a hat.

5. A ventilator for hats, comprising a flat strip of metal coiled in a circle and having the ends overlapping, a locking device for adjustably determining the diameter of the strip, a wire wound helically around said strip and normally longer than the strip, a slotted plate connected to one end of the strip and to one end of the coiled wire, and a second slotted plate connected to the opposite end of the coiled wire.

1,140,813. SCALE. CLAUDE MOULTON GOODRICH, St. Paul, Minn., assignor of one-half to McFarlane Manufacturing Company, St. Paul, Minn., a Corporation. Filed May 25, 1914. Serial No. 840,762. (Cl. 73—29.)



1. A scale comprising a beam, a scale rod connected thereto, a pendulum weight secured to the pivots of said beam and having its weight equally distributed on each side of the vertical axis of the beam pivots when the scale is without load, and an indicator hand geared to said pendulum weight.

2. A scale comprising a pivoted beam having a balancing means, a sector-shaped member secured to said beam to oscillate therewith, said member being weighted to normally hang in a vertical position, a dial and indicator hand therefor operatively connected with said sector-shaped member, and a lever pivotally supported at one end and having a pivotal connection at its other end with the short arm of said beam, and a scale rod pivotally connected to the middle portion of said lever.

3. A scale comprising a pivoted beam having a balancing means, a scale rod pivotally connected to said beam, a pendulum weight concentric with the pivot of said beam to oscillate therewith, a curved rack-bar secured to the

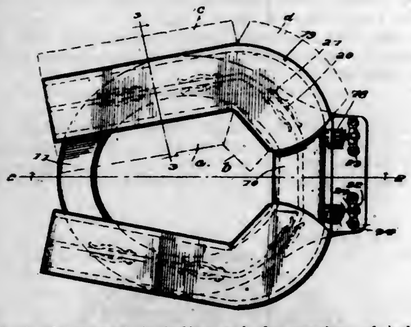
periphery of said pendulum weight, a dial, an indicator hand therefor, and a pinion mounted on the post of said indicator hand and meshing with said rack bar.

4. A weighing scale comprising a beam pivoted at a point intermediate to its ends, a scale rod and means pivotally connecting it to said beam at one side of the pivot of said beam, a weighted pendulum mounted concentric with the pivots of said beam to oscillate in a vertical plane therewith, and an indicator hand geared to said pendulum.

5. In a scale, the combination, with the upright standards, of a beam pivotally supported between them, a pendulum weight carried by the pivots of said beam and depending between said standards, a U-shaped rod straddling said pendulum weight and pivotally connected with said beam, a scale rod, and means connecting said scale rod with said U-shaped rod.

[Claim 6 not printed in the Gazette.]

1,140,814. SANITARY WATER-CLOSET SEAT. FRANK J. GRAVES, Springfield, Mass. Filed June 18, 1914. Serial No. 845,907. (Cl. 4—18.)



1. A closet seat including a body member of hollow formation, protective pads applicable to the side portions of the body member and having flaps adapted to be turned in beneath the body member, and means arranged interiorly of the body member for securing the flaps.

2. A closet seat including a body member of hollow formation, protective pads applicable to the side portions of the body member and having flaps adapted to be turned in beneath the body member, means arranged interiorly of the body member for securing the flaps, said means including a reinforcing member located interiorly of the body member, and interengaging fastening means carried by the reinforcing member and by the flaps.

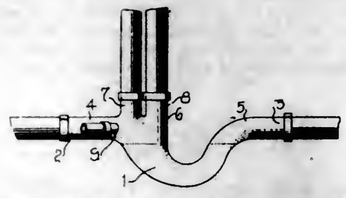
3. A closet seat including a substantially U-shaped body member formed of sheet metal having its edge portions curved downwardly and inwardly, the inner edges of the body member being of right line extent, protective pads applicable to the sides of the body member and having flaps adapted to be turned in beneath the inturned edges of the body member, and means for securing the pads in place.

4. A closet seat including a body member formed from sheet metal having its edge portions curved downwardly and inwardly, a reinforcing member secured interiorly of the body member and extending throughout its length, said reinforcing member extending slightly below the body member throughout its length to engage a hopper and hold said member thereabove, and protective pads carried by the body member with their edges turned in beneath the inwardly curved edge portions of the body member.

5. In a toilet seat, a supporting body having downturned sides, a sustaining rib beneath said body and throughout its length spaced from its sides, a plurality of sheets of material superimposed and engaging over said body and beneath its sides, catch devices carried by said rib, and clip devices passed through said sheets of material and engaging said catch devices.

[Claims 6 to 9 not printed in the Gazette.]

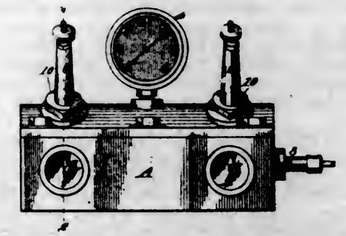
1,140,815. SEWER-TRAP. ROSS HARKNESS, St. Clair Heights, Mich. Filed July 22, 1914. Serial No. 852,423. (Cl. 182—12.)



1. A sewer trap having its terminals disposed substantially in alinement and its intermediate portion depressed to provide a water seal, one terminal of said intermediate portion being enlarged to form a chamber, said chamber having two upstanding branches which are disposed opposite the adjacent end of the water seal, one of the branches constituting a clean-out and the other a fresh air inlet, and a lateral branch extending from the chamber and constituting a connection for a laundry tub of the like.

2. A sewer trap having oppositely disposed terminals, and an intermediate portion disposed to provide a water seal, one end of the intermediate portion being enlarged to form a chamber, said chamber having two upstanding branches, one of the branches constituting a clean-out and the other a fresh air inlet.

1,140,816. SPARKING INDICATOR. CLAUD E. HARLAN, Watsonville, Cal., assignor of one-half to William H. Ames, Watsonville, Cal. Filed Sept. 15, 1914. Serial No. 861,812. (Cl. 175—183.)



1. A sparking indicator comprising a casing having a chamber formed therein, a spark plug mounted in the casing and extending into said chamber, said plug having two separated terminals insulsted from each other and the casing, means for admitting air under pressure into said chamber, and a gage for registering said pressure.

2. A sparking indicator comprising a casing having a chamber formed therein, a spark plug mounted in the casing and extending into said chamber, said plug having two separated terminals insulated from each other and the casing, openings formed in the casing having transparent closures mounted therein, said openings being in line with the terminals of the spark plugs, means for admitting air under pressure into said chamber, and a gage for registering said pressures.

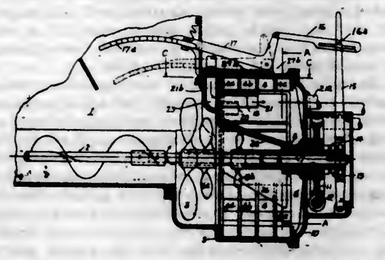
3. A sparking indicator comprising a casing having a chamber formed therein, a spark plug mounted in the casing and extending into said chamber, said plug having two separated terminals insulated from each other and the casing, openings formed in the casing having transparent closures mounted therein, said openings being in line with the terminals of the spark plug, a check valve for admitting air under pressure into the chamber, and a gage for registering said pressure.

4. The combination with the spark plugs in an internal combustion engine, and the current supply for same, of testing spark plugs interposed on the circuit between the engine plugs and current supply, a casing having a chamber formed therein in which the testing plugs are mounted, and in which the terminals of same may be observed, and means for forcing air under pressure into said chamber.

5. The combination with the spark plugs in an internal combustion engine, and the current supply for same, of testing spark plugs interposed on the circuit between the engine plugs and current supply, a casing having a chamber formed therein in which the testing plugs are mounted, and in which the terminals of same may be observed, means for forcing air under pressure into said chamber, and a gage for registering same pressure.

[Claims 6 and 7 not printed in the Gazette.]

1,140,817. FURNACE-STOKER FOR FEEDING COAL-DUST OR OTHER COMMINUTED FUELS. CHARLES L. HEISLER, Schenectady, N. Y. Filed Jan. 20, 1913. Serial No. 743,202. (Cl. 110—104.)



1. In a stoker for comminuted fuel, the combination of a casing, a wheel having internally open pockets on its inner periphery rotatively mounted within said casing, means to deliver the fuel into said pockets, means secured to said casing to retain the fuel in said pockets until they reach the top portion of their circular path of travel, the fuel then falling out of the same, alined air-inlet and air-and-fuel-outlet pipes leading respectively into and from said casing beneath the top part of said wheel, and means to direct any fuel, which is not carried into said outlet pipe by the air blast, back into the pockets at the bottom of the wheel.

2. In a stoker for comminuted fuel, the combination of a rotary wheel, internal radial blades thereon forming pockets, means to deliver the fuel into the lower part of said wheel, a guard to retain the fuel in said pockets until they reach the top of the wheel, and alined air-inlet and air-and-fuel-outlet pipes, the axis of which is located in a plane beyond the end of said guard and beneath the top portion of the wheel, whereby the fuel, as it falls out of said pockets, is carried by the air blast into the outlet pipe leading to the furnace, and fuel not so carried drops back into the pockets at the bottom of the wheel, is carried up and again dropped into the path of the air blast.

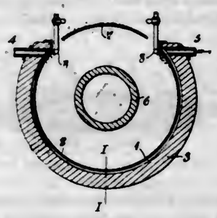
3. In a stoker for comminuted fuel, the combination of a casing, a pocketed wheel rotatively mounted therein, means to deliver fuel into said pockets before they reach the top of their path of travel, an air-blast inlet pipe leading into said casing, an air-and-fuel-outlet pipe leading out of said casing in alinement with said inlet pipe, and means to retain the fuel in said pockets until they reach an elevation such that the fuel will fall by gravity between the adjacent ends of said pipes.

4. In a stoker for comminuted fuel, the combination with a source of fuel supply, a casing, means for delivering fuel thereto, a plurality of air blast inlet pipes projecting into said casing, air and fuel mixture outlet pipes in alinement with said inlet pipes, a journal bearing, a rotary distributing wheel supported thereby within said casing and adapted to spill comminuted fuel into said blasts, and means to direct the surplus fuel not blown through the outlets back into said wheel.

5. In a stoker for comminuted fuel, the combination with a source of fuel supply, a casing, means for delivering fuel thereto, comprising a screw conveyer and rotary conveyer blades disposed between said screw and the casing, an air blast inlet pipe projecting into said casing, an air and fuel mixture outlet pipe in alinement with said inlet pipe, a journal bearing, a rotary distributing wheel supported thereby and mounted within said casing, and means to direct back to the wheel the surplus fuel not blown through the outlet pipe.

[Claims 6 to 10 not printed in the Gazette.]

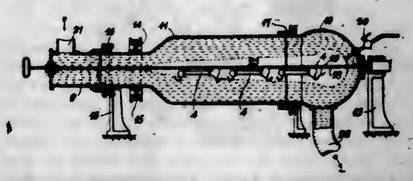
1,140,818. APPARATUS FOR TREATING LIQUIDS WITH ULTRA-VIOLET RAYS. VICTOR HENRI, Paris, and ANDRÉ HELBRONNER and MAX VON RECKLINGHAUSEN, Suresnes, France, assignors, by mesne assignments, to The R. U. V. Company, Inc., a Corporation of New York. Original application filed Feb. 13, 1911, Serial No. 608,473. Divided and this application filed Mar. 12, 1913. Serial No. 753,667. (Cl. 210—1.)



1. An apparatus for treating liquids by ultra-violet rays, comprising, in combination, a shallow channel in substantially circular form with closely approximated ends provided with inlet and outlet ports, so that the liquids in passing from one to the other must flow circularly and through the channel in a thin film, an inner retaining wall for said channel, composed of material permeable to ultra-violet rays and a source of such rays located at the axial center of said channel.

2. In apparatus for treating liquids by ultra-violet rays, the combination with a shallow circular channel through which liquid must flow circularly in a thin film, of an inner retaining wall for said channel composed of material permeable to ultra-violet rays, a source of ultra-violet rays at the center of said retaining wall, and a means for discharging a cooling fluid over said wall.

1,140,819. APPARATUS FOR THE TREATMENT OF WATER AND OTHER LIQUIDS BY ULTRA-VIOLET RAYS. VICTOR HENRI, Paris, and ANDRÉ HELBRONNER and MAX VON RECKLINGHAUSEN, Suresnes, France, assignors, by mesne assignments, to The R. U. V. Company, Inc., a Corporation of New York. Original application filed Oct. 31, 1910, Serial No. 589,995. Divided and this application filed Nov. 10, 1913. Serial No. 800,048. (Cl. 210—1.)

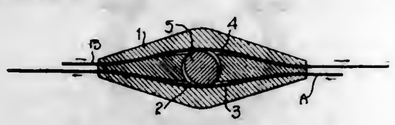


1. In apparatus for treating liquids, the combination with a closed horizontal treating chamber adapted to be filled with the liquid under treatment, a source of ultra-violet rays at the horizontal axial center of said chamber, and means for imparting to the liquid a rotary movement within the chamber about such center, whereby a cavity is formed in the body of the liquid by centrifugal action, in which is contained the source of rays.

2. In apparatus for treating liquids, the combination with a closed horizontal treating chamber, adapted to be filled with the liquid under treatment, a portion of said chamber being capable of rotation about a horizontal axis, a source of ultra-violet rays at the axial center of the rotary portion, and means for driving said rotary portion, whereby a cavity will be formed by centrifugal action around the source of rays.

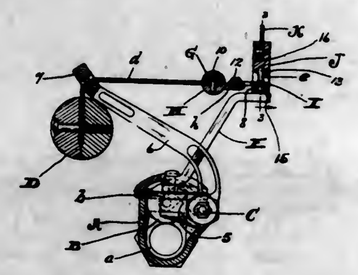
3. In apparatus for treating liquids, the combination with a closed horizontally extended treating chamber, adapted to contain the liquid to be treated, a source of ultra-violet rays at the axial center of said chamber, means for producing a rotary movement of the liquid about a horizontal axis within the chamber, and, by centrifugal action, a cavity at the axial center thereof, and means for controlling the admission of air, to the center of the chamber for varying the dimensions of such cavity, as set forth.

1,140,820. TAPE-CLAMP. EDGAR M. HEWITT, Gettysburg, Pa. Filed July 3, 1914. Serial No. 848,918. (Cl. 24—126.)



A clamp for the purpose described comprising a body portion formed with a transverse opening of uniform circular formation in cross section and with two separate and distinct longitudinally disposed bowed passages which intersect said opening and which are adapted to receive respectively the broken ends of a surveyor's tape, and a bolt mounted for an axial movement in said opening and provided with an elliptical shank of uniform width and thickness throughout and adapted to clamp the tape portions against the wall of the opening at diametrically opposite points where the separate passages intersect the said opening, the longer axis of said shank being approximately equal to the diameter of the opening and the shorter axis of the shank being approximately equal to the distance between the passages where they intersect the opening, the bolt being provided with means whereby it may be easily turned in the opening.

1,140,821. VALVE-CLOSING MEANS. FRANCIS HIRSCHFELD and RICHARD HARBURGER, Cleveland, Ohio. Filed May 1, 1914. Serial No. 835,696. (Cl. 137—92.)



1. In valve-closing means, a valve-operating lever normally in position to begin its valve-closing movement; a weight; a lever-striking device and a connection between the lever-striking device and the weight, the lever being arranged between the weight and the lever-striking device, the connection between the lever-striking device and the weight extending loosely through the outer end-portion of the lever, the lever-striking device being normally held spaced from said portion of the lever and adapted upon being released to move toward said portion of the lever and strike against the lever in the direction required to facilitate the aforesaid movement of the lever and coöperate with the aforesaid connection in forming a connection between the weight and the lever, and the weight being free to descend by gravity during and upon the movement of the lever-striking device into striking contact with the lever.

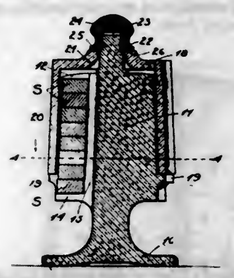
2. In valve-closing means, a valve-operating lever arranged to be swung in a vertical plane and normally in position to begin its downward and valve-closing movement, which lever has its outer end-portion provided with a hole which extends through said lever substantially concentrically relative to the axis of the lever; a weight; a lever-striking device, and a cable connecting the lever-striking device and the weight, the lever being arranged between the weight and the lever-striking device, the cable extending loosely through the aforesaid hole, the lever-striking device being normally held spaced from the aforesaid portion of the lever and adapted to move when released toward and strike against said portion of the lever, and the weight being free to descend by gravity during and upon the movement of the lever-striking device into striking contact with the lever.

3. In valve-closing means, a valve-operating lever arranged to be swung in a vertical plane and normally in position to begin its downward and valve-closing movement; a bracket provided with a post; a calorically fusible member detachably connected to and removable upwardly from the post; a weight; a lever-striking device attached to the fusible member, and a suitably guided cable which is connected at one end to the weight and at its other end to the lever-striking device, the lever being arranged between the lever-striking device and the weight, the lever-striking device being normally spaced from the lever and adapted to move into striking contact with the lever upon disconnection of the fusible member from the post, and the weight being free to descend by gravity during and upon the movement of the lever-striking device into said contact with the lever.

4. In valve-closing means, a valve-operating lever arranged to be swung in a vertical plane and normally in position to begin its downward and valve-closing movement; a bracket provided with a post; a weight; a lever-striking device; a suitably guided cable which is connected at one end to the weight and at its other end to the lever-striking device; a calorically fusible member detachably connecting the lever-striking device to and removable upwardly from the post, and a yoke embracing the post below and above the fusible member and adapted to be elevated far enough to detach said fusible member from the post, the lever being arranged between the lever-striking device and the weight, the lever-striking device being normally spaced from the outer end-portion of the lever and adapted to move into striking contact with the lever upon disconnection of the fusible member from the post, and the weight being free to descend by gravity during and upon the movement of the lever-striking device into said contact with the lever.

5. In valve-closing means, a valve-operating lever arranged to be swung in a vertical plane and normally in position to begin its downward and valve-closing movement, which lever has its outer end-portion arranged laterally of and above the axis of the lever in said position of the lever; a weight; a lever-striking device, and a connection between the lever-striking device and the weight, the lever being arranged between the weight and the lever-striking device, the weight being arranged in its normal position at the under side of the aforesaid portion of and in contact with the lever, the lever-striking device being normally held spaced from said portion of the lever and adapted upon being released to move toward the lever and strike against the lever in the direction required to facilitate the aforesaid movement of the lever and coöperate with the aforesaid connection in forming a connection between the weight and the lever, and the weight being free to descend by gravity during and upon the movement of the lever-striking device into striking contact with the lever.

1,140,822. SUGAR-CONTAINER. JEROME HIRSHFELD, New York, N. Y. Filed Aug. 24, 1914. Serial No. 858,226. (Cl. 211—8.)



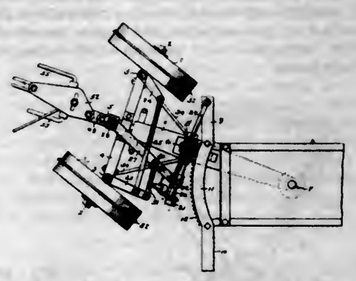
1. A container comprising a base, a pedestal thereon formed with a plurality of spaced chambers, the rear wall of each of which is inclined toward the top of the pedestal and adjacent its lower end is provided with a recessed portion, a pair of spaced flanges extending from the said pedestal into the lower end of each of the said chambers, the opening between the spaced flanges in each chamber making communication with the said recessed portion of its rear wall, a cover fitting over the said pedestal, and a rib on the outer lower portion of the said pedestal and extending between the said chambers therein to support the said cover with the lower edge thereof a predetermined distance above the said pairs of spaced flanges.

2. A container comprising a base, a pedestal thereon formed with a plurality of spaced chambers in the rear wall of each of which adjacent its lower end is a recessed portion, a pair of spaced flanges extending from the said pedestal into the lower end of each of the said chambers, the opening between the spaced flanges in each chamber making communication with the said recessed portion of its rear wall, a cover fitting over the said pedestal, a rib on the outer lower portion of the said pedestal and extending between the said chambers therein to support the said cover with the lower edge thereof a predetermined distance above the said pairs of spaced flanges, and means for securing the said cover in position.

3. A container comprising a base, a pedestal thereon formed with a plurality of chambers, the rear wall of each of which is inclined toward the top of the pedestal and is provided with a recessed portion adjacent its lower end, spaced flanges extending from the pedestal into the lower end of each chamber with a space between the flanges in each chamber extending into the said recessed portion of its rear wall, the said pedestal being also recessed in those portions thereof extending between the said chambers, a cover adapted to fit over the pedestal and provided interiorly with alternating straight and convex sides, the former adapted to extend over the said chambers and are inclined at the same angle as the rear walls thereof and the latter to fit within the recessed portions of the pedestal extending between the chambers, and means for securing the said cover in position with its lower edge a predetermined distance above the said spaced flanges.

1,140,823. AUTOTRACTOR. PLINY E. HOLT, Piedmont, Cal. Filed Oct. 16, 1912. Serial No. 726,087. (Cl. 21—114.)

1. The combination of a tractor including a main frame, a prime mover, traction elements and interposed gearing between the prime mover and the traction elements, a steering mechanism comprising a drawbar pivoted on the tractor element, a rack segment fixed on the tractor main frame, a gear worm enmeshed with the rack segment and mounted upon the drawbar; means for rotating the gear worm; an axle pivoted upon the drawbar, stub axles pivoted upon said axle, pilot wheels journaled upon the stub axles, steering arms fixed on the stub axles, and a connecting rod pivoted to the steering arms, a swinging lever pivoted on the draw bar and linked to the main frame and connected with one of the steering arms; and a draft bar attached to the draw bar and guided by the steering mechanism.



2. The combination of a tractor including a tractor frame, a prime mover, traction mechanisms and transmission gearing interposed between the prime mover and the traction mechanism; a draw bar pivoted on the tractor frame; a rack segment fixed upon the tractor frame, a gear worm enmeshed with the rack segment and mounted upon the draw bar, an axle mounted upon the draw bar, pilot wheels pivoted upon the said axle, means for synchronously swinging the draw bar about its pivot and the pilot wheels about their pivots.

3. A tractor including a main frame, a prime mover, a traction mechanism, suitable gearing interposed between the prime mover and traction mechanism; a draw bar pivoted upon the main frame, an axle pivoted upon the draw bar, stub axles pivoted upon said axle, pilot wheels journaled upon the stub axles; a rack segment mounted upon the main frame, a gear worm rotatably mounted upon the draw bar and meshed with the rack segment, a steering lever pivoted upon the draw bar and linked to the main frame and connected to one of the stub axles.

4. A tractor including a main frame, a prime mover, traction mechanism transmission gearing interposed between the prime mover and the traction mechanism, a draw bar pivoted upon the main frame, an axle on said draw bar, stub axles pivoted upon said axle, pilot wheels journaled upon said stub axles, a connecting rod pivotally connected with said stub axles; and a steering lever pivoted upon said draw bar and linked to said stub axles and the main frame.

5. The combination of a tractor supported upon an endless flexible traction member; a tractor frame, a draw bar pivoted to the tractor frame, a steering truck mounted upon said draw bar, and having a pilot wheel mounted upon a vertical pivot, and means by which the draw bar is shifted from side to side and the pilot wheel is synchronously turned on its vertical pivot.

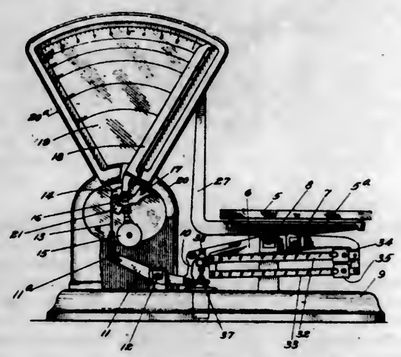
[Claims 6 to 9 not printed in the Gazette.]

1,140,824. COMPUTING-SCALE. JOSEPH HOPKINSON, Dayton, Ohio, assignor to The Computing Scale Company, Dayton, Ohio, a Corporation of Ohio. Filed Oct. 18, 1913. Serial No. 796,019. (Cl. 73—104.)

1. In a device of the class described, two levers positioned substantially horizontally and end to end, a link connecting their adjacent ends, intermediate fixed fulcrums for the levers, a platform pivotally supported on the end of one lever, a counterbalancing pendulum above the opposite end of the other lever, and operatively connected thereto, an indicator above said pendulum, a housing for said pendulum and indicator, an arm rigidly connected with said platform and extending thence upwardly directly above said link to a point adjacent to the upper part of said housing, and a link connecting the upper end of said arm to a fixed point of said housing.

2. In a device of the class described, two levers positioned substantially horizontally and end to end, a link connecting their adjacent ends, intermediate fixed fulcrums for the levers, a platform pivotally supported on the end of one lever, a counterbalancing pendulum above the

opposite end of the other lever and operatively connected thereto, an indicator above said pendulum, an arm rigidly connected with said platform and extending thence upwardly directly above said link to a point above the lever connected with the pendulum, and a link connected at one end with the upper end of said arm and at the other end to a fixed point.



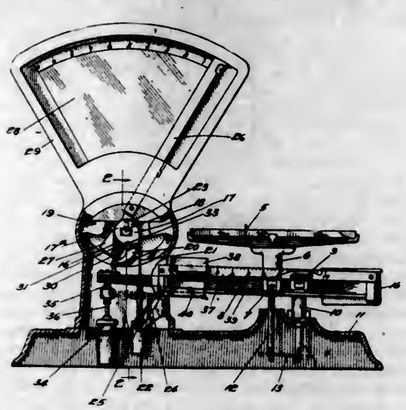
3. In a device of the class described, two levers positioned substantially horizontally and end to end, a link connecting their adjacent ends, intermediate fixed fulcrums for the levers, a platform over one lever and pivotally supported on the end thereof, a counterbalancing pendulum above the opposite end of the other lever and operatively connected thereto, indicating means above said pendulum, and a housing for said means and pendulum and adjacent lever, said housing having a hole in its side through which the end of the lever projects for connection with said link.

4. In a device of the class described, two levers positioned substantially horizontally and end to end, a link connecting their adjacent ends, intermediate fixed fulcrums for the levers, a platform over one lever and pivotally supported on the end thereof, a counterbalancing pendulum above the opposite end of the other lever and operatively connected thereto, indicating means above said pendulum, an arm rigidly connected with said platform and extending thence upwardly directly above said link to a point adjacent to the upper part of said housing, and a link connecting the upper end of said arm to a fixed point of said housing.

5. In a device of the class described, two levers positioned substantially horizontally and end to end, a link connecting their adjacent ends, itermediate fixed fulcrums for the levers, a platform over one lever and pivotally supported on the end thereof, a counterbalancing pendulum above the opposite end of the other lever and operatively connected thereto, indicating means above said pendulum, an arm rigidly connected with said platform and extending thence upwardly directly above said link, and a link connecting the upper end of said arm to a fixed point.

1,140,825. COMPUTING-SCALE. JOSEPH HOPKINSON, Dayton, Ohio, assignor to The Computing Scale Company, Dayton, Ohio, a Corporation of Ohio. Filed Oct. 18, 1913. Serial No. 796,020. (Cl. 73—29.)

1. In a device of the character described, a main lever, a commodity supporting element mounted on said lever at one side of its fulcrum, a weight, a flexible supporting element attached to said weight, an equalizing lever having a curved surface at one end, said flexible element being attached to said lever and adapted to roll upon said curved surface, the weight always hanging vertically by the said flexible element from said equalizing lever and moving in an inclined path as said lever turns, a second flexible element connecting the opposite arm of said equalizing lever with the end of said main lever upon which said commodity supporting element is mounted, both said flexible elements pulling down on said equalizing lever and both lying in the same vertical plane transverse to the axis of said lever, and weight and value-indicating means operated by said equalizing lever.



2. In a device of the charcater described, a main lever, a commodity supporting element mounted on said lever at one side of its fulcrum, a weight, a flexible supporting element attached to said weight, an equalizing lever having a curved surface at one end, said flexible element being attached to said lever and adapted to roll upon said curved surface, a second flexible element connecting the opposite arm of said equalizing lever with the end of said main lever upon which said commodity supporting element is mounted both said flexible elements pulling down on said equalizing lever and both lying in the same vertical plane transverse to the axis of said lever, a guide for said weight, said guide not contacting with said weight when hanging vertically, and a weight and value-indicating means operated by said equalizing lever.

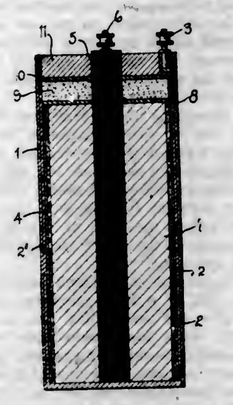
3. In a device of the character described, a commodity supporting element, an equalizing lever having a curved surface at one end, a connection from said element to the other end of said lever, said connection comprising a member pulling down on the end of the equalizing lever to which it is attached, a weight, and a flexible element connecting said weight to said equalizing lever whereby said flexible element is adapted to roll on said curved surface, said connection and said flexible element both lying in a vertical plane transverse to the axis of said lever, and said flexible element always hanging vertically and said weight moving in an inclined path.

4. In a device of the character described, a commodity supporting element, an equalizing lever supported on an intermediate knife edge and having a curved surface at one end, a connection from said element to the other end of said lever, said connection comprisig a member pulling down on the end of the equalizing lever to which it is attached, a weight, and a flexible element connecting said weight to said equalizing lever whereby said flexible element is adapted to roll on said curved surface, said connection and said flexible element both lying in a plane perpendicular to said knife edge.

5. In a device of the character described, a main lever, a commodity supporting element mounted on said lever at one side of its fulcrum, a weight, a flexible member supporting said weight, a second flexible member attached to said main lever, an equalising member attached to both said flexible elements, both said flexible members pulling down on said equalizing member, and both lying in the same vertical plane transverse to the axis of said lever, the moment of said weight increasing when a commodity is placed on said supporting element, and weight and value-indicating means operated by said equalizing member.

[Claims 6 to 11 not printed in the Gazette.]

1,140,826. ELECTRICAL BATTERY. WILLIAM HOPPIE, Salt Lake City, Utah, assignor to Hoppie Electrical Appliance Company, Salt Lake City, Utah, a Corporation of Utah. Filed June 24, 1914. Serial No. 847,070. (Cl. 204—38.)



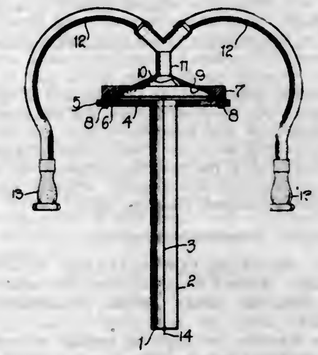
1. An electrolyte comprising glycerin 1 oz., gelatin 8 oz., sal ammoniac 8 oz., aluminum chlorid 2 oz., and zinc chlorid 8 oz.

2. A battery of the character described including a container formed of pulp, and a metallic winding embedded therein.

3. A device of the character described comprising a container, a zinc plate therein, a layer of absorbent material in contact with the inner face of the zinc layer saturated with a mixture including aluminum chlorid, and a filler including mercurial salts.

4. A battery of the character described including a container formed of pulp, and a reinforce for the container embedded within the pulp.

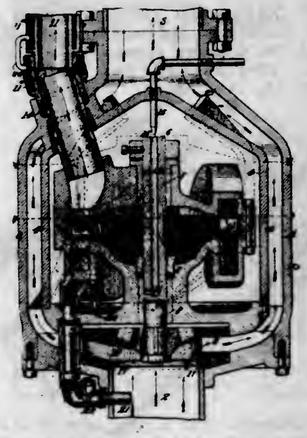
1,140,827. SOUND-DETECTOR. WILLIAM HOPPIE, Salt Lake City, Utah, assignor to Hoppie Electrical Appliance Company, a Corporation of Utah. Filed July 20, 1914. Serial No. 852,059. (Cl. 181—24.)



1. A sound detector including a base, a relatively long centrally disposed tube connected thereto and projecting therefrom, a concave cap disposed upon the base and having a relatively small tubular extension from the center thereof, said extension being adapted to receive a flexible sound conducting tube, a diaphragm confined between the cap and base and spaced from the confronting faces thereof and having a relatively large diameter, a comparatively small diaphragm located at the terminus of the tube and closing the end thereof whereby to provide an inclosed column of air between the diaphragms, and a rod connecting the two diaphragms.

2. A sound detector comprising a base, a relatively long centrally disposed tube connected therewith, a concave cap mounted upon the base and having an extension relatively small in diameter, the extension having branches, sound detecting tubes connecting said branches, a relatively large diaphragm confined between the cap and base and spaced from the confronting faces thereof, a comparatively small diaphragm disposed at the terminus of the tube opposite the base and closing the end thereof whereby to provide an inclosed column of air between the diaphragms, and a rod connecting the two diaphragms and extending slightly beyond the smaller diaphragm, said extension of the rod acting as a stylus.

1,140,828. BORED-WELL-PUMPING APPARATUS. BYRON JACKSON, Sr., and BYRON JACKSON, Jr., San Francisco, Cal.; said Byron Jackson, Sr., assignor to said Byron Jackson, Jr. Filed Mar. 23, 1914. Serial No. 826,537. (Cl. 103—43.)



1. In a pumping apparatus, a chamber, a turbine hermetically inclosed therein, an outer concentric chamber forming with the inner chamber wall an annular water passage, a pump runner located below and separated from the turbine chamber, a journaled shaft upon which the turbine and the pump runner are fixed, packing joints for said shaft and for steam inlet and exhaust pipes where they enter the chamber, and means for draining the insulating chamber.

2. In a pumping apparatus, an outer casing having a lower inlet and upper outlet, a sealed inner casing in the outer casing spaced therefrom to form a water passage between the casings, a hermetically sealed turbine within the inner casing, means leading from the turbine through both of the inner and outer casings to feed steam to and exhaust same from the turbine, and means connected to the turbine and extending through the inner and outer casings and discharging into the lower inlet for draining the turbine.

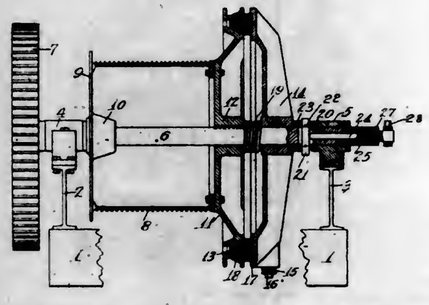
3. In a pumping apparatus, an outer casing having a lower inlet and an upper outlet, an inner casing in the outer casing spaced therefrom to form a water passage between the casings, a motor within the inner casing, a pump impeller on the motor shaft located below the inner casing and movable up and down in the space between the lower ends of the inner and outer casings, and means to allow restricted endwise movement of the shaft and thereby corresponding movement of the impeller in the last mentioned space and adjustable means in the inlet to restrict the extent of downward movement of the impeller.

4. In a pumping apparatus, an outer casing having an outlet and an inlet and an inner casing in the outer

casing spaced therefrom to form a water passage, the bottom of the inner casing having a downwardly facing recess on its under face and the bottom of the outer casing having an upwardly facing recess on its upper face which registers with the first named recess, a motor in the inner casing having its shaft extended into said recesses, a pump impeller on said shaft and movable upwardly and downwardly in said recesses and a pipe screwed into the inlet and having its upper end forming a seat for the pump impeller.

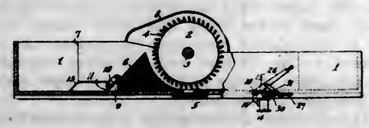
5. In a pumping apparatus, an outer casing having an outlet and an inlet and an inner casing in the outer casing spaced therefrom to form a water passage, a turbine hermetically sealed and located within the inner casing, a pump impeller connected to the turbine and located in the space between the lower ends of the inner and outer casings, means leading through both casings and into the turbine for supplying motive fluid to and exhausting same from the turbine, and means leading through both of the casings and into the inlet for draining the turbine.

1,140,829. BRAKE FOR TROLLEY-DRUMS AND THE LIKE. ARTHUR C. JOHNSTON, Chicago, Ill., assignor to Link Belt Company, Chicago, Ill., a Corporation of Illinois. Filed June 29, 1914. Serial No. 847,845. (Cl. 74—13.)



The combination with a cable drum of a shaft upon which it is rigidly mounted, a wheel carried by and projecting from the drum and having a brake groove in the periphery thereof, a spider rotatably mounted on the shaft and free to travel therealong, a brake band carried thereby in opposition to the brake groove and means independent of said shaft pivotally connected to the spider for preventing rotation thereof.

1,140,830. BEATING-ENGINE. EDWARD A. JONES, Pittsfield, Mass. Filed Dec. 27, 1913. Serial No. 808,953. (Cl. 92—24.)



1. In an apparatus of the kind described the combination with a vat, of a mid-feather in the vat, a raceway being formed between the mid-feather and the vat side, a stock discharge outlet extending substantially across the raceway between the vat side and the mid-feather so as to lie across the path of the stock, and a valve for controlling the outlet.

2. In an apparatus of the kind described the combination with a vat, of a mid-feather in the vat, a raceway being formed between the mid-feather and the vat side, a stock discharge outlet extending substantially across the raceway between the vat side and the mid-feather so as to lie across the path of the stock, and a valve plate for controlling the outlet and acting in open position as a dam or abutment.
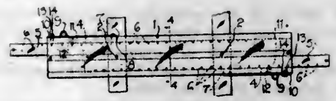
3. In an apparatus of the kind described the combination with a vat, of a mid-feather in the vat, a raceway being formed between the mid-feather and the vat side, means for supplying water to the vat under pressure, a stock discharge outlet extending substantially across the raceway between the vat side and the mid-feather so as to lie across the path of the stock, and a valve for controlling the outlet.

4. In an apparatus of the kind described the combination with a vat, of a mid-feather in the vat, a raceway being formed between the mid-feather and the vat side, means for supplying water to the vat under pressure, a stock discharge outlet extending substantially across the raceway between the vat side and the mid-feather so as to lie across the path of the stock, and a valve plate for controlling the outlet and acting in open position as a dam or abutment.

5. In an apparatus of the kind described the combination with a vat, of a stock discharge outlet therefor, a swinging valve for controlling the outlet, means for swinging the valve, and means operated by the valve swinging means for supplying water around the valve seat to keep the same free from the accumulation of stock during the emptying of the vat.

[Claims 6 to 10 not printed in the Gazette.]

1,140,831. BOLSTER. ABEL M. JOSTAD, West Salem, Wis. Filed Jan. 13, 1915. Serial No. 2,007. (Cl. 21—54.)



1. A bolster including a body provided with transversely spaced, longitudinally extending openings disposed in the same horizontal plane with each other, an adjustable bar movable through each opening, said bars being of a length equal to the length of the bolster, and fastening means for securing the bars in adjusted position.

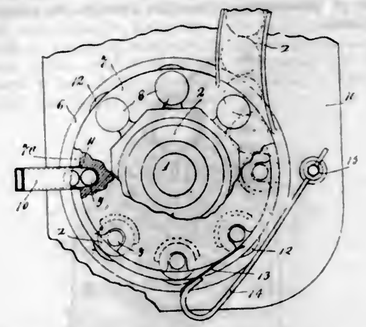
2. A bolster including a body having a longitudinally extending opening, a bar movable through said opening, and fastening means for securing the bar in adjusted position, said means consisting of a resilient latch formed from a single length of resilient wire and secured at one terminal to the side face of the body and bent intermediate its length to produce a convolution which serves as a finger-ring whereby the fastening device may be released to permit the adjustment of the bar and a right-angularly directed pin which is disposed for movement in the body member and into engagement with the bar, a loop portion connecting the pin and convolution, a hoop secured to the body, and a pin insertible through the hasp for holding the loop portion thereon, whereby the pin is held against withdrawal from the body.

1,140,832. MACHINE FOR APPLYING CROWNS TO BOTTLES. ROBERT F. JUNGNICKEL, Minneapolis, Minn. Filed Nov. 28, 1913. Serial No. 803,420. (Cl. 113—114.)

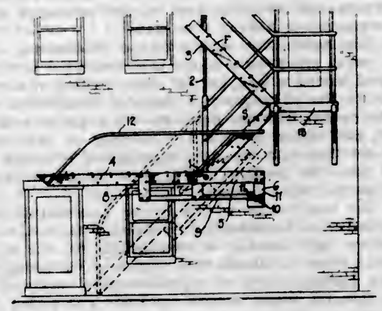
1. In a machine for applying crowns to bottles, the combination with a rotary carriage and vertically movable bottle-supporting plungers and coöperating crowning heads, on said carriage, said crowning heads being provided with means for receiving the crowns of a yielding crown-positioning arm engageable with the crowns at one side to accurately aline the same with said crowning heads, at the same time that the corresponding plungers are raised to force the necks of the bottles against said crowns and into said crowning heads.

2. In a machine for applying crowns to bottles, a rotary carriage, bottle supporting plungers on said carriage,

crowning heads on said carriage overlying said plungers, means for moving said plungers to force the bottles into said crowning heads, a crown delivery chute for delivering crowns to said crowning heads in succession, and a relatively fixed spring arm arranged to engage the projecting edges of the crowns in succession and at the same time that the corresponding plungers are raised to force the necks of the bottles against said crowns and into said crowning heads.



1,140,833. COUNTERBALANCED STAIR. EDGAR LOUIS KEULING, Scranton, Pa. Filed Feb. 27, 1915. Serial No. 11,006. (Cl. 227—5.)



A device of the character described comprising a fixed stair section, another stair section pivotally supported thereby, extension stile pieces carried by the opposite stiles of said second named stair and projecting beyond the pivoted extremity thereof, arms depending from the sides of the stair stiles and the extension stile pieces in predetermined spaced relation, elongated members secured to the free extremities of said arms, and a counter-balance bridging the space between the elongated members and secured thereto.

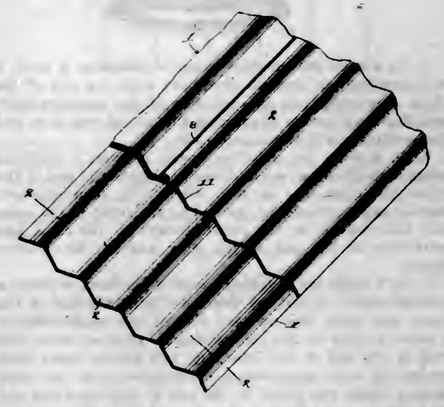
1,140,834. SHIRT. ARTHUR HENRY KIMMEL, Berlin, Ontario, Canada. Filed Dec. 19, 1913. Serial No. 807,688. (Cl. 2—41.)

A shirt body having a slit or opening located in each side of the front center and substantially on the waist line and through which the front tabs of the braces are designed to extend to connect to the trousers and having a slit or opening located in the back of the shirt centrally thereof and substantially on the waist line and through which the rear tabs of the braces are designed to extend to connect to the trousers, and a V-shaped flap secured along the base of the V in immediate proximity to the upper edge of the slit, the sides of the flap depending freely at each side from its upper edge and having a button hole at the apex of the V, and a button secured to the shirt body beneath each horizontal slit designed



to engage with the button hole of the corresponding flap, as and for the purpose specified.

1,140,835. METALLIC ROOFING. WILLIAM H. KOHR, Penbrook, Pa. Filed Apr. 15, 1914. Serial No. 832,105. (Cl. 108—17.)



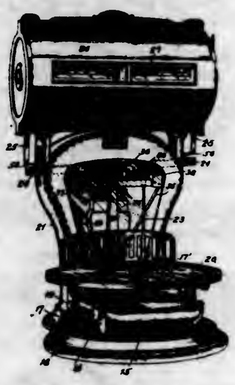
A corrugated metallic roofing plate having a rectangular piece cut from one of its ends adjacent one of its longitudinal edges, a longitudinal seam formed by first bending the said plate upon a line extending longitudinally of the plate parallel with its edges at a point equidistant the longitudinal edges formed by that portion cut away, the said plate being again and reversely bent at a point in line with the outer longitudinal edge of that portion cut away, the bend aforesaid forming the longitudinal seam, a comparatively large transverse seam formed by first bending the cut end of the plate parallel with the plate end at a point in line with the inner end of that portion cut away and again bending the said end reversely at a point approximately equi-distant the end of said cut away portion, the bend last mentioned forming the transverse seam, said transverse seam being made subsequent to the making of the longitudinal seam, the said transverse and longitudinal seams intersecting at a point adjacent one corner of the completed plate, the transverse seam overlapping the longitudinal seam, the respective seams being adapted for overlapping engagement with the plate next adjacent thereto, and means fastening the said plates when interlocked, as and for the purpose set forth.

1,140,836. AUTOMATIC WEIGHING-SCALE. GEORGE M. LUDLOW, Chicago, Ill., assignor to The Computing Scale Company, a Corporation of Ohio. Filed May 19, 1913. Serial No. 768,610. (Cl. 73—29.)

1. In a scale for weighing goods, a platform, a counterweight, and connecting mechanism from the platform to

the counterweight comprising a scale lever and symmetrically disposed flexible elements from the end thereof.

2. In a scale for weighing goods, a platform, a counter weight, and connecting mechanism from the platform to the counterweight comprising a scale lever and flexible elements extending divergently from the counterweight and from the lever.



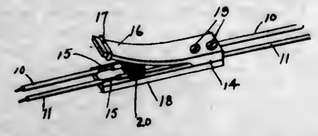
3. In a scale for weighing goods, a platform, a lever, a counterweight in vertical alinement with the end of the lever, two cams, one on each side of the counterweight, and flexible elements connecting the end of the lever and the counterweight to the said cams.

4. In a scale for weighing goods, a lever, a platform carried on the lever, a counterweight above the end of the lever, two cams, one on each side of the counterweight, flexible tapes connecting the end of the lever to the cams and also connecting the counterweight to the cams and equalizers at the end of the lever and at the counterweight.

5. In a scale for weighing goods, a platform, a lever, a counterweight in vertical alinement with the end of the lever, two cams, one on each side of the counterweight, a roller carried by the counterweight, another roller carried by the end of the lever, and two flexible tapes each having its ends connected to a respective cam, one tape passing under the roller on the end of the lever and the other tape passing under the roller on the counterweight.

[Claims 6 to 16 not printed in the Gazette.]

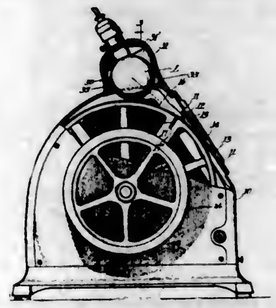
1,140,837. FIRE-ALARM AND SPRINKLER OPERATING APPARATUS. ANTONIO MARCANTE, Paterson, N. J. Filed Mar. 30, 1912, Serial No. 687,389. Renewed Sept. 14, 1914. Serial No. 861,707. (Cl. 177—303.)



In fire alarm apparatus, an electric circuit, a block, a spring actuated jaw clamped with said block to said circuit wires, a readily fusible material between said jaw and block for holding the jaw normally open, whereby when said material fuses said jaw is actuated to close upon and short circuit said wires to operate said alarm.

1,140,838. CALCULATOR. CARL A. MEILICKE, Chicago, Ill. Filed Feb. 19, 1914. Serial No. 819,671. (Cl. 240—2.)

1. In a machine of the character described, the combination of a casing, a data bearing rotor therein, said casing having a longitudinally extending sight opening therein at a point adjacent the rotor, a hollow head positioned at the longitudinal center of the casing and projecting outwardly therefrom at one side of the sight opening, a portion of the wall of said casing tapering outwardly and longitudinally from the ends thereof to said projecting head to form a paraboliform reflector, and a source of illumination insertible through an opening in said head.



2. In a machine of the character described, the combination of a casing, a data bearing rotor therein, said casing having a longitudinally extending sight opening therein at a point adjacent the rotor, a hollow head positioned at the longitudinal center of the casing and projecting outwardly therefrom at one side of the sight opening, a portion of the wall of said casing tapering outwardly and longitudinally from the ends thereof to said projecting head to form a paraboliform reflector, a detachable cap forming a part of said head, and a source of illumination carried by said cap and positioned within the casing when said cap is in place.

3. The combination with a curved data-bearing rotor, of a casing providing a planar part tangential to the rotor and having a long, narrow sight opening at substantially the line of tangency, a source of illumination within the casing, directing light into the angle between the rotor, and casing part, and a reflector on said casing part contiguous to the sight opening for reflecting said light onto the portion of the rotor which is exposed through said sight opening.

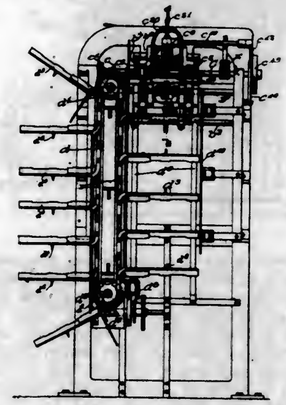
4. The combination with a curved data-bearing rotor, of a casing part substantially tangential thereto, having a narrow sight opening on substantially the line of tangency, a source of illumination carried by the casing, said casing provided with a reflector-surface directing the light into the angle between the rotor and casing part, and with a reflector surface on said casing part between the sight opening and the source of illumination reflecting the light onto the rotor-area exposed through said sight opening.

5. The combination with a machine comprising a casing and a data-bearing rotor, of a flat index-carrying face plate covering an opening in said casing and provided with a longitudinally extending sight opening at a point adjacent the rotor, a source of illumination in the casing near the periphery of the rotor at a point remote from the sight opening, a reflector-bearing head extending outwardly from the casing to inclose the source of illumination and direct the reflected light upon the rear of the face plate, and a reflector upon the rear of the face plate above the sight opening to redirect the light rays upon the portion of the rotor visible through the sight opening.

[Claim 6 not printed in the Gazette.]

1,140,839. ELEVATOR FEED MECHANISM FOR MAILING-MACHINES. FRANK V. MOORE, Chicago, Ill., assignor, by mesne assignments, to Woman's World Magazine Company, Inc., Chicago, Ill., a Corporation of Virginia. Filed Jan. 5, 1912. Serial No. 669,686. (Cl. 101—41.)

1. In mailing machinery, mechanism for feeding the magazines, comprising a horizontal conveyer, an elevator disposed at the receiving end of said conveyer, provided with a support for raising a stack of magazines, a device for transferring the magazines one by one from the top of the stack to the said conveyer, adapted to yield for the purpose of releasing the magazine, and means for operating said device back and forth longitudinally of said machine, said conveyer being operative at any and all times to grip an oncoming magazine as soon as the forward edge thereof makes contact therewith, and before the same is released by said device whereby the yielding of said device prevents tearing of the magazine.



2. In mailing machinery, mechanism for feeding the magazine, comprising a horizontal conveyer, an elevator disposed at the receiving end of said conveyer, provided with a support for raising a stack of magazines, a device for transferring the magazines one by one from the top of the stack to the said conveyer, adapted to yield for the purpose of releasing the magazine, said conveyer operating to grip the magazine before the same is released by said device, whereby the yielding of said device prevents tearing of the magazine, and means for operating said device back and forth longitudinally of the said machine, said device comprising a needle that pierces the magazine.

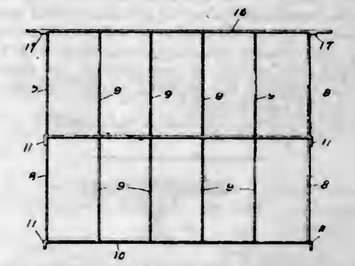
3. In mailing machinery, mechanism for feeding the magazines, comprising a horizontal conveyer, an elevator disposed at the receiving end of said conveyer, provided with a support for raising a stack of magazines, a device for transferring the magazines one by one from the top of the stack to the said conveyer, means for operating said device back and forth longitudinally of the said conveyer, said device comprising a needle that pierces the magazine, and a vacuum cup coöperating with said needle to lift the magazine, said cup and needle having a plurality of axes of movement extending transversely of the said conveyer.

4. In mailing machinery, mechanism for feeding the magazine, comprising a horizontal conveyer, an elevator disposed at the receiving end of said conveyer, provided with a support for raising a stack of magazines, a device for transferring the magazines one by one from the top of the stack to the said conveyer, adapted to yield for the purpose of releasing the magazine without tearing the same, means for operating said device back and forth longitudinally of the said conveyer, said conveyer comprising upper and lower belts between which the magazine is carried, and a floating support for the upper belt at the mouth of the conveyer, whereby the upper and lower belts are always in contact at the mouth of the conveyer to seize the edge of each oncoming magazine, before the latter is released by said device.

5. In mailing machinery, mechanism for feeding the magazines, comprising a horizontal conveyer, an elevator disposed at the receiving end of said conveyer, and at the end of the machine, provided with a support for raising a stack of magazines, a device for transferring the magazines one by one from the top of the stack to the said conveyer, means including a shaft for operating said device back and forth longitudinally of said machine, said conveyer being operative at any and all times to grip an oncoming magazine as soon as the forward edge thereof makes contact therewith, and before the same is released by said device, and means for controlling the magazines at different points in the length of the said conveyer, operatively connected with said shaft, said shaft being also provided with means for moving said device up and down.

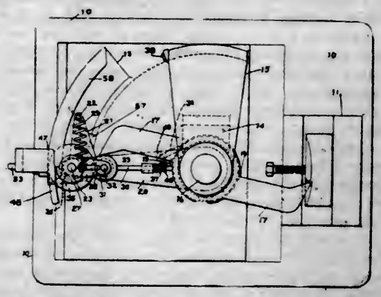
[Claims 6 to 23 not printed in the Gazette.]

1,140,840. MOLD FOR POURED CONCRETE BRICKS OR BLOCKS. WILLIAM D. MOORE, Creston, Iowa. Filed July 21, 1914. Serial No. 852,134. (Cl. 25—121.)



A mold for poured concrete blocks, comprising a flexible base, side walls integrally connected to said base, and extending at right angles thereto, and a series of intermediate partitions integrally connected to said base and extending at right angles thereto, and flanges extending at right angles to the base to be connected to the next adjacent mold to hold the side walls and partitions in place.

1,140,841. CUTTING MECHANISM. EDMUND C. MORGAN, Morgan Park, Ill. Filed June 27, 1910. Serial No. 569,171. (Cl. 90—24.)



1. The combination with a plurality of cutters, of means for continuously operating said cutters, sharpening means for said cutters, means for automatically operating said sharpening means while a cutter of said cutting apparatus engages therewith and is in motion, and means for automatically throwing said sharpening means out of engagement with a moving cutter and returning the sharpening means to initial position for operating on the next succeeding cutter while the cutter just acted on continues toward its work.

2. In a cutting mechanism, the combination with a moving cutter, of an arm movable with the cutter and carrying sharpening means movable relatively to said arm into and out of sharpening engagement with the cutter, and means operated by the movement of said arm for operating said sharpening means.

3. In a cutting mechanism, the combination with a moving cutter, of a swingingly mounted arm, sharpening means carried by said arm and movable into and out of sharp-

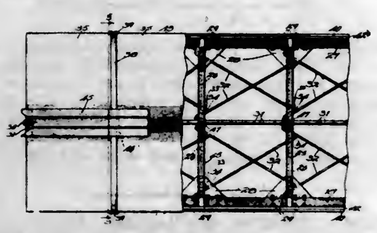
ening engagement with the cutter relatively to said arm when said arm and cutter are moving in the same direction, said arm being provided with means for returning it to initial position after it has been swung therefrom, and means for automatically releasing said sharpening means from engagement with the moving cutter to permits its return movement.

4. In a cutting mechanism, the combination with a movable cutter, of an oscillable arm, sharpening means mounted on said arm, said means being movable by said arm in a path adjacent the path of said cutter, means for moving the sharpening means into engagement with said movable cutter, and further means interposed in the path of said sharpening means for removing the last said means out of engagement with the cutter.

5. In a device of the character described, the combination with a movable cutter, of grinding means partaking of a portion of the movement of said cutter, means for holding said grinding means in engagement with the cutter during said portion of movement of the cutter, and means for removing the grinding means from the cutter at the end of said portion.

[Claims 6 to 52 not printed in the Gazette.]

1,140,842. METAL CAR-ROOF. CLINTON C. MURPHY, Chicago, Ill. Filed Oct. 10, 1912. Serial No. 724,953. (Cl. 108—5.)



1. In a roof structure for railway cars, the combination with a plurality of carlines, of a plurality of diagonally arranged tension members connecting said carlines one with another, and a tension member running longitudinally of the car along the center line of the roof structure.

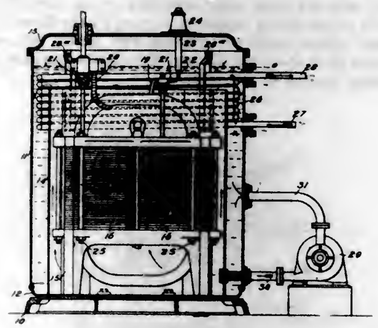
2. In a roof structure for railway cars, the combination with a plurality of carlines provided with a depending web having apertures therein, of a plurality of diagonally arranged tension members consisting of rods having their ends threaded and extending through said apertures so as to connect said carlines one with another, a tension member running longitudinally of the car along the center line of the roof structure, and spacing sleeves on said tension member arranged between said carlines.

3. In a roof structure for railway cars, the combination with a plurality of carlines, of a plurality of diagonally arranged tension members connecting the ends of each carline with the middle of the next adjacent carline, a tension member running longitudinally of the roof structure from end to end of the car, and compression members arranged between the carlines.

4. In a roof structure for railway cars, the combination with a plurality of metal carlines formed with depending webs, diagonally arranged tension rods connecting the webs of said carlines, a tension member extending from end to end of the car along the center line of the car and through said webs, and spacing sleeves on said tension member.

5. In a roof structure for railway cars, the combination with a plurality of carlines consisting of channeled members open at the top, of roof sheets, the edges of which are bent so as to extend into the channels of said carlines, running board saddles arranged to stand over the carlines, and T bolts secured to the upright webs of the channels of the carlines and through said saddles, the edges of the roof sheets being formed with notches, for the purpose described.

1,140,843. TRANSFORMER. LOUIS C. NICHOLS, Milwaukee, Wis., assignor, by mesne assignments, to Allis-Chalmers Manufacturing Company, a Corporation of Delaware. Filed July 12, 1909. Serial No. 507,213. (Cl. 171—124.)



1. The combination of a transformer comprising a core, coils mounted on said core with spaces between said coils and between said coils and said core, a tank filled with a fluid and surrounding said core and coils, means for maintaining a fluid circulation through said transformer, a casing inclosing said tank and spaced therefrom, and means between said casing and said tank for cooling said fluid, which is forced by said circulating means into said tank, through said spaces, over the top of said tank, coming in contact with said cooling means, and passing down between said tank and said casing into said circulating means.

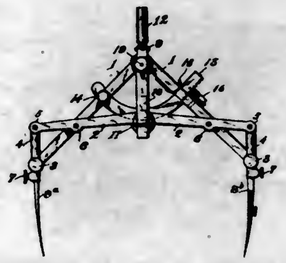
2. The combination of electrical apparatus, a casing inclosing said apparatus, a fluid in which said apparatus is immersed, means inside said casing for cooling said fluid, and means for causing a circulation of said fluid through said electrical apparatus and into contact with said cooling means, said means for causing circulation of said insulating fluid being between said cooling means and said electrical apparatus to receive fluid that has passed from said electrical apparatus and into contact with said cooling means and to force said cooled fluid into contact with said electrical apparatus.

3. The combination of electrical apparatus, a casing inclosing said apparatus, insulating fluid in which said apparatus is immersed, means inside said casing for cooling said insulating fluid comprising a coil through which a cooling fluid flows, said cooling fluid being admitted to said coil at the lower end thereof and leaving said coil at the upper end thereof, and means for forcing said insulating fluid through said apparatus and into contact with said cooling means said forcing means receiving fluid from the effective zone of said cooling means and forcing said fluid into contact with said apparatus.

4. The combination of electrical apparatus, a tank filled with insulating fluid surrounding said electrical apparatus, a casing inclosing said tank, means between said casing and said tank for cooling said insulating fluid and comprising a coil through which a cooling fluid flows, said cooling finid being admitted to said coil at the lower end thereof and leaving said coil at the upper end thereof, and means for causing a circulation of said insulating fluid through said apparatus and into contact with said cooling means, said insulating fluid as it passes from said electrical apparatus to said coil coming into contact with the upper portion of said coil and passing to the lower portion on its way to the circulation causing means.

1,140,844. COMPASSES. JOHN NOVAK, Chicago, Ill. Filed May 4, 1914. Serial No. 836,225. (Cl. 33—151.)

1. Compasses, including a handle member, a pair of arms each pivoted at one end thereto, a pair of legs, means slidably connecting said legs respectively with the other ends of said arms, a pair of links pivotally connected at one end to the handle member and at their other ends respectively to the said legs, each of said links pivoted intermediate of its ends to one of the said arms, and spacer means associated with said arms for substantially locking the latter against relative movement.



2. Compasses, including a handle member, a pair of arms each pivoted at one end thereto, a pair of legs, means slidably connecting said legs respectively with the other ends of said arms, a pair of links pivotally connected at one end to the handle member and at their other ends respectively to the said legs, each of said links pivoted intermediate of its ends to one of the said arms, spacer means associated with said arms for locking the latter against relative movement, and adjusting means associated with the said spacer means for imparting a limited relative movement to the arms when thus locked.

3. Compasses, including a handle member, a pair of arms each pivoted at one end thereto, a pair of legs, means slidably connecting said legs respectively with the other ends of said arms, a pair of links pivotally connected at one end to the handle member and at their other ends respectively to the said legs, each of said links pivoted intermediate of its ends to one of the said arms, and indicating means associated with the handle member and the said links for indicating the spread of the tips of the legs.

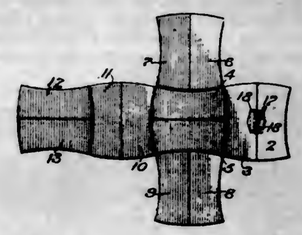
4. Compasses, including a handle member, a pair of arms each pivoted at one end thereto, a pair of legs, means slidably connecting said legs respectively with the other ends of said arms, a slide carried by the handle member, and a pair of links pivotally connected at one end to the said slide and at their other ends respectively to the said legs, each of said links pivoted intermediate of its ends to one of the said arms.

5. Compasses, including a handle member, a pair of arms each pivoted at one end thereto, a pair of legs, means slidably connecting said legs respectively with the other ends of said arms, a slide carried by the handle member, and a pair of links pivotally connected at one end to the said slide and at their other ends respectively to the said legs, each of said links pivoted intermediate of its ends to one of the said arms, said handle member equipped with a scale, said slide presenting an indicating edge coöperating with said scale to indicate the spread of the tips of the legs.

[Claims 6 and 7 not printed in the Gazette.]

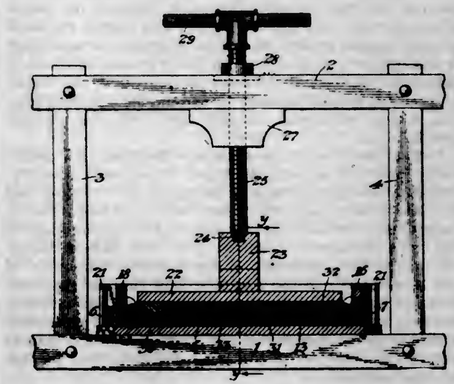
1,140,845. ATHLETIC BALL. THOMAS A. OLIVER and JAMES OLIVER, Philadelphia, Pa. Filed June 6, 1912. Serial No. 702,000. (Cl. 46—4.)

As a new article of manufacture, a ball cover, consisting of a plurality of sections of uniform size and shape, each section being oblong and having one edge curved on a single radius and having the ends correspondingly curved on the same radius therewith, the opposite edges of two sections being secured together, with the curves of the ends continuous of each other in the same radius, to fit the curved edge of an adjoining section, two sections



being located directly opposite two other sections on opposite sides of the ball.

1,140,846. APPARATUS FOR THE MANUFACTURE OF SEATS AND BACKS FOR CHAIRS AND LIKE FURNITURE. EDMUND E. PECK, Grand View on Hudson, N. Y. Filed Apr. 24, 1914. Serial No. 834,065. (Cl. 155—43.)



1. In an apparatus of the character described, the combination of a matrix, elastic material extended across the top thereof and secured thereto, a clamping frame, a presser block, and means for operating said block.

2. In an apparatus of the character described, the combination of a matrix, a plurality of longitudinal and transverse elastic bands stretched across the top of said matrix with their ends secured thereto, a clamping frame, a presser block, and means for operating said block.

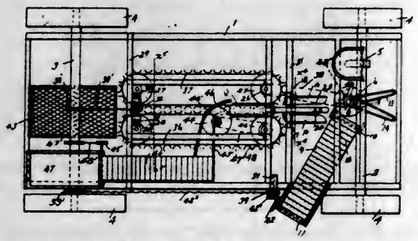
3. In an apparatus of the character described, the combination of a matrix, a plurality of elastic bands stretched across the top of said matrix and secured thereto, a clamping frame fitting the top of said matrix, means for holding said clamping frame in position, said frame clamping the edges of a flexible cover between it and the top edges of said matrix, cushioning material upon said flexible cover, a chair bottom over said cushioning material, a presser block upon said bottom, and means for operating said block.

4. In an apparatus of the character described, the combination of a matrix, a plurality of elastic bands stretched across the top of said matrix with their ends secured thereto, a clamping frame, a presser block, and means for operating said block.

1,140,847. BEET PULLING AND TOPPING MACHINE. PETER PEDERSON and GEORGE T. GILKERSON, Workman, Cal. Filed Sept. 26, 1913. Serial No. 792,877. (Cl. 55—108.)

1. In a machine of the character described, the combination with a running gear frame and rotary topping means mounted thereon, of a pair of oppositely mounted

chains having a plurality of resilient gripping members mounted thereon adapted to grip and convey the beets through said machine and by said topping means; and means for causing the separation of said gripping members at the front of said machine to permit the entrance of the beets therebetween, as and for the purpose specified.



2. In a machine of the character described, the combination with a running gear frame and rotary topping means mounted thereon, of a pair of oppositely mounted chains having a plurality of resilient gripping members mounted thereon, movable lengthwise through the center of said machine and adapted to grip and convey the beets by said topping means; means for causing the separation of said gripping members at the front of said machine to permit the entrance of the beets therebetween; and means for operably connecting said topping means and said gripping means with said running gear, for the purpose specified.

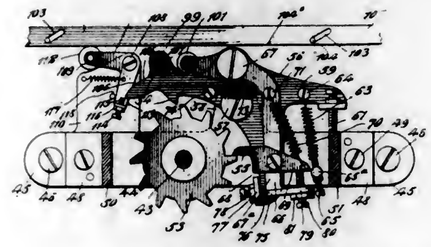
3. In a machine of the character described, the combination with a running gear frame, a preliminary rotary, horizontally disposed topping means at the front of and mounted upon said running gear, and a primary, rotary, horizontally disposed topping means toward the rear of and mounted upon said running gear; of a pair of coöperating, oppositely mounted, chains movable lengthwise of and substantially in the center of said running gear and having a plurality of resilient gripping members mounted thereon; and means for constantly causing the separation of said gripping members at the front of said machine to permit the entrance of the beets therebetween, for the purpose specified.

4. In a machine of the character described, the combination with a running gear, a horizontally disposed, rotary topping means at the front of said machine and a horizontally disposed rotary topping means at the rear thereof; of a pair of oppositely mounted chains on said running gear; a plurality of semi-circular gripping members resiliently mounted on said chains for gripping and conveying the beets through said machine and by said cutting means; means for causing the separation of said gripping members at the front of said machine to permit the entrance of the beets therebetween; and means for operably connecting said topping means and said gripping means with the running gear of said machine, for the purpose specified.

1,140,848. ESCAPEMENT MECHANISM FOR TYPEWRITING MACHINES. OTTO PETERMANN, Groton, N. Y., assignor to Corona Typewriter Company, Incorporated, a Corporation of New York. Filed May 1, 1911. Serial No. 624,318. (Cl. 197—85.)

1. In a typewriting machine, the combination with a support, of a carriage adapted to move along said support, propelling mechanism, a rack held to the carriage, a pinion engaging the rack, a ratchet wheel movable with the pinion, a lever having a fixed dog, a second lever pivoted to the first-mentioned lever, a loose dog pivoted to the second lever, means for positioning the levers and the loose dog, a plurality of key-levers, and means movable by the key-levers whereby the first-mentioned lever may be actuated to disengage the loose dog in one movement and to permit the carriage to move for letter spacing on the return movement of the key-levers.

2. In a typewriting machine, the combination with a support, of a carriage adapted to move along said support, a rack held to the carriage, a pinion engaging the rack, a ratchet wheel movable with the pinion, a lever having a fixed dog, a second lever pivoted to the first-mentioned lever, a loose dog pivoted to the second lever, means for positioning the levers and the loose dog, a plurality of key-levers, a rocking frame actuated by the key-levers and adapted to move the first-mentioned lever to permit the carriage to move for letter spacing.



3. In a typewriting machine, the combination with a support, of a carriage adapted to move along said support, propelling mechanism, a rack held to the carriage, a pinion engaging the rack, a ratchet wheel movable with the pinion, a lever, a fixed dog movable with the lever, a second lever pivoted to the first-mentioned lever, a loose dog pivoted to the second lever, means for operating the levers together, and means for operating the second lever independently of the first mentioned lever.

4. In a typewriting machine, the combination with a support, of a carriage adapted to move along said support, propelling mechanism, a rack held to the carriage, a ratchet wheel, means operated by the ratchet wheel to move the rack, a lever, a fixed dog movable with the lever, a second lever pivoted to the first-mentioned lever, a loose dog pivoted to the second lever, means for positioning the levers and the loose dog, a plurality of key-levers, a rocking frame adapted to operate the first-mentioned lever, and a universal bar connected to the rocking frame and actuated by the key-levers.

5. In a typewriting machine, the combination with a support, of a carriage mounted to move along said support, propelling mechanism for the carriage, a rack held to the carriage, a pinion engaging the rack, a toothed wheel held to move with the pinion, two movable levers, one of which carries a fixed dog and the other a loose dog, and means whereby the two levers may be moved in unison or one independently of the other.

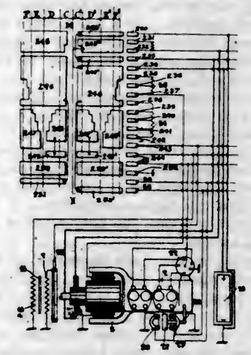
[Claims 6 to 29 not printed in the Gazette.]

1,140,849. APPARATUS FOR CONTROLLING MOTOR-VEHICLES DRIVEN BY MIXED POWER. HENRI PIEPER, Liege, Belgium. Filed Nov. 27, 1909. Serial 530,112. (Cl. 171—315.)

1. In a motor vehicle preferably running on rails the combination of a gas motor, a storage battery, an electrical machine capable of working as an electric motor and also as a current generator connected in series with said storage battery, said gas motor and said electrical machine constituting together a motor group, means for starting said motor group, means for coupling said motor group to a road wheel axle of the vehicle, means for reversing the direction of motion of said motor group, means for braking said road wheel axle, means for regulating the speed of said road axle, and apparatus at a plurality of points of control whereby a driver can actuate and control each and all of said means from any one of said points of control, said apparatus at each point comprising a single controller; as set forth.

2. A driving set for vehicles comprising a gas motor, an electrical machine capable of working as a motor and a generator, a mechanical coupling between said electrical machine and said gas motor, and means for transmitting motion to a road wheel axle of the vehicle, buffer batteries, electrical connections between said batteries and

the electrical machine, and means for automatically ensuring the correct cycle of operations for effecting reversing of the direction of working of said gas motor and said electrical machine; as set forth.



3. A driving set for vehicles comprising a gas motor, an electrical machine capable of working as a motor and a generator, a mechanical coupling between said electrical machine and said gas motor, and means for transmitting motion to a road wheel axle of the vehicle, buffer batteries, electrical connections between said batteries and the electrical machine and means for automatically ensuring the correct cycle of operations for effecting reversing of the direction of working of said gas motor and said electrical machine, together with means for ensuring that said gas motor shall have been rendered inoperative before being started in reverse direction by said electrical machine; as set forth.

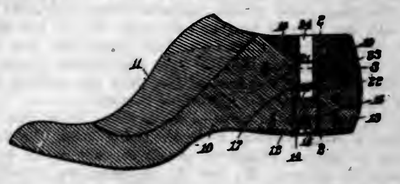
4. A driving set for vehicles, comprising a gas motor, an electrical machine capable of working as a motor and a generator, a mechanical coupling between said electrical machine and said gas motor, and means for transmitting motion to a road wheel axle of the vehicle, buffer batteries, electrical connections between said batteries and the electrical machine, distribution mechanism for said gas motor, means for reversing the said distribution mechanism, a plurality of fixed contact studs, electrical connections between the reversing means and two of said fixed contact studs, further connections between said reversing means and the buffer battery, and additional connections between the buffer battery and another of said fixed contact studs, a controller drum, two sets of contact pieces mounted thereon and separated by a distance greater than the width of said fixed contact studs, brushes on said electrical machine, electrical connections between said brushes and two of said fixed contact studs; as set forth.

5. In a motor vehicle preferably running on rails the combination of a gas motor, a storage battery, an electrical machine capable of working as an electric motor and also as a current generator, connected in series with said storage battery, said gas motor and said electric machine constituting together a motor group, a road wheel axle, means for transmitting motion from said electrical machine to said axle of the vehicle and from said axle to said electrical machine, means energized by said storage battery with fixed and hand controlled movable contacts for controlling the working of said gas motor, a plurality of points of control with means at each point for ensuring in succession, setting the engine parts for forward or reverse running, starting the electric machine, starting the engine, clutching and speed variation.

[Claims 6 and 7 not printed in the Gazette.]

1,140,850. LAST. FRANKLIN PIERCE and NAPOLEON THERIAULT, Haverhill, Mass. Filed Mar. 15, 1915. Serial No. 15,111. (Cl. 12—139.)

1. In a last, the combination of a heel plate secured thereto and provided with an opening therethrough; a top plate provided with a cylindrical shank having a pin socket in one end and extending through the last with its opposite end in contact with said heel plate; and a securing member threaded to said shank having a head positioned in said heel plate.



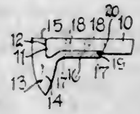
2. In a last, the combination of a heel plate secured thereto and provided with an opening therethrough; a top plate provided with a cylindrical shank having a pin socket in one end and extending through the last with its opposite end in contact with said heel plate; and means threaded to said shank for locking said heel plate and shank together.

3. In a last, the combination of a heel plate secured thereto and provided with an opening therethrough; a top plate provided with a cylindrical shank having a pin socket in one end and extending through the last with its opposite end in contact with said heel plate, said top plate having a longitudinal recess in its under face to receive the upper end of the heel portion of the last; and a securing member threaded to said shank having a head positioned in said heel plate.

4. In a last, the combination of a heel plate secured thereto and provided with an opening therethrough; a top plate provided with a cylindrical shank having a pin socket in one end and extending through the last with its opposite end in contact with said heel plate, said top plate having a downwardly extending flange at its rear end to protect the rear end of the heel portion of the last; and a securing member threaded to said shank having a head positioned in said heel plate.

5. In a last, the combination of a heel plate secured thereto and provided with an opening therethrough; a top plate with a cylindrical shank having a pin socket in one end and extending through the last with its opposite end in contact with said heel plate, said shank having a flattened face; a pin extending transversely of the last and contacting with said flattened face to prevent rotation of said shank; and a securing member threaded to said shank having a head positioned in said heel plate.

1,140,851. HORSESHOE HEEL-CALK. GEORGE ROBINS, Jackson, Mich. Field Mar. 27, 1015. Serial No. 17,487. (Cl. 168—33.)



1. The combination with a horse shoe, of a heel calk including a body portion, an attaching plate extending laterally from the inner side thereof, fastening members for securing the attaching plate to the shoe heel, and a saddle extending upwardly from the body portion of the calk and in vertical alinement therewith, said saddle being disposed to embrace the terminal of the shoe.

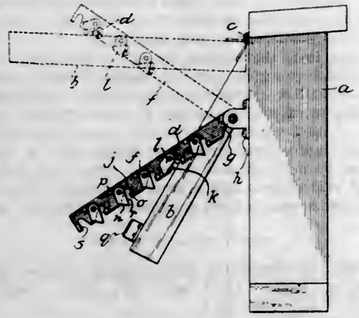
2. The combination with a horse shoe having a pair of vertical shoulders formed in its side faces adjacent the heel, of a heel calk including a body portion, an attaching plate extending laterally from the inner side thereof, bolts passing through the attaching plate and into the shoe, and a saddle extending upwardly from the body portion of the calk and embracing the terminal of the shoe, said saddle being engaged with the shoulders when the calk is attached to the shoe.

3. The combination with a horse shoe having vertical shoulders formed on its side faces, adjacent its heel terminal, of a calk including a body portion, a saddle extending upwardly therefrom to embrace the heel of the shoe, said saddle being engageable against the shoulders, an attaching plate extend laterally from the body of the calk and bearing against the under face of the shoe, bolts passing through the attaching plate and into the shoe, and flanges formed on the longitudinal edges of the plate and seating against the shoe for holding the plate against transverse movement thereon.

4. The combination with a horse shoe, of a calk including a body portion, a saddle rising from the body portion in vertical alinement therewith, said saddle being disposed to embrace the heel of the shoe, an attaching plate extending laterally from the body of the calk and bearing against the under face of the shoe, the rear end of the shoe being downwardly offset and the top of the plate being disposed above the surface of the upper end of the body member and merging gradually into the same, whereby a rounded shoulder is formed at the junctioon of the plate and body to engage with the downwardly offset portion of the shoe heel.

5. The combination with a horse shoe, of a calk including a body portion, a saddle rising therefrom to embrace the heel of the shoe, an attaching plate extending laterally from the body of the calk and bearing against the under face of the shoe, fastening members for securing the plate to the shoe heel, and inwardly directed flanges formed on the longitudinal edges of the plate, said flanges seating against the longitudinal edges of the heel portion of the shoe for holding the plate against transverse movement thereon.

1,140,852. AUTOMATIC CATCH. PAUL T. ROEDER, Bloomington, Ill. Filed Jan. 21, 1915. Serial No. 3,455. (Cl. 16—28.)



1. In a device of the class described, the combination with a movable member adjustable to different positions and carrying a catch pin, of a bar having a locking recess adapted to coöperate with the pin to hold the member with its pin in the locking recess and thus held adjusted away from its normal position, and means coöperating with the pin and bar and preventing the engagement of the pin with the recess during the return movement of said member, which means is brought into action by simply moving the member on to disengage the pin from the recess.

2. In a device of the class described, the combination with a movable member adjustable to different positions and carrying a catch pin, of a bar having a locking recess adapted to coöperate with the pin to hold the member with its pin in the locking recess and thus held adjusted away from its normal position, and means coöperating with the pin and bar and allowing the pin to enter the recess to lock the member when it is stopped with the pin opposite the recess, but preventing the pin from entering the recess to lock the member as it is moved freely past the recess in either direction provided no stop is made opposite the recess.

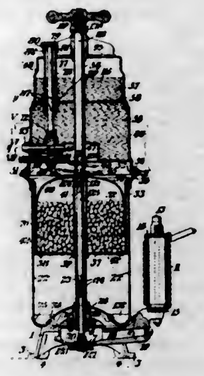
3. In a device of the class described, the combination with a movable member adjustable to different positions and carrying a catch-pin, of a bar having a locking recess adapted to coöperate with the pin to hold the member with its pin in the locking recess and thus adjusted away from its normal position, and a dog pivoted to the bar adjacent the recess and serving to prevent the pin entering the recess during the return movement of the member.

4. In a device of the class described, the combination with a movable member adjustable to different positions and carrying a catch-pin, of a bar having a locking recess adapted to coöperate with the pin to hold the member with its pin in the locking recess and thus adjusted away from its normal position, a dog pivoted to the bar adjacent the recess and serving to prevent the pin entering the recess during the return movement of the member; and an abutment to limit the movement of the dog, for the purpose described.

5. In a device of the class described, the combination with a movable member adjstable to different positions and carrying a catch-pin, of a bar having a locking recess adapted to coöperate with the pin to hold the member with its pin in the locking recess and thus adjusted away from its normal position, a dog pivoted to the bar adjacent the recess and serving to prevent the pin entering the recess during the return movement of the member, and a pair of abutments to limit the movement of the dog, for the purpose described.

[Claims 6 to 10 not printed in the Gazette.]

1,140,853. ACETYLENE-GAS GENERATOR. EDWIN M. ROSENBLUTH, Philadelphia, Pa. Filed Aug. 12, 1913. Serial No. 784,292. (Cl. 48—4.)



1. In an acetylene gas generator, the combination with a base including a condensate trap, having a gas inlet at the top thereof and a condensate outlet and two eccentric sockets at the bottom thereof; of two branch condensing coils carried by said base; means detachably connecting said coils in communication with said trap; a carbid casing, having a central tubular column and a gas outlet at the bottom thereof, detachably fitted to said base; a water receptacle having a central tubular column and arranged to detachably fit upon said carbid casing, with said columns in registry; and means for detachably rigidly connecting said casing and receptacle with said base including a screw threaded rod depending in said water receptacle column from the top thereof, and a screw threaded stem extending in said carbid casing column from said base, in screw threaded engagement with said rod; said stem extending through said trap in said base and carrying at its lower end a closure for said condensate oulet; a handle on said rod above said water receptacle; and resilient means arranged to automatically open said closure whenever said stem is released my rotation of said rod, including two springs set in said sockets respectively encircling said studs.

2. In an acetylene gas generator, the combination with a base including a condensate trap, having a gas inlet at the top thereof and a condensate outlet; of a condensing coil carried by said base; means connecting said coil in communication with said trap; a carbid casing, having a central tubular column and a gas outlet at the bottom thereof, detachably fitted to said base; a water receptacle having a central tubular column and arranged to detachably fit upon said carbid casing, with said columns in registry; and means for detachably rigidly connecting said casing and receptacle with said base including a screw threaded rod depending in said water receptacle column from the top thereof, and a screw threaded stem extending in said carbid casing column from said base, in screw threaded engagement with said rod; said stem extending through said trap in said base and carrying at its lower end a closure for said condensate outlet; a handle on said rod above said water receptacle; and resilient means arranged to automatically open said closure whenever said stem is released by rotation of said rod, including a spring set in said socket encircling said stud.

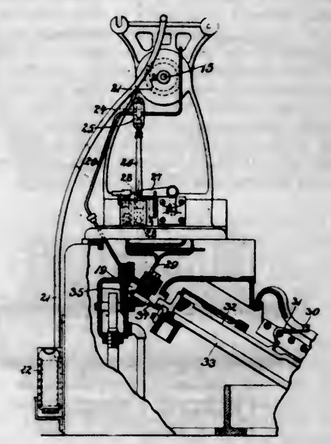
3. In an acetylene gas generator, the combination with a base including a condensate trap, having a gas inlet at the top thereof and a condensate outlet at the bottom thereof, and an eccentric socket; of a condensing coil carried by said base in communication with said trap; a carbid casing, having a central tubular column and a gas outlet in the bottom thereof, detachably fitted to said base; a water receptacle having a central tubular column and arranged to detachably fit upon said carbid casing, with said column in registry; and means for detachably rigidly connecting said casing and receptacle with said base including a screw threaded rod depending in said water receptacle column from the top thereof, and a screw threaded stem extending in said carbid casing column from said base, in screw threaded engagement with said rod; said stem extending through said trap in said base and carrying at its lower end a closure for said condensate outlet; a handle on said rod above said water receptacle; and resilient means arranged to automatically open said closure whenever said stem is released by rotation of said rod, including a spring set in said socket encircling said stud.

4. In an acetylene gas generator, the combination with a base including a condensate trap, having a gas inlet at the top thereof and a condensate outlet at the bottom thereof, and an eccentric socket; of a carbid casing, having a central tubular column and a gas outlet at the bottom thereof, detachably fitted to said base; a water receptacle having a central tubular column and arranged to detachably fit upon said carbid casing, with said column in registry; and means for detachably rigidly connecting said casing and receptacle with said base, including a screw threaded rod depending in said water receptacle column from the top thereof, and a screw threaded stem extending in said carbid casing column from said base, in screw threaded engagement with said rod; said stem extending through said trap in said base and carrying at its lower end a closure for said condensate outlet; a handle on said rod above said water receptacle; and resilient means arranged to automatically open said closure whenever said stem is released by rotation of said rod, including a spring set in said socket encircling said stud.

5. In an acetylene gas generator, the combination with a base including a condensate trap, having a gas inlet and a condensate outlet; of a carbid casing, having a gas outlet detachably fitted to said base; a water receptacle arranged to detachably fit upon said carbid casing; and means for detachably rigidly connecting said casing and receptacle with said base including a screw threaded rod depending in said water receptacle from the top thereof, and a screw threaded stem extending in said carbid casing from said base, in screw threaded engagement with said rod; said stem extending through said trap in said base and carrying at its lower end a closure for said condensate outlet; a handle on said rod above said water receptacle; and resilient means arranged to automatically open said closure whenever said stem is released by rotation of said rod.

[Claims 6 to 14 not printed in the Gazette.]

1,140,854. MECHANISM FOR REMOVING NIBS FROM THE DIE-CYLINDERS OF RECORD-STRIP COMPOSING-MACHINES. FRANK SALLY, Mount Vernon, N. Y. Filed Nov. 13, 1914. Serial No. 871,919. (Cl. 164—112.)



1. In a machine of the character described, the combination, with a nib receptacle and a movable element under the control of a key or keys, of pneumatic means for removing the nibs from said receptacle, said means being operatively connected with and periodically actuated by said movable element.

2. In a machine of the character described, the combination, with a nib receptacle and the rock-lever of the resetting and tripping mechanisms, of pneumatic means for removing the nibs from said receptacle, said means being operatively connected with and periodically actuated by said rock-lever.

3. In a machine of the character described, the combination, with a nib receptacle, a pressure chamber, a movable element, and connections between said element and pressure chamber, including a controlling valve and key mechanism for actuating said valve, of an air duct leading from said chamber to the interior of the nib receptacle, a valve for said duct, a connection between said valve and the movable element, and a nib discharge outlet from said receptacle.

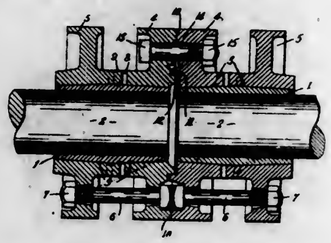
4. In a machine of the character described, the combination with a nib receptacle, a pressure chamber, and the rock-lever of the resetting and tripping mechanisms, of an air duct leading from said chamber to the interior of the nib receptacle, a valve for said duct, a connection between said valve and the rock-lever, and a nib discharge outlet from said receptacle.

5. In a machine of the character described, the combination, with a nib receptacle, a pressure chamber, a rock-lever, and operative connection between said lever and the pressure chamber, including key-actuated valve devices, of a duct leading from the pressure chamber and the nib receptacle, a piston valve arranged in said duct between the pressure chamber and the nib receptacle, a link connecting said valve with the rock lever, and a nib discharge outlet from said receptacle.

1,140,855. SHAFT-COUPLING. FRANK SHAW, Syracuse, N. Y. Filed July 23, 1909. Serial No. 509,107. (Cl. 64—13.)

1. A coupling for rigidly connecting the contiguous ends of two shaft sections disposed in substantially axial alinement, said coupling comprising two split sleeves, one of said sleeves receiving in its bore the end of one of the shaft sections, and the other receiving in its bore the end

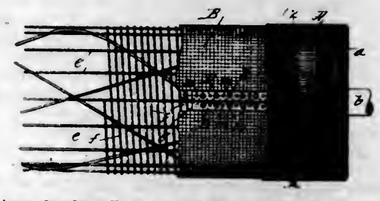
of the other shaft section, and each sleeve tapering peripherally from an intermediate part thereof toward its opposite ends, a pair of shells associated with each sleeve and having bores tapering in opposite directions, and receiving the opposite ends of the associated sleeve, bolts for drawing the members of each pair of shells toward each other, whereby each sleeve is compressed by the corresponding pair of shells into firm frictional contact with the periphery of the shaft in its bore and independently of the other sleeve and shells and additional bolts for rigidly connecting the shell nearest the end of one shaft with the corresponding shell of the other shaft, said additional bolts terminating at points between the planes of the ends of the first mentioned bolts and operating independently of said first-mentioned bolts, substantially as and for the purpose described.



2. A coupling for rigidly connecting the contiguous ends of two shaft sections disposed in substantially axial alinement, said coupling comprising two split sleeves, one receiving in its bore the end of one shaft section and the other receiving in its bore the end of the other shaft section, and each sleeve tapering peripherally from an intermediate part thereof toward its opposite ends, a pair of shells associated with each sleeve, the members of said pair being provided with bores tapering in opposite directions and each having a peripheral flange, bolts extending through and connecting the flange of one shell to the flange of the companion shell for drawing the members of each pair toward each other, and thereby clamping the associated sleeve upon the end of the shaft in its bore, and independently of the other sleeve and shells, and additional bolts extending through the flanges of the shells nearest the extreme ends of the shafts for rigidly connecting the same, the additional bolts terminating at points between the planes of the ends of the first-mentioned bolts and operating independently of said first-mentioned bolts, substantially as and for the purpose specified.

3. A coupling for rigidly connecting the contiguous ends of two shaft sections disposed in substantially axial alinement, said coupling comprising two split sleeves one receiving in its bore the end of one shaft section and the other reeciving in its bore the end of the other shaft section, and each sleeve tapering peripherally from an intermediate part thereof toward its opposite ends, a pair of shells associated with each sleeve, the members of said pair being provided with bores tapering in opposite directions and each having a peripheral flange, bolts extending through and connecting the flange of one shell to the flange of the companion shell for drawing the members of each pair toward each other, and thereby clamping the associated sleeve upon the end of the shaft in its bore, and independently of the other sleeve and shells, and additional bolts extending through the flanges of the shells nearest the extreme ends of the shafts for rigidly connecting the same, the additional bolts terminating at points between the planes of the ends of the first-mentioned bolts and operating independently of said first-mentioned bolts, the last-named flanges having concentrically arranged telescoping surfaces, located between the axes of the shells and the bolts and adapted for alining the shafts as the pairs of shells are drawn toward each other by the last-named bolts, substantially as and for the purpose set forth.

1,140,856. DANDY-ROLL. JOHN R. SINCLAIR, Holyoke, Mass. Filed Oct. 22, 1914. Serial No. 868,000. (Cl. 92—48.)



1. In a dandy roll, the combination with the cylindrical openwork supporting structure including the usual regularly spaced winding wires, and a foraminous covering supported by the winding wires, nearly but not quite circumferentially encircling same, and leaving a longitudinal space between its approached parallel edges, of a pair of strips of flat rigid material adapted to be disposed side by side in said longitudinal space, and having inwardly extended regularly spaced members adapted for entrance between, and for engagement with, the winding wires, and the outer gauze roll covering having the edge portions thereof overlapped across the outer sides of and secured to said flat rigid strips.

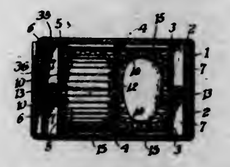
2. In a dandy roll, the combination with the cylindrical openwork supporting structure including the usual regularly spaced winding wires, and a foraminous covering supported by the winding wires, nearly but not quite circumferentially encircling same, and leaving a longitudinal space between its approached parallel edges, of a pair of strips of flat rigid material adapted to be disposed side by side in said longitudinal space, and having inwardly extended regularly spaced studs made with opposite recessed sides and convergently formed ends adapted for entrance between, and for engagement with, the winding wires, and the outer gauze roll covering having the edge portions thereof overlapped across the outer sides of, and secured to, said flat rigid strips.

3. In a dandy roll, the combination with the cylindrical openwork supporting structure including the usual regularly spaced winding wires, and a foraminous covering supported by the winding wires, nearly but not quite circumferentially encircling same, and leaving a longitudinal space between its approached parallel edges, of a pair of strips of flat rigid material adapted to be disposed side by side in said longitudinal space, and having inwardly extended regularly spaced tubular studs made with opposite recessed sides and convergently formed ends adapted for entrance between, and for engagement with, the winding wires, and the outer gauze roll covering having the edge portions thereof overlapped across the outer sides of, and secured to, said flat rigid strips.

4. In a dandy roll, the combination with the cylindrical openwork supporting structure including the usual regularly spaced winding wires, and a foraminous covering supported by the winding wires, nearly but not quite circumferentially encircling same, and leaving a longitudinal space between its approached parallel edges, of a pair of strips of flat rigid material made with perforations therethrough adapted to be disposed side by side in said longitudinal space, and having inwardly extended regularly spaced tubular studs made with opposite recessed sides and convergently formed ends adapted for entrance between, and for engagement with, the winding wires, and the outer gauze roll covering having the edge portions thereof overlapped across the outer sides of, and secured to, said flat rigid strips.

1,140,857. CARRIER FOR FRAGILE ARTICLES. WILLIAM D. THOMAS, Philadelphia, Pa. Filed Jan. 31, 1914. Serial No. 815,614. (Cl. 217—28.)

1. In a carrier for fragile articles, the combination of coöperating complemental members each consisting of longitudinally and transversely extending strips spaced so as to form chambers and flexible strips having flexed portions which project into the said chambers and which flexible strips are supported from the edges of said longitudinally and transversely extending strips and constitute hanging supports for articles to be transported in said carrier.



2. In a carrier for fragile articles, the combination of coöperating complemental members each consisting of interlocked longitudinally and transversely extending strips spaced so as to form chambers and flexible strips situated in the said chambers and supported from the edges of said longitudinally and transversely extending strips and constituting hanging supports for articles to be transported in said carrier, and means for retaining and holding the said coöperating members with their tops in operative contact with each other forming cells for receiving and supporting fragile articles.

3. In a carrier for fragile articles, the combination of complemental trays arranged with their open tops in contact with each other and each of the said trays being provided with a plurality of transversely and longitudinally extending strips which divide the said trays into chambers and flexed transversely and longitudinally extending strips which project into the said chambers, the said last mentioned strips in one tray coöperating with those in another tray to support articles placed therein.

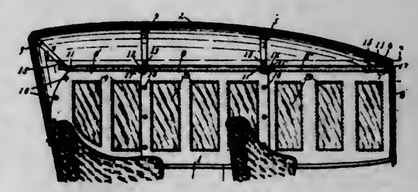
4. In a carrier for fragile articles, the combination of complemental trays arranged with their open tops in contact with each other and each of the said trays being provided with a plurality of interlocking transversely and longitudinally extending strips which divide the said trays into chambers, flexed transversely and longitudinally extending strips which have flexed portions projecting into the said chambers, the flexed portions of the strips in one tray coöperating with those in the other tray to support articles placed therein, and a protector for protecting and holding the said trays in substantially fixed relation with respect to each other.

5. In a carrier for fragile articles, the combination of complemental trays arranged with their open tops in contact with each other, and each of said trays being provided with longitudinally and transversely extending interlocking strips dividing said trays into chambers, and a sheet of flexible material having portions cut out at intervals therein leaving side, end and longitudinal and transverse intermediate strips, the side, end and intermediate longitudinal strips resting upon and being supported by the said interlocking strips, the said transverse strips being flexed and projected into the said chambers, and other longitudinal strips supported upon the transverse interlocking strips and also being flexed and projected into the said chambers substantially as and for the purpose described.

1,140,858. AUTOMOBILE-CURTAIN. HARRY J. TIFFANY and GEORGE A. YOUNG, Jackson, Mich. Filed Mar. 30, 1914. Serial No. 828,188. (Cl. 21—62.)

1. In a structure of the class described, the combination with a vehicle top and the supporting bows therefor, of curtain supporting bars having adjacent ends twisted to lie in a horizontal plane, said ends being pivotally connected together, spring clips carried by the top supporting bows, said bars being detachably carried by said clips, a curtain section carried by each of said curtain supporting bars, and straps carried by the top of the central curtain section, and adapted to be passed under and around the rolled up position, substantially as specified.

2. In a structure of the class described, the combination with a vehicle top and the supporting bows therefor, of curtain supporting bars having adjacent ends twisted to lie in a horizontal plane, said ends being pivotally connected together, spring clips detachably supporting said bars, and a curtain section carried by each of said curtain supporting bars, substantially as specified.



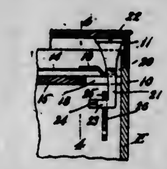
3. In a structure of the class described, the combination with a vehicle top and the supporting bows therefor, of curtain supporting bars pivotally connected together, a curtain section carried by each of said curtain supporting bars, bar supporting means carried by the top supporting bows, and means for supporting said curtain sections in rolled up position.

4. In a structure of the class described, the combination with a vehicle top and the supporting bows therefor, of a plurality of curtain supporting bars pivotally connected together, spring clips carried by said bows and supporting said bars, a curtain section carried by each of said bars, the forward bar being provided with a U-shaped clip adapted to engage a wind shield, substantially as specified.

5. In a structure of the class described, the combination with a vehicle top and supporting bows therefor, of spring metal clips carried by said supporting bows, a plurality of curtain supporting bars detachably carried by said clips, said bars being pivotally connected together, curtain sections carried by each of said bars, straps carried by the top of one of said sections and adapted to pass under and around the curtain when it is rolled up, and fastening means for said straps carried by said supporting bows, all coacting substantially as described for the purpose specified.

[Claim 6 not printed in the Gazette.]

1,140,859. WATCHMAN'S TIME-DETECTOR. ERASTUS E. WADSWORTH, Boston, Mass., assignor to The Eco Magneto Clock Company, Boston, Mass., a Corporation of Maine. Filed Feb. 11, 1915. Serial No. 7,631. (Cl. 234—37.)



1. A device of the character described, comprising a two-part casing, a dial-rotating mechanism contained therein, one of the parts of the casing having a projection to mark the dial, and a key-operated member carried by the other part of the casing and adapted to interengage said projection to lock the casing.

2. A device of the character described, comprising a casing having a hinged cover, a tongue rigidly connected with the cover, said tongue having a dial mutilator, a dial-rotating mechanism in the main portion of the casing, and a key-operated member carried by said main portion adapted to engage a portion of said tongue to lock the cover in closed position.

3. A watchman's clock comprising a case having a hinged cover, a time-operated dial in the case, a dial marker carried by the cover and having a shoulder, and a key-operated member adapted to engage said shoulder to hold the cover locked.

4. A watchman's clock comprising a case having a hinged cover, a tongue projecting downwardly from the cover, said tongue having a laterally extending portion, the end of which has cutting edges, and a slide mounted in the case and adapted to be operated by a key, said slide having a portion formed to cross over a portion of the tongue adjacent to the cutting portion, to hold the cover locked.

1,140,860. INTAGLIO-PRINTING. HENRY A. WISE WOOD, New York, N. Y., assignor to Wood & Nathan Company, New York, N. Y., a Corporation of New York. Filed Feb. 8, 1907. Serial No. 356,317. (Cl. 101—177.)



1. A printing member comprising a conical core and a curved intaglio printing plate longitudinally adjustable thereon, whereby the plate may be supported with its inner surface at any desired distance from the axis of the core.

2. A printing member comprising a conical core and a curved intaglio printing plate having an inner conical surface, movably mounted thereon, whereby the distance of the inner surface of the plate from the axis of the core may be varied by changing the position of the plate upon the core.

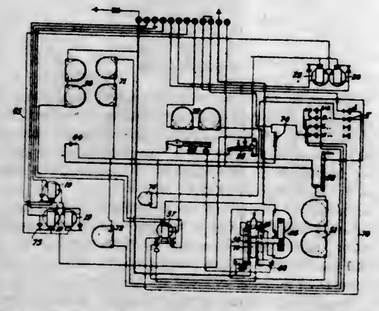
3. A printing member comprising a conical core, and a cylindrical intaglio printing plate mounted thereon, said plate havig a conical or tapering bore therethrough and being longitudinally slit.

4. A printing member comprising a conical core and a cylindrical printing plate mounted thereon, said plate having a conical or tapering bore therethrough and being longitudinally slit on a line at an angle with the axis of the shell.

5. A printing member consisting of a conical or tapering core, a longitudinally slit plate having a cylindrical outer intaglio surface, and a conical or tapering inner surface fitting said core, and means for forcing the plate and core longitudinally with respect to each other to drive the plate up toward the larger end of the core and expand the plate.

[Claims 6 to 11 not printed in the Gazette.]

1,140,861. PRINTING-TELEGRAPH RECEIVER. JOHN E. WRIGHT, Pittsburgh, Pa., assignor to Wright Telegraphic Typewriter Company, New York, N. Y., a Corporation of Delaware. Filed Oct. 1, 1913. Serial No. 792,712. (Cl. 178—28.)



1. In a printing telegraph receiver, the combination of a series of permutation slides, and a selective magnet for each slide adapted, when energized, to move the same, a series of levers coöperating with the slides, a pin barrel adapted to turn to an extent determined by the levers and a type-wheel turning with the pin barrel.

2. In a printing telegraph receiver, the combination with means for turning the type wheel of permutation slides and magnets for shifting the same, a series of levers coöperating therewith, means movable to an extent determined by the levers and gearing between the same and the type wheel whereby the latter is raised to an extent dependent upon the movement of said means.

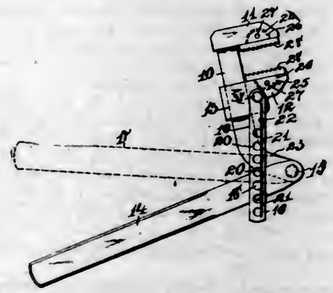
3. In a printing telegraph receiver, the combination with a series of permutation slides, of magnets for shifting the same and levers coöperating therewith, a pin barrel normally held against movement, a magnet for releasing the same and permitting it to turn until encountered by one of the levers.

4. In a printing telegraph receiver, the combination with means for raising and means for turning the type-wheel, of permutation slides, magnets for determining the extent of movement of the type-wheel in line with its axis and an electro-magnet for releasing the means for turning and lifting the type-wheel.

5. In a printing telegraph receiver, the combination with means for turning the type wheel to bring alternate rows of characters to the printing position, comprising a pin barrel in gear with the type wheel, permutation slides and levers coöperating therewith and adapted to arrest the rotation of said barrel and means for bodily moving said levers to permit the pin barrel to turn through arcs longer by one character space than then normal.

[Claims 6 to 16 not printed in the Gazette.]

1,140,862. WRENCH. HERMAN YSSKIN, Newark, N. J. Filed July 12, 1913. Serial No. 778,808. (Cl. 81—126.)



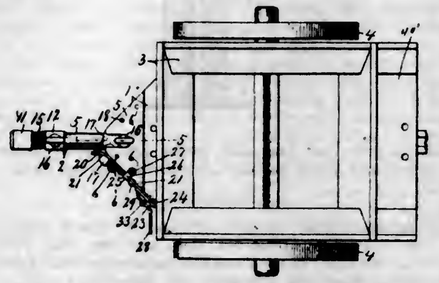
An implement for exerting pressure comprising a shank having on one end a fixed jaw and on the other end an offset portion, both projecting a material distance from the shank and to the same side, a sliding jaw on the shank between the fixed jaw and the offset portion, a handle pivoted at its end to the end of the offset portion and swinging freely alongside said portion and alongside the shank above said offset portion, a link pivotally connected to the handle at a point that is substantially in line with the shank when he handle is swung to a position transverse to said shank, said link being pivotally connected to the sliding jaw at a point in front of the shank.

1,140,863. CARRIAGE-COUPLING. WILLIAM ATKINS, Auburn, N. Y., assignor of three-fourths to Elmore N. Ross and William A. Tice, Auburn, N. Y. Filed Mar. 22, 1911. Serial No. 616,136. (Cl. 21—114.)

1. In combination with a two-wheel truck having an axle and a dump box centrally secured thereto, a draw-head pivoted to one end of the box and provided with guide plates spaced apart, a swivel block journaled on the head between said plates to swing in a plane at right angles to that of the head, a draw bar, and movable means on the draw-head for engaging the swivel block and holding it in operative connection with said draw-head.

2. In combination with a two-wheel truck having a dump box, a draw-head mounted on one end of the box and provided with opposite parallel plates spaced apart,

a draw bar having one end inserted between and pivoted to said plates and provided with a cross head fitting with an easy sliding fit between said plates some distance to one side of the pivotal axis of the draw bar, and means for holding the draw bar in operative connection with the draw-head.



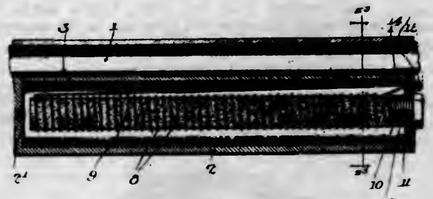
3. In combination with a two-wheel truck having a dump box, a draw-head pivotally mounted on one end of the dump box and provided with forwardly projecting parallel plates spaced some distance apart, and a draw bar pivotally connected to and between said plates.

4. In combination with a two-wheel truck having a dump box, a draw-head pivotally mounted upon one end of the box and provided with forwardly projecting plates spaced some distance apart, a draw bar having a swivel head pivotally connected to and between said plates and having a portion thereof rotatably on the swivel block.

5. In combination with a two-wheel truck having a dump box, a draw-head pivotally mounted upon one end of the box and provided with forwardly projecting plates spaced some distance apart, a draw-head having a swivel block pivoted to and between the plates, and a cross head on the draw bar fitting with an easy sliding fit upon the plates some distance from the swivel block.

[Claims 6 to 12 not printed in the Gazette.]

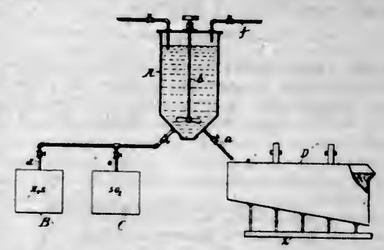
1,140,864. MEANS FOR THAWING OUT WATER-PIPES. JAMES M. AUBERY, Los Angeles, Cal. Filed Apr. 6, 1912. Serial No. 689,037. Renewed Oct. 24, 1914. Serial No. 868,527. (Cl. 219—21.)



Means for thawing out water pipes, comprising in combination with the pipe, a tubular casing extending alongside the pipe, a removable screw plug in one end of said tubular casing, a core supported on said plug, and extending longitudinally in the tubular casing, parallel to the pipe, a resistance wire wound around said core, electrical connections for said resistance wire, said connections passing through said screw plug, a cap plate, said cap plate and tubular casing being grooved to fit the pipe, and means securing the cap plate to the tubular casing to clamp the pipe between said cap plate and tubular casing.

1,140,865. FLOTATION OF MINERALS. RAYMOND F. BACON, Pittsburgh, Pa., assignor to Metals Research Company, New York, N. Y., a Corporation of Maine. Filed Aug. 14, 1914. Serial No. 856,771. (Cl. 83—85.)

1. The method of effecting the separation of sulfid minerals from associated gangue, which consists in subjecting the mixture, in a finely divided condition, to the flotation action of colloidal sulfur; substantially as described.

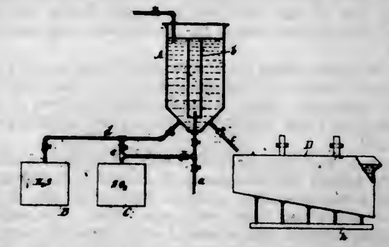


2. The method of effecting the separation of sulfid minerals from associated gangue, which consists in subjecting the mixture, in a finely divided condition, to the flotation action of colloidal sulfur, the flotation solution being faintly acid; substantially as described.

3. The method of effecting the separation of sulfid minerals from associated gangue, which consists in subjecting the mixture, in a finely divided condition, to the flotation action of colloidal sulfur, the flotation solution being produced by reaction therein between a soluble sulfid and sulfur dioxid; substantially as described.

4. The method of effecting the separation of sulfid minerals from associated gangue, which consists in subjecting the mixture, in a finely divided condition, to the flotation action of colloidal sulfur, the flotation solution being produced by reaction therein between a soluble sulfid and sulfur dioxid, the sulfur dioxid being admitted in such excess as to make the solution of colloidal sulfur faintly acid; substantially as described.

1,140,866. FLOTATION OF MINERALS. RAYMOND F. BACON, Pittsburgh, Pa., assignor to Metals Research Company, New York, N. Y., a Corporation of Maine. Filed Aug. 14, 1914. Serial No. 856,772. (Cl. 83—85.)



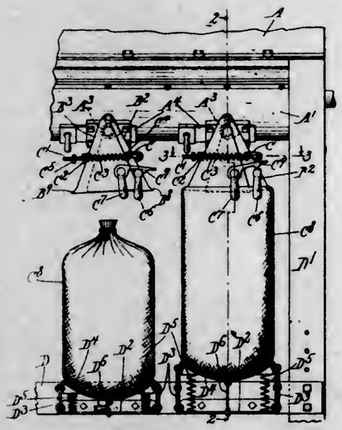
1. The method of effecting the separation of oxidized ores from associated gangue, which consists in subjecting the mixture, in a finely divided condition, to the action of a soluble sulfid, thereby effecting a conversion of the oxidized ore into sulfids, and then converting the hydrogen sulfid present into constituents innocuous to flotation, and finally subjecting the mixture to flotation; substantially as described.

2. The method of effecting the separation of oxidized ores from associated gangue, which consists in subjecting the mixture, in a finely divided condition, to the action of a soluble sulfid, thereby effecting a conversion of the oxidized ore into sulfids, then converting the hydrogen sulfid present into constituents innocuous to flotation, and making the solution faintly acid, and finally subjecting the mixture to flotation; substantially as described.

3. The method of effecting the separation of oxidized ores from associated gangue, which consists in subjecting the mixture, in a finely divided condition, to the action of a soluble sulfid, thereby effecting a conversion of the oxidized ore into sulfids, then converting the hydrogen

sulfid present into constituents innocuous to flotation, and making the solution faintly acid by the admission of sulfur dioxid, and finally subjecting the mixture to flotation; substantially as described.

1,140,867. BAG-FILLING MACHINE. ADELMER M. BATES, Chicago, Ill., assignor to Bates Valve Bag Company, Chicago, Ill., a Corporation of West Virginia. Filed Dec. 18, 1911. Serial No. 666,599. (Cl. 83—26.)



1. In a bag filling machine a filling tube and a collapsible bag supporting hood mounted thereon, said hood being made up of two sections pivoted one upon the other and entirely closed at the top, and yielding means for forcing said pivoted sections apart about their pivotal points to distend the mouth of the bag.

2. In a bag filling machine a horizontally disposed bag filling tube, means comprising a hood inclosing the discharge end of said tube for completely closing the open mouth of a bag and means for supporting a bag upon said hood.

3. In a bag filling machine a hood made up of a pair of aprons always inclined one to the other and pivoted together along one edge, a sleeve carried by one of said aprons and a bag filling tube upon which said sleeve is mounted.

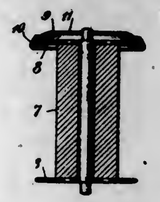
4. In a bag filling machine a hood made up of a pair of aprons always inclined one to the other and pivoted together along one edge, a sleeve carried by one of said aprons and a bag filling tube upon which said sleeve is mounted, each of said aprons having inwardly bent end members, the members of one apron being in contact with and slidable upon the opposed members on the other.

5. In a bag filling machine a hood made up of a pair of aprons inclined one to the other and pivoted together along one edge, a sleeve carried by one of said aprons and a bag filling tube upon which said sleeve is mounted, each of said aprons having inwardly bent end members, the members of one apron being in contact with and slidable upon the opposed members on the other, said sleeve being mounted in one of said aprons, the opposed member being slotted to engage the sleeve.

[Claims 6 to 10 not printed in the Gazette.]

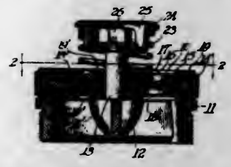
1,140,868. BOBBIN. WALTER E. BENNETT, Carbondale, Pa., assignor to Clover Leaf Manufacturing Company, Carbondale, Pa., a Corporation of Pennsylvania. Filed Oct. 19, 1912. Serial No. 726,658. (Cl. 242—140.)

The combination of a bobbin having a body and end flanges and a thread-guiding member formed separate from but placed adjacent to one end of the bobbin and consisting of a metallic disk having a fiber rim thereon presenting a smooth and polished peripheral surface, said disk having its edge entering a groove in the interior wall



of the rim and said rim having its exterior surface smooth and highly polished, substantially as set forth.

1,140,869. PUMP-VALVE. WILLIAM T. BIRCH, Chicago, Ill. Original application filed Jan. 30, 1913, Serial No. 746,253. Divided and this application filed Feb. 7, 1914. Serial No. 817,157. (Cl. 103—66.)



1. A two face valve body; a plurality of rings, carried on each face and integral means carried by the valve body for clamping the rings thereto.

2. In a device of the character described, a double face reversible valve, comprising a valve body, having a central stem receiving aperture, a valve seat, a stem projecting therefrom to receive and guide said valve body, two concentric packing rings secured to each side face of said valve body, one ring on each face approximately surrounding said atem, a head on the upper end of said stem to receive a valve seating spring; a spring engaging said head, and encompassing the rib inclosing the smaller idle packing ring, whereby said spring is held concentrically with the stem and said smaller packing ring is brought into contact with the fixed spring head, to cushion and render noiseless the blow due to the extreme movement of said valve body.

1,140,870. ROTARY INTERNAL-COMBUSTION ENGINE. CHARLES E. BROMAN, Grand Rapids, Mich. Filed May 7, 1914. Serial No. 836,839. (Cl. 123—17.)



1. In a rotary internal combustion engine, the combination with a casing comprising a cylindrical body portion provided with a base and having a fuel inlet passage and water passages therein and casing heads having fuel conduits therein communicating with said inlet passage of said casing body, said heads being provided with central inwardly projecting cylindrical passage members having annular delivery passages therein communicating with said fuel conduits, of a cylinder disposed within said casing and provided with longitudinal ribs whereby it is supported in a spaced relation to the walls of the casing to provide water spaces certain of which communicate with said water passages of said casing body, annular cylinder heads disposed between the ends of the cylinder and said casing heads and provided with outwardly projecting flanges abutting the casing heads to provide water channels communicating with the water spaces about the cylinder, a shaft, said casing heads being provided with bearings for said shaft, a rotor within said cylinder, end plates for said rotor rotating within said cylinder heads, said rotor end plates being recessed to receive the inner ends of said delivery passage members and having inlet ports therein, there being chambers between said end plates and casing heads, annular valves mounted in said delivery passage members and having ports therein with which said rotor inlet ports register as the rotor revolves, piston blades journaled in said rotor, abutments for said cylinder, and means for collapsing and extending said piston blades disposed in said chambers between said casing heads and rotor end plates.

2. In a rotary internal combustion engine, the combination with a casing comprising a cylindrical body portion provided with a base and having a fuel inlet passage and water passages therein and casing heads having fuel conduits therein communicating with said inlet passage of said casing body, said heads being provided with central inwardly projecting cylindrical passage members having annular delivery passages therein communicating with said fuel conduits, of a cylinder disposed within said casing and provided with longitudinal ribs whereby it is supported in a spaced relation to the walls of the casing to provide water spaces certain of which communicate with said water passages of said casing body, annular cylinder heads disposed between the ends of the cylinder and said casing heads and provided with outwardly projecting flanges abutting the casing heads to provide water channels communicating with the water spaces about the cylinder, a shaft, said casing heads being provided with bearings for said shaft, a rotor within said cylinder, end plates for said rotor rotating within said cylinder heads, said rotor end plates being recessed to receive the inner ends of said delivery passage members and having inlet ports therein, there being chambers between said end plates and casing heads, piston blades journaled in said rotor, abutments for said cylinder, and means for collapsing and extending said piston blades disposed in said chambers between said casing heads and rotor end plates.

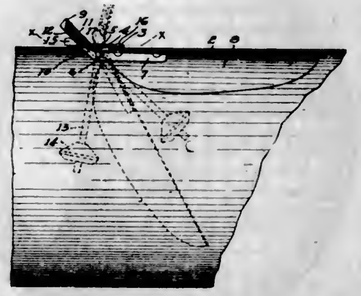
3. In a rotary internal combustion engine, the combination with a casing comprising a cylindrical body portion having a fuel inlet passage and water passages therein, and casing heads having fuel conduits therein communicating with said inlet passage of said casing body, said heads being provided with central inwardly projecting passage members having delivery passages therein communicating with said fuel passages, of a cylinder disposed within said casing and provided with longitudinal ribs whereby it is supported in a spaced relation to the walls of the casing to provide water spaces certain of which communicate with said water passages of said casing body, cylinder heads disposed to provide water channels communicating with the water spaces about the cylinder, a rotor within said cylinder, end plates for said rotor having inlet ports therein, valves carried by said delivery passage members and having ports therein with which said rotor inlet ports register as the rotor revolves, piston blades for said rotor, and abutments for said cylinder.

4. In a rotary internal combustion engine, the combination with a casing comprising a cylindrical body portion having a fuel inlet passage and water passages therein, and casing heads having fuel conduits therein communicating with said inlet passage of said casing body, said heads being provided with central inwardly projecting passage members having delivery passages therein communicating with said fuel passages, of a cylinder disposed within said casing and provided with longitudinal ribs whereby it is supported in a spaced relation to the walls of the casing to provide water spaces certain of which communicate with said water passages of said casing body, cylinder heads disposed to provide water channels communicating with the water spaces about the cylinder, a rotor within said cylinder, end plates for said rotor having inlet ports therein, piston blades for said rotor, and abutments for said cylinder.

5. In a rotary internal combustion engine, the combination with a casing comprising a body portion, and casing heads having fuel conduits therein, of a cylinder disposed within said casing in a spaced relation to the walls thereof to provide a water chamber, annular cylinder heads disposed between the ends of the cylinder and said casing heads and provided with outwardly projecting flanges abutting the casing heads to provide water channels communicating with the water chamber about the cylinder, a rotor within said cylinder, end plates for said rotor rotating within said cylinder heads and having inlet ports therein communicating successively with said fuel conduits of said casing heads as the rotor revolves, there being chambers between said end plates and casing heads, piston blades journaled in said rotor, abutments for said cylinder, and means for collapsing and extending said piston blades disposed in said chambers.

[Claims 6 to 39 not printed in the Gazette.]

1,140,871. DAMPER. LEIGHTON L. BROWN, Minneapolis, and CHARLES H. PATEK, Brainerd, Minn., assignors, by direct and mesne assignments, of five-eighths to said Patek. Filed Mar. 19, 1913. Serial No. 755,353. (Cl. 236—2.)



1. The combination, with a smoke flue having an opening in the wall thereof, of an arm pivotally supported within said opening, a damper blade secured to said arm within said flue, and a locking latch loosely mounted at one end on the wall of said flue and having a part adapted to swing into said opening and into the path of said arm for locking it and said damper blade.

2. The combination, with a smoke pipe having an opening in the wall thereof, of an arm pivotally supported within said opening and projecting within said pipe, a damper blade secured to the inner portion of said arm, a rod mounted on the outer portion of said arm and free to rotate thereon and normally held by frictional engagement against premature rotation, said rod extending transversely of said pipe and having end portions turned at right angles substantially to the middle portion of said rod and extending downwardly on opposite sides of said pipe, and weights adjustably mounted on said ends.

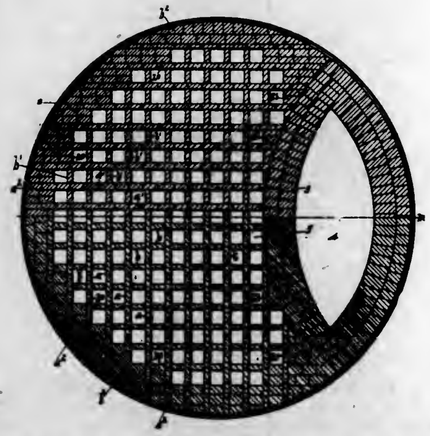
3. The combination, with a pipe having an opening in its wall, of an arm pivotally supported within said opening, a damper blade secured to the inner portion of said arm, the outer portion of said arm being at an angle to its inner portion, a rod extending transversely of said pipe and having its middle portion mounted on the outer portion of said arm and capable of rotary adjustment in its bearing on said arm, the ends of said rod being turned

at right angles substantially to its middle portion and projecting in parallel relation to one another upon opposite sides of said pipe and adjacent thereto, weights carried by said arms, the rotary adjustment of said rod on said arm permitting said damper blade to be counterbalanced and normally hang at any desired angle within said pipe.

4. The combination, with a smoke flue having an opening in the wall thereof, of an arm pivotally supported within said opening, a damper blade secured to said arm within said flue, a plate mounted on said flue over said opening, through which plate said arm projects, said plate having a loop pressed therefrom and a locking latch loosely mounted at one end in said loop and adapted to swing in the path of said arm for locking it and said damper blade.

5. The combination, with a smoke flue having an opening in the wall thereof, of an arm pivotally suported within said opening, a damper blade secured to said arm within said flue, a plate mounted on said flue over said on the outer portion of said arm and extending transversely of said flue and having end portions on each side of said flue turned at an angle substantially to the middle portion of said rod and extending upon opposite sides of said flue transversely thereof, and counter-balance weights mounted on said ends and equi-distant substantially from the bearing of said rod on said arm.

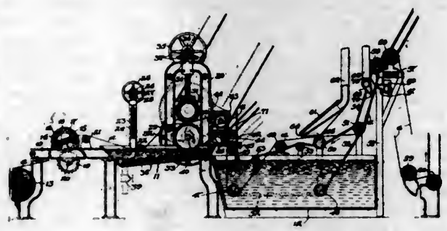
1,140,872. HOT-BLAST STOVE. PATRICK J. BROWN, Cleveland, Ohio. Filed Mar. 20, 1913. Serial No. 755,632. (Cl. 75—52.)



1. A hot blast stove of circular form having an outer wall and a segmental bridge wall of brick to provide combustion and heating chambers, said heating chamber having checker walls of rectangular bricks having a width exactly double their thickness laid at right angles to each other on their narrow faces and located between said outer wall and said bridge wall, and the outer wall built up of rectangular bricks having a thickness of equal thickness to said checker brick laid on their wide faces in double courses in bonded relations with each other and the checker bricks and having the lines of checker bricks extending into the same.

2. In a hot blast stove, checker walls formed of rectangular 9 inch x 6 inch x 3 inch brick laid on their narrow edge in right angled rows in bonding and spaced relations to provide vertical flues with vertical walls as thin as one brick, and an outer wall comprising superposed rectangular bricks 9 inch x 6 inch x 3 inch laid at right angles on their narrow edges as extensions of said checker walls, and double layers of rectangular filler bricks of 3 inch thickness laid between said extension of each course of checker bricks.

1,140,873. MACHINE AND METHOD FOR WAXING PAPER. WINTHROP L. CARTER, Nashua, N. H. Filed Dec. 13, 1913. Serial No. 806,430. (Cl. 91—46.)



1. A machine for making waxed paper, comprising a receptacle for heated wax, a water receptacle, means for guiding the paper through said receptacles, and means for subjecting the paper to the spreading action of a fan-like blast of air to remove water from the paper after it leaves the water receptacle.

2. A machine for making waxed paper, comprising a receptacle for heated wax, a water receptacle, means for guiding the paper through said receptacles, and means for subjecting the paper, after it leaves the water receptacle, to a spreading blast of air directed to the middle of the paper and backwardly relatively to the direction of travel of the paper.

3. A machine for making waxed paper, comprising a receptacle for heated wax, a water receptacle, means for guiding the paper through said receptacles, and means for simultaneously subjecting the paper, after it leaves the water receptacle, to agitation and a globule-removing blast of air in a direction opposite to the travel of the paper.

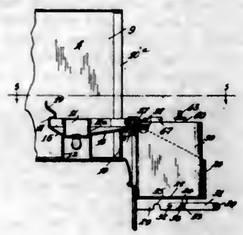
4. A machine for making waxed paper, comprising a receptacle for heated wax, a water receptacle, means for guiding the paper through said receptacles, means for subjecting the paper, after it leaves the water receptacle, to a blast of air to remove particles of water from the paper, and means for finally subjecting the paper to the action of blasts of air to dry the coating in a direction opposite to the travel of the paper.

5. A machine for making waxed paper, comprising a receptacle for heated wax, a water receptacle, means for guiding the paper through said receptacles, means for subjecting the paper to the action of a blast of air in a direction opposite to the travel of the paper, and a barrier for preventing water blown off from the paper from being driven against the paper on its way from one receptacle to the other.

[Claims 6 to 11 not printed in the Gazette.]

1,140,874. STOVE. LEE S. CHADWICK, East Cleveland, Ohio, assignor to The Cleveland Foundry Company, Cleveland, Ohio, a Corporation of Ohio. Original application filed July 23, 1914, Serial No. 852,611. Divided and this application filed Mar. 4, 1915. Serial No. 11,985. (Cl. 158—41.)

1. A device of the character set forth comprising, in combination, a wall having an opening, a liquid distributing receptacle adjacent said wall, a drain sink discharging into said receptacle and having one portion of its draining surface projecting through the opening in the wall and another portion thereof projecting in the opposite direction from the distributing receptacle, a splash apron inclined upwardly and away from the last mentioned portion of the sink, a carrier hinged on a horizontal axis above the portion of the drain sink that projects through the said opening, and a liquid dispensing receptacle supported by the carrier, said dispensing receptacle having a discharge opening and being supported by said carrier in a manner that will cause the discharge opening of the dispensing receptacle to be presented in operative relation to the distributing receptacle when the carrier is swung above the latter receptacle.



2. A device of the character set forth comprising, in combination, a wall having an opening, a liquid distributing receptacle adjacent said wall, a substantially rectangular drain sink discharging into said receptacle and having substantially vertical side walls, one end of said sink extending through the opening in the front wall of the compartment, a splash apron extending upwardly and away from the opposite end of the sink, an open ended carrier hinged on a substantially horizontal axis to the portions of the side walls of the sink which project through the opening in the wall, a ledge overhanging one side of the open end of said carrier in proximity to the hinge axis, means whereby the carrier may be swung upon the aforesaid axis, and a liquid dispensing receptacle supported within the carrier in a position to present its discharge opening in operative relation to the distributing receptacle and with a portion of the dispensing receptacle resting upon the aforesaid ledge, when the door is closed.

3. A device of the character set forth comprising a liquid distributing receptacle, an open-ended carrier pivoted on a horizontal axis adjacent to said receptacle and adapted to be swung to a vertical position above or below said receptacle, a ledge overhanging the wall of the carrier adjacent to the hinge axis when the carrier is in its lowered position, and a liquid dispensing receptacle constructed and adapted to be supported within the carrier, with the ledge overhanging a wall thereof and having a discharge outlet adapted to be brought into operative relation with the distributing receptacle when the carrier is swung thereabove.

4. A device of the character set forth comprising, a liquid distributing receptacle, an open-ended carrier pivoted on a horizontal axis adjacent to said receptacle and adapted to be swung to a vertical position above and below said receptacle, said carrier having a ledge arranged to overhang the wall which is adjacent to said hinge axis with a portion of said ledge projecting downwardly within said wall when the carrier is in its lowered position, a liquid dispensing receptacle constructed and adapted to be received within the carrier below the downwardly projected portion of the ledge and between the same and the hinged wall of the carrier and having a discharge outlet arranged to coöperate with the distributing receptacle when the carrier is swung above the latter.

5. A device of the character described comprising, in combination, a distributing receptacle, an open-ended carrier having one wall thereof pivoted on a horizontal axis adjacent to said receptacle, a ledge carried by the pivotally supported wall and having a portion that is inclined downwardly and inwardly from the top of said wall when the carrier is in position to receive a dispensing receptacle, a liquid dispensing receptacle constructed and adapted to be inserted within the carrier with a wall thereof beneath and overhung by the inclined portion of the ledge, the latter receptacle having a discharge outlet coöperating with the dispensing receptacle, and means on the opposite side of the distributing receptacle from the axis and adapted to engage the dispensing receptacle, thereby to maintain the wall thereof which is adjacent the hinged wall of the carrier within the channel formed between said wall and the inclined portion of the ledge.

[Claims 6 to 17 not printed in the Gazette.]

1,140,875. LOGGING-TRUCK. ELBERT G. CHANDLER, Portland, Oreg. Filed Feb. 25, 1915. Serial No. 10,571. (Cl. 105—243.)



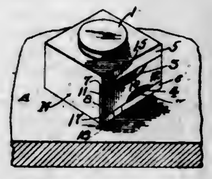
1. A pair of logging trucks having at their outer ends draw-bars at standard height, and having at their inner ends, draw-bars arranged below standard height, whereby to give clearance for sagging logs thereon, and at the same time being adapted to be coupled to each other, when said trucks are brought together.

2. A logging truck having a log supporting bunk thereupon, and provided at one end with coupling means at substantially standard height, and at its other end with coupling means considerably below standard height, substantially as and for the purpose indicated.

3. In combination two logging trucks, each provided with log supporting means, and each having at its outer ends coupling means positioned at substantially standard height, whereby to be coupled to standard equipment, and each having at its inner end coupling means positioned below standard height, whereby to give clearance, and adapted to be coupled together.
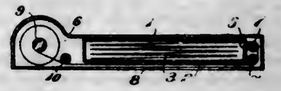
4. A logging truck having a log bunk pivotally mounted thereupon, a draw-bar at one end mounted at standard height, and adapted to be coupled to standard railroad equipment, and a draw-bar at the opposite end of said truck below the top of the frame thereof, and below standard height, to give clearance forwardly of the log bunk, substantially as, and for the purpose described.

1,140,876. NUT-LOCK. LEVI G. CHANNELL, Palestine, W. Va. Filed June 8, 1914. Serial No. 843,714. (Cl. 151—63.)



In a nut lock, the combination with a bolt, of a nut therefor having a channel in one side thereof, an undercut flange at the top of the channel extending entirely across the face of the nut, a second undercut flange at the bottom of the channel but terminating short of one of the side edges of the nut, a wedging key formed with a top concaved bevel edge adapted when the key is driven home to bear against the upper flange, and a spur formed on said key and adapted to be pressed into the body through which the bolt is passed as the flange bears against the concaved beveled surface of the key when the latter is driven home.

1,140,877. SENSITIZED PHOTOGRAPHIC FILM AND MEANS FOR CARRYING AND EXPOSING SAME. SILVIO COCANARI, Vieux-Dieu, near Antwerp, Belgium. Filed Apr. 25, 1913. Serial No. 763,506. (Cl. 95—1.)



1. In combination, a length of sensitized photographic film folded upon itself so that the folds of the sensitized surface contact with one another, means for carrying said film, and means for exposing the same.

2. In combination, a length of sensitized photographic film folded upon itself so that the folds of the sensitized surface contact with one another, means for carrying said film, a holder for same, and means for exposing said film.

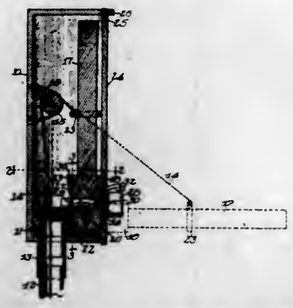
3. In combination, a length of sensitized photographic film folded upon itself so that the folds of the sensitized surface contact with one another, opaque material on the ends of said film, a box for said film provided with a slit through which the opaque material on one end of the film projects, means for holding said box and means for exposing said film.

4. In combination, a length of sensitized photographic film folded upon itself so that the folds of the sensitized surface contact with one another, opaque material on the ends of said film, a box for said film provided with a slit through which the opaque material on one end of the film projects, a holder for said box and means in said holder whereby said film may be exposed as desired.

5. In combination, a length of sensitized photographic film folded upon itself so that the folds of the sensitized surface contact with one another, opaque material on the ends of said film, a box for said film provided with a slit through which the opaque material on one end of the film projects, a holder for said box provided with an opening, and means for unfolding the film and presenting same before the opening in said holder.

[Claim 6 not printed in the Gazette.]

1,140,878. PULL OR CONTROL BOX. ROBERT H. COWDREY, Chicago, Ill. Filed Apr. 8, 1912. Serial No. 689,390. (Cl. 137—69.)



1. In a device of the class described, the combination of a casing, a closure for the casing, a controlling element in the casing, a fragile fastening device for locking the closure, said device having a portion located outside of the casing, and another portion within the casing, and means within the casing for securing the fastening device to the said controlling element for locking the fastening device against removal.

2. In a device of the class described, the combination of a casing, a closure for the casing, a controlling element in the casing, a fragile fastening device for locking the closure, said device having a portion located outside of the casing, and another portion within the casing, and means within the casing for securing the fastening device to the said controlling element for locking the fastening device against removal, the fastening device being provided with a weakened portion within the casing.

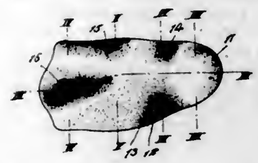
3. In a device of the class described, the combination of a casing, a closure for the casing, a controlling element in the casing, a fragile fastening device for locking the closure, said device having a portion located outside of the casing and another portion within the casing, and a spring catch for securing the fragile fastening device and controlling element together to lock the said fragile fastening device against removal.

4. In a device of the class described, the combination of a casing, a closure for the casing, a controlling element in the casing, a fragile fastening device for locking the closure, said device having a portion located outside of the casing, and another portion within the casing, said closure and controlling element having registering openings into which the stem of the said device passes, and means for locking the said device against removal.

5. In a device of the class described, the combination of a casing, a closure for the casing, a controlling element in the casing, a fragile fastening device for locking the closure, said device having a portion located outside of the casing, and another portion within the casing, said closure and controlling element having registering openings into which the stem of said device passes, and means for locking the said device against removal, the said device ...azing a weakened portion.

[Claims 6 to 9 not printed in the Gazette.]

1,140,879. FOOT-ARCH SUPPORTING SADDLE. IGNATIUS CUSTAR, New York, N. Y. Filed Sept. 18, 1911. Serial No. 649,981. (Cl. 36—71.)



1. A device of the character described, having a rigid body portion and provided with an elevated heel portion having a depressed part for the heel bone, a substantially pear-shaped supporting part intermediate the marginal sides of said body portion and located at the front thereof, two side supports comprising transverse ridges of relatively different sizes interposed between the pear-shaped part and the heel portion, said supports being highest at the side edges of the device, and a depressed portion located adjacent to one of the side supports at one side of the device.

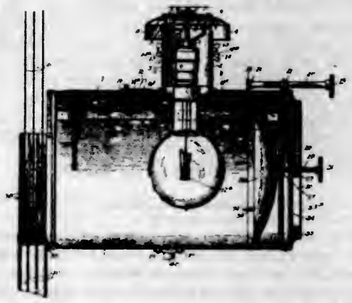
2. A device of the character described having its body portion provided with an elevated heel portion having a depressed part for the heel bone, a substantially pear-shaped supporting part intermediate the side edges of said body portion and located at the front end thereof, side supporting means comprising transverse ridges of different sizes arranged between the pear-shaped part and heel portion, and a depressed portion in front of the lower end of said side supporting ridges.

3. A device of the character described having its body portion provided with an elevated heel portion having a depressed part for the heel bone, a substantially pear-shaped supporting part intermediate the side edges of said body portion and located at the front end thereof, side supporting means comprising transverse ridges of different sizes arranged between the pear-shaped part and heel portion, and a depressed portion in front of the lower end of said side supporting ridges, said body being curved gradually along its median line in a forward and downward direction and the top of said pear-shaped part being lower than any point along said median line in rear thereof.

1,140,880. ADJUSTABLE FLOOD AND SPOT LIGHT. WILLIAM J. DAVIS, JR., and ALBERT P. NIEDLINGER, Chicago, Ill. Filed Nov. 2, 1914. Serial 869,901. (Cl. 240—3.)

1. In lanterns, the combination with a ventilated focal apertured shell which is provided with a closure, of an adjustable ventilated chimney which is operatively secured to said shell and adapted to project and adjust a lamp in said shell, a reflector interposed between said lamp and said closure and opposing said focal aperture and adapted to reflect the rays from the crater of said lamp and protect

the same through the focal aperture of said shell, means for centering and adjusting said lamp, and means for operating said chimney substantially as described.



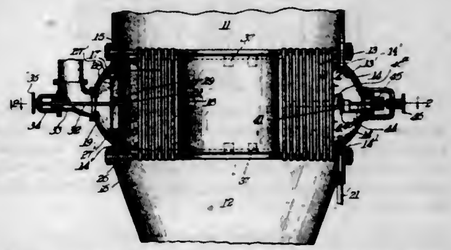
2. The combination with a focal apertured lantern shell, of a hooded chimney which is formed of a number of operatively telescoping sleeves adapted for expanding and contracting the height of said chimney and which is movably attached to said shell by means of a number of operatively overlapping shuffling leaves engagingly interposed to connect said chimney and said shell and adapted to shufflingly reciprocate upon one another for moving said chimney longitudinally along said shell, a reflector in said shell and opposing said focal aperture, a lamp suspended from the hood of said chimney and adapted to interpose the crater of said lamp between said reflector and said focal aperture, and means for centering and adjusting the crater of said lamp to the radial focus of said reflector, substantially as described.

3. In adjustable flood and spot light chimneys the combination with a lantern shell which is provided with a suitable aperture, of a chimney leading from said aperture and formed of a sleeve which is provided with a tangent slot and a telescoping sleeve which is provided with a lug which projects through said slot and which lug is provided with a thumbscrew and is adapted to reciprocate in said slot to provide a combined rotating and longitudinal motion to said sleeve, a hood which is fixed to said sleeve and provides a ventilating aperture between the under surface of said hood and the adjacent periphery of said sleeve, a plate secured to the lower periphery of said telescoping sleeve, and is provided with a lug, an overlapping plate which is secured to said shell and is provided with a slot and is adapted to register with said lug and permit a reciprocating movement of said lug and means for sliding said chimney longitudinally across said chimney aperture in said shell substantially as described.

4. In flood and spot lights the combination with a lantern shell which is provided with a focal aperture, a closing opposed to said focal aperture, a series of slots near said closure, a chimney disposed between said focal aperture and said closure and a lamp disposed under said chimney, of an adjustable reflector within said shell and backed against said closure and opposingly facing said lamp and focal aperture, a series of lugs fixed to the periphery of said reflector and extending movably through said slots and provided with thumbscrews, a socket fixed to the center of the rear surface of said reflector and adapted to receive the ball-like end of a threaded rod, said threaded rod passing through a correspondingly threaded aperture provided in said closure and provided with a wheel-like handle which is adapted to revolve said threaded rod for moving said rod longitudinally and adjusting said reflector in said shell, substantially as described.

1,140,881. EVAPORATOR. FRANKLIN M. DE BEERS, Chicago, Ill. Filed Aug. 28, 1913. Serial No. 787,046. (Cl. 257—203.)

1. The combination with an evaporator having upper and lower liquor chambers and a central downtake connecting them and providing an annular tube-containing vapor chest whereof the tubes open into the upper and lower liquor chambers and the chest is centrally closed by said downtake; said chest having peripheral vapor inlet means; of a distributing structure segregating from the tube containing area a peripheral passage including the inlet, said distributing structure including parts movable to provide an opening of variable size between the segregated passage and the tube containing area directly confronting the inlet.



2. The combination with an evaporator having upper and lower liquid chambers and a central downtake passage connecting them and providing an annular horizontal vapor chest surrounding and centrally closed by the downtake; said chest having vertical liquid tubes passing therethrough to the upper and lower liquor chambers and having a peripheral inlet and a condensed liquor outlet diametrically opposed to the inlet; of a distributing plate structure confronting said inlet and segregating from the tube containing area a peripheral passage, said distributing structure comprising movable means for effecting regulable communication between the passage and tube containing area confronting the inlet, and means for operating said movable means extending to the exterior of the evaporator.

3. In the combination with an evaporator providing an annular vapor chest having a bilged belt, a tube-containing area surrounded by said belt and a peripheral inlet to said belt, of a plurality of plates vertically crossing said bilged belt, segregating from the tube-containing area a peripheral channel including the inlet opening, the plate opposing the inlet being fixed and plates flanking said fixed plate being movable to afford regulable openings at the end of said fixed plate.

4. The combination with an evaporator having upper and lower liquor chambers and a central downtake connecting them and providing an annular tube containing vapor chest surrounding and centrally closed by the downtake, and having on opposite sides of the downtake a peripheral inlet and a condensed liquor outlet; of a distributing plate fixed to confront said inlet and segregating from the tube containing area a peripheral channel for vapor distribution, said plate having an orifice therein confronting the inlet opening, movable means for varying the effective extent of said orifice, and operating means therefor extending to the exterior of the steam chest.

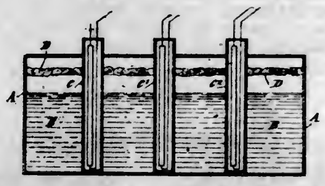
5. The combination with an evaporator having an annular vapor chest including a tube-containing area and having a peripheral inlet, of distributing plate fixed to confront said inlet and segregating from the tube-containing area a peripheral channel for vapor distribution, said plate having an orifice therein confronting the inlet opening, hinged shutters for varying the effective opening of said orifice and an operating rod for said shutters extending to the exterior of the casing.

[Claims 6 to 12 not printed in the Gazette.]

1,140,882. PROCESS OF ALCOHOLIC FERMENTATION. ROMOLO DE FAZI, Rome, Italy. Filed Jan. 26, 1914. Serial No. 814,343. (Cl. 195—20.)

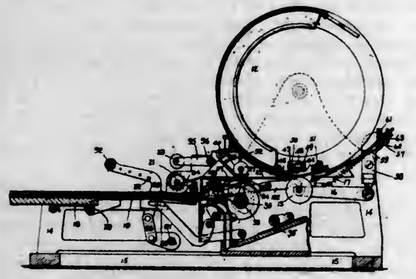
1. The process of alcoholic fermentation of sugared liquids, and liquids obtained by saccharification from amylaceous substances, consisting in exposing the liquid to ultra-violet rays during the fermentation.

2. The process of alcoholic fermentation of sugared liquids, and liquids obtained by saccharification from amylaceous substances, consisting in exposing the liquid to ultra-violet rays during the fermentation, and in adding cellulose to the fermenting liquid.



3. The process of alcoholic fermentation of sugared liquids, and liquids obtained by saccharification from amylaceous substances, consisting in exposing the liquid to ultra-violet rays during the fermentation, and in using yeast in the fermentation which has been cultivated under the action of ultra-violet rays.

1,140,883. STENCIL-DUPLICATING MACHINE. ALBERT B. DICK, Lake Forest, Ill., assignor to A. B. Dick Company, Chicago, Ill., a Corporation of Illinois. Filed July 23, 1913. Serial No. 780,642. (Cl. 101—132.)



1. A stencil duplicating machine having a drum whose cylindrical surface is adapted to support a stencil, a pressure roller coacting with the drum, a strip extending lengthwise of the drum near the cylindrical surface of the drum, means for pivotally mounting the strip upon the drum to turn about an axis radial to the drum, studs on the strip to coact with the edge of a stencil and means for turning said strip in different angular positions, substantially as set forth.

2. In a stencil-duplicating machine, the combination of a drum, a member mounted on the drum near the cylindrical surface thereof and extending lengthwise of the drum, said member being pivoted to turn about an axis substantially radial to the drum, means on said member to coact with a stencil to secure the end of the stencil to the drum, and means for turning said member about its pivot, substantially as set forth.

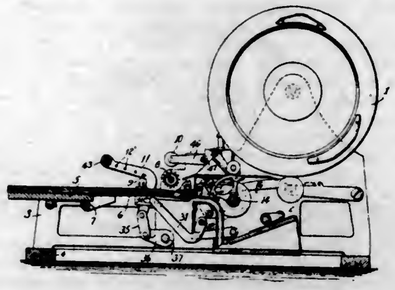
3. A stencil duplicating machine comprising a drum, a coacting pressure roller, a support adjacent to the drum, strippers mounted on the support and adapted to engage a sheet forwarded by the drum near the edges of the sheet and movable toward and away from each other, lateral extensions on the strippers projecting toward each other and forming auxiliary strippers for engaging the sheet at points intermediate the edge portions engaged by said strippers, and means for securing the strippers in any adjusted positions, substantially as set forth.

4. A stencil duplicating machine comprising a drum, a coacting pressure roller, guides mounted on the drum and movable toward and away from each other, strippers mounted adjacent to the drum and movable toward and away from each other to positions corresponding to the guides, and auxiliary strippers mounted between said strippers and adapted to engage a sheet forwarded by the drum at points distant from those engaged by said strippers, substantially as set forth.

5. A stencil duplicating machine comprising a drum, a coacting pressure roller, guides mounted on the drum and movable toward and away from each other, strippers mounted adjacent to the drum and movable toward and away from each other to positions corresponding to the guides, lateral extensions on the strippers projecting toward each other and forming auxiliary strippers for engaging sheets distant from the edges of the sheets and means for securing the strippers in any adjusted positions, substantially as set forth.

[Claims 6 to 10 not printed in the Gazette.]

1,140,884. SHEET-FEEDING APPARATUS. ALBERT B. DICK, Lake Forest, Ill., assignor to A. B. Dick Company, Chicago, Ill., a Corporation of Illinois. Original application filed July 23, 1913, Serial No. 780,642. Divided and this application filed Mar. 8, 1915. Serial No. 12,740. (Cl. 101—39.)



1. In apparatus of the character described, the combination of a feedboard, a rotatable feeder overlying the same, adapted to buckle the top sheet of a pile on the feedboard and feed it from the feedboard, a bar parallel to the feeder and adapted to coact with the top sheet to determine the extent of the sheet to be buckled by said feeder, means for causing the feeder and the top sheet periodically to come into and move out of contact, and means for automatically causing the movement of said bar into contact with the top sheet when the feeder contacts the same, and out of contact therewith at other times, said means including connections adapted to coact to form a positive support for said bar when the latter is elevated to an inoperative position beyond the range of the automatic movements of said bar, substantially as set forth.

2. In apparatus of the character described, the combination of a feedboard, a rotatable feeder overlying the same, adapted to buckle the top sheet of a pile on the feedboard and feed it from the feedboard, a bar parallel to the feeder and adapted to coact with the top sheet to determine the extent of the sheet to be buckled by said feeder, means for causing the feeder and the top sheet periodically to come into and move out of contact, a support for said bar comprising a pivoted arm, and means for cousing the automatic periodic movement of said bar into and out of contact with the top sheet, comprising a toggle joint connected to said arm and means for oscillating the same, said toggle joint being adapted to straighten to positively support said arm when said arm is raised sufficiently, substantially as set forth.

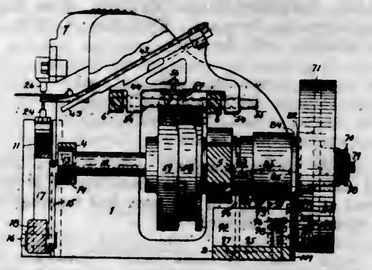
3. In apparatus of the character described, the combination of a feedboard, a rotatable feeder overlying the same, adapted to buckle the top sheet of a pile on the feedboard and feed it from the feedboard, a bar parallel to the feeder and adapted to coact with the top sheet to determine the extent of the sheet to be buckled by said feeder, means for rocking the feedboard into and out of position to bring the top sheet into contact with the feeder, means for causing the movement of the bar into and out of contact with the top sheet, including devices for supporting the bar in an inoperative position to which it may be manually moved, and means whereby the upward movement of the feedboard, when said bar is supported in said inoperative position, breaks the support of said bar, substantially as set forth.

4. In apparatus of the character described, the combination of a feedboard, a feeder overlying the feedboard, a bar parallel to the feeder and adapted to coact with the top sheet of a pile on the feedboard to determine the portion of the sheet to be buckled by the feeder, pivoted arms supporting said bar, and a toggle connected to each of said arms to support the arms and the bar carried thereby in an elevated inoperative position, substantially as set forth.

5. In apparatus of the character described, the combination of a feedboard, a feeder overlying the feedboard, a bar parallel to the feeder and adapted to coact with the top sheet of a pile on the feedboard to determine the portion of the sheet to be buckled by the feeder, pivoted arms supporting said bar, and a toggle connected to each of said arms to support the arms and the bar carried thereby in an elevated position, means for moving the feedboard to carry the pile thereon away from the bar and feeder, means for returning the feedboard into coöperative relation to the feeder, and means actuated by the return movement of the feeder for buckling said toggles, substantially as set forth.

[Claims 6 and 7 not printed in the Gazette.]

1,140,885. CLUTCH MECHANISM. JOHN J. DODGE, South Framingham, Mass., assignor, by mesne assignments, to The R. H. Long Machinery Company, South Framingham, Mass., a Corporation of Connecticut. Original application filed July 9, 1909, Serial No. 506,751. Divided and this application filed Aug. 24, 1910. Serial No. 578,767. (Cl. 192—9.)

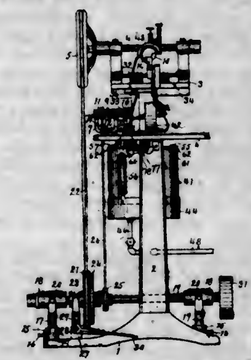


The combination, in clutch mechanism, with a suitably journaled shaft, and a driving pulley loose on such shaft and provided with one or more bolt-engaging lugs, of a collar fast on said shaft adjacent to such pulley, a bolt carried by said collar and provided with a projecting part, yielding means to actuate such bolt into the path of said bolt-engaging lug or lugs, a spring-pressed retracting and releasing cam member capable of being projected into the path of said projecting part of the bolt, a trip-lever arranged and adapted to actuate said cam member out of said path, and a trip for said trip-lever, said trip extending into the path of said bolt projection.

1,140,886. THREAD-WAXING DEVICE. JOHN J. DODGE, South Framingham, Mass., assignor to The R. H. Long Machinery Co., South Framingham, Mass., a Corporation of Connecticut. Filed Aug. 8, 1911. Serial No. 642,094. (Cl. 112—20.)

1. A thread-waxing device comprising, in combination, a heating tank provided with a wax receptacle, a single tube bent to form a U-shaped member, such member having a slotted elbow, an idler mounted in the slot in such elbow, and means to support said tube in said receptacle.

2. A thread-waxing device comprising, in combination, a heating tank provided with a wax receptacle, a U-shaped tube having an open elbow and there provided with a thread guide, and a supporting member for such tube, the latter opening through the former.



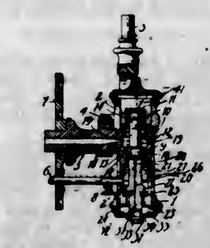
3. A thread-waxing device comprising, in combination, a heating tank provided with a wax receptacle which opens through the top of said tank, a removable plate mounted on said tank over said receptacle, U-shaped tubes depending from said plate into said receptacle, said tubes having slots in the elbows at the bottom and opening at the top through said plate, and idlers mounted in said slots.

1,140,887. GLASS-HOLDING DEVICE FOR METALLIC WINDOWS. ROBERT S. DRUMMOND, Detroit, Mich., assignor to Detroit Steel Products Company, Detroit, Mich., a Corporation of Michigan. Filed Apr. 24, 1913. Serial No. 763,350. (Cl. 189—78.)



The combination with a metallic window sash provided with a seat, and a retaining strip secured thereto, of a pane of glass engaged between said strip and said seat, the body portion of the strip being in contact with the adjacent face of the glass and its edge portion being flared forming a putty recess between the glass and retaining strip.

1,140,888. APPARATUS FOR DELIVERING AND MIXING DRINKS OR OTHER LIQUIDS. ARTHUR JOHN LEWIS ECKERSLEY, South Melbourne, Victoria, Australia. Filed June 13, 1913. Serial No. 773,461. (Cl. 225—26.)



1. In apparatus for mixing and delivering drinks and other liquids, a movable casing formed with a vertical opening along its length, liquid supply pipes passing through said opening and connecting sleeves held by a nipple or the like connection, a leather washer arranged between the nipple and the sleeve of the upper supply pipe and around the stem of a vertically sliding valve

controlling the delivery of liquid through the lower supply pipe, said valve being formed with a passage normally closed by an upper valve controlling the delivery of liquid from the upper supply pipe and adapted to be moved in a vertical direction simultaneously with the lower valve, means for returning said upper valve to its seat, and means for raising and lowering the outer casing controlling the movement of the valves.

2. In apparatus for mixing and delivering drinks and other liquids, a cylindrical casing having a vertical opening along its length and containing a double valve appliance controlling the delivery of liquids from supply pipes passing through said opening, a delivery nozzle at the lower end of said casing, and a handle for raising and lowering the casing a short distance in a vertical direction to open and close the valves controlling the supply of liquids.

3. In apparatus for automatically delivering and mixing drinks and other liquids, fixed supply pipes passing through a vertical opening in a movable outer casing, a sleeve formed on the end of the upper supply pipe flush around the inside of said casing and at right angles to the pipe, a detachable cap fitted to the sleeve, said sleeve forming a valve compartment provided with a tapering valve seat, a valve slidably arranged in said compartment and adapted to normally close the outlet passage of said compartment, the passage being formed centrally in a tube or valve stem carrying a disk valve adapted to normally close the orifices of a cap or sleeve connected to the upper sleeve by a nipple, a leather washer around the upper end of said lower valve stem and the inside of the upper sleeve, a detachable cap fitted to the upper end and a delivery nozzle at the lower end of said casing, substantially as described.

4. In apparatus for delivering and mixing drinks, an outer casing carrying a delivery nozzle and slidably arranged around fixed valve casings connecting liquid supply pipes, a valve controlling the liquid supply arranged in each valve casing and adapted to be opened on the raising of the outer casing and closed on the lowering thereof, the mixed liquids being allowed to flow through the nozzle on the raising or opening of the said valves.

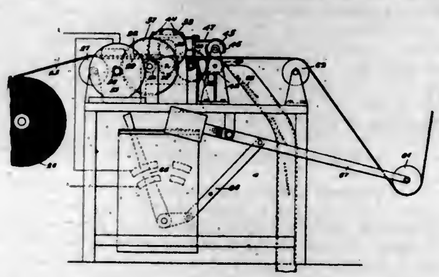
5. In apparatus for mixing and delivering drinks and other liquids, sleeves 9, 26 arranged within a casing 1 forming valve compartments connecting supply pipes 5, 6, a supply controlling valve 8, a cap 10 fitted to said sleeve 9, a valve 15 fitted with a return spring 13 arranged in the sleeve 9 adapted to normally close the passage 20 in the valve stem or tube 21, a valve 23 carried by said stem 21 and arranged in the sleeve or cap 26, being adapted to normally close the orifices 24 in the base of said sleeve or cap, a passage 31 delivering into the nozzle 33, detachably mounted to the casing and having delivery holes 34, a detachable cap fitted to the casing, the lower end of the valve stem 21 seating on and passing through the nozzle and a handle 3 for raising and lowering the outer casing and operating the valves in a vertical direction substantially as and for the purposes specified.

[Claims 6 not printed in the Gazette.]

1,140,889. MACHINE FOR MAKING STENCIL-STRIPS. STERLING ELLIOTT, Newton, Mass. Original application filed May 11, 1912, Serial No. 696,606. Divided and this application filed May 19, 1913. Serial No. 768,450. (Cl. 164—61.)

1. In a machine for making frame-strips for stencils, the combination of a plane-surfaced bed-roll and a roll having on its surface cutting-ribs, feeding-ribs and a scoring-rib, the engaging portions of said ribs terminating in different planes with respect to the surface of the bed-roll, said feeding-ribs and scoring-rib extending entirely around the roll, said rolls coöperating to feed forward a strip of paper and cut holes therein and score it longitudinally, means to rotate said rolls, and means to remove the cut pieces from the strip, substantially as described.

2. In a machine for making frame-strips for stencils, the combination of a rotary strip-cutting means for the frame-strip, a ribbed-surfaced roll and a grooved-surfaced roll, arranged in parallel relation with said strip-cutting means, said rolls coöperating to remove the cut pieces from the strip while the strip passes between them, and means to rotate said rolls, substantially as described.



3. In a machine for making frame-strips for stencils, the combination of rotary means to feed forward and cut holes in a strip of paper to form the frame-strip, electric-driving-mechanism for said means including an electric-motor, a switch for the circuit of said motor, and means arranged to automatically operate said switch to start and stop the motor, substantially as described.

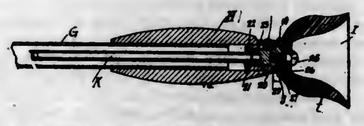
4. In a machine for making frame-strips for stencils, the combination of rotary means to feed forward and cut holes in a strip of paper to form the frame-strip, electric-driving-mechanism for said means including an electric-motor, a switch for the circuit of said motor, a take-up roll for the strip, the position of which is controlled by the strip, and means connecting said take-up roll with said switch, substantially as described.

1,140,890. TRANSMISSION-GEARING. CARL ELOESSER, Charlottenburg, Germany. Filed Mar. 4, 1907. Serial No. 360,585. (Cl. 74—21.)



A power transmission-belt, comprising a relatively broad endless metal band the cross-section of which is greatest at the middle of the band and tapering off to a thin rounded edge at each side.

1,140,891. MASSAGE-MACHINE. GEORGE B. EVERSON, Cincinnati, Ohio. Filed Aug. 12, 1912. Serial No. 714,547. (Cl. 128—16.)



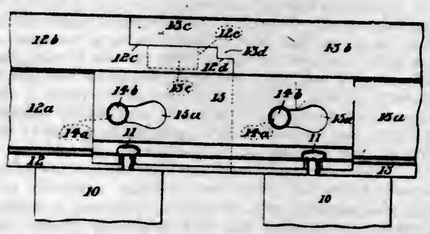
1. In a massage machine, a coupling having a washer riveted securely to one end and a base-plate cast solid to the other end and an annular grooved body between these extremes, said base-plate having studs projecting outwardly therefrom, said coupling having also an opening in each end and of different diametrical sizes, the larger of the two being adapted to receive the end of a driving shaft, and the smaller of the two being adapted to receive a screw, said studs being adapted to fit into recesses in the base of a massage device.

2. In a massage machine, a coupling sleeve having an annular flange cast solid to one end and an oil hole in the body thereof, said flange being adapted to give a finish to the outer end of a handle into which said sleeve is driven, said oil hole being adapted to admit oil into

the bearing of said sleeve on a coupling working therein, said sleeve having also fins projecting from, and extending longitudinally along, the outer surface thereof, said fins being adapted to prevent the end of the handle into which said sleeve is driven from turning on said sleeve, said sleeve being adapted to afford a suitable bearing between the end of a handle and a coupling working therein.

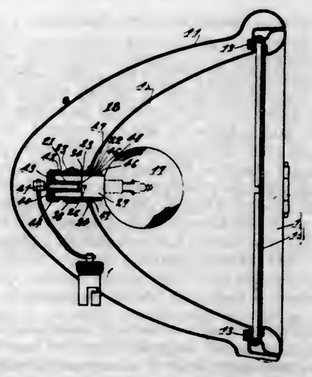
3. A massage machine consisting of a hinge-like structure removably attached to any suitable point of another machine, adjustable means for suitably elevating and lowering the free leaf of said hinge-like structure, a tube mounted endwise and uprightly on and securely attached to the free leaf of said hinge-like structure, a saddle-bearing mounted on said tube and adapted to oscillate laterally thereon, a shaft mounted on said saddle-bearing, a drive-wheel mounted on and securely attached to said shaft and a rim of any suitable wheel of said first mentioned machine.

1,140,892. RAIL-JOINT. JOZSEPH FARAGÓ, Clarence, Pa. Filed Feb. 17, 1915. Serial No. 8,951. (Cl. 239—8.)



A rail joint including meeting rail ends, one of the rail ends having the tread portion thereof cut-away to provide a seat, the end of the seat being further cut-away to provide an angular recess formed wholly within the tread adjacent the end thereof, a centrally disposed socket provided in the seat portion, the other rail end having a projecting tread portion cut-away to provide an overhanging ledge, the rear end of the ledge being further cut to provide an angular shoulder, a centrally disposed depending lug carried by the ledge and spaced from the edges thereof, said lug and shoulder adapted to be received in the seat and angular recess in the seat portion, and fish plate locking means associated with the rail ends.

1,140,893. ELECTRIC LAMP. CHARLES HARRY FISCHER, Cincinnati, Ohio. Filed Mar. 13, 1915. Serial No. 14,214. (Cl. 240—44.)



1. In an electric lamp, the combination with a reflector, of a lamp-member, a socket-member guided by the latter, said socket-member having thereon retardent surface-formations extending in a plurality of directions, and a resiliently acting position-retaining part coacting with said surface-formations, whereby said socket-member is arranged to be moved manually in any direction along or about the line of the principal axis of said reflector and said position-retaining part remaining automatically effective for retaining said socket-member in adjusted position.

2. In an electric lamp, the combination with a reflector, of a socket-member, a lamp-member guiding the latter, a plug for said socket-member, spring-pressed connecting means between said socket-member and plug arranged to be connected by axial and rotative movements of said plug, position-retaining means acting resiliently on said socket-member, whereby said socket-member is arranged to be manually moved in any direction along or about the line of the principal axis of said reflector and said position-retaining means remaining automatically effective for retaining said socket-member in adjusted positions, and a stop for limiting movement of said socket-member in the directions of said axial and rotative movements of said plug during connecting of said plug.

3. In an electric lamp, the combination of a reflector, a lamp-member, a socket-member having movement in said lamp-member in any direction along or about the line of the principal axis of said reflector, and resiliently acting position-retaining means continuously acting operatively between said members, said resiliently acting position-retaining means and socket-member provided with coacting position-retaining surfaces one of which is formed by alternating protuberances and depressions extending crossingly in a plurality of directions.

4. In an electric lamp, the combination of a reflector, a lamp-member, a socket-member having movement in said lamp-member in any direction along or about the line of the principal axis of said reflector, and resiliently acting position-retaining means continuously acting operatively upon said socket-member, said socket-member comprising a cylindrical portion provided with retardent surface-formations acted on retardingly to said movements of said socket-member in any of said stated directions, and said resiliently acting position-retaining means provided with a coacting surface.

5. In an electric lamp, the combination of a reflector, a lamp-member, a socket-member, a plug for the latter, spring-pressed connecting means between said socket-member and plug arranged to be connected by axial and rotative movements of said plug, said socket-member having movement in said lamp-member in any direction along or about the line of the principal axis of said reflector, and resiliently acting position-retaining means continuously acting operatively upon said socket-member, said socket-member comprising a cylindrical portion provided with retardent surface-formations acted on retardingly to said movements of said socket-member, said resiliently acting positioning means provided with a coacting surface, and a stop for limiting movement of said socket-member in the directions of said axial and rotative movements of said plug.

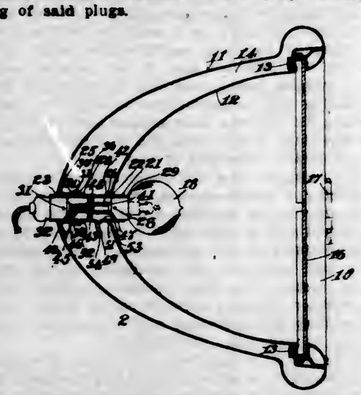
[Claims 6 to 8 not printed in the Gazette.]

1,140,894. ELECTRIC LAMP. CHARLES HARRY FISCHER, Cincinnati, Ohio. Filed Mar. 13, 1915. Serial No. 14,215. (Cl. 240—44.)

1. In an electric lamp, the combination of a casing, a reflector, a socket-member in the line of the principal axis of the reflector having an outer socket for a connector-plug opening outwardly at said casing and an inner socket for a light-bulb opening inwardly at said reflector, and position-retaining means acting resiliently on said socket-member, whereby said socket-member is arranged to be manually moved from either end in any direction along or about said line of the principal axis of the reflector and said position-retaining means remaining automatically active for retaining said socket-member in adjusted positions.

2. In an electric lamp, the combination of a casing, a reflector, a socket-member in the line of the principal axis of the reflector having a socket at each of its ends,

a plug for each of said sockets, spring-pressed connecting means between said socket-members and each of said plugs arranged to be connected by axial and rotary movements of said plugs, position-retaining means acting resiliently on said socket-member, whereby said socket-member is arranged to be manually moved in any direction along or about the line of the principal axis of the reflector and said position-retaining means remaining automatically active for retaining said socket-member in adjusted position, and stopping means limiting movements of said socket-member in the directions of said axial and rotary movements of said plugs during connecting of said plugs.



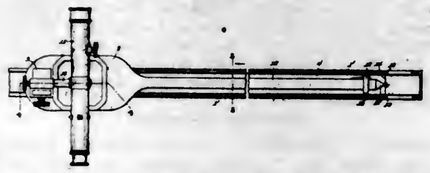
3. In an electric lamp, the combination of a casing and a reflector constituting lamp-elements, said casing and reflector having a space therebetween, a socket-member having guiding means in the space between said lamp-elements, said guiding means comprising a flange extending parallel to the line of the principal axis of said reflector into said space from one of said lamp-elements, said socket-member provided with a connector-plug socket at its casing end and with a light-bulb socket at its reflector end, and resiliently acting position-retaining means in said space, said last-named means and said socket-member provided with coacting retardent surface-formations extending in a plurality of directions for movement of said socket-member axially, rotatively, or in a direction which is the sum of said axial and rotative movements and automatically retaining said socket-member in adjusted positions.

4. In an electric lamp, the combination of a casing and a reflector constituting lamp-elements, said casing and reflector having a space therebetween, a socket-member having guiding means in the space between said lamp-elements, said guiding means comprising a flange extending in the line of the principal axis of the reflector into said space from one of said lamp-elements, said socket-member provided with a socket for a connector-plug at its casing end and with a socket for the plug of a light-bulb at its reflector end, resiliently acting position-retaining means in said space, said last-named means and said socket-member provided with coacting retardent surface-formations extending in a plurality of directions for movement of said socket-member axially, rotatively, or in directions which are the sum of said axial and rotative movements and automatically retaining said socket-member in adjusted positions, and means for limiting axial and rotative movements of said socket-member for attachment of said plugs.

5. In an electric lamp, the combination of a casing and a reflector constituting a pair of lamp-elements having a space therebetween, a flange extending into said space from one of said lamp-elements in the line of the principal axis of the reflector, a socket-member received in said flange, a resilient position-retaining means, said last-named means and said socket-member provided with coacting retardent surface-formations extending in a plurality of directions for movement of said socket-member axially, rotatively, or in directions which are the sum of said axial and rotative movements and automatically retaining said socket-member in adjusted positions, and a stop on said socket-member having a tapered end coacting with one of said lamp-elements.

[Claims 6 and 7 not printed in the Gazette.]

1,140,895. DISTANCE-MEASURING DEVICE. CHARLES E. FLANAGAN, Wheeling, W. Va. Filed Jan. 19, 1915. Serial No. 3,025. (Cl. 33—68.)



1. A distance measuring device comprising a bar having a graduated scale thereon, a slide adjustable longitudinally with respect to said bar, a plate pivotally mounted on said slide, a pointer carried in fixed relation to said plate and overlying said slide, means for adjusting said pointer laterally, causing said plate to turn on its pivot, a telescope mounted over said plate and permanently disposed at a right angle to said pointer, and means carried by said slide adapted to indicate graduations on the bar.

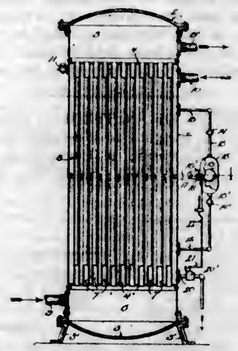
2. A distance measuring device comprising a bar having distance indicating graduations thereon, a member movable longitudinally with respect to said bar, a member pivotally mounted on the first mentioned member and adjustable with respect to the latter, an indicator device carried by said first mentioned member at a fixed distance from the pivotal connection of the second member, and a telescope carried by and permanently disposed at a right angle to said second member, said telescope being so located that its line of sight is permanently intersected by a vertical line passed through said pivotal connection.

3. A distance measuring device comprising a bar having distance indicating graduations thereon, a slide adjustable longitudinally with respect to said bar, a member pivoted on said slide and adapted for partial rotation on said pivot in a horizontal plane, means for adjusting the distance of such rotation, an indicator device carried by said slide at a definite distance from said pivot, said device being adapted to indicate graduations on said bar at all points in the adjustment of said slide, and a telescope carried by and permanently disposed at a right angle to said pivoted member, said telescope having its line of sight permanently intersected by a line passed through said pivot.

4. A distance measuring device comprising a bar having distance indicating graduations thereon, a slide adjustable longitudinally with respect to said bar, a plate pivoted on said slide and adapted for partial rotation on said pivot in a horizontal plane, a pointer carried in fixed relation to said plate and overlying said slide, means for adjusting said pointer to effect a definite partial rotation of said plate, an indicator device carried by said slide at a definite distance from said pivot, said device being adapted to indicate graduations on said bar at all points in the adjustment of said slide, and a telescope carried by said plate and occupying a position at a right angle to the slide when said plate occupies its normal or initial position, said telescope having its line of sight permanently intersected by a line passed through said pivot.

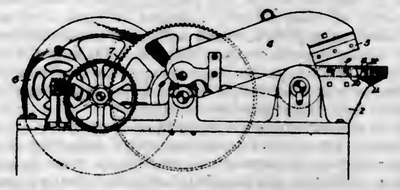
5. A distance measuring device comprising a bar having distance indicating graduations thereon, a slide adjustable longitudinally with respect to said bar, a plate pivoted on said slide and adapted for partial rotation on said pivot in a horizontal plane, a micrometer adjusting means whereby said plate is rotated a definite distance, an indicator device carried by said slide at a definite distance from said pivot, said device being adapted to indicate graduations on said bar at all points in the adjustment of said slide, and a telescope carried by said plate and occupying a position at a right angle to the slide when said plate occupies its normal or initial position, said telescope having its line of sight permanently intersected by a line passed through said pivot.

1,140,896. WATER-HEATER. ADELBERT FORSYTH, Milwaukee, Wis., assignor to Milwaukee Reliance Boiler Works, Milwaukee, Wis. Filed May 17, 1913. Serial No. 768,263. (Cl. 257—224.)



In a water heater having a steam pipe in communication with its top portion and a water pipe in communication with its lower portion, a valve for the water pipe, a balancing steam pipe in communication with the upper portion of the heater, and a balancing water pipe in communication with the lower portion of said heater the discharge mouths of said pipes being alined and spaced a predetermined distance apart; the combination of a reversible float casing having pipe sections of different lengths extending respectively from its ends, the combined length of said pipe sections and float being approximately equal to the space between the steam and water pipe with which they are adapted to be connected, coupling means for selectively locking the ends of the float pipe sections to the ends of the steam and water pipes whereby the valve-casing is raised or lowered to predeterminedly regulate the water level within the heater, an oscillatory float mounted in the valve casing, an arm carried by the float, a two part rod connecting the arm and valve of the water feed pipe, and means for locking the two part rod in adjusted positions as to length.

1,140,897. SHEARS. ISAAC W. FRANK, Pittsburgh, Pa., assignor to United Engineering & Foundry Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Mar. 20, 1915. Serial No. 15,750. (Cl. 164—41.)



1. A shear having one of its jaws provided with a frangible breaker block interposed between the blade and the rear part of the jaw, said block being adapted to give way under excessive pressure in a direction at substantially right angles to the plane of the shear blades; substantially as described.

2. A shear having one of its jaws providing with a frangible breaker block interposed between the blade and the rear part of the jaw, said block being arranged to give way under excessive wedging action between the blades; substantially as described.

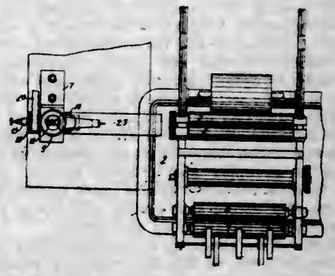
3. A shear of the lever or alligator type, having one of its jaws provided with a frangible breaker block seated removably behind its blade, said block being arranged to give way under excessive wedging action between the blades; substantially as described.

4. A shear of the lever or alligator jaw type, having means for protecting the lever jaw against breakage, said means comprising a frangible member interposed between one of its shear blades and the lateral abutment for said blade, said member being capable of breaking when subjected to an excessive strain due to a wedging action of said blade; substantially as described.

5. A shear having a breaker block interposed laterally between its fixed blade and an abutment on the shear bed, and a single securing means for both the shear blade and the breaker block; substantially as described.

[Claims 6 to 10 not printed in the Gazette.]

1,140,898. METHOD OF GALVANIZING. WILLIAM GIBSON, Sr., Vandergrift, and ROBERT SKEMP, Scottdale, Pa., assignors to American Sheet & Tin Plate Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed Mar. 9, 1912. Serial No. 682,666. (Cl. 91—70.2.)



1. The method of coating sheets and similar metal articles which consists in conveying the articles through a molten bath of coating metal, and impinging a finely divided fluxing agent upon the molten surfaces of the coating on the articles as the articles leave the bath of coating metal, to thereby prevent oxidation and secure a uniform distribution of the coating metal on the surfaces of the coated articles.

2. The method of coating sheets and similar metal articles which consists in conveying the articles through a molten bath of coating metal into an atmosphere of at least partially non-oxidizing gases and simultaneously applying a finely divided fluxing agent upon the molten surfaces of the coating metal on the articles as the articles leave the bath of coating metal, to thereby prevent oxidation and secure a uniform distribution of the molten coating metal on the surfaces of the coated articles.

3. The method of coating sheets and the like which consists in mechanically conveying the articles through a molten bath of coating metal, causing the coated articles to emerge therefrom into an atmosphere at least partially formed of non-oxidizing gases, and impinging a finely divided fluxing agent on the molten surfaces of the coating upon the articles emerging from the pot and to the uppermost surfaces of the feed-out rolls during the coating operations, to thereby prevent oxidation of the coating and secure a uniform distribution of the coating metal on the surfaces of the coated materials.

4. The method of coating sheets and other articles, which consists in mechanically passing the sheets through the molten coating metal and impinging a finely divided fluxing agent on the surface of the molten coating on the articles and the uppermost surfaces of the feed-out rolls at the exit end of the pot during the coating operations to thereby prevent oxidized coating metal adhering to the surfaces of said feed-out rolls.

6. The method of coating sheets or plates consisting in passing the materials into and through the bath of coating metal, feeding the sheets out of the bath of coating metal by means of feed-out rollers, feeding regulated quantities of a suitable fluxing agent during the coating operations to the surface of the molten coating on the coated materials at the exit end of the pot and the surfaces of the feed-out rolls by blowing the finely divided flux across the uppermost faces of the rolls and across the surfaces of the articles emerging from the pot by means of a blast of gaseous fluid pressure.

[Claims 6 and 7 not printed in the Gazette.]

1,140,899. COMBINED BUMPER AND FENDER FOR AUTOMOBILES. SAMUEL GLASGOW, Philadelphia, Pa. Filed Jan. 30, 1915. Serial No. 5,170. (Cl. 105—130.)



1. A device of the character stated, comprising a two part bumper, an apron normally held within the bumper, means for opening the bumper and releasing the apron, and means accessible from the driver's seat to effect the retraction of said apron and the closing of the bumper.

2. A combined bumper and fender, comprising a sectional casing, an apron contained within said casing and connected with the sections, means accessible to the driver to effect the extension of said apron, and means accessible to the driver to effect the retraction of said apron.

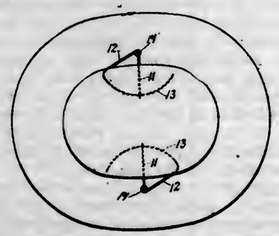
3. A device of the character stated, comprising a casing consisting of an upper and a lower section, rotatably mounted brackets connected to said upper section, a fender apron concealed within said casing, and means to effect the extension and retraction of said apron.

4. A device of the character stated, comprising two relatively movable members, brackets rotatably mounted and connected with one of said members, an apron connected to said members and inclosed thereby when they are in closed position, and means to effect the extension and retraction of said apron.

5. A device of the character stated, comprising stationary supporting brackets, brackets rotatably mounted therein, a casing comprising sections one of which is fixed to said rotatably mounted brackets, a fender apron connected with said sections and inclosed thereby when the fender apron is in closed position, means accessible to the vehicle driver to effect the extension of said fender apron, and means accessible to the vehicle driver to effect the retraction of said fender apron.

[Claims 6 to 16 not printed in the Gazette.]

1,140,900. HAT-FASTENER. JULIAN GONZALEZ, Buenos Aires, Argentina. Filed July 25, 1913. Serial No. 781,164. (Cl. 132—25.)

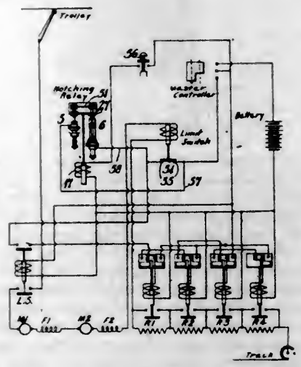


1. In a hat fastener, the combination of a straight main pin; and a supplementary pin consisting of a connecting part having a pivotal connection with one end of the main pin, and an arcuate part joining the connecting part and having said pivotal connection as its generating center and in the axis of the main pin.

2. In a hat fastener, the combination of a straight main pin; and a supplementary pin consisting of a connecting part having a pivotal connection with one end of the main pin, and an arcuate part joining the connecting part and having said pivotal connection as its generating center and in the axis of the main pin, the radius of the arcuate part being approximately equal to the length of said main pin.

3. In a hat fastener, the combination of a straight pin having an eye at one end; and a supplementary pin having a straight part having an eye loosely engaging in said first named eye, and an arcuate part having said eyes for its center and having one end pointed and joining said straight part at the other, said straight part and said straight pin being approximately equal in length.

1,140,901. SYSTEM OF CONTROL. ARTHUR J. HALL, Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed July 2, 1913. Serial No. 777,000. (Cl. 172—179.)



1. A system of control, comprising a plurality of independently operated switches adapted to be automatically closed in a predetermined sequence under predetermined current conditions, and means under the control of the operator for temporarily suspending the automatic progression of the switches for a definite short interval of time.

2. A system of control, comprising a plurality of independently operated switches adapted to be automatically closed in a definite progression in accordance with predetermined current conditions, and an auxiliary manually controlled means normally independent of the operation of said switches for effecting the closure of said switches successively in a regular sequence and under limits as to closing intervals.

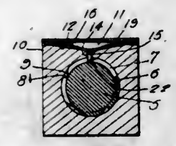
3. A control system for electric motors comprising a plurality of independently actuated switches adapted to be closed in a predetermined sequence, an electro-responsive device dependent upon current conditions for automatically governing the progression of said switches, and manually controlled means for rendering said device inoperative for a short interval of time.

4. A system of control comprising a plurality of independently actuated switches, automatic means for closing said switches successively in accordance with predetermined conditions, and manually controlled means normally independent of said system for effecting the closure of one switch at a time, under abnormal circuit conditions.

5. A system of control comprising a plurality of independently actuated switches, automatic means dependent upon circuit conditions for closing said switches successively, and manually controlled means for rendering the operation non-automatic and closing a single switch.

[Claims 6 to 17 not printed in the Gazette.]

1,140,902. NUT-LOCK. FRANK ALBERT HARRIS, Spokane, Wash. Filed Dec. 19, 1914. Serial No. 878,088. (Cl. 151—11.)



1. A nut lock comprising a bolt having mutilated threads providing a plurality of shoulders and a plurality of cam surfaces opposite the shoulders, a nut adapted to be turned upon said bolt and having a recess provided in one side thereof, said recess having a centrally depressed floor, said nut provided with an opening extending from the central portion of the recess to the bore of the nut, a leaf spring adapted to be positioned in said recess and provided with a depressed central portion adapted to normally lie in the depressed portion of the recess floor, a detent carried by said spring and adapted to extend through said opening into engagement with said mutilated threads, said detent having a beveled lower edge, and a slide provided with beveled edges adapted to be extended into a dovetailed guideway for bridging the recess, said leaf spring at its ends adapted to bear against said slide.

2. A nut lock comprising a bolt having mutilated threads, a nut adapted to be turned upon said bolt, said nut being provided with a recess in one side thereof having a floor depressed at its central portion, a leaf spring provided with a bowed central portion adapted to extend into the depression in the recess floor, a detent adapted to slidably extend through an opening in the nut into engagement with said mutilated threads, said spring adapted to press said detent into engagement with the bolt threads, and means for removably maintaining the spring in position in the recess.

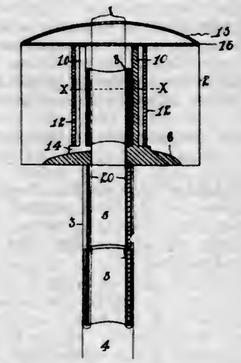
3. The combination with a bolt having mutilated threads, of a nut adapted to be turned upon said bolt and provided with a recess in one side thereof having a depressed portion, said nut being further provided with an opening communicating with the depressed portion of the recess and with the bore of the nut, a detent slidably positioned in the opening, a spring adapted to be removably disposed in the recess and having a bowed portion adapted to be disposed within the depressed portion of the recess for pressing the detent into engagement with the bolt threads, and means for removably maintaining the spring in position.

4. The combination with a bolt, of a nut adapted to be turned upon said bolt and provided with a recess, a detent slidably disposed in an opening communicating with the recess and adapted to engage with the threads of the bolt, a spring adapted to be disposed in the recess for normally maintaining the detent in engagement with the bolt, and a slide adapted to be extended into the recess and to frictionally engage the nut, said slide adapted to maintain said spring and detent against accidental loss.

1,140,903. LAND-DRAIN. ALVA C. JOHNSON, Dubuque, Iowa. Filed Feb. 10, 1913. Serial No. 747,406. (Cl. 61—9.)

1. In a device of the character described, a drain sunk in the ground to porous earth, a supporting base resting on the ground over the drain and provided with an opening therethrough that registers with the drain in the ground, a drain head secured to the base around the opening in the base, standards secured to the head, a soil fender around the standards, and a cap resting on the standards.

2. In a device of the character described, a drain sunk substantially vertical in the ground, a supporting base set on the ground over the drain and provided with an opening that registers with the drain, a drain head secured to the supporting base, standards secured to the base and to the drain head and provided with feet, a casing surrounding said drain head and standards and resting on the feet of the standards, and a cap resting on the standards.



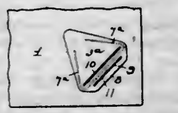
3. In a device of the character described, a drain sunk in the ground to porous earth, a supporting base resting on the ground over the drain and provided with an opening that registers with the drain, a drain head integral with the base around the opening in the base, standards integral with the base and provided with feet, a soil fender resting on the feet of the standards and surrounding the standards and drain head, and a cap resting upon the standards and the soil fender.

4. In a device of the character described, a drain sunk in the ground, a supporting base resting on the ground and provided with an opening that registers with the drain, a drain head integral with the base and set over the opening in the base, standards integral with the base and drain head and provided with feet, a soil fender surrounding the standards and drain head and resting on the feet of the standards, a cap resting on the standards and soil fender and projecting beyond the soil fender and means for securing together the cap, and the drain.

5. In a device of the character described, a drain composed of lengths of tiling set one upon another sunk in an opening in the ground, a supporting base resting on the ground over the drain and provided with an opening that registers with the drain, a drain head secured to the supporting base, standards secured to the drain head, a soil fender around the drain head and standards, a cap resting on the standards and means for suspending the drain tiles from the cap and leaving an open space at the bottom of the opening in the ground.

[Claims 6 and 7 not printed in the Gazette.]

1,140,904. CARD-HOLDER FOR ALBUM-LEAVES. GEORGE KIERNAN, Philadelphia, Pa. Filed Nov. 21, 1914. Serial No. 873,292. (Cl. 129—20.)



1. An album leaf having a retaining portion with slot for the reception of the corner of a card, and a reinforcing device applied to that portion of the retainer outwardly beyond the slot.

2. An album leaf having a retaining portion with slot for the reception of the corner of a card, and a reinforcing device extending around the ends of the slot.

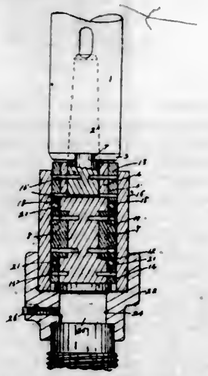
3. An album leaf having a retaining portion with slot for the reception of the corner of a card, and a reinforcing device applied to that portion of the retainer outwardly beyond the slot, and extending inwardly around the ends of the same.

4. An album leaf having a retaining portion with slot for the reception of the corner of a card, and a band outwardly beyond said slot and beneath which the corner of the card is disposed, said band being provided with a reinforcing device.

5. An album leaf having a retaining portion with slot for the reception of the corner of a card, and a band outwardly beyond said slot and beneath which the corner of the card is disposed, said band being provided with a reinforcing device which extends inwardly around the ends of the slot.

[Claims 6 to 14 not printed in the Gazette.]

1,140,905. TAP-LEADING CHUCK. DAVID C. KLAUSMEYER, Hamilton county, Ohio, assignor to The Cincinnati-Bickford Tool Company, Oakley, Ohio, a Corporation of Ohio. Filed Jan. 29, 1914. Serial No. 815,299. (Cl. 10—129.)



1. The combination of concentric members, the one being formed with a spline groove, the other being provided with a spline of less width than the groove and movable therein, anti-friction balls movable within the groove and around the spline, and means for preventing the escape of the balls from the ends of the groove.

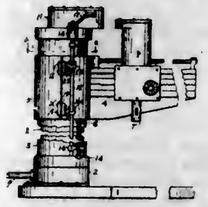
2. A tap leading chuck comprising concentric members, the one being formed with a spline groove, the other being provided with a coacting spline having an intermediate portion of its length reduced in width and formed with passages across its respective ends, and anti-friction balls movable within said passages and between said reduced portion and the adjacent walls of the groove.

3. A tap leading chuck comprising concentric cylindrical members relatively movable longitudinally, the one being formed with a longitudinal groove, the other being provided with a longitudinal lug movable within the groove, anti-friction balls movable within the groove and around the lug therein, and spline sections movable within the groove beyond the ends of the lug for retaining the balls therein.

4. The combination of concentric members relatively movable longitudinally, the one being formed with a longitudinal groove, the other being formed with a rib or spline adapted to project within the groove, anti-friction balls interposed between the adjacent walls of the spline and groove, and channels for the passage of the balls from one side of the spline to the other.

1,140,906. COMBINED LOCKING AND CLAMPING DEVICE. DAVID C. KLAUSMEYER, Norwood, Ohio, assignor to The Cincinnati-Bickford Tool Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Sept. 10, 1913. Serial No. 789,182. (Cl. 77—28.)

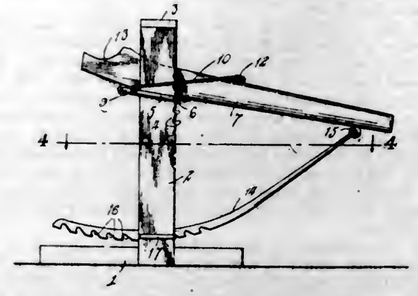
1. The combination of a vertical column, a sleeve rotatively supported thereon, a radial arm splined on the sleeve, power actuated screw connections for moving the arm longitudinally on the sleeve, a shifting rod for said connections, clamping screws for immovably securing the arm on the sleeve, and connections therewith for simultaneously locking the shifting rod with the mechanism out of action.



2. The combination of a member, a split collar splined thereon, mechanism for adjusting the collar on the member, a rectangular shifting rod for controlling said mechanism, a clamping screw for the collar and formed with parallel jaws arranged to engage with the shifting rod for locking it out of action during the clamping engagement of the collar with said member, and for simultaneously disengaging the rod with the releasing of the collar from the member.

3. The combination with a support, a sleeve thereon, a collar splined on the sleeve, screw mechanism for adjusting the collar on the sleeve, a shifting rod for controlling said mechanism, means for immovably securing the collar on the sleeve and detachable connections therefrom with said rod for locking said rod with the mechanism out of action.

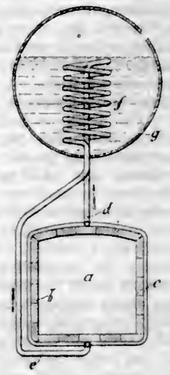
1,140,907. LIFTING-JACK. CHRISTIAN S. LEHMAN, Lawn, Pa. Filed June 8, 1914. Serial No. 843,836. (Cl. 57—43.)



1. A device of the class described comprising the combination with a base and a standard projecting upwardly therefrom and having notches in one longitudinal edge, of a lifting lever extending through said standard, a member pivoted to said lifting lever and adapted for engagement with one of said notches, means carried by said lifting lever and connected with said member to clamp the same upon said standard and thereby prevent movement of said lifting lever longitudinally of said standard, a locking rod carried by said standard, and a locking bar carried by said lifting lever for engagement with said locking rod to lock the lifting lever against pivotal movement in one direction.

2. A device of the class described comprising a standard having notches formed in one face, a base for said standard, said standard being formed of spaced parallel members, a lifting lever extended between said parallel members, a supporting member carried by said lifting lever for engagement with the notches of the standard to secure said lifting lever in adjusted position longitudinally of said standard, means for clamping said supporting member in engagement with said standard, and means for automatically locking the lifting lever against pivotal movement in one direction.

1,140,908. CASING FOR DOWNDRAFT-FURNACES. KARL PRINZ ZU LÖWENSTEIN, Neckargemünd, Germany. Filed July 18, 1913. Serial No. 779,824. (Cl. 122—33.)



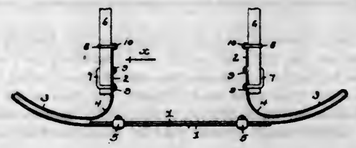
1. In a water-cooled furnace, the combination of a thin lining of refractory brick masonry; a plurality of closely spaced pipes surrounding said lining in contact therewith; upper and lower conduits above and below said lining and connecting the pipes in groups; a circulation pipe connecting each upper conduit with the corresponding lower conduit; and a heat exchange device associated with the circulation pipe.

2. In a water-cooled casing for refractory masonry for furnaces, the combination of a plurality of groups of pipes lying close together; conduits connecting one group of pipes with another; and a heat exchange device in the conduits.

3. In a water-cooled furnace, the combination of a thin lining of refractory material; a plurality of closely spaced water conducting pipes surrounding said lining in contact therewith and a heat exchange device connected with said pipes.

4. In a water-cooled furnace, the combination of a thin lining of refractory material; and a plurality of closely spaced water conducting pipes surrounding said lining in contact therewith, said pipes and device forming a closed system through which the same water circulates repeatedly.

1,140,909. BUFFER FOR MOTOR-VEHICLES. GEORGE ALBERT LYON, Philadelphia, Pa., assignor to Lyon Non-Skid Company, Philadelphia, Pa., a Corporation of Pennsylvania. Original application filed Apr. 21, 1913, Serial No. 762,548. Divided and this application filed Mar. 28, 1914, Serial No. 827,974. Renewed Mar. 1, 1915. Serial No. 11,327. (Cl. 213—39.)



1. A motor vehicle buffer having an attaching member lying alongside of a side bar of the vehicle frame and secured thereto by means of a yoke bolt, said attaching member having an inclined portion for engagement with said yoke bolt, whereby the latter can be disposed diagonally in respect to the side member of the frame.

2. A motor vehicle buffer having an attaching member whereby the same is secured to a side bar of the vehicle frame, a securing bolt for said attaching member, and an eccentric sleeve applied to said bolt and serving to compensate for different depths of side bars.

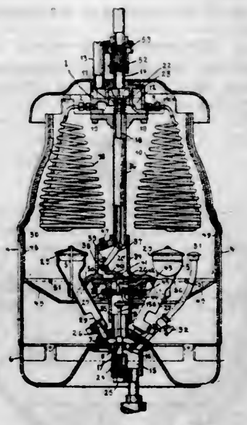
3. The combination of the attaching member of an automobile buffer, and means to secure said member to a side bar of the vehicle frame, said means having two points of bearing on one face of the bar and one on the opposite face of the same, said single bearing constituting a fulcrum and one of the opposite bearings being adjustable so as to exert a leverage on the other of said bearings.

4. The combination of the attaching member of an automobile buffer, and means to secure said member to a side bar of the vehicle frame, said means including a device which engages the top and bottom surfaces of said side bar, and means for engaging the bar at another point and causing the attaching member to act as a lever of which one of the other bearings is the fulcrum.

5. The combination of the attaching member of an automobile buffer, and means to secure said member to a side bar of the vehicle frame, said means including a device which engages the top and bottom surfaces of said side bar and is provided with adjusting means, said attaching member also having an adjustable bearing on the bar some distance from the first two bearings, whereby the attaching member constitutes a lever of which one of the first two bearings is the fulcrum.

[Claim 6 not printed in the Gazette.]

1,140,910. WATER-HEATER. ROBERT F. METCALFE, Erie, Pa. Filed Feb. 25, 1913. Serial No. 750,484. (Cl. 126—351.)



1. A water heater of the character described, comprising a water container having two separate compartments therein, a series of water heating tubes connecting said compartments, water heating means, a water actuated plunger located within one of said compartments, a gas valve, actuating means located between said water plunger and the gas valve comprising a flexible diaphragm having protruding fingers placed in operative contact with said water actuated plunger and the gas valve.

2. A water heater of the character described, comprising a series of waterheating tubes, a plurality of gas burners adjacent thereto, a gas valve, a valve stem connected to said gas valve, a flexible diaphragm having a projecting finger on each face, a water operated valve piston, an actuating lever placed in contact with the projecting finger on the upper face of the diaphragm operatively connected to said valve piston, a bell crank lever engaging the finger on the lower face of said diaphragm and operatively connected to said gas valve stem.

3. A water heater of the character described, comprising a water container having two separate compartments therein, a series of water heating coils placed in communication between said compartments, heating means adjacent to said water heating coils, heat controlling

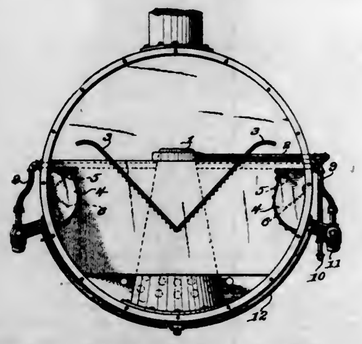
means, a flexible diaphragm having fingers projecting therefrom, a water operated valve piston, a lever engaging the upper finger of said diaphragm operatively connected to said valve piston, a second lever engaging the lower finger of said diaphragm, and operating to actuate the heat controlling means.

4. A water heater of the character described, comprising a water container having two separate compartments therein, a series of water heating coils connecting said compartments, a gas valve, a flexible diaphragm having fingers projecting from its upper and lower faces, a water actuated valve piston, a lever pivoted at its lower end operatively connected to said valve piston and engaging the upper finger of said diaphragm, a bell crank lever engaging the lower finger of said diaphragm, operating to actuate the gas valve substantially as described.

5. A water heater of the character described, comprising a water container having two separate compartments therein, water conductors connecting said compartments comprising a series of water heating coils, a plurality of gas burners adjacent to said water heating coils, a gas passage leading to said burners, a gas valve located in said passage, a flexible diaphragm having fingers projecting from its upper and lower faces, a water actuated valve piston, a lever pivoted at its lower end operatively connected to said valve piston and engaging the upper finger of said diaphragm, a bell crank lever engaging the lower finger of said diaphragm, and operating to actuate the gas valve, substantially as described.

[Claims 6 to 17 not printed in the Gazette.]

1,140,911. SPARK-ARRESTER. HOUGHTON L. NEEDHAM, Chicago, Ill. Filed Feb. 25, 1915. Serial No. 10,591. (Cl. 110—122.)



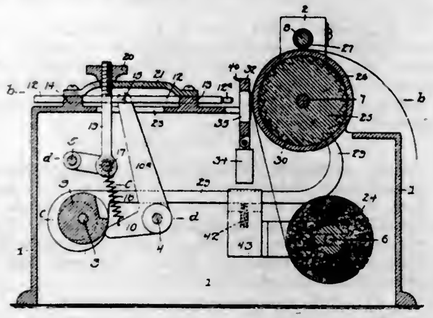
1. A spark arrester for locomotives having a steam exhaust nozzle arranged below the locomotive smoke stack, two laterally inclined perforated deflecting plates arranged between the exhaust nozzle and front end closure meeting in a horizontal line below the center of the locomotive casing and having curved upper ends, spark receiving chambers arranged on the interior of each side of the front end below the upper extremities of each deflecting plate, alternately arranged inwardly projecting baffle plates in each spark receiving chamber, a returning pipe on the exterior of each side of the locomotive casing leading from each spark chamber to the fire box, a steam injector on the forward end of each return pipe in the advance of its connection to the spark chamber, and a connection from the steam exhaust nozzle to each steam injector.

2. A spark arrester for locomotives having a steam exhaust nozzle arranged below the locomotive smoke stack and a steam blower nozzle arranged in proximity thereto, two laterally inclined perforated deflecting plates arranged between the exhaust nozzle and front end closure meeting in horizontal line below the center of the locomotive casing and having curved upper ends, spark receiving chambers arranged upon the interior of each side of the front end below the upper extremities of each deflecting plate, alternately arranged inwardly inclined perforated baffle plates in each chamber, a return pipe on each exterior side of the locomotive casing leading from each spark chamber to the fire box, a steam injector on the front end of each return pipe in advance of its connection to the spark chamber and a connection from the steam blower pipe to each steam injector.

3. A spark arrester for locomotives having an exhaust steam nozzle and a steam blower nozzle, spark receiving chambers on the interior of each side of the front end, inclined perforated deflecting plates terminating above said chambers, a return pipe from each chamber to the fire box, a steam injector in each end of the return pipe connected to the exhaust steam nozzle and a second steam injector within the first connected to the steam blower pipe.

4. A spark arrester for locomotives having a steam exhaust nozzle arranged below the locomotive smoke stack and a steam blower nozzle arranged in proximity thereto, two laterally inclined perforated deflected plates arranged between the exhaust nozzle and the front end closure meeting in a horizontal line below the center of the locomotive casing and having curved upper ends, spark receiving chamber arranged on the interior of each side of the front end below the upper extremity of each deflecting plate, a return pipe on the exterior of each side of the locomotive casing leading from each spark chamber to the fire box, a steam injector on the forward end of each return pipe in advance of its connection to the spark chamber, a connection from the steam exhaust nozzle to each steam injector, a second steam injector arranged within each of the first steam injectors and a connection between each second steam injector to the steam blower pipe.

1,140,912. MACHINE FOR TESTING TYPE-WRITER RIBBONS, &c. SAMUEL A. NEIDICH, Edgewater Park, N. J. Filed May 1, 1912. Serial No. 694,483. (Cl. 73—51.)



1. The combination, in a machine for testing inking ribbons or the like, of means for retaining two or more ribbons immovable side by side, means for striking uniform blows from type upon such ribbons, and means for feeding paper between such blows, so that the impressions from such ribbons shall appear side by side and one after another.

2. The combination, in a machine for testing inking ribbon or the like, of type bars, means for operating the same, a removable sample holder, clamps for securing a plurality of inked ribbon samples fixedly in position on said holder, and means for removing and replacing the holder in exact position without disturbing the samples so that successive blows from the same type will strike identical spots on the samples before removal and after replacement of the holder.

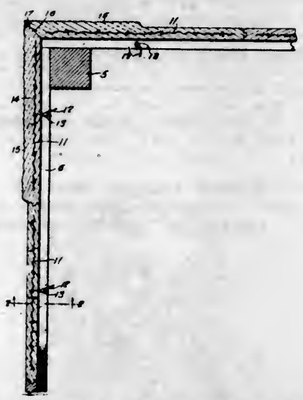
3. The combination, in a machine for testing inking ribbons or the like, of a holder for a plurality of samples, means including a plurality of type for striking blows upon such samples, and means for adjusting the strength of the blows of the various types collectively without altering the strength of the blows with reference to each other.

4. The combination, in a machine for testing inking ribbons or the like, of laterally separated type bars, a suitable impression surface, an interposed ribbon carrier having separated openings for the operation of said type bars, and means for confining to said carrier a plurality of samples to be tested, each sample crossing one of the openings of the carrier and being retained in place at such end of said opening.

5. In a machine for testing inking ribbons or the like, a sample-carrier consisting of a unitary structure having separated openings side by side therein over which are placed the samples to be tested, each opening having at each end means for clamping the samples in position thereon.

[Claims 6 to 11 not printed in the Gazette.]

1,140,913. FACING-BLOCKS. FREDERICH GEORGE NIEMEYER, Denison, Tex. Filed Sept. 29, 1914. Serial No. 864,088. (Cl. 72—20.)



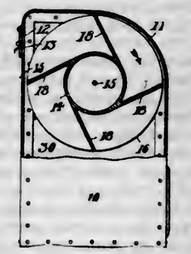
1. A building including a plurality of horizontally spaced strips, a plurality of facing blocks each provided with means for securing the same at a single point to one of the horizontal strips, said blocks having interlocked tongue and groove connections, said connections being uncemented.

2. A building including a framework, a plurality of blocks, a flexible tie for suspending each block at a single point from the framework, said blocks having interlocked uncemented connections, whereby the blocks may readjust themselves to accommodate vibration or settling of the frame.

3. The combination of a frame and a plurality of blocks suspended each from the frame at a single point and having interlocking uncemented connections.

1,140,914. MAIL-BOX. JULIAN OSTACHOWSKI, Buffalo, N. Y. Filed Oct. 19, 1914. Serial No. 867,351. (Cl. 232—52.)

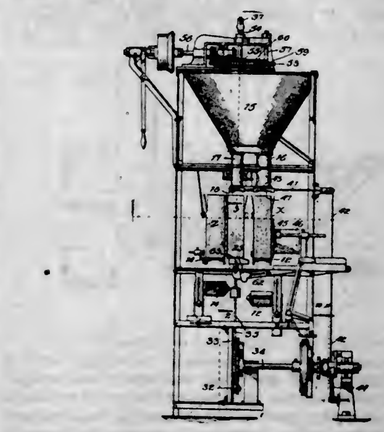
1. A device of the class described, comprising a box having a mail entrance slot adjacent the top thereof, a cylinder horizontally journaled for revolution within the said box, projecting end disks at the opposite ends of the cylinder slightly spaced from the end walls of the box, non-radial blades projecting from the cylinder and connecting the disks thereof and forming pockets between the adjacent blades and disks, one of said disks having V-shaped radial recesses on its outer side decreasing in depth toward their pointed ends, a plunger slidably mounted through the front wall of the box and having a hooked inner end adapted to engage the said recesses, a horizontally positioned slotted guide carried by the box and having said plunger positioned therein, and a pawl and ratchet means for said cylinder preventing rearward movement thereof.



2. A device of the class described, comprising a box having a mail entrance slot, a cylindrical feeder horizontally journaled within the box, there being spaced recesses formed in one end wall of the feeder, a reciprocating plunger carrying a hook adapted to be received in said recesses, and means for preventing retrograde movement of the feeder, said recesses being formed whereby the hook carried by the plunger may be readily disengaged from said recesses.

3. A device of the class described comprising a box having a mail entrance slot adjacent the upper end thereof, a cylindrical feeder horizontally journaled within the said box and having a mail receiving pocket formed therein, spaced recesses having inclined bottom walls formed in one end wall of said feeder, a reciprocating plunger operatively received in said recesses, and pawl and ratchet stop means at the opposite end of the cylinder from the said plunger to prevent retrograde movement of the feeder.

1,140,915. CARTON WEIGHING AND FILLING MACHINE. CHARLIE REDD, Chicago, Ill., assignor of one-half to Isaac Pieser and one-half to Charles G. Livingston, Chicago, Ill. Filed Aug. 7, 1914. Serial No. 855,617. (Cl. 73—183.)



1. In combination, an initial and a final feeding chute, a valve to close each chute, a scale beneath the final chute, means to position cartons successively beneath said chutes, a material-feeding screw in each chute, means for driving said screws continuously whereby the material is husbanded in the chutes while each is closed, means to open the valve of the final chute after a carton is in place thereunder, scale-controlled means to close the valve of the

final chute, and means to open and close the initial chute while the carton is stationary.

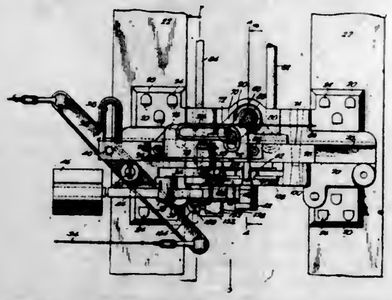
2. In combination, an initial and a final feeding chute, a valve to close each chute, a scale beneath the final chute, means to position cartons successively beneath said chutes, a material-feeding screw in each chute, means to rotate said screws, means positively to reciprocate the feeding screw in the final chute, for the purpose set forth, means to open the valve of the final chute after a carton is in place thereunder, scale-controlled means to close the valve of the final chute, and means to open and close the initial chute while the carton is stationary.

3. In combination, an initial and a final feeding chute, a valve to close each chute, a scale beneath the final chute, means to position cartons successively beneath said chutes, a feed-screw in each chute, means to drive said screws continuously, the feed-screw in the initial chute being adapted to rise longitudinally when material accumulates beneath it, means to open the valve of the final chute after a carton is in place thereunder, scale-controlled means to close the valve of the final chute, and means to open and close the initial chute while the carton is stationary thereunder.

4. In combination, an initial and a final feeding chute, a valve to close each chute, a scale beneath the final chute, means to position cartons successively beneath said chutes, a feed-screw in the final chute, means constantly to rotate and to reciprocate said feed-screw for the purpose set forth, means to open the final chute after a carton is in place thereunder, scale-controlled means to close the valve of the final chute, and means to open and close the initial chute while the carton is stationary thereunder partially to fill the cartons, for the purpose set forth.

5. In a device of the class described, a vertically movable scale-pan upon which the cartons rest, surfaces on the two sides of the scale-pan upon which the cartons approach and leave the pan, said surfaces being located at the normal level of the scale-pan, means to feed the cartons successively from the first of said surfaces to the scale-pan and from the scale-pan to the second of said surfaces, and means operated by the feeding-mechanism for elevating the scale-pan to its normal level while a loaded carton is in place thereon.

1,140,916. SWITCH MECHANISM. EUGENE M. ROBINSON, Chicago, Ill. Original application filed Feb. 21, 1910, Serial No. 545,059. Divided and this application filed Nov. 14, 1914. Serial No. 872,112. (Cl. 104—25.)



1. In mechanism of the class described, the combination of a pivoted lever, a reciprocatable bar and an intermediate connecting mechanism comprising a connected link and guiding device therefor arranged to be operated either by moving the lever or bar as desired.

2. In mechanism of the class described, the combination of a fixed support, a pivoted lever, a reciprocatable bar, an intermediate connecting link pivoted to the bar and to the lever, one end of the link engaging with the fixed support for the purposes set forth.

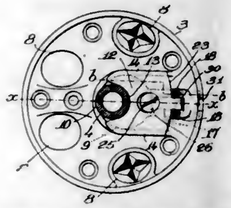
3. In mechanism of the class described, the combination of a fixed standard, a lever pivotally mounted on said standard, a bar to be reciprocated, mounted to slide transversely of said standard, an intermediate link pivoted upon said lever and pivoted upon said bar, the pivot upon the bar being relatively nearer to the main pivot of the lever than the pivot of the intermediate link upon the lever, and gear teeth upon the end of the intermediate link which is adjacent to the pivot of the lever being adapted to engage a part of the fixed standard, to operate as described for the purposes set forth.

4. In a device of the class described, a switch lever, a fixed member adjacent thereto, a latch dog slidably mounted upon the switch lever adapted to selectively engage notches in said fixed member, and mechanism permitting locking of said latch dog in engagement with one of said notches while preventing said locking in all other positions of the lever.

5. In mechanism of the class described, the combination of a pivoted switch lever, a fixed member adjacent thereto, provided with notches therein, a latch dog carried by the switch lever adapted to enter said notches, a padlock lug carried by said switch lever and adapted to be covered by the latch dog in moving along the lever, the dog and padlock lug being so shaped and arranged that when the dog is in engagement with one of the notches upon the circular member the padlock may be inserted through the padlock lug to lock the lever, and that this action is prevented in all other positions of the device.

[Claims 6 to 13 not printed in the Gazette.]

1,140,917. OUTLET-BOX. MINER ROBINSON, Newton, Mass. Filed Aug. 8, 1912. Serial No. 714,012. (Cl. 247—1.)



1. An outlet box and the like having an eccentrically-located pipe-receiving aperture which is normally of a size to permit the capped end of a pipe to be passed therethrough, and one side of which is situated so that when said pipe is resting thereagainst said pipe will be concentric relative to said box, and a clamping and bonding member slidably sustained by the outlet box for movement toward and from said aperture and having a shape substantially to close the portion of the aperture not occupied by the pipe.

2. An outlet box and the like having a pipe-receiving aperture which is normally of a size to permit the capped end of a pipe to be passed therethrough, and a bonding member slidably sustained by said outlet box for movement toward and from the aperture and having a shape substantially to close or seal when in bonding position the portion of said aperture not occupied by the pipe.

3. An outlet box and the like having a pipe-receiving aperture which is normally of sufficient size to permit the capped end of a pipe to be passed therethrough, and a one-piece bonding member shaped substantially to close when in bonding position the portion of the aperture not occupied by the pipe.

4. In an outlet box and the like having a pipe-receiving aperture and two separate wedging surfaces situated at different distances from said aperture, of a bonding member adapted to engage said surfaces and be clamped thereby against the pipe.

5. The combination with an outlet box having a pipe-receiving aperture and two wedging surfaces situated at different distances from said aperture, of a bonding member to engage said surfaces, a pipe inserted through the aperture, and means situated between said surfaces to force the bonding member against the wedging surface, thereby to clamp it against the pipe.

[Claims 6 to 18 not printed in the Gazette.]

1,140,918. INSOLE FOR SHOES. THOMAS F. ROONEY, St. Louis, Mo., assignor, by direct and mesne assignments, to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Dec. 31, 1913. Serial No. 809,599. (Cl. 36—22.)



1. An insole having a groove formed therein at a distance from the edge thereof, and a lip formed at right angles to said groove on the inside edge thereof.

2. An insole having a groove formed therein by cutting along a line at a distance from the edge thereof, a lip formed from the cutaway material of said groove, said lip being turned upwardly from said groove on the inside edge thereof, and an angular reinforcing strip secured in said groove and to said lip.

3. An insole having a groove formed therein at a distance from the edge thereof, a lip formed at right angles to said groove on the inside edge thereof, and a reinforcing strip secured in said groove, said reinforcing strip adapted to reinforce said lip and the weakened portion of said insole caused by the forming of said groove.

1,140,919. KEYLESS LOCKING DEVICE. HAROLD C. SHIPMAN, Ottawa, Ontario, Canada. Filed Dec. 8, 1913. Serial No. 805,454. (Cl. 70—54.)



1. In a lock, the combination of a locking member, a casing provided with apertures, a disk shiftably mounted in said casing and provided with apertures adapted to register with such casing apertures, means on said disk for lockingly engaging said locking member, pins yieldingly supported in certain apertures of said disk, buttons yieldingly supported in certain apertures of said casing in engagement with said pins, and buttons yieldingly supported in other apertures of said casing and adapted to lockingly engage the corresponding apertures of said disk.

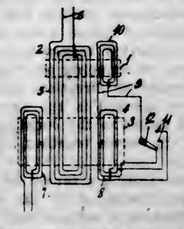
2. In a lock, the combination of a locking member, a casing provided with apertures, a disk shiftably mounted in said casing and provided with apertures adapted to register with such casing apertures, means on said disk for lockingly engaging said locking member, pins supported in certain apertures of said disk, means for yieldingly maintaining said pins within the corresponding apertures of said casing, buttons engaging said pins for shifting the latter from such casing apertures, and buttons yieldingly supported in certain apertures of said casing and adapted to lockingly engage the corresponding apertures of said disk.

3. A keyless locking device comprising a casing having lateral orifices radially spaced about each side thereof, a locking member hinged at one extremity thereof to said casing, a disk rotatably mounted in said casing and carrying a hook interlocking with the free end of said locking member and having lateral orifices radially spaced thereabout and registering with the orifices in said casing, pins resiliently carried in certain of the orifices in said disk, buttons resiliently carried in certain of the orifices in said casing and contacting with the pins in said disk to release the same from said casing and buttons resiliently carried in the remaining orifices in said casing and engaging with the orifices in said disk to interlock with the same.

4. A keyless locking device comprising a casing having a plurality of lateral orifices radially spaced thereabout, a locking member hinged at one end thereof in said casing, a ring section secured within said casing and having a plurality of lateral orifices, radially spaced thereabout and recesses on the side thereof next the casing and about the orifices therethrough, buttons spring held in said orifices and having a collar portion movable within the recesses whereby the inner end of said buttons may project through the orifices in said ring sections, a disk rotatable within said casing and interlocking with said locking member and having lateral orifices therethrough and a plurality of pins resiliently held in the orifices in said disk and interlocking with certain of the orifices in said ring section.

5. A keyless locking device comprising a casing having a plurality of lateral orifices spaced radially about the sides thereof, a locking member hinged at one extremity thereof to said casing and hooking into said casing at the opposite extremity, a plurality of button-pins having collars intermediate of the length thereof and extending outwardly through the orifices in said casing, spring-fingers secured in said casing and contacting with the inner sides of the collars of said buttons, ring sections having lateral orifices therethrough and recessed about said orifices and fitting over the inner ends of said pins and secured from rotation within said casing, a pair of disk-members centrally mounted in said casing and rotatable to a limited extent therein and spaced one from the other and having lateral orifices therethrough, means on said disks for lockingly engaging said locking member, spring-fingers radially secured between said disk-members and pins arranged in certain of the orifices of said disk-members and resiliently held by the springs of said disk-members into interlocking engagement with certain of the orifices in said ring sections.

1,140,920. TRANSFORMER. FERDINAND SIEBER, Vado Ligure, Italy, assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Apr. 11, 1913. Serial No. 760,417. (Cl. 171—119.)



1. In a transforming apparatus, the combination with a main transformer comprising a core, a secondary winding and an independent auxiliary winding, of a supplemental transformer magnetically insulated from the main transformer and comprising a core, a secondary winding and an independent regulating winding, the said secondary windings comprising coils which embrace both of the said cores.

2. In a transforming apparatus, the combination with a main transformer comprising a core, a primary winding, a secondary winding and an independent auxiliary winding, of a supplemental transformer comprising a core, an independent regulating winding and a secondary wind-

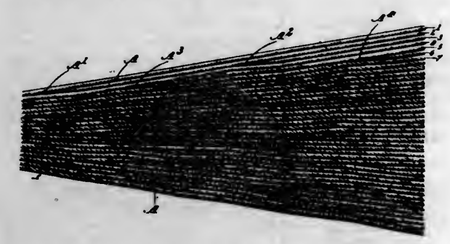
ing, the said secondary winding comprising coils which embrace said cores, and said auxiliary and regulating windings forming a closed electrical circuit.

3. In a transforming apparatus, the combination with main and supplemental transformer cores and a primary winding for the main core, which are magnetically insulated from each other, of a secondary winding comprising coils each of which embraces said cores, and a regulating winding independent of said main primary winding for varying the value of the magnetic flux in said supplemental transformer core.

4. In a transforming apparatus, the combination with main and supplemental transformer cores which are magnetically insulated from each other, of a secondary winding comprising coils each of which embraces said cores, an independent auxiliary winding located on the main transformer core, an independent regulating winding located on the supplemental core and connected in an isolated closed circuit with said auxiliary winding, and means for varying the active length of the said auxiliary winding.

5. In a transforming apparatus, the combination with a supplemental transformer core having an independent regulating winding, of a main transformer core which is magnetically insulated from the supplemental transformer core, a primary winding therefor, a secondary winding common to said cores, an independent auxiliary winding in inductive relation with the main transformer core and in an isolated closed circuit with said regulating winding, and means for varying the active length of the winding of the isolated circuit.

1,140,921. METHOD FOR FORMING GAS-BAGS OR OTHER FLUID-RETAINING ENVELOPS FOR AIR-SHIPS OR OTHER PURPOSES. THOMAS SLOPER, Devizes, England. Filed Nov. 3, 1914. Serial No. 870,048. (Cl. 154—2.)



1. A method for forming a fabric for fluid-retaining envelops consisting in building up the layer of fabric by laying threads side-by-side without any interweaving, and dropping out threads at points where the fabric is to be constricted in a direction transverse to the lay of the threads, the points of dropping out the threads being so chosen in the transverse direction that a wide break is not formed and so selected in the direction of lay as to give the required shape to the constriction when the remaining threads are drawn together, substantially as set forth.

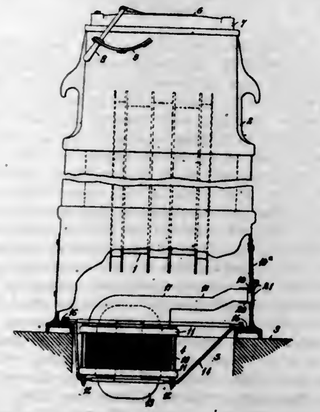
2. A method for forming a fabric for fluid-retaining envelops consisting in building up the layer of fabric by laying threads side-by-side without any interweaving, and dropping out threads at points where the fabric is to be constricted in a direction transverse to the lay of the threads, such dropping out being effected by connecting a plurality of threads to a smaller number of threads, the points for dropping out the threads being so chosen in the transverse direction that a wide break is not formed and so selected in the direction of lay as to give the required shape to the constriction when the remaining threads are drawn together, substantially as set forth.

3. A method for forming a fabric for fluid-retaining envelops consisting in building up the layer of fabric by laying threads side-by-side without any interweaving, and dropping out threads at points where the fabric is to be constricted in a direction transverse to the lay of the threads, such dropping out being effected by connecting a plurality of threads to a smaller number of threads, hooks being employed for connecting the larger number of threads to the smaller number, and the points for dropping out the threads being so chosen in the transverse direction that a wide break is not formed and so selected in the direction of lay as to give the required shape to the constriction when the remaining threads are drawn together, substantially as set forth.

4. A method for forming a cigar-shaped fluid-retaining envelop consisting in building up the envelop fabric with one layer of threads placed side-by-side without any interweaving, the said threads being laid in the form of a wide-pitch spiral around the longitudinal axis of the envelop, some of the threads being dropped out at the tapered end so that the fabric can there be constricted to form the taper without overlapping of the threads, the points for dropping out the threads being so chosen in the transverse direction of the lay of the threads that a wide break is not formed and so selected in the direction of lay as to give the required taper when the remaining threads are drawn together, a second layer of threads being placed over the first, the direction of lay in this second layer being transverse to that of the first layer, substantially as set forth.

5. A method for forming a cigar-shaped fluid-retaining envelop consisting in building up the envelop fabric with one layer of threads placed side-by-side without any interweaving, the said threads being laid in such direction that they advance from the middle to the end of the envelop, some of the threads being dropped out at the tapered end so that the fabric can there be constricted to form the taper without overlapping of the threads, the points for dropping out the threads being so chosen in the transverse direction of the lay of the thread that a wide break is not formed and so selected in the direction of lay as to give the required taper when the remaining threads are drawn together, a second layer of threads being placed over the first in the form of a continuous winding the lay of whose threads is approximately at right-angles to the longitudinal axis of the envelop, substantially as set forth.

1,140,922. STATIONARY INDUCTIVE APPARATUS. HERBERT CLINTON SOULE, Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Nov. 8, 1909. Serial No. 526,820. (Cl. 171—124.)



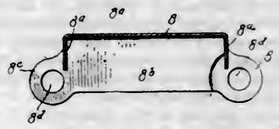
1. The combination with a main electrical apparatus, and a containing casing therefor, of an auxiliary apparatus disposed in the path of flow of the cooling fluid supplied to said main apparatus and suspended from the main casing, a hood secured to the auxiliary apparatus and

provided with a flue which may communicate with the outer air, and means to regulate the flow of fluid through said flue.

2. The combination with a main electrical apparatus and a containing casing therefor, of an auxiliary apparatus disposed in the path of cooling fluid supplied to said main apparatus and supported by the main casing, a hood secured to the top of the auxiliary apparatus and provided with a flue which communicates with the outer air, and means to regulate the flow of fluid through said flue and through said main electrical apparatus.

3. The combination with an air-blast transformer, and a casing therefor having an adjustable lid or damper, of a reactance coil suspended from the casing, and positioned in the path of flow of the cooling air which is supplied to said air blast transformer and a hood or deflector for the reactance coil having an independent damper by which the amount of cool air passing through the reactance coil may be regulated.

1,140,923. ENDLESS CARRIER. WALTER J. TURNBULL, New Orleans, La.; Emily Delaney Turnbull and Joseph T. Sullivan, executors of said Walter J. Turnbull, deceased, assignors of one-half to Leon Lavedan, New Orleans, La. Filed Nov. 12, 1913. Serial No. 800,491. (Cl. 193—2.)



1. In an endless conveyer, a series of units, each unit comprising an elongated plate having a flat top and downwardly projecting flanges at its sides, downwardly projecting end members, said end members having perforated extended ears, the perforations in the ears of one of said end members being in alinement with the respective perforations in the ears of the other end member, a shaft disposed in each of the alined perforations, and rollers or wheels carried at the outer ends of each of said shafts, the ears of adjacent units overlapping and the shaft of one unit being common to and passing through the ears of the adjacent unit.

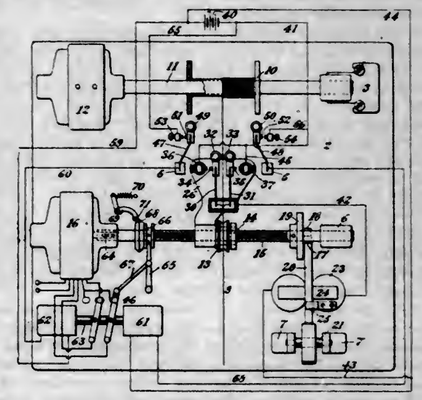
2. In an endless conveyer, a series of units, each unit comprising an elongated plate having a flat top and downwardly bent integral flanges at its sides, downwardly bent integral end members, said end members having ears extending laterally beyond the side members, said ears being in the same plane as the end members and being provided with perforations, the perforations in the ears of one of said end members being in alinement with respect to the perforations in the ears of the other end member, a shaft disposed in each of the alined perforations, the ears of adjacent units overlapping and the shaft of one unit being common to and passing through the ears of the adjacent unit.

1,140,924. WINDING-MACHINE. CHARLES R. UNDERHILL, New Haven, Conn., assignor to The Acme Wire Company, New Haven, Conn., a Corporation of Connecticut. Filed Oct. 20, 1913. Serial No. 796,181. (Cl. 242—9.)

1. In a winding machine, the combination with a winding mandrel, of automatic means controlled by the winding and including a source of power other than the strand being wound for positively locating the winding point of the strand and laying each turn on the mandrel in close contact with the last preceding turn from end to end of a helix.

2. In a winding machine, the combination with a winding mandrel, of automatic means controlled by the lag of the strand being wound and including a source of power other than said strand for laying a turn on the mandrel in close contact with the last preceding turn.

3. In a winding machine, the combination with a winding mandrel, of means having a positive power action for laying successive turns thereon, said means being intermittently movable during the winding of any turn.

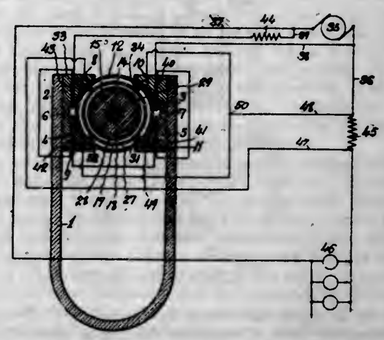


4. In a winding machine, the combination with a winding mandrel, of intermittently-movable means controlled by a turn that has been wound for laying a succeeding turn.

5. In a winding machine, the combination with a winding mandrel, of intermittently-movable means controlled by the last turn wound for laying the next succeeding turn.

[Claims 6 to 49 not printed in the Gazette.]

1,140,925. ELECTRICAL MEASURING INSTRUMENT. THOMAS W. VARLEY, New York, N. Y., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Apr. 8, 1909. Serial No. 488,652. (Cl. 171—265.)



1. A measuring instrument for an electric circuit comprising a permanent magnet, a stationary winding surrounding parts of the said magnet and connected in shunt relation to the said circuit for shifting the lines of force in the said magnet, a rotatable member adapted to respond to the shifting of the lines of force, a chamber within which the said rotatable member is located, a plurality of contact terminals mounted in the peripheral wall of the said chamber, and a liquid conductor in the said chamber between the said contact terminals and the rotatable member.

2. A measuring instrument for an electric circuit comprising a permanent magnet, a stationary winding surrounding parts of the said magnet and connected in shunt relation to the said circuit for shifting the lines of force in the said magnet, a rotatable member adapted to respond to the shifting of the lines of force, a retarding element

adapted to move with the said rotatable member, a chamber in which the said rotatable member is located, a plurality of uniformly spaced contact terminals mounted in the peripheral wall of the said chamber, and a liquid conductor in the said chamber between the said contact terminals and the rotatable member.

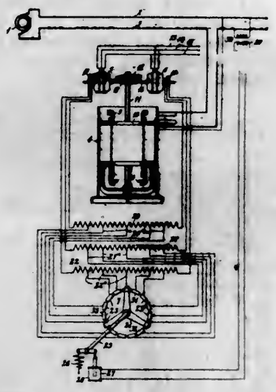
3. An electrical measuring instrument comprising a substantially constant magnet, a stationary conductor adapted to shift the lines of force set up by said magnet, a movable conductor adapted to respond to the shifting of said lines of force, a chamber within which said movable conductor is adapted to rotate, contact terminals in the wall of said chamber, a liquid conductor in said chamber between said contact terminals and the movable conductor and a retarding element moving with said movable conductor but insulated from said liquid conductor.

4. In an apparatus of the character described, a movable conductor comprising an inverted cup of conducting material having a solid upper end and a peripheral wall comprising a set of uniformly spaced fingers and a set of insulating strips fitted between said fingers.

5. In an apparatus of the character described, a movable conductor comprising an inverted cup of conducting material having a peripheral wall composed of a set of spaced fingers and insulating material interposed between said fingers, oppositely disposed contact terminals adjacent to said movable conductor and an electrical conductor between said contact terminals and said movable conductor.

[Claims 6 to 8 not printed in the Gazette.]

1,140,926. REGULATOR FOR ELECTRIC CIRCUITS. THEODORE VARNEY, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Feb. 1, 1912. Serial No. 674,798. (Cl. 171—119.)



1. In a regulating system for an electric circuit, the combination with a regulated circuit, a regulator electrically connected to the regulated circuit and having a movable element, and a pair of continuously excited motors mechanically connected to said movable element and tending to adjust it in opposite directions, of automatically actuated torque-regulating means for the motors, and electro-responsive means dependent upon the regulated circuit for governing said torque-regulating means.

2. In a regulating system for an electric circuit, the combination with a regulated circuit, a regulator therefor having a movable element, and a pair of electric motors electrically independent of said regulated circuit and mechanically connected to said movable element for adjusting it in opposite directions, of automatically actuated torque-regulating means for the motors, and electro-responsive means dependent upon the regulated circuit for governing said torque-regulating means.

3. In a regulating system for an electric circuit, the combination with a regulated circuit, a regulator therefor having a movable element and a pair of electric motors electrically independent of said regulated circuit and mechanically connected to said movable element for adjusting it in opposite directions, of a single automatically actuated controlling device for simultaneously and oppositely regulating the motor torques, and electro-responsive means dependent upon the regulated circuit for governing said torque-regulating means.

4. In a regulating system for an electric circuit, the combination with a regulated circuit, a regulator having a movable member, and a pair of induction motors adapted to be continuously energized from an independent source of energy and operatively connected to said movable member to act in opposition to each other, of a resistor connected at its respective ends to the windings of said motors, an automatically actuated and adjustable switch for oppositely varying the influence of said resistor on the respective motors, and electro-responsive means dependent upon the regulated circuit for governing said switch.

5. In a regulating system for an electric circuit, the combination with a regulated circuit, an induction regulator having a movable member, and a pair of polyphase induction motors adapted to be continuously energized from an independent source of energy and operatively connected to said movable member to act in opposition to each other, of a multi-branch resistor connected at its respective ends to the secondary windings of said motors, an adjustable switch for interconnecting corresponding points in the several resistor branches, and a spring and an electromagnet acting oppositely upon the switch, said magnet being variably energized in accordance with predetermined variations in the regulated circuit.

[Claim 6 not printed in the Gazette.]

1,140,927. SEALING MEANS FOR BOXES. HARRISON B. WALTER, Danville, Ill., assignor to National Fibre Box Company, Danville, Ill., a Corporation of Illinois. Filed Jan. 27, 1911. Serial No. 605,070. (Cl. 229—47.)

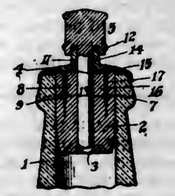


1. The combination with a box provided with a plurality of overlapping flaps for closing the box, said flaps having superposed orifices therein, of a seal comprising two hollow caps having spiral corrugations forming screw threads, one of said caps having a flange at one end and an opening at the opposite end, said flanged cap constructed and adapted to be removably inserted through the superposed orifices with the flange within the box by inserting a finger through the opening at the outer end of the cap, said corrugations engaging the edges of the flaps and locking the flaps to the cap, and the other cap screwed on the protruding end of the flanged cap for fastening the flaps together.

2. The combination with a box provided with a plurality of overlapping flaps for closing the box, said flaps having superposed orifices therein, of a seal comprising two hollow caps having spiral corrugations forming screw threads, one of said caps having a flange at one end and an opening at the opposite end, the flange adapted to engage the inner surface of the innermost flap, said corrugations engaging the edges of the flaps and locking the flaps to the cap, and the other cap screwed onto the protruding end of the flanged cap for fastening the flaps together between the caps.

3. The combination with a box provided with a plurality of overlapping flaps for closing the box, said flaps having superposed orifices therein, of a seal comprising two hollow caps having spiral corrugations forming screw-threads, one of said caps having a flange at one end and an opening at the opposite end, the flange adapted to engage the inner surface of the innermost flap, said corrugations engaging the edges of the flaps and locking the flaps to the cap, and the other cap screwed onto the protruding end of the flanged cap for fastening the flaps together between the caps, said caps punched through the side when together to prevent their being disconnected.

1,140,928. BOTTLE-STOPPER. AUGUST HERMAN WIRZ, Moylan, Pa., assignor to A. H. Wirz, Incorporated, Chester, Pa., a Corporation of Pennsylvania. Filed July 18, 1912. Serial No. 710,217. (Cl. 215—54.)



1. In a device of the character stated, a cork having a central opening and annularly slitted about said opening, a cap covering the cork having a depending tube fitting into the slit, said cap extending inwardly above the cork farther toward the axis of the opening than is the tube to form a central opening effective as a guide and protecting the edge of the opening in the cork, in combination with a plug of approximately uniform diameter movable in said guide to close the central opening in the cork.

2. In a device of the character stated, a cork having a central opening and slitted longitudinally about the opening, a cap for the cork, having a tubular part depending within the slit of the cork, and extending inwardly above the cork farther toward the axis of the opening than is the tubular part but in proximity to the tubular part to form a protection for the upper edge of the central opening in the cork, in combination with a plug adapted to close said central opening.

3. In a device of the character stated, a cork having a central opening and slitted annularly about the opening for a portion only of its length, a cap having an annularly depending part fitting within the slit of the cork and a plug larger in diameter than the opening and of substantially uniform diameter adapted to fit the interior of the central opening of the cork and to extend axially below the depending part, swelling the upper part of the cork against the annularly depending cap member and the lower part of the cork against the bottle neck.

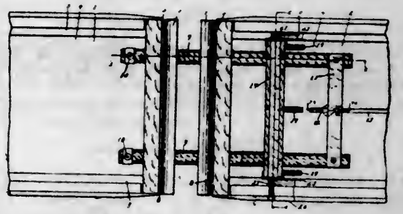
4. In a device of the character stated, a cork having a central opening and slotted annularly about the opening, a tube fitting into the slot and terminating in a cap, a plug of substantially uniform diameter adapted to enter the central opening and an annular guide for the plug supported on the cap, substantially fitting the plug, and protecting the upper edge of the cork about the opening from injury when the plug is inserted.

5. In a device of the character stated, a cork having a circular central plug opening and adapted to receive a cap-retaining tube surrounding the opening, in combination with a surmounting cap having an upper tubular pouring spout and a depending tubular retaining member adapted to engage frictionally with the cork and extending part of the length of the cork only and being retained therein by the friction of the tube against the cork, in combination with a top for the cap having a depending straight plug fitting in the central opening of the cork and extending beyond the end of the tubular retaining member and sealing against the sides of the cork beyond the end of said retaining member.

[Claim 6 not printed in the Gazette.]

1,140,929. TEMPORARY BINDER OR LOOSE-SHEET HOLDER. GEORGE P. WIGGINTON, Kalamazoo, Mich. Filed Apr. 3, 1914, Serial No. 829,356. Renewed Apr. 24, 1915. Serial No. 23,768. (Cl. 129—41.)

1. In a temporary binder, the combination of the covers, one of said covers having a chamber therein provided with an inner wall having a longitudinal slot therein, binding strips extending between the covers, a cross bar for said binding strips arranged within said cover chamber and provided with a finger piece disposed through said slot, the other ends of said binding strips being connected to the other cover, a chambered adjustable member through which said binding strips are arranged for longitudinal adjustment, disposed within said cover chamber, a binding strip clamping cam rod journaled in said adjustable member to permit axial movement, pinions on said rod, racks on said cover coacting with said pinions, a toothed locking member on said rod, a coacting locking pin carried by said adjustable member, said locking member being adapted to be engaged and disengaged by the longitudinal movement of said rod, a spring for holding said rod in locked position, and slotted guide plates for said adjustable member engaging the ends of said rod, said rod being adapted to be manipulated to release said locking member and to rotate the rod from the outside of the cover by means of a key.



2. In a temporary binder, the combination of the covers, one of said covers having a chamber therein, binding strips extending between the covers, a chambered adjustable member through which said binding strips are arranged for longitudinal adjustment, disposed within said cover chamber, a binding strip clamping cam rod journaled in said adjustable member to permit axial movement, pinions on said rod, racks on said cover coacting with said pinions, a toothed locking member on said rod, a coacting locking pin carried by said adjustable member, said locking member being adapted to be engaged and disengaged by the longitudinal movement of said rod, a spring for holding said rod in locked position, and slotted guide plates for said adjustable member engaging the ends of said rod, said rod being adapted to be manipulated to release said locking member and to rotate the rod from the outside of the cover by means of a key.

3. In a temporary binder, the combination of the covers, one of said covers having a chamber therein provided with an inner wall having a longitudinal slot therein, binding strips extending between the covers, a cross bar for said binding strips arranged within said cover chamber and provided with a finger piece disposed through said slot, the other ends of said binding strips being connected to the other cover, a chambered adjustable member through which said binding strips are arranged for longitudinal adjustment, disposed within said cover chamber, a binding strip clamping cam rod journaled in said adjustable member, pinions on said rod, racks on said cover coacting with said pinions, and slotted guide plates for said adjustable member engaging the ends of said rod.

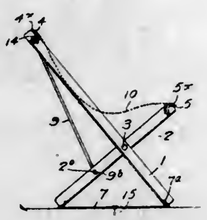
4. In a temporary binder, the combination of the covers, one of said covers having a chamber therein provided with an inner wall having a longitudinal slot therein, binding strips extending between the covers, a cross bar for said binding strips arranged within said cover chamber and provided with a finger piece disposed through said slot, the other ends of said binding strips being connected to the other cover, an adjustable member disposed within said cover chamber, a binding strip clamping cam rod journaled on said adjustable member to permit axial movement, pinions on said rod, racks on said cover coacting with said pinions, a locking member on said rod, a coacting locking pin carried by said adjustable member, said

locking member being adapted to be engaged and disengaged by the longitudinal movement of said rod, a spring for holding said rod in locked position, said rod being adapted to be manipulated to release said locking members and to rotate the rod from the outside of the cover by means of a key.

5. In a temporary binder, the combination of the covers, one of said covers having a chamber therein, binding strips extending between the covers, an adjustable member disposed within said cover chamber, a binding strip clamping cam rod journaled on said adjustable member to permit axial movement, pinions on said rod, racks on said cover coacting with said pinions, a locking member on said rod, a coacting locking pin carried by said adjustable member, said locking member being adapted to be engaged and disengaged by the longitudinal movement of said rod, a spring for holding said rod in locked position, said rod being adapted to be manipulated to release said locking members and to rotate the rod from the outside of the cover by means of a key.

[Claims 6 to 21 not printed in the Gazette.]

1,140,930. KNOCKDOWN SEAT. MILTON H. WAIGHT, University Place, Nebr. Filed Nov. 24, 1913. Serial No. 802,764. (Cl. 155—8.)



1. In a device of the type described, a plurality of pairs of pivotally connected leg members, each leg of the pair comprising an L-shaped angle iron, and one leg of each pair being extended, a brace member having a portion bent up at each end, each of said portions being provided with a slot arranged to receive a portion of said leg members, a lower detachable longitudinal member connecting the tops of the shorter legs of adjacent pairs, and an upper detachable longitudinal connecting member connecting the tops of the extended leg members of adjacent pairs.

2. In a device of the type described, a plurality of pairs of pivoted leg members, each of said leg members being formed of an L-shaped angle iron and one leg of each pair being extended, said extended leg being split at its top along the angular portion, one of the faces being bent inwardly at right angles and being provided with an opening, the other face being provided with an inwardly extending slot, an upper longitudinal connecting member formed of L-shaped angle iron, each end of said upper connecting member being provided with an opening arranged to register with the opening in said bent over portion of the leg, and a slot arranged to register with the inwardly extending slot in said leg, and means extending through said alined openings for securing the parts together.

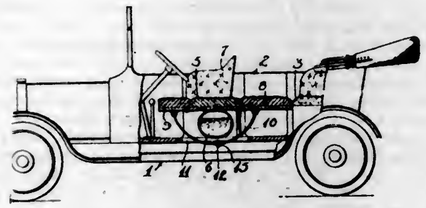
3. In a device of the type described, a plurality of pairs of pivoted leg members, one leg member of each pair being extended, each of said leg members comprising an L-shaped angle iron and the shorter of said leg members being provided with a slot, and a lower connecting member, said connecting member being composed of an L-shaped angle iron having an inwardly extending slot in one of its faces arranged to register with the slot in the shorter leg.

4. In a device of the type described, a plurality of pairs of pivoted leg members, one leg of each pair being extended, a lower connecting member between the upper ends of adjacent shorter legs, an upper connecting member between the upper ends of adjacent longer legs, said upper and lower connecting members each being composed of an L-shaped angle iron, the upper face of the lower connecting member being disposed in a horizontal position, and the faces of said upper connecting member being disposed in angular relation with the horizontal face of said lower member.

5. In a device of the type described, a plurality of pairs of pivotally connected leg members, each leg of the pair comprising an L-shaped angle iron and one leg of each pair being extended, a brace member having a portion bent up at each end, each of said portions being provided with a slot arranged to receive a portion of said leg members.

[Claim 6 not printed in the Gazette.]

1,140,931. FOLDABLE SEAT FOR CONVERTING TWO-SEATED AUTOMOBILE-BODIES INTO LOUNGES. JUDSON E. WRIGHT, San Diego, Cal., assignor of one-half to Charles Frey, San Diego, Cal. Filed Jan. 4, 1915. Serial No. 389. (Cl. 21—43.)



1. The combination with a vehicle having a rear and a front seat, a back hinged to and rising from the rear edge of the front seat, said back being adapted to fold rearwardly to abut the front edge of the rear seat, and a seat continuation hinged to and depending from the front edge of the front seat, of a U-shaped rod beneath the front seat and having its front and rear ends hinged respectively to the rear side of the seat continuation and to the rear side of the seat back, means to retain said seat back in raised position, and means for limiting its downward movement.

2. The combination with a vehicle having a rear and a front seat, a back hinged to and rising from the rear edge of the front seat, said back being adapted to fold rearwardly to abut the front edge of the rear seat, and a seat continuation hinged to and depending from the front edge of the front seat, of a resilient U-shaped rod beneath the front seat and having its front and rear ends hinged respectively to the rear side of the seat continuation and to the rear side of the seat back, means to retain said seat back in raised position, and means for limiting its downward movement.

3. The combination with a vehicle having a rear and a front seat, a back hinged to and rising from the rear edge of the front seat, said back being adapted to fold rearwardly to abut the front edge of the rear seat, and a seat continuation hinged to and depending from the front edge of the front seat, of a U-shaped rod beneath the front seat and having its front and rear ends hinged respectively to the rear side of the seat continuation and to the rear side of the seat back, a guide through which said rod passes, means to retain said seat back in upright position, and additional means to limit the downward movement thereof.

4. The combination with a vehicle having a rear and a front seat, a back hinged to and rising from the rear edge of the front seat, said back being adapted to fold rearwardly to abut the front edge of the rear seat, and a seat continuation hinged to and depending from the front edge of the front seat, of a U-shaped rod beneath the front seat and having its front and rear ends hinged respectively to the rear side of the seat continuation and to the rear side of the seat back, a guide through which said rod passes, means to retain said seat back in normally upright position, and a stop on said rod located in rear of said guide, whereby to abut the guide to limit the downward movement of the seat back.

1,140,932. MEANS FOR TUNING SOUND-PRODUCING BARS OR TUBES. PAUL THOMAS YOUNG, Los Angeles, Cal. Filed Feb. 16, 1914. Serial No. 818,928. (Cl. 84—31.)



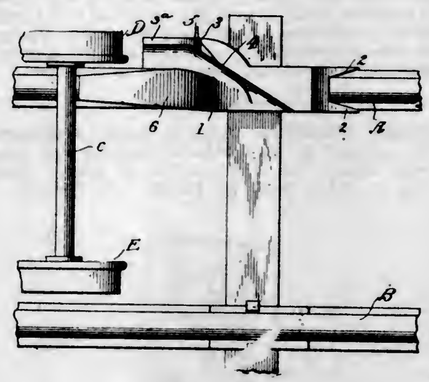
1. A sound producing bar of the class described provided with an arm secured thereto opposite a nodal point thereof, and an adjustable weight on said arm.

2. A sound-producing bar of the class described provided with an arm on one end of said bar, and weights held adjustably on the said arm.

3. A sound-producing bar of the class described provided with an arm secured thereto opposite a nodal point thereof and extending approximately to the end of said bar, and weights held adjustably on the said arm, the latter being arranged on opposite sides of the center of length of said arm.

4. A sound-producing bar of the class described provided with an arm on one end of said bar, weights held adjustably on the said arm, the latter having a collar intermediate its length and the said weights being arranged on opposite sides of the collar, and means for fastening the weights in place on the arm.

1,140,933. CAR REPLACER AND DERAILER. BENNIE L. ZEAGLER and CHARLES L. STRYKER, Lufkin, Tex. Filed May 20, 1912. Serial No. 698,526. (Cl. 104—163.)

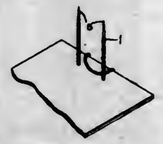


A car replacer and derailer comprising an elongated plate having integral downwardly extending and forwardly inclined prongs formed upon opposite side othereof adjacent one end adapted to engage the sides of a rail, said plate being adapted to lie upon the tread surface of a rail throughout its length, a lateral projection extending from one side of said plate at a point approximately centrally of the ends thereof, an upstanding ridge formed on said plate and outer edge of said lateral projection and extending angularly across said plate from edge to edge, said projection having a downwardly inclined portion and extending below said plate and the end of said plate farthest removed from said prongs being inclined upwardly to a point approximately centrally of the ends of said plate.

1,140,934. PROCESS FOR MAKING A KOLA PREPARATION. GOTTLIEB CHRISTOF ZIMMERMANN, Stuttgart, Germany. Filed June 27, 1914. Serial No. 847,774. (Cl. 99—11.)

A process for making a kola preparation consisting in cutting the fresh fruits to pieces, leaving them to ferment and then roasting the product obtained at a temperature of 180–200 C.

1,140,935. PIN-TICKET. MARCUS O. ANTHONY, Englewood, N. J., assignor to A. Kimball Company, a Corporation of New York. Filed Sept. 10, 1914. Serial No. 861,144. (Cl. 40—25.)



1. A pin ticket comprising a card, a staple affixed thereto having smooth conoidal ends.

2. A pin ticket comprising a card and a staple affixed thereto having smooth conoidal ends symmetrical with the axis of the legs of the staple.

1,140,936. BACKING FOR ARTIFICIAL TEETH. ANDREW J. ASCH, New York, N. Y. Filed Mar. 10, 1915. Serial No. 13,388. (Cl. 32—9.)



1. A backing for a tooth facing, comprising a plate having integrally connected therewith a rearwardly extending pin-receiving socket and forming means for attaching the backing to a bridge, crown or plate body.

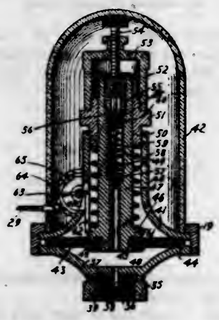
2. A backing for a tooth facing, comprising a plate adapted to fit the back of a facing and having a plurality of sockets integrally connected therewith and extending from the rear face of the backing, and the front ends of the sockets being open and the rear ends closed, and the sockets being spaced apart.

1,140,937. AIR-VALVE AND INDICATING MECHANISM. HERVEY BOWES ASHELMAN and JOHN SANDFORD JOHNSON, Fargo, N. D. Filed Apr. 28, 1914. Serial No. 835,018. (Cl. 177—339.)

1. An indicating system of the character described comprising a plurality of air valves having means for indicating the pressure of air in the wheels to which the valves are applied, an annunciator, and a plurality of electric circuits each leading from said annunciator to an indicating means of said valves, and controlled by the said indicating means for actuating said annunciator.

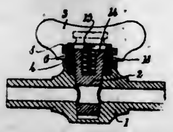
2. In an indicating system of the character described, the combination of a pneumatic wheel, a slip ring carried thereby, a brush engaging said slip ring, an annunciator, electrical connections from said brush and said slip ring to said annunciator, and an air valve carried by said wheel and controllable by air pressure of the wheel, said valve having means for indicating the air pressure and serving to close the circuits of said electrical connections.

3. In an indicating system of the character described, the combination with a plurality of pneumatic wheels, of a valve for each wheel for relieving the wheel of excessive pressure, an indicating device operated by the valve for indicating the air pressure of the wheel, an annunciator, and a plurality of electrical circuits each leading from the annunciator to the indicating device and controlled thereby.



4. In an indicating system of the character described the combination with a plurality of pneumatic wheels, of a valve for each wheel for relieving the wheel of excessive pressure, an indicating device having a dial and a pointer for indicating the air pressure of the wheel, the pointer of the indicating device serving as a contact member and operated by the valve, an annunciator, and a plurality of electrical circuits each leading from the annunciator to the indicating device of the valve.

1,140,938. CONSTRUCTION OF COCKS. RENÉ BABLON, Les Lilas, France. Filed Feb. 20, 1913. Serial No. 749,679. (Cl. 137—7.)

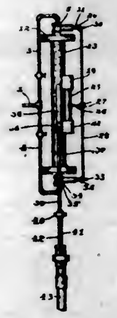


A cock comprising in combination a body portion formed with a circular groove, with the upper flange thereof presenting two diametrically opposite notches, and an upper arcular ridge; a slotted spigot located in said body portion and carrying a pin primarily engaging said ridge; a handle adapted to seat in the slot in said spigot and formed with lugs adapted to pass through said slots prior to their engagement with said circular groove; and a spring located between said spigot and said handle and adapted upon a partial rotation of said handle and spigot to force the spigot into a position in which said pin is located between the ends of said arcular ridge.

1,140,939. PUMPING APPARATUS. VAN P. BAILEY, Indianapolis, Ind. Filed May 9, 1913. Serial No. 766,581. (Cl. 103—67.)

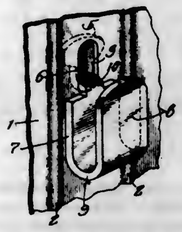
1. In a pumping apparatus, a pump, a fluid driven motor having a cylinder, a double piston in said cylinder, separate valve means operable to admit a pressure fluid to each end of said cylinder against each piston member and to exhaust said fluid therefrom, and separate means for each piston member actuated by the cylinder pressure for operating said valve means, substantially as described.

2. In a pumping apparatus in combination with a pump, a fluid driven motor having a cylinder and having two connected pistons movable in said cylinder, a fluid inlet pipe leading to each end of said cylinder, an exhaust port leading therefrom, an automatic valve at each end of the cylinder controlling the inlet and exhaust port, a reciprocable rod connected to both valves, valve controlling pistons operated by the pressure in front of the respective main pistons and connected to said rod, means of communication between the cylinder and each of said valve-controlling pistons, said means being alternately uncovered by the two main pistons, substantially as described.



3. In an automatic pumping apparatus, in combination with a fluid pressure motor having a cylinder and a double piston in said cylinder, means of communication between each end of said cylinder and a source of fluid under pressure, an auxiliary fluid receiving cylinder having upper and lower ports communicating with said main cylinder, said ports being adapted to be alternately covered and uncovered by the piston members of said main cylinder, a double piston in said auxiliary cylinder, valves controlling the admission of said pressure fluid to the opposite ends of said main cylinder, means connecting said valves and auxiliary piston, a cross arm connected to the main piston and extending through the main cylinder, a pump, and rods connecting said cross arm and the operative mechanism of the pump, substantially as described.

1,140,940. SHELVING. JAMES E. BALES, Montgomery, Ill., assignor to Lyon Metallic Manufacturing Company, Aurora, Ill., a Corporation of Illinois. Filed Apr. 17, 1914. Serial No. 832,432. (Cl. 248—19.)



1. In shelving, the combination of an upright partition having a slot arranged vertically therein, said slot being of uniform width, and a hook comprising a body portion, a head portion and a narrow connecting neck, the width of the neck being less than the width of the slot, the neck having a bend or offset seating at the lower end of the slot, and the head, when the hook is in acting position, extending beyond the edge of the slot to engage the partition on the side opposite to the body of the hook.

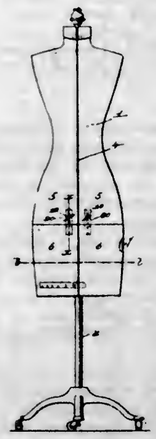
2. In shelving, the combination of an upright having a narrow slot arranged vertically therein, said slot being of uniform width and a hook comprising a body portion, a head portion and a narrow neck connecting them, the width of the neck being less than the width of the slot, the neck having a bend or offset seating at the lower end of the slot, the width of the head being less than the length of the slot and greater than the width of the slot.

3. In shelving, the combination of an upright having a narrow slot arranged vertically therein, and a hook comprising a body, a head and a narrow connecting neck all integral with each other, the width of the neck being narrower than the narrowest part of the slot and the width of the head being greater than the widest part of the slot, and the width of the head being less than the length of the slot, said neck having a bend seating at the lower end of the slot.

4. In shelving, the combination of an upright having a slot therein, a hook having a body engaging one side of the upright, a head engaging the other side of the upright and a connection between said body and said head, the upright having vertical ribs arranged on either side of the slot and standing out from the upright an amount approximately equal to the thickness of that portion of the hook which engages the inner side of the upright.

5. In shelving, the combination of a sheet metal upright having a slot therein, a hook having a body engaging one side of the upright, a head engaging the other side of the upright, and an element connecting the head with the body, said upright having vertical ribs the rise whereof is approximately equal to the thickness of that portion of the hook which engages the inner side of the upright, and a shelf having a depending flange at the end adapted to seat in said hook and adapted to bear against the ribs of the upright.

1,140,941. DRESS-FORM. GEORGE W. BARDWELL, New York, N. Y., assignor to Hall-Borchert Dress Form Company, New York, N. Y., a Corporation of New Jersey. Filed Dec. 28, 1912. Serial No. 738,996. (Cl. 223—18.)



1. The combination with a dress form having bust and hip portions divided vertically into a plurality of sections, of hip section extensions, one for each hip section, each extension presenting a continuous surface and having a rigid non-yielding shape, and means for detachably connecting the upper edge of each extension directly to the lower edge of each hip section.

2. The combination with a dress form having bust and hip sections, of a plurality of hip section extensions, each extension presenting a continuous surface and having a rigid non-yielding shape, and means detachably connecting the upper edge of each extension directly to the lower edge of each hip section, said extensions tapering toward the bottom.

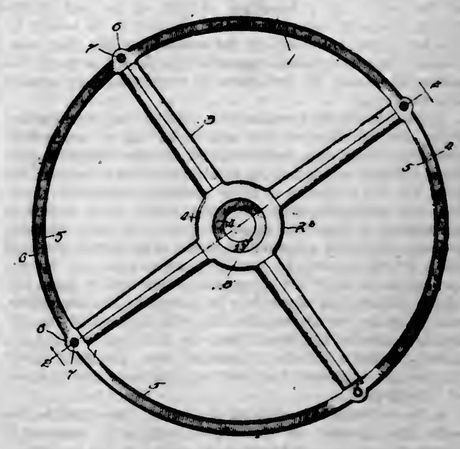
1,140,942. HOLDER FOR SAFETY-RAZOR BLADES. MATHEW BECKER, Chicago, Ill. Filed Mar. 22, 1915. Serial No. 16,121. (Cl. 30—25.)



1. A holder comprising a single piece of wire bent at one end into a loop forming a handle, one end of the wire extending outward from the loop to form a shank, and having a return bend back to the other end of the wire, said return bend forming a clamping member which is resilient and opposite the shank, and means for locking said member in clamping position.

2. A holder comprising a single piece of wire bent at one end into a loop forming a handle, one end of the wire extending outward from the loop to form a shank, and having a return bend back to the other end of the wire, said return bend being resilient and opposite the shank, the second-mentioned end of the wire having a lateral bend provided with a locking notch, and the inner free end of the return bend being engageable with the notch, whereby said bend is locked in clamping position.

1,140,943. STEERING-WHEEL. JOHN BJORN, Kenosha, Wis., assignor to The Thomas B. Jeffrey Company, Kenosha, Wis., a Corporation of Wisconsin. Filed Oct. 28, 1912. Serial No. 728,054. (Cl. 74—33.)



1. A wheel made of a single piece of sheet metal comprising a rim member, a hub member, and spokes connecting said members together, the spokes being in the form of radial tubes.

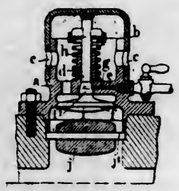
2. A wheel made of a single piece of sheet metal comprising a rim member, a hub member, and spokes connecting said members together, the outer edge of the rim member being bent down to form a stiffening flange, said stiffening flange being made in sections terminating adjacent to the outer ends of the spokes so as to leave wide portions in the rim at the ends of the spokes.

3. A wheel made of a single piece of sheet metal comprising a rim member, a hub member, and spokes connecting said members together, the outer edge of the rim member being bent down to form a stiffening flange, said stiffening flange being made in sections terminating adjacent to the outer ends of the spokes so as to leave wide portions in the rim at the ends of the spokes, said wide portions being perforated to receive screws or rivets.

4. A wheel comprising a rim member, a hub member, and spokes connecting said members together, all made of a single piece of sheet metal, the spokes being in the form of radial tubes, a stiffening piece underlying the hub and having a tubular portion extending through the same, and arms on said stiffening piece fitting into the adjacent ends of the spokes.

5. A wheel made of a single piece of sheet metal comprising a rim member, a hub member, and spokes connecting said members together, the inner and outer edges of the rim member being bent laterally to form stiffening flanges, and the sides of the spokes being bent laterally in the same direction as the edges of the rim member.

1,140,944. VAPORIZER FOR INTERNAL-COMBUSTION ENGINES. GEORGES JOSEPH BOUTET, Paris, France. Filed Oct. 20, 1909. Serial No. 523,690. (Cl. 123—30.)

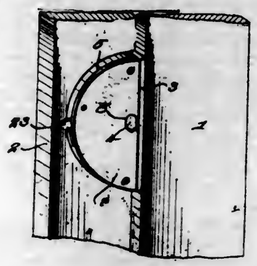


1. In an internal combustion engine the combination with the cylinder of the engine, the piston and the inlet valve for the explosive mixture, of a vaporizer comprising a mass located between the inlet valve for the explosive mixture and the said cylinder, and connected to the engine body at but one or two points, to avoid the diffusion of the heat, and a vaporizer carried at the end of the piston, the said vaporizers being adapted to be heated by the hot gases produced by the explosions, the last mentioned vaporizer being supported above the end of the piston to permit the hot gases to circulate freely around the same.

2. In an internal combustion engine the combination with the cylinder of the engine having a combustion chamber, the piston, and the inlet for the explosive mixture, the said engine having a chamber located between the inlet for the explosive mixture and the combustion chamber and communicating with the latter, of a vaporizer comprising a metallic mass supported in said chamber and on which the combustible liquid is projected, the said mass being exposed to the hot gases, produced by the explosions, a vaporizer comprising a cap at the upper end of the piston, and adapted to be heated by the explosions, and studs for connecting the cap with the end of the piston and spacing the same from the said end, so that the gases produced by the explosions can circulate freely around the vaporizer and between the same and the end of the piston.

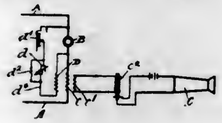
3. In an internal combustion engine, the combination with the cylinder of the engine having a combustion chamber, the piston and the inlet valve for the explosive mixture, the said engine having a circular chamber located below the inlet valve and between the same and the combustion chamber and communicating by a passage with the latter, of a vaporizer located in said chamber below the inlet valve and between the same and the combustion chamber, and a second vaporizer comprising a metallic cap of less diameter than the piston, and located at the end thereof, and means for holding the said cap spaced from the end of the piston, whereby the hot gases can circulate beneath the cap and around the same.

1,140,945. SASH-LOCK. ALLEN B. BROWN, Portland, Oreg. Filed Aug. 5, 1914. Serial No. 855,084. (Cl. 16—18.)



In combination with the casing and sash, a plate secured to the casing and provided with a lug, a casing secured to the sash and having an opening to receive said lug, and means mounted in the casing for confining said lug within said casing, said means consisting of a spring arranged adjacent the lug receiving opening of the casing having a locking pin, a plate mounted in said casing and having a cavity, a pivoted lever plate mounted in said cavity, and having a finger operating portion at one end and its other end adapted to be engaged by said locking pin, and a spring mounted in said cavity and engaging said locking plate.

1,140,946. COMPENSATING DEVICE FOR TELEPHONIC CIRCUITS. SIDNEY GEORGE BROWN, London, England. Filed Sept. 19, 1912. Serial No. 721,282. (Cl. 179—81.)



1. In a telephonic circuit, a microphonic transmitting element, a receiving element adjacent to the transmitter and a compensating coil at the receiving element connected in shunt to the transmitting element and so wound as to annul the inductive effect of the latter upon the said receiving element.

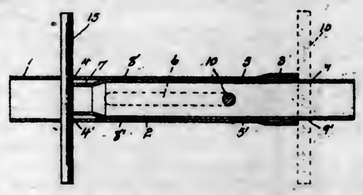
2. In a telephonic circuit, a microphonic transmitting element, a receiving element adjacent to the transmitter, a transformer for the said receiving element and a compensating coil at the receiving element, connected in shunt to the transmitting element and so wound as to annul the inductive effect of the latter upon the said receiving element.

3. In a telephonic circuit, a microphonic transmitting element, a receiving element adjacent to the transmitter, a compensating coil at the receiving element connected in shunt to the transmitting element, and adjustable capacity and resistance in the circuit of the compensating coil.

4. In a telephonic circuit, a microphonic transmitting element, a receiving element adjacent to the transmitting element, a compensating coil at the receiving element connected in shunt to the transmitting element, and adjustable capacity, self induction and resistance in the circuit of the compensating coil.

5. In a telephonic circuit, a microphonic transmitting element, a receiving element adjacent to the transmitter, a telephonic relay operated by a sending on receiving element and controlling the said transmitting element and a compensating coil at the receiving element, connected in shunt to the transmitting element and so wound as to annul the inductive effect of the latter upon the said receiving element.

1,140,947. ADJUSTABLE SOCKET-WRENCH. WILLIAM G. BUTLER, Wilkes-Barre, Pa. Filed Aug. 11, 1914. Serial No. 856,203. (Cl. 81—185.)

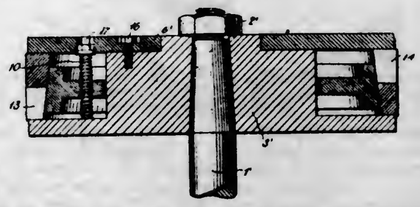


1. In a wrench, the combination with a tubular member provided with a plurality of openings and a longitudinal slot, of a smaller tubular member slidable therein, and provided with a plurality of openings, a pin carried by said second tubular member and projecting in said longitudinal slot, and an operating handle adapted to be passed through the openings in either of the tubular members for engagement with the extremity of the other tubular member to lock the tubular members against relative movement in operative position.

2. In a wrench, the combination with a tubular member provided with a plurality of openings and a longitudinal slot, of a second tubular member slidable within the same and provided with a plurality of openings, a pin carried by the second tubular member, and projecting into said longitudinal slot, and an operating handle adapted to be passed through the openings of either of said tubular members when the pin of the inner member contacts either extremity of said logitudinal slot, said operating handle being adapted to engage the adjacent extremity of the tubular member by which it is desired to co-act with, and coöperate with said pin and said longitudinal slot to lock the tubular members against relative movement, when in operative position.

3. In a wrench, the combination with a tubular member provided with a plurality of openings and a longitudinal slot, of a second tubular member slidable therein and provided with a plurality of openings, a pin secured at one end to a wall of said second tubular member and having the other of its ends engaged in said longitudinal slot, and an operating handle adapted to be passed through the openings of either of said members whereby the latter are retained against relative movement, said pin contacting the extremity of said longitudinal slot opposite to that end of the same adjacent the openings receiving said operating handle.

1,140,948. ADJUSTABLE PISTON-RING PACKING. JOSEPH CARROLL, New York, N. Y. Filed Apr. 16, 1914. Serial No. 832,251. (Cl. 121—108.)



1. A piston comprising a body, a packing ring therefor, an expanding ring arranged interiorly of said packing ring, said expanding ring having a beveled face engaging said expanding ring, a plurality of screws engaging said expanding ring and said body, whereby when said screws are operated in one direction said expanding ring will act on said packing ring so as to expand the same, and a locking ring having means surrounding the heads of said screws for locking said adjusting screws against rotation.

2. A piston comprising a body, a packing ring therefor adapted to contract when released, a ring engaging said packing ring for expanding the packing ring, a plurality of screws engaging said last mentioned ring and said body for moving said last mentioned ring in respect to said body so as to cause said packing ring to expand, and a clamping plate formed with apertures for receiving the heads of said screws for locking the screws against rotation.

3. A piston comprising a body, a packing ring arranged on said body, an expanding ring arranged between said packing ring and said body, the inner face of said packing ring being beveled, and the outer face of said expanded ring being beveled, a plurality of screws on said body and said expanding ring for causing the expanding ring to move relative to said body so that the bevel on the expanding ring will cause the packing ring to be expanded each of said screws being formed with a polygonal sided head, a locking ring formed with apertures having polygonal walls for receiving the heads of said screws for preventing the rotation thereof, and a clamping plate for holding in place said locking ring and said packing ring.

4. A piston comprising a body, an expansion ring, a member having a beveled face engaging said expansion ring for expanding the same, a plurality of screws acting on said member for causing the same to expand said ring, a locking ring provided with an aperture for receiving the head of each of said screws, said aperture and heads being irregular in shape, whereby said screws are prevented from working loose, and means for clamping said locking ring in position.

1,140,949. HASP FOR SUITCASES. THOMAS J. CARROLL, Clifton, Ariz. Filed Oct. 14, 1914. Serial No. 866,657. (Cl. 70—83.)

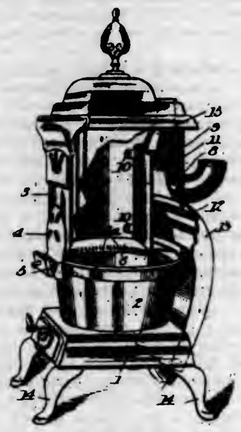


1. In combination with a lock, hasp comprising two hinged sections, one of said sections having means for securing the hasp to a member to be locked, the other of said sections to be engaged by the lock associated with a member to which the first member is to be locked, said second section having a semi-cylindrical portion adapted to engage an umbrella, said semi-cylindrical portion having the ends thereof rounded inwardly substantially as and for the purpose set forth.

2. A hasp comprising two hinged sections, one of said sections having means whereby the hasp may be secured, the other of said sections having a semi-cylindrical portion, one of the longitudinal edges of which portion is hinged to the first section, said second section having an extension integral with the other longitudinal edge of the semi-cylindrical portion which can be locked, said semi-cylindrical portion having the transverse edges rounded inwardly, and said first section having a ridge adapted to co-act with said rounded ends of the semi-cylindrical portion substantially as and for the purpose set forth.

3. A hasp comprising two hinged sections, one of said sections having means whereby the hasp may be secured, the other of said sections comprising a semi-cylindrical portion and a flat portion integral therewith and located at one of the longitudinal edges of said semi-cylindrical portion, the other longitudinal edge of said semi-cylindrical portion being hinged to the first section, said second section having means whereby the hasp may be locked with the semi-cylindrical portion facing the first section, said semi-cylindrical portion having its transverse edges rounded inwardly, and said first section having a ridge adapted to protrude into the semi-cylindrical portion between the rounded ends when said second section is locked.

1,140,950. HEATING-STOVE. EGBERT H. CASTLE, Quincy, Ill. Filed Jan. 16, 1915. Serial No. 2,663. (Cl. 126—58.)



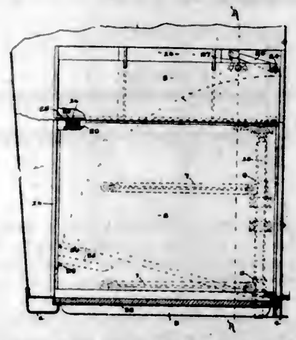
1. In a stove, the combination of a body having an outlet for products of combustion at an intermediate point in its height and also having an opening located below said outlet, an exterior cold-air conduit connected with said opening and extending downwardly therefrom and open at its lower end, a hollow baffle or deflector arranged in the body and having its vertical sides fitting tightly against and connected to the inner side of the body at opposite points and also having its lower portion fitted tight against the inner side of the body around the said opening thereof, and further having its upper portion spaced from the inner side of the body from a point below said outlet of the body to the upper end of the baffle or deflector; the interior of said baffle or deflector being entirely isolated from the interior of the body, and a conduit communicating with the interior of the baffle or deflector and extending through the top of the body and open at its upper end.

2. In a stove, the combination of a body having an outlet for products of combustion at an intermediate point in its height and also having a cold-air inlet arranged below said outlet, a hollow baffle or deflector fixed in the body and communicating with said cold-air inlet and having its interior entirely isolated from the interior of the body and also having its upper portion arranged relatively to the wall of the body to form a down-flue that is closed at its sides and lower end and open at its upper end and leads to the outlet for products of combuation, and a conduit leading from the interior of the baffle or deflector through the wall of the body and open at its outer end.

1,140,951. TRAP-DOOR FOR RAILWAY-CAR PLATFORMS. EDWARD F. CHAFFEE, Syracuse, N. Y., assignor to The O. M. Edwards Company, Inc., Syracuse, N. Y., a Corporation of New York. Filed Mar. 18, 1915. Serial No. 15,189. (Cl. 105—84.)

1. The combination with a railway car platform, of a trap door movable laterally beyond the side of the car, a slide located at the inner edge of the door to bridge the space between the platform floor and the door when the door is projected outwardly from its normal position, and means for moving the door and the slide, said means being connected to the slide, substantially as and for the purpose described.

2. The combination with a railway car platform, of a trap door movable laterally beyond the side of the car, an extension located at the inner edge of the door to bridge the space between the platform floor and the door when the door is projected outwardly from its normal position, and means for moving the door and the extension, said means being connected to the extension, substantially as and for the purpose specified.



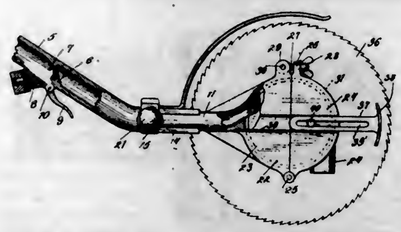
3. The combination with a railway car platform, of a trap door hinged to the platform at one side of the door opening and slidable in a direction axially of its hinge, a slide located at the inner edge of the door to bridge the space between the platform and the door when the door is moved axially outwardly from its normal position, and operating means connected to the slide to move the door axially, substantially as and for the purpose set forth.

4. The combination with a railway car platform, of a trap door hinged to the platform at one side of the door opening and slidable in a direction axially of its hinge, an extension located at the inner edge of the door to bridge the space between the platform and the door when the door is moved axially outwardly from its normal position, and operating means connected to the extension to move the door axially, substantially as and for the purpose described.

5. The combination with a railway car platform, of a trap door hinged to the platform at one side of the door opening and slidable in a direction axially of its hinge, a slide located at the inner edge of the door to bridge the space between the platform and the door when the door is moved axially outwardly from its normal position, means coupling the door and the slide and acting to disconnect the door from the slide during the opening of the door on its hinge, and operating means connected to the slide, substantially as and for the purpose specified.

[Claims 6 to 14 not printed in the Gazette.]

1,140,952. ROTARY ENGINE. JOHANNES EMIL CHRISTENSEN, Everett, Wash. Filed Jan. 2, 1915. Serial No. 362. (Cl. 121—56.)



1. In an engine of the character described, a handle carrying spaced arms, turbine casings secured to the arms, turbine rotors disposed within the casings, a transverse shaft disposed between the spaced arms and secured to the rotors, a rotatable element carried by the transverse shaft, and means for supplying fluid pressure to the turbine casings.

2. In an engine of the character described, a tubular handle carrying spaced tubular arms, turbine casing secured to the spaced tubular arms and receiving fluid pressure therefrom, a rotatable transverse shaft arranged between the spaced tubular arms, rotors arranged within the casings and connected with the transverse shaft to drive the same, and a rotatable element disposed between the tubular arms and mounted upon the transverse shaft to be driven thereby.

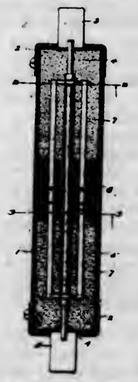
3. In an engine of the character described, a handle carrying spaced tubular arms, turbine casings secured to the spaced tubular arms and receiving fluid pressure therefrom, turbine rotors arranged within the casings, a transverse shaft disposed between the tubular arms and connected with the rotors, and a rotatable element connected with the transverse shaft.

4. In an engine of the character described, a tubular handle, spaced tubular arms having detachable engagement with the tubular handle, a transverse handle carrying detachable clamping means receiving and holding the tubular handle and spaced tubular arms together, turbine casings carried by the tubular arms, rotors arranged within the casings, a transverse shaft disposed between the tubular arms and connected with the rotors, and a rotatable element arranged between the tubular arms and carried by the shaft.

5. In an engine of the character described, a tubular handle, spaced tubular arms having tongue and groove connection with the tubular handle, a handle carrying frame receiving portions of the tubular handle and tubular arms, an adjustable clamping member carried by the frame to engage one tubular handle, turbine casings carried by the tubular arms, rotors arranged within the casings, a transverse shaft arranged between and connected with the rotors, and a rotatable element carried by the shaft.

[Claims 6 and 7 not printed in the Gazette.]

1,140,953. ELECTRIC SAFETY-FUSE. ROBERT C. COLE, Hartford, Conn., assignor to The Johns-Pratt Company, Hartford, Conn., a Corporation of Connecticut. Filed Apr. 8, 1914. Serial No. 830,389. (Cl. 175—273.)



1. An electric safety fuse consisting of an inclosing case, interior and exterior conducting terminals at the ends of the case, a fusible conductor connecting the interior terminals, a levigated non-conductor surrounding the fusible conductor for a short distance in the case, and a granular non-conductor filling the remainder of the case each side of the levigated non-conductor.

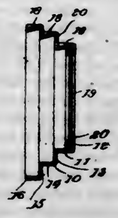
2. An electric safety fuse consisting of an inclosing case, interior and exterior conducting terminals at the ends of the case, a fusible conductor connecting the interior terminals, a levigated non-conductor surrounding the fusible conductor at the middle of the case, and a granular compound filling the remainder of the case.

3. An electric safety fuse consisting of an inclosing case, interior and exterior conducing terminals at the ends of the case, a fusible conductor connecting the interior terminals, a levigated amorphous infusorial earth surrounding a portion of the fusible conductor, and a granular non-conducting compound surrounding the remainder of the fusible conductor.

4. An electric safety fuse consisting of an inclosing case, interior and exterior conducting terminals at the ends of the case, a fusible conductor connecting the interior terminals, a portion of the fusible conductor being surrounded by a dry amorphous non-conductor, and the remainder of the fusible conductor being surrounded by a granular and more hygroscopic non-conductor.

5. An electric safety fuse consisting of an inclosing case, interior and exterior conducting terminals at the ends of the case, a fusible conductor connecting the interior terminals, rotten stone surrounding a section of the fusible conductor at the middle of the case, and a granular compound of plaster of Paris and whiting surrounding the remainder of the case.

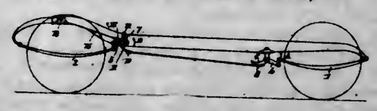
1,140,954. TELEPHONE-MOUTHPIECE PROTECTOR. LEE A. COLLINS, Louisville, Ky. Filed May 12, 1914. Serial No. 838,129. (Cl. 179—185.)



1. A telephone mouthpiece protector including an integrally formed stepped conical shell providing mouthpiece receiving pockets, an inwardly extending annular flange formed on the smaller end of the shell, a plurality of circumferentially disposed and inwardly extending beads struck from the shell, one of said beads being arranged within each of said pockets and disposed to resiliently engage the mouthpiece in the rear of the terminal outer edge thereof for maintaining the shell in engagement with the mouthpiece, a diaphragm disposed within the terminal pocket at the smaller end of the shell and seating against said flange, and a locking ring frictionally engaging within said last mentioned pocket and engaging said diaphragm, said locking ring being engaged by the head of said terminal pocket for maintaining it in position.

2. A device of the character described including a support disposed to fit over the flared outer extremity of a telephone mouthpiece, a circumferentially extending and inwardly disposed bead formed on the support and disposed to bear against the outer wall of the mouthpiece, one side edge of said bead providing a shoulder arranged to engage the outer wall of said mouthpiece adjacent the outer terminal end edge thereof, and a diaphragm carried by the support.

1,140,955. SUSPENSION DEVICE FOR VEHICLES. CAMILLE CONTAL, St.-Cloud, France. Filed July 2, 1914. Serial No. 848,654. (Cl. 21—105.)



1. In a vehicle, the combination of a chassis, four flat springs underneath the said chassis, the outer ends of such springs being connected with the chassis, four bell-crank suspension levers having their elbows jointed to the chassis, two compensation levers located at the sides of the vehicle, two links, one end of each of the compensation levers being connected with an arm of one of the two respective suspension levers, and the opposite end of each of the said compensation levers being connected by one of the said links with an arm of one of the other two respective suspension levers, the other arms of the four suspension levers being connected with the inner

ends of the respective flat springs, and means connected at the intermediate points of the two compensation levers and adapted to cause such points to move in inverse directions parallel to the longitudinal direction of the vehicle.

2. In a vehicle, the combination of a chassis, four flat springs underneath the said chassis, the outer ends of such springs being connected with the chassis, four bell-crank suspension levers having their elbows jointed to the chassis, two compensation levers located at the sides of the vehicle, two links, one end of each of the compensation levers being connected with an arm of one of the two respective suspension levers, and the opposite end of each of the said compensation levers being connected by one of the said links with an arm of one of the other two respective suspension levers, the other arms of the four suspension levers being connected with the inner ends of the respective flat springs, and a lever the middle of which is connected with the chassis and the ends of which are connected with intermediate points of the compensation levers.

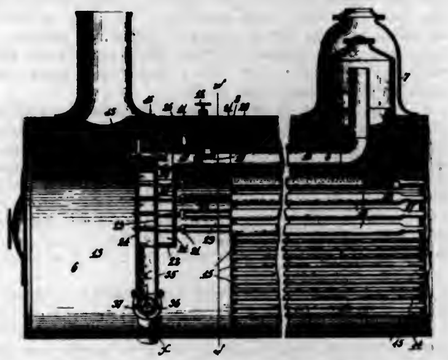
3. In a vehicle, the combination of a chassis, four flat springs underneath the said chassis, the outer ends of such springs being connected with the chassis, four bell-crank suspension levers having their elbows jointed to the chassis, two compensation levers located at the sides of the vehicle, two links, one end of each of the compensation levers being connected with an arm of one of the two respective suspension levers, and the opposite end of each of the said compensation levers being connected by one of the said links with an arm of one of the other two respective suspension levers, the other arms of the four suspension levers being connected with the inner ends of the respective flat springs, and a lever the middle of which is connected with one end of the chassis, and two links connected at one hand with the ends of the last named lever and on the other hand with intermediate points of the said compensation levers.

4. In a vehicle, the combination of a chassis, four flat springs underneath such chassis, the outer ends of such springs being attached to the chassis, four bell-crank suspension levers having their elbows jointed to the chassis, two compensation levers located at the opposite sides of the vehicle, two links, supple parts at the ends of such links, one end of each of the compensation levers being connected with an arm of one of the two respective suspension levers, and the opposite end of each of said compensation levers being connected by one of said links and the respective supple parts with an arm of one of the two other respective suspension levers, the said compensation levers and the said suspension lever arms having curved parts on which the said supple parts run and unroll, the others arms of the four suspension levers being connected with the inner ends of the respective flat springs, and means connected at intermediate points of the compensation levers and adapted to cause such points to move in inverse directions parallel to the longitudinal direction of the vehicle.

1,140,956. SUPERHEATER FOR BOILERS. GEORGE COOK, Buffalo, N. Y. Filed Mar. 15, 1913. Serial No. 754,452. (Cl. 122—462.)

1. A superheater for boilers comprising a casing divided transversely into an inlet chamber and an outlet chamber, one arranged in advance of the other, a series of steam pipes arranged in pairs and secured to said casing, each pair comprising an inlet pipe and an outlet pipe, a fitting for connecting the inlet pipes of each two pairs of steam pipes with said inlet chamber, and a fitting connecting the outlet pipes of each two pairs of steam pipes with said outlet chamber.

2. The combination with a boiler having a series of superheating flues, a housing or casing in the smoke box of said boiler and comprising an inlet chamber and an outlet chamber in advance of said inlet chamber, means for leading steam from the steam space of said boiler in the said inlet chamber, means for delivering steam from said outlet chamber, two pairs of steam pipes extending into each superheating flue, a fitting connecting the inlet pipe of each pair of steam pipes with the outlet pipe thereof, a fitting connecting the two inlet pipes of each two pairs of steam pipes with the inlet chamber of said housing or casing, and a fitting connecting the outlet pipes of each two pairs with the outlet chamber of said housing or casing.



3. The combination with a boiler having superheating flues secured to the forward and rearward flue sheets, and a smoke box in advance of said forward flue sheet, a housing or casing within said smoke box spaced from said forward flue sheet, said housing comprising an inlet chamber and an outlet chamber, a steam supply pipe connecting said inlet chamber with the steam space of said boiler, return steam pipes connecting said inlet chamber with said outlet chamber, a steam delivery pipe depending from said outlet chamber and branching laterally in opposite directions, a stuffing box extending through the shell of said smoke box and accessible for packing from the exterior; a valve controlling the delivery of steam through said branches, and operating mechanism for said valve extending through said stuffing box.

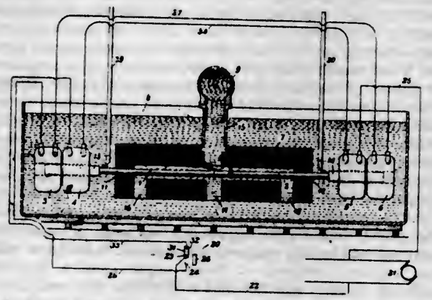
4. The combination with a boiler having a series of superheating flues, steam pipes extending into said flues and having their inlet and outlet ends terminating in the smoke box in advance of said flues, a housing or casing having an inlet chamber and an outlet chamber in advance of said inlet chamber and separated therefrom by an intervening wall, said housing having said steam pipes detachably connected therewith, a steam supply pipe detachably connected with said inlet chamber, a steam delivery pipe detachably connected with said outlet chamber, a pair of rails supported within the smoke box, wheels adapted to travel on said rails, and adjustable connection between said housing or casing and said wheels whereby said housing or casing is supported when said pipes are detached therefrom.

5. The combination with a boiler having a series of superheating flues, steam pipes extending into said flues and having their inlet and outlet ends terminating in the smoke box in advance of said flues, a housing or casing having an inlet chamber and an outlet chamber and having said steam pipes detachably connected therewith, a steam supply pipe detachably connected with said inlet chamber, a steam delivery pipe detachably connected with said outlet chamber, a pair of rails supported within the smoke box, rollers mounted to travel on said rails, links carried by said rollers and capable of swinging thereon, and screw supports pivotally connected to said links and adjustable within said housing or casing.

[Claim 6 not printed in the Gazette.]

1,140,957. CIRCUIT-INTERRUPTER. WILLIAM COOPER, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed July 28, 1909. Serial No. 509,982. (Cl. 175—282.)

1. A circuit interrupter comprising relatively movable contact members, a continuously maintained body of insulating liquid in which said members are immersed, and means for maintaining a continuous localised liquid circulation both laterally and longitudinally with reference to the contact members and in engagement therewith.



2. A circuit interrupter comprising an insulating chamber immersed in a continuously maintained body of insulating liquid and having an inlet port and a plurality of spaced outlet ports, separable contact members extending into said chamber and having normally abutting faces located in proximity to the inlet port and one of the outlet ports, a conduit connected to said inlet port, and means for forcing liquid through said conduit to maintain a continuous circulation thereof around the abutting faces of the contact members.

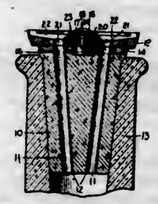
3. A circuit interrupter comprising an insulating chamber immersed in a continuously maintained body of insulating liquid and having an inlet port and a plurality of outlet ports, separable contact members extending into said insulating chamber to make normal abutting contact with each other, a conduit connected to said inlet port, and means for forcing liquid through said conduit to maintain a continuous circulation thereof transversely around the abutting ends and longitudinally around the shanks of the contact members.

1,140,958. COMPOSITION FLOOR-COVERING. WILLIAM COWAN, Pittsfield, Mass. Filed Nov. 3, 1913. Serial No. 799,014. (Cl. 106—24.)

1. A plastic coating composition, consisting of paper pulp 6 pounds, glue 1 pound, portland cement 4 pounds, and water ½ gallon.

2. A plastic coating composition consisting of paper pulp 6 pounds, glue 1 pound, Portland cement 4 pounds, dry color ½ pound and water ½ gallon.

1,140,959. POUR-OUT STOPPER. JOSEPH T. CRAW, Jersey City, N. J., assignor of one-fourth to William H. Heavey, Jr., and one-fourth to Harold McKnight Thompson, Jersey City, N. J. Filed Dec. 2, 1914. Serial No. 875,119. (Cl. 215—57.)



1. The herein described pour-out stopper comprising a main portion having a longitudinal bore therethrough, a movable cap secured to the outer end of the main portion and having a port adapted in one position to register with said bore, a narrow indicator plate coöperating with the outer surface of the cap, and means fixing the plate in definite permanent position with respect to the main stopper body, said means also serving to secure the cap movably in the position indicated.

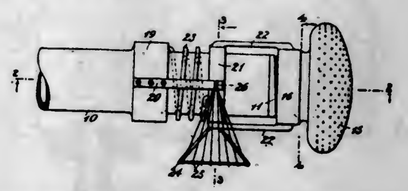
2. The herein described pour-out stopper, the same comprising a main body having a pair of longitudinal bores formed therethrough, a rotary cap fitting against the outer end of the body and having a pair of ports adapted to register in one position with said longitudinal bores, a pivot anchored to the outer end of the body portion on which said cap is adapted to rotate, and an indicator plate secured to the outer end of the pivot and locked thereby from rotation with respect to the main body, the axis of the indicator plate being at an angle to the line joining the outer ends of the bores aforesaid.

3. The herein described pour-out stopper, the same comprising a cork body, a flat anchor member secured to the outer end thereof, a pair of bores extending through the body and anchor member, a pivot pin secured in a rigid position in and to said anchor member, said pin having a head fitted between the top of the body and said anchor member and a cap having its inner face fitted snugly against the outer face of the anchor member and journaled upon said pivot, said cap having a pair of ports adapted in one position to register with the aforesaid bores and another position of rotation of the cap being out of registry whereby the cap will seal the outer ends of said bores.

4. The herein described pour-out stopper, the same comprising a main body, a disk-like anchor member rigidly secured to the outer end of the body, a pair of tubes extending through the body and anchor member and preventing rotation of the anchor member on the body, a pivot having its head locked between the anchor member and the outer end of the body, and a cap fitted snugly against the outer face of the anchor member and journaled for rotation upon said pivot, said cap having a pair of ports adapted in one position to register with the outer ends of said tubes, the main portion of the cap serving when rotated in either direction to seal said tubes.

5. The herein described pour-out stopper comprising a main body having a pair of longitudinal bores, an anchor member secured rigidly to the outer end of the main body and having ports registering with the aforesaid bores, a pivot having a head anchored within the anchor member and held thereby from rotation, a narrow indicator plate fixed to the outer end of the pivot and held thereby from rotation, the axis of the indicator member being at right angles to the plane of the aforesaid bores, and a cap journaled for rotation upon the pivot between the indicator plate and the anchor member, said cap having a pair of ports adapted in one position when not covered by said plate to register with the outer ends of the anchor member bores and adapted when the cap is rotated to be brought beneath said indicator plate, said cap being provided furthermore with an index mark coöperating with said indicator plate to show when the ports and bores are in registration.

1,140,960. AUTOMATIC FIRE-EXTINGUISHER. EUGENE DAUCHER, New York, N. Y. Filed July 20, 1914. Serial No. 851,922. (Cl. 169—5.)



1. An automatic fire extinguisher, comprising a supply pipe for an extinguishing fluid having a discharge end with openings therein, a rotatable sprinkling element having openings adapted to aline with the first mentioned openings, spring means surrounding the supply pipe and acting on the rotatable element to move the same in position to cause alinement of the openings and permit the escape of the fluid and a plurality of combustible threads to hold said spring means under tension with the openings

out of alinement but adapted upon being burned to permit rotation of said member under the action of the spring to dispose the openings in alinement as specified.

2. The combination with a supply pipe of the class described and having an end portion with openings at diametrically opposite sides of its center; of a cap movably mounted thereon and having similar openings, means tending to move the cap to cause alinement of the openings, and means connected to the cap and supply pipe normally under tension to hold said openings out of alinement against the action of the spring means and adapted upon being broken to permit movement of said cap to cause the openings to aline and permit the escape of the fluid.

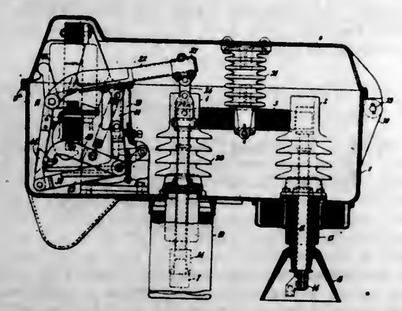
3. An automatic fire extinguisher, comprising the combination with a supply pipe for water or the like having a removable end portion with openings therethrough; of a sprinkling nozzle rotatably mounted, an arm fixed to the pipe and projecting over the rotatable part, a spring fixed to the pipe and to the rotatable part to hold the latter in position to expose the openings, and combustion means between the arm and the rotatable part to be destroyed in the presence of heat for permitting the spring to act.

4. An automatic fire extinguisher, comprising the combination with a supply pipe for water or the like having a removable end portion with openings therethrough; of a sprinkling nozzle rotatably mounted, an arm fixed to the pipe and projecting over the rotatable part, a spring fixed to the pipe and to the rotatable part to normally hold the latter in position to expose the openings, a plurality of threads connected to the arm and to the rotatable part to release the spring upon being destroyed, a combustible bag inclosing said parts, and a fuse connected to the bag and threads.

5. An automatic fire extinguisher, comprising the combination with a supply pipe for water or the like having a removable end portion with openings therethrough; of a sprinkling nozzle rotatably mounted, an arm fixed to the pipe and projecting over the rotatable part, a spring fixed to the pipe and to the rotatable part to normally hold the latter in position to expose the openings, a plurality of threads connected to the arm and to the rotatable part to release the spring upon being destroyed, and means to limit the rotation of said rotatable part with respect to the supply pipe to cause alinement of the openings of the removable end and cap.

[Claims 6 and 7 not printed in the Gazette.]

1,140,961. CIRCUIT-INTERRUPTER. HARRY P. DAVIS, Pittsburgh, and CHRISTIAN AALBORG, Wilkinsburg, Pa., assignors to Westinghouse Electric & Manufacturing Company, a Corporation of Pennsylvania. Original application filed June 25, 1906, Serial No. 323,353. Divided and this application filed May 27, 1912. Serial No. 699,973. (Cl. 175—282.)



1. A switching device for an electric circuit comprising two pairs of stationary contact terminals, a coöperating movable contact member for one pair of terminals, and an inclosing casing having a movable cover provided with members for electrically connecting corresponding stationary terminals of the two pairs together and for coöperating with the movable contact member to close the circuit when the cover is closed and acting to open the circuit when the cover is opened.

2. The combination with a pair of stationary conducting rods provided with supporting bushings of insulating material and having resilient, cup-shaped oil-immersed contact terminals at their lower ends and contact terminals at their upper ends, a movable bridging contact member to coöperate with said lower terminals, a second pair of similarly mounted stationary conducting rods having circuit terminals at their lower ends, and contact terminals at their upper ends, of an inclosing and supporting casing for the stationary parts, a cover therefor, switch blades mounted on and insulated from the cover and adapted to connect corresponding upper contact members of the two pairs.

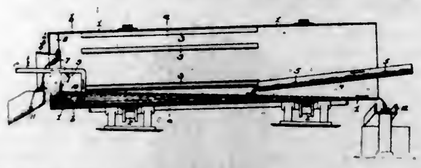
3. The combination with a pair of stationary conducting rods provided with supporting bushings of insulating material and having contact terminals at their lower ends and contact terminals at their upper ends, a movable bridging contact member that coöperates with said lower terminals, a second pair of similarly mounted stationary conducting rods having contact terminals at their upper ends, of an inclosing and supporting casing for the stationary parts, a cover therefor, switch blades mounted on, and insulated from, the cover and adapted to engage corresponding upper contact members of the two pairs.

4. The combination with four stationary conducting rods provided with supporting bushings of insulating material two of which have contact terminals at their lower ends, a fluid-containing tank surrounding said terminals and a movable bridging contact member which coöperates therewith, stationary connectors attached to the lower ends of the other two rods, and contact terminals on the upper ends of all of the rods, of an inclosing casing, a cover therefor, switch blades mounted upon and insulated from the cover and adapted to so engage the upper contact terminals, when the cover is closed, that the circuit is completed from one stationary connector through one switch blade, the movable bridging contact member and the other switch blade, to the opposite connector.

5. In a switching device for an electric circuit, the combination with a supporting frame, and a casing having a movable cover, of a pair of stationary terminals to which line conductors may be attached, a second pair of stationary terminals, a coöperating movable bridging contact member for said second pair of terminals, and means mounted on the cover and serving to open and close the circuit when the cover is respectively opened and closed.

[Claims 6 and 7 not printed in the Gazette.]

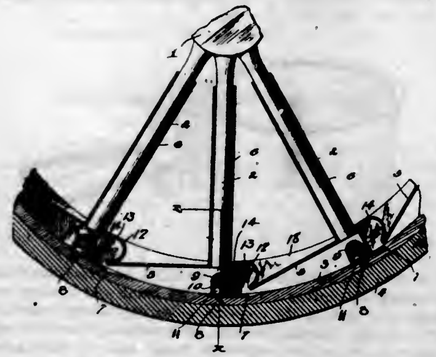
1,140,962. APPARATUS FOR WASHING PHOSPHATE-ROCK. GEORGE L. DAVISON, Mountpleasant, Tenn., assignor to Ruhm Phosphate Mining Company, Mountpleasant, Tenn., a Corporation of Tennessee. Filed July 18, 1913. Serial No. 779,794. (Cl. 83—86.)



1. The combination, in a phosphate rock washer, of an inclined cylinder having a central discharge at its lower end, means for feeding the material to be washed into the upper portion of said cylinder, means for maintaining such a volume of water in the cylinder as will cause an overflow from the upper end of the same, lifting ribs on the inner wall of the cylinder for raising the material from the water and then dropping it back into the same as the material flows through the cylinder, the lifting ribs being discontinued some distance short of the lower end of the cylinder so as to provide a settling chamber at said lower end, means at the lower end of the cylinder for raising the material from the bottom of the same and discharging it through the central outlet, and a clean water pipe having a nozzle directed toward the material in said settling chamber and serving to discharge a jet of clean water directly into said material.

2. The combination, in a phosphate rock washer, of an inclined cylinder having a central discharge at its lower end, lifting ribs on the inner wall of the cylinder for raising the material and then dropping it back, said lifting ribs extending only part way throughout the length of the cylinder so as to provide at the upper end of said cylinder a zone of such extent that the bulk of water therein will be free from disturbance by the ribs, means at the lower end of the cylinder for raising the material from the bottom of the same and discharging it through the central outlet, and means for feeding to that portion of the cylinder which is provided with the lifting ribs the material to be washed together with water in volume sufficient to cause overflow from the upper end of the cylinder.

1,140,963. SPRING-WHEEL. JOHN E. DAWSEY, Conway, S. C. Filed May 28, 1914. Serial No. 841,675. (Cl. 152—49.)

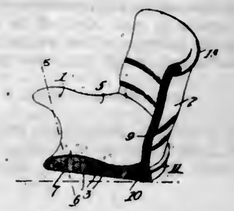


1. In a spring wheel, a hub, spokes fastened at their inner extremities thereto, a rim movable in relation to the outer extremities of the spokes, strap springs fastened at one end to said rim, sleeves having a fixed relation to and carried by the free extremities of said springs in which the spokes are received, and cushions on the rim against which the extremities of the spokes are adapted to strike, each of said springs having a portion thereof bent into a resilient loop, the adjacent spring having a sliding connection with said loop.

2. In a spring wheel, a hub, spokes fastened at their inner extremities thereto, a rim movable in relation to the outer extremities of the spokes, strap springs fastened at one end to said rim, tubular guides having a fixed relation to and carried by the free extremities of said springs through which the spokes are slidable, cushions on the rim against which the extremities of the spokes are adapted to strike, each of said springs having a portion thereof bent into a resilient loop, and a tongue on the free extremity of each spring having a slidable engagement with the loop of the adjacent spring.

3. In a spring wheel, a hub, spokes fastened at their inner extremities thereto, a rim movable in relation to the outer extremities of the spokes, strap springs fastened at one end to said rim, tubular guides having a fixed relation to and carried by the free extremities of said springs through which the spokes are slidable, cushions on the rim against which the extremities of the spokes are adapted to strike, each of said springs having a portion thereof bent into a resilient loop, and a tongue on the free extremity of each spring having a slidable engagement with the loop of the adjacent spring, said loop being formed with a guideway for said tongue.

1,140,964. METHOD OF FORMING A PEW. WILLIAM W. DITTMAR, Williamsport, Pa. Original application filed Mar. 20, 1912, Serial No. 685,088. Divided and this application filed Sept. 13, 1913. Serial No. 789,640. (Cl. 144—309.)

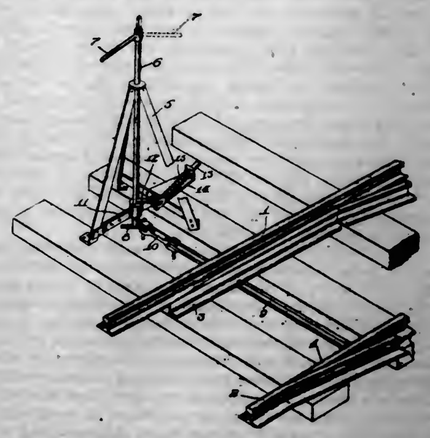


1. The method of forming longitudinally curved pews consisting of forming a seat of a plurality of strips arranged in stepped relation, such that a section on a line forming a chord to the longitudinal curve presents such strips as lying between two conelike surfaces concentric to the longitudinal curve of the seat and then shaping said strips to form a seat.

2. The method of forming laminated longitudinally curved pew backs consisting in securing the plies of said back together by an adhesive material, bending said back transversely upon curved lines before said adhesive material has hardened, with its edges struck on different radii, and then bending said back to a curve with the axis of which the lower edge portion of the back is parallel, while the mean contour of the transverse curvatures of the back is inclined thereto to about the proper rearward incline of the back of the completed pew to a horizontal plane.

3. The method of forming longitudinally curved pews consisting of forming the seat of a plurality of strips arranged in stepped relation, such that a section on a line forming a chord to the longitudinal curve presents such strips as lying between two cone-like surfaces concentric to the longitudinal curve of the seat, then shaping said strips to form a seat having a curved face, and then securing to said seat, a back having its edges struck on different radii, and its bottom edge portion curved longitudinally to the curve of the back edge of the seat and parallel to the axis of said curve while the mean contour of the transverse curvature of the back is inclined to said axis to about the proper rearward incline of the back of a completed pew to a horizontal plane.

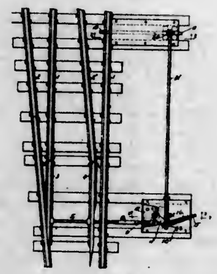
1,140,965. RAILWAY-SWITCH MECHANISM. JAMES DUBOIS and JOHN E. JONES, Westville, Ill. Filed May 14, 1914. Serial No. 838,424. (Cl. 104—25.)



In combination, a track containing a switch, mechanism for manually operating the switch including a single rigid

actuating handle movable only in a horizontal plane adapted to swing about a vertical axis through an angle of less than 180 degrees, the parts being so proportioned and arranged that the free end of the handle points toward the track in all positions of the handle, and a spring permanently connected to said mechanism for yieldingly holding said handle at each limit of its movement and for completing the movement from one limit to the other after a predetermined point has been reached by the handle.

1,140,966. AUTOMATIC RAILWAY-SWITCH. JAMES DUBOIS and JOHN E. JONES, Westville, Ill. Filed Dec. 26, 1914. Serial No. 879,142. (Cl. 104—24.)



1. In combination, two tracks, a switch including connected movable switch points arranged to be shifted by the direct action of the wheels of a piece of rolling stock entering the switch from either of said tracks, a spring controlled actuating and locking device connected to said points and adapted yieldingly to hold them in either working position and to complete the throw thereof from one position to the other after they have reached a predetermined point, a movable part arranged beside one of said tracks at some distance beyond the switch in position to be engaged and actuated by a piece of rolling stock passing along the track, and a connection between said member and said spring-controlled device for causing the switch to be thrown when said member is moved in one direction and for permitting said member to move independently of the switch in the opposite direction.

2. In combination, two tracks, a switch including connected movable switch points arranged to be shifted by the direct action of the wheels of a piece of rolling stock entering the switch from either of said tracks, a spring-controlled actuating and locking device connected to said points and adapted yieldingly to hold said points in either working position and to complete the throw thereof in either direction after they have been moved a predetermined distance, a member arranged beside one of said tracks at some distance beyond the switch in position to be engaged and actuated by a piece of rolling stock passing along that track, said spring-controlled device being provided with an eye, a rod extending from said member and passing loosely through said eye, shoulders on said rod on opposite sides of said eye, one of said shoulders engaging with the eye and the other being spaced a considerable distance from the eye.

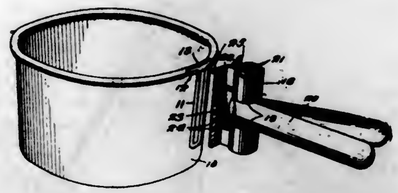
3. In combination, two tracks, a switch including connected movable switch points arranged to be shifted by the direct action of the wheels of a piece of rolling stock entering the switch from either of said tracks, a spring-controlled actuating and locking device connected to said points and adapted yieldingly to hold said points in either working position to complete the throw thereof in either direction after they have been moved a predetermined distance, a member arranged beside one of said tracks at some distance beyond the switch in position to be engaged and actuated by a piece of rolling stock passing along that track, said spring-controlled device being provided with an eye, a rod extending from said member and passing loosely through said eye, shoulders on said rod on opposite sides of said eye, one of said shoulders engaging with the eye and the other being spaced a considerable distance from the eye, and a spring arranged between said eye and the latter shoulder.

4. In a switch device, a base plate having a slot extending inwardly through one edge thereof, a switch spindle lying within said slot and having thereon permanent arms one above and the other below the base plate, and a bearing block lying between said spindle and the aforesaid edge and engaging with said spindle.

5. In a switch device, a base plate having upwardly projecting side members, there being a slot extending entirely through one of said side members and for some distance into the base, a switch spindle lying within said slot and having thereon above and below the base plate permanently attached arms spaced apart a distance at least as great as the height of the slotted side member, and a bearing block lying between the latter side member and the spindle and engaging with the spindle.

[Claims 6 and 7 not printed in the Gazette.]

1,140,967. DETACHABLE HANDLE. SYLENA A. DUNCAN, Neshanic, N. J. Filed Sept. 16, 1913. Serial No. 790,140. (Cl. 53—8.)



1. The herein described detachable handle comprising a cylindrical spring split down its front and having cut-away portions in its opposite sides at its mid-length, a pair of grips passing through said cut-away portions, upright plates integral with the front ends of said grips and standing within said spring and projecting through its front, and jaws on the front edges of said plates forward of the spring, for the purpose set forth.

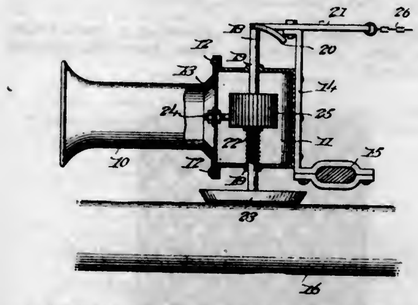
2. The herein described detachable handle comprising a cylindrical spring split down its front and having cut-away portions in its opposite sides at its mid-length, a pair of grips passing through said cut-away portions, upright plates connected with the front ends of said grips and standing within said spring and projecting through its front, and jaws on the front edges of said plates extending away from each other forward of the spring, the outer edges of said jaws being serrated, for the purpose set forth.

3. The herein described detachable handle comprising a cylindrical spring split down its front and having cut-away portions in its opposite sides, a pair of grips passing through said cut-away portions, upright plates connected with the front ends of said grips and standing within said spring and projecting through its front, and jaws on the plates extending away from each other forward of the spring, the outer edges of said jaws being serrated and having tongues at their upper corners projecting beyond said serrations, for the purpose set forth.

4. The herein described detachable handle comprising a cylindrical spring split down its front and having cut-away portions in its opposite sides at its mid-length; combined with a handle consisting of a pair of grips passing through said cut-away portions, upright plates integral with the front ends of said grips and standing within said spring, the plates being stamped with outwardly projecting bosses extending through the cut-away portions and the plates themselves projecting through the front side of the spring, and jaws carried by the front projecting edges of the plates, for the purpose set forth.

5. The combination with a utensil having a wire in its bead, the latter being cut-away at one side and the wire projecting through the cut-away portion and formed into a dependent loop; of a handle comprising a pair of upright plates whose front edges are bent at angles into jaws extending away from each other and adapted to pass into the upper end of said loop, grips extending rearwardly from said plates and normally diverging from each other, and a spring for holding the front edges of the plates normally in contact with each other, for the purpose set forth.

1,140,968. SIGNAL-HORN. RALPH W. DUNKLE, Greenville, Ohio. Filed Apr. 25, 1914. Serial No. 834,451. (Cl. 116—56.)



1. A signal comprising a housing, a mouth piece, a diaphragm positioned between said housing and mouth piece, a pin carried by said diaphragm, an operating shaft slidably and rotatably carried by said housing, a toothed disk rigidly carried by said shaft and engaging said pin, a spring mounted upon said shaft between said disk and one of the walls of said housing for yieldably holding said shaft in a normal position, a disk secured to one end portion of said shaft outside said housing, a securing bracket carried by said housing, and a lever pivotally connected with said bracket and having one end portion formed into a cam finger engaging said shaft whereby said shaft may be moved to an operative position by movement of said lever and said shaft returned to said normal position by said spring, the shaft acting upon said cam finger to return said lever to its initial position when said shaft is returned to said normal position.

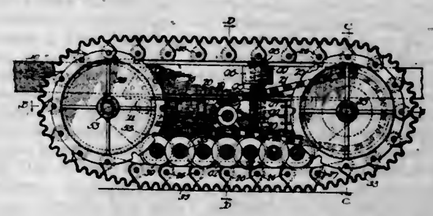
2. A signal comprising a housing, a vibratable element, an actuating shaft slidably and rotatably carried by said housing, means to transmit motion from said shaft to said vibratable element when said shaft is rotated, resilient means in said housing for yieldably holding said shaft in an inoperative position, means for causing said shaft to be rotated when said shaft is moved to an operative position, and means for moving said shaft to an operative position, said last mentioned means including a cam engaging said shaft to move said shaft longitudinally when said last mentioned means is moved, said shaft by engaging said cam returning said last mentioned means to its initial position when said shaft is moved to an inoperative position by said resilient means.

3. A signal comprising a housing, a diaphragm, a pin carried by said diaphragm, an operating shaft slidably and rotatably carried by said housing, actuating means for said pin, carried by said shaft, resilient means yieldably holding said shaft in a normally inoperative position, and a pivotally mounted lever having one end formed into a cam finger engaging said shaft whereby said shaft may be moved to an operative position by movement of said lever and said shaft returned to its normal position by said resilient means, the shaft acting upon said cam finger to return said lever to its initial position.

4. A signal comprising a housing, a vibratable element, an actuating shaft slidably and rotatably carried by said housing and provided with means to transmit motion to said vibratable element when said shaft is rotated, resilient means yieldably holding said shaft in an inoperative position, and means comprising a cam for moving said shaft longitudinally to an operative position, said shaft by engaging said cam returning said last mentioned means to its original position when said shaft is moved to an inoperative position by said resilient means.

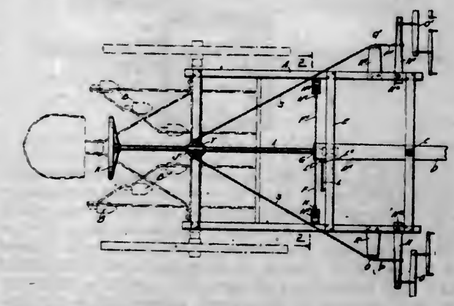
5. A signal comprising a housing, a slidably and rotatably mounted operating shaft, means for yieldably holding said shaft in a normally inoperative position, means comprising a cam for moving said shaft longitudinally to an operative position, said shaft by engaging said cam returning said last mentioned means to its original position when said shaft is moved to an inoperative position by said first mentioned means, and sound producing means actuated by said shaft.

1,140,969. TRACTOR. CLYDE J. EASTMAN, Los Angeles, Cal. Filed May 14, 1913. Serial No. 767,622. (Cl. 21—114.)



In a device of the class described, the combination with a truck frame, of track driving and supporting wheels journaled therein, means for rotating the track driving wheels, a flexible track made up of a plurality of pivotally connected shoes having a plurality of rails, parallel truck-wheel shafts, having enlarged central portions, reduced portions adjacent said central portions and having still further reduced ends, said reduced ends supported in said frame, pairs of truck wheels on said shafts co-operating with alternate rails, and a hub mounted on said central enlarged portion connecting said truck wheels.

1,140,970. CULTIVATOR. JAMES E. EVANS, Lyons, Kans. Filed Oct. 3, 1914. Serial No. 864,758. (Cl. 21—191.)



In an agricultural machine, a rectangular frame having top and bottom cross bars intermediate of its ends, a pole pivoted to the front cross bar of the frame and having a rear extension extending between the cross bars of the frame, a longitudinally extending steering shaft having its front end journaled in the bottom cross bar of the frame and near its rear end in the rear cross bar of said frame, guide pulleys on the side bars of the frame, cables having one end secured to the extension of the pole passing around the guide pulleys and their other

ends secured to the front end of the steering shaft and winding in opposite directions thereon, and means for locking the pole in central position on the frame.

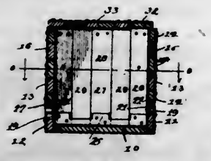
1,140,971. BRIDLE-BIT. CHARLES H. FALLS, Waterloo, Iowa, assignor to Arthur L. Runyan, Waterloo, Iowa. Filed June 27, 1914. Serial No. 847,739. (Cl. 54—7.)



1. A bit comprising a mouth-piece having circular outlined ends forming cheek plates and provided with a longitudinal aperture extending the length thereof, the outer faces of said flanges being provided each with a groove concentric with the aperture in the mouth piece, a rod passing through the latter and provided with threaded ends which project beyond the ends of the mouth-piece, snaffles having openings for the reception of the projecting ends of said rod, each snaffle having a widened portion about the aperture therein and in the inner face of which is formed an annular groove arranged to register with the flanged end of the mouth-piece, nuts fitted to the threaded ends of the rod, and bearings within said grooves.

2. A bit comprising a mouth-piece having circular outlined ends forming cheek plates and provided with a longitudinal aperture extending the length thereof, the outer faces of said flanges being provided each with a groove concentric with the aperture in the mouth-piece, a rod passing through the latter and provided with threaded ends which project beyond the ends of the mouth-piece, snaffles having openings for the reception of the projecting ends of said rod, each snaffle having a widened portion about the aperture therein and in the inner face of which is formed an annular groove arranged to register with the flanged ends of the mouth-piece, nuts fitted to the threaded ends of the rod, and balls mounted within said grooves.

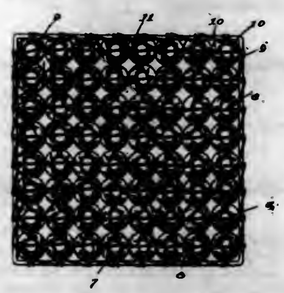
1,140,972. COMBINATION COLLAPSIBLE SHIPPING-CASE. FRANCIS M. FERNANDEZ, Boston, Mass. Filed Sept. 9, 1913. Serial No. 788,888. (Cl. 217—47.)



1. A case comprising a solid bottom, permanent side strips fixed thereto, inverted U-shaped clips fixed to the side strips, side sections including permanent and removable slats, hinged leaf sections fixed to the inner faces of the side sections and having pintles swingingly engaged in the said clips, tongues cut from the hinged leaf sections and bent outwardly and upwardly about the innermost edges of the side sections, angle plates fixed to the ends of the bottom, swinging end sections including permanent and removable slats, hinged leaf sections fixed to the inner faces of the end sections and swingingly connected to the angle plates, L-shaped catches fixed to the end sections and detachably engageable with the hinged leaf sections on the side sections for locking the end sections against inwardly swinging movement, and a cover section swingingly connected to one of the side sections.

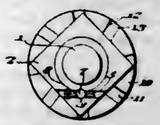
2. A case comprising a solid bottom, permanent side strips fixed thereto, inverted U-shaped clips fixed to the side strips, side sections including permanent and removable slats, hinged leaf sections fixed to the inner faces of the side sections and having pintles swingingly engaged in the said clips, tongues cut from the hinged leaf sections and bent outwardly and upwardly about the innermost edges of the side sections, angle plates fixed to the ends of the bottom, swinging end sections including permanent and removable slats, hinged leaf sections fixed to the inner faces of the end sections and swingingly connected to the angle plates, L-shaped catches fixed to the end sections and detachably engageable with the hinged leaf sections on the side sections for locking the end sections against inwardly swinging movement, and a two-part hinged cover section swingingly connected to one of the side sections, one part of the cover section being formed with removable slats.

1,140,973. CUSHION-SEAT. FREDRICK J. FOILL, Jackson, Mich. Filed Jan. 27, 1914. Serial No. 814,762. (Cl. 5—29.)



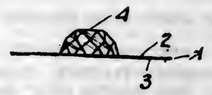
A seat comprising superimposed rigid frames, springs arranged in parallel rows within the frames, flexible connected pockets receiving said springs, said pockets being open at both ends and having their free edges folded over said springs, tie wires bridging each row of springs at the opposite ends thereof and terminally connected to each of the said frames, and said wires being formed to provide spaced pairs of coils loosely embracing the uppermost convolutions of the adjacent springs at diametrically opposite points for connecting the free edges of the pockets with the springs and to prevent lateral displacement of the latter.

1,140,974. NUT-LOCK. JOHN R. FORMBY, Logtown, Miss. Filed Apr. 28, 1914. Serial No. 835,006. (Cl. 151—40.)



A nut having a bore extending therethrough from its inner face to its outer face, the inner portion of said bore being enlarged and the nut being further provided in its outer face, with a groove communicating with the outer end of the bore, a locking stud arranged in the enlarged portion of the bore and having a stem extending through the smaller portion of the bore and projecting into the groove, a coiled spring on the stem of the stud and bearing between the inner side thereof and the inner end of the enlarged portion of the bore, said spring serving to project the outer end of the stud, and a key arranged in the groove and extending through an opening in the projecting portion of the stem, in combination with a washer for arrangement between the nut and the work and having grooves for engagement by the stud to lock the nut and also having radial grooves on the other side each presenting a biting edge.

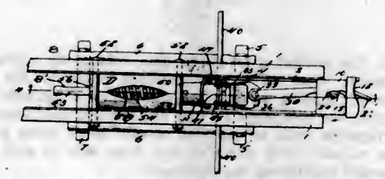
1,140,975. BEAUTY-MARK. FREDERICK FRANKEL, New York, N. Y. Filed Oct. 26, 1914. Serial No. 868,687. (Cl. 63—2.)



1. A beauty mark comprising a cut sparkling stone, and an adhesive base to which the stone is firmly secured, the under side of the base having adhesive for attaching the beauty mark to the face of the wearer.

2. A beauty mark comprising a stone, and a court-plaster base to which the stone is fastened, the back surface of the base being provided with adhesive coating and the area of the said base being larger than the area of the stone, whereby the margin of the base forms a border around the latter.

1,140,976. CAR-COUPLING. ISAAC GAUSE, National Soldiers Home, Elizabeth City county, Va. Filed Jan. 15, 1915. Serial No. 2,448. (Cl. 213—17.)



1. In a car coupling, the combination with a shell-like draw-bar having a closed rear end, and a latch block resting against said end; of a locking block within the draw-bar, yielding means for moving it to the rear when said latch block is raised, a substantially U-shaped knuckle in the front end of said draw-bar, connections between it and said locking block, and means for rocking said knuckle within the head as it is moved back and forth therein.

2. In a car coupling, the combination with a hollow draw-bar, a latch block pivotally mounted in the rear end thereof, and means for raising and lowering it; of a locking block within the draw-bar, yielding means for moving it normally to the rear when said latch block is raised, a substantially U-shaped knuckle in the head at the front end of said draw-bar, one extremity of one of its arms being dished, a loop pivoted to the extremity of the other arm, connections between the mid-length of said knuckle and said locking block, and means for rocking the knuckle within the draw-head as it is moved back and forth therein.

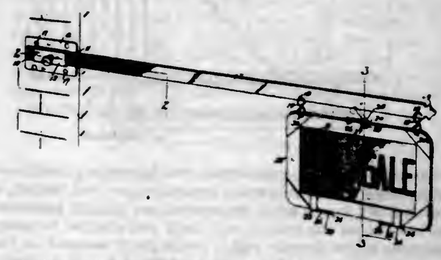
3. In a car coupling, the combination with a hollow draw-bar having slots in its sides, and a vertically movable latch at its rear end; of a cross bar movably mounted in said slots, a locking block on said bar, means for bearing the latter to the rear with yielding force, a rocking knuckle in the front end of the draw-bar, a link pivotally connecting the mid-length of the knuckle with said locking block, and means for turning the knuckle as it is moved back and forth.

4. In a car coupling, the combination with a hollow draw-bar, a link movably mounted therein, and means for moving said link to the rear with yielding force; of a substantially U-shaped knuckle in the draw-head at the front end of said draw-bar, an upright pivot bolt through its bend, the top and bottom of the draw-head having slots in which the extremities of said bolt move, a fork at the front end of said link whose arms are mounted on said bolt, and a loop connected with one arm of the knuckle.

5. In a car coupling, the combination with a hollow draw-bar, a link movably mounted therein, and means for moving said link to the rear with yielding force; of a substantially U-shaped knuckle in the draw-head at the front end of said draw-bar, an upright pivot bolt through its bend, the top and bottom of the draw-head having slots in which the extremities of said bolt move, a tongue projecting from the bend of said knuckle between its arms, upright pins through the draw-head and between which said tongue projects as the knuckle rocks, a fork at the front end of said link whose arms are mounted on said bolt, and a loop connected with one arm of the knuckle.

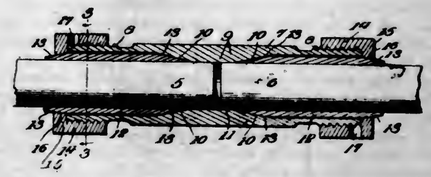
[Claims 6 to 11 not printed in the Gazette.]

1,140,977. SIGN AND HOLDER. WILLIAM C. GRAEBE, New York, N. Y., assignor of one-half to Diedrich Eisen, Brooklyn, N. Y. Filed July 23, 1914. Serial No. 852,674. (Cl. 40—128.)



A sign and holder comprising an elongated staff; a sign plate; hangers pivotally connecting said staff and said plate, said hangers being disposed at the top edge of said plate; a plurality of open-centered frames pivotally mounted upon said plate, said frames folding on said plate, for covering the opposite sides adjacent the edges thereof; and a latch pivotally mounted on said plate at the top edge thereof and embodying side members adapted to overlie said plate and said frames for retaining said frames in closed position, said frames having portions of their top edges cut away to avoid said hangers and the pivot ends of said latch.

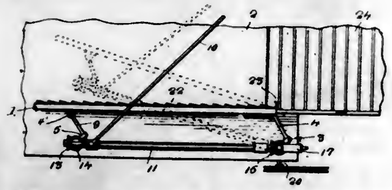
1,140,978. SHAFT-COUPLING. HUBERT C. HART, Unionville, Conn. Filed Mar. 20, 1913. Serial No. 755,715. (Cl. 64—13.)



A shaft coupling comprising a central elongated cylindrical member exteriorly threaded at both ends, and provided with a central bore, the bore at opposite ends of the member being cylindrical, the inner ends of the cylindrical portions of the bore being inwardly tapered and a central reduced cylindrical portion of the bore being formed between said inwardly tapered portions, the inner ends of the coupled shaft sections fitting snugly in the reduced central cylindrical portion of the bore, split bushings fitted in the cylindrical end portions of the bore, each bushing comprising a central elongated cylindrical portion and oppositely tapered ends, the inner tapered ends of the bushings engaging the inwardly tapered portions of the bore, and the outer tapered ends of the bushings extending beyond the ends of the central cylindrical member, the diameter of the bore of the opposite cylindrical portions between the tapered portions and the ends of the cylindrical member being greater than the diameter of the cylindrical portions of the bushings between the tapered ends, and clamping nuts engaging the

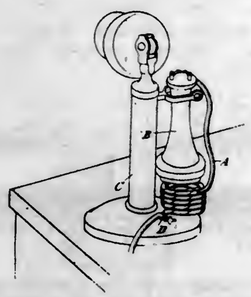
exterior threads on the central member, each of said nuts having an inturned end flange which is beveled on its inner edge surface, the beveled edge surfaces of the nuts engaging the outer tapered ends of the bushings to force same inwardly against the inner tapered portions of the central member and clamp said bushings to the coupled shaft sections, the spaces between the cylindrical member and the bushings causing the latter to yield and turn the ends of said bushings to grip the shaft.

1,140,979. HARVESTER BUTT-BOARD. JAMES HARTMAN, Bern, Kans. Filed July 11, 1914. Serial No. 850,356. (Cl. 56—36.)



A grain butting attachment for harvesting machines, comprising a base, a bracket secured at one end thereof, a crank shaft journaled in the bracket, an upright journaled at one end on the axis of said shaft and adapted to swing laterally at its opposite end, a crank shaft mounted on the upright adjacent said opposite end thereof, a butt board, connecting means between said butt board and the crank portions of said shafts, means for imparting rotary movement to the crank shaft on which the upright is journaled, and connecting means between such crank shaft and the crank shaft at the laterally swinging end of the upright for rotating the two crank shafts in unison.

1,140,980. COILING DEVICE. LORENZO E. HAYNES, Salt Lake City, Utah. Filed June 23, 1914. Serial No. 846,907. (Cl. 173—367.)



1. The combination with a flexible element, of a coiled spring formed of spiral wire, the spiral convolutions of the wire winding about said element, and the convolutions of the spring normally maintaining said element coiled, the convolutions of the coiled spring and element being free to yield and straighten in response to a pulling force.

2. The combination with a flexible element, of a spiral spring formed of a spiral wire, the convolutions of the wire winding about the said element, and the latter following the convolutions of the coils of the spring, said spring being fastened at one end to said element, and having means at the opposite end for connection with a relatively fixed support.

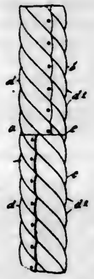
3. A coiling device comprising a coiled spring formed of sinuous wire.

4. A coiling device comprising a coiled spring formed of sinuous wire, one end of said spring having a fastening member consisting of laterally contractible members.

5. A coiled device, comprising a coiled spring having a fastening means pivoted thereto at one end, said means consisting of a wire return-bent and presenting resilient side arms.

[Claim 6 not printed in the Gazette.]

1,140,981. CORRUGATED PIPE. FRED N. HOLMQUIST, Weldon, Ill. Filed May 20, 1914. Serial No. 839,789. (Cl. 113—116.)



1. The method of forming a pipe, comprising corrugating a metal sheet at a predetermined angle to the edges thereof, bending said metal sheet into a cylinder overlapping the side edges thereof and riveting said edges, the corrugation ends of one side of said sheet being brought into register with those of the other side of said sheet, whereby continuing spirals result.

2. The method of forming a pipe, comprising corrugating a metal sheet at a predetermined angle to the edges thereof, bending said sheet into a cylinder with the edges overlapping, and more at one end of the pipe than at the other to reduce the diameter at said end accordingly, and riveting said overlapping edges, the corrugations at the overlapping edges being brought into register.

3. The method of forming a pipe, consisting of corrugating a metal sheet at a predetermined inclination to the edges thereof, bending said metal sheet in a cylinder, overlapping the side edges thereof, the corrugated ends of one side of said sheet being brought into register with those of the other side of said sheet, whereby continuing spirals result, riveting said edges, and forming said corrugations of a width, from crest to crest, for a given pitch, to form a pipe of a desired diameter.

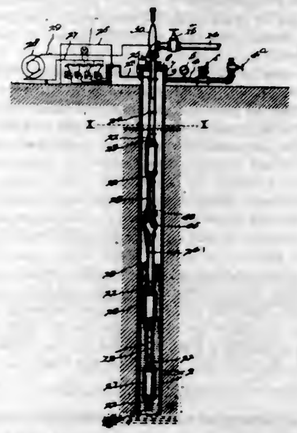
4. The method of forming a pipe, consisting of corrugating a metal sheet with the corrugations of a predetermined width, from crest to crest, at an inclination to the edges thereof, bending said metal sheet into a cylinder, overlapping the side edges thereof, the corrugated ends of one side of said sheet being brought into register with those of the other side of said sheet, whereby continuing spirals result, riveting said edges, and forming said corrugations at such inclination to the axis of the completed pipe as to produce a desired diameter.

5. The method herein described of making a sheet metal pipe which consists in forming in the metal sheet a series of parallel corrugations in close relation and extending diagonally to the direction of length of the sheet and from side to side thereof, and bending the sheet into cylindrical form with the edges overlapping and with the corrugations of the meeting edges registering, thereby spirally threading the pipe, substantially as set forth.

[Claims 6 and 7 not printed in the Gazette.]

1,140,982. OPERATING OIL-WELLS. WILLIAM D. HUFF, La Fayette, La., assignor of three-fourths to Louise Guidry Moss, New Iberia, La. Filed Apr. 6, 1915. Serial No. 19,607. (Cl. 162—1.)

1. The herein described method of operating oil wells, which consists in closing said well at its top and sides against steam or other gas pressure, inserting in said closed top well a pipe provided with an ejector opening through the side of said pipe and adapted to direct gas pressure upward in said pipe, and extending said pipe to the desired depth below the normal surface or static head of the liquid in the well, and in finally supplying heat to the interior of said well, whereby gas under pressure is generated from the liquid in said well, causing the fluid pressure of said gas to force the surface of the liquid inside the well below the inlet nozzle of said ejector, and causing the gas so generated to blow up through said pipe, thereby lifting to the surface of the ground the column of liquid in said pipe, substantially as described.



2. The herein described method of operating oil wells, which consists in closing said well at its top and sides against steam or other gas pressure, inserting in said closed top well a pipe provided with an ejector opening through the side of said pipe and adapted to direct gas pressure upward in said pipe, and extending said pipe to the desired depth below the normal surface or static head of the liquid in the well, and in finally electrically generating heat to the interior of said well, whereby gas under pressure is generated from the liquid in said well, causing the fluid pressure of said gas to force the surface of the liquid inside the well below the inlet nozzle of said ejector, and causing the gas so generated to blow up through said pipe, thereby lifting to the surface of the ground the column of liquid in said pipe, substantially as described.

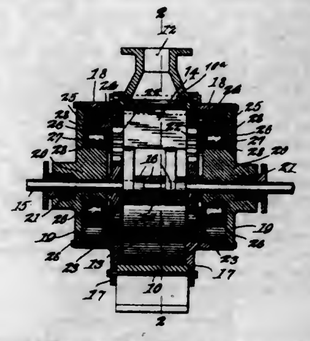
3. The herein described method of operating oil wells, which consists in inserting a casing into said well, closing said casing at its top and sides against steam or other gas pressure and providing means for the admission of liquids at or near the bottom of said casing, inserting an inner pipe in said casing and extending same below the static head of the liquid in the well, said inner pipe being provided with an ejector near the lower end thereof, and in finally supplying heat to the interior of said casing beneath the surface of the liquid in the well, whereby gas under pressure is generated from the liquid in said well, causing the fluid pressure of said gas to force the level of the liquid inside said casing down below the inlet nozzle of said ejector in the inner pipe, thereby causing said gas to lift the column of liquid in the inner pipe through the top of the well, substantially as described.

4. The herein described method of operating oil wells, which consists in inserting a casing into said well, closing said casing at its top and sides against steam or other gas pressure and providing means for the admission of liquids at or near the bottom of said casing, inserting an inner pipe in said casing and extending same below the static head of the liquid in the well, said inner pipe being provided with an ejector near the lower end thereof, and in finally supplying heat to the interior of said casing beneath the surface of the liquid in the well, and also above the surface of said liquid, whereby gas under pressure is generated from the liquid in said well, causing the fluid pressure of said gas to force the level of the liquid inside said casing down below the inlet nozzle of said ejector in the inner pipe, thereby causing said gas to lift the column of liquid in the inner pipe through the top of the well, substantially as described.

5. The herein described method of operating oil wells, which consists in inserting a casing into said well, closing said casing at its top and sides against steam or other gas pressure and providing means for the admission of liquids at or near the bottom of said casing, inserting an inner pipe in said casing and extending same below the static head of the liquid in the well, said inner pipe being provided with an ejector near the lower end thereof, and in finally electrically generating heat to the interior of said casing beneath the surface of the liquid in the well, whereby gas under pressure is generated from the liquid in said well, causing the fluid pressure of said gas to force the level of the liquid inside said casing down below the inlet nozzle of said ejector in the inner pipe, thereby causing said gas to lift the column of liquid in the inner pipe through the top of the well, substantially as described.

[Claims 6 to 25 not printed in the Gazette.]

1,140,983. ROTARY PUMP. THOMAS HYE, WILLIAM B. CAMPBELL, and THOMAS A. BATEMAN, Spokane, Wash. Filed Mar. 1, 1913. Serial No. 751,565. (Cl. 103—44.)



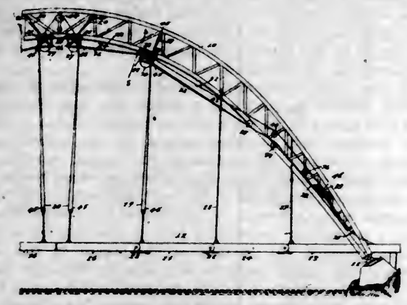
In a pump of the class described, a casing provided with end closures, alined eccentric bosses formed on the inner sides of said closures, alined concentric bosses formed on the exterior of said closures, a shaft journaled in said concentric bosses, a rotor mounted on said shaft concentric with said eccentric bosses, disks fixed to the sides of said rotor and substantially closing the space around the eccentric bosses, annular flanges on said disks, projecting over said eccentric bosses in spaced parallel relation thereto, anti-friction rollers between said bosses and flanges, and an operative connection between the rotor and shaft, including internal gears secured to said disks and gears fixed to the shaft and meshing with the internal gears.

1,140,984. DRAWBRIDGE. HENRY ARTHUR ICKE, Victoria, British Columbia, Canada. Filed July 15, 1914. Serial No. 851,066. (Cl. 14—31.)

1. A bridge, comprising an arch spanning the space to be bridged, a roadway suspended from said arch, a hinged bascule leaf forming a part of said roadway, flexible suspension means therefor, and means carried by said arch for flexing the same to raise said leaf.

2. A bridge, comprising an arch spanning the space to be bridged, a roadway suspended from said arch comprising a fixed portion and hinged portions, flexible suspension means for the free end of said hinged portions, a movable sheave for each of said flexible suspension means and bearing thereon, and means for moving said sheaves

along said arch to flex said suspension means and thereby raise said hinged portion.



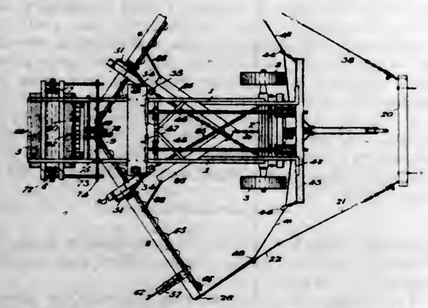
3. A bridge, comprising an arch spanning the space to be bridged, a roadway suspended from said arch comprising a fixed portion and a portion hinged thereto, a movable frame on said arch in the normal position of the suspension means of said hinged portion, on each side of said arch, a sheave carried by each frame and bearing on corresponding suspension means, and means for flexing said suspension means by the movement of each frame along said arch.

4. A bridge, comprising an arch spanning the space to be bridged, a roadway suspended therefrom comprising a fixed portion and a portion hinged thereto, flexible suspension means for each side of the free end of said hinged portion, a movable frame provided with a sheave bearing against each of said suspension means, means for moving said frames to flex said suspension means and thereby raise said hinged portion, and counterweights for equalizing the weight of said hinged portion.

5. A bridge, comprising an arch spanning the space to be bridged, a roadway suspended therefrom comprising a fixed portion and a hinged portion, flexible suspension means for said hinged portion, means movable on said arch for flexing said suspension means to raise said hinged portion, means for moving said flexing means, a sinusoidal track on said arch, and a counterweight for said hinged portion movable on said track.

[Claim 6 not printed in the Gazette.]

1,140,985. ROAD-LEVELING MACHINE. CHARLES H. JONES, Galva, Ill. Filed Jan. 13, 1914. Serial No. 811,882. (Cl. 37—7.)



1. In a device of the class described, a frame, a sectional beam angularly disposed with relation to said frame, one section of said beam being adjustable vertically with relation to its other section, and a retaining wedge adapted to be secured between the connected ends of the beam sections to maintain said adjustable sections at the desired angle.

2. In a device of the class described, a frame, a sectional scraper beam angularly disposed with relation to the side of the frame, one section being adjustable vertically with relation to the other section, a wedge to maintain the adjustable section in a predetermined position, means to connect the free end of the adjustable beam with a tractor, and means at the free ends of said adjustable beam to regulate the line of draft from the tractor to the beam.

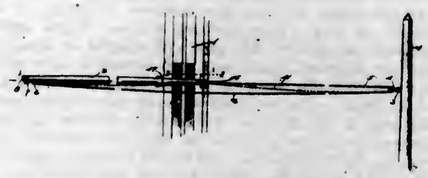
3. In a road machine, a frame having, a scraper beam adapted to be positioned angularly with relation to the side of the frame, said scraper beam having an adjustable section to engage the road surface on a plane lower than the inner section of the scraper beam, means to connect the free ends of said scraper beam to a tractor, a lever carried by each adjustable section of the scraper beam, and a draft device vertically adjustable by movement of said lever to change the line of draft from the tractor to the scraper beam.

4. In a road machine, a frame, a truck positioned at one end of the frame, a roller positioned at the opposite end of the frame, a plurality of scraper beams carried by said frame, flexible connections between said scraper beams and said truck, an auxiliary scraper connected to the truck and positioned beneath the frame for independent movement with relation to the frame, and means yielding to connect the auxiliary scraper with said scraper beams.

5. In a road machine, a frame, a sectional scraper beam carried thereby, means carried by said frame for elevating the inner section of said scraper beam, means positioned on the outer section of the scraper beam for elevating said section from contact with the surface to be treated, and means adapted to be positioned between the ends of said beam sections to retain one beam section at a predetermined position with relation to the other section.

[Claims 6 to 23 not printed in the Gazette.]

1,140,986. CLOTHES-LINE SUPPORT. CHARLES KOFFER, New York, N. Y. Filed Sept. 16, 1914. Serial No. 862,022. (Cl. 68—12.)



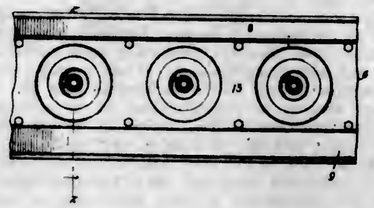
1. In a device of the character described, the combination with a post, a hook on a window frame and a clothes line pulley structure associated therewith, of an arm pivotally connected with said hook, said arm being formed with a hook member for receiving one of the pulleys of said clothes line and pulley structure, and a retaining hook adapted to overlap said clothes line when the arm is in an inoperative position.

2. In a clothes line support, a supporting arm for a clothes line adapted to be extended into the room, said supporting arm being pivotally connected to a window frame exteriorly of the window, means for normally holding said arm substantially in a horizontal position and extending through the window into the room, means for supporting one end of the clothes line pulley structure on the inner end of said arm, a hook arranged on the outer end of said arm adapted to engage the upper section of said clothes line when clothes are being placed on the line and to engage both sections of the line when said arm is swung out of the window, and means arranged on the end of said arm overlapping said clothes line when said arm is moved without the window, whereby said arm is held substantially parallel with the clothes line and thereby the clothes line is held taut.

3. In a clothes line support of the class described, an arm for supporting a clothes line pulley structure, said arm having a loop and hook at one end interlocking with the clothes line structure, and a supporting hook on the window frame, and a pair of hooks at the opposite ends, one of which supports the end of said clothes line support and the other of which is adapted to overlap the line of said clothes line structure when the arm is swung to a position without said window, and means connected with said window for holding said arm substantially horizontal when extending through the window.

4. In a clothes line support of the character described, an arm adapted to swing to a position within the window and to a position without the window, a supporting structure secured to the window adapted to engage said arm when extending through the window into the room, said supporting structure comprising a stationary base formed with guideways, a sliding plate slidingly mounted in said guideways, said sliding plate being formed with beads, means for clamping said sliding plate in any desired position on said stationary plate, a bar extending through each of said beads, each of said bars being formed with hooked ends overlapping said arm when in one position, and means connecting said bars so as to properly rotate said bars simultaneously for turning said hooked ends to a position out of engagement with said arm when said arm is to be moved to a position without said window.

1,140,987. ENGINE-COOLING SYSTEM. FREDERICK E. KUBE, Clinton, Iowa. Filed Sept. 19, 1913. Serial No. 790,695. (Cl. 123—177.)



1. In an internal combustion engine cooling system, a piston having an inner annular recess forming a receptacle, said receptacle having an outlet to the outer lateral surface of the piston; a double-walled sleeve valve engaging the piston; means for directing intermittently a cooling medium into said recess from the crank casing of the engine, said sleeve having means for conveying the said fluid from the inner to the outer surface; and means for circulating a fluid in the space formed by the double walls of the sleeve valve.

2. In an internal combustion engine cooling system, a piston having an inner annular recess forming a receptacle; a sleeve valve engaging the piston, said receptacle having an outlet to the sleeve through the piston; means associated with the piston movement and adapted to direct a cooling medium into said receptacle from the crank case of the engine.

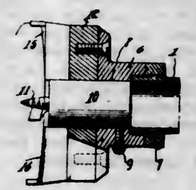
3. In an internal combustion engine cooling system, a piston having an inner annular recess forming a receptacle; a sleeve valve engaging the piston, said receptacle having an outlet to said sleeve through said piston; means for causing the circulation of a cooling medium in the crank case of the engine; and means associated with the piston motion and adapted to come across the circulating medium and direct the same into said receptacle, substantially as and for the purpose set forth.

4. In an internal combustion engine cooling system, a piston having an inner annular recess forming a receptacle; a sleeve valve engaging the piston, said receptacle having an outlet to said sleeve through said piston; a pump for forming a jet of a cooling medium in the crank case; and means associated with the movement of the piston and adapted to cause said jet to be deflected into said receptacle, substantially as and for the purpose set forth.

5. In an internal combustion engine cooling system, a piston having an inner annular recess forming a receptacle; a sleeve valve engaging the piston, said receptacle having an outlet to said sleeve through said piston; a connecting rod for the piston; a pump for forming a jet of a cooling medium in the crank case; and means carried by the connecting rod and adapted to come across said jet in the crank case and direct the same into said receptacle, substantially as and for the purpose set forth.

[Claims 6 to 8 not printed in the Gazette.]

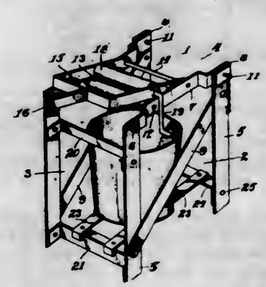
1,140,988. DRILL. BENJAMIN KUNITZ, New York, N. Y., assignor to American Plaster-Drill Co., Inc., Brooklyn, N. Y., a Corporation of New York. Filed July 28, 1914. Serial No. 853,754. (Cl. 145—120.)



1. A drill bit comprising a shank, a head mounted on the shank and provided with an opening, a blade support mounted upon the head and provided with recesses, blades having shanks located in the recesses and provided with cutting edges, plates mounted upon the blade holders and clamping against the shanks of the blades and a guiding member detachably mounted in the opening in the head.

2. A drill bit comprising a shank, a head mounted thereon and having an opening, a blade holder mounted upon the head, blades carried by the blade holder, plates mounted upon the blade holder and clamped against the blades, and a sleeve detachably mounted in the opening in the head and means for holding the sleeve in position in the head.

1,140,989. WRINGER. WILLIAM F. KURTZ, Aberdeen, S. D. Filed Sept. 25, 1914. Serial No. 863,528. (Cl. 15—12.)

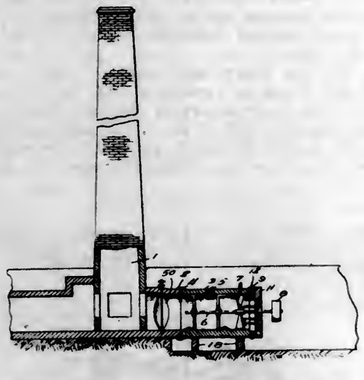


1. In a device of the class described, a frame comprising side members having an angular pivoted brace, a front comprising bars connecting the side members, a top comprising longitudinal members pivotally secured to the side members of the front thereof and having their opposite ends formed with ears to engage with the rear members of the sides, means for removably securing the ears upon the sides, a roller connected with the upper longitudinal members, a yoke pivoted between the said members, a second roller carried by the yoke and adapted to be swung into engagement with the first mentioned roller, a handle for the second roller, a pivoted bucket support upon the rear members of the side frames, said support having a hooked free end, and said hooked end adapted to be swung into engagement with one of the connecting members of the sides forming the front of the frame.

2. In a collapsible and foldable device of the class described, a frame including sides comprising spaced uprights, a pivoted angular brace connecting the uprights,

longitudinal members pivotally secured to the front uprights, said members having their free ends looped to provide ears adapted to be arranged over the upper ends of the rear uprights of the sides into contact with the angular brace members therefor, removable members for sustaining the ears upon the uprights, a roller trunnioned between the said longitudinal members, a rod connecting the longitudinal members, a U-shaped yoke rotatably mounted upon the rods, said yoke having its connecting member provided with an extending handle, a roller trunnioned between the ears of the yoke and adapted to engage with the first mentioned roller, a handle for the second mentioned roller, a front for the frame comprising transverse members connecting the outer uprights of the side, a bucket support, said bucket support including a rear transverse member which is pivotally connected with the rear uprights of the sides at the lower portions thereof, the opposite end of the bucket support being formed with downturned portions forming ears, and the said ears adapted to engage with the opposite faces of the lower front connecting member.

1,140,990. CHIMNEY-MOTOR. EVAN R. LEWIS and LOUIS SALZINGER, Wilkes-Barre, Pa. Filed July 9, 1914. Serial No. 850,010. (Cl. 253—2.)



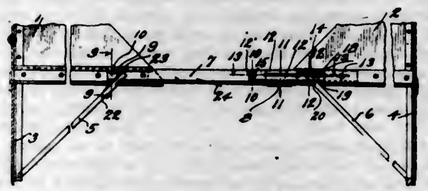
1. A chimney motor comprising a substantially cylindrical housing, a fan rotatably mounted therein, a head for the cylindrical housing, and a plurality of tubes connecting with the outer air and extending toward the fan in a direction substantially parallel to the axis of the housing.

2. A chimney motor comprising a cylindrical housing opening at one end into the chimney, a head closing the other end of the housing, a shaft mounted in the housing, a fan carried by the shaft and adapted to rotate in a plane substantially perpendicular to the axis of the housing and tubes communicating with the outer air and extending inwardly toward the fan in a direction substantially parallel to the shaft.

3. A chimney motor comprising a housing substantially cylindrical and opening at one end to the chimney, a head covering the other end of the cylindrical housing and provided on the outer face thereof with cup-like depressions, tubes communicating with the cup-like depressions and extending inwardly from the head substantially parallel to the axis of the housing and a fan rotatably mounted within the housing in proximity to said tubes and rotating in a plane substantially perpendicular to the axis of the housing.

4. A chimney motor comprising a substantially cylindrical housing opening at one end to the chimney, a head secured to the other end of the housing, a shaft extending parallel to and within the housing, means secured to the interior of the housing adapted to support one end of the shaft, the other end of the shaft passing through and being supported by said head, a fan carried by said shaft and tubes extending from the head toward the fan in a direction substantially parallel to the shaft, said tubes being in communication with the outer air.

1,140,991. COMBINED TRUNK AND BED. EVERETT A. MARLOWE, Prescott, Ariz. Filed Dec. 10, 1914. Serial No. 876,566. (Cl. 190—2.)



1. In a combined trunk and bed of the class described, a pair of complemental sections coöperating to form a receptacle, slide members connecting said sections together and permitting extension of the sections, one of said sections having pivotal connection with the slide members permitting movement of said section into alined position corresponding with the other section whereby to form a bed.

2. In a combined trunk and bed of the class described, a pair of complemental sections coöperating to form a receptacle, slide members connecting said sections together and permitting extension of the sections, one of said sections having pivotal connection with the slide members whereby to permit closing of the sections in receptacle form and relative movement of the pivoted section when extended to form a bed, and means for guiding the slide members in their extension movement.

3. In a combined trunk and bed of the class described, a pair of complemental sections coöperating to form a receptacle, slide members connecting said sections together and permitting extension of the sections, one of said sections having pivotal connections with the slide members permitting movement of said section into alined position corresponding with the other section whereby to form a bed, and means coöpersting with the pivotal connection when the sections are extended to render said pivot rigid.

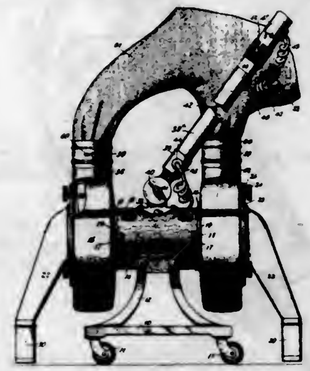
4. In a combined trunk and bed of the class described, a pair of complemental sections coöperating to form a receptacle, slide members connecting said sections together and permitting extension of the sections, one of said sections having pivotal connection with the slide members permitting movement of said section into alined position corresponding with the other section whereby to form a bed, means coöperating with the pivotal connection when the sections are extended to render said pivot rigid, and means coacting with the last-mentioned means and the pivoted section to lock the parts in extended position.

5. In a combined trunk and bed of the class described, a pair of complemental sections coöperating to form a receptacle, slide members connecting said sections together and permitting extension of the sections, one of said sections having pivotal connection with the slide members permitting movement of said section into alined position corresponding with the other section whereby to form a bed, means coöperating with the pivotal connection when the sections are extended to render said pivot rigid, and means coacting with the last-mentioned means and the pivoted section to lock the parts in extended position, said means constituting a supporting brace.

[Claims 6 to 10 not printed in the Gazette.]

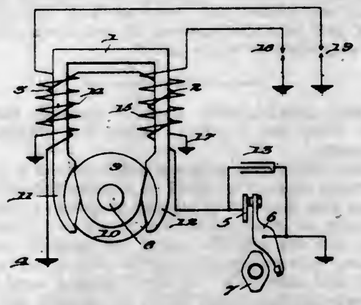
1,140,992. PNEUMATIC SUCTION-CLEANER. EMANUEL A. MARTIN, New York, N. Y. Filed Nov. 12, 1913. Serial No. 800,501. (Cl. 15—60.)

1. In a suction cleaner, a car having supporting wheels, a horizontally disposed motor casing mounted on the car and longitudinally thereof, two fan chamber casings, means for detachably securing the fan chamber casings to the ends of the motor casing, one at the front and the other at the rear thereof, a motor in the motor casing having a shaft extending longitudinally thereof and provided with terminals projecting into the fan chamber casings, fans mounted on the shaft terminals and disposed in the fan chamber casings, detachable heads for closing the outer ends of the fan chamber casings, means for holding the heads in position relatively to the fan chamber casings and suction tubes connected with and extending downwardly from the heads.



2. In a suction cleaner, a car having supporting wheels, a horizontally disposed motor casing mounted on the car longitudinally thereof, two fan chamber casings, means for detachably securing the fan chamber casings to the ends of the motor casing, one at the front and the other at the rear thereof, a motor in the motor casing having a shaft extending longitudinally thereof and provided with terminals projecting into the fan chamber casings, detachable heads for closing the outer ends of the fan chamber casings, means for holding the heads in position relatively to the fan chamber casings, suction tubes connected with and extending downwardly from the heads, a handle secured to the motor casings, and a dust collecting means connected with the fan chamber casings.

1,140,993. IGNITION-DYNAMO. CHARLES THOMAS MASON, Sumter, S. C., assignor to Sumter Electrical Company, a Corporation of South Carolina. Filed July 26, 1913. Serial No. 781,415. (Cl. 123—149.)



1. In a dynamo electric machine, a primary magnetic field, a secondary magnetic field, means movable between the fields for producing varying magnetomotive forces therein, a primary winding associated with said secondary field, and a plurality of secondary windings associated with said primary winding and having suitable terminals for connection to translating devices.

2. In a dynamo electric machine, a primary magnetic field, a normally fixed secondary magnetic field, means movable between the fields for producing varying magnetomotive forces in said secondary field, a primary winding associated with said secondary field, and a plurality of windings associated with said primary winding having suitable terminals for connection to translating devices, together with an interrupter included in circuit with the primary winding, and means for actuating said interrupter synchronously with the variations in magnetomotive force of the secondery field.

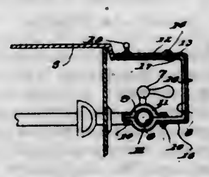
3. In a dynamo electric machine, a primary exciting field, a secondary field structure adjustable with respect to the primary field for purposes of timing, movable means for periodically varying the flux from the primary field through the secondary field, and a plurality of generating windings carried on said secondary field structure, and all adapted thereby to be simultaneously exposed to the same magnetic flux variations, and to be simultaneously timed by the adjustment of one field structure with respect to the other.

4. In a dynamo electric machine, means for furnishing primary magnetic excitation, a magnetic field structure mechanically adjustable for purposes of timing, means for carrying magnetic flux from the primary exciting means to said magnetic field and for varying the same therethrough periodically, a plurality of generating windings mounted on said magnetic structure and simultaneously adjustable therewith for synchronous timing, and interrupting means operated in synchronism with the flux variations with electrical circuit connections from the generating windings controlled by said interrupting means.

5. In a dynamo electric machine, means for furnishing primary magnetic excitation, a magnetic field structure mechanically adjustable for purposes of timing, means for carrying magnetic flux from the primary exciting means to said magnetic field and for varying the same therethrough periodically, a plurality of generating windings mounted on said magnetic structure and simultaneously adjustable therewith for synchronous timing, and interrupting means operated in synchronism with the flux variations, with electrical circuit connections from the generating windings controlled by said interrupting means, said interrupting means being connected to said magnetic field structure for adjustment therewith, whereby the point on the curve of E. M. F. at which interruption takes place, is maintained constant for all the generating windings, in all adjusted positions, and the current discharges delivered therefrom are always of the same predetermined intensity and in perfect synchronism.

[Claims 6 to 9 not printed in the Gazette.]

1,140,994. GAS-RANGE ATTACHMENT. FRANK J. MELLADY, New York, N. Y. Filed June 23, 1914. Serial No. 846,840. (Cl. 126—42.)



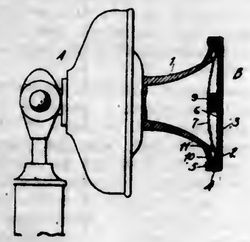
A shield of the class described comprising a pair of spaced substantially U-shaped brackets, one limb of each bracket being formed with a semi-circular bowed portion to provide a seat for the gas supply pipe of a gas range, clips bridging the bowed portion of the bracket for fastening the same to the said supply pipe, a plate fixed to the brackets and forming a solid front, bottom, and a top flange, and a cover plate pivotally connected to the top flange and adapted to normally rest upon the brackets.

1,140,995. PROCESS OF DAMP-PROOFING SALT. JOHN D. MILLER, Norfolk, Va., assignor of one-half to Louis Feuerstein, Sr., Norfolk, Va. Filed Dec. 27, 1913. Serial No. 808,996. (Cl. 127—14.)

1. The rocess of damp-proofing salt which consists in heating the salt, and thoroughly mixing therewith, while in a heated state, stearic acid and magnesia, and agitating the mass until all of its parts are intimately mixed.

2. A condiment comprising salt, stearic acid and magnesia.

1,140,996. SANITARY TELEPHONE ATTACHMENT. THOMAS H. RIGGS MILLER, New York, N. Y., assignor to Myrophone Company, Inc., New York, N. Y. Filed Oct. 22, 1914. Serial No. 868,033. (Cl. 179—185.)



1. A sanitary attachment for telephone transmitters comprising a shell having an opening, a holder for sanitary material disposed in the shell, and a resilient ring clamped at its outer edge in the shell and firmly securing the said holder in place, said ring being formed with an internal yielding annular lip for engagement around the mouthpiece of the transmitter and forming the sole means for retaining the attachment on the said mouthpiece.

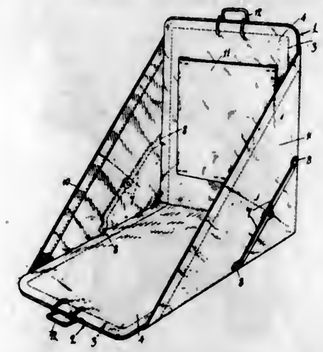
2. A sanitary attachment for telephone transmitters comprising a shell having an opening, a holder for sanitary material disposed in the shell, and a resilient ring clamped in the shell and firmly securing the said holder in place, said ring being formed with an internal yielding annular lip for engagement around the mouthpiece of the transmitter, said holder comprising two wire gauze pieces bound together at their periphery and spaced apart at the middle, and antiseptic material confined between the said gauze pieces at the middle.

3. A telephone attachment comprising a shell consisting of a front plate having an opening and a peripheral rim, an antiseptic holder disposed within the shell, and a ring arranged within the shell and engaging the periphery of the holder, said ring being of resilient material and tapering inwardly to form a yielding internal annular lip for externally engaging the mouthpiece of a transmitter, said rim of the shell being provided with an internal annular flange at its rear, whereby the periphery of the ring is held under compression to clamp the antiseptic holder tightly against the front plate of the shell.

1,140,997. COMBINED HAND-BAG AND SEAT. KATHERINE V. MINEHART, Philadelphia, Pa. Filed Aug. 19, 1914. Serial No. 857,568. (Cl. 190—8.)

1. A combined hand bag and seat comprising a pair of substantially-counterpart members hinged together at their lower ends for swinging movement toward and from each other to close and open the bag, one of said members forming the back of the seat and the other member the bottom of the seat when the bag is open the member forming the bottom of the seat resting directly on the ground when the members are open, inwardly folding flaps of textile material at the opposite sides of the members, and extensible connections between the adjacent marginal edges of said members for holding said bag in the last-named position.

2. A combined hand bag and seat comprising a pair of substantially-counterpart members hinged together at their lower ends for swinging movement toward and from each other to close and open the bag, one of said members forming the back of the seat and the other member the bottom of the seat when the bag is open; flaps of textile material arranged at the opposite sides of said members and connected to the side edges thereof, said flaps folding inwardly between said members when the bag is closed, and straightening out when the bag is opened to form the sides of the seat; and break-joint devices connecting the adjacent marginal edges of said members for holding said bag in open position.



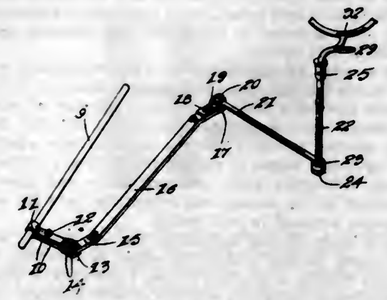
3. A combined hand bag and seat comprising a pair of inverted U-shaped metal frames having their pairs of legs arranged opposite each other and hinged together at their free ends for movement toward and from each other, each leg being provided upon its inner face with a socket; a pair of links arranged at each side of said frames and pivoted together at their inner ends, the outer ends of said links being provided with pins for reception in said sockets; a covering of textile material attached to each frame, one of the covered frames forming the back of the seat and the other covered frame the bottom of the seat when the bag is opened, and foldable flaps connected to opposite sides of the frames, and said pairs of links and flaps straightening out when the bag is opened.

4. A combined hand bag and seat comprising a pair of inverted U-shaped metal frames having their pairs of legs arranged opposite each other and hinged together at their free ends for movement toward and from each other; a covering of textile material attached to each frame, one of the covered frames forming the back of the seat, and the other covered frame the bottom of the seat when the bag is opened, said pairs of links also straightening out when the bag is opened; and flaps of textile material arranged at the opposite sides of and inwardly foldable between said frames and connected with the coverings thereof, said flaps straightening out and forming the sides of the seat when the bag is opened.

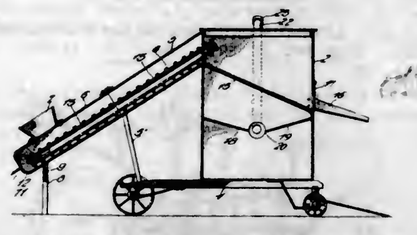
1,140,998. HEADLIGHT. STARR V. MONSEES, Smithton, Mo. Filed Oct. 12, 1914. Serial No. 866,352. (Cl. 240—62.)

1. The combination with a steering rod and a turn rod of the head lights of a vehicle, of a connecting rod having its ends bent laterally in opposite direction, a plate provided with an offset end secured to one end of said connecting rod and securely holding the headlight turn rod positioned between the offset portion of the plate and the end of said connecting rod, and clamping arms having their ends offset to firmly secure the opposite end of the connecting rod to the steering rod when assembled.

2. A device of the class described comprising the combination with a steering rod and the turn rod of the head lights of a vehicle, of a connecting rod having its ends bent laterally in opposite directions, a plate secured on one end of said connecting rod adapted to secure one end of the turn rod between the connecting rod and the offset portion of said plate, and clamping arms having their ends offset and connected to the free end of said connecting rod and to the steering rod, and means for firmly clamping said arms in position.

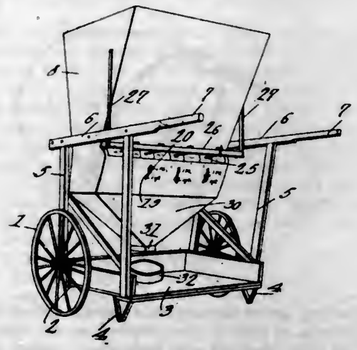


1,140,999. COAL-CLEANER. JAMES R. MONTGOMERY, Frankfort, Kans. Filed May 25, 1914. Serial No. 840,807. (Cl. 83—54.)



A coal cleaning machine comprising an upright casing, means at the top thereof for dropping coal therein, and a transverse plate near the inner end of the casing inclining downwardly and from one side thereof, said plate lying approximately in a horizontal plane whereby to suddenly check the downward movement of coal dropped thereon, thus jarring all dust from this coal, combined with means whereby a blast of air may be projected longitudinally of the inner edge of said plate and over the upper inner edge portion thereof.

1,141,000. FEED MIXER AND CARRIER. JOSEPH M. MOORE, Unadilla, N. Y. Filed Feb. 27, 1914. Serial No. 821,596. (Cl. 221—95.)



1. Apparatus of the class described including a bin having separate compartments therein, a discharge compartment under each of the first named compartments, and communicating therewith through outlet openings, cutoff slides for closing said openings, said slides being normally in open position; a tiltable bottom plate within each discharge compartment, and held in closed position by the cutoff slides when said slides are opened, and means for shifting the slides to closed position to release the bottom plate.

2. Apparatus of the class described including a bin having separate compartments therein, a discharge compartment under each of the first named compartments, and communicating therewith through outlet openings, cutoff slides for closing said openings, said slides being normally in open position, a tiltable bottom plate within each discharge compartment and held in closed position by the cutoff slides when said slides are opened, means for shifting the slides to closed position to release the bottom plate, and a hopper for receiving materials from the several bottom plates when released.

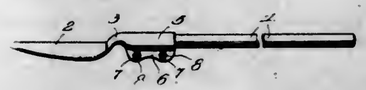
3. Apparatus of the class described including a bin having separate bulk holding compartments provided with outlets, a discharge compartment under each outlet, a tiltable bottom plate within each discharge compartment, slides constituting cutoffs for the outlets and normally in open position, said slides constituting means, when opened, for holding the bottom plates in closed position, and means for shifting the cutoff slides to open positions, thereby to release the bottom plates.

4. Apparatus of the class described including a bin having separate bulk holding compartments provided with outlets, a discharge compartment under each outlet, a tiltable bottom plate within each discharge compartment, means for adjusting the bottom plate toward and from the outlet, a cutoff slide for closing each outlet, said slides being normally in open position, and means for closing the cutoff slides, said slides, when opened, constituting means for supporting the bottom plates in closed positions.

5. Apparatus of the class described, including a bin having separate bulk holding compartments provided with outlets, a discharge compartment under each outlet, a tiltable frame adjustable angularly within each discharge compartment, means for indicating the extent of adjustment of each frame, a tiltable bottom plate carried by each frame, and a cutoff slide for closing each outlet, each slide constituting means, when opened, for supporting the bottom plate thereunder in closed position.

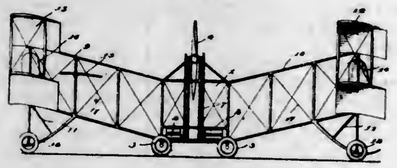
[Claims 6 and 7 not printed in the Gazette.]

1,141,001. HANDLE-ATTACHING MEANS. GEORGE ORAVETZ, Pacific City, Wash. Filed Aug. 30, 1912. Serial No. 717,920. (Cl. 55—14.)



As a new article of manufacture, an implement formed of sheet-metal possessed of resiliency and having an integral sheet-metal shank and an integral sheet-metal resilient socket portion; the shank being formed of a portion of sheet-metal of reduced width and curved in the direction of its length to present a lengthwise convex forward side and being of circular form in cross-section with the edges of the reduced portion of the sheet-metal opposed to and abutting against each other at the under side and the rear side of the shank, and the socket portion being formed of a comparatively wide portion of sheet-metal and being of circular form in cross-section and provided with a reduced forward end and also provided at its edges with opposed integral depending flanges having apertures, whereby said socket portion may be clamped on and accommodated to handles of different diameters; said flanges being disposed immediately at opposite sides of the longitudinal center of the socket portion, and means for connecting said flanges and clamping the socket portion against a handle.

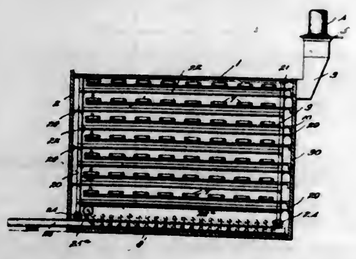
1,141,002. AEROPLANE. ELMER C. PARSONS, Litchfield, Minn. Filed Sept. 22, 1914. Serial No. 862,987. (Cl. 244—12.)



1. An aeroplane comprising a central car, head and tail frames projecting from the car respectively at an upward and forward angle and at an upward and rearward angle, and supporting surfaces upon said frames equidistantly from the center of the machine, each of said supporting surfaces comprising a pair of laterally extending wings arranged at an outward and upward angle to each other corresponding to the angular relation of the head and tail frames to each other.

2. An aeroplane including a central car or carriage, head and tail frames projecting upwardly and forwardly and upwardly and rearwardly, respectively, from said car or carriage, said frames being coextensive in dimensions and disposed at like angles to the car and in dihedral relationship to each other, controlling rudders upon said head and tail frames, supporting wheels upon the car and outer ends of the head and tail frames arranged in a common plane, propelling mechanism upon the car, and supporting surfaces upon the outer ends of the head and tail frames at equal distances from the car, said surfaces being of like character and dimensions, each of said surfaces comprising a pair of laterally extending wings arranged at a dihedral angle with relation to each other corresponding to the angular relation of the head and tail frames.

1,141,003. APPARATUS FOR DRYING COPRA. CÁRLOS POMBO and TORIBIO DEL CASAL, Manila, Philippine Islands. Filed Mar. 28, 1914. Serial No. 828,062. (Cl. 34—39.)



1. In a copra drying apparatus, the combination of a closed casing, a plurality of banks of steam conducting pipes mounted within the casing and disposed in spaced and superposed relation, a carriage having a plurality of superposed shelves adapted to enter the spaces between said superposed banks of pipes, and means for moving the carriage into and out of said casing.

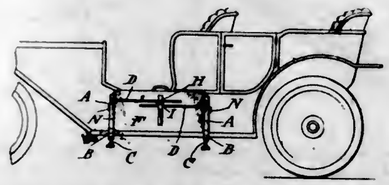
2. In a copra drying apparatus, the combination of a closed casing providing a heating chamber, a carriage having a plurality of superposed shelves movable into and out of said chamber, a plurality of steam conducting pipes mounted in the casing and disposed above and beneath said shelves, a rack carried by the carriage, and a pinion journaled on said casing and adapted to engage with said rack for moving said carriage into and out of the casing.

3. In a copra drying apparatus, the combination of a closed casing providing a heating chamber, a carriage having a plurality of superposed shelves movable into and out of said chamber, said shelves having their respective alternate ends extended whereby to provide a tortuous passage between the several shelves and the casing when the carriage is in said casing, and a plurality of steam conducting pipes mounted in the casing and disposed above and beneath said shelves.

4. In a copra drying apparatus, the combination of a closed casing having supporting ledges mounted on the side walls thereof, a carriage having a plurality of superposed shelves movable into and out of said chamber, each of said shelves having projecting side portions adapted to rest upon said ledges to support the shelves, a plurality of steam conducting pipes arranged above and beneath said shelves in the casing, and supporting bars for said steam pipes mounted in said casing.

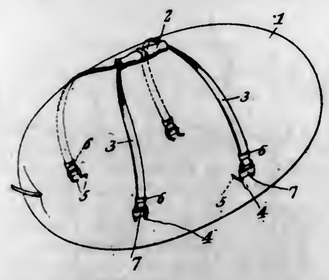
5. In a copra drying apparatus, the combination of a closed casing having supporting ledges mounted on the side walls thereof, a carriage having a plurality of superposed shelves movable into and out of said chamber, each of said shelves having projecting side portions adapted to rest upon said ledges to support the shelves, and the respective alternate ends of said shelves being extended whereby to provide a tortuous passage between the several shelves and the casing when the carriage is in said casing, and a plurality of steam conducting pipes mounted on the casing and disposed above and beneath said shelves.

1,141,004. LUGGAGE-CARRIER. ALLEN T. REED, Byers, Tex. Filed Feb. 27, 1915. Serial No. 11,079. (Cl. 224—29.)



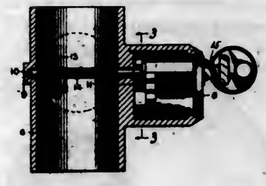
A luggage carrier for automobiles comprising upright members and means for fastening the same to the running board of an automobile, bars projecting toward each other from said members, clamping plates adapted to engage said bars, a thumb screw engaging the plates, and other bars projecting from said members.

1,141,005. CARRYING DEVICE. ALBERT S. REIFSNYDER, Reading, Pa. Filed Jan. 22, 1915. Serial No. 3,760. (Cl. 224—45.)



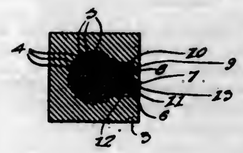
A carrying device comprising a handle and straps fastened thereto, U-shaped wires secured to one end in each strap and each provided with ends which project at right angles thereto, and a plate, for each wire member, having eyes at the ends thereof connecting the arms of said member.

1,141,006. AUTOMOBILE ENGINE-LOCK VALVE. JOHN G. RITZ, New York, N. Y. Filed Feb. 23, 1915. Serial No. 9,980. (Cl. 137—7.)



In a device of the character described, a casing provided with a drum and an upstanding housing, a butterfly valve arranged in said drum, stops arranged in the drum for limiting the movement of the valve, a shaft carrying said valve, one end of said shaft extending through the wall of said drum into said housing, a pin secured to the end of the shaft extending into the housing, and a lock in said housing provided with a rotary section requiring a complete rotation before the key can be withdrawn, and a segment rigidly secured to said rotary section, said segment being slightly less than a quadrant whereby the butterfly valve is held against movement in one direction by one of said stops and against movement in the opposite direction by said segment when the key is removed from said rotary section.

1,141,007. NUT-LOCK. JAMES C. ROBINSON and JASPER ANDREWS, Denver, Colo. Filed Nov. 20, 1914. Serial No. 873,176. (Cl. 151—12.)

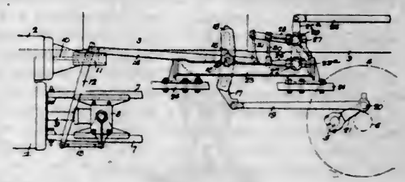


1. In a nut lock, the combination with a bolt having a threaded end formed with a plurality of longitudinal grooves forming projections, of a nut, a recess formed in the nut, a locking block mounted within the recess and having a curved threaded outer face to engage the bolt, a pawl pivoted upon said lock having one end extended outwardly from the recess to engage the projections on said bolt and yieldingly engaging the projections upon rotation of the nut in one direction and spring means mounted with the recess to hold the pawl in operative position.

2. In a nut lock, the combination with a bolt having one end threaded and formed throughout the entire threaded surface with a plurality of closely associated projections, of a nut having a recess adjacent the bore thereof, a block mounted within said recess and having a threaded outer face to engage said bolt, said block being loose within said recess and being recessed upon its inner face and at one end, a pawl pivoted within the recess in said block and having one end extended for engagement with said projections, means whereby the pawl may be moved out of locking position and spring means to normally hold the pawl in locking position.

3. In a nut lock, the combination with a bolt having one end threaded and formed with projections of a nut having a recess in the inner face thereof mounted on said threaded end of the bolt, a block loosely mounted within said recess and having a threaded outer face to engage said bolt, a pawl carried by said block and arranged for engagement with the projections to lock the nut, means to normally hold the pawl in locking position and means whereby the pawl may be moved out of locking position.

1,141,008. SHIFTING MECHANISM FOR VALVE-GEARS. KENNETH RUSHTON, Philadelphia, Pa., assignor to The Baldwin Locomotive Works, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Mar. 11, 1915. Serial No. 13,770. (Cl. 121—98.)



1. The combination of a reverse shaft; an arm thereon; means for turning the reverse shaft; an arm pivoted to a fixed point above the reverse shaft; a link connecting the two arms; a radius bar; a link connecting the radius bar with the said pivoted arm; a cross head and a valve rod connected to the bar; and a segment for controlling the movement of the bar and regulating the movement of the valve rod.

2. The combination in shifting mechanism for valve gears, of a reverse shaft extending under the boiler of a locomotive; means for turning said shaft; a lifting arm on the shaft at each side of the locomotive; an arm pivoted at a point above the reverse shaft at each side of the locomotive; a link connecting each arm with the lifting arm on the reverse shaft; a second link attached to each of the pivoted arms and to the radius bar pivotally mounted on each side of the locomotive; a segment controlling the movement of the bar; and means connecting the bar with a valve rod and a cross head at each side of the locomotive.

3. The combination in shifting mechanism for locomotive valve gears, of the main frame of a locomotive; a bearing frame secured thereto at each side of the locomotive; a boiler; a reverse shaft extending under the boiler and mounted in bearings on the said bearing frame; a segment pivoted to each bearing frame; means for moving said segment from a driving wheel; a bar at each side controlled by the above mentioned segments; a cross head and a valve rod; a lever connecting the cross head, valve rod and radius bar; an arm at each side of the locomotive mounted in the bearing frames above the reverse shaft; an arm at each end of the reverse shaft; links connecting the said arms with the last mentioned arms; and links connecting the radius bars with the last mentioned arms at a point beyond the first mentioned links.

1,141,009. EXPLOSIVE. CHAPMAN SCHANANDOAH, Brooklyn, N. Y. Filed Apr. 18, 1914. Serial No. 832,800. (Cl. 52—1.)

The method of forming an explosive consisting in adding to one part of sugar, one-sixteenth part of alum, then adding liquid coffee enough to moisten the sugar and alum, then adding a quantity of wood alcohol then boiling the mass until all moisture is evaporated and a solid remains which may be rendered explosive at will by the addition of potassium chlorate in proportions substantially as set forth.

1,141,010. DEEP-WELL PUMP. WALTER P. SCHEURMANN, Anderson, Ind., assignor to The Hill-Tripp Pump Company, Anderson, Ind., a Corporation. Filed Feb. 16, 1914. Serial No. 818,997. (Cl. 103—43.)

1. A deep well pump including a plurality of discharge pipes, means below the discharge pipes for elevating the water through said discharge pipes, a shaft extending down into the well adjacent said discharge pipes for driving the water elevating means, flange plates on said discharge pipes at intervals, and bearings for said shaft located in said flanges.

2. A deep well pump including a plurality of discharge pipes formed in sections, flanges at adjacent ends of said

pipe sections for securing them together, means below the discharge pipes for elevating the water through said pipes, a shaft extending down into the well for driving said water elevating means and located between said pipes and extending through said pipe flanges, and bearings in said pipe flanges for said shaft.



3. A deep well pump including a plurality of discharge pipes, transverse flanges for securing said pipes in place, means located below said discharge pipes for elevating the water through them, a shaft extending down into the well between said pipes and through said pipe flanges for driving the water elevating means, bearings for said shaft in said flanges, stuffing boxes secured to said flanges for preventing lubricating fluid escaping from the shaft bearings, and means for supplying lubricating fluid to said shaft bearings.

4. A deep well pump including a plurality of discharge pipes, transverse flanges for securing said pipes in place, means located below said discharge pipes for elevating the water through them, a shaft extending down into the well between said pipes and through said pipe flanges for driving the water elevating means, bearings for said shaft in said flanges, stuffing boxes secured to said flanges for preventing lubricating fluid escaping from the shaft bearings, a lubricating tube extending into the well, and conduits leading therefrom to the various shaft bearings.

1,141,011. EYEGLASS-GUARD. ISAAC M. SCHWAB, Savannah, Ga. Filed Sept. 3, 1914. Serial No. 860,071. (Cl. 88—50.)



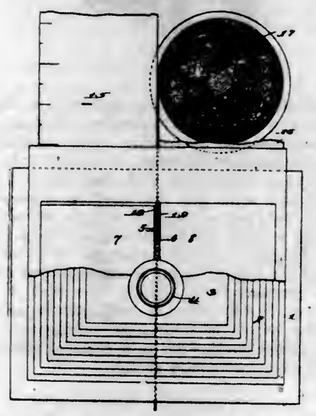
1. An eyeglass guard comprising a supporting element, and upper and lower pads independently and automatically adjustable on said element on axes at an angle to each other.

2. An eyeglass guard comprising a pivoted supporting element, and pads pivoted to said supporting element above and below its pivot on axes at an angle to each other, said pads being independently and automatically adjustable on their pivots.

3. An eyeglass comprising lenses, a connecting bridge, a lever and finger piece mounted to swing on said bridge, a pad-supporting element carried by said lever, an upper pad mounted by a universal connection on said element, a vertical axis on the supporting element, and a lower pad mounted to oscillate on said vertical axis.

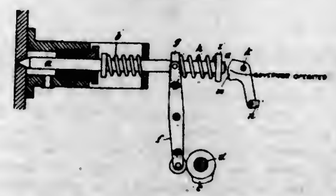
4. An eyeglass comprising lenses, a connecting bridge, a lever and finger piece mounted to swing on said bridge and a supporting element carried by said lever, said supporting element carrying an upper pad mounted on a horizontal axis and a lower pad mounted on a vertical axis.

1,141,012. PHOTOGRAPHIC MATERIAL. WILLIAM R. SCHWAB, Kansas City, Mo., assignor to The Camera-graph Company, Kansas City, Mo., a Corporation of Arizona. Filed Feb. 4, 1913. Serial No. 746,248. (Cl. 95—9.)



A roll of photographic material composed of two strips of flexible material, each strip being sensitized on one side, the strips being wound to form the roll and having their plain or unsensitized sides back to back.

1,141,013. FUEL-VALVE-GOVERNING DEVICE FOR COMBUSTION-MOTORS. FRITZ SCHWARZ, Mariendorf, near Berlin, Germany, assignor to the Firm of Daimler-Motoren-Gesellschaft, Untertürkheim, Germany. Filed Dec. 31, 1914. Serial No. 879,967. (Cl. 123—90.)

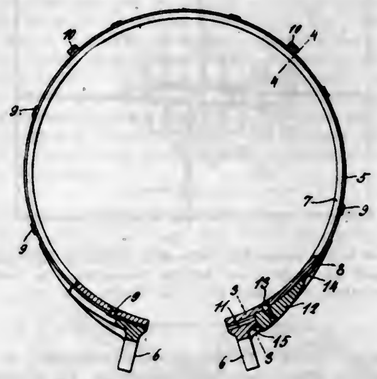


1. In a fuel valve governing device for combustion motors, in combination, a needle valve, a spring adapted to press the needle against the valve seat, an elastic gear adapted to lift the needle from its seat and a cam adapted to be shifted by the governor and to act as a lift stop for the valve needle.

2. In a fuel valve governing device for combustion motors, in combination, a needle valve, a spring adapted to press the needle against the valve seat, a lever adapted to positively lift the needle from its seat, a spring inserted between said lever and the free end of the needle, said spring being stronger than the valve spring, a cam arranged in the path of the needle, said cam being adapted to oscillate around a fixed axle, and a connection between said cam and the governor.

1,141,014. BAND-BRAKE. CHARLES R. SHANNON, Narrows, Va., assignor of one-fourth to Martin P. Farrier, Pearisburg, Va., and one-fourth to Frederick D. Kelley, Narrows, Va. Filed Nov. 28, 1914. Serial No. 874,508. (Cl. 74—37.)

1. A band brake comprising a band having a slot opening through one end of the band, a lining on one side of the band, studs carried by the lining and extending through the slot of the band, an abutment fastened to that end of the band which is at the open end of the slot, and a shoulder on the band engageable by said abutment to prevent slippage of the baind in the direction of said open end of the slot.

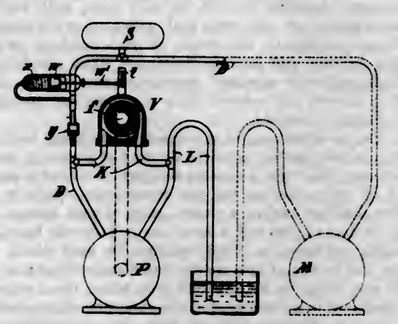


2. A band brake comprising a band having a slot opening through one end of the band, a lining on one side of the band, studs carried by the lining and extending through the slot of the band, and means for preventing slippage of the band in the direction of the open end of the slot.

3. A band brake comprising a band having a slot, a lining on one side of the band, studs carried by the lining and extending into the slot of the band, and means for holding the lining against slippage of the band.

4. A band brake comprising a band having a slot opening through one end of the band, a lining on one side of the band, studs carried by the lining and extending through the slot of the band, an abutment fastened to that end of the band which is at the open end of the slot, a shoulder on the band engageable by said abutment to prevent slippage of the band in the direction of said open end of the slot, and lugs on the ends of the band for the attachment of actuating means, the lug at that end of the band through which the slot opens having a bottom recess located over the slot.

1,141,015. APPARATUS FOR REGULATING THE OUTPUT OF CENTRIFUGAL PUMPS. GIULIO SILVESTRI, Vienna, Austria-Hungary. Filed June 16, 1913. Serial No. 774,001. (Cl. 103—85.)



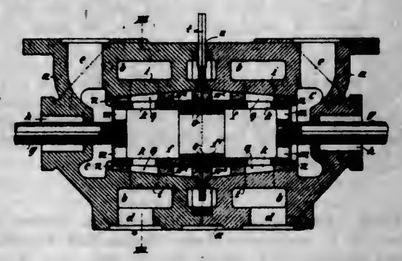
1. In an apparatus of the character described, the combination of a pump, pipes connected to said pump constituting a suction pipe and a pressure pipe, a short-circuit pipe connecting the suction pipe with the pressure pipe, a flow interrupter arranged within said short-circuit pipe, said interrupter adapted to be moved at a speed proportionate to that of the pump piston, an accumulator connected to the pressure pipe, and a non-return valve fitted in the pressure pipe between said accumulator and the point of connection of the short-circuit pipe with the pressure pipe.

2. In an apparatus of the character described, the combination of a rotary pump for supplying fluid under pressure, a suction pipe and pressure pipe connected to said pump, a short-circuit pipe connecting the suction pipe with the pressure pipe, a flow interrupter arranged in said pipe and adapted to rotate at a speed proportionate to that of the pump, an accumulator connected to the pressure pipe and operating as an air vessel, and a non-return valve arranged in the pressure pipe between the point of connection of the accumulator with the pressure pipe and the point of connection of the short-circuit pipe with the pressure pipe.

3. The herein described flow interrupter consisting of a casing having two passages, one of which serves as the driving medium inlet and the other as the driving medium outlet, a rotary hollow distributer having a ported wall adapted during its rotation to establish communication at intervals between the driving medium inlet and the outlet, and a sleeve disposed between the casing and the rotary distributer, said sleeve consisting of a stationary part and an adjustable part, said parts having interengaging tooth shaped projections and recesses and serving to determine by the length of some of these recesses the duration of communication between the driving medium inlet passage and the inner space of the distributer.

4. The herein described flow interrupter consisting of a casing having two passages, one of which serves as driving medium inlet and the other as driving medium outlet, a rotary hollow distributer having a ported wall adapted during its rotation to establish communication at intervals between the driving medium inlet and the driving medium outlet, a sleeve disposed between the casing and the rotary distributer, said sleeve consisting of a stationary part and an adjustable part, said parts having interengaging tooth shaped projections and recesses, a hollow shaft on said adjustable part, said hollow shaft extending through the casing, a lever mounted on said hollow shaft, a cylinder and a piston movable within said cylinder, said piston being coupled with the lever and being connected with the pressure pipe of the driving medium.

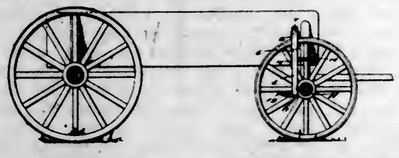
1,141,016. MEANS FOR REGULATING ROTARY PUMPS AND ROTARY ENGINES. GIULIO SILVESTRI, Vienna, Austria-Hungary. Filed June 16, 1913. Serial No. 774,003. (Cl. 138—3.)



1. The hereindescribed flow interrupter consisting of a casing having four passages two of which serve as driving medium inlets and two as driving medium outlets, a rotary double-conical hollow distributer having a ported wall adapted during its rotation to establish communication at intervals between the driving medium inlets and the driving medium outlets, and a double-conical sleeve disposed between the casing and the distributer, said sleeve consisting of two stationary parts and of an adjustable part intermediate said stationary parts, said parts having interengaging tooth shaped projections and recesses and serving to determine by the length of some of these recesses the duration of the passage of the driving medium through the distributer.

2. The hereindescribed flow interrupter consisting of a casing having four passages two of which serve as driving medium inlets and two as driving medium outlets, a rotary double conical hollow distributer having a ported wall adapted during its rotations to establish communication at intervals between the driving medium inlets and the driving medium outlets and a double conical sleeve disposed between the casing and the distributer, said sleeve consisting of two stationary parts and an adjustable part intermediate said stationary parts, said parts having interengaging tooth shaped projections and recesses, said adjustable part being provided with additional openings, said openings being engaged by members fixed within the casing, substantially as and for the purpose set forth.

1,141,017. WAGON-STEP. AMON CORNELIUS SMITH, Clarendon, Tex. Filed May 9, 1914. Serial No. 837,553. (Cl. 21—55.)



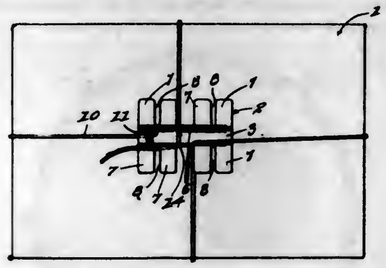
1. The herein described wagon step structure comprising an inner member adapted to be secured to the axle and having an upright finger inside the wheel, an outer member standing outside the wheel and passing over it and having a socket adapted to engage said finger, its body standing wholly in rear of an upright plane through the axle and hub, a foot piece secured to the lower end of this member and projecting to the rear behind and standing wholly above the bottom of said hub, and a second foot piece projecting forward from said member above the hub and terminating short of the front side thereof, both foot pieces and the outer member standing wholly inside a plane through the outer end of the hub at right angles to the above-mentioned plane.

2. The herein described step structure for attachment to farm wagons, the same comprising an inner member including a plate adapted to be secured to the axle and an upstanding rectangular finger, an outer member adapted to stand outside the wheel behind the hub and having a long threaded hole in its lower end and its upper end carried over the wheel and downward and provided with a rectangular socket adapted to removably engage said finger, a rear foot piece standing behind the hub and wholly inside its outer end and above its lower side, a screw passing upward through this foot piece and into said hole in the outer member, and a front foot piece adjustably mounted on said outer member above the hub and also standing wholly inside its outer end, the length of this foot piece being such that its forward extremity stands in rear of an upright line through the front side of the hub, for the purpose set forth.

1,141,018. PACKAGE-TIE. MICHAEL A. SMITH, New York, N. Y., assignor to James Smith, New York, N. Y. Filed July 15, 1914. Serial No. 851,134. (Cl. 24—18.)

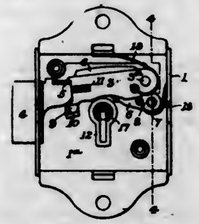
1. A package tie including a body, lateral flanges formed on the body and extending throughout its entire length, said flanges being provided with central recesses, said recesses having notches at their inner terminals, a plurality of laterally extending tongues formed on the flanges, said tongues being separated by slots, and a flexible connection secured to the body and arranged to coöperate with the tongues in holding a package in its tied position.

2. A package tie comprising a body, lateral flanges formed on the body and extending throughout its entire length, said flanges being provided with central recesses, the recesses having notches at their innermost corners, the flanges being bent upwardly to form a trough on which the flexible connections forming the remaining portion of the tie, lies, and a plurality of laterally extending tongues formed at the upper edges of the flanges, said



tongues being separated from each other by slots and so arranged as to grip the flexible connections to hold the same against movement when the device is in use.

1,141,019. LOCK. FRANK SOLEY, Philadelphia, Pa., assignor to Miller Lock Co., Philadelphia, Pa., a Corporation of Pennsylvania. Filed July 29, 1912. Serial No. 712,185. (Cl. 70—71.)



1. In a master-key tumbler lock, the combination with a case body and case cover thereof, of a post fixedly secured therein, change tumblers pivotally mounted on said post, a master-tumbler independently pivoted in said casing at a point fixed with relation to the pivotal support of the change tumblers, and a sweep or lifter carried by said master-tumbler for engagement with said change tumblers.

2. In a master-key tumbler lock, the combination with the casing, of a post fixedly secured therein, a plurality of change tumblers carried by said post, said tumblers being notched at one end and provided with engaging surfaces parallel to the walls of said notches, said engaging surface and notches bearing a fixed relation, and an independently mounted master-tumbler having a projecting portion for contact with the engaging surfaces of said change tumblers.

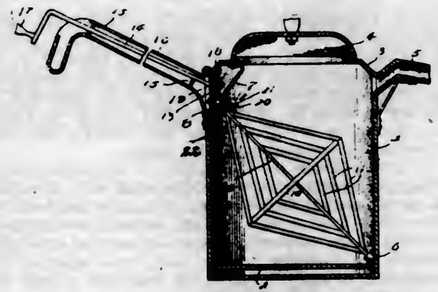
3. The combination, in a master-key tumbler lock, of a casing, a bolt having a fence, a series of pivotally mounted change tumblers, a master-tumbler mounted independently of the mounting for the change key tumblers, said master-tumbler having a sweep, each of said change tumblers having at one end a notch to receive the fence, and engaging surfaces in fixed relation to said notch with which the sweep of the master-tumblers contacts so that when the latter is actuated it will bring the notches in the tumblers in alinement for the reception of the fence.

4. In a master-key tumbler lock, the combination of a casing, a plurality of change tumblers pivotally mounted therein, each tumbler having at the same end a projection and a notch, said projections being of different lengths and each having an engaging surface parallel to the walls of the notch, the notches of the respective tumblers being spaced the same distance from the engaging surfaces of

the projections of the respective tumblers, and a master-tumbler having a projection for operative contact with said engaging surfaces.

5. In a master-key tumbler lock, the combination with a casing, a cover therefor, a staff or post journaled at its respective ends in said casing and cover, a master-tumbler carried by said staff, a plurality of change tumblers pivotally mounted in the lock casing on an axis independent of that of said staff, said change tumblers being notched at their ends opposite their pivotal connection, a sweep or lifting element carried by the master-tumbler for coaction with a plurality of the change tumblers, and a bolt, said master-tumbler being disposed between said change tumblers and the bolt and the latter having a fence with which the notches of the change tumblers are brought into alinement.

1,141,020. COOKING-RECEPTACLE. VIRGIL THOMAS TAYLOR, Harrods Creek, Ky. Filed July 2, 1912. Serial No. 707,295. (Cl. 107—38.)

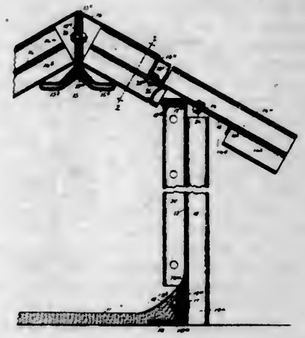


A device of the class described comprising a receptacle, a handle therefor, a bearing located within the receptacle at the point of juncture of the bottom with the body portion thereof, a closure for the receptacle, a flanged partition arranged within the receptacle diagonally opposite said bearing and defining a compartment by the space therebetween and said body portion, a bearing fitted in said partition in a line with the first mentioned bearing, a dasher shaft mounted in the receptacle and having its opposite ends fitted in the bearings, an operating shaft arranged in said handle, gearing between said operating shaft and said second mentioned bearing and an auxiliary cover hinged to the top of the receptacle and engaging the flange of said partition to permit access to be had to the compartment.

1,141,021. METALLIC BUILDING. WILLIAM W. TAYLOR, Montclair, N. J. Original application filed Mar. 14, 1913, Serial No. 754,216. Divided and this application filed Nov. 12, 1913. Serial No. 800,493. (Cl. 189—2.)

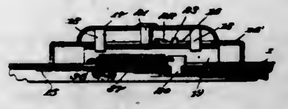
1. In a metallic building, siding plates joinied at their vertical edges, the joints presenting inner vertical ribs, the upper ends of the siding plates being inturned between the said vertical ribs presenting inwardly extending flanges, a roof-supporting plate extending along the tops of the siding plates, crossing the joints thereof, and returned on itself at the inner edge of the plate, presenting an outwardly disposed hook formation between adjacent vertical ribs and fitting over the inwardly extending flanges on the siding plates, said roof-supporting plate inclining downwardly at an angle to the vertical at the outside of the siding plates, and roofing plates resting on and secured to the inclined portion of the said supporting plates.

2. In a metallic building, siding plates joined at their vertical edges, the joints presenting inner and outer vertical ribs, the outer ribs terminating at the upper ends short of the top of the siding plates, the upper ends of the said siding plates being inturned presenting inwardly extending flanges between the inner vertical ribs, a roof-supporting plate extending along the tops of the siding plates crossing the joints thereof and returned on itself into hook engagement with the said flanges of the siding plates, and roofing plates bolted on the said supporting



plates the roofing plates being formed with depending ribs on the underside, said ribs being cut away to receive the supporting plates, the outer portions of the ribs of the receiving plate presenting at the said cut away portions front edges outward from the roof-supporting plate and abutting the latter to aline the respective roofing plates.

1,141,022. BAG-LOCK. RAYMOND A. TEEL, Bangor, Pa. Filed Apr. 12, 1913. Serial No. 760,693. (Cl. 70—2.)

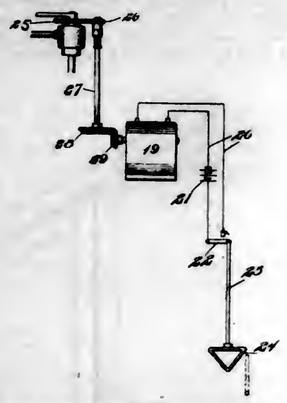


In a traveling bag, a pair of frame pieces, a casing secured to one of the frame pieces and having its top wall provided with an elongated slot and one of its side walls provided with spaced slots, one of the walls of the slot in the trap of the casing having a projection formed thereon, a locking member mounted within the casing and slidably engaging the said frame piece and having a height approximately equal to the height of the interior of the casing, means on the opposite frame piece of the bag adapted to enter the slots in the side of the casing and engage the locking member to lock the frame pieces when the bag is closed, an operating slide mounted on the top of the casing, means extending from the elongated slot in the top of the casing and connecting the slide and the locking member to permit the member to be operated to disengage the means on the second mentioned frame piece, for separation of the frame pieces, and means pivoted on the member operating to engage the projection on the wall of the slot in the top of the casing.

1,141,023. AUTOMATIC TRAIN-STOP. AARON G. TURPEN, Modesto, Cal. Filed June 5, 1914. Serial No. 843,232. (Cl. 246—59.)

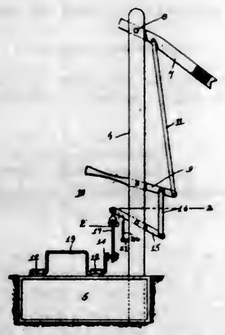
In automatic train stopping apparatus, the combination with the engineer's brake valve, of a gear wheel secured to the stem of said valve, a shaft, a pinion on said shaft meshing with said gear wheel, an electric motor, a bevel gear on said shaft, a bevel pinion on the shaft of said motor meshing with said bevel gear, an electric circuit for said motor, means for closing said circuit to rotate said shaft, and a spring clutch connection between said first pinion and said shaft whereby the pinion will actuate

the engineer's brake valve in the movement of the shaft under the action of the motor and the pinion idle over the



shaft in the reverse manual movement of the engineer's brake valve.

1,141,024. MAIL-BOX SIGNAL. CLOYDE B. ULERY, Garrett, Ind. Filed Apr. 16, 1914. Serial No. 832,300. (Cl. 116—22.)

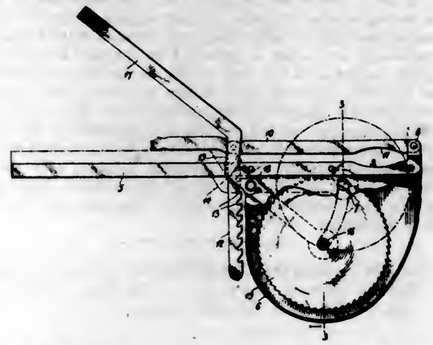


In a signaling device, a base, a wheel operated member rotatably mounted on said base having a crank arm, a standard secured to said base, a signal arm pivotally mounted adjacent the upper end of said standard, a hand lever pivotally mounted centrally of said standard, a link connection between said signal arm and said hand lever, a second lever pivotally supported on said standard below said hand lever, a link connecting said levers, pivoted links connecting the opposite end of the lower lever with said crank arm, and means connecting the second mentioned lever with said standard adapted to overcome the weight of said signal arm and retain the latter in elevated position after an operation of said wheel operated member.

1,141,025. DEHORNER. DAVID E. WEAVER, Waynesboro, Va. Filed Jan. 29, 1915. Serial No. 5,099. (Cl. 128—27.)

1. In a dehorner, the combination of a supporting means, adjustable clamping devices coöperating therewith, the supporting means in part and the clamping devices having opposed horn engaging cavities, and a swinging rotary saw mounted in the supporting means and movable between the clamping devices, the saw having exterior operating means movable therewith and positioned to clear the horn severed thereby.

2. In a dehorner, the combination of supporting means, adjustable clamping devices coöperating with a portion of the supporting means to engage a horn and hold the dehorner in fixed applied position, and a swinging rotary saw mounted in the supporting means and movable between the clamping devices.



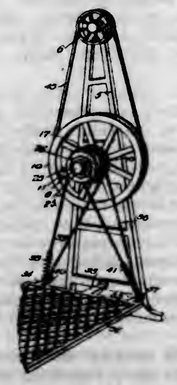
3. In a dehorner, the combination of supporting means, adjustable clamping devices coöperating with a portion of the supporting means to engage a horn and hold the dehorner in fixed applied position, a rotary saw mounted in the supporting means, and shifting levers connected to the saw to swing the latter outwardly between the clamping devices to sever the horn held between the said clamping devices and supporting means.

4. In a dehorner, the combination of supporting means, adjustable clamping devices coöperating with a portion of the supporting means to engage a horn and hold the dehorner in fixed applied position, a rotary saw shiftably mounted in the supporting means and movable outwardly between the clamping devices, and levers engaging the extremities of the saw shaft and operative to shift the saw during its rotation.

5. In a dehorner, the combination of a supporting means embodying an inclosing casing and frame bars, the casing having an open portion in a plane between the frame bars and also provided with segmental slots in opposite sides thereof, clamping devices fulcrumed to the frame bars and having means for locking them in adjusted position, and shifting levers fulcrumed on the supporting means and connected to the extremities of the shaft of the saw for moving the latter outwardly through the open portion of the casing and between the clamping devices.

[Claim 6 not printed in the Gazette.]

1,141,026. TREADLE-OPERATED DRIVING MECHANISM. GEORGE GRANT WHITE, St. Joseph, Mo. Filed Nov. 25, 1914. Serial No. 873,848. (Cl. 74—55.)

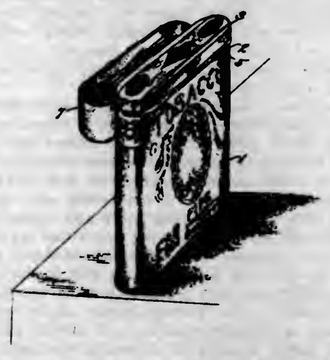


1. A treadle operated mechanism including a frame, a stub axle projecting therefrom and having a headed end, a fly wheel rotatably disposed upon the axle and having

an integral collar surrounding said axle, a bearing on the axle between the sleeve and frame, anti-friction bearings at the ends of the sleeve and disposed between the same and the headed axle end and bearing, a pair of drive wheels rotatably disposed upon said sleeve, a bearing plate rotatably disposed upon the sleeve and between the drive wheels, a ratchet disk secured to each drive wheel and surrounding the sleeve, clutch means between the ratchet wheels and the sleeve for locking the former with the latter when the ratchet wheels are moved in one direction, a centrally pivoted treadle, and belts connected at their opposite ends to the treadle on opposite sides of the pivot point of the latter and engaging the driving wheels, whereby rotary motion may be imparted to the latter.

2. A device of the class described including a frame, a stub axle removably carried thereby and having a headed end, means for removably securing the stub axle to the frame, a sleeve rotatably surrounding the axle and provided with a fly wheel, a bearing provided on the axle and disposed between the sleeve and the frame, anti-friction means at the ends of the sleeve and disposed respectively between the sleeve and headed axle end and sleeve and bearing, drive wheels rotatably disposed upon the sleeve, clutch means between each drive wheel and the sleeve for locking the former with the latter when moved in one direction, a pivoted treadle, and means connected with the treadle and with the drive wheels for imparting rotary motion to the latter.

1,141,027. COMBINATION TOBACCO-BOX. JAMES M. WHITE, Danville, Va. Filed July 20, 1914. Serial No. 852,012. (Cl. 206—38.)



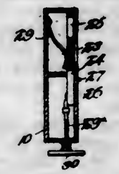
1. A receptacle of the class described comprising a main compartment, a cap member constituting an auxiliary compartment, a cover intermediate the receptacle and the cap member and forming a closure for both the main and auxiliary compartments, a hinged connection at one side of the receptacle common to said cap and cover members, and a locking member at the other side of said receptacle also common to said cap and cover members, said locking member constituting manipulating means operable on pressure thereagainst in one direction to open the main compartment and to release the cover member upon pressure thereagainst in the opposite direction disengaging the cover from the cap member.

2. A receptacle of the class described comprising a main compartment, a cap member constituting an auxiliary compartment, a cover intermediate the receptacle and the cap member and forming a closure common to both the main and auxiliary compartments, a hinge connection at one side for the cap and cover members, and locking means common to said members comprising an extension of the cover bent back thereagainst to receive and clamp the cover between the bent portion and the body of the cover.

3. A receptacle of the class described comprising a main compartment, a cap member constituting an auxiliary compartment, a cover intermediate the receptacle and the cap member and forming a closure common to both the main and auxiliary compartments, a hinge connection at one side for the cap and cover members, and a locking member for said cover member forming a lip extending from the cover, said lip being bent back against the cover member to form a spring clamp to lockingly engage the cap member, the lip being also formed with an interlocking detent adapted to engage the receptacle body.

4. A receptacle of the class described comprising a main compartment open at one end, a cover member formed with a depending flange adapted to fit over the open end of the main compartment, said cover member having its material cut at one flange edge to form an extension, said extension being bent back against the flange so as to constitute a locking lip, a detent formed in said lip adapted to engage the body of the receptacle, a cap member connected to the body at one side and formed with a flange surrounding the same, said flange being of sufficient width to constitute an auxiliary compartment, the flange of said cap member being engageable in the bent lip extension of the cover member to lock the same in closed position, and a hinge connection common to both the cap and cover members at the corresponding side of the receptacle.

1,141,028. VALVE. JOSEPH S. WHITING, Yonkers, N. Y. Filed June 21, 1913. Serial No. 775,070. (Cl. 137—26.)



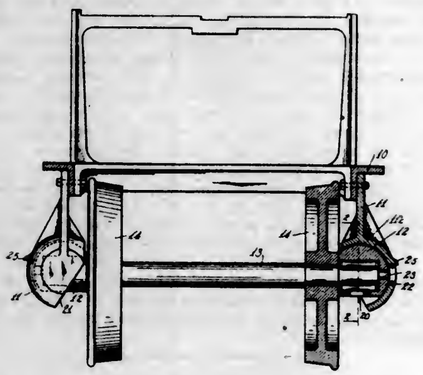
In a device of the character described in combination, a pair of air cylinders, a valve chest, means for supporting cylinders and valve chest, said valve chest being substantially oblong in contour, said valve chest being formed upon one side with air ports at one end and a slot at its opposite end, a central partition in said valve chest disposed between said ports and being of less width than that of the valve chest whereby to provide clearance therein, a slidable valve adapted to slide in the clearance space of said valve chest, said valve being provided with ports adapted in one position of said valve to be closed by the slotted wall of said chest and in another position of said valve to register with said air ports, said valve being disposed between said slotted walls and bearing frictionally against said partition, a flat spring secured at one end to the wall opposite said slotted wall and pressing said valve against said slotted wall at all points of its movement, and means for reciprocating said valve operable from the outside of said chest, pipe connections from the upper air ported end of said chest to said cylinders, said slotted wall having graduations marked opposite said slot and a pointer on said valve projecting through said slot.

1,141,029. JOURNAL-BOX FOR TRUCKS. ELBERT E. WHITTENBURG, Indianapolis, Ind., assignor to The Standard Dry Kiln Company, Indianapolis, Ind., a Corporation. Filed Nov. 30, 1914. Serial No. 874,748. (Cl. 105—113.)

1. In a car, the combination with a main frame, an axle, and car wheels carried by the axle, of a housing secured to said frame and having a journal box on the axle and fitting in said housing, the upper surface of said journal box bearing against the inner upper surface of said housing, said engaging bearing surfaces being formed so that the journal box can oscillate in a plane parallel with the axle.

2. In a car, the combination with a main frame, an axle, and car wheels carried by the axle, of a supporting

bracket secured to the frame and having a housing thereon with a bearing surface curveu longitudinally of the axle and a journal box fitting in said housing having a similarly curved bearing surface for engaging the bearing surface of the housing.



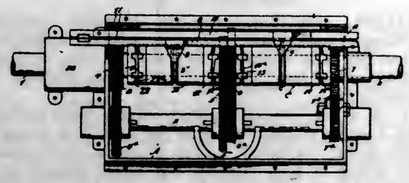
3. In a car, the combination with a main frame, an axle, and car wheels carried by the axle, of a housing secured to said frame which has vertical sides with an upper bearing surface curved longitudinally of the axle, and a journal box upon the axle and fitting in said housing and having vertical sides and an upper convex bearing surface curved so as to conform with the bearing surface of the housing.

4. In a car, the combination with a main frame, an axle, and car wheels carried by the axle, of a housing secured to said frame which has vertical sides with an upper and inner bearing surface curved longitudinally of the axle, and a journal box upon the axle and fitting in said housing and having vertical sides and an upper and convex bearing surface curved so as to conform with the bearing surface of the housing, the curvature of said bearing surfaces being substantially concentric with the portion of the axle in the journal box.

5. In a car, the combination with a main frame, an axle, and car wheels carried by the axle, of a housing secured to said frame which has vertical sides with an upper and inner bearing surface curved longitudinally of the axle, and a journal box upon the axle and fitting in said housing and having vertical sides and an upper convex bearing surface curved so as to conform with the bearing surface of the housing, the lower part of the journal box being partially cut away to permit the escape of dirt.

[Claims 6 to 9 not printed in the Gazette.]

1,141,030. POWER-TRANSMISSION GEAR. ORVILLE EDWARD WOOLDRIDGE, Greenville, Ill. Filed May 26, 1914. Serial No. 841,022. (Cl. 74—59.)

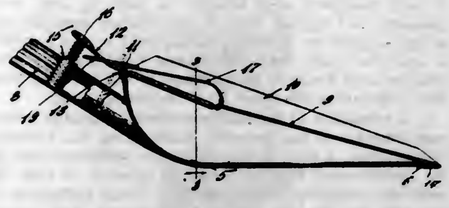


1. In a variable speed transmission, the combination of a driving shaft, a driven shaft, a secondary shaft, a sleeve slidably mounted on the driving and driven shafts, clutch teeth on the opposite ends of the sleeve and facing in the same direction, a gear loose on the sleeve and having clutch teeth to engage the clutch teeth on one end of the sleeve, a spring connected with the driving shaft and sleeve and through which power is transmitted from the former to the latter, an arrester on the driving shaft for limiting the expansion of the spring, a slidable clutch element on the driven shaft and normally disengaged from the sleeve, means for shifting the slidable clutch element to engage with the sleeve and to disengage the latter from the said gear, whereby the driving and driven shafts are directly connected, and a gear on the secondary shaft normally meshing with the first-mentioned gear, and one of the gears being shrouded for preventing the first-mentioned gear from sliding with the sleeve when the latter is shifted.

2. A power transmitting mechanism of the class described comprising driving and driven shafts arranged in alinement and with their ends together, a sleeve slidable on the shafts at the adjacent ends thereof, clutch teeth on opposite ends of the sleeve and facing in the same direction, a gear surrounding the sleeve and having at one side gear teeth for engaging the gear teeth at one end of the sleeve, a spring for connecting the sleeve with the driving shaft and normally urging the sleeve in a direction to maintain the same clutched to the gear, means carried by the driving shaft for limiting the expansion of the spring, a secondary shaft, a gear on the secondary shaft meshing with the first-mentioned gear, one of the gears being provided with means for maintaining the gears in mesh and preventing the first-mentioned gear from sliding from the sleeve, a clutch element on the driven shaft, a slidable member splined to the driven shaft, a spring connecting the slidable member with the said clutch element and through which the latter transmits rotation to the said member and driven shaft, means on the said member for arresting the expansion of the last-mentioned spring, means for shifting the said slidable member to engage the clutch element with the said sleeve and move the latter to disengage from the first-mentioned gear, and variable speed gears between the driving and secondary shaft.

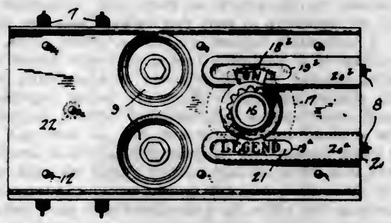
3. A power transmitting mechanism of the class described comprising a driving shaft, a driven shaft, a secondary shaft, gears between the driven and secondary shafts for variable speed and reverse driving of the driven shaft, a clutch element having two sets of clutch teeth and shiftably mounted, a cushioning and transmitting spring between the driving shaft and clutch element, a gear having clutch teeth with which one set of teeth of the clutch element is maintained normally in engagement by the said spring, and a clutch element on the driven shaft normally disengaged from the other set of clutch teeth of the first-mentioned clutch element and shiftable to engaging position and to shift the first-mentioned clutch element to disengage the same from the gear for transmitting power directly from the driving to the driven shaft.

1,141,031. DUST-PAN. HERMAN ZUBER, Murphysboro, Ill. Filed Apr. 11, 1913. Serial No. 760,548. (Cl. 65—20.)



In combination with a dust pan having a reinforced forward margin, a hinged sweeping tray therefor, having its forward margin extended beyond the forward margin of the pan and doubled back to meet the margin of the pan and having in said doubled back portion a seat to frictionally engage the reinforced margin of the pan.

1,141,032. PANEL-BOARD FITTING. HARRY U. BADEAU, Bridgeport, Conn., assignor to The Perkins Electric Switch Manufacturing Company, Bridgeport, Conn., a Corporation of Connecticut. Filed Sept. 15, 1914. Serial No. 861,797. (Cl. 247—13.)



1. In panel board fittings, a sheet metal cover plate apertured to permit the passage of a switch stem therethrough and having apertures spaced therefrom and symmetrically arranged on opposite sides thereof, a switch indicating dial having a lettered portion in register with said apertures, a circuit legend carrier adjustable at either of said apertures and serving to obscure the dial at one aperture, together with means for holding said legend carrier in adjusted position.

2. In panel board fittings, a sheet metal cover plate having a raised boss centrally apertured to permit the passage of a switch spindle therethrough and apertures in said cover plate symmetrically arranged on opposite sides of said boss, a switch indicating dial having a lettered portion in register with said apertures and a circuit legend carrier adjustable at either of said apertures and serving to obscure the dial at one aperture, together with means for holding said legend carrier in adjusted position.

3. In panel board fittings, a sheet metal cover apertured to permit the passage of a switch stem therethrough, longitudinal channels in said cover plate extending from one end thereof past said aperture for the switch spindle and symmetrically arranged on opposite sides thereof, said channels being apertured, a switch indicating dial having a lettered portion in register with said apertures and a circuit legend carrier adjustable at either of said apertures and serving to obscure the dial at one aperture, together with means for holding said legend carrier in adjusted position.

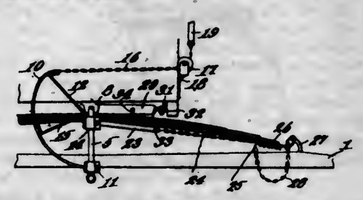
4. In panel board fittings, a sheet metal cover plate having a raised boss centrally apertured to permit the passage of a switch spindle therethrough, longitudinal channels formed in said cover plate symmetrically on opposite sides of said boss and extending to one end of said cover plate, said channels being apertured symmetrically on opposite sides of the boss, together with a switch dial having a lettered portion in register with said apertures, and a circuit legend carrier fitting in either of said channels and serving to obscure the switch dial at one aperture, substantially as described.

5. In panel board fittings, a sheet metal cover plate having a raised boss centrally apertured to permit the passage of a switch spindle therethrough, and channels formed in said cover plate on opposite sides of said boss and apertured symmetrically with relation thereto, an insulating lining for said cover plate apertured symmetrically on opposite sides of said boss and within the area of the apertures in said channels, together with a circuit legend carrier adjustable in either of said channels between the lining and the cover plate and serving to obscure one of the apertures in the lining.

[Claims 6 and 7 not printed in the Gazette.]

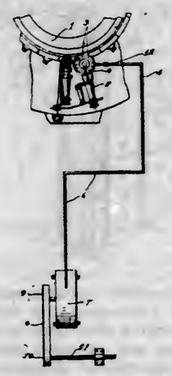
1,141,033. STARTER FOR AUTO-MOTORS. ALVIN BAIR, Tiffin, Ohio. Filed Oct. 9, 1913. Serial No. 794,312. (Cl. 128—185.)

1. In a device of the class described, coöperating elements comprising a crank and a curved frame secured thereto; a flexible element trained about the curved frame; a rigid link located in a common plane with the crank; a spring; means for anchoring the spring; means for connecting the spring with the link; and a pivot element uniting the link with one of said coöperating elements at a point between the center of rotation of the crank and the outer end thereof, the length of the link being greater than the distance from the pivot element to the center of rotation of the crank.



2. In a device of the class described; a crank; a curved frame secured thereto; a flexible element trained about the curved frame; a flexible element connected with the curved frame and including a bight; a spring bridging the bight and adapted at one end for connection with the flexible element at spaced points, thereby to vary the size of the bight; and means for fastening the other end of the spring and the flexible element.

1,141,034. BLOWER FOR KNITTING-MACHINES. CHARLES A. BAZINO, North Bennington, Vt. Filed Apr. 18, 1914. Serial No. 832,909. (Cl. 66—19.)



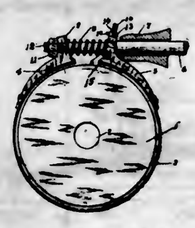
1. In combination with the presser wheel of a quarter-saver, of a blower and a nozzle connected to the blower to direct air from the blower on said presser wheel preventing the accumulation of lint thereon.

2. In combination with the presser wheel of a quarter-saver having a plurality of pins, of a blower, and a circular pipe surrounding the pins and having communication with the blower, said pipe having openings adapted to direct air from the blower on to the pins to prevent the accumulation of lint thereon.

1,141,035. BAND-BRAKE. ROY M. BROWN, Wilmington, Ohio. Filed Apr. 9, 1914. Serial No. 830,786. (Cl. 74—37.)

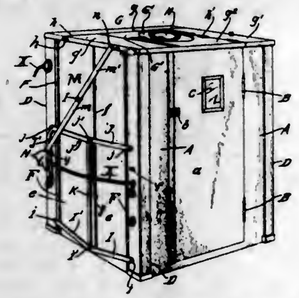
1. A band brake comprising a drum, a brake band encircling said drum, one end of said band being movable while the other end is held stationary, an end member for the stationary end of said band, an abutment against which said member acts to hold it stationary, an outwardly extending slotted ear for said end member, an operating rod attached to the movable end of said band and adapted to pass through the slot in said end member, and adjusting means for positively limiting the play of said rod up and down in the slot of said member.

2. A band brake comprising a drum, a brake band encircling said drum, one end of said band being movable while the other end is held stationary, an end member for the stationary end of said band, an abutment against which said member acts to hold it stationary, an outwardly extending ear on said member provided with an open ended slot, an operating rod attached to the mov-



able end of said band and adapted to pass through the slot in said end member, a cover piece for the open end of said slot rigidly held in position, a screw passing through said cover piece and into said slot and adapted to adjustably bear on said rod to limit its play up and down in said slot, and means for locking said screw in any adjusted position.

1,141,036. COLLAPSIBLE CABINET. FRED F. BURDICK, Milton, Wis. Filed June 20, 1914. Serial No. 846,334. (Cl. 174—177.)



1. A collapsible cabinet comprising corner pieces, collapsible sides and a two part top, one of said parts attached to corresponding corner pieces and the other part pivotally joined to said attached part, in combination with a plurality of series of links and levers which are respectively pivotally attached to the side faces of corner pieces and to each other, tie rods respectively connecting one of the series on a side to the other series on said side, and links respectively consisting of two parts which are pivotally joined together, and one of said parts pivotally connected to the pivoted part of said top and the other pivotally connected to one of the levers of said series; whereby when the members of said two-part links are in line and the pivoted member of said top is raised and lowered a corresponding movement of said collapsible sides is produced, and when said members of said two part links are not in line movement of said pivoted member of said top produces no movement of said collapsible sides.

2. A collapsible cabinet comprising corner pieces, a front wall provided with an opening therethrough, a door to said opening, collapsible sides respectively attached to said corner pieces, and a two-part top, one member of said top attached to corresponding corner pieces and the remaining member pivoted to said attached member, said pivoted member adapted to be turned into a plane parallel with the plane of said front wall when said cabinet is collapsed, in combination with a plurality of series of links and levers, the links and a lever and link, respectively, forming a series pivotally connected together and to corner pieces, tie rods connecting the series on a given side, links respectively consisting of members pivotally joined together, and means to pivotally attach one of said members to the lever of one of said series, and to pivotally attach the other member to the pivoted member of said top, whereby said pivoted member of said top may be turned on its pivots to move said collapsible sides when the members of said last named links are in line.

3. A collapsible cabinet comprising corner pieces, a top consisting of a member attached to corner pieces and a member pivoted to said attached member, sides respectively comprising panels which are joined together and to said corner pieces, all combined with a plurality of series of links, and a lever and link on both said sides, said series respectively comprising links which are pivoted to the side faces of said corner pieces, tie rods respectively pivotally connected to the series and respectively connecting the series on a side, and two part links consisting of pivotally connected members, means to pivotally connect one of said members to the pivoted member of said top and means to pivotally connect the other of said members to the lever of one of said series, whereby the pivoted member of said top may be turned to turn the pivoted member connected thereto on the pivot connecting it to the pivoted member which is connected to said lever of said series, to bring said members of said two part links into and out of a substantially straight line, and when said members are in a substantially straight line said pivoted member of the top may be turned on its pivot to vary the relative position of the front and rear ones of said corner pieces.

4. A collapsible cabinet comprising corner pieces, a top consisting of a member attached to corner pieces and a member pivotally connected to said attached member, both said members provided with an opening thereto, a cover adapted to cover said openings, sides respectively consisting of panels which are pivotally connected and are also pivotally connected to corner pieces, a front provided with an opening and a door to close said opening in said front, in combination with a series consisting of a lever and a link and a series of links, the links and the lever and link of a series being pivotally connected, and pivotally connected to said corner pieces, tie rods respectively connecting the series on a side of said cabinet, two part members, and means to pivotally connect one member of said two part member to the pivoted member of said top and to pivotally connect the other member to a lever of one of said series, said two part members adapted to be collapsed when said pivoted member of said top is turned down over the said front of the cabinet, and to be moved from said collapsed position when said pivoted member of the top is raised from its turned down position, and said two part members adapted, when the members thereof are in a substantially straight line and the pivoted member of said top is moved downwardly, to vary the relative position of the front and back corner pieces of said cabinet.

1,141,037. STOP FOR TONE-ARMS OF TALKING-MACHINES. GERHARD BUSCH, Philadelphia, Pa. Filed Aug. 10, 1914. Serial No. 856,019. (Cl. 181—3.)

1. A new article of manufacture consisting of a standard; a rotary member thereon, a plurality of arms projecting different distances from said member; with a pawl carried by the standard in position to engage the rotary member for temporarily locking it in any of a number of different positions.

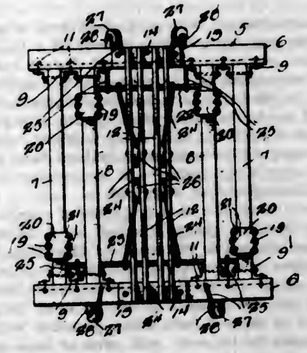
2. A new article of manufacture consisting of a standard; a plate fixed thereon; a second plate parallel with the first plate and free to rotate relatively thereto; a plurality of binding posts carried by the second plate; with arms mounted in said binding posts and projecting different distances at right angles to the standard.

3. A new article of manufacture consisting of a standard; a plate fixed thereon; a second plate parallel with the first plate and free to rotate relatively thereto; a plurality of binding posts carried by the second plate; arms mounted in said binding posts and projecting different distances at right angles to the standard; and a spring actuated pawl carried by one of the plates and formed to coöperate with any of a plurality of notches in the other plate to temporarily lock the arms in different positions relatively to the standard.



4. A new article of manufacture consisting of a supporting structure; a plate rotatable thereon; arms projecting from said plate in lines substantially at right angles to the axis of rotation thereof; buffers respectively carried by said arms; and a pawl mounted on the supporting structure in position to engage and hold the plate in any of a plurality of definite positions.

1,141,038. GRAPPLING-HOOK. FRANK N. CANULETTE, Slidell, La. Filed June 12, 1914. Serial No. 844,787. (Cl. 57—9.)



1. In a grappling hook such as described, a plurality of supporting members, slides movable upon the supporting members, prongs carried by the slides and movable therewith to and from each other, rods connecting certain of said prongs, and means engaging said rods for forcing the prongs and slides to and from each other.

2. In a grappling hook such as described, a plurality of supporting members, U-shaped slides movable upon said supporting members, prongs carried by the slides, bars connecting certain of said prongs, and means for moving said bars to and from each other and moving the prongs to engage or disengage an article to be lifted.

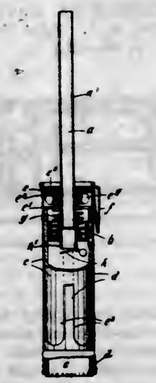
3. In a grappling hook such as described, end bars, supporting bars connecting said end bars, U-shaped slides upon the supporting bars, means for movably attaching said slides to the supporting bars, grappling prongs carried by the slides, rods connecting certain of said grappling prongs, and means for operating the rods to move the grappling prongs to and from each other.

4. In a grappling hook such as described, a pair of spaced end bars, supporting bars connecting said end bars, U-shaped slides movable upon said supporting bars, shanks connected to said U-shaped slides, grappling prongs carried by said shanks, said grappling prongs being disposed at the opposite ends of the grappling hook, said prongs at the opposite ends of the grappling hook being curved inwardly, rods connecting the prongs at each end of said grappling hook, and oppositely extending cables attached to said rods, whereby the prongs can be moved to and from each other.

5. In a grappling hook such as described, a pair of end bars, supporting bars connecting said end bars, U-shaped slides located upon the supporting bars, shanks engaging the U-shaped slides, prongs formed upon said shanks, plates engaging said slides upon opposite sides of the supporting bars, U-bolts surrounding the shanks and U-shaped slides, and connected to the plates, the prongs upon opposite ends of the grappling hook being curved inwardly, rods connecting the prongs at each end of the grappling hook, cables attached to said rods, certain of said cables extending inwardly and the remainder of the cables extending outwardly, said inwardly extending cables being united, and said outwardly extending cables being united, and operating cables attached to the united ends of the before-mentioned cables.

[Claim 6 not printed in the Gazette.]

1,141,039. FLY-TRAP. ROBERT HANHAM COX, Listowel, Ireland. Filed Jan. 13, 1913, Serial No. 741,859. Renewed Apr. 20, 1915. Serial No. 22,715. (Cl. 43—1.)



1. An insect trap comprising a transparent chamber provided with an insecticide compartment, a hollow spring controlled piston slidable in the chamber, an open-ended hollow suction tube operatively connected to said piston and releasable means having operative connection with the tube to hold the same and the piston inwardly of the chamber and upon release of said releasable means effecting projection of the tube which creates a suction capable of drawing insects through the tube and the piston into the chamber.

2. An insect trap comprising a chamber provided with an insecticide compartment, a hollow spring controlled piston slidable in the chamber, a suction tube having operative connection with the piston and provided with an external annular groove, and releasable means having operative engagement in the groove of the tube to hold the same and the piston inwardly of the chamber and upon release of said releasable means from said groove effecting a projection of the tube which creates a suction capable of drawing insects through the tube into the chamber.

3. A fly-trap for the capture and destruction of flies and like insects comprising in combination, a cylinder forming an expansile chamber, a tube or pipe slidably arranged in said cylinder, a piston on said tube working in said cylinder a spring tending to keep the tube projected from said chamber, means for retaining the said tube retracted within the said cylinder and the spring compressed, and means for releasing said spring controlled piston and tube for the purpose of causing the tube to rapidly approach the object aimed at and to cause

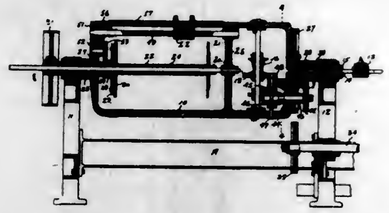
a sudden inrush of air up said tube into the cylinder or chamber for the purpose described.

4. A fly-trap for the capture and destruction of flies and like insects comprising in combination, a cylinder forming an expansile chamber, a tube or pipe slidably arranged in said cylinder, a piston on said tube working in said cylinder, a spring tending to keep the tube projected from said chamber, means for retaining the said tube retracted within the said cylinder and the spring compressed means for releasing said spring controlling piston and tube for the purpose of causing the tube to rapidly approach the object aimed at and to cause a sudden inrush of air up said tube into the cylinder or chamber, and a non-return valve at the inner end of said tube substantially as described.

5. An insect trap comprising a chamber, a spring controlled suction means slidable in the chamber, an open-ended suction tube having operative connection with said suction means, means for releasably fastening the tube and suction means in their innermost position with relation to the chamber so that when the fastening means is released the tube may be projected quickly and, upon projection, create a suction in the chamber to draw air and insects through the tube into the chamber.

[Claims 6 to 11 not printed in the Gazette.]

1,141,040. CORDAGE-ROPE MACHINE. CAROLUS E. DAILEY, Brooklyn, N. Y. Filed Nov. 19, 1913. Serial No. 801,877. (Cl. 28—21.)

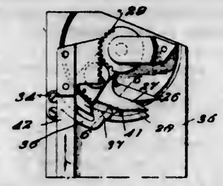


1. A rope forming and laying machine having end frames, a flier journaled in the same, a stationary gear carried by said frame, an adjustable plate on the end of said flier, a pinion carried by said plate and engaging said stationary frame on the gear, drawing capstans arranged within the flier frame, and operative driving connections therefor from the pinion carried by said adjustable plate, together with a gear at one end of the flier, a drive shaft with gear journaled in the end frame at the corresponding end of the machine, an arcuate slot bearing in said end frame, and an intermediate idler pinion adjustably mounted in said bearing slot and interposed between the gear on the flier and the gear on the drive shaft, for the purpose described.

2. A rope forming and laying machine having a frame, a flier journaled therein, a stationary gear carried by said frame, an adjustable plate on the end of said flier, a pinion carried by said plate and engaging said stationary gear on the frame, drawing capstans arranged within the flier frame and operative driving connection therefor from the pinion carried by said adjustable plate, substantially as described.

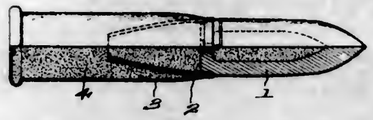
1,141,041. THREAD SEVERING AND HOLDING MECHANISM FOR SEWING-MACHINES. JOHN W. DARLEY, Jr., Baltimore, Md. Original application filed Apr. 6, 1910, Serial No. 553,772. Divided and this application filed July 7, 1910. Serial No. 570,856. (Cl. 112—33.)

1. In a thread severing and holding means, the combination with a throat plate, of movable means for severing the needle thread, a plurality of clamping parts, including a stationary part, for holding the severed end of the needle thread between them, a member having a thread carrying portion operating between said clamping parts for carrying the severed end of said thread between said parts, said clamping parts being located beneath the upper surface of the throat plate.



2. In a thread severing and holding means, the combination of a movable means for severing the thread, with a plurality of clamping members including a stationary member for holding a severed end, and a movable means attached to said severing means for bringing said severed end between said clamping members, said movable means also acting to eject said severed end from between said clamping members.

1,141,042. CONTOUR-BASE FOR PROJECTILES. CLELAND DAVIS, U. S. Navy, assignor to Ordnance Development Company, New York, N. Y., a Corporation of Delaware. Filed Sept. 30, 1913. Serial No. 792,680. (Cl. 102—12.)



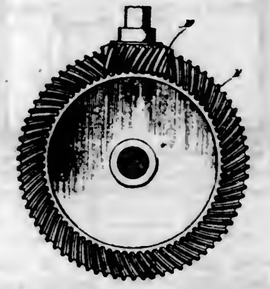
1. The combination with a projectile of standard design and the propelling charge thereof of a hollow metal contour base secured to the rear end thereof and forming with the outer shell of the projectile a continuous substantially ogival curve, the hollow contour base having a length of one-half or more of the length of the projectile to which it is secured, and being provided with an enlarged opening in its rear, said contour base projecting into the propelling charge and containing a portion thereof, substantially as described.

2. The combination with a projectile of standard design and the propelling charge thereof of a hollow metal contour base secured to the rear end thereof and forming with the outer shell of the projectile a continuous substantially ogival curve, the hollow contour base having a length of one-half or more of the length of the projectile to which it is secured, and being provided with an enlarged opening in its rear, said contour base projecting into the propelling charge and containing a portion thereof, with means for detachably connecting said contour base to the rear of the projectile, substantially as described.

3. The combination with a projectile of standard design and the propelling charge thereof of a holder for a section of the propelling charge, a hollow metal contour base mounted in said holder and adapted to slip over the rear end of the projectile, the said contour base when secured to the rear end of the projectile forming with the outer shell of the projectile a continuous substantially ogival curve, the said hollow contour base being provided with an enlarged opening in its rear end, and the propelling charge being mounted in said holder and partly in said hollow contour base, with means for detachably connecting said contour base and with it said holder to the base of the projectile, substantially as described.

4. The combination with a projectile of standard design of a holder for a section of the propelling charge, a hollow metal contour base mounted in said holder and adapted to slip over the rear end of the projectile, the said contour base when secured to the rear end of the projectile forming with the outer shell of the projectile a continuous substantially ogival curve, the said hollow contour base being provided with an enlarged opening in its rear end, and the propelling charge being mounted in said holder and partly in said hollow contour base, with means for detachably connecting said contour base and with it said holder to the base of the projectile, said means comprising spring-impressed tapered blocks engaging in sockets in the contour base, substantially as described.

1,141,043. GEAR. CHARLES E. DEER, Detroit, Mich., assignor to Packard Motor Car Company, Detroit, Mich., a Corporation of Michigan. Original application filed Oct. 11, 1912, Serial No. 725,328. Divided and this application filed Oct. 22, 1914. Serial No. 868,085. (Cl. 74—41.)



1. A bevel gear having teeth extending in a generally diagonal direction with reference to elements of the pitch cone, which intersect therewith, and curved in the direction of their length, the faces of the teeth being conjugate to surfaces each of which is generated by the motion of a straight line guided by true circular arcs lying in planes parallel to a plane tangential to the dedendum cone of the gear.

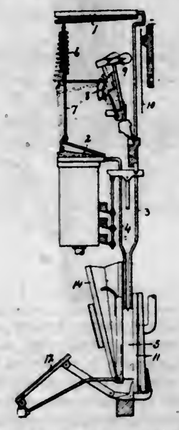
2. A bevel gear having teeth extending in a generally diagonal direction with reference to elements of the pitch cone, which intersects therewith, and curved in the direction of their length, the faces of the teeth being conjugate to surfaces each of which is generated by the translatory motion of a straight line guided by a true circular arc lying in a plane tangential to the dedendum cone of the gear.

3. A pair of bevel gears comprising a pinion having cut teeth extending in a generally diagonal direction with reference to elements of the pitch cone, which intersect therewith, and curved in the direction of their length, each of the side faces of the teeth being conjugate to one of the sides of a meshing crown wheel tooth having the form of a truncated V with sides curved lengthwise on arcs of true circles, and a gear wheel having its axis arranged at right angles to and in the same plane with the axis of said pinion and having cut teeth adapted to mesh with the teeth of said pinion, each of the side faces of said gear wheel teeth being conjugate to one of the sides of a meshing crown wheel tooth having the form of the space between two of the teeth of said first mentioned crown wheel.

1,141,044. SELF-PLAYING MUSICAL INSTRUMENT. LEWIS B. DOMAN, Syracuse, N. Y., assignor to The Amphion Piano Player Company, Syracuse, N. Y., a Corporation of New York. Filed May 24, 1910. Serial No. 563,114. (Cl. 84—160.)

1. In a pneumatic self-playing piano, in combination with a hammer rail and a wind-inducing device including a pumping bellows, an air tension equalizer communicating therewith and an air chest communicating with the equalizer, a pneumatic actuator for the hammer rail in direct communication with the air chest of the wind-inducing device and having a limited closing movement independently of the equalizer for causing the hammer rail to move toward the strings under the slightest variation of air tension in the wind chest from normal.

2. In a pneumatic self-playing piano, the combination with a hammer rail, and a wind-inducing device having a wind chest and a spring distended pneumatic equalizer communicating therewith, of a relatively smaller pneumatic actuator for the hammer rail in direct communication with the wind chest for shifting the hammer rail toward the strings under an air tension in the air chest below that which is sufficient to collapse the equalizer against the action of its distending spring.



3. In a pneumatic self-playing musical instrument, the combination with a hammer rail and a wind-inducing device having a wind chest and a pneumatic equalizer communicating therewith, of two rail-operating pneumatics of unequal size and both in direct communication with the wind chest, connections between the movable sides of said rail-operating pneumatics including a spring of less power than the smaller pneumatic when the latter is under the maximum air tension in the air chest, and additional connections between the first named connections and rail at a point between the spring and smaller pneumatic.

4. In a pneumatic self-playing musical instrument, the combination with a hammer rail and a wind-inducing device having an air chest and a pneumatic equalizer communicating therewith, of a rail-operating pneumatic in direct communication with the wind chest and of relatively smaller size than the pneumatic equalizer, connections between said rail-operating pneumatic and rail including a spring of sufficient power to operate the rail as the rail-operating pneumatic is collapsed by varying air tension in the wind chest from normal, a relatively smaller rail-operating pneumatic also in direct communication with the wind chest, and connections between said relatively smaller rail-operating pneumatic and the rail, the last named pneumatic being of sufficient power to overcome the tension of said spring to restore the rail to its normal position when the tension in the wind chest approaches its maximum degree.

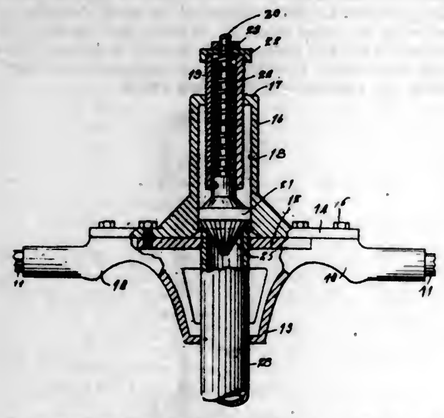
5. In a pneumatic self-playing musical instrument, the combination with a hammer rail and a wind-inducing device, of a pair of rail-operating pneumatics of unequal size both in direct communication with the wind-inducing device and having their movable sides facing each other, connections including a spring between said movable sides, additional connections between the first named connections and rail, the smaller pneumatic being of greater power under maximum tension than the spring.

[Claims 6 and 7 not printed in the Gazette.]

1,141,045. REAMER ATTACHMENT FOR DIE-STOCKS. WALTER S. DONALDSON, Omaha, Nebr. Filed Aug. 4, 1914. Serial No. 854,990. (Cl. 77—73.)

1. In combination, a barrel having a rectilinear bore and an inwardly directed flange at one end providing a circular opening having screw threads, a sleeve adjustably positioned within said threaded opening, a holder posi-

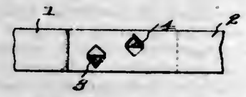
tioned within said sleeve, a reamer in said holder, and means for resiliently retaining said holder in extended position.



2. In combination, a barrel having a rectilinear bore and a threaded aperture in one end, a sleeve adjustably positioned in said aperture, a holder of rectilinear formation slidable and non-rotatably mounted in said bore, a shank on said holder extending exteriorly of the upper end of said sleeve, means for normally retaining said holder in downwardly extended position, means carried by the upper end of said shank for limiting the downward movement thereof, and a reamer secured in said holder.

3. In combination, a barrel having a rectilinear bore and a threaded aperture in one end, a holder of rectilinear formation non-rotatably and slidably mounted in said rectilinear bore, a sleeve fitted in said threaded aperture, an apertured cap secured at the upper end of said sleeve, a shank on said holder projecting through said cap, a nut on the upper extremity of said shank, and a spring disposed between said shank and said holder.

1,141,046. METHOD FOR FORMING TIE-JOINTS. PETER ARMAND DUBUS, New Orleans, La. Filed Nov. 7, 1914. Serial No. 870,885. (Cl. 164—109.)

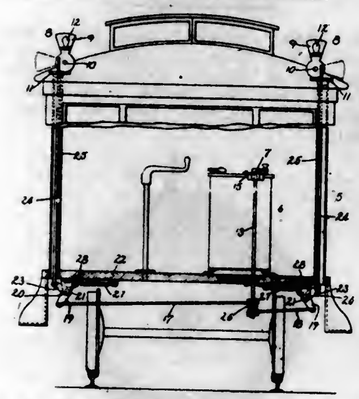


1. The herein described method of forming joints in bale ties, which consists in positioning the free ends of the tie in overlapping relation, punching tongues at a plurality of points from the overlapping thicknesses, and bending said tongues in superposed pairs, transversely as of the tie, and in substantial alinement with the direction of the pulling strain on the tie, and in reverse directions, down against the face of the tie, substantially as described.

2. The herein described method of forming joints in bale ties, which consists in positioning the ends of the tie in overlapping relation, punching triangular tongues from the overlapping thicknesses at a plurality of points, the bases of said triangles being substantially parallel to the longitudinal axis of the tie, and bending said tongues about the bases of said triangles in reverse directions down against the face of the tie, substantially as described.

1,141,047. SIGNALING APPARATUS. JAMES F. DUGGAN, Atlantic, Mass. Filed Dec. 5, 1914. Serial No. 875,707. (Cl. 116—9.)

1. The combination with a vehicle of an indicator pivotally mounted at opposite ends of said vehicle, a rotary power controlling lever, a shaft adjacent said power controlling lever, means operatively connecting said lever with said shaft, a second shaft, a lever mounted on said second shaft, a flexible member secured to said first named shaft and the end of said lever respectively and adapted to be wound about said first named shaft to operate said lever in one direction, a spring adapted to move said lever in the opposite direction, and means operatively connecting said second shaft with said indicator to cause said indicator to be moved simultaneously with said controller.



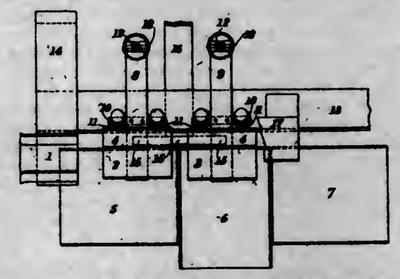
2. A signaling apparatus having, in combination, a plurality of indicators pivotally mounted upon the exterior of a vehicle, a power controlling lever at each end of said vehicle, a vertical shaft adjacent to each of said power controlling levers constructed and arranged to be rotated by said power controlling lever, a horizontal shaft extending longitudinally of said vehicle, levers mounted adjacent to opposite ends of said horizontal shaft, flexible members secured to each of said levers and adapted to be wound around the vertical shaft adjacent thereto during the operation of said power controlling lever to rock said horizontal shaft in one direction, a spring adapted to rock said horizontal shaft in the opposite direction and means operatively connecting said horizontal shaft with said indicators to move said indicators simultaneously with said power controlling lever.

3. The combination with a vehicle of an indicator pivotally mounted adjacent each corner of said vehicle, two horizontal shafts extending longitudinally of said vehicle, two levers mounted upon each of said horizontal shafts, a plurality of casings extending through said vehicle, means extending through said casings to operatively connect said shafts with said indicators, a controller at each end of said vehicle, a vertical shaft operatively connected with each of said controllers, flexible members extending from each of said vertical shafts to one of said levers on each of said horizontal shafts and constructed and arranged to transmit a rocking movement from either of said vertical shafts to each of said horizontal shafts simultaneously and springs adapted to return said horizontal shafts to their normal positions.

1,141,048. WEIGHING AND SORTING APPARATUS. WILLIAM FAZACKERLEY, New Cross, London, England, assignor of one-half to Imperial Tobacco Company (of Great Britain and Ireland) Limited, Bristol, England. Filed Feb. 5, 1913. Serial No. 746,378. (Cl. 83—92.)

1. In apparatus of the character described, a fixed receiving platform inclined to the horizontal and having a guard wall at its lower margin, said platform being open at each end and unobstructed so as to afford a straight-through channel for packets intermittently delivered thereto one behind the other, and in contact, in combination with a tiltable weighing platform arranged in advance thereof and slightly below said receiving platform to receive a packet from the latter, said weighing platform being also normally inclined to the horizontal at approximately the angle of the receiving platform, and having at its lower edge a guard wall to prevent the escape of the packet.

2. In apparatus of the character described, a fixed receiving platform inclined to the horizontal and having a guard wall at its lower margin, said platform being open at each end and unobstructed so as to afford a straight-through channel for packets intermittently delivered thereto one behind the other, and in contact, in combination with a tiltable weighing platform arranged in advance thereof and slightly below said receiving platform to receive a packet from the latter, said weighing platform being also normally inclined to the horizontal at approximately the angle of the receiving platform, and having at its lower edge a guard wall to prevent the escape of the packet, the angle between the guard wall and the weighing platform being greater than that between the platform and guard wall of the receiving table to insure the unobstructed delivery of the packet from the latter to weighing platform.



3. In apparatus of the character described, a fixed receiving platform inclined to the horizontal and having a guard wall at its lower margin, said platform being open at each end and unobstructed so as to afford a straight-through channel for packets intermittently delivered thereto one behind the other, and in contact, in combination with a tiltable weighing platform arranged in advance thereof and slightly below said receiving platform to receive a packet from the latter, said weighing platform being also normally inclined to the horizontal at approximately the angle of the receiving platform, and having at its lower edge a guard wall to prevent the escape of the packet, together with a second tiltable weighing platform arranged in advance of said first weighing platform and normally inclined to the horizontal to a slightly less degree than the latter, for the purpose described.

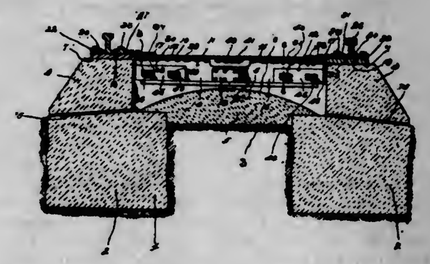
4. In apparatus of the character described, a fixed receiving platform inclined to the horizontal and affording a straight-through channel for packets intermittently delivered thereto, in combination with a tiltable weighing platform normally inclined to the horizontal in substantially the same plane as the receiving table but slightly below the latter to insure the unobstructed discharge of packets therefrom to the weighing platform.

1,141,049. RAILROAD TIE AND BALLAST. IRA S. FISHER, Keller, Va., assignor of one-half to William W. Mundy, Molino, Mo. Filed Jan. 12, 1915. Serial No. 1,845. (Cl. 238—5.)

1. In a railway road bed construction, a pair of concrete abutments disposed in spaced relation to each other, a plurality of rail ties carried by said abutments and having depending vertically disposed plates formed thereon, adjustable plates carried by said vertical plates and adjustable for abutment with the facing sides of said concrete abutments for rigidly holding said ties in place.

2. In a railroad bed construction, a pair of concrete abutments disposed in spaced relation to each other, a plurality of rail ties carried by said abutments and having depending vertically disposed plates formed thereon, adjustable plates carried by said vertical plates and adjustable for abutment with the facing sides of said concrete abutments for rigidly holding said ties in place, and removable rail chairs carried by the upper surface of said ties.

3. In a railway road bed construction, rail ties including a plurality of vertical plates, transversely extending supporting plates formed integrally with the upper edges of said vertical plates, horizontally positioned plates carried by said transversely extending supporting plates, rail chairs connected to said horizontal plates, and plates adjustably connected to the sides of said vertical plates for varying the length of said ties.

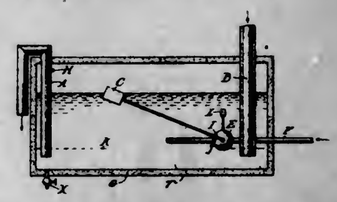


4. In a railway road bed construction, rail ties including a plurality of vertical plates, transversely extending supporting plates formed integrally with the upper ends of said vertical plates, horizontally positioned plates carried by said transversely extending supporting plates, rail chairs connected to said horizontal plates, and plates adjustably connected to the sides of said vertical plates for varying the length of said ties, plates detachably mounted upon the upper surface of said supporting plates, said plates extending into the center of said ties and being insulated from each other.

5. In a railroad bed construction, rail ties including a pair of vertical plates having their inner ends disposed in meeting engagement with each other, horizontally disposed plates carried by the upper edges of said vertical plates, blocks detachably carried by the outer terminal ends of said horizontal plates and forming rail chairs for engagement with the bases of ordinary T-rails, means for wedging said blocks into engagement with the rail base, and means for varying the length of said tie.

[Claims 6 to 10 not printed in the Gazette.]

1,141,050. SEWAGE DISINFECTION. LESLIE C. FRANK, Washington, D. C. Filed Apr. 24, 1915. Serial No. 23,771. (Dedicated to the public.) (Cl. 210—1.)

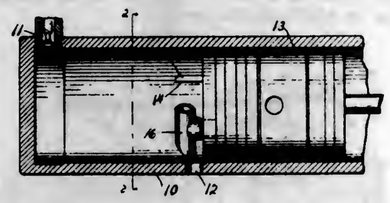


Means for disinfecting sewage comprising a closed tank having inlet and outlet conduits opening into the lower part of the tank and the outlet pipe extending to a level above the tank, a pipe for conducting steam into contact with the sewage, a float, and a valve in said pipe having a lost-motion connection with said float.

1,141,051. GAS-ENGINE IGNITER. CECIL C. FENSTON, Tampico, Mexico. Filed Mar. 30, 1914. Serial No. 828,328. (Cl. 123—148.)

1. An explosive motor comprising a cylinder having an inlet port and an exhaust port, a piston adapted for reciprocation within said cylinder, an ignition member of incandescent type mounted upon the head of said piston

and adapted for positioning adjacent the exhaust port during the exit of the spent gases therethrough, and a baffle plate carried by the piston opposite the ignition members positionable opposite the inlet port of the cylinder at one point in the stroke of the piston.



2. An igniter for explosive motors comprising in combination with a cylinder having inlet and exhaust ports on opposite sides thereof and a piston reciprocating in said cylinder, of a baffle plate upon said piston adjacent the inlet port side of the cylinder, and ignition members of incandescent type carried by the piston head adjacent the exhaust port side of the cylinder.

3. An igniter for explosive motors comprising the combination with a cylinder having an inlet port on one side and an exhaust port on the opposite side, and a reciprocating piston within said cylinder, of a baffle plate mounted upon and forming substantially a card upon the piston head, and members adapted to be rendered incandescent by the exhaust gases mounted upon said head opposite the baffle plate.

4. An igniter comprising in combination with an engine piston, of tubular ignition members of incandescent type threaded into the head of said piston and positioned adjacent one side thereof, and a baffle plate carried by said piston opposite said ignition members.

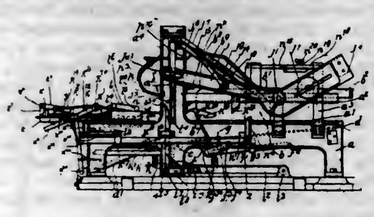
5. An igniter comprising in combination with an engine piston, of tubular members threaded into the head of said piston and positioned adjacent one side thereof, said members being convergent and having pointed approaching ends, and a baffle plate spanning the opposite side of the piston head.

[Claim 6 not printed in the Gazette.]

1,141,052. SPARK-PLUG. WILLIAM H. GATES, New Haven, Conn., assignor to Eastern Machine Screw Corporation, New Haven, Conn., a Corporation of Connecticut. Filed Feb. 28, 1913. Serial No. 751,235. (Cl. 123—169.)

A spark plug comprising a base, a shouldered porcelain seated therein, a conductor extending through the porcelain, a tubular nut threaded into the base, and a ring packing arranged between the nut and the shoulder on the porcelain, said packing having a pair of upwardly extending flanges on its upper edge separated by a V-shaped groove, and said nut having its lower end shaped to engage said flanges near their top edges and being effective when tightened to force one flange of the packing outwardly against the base and force the other flange of the packing inwardly against the porcelain thereby sealing the porcelain in the base.

1,141,053. MACHINE FOR GUMMING AND APPLYING LABELS TO BOTTLES, CANS, AND SIMILAR OBJECTS. CHARLES LLOYD HATCHETT and ERNEST GEORGE RHODES, London, England. Filed Dec. 19, 1913. Serial No. 807,662. (Cl. 216—53.)



1. In a machine for gumming or cementing and wrapping labels or wrappers around bottles, cans or other objects, an operating table, means for conveying the cans or the like to the operating table, means for controlling the movements of said cans, means for cement coating the labels or the like, means for carrying them to the can or the like on the operating table, a vertically movable frame arranged over the operating table, means for vertically reciprocating said frame, a cradle pivotally mounted on said frame, a fixed jaw carried by the vertically movable frame, a coacting jaw carried by the pivotal cradle, a flexible band attached at one end to the upper part of the vertically movable frame, supports for the band around which it passes, one end of the band being adjustably connected with the vertically movable frame, and means for operating said frame and cradle as described whereby a bight of the band is caused to envelop a can and the jaws carry the label around and under the can as described.

2. In a machine of the character described, the combination of an inclined table for conveying the cans or the like by gravity to the operating table, a reciprocating slide, means for reciprocating the slide and causing it to dwell at each end of its traverse, disappearing stop fingers for holding the cans or the like in check and permitting one at a time to roll on to the operating table, a disappearing stop beyond the operating table for arresting the can in correct position to be operated upon, disappearing impulse giving projections for causing the labeled can to roll off the operating table and means operated by the traverse of the slide for raising and lowering said fingers or projections and stop at the required times as set forth.

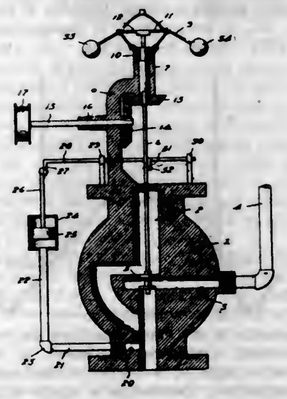
3. A machine of the character described, the combination with an inclined platform an operating table of stop fingers for controlling advance of cans or the like, a pivoted frame to which said stop fingers are attached, a spring connected with said frame for operating it, a similar frame carrying the second set of stop fingers pivotally mounted and beyond its axis provided with a cross bar acted upon by the first frame, arms carried by levers acting upon the first frame and pins upon the slide for acting upon said arms the arrangement being such that in the outward traverse of the slide the first set of stop fingers is lowered as the second set is raised the motion being effected by the slide as set forth.

4. In a machine of the character described, the combination of a main frame, a horizontal slide supported therein, a vertically movable frame and guides therefor, a cross bar on the frame working in said guides, a pair of pivotally mounted counter-balanced levers slotted to engage said cross bar, upwardly inclined guides, a cross bar carried by longitudinal bars, guides and links g connecting said longitudinal bars with the counterbalanced levers, the longitudinal bars having hook shaped lower ends which engage the slide and ride on the slide when the vertically movable frame is raised to its maximum height, and a bail like link carried by the slide for engaging the hook like ends of the longitudinal bars during the outward traverse of the slide and thus lowering the counter-balanced levers and vertically movable frame as set forth.

5. In a machine of the character described, the combination with a fixed frame and a table for supporting cans and the like, of counter-balanced levers pivoted on said frame, movable devices for imparting a forward impulse to a can after labeling, a spring catch connected with such devices, and means for detachably engaging said catch with the counter-balanced levers, and a stop arranged on the frame and adapted to contact with the said catch for automatically disengaging it from the counter-balanced levers so that the can-impelling devices are automatically released and allowed to drop by gravity as described.

[Claims 6 to 8 not printed in the Gazette.]

1,141,054. GOVERNOR ATTACHMENT. JOSEPH HAWKINS and BENJAMIN F. LOFTIN, Eminence, Mo. Filed Nov. 9, 1914. Serial No. 871,143. (Cl. 264—7.)



1. In a governor mechanism, the combination with a casing, said casing being provided with passage ways extending therethrough, and communicating with a boiler and a cylinder, a valve interposed in said casing and controlling the passage of steam through said passage way, a casing communicant with one of said passage ways, a piston slidably seated in said casing, a valve stem connected to said valve, and a plurality of arms connected to said piston and said valve stem for controlling the operation of said valve by the operation of said piston.

2. The combination with a governor structure embodying a casing, said casing being provided with a plurality of passage ways extending therethrough and having communication with a boiler and an engine cylinder, a valve positioned within said casing and controlling the passage of steam through said passage ways, a valve stem connected to said valve, a ball governor mechanism operatively connected to said valve stem, of a cylinder having communication with one of said passage ways, a piston slidably mounted in said cylinder, a rock shaft carried by said casing, a plurality of arms connecting said rock shaft and said piston, an arm connecting said rock shaft and said valve stem for moving said valve stem vertically upon the rocking of said rock shaft by the operation of said piston, said piston being controlled by the quantity of steam flowing through said passage ways.

1,141,055. CIPHER-WRITING MACHINE. EDWARD H. HEBERN, Oakland, Cal. Filed June 15, 1914. Serial No. 845,101. (Cl. 197—4.)



1. The combination of typewriter key levers, type, operative connections therebetween and individually and independently changeable controlling devices for controlling said connections whereby the same type may be operated by different keys.

2. In a typewriting machine having a printing cylinder with type thereon, typewriter key levers, means actuated by the depression of said levers for rotating said cylinder, means actuated by the further depression of said levers for depressing said cylinder to produce an impression from type thereon, and means for arresting said levers to arrest the rotation of the cylinder, means for varying the angles through which the key levers are depressed before being arrested, whereby the depression of the same lever arrests the cylinder at different points in its rotation.

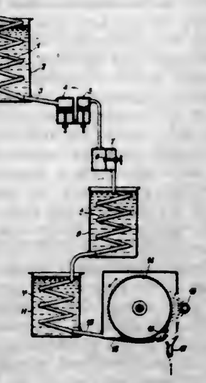
3. In a typewriting machine having a printing cylinder with type thereon, typewriter key levers, means actuated by the depression of said levers for rotating said cylinder, means actuated by the further depression of said levers for depressing said cylinder to produce an impression from type thereon, and means for arresting said levers to arrest the rotation of the cylinder, means for changing the position of said arresting means, whereby the depression of the same lever arrests the cylinder at different points in its rotation.

4. In a typewriting machine having a printing cylinder having type thereon, typewriter key levers, means actuated by the depression of said levers for rotating said cylinder and means for depressing said cylinder to produce an impression from type thereon, removable abutments of different heights, and means for changing the position of said abutments, whereby the depression of the same lever arrests the cylinder at different points in its rotation.

5. In a typewriting machine having a printing cylinder having type thereon, typewriter key levers, means actuated by the depression of said levers for rotating said cylinder and means for depressing said cylinder to produce an impression from type thereon, removable and interchangeable abutments of different heights, and means for changing the position of said abutments, whereby the depression of the same lever arrests the cylinder at different points in its rotation.

[Claims 6 and 7 not printed in the Gazette.]

1,141,056. STERILIZATION OF LIQUIDS. ANDRÉ HELBRONNER and MAX VON RECKLINGHAUSEN, Paris, France, assignors, by mesne assignments, to The R. U. V. Company, Inc., a Corporation of New York. Filed June 21, 1912, Serial No. 705,108. Renewed Apr. 22, 1915. Serial No. 23,215. (Cl. 210—1.)



1. The improvement herein described, in the process of sterilizing liquids, which consists in subjecting the said liquids to a preliminary treatment by heat and then exposing them to the influence of ultra-violet rays.

2. The improvement herein described, in the process of sterilizing liquids, which consists in first subjecting the liquids to heat not sufficiently high to alter the character of the constituents thereof and thereafter exposing them to the influence of ultra-violet rays.

3. The improvement in the process of sterilizing liquids,

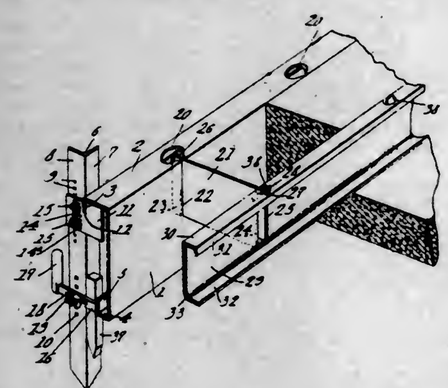
which consists in first subjecting the liquids to a temperature not exceeding 70° C. and thereafter exposing them to the influence of ultra-violet rays.

4. The improvement in the process of sterilising liquids, which consists in first subjecting the liquids to heat but not sufficiently high to alter the character of their constituents and thereafter exposing the same in the form of a thin film to the influence of ultra-violet rays.

5. The improvement in the process of sterilising liquids, which consists in first subjecting the liquids to heat but not sufficiently high to alter the character of the constituents thereof and thereafter exposing the same to the influence of ultra-violet rays with the exclusion of air.

[Claims 6 to 15 not printed in the Gazette.]

1,141,057. SIDEWALK AND ROAD FORM. JOHN N. HELTZEL, Warren, Ohio. Filed Dec. 5, 1914. Serial No. 875,671. (Cl. 25—118.)



1. A curb form embodying a support; a bracket vertically adjustable on the support; an abutment horizontally adjustable on the support below the bracket; and a back plate detachably interlocked with the bracket, the back plate engaging the abutment.

2. A curb form embodying a support; a bracket vertically adjustable upon the support; an abutment horizontally adjustable on the support below the bracket; a back plate detachably interlocked with the bracket, the back plate engaging the abutment; and a spacer interposed between the support and the back plate and held against lateral movement in one direction by the abutment.

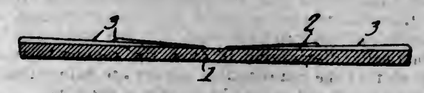
3. A curb form embodying a support; a plate applied to one side of the support and provided with a notch in its upper edge; means for securing the plate to the support in adjusted positions longitudinally of the support; a back plate embodying a depending lip engaged in the notch of the plate; and an abutment adjustable transversely of the support, the abutment coacting with the back plate adjacent its lower edge to hold it spaced from the support.

4. A curb form embodying a support; a plate applied to one side face of the support and provided with a notch in its upper edge; means for securing the plate to the support in adjusted positions longitudinally of the support; a back plate having a depending lip engaged in the notch; and a spacer interposed between the support and the lower end of the back plate.

5. In a device of the class described, a support provided adjacent its lower end with longitudinally spaced openings; an abutment extended transversely of the support and provided with an elongated opening; a securing element adapted for mounting in any of the openings of the support and engaged in the opening of the abutment; a back plate; means for connecting the upper edge of the back plate with the support; the lower edge of the back plate being engaged by the abutment.

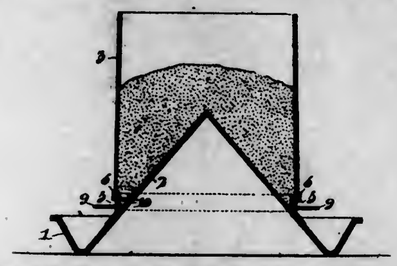
[Claim 6 not printed in the Gazette.]

1,141,058. STOVE-LID. JOHN F. HENRY, Versailles, Ill. Filed Apr. 4, 1914. Serial No. 829,613. (Cl. 126—220.)



A stove lid having an upper dished surface and upper radial ribs, the ribs increasing in height from their inner to their outer ends, and the central portion of the lid being thinner than its marginal portion, as and for the purposes specified.

1,141,059. HOG-FEEDER. JOHN B. HERSHEY, Manheim, Pa., assignor to The Hershey Machine & Foundry Co., Manheim, Pa., a Corporation of Pennsylvania. Filed Nov. 30, 1914. Serial No. 874,584. (Cl. 119—54.)



1. In an article of the class described, the combination of a substantially cylindrical receptacle, a trough surrounding said receptacle, a series of apertures leading from the receptacle to the trough, a single vertically sliding ring constituting a closure controlling said apertures, and means projecting from the ring over the trough, whereby the snout of the animal feeding may raise the closure to permit the further flow of food from the receptacle to the trough.

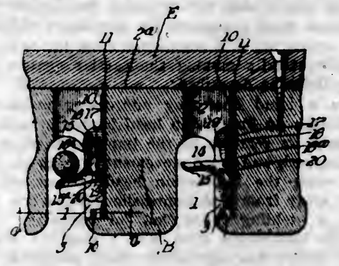
2. The combination in a hog feeder, of a circular trough, a substantially cylindrical receptacle of increasing diameter from top to bottom, surmounting the trough, a series of apertures leading from the bottom of the receptacle to the trough, a vertically sliding ring surrounding said apertures, and rooters projecting from said ring over the trough as and for the purposes described.

3. The combination in a hog feeder, of a circular trough, a substantially cylindrical receptacle surmounting the trough, a series of apertures leading from the receptacle to the trough, a vertically sliding ring surrounding said apertures, rooters projecting horisontally from said ring, one through each aperture of the receptacle, as and for the purpose described.

4. The combination in an article of the class described of a circular trough with a central cone, a substantially cylindrical receptacle surmounting the trough, a series of apertures leading from the bottom of the receptacle to the trough, a regulating ring on one surface of the receptacle, and a vertically sliding ring on the other surface of the receptacle with projections whereby the latter ring may be raised by the snout of an animal feeding from the trough.

1,141,060. CUE-RACK AND THE LIKE. FRANK C. HOBBS, Muskegon, Mich., assignor to Brunswick-Balke-Collender Co., a Corporation of Delaware. Filed May 18, 1914. Serial No. 839,358. (Cl. 46—6.)

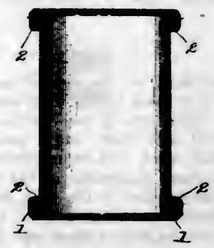
1. A cue-retaining device comprising a rail member, having a notch therein, there being a depression in one face of said notch, a metallic, box-like structure having out-flowing side-walls located in said depression, there being means on said box-like structure constructed to lock the same in said depression, a bell-crank lever pivoted in the side-walls of said box-like structure, a projection on said lever adjacent its pivot, and a spring, secured in said box-like structure and constructed to act upon said projection, said spring having a hump adjacent to said projection constructed to retain said bell-crank lever in open or closed position.



2. A retaining device including a rail member having a notch therein, there being a depression in one face of said notch, a sheet metallic boxlike structure having out-flaring side walls located in said depression and locked therein by said side walls, a bell cranked lever freely pivoted in said structure and adapted for oscillation under slight pressure in either direction into said notch, a projection on said lever beyond its pivotal point, and spring actuated means in said structure constructed to retain said bell-crank lever in open or closed position.

3. A retainer adapted for insertion into a depression in a notch in a rail member, comprising a sheet metallic structure possessed of a base and parallel, perpendicular, side walls, there being auxiliary outflaring side walls at one end of said base to frictionally maintain said structure within said depression, an oscillatable bell-cranked lever freely pivoted between said parallel side walls, one arm of said bell-crank lever being normally projecting from said walls and the other of said arms being located between said walls, whereby by pushing said first mentioned arm to retire it into the space between said walls, the other of said arms is projected from said walls, and means for retaining said bell-crank lever in one or the other of the positions of said arms.

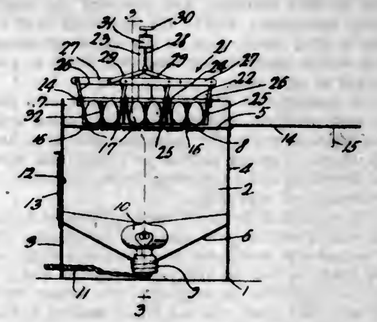
1,141,061. METHOD OF SEALING CANS. GEORGE S. HUME, Eastport, Me. Filed Mar. 26, 1914. Serial No. 827,508. (Cl. 99—8.)



The method of sealing lids upon food-containing tin cans which consists in coating the flange of an open can with a bismuth, tin and lead solder, fusible below the boiling point of water, filling said can placing the lid in position, seaming the joint between the lid and the can so that an inverted groove is formed in the can body, inverting the can so treated in water, and subjecting the can and its contents to the effect of heat by the agency of said water, heated to boiling point.

1,141,062. EGG-CANDLER. HENRY JOHNSON and ALFRED C. HOLLINGWORTH, Beatrice, Nebr.; said Johnson assignor to Mason O. Goble, Beatrice, Nebr. Filed Mar. 24, 1914. Serial No. 826,967. (Cl. 99—6.)

1. In an egg candler, a case having an upper apertured egg holder, shafts journaled through the sides of the case between the respective apertures below the holder, vanes attached to the shafts, and actuating means connected with the shafts at one end, for simultaneously oscillating the same.



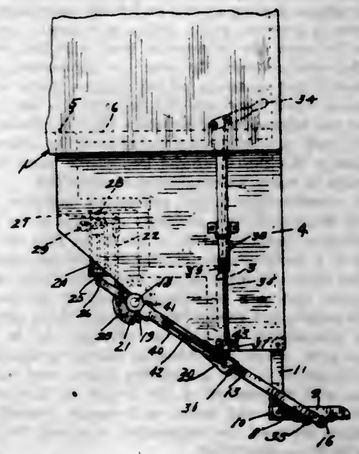
2. In an egg candler, a casing having an upper apertured egg holder, shafts journaled through the sides of the case between the respective apertures below the holder, vanes attached to the shafts, the shafts having cranks at one end, and an actuating bar connecting the said cranks.

1,141,063. INSERTIBLE SAW-TEETH. WILLIAM R. KENDALL, Philadelphia, Pa., assignor to Henry Disston & Sons, Incorporated, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Dec. 4, 1913. Serial No. 804,689. (Cl. 143—141.)



The combination in a saw, of a blade having a recess therein; a rib on each wall of the recess; a flat tooth having grooves arranged to receive the ribs, the front rib in each recess being offset in respect to the back rib and also arranged at an incline so that the rear portion of a tooth will be flush with both side walls of the blade, while the front or cutting edge of a tooth will project beyond one of the side walls.

1,141,064. AUXILIARY STEP FOR CAR-PLATFORMS. JOHN R. KUNZELMAN, Duluth, Minn. Filed Mar. 6, 1915. Serial No. 12,515. (Cl. 105—88.)



1. The combination with a car platform, of a step leading to said platform, and mounted for raising and lowering movements, means for operating said step, and an air

check affording a retarding device of the piston and dash pot type, operative to check the movement of said step.

2. The combination with a car platform, of a step leading to said platform, and mounted for raising and lowering movements, means for operating said step, including a rock shaft, and an air check affording a retarding device operative on said rock shaft to check the movement of said step.

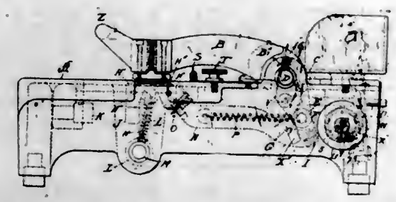
3. The combination with a car platform, of a step leading to said platform, and mounted for raising and lowering movements, means for operating said step, including a rock shaft, a spring tending to rotate said rock shaft in one direction, and a retarding device operative to check the movement of said step.

4. The combination with a car platform, of a step leading to said platform, and mounted for raising and lowering movements, means for operating said step, including a rock shaft having an arm, and a spring and a retarding device operative on said arm, the former tending to rotate said rock shaft and the latter tending to check the movement of said step.

5. The combination with a car platform, of a step leading to said platform, and mounted for raising and lowering movements, means for operating said step, including a rock shaft having an arm, a disk journaled on said rock shaft, a coiled spring mounted on said rock shaft, and anchored at one end to said arm, and at its other end to said disk, and a lock operative on said disk to hold the same in different set adjustments for varying the tension of said spring.

[Claims 6 to 19 not printed in the Gazette.]

1,141,065. ADDRESSING-MACHINE. ULYSSES G. LEE, Chattanooga, Tenn., assignor to Montague Mailing Machinery Co., a Corporation of Tennessee. Filed Feb. 28, 1913. Serial No. 751,362. (Cl. 101—1.)



1. In combination in an addressing machine, a pivotally mounted hand operated impression head, a carrier for address plates having a back and forth movement to and from the impression point under said head, and a connection between the impression head and the carrier to move the carrier forwardly from the impression point for the removal and replacing of the address plates when the impression head rises and for moving the carrier backward to the impression point when the impression head is lowered, said carrier serving to support the address plate and sustain the thrust of the impression head when the impression is made, substantially as described.

2. In combination in an addressing machine, a hand operated impression arm pivotally mounted at its rear end and having a handle portion at its front free end for operating it, a reciprocating carrier for address plates moving away from the pivot of the impression arm, when the same rises, and to a position in front of the impression point to deliver and receive the address plates, said carrier moving rearwardly toward the pivoted end of the impression arm, when the latter is moved downwardly, to carry the plate to the impression point, and means for effecting said movements of the carrier as the impression head is moved up and down, said means consisting of a connection between the impression arm and the carrier, substantially as described.

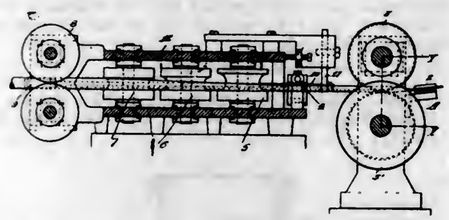
3. In combination an impression head having a back and forth movement in relation to the impression point, a reciprocating carrier for the address plates moving from the impression point, when the impression member is raised, to receive the plates thereon, and moving back to the impression point when the impression member is lowered, and a stop for arresting the carrier before the impression head completes its downward movement, and means consisting of a connection from the impression arm for automatically moving the carrier against said stop, substantially as described.

4. In a hand operating addressing machine and in combination an impression head having a back and forth movement, in relation to the impression point, a carrier having a back and forth movement, *i. e.* to the impression point when the impression head is lowered, and forwardly away from said impression point when the head is raised, a yielding connection for operating the carrier from the impression head, and a stop for arresting the carrier before the impression head completes its movement for making the impression, substantially as described.

5. In a hand operated addressing machine and in combination, an impression head having a movement toward and from the impression point, an inking ribbon, a plate carrier having a back and forth movement for bringing the plate mounted on the carrier to a position directly beneath the ribbon, and for moving the plate to an exposed position at one side of the ribbon, and means for automatically shifting the carrier as the head is manually shifted, said means including a yielding connection, and a stop for arresting the carrier before the impression head completes its impression making movement.

[Claims 6 to 26 not printed in the Gazette.]

1,141,066. ART OF MANUFACTURING TUBING. MARSHALL BURNS LLOYD, Menominee, Mich., assignor, by mesne assignments, to The Elyria Iron & Steel Company, Elyria, Ohio, a Corporation of Ohio. Filed Aug. 7, 1912. Serial No. 713,850. (Cl. 153—32.)



1. The improvement in the art of manufacturing inwardly resilient butt seam tubing, that consists in shaping a piece of strip metal into a tube having a substantially closed longitudinal butt seam, and a small inwardly disposed longitudinal bead, and then performing upon the tube acts which force the metal of the bead within the inner and outer perimeters of the tube, thereby producing a tube of maximum diameter and of substantially the same thickness as the initial stock and having the seam edges thereof in firm contact.

2. The herein described process of making metal tubing having a tightly closed longitudinal butt seam, which consists in performing acts upon strip metal which shape it into a tube very nearly approaching the ultimate form desired but having a somewhat open seam and which also form a relatively small longitudinal, inbent bead in the tubing and finally acting upon the bead portion to obliterate it and firmly close the seam.

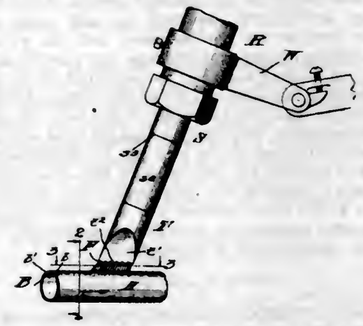
3. The herein described process of making metal tubing having a tightly closed longitudinal butt seam, which consists in performing acts upon strip metal which shape it into a tube, very nearly approaching the ultimate form desired but having a somewhat open seam and which also form a relatively small longitudinal, inbent bead portion diametrically opposite to the seam, and finally acting upon the bead portion to force same into the continued outline of the remainder of the tube and thereby tightly closing the seam.

1,141,067. REINFORCED TUBING. MARSHALL BURNS LLOYD, Menominee, Mich., assignor, by mesne assignments, to The Elyria Iron & Steel Company, Elyria, Ohio, a Corporation of Ohio. Filed Mar. 10, 1914. Serial No. 823,788. (Cl. 29—162.)



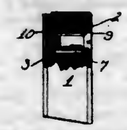
As an article of manufacture, a reinforced tube comprising an outer seamless tube and a plurality of abutting longitudinally seamed filler tubes compressively gripped by said outer tube.

1,141,068. ART OF WELDING. MARSHALL BURNS LLOYD, Menominee, Mich., assignor, by mesne assignments, to The Elyria Iron & Steel Company, a Corporation of Ohio. Filed Nov. 10, 1914. Serial No. 871,246. (Cl. 113—112.)



The improvement, in the herein described art, that consists in progressively applying and narrowly limiting to the seam-edges a lineally extending welding flame and thereby gradually heating and fusing the seam edges and causing them to flow quietly together.

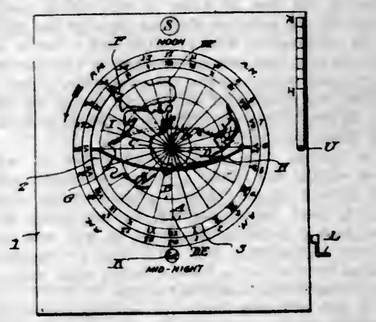
1,141,069. ELECTRICAL CONNECTION OR PIGTAIL. ALEX S. MCDANIEL, Bradford, Pa., assignor to Corliss Carbon Company, Bradford, Pa., a Corporation of Pennsylvania. Filed July 31, 1913. Serial No. 782,343. (Cl. 200—26.)



In combination, a carbon brush having a transverse bore through it from side to side, a flexible metallic conductor having a terminal washer, having a central inturned metallic projection threaded internally and adapted to fit within one end of said bore, a metallic washer similarly provided with a central inturned projection adapted to fit in a recess on the opposite side of the block and having a tongue or plate bent so as to extend over and against the top of said block, and means for detachably securing said parts in their respective places consisting of a screw extending through the bore of the said block and having its head engaging said inturned projection of the metallic washer and its stem engaging with said screw threaded projection of said terminal washer of the flexible conductor, substantially as described.

1,141,070. REVOLVING MAP AND TABLE-TOP. CHARLES A. MILLER, Marianna, Fla. Filed Apr. 16, 1914. Serial No. 832,265. (Cl. 35—6.)

1. The combination with a revolving map, of a relatively stationary member bearing designations indicating the hour divisions of the day, a device for indicating the days of the week, a movable device for indicating the terrestrial limitations of sunlighted areas about the earth during all seasons, and means for revolving the map and operating said devices in unison.



2. The combination with a table having an opening therein, and bearing indications of the hour divisions of the day around said openings, of a revolving map on view through said opening, an object adapted to revolve about the map, a movable device for indicating the terrestrial limitations of sunlighted areas about the earth during all seasons, and means for operating the aforesaid movable parts.

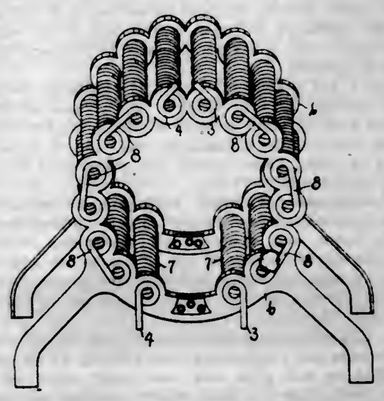
3. The combination with a table having an opening therein, and bearing designations of the hour divisions of the day around said opening, of a revolving map on view through said opening, a movable week day indicating device, an object movable around the map, a movable device for indicating the terrestrial limitations of sunlighted areas about the earth during all seasons, and means for operating the aforesaid movable parts.

4. The combination with a revolving map, and means for indicating time periods in its course of revolution, of an object movable about the map, and gearing for moving said object at variable speeds with relation to the map.

5. The combination with a revolving map, of a revolving body, and means for revolving said body with the map at the same speed or at greater or less speeds.

[Claims 6 to 13 not printed in the Gazette.]

1,141,071. STEAM-GENERATOR. WILLIS MITCHELL, Malden, Mass., assignor to Willis Mitchell Company, Inc., New York, N. Y., a Corporation of New York. Filed Nov. 8, 1910. Serial No. 591,300. (Cl. 122—248.)



1. In combination with a casing and a burner within the same, water-tube helices arranged with their axes

parallel and in proximity to each other and consisting of a continuous tube wound from end to end of the casing in alternately opposite directions.

2. In combination with a casing and a burner within the same, water-tube helices arranged in a circular series surrounding said burner within said casing and means for regulating the flow of water at will either continuously through all the series or through parts of the series.

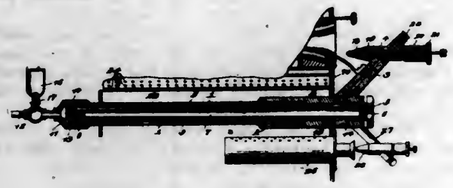
3. In combination with a casing and a burner arranged therein, water tube helices arranged in two corresponding semi-circular series, means for connecting them together to allow the passage of water and means for supplying water to one of said semi-circular series or to both of said series simultaneously.

4. A casing, two semi-circular series of water-tube helices within the same, a burner arranged within the circle formed by the said two series taken together, a three-way cock for connecting the two series in one or giving each a separate discharge at will and reservoirs and pipes coöperating with said cocks for supplying said two semi-circular series independently with water or supplying them as one connected series.

5. A pair of water tanks, in combination with a pipe connecting them, a steam generator, a pair of steam generator pipes connecting each tank respectively to the generator and cut-off valves in said pipes, each of said pipes being provided with one of said valves, whereby the said tanks may be made to supply the generator independently, or both together may supply it at one point substantially as set forth.

[Claims 6 and 7 not printed in the Gazette.]

1,141,072. GAS-GENERATOR. WILLIS MITCHELL, Malden, Mass., assignor to Willis Mitchell Company, Inc., New York, N. Y., a Corporation of New York. Filed June 16, 1913. Serial No. 773,912. (Cl. 158—31.)



1. A gas generator provided with an elongated retort chamber of thin annular tapering form, in combination with means for discharging heat directly on the exterior of said generator.

2. In a gas generator, a tapering core and a cylinder external thereto, providing between them a tapering annular retort chamber adapted to receive fluid fuel at one end and discharge the same as fixed gas at the other, in combination with a burner arranged to discharge against the said cylinder.

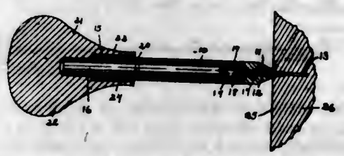
3. In a gas generator, a pair of elongated horizontal parts, forming between them a retort chamber of thin annular form in cross section, which tapers from the receiving end to the discharging end, and a burner arranged to direct flame against the exterior of the outer one of said parts.

4. An elongated, tapering, horizontal gas retort chamber, in combination with an inlet pipe supplying the same at the larger end, a branch pipe extending from said inlet pipe out of the line of flow of the fuel to said chamber and a regulating tank in which said branch pipe ends and which forms an air cushion to aid the operation of said retort chamber.

5. A gas generator provided with a gas retort chamber, an inlet pipe and a regulating tank forming an air cushion connected to said pipe, said tank being supported at a higher level than the said retort chamber and permanently in communication therewith.

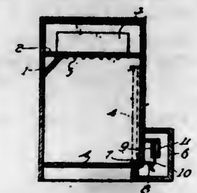
[Claims 6 to 18 not printed in the Gazette.]

1,141,073. MAGNETIC BRAD-SET. CHARLES H. PARKS, Waterbury, Conn., assignor of one-half to Dwight S. Goodwin, Waterbury, Conn. Filed Jan. 15, 1914. Serial No. 812,271. (Cl. 1—47.)



In combination in a magnetic brad-set, a casing having a bore composed of a main portion in the form of a cylinder, relatively elongated and of relatively large diameter, and a reduced portion that is a fit for a brad of relatively small diameter, a ram of magnetic material, comprising a main body portion at one end that is also elongated and is a fit for the said cylinder, a hammer at the other end that is a fit for the said reduced portion of the bore, and a body extension intermediate the said ends, a spring housed between the said extension and the walls of the said cylinder, means for limiting the relative movement of the said casing and ram, the outer end of the said ram overhanging the outer end of the said casing, and a handle mounted on the said outer end of the ram, the said handle comprising a body portion engaged with and inclosing the said outer end of the ram and an extension that fits over and incloses the side walls of the said outer end of the casing, whereby the said main body portion of the ram is at all times inclosed and protected, and a handle is provided suitable for permitting manipulating the said brad-set conveniently with one hand.

1,141,074. VOTING-MACHINE CONTROL. HARRY O. RUGH, Chicago, Ill., assignor to Railway Electric Manufacturing Co., Chicago, Ill. Filed Mar. 23, 1914. Serial No. 826,776. (Cl. 235—51.)

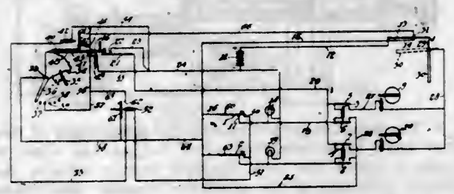


1. Register controlling mechanism for voting machines comprising a booth, a circuit controlling door, said circuit controlling door being in the path of the voter when entering the booth and being adapted to be moved to one of its extreme alternative positions to permit access to the voting machine, and means whereby said door cannot be returned to its initial position while the voter is within the booth, said door when open extending substantially throughout the depth of the available space within said booth.

2. Register controlling mechanism for voting machines comprising a booth, a circuit controlling door, said circuit controlling door being in the path of the voter when entering the booth and being adapted to be moved to one of its extreme alternative positions to permit access to the voting machine, and means whereby said door cannot be returned to its initial position while the voter is within the booth, said door when open extending substantially throughout the depth of the available space within said booth, said door carrying a switch element.

3. Register controlling mechanism for voting machines comprising a booth, a circuit controlling door, said circuit controlling door being in the path of the voter when entering the booth and being adapted to be moved to one of its extreme alternative positions to permit access to the voting machine, means whereby said door cannot be returned to its initial position while the voter is within the booth, said door when open extending substantially throughout the depth of the available space within said booth, said door when open extending substantially throughout the depth of the available space within said booth, said door carrying a switch element, and a stationarily mounted switch element to coöperate with said first aforesaid switch element and momentarily actuable thereby as said door moves from one limiting position to the other.

1,141,075. VOTING-MACHINE. HARRY O. RUGH, Chicago, Ill., assignor to Railway Electric Manufacturing Co., Chicago, Ill. Filed Mar. 23, 1914. Serial No. 826,777. (Cl. 235—54.)



1. A voting system of the character described having a plurality of actuable individual switch elements, a register for each switch element, electromagnetic switching means interposed between each of said switch elements and its associated register, and step-by-step means operable by the actuation of an individual switch element in excess of a predetermined number to control the restoration of all previously selected electromagnetic switching means.

2. A voting system of the character described having a plurality of actuable individual switch elements, a register for each switch element, electromagnetic switching means interposed between each of said switch elements and its associated register, and means operable independently of said electromagnetic switching means by the actuation of an individual switch element in excess of a predetermined number to control the restoration of all previously selected electromagnetic switching means.

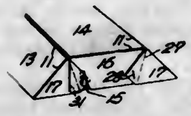
3. A voting system of the character described having a plurality of actuable individual switch elements, a register for each switch element, electromagnetic switching means interposed between each of said switch elements and its associated register, means operable independently of said electromagnetic switching means by the actuation of an individual switch element in excess of a predetermined number to control the restoration of all previously selected electromagnetic switching means, and an indicator for each individual switch element initially controlled by its associated switch element, and subsequently controlled by its associated electromagnetic means.

4. A voting system of the character described having a plurality of actuable individual switch elements, a register for each switch element, electromagnetic switching means interposed between each of said switch elements and its associated register, means operable independently of said electromagnetic switching means by the actuation of an individual switch element in excess of a predetermined number to control the restoration of all previously selected electromagnetic switching means, and an indicator for each individual switch element initially controlled by its associated switch element, and subsequently controlled by its associated electro-magnetic means, said electromagnetic switching means being arranged to set the circuit to their corresponding register for subsequent closure.

5. A voting system of the character described having a plurality of actuable individual switch elements, a register for each switch element, electromagnetic switching means interposed between each of said switch elements and its associated register, means operable independently of said electromagnetic switching means by the actuation of an individual switch element in excess of a predetermined number to control the restoration of all previously selected electromagnetic switching means, an indicator for each individual switch element initially controlled by its associated switch element, and subsequently controlled by its associated electro-magnetic means, said electromagnetic switching means being arranged to set the circuit to their corresponding register for subsequent closure, and a common register actuating switch adapted to control the closure of the circuits through the selected register.

[Claims 6 to 18 not printed in the Gazette.]

1,141,076. COLLAPSIBLE SHIPPING-PACKAGE. DAVID H. SHAPIRO, Montreal, Quebec, Canada. Filed Dec. 21, 1914. Serial No. 878,335. (Cl. 229—16.)



1. A knock-down box comprising a bottom, ends hingeably connected thereto, compound side and top portions hingeably connected to opposite edges of the bottom, collapsible end flaps connected between the side and top portions normally holding the same in predetermined angular relation, tongues on the ends engageable by the end flaps of one composite side and top portion, and tongues on the end flaps of the second side and top portion engageable between the end flaps of the first side and top portion.

2. A knock-down box, consisting of a bottom, ends, and two cover portions, said cover portions coöperating to form sides and top and being each collapsible upon itself and foldable upon the bottom and collapsible end flaps connected between the side top portions normally holding the same in predetermined angular relation.

3. A container comprising a bottom, hingeably connected ends, sides hingeably connected to the bottom, top members hingeably connected to the sides, end flaps hingeably connected to the sides and to the top members and each having a pair of apertures therein, fastening means inserted through the apertures holding the end flaps in overlapping relation and the side and top members in angular relation, folds in the end flaps of the side members positioned for the collapsing of the end flaps between the side and top members when folded upon one another, and interlocking means between the ends and end flaps on one side and between the end flaps arranged to hold the package in erected form.

4. A container comprising a bottom, ends hingeably connected thereto, side members hingeably connected to the bottom, a pair of top members one hingeably connected to each side, one of said top members being of less width than the top of the box and the other being of substantially the same width as the top of the box, end flaps on the side members and on the top members, means adapted to hold said end flaps in overlapping relation and the side and top members in predetermined angular relation, tongues on the ends engageable by the end flaps of the narrower top member, and hooks on the end flaps of the wider top member engageable with the end flaps on the opposite side of the package.

1,141,077. HYDRAULIC CARTRIDGE. DAVY VANCE SICKMAN, Denver, Colo. Filed Apr. 13, 1914. Serial No. 831,418. (Cl. 102—6.)



1. A hydraulic cartridge comprising a body member having elongated chambers formed therein and pistons

of counterpart shape located in said chambers, the latter being open on one side of the cartridge, and means for introducing fluid to the cartridge for the ejection of the pistons.

2. A hydraulic cartridge comprising a body member having ellipsoidal chambers formed therein, pistons of counterpart shape located in said chambers, and means for introducing fluid to the chambers for the ejection of the pistons, the chambers of the latter being open for the purpose.

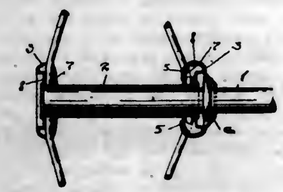
3. A cartridge of the class described, comprising a body member having chambers, pistons located in said chambers and means for introducing fluid to the chambers for the progressive ejection of the respective pistons.

4. A cartridge of the class described, comprising a body member having chambers, pistons in said chambers and means for introducing fluid to the said chambers for the ejection of the several pistons progressively from the rear toward the front.

5. A cartridge of the class described, comprising a body member having chambers and pistons located in said chambers, the body member having a duct extending from the front rearwardly, its rear extremity being in communication with the rearmost chamber, and ducts between the several chambers, which ducts are normally cut off from the fluid by the pistons, the said ducts in the partitions having their rear extremities below the tops of the pistons when the latter are in their normal or retracted position.

[Claims 6 to 10 not printed in the Gazette.]

1,141,078. AXLE CONSTRUCTION. WILLIAM J. SLEFFEL, Cleveland, Ohio, assignor to The Kirk Latty Manufacturing Company, Cleveland, Ohio, a Corporation of Ohio. Filed Dec. 18, 1912. Serial No. 737,417. (Cl. 21—30.)

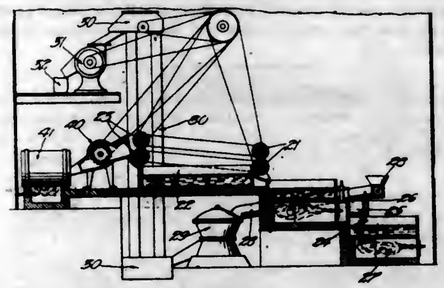


In a wheel structure, the combination of an axle provided with a shoulder spaced from the end of said axle; a wheel hub, consisting of spaced disks connected by a tubular portion, the latter slidably and rotatably engaging on said axle against such shoulder; a centrally apertured disk fitted over said axle and on the inner side of such shoulder, the aperture permitting said disk to slide over said axle but not such shoulder, thereby retaining said disk on said axle; and a plurality of flexible arms extending radially outward from said disk, said arms being bent over the adjacent disk on said hub, thereby retaining the latter on said axle.

1,141,079. MANUFACTURE OF FOOD FROM BEAN-VINES. DENNIS Y. STRAUSS, Artesia, Cal., assignor to California Retarder & Fibre Company, Los Angeles, Cal., a Corporation of California. Original application filed Nov. 11, 1913, Serial No. 800,269. Divided and this application filed Mar. 24, 1914. Serial No. 826,975. (Cl. 99—11.)

1. The herein described process for obtaining food from bean vines consisting in extracting a portion of the nutritious organic constituents thereof by boiling in water, further extracting an additional portion of said constituents by crushing and finally evaporating the boiling liquid and the last named extracted portion together.

2. A process for making food from bean vines consisting in first boiling the vines in water, second crushing the vines allowing the liquid contained therein to run back into a water, third rinsing the boiled vines in said water and fourth evaporating the rinsing water and the boiled water together.



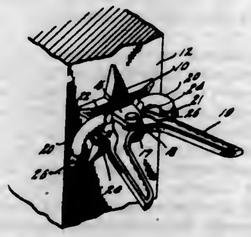
3. The herein described process for preparation of food from bean vines comprising first boiling the vines in water to loosen the vine structure and to dissolve and remove a portion of the nutritious organic constituents thereof, second passing said boiled vines through crushing rollers, said rollers further extracting the remaining liquid organic constituents left in the vine, and then adding the boiling liquid and said extracted liquid together and evaporating the same.

4. The herein described process for obtaining food from vines, which consists in extracting a portion of the nutritious organic constituents thereof from said vines by boiling the same in water, then extracting an additional portion of said constituents by crushing the vines then rinsing said vines in water and then adding the boiling liquid, to the said extracted liquid and the rinsing water together and evaporating the same.

5. The herein described process for obtaining food from vines, which consists in extracting a portion of the nutritious organic constituents thereof from said vines by boiling the same in water, then removing an added portion of said constituents, by crushing the vines to extract a liquid therefrom, then adding the boiling liquid to the extracted liquid and evaporating the same, and then adding a base of absorbent edible material.

[Claim 6 not printed in the Gazette.]

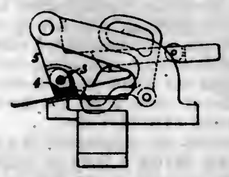
1,141,080. GATE-LATCH. LAFE SWANK, Anderson, Ind., assignor to Dwiggins Wire Fence Company, Anderson, Ind., a Corporation of Indiana. Filed Feb. 15, 1915. Serial No. 8,192. (Cl. 70—28.)



1. A gate latch, comprising a recessed base having a pair of projecting horizontal flanges, a yoke pivoted on a vertical axis between said flanges, said yoke having two arms for projecting on opposite sides of the edge of a gate and also having two stop shoulders, and two stop latches each of which has a shank which projects through the base and is provided with a flange at its rear end in such recess for preventing the withdrawal of the stop latch and has a finger at its front end for coöperating with one of said shoulders, said stop latches being rotatable about such shanks to disengage their fingers from said shoulders.

2. A gate latch, comprising a recessed base having a pair of projecting horizontal flanges, a yoke pivoted on a vertical axis between said flanges, said yoke having an arm for projecting on one side of the edge of a gate and also having a stop shoulder for normally preventing said yoke from swinging out of the way of said gate edge, and a stop latch which has a shank which projects through the base and is provided with a flange at its rear end in such recess for preventing withdrawal of the stop latch and has a finger at its front end for coöperating with said shoulder, said stop latch being rotatable on such shank to disengage said finger from said shoulder.

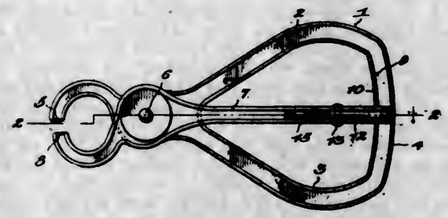
1,141,081. CLIP FOR STENTERING-MACHINES. ALFRED AUSTIN WHITLEY, Manchester, England. Filed Jan. 27, 1914. Serial No. 814,779. (Cl. 26—8.)



1. In a stentering clip, a pivoted upper jaw, a gripping part pivotally suspended therefrom and having its upper and lower faces parallel, and a cam shaped portion on the jaw body bearing against the upper face of the gripping part whereby a wedging action is exerted only by the bearing of said cam-shaped portion of the body of the jaw upon the upper face of the gripping part, substantially as described.

2. In a stentering clip, a pivoted upper jaw, a gripping part having its upper and lower faces parallel, enlargemeans on the upper face of said gripping part, a pivotal engagement between said enlargement and the upper jaw, a cam shaped portion on the jaw body bearing against the upper face of the gripping part outside the area of said enlargements, whereby a wedging action is exerted only by the bearing of said cam-shaped portion of the body of the jaw upon the upper face of the gripping part, substantially as described.

1,141,082. TIRE-MENDER TOOL. JOHN A. ANDERSON, Bridgeport, Conn. Filed July 6, 1914. Serial No. 849,241. (Cl. 152—27.)

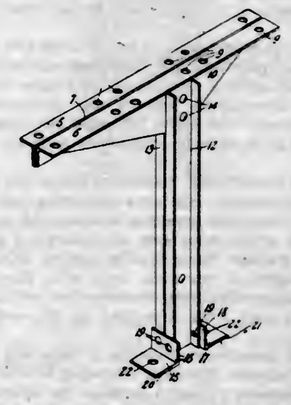


1. In a tire tool, a member having divergent sides to enable same to be gripped with and in one hand of the user, said member having a jaw at one end and having a rack at its opposite end which rack rigidly connects the sides of the member, a second member having a jaw which coöperates with the jaw of the first named member and having its opposite end terminating substantially at the rack, and means on the opposite end of the second member to releasably engage the rack.

2. In a tire tool, a substantially triangular member of channel form having its sides providing opposite parts to be gripped with and in one hand of the user and having the free edge of the inner wall of its base provided with rack teeth, a jaw on the apex of said member, a second member of channel form pivoted to the apex of said triangular member and having a jaw which coöperates with the jaw of the latter, and a spring pressed pawl pivoted in the channel of the second member and being engaged with said rack teeth.

3. In a tire tool, a substantially triangular rigid member forming a complete hand grip in itself, a jaw on said member, a second member pivoted to the first member and located within the bounds thereof and having a jaw, which coöperates with the first named jaw, and means on the second member to lock same to the first member.

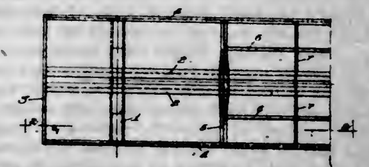
1,141,083. BENCH-LEG. GEORGE W. BAILEY, Holyoke, Mass., assignor to Walsh's Holyoke Steam Boiler Works, Holyoke, Mass., a Firm consisting of William J. Walsh and Charles D. Heywood. Filed Feb. 19, 1913. Serial No. 749,866. (Cl. 144—286.)



1. A bench support comprising a pair of angle bars to extend in a horizontal plane with an angle portion of the bars lying adjacent to each other, a plate interposed between the angle bars, a pair of channel bars with their backs adjacent each other and engaging opposite faces of the plate and secured thereto to constitute a supporting post for the angle bars, and angle plates secured to the opposite alining flange portions of the channel bars, substantially as and for the purpose specified.

2. A bench support comprising a pair of angle bars to extend in a horizontal plane with an angle portion of the bars lying adjacent each other and the other angle portion extending laterally, a plate interposed between the angle bars and secured thereto with a portion projecting down beyond the angle bars, the lower edge of the projecting portion of the plate converging from the ends toward each other, a pair of channel bars with their backs adjacent each other and engaging opposite faces of the projecting portion of the plate where the lower edges of the plate converge with the tops of the channel bars abutting against the angle members to constitute a supporting post for the angle bars, and flange plates secured to the opposite alining plate portions of the channel bars, substantially as and for the purpose specified.

1,141,084. CAR-UNDERFRAME. EINAR B. BERGENDAHL, Chicago, Ill., assignor to Herbert R. Keithley, Davenport, Iowa. Filed Aug. 1, 1914. Serial No. 854,439. (Cl. 105—76.)



1. In a car underframe, bolsters, a center sill extending between said bolsters, two cantalivers extending laterally from each side of the center sill to the corresponding side of the underframe, the cantalivers on each side being sym-

metrically disposed with respect to the transverse central axis of the underframe, and intermediate load-carrying sills lying parallel with the center sill between the latter and the side of the underframe and supported at its ends by the two corresponding cantalivers.

2. In a car underframe, bolsters, a center sill extending between said bolsters, two cantalivers extending laterally from each side of the center sill to the corresponding side of the underframe, the cantalivers on each side being asymmetrically disposed with respect to the transverse central axis of the underframe, intermediate load-carrying sills lying parallel with the center sill between the latter and the side of the underframe and supported at its ends by the two corresponding cantalivers, and means supported on the outer ends of the cantalivers for carrying a portion of the load.

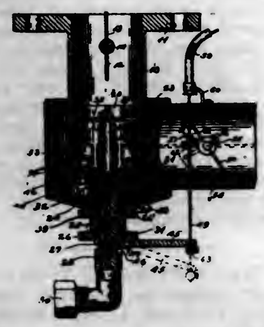
3. In a car underframe, bolsters, a center sill supported on the bolsters, two transoms rigidly secured to the center sill and spaced apart a distance at least equal to one-half the distance between the bolsters, and intermediate sills arranged between the center sill and the sides of the underframe and each supported at its ends by the transoms.

4. In a car underframe, bolsters, a center sill extending between the bolsters, side sills extending between the bolsters, two transoms arranged between the bolsters on opposite sides of the transverse central axis of the underframe, each transom being rigidly secured to the center sill and engaging at the outer ends with the side sills, and intermediate sills lying between the center sill and the side sills and each supported at its ends by the transoms.

5. In a car underframe, bolsters, a center sill extending between the bolsters, side sills extending between the bolsters, two transoms arranged between the bolsters on opposite sides of the transverse central axis of the underframe, each transom being rigidly secured to the center sill and engaging at the outer ends with the side sills, intermediate sills lying between the center sill and the side sills and each supported at its ends by the transoms, and cross bearers connecting the side sills, the intermediate sills and the center sill together.

[Claims 6 to 8 not printed in the Gazette.]

1,141,085. CARBURETER. CHARLES B. KENT, Kenosha, Wis. Filed Mar. 23, 1914. Serial No. 826,464. (Cl. 48--154.1.)



1. In a carbureter, the combination of a cup-shaped body part having a band of radial air inlets, a nozzle structure extending upwardly through the base of the body part and having a valve chamber, a fuel valve reciprocable in said nozzle to operate with said seat to control the flow of oil, a cup-shaped air valve reciprocable within said body part and suspended from said needle valve, the weight of said air valve tending to keep the fuel valve against its seat and suction effect tending to raise the air valve to withdraw the fuel valve from its seat, air ports in said air valve normally out of register with the body part air inlets but adapted to register therewith when the air valve is raised, additional air inlets in the base of the body part, and air inlets through the nozzle wall to the valve chamber below the base of said air valve.

2. In a carbureter, the combination of a cup-shaped body part having a band of radial air inlets, a nozzle structure extending upwardly through the base of the body part and into the body part, said nozzle structure just above the base of the body part being expanded to form a valve chamber, the base of the body part having air inlets and the valve chamber having air inlets, a fuel valve reciprocable in said nozzle structure to seat in said valve chamber, a cup-shaped air valve reciprocable in the body part and secured to the upper end of the fuel valve, the weight of said air valve tending to hold the fuel valve against its seat, said air valve having a band of radial air ports normally below the pody part air passageways, the base of said air valve having an opening to receive the nozzle structure and being normally directly above the valve chamber air inlets whereby when the air valve is raised by suction effect air will flow primarily through the air passageways in the base of the body part and into the valve chamber through the valve chamber air inlets and then through the nozzle, further raising of the air valve causing the air valve ports and the body part ports to register to admit additional air.

3. In a carbureter, the combination of a cylindrical cup-shaped body part having a band of radial air inlets, a nozzle structure mounted in the base of the body part to be vertically reciprocable with reference to the body part, said nozzle structure having a valve seat, a fuel valve reciprocable in said nozzle structure to coöperate with said seat to control the flow of fuel, a cup-shaped air valve reciprocable in said body part and secured to the upper end of the fuel valve, said air valve tending to hold the fuel valve against its seat and subject to suction effect to be raised to withdraw the fuel valve from its seat, said air valve having a band of radial air passageways normally out of register with the body part air inlets.

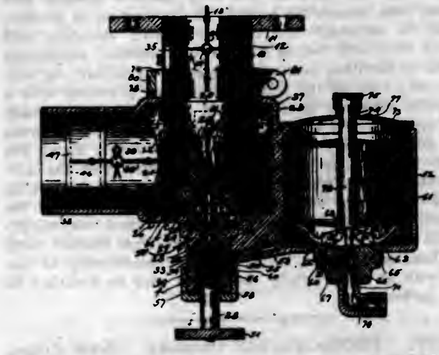
4. In a carbureter, the combination of a cylindrical body part having a zone of radial air inlets, a nozzle extending through the base of and into the body part and having a valve seat, a fuel valve reciprocable in said nozzle, a cylindrical air valve reciprocable within the body part and suspended from the upper end of the fuel valve, said air valve having a zone of radial air passageways normally below the body part air inlets, and means controllable from a distance for effecting vertical bodily shift of the nozzle whereby the fuel valve and air valve suspended therefrom are correspondingly shifted and the normal distance between the air valve air inlets and the body part air inlets is adjusted.

5. In a carbureter, the combination of a cylindrical body part having a belt of air inlets and having a tubular extension from its base, a barrel vertically adjustable in said extension, a nozzle within said barrel and extending upwardly into the body part, said nozzle having a valve seat, a fuel valve reciprocable in said nozzle to coöperate witn said seat to control the flow of fuel, a cylindrical air valve reciprocable in the body part and suspended from the top of the fuel valve, said air valve tending to hold the fuel valve to its seat and subject to auction effect to raise the fuel valve from its seat, said air valve having a belt of air passageways normally below the body part air inlets, and means controllable from a distance for effecting vertical shift of the nozzle and the fuel valve and air valve carried thereby whereby to adjust the normal distance between the air valve passageways and the body part air inlets.

[Claims 6 to 10 not printed in the Gazette.]

1,141,086. CARBURETER. CHARLES B. KENT, Kenosha, Wis. Filed Aug. 7, 1914. Serial No. 855,714. (Cl. 48—155.2.)

1. In a carbureter, the combination of a cylindrical body part, an air duct extending upwardly into said body part, said duct opening to atmosphere at its lower end and opening into the body part at its upper end, a piston valve reciprocable in said body part and having air ports, said body part having air passageways, said valve ports being entirely below said body part air passageways when the valve is in its lowermost position, a nozzle extending upwardly through said air duct, a needle valve suspended from the air valve and extending into said nozzle, said nozzle being longitudinally adjustable in said air duct, and means for delivering fuel to said nozzle.



2. In a carbureter, the combination of a cylindrical body part having air passageways, an air duct extending upwardly into the body part through the base thereof and open at its outer end to air, a cup-shaped piston air valve having an opening at its base for receiving said duct, said duct having a stop for limiting the downward movement of said air valve and said air valve having air ports which are entirely below the body part air passageways when the air valve rests on said stop, a fuel nozzle extending longitudinally into said air duct, a needle valve carried by said air valve and extending into said nozzle, said nozzle being adjustable in said air duct, and means for delivering fuel to the nozzle.

3. In a carbureter, the combination of a cylindrical body part, a Venturi air tube extending into said body part, a nozzle projecting into said Venturi tube and adjustable therein from the exterior, a cup-shaped piston air valve reciprocable in said body part, ports in said air valve and air passageways in said body part, and a fuel valve extending from said piston air valve and coöperating with said nozzle to control the flow of fuel therefrom.

4. In a carbureter, the combination of a cylindrical cup-shaped body part having an opening through its base, a Venturi air tube seated in said opening and extending into the body part and having its outer part open to atmosphere, an exterior flange on said tube within the body part, a cup-shaped piston air valve having an opening in its base for receiving the tube, said flange limiting the downward movement of said piston valve, said piston valve having air ports and said body part having air passageways, a fuel nozzle extending into said Venturi tube and adapted for connection with a source of fuel, and a needle valve carried by said piston valve and extending into said nozzle to control the flow of fuel therefrom.

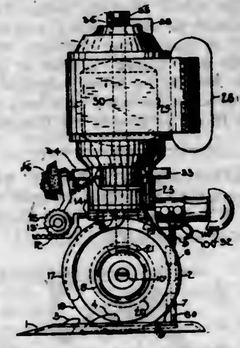
5. In a carbureter, the combination of a cylindrical body part, carbureting mechanism associated therewith, a coupling flange at the outer end of said body part, an inclosing frame having a passageway into which said body part detachably extends, and a clamping ring engaging said inclosing frame to clamp said frame to the body part after adjustment of said body part to bring the coupling flange into desired position.

[Claims 6 to 14 not printed in the Gazette.]

1,141,087. ELECTRIC CLOTH-CUTTING MACHINE. NICOLAS KOMOW, New York, N. Y., assignor to The United States Cloth Cutting Machine Co. Inc., New York, N. Y. Filed July 24, 1912, Serial No. 711,321. Renewed Jan. 23, 1915. Serial No. 4,077. (Cl. 164—76.)

1. In an electric cloth cutting machine the combination with the base plate standard, circular knife and means of operating same of a movable cloth-raiser fulcrumed and raised by means of a pressing rod and released by a spring and a stationary cloth-raiser set in front of movable cloth-raiser substantially as set forth.

2. In an electric cloth cutting machine, the combination with a base-plate, standard, circular knife and means of operating the same and an automatic grinder having a gear mounted on its casing, of a rack on a grinder rod engaging said gear, and a tension spring adapted to hold said grinder up, substantially as described.



3. In an electric cloth cutting machine, the combination with a base-plate, standard, circular knife and means of operating the same, of a grinder rack rod, and a movable knife guard adjustably mounted thereon, substantially as described.

1,141,088. BALING-PRESS. CHARLES B. W. SMITH, St. Louis, Mo. Filed Sept. 28, 1914. Serial No. 863,875. (Cl. 100—20.)



1. A baling press provided with a baling chamber and a compressing plunger, baling wires which are adapted to enter the baling chamber and move rearwardly therethrough as the bale is formed, and automatically operating means normally outside the baling chamber and adapted to enter said chamber on opposite sides thereof for twisting said wires together at the end of the bale.

2. A baling press provided with a baling chamber and with a compressing plunger operating therein, baling wires adapted to feed into the baling chamber as the bale is formed therein, means normally outside the baling chamber and adapted to enter said chamber on opposite sides thereof for twisting said wires together at the end of the bale, and means controlled by the plunger for actuating the wire twisting means.

3. A baling press provided with a baling chamber and a compressing plunger operating therein, baling wires adapted to enter the baling chamber and to feed rearwardly therein as the bale is formed, automatically operating means for twisting said baling wires together at the end of the bale, and means controlled by certain of the baling wires for effecting a movement of the wire twisting means.

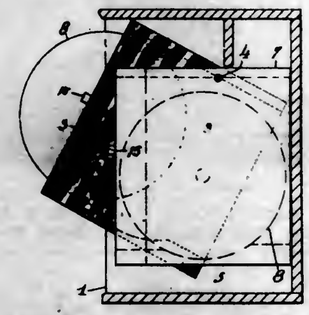
4. A baling press provided with a baling chamber, means for compressing material therein, baling wires adapted to feed into the baling chamber along the sides of the

bale as the same is formed, and automatically operating means normally outside the baling chamber and adapted to enter said chamber on opposite sides thereof for twisting and severing said wires at the end of the bale.

5. A baling press provided with a baling chamber, means for compressing material therein, baling wires adapted to feed into the baling chamber along the sides of the material compressed in said chamber, and means normally on the exterior of said baling chamber, which means is adapted to enter said baling chamber at the end of the bale and twist the baling wires together and to sever said baling wires after the same have been twisted.

[Claims 6 to 16 not printed in the Gazette.]

1,141,089. FILING-CABINET. JOHN L. TINDALE, Flushing, N. Y., assignor to Tindale Cabinet Company, New York, N. Y., a Corporation of New York. Filed Aug. 5, 1914. Serial No. 855,089. (Cl. 211—16.)



1. In a filing cabinet for disk records and like articles, the combination with a casing, of a plurality of containers arranged side by side within said casing, each container having forwardly disposed openings, a strip of relatively stiff material at its top and side portions extending substantially the full width of one of said articles, said side portions being formed of relatively yielding material, and supporting means extending from one side of said casing to the opposite side and engaging said stiff strips for suspending said containers when said containers are in rearward position.

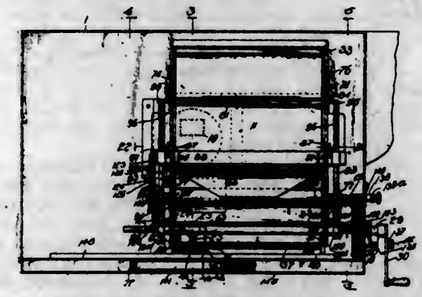
2. In a filing cabinet for disk records and like articles, the combination with a casing, of a plurality of containers arranged side by side within said casing, each container having forwardly disposed openings, a strip of relatively stiff material at its top and side portions extending substantially the full width of one of said articles, said side portions being formed of relatively yielding material, and supporting means extending from one side of said casing to the opposite side for suspending said containers when in their rearward position, said containers being constructed and of a number with respect to the inside width of the casing from said one side to said opposite side whereby any container when moved forwardly is retained in its forward position.

1,141,090. BUTTON. CHARLES S. WINN, Rockford, Ill. Filed Nov. 16, 1914. Serial No. 872,415. (Cl. 24—113.)



A button comprising a circular body member shaped to provide a convex front face and a concave rear face having a centrally disposed, rearwardly projecting boss provided with an internally threaded bore, a fabric covering disposed over the convex face of said body and turned inwardly over the periphery thereof, the free edges of the fabric being gathered and drawn inwardly across the rear face of the body member toward said central boss, means for holding the free edges in position so as to maintain the covering drawn smoothly and tightly over said convex face, a back member comprising a disk of resilient material shaped to fit within the concave rear face of the body member and provided with a centrally disposed aperture, and means passed through said aperture and threaded into said socket for drawing said disk inwardly toward said boss to firmly clamp the fabric between the perimeter of the disk and the surrounding concave wall of the body member and positioning the disk entirely within the body member so that the covered edges of the body member project rearwardly beyond the disk to protect a garment from contact with the disk, said means being provided rearwardly of the disk with an eye whereby the button may be attached to such garment.

1,141,091. PHOTOGRAPHIC CAMERA. DAVID JAMES, Oak Park, and WILLIAM A. PETERS, Chicago, Ill., assignors to Essanay Film Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Dec. 3, 1909. Serial No. 531,278. (Cl. 88—16.)



1. In a device of the kind specified, the combination with the lens and shutter, of film carrying means movable relatively to said lens, devices on said carrying means spring actuated in one direction for engaging and moving said film in a direction transverse to the direction of movement of said carrying means, and means for actuating said carrying means, shutter and film moving devices at relatively different intervals to expose successively different film areas.

2. In a device of the kind specified, the combination with the lens and shutter, of a carriage, a sensitised member carried thereby, mechanism spring actuated and operatively engaging said sensitized member to move the same in one direction at intervals, mechanism operatively engaging said carriage to move the same at intervals in a direction transverse to the direction of movement of said sensitised member, and a single operating member adapted to simultaneously actuate all of said mechanism and said shutter.

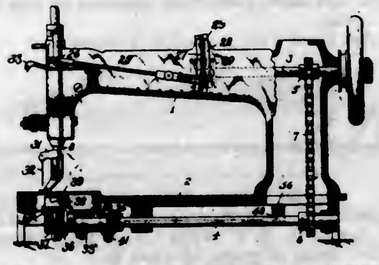
3. In a device of the kind specified, the combination with the lens and shutter, of a carriage adapted to carry a sensitized member, means for imparting intermittent motion to said carriage to reciprocate the same, means spring actuated for imparting movement to said sensitized member relatively to said carriage at intervals, and a single actuating member adapted to actuate said means and said shutter.

4. In a device of the kind specified, the combination with the lens and shutter, of a carriage adapted to carry a sensitized member, said carriage reciprocably movable in guides, means operatively engaging said carriage for imparting intermittent movement thereto from one limit of its movement to the other, means holding said carriage against movement between the intervals of actuation thereof, means on said carriage spring actuated for imparting movement to said sensitized member in a direction transverse to the direction of movement of said carriage at intervals, and a single operating member adapted to actuate said means and said shutter the former against the spring actuation thereof.

5. In a machine of the kind specified, the combination with the lens and shutter, of a carriage on which the sensitized member to be exposed is adapted to be carried, guides in which said carriage is reciprocally movable, rack-bars on said carriage, rotatable devices adapted to engage said rack-bars to impart intermittent movement to the carriage from one limit of its movement to the other, means controlling the engagement of said rotatable devices with said rack-bars to maintain only one at a time of the latter in actuating relation thereto and means on each of said rack-bars operatively engaged by its actuating device to reverse the operative relations of said respective rack-bars to the said actuating devices.

[Claims 6 to 61 not printed in the Gazette.]

1,141,092. STITCH-FORMING MECHANISM FOR SEWING-MACHINES. WILLIAM N. PARKES, Brooklyn, N. Y., assignor to The Parkes Machine Company, New York, N. Y., a Corporation of New York. Filed Sept. 8, 1905. Serial No. 277,633. (Cl. 112—4.)



1. In a sewing machine, stitch forming mechanism comprising, in combination, a looper, a reciprocating needle, adjustable means to vibrate said needle laterally between any selected paths of reciprocation within a field of vibration, which said paths of reciprocation intersect different points in the looper-beak path, and means automatically varying the operations of the looper and needle with respect to each other for forming substantially the same width of loop and in the same relation to the looper, in all the lateral positions to which the needle may be vibrated.

2. In a sewing machine, stitch forming mechanism comprising, in combination, a looper, a reciprocating needle, adjustable means to vibrate said needle laterally between any selected paths of reciprocation within a field of vibration which said paths of reciprocation intersect different points in the looper-beak path, and means effecting coöperation of the looper-beak and the needle at substantially uniform time in the cycle of machine-operation and with substantially the same relation between the eye of the needle and the looper-beak, in all the different lateral positions to which the needle may be vibrated.

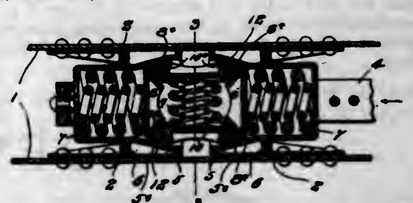
3. In a sewing machine, stitch forming mechanism comprising, in combination, a looper rotating unidirectionally, a needle vibrating laterally between different paths of reciprocation intersecting points in the looper-beak path at different degrees about the center of rotation of the looper, and means effecting coöperation of the needle and the looper-beak, in the different lateral positions of the needle, at substantially uniform time in the cycle of machine operation.

4. In a sewing machine, stitch forming mechanism comprising in combination, a looper, a needle vibrating laterally between paths of reciprocation which intersect points in the looper-beak path at different degrees of cyclic progression of the looper, and means effecting cooperation of the looper-beak and the needle, in the different lateral positions to which the needle is vibrated, at substantially uniform time in the cycle of machine-operation, with substantially the same relation between the eye of the needle and the looper-beak, and after substantially uniform withdrawal of the needle-eye toward the looper-beak path.

5. In a sewing machine, stitch forming mechanism comprising, in combination, a looper rotating unidirectionally, a needle, adjustable means to vibrate said needle laterally between any selected paths of reciprocation within a field of vibration, which said paths of reciprocation intersect different points in the looper-beak path, and means effecting coöperation of the looper-beak and the needle, in all the different lateral positions to which the needle may be vibrated, at substantially uniform time in the cycle of machine-operation, with substantially the same relation between the eye of the needle and the looper beak, and after substantially uniform withdrawal of the needle eye toward the looper-beak path.

[Claims 6 to 17 not printed in the Gazette.]

1,141,093. FRICTION DRAFT-GEAR. JOHN M. ROHLFING, St. Louis, Mo., assignor to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed June 10, 1914. Serial No. 844,176. (Cl. 213—64.)



1. A draft gear including a movable member, a draft spring coöperating therewith and effective in the direction of movement thereof, a transverse spring effective transversely of the direction of movement of the said member, friction plates coöperating with said springs and friction elements having frictional engagement with said friction plates and said member, and being retained in coöperation therewith by said springs.

2. A draft rigging comprising in combination, a longitudinally movable casing, a draft spring coöperating therewith and effective in the direction of movement of said casing, a transverse spring effective in a direction transversely of said draft spring, friction plates coöperating with said transverse spring, and friction elements coöperating with said friction plates, said draft spring and said casing and operable by the latter to cause compression of said draft spring and said transverse spring upon compression movement of said casing.

3. In a draft rigging, the combination of oppositely disposed movable casings, a draft yoke and draft lugs cooperating therewith, oppositely disposed draft springs cooperating with said casings and effective in the direction of movement thereof, a transverse spring disposed intermediate said draft springs and effective in a direction transversely thereof, friction plates coöperating with said transverse spring, and friction elements coöperating with said casings, said friction plates and said draft springs and operable by the casings to produce compression of said draft springs and said transverse spring upon a pulling or buffing movement of either of said casings.

4. In a draft rigging in combination, oppositely disposed casings, friction elements coöperating therewith, said casings being provided with friction faces coöperating with said friction elements and operable to move the latter inwardly upon compression movement of either of said casings and draft springs and a transverse spring having frictional coöperation with said friction elements and operating to oppose inward movements of said friction elements.

5. A draft rigging comprising the combination of movable casings, draft springs effective in the direction of movement of said casings, friction plates coöperating with

said draft springs, a transverse spring, friction plates cooperating with said transverse spring, and friction elements coöperating with said casings and with said first and said last mentioned friction plates, said friction elements constituting a medium through which said casings and said friction plates coöperate in mutual opposition to one another.

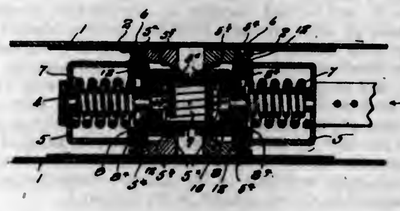
[Claims 6 to 13 not printed in the Gazette.]

1,141,094. FRICTION DRAFT-GEAR. JOHN M. ROHLFING, St. Louis, Mo., assignor to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Original application filed June 10, 1914, Serial No. 844,176. Divided and this application filed July 20, 1914. Serial No. 851,923. (Cl. 213—64.)

1. In a device of the class described, a movable casing, a draft spring coöperating with the same, a transversely operating spring, and a friction plate operable by said transverse spring to engage said casing to oppose movement of the latter by the draft spring.

2. In a draft gear, a movable casing, a draft spring cooperating with the same, friction elements coöperating with said casing and said draft spring, a transverse spring, and a friction plate coöperating with said transverse spring and said casing and adapted to be moved by said transverse spring so as to have increasing frictional engagement with said casing upon compression of the draft spring.

3. In a draft gear, a casing, a draft spring coöperating therewith and adapted to be compressed upon inward movement thereof, and a transverse spring coöperating with said casing and adapted to have expansive movement upon inward movement thereof.



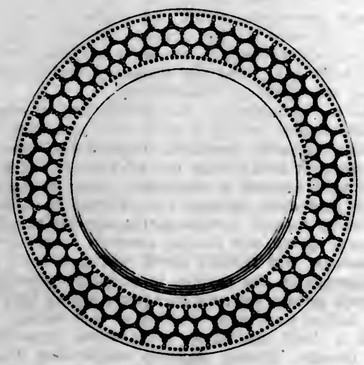
4. In a draft gear, a movable casing, a draft spring coöperating therewith, and a transverse spring coöperating with said casing and adapted to oppose movement thereof under the expansive influence of said draft spring.

5. In a draft gear, a casing, a draft spring, and a transverse spring, said casing being adapted to have inward movement against the influence of said draft spring and outward movement against the influence of said transverse spring.

[Claims 6 and 7 not printed in the Gazette.]

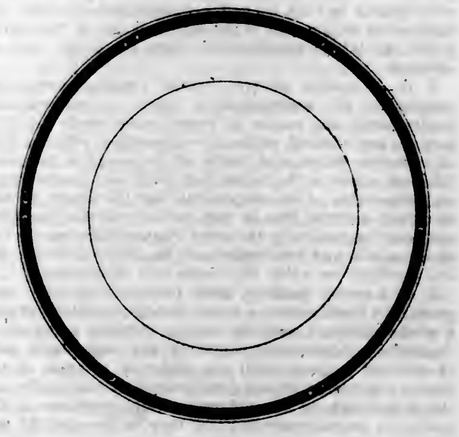
DESIGNS.

47,372. PLATE. PAUL ALBRECHT, Chicago, Ill., assignor to The Meyercord Company, Chicago, Ill. Filed Mar. 8, 1915. Serial No. 12,972. Term of patent 3½ years.



The ornamental design for a plate as shown.

47,373. ARTICLE OF MANUFACTURE. WILLIAM BLAKEMAN, Bursiem, England, assignor to Rudolf Gaertner, New York, N. Y. Filed Apr. 2, 1915. Serial No. 18,834. Term of patent 3½ years.



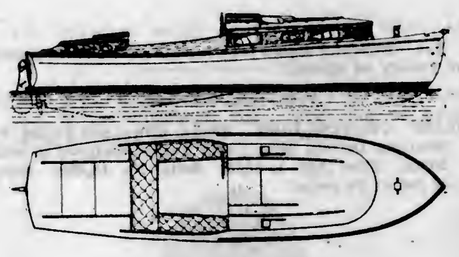
The ornamental design for an article of manufacture, as shown.

47,374. COLLAR-BUTTON. FRANK A. CANFIELD, Chicago, Ill. Filed Feb. 27, 1915. Serial No. 11,065. Term of patent 7 years.



The ornamental design for a collar button as shown.

47,375. PLEASURE-BOAT. IRWIN CHASE, Bayonne, N. J., assignor to The Elco Company, Bayonne, N. J., a Corporation of New Jersey. Filed Feb. 3, 1915. Serial No. 5,978. Term of patent 7 years.



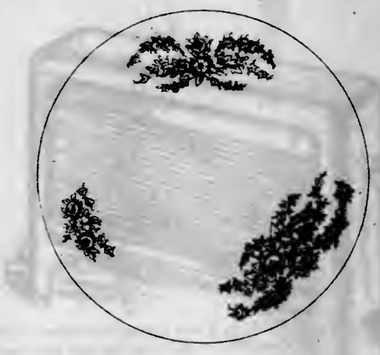
The ornamental design for a pleasure boat as shown.

47,376. WATCH-BRACELET. CHARLES L. DEPOLLIER, New York, N. Y., assignor to Dubois Watch Case Company, Brooklyn, N. Y., a Corporation of New York. Filed Oct. 7, 1914. Serial No. 865,593. Term of patent 3½ years.



The ornamental design for a watch bracelet, as shown.

47,377. ARTICLE OF MANUFACTURE. WALTER DE VILLE, East Liverpool, Ohio, assignor to The Palm Brothers Company, New York, N. Y. Filed Feb. 5, 1915. Serial No. 6,387. Term of patent 7 years.



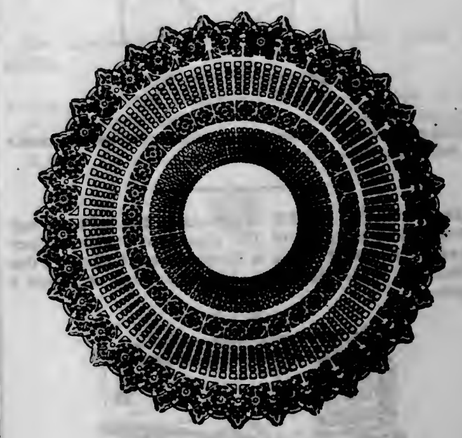
The ornamental design for an article of manufacture as shown.

47,378. PIN. JOHN F. FABER, Brooklyn, N. Y. Filed Mar. 11, 1915. Serial No. 13,758. Term of patent 7 years.



The ornamental design for a pin as shown.

47,379. ARTICLE OF MANUFACTURE. EDWARD A. FARR, Meriden, Conn., assignor to Manning, Bowman & Company, Meriden, Conn., a Corporation of Connecticut. Filed Oct. 23, 1914. Serial No. 868,341. Term of patent 7 years.



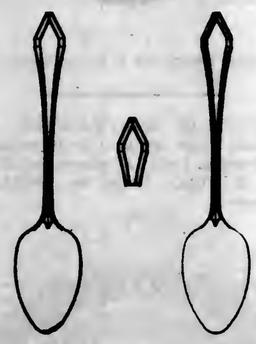
The ornamental design for an article of manufacture or plate as shown.

47,380. GAS HEATING-STOVE. HERMAN C. FRITZ, Cleveland, Ohio, assignor to American Stove Company, St. Louis, Mo., a Corporation of New Jersey. Filed Dec. 12, 1914. Serial No. 876,988. Term of patent 14 years.



The ornamental design for a gas heating stove, as shown.

47,381. HANDLE FOR SPOONS, FORKS, OR SIMILAR ARTICLES. BARTON P. JENKS, Providence, R. I., assignor to Gorham Manufacturing Company, Providence, R. I., a Corporation of Rhode Island. Filed Mar. 31, 1915. Serial No. 18,414. Term of patent 14 years.



The ornamental design for a handle for spoons, forks or similar articles, as shown.

47,382. BURIAL-VAULT. CHARLES L. JOHNSON, Springfield, Ohio, assignor to The Champion Chemical Company, Springfield, Ohio, a Corporation of Ohio. Filed Mar. 30, 1914. Serial No. 828,408. Term of patent 7 years.



The ornamental design for a burial vault, as shown.

47,383. MEDALLION OR SIMILAR ARTICLE OF JEWELRY. GUST KARABATOS, Providence, R. I. Filed Mar. 19, 1915. Serial No. 15,645. Term of patent 7 years.



The ornamental design for a medallion or similar article of jewelry as shown.

47,384. CHAFING-DISH. FRANK KUHN and FRANK E. SHAILOR, Detroit, Mich.; said Shailor assignor to said Kuhn. Filed Apr. 1, 1915. Serial No. 18,606. Term of patent 14 years.



The ornamental design for a chafing dish, substantially as shown.

47,385. [WITHDRAWN.]

47,386. RAZOR-STRAP HOLDER. MERRICK A. MIHILLS, deceased, Highland Park, Ill., by Edward W. McDermott, administrator, Waukegan, Ill., assignor to Mina A. Mihills, Highland Park, Ill. Filed Feb. 19, 1915. Serial No. 9,457. Term of patent 14 years.



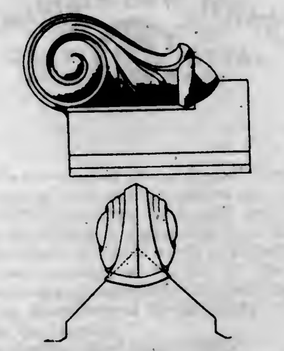
The ornamental design for a razor strap holder, as shown.

47,387. EMBLEM OR SIMILAR ARTICLE. JOHN CLIFFORD MILLER, Cincinnati, Ohio. Filed Jan. 18, 1915. Serial No. 2,991. Term of patent 3½ years.



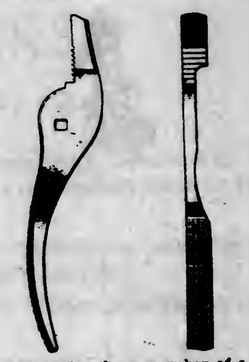
The ornamental design for an emblem or similiar article, as shown and described.

47,388. RIDGE-ROLL FINISH. PAUL MOHRMANN, Chicago, Ill., assignor to Friedley-Voshardt Co., Chicago, Ill., a Corporation of Illinois. Filed Feb. 4, 1915. Serial No. 6,184. Term of patent 3½ years.



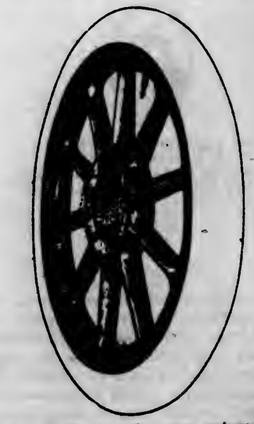
The ornamental design for a ridge roll finish, as shown.

47,389. MEMBER OF A PAIR OF PLIERS, CUTTERS, AND SIMILAR ARTICLES. KARL PETERSON, Jamestown, N. Y. Filed Jan. 18, 1915. Serial No. 2,985. Term of patent 14 years.



The ornamental design for a member of a pair of pliers, cutters and similar articles, as shown.

47,390. AUTOMOBILE-WHEEL. LEON C. SCHWAB, Milwaukee, Wis., assignor to A. O. Smith Company, Milwaukee, Wis., a Corporation of Wisconsin. Filed Mar. 9, 1914. Serial No. 823,592. Term of patent 14 years.



The ornamental design for an automobile wheel as shown.

47,391. BUTTON. MAXWELL SILVERMAN, New York, N. Y., assignor to United Button Company, a Corporation of New York. Filed Mar. 8, 1915. Serial No. 12,976. Term of patent 3½ years.



The ornamental design for a button, substantially as shown.

47,392. PAPER-CUTTER OR SIMILAR ARTICLE. WILLIAM SPEITEL, New York, N. Y. Filed Mar. 19, 1915. Serial No. 15,621. Term of patent 7 years.



The ornamental design for a paper cutter or similar article, substantially as shown.

47,393. BOTTLE. THEODORE C. WHEATON, Millville, N. J., assignor to T. C. Wheaton Co., Millville, N. J. Filed Mar. 17, 1914. Serial No. 825,417. Term of patent 7 years.



The ornamental design for a bottle, as shown.

TRADE-MARKS

PUBLISHED MAY 25, 1915.

The following trade-marks are published in compliance with section 6 of the act of February 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of this date.

Marks applied for "under the ten-year proviso" are registrable under the provision in clause (b) of section 5 of said act as amended February 18, 1911.

As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.

Ser. No. 62,713. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE ALVEY-FERGUSON CO., Cincinnati, Ohio. Filed Apr. 6, 1912.

A-F.

Particular description of goods.—Conveyers and Conveying Machinery—Namely, Gravity-Conveyers, Chutes, Spiral Conveyers, Spiral Chutes, Inclined Elevators, Vertical Elevators, Power-Conveyers, Apron Conveyers, Belt Conveyers, Bucket Conveyers, Hoists, Carousels, Overhead Carriers, and Parts Thereof.

Claims use since September, 1905.

Ser. No. 69,672. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) E. C. ATKINS & COMPANY, Indianapolis, Ind. Filed Apr. 9, 1913.

COLUMBIA SAW WORKS
CAST STEEL

The trade-mark consists of the words "Columbia Saw Works" arranged in a line, as shown in the drawing, and the fanciful characters below said line, comprising a human eye substantially surrounded by a border in the form of a fanciful "C," said words and fanciful characters being used together, as shown. No claim is made to the exclusive use of the words "Columbia Saw Works" when used by themselves or to the words "Cast Steel" appearing on the drawing.

Particular description of goods.—Saws.

Claims use since about September, 1908.

Ser. No. 72,878. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) MILTON L. EPPSTEIN, Fort Worth, Tex. Filed Sept. 16, 1913.

MARTHA WASHINGTON

Particular description of goods.—Rice, Wheat-Flour, Corn-Starch, Cornmeal, Canned Tomatoes, Rolled Oats, Canned Vegetables, Canned Pork and Beans, Canned Soups, Extract of Beef, Mince-Meat; Condensed Milk, Malted Milk, Tomato Catsup, Pickled Cucumbers, Salad-Dressing, Worcestershire Sauce, Chilli Sauce, Chow-Chow, Table-Syrups, Gelatin, Peanut-Butter, Pepper, Prepared Mustard, Lobsters, Strained Honey, Comb-Honey, Store-Cheese, Cream-Cheese, Evaporated Cream; Canned Pineapple, Canned Pears, Canned Plums, Canned Cherries, Canned Peaches, and Vanilla Extract.

Claims use since Sept. 10, 1913.

Ser. No. 73,658. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) FRANÇOIS ROY, Paris, France. Filed Oct. 29, 1913.

TAPONINE

Particular description of goods.—Lactic Ferments for the Treatment of the Intestines and the Stomach.

Claims use since the 27th of September, 1913.

Ser. No. 73,978. (CLASS 12. CONSTRUCTION MATERIALS.) ARTHUR DUNBAR, South Melbourne, Victoria, Australia. Filed Nov. 14, 1913.



Applicant disclaims any right to the exclusive use of the word "Dunbar's."

Particular description of goods.—Construction Materials—Namely, Refractory Preparation or Composition of a Plastic or Liquid Consistency.

Claims use since May 5, 1913.

Ser. No. 74,512. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) CECIL BILLUPS, Norfolk, Va. Filed Dec. 11, 1913.

14 CHAMPION

The "14" constituting a part of said trade-mark is not used to designate grade or quality.

Particular description of goods.—Plows, (Other Than Cultivators and Harrows,) Moldboards, Landsides, Plow-Points, Plow-Beams, and Parts of Plows.

Claims use since and during the year 1876.

Ser. No. 74,538. (CLASS 29. BROOMS, BRUSHES, AND DUSTERS.) E. DUPONT ET CIE., Beauvais, France. Filed Dec. 12, 1913. Under ten-year proviso.



Particular description of goods.—Toilet-Brushes.

Claims use since Nov. 5, 1875.

Ser. No. 75,033. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) EARL L. MAXSON, Coldwater, Mich. Filed Jan. 8, 1914.



No claim is made to the words "The Bread of Quality."

Particular description of goods.—Bread.

Claims use since June 20, 1913.

Ser. No. 75,343. (CLASS 39. CLOTHING.) ROBERT ROWLEY & CO. LTD., Leicester, England. Filed Jan. 21, 1914.



Particular description of goods.—Knitted Underclothing.

Claims use since about Aug. 1, 1909.

Ser. No. 77,462. (CLASS 39. CLOTHING.) THE WINGET MANUFACTURING CO. INC., Minneapolis, Minn. Filed Apr. 13, 1914.

Priscilla

Particular description of goods.—Sun-Hats, Sunbonnets, Dust-Caps, Baby-Bonnets, and Mackinaw Caps.

Claims use since on or about Nov. 1, 1910.

Ser. No. 77,625. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE JAEGER-SMEDSVIK CO., Haugesund, Norway. Filed Apr. 21, 1914.

Coronet

Particular description of goods.—Canned Fish.

Claims use since January, 1911.

Ser. No. 77,626. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE JAEGER-SMEDSVIK CO., Haugesund, Norway. Filed Apr. 21, 1914.

TRUMPS

Particular description of goods.—Canned Fish.

Claims use since January, 1911.

Ser. No. 77,628. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE JAEGER-SMEDSVIK CO., Haugesund, Norway. Filed Apr. 21, 1914.

SOLVEIG

Particular description of goods.—Canned Fish.

Claims use since 1908.

Ser. No. 77,629. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE JAEGER-SMEDSVIK CO., Haugesund, Norway. Filed Apr. 21, 1914.

REGAL

Particular description of goods.—Canned Fish.

Claims use since January, 1911.

Ser. No. 77,773. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE DANIELS CORNELL CO., Manchester, N. H. Filed Apr. 27, 1914.

AMOSKEAG

Particular description of goods.—Canned Fruits and Vegetables, Pickles, Tea.

Claims use since January, 1896.

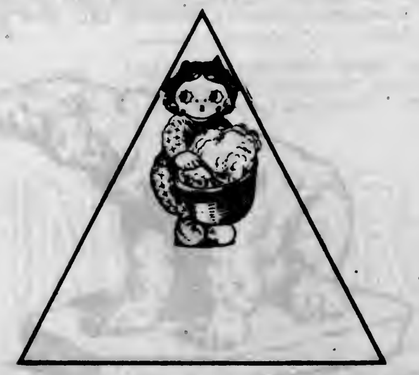
Ser. No. 78,813. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) JACKSON COMPANY, Nashua, N. H. Filed June 4, 1914.

INDIAN HEAD

Particular description of goods.—Cotton Piece Goods and Napkins.

Claims use since 1835.

Ser. No. 79,924. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) WALTER H. HICKEY, Los Angeles, Cal. Filed July 18, 1914.



Particular description of goods.—Preparation for Making Desserts, Filling for Cakes, &c., and a Substitute for Whipped Cream.

Claims use since Feb. 1, 1914.

Ser. No. 81,643. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) THE MILLVILLE MANUFACTURING COMPANY, Philadelphia, Pa. Filed Oct. 3, 1914.



The stripes of the turban being printed in red and supplemented by comparatively narrow stripes in green and the lettering also in green, no claim being hereby made to the word "Soudanese" or to the word "Moire."

Particular description of goods.—Cotton Piece Goods.

Claims use since Mar. 28, 1913.

Ser. No. 81,685. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JOHN M. GILMORE, Hollidaysburg, Pa. Filed Oct. 6, 1914.

GILMORE'S CARBOGESTINE TRADE-MARK

No claim is made for the word "Gilmore's" or "Trade-Mark."

Particular description of goods.—A Charcoal Compound Used in the Treatment of Stomach and Intestinal Diseases, Put Up in Powders; Also, a Laxative Pill.

Claims use since Apr. 1, 1908.

Ser. No. 82,048. (CLASS 17. TOBACCO PRODUCTS.) BARLOW-MOORE TOBACCO CO., Glasgow, Ky. Filed Oct. 21, 1914.

Mammoth Cave

Twist

No claim being made to the word "Twist."

Particular description of goods.—Twist-Tobacco.

Claims use since Oct. 1, 1914.

Ser. No. 82,054. (CLASS 12. CONSTRUCTION MATERIALS.) ALFRED G. CAMERON, Oakland, Cal. Filed Oct. 21, 1914.

BEACH

Particular description of goods.—Wall-Boards.
Claims use since Apr. 28, 1914.

Ser. No. 82,259. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES. LEVY-ROTH G. M. B. H., Berlin, Germany. Filed Oct. 29, 1914.

Minnigraph

Particular description of goods.—Photographic Cameras.
Claims use since Sept. 15, 1914.

Ser. No. 82,583. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ABENHEIM & BLESSING, INC., San Francisco, Cal. Filed Nov. 14, 1914.

AMBASSADOR

Particular description of goods.—Fresh Cabbage, Cauliflower, Lettuce, Celery, Garlic, Corn, Tomatoes, Beans, Peas, Cucumbers, Bananas, Apples, Lemons, Pears, Peaches, Plums, Prunes, Watermelons, Cantaloups, Apricots, Grapes, Oranges, Spinach, Parsley, Onions, Nectarines, Asparagus, Summer-Squash, and Potatoes.
Claims use since Dec. 9, 1913.

Ser. No. 82,646. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) A/B B. A. HJORTH & CO., Stockholm, Sweden. Filed Nov. 17, 1914.

BAHCO-CLYBURN

Particular description of goods.—Pulley-Blocks, Drills, Reamers, Apparatus for Grinding Knives and Scissors, Drilling Apparatus, Chucks, Centering Molding Apparatus, Lifting-Jacks, Wood-Chisels, Wood-Carving Tools, Wood-Turning Tools, Metal-Turning Tools, Mortising-Tools, Plumbers' Chisels, Plane-Irons, Cutting-Off Tools, Files, Milling-Cutters, Threading-Tools, Founders' Tools, Lifting-Tools, Hammers, Cutting and Chipping Tools for Wood, Stone, Iron, and other Metals, Adzes, Planes, Knives (Also Cheese-Knives Belonging to That Class), Hand-Vises, Picks, Nail-Pullers, Boiler-Makers', Tin, and Copper Smiths' Tools, Pneumatic Chisel and Clenching Tools, Pipe-Cutters, Rasps, Pipe-Working Tools, Grinding Apparatus, Forging-Tools, Saws, Vises, Spanners, Ratchet-Braces, Shears, Sledges, Gravers, Stoneworking-Tools, Turning Appliances, Hand-Punches, Dies for Stamping and Punching, Lathe-Tools, Screw-Clamps, Cramps, Beak-Irons, Tool-Handles, Saw-Frames, Saw-Sets, Screw-Wrenches, Pliers, Tube-Scrapers, Tube-Expanders, Woodworking-Tools, Axes, Hatchets, and Tool-Holders.
Claims use since Mar. 6, 1913.

Ser. No. 82,908. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) GERBER & CO., Thoune, Switzerland. Filed Nov. 25, 1914.



Particular description of goods.—Cheese.
Claims use since Feb. 18, 1914.

Ser. No. 83,455. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) BRADLEY & VROOMAN COMPANY, Chicago, Ill. Filed Dec. 22, 1914.



Applicant makes no claim herein to the word "Guaranteed."
Particular description of goods.—Dry, Paste, and Ready-Mixed Paints.
Claims use since Oct. 9, 1914.

Ser. No. 83,736. (CLASS 15. OILS AND GREASES.) STANDARD OIL COMPANY, Richmond, Cal. Filed Jan. 8, 1915.



Particular description of goods.—Lubricating-Oil.
Claims use since September, 1907.

Ser. No. 83,769. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE SHERWIN-WILLIAMS CO., Cleveland, Ohio. Filed Jan. 9, 1915.



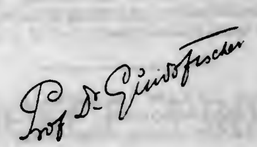
The word "Fungi-Bordo" being disclaimed.
Particular description of goods.—A Fungicide for Use in Spraying Fruits and Vegetables Either by Itself or in Combination with Arsenical Poison.
Claims use since Nov. 1, 1914.

Ser. No. 83,774. (CLASS 38. PRINTS AND PUBLICATIONS.) FELSENTHAL BROTHERS, New York, N. Y. Filed Jan. 11, 1915.

BANKOGRAPH

Particular description of goods.—Printed Charts for Computation.
Claims use since Dec. 18, 1914.

Ser. No. 83,984. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) GUSTAV R. SCHIMMEL, Detroit, Mich. Filed Jan. 20, 1915.



Said trade-mark being the signature of Prof. Dr. Guido Fischer, of Marburg, Germany.
Particular description of goods.—Hypodermic Appliances.
Claims use since September, 1914.

Ser. No. 84,063. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) THE REPUBLIC RUBBER COMPANY, Youngstown, Ohio. Filed Jan. 23, 1915.

INVADER

The word "Invader."
Particular description of goods.—Fabric and Rubber Belting, Fabric and Rubber Hose, and Rubber Machinery Packing.
Claims use upon belting such as aforesaid since Jan. 1, 1914, and upon hose such as aforesaid since Oct. 22, 1908, and upon packing such as aforesaid since Jan. 20, 1914.

Ser. No. 84,064. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) THE REPUBLIC RUBBER COMPANY, Youngstown, Ohio. Filed Jan. 23, 1915.

RELIEF

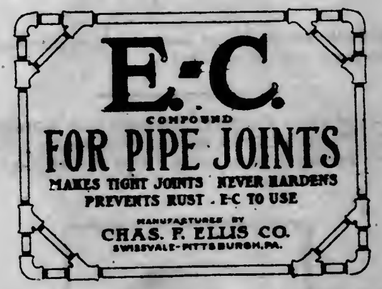
Comprising the word "Relief."
Particular description of goods.—Fabric and Rubber Hose.
Claims use since Feb. 10, 1913.

Ser. No. 84,154. (CLASS 2. RECEPTACLES.) J. & J. G. WALLACH, New York, N. Y. Filed Jan. 27, 1915.



Particular description of goods.—Boxes, Envelops, Wrappers, or Containers Made of Cardboard, Paper-Board, or Paper for Laundry.
Claims use since December, 1914.

Ser. No. 84,361. (CLASS 12. CONSTRUCTION MATERIALS.) CHAS. F. ELLIS, Swissvale, Pa. Filed Feb. 8, 1915.



All wording on the mark on the drawing being disclaimed.
Particular description of goods.—A Compound for Making Up Pipe-Joints.
Claims use since Oct. 17, 1914.

Ser. No. 84,398. (CLASS 38. PRINTS AND PUBLICATIONS.) DR MILTON BARRETT, Grand Rapids, Mich. Filed Feb. 9, 1915.

Salesmanship

Particular description of goods.—A Monthly Publication.
Claims use since Dec. 21, 1914.

Ser. No. 84,400. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) DETROIT STOVE WORKS, Detroit, Mich. Filed Feb. 9, 1915.

JEWEL

Particular description of goods.—Electrical Cooking and Heating Apparatus and Parts Thereof, Specifically Electric Ranges, Domestic; Electric Hotel and Restaurant Ranges; Electric Broilers, Domestic; Electric Broilers, Hotel and Restaurant; Electric Baking-Ovens, Domestic; Electric Baking-Ovens, Hotel and Restaurant; Electric Toasters, Domestic; Electric Toasters, Hotel and Restaurant; Electric Grills; Electric Chafing-Dishes; Electric Hot-Plates; Electric Fireless Cookers; Electric Water-Heaters; Electric Air-Heaters; Electric Laundry-Stoves, Domestic; Electric Laundry-Stoves, Commercial; Electric Furnaces; Electric Radiators; Electric Disk Stoves; Electric Garage-Heaters; Electric Automobile-Heaters; Electric Irons, Commercial; Electric Irons, Domestic; Electric Laundry-Irons; Electric Heavy Pressing-Irons; Electric Percolators, Machine Style; Electric Percolators, Pot Style; Electric Tea-Ball Machines; Electric Tea-Ball Pots, and Electric Heating-Pads.
Claims use since May, 1914.

Ser. No. 84,428. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) HAIKU FRUIT & PACKING CO. LTD., Haiku, Maui, Territory of Hawaii. Filed Feb. 10, 1915.

ONO

Particular description of goods.—Canned Pineapples.
Claims use since April, 1911.

Ser. No. 84,486. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JOSEPH JUDT, Rockaway Beach, N. Y. Filed Feb. 12, 1915.



A portrait of the applicant.
Particular description of goods.—Stomach-Tonics.
Claims use since Jan. 1, 1910.

Ser. No. 84,536. (CLASS 39. CLOTHING.) NATIONAL DOLLAR SHIRT SHOPS, INC., New York, N. Y., and Los Angeles, Cal. Filed Feb. 15, 1915.



Applicant hereby disclaims any right to the exclusive use of the word "Shirt" and of the dollar-mark sign.
Particular description of goods.—Dress, Negligée, Work, and Under Shirts.
Claims use since June 11, 1914.

Ser. No. 84,627. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) INGERSOLL-RAND COMPANY, Jersey City, N. J., and New York, N. Y. Filed Feb. 19, 1915.

IMPERIAL

Particular description of goods.—Hoists, Rotary Motors, Rotary Drills, Hammer Rock-Drills, Riveting-Hammers, Chipping-Hammers, and Rivet Holder-Ons.
Claims use since March, 1904.

Ser. No. 84,646. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) THE CANTON CULVERT AND SILO COMPANY, Canton, Ohio. Filed Feb. 20, 1915.

NO-CO-RO

Particular description of goods.—Rust-Resisting Anti-corrosive Metal.
Claims use since Feb. 4, 1909.

Ser. No. 84,647. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) CURRICK, LEIKEN & BANDLER, New York, N. Y. Filed Feb. 20, 1915.



Particular description of goods.—Cotton and Wool Piece Goods.
Claims use since Nov. 1, 1914.

Ser. No. 84,769. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) CHARLES B. PERIOLAT, Chicago, Ill. Filed Feb. 25, 1915.



A grotesque figure of a man standing on a platform, with miniature clamps attached to his body, the screw part of the clamps forming legs for the platform on which he stands, and the name "Brownie" stamped on his cap, no claim being made to the representation of clamps nor to the words "10¢—Clamps—15¢."
Particular description of goods.—Machinists' Clamps.
Claims use since Jan. 15, 1915.

Ser. No. 84,887. (CLASS 2. RECEPTACLES.) NATIONAL SHEET METAL CO., Peru, Ill. Filed Mar. 2, 1915.

POCKET PROOF

Particular description of goods.—Match-Boxes Not of Precious Metal.
Claims use since Jan. 4, 1915.

Ser. No. 84,899. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) FORSTMANN & HUFFMANN CO., Passaic, N. J. Filed Mar. 3, 1915.



Particular description of goods.—Woolen and Worsted Piece Goods.
Claims use since Feb. 19, 1915.

Ser. No. 84,926. (CLASS 39. CLOTHING.). HEIDELBERG, WOLFF & CO., New York, N. Y. Filed Mar. 4, 1915.



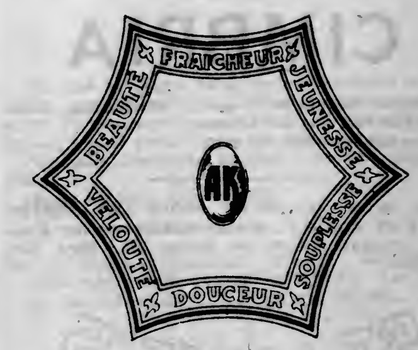
No claim is made to the exclusive right to the use of the words "Cool Cloth" appearing in the accompanying drawing, and same is hereby disclaimed.
Particular description of goods.—Overcoats, Suits, Ulsters, Automobile-Coats, Automobile-Suits, Smoking-Jackets, and Dressing-Gowns.
Claims use since Aug. 1, 1914.

Ser. No. 84,985. (CLASS 39. CLOTHING.) MCTHENEN RUBBER MANUFACTURING CO., Reading, Mass. Filed Mar. 6, 1915.

"KORKER"

Particular description of goods.—Rubber Heels.
Claims use since on or about Feb. 25, 1914.

Ser. No. 85,115. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ADOLPH KLAR, New York, N. Y. Filed Mar. 12, 1915.



No claim being made to the exclusive use of the words "Beaute," "Fraicheur," "Jeunesse," "Veloute," "Douceur," and "Souplesse" apart from the mark shown.
Particular description of goods.—Face-Powder.
Claims use since Jan. 18, 1913.

Ser. No. 85,139. (CLASS 33. GLASSWARE.) STEPHEN HIPKINS, Martins Ferry, Ohio. Filed Mar. 18, 1915.

WHITE HOUSE

Particular description of goods.—Glass Soap-Dishes.
Claims use since Feb. 15, 1915.

Ser. No. 85,147. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) NETTIE E. SIBLEY, Springfield, Mass. Filed Mar. 13, 1915.

S
AND
H

Particular description of goods.—Corn-Files.
Claims use since on or about Jan. 1, 1904.

Ser. No. 85,168. (CLASS 32. FURNITURE AND UPHOLSTERY.) THE C. F. STREIT MFG. CO., Cincinnati, Ohio. Filed Mar. 15, 1915.

AIRDALE

Particular description of goods.—Furniture—Namely, Beds.
Claims use since Feb. 27, 1915.

Ser. No. 85,189. (CLASS 15. OILS AND GREASES.) LEO KOHN, New York, N. Y. Filed Mar. 16, 1915.

CIMBRIA

Particular description of goods.—Illuminating, Lubricating, and Fuel Oils and Greases.
Claims use since Feb. 15, 1915.

Ser. No. 85,193. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) SCHOENING-KOENIGSMARK MILLING COMPANY, Prairie Du Rocher, Ill. Filed Mar. 16, 1915.

ST. LUKE'S

Particular description of goods.—Wheat-Flour and Self-Rising Wheat-Flour.
Claims use since the year 1859.

Ser. No. 85,204. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) F. AND J. CLARKE MANUFACTURING COMPANY, Chicago, Ill. Filed Mar. 17, 1915.

Dainty Duchess

Particular description of goods.—Ladies' Sanitary Napkins.
Claims use since Mar. 1, 1915.

Ser. No. 85,222. (CLASS 15. OILS AND GREASES.) STANDARD OIL COMPANY, Richmond, Cal. Filed Mar. 17, 1915.

LA PALMA

Particular description of goods.—Gasolene, Refined Oil, Lubricating Oils and Greases, and Candles.
Claims use since the 19th day of July, 1913.

Ser. No. 85,229. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) CHARLES M. CONNELLY, New York, N. Y. Filed Mar. 18, 1915.

Travel-Tube-Soap

No claim is made to the word "Tube" or the word "Soap" or to the exclusive representation of a tube.
Particular description of goods.—Soap.
Claims use since Mar. 16, 1915.

Ser. No. 85,260. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) LALANCE & GROSJEAN MFG. CO., New York, N. Y. Filed Mar. 19, 1915. Under ten-year proviso.

PEARL-AGATE

Particular description of goods.—Agate and Enamel Ware.
Claims use since October, 1879.

Ser. No. 85,267. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) THE AMERICAN HARDWARE CORPORATION, New Britain, Conn. Filed Mar. 20, 1915.

CORBIN

Particular description of goods.—Door-Bells; Door-Knobs; Door-Knockers; Door Stops, Holders, and Closers; Door-Quadrants; Door and Sash Pivots; Door Checks and Springs; Door-Pulls; Door-Openers; Door, Window, and

Transom Fittings; Door-Hooks; Push and Pull Plates; Kick-Plates; Finger-Plates; Name-Plates; Rose-Plates; Number-Plates; Letter-Box Plates; Sash-Lifts; Sash and Transom Centers; Sash-Cord Irons; Sash Rollers and Sheaves; Coat and Hat Hooks; Cabin-Door Hooks; Wardrobe-Hooks; Ceiling-Hooks; Screw-Hooks; Push-Bars; Espagnolette-Bars; Turnbuckles; Flush Rings; Locker-Rings; Drawer Pulls, Handles, and Knobs; Picture-Knobs; Hinges; Spring-Hinges; Chest Corners and Fittings; Chest-Handles; Apartment-House Letter-Boxes; Screws; Screw-Eyes; Butts; Cleats; Escutcheons; Hasps; Hangers; Metal Washers; Staples; Tacks; Nails and Studs; Nuts; Metal Chains; Trunk-Handles; Window-Stops; Umbrella-Clips; Metal Letters, Figures, and Monograms; Transom and Skylight Lifters and Openers; Cupboard-Turns; Bell-Cranks, Levels, Pulls, and Turns; Casement and Shutter Adjusters; Shelf-Brackets; Push-Buttons; Sliding-Door Sheaves and Rails; Mouthpieces for Speaking-Tubes; Press-Guards.
Claims use since 1904.

Ser. No. 85,291. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) BRISTOL-MYERS COMPANY, New York, N. Y. Filed Mar. 22, 1915.

AVOS

Particular description of goods.—Soap.
Claims use since Mar. 17, 1915.

Ser. No. 85,293. (CLASS 5. ADHESIVES.) THE CARTER'S INK COMPANY, Cambridge, Mass. Filed Mar. 22, 1915.

CICO

Particular description of goods.—Adhesive Paste.
Claims use since July 1, 1911.

Ser. No. 85,298. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) CABIRANGE MFG. CO., Belleville, Ill. Filed Mar. 22, 1915.

CABIRANGE

Applicant herewith disclaims the specific representation of the plate by which the trade-mark "Cabirange" is applied or affixed to the goods and which is shown in the drawing by the two ellipses.
Particular description of goods.—Ranges.
Claims use since Sept. 1, 1914.

Ser. No. 85,311. (CLASS 38. PRINTS AND PUBLICATIONS.) ERNEST JOHN, Philadelphia, Pa. Filed Mar. 22, 1915.



Particular description of goods.—A Continually-Changing Series of Monthly Publications on Music.
Claims use since February, 1915.

Ser. No. 85,342. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) RED SQUARE CO. INC., New York, N. Y. Filed Mar. 23, 1915.

RED SQUARE

The said trade-mark being the representation of a red square, in the center of which there is a smaller square in white, the representation associated with the words "Red Square," which are written across the red square.
Particular description of goods.—Electric Office-Telephones.
Claims use since Jan. 15, 1915.

Ser. No. 85,343. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) RED SQUARE CO. INC., New York, N. Y. Filed Mar. 23, 1915.

RED SQUARE

The said trade-mark being the representation of a red square, in the center of which there is a smaller square in black, the representation associated with the words "Red Square," which are written above the red square.
Particular description of goods.—Envelop-Sealing Machines.
Claims use since Dec. 15, 1914.

Ser. No. 85,360. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ADOLFO E. BESOSA, New York, N. Y. Filed Mar. 24, 1915.



The same consisting of the fanciful pictorial representation of the bust of a man and the arbitrary word "Rena-Lina."

Particular description of goods.—Kidney-Pills.
Claims use since August, 1911.

Ser. No. 85,374. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) LANDERS, FRARY & CLARK, New Britain, Conn. Filed Mar. 24, 1915.



Particular description of goods.—Scissors and Shears.
Claims use since June 1, 1912.

Ser. No. 85,383. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) SHELDON AXLE AND SPRING COMPANY, Wilkes-Barre, Pa. Filed Mar. 24, 1915.

SASCO

Particular description of goods.—Vehicle Axles and Springs.
Claims use since Jan. 5, 1915.

Ser. No. 85,415. (CLASS 15. OILS AND GREASES.) STANDARD OIL COMPANY, Richmond, Cal. Filed Mar. 23, 1915.

CALSO

Particular description of goods.—Gasolene, Refined Oil, and Lubricating-Oils, Fuel-Oil, and Greases.
Claims use since the 9th day of February, 1915.

Ser. No. 85,474. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ARCHIBOLD C. CLARK, New York, N. Y. Filed Mar. 27, 1915.



The picture being fanciful.
Particular description of goods.—Canned Salmon, Canned Sardines, and Canned Herring.
Claims use since Feb. 16, 1915.

Ser. No. 85,476. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE DOLLY VARDEN CHOCOLATE COMPANY, Cincinnati, Ohio. Filed Mar. 27, 1915.

"JITNEY"

Particular description of goods.—Chocolates.
Claims use since Feb. 16, 1915.

Ser. No. 85,479. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE HAYS CITY MILLING & ELEVATOR COMPANY, Hays, Kans. Filed Mar. 27, 1915.



Particular description of goods.—Wheat-Flour.
Claims use since Jan. 11, 1896.

Ser. No. 85,516. (CLASS 38. PRINTS AND PUBLICATIONS.) MINNESOTA MANUFACTURERS ASSOCIATION, North St. Paul, Minn. Filed Mar. 29, 1915.

Gravity

Particular description of goods.—A Monthly Publication.
Claims use since June 1, 1914.

Ser. No. 85,537. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) B. ALTMAN & Co., New York, N. Y. Filed Mar. 30, 1915.

Alsam

Particular description of goods.—Tennis-Rackets.
Claims use since Mar. 6, 1915.

Ser. No. 85,591. (CLASS 15. OILS AND GREASES.) STANDARD OIL COMPANY OF NEW YORK, New York, N. Y. Filed Mar. 31, 1915.



Applicant does not claim any right to the exclusive use of the words "Brand" and "Candles," nor is the applicant's name claimed to be a technical trade-mark.
Particular description of goods.—Candles.
Claims use since Mar. 16, 1915.

Ser. No. 85,592. (CLASS 15. OILS AND GREASES.) STANDARD OIL COMPANY OF NEW YORK, New York, N. Y. Filed Mar. 31, 1915.



Applicant does not claim any right to the exclusive use of the words "Brand" and "Candles," nor is applicant's name claimed to be a technical trade-mark.
Particular description of goods.—Candles.
Claims use since Mar. 16, 1915.

Ser. No. 85,657. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) ALBERT B. ASHFORTH, New York, N. Y. Filed Apr. 3, 1915.

KUTUM

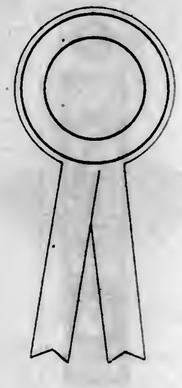
Particular description of goods.—Golf-Clubs.
Claims use since about Dec. 21, 1914.

Ser. No. 85,679. (CLASS 15. OILS AND GREASES.) SPEEDOLENE LUBRICANT COMPANY, Malden, Mass. Filed Apr. 3, 1915.

GEAROLENE

Particular description of goods.—Lubricants, Including Oils and Greases.
Claims use since June 1, 1914.

Ser. No. 85,693. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) THE BUCKLEY-NEWHALL COMPANY, New York and Brooklyn, N. Y. Filed Apr. 5, 1915.



The trade-mark consists of a medallion with pendant streamers, both being printed in blue.

Particular description of goods.—Baby-Carriages and Go-Carts.

Claims use since Aug. 10, 1910.

Ser. No. 85,731. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) A. K. HAWKES CO., Atlanta, Ga. Filed Apr. 6, 1915.



No claim being made to the exclusive use of the words, character, and numeral "Workingman's Dollar Glass," "$1," or a representation of a pair of spectacles.

Particular description of goods.—Spectacles.

Claims use since Jan. 1, 1915.

Ser. No. 85,754. (CLASS 39. CLOTHING.) THE NORTHWESTERN KNITTING COMPANY, Minneapolis, Minn. Filed Apr. 7, 1915.

MUNSING WEAR

No claim being made to the word "Wear" apart from the mark shown in the drawing.

Particular description of goods.—Knitted Union Suits.

Claims use since on or about Jan. 1, 1911.

Ser. No. 85,757. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) PROHIBITION FILM CORPORATION, New York, N. Y. Filed Apr. 7, 1915.

PROHIBITION

Particular description of goods.—Moving-Picture or Cinematograph Films or Pictures for Use in Moving-Picture Machines or Cinematographs.

Claims use since Mar. 8, 1915.

Ser. No. 85,758. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ROCKWOOD CHEMICAL COMPANY, Boston, Mass. Filed Apr. 7, 1915.

NURSE

Particular description of goods.—Liniments, Ointments, Hair-Tonics, Antiseptics, Deodorants, Germicides, Disinfectants.

Claims use since prior to 1901.

Ser. No. 85,762. (CLASS 38. PRINTS AND PUBLICATIONS.) STAR COMPANY, New York, N. Y. Filed Apr. 7, 1915.

Bringing Up Father

Particular description of goods.—A Newspaper-Section.

Claims use since Jan. 2, 1913.

Ser. No. 85,763. (CLASS 38. PRINTS AND PUBLICATIONS.) STAR COMPANY, New York, N. Y. Filed Apr. 7, 1915.

JERRY ON THE JOB

Particular description of goods.—A Newspaper-Section.

Claims use since Dec. 29, 1913.

Ser. No. 85,764. (CLASS 38. PRINTS AND PUBLICATIONS.) STAR COMPANY, New York, N. Y. Filed Apr. 7, 1915.

Krazy Kat

Particular description of goods.—A Newspaper-Section.

Claims use since Oct. 28, 1913.

Ser. No. 85,765. (CLASS 38. PRINTS AND PUBLICATIONS.) STAR COMPANY, New York, N. Y. Filed Apr. 7, 1915.

ABIE THE AGENT

Particular description of goods.—A Newspaper-Section.

Claims use since Feb. 2, 1914.

Ser. No. 85,777. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) FOLLANSBEE BROTHERS COMPANY, Pittsburgh, Pa. Filed Apr. 8, 1915.

FOLLANSBEE
H.O.H.
PITTSBURGH

No claim being made to the words "Follansbee" and "Pittsburgh" except as they appear in the drawing and specimens filed.

Particular description of goods.—Metal Plates and Sheets.

Claims use since Jan. 15, 1915.

Ser. No. 85,786. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE PARAMOUNT DRUG CO., Washington, D. C. Filed Apr. 8, 1915.

Parco

Particular description of goods.—Medicinal Tonics and Blood-Purifiers, Remedies for Kidney and Bladder Troubles, Sore Throat and Sore Month, Tonsilitis, Croup, Hoarseness, Colds, Grippe, Neuralgia, Bowel Complaints, and Diseases Peculiar to Women, Hair-Tonics, Hand and Face Lotions, and Complexion-Creams.

Claims use since on or about the 1st day of July, 1914.

Ser. No. 85,808. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) HEINR. BÖKER & Co., Solingen, Germany. Filed Apr. 9, 1915.



Particular description of goods.—Non-Precious-Metal Table and Kitchen Cutlery.

Claims use since Jan. 1, 1867.

Ser. No. 85,810. (CLASS 39. CLOTHING.) ESSEX RUBBER COMPANY, Trenton, N. J. Filed Apr. 9, 1915.

SHED-WET

Particular description of goods.—Rubber and Leather Composition Soles.

Claims use since about Dec. 18, 1914.

Ser. No. 85,819. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) PARSOLINE COMPANY, Dayton, Ohio. Filed Apr. 9, 1915.



No claim being made for the term "Trade-Mark."

Particular description of goods.—Vermin-Exterminator.

Claims use since Apr. 7, 1915.

Ser. No. 85,820. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) RALPH EUGENE RICH, Los Angeles, Cal. Filed Apr. 9, 1915.

AMALGAMITE

The trade-mark described herein—that is to say, the following combination of letters and characters: "Amalgamite."

Particular description of goods.—Special-Process Metal in Ingots, Castings, or Forgings.

Claims use since the 14th day of January, 1915.

Ser. No. 85,837. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) CITRO CHEMICAL CO. OF AMERICA, Maywood, N. J. Filed Apr. 10, 1915.



Particular description of goods.—A Carbonated Effervescent Beverage Made from Citrus Fruits.

Claims use since Mar. 1, 1915.

Ser. No. 85,841. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) ISAAC E. EMERSON, Baltimore, Md. Filed Apr. 10, 1915.



I disclaim the word "Perfection" appearing in the drawing as part of the mark.

Particular description of goods.—Ginger-Ale.

Claims use since Mar. 1, 1915.

Ser. No. 85,847. (CLASS 2. RECEPTACLES.) HOOSIER BOX & PIE-PLATE CO., Marion, Ind. Filed Apr. 10, 1915.

HOOSIER

Particular description of goods.—Fiber Trays, Basins, Pans, Plates, Saucers, Dishes, Bowls, Boxes, Jars, Cuspidors, Cups, Buckets, Picnic-Packages.

Claims use since July, 1911.

Ser. No. 85,852. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) LAMBERTVILLE RUBBER CO., Lambertville, N. J. Filed Apr. 10, 1915.

ONE-DOR

Particular description of goods.—Rubber Balls.

Claims use since Mar. 15, 1915.

Ser. No. 85,853. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) LAMBERTVILLE RUBBER CO., Lambertville, N. J. Filed Apr. 10, 1915.

BLANKET

Particular description of goods.—Rubber Balls.

Claims use since Mar. 15, 1915.

Ser. No. 85,854. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) LAMBERTVILLE RUBBER CO., Lambertville, N. J. Filed Apr. 10, 1915.

RAINBOW

Particular description of goods.—Rubber Balls.

Claims use since Mar. 15, 1915.

Ser. No. 85,870. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) PAINESVILLE PACKING COMPANY, Painesville, Ohio. Filed Apr. 10, 1915.



No claim is made to the words "Irish," (two occurrences,) "Washing Soda," and "Painesville Packing Company, Painesville, Ohio, U. S. A."

Particular description of goods.—Washing-Soda.

Claims use since Mar. 8, 1915.

Ser. No. 85,882. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) TIFTON FARM TOOL MANUFACTURING COMPANY, Tifton, Ga. Filed Apr. 10, 1915.



The trade-mark which consists of a triangle superimposed on a band printed in blue, bearing the words "Blue Line."

Particular description of goods.—Guano-Distributers, Grain-Drills, and Peg-Tooth Harrows.

Claims use since January, 1915.

Ser. No. 85,938. (CLASS 12. CONSTRUCTION MATERIALS.) THE BEAVER COMPANY, Buffalo, N. Y. Filed Apr. 14, 1915.



Comprising the letters "B. B."

Particular description of goods.—Wall-Board and Building-Paper.

Claims use since the year 1910.

Ser. No. 85,941. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE HALL-VAN GORDER COMPANY, Cleveland, Ohio. Filed Apr. 14, 1915.

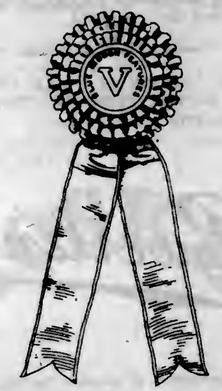
Cedo-Moth

The compound word "Cedo-Moth."

Particular description of goods.—Insecticides and Preventives Adapted to Ward Off the Attacks of Insects.

Claims use since Mar. 1, 1915.

Ser. No. 85,948. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) VITAGRAPH COMPANY OF AMERICA, New York, N. Y. Filed Apr. 14, 1915.



No claim being made to the word "Features."

Particular description of goods.—Motion-Picture Photo-Plays and Motion-Pictures Other Than Photo-Plays.

Claims use since about Mar. 22, 1915.

Ser. No. 85,965. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) RICHARD HUDNUT, New York, N. Y. Filed Apr. 15, 1915.



MONALISA

Particular description of goods.—Toilet Water, Headache-Cologne, Smelling-Salts, Creams for the Skin, Sachet-Powder, Face-Powder, Talcum Powder, Bath-Powder, Bath-Salts, Toilet Cerate, Almond-Meal, Rouge, and Dentifrices.

Claims use since Apr. 8, 1915.

Ser. No. 85,979. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) THE CUMMINS AUTO SALES CO., Columbus, Ohio. Filed Apr. 16, 1915.

MONITOR

Particular description of goods.—Automobiles.

Claims use since about Mar. 1, 1915.

Ser. No. 86,005. (CLASS 15. OILS AND GREASES.) STANDARD OIL COMPANY, Whiting, Ind., and Chicago, Ill. Filed Apr. 16, 1915.

-FORTNITE-

Particular description of goods.—Kerosene-Oil.

Claims use since on or about the 29th day of December, 1914.

Ser. No. 86,006. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE WICOMB DENTIFRICE CO., New Orleans, La. Filed Apr. 16, 1915.



In which the border-lines around the panel are shown in red, as also the roots of the plant, and the leaves of the plant are shown in green, as indicated.

Particular description of goods.—A Dentifrice.

Claims use since Feb. 1, 1915.

Ser. No. 86,020. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) THE MYSTO MFG. CO., New Haven, Conn. Filed Apr. 17, 1915.



Particular description of goods.—Electric Fans.

Claims use since Mar. 3, 1915.

Ser. No. 86,039. (CLASS 2. RECEPTACLES.) ALFRED JOUANNET, Mount Pleasant, S. C. Filed Apr. 19, 1915.



Particular description of goods.—Souvenir-Boxes.
Claims use since Apr. 8, 1915.

Ser. No. 86,044. (CLASS 38. PRINTS AND PUBLICATIONS.) LA SALLE EXTENSION UNIVERSITY INCORPORATED, Chicago, Ill. Filed Apr. 19, 1915.

PERSONAL EFFICIENCY

Particular description of goods.—Magazines Published Monthly.
Claims use since Mar. 1, 1915.

Ser. No. 86,062. (CLASS 12. CONSTRUCTION MATERIALS.) WHEELING WALL PLASTER CO., Wheeling, W. Va. Filed Apr. 19, 1915.

WHEELING WALL PLASTER UNIFORMLY GOOD

No claim being herein made to the right to the exclusive independent use of the words "Wheeling Wall Plaster" and "Uniformly Good."
Particular description of goods.—Prepared Wall-Plaster.
Claims use since Mar. 1, 1914.

Ser. No. 86,064. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) HUGO H. YOUNG, Loudonville, Ohio. Filed Apr. 19, 1915.

FLXI

Particular description of goods.—Side Cars, Delivery-Vans, and other Motor-Cycle Carriers.
Claims use since Apr. 11, 1914.

Ser. No. 86,118. (CLASS 15. OILS AND GREASES.) POWERLENE MANUFACTURING CO., Philadelphia, Pa. Filed Apr. 22, 1915.

Powerlene

Particular description of goods.—Driving-Chain Lubricant.
Claims use since Feb. 15, 1915.

Ser. No. 86,143. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) MONAGHAN MILLS, Greenville, S. C. Filed Apr. 23, 1915.

WALHALLA

Comprising the word "Walhalla."
Particular description of goods.—Cotton Piece Goods.
Claims use since November, 1900.

Ser. No. 86,148. (CLASS 46. FOODS AND INGEDIENTS OF FOODS.) NOVELTY CANDY COMPANY, New York, N. Y. Filed Apr. 23, 1915.

JITNEY

Particular description of goods.—Candy.
Claims use since Apr. 13, 1915.

Ser. No. 86,208. (CLASS 39. CLOTHING.) NATHANIEL GOODMAN, Philadelphia, Pa. Filed Apr. 26, 1915.

"Adelphia"

Particular description of goods.—Outer Shirts.
Claims use since the 13th day of April, 1913.

Ser. No. 86,214. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) PARKER BROTHERS, Portland, Me., and Salem, Mass. Filed Apr. 26, 1915.

POLLYANNA

Particular description of goods.—Games.
Claims use since Apr. 22, 1915.

Ser. No. 86,241. (CLASS 2. RECEPTACLES.) AMOSKEAG MANUFACTURING COMPANY, Manchester, N. H. Filed Apr. 28, 1915.

AMOSKEAG

Particular description of goods.—Cotton Bags.
Claims use since the 1st day of January, 1872.

Ser. No. 86,290. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) HEINZE ELECTRIC COMPANY, Portland, Me., and Lowell, Mass. Filed Apr. 30, 1915.

HE Co

Particular description of goods.—Spark-Plugs and Spark-Coils.
Claims use since Dec. 16, 1909.

Ser. No. 86,308. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ANNIE AGGOTT, Boston, Mass. Filed May 1, 1915.

Mrs. A. AGGOT'S



The portrait being that of applicant.
Particular description of goods.—A Medicine for Rheumatism.
Claims use since Apr. 1, 1912.

Ser. No. 86,311. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) THE CLEVELAND FRUIT JUICE COMPANY, Cleveland, Ohio. Filed May 1, 1915.

MOAR

Particular description of goods.—Grape-Juice.
Claims use since Apr. 20, 1915.

Ser. No. 86,377. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) BOSMAN & LOHMAN CO., Norfolk, Va. Filed May 5, 1915.

JITNEY

Particular description of goods.—Peanut-Candy, Candy, Peanuts, and Peanut-Butter.
Claims use since March, 1912.

Ser. No. 86,413. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) STEVENSON & HOWELL, LIMITED, London, England. Filed May 5, 1915.

ORANA

Particular description of goods.—Non-Alcoholic Carbonated Beverages and Fruit Essences for Making Same.
Claims use since October, 1910.

TRADE-MARK REGISTRATIONS GRANTED

MAY 25, 1915.

104,346. NOTE-SHEETS FOR AUTOMATIC OR PARTLY-AUTOMATIC MUSICAL INSTRUMENTS, PIANO-PLAYERS, AND PLAYER-PIANOS. AMERICAN PIANO COMPANY, Jersey City, N. J., and New York, N. Y.
Filed January 7, 1911. Serial No. 53,730. PUBLISHED MARCH 2, 1915.

104,347. VANILLA FLAVORING COMPOUND. JOHN B. BERNBROCK, Quincy, Ill.
Filed July 31, 1914. Serial No. 80,196. PUBLISHED FEBRUARY 23, 1915.

104,348. MERCERIZED AND OTHERWISE-PROCESSED COTTON YARNS. HARDING, TILTON & COMPANY, Boston, Mass.
Filed January 30, 1915. Serial No. 84,220. PUBLISHED MARCH 9, 1915.

104,349. CLOVER, ALSIKE, TIMOTHY, ALFALFA, AND OTHER GRASS-SEEDS. HENRY HIRSCH, Toledo, Ohio.
Filed July 16, 1914. Serial No. 79,838. PUBLISHED MARCH 9, 1915.

104,350. DOLLS. E. I. HORSMAN CO., New York, N. Y.
Filed October 9, 1911. Serial No. 59,086. PUBLISHED MARCH 9, 1915.

104,351. ABSORBENT COTTON IN CERTAIN NAMED FORMS. CHARLES A. KITTLE, New York, N. Y.
Filed January 11, 1913. Serial No. 67,847. PUBLISHED MARCH 9, 1915.

104,352. TOYS. THE MYSTO MFG. CO., New Haven, Conn.
Filed January 14, 1915. Serial No. 83,859. PUBLISHED MARCH 9, 1915.

104,353. OIL-POLISH ESPECIALLY ADAPTED FOR POLISHING WOOD-SURFACES, LEATHER, AND OTHER NON-METALLIC SURFACES. WASHBURNE F. OAKLEY, Minneapolis, Minn.
Filed September 25, 1914. Serial No. 81,473. PUBLISHED MARCH 9, 1915.

104,354. DOLLS AND STUFFED TOY ANIMALS. POLITZER TOY MFG. CO., INC., New York, N. Y.
Filed January 11, 1915. Serial No. 83,782. PUBLISHED MARCH 9, 1915.

104,355. AUTOMOBILES, CYCLE-CARS, AND MOTOR-CYCLES. WILLARD IRVING TWOMBLY, New York, N. Y.
Filed March 12, 1914. Serial No. 76,593. PUBLISHED MARCH 2, 1915.

104,356. SEALING-WAX, LIBRARY-PASTE, MUCILAGE, GLUE, AND ADHESIVE CEMENT. UNITED DRUG COMPANY, Boston, Mass.
Filed December 2, 1914. Serial No. 83,031. PUBLISHED MARCH 9, 1915.

104,357. CERTAIN NAMED DENTAL, MEDICAL, AND SURGICAL SUPPLIES AND APPLIANCES. UNITED DRUG COMPANY, Boston, Mass.
Filed December 2, 1914. Serial No. 83,032. PUBLISHED MARCH 9, 1915.

104,358. WRITING FLUID, CARBON-PAPER, INK-PADS, AND INK-RIBBONS. UNITED DRUG COMPANY, Boston, Mass.
Filed December 28, 1914. Serial No. 83,561. PUBLISHED MARCH 9, 1915.

104,359. SERIES OF BOOKS. BARSE & HOPKINS, New York, N. Y.
Filed November 2, 1914. Serial No. 82,322. PUBLISHED FEBRUARY 9, 1915.

104,360. CHILL-TONIC, LIVER-TONIC, AND ANTI-BILIOUS PILLS. CRYSTAL PHARMACY, Quinton, Okla.
Filed January 4, 1915. Serial No. 83,652. PUBLISHED MARCH 9, 1915.

104,361. PERFUMED SOAP. JOHN LIPSCOMB GROSSMITH, London, England.
Filed November 7, 1914. Serial No. 82,463. PUBLISHED JANUARY 26, 1915.

104,362. GUIMPES, VESTEES, CHEMISETTES, COLLARS, AND CUFFS. SIG SILVERBERG COMPANY, INC., New York, N. Y.
Filed October 5, 1914. Serial No. 81,676. PUBLISHED FEBRUARY 23, 1915.

104,363. MEN'S AND BOYS' OVERALLS, JUMPERS, WORK-PANTS, WORK-SHIRTS, WORK-COATS, AND BOYS' BLOUSES. RICH STIX DRY GOODS COMPANY, St. Louis, Mo.
Filed August 15, 1914. Serial No. 80,592. PUBLISHED MARCH 9, 1915.

104,364. POULTRY AND EGGS FOR BREEDING AND HATCHING PURPOSES. HERBERT V. TORMOHLEN, Portland, Ind.
Filed October 8, 1914. Serial No. 81,755. PUBLISHED DECEMBER 22, 1914.

104,365. MOTOR VEHICLES, TRUCKS, RUNNING-GEARS, CHASSIS, AND BODIES. UNIVERSAL MOTOR TRUCK COMPANY, Detroit, Mich.
Filed December 9, 1912. Serial No. 67,314. PUBLISHED JUNE 10, 1913.

104,366. INSECTICIDES AND FUNGICIDES. ANSBACHER INSECTICIDE CO., INC., New York, N. Y.
Filed February 1, 1915. Serial No. 84,231. PUBLISHED MARCH 16, 1915.

104,367. BATH-POWDER. RALPH RAPP, New York, N. Y.
Filed January 27, 1915. Serial No. 84,144. PUBLISHED MARCH 16, 1915.

104,368. SPAD, THE DEVICE EMPLOYED BY MINE ENGINEERS. BLACK DIAMOND SPAD CO., Richmond, Va.
Filed January 23, 1915. Serial No. 84,050. PUBLISHED MARCH 16, 1915.

104,369. WOOLEN PIECE GOODS. CHARLES RUSSELL HURD, New York, N. Y.
Filed July 31, 1914. Serial No. 80,203. PUBLISHED MARCH 16, 1915.

104,370. FERTILIZERS. AMERICAN AGRICULTURAL CHEMICAL CO., New York, N. Y.
Filed October 24, 1914. Serial No. 82,123. PUBLISHED MARCH 9, 1915.

104,371. TEA, COFFEE, CHOCOLATE, COCOA, AND BOUILLON. AMERICAN THERMOS BOTTLE COMPANY, Norwich, Conn.
Filed August 3, 1914. Serial No. 80,263. PUBLISHED FEBRUARY 23, 1915.

104,372. PAPER BAGS. BADGER BAG & PAPER CO., Chicago, Ill., and Wausau, Wis.
Filed December 26, 1914. Serial No. 83,526. PUBLISHED MARCH 9, 1915.

104,373. PAPER BAGS. BADGER BAG & PAPER CO., Chicago, Ill., and Wausau, Wis.
Filed December 26, 1914. Serial No. 83,527. PUBLISHED MARCH 9, 1915.

104,374. PAPER BAGS. BADGER BAG & PAPER CO., Chicago, Ill., and Wausau, Wis.
Filed December 26, 1914. Serial No. 83,528. PUBLISHED MARCH 9, 1915.

104,375. PAPER BAGS. BADGER BAG & PAPER CO., Chicago, Ill., and Wausau, Wis.
Filed December 26, 1914. Serial No. 83,529. PUBLISHED MARCH 9, 1915.

104,376. MEN'S AND WOMEN'S JEWELRY. THE BAER & WILDE CO., Attleboro, Mass.
Filed November 25, 1914. Serial No. 82,899. PUBLISHED JANUARY 26, 1915.

104,377. SPELTER. CHANCE & HUNT, LIMITED, Oldbury, England.
Filed January 29, 1915. Serial No. 84,191. PUBLISHED MARCH 16, 1915.

104,378. ROLLED AND HAMMERED BARS AND FORGINGS OF HIGH-SPEED STEEL. COLUMBIA TOOL STEEL COMPANY, Chicago Heights, Ill.
Filed February 11, 1915. Serial No. 84,448. PUBLISHED MARCH 16, 1915.

104,379. MEDICAL PREPARATION USED AS A TONIC. THE COOPER MEDICINE CO., Dayton, Ohio.
Filed February 6, 1915. Serial No. 84,335. PUBLISHED MARCH 16, 1915.

104,380. WATER-CLOSET FIXTURES. THE JOHN DOUGLAS COMPANY, Cincinnati, Ohio.
Filed January 18, 1915. Serial No. 83,930. PUBLISHED MARCH 16, 1915.

104,381. METAL FENCING, GATES, AND FENCE-POSTS. DWIGGINS WIRE FENCE COMPANY, Anderson, Ind.
Filed June 22, 1914. Serial No. 79,257. PUBLISHED FEBRUARY 23, 1915.

104,382. LINEN, COTTON, AND A MIXTURE OF LINEN AND COTTON PIECE GOODS. MARSHALL FIELD & COMPANY, Chicago, Ill.
Filed December 4, 1905. Serial No. 15,156. PUBLISHED MARCH 16, 1915.

104,383. PACKAGES OF RUBBER SOLUTION FOR THE REPAIR OF RUBBER TIRES. THE B. F. GOODRICH COMPANY, New York, N. Y.
Filed December 14, 1914. Serial No. 83,274. PUBLISHED MARCH 23, 1915.

104,384. MEDICINE FOR CERTAIN NAMED AILMENTS. THOMAS GRAY, Hillsboro, N. H.; Carrie L. Gray, executrix of said Thomas Gray, deceased, assignor to Frank J. Casey and John B. Tasker, Hillsboro, N. H., doing business as The Gray Helpuall Company, Hillsboro, N. H., a Copartnership.
Filed February 17, 1912. Serial No. 61,577. PUBLISHED MARCH 16, 1915.

104,385. GOGGLES, EYEGLASSES, SPECTACLES, AND MOUNTINGS THEREFOR. F. A. HARDY & CO., Chicago, Ill.
Filed January 22, 1915. Serial No. 84,028. PUBLISHED MARCH 16, 1915.

104,386. BEER. THE JOHN HAUCK BREWING COMPANY, Cincinnati, Ohio.
Filed February 8, 1915. Serial No. 84,367. PUBLISHED MARCH 16, 1915.

104,387. BEER. THE JOHN HAUCK BREWING COMPANY, Cincinnati, Ohio.
Filed February 8, 1915. Serial No. 84,368. PUBLISHED MARCH 16, 1915.

104,388. CERTAIN PHARMACEUTICAL PREPARATIONS FOR TOILET USE. HEYWOOD TOILET SPECIALTIES CO., New York, N. Y.
Filed November 13, 1914. Serial No. 82,558. PUBLISHED FEBRUARY 23, 1915.

104,389. FOUR-CYCLE STATIONARY ENGINES AND PARTS THEREOF. INTERNATIONAL HARVESTER CORPORATION, Chicago, Ill.
Filed August 1, 1913. Serial No. 72,103. PUBLISHED MARCH 16, 1915.

104,390. CORNMEAL. THE WILLIAM LEA & SONS COMPANY, Wilmington, Del.
Filed May 23, 1905. Serial No. 6,397. PUBLISHED FEBRUARY 23, 1915.

104,391. BISCUIT. LOOSE-WILES BISCUIT COMPANY, Boston, Mass.
Filed December 24, 1914. Serial No. 83,514. PUBLISHED MARCH 2, 1915.

104,392. REMEDY TO PREVENT ABORTION IN COWS. THE LUXEL COMPANY, INC., Montpelier, Vt.
Filed February 5, 1915. Serial No. 84,312. PUBLISHED MARCH 16, 1915.

104,393. MEDICINAL PILLS AND TABLETS FOR TREATING CERTAIN NAMED DISEASES. JOHANNES MEYER, Brooklyn and New York, N. Y.
Filed November 7, 1914. Serial No. 82,468. PUBLISHED FEBRUARY 16, 1915.

104,394. WHEAT-FLOUR AND CORN-FLOUR. PLYMOUTH MILLING COMPANY, Le Mars, Iowa.
Filed October 12, 1914. Serial No. 81,828. PUBLISHED MARCH 2, 1915.

104,395. MEDICINAL SALVE APPLICABLE TO CUTS, BRUISES, AND OTHER SIMILAR EXTERNAL AILMENTS. MIKE RABITH, Barberton, Ohio.
Filed January 25, 1915. Serial No. 84,097. PUBLISHED MARCH 16, 1915.

104,396. WHEELS FOR USE IN CONNECTION WITH MOTOR-CARS, AUTOMOBILES, MOTOR-CYCLES, AND CYCLE-CARS. RUDGE-WHITWORTH, LIMITED, Coventry, England.
Filed October 13, 1914. Serial No. 81,850. PUBLISHED MARCH 16, 1915.

104,397. MOTOR-CARS, AUTOMOBILES, MOTOR-CYCLES, AND CYCLE-CARS. RUDGE-WHITWORTH, LIMITED, Coventry, England.
Filed October 13, 1914. Serial No. 81,851. PUBLISHED MARCH 16, 1915.

104,398. CANDLES. GEORGE C. SCHNEIDER, Brooklyn, N. Y.
Filed December 3, 1914. Serial No. 83,052. PUBLISHED MARCH 16, 1915.

104,399. HOSIERY. J. H. SEMEL & CO., New York, N. Y.
Filed January 24, 1914. Serial No. 75,416. PUBLISHED APRIL 7, 1914.

104,400. COMPLEXION-POWDERS. CLARA TETLOW, Philadelphia, Pa.
Filed December 18, 1914. Serial No. 83,384. PUBLISHED MARCH 16, 1915.

104,401. PAPER DRINKING-CUPS AND CARTONS AND CABINETS ADAPTED TO CONTAIN SUCH CUPS. UNITED STATES ENVELOPE COMPANY, Springfield, Mass.
Filed June 13, 1914. Serial No. 79,092. PUBLISHED MARCH 9, 1915.

104,402. PAPER DRINKING-CUPS AND CARTONS AND CABINETS ADAPTED TO CONTAIN SUCH CUPS. UNITED STATES ENVELOPE COMPANY, Springfield, Mass.
Filed June 13, 1914. Serial No. 79,093. PUBLISHED MARCH 9, 1915.

104,403. PAPER DRINKING-CUPS AND CARTONS AND CABINETS ADAPTED TO CONTAIN SUCH CUPS. UNITED STATES ENVELOPE COMPANY, Springfield, Mass.
Filed June 13, 1914. Serial No. 79,094. PUBLISHED MARCH 9, 1915.

104,404. CERTAIN NAMED MEDICAL AND SURGICAL APPLIANCES. VICTOR ELECTRIC COMPANY, Chicago, Ill.
Filed August 23, 1912. Serial No. 65,395. PUBLISHED MARCH 16, 1915.

104,405. TOWELING, BATH-MATS, WASHMATS, AND WASHCLOTHS. WARD, MEEHAN COMPANY, Philadelphia, Pa.
Filed January 27, 1915. Serial No. 84,153. PUBLISHED MARCH 16, 1915.

104,406. POULTICE. WASHINGTON DRUG PRODUCTS CO., INC., New York, N. Y.
Filed January 21, 1915. Serial No. 84,016. PUBLISHED MARCH 16, 1915.

104,407. DISINFECTANTS AND INSECTICIDES. WEST DISINFECTING COMPANY, New York, N. Y.
Filed January 28, 1915. Serial No. 84,183. PUBLISHED MARCH 16, 1915.

104,408. SEEDS—NAMELY, ALFALFA, CLOVER, TIMOTHY, BLUE-GRASS, RED-TOP, ORCHARD-GRASS, AND MILLET. WOOD-BEAZLEY SEED CO., Springfield, Mo.
Filed December 16, 1914. Serial No. 83,339. PUBLISHED MARCH 2, 1915.

104,409. MALT BEVERAGES. THE BAVARIAN BREWING COMPANY, Wilmington, Del.
Filed February 18, 1915. Serial No. 84,597. PUBLISHED MARCH 23, 1915.

104,410. BATTERY-JARS. INDIA RUBBER COMPANY, New Brunswick, N. J., and New York, N. Y.
Filed January 18, 1915. Serial No. 83,933. PUBLISHED MARCH 16, 1915.

104,411. MINERAL WATERS. ALQUA MEDICINAL WATER CO., San Francisco, Cal.
Filed February 3, 1915. Serial No. 84,274. PUBLISHED MARCH 9, 1915.

104,412. TOILET, MEDICINAL, AND SHAVING SOAPS. BARCLAY & CO., Wilmington, Del., and New York, N. Y.
Filed January 28, 1915. Serial No. 84,157. PUBLISHED MARCH 16, 1915.

104,413. ALUMINUM AND ENAMELED METAL WARE. GEO. BORGFELDT & CO., New York, N. Y.
Filed January 22, 1915. Serial No. 84,017. PUBLISHED MARCH 16, 1915.

104,414. GASOLENE-GAGES. BOSTON AUTO GAGE CO., Boston, Mass.
Filed January 19, 1914. Serial No. 75,279. PUBLISHED MARCH 16, 1915.

104,415. CERTAIN NAMED HOUSEHOLD UTENSILS. THE GEO. H. BOWMAN COMPANY, Cleveland, Ohio.
Filed January 29, 1915. Serial No. 84,185. PUBLISHED MARCH 16, 1915.

104,416. TOILET-SOAP. COLGATE & CO., Jersey City, N. J., and New York, N. Y.
Filed January 28, 1915. Serial No. 84,163. PUBLISHED MARCH 16, 1915.

104,417. LADIES' KNITTED UNDERWEAR. COOPER, COATE & CASEY DRY GOODS CO., Los Angeles, Cal., and New York, N. Y.
Filed September 8, 1914. Serial No. 81,035. PUBLISHED JANUARY 5, 1915.

104,418. WHEAT-FLOUR. THE COMMERCIAL MILLING CO., Detroit, Mich.
Filed August 13, 1914. Serial No. 80,527. PUBLISHED MARCH 16, 1915.

104,419. ARTIFICIAL CORK, DISKS MADE THERE FROM, AND BOTTLE-CLOSURES OF WHICH SAID DISKS ARE A PART. THE CROWN CORK & SEAL CO. OF BALTIMORE CITY, Baltimore, Md.
Filed June 13, 1914. Serial No. 79,051. PUBLISHED MARCH 16, 1915.

104,420. CARPET-SWEEPER. THE FAIR, Chicago, Ill.
Filed June 4, 1914. Serial No. 78,802. PUBLISHED MARCH 9, 1915.

104,421. LEATHER IN UNMANUFACTURED FORM. E. V. GALE CO., Chicago, Ill.
Filed December 19, 1914. Serial No. 83,410. PUBLISHED MARCH 16, 1915.

104,422. CLEANSER. THE GRADY MFG. CO., Long Island City, N. Y.
Filed February 6, 1915. Serial No. 84,338. PUBLISHED MARCH 16, 1915.

104,423. BRICK. HYDRAULIC-PRESS BRICK COMPANY, St. Louis, Mo.
Filed December 21, 1914. Serial No. 83,440. PUBLISHED MARCH 23, 1915.

104,424. CERTAIN NAMED PHARMACEUTICAL PREPARATIONS. LANGLEY & MICHAELS CO., San Francisco, Cal.
Filed October 28, 1914. Serial No. 82,233. PUBLISHED MARCH 2, 1915.

104,425. PILLS, CANDLES, SUPPOSITORIES, AND SALVES FOR TREATING CERTAIN NAMED AILMENTS. LORENZO TRUJILLO-MARIN, New York, N. Y.
Filed September 29, 1914. Serial No. 81,551. PUBLISHED MARCH 16, 1915.

104,426. LIGHTING APPARATUS OF GLASS, COMPRISING DOMES, REFLECTORS, DIFFUSERS, AND BOWLS. WILLIAM JOHN PETERSON, New York, N. Y.
Filed May 15, 1914. Serial No. 78,311. PUBLISHED MARCH 16, 1915.

104,427. TOOTH-BRUSHES. IOJI SEKINE, New York, N. Y.
Filed January 25, 1915. Serial No. 84,102. PUBLISHED MARCH 23, 1915.

104,428. COTTON PIECE GOODS. STIX, BAER & FULLER DRY GOODS COMPANY, St. Louis, Mo.
Filed February 4, 1915. Serial No. 84,301. PUBLISHED MARCH 2, 1915.

104,429. COMPOUNDED PREPARATION FOR THE TREATMENT OF DIARRHEA AND CHOLERA IN DOMESTIC ANIMALS. DAVID F. WATERS, Cortland, N. Y.
Filed April 8, 1914. Serial No. 77,327. PUBLISHED JUNE 2, 1914.

104,430. HAIR-CLEANSER. JOHN J. WITTWER, Sr., Seattle, Wash.
Filed January 16, 1915. Serial No. 83,918. PUBLISHED MARCH 2, 1915.

104,431. LADIES', MISSES', AND CHILDREN'S DRESSES, WAISTS, AND SUITS. EISEMAN BROS. MFG. CO. INC., St. Louis, Mo.
Filed December 23, 1914. Serial No. 83,472. PUBLISHED FEBRUARY 23, 1915.

LABELS

REGISTERED MAY 25, 1915.

18,473.—*Title:* "AUNT MARY'S LOAF CAKE." (For Cake.) CONSUMERS BREAD CO., Kansas City, Mo. Filed April 19, 1915.

18,474.—*Title:* "CORBY CAKE." (For Chocolate Cake.) THE CORBY BAKING CO., Washington, D. C. Filed April 26, 1915.

18,475.—*Title:* "YELLOW NEWTOWN." (For Cider Vinegar.) HOOD RIVER APPLE VINEGAR CO., Hood River, Oreg. Filed April 27, 1915.

18,476.—*Title:* "SNOW WHITE." (For a Water-Color Paint.) JOHN WHITE JOHNSTON, Rochester, N. Y. Filed April 21, 1915.

18,477.—*Title:* "RAMONA LINEN WRITING PAPER." (For Writing-Paper.) KALAMAZOO STATIONERY CO., Kalamazoo, Mich. Filed January 4, 1915.

18,478.—*Title:* "PURE LINEN WRITING PAPER." (For Writing-Paper.) KALAMAZOO STATIONERY CO., Kalamazoo, Mich. Filed January 4, 1915.

18,479.—*Title:* "FLAXON LINEN FABRIC WRITING PAPER." (For Writing-Paper.) KALAMAZOO STATIONERY CO., Kalamazoo, Mich. Filed January 4, 1915.

18,480.—*Title:* "DE LUXE LINEN LAWN WRITING PAPER." (For Writing-Paper.) KALAMAZOO STATIONERY CO., Kalamazoo, Mich. Filed April 16, 1915.

18,481.—*Title:* "GOOD NIGHTIE." (For Nainsook.) KING PHILIP MILLS, Fall River, Mass. Filed April 28, 1915.

18,482.—*Title:* "DOSE RECORD LABEL." (For Drugs.) MALLY & SCHATTENBERG, Crystal City, Tex. Filed January 9, 1915.

18,483.—*Title:* "HOTEL UTAH BRAND." (For Coffee.) MATSON COFFEE CO., Salt Lake City, Utah. Filed April 23, 1915.

18,484.—*Title:* "PEP-O-MINT LIFE SAVERS, A DAINTY CONFECTION." (For Lozenges of Peppermint Flavor.) MINT PRODUCTS COMPANY, INCORPORATED, New York, N. Y. Filed April 9, 1915.

18,485.—*Title:* "CL-O-VE LIFE SAVERS, A DAINTY CONFECTION." (For Lozenges of Clove Flavor.) MINT PRODUCTS COMPANY, INCORPORATED, New York, N. Y. Filed April 9, 1915.

18,486.—*Title:* "WINT-O-GREEN LIFE SAVERS, A DAINTY CONFECTION." (For Lozenges of Wintergreen Flavor.) MINT PRODUCTS COMPANY, INCORPORATED, New York, N. Y. Filed April 9, 1915.

18,487.—*Title:* "JOY." (For a Beverage.) HENRY R. MYERS, Covington, Ky. Filed March 25, 1915.

18,488.—*Title:* "BIG-DANDY BREAD." (For Bread.) PAUL SCHULZE, Chicago, Ill. Filed March 17, 1915.

18,489.—*Title:* "EX-CORNS." (For a Corn-Remover.) LUDWIG SHIWANOV, New York, N. Y. Filed May 1, 1915.

PRINTS

REGISTERED MAY 25, 1915.

3,917.—*Title:* "PLAYING STORE." (For Wheat Breakfast Food.) CREAM OF WHEAT CO., Minneapolis, Minn. Filed April 26, 1915.

3,918.—*Title:* "EXTREME POSITIONS WITHOUT STRAIN ANYWHERE." (For Underwear.) THOS. CUSACK COMPANY, Chicago, Ill. Filed April 27, 1915.

3,919.—*Title:* "MODELS FOR ALL SHAPES." (For Underwear.) THOS. CUSACK COMPANY, Chicago, Ill. Filed April 27, 1915.

3,920.—*Title:* "EASE—COMFORT." (For Underwear.) THOS. CUSACK COMPANY, Chicago, Ill. Filed April 27, 1915.

3,921.—*Title:* "CLOSED COMFORTABLE TROUSER CROTCH." (For Underwear.) THOS. CUSACK COMPANY, Chicago, Ill. Filed April 27, 1915.

3,922.—*Title:* "ADJUSTED IN A JIFFY." (For Underwear.) THOS. CUSACK COMPANY, Chicago, Ill. Filed April 27, 1915.

3,923.—*Title:* "ROCKINCHAIR." (For Underwear.) THOS. CUSACK COMPANY, Chicago, Ill. Filed April 27, 1915.

3,924.—*Title:* "TAILORED UNION SUITS." (For Underwear.) THOS. CUSACK COMPANY, Chicago, Ill. Filed April 27, 1915.

3,925.—*Title:* "NATURAL BLOUSE FULLNESS FOR EXTREME POSITIONS." (For Underwear.) THOS CUSACK COMPANY, Chicago, Ill. Filed April 27, 1915.

3,926.—*Title:* "REGULARS SHORT STOUTS SLIM JIMS." (For Underwear.) THOS. CUSACK COMPANY, Chicago, Ill. Filed April 27, 1915.

3,927.—*Title:* "$1 TO $6 A SUIT." (For Underwear.) THOS. CUSACK COMPANY, Chicago, Ill. Filed April 27, 1915.

3,928.—*Title:* "EASE, COMFORT." (For Underwear.) THOS. CUSACK COMPANY, Chicago, Ill. Filed April 27, 1915.

3,929.—*Title:* "NO HOT WEBBING NECESSARY AT THE WAIST." (For Underwear.) THOS. CUSACK COMPANY, Chicago, Ill. Filed April 27, 1915.

3,930.—*Title:* "CROTCH EXACTLY LIKE YOUR TROUSERS." (For Underwear.) THOS. CUSACK COMPANY, Chicago, Ill. Filed April 27, 1915.

DECISIONS

OF THE

COMMISSIONER OF PATENTS

AND OF

UNITED STATES COURTS IN PATENT CASES.

COMMISSIONER'S DECISIONS.

LATTA AND THOMPSON *v.* MURPHY.

Decided February 25, 1915.

INTERFERENCE—MOTION TO DISSOLVE ALLEGING OATH OF REISSUE APPLICATION INSUFFICIENT—TRANSMITTED.

Where a motion to dissolve an interference involving a reissue application alleges that the oath accompanying the reissue application was insufficient to warrant the grant of a reissue patent, *Held* that the motion should be transmitted to the Law Examiner and the applicant be permitted to file a further oath prior to the hearing.

CAR-ROOF.

Messrs. Whittemore, Hulbert & Whittemore and *Messrs. Bacon & Milans* for Latta and Thompson.

Messrs. Carr & Carr for Murphy.

WHITEHEAD, *Assistant Commissioner:*

This case is before me on cross appeals from the decision of the Examiner of Interferences. Latta and Thompson's appeal is from the refusal to transmit their motion to dissolve as to sections (*a*), (*b*), (*c*), and (*e*) of part 2 thereof, and Murphy's appeal is from the transmission of the other parts of Latta and Thompson's motion. Latta and Thompson have moved to dismiss this latter appeal.

It is well settled that the transmission of motions to dissolve rests largely in the discretion of the Examiner of Interferences and that where he transmits such a motion his action will not be overruled unless a clear abuse of discretion is shown. While no appeal lies from the transmission of the motion to dissolve, the opposing party has a right to invoke the supervisory authority of the Commissioner, and Murphy's appeal will be treated as a petition for such action.

The parts of the motion transmitted are in proper form and clearly state the questions to be raised before the Law Examiner, and a consideration of the files themselves does not disclose any such state of facts as would have justified the Examiner of Interferences in refusing to transmit the motion.

The other parts of the motion allege that Murphy has not established by his reissue oath a *prima facie* right to a reissue, since he does not show that it was by inadvertence, accident, or mistake that he failed to make the claims in the original patent, and has given no satisfactory excuse for his delay in filing the reissue application. The transmission was refused on the ground that parties will not ordinarily be permitted to raise questions relating to the sufficiency of the oath.

In order to be entitled to a reissue, the applicant must show that the failure to make the claims arose through inadvertence, accident, or mistake, and if there was delay in filing the application he must give a satisfactory explanation thereof. If the oath in this case is not sufficient, the reissue application should not have been held allowable by the Examiner, and the reissue applicants have no right to contest the interference. In the case of *Emmet* v. *Fullagar*, (130 O. G., 2719; 1907, C. D., 322,) as appears from the statement of the facts in a subsequent decision in that case, (*in re Fullagar*, 138 O. G., 259; 1909, C. D., 270; 32 App. D. C., 222,) it was held that a motion to dissolve on the ground that the reissue oath was insufficient was properly transmitted. The interference was dissolved on that ground, and the action of the Office in refusing Fullagar's reissue was subsequently affirmed by the Court of Appeals of the District of Columbia, (192 O. G., 1263; 1913, C. D., 444; 40 App. D. C., 510.)

Where in the *ex parte* prosecution the Examiner holds the oath insufficient, the applicant has a right to file an additional oath. Where, therefore, the oath is challenged, as in this case, the applicants will be allowed to file a further oath, if they so desire, prior to the hearing before the Law Examiner.

The motion to dissolve will be transmitted, and if the reissue applicants file such further oath the Law Examiner is authorized to enter and consider it.

Latta and Thompson's motion to dismiss is denied. The decision of the Examiner of Interferences is affirmed in so far as it transmitted certain parts of the motion to dissolve and reversed in so far as it refused to transmit certain parts thereof.

DECISIONS OF THE U. S. COURTS.

Court of Appeals of the District of Columbia.

HEATON-PENINSULAR BUTTON FASTENER COMPANY *v.* INDEPENDENT BUTTON FASTENER COMPANY.

Decided March 1, 1915.

1. TRADE-MARKS—CANCELATION—ILLUSTRATION OF PATENTED ARTICLE.

An application for the cancelation of a mark registered under the ten-year clause of the Trade-Mark Act and consisting of an accurate illustration of an article patented February 10, 1891, *Held* properly sustained.

2. SAME—DESCRIPTION OF PATENTED ARTICLES.

Where a label on a package consists of an accurate illustration of a patented article contained in the package and has become associated in the public mind with said article, *Held* that upon the expiration of the patent the right to manufacture the article passed to the public, and the monopoly cannot be prolonged by the claim of a trade-mark descriptive of the article.

Mr. Melville Church for appellant.

Mr. J. M. Spear and *Mr. Ellis Spear, Jr.*, for appellee.

Patent appeals 950, 95.

SHEPARD, *C. J.*:

This is an appeal from the decision of the Commissioner of Patents granting the cancelation of the registration of a trade-mark.

The Heaton-Peninsular Button Fastener Company registered under the ten-year clause of the Trade-Mark Act as a trade-mark for certain button-fasteners consisting of a pictorial reproduction of a staple-like button-fastener August 9, 1909.

This alleged trade-mark is a correct illustration of a button-fastener patented to one Vinton February 10, 1891, which patent expired February 10, 1908. The Heaton-Peninsular Button Fastener Company was the owner of the patent and manufactured the articles under this patent, to which it had the exclusive right. The label affixed to the boxes of fasteners was an exact reproduction of one of the figures of the button showing a staple-like fastener. About the time of the expiration of the patent, the Heaton-Peninsular Button Fastener Company began to use the word Trade-Mark in connection with the figure.

It appears from the evidence that it is the general custom of manufacturers to stamp on the packages of goods of the kind to describe the goods of the package. This custom of stamping the packages is regarded as the only practical way of identifying the contents without breaking the package, and distinguishes it from articles of the same general class.

The Independent Button Fastener Company, commencing to manufacture the same fastener, put them in boxes with a label showing this reproduction of the article. The Heaton-Peninsular Button Fastener Company gave notice to the customers of the Independent Company not to infringe its trade-mark and actually filed bills against some of them which seriously interfered with the sales of the Independent Button Fastener Company and caused it serious loss.

It thereupon filed its application to cancel the registration of the Heaton-Peninsular Button Fastener Company.

This appeal is from a decision canceling the same.

The representation of the staple could not constitute a technical trade-mark as it is peculiarly descriptive of the article. (*In re Schweinfurter*, 38 App. D. C., 279,280; 177 O. G., 243; 1912 C. D., 455.) Recognizing this fact the registration was applied for and granted under the ten-year clause of the statute.

The label on the packages consists of a reproduction of the Vinton patent and became associated in the public mind with the manufactured article. Upon the expiration of the patent the right to manufacture the article passes to the public and the monopoly cannot be prolonged by the claim of a trade-mark descriptive of the article. (*Singer Manufacturing Co.* v. *June Manufacturing Co.*, 163 U. S., 169; 75 O. G., 1703; 1896 C. D., 687; *Yale & Towne Manufacturing Co.* v. *Ford*, 203 Fed., 707, 710; *Scriven* v. *Towles Manufacturing Co.*, 32 App. D. C., 321, 323; 140 O. G., 510; 1909 C. D., 310.)

The attempt at registration of the label is apparently an effort to prolong the monopoly of the patent. (*National Lock Washer Co.* v. *Hobbs Manufacturing Co.*, 210 Fed., 516. 518; *Bristol Co.* v. *Graham*, 199 Fed., 412. 414.) In the latter case the registered trade-mark for steel belt-lacing was as in this case, a cut of the patented article and a cut showing its application to the joint. The Court (Circuit Court of Appeals of the Eighth Circuit) said:

> The defendant or anyone else having a right to make the lacing, he had a right to describe it as it was described in the specification of the patent. In describing it he was not limited to words used by the patentee in telling what the patent was. He was entitled to describe it in the drawings. The registered trade mark is nothing more than a pictorial description of the article made. It is a symbol showing how the lacing is applied. It is a part of the directions which the Bristol Company has always given as to the use of the article.

The case of *Holt Co.* v. *Wadsworth*, (41 Fed., 34.) cited by appellant, is distinguishable from this case. It is unnecessary to inquire whether the proof shows that the pictorial representation was used as a trade-mark for the ten years prior to registration and therefore capable of registration under the ten-year clause. (See *Thaddeus Davids Co.* v. *Davids Manufacturing Co.*, 202 O. G., 952; 1914 C. D., 367; 233 U. S., 461.)

We find no error in the decision appealed from and it is affirmed.

The clerk will certify this decision to the Commissioner of Patents as required by law.

Affirmed.

Court of Appeals of the District of Columbia.

KAISERBRAUEREI BECK & CO. *v.* S. LIEBMANN'S SONS BREWING CO.

Decided March 1, 1915.

TRADE-MARKS—OPPOSITION—"IMPERATOR" NOT SIMILAR TO "KAISER."

The marks "Imperator" and "Kaiser" *Held* not to be so similar as to be likely to cause confusion in trade.

Mr. C. P. Goepel for the appellant.

Mr. W. G. Henderson for the appellee.

VAN ORSDEL, *J.*:

Appellant appeals from the decision of the Commissioner of Patents dismissing its opposition to the registration by appellee of the word "Imperator" as a trade-mark for beer.

The opposition is based upon the alleged prior use by appellant of the word "Kaiser" as a trade-mark for beer. The ground of opposition is that the marks are so similar as to be likely to cause confusion in trade. While it is true that a motion to dismiss should only be sustained, and the party prevented from taking testimony in support of his notice of opposition, in a clear case in which no reasonable

probability exists that the conclusion would be affected by the evidence, we have no doubt in this case. The words have a philological connection, but no similarity in appearance and, to the average person, no such meaning or association as would cause one to be mistaken for the other. Whether two marks are so similar as to be likely to create confusion, is best determined by observation. As was said in *Liggett & Myers Tobacco Co.* v. *Finser*, (128 U. S., 182:)

> The judgment of the eye upon the two is more satisfactory than evidence from any other source as to the possibility of parties being misled so as to take one tobacco for another. * * * Seeing in such case is believing: existing differences being at once perceived and remaining on the mind of the observer.

The decision of the Commissioner of Patents is affirmed, and the clerk is directed to certify these proceedings as by law required.

Affirmed.

Court of Appeals of the District of Columbia.

TOLEDO SCALE COMPANY *v.* DUNN.

Decided March 29, 1915.

INTERFERENCE—PRIORITY—CONSTRUCTIVE REDUCTION TO PRACTICE.

Where an interference was declared between De V. and D. and De V. relied upon a prior application as a constructive reduction to practice of the invention in issue, *Held* that the prior application does not so clearly disclose the invention as to constitute a constructive reducton to practice, and this view is strengthened by the fact that De V. negotiated the purchase of an invention of P. for his assignee and assisted in the filing of an application for a patent and the prosecution of an interference proceeding between P. and D. the issue of which was substantially the same as the present issue.

Mr. J. B. Macauley for the appellant.

Mr. V. H. Lockwood for the appellee.

VAN ORSDEL, *J.*:

This is an appeal from the decision of the Commissioner of Patents in an interference proceeding awarding priority of invention to appellee. The issue is set out in twelve counts, which are sufficiently illustrated by the following:

> 1. In weighing scales, the combination of a beam fulcrumed intermediate its ends, a goods receiver carried by the beam on one side of the latter's fulcrum, a pendulum, fixed bearings from which the latter is wholly suspended, and a connection between the pendulum and the beam on the side of the latter's fulcrum opposite that where the goods receiver is located, the beam preponderating in weight on the side where the pendulum is connected, normally holding the latter and the goods receiver elevated, the pendulum being adapted to descend with the applied load until equilibrium is attained.
>
> 12. In a weighing scale, the combination with a main beam or lever, a goods receiver carried thereby to one side of its pivot or fulcrum, a counter-balance member comprising a pendulum and its journal, a positively operating connection attached to said member eccentrically with respect to its journal and applied to the beam on the side of the latter's pivot or fulcrum opposite that where the goods receiver is located, the beam on such side preponderating in weight to normally uphold the goods receiver and normally elevate the pendulum through the positive connection aforesaid, a fixed plate bearing a table of weights, and an index hand extending adjacent the same and secured to the pendulum, the pendulum being adapted to descend with the applied load until equilibrium is attained.

This interference was declared between the application of one De Vilbiss, filed October 19, 1908, and assigned to appellant company, and the application of appellee, filed September 9, 1907, for reissue of a patent granted June 11, 1907, on an application filed November 19, 1906.

Appellant relies upon two applications filed by De Vilbiss, one on May 23, 1904, and the other on March 27, 1905, for constructive reduction to practice of the invention in issue. It was not seriously contended at bar that the application filed in 1905 disclosed the issue here in interference, but great reliance is placed upon the application of 1904, as disclosing the elements of the issue.

The present invention relates to scales of the pendulum type. The main beam carries a goods-receiver on one side of its fulcrum and is connected on the opposite side of the fulcrum with a pendulum which is normally elevated, the pendulum and the end of the beam carrying the goods-receiver counterbalancing the other end of the beam. When a load is placed upon the goods-receiver, that end of the beam will be lowered, causing the other end of the beam to rise and the pendulum connected therewith to fall in exact proportion to the amount of weight placed upon the goods-receiver, the diminishing coacting influence of the pendulum causing the parts to reassume equilibrium. An indicator attached to the pendulum denotes the weight of the goods. When the pendulum is in its normal position, the indicator is at zero.

Referring to the application of 1904, the Examiner of Interferences said:

> I am of the opinion that the invention is not sufficiently disclosed in the application No. 209,396 to entitle De Vilbiss or his assignee to the benefit thereof in this controversy. This application was drawn primarily to a tare device and there is practically no reference to the rest of the scale mechanism. It is true that the beam is shown in the drawing as a lever of the first order and that it is attached at the inner end of a pendulum mechanism. But there is no statement or hint in the specification that the inner end of the beam was intended to be sufficiently heavy to counterbalance the scale pan and the pendulum and there is nothing in the drawing to indicate that such was the case. In fact, the proportions of the beam are such as to clearly indicate that there was no intention of illustrating it as a weighted beam. The beam is shown in the position it would occupy when the maximum weight is on the scale pan, and yet the drawing shows no weight on the pan and there is no statement in the specification to indicate that the beam was intended to be in the position of maximum load. Furthermore, when the drawings were filed, the numerals on the indicating scale were arranged so that the pointer indicated zero when the beam is in the position now illustrated, and while the numerals have since been changed they now read backward or from left to right. It is true that a drawing, if clear, will constitute a sufficient disclosure of an invention, but in view of the defects and inconsistencies in the De Vilbiss drawings, No. 209,396, it is not believed that the Office is warranted in holding that they so clearly disclose the invention as to constitute a constructive reduction to practice.

With this conclusion of the Examiner of Interferences we agree.

That the earlier application did not disclose the invention in issue is most strongly borne out by the subsequent conduct of De Vilbiss. De Vilbiss was in charge of the patents and inventions of appellant company. Although his application, which it is now claimed discloses the elements of this issue, was filed May 23, 1904, in the latter part of the year 1905, he became interested in a scale, also embodying the same subject-matter, which had been invented by one Pool, and after negotiations lasting until January, 1907, finally purchased the same on behalf of appellant company. An application, witnessed by De Vilbiss, was then filed by Pool, and an assignment made to appellant company. Subsequently an interference, the issue of which was substantially the same as that now before us, was declared be-

tween the Pool application and appellee's patent. This interference was conducted by the appellant company, with the knowledge of De Vilbiss, who testified on behalf of Pool. Yet De Vilbiss did not make known his claim of invention or file his application until after decisions adverse to Pool had been rendered in the interference proceeding by both the Examiner of Interferences and the Board of Examiners-in-Chief. That interference subsequently terminated in favor of appellee here. (*Pool v. Dunn*, 34 App. D. C., 132; 151 O. G., 450; 1910, C. D., 285.)

It is difficult to believe that had De Vilbiss regarded his application of 1904 as a reduction to practice of the invention here in controversy, he would thereafter have negotiated the purchase of the Pool invention for appellant company, have filed an application therefor, and have assisted in the prosecution of the interference proceeding.

We are, therefore, of opinion that De Vilbiss should be restricted to the date of filing his application here in issue for a constructive reduction to practice. Even though De Vilbiss was the first to conceive, he was the last to reduce to practice, and there is no claim advanced on his behalf that he was diligent at the time appellee entered the field. It is unnecessary to consider the other questions raised by appellee in this case.

The decision of the Commissioner of Patents is affirmed, and the clerk is directed to certify these proceedings as by law replied.

Affirmed.

ADJUDICATED PATENTS.

(U. S. C. C. A.) The Grelle design patent, No. 43,338, for a design for a five-light lamp-post, *Held* valid, but not infringed. *Grelle v. City of Eugene, Oreg.*, 221 Fed. Rep., 68.

(U. S. D. C.) The MacClenny patents, Nos. 948,233 and 948,234, for body-braces, *Held* valid and infringed. *MacClenny v. Gilbert Corset Co.*, 221 Fed. Rep., 73.

Interference Notices.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., May 17, 1915.

William H. Fosmer, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of The Ohio Butterine Co., of Nos. 46–50 Walnut street, Cincinnati, Ohio, for registration of a trade-mark and trade-mark registered June 30, 1896, No. 28,480, to William H. Fosmer, of No. 110 La Salle street, Chicago, Ill., and a notice of such declaration sent by registered mail to said William H. Fosmer at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said William H. Fosmer, his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

J. T. NEWTON, *First Assistant Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., May 4, 1915.

Abbie Gertrude Baumgarten, her assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of the Minerva Toilet Goods Manufacturing Company, (not incorporated,) of 6250 Drexel avenue, Chicago, Ill., for registration of a trade-mark and trade-marks registered February 4, 1908, Nos. 67,507 and 67,510, to Abbie Gertrude Baumgarten, of Hotel Belmont, New York, N. Y., and a notice of such declaration sent by registered mail to said Abbie Gertrude Baumgarten at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Abbie Gertrude Baumgarten, her assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

J. T. NEWTON, *First Assistant Commissioner.*

Foreign Patents, Fees—Russia.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., May 15, 1915.

The following letter and the memorandum referred to therein, which have been received from the Secretary of State, are published for the information of those concerned.

THOMAS EWING,
Commissioner.

[Copy.]

DEPARTMENT OF STATE,
Washington, May 3, 1915.

The honorable the Secretary of the Interior.

SIR: I have the honor to inclose for the information of the Patent Office a copy of a despatch from the American Embassy at Petrograd, dated the 3d ultimo, forwarding a copy of a memorandum from the Imperial Russian Foreign Office replying to an inquiry made by the American Embassy as to how, during the period of war, patent-rights of American citizens in Russia might be appropriately protected.

I have the honor to be, sir, your obedient servant,
For the Secretary of State:

ROBERT LANSING,
Counselor.

[Copy.—Translation.]

MINISTRY OF FOREIGN AFFAIRS,
SECOND DEPARTMENT.

Replying to memorandum dated 25 September 1914, concerning payment, in the United States by American citizens, during the time of war, and until normal communications with America have been reëstablished, of sums due to the Imperial Government for patents issued,—the Imperial Ministry of Foreign Affairs has the honor to inform the American Embassy that the Imperial Government has no objection to the said payments being received by the institutions of the Imperial Ministry situated in the United States, which have already been notified of the said resolution of the Imperial Government.

The Ministry at the same time has to add that in accordance with considerations of a legal nature, the Ministry has not found it possible to allow Russian consular representatives in America to receive payments for any new patent claims.

Petrograd, 19/1 April 1915.

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[Decisions of the Court of Appeals of the District of Columbia are indicated by a star (*).]

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APPEAL TO THE COURT OF APPEALS OF THE DISTRICT OF COLUMBIA.

See Mandamus.

1. EX PARTE CASES—CONDITIONS PRECEDENT.
Before the court of appeals can take jurisdiction of an *ex parte* appeal to pass upon the question of patentability there must have been at least a substantial compliance with the requirements of sections 4909, 4910, and 4911, Revised Statutes, and the claim of the applicant for a patent shall have been twice rejected by the Primary Examiner. [*Mann v. Brown, 1026.

2. INTERFERENCES—DISSOLUTION BY THE COMMISSIONER—ORDER REFUSING A PATENT—NOT DIRECTLY APPEALABLE TO THE COURT OF APPEALS.
Where an interference was appealed to the Commissioner of Patents and he dissolved the interference on account of a reference which applied to M. and entered an order in the application of M. refusing him a patent and M. appealed from that order to the court of appeals, *Held* that the proceeding cannot be changed from one statutory class to another, and the appeal is dismissed. [*Id.

ASSIGNEE.

See Interference, 4.

BAR TO PATENT.

See Interference, 3.

CANCELATION OF TRADE-MARK REGISTRATION.

1. ILLUSTRATION OF PATENTED ARTICLE.
An application for the cancelation of a mark registered under the ten-year clause of the Trade-Mark Act and consisting of an accurate illustration of an article patented February 10, 1891, *Held* properly sustained.
[*Heaton-Peninsular Button Fastener Company v. Independent Button Fastener Company, 1319.

2. DESCRIPTION OF PATENTED ARTICLE.
Where a label on a package consists of an accurate illustration of a patented article contained in the package and has become associated in the public mind with said article, *Held* that upon the expiration of the patent the right to manufacture the article passed to the public, and the monopoly cannot be prolonged by the claim of a trade-mark descriptive of the article. [*Id.

CONCEPTION OF INVENTION.

See Priority of Invention, 1.

DRAWINGS—DISCLOSURE.
Where a drawing disclosed a device which when constructed in accordance therewith demonstrated the efficiency and utility of the invention, but contained some minor defects which a skilled mechanic would have removed, *Held* that an explanation of the drawing was sufficient to establish conception of the invention.
[*Cheatham v. Collins, 343.

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1. AMENDMENTS—AFTER DISSOLUTION OF INTERFERENCE—ESTOPPEL.
Where on motion to dissolve an interference the Commissioner held that applicant could not make the claims in issue and there-

after broader claims were presented, with a request that another interference be declared, *Held* that "it is not necessary to decide how long after the time fixed by Rule 109 applicant could have presented other claims with the request to have them made part of the issue of the interference, but certainly if such action was desired it should have been taken while the interference was pending, in order that the question of the admissibility of these claims could have been ruled on *inter partes*, and applicant cannot now be allowed these claims." [*Ex parte* Capen, 663.

2. SAME—SAME—SAME.
As Rule 109 affords either party to an interference full opportunity to put in issue matter which he may think patentable or common to the interfering applications, but which was not included in the interference as originally declared by the Primary Examiner, *Held* that where no motion was made under that rule and the interference was finally dissolved on the ground that one of the parties had no right to make the claims in issue such party is estopped to thereafter present broader claims.
[*In re* Capen, 685.

3. PRIORITY AWARDED BY EXAMINER OF INTERFERENCES—RIGHT OF THE COMMISSIONER TO DISSOLVE.
Where the Examiner of Interferences awarded priority to D. and at the same time called the attention of the Commissioner to the fact that D.'s right to a patent was probably barred because of public use and the Commissioner ordered that the interference be dissolved and directed the Primary Examiner to reject all claims embodied in the machine found to have been in public use, *Held* that "it was well within the jurisdiction of the Commissioner to order a dissolution of the interference and the rejection of plaintiff's claims, if convinced that the issues were barred by public use and, therefore, not patentable."
[*United States, *ex rel.* Dwiggins, *v.* Ewing, Commissioner of Patents, 1025.

4. PRIORITY—CONSTRUCTIVE REDUCTION TO PRACTICE.
Where an interference was declared between De V. and D. and De V. relied upon a prior application as a constructive reduction to practice of the invention in issue, *Held* that the prior application does not so clearly disclose the invention as to constitute a constructive reduction to practice, and this view is strengthened by the fact that De V. negotiated the purchase of an invention of P. for his assignee and assisted in the filing of an application for a patent and the prosecution of an interference proceeding between P. and D. the issue of which was substantially the same as the present issue.
[*Toledo Scale Company *v.* Dunn, 1321.

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CANNOT BE SUBSTITUTED FOR APPEAL.
Where the Commissioner dissolved an interference and directed that the Primary Examiner reject certain claims in the application of D. and D. had a right of appeal through the tribunals of the Patent Office to the court of appeals and if it should be found that the claims are patentable another interference would be declared, *Held* that as D. has a statutory right of appeal mandamus cannot be substituted for the adequate remedy thus afforded.
[*United States, *ex rel.* Dwiggins, *v.* Ewing, Commissioner of Patents, 1026.

MONOPOLY.

See Cancelation of Trade-Mark Registration, 2.

MOTION TO DISSOLVE INTERFERENCE.

ALLEGING OATH OF REISSUE APPLICATION INSUFFICIENT—TRANSMITTED.
Where a motion to dissolve an interference involving a reissue application alleges that the oath accompanying the reissue application was insufficient to warrant the grant of a reissue patent, *Held* that the motion should be transmitted to the Law Examiner and the applicant be permitted to file a further oath prior to the hearing. [Latta and Thompson *v.* Murphy, 1319.

OATH.

See Motion to Dissolve Interference.

OPPOSITION TO REGISTRATION OF TRADE-MARKS.

See Similarity of Trade-Marks, 2, 3.

PATENTABILITY.

See Appeal to the Court of Appeals of the District of Columbia, 1; Mandamus.

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PRIOR APPLICATION.

See Interference, 4.

PRIORITY OF INVENTION.

See Interference, 3, 4.

1. DILIGENCE—REDUCTION TO PRACTICE.
The evidence reviewed and *Held* to establish that Collins conceived the invention before Cheatham filed his application, that he was diligent in reducing his invention to practice, and that priority was properly awarded to Collins.
[*Cheatham *v.* Collins, 343.

2. NO RIGHT TO MAKE THE CLAIMS.
Structure analyzed and *Held* that Scott is not entitled to make the claims.
[*Bechman *v.* Scott and Scott, executors of Walter Scott, deceased. Scott and Scott, executors of Walter Scott, deceased, *v.* Bechman, 344.

PROSECUTION OF INTERFERENCE PROCEEDINGS.

See Interference, 4.

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RIGHT TO MAKE CLAIMS.

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RIGHT TO MANUFACTURE.

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RIGHT TO PATENT.

See Interference, 3.

SECOND INTERFERENCE.

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SIMILARITY OF TRADE-MARKS.

1. "QUAKER" NOT THE SAME AS "QUAKER CITY MILLS" OR "QUAKER CITY."
Where applicant has used only the marks "Quaker City Mills" and "Quaker City," *Held* that it has no right to register the word "Quaker," as the law requires that the mark sought to be registered must be the same as the mark shown to have been used.
[*Quaker City Flour Mills Company *v.* The Quaker Oats Company, Quaker Mills Company, American Cereal Company, 684.

2. OPPOSITION.
Where the opposer has itself used several different flags in the sale of different brands of its goods and the flag used by the applicant differs from each of the flags used by the opposer as much as they differ from one another, *Held* that the opposer is not in a position to contend that the mark of the applicant will be likely to cause confusion in trade, and the opposition is properly dismissed.
[*Alaska Packers Association *v.* Admiralty Trading Company, 1025.

3. SAME—"IMPERATOR" NOT SIMILAR TO "KAISER."
The marks "Imperator" and "Kaiser" *Held* not to be so similar as to be likely to cause confusion in trade.
[*Kaiserbrauerei Beck & Co. *v.* S. Liebmann's Sons Brewing Co., 1320.

TEN-YEARS CLAUSE.

See Cancelation of Trade-Mark Registration, 1.

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ALPHABETICAL LIST OF PATENTEES

TO WHOM

PATENTS WERE ISSUED DURING THE MONTH OF MAY, 1915.

[Abbreviations: "Gaz."—Official Gazette.]

A. Geo. Schulz Co. (See Graffenberger, Friedrich, assignor.)
A. Goodman & Sons. (See Goodman and Cowen, assignors.)
A. Kimball Company. (See Anthony, Marcus O., assignor.)
A. Schrader's Son Incorporated. (See Kraft and Kautzman, assignors.)
A. B. Dick Company. (See Dick, Albert B., assignor.)
A. B. Dick Company. (See Green, Charles F., assignor.)
A. F. Meisselbach & Brother. (See Catucci, Pliny, assignor.)
A. H. Wirz, Incorporated. (See Wirz, August H., assignor.)
Aalborg, Christian. (See Davis and Aalborg.)
Abernathy, Hugh H., Chicago, Ill. Rapid-acting vise. No. 1,140,646; May 25; Gaz. vol. 214; p. 1187.
Abernethy, Edwin F., assignor of one-half to G. H. Abernethy, Brooklyn, N. Y. Carbureter for internal-combustion engines. No. 1,137,727; May 4; Gaz. vol. 214; p. 3.
Abernethy, Edwin F., assignor of one-half to G. H. Abernethy, Brooklyn, N. Y. Carbureter or vaporizer for explosive-engines. No. 1,137,728; May 4; Gaz. vol. 214; p. 3.
Abernethy, George H. (See Abernethy, Edwin F., assignor.)
Abraham, Adolph, Rockford, Ill. Window attachment. No. 1,139,008; May 11; Gaz. vol. 214; p. 491.
Achard, John W., Philadelphia, Pa. End-cell switch. No. 1,140,322; May 18; Gaz. vol. 214; p. 987.
Acme Supply Company, The. (See Schroyer, Harry H., assignor.)
Acme Wire Company, The. (See Underhill, Charles, assignor.)
Acton, Robert, La Salle, Ill. Alligator-wrench. No. 1,138,168; May 4; Gaz. vol. 214; p. 158.
Adam, Matthew A., London, England, and W. J. Fernie, Dromara, Ireland. Retting. No. 1,140,296; May 18; Gaz. vol. 214; p. 977.
Adams, Alfred N., Stockton, Cal. Reversing-gearing. No. 1,138,718; May 11; Gaz. vol. 214; p. 387.
Adams, Alfred N., Stockton, Cal. Automatic gear-shifter. No. 1,138,719; May 11; Gaz. vol. 214; p. 387.
Adams, Donnison B., assignor of one-half to E. B. Douglas, Minneapolis, Minn. Vehicle-spring with air-cushion. No. 1,140,095; May 18; Gaz. vol. 214; p. 911.
Adams, Homer E., Fort Worth, Tex. Electric motor. No. 1,137,729; May 4; Gaz. vol. 214; p. 4.
Adams, Jack, San Francisco, Cal. Fuel economizer and decarbonizer for internal-combustion engines. No. 1,138,828; May 11; Gaz. vol. 214; p. 427.
Adams, James D., and A. G. Johnson, Monessen, Pa., assignors to Pittsburgh Steel Co. Reel. No. 1,137,730; May 4; Gaz. vol. 214; p. 4.
Adams, Mary C., Atlantic City, N. J. Plate-lifter. No. 1,138,169; May 4; Gaz. vol. 214; p. 158.
Adams & Westlake Company, The. (See Newpher, Alfred H., assignor.)
Addicks, Lawrence, Douglas, Ariz. Recovering metals by electrolysis. No. 1,138,921; May 11; Gaz. vol. 214; p. 459.
Aderente, Eugene, Jersey City, N. J. Non-blinding device. No. 1,140,096; May 18; Gaz. vol. 214; p. 911.
Aerators Limited. (See Read, Harry V., assignor.)
Aero Fire Alarm Company. (See White, John W., assignor.)
Aetna Foundry and Machine Company, The. (See Moore, William G., assignor.)
Africa, Elmer M., Huntingdon, Pa., and B. E. McSheehy, Nutley, N. J., assignors to J. C. Blair Company, Huntingdon, Pa. Tablet or the like. No. 1,139,364; May 11; Gaz. vol. 214; p. 625.
Agar, Calvin A., East Orange, N. J. Shipping-crate. No. 1,140,231; May 18; Gaz. vol. 214; p. 956.
Agnew, Omer, Portland, Oreg. Wrench. No. 1,137,942; May 4; Gaz. vol. 214; p. 76.
Ahearn, Michael, Denver, Colo. Stone-cutting machine. No. 1,137,731; May 4; Gaz. vol. 214; p. 4.
Ahern, Albert M., St. Louis, Mo. Smoke-producing device for routing wild animals. No. 1,140,015; May 18; Gaz. vol. 214; p. 882.
Ahlberg, Gustav A. F., Chicago, Ill. Carbureter. No. 1,138,829; May 11; Gaz. vol. 214; p. 428.
Aine, Harry E., Richmond, Cal. Machine for winding pipes or pipe-coverings. No. 1,137,943; May 4; Gaz. vol. 214; p. 77.
Air Turbine Company of America. (See Clade, Robert, assignor.)
Ajax Manufacturing Company. (See Wright, Wilbur L., assignor.)
Aktiengesellschaft für patentierte Korksteinfabrikation und Korkstein-Bauten vormals Kleiner & Bokmayer. (See Metz and Hornstein, assignors.)
Alaska Hydraulic Motor Company. (See Osterholtz, Frederick J., assignor.)
Albracht, Anton J., and J. Wessel, Lindsay, Nebr. Farm machinery. No. 1,138,720; May 11; Gaz. vol. 214; p. 388.
Alden, Arthur B., *et al.* (See Brown, Harold A., assignor.)
Aldrich, Alonzo, Beloit, Wis. Paper-drying machine. No. 1,139,625; May 18; Gaz. vol. 214; p. 742.
Alexander, Olin M., Anniston, Ala. Friction-clutch. No. 1,139,249; May 11; Gaz. vol. 214; p. 574.
Alfred, Clarence J., assignor to National Biscuit Company, New York, N. Y. Strip-holder. No. 1,137,732; May 4; Gaz. vol. 214; p. 5.
Allen, Albert E., Spirit Lake, Iowa. Fire-extinguisher. No. 1,137,827; May 4; Gaz. vol. 214; p. 86.
Allen, Charles M., Worcester, Mass. Friction-clutch. No. 1,137,944; May 4; Gaz. vol. 214; p. 77.
Allen, Charles M., Worcester, Mass. Hydrostatic recorder. No. 1,137,945; May 4; Gaz. vol. 214; p. 77.
Allen, Ernest J., assignor to Rathbone, Sard & Company, Albany, N. Y. Surface combustion burner. No. 1,139,321; May 11; Gaz. vol. 214; p. 598.
Allen, Herbert W., Coalinga, Cal. Carbureter. No. 1,140,232; May 18; Gaz. vol. 214; p. 956.
Allen, Melvin P., Kansas City, Mo. Duster. No. 1,138,922; May 11; Gaz. vol. 214; p. 459.
Allen Tractor Company. (See Allen, William P., assignor.)
Allen, William P., Little Rock, Ark., assignor to Allen Tractor Company. Tractor. No. 1,139,009; May 11; Gaz. vol. 214; p. 492.
Allerding, Cletus N., assignor to the Ohio Brass Company, Mansfield, Ohio. Valve. No. 1,138,721; May 11; Gaz. vol. 214; p. 388.
Allgood, Oscar B., Blocton, assignor of one-half to J. W. Groves, Birmingham, Ala. Transformer-protector. No. 1,138,170; May 4; Gaz. vol. 214; p. 158.
Allinger, Charles E. *et al.* (See Garros, Benjamin, assignor.)
Allis-Chalmers Manufacturing Company. (See Johnson, John L., assignor.)
Allis-Chalmers Manufacturing Company. (See Nichols, Louis C., assignor.)
Allis-Chalmers Manufacturing Company. (See Steen, Halfdan A., assignor.)
Allis-Chalmers Manufacturing Company. (See Williamson, Robert B., assignor.)
Amalgamated Radio-Telegraph Company, The. (See Raymond-Barker, Edward, assignor.)
American Arch Company. (See Bean, Guy M., assignor.)
American Arch Company. (See Gaines, Frederick F., assignor.)
American Arch Company. (See Miller, Charles E., assignor.)
American Arch Company. (See Moore, Charles B., assignor.)
American Arch Company. (See Neff, John P., assignor.)
American Arch Company. (See Nelson, Arthur W., assignor.)
American Arch Company. (See Parish, Le Grand, assignor.)
American Arch Company. (See Savage, Harlow D., assignor.)
American Bank Note Company. (See Eaton, Wil[illegible] assignor.)
American Bank Note Company. (See Smith, [illegible] assignor.)
American Brake Company. (See Schweitzer, Francis E., assignor.)

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American Can Company. (See Gray, James A., assignor.)
American Car and Foundry Company. (See Beard, Paul M., assignor.)
American Car and Foundry Company. (See Bender, George P., assignor.)
American Car and Foundry Company. (See Ellis, Robert G., assignor.)
American Car and Foundry Company. (See Gibbs, Frederick H., assignor.)
American Car and Foundry Company. (See Hochberg, Oscar, assignor.)
American Car and Foundry Company. (See Lane, Victor E., assignor.)
American Car and Foundry Company. (See Ostrander, Allen E., assignor.)
American Car and Foundry Company. (See Parsons, Harry E., assignor.)
American Car and Foundry Company. (See Rohlfing, John M., assignor.)
American Graphophone Company. (See Pumphrey, Walter H., assignor.)
American Hardware Corporation, The. (See Arens, August, assignor.)
American Hardware Corporation, The. (See Henry, William K., assignor.)
American Hardware Corporation, The. (See Svenson, Charles W., assignor.)
American Hardware Corporation, The. (See Telch, Ernest L., assignor.)
American Hardware Corporation, The. (See Wessoleck, Augustus W., assignor.)
American Laundry Machinery Company. (See Cooper, Daniel M., assignor.)
American Locomotive Company. (See Mellin, Carl J., assignor.)
American Plaster-Drill Co. (See Kunitz, Benjamin, assignor.)
American Pneumatic Service Company. (See Fordyce, Edmond A., assignor.)
American Radiator Company. (See Sutton, William S., assignor.)
American Sales Book Company. (See Pringle, William A., assignor.)
American Sheet & Tin Plate Company. (See Gibson and Skemp, assignors.)
American Shoe Finding Company, The. (See Waterman, Bradford B., assignor.)
American Smokeless Burner Company. (See Niedergaess, Robert, assignor.)
American Stamping Machine Company. (See Woodward, Erastus, assignor.)
American Steel Foundries. (See Bauer, Carl E., assignor.)
American Steel Foundries. (See Hedgcock, William C., assignor.)
American Steel Foundries. (See Kinne, Edmund P., assignor.)
American Steel Foundries. (See Lynch, Warren J., assignor.)
American Steel Foundries. (See Peycke, Armand H., assignor.)
American Steel Foundries. (See Whitney, Loren L., assignor.)
American Steel & Wire Company of New Jersey. (See Hindmarsh, Percy J., assignor.)
American 3-Way Prism Company. (See Vannaman, Silas R., assignor.)
American Type Founders Company. (See Springer, Winton L., assignor.)
American Vulcanized Fibre Company. (See Lawton, Stanley H., assignor.)
American Water Supply Company of New England. (See Hussey, Alfred R., assignor.)
Ames, Alexander, Alluwe, Okla. Means preventing the accumulation of gas within oil-wells. No. 1,139,745; May 18; Gaz. vol. 214; p. 785.
Ames, Butler, Lowell, Mass. Armature-spring. No. 1,140,432; May 25; Gaz. vol. 214; p. 1062.
Ames, Butler, Lowell, Mass. Adjusting-post. No. 1,140,433; May 25; Gaz. vol. 214; p. 1062.
Ames Holden McCready, Ltd. (See Johnson, Andrew L., assignor.)
Ames, James W., Montclair, and L. J. Batzle, Bayonne, assignors to W. Ames & Co., Jersey City, N. J. Spike-machine. No. 1,138,171; May 4; Gaz. vol. 214; p. 158.
Ames, William H. (See Harlan, Claud E., assignor.)
Amper Electric Co. (See Robinson, Theodore D., assignor.)
Amphion Piano Player Company, The. (See Doman, Lewis B., assignor.)
Amundson, Alfred, Canby, Minn. Road-grader attachment for wagons. No. 1,138,172; May 4; Gaz. vol. 214; p. 159.
Anderson, Alfred. (See Anderson, Frank O., assignor.)
Anderson, Andrew O., *et al.* (See Anderson, Martin E., assignor.)
Anderson, Carl J., Chicago, Ill., assignor, by mesne assignments, to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. [illegible], No. 1,140,491; May 25; Gaz. vol. 214; p. [illegible].
[illegible] E., Chicago, Ill. Automatic furnace-[illegible] 1,139,095; May 11; Gaz. vol. 214; p. [illegible].
[illegible] H., Cincinnati, Ohio. Window-sash [illegible],828; May 4; Gaz. vol. 214; p. 37.
Anderson, Emil, New York, N. Y., assignor to The Universal Turbine Company, Newark, N. J. Turbine. No. 1,138,173; May 4; Gaz. vol. 214; p. 159.
Anderson, Frank G., *et al.* (See Anderson, Martin E., assignor.)
Anderson, Frank O., assignor to A. Anderson, Minneapolis, Minn. Ring-expander. No. 1,139,149; May 11; Gaz. vol. 214; p. 541.
Anderson, Gustaf, Ishpeming, Mich. Accordion. No. 1,139,010; May 11; Gaz. vol. 214; p. 492.
Anderson, Harold B., Cleveland, Ohio. Signaling device. No. 1,140,492; May 25; Gaz. vol. 214; p. 1085.
Anderson, Horace M. (See King, Charles T., assignor.)
Anderson, John, Saratoga Springs, N. Y. Edge-trimmer. No. 1,140,233; May 18; Gaz. vol. 214; p. 957.
Anderson, John A., Bridgeport, Conn. Tire-mender tool. No. 1,141,082; May 25; Gaz. vol. 214; p. 1287.
Anderson, John M. (See Dennis, Elbert W., assignor.)
Anderson, Martin E., assignor of one-third to himself, one-third to F. G. Anderson, and one-third to A. O. Anderson, De Kalb, Ill. Vehicle-pole. No. 1,138,430; May 4; Gaz. vol. 214; p. 252.
Anderson, Millard F., New York, N. Y. Trimming-machine for rolls. No. 1,139,322; May 11; Gaz. vol. 214; p. 598.
Anderson, Oriaf, Wausau, Wis. Lubricator. No. 1,140,557; May 25; Gaz. vol. 214; p. 1108.
Anderson, Owen, Corona, Ala. Lock-nut. No. 1,140,234; May 18; Gaz. vol. 214; p. 957.
Andersson, Aron, *et al.* (See Wigellus, Sven G., assignor.)
Andres, Charles S., Philadelphia, Pa. Synchronizing apparatus. No. 1,140,434; May 25; Gaz. vol. 214; p. 1062.
Andrews, Jasper. (See Robinson and Andrews.)
Anger, John E., Preston, England. Reversible sent for tram-cars and other purposes. No. 1,140,097; May 18; Gaz. vol. 214; p. 911.
Anger, John E., Preston, England. Reversible sent for tram-cars and other purposes. No. 1,140,342; May 18; Gaz. vol. 214; p. 995.
Annable, George A. (See Sparks, Walter, assignor.)
Annis, Burleigh S. (See Orr and Annis.)
Annis, Daniel J., Plainfield, assignor of two-ninths to T. C. Davis, five-ninths to T. Wensel, Joliet, and two-ninths to L. Coleman, Chicago, Ill. Carpenter's combination-tool. No. 1,138,722; May 11; Gaz. vol. 214; p. 389.
Anulson, Richard H., London, England. Driving-hood for piles. No. 1,140,558; May 25; Gaz. vol. 214; p. 1108.
Anthony, Abel C., San Francisco, Cal. Toy gun. No. 1,138,529; May 4; Gaz. vol. 214; p. 282.
Anthony, Marcus O., Englewood, N. J., assignor to A. Kimball Company. Pin-ticket. No. 1,140,935; May 25; Gaz. vol. 214; p. 1239.
Applegate, Addison, Liberty, N. Y. Stuccolike siding for building purposes. No. 1,138,009; May 4; Gaz. vol. 214; p. 123.
Arbetter Felling Machine Company. (See Arbetter, Wolf, assignor.)
Arbetter, Wolf, Roxbury, assignor to Arbetter Felling Machine Company, Boston, Mass. Seam for sewed articles. No. 1,140,235; May 18; Gaz. vol. 214; p. 957.
Ardron, Fay A. (See Farrell and Ardron.)
Arens, August, assignor to The American Hardware Corporation, New Britain, Conn. Lock-bolt. No. 1,140,343; May 18; Gaz. vol. 214; p. 995.
Arlitz, Oscar C., Grantwood, N. J., assignor, by mesne assignments, to Lovell-McConnell Manufacturing Company. Mechanical horn. (Reissue.) No. 13,009; May 4; Gaz. vol. 214; p. 311.
Armaczki, Stanislaw, Natrona, Pa. Boat-propelling mechanism. No. 1,139,471; May 18; Gaz. vol. 214; p. 689.
Armantage, John, and F. Roehrig, Oakland, assignors of one-half to said Roehrig and one-half to W. G. Pearson, Alameda, Cal. Illuminating-sign. No. 1,139,395; May 11; Gaz. vol. 214; p. 626.
Armstrong, Cudellas, Hobart, Okla. Steam-separator. No. 1,139,150; May 11; Gaz. vol. 214; p. 542.
Arndt, William E., assignor to Capitol Brass Works, Detroit, Mich. Valve. No. 1,138,613; May 11; Gaz. vol. 214; p. 340.
Arnold, Don Juan, Omaha, Nebr. Resilient vehicle-tire. No. 1,139,323; May 11; Gaz. vol. 214; p. 598.
Arnold, Erich, Berlin, Germany. Hoe. No. 1,139,472; May 18; Gaz. vol. 214; p. 689.
Arnold, Frank P., Carbondale, Pa., and G. F. Wedeman, Washington, D. C. Amalgamator. No. 1,139,324; May 11; Gaz. vol. 214; p. 599.
Arnold, Wiley M. (See Corwin and Arnold.)
Aronson, Frank, Chicago, Ill. Shelving. No. 1,138,586; May 4; Gaz. vol. 214; p. 301.
Aronson, Louis V., Newark, N. J. Talking-toy mechanism. No. 1,140,647; May 25; Gaz. vol. 214; p. 1138.
Aronson, Louis V., Newark, N. J. Talking-toy mechanism. No. 1,140,648; May 25; Gaz. vol. 214; p. 1138.
Aronson, Louis V., Newark, N. J. Talking-toy mechanism. No. 1,140,649; May 25; Gaz. vol. 214; p. 1138.
Aronson, Louis V., Newark, N. J. Talking-toy mechanism. No. 1,140,650; May 25; Gaz. vol. 214; p. 1139.
Aronson, Louis V., Newark, N. J. Doll. No. 1,140,651; May 25; Gaz. vol. 214; p. 1139.
Arthur, Joseph B., Hutchinson, Kans. Demountable rim. No. 1,139,151; May 11; Gaz. vol. 214; p. 542.

Asbestos Shingle Company. (See Norton, Charles L., assignor.)
Asbury, Frank, *et al.* (See Gore, Frederick W., assignor.)
Asbury, Harry F., *et al.* (See Gore, Frederick W., assignor.)
Asch, Andrew J., New York, N. Y. Backing for artificial teeth. No. 1,140,936; May 25; Gaz. vol. 214; p. 1239.
Ashelman, Hervey B., and J. S. Johnson, Fargo, N. D. Air-valve and indicating mechanism. No. 1,140,937; May 25; Gaz. vol. 214; p. 1239.
Ashley, Charles G., Chicago, Ill., assignor to General Engineering and Construction Company, Limited, Toronto, Canada. Printing-telegraph receiver. No. 1,138,830; May 11; Gaz. vol. 214; p. 428.
Ashley, Edward L., assignor to Scovill Manufacturing Company, Waterbury, Conn. Suspender-loop. No. 1,138,587; May 4; Gaz. vol. 214; p. 301.
Ashman, William H. (See Birkbeck and Ashman.)
Associated Automatic Sprinkler Co. (See Rowley, Arthur C., assignor.)
Atkins, William, assignor of three-fourths to E. N. Ross and W. A. Tice, Auburn, N. Y. Carriage-coupling. No. 1,140,863; May 25; Gaz. vol. 214; p. 1212.
Atkinson, Herbert S., East Orange, N. J., assignor to The Hayward Company, New York, N. Y. Bucket. No. 1,138,614; May 11; Gaz. vol. 214; p. 349.
Atterbury, Grosvenor, New York, N. Y. Artificial stone. No. 1,140,559; May 25; Gaz. vol. 214; p. 1108.
Atwood, Leonard, Farmington, Me. Automatic train-controlling device. No. 1,139,948; May 18; Gaz. vol. 214; p. 857.
Aubery, James M., Los Angeles, Cal. Means for thawing out water-pipes. No. 1,140,864; May 25; Gaz. vol. 214; p. 1213.
Augensen, August M., Maywood, Ill., assignor to Sanitary Can Company, New York, N. Y. Article-feeding mechanism. No. 1,138,588; May 4; Gaz. vol. 214; p. 301.
August Goertz & Co. (See Eigen, Benno vom, assignor.)
Aunger, Clyde A., San Francisco, Cal. Artificial knee-joint. No. 1,138,923; May 11; Gaz. vol. 214; p. 459.
Austin, Frederick C. (See Bunnell, Morton G., assignor.)
Auto Air-Rotar Company. (See Ten Eyck, Frank E., assignor.)
Auto Strop Company. (See Galsman, Henry J., assignor.)
Automatic Gas Lighting Equipment Co. (See Shaw, Al B., assignor.)
Automatic Time Stamp Company, The. (See Wilson, John C., assignor.)
Automatic Train Control & Signal Company. (See Gray, Gardner B., assignor.)
Automatic Train Control & Signal Company. (See Thurber, Guy P., assignor.)
Avery Company. (See Bartholomew, John B., assignor.)
Awalt, James C., and T. F. Stevens, Braman, Okla. Automobile-wheel. No. 1,140,560; May 25; Gaz. vol. 214; p. 1108.
Axe, Roy T., assignor to O. M. Edwards, Syracuse, N. Y. Trap-door for railway-cars and similar structures. No. 1,138,070; May 4; Gaz. vol. 214; p. 123.
Aylsworth, Jonas W., East Orange, assignor to Condensite Company of America, Glen Ridge, N. J. Coating porous substances. No. 1,139,470; May 18; Gaz. vol. 214; p. 689.
Ayres, Wallace S., Hazleton, Pa. Separating-machine. No. 1,139,250; May 11; Gaz. vol. 214; p. 575.
Ayres, Wallace S., Hazleton, Pa. Endless floor. No. 1,140,236; May 18; Gaz. vol. 214; p. 958.
B. F. Goodrich Company, The. (See Gammeter, John R., assignor.)
B. F. Goodrich Company, The. (See Moses, Edmund Q., assignor.)
B. Z. Toy Mfg. Co. (See Greayer, Philip J., assignor.)
Babb, Rease B., Blackwell, Okla. Threshing-machine and grain-separator. No. 1,140,237; May 18; Gaz. vol. 214; p. 958.
Babcock, Garrison, assignor to Telechronometer Company, Rochester, N. Y. Telephone-exchange system. No. 1,138,174; May 4; Gaz. vol. 214; p. 159.
Babcock, Garrison, assignor to The Telechronometer Company, Rochester, N. Y. Telephone system. No. 1,138,175; May 4; Gaz. vol. 214; p. 160.
Babcock & Wilcox Company, The. (See Sewall, Minott W., assignor.)
Babcock, William J., *et al.* (See Sinclair, George, assignor.)
Babion, René, Les Lilas, France. Construction of cocks. No. 1,140,938.; May 25; Gaz. vol. 214; p. 1240.
Bacher, Peter, Canton, Ohio. Making collapsible cores. No. 1,139,325; May 11; Gaz. vol. 214; p. 599.
Backman, William, Beacon, Iowa. Internal-combustion engine. No. 1,138,271; May 4; Gaz. vol. 214; p. 192.
Bacon, Char[illegible] J., Chicago, Ill. Boiler for utilizing waste heat. No. 1,138,346; May 4; Gaz. vol. 214; p. 220.
Bacon, Raymond F., Pittsburgh, Pa., assignor to Metals Research Company, New York, N. Y. Flotation of minerals. No. 1,140,865; May 25; Gaz. vol. 214; p. 1213.
Bacon, Raymond F., Pittsburgh, Pa., assignor to Metals Research Company, New York, N. Y. Flotation of minerals. No. 1,140,866; May 25; Gaz. vol. 214; p. 1213.
Badeau, Harry U., assignor to The Perkins Electric Switch Manufacturing Company, Bridgeport, Conn. Panel-board fitting. No. 1,141,032; May 25; Gaz. vol. 214; p. 1271.
Baender, Charles L., Oakland, Cal., assignor, by mesne assignments, to National Sweeper Company, Torrington, Conn. Carpet-sweeping appliance. No. 1,138,437; May 4; Gaz. vol. 214; p. 252.
Baer, Clinton H., Shickshinny, Pa. Dish-washer. No. 1,140,561; May 25; Gaz. vol. 214; p. 1109.
Baeumle, John, Milwaukee, Wis. Clothes-line holder. No. 1,140,787; May 25; Gaz. vol. 214; p. 1183.
Bailey, Charles L., Glen Ridge, N. J. Thread-gage. No. 1,138,438; May 4; Gaz. vol. 214; p. 253.
Bailey, Charles L., Arthur Bay, Mich. Jointed pile. No. 1,138,924; May 11; Gaz. vol. 214; p. 460.
Bailey, George W., assignor to Walsh & Holyoke Steam Boiler Works, Holyoke, Mass. Bench-leg. No. 1,141,083; May 25; Gaz. vol. 214; p. 1287.
Bailey, John E., Milwaukee, Wis. Combination drafting implement. No. 1,139,746; May 18; Gaz. vol. 214; p. 785.
Bailey, Leroy E., Madera, Cal. Gate-latch. No. 1,140,562; May 25; Gaz. vol. 214; p. 1109.
Bailey, Nellie M., Kinsale, Va. Hook-and-eye fastening. No. 1,138,439; May 4; Gaz. vol. 214; p. 253.
Bailey, Van P., Indianapolis, Ind. Pumping apparatus. No. 1,140,939; May 25; Gaz. vol. 214; p. 1240.
Bain, Benjamin F., Pittsburgh, Pa. Mechanical toy. No. 1,140,788; May 25; Gaz. vol. 214; p. 1184.
Bainbridge-Bell, Eleanor L., Mount Bethel, Pa. Sanitary shield. No. 1,138,440; May 4; Gaz. vol. 214; p. 253.
Bair, Alvin, Tiffin, Ohio. Starter for automotors. No. 1,141,033; May 25; Gaz. vol. 214; p. 1271.
Baird, William J., Detroit, Mich. Molding-machine. No. 1,137,946; May 4; Gaz. vol. 214; p. 78.
Baker, Charles E., and E. M. De Long, Hartford, assignors, by mesne assignments, to The New Britain Machine Company, New Britain, Conn. Internal-combustion engine. No. 1,138,831; May 11; Gaz. vol. 214; p. 429.
Baker, Erle K., assignor to Universal Rim Company, Chicago, Ill. Demountable rim for automobile-wheels. No. 1,140,652; May 25; Gaz. vol. 214; p. 1139.
Baker Motor Vehicle Company, The. (See Gruenfeldt, Emil, assignor.)
Baker, Paul S. (See Vance and Baker.)
Baker, Reuben C., Coalinga, Cal. Anchor for well-tubing. No. 1,140,789; May 25; Gaz. vol. 214; p. 1184.
Baker, Rollyn H., Dayton, Ohio. Box-opener. No. 1,140,016; May 18; Gaz. vol. 214; p. 882.
Baker, William G. (See Spurgeon, Hunt, and Baker.)
Baldwin Locomotive Works, The. (See Rushton, Kenneth, assignor.)
Baldwin Locomotive Works, The. (See Vauclain and Rushton, assignors.)
Baldwin Locomotive Works, The. (See Wallace, Allen, assignor.)
Bales, James E., Montgomery, assignor to Lyon Metallic Manufacturing Company, Aurora, Ill. Shelving. No. 1,140,940; May 25; Gaz. vol. 214; p. 1240.
Ball, Benjamin A. (See Mettler, Caspar, assignor.)
Ballard, George. (See Ballard, Walter, assignor.)
Ballard, George L. (See Wildman and Ballard.)
Ballard, George L., Norristown, Pa., assignor to Wildman Mfg. Co. Dogless circular-knitting machine. No. 1,140,790; May 25; Gaz. vol. 214; p. 1185.
Ballard, Harrie A., Boston, assignor to The Boylston Mfg. Company, South Boston, Mass. Presser-foot mechanism. No. 1,139,626; May 18; Gaz. vol. 214; p. 743.
Ballard, Walter, assignor of one-half to G. Ballard, Oakland, Cal. Valve. No. 1,140,017; May 18; Gaz. vol. 214; p. 882.
Ballou, Eugene H., Pawtucket, R. I., assignor to Draper Company, Hopedale, Mass. Thread-cutter for the depleted weft of weft-replenishing looms. No. 1,138,272; May 4; Gaz. vol. 214; p. 192.
Bals, Anthony F. (See Warren and Bals.)
Baltes, John, New York, N. Y. Burglar-alarm lock. No. 1,139,152; May 11; Gaz. vol. 214; p. 543.
Baltzley, Louis E., Washington, D. C. Paper-binding clip. No. 1,139,627; May 18; Gaz. vol. 214; p. 744.
Bamberg, Ottomar F., and E. Weinhold, Laibach, Austria-Hungary. Writing-machine. No. 1,138,832; May 11; Gaz. vol. 214; p. 429.
Banta, Margaret E., *et al.* (See Haney, William, assignor.)
Barber, John C., Chicago, Ill. Underframe structure for cars. No. 1,138,615; May 11; Gaz. vol. 214; p. 350.
Barber, R. B. (See Schmidt, Gottfried, assignor.)
Bardwell, George W., assignor to Hall-Borchert Dress Form Company, New York, N. Y. Dress-form. No. 1,140,941; May 25; Gaz. vol. 214; p. 1241.
Barker, David J. (See Brandenburg and Barker.)
Barker, England J., Chicago, Ill. Attachment for typewriters, adding-machines, and the like. No. 1,140,403; May 25; Gaz. vol. 214; p. 1085.
Barker, Melville H., Boston, Mass. Suspension and driving means for centrifugal machines. No. 1,139,473; May 18; Gaz. vol. 214; p. 689.
Barnard, Elmer E., Lynchburg, Va. Attachment for drawing-boards. No. 1,139,011; May 11; Gaz. vol. 214; p. 493.
Barnard, John W., assignor of one-half to W. T. Ingram, Trenton, Tenn. Harrow. No. 1,140,238; May 18; Gaz. vol. 214; p. 958.

Barnes, Henry, Brooklyn, N. Y. Spraying attachment for bath-tubs. No. 1,140,347; May 25; Gaz. vol. 214; p. 1031.

Barnstead, Robert P., Boston, Mass. Valve. No. 1,140,653; May 25; Gaz. vol. 214; p. 1140.

Barnum, Dana D. (See Carpenter and Barnum.)

Barratt, William T., assignor of one-third to A. Cooper, one-third to A. J. Cooper, and one-third to E. C. Stoddard, Bennington, Vt. Sinker-wheel mechanism. No. 1,140,098; May 18; Gaz. vol. 214; p. 912.

Barrier, Horace B., Spokane, Wash. Photographic-roll holder. No. 1,140,099; May 18; Gaz. vol. 214; p. 912.

Barrington, John, Boston, Mass. Alkali-free detergent for scouring and dyeing and making same. No. 1,139,326; May 11; Gaz. vol. 214; p. 599.

Barrow, David W., Chattanooga, Tenn. Card-displaying apparatus. No. 1,140,848; May 25; Gaz. vol. 214; p. 1031.

Barrow, Morris, New York, N. Y. Egg-carrier. No. 1,139,628; May 18; Gaz. vol. 214; p. 744.

Barrows, Walter A., Belvidere, Ill. Measuring device. No. 1,139,831; May 18; Gaz. vol. 214; p. 816.

Barsness, Edwin S. (See Barsness, Herman and E. S.)

Barsness, Herman and E. S., Black Earth, Wis. Cattle-stanchion. No. 1,138,616; May 11; Gaz. vol. 214; p. 350.

Barstow, Edwin O. (See Griswold and Barstow.)

Bartels, Carl. (See Mosler and Bartels.)

Barth, Ernest C., Providence, R. I. Combined hot-water or steam and hot-air heater. No. 1,140,239; May 18; Gaz. vol. 214; p. 958.

Barth, Karl, assignor to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Self-unloading receptacle. No. 1,140,240; May 18; Gaz. vol. 214; p. 959.

Barth, Karl, assignor to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Self-unloading receptacle. No. 1,140,563; May 25; Gaz. vol. 214; p. 1109.

Barthel, Oliver E., Detroit, Mich. Piston. No. 1,139,396; May 11; Gaz. vol. 214; p. 626.

Bartholdt, Bernhardt H., San Jose, Cal. Machine for stamping or marking cans. No. 1,140,791; May 25; Gaz. vol. 214; p. 1185.

Bartholomew, John B., Peoria, Ill., assignor, by mesne assignments, to Avery Company. Portable tank. No. 1,137,733; May 4; Gaz. vol. 214; p. 5.

Bartholomew, John B., Peoria, Ill., assignor to Avery Company. Vehicle-wheel. No. 1,138,177; May 4; Gaz. vol. 214; p. 161.

Bartholomew, John B., Peoria, Ill., assignor, by mesne assignments, to Avery Company. Cultivator. No. 1,138,925; May 11; Gaz. vol. 214; p. 460.

Bartlett, Howard L., Devils Lake, N. D. Testing device for electric-current-translating devices, fuses, &c. No. 1,139,832; May 18; Gaz. vol. 214; p. 816.

Bartley, George B., assignor of one-third to O. G. Tweddell and one-third to R. Spoelstra, Detroit, Mich. Pump for vacuum cleaning systems. No. 1,138,617; May 11; Gaz. vol. 214; p. 351.

Barton, Charles H., assignor of one-half to A. Woldert, Tyler, Tex. Fender. No. 1,137,829; May 4; Gaz. vol. 214; p. 37.

Baruch, Alphons, Hamburg, Germany. Holder for toilet-paper. No. 1,137,830; May 4; Gaz. vol. 214; p. 37.

Bash, Ambrose. (See Bash, Charles W. and A.)

Bash, Charles W. and A., Kansas City, Kans. Grain-car door. No. 1,140,160; May 18; Gaz. vol. 214; p. 913.

Bass, Willard S., Wilton, Me. Moccasin. No. 1,139,153; May 11; Gaz. vol. 214; p. 543.

Bass, William W., Middle Inlet, Wis. Calendar attachment for clocks. No. 1,139,474; May 18; Gaz. vol. 214; p. 690.

Batchelder, Frank R., Worcester, Mass. Cartridge-belt. No. 1,139,629; May 18; Gaz. vol. 214; p. 744.

Bateman, Thomas A. (See Hye, Campbell, and Bateman.)

Bateman, William H. S. (See Matthews, Freeman, and Bateman.)

Bates, Adelmer M., assignor to Bates Valve Bag Company, Chicago, Ill. Bag-filling machine. No. 1,138,618; May 11; Gaz. vol. 214; p. 351.

Bates, Adelmer M., assignor to Bates Valve Bag Company, Chicago, Ill. Bag-filling machine. No. 1,140,867; May 25; Gaz. vol. 214; p. 1214.

Bates, Arthur, Leicester, England, assignor to United Shoe Machinery Company, Paterson, N. J. Machine for use in the manufacture of boots and shoes. No. 1,140,349; May 25; Gaz. vol. 214; p. 1031.

Bates, Harry, East Orange, N. J., and A. G. F. Kurowski, assignors to Underwood Typewriter Company, New York, N. Y. Stand for type-writing machines. No. 1,139,833; May 18; Gaz. vol. 214; p. 816.

Bates Valve Bag Company. (See Bates, Adelmer M., assignor.)

Batten, Percy H., assignor, by mesne assignments, to The Hewitt Company, Chicago, Ill. Metallic packing. No. 1,138,178; May 4; Gaz. vol. 214; p. 161.

Battu, Leonce P. L., assignor to Rateau Steam Regenerator Company, New York, N. Y. Steam-regenerative accumulator. No. 1,140,435; May 25; Gaz. vol. 214; p. 1063.

Baty, George, Brooklyn, and R. M. Ryan, New York, N. Y. Incandescent gas-burner. No. 1,138,833; May 11; Gaz. vol. 214; p. 430.

Batzle, Louis J., *et al.* (See Ames, James W., assignor.)

Baucom, Henry B., Marshville, N. C. Plow-stock shield. No. 1,138,273; May 4; Gaz. vol. 214; p. 193.

Bauer, Carl E., Hammond, Ind., assignor to American Steel Foundries, New York, N. Y. Spring-dampener. No. 1,140,101; May 18; Gaz. vol. 214; p. 913.

Bauer, Leo. (See Knight and Bauer.)

Bauer, Oscar, New York, N. Y. Universal stoneworking-machine. (Reissue.) No. 13,018; May 18; Gaz. vol. 214; p. 997.

Bauersfeld, Walther, assignor to Firm of C. Zeiss, Jena, Germany. Copying device. No. 1,138,347; May 4; Gaz. vol. 214; p. 220.

Baugh, William T., Madison, Ga. Window-cleaner. No. 1,139,834; May 18; Gaz. vol. 214; p. 817.

Baumeister, Christian H., Des Moines, Iowa. Display-rack for whips. No. 1,140,102; May 18; Gaz. vol. 214; p. 913.

Baumgartl, Leroy, Chicago, Ill. Roof or floor structure. No. 1,140,731; May 25; Gaz. vol. 214; p. 1164.

Baumgartner, Charles G., Chicago, Ill. Ore-pocket door. No. 1,140,436; May 25; Gaz. vol. 214; p. 1063.

Bawel, Edward H., Boonville, Ind. Harrow. No. 1,140,564; May 25; Gaz. vol. 214; p. 1110.

Bay State Metal Wheel Company. (See Turner, Ora N., assignor.)

Bayles, Lewis C., Easton, Pa., assignor to Ingersoll-Rand Company, New York, N. Y. Percussive tool. No. 1,138,179; May 4; Gaz. vol. 214; p. 161.

Bayley, Mary A., executrix. (See Bayley, Perry H.)

Bayley, Perry H., deceased, West Alexandria, Ohio; M. A. Bayley, executrix. Gaseous-fuel mixer. No. 1,139,747; May 18; Gaz. vol. 214; p. 785.

Bazino, Charles A., North Bennington, Vt. Blower for knitting-machines. No. 1,141,034; May 25; Gaz. vol. 214; p. 1271.

Beach, Edward S., Ridgefield, Conn. Motor-tricycle. No. 1,139,835; May 18; Gaz. vol. 214; p. 817.

Beach, George F., assignor to Mirco Fuel-Oil Equipment Company, Incorporated, Norfolk, Va. Furnace or forge. No. 1,140,350; May 25; Gaz. vol. 214; p. 1032.

Beadle, Warren E., Grand Rapids, Wis. Bark-rossing machine. No. 1,139,012; May 11; Gaz. vol. 214; p. 493.

Bean, Guy M., Los Angeles, Cal., assignor, by mesne assignments, to American Arch Company, New York, N. Y. Oil-burning locomotive-furnace. No. 1,138,065; May 4; Gaz. vol. 214; p. 121.

Bean, Guy M., Los Angeles, Cal., assignor, by mesne assignments, to American Arch Company, New York, N. Y. Locomotive-boiler fire-box. No. 1,138,066; May 4; Gaz. vol. 214; p. 122.

Bean, Guy M., Los Angeles, Cal., assignor, by mesne assignments, to American Arch Company, New York, N. Y. Oil-burning locomotive-furnace. No. 1,138,067; May 4; Gaz. vol. 214; p. 122.

Bean, Jesse A., assignor of one-half to C. R. Montgomery, Texarkana, Tex. Wrench. No. 1,140,018; May 18; Gaz. vol. 214; p. 882.

Bean Spray Pump Co. (See Warring, Franklin B., assignor.)

Bean, William E. (See Spohrer and Bean.)

Beard, George M., Pleasant Lake, Ind. Trouble-detector for spark-plugs. No. 1,138,441; May 4; Gaz. vol. 214; p. 254.

Beard, Paul M., assignor to American Car and Foundry Company, St. Louis, Mo. Convertible car. No. 1,140,654; May 25; Gaz. vol. 214; p. 1140.

Beasley, Frank, Richmond, Va. Adjustable-frame cultivator. No. 1,140,019; May 18; Gaz. vol. 214; p. 882.

Beatty, Thomas W., New Cumberland, W. Va. Insulator. No. 1,139,748; May 18; Gaz. vol. 214; p. 786.

Beaufort, Charles W., Augusta, Ga. Ball-and-socket pipe-joint. No. 1,138,071; May 4; Gaz. vol. 214; p. 123.

Beaufort, Charles W., Augusta, Ga. Coupling. No. 1,138,072; May 4; Gaz. vol. 214; p. 124.

Beaupré, Elzear, St. Boniface, Manitoba, Canada. Switch-point controller. No. 1,139,749; May 18; Gaz. vol. 214; p. 786.

Becher, Otto A. J., Copiague, N. Y. Bottle and jar closure. No. 1,140,103; May 18; Gaz. vol. 214; p. 914.

Bechman, Henry F., assignor to Duplex Printing Press Company, Battle Creek, Mich. Rotary printing-press. No. 1,139,154; May 11; Gaz. vol. 214; p. 543.

Bechtel, Charles W. (See Smith, Stuart D., assignor.)

Becker, John, Hyde Park, Mass., assignor to Becker Milling Machine Company, Portland, Me. Universal milling-machine. No. 1,139,475; May 18; Gaz. vol. 214; p. 690.

Becker, Mathew, Chicago, Ill. Holder for safety-razor blades. No. 1,140,942; May 25; Gaz. vol. 214; p. 1241.

Becker Milling Machine Company. (See Becker, John, assignor.)

Beckert, Emil R., Chicago, Ill. Underreamer. No. 1,139,096; May 11; Gaz. vol. 214; p. 522.

Beebout, Samuel P., New Cumberland, W. Va., and T. E. Morgan, Columbus, Ohio. Kiln. No. 1,139,327; May 11; Gaz. vol. 214; p. 599.

Beer, Edward J., *et al.* (See James, William E., assignor.)

Beers, Frank T., Barksdale, Wis., assignor to E. I. du Pont de Nemours Powder Company, Wilmington, Del. Heating retorts. No. 1,140,351; May 25; Gaz. vol. 214; p. 1032.

Belknap, William L., and M. G. Cunningham, Bridgeport, Conn. Regulator for hot-water systems. No. 1,140,565; May 25; Gaz. vol. 214; p. 1110.

Bell, Ira. (See Moon and Bell.)

Bell, Isabell, St. Paul, Minn. Jar-cover. No. 1,139,326, May 11; Gaz. vol. 214; p. 600.

Bell, Thomas, Tyler, Tex. Automatic time-check for oil-presses and other machines. No. 1,139,251; May 11; Gaz. vol. 214; p. 575.

Bell, Thomas A., New York, N. Y. Gas-burner tip. No. 1,140,655; May 25; Gaz. vol. 214; p. 1140.

Bell, William W., Alameda, Cal. Direction-indicator for vehicles. No. 1,138,834; May 11; Gaz. vol. 214; p. 430.

Belvidere Screw & Machine Company. (See Brown, Richard R., assignor.)

Benbow, Thomas C., Absarokee, Mont. Wheel. No. 1,138,442; May 4; Gaz. vol. 214; p. 254.

Bender, George P., Berwick, Pa., assignor to American Car and Foundry Company, St. Louis, Mo. Tank-car. No. 1,140,656; May 25; Gaz. vol. 214; p. 1140.

Benc, Jacob. (See Mesker and Benc.)

Beneke, George C., *et al.* (See Westwood, John T., assignor.)

Benford, David, *et al.* (See Hickish, Robert S., assignor.)

Benford, Edward M., *et al.* (See Hickish, Robert S., assignor.)

Benford, Sarah, *et al.* (See Hickish, Robert S., assignor.)

Benjamin, George H., New York, N. Y. Bobbin. No. 1,140,852; May 25; Gaz. vol. 214; p. 1033.

Benjamin, George H., New York, N. Y. Producing sugar-bearing bodies. No. 1,140,853; May 25; Gaz. vol. 214; p. 1033.

Benjamins, Israel, assignor to Mark & Mohl, Inc., Brooklyn, N. Y. Grating. No. 1,140,657; May 25; Gaz. vol. 214; p. 1141.

Bennett, Archie R., Knoxville, Tenn. Mail-box signal. No. 1,139,155; May 11; Gaz. vol. 214; p. 544.

Bennett, James A., *et al.* (See Wolfe, Ira B., assignor.)

Bennett, James C., Detroit, Mich. Blower for boilers. No. 1,139,630; May 18; Gaz. vol. 214; p. 745.

Bennett, Thomas S., Seattle, Wash. Safety-pin catch. No. 1,139,836; May 18; Gaz. vol. 214; p. 817.

Bennett, Walter E., assignor to Clover Leaf Manufacturing Company, Carbondale, Pa. Bobbin. No. 1,140,868; May 25; Gaz. vol. 214; p. 1214.

Bensen, Bernard, Chicago, Ill. Flushing mechanism. No. 1,139,397; May 11; Gaz. vol. 214; p. 626.

Bentley, Anson J., Niles, and F. F. Bentley, Warren, Ohio, Brick-pallet. No. 1,140,104; May 18; Gaz. vol. 214; p. 914.

Bentley, Frank F. (See Bentley, Anson J. and F. F.)

Bentley, Frank F., Warren, Ohio. Spray-trough for cooling condensers. No. 1,139,156; May 11; Gaz. vol. 214; p. 544.

Benton, Henry, Elizabeth, N. J. Furnace-grate. No. 1,139,097; May 11; Gaz. vol. 214; p. 523.

Berg, Lars J., assignor to The Pullman Company, Chicago, Ill. Upper buffing mechanism for railway-cars. No. 1,137,734; May 4; Gaz. vol. 214; p. 5.

Berge, Samuel, Lethbridge, Alberta, Canada. Cleaning device for hand-rakes. No. 1,138,580; May 4; Gaz. vol. 214; p. 282.

Bergendahl, Einar B., Chicago, Ill., assignor to H. R. Keithley, Davenport, Iowa. Car-underframe. No. 1,141,084; May 25; Gaz. vol. 214; p. 1287.

Berger, Arthur. (See Remy and Berger.)

Bergren, John A., assignor of one-tenth to A. F. Youngberg and two-fifths to H. S. Wilson, Lake Park, Minn. Threshing-machine. No. 1,138,885; May 11; Gaz. vol. 214; p. 430.

Bergstrom, Oscar M., Minneapolis, Minn. Gearing. No. 1,137,735; May 4; Gaz. vol. 214; p. 6.

Berliner, Emile, and H. D. Chapman, assignors to The Gyro Motor Company, Washington, D. C. Valve for gas-engines. No. 1,139,837; May 18; Gaz. vol. 214; p. 818.

Berndt, Wilhelm C. G., Kenesaw, Nebr. Bundle-carrier attachment for binders. No. 1,139,013; May 11; Gaz. vol. 214; p. 493.

Bernett, Willis J., assignor to W. B. Thayer, Kansas City, Mo. Frictional coupling. No. 1,138,926; May 11; Gaz. vol. 214; p. 461.

Bernhard, Michael H., Buffalo, N. Y., assignor to M. J. Bernhard Company, Inc. Ball-return for pool-tables. No. 1,137,736; May 4; Gaz. vol. 214; p. 6.

Bernholz, Philip G., Schenectady, N. Y. Telephone system. No. 1,140,658; May 25; Gaz. vol. 214; p. 1141.

Berry, John M., *et al.* (See Mosteller Dozier H., assignor.)

Berry, Robert C., Indianapolis, Ind. Hacksaw-machine. No. 1,138,927; May 11; Gaz. vol. 214; p. 461.

Best, William N., New York, N. Y., assignor of one-third to E. S. Hammond, Wilmington, Del. Furnace. No. 1,140,732; May 25; Gaz. vol. 214; p. 1165.

Betschart, Joseph S., Bridgeville, Pa. Game apparatus. No. 1,139,949; May 18; Gaz. vol. 214; p. 857.

Betts, Farron S., New York, N. Y. Post for loose-leaf binders. No. 1,138,619; May 11; Gaz. vol. 214; p. 351.

Bickmeier, Charles, and D. A. Liston, Bellaire, Ohio. Continuous-burning furnace for burning enamel ware. No. 1,140,105; May 18; Gaz. vol. 214; p. 914.

Bidelman, Howard L. (See Tyler, Aaron J., assignor.)

Bierbaum, Christopher H., Buffalo, N. Y. Apparatus for producing castings. No. 1,138,443; May 4; Gaz. vol. 214; p. 254.

Bierman, Frank H. (See Strite and Bierman.)

Bierman, Howard J., *et al.* (See Strite and Bierman, assignors.)

Bijur, Joseph, New York, N. Y. Electric-lighting system for automobiles. No. 1,137,831; May 4; Gaz. vol. 214; p. 38.

Bijur, Joseph, assignor to The Safety Car Heating and Lighting Co., New York, N. Y. Regulating system. No. 1,140,106; May 18; Gaz. vol. 214; p. 914.

Billings-Chapin Company, The. (See Roberts, Daniel W., assignor.)

Binetti, Giovanni B., Vigevano, Italy. Production of boots and shoes. No. 1,138,444; May 4; Gaz. vol. 214; p. 255.

Binz, Albert W., Philadelphia, Pa. Pile fabric. No. 1,137,833; May 4; Gaz. vol. 214; p. 39.

Binz, Albert W., assignor to Schofield, Mason & Co., Philadelphia, Pa. Loom for weaving double pile fabrics. No. 1,137,832; May 4; Gaz. vol. 214; p. 38.

Birch, Clarence E., Lawrence, Kans. Educational chart. No. 1,139,329; May 11; Gaz. vol. 214; p. 601.

Birch, Gustaf B. (See Cameron and Birch.)

Birch, William T., Chicago, Ill. Pump-valve. No. 1,140,869; May 25; Gaz. vol. 214; p. 1214.

Birdsey, Somers Company. (See McDermott, Francis J., assignor.)

Birkbeck, William, and W. H. Ashman, Freeland, Pa. Valve. No. 1,138,581; May 4; Gaz. vol. 214; p. 283.

Birkenbeuel, Edward B., assignor to Coin Machine Manufacturing Company, Portland, Oreg. Coin-delivering machine. No. 1,139,838; May 18; Gaz. vol. 214; p. 818.

Birkinshaw, William G. K., Wolverhampton, and C. A. Brown, Syston, England. Construction of promenades and playing-courts. No. 1,140,241; May 18; Gaz. vol. 214; p. 960.

Bishop, Norman D., Los Angeles, Cal. Lighting-fixture apparatus. No. 1,138,836; May 11; Gaz. vol. 214; p. 481.

Bishop, William K. (See Woodruff and Bishop.)

Bissell, Carl H. (See Clary and Bissell.)

Bjorn, John, assignor to The Thomas B. Jeffrey Company, Kenosha, Wis. Steering-wheel. No. 1,140,943; May 25; Gaz. vol. 214; p. 1241.

Black, Carl A., and W. H. Teare, Cleveland, assignors of one-third to said Black and two-thirds to J. R. Cowell, Toledo, Ohio. Fertilizer and producing same. No. 1,140,437; May 25; Gaz. vol. 214; p. 1063.

Black, Edward A., Phoenix, British Columbia, Canada. Variable-speed gearing for motor-cycles. No. 1,139,330; May 11; Gaz. vol. 214; p. 601.

Black, Homer E., *et al.* (See Wills, William, assignor.)

Black, Newton. (See Taylor, Charles A., assignor.)

Black, Walter L., Allen, Nebr. Vehicle-spindle. No. 1,140,792; May 25; Gaz. vol. 214; p. 1186.

Blackstone Manufacturing Company, The. (See More, Glenn, assignor.)

Blaich, Alfred O., Chicago, Ill. Case-hardening compound. No. 1,138,073; May 4; Gaz. vol. 214; p. 124.

Blakely, Edward B., Muskegon, assignor to Gray Motor Company, Detroit, Mich. Boat-motor. No. 1,139,631; May 18; Gaz. vol. 214; p. 745.

Blamsett, John E., assignor of one-third to A. T. Knauss, Teton, Idaho. Hay-stacker. No. 1,139,157; May 11; Gaz. vol. 214; p. 544.

Blauvelt, James P., Nyack, N. Y. Terminal connection for spark-plugs. No. 1,138,445; May 4; Gaz. vol. 214; p. 255.

Blondel, André E., Paris, France. Rapid photographic record of curves of oscillographs, rheographs, and the like. No. 1,139,476; May 18; Gaz. vol. 214; p. 691.

Bloom, Edward, Haledon, N. J. Warping-machine. No. 1,138,620; May 11; Gaz. vol. 214; p. 352.

Blue Island Specialty Company. (See Montag, Christoph F., assignor.)

Boblett, Kinderman M., Toledo, Ohio. Radiator. No. 1,140,494; May 25; Gaz. vol. 214; p. 1065.

Bock, Henry L., assignor to W. E. Bock, Toledo, Ohio, Roller-bearing. No. 1,138,180; May 4; Gaz. vol. 214; p. 161.

Bock, Henry L., assignor to W. E. Bock, Toledo, Ohio, Combined radiator and headlight for motor-vehicles. No. 1,138,182; May 4; Gaz. vol. 214; p. 162.

Bock, William E. (See Bock, Henry L., assignor.)

Bock, William E., Toledo, Ohio. Spring-frame for motor-driven vehicles. No. 1,138,181; May 4; Gaz. vol. 214; p. 162.

Bock, William E., Toledo, Ohio. Stabilising mechanism for vehicle running-gear. No. 1,138,183; May 4; Gaz. vol. 214; p. 162.

Boddy, Edward V., Artesia, N. Mex. Coin-controlled mechanism for vending-machines and the like. No. 1,139,477; May 18; Gaz. vol. 214; p. 691.

Boerries, Frédéric S., Paris, France. Vibration-absorbing support. No. 1,139,158; May 11; Gaz. vol. 214; p. 544.

Boggs, Arthur V. (See MacLennan, Malcolm J., assignor.)

Böhme, Eugen R. (See Marcus and Böhme.)

Bohon, Emile, assignor to J. Sloan and E. Bohon, Paris, France. Production of soluble nitrogen compounds from organic substances of animal origin. No. 1,138,348; May 4; Gaz. vol. 214; p. 221.

Bolen, Emerson A., assignor to North Western Novelty Company, Morris, Ill. Coin-controlled vending-machine. No. 1,140,438; May 25; Gaz. vol. 214; p. 1064.

Bolin, Sven G., Kansas City, Mo. Metal door. No. 1,138,837; May 11; Gaz. vol. 214; p. 431.

Bolus, Glenn H., assignor to The Ohio Brass Company, Mansfield, Ohio. Suspension device for trolley-wires. No. 1,138,184; May 4; Gaz. vol. 214; p. 163.

Bolus, Glenn H., assignor to The Ohio Brass Company, Mansfield, Ohio. Trolley-wheel mount. No. 1,138,723; May 11; Gaz. vol. 214; p. 389.

Bonastre Llopart, Ramón, Cordoba, Argentina. Production of zinc sulfate. No. 1,140,354; May 25; Gaz. vol. 214; p. 1033.

Bonenberger, George, assignor to Steel Scaffolding Company, Evansville, Ind. Trestle-scaffold. No. 1,138,838; May 11; Gaz. vol. 214; p. 431.

Bonnell, William A., Brooklyn, N. Y. Connector. No. 1,138,074; May 4; Gaz. vol. 214; p. 124.

Boone, Charles T., Kansas City, Mo. Plant-stand. No. 1,137,737; May 4; Gaz. vol. 214; p. 6.

Boos, Henry P., Minneapolis, Minn. Dental plate-holder. No. 1,140,566; May 25; Gaz. vol. 214; p. 1110.

Booth, Thomas B., Newton Center, Mass. Electrical receiving apparatus. No. 1,139,632; May 18; Gaz. vol. 214; p. 745.

Bordner, Vaiden, Elkhart, Ind. Fishing-reel. No. 1,139,252; May 11; Gaz. vol. 214; p. 576.

Boring, Herbert, Portsmouth, Ohio, assignor of one-half to H. H. Hart, Chicago, Ill. Chuck. No. 1,140,567; May 25; Gaz. vol. 214; p. 1110.

Börjeson, Arvid A. H. (See Fagerlund and Börjeson.)

Börner, Gustav R., Leipzig, Eutritzsch, assignor to Firm of L. Hupfeld Aktien-Gesellschaft, Leipzig, Germany. Automatic throttling mechanism. No. 1,139,478; May 18; Gaz. vol. 214; p. 691.

Bosch, Firm of Robert. (See Honold, Gottlob, assignor.)

Bosch, Firm of Robert. (See Steinhart, Hermann, assignor.)

Boss, John C., Elkhart, Ind. Air-box of brick-kilns. No. 1,138,532; May 4; Gaz. vol. 214; p. 283.

Bossart, James, San Francisco, Cal. Memorandum-calendar. No. 1,139,159; May 11; Gaz. vol. 214; p. 545.

Bostwick, James A., New York, N. Y. Musical educational game-cards. No. 1,139,098; May 11; Gaz. vol. 214; p. 523.

Bottinelli, Michele J., Kellogg, Idaho. Safety device. No. 1,139,839; May 18; Gaz. vol. 214; p. 818.

Bottle, Edward W., London, England. Electrically-operated system of and apparatus for automatic signaling on railways. No. 1,140,659; May 25; Gaz. vol. 214; p. 1141.

Boudwin, Walker J., Salt Lake City, Utah. Classifier and dewaterer. No. 1,140,703; May 25; Gaz. vol. 214; p. 1186.

Boughton Flying Machine Company, The. (See Boughton, John W., assignor.)

Boughton, John W., Philadelphia, Pa., assignor to The Boughton Flying Machine Company. Airship. No. 1,138,724; May 11; Gaz. vol. 214; p. 390.

Boulard, Joseph, assignor to Universal Filter-Faucet Corporation, New York, N. Y. Faucet-filter. No. 1,139,331; May 11; Gaz. vol. 214; p. 602.

Boulton, John P., Barrow-in-Furness, England. Covering surfaces. No. 1,138,928; May 11; Gaz. vol. 214; p. 461.

Boutet, Georges J., Paris, France. Vaporizer for internal-combustion engines. No. 1,140,944; May 25; Gaz. vol. 214; p. 1242.

Bowdle, Frank A., Cerro Gordo, Ill. Insulator-bracket. No. 1,139,950; May 18; Gaz. vol. 214; p. 857.

Bowen, George W. (See Zerk, Oscar, assignor.)

Bower, Abram L., Boyertown, Pa. Automatic train-controlling device. No. 1,138,349; May 4; Gaz. vol. 214; p. 221.

Bowers, Frederick M., Chester, Pa. Apparatus for cutting, welding, and brazing metals. No. 1,137,834; May 4; Gaz. vol. 214; p. 39.

Bowman, Alton H., Allentown, Pa. Vending-machine. No. 1,138,075; May 4; Gaz. vol. 214; p. 124.

Bowman, David, Edmonston, Alberta, Canada. Rotary valve. No. 1,138,446; May 4; Gaz. vol. 214; p. 255.

Bowman, Ezra, *et al.* (See Meyers, Jacob E., assignor.)

Bowman, George W., Estherville, Iowa. Drum and cymbal beater. No. 1,138,839; May 11; Gaz. vol. 214; p. 432.

Bowser, Allen A., assignor to S. F. Bowser & Company, Fort Wayne, Ind. Pump. No. 1,138,621; May 11; Gaz. vol. 214; p. 352.

Boyce, Alfred A., Barre, Vt. Folding-machine. No. 1,138,185; May 4; Gaz. vol. 214; p. 163.

Boyd, Thomas A., Glasgow, Scotland. Pirn or cop winding machine. No. 1,139,332; May 11; Gaz. vol. 214; p. 602.

Boyd, Thomas A., Glasgow, Scotland. Spinning and twisting paper and other fibrous materials. No. 1,139,333; May 11; Gaz. vol. 214; p. 602.

Boyd, William, Dundee, Scotland. Depositing into chocolate confectionery centers of fruit products or other foodstuffs. No. 1,138,929; May 11; Gaz. vol. 214; p. 462.

Boyer, William W. E., Oklahoma, Okla. Cultivator or plow attachment. No. 1,139,840; May 18; Gaz. vol. 214; p. 819.

Boylston Mfg. Company, The. (See Ballard, Harrie A., assignor.)

Boynton, Frederick C., Springpark, assignor of one-half to E. R. Gaylord, Minneapolis, Minn. Combined scraper and rake. No. 1,138,840; May 11; Gaz. vol. 214; p. 432.

Bozarth, John A., El Paso, Tex. Garden implement. No. 1,138,274; May 4; Gaz. vol. 214; p. 193.

Brace, R. J., *et al.* (See Miner, Frank A., assignor.)

Bracey, Monsel, Thomasville, Ga. Tire-core. No. 1,140,242; May 18; Gaz. vol. 214; p. 960.

Brach, Leon S., New York, N. Y. Grounding device. No. 1,138,186; May 4; Gaz. vol. 214; p. 163.

Bradač, Ivan, assignor of one-third to S. Rajki and one-third to P. Varga, Akron, Ohio. Metallic rail tie and fastener. No. 1,137,738; May 4; Gaz. vol. 214; p. 7.

Bradbury, Frederick G. (See Sinclair, George, assignor.)

Bradford, Ernest W., *et al.* (See Salkeld, Eugene W., assignor.)

Bradley, Charles A., assignor of one-half to N. Frisk, Burnstad, N. D. Adjustable hoe. No. 1,140,020; May 18; Gaz. vol. 214; p. 883.

Bradshaw, Richard, Toronto, Ontario, Canada. Child's crib. No. 1,140,439; May 25 Gaz. vol. 214; p. 1064.

Bradshaw, Richard G., and J. C. Lyell, London, England. Film for color photography and making the same. No. 1,139,633; May 18; Gaz. vol. 214; p. 746.

Bradshaw, William P., Sydenham, Christchurch, New Zealand. Motor-vehicle. No. 1,138,447; May 4; Gaz. vol. 214; p. 256.

Brandenburg, William, and D. J. Barker, Picton, Ontario, Canada. Cook-stove. No. 1,138,622; May 11; Gaz. vol. 214; p. 353.

Brandt, Theodore J., Gresham, assignor, by mesne assignments, to National Specialty Company, Portland, Oreg. Ice-cream-cone disher. No. 1,138,533; May 4; Gaz. vol. 214; p. 283.

Braun, William A., assignor to Dover Manufacturing Company, Canal Dover, Ohio. Electric sad-iron. No. 1,138,841; May 11; Gaz. vol. 214; p. 432.

Bray, Edward W., Norfolk, Va. Water-circulator for steam-boilers. No. 1,139,334; May 11; Gaz. vol. 214; p. 603.

Brazel, David F. (See Lawrie and Brazel.)

Breakey, John W. (See Jones, Breakey, and Casey.)

Brett, William J., Brooklyn, N. Y. Hair-waver. No. 1,139,398; May 11; Gaz. vol. 214; p. 626.

Brewer, Alfred A., New York, N. Y., assignor to Ransome International Conduit Co., Dunellen, N. J. Concrete-tunnel form. No. 1,139,335; May 11; Gaz. vol. 214; p. 603.

Brewer, Charles B., Hyattsville, Md. Puzzle. No. 1,139,253; May 11; Gaz. vol. 214; p. 576.

Brewer, Jacob, Hazleton, Pa. Stove. No. 1,139,750; May 18; Gaz. vol. 214; p. 787.

Brewer, John H., Silverton, Oreg. Fruit-collecting apparatus. No. 1,138,930; May 11; Gaz. vol. 214; p. 462.

Bridges, Charles E., Chicago, assignor to Burgess-Norton Company, Geneva, Ill. Wheel. No. 1,139,951; May 18; Gaz. vol. 214; p. 857.

Bridges, Walter S., Chicago, Ill. Faucet. No. 1,138,187; May 4; Gaz. vol. 214; p. 164.

Brigance, Alice O., Navasota, Tex. Cutting implement. No. 1,138,076; May 4; Gaz. vol. 214; p. 125.

Briggs, Arthur J., Syracuse, assignor, by mesne assignments, to Remington Typewriter Company, Ilion, N. Y. Type-writing machine. No. 1,138,931; May 11; Gaz. vol. 214; p. 463.

Briggs, John R. (See Llewellyn and Briggs.)

Briggs, William C., Lynchburg, Va., assignor to Carolina Banding Machine Company, Winston-Salem, N. C. Machine for applying bands to cigars. No. 1,138,275; May 4; Gaz. vol. 214; p. 193.

Bright, George M., Roanoke, Va. Condiment-holder. No. 1,139,841; May 18; Gaz. vol. 214; p. 819.

Brightman, Latham H., Columbus, Ohio. Bolt-head and making same. No. 1,139,479; May 18; Gaz. vol. 214; p. 692.

Brimhall, Lee H., Spanish Forks, Utah. Work-bench attachment. No. 1,140,243; May 18; Gaz. vol. 214; p. 960.

Brisbois, Odilon, assignor of fifty-one one-hundredths to J. H. Ware, Chicago, Ill. Device for starting internal-combustion engines. No. 1,140,331; May 18; Gaz. vol. 214; p. 991.

Brisbois, Odilon, assignor of fifty-one one-hundredths to J. H. Ware, Chicago, Ill. Valve. No. 1,140,332; May 18; Gaz. vol. 214; p. 991.

Brisbois, Odilon, assignor of fifty-one one-hundredths to J. H. Ware, Chicago, Ill. Type-writer carriage-return device. No. 1,140,333; May 18; Gaz. vol. 214; p. 991.

Briscoe Manufacturing Company. (See Farlinger, George E., assignor.)

Briscoe Manufacturing Company. (See Groehn, Otto J., assignor.)

Brisson, Joseph T., assignor of one-half to M. F. Kelly, Detroit, Mich. Driving mechanism. No. 1,139,634; May 18; Gaz. vol. 214; p. 746.

Brister, John L., Norfolk, Va. Playing-cards. No. 1,138,534; May 4; Gaz. vol. 214; p. 284.

Brittain, George C., Oxford, Kans. Mechanism for moving engines off a dead-center. No. 1,140,355; May 25; Gaz. vol. 214; p. 1033.

Britton, Arthur T. (See Wickland and Britton.)

Brizius, William J., Los Angeles, Cal. Wax-extractor. No. 1,140,660; May 25; Gaz. vol. 214; p. 1142.

Brockman, Edward, Aurora, Ill. Fly-swatter. No. 1,138,448; May 4; Gaz. vol. 214; p. 256.

Broderick, Fred. (See Christopher, William E., assignor.)

Brodie, Charles G., Fernhill, Wootton Bridge, Isle of Wight, England. Water-meter. No. 1,140,661; May 25; Gaz. vol. 214; p. 1142.

Broe, Andrew G. (See Taylor and Broe.)

Brogden, Joah, and J. W. Watkins, assignors to David Lupton's Sons Company, Philadelphia, Pa. Sheet-metal fire-resisting closure. No. 1,139,842; May 18; Gaz. vol. 214; p. 819.

Brokoff, Emil R., *et al.* (See Sinclair, George, assignor.)

Broman, Charles E., Grand Rapids, Mich. Rotary internal-combustion engine. No. 1,140,870; May 25; Gaz. vol. 214; p. 1214.

Brook, Oscar, *et al.* (See Maynard, Joseph A., assignor.)

Brooke, Thomas P., assignor to L. C. Kuhnert, Jr., Chicago, Ill. Internal-combustion engine. No. 1,139,336; May 11; Gaz. vol. 214; p. 604.

Brooks, Edward J., East Orange, N. J. Snap-seal. No. 1,138,350; May 4; Gaz. vol. 214; p. 222.

Brooks, George S., Depue, Ill., assignor to The New Jersey Zinc Company, New York, N. Y. Briquet for use in zinc-furnaces. No. 1,137,835; May 4; Gaz. vol. 214; p. 40.

Brooks, James A., assignor to The J. G. Brill Co., Philadelphia, Pa. Brake mechanism for maximum-traction trucks. No. 1,138,842; May 11; Gaz. vol. 214; p. 433.

Brostrom, Carl A., Moline, Ill. Gang-plow. No. 1,139,751; May 18; Gaz. vol. 214; p. 787.

Brouillette, Alfred L., Campbell, Nebr., assignor of one-half to R. C. Chevalier, Holst. No. 1,140,440; May 25; Gaz. vol. 214; p. 1064.

Bronyette, Charles D., and G. P. McEntire, Topeka, Kans., assignors to McEntire Brothers. Bed or cot. No. 1,139,099; May 11; Gaz. vol. 214; p. 524.

Brown, Alexander T. (See Kippen, Brown, and White.)

Brown, Alfred H., Jersey City, N. J. Swimming device. No. 1,140,107; May 18; Gaz. vol. 214; p. 915.

Brown, Allen B., Portland, Oreg. Sash-lock. No. 1,140,945; May 25; Gaz. vol. 214; p. 1242.

Brown & Bailey Company. (See Brown, Robert P., assignor.)

Brown and Bigelow. (See Kristofek, Frank J., assignor.)

Brown, Claude A. (See Birkinshaw and Brown.)

Brown, Enoch S., assignor of one-half to W. M. Shields, Afton, Iowa. Corn-harvester. No. 1,140,244; May 18; Gaz. vol. 214; p. 960.

Brown, George C., Indianapolis, Ind. Self-locking pin. No. 1,139,337; May 11; Gaz. vol. 214; p. 604.

Brown, George F., Winnipeg, Manitoba, Canada. Coffin. No. 1,139,254; May 11; Gaz. vol. 214; p. 576.

Brown, George T. (See Lyons, John S., assignor.)

Brown, Gregory. (See Craft and Brown.)

Brown, Harold A., assignor of one-half to J. Burdett and one-half to A. B. Alden, Brockton, Mass. Skiving-machine. No. 1,139,480; May 18; Gaz. vol. 214; p. 692.

Brown, Hugh, Battle Creek, Mich., assignor to The Greenstreet Folding Box Machine Company, Indianapolis, Ind. Box-blank machine. No. 1,140,207; May 18; Gaz. vol. 214; p. 978.

Brown, John H., Oneida, N. Y. Garment. No. 1,138,623; May 11; Gaz. vol. 214; p. 353.

Brown, Leighton L., Minneapolis, and C. H. Patek, Brainerd, Minn., assignors of five-eighths to said Patek. Damper. No. 1,140,871; May 25; Gaz. vol. 214; p. 1215.

Brown Machinery Manufacturing Company. (See Brown, Sherman T., assignor.)

Brown, Patrick J., Cleveland, Ohio. Hot-blast stove. No. 1,140,872; May 25; Gaz. vol. 214; p. 1216.

Brown, Richard R., assignor to Belvidere Screw & Machine Company, Belvidere, Ill. Stock-stop for screw-machines. No. 1,139,752; May 18; Gaz. vol. 214; p. 787.

Brown, Robert B., Washington, D. C. Handle-grip. No. 1,139,843; May 18; Gaz. vol. 214; p. 820.

Brown, Robert P., assignor to Brown & Bailey Company, Philadelphia, Pa. Knockdown box. No. 1,140,794; May 25; Gaz. vol. 214; p. 1186.

Brown, Roy M., Wilmington, Ohio. Band-brake. No. 1,141,035; May 25; Gaz. vol. 214; p. 1271.

Brown, Samuel J., assignor of one-half to Z. Giberson, Vancouver, British Columbia, Canada. Inserted tooth for saws. No. 1,140,021; May 18; Gaz. vol. 214; p. 883.

Brown, Santiago L., New York, N. Y. Hardening iron. No. 1,140,568; May 25; Gaz. vol. 214; p. 1111.

Brown, Sherman T., assignor to Brown Machinery Manufacturing Company, St. Paul, Minn. Box-flanging machine. No. 1,138,351; May 4; Gaz. vol. 214; p. 222.

Brown, Sidney G., London, England. Compensating device for telephonic circuits. No. 1,140,946; May 25; Gaz. vol. 214; p. 1242.

Brown, Stanley, Garden City, N. Y. Direct-view finder for cameras. No. 1,140,108; May 18; Gaz. vol. 214; p. 915.

Brown, Theophilus, Worcester, Mass., assignor, by mesne assignments, to Marseilles Company, East Moline, Ill. Manure-spreader. No. 1,139,481; May 18; Gaz. vol. 214; p. 693.

Brown, Theophilus, Moline, Ill., assignor to Marseilles Company. Manure-spreader. No. 1,139,482; May 18; Gaz. vol. 214; p. 693.

Brown, Theophilus, Moline, assignor to Marseilles Company, East Moline, Ill. Manure-spreader. No. 1,139,483; May 18; Gaz. vol. 214; p. 693.

Brown, William T., Hapeville, Ga. Locomotive-headlight. No. 1,138,449; May 4; Gaz. vol. 214; p. 256.

Brown, Willis S. (See Marean, William M., assignor.)

Browne, Arthur W., Ithaca, N. Y. Playing-cards. No. 1,140,441; May 25; Gaz. vol. 214; p. 1064.

Brownell, George W., St. Albans, Vt. Automatic train-stopping mechanism. No. 1,140,100; May 18; Gaz. vol. 214; p. 915.

Brownlee, Joseph P., Evanston, Ill., assignor to The Studebaker Corporation, South Bend, Ind. Horse-drawn vehicle. No. 1,138,352; May 4; Gaz. vol. 214; p. 223.

Bruce, Andrew G., Mead, Nebr. Antiskid attachment for tires. No. 1,138,189; May 4; Gaz. vol. 214; p. 164.

Bruckman, Frederick A., Portland, Oreg. Ice-cream-cone machine. No. 1,138,450; May 4; Gaz. vol. 214; p. 257.

Brumhoff, Edward, Cincinnati, Ohio. Vender's display-stand. No. 1,137,947; May 4; Gaz. vol. 214; p. 79.

Brummett, Sinclair H., Scranton, Tex. Peanut-harvester. No. 1,140,569; May 25; Gaz. vol. 214; p. 1111.

Bruns, John M., assignor to Waterloo Cement Machinery Corporation, Waterloo, Iowa. Actuating means for dumping concrete-mixers. No. 1,140,298; May 18; Gaz. vol. 214; p. 978.

Brunstien, Samuel. (See Schmidt and Brunstien.)

Brunswick-Balke-Collender Co. (See Hobbs, Frank C., assignor.)

Brush, Alanson P., Detroit, Mich. Dual ignition system. No. 1,139,255; May 11; Gaz. vol. 214; p. 577.

Bryan, Daniel R., Chatham, N. J. Apparatus for sorting heterogeneous material. No. 1,139,484; May 18; Gaz. vol. 214; p. 694.

Bryant, Fredrick S., Reading, Mass. Tire. No. 1,139,338; May 11; Gaz. vol. 214; p. 605.

Buhar, Dean B., Roseburg, Oreg. Magazine-rifle. No. 1,140,245; May 18; Gaz. vol. 214; p. 961.

Buchanan, John P., Cleveland, Ohio, assignor to The Union Switch & Signal Company, Swissvale, Pa. Railway signaling. No. 1,140,495; May 25; Gaz. vol. 214; p. 1086.

Buchanan, Mose R. (See Pennewill and Buchanan.)

Bucher, John E., Coventry, assignor to Nitrogen Products Company, Providence, R. I. Fixing atmospheric nitrogen. No. 1,138,190; May 4; Gaz. vol. 214; p. 165.

Bucher, John E., Coventry, assignor to Nitrogen Products Company, Providence, R. I. Producing ammonia and the like. No. 1,138,191; May 4; Gaz. vol. 214; p. 165.

Buchholz, Charles, Cleveland, Ohio. Weigher. No. 1,137,836; May 4; Gaz. vol. 214; p. 40.

Büchi, Alfred, Winterthur, Switzerland, assignor to Busch-Sulzer Bros.-Diesel Engine Company, St. Louis, Mo. Marine-engine installation. No. 1,138,077; May 4; Gaz. vol. 214; p. 125.

Buchtel, William D., assignor of one-half to W. E. Paxton, Paxton, Nebr. Shoe-lace fastener. No. 1,138,535; May 4; Gaz. vol. 214; p. 284.

Buck, Herman J., assignor to Mathews Gravity Carrier Company, Ellwood City, Pa. Elevator. No. 1,140,110; May 18; Gaz. vol. 214; p. 915.

Buckley, Duer H., Vienna, Ohio, assignor of one-half to J. E. Searles, Chicago, Ill. Steering device for automobiles. No. 1,139,453; May 11; Gaz. vol. 214; p. 646.

Buckley, Georgiana A., Montrose, Colo. Double-spring adjustable curtain-rod. No. 1,140,570; May 25; Gaz. vol. 214; p. 1111.

Buckman, Frank. (See Moss, William T., assignor.)

Buehle, Erich, New York, N. Y., assignor to The Pelton Water Wheel Co., Inc., San Francisco, Cal. Pressure-turbine. No. 1,137,948; May 4; Gaz. vol. 214; p. 79.

Buffalo Forge Company. (See Carrier, Willis H., assignor.)

Buffum, Frank W. (See McCawley and Phillips, assignors.)

Bugatti, Ettore, Molsheim, Germany. Connection of axle parts. No. 1,140,496; May 25; Gaz. vol. 214; p. 1086.

Bugele, Hudson H., St. Louis, Mo. Baby-crib. No. 1,138,451; May 4; Gaz. vol. 214; p. 257.

Bull Tractor Company. (See Hartsough, D. Maurice, assignor.)

Bulley, Louis T., and G. E. Wheeler, New Haven, Conn. Plaiting-machine. No. 1,139,454; May 11; Gaz. vol. 214; p. 647.

Bullock Tractor Company. (See Houghton, Orley C., assignor.)

Bulmer, John B., Toronto, Ontario, Canada. Track-switch. No. 1,138,624; May 11; Gaz. vol. 214; p. 353.

Bunnell, Morton G., assignor to F. C. Austin, Chicago, Ill. Excavator. No. 1,140,662; May 25; Gaz. vol. 214; p. 1143.

Burns, Norbert. (See Collette, Larry, and Burns.)

Burbridge, Harry J. (See Melvin and Burbridge.)

Burchartz, Ferdinand, assignor to Burchartz Fireproofing Company, New York, N. Y. Reinforced-concrete floor and ceiling construction. No. 1,140,571; May 25; Gaz. vol. 214; p. 1111.

Burchartz Fireproofing Company. (See Burchartz, Ferdinand, assignor.)

Burdett, John, *et al.* (See Brown, Harold A., assignor.)

Burdick, Fred F., Milton, Wis. Collapsible cabinet. No. 1,141,036; May 25; Gaz. vol. 214; p. 1272.

Burgess-Norton Company. (See Bridges, Charles E., assignor.)

Burgschmiet, Georg, Morden, Manitoba, Canada. Explosive. No. 1,139,339; May 11; Gaz. vol. 214; p. 605.

Burke, Ulysses J., Des Moines, Iowa. Adjustable letter-package tier. No. 1,139,100; May 11; Gaz. vol. 214; p. 524.

Burlingame, Stephen C., Sterling, Conn. Bundle-tying device. No. 1,140,246; May 18; Gaz. vol. 214; p. 961.

Burnham, Edward K. (See Ryan, William P., assignor.)

Burnham, George A., Cliftondale, assignor to S. B. Condit, Jr., Brookline, Mass. Series transformer. No. 1,138,625; May 11; Gaz. vol. 214; p. 353.

Burnham, George A., Cliftondale, assignor to S. B. Condit, Jr., Boston, Mass. Electric compensator. No. 1,140,247; May 18; Gaz. vol. 214; p. 961.

Burnham, George A., Saugus, assignor to S. B. Condit, Jr., Brookline, Mass. Time-limit controlling device for electric switches. No. 1,140,248; May 18; Gaz. vol. 214; p. 962.

Burnham, George A., Saugus, assignor to S. B. Condit, Jr., Brookline, Mass. Time-limit relay. No. 1,140,249; May 18; Gaz. vol. 214; p. 962.

Burns & Bassick Company, The. (See Cummins, Norman W., assignor.)

Burns, Elliott. (See Overfield, Hamsley, and Burns.)

Burrell, Edward P., assignor to The Warner and Swasey Company, Cleveland, Ohio. Tool-holding turret. No. 1,140,733; May 25; Gaz. vol. 214; p. 1165.

Burrell, George, Durban, Natal, South Africa. Device for delivering pouches from moving trains. No. 1,140,022; May 18; Gaz. vol. 214; p. 884.

Burris, Frank D., Waukegan, Ill. Motor-truck. No. 1,139,635; May 18; Gaz. vol. 214; p. 746.

Burroughs Adding Machine Company. (See Chapin, John J., assignor.)

Burroughs Adding Machine Company. (See Rinsche, Frank C., assignor.)

Burroughs, Eben, Racine, Wis. Motor-oar. No. 1,138,078; May 4; Gaz. vol. 214; p. 126.

Buscavage, Joseph, Tamaqua, Pa. Hand-drill. No. 1,140,572; May 25; Gaz. vol. 214; p. 1112.

Busch, Gerhard, Philadelphia, Pa. Stop for tone-arms of talking-machines. No. 1,141,037; May 25; Gaz. vol. 214; p. 1272.

Busch-Sulzer Bros.-Diesel Engine Company. (See Büchi, Alfred, assignor.)

Bush, Charles T., *et al.* (See Garros, Benjamin, assignor.)

Busler, Harry W., Littleton, N. H. Sharpening-machine for edge-tools. No. 1,139,485; May 18; Gaz. vol. 214; p. 694.

Buss, John E., Wellsboro, Pa. Lid-lifter. No. 1,137,949; May 4; Gaz. vol. 214; p. 70.

Butler, James W. (See Roberts and Butler.)

Butler, William G., Wilkes-Barre, Pa. Adjustable socket-wrench. No. 1,140,947; May 25; Gaz. vol. 214; p. 1243.

Butterworth, Charles F., *et al.* (See Fuller, Eugene, assignor.)

Buttles, Augustus H., assignor to Luedke-Schaefer-Buttles Co., Milwaukee, Wis. Shoe construction. No. 1,139,014; May 11; Gaz. vol. 214; p. 494.

Byram, Joseph L., Clements, Kans. Rake-cleaner. No. 1,140,663; May 25; Gaz. vol. 214; p. 1143.

C. B. Cottrell & Sons Company. (See Cottrell, Charles P., assignor.)

C. G. Sargent's Sons Corporation. (See Sargent, Allan C., assignor.)

C. R. Carver Company. (See Lockwood, Edward M., assignor.)

Cable, James R., assignor to P. Petersen, Toledo, Ohio. Safety-valve for fluid-pressure mains. No. 1,139,952; May 18; Gaz. vol. 214; p. 858.

Cabot, Godfrey L., Boston, Mass. Means for handling and transporting liquid gas. No. 1,140,250; May 18; Gaz. vol. 214; p. 963.

Cade, John T., Arcola, N. J., assignor to Federal Signal Company. System for vehicle control. No. 1,140,356; May 25; Gaz. vol. 214; p. 1034.

Caldwell, William F., assignor of one-half to J. A. Riggs, Hot Springs, Ark. Indicator. No. 1,139,486; May 18; Gaz. vol. 214; p. 694.

Calhoun, Curtis S., Decatur, Ill. Hand-truck. No. 1,139,630; May 18; Gaz. vol. 214; p. 747.

California Fruit Canners Association. (See Olsen, John A., assignor.)

California Macvan Co. (See Vandercook, Albert E., assignor.)

California Retarder & Fibre Company. (See Strauss, Dennis Y., assignor.)

Call, Ira A., assignor to Call Switch Company, Denver, Colo. Railway-switch. No. 1,138,606; May 4; Gaz. vol. 214; p. 308.

Call Switch Company. (See Call, Ira A., assignor.)

Calleson, Amos, New York, N. Y. Rim-tool. No. 1,140,023; May 18; Gaz. vol. 214; p. 884.

Cainan, William H., Clinton, Iowa. Portable distributing-machine. No. 1,139,844; May 18; Gaz. vol. 214; p. 820.

Cameragraph Company, The. (See Schwab, William R., assignor.)

Cameron, James A., and G. B. Birch, New York, assignors to Cameron Machine Company, Brooklyn, N. Y. Collapsible shaft. No. 1,138,079; May 4; Gaz. vol. 214; p. 126.

Cameron Machine Company. (See Cameron and Birch, assignors.)

Camfield, William H., Newark, N. J. Talking-machine. No. 1,138,843; May 11; Gaz. vol. 214; p. 434.

Campbell, Alexander H., Woodmere, N. Y. Hand-truck. No. 1,140,795; May 25; Gaz. vol. 214; p. 1187.

Campbell, Argyle, assignor to Enterprise Railway Equipment Company, Chicago, Ill. Door-operating mechanism for dump-cars. No. 1,140,111; May 18; Gaz. vol. 214; p. 916.

Campbell, Joseph N., Linden, N. J. Paper-hanging device. No. 1,140,112; May 18; Gaz. vol. 214; p. 916.

Campbell, Osmon B., Jr., Kansas City, Mo. Rotary conical valve for internal-combustion motors. No. 1,139,953; May 18; Gaz. vol. 214; p. 858.

Campbell, William B. (See Hye, Campbell, and Bateman.)

Canadian Consolidated Rubber Company. (See Rieder, Talmon H., assignor.)

Cangia, Giuseppe D., Naples, Italy. Electric-power-transmission pole. No. 1,139,487; May 18; Gaz. vol. 214; p. 695.

Canulette, Frank N., Slidell, La. Grappling-hook. No. 1,141,038; May 25; Gaz. vol. 214; p. 1273.

Capdevila, José, New York, N. Y. Repair-heel for rubber footwear. No. 1,138,725; May 11; Gaz. vol. 214; p. 390.

Capitol Brass Works. (See Arndt, William E., assignor.)

Carbic Corporation, The. (See Morris, John M., assignor.)

Carbon-Oxygen Gas Engine Company. (See Willey and Galletly, assignors.)

Cardwell, James R., assignor to Union Draft Gear Company, Chicago, Ill. Draft-gear. No. 1,137,951; May 4; Gaz. vol. 214; p. 80.

Cardy, Fred E., Chicago, Ill. Loose-leaf binder. No. 1,140,442; May 25; Gaz. vol. 214; p. 1065.

Carey, Clarence F., *et al.* (See Duncan, Lester C., assignor.)

Carlander, Thor, *et al.* (See Wigelius, Sven G., assignor.)

Carlin, Albert N. (See Carlin, Edmund P., assignor.)

Carlin, Edmund P., La Prairie, Ill., assignor of one-half to A. N. Carlin, St. Louis, Mo. End-gate rod and lock. No. 1,140,706; May 25; Gaz. vol. 214; p. 1187.

Carli, Addison B., Boothwyn, Pa. Ratchet-drill. No. 1,138,276; May 4; Gaz. vol. 214; p. 193.

Carli, Addison B., Boothwyn, Pa. Ratchet mechanism for tools. No. 1,138,277; May 4; Gaz. vol. 214; p. 194.

Carlson, George. (See Thomas and Carlson.)

Carlson, Hjalmar G., Worcester, Mass., assignor to Rockwood Sprinkler Company of Massachusetts. Ceiling-drilling machine. No. 1,137,837; May 4; Gaz. vol. 214; p. 40.

Carney, James J., Haverhill, Mass. Trousers attachment. No. 1,140,251; May 18; Gaz. vol. 214; p. 963.

Carney, Maurice, assignor to Paul Dickinson, Incorporated, Chicago, Ill. Chimney. No. 1,138,726; May 11; Gaz. vol. 214; p. 390.

Carolina Banding Machine Company. (See Briggs, William C., assignor.)

Carpenter, Henry A., Sewickley, assignor to Riter-Conley Manufacturing Company, Pittsburgh, Pa. Coal-gas-generating apparatus. No. 1,140,797; May 25; Gaz. vol. 214; p. 1187.

Carpenter, Henry A., Sewickley, assignor to Riter-Conley Manufacturing Company, Pittsburgh, Pa. Coal-gas-generating apparatus. No. 1,140,798; May 25; Gaz. vol. 214; p. 1188.

Carpenter, Henry A., and A. W. Warner, Sewickley, assignors to Riter-Conley Manufacturing Company, Pittsburgh, Pa. Pressure control for gas-benches. No. 1,138,727; May 11; Gaz. vol. 214; p. 391.

Carpenter, Henry A., Sewickley, Pa., and D. D. Barnum, Worcester, Mass., assignors to Riter-Conley Manufacturing Company, Pittsburgh, Pa., Manufacturing gas. No. 1,140,113; May 18; Gaz. vol. 214; p. 917.

Carpenter, James W., Brooklyn, N. Y. Locking mechanism for vaults. No. 1,137,739; May 4; Gaz. vol. 214; p. 7.

Carpenter, Joseph F., Wheeling, W. Va. Cross-tie. No. 1,138,080; May 4; Gaz. vol. 214; p. 127.

Carr, Cassius M., Fort Worth, Tex. Dental tool. No. 1,138,355; May 4; Gaz. vol. 214; p. 224.

Carr, John H., Alhambra, Cal. Platform-wheel. No. 1,139,160; May 11; Gaz. vol. 214; p. 545.

Carr, John H., Alhambra, Cal. Roller-bearing. No. 1,139,161; May 11; Gaz. vol. 214; p. 545.

Carr, William C., Buffalo, N. Y. Switch-box for electric trucks. No. 1,139,954; May 18; Gaz. vol. 214; p. 858.

Carr, William C., Buffalo, N. Y. Ore-car. No. 1,140,497; May 25; Gaz. vol. 214; p. 1087.

Carrier, Willis H., assignor to Buffalo Forge Company, Buffalo, N. Y. Air washing and conditioning apparatus. No. 1,138,081; May 4; Gaz. vol. 214; p. 127.

Carrier, Willis H., assignor to Buffalo Forge Company, Buffalo, N. Y. Hygrostat or thermostatic device. No. 1,138,082; May 4; Gaz. vol. 214; p. 127.

Carrier, Willis H., assignor to Buffalo Forge Company, Buffalo, N. Y. Rotary fan. No. 1,138,083; May 4; Gaz. vol. 214; p. 128.

Carrier, Willis H., assignor to Buffalo Forge Company, Buffalo, N. Y. Safety means for humidity-regulating apparatus. No. 1,138,084; May 4; Gaz. vol. 214; p. 128.

Carroll, Joseph, New York, N. Y. Adjustable piston-ring packing. No. 1,140,948; May 25; Gaz. vol. 214; p. 1243.

Carroll, Thomas J., Clifton, Ariz. Hasp for suitcases. No. 1,140,949; May 25; Gaz. vol. 214; p. 1243.

Carscadin, Charles A., and G. A. Woodman, assignors of one-third to R. C. Dudley, Chicago, Ill. Uncoupling device. No. 1,140,114; May 18; Gaz. vol. 214; p. 917.

Carson, Lowell E., Cleveland, Ohio. Wire stretching or pulling device. No. 1,140,115; May 18; Gaz. vol. 214; p. 917.

Carter, Dixon S., Davenport, Iowa. Pulverizing attachment for plowshares. No. 1,137,952; May 4; Gaz. vol. 214; p. 81.

Carter, George S., Minneapolis, Minn. Cabinet. No. 1,138,353; May 4; Gaz. vol. 214; p. 223.

Carter, John D. (See Vail and Carter.)

Carter, Winthrop L., Nashua, N. H. Machine and method for waxing paper. No. 1,140,873; May 25; Gaz. vol. 214; p. 1216.

Cartwright, David J., Boston, Mass. Ordnance. No. 1,137,953; May 4; Gaz. vol. 214; p. 81.

Carufel, Louis H. (See Gussner and Carufel.)

Casey, William F. (See Jones, Breakey, and Casey.)

Casey, William F. J., Kingston, Ontario, Canada, assignor to Locomotive Superheater Company, New York, N. Y. Steam-superheater. No. 1,140,116; May 18; Gaz. vol. 214; p. 918.

Cassidy, Charles L., Orange, N. J. Socket for electric lamps. No. 1,140,498; May 25; Gaz. vol. 214; p. 1087.

Casteran, Juan G., Buenos Aires, Argentina. Gearing for tractors. No. 1,138,452; May 4; Gaz. vol. 214; p. 257.

Casteran, Juan G., Buenos Aires, Argentina. Tractor. No. 1,138,453; May 4; Gaz. vol. 214; p. 258.

Castle, Egbert H., Quincy, Ill. Heating-stove. No. 1,140,950; May 25; Gaz. vol. 214; p. 1244.

Castle, John H., and W. G. Rogers, Painted Post, N. Y., assignors to Ingersoll-Rand Company, Jersey City, N. J. Pressure-controlled valve. No. 1,138,278; May 4; Gaz. vol. 214; p. 194.

Catucci, Pliny, Newark, N. J., assignor to A. F. Meisselbach & Brother. Stylus for sound-reproducing machines. No. 1,138,354; May 4; Gaz. vol. 214; p. 223.

Cavanna, Larry, Fairmont, W. Va. Automatic adjusting pipe-wrench. No. 1,138,728; May 11; Gaz. vol. 214; p. 391.

Caven, Alva H., Youngwood, Pa. Trolley contact. No. 1,138,279; May 4; Gaz. vol. 214; p. 195.

Caven, Trevor M., Chicago, Ill., assignor to Kieselguhr Company of America, Los Angeles, Cal. Making molded articles. No. 1,139,637; May 18; Gaz. vol. 214; p. 747.

Cejka, Louis. (See Vosatka and Cejka.)

Centervall, Hugo. (See Manly and Centervall.)

Cerbo, Ferdinando, Providence, R. I. Urethroscope or endoscope. No. 1,139,015; May 11; Gaz. vol. 214; p. 494.

Cerny, Charles. (See Cerny, Joseph and C.)

Cerny, Joseph and C., St. Louis, Mo. Vehicle-wheel. No. 1,139,638; May 18; Gaz. vol. 214; p. 747.

Chabre, Theodore, Alameda, Cal. Combination compasses and dividers. No. 1,140,800; May 25; Gaz. vol. 214; p. 1188.

Chadeloid Chemical Company. (See Ellis, Carleton, assignor.)

Chadwick, Everett D. (See Davis and Chadwick.)

Chadwick, Everett D., trustee. (See Nickerson, William E., assignor.)

Chadwick, Lee S., East Cleveland, assignor to The Cleveland Foundry Company, Cleveland, Ohio. Oil-stove. No. 1,138,536; May 4; Gaz. vol. 214; p. 285.

Chadwick, Lee S., East Cleveland, assignor to The Cleveland Foundry Company, Cleveland, Ohio. Stove. No. 1,140,874; May 25; Gaz. vol. 214; p. 1216.

Chadwick, Lee S., assignor to The Cleveland Foundry Company, Cleveland, Ohio. Burner. No. 1,138,729; May 11; Gaz. vol. 214; p. 391.

Chaffee, Alfred M., Oxford, Mass. Mechanism for making cloth-boards. No. 1,138,537; May 4; Gaz. vol. 214; p. 285.

Chaffee, Alfred M., Oxford, Mass. Means for delivering moistened or glue-coated paper and similar fabrics. No. 1,138,538; May 4; Gaz. vol. 214; p. 286.

Chaffee, Alney E., *et al.* (See Salkeld, Eugene W., assignor.)

Chaffee, Edward F., assignor to The O. M. Edwards Company, Inc., Syracuse, N. Y. Trap-door for railway-car platforms. No. 1,140,951; May 25; Gaz. vol. 214; p. 1244.

Chalfant, Joseph G., and H. G. Haun, Akron, Ohio. Core for use in molds and forms. No. 1,140,499; May 25; Gaz. vol. 214; p. 1087.

Challeen, Albert, Minneapolis, Minn. Combination mail and parcel-post box. No. 1,137,740; May 4; Gaz. vol. 214; p. 7.

Champion Ignition Company. (See Schmidt, Albert, assignor.)

Chandler, Elbert G., Portland, Oreg. Logging-truck. No. 1,140,875; May 25; Gaz. vol. 214; p. 1217.

Chandler Engine Valve Company. (See Chandler, Milford G., assignor.)

Chandler, Milford G., assignor to Chandler Engine Valve Company, Chicago, Ill. Valve device for internal-combustion engines. No. 1,139,101; May 11; Gaz. vol. 214; p. 525.

Channell, Levi G., Palestine, W. Va. Nut-lock. No. 1,140,876; May 25; Gaz. vol. 214; p. 1217.

Chanute, Paul F., assignor of one-half to G. A. Liambias, New Orleans, La. Wheel-mount. No. 1,140,573; May 25; Gaz. vol. 214; p. 1112.

Chapin, John J., assignor to Burroughs Adding Machine Company, Detroit, Mich. Type-writer carriage mechanism. No. 1,139,102; May 11; Gaz. vol. 214; p. 525.

Chapin, Robert M., Washington, D. C. Preparation of a concentrated animal-dip. No. 1,137,844; May 4; Gaz. vol. 214; p. 48.

Chapman, Charles F., Newark, N. J. Package-sealing machine. No. 1,140,574; May 25; Gaz. vol. 214; p. 1112.

Chapman, General S., St. Petersburg, Fla. Mold for concreting piles. No. 1,138,454; May 4; Gaz. vol. 214; p. 258.

Chapman, Howard D. (See Berliner and Chapman.)

Chapman, Solomon D., Canton, Ohio. Valve. No. 1,139,162; May 11; Gaz. vol. 214; p. 546.

Chapman, Walter W. (See Chapman, William H. and W. W.)

Chapman, William H. and W. W., Newark, N. J.; said W. W. Chapman assignor to said William H. Chapman. Press. No. 1,139,845; May 18; Gaz. vol. 214; p. 821.

Charley, John J., Malvern, Victoria, Australia. Spring suspension for vehicles. No. 1,137,741; May 4; Gaz. vol. 214; p. 7.

Chary, Joseph, Oberhomburg, Lothringen, Germany. Buckle. No. 1,138,539; May 4; Gaz. vol. 214; p. 286.

Chary, Joseph, Oberhomburg, Lothringen, Germany. Buckle. No. 1,138,540; May 4; Gaz. vol. 214; p. 286.

Chein, Julius, Upper Montclair, N. J. Toy safe. No. 1,138,626; May 11; Gaz. vol. 214; p. 354.

Chevalier, Romulus C. (See Brouillette, Alfred L., assignor.)

Chicago Railway Equipment Company. (See Le Beau, Ernest A., assignor.)

Chicago Railway Equipment Company. (See Rohling, John M., assignor.)

Chicago Standard Equipment Company. (See Dunderdale, Herbert, assignor.) (Reissue.)

Christensen, Johannes E., Everett, Wash. Rotary engine. No. 1,140,952; May 25; Gaz. vol. 214; p. 1244.

Christensen, Martin, Racine, Wis. Conveyer for book-stitching machines. No. 1,140,734; May 25; Gaz. vol. 214; p. 1165.

Christopher, William E., Bessemer, assignor of one-half to F. Broderick, Birmingham, Ala. Adjustable spring-puller. No. 1,139,488; May 18; Gaz. vol. 214; p. 695.

Chryst, William A., assignor to The National Cash Register Company, Dayton, Ohio. Cash and autographic register. No. 1,140,443; May 25; Gaz. vol. 214; p. 1065.

Church, Earl D., Hartford, Conn. Rifle-range shot-indicator. No. 1,139,846; May 18; Gaz. vol. 214; p. 821.

Church, Edmund S., assignor to The National Cash Register Company, Dayton, Ohio. Reading and resetting device. No. 1,138,844; May 11; Gaz. vol. 214; p. 434.

Church, Leo, Mobridge, S. D. Indicator. No. 1,139,489; May 18; Gaz. vol. 214; p. 695.

Ciarlelli, Leo, Bristol, R. I. Billiard-cue-tip fastener. No. 1,139,340; May 11; Gaz. vol. 214; p. 605.

Cigol, Frank A., Paterson, N. J. Forming hollow articles of rubber. No. 1,139,841; May 11; Gaz. vol. 214; p. 605.

Cincinnati-Bickford Tool Company, The. (See Klausmeyer, David C., assignor.)

Citizens Savings and Trust Company, The, trustee. (See Hughes, Dow B., assignor.)

Clade, Robert, Newark, assignor to Air Turbine Company of America, Jersey City, N. J. Windmill. No. 1,139,103; May 11; Gaz. vol. 214; p. 525.

Clapham, George H., Manchester, England. Holder for eyeglasses and the like articles. No. 1,140,024; May 18; Gaz. vol. 214; p. 885.

Clapp, Edward D., Washington, D. C. Steering mechanism. No. 1,139,399; May 11; Gaz. vol. 214; p. 627.

Clapper, J. S., *et al.* (See Stritz and Bierman, assignors.)

Clark, Ira P., Decatur, assignor of one-fourth to W. B. Hunter, Hagarstown, Ill. Water-closet. No. 1,140,252; May 18; Gaz. vol. 214; p. 963.

Clark, Jesse R., Chicago, Ill., assignor to The Forbes Lithograph Mfg. Co., Boston, Mass. Educational device. No. 1,139,256; May 11; Gaz. vol. 214; p. 577.

Clark, John L., Jr., Fairhaven, Mass. Necktie. No. 1,139,016; May 11; Gaz. vol. 214; p. 495.

Clark, John W., Kimmell, Ind. Gate. No. 1,139,168; May 11; Gaz. vol. 214; p. 546.

Clark, Merrill E., New York, N. Y. Aeroplane. No. 1,140,444; May 25; Gaz. vol. 214; p. 1066.

Clark, Norris E., Plainville, Conn. Concrete reinforcement. No. 1,138,932; May 11; Gaz. vol. 214; p. 463.

Clark, Norris E., Plainville, conn., assignor to The National Metal-Fabric Company of New York. Expanded-metal manufacture. No. 1,140,117; May 18; Gaz. vol. 214; p. 918.

Clark, William T., Philadelphia, Pa., assignor to Otis Elevator Company, Jersey City, N. J. Shock-absorber. No. 1,140,357; May 25; Gaz. vol. 214; p. 1034.

Clarke, Ralph S., Walpole, Mass., assignor to Wandel Screen Manufacturing Company. Driving-gear for rotary pulp-screens. No. 1,138,192; May 4; Gaz. vol. 214; p. 165.

Clary, Francis W., and C. H. Bissell, assignors to Crouse-Hinds Company, Syracuse, N. Y. Sealing device. No. 1,139,490; May 18; Gaz. vol. 214; p. 695.

Clausing, Louis F. (See Wentworth and Clausing.)

Clay, William H. (See Ward and Clay.)

Cleave, Arthur H. W., Ottawa, Ontario, Canada. Life-preserver. No. 1,140,358; May 25; Gaz. vol. 214; p. 1035.

Clement, Edward, Mobile, assignor of one-fourth to W. H. Clement and one-fourth to J. W. Jernigan, Troy, Ala. Shock-absorbing wheel. No. 1,139,164; May 11; Gaz. vol. 214; p. 546.
Clement, W. H., *et al.* (See Clement, Edward, assignor.)
Cleveland Dental Manufacturing Company, The. (See Riley, Thomas L., assignor.)
Cleveland, Edgar W. (See Fox and Cleveland.)
Cleveland Foundry Company, The. (See Chadwick, Lee S., assignor.)
Cleveland Trust Company, The, trustee. (See Griswold and Barstow, assignors.)
Clewley, Frank, assignor to S. Friedberger, Philadelphia, Pa. Knitted fabric. No. 1,139,342; May 11; Gaz. vol. 214; p. 605.
Clewley, Frank, assignor to S. Friedberger, Philadelphia, Pa. Knitted fabric. No. 1,139,343; May 11; Gaz. vol. 214; p. 606.
Clewley, Frank, assignor to S. Friedberger, Philadelphia, Pa. Twisted net fabric. No. 1,139,344; May 11; Gaz. vol. 214; p. 606.
Clifford, Herbert, Jersey City, N. J. Resilient wheel. No. 1,139,639; May 18; Gaz. vol. 214; p. 747.
Clifton, Emmett H., assignor of one-half to J. M. Hester, Boston, Mass. Treating writing-paper. No. 1,140,253; May 18; Gaz. vol. 214; p. 964.
Clinchard, Edward W., Sedro Woolley, Wash. Washboard. No. 1,139,847; May 18; Gaz. vol. 214; p. 821.
Cline, Artie L., Springdale, Ark. Saw. No. 1,137,838; May 4; Gaz. vol. 214; p. 41.
Cline, Max, and C. F. Rhodes, Glens Falls, assignors to International Paper Company, New York, N. Y. Removing ink from paper-stock. No. 1,138,085; May 4; Gaz. vol. 214; p. 128.
Clover Leaf Manufacturing Company. (See Bennett, Walter E., assignor.)
Cobb, Henry Z., Winchester, assignor to Revere Rubber Company, Chelsea, Mass., and Providence, R. I. Billiard-cushion. No. 1,138,933; May 11; Gaz. vol. 214; p. 463.
Cobb, Nathan A., Falls Church, Va. Microscope-cover-glass-centering device. No. 1,139,165; May 11; Gaz. vol. 214; p. 546.
Coburn, William, and C. W. Davis, assignors to Universal Sterilizing Company, Seattle, Wash. Water-distributing mechanism. No. 1,139,848; May 18; Gaz. vol. 214; p. 822.
Cocanari, Silvio, Vieux-Dieu, near Antwerp, Belgium. Sensitized photographic film and means for carrying and exposing same. No. 1,140,877; May 25; Gaz. vol. 214; p. 1217.
Cochran, William C., Nineveh, Ind. Mail-bag deliverer. No. 1,138,455; May 4; Gaz. vol. 214; p. 259.
Cockrum, Earl, Sheller, Ill. Land-roller. No. 1,140,575; May 25; Gaz. vol. 214; p. 1112.
Coe, Harry P., Painesville, Ohio, assignor of one-half to A. S. Williams, Long Island City, N. Y. Drier. No. 1,138,086; May 4; Gaz. vol. 214; p. 129.
Cohic, Henry, Cleveland, Ohio. Umbrella. No. 1,140,801; May 25; Gaz. vol. 214; p. 1189.
Coho, Herbert B., Mount Vernon, N. Y. Metallic compound. No. 1,138,845; May 11; Gaz. vol. 214; p. 435.
Coin Machine Manufacturing Company. (See Birkenbeuel, Edward B., assignor.)
Colby, Daniel W., Boston, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Machine for setting lacing-hooks. No. 1,139,400; May 11; Gaz. vol. 214; p. 627.
Colby, Daniel W., Boston, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Assorting and delivering mechanism. No. 1,139,401; May 11; Gaz. vol. 214; p. 628.
Coldwell, William H., Newburgh, N. Y. Motor lawn-mower. No. 1,138,730; May 11; Gaz. vol. 214; p. 392.
Cole, Robert C., assignor to The Johns-Pratt Company, Hartford, Conn. Electric safety-fuse. No. 1,140,953; May 25; Gaz. vol. 214; p. 1245.
Cole, William T., Newtown, Conn., assignor to Fabric Fire Hose Company, New York, N. Y. Hose fabric. No. 1,139,467; May 11; Gaz. vol. 214; p. 652.
Coleman, John P., Edgewood borough, assignor to Union Switch & Signal Company, Swissvale, Pa. Railway-signal. No. 1,138,087; May 4; Gaz. vol. 214; p. 129.
Coleman, Linn, *et al.* (See Annis, Daniel J., assignor.)
Colglazier, John W., Springfield, Ill. Automatic toy. No. 1,139,955; May 18; Gaz. vol. 214; p. 859.
Collar, Adoniram J., Yreka, Cal. Spill-gate. No. 1,139,104; May 11; Gaz. vol. 214; p. 526.
Collette, Eugene B., E. P. Larry, New Orleans, and N. Buras, Venice, La. Store-fixture. No. 1,139,257; May 11; Gaz. vol. 214; p. 577.
Collingwood, Fred P. and H. W., Attleboro, Mass. Wire fabric for ornamental wear. No. 1,140,445; May 25; Gaz. vol. 214; p. 1066.
Collingwood, Harold W. (See Collingwood, Fred P. and H. W.)
Collins, Edward C., Taunton, Mass., assignor, by mesne assignments, to Wood Newspaper Machinery Corporation, New York, N. Y. Machine for cooling stereotype printing-plates. No. 1,138,731; May 11; Gaz. vol. 214; p. 392.
Collins, Lee A., Louisville, Ky. Telephone-mouthpiece protector. No. 1,140,954; May 25; Gaz. vol. 214; p. 1245.
Collins, Michael, Philadelphia, Pa. Apparatus for reclaiming oil from exhaust-steam. No. 1,140,118; May 18; Gaz. vol. 214; p. 918.
Collins, William H., Meriden, Conn. Trap for hens' nests. No. 1,139,849; May 18; Gaz. vol. 214; p. 822.
Colloredo-Manusfeld, Joseph P. (See Nesetril, Jan, assignor.)
Comerford, Patrick, Victoria, British Columbia, Canada, assignor to Safety First Air Brake Company, Seattle, Wash. Air-brake system. No. 1,138,193; May 4; Gaz. vol. 214; p. 166.
Comins, Frank B., Newton, Mass. Humidifier. No. 1,139,640; May 18; Gaz. vol. 214; p. 748.
Commercial Research Company, The. (See Eldred, Byron E., assignor.)
Commonwealth Steel Company. (See Pflager, Harry M., assignor.)
Computing Cheese Cutter Company. (See Dunn, Frank P., assignor.)
Computing Scale Company, The. (See Hopkinson, Joseph, assignor.)
Computing Scale Company, The. (See Ludlow, George M., assignor.)
Condensite Company of America. (See Aylsworth, Jonas W., assignor.)
Condit, Sears B., Jr. (See Burnham, George A., assignor.)
Cone, Grace B. (See Wilbur, Lewis A., assignor.)
Cone, Thomas H. S., Boundbrook, N. J. Signal-box. No. 1,139,258; May 11; Gaz. vol. 214; p. 578.
Conekin, Dawson, St. Petersburg, Fla. Fishing device. No. 1,138,541; May 4; Gaz. vol. 214; p. 286.
Conekin, Dawson, St. Petersburg, Fla. Fishing device. No. 1,138,542; May 4; Gaz. vol. 214; p. 287.
Conkie, Charles H., Cleveland, Ohio. Mask for divers. No. 1,139,850; May 18; Gaz. vol. 214; p. 822.
Connecticut Telephone & Electric Company, The. (See Wilcox, Ernest C., assignor.)
Connor, Alfred, Camperdown, near Sydney, New South Wales, Australia. Hat-fastener. No. 1,137,839; May 4; Gaz. vol. 214; p. 41.
Conrad, Frank. (See Davis and Conrad.)
Conrad, Frank, Swissvale, Pa., assignor to Westinghouse Electric and Manufacturing Company. Overload and reverse current relay. No. 1,137,840; May 4; Gaz. vol. 214; p. 41.
Conrad, Joshua C., Cement, Okla. Cotton-huller. No. 1,139,345; May 11; Gaz. vol. 214; p. 607.
Conradson, Conrad M., Madison, Wis. Automatic multiple-spindle lathe. No. 1,140,299; May 18; Gaz. vol. 214; p. 979.
Conrady, Alexander E., and A. Hamburger, London, England. Color photography. No. 1,140,576; May 25; Gaz. vol. 214; p. 1113.
Conser, Charles J., Chicago, Ill. Sofa-bed. No. 1,139,641; May 18; Gaz. vol. 214; p. 748.
Considine, Joseph P., Detroit, Mich. Coal breaker and scraper. No. 1,138,627; May 11; Gaz. vol. 214; p. 354.
Contal, Camille, St.-Cloud, France. Suspension device for vehicles. No. 1,140,955; May 25; Gaz. vol. 214; p. 1245.
Conte, James, Lima, Ohio. Feed mechanism for candy-coating machines. No. 1,138,356; May 4; Gaz. vol. 214; p. 224.
Continental Can Company. (See Englar, Clayton H., assignor.)
Continuous Casting Corporation. (See Mellen, Grenville, assignor.)
Cook, Adam F., *et al.* (See Cook, William J., assignor.)
Cook, Charles A., *et al.* (See Sutherland, Walter R., assignor.)
Cook, Edwin, *et al.* (See Sutherland, Walter R., assignor.)
Cook, George, Buffalo, N. Y. Superheater for boilers. No. 1,140,956; May 25; Gaz. vol. 214; p. 1246.
Cook, James L., *et al.* (See Cook, William J., assignor.)
Cook, Oscar T., Martinsville, Ill. Broom-head. No. 1,138,934; May 11; Gaz. vol. 214; p. 464.
Cook, Thomas C., *et al.* (See Cook, William J., assignor.)
Cook, Wilder H., Athens, N. Y. Mirror-fastener. No. 1,138,846; May 11; Gaz. vol. 214; p. 435.
Cook, William J., Orange, Ga., assignor of one-tenth to A. F. Cook, Charleroi, one-tenth to T. C. Cook, one-tenth to J. L. Cook, and one-tenth to T. F. and A. S. J. Deakin, Pittsburgh, Pa. Mixing-valve. No. 1,138,628; May 11; Gaz. vol. 214; p. 354.
Cooke, Samuel, and W. C. Davis, Gorton, Manchester, England. Heel-pad mold. No. 1,140,577; May 25; Gaz. vol. 214; p. 1113.
Cookingham, De Witt C., and J. H. Hertner, assignors to The Rauch and Lang Carriage Company, Cleveland, Ohio. Automobile running-gear. No. 1,138,732; May 11; Gaz. vol. 214; p. 398.
Cookson, Charles W., Wahiawa, Hawaii. Pineapple-peeler. No. 1,137,841; May 4; Gaz. vol. 214; p. 42.
Coon, Arthur D., Ballston Spa, N. Y. Mail-box. No. 1,139,491; May 18; Gaz. vol. 214; p. 696.
Cooper, Alexander J., *et al.* (See Barratt, William T., assignor.)
Cooper, Annie, *et al.* (See Barratt, William T., assignor.)
Cooper, Daniel M., Rochester, N. Y., assignor to American Laundry Machinery Company, Cincinnati, Ohio. Pressing-machine. No. 1,139,846; May 11; Gaz. vol. 214; p. 607.

Cooper, Ellis W., Bloomfield, N. J., assignor to R. Hoe and Co., New York, N. Y. Bearers. No. 1,140,254; May 18; Gaz. vol. 214; p. 964.
Cooper, Ernest H., and S. B. Earle, London, England. Safety-razor. No. 1,140,664; May 25; Gaz. vol. 214; p. 1143.
Cooper, John E., Stratford, London, England. Antifriction mechanism for car-trucks. No. 1,140,300; May 18; Gaz. vol. 214; p. 979.
Cooper, Meherjibhoy B. (See Featherstone-Smith and Cooper.)
Cooper, William, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Circuit-interrupter. No. 1,140,957; May 25; Gaz. vol. 214; p. 1246.
Cooper, William W., Harrisburg, Pa. Railway-tie. No. 1,139,753; May 18; Gaz. vol. 214; p. 788.
Coover, Eva E., *et al.* (See Patterson, Lewis P., assignor.)
Copeman Electric Stove Company. (See Copeman, Lloyd G., assignor.)
Copeman, Lloyd G., assignor to Copeman Electric Stove Company, Flint, Mich. Electrical heating unit. No. 1,138,733; May 11; Gaz. vol. 214; p. 393.
Copony, Alfred, assignor to W. H. Miner, Chicago, Ill. Single-center-sill draft-rigging. No. 1,137,950; May 4; Gaz. vol. 214; p. 80.
Corby, William S., and J. L. Parsons, Jr., Washington, D. C. Baking-oven. No. 1,138,935; May 11; Gaz. vol. 214; p. 464.
Cordingley, John W., assignor of one-half to W. Cordingley, Methuen, Mass. Curtain-pole support. No. 1,140,255; May 18; Gaz. vol. 214; p. 964.
Cordingley, William. (See Cordingley, John W., assignor.)
Corey, Harry A. R., Mattapan, Mass. Photographic-film developing and fixing apparatus. No. 1,140,500; May 25; Gaz. vol. 214; p. 1087.
Corliss Carbon Company. (See McDaniel, Alex S., assignor.)
Cornell, Ira E., Akron, Ohio. Overcheck-hook. No. 1,139,166; May 11; Gaz. vol. 214; p. 547.
Corona Typewriter Company. (See Petermann, Otto, assignor.)
Cortines, Ernest J., Dallas, Tex. Handle-bar. No. 1,140,119; May 18; Gaz. vol. 214; p. 919.
Corwin, Frank R. (See Klepinger and Corwin.)
Corwin, Lawrence O., and W. M. Arnold, Keene, Tex. Spring-wheel. No. 1,138,194; May 4; Gaz. vol. 214; p. 166.
Costlow, Eben H., Altoona, Pa. Caster. No. 1,139,105; May 11; Gaz. vol. 214; p. 526.
Costmeter Company, The. (See Quigley, John T., assignor.)
Cottingham, C. J., *et al.* (See Lawrence, Daniel O., assignor.)
Cottrell, Charles P., Westerly, R. I., assignor, by mesne assignments, to C. B. Cottrell & Sons Company, New York, N. Y. Manufacture of electrotype-plates. No. 1,139,259; May 11; Gaz. vol. 214; p. 578.
Couch, T. L. (See Parsons, George H., assignor.)
Coulombe, Joseph C., Northfield, Vt. Noiseless gun. No. 1,140,578; May 25; Gaz. vol. 214; p. 1113.
Cousin, Henri, Paris, France. Electromagnetic device for notifying and recording the passing of signals at danger No. 1,139,347; May 11; Gaz. vol. 214; p. 608.
Covert, Frank M. (See Pitts, Hood, assignor.)
Cowan, William, Pittsfield, Mass. Composition floor-covering. No. 1,140,958; May 25; Gaz. vol. 214; p. 1247.
Cowdrey, Robert H., Chicago, Ill. Pull or control box. No. 1,140,878; May 25; Gaz. vol. 214; p. 1218.
Cowell, John R. (See Black and Teare, assignors.)
Cowen, David. (See Goodman and Cowen.)
Cown, Samuel M. (See Smith, Taylor J., assignor.)
Cox, Albert S., Grantwood, N. J. Military uniform or the like. No. 1,139,642; May 18; Gaz. vol. 214; p. 749.
Cox, John S., Buffalo, N. Y. Combustion apparatus. No. 1,140,802; May 25; Gaz. vol. 214; p. 1180.
Cox, Marion M., Corona, N. Mex. Rod-clamp. No. 1,138,195; May 4; Gaz. vol. 214; p. 166.
Cox, Robert H., Listowel, Ireland. Fly-trap. No. 1,141,039; May 25; Gaz. vol. 214; p. 1273.
Coyne, Edmund M., Birmingham, Ala., assignor of one-half to W. V. Mentzell. Pipe-repair sleeve. No. 1,140,501; May 25; Gaz. vol. 214; p. 1088.
Coyner, Roy E., Burr Oak, Kans. Combination-lock for automobiles. No. 1,137,742; May 4; Gaz. vol. 214; p. 8.
Cracraft, Leich Electric Company. (See Reid, Alexander C., assignor.)
Craft, Edward B., Hackensack, N. J., assignor to Western Electric Company, New York, N. Y. Electromagnetic device. No. 1,139,956; May 18; Gaz. vol. 214; p. 859.
Craft, Edward B., Hackensack, N. J., and G. Brown, Brooklyn, assignors to Western Electric Company, New York, N. Y. Selective calling apparatus. No. 1,140,120; May 18; Gaz. vol. 214; p. 919.
Craig, Herbert W., Laporte, Ind. Penholder-support. No. 1,139,348; May 11; Gaz. vol. 214; p. 608.
Craig, Richard M., San Antonio, Tex. Switch-operating mechanism for electric railways. No. 1,140,579; May 25; Gaz. vol. 214; p. 1114.
Cram, Frederick W., Mount Vernon, Wash. Silo. No. 1,137,842; May 4; Gaz. vol. 214; p. 42.
Crane, Frederick G., *et al.* (See Hammond, Grant, assignor.)
Crane, Raymond E., Los Gatos, Cal. Manufacture of lavatories and the like. No. 1,138,629; May 11; Gaz. vol. 214; p. 355.
Crane, Warren N. (See Horne and Crane.)
Craney, Thomas, Bay City, Mich. Apparatus for the production of valuable products from refuse organic matter. No. 1,140,502; May 25; Gaz. vol. 214; p. 1088.
Crapp, Henrietta. (See Crapp, Thomas S., assignor.)
Crapp, Thomas S., assignor to H. Crapp, Indianapolis, Ind. Combined vehicle storm-front and sun-shield. No. 1,138,280; May 4; Gaz. vol. 214; p. 195.
Cravath, James R., Chicago, Ill. Lighting-fixture. No. 1,137,954; May 4; Gaz. vol. 214; p. 81.
Cravens, William M. (See McCoy, Robert J., assignor.)
Craw, Joseph T., assignor of one-fourth to W. H. Heavey, Jr., and one-fourth to H. M. Thompson, Jersey City, N. J. Pour-out stopper. No. 1,140,959; May 25; Gaz. vol. 214; p. 1247.
Crawford, Edwin H., Santa Rosa, Cal. Instrument for recementing dental bridges and the like. No. 1,139,017; May 11; Gaz. vol. 214; p. 495.
Crawford, Guy W., Fremont, Mich. Turbine. No. 1,138,630; May 11; Gaz. vol. 214; p. 355.
Crawford, Harry M., Lima, Ohio. Dental instrument. No. 1,138,631; May 11; Gaz. vol. 214; p. 355.
Crawford, Lindsay H., Chicago, Ill. Underwear. No. 1,140,121; May 18; Gaz. vol. 214; p. 920.
Crawford, Lindsay H., Chicago, Ill. Undergarment. No. 1,140,122; May 18; Gaz. vol. 214; p. 920.
Creamery Package Manufacturing Company, The. (See Valerius and Larsen, assignors.)
Creekmore, Louis H., Bristow, Okla. Cotton-picker. No. 1,139,492; May 18; Gaz. vol. 214; p. 696.
Creighton, Nelson B., New York, N. Y. Valve. No. 1,140,359; May 25; Gaz. vol. 214; p. 1035.
Cresswy, Edward J., Wichita, Kans. Automatic telephone responding apparatus. No. 1,138,734; May 11; Gaz. vol. 214; p. 393.
Creveling, John L., New York, N. Y., assignor to Safety Car Heating and Lighting Company. Electric regulation. No. 1,138,632; May 11; Gaz. vol. 214; p. 356.
Creveling, John L., New York, N. Y., assignor to Safety Car Heating & Lighting Company. Dynamo-driving mechanism. No. 1,139,493; May 18; Gaz. vol. 214; p. 696.
Cribb, Henry B., Horry county, S. C. Plant-bed protector. No. 1,139,167; May 11; Gaz. vol. 214; p. 547.
Crinnion, Annabel, Flushing, N. Y. Life-saving suit. No. 1,140,025; May 18; Gaz. vol. 214; p. 885.
Croft, Edmund J., Tacoma, Wash. Combined transom and door-curtain. No. 1,140,665; May 25; Gaz. vol. 214; p. 1144.
Crompton & Knowles Loom Works. (See Crossland, George, assignor.)
Crook, Alfred, assignor to Philadelphia Roll and Machine Company, Philadelphia, Pa. Centering device. No. 1,140,123; May 18; Gaz. vol. 214; p. 921.
Cropp, Sophia C., Escatawpa, Miss. Elevator-truck. No. 1,139,494; May 18; Gaz. vol. 214; p. 697.
Cross, William R., Minneapolis, Minn. Animated toy book. No. 1,139,643; May 18; Gaz. vol. 214; p. 749.
Crossland, George, assignor to Crompton & Knowles Loom Works, Worcester, Mass. Woven pile fabric. No. 1,139,495; May 18; Gaz. vol. 214; p. 698.
Crouch, Thomas E., assignor to The Yale & Towne Manufacturing Company, Stamford, Conn. Screwless knob-shank. No. 1,139,496; May 18; Gaz. vol. 214; p. 698.
Crouse-Hinds Company. (See Clary and Bissell, assignors.)
Crouthamel, Howard, Chicago, Ill. Baker's oven. No. 1,139,349; May 11; Gaz. vol. 214; p. 608.
Crowel, Rolland H., Fort Wayne, Ind. Door-clamp. No. 1,138,088; May 4; Gaz. vol. 214; p. 130.
Crown Cork and Seal Company of Baltimore City, The. (See La Porte, Norbert M., assignor.)
Crown Hardware Manufacturing Company, The. (See Hartzell, Forest H., assignor.)
Crown Mill Equipment Company. (See Fowler, George A., assignor.)
Crumpton, William J., Superior, Wis., assignor, by mesne assignments, to W. R. Heath, Buffalo, N. Y. Method and means for statistical accounting. No. 1,138,089; May 4; Gaz. vol. 214; p. 130.
Cudoazki, Anthony, Passaic, N. J. Wrench. No. 1,138,847; May 11; Gaz. vol. 214; p. 435.
Cullen, John B., New York, N. Y. Brush-holder for motors and dynamos. No. 1,140,808; May 25; Gaz. vol. 214; p. 1189.
Culp, Clifford E., and A. T. Wilks, Stella, Mo. Stone raker and loader. No. 1,139,168; May 11; Gaz. vol. 214; p. 547.
Cummings, Alva A., Delaware, Okla. Automatic cut-off. No. 1,140,666; May 25; Gaz. vol. 214; p. 1144.
Cummins, Norman W., assignor to The Burns & Bassick Company, Bridgeport, Conn. Hood-fastener for automobiles. No. 1,140,503; May 25; Gaz. vol. 214; p. 1088.
Cunningham, Michael G. (See Belknap and Cunningham.)
Curdle, Joseph F. (See McMillan and Curdle.)
Curran, William C., Cincinnati, Ohio. Opener. No. 1,138,456; May 4; Gaz. vol. 214; p. 259.
Curtain Supply Company, The. (See Downing, Ira S., assignor.)

Curtin, David F., Chicago, Ill. Sanitary soda-cup. No. 1,139,018; May 11; Gaz. vol. 214; p. 495.
Curtis, Lewis B., Bridgeport, Conn. Die-stock. No. 1,140,504; May 25; Gaz. vol. 214; p. 1089.
Curwen, Samuel M., assignor to The J. G. Brill Company, Philadelphia, Pa. Car-truck. No. 1,138,357; May 4; Gaz. vol. 214; p. 224.
Cusack, Harold J., Oak Park, Ill., assignor to The Thomas Cusack Company. Advertising device. No. 1,140,446; May 25; Gaz. vol. 214; p. 1066.
Cusick, Hyland L., Pittsburgh, Pa. Game. No. 1,139,497; May 18; Gaz. vol. 214; p. 698.
Custar, Ignatius, New York, N. Y. Foot-arch-supporting saddle. No. 1,140,879; May 25; Gaz. vol. 214; p. 1218.
Cutler-Hammer Mfg. Co., The. (See Anderson, Carl J., assignor.)
Cutler-Hammer Mfg. Co., The. (See Klein, Charles J., assignor.)
Cutler-Hammer Mfg. Co., The. (See Tatum, Lewis L., assignor.)
Cutler-Hammer Mfg. Co., The. (See Townsend, Frank P., assignor.)
Cutler, Henry H., Milwaukee, Wis. Gasolene-engine. No. 1,139,106; May 11; Gaz. vol. 214; p. 526.
Cutler, Joseph W., assignor to Cutler Mail Chute Company, Rochester, N. Y. Mail-box. No. 1,138,633; May 11; Gaz. vol. 214; p. 356.
Cutler Mail Chute Company. (See Cutler, Joseph W., assignor.)
Cutler Mail Chute Company. (See Smith, Arthur K., assignor.)
D. H. Burrell & Company. (See Feldmeier and Dalzell, assignors.)
D'Arcy, Frank P., Kalamazoo, Mich. Seat-cushion structure. No. 1,139,644; May 18; Gaz. vol. 214; p. 749.
Dahl, Ole M., Boston, Mass. Hat-securing device. No. 1,137,843; May 4; Gaz. vol. 214; p. 42.
Dahlmeyer, Karl O., Berlin, Germany. Jar-molding machine. No. 1,138,457; May 4; Gaz. vol. 214; p. 259.
Dalley, Carolus E., Brooklyn, N. Y. Cordage-rope machine. No. 1,141,040; May 25; Gaz. vol. 214; p. 1274.
Daimler-Motoren-Gesellschaft. (See Schwarz, Fritz, assignor.)
Dain, Joseph, Ottumwa, Iowa, assignor to Deere & Company, Moline, Ill. Manure-spreader. No. 1,139,498; May 18; Gaz. vol. 214; p. 698.
Dake, Charles W., assignor to Pyle-National Electric Headlight Company, Chicago, Ill. Bracket for locomotive-headlights. No. 1,138,848; May 11; Gaz. vol. 214; p. 435.
Dake, Wilford W., Grand Haven, Mich., assignor to Pyle National Electric Headlight Company, Chicago, Ill. Elastic-fluid turbine. No. 1,139,465; May 11; Gaz. vol. 214; p. 651.
Dakin, Elias J., Washington, D. C. Hanger. No. 1,139,464; May 11; Gaz. vol. 214; p. 651.
Dalén, Gustaf, Stockholm, Sweden. Storing mass for acetylene gas. No. 1,140,124; May 18; Gaz. vol. 214; p. 921.
Dallerup, Charles. (See Elsman and Dallerup.)
Dalton Adding Machine Company, The. (See Landsiedel, Harry, assignor.)
Dalzell, Charles B. (See Feldmeier and Dalzell.)
Dambrook, James P., Salvador, Saskatchewan, Canada. Means for preserving boiler-flues. No. 1,139,350; May 11; Gaz. vol. 214; p. 608.
Dane, William H. (See De Lukacsevics, Charles, assignor.)
Danforth, George L., Jr., South Chicago, Ill. Regenerator. No. 1,140,125; May 18; Gaz. vol. 214; p. 921.
Daniels, William P., *et al.* (See Wolfe, Ira B., assignor.)
Danner, John A. F., Elisabeth, N. J. Toilet appliance. No. 1,139,351; May 11; Gaz. vol. 214; p. 609.
Darley, John W., Jr., Baltimore, Md. Thread-guard for sewing-machines. No. 1,139,261; May 11; Gaz. vol. 214; p. 579.
Darley, John W., Jr., Baltimore, Md. Thread severing and holding mechanism for sewing-machines. No. 1,141,041; May 25; Gaz. vol. 214; p. 1274.
Daucher, Eugene, New York, N. Y. Automatic fire-extinguisher. No. 1,140,960; May 25; Gaz. vol. 214; p. 1247.
Davenport, Frank B., Wilkes-Barre, Pa. Automatic starting and stopping device. No. 1,138,458; May 4; Gaz. vol. 214; p. 259.
Davey, John F., Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Machine for setting gromets and the like. No. 1,139,645; May 18; Gaz. vol. 214; p. 750.
David Lupton's Sons Company. (See Brogden and Watkins, assignors.)
Davidson, Benjamin. (See Joachim and Davidson.)
Davidson, John M., assignor to Wm. B. Scaife & Sons Company, Pittsburgh, Pa. Separating detritus from liquids. No. 1,138,634; May 11; Gaz. vol. 214; p. 356.
Davidson, John M., assignor to Wm. B. Scaife & Sons Company, Pittsburgh, Pa. Apparatus for sewage disposal. No. 1,139,402; May 11; Gaz. vol. 214; p. 628.
Davies, John W., Reading, Mass. Apparatus for treating milk and other fluids. No. 1,139,046; May 18; Gaz. vol. 214; p. 750.
Davis, Alex B., assignor to The Eli Lilly and Company, Indianapolis, Ind. Quinolin compound and producing the same. No. 1,138,936; May 11; Gaz. vol. 214; p. 464.
Davis, Alex B., assignor to The Eli Lilly and Company, Indianapolis, Ind. Quinolin compound and producing the same. No. 1,138,937; May 11; Gaz. vol. 214; p. 465.
Davis, Carl H., assignor to United States Envelop Sealing Machine Company, Springfield, Mass. Envelop-sealing machine. No. 1,139,499; May 18; Gaz. vol. 214; p. 699.
Davis, Charles W. (See Coburn and Davis.)
Davis, Cleland, U. S. Navy, assignor to Ordnance Development Company, New York, N. Y. Contour-base for projectiles. No. 1,141,042; May 25; Gaz. vol. 214; p. 1274.
Davis, Curtis P. (See Davis, Frank R. and C. P.)
Davis, Frank E., La Crosse, Wis. Cultivator. No. 1,138,635; May 11; Gaz. vol. 214; p. 357.
Davis, Frank R. and C. P., Des Moines, Iowa. Time-controlled advertising device. No. 1,138,090; May 4; Gaz. vol. 214; p. 130.
Davis, Frederick W., assignor to Frigid Fluid Company, Chicago, Ill. Record-book. No. 1,138,636; May 11; Gaz. vol. 214; p. 357.
Davis, Harry P., Pittsburgh, and F. Conrad, Swissvale, Pa., assignors to Westinghouse Electric & Manufacturing Company. System of electrical distribution. No. 1,138,637; May 11; Gaz. vol. 214; p. 358.
Davis, Harry P., Pittsburgh, and C. Aalborg, Wilkinsburg, Pa., assignors to Westinghouse Electric & Manufacturing Company. Circuit-interrupter. No. 1,140,961; May 25; Gaz. vol. 214; p. 1248.
Davis, Harvey M., Kinmundy, Ill. Road-drag. No. 1,138,735; May 11; Gaz. vol. 214; p. 394.
Davis, Herbert C., New York, N. Y., and E. D. Chadwick, Winchester, Mass. Signaling apparatus. No. 1,138,543; May 4; Gaz. vol. 214; p. 287.
Davis, Joseph L., Pittsburgh, assignor, by mesne assignments, to Westinghouse Electric & Manufacturing Company, East Pittsburgh, Pa. Locomotive. No. 1,138,638; May 11; Gaz. vol. 214; p. 358.
Davis, Oscar C., assignor of one-half to G. E. Keith, Brockton, Mass. Welt-strip. No. 1,139,403; May 11; Gaz. vol. 214; p. 628.
Davis, Thomas C., *et al.* (See Annis, Daniel J., assignor.)
Davis, William C. (See Cooke and Davis.)
Davis, William E., New Ipswich, N. H. Amusement device. No. 1,138,091; May 4; Gaz. vol. 214; p. 131.
Davis, William J., Jr., and A. P. Nirdlinger, Chicago, Ill. Adjustable flood and spot light. No. 1,140,880; May 25; Gaz. vol. 214; p. 1218.
Davison, George L., assignor to Ruhm Phosphate Mining Company, Mount Pleasant, Tenn. Apparatus for washing phosphate-rock. No. 1,140,962; May 25; Gaz. vol. 214; p. 1248.
Davison, Gregory C., New London, Conn., assignor to Electric Boat Company, New York, N. Y. Two-cycle multiple-expansion Diesel engine. No. 1,138,938; May 11; Gaz. vol. 214; p. 465.
Dawsey, John E., Conway, S. C. Spring-wheel. No. 1,140,963; May 25; Gaz. vol. 214; p. 1249.
Dawson, Clarence L., Los Angeles, Cal. Inner tube for pneumatic tires. No. 1,138,544; May 4; Gaz. vol. 214; p. 288.
Dawson, James C., Kirkwood, Mo. Shiftable-sheet binder. No. 1,140,360; May 25; Gaz. vol. 214; p. 1035.
Day, Alfred L., Chicago, Ill. Perforating-machine. No. 1,140,505; May 25; Gaz. vol. 214; p. 1089.
Day, Charles T., Leechburg, Pa. Dumb-bell. No. 1,138,459; May 4; Gaz. vol. 214; p. 260.
Day, Wilbur F., St. Paul, Minn. Kerosene-gas burner. No. 1,140,361; May 25; Gaz. vol. 214; p. 1036.
Dayton, James M., assignor to Excelsior Needle Company, Torrington, Conn. Carbureter. No. 1,139,851; May 18; Gaz. vol. 214; p. 822.
De Angelis, John, Mount Vernon, N. Y. Trolley-pole. No. 1,140,126; May 18; Gaz. vol. 214; p. 921.
De Beers, Franklin M., Chicago, Ill. Evaporator. No. 1,140,881; May 25; Gaz. vol. 214; p. 1219.
De Bretteville, Alexander, San Francisco, Cal. Well-drilling implement. No. 1,138,188; May 4; Gaz. vol. 214; p. 164.
De Cew, Judson A., Montreal, Quebec, Canada. Wood-preservative. No. 1,140,127; May 18; Gaz. vol. 214; p. 922.
De Cew, Judson A., Montreal, Quebec, Canada. Hydrated cellulose or lignocellulose material. No. 1,140,799; May 25; Gaz. vol. 214; p. 1188.
De Cou, Jerry W., assignor to The Thomas B. Jeffery Company, Kenosha, Wis. Revolving turret for motor-cars. No. 1,140,364; May 25; Gaz. vol. 214; p. 1037.
De Graff, William E., Bridgeport, Conn. Butcher-block cleaner. No. 1,139,500; May 18; Gaz. vol. 214; p. 699.
De Khotinsky, Achilles, Chicago, Ill. Electric hammer. No. 1,140,447; May 25; Gaz. vol. 214; p. 1067.
De Long, Everett M. (See Baker and De Long.)
De Lukacsevics, Charles, West Nutley, assignor to W. H. Dane, East Orange, N. J. Resilient tire. No. 1,139,260; May 11; Gaz. vol. 214; p. 579.
De Martino, Joseph, assignor of one-half to C. W. Gillett, New York, N. Y. Hydraulic transmission apparatus. No. 1,138,771; May 11; Gaz. vol. 214; p. 406.

De Munnick, Owen M., New York, N. Y. Safety device for railway-trains. No. 1,140,580; May 25; Gaz. vol. 214; p. 1114.
De Vilbiss, Allen, assignor to The De Vilbiss Manufacturing Company, Toledo, Ohio. Atomiser or the like. No. 1,140,301; May 18; Gaz. vol. 214; p. 980.
De Vilbiss Manufacturing Company, The. (See De Vilbiss, Allen, assignor.)
De Vito, John A., West Medford, Mass. Cleaning device. No. 1,139,362; May 11; Gaz. vol. 214; p. 609.
De Voe, Albert H., Westfield, N. J., assignor to The Singer Manufacturing Company. Sewing-machine. No. 1,140,581; May 25; Gaz. vol. 214; p. 1115.
Deakin, Anna S. J., *et al.* (See Cook, William J., assignor.)
Deakin, Thomas F., *et al.* (See Cook, William J., assignor.)
Dean, John H., Birmingham, Ala. Sheet-metal culvert. No. 1,140,362; May 25; Gaz. vol. 214; p. 1036.
Deardorff, John F., Kansas City, Mo. Sanitary show-case. No. 1,139,939; May 11; Gaz. vol. 214; p. 465.
Dearth, Arthur L., Boston, Mass. Impression-holder for dental work. No. 1,140,863; May 25; Gaz. vol. 214; p. 1036.
Dedreux, Charles C., Cleveland, Ohio. Trammel-gage for vehicle-wheels. No. 1,138,736; May 11; Gaz. vol. 214; p. 394.
Deere & Company. (See Dain, Joseph, assignor.)
Deere & Company. (See Melvin, Charles H., assignor.)
Deere & Company. (See Poole, Staley D., assignor.)
Deere & Mansur Co. (See Dooley, Clarence H., assignor.)
Defiance Machine Company. (See Ocumpaugh, Edmund, assignor.)
Defiance Pressed Steel Company, The. (See Klenk, Gottlieb, assignor.)
Dehn, George J., Chicago, Ill. Drain. No. 1,139,647; May 18; Gaz. vol. 214; p. 751.
Deitemeier, William F., San Francisco, Cal. Individual pneumatic-action mechanism. No. 1,138,849; May 11; Gaz. vol. 214; p. 435.
Del Casal, Toribio. (See Pombo and Del Casal.)
Deming, William L., Salem, Ohio. Egg-boiler. No. 1,138,850; May 11; Gaz. vol. 214; p. 436.
Demmer, Henry M., Detroit, Mich. Combination-tool. No. 1,139,648; May 18; Gaz. vol. 214; p. 751.
Dempsey, James E., Seattle, Wash. Headlight control for automobiles. No. 1,138,358; May 4; Gaz. vol. 214; p. 225.
Dempster, John T. (See Robinson and Dempster.)
Dempster, John T., Schenectady, N. Y., assignor to General Electric Company. Demand apparatus. No. 1,139,169; May 11; Gaz. vol. 214; p. 548.
Dennis, Decatur D., Corpus Christi, Tex. Animal-trap. No. 1,139,501; May 18; Gaz. vol. 214; p. 700.
Dennis, Elbert W., Beatrice, Nebr., assignor of one-half to J. M. Anderson, Sweet Springs, Mo. Shovel-board. No. 1,138,545; May 4; Gaz. vol. 214; p. 288.
Denniss, Richard S. (See Werner and Denniss.)
Dent, Strother E., Little Rock, Ark. Compound tool. No. 1,140,128; May 18; Gaz. vol. 214; p. 922.
Dentists' Supply Company, The. (See Gibson, Albert E., assignor.)
Dentists' Supply Company, The. (See Williams, James L., assignor.)
Denzinger, Michael, Louisville, Ky. Faucet. No. 1,139,754; May 18; Gaz. vol. 214; p. 788.
Depollier, Charles L., New York, N. Y. Watchcase, &c. No. 1,139,107; May 11; Gaz. vol. 214; p. 527.
Depollier, Charles L., New York, N. Y. Watchcase, &c. No. 1,139,108; May 11; Gaz. vol. 214; p. 527.
Depollier, Charles L., New York, N. Y. Watchcase, &c. No. 1,139,109; May 11; Gaz. vol. 214; p. 527.
Depollier, Charles L., New York, N. Y. Watchcase, &c. No. 1,139,110; May 11; Gaz. vol. 214; p. 528.
Depollier, Charles L., New York, N. Y. Watch. No. 1,139,111; May 11; Gaz. vol. 214; p. 528.
Derby, Willis M., Buchanan, N. Y. Gas-scrubber. No. 1,138,460; May 4; Gaz. vol. 214; p. 260.
Derr, Charles E., assignor to Packard Motor Car Company, Detroit, Mich. Gear. No. 1,141,043; May 25; Gaz. vol. 214; p. 1275.
Des Jardins, Benjamin M., West Hartford, Conn. Cryptograph. No. 1,138,851; May 11; Gaz. vol. 214; p. 436.
Detroit Scale Manufacturing Company. (See Riedel, Charles E., assignor.)
Detroit Steel Products Company. (See Drummond, Robert S., assignor.)
Dextrin Automat, Gesellschaft m. b. H. (See Wulkan, Heinrich, assignor.)
Dibbets, Laurent G. G., Caguas, Porto Rico. Centrifugal device for filtering sugar-juices. No. 1,138,608; May 4; Gaz. vol. 214; p. 309.
Dick, Albert B., Lake Forest, assignor to A. B. Dick Company, Chicago, Ill. Stencil-duplicating machine. No. 1,140,883; May 25; Gaz. vol. 214; p. 1220.
Dick, Albert B., Lake Forest, assignor to A. B. Dick Company, Chicago, Ill. Sheet-feeding apparatus. No. 1,140,884; May 25; Gaz. vol. 214; p. 1220.
Dickey, Aaron F., Somerset, Pa. Resilient transmission-gearing. No. 1,139,502; May 18; Gaz. vol. 214; p. 700.
Dickey, Charles T., Elisabeth, assignor to Voorhees Rubber Manufacturing Company, Jersey City, N. J. Tire-shoe and constructing same. No. 1,138,092; May 4; Gaz. vol. 214; p. 131.
Dickinson, William M., *et al.* (See MacRae, John G., assignor.)
Dickson, Robert, Hamilton, Ontario, Canada. Match-box. No. 1,137,743; May 4; Gaz. vol. 214; p. 8.
Diehl, Robert N., Oilfields, Cal. Exercising apparatus. No. 1,138,196; May 4; Gaz. vol. 214; p. 166.
Diener, Charles, New York, N. Y. Self-locking hinge. No. 1,140,129; May 18; Gaz. vol. 214; p. 922.
Dies, Charles A., Chicago, assignor to C. Mark, Lake Forest, Ill. Pipe-coupling. No. 1,137,955; May 4; Gaz. vol. 214; p. 82.
Dies, Charles A., assignor to C. Mark, Evanston, Ill. Milling-cutter. No. 1,140,130; May 18; Gaz. vol. 214; p. 923.
Diescher, Samuel E., Pittsburgh, Pa. Manufacture of seamless tubes. No. 1,139,957; May 18; Gaz. vol. 214; p. 859.
Dietrich, Gustave. (See Painton, Joseph G., assignor.)
Dietrich, Richard R., St. Louis, Mo. Stovepipe-forming machine. No. 1,138,689; May 11; Gaz. vol. 214; p. 358.
Dietz, Charles. (See Hailstone and Dietz.)
Dilley, Arzeno J., Grand Rapids, assignor of one-half to F. W. Green, Ionia, Mich. Spring. No. 1,137,845; May 4; Gaz. vol. 214; p. 43.
Dillinger, Ross L., Decatur, Ill. Folding stock chute-loader and hog-holder. No. 1,139,755; May 18; Gaz. vol. 214; p. 788.
Dilts, Henry I., Long Island City, assignor to Neptune Meter Company, New York, N. Y. Water-meter. No. 1,138,640; May 11; Gaz. vol. 214; p. 359.
Diners, Julius, New York, N. Y. Automatic valve. No. 1,138,093; May 4; Gaz. vol. 214; p. 131.
Dinn, James F., Port Washington, assignor to Hall-Borchert Dress Form Company, New York, N. Y. Adjustable dress-form. No. 1,137,744; May 4; Gaz. vol. 214; p. 8.
Dispatch Conveyor Company. (See Fullerton, Frederick W., assignor.)
Dittmar, William W., Williamsport, Pa. Forming a pew. No. 1,140,964; May 25; Gaz. vol. 214; p. 1249.
Dixon, Henry C., Oil City, La. Electric whip. No. 1,140,365; May 25; Gaz. vol. 214; p. 1037.
Dixon, Randall M., Stockton, Cal. Automatic-releasing cable-grip. No. 1,138,197; May 4; Gaz. vol. 214; p. 167.
Dixon, Robert M., East Orange, N. J. Self-contained projecting-lantern. No. 1,139,852; May 18; Gaz. vol. 214; p. 823.
Doble, William A., assignor to The Pelton Water Wheel Company, San Francisco, Cal. Combined hydraulic motor and vacuum-creating means for cleaners. No. 1,138,852; May 11; Gaz. vol. 214; p. 436.
Dobyne, George A. (See Teague, Edward O., assignor.)
Dodd & Struthers. (See Dodd, Thomas W., assignor.)
Dodd, Thomas W., assignor to Dodd & Struthers, Des Moines, Iowa. Bracket for lightning-rod points. No. 1,140,582; May 25; Gaz. vol. 214; p. 1115.
Dodge, James M., Philadelphia, Pa., assignor to Link-Belt Company, Chicago, Ill. Making chain-links. No. 1,139,019; May 11; Gaz. vol. 214; p. 496.
Dodge, Parker, Washington, D. C., assignor to R. E. Kimball, Cleveland, Ohio. Ticket-printer. No. 1,140,804; May 25; Gaz. vol. 214; p. 1189.
Dodge, Philip T., New York, N. Y., assignor to Mergenthaler Linotype Company. Typographical machine. No. 1,139,020; May 11; Gaz. vol. 214; p. 496.
Dodge, Willard A., Hornell, N. Y. Flexible pipe connection. No. 1,138,281; May 4; Gaz. vol. 214; p. 196.
Dodge, Willard A., Hornell, N. Y. Flexible pipe connection. No. 1,138,282; May 4; Gaz. vol. 214; p. 196.
Dodge, William G., and C. H. Leave, Boston, Mass. Telephone-call register. No. 1,138,283; May 4; Gaz. vol. 214; p. 196.
Dodokin, Paul, Langbank, Saskatchewan, Canada. Lamp-chimney holder. No. 1,139,503; May 18; Gaz. vol. 214; p. 700.
Doerr, Harry E., St. Louis, Mo., assignor to Samson Car Coupler Company, New York, N. Y. Car-coupling. No. 1,138,198; May 4; Gaz. vol. 214; p. 167.
Doidge, John J., assignor, by mesne assignments, to The R. H. Long Machinery Company, South Framingham, Mass. Clutch mechanism. No. 1,140,885; May 25; Gaz. vol. 214; p. 1221.
Doidge, John J., assignor to The R. H. Long Machinery Co., South Framingham, Mass. Thread-waxing device. No. 1,140,886; May 25; Gaz. vol. 214; p. 1221.
Dolge, Carl B., Westport, Conn. Casket-truck. No. 1,138,641; May 11; Gaz. vol. 214; p. 359.
Dom, Alexander. (See Hauss and Dom.)
Doman, Lewis B., assignor to The Amphion Piano Player Company, Syracuse, N. Y. Self-playing musical instrument. No. 1,141,044; May 25; Gaz. vol. 214; p. 1275.
Domestic Appliances Company. (See Stabel, Joseph M., assignor.)
Domisi, David F., Franklin, Pa. Machine for grinding the lateral faces of piston-rings. No. 1,139,649; May 18; Gaz. vol. 214; p. 751.
Domisi, David F., Franklin, Pa. Machine for finishing the lateral edges of piston-rings. No. 1,139,650; May 18; Gaz. vol. 214; p. 752.
Donahue, Christopher, assignor to The Thomas P. Taylor Co., Bridgeport, Conn. Embroidery-rings. No. 1,140,506; May 25; Gaz. vol. 214; p. 1089.

Donaldson, Walter S., Omaha, Nebr. Reamer attachment for die-stocks. No. 1,141,045; May 25; Gaz. vol. 214; p. 1275.
Donaldson, William M., assignor to Ingersoll-Rand Company, New York, N. Y. Regulator for fluid-compressors. No. 1,138,199; May 4; Gaz. vol. 214; p. 167.
Dooley, Clarence H., Rock Island, Ill., assignor to Deere & Mansur Co. Wire reeling and unreeling machine. No. 1,138,940; May 11; Gaz. vol. 214; p. 466.
Dooley, Harry L., Rock Island, Ill. Variable-drop planter. No. 1,138,941; May 11; Gaz. vol. 214; p. 466.
Dornan, William, Pomona, Cal. Vehicle-spring. No. 1,139,504; May 18; Gaz. vol. 214; p. 701.
Dorr, John V., Denver, Colo. Apparatus for continuously separating solids from liquids. No. 1,140,131; May 18; Gaz. vol. 214; p. 923.
Dorsey, Farnum F. (See McDade and Dorsey.)
Dorsey, Farnum F., assignor to North East Electric Company, Rochester, N. Y. Power-transmission mechanism. No. 1,140,132; May 18; Gaz. vol. 214; p. 923.
Double Drive Differential Company. (See Nogrady, An Dor T., assignor.)
Douglas, Edward B. (See Adams, Donnison B., assignor.)
Dover Manufacturing Company. (See Braun, William A., assignor.)
Dow Wire & Iron Works. (See Williams, Harry E., assignor.)
Dowler, Frank A., Lawrence, Kans. Automobile tire-pump. No. 1,137,956; May 4; Gaz. vol. 214; p. 82.
Dowling, William, and W. A. Schroeder, assignors to Mesker Brothers Iron Company, St. Louis, Mo. Metallic stair construction. No. 1,138,642; May 11; Gaz. vol. 214; p. 360.
Downing, Ira S., Cleveland, Ohio, assignor to The Curtain Supply Company, Chicago, Ill. Ticket-holder. No. 1,137,846; May 4; Gaz. vol. 214; p. 43.
Downing Pneumatic Wheel Company. (See Kettler, Martin F., assignor.)
Downingtown Manufacturing Company. (See Miller, Guyon, assignor.)
Doyle, James E. (See Vestine, Andrew O., assignor.)
Doyle, Patrick A., Copenhagen, N. Y. Attachment to sulky-plows. No. 1,138,546; May 4; Gaz. vol. 214; p. 288.
Doze, Franklin, Walnut, Kans. Cane-stripper. No. 1,139,756; May 18; Gaz. vol. 214; p. 789.
Drake, Alden M. (See Heald and Drake.)
Draper Company. (See Ballou, Eugene H., assignor.)
Draper Company. (See Kristek, Emmerich H., assignor.)
Draper Company. (See Martin, Thelesthare, assignor.)
Draper Company. (See Poisson, Joseph, assignor.)
Draper Company. (See Rhoades, Alonzo E., assignor.)
Draper, Francis W., assignor of The Starr Piano Company, Richmond, Ind. Automatic tracker. No. 1,138,461; May 4; Gaz. vol. 214; p. 261.
Draper, George W., Fair Haven, Vt. Transmission-gearing. No. 1,140,256; May 18; Gaz. vol. 214; p. 965.
Dreyfus, Adolphus W., Delhi, N. Y. Spring suspension system. No. 1,140,257; May 18; Gaz. vol. 214; p. 965.
Drissler, Frederick W., Minneapolis, Minn. Tooth-regulating appliance. No. 1,139,170; May 11; Gaz. vol. 214; p. 548.
Drummond, Robert S., assignor to Detroit Steel Products Company, Detroit, Mich. Glass-holding device for metallic windows. No. 1,140,887; May 25; Gaz. vol. 214; p. 1221.
Du Pont, Francis I., Wilmington, Del. Providing shoelacing with tips. No. 1,139,112; May 11; Gaz. vol. 214; p. 528.
Dubois, James, and J. E. Jones, Westville, Ill. Railway-switch mechanism. No. 1,140,965; May 25; Gaz. vol. 214; p. 1249.
Dubois, James, and J. E. Jones, Westville, Ill. Automatic railway-switch. No. 1,140,966; May 25; Gaz. vol. 214; p. 1250.
Dubus, Peter A., New Orleans, La. Forming tie-joints. No. 1,141,046; May 25; Gaz. vol. 214; p. 1276.
Duc, Henry A., Charleston, S. C. Lubricator. No. 1,138,942; May 11; Gaz. vol. 214; p. 467.
Duc, Henry A., Jr., Charleston, S. C. Steam-condenser. No. 1,139,505; May 18; Gaz. vol. 214; p. 701.
Dudley, Edward F., Oak Park, assignor to The Miehle Printing Press & Manufacturing Company, Chicago, Ill. Sheet-delivery mechanism for printing-presses. No. 1,137,957; May 4; Gaz. vol. 214; p. 82.
Dudley, George A. (See Sink and Dudley.)
Dudley, Raymond C. (See Carscadin and Woodman, assignors.)
Duffy, John S. (See Harper, William P., assignor.)
Duggan, James F., Atlantic, Mass. Signaling apparatus. No. 1,141,047; May 25; Gaz. vol. 214; p. 1276.
Dumond, Charles M., Cedar Falls, Iowa. Actuating mechanism for washing-machines. No. 1,139,404; May 11; Gaz. vol. 214; p. 628.
Duncan, Charles G., assignor of one-half to J. Marston, Los Angeles, Cal. Trap. No. 1,138,943; May 11; Gaz. vol. 214; p. 467.
Duncan, Lester C., Lenia, Idaho, assignor of nine-tenths to C. F. Carey, Spokane, and one-tenth to V. A. Greenleaf, Seattle, Wash. Automobile-body. No. 1,139,021; May 11; Gaz. vol. 214; p. 497.
Duncan, Sylena A., Neshanic, N. J. Detacheble handle. No. 1,140,967; May 25; Gaz. vol. 214; p. 1250.
Dunderdale, Herbert, Cleveland, Ohio, assignor to Chicago Standard Equipment Company, Chicago, Ill. Ladder. (Reissue.) No. 13,914; May 11; Gaz. vol. 214; p. 653.
Dunham, Rupert F., Bridgeport, Conn. Advertising device. No. 1,138,737; May 11; Gaz. vol. 214; p. 394.
Dunkle, Ralph W., Greenville, Ohio. Signal-horn. No. 1,140,968; May 25; Gaz. vol. 214; p. 1251.
Dunlap, Thomas E., New Orleans, La. Keyhole-guard. No. 1,140,258; May 18; Gaz. vol. 214; p. 965.
Dunlap, William A., Pittsburgh, Pa. Metallic shipping-case. No. 1,138,643; May 11; Gaz. vol. 214; p. 360.
Dunlap, William A., Pittsburgh, Pa. Metallic shipping-case. No. 1,138,644; May 11; Gaz. vol. 214; p. 360.
Dunn, Charles T., Newark, Ohio. Clamping device for paper boxes. No. 1,138,200; May 4; Gaz. vol. 214; p. 168.
Dunn, Frank M., and R. G. Kroh, Newton, Iowa. Cold-storage-well system. No. 1,138,547; May 4; Gaz. vol. 214; p. 289.
Dunn, Frank P., assignor to Computing Cheese Cutter Company, Anderson, Ind. Cheese-cutter. No. 1,139,405; May 11; Gaz. vol. 214; p. 629.
Duplex Printing Press Company. (See Bechman, Henry F., assignor.)
Dupuis, Charles, Charenton, France. Portable apparatus for projecting stationary or animated pictures. No. 1,137,958; May 4; Gaz. vol. 214; p. 83.
Durbin Automatic Train Pipe Connector Company. (See Durbin, Votaw S., assignor.)
Durbin, Votaw S., assignor to Durbin Automatic Train Pipe Connector Company, St. Louis, Mo. Automatic train-pipe coupling. No. 1,138,359; May 4; Gaz. vol. 214; p. 225.
Dutton, Chauncey N., New York, N. Y. Power-transmission apparatus. No. 1,138,094; May 4; Gaz. vol. 214; p. 131.
Dwiggins Wire Fence Company. (See Swank, Lafe, assignor.)
Dyer, Leonard H., Greenwich, assignor to Enterprize Automobile Company, Hoboken, N. J. Motor-vehicle. No. 1,139,853; May 18; Gaz. vol. 214; p. 823.
Dyer, Newell V., Holbrook, Mass. Skiving-machine. No. 1,138,645; May 11; Gaz. vol. 214; p. 360.
E. B. Hayes Machine Company. (See Frantz, John R., assignor.)
E. I. du Pont de Nemours Powder Company. (See Beers, Frank T., assignor.)
E. J. Manville Machine Company, The. (See Gaess, Albert H., assignor.)
E. R. Knott Machine Company. (See Knott, Eustace R., assignor.)
Eagan, John J., New York, N. Y. Valve-spring compressor. No. 1,138,462; May 4; Gaz. vol. 214; p. 261.
Eager, Frank L., Waterbury, Conn. Contactor. No. 1,138,853; May 11; Gaz. vol. 214; p. 487.
Earle, Stanley B. (See Cooper and Earle.)
Earll, Charles I., New York, N. Y. Spring. No. 1,138,738; May 11; Gaz. vol. 214; p. 395.
East, John W., Los Angeles, Cal. Railway-crossing. No. 1,139,171; May 11; Gaz. vol. 214; p. 548.
Eastern Machine Screw Corporation. (See Gates, William H., assignor.)
Eastman, Clyde J., Los Angeles, Cal. Tractor. No. 1,140,969; May 25; Gaz. vol. 214; p. 1251.
Eastman, Franklin P., New York, N. Y. Self-dumping scow. No. 1,138,468; May 4; Gaz. vol. 214; p. 261.
Eastman Kodak Company. (See Folmer, William F., assignor.)
Eastman Kodak Company. (See Sievers, Herman C., assignor.)
Eastman, William E., Boston, Mass. Apparatus for starting internal-combustion engines. No. 1,137,847; May 4; Gaz. vol. 214; p. 43.
Easton, William B., Chicago, Ill. Tube-mill. No. 1,139,651; May 18; Gaz. vol. 214; p. 752.
Eaton, Albert N., Newburyport, Mass. Combined screen and shutter. No. 1,138,944; May 11; Gaz. vol. 214; p. 467.
Eaton, George M., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Electric locomotive. No. 1,137,848; May 4; Gaz. vol. 214; p. 44.
Eaton, Richard M., Niagara Falls, N. Y., assignor, by mesne assignments, to The Garford Manufacturing Company, Elyria, Ohio. Composite electric system. No. 1,138,739; May 11; Gaz. vol. 214; p. 395.
Eaton, William S., Sag Harbor, N. Y., assignor to American Bank Note Company. Damping-machine. No. 1,138,095; May 4; Gaz. vol. 214; p. 132.
Ebeling, Charles W., Wheeling, W. Va. Stylus-positioning and circuit-controlling means for sound-reproducing machines. No. 1,138,646; May 11; Gaz. vol. 214; p. 361.
Ebner, Karl, Kempten, Germany. Sad-iron support. No. 1,138,176; May 4; Gaz. vol. 214; p. 160.
Eckel, Howard, Los Angeles, Cal. Pumping mechanism for vacuum-cleaners. No. 1,138,464; May 4; Gaz. vol. 214; p. 262.
Eckersley, Arthur J. L., South Melbourne, Victoria, Australia. Apparatus for delivering and mixing drinks or other liquids. No. 1,140,888; May 25; Gaz. vol. 214; p. 1221.
Eckliff Automatic Boiler Circulator Company. (See Eckliff, James C., assignor.)
Eckliff Automatic Boiler Circulator Company. (See Gulbert, F. Walter, assignor.)

Eckliff, James C., assignor to Eckliff Automatic Boiler Circulator Company, Detroit, Mich. Water-purifier. No. 1,140,302; May 18; Gaz. vol. 214; p. 980.
Eckman, John R. (See Oberg and Eckman.)
Eckmann, Siegmund H., and J. Wagner, Manchester, England, assignors to Westinghouse Electric and Manufacturing Company. Safety speed-control apparatus for motors. No. 1,138,647; May 11; Gaz. vol. 214; p. 361.
Eclipse Gas Stove Company. (See Green, Michael J., assignor.)
Eco Magneto Clock Company, The. (See Wadsworth, Erastus E., assignor.)
Edgar, Robert A., Carlyle, assignor of two-fifths to J. C. Hadley, Chanute, Kans. Seal. No. 1,140,133; May 18; Gaz. vol. 214; p. 924.
Edgecombe, Edward F., Jr., Marion, Ind. Circulation-control system. No. 1,138,854; May 11; Gaz. vol. 214; p. 437.
Edison, Thomas A., Llewellyn Park, assignor to New Jersey Patent Company, West Orange, N. J. Presenting the illusion of scenes in colors. No. 1,138,360; May 4; Gaz. vol. 214; p. 225.
Edwards, Charles W., Maquoketa, Iowa. Anchor. No. 1,137,745; May 4; Gaz. vol. 214; p. 9.
Edwards, Christopher B., assignor to The Moeschl-Edwards Corrugating Company, Covington, Ky. Sheet-metal roofing. No. 1,140,667; May 25; Gaz. vol. 214; p. 1144.
Edwards, Edward W., Cincinnati, Ohio. Sheet-metal roofing. No. 1,137,746; May 4; Gaz. vol. 214; p. 9.
Edwards, John C., Mobile, Ala. Signal device for vehicles. No. 1,138,361; May 4; Gaz. vol. 214; p. 226.
Edwards, Oliver M. (See Axe, Roy T., assignor.)
Edwards, Walter A., Dayton, Ky. Bilge-pump. No. 1,137,849; May 4; Gaz. vol. 214; p. 44.
Edwin B. Stimpson Company. (See Stimpson, Edwin B., assignor.)
Egan, Charles E., and W. E. Mayer, Cincinnati, Ohio. Heating device. No. 1,138,362; May 4; Gaz. vol. 214; p. 226.
Egerton, Henry C., Passaic, N. J., assignor to Western Electric Company, New York, N. Y. Telephonic apparatus. No. 1,140,366; May 25; Gaz. vol. 214; p. 1037.
Eggart, Karl, assignor to Firm of A. Saurer, Arbon, Switzerland. Automatic embroidering-machine. No. 1,139,506; May 18; Gaz. vol. 214; p. 702.
Ehrhardt, Erwin, Pankow, near Berlin, assignor to Siemens & Halske A.-G., Berlin, Germany. Perforating apparatus for making register-bands. No. 1,138,945; May 11; Gaz. vol. 214; p. 467.
Ehrlich, Leo. (See Fassett, Francis K., assignor.)
Ehrsam, John. (See Smith, Harold T., assignor.)
Eickhoff, Frederick H. (See Messerli, John J., assignor.)
Eigen, Benno vom, Newark N. J., assignor to August Goertz & Co. Bag-frame fastener. No. 1,139,826; May 18; Gaz. vol. 214; p. 814.
Eisen, Diedrich. (See Graebe, William C., assignor.)
Ekström, Per G., Harnäs, Sweden. Apparatus for fermenting sulfite liquor. No. 1,139,507; May 18; Gaz. vol. 214; p. 702.
Eldred, Byron E., assignor to The Commercial Research Company, New York, N. Y. Incandescent lamp. No. 1,140,134; May 18; Gaz. vol. 214; p. 924.
Eldred, Byron E., assignor to The Commercial Research Company, New York, N. Y. Production of compound metal articles. No. 1,140,135; May 18; Gaz. vol. 214; p. 925.
Eldred, Byron E., assignor to The Commercial Research Company, New York, N. Y. Low-expansion wire. No. 1,140,136; May 18; Gaz. vol. 214; p. 925.
Electric Boat Company. (See Davison, Gregory C., assignor.)
Electric Controller and Manufacturing Company. (See Hall, Jay H., assignor.)
Electric Water Sterilizer Company. (See Hartman, Harry B., assignor.)
Eli Lilly and Company, The. (See Davis, Alex B., assignor.)
Elia, Giovanni E., Rome, Italy, assignor to Vickers Limited, London, England. Explosive barrier. No. 1,140,137; May 18; Gaz. vol. 214; p. 925.
Ellerman, Edward, Denver, Colo. Convertible coaster. No. 1,140,805; May 25; Gaz. vol. 214; p. 1190.
Ellinger, Julian O., New York, N. Y. Collapsible metallic structure. No. 1,140,448; May 25; Gaz. vol. 214; p. 1067.
Elliott, Claude B., and E. Kurtz, Hempstead, Tex. Buggy-axle. No. 1,140,138; May 18; Gaz. vol. 214; p. 926.
Elliott, Gertrude A., Detroit, Mich. Pillow-holder. No. 1,140,583; May 25; Gaz. vol. 214; p. 1115.
Elliott, James B., Riverton, N. J. Coupling. No. 1,138,946; May 11; Gaz. vol. 214; p. 468.
Elliott, Richard P., Boston, Mass. Making and incorporating stiffening-pieces in the forepart of boots and shoes. No. 1,137,850; May 4; Gaz. vol. 214; p. 44.
Elliott, Samuel K., San Diego, and L. C. Pond, Los Angeles, Cal.; said Pond assignor to said Elliott. Hose-nozzle. No. 1,140,259; May 18; Gaz. vol. 214; p. 966.
Elliott, Sterling, Newton, Mass. Machine for making stencil-strips. No. 1,140,889; May 25; Gaz. vol. 214; p. 1222.
Elliott, William J., assignor to A. Kessell, Philadelphia, Pa. Latch-opening mechanism for knitting-machines. No. 1,139,173; May 11; Gaz. vol. 214; p. 549.
Elliott, William J., assignor to A. Kessell, Philadelphia, Pa. Latch protector or preserver. No. 1,139,202; May 11; Gaz. vol. 214; p. 579.
Elliott, William S., Pittsburgh, Pa. Multiple-unit beater. No. 1,139,172; May 11; Gaz. vol. 214; p. 549.
Ellis, Arthur G., East Liverpool, Ohio. Explosive-engine. No. 1,138,648; May 11; Gaz. vol. 214; p. 362.
Ellis, Carleton, Montclair, N. J. Hydrogenating unsaturated organic material. No. 1,138,201; May 4; Gaz. vol. 214; p. 168.
Ellis, Carleton, Montclair, N. J., assignor to Chadeloid Chemical Company, New York, N. Y. Finish-remover-applying device. No. 1,139,353; May 11; Gaz. vol. 214; p. 609.
Ellis, Carleton, Larchmont, assignor to Chadeloid Chemical Company, New York, N. Y. Finish-remover. No. 1,140,449; May 25; Gaz. vol. 214; p. 1068.
Ellis, Fred, St. Louis, Mo., assignor to United Shoe Machinery Company, Paterson, N. J. Holddown. No. 1,138,855; May 11; Gaz. vol. 214; p. 438.
Ellis, Robert G., assignor to American Car and Foundry Company, St. Louis, Mo. Bracing for carlines. No. 1,140,668; May 25; Gaz. vol. 214; p. 1144.
Elmes, Devereux, Orange, assignor to New Jersey Patent Company, West Orange, N. J. Primary battery. No. 1,138,363; May 4; Gaz. vol. 214; p. 227.
Eloesser, Carl, Charlottenburg, Germany. Transmission-gearing. No. 1,140,890; May 25; Gaz. vol. 214; p. 1222.
Elser, John, assignor to Welsbach Light Company, Gloucester City, N. J. By-pass gas-cock. No. 1,140,026; May 18; Gaz. vol. 214; p. 885.
Elsman, Ralph, San Francisco, and C. Dallerup, San Rafael, Cal. Combined switch and fuse. No. 1,138,857; May 11; Gaz. vol. 214; p. 438.
Elyria Iron & Steel Company, The. (See Lloyd, Marshall B., assignor.)
Emerick, Harry C., Harrisburg, Pa. Rim-tool. No. 1,140,806; May 25; Gaz. vol. 214; p. 1190.
Emerson-Brantingham Company. (See Kallor, John N., assignor.)
Emerson-Brantingham Company. (See Waterman, Lewis E., assignor.)
Emery, Elijah J. (See Kelly and Emery.)
Emmers, Edward, Royersford, Pa. Woman's undergarment. No. 1,139,652; May 18; Gaz. vol. 214; p. 753.
Empire Voting Machine Company. (See Lausterer, William J., assignor.)
Engel, Karl, Arlington, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Making shoe-uppers. No. 1,139,653; May 18; Gaz. vol. 214; p. 753.
Engelbrelt, John D., assignor to The Enterprise Optical Mfg. Company, Chicago, Ill. Automatic shutter for kinetoscopes. No. 1,138,364; May 4; Gaz. vol. 214; p. 227.
Engelwood, Patrick. (See Smedman, John, assignor.)
Englar, Clayton H., Baltimore, Md., assignor to Continental Can Company, Incorporated, Syracuse, N. Y. Device for feeding filled cans to closing-machines. No. 1,140,807; May 25; Gaz. vol. 214; p. 1190.
Engle, James O., Ransom, Kans. Folding shipping-crate. No. 1,138,096; May 4; Gaz. vol. 214; p. 132.
Enos, Frank, Jr., assignor to The Norwich Automatic Feeder Company, Norwich, Conn. Chick-feeder. No. 1,138,365; May 4; Gaz. vol. 214; p. 227.
Ens, Johan D., Hague, Saskatchewan, Canada. Clutch. No. 1,140,367; May 25; Gaz. vol. 214; p. 1038.
Enterprise Optical Mfg. Company, The. (See Engelbrelt, John D., assignor.)
Enterprise Railway Equipment Company. (See Campbell, Argyle, assignor.)
Enterprize Automobile Company. (See Dyer, Leonard H., assignor.)
Entz, Justus B., assignor to The White Company, Cleveland, Ohio. Automobile-body. No. 1,140,139; May 18; Gaz. vol. 214; p. 926.
Erickson, Edward, Lynn, assignor to Victor Shoe Machinery Company, Boston, Mass. Lock-stitch sewing-machine. No. 1,138,858; May 11; Gaz. vol. 214; p. 439.
Erickson, Edward, West Lynn, assignor to Victor Shoe Machinery Company, Boston, Mass. Sewing-machine take-up. No. 1,140,584; May 25; Gaz. vol. 214; p. 1116.
Erickson, Edward, and P. Sjostrom, Malden, Mass. Lifting-jack. No. 1,139,263; May 11; Gaz. vol. 214; p. 580.
Erickson, John, *et al.* (See Obergfell, Herbert F., assignor.)
Eriwein, Georg, Berlin, and C. Knips, Charlottenburg, assignors to Siemens & Halske A. G., Berlin, Germany. Apparatus for purifying water by means of ozonized air. No. 1,138,202; May 4; Gaz. vol. 214; p. 168.
Errington, George A., Toronto, Ontario, Canada. Car-switch-operating mechanism. No. 1,138,203; May 4; Gaz. vol. 214; p. 168.
Eschen, Franklin W., New York, N. Y. Form for making curbs. No. 1,138,740; May 11; Gaz. vol. 214; p. 396.
Essanay Film Manufacturing Company. (See James and Peters, assignors.)
Estee, Adelaide. (See Gordon, Philip, assignor.)
Estes, Barton, Seattle, and E. B. Robinson, Houghton, Wash. Cattle-guard. No. 1,138,548; May 4; Gaz. vol. 214; p. 289.

Etheridge, Theodore S., Grand Rapids, Mich. Device for applying glue to book-covers. No. 1,140,450; May 25; Gaz. vol. 214; p. 1068.

Euson, George M., Chicago, Ill. Article-carrier. No. 1,140,585; May 25; Gaz. vol. 214; p. 1116.

Evans, Arthur S., Reading, Kans. Lifter. No. 1,139,854; May 18; Gaz. vol. 214; p. 824.

Evans, Austin M., Potts Camp, Miss. Torpedo-guard. No. 1,139,118; May 11; Gaz. vol. 214; p. 529.

Evans, Charles E., Weed, Cal. Dowel. (Reissue.) No. 13,915; May 11; Gaz. vol. 214; p. 653.

Evans, Charlie W. (See Phillips and Evans.)

Evans, James E., Lyons, Kans. Cultivator. No. 1,140,970; May 25; Gaz. vol. 214; p. 1251.

Evans, John, Melbourne, Victoria, Australia. Converting fine coal into a marketable fuel. No. 1,140,735; May 25; Gaz. vol. 214; p. 1166.

Everett, Ernest E., and D. F. Sheldon, San Buenaventura, Cal. Device used in the formation of jetties. No. 1,140,140; May 18; Gaz. vol. 214; p. 926.

Everett, Henry A., Haddon Heights, N. J. Safety limit-switch. No. 1,138,366; May 4; Gaz. vol. 214; p. 228.

Everson, George B., Cincinnati, Ohio. Massage-machine. No. 1,140,891; May 25; Gaz. vol. 214; p. 1222.

Evesson, Martin V. B., North Bergen, N. J. Steering-gear for toy vehicles. No. 1,140,586; May 25; Gaz. vol. 214; p. 1116.

Excelsior Needle Company. (See Dayton, James M., assignor.)

F. L. Schmidt Company. (See Novick, Abraham, assignor.)

Faber, Henry B., Brooklyn, N. Y. Metallurgical apparatus. No. 1,138,284; May 4; Gaz. vol. 214; p. 197.

Fabric Fire Hose Company. (See Cole, William T., assignor.)

Fabric Fire Hose Company. (See Rhomoser, Matthew R., assignor.)

Fagan, Henry F., New York, N. Y. Device to prevent theft or unauthorized use of automobiles, motor-boats, and the like. No. 1,140,141; May 18; Gaz. vol. 214; p. 926.

Fagerlund, Erik A., and A. A. H. Börjeson, assignors of one-half to G. Svalling, Stockholm, Sweden. Cleaning-machine for dishes and similar articles. No. 1,139,406; May 11; Gaz. vol. 214; p. 629.

Fahnestock, David M., Pittsburgh, Pa. Removable molding-flask bar. No. 1,137,851; May 4; Gaz. vol. 214; p. 45.

Fahrenbruch, George H., Omaha, Nebr. Grain-car door. No. 1,137,747; May 4; Gaz. vol. 214; p. 9.

Falle, George W., Jr., Taxahaw, S. C. Match-box. No. 1,140,142; May 18; Gaz. vol. 214; p. 927.

Falls, Charles H., assignor to A. L. Runyan, Waterloo, Iowa. Bridle-bit. No. 1,140,971; May 25; Gaz. vol. 214; p. 1252.

Falvey, Humphrey, New York, N. Y. Glass-cutting machine. No. 1,140,143; May 18; Gaz. vol. 214; p. 927.

Faragó, Jozseph, Clarence, Pa. Rail-joint. No. 1,140,892; May 25; Gaz. vol. 214; p. 1223.

Farbwerke vorm. Meister Lucius & Brüning. (See Kränzlein, Georg, assignor.)

Farbwerke vorm. Meister Lucius & Brüning. (Se Kränzlein, Hagenbach, and Giloy, assignors.)

Farbwerke vorm. Meister Lucius & Brüning. (See Tiedtke, Richard, assignor.)

Farlinger, George E., assignor to Briscoe Manufacturing Company, Detroit, Mich. Radiator. No. 1,138,367; May 4; Gaz. vol. 214; p. 228.

Farmer, Charles, Nottingham, England. Take-up mechanism for embroidery-machines. No. 1,139,958; May 18; Gaz. vol. 214; p. 860.

Farmer, Clarence B. (See Wyatt and Farmer.)

Farnam, Frank D., Chicago, Ill. Cleaning device for utilizing volatile liquids. No. 1,137,950; May 4; Gaz. vol. 214; p. 33.

Farnum, William C., assignor of one-half to W. M. Whitney, Winchendon, Mass. Motor gear-drive for planers. No. 1,140,334; May 18; Gaz. vol. 214; p. 992.

Farquhar, Louis W., St. Louis, Mo. Safety-guard for razors. No. 1,138,649; May 11; Gaz. vol. 214; p. 362.

Farr, John C., Jr. (See Hurley, Richard, assignor.)

Farrell, George A., Altoona, Pa. Metallic tie. No. 1,139,855; May 18; Gaz. vol. 214; p. 824.

Farrell, Raymond J. and F. A. Ardron, Seattle, Wash. Spark-plug. No. 1,139,654; May 18; Gaz. vol. 214; p. 754.

Farrier, Martin P., *et al.* (See Shannon, Charles R., assignor.)

Fassett, Francis K., Dayton, Ohio, assignor to L. Ehrlich, St. Louis, Mo. Theft-prevention device for automobiles. No. 1,139,757; May 18; Gaz. vol. 214; p. 789.

Fausek, Arthur J. and I. F., St. Louis, Mo. Torch. No. 1,139,959; May 18; Gaz. vol. 214; p. 860.

Fausek, Irwing F. (See Fausek, Arthur J. and I. F.)

Faust, Casper, Oshkosh, Wis. Bolster-stake holder. No. 1,139,655; May 18; Gaz. vol. 214; p. 754.

Fazackerley, William, New Cross, London, assignor of one-half to Imperial Tobacco Company, (of Great Britain and Ireland,) Limited, Bristol, England. Weighing and sorting apparatus. No. 1,141,048; May 25; Gaz. vol. 214; p. 1276.

Fazakerley, Joseph E., Pittsfield, Mass. Mechanical ladle-skimmer and heat-protector. No. 1,139,960; May 18; Gaz. vol. 214; p. 860.

Fazi, Romolo de, Rome, Italy. Alcoholic fermentation. No. 1,140,882; May 25; Gaz. vol. 214; p. 1219.

Featherstone-Smith, Reginald A., and M. B. Cooper, London, England. Projectile for destroying airships, balloons, and other aerostats. No. 1,139,354; May 11; Gaz. vol. 214; p. 610.

Feczko, George, Braddock, Pa. Bottle-closure. No. 1,139,508; May 18; Gaz. vol. 214; p. 702.

Fedders, John M., assignor to Fedders Manufacturing Company, Inc., Buffalo, N. Y. Radiator. No. 1,139,114; May 11; Gaz. vol. 214; p. 529.

Fedders, John M., assignor to Fedders Manufacturing Company, Inc., Buffalo, N. Y. Radiator. No. 1,139,961; May 18; Gaz. vol. 214; p. 861.

Fedders Manufacturing Company. (See Fedders, John M., assignor.)

Feder, Gottfried, Munich, Germany. Apparatus for making concrete piles in the ground. No. 1,140,303; May 18; Gaz. vol. 214; p. 980.

Federal Electric Company. (See Keil, Gustav B., assignor.)

Federal-Huber Company. (See Johnson, John H., assignor.)

Federal Signal Company. (See Cade, John T., assignor.)

Feeley, Frank G., Chicago, Ill., assignor to M. D. Knowlton Company, Rochester, N. Y. Locking device. No. 1,138,368; May 4; Gaz. vol. 214; p. 228.

Feeley, Frank G., Chicago, Ill., assignor to M. D. Knowlton Company, Rochester, N. Y. Cutting mechanism. No. 1,138,369; May 4; Gaz. vol. 214; p. 229.

Feeley, Frank G., Chicago, Ill., assignor to M. D. Knowlton Company, Rochester, N. Y. Slitting-machine. No. 1,139,355; May 11; Gaz. vol. 214; p. 610.

Fegley, Thomas J., and G. O. Leopold, assignors to North Bro's. M'f'g Co., Philadelphia, Pa. Chuck. No. 1,138,465; May 4; Gaz. vol. 214; p. 262.

Feicht, Frank T., Canton, Ohio. Sash-lock. No. 1,140,027; May 18; Gaz. vol. 214; p. 886.

Feldmeier, Harvey, and C. B. Dalsell, assignors to D. H. Burrell & Company, Little Falls, N. Y. Pasteurizing milk. No. 1,138,097; May 4; Gaz. vol. 214; p. 132.

Félizat, Louis, assignor to La Société Huilerie et Savonnerie de Lurian, Salon, Bouches-du-Rhône, France. Apparatus for making wood-charcoal. No. 1,137,852; May 4; Gaz. vol. 214; p. 45.

Fergusson, Alan B., New York, N. Y., assignor to Montague Mailing Machinery Company. Flash-index plate and apparatus for using same. No. 1,139,509; May 18; Gaz. vol. 214; p. 702.

Fernandez, Francis M., Boston, Mass. Combination collapsible shipping-case. No. 1,140,972; May 25; Gaz. vol. 214; p. 1252.

Fernie, William J. (See Adam and Fernie.)

Feuerstein, Louis, Sr. (See Miller, John D., assignor.)

Fields, Albert F., Alhambra, Cal. Game apparatus. No. 1,139,356; May 11; Gaz. vol. 214; p. 611.

Finch, Ida M., Chicago, Ill. Abdominal support. No. 1,139,656; May 18; Gaz. vol. 214; p. 755.

Findley, John P., Crossville, Ala. Cotton-chopper. No. 1,140,144; May 18; Gaz. vol. 214; p. 928.

Fingado, Reinhard T., Mexico, Mexico. Device for centering trolley-wires. No. 1,140,587; May 25; Gaz. vol. 214; p. 1117.

Finger, Frederick W., Louisville, Ky. Hose-nozzle support. No. 1,140,145; May 18; Gaz. vol. 214; p. 928.

Fink, Albert, assignor of one-half to A. Layer, Los Angeles, Cal. Refrigerator. No. 1,138,947; May 11; Gaz. vol. 214; p. 468.

Fink, Nathan. (See Simons, Frank W., assignor.)

Finley, David G., Grand Island, Nebr. Polycycle. No. 1,139,174; May 11; Gaz. vol. 214; p. 550.

Finley, David G., Grand Island, Nebr. Polycycle. No. 1,139,175; May 11; Gaz. vol. 214; p. 550.

Finnell, Walter S., assignor of one-half to Finola Manufacturing Company, Hannibal, Mo. Brush adjustment for scrubbing-machines. No. 1,139,407; May 11; Gaz. vol. 214; p. 629.

Finola Manufacturing Company. (See Finnell, Walter S., assignor.)

Fire Prevention Company. (See Paine, William H., assignor.)

Fischer, Arthur I., assignor to Glauber Brass Manufacturing Company, Cleveland, Ohio. Drinking fountain or faucet. No. 1,140,507; May 25; Gaz. vol. 214; p. 1090.

Fischer, Charles H., Cincinnati, Ohio. Electric lamp. No. 1,140,893; May 25; Gaz. vol. 214; p. 1223.

Fischer, Charles H., Cincinnati, Ohio. Electric lamp. No. 1,140,894; May 25; Gaz. vol. 214; p. 1223.

Fischoff, William M., assignor to Pullman Couch Company, Chicago, Ill. Sofa-bed. No. 1,140,368; May 25; Gaz. vol. 214; p. 1038.

Fisenne, Louis, assignor of one-half to C. Goldman, New York, N. Y. Dispensing device. No. 1,139,758; May 18; Gaz. vol. 214; p. 789.

Fisher, Ira S., Keller, Va., assignor of one-half to W. W. Mundy, Molino, Mo. Railway tie and ballast. No. 1,141,049; May 25; Gaz. vol. 214; p. 1277.

Fiske, G. Walter, *et al.* (See Geiger, Charles E., assignor.)

Fitzgerald, Edward, Chicago, Ill. Truck-coupling. No. 1,139,657; May 18; Gaz. vol. 214; p. 755.

Fitzgerald, Edward E., Minden, La., assignor to Muskegon Boiler Works, Muskegon, Mich. Refuse-burner. No. 1,139,658; May 18; Gaz. vol. 214; p. 755.

Flanagan, Charles E., Wheeling, W. Va. Distance-measuring device. No. 1,140,895; May 25; Gaz. vol. 214; p. 1234.

Flesher, Andrew, Taylorville, Ill. Portable earth-boring machine. No. 1,139,176; May 11; Gaz. vol. 214; p. 551.

Fletcher, Sarah A., Chicago, Ill. Sad-iron stand. No. 1,140,146; May 18; Gaz. vol. 214; p. 928.

Flower, Arthur L., Glasgow, Scotland. Bottle-labeling machine. No. 1,140,736; May 25; Gaz. vol. 214; p. 1166.

Flowers, Malon I., and W. S. Lynch, Waelder, Tex. Gin-saw cleaner. No. 1,140,669; May 25; Gaz. vol. 214; p. 1145.

Flynn, James, Rogers, Minn. Potato-picker. No. 1,138,371; May 4; Gaz. vol. 214; p. 229.

Fogarty, Charles A., New York, N. Y. Brush. No. 1,138,466; May 4; Gaz. vol. 214; p. 262.

Foill, Fredrick J., Jackson, Mich. Cushion-seat. No. 1,140,973; May 25; Gaz. vol. 214; p. 1252.

Folberth, Frederick G., Cleveland, Ohio. Carbureter. No. 1,138,204; May 4; Gaz. vol. 214; p. 199.

Folmer, William F., assignor to Eastman Kodak Company, Rochester, N. Y. Photographic camera. No. 1,139,022; May 11; Gaz. vol. 214; p. 497.

Folmer, William F., assignor to Eastman Kodak Company, Rochester, N. Y. Photographic exposing mechanism. No. 1,139,023; May 11; Gaz. vol. 214; p. 497.

Folsom, Charles S., San Diego, Cal. Water-heater regulator. No. 1,139,466; May 11; Gaz. vol. 214; p. 630.

Foote, Charles V., Nephi, Utah. Film-rewinding device. No. 1,138,205; May 4; Gaz. vol. 214; p. 199.

Forbes, John S., and R. H. Poston, Flat River, Mo. Permutation-padlock. No. 1,137,960; May 4; Gaz. vol. 214; p. 84.

Forbes, Joseph W., assignor of one-third to J. A. Ridgwell and one-third to W. H. Ridgwell, Norfolk, Va. Coin-vending machine. No. 1,140,451; May 25; Gaz. vol. 214; p. 1068.

Forbes Lithograph Mfg. Co., The. (See Clark, Jesse R., assignor.)

Ford, Charles A., Newark, N. J., assignor to Ford Manufacturing Company. Non-refillable bottle. No. 1,140,452; May 25; Gaz. vol. 214; p. 1068.

Ford Manufacturing Company. (See Ford, Charles A., assignor.)

Fordyce, Edmond A., assignor to American Pneumatic Service Company, Boston, Mass. Pneumatic-despatch-tube apparatus. No. 1,138,208; May 4; Gaz. vol. 214; p. 199.

Formby, John R., Lostown, Miss. Nut-lock. No. 1,140,974; May 25; Gaz. vol. 214; p. 1252.

Fornaca, Guido, Turin, Italy. Gearing. No. 1,138,098; May 4; Gaz. vol. 214; p. 133.

Fornaca, Guido, Turin, Italy. Friction-clutch. No. 1,138,099; May 4; Gaz. vol. 214; p. 133.

Forsyth, Adelbert, assignor to Milwaukee Reliance Boiler Works, Milwaukee, Wis. Water-heater. No. 1,140,896; May 25; Gaz. vol. 214; p. 1225.

Forsyth, Benjamin F., assignor to Perfection Rug Retainer Company, Salt Lake City, Utah. Rug-retainer. No. 1,137,748; May 4; Gaz. vol. 214; p. 9.

Forsyth, George H., Chicago, Ill., assignor, by mesne assignments, to Waugh Draft Gear Company. Draft-rigging mechanism. No. 1,137,961; May 4; Gaz. vol. 214; p. 84.

Fortescue, Charles L., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Insulating-tube machine. No. 1,137,853; May 4; Gaz. vol. 214; p. 45.

Forth, Charles, Ottawa, Ontario, Canada. Pipe-joint. No. 1,140,508; May 25; Gaz. vol. 214; p. 1090.

Fournier, Frank, Puyallup, Wash. Corn-cutter. No. 1,139,856; May 18; Gaz. vol. 214; p. 824.

Fowler Car Company, The. (See Fowler, William E., Sr., assignor.)

Fowler, George A., Miami, assignor to Crown Mill Equipment Company, Phoenix, Ariz. Separator. No. 1,138,741; May 11; Gaz. vol. 214; p. 396.

Fowler, William E., Sr., assignor to The Fowler Car Company, Chicago, Ill. Running-board bracket. No. 1,140,147; May 18; Gaz. vol. 214; p. 928.

Fox, Francis N., Woodstock, Ohio. Electrical igniting device for automobile-lamps and the like. No. 1,139,759; May 18; Gaz. vol. 214; p. 790.

Fox, Thomas H. (See King, Fox, and King.)

Fox, William R., and E. W. Cleveland, Grand Rapids, Mich.; said Cleveland assignor to said Fox. Saw-bench structure. No. 1,139,659; May 18; Gaz. vol. 214; p. 756.

Frambach, Henry A., Cheboygan, Mich. Machine for beating paper-stock. No. 1,140,737; May 25; Gaz. vol. 214; p. 1166.

Frampton, Reynolds C., Pittsburgh, Pa. Water-valve for instantaneous water-heaters. No. 1,138,350; May 11; Gaz. vol. 214; p. 430.

Francis, Hugh R., Grand Junction, Colo. Fruit-grading machine. No. 1,139,510; May 18; Gaz. vol. 214; p. 702.

Franey, Michael D., Cleveland, Ohio. Wrist-pin fastening. No. 1,139,962; May 18; Gaz. vol. 214; p. 861.

Frank, Isaac W., assignor to United Engineering & Foundry Company, Pittsburgh, Pa. Sheers. No. 1,140,897; May 25; Gaz. vol. 214; p. 1225.

Frank, Joseph, Pittston, Pa. Insecticide-distributor. No. 1,140,453; May 25; Gaz. vol. 214; p. 1068.

Frank, Lawrence, Galveston, Tex. Propeller-pitchometer. No. 1,140,260; May 18; Gaz. vol. 214; p. 966.

Frank, Leslie C., Washington, D. C. Purifying sewage or other wastes and apparatus therefor. No. 1,139,994; May 11; Gaz. vol. 214; p. 496.

Frank, Leslie C., Washington, D. C. Sewage disinfection. No. 1,141,050; May 25; Gaz. vol. 214; p. 1277.

Frankel, Frederick, New York, N. Y. Beauty-mask. No. 1,140,975; May 25; Gaz. vol. 214; p. 1253.

Frantz, John R., assignor to E. B. Hayes Machine Company, Oshkosh, Wis. Doweling-machine. No. 1,137,954; May 4; Gaz. vol. 214; p. 46.

Fransheim, George W., Pittsburgh, Pa. Heating apparatus. No. 1,139,660; May 18; Gaz. vol. 214; p. 756.

Fraser, James M., Empress, Alberta, Canada. Mud-grip for automobiles. No. 1,140,028; May 18; Gaz. vol. 214; p. 886.

Fraser, James S., assignor of one-half to I. C. Moulton, Boston, Mass. Safety appliance for submarine vessels. No. 1,139,409; May 11; Gaz. vol. 214; p. 630.

Fraser, George E., Flint, Mich. Valve for internal-combustion engines. No. 1,139,661; May 18; Gaz. vol. 214; p. 756.

Frazier, Edward S., and A. Gustafson, Aurora, Ill., assignors to S. D. Young, trustee, Grand Rapids, Mich. Display-rack. No. 1,138,600; May 4; Gaz. vol. 214; p. 306.

Frederickson, James S., Vallejo, Cal. Torch. No. 1,138,549; May 4; Gaz. vol. 214; p. 289.

Fredland, William S., Kansas City, Mo. Button and buttonhole marking device. No. 1,140,304; May 18; Gaz. vol. 214; p. 961.

Freeman, Edward W. (See Matthews, Freeman, and Ratsman.)

Freeman, Louis G., Cincinnati, Ohio. Heel-seat rounding and randing mechanism. No. 1,139,025; May 11; Gaz. vol. 214; p. 496.

Freeman, Lowell C., Detroit, Mich. Lubricating apparatus. No. 1,137,749; May 4; Gaz. vol. 214; p. 10.

French, Alfred W., Piqua, Ohio. Method of and apparatus for cooking oil-bearing material. No. 1,140,305; May 25; Gaz. vol. 214; p. 1191.

French, George H., Lake Centre, Saskatchewan, Canada. Grain-pickling device. No. 1,140,509; May 25; Gaz. vol. 214; p. 1090.

French, Tom, assignor of one-third to F. J. Lathan and one-third to J. W. Harris, Rumford, Me. Steck-gate controller for paper-making machines. No. 1,140,029; May 18; Gaz. vol. 214; p. 886.

Freston, Cecil C., Tampico, Mexico. Gas-engine igniter. No. 1,141,051; May 25; Gaz. vol. 214; p. 1277.

Frewen, Thomas F., Wilkinsburg, Pa. Non-refillable bottle. No. 1,140,553; May 25; Gaz. vol. 214; p. 1117.

Frey, Charles. (See Wright, Judson F., assignor.)

Frey, Ernest H., Cleveland, Ohio. Type-casting device. No. 1,140,809; May 25; Gaz. vol. 214; p. 1191.

Frey, Fretz. (See Letin and Frey.)

Freyler, Frank. (See King, Jesse C., assignor.)

Fried, Ernest R., assignor to General Motors Company, Detroit, Mich. Multicylinder two-cycle engine. No. 1,138,742; May 11; Gaz. vol. 214; p. 396.

Fried. Krupp Aktiengesellschaft. (See Barth, Karl, assignor.)

Fried. Krupp Aktiengesellschaft. (See Heflemann and Kanonenberg, assignors.)

Fried. Krupp Aktiengesellschaft. (See Koch and Haya, assignors.)

Fried. Krupp Aktiengesellschaft. (See Luyken, Wilhelm, assignor.)

Fried. Krupp Aktiengesellschaft. (See Reichard, Fritz, assignor.)

Friedberger, Simon. (See Clewley, Frank, assignor.)

Friedel, William R., Memphis, Tenn. Molding. (Reissue.) No. 13,910; May 4; Gaz. vol. 214; p. 312.

Friedrich, Robert, Leipsig-Plagwitz, Germany. Fireproof cabinet. No. 1,140,670; May 25; Gaz. vol. 214; p. 1145.

Friess, Wilhelm. (See Weingärtner and Friess.)

Frigid Fluid Company. (See Davis, Frederick W., assignor.)

Frink, Gerald, Seattle, Wash. Throttle-valve. No. 1,140,738; May 25; Gaz. vol. 214; p. 1167.

Frink, Lucius H., Rock Island, Ill. Irrigation-tile. No. 1,138,370; May 4; Gaz. vol. 214; p. 229.

Frisk, Nels. (See Bradley, Charles A., assignor.)

Fritchey, Conrad. (See Fritchey, Franklin W., assignor.)

Fritchey, Franklin W., Columbus, assignor to C. Fritchey, Sandusky, Ohio. Locomotive valve-gear. No. 1,138,207; May 4; Gaz. vol. 214; p. 170.

Froehlich, Albert A., Toledo, Ohio. Device for maintaining a constant supply of melted material in a reservoir. No. 1,138,742; May 11; Gaz. vol. 214; p. 396.

Frost, Herbert J., New York, N. Y. Self-piling reel. No. 1,140,810; May 25; Gaz. vol. 214; p. 1192.

Fruin, Robert E., and T. Tobin, Chicago, Ill. Combination-trend horseshoe. No. 1,137,855; May 4; Gaz. vol. 214; p. 46.

Fulcher, Nelson, and J. H. Pickett, Sault Ste. Marie, Ontario, Canada. Pounder washing-machine. No. 1,139,511; May 18; Gaz. vol. 214; p. 702.

Fulkerson, Nina E. (See Van Vorst and Fulkerson.)

Fulks, McKendree R., Gaithersburg, Md. Train-stopping apparatus. No. 1,139,512; May 18; Gaz. vol. 214; p. 708.

Fuller, Eugene, Providence, assignor of one-third to C. F. Butterworth, Pawtucket, and one-third to J. Webb, Thornton, R. I. Suspension-spring for vehicles. No. 1,140,671; May 25; Gaz. vol. 214; p. 1145.

Fuller, Fred L., Sacramento, Cal. Can-top guiding and ejecting mechanism. No. 1,137,750; May 4; Gaz. vol. 214; p. 10.

Fullerton, Frederick W., St. Paul, Minn., assignor to Dispatch Conveyor Company. Newspaper-conveyer. No. 1,138,609; May 4; Gaz. vol. 214; p. 310.

Fulton, Walter W. (See Hamel, Adolor, assignor.)

Funk, John G., Swissvale borough, Pa. Air-spring. No. 1,140,344; May 18; Gaz. vol. 214; p. 996.

Furber, James B., Rahway, N. J. Advertising device. No. 1,140,148; May 18; Gaz. vol. 214; p. 928.

Furman, Isaac W., Bay Shore, N. Y. Automobile-jack. No. 1,140,149; May 18; Gaz. vol. 214; p. 929.

G, D. Peters and Company Limited. (See Macfarlane and Roley, assignors.)

G. H. Bass & Company. (See Llewellyn and Briggs, assignors.)

Gabrielsky, Richard, Jersey City, N. J. Drill-operating tool. No. 1,140,811; May 25; Gaz. vol. 214; p. 1191.

Gadberry, John O. (See Miller and Gadberry.)

Gaede, Wolfgang, Freiburg, Germany. Vacuum-pump. No. 1,137,751; May 4; Gaz. vol. 214; p. 10.

Gaess, Albert H., assignor to The E. J. Manville Machine Company, Waterbury, Conn. Heading-machine. No. 1,139,963; May 18; Gaz. vol. 214; p. 862.

Gage, Leo J., Hilbert, Wis. Hat-pin-point protector. No. 1,139,264; May 11; Gaz. vol. 214; p. 580.

Gagne, George J., Woonsocket, R. I. Speed-indicating means for motor-cycles. No. 1,138,208; May 4; Gaz. vol. 214; p. 170.

Gaines, Frederick F., Savannah, Ga., assignor, by mesne assignments, to American Arch Company, New York, N. Y. Locomotive-boiler. No. 1,138,059; May 4; Gaz. vol. 214; p. 119.

Gaines, Frederick F., Savannah, Ga., assignor, by mesne assignments, to American Arch Company, New York, N. Y. Locomotive-boiler furnace. No. 1,138,060; May 4; Gaz. vol. 214; p. 119.

Gaines, Frederick F., Savannah, Ga., assignor, by mesne assignments, to American Arch Company, New York, N. Y. Locomotive-boiler furnace. No. 1,138,061; May 4; Gaz. vol. 214; p. 120.

Gaisman, Henry J., New York, N. Y. Shaving set. No. 1,140,030; May 18; Gaz. vol. 214; p. 887.

Gaisman, Henry J., assignor to Auto Strop Company, New York, N. Y. Safety-razor. No. 1,139,115; May 11; Gaz. vol. 214; p. 529.

Gale, Ernest L., Jr., Yonkers, N. Y. Conveyer. No. 1,138,100; May 4; Gaz. vol. 214; p. 134.

Gale, Ernest L., Sr., Yonkers, N. Y., assignor to Otis Elevator Company, Jersey City, N. J. Gearing. No. 1,140,362; May 25; Gaz. vol. 214; p. 1038.

Galletly, William. (See Willey and Galletly.)

Galletti, Roberto C., assignor to Galletti's Wireless Telegraph & Telephone Company Limited, London, England. Wireless transmission of electric energy. No. 1,140,150; May 18; Gaz. vol. 214; p. 929.

Galletti's Wireless Telegraph & Telephone Company Limited. (See Galletti, Roberto C., assignor.)

Galley, Elmer T. (See Somers, Clinton E., assignor.)

Gammel, Karl, Cleveland, Ohio. Macaroni die-plate. No. 1,138,101; May 4; Gaz. vol. 214; p. 134.

Gammeter, John R., Akron, Ohio, assignor, by mesne assignments, to The B. F. Goodrich Company. Vehicle-tire. No. 1,140,870; May 25; Gaz. vol. 214; p. 1039.

Gammons, Cordelia F., *et al.*, executors. (See Gammons, Welcome P., Jr.)

Gammons, Welcome P., Jr., deceased. New York, N. Y.; C. F. and W. W. Gammons, executors, assignors to W. P. Gammons, Jr., and F. W. Cole, Inc., Wilmington, Del. Sewing hat-leathers into hat-bodies. No. 1,139,662; May 18; Gaz. vol. 214; p. 757.

Gammons, William W., *et al.*, executors. (See Gammons, Welcome P., Jr.)

Gans, Robert, Grunewald-Berlin, Germany. Manufacturing base-exchanging substances. No. 1,140,262; May 18; Gaz. vol. 214; p. 967.

Ganzer, John M., Poughkeepsie, N. Y. Fireman's helmet. No. 1,139,177; May 11; Gaz. vol. 214; p. 551.

Gardner, George B., Haverhill, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Shoe-turning machine. No. 1,140,454; May 25; Gaz. vol. 214; p. 1069.

Gardner, George C., and J. A. Grow, assignors to The Tredegar Company, Richmond, Va. Engine-lathe. No. 1,139,026; May 11; Gaz. vol. 214; p. 499.

Gardner, Henri F., Orange, Cal. Irrigating-valve. No. 1,140,510; May 25; Gaz. vol. 214; p. 1091.

Gardner, Joseph A., Memphis, Tenn. Artificial tooth. No. 1,139,265; May 11; Gaz. vol. 214; p. 580.

Garey, George G., Indianapolis, Ind. Heating stove and furnace. No. 1,139,857; May 18; Gaz. vol. 214; p. 824.

Garford Manufacturing Company, The. (See Eaton, Richard M., assignor.)

Garford Mfg. Company, The. (See Libby, Albion D. T., assignor.)

Garlow, C. J., *et al.* (See Lawrence, Daniel O., assignor.)

Garnett, David H. (See Holtsclaw and Garnett.)

Garoutte, Thomas W., *et al.* (See Patterson, Lewis P., assignor.)

Garoutte, William B., *et al.* (See Patterson, Lewis P., assignor.)

Garrity, George F., Scranton, Pa. Spring. No. 1,140,455; May 25; Gaz. vol. 214; p. 1070.

Garros, Benjamin, assignor of twenty-five one-hundredths to C. E. Allinger, twenty-five one-hundredths to C. A. Strelinger, twenty-five one-hundredths to C. T. Bush, and twenty-five one-hundredths to M. E. Jones, Detroit, Mich. Device for automatically controlling moving-picture machines. No. 1,138,744; May 11; Gaz. vol. 214; p. 397.

Garske, Charles A., Omaha, Nebr. Inhaler. No. 1,139,357; May 11; Gaz. vol. 214; p. 611.

Garst, Dudley, Waterloo, Iowa. Manure-spreader. No. 1,140,371; May 25; Gaz. vol. 214; p. 1039.

Gase, George A. (See Southworth and Gase.)

Gase, George A., assignor, by mesne assignments, to The Iceless Machine Company, Cleveland, Ohio. Check-valve. No. 1,139,455; May 11; Gaz. vol. 214; p. 647.

Gatchell, George S., Roselle Park, N. J., assignor to The Singer Manufacturing Company. Button-sewing machine. No. 1,140,372; May 25; Gaz. vol. 214; p. 1040.

Gates, William H., assignor to Eastern Machine Screw Corporation, New Haven, Conn. Spark-plug. No. 1,141,052; May 25; Gaz. vol. 214; p. 1278.

Gault, Alva E., Eustis, Nebr. Stroke-regulator for windmill-pumps. No. 1,138,550; May 4; Gaz. vol. 214; p. 289.

Gause, Isaac. National Soldiers Home, Elizabeth City county, Va. Car-coupling. No. 1,140,976; May 25; Gaz. vol. 214; p. 1253.

Gauthier, Frank J. (See Gauthier, Norman J. and F. J.)

Gauthier, Norman J., Berwyn, and F. J. Gauthier, Chicago, Ill. Blanket for printing-press cylinders. No. 1,140,511; May 25; Gaz. vol. 214; p. 1091.

Gavin, Henry W., Edinburgh, Scotland. Holding and disengaging gear for ships' boats. No. 1,139,116; May 11; Gaz. vol. 214; p. 530.

Gaylord, Ernest R. (See Boynton, Frederick C., assignor.)

Gaynor, John J., assignor to Progress Machine Company, Indianapolis, Ind. Bottle-capping machine. No. 1,140,031; May 18; Gaz. vol. 214; p. 887.

Gebhardt, Edmund F., Easton, Pa. Relief-valve. No. 1,138,551; May 4; Gaz. vol. 214; p. 289.

Geddes, Charles A., assignor of one-half to J. J. Kennedy, Jr., Philadelphia, Pa. Air purifier and washer. No. 1,139,358; May 11; Gaz. vol. 214; p. 612.

Geiger, Charles E., assignor of one-third to W. E. Koop and one-third to G. W. Fiske, Louisville, Ky. Drier. No. 1,139,663; May 18; Gaz. vol. 214; p. 757.

Geiger, Charles E., assignor of one-third to W. E. Koop and one-third to G. W. Fiske, Louisville, Ky. Feeder for drying-machines. No. 1,139,664; May 18; Gaz. vol. 214; p. 758.

Geiger, William A., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Draft-rigging stop member. No. 1,139,665; May 18; Gaz. vol. 214; p. 758.

Geitz, William T., Cleveland, Ohio. Workman's time-recorder. No. 1,137,962; May 4; Gaz. vol. 214; p. 84.

General Composing Company, Gesellschaft mit beschrankter Haftung. (See Jung, Karl, assignor.)

General Dehydrator Company. (See Harris and Pollard, assignors.)

General Electric Company. (See Dempster, John T., assignor.)

General Electric Company. (See Porter, Willard E., assignor.)

General Electric Company. (See Robinson and Dempster, assignors.)

General Electric Company. (See Stanley, Arthur M., assignor.)

General Electric Company. (See Weintraub, Ezechiel, assignor.)

General Engineering and Construction Company. (See Ashley, Charles G., assignor.)

General Gas Light Company. (See Humphrey, Frederick J., assignor.)

General Motors Company. (See Fried, Ernest R., assignor.)

General Waste-Paper Recovery Company, The. (See Winestock, Otto C., assignor.)

George Frost Company. (See Glidden, George B., assignor.)

George, Isaac A., Hamilton, Ohio. Apparatus for making raceway-walls for bearings. No. 1,139,666; May 18; Gaz. vol. 214; p. 758.

George, Jerome R., assignor to Morgan Construction Company, Worcester, Mass. Conveyer for metal rods. No. 1,139,027; May 11; Gaz. vol. 214; p. 499.

Gerber, Albert D., Philadelphia, Pa. Sectional partition. No. 1,139,667; May 18; Gaz. vol. 214; p. 759.

Gerdien, Hans, Berlin-Schmargendorf, and M. von Pirani, Berlin-Wilmersdorf, assignors to Siemens & Halske A.-G., Berlin, Germany. Electrical incandescent lamp. No. 1,139,668; May 18; Gaz. vol. 214; p. 759.

Germless Paper Cup Company, The. (See Rike, Berton I., assignor.)

Germless Paper Cup Company, The. (See Rike and Klin, assignors.)

Gessner, David, Worcester, Mass. Cloth-winding machine. No. 1,139,513; May 18; Gaz. vol. 214; p. 704.

Getler, Charles F., Matteawan, N. Y. Ventilator for hats. No. 1,140,812; May 25; Gaz. vol. 214; p. 1193.

Ghegan, John J., Newark, N. J. Telegraphic instrument. No. 1,140,151; May 18; Gaz. vol. 214; p. 929.

Gibb, William. (See McIlroy and Gibb.)

Gibbon, Thomas H., Astoria, N. Y. Egg-crate. No. 1,139,669; May 18; Gaz. vol. 214; p. 759.

Gibbs, Frank J., Tyrone, Pa. Auxiliary-tire attachment. No. 1,137,963; May 4; Gaz. vol. 214; p. 85.

Gibbs, Frederick H. (See Ostrander and Gibbs.)

Gibbs, Frederick H., New York, N. Y., assignor to American Car and Foundry Company, St. Louis, Mo. Underframe. No. 1,140,672; May 25; Gaz. vol. 214; p. 1145.

Gibbs, Fulbert P. (See Sutkay, Joseph, assignor.)

Giberson, Mason B., assignor to T. H. Simpson, Detroit, Mich. Car-coupling. No. 1,138,650; May 11; Gaz. vol. 214; p. 362.

Giberson, Zibea. (See Brown, Samuel J., assignor.)

Gibson, Albert E., Philadelphia, Pa., assignor to The Dentists Supply Company. Artificial tooth. No. 1,139,028; May 11; Gaz. vol. 214; p. 499.

Gibson, Arthur H., Easton, Pa., assignor to Ingersoll-Rand Company, New York, N. Y. Percussive tool. No. 1,138,209; May 4; Gaz. vol. 214; p. 170.

Gibson, George P., Braddock, Pa. Ore-smelting furnace. No. 1,138,651; May 11; Gaz. vol. 214; p. 362.

Gibson, George R., Ellwood City, Pa. Tread-plate shaper. No. 1,139,266; May 11; Gaz. vol. 214; p. 580.

Gibson, William, Sr., Vandergrift, and R. Skemp, Scottdale, assignors to American Sheet & Tin Plate Company, Pittsburgh, Pa. Galvanizing. No. 1,140,898; May 25; Gaz. vol. 214; p. 1225.

Gifford, Charles A. (See Springstead, Abram B., assignor.)

Giggey, Walter W., Netherland, Colo. Tunneling-machine. No. 1,140,673; May 25; Gaz. vol. 214; p. 1146.

Gilbaugh, John H., Portland, Oreg. Chin-support for dead persons. No. 1,139,670; May 18; Gaz. vol. 214; p. 760.

Gilbert, John A., Cocoa, Fla. Spark-plug. No. 1,138,372; May 4; Gaz. vol. 214; p. 230.

Gilbreath, Victor G., and S. T. Williamson, Seattle, Wash. Filing-cabinet. No. 1,140,589; May 25; Gaz. vol. 214; p. 1117.

Gilkerson, George T. (See Pederson and Gilkerson.)

Gill, Edwin R., Yonkers, N. Y. Packing means for preserving perishable articles. No. 1,139,359; May 11; Gaz. vol. 214; p. 612.

Gilliam, Manly M., Flushing, N. Y. Adjustable heat and fuel economizer. No. 1,138,745; May 11; Gaz. vol. 214; p. 397.

Gillett, Charles W. (See De Martino, Joseph, assignor.)

Gillette, John C., Lakewood, assignor to The Glidden Varnish Company, Cleveland, Ohio. Varnish-drying oven. No. 1,139,858; May 18; Gaz. vol. 214; p. 825.

Gilliland, James H., Greensboro, N. C. Spring-axle. No. 1,138,467; May 4; Gaz. vol. 214; p. 263.

Gilliland, Lee O. (See Sharpneck and Gilliland.)

Gilloy, Franz. (See Kränzlein, Hagenbach, and Gilloy.)

Giltner, Francis M., Winfield, Kans. Animal-feeder. No. 1,138,102; May 4; Gaz. vol. 214; p. 134.

Gindre, Eugène, assignor to Societe Anonyme Le Carbone, Levallois-Perret, near Paris, France. Brush or collector for electrical machines. No. 1,138,746; May 11; Gaz. vol. 214; p. 398.

Girvin, Charles W., San Francisco, Cal., assignor to Girvin Electrical Development Company, Limited, Honolulu, Hawaii. Direct-current machine. No. 1,139,203; May 11; Gaz. vol. 214; p. 560.

Girvin Electrical Development Company. (See Girvin, Charles W., assignor.)

Gisholt Machine Company. (See Miller, William L., assignor.)

Gladwin, Charles C., New York, N. Y. Adjustable punch and die. No. 1,138,860; May 11; Gaz. vol. 214; p. 440.

Glasgow, Samuel, Philadelphia, Pa. Combined bumper and fender for automobiles. No. 1,140,899; May 25; Gaz. vol. 214; p. 1226.

Glass, William C., Roslindale, assignor to United Printing Machinery Company, Boston, Mass. Gripping device. No. 1,139,760; May 18; Gaz. vol. 214; p. 790.

Glauber Brass Manufacturing Company. (See Fischer, Arthur L., assignor.)

Glasbrook, John. (See Hodgson and Glasbrook.)

Glidden, George B., Dighton, assignor to George Frost Company, Boston, Mass. Garter. No. 1,138,554; May 4; Gaz. vol. 214; p. 291.

Glidden, John E., Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Heeling-machine. No. 1,138,943; May 11; Gaz. vol. 214; p. 469.

Glidden, John E., Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Heel gripping and centering device. No. 1,139,267; May 11; Gaz. vol. 214; p. 581.

Glidden Varnish Company, The. (See Gillette, John C., assignor.)

Glynn, James R., South Omaha, Nebr. Nut-lock. No. 1,139,029; May 11; Gaz. vol. 214; p. 500.

Gobatti, Edmund F., Pueblo, Colo. Lock-nut device. No. 1,138,861; May 11; Gaz. vol. 214; p. 440.

Goble, Mason O. (See Johnson and Hollingsworth, assignors.)

Goddard, Robert H., Worcester, Mass. Method of and means for producing electrically-charged particles. No. 1,137,964; May 4; Gaz. vol. 214; p. 85.

Goddard, Wilfred B., Cleveland, Ohio. Illuminating-mirror. No. 1,138,552; May 4; Gaz. vol. 214; p. 290.

Godfrey, Walter D., Pittsburgh, Pa. Dust-mop. No. 1,138,373; May 4; Gaz. vol. 214; p. 230.

Godsal, Philip T., Iscoyd Park, county of Flint, near Whitchurch, England. Small-arm. No. 1,139,268; May 11; Gaz. vol. 214; p. 581.

Goeden, Charles, Fordyce, Nebr. Rubbing-post. No. 1,138,553; May 4; Gaz. vol. 214; p. 291.

Goff, Samuel B., Camden, N. J. Bottle-filling machine. No. 1,140,032; May 18; Gaz. vol. 214; p. 887.

Gold Car Heating & Lighting Company. (See Kitchen, Frederick T., assignor.)

Goldberg, Benjamin, New York, N. Y. Combined middy-blouse, rompers, and skirt. No. 1,138,468; May 4; Gaz. vol. 214; p. 263.

Goldblatt, Harry. (See Morck and Goldblatt.)

Goldhammer, Samuel, Denver, Colo. Fountain-feed fly-killer. No. 1,139,030; May 11; Gaz. vol. 214; p. 500.

Golding, Oliver B., Elwood, Ind. Hot-mill furnace. No. 1,138,555; May 4; Gaz. vol. 214; p. 291.

Goldman, Charles. (See Fisenne, Louis, assignor.)

Goldschmidt Detinning Company. (See Goldschmidt, Hans, assignor.)

Goldschmidt, Hans, Essen-on-the-Ruhr, Germany, assignor, by mesne assignments, to Goldschmidt Detinning Company, New York, N. Y. Apparatus for detinning tin scrap, boxes, or the like. No. 1,139,410; May 11; Gaz. vol. 214; p. 631.

Goldsmith, Nathaniel O., assignor to The Weir Frog Company, Norwood, Ohio. Switch-stand. No. 1,139,964; May 18; Gaz. vol. 214; p. 862.

Goldstein, George E., Montreal, Quebec, Canada. Apparatus for curing or artificially aging cigars. No. 1,137,752; May 4; Gaz. vol. 214; p. 11.

Gonsouland, Henry P., Oakland, Cal. Closet-hopper. No. 1,139,178; May 11; Gaz. vol. 214; p. 552.

Gonzalez, Julian, Buenos Aires, Argentina. Hat-fastener. No. 1,140,900; May 25; Gaz. vol. 214; p. 1226.

Goodall, John N., Melrose, Mass. Pipe-coupling. No. 1,139,671; May 18; Gaz. vol. 214; p. 760.

Goodkind, Samuel, New York, N. Y. Carton. No. 1,138,469; May 4; Gaz. vol. 214; p. 263.

Goodman, Augustus and E., and D. Cowen, New York, N. Y., assignors to A. Goodman & Sons. Measuring-machine. No. 1,139,269; May 11; Gaz. vol. 214; p. 582.

Goodman, Edwin. (See Goodman and Cowen.)

Goodrich, Claude M., assignor of one-half to McFarlane Manufacturing Company, St. Paul, Minn. Scale. No. 1,140,813; May 25; Gaz. vol. 214; p. 1193.

Goodwin, Dwight S. (See Parks, Charles H., assignor.)

Googins, Charles E., Brooklyn, N. Y. Steam-boiler furnace. No. 1,140,674; May 25; Gaz. vol. 214; p. 1146.

Gora, Charles, Athabaska Landing, Alberta, Canada. Vessel. No. 1,138,862; May 11; Gaz. vol. 214; p. 440.

Gordon, Charles, Chelsea, Mass. Hammock-canopy. No. 1,138,210; May 4; Gaz. vol. 214; p. 170.

Gordon, Philip, Barre, assignor of one-half to A. Estee, Montpelier, Vt. Frequency-meter. No. 1,137,965; May 4; Gaz. vol. 214; p. 86.

Gore, Frederick W., New York, assignor of one-fourth to H. F. Asbury, Brooklyn, and one-fourth to F. Asbury, Huntington, N. Y. Electric-arc lamp. No. 1,139,965; May 18; Gaz. vol. 214; p. 862.

Gorecki, Antoni, Buffalo, N. Y. Antiskid attachment for tires. No. 1,140,590; May 25; Gaz. vol. 214; p. 1118.

Gorman, John T. (See McMurray, John H., assignor.)

Goslar, Heinrich, Aachen, Germany. Conserving organic substances. No. 1,138,602; May 4; Gaz. vol. 214; p. 307.

Gosline, Daniel P., Boston, Mass. Ventilator. No. 1,139,672; May 18; Gaz. vol. 214; p. 760.

Gössel, Fritz, Frankfort-on-the-Main, Germany. Manufacture of artificial milk. No. 1,139,081; May 11; Gaz. vol. 214; p. 500.

Goth, Thomas B. (See Walker, Sallie B., assignor.)

Gottesman, Frank, New York, N. Y. Table attachment for beds. No. 1,137,753; May 4; Gaz. vol. 214; p. 11.

Gottschalk, Albert, and J. S. Hollowell, Philadelphia, Pa. Advertising mechanism. No. 1,140,675; May 25; Gaz. vol. 214; p. 1146.

Gottschalk, Felix, Stirling, N. J. Automatic fire-alarm system. No. 1,139,859; May 18; Gaz. vol. 214; p. 825.

Gould, James A., El Reno, Okla. Rake. No. 1,139,270; May 11; Gaz. vol. 214; p. 582.

Graebe, William C., New York, assignor of one-half to D. Eisen, Brooklyn, N. Y. Sign and bolder. No. 1,140,977; May 25; Gaz. vol. 214; p. 1253.

Graffenberger, Friedrich, assignor to A. Geo. Schulz Co., Milwaukee, Wis. Safety device for presses. No. 1,138,374; May 4; Gaz. vol. 214; p. 230.

Graham, David T., St. Louis, Mo. Forming pointed blanks for belt-hooks from a metallic strand. No. 1,138,211; May 4; Gaz. vol. 214; p. 171.

Grand Rapids Refrigerator Company. (See Whittier, Walter H., assignor.)

Grand Rapids Show Case Co. (See Vanderveld, Anthony, assignor.) (Reissue.)

Grandini, Giovanni, Chicago, Ill. Flying-machine. No. 1,139,360; May 18; Gaz. vol. 214; p. 826.

Graves, Burch, Thorntown, Ind. Wireless telegraphy. No. 1,138,652; May 11; Gaz. vol. 214; p. 363.
Graves, Frank J., Springfield, Mass. Sanitary water-closet seat. No. 1,140,514; May 25; Gaz. vol. 214; p. 1194.
Graves, Oriel M., Odessa, Wash., assignor to Western Cereal Company. Cereal former and toaster. No. 1,138,747; May 11; Gaz. vol. 214; p. 398.
Gray, Gardner B., assignor, by mesne assignments, to Automatic Train Control & Signal Company, Pittsburgh, Pa. Track-relay for signal systems. No. 1,138,748; May 11; Gaz. vol. 214; p. 398.
Gray, Gardner B., assignor, by mesne assignments, to Automatic Train Control & Signal Company, Pittsburgh, Pa. Polarised relay. No. 1,140,739; May 25; Gaz. vol. 214; p. 1167.
Gray, James A., assignor to American Can Company, San Francisco, Cal. Mechanism for compressing can-bodies. No. 1,140,676; May 25; Gaz. vol. 214; p. 1147.
Gray, Mathew D., Bakersfield, Cal. Ball-bearing caster for furniture. No. 1,139,272; May 11; Gaz. vol. 214; p. 582.
Gray Motor Company. (See Blakely, Edward B., assignor.)
Gray National Telautograph Company. (See Tiffany, George S., assignor.)
Gray Telephone Pay Station Company, The. (See Long, George A., assignor.)
Gray, William H., Chicago, Ill. Resilient wheel. No. 1,139,673; May 18; Gaz. vol. 214; p. 761.
Greayer, Philip J., assignor to B. Z. Toy Mfg. Co., Inc., New York, N. Y. Motor for toys. No. 1,138,556; May 4; Gaz. vol. 214; p. 291.
Green, Allen A., assignor of one-half to H. M. Holland, Galesburg, Ill. Ball inflater and sealer. No. 1,138,749; May 11; Gaz. vol. 214; p. 398.
Green, Charles F., Hornchurch, England, assignor to A. B. Dick Company, Chicago, Ill. Duplicating-machine. No. 1,139,117; May 11; Gaz. vol. 214; p. 530.
Green, Fred W. (See Diller, Armeno J., assignor.)
Green, John, *et al.* (See Miner, Frank A., assignor.)
Green, Michael J., assignor to Eclipse Gas Stove Company, Rockford, Ill. Gas-range. No. 1,140,740; May 25; Gaz. vol. 214; p. 1168.
Green, William F., Modesto, Cal. Water-gage. No. 1,138,236; May 4; Gaz. vol. 214; p. 197.
Greenleaf, V. A., *et al.* (See Duncan, Lester C., assignor.)
Greenstreet Folding Box Machine Company, The. (See Brown, Hugh, assignor.)
Greenwood, Charles H., Slatington, Pa. Supporting-bracket. No. 1,138,759; May 11; Gaz. vol. 214; p. 399.
Griffard, John. (See Smith, James M., assignor.)
Griffin, Eddie F., Uniontown, Pa. Oven-door. No. 1,139,272; May 11; Gaz. vol. 214; p. 582.
Griffin, James S., Elgin, Tex. Rug-hanger. No. 1,139,273; May 11; Gaz. vol. 214; p. 583.
Griffin, Lorne A., Elkhart, Ind. Pipe-fitting for material-conveying lines or conduits. No. 1,138,375; May 4; Gaz. vol. 214; p. 251.
Grillet, Leon V., and J. B. Truchetet, Paris, France. Dynamo-electric machinery. No. 1,138,286; May 4; Gaz. vol. 214; p. 197.
Grimord, Matthew, Iron River, Mich. Operating device for movable headlights. No. 1,140,152; May 18; Gaz. vol. 214; p. 930.
Griswold, Thomas, Jr., and E. O. Barstow, Midland, Mich., assignors, by mesne assignments, to The Cleveland Trust Company, trustee, Cleveland, Ohio. Oxygen-generator. No. 1,140,873; May 25; Gaz. vol. 214; p. 1040.
Groehs, Otto J., assignor to Briscoe Manufacturing Company, Detroit, Mich. Machine for forming seamed tubes. No. 1,137,966; May 4; Gaz. vol. 214; p. 86.
Grohal, Frank, Greensburg, Pa. Non-skid tire-armor. No. 1,139,274; May 11; Gaz. vol. 214; p. 583.
Grose, James H. (See Hunt and Grose.)
Grose, William, and E. E. Wellman, Sparta, Mich. Truss. No. 1,139,514; May 18; Gaz. vol. 214; p. 704.
Grosscup, Will H. (See Wilson, James P., assignor.)
Grosvenor, William M., Grantwood, N. J. Apparatus and process for drying. No. 1,138,751; May 11; Gaz. vol. 214; p. 398.
Grove, Jacob R., Washington, D. C. Gage-pin for tympans of platen printing-presses. No. 1,138,963; May 11; Gaz. vol. 214; p. 440.
Groves, John W. (See Allgood, Oscar B., assignor.)
Grow, James A. (See Gardner and Grow.)
Gruenewald, Eugene, Moline, assignor to Moline Automobile Co., East Moline, Ill. Automobile. No. 1,139,861; May 18; Gaz. vol. 214; p. 826.
Gruenfeldt, Emil, assignor to The Baker Motor Vehicle Company, Cleveland, Ohio. Motor-vehicle. No. 1,139,674; May 18; Gaz. vol. 214; p. 761.
Grunow, William, Jr., New York, N. Y. Folding box. No. 1,140,741; May 25; Gaz. vol. 214; p. 1168.
Gudge, Benjamin J. (See Little and Gudge.)
Gudmond-Höyer, Jakob V., Morris, N. Y. Mechanism for boring holes in the earth. No. 1,139,275; May 11; Gaz. vol. 214; p. 583.
Guett, Monroe, assignor to The Hart & Hageman Manufacturing Company, Hartford, Conn. Key-operated rotary switch. No. 1,138,752; May 11; Gaz. vol. 214; p. 399.
Guilbert, F. Walter, assignor to Ecklif Automatic Boiler Circulator Company, Detroit, Mich. Circulator. No. 1,138,864; May 11; Gaz. vol. 214; p. 441.
Guide Motor Lamp Manufacturing Company, The. (See Persons, William F., assignor.)
Gunn, John A., Des Moines, Iowa, assignor to N. Gunn. Transfer-car. No. 1,139,411; May 11; Gaz. vol. 214; p. 631.
Gunn, Nell. (See Gunn, John A., assignor.)
Gussner, Arthur W., and L. H. Carufel, Bismarck, N. D. Display-case. No. 1,138,753; May 11; Gaz. vol. 214; p. 400.
Gustafson, Alfred. (See Frazier and Gustafson.)
Gustafson, Alfred, Aurora, Ill., assignor, by mesne assignments, to The Welch Manufacturing Company. Display-fixture for garments. No. 1,138,601; May 4; Gaz. vol. 214; p. 306.
Gustaveson, Frank, Wabasha, Minn. Shoe. No. 1,138,587; May 4; Gaz. vol. 214; p. 292.
Guyer, Edward H., Rock Island, Ill. Combined typewriter and computing-machine. No. 1,137,754; May 4; Gaz. vol. 214; p. 11.
Gyro Motor Company, The. (See Berliner and Chapman, assignors.)
H. W. Johns-Manville Company. (See Headson, Frank A., assignor.)
Haas, Conrad E., Le Mars, Iowa. Border-strip for walks, roads, and the like. No. 1,139,515; May 18; Gaz. vol. 214; p. 704.
Hackney, Leslie S., St. Paul, Minn. Ventilating apparatus. No. 1,138,470; May 4; Gaz. vol. 214; p. 264.
Hadfield, Robert A., Westminster, A. G. M. Jack, Sheffield, and I. B. Milne, Totley, England. Manufacture of armor-piercing projectiles. No. 1,139,412; May 11; Gaz. vol. 214; p. 652.
Hadley, Art, Providence, R. I. Bracelet. No. 1,140,677; May 25; Gaz. vol. 214; p. 1147.
Hadley, Jared C. (See Edgar, Robert A., assignor.)
Hagenbach, Rudolf. (See Krämslein, Hagenbach, and Gilloy.)
Hagerty, Charles A., Los Angeles, Cal. Game apparatus. No. 1,138,865; May 11; Gaz. vol. 214; p. 441.
Hailstone, John G., and C. Dietz, Chicago, Ill. Rail-supporting structure. No. 1,139,966; May 18; Gaz. vol. 214; p. 863.
Hajduk, John, Fayette City, Pa. Vehicle jack and turntable. No. 1,139,516; May 18; Gaz. vol. 214; p. 704.
Haldenwang, Richard, Jr., Brooklyn, N. Y. Brush. No. 1,139,517; May 18; Gaz. vol. 214; p. 705.
Hall, Arthur J., Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company. System of control. No. 1,140,901; May 25; Gaz. vol. 214; p. 1226.
Hall-Borchert Dress Form Company. (See Bardwell, George W., assignor.)
Hall-Borchert Dress Form Company. (See Dian, James F., assignor.)
Hall, Jay H., assignor to The Electric Controller and Manufacturing Company, Cleveland, Ohio. Electric switch. No. 1,138,212; May 4; Gaz. vol. 214; p. 171.
Hall Manufacturing Company. (See Jenney, Robert T., assignor.)
Hall, Sarah E., Chicago, Ill. Head-gear. No. 1,139,967; May 18; Gaz. vol. 214; p. 863.
Hall Switch & Signal Company. (See Kleinschmidt, Edward E., assignor.)
Hall, Trygve A., Cleveland, Ohio. Automobile-tire. No. 1,140,591; May 25; Gaz. vol. 214; p. 1118.
Haligren, Emil, Bellevue, Pa. Crucible-furnace. No. 1,138,866; May 11; Gaz. vol. 214; p. 441.
Hallinger, Franz X., Hamburg, Germany. Building waterproof tunnels. No. 1,138,603; May 4; Gaz. vol. 214; p. 307.
Halliwell, John J., assignor to R. Hoe and Co., New York, N. Y. Ink-fountain for printing-machines. No. 1,137,656; May 4; Gaz. vol. 214; p. 46.
Halterman, John W. (See Kendrick and Halterman.)
Hamburger, Aron. (See Conrady and Hamburger.)
Hamel, Adolor, assignor of one-half to W. W. Fulton, Chicago, Ill. Molding apparatus. No. 1,138,556; May 4; Gaz. vol. 214; p. 292.
Hamel Shoe Machinery Company. (See Valois, Felix E., assignor.)
Hamill, John R. (See Thomas, John W., assignor.)
Hamilton, Rush E., Geyserville, Cal. Traction-wheel. No. 1,139,968; May 18; Gaz. vol. 214; p. 864.
Hamilton, Walter L., Holyoke, Mass., assignor, by mesne assignments, to Scott Paper Company, Philadelphia, Pa. Check-controlled apparatus. No. 1,138,589; May 4; Gaz. vol. 214; p. 302.
Hamlen, Roy, assignor of forty one-hundredths to G. Tate, Oakland, Cal. Safety-switch for electric train controls. No. 1,138,267; May 4; Gaz. vol. 214; p. 198.
Hamley, John J. (See McMonies and Hamley.)
Hamley, Lester H. (See McMonies and Hamley.)
Hammond, Edgar S. (See Best, William N., assignor.)
Hammond, Grant, Hartford, Conn., assignor of one-third to A. C. Washburne, Pittsfield, and one-third to F. G. Crane, Dalton, Mass. Firearm. No. 1,138,376; May 4; Gaz. vol. 214; p. 231.
Hammond, Grant, Hartford, Conn., assignor of one-third to A. C. Washburne, Pittsfield, and one-third to F. G. Crane, Dalton, Mass. Firearm. No. 1,138,377; May 4; Gaz. vol. 214; p. 232.

Hammond, Grant, Hartford, Conn., assignor of one-third to A. C. Washburne, Pittsfield, and one-third to F. G. Crane, Dalton, Mass. Magazine catch and release. No. 1,138,378; May 4; Gaz. vol. 214; p. 232.
Hammond, Grant, Hartford, Conn., assignor of one-third to A. C. Washburne, Pittsfield, and one-third to F. G. Crane, Dalton, Mass. Firearm. No. 1,138,379; May 4; Gaz. vol. 214; p. 232.
Hammond, Grant, Hartford, Conn., assignor of one-third to A. C. Washburne, Pittsfield, and one-third to F. G. Crane, Dalton, Mass. Firearm. No. 1,140,512; May 25; Gaz. vol. 214; p. 1091.
Hammond, Grant, Hartford, Conn., assignor of one-third to A. C. Washburne, Pittsfield, and one-third to F. G. Crane, Dalton, Mass. Firearm. No. 1,140,513; May 25; Gaz. vol. 214; p. 1092.
Hammond, William P., New York, N. Y. Speedometer and tire-meter. No. 1,138,653; May 11; Gaz. vol. 214; p. 363.
Hammond, William P., Passaic, N. J. Tobacco-stripping machine. No. 1,140,456; May 25; Gaz. vol. 214; p. 1070.
Hamsley, Lawrence B. (See Overfield, Hamsley, and Burns.)
Haney, Mary C., *et al.* (See Haney, William, assignor.)
Haney, William, assignor to M. C. Haney and M. E. Banta, Newark, N. J. Ballot-vote machine. No. 1,140,033; May 18; Gaz. vol. 214; p. 888.
Hanf, John M., West Philadelphia, Pa. Awning-cord-operating protector device. No. 1,138,213; May 4; Gaz. vol. 214; p. 171.
Hank, Cellen M., Oakland, Cal. Cheese-cover. No. 1,140,153; May 18; Gaz. vol. 214; p. 930.
Hanlon, John H. (See Hanlon, William J. and J. H.)
Hanlon, William J., Fitchburg, and J. H. Hanlon, Somerville, Mass. Gage-glass. No. 1,139,518; May 18; Gaz. vol. 214; p. 705.
Hanna, Archie D. (See Vest, Harvey P., assignor.)
Hannemann, Emil, Hermsdorf, near Berlin, Germany. Automatic feed-regulator for steam-boilers and the like. No. 1,140,742; May 25; Gaz. vol. 214; p. 1169.
Hansen, Augie L., assignor to Justrite Manufacturing Company, Chicago, Ill. Multiple carbid-container. No. 1,137,755; May 4; Gaz. vol. 214; p. 12.
Hansen, Augie L., assignor to Justrite Manufacturing Company, Chicago, Ill. Safety oil-can. No. 1,140,034; May 18; Gaz. vol. 214; p. 888.
Hansen, Charles, Johannesburg, Transvaal, South Africa. Attachment for rock-drills for supplying water thereto. No. 1,138,214; May 4; Gaz. vol. 214; p. 172.
Hansen, George, Winston, Mont. Cutting apparatus. No. 1,139,179; May 11; Gaz. vol. 214; p. 552.
Hanshaw, Charles H., assignor of one-half to J. Nielsen, Beloit, Wis. Strainer attachment for pumps. No. 1,140,678; May 25; Gaz. vol. 214; p. 1147.
Hanson, Bengt M. W., assignor to Pratt & Whitney Company, Hartford, Conn. Metal-screw machine. No. 1,140,323; May 18; Gaz. vol. 214; p. 987.
Hanson, Bengt M. W., assignor to Pratt & Whitney Company, Hartford, Conn. Metal-screw machine. No. 1,140,324; May 18; Gaz. vol. 214; p. 988.
Hanson, Bengt M. W., assignor to Pratt & Whitney Company, Hartford, Conn. Metal-screw machine. No. 1,140,325; May 18; Gaz. vol. 214; p. 988.
Hanson, Bengt M. W., assignor to Pratt & Whitney Company, Hartford, Conn. Clutch mechanism. No. 1,140,326; May 18; Gaz. vol. 214; p. 989.
Hanson, Henry, Middletown, Conn. Windlass brake mechanism. No. 1,140,374; May 25; Gaz. vol. 214; p. 1041.
Harburger, Richard. (See Hirschfeld and Harburger.)
Hardie, Herbert J., Winnipeg, Manitoba, Canada. Mold for tire-fillers. No. 1,139,276; May 11; Gaz. vol. 214; p. 584.
Hardisty, Henry Raymond, assignor of one-half to E. Pierson, South Bend, Wash. Logging-hook. No. 1,139,761; May 18; Gaz. vol. 214; p. 790.
Hardy, Frank H. (See Lambert and Hardy.)
Hardy, George W., Baltimore, Md. Tire-armor. No. 1,138,589; May 4; Gaz. vol. 214; p. 292.
Harford, Havelock, Port Alberni, British Columbia, Canada. Air-compressor. No. 1,138,215; May 4; Gaz. vol. 214; p. 172.
Harker, Frederick. (See Wall and Harker.)
Harkness, Ross, St. Clair Heights, Mich. Sewer-trap. No. 1,140,815; May 25; Gaz. vol. 214; p. 1194.
Harlan, Claud E., assignor of one-half to W. H. Ames, Watsonville, Cal. Sparking indicator. No. 1,140,816; May 25; Gaz. vol. 214; p. 1194.
Harlin, Harry W., Hermleigh, Tex. Section-harrow. No. 1,137,857; May 4; Gaz. vol. 214; p. 47.
Harper, James M., assignor to Harper Supply Company, Chicago, Ill. Nut-dish. No. 1,138,288; May 4; Gaz. vol. 214; p. 198.
Harper Supply Company. (See Harper, James M., assignor.)
Harper, William P., assignor of one-half to J. S. Duffy, Abilene, Kans. Cultivator. No. 1,139,118; May 11; Gaz. vol. 214; p. 531.
Harrell, Jessey F., Indianapolis, Ind. Reflected-light-diminishing apparatus. No. 1,139,277; May 11; Gaz. vol. 214; p. 584.
Harris, Ford W., Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company. Circuit-interrupter. No. 1,138,754; May 11; Gaz. vol. 214; p. 400.
Harris, Frank A., Spokane, Wash. Nut-lock. No. 1,140,902; May 25; Gaz. vol. 214; p. 1227.
Harris, Gordon D., and J. S. Pollard, Bayonne, N. J., assignors to General Dehydrator Company, New York, N. Y. Producing soluble milk-powder. No. 1,138,380; May 4; Gaz. vol. 214; p. 233.
Harris, Henry K., Runwell, Wickford, England. Advertising device and the like. No. 1,138,471; May 4; Gaz. vol. 214; p. 264.
Harris, James W., *et al.* (See French, Tom, assignor.)
Harris, Mary F., and W. D. Lewis, Carthage, Ill. Head wearing-apparel. No. 1,139,675; May 18; Gaz. vol. 214; p. 782.
Harrison, Frederick J., and W. J. Knox, Dubois, Pa. Hand-brake wheel. No. 1,139,676; May 18; Gaz. vol. 214; p. 762.
Harrison, Walton, New York, N. Y. Apparatus for transmitting sounds by means of Hertzian waves. No. 1,139,413; May 11; Gaz. vol. 214; p. 632.
Harrison, Walton, New York, N. Y. Loud-speaking telephone. No. 1,140,263; May 18; Gaz. vol. 214; p. 967.
Harrop, Nathan, Stoneycroft, Liverpool, England. Device or means for the protection of carpets and the like. No. 1,140,264; May 18; Gaz. vol. 214; p. 967.
Hart, George H., West Hartford, Conn. Electric switch. No. 1,139,278; May 11; Gaz. vol. 214; p. 584.
Hart, Harold L., Galesburg, Ill. Non-refillable bottle. No. 1,139,280; May 11; Gaz. vol. 214; p. 585.
Hart, Harry M., St. Louis, Mo., assignor to United Shoe Machinery Company, Paterson, N. J. Holddown. No. 1,138,856; May 11; Gaz. vol. 214; p. 438.
Hart & Hegeman Manufacturing Company, The. (See Gnett, Monroe, assignor.)
Hart, Herbert H. (See Boring, Herbert, assignor.)
Hart, Hubert C., Unionville, Conn. Shaft-coupling. No. 1,140,978; May 25; Gaz. vol. 214; p. 1253.
Hart, Walter E., Shelbyville, Ill. Adjustable flue-stop. No. 1,139,279; May 11; Gaz. vol. 214; p. 585.
Hart, William H., Jr., Philadelphia, Pa. Coin-mailing card. No. 1,138,381; May 4; Gaz. vol. 214; p. 233.
Hartley, Daniel. (See Severance, William E., assignor.)
Hartley, John W., Nashotah, Wis. Clevis. No. 1,138,867; May 11; Gaz. vol. 214; p. 441.
Hartman, Harry B., assignor to Electric Water Sterilizer Company, Scottdale, Pa. Water-purifying apparatus. No. 1,139,969; May 18; Gaz. vol. 214; p. 864.
Hartman, Harry B., assignor to Electric Water Sterilizer Company, Scottdale, Pa. Water-purifying apparatus. No. 1,139,970; May 18; Gaz. vol. 214; p. 864.
Hartman, James, Bern, Kans. Harvester butt-board. No. 1,140,979; May 26; Gaz. vol. 214; p. 1254.
Hartmann Trunk Company, The. (See Wheary, George H., assignor.)
Hartsough, D. Maurice, assignor to Bull Tractor Company, Minneapolis, Minn. Antitipping device for tractors. No. 1,138,610; May 4; Gaz. vol. 214; p. 310.
Hartsough, D. Maurice, assignor to Bull Tractor Company, Minneapolis, Minn. Drag-bar connection for tractors. No. 1,138,611; May 4; Gaz. vol. 214; p. 310.
Hartsough, D. Maurice, Minneapolis, Minn., assignor to Bull Tractor Company. Tractor. No. 1,139,414; May 11; Gaz. vol. 214; p. 632.
Hartsough, Ralph B., Minneapolis, Minn. Pilot attachment for traction-engines. No. 1,138,590; May 4; Gaz. vol. 214; p. 302.
Hartzell, Forest H., assignor to The Crown Hardware Manufacturing Company, Dayton, Ohio. Self-heating iron. No. 1,139,862; May 18; Gaz. vol. 214; p. 827.
Harvey Hubbell, Inc. (See Knapp, George P., assignor.)
Harwood & Son, George S. (See Howe, Joseph B., assignor.)
Haseltine, William E., Ripon, Wis. Sphygmometer. No. 1,139,519; May 18; Gaz. vol. 214; p. 705.
Hashimoto, Kichisaburo, New York, N. Y. Illusion device. No. 1,137,756; May 4; Gaz. vol. 214; p. 12.
Hastings, Donald T., assignor to Hupp Motor Car Company, Detroit, Mich. Lapping-machine. No. 1,139,520; May 18; Gaz. vol. 214; p. 706.
Hatchett, Charles L., and E. G. Rhodes, London, England. Machine for gumming and applying labels to bottles, cans, and similar objects. No. 1,141,053; May 25; Gaz. vol. 214; p. 1278.
Hathaway, Thomas F., assignor to Illinois Watch Case Co., Elgin, Ill. Convertible watchcase. No. 1,139,415; May 11; Gaz. vol. 214; p. 633.
Hathaway, Thomas F., assignor to Illinois Watch Case Company, Elgin, Ill. Convertible watchcase. No. 1,139,416; May 11; Gaz. vol. 214; p. 633.
Haugland, Andrew, Sioux City, Iowa. Lawn-mower. No. 1,139,180; May 11; Gaz. vol. 214; p. 552.
Haun, Harve G. (See Chaltant and Haun.)
Hauss, David J., and A. Dom, Aurora, Ind. Music-player. No. 1,138,103; May 4; Gaz. vol. 214; p. 135.
Hautier, Joseph A. (See Wersham and Hautier.)
Haverstick, George W., and T. J. McKee, St. Louis, Mo. Sanitary filling-valve. No. 1,140,514; May 25; Gaz. vol. 214; p. 1092.
Hawkins, George W., Providence, R. I. Flat-iron holder and waxer. No. 1,140,265; May 18; Gaz. vol. 214; p. 967.
Hawkins, Joseph, and B. F. Loftin, Eminence, Mo. Governor attachment. No. 1,141,054; May 25; Gaz. vol. 214; p. 1279.

Hawksworth, David W., assignor to Hutchins Car Roofing Company, Detroit, Mich. Car. No. 1,137,967; May 4; Gaz. vol. 214; p. 86.
Hawksworth, David W., assignor to Hutchins Car Roofing Company, Detroit, Mich. Car-roof. No. 1,137,968; May 4; Gaz. vol. 214; p. 87.
Hawley, Anne P., Bridgeport, Conn. Heat-retaining oven. No. 1,140,154; May 18; Gaz. vol. 214; p. 931.
Hawley, Frederic A. (See White and Hawley.)
Hawthorne, Primm R., Battle Creek, Mich. Shoe-operating mechanism for grain-separators. No. 1,138,591; May 4; Gaz. vol. 214; p. 803.
Hayes, John, Jr., Amsterdam, N. Y., assignor to Union Special Machine Company, Chicago, Ill. Feeding mechanism for sewing-machines. No. 1,139,363; May 18; Gaz. vol. 214; p. 827.
Hayn, Georg. (See Koch and Hayn.)
Haynes, Lorenso E., Salt Lake City, Utah. Coiling device. No. 1,140,980; May 25; Gaz. vol. 214; p. 1254.
Hays, Edward W., Riverside, assignor of one-half to J. B. Robertson, Seddon, Ala. Overhead transporting means. No. 1,140,327; May 18; Gaz. vol. 214; p. 989.
Hays, Joseph W., Chicago, Ill. Stop-cock. No. 1,137,969; May 4; Gaz. vol. 214; p. 87.
Hayward Company, The. (See Atkinson, Herbert S., assignor.)
Hayward Company, The. (See Morris, Charles A., assignor.)
Hazelton, Hannah, New York, N. Y. Parcel-post protector for mail-sacks. No. 1,139,281; May 11; Gaz. vol. 214; p. 585.
Hazlett, Walter H. (See Wray, James A., assignor.)
Headson, Frank A., assignor to H. W. Johns-Manville Company, Milwaukee, Wis. Wrist-pin for felt-making machines. No. 1,137,757; May 4; Gaz. vol. 214; p. 12.
Heald, James N., and A. M. Drake, assignors to Heald Machine Company, Worcester, Mass. Surface-grinding machine. No. 1,138,289; May 4; Gaz. vol. 214; p. 198.
Heald Machine Company. (See Heald and Drake, assignors.)
Heany, John A., York, Pa., assignor, by mesne assignments, to A. E. L. Leckie, Washington, D. C. Automatic ignition and lighting system. No. 1,139,521; May 18; Gaz. vol. 214; p. 706.
Heath, Cary S., Montrose, Colo. Crib attachment for go-carts. No. 1,138,472; May 4; Gaz. vol. 214; p. 264.
Heath, William R. (See Crumpton, William J., assignor.)
Heavey, William H., Jr., *et al.* (See Craw, Joseph T., assignor.)
Heberling, John, Rochester, N. Y. Attachment for lamp-burners. No. 1,139,864; May 18; Gaz. vol. 214; p. 828.
Hebern, Edward H., Oakland, Cal. Cipher-writing machine. No. 1,141,055; May 25; Gaz. vol. 214; p. 1279.
Heckert, George E., Port Royal, Pa. Molding apparatus. No. 1,139,971; May 18; Gaz. vol. 214; p. 865.
Hedgcock, William C., Chicago, Ill., assignor to American Steel Foundries, New York, N. Y. Adjustable brake-head. No. 1,140,035; May 18; Gaz. vol. 214; p. 890.
Hedgecock, Florence A. (See Hedgecock, William C. H. P. and F. A.)
Hedgecock, William C. H. P. and F. A., Brighton, assignors to Phillips' Patent Limited, London, England. Shoe. No. 1,138,473; May 4; Gaz. vol. 214; p. 265.
Hedges, John C., Des Moines, Iowa. Loose-leaf binder. No. 1,138,104; May 4; Gaz. vol. 214; p. 135.
Heffelfinger, George W. (See Rothenberger, Daniel M., assignor.)
Heggem, Charles O., assignor to The Russell and Company, Massillon, Ohio. Spring-wheel. No. 1,139,282; May 11; Gaz. vol. 214; p. 586.
Hegstedt, Peter E., Jamestown, N. Y. Metal door. No. 1,138,105; May 4; Gaz. vol. 214; p. 135.
Heidenreich, Isidor, Chicago, Ill. Toy top. No. 1,139,119; May 11; Gaz. vol. 214; p. 531.
Heidner, Fritz, Freiburg, Germany. Type-writing machine. No. 1,138,474; May 4; Gaz. vol. 214; p. 265.
Heilemann, Walter, and H. Kanonenberg, assignors to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Wheeled gun-carriage. No. 1,138,949; May 11; Gaz. vol. 214; p. 469.
Heilig, Cyrus H., York, Pa. Oiling device for dough-divider machines. No. 1,139,181; May 11; Gaz. vol. 214; p. 553.
Heimbuecher, Amanda C., St. Louis, Mo. Receptacle. No. 1,138,290; May 4; Gaz. vol. 214; p. 199.
Heins, Otto H. H., Edgewater-on-Hudson, N. J. Magneto-generator. No. 1,140,155; May 18; Gaz. vol. 214; p. 931.
Heisler, Charles L., Schenectady, N. Y. Reverse-lever-latching mechanism. No. 1,140,743; May 25; Gaz. vol. 214; p. 1169.
Heisler, Charles L., Schenectady, N. Y. Furnace-stoker for feeding coal-dust or other comminuted fuels. No. 1,140,817; May 25; Gaz. vol. 214; p. 1195.
Helbronner, André. (See Henri, Helbronner, and Recklinghausen.)
Helbronner, André, and M. von Recklinghausen, Paris, France, assignors, by mesne assignments, to The R. U. V. Company, Inc. Sterilization of liquids. No. 1,141,056; May 25; Gaz. vol. 214; p. 1279.
Helfer, Armin G., New York, N. Y. Automatic speed control for vehicles. No. 1,138,560; May 4; Gaz. vol. 214; p. 292.
Helfer, Armin G., New York, N. Y. Vehicle-brake. No. 1,138,561; May 4; Gaz. vol. 214; p. 293.
Hella, Anton, Chicago, Ill. Retaining means. No. 1,140,036; May 18; Gaz. vol. 214; p. 889.
Hella, Anton, Chicago, Ill. Nut-lock. No. 1,140,037; May 18; Gaz. vol. 214; p. 890.
Heller, August H. E., Pittsburgh, Pa. Shoe-shining machine. No. 1,138,868; May 11; Gaz. vol. 214; p. 442.
Hellfritzsch, Albin, Milwaukee, Wis. Infant's combination-carrier. No. 1,139,762; May 18; Gaz. vol. 214; p. 791.
Helmke, Edward C., Macfarland, Wis. Stone-gathering machine. No. 1,139,032; May 11; Gaz. vol. 214; p. 501.
Heltzel, John N., Warren, Ohio. Sidewalk and road form. No. 1,141,057; May 25; Gaz. vol. 214; p. 1280.
Hemenway, Frank, Chicago, Ill. Automobile. No. 1,139,763; May 18; Gaz. vol. 214; p. 791.
Hemleb, Martin, Elizabeth, N. J., assignor to The Singer Manufacturing Company. Double-chain-stitch sewing-machine. No. 1,140,679; May 25; Gaz. vol. 214; p. 1147.
Henderson, Douglas: Dallas, Tex. Ice-tongs. No. 1,140,592; May 25; Gaz. vol. 214; p. 1118.
Henderson, Ray, Macomb, Ill. Live-stock feeder. No. 1,138,950; May 11; Gaz. vol. 214; p. 470.
Heninger, Eles L., and D. Reed, Jr., Kokomo, Ind. Egg-crate. No. 1,138,475; May 4; Gaz. vol. 214; p. 265.
Henkel & Cie. (See Weber, Walter, assignor.)
Henley, Bertie M., Geddes, S. D. Ice-scale for refrigerators. No. 1,139,522; May 18; Gaz. vol. 214; p. 706.
Hennessee, Claude, Tifton, Ga. Guano-distributer and grain-drill. No. 1,140,266; May 18; Gaz. vol. 214; p. 968.
Henri, Victor, Paris, A. Helbronner and M. von Recklinghausen, Suresnes, France, assignors, by mesne assignments, to The R. U. V. Company, Inc. Apparatus for treating liquids with ultra-violet rays. No. 1,140,818; May 25; Gaz. vol. 214; p. 1195.
Henri, Victor, Paris, A. Helbronner and M. von Recklinghausen, Suresnes, France, assignors, by mesne assignments, to The R. U. V. Company, Inc. Apparatus for the treatment of water and other liquids by ultra-violet rays. No. 1,140,819; May 25; Gaz. vol. 214; p. 1195.
Henry Disston & Sons. (See Kendall, William R., assignor.)
Henry, John F., Versailles, Ill. Stove-lid. No. 1,141,058; May 25; Gaz. vol. 214; p. 1280.
Henry, Michael. (See Henry, Michael L. and M.)
Henry, Michael L. and M., Terre Haute, Ind. Grease-cup. No. 1,137,858; May 4; Gaz. vol. 214; p. 47.
Henry, William K., assignor to The American Hardware Corporation, New Britain, Conn. Door check and closer. No. 1,140,457; May 25; Gaz. vol. 214; p. 1070.
Henschel, Charles J., Bloomfield, and C. Messick, Hackensack, N. J., assignors to said Henschel. Geometrically-progressive control system. No. 1,139,972; May 18; Gaz. vol. 214; p. 864.
Henthorn, Clyde, and W. T. Webe, Bellaire, Ohio. Emergency axle extension. No. 1,139,182; May 11; Gaz. vol. 214; p. 558.
Hepner, Harry W., Allentown, Pa. Polishing-mitt. No. 1,139,283; May 11; Gaz. vol. 214; p. 586.
Herbert, Frank C., Hampstead, London, England. Device for preventing the fraudulent refilling of bottles. No. 1,140,744; May 25; Gaz. vol. 214; p. 1170.
Herboldt, John, Woodside, Idaho. Medicine-box. No. 1,138,562; May 4; Gaz. vol. 214; p. 293.
Herbst, Richard, Halle-on-the-Saale, Germany. Mixing and kneading machine. No. 1,138,654; May 11; Gaz. vol. 214; p. 561.
Herbstriet, Martha J., Urbana, Ill. Colander. No. 1,139,033; May 11; Gaz. vol. 214; p. 501.
Hering, Louis F., assignor of one-half to A. Konjetzky, Pomona, Cal. Shoe-heel. No. 1,139,417; May 11; Gaz. vol. 214; p. 634.
Herman, Max, Philadelphia, Pa. Wearing-apparel. No. 1,138,951; May 11; Gaz. vol. 214; p. 470.
Herring, Samuel R., Morton, Miss. Mail-delivering device. No. 1,140,267; May 18; Gaz. vol. 214; p. 968.
Hershey, John B., assignor to The Hershey Machine & Foundry Co., Manheim, Pa. Hog-feeder. No. 1,141,059; May 25; Gaz. vol. 214; p. 1280.
Hershey Machine & Foundry Co., The. (See Hershey, John B., assignor.)
Hertner, John H. (See Cookingham and Hertner.)
Herz, Gustave L., Vienna, Austria-Hungary. Electric-cable terminal. No. 1,139,973; May 18; Gaz. vol. 214; p. 866.
Hess-Bright Manufacturing Company, The. (See Hess, Henry, assignor.)
Hess, Edward B., assignor, by mesne assignments, to Royal Typewriter Company, Inc., New York, N. Y. Type-writing machine. No. 1,138,106; May 4; Gaz. vol. 214; p. 136.
Hess, Edward B., assignor to Royal Typewriter Company, Inc., New York, N. Y. Ribbon device of type-writing machines. No. 1,138,655; May 11; Gaz. vol. 214; p. 364.
Hess, George F., Pittsburg, Kans. Steam-pipe for locomotive-engines. No. 1,140,038; May 18; Gaz. vol. 214; p. 890.
Hess, Harry W., New York, N. Y. Acoustic instrument. No. 1,138,755; May 11; Gaz. vol. 214; p. 401.
Hess, Henry, Wawa, assignor to The Hess-Bright Manufacturing Company, Philadelphia, Pa. Lubricating device for bearings. No. 1,140,375; May 25; Gaz. vol. 214; p. 1041.

Hessel, James T. (See Manwaring and Hessel.)
Hester, J. M. (See Clifton, Emmett H., assignor.)
Hetherington, Arthur F., New York, N. Y. Cigarette-package. No. 1,138,382; May 4; Gaz. vol. 214; p. 233.
Hewitt Company, The. (See Batten, Percy H., assignor.)
Hewitt, Daniel, Tyler, Tex. Cotton-boll picker. No. 1,138,952; May 11; Gaz. vol. 214; p. 470.
Hewitt, Edgar M., Gettysburg, Pa. Tape-clamp. No. 1,140,820; May 25; Gaz. vol. 214; p. 1196.
Heyman, Samuel, New York, N. Y. Cord-lead. No. 1,138,476; May 4; Gaz. vol. 214; p. 266.
Hibbets, Joseph R., Trenton, N. J. Barber's chair. No. 1,138,477; May 4; Gaz. vol. 214; p. 266.
Hick, Harry J., assignor, by mesne assignments, to The McCaskey Register Company, Alliance, Ohio. Filing appliance. No. 1,139,677; May 18; Gaz. vol. 214; p. 762.
Hickey Condenser Company. (See Hickey, William J., assignor.)
Hickey, William J., San Francisco, Cal., assignor, by mesne assignments, to Hickey Condenser Company. Cooling attachment for radiators. No. 1,139,034; May 11; Gaz. vol. 214; p. 501.
Hickish, Robert S., Tuckahoe, assignor of one-half to E. M. Benford, one-fourth to D. Benford, and one-fourth to S. Benford, Mount Vernon, N. Y. Grease-gun. No. 1,139,865; May 18; Gaz. vol. 214; p. 828.
Higel, Otto, Toronto, Ontario, Canada. Pedal. No. 1,138,568; May 4; Gaz. vol. 214; p. 293.
Higgin, Henry, assignor to The Higgin Manufacturing Company, Newport, Ky. Window-screen attachment. No. 1,140,376; May 25; Gaz. vol. 214; p. 1041.
Higgin Manufacturing Company, The. (See Higgin, Henry, assignor.)
High, James P., and H. C. Rathbun, Fairview, Okla. Oil-burning stove. No. 1,137,970; May 4; Gaz. vol. 214; p. 87.
Hill, Adelbert D., Excelsior Springs, Mo. Liquid-soap dispenser. No. 1,138,107; May 4; Gaz. vol. 214; p. 136.
Hill, Ernest R., East Orange, N. J., assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa. Automatic train-stop. No. 1,138,216; May 4; Gaz. vol. 214; p. 173.
Hill-Tripp Pump Company, The. (See Scheurmann, Walter P., assignor.)
Hillard, Frederic W., New York, N. Y., assignor to M. R. Hillard, Middlebury, Conn. Type-writing machine. No. 1,139,035; May 11; Gaz. vol. 214; p. 502.
Hillard, Mary R. (See Hillard, Frederic W., assignor.)
Hillegass, Henry, Houghton, Mich. Pipe-reaming machine. No. 1,138,564; May 4; Gaz. vol. 214; p. 293.
Hiller, Elsie, New York, N. Y. Bathing-cap. No. 1,139,418; May 11; Gaz. vol. 214; p. 634.
Hilliard, Thomas F., Oil City, Pa. Portable milling-machine for milling pockets for switch-points in stock-rails. No. 1,138,656; May 11; Gaz. vol. 214; p. 364.
Hilliard, Walter A., Malden, assignor to W. A. Hilliard Company, Boston, Mass. Dispensing apparatus. No. 1,138,291; May 4; Gaz. vol. 214; p. 109.
Hilton, Roland C., assignor to L. S. Rothenberg, Boston, Mass. Air-pump. No. 1,139,419; May 11; Gaz. vol. 214; p. 634.
Himes, Wrightsman D., Delta, Colo. Flume-joint coupling. No. 1,138,657; May 11; Gaz. vol. 214; p. 364.
Hinchliff, Everett E., Galesburg, Ill. Silo. No. 1,138,869; May 11; Gaz. vol. 214; p. 442.
Hinde & Dauch Paper Company, The. (See Morton, Lawrence D., assignor.)
Hindmarsh, Percy J., Lincoln, Nebr., assignor to The American Steel & Wire Company of New Jersey, Hoboken, N. J. Fence-post. No. 1,140,156; May 18; Gaz. vol. 214; p. 931.
Hiner, Charles N., assignor to The Hiner Specialty and Manufacturing Co., Inc., Staunton, Va. Window-shade hanger. No. 1,139,974; May 18; Gaz. vol. 214; p. 866.
Hiner Specialty and Manufacturing Co., The. (See Hiner, Charles N., assignor.)
Hines, Samuel J., Plaquemine, La. Life-preserver. No. 1,137,971; May 4; Gaz. vol. 214; p. 87.
Hirsch, Nicholas E., San Luis Obispo, Cal. Releasing mechanism for air-brake systems. No. 1,139,866; May 18; Gaz. vol. 214; p. 828.
Hirsch, Sidney M., Nashville, Tenn. Advertising apparatus. No. 1,138,478; May 4; Gaz. vol. 214; p. 266.
Hirschfeld, Francis, and R. Harburger, Cleveland, Ohio. Valve-closing means. No. 1,140,821; May 25; Gaz. vol. 214; p. 1196.
Hirshfeld, Jerome, New York, N. Y. Sugar-container. No. 1,140,822; May 25; Gaz. vol. 214; p. 1197.
Hitner, Harry F., Mount Vernon, Ohio. Motor-car drive system. No. 1,139,678; May 18; Gaz. vol. 214; p. 763.
Hitner, Harry F., Mount Vernon, Ohio, assignor to The Pittsburg Plate Glass Company, Pittsburgh, Pa. Glass-drawing apparatus. No. 1,138,870; May 11; Gaz. vol. 214; p. 442.
Hitt, Samuel E. (See Peyton and Hitt.)
Hitt, Samuel E., Elyria, Ohio, and J. I. Peyton, Washington, D. C. Ingot-mold. No. 1,139,284; May 11; Gaz. vol. 214; p. 586.
Hitzert, Albert, Saginaw, Mich. Attachment for shipping-packages. No. 1,139,523; May 18; Gaz. vol. 214; p. 707.
Hluda, John. (See Wein and Hluda.)
Hoag, E. G., *et al.* (See Wells and Saxton, assignors.)
Hobbs, Elbert R., Buhl, Idaho. Rotary valve. No. 1,137,758; May 4; Gaz. vol. 214; p. 13.
Hobbs, Frank C., Muskegon, Mich., assignor to Brunswick-Balke-Collender Co. Cue-rack and the like. No. 1,141,060; May 25; Gaz. vol. 214; p. 1280.
Hobson, Arthur E., assignor to International Silver Co., Meriden, Conn. Insulated handle for metal vessels. No. 1,137,972; May 4; Gaz. vol. 214; p. 88.
Hochberg, Oscar, assignor to American Car and Foundry Company, St. Louis, Mo. Car end framing. No. 1,140,680; May 25; Gaz. vol. 214; p. 1148.
Hochstetter, Frederick W., New York, assignor to P. M. Pierson, Scarboro-on-the-Hudson, N. Y. Restorative for blemished moving-picture films. No. 1,139,679; May 18; Gaz. vol. 214; p. 764.
Hochstetter, Frederick W., New York, assignor to P. M. Pierson, Scarboro-on-the-Hudson, N. Y. Restorative for blemished moving-picture films. No. 1,139,680; May 18; Gaz. vol. 214; p. 764.
Hochstetter, Frederick W., New York, assignor to P. M. Pierson, Scarboro-on-the-Hudson, N. Y. Restorative for blemished moving-picture films. No. 1,139,681; May 18; Gaz. vol. 214; p. 764.
Hochstetter, Frederick W., New York, assignor to P. M. Pierson, Scarboro-on-the-Hudson, N. Y. Composition of matter for restoring the pictures on films. No. 1,139,682; May 18; Gaz. vol. 214; p. 764.
Hochstetter, Frederick W., New York, assignor to P. M. Pierson, Scarboro-on-the-Hudson, N. Y. Composition of matter for restoring the pictures on films. No. 1,139,683; May 18; Gaz. vol. 214; p. 764.
Hocke, Emil F., *et al.* (See James, William E., assignor.)
Hodgin, George V., Canon City, Colo. Adjustable hinge. No. 1,139,524; May 18; Gaz. vol. 214; p. 707.
Hodgman, Willis K., assignor to The Huber-Hodgman Printing Press Company, Taunton, Mass. Rotary printing-press. No. 1,137,859; May 4; Gaz. vol. 214; p. 47.
Hodgman, Willis K., assignor to The Huber-Hodgman Printing Press Company, Taunton, Mass. Sheet-piling mechanism for printing-presses. No. 1,140,157; May 18; Gaz. vol. 214; p. 931.
Hodgson, Harold and R., and J. Glazbrook, Chicago, Ill. Junction-board. No. 1,139,764; May 18; Gaz. vol. 214; p. 792.
Hodgson, Roy. (See Hodgson and Glazbrook.)
Hoff, Charles, assignor of one-half to A. Oker, Cincinnati, Ohio. Spring-wheel. No. 1,139,285; May 11; Gaz. vol. 214; p. 587.
Hoff, Charles, assignor of one-half to A. Oker, Cincinnati, Ohio. Spring-wheel. No. 1,139,286; May 11; Gaz. vol. 214; p. 587.
Hoffman, Alfred W., New York, N. Y. Tabular calculator. No. 1,139,287; May 11; Gaz. vol. 214; p. 587.
Hoffman, Howard, Belmar, N. J. Renewable sleeve for rotatable shafts. No. 1,139,120; May 11; Gaz. vol. 214; p. 531.
Hoffman, Paul G. (See Smith, Sam R., assignor.)
Hogl, Rhabanus J., Wheeling, W. Va. Puzzle. No. 1,138,108; May 4; Gaz. vol. 214; p. 137.
Holden, Hiram, Manchester, N. H. Cementing-machine. No. 1,138,565; May 4; Gaz. vol. 214; p. 294.
Hole, Charles C., Fremont, Nebr. Train-stopping apparatus. No. 1,139,525; May 18; Gaz. vol. 214; p. 707.
Holicky, John G., Willoughby, Ohio. Canvas-stretcher. No. 1,139,526; May 18; Gaz. vol. 214; p. 708.
Holland, Harold M. (See Green, Allen A., assignor.)
Holland, John A., *et al.* (See Whitcomb, Carlton L., assignor.)
Holliday, Jonathan, Togo, Saskatchewan, Canada. Brake attachment to vehicles. No. 1,138,871; May 11; Gaz. vol. 214; p. 443.
Hollingsworth, George W., Cincinnati, assignor to The National Cash Register Company, Dayton, Ohio. Automatic change-maker. No. 1,140,458; May 25; Gaz. vol. 214; p. 1071.
Hollingsworth & Whitney Company. (See Stobie, William H., assignor.) (Reissue.)
Hollingsworth, Alfred C. (See Johnson and Hollingsworth.)
Hollowell, James S. (See Gottschalk and Hollowell.)
Holmes, Frederick M., Springfield, Mass. Twine-cutting and retaining device. No. 1,138,756; May 11; Gaz. vol. 214; p. 401.
Holmquist, Fred N., Weldon, Ill. Corrugated pipe. No. 1,140,981; May 25; Gaz. vol. 214; p. 1254.
Holscher, Chirley J., Cottage Grove, Wis. Band-knife. No. 1,137,973; May 4; Gaz. vol. 214; p. 88.
Holst, Lodewyk J. R., Philadelphia, Pa. Telephotographic apparatus. No. 1,138,217; May 4; Gaz. vol. 214; p. 173.
Holt, Harris B., Dormont borough, Pa. Strainer. No. 1,140,459; May 25; Gaz. vol. 214; p. 1071.
Holt, Pliny E., Piedmont, Cal. Autotractor. No. 1,140,828; May 25; Gaz. vol. 214; p. 1197.
Holtsclaw, Sidney, Kansas City, Kans., and D. H. Garnett, Kansas City, Mo. Cigarette-case. No. 1,140,306; May 18; Gaz. vol. 214; p. 981.
Homans, Thomas S., Hempstead, assignor to International Typesetting Machine Company, New York, N. Y. Vise-automatic. No. 1,139,420; May 11; Gaz. vol. 214; p. 635.
Honold, Gottlob, assignor to the Firm of R. Bosch, Stuttgart, Germany. Electrical ignition system for internal-combustion engines. No. 1,139,121; May 11; Gaz. vol. 214; p. 532.
Hoover, Joseph W., Winfield, Kans. Kafir-corn header. No. 1,138,953; May 11; Gaz. vol. 214; p. 470.

Hope, Ira M., Chicago, Ill. Boiler-casing. No. 1,139,527; May 18; Gaz. vol. 214; p. 708.
Hopes, Charles W., Glens Falls, N. Y. Grate-bar. No. 1,140,158; May 18; Gaz. vol. 214; p. 932.
Hopewell, Alfred. (See Stevens, Frank W., assignor.)
Hopkinson, Joseph, assignor to The Computing Scale Company, Dayton, Ohio. Computing-scale. No. 1,140,824; May 25; Gaz. vol. 214; p. 1197.
Hopkinson, Joseph, assignor to The Computing Scale Company, Dayton, Ohio. Computing-scale. No. 1,140,825; May 25; Gaz. vol. 214; p. 1198.
Hopper, Reginald F., St. Albans, England. Hypodermic-needle mount. No. 1,139,975; May 18; Gaz. vol. 214; p. 867.
Hoppie Electrical Appliance Company. (See Hoppie, William, assignor.)
Hoppie, William, assignor to Hoppie Electrical Appliance Company, Salt Lake City, Utah. Electrical battery. No. 1,140,826; May 25; Gaz. vol. 214; p. 1199.
Hoppie, William, Salt Lake City, Utah, assignor to Hoppie Electrical Appliance Company. Sound-detector. No. 1,140,827; May 25; Gaz. vol. 214; p. 1199.
Hopwood, Walter P., and P. H. Kroh, Baltimore, Md. Wheel-hub. No. 1,139,867; May 18; Gaz. vol. 214; p. 829.
Horn, Charles W., Chicago, Ill. Rotary hydrocarbon explosive-engine. No. 1,138,566; May 4; Gaz. vol. 214; p. 294.
Horn, William H., Jr., assignor to Wm. H. Horn & Brother, Philadelphia, Pa. Instep-support. No. 1,140,159; May 18; Gaz. vol. 214; p. 932.
Horne, Lawrence W., and W. N. Crane, New York, N. Y. Automatic device for controlling the speed of trains. No. 1,138,109; May 4; Gaz. vol. 214; p. 137.
Horner, Joseph A. (See Johnson, Reno D. O., assignor.)
Hornstein, Emil. (See Metz and Hornstein.)
Horspool, Francis L., Salt Lake City, Utah. Emergency locking-bolt for safe or vault doors and the like. No. 1,138,218; May 4; Gaz. vol. 214; p. 173.
Hospital Appliance Company, The. (See Sleicher, Ralph H., assignor.)
Hottenroth, Adolph C., Freeport, N. Y. Expansible screw, bolt, or nail. No. 1,138,219; May 4; Gaz. vol. 214; p. 174.
Hough, Willis L., Laconia, N. H. Dental polishing device. No. 1,138,479; May 4; Gaz. vol. 214; p. 267.
Houghton, Orley C., assignor to Bullock Tractor Company, Chicago, Ill. Bearing-wheel for traction-engines. No. 1,137,974; May 4; Gaz. vol. 214; p. 88.
Housekrecht, Lloyd M., Picayune, Miss. Astronomical educational apparatus. No. 1,140,160; May 18; Gaz. vol. 214; p. 932.
Houston, Charles E., London, England. Polishing device. No. 1,140,593; May 25; Gaz. vol. 214; p. 1119.
Hovland, Abraham N., Christiania, Norway. Electric condenser or Leyden jar. No. 1,139,976; May 18; Gaz. vol. 214; p. 867.
Howard, Charles R., Newark, N. Y. Combination lens-hood and vignetter. No. 1,137,975; May 4; Gaz. vol. 214; p. 88.
Howard, Frank E., assignor to James L. Howard & Company, Hartford, Conn. Baggage-rack. No. 1,139,868; May 18; Gaz. vol. 214; p. 829.
Howard, Frank E., assignor to James L. Howard & Company, Hartford, Conn. Door-catch. No. 1,139,869; May 18; Gaz. vol. 214; p. 830.
Howard, George E., Butler, assignor to The Pittsburgh Plate Glass Company, Pittsburgh, Pa. Glass-melting tank-furnace. No. 1,138,110; May 4; Gaz. vol. 214; p. 137.
Howard, George E., Butler, assignor to The Pittsburgh Plate Glass Company, Pittsburgh, Pa. Glass-melting tank-furnace. No. 1,138,111; May 4; Gaz. vol. 214; p. 138.
Howard, Henry, Brookline, Mass. Treating aluminate solutions. No. 1,137,860; May 4; Gaz. vol. 214; p. 48.
Howard, Henry, Brookline, Mass. Drying sodium-bisulfite crystals. No. 1,138,658; May 11; Gaz. vol. 214; p. 365.
Howard, Lysander, Louisville, Ky. Coffee-pot. No. 1,139,286; May 11; Gaz. vol. 214; p. 588.
Howe, George E., East Smethport, Pa. Nut-lock. No. 1,140,594; May 25; Gaz. vol. 214; p. 1119.
Howe, Joseph B., Worcester, assignor to G. S. Harwood & Son, Boston, Mass. Feeding mechanism for carding-machines. No. 1,138,567; May 4; Gaz. vol. 214; p. 294.
Hribar, Joe, Waukegan, Ill. Clutch. No. 1,139,977; May 18; Gaz. vol. 214; p. 867.
Hub, John C., Jr., Cleveland, Ohio. Fastener for letter-files. No. 1,138,872; May 11; Gaz. vol. 214; p. 443.
Hubback, Edward, Seattle, Wash. Hoisting mechanism. No. 1,138,875; May 11; Gaz. vol. 214; p. 443.
Hubbard, Elmer S., Higganum, Conn. Harrow. No. 1,138,112; May 4; Gaz. vol. 214; p. 138.
Hubbard, John W. (See Youngs, Fred E., assignor.)
Hubbel, Edgar G., Winthrop, Mass. Tooth-brush. No. 1,138,568; May 4; Gaz. vol. 214; p. 295.
Hubbell, Harvey, Bridgeport, Conn. Locking-lamp. No. 1,138,292; May 4; Gaz. vol. 214; p. 199.
Hubbell, Harvey, Bridgeport, Conn. Locking-lamp. No. 1,138,293; May 4; Gaz. vol. 214; p. 200.
Huber-Hedgman Printing Press Company, The. (See Hedgman, Willis K., assignor.)
Hudson, Bertram P. and E. R., Watertown, Conn. Machine for attaching runners to hosiery. No. 1,139,360; May 11; Gaz. vol. 214; p. 612.
Hudson, Earl R. (See Hudson, Bertram P. and E. R.)
Huenerfauth, Samuel E., Chicago, Ill. Resistance device. No. 1,138,659; May 11; Gaz. vol. 214; p. 365.
Huff, William D., La Fayette, assignor of three-fourths to L. G. Moss, New Iberia, La. Operating oil-wells. No. 1,140,982; May 25; Gaz. vol. 214; p. 1264.
Huffman, Louis, Toronto, Ontario, Canada. Web-cutting mechanism. No. 1,139,528; May 18; Gaz. vol. 214; p. 708.
Hughes, Dow B., assignor to The Citizens Savings and Trust Company, trustee, Cleveland, Ohio. Ignition system. No. 1,138,569; May 4; Gaz. vol. 214; p. 295.
Hughes, Howard R., assignor to Sharp-Hughes Tool Company, Houston, Tex. Well-reamer. No. 1,139,529; May 18; Gaz. vol. 214; p. 709.
Hulbert, Allen M., St. Cloud, Minn. Container. No. 1,138,954; May 11; Gaz. vol. 214; p. 471.
Hult, Oscar W., Stockholm, Sweden. Boat-motor. No. 1,138,294; May 4; Gaz. vol. 214; p. 200.
Humann, Otto V., Worcester, Mass. Perspective-finder. No. 1,138,480; May 4; Gaz. vol. 214; p. 267.
Humber, Albert M. (See Todd and Humber.)
Hume, George S., Eastport, Me. Sealing cans. No. 1,141,061; May 25; Gaz. vol. 214; p. 1281.
Humphrey, Ernest N., assignor to The Traut & Hine Manufacturing Company, New Britain, Conn. Belt-buckle. No. 1,139,036; May 11; Gaz. vol. 214; p. 502.
Humphrey, Frederick J., assignor to General Gas Light Company, Kalamazoo, Mich. Globe-holder. No. 1,139,684; May 18; Gaz. vol. 214; p. 764.
Humphries, George, Boston, Mass. Mop-wringer. No. 1,138,570; May 4; Gaz. vol. 214; p. 296.
Hundert, Adolf, New York, N. Y. Lock for windows. No. 1,139,870; May 18; Gaz. vol. 214; p. 830.
Hungerford, Arthur. (See Taylor, Harold D., assignor.)
Hunt, Alvin T. (See Spurgeon, Hunt, and Baker.)
Hunt, Azor R., and J. H. Grose, Munhall, Pa. Forging wheels. No. 1,140,681; May 25; Gaz. vol. 214; p. 1148.
Hunt and Van Nice. (See Mahnken and Van Nice, assignors.)
Hunter, William B. (See Clark, Ira P., assignor.)
Hunter, William R., Cleveland, Ohio. Corner-strip for walls. No. 1,138,955; May 11; Gaz. vol. 214; p. 471.
Hupe, Friedrich, U. S. Navy. Rotary engine. No. 1,138,481; May 4; Gaz. vol. 214; p. 267.
Hupfeld Aktien-Gesellschaft, Ludwig. (See Börner, Gustav R., assignor.)
Hupp Motor Car Company. (See Hastings, Donald T., assignor.)
Hupp Motor Car Company. (See Watts, Frank E., assignor.)
Hurley, Albert B., assignor of one-half to L. W. Hurley, Seaford, Del. Hose coupling and guard. No. 1,140,307; May 18; Gaz. vol. 214; p. 932.
Hurley, Luther W. (See Hurley, Albert B., assignor.)
Hurley Machine Company. (See Loeffler, Henry, assignor.)
Hurley, Richard, assignor to J. C. Farr, Jr., Hoboken, N. J. Storage battery. No. 1,138,220; May 4; Gaz. vol. 214; p. 174.
Hurley, Richard, assignor to J. C. Farr, Jr., Hoboken, N. J. Electrolyte. No. 1,138,221; May 4; Gaz. vol. 214; p. 174.
Huseby, Christian O. O., Crary, N. D. Hen's nest-box. No. 1,138,757; May 11; Gaz. vol. 214; p. 401.
Hussey, Alfred R., Harvard, assignor to American Water Supply Company of New England, Boston, Mass. Cup-holder. No. 1,138,758; May 11; Gaz. vol. 214; p. 402.
Huston, Thomas O., Geneva, Nebr. Safety-envelop. No. 1,140,595; May 25; Gaz. vol. 214; p. 1120.
Hutchins Car Roofing Company. (See Hawksworth, David W., assignor.)
Hutchins Car Roofing Company. (See Thompson, William D., assignor.)
Hutchinson, Paul, *et al.* (See Wells and Saxton, assignors.)
Huth, Nathaniel, Brookville, Pa. Baker's double tin stick lady-lock pan. No. 1,139,037; May 11; Gaz. vol. 214; p. 502.
Hutton, Nathan R., Barnesville, Ohio. Safety clothes-wringer. No. 1,139,122; May 11; Gaz. vol. 214; p. 532.
Hutton, Samuel T., assignor to Scheidel-Western X-Ray Coil Company. Chicago, Ill. X-ray apparatus. No. 1,138,113; May 4; Gaz. vol. 214; p. 138.
Hybinette, Noak V., Christiansand, Norway. Extracting copper from a sulfate solution. No. 1,140,682; May 25; Gaz. vol. 214; p. 1148.
Hyde, Walter S., Prineville, Oreg. Thumb-guard for razors. No. 1,137,976; May 4; Gaz. vol. 214; p. 89.
Hydraulic Press Brick Company. (See Ireland, Harley R., assignor.)
Hyc, Thomas, W. B. Campbell, and T. A. Bateman, Spokane, Wash. Rotary pump. No. 1,140,983; May 25; Gaz. vol. 214; p. 1255.
Iceless Machine Company, The. (See Gase, George A., assignor.)
Iceless Machine Company, The. (See Southworth, Harrison H., assignor.)
Iceless Machine Company, The. (See Southworth and Gase, assignors.)
Iceless Machine Company, The. (See Southworth and Wolf, assignors.)

Icke, Henry A., Victoria, British Columbia, Canada. Drawbridge. No. 1,140,984; May 25; Gaz. vol. 214; p. 1255.
Illinois Watch Case Co. (See Hathaway, Thomas F., assignor.)
Imhof, Peter, and W. J. Kelly, Denver, Colo. Lawn-edger. No. 1,139,978; May 18; Gaz. vol. 214; p. 868.
Imperial Tobacco Company (of Great Britain and Ireland) Limited. (See Fasackerley, William, assignor.)
Inbusch, Arthur H. (See Klingenfeld and Inbusch.)
Ingersoll Milling Machine Company, The. (See Johnson, John R., assignor.)
Ingersoll-Rand Company. (See Bayles, Lewis C., assignor.)
Ingersoll-Rand Company. (See Castle and Rogers, assignors.)
Ingersoll-Rand Company. (See Donaldson, William M., assignor.)
Ingersoll-Rand Company. (See Gibson, Arthur R., assignor.)
Ingram, William T. (See Barnard, John W., assignor.)
International Harvester Company of New Jersey. (See Osterholm, William C., assignor.)
International Harvester Corporation. (See Johnston, Edward A., assignor.)
International Harvester Corporation. (See Moxey, James A., assignor.)
International Motor Company. (See Mueller, Frank, assignor.)
International Paper Company. (See Cline and Rhodes, assignors.)
International Register Co., The. (See Kirchhoff, William G., assignor.)
International Silver Co. (See Hobson, Arthur E., assignor.)
International Typesetting Machine Company. (See Homans, Thomas B., assignor.)
Internationale Rotationsmaschinen-Gesellschaft mit beschränkter Haftung. (See Lehne and Lucke, assignors.)
Ionides, Alexander C., Jr., London, England. Crucible and like furnace. No. 1,139,482; May 4; Gaz. vol. 214; p. 268.
Ireland, Harley R., Brasil, Ind., assignor to Hydraulic Press Brick Company, St. Louis, Mo. Die for brick-making-machines. No. 1,138,114; May 4; Gaz. vol. 214; p. 189.
J. C. Blair Company. (See Africa and McSheehy, assignors.)
J. G. Brill Company, The. (See Brooks, James A., assignor.)
J. G. Brill Company, The. (See Curwen, Samuel M., assignor.)
Jack, Alexander G. M. (See Hadfield, Jack, and Milne.)
Jackson, Byron, Sr., and B. Jackson, Jr., San Francisco, Cal.; said Byron Jackson, Sr., assignor to said B. Jackson, Jr. Bored-well-pumping apparatus. No. 1,140,828; May 25; Gaz. vol. 214; p. 1199.
Jacobs, Charles D., South Orange, N. J. Means for watermarking paper. No. 1,139,871; May 18; Gaz. vol. 214; p. 830.
Jacobs, George S., Laporte, Ind., assignor, by mesne assignments, to F. P. Mount, receiver. Engine-cooling device. No. 1,139,289; May 11; Gaz. vol. 214; p. 588.
Jaeckel, Adolph, assignor to Verges Manufacturing Company, Milwaukee, Wis. Friction-clutch. No. 1,139,765; May 18; Gaz. vol. 214; p. 792.
Jaeckel, Bernhard, Elberfeld, Germany, assignor to Synthetic Patents Co., Inc., New York, N. Y. Sulfur dye. No. 1,140,745; May 25; Gaz. vol. 214; p. 1170.
Jaeger, George A., Hackensack, N. J. Tracker and tension device. No. 1,140,460; May 25; Gaz. vol. 214; p. 1072.
Jagenberg, Emil, Dusseldorf, Germany. Wrapping-machine. No. 1,140,039; May 18; Gaz. vol. 214; p. 890.
Jaksa, Joseph, assignor to Society of the Redemptorist Fathers, Grand Rapids, Mich. Host-cutter. No. 1,139,766; May 18; Gaz. vol. 214; p. 792.
James, Charles C., New York, N. Y. Stopping device for talking-machines. No. 1,139,421; May 11; Gaz. vol. 214; p. 635.
James, David, Oak Park, and W. A. Peters, assignors to Essanay Film Manufacturing Company, Chicago, Ill. Photographic camera. No. 1,141,091; May 25; Gaz. vol. 214; p. 1280.
James, Edward, Cleveland, Ohio. Mechanism for coiling wire. No. 1,139,872; May 18; Gaz. vol. 214; p. 830.
James L. Howard & Company. (See Howard, Frank E., assignor.)
James, William E., Carbon, W. Va., assignor of one-third to E. J. Beer, Cincinnati, Ohio, and one-third to E. F. Hocke, Carbon, W. Va. Window-screen. No. 1,138,295; May 4; Gaz. vol. 214; p. 200.
Jaquish, Arthur, Ontario, Oreg. Valve. No. 1,139,290; May 11; Gaz. vol. 214; p. 588.
Jargstorff, Julius E., New York, N. Y. Gas-burner and automatic cut-off therefor. No. 1,140,161; May 18; Gaz. vol. 214; p. 933.
Jassey, Charles S., Edgewater, N. J. Expression-marking for player-piano music-rolls. No. 1,140,746; May 25; Gaz. vol. 214; p. 1170.
Jayme, George, Pittsburgh, Pa. Removing scale from boilers. No. 1,139,873; May 18; Gaz. vol. 214; p. 831.
Jeffrey Manufacturing Company, The. (See Levin, Nils D., assignor.)
Jeffrey Manufacturing Company, The. (See Lynch, George E., assignor.)
Jeffrey Manufacturing Company, The. (See Sessions, Frank L., assignor.)
Jenkins, Charles F., Washington, D. C. Coating with fusible material. No. 1,139,291; May 11; Gaz. vol. 214; p. 588.
Jenney, Robert T., assignor to Hall Manufacturing Co., Monticello, Iowa. Vehicle-tongue draft appliance. No. 1,137,977; May 4; Gaz. vol. 214; p. 89.
Jennings, Marvin B., assignor of one-half to J. H. Middleton, Omaha, Ark. Car-unloading machine. No. 1,140,461; May 25; Gaz. vol. 214; p. 1072.
Jennings, Victor H., assignor to Mills Woven Cartridge Belt Company, Worcester, Mass. Cartridge belt or carrier. No. 1,139,874; May 18; Gaz. vol. 214; p. 831.
Jensen, Olaus, assignor of one-half to Olswang Bros. & Co., Seattle, Wash. Shoemaker's jack. No. 1,138,583; May 4; Gaz. vol. 214; p. 234.
Jernigan, J. W., *et al.* (See Clement, Edward, assignor.)
Jessup, George K. (See Murray and Jessup.)
Jirotka, Bohumil, Berlin, Germany. Feed mechanism for potato-planters. No. 1,139,292; May 11; Gaz. vol. 214; p. 589.
Joachim, Benjamin, Newark, N. J., and B. Davidson, Los Angeles, Cal. Means for attaching collars and other neckwear to shirts. No. 1,139,293; May 11; Gaz. vol. 214; p. 589.
Johansen, Michel, Cristiania, Norway. Press having revolving pressing-surfaces. No. 1,140,683; May 25; Gaz. vol. 214; p. 1149.
John Shillito Company, The. (See Vosburgh, Charles C., assignor.)
Johns-Pratt Company, The. (See Cole, Robert C., assignor.)
Johnson, Albert, Coleman, Alberta, Canada. Automatic train-stop. No. 1,140,268; May 18; Gaz. vol. 214; p. 968.
Johnson, Alva C., Dubuque, Iowa. Land-drain. No. 1,140,903; May 25; Gaz. vol. 214; p. 1227.
Johnson, Andrew L., Winnipeg, Manitoba, assignor to Ames Holden McCready, Limited, Montreal, Quebec, Canada. Skating and hockey boot. No. 1,139,530; May 18; Gaz. vol. 214; p. 709.
Johnson, August G. (See Adams and Johnson.)
Johnson, Augustus M., Jamaica, N. Y. Blower-cleaner. No. 1,140,462; May 25; Gaz. vol. 214; p. 1075.
Johnson, Charles A., Webster, S. D. Chair. No. 1,139,183; May 11; Gaz. vol. 214; p. 554.
Johnson, Charles G., assignor to Warner Brothers Company, Bridgeport, Conn. Buckle. No. 1,140,040; May 18; Gaz. vol. 214; p. 890.
Johnson, Charles M., Minneapolis, Minn. Folding box. No. 1,137,759; May 4; Gaz. vol. 214; p. 13.
Johnson, Frank A., Dunellen, N. J. Feed device for stencil-cutting machines. No. 1,138,759; May 11; Gaz. vol. 214; p. 402.
Johnson, George A., assignor to W. H. Miner, Chicago, Ill. Packing for refrigerator-doors. No. 1,139,038; May 11; Gaz. vol. 214; p. 503.
Johnson, George A., assignor to W. H. Miner, Chicago, Ill. Draft-rigging for railway-cars. No. 1,139,875; May 18; Gaz. vol. 214; p. 831.
Johnson, George A., assignor to W. H. Miner, Chicago, Ill. Draft-rigging for railway-cars. No. 1,140,162; May 18; Gaz. vol. 214; p. 933.
Johnson, Henry, and A. C. Hollingworth; said Johnson assignor to M. O. Goble, Beatrice, Nebr. Egg-candler. No. 1,141,062; May 25; Gaz. vol. 214; p. 1281.
Johnson, James P., Council Bluffs, Iowa. Back-rest for motor-cycles. No. 1,139,184; May 11; Gaz. vol. 214; p. 554.
Johnson, John, Brooklyn, N. Y. Filter-press. No. 1,139,767; May 18; Gaz. vol. 214; p. 793.
Johnson, John H., assignor to Federal-Huber Company, Chicago, Ill. Ball-cock. No. 1,140,877; May 25; Gaz. vol. 214; p. 1042.
Johnson, John L., Milwaukee, Wis., assignor, by mesne assignments, to Allis-Chalmers Manufacturing Company. System of distribution. No. 1,139,294; May 11; Gaz. vol. 214; p. 589.
Johnson, John R., assignor to The Ingersoll Milling Machine Company, Rockford, Ill. Milling-machine. No. 1,139,422; May 11; Gaz. vol. 214; p. 636.
Johnson, John S. (See Ashelman and Johnson.)
Johnson, Joseph H., Blissville, Ark. Log-buoy. No. 1,139,123; May 11; Gaz. vol. 214; p. 532.
Johnson, Mark W., Jr., Atlanta, Ga. Prime mover. No. 1,140,515; May 25; Gaz. vol. 214; p. 1092.
Johnson, Martin H., Little Falls, Minn. Coaster-brake. No. 1,138,956; May 11; Gaz. vol. 214; p. 471.
Johnson, Orville C., St. Louis, Mo. Halter. No. 1,138,115; May 4; Gaz. vol. 214; p. 140.
Johnson, Paul F., Milwaukee, Wis. Adjusting means for thermostats and the like. No. 1,139,185; May 11; Gaz. vol. 214; p. 554.
Johnson, Reno D. O., Nazareth, assignor to J. A. Horner, Bath, Pa. Pneumatic concentrator. No. 1,139,186; May 11; Gaz. vol. 214; p. 554.
Johnson, Robert S., East Cleveland, Ohio. Liquid-measuring device. No. 1,137,861; May 4; Gaz. vol. 214; p. 48.
Johnson, Thomas W., Philadelphia, Pa. Graphite-feeding lubricator. No. 1,137,978; May 4; Gaz. vol. 214; p. 89.

Johnson, Walfred, Milwaukee, Wis. Printing-frame. No. 1,139,768; May 18; Gaz. vol. 214; p. 793.
Johnston, Arthur C., assignor to Link Belt Company, Chicago, Ill. Brake for trolley-drums and the like. No. 1,140,829; May 25; Gaz. vol. 214; p. 1200.
Johnston, Arthur W., and A. A. Norton, Chicago, Ill. Egg-beater or the like. No. 1,140,341; May 18; Gaz. vol. 214; p. 994.
Johnston, Charles and C., Memphis, Tenn. Individual or group cut-outs for electrical devices. No. 1,138,222; May 4; Gaz. vol. 214; p. 174.
Johnston, Claude. (See Johnston, Charles and C.)
Johnston, Edward A., Chicago, Ill., assignor to International Harvester Corporation. Traction-wheel. No. 1,130,769; May 18; Gaz. vol. 214; p. 794.
Johnston, Robert, Kingston, Pa. Reel. No. 1,138,483; May 4; Gaz. vol. 214; p. 268.
Johnston, Willis, Schenectady, N. Y. Motor-starting device. No. 1,138,116; May 4; Gaz. vol. 214; p. 140.
Jones, Adolph W. (See Paige, Charles F., assignor.)
Jones, Arthur B., Bangor, Me. Circuit-closer for electric-lighted levels or plumbs. No. 1,139,295; May 11; Gaz. vol. 214; p. 590.
Jones, Charles H., Galva, Ill. Road-leveling machine. No. 1,140,985; May 25; Gaz. vol. 214; p. 1250.
Jones, David P., Bredenburg, Saskatachewan, Canada. Hay-raking attachment to mowers. No. 1,138,223; May 4; Gaz. vol. 214; p. 175.
Jones, Edward A., Pittsfield, Mass. Beating-engine. No. 1,140,830; May 25; Gaz. vol. 214; p. 1200.
Jones, Ezekiel, Boston, Mass. Shoe-polishing machine. No. 1,139,531; May 18; Gaz. vol. 214; p. 709.
Jones, Harry W., San Francisco, Cal. Computing-machine. No. 1,140,684; May 25; Gaz. vol. 214; p. 1149.
Jones, John, Bokhoma, Okla. Water-cycle. No. 1,138,571; May 4; Gaz. vol. 214; p. 296.
Jones, John E. (See Dubois and Jones.)
Jones, Joseph H., Winthrop, and L. G. Sabbag, East Boston, Mass. Picker-check. No. 1,138,660; May 11; Gaz. vol. 214; p. 366.
Jones, Joseph W., New Rochelle, N. Y. Shock-absorber. No. 1,140,596; May 25; Gaz. vol. 214; p. 1120.
Jones, Llewellyn E., J. W. Breakey, and W. F. Casey, Philadelphia, Pa. Controlling-valve. No. 1,139,876; May 18; Gaz. vol. 214; p. 832.
Jones, Major E., *et al.* (See Garros, Benjamin, assignor.)
Jones, Richard E., Hagerstown, Md. Self-adjusting spring-hinge. No. 1,139,296; May 11; Gaz. vol. 214; p. 590.
Jones, Wiley C., *et al.* (See Purseller, James, assignor.)
Jordan, Edward, Newton, New South Wales, Australia. Laundry-dripboard. No. 1,138,661; May 11; Gaz. vol. 214; p. 366.
Josselson, Abraham. (See Rakowsky, Louis, assignor.)
Jostad, Abel M., West Salem, Wis. Bolster. No. 1,140,831; May 25; Gaz. vol. 214; p. 1200.
Joswich, Felix, St. Paul, Minn. Internal-combustion engine. No. 1,139,770; May 18; Gaz. vol. 214; p. 794.
Jowski, Michael, North Tonawanda, N. Y. Mail-bag catcher. No. 1,138,296; May 4; Gaz. vol. 214; p. 201.
Judd, Frank E., Windom, Minn. Controlling mechanism for throttle-valves. No. 1,139,685; May 18; Gaz. vol. 214; p. 765.
Jung, Karl, assignor to The General Composing Company, Gesellschaft mit beschrankter Haftung, Berlin, Germany. Automatic lathe. No. 1,140,463; May 25; Gaz. vol. 214; p. 1073.
Jungnickel, Robert F., Minneapolis, Minn. Machine for applying crowns to bottles. No. 1,140,832; May 25; Gaz. vol. 214; p. 1200.
Junkers, Hugo, Aachen, Germany. Installation for warm-water supply. No. 1,140,597; May 25; Gaz. vol. 214; p. 1121.
Justrite Manufacturing Company. (See Hansen, Augie L., assignor.)
Kaak, Georgine, San Antonio, Tex. Watch-protector. No. 1,139,187; May 11; Gaz. vol. 214; p. 555.
Kahn, Myrtil, and A. Ossenbeck, Cologne, Germany, assignors to Synthetic Patents Co., Inc., New York. N. Y. 2.3-oxynaphthoic-acid derivative. No. 1,140,747; May 25; Gaz. vol. 214; p. 1171.
Kailor, John N., Columbus, Ind., assignor to Emerson-Brantingham Company, Rockford, Ill. Swinging conveyer. No. 1,137,979; May 4; Gaz. vol. 214; p. 90.
Kaisling, William, assignor to Kellogg Switchboard & Supply Company, Chicago, Ill. Electrical switch-key. No. 1,138,224; May 4; Gaz. vol. 214; p. 175.
Kalashen, Mark J., Brooklyn, N. Y. Cornet. No. 1,139,297; May 11; Gaz. vol. 214; p. 590.
Kaminkowitz, Herman, Brooklyn, N. Y. Sleeve. No. 1,140,685; May 25; Gaz. vol. 214; p. 1150.
Kandel, Fred, Wilkinsburg, Pa. Soldering device. No. 1,138,760; May 11; Gaz. vol. 214; p. 403.
Kane, Matthew M., Rome, Ga. Water-meter box. No. 1,139,188; May 11; Gaz. vol. 214; p. 555.
Kanonenberg, Heinrich. (See Heilemann and Kanonenberg.)
Kariva, Yoshihei, Los Angeles, Cal. Automobile door mechanism. No. 1,138,117; May 4; Gaz. vol. 214; p. 140.
Karlik, Johan, assignor of one-half to D. L. Rosenstein, McKees Rocks, Pa. Projectile. No. 1,140,041; May 18; Gaz. vol. 214; p. 891.
Kasson, C. Vallette. (See Ross, Oscar A., assignor.)
Katzenberger, Oscar, Chicago, Ill. Double-acting lavatory-hinge. No. 1,138,484; May 4; Gaz. vol. 214; p. 268.
Katzenberger, Oscar, Chicago, Ill. Single-acting jamb-hinge. No. 1,140,808; May 18; Gaz. vol. 214; p. 982.
Kautzman, Philip W. (See Kraft and Kautzman.)
Kawasaki, Goro, Chicago, Ill. Mop. No. 1,137,760; May 4; Gaz. vol. 214; p. 13.
Kay, Clarence H. (See Walters, Bert, assignor.)
Kaylor, William, Muskogee, Okla. Wrench. No. 1,138,572; May 4; Gaz. vol. 214; p. 296.
Keeler, Karl, Provo, Utah. Automatic head-gate. No. 1,138,485; May 4; Gaz. vol. 214; p. 269.
Keep, William J., assignor to Michigan Stove Company, Detroit, Mich. Garbage-burner. No. 1,138,662; May 11; Gaz. vol. 214; p. 366.
Kehoe, Thomas J., Toledo, Ohio. Hinge. No. 1,139,771; May 18; Gaz. vol. 214; p. 794.
Kell, Gustav B., assignor to Federal Electric Company, Chicago, Ill. Gearing for portable power-tables. No. 1,137,862; May 4; Gaz. vol. 214; p. 48.
Keith, George, assignor of one-half to J. Keith, London, England. Automatic lighting and extinguishing apparatus for high-pressure gas-lamps. No. 1,139,361; May 11; Gaz. vol. 214; p. 613.
Keith, George E. (See Davis, Oscar C., assignor.)
Keith, Herbert J., Brookline, Mass. Preservation of eggs. No. 1,137,761; May 4; Gaz. vol. 214; p. 14.
Keith, James. (See Keith, George, assignor.)
Keithley, Herbert R. (See Bergendahl, Einar B., assignor.)
Keller, Bailey, *et al.* (See Schur, Earnest H., assignor.)
Keller, Moritz, *et al.* (See Schur, Earnest H., assignor.)
Kelley, Frederick D., *et al.* (See Shannon, Charles R., assignor.)
Kelley, George J., Attleboro, Mass. Knife. No. 1,139,979; May 18; Gaz. vol. 214; p. 868.
Kelley, George W. and I. S., New York, N. Y. Railway sanitary apparatus. No. 1,138,486; May 4; Gaz. vol. 214; p. 269.
Kelley, Isaiah S. (See Kelley, George W. and I. S.)
Kelley, John R., Covington, Ky. Electrolytic interrupter. No. 1,138,761; May 11; Gaz. vol. 214; p. 403.
Kellogg Switchboard & Supply Company. (See Kaisling, William, assignor.)
Kellogg Switchboard and Supply Company. (See Stupe, Arthur A., assignor.)
Kelly, George E., and E. J. Emery, Wilkes-Barre, Pa. Mechanic's apron. No. 1,139,532; May 18; Gaz. vol. 214; p. 710.
Kelly, James E., Mason City, Iowa. Operating mechanism for washing-machines. No. 1,138,487; May 4; Gaz. vol. 214; p. 269.
Kelly, Maurice F. (See Brisson, Joseph T., assignor.)
Kelly, William, assignor to Maxwell Motor Company, Incorporated, Detroit, Mich. Gas-engine. No. 1,140,163; May 18; Gaz. vol. 214; p. 933.
Kelly, William J. (See Imhof and Kelly.)
Kelsey, John, Detroit, Mich. Felly-band. No. 1,139,772; May 18; Gaz. vol. 214; p. 795.
Kemper, Virgil A., Kansas City, Mo. Game apparatus. No. 1,137,980; May 4; Gaz. vol. 214; p. 90.
Kempton, Willard H. (See Mead and Kempton.)
Kendall, William R., assignor to Henry Disston & Sons, Incorporated, Philadelphia, Pa. Insertible saw-teeth. No. 1,141,063; May 25; Gaz. vol. 214; p. 1281.
Kendrick, James K., and J. W. Halterman, Willows, Cal. Mine-catcher. No. 1,138,225; May 4; Gaz. vol. 214; p. 175.
Kennard, Frederic H., Newton, Mass. Reducing waste sulfite liquor to a powder. No. 1,138,118; May 4; Gaz. vol. 214; p. 141.
Kennedy, Arthur M., Philadelphia, Pa. Fender for automobiles and other vehicles. No. 1,140,164; May 18; Gaz. vol. 214; p. 984.
Kennedy, David S., Brooklyn, N. Y., assignor to Mergenthaler Linotype Company. Typographical machine. No. 1,137,987; May 4; Gaz. vol. 214; p. 90.
Kennedy, David S., Brooklyn, N. Y., assignor to Mergenthaler Linotype Company. Typographical machine. No. 1,139,980; May 18; Gaz. vol. 214; p. 868.
Kennedy, James J., Jr. (See Geddes, Charles A., assignor.)
Kennedy, Walter, Pittsburgh, Pa. Universal coupling for rolls, &c. No. 1,139,124; May 11; Gaz. vol. 214; p. 533.
Kennedy, Walter, Pittsburgh, Pa. Universal coupling. No. 1,139,125; May 11; Gaz. vol. 214; p. 533.
Kenney, Andrew E., North Plainfield, N. J., assignor, by mesne assignments, to Reddan Specialty Company, Inc. Curtainless shower-bath. (Reissue.) No. 13,911; May 4; Gaz. vol. 214; p. 318.
Kenney, Charles H., New London, Conn. Marine speedometer. No. 1,138,226; May 4; Gaz. vol. 214; p. 175.
Kent, Charles B., Kenosha, Wis. Carbureter. No. 1,141,085; May 25; Gaz. vol. 214; p. 1288.
Kent, Charles B., Kenosha, Wis. Carbureter. No. 1,141,086; May 25; Gaz. vol. 214; p. 1288.
Kent, William J., New York, N. Y. Automatic stop mechanism for presses or the like. No. 1,139,773; May 18; Gaz. vol. 214; p. 795.
Keough, Michael J., St. Louis, Mo. Door-latch. No. 1,137,863; May 4; Gaz. vol. 214; p. 49.

Keppy, John D., Toronto, Ontario, Canada. Instrument for drafting conic sections. No. 1,139,298; May 11; Gaz. vol. 214; p. 590.
Kernan, Joseph F., and W. J. Owens, Utica, N. Y. Firepot for stoves and furnaces. No. 1,140,464; May 25; Gaz. vol. 214; p. 1074.
Kerns, Edward J., Worcester, Mass. Exercising-machine. No. 1,139,126; May 11; Gaz. vol. 214; p. 533.
Kerst, John G., Springfield, Ill. Motor-driven truck. No. 1,139,981; May 18; Gaz. vol. 214; p. 868.
Kessell, Adolph. (See Elliott, William J., assignor.)
Kesty, Charles C., Watsontown, Pa. Brick-die. No. 1,138,573; May 4; Gaz. vol. 214; p. 296.
Kesty, Charles C., Watsontown, Pa. Brick-die. No. 1,138,663; May 11; Gaz. vol. 214; p. 367.
Kettler, Martin F., assignor to Downing Pneumatic Wheel Company, Houston, Tex. Resilient wheel. No. 1,140,686; May 25; Gaz. vol. 214; p. 1150.
Keuling, Edgar L., Scranton, Pa. Counterbalanced stair. No. 1,140,833; May 25; Gaz. vol. 214; p. 1201.
Keyt, Marshall H., Chicago, Ill. Apparatus for removing tarnish from metals. No. 1,139,686; May 18; Gaz. vol. 214; p. 765.
Kiernan, George, Philadelphia, Pa. Card-holder for album-leaves. No. 1,140,904; May 25; Gaz. vol. 214; p. 1227.
Kiesau, Henry S., Waukon, Iowa. End-gate tightener. No. 1,138,762; May 11; Gaz. vol. 214; p. 403.
Kieselguhr Company of America. (See Caven, Trevor M., assignor.)
Kilbourne, Herbert L., Memphis, Tenn. Signaling device for elevators. No. 1,140,165; May 18; Gaz. vol. 214; p. 934.
Kilpatrick, Oliver P., Beadout, Okla. Wrench. No. 1,138,957; May 11; Gaz. vol. 214; p. 472.
Kimball, Frank I., West Haven, assignor to Sargent & Company, New Haven, Conn. Lock. No. 1,137,762; May 4; Gaz. vol. 214; p. 14.
Kimball, Frank I., West Haven, assignor to Sargent & Company, New Haven, Conn. Take-down square. No. 1,139,189; May 11; Gaz. vol. 214; p. 555.
Kimball, Harry G., Bronxville, N. Y., assignor to The Whitin Machine Works, Whitinsville, Mass. Skewer-mounting. No. 1,137,983; May 4; Gaz. vol. 214; p. 91.
Kimball, Robert E. (See Dodge, Parker, assignor.)
Kimball, Robert E., Cleveland, Ohio. Transfer-printing machine. No. 1,140,748; May 25; Gaz. vol. 214; p. 1171.
Kimble, James P., What Cheer, Iowa. Reinforced-concrete post. No. 1,137,982; May 4; Gaz. vol. 214; p. 91.
Kimbrel, George A., Avondale, Colo. Ditching-machine. No. 1,139,100; May 11; Gaz. vol. 214; p. 556.
Kime, Orville F., Crestline, Ohio. Display-rack. No. 1,138,488; May 4; Gaz. vol. 214; p. 270.
Kimmel, Arthur H., Berlin, Ontario, Canada. Shirt. No. 1,140,834; May 25; Gaz. vol. 214; p. 1201.
Kindervater, Julius, Richmond, Va., assignor to Locomotive Superheater Company, New York, N. Y. Making U-shaped pipe-bends. No. 1,138,227; May 4; Gaz. vol. 214; p. 176.
Kindervater, Julius, Richmond, Va., assignor to Locomotive Superheater Company, New York, N. Y. Making U-shaped pipe-bends. No. 1,138,228; May 4; Gaz. vol. 214; p. 176.
King, Alonso A., Paonia, Colo. Nut-lock. No. 1,139,191; May 11; Gaz. vol. 214; p. 556.
King, Charles T., assignor of one-fourth to H. M. Anderson, Moline, Ill. Trap-nest. No. 1,138,664; May 11; Gaz. vol. 214; p. 367.
King, James F., Milwaukee, Wis. Roller-bearing. No. 1,139,192; May 11; Gaz. vol. 214; p. 557.
King, James L. O. (See King, Fox, and King.)
King, Jesse C., assignor of one-third to F. Freyler, La Junta, Colo. Agitator. No. 1,140,465; May 25; Gaz. vol. 214; p. 1074.
King, Madison M., Albany, N. Y., assignor to J. Q. A. and C. Whittemore, Boston, Mass. Box. No. 1,138,384; May 4; Gaz. vol. 214; p. 234.
King, Norman, Sr., Canton, Ohio. Roll for rolling-mills. No. 1,138,665; May 11; Gaz. vol. 214; p. 368.
King, O'Dell, T. H. Fox, and J. L. O. King, Sandy Springs, S. C. Nut and bolt lock. No. 1,138,574; May 4; Gaz. vol. 214; p. 297.
King, Walter W., Denver, Colo. Automatic view-finder. No. 1,137,864; May 4; Gaz. vol. 214; p. 49.
Kinne, Edmund P., Alliance, Ohio, assignor to American Steel Foundries, New York, N. Y. Coupling-lock. No. 1,140,166; May 18; Gaz. vol. 214; p. 935.
Kinney, Justus B., Dorchester, Mass. Road-oiler. No. 1,139,423; May 11; Gaz. vol. 214; p. 636.
Kintner, Samuel M., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Bearing-housing. No. 1,138,666; May 11; Gaz. vol. 214; p. 368.
Kintner, Willard W., Des Moines, Iowa. Station-indicating device. No. 1,139,424; May 11; Gaz. vol. 214; p. 636.
Kippen, Herbert D., A. T. Brown, and J. T. White, Spokane, Wash. Multiple-compartment coin-controlled vending-machine. No. 1,139,039; May 11; Gaz. vol. 214; p. 503.
Kirby, James J., Boone, Iowa. Umbrella attachment. No. 1,140,309; May 18; Gaz. vol. 214; p. 982.
Kirchhoff, William G., Berwyn, assignor to The International Register Co., Chicago, Ill. Coin-register. No. 1,138,385; May 4; Gaz. vol. 214; p. 234.
Kirk Latty Manufacturing Company, The. (See Sieffel, William J., assignor.)
Kirschner, George W., West Haven, assignor to Sargent & Company, New Haven, Conn. Locking-hinge. No. 1,139,193; May 11; Gaz. vol. 214; p. 557.
Kirtley, Richard E., Kansas City, Mo. Water-motor. No. 1,140,598; May 25; Gaz. vol. 214; p. 1121.
Kitchen, Frederick T., Orange, N. J., assignor to Gold Car Heating & Lighting Company, New York, N. Y. Regulating-valve. No. 1,139,533; May 18; Gaz. vol. 214; p. 710.
Kitchen, Joseph M. W., East Orange, N. J. Hydraulic power transmission. No. 1,138,667; May 11; Gaz. vol. 214; p. 368.
Klausmeyer, David C., Hamilton county, assignor to The Cincinnati-Bickford Tool Company, Oakley, Ohio. Tap-leading chuck. No. 1,140,905; May 25; Gaz. vol. 214; p. 1228.
Klausmeyer, David C., Norwood, assignor to The Cincinnati-Bickford Tool Company, Cincinnati, Ohio. Combined locking and clamping device. No. 1,140,906; May 25; Gaz. vol. 214; p. 1228.
Kleber, Oscar I., Pittsburgh, Pa. Printing-telegraph. No. 1,138,958; May 11; Gaz. vol. 214; p. 472.
Klein, Charles J., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. Electric switch. No. 1,138,763; May 11; Gaz. vol. 214; p. 403.
Klein, Charles J., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. Electric switch. No. 1,138,874; May 11; Gaz. vol. 214; p. 444.
Klein, Charles J., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. Separable circuit device. No. 1,139,687; May 18; Gaz. vol. 214; p. 765.
Kleinschmidt, Edward E., New York, N. Y., assignor, by mesne assignments, to Hall Switch & Signal Company. Telephone system. No. 1,137,865; May 4; Gaz. vol. 214; p. 49.
Kleinschmidt, Edward E., New York, N. Y., assignor, by mesne assignments, to Hall Switch & Signal Company. Selective signaling system. No. 1,140,378; May 25; Gaz. vol. 214; p. 1042.
Kleinschmidt, Edward E., New York, N. Y., assignor to Hall Switch and Signal Company. Selective switch. No. 1,140,749; May 25; Gaz. vol. 214; p. 1171.
Kleman, Henry, assignor of one-half to E. Martin, Pittsburgh, Pa. Smoke-consumer. No. 1,139,194; May 11; Gaz. vol. 214; p. 557.
Klenk, Gottlieb, Defiance, Ohio, assignor, by mesne assignments, to The Defiance Pressed Steel Company. Metal box. No. 1,139,534; May 18; Gaz. vol. 214; p. 710.
Klenk, Gottlieb, Defiance, Ohio, assignor to The Defiance Pressed Steel Company. Bottle-crate. No. 1,139,535; May 18; Gaz. vol. 214; p. 711.
Klenk, Gottlieb, assignor to The Defiance Pressed Steel Company, Defiance, Ohio. Sheet-metal box. No. 1,139,536; May 18; Gaz. vol. 214; p. 711.
Klenk, Gottlieb, Defiance, Ohio, assignor to The Defiance Pressed Steel Company. Sheet-metal box. No. 1,139,537; May 18; Gaz. vol. 214; p. 712.
Klepinger, John H., Great Falls, Mont., and F. R. Corwin, Douglas, Ariz. Furnace-hearth. No. 1,140,042; May 18; Gaz. vol. 214; p. 891.
Klin, John R. (See Rike and Klin.)
Kline, Clarence M., assignor to Smith, Kline & French Co., Philadelphia, Pa. Hermetically-sealed bottle. No. 1,138,764; May 11; Gaz. vol. 214; p. 404.
Kline, Frank J. (See Kline, William L., assignor.)
Kline, William L., assignor of one-half to F. J. Kline, Rutherford, N. J. Fan attachment for rocking-chairs. No. 1,139,299; May 11; Gaz. vol. 214; p. 591.
Kling, Peter M. (See Stucki, Arnold, assignor.)
Klingenfeld, Harry M., and A. H. Inbusch, Milwaukee, Wis. Machine for breaking in shoes. No. 1,140,599; May 25; Gaz. vol. 214; p. 1121.
Klix, Ulrich J., assignor to J. Wurz, Utica, N. Y. Table. No. 1,140,379; May 25; Gaz. vol. 214; p. 1042.
Klose, Karl W., Seneca, Kans. Brick-kiln construction. No. 1,138,386; May 4; Gaz. vol. 214; p. 235.
Klose, Karl W., Seneca, Kans. Brick-kiln. No. 1,138,387; May 4; Gaz. vol. 214; p. 235.
Knaak, Frank J. C. F., assignor of one-half to J. H. MacDonald, New York, N. Y. Internal-combustion engine. No. 1,138,575; May 4; Gaz. vol. 214; p. 297.
Knapp, George P., assignor to Harvey Hubbell, Incorporated, Bridgeport, Conn. Electric socket and shade-holder. No. 1,138,297; May 4; Gaz. vol. 214; p. 201.
Knapp, Moses A., Oakland, Cal. Rock-drill. No. 1,138,612; May 4; Gaz. vol. 214; p. 310.
Knapp, William B., Paterson, N. J. Screen, curtain, and the like. No. 1,138,668; May 11; Gaz. vol. 214; p. 369.
Knauss, Albert T. (See Blansett, John E., assignor.)
Kneeland, Lester L. (See Moriarty and Kneeland.)
Knickmeyer, Nannie V., Millville, Fla. Mattress. No. 1,140,043; May 18; Gaz. vol. 214; p. 891.
Knief, Henry G., Napa, Cal. Apparatus for applying oil to road-surfaces. No. 1,138,489; May 4; Gaz. vol. 214; p. 270.
Knight, William A., and L. Bauer, Newark, N. J. Hat-sweat-sewing machine. No. 1,138,669; May 11; Gaz. vol. 214; p. 369.

Knips, Christoph. (See Erlwein and Knips.)
Knoblauch, Charles E., New York, N. Y. Poncho. No. 1,138,229; May 4; Gaz. vol. 214; p. 177.
Knöpfli, Otto, Zurich, Switzerland, assignor, by mesne assignments, to Wagner Electric Manufacturing Company, St. Louis, Mo. Regulating the speed of alternating-current motors. No. 1,137,866; May 4; Gaz. vol. 214; p. 50.
Knott, Eustace R., Sharon, assignor to E. R. Knott Machine Company, Boston, Mass. Candy-making machine. No. 1,138,576; May 4; Gaz. vol. 214; p. 297.
Knox, Henry E., Limon, Colo. Yoke for cattle. No. 1,139,538; May 18; Gaz. vol. 214; p. 712.
Knox Thenardine Chemical Company. (See Knox, William J., assignor.)
Knox, William J. (See Harrison and Knox.)
Knox, William J., Goldfield, Nev., assignor to Knox Thenardine Chemical Company, New York, N. Y. Antiseptic compound. No. 1,139,774; May 18; Gaz. vol. 214; p. 796.
Kobert, Frank P., New Haven, Conn. Electric riveting apparatus. No. 1,139,300; May 11; Gaz. vol. 214; p. 591.
Koch, Norbert, Essen-Rellinghausen, and G. Hayn, assignors to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Wheeled gun-carriage. No. 1,137,763; May 4; Gaz. vol. 214; p. 14.
Koenig, David, assignor to Western Electric Company, New York, N. Y. Telephone-transmitter. No. 1,138,959; May 11; Gaz. vol. 214; p. 473.
Koffer, Charles, New York, N. Y. Clothes-line support. No. 1,140,986; May 25; Gaz. vol. 214; p. 1256.
Kohlbach, Henry F. W., New Bedford, Mass. Automatic train-stop. No. 1,140,380; May 25; Gaz. vol. 214; p. 1043.
Kohr, William H., Penbrook, Pa. Metallic roofing. No. 1,140,835; May 25; Gaz. vol. 214; p. 1201.
Kolb, Frederick W., La Conner, Wash. Means for cleaning and oiling the skids of skidways. No. 1,137,867; May 4; Gaz. vol. 214; p. 50.
Kolb, Henry M., and R. F. Sedgley, Philadelphia, Pa.; said Sedgley assignor to said Kolb. Ratchet-wrench. No. 1,140,167; May 18; Gaz. vol. 214; p. 935.
Kollner, Thomas, Owendale, Mich. Animal-releasing device. No. 1,139,539; May 18; Gaz. vol. 214; p. 712.
Kolocotronis, Thomas J., Shenandoah, Pa. Attachment for barbers' chairs. No. 1,137,764; May 4; Gaz. vol. 214; p. 15.
Komow, Nicolas, assignor to The United States Cloth Cutting Machine Co., Inc., New York, N. Y. Electric cloth-cutting machine. No. 1,141,087; May 25; Gaz. vol. 214; p. 1289.
Konjetzky, Alfred. (See Hering, Louis F., assignor.)
Koop, William E., *et al.* (See Geiger, Charles E., assignor.)
Koppelman, Morris, New York, N. Y. Button. No. 1,139,425; May 11; Gaz. vol. 214; p. 637.
Kops Brothers. (See Kops, Waldemar, assignor.)
Kops, Waldemar, assignor to Kops Brothers, New York, N. Y. Buckle. No. 1,139,301; May 11; Gaz. vol. 214; p. 592.
Korlasky, Frank A., Rhinelander, Wis. Machine for making grille-work. No. 1,139,775; May 18; Gaz. vol. 214; p. 795.
Kornblith, Ignatius, New York, N. Y. Automatic absorbent-cotton-wrapping machine. No. 1,140,044; May 18; Gaz. vol. 214; p. 892.
Kosta, Emanuel, Monticello, Wis. Horse-releaser. No. 1,140,516; May 25; Gaz. vol. 214; p. 1093.
Kostka, John, Indiana Harbor, Ind. Quick-action horseshoe. No. 1,137,984; May 4; Gaz. vol. 214; p. 91.
Kraft, Henry P., Ridgewood, and P. W. Kautzman, West Hoboken, N. J., assignors to A. Schrader's Son Incorporated, Brooklyn, N. Y. Lock for pneumatic-tire rims. No. 1,137,868; May 4; Gaz. vol. 214; p. 50.
Kramb, Charles H., San Diego, Cal. Puzzle. No. 1,140,600; May 25; Gaz. vol. 214; p. 1122.
Kramp, Victor, and M. Neuber, Toledo, Ohio. Sewing-lamp. No. 1,137,985; May 4; Gaz. vol. 214; p. 92.
Krinnlein, Georg, Sindlingen, near Höchst-on-the-Main, assignor to Farbwerke vorm. Meister Lucius & Brüning, Höchst-on-the-main, Germany. Arylaminoanthraquinone dyestuffs. No. 1,139,540; May 18; Gaz. vol. 214; p. 713.
Krinnlein, Georg, Lindlingen, near Höchst-on-the-Main, R. Hagenbach, Frankfort-on-the-Main, and F. Giloy, assignors to Farbwerke vorm. Meister Lucius & Brüning, Höchst-on-the-Main, Germany. Arylaminoanthraquinone dyestuffs and making same. No. 1,138,670; May 11; Gaz. vol. 214; p. 370.
Krumodemski, John, Wausau, Wis. Extension-table. No. 1,140,466; May 25; Gaz. vol. 214; p. 1075.
Kraus, Joseph, Anaconda, Mont. Filter-mass washer. No. 1,139,776; May 18; Gaz. vol. 214; p. 796.
Krause, Ernest, El Paso, Tex. Threshold. No. 1,139,195; May 11; Gaz. vol. 214; p. 558.
Kraut, Anna, Chicago, Ill. Dish-washing device. No. 1,139,426; May 11; Gaz. vol. 214; p. 637.
Krayer, Stephen S., St. Louis, Mo. Gas-engine starter. No. 1,138,765; May 11; Gaz. vol. 214; p. 404.
Krentler-Arnold Hinge Last Company. (See Krentler, Walter A., assignor.)
Krentler, Walter A., assignor to Krentler-Arnold Hinge Last Company, Detroit, Mich. Collapsible last. No. 1,139,040; May 11; Gaz. vol. 214; p. 503.
Kristek, Emmerich H., North Groavenor Dale, Conn., assignor to Draper Company, Hopedale, Mass. Buildermotion. No. 1,139,877; May 18; Gaz. vol. 214; p. 832.
Kristofek, Frank J., assignor to Brown and Bigelow, St. Paul, Minn. Bill-file. No. 1,140,750; May 25; Gaz. vol. 214; p. 1172.
Krna, Stephen, and P. Turstik, Binghamton, N. Y. Automatic gate for railway-crossings. No. 1,140,168; May 18; Gaz. vol. 214; p. 935.
Kroh, Philip H. (See Hopwood and Kroh.)
Kroh, Rollie G. (See Dunn and Kroh.)
Krug, Carl, Frankfort-on-the-Main, Mainkur, Germany. Abrading-disk. No. 1,139,541; May 18; Gaz. vol. 214; p. 713.
Kube, Frederick E., Clinton, Iowa. Engine-cooling system. No. 1,140,987; May 25; Gaz. vol. 214; p. 1257.
Kubike, Martin D., Akron, Ohio. Core-retaining device. No. 1,140,045; May 18; Gaz. vol. 214; p. 892.
Kuhnert, Louis C., Jr. (See Brooke, Thomas P., assignor.)
Kummer, Max, Herrnhut, Germany. Document-file. No. 1,137,765; May 4; Gaz. vol. 214; p. 15.
Kunitz, Benjamin, New York, assignor to American Plaster-Drill Co., Inc., Brooklyn, N. Y. Drill. No. 1,140,988; May 25; Gaz. vol. 214; p. 1257.
Kunselman, John R., Duluth, Minn. Auxiliary step for car-platforms. No. 1,141,064; May 25; Gaz. vol. 214; p. 1281.
Kurowski, Alfred G. F. (See Bates and Kurowski.)
Kurowski, Alfred G. F., assignor to Underwood Typewriter Company, New York, N. Y. Type-writing machine. No. 1,137,869; May 4; Gaz. vol. 214; p. 51.
Kurtz, Edward. (See Elliott and Kurtz.)
Kurtz, William F., Aberdeen, S. D. Wringer. No. 1,140,989; May 25; Gaz. vol. 214; p. 1257.
Küttner, Ernst W., Berlin, Germany. Producing and protecting insulating-coverings of oxid on wires, bands, &c. No. 1,137,986; May 4; Gaz. vol. 214; p. 92.
L. M. Booth Company. (See Sutro, Harry H., assignor.)
La Chapelle, Euclid I., Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Machine for operating on shoes. No. 1,140,467; May 25; Gaz. vol. 214; p. 1075.
La Porte, Norbert M., Baltimore, Md. Circulating system. No. 1,138,962; May 11; Gaz. vol. 214; p. 474.
La Porte, Norbert M., assignor to The Crown Cork and Seal Company of Baltimore City, Baltimore, Md. Filling apparatus. No. 1,140,169; May 18; Gaz. vol. 214; p. 936.
La Roe, Henry, North River, N. Y. Bed-spring tightener. No. 1,138,491; May 4; Gaz. vol. 214; p. 270.
La Societe Anonyme pour L'Exploitation des Procedes Westinghouse-Leblanc. (See Leblanc, Maurice, assignor.)
La Société Huilerie et Savonnerie de Lurian. (See Félizat, Louis, assignor.)
Lachman Manufacturing Company. (See Lachman, Maurice, assignor.)
Lachman Manufacturing Company. (See Rietzel, Adolph F., assignor.)
Lachman, Maurice, assignor to Lachman Manufacturing Company, New York, N. Y. Shipping-receptacle. No. 1,138,119; May 4; Gaz. vol. 214; p. 141.
Lachman, Maurice, assignor to Lachman Manufacturing Company, New York, N. Y. Paper container. No. 1,138,120; May 4; Gaz. vol. 214; p. 141.
Lachman, Maurice, assignor to Lachman Manufacturing Company, New York, N. Y. Shipping-package. No. 1,138,121; May 4; Gaz. vol. 214; p. 141.
Lafitte, Andre, Biarritz, France. Distribution-gear, such as valve mechanism. No. 1,138,960; May 11; Gaz. vol. 214; p. 473.
Lahr, Frank, Barberton, assignor of one-half to W. M. Thomas, Coventry township, Ohio. Cutter for potato-planters. No. 1,137,870; May 4; Gaz. vol. 214; p. 51.
Lall, William S., Connellys Springs, N. C. Nut-lock. No. 1,139,196; May 11; Gaz. vol. 214; p. 558.
Lamantia, John, Port Richmond, N. Y. Fusee and cap. No. 1,138,671; May 11; Gaz. vol. 214; p. 370.
Lamb, Joseph F., assignor to Landers, Frary & Clark, New Britain, Conn. Sad-iron support. No. 1,139,688; May 18; Gaz. vol. 214; p. 765.
Lambert, Dudley J., Fairburn, Ga. Reflector for electric lights. No. 1,139,542; May 18; Gaz. vol. 214; p. 713.
Lambert, Fred A., Lawrence, and F. H. Hardy, Andover, Mass. Electric motor-vehicle. No. 1,138,122; May 4; Gaz. vol. 214; p. 142.
Lambert, George H., East Berne, N. Y. Window-screen. No. 1,139,982; May 18; Gaz. vol. 214; p. 869.
Lamme, Benjamin G., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Dynamo-electric machine. No. 1,138,672; May 11; Gaz. vol. 214; p. 370.
Lamme, Benjamin G., and J. L. M. Yardley, Pittsburgh, Pa., assignors to Westinghouse Electric and Manufacturing Company. Switching device. No. 1,138,673; May 11; Gaz. vol. 214; p. 371.
Lamoreaux, William F., and C. W. Renwick, Isabella, Tenn. Recovering elemental sulfur from sulfur gases. No. 1,140,310; May 18; Gaz. vol. 214; p. 982.
Lamoureux, Philip J., Camas, Wash. Drier-rolls of paper-making machines. No. 1,139,777; May 18; Gaz. vol. 214; p. 796.
Lamson Company, The. (See Powell, Frank D., assignor.)

Lancey, Roswell A., Townsend, Mass., assignor to J. Spaulding & Sons Company, Rochester, N. H. Countermolding machine. No. 1,138,123; May 4; Gaz. vol. 214; p. 142.
Lancia, Vincenzo, Turin, Italy. Controlling device for use in automobiles. No. 1,138,577; May 4; Gaz. vol. 214; p. 297.
Landers, Frary & Clark. (See Lamb, Joseph F., assignor.)
Landreth, Clarence P., Philadelphia, Pa. Electrochemical process of treating waters, liquids, and sewage. No. 1,139,778; May 18; Gaz. vol. 214; p. 797.
Landsiedel, Harry, Poplar Bluff, Mo., assignor, by mesne assignments, to The Dalton Adding Machine Company, Cincinnati, Ohio. Adding and recording machine. No. 1,138,875; May 11; Gaz. vol. 214; p. 444.
Lane, Alfred M., St. Louis, Mo. Vehicle-spring. No. 1,137,987; May 4; Gaz. vol. 214; p. 92.
Lane, Edward H., Altavista, Va. Cedar chest. No. 1,138,578; May 4; Gaz. vol. 214; p. 298.
Lane, Victor E., New York, N. Y., assignor to American Car and Foundry Company, St. Louis, Mo. Insulated wall structure. No. 1,140,887; May 25; Gaz. vol. 214; p. 1150.
Lang, William F., Pittsburgh, Pa. Knee-joint. No. 1,138,298; May 4; Gaz. vol. 214; p. 204.
Langenohl, Ewald, Wernelskirchen, Germany. Manufacturing welted boots and shoes without lasting. No. 1,138,961; May 11; Gaz. vol. 214; p. 473.
Langford, Louis. (See Wright and Langford.)
Landus, Isaac, New York, N. Y. Drill. No. 1,138,490; May 4; Gaz. vol. 214; p. 270.
Lappen, James E., assignor to Union Fibre Company, Winona, Minn. Machine for making fiber insulating-sheets. No. 1,139,983; May 18; Gaz. vol. 214; p. 869.
Lappen, James E., assignor to Union Fibre Company, Winona, Minn. Machine for forming cementitious insulating-sheets. No. 1,140,601; May 25; Gaz. vol. 214; p. 1122.
Larry, Edward P. (See Collette, Larry, and Buras.)
Larsen, Olaf. (See Valerius and Larsen.)
Larson, Ole L., Minneapolis, Minn. Corrugated rotary sieve. No. 1,139,041; May 11; Gaz. vol. 214; p. 504.
Laserson, Frederick M., Manchester, England. Pattern-perforating. No. 1,140,170; May 18; Gaz. vol. 214; p. 936.
Lashar, Walter B. (See Wood, Harry D., assignor.)
Lassell, Philip S., Baltimore, Md. Hame and trace connector. No. 1,140,688; May 25; Gaz. vol. 214; p. 1151.
Latham Automatic Registering Company. (See Leethem, Frank C., assignor.)
Lathan, Fred J., *et al.* (See French, Tom, assignor.)
Laun, Emil R. (See Thoren, Ernst F., assignor.)
Lauridsen, Helge, Mason City, Nebr. Resilient wheel. No. 1,137,988; May 4; Gaz. vol. 214; p. 93.
Lausterer, William J., assignor to Empire Voting Machine Company, Jamestown, N. Y. Interlock for cumulative voting on voting-machines. No. 1,137,766; May 4; Gaz. vol. 214; p. 15.
Lautenschlager, William F., Cincinnati, Ohio, assignor to L. Muther, Boston, Mass. Cement-applying machine. No. 1,140,602; May 25; Gaz. vol. 214; p. 1122.
Lavedan, Leon. (See Turnbull, Walter J., assignor.)
Lawall, Lewis C., Wayne township, Wayne county, Ind. Portable vulcanizing device. No. 1,140,381; May 25; Gaz. vol. 214; p. 1043.
Lawrence, Daniel O., assignor of one-third to C. J. Garlow, Columbus, Nebr., and one-third to C. J. Cottingham, Los Angeles, Cal. Indicator. No. 1,138,124; May 4; Gaz. vol. 214; p. 143.
Lawrence, Milton L. (See Mecartea, Francis M., assignor.)
Lawrie, John, and D. F. Brasel, Thabanchu, Orange Free State, South Africa. Cattle-guard. No. 1,140,171; May 18; Gaz. vol. 214; p. 937.
Lawson, John, Central Falls, R. I. Automatic circular-knitting machine. No. 1,140,269; May 18; Gaz. vol. 214; p. 968.
Lawson, John, Central Falls, R. I. Drop-stitch knitting-machine. No. 1,140,270; May 18; Gaz. vol. 214; p. 969.
Lawton, Stanley H., assignor to American Vulcanized Fibre Company, Wilmington, Del. Treating ferruginous zinc-chlorid solutions. No. 1,137,871; May 4; Gaz. vol. 214; p. 52.
Layer, Adam. (See Fink, Albert, assignor.)
Le Beau, Ernest A., assignor to Chicago Railway Equipment Company, Chicago, Ill. Side bearing for railway-cars. No. 1,139,543; May 18; Gaz. vol. 214; p. 713.
Le Cato, John A., assignor to Standard Pneumatic Action Co., New York, N. Y. Governor-spring. No. 1,140,271; May 18; Gaz. vol. 214; p. 970.
Le Compte Company, The. (See Le Compte, Louis and J., assignors.)
Le Compte, Joseph. (See Le Compte, Louis and J., assignors.)
Le Compte, Louis and J., Aurora, assignors to The Le Compte Company, Chicago, Ill. Combined draw-head and air-coupling. No. 1,140,362; May 25; Gaz. vol. 214; p. 1043.
Leach, Felix, Allenfarm, Tex. Wheel-fender. No. 1,137,872; May 4; Gaz. vol. 214; p. 52.
Leadbetter, Noble W., assignor of one-third to J. Nygaard, Bickleton, Wash. Stirrup. No. 1,138,492; May 4; Gaz. vol. 214; p. 271.
Leake, Henry C., Altrincham, assignor to Vickers, Sons & Maxim, Limited, Westminster, England. Electrical driving system. No. 1,138,299; May 4; Gaz. vol. 214; p. 202.
Leash, Homer E., and J. L. Schwenk, New Westminster, British Columbia, Canada; said Leash assignor to said Schwenk. Means for printing an enlargement from a negative-film. No. 1,138,963; May 11; Gaz. vol. 214; p. 474.
Leave, Charles H. (See Dodge and Leave.)
Leaycraft, Edwin S., Jersey City, N. J. Sprocket-chain. No. 1,138,766; May 11; Gaz. vol. 214; p. 404.
Leblanc, Maurice, assignor to Societe Anonyme Pour l'Exploitation des Procedes Westinghouse-Leblanc, Paris, France. Ejector. No. 1,137,767; May 4; Gaz. vol. 214; p. 16.
Leblanc, Maurice. Auteuil, assignor, by mesne assignments, to Societe Anonyme pour l'Exploitation des Procedes Westinghouse-Leblanc, Paris, France. Fluid-ejector. No. 1,138,125; May 4; Gaz. vol. 214; p. 143.
Leblanc, Maurice, Croissy, assignor to La Societe Anonyme Pour l'Exploitation des Procedes Westinghouse-Leblanc, Paris, France. Condensing apparatus. No. 1,140,172; May 18; Gaz. vol. 214; p. 937.
Leckie, A. E. L. (See Heany, John A., assignor.)
Lederer, Joseph, New York, N. Y. Gas-lamp. No. 1,137,989; May 4; Gaz. vol. 214; p. 93.
Ledwinka, Joseph, Philadelphia, Pa. Tilting wagon-body. No. 1,139,456; May 11; Gaz. vol. 214; p. 648.
Ledwinka, Joseph, Philadelphia, Pa. Metallic vehicle-body. No. 1,139,457; May 11; Gaz. vol. 214; p. 648.
Ledwinka, Joseph, Philadelphia, Pa. End door for delivery-wagons. No. 1,139,458; May 11; Gaz. vol. 214; p. 648.
Lee, Ulysses G., Chattanooga, Tenn., assignor to Montague Mailing Machinery Co. Selective address-plate. No. 1,139,644; May 18; Gaz. vol. 214; p. 714.
Lee, Ulysses G., Chattanooga, Tenn., assignor to Montague Mailing Machinery Co. Addressing-machine. No. 1,141,055; May 25; Gaz. vol. 214; p. 1282.
Lee, William S., Charlotte, N. C. Insulator-clamp. No. 1,140,603; May 25; Gaz. vol. 214; p. 1123.
Leech, Charles M., Lima, Ohio. Internal-combustion engine. No. 1,138,876; May 11; Gaz. vol. 214; p. 445.
Leeker, Albert H., St. Bernard, Ohio. Locking device for automobiles. No. 1,140,383; May 25; Gaz. vol. 214; p. 1044.
Leeming, Robert W., Brantford, Canada. Device for launching life-boats. No. 1,140,046; May 18; Gaz. vol. 214; p. 892.
Leethem, Frank C., Middletown, N. Y., assignor to Latham Automatic Registering Company. Imposing-table and proof-press. No. 1,139,984; May 18; Gaz. vol. 214; p. 870.
Lefort, Georges, Clabecq, Tubize, Belgium. Automatic machine for blowing seamless bottles and other round vessels. No. 1,139,545; May 18; Gaz. vol. 214; p. 714.
Legate, R. S. (See White, William R., assignor.)
Legh, Gilbert, King's Lynn, England. Golf-club. No. 1,139,985; May 18; Gaz. vol. 214; p. 870.
Lehman, Christian S., Lawn, Pa. Lifting-jack. No. 1,140,907; May 25; Gaz. vol. 214; p. 1228.
Lehne, Josef, Tempelhof, and W. Lucke, Neukölln, assignors to Internationale Rotationsmaschinen-Gesellschaft mit beschränkter Haftung, Berlin, Germany. Centrifugal pump. No. 1,139,042; May 11; Gaz. vol. 214; p. 504.
Leimdörfer, Joachim, Budapest, Austria-Hungary. Manufacture of hard soaps. No. 1,138,280; May 4; Gaz. vol. 214; p. 177.
Leitner, Paul F., Long Beach, Cal. Life-saving corset. No. 1,139,043; May 11; Gaz. vol. 214; p. 504.
Leksucsin, Alexander, Detroit, Mich. Permutation-lock. No. 1,140,751; May 25; Gaz. vol. 214; p. 1172.
Lelois, Delphis T., Chicago, Ill. Pneumatic hammer. No. 1,138,877; May 11; Gaz. vol. 214; p. 445.
Lenharth, Joseph P., St. Louis, Mo. Cartridge-box carrier. No. 1,139,778; May 18; Gaz. vol. 214; p. 797.
Leonard, William K., Piqua, Ohio. Vehicle-tire. No. 1,140,752; May 25; Gaz. vol. 214; p. 1172.
Leopold, George O. (See Fegley and Leopold.)
Letin, Chris. and F. Frey, San Francisco, Cal. Fish-splitting machine. No. 1,138,300; May 4; Gaz. vol. 214; p. 202.
Ley, Mark, Jr., Los Angeles, Cal. Trolley. No. 1,140,689; May 25; Gaz. vol. 214; p. 1151.
Levering, James F., Chester, Pa. Rotary internal-combustion engine. No. 1,138,388; May 4; Gaz. vol. 214; p. 235.
Levin, Nils D., Columbus, Ohio, assignor to The Jeffrey Manufacturing Company. Bit-holder for mining-machines. No. 1,140,173; May 18; Gaz. vol. 214; p. 938.
Levitt, Louis, and I. Rendelman, New York, N. Y. Safety-lock for milk-bottles. No. 1,139,780; May 18; Gaz. vol. 214; p. 797.
Lewis, Evan E., and L. Salsinger, Wilkes-Barre, Pa. Chimney-motor. No. 1,140,990; May 25; Gaz. vol. 214; p. 1258.
Lewis, Goodrich Q., Wheaton, Ill., assignor to W. H. Miner, Chazy, N. Y. Refrigerator-car-door-locking mechanism. No. 1,140,517; May 25; Gaz. vol. 214; p. 1093.
Lewis, Melville O., Brooklyn, N. Y. Boiler-cleaning tool. No. 1,140,047; May 18; Gaz. vol. 214; p. 893.

Lewis, William D. (See Harris and Lewis.)
Lewis, William H., Arrington, Va. Egg-container. No. 1,139,302; May 11; Gaz. vol. 214; p. 592.
Libby, Albion D. T., assignor, by mesne assignments, to The Garford Manufacturing Company, Elyria, Ohio. Composite electric system. No. 1,139,127; May 11; Gaz. vol. 214; p. 533.
Lilienfeld, Leon, Vienna, Austria-Hungary. Artificial leather and making the same. No. 1,140,174; May 18; Gaz. vol. 214; p. 938.
Lima Locomotive Corporation. (See Wall, George L., assignor.)
Linaker, Frederick W., assignor to The Vulcan Soot Cleaner Co., of Pittsburg, Pa., Dubois, Pa. Boiler-flue-cleaner system. No. 1,138,301; May 4; Gaz. vol. 214; p. 202.
Lincoln Iron Works. (See Pierce, Frank, assignor.)
Lincoln, Paul M., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Metering system. No. 1,137,873; May 4; Gaz. vol. 214; p. 52.
Lindberg, John, San Francisco, Cal. Cornucopia-holder. No. 1,139,125; May 11; Gaz. vol. 214; p. 534.
Lindsay, Charles S., and D. H. Oliver, London, England. Internal-combustion engine. No. 1,140,384; May 25; Gaz. vol. 214; p. 1044.
Link-Belt Company. (See Dodge, James M., assignor.)
Link Belt Company. (See Johnston, Arthur C., assignor.)
Link-Belt Company. (See Pierce, Harold S., assignor.)
Link-Belt Company. (See Pratt, Howell D., assignor.)
Link-Belt Company. (See Titcomb, George E., assignor.)
Linn, John H., Charleston, W. Va. Window curtain and shade holder. No. 1,138,493; May 4; Gaz. vol. 214; p. 271.
Lipari, Harry, San Francisco, Cal. Tooth-brush. No. 1,140,690; May 25; Gaz. vol. 214; p. 1151.
Liston, Daniel A. (See Bickmeier and Liston.)
Littauer, Lucius M. (See Weis, John P., assignor.)
Little, George M., Pittsburgh, and B. J. Gudge, Wilkinsburg, Pa., assignors to Westinghouse Electric and Manufacturing Company. Preparing arc-lamp electrodes. No. 1,138,674; May 11; Gaz. vol. 214; p. 371.
Little, Orton C., assignor to Onward Manufacturing Company, Menasha, Wis. Balancing device for wheels. No. 1,138,592; May 4; Gaz. vol. 214; p. 308.
Livingston, Charles G., *et al.* (See Redd, Charlie, assignor.)
Llambias, Gustave A. (See Chanute, Paul F., assignor.)
Llewellyn, Ernest A., and J. R. Briggs, assignors to G. H. Bass & Company, Wilton, Me. Foot-gear. No. 1,139,197; May 11; Gaz. vol. 214; p. 558.
Llopart, Ramon B., Cordoba, Argentina. Inalterable white pigment and making same. No. 1,139,427; May 11; Gaz. vol. 214; p. 638.
Lloyd, Marshall B., Menominee, Mich., assignor, by mesne assignments, to The Elyria Iron & Steel Company, Elyria, Ohio. Manufacturing tubing. No. 1,141,066; May 25; Gaz. vol. 214; p. 1282.
Lloyd, Marshall B., Menominee, Mich., assignor, by mesne assignments, to The Elyria Iron & Steel Company, Elyria, Ohio. Reinforced tubing. No. 1,141,067; May 25; Gaz. vol. 214; p. 1283.
Lloyd, Marshall B., Menominee, Mich., assignor, by mesne assignments, to The Elyria Iron & Steel Company. Welding. No. 1,141,068; May 25; Gaz. vol. 214; p. 1283.
Lochman, Emil R., St. Louis, Mo. Carving-machine. No. 1,138,126; May 4; Gaz. vol. 214; p. 144.
Lockard, William A., assignor of one-half to A. E. Stange, Philadelphia, Pa. Railway-tie and fastener. No. 1,137,990; May 4; Gaz. vol. 214; p. 93.
Locke Steel Belt Company. (See Locke, Sylvanus D., assignor.)
Locke, Sylvanus D., assignor to Locke Steel Belt Company, Bridgeport, Conn. Correcting the pitch of drive-chains. No. 1,139,044; May 11; Gaz. vol. 214; p. 505.
Lockwood, Edward M., assignor to C. R. Carver Company, Philadelphia, Pa. Collapsible mandrel. No. 1,138,675; May 11; Gaz. vol. 214; p. 371.
Lockwood, Vernie, Motley, Minn. Stay and fastener for storm-sash. No. 1,139,781; May 18; Gaz. vol. 214; p. 798.
Locomotive Recording Dynamometer Company. (See Park and Phillips, assignors.)
Locomotive Superheater Company. (See Casey, William F. J., assignor.)
Locomotive Superheater Company. (See Kindervater, Julius, assignor.)
Lodvee, Knute L., Chicago, Ill. Window. No. 1,137,991; May 4; Gaz. vol. 214; p. 94.
Loeber, Edgar O., Cleveland, Ohio. Telephone-guard. No. 1,140,048; May 18; Gaz. vol. 214; p. 893.
Loemer, Henry, Newark, N. J., assignor to Hurley Machine Company, Chicago, Ill. Safety attachment for clothes-wringers. No. 1,139,546; May 18; Gaz. vol. 214; p. 714.
Loftin, Benjamin F. (See Hawkins and Loftin.)
Loftus, Clarence L., Stapleton, Nebr. Fence-tightening device. No. 1,138,127; May 4; Gaz. vol. 214; p. 144.
Logan, Maurice S., Brooklyn, N. Y. Bicycle. No. 1,139,045; May 11; Gaz. vol. 214; p. 505.
Loichot, Paul F. (See Warstler and Loichot.)
Long, Albert B. (See Sheaffer, James E., assignor.)
Long, George A., assignor to The Gray Telephone Pay Station Company, Hartford, Conn. Hinge mechanism. No. 1,138,128; May 4; Gaz. vol. 214; p. 145.
Long, Mary A., Fargo, N. D. Washboiler clothes-drainer. No. 1,139,782; May 18; Gaz. vol. 214; p. 798.
Longmore, William J., Bellevue, Pa., assignor to Westinghouse Electric and Manufacturing Company. Manufacturing insulating material. No. 1,138,676; May 11; Gaz. vol. 214; p. 372.
Loomis, Allen, assignor to Packard Motor Car Company, Detroit, Mich. Starting mechanism for internal-combustion engines. No. 1,139,783; May 18; Gaz. vol. 214; p. 798.
Lordier, Frank J. (See Wolfe, Ota A., assignor.)
Lorenson, Carl, Davenport, Iowa. Mowing-machine. No. 1,140,175; May 18; Gaz. vol. 214; p. 938.
Lorens, Oswald. (See Weide, Hans, assignor.)
Lotstrom, Alexander E., Seattle, Wash. Nut-locking device. No. 1,138,878; May 11; Gaz. vol. 214; p. 445.
Louisville Machine Company, The. (See Warstler and Loichot, assignors.)
Loungley, Frank, Oswego, N. Y. Pennant-holder for automobiles. No. 1,138,964; May 11; Gaz. vol. 214; p. 474.
Lovekin, Luther D., Philadelphia, Pa. Surface condenser. No. 1,139,547; May 18; Gaz. vol. 214; p. 715.
Lovekin, Luther D., Philadelphia, Pa. Heat-transferring device. No. 1,139,548; May 18; Gaz. vol. 214; p. 715.
Lovekin, Luther D., Philadelphia, Pa. Fluid heating and cooling apparatus. No. 1,139,549; May 18; Gaz. vol. 214; p. 716.
Lovell-McConnell Manufacturing Company. (See Arlitz, Oscar C., assignor.) (Reissue.)
Lovett, Morris J., Randsburg, Cal. Permutation-padlock. No. 1,139,986; May 18; Gaz. vol. 214; p. 870.
Lowe, Richard C., Virginia, Ill. Combination step-ladder and ironing-board. No. 1,139,784; May 18; Gaz. vol. 214; p. 799.
Löwenstein, Karl, Prinz zu, Neckargemünd, Germany. Casing for downdraft-furnaces. No. 1,140,908; May 25; Gaz. vol. 214; p. 1229.
Luby, Theodore, assignor of one-half to M. Rothschild, Philadelphia, Pa. Attachment for telephone-transmitters. No. 1,138,889; May 4; Gaz. vol. 214; p. 236.
Lucke, Wilhelm. (See Lehne and Lucke.)
Ludlow, George M., Chicago, Ill., assignor to The Computing Scale Company. Automatic weighing-scale. No. 1,140,836; May 25; Gaz. vol. 214; p. 1201.
Ludwick, William F., Beaumont, Kans., assignor of one-half to C. G. Miller, Enid, Okla. Nut-lock. No. 1,140,468; May 25; Gaz. vol. 214; p. 1076.
Luedke-Schaefer-Buttles Co. (See Buttles, Augustus H., assignor.)
Lukens, Lewis N., Philadelphia, Pa. Device for spacing and supporting reinforcing-bars in concrete work. No. 1,139,987; May 18; Gaz. vol. 214; p. 871.
Lum, Walter O., Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company. Electrically-operated switch. No. 1,138,677; May 11; Gaz. vol. 214; p. 372.
Lumb, Charles F. (See Pattinson, Thomas E., assignor.)
Lund, Joel, San Francisco, Cal. Auger. No. 1,139,198; May 11; Gaz. vol. 214; p. 559.
Lund, Thomas, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Heeling-machine. No. 1,139,199; May 11; Gaz. vol. 214; p. 559.
Lundin, Andreas P., Bayside, N. Y., assignor to Welin Marine Equipment Company. Boat. No. 1,140,469; May 25; Gaz. vol. 214; p. 1076.
Luppino, Joseph, New York, assignor to Manhattan Divanette Co., Brooklyn, N. Y. Convertible bed and divan or sofa. No. 1,139,785; May 18; Gaz. vol. 214; p. 799.
Luther, Della J. B., Eureka, Cal. Hair-form. No. 1,138,494; May 4; Gaz. vol. 214; p. 271.
Lutton, William J., Paterson, N. J. Loom. No. 1,139,200; May 11; Gaz. vol. 214; p. 559.
Luyken, Wilhelm, assignor to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Direct-current dynamo-machine. No. 1,139,201; May 11; Gaz. vol. 214; p. 559.
Lyell, John C. (See Bradshaw and Lyell.)
Lyman Gun Sight Corporation, The. (See Windridge, James, assignor.)
Lynch, George E., Chelsea, Mass., assignor, by mesne assignments, to The Jeffrey Manufacturing Company. Trolley mechanism. No. 1,138,965; May 11; Gaz. vol. 214; p. 475.
Lynch, Vernon T., Chicago, Ill. Hammer. No. 1,139,803; May 11; Gaz. vol. 214; p. 592.
Lynch, Warren J., assignor to American Steel Foundries, New York, N. Y. Side-frame cross connection. No. 1,140,049; May 18; Gaz. vol. 214; p. 894.
Lynch, William S. (See Flowers and Lynch.)
Lyon, George A., Philadelphia, Pa. Wheel-tire grip. No. 1,139,304; May 11; Gaz. vol. 214; p. 592.
Lyon, George A., assignor to Lyon Non-Skid Company, Philadelphia, Pa. Buffer for motor-vehicles. No. 1,140,909; May 25; Gaz. vol. 214; p. 1229.
Lyon, Jesse D., Cincinnati, Ohio. Golf-ball marker. No. 1,139,689; May 18; Gaz. vol. 214; p. 766.
Lyon Metallic Manufacturing Company. (See Bales, James E., assignor.)
Lyon Non-Skid Company. (See Lyon, George A., assignor.)

Lyons, Harry C., New York, N. Y. Liquid-dispenser. No. 1,130,129; May 11; Gaz. vol. 214; p. 534.
Lyons, John S., assignor of one-half to G. T. Brown, Wilkes-Barre, Pa. Automobile tire and rim. No. 1,138,129; May 4; Gaz. vol. 214; p. 145.
M. D. Knowlton Company. (See Feeley, Frank G., assignor.)
M. J. Bernhard Company. (See Bernhard, Michael H., assignor.)
MacDonald, Bernard, South Pasadena, Cal. Apparatus for treating ores. No. 1,139,428; May 11; Gaz. vol. 214; p. 638.
MacDonald, Joseph H. (See Knaak, Frank J. C. F., assignor.)
MacFarland, Helon B., Chicago, Ill., and R. J. Shoemaker, Topeka, Kans.; said Shoemaker assignor to said MacFarland. Composite insulating material. No. 1,139,305; May 11; Gaz. vol. 214; p. 593.
MacLachlan, John C., Chicago, Ill. Desiccating apparatus. No. 1,138,769; May 11; Gaz. vol. 214; p. 405.
MacLean, Archibald, New York, N. Y. Lamp-cord reel. No. 1,139,554; May 18; Gaz. vol. 214; p. 717.
MacLennan, Malcolm J., Buffalo, N. Y., assignor to A. V. Boggs, Toronto, Ontario, Canada. Mixing-machine. No. 1,140,385; May 25; Gaz. vol. 214; p. 1045.
MacRae, John G., assignor of one-sixth to G. H. Meyer and one-sixth to W. M. Dickinson, Eagle, Colo. Device for handling cuspidors. No. 1,138,131; May 4; Gaz. vol. 214; p. 145.
Macaulay, James, Lynn, Mass. Life-preserver. No. 1,138,495; May 4; Gaz. vol. 214; p. 272.
Macdonald, Hugh, deceased, Detroit, Mich.; L. B. West and J. W. Reid, executors. Faucet. No. 1,138,604; May 4; Gaz. vol. 214; p. 307.
Macdonald, Thomas A., Paterson, N. J. Truss. No. 1,140,754; May 25; Gaz. vol. 214; p. 1173.
Mace, Margaret R., Philadelphia, Pa. Parcel-post envelop. No. 1,139,552; May 18; Gaz. vol. 214; p. 717.
Mace, Margaret R., Philadelphia, Pa. Envelop-tag. No. 1,139,553; May 18; Gaz. vol. 214; p. 717.
Macfarlane, George T., Pinner, and M. Roley, Slough, assignors to G. D. Peters and Company Limited, London; G. T. Macfarlane, Pinner, and M. Roley, Slough, Bucks, England. Ship and like winch arrangement. No. 1,139,131; May 11; Gaz. vol. 214; p. 535.
Macnaughton-Jones, Henry M., Hampstead, London, England. Adjustable support or bracket for lamps, shades, mirrors, or the like. No. 1,140,051; May 18; Gaz. vol. 214; p. 894.
Macnish, Ralph B., St. Louis, Mo. Circuit-breaker. No. 1,139,789; May 18; Gaz. vol. 214; p. 800.
Madaler, Ferdinand von, West Drayton, assignor to The Rotary Photographic Company, Limited, London, England. Opticopictorial apparatus. No. 1,139,241; May 11; Gaz. vol. 214; p. 571.
Magerl, George C., Necedah, Wis. Corn-planter. No. 1,140,755; May 25; Gaz. vol. 214; p. 1173.
Mahnken, Flora, and L. L. Van Nice, assignors to Hunt and Van Nice, Denver, Colo. Crocheted article and producing the same. No. 1,139,989; May 18; Gaz. vol. 214; p. 871.
Mahurin, Sherman, Rockford, Ill. Road-bed. No. 1,139,692; May 18; Gaz. vol. 214; p. 767.
Mallen, Philip H. Z., Chicago Heights, Ill. Third-rail system. No. 1,138,827; May 11; Gaz. vol. 214; p. 427.
Malmberg, Oscar F., Chicago, Ill. Convertible bench. No. 1,139,693; May 18; Gaz. vol. 214; p. 767.
Malone, Edward V. (See Malone, William W. and E. V.)
Malone, William W. and E. V., Piqua, Ohio. Music-clamp. No. 1,138,802; May 4; Gaz. vol. 214; p. 203.
Malsin, Albert, New York, N. Y. Garment. No. 1,139,881; May 18; Gaz. vol. 214; p. 833.
Maltby, Tod, McGill, Nev. Water-motor. No. 1,140,756; May 25; Gaz. vol. 214; p. 1173.
Mandel, Louis, Chicago, Ill. Film-roll holder. No. 1,137,771; May 4; Gaz. vol. 214; p. 17.
Manhattan Divanette Co. (See Luppino, Joseph, assignor.)
Manly, Charles M., Freeport, and H. Centervall, Brooklyn, N. Y. Balanced crank mechanism for pumps, motors, &c. No. 1,137,877; May 4; Gaz. vol. 214; p. 53.
Manning, Joseph A., Pawtucket, R. I. Mechanical eye. No. 1,137,772; May 4; Gaz. vol. 214; p. 17.
Mansell, Albert H. (See Taylor and Mansell.)
Manwaring, Robert A., and J. T. Hessel, New Haven, Conn. Insulator. No. 1,140,050; May 18; Gaz. vol. 214; p. 894.
Marble, Sam B., Ilion, N. Y. Music-leaf turner. No. 1,140,695; May 25; Gaz. vol. 214; p. 1153.
Marcante, Antonio, Paterson, N. J. Fire-alarm and sprinkler-operating apparatus. No. 1,140,837; May 25; Gaz. vol. 214; p. 1202.
Marcus, Paul B., Neu-Rochwitz, near Dresden, and E. R. Böhme, Dresden, Germany. Elastic wheel. No. 1,139,429; May 11; Gaz. vol. 214; p. 638.
Marcy, Frank E., Salt Lake City, Utah. Ball-mill. No. 1,137,878; May 4; Gaz. vol. 214; p. 54.
Marean, William M., assignor of one-half to W. S. Brown, Belvidere, Ill. Spark-plug. No. 1,139,694; May 18; Gaz. vol. 214; p. 767.
Marelli, Ercole, Milan, Italy. Oscillating fan. No. 1,138,390; May 4; Gaz. vol. 214; p. 236.
Mares, Matthew, Racine, Wis. Plowshare. No. 1,140,275; May 18; Gaz. vol. 214; p. 971.
Maris, Maximilien, Chicago, Ill. Game. No. 1,138,283; May 4; Gaz. vol. 214; p. 178.
Mark, Clayton. (See Dies, Charles A., assignor.)
Mark, Jacob, Brooklyn, and E. N. Mohl, New York, assignors to Mark & Mohl, Inc., Brooklyn, N. Y. Grating. No. 1,140,692; May 25; Gaz. vol. 214; p. 1152.
Mark & Mohl. (See Benjamins, Israel, assignor.)
Mark & Mohl. (See Mark and Mohl, assignors.)
Markle, John R., Chicago, Ill. Electric power-transmission system. No. 1,139,882; May 18; Gaz. vol. 214; p. 834.
Marlowe, Everett A., Prescott, Ariz. Combined trunk and bed. No. 1,140,991; May 25; Gaz. vol. 214; p. 1258.
Marmon, Howard C., Indianapolis, Ind. Steering axle and wheel. No. 1,137,996; May 4; Gaz. vol. 214; p. 96.
Marsden, John E., Philadelphia, Pa. Detachable lamp. No. 1,137,773; May 4; Gaz. vol. 214; p. 18.
Marseilles Company. (See Brown, Theophilus, assignor.)
Marsellis, Ford, Berkeley, Cal. Drawbridge circuit-controller. No. 1,139,047; May 11; Gaz. vol. 214; p. 506.
Marsh, Edwin T., Bergen, N. Y. Animal-trap. No. 1,138,132; May 4; Gaz. vol. 214; p. 146.
Marsh, Hugh M., Chicago, Ill. Broom. No. 1,138,803; May 4; Gaz. vol. 214; p. 203.
Marshall, Stephen M., Clinton, Mass. Quick release for wringer-rolls. No. 1,138,770; May 11; Gaz. vol. 214; p. 406.
Marshall, Wm. A., *et al.* (See Wills, William, assignor.)
Marston, John. (See Duncan, Charles G., assignor.)
Marth, Charles J., assignor to Wayne Manufacturing Company, St. Louis, Mo. Gearing. No. 1,139,695; May 18; Gaz. vol. 214; p. 768.
Martin, Albert J., Dayton, Ohio. Window and veranda box. No. 1,139,883; May 18; Gaz. vol. 214; p. 834.
Martin, Albert W., Worcester, Mass., assignor to Woods-Sherwood Company, Joint. No. 1,138,496; May 4; Gaz. vol. 214; p. 272.
Martin, Carl, New York, N. Y. Ash-sifter. No. 1,138,670; May 11; Gaz. vol. 214; p. 373.
Martin, Edward. (See Kleman, Henry, assignor.)
Martin, Emanuel A., New York, N. Y. Pneumatic suction-cleaner. No. 1,140,992; May 25; Gaz. vol. 214; p. 1258.
Martin, George C., Los Angeles, Cal. Shock-absorber. No. 1,137,997; May 4; Gaz. vol. 214; p. 96.
Martin, Talbot G., *et al.* (See Obergfell, Herbert F., assignor.)
Martin, Thelesthare, Lawrence, assignor to Draper Company, Hopedale, Mass. Filling-replenishing loom. No. 1,140,520; May 25; Gaz. vol. 214; p. 1095.
Martin, Theodore L., Muncie, Ind. Coin-carrier. No. 1,138,133; May 4; Gaz. vol. 214; p. 146.
Martin, William J., Cleveland, Ohio. Quoit. No. 1,138,234; May 4; Gaz. vol. 214; p. 179.
Martine, James E. (See Pearne, Frank D., assignor.)
Martzolf, Antoine, New York, N. Y. Revolving dining-room floor. No. 1,140,176; May 18; Gaz. vol. 214; p. 938.
Marui, Hyokichi, New York, N. Y. Hand-attachable blotter. No. 1,140,696; May 25; Gaz. vol. 214; p. 1153.
Marzynski, Samuel, Boston, Mass. Sheet-metal can. No. 1,137,879; May 4; Gaz. vol. 214; p. 54.
Masak, Jerry, Detroit, Mich. Anchor. No. 1,139,202; May 11; Gaz. vol. 214; p. 560.
Mason, Charles T., Sumter, S. C., assignor to Sumter Electrical Company. Ignition-dynamo. No. 1,140,386; May 25; Gaz. vol. 214; p. 1045.
Mason, Charles T., Sumter, S. C., assignor to Sumter Electrical Company. Ignition-dynamo. No. 1,140,993; May 25; Gaz. vol. 214; p. 1259.
Mast, Louis L., West Milton, Ohio. Coupling for sectional rods. No. 1,140,052; May 18; Gaz. vol. 214; p. 895.
Matheus, Karl, Chicago, Ill. Flue cleaning and straightening machine. No. 1,140,387; May 25; Gaz. vol. 214; p. 1045.
Mathews, Charles, Cambridge, Ohio. Support. No. 1,139,204; May 11; Gaz. vol. 214; p. 560.
Mathews Gravity Carrier Company. (See Buck, Herman J., assignor.)
Matthews, Joseph, E. W. Freeman, and W. H. S. Bateman, Philadelphia, Pa. Multiple-sash-operating device. No. 1,139,205; May 11; Gaz. vol. 214; p. 561.
Matthews Manufacturing Company. (See Morton, Fred S., assignor.)
Matthews, Wayne, Oakland, Cal. Fountain-brush. No. 1,138,772; May 11; Gaz. vol. 214; p. 407.
Mattison, Charley E., Sibley, La. Locomotive-pilot attachment. No. 1,137,880; May 4; Gaz. vol. 214; p. 54.
Maxwell, Erastus M. and J. F., Cardinal, Va. Gas turbine-engine. No. 1,139,696; May 18; Gaz. vol. 214; p. 768.
Maxwell, George S., Newark, N. J., assignor to The Taximeter Register Company, Washington, D. C. Recording-taximeter. No. 1,138,680; May 11; Gaz. vol. 214; p. 373.
Maxwell, James F. (See Maxwell, Erastus M. and J. F.)
Maxwell Motor Company. (See Kelly, William, assignor.)
Mayer, William E. (See Egan and Mayer.)
Maynard, Joseph A., assignor of one-third to L. Paltenghi and one-third to O. Brook, Ravena, N. Y. Watering-trough. No. 1,139,132; May 11; Gaz. vol. 214; p. 535.
Mayolino, Luis, Habana, Cuba. Wave-motor. No. 1,140,521; May 25; Gaz. vol. 214; p. 1095.
Mazza, Edoardo, Turin, Italy. Process and device for separation of the elements composing a gaseous mixture by means of centrifugal action. No. 1,137,774; May 4; Gaz. vol. 214; p. 18.

McAllister, John E. (See Ohmer and McAllister.)
McAlpin, Oscar W., Roseville, Cal. Hinge. No. 1,140,604; May 25; Gaz. vol. 214; p. 1123.
McBerty, Frank R., New Rochelle, assignor to Western Electric Company, New York, N. Y. Trunking system for telephone-exchanges. No. 1,138,879; May 11; Gaz. vol. 214; p. 445.
McCadden, George, St. Cloud, Minn. Packing. No. 1,139,306; May 11; Gaz. vol. 214; p. 593.
McCahey, George F., assignor to New England Butt Company, Providence, R. I. Carrier for braiding-machines. No. 1,138,231; May 4; Gaz. vol. 214; p. 177.
McCall, Jacob C., Rotan, Tex. Valve for pneumatic tires. No. 1,137,768; May 4; Gaz. vol. 214; p. 16.
McCarthy, Edward F., and E. W. Wilson, Chicago, Ill. Candy-pulling machine. No. 1,139,786; May 18; Gaz. vol. 214; p. 799.
McCarthy, William H., Melrose, Minn. Hand-truck. No. 1,137,993; May 4; Gaz. vol. 214; p. 94.
McCaskell, Jasper A., Salt Lake City, Utah. Leaching ores. No. 1,137,874; May 4; Gaz. vol. 214; p. 53.
McCaskey Register Company, The. (See Hick, Harry J., assignor.)
McCauley, Nellie M., Kalispell, Mont. Sprayer. No. 1,140,177; May 18; Gaz. vol. 214; p. 939.
McCawley, Alfred L., Jefferson City, and W. W. Phillips, St. Louis, assignors to F. W. Buffum, Louisiana, Mo. Stencil-card-feeding attachment for type-writers. No. 1,140,518; May 25; Gaz. vol. 214; p. 1094.
McClellan, Benjamin S., Chicago, Ill. Metal window-sash. No. 1,139,787; May 18; Gaz. vol. 214; p. 800.
McClure, Robert T., Grandview, W. Va. Nut-lock. No. 1,140,272; May 18; Gaz. vol. 214; p. 970.
McClure, Royal A., Seattle, Wash. Switching device. No. 1,138,880; May 11; Gaz. vol. 214; p. 446.
McCool, Edward F. (See Millar, James D., assignor.)
McCool, Edward F., Victor, Colo. Ore-grinder. No. 1,138,966; May 11; Gaz. vol. 214; p. 475.
McCormack, Angus G., Port Arthur, Ontario, Canada. Auxiliary operating attachment for drills. No. 1,138,767; May 11; Gaz. vol. 214; p. 405.
McCoy, Benjamin F., St. Louis, Mo. Metallic shoe-counter. (Reissue.) No. 13,912; May 4; Gaz. vol. 214; p. 813.
McCoy, Otis E., Baltimore, Md. Switch. No. 1,137,875; May 4; Gaz. vol. 214; p. 53.
McCoy, Robert J., assignor of one-half to W. M. Cravens, Fort Smith, Ark. Intermittent-grip device for hoisting mechanism. No. 1,140,519; May 25; Gaz. vol. 214; p. 1094.
McCracken, Melvin J., Kent, Ohio. Compression-mold for boneless ham. No. 1,139,550; May 18; Gaz. vol. 214; p. 716.
McCulla, William B., assignor to Packard Motor Car Company, Detroit, Mich. Muffler. No. 1,140,693; May 25; Gaz. vol. 214; p. 1152.
McCullough, Benjamin F., Teague, Tex. Tire-bolting machine. No. 1,138,130; May 4; Gaz. vol. 214; p. 145.
McCune, John T., Decatur, Miss. Hay-press. No. 1,139,046; May 11; Gaz. vol. 214; p. 505.
McDade, Edward J., and F. F. Dorsey, assignors to Pritchard-Stamping Company, Rochester, N. Y. Lantern. No. 1,139,788; May 18; Gaz. vol. 214; p. 800.
McDaniel, Alex S., assignor to Corliss Carbon Company, Bradford, Pa. Electrical connection or pigtail. No. 1,141,069; May 25; Gaz. vol. 214; p. 1283.
McDermott, Francis J., New Haven, assignor to Birdsey, Somers Company, Bridgeport, Conn. Reinforced corset. No. 1,140,691; May 25; Gaz. vol. 214; p. 1152.
McDermott, Henry, assignor to McDermott Mechanical Company, Iron Mountain, Mich. Excavating-machine. No. 1,139,690; May 18; Gaz. vol. 214; p. 766.
McDermott Mechanical Company. (See McDermott, Henry, assignor.)
McDevitt, James W., assignor to E. C. Wright, Brockton, Mass. Last. No. 1,140,335; May 18; Gaz. vol. 214; p. 992.
McDougal, Boyden K., Lincoln, Nebr. Spark-plug attachment. No. 1,137,992; May 4; Gaz. vol. 214; p. 94.
McDougall, Alexander M., Duluth, Minn. Preserving and marketing fresh fish. No. 1,140,178; May 18; Gaz. vol. 214; p. 939.
McDougall, Neil, Minot, N. D. Truck. No. 1,140,470; May 25; Gaz. vol. 214; p. 1076.
McElroy, George T., Maben, W. Va. Implement for bending or straightening rails. No. 1,139,878; May 18; Gaz. vol. 214; p. 833.
McEnerney, William, New York, N. Y. Adjustable speed mechanism. No. 1,137,769; May 4; Gaz. vol. 214; p. 16.
McEntire Brothers. (See Brouyette and McEntire, assignors.)
McEntire, George P. (See Brouyette and McEntire.)
McFarland, Albert C., Chicago, Ill. Pocket key-case. No. 1,138,768; May 11; Gaz. vol. 214; p. 405.
McFarland, William T., Chicago, Ill. Combined depurator and surgical instrument. No. 1,138,881; May 11; Gaz. vol. 214; p. 446.
McFarlane Manufacturing Company. (See Goodrich, Claude M., assignor.)
McFeaters, George H., Johnstown, Pa. Engine-stop. No. 1,140,694; May 25; Gaz. vol. 214; p. 1152.
McFell, Judson, Chicago, Ill. Signal-transmission means. No. 1,140,471; May 25; Gaz. vol. 214; p. 1077.
McGann, Owen J., Fox township, Carroll county, Ohio. Shoe-cleaning device. No. 1,138,232; May 4; Gaz. vol. 214; p. 178.
McGovern, Hugh H., Oak Grove, Oreg. Ore-separator. No. 1,139,206; May 11; Gaz. vol. 214; p. 561.
McGuire, Joseph T., Newcastle-upon-Tyne, England. Pneumatic-tire gaiter. No. 1,137,876; May 4; Gaz. vol. 214; p. 53.
McHose, Edwin B., Aaronsburg, Pa. Shipping-case. No. 1,139,207; May 11; Gaz. vol. 214; p. 561.
McIlroy, David S., and W. Gibb, Calgary, Alberta, Canada. Flush-tank. No. 1,140,053; May 18; Gaz. vol. 214; p. 895.
McJunkin, Ulysses G., Ignacio, Colo. Nail holder and carrier. No. 1,139,879; May 18; Gaz. vol. 214; p. 833.
McKay, Augusta P., Rome, Ga. Reversible-disk plow. No. 1,137,770; May 4; Gaz. vol. 214; p. 17.
McKee, Thomas J. (See Haverstick and McKee.)
McKeown, William C., Buffalo, N. Y. Intensifier for hot-water heating systems. No. 1,130,130; May 11; Gaz. vol. 214; p. 535.
McKeown, William C., assignor to United States Incinerator Company, Buffalo, N. Y. Incinerator. No. 1,140,472; May 25; Gaz. vol. 214; p. 1077.
McKillip, Frank L., assignor to The Up-To-Date Machine Company, Green Bay, Wis. Grinding-disk. No. 1,137,994; May 4; Gaz. vol. 214; p. 95.
McLaren, William A., Pasadena, Cal. Hose-standard. No. 1,137,995; May 4; Gaz. vol. 214; p. 95.
McLaughlin, John C., Jersey City, N. J., assignor to Underwood Typewriter Company, New York, N. Y. Type-writing machine. No. 1,140,273; May 18; Gaz. vol. 214; p. 970.
McLaughlin, John C., Jersey City, N. J., assignor to Underwood Typewriter Company, New York, N. Y. Type-writing machine. No. 1,140,274; May 18; Gaz. vol. 214; p. 970.
McLoney, Dewitt T., Florence, Colo. Ankle-brace for skates. No. 1,140,473; May 25; Gaz. vol. 214; p. 1078.
McMillan, Archibald S., and J. F. Curdie, St. Louis, Mo. Shipping-shoe for automobile-wheels and the like. No. 1,139,988; May 18; Gaz. vol. 214; p. 871.
McMonies, Frederick J., J. J. and L. H. Hamley, Pendleton, Oreg. Metal cinch rigging-ring. No. 1,140,179; May 18; Gaz. vol. 214; p. 939.
McMurray, John H., Schenectady, assignor of one-half to J. T. Gorman, Cohoes, N. Y. Gas-cock. No. 1,139,208; May 11; Gaz. vol. 214; p. 562.
McNair, Henry H., St. Paul, Minn. Card game. No. 1,138,678; May 11; Gaz. vol. 214; p. 373.
McNeil, Chester, assignor to Union Special Machine Company, Chicago, Ill. Presser-foot for sewing-machines. No. 1,140,753; May 25; Gaz. vol. 214; p. 1173.
McPhail, George D., Boston, Mass. Lamp. No. 1,139,691; May 18; Gaz. vol. 214; p. 766.
McRae, Finlay A., Montreal, Quebec, Canada. Railway appliance. No. 1,139,551; May 18; Gaz. vol. 214; p. 717.
McRaven, John, Little Rock, Ark. Type-writer. No. 1,139,880; May 18; Gaz. vol. 214; p. 833.
McSheehy, Bartholomew E. (See Africa and McSheehy.)
Mead, George A., and W. H. Kempton, assignors to The Ohio Brass Company, Mansfield, Ohio. Steady-brace for trolley-lines. No. 1,138,773; May 11; Gaz. vol. 214; p. 407.
Mecartea, Francis M., San Juan Bautista, assignor of one-fourth to M. L. Lawrence, Los Gatos, Cal. Violin. No. 1,140,697; May 25; Gaz. vol. 214; p. 1153.
Mecking, Herman, New York, N. Y. Ash-cart. No. 1,139,307; May 11; Gaz. vol. 214; p. 593.
Megosin Company. (See Menden, William S., assignor.)
Mehle, Frank E., *et al.* (See Varner, Edward, assignor.)
Meier, Albert J., Glendale, Mo. Purse. No. 1,138,882; May 11; Gaz. vol. 214; p. 447.
Meilicke, Carl A., Chicago, Ill. Calculator. No. 1,140,838; May 25; Gaz. vol. 214; p. 1202.
Mellady, Frank J., New York, N. Y. Gas-range attachment. No. 1,140,994; May 25; Gaz. vol. 214; p. 1259.
Mellen, Grenville, East Orange, N. J., assignor to Continuous Casting Corporation, Richmond, Va. Apparatus for making rods and tubes from plastic metal. No. 1,139,884; May 18; Gaz. vol. 214; p. 834.
Mellen, Grenville, East Orange, N. J., assignor to Continuous Casting Corporation, Richmond, Va. Method of and apparatus for continuous casting. No. 1,139,885; May 18; Gaz. vol. 214; p. 835.
Mellen, Grenville, East Orange, N. J., assignor to Continuous Casting Corporation, Richmond, Va. Casting-pot. No. 1,139,886; May 18; Gaz. vol. 214; p. 835.
Mellen, Grenville, West Orange, assignor to Continuous Casting Corporation, Newark, N. J. Continuous casting-machine. No. 1,139,887; May 18; Gaz. vol. 214; p. 836.
Mellen, Grenville, West Orange, assignor to Continuous Casting Corporation, Newark, N. J. Automatic metal-feed for continuous casting-machines. No. 1,139,888; May 18; Gaz. vol. 214; p. 836.
Mellen, Grenville, West Orange, assignor to Continuous Casting Corporation, Newark, N. J. Guide for continuous casting-machines. No. 1,139,889; May 18; Gaz. vol. 214; p. 836.

Mellin, Carl J., Schenectady, assignor to American Locomotive Company, New York, N. Y. Steam-engine valve-reversing gear. No. 1,140,328; May 18; Gaz. vol. 214; p. 989.
Mellinger, Edward A., Chicago, Ill. Telephone signaling system. No. 1,140,829; May 18; Gaz. vol. 214; p. 990.
Melmore, William M., London, England. Air-compressor. No. 1,139,991; May 18; Gaz. vol. 214; p. 872.
Melvin, Charles H., Moline, Ill., assignor to Deere & Company. Plow. No. 1,137,881; May 4; Gaz. vol. 214; p. 55.
Melvin, Wilfred J., and H. J. Burbridge, Bathurst, New Brunswick, Canada. Railway safety device. No. 1,138,883; May 11; Gaz. vol. 214; p. 447.
Menden, William S., Brooklyn, N. Y., assignor to Megosin Company, Inc. Speed-control device for vehicles. No. 1,137,882; May 4; Gaz. vol. 214; p. 55.
Menden, William S., Brooklyn, N. Y., assignor to Megosin Company, Inc. Motor-control device. No. 1,138,497; May 4; Gaz. vol. 214; p. 272.
Mentzell, William V. (See Coyne, Edmund M., assignor.)
Mergenthaler Linotype Company. (See Dodge, Philip T., assignor.)
Mergenthaler Linotype Company. (See Kennedy, David S., assignor.)
Mergenthaler Linotype Company. (See Muehleisen, Carl, assignor.)
Mergenthaler Linotype Company. (See Rogers, John R., assignor.)
Merlin, Sidney L. W., Paris, France, assignor, by mesne assignments, to Underwood Typewriter Company, New York, N. Y. Type-writing machine. No. 1,140,330; May 18; Gaz. vol. 214; p. 990.
Merriett, Alva S., Los Angeles, Cal. Apparatus for forming concrete structures. No. 1,137,998; May 4; Gaz. vol. 214; p. 96.
Merrigan, James F., Boston, Mass. Glass-washer. No. 1,140,698; May 25; Gaz. vol. 214; p. 1154.
Merrill, Alfred H., Adrian, Mich. Gas-burner. No. 1,139,698; May 18; Gaz. vol. 214; p. 770.
Merrill, John F., assignor to H. T. Trunkey, Wenatchee, Wash. Orchard-ladder. No. 1,139,990; May 18; Gaz. vol. 214; p. 872.
Merritt, Irving D., assignor to Sargent & Company, New Haven, Conn. Lock. No. 1,137,775; May 4; Gaz. vol. 214; p. 18.
Mertshelmer, Augustus, Salt Lake City, Utah. Automatic lubricator. No. 1,139,697; May 18; Gaz. vol. 214; p. 769.
Mesker & Bro. (See Mesker and Benc, assignors.)
Mesker Brothers Iron Company. (See Dowling and Schroeder, assignors.)
Mesker, Frank, and J. Benc, assignors to Mesker & Bro., St. Louis, Mo. Window. No. 1,139,808; May 11; Gaz. vol. 214; p. 594.
Messer, Adolf, Frankfort-on-the-Main, Germany. Apparatus for cutting metal. No. 1,138,048; May 11; Gaz. vol. 214; p. 506.
Messerli, John J., assignor of one-half to F. H. Eickhoff, Kingsville, Tex. Air-pump. No. 1,140,699; May 25; Gaz. vol. 214; p. 1154.
Messick, Charles. (See Henschel and Messick.)
Metals Research Company. (See Bacon, Raymond F., assignor.)
Metcalfe, Robert F., Erie, Pa. Water-heater. No. 1,140,910; May 25; Gaz. vol. 214; p. 1229.
Mettler, Casper, New Haven, Conn., assignor to B. A. Ball, Boston, Mass. Bread-wrapping machine. No. 1,140,522; May 25; Gaz. vol. 214; p. 1095.
Metz, Friedrich R., and E. Hornstein, Mödling, near Vienna, assignor to Firm of Aktiengesellschaft für patentierte Korksteinfabrikation und Korkstein-Bauten vormals Kleiner & Bokmayer, Vienna, Austria-Hungary. Mold for forming blocks of cork. No. 1,139,699; May 18; Gaz. vol. 214; p. 770.
Metzeler, Theodore, New York, N. Y. Talking-machine. No. 1,137,883; May 4; Gaz. vol. 214; p. 56.
Metzger, George J., Rochester, N. Y. Ear and finger-nail cleaner. No. 1,138,967; May 11; Gaz. vol. 214; p. 476.
Metzroth, William, assignor, by mesne assignments, to The Noiseless Typewriter Company, Middletown, Conn. Type-writing machine. No. 1,139,890; May 18; Gaz. vol. 214; p. 837.
Meyer, Daniel, Morris, Minn. Machine for harvesting and reducing corn or other growth to silage. No. 1,138,304; May 4; Gaz. vol. 214; p. 204.
Meyer, Gustave H., *et al.* (See MacRae, John G., assignor.)
Meyer, Henry T. C., Detroit, Mich. Chain-engaging tool. No. 1,140,757; May 25; Gaz. vol. 214; p. 1174.
Meyers, Jacob E., assignor of one-third to E. Bowman, one-sixth to W. Townsend, and one-sixth to C. B. Townsend, Remington, Ind. Rail-joint. No. 1,139,049; May 11; Gaz. vol. 214; p. 506.
Messatesta, Gaspar, New York, N. Y. Aeroplane-balance. No. 1,140,180; May 18; Gaz. vol. 214; p. 940.
Michael, Max, assignor to Schubert & Salzer Maschinenfabrik, Aktiengesellschaft, Chemnitz, Germany. Straight hosiery-frame. No. 1,138,891; May 4; Gaz. vol. 214; p. 287.
Michaelis, Joseph, New York, N. Y. Combination-garment. No. 1,138,681; May 11; Gaz. vol. 214; p. 374.
Michaelsen, Charles O., Omaha, Nebr. Rotary classifier. No. 1,140,700; May 25; Gaz. vol. 214; p. 1154.
Michener, John H., Jr., New York, N. Y. Distributing mechanism. No. 1,139,133; May 11; Gaz. vol. 214; p. 536.
Michigan Stove Company. (See Keep, William J., assignor.)
Middleton, John H. (See Jennings, Marvin B., assignor.)
Miehle Printing Press & Manufacturing Company, The. (See Dudley, Edward F., assignor.)
Milcoff, Joseph E., Leetsdale, Pa. Wrench. No. 1,140,276; May 18; Gaz. vol. 214; p. 971.
Millar, James D., Milwaukee, Wis., assignor to E. F. McCool, Victor, Colo. Crushing-mill. No. 1,139,790; May 18; Gaz. vol. 214; p. 801.
Miller, Carl E. M., New York, N. Y. Lifting-truck. No. 1,139,891; May 18; Gaz. vol. 214; p. 837.
Miller, Carl G., Mount Clemens, Mich. Strainer. No. 1,140,758; May 25; Gaz. vol. 214; p. 1174.
Miller, Charles A., Marianna, Fla. Revolving map and table-top. No. 1,141,070; May 25; Gaz. vol. 214; p. 1283.
Miller, Charles E., Chicago, Ill., assignor, by mesne assignments, to American Arch Company, New York, N. Y. Fire-arch. No. 1,138,043; May 4; Gaz. vol. 214; p. 112.
Miller, Charles E., Chicago, Ill., assignor, by mesne assignments, to American Arch Company, New York, N. Y. Locomotive-furnace arch. No. 1,138,044; May 4; Gaz. vol. 214; p. 112.
Miller, Charles E., Chicago, Ill., assignor, by mesne assignments, to American Arch Company, New York, N. Y. Locomotive-furnace arch. No. 1,138,053; May 4; Gaz. vol. 214; p. 116.
Miller, Charles G. (See Ludwick, William F., assignor.)
Miller, Clarence D., and P. D., and J. O. Gadberry, Carthage, Mo. Spring-bed construction. No. 1,139,050; May 11; Gaz. vol. 214; p. 506.
Miller Clarence D. and P. D. and J. O. Gadberry, Carthage, Mo. Resilient bed. No. 1,139,892; May 18; Gaz. vol. 214; p. 837.
Miller, Clinton D., Washington, D. C. Engine-hood cover. (Reissue.) No. 13,916; May 11; Gaz. vol. 214; p. 854.
Miller, Edwin S., Buffalo, N. Y. Wrench. No. 1,137,884; May 4; Gaz. vol. 214; p. 56.
Miller, George, Buffalo, N. Y. Window. No. 1,138,392; May 4; Gaz. vol. 214; p. 237.
Miller, Guyon, assignor to Downingtown Manufacturing Company, Downingtown, Pa. Roll for beating-engines. No. 1,138,393; May 4; Gaz. vol. 214; p. 237.
Miller, Henry W., Brooklyn, N. Y. Strainer. No. 1,139,992; May 18; Gaz. vol. 214; p. 872.
Miller, James S. (See Miller, Walter, assignor.)
Miller, John A., East St. Louis, Ill. Calipers. No. 1,137,885; May 4; Gaz. vol. 214; p. 56.
Miller, John D., assignor of one-half to L. Feuerstein, Sr., Norfolk, Va. Damp-proofing salt. No. 1,140,995; May 25; Gaz. vol. 214; p. 1260.
Miller, John J. A., Denver, Colo. Non-refillable bottle. No. 1,138,682; May 11; Gaz. vol. 214; p. 374.
Miller Lock Co. (See Boley, Frank, assignor.)
Miller Lock Company. (See Smith, Robert R., assignor.)
Miller, Marie, New York, N. Y. Broom-cover. No. 1,138,305; May 4; Gaz. vol. 214; p. 204.
Miller, Perry D. (See Miller and Gadberry.)
Miller, St. John, Pioneer, Ohio. Feeder for tile-machines. No. 1,137,776; May 4; Gaz. vol. 214; p. 19.
Miller, Thomas H., R., assignor to Myrophone Company, Inc., New York, N. Y. Sanitary telephone attachment. No. 1,140,996; May 25; Gaz. vol. 214; p. 1260.
Miller, Walter, Beaver Falls, assignor of one-half to J. S. Miller, Beaver, Pa. Tooth-brush holder. No. 1,139,134; May 11; Gaz. vol. 214; p. 536.
Miller, William L., assignor to Gisholt Machine Company, Madison, Wis. Automatic brake for lathes. No. 1,139,555; May 18; Gaz. vol. 214; p. 718.
Milliken, Walter L. (See Shiek, Daniel W., assignor.)
Mills, Henry D., Far Rockaway, N. Y. Wheel. No. 1,139,209; May 11; Gaz. vol. 214; p. 562.
Mills, Herbert S., Chicago, Ill. Coin-operated weighing-scale. No. 1,139,998; May 18; Gaz. vol. 214; p. 873.
Mills, William S., Bridgeport, Conn. Fabric-folding machine. No. 1,140,388; May 25; Gaz. vol. 214; p. 1046.
Mills Woven Cartridge Belt Company. (See Jennings, Victor H., assignor.)
Milne, Isaac B. (See Hadfield, Jack, and Milne.)
Milwaukee-Reliance Boiler Works. (See Forsyth, Adelbert, assignor.)
Minehart, Katherine V., Philadelphia, Pa. Combined hand-bag and seat. No. 1,140,997; May 25; Gaz. vol. 214; p. 1260.
Miner, Frank A., Windsor, Ontario, Canada, assignor of one-third to J. Green and one-third to R. J. Brace, Pontiac, Mich. Method and apparatus for attaching buttons to fabrics. No. 1,140,474; May 25; Gaz. vol. 214; p. 1078.
Miner, William H. (See Copony, Alfred, assignor.)
Miner, William H. (See Geiger, William A., assignor.)
Miner, William H. (See Johnson, George A., assignor.)
Miner, William H. (See Lewis, Goodrich Q., assignor.)
Miner, William H. (See Mitchell, John R., assignor.)
Miner, William H. (See O'Connor, John F., assignor.)
Miner, William H. (See Patch, Calvin B., assignor.)
Miner, William H., Chicago, Ill. Machine for testing and registering the action of draft-rigging. No. 1,137,999; May 4; Gaz. vol. 214; p. 96.

Miner, William H., Chicago, Ill. Railway draft-rigging. No. 1,138,000; May 4; Gaz. vol. 214; p. 97.
Miner, William H., Chicago, Ill. Draft-rigging for railway-cars. No. 1,139,791; May 18; Gaz. vol. 214; p. 801.
Mineralac Electric Company. (See Myrick, George H., assignor.)
Minich, Verne E., New York, N. Y., assignor to Sand Mixing Machine Company, Greenfield, Ohio. Apparatus for cutting and mixing sand. No. 1,139,362; May 11; Gaz. vol. 214; p. 613.
Minue, William E., Fredericton, New Brunswick, Canada. Connecting-rod bearing for rotating cylinder-engines. No. 1,138,001; May 4; Gaz. vol. 214; p. 97.
Mirande, Abraham B. J. R., Saverdun, France. Apron for harvesting-machines. No. 1,138,235; May 4; Gaz. vol. 214; p. 179.
Mirco Fuel-Oil Equipment Company. (See Beach, George F., assignor.)
Missong, Jacob H., Frankfort-on-the-Main, Germany. Controlling means for steam-engines for the utilization of waste heat. No. 1,138,774; May 11; Gaz. vol. 214; p. 407.
Mitchell, Andrew F., Homestead, Pa. Protecting-hood for thermo-couples. No. 1,140,701; May 25; Gaz. vol. 214; p. 1154.
Mitchell, George W., New York, assignor to L. M. Rosenthal, Mount Vernon, N. Y. Bottle-cap. No. 1,139,792; May 18; Gaz. vol. 214; p. 802.
Mitchell, John R., assignor to W. H. Miner, Chicago, Ill. Railway draft-rigging. No. 1,140,523; May 25; Gaz. vol. 214; p. 1096.
Mitchell, Mary P., Eaton, Ohio. Electric engine-starter. No. 1,139,210; May 11; Gaz. vol. 214; p. 562.
Mitchell, Willis, Malden, Mass., assignor to Willis Mitchell Company, Inc., New York, N. Y. Steam-generator. No. 1,139,430; May 11; Gaz. vol. 214; p. 639.
Mitchell, Willis, Malden, Mass., assignor to Willis Mitchell Company, Inc., New York, N. Y. Steam-generator. No. 1,139,431; May 11; Gaz. vol. 214; p. 639.
Mitchell, Willis, Malden, Mass., assignor to Willis Mitchell Company, Inc., New York, N. Y. Steam-generator. No. 1,141,071; May 25; Gaz. vol. 214; p. 1283.
Mitchell, Willis, Malden, Mass., assignor to Willis Mitchell Company, Inc., New York, N. Y. Gas-generator. No. 1,141,072; May 25; Gaz. vol. 214; p. 1284.
Mitten, Philip J., Oakwood Village, assignor to The Recording and Computing Machines Company, Dayton, Ohio. Seal. No. 1,139,556; May 18; Gaz. vol. 214; p. 718.
Moberg, Carl G., Chicago, Ill. Music-holder. No. 1,140,277; May 18; Gaz. vol. 214; p. 971.
Moeschl-Edwards Corrugating Company, The. (See Edwards, Christopher B., assignor.)
Moffatt, James R., assignor to Union Special Machine Company, Chicago, Ill. Feeding mechanism for multiple-needle machines. No. 1,139,051; May 11; Gaz. vol. 214; p. 507.
Moffatt, James R., assignor to Union Special Machine Company, Chicago, Ill. Device for controlling the upper threads on sewing-machines. No. 1,139,703; May 18; Gaz. vol. 214; p. 802.
Mohl, Emanuel N. (See Mark and Mohl.)
Mohler, Jacob K., Ephrata, Pa. Stove. No. 1,139,211; May 11; Gaz. vol. 214; p. 563.
Moline Automobile Co. (See Gruenewald, Eugene, assignor.)
Mollenbruck, Franz M. E. von, Linz-on-the-Danube, Austria-Hungary. Artificial-stone slab, plate, and the like. No. 1,139,934; May 18; Gaz. vol. 214; p. 852.
Molnar, Anton, South Bend, Ind. Toy wheelbarrow. No. 1,139,432; May 11; Gaz. vol. 214; p. 639.
Monarch Typewriter Company, The. (See Steele, Herbert H., assignor.)
Monasch, Gustav. (See Olm, Oscar J., assignor.)
Monchamp, Raoul J. B., Manchester, N. H. Attachment for edge-setting machines. No. 1,138,884; May 11; Gaz. vol. 214; p. 447.
Monro, Arthur R., Berkeley, Cal. Automatically-variable gearing. No. 1,139,433; May 11; Gaz. vol. 214; p. 640.
Monroe, Philip E., Weymouth, Mass. Water-closet for yachts and other small boats. No. 1,139,700; May 18; Gaz. vol. 214; p. 770.
Monsees, Starr V., Smithton, Mo. Headlight. No. 1,140,998; May 25; Gaz. vol. 214; p 1260.
Montag, Christoph F., assignor to Blue Island Specialty Company, Blue Island, Ill. Orthodontia appliance. No. 1,140,759; May 25; Gaz. vol. 214; p. 1174.
Montague Mailing Machinery Co. (See Lee, Ulysses G., assignor.)
Montague Mailing Machinery Company. (See Fergusson, Alan R., assignor.)
Montgomery, Charles R. (See Bean, Jesse A., assignor.)
Montgomery, James R., Frankfort, Kans. Coal-cleaner. No. 1,140,999; May 25; Gaz. vol. 214; p. 1261.
Moon, Charles L., and I. Bell, Joplin, Mo. Tape-moistening machine. No. 1,139,557; May 18; Gaz. vol. 214; p. 718.
Moore, Charles B., Evanston, Ill., assignor, by mesne assignments, to American Arch Company, New York, N. Y. Locomotive-boiler furnace. No. 1,138,032; May 4; Gaz. vol. 214; p. 108.
Moore, Charles B., Evanston, Ill., assignor, by mesne assignments, to American Arch Company, New York, N. Y. Locomotive-boiler furnace. No. 1,138,034; May 4; Gaz. vol. 214; p. 108.
Moore, Charles B., Evanston, Ill., assignor, by mesne assignments, to American Arch Company, New York, N. Y. Locomotive-boiler furnace. No. 1,138,035; May 4; Gaz. vol. 214; p. 109.
Moore, Charles B., Evanston, Ill., assignor, by mesne assignments, to American Arch Company, New York, N. Y. Locomotive-furnace. No. 1,138,037; May 4; Gaz. vol. 214; p. 110.
Moore, Charles B., Evanston, Ill., assignor, by mesne assignments, to American Arch Company, New York, N. Y. Locomotive-boiler furnace. No. 1,138,038; May 4; Gaz. vol. 214; p. 110.
Moore, Charles B., Evanston, Ill., assignor, by mesne assignments, to American Arch Company, New York, N. Y. Locomotive-boiler furnace. No. 1,138,039; May 4; Gaz. vol. 214; p. 110.
Moore, Charles B., Evanston, Ill., assignor, by mesne assignments, to American Arch Company, New York, N. Y. Locomotive-boiler furnace. No. 1,138,040; May 4; Gaz. vol. 214; p. 111.
Moore, Charles B., Evanston, Ill., assignor, by mesne assignments, to American Arch Company, New York, N. Y. Locomotive-furnace arch. No. 1,138,041; May 4; Gaz. vol 214; p. 111.
Moore, Charles B., Evanston, Ill., assignor, by mesne assignments, to American Arch Company, New York, N. Y. Locomotive-boiler furnace. No. 1,138,042; May 4; Gaz. vol. 214; p. 111.
Moore, Charles B., Evanston, Ill., assignor, by mesne assignments, to American Arch Company, New York, N. Y. Locomotive-boiler furnace. No. 1,138,046; May 4; Gaz. vol. 214; p. 113.
Moore, Charles B., Evanston, Ill., assignor, by mesne assignments, to American Arch Company, New York, N. Y. Locomotive-boiler furnace. No. 1,138,047; May 4; Gaz. vol. 214; p. 113.
Moore, Charles B., Evanston, Ill., assignor, by mesne assignments, to American Arch Company, New York, N. Y. Locomotive-boiler furnace. No. 1,138,048; May 4; Gaz. vol. 214; p. 114.
Moore, Charles B., Evanston, Ill., assignor, by mesne assignments, to American Arch Company, New York, N. Y. Locomotive-boiler furnace. No. 1,138,049; May 4; Gaz. vol. 214; p. 114.
Moore, Charles B., Evanston, Ill., assignor, by mesne assignments, to American Arch Company, New York, N. Y. Locomotive-boiler furnace. No. 1,138,050; May 4; Gaz. vol. 214; p. 115.
Moore, Charles B., Evanston, Ill., assignor, by mesne assignments, to American Arch Company, New York, N. Y. Locomotive-boiler furnace. No. 1,138,051; May 4; Gaz. vol. 214; p. 115.
Moore, Charles B., Evanston, Ill., assignor, by mesne assignments, to American Arch Company, New York, N. Y. Locomotive-boiler furnace. No. 1,138,052; May 4; Gaz. vol. 214; p. 115.
Moore, Edward Y., Cleveland, Ohio. Mechanism for bending structural shapes. No. 1,139,434; May 11; Gaz. vol. 214; p. 640.
Moore, Everett W., Grand Rapids, Mich. Asparagus-cutter. No. 1,137,777; May 4; Gaz. vol. 214; p. 19.
Moore, Francis J., Minneapolis, Minn. Vent-pipe. No. 1,137,778; May 4; Gaz. vol. 214; p. 20.
Moore, Frank V., assignor, by mesne assignments, to Woman's World Magazine Company, Inc., Chicago, Ill. Elevator feed mechanism for mailing-machines. No. 1,140,839; May 25; Gaz. vol. 214; p. 1202.
Moore, George B., and A. J. Pratt, Springfield, Mass. Ball-cock. No. 1,140,054; May 18; Gaz. vol. 214; p. 895.
Moore, George E., Arnold, assignor to Pittsburg Plate Glass Company, Pittsburgh, Pa. Bait for drawing glass cylinders. No. 1,138,885; May 11; Gaz. vol. 214; p. 448.
Moore, Hugh K., Berlin, N. H. Recovering the soda content of waste liquor. No. 1,137,779; May 4; Gaz. vol. 214; p. 20.
Moore, Hugh K., Berlin, N. H. Method and means for treatment of waste liquors. No. 1,137,780; May 4; Gaz. vol. 214; p. 20.
Moore, John L., Alexandria, Minn. Folding grate. No. 1,138,498; May 4; Gaz. vol. 214; p. 272.
Moore, Joseph M., Unadilla, N. Y. Feed mixer and carrier. No. 1,141,000; May 25; Gaz. vol. 214; p. 1261.
Moore, Philip W., Evanston, assignor to The F. & M. Co., Chicago, Ill. Anticreeper. No. 1,140,345; May 18; Gaz. vol. 214; p. 996.
Moore, Ralph S., El Paso, Tex. Furnace. No. 1,139,553; May 18; Gaz. vol. 214; p. 719.
Moore, William D., Creston, Iowa. Mold for poured concrete bricks or blocks. No. 1,140,840; May 25; Gaz. vol. 214; p. 1203.
Moore, William G., assignor to The Aetna Foundry and Machine Company, Warren, Ohio. Apparatus for cleaning tin plates. No. 1,138,134; May 4; Gaz. vol. 214; p. 146.
Morck, Alfred A., and H. Goldblatt, New York, N. Y. Therapeutical bandage. No. 1,138,579; May 4; Gaz. vol. 214; p. 298.
More, Glenn, assignor to The Blackstone Manufacturing Company, Jamestown, N. Y. Operating-gearing for washing-machines. No. 1,139,893; May 18; Gaz. vol. 214; p. 837.
Morgan Construction Company. (See George, Jerome B., assignor.)

Morgan, Edmund C., Morgan Park, Ill. Cutting mechanism. No. 1,140,641; May 25; Gaz. vol. 214; p. 1203.
Morgan, Henry W., Rochester, N. Y. Nailing-machine. No. 1,140,605; May 25; Gaz. vol. 214; p. 1124.
Morgan, John T., Burlison, Tenn. Pot-holder. No. 1,139,212; May 11; Gaz. vol. 214; p. 563.
Morgan, Richard W., assignor of one-half to A. W. Vogel, Sunbury, Pa. Broom-bridle. No. 1,139,701; May 18; Gaz. vol. 214; p. 771.
Morgan, Thomas E. (See Beebout and Morgan.)
Morgan, William C. (See Wilson, Eugene W., assignor.)
Morgan, William H., Alliance, Ohio. Railway-track construction. (Reissue.) No. 13,917; May 11; Gaz. vol. 214; p. 654.
Moriarty, John F., and L. L. Kneeland, Lynn, Mass. Dirigible headlight. No. 1,140,389; May 25; Gaz. vol. 214; p. 1046.
Morris, Charles A., Montclair, N. J., assignor to The Hayward Company. Excavating-shovel. No. 1,139,559; May 18; Gaz. vol. 214; p. 719.
Morris, David Z. (See Morris, Herbert W. and E. M., assignors.)
Morris, Edward M. (See Morris, Herbert W. and E. M.)
Morris, Herbert W. and E. M., Buffalo, N. Y., assignors of one-third to D. Z. Morris, Ridgeville, Ontario, Canada. Glass-cutting machine. No. 1,139,054; May 11; Gaz. vol. 214; p. 503.
Morris, John M., London, England, assignor to The Carbic Corporation, Duluth, Minn. Blowpipe. No. 1,139,435; May 11; Gaz. vol. 214; p. 641.
Morris, John W., Kila, Mont. Locking device for saw-mill-dogs. No. 1,139,055; May 11; Gaz. vol. 214; p. 508.
Morris, Joseph C., Rock Creek, Ohio. Luting composition. No. 1,140,760; May 25; Gaz. vol. 214; p. 1175.
Morrison, William, Des Moines, Iowa. Negative-pole plate for alkaline storage batteries. No. 1,139,213; May 11; Gaz. vol. 214; p. 563.
Morrison, William, Des Moines, Iowa. Electrolyte for secondary batteries. No. 1,139,214; May 11; Gaz. vol. 214; p. 563.
Morse Chain Company. (See Morse, Frank L., assignor.)
Morse, Frank L., assignor to Morse Chain Company, Ithaca, N. Y. Multiplate drive-chain. No. 1,138,230; May 4; Gaz. vol. 214; p. 179.
Morse, Frank L., assignor to Morse Chain Company, Ithaca, N. Y. Multiplate power-chain. No. 1,138,237; May 4; Gaz. vol. 214; p. 179.
Morton, Fred S., assignor to Matthews Manufacturing Company, Worcester, Mass. Roller. No. 1,137,781; May 4; Gaz. vol. 214; p. 21.
Morton, Lawrence D., assignor to The Hinde & Dauch Paper Company, Sandusky, Ohio. Package-sealing machine. No. 1,138,238; May 4; Gaz. vol. 214; p. 180.
Moser, Samuel L., Upper Sandusky, Ohio. Ditching-machine. No. 1,138,002; May 4; Gaz. vol. 214; p. 97.
Moses, Edmund Q., New York, N. Y., assignor, by mesne assignments, to The B. F. Goodrich Company. Vehicle wheel-rim. No. 1,139,702; May 18; Gaz. vol. 214; p. 771.
Mosher, George W., Chicago, Ill. Automobile-mirror. No. 1,139,560; May 18; Gaz. vol. 214; p. 720.
Mosler, Moses, Cincinnati, and C. Bartels, Hamilton, Ohio, assignors to The Mosler Safe Company, New York, N. Y. Safe construction. No. 1,140,524; May 25; Gaz. vol. 214; p. 1096.
Mosler Safe Company, The. (See Mosler and Bartels, assignors.)
Moss, Louise G. (See Huff, William D., assignor.)
Moss, William T., assignor of one-half to F. Buckman, Denver, Colo. Dust-cloth holder. No. 1,139,561; May 18; Gaz. vol. 214; p. 720.
Mosteller, Dosier H., assignor to J. M. Berry and W. Tinsley, Chicago, Ill. Water-heater. No. 1,138,593; May 4; Gaz. vol. 214; p. 303.
Motsinger, Homer N., La Fayette, Ind. Proportioning device especially designed for carbureters. No. 1,140,525; May 25; Gaz. vol. 214; p. 1097.
Moulton, Fred H., Lexington, Mass. Extension-trestle. No. 1,140,390; May 25; Gaz. vol. 214; p. 1047.
Moulton, Ira C. (See Fraser, James S., assignor.)
Mount, Finley P., receiver. (See Jacobs, George S., assignor.)
Mowry, Joseph B., Cleveland, Ohio. Means for releasing a check-valve. No. 1,138,239; May 4; Gaz. vol. 214; p. 180.
Moxey, James A., Chicago, Ill., assignor to International Harvester Corporation. Fifth-wheel. No. 1,139,703; May 18; Gaz. vol. 214; p. 771.
Muehleisen, Carl, Berlin, Germany, assignor to Mergenthaler Linotype Company. Typographical machine. No. 1,138,003; May 4; Gaz. vol. 214; p. 98.
Muehleisen, Carl, Berlin, Germany, assignor to Mergenthaler Linotype Company. Typographical composing-machine. No. 1,138,135; May 4; Gaz. vol. 214; p. 146.
Muehleisen, Carl, Berlin, Germany, assignor to Mergenthaler Linotype Company. Distributing mechanism of typographical composing and casting machines. No. 1,139,704; May 18; Gaz. vol. 214; p. 772.
Mueller, Frank, Allentown, Pa., assignor to International Motor Company, Wilmington, Del. Hoisting-gearing for motor-trucks. No. 1,138,004; May 4; Gaz. vol. 214; p. 98.
Mueser, William, New York, N. Y. Reservoir and tank. No. 1,138,394; May 4; Gaz. vol. 214; p. 238.
Mulholland, Mathew, Cleveland, Ohio. Sheave-lubricating device. No. 1,140,475; May 25; Gaz. vol. 214; p. 1078.
Müller, Friederich, Elisabeth, assignor to Niles-Bement-Pond Company, Jersey City, N. J. Machine-tool. No. 1,139,794; May 18; Gaz. vol. 214; p. 802.
Mumma, Emanuel S., Rock Hill, Pa. Stove attachment for automobiles. No. 1,140,055; May 18; Gaz. vol. 214; p. 896.
Mundy, William W. (See Fisher, Ira S., assignor.)
Murch, Frank G., Methuen, Mass. Textile fabric. No. 1,139,705; May 18; Gaz. vol. 214; p. 772.
Murdy, Charles C. (See Webb and Murdy.)
Murnane, Daniel J., Glendale, Mo. Safety means for setting plate-glass. No. 1,138,499; May 4; Gaz. vol. 214; p. 272.
Murphy, Clinton C., Chicago, Ill. Metal car-roof. No. 1,140,842; May 25; Gaz. vol. 214; p. 1204.
Murphy, John E., Winnipeg, Manitoba, Canada. Mechanical stoker. No. 1,140,761; May 25; Gaz. vol. 214; p. 1175.
Murphy, Walter P., Chicago, Ill. Metal car-roof. No. 1,139,363; May 11; Gaz. vol. 214; p. 614.
Murray, Aristides R., Cincinnati, Ohio. Gear-cutting machine. No. 1,138,005; May 4; Gaz. vol. 214; p. 99.
Murray, Dudley E., Roanoke, Ind. Gas-distributing mechanism. No. 1,140,278; May 18; Gaz. vol. 214; p. 972.
Murray, George R., Cleveland, Ohio. Stone grinding and polishing machine. No. 1,138,683; May 11; Gaz. vol. 214; p. 375.
Murray, Thomas E., New York, N. Y. Vehicle-wheel. No. 1,139,894; May 18; Gaz. vol. 214; p. 838.
Murray, Thomas E., New York, N. Y. Vehicle-wheel. No. 1,139,895; May 18; Gaz. vol. 214; p. 838.
Murray, Thomas E., New York, N. Y. Vehicle-wheel. No. 1,139,896; May 18; Gaz. vol. 214; p. 838.
Murray, Thomas E., and G. K. Jessup, New York, N. Y.; said Jessup assignor to said Murray. Seal-fastening. No. 1,139,052; May 11; Gaz. vol. 214; p. 507.
Murray, Thomas E., and E. R. Ricketts, New York, N. Y. Apparatus for neutralising corrosive fumes in gases. No. 1,139,053; May 11; Gaz. vol. 214; p. 507.
Muskegon Boiler Works. (See Fitzgerald, Edward E., assignor.)
Muther, Lorenz. (See Lautenschlager, William F., assignor.)
Muzzy, William H., assignor to The National Cash Register Company, Dayton, Ohio. Cash-register. No. 1,140,476; May 25; Gaz. vol. 214; p. 1079.
Myatt, William J., Birmingham, England. Safety-razor. No. 1,139,056; May 11; Gaz. vol. 214; p. 509.
Myers, Albert E., West Alexander, Pa. Nut-lock. No. 1,139,897; May 18; Gaz. vol. 214; p. 839.
Myers, Edward D., Shelby, Mich. Artificial bait. No 1,140,279; May 18; Gaz. vol. 214; p. 972.
Myers, Hubert A., Toledo, Ohio. Escapement. No. 1,138,775; May 11; Gaz. vol. 214; p. 408.
Myrick, George H., assignor, by mesne assignments, to Mineralac Electric Company, Chicago, Ill. Self-winding clock. No. 1,140,477; May 25; Gaz. vol. 214; p. 1079.
Myrophone Company. (See Miller, Thomas H. R., assignor.)
Myrtle Desk Company. (See Westmoreland, Crawford T., assignor.)
Nash, Charles J., Chicago, Ill., assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa. Draft-gear. No. 1,140,311; May 18; Gaz. vol. 214; p. 983.
Nash, John, North Yakima, Wash. Turbine. No. 1,139,562; May 18; Gaz. vol. 214; p. 720.
Nash, Louis P., Orange, N. J. Candlestick. No. 1,138,240; May 4; Gaz. vol. 214; p. 181.
Nash, Thomas H., St. Pauls Cray, England. Apparatus for refining pulp stuff and the like. No. 1,140,181; May 18; Gaz. vol. 214; p. 940.
National Biscuit Company. (See Alfred, Clarence J., assignor.)
National Blank Book Company. (See Schade, John, Jr., assignor.)
National Cash Register Company, The. (See Chryst, William A., assignor.)
National Cash Register Company, The. (See Church, Edmund S., assignor.)
National Cash Register Company, The. (See Hollingsworth, George W., assignor.)
National Cash Register Company, The. (See Mussy, William H., assignor.)
National Cash Register Company. (See Skerl, Francesco, assignor.)
National Chemical Company. (See Quinn, Wilbur W., assignor.)
National Fibre Box Company. (See Walter, Harrison B., assignor.)
National Metal-Fabric Company, The. (See Clark, Norris E., assignor.)
National Specialty Company. (See Brandt, Theodore J., assignor.)
National Supply Company, The. (See Wright, Clyde S., assignor.)
National Sweeper Company. (See Baender, Charles L., assignor.)

Nattinger, John G., Chicago, Ill. Carriage-return mechanism for type-writers. No. 1,140,182; May 18; Gaz. vol. 214; p. 940.
Naylor, Perry T., Springfield, Mass. Spraying-nozzle. No. 1,138,500; May 4; Gaz. vol. 214; p. 273.
Needham, Houghton L., Chicago, Ill. Spark-arrester. No. 1,140,911; May 25; Gaz. vol. 214; p. 1230.
Neely, Charles D., Chicago, Ill. Dancing-clog. No. 1,138,684; May 11; Gaz. vol. 214; p. 375.
Neely Compress and Cotton Company, The. (See Wood, James N., assignor.)
Neff, John P., East Orange, N. J., assignor, by mesne assignments, to American Arch Company, New York, N. Y. Locomotive-boiler furnace. No. 1,138,031; May 4; Gaz. vol. 214; p. 107.
Neff, John P., East Orange, N. J., assignor, by mesne assignments, to American Arch Company, New York, N. Y. Locomotive-boiler furnace. No. 1,138,055; May 4; Gaz. vol. 214; p. 117.
Neff, John P., East Orange, N. J., assignor, by mesne assignments, to American Arch Company, New York, N. Y. Steam-boiler. No. 1,138,057; May 4; Gaz. vol. 214; p. 118.
Neff, John P., East Orange, N. J., assignor, by mesne assignments, to American Arch Company, New York, N. Y. Locomotive-boiler fire-box. No. 1,138,058; May 4; Gaz. vol. 214; p. 118.
Neff, John P., East Orange, N. J., assignor, by mesne assignments, to American Arch Company, New York, N. Y. Oil-burning locomotive. No. 1,138,063; May 4; Gaz. vol. 214; p. 120.
Neff, John P., East Orange, N. J., assignor, by mesne assignments, to American Arch Company, New York, N. Y. Oil-burning locomotive. No. 1,138,064; May 4; Gaz. vol. 214; p. 121.
Neff, John P., East Orange, N. J., assignor, by mesne assignments, to American Arch Company, New York, N. Y. Locomotive-boiler furnace. No. 1,138,068; May 4; Gaz. vol. 214; p. 123.
Neff, John P., assignor, by mesne assignments, to American Arch Company, New York, N. Y. Arch-brick. No. 1,138,033; May 4; Gaz. vol. 214; p. 108.
Neff, John P., Brooklyn, assignor, by mesne assignments, to American Arch Company, New York, N. Y. Arch-brick and supporting means therefor. No. 1,138,036; May 4; Gaz. vol. 214; p. 109.
Neidich, Samuel A., Edgewater Park, N. J. Machine for testing type-writer ribbons, &c. No. 1,140,912; May 25; Gaz. vol. 214; p. 1230.
Neikirk, John O., Morgan Park, assignor to Rodger Ballast Car Company, Chicago, Ill. Ballast-car. No. 1,138,006; May 4; Gaz. vol. 214; p. 99.
Neill, John, Honolulu, Hawaii. Speed-reducing gearing. No. 1,138,968; May 11; Gaz. vol. 214; p. 476.
Nelson, Arthur C., Duluth, Minn. Automatic stoker. No. 1,138,501; May 4; Gaz. vol. 214; p. 273.
Nelson, Arthur W., Chicago, Ill., assignor, by mesne assignments, to American Arch Company, New York, N. Y. Locomotive-furnace arch. No. 1,138,054; May 4; Gaz. vol. 214; p. 116.
Nelson, Eugene A., New York, N. Y. Combined pipe wrench, cutter, and die. No. 1,138,395; May 4; Gaz. vol. 214; p. 238.
Nelson, Fred, *et al.* (See Wells and Saxton, assignors.)
Nelson, William H., Hazleton, Iowa. Sash-fastener. No. 1,138,396; May 4; Gaz. vol. 214; p. 238.
Neptune Meter Company. (See Dilts, Henry I., assignor.)
Nesetril, Jan, Prague, assignor to J. P. Colloredo-Mansfeld, Dobris, Austria-Hungary. Apparatus for mixing cement and fibrous material. No. 1,138,397; May 4; Gaz. vol. 214; p. 239.
Nesetril, Jan, Prague, assignor to J. P. Colloredo-Mansfeld, Dobris, Austria-Hungary. Reinforced-concrete railway-sleeper. No. 1,138,398; May 4; Gaz. vol. 214; p. 239.
Nesler, Charles F., assignor to Nesler & Company, Newark, N. J. Hoop ear-ring. No. 1,139,309; May 11; Gaz. vol. 214; p. 594.
Nesler & Company. (See Nesler, Charles F., assignor.)
Netter, Edwin, Aurora, Oreg. Garbage-reservoir. No. 1,139,436; May 11; Gaz. vol. 214; p. 641.
Neuber, Max. (See Kramp and Neuber.)
Neubig, Christian C., Jr. (See Neubig, Philip J. and C. C.)
Neubig, Philip J. and C. C., Jr., Plaquemine, La. Demountable rim. No. 1,138,502; May 4; Gaz. vol. 214; p. 273.
Neuman, Edward W., York, Pa. Refrigerating apparatus. No. 1,140,183; May 18; Gaz. vol. 214; p. 941.
Neuteboom, Boudewijn B. (See Taylor and Neuteboom.)
New Britain Machine Company, The. (See Baker and De Long, assignors.)
New England Butt Company. (See McCahey, George F., assignor.)
New England Butt Company. (See Paquette, Alfred, assignor.)
New Era Manufacturing Company, The. (See Rubinstein, Tobias L., assignor.)
New Haven Clock Co. (See Porter, Wilson E., assignor.)
New Jersey Patent Company. (See Edison, Thomas A., assignor.)
New Jersey Patent Company. (See Elmes, Devereux, assignor.)
New Jersey Zinc Company, The. (See Brooks, George S., assignor.)
New Process Oil Company. (See Washburn, Charles H., assignor.)
New York Couch Bed Company. (See Sisbower and Pittoni, assignors.)
Newcomb, Edward C., North Scituate, Mass., assignor to Newcomb Engine Company, New York, N. Y. Internal-combustion engine. No. 1,139,898; May 18; Gaz. vol. 214; p. 839.
Newcomb Engine Company. (See Newcomb, Edward C., assignor.)
Newell, Allen, Decatur, Tex. Cotton-loader. No. 1,138,007; May 4; Gaz. vol. 214; p. 99.
Newman, Christian M. (See Richards, Frank W., assignor.)
Newpher, Alfred H., Chicago, Ill., assignor to The Adams & Westlake Company. Sash-fastener. No. 1,139,706; May 18; Gaz. vol. 214; p. 772.
Newton, William G., assignor to The Peck Bros. & Co., New Haven, Conn. Valve for seat-action water-closets. No. 1,138,241; May 4; Gaz. vol. 214; p. 181.
Nibbe, George W. (See Smith and Nibbe.)
Nichols, Aaron S., New York, N. Y. Lumber-drier. No. 1,138,136; May 4; Gaz. vol. 214; p. 147.
Nichols, Aaron S., New York, N. Y. Means for shifting closures. No. 1,138,137; May 4; Gaz. vol. 214; p. 147.
Nichols, Aaron S., New York, N. Y. Lumber-drying apparatus. No. 1,140,762; May 25; Gaz. vol. 214; p. 1175.
Nichols, Louis C., Milwaukee, Wis., assignor, by mesne assignments, to Allis-Chalmers Manufacturing Company. Transformer. No. 1,140,843; May 25; Gaz. vol. 214; p. 1204.
Nichthauser & Levy. (See Nichthauser, William, assignor.)
Nichthauser, Maud S., executrix. (See Nichthauser, William.)
Nichthauser, William, deceased, New York, N. Y.; M. S. Nichthauser, executrix, assignor to Nichthauser & Levy. Sifter. No. 1,137,886; May 4; Gaz. vol. 214; p. 57.
Nickerson, William E., Cambridge, assignor to E. D. Chadwick, trustee, Winchester, Mass. Ignition-timing device for internal-combustion motors. No. 1,139,707; May 18; Gaz. vol. 214; p. 772.
Nicklin, Albert E., Goodmayes, England, assignor, by mesne assignments, to M. M. Schwarzschild, New York, N. Y. Device for making damp-sand bricks and the like. No. 1,140,391; May 25; Gaz. vol. 214; p. 1047.
Nicol, Marvin A., Willamina, Oreg. Means for securing tires on crushing and grinding wheels, rolls, and the like. No. 1,138,399; May 4; Gaz. vol. 214; p. 240.
Nicol, Marvin A., Willamina, Oreg. Means for lubricating bearing-surfaces. No. 1,140,056; May 18; Gaz. vol. 214; p. 896.
Niedergesaess, Robert, Seattle, Wash., assignor to American Smokeless Burner Company. Fuel-feeding apparatus. No. 1,139,708; May 18; Gaz. vol. 214; p. 773.
Nielsen, John. (See Hanshaw, Charles H., assignor.)
Niemeyer, Frederich G., Denison, Tex. Facing-blocks. No. 1,140,913; May 25; Gaz. vol. 214; p. 1231.
Niles-Bement-Pond Company. (See Müller, Friederich, assignor.)
Nirdlinger, Albert P. (See Davis and Nirdlinger.)
Nitrogen Products Company. (See Bucher, John E., assignor.)
Nixon, Benjamin F., Winnipeg, Manitoba, Canada. Shipwreck signal-indicator. No. 1,137,782; May 4; Gaz. vol. 214; p. 21.
Noble, Donald, Bridgeport, Conn., assignor to The Singer Manufacturing Company. Eyelet-sewing machine. No. 1,139,437; May 11; Gaz. vol. 214; p. 641.
Noennig, Ernst, Wittenberg, Mo. Animal-releasing device. No. 1,139,563; May 18; Gaz. vol. 214; p. 721.
Nogrady, An Dor T., assignor to Double Drive Differential Company, Kansas City, Mo. Differential gearing for automobiles. No. 1,140,312; May 18; Gaz. vol. 214; p. 983.
Noiseless Typewriter Company, The. (See Metzroth, William, assignor.)
Nordberg, Bruno V., Milwaukee, Wis. Variable-capacity compressed-air engine. No. 1,138,886; May 11; Gaz. vol. 214; p. 448.
North American Chemical Company. (See Thoma, Andrew, assignor.)
North Bro's. Mf'g Co. (See Fegley and Leopold, assignors.)
North East Electric Company. (See Dorsey, Farnum F., assignor.)
North Star Manufacturing Company. (See Weis, Frank O., assignor.)
North Western Novelty Company. (See Bolen, Emerson A., assignor.)
North, William B., Lumberton, N. C. Tug-loop. No. 1,138,776 May 11; Gaz. vol. 214; p. 408.
Northrup, Charles H., Oaks, Pa. Display-wagon. No. 1,139,215; May 11; Gaz. vol. 214; p. 563.
Norton, Alexander A. (See Johnston and Norton.)
Norton, Charles L., Hudson, assignor to Asbestos Shingle Company, Nashua, N. H. Machine for making concrete slabs or plates. No. 1,140,702; May 25; Gaz. vol. 214; p. 1155.
Norton, Charles L., Hudson, assignor to Asbestos Shingle Company, Nashua, N. H. Producing uniform density in concrete material. No. 1,140,703; May 25; Gaz. vol. 214; p. 1155.
Norton, Charles L., Hudson, assignor to Asbestos Shingle Company, Nashua, N. H. Machine for making concrete slabs or plates. No. 1,140,704; May 25; Gaz. vol. 214; p. 1155.

Norton Door Check Company. (See Norton, Lewis C., assignor.)
Norton, Henry L., Waterbury, Conn. Sash-fastener. No. 1,138,008; May 4; Gaz. vol. 214; p. 99.
Norton, Henry L., Waterbury, Conn. Sash-fastener. No. 1,138,009; May 4; Gaz. vol. 214; p. 100.
Norton, Lewis C., assignor to Norton Door Check Company, Chicago, Ill. Door-operating device. No. 1,138,306; May 4; Gaz. vol. 214; p. 204.
Norwich Automatic Feeder Company, The. (See Enos, Frank, Jr., assignor.)
Novak, John, Chicago, Ill. Compasses. No. 1,140,844; May 25; Gaz. vol. 214; p. 1204.
Novick, Abraham, assignor to F. L. Schmidt Company, New York, N. Y. Web-cutting mechanism. No. 1,140,392; May 25; Gaz. vol. 214; p. 1047.
Nowell, Edward T., Stotts City, Mo. Egg-shipping container. No. 1,140,280; May 18; Gaz. vol. 214; p. 972.
Nyboe, Peter, Seattle, Wash. Bookbinder. No. 1,139,057; May 11; Gaz. vol. 214; p. 509.
Nygaard, Jens. (See Leadbetter, Noble W., assignor.)
O. M. Edwards Company, The. (See Chaffee, Edward F., assignor.)
O. P. Schriver Co., The. (See Webster, John M., assignor.)
O'Brien, Leo, Montclair, N. J. Vehicle-signal. No. 1,140,393; May 25; Gaz. vol. 214; p. 1048.
O'Connell, Thomas J., Ware, Mass. Warp stop mechanism. No. 1,139,994; May 18; Gaz. vol. 214; p. 873.
O'Connor, Eugene, Everett, Wash. Straw-holder. No. 1,139,365; May 11; Gaz. vol. 214; p. 615.
O'Connor, James. (See Stone, Wilbur M., assignor.)
O'Connor, John F., assignor to W. H. Miner, Chicago, Ill. Draft-rigging for railway-cars. No. 1,138,138; May 4; Gaz. vol. 214; p. 148.
O'Connor, John F., assignor to W. H. Miner, Chicago, Ill. Draft-rigging for railway-cars. No. 1,138,139; May 4; Gaz. vol. 214; p. 148.
O'Connor, John F., assignor to W. H. Miner, Chicago, Ill. Draft-rigging for railway-cars. No. 1,139,058; May 11; Gaz. vol. 214; p. 509.
O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Underframe for railway-cars. No. 1,139,059; May 11; Gaz. vol. 214; p. 510.
O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Draft-rigging for railway-cars. No. 1,139,060; May 11; Gaz. vol. 214; p. 510.
O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Adjustable side-bearing for railway-cars. No. 1,139,061; May 11; Gaz. vol. 214; p. 510.
O'Connor, John F., assignor to W. H. Miner, Chicago, Ill. Buffing mechanism. No. 1,139,709; May 18; Gaz. vol. 214; p. 773.
O'Hara, William T., assignor to Spokane Mail Equipment Company, Spokane, Wash. Mail-catching apparatus. No. 1,138,780; May 11; Gaz. vol. 214; p. 410.
O'Neill, Ellis I. (See Paxton, John B. and J. T., assignors.)
Oakley, Cyrus L., Carbondale, Pa. Woodworking-tool. No. 1,138,777; May 11; Gaz. vol. 214; p. 408.
Oberg, John A., Bremerton, and J. R. Eckman, Puyallup, Wash. Revolving dining-room table. No. 1,139,564; May 18; Gaz. vol. 214; p. 721.
Obergfell, Herbert F., assignor of one-third to T. G. Martin and one-third to J. Erickson, Chicago, Ill. Internal-combustion engine. No. 1,139,364; May 11; Gaz. vol. 214; p. 614.
Ochs, Karl, Berlin-Charlottenburg, assignor to Siemens & Halske, A. G., Siemensstadt, near Berlin, Germany. Apparatus for electrolysis of alkaline chlorids. No. 1,138,400; May 4; Gaz. vol. 214; p. 240.
Ocumpaugh, Edmund, assignor to Defiance Machine Company, Rochester, N. Y. Ink-rolls for printing-machines. No. 1,139,710; May 18; Gaz. vol. 214; p. 774.
Ocumpaugh, Edmund, 2d, Rochester, N. Y. Printing-machine. No. 1,138,778; May 11; Gaz. vol. 214; p. 409.
Odoms, Rachel C., Gibbon, Nebr. Dish-rag holder. No. 1,139,565; May 18; Gaz. vol. 214; p. 721.
Oesterlein, Charles D., assignor to The Oesterlein Machine Company, Cincinnati, Ohio. Milling-machine feed mechanism. No. 1,138,010; May 4; Gaz. vol. 214; p. 100.
Oesterlein Machine Company, The. (See Oesterlein, Charles D., assignor.)
Oeth, Charles P., Mt. Vernon, Ind. Corn-shelling machine. No. 1,138,779; May 11; Gaz. vol. 214; p. 409.
Ogburn, Arthur R., Newton, Iowa. Machine-brake. No. 1,139,566; May 18; Gaz. vol. 214; p. 722.
Ogden, Carlton N., Houston, Tex. Vending-machine. No. 1,139,711; May 18; Gaz. vol. 214; p. 774.
Ohio Brass Company, The. (See Allerding, Cletus N., assignor.)
Ohio Brass Company, The. (See Bolus, Glenn H., assignor.)
Ohio Brass Company, The. (See Mead and Kempton, assignors.)
Ohmer, Wilfred I., and J. E. McAllister, assignors to The Recording and Computing Machines Company, Dayton, Ohio. Machine for making and recording certificates and the like. No. 1,139,567; May 18; Gaz. vol. 214; p. 722.
Ohr, Leo E., Biloxi, Miss. Bearing for connecting-rods. No. 1,139,216; May 11; Gaz. vol. 214; p. 564.
Oister, Anton, Unter Siska, near Laibach, Austria-Hungary. Parachute device. No. 1,138,140; May 4; Gaz. vol. 214; p. 148.
Oker, Andrew. (See Hoff, Charles, assignor.)
Olcsvary, Louis, Lemont Furnace, Pa. Car-coupling. No. 1,139,217; May 11; Gaz. vol. 214; p. 564.
Oler, Thomas C., Iowa Falls, Iowa. Milking-stool. No. 1,138,781; May 11; Gaz. vol. 214; p. 410.
Oliver, Douglas H. (See Lindsay and Oliver.)
Oliver, Elam A., Belleville, Wis. Pail-stool. No. 1,138,141; May 4; Gaz. vol. 214; p. 149.
Oliver, James. (See Oliver, Thomas A. and J.)
Oliver, Thomas A. and J., Philadelphia, Pa. Athletic ball. No. 1,140,845; May 25; Gaz. vol. 214; p. 1205.
Olm, Oscar J., assignor of one-half to G. Monasch, Minneapolis, Minn. Lock. No. 1,139,218; May 11; Gaz. vol. 213; p. 564.
Olmsted, Charles M., Buffalo, N. Y. Spinning device. No. 1,138,142; May 4; Gaz. vol. 214; p. 149.
Olmsted, Charles M., Pasadena, Cal. Aerial toy. No. 1,138,401; May 4; Gaz. vol. 214; p. 241.
Olsen, John A., Honolulu, Hawaii, assignor to California Fruit Canners Association, San Francisco, Cal. Machine for removing the pulp from previously-separated pineapple-peel. No. 1,138,143; May 4; Gaz. vol. 214; p. 150.
Olson, Charles J., Muskegon, Mich. Fluid-pressure motor. No. 1,138,969; May 11; Gaz. vol. 214; p. 476.
Olson, Elias, Jewell Junction, Iowa. Music-leaf turner. No. 1,139,438; May 11; Gaz. vol. 214; p. 642.
Olson, Emil, Rochester, N. Y. Sash-holder. No. 1,138,242; May 4; Gaz. vol. 214; p. 181.
Olson, Emma M., Carlton, Oreg. Darning-last. No. 1,140,705; May 25; Gaz. vol. 214; p. 1156.
Olson, Fredrik, Stony Butte, Mont. Lifting-jack. No. 1,139,568; May 18; Gaz. vol. 214; p. 723.
Olswang Bros. & Co. (See Jensen, Olaus, assignor.)
Onderdonk, Lansing, New York, N. Y., assignor to Union Special Machine Company, Chicago, Ill. Loop-retainer for sewing-machines. No. 1,137,783; May 4; Gaz. vol. 214; p. 22.
Onderdonk, Lansing, New York, N. Y., assignor to Union Special Machine Company, Chicago, Ill. Feeding mechanism for overseaming cup-feed machines. No. 1,137,784; May 4; Gaz. vol. 214; p. 22.
Onderdonk, Lansing, New York, N. Y., assignor to Union Special Machine Company, Chicago, Ill. Tucking-guide for sewing-machines. No. 1,139,062; May 11; Gaz. vol. 214; p. 510.
Onderdonk, Lansing, New York, N. Y., assignor to Union Special Machine Company, Chicago, Ill. Ruffling sewing-machine. No. 1,140,763; May 25; Gaz. vol. 214; p. 1175.
Onward Manufacturing Company. (See Little, Orton C., assignor.)
Opseth, Hans M., Madison, Minn. Brooder. No. 1,139,459; May 11; Gaz. vol. 214; p. 649.
Oravetz, George, Pacific City, Wash. Handle-attaching means. No. 1,141,001; May 25; Gaz. vol. 214; p. 1261.
Ordnance Development Company. (See Davis, Cleland, assignor.)
Orr, Robert, and B. S. Annis, Chattanooga, Tenn. Stovepipe-section. No. 1,138,402; May 4; Gaz. vol. 214; p. 241.
Orsi, Romeo, Milan, Italy. Trumpet-action. No. 1,138,403; May 4; Gaz. vol. 214; p. 241.
Orton, Alfred, Cheyenne, Wyo. Fuel-tank for automobiles. No. 1,139,439; May 11; Gaz. vol. 214; p. 642.
Osborne, Henry G., Brooklyn, N. Y. Expansion-bolt. No. 1,139,712; May 18; Gaz. vol. 214; p. 774.
Ossenbeck, Anton. (See Kahn and Ossenbeck.)
Ostachowski, Julian, Buffalo, N. Y. Mail-box. No. 1,140,914; May 25; Gaz. vol. 214; p. 1231.
Ostenberg, Pontus, Los Gatos, Cal. Internal-combustion engine. No. 1,137,887; May 4; Gaz. vol. 214; p. 57.
Oster, Herman W., assignor to The Oster Manufacturing Company, Cleveland, Ohio. Attachment for lathes. No. 1,139,063; May 11; Gaz. vol. 214; p. 511.
Oster Manufacturing Company, The. (See Oster, Herman W., assignor.)
Osterholm, William C., Chicago, Ill., assignor to International Harvester Company of New Jersey. Disk-grinding machine. No. 1,139,569; May 18; Gaz. vol. 214; p. 723.
Osterholts, Frederick J., Bucoda, assignor to Alaska Hydraulic Motor Company, Tacoma, Wash. Hydraulic motor. No. 1,139,995; May 18; Gaz. vol. 214; p. 874.
Osterman, William H., Fonda, Iowa. Internal-combustion engine. No. 1,139,713; May 18; Gaz. vol. 214; p. 775.
Ostlund, Theodore E. (See Petersen, Christian M., assignor.)
Ostrander, Allen E., Ridgewood, N. J., assignor to American Car and Foundry Company, St. Louis, Mo. Uncoupling device for cars. No. 1,140,706; May 25; Gaz. vol. 214; p. 1156.
Ostrander, Allen E., Ridgewood, N. J., and F. H. Gibbs, New York, N. Y. Dumping-car. No. 1,140,606; May 25; Gaz. vol. 214; p. 1124.
Otis Elevator Company. (See Clark, William T., assignor.)
Otis Elevator Company. (See Gals, Ernest L., Sr., assignor.)
Otis Elevator Company. (See Smith, Allen C., assignor.)
Otis Elevator Company. (See Weissenburger, George E., assignor.)
Otis, Howard J., Denver, Colo. Door-mat. No. 1,139,899; May 18; Gaz. vol. 214; p. 840.

Otto, Isaac F., Taneytown, Md. Fire-escape. No. 1,140,281; May 18; Gaz. vol. 214; p. 973.
Ottosen, Christopher, Ottosen, and H. R. Wright, Des Moines, Iowa. Ice-cream container. No. 1,138,144; May 4; Gaz. vol. 214; p. 150.
Oursler, William N., Odebolt, Iowa. Tire-filler. No. 1,137,888; May 4; Gaz. vol. 214; p. 58.
Overfield, Raymond, L. B. Hamsley, and E. Burns, Brooklyn, N. Y. Advertising apparatus. No. 1,139,795; May 18; Gaz. vol. 214; p. 803.
Owen, Oscar L., assignor to The Whitin Machine Works, Whitinsville, Mass. Bobbin-holder for spoolers. No. 1,137,889; May 4; Gaz. vol. 214; p. 58.
Owens, William J. (See Kernan and Owens.)
P. & M. Co., The. (See Moore, Philip W., assignor.)
Packard Motor Car Company. (See Derr, Charles E., assignor.)
Packard Motor Car Company. (See Loomis, Allen, assignor.)
Packard Motor Car Company. (See McCulla, William R., assignor.)
Packard Motor Car Company. (See Roberts, Edward F., assignor.)
Packard Motor Car Company. (See Tibbetts, Milton, assignor.)
Page, Albert A. (See Shaw and Page.)
Page, Albert A., East Haven, assignor to Sargent & Company, New Haven, Conn. Lock. No. 1,137,785; May 4; Gaz. vol. 214; p. 22.
Page, Albert A., East Haven, assignor to Sargent & Company, New Haven, Conn. Lock. No. 1,137,786; May 4; Gaz. vol. 214; p. 23.
Page, Albert A., East Haven, assignor to Sargent & Company, New Haven, Conn. Lock. No. 1,137,787; May 4; Gaz. vol. 214; p. 23.
Page, Albert A., East Haven, assignor to Sargent & Company, New Haven, Conn. Lock. No. 1,138,580; May 4; Gaz. vol. 214; p. 298.
Page, Albert A., East Haven, assignor to Sargent & Company, New Haven, Conn. Lock. No. 1,138,594; May 4; Gaz. vol. 214; p. 304.
Page, Luther T., assignor of one-half to W. E. C. Warr, Wareham, Mass. Shaping-rolls for horseshoe-bars. No. 1,138,145; May 4; Gaz. vol. 214; p. 150.
Paige, Charles F., assignor of one-third to A. W. Jones, Oakland, Cal. Concentrator. No. 1,140,764; May 25; Gaz. vol. 214; p. 1176.
Paine, James C., *et al.* (See Wells and Saxton, assignors.)
Paine, William H., Providence, R. I., assignor to Fire Prevention Company. Safety device for controlling the flow of combustible fluids. No. 1,140,313; May 18; Gaz. vol. 214; p. 984.
Painton, Joseph G., assignor of one-half to G. Dietrich, Buffalo, N. Y. Towel-rack. No. 1,139,366; May 11; Gaz. vol. 214; p. 615.
Palmer, George W., Seattle, Wash. Type-writer attachment. No. 1,139,367; May 11; Gaz. vol. 214; p. 615.
Paltenghi, Louis, *et al.* (See Maynard, Joseph A., assignor.)
Pancoast, George E., Brooklyn, N. Y. Combined multicolor and perfecting web printing-press. No. 1,138,782; May 11; Gaz. vol. 214; p. 410.
Paquet, Pierre J., Salem, W. Va. Glass-blowing apparatus. No. 1,140,314; May 18; Gaz. vol. 214; p. 984.
Paquette, Alfred, East Boston, Mass., assignor to New England Butt Company, Providence, R. I. Carrier for braiding-machines. No. 1,138,243; May 4; Gaz. vol. 214; p. 182.
Pardini, Frank J., Carson City, Nev. Non-refillable bottle. No. 1,139,900; May 18; Gaz. vol. 214; p. 840.
Parish, Le Grand, assignor, by mesne assignments, to American Arch Company, New York, N. Y. Locomotive-boiler furnace. No. 1,138,056; May 4; Gaz. vol. 214; p. 117.
Parish, Le Grand, assignor, by mesne assignments, to American Arch Company, New York, N. Y. Locomotive-boiler fire-box. No. 1,138,062; May 4; Gaz. vol. 214; p. 120.
Park, Albert V., South Melbourne, Melbourne, Victoria, Australia. Mill for treating ores and the like. No. 1,139,064; May 11; Gaz. vol. 214; p. 511.
Park, Richard T., South Melbourne, Melbourne, Victoria, assignor to R. T. P. Patent Wheels Proprietary Limited, Melbourne, Australia. Resilient wheel. No. 1,139,065; May 11; Gaz. vol. 214; p. 512.
Park, Samuel T., and J. E. Phillips, Danville, assignors to Locomotive Recording Dynamometer Company, Chicago, Ill. Recording instrument. No. 1,138,011; May 4; Gaz. vol. 214; p. 100.
Parker, Clark H., Beaver Dam, Wis. Gas-engine valve. No. 1,137,890; May 4; Gaz. vol. 214; p. 58.
Parker, George D., Riverside, Cal. Fruit-grader. No. 1,139,714; May 18; Gaz. vol. 214; p. 775.
Parker, Morgan, Newport, R. I. Detachable-blade knife. No. 1,139,796; May 18; Gaz. vol. 214; p. 804.
Parker, Stanley, New Britain, Conn. Extensible radiator-brush. No. 1,138,244; May 4; Gaz. vol. 214; p. 182.
Parkes Machine Company, The. (See Parkes, William N., assignor.)
Parkes, William N., Brooklyn, assignor to The Parkes Machine Company, New York, N. Y. Stitch-forming mechanism for sewing-machines. No. 1,141,092; May 25; Gaz. vol. 214; p. 1291.
Parks, Charles H., assignor of one-half to D. S. Goodwin, Waterbury, Conn. Magnetic brad-set. No. 1,141,073; May 25; Gaz. vol. 214; p. 1284.
Parramore, Reddin W., Somerville, N. J. Plow attachment. No. 1,138,307; May 4; Gaz. vol. 214; p. 205.
Parsons, Elmer C., Litchfield, Minn. Aeroplane. No. 1,141,002; May 25; Gaz. vol. 214; p. 1262.
Parsons, George H., assignor of one-half to T. La M. Couch, Stamford, Conn. Pneumatic time-switch. No. 1,139,066; May 11; Gaz. vol. 214; p. 512.
Parsons, Harry E., Berwick, Pa., assignor to American Car and Foundry Company, St. Louis, Mo. End construction for tank-cars. No. 1,140,707; May 25; Gaz. vol. 214; p. 1156.
Parsons, James L., Jr. (See Corby and Parsons.)
Parsons, Philip D., Philadelphia, Pa. Tension means for lawn-tennis rackets. No. 1,140,282; May 18; Gaz. vol. 214; p. 973.
Parsons, William S., Ladywell, assignor to J. Stone & Company, Limited, Deptford, England. Device for sorting and feeding refuse. No. 1,138,245; May 4; Gaz. vol. 214; p. 182.
Pascall, Sydney W., London, England. Air-tight cover for jars and bottles. No. 1,138,308; May 4; Gaz. vol. 214; p. 205.
Paschke, Theodore H., Hampton, Nebr. Dirigible automobile-lamp. No. 1,138,404; May 4; Gaz. vol. 214; p. 241.
Pastor, Frank, Cleveland, Ohio, assignor of one-half to J. Patinka, Nesquehoning, Pa. Elevator safety device. No. 1,139,570; May 18; Gaz. vol. 214; p. 723.
Patch, Calvin B., Glenellyn, Ill., assignor to W. H. Miner, Chazy, N. Y. Draft-rigging for railway-cars. No. 1,137,891; May 4; Gaz. vol. 214; p. 58.
Patch, Calvin B., Glenellyn, Ill., assignor to W. H. Miner, Chazy, N. Y. Railway-car adjustable side bearing. No. 1,140,184; May 18; Gaz. vol. 214; p. 941.
Patek, Charles H. (See Brown and Patek.)
Patinka, John. (See Pastor, Frank, assignor.)
Patten, Charles W., Lynn, Mass. Amalgamator. No. 1,139,067; May 11; Gaz. vol. 214; p. 512.
Patterson, John, Ozone Park, N. Y. Lathe attachment. No. 1,137,892; May 4; Gaz. vol. 214; p. 59.
Patterson, Joseph P., Milwaukee, Wis. Lawn-mower. No. 1,140,526; May 25; Gaz. vol. 214; p. 1097.
Patterson, Lewis P., assignor of one-fourth to N. C. Patterson, one-fourth to E. E. Coover, one-fourth to T. W. Garoutte, Springfield, and one-fourth to W. B. Garoutte, Carthage, Mo. Milking-machine. No. 1,139,571; May 18; Gaz. vol. 214; p. 724.
Patterson, Nancy C., *et al.* (See Patterson, Lewis P., assignor.)
Pattinson, Thomas E., Walthamstow, assignor of one-half to C. F. Lumb, London, England. Adjustable cutter for boring bars and the like. No. 1,140,261; May 18; Gaz. vol. 214; p. 966.
Paul, Abram F., London, England, assignor to Prepayment Car Sales Company, New York, N. Y. Passenger-vehicle. No. 1,137,893; May 4; Gaz. vol. 214; p. 59.
Paul Dickinson, Inc. (See Carney, Maurice, assignor.)
Pauly, Julius, Los Angeles, Cal. Extension for fire-escapes. No. 1,140,708; May 25; Gaz. vol. 214; p. 1156.
Pawling and Harnischfeger Company. (See Weickel, Henry, assignor.)
Pawsat, Ewald and H., Sheboygan, Wis. Motor-cycle seat and carrier attachment. No. 1,139,715; May 18; Gaz. vol. 214; p. 776.
Pawsat, Herman. (See Pawsat, Ewald and H.)
Paxton, John B. and J. T.; said J. T. Paxton assignor to E. I. O'Neill, Philadelphia, Pa. Knitting-machine. No. 1,140,709; May 25; Gaz. vol. 214; p. 1157.
Paxton, Joseph T. (See Paxton, John B. and J. T.)
Paxton, William E. (See Buchtel, William D., assignor.)
Payne, Jesse M., Summerville, Ala., assignor to Perfection Dyeing Machine Company, Columbus, Ga. Spreader attachment for collapsible beams for dyeing-machines. No. 1,140,283; May 18; Gaz. vol. 214; p. 973.
Payne, William S., Sherlock, Wash. Shipping-box. No. 1,140,765; May 25; Gaz. vol. 214; p. 1176.
Pazsiczky, Gedeon von, Riga, Russia. Spinning glass. No. 1,137,814; May 4; Gaz. vol. 214; p. 32.
Pearce, Dutee J., Seattle, Wash. Jewelry-chain. No. 1,138,405; May 4; Gaz. vol. 214; p. 242.
Pearne, Frank D., assignor of one-half to J. E. Martine, Chicago, Ill. Printing-telegraph sending apparatus. No. 1,137,894; May 4; Gaz. vol. 214; p. 59.
Pearson, Walton G. (See Armantage and Roehrig, assignors.)
Peck Bros. & Co., The. (See Newton, Willism G., assignor.)
Peck, Edmund E., Grand View on Hudson, N. Y. Apparatus for the manufacture of seats and backs for chairs and like furniture. No. 1,140,846; May 25; Gaz. vol. 214; p. 1205.
Pedersen, Jens P., Provo, Utah. Headlight-operating mechanism. No. 1,139,068; May 11; Gaz. vol. 214; p. 513.
Pederson, Peter, and G. T. Gilkerson, Workman, Cal. Beet pulling and topping machine. No. 1,140,847; May 25; Gaz. vol. 214; p. 1205.
Peffers, Andrew R., Aurora, Ill. Air-brake-hose protector. No. 1,139,797; May 18; Gaz. vol. 214; p. 804.
Pelouze Manufacturing Co. (See Richards, Fred T., assignor.)

Pelton Water Wheel Co., The. (See Buehle, Erich, assignor.)
Pelton Water Wheel Company, The. (See Doble, William A., assignor.)
Pendergast, Frederick W., Cambridge, Mass. Broom. No. 1,139,716; May 18; Gaz. vol. 214; p. 776.
Pennewill, James W., and M. R. Buchanan, Silver City, N. Mex. Electrically-operated time-switch. No. 1,138,406; May 4; Gaz. vol. 214; p. 242.
Penny, Henry P. (See Smith, Wayne, assignor.)
Perfection Dyeing Machine Company. (See Payne, Jesse M., assignor.)
Perfection Rug Retainer Company. (See Forsyth, Benjamin F., assignor.)
Perfection Valve Company. (See Williams, John B., assignor.) (Reissue.)
Perkins, Charles H., Norwich, Conn. Adjustable temple-tip. No. 1,138,012; May 4; Gaz. vol. 214; p. 101.
Perkins Electric Switch Manufacturing Company, The. (See Badeau, Harry U., assignor.)
Perkins, Fred, assignor to G. W. Perkins, Warren, Mass. Device for detachment of rims from tires. No. 1,140,315; May 18; Gaz. vol. 214; p. 984.
Perkins, Georgia W. (See Perkins, Fred, assignor.)
Perkins, Jonathan, Jr., San Diego, Cal. Gravity-actuated pipe-laying apparatus. No. 1,139,440; May 11; Gaz. vol. 214; p. 642.
Perkins, Willis J., Grand Rapids, Mich. Shaft-guard. No. 1,139,441; May 11; Gaz. vol. 214; p. 642.
Perry, Eugene L., assignor to The Rogers-Shear Company, Warren, Pa. Envelop-opener. No. 1,139,572; May 18; Gaz. vol. 214; p. 724.
Persons, William F., assignor to The Guide Motor Lamp Manufacturing Company, Cleveland, Ohio. Lamp. No. 1,138,503; May 4; Gaz. vol. 214; p. 274.
Perugini, Ignace, Toronto, Ontario, Canada. Internal-combustion engine. No. 1,138,783; May 11; Gaz. vol. 214; p. 411.
Pessarra, Conrad, San Diego, Cal. Combined couch and bed. No. 1,139,442; May 11; Gaz. vol. 214; p. 643.
Petermann, Otto, Groton, N. Y., assignor to Corona Typewriter Company, Incorporated. Escapement mechanism for type-writing machines. No. 1,140,848; May 25; Gaz. vol. 214; p. 1206.
Peters, William A. (See James and Peters.)
Petersen, Christian M., assignor to T. E. Ostlund, Seattle, Wash. Vehicle-wheel. No. 1,140,766; May 25; Gaz. vol. 214; p. 1176.
Petersen, Peter. (See Cable, James R., assignor.)
Peterson, George, Bayonne, N. J. Steam-condenser. No. 1,139,135; May 11; Gaz. vol. 214; p. 537.
Peterson, George A., Oakland, assignor to Unit Brick and Stone Company, San Francisco, Cal. Positive clutch. No. 1,139,443; May 11; Gaz. vol. 214; p. 643.
Peterson, John, Felch, Mich. Bed-spring. No. 1,139,573; May 18; Gaz. vol. 214; p. 725.
Pettibone Mulliken Company. (See Strom, Eugene N., assignor.)
Pettis, Clifton D., Ridgewood, N. J. Brake-shoe. No. 1,138,784; May 11; Gaz. vol. 214; p. 412.
Peycke, Armand H., Chicago, Ill., assignor to American Steel Foundries, New York, N. Y. Adjustable brake-head. No. 1,140,057; May 18; Gaz. vol. 214; p. 896.
Peycke, Armand H., Chicago, Ill., assignor to American Steel Foundries, New York, N. Y. Brake-head. No. 1,140,058; May 18; Gaz. vol. 214; p. 897.
Peyton, Joseph I. (See Hitt and Peyton.)
Peyton, Joseph I., and S. E. Hitt, Sydney, Nova Scotia, Canada. Ingot-mold. No. 1,139,219; May 11; Gaz. vol. 213; p. 564.
Pfanstiehl, Carl A., North Chicago, Ill. Electric vulcanizer. No. 1,139,069; May 11; Gaz. vol. 214; p. 513.
Pflager, Harry M., assignor to Commonwealth Steel Company, St. Louis, Mo. Antitelescopic car construction. No. 1,140,059; May 18; Gaz. vol. 214; p. 897.
Phelps, Algernon S., Chicago, Ill. Water-shed for acetylene-generators. No. 1,138,685; May 11; Gaz. vol. 214; p. 375.
Phelps Can Company. (See Phelps, Walter J., assignor.)
Phelps, Edwin S., Elizabeth, N. J. Alarm for automobile and other wheel-tires. No. 1,138,407; May 4; Gaz. vol. 214; p. 242.
Phelps, George T., Cambridge, Mass. Eye-shield. No. 1,139,444; May 11; Gaz. vol. 214; p. 643.
Phelps, Walter J., Baltimore, Md., assignor to Phelps Can Company, Weirton, W. Va. Automatic weighing-machine. No. 1,139,070; May 11; Gaz. vol. 214; p. 513.
Philadelphia Quartz Company. (See Stanton and Vail, assignors.)
Philadelphia Roll and Machine Company. (See Crook, Alfred, assignor.)
Phillips, Benjamin B., Greensboro, N. C., and C. W. Evans, Norfolk, Va. Earth-auger. No. 1,140,607; May 25; Gaz. vol. 214; p. 1124.
Phillips, Francis V., Orlando, Fla. Shock-absorber for vehicles. No. 1,140,478; May 25; Gaz. vol. 214; p. 1079.
Phillips, Francis V., Orlando, Fla. Fishing-reel. No. 1,140,608; May 25; Gaz. vol. 214; p. 1125.
Phillips, John E. (See Park and Phillips.)
Phillips' Patent Limited. (See Hedgecock, William C. H. P. and F. A., assignors.)
Phillips, William W. (See McCawley and Phillips.)
Phinney, Warren N., Boston, Mass. Composite electric signaling system. No. 1,138,013; May 4; Gaz. vol. 214; p. 101.
Phippen, Arthur W., Methuen, Mass. Roofing. No. 1,137,895; May 4; Gaz. vol. 214; p. 59.
Pickett, John H. (See Fulcher and Pickett.)
Pieper, Henri, Liege, Belgium. Apparatus for controlling motor-vehicles driven by mixed power. No. 1,140,849; May 25; Gaz. vol. 214; p. 1206.
Pierce, Charles E., Cambridge, Mass. Baking-pan. No. 1,139,445; May 11; Gaz. vol. 214; p. 644.
Pierce, Edward W., Cynwyd, Pa., assignor of one-half to J. W. Starr, 3d, Atlantic City, N. J. Ampul. No. 1,139,368; May 11; Gaz. vol. 214; p. 616.
Pierce, Frank, assignor to Lincoln Iron Works, Rutland, Vt. Feed-driving mechanism. No. 1,138,970; May 11; Gaz. vol. 214; p. 477.
Pierce, Franklin, and N. Theriault, Haverhill, Mass. Last. No. 1,140,850; May 25; Gaz. vol. 214; p. 1207.
Pierce, George W., assignor to The Pierce Speed Controller Company, Anderson, Ind. Speed-limiting apparatus for motor-vehicles. No. 1,140,060; May 18; Gaz. vol. 214; p. 897.
Pierce, Harold S., Philadelphia, Pa., assignor to Link-Belt Company, Chicago, Ill. Means for lubricating bearings. No. 1,138,408; May 4; Gaz. vol. 214; p. 243.
Pierce Speed Controller Company, The. (See Pierce, George W., assignor.)
Pierson, Elias. (See Hardisty, Henry, assignor.)
Pierson, Paul M. (See Hochstetter, Frederick W., assignor.)
Pierson, Willett C., Cleveland, Ohio. Composition for match-heads. No. 1,138,146; May 4; Gaz. vol. 214; p. 150.
Pike, William A., Pittsfield, Mass. Display-box for writing-paper. No. 1,140,061; May 18; Gaz. vol. 214; p. 898.
Pilser, Isaac, *et al.* (See Redd, Charlie, assignor.)
Pinsuti, Giuseppe F., New York, N. Y. Non-refillable bottle. No. 1,139,446; May 11; Gaz. vol. 214; p. 644.
Pinsuti, Giuseppe F., New York, N. Y. Bottle-stopper. No. 1,140,062; May 18; Gaz. vol. 214; p. 899.
Pinto, Joseph, Osceola Mills, Pa. Lock-nut. No. 1,138,409; May 4; Gaz. vol. 214; p. 243.
Pipenhagen, Charles A., Chicago, Ill. Inset-trap. No. 1,139,717; May 18; Gaz. vol. 214; p. 776.
Pipher, William E. A., assignor of one-fourth to C. A. Sherwood, Parkers Landing, Pa. Dust-pan. No. 1,138,504; May 4; Gaz. vol. 214; p. 274.
Pirani, Marcello von. (See Gerdien and Pirani.)
Pitcher, Ralph N., Milwaukee, Wis. Fly-screen. No. 1,139,574; May 18; Gaz. vol. 214; p. 725.
Pitsch, Victor A., Leavenworth, Kans. Stove. No. 1,139,575; May 18; Gaz. vol. 214; p. 725.
Pittman, Vincent V., Selma, Cal. Cooler. No. 1,138,505; May 4; Gaz. vol. 214; p. 274.
Pittoni, Louis E. (See Sisbower and Pittoni.)
Pitts, Hood, Austin, Tex., assignor of one-half to F. M. Covert, Elevator-door-operating apparatus. No. 1,139,901; May 18; Gaz. vol. 214; p. 840.
Pitts, Hood, assignor of one-half to F. M. Covert, Austin, Tex. Floor selector-switch for electric door-operating apparatus. No. 1,139,902; May 18; Gaz. vol. 214; p. 840.
Pitts, Hood, assignor of one-half to F. M. Covert, Austin, Tex. Switch. No. 1,139,903; May 18; Gaz. vol. 214; p. 841.
Pitts, Hood, assignor of one-half to F. M. Covert, Austin, Tex. Car-door operating and locking device. No. 1,139,904; May 18; Gaz. vol. 214; p. 842.
Pitts, Hood, assignor of one-half to F. M. Covert, Austin, Tex. Door operating and locking device. No. 1,139,905; May 18; Gaz. vol. 214; p. 842.
Pittsburg Plate Glass Company, The. (See Hitner, Harry F., assignor.)
Pittsburg Plate Glass Company. (See Moore, George E., assignor.)
Pittsburgh Metallurgical Company, The. (See Plock, Albert F., assignor.)
Pittsburgh Plate Glass Company, The. (See Howard, George E., assignor.)
Pittsburgh Steel Co. (See Adams and Johnson, assignors.)
Pixley, Frank E., St. Paul, Minn. Car-body. No. 1,138,309; May 4; Gaz. vol. 214; p. 205.
Place, Charles A., Newman, Ill. Self-starter for internal-combustion engines. No. 1,137,788; May 4; Gaz. vol. 214; p. 23.
Plock, Albert F., assignor to The Pittsburgh Metallurgical Company, Pittsburgh, Pa. Apparatus for sintering ores. No. 1,140,710; May 25; Gaz. vol. 214; p. 1157.
Plunkett, Hugh E., assignor, by mesne assignments, to United States Tropical Food Company, Malden, Mass. Preserving bananas. No. 1,138,887; May 11; Gaz. vol. 214; p. 448.
Plunkett, Hugh E., assignor, by mesne assignments, to United States Tropical Food Company, Malden, Mass. Banana food and making same. No. 1,138,888; May 11; Gaz. vol. 214; p. 448.
Pneumatic Scale Corporation. (See Robinson, George A., assignor.)
Pointen, John E., Peterborough, England. Machine for preparing rubber. No. 1,138,410; May 4; Gaz. vol. 214; p. 243.
Poisson, Joseph, Fall River, assignor to Draper Company, Hopedale, Mass. Tension for loom-shuttles. No. 1,138,310; May 4; Gaz. vol. 214; p. 206.

Polinkowsky, Lipa, Brussels, Belgium, assignor to Western Electric Company, New York, N. Y. Telephone-exchange system. No. 1,139,906; May 18; Gaz. vol. 214; p. 843.
Pollard, Henry E., New Haven, Conn. Tube and pipe expander. No. 1,138,311; May 4; Gaz. vol. 214; p. 206.
Pollard, James S. (See Harris and Pollard.)
Pombo, Carlos, and T. Del Casal, Manila, Philippine Islands. Apparatus for drying copra. No. 1,141,003; May 25; Gaz. vol. 214; p. 1262.
Pond, Edward C., Petersburg, Va. Heel-guard for boots or shoes. No. 1,139,220; May 11; Gaz. vol. 214; p. 565.
Pond, Linnaeus C. (See Elliott and Pond.)
Poole, Staley D., assignor to Deere & Company, Moline, Ill. Harrow and cultivator. No. 1,138,971; May 11; Gaz. vol. 214; p. 477.
Poole, Staley D., Moline, Ill., assignor to Deere & Company. Cultivator. No. 1,140,767; May 25; Gaz. vol. 214; p. 1176.
Pope, Charles E., Holyoke, Mass. Method and machine for making paper. No. 1,140,711; May 25; Gaz. vol. 214; p. 1158.
Popp, Charles V., Charleston, W. Va. Vehicle-wheel. No. 1,140,284; May 18; Gaz. vol. 214; p. 973.
Porter, Emmons C., Brockton, Mass. Ice-harvesting apparatus. No. 1,138,312; May 4; Gaz. vol. 214; p. 207.
Porter, Emmons C., Brockton, Mass. Harvesting ice. No. 1,138,313; May 4; Gaz. vol. 214; p. 207.
Porter, Frederick P., Kellogg, Idaho. Power rock-drill. No. 1,140,185; May 18; Gaz. vol. 214; p. 941.
Porter, Willard E., Lynn, Mass., assignor to General Electric Company. Demand-indicator. No. 1,138,785; May 11; Gaz. vol. 214; p. 412.
Porter, Willard E., Lynn, Mass., assignor to General Electric Company. Demand-indicator. No. 1,138,786; May 11; Gaz. vol. 214; p. 412.
Porter, Willard E., Lynn, Mass., assignor to General Electric Company. Demand apparatus. No. 1,138,787; May 11; Gaz. vol. 214; p. 413.
Porter, Wilson E., assignor to New Haven Clock Co., New Haven, Conn. Striking, lever or marine clock. No. 1,139,369; May 11; Gaz. vol. 214; p. 616.
Post, William L., Cold Spring, N. Y. Brake-shoe. No. 1,139,798; May 18; Gaz. vol. 214; p. 804.
Poston, Roy H. (See Forbes and Poston.)
Potter, James C., Providence, R. I. Turret-slide mechanism for turret-lathes. No. 1,140,479; May 25; Gaz. vol. 214; p. 1080.
Potter, William G., Marblehead, Mass. Stop-valve. No. 1,139,221; May 11; Gaz. vol. 214; p. 565.
Potter, Winfield S., Pittsburgh, Pa. Screen. No. 1,139,447; May 11; Gaz. vol. 214; p. 645.
Potter, Winfield S., Pittsburgh, Pa. Woven-bar screen. No. 1,139,468; May 11; Gaz. vol. 214; p. 652.
Potter, Winfield S., Pittsburgh, Pa. Woven screen. No. 1,139,469; May 11; Gaz. vol. 214; p. 652.
Poulallion, Frank N., Des Moines, Iowa. Illuminated sign. No. 1,139,222; May 11; Ga. vol. 214; p. 566.
Poundstone, George C., Chicago, Ill. Pan-lifter. No. 1,137,806; May 4; Gaz. vol. 214; p. 60.
Powell, Frank D., Boston, Mass. Osteopathic apparatus. No. 1,137,898; May 4; Gaz. vol. 214; p. 60.
Powell, Frank D., assignor to The Lamson Company, Boston, Mass. Store-service apparatus and the like. No. 1,137,897; May 4; Gaz. vol. 214; p. 60.
Powell, Peter, Cambridge, assignor to Standard Tire and Rubber Company, Boston, Mass. Distention device for tubular structures. No. 1,140,527; May 25; Gaz. vol. 214; p. 1098.
Powell, William B. (See Wightman and Powell.)
Power, Harold J., Everett, Mass. Tuning telephone-receivers. No. 1,138,147; May 4; Gaz. vol. 214; p. 150.
Powers Accounting Machine Company. (See Powers, James, assignor.)
Powers, Elmer G., Ogden, Iowa. Attachment for milking-pails. No. 1,140,528; May 25; Gaz. vol. 214; p. 1098.
Powers, James, assignor, by mesne assignments, to Powers Accounting Machine Company, New York, N. Y. Perforating-machine. No. 1,138,314; May 4; Gaz. vol. 214; p. 208.
Powers Regulator Company, The. (See Snediker, Morton O., assignor.)
Prather, Porter. (See Ward and Clay, assignors.)
Pratt, Alphonso C., Montclair, N. J. Machine for making link mesh. No. 1,139,799; May 18; Gaz. vol. 214; p. 805.
Pratt, Austin J. (See Moore and Pratt.)
Pratt, Howell D., Philadelphia, Pa., assignor to Link-Belt Company, Chicago, Ill. Harvesting ice. No. 1,138,411; May 4; Gaz. vol. 214; p. 244.
Pratt, Joseph C., Philadelphia, Pa. Stop mechanism for textile-machines. No. 1,140,063; May 18; Gaz. vol. 214; p. 899.
Pratt, Louis L., Philadelphia, Pa. Pump. No. 1,139,071; May 11; Gaz. vol. 214; p. 514.
Pratt & Whitney Company. (See Hanson, Bengt M. W., assignor.)
Predonzan, Giovanni, Trieste, Austria-Hungary. Movable extension-ladder. No. 1,139,996; May 18; Gaz. vol. 214; p. 874.
Prepayment Car Sales Company. (See Paul, Abram F., assignor.)
Presby, Edwin O., New York, N. Y. Button. No. 1,137,789; May 4; Gaz. vol. 214; p. 24.
Presson, Alfred E., Gloucester, Mass. Collapsible bath-tub. No. 1,139,576; May 18; Gaz. vol. 214; p. 725.
Prevost, Dwight F., New York, N. Y. Tree-handling apparatus. No. 1,138,972; May 11; Gaz. vol. 214; p. 477.
Price, Bingham S., Rawlins, Wyo. Valve. No. 1,140,712; May 25; Gaz. vol. 214; p. 1158.
Price, Bingham S., Rawlins, Wyo. Pressure-valve. No. 1,140,713; May 25; Gaz. vol. 214; p. 1158.
Pridgen, Wiley H., Creek, N. C. Machine for heading and boring basket-bottoms. No. 1,139,223; May 11; Gaz. vol. 214; p. 566.
Prince, Helen A., Portland, Me. Surgical corset. No. 1,137,899; May 4; Gaz. vol. 214; p. 61.
Prince, Paul, Harrah, Okla. Knee rest for cotton-pickers. No. 1,138,973; May 11; Gaz. vol. 214; p. 478.
Pringle, Philip, Lipton, Canada. Internal-combustion engine. No. 1,140,894; May 25; Gaz. vol. 214; p. 1048.
Pringle, William A., Niagara Falls, N. Y., assignor, by mesne assignments, to American Sales Book Company, Limited. Delivery mechanism for printing-presses. No. 1,139,577; May 18; Gaz. vol. 214; p. 725.
Pritchard-Stamping Company. (See McDade and Dorsey, assignors.)
Progress Machine Company. (See Gaynor, John J., assignor.)
Prokop, Frank, Milwaukee, Wis. Sliding-shackle padlock. No. 1,140,285; May 18; Gaz. vol. 214; p. 974.
Puley, John M., Cleveland, Ohio. Paper-box. No. 1,138,788; May 11; Gaz. vol. 214; p. 413.
Pullar, James, Hartford, Conn. Horseshoe. No. 1,140,714; May 25; Gaz. vol. 214; p. 1159.
Pullman Company, The. (See Berg, Lars J., assignor.)
Pullman Couch Company. (See Fischoff, William M., assignor.)
Pumphrey, Walter H., New York, N. Y., assignor to American Graphophone Company, Bridgeport, Conn. Talking-machine. No. 1,139,224; May 11; Gaz. vol. 214; p. 566.
Purcell, Lee B., U. S. Navy. Firearm. No. 1,140,715; May 25; Gaz. vol. 214; p. 1159.
Purcell, William, Hornell, N. Y. Train-stopping apparatus. No. 1,139,136; May 11; Gaz. vol. 214; p. 537.
Purselley, James, assignor of one-fourth to R. L. Yarbro and one-fourth to W. C. Jones, Drumright, Okla. Nut-lock. No. 1,139,225; May 11; Gaz. vol. 214; p. 566.
Putnam, Deyo W., Buffalo, N. Y. Key-holder. No. 1,139,370; May 11; Gaz. vol. 214; p. 616.
Pyle-National Electric Headlight Company. (See Dake, Charles W., assignor.)
Pyle National Electric Headlight Company. (See Dake, Wilford W., assignor.)
Quick, Elmer, Trinidad, Colo. Cow's-tail holder. No. 1,140,186; May 18; Gaz. vol. 214; p. 942.
Quigley, Edward J., New York, N. Y. Combination-garment. No. 1,139,800; May 18; Gaz. vol. 214; p. 805.
Quigley, John T., assignor to The Costmeter Company, San Francisco, Cal. Time-cost meter. No. 1,139,718; May 18; Gaz. vol. 214; p. 777.
Quinn, Wilbur W., assignor to National Chemical Company, Syracuse, N. Y. Collar-ironing machine. No. 1,138,686; May 11; Gaz. vol. 214; p. 376.
R. Hoe and Co. (See Cooper, Ellis W., assignor.)
R. Hoe and Co. (See Halliwell, John J., assignor.)
R. H. Long Machinery Company, The. (See Doidge, John J., assignor.)
R. T. P. Patent Wheels Proprietary Limited. (See Park, Richard T., assignor.)
R. U. V. Company, The. (See Helbronner and Recklinghausen, assignors.)
R. U. V. Company, The. (See Henri, Helbronner, and Recklinghausen, assignors.)
Rabbitt, James A., Yokohama, Japan. Tire. No. 1,138,246; May 4; Gaz. vol. 214; p. 183.
Racine Sattley Company. (See Weaver, Ira A., assignor.)
Radick, Mary E., White Plains, N. Y. Doll's head. No. 1,138,412; May 4; Gaz. vol. 214; p. 244.
Ragan, Ralph, Atlanta, Ga. Explosive-engine. No. 1,139,578; May 18; Gaz. vol. 214; p. 726.
Rahn, Fridrich W., Chicago, Ill. Collapsible bed-bolster. No. 1,139,719; May 18; Gaz. vol. 214; p. 777.
Railway Electric Manufacturing Co. (See Rugh, Harry O., assignor.)
Raimondi, Antonio, Milan, Italy. Packing. No. 1,138,413; May 4; Gaz. vol. 214; p. 244.
Rajki, Steve, *et al.* (See Bradač, Ivan, assignor.)
Rakestraw, Harrison L., Toledo, Ohio. Carbureter. No. 1,140,064; May 18; Gaz. vol. 214; p. 899.
Rakowski, Wladislaus, Logan, W. Va. Fuel-brick. No. 1,140,395; May 25; Gaz. vol. 214; p. 1049.
Rakowsky, Louis, assignor of one-half to A. Josselson, Pittsburgh, Pa. Folding cradle. No. 1,138,247; May 4; Gaz. vol. 214; p. 183.
Rall, Theodor, Chicago, Ill. Vertical-lift bridge. No. 1,140,316; May 18; Gaz. vol. 214; p. 985.
Ramey, Mollie L., Artesia, N. Mex. Washing-machine. No. 1,139,907; May 18; Gaz. vol. 214; p. 843.
Ramsay, Norman F., Newcastle-upon-Tyne, England. Ship's-table guard or fiddle. No. 1,138,974; May 11; Gaz. vol. 214; p. 478.
Ramsey, Frank T., Austin, Tex. Vehicle. No. 1,138,148; May 4; Gaz. vol. 214; p. 151.
Rand, David L., Ayr., N. D. Magnetic separator. No. 1,138,889; May 11; Gaz. vol. 214; p. 449.
Rand, James H., Jr., North Tonawanda, N. Y. Guide for index systems. No. 1,140,480; May 25; Gaz. vol. 214; p. 1080.

Randall, Calvin D., Reward, Cal. Portable drilling-rig. No. 1,138,506; May 4; Gaz. vol. 214; p. 274.
Randolph, Theodore, Cleveland, Ohio. Storage hat-box. No. 1,138,414; May 4; Gaz. vol. 214; p. 244.
Raney, Thomas M., Leadville, Colo. Fruit-gatherer. No. 1,138,789; May 11; Gaz. vol. 214; p. 414.
Rank, John, Olympia, Wash. Link-operating mechanism for locomotives. No. 1,140,481; May 25; Gaz. vol. 214; p. 1080.
Ransome International Conduit Co. (See Brewer, Alfred A., assignor.)
Rateau, Auguste C. E., Paris, France, assignor to Rateau Battu Smoot Company, New York, N. Y. Multistage compressor. No. 1,140,065; May 18; Gaz. vol. 214; p. 900.
Rateau Battu Smoot Company. (See Rateau, Auguste C. E., assignor.)
Rateau Steam Regenerator Company. (See Battu, Leonce P. L., assignor.)
Rathbone, Sard & Company. (See Allen, Ernest J., assignor.)
Rathbun, Harry C. (See High and Rathbun.)
Ratterree, James N., Little Rock, Ark. Tire. No. 1,138,815; May 4; Gaz. vol. 214; p. 208.
Rauch and Lang Carriage Company, The. (See Cookingham and Hertner, assignors.)
Rawlings, Samuel V., Calumet, Mich. Machine for making and sharpening drill-bits. No. 1,140,396; May 25; Gaz. vol. 214; p. 1049.
Rayburn, Alden G. (See Rayburn, Elwyn M. and A. G.)
Rayburn, Elwyn M. and A. G., Sausalito, Cal. Speed-changing gear. No. 1,138,415; May 4; Gaz. vol. 214; p. 245.
Raymond-Barker, Edward, Wimbledon, assignor to The Amalgamated Radio-Telegraph Company, Limited, London, England. Radio telegraphy. No. 1,139,226; May 11; Gaz. vol. 214; p. 567.
Raymond, Philip L., Reading, Pa. Spark-arrester. No. 1,138,890; May 11; Gaz. vol. 214; p. 449.
Razutch, John, Cloquet, Minn. Ventilating appliance. No. 1,140,609; May 25; Gaz. vol. 214; p. 1125.
Read, Fred A., Lynn, assignor to The Reece Button Hole Machine Company, Boston, Mass. Buttonhole-stitching machine. No. 1,140,482; May 25; Gaz. vol. 214; p. 1081.
Read, Harry V. R., assignor to Aerators Limited, London, England. Device for aerating liquids. No. 1,138,248; May 4; Gaz. vol. 214; p. 183.
Rebert, Theodore J. (See Rust, Orton G., assignor.)
Rechtschaffen, Louis, New York, N. Y. Waist-belt. No. 1,139,310; May 11; Gaz. vol. 214; p. 594.
Recklinghausen, Max von. (See Helbronner and Recklinghausen.)
Recklinghausen, Max von. (See Henri, Helbronner, and Recklinghausen.)
Recording and Computing Machines Company, The. (See Mitten, Philip J., assignor.)
Recording and Computing Machines Company, The. (See Ohmer and McAllister, assignors.)
Redd, Charlie, assignor of one-half to I. Pieser and one-half to C. G. Livingston, Chicago, Ill. Carton weighing and filling machine. No. 1,140,915; May 25; Gaz. vol. 214; p. 1231.
Reddan Specialty Company. (See Kenney, Andrew E., assignor.) (Reissue.)
Redinger, Camden, Pierce, Pa. Pocket safety device. No. 1,138,507; May 4; Gaz. vol. 214; p. 275.
Reece Button Hole Machine Company, The. (See Read, Fred A., assignor.)
Reed, Allen T., Byers, Tex. Shoe-fitting stool. No. 1,139,227; May 11; Gaz. vol. 214; p. 567.
Reed, Allen T., Byers, Tex. Luggage-carrier. No. 1,141,004; May 25; Gaz. vol. 214; p. 1262.
Reed, David, Jr. (See Heninger and Reed.)
Reed, Harry L., Dorchester, Mass. Serum container and injector. No. 1,139,720; May 18; Gaz. vol. 214; p. 777.
Reed, Thomas E. (See Watkins, Owen C., assignor.)
Rees, Leon, London, England. Stuffed doll, puppet, toy figure, and the like. No. 1,139,997; May 18; Gaz. vol. 214; p. 875.
Rego, Henry J., San Jose, Cal. Folding double car-step. No. 1,138,975; May 11; Gaz. vol. 214; p. 478.
Reichard, Fritz, assignor to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Ammunition-hoist. No. 1,138,149; May 4; Gaz. vol. 214; p. 151.
Reiche, Hermann, Millstone, N. J. Lather-producing device. No. 1,139,228; May 11; Gaz. vol. 214; p. 567.
Reichert, John, Racine, Wis. Display-rack. No. 1,137,900; May 4; Gaz. vol. 214; p. 61.
Reichmann, Fritz, Albany, N. Y. Spring-balance scale. No. 1,138,687; May 11; Gaz. vol. 214; p. 376.
Reid, Alexander C., assignor to Cracraft, Leich Electric Company, Genoa, Ill. Self-restoring annunciator. No. 1,138,688; May 11; Gaz. vol. 214; p. 376.
Reid, Alfred J. H., Henderson, Tenn. Seed-planter. No. 1,137,901; May 4; Gaz. vol. 214; p. 62.
Reid, John W., *et al.*, executors. (See Macdonald, Hugh.)
Reifsnyder, Albert S., Reading Pa. Carrying device. No. 1,141,005; May 25; Gaz. vol. 214; p. 1262.
Reinecker, Richard, Chemnitz, Germany. Method of and apparatus for cutting the teeth of gear-wheels. No. 1,140,610; May 25; Gaz. vol. 214; p. 1125.
Remington Typewriter Company. (See Briggs, Arthur J., assignor.)
Remington Typewriter Company. (See Yaw, Clio B., assignor.)
Remy, Benjamin P. (See Remy and Berger.)
Remy, Benjamin P. and F. I., Anderson, Ind. Milking-machine. No. 1,140,066; May 18; Gaz. vol. 214; p. 900.
Remy Brothers Company. (See Remy and Berger, assignors.)
Remy, Frank I. (See Remy, Benjamin P. and F. I.)
Remy, Frank I. and B. P., and A. Berger, assignors to Remy Brothers Company, Anderson, Ind. Traction-wheel cleat. No. 1,140,067; May 18; Gaz. vol. 214; p. 901.
Renard, George S. (See Testelin and Renard.)
Rendelman, Isidor. (See Levitt and Rendelman.)
Renwick, Charles W. (See Lamoreaux and Renwick.)
Requa, Ralph W., Chico, Cal. Square. No. 1,139,229; May 11; Gaz. vol. 214; p. 568.
Reschke, Charles, Detroit, Mich. Micrometer-calipers. No. 1,140,611; May 25; Gaz. vol. 214; p. 1126.
Retzler, Joseph J., Swissvale, and J. L. Shelton, Turtle Creek, Pa. Music-leaf turner. No. 1,140,612; May 25; Gaz. vol. 214; p. 1126.
Revere Rubber Company. (See Cobb, Henry Z., assignor.)
Reynolds, Albert H., London, Ontario, Canada. Automatic machine for loading and screening coal and other material by power. No. 1,138,790; May 11; Gaz. vol. 214; p. 414.
Reynolds, Hugh A., Anniston, Ala. Tying device. No. 1,139,721; May 18; Gaz. vol. 214; p. 778.
Reynolds, John N., Greenwich, Conn., assignor to Western Electric Company, New York, N. Y. Selector-switch. No. 1,139,722; May 18; Gaz. vol. 214; p. 778.
Reynolds, Morley P., assignor to The W. S. Tyler Company, Cleveland, Ohio. Starch-drying truck. No. 1,139,072; May 11; Gaz. vol. 214; p. 514.
Rheinsche Dynamitfabrik. (See Weyel, Rudolf, assignor.)
Rhoades, Alonzo E., assignor to Draper Company, Hopedale, Mass. Automatically-threading loom-shuttle. No. 1,138,316; May 4; Gaz. vol. 214; p. 208.
Rhoades, Alonzo E., assignor to Draper Company, Hopedale, Mass. Spooler. No. 1,140,768; May 25; Gaz. vol. 214; p. 1177.
Rhoads, George W., and C. S. Small, Franklin, Pa. Lock-nut. No. 1,140,286; May 18; Gaz. vol. 214; p. 974.
Rhoads, Joseph E., Wilmington, Del. Making laminated structures. No. 1,140,187; May 18; Gaz. vol. 214; p. 942.
Rhodes, Charles F. (See Cline and Rhodes.)
Rhodes, Ernest G. (See Hatchett and Rhodes.)
Rhomoser, Matthew R., Sandy Hook, Conn., assignor to Fabric Fire Hose Company, New York, N. Y. Circular loom. No. 1,139,073; May 11; Gaz. vol. 214; p. 514.
Ribar, Louis, Detroit, Mich. Bed-table. No. 1,140,397; May 25; Gaz. vol. 214; p. 1049.
Rice, Norman E., Eureka, Cal. Stove-lid. No. 1,140,529; May 25; Gaz. vol. 214; p. 1099.
Rich, Elmer A., Jr., Chicago, Ill. Illuminated sign. No. 1,139,723; May 18; Gaz. vol. 214; p. 778.
Richard, Paul, Lebanon, Pa. Box. No. 1,139,801; May 18; Gaz. vol. 214; p. 805.
Richards, Frank W., Hotchkissville, assignor of one-half to C. M. Newman, Bridgeport, Conn. Buffing-machine. No. 1,139,371; May 11; Gaz. vol. 214; p. 617.
Richards, Fred T., assignor to Pelouze Manufacturing Co., Chicago, Ill. Scale. No. 1,140,530; May 25; Gaz. vol. 214; p. 1099.
Richardson, Frederick E., Manchester, Iowa. Door-latch. No. 1,139,311; May 11; Gaz. vol. 214; p. 594.
Richardson, John H., Melrose, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Resurfacing-tool. No. 1,140,398; May 25; Gaz. vol. 214; p. 1049.
Richardson, Wilber E., deceased; Wisconsin Trust Company, Milwaukee, Wis., administrator. Filter. No. 1,137,902; May 4; Gaz. vol. 214; p. 62.
Ricketts, Edwin B. (See Murray and Ricketts.)
Riddell, John W., Felton, England. Implement-socket fastening. No. 1,139,724; May 18; Gaz. vol. 214; p. 779.
Ridenour, John H., Muskogee, Okla. Sign-post. No. 1,139,802; May 18; Gaz. vol. 214; p. 806.
Ridgwell, James A., *et al.* (See Forbes, Joseph W., assignor.)
Ridgwell, William H., *et al.* (See Forbes, Joseph W., assignor.)
Riedel, Charles E., assignor to Detroit Scale Manufacturing Company, Detroit, Mich. Scale. No. 1,139,998; May 18; Gaz. vol. 214; p. 875.
Rieder, Talmon H., Berlin, Ontario, assignor to Canadian Consolidated Rubber Company, Limited, Montreal, Canada. Vulcanising apparatus. No. 1,138,791; May 11; Gaz. vol. 214; p. 414.
Rietz, Erich, Elberfeld, Germany, assignor to Synthetic Patents Co., Inc., New York, N. Y. Diacidylpyrocatechin-ortho-carboxylic-acid compound. No. 1,140,716; May 25; Gaz. vol. 214; p. 1159.
Rietzel, Adolph F., Westerly, R. I., assignor to Lachman Manufacturing Company, New York, N. Y. Construction of paper containers. No. 1,138,150; May 4; Gaz. vol. 214; p. 151.
Rietzsch, Alfred, administrator. (See Zahn, Robert.)
Rigby, Thomas. (See Testrup and Rigby.)
Riggs, John A. (See Caldwell, William F., assignor.)
Righter, Walter L., Plainfield, N. J. Golf-club. No. 1,140,399; May 25; Gaz. vol. 214; p. 1060.

Rike, Berton I., assignor to The Germless Paper Cup Company, Dayton, Ohio. Holder for folding paper vessels. No. 1,139,579; May 18; Gaz. vol. 214; p. 727.

Rike, Berton I., and J. R. Klin, assignors to The Germless Paper Cup Company, Dayton, Ohio. Holder for folding paper vessels. No. 1,139,580; May 18; Gaz. vol. 214; p. 727.

Riley, Thomas L., East Cleveland, assignor to The Cleveland Dental Manufacturing Company, Cleveland, Ohio. Dental tray. No. 1,139,581; May 18; Gaz. vol. 214; p. 727.

Rindskopf, Henry P., New York, N. Y. Bathing-cap. No 1,139,312; May 11; Gaz. vol. 214; p. 595.

Ring, Albert N., assignor of one-fourth to F. A. Ring and one-fourth to O. W. Ring, Buhl, Idaho. Detachable metallic shoe-sole. No. 1,140,613; May 25; Gaz. vol. 214; p. 1126.

Ring, Fred A., *et al.* (See Ring, Albert N., assignor.)

Ring, Otto W., *et al.* (See Ring, Albert N., assignor.)

Rinsche, Frank C., St. Louis, Mo., assignor, by mesne assignments, to Burroughs Adding Machine Company, Detroit, Mich. Calculating-machine. No. 1,138,792; May 11; Gaz. vol. 214; p. 415.

Rinsche, Frank C., assignor to Burroughs Adding Machine Company, Detroit, Mich. Adding-machine. No. 1,138,793; May 11; Gaz. vol. 214; p. 415.

Riphahn, Martin M., Waunakee, Wis. Vehicle-lamp. No. 1,139,725; May 18; Gaz. vol. 214; p. 779.

Risberg, Fred A., Chicago, Ill. Stitching-machine. No. 1,140,531; May 25; Gaz. vol. 214; p. 1100.

Riter-Conley Manufacturing Company. (See Carpenter, Henry A., assignor.)

Riter-Conley Manufacturing Company. (See Carpenter and Barnum, assignors.)

Riter-Conley Manufacturing Company. (See Carpenter and Warner, assignors.)

Ritter, Frank, Rochester, N. Y. Dental chair. No. 1,137,903; May 4; Gaz. vol. 214; p. 52.

Ritz, John G., New York, N. Y. Automobile engine-lock valve. No. 1,141,006; May 25; Gaz. vol. 214; p. 1263.

Rivers, Julian H., St. Louis, Mo., assignor, by mesne assignments, to Universal Fibre Company, New York, N. Y. Machine for molding liquid-borne particles. No. 1,138,891; May 11; Gaz. vol. 214; p. 449.

Riser, Louis S., Springfield, Ohio. Motor. No. 1,140,532; May 25; Gaz. vol. 214; p. 1100.

Roberts, Clarence V., and J. W. Butler, assignors to Roberts & Mander Stove Company, Philadelphia, Pa. Gas-burner. No. 1,138,416; May 4; Gaz. vol. 214; p. 248.

Roberts, Claude B., Belfast, Me. Grate. No. 1,138,976; May 11; Gaz. vol. 214; p. 479.

Roberts, Claude B., Belfast, Me. Furnace-grate. No. 1,138,977; May 11; Gaz. vol. 214; p. 479.

Roberts, Claude B., Belfast, Me. Furnace-grate. No. 1,138,978; May 11; Gaz. vol. 214; p. 480.

Roberts, Daniel W., assignor to The Billings-Chapin Company, Cleveland, Ohio. Machine for dipping and drying articles. No. 1,140,068; May 18; Gaz. vol. 214; p. 901.

Roberts, Edward F., assignor to Packard Motor Car Company, Detroit, Mich. Hydrocarbon-motor. No. 1,138,892; May 11; Gaz. vol. 214; p. 450.

Roberts, Frank P., Tacoma, Wash. Automobile-headlight-control mechanism. No. 1,139,230; May 11; Gaz. vol. 214; p. 568.

Roberts, George G., Toledo, Ohio. Bottle-shipping case. No. 1,139,582; May 18; Gaz. vol. 214; p. 728.

Roberts, Jones H., and G. Rolnick, Houston, Tex. Protector for the crown of headwear. No. 1,139,803; May 18; Gaz. vol. 214; p. 806.

Roberts & Mander Stove Company. (See Roberts and Butler, assignors.)

Roberts, Wilbert R., South Bend, Ind. Trunk. No. 1,139,726; May 18; Gaz. vol. 214; p. 779.

Roberts, William J., Pawtucket, R. I. Threading attachment for shuttles. No. 1,140,287; May 18; Gaz. vol. 214; p. 974.

Roberts, William T. B., Leicester, England, assignor to United Shoe Machinery Company, Paterson, N. J. Sole fastening and trimming machine. No. 1,139,727; May 18; Gaz. vol. 214; p. 779.

Robertson, J. B. (See Hays, Edward W., assignor.)

Robins, Charles R., Watertown, Wis. Rail-joint. No. 1,139,372; May 11; Gaz. vol. 214; p. 617.

Robins, George, Jackson, Mich. Horseshoe heel-calk. No. 1,140,851; May 25; Gaz. vol. 214; p. 1207.

Robinson, Edgar B. (See Estes and Robinson.)

Robinson, Eugene M., Chicago, Ill. Switch mechanism. No. 1,140,916; May 25; Gaz. vol. 214; p. 1232.

Robinson, George A., Boston, assignor to Pneumatic Scale Corporation, Limited, Quincy, Mass. Carton-blank. No. 1,140,288; May 18; Gaz. vol. 214; p. 975.

Robinson, Herman P., Bristol, Tenn. Balance slide-valve. No. 1,140,188; May 18; Gaz. vol. 214; p. 942.

Robinson, James C., and J. Andrews, Denver, Colo. Nut-lock. No. 1,141,007; May 25; Gaz. vol. 214; p. 1263.

Robinson, John G., Melrose, Mass. Steam vacuum-pump. No. 1,138,893; May 11; Gaz. vol. 214; p. 450.

Robinson, Lewis T., and J. T. Dempster, Schenectady, N. Y., assignor to General Electric Company. Demand apparatus. No. 1,139,466; May 11; Gaz. vol. 214; p. 651.

Robinson, Miner, Newton, Mass. Outlet-box. No. 1,140,917; May 25; Gaz. vol. 214; p. 1232.

Robinson, Theodore D., assignor, by mesne assignments, to Amper Electric Co., Inc., Lockport, N. Y. Current-diverter. No. 1,140,317; May 18; Gaz. vol. 214; p. 985.

Robinson, Wallace W., Portland, Me. Cushion-rim for pneumatic tires. No. 1,139,583; May 18; Gaz. vol. 214; p. 728.

Robinson, William V., Lansing, Mich. Polishing or grinding machine. No. 1,139,728; May 18; Gaz. vol. 214; p. 780.

Robson, John. (See Wilson and Robson.)

Rochelle, Raymond C., Hubbard, Tex. Type-writer cover. No. 1,139,804; May 18; Gaz. vol. 214; p. 806.

Rochester Shellac Company. (See Schultz, Frederick A., assignor.)

Rock, Patrick J., Homeville, Pa. Locomotive. No. 1,138,894; May 11; Gaz. vol. 214; p. 450.

Rockstroh, Max. Klein Sedlitz, near Pirna, Germany. Platen printing-press. No. 1,137,790; May 4; Gaz. vol. 214; p. 24.

Rockstroh, Max, Klein Sedlitz, near Pirna, Germany. Inking mechanism for platen printing-presses. No. 1,139,584; May 18; Gaz. vol. 214; p. 728.

Rockwood Sprinkler Company of Massachusetts. (See Carlson, Hjalmar G., assignor.)

Rodger Ballast Car Company. (See Neikirk, John O., assignor.)

Rodier, Frederick W., Cincinnati, assignor to Victor Safe & Lock Co., Norwood, Ohio. Means for automatically closing vault-doors. No. 1,139,074; May 11; Gaz. vol. 214; p. 515.

Roeder, Paul T., Bloomington, Ill. Automatic catch. No. 1,140,852; May 25; Gaz. vol. 214; p. 1208.

Roehrig, Frederick. (See Armantage and Roehrig.)

Rogalsky, Hyman R., Bradford, Pa. Safety device for cuff-buttons. No. 1,139,137; May 11; Gaz. vol. 214; p. 537.

Rogers Automatic Lens Company, The. (See Rogers, Walter K., assignor.)

Rogers, John R., Brooklyn, N. Y., assignor to Mergenthaler Linotype Company. Typographical machine. No. 1,137,904; May 4; Gaz. vol. 214; p. 63.

Rogers, John R., Brooklyn, N. Y., assignor to Mergenthaler Linotype Company. Typographical machine. No. 1,137,905; May 4; Gaz. vol. 214; p. 63.

Rogers, Ralph F., Chicago, Ill. Motor-cycle side-car frame. No. 1,140,069; May 18; Gaz. vol. 214; p. 901.

Rogers-Shear Company, The. (See Perry, Eugene L., assignor.)

Rogers, Walter K., assignor to The Rogers Automatic Lens Company, Toledo, Ohio. Lens-grinding machine. No. 1,140,483; May 25; Gaz. vol. 214; p. 1081.

Rogers, William G. (See Castle and Rogers.)

Rogers, William J., Seattle, Wash. Diving apparatus. No. 1,139,805; May 18; Gaz. vol. 214; p. 806.

Rohlfing, John M., assignor to American Car and Foundry Company, St. Louis, Mo. Brake-beam. No. 1,140,614; May 25; Gaz. vol. 214; p. 1126.

Rohlfing, John M., assignor to American Car and Foundry Company, St. Louis, Mo. Brake-beam. No. 1,140,615; May 25; Gaz. vol. 214; p. 1127.

Rohlfing, John M., St. Louis, Mo., assignor, by mesne assignments, to Chicago Railway Equipment Company. Brake-beam strut. No. 1,140,616; May 25; Gaz. vol 214; p. 1127.

Rohlfing, John M., assignor to American Car and Foundry Company, St. Louis, Mo. Friction draft-gear. No. 1,141,093; May 25; Gaz. vol. 214; p. 1291.

Rohlfing, John M., assignor to American Car and Foundry Company, St. Louis, Mo. Friction draft-gear. No. 1,141,094; May 25; Gaz. vol. 214; p. 1292.

Rohrer, William L., *et al.* (See Wills, William, assignor.)

Roley, Matthew. (See Macfarlane and Roley.)

Rolnick, Gus. (See Roberts and Rolnick.)

Romito, Nicola, Newell, Pa. Hat-pin-point protector. No. 1,139,373; May 11; Gaz. vol. 214; p. 617.

Roney, Edward A., Goldfield, Nev. Watch case and movement protector. No. 1,139,374; May 11; Gaz. vol. 214; p. 618.

Rooney, Luke H., New Bedford, assignor to The Whitin Machine Works, Whitinsville, Mass. Ring-frame tool. No. 1,139,806; May 18; Gaz. vol. 214; p. 807.

Rooney, Thomas F., St. Louis, Mo., assignor to United Shoe Machinery Company, Paterson, N. J. Insole for shoes. No. 1,140,918; May 25; Gaz. vol. 214; p. 1233.

Roof, Edwin R., executor. (See Stroud, John J.)

Root, Ralph R., Cleveland, Ohio. Brooder. No. 1,138,508; May 4; Gaz. vol. 214; p. 275.

Rose, Charles M., New York, N. Y. Telephone-call recorder. No. 1,140,070; May 18; Gaz. vol. 214; p. 902.

Rose, George F., New York, N. Y. Type-writer. No. 1,138,317; May 4; Gaz. vol. 214; p. 209.

Rose, George F., New York, N. Y. Type-writer. No. 1,138,318; May 4; Gaz. vol. 214; p. 210.

Rosenberg, Arthur, New York, N. Y. Suspension device. No. 1,137,906; May 4; Gaz. vol. 214; p. 64.

Rosenberry, John W., Betula, Pa. Mop-wringer. No. 1,137,907; May 4; Gaz. vol. 214; p. 64.

Rosenbluth, Edwin M., Philadelphia, Pa. Acetylene-gas generator. No. 1,140,853; May 25; Gaz. vol. 214; p. 1208.

Rosenstein, D. L. (See Karlik, Johan, assignor.)

Rosenthal, Levi M. (See Mitchell, George W., assignor.)

Rosenthal, Morris G., Mentor, Ohio. Union suit. No. 1,139,999; May 18; Gaz. vol. 214; p. 875.

Ross, Elmore N., *et al.* (See Atkins, William, assignor.)

Ross, John, Philadelphia, Pa. Traction and antiskidding device for automobiles. No. 1,138,014; May 4; Gaz. vol. 214; p. 101.

Ross, Oscar A., assignor of one-half to C. V. Kasson, Chicago, Ill. Fender or the like. No. 1,140,336; May 18; Gaz. vol. 214; p. 993.

Rotary Photographic Company, The. (See Madaler, Ferdinand von, assignor.)

Roth, Andrew W., River Aux Vases, Mo. Stove. No. 1,139,231; May 11; Gaz. vol. 214; p. 568.

Rothe, William F., East St. Louis, Ill. Carbureter. No. 1,140,071; May 18; Gaz. vol. 214; p. 902.

Rothenberg, Louis S. (See Hilton, Roland C., assignor.)

Rothenberger, Daniel M., Reading, assignor of one-half to G. W. Heffelfinger, Wyomissing, Pa. Puncture-proof tire. No. 1,139,807; May 18; Gaz. vol. 214; p. 807.

Rothschild, Marcus. (See Luby, Theodore, assignor.)

Rottenburg, Henry, Cambridge, England. Camera-stand. No. 1,138,417; May 4; Gaz. vol. 214; p. 246.

Rounds, James A., Atlantic City, N. J. Shade-fixture. No. 1,139,729; May 18; Gaz. vol. 214; p. 780.

Rowe, Bertrand P., Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company. Synchronizing system. No. 1,138,689; May 11; Gaz. vol. 214; p. 376.

Rowley, Arthur C., assignor to Associated Automatic Sprinkler Co., Philadelphia, Pa. Apparatus for operating alarms or other devices. No. 1,138,249; May 4; Gaz. vol. 214; p. 184.

Roy, Wadsworth D., Chicago, Ill. Poster or display-card. No. 1,139,075; May 11; Gaz. vol. 214; p. 515.

Royal Typewriter Company. (See Hess, Edward B., assignor.)

Rubesky, William J., Minneapolis, Minn. Carbureter for explosion-engines. No. 1,140,000; May 18; Gaz. vol. 214; p. 876.

Rubinstein, Tobias L., assignor to The New Era Manufacturing Company, St. Louis, Mo. Apparel-shirt. No. 1,138,895; May 11; Gaz. vol. 214; p. 451.

Rugh, Harry O., assignor to Railway Electric Manufacturing Co., Chicago Ill. Voting-machine control. No. 1,141,074; May 25; Gaz. vol. 214; p. 1284.

Rugh, Harry O., assignor to Railway Electric Manufacturing Co., Chicago, Ill. Voting-machine. No. 1,141,075; May 25; Gaz. vol. 214; p. 1285.

Ruhm Phosphate Mining Company. (See Davison, George L., assignor.)

Rumold, Christian F., Berea, Ky. Centrifugal circuit-breaker. No. 1,137,908; May 4; Gaz. vol. 214; p. 64.

Runge, Charles B., Chicago, Ill. Window-cleaning device. No. 1,140,001; May 18; Gaz. vol. 214; p. 876.

Runyan, Arthur L. (See Falls and Runyan.)

Rusby, John M., assignor to The United Gas Improvement Company, Philadelphia, Pa. Heating coal-gas-retort chambers and the like. No. 1,140,337; May 18; Gaz. vol. 214; p. 993.

Rusfeldt, Edward, Grand Forks, N. D. Cuspidor-carrier. No. 1,137,909; May 4; Gaz. vol. 214; p. 65.

Rushton, Kenneth. (See Vauclain and Rushton.)

Rushton, Kenneth, assignor to The Baldwin Locomotive Works, Philadelphia, Pa. Shifting mechanism for valve-gears. No. 1,141,008; May 25; Gaz. vol. 214; p. 1263.

Rushton, Thomas, Upper Holloway, London, England. Electrically-driven clock. No. 1,138,979; May 11; Gaz. vol. 214; p. 480.

Russell and Company, The. (See Heggem, Charles O., assignor.)

Russell, Nelson J., Minneapolis, Minn. Actuating mechanism for gas-generating machines. No. 1,138,151; May 4; Gaz. vol. 214; p. 152.

Rust, Orton G., assignor of one-half to T. J. Rebert, Springfield, Ohio. Display device. No. 1,140,318; May 18; Gaz. vol. 214; p. 986.

Rustige, Frans J. H., Stockholm, Sweden. Automatic intermittent-light apparatus. No. 1,140,617; May 25; Gaz. vol. 214; p. 1127.

Rutenber, Edwin A., Logansport, Ind. Resistance for electric heaters. No. 1,139,076; May 11; Gaz. vol. 214; p. 515.

Rutlan, Alfred A., Rochester, N. Y. Saw-guard. No. 1,140,400; May 25; Gaz. vol. 214; p. 1050.

Rutter, Alfred, Mentone, Victoria, Australia. Sterilizing milk, cream, beverages, and other alimentary substances. No. 1,140,717; May 25; Gaz. vol. 214; p. 1160.

Ryan, Robert M. (See Baty and Ryan.)

Ryan, William P., assignor of one-half to E. K. Burnham, Gloucester, Mass. Fishing-trawl. No. 1,138,896; May 11; Gaz. vol. 214; p. 451.

Ryckman, Andrew, Waukegan, Ill. Gearing. No. 1,139,808; May 18; Gaz. vol. 214; p. 807.

Rydell, Carl, Manila, Philippine Islands. Life-saving apparatus. No. 1,138,319; May 4; Gaz. vol. 214; p. 210.

Ryden, Claes, Providence, R. I., assignor to Universal Winding Company, Portland, Me. Winding-machine. No. 1,138,320; May 4; Gaz. vol. 214; p. 210.

Rydquist, Oscar R., St. Croix Falls, Wis. Oil-can. No. 1,138,794; May 11; Gaz. vol. 214; p. 416.

Rypinski, Albert B., New York, N. Y., assignor to Westinghouse Electric and Manufacturing Company. Meter. No. 1,138,690; May 11; Gaz. vol. 214; p. 377.

S. F. Bowser & Company. (See Bowser, Allen A., assignor.)

Saart, Herman, Attleboro, Mass., assignor to The W. H. Saart Company. Cigarette-supporter. No. 1,140,072; May 18; Gaz. vol. 214; p. 903.

Sabbag, Litfallah G. (See Jones and Sabbag.)

Sable, Morris, Denver, Colo. Car-coupling. No. 1,138,321; May 4; Gaz. vol. 214; p. 211.

Sachs, Carl R., Fremont, Ohio. Wagon-seat support. No. 1,140,769; May 25; Gaz. vol. 214; p. 1177.

Sackett, Franklin P., Washington, D. C. Headlight for vehicles. No. 1,140,189; May 18; Gaz. vol. 214; p. 943.

Safety Car Heating and Lighting Co., The. (See Bijur, Joseph, assignor.)

Safety Car Heating and Lighting Company. (See Creveling, John L., assignor.)

Safety Car Heating and Lighting Company. (See Shaal, Robert C., assignor.)

Safety First Air Brake Company. (See Comerford, Patrick, assignor.)

Safford, Clarence E., Detroit, Mich. Reel for wire-fabric machines. No. 1,139,077; May 11; Gaz. vol. 214; p. 516.

Salkeld, Eugene W., assignor of one-third to A. E. Chaffee and one-third to E. W. Bradford, Washington, D. C. Clothes-line clip. No. 1,139,908; May 18; Gaz. vol. 214; p. 843.

Sally, Frank, Mount Vernon, N. Y. Mechanism for removing nibs from the die-cylinders of record-strip composing-machines. No. 1,140,854; May 25; Gaz. vol. 214; p. 1209.

Salzinger, Louis. (See Lewis and Salzinger.)

Sampson, Robert W., Westmount, Quebec, Canada. Puncture-closer for pneumatic tires. No. 1,140,718; May 25; Gaz. vol. 214; p. 1160.

Samson Car Coupler Company. (See Doerr, Harry E., assignor.)

Samuel, Thoms F., and J. H. Wolcott, Boston, Ga. Combined tobacco and match box. No. 1,138,980; May 11; Gaz. vol. 214; p. 480.

Sanborn, John R., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Producing mica insulation. No. 1,138,691; May 11; Gaz. vol. 214; p. 377.

Sand Mixing Machine Company. (See Minich, Verne E., assignor.)

Sanders, Earl V., Pawnee, Ill. Pneumatic cushioning device for vehicles. No. 1,140,002; May 18; Gaz. vol. 214; p. 877.

Sanderson, Marvin C., Hackleburg, Ala. Single-trigger mechanism for double-barrel guns. No. 1,140,003; May 18; Gaz. vol. 214; p. 877.

Sands, Guy G., East Greenville, Pa. Shuttle-operating mechanism. No. 1,138,418; May 4; Gaz. vol. 214; p. 246.

Sanitary Can Company. (See Augensen, August M., assignor.)

Santo Manufacturing Company. (See Templin, Joseph H., assignor.)

Santrock, Henry, Kensington, Kans. Hoisting apparatus for silos. No. 1,138,322; May 4; Gaz. vol. 214; p. 212.

Saracco, Pietro, Turin, Italy. Spinning and twisting machine. No. 1,138,981; May 11; Gaz. vol. 214; p. 481.

Sargent, Allan C., Westford, assignor to C. G. Sargent's Sons Corporation, Graniteville, Mass. Bagging-machine. No. 1,140,484; May 25; Gaz. vol. 214; p. 1082.

Sargent & Company. (See Kimball, Frank I., assignor.)

Sargent & Company. (See Kirschner, George W., assignor.)

Sargent & Company. (See Merritt, Irving D., assignor.)

Sargent & Company. (See Page, Albert A., assignor.)

Sargent & Company. (See Sargent, Joseph D., assignor.)

Sargent & Company. (See Shaw, John H., assignor.)

Sargent & Company. (See Shaw and Page, assignors.)

Sargent & Company. (See Sparks, William E., assignor.)

Sargent, Joseph D., assignor to Sargent & Company, New Haven, Conn. Lock. No. 1,137,791; May 4; Gaz. vol. 214; p. 24.

Sari, Mary, Cleveland, Ohio. Kitchen utensil. No. 1,138,897; May 11; Gaz. vol. 214; p. 451.

Sartain, William H., Columbus, Ohio. Deodorising device. No. 1,140,533; May 25; Gaz. vol. 214; p. 1101.

Saubestre, Edouard, New York, N. Y. Puttee. No. 1,138,152; May 4; Gaz. vol. 214; p. 152.

Sauermann, Franz H. (See Stoehr and Sauermann.)

Sault, William A., assignor of two-fifths to E. Whitehead, Worcester, Mass. Sanding device for street cars. No. 1,140,618; May 25; Gaz. vol. 214; p. 1128.

Saunders, Charles R., Cleveland, Ohio. Lever-lock. No. 1,138,795; May 11; Gaz. vol. 214; p. 416.

Saunders, Charles R., Cleveland, Ohio. Automobile-lock. No. 1,138,796; May 11; Gaz. vol. 214; p. 416.

Saurer, Firm of Adolph. (See Eggart, Karl, assignor.)

Saurer, Hippolyt, Arbon, Switzerland. Jacquard embroidery-machine. No. 1,138,015; May 4; Gaz. vol. 214; p. 102.

Saurer, Hippolyt, Arbon, Switzerland. Jacquard embroidering-machine. No. 1,139,375; May 11; Gaz. vol. 214; p. 618.

Sauvage, William H., New York, N. Y. Fluid-pressure brake system. No. 1,139,376; May 11; Gaz. vol. 214; p. 618.

Savage, Arthur W., San Diego, Cal. Making inner tubes for vehicle-tires and the like. No. 1,138,250; May 4; Gaz. vol. 214; p. 184.

Savage, Harlow D., Ashland, Ky., assignor, by mesne assignments, to American Arch Company, New York, N. Y. Baffle-wall for locomotive fire-boxes. No. 1,138,045; May 4; Gaz. vol. 214; p. 113.

Sawyer, Walter H., Americus, Ga. Bagging-scale. No. 1,140,485; May 25; Gaz. vol. 214; p. 1082.

Saxton, Joseph. (See Wells and Saxton.)
Sayer, George J., Chicago, Ill. Meat-guide. No. 1,138,509; May 4; Gaz. vol. 214; p. 276.
Sayer, George J., Chicago, Ill. Meat-guide for slicing-machines. No. 1,138,692; May 11; Gaz. vol. 214; p. 377.
Scardino, Pietro, New York, N. Y. Collapsible table for paper-hangers' use. No. 1,140,073; May 18; Gaz. vol. 214; p. 903.
Schaake, William, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Trolley. No. 1,138,693; May 11; Gaz. vol. 214; p. 378.
Schade, Albert, Philadelphia, Pa. Non-return stop-valve. No. 1,137,910; May 4; Gaz. vol. 214; p. 65.
Schade, John, Jr., Brooklyn, N. Y., assignor to National Blank Book Company, Holyoke, Mass. Loose-leaf binder. No. 1,140,534; May 25; Gaz. vol. 214; p. 1101.
Schaefer, Joseph, Frankfort-on-the-Main, Germany. Mash-filter plate. No. 1,138,251; May 4; Gaz. vol. 214; p. 184.
Schall, John, Evergreen Park, Ill. Rotatable shoe-heel. No. 1,140,004; May 18; Gaz. vol. 214; p. 878.
Schanandoah, Chapman, Brooklyn, N. Y. Explosive. No. 1,141,009; May 25; Gaz. vol. 214; p. 1263.
Scheel, George L., Chicago, Ill. Hair-drying device. No. 1,137,792; May 4; Gaz. vol. 214; p. 24.
Scheidel-Western X-Ray Coil Company. (See Hutton, Samuel T., assignor.)
Schemmer, August J., Sandusky, Ohio. Combination-tool. No. 1,138,153; May 4; Gaz. vol. 214; p. 152.
Scheu, John L., Susanville, Cal. Tie-clasp. No. 1,139,585; May 18; Gaz. vol. 214; p. 728.
Scheuerle, Henry A., Philadelphia, Pa. Mechanism for making bifocal lenses. No. 1,140,401; May 25; Gaz. vol. 214; p. 1051.
Scheurmann, Walter P., assignor to The Hill-Tripp Pump Company, Anderson, Ind. Deep-well pump. No. 1,141,010; May 25; Gaz. vol. 214; p. 1263.
Schlueter, Charles F., Milwaukee, Wis. Extension-table. No. 1,139,730; May 18; Gaz. vol. 214; p. 780.
Schmals, Adalbert and A., Chicago, Ill. Curtain-pole. No. 1,140,074; May 18; Gaz. vol. 214; p. 903.
Schmals, Alban. (See Schmalz, Adalbert and A.)
Schmidt, Albert, assignor to Champion Ignition Company, Flint, Mich. Spark-plug. No. 1,138,797; May 11; Gaz. vol. 214; p. 417.
Schmidt, Annie W., Oakland, Cal. Sound-box. No. 1,137,911; May 4; Gaz. vol. 214; p. 65.
Schmidt, Gottfried, assignor of one-half to R. B. Barber, Hazleton, Pa. Valve. No. 1,140,619; May 25; Gaz. vol. 214; p. 1128.
Schmidt, Louis, and S. Brunstien, Lakewood, N. J. Window-sash lift and lock. No. 1,140,770; May 25; Gaz. vol. 214; p. 1178.
Schmidt, Willy, Frankfort-on-the-Main, Germany. Device for relieving the pull on the rope for coupling devices for electric conductors. No. 1,139,138; May 11; Gaz. vol. 214; p. 537.
Schmidt'sche Heissdampf-Gesellschaft m. b. H. (See Thomsen, Peter, assignor.)
Schmitt, Charles A., Anaconda, Mont. Cutter. No. 1,140,402; May 25; Gaz. vol. 214; p. 1052.
Schneider, Carl J., New York, N. Y. Fuel-briquet. No. 1,138,016; May 4; Gaz. vol. 214; p. 102.
Schock, Gustav and R. C., New York, N. Y. Package-washing machine. No. 1,139,377; May 11; Gaz. vol. 214; p. 619.
Schock, Robert C. (See Schock, Gustav and R. C.)
Schoenfeld, Morris, Borschach, Switzerland. Embroidering-machine. No. 1,139,586; May 18; Gaz. vol. 214; p. 728.
Schoenmehl, Charles B., Waterbury, Conn. Battery electrode. No. 1,140,403; May 25; Gaz. vol. 214; p. 1052.
Schofield, Mason & Co. (See Bing, Albert W., assignor.)
Scholz, Louis A., Roanoke, Va. Fruit-jar. No. 1,140,486; May 25; Gaz. vol. 214; p. 1082.
Schramm, Oscar A., Delphos, Ohio. Brooder. No. 1,138,798; May 11; Gaz. vol. 214; p. 417.
Schrempp, Karl, Karlsruhe, Germany. Softening water. No. 1,139,378; May 11; Gaz. vol. 214; p. 619.
Schröder, Wilhelm G., Lübeck, Germany. Apparatus for homogenizing milk and other liquids. No. 1,140,289; May 18, Gaz. vol. 214; p. 975.
Schroeder, Anthony, Cleveland, Ohio. Removable cover for metal barrels. No. 1,140,535; May 25; Gaz. vol. 214; p. 1101.
Schroeder, William A. (See Dowling and Schroeder.)
Schroyer, Harry H., Chicago, Ill., assignor to The Acme Supply Company. Retaining-batten for insulation, thermal or otherwise. No. 1,137,793; May 4; Gaz. vol. 214; p. 25.
Schubert & Salzer, Maschinenfabrik, Aktiengesellschaft. (See Michael, Max, assignor.)
Schulte, John O., Cincinnati, Ohio. Instantaneous hot-water heater. No. 1,139,379; May 11; Gaz. vol. 214; p. 619.
Schultz, Frederick A., assignor to Rochester Shellac Company, Rochester, N. Y. Floor-polisher. No. 1,139,809; May 18; Gaz. vol. 214; p. 808.
Schultz, Henry F., Salt Lake City, Utah. Antirefillable bottle. No. 1,138,419; May 4; Gaz. vol. 214; p. 246.
Schur, Earnest H., assignor of one-fourth to M. Keller and one-fourth to B. Keller, Hibbing, Minn. Cushion-wheel. No. 1,140,771; May 25; Gaz. vol. 214; p. 1178.
Schürmann, Walter, Dusseldorf, Germany. Flexible shaft. No. 1,137,794; May 4; Gaz. vol. 214; p. 25.
Schustek, Andrew, Chicago, Ill. Film-feeding mechanism. No. 1,139,731; May 18; Gaz. vol. 214; p. 780.
Schverms, Bohumil, Two Rivers, Wis. Egg-carrier. No. 1,140,005; May 18; Gaz. vol. 214; p. 878.
Schwab, Charles F., Eugene, Oreg. Nut-lock. No. 1,138,898; May 11; Gaz. vol. 214; p. 451.
Schwab, Isaac M., Savannah, Ga. Eyeglass-guard. No. 1,141,011; May 25; Gaz. vol. 214; p. 1264.
Schwab, William R., assignor to The Cameragraph Company, Kansas City, Mo. Photographic material. No. 1,141,012; May 25; Gaz. vol. 214; p. 1264.
Schwarz, Frederick, Berne, Ind. Rotary swing. No. 1,139,232; May 11; Gaz. vol. 214; p. 569.
Schwarz, Fritz, Mariendorf, near Berlin, assignor to Daimler-Motoren-Gesellschaft, Untertürkheim, Germany. Fuel-valve-governing device for combustion-motors. No. 1,141,013; May 25; Gaz. vol. 214; p. 1264.
Schwarze, Herman G. C., Detroit, Mich. Speed-changing mechanism. No. 1,139,078; May 11; Gaz. vol. 214; p. 516.
Schwarzschild, Monroe M. (See Nicklin, Albert E., assignor.)
Schweiger, Lawrence J., Kansas City, Mo. Dry-kiln gage. No. 1,137,795; May 4; Gaz. vol. 214; p. 25.
Schwenk, John L. (See Leash and Schwenk.)
Schwentler, Francis E., assignor to American Brake Company, St. Louis, Mo. Brake-rigging for radial trucks. No. 1,138,252; May 4; Gaz. vol. 214; p. 185.
Schwentler, Francis E., assignor to American Brake Company, St. Louis, Mo. Locomotive brake-rigging. No. 1,138,253; May 4; Gaz. vol. 214; p. 185.
Scognamillo, Concetta P., New York, N. Y. Automobile-horn. No. 1,139,233; May 11; Gaz. vol. 214; p. 569.
Scognamillo, Salvatore, New York, N. Y. Signal-horn. No. 1,140,290; May 18; Gaz. vol. 214; p. 976.
Scott, James C., Portsmouth, Ohio, assignor to Unitee Knitwear Company, Oriskany Falls, N. Y. Union undergarment. No. 1,138,982; May 11; Gaz. vol. 214; p. 481.
Scott Paper Company. (See Hamilton, Walter L., assignor.)
Scott, Robert P., Cadiz, Ohio. Road. No. 1,138,983; May 11; Gaz. vol. 214; p. 481.
Scott, Robert W., Boston, Mass. Adjustment device for machine elements. No. 1,138,799; May 11; Gaz. vol. 214; p. 417.
Scott, Walter T., Gloucester, Mass. Fastening device. No. 1,140,291; May 18; Gaz. vol. 214; p. 976.
Scott, William M., Berwyn, Pa. Circuit-breaker. No. 1,138,800; May 11; Gaz. vol. 214; p. 418.
Scott, William W., Plant City, Fla. Horn-blowing attachment for automobiles. No. 1,138,801; May 11; Gaz. vol. 214; p. 418.
Scott & Williams. (See Zens, Joseph H., assignor.)
Scovill Manufacturing Company. (See Ashley, Edward L., assignor.)
Searles, Daniel R., Tiffin, Ohio. Vulcanizer. No. 1,139,234; May 11; Gaz. vol. 214; p. 570.
Searles, John E. (See Buckley, Duer H., assignor.)
Sears, Frederick D., and A. O. Sodergren, Minneapolis, Minn. Reel for moving-picture machines. No. 1,137,912; May 4; Gaz. vol. 214; p. 66.
Sears, Victor H., Chicago, Ill. Spring suspension device for vehicles. No. 1,139,909; May 18; Gaz. vol. 214; p. 844.
Seaton, Benjamin C., Detroit, Mich. Tire-securing device. No. 1,140,487; May 25; Gaz. vol. 214; p. 1083.
Seator Machine Mfg. Company. (See Seator, Robert J., assignor.)
Seator, Robert J., assignor to Seator Machine Mfg. Company, Battle Creek, Mich. Bread-wrapping machine and machine for similar purposes. No. 1,140,620; May 25; Gaz. vol. 214; p. 1128.
Secbrest, Clayton B., New Britain, Conn. Tool-holder. No. 1,140,772; May 25; Gaz. vol. 214; p. 1178.
Secor, Jerome B., assignor to Secor Typewriter Company, Derby, Conn. Type-writing machine. No. 1,140,190; May 18; Gaz. vol. 214; p. 943.
Secor Typewriter Company. (See Secor, Jerome B., assignor.)
Sedgley, Reginald. (See Kolb and Sedgley.)
Seeley, Walter A., and H. M. Vetterlein, Newark, N. J. Animal-trap. No. 1,139,587; May 18; Gaz. vol. 214; p. 729.
Seidel, George E., Richmond, Ind. Vehicle-top. No. 1,140,404; May 25; Gaz. vol. 214; p. 1052.
Seifert, Theodore H., Chicago, Ill. Clothes-line holder. No. 1,137,796; May 4; Gaz. vol. 214; p. 25.
Seitz, Edward, Peoria, Ill. Lighting apparatus. No. 1,140,405; May 25; Gaz. vol. 214; p. 1052.
Seitz, Martin, St. Louis, Mo. Bowling-alley accessory. No. 1,139,588; May 18; Gaz. vol. 214; p. 729.
Semmig, Arthur, White Plains, N. Y. Shock-absorber for vehicles. No. 1,138,017; May 4; Gaz. vol. 214; p. 102.
Serrill, William J., Haverford, assignor to The United Gas Improvement Company, Philadelphia, Pa. Gas-broiler. No. 1,140,338; May 18; Gaz. vol. 214; p. 993.
Sessions, Frank L., Columbus, Ohio, assignor to The Jeffrey Manufacturing Company. Locomotive with haul age mechanism. No. 1,139,810; May 18; Gaz. vol. 214, p. 808.

Setter, Michael, Chicago, Ill. Piston-ring. No. 1,139,811; May 18; Gaz. vol. 214; p. 809.
Severance, William E., Hoboken, assignor of one-half to D. Hartley, Newark, N. J. Lathe. No. 1,139,255; May 11; Gaz. vol. 214; p. 570.
Sewall, Minott W., deceased; S. E. Sewall, executrix, New York, N. Y., assignor to The Babcock & Wilcox Company, Bayonne, N. J. Steam-boiler. No. 1,140,406; May 25; Gaz. vol. 214; p. 1053.
Sewall, Susann E., executrix. (See Sewall, Minott W.)
Seybert, Charles R., Syracuse, N. Y. Ice-creeper. No. 1,140,075; May 18; Gaz. vol. 214; p. 903.
Seymour, Dudley S., Oak Park, assignor to Union Special Machine Company, Chicago, Ill. Sewing-machine. No. 1,137,707; May 4; Gaz. vol. 214; p. 26.
Shaal, Robert C., Port Chester, N. Y., assignor to Safety Car Heating and Lighting Company. Lamp. No. 1,138,984; May 11; Gaz. vol. 214; p. 482.
Shafer, Howard S., Nazareth, Pa. Advertising device. No. 1,139,812; May 18; Gaz. vol. 214; p. 809.
Shafer, John F., Adeline, Ill. Vehicle and auto tire. No. 1,140,191; May 18; Gaz. vol. 214; p. 943.
Shannon, Charles R., Narrows, assignor of one-fourth to M. P. Farrier, Pearisburg, and one-fourth to F. D. Kelley, Narrows, Va. Band-brake. No. 1,141,014; May 25; Gaz. vol. 214; p. 1264.
Shapiro, David H., Montreal, Quebec, Canada. Garment-form. No. 1,140,407; May 25; Gaz. vol. 214; p. 1053.
Shapiro, David H., Montreal, Quebec, Canada. Collapsible shipping-package. No. 1,141,076; May 25; Gaz. vol. 214; p. 1285.
Sharp-Hughes Tool Company. (See Hughes, Howard R., assignor.)
Sharpneck, Frank A., and L. O. Gilliland, Chicago, Ill.; said Sharpneck assignor to said Gilliland. Internal-combustion engine. No. 1,140,292; May 18; Gaz. vol. 214; p. 976.
Shaver, James E., Jr., Philadelphia, Pa., assignor to Underwood Typewriter Company, New York, N. Y. Offset-preventing device for stencilling-machines. No. 1,139,380; May 11; Gaz. vol. 214; p. 620.
Shaw, Al B., West Medford, assignor to Automatic Gas Lighting Equipment Co., Boston, Mass. Street-lamp. No. 1,140,192; May 18; Gaz. vol. 214; p. 944.
Shaw, Frances D., Chicago, Ill. Downdraft continuous kiln. No. 1,140,719; May 25; Gaz. vol. 214; p. 1160.
Shaw, Frank, Syracuse, N. Y. Shaft-coupling. No. 1,140,855; May 25; Gaz. vol. 214; p. 1209.
Shaw, John H., assignor to Sargent & Company, New Haven, Conn. Lock. No. 1,137,798; May 4; Gaz. vol. 214; p. 26.
Shaw, John H., assignor to Sargent & Company, New Haven, Conn. Night-latch. No. 1,137,800; May 4; Gaz. vol. 214; p. 27.
Shaw, John H., assignor to Sargent & Company, New Haven, Conn. Night-latch. No. 1,137,800; May 4; Gaz. vol. 214; p. 27.
Shaw, John H., assignor to Sargent & Company, New Haven, Conn. Lock. No. 1,137,801; May 4; Gaz. vol. 214; p. 28.
Shaw, John H., New Haven, and A. A. Page, East Haven, assignors to Sargent & Company, New Haven, Conn. Lock. No. 1,137,799; May 4; Gaz. vol. 214; p. 27.
Shaw, Walter, Dedham, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Fastener-setting machine. No. 1,139,449; May 11; Gaz. vol. 214; p. 645.
Sheafe, James S., New Brighton, N. Y. Hose-coupling. No. 1,137,913; May 4; Gaz. vol. 214; p. 66.
Sheaffer, James E., Burnham, assignor of forty-five one-hundredths to A. B. Long, Lewistown, Pa. Hydrocarbon-burner. No. 1,140,621; May 25; Gaz. vol. 214; p. 1130.
Shearer, Joseph W. (See Shepler and Shearer.)
Shearer, Vance, Bridgeport, Conn. Grease-cup. No. 1,140,488; May 25; Gaz. vol. 214; p. 1083.
Sheehe, Bartholomew J., Dunkirk, N. Y. Metallic tie. No. 1,138,694; May 11; Gaz. vol. 214; p. 378.
Sheffer, Joseph R., Chicago, Ill. Union suit. No. 1,138,899; May 11; Gaz. vol. 214; p. 451.
Sheldon, Daniel F. (See Everett and Sheldon.)
Shelton, James L. (See Retsler and Shelton.)
Shepler, Charles H., and J. W. Shearer, San Francisco, Cal. Apparatus for cleaning smoke-tubes of marine and other multitubular boilers. No. 1,139,910; May 18; Gaz. vol. 214; p. 844.
Shepler, Charles H., and J. W. Shearer, San Francisco, Cal. Apparatus for cleaning smoke-tubes of boilers. No. 1,139,911; May 18; Gaz. vol. 214; p. 844.
Sheridan, Loyal W., Mediapolis, Iowa. Internal-combustion engine. No. 1,140,489; May 25; Gaz. vol. 214; p. 1083.
Sherman, George C., Geneva, N. Y. Razor-honing machine. No. 1,137,914; May 4; Gaz. vol. 214; p. 67.
Shermer, George F., Columbus, Ohio. Swing. No. 1,138,802; May 11; Gaz. vol. 214; p. 419.
Sherwood, Charles A. (See Pipher, William E. A., assignor.)
Shiek, Daniel W., Indianapolis, Ind., assignor to W. L. Milliken, Barnstable, Mass. Signal mechanism for adding-machines. No. 1,139,813; May 18; Gaz. vol. 214; p. 809.
Shiek, Daniel W., Indianapolis, Ind., assignor to W. L. Milliken, Barnstable, Mass. Adding-machine or the like. No. 1,139,814; May 18; Gaz. vol. 214; p. 810.
Shields, William M. (See Brown, Enoch S., assignor.)
Shinn, Horace W., Paducah, Ky. Slipper. No. 1,140,193; May 18; Gaz. vol. 214; p. 944.
Shipler, Wendel H., New Castle, Pa. Rivet-set retainer. No. 1,140,536; May 25; Gaz. vol. 214; p. 1101.
Shipman, Harold C., Ottawa, Ontario, Canada. Keyless locking device. No. 1,140,919; May 25; Gaz. vol. 214; p. 1233.
Shoemaker, Harvey, Middletown, N. Y. Traveling crane. No. 1,140,076; May 18; Gaz. vol. 214; p. 903.
Shoemaker, Robert J. (See MacFarland and Shoemaker.)
Shotwell, John N., Cashmere, Wash. Box-marking machine. No. 1,138,985; May 11; Gaz. vol. 214; p. 482.
Shumaker, George I., Longpoint, Iowa. Mail-bag holder. No. 1,140,006; May 18; Gaz. vol. 214; p. 878.
Shumaker, Jim H., Beaver Falls, Pa. Charge-forming device for internal-combustion engines. No. 1,138,681; May 4; Gaz. vol. 214; p. 299.
Shutt, Albert, Topeka, Kans. Bridge for stringed musical instruments. No. 1,138,803; May 11; Gaz. vol. 214; p. 419.
Sickman, Davy V., Denver, Colo. Hydraulic cartridge. No. 1,141,077; May 25; Gaz. vol. 214; p. 1285.
Sieber, Ferdinand, Vado Ligure, Italy, assignor to Westinghouse Electric and Manufacturing Company. Transformer. No. 1,140,920; May 25; Gaz. vol. 214; p. 1233.
Siedow, Karl, Sidney, Nebr. Shovel or spade attachment. No. 1,138,018; May 4; Gaz. vol. 214; p. 102.
Siemens & Halske A.-G. (See Ehrhardt, Erwin, assignor.)
Siemens & Halske, A. G. (See Erlwein and Knips, assignors.)
Siemens & Halske A.-G. (See Gerdien and Pirani, assignors.)
Siemens & Halske, A. G. (See Ochs, Karl, assignor.)
Sievers, Herman C., Chicago, Ill., assignor to Eastman Kodak Company, Rochester, N. Y. Method of and device for bolding photographic-film sheets. No. 1,139,079; May 11; Gaz. vol. 214; p. 516.
Silander, Arthur E., Berlin, Germany. Brush-making. No. 1,137,915; May 4; Gaz. vol. 214; p. 67.
Silvestri, Dante, Rome, Italy. Resilient-hub wheel. No. 1,140,622; May 25; Gaz. vol. 214; p. 1130.
Silvestri, Giulio, Vienna, Austria-Hungary. Apparatus for regulating the output of centrifugal pumps. No. 1,141,015; May 25; Gaz. vol. 214; p. 1265.
Silvestri, Giulio, Vienna, Austria-Hungary. Means for regulating rotary pumps and rotary engines. No. 1,141,016; May 25; Gaz. vol. 214; p. 1265.
Simmen, Paul J., Indianapolis, Ind. Device for perforating paper. No. 1,138,804; May 11; Gaz. vol. 214; p. 419.
Simmen, Paul J., Los Angeles, Cal. Cab signal system. No. 1,140,623; May 25; Gaz. vol. 214; p. 1130.
Simmons, Joseph, New York, N. Y. Tooth-brush. No. 1,137,916; May 4; Gaz. vol. 214; p. 67.
Simonian, Sarkis, East Cambridge, Mass. Pen and pencil holder. No. 1,140,194; May 18; Gaz. vol. 214; p. 944.
Simons, Frank, St. Louis, Mo. Universal coupling. No. 1,140,720; May 25; Gaz. vol. 214; p. 1160.
Simons, Frank W., assignor to N. Fink, Vallejo, Cal. Gaseous-fuel mixer. No. 1,139,912; May 18; Gaz. vol. 214; p. 845.
Simpson, Mary E., Yates, Tex. Antispreading attachment for rails. No. 1,138,510; May 4; Gaz. vol. 214; p. 276.
Simpson, Thomas H. (See Giberson, Mason B., assignor.)
Simpson, Thomas H., Detroit, Mich. Car-coupling. No. 1,138,895; May 11; Gaz. vol. 214; p. 379.
Sinclair, George, assignor to F. G. Bradbury, St. Paul, Minn. Milking apparatus. No. 1,139,590; May 18; Gaz. vol. 214; p. 730.
Sinclair, George, assignor of one-third to W. J. Babcock and one-third to E. R. Brokoff, St. Paul, Minn. Milking apparatus. No. 1,139,589; May 18; Gaz. vol. 214; p. 730.
Sinclair, John R., Holyoke, Mass. Dandy-roll. No. 1,140,856; May 25; Gaz. vol. 214; p. 1210.
Singer Manufacturing Company, The. (See De Voe, Albert H., assignor.)
Singer Manufacturing Company, The. (See Gatchell, George, S., assignor.)
Singer Manufacturing Company, The. (See Hemleb, Martin, assignor.)
Singer Manufacturing Company, The. (See Noble, Donald, assignor.)
Singleton, Chauncey M., Lincoln, Nebr. Combined wagon-brake and horse-hitching apparatus. No. 1,140,195; May 18; Gaz. vol. 214; p. 945.
Sink, Arvel T., Detroit, Mich., and G. A. Dudley, Buffalo, N. Y. Milling-machine. No. 1,137,917; May 4; Gaz. vol. 214; p. 67.
Sipp, Grant, Paterson, N. J. Means for guiding a reciprocating non-rotating machine element. No. 1,139,591; May 18; Gaz. vol. 214; p. 730.
Sire, Octave F., Paris, France. Dynamo-electric machine. No. 1,138,254; May 4; Gaz. vol. 214; p. 185.
Sisbower, George F., East Orange, N. J., and L. E. Pittoni, assignors to New York Couch Bed Company, New York, N. Y. Bed-spring. No. 1,138,986; May 11; Gaz. vol. 214; p. 482.
Sjestrom, Peter. (See Erickson and Sjestrom.)
Sjöberg, Carl G., Malmo, Sweden. Separable button. No. 1,137,918; May 4; Gaz. vol. 214; p. 68.
Skeen, Samuel T., Sandoval, Ill. Miner's drill. No. 1,140,077; May 18; Gaz. vol. 214; p. 904.
Skemp, Robert. (See Gibson and Skemp.)

Skerl, Francesco, assignor to The National Cash Register Company, Dayton, Ohio. Multiple-counter cash-register. No. 1,137,019; May 4; Gaz. vol. 214; p. 68.

Skiles, Frank C., Oak Park, Ill. Loose-leaf binder. No. 1,138,019; May 4; Gaz. vol. 214; p. 103.

Skinner, Frank H., Chicago, Ill. Dental bridge and crown. No. 1,140,537; May 25; Gaz. vol. 214; p. 1102.

Skinner, Frank H., Chicago, Ill. Anchorage for dental bridge and crown plates. No. 1,140,538; May 25; Gaz. vol. 214; p. 1102.

Skinner, Frank H., Chicago, Ill. Removable dental bridge attachment. No. 1,140,539; May 25; Gaz. vol. 214; p. 1102.

Skinner, Noah T. E., Newark, Ohio. Automobile-radiator. No. 1,140,196; May 18; Gaz. vol. 214; p. 945.

Skroder, Erik G., Winchendon, Mass. Attachment for brooms. No. 1,140,490; May 25; Gaz. vol. 214; p. 1084.

Slatter, Thomas, San Francisco, Cal. Folding umbrella. No. 1,139,913; May 18; Gaz. vol. 214; p. 845.

Slaysman, Alexander, Jr., Hamilton, Md. Drier. No. 1,139,815; May 18; Gaz. vol. 214; p. 810.

Slee, Herbert T., Warwick, R. I. Intercommunicating telephone system. No. 1,138,255; May 4; Gaz. vol. 214; p. 186.

Sleeper, Frank H., Worcester, Mass. Machine for reducing wire. No. 1,137,920; May 4; Gaz. vol. 214; p. 69.

Sieffel, William J., assignor to The Kirk Latty Manufacturing Company, Cleveland, Ohio. Axle construction. No. 1,141,078; May 25; Gaz. vol. 214; p. 1286.

Sleicher, Ralph H., assignor to The Hospital Appliance Company, Troy, N. Y. Hospital apparatus. No. 1,138,582; May 4; Gaz. vol. 214; p. 299.

Slick, Edwin E., Westmont borough, Pa. Spring. No. 1,139,732; May 18; Gaz. vol. 214; p. 781.

Sloan, Jacques. (See Bohon, Emile, assignor.)

Sloper, Thomas, Devizes, England. Forming gas-bags or other fluid-retaining envelops for airships or other purposes. No. 1,140,921; May 25; Gaz. vol. 214; p. 1234.

Small, Curry S. (See Rhoads and Small.)

Smart, Henry C., assignor to Standard Oil Company of New York, New York, N. Y. Can-filling machine. No. 1,138,511; May 4; Gaz. vol. 214; p. 276.

Smedman, John, Forestville, assignor of one-third to P. Engelwood, Bristol, Conn. Belt-shifter. No. 1,140,773; May 25; Gaz. vol. 214; p. 1179.

Smedman, John, Forestville, assignor of one-third to P. Engelwood, Bristol, Conn. Belt-shifting device. No. 1,140,774; May 25; Gaz. vol. 214; p. 1179.

Smeeth, William F., Bangalur, India. Clutch for winding-engines or other machines. No. 1,140,293; May 18; Gaz. vol. 214; p. 976.

Smillie, Robert H., Berkeley, Cal. Carbureter. No. 1,139,914; May 18; Gaz. vol. 214; p. 845.

Smith, Adolph H., and G. W. Nibbe, Chicago, Ill. Rail-anchor. No. 1,139,816; May 18; Gaz. vol. 214; p. 811.

Smith, Allen C., Yonkers, N. Y., assignor to Otis Elevator Company, Jersey City, N. J. Centering device for electric switches. No. 1,140,408; May 25; Gaz. vol. 214; p. 1053.

Smith, Alta L., Richmond, Va. Printing-press attachment. No. 1,140,197; May 18; Gaz. vol. 214; p. 945.

Smith, Amon C., Clarendon, Tex. Wagon-step. No. 1,141,017; May 25; Gaz. vol. 214; p. 1266.

Smith, Amos H., New York, N. Y., assignor to American Bank Note Company. Numbering-head. No. 1,138,323; May 4; Gaz. vol. 214; p. 212.

Smith, Arthur K., St. Louis, Mo., assignor, by mesne assignments, to Cutler Mail Chute Company, Rochester, N. Y. Mail-chute. No. 1,138,696; May 11; Gaz. vol. 214; p. 379.

Smith Cannery Machine Co. (See Waugh, Edward H., assignor.)

Smith, Charles B. W., St. Louis, Mo. Baling-press. No. 1,141,088; May 25; Gaz. vol. 214; p. 1289.

Smith, Charles L., San Francisco, Cal. Rear-axle construction for motor-vehicles. No. 1,138,900; May 11; Gaz. vol. 214; p. 452.

Smith, Dell R., Blanchard, Wash. Ice-cream-cone carrier. No. 1,140,540; May 25; Gaz. vol. 214; p. 1102.

Smith, Frank R., assignor to W. Smith Grubber Company, La Crescent, Minn. Stump-puller. No. 1,140,409; May 25; Gaz. vol. 214; p. 1054.

Smith, Goodwin B., Philadelphia, Pa. Bust-supporter. No. 1,139,448; May 11; Gaz. vol. 214; p. 645.

Smith, Harold T., Willis, assignor of one-half to J. Ehrsam, Bern, Kans. Canvas butter for binders. No. 1,138,987; May 11; Gaz. vol. 214; p. 483.

Smith, Harry F., Lexington, Ohio. Purification of gas. No. 1,140,198; May 18; Gaz. vol. 214; p. 945.

Smith, James. (See Smith, Michael A., assignor.)

Smith, James C., San Francisco, Cal. Abrasive implement. No. 1,139,817; May 18; Gaz. vol. 214; p. 811.

Smith, James M., assignor of one-half to J. Griffard, Wengler, Cal. Saw-set. No. 1,139,818; May 18; Gaz. vol. 214; p. 811.

Smith, John, assignor to said John Smith and H. Utard, New York, N. Y. Nut-lock. No. 1,139,819; May 18; Gaz. vol. 214; p. 812.

Smith, John H., Hammond, Tex. Ratchet-clutch. No. 1,140,199; May 18; Gaz. vol. 214; p. 946.

Smith, Joseph W. (See Topley, William H., assignor.)

Smith, Josiah H., assignor to W. H. Tigerman, Philadelphia, Pa. Suspension-railway. No. 1,138,697; May 11; Gaz. vol. 214; p. 379.

Smith, Kline & French Co. (See Kline, Clarence M., assignor.)

Smith, Leo C., assignor to Smith System Heating Co., Minneapolis, Minn. Heating and ventilating system. No. 1,138,805; May 11; Gaz. vol. 214; p. 419.

Smith, Marcus L., Scranton, Pa. Pneumatic washing appliance. No. 1,138,806; May 11; Gaz. vol. 214; p. 420.

Smith, Michael A., assignor to J. Smith, New York, N. Y. Package-tie. No. 1,141,018; May 25; Gaz. vol. 214; p. 1266.

Smith, Nellie V. (See Van Deventer, James E., assignor.)

Smith, Paschall W., Seattle, Wash. Automobile-lock. No. 1,139,733; May 18; Gaz. vol. 214; p. 781.

Smith, Robert R., assignor to Miller Lock Company, Philadelphia, Pa. Vacuum-cleaner. No. 1,140,294; May 18; Gaz. vol. 214; p. 977.

Smith, Roy H., Cleveland, Ohio. Nut-tapping machine. No. 1,138,901; May 11; Gaz. vol. 214; p. 452.

Smith, Rudolph C., Yonkers, N. Y. Device for gripping. No. 1,138,902; May 11; Gaz. vol. 214; p. 453.

Smith, S. Grant, North Yakima, Wash. Box-press. No. 1,140,410; May 25; Gaz. vol. 214; p. 1054.

Smith, Sam R., Los Angeles, assignor of five one-hundredths to P. G. Hoffman, Pasadena, Cal. Flying-machine. No. 1,139,820; May 18; Gaz. vol. 214; p. 812.

Smith, Solomon, Slab Fork, W. Va. Series of reversible car-seats. No. 1,138,420; May 4; Gaz. vol. 214; p. 247.

Smith, Stuart D., assignor of two-thirds to C. W. Bechtel, Kansas City, Mo. Automatic automobile-jack. No. 1,140,624; May 25; Gaz. vol. 214; p. 1130.

Smith System Heating Co. (See Smith, Leo C., assignor.)

Smith, Taylor J., assignor of one-half to S. M. Cown, Union City, Ga. Gearing. No. 1,140,078; May 18; Gaz. vol. 214; p. 904.

Smith, Wayne, assignor of one-half to H. P. Penny, Altheimer, Ark. Tongs. No. 1,140,200; May 18; Gaz. vol. 214; p. 940.

Smith, William H., Springfield, Mass. Necktie. No. 1,140,201; May 18; Gaz. vol. 214; p. 946.

Smith, William H., assignor of one-half to J. W. Stewart, Joliet, Mont. Beet-harvester. No. 1,140,202; May 18; Gaz. vol. 214; p. 947.

Smith, William L., Chicago, Ill. Rock-drill. No. 1,139,139; May 11; Gaz. vol. 214; p. 538.

Smulders, Frans, Rotterdam, Netherlands. Sluing crane. No. 1,139,915; May 18; Gaz. vol. 214; p. 846.

Snediker, Morton O., assignor to The Powers Regulator Company, Chicago, Ill. Temperature-controlling device. No. 1,137,921; May 4; Gaz. vol. 214; p. 69.

Snow, Frank P., Los Angeles, Cal. Valve mechanism. No. 1,138,324; May 4; Gaz. vol. 214; p. 213.

Snow, Isaac, Lawrence, Mass. Bobbin-holder. No. 1,140,203; May 18; Gaz. vol. 214; p. 947.

Snyder, George C., Waterbury, Conn. Fastening device. No. 1,138,020; May 4; Gaz. vol. 214; p. 103.

Snyder, George C., New York, N. Y. Attaching fastening devices. No. 1,138,021; May 4; Gaz. vol. 214; p. 103.

Snyder, Harry L., Denver, Colo. Memorandum device. No. 1,138,325; May 4; Gaz. vol. 214; p. 213.

Societe Anonyme le Carbone. (See Gindre, Eugène, assignor.)

Societe Anonyme pour l'Exploitation des Procedes Westinghouse-Leblanc. (See Leblanc, Maurice, assignor.)

Society of the Redemptorist Fathers. (See Jaksa, Joseph, assignor.)

Sodergren, Axel O. (See Sears and Sodergren.)

Sofio, Edward C., Hoboken, N. J., assignor, by mesne assignments, to Standard Heat and Ventilation Company, Inc., New York, N. Y. Controlling device for heating systems. No. 1,138,022; May 4; Gaz. vol. 214; p. 103.

Sohm, Alfred L., Los Angeles, Cal., assignor to Sohm Electric Signal & Recording Company, Spokane, Wash. Visual-signal station. No. 1,138,988; May 11; Gaz. vol. 214; p. 483.

Sohm, Alfred L., Los Angeles, Cal., assignor to Sohm Electric Signal & Recording Company, Spokane, Wash. Time-clock mechanism. No. 1,138,989; May 11; Gaz. vol. 214; p. 483.

Sohm, Alfred L., assignor to Sohm Electric Signal & Recording Company, Chicago, Ill. Electrical circuit-changing mechanism. No. 1,138,990; May 11; Gaz. vol. 214; p. 484.

Sohm, Alfred L., assignor to Sohm Electric Signal & Recording Company, Chicago, Ill. Electrical apparatus and circuit. No. 1,138,991; May 11; Gaz. vol. 214; p. 484.

Sohm Electric Signal & Recording Company. (See Sohm, Alfred L., assignor.)

Soley, Frank, assignor to Miller Lock Co., Philadelphia, Pa. Lock. No. 1,141,019; May 25; Gaz. vol. 214; p. 1266.

Solinger, Albert B., Sackett, Pa. Coupling for oil-wells. No. 1,138,421; May 4; Gaz. vol. 214; p. 247.

Somers, Clinton E., assignor to E. T. Galley, Los Angeles, Cal. Window construction. No. 1,138,326; May 4; Gaz. vol. 214; p. 213.

Somerville, James B., *et al.* (See Westwood, John T., assignor.)

Soule, Herbert C., Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company. Stationary inductive apparatus. No. 1,140,922; May 25; Gaz. vol. 214; p. 1234.

Southworth, Harrison H., assignor, by mesne assignments, to The Iceless Machine Company, Cleveland, Ohio. Device for supplying cooling-water. No. 1,139,461; May 11; Gaz. vol. 214; p. 650.

Southworth, Harrison H., Cleveland, Ohio, and F. W. Wolf, Chicago, Ill., assignors, by mesne assignments, to The Iceless Machine Company, Cleveland, Ohio. Refrigerating apparatus. No. 1,139,460; May 11; Gaz. vol. 214; p. 649.

Southworth, Harrison H., and G. A. Gase, assignors, by mesne assignments, to The Iceless Machine Company, Cleveland, Ohio. Automatic shut-off valve. No. 1,139,462; May 11; Gaz. vol. 214; p. 650.

Spady, Ludwig, Portland, Oreg. Disappearing ironing-board attachment for kitchen-tables. No. 1,140,411; May 25; Gaz. vol. 214; p. 1054.

Spangenberg, John M. L., Forshaga, Sweden. Transport-lorry. No. 1,138,422; May 4; Gaz. vol. 214; p. 247.

Sparks, Walter, New York, N. Y., assignor of one-half to G. A. Annable. Binder. No. 1,140,079; May 18; Gaz. vol. 214; p. 904.

Sparks, William E., assignor to Sargent & Company, New Haven, Conn. Lock. No. 1,137,802; May 4; Gaz. vol. 214; p. 28.

Sparks, William E., assignor to Sargent & Company, New Haven, Conn. Lock. No. 1,137,803; May 4; Gaz. vol. 214; p. 28.

Spaulding & Sons Company, J. (See Lancey, Roswell A., assignor.)

Specialty Manufacturing Company. (See Winkelmeyer, John, assignor.)

Speer, Horace N., New York, N. Y. Oil-indicator for internal-combustion engines. No. 1,140,080; May 18; Gaz. vol. 214; p. 905.

Spelling, Thomas C., New York, N. Y. Monorailway. No. 1,140,412; May 25; Gaz. vol. 214; p. 1055.

Sperry, Elmer A., Brooklyn, N. Y. Vehicle control. No. 1,137,804; May 4; Gaz. vol. 214; p. 29.

Spieler, August J., Celina, Ohio. Preparing catalyzers. No. 1,139,592; May 18; Gaz. vol. 214; p. 731.

Spiess, Arthur. (See Spiess, Georg, assignor.)

Spiess, Georg, Leipzig, Connewitz, assignor to A. Spiess, Mannheim, Baden, Germany. Driving mechanism for sheet-feeders. No. 1,138,327; May 4; Gaz. vol. 214; p. 214.

Spitler, Bernard W., Dorchester, Mass. Puncture-plug for pneumatic tires. No. 1,139,140; May 11; Gaz. vol. 214; p. 538.

Spitler, Seth J., Greenville, Mich. Educational appliance. No. 1,138,807; May 11; Gaz. vol. 214; p. 420.

Spitz, Gustav, Brünn, Austria-Hungary. Burglar or fire alarm. No. 1,140,081; May 18; Gaz. vol. 214; p. 905.

Spitzler, Ernest, Boise, Idaho. Bait-receptacle. No. 1,140,625; May 25; Gaz. vol. 214; p. 1131.

Spoelstra, Richard, *et al.* (See Bartley, George B., assignor.)

Spohrer, George J., and W. E. Bean, Newark, N. J. Signaling device. No. 1,138,023; May 4; Gaz. vol. 214; p. 104.

Spokane Mail Equipment Company. (See O'Hara, William T., assignor.)

Sprague, Frank E., Nashua, N. H. Triple-hook collar-fastener. No. 1,140,541; May 25; Gaz. vol. 214; p. 1102.

Sprague, Horace M., Denver, Colo. Mouse-trap. No. 1,140,542; May 25; Gaz. vol. 214; p. 1102.

Springer, Winton L., Chicago, Ill., assignor to American Type Founders Company, Jersey City, N. J. Divider for forms of tabular quads. No. 1,140,775; May 25; Gaz. vol. 214; p. 1179.

Springstead, Abram B., assignor of one-half to C. A. Gifford, Kalamazoo, Mich. Door-hanger means. No. 1,139,734; May 18; Gaz. vol. 214; p. 781.

Spuhr, John B., Denver, Colo. Apparatus for transplanting trees. No. 1,139,735; May 18; Gaz. vol. 214; p. 781.

Spurgeon, Harry A., A. T. Hunt, and W. G. Baker, Indianapolis, Ind. Rule-holding slug-form for linotype-machines and producing same. No. 1,139,593; May 18; Gaz. vol. 214; p. 731.

Spurgeon, Harry A., A. T. Hunt, and W. G. Baker, Indianapolis, Ind. Rule for type-slugs. No. 1,139,594; May 18; Gaz. vol. 214; p. 731.

Stabel, Joseph M., assignor to Domestic Appliances Company, Rochester, N. Y. Cleaning-tool. No. 1,139,736; May 18; Gaz. vol. 214; p. 782.

Stacey, Frank, Birmingham, England. Adjustable scraper for roller-mills. No. 1,139,236; May 11; Gaz. vol. 214; p. 570.

Stamps, Nathaniel C., Los Angeles, Cal. Carbureter. No. 1,140,721; May 25; Gaz. vol. 214; p. 1160.

Stamps, Nathaniel C., Los Angeles, Cal. Carbureter. No. 1,140,722; May 25; Gaz. vol. 214; p. 1161.

Stanbon, Charles P., Saugus, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Cementing-machine. No. 1,138,903; May 11; Gaz. vol. 214; p. 453.

Standard Dry Kiln Company, The. (See Whittenburg, Elbert E., assignor.)

Standard Heat and Ventilation Company. (See Sofio, Edward C., assignor.)

Standard Oil Company of New York. (See Smart, Henry C., assignor.)

Standard Pneumatic Action Co. (See Le Cato, John A., assignor.)

Standard Tire and Rubber Company. (See Powell, Peter, assignor.)

Stanford, Arthur L., Chicago, Ill. Rail-anchor. No. 1,139,881; May 11; Gaz. vol. 214; p. 620.

Stange, Arthur E. (See Lockard, William A., assignor.)

Stanley, Arthur M., Lynn, Mass., assignor to General Electric Company. Electric-resistance welding. No. 1,138,154; May 4; Gaz. vol. 214; p. 152.

Stanley, Loren W., Gloucester City, N. J. Broom. No. 1,140,543; May 25; Gaz. vol. 214; p. 1103.

Stanley, Ray J., Cazenovia, N. Y. Window-screen. No. 1,140,413; May 25; Gaz. vol. 214; p. 1055.

Stanton, William H., and J. G. Vail, Chester, Pa., assignors to Philadelphia Quartz Company. Dissolving sodium silicate. No. 1,138,595; May 4; Gaz. vol. 214; p. 304.

Stapleton, John A., *et al.* (See Varner, Edward, assignor.)

Stapley, John H. A., Horley, England. Cork-extractor. No. 1,140,082; May 18; Gaz. vol. 214; p. 905.

Star Seal Company. (See Winter, Charles, assignor.)

Stark Car Coupler Corporation. (See Stark, Charles H., assignor.)

Stark, Charles H., assignor to Stark Car Coupler Corporation, Strasburg, Va. Automatic car-coupling. No. 1,139,382; May 11; Gaz. vol. 214; p. 621.

Starr, Fred, Sacramento, Cal. Clutch-clamp. No. 1,139,595; May 18; Gaz. vol. 214; p. 731.

Starr, Jesse W., 3d. (See Pierce, Edward W., assignor.)

Starr Piano Company, The. (See Draper, Francis W., assignor.)

Steel, Leonard R., Chicago, Ill. Shipping-can. No. 1,140,414; May 25; Gaz. vol. 214; p. 1055.

Steel Scaffolding Company. (See Bonenberger, George, assignor.)

Steele, Herbert H., Marcellus, assignor to The Monarch Typewriter Company, Syracuse, N. Y. Type-writing machine. No. 1,138,992; May 11; Gaz. vol. 214; p. 485.

Steele, Herbert H., Marcellus, assignor to The Monarch Typewriter Company, Syracuse, N. Y. Type-writing machine. No. 1,138,993; May 11; Gaz. vol. 214; p. 485.

Steele, Lawrence C., Pittsburgh, Pa. Valve. No. 1,138,994; May 11; Gaz. vol. 214; p. 486.

Steen, Halfdan A., Milwaukee, Wis., assignor, by mesne assignments, to Allis-Chalmers Manufacturing Company. Time-limit circuit-breaker. No. 1,140,007; May 18; Gaz. vol. 214; p. 879.

Steen, Lillie G., Pittsburgh, Pa. Puzzle. No. 1,137,805; May 4; Gaz. vol. 214; p. 29.

Steffa, Homer L., Chicago, Ill. Reinforcing-clip. No. 1,140,204; May 18; Gaz. vol. 214; p. 947.

Stein, David F., Montreal, Quebec, Canada. Bag-turning machine. No. 1,140,627; May 25; Gaz. vol. 214; p. 1131.

Steinberger, Louis, Brooklyn, N. Y. Locking-clip. No. 1,130,141; May 11; Gaz. vol. 214; p. 538.

Steinberger, Louis, Brooklyn, N. Y. Locking-clip. No. 1,139,142; May 11; Gaz. vol. 214; p. 539.

Steinfort, Henry, Alida, Kans. Combined cultivator and drag. No. 1,138,024; May 4; Gaz. vol. 214; p. 104.

Steinhart, Hermann, assignor to The Firm of R. Bosch, Stuttgart, Germany. Shaft-coupling. No. 1,140,628; May 25; Gaz. vol. 214; p. 1132.

Stempel, Waldemar M., Fort Madison, Iowa. Sparking device for engines. No. 1,138,512; May 4; Gaz. vol. 214; p. 277.

Stempel, Waldemar M., State College, Pa. Electric meter. No. 1,138,513; May 4; Gaz. vol. 214; p. 277.

Stephen, Alexander, London, England. Apparatus for treating articles of paper, cardboard, and the like with waterproofing material. No. 1,140,626; May 25; Gaz. vol. 214; p. 1131.

Stephens, Louis K., Dallas, Tex. Linter-float-driving mechanism. No. 1,139,596; May 18; Gaz. vol. 214; p. 732.

Stephenson, William C., Woburn, assignor to Vose & Sons Piano Company, Boston, Mass. Transposing mechanism for pneumatic players. No. 1,138,155; May 4; Gaz. vol. 214; p. 153.

Stevens, Frank H., Colorado Springs, Colo. Dish-washer. No. 1,139,313; May 11; Gaz. vol. 214; p. 595.

Stevens, Frank W., Newton, assignor of one-half to A. Hopewell, Wellesley, Mass. Gold-separating mechanism. No. 1,139,143; May 11; Gaz. vol. 214; p. 539.

Stevens, Horace F., assignor of one-half to L. Stevens and one-fourth to N. Stevens, St. Jacob, Ill. Lamp-burner. No. 1,140,415; May 25; Gaz. vol. 214; p. 1056.

Stevens, Lillian, *et al.* (See Stevens, Horace F., assignor.)

Stevens, Nellie, *et al.* (See Stevens, Horace F., assignor.)

Stevens, Thomas F. (See Awalt and Stevens.)

Stewart, Charles F., Nashville, Kans. Display-rack. No. 1,138,905; May 11; Gaz. vol. 214; p. 486.

Stewart, Christopher D. (See Stewart, Edward S. and C. D.)

Stewart, Edward S. and C. D., Ottawa, Ill. Telephone. No. 1,138,698; May 11; Gaz. vol. 214; p. 379.

Stewart, John W. (See Smith, William H., assignor.)

Stewart, Robert, Logan, Utah. Producing acid monocalcium phosphate. No. 1,137,806; May 4; Gaz. vol. 214; p. 30.

Stickle, Cole, Indianapolis, Ind. Thermostatic radiator-valve. No. 1,140,083; May 18; Gaz. vol. 214; p. 906.

Stickney, Burnham C., Elizabeth, N. J., assignor to Underwood Typewriter Company, New York, N. Y. Type-writing machine. No. 1,139,060; May 11; Gaz. vol. 214; p. 517.

Stimpson, Edwin B., New York, assignor to Edwin B. Stimpson Company, Brooklyn, N. Y. Bag. No. 1,138,699; May 11; Gaz. vol. 214; p. 380.
Stober, Franklin I. (See Stroud, John J., assignor.)
Stobie, William H., Waterville, Me., assignor to Hollingsworth & Whitney Company, Boston, Mass. Apparatus for disintegrating fibrous material used in the manufacture of paper-pulp. (Reissue.) No. 13,919; May 18; Gaz. vol. 214; p. 998.
Stockton, Elmer E., Bristol, Conn. Cigar-cutter crown for watches. No. 1,138,256; May 4; Gaz. vol. 214; p. 186.
Stoddard, Elizabeth C., *et al.* (See Barratt, William T., assignor.)
Stoehr, John J., Brooklyn, and F. H. Sauermann, New York, N. Y. Projectile. No. 1,139,916; May 18; Gaz. vol. 214; p. 846.
Stoll, Mathew H., La Crosse, Wis. Hinge. No. 1,138,025; May 4; Gaz. vol. 214; p. 104.
Stone & Company, J. (See Parsons, William S., assignor.)
Stone, Gustave A. (See Stone, Herman A., assignor.)
Stone, Herman A., assignor of one-half to G. A. Stone, Cleveland, Ohio. Fuel-economizer for internal-combustion engines. No. 1,139,081; May 11; Gaz. vol. 214; p. 517.
Stone, Wilbur M., assignor of one-half to J. O'Connor, New York, N. Y. Note-sheet-guiding device. No. 1,139,082; May 11; Gaz. vol. 214; p. 517.
Stonier, Francis, Manchester, England. Means for giving a finished surface to wire gauze. No. 1,138,257; May 4; Gaz. vol. 214; p. 186.
Storm, Clarence O., Kansas City, Mo. Rail-clamp. No. 1,139,237; May 11; Gaz. vol. 214; p. 570.
Storm, Edwin R., New York, N. Y. Rotary printing-press. No. 1,139,314; May 11; Gaz. vol. 214; p. 595.
Strasburger, Frank C. H., Knox, Ind. Spark-plug pump. No. 1,139,917; May 18; Gaz. vol. 214; p. 846.
Stratton, Robert S., Orillia, Ontario, Canada. Pneumatic tire. No. 1,139,597; May 18; Gaz. vol. 214; p. 732.
Strauss, Dennis Y., Artesia, assignor to California Retarder & Fibre Company, Los Angeles, Cal. Manufacture of food from bean-vines. No. 1,141,079; May 25; Gaz. vol. 214; p. 1286.
Strelinger, Charles A., *et al.* (See Garros, Benjamin, assignor.)
Strickland, Silas A., assignor to A. C. Waters, Detroit, Mich. Starting mechanism for explosive-engines. No. 1,140,416; May 25; Gaz. vol. 214; p. 1056.
Strite, Ensley L., *et al.* (See Strite and Bierman, assignors.)
Strite, George T., and F. H. Bierman, assignors of one-fifth to H. J. Bierman, one-fifth to E. L. Strite, Minneapolis, Minn., and one-fifth to J. S. Clapper, Billings, Mont. Traction-engine. No. 1,138,996; May 11; Gaz. vol. 214; p. 486.
Strom, Eugene N., assignor to Pettibone Mulliken Company, Chicago, Ill. Railway-crossing. No. 1,140,008; May 18; Gaz. vol. 214; p. 879.
Stroud, John J., deceased, Brooklyn; E. R. Root, executor, assignor to F. I. Stober, New York, N. Y. Folding tray. No. 1,138,156; May 4; Gaz. vol. 214; p. 153.
Stryker, Charles L. (See Zeagler and Stryker.)
Stuckl, Arnold, assignor of one-half to P. M. Kling, Pittsburgh, Pa. Box-car. No. 1,137,922; May 4; Gaz. vol. 214; p. 70.
Studebaker Corporation, The. (See Brownlee, Joseph P., assignor.)
Stuewe, Max H., Hollywood, Cal. Convertible furniture. No. 1,138,997; May 11; Gaz. vol. 214; p. 487.
Stupe, Arthur A., assignor to Kellogg Switchboard and Supply Company, Chicago, Ill. High-tension electric terminal. No. 1,138,258; May 4; Gaz. vol. 214; p. 187.
Sullivan, Jerome T., Collis, Minn. Tool-retainer. No. 1,137,928; May 4; Gaz. vol. 214; p. 70.
Sullivan, Joseph T., *et al.*, executors. (See Turnbull, Walter J.)
Sulsberger, Nathan, New York, N. Y. Aromatizing fats and oils and the products derived from the same. No. 1,140,629; May 25; Gaz. vol. 214; p. 1132.
Sumter Electrical Company. (See Mason, Charles T., assignor.)
Sundh, August, Hastings-upon-Hudson, N. Y. Coupling for flexible tubing. No. 1,139,821; May 18; Gaz. vol. 214; p. 812.
Sundh, August, Hastings-upon-Hudson, N. Y. Gate-hinge. No. 1,139,822; May 18; Gaz. vol. 214; p. 813.
Sutherland, Walter R., Salem, assignor of one-fourth to E. Cook and one-fourth to C. A. Cook, Danvers, Mass. Machine for applying toggles to skins. No. 1,138,328; May 4; Gaz. vol. 214; p. 214.
Sutherland, Walter R., Salem, assignor of one-fourth to E. Cook and one-fourth to C. A. Cook, Danvers, Mass. Machine for applying toggles to skins. No. 1,138,329; May 4; Gaz. vol. 214; p. 214.
Sutkay, Joseph, assignor of one-half to F. P. Gibbs, Lake Arthur, La. Mail-receptacle. No. 1,140,205; May 18; Gaz. vol. 214; p. 947.
Sutro, Harry H., deceased; V. Sutro, administrator, New York, N. Y., assignor to L. M. Booth Company. Apparatus for measuring liquids. No. 1,138,700; May 11; Gaz. vol. 214; p. 880.
Sutro, Victor, administrator. (See Sutro, Harry H.)
Sutton, William S., Rockford, assignor to American Radiator Company, Chicago, Ill. Valve. No. 1,140,630; May 25; Gaz. vol. 214; p. 1132.
Svalling, Gustaf. (See Fagerlund and Börjeson, assignors.)
Svendsen, Alfred, Fredericia, Denmark. Apparatus for smoothing building-wood and for treating raw logs and trunks. No. 1,139,383; May 11; Gaz. vol. 214; p. 621.
Svenson, Charles W., assignor to The American Hardware Corporation, New Britain, Conn. Flexible tubing. No. 1,140,417; May 25; Gaz. vol. 214; p. 1056.
Swackhammer, Charles A., Cottam, Ontario, Canada. Rotary valve. No. 1,140,206; May 18; Gaz. vol. 214; p. 948.
Swain, Lewis C., Oakland, Cal. Mechanical annunciator. No. 1,140,631; May 25; Gaz. vol. 214; p. 1133.
Swanberg, Claud, Cadillac, Mich. Drill attachment. No. 1,138,423; May 4; Gaz. vol. 214; p. 248.
Swank, Lafe, assignor to Dwiggins Wire Fence Company, Anderson, Ind. Gate-latch. No. 1,141,080; May 25; Gaz. vol. 214; p. 1286.
Swanson, Stephen J., Riverton, Wyo. Extension car-step. No. 1,138,998; May 11; Gaz. vol. 214; p. 488.
Swartz, Martius K., Nisswa, Minn. Egg-carrier. No. 1,138,514; May 4; Gaz. vol. 214; p. 278.
Swift, George L., Chicago, Ill. Fuel-feeding apparatus. No. 1,140,207; May 18; Gaz. vol. 214; p. 948.
Swoleau, Julien, Duson, La. Manure-spreader. No. 1,137,924; May 4; Gaz. vol. 214; p. 70.
Sykes, William C., Greensburg, Pa. Headlight control. No. 1,138,424; May 4; Gaz. vol. 214; p. 248.
Synthetic Patents Co. (See Jaeckel, Bernhard, assignor.)
Synthetic Patents Co. (See Kahn and Ossenbeck, assignors.)
Synthetic Patents Co. (See Rietz, Erich, assignor.)
Tadakuma, Seizi, Portland, Oreg. Shoe. No. 1,139,598; May 18; Gaz. vol. 214; p. 733.
Taft, Harrison S., Seattle, Wash. Apparatus for constructing concrete columns. No. 1,139,384; May 11; Gaz. vol. 214; p. 622.
Taft, Orman L., Worcester, Mass. Doffer-ring. No. 1,137,925; May 4; Gaz. vol. 214; p. 71.
Takacs, Steve, Newark, Ohio. Screw-driver. No. 1,139,083; May 11; Gaz. vol. 214; p. 518.
Talbot, Frank H., Cincinnati, Ohio. Rubber-tire armor. No. 1,138,999; May 11; Gaz. vol. 214; p. 488.
Talke, Artur, Nieder-Goellschau, Kreis Goldberg-Haynau, Silesia, Germany. Toy or joke article. No. 1,140,418; May 25; Gaz. vol. 214; p. 1057.
Tallant, Frank J., Leavenworth, Kans. Agitator for washing-machines. No. 1,138,157; May 4; Gaz. vol. 214; p. 153.
Tamagno, Daniel B., assignor to L. Tamagno, New York, N. Y. Can-closure. No. 1,140,295; May 18; Gaz. vol. 214; p. 977.
Tamagno, Lydie. (See Tamagno, Daniel B., assignor.)
Taras, Johan, Bentleyville, Pa. Horseshoe. No. 1,138,259; May 4; Gaz. vol. 214; p. 187.
Tashjian, Ohanes, Fresno, Cal. Method of and apparatus for curing raisins and other fruit. No. 1,140,009; May 18; Gaz. vol. 214; p. 879.
Tasker, Thomas H., Holland, Mich. Ladder-support. No. 1,138,583; May 4; Gaz. vol. 214; p. 300.
Tate, George. (See Hamlen, Roy, assignor.)
Tate, Samuel W., Parma, Idaho. Woven-wire-fence-fabric stretcher. No. 1,139,238; May 11; Gaz. vol. 214; p. 571.
Tatlow, Richard H., Jr., Denver, Colo. Match-safe. No. 1,139,919; May 18; Gaz. vol. 214; p. 847.
Tatum, Lewis L., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. Circuit-controller. No. 1,138,808; May 11; Gaz. vol. 214; p. 420.
Taussig, John H., assignor to The United Gas Improvement Company, Philadelphia, Pa. Door mechanism for vertical retorts. No. 1,140,339; May 18; Gaz. vol. 214; p. 904.
Taussig, John H., assignor to The United Gas Improvement Company, Philadelphia, Pa. Means for charging vertical retorts. No. 1,140,340; May 18; Gaz. vol. 214; p. 904.
Taximeter Register Company, The. (See Maxwell, George S., assignor.)
Taylor, Cecil H., and B. B. Neuteboom, Detroit, Mich. Automobile. No. 1,138,904; May 11; Gaz. vol. 214; p. 454.
Taylor, Charles A., Winchester, assignor of one-half to N. Black, Farmer City, Ill. Clamp. No. 1,138,905; May 11; Gaz. vol. 214; p. 454.
Taylor, Emmet J., Guernsey, Iowa. Gate-latch. No. 1,138,026; May 4; Gaz. vol. 214; p. 105.
Taylor, George B., Birmingham, England. Machine for turning and cutting off pieces from a bar or tube. No. 1,140,208; May 18; Gaz. vol. 214; p. 948.
Taylor, George W., Fayette, Mo. Wheel-scraper. No. 1,139,599; May 18; Gaz. vol. 214; p. 733.
Taylor, Harold D., Bishophill, assignor of one-half to A. Hungerford, Pollen, London, England. Optical instrument especially applicable to range-finders. No. 1,140,010; May 18; Gaz. vol. 214; p. 880.
Taylor, James H., and A. H. Mansell, Detroit, Mich. Railway-gate. No. 1,140,084; May 18; Gaz. vol. 214; p. 906.
Taylor, John D., deceased, Wilkinsburg, Pa.; M. E. Taylor, executrix. Combined gas-engine starter and electric generator. No. 1,140,011; May 18; Gaz. vol. 214; p. 880.
Taylor, Mary E., executrix. (See Taylor, John D.)

Taylor, Neil, Leeds, England. Plant for making tar macadam. No. 1,138,906; May 11; Gaz. vol. 214; p. 454.
Taylor, Roy M., and A. G. Broe, Vancouver, British Columbia, Canada. Valve-plug for volatile-containers. No. 1,139,463; May 11; Gaz. vol. 214; p. 650.
Taylor, Virgil T., Harrods Creek, Ky. Cooking-receptacle. No. 1,141,020; May 25; Gaz. vol. 214; p. 1267.
Taylor, Virginia B., executrix. (See Taylor, Warren H.)
Taylor, Warren H., deceased; V. B. Taylor, executrix, assignor to The Yale & Towne Manufacturing Company, Stamford, Conn. Armor for pin-tumbler locks. No. 1,140,209; May 18; Gaz. vol. 214; p. 949.
Taylor, William W., Montclair, N. J. Metallic building. No. 1,141,021; May 25; Gaz. vol. 214; p. 1267.
Teague, Edward O., Winchester, Mass. Making shoes. No. 1,138,426; May 4; Gaz. vol. 214; p. 248.
Teague, Edward O., Winchester, Mass., assignor of one-half to G. A. Dobyne, St. Louis, Mo. Shoe. No. 1,138,425; May 4; Gaz. vol. 214; p. 248.
Teare, William H. (See Black and Teare.)
Tebbetts, George S., Jr., assignor to M. F. Williams, St. Louis, Mo. Adjustable hammer-mill. No. 1,139,920; May 18; Gaz. vol. 214; p. 847.
Teehan, John F., Brockton, Mass. Arch-supporting shoe. No. 1,137,807; May 4; Gaz. vol. 214; p. 30.
Teel, Raymond A., Bangor, Pa. Bag-lock. No. 1,141,022; May 25; Gaz. vol. 214; p. 1267.
Teeter, Eli, Jersey City, N. J. Oil-feed for internal-combustion engines. No. 1,137,926; May 4; Gaz. vol. 214; p. 71.
Tefft, John F., St. Charles, Mich. Stamp-vending machine. No. 1,140,210; May 18; Gaz. vol. 214; p. 949.
Teich, Ernest L., assignor to The American Hardware Corporation, New Britain, Conn. Butt-hinge. No. 1,139,921; May 18; Gaz. vol. 214; p. 847.
Telechronometer Company. (See Babcock, Garrison, assignor.)
Templin, Joseph H., assignor, by mesne assignments, to Santo Manufacturing Company, Philadelphia, Pa. Vacuum renovating apparatus. No. 1,139,084; May 11; Gaz. vol. 214; p. 518.
Ten Eyck, Frank E., Auburn, N. Y., assignor to Auto Air-Rotor Company, Chicago, Ill. Combined air-pump and starter for explosive-engines. No. 1,140,723; May 25; Gaz. vol. 214; p. 1161.
Tesch, Alexander O., Milwaukee, Wis. Oil-burner. No. 1,139,922; May 18; Gaz. vol. 214; p. 848.
Testelin, Auguste, Laeken, and G. S. Renard, Ixelles, Belgium. Apparatus for the industrial manufacture of a new spirit by the isomerization of petroleum. No. 1,138,260; May 4; Gaz. vol. 214; p. 187.
Testrup, Nils, London, England, and T. Rigby, Dumfries, Scotland, assignors, by mesne assignments, to Wetcarbonizing Limited, London, England. Production of wet carbonized peat briquets. No. 1,139,815; May 11; Gaz. vol. 214; p. 596.
Teters, Alvin R., Boise, Idaho. Concrete form for curbs, walks, &c. No. 1,140,776; May 25; Gaz. vol. 214; p. 1179.
Thaulow, Erland, Frederiksburg, near Copenhagen, Denmark. Compound for welding aluminium and aluminium-containing alloys. No. 1,139,928; May 18; Gaz. vol. 214; p. 848.
Thayer, William B. (See Bernett, Willis J., assignor.)
Theis, Louis F. (See Traver and Theis.)
Theisen, Hans E., Munich, Germany. Apparatus for washing, cleaning, and cooling gases. No. 1,139,385; May 11; Gaz. vol. 214; p. 622.
Theriault, Napoleon. (See Pierce and Theriault.)
Thickens, John H., Buffalo, N. Y. Preparing wood fiber. No. 1,138,907; May 11; Gaz. vol. 214; p. 455.
Thoma, Andrew, Cambridge, Mass., assignor to North American Chemical Company, New York, N. Y. Shoe-filler. No. 1,138,909; May 11; Gaz. vol. 214; p. 455.
Thoma, Andrew, Cambridge, Mass., assignor to North American Chemical Company, New York, N. Y. Shoe-bottom filler. No. 1,138,910; May 11; Gaz. vol. 214; p. 456.
Thoman, Samuel E., Shadyside, Ohio. Fruit-press. No. 1,137,808; May 4; Gaz. vol. 214; p. 30.
Thomas, Arthur P., and G. Carlson, San Francisco, Cal. Band-saw machine. No. 1,139,823; May 18; Gaz. vol. 214; p. 813.
Thomas B. Jeffrey Company, The. (See Bjorn, John, assignor.)
Thomas B. Jeffrey Company, The. (See De Cou, Jerry W., assignor.)
Thomas, Charles F., Granville county, N. C. Shoe-puller. No. 1,139,144; May 11; Gaz. vol. 214; p. 540.
Thomas, Columbus A., Fayetteville, N. C. Gas-regulating valve. No. 1,140,420; May 25; Gaz. vol. 214; p. 1057.
Thomas Cusack Company, The. (See Cusack, Harold J., assignor.)
Thomas, Edward W., Luton, England. Wheel for road-vehicles. No. 1,139,924; May 18; Gaz. vol. 214; p. 848.
Thomas, George H., Mineral Ridge, Ohio. Spring-hub for wheels. No. 1,139,600; May 18; Gaz. vol. 214; p. 783.
Thomas, John A., Zanesville, Ohio. Automobile chemical-engine. No. 1,137,927; May 4; Gaz. vol. 214; p. 71.
Thomas, John W., Kansas City, Kans. Combined rail-anchor and tie-plate. No. 1,137,810; May 4; Gaz. vol. 214; p. 31.
Thomas, John W., Kansas City, Kans., assignor of one-half to J. B. Hamill, Kansas City, Mo. Railway-track appliance. No. 1,137,809; May 4; Gaz. vol. 214; p. 30.
Thomas, Michael, Blairsville, Pa. Swing. No. 1,140,211; May 18; Gaz. vol. 214; p. 949.
Thomas, Orrin M., Oakland, Cal. Tire-protector. No. 1,138,911; May 11; Gaz. vol. 214; p. 456.
Thomas P. Taylor Co., The. (See Donahue, Christopher, assignor.)
Thomas, William D., Philadelphia, Pa. Carrier for fragile articles. No. 1,140,857; May 25; Gaz. vol. 214; p. 1210.
Thomas, William M. (See Lahr, Frank, assignor.)
Thomesen, Edvard M. S., Chicago, Ill. Folding metal bed. No. 1,140,212; May 18; Gaz. vol. 214; p. 950.
Thompson, Edwin W., Steubenville, Ohio. Combined shade and curtain holder. No. 1,139,000; May 11; Gaz. vol. 214; p. 488.
Thompson, George E., Stockton, Cal. Gas-saver for explosive-motors. No. 1,139,737; May 18; Gaz. vol. 214; p. 782.
Thompson, Harold M., *et al.* (See Craw, Joseph T., assignor.)
Thompson, James, Greeley, Colo. Dumping-wagon. No. 1,140,213; May 18; Gaz. vol. 214; p. 950.
Thompson, John A., Rosebank, N. Y. Signaling device for motor-vehicles. No. 1,138,809; May 11; Gaz. vol. 214; p. 421.
Thompson, Milton E., Ridgway, Pa. Dynamo-electric machine. No. 1,138,912; May 11; Gaz. vol. 214; p. 456.
Thompson, Samuel A., New York, N. Y. Type-writer. No. 1,138,427; May 4; Gaz. vol. 214; p. 249.
Thompson, William D., assignor to Hutchins Car Roofing Company, Detroit, Mich. Car. No. 1,137,928; May 4; Gaz. vol. 214; p. 71.
Thomsen, Peter, assignor to Schmidt'sche Heissdampf-Gesellschaft m. b. H. Cassel-Wilhelmshöhe, Germany. Superheater. No. 1,139,601; May 18; Gaz. vol. 214; p. 733.
Thomson, Charles J., Philadelphia, Pa. Fastening device for electrotypes. No. 1,139,925; May 18; Gaz. vol. 214; p. 848.
Thoren, Ernst F., St. Louis, assignor of one-half to E. B. Laun, Clayton, Mo. Belt-polishing machine. No. 1,139,386; May 11; Gaz. vol. 214; p. 622.
Thurber, Guy P., assignor, by mesne assignments, to Automatic Train Control & Signal Company, Pittsburgh, Pa. Train-control system. No. 1,137,811; May 4; Gaz. vol. 214; p. 31.
Tibbetts, Milton, assignor to Packard Motor Car Company, Detroit, Mich. Hydrocarbon-motor. No. 1,138,906; May 11; Gaz. vol. 214; p. 455.
Tibbetts, Milton, assignor to Packard Motor Car Company, Detroit, Mich. Gear-cutting machine. No. 1,140,012; May 18; Gaz. vol. 214; p. 880.
Tice, William A., *et al.* (See Atkins, William, assignor.)
Tidswell, William S., Lansing, Mich. Sprinkler. No. 1,139,086; May 11; Gaz. vol. 214; p. 519.
Tiedtke, Richard, assignor to Farbwerke vorm. Meister Lucius & Brüning, Höchst-on-the-Main, Germany. Mixing-machine. No. 1,139,085; May 11; Gaz. vol. 214; p. 518.
Tiefel, Charles G. (See Todd and Tiefel.)
Tiffany, George S., Summit, N. J., assignor to Gray National Telautograph Company, New York, N. Y. Telautographic apparatus. No. 1,137,929; May 4; Gaz. vol. 214; p. 72.
Tiffany, Harry J., and G. A. Young, Jackson, Mich. Automobile-curtain. No. 1,140,858; May 25; Gaz. vol. 214; p. 1211.
Tigerman, William H. (See Smith, Josiah H., assignor.)
Timberlake, Daniel T., St. Louis, Mo. Clothes-line reel and stretcher. No. 1,138,810; May 11; Gaz. vol. 214; p. 421.
Tindale Cabinet Company. (See Tindale, John L., assignor.)
Tindale, John L., Flushing, assignor to Tindale Cabinet Company, New York, N. Y. Filing-cabinet. No. 1,141,089; May 25; Gaz. vol. 214; p. 1290.
Tinsley, Joseph B., Kansas City, Kans. Display-cabinet. No. 1,138,913; May 11; Gaz. vol. 214; p. 456.
Tinsley, William, *et al.* (See Mosteller, Dosier H., assignor.)
Titcomb, George E., Philadelphia, Pa., assignor, by mesne assignments, to Link-Belt Company, Chicago, Ill. Charging railway system. No. 1,140,214; May 18; Gaz. vol. 214; p. 951.
Tobin, Edward C., Stockton, Cal. Calk attachment for horseshoes. No. 1,140,419; May 25; Gaz. vol. 214; p. 1057.
Tobin, Patrick H., Denison, Tex. Reicing cars. No. 1,140,215; May 18; Gaz. vol. 214; p. 951.
Tobin, Thomas. (See Fruin and Tobin.)
Todd & Company, G. W. (See Todd and Tiefel, assignors.)
Todd, Harold B., Philadelphia, Pa. Piano fall-board. No. 1,139,926; May 18; Gaz. vol. 214; p. 849.
Todd, Harold B., Philadelphia, Pa. Control-lever mounting for player-actions. No. 1,139,927; May 18; Gaz. vol. 214; p. 849.
Todd, Libanus M., and C. G. Tiefel, assignors to G. W. Todd & Company, Rochester, N. Y. Check-writer. No. 1,138,330; May 4; Gaz. vol. 214; p. 215.
Todd, Samuel J., and A. M. Humber, Highland Park, Mich. Milling-machine. No. 1,138,515; May 4; Gaz. vol. 214; p. 278.

Toledo Folding High Chair Company. (See Wolfert, Carlos, assignor.)
Topf, Ludwig, Erfurt, Germany. Drum for the working of any kind of grain. No. 1,138,331; May 4; Gaz. vol. 214; p. 215.
Topley, William H., assignor of one-half to J. W. Smith, Philadelphia, Pa. Smoke and gas consumer. No. 1,140,544; May 25; Gaz. vol. 214; p. 1103.
Torresson, Thomas S., New York, N. Y. Electric door-latch. No. 1,139,087; May 11; Gaz. vol. 214; p. 519.
Townsend, Claude B., *et al.* (See Meyers, Jacob E., assignors.)
Townsend, Frank P., Elyria, Ohio, assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. Motor-controller. No. 1,140,545; May 25; Gaz. vol. 214; p. 1104.
Townsend, William, *et al.* (See Meyers, Jacob E., assignor.)
Tracy, John J., Chicago, Ill. Clamp. No. 1,140,632; May 25; Gaz. vol. 214; p. 1133.
Trammell, Erasmus R., Lakeland, Fla. Torpedo-guard. No. 1,139,239; May 11; Gaz. vol. 214; p. 571.
Traut & Hine Manufacturing Company, The. (See Humphrey, Ernest N., assignor.)
Traver, Philip C., Far Rockaway, N. Y., assignor to Traver Puncture Proof Tire Company Inc. Tire. No. 1,137,930; May 4; Gaz. vol. 214; p. 72.
Traver Puncture Proof Tire Company Inc. (See Traver, Philip C., assignor.)
Traver, Walter P., and L. F. Theis, San Francisco, Cal. Cable-armor joint. No. 1,137,931; May 4; Gaz. vol. 214; p. 72.
Tredegar Company, The. (See Gardner and Grow, assignors.)
Trigalet, Walter D., Mamaroneck, N. Y. Pneumatic tire. No. 1,140,777; May 25; Gaz. vol. 214; p. 1180.
Trigalet, Walter D., Mamaroneck, N. Y. Tire construction. No. 1,140,778; May 25; Gaz. vol. 214; p. 1180.
Triska, Joseph, Omaha, Nebr. Spark-plug. No. 1,138,811; May 11; Gaz. vol. 214; p. 421.
Troidl, John, St. Louis, Mo. Vending-machine. No. 1,138,261; May 4; Gaz. vol. 214; p. 188.
Troutman, William F., Boston, Ky. Hinge. No. 1,140,216; May 18; Gaz. vol. 214; p. 951.
Troxel, David S., Elyria, Ohio. Motor-cycle and saddle therefor. No. 1,140,724; May 25; Gaz. vol. 214; p. 1162.
Trucano, Charles J., Cle Elum, Wash. Insulating system. No. 1,140,633; May 25; Gaz. vol. 214; p. 1133.
Truchetet, Jean B. (See Grillet and Truchetet.)
Trull, John M., Trull, Colo. Current-operated pumping apparatus. No. 1,138,158; May 4; Gaz. vol. 214; p. 154.
Trunkey, Harry T. (See Merrill, John F., assignor.)
Trussell, Emory A., New York, N. Y. Loose-leaf-binding device. No. 1,138,262; May 4; Gaz. vol. 214; p. 188.
Tschudy, Fred, Birmingham, Ala. Coke-producing plant. No. 1,139,088; May 11; Gaz. vol. 214; p. 519.
Turnbull, Emily D., *et al.*, executors. (See Turnbull, Walter J.)
Turnbull, Walter J., deceased; E. D. Turnbull and J. T. Sullivan, executors, assignors of one-half to L. Lavedan, New Orleans, La. Endless carrier. No. 1,140,923; May 25; Gaz. vol. 214; p. 1235.
Turner, Arnold, Danbury, Conn. Pouncing-pad. No. 1,139,928; May 18; Gaz. vol. 214; p. 849.
Turner, Arnold, Danbury, Conn. Hat-pouncing machine. No. 1,139,929; May 18; Gaz. vol. 214; p. 850.
Turner, George W., Minneapolis, Minn. Tub-seat. No. 1,139,824; May 18; Gaz. vol. 214; p. 813.
Turner, Ora N., assignor to Bay State Metal Wheel Company, Templeton, Mass. Perambulator. No. 1,140,085; May 18; Gaz. vol. 214; p. 906.
Turner, Walter V., Edgewood, assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa. Relief-valve device. No. 1,139,602; May 18; Gaz. vol. 214; p. 734.
Turpen, Aaron G., Modisto, Cal. Automatic train-stop. No. 1,141,023; May 25; Gaz. vol. 214; p. 1267.
Turzik, Paul. (See Krna and Turzik.)
Tutt, John C., St. Paul, Minn. Roller-coaster skate. No. 1,138,263; May 4; Gaz. vol. 214; p. 189.
Tuttle, Henry A., Taunton, Mass. Clutch for reversing-gearing. No. 1,140,346; May 18; Gaz. vol. 214; p. 996.
Tweddell, Oscar G., *et al.* (See Bartley, George B., assignor.)
Tyler, Aaron J., assignor of two-thirds to H. L. Bidelman, Rochester, N. Y. Pneumatic pump. No. 1,139,930; May 18; Gaz. vol. 214; p. 850.
Tyler, Aaron J., assignor of two-thirds to H. L. Bidelman, Rochester, N. Y. Pneumatic valve. No. 1,140,634; May 25; Gaz. vol. 214; p. 1133.
Tyler, Ralph G., Exeter, N. H. Golf-club. No. 1,139,738; May 18; Gaz. vol. 214; p. 783.
Ugnon, Claudius, Paterson, N. J. Expanding-roller. No. 1,140,546; May 25; Gaz. vol. 214; p. 1104.
Ulery, Cloyde B., Garrett, Ind. Mail-box signal. No. 1,141,024; May 25; Gaz. vol. 214; p. 1268.
Underhill, Charles R., assignor to The Acme Wire Company, New Haven, Conn. Winding-machine. No. 1,140,924; May 25; Gaz. vol. 214; p. 1235.
Underwood, Brooks, Birmingham, Ala. Extension car-step. No. 1,140,547; May 25; Gaz. vol. 214; p. 1104.
Underwood, Oliver P., Indianola, Iowa. Mechanical movement. No. 1,139,450; May 11; Gaz. vol. 214; p. 646.
Underwood Typewriter Company. (See Bates and Kurowski, assignors.)
Underwood Typewriter Company. (See Kurowski, Alfred G. F., assignor.)
Underwood Typewriter Company. (See McLaughlin, John C., assignor.)
Underwood Typewriter Company. (See Merlin, Sidney L. W., assignor.)
Underwood Typewriter Company. (See Shaver, James E., Jr., assignor.)
Underwood Typewriter Company. (See Stickney, Burnham C., assignor.)
Underwood Typewriter Company. (See Young, Frank A., assignor.)
Underwood, William T., Birmingham, Ala. Reaming-bit for prospecting-drills. No. 1,138,332; May 4; Gaz. vol. 214; p. 215.
Union Draft Gear Company. (See Cardwell, James R., assignor.)
Union Fibre Company. (See Lappen, James E., assignor.)
Union Special Machine Company. (See Hayes, John, Jr., assignor.)
Union Special Machine Company. (See McNeil, Chester, assignor.)
Union Special Machine Company. (See Moffatt, James R., assignor.)
Union Special Machine Company. (See Onderdonk, Lansing, assignor.)
Union Special Machine Company. (See Seymour, Dudley S., assignor.)
Union Special Machine Company. (See Woodward, Russel G., assignor.)
Union Switch & Signal Company, The. (See Buchanan, John P., assignor.)
Union Switch & Signal Company. (See Coleman, John P., assignor.)
Unit Brick and Stone Company. (See Peterson, George A., assignor.)
United Engineering & Foundry Company. (See Frank, Isaac W., assignor.)
United Gas Improvement Company, The. (See Rusby, John M., assignor.)
United Gas Improvement Company, The. (See Serrill, William J., assignor.)
United Gas Improvement Company, The. (See Taussig, John H., assignor.)
United Printing Machinery Company. (See Glass, William C., assignor.)
United Shoe Machinery Company. (See Bates, Arthur, assignor.)
United Shoe Machinery Company. (See Colby, Daniel W., assignor.)
United Shoe Machinery Company. (See Davey, John F., assignor.)
United Shoe Machinery Company. (See Ellis, Fred, assignor.)
United Shoe Machinery Company. (See Engel, Karl, assignor.)
United Shoe Machinery Company. (See Gardner, George B., assignor.)
United Shoe Machinery Company. (See Glidden, John E., assignor.)
United Shoe Machinery Company. (See Hart, Harry M., assignor.)
United Shoe Machinery Company. (See La Chapelle, Euclid I., assignor.)
United Shoe Machinery Company. (See Lund, Thomas, assignor.)
United Shoe Machinery Company. (See Richardson, John H., assignor.)
United Shoe Machinery Company. (See Roberts, William T. B., assignor.)
United Shoe Machinery Company. (See Rooney, Thomas F., assignor.)
United Shoe Machinery Company. (See Shaw, Walter, assignor.)
United Shoe Machinery Company. (See Stanbon, Charles P., assignor.)
United Shoe Machinery Company. (See Wentworth, Pearl J., assignor.)
United Shoe Machinery Company. (See Winter, Henry W., assignor.)
United States Cloth Cutting Machine Co., The. (See Komow, Nicolas, assignor.)
United States Envelop Sealing Machine Company. (See Davis, Carl H., assignor.)
United States Incinerator Company. (See McKeown, William C., assignor.)
United States Tropical Food Company. (See Plunkett, Hugh E., assignor.)
Unitee Knitwear Company. (See Scott, James C., assignor.)
Universal Fibre Company. (See Rivera, Julian H., assignor.)
Universal Filter-Faucet Corporation. (See Boulard, Joseph, assignor.)
Universal Printing Appliances Company. (See Warren and Bals, assignors.)
Universal Rim Company. (See Baker, Erle K., assignor.)
Universal Sterilizing Company. (See Coburn and Davis, assignors.)
Universal Turbine Company, The. (See Anderson, Emil, assignor.)

Universal Winding Company. (See Ryden, Claes, assignor.)
Up-To-Date Machine Company, The. (See McKillip, Frank L., assignor.)
Upton, George W., Warren, Ohio. Fishing-tackle. No. 1,140,779; May 25; Gaz. vol. 214; p. 1180.
Utard, Henry. (See Smith, John, assignor.)
Vail, James G. (See Stanton and Vail.)
Vail, James G., Chester, and J. D. Carter, Lansdowne, Pa. Forming and binding material for use in abrasive wheels and the like. No. 1,139,739; May 18; Gaz. vol. 214; p. 783.
Vail, James G., Chester, and J. D. Carter, Lansdowne, Pa. Sodium-silicate composition. No. 1,139,741; May 18; Gaz. vol. 214; p. 784.
Valerius, Theodore L., and O. Larsen, Fort Atkinson, Wis., assignors to The Creamery Package Manufacturing Company, Chicago, Ill. Bottle-capping mechanism. No. 1,139,931; May 18; Gaz. vol. 214; p. 851.
Vallin, Joseph F., Audubon, N. J. Metallic railway-tie. No. 1,138,428; May 4; Gaz. vol. 214; p. 249.
Valois, Felix E., Haverhill, assignor to Hamel Shoe Machinery Company, Lynn, Mass. Sole-channeling machine. No. 1,140,086; May 18; Gaz. vol. 214; p. 907.
Van Deren, George W., Elmira, N. Y. Coaster-brake. No. 1,139,145; May 11; Gaz. vol. 214; p. 540.
Van Deventer, James E., Anderson, Ind., assignor of one-half to N. V. Smith. Work-holder for sewing-machines. No. 1,140,217; May 18; Gaz. vol. 214; p. 951.
Van Dyne, John R., Sedalia, Mo. Disinfecting apparatus. No. 1,139,740; May 18; Gaz. vol. 214; p. 783.
Van Heusen, John M., Jamaica Plain, Mass. Rubber heel. No. 1,140,635; May 25; Gaz. vol. 214; p. 1134.
Van Hoesen, Benjamin, Ulmer, Tex. Lock. No. 1,139,933; May 18; Gaz. vol. 214; p. 851.
Van Houten, Frank H., Fishkill-on-the-Hudson, N. Y. Driving mechanism. No. 1,140,319; May 18; Gaz. vol. 214; p. 986.
Van Loozen, Fred H., Cleveland, Ohio. Spool or cord holder. No. 1,138,812; May 11; Gaz. vol. 214; p. 421.
Van Ness, Henry E., Elmira, N. Y. Attachment for milling-machines. No. 1,138,429; May 4; Gaz. vol. 214; p. 250.
Van Nice, Louise L. (See Mahnken and Van Nice.)
Van Valkenburgh, Francis D., Biloxi, Miss. Fastener for box-covers. No. 1,139,316; May 11; Gaz. vol. 214; p. 596.
Van Vorst, Charles B., and N. E. Fulkerson, Los Angeles, Cal. Mattress and cushion. No. 1,138,264; May 4; Gaz. vol. 214; p. 189.
Vance, Owen E., and P. S. Baker, Muscatine, Iowa. Automatic cooker. No. 1,139,932; May 18; Gaz. vol. 214; p. 851.
Vandercook, Albert E., Alameda, assignor to California Macvan Co., San Francisco, Cal. Treating mixtures of liquids and solids. No. 1,139,825; May 18; Gaz. vol. 214; p. 814.
Vanderveld, Anthony, Grand Rapids, Mich., assignor to Grand Rapids Show Case Co. Rotary display-rack. (Reissue.) No. 13,920; May 18; Gaz. vol. 214; p. 998.
Vannaman, Silas R., Chicago, Ill., assignor to American 3-Way Prism Company, Laporte, Ind. Rolling hollow-headed metal bars. No. 1,140,087; May 18; Gaz. vol. 214; p. 907.
Vannatta, Scott, Marcellus, Mich. Oil-heater. No. 1,140,780; May 25; Gaz. vol. 214; p. 1181.
Varga, Paul, *et al.* (See Bradač, Ivan, assignor.)
Variable Speed Gear, The. (See Wilson and Robson, assignors.)
Varley, Thomas W., New York, N. Y., assignor to Westinghouse Electric and Manufacturing Company. Electrical measuring instrument. No. 1,140,925; May 25; Gaz. vol. 214; p. 1235.
Varnell, Clyde, Houston, Tex. Tire. No. 1,138,027; May 4; Gaz. vol. 214; p. 105.
Varner, Edward, assignor of one-third to F. E. Mehle and one-third to J. A. Stapleton, Rochester, N. Y. Car heating and ventilating system. No. 1,139,089; May 11; Gaz. vol. 214; p. 519.
Varney, Theodore, Pittsburgh, Pa., assignor to Westinghouse Electric & Manufacturing Company. Overhead electric-line construction. No. 1,138,701; May 11; Gaz. vol. 214; p. 380.
Varney, Theodore, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Electric-line support. No. 1,138,702; May 11; Gaz. vol. 214; p. 381.
Varney, Theodore, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Regulator for electric circuits. No. 1,140,926; May 25; Gaz. vol. 214; p. 1236.
Varvel, Sidney L., Melbourne, Victoria, Australia. Electrical water-heater. No. 1,139,001; May 11; Gaz. vol. 214; p. 488.
Vauclain, Samuel M., and K. Rushton, assignors to The Baldwin Locomotive Works, Philadelphia, Pa. Geared locomotive. No. 1,140,218; May 18; Gaz. vol. 214; p. 952.
Velga, Joseph E., Lowell, Mass. Padlock. No. 1,138,333; May 4; Gaz. vol. 214; p. 216.
Velarde, Eduardo, Kansas City, Mo. Combination ironing-table and step-ladder. No. 1,140,636; May 25; Gaz. vol. 214; p. 1134.
Verges Manufacturing Company. (See Jaeckel, Adolph, assignor.)
Verstraete, Arthur, New Rochelle, N. Y. Cruller-cutter. No. 1,140,219; May 18; Gaz. vol. 214; p. 952.
Vesper, William C., Staunton, Ill. Gate-latch. No. 1,138,516; May 4; Gaz. vol. 214; p. 278.
Vest, Harvey P., Estelline, Tex., assignor of one-half to A. D. Hanna. Wax. No. 1,139,603; May 18; Gaz. vol. 214; p. 735.
Vestine, Andrew O., Dorchester, assignor, by mesne assignments, to J. E. Doyle, Worcester, Mass. Receptacle. No. 1,138,517; May 4; Gaz. vol. 214; p. 279.
Vetterlein, Henry M. (See Seeley and Vetterlein.)
Viberg, Ernest R., Montreal, Quebec, Canada. Combined end-stake pockets and end-sill brace. No. 1,137,812; May 4; Gaz. vol. 214; p. 31.
Viche, Joseph G., Duluth, Minn. Toe-board. No. 1,139,240; May 11; Gaz. vol. 214; p. 571.
Vickers, Joseph, San Diego, Cal. Collapsible core for cement-molds. No. 1,137,932; May 4; Gaz. vol. 214; p. 73.
Vickers Limited. (See Ellis, Giovanni, assignor.)
Vickers Sons & Maxim. (See Leake, Henry C., assignor.)
Vickery, John R., Chicago, Ill. Vehicle-tire. No. 1,138,813; May 11; Gaz. vol. 214; p. 422.
Victor Safe & Lock Co. (See Rodier, Frederick W., assignor.)
Victor Shoe Machinery Company. (See Erickson, Edward, assignor.)
Videtto, Harold, Bellingham, Wash. Link-press. No. 1,137,813; May 4; Gaz. vol. 214; p. 32.
Vogel, A. W. (See Morgan, Richard W., assignor.)
Vogel, Frank, Chicago Junction, Ohio. Coin tube and tray. No. 1,139,604; May 18; Gaz. vol. 214; p. 735.
Vogelsang, John B., Webster Groves, Mo. Device for combining and emulsifying substances. No. 1,140,548; May 25; Gaz. vol. 214; p. 1105.
Voight, Henry G., Hartford, Conn. Combined door closer and check. No. 1,140,637; May 25; Gaz. vol. 214; p. 1134.
Von Schluembach, Adolph, Altoona, Pa. Folding crate or box. No. 1,138,814; May 11; Gaz. vol. 214; p. 422.
Voorhees Rubber Manufacturing Company. (See Dickey, Charles T., assignor.)
Vosatka, Anton, and L. Cejka, Chicago, Ill. Locking device. No. 1,137,815; May 4; Gaz. vol. 214; p. 32.
Vosburgh, Charles C., Norwood, assignor to The John Shillito Company, Cincinnati, Ohio. Display-stand. No. 1,138,265; May 4; Gaz. vol. 214; p. 190.
Vose & Sons Piano Company. (See Stephenson, William C., assignor.)
Voss, Anton F., San Francisco, Cal. Inlet and relief valve for pneumatic tires. No. 1,139,935; May 18; Gaz. 214; p. 852.
Voss, Gustav, Madison, Wis. Paint-mixer. No. 1,138,815; May 11; Gaz. vol. 214; p. 423.
Vulcan Soot Cleaner Co., of Pittsburg, Pa., The. (See Linaker, Frederick W., assignor.)
W. Ames & Co. *et al.* (See Ames, James W., assignor.)
W. Smith Grubber Company. (See Smith, Frank R., assignor.)
W. A. Hilliard Company. (See Hilliard, Walter A., assignor.)
W. H. Saart Company, The. (See Saart, Herman, assignor.)
W. P. Gammons, Jr., and F. W. Cole, Inc. (See Gammons, Welcome P., Jr., assignor.)
W. S. Tyler Company, The. (See Reynolds, Morley P., assignor.)
Waddell, Gasper L., Grapeland, Tex. Extensible neck-yoke. No. 1,138,518; May 4; Gaz. vol. 214; p. 279.
Waddell, Robert, assignor to Washington Iron Works Company, Seattle, Wash. Aerial conveyer. No. 1,140,725; May 25; Gaz. vol. 214; p. 1162.
Wadsworth, Erastus E., assignor to The Eco Magneto Clock Company, Boston, Mass. Watchman's time-detector. No. 1,140,859; May 25; Gaz. vol. 214; p. 1211.
Waelti, Otto N., Watson, Saskatchewan, Canada. Rail-tie. No. 1,138,150; May 4; Gaz. vol. 214; p. 154.
Wagner Electric Manufacturing Company. (See Knöpfli, Otto, assignor.)
Wagner, James. (See Eckmann and Wagner.)
Walker, Charles, Knoxville, Tenn. Compression stop and waste valve. No. 1,138,160; May 4; Gaz. vol. 214; p. 154.
Walker, Edwin, Erie, Pa. Ice-cream dipper. No. 1,138,703; May 11; Gaz. vol. 214; p. 381.
Walker, Edwin, Erie, Pa. Ice-cream dipper. No. 1,138,704; May 11; Gaz. vol. 214; p. 381.
Walker, Edwin, Erie, Pa. Ice-cream disher. No. 1,138,705; May 11; Gaz. vol. 214; p. 382.
Walker, Edwin, Erie, Pa. Ice-cream disher. No. 1,138,706; May 11; Gaz. vol. 214; p. 382.
Walker, George, Newton Center, Mass. Non-print and non-compute mechanism for typographical computing-machines. No. 1,138,161; May 4; Gaz. vol. 214; p. 155.
Walker, Martin W., Ossining, N. Y. Clothes-drier. No. 1,139,605; May 18; Gaz. vol. 214; p. 735.
Walker, Sallie B., South Berkeley, assignor to T. R. Goth, Santa Rosa, Cal. Curtain-holder. No. 1,139,451; May 11; Gaz. vol. 214; p. 646.
Walker, Thomas B., Austin, Tex. Stock food and preparing the same. No. 1,140,638; May 25; Gaz. vol. 214; p. 1135.

Walker, Walter H., Binghamton, N. Y. Coin-controlled vending or actuating mechanism. No. 1,139,242; May 11; Gaz. vol. 214; p. 572.
Wall, Charles F., and F. Harker, Philadelphia, Pa. Double-radius grinding-machine. No. 1,140,421; May 25; Gaz. vol. 214; p. 1057.
Wall, George L., assignor to Lima Locomotive Corporation, Lima, Ohio. Cast-steel vestibule-frame. No. 1,138,028; May 4; Gaz. vol. 214; p. 106.
Wall, Robert C., Philadelphia, Pa. Top-holder for vehicles. No. 1,139,742; May 18; Gaz. vol. 214; p. 784.
Wallace, Allen, Moorestown, N. J., assignor to The Baldwin Locomotive Works, Philadelphia, Pa. Non-chattering brake-hanger. No. 1,138,430; May 4; Gaz. vol. 214; p. 250.
Wallace, John H., Gloversville, N. Y. Sole and heel for slippers. No. 1,140,639; May 25; Gaz. vol. 214; p. 1135.
Wallace, Kenneth J., Brockton, Mass. Police signal-station. No. 1,138,334; May 4; Gaz. vol. 214; p. 216.
Waller, Charles W., Chicago, Ill. Sound-reproducing machine. No. 1,139,387; May 11; Gaz. vol. 214; p. 623.
Walp, Sherman T., Springfield, Ohio. Planter. No. 1,137,933; May 4; Gaz. vol. 214; p. 78.
Walser, Eugene O., Los Angeles, Cal. Gear-shifting mechanism. No. 1,138,914; May 11; Gaz. vol. 214; p. 457.
Walsh, John T., Ottawa, Ill. Whipping device. No. 1,139,606; May 18; Gaz. vol. 214; p. 785.
Walsh's Holyoke Steam Boiler Works. (See Bailey, George W., assignor.)
Walter, Harrison B., assignor to National Fibre Box Company, Danville, Ill. Sealing means for boxes. No. 1,140,927; May 25; Gaz. vol. 214; p. 1236.
Walters, Bert, assignor to C. H. Kay, Springfield, Ohio. Resilient wheel. No. 1,140,088; May 18; Gaz. vol. 214; p. 908.
Wandel Screen Manufacturing Company. (See Clarke, Ralph S., assignor.)
Ward, Charles F., and W. H. Clay, assignors of one-third to P. Prather, Lexington, Ky. Vehicle-wheel. No. 1,138,335; May 4; Gaz. vol. 214; p. 217.
Ward, Frank F., Schoolcraft, Mich. Broom rack and holder. No. 1,140,422; May 25; Gaz. vol. 214; p. 1058.
Warden, William F., Akron, Ohio. Filter. No. 1,140,726; May 25; Gaz. vol. 214; p. 1163.
Warden, William F., Akron, Ohio. Oil-filter. No. 1,140,727; May 25; Gaz. vol. 214; p. 1163.
Ware, John H. (See Brisbois, Odilon, assignor.)
Warner, Arthur W. (See Carpenter and Warner.)
Warner Brothers Company. (See Johnson, Charles G., assignor.)
Warner, Charles E., Ottawa, Kans. Vehicle-jack. No 1,139,243; May 11; Gaz. vol. 214; p. 572.
Warner, Joseph N., Detroit, Mich. Universal test-indicator. No. 1,139,936; May 18; Gaz. vol. 214; p. 852.
Warner, Samuel T., New York, N. Y. Signal device. No. 1,138,029; May 4; Gaz. vol. 214; p. 106.
Warner and Sivasey Company, The. (See Burrell, Edward P., assignor.)
Warr, William E. C. (See Page, Luther T., assignor.)
Warren, Arthur E., Oak Park, and A. F. Bals, Zion City, assignors to Universal Printing Appliances Company, Chicago, Ill. Printer's catch or registering means. No. 1,137,816; May 4; Gaz. vol. 214; p. 33.
Warren, William S., Cambridge, Mass. Window. No. 1,139,244; May 11; Gaz. vol. 214; p. 573.
Warring, Franklin B., assignor to Bean Spray Pump Co., San Jose, Cal. Deep-well pump. No. 1,139,607; May 18; Gaz. vol. 214; p. 786.
Warstler, Levi, and P. F. Loichot, assignors to The Louisville Machine Company, Louisville, Ohio. Brick-forming die. No. 1,140,640; May 25; Gaz. vol. 214; p. 1135.
Washburn, Charles H., assignor, by mesne assignments, to New Process Oil Company, St. Louis, Mo. Treating hydrocarbon oils. No. 1,138,266; May 4; Gaz. vol. 214; p. 190.
Washburne, Alva C., *et al.* (See Hammond, Grant, assignor.)
Washington Iron Works Company. (See Waddell, Robert, assignor.)
Wasik, Jacob, West Hammond, Ill. Pan-lifter. No. 1,140,781; May 25; Gaz. vol. 214; p. 1181.
Waterloo Cement Machinery Corporation. (See Bruns, John M., assignor.)
Waterman, Bradford B., East Bridgewater, Mass., assignor to The American Shoe Finding Company. Machine for fastening metal stiffeners to shoe-shanks. No. 1,140,423; May 25; Gaz. vol. 214; p. 1058.
Waterman, Frank W., Baltimore, Md. Machine for making plates from pulp. No. 1,139,002; May 11; Gaz. vol. 214; p. 489.
Waterman, Lewis E., assignor to Emerson-Brantingham Company, Rockford, Ill. Harrow. No. 1,137,934; May 4; Gaz. vol. 214; p. 78.
Waterman, Lewis E., assignor to Emerson-Brantingham Company, Rockford, Ill. Two-row cultivator. No. 1,137,935; May 4; Gaz. vol. 214; p. 74.
Waters, Alfred C. (See Strickland, Silas A., assignor.)
Watkins, John W. (See Brogden and Watkins.)
Watkins, Owen C., assignor of one-third to T. E. Reed, Middletown, Ohio. Coaster-brake. No. 1,139,090; May 11; Gaz. vol. 214; p. 520.
Watrous, Martin D., Ansonia, Conn. Machine for applying tips to garment-stays. No. 1,139,608; May 18; Gaz. vol. 214; p. 786.
Watson, Alexander J., Plainfield, N. J. Grip for bowling-balls and the like. No. 1,139,827; May 18; Gaz. vol. 214; p. 814.
Watts, Frank E., assignor to Hupp Motor Car Company, Detroit, Mich. Grease-cup. No. 1,140,549; May 25; Gaz. vol. 214; p. 1105.
Waugh Draft Gear Company. (See Forsyth, George H., assignor.)
Waugh, Edward H., Seattle, Wash. Cutter-head. No. 1,137,937; May 4; Gaz. vol. 214; p. 75.
Waugh, Edward H., assignor to Smith Cannery Machines Co., Seattle, Wash. Weight-testing machine. No. 1,137,936; May 4; Gaz. vol. 214; p. 74.
Waugh, Edward H., assignor to J. W. Winningham, Seattle, Wash. Cutter-head. No. 1,138,816; May 11; Gaz. vol. 214; p. 423.
Wayne Manufacturing Company. (See Marth, Charles J., assignor.)
Weatherly, Charles G., San Francisco, Cal. Combined folding door-step and seat for cars. No. 1,140,641; May 25; Gaz. vol. 214; p. 1136.
Weaver, David R., Waynesboro Va. Dehorner. No. 1,141,025; May 25; Gaz. vol. 214; p. 1268.
Weaver, Ira A., assignor to Racine Sattley Company, Springfield, Ill. Detachable plowshare. No. 1,137,817; May 4; Gaz. vol. 214; p. 33.
Weaver, Marvin S., Johnson City, Tenn. Fiber-trimming apparatus. No. 1,139,609; May 18; Gaz. vol. 214; p. 787.
Webb, Harry J., Detroit, Mich. Polishing-machine. No. 1,140,424; May 25; Gaz. vol. 214; p. 1059.
Webb, John L., Sawtelle, and C. C. Murdy, Westminster, Cal. Rotary machine. No. 1,139,937; May 18; Gaz. vol. 214; p. 853.
Webb, Joseph, *et al.* (See Fuller, Eugene, assignor.)
Webber, Walter I., Los Angeles, Cal. Computing device. No. 1,138,817; May 11; Gaz. vol. 214; p. 424.
Weber, Carl, Chicago, Ill. Plastering wall-surfaces. No. 1,139,091; May 11; Gaz. vol. 214; p. 520.
Weber, Walter, assignor to Henkel & Cie., Dusseldorf, Germany. Manufacturing peroxid of hydrogen. No. 1,138,519; May 4; Gaz. vol. 214; p. 279.
Weber, Walter, assignor to Henkel & Cie., Dusseldorf, Germany. Manufacturing peroxid of hydrogen. No. 1,138,520; May 4; Gaz. vol. 214; p. 279.
Webster, John M., assignor to The O. P. Schriver Co., Cincinnati, Ohio. Caster. No. 1,138,818; May 11; Gaz. vol. 214; p. 424.
Wedeman, George F. (See Arnold and Wedeman.)
Weed, Harry D., Canastota, N. Y., assignor to W. B. Lashar, Bridgeport, Conn. Grip-tread armor for elastic tires. No. 1,139,388; May 11; Gaz. vol. 214; p. 623.
Wegner, Frederick A., assignor to M. E. Wegner, Buffalo, N. Y. Grain-conditioner. No. 1,139,610; May 18; Gaz. vol. 214; p. 787.
Wegner, Mary E. (See Wegner, Frederick A., assignor.)
Wehe, William T. (See Henthorn and Wehe.)
Weichman, Louis C., Youngstown, Ohio. Collar-clip. No. 1,139,452; May 11; Gaz. vol. 214; p. 646.
Weickel, Henry, Milwaukee, assignor to Pawling and Harnischfeger Company, West Milwaukee, Wis. Switch and safety-stop for elevated conveyer-tracks. No. 1,139,611; May 18; Gaz. vol. 214; p. 788.
Weide, Hans, assignor of one-half to O. Lorens, New York, N. Y. Latch. No. 1,137,818; May 4; Gaz. vol. 214; p. 33.
Weide, Hans, assignor of one-half to O. Lorens, New York, N. Y. Latch. No. 1,137,819; May 4; Gaz. vol. 214; p. 34.
Wein, Samuel, and J. Hluda, Port Chester, N. Y. Vending-machine. No. 1,140,220; May 18; Gaz. vol. 214; p. 952.
Weiner, William, Guymon, Okla. Windmill. No. 1,140,221; May 18; Gaz. vol. 214; p. 953.
Weingärtner, Eduard, Leipzig-Plagwitz, and W. Friess, Leipzig-Lindenau, Germany. Bronzing or metal-surfacing machine. No. 1,140,642; May 25; Gaz. vol. 214; p. 1136.
Weinhold, Edmund. (See Bamberg and Weinhold.)
Weinstein, Leon, St. Louis, Mo. Combination-tool. No. 1,139,938; May 18; Gaz. vol. 214; p. 853.
Weintraub, Ezechiel, Lynn, Mass., assignor to General Electric Company. Vapor electric device. No. 1,138,162; May 4; Gaz. vol. 214; p. 155.
Weintraub, Ezechiel, Lynn, Mass., assignor to General Electric Company. Vapor electric device. No. 1,138,163; May 4; Gaz. vol. 214; p. 156.
Weir Frog Company, The. (See Goldsmith, Nathaniel O., assignor.)
Weis, Frank O., assignor to North Star Manufacturing Company, Coffeyville, Kans. Cell-case filler. No. 1,140,643; May 25; Gaz. vol. 214; p. 1137.
Weis, John P., Nyack, assignor to L. M. Littauer, Gloversville, N. Y. Goods-spreader. No. 1,139,612; May 18; Gaz. vol. 214; p. 788.
Weissenburger, George E., Berlin, Germany, assignor of one-half to Otis Elevator Company, New York, N. Y. Making steel. No. 1,140,550; May 25; Gaz. vol. 214; p. 1105.
Weitzel, Emil, Philadelphia, Pa. Printer's galley-lock. No. 1,140,728; May 25; Gaz. vol. 214; p. 1163.
Weitzel, George M., Duquesne, Pa. Curtain-support. No. 1,138,336; May 4; Gaz. vol. 214; p. 217.

Welch, Allie R., deceased; M. E. Welch, administratrix, Pontiac, Mich. Horn. No. 1,138,267; May 4; Gaz. vol. 214; p. 190.
Welch, Lyman W., assignor to Welch Mfg. Co., Grand Rapids, Mich. Show-case. No. 1,138,590; May 4; Gaz. vol. 214; p. 306.
Welch Manufacturing Company, The. (See Gustafson, Alfred, assignor.)
Welch, Mary E., administratrix. (See Welch, Allie R.)
Welch Mfg. Co. (See Welch, Lyman W., assignor.)
Welin Marine Equipment Company. (See Lundin, Andreas P., assignor.)
Wellman, Esquire Z. (See Gross and Wellman.)
Wells, Arthur F., and J. Saxton, San Francisco, assignors to J. C. Paine, E. G. Hoag, F. Nelson, and P. Hutchinson, Fowler, Cal. Raisin-vending machine. No. 1,139,828; May 18; Gaz. vol. 214; p. 815.
Wells, Joel C., Southbridge, Mass. Spectacles. No. 1,139,146; May 11; Gaz. vol. 214; p. 540.
Welsbach Light Company. (See Elser, John, assignor.)
Welton, Harold W., Redlands, Cal. Fruit-grading machine. No. 1,140,782; May 25; Gaz. vol. 214; p. 1181.
Welton, Park E., Akron, Ohio. Machine for wrapping annuli. No. 1,140,729; May 25; Gaz. vol. 214; p. 1163.
Wemlinger, Julius R., Brooklyn, N. Y. Bulkhead construction. No. 1,137,938; May 4; Gaz. vol. 214; p. 75.
Wendorf, Henry L., Ballinger, Tex. Saddle-press. No. 1,140,551; May 25; Gaz. vol. 214; p. 1105.
Wensel, Theodor, *et al.* (See Annis, Daniel J., assignor.)
Wentworth, Frank B., and L. F. Clausing, Los Angeles, Cal. Radiator. No. 1,138,819; May 11; Gaz. vol. 214; p. 424.
Wentworth, Pearl J., Boston, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Apparatus for use in the manufacture of boots and shoes. No. 1,138,584; May 4; Gaz. vol. 214; p. 300.
Wentworth, Pearl J., Boston, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Manufacture of boots and shoes. No. 1,138,585; May 4; Gaz. vol. 214; p. 300.
Wentworth, Pearl J., Boston, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Upper-pulling mechanism. No. 1,139,613; May 18; Gaz. vol. 214; p. 788.
Wern, Gustav P., New York, N. Y. Clutch for hoisting-engines. No. 1,137,939; May 4; Gaz. vol. 214; p. 75.
Werner, Arthur, and R. S. Denniss, San Francisco, Cal. Guard for the booths of picture-projecting machines. No. 1,139,245; May 11; Gaz. vol. 214; p. 573.
Werner, Ernest E., Indianapolis, Ind. Operating an electrolytic cell. No. 1,139,389; May 11; Gaz. vol. 214; p. 623.
Wernicke, Paul, Ellenburg, Germany. Molding apparatus. No. 1,140,552; May 25; Gaz. vol. 214; p. 1106.
Wersel, Frank B. Jr., Cincinnati, Ohio. Hammock-cot. No. 1,138,820; May 11; Gaz. vol. 214; p. 425.
Wessel, Joseph. (See Albracht and Wessel.)
Wessoleck, Augustus W., assignor to The American Hardware Corporation, New Britain, Conn. Flexible tubing. No. 1,140,425; May 25; Gaz. vol. 214; p. 1059.
Wessoleck, Augustus W., assignor to The American Hardware Corporation, New Britain, Conn. Odometer. No. 1,140,426; May 25; Gaz. vol. 214; p. 1059.
West, Chester R., Colbert, Ga. Salt-stand. No. 1,139,147; May 11; Gaz. vol. 214; p. 541.
West, L. Burton, *et al.*, executors. (See Macdonald, Hugh.)
West, Oscar E., Brunswick, Ga. Chute. No. 1,138,431; May 4; Gaz. vol. 214; p. 250.
West, Sidney, Washington, D. C. Athletic sock. No. 1,138,521; May 4; Gaz. vol. 214; p. 280.
Westberg, William E., Willmar, Minn. Envelop. No. 1,139,003; May 11; Gaz. vol. 214; p. 489.
Westerbeck, Frederick, St. Louis, Mo. Sheet-metal vessel. No. 1,138,268; May 4; Gaz. vol. 214; p. 191.
Western Cereal Company. (See Graves, Oriel N., assignor.)
Western Electric Company. (See Craft, Edward B., assignor.)
Western Electric Company. (See Craft and Brown, assignors.)
Western Electric Company. (See Egerton, Henry C., assignor.)
Western Electric Company. (See Koenig, David, assignor.)
Western Electric Company. (See McBerty, Frank R., assignor.)
Western Electric Company. (See Polinkowsky, Lipa, assignor.)
Western Electric Company. (See Reynolds, John N., assignor.)
Westinghouse Air Brake Company, The. (See Hill, Ernest R., assignor.)
Westinghouse Air Brake Company, The. (See Nash, Charles J., assignor.)
Westinghouse Air Brake Company, The. (See Turner, Walter V., assignor.)
Westinghouse Electric and Manufacturing Company. (See Conrad, Frank, assignor.)
Westinghouse Electric and Manufacturing Company. (See Cooper, William, assignor.)
Westinghouse Electric & Manufacturing Company. See Davis, Joseph L., assignor.)
Westinghouse Electric & Manufacturing Company. (See Davis and Aalborg, assignors.)
Westinghouse Electric & Manufacturing Company. (See Davis and Conrad, assignors.)
Westinghouse Electric and Manufacturing Company. (See Eaton, George M., assignor.)
Westinghouse Electric and Manufacturing Company. (See Eckmann and Wagner, assignors.)
Westinghouse Electric and Manufacturing Company. (See Fortescue, Charles L., assignor.)
Westinghouse Electric and Manufacturing Company. (See Hall, Arthur J., assignor.)
Westinghouse Electric and Manufacturing Company. (See Harris, Ford W., assignor.)
Westinghouse Electric and Manufacturing Company. (See Kintner, Samuel M., assignor.)
Westinghouse Electric and Manufacturing Company. (See Lamme, Benjamin G., assignor.)
Westinghouse Electric and Manufacturing Company. (See Lamme and Yardley, assignors.)
Westinghouse Electric and Manufacturing Company. (See Lincoln, Paul M., assignor.)
Westinghouse Electric and Manufacturing Company. (See Little and Gudge, assignors.)
Westinghouse Electric and Manufacturing Company. (See Longmore, William J., assignor.)
Westinghouse Electric and Manufacturing Company. (See Lum, Walter O., assignor.)
Westinghouse Electric and Manufacturing Company. (See Rowe, Bertrand P., assignor.)
Westinghouse Electric and Manufacturing Company. (See Rypinski, Albert B., assignor.)
Westinghouse Electric and Manufacturing Company. (See Sanborn, John R., assignor.)
Westinghouse Electric and Manufacturing Company. (See Schaake, William, assignor.)
Westinghouse Electric and Manufacturing Company. (See Sieber, Ferdinand, assignor.)
Westinghouse Electric and Manufacturing Company. (See Soule, Herbert C., assignor.)
Westinghouse Electric and Manufacturing Company. (See Varley, Thomas W., assignor.)
Westinghouse Electric & Manufacturing Company. (See Varney, Theodore, assignor.)
Westlake, Albert, New York, N. Y. Machine for selecting, treating, and applying closure-seals. No. 1,137,820; May 4; Gaz. vol. 214; p. 34.
Westmoreland, Crawford T., High Point, N. C., assignor to Myrtle Desk Company. Locking device for desks and the like. No. 1,139,939; May 18; Gaz. vol. 214; p. 853.
Westmoreland, Crawford T., High Point, N. C., assignor to Myrtle Desk Company. Locking device for desks and the like. No. 1,139,940; May 18; Gaz. vol. 214; p. 854.
Weston, Calvin H., Tyrone, Pa. Physician's treating-table. No. 1,138,030; May 4; Gaz. vol. 214; p. 107.
Westwood, John T., assignor of one-fourth to J. B. Somerville and one-fourth to G. C. Benecke, Wheeling W. Va. Wheel-brake. No. 1,138,707; May 11; Gaz. vol. 214; p. 383.
Wetcarbonizing Limited. (See Testrup and Rigby, assignors.)
Wetzel, Selton M., Port Orchard, Wash. Motor-vehicle-moving attachment. No. 1,138,915; May 11; Gaz. vol. 214; p. 457.
Weyel, Rudolf, Bürrigerheide, assignor, by mesne assignments, to Rheinsche Dynamitfabrik, Cologne, Germany. Facilitating the separation of nitroglycerin. No. 1,138,916; May 11; Gaz. vol. 214; p. 457.
Weyel, Rudolf, Bürrigerheide, assignor, by mesne assignments, to Rheinische Dynamitfabrik, Cologne, Germany. Facilitating the separation of nitroglycerin. No. 1,138,917; May 11; Gaz. vol. 214; p. 458.
Whalley, Enoch, Williamsett, Mass. Truck. No. 1,138,337; May 4; Gaz. vol. 214; p. 217.
Wheary, George H., Racine, Wis. Trunk-hinge fixture. No. 1,137,940; May 4; Gaz. vol. 214; p. 76.
Wheary, George H., assignor to The Hartmann Trunk Company, Racine, Wis. Convertible trunk. No. 1,139,817; May 11; Gaz. vol. 214; p. 596.
Wheeler, Clyde E., Gull Lake, Saskatchewan, Canada. Attachment to harness. No. 1,139,829; May 18; Gaz. vol. 214; p. 815.
Wheeler, Gardner E. (See Bulley and Wheeler.)
Wheelock, Lydia K., New York, N. Y. Hat-pattern. No. 1,139,318; May 11; Gaz. vol. 214; p. 596.
Whidden, Arthur D., Elyria, Ohio. Packing-ring. No. 1,139,004; May 11; Gaz. vol. 214; p. 490.
Whitcomb, Alonzo W., Worcester, Mass. Magnetic clutch. No. 1,139,005; May 11; Gaz. vol. 214; p. 490.
Whitcomb, Carlton L., assignor of one-third to F. E. Whitcomb and one-third to J. A. Holland, Brockton, Mass. Low-cut shoe. No. 1,138,164; May 4; Gaz. vol. 214; p. 156.
Whitcomb, Frank E., *et al.* (See Whitcomb, Carlton L., assignor.)
White, Almond J., and F. A. Hawley, Chillicothe, Mo. Wear-plate for shoe-heels. No. 1,139,743; May 18; Gaz. vol. 214; p. 784.
White, Cecil K., Norfolk, Va. Fender for automobiles. No. 1,139,830; May 18; Gaz. vol. 214; p. 816.
White Company, The. (See Entz, Justus B., assignor.)
White, George E., Gwelo, South Rhodesia, South Africa. Well-pump. No. 1,138,432; May 4; Gaz. vol. 214; p. 251.

White, George G., St. Joseph, Mo. Treadle-operated driving mechanism. No. 1,141,026; May 25; Gaz. vol. 214; p. 1268.
White, James C., Sewickley, Pa. Excrement-receptacle. No. 1,139,941; May 18; Gaz. vol. 214; p. 854.
White, James M., Danville, Va. Combination tobacco-box. No. 1,141,027; May 25; Gaz. vol. 214; p. 1269.
White, James T. (See Kippen, Brown, and White.)
White, Jesse F., Titusville, Fla. Water-calming device. No. 1,139,246; May 11; Gaz. vol. 214; p. 573.
White, John W., assignor to Aero Fire Alarm Company, New York, N. Y. Testing device. No. 1,137,821; May 4; Gaz. vol. 214; p. 34.
White, William R., assignor of one-half to R. S. Legate, Denison, Tex. Poultry-crate. No. 1,138,918; May 11; Gaz. vol. 214; p. 458.
Whitehead, Ernest. (See Sault, William A., assignor.)
Whitin Machine Works, The. (See Kimball, Harry G., assignor.)
Whitin Machine Works, The. (See Owen, Oscar L., assignor.)
Whitin Machine Works, The. (See Rooney, Luke H., assignor.)
Whiting, Joseph S., Yonkers, N. Y. Valve. No. 1,141,028; May 25; Gaz. vol. 214; p. 1269.
Whitley, Alfred A., Manchester, England. Clip for stentering-machines. No. 1,141,081; May 25; Gaz. vol. 214; p. 1287.
Whitney, Loren L., Hammond, Ind., assignor to American Steel Foundries, New York, N. Y. Brake-beam. No. 1,140,089; May 18; Gaz. vol. 214; p. 908.
Whitney, Rolvin S., Lewiston, Me. Relief-valve. No. 1,138,338; May 4; Gaz. vol. 214; p. 218.
Whitney, William M. (See Farnum, William C., assignor.)
Whittemore, Charles, *et al.* (See King, Madison M., assignor.)
Whittemore, John Q. A., *et al.* (See King, Madison M., assignor.)
Whittenburg, Elbert E., assignor to The Standard Dry Kiln Company, Indianapolis, Ind. Journal-box for trucks. No. 1,141,029; May 25; Gaz. vol. 214; p. 1269.
Whittier, Walter H., assignor to Grand Rapids Refrigerator Company, Grand Rapids, Mich. Latch. No. 1,140,553; May 25; Gaz. vol. 214; p. 1106.
Wickland, Anton E., and A. T. Britton, San Jose, Cal. Lathe attachment. No. 1,138,821; May 11; Gaz. vol. 214; p. 425.
Widmer, William F., Brackenridge, Pa. Rail-joint. No. 1,140,644; May 25; Gaz. vol. 214; p. 1137.
Wieland, Frederick A., Chicago, Ill. Speedometer. No. 1,137,822; May 4; Gaz. vol. 214; p. 35.
Wigellus, Sven G., Gottenborg, assignor to A. Andersson, Stockholm, and T. Carlander, Gottenborg, Sweden. Mine or the like. No. 1,138,269; May 4; Gaz. vol. 214; p. 191.
Wigginton, George P., Kalamazoo, Mich. Temporary binder or loose-sheet holder. No. 1,140,929; May 25; Gaz. vol. 214; p. 1237.
Wightman, Robert J., Newark, and W. B. Powell, East Orange, N. J. Moistening device. No. 1,139,942; May 18; Gaz. vol. 214; p. 854.
Wilbur, Lewis A., Gloversville, assignor of one-half to G. B. Cone, Amsterdam, N. Y. Escutcheon-plate. No. 1,137,823; May 4; Gaz. vol. 214; p. 35.
Wilcox, Edward A., Carthage, Ill. Pneumatic cushion for automobiles. No. 1,140,645; May 25; Gaz. vol. 214; p. 1137.
Wilcox, Ernest C., assignor to The Connecticut Telephone & Electric Company, Inc., Meriden, Conn. Electrical ignition apparatus. No. 1,138,522; May 4; Gaz. vol. 214; p. 280.
Wildman, Frank B., and G. L. Ballard, assignors to Wildman Mfg. Co., Norristown, Pa. Welt-knitting machine. No. 1,140,783; May 25; Gaz. vol. 214; p. 1181.
Wildman, Frank B., and G. L. Ballard, assignors to Wildman Mfg. Company, Norristown, Pa. Knitting-machine. No. 1,140,784; May 25; Gaz. vol. 214; p. 1182.
Wildman Mfg. Co. (See Ballard, George L., assignor.)
Wildman Mfg. Co. (See Wildman and Ballard, assignors.)
Wildt, Edward A., Scranton, Pa. Grate-bar section. No. 1,138,339; May 4; Gaz. vol. 214; p. 218.
Wiles, John O., Orleans, Nebr. Sanitary candy-pail rack. No. 1,138,340; May 4; Gaz. vol. 214; p. 218.
Wiley, John S., Hillsboro, Ill. Deflating-tool for pneumatic tires. No. 1,140,222; May 18; Gaz. vol. 214; p. 953.
Wilkinson, Frederick, Glazenwood, near Braintree, England. Stamping mechanism. No. 1,140,013; May 18; Gaz. vol. 214; p. 881.
Wilkinson, Frederick, Glazenwood, near Braintree, England. Mechanism for the stamping of letters, post-cards, and the like. No. 1,140,014; May 18; Gaz. vol. 214; p. 881.
Wilks, Allen T. (See Culp and Wilks.)
Willard, Donald E., Danville, Ill. Door-check. No. 1,140,320; May 18; Gaz. vol. 214; p. 986.
Willard, Donald E., Danville, Ill. Door-check. No. 1,140,321; May 18; Gaz. vol. 214; p. 987.
Willett, George J., Milwaukee, Wis. Car-coupling. No. 1,140,223; May 18; Gaz. vol. 214; p. 953.
Willey, Frank W., Boston, and W. Galletly, Melrose, assignors to Carbon-Oxygen Gas Engine Company, Boston, Mass. Two-cycle engine. No. 1,138,019; May 11; Gaz. vol. 214; p. 458.
Williams, Alexander S. (See Coe, Harry P., assignor.)
Williams, Archie, Climax, Minn. Cooling system for tractors. No. 1,138,433; May 4; Gaz. vol. 214; p. 251.
Williams, Edison R., Bakersfield, Cal. Disappearing signal-target and light for railway-track switches. No. 1,139,148; May 11; Gaz. vol. 214; p. 541.
Williams, Edward L., Jr., assignor of one-half to E. L. Williams, Sr., Santa Cruz, Cal. Molding-machine. No. 1,140,785; May 25; Gaz. vol. 214; p. 1183.
Williams, Harry E., assignor to Dow Wire & Iron Works, Louisville, Ky. Bearing. No. 1,138,822; May 11; Gaz. vol. 214; p. 425.
Williams, Harry S., Ithaca, N. Y. Electric sign. No. 1,139,614; May 18; Gaz. vol. 214; p. 739.
Williams, James L., New York, N. Y., assignor to The Dentists' Supply Company. Artificial tooth. No. 1,139,615; May 18; Gaz. vol. 214; p. 739.
Williams, James P., New York, N. Y. Sash-holder. No. 1,138,823; May 11; Gaz. vol. 214; p. 425.
Williams, John B., San Francisco, Cal., assignor, by mesne assignments, to Perfection Valve Company. Reversible flush-valve. (Reissue.) No. 13,913; May 4; Gaz. vol. 214; p. 314.
Williams, John N., Derby, Conn. Motor-cycle. No. 1,139,616; May 18; Gaz. vol. 214; p. 739.
Williams, John N., Derby, Conn. Internal-combustion engine. No. 1,139,617; May 18; Gaz. vol. 214; p. 740.
Williams, John T., San Antonio, Tex. Sanitary attachment for milk-pails. No. 1,140,224; May 18; Gaz. vol. 214; p. 954.
Williams, Milton F. (See Tebbetts, George S., Jr., assignor.)
Williams, William H., Sharpsburg, Pa. Treating water. No. 1,139,618; May 18; Gaz. vol. 214; p. 740.
Williamson, Robert B., Milwaukee, Wis., assignor, by mesne assignments, to Allis-Chalmers Manufacturing Company. System of distribution. No. 1,138,341; May 4; Gaz. vol. 214; p. 219.
Williamson, Samuel T. (See Gilbreath and Williamson.)
Willis Mitchell Company. (See Mitchell, Willis, assignor.)
Wills, Wayne, Chicago, Ill. Desk. No. 1,139,043; May 18; Gaz. vol. 214; p. 855.
Wills, William, assignor of one-third to H. E. Black, one-third to W. L. Rohrer, Canton, Ohio, and one-eighth to W. A. Marshall, Austin, Nev. Internal-combustion engine. No. 1,138,824; May 11; Gaz. vol. 214; p. 426.
Wilson, Arthur, and J. Robson, Westminster, London, assignors to The Variable Speed Gear Limited, Westminster, England. Crane and other hoisting apparatus. No. 1,139,044; May 18; Gaz. vol. 214; p. 855.
Wilson, Edward W. (See McCarthy and Wilson.)
Wilson, Eugene W., Detroit, assignor of one-half to W. C. Morgan, Highland Park, Mich. Sanitary shaving-cup. No. 1,138,825; May 11; Gaz. vol. 214; p. 426.
Wilson, George H., Minneapolis, Minn. Roller gear-wheel. No. 1,140,427; May 25; Gaz. vol. 214; p. 1060.
Wilson, Herman S., *et al.* (See Bergren, John A., assignor.)
Wilson, James P., assignor to W. H. Grosscup, Los Angeles, Cal. Resilient connecting device. No. 1,139,319; May 11; Gaz. vol. 214; p. 597.
Wilson, Jeremiah L., Spread, Ga. Well-cleaner. No. 1,140,225; May 18; Gaz. vol. 214; p. 954.
Wilson, John C., assignor to The Automatic Time Stamp Company, Boston, Mass. Time-stamp. No. 1,139,247; May 11; Gaz. vol. 214; p. 573.
Wilson, Stephen G., Philadelphia, Pa. Broom-guard. No. 1,139,320; May 11; Gaz. vol. 214; p. 597.
Wilson, Wyle T., Philadelphia, Pa. Cloth-board with cushioning edges. No. 1,138,434; May 4; Gaz. vol. 214; p. 251.
Wilson, Wyle T., Philadelphia, Pa. Means for holding a plurality of gas-mantles. No. 1,138,435; May 4; Gaz. vol. 214; p. 252.
Wilzin, Arthur, St.-Ouen, France. Manufacture of plated flat-ware. No. 1,139,390; May 11; Gaz. vol. 214; p. 624.
Windridge, James, assignor to The Lyman Gun Sight Corporation, Middlefield, Conn. Sight for firearms. No. 1,138,708; May 11; Gaz. vol. 214; p. 383.
Windridge, James, assignor to The Lyman Gun Sight Corporation, Middlefield, Conn. Sight for firearms. No. 1,138,709; May 11; Gaz. vol. 214; p. 383.
Winestock, Otto C., Perkinsville, Vt., assignor to The General Waste-Paper Recovery Company, Baltimore, Md. Deinking. No. 1,138,596; May 4; Gaz. vol. 214; p. 304.
Winestock, Otto C., Perkinsville, Vt., assignor to The General Waste-Paper Recovery Company, Baltimore, Md. Deinking apparatus. No. 1,138,597; May 4; Gaz. vol. 214; p. 305.
Winkelmeyer, John, assignor to Specialty Manufacturing Company, Greenfield, Ind. Vending-machine. No. 1,139,248; May 11; Gaz. vol. 214; p. 574.
Winkley, Erastus E., Lynn, Mass. Work-support. No. 1,138,710; May 11; Gaz. vol. 214; p. 384.
Winn, Charles S., Rockford, Ill. Button. No. 1,141,090; May 25; Gaz. vol. 214; p. 1290.
Winningham, John W. (See Waugh, Edward H., assignor.)
Winter, Charles, Woodbury, N. J., assignor to Star Seal Company. Seal-feed for bottle-capping machines. No. 1,140,090; May 18; Gaz. vol. 214; p. 908.

Winter, Henry W., Methuen, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Toggle. No. 1,140,428; May 25; Gaz. vol. 214; p. 1060.
Wirth, Charles, Scranton, Pa. Crude-oil burner. No. 1,138,165; May 4; Gaz. vol. 214; p. 156.
Wirtz, Emery L. (See Ziegler and Wirtz.)
Wirz, August H., Moylan, assignor to A. H. Wirz, Incorporated, Chester, Pa. Bottle-stopper. No. 1,140,928; May 25; Gaz. vol. 214; p. 1237.
Wisconsin Trust Company, administrator. (See Richardson, Wilber E.)
Withycombe, Robert M., Sydney, New South Wales, Australia. Antiseptic tooth-brush receptacle. No. 1,138,522; May 4; Gaz. vol. 214; p. 280.
Witkowski, Louis C., Collingswood, N. J. Disinfectant-pencil carrier. No. 1,138,524; May 4; Gaz. vol. 214; p. 280.
Wm. B. Scaife & Sons Company. (See Davidson, John M., assignor.)
Wm. H. Horn & Brother. (See Horn, William H., Jr., assignor.)
Wolcott, Joseph H. (See Samuel and Wolcott.)
Woldert, Alex. (See Barton, Charles H., assignor.)
Wolf, Fred W. (See Southworth and Wolf.)
Wolfe, Ira B., assignor of one-fourth to J. A. Bennett, one-eighth to W. P. Daniels, and one-eighth to W. A. Daniels, Dermott, Ark. Window-shade fixture. No. 1,138,166; May 4; Gaz. vol. 214; p. 157.
Wolfe, Ota A., Van Wert, assignor of one-fourth to F. J. Lordler, Greenville, Ohio. Safety attachment for railway coaches. No. 1,139,619; May 18; Gaz. vol. 214; p. 741.
Wolfert, Carlos H., assignor to Toledo Folding High Chair Company, Toledo, Ohio. Child's seat. No. 1,140,730; May 25; Gaz. vol. 214; p. 1164.
Wolhaupter, Benjamin, New Rochelle, N. Y. Anticreeper. No. 1,139,391; May 11; Gaz. vol. 214; p. 624.
Woman's World Magazine Company. (See Moore, Frank V., assignor.)
Womble, Jesse W., Winnsboro, La. Rail-joint. No. 1,137,824; May 4; Gaz. vol. 214; p. 35.
Wood, George A., Southington, Conn. Making hand-tools. No. 1,139,392; May 11; Gaz. vol. 214; p. 624.
Wood, Henry A. W., assignor to Wood & Nathan Company, New York, N. Y. Cleaning device for intaglio plates. No. 1,138,842; May 4; Gaz. vol. 214; p. 219.
Wood, Henry A. W., assignor to Wood & Nathan Company, New York, N. Y. Intaglio-printing. No. 1,140,860; May 25; Gaz. vol. 214; p. 1212.
Wood, James N., Blackshear, Ga., assignor to The Neely Compress and Cotton Company, Richmond, Va. Baling-press. No. 1,139,092; May 11; Gaz. vol. 214; p. 521.
Wood, Moses L., New York, N. Y. Spool-clip. No. 1,140,226; May 18; Gaz. vol. 214; p. 954.
Wood & Nathan Company. (See Wood, Henry A. W., assignor.)
Wood Newspaper Machinery Corporation. (See Collins, Edward C., assignor.)
Woodard, James W., New York, N. Y. Combination furniture. No. 1,140,554; May 25; Gaz. vol. 214; p. 1106.
Woodard, William E., Schenectady, N. Y. Throttle-valve mechanism for locomotives. No. 1,140,091; May 18; Gaz. vol. 214; p. 909.
Woodland, Frank O., Worcester, Mass. Rolling transmission mechanism. No. 1,139,393; May 11; Gaz. vol. 214; p. 625.
Woodman, George A. (See Carscadin and Woodman.)
Woodruff, Frank E., and W. K. Bishop, Binghamton, N. Y. Automatic valve. No. 1,140,429; May 25; Gaz. vol. 214; p. 1060.
Woods-Sherwood Company. (See Martin, Albert W., assignor.)
Woodward, Erastus, Somerville, assignor to American Stamping Machine Company, Lynn, Mass. Inking device for printing and marking machines. No. 1,138,711; May 11; Gaz. vol. 214; p. 384.
Woodward, Irving C., Chicago, Ill. Lock-nut. No. 1,137,941; May 4; Gaz. vol. 214; p. 76.
Woodward, Mark R., Washington, D. C. Tube forming and coating machine. No. 1,140,830; May 25; Gaz. vol. 214; p. 1061.
Woodward, Russel G., assignor to Union Special Machine Company, Chicago, Ill. Edging-guide for sewing-machines. No. 1,138,343; May 4; Gaz. vol. 214; p. 219.
Woodward, Russel G., Waukegan, assignor to Union Special Machine Company, Chicago, Ill. Sewing-machine. No. 1,139,093; May 11; Gaz. vol. 214; p. 521.
Woodward, Russel G., Waukegan, assignor to Union Special Machine Company, Chicago, Ill. Thread-controller for sewing-machines. No. 1,139,094; May 11; Gaz. vol. 214; p. 522.
Wooldridge, Orville E., Greenville, Ill. Power-transmission gear. No. 1,141,030; May 25; Gaz. vol. 214; p. 1270.
Worsham, Louis W., and J. A. Hautier, Houston, Tex.; said Worsham assignor to said Hautier. Ribbon cabinet and winding machine. No. 1,138,598; May 4; Gaz. vol. 214; p. 305.
Wray, James A., assignor of one-half to W. H. Hazlett, Los Angeles, Cal. Separable steel square. No. 1,140,555; May 25; Gaz. vol. 214; p. 1107.
Wright, Benjamin F., Elk Hill, Va. Means for propelling steamships or other vessels. No. 1,140,786; May 25; Gaz. vol. 214; p. 1183.
Wright, Charles D., Adrian, Mich. Self-cleaning attachment for rakes. No. 1,137,825; May 4; Gaz. vol. 214; p. 36.
Wright, Clyde S., assignor to The National Supply Company, Toledo, Ohio. Bearing. No. 1,138,167; May 4; Gaz. vol. 214; p. 157.
Wright, Ellery C. (See McDevitt, James W., assignor.)
Wright, Fenton, Chicago, Ill. Coin-actuating savings-bank. No. 1,139,006; May 11; Gaz. vol. 214; p. 491.
Wright, Herbert R. (See Ottosen and Wright.)
Wright, James E., Bay City, Mich. Non-glaring headlight. No. 1,138,712; May 11; Gaz. vol. 214; p. 385.
Wright, James E., Bay City, Mich. Rail-crossing. No. 1,138,713; May 11; Gaz. vol. 214; p. 385.
Wright, John E., Pittsburgh, Pa., assignor to Wright Telegraphic Typewriter Company, New York, N. Y. Printing-telegraph receiver. No. 1,140,861; May 25; Gaz. vol. 214; p. 1212.
Wright, Judson E., assignor of one-half to C. Frey, San Diego, Cal. Foldable seat for converting two-seated automobile-bodies into lounges. No. 1,140,931; May 25; Gaz. vol. 214; p. 1238.
Wright, Milton H., University Place, Nebr. Knockdown seat. No. 1,140,930; May 25; Gaz. vol. 214; p. 1238.
Wright, Randolph L., Wedgefield, S. C. Barrel-rack. No. 1,139,007; May 11; Gaz. vol. 214; p. 491.
Wright Telegraphic Typewriter Company. (See Wright, John E., assignor.)
Wright, Thomas, Jersey City, N. J. Dumping-wagon. No. 1,139,945; May 18; Gaz. vol. 214; p. 856.
Wright, Walter, Kalgoorlie, Western Australia, and L. Langford, South Yarra, Victoria, Australia. Railway signaling apparatus. No. 1,140,227; May 18; Gaz. vol. 214; p. 954.
Wright, Wilbur L., assignor to Ajax Manufacturing Company, Washington, D. C. Mechanism for producing and applying wire lengths or other strips. No. 1,140,228; May 18; Gaz. vol. 214; p. 954.
Wulff, Ezra H., Toledo, Ohio. Automatic train-stop. No. 1,138,344; May 4; Gaz. vol. 214; p. 220.
Wulkan, Heinrich, Budapest, assignor to Dextrin Automat, Gesellschaft m. b. H., Vienna, Austria-Hungary. Production of glucose from starch. No. 1,139,620; May 18; Gaz. vol. 214; p. 741.
Wulkan, Heinrich, Budapest, assignor to Dextrin Automat, Gesellschaft m. b. H., Vienna, Austria-Hungary. Moistening and cooling dextrin. No. 1,139,621; May 18; Gaz. vol. 214; p. 741.
Wurz, Joseph. (See Klix, Ulrich J., assignor.)
Wyatt, George S., and C. R. Farmer, Albia, Iowa. Wireless-check-row attachment for rotary drop corn-planters. No. 1,140,556; May 25; Gaz. vol. 214; p. 1107.
Yale & Towne Manufacturing Company, The. (See Crouch, Thomas E., assignor.)
Yale & Towne Manufacturing Company, The. (See Taylor, Warren H., assignor.)
Yamamoto, Yukinobu, St. Louis, Mo. Shade. No. 1,140,092; May 18; Gaz. vol. 214; p. 909.
Yarbro, Robert L., *et al.* (See Pursselley, James, assignor.)
Yardley, John L. M. (See Lamme and Yardley.)
Yaw, Cilo B., Arlington, N. J., assignor, by mesne assignments, to Remington Typewriter Company, Ilion, N. Y. Type-writing machine. No. 1,138,920; May 11; Gaz. vol. 214; p. 458.
Yeagle, Otto A., Ava, Ohio. Rail-fastener. No. 1,138,714; May 11; Gaz. vol. 214; p. 385.
Yordi, Arthur H. W., Clintonville, Wis. Motor-cycle. No. 1,139,622; May 18; Gaz. vol. 214; p. 742.
Youmans, Benjamin P., Vancouver, Wash. Lock for two relatively movable levers. No. 1,140,431; May 25; Gaz. vol. 214; p. 1061.
Young, Frank A., assignor to Underwood Typewriter Company, New York, N. Y. Type-writing machine. No. 1,139,946; May 18; Gaz. vol. 214; p. 856.
Young, George A. (See Tiffany and Young.)
Young, James H., Paterson, N. J. Mechanical movement. No. 1,138,715; May 11; Gaz. vol. 214; p. 386.
Young, Paul T., Los Angeles, Cal. Means for tuning sound-producing bars or tubes. No. 1,140,932; May 25; Gaz. vol. 214; p. 1239.
Young, Samuel D., trustee. (See Frazier and Gustafson, assignors.)
Youngberg, Alfred F., *et al.* (See Bergren, John A., assignor.)
Youngkvist, Amandus W., Duluth, Minn. Vehicle direction-indicator. No. 1,140,229; May 18; Gaz. vol. 214; p. 955.
Youngs, Fred E., assignor of one-half to J. W. Hubbard, Detroit, Mich. Expansible band. No. 1,138,605; May 4; Gaz. vol. 214; p. 308.
Younis, Tobias, Concho, Ariz. Sectional supporting-pole. No. 1,138,826; May 11; Gaz. vol. 214; p. 426.
Yskin, Herman, Newark, N. J. Wrench. No. 1,140,862; May 25; Gaz. vol. 214; p. 1212.
Yurow, Andrew, New York, N. Y. Electric-railway system. No. 1,140,093; May 18; Gaz. vol. 214; p. 910.
Yurow, Andrew, New York, N. Y. Plow for electric conduit-railways. No. 1,140,094; May 18; Gaz. vol. 214; p. 910.
Yurow, Andrew, New York, N. Y. Switch for electric conduit-railways. No. 1,140,230; May 18; Gaz. vol. 214; p. 955.
Zahn, Robert, deceased, Plauen, Germany; A. Rietzsch, administrator. Shuttle embroidering-machine. No. 1,137,826; May 4; Gaz. vol. 214; p. 36.

Zaiss, Alma A., Kansas City, Mo. Commercial talking-machine. No. 1,139,947; May 18; Gaz. vol. 214; p. 856.
Zakit, Peter, Akron, Ohio. Mine-catcher. No. 1,138,525; May 4; Gaz. vol. 214; p. 281.
Zeagler, Bennie L., and C. L. Stryker, Lufkin, Tex. Car replacer and derailer. No. 1,140,933; May 25; Gaz. vol. 214; p. 1239.
Zeiser, Gustav A., St. Louis, Mo. Ruling-machine. No. 1,138,716; May 11; Gaz. vol. 214; p. 386.
Zeiss, Firm of Carl. (See Bauersfeld, Walther, assignor.)
Zens, Joseph H., Milwaukee, Wis., assignor to Scott & Williams, Incorporated, Camden, N. J. Yarn-take-up mechanism for knitting-machines. No. 1,138,717; May 11; Gaz. vol. 214; p. 386.
Zeratsky, August W., La Crosse, Wis. Milking apparatus. No. 1,139,744; May 18; Gaz. vol. 214; p. 785.
Zerk, Oscar, Cleveland, Ohio, assignor, by mesne assignments, to G. W. Bowen, Auburn, N. Y. Grease-cup. No. 1,138,526; May 4; Gaz. vol. 214; p. 281.
Zerk, Oscar, Cleveland, Ohio, assignor, by mesne assignments, to G. W. Bowen, Auburn, N. Y. Grease-cup. No. 1,138,527; May 4; Gaz. vol. 214; p. 281.
Ziegler, Henry M., and E. L. Wirts, Plymouth, Wis. Rocking-chair attachment. No. 1,138,270; May 4; Gaz. vol. 214; p. 191.
Zifferer, Lothar R., New York, N. Y. Expansion-bolt. No. 1,138,345; May 4; Gaz. vol. 214; p. 220.
Zimmerman, Clarence I., deceased, Madison, Wis.; J. G. Zimmerman, administrator, assignor, by mesne assignments, to said J. G. Zimmerman, Chicago, Ill. System for producing high-tension currents. No. 1,139,623; May 18; Gaz. vol. 214; p. 742.
Zimmermann, Gottlieb C., Stuttgart, Germany. Making a kola preparation. No. 1,140,934; May 25; Gaz. vol. 214; p. 1239.
Zimmerman, James G., administrator. (See Zimmerman, Clarence I.)
Zipper, Emil, Vienna, Austria-Hungary. Picking-motion for weaving-looms. No. 1,138,528; May 4; Gaz. vol. 214; p. 282.
Zopfi, Balthasar, Santa Rosa, Cal. Life-saving device. No. 1,139,624; May 18; Gaz. vol. 214; p. 742.
Zuber, Herman, Murphysboro, Ill. Dust-pan. No. 1,141,031; May 25; Gaz. vol. 214; p. 1270.

ALPHABETICAL LIST OF PATENTEES OF DESIGNS.

A. O. Smith Company. (See Schwab, Leon C., assignor.)
Albrecht, Paul, assignor to The Meyercord Company, Chicago, Ill. Plate. No 47,372; May 25; Gaz. vol. 214; p. 1293.
American Stove Company. (See Fritz, Herman C., assignor.)
Anderson, Frederick E., assignor to United States Glass Company, Pittsburgh, Pa. Drinking-glass. No. 47,354; May 18; Gaz. vol. 214; p. 999.
Ansorge, Percy L., Brooklyn, N. Y. Lighting-fixture part. Nos. 47,316–20; May 11; Gaz. vol. 214; p. 665.
Armstrong Cork Company. (See Humphreys, Charles F., assignor.)
Armstrong Cork Company. (See Post, Cornelia M., assignor.)
Armstrong Cork Company. (See Solms, Martha H., assignor.)
B. F. Goodrich Company, The. (See Yule, William H., assignor.)
Beiswanger, John, Steubenville, Ohio. Lamp-shade. No. 47,321; May 11; Gaz. vol. 214; p. 656.
Blakeman, William, Burslem, England, assignor to R. Gaertner, New York, N. Y. Article of manufacture. No. 47,373; May 25; Gaz. vol. 214; p. 1293.
Blesch, Charles, Newport, Ky., assignor to The Crane & Breed Manufacturing Company, Cincinnati, Ohio. Burial-casket handle. No. 47,281; May 4; Gaz. vol. 214; p. 315.
Buermann, George, Newark, N. J. Cinch-ring. No. 47,282; May 4; Gaz. vol. 214; p. 315.
Campbell, Julia, Bath, N. C. Bread-board. No. 47,322; May 11; Gaz. vol. 214; p. 656.
Canfield, Frank A., Chicago, Ill. Collar-button. No. 47,374; May 25; Gaz. vol. 214; p. 1293.
Champion Chemical Company, The. (See Johnson, Charles L., assignor.)
Chase, Irwin, assignor to The Elco Company, Bayonne, N. J. Pleasure-boat. No. 47,375; May 25; Gaz. vol. 214; p. 1293.
Clinton Cut Glass Company. (See Wilmarth, Glenn G., assignor.)
Coane, Robert, Philadelphia, Pa. Bottle. No. 47,355; May 18; Gaz. vol. 214; p. 1000.
Crane & Breed Manufacturing Company, The. (See Blesch, Charles, assignor.)
Crownfield, Sophie L., New York, N. Y., assignor to Victoria Plush Mills, Swathmore, Pa. Fabric. No. 47,356; May 18; Gaz. vol. 214; p. 1000.
D. C. Jenkins Glass Company. (See Jenkins, Addison, assignor.)
De Hart, Raymond M., assignor to Stephen Sanford & Sons, Inc., Amsterdam, N. Y. Rug. No. 47,323; May 11; Gaz. vol. 214; p. 656.
De Ville, Walter, East Liverpool, Ohio, assignor to The Palm Brothers Company, New York, N. Y. Article of manufacture. No. 47,377; May 25; Gaz. vol. 214; p. 1293.
Depollier, Charles L., New York, assignor to Dubois Watch Case Company, Brooklyn, N. Y. Watch-bracelet. No. 47,376; May 25; Gaz. vol. 214; p. 1293.
Drayton, Grace G., New York, N. Y. Toy bank or similar article. No. 47,357; May 18; Gaz. vol. 214; p. 1000.
Dubois Watch Case Company (See Depollier, Charles L., assignor.)
Duntley, John W. (See Ferguson, Leonard L., assignor.)
Eagan, Joseph F., St. Jo, Tex. Bracket. No. 47,283; May 4; Gaz. vol. 214; p. 315.
Ebeling, Phillip, assignor to Fostoria Glass Company, Moundsville, W. Va. Piece of glass. No. 47,284; May 4; Gaz. vol. 214; p. 316.
Ebeling, Phillip, assignor to Fostoria Glass Company, Moundsville, W. Va. Glass vessel or similar article. No. 47,285; May 4; Gaz. vol. 214; p. 316.
Eberhard Faber Pencil Company. (See Van Alst, John M., assignor.)
Elco Company, The. (See Chase, Irwin, assignor.)
F. T. Pearce Company. (See Wall, Dominic, assignor.)
Faber, John F., Brooklyn, N. Y. Pin. No. 47,378; May 25; Gaz. vol. 214; p. 1293.
Fageol, Rollie B. Oakland, Cal. Vehicle-body. Nos. 47,287–8; May 4; Gaz. vol. 214; p. 316.
Farr, Edward A., assignor to Manning, Bowman & Company, Meriden, Conn. Article of manufacture. No. 47,379; May 25; Gaz. vol. 214; p. 1293.
Ferguson, Leonard L., assignor to J. W. Duntley, Chicago, Ill. Suction-nozzle for pneumatic sweepers. No. 47,358; May 18; Gaz. vol. 214; p. 1000.
Fetzer, John, Los Angeles, Cal. Hat-rack. No. 47,359; May 18; Gaz. vol. 214; p. 1000.
Fostoria Glass Company. (See Ebeling, Phillip, assignor.)
Fowler, Preston L. (See Jolly and Fowler.)
Fricke, William J., Hartford, Conn. Tobacco and match box. No. 47,289; May 4; Gaz. vol. 214; p. 316.
Friedberger-Aaron Manufacturing Company. (See Goodman, Samuel N., assignor.)
Friedley-Voshardt Co. (See Mohrmann, Paul, assignor.)
Fritz, Herman C., Cleveland, Ohio, assignor to American Stove Company, St. Louis, Mo. Gas heating-stove. No. 47,380; May 25; Gaz. vol. 214; p. 1294.
G. A. Schneebeli & Co. (See Haldeman, Morris A., assignor.)
Gaertner, Rudolf. (See Blakeman, William, assignor.)
Goldsmith, Harry N., Philadelphia, Pa. Wall-tile. No. 47,290; May 4; Gaz. vol. 214; p. 317.
Goodman, Samuel N., assignor to Friedberger-Aaron Manufacturing Company, Philadelphia, Pa. Lace edging. No. 47,291; May 4; Gaz. vol. 214; p. 317.
Gorham Manufacturing Company. (See Jenks, Barton P., assignor.)
Guth, Edwin F., assignor to Luminous Unit Company, St. Louis, Mo. Lighting-fixture. No. 47,324; May 11; Gaz. vol. 214; p. 656.
Guthman, Eli A., New York, N. Y. Vanity-case. No. 47,292; May 4; Gaz. vol. 214; p. 317.
Haldeman, Morris A., assignor to G. A. Schneebeli & Co., Inc., Nazareth, Pa. Lace. Nos. 47,293–7; May 4; Gaz. vol. 214; pp. 317–18.
Harrison, George L., East Cleveland, Ohio. Table. No. 47,360; May 18; Gaz. vol. 214; p. 1000.
Hays, Edward. (See Hays, William W. and E.)
Hays, William W. and E., Macomb, Ill. Poison-bottle. No. 47,298; May 4; Gaz. vol. 214; p. 318.
Hickish, Robert S., Tuckahoe, N. Y., assignor, by mesne assignments, to E. T. Powell, Columbus, Ohio. Fire-extinguisher casing. Nos. 47,299–300; May 4; Gaz. vol. 214; p. 318.
Hindle, Thomas H., Jr., New York, N. Y. Doll. No. 47,361; May 18; Gaz. vol. 214; p. 1001.
Hultgren, Hjalmar, Flushing, N. Y., assignor to E. J. Schroeder, Jersey City, and C. A. Schroeder, Brielle, N. J. Key for gas-cocks or the like. Nos. 47,325–7; May 11; Gaz. vol. 214; pp. 656–7.
Humphreys, Charles F., Lancaster, assignor to Armstrong Cork Company, Pittsburgh, Pa. Linoleum, oil-cloth, or floor-covering. Nos. 47,328–32; May 11; Gaz. vol. 214; pp. 657–8.
International Silver Company. (See Lashar, Thomas B., assignor.)
Jameson, William A., Niagara Falls, N. Y. Handle for spoons, forks, or similar articles. No. 47,362; May 18; Gaz. vol. 214; p. 1001.
Jenkins, Addison, assignor to D. C. Jenkins Glass Company, Kokomo, Ind. Lamp-chimney. No. 47,301; May 4; Gaz. vol. 214; p. 318.
Jenks, Barton P., assignor to Gorham Manufacturing Company, Providence, R. I. Handle for spoons, forks, or similar articles. No. 47,381; May 25; Gaz. vol. 214; p. 1294.
Jewett, John H., Appleton, Wis. Book-rack. No. 47,302; May 4; Gaz. vol. 214; p. 318.
Johnson, Charles L., assignor to The Champion Chemical Company, Springfield, Ohio Burial-vault. No. 47,382; May 25; Gaz. vol. 214; p. 1294.
Jolly, Benjamin R., Raleigh, N. C., and P. L. Fowler, New York, N. Y.; said Fowler assignor to said Jolly. Button, badge, or similar article. No. 47,303; May 4; Gaz. vol. 214; p. 319.
Karabatos, Gust, Providence, R. I. Medallion or similar article of jewelry. No. 47,383; May 25; Gaz. vol. 214; p. 1294.
Kent, Charles B., Kenosha, Wis. Carbureter. No. 47,304; May 4; Gaz. vol. 214; p. 319.
Kleinschmidt, Edward E., New York, N. Y. Vaccination-shield. No. 47,333; May 11; Gaz. vol. 214; p. 658.
Knopf, Andrew J., Maywood, Ill. Plate. No. 47,363; May 18; Gaz. vol. 214; p. 1001.
Koehler & Hinrichs Company. (See Lewis, Le Roy C., assignor.)
Kopp, Nicholas, Pittsburgh, Pa. Shade. Nos. 47,334–5; May 11; Gaz. vol. 214; p. 658.
Krakauer, Phillip, New York, N. Y. Bed-spring. No. 47,336; May 11; Gaz. vol. 214; p. 658.
Kuhn, Frank, and F. E. Shallor, Detroit, Mich.; said Shallor assignor to said Kuhn. Chafing-dish. No. 47,384; May 25; Gaz. vol. 214; p. 1294.
Lashar, Thomas B., assignor to International Silver Company, Bridgeport, Conn. Handle for spoons, forks, or similar articles. No. 47,364; May 18; Gaz. vol. 214; p. 1001.
Lewis, Le Roy C., assignor to Koehler & Hinrichs Company, St. Paul, Minn. Plate or similar article. No. 47,337; May 11; Gaz. vol. 214; p. 658.

Lowery, Theodore J., Washington, D. C. Spoon. No. 47,305; May 4; Gaz. vol. 214; p. 319.
Luminous Unit Company. (See Guth, Edwin F., assignor.)
Lunt, George C., assignor to Rogers, Lunt & Bowlen Company, Greenfield, Mass. Handle for spoons, forks, or similar articles. No. 47,365; May 18; Gaz. vol. 214; p. 1001.
Mallinson, Hiram R., New York, N. Y. Textile fabric. No. 47,338; May 11; Gaz. vol. 214; p. 659.
Manning, Bowman & Company. (See Farr, Edward A., assignor.)
Marcuse, Moses M., New York, N. Y., assignor to West Disinfecting Company. Casing for soap-distributers. No. 47,366; May 18; Gaz. vol. 214; p. 1002.
McDermott, Edward W., administrator. (See Mihills, Merrick.)
Meyercord Company, The. (See Albrecht, Paul, assignor.)
Mihills, Merrick, deceased, Highland Park; E. W. McDermott, administrator, Waukegan, assignor to M. A. Mihills, Highland Park, Ill. Razor-strap holder. No. 47,386; May 25; Gaz. vol. 214; p. 1295.
Mihills, Mina A. (See Mihills, Merrick, assignor.)
Miller, John C., Cincinnati, Ohio. Emblem or similar article. No. 47,387; May 25; Gaz. vol. 214; p. 1295.
Mohrmann, Paul, assignor to Friedley-Voshardt Co., Chicago, Ill. Shower-pan for lighting-fixtures. No. 47,339; May 11; Gaz. vol. 214; p. 659.
Mohrmann, Paul, assignor to Friedley-Voshardt Co., Chicago, Ill. Ridge-roll finish. No. 47,388; May 25; Gaz. vol. 214; p. 1295.
Morris, Madge C., Catford, London, England. Cover for drivers of motor-cars, motor-busses, or the like vehicles. No. 47,306; May 4; Gaz. vol. 214; p. 319.
Myars, Roy J., San Diego, Cal. Front fender. No. 47,340; May 11; Gaz. vol. 214; p. 659.
National Metal Spinning & Stamping Company. (See Tepfer, Albert E., assignor.)
Onondaga Pottery Co. (See Wigley, John T., assignor.)
Palm Brothers Company, The. (See De Ville, Walter, assignor.)
Peterson, Karl, Jamestown, N. Y. Member of a pair of pliers, cutters, and similar articles. No. 47,389; May 25; Gaz. vol. 214; p. 1295.
Phoenix Glass Company, The. (See Pickhardt, Harry, assignor.)
Pickhardt, Harry, New York, N. Y., assignor to The Phoenix Glass Company, Pittsburgh, Pa. Shade for electric lights. No. 47,367; May 18; Gaz. vol. 214; p. 1002.
Post, Cornelia M., Philadelphia, assignor to Armstrong Cork Company, Pittsburgh, Pa. Linoleum, oil-cloth, or floor-covering. No. 47,341; May 11; Gaz. vol. 214; p. 659.
Powell, Edward T. (See Hickish, Robert S., assignor.)
Rogers, Lunt & Bowlen Company. (See Lunt, George C., assignor.)
Schneider, Henry. (See Schneider, John and H.)
Schneider, John and H., Ann Arbor, Mich. Hood and cowl-dash attachment for automobiles. No. 47,307; May 4; Gaz. vol. 214; p. 319.
Schroeder, Charles A., *et al.* (See Hultgren, Hjalmar, assignor.)
Schroeder, Edward J., *et al.* (See Hultgren, Hjalmar, assignor.)
Schwab, Leon C., assignor to A. O. Smith Company, Milwaukee, Wis. Automobile-wheel. No. 47,390; May 25; Gaz. vol. 214; p. 1295.
Sebring, Frank A., Sebring, Ohio. Cup. No. 47,342; May 11; Gaz. vol. 214; p. 659.
Sebring, Frank A., Sebring, Ohio. Saucer. No. 47,343; May 11; Gaz. vol. 214; p. 659.
Sebring, Frank A., Sebring, Ohio. Plate. No. 47,344; May 11; Gaz. vol. 214; p. 660.
Shallor, Frank E. (See Kuhn and Shallor.)
Silverman, Maxwell, New York, N. Y., assignor to United Button Company. Button. No. 47,391; May 25; Gaz. vol. 214; p. 1295.
Solms, Martha H., Philadelphia, assignor to Armstrong Cork Company, Pittsburgh, Pa. Linoleum, oil-cloth, or floor-covering. Nos. 47,345–6; May 11; Gaz. vol. 214; p. 660.
Somerville, William J., Cleveland, Ohio. Toy bank. No. 47,308; May 4; Gaz. vol. 214; p. 320.
Speitel, William, New York, N. Y. Paper-cutter or similar article. No. 47,392; May 25; Gaz. vol. 214; p. 1296.
Spence, David, Norwalk, Conn. Tire. No. 47,347; May 11; Gaz. vol. 214; p. 660.
Stephen Sanford & Sons. (See De Hart, Raymond M., assignor.)
Stephenson, Amadore F., Dumont, N. J. Poison-bottle. No. 47,348; May 11; Gaz. vol. 214; p. 660.
Stoltz, Robert H., Richmond, Va. Dish. No. 47,368; May 18; Gaz. vol. 214; p. 1002.
T. C. Wheaton Co. (See Wheaton, Theodore C., assignor.)
Tepfer, Albert E., assignor to National Metal Spinning & Stamping Company, New York, N. Y. Shell for lighting-fixtures. No. 47,349; May 11; Gaz. vol. 214; p. 660.
Terrell, Albert C., Grand Rapids, Mich. Metal molding. No. 47,309; May 4; Gaz. vol. 214; p. 320.
United Button Company. (See Silverman, Maxwell, assignor.)
United States Glass Company. (See Anderson, Frederick E., assignor.)
Van Alst, John M., Jersey City, N. J., assignor to Eberhard Faber Pencil Company, Brooklyn, N. Y. Pencil-container. No. 47,350; May 11; Gaz. vol. 214; p. 661.
Victoria Plush Mills. (See Crownfield, Sophie L., assignor.)
Wacaser, Cynthia, Kansas City, Mo. Washboiler. No. 47,310; May 4; Gaz. vol. 214; p. 320.
Wall, Dominic, East Providence, assignor to F. T. Pearce Company, Providence, R. I. Pencil-casing. No. 47,311; May 4; Gaz. vol. 214; p. 320.
Welser, Abraham G., Los Angeles, Cal. Table-ornament. No. 47,312; May 4; Gaz. vol. 214; p. 320.
Welser, Abraham G., Los Angeles, Cal. Table-ornament. No. 47,369; May 18; Gaz. vol. 214; p. 1002.
West Disinfecting Company. (See Marcuse, Moses M., assignor.)
West, William B., Philadelphia, Pa. Automobile-body. No. 47,313; May 4; Gaz. vol. 214; p. 320.
Wheaton, Theodore C., assignor to T. C. Wheaton Co., Millville, N. J. Bottle. No. 47,393; May 25; Gaz. vol. 214; p. 1296.
Wiggins, Dudley H., Washington township, Marion county, Ind. Game-board. No. 47,370; May 18; Gaz. vol. 214; p. 1002.
Wigley, John T., assignor to Onondaga Pottery Co., Syracuse, N. Y. Article of manufacture. Nos. 47,314–15; May 4; Gaz. vol. 214; p. 321.
Willis, Ernest J., New York, N. Y. Vehicle-tire. No. 47,351; May 11; Gaz. vol. 214; p. 661.
Wilmarth, Glenn G., assignor to Clinton Cut Glass Company, Aldenville, Pa. Glass vessel. No. 47,352; May 11; Gaz. vol. 214; p. 661.
Wood, Walter W., Seattle, Wash. Hinge. No. 47,353; May 11; Gaz. vol. 214; p. 661.
Yule, William H., assignor to The B. F. Goodrich Company, New York, N. Y. Tire. No. 47,371; May 18; Gaz. vol. 214; p. 1002.

ALPHABETICAL LIST OF REGISTRANTS OF TRADE-MARKS.

A. E. Pitts Shoe Company, The, Columbus, Ohio. Ladies' leather and canvas shoes. No. 104,263; May 11; Gaz. vol. 214; p. 679.
A. E. Pitts Shoe Company, Columbus, Ohio. Men's leather and canvas shoes. No. 104,264; May 11; Gaz. vol. 214; p. 679.
Acme Shear Company, The, Bridgeport, Conn. Scissors and shears. No. 104,244; May 11; Gaz. vol. 214; p. 678.
Adams, Anna D., Chicago, Ill. Bath-salt. No. 104,193; May 11; Gaz. vol. 214; p. 677.
Aeolian Company, The, Meriden, Conn., and New York, N. Y. Musical instruments. No. 104,115; May 4; Gaz. vol. 214; p. 339.
Allen & Co., S. L., Philadelphia, Pa. Sleds. No. 104,116; May 4; Gaz. vol. 214; p. 339.
Alqua Medicinal Water Co., San Francisco, Cal. Mineral waters. No. 104,411; May 25; Gaz. vol. 214; p. 1317.
American Agricultural Chemical Co., New York, N. Y. Fertilizers. No. 104,312; May 18; Gaz. vol. 214; p. 1022.
American Agricultural Chemical Co., New York, N. Y. Fertilizers. No. 104,370; May 25; Gaz. vol. 214; p. 1315.
American Asbestos Company, Norristown, Pa. Brake-linings. No. 104,194; May 11; Gaz. vol. 214; p. 677.
American Creosoting Company, New York, N. Y. Wood paving-blocks. No. 104,296; May 18; Gaz. vol. 214; p. 1021.
American Hardware Corporation, New Britain, Conn. Certain named hardware and plumbing supplies. Nos. 104,138–9; May 4; Gaz. vol. 214; p. 339.
American Hardware Corporation, The, New Britain, Conn. Certain named hardware supplies. No. 104,281; May 18; Gaz. vol. 214; p. 1021.
American Piano Co., New York, N. Y. Certain musical instruments, parts and supplies therefor. No. 104,140; May 4; Gaz. vol. 214; p. 339.
American Piano Co., Jersey City, N. J., and New York, N. Y. Note-sheets for automatic or partly-automatic musical instruments, piano-players, and player-pianos. No. 104,346; May 25; Gaz. vol. 214; p. 1315.
American Rolling Mill Co., The, Middletown, Ohio. Bars, billets, castings, forgings, &c., of pure iron. No. 104,245; May 11; Gaz. vol. 214; p. 678.
American Thermos Bottle Company, Norwich, Conn. Tea, coffee, chocolate, cocoa, and bouillon. No. 104,371; May 25; Gaz. vol. 214; p. 1315.
Anglo Mexican Petroleum Products Company, Limited, London, England, and New York, N. Y. Asphaltum. No. 104,282; May 18; Gaz. vol. 214; p. 1021.
Annin & Co., New York, N. Y. Manufactured flags. No. 104,313; May 18; Gaz. vol. 214; p. 1022.
Ansbacher Insecticide Co., Inc., New York, N. Y. Insecticides and fungicides. No. 104,366; May 25; Gaz. vol. 214; p. 1315.
Atlantic Export Company, New York, N. Y. Dried brewers' and distillers' grains used as cattle feed. No. 104,195; May 11; Gaz. vol. 214; p. 677.
Aurora Cotton Mills, Burlington, N. C. Ginghams, seersuckers, plaids, outing-flannels, &c. No. 104,283; May 18; Gaz. vol. 214; p. 1021.
B. Shoninger Co., The, New Haven, Conn. Organs and pianos. Nos. 104,267–8; May 11; Gaz. vol. 214; p. 679.
B. F. Goodrich Company, The, New York, N. Y. Golf-balls. No. 104,287; May 18; Gaz. vol. 214; p. 1021.
B. F. Goodrich Company, The, New York, N. Y. Packages of rubber solutions for the repair of rubber tires. No. 104,383; May 25; Gaz. vol. 214; p. 1316.
Badger Bag & Paper Co., Wausau, Wis., and Chicago, Ill. Paper bags. Nos. 104,372–5; May 25; Gaz. vol. 214; p. 1316.
Baer & Wilde Co., The, Attleboro, Mass. Men's and women's jewelry. No. 104,376; May 25; Gaz. vol. 214; p. 1316.
Bako Co., The, Oklahoma, Okla. Preparation for the treatment of the tobacco habit. No. 104,246; May 11; Gaz. vol. 214; p. 678.
Barclay & Co., Wilmington, Del., and New York, N. Y. Toilet, medicinal, and shaving soaps. No. 104,412; May 25; Gaz. vol. 214; p. 1317.
Barse & Hopkins, New York, N. Y. Series of books. No. 104,350; May 25; Gaz. vol. 214; p. 1315.
Bavarian Brewing Company, Wilmington, Del. Malt beverages. No. 104,409; May 25; Gaz. vol. 214; p. 1317.
Belle Vernon Mapes Dairy Co., The, Cleveland, Ohio. Milk and cream. No. 104,297; May 18; Gaz. vol. 214; p. 1021.
Benton County Growers' Association, Corvallis, Oreg. Canned fruits. No. 104,314; May 18; Gaz. vol. 214; p. 1022.
Bernbrock, John B., Quincy, Ill. Vanilla flavoring compound. No. 104,347; May 25; Gaz. vol. 214; p. 1315.
Berry Brothers, Detroit, Mich. Varnishes. No. 104,196; May 11; Gaz. vol. 214; p. 677.
Black Diamond Spad Co., Richmond, Va. Spad, the device employed by mine engineers. No. 104,368; May 25; Gaz. vol. 214; p. 1315.
Blackie, Robert G., Halifax, Nova Scotia, Canada. Dentifrices and mouth-wash. No. 104,198; May 11; Gaz. vol. 214; p. 677.
Blanke-Wenneker Candy Co., St. Louis, Mo. Caramels. No. 104,247; May 11; Gaz. vol. 214; p. 678.
Bonney Vise & Tool Works, Inc., Philadelphia and Allentown, Pa., and New York, N. Y. Vises and lathe-dogs. No. 104,199; May 11; Gaz. vol. 214; p. 677.
Boone Brick Tile and Paving Company, Boone, Iowa. Brick and construction tile. No. 104,284; May 18; Gaz. vol. 214; p. 1021.
Boot and Shoe Recorder Publishing Company, Boston, Mass. Monthly shoe-trade publication. No. 104,315; May 18; Gaz. vol. 214; p. 1022.
Boston Auto Gage Co., Boston, Mass. Gasolene-gages. No. 104,414; May 25; Gaz. vol. 214; p. 1317.
Bowers Bros., Inc., Richmond, Va. Coffee. No. 104,345; May 18; Gaz. vol. 214; p. 1023.
Bridgeport Wood Finishing Co., The, New Milford, Conn. Certain named paints and painters' materials. No. 104,299; May 18; Gaz. vol. 214; p. 1021.
Briede & Rogovsky, Chicago, Ill. Certain named men's clothing. No. 104,166; May 4; Gaz. vol. 214; p. 340.
Brinton, Robert F., West Chester, Pa. Apple-butter. No. 104,285; May 18; Gaz. vol. 214; p. 1021.
Bunte Brothers, Chicago, Ill. Candy. Nos. 104,316–17; May 18; Gaz. vol. 214; p. 1022.
Burley & Stevens, Inc., Portland, Me., and Newburyport, Mass. Boots and shoes. No. 104,141; May 4; Gaz. vol. 214; p. 339.
Byron, John J., Troy, N. Y. Knit underwear. No. 104,142; May 4; Gaz. vol. 214; p. 339.
C. A. Willey Company, New York, N. Y. Varnish. No. 104,188; May 4; Gaz. vol. 214; p. 341.
Cardalitos Oil Company, New York, N. Y. Crude petroleums, oils, naphthas, &c. No. 104,248; May 11; Gaz. vol. 214; p. 678.
Cary Manufacturing Co., Brooklyn, N. Y. Metal box-strapping. No. 104,177; May 4; Gaz. vol. 214; p. 340.
Castlebone Company, New York, N. Y. Stiffening cords, blades, and tapes. No. 104,201; May 11; Gaz. vol. 214; p. 677.
Central Automobile Supply Company, Des Moines, Iowa. Wrenches, tire-tools, pliers, &c. No. 104,318; May 18; Gaz. vol. 214; p. 1022.
Champion Spark Plug Company, Toledo, Ohio. Spark-plugs. No. 104,202; May 11; Gaz. vol. 214; p. 677.
Chance & Hunt, Limited, Oldbury, England. Spelter. No. 104,377; May 25; Gaz. vol. 214; p. 1316.
Chandon et Cie., Epernay, France. Champagne-wine. No. 104,178; May 4; Gaz. vol. 214; p. 341.
Charon Products Company, Philadelphia, Pa. Sodium powder used as a cleansing compound. No. 104,143; May 4; Gaz. vol. 214; p. 339.
Chipman, Harwood & Co., Boston, Mass. Leather and canvas boots and shoes. No. 104,204; May 11; Gaz. vol. 214; p. 677.
Choctaw Sales Company, Kansas City, Mo. Cotton-seed meal and cake. No. 104,319; May 18; Gaz. vol. 214; p. 1022.
Church & Dwight Company, New York, N. Y. Saleratus, bicarbonate of soda, and sal-soda. Nos. 104,249–50; May 11; Gaz. vol. 214; p. 678.
Church & Dwight Company, New York, N. Y. Saleratus, bicarbonate of soda, and sal-soda. No. 104,320; May 18; Gaz. vol. 214; p. 1022.
Cohen, Goldman & Co., New York, N. Y. Certain named clothing for men, ladies, and children. No. 104,167; May 4; Gaz. vol. 214; p. 340.
Colgate & Co., Jersey City, N. J., and New York, N. Y. Toilet soap. No. 104,416; May 25; Gaz. vol. 214; p. 1317.
Collis, Henry J., Taunton, Mass. Athletic ankle-supporters and wristbands. No. 104,300; May 18; Gaz. vol. 214; p. 1021.
Columbia Guano Co., Norfolk, Va. Fertilizers. No. 104,321; May 18; Gaz. vol. 214; p. 1022.
Columbia Tool Steel Company, Chicago Heights, Ill. Rolled and hammered bars and forgings of high-speed steel. No. 140,378; May 25; Gaz. vol. 214; p. 1316.
Commercial Calculator Co., The, New York, N. Y. Circular slide-rules. No. 104,205; May 11; Gaz. vol. 214; p. 677.
Commercial Milling Co., The, Detroit, Mich. Wheat-flour. No. 104,418; May 25; Gaz. vol. 214; p. 1317.

Continental Rubber Works, Erie, Pa. Certain named manufactured rubber goods. No. 104,206; May 11; Gaz. vol. 214; p. 677.
Continental Rubber Works, Erie, Pa. Rubber bumpers, antirattlers, hand-grips, &c. No. 104,207; May 11; Gaz. vol. 214; p. 677.
Continental Rubber Works, Erie, Pa. Friction fabric and insulating-tape. No. 104,208; May 11; Gaz. vol. 214; p. 677.
Continental Rubber Works, Erie, Pa. Certain named dental, medical, and surgical appliances, bulbs, nipples, &c. No. 104,209; May 11; Gaz. vol. 214; p. 677.
Continental Rubber Works, Erie, Pa. Rubber matting, stair-treads, printers' blankets, and hospital-sheeting. No. 104,210; May 11; Gaz. vol. 214; p. 677.
Cooper, Coate & Casey Dry Goods Co., Los Angeles, Cal., and New York, N. Y. Ladies' knitted underwear. No. 104,417; May 25; Gaz. vol. 214; p. 1317.
Cooper Medicine Co., The, Dayton, Ohio. Medical preparation used as a tonic. No. 104,379; May 25; Gaz. vol. 214; p. 1316.
Cramer, Robert B., Philadelphia, Pa. Oleomargarin. No. 104,211; May 11; Gaz. vol. 214; p. 677.
Crown Bronze Powder Company, Minneapolis, Minn. Bronzing-powder. No. 104,322; May 18; Gaz. vol. 214; p. 1022.
Crown Cork & Seal Co. of Baltimore City, The, Baltimore, Md. Artificial cork, disks made therefrom, and bottle-closures of which said disks are a part. No. 104,419; May 25; Gaz. vol. 214; p. 1317.
Crystal Pharmacy, Quinton, Okla. Chill and liver tonics and antibilious pills. No. 104,360; May 25; Gaz. vol. 214; p. 1315.
Daniel Green Felt Shoe Company, Boston, Mass., and Dolgeville, N. Y. Shoes and slippers of leather and felt. No. 104,301; May 18; Gaz. vol. 214; p. 1021.
Davenport Manufacturing Co., The, Davenport, Iowa. Baling-presses. No. 104,144; May 4; Gaz. vol. 214; p. 339.
Detroit Graphite Co., Detroit, Mich. Mixed paints. No. 104,251; May 11; Gaz. vol. 214; p. 678.
Deuth, Eugene J., New York, N. Y. Incandescent bulbs. No. 104,252; May 11; Gaz. vol. 214; p. 678.
Dickey & McMaster, Philadelphia, Pa. Textile rugs. No. 104,253; May 11; Gaz. vol. 214; p. 678.
Donaldson and Donaldson, Decatur, Ill. Mixed paints. No. 104,212; May 11; Gaz. vol. 214; p. 677.
Dwiggins Wire Fence Company, Anderson, Ind. Metal fencing, gates, and fence-posts. No. 104,381; May 25; Gaz. vol. 214; p. 1316.
E. Greenfield's Sons, New York, N. Y. Candies in tablet form. No. 104,304; May 18; Gaz. vol. 214; p. 1021.
E. A. Weil Company, Savannah, Ga. Boots, shoes, and slippers of leather. No. 104,137; May 4; Gaz. vol. 214; p. 339.
E. I. Horsman Co., New York, N. Y. Dolls. No. 104,350; May 25; Gaz. vol. 214; p. 1315.
E. V. Gale Co., Chicago, Ill. Leather in unmanufactured form. No. 104,421; May 25; Gaz. vol. 214; p. 1317.
Eastman Kodak Co., Rochester, N. Y. Sensitized photographic paper. No. 104,254; May 11; Gaz. vol. 214; p. 679.
Eaton, Crane & Pike Company, Pittsfield, Mass. Writing and printing paper, envelops, tablets, &c. No. 104,179; May 4; Gaz. vol. 214; p. 341.
Eckert, Louis, Pittsburgh, Pa. Boots, shoes, slippers. No. 104,213; May 11; Gaz. vol. 214; p. 677.
Eiseman Bros. Mfg. Co., Inc., St. Louis, Mo. Ladies', misses', and children's dresses, waists, and suits. No. 104,431; May 25; Gaz. vol. 214; p. 1317.
Electric Cable Company, The, Bridgeport, Conn., and New York, N. Y. Rubber-covered wires and cables. No. 104,180; May 4; Gaz. vol. 214; p. 341.
Electric Cable Company, The, New York, N. Y., and Bridgeport, Conn. Rubber-covered electrical wires and cables. No. 104,214; May 11; Gaz. vol. 214; p. 677.
Elrod, Henry E., Dallas, Tex. Electric generators. No. 104,168; May 4; Gaz. vol. 214; p. 340.
Ely & Walker Dry Goods Co., St. Louis, Mo. Rompers and outer suits for children. No. 104,145; May 4; Gaz. vol. 214; p. 340.
Embury & De Melt, Syracuse, N. Y. Cream soap, filled out in tubes and jars. No. 104,215; May 11; Gaz. vol. 214; p. 677.
Enrique Grana é Hijos, Malaga, Spain. Olive-oil for table use. No. 104,216; May 11; Gaz. vol. 214; p. 677.
Ensign-Bickford Company, The, Simsbury, Conn. Fuses. No. 104,217; May 11; Gaz. vol. 214; p. 677.
Ensign-Bickford Company, The, Simsbury, Conn. Fuses. No. 104,286; May 18; Gaz. vol. 214; p. 1021.
Ernst Schliemann's Export-Ceresin-Fabrik Gesellschaft mit beschränkter Haftung, Hamburg, Germany. Ceresin. Nos. 104,157–8; May 4; Gaz. vol. 214; p. 340.
F. A. Hardy & Co., Chicago, Ill. Ophthalmic lenses. No. 104,218; May 11; Gaz. vol. 214; p. 677.
F. A. Hardy & Co., Chicago, Ill. Goggles, eyeglasses, spectacles, and mountings therefor. No. 104,385; May 25; Gaz. vol. 214; p. 1316.
Fair, The, Chicago, Ill. Hats. No. 104,256; May 11; Gaz. vol. 214; p. 679.
Fair, The, Chicago, Ill. Carpet-sweeper. No. 104,420; May 25; Gaz. vol. 214; p. 1317.
Fleming, Samuel, Lowell, Mass. Leather boots and shoes. No. 104,118; May 4; Gaz. vol. 214; p. 339.
Frank H. Stewart Electric Co., Philadelphia, Pa. Certain named electrical apparatus and supplies. No. 104,270; May 11; Gaz. vol. 214; p. 679.
Fred Gretsch Mfg. Co., The, New York, N. Y. Violin-strings, accordions, concertinas, &c. No. 104,146; May 4; Gaz. vol. 214; p. 340.
Gannon Grocery Company, Marquette, Mich. Rice. No. 104,302; May 18; Gaz. vol. 214; p. 1021.
Geo. Borgfeldt & Co., New York, N. Y. Certain named toys. No. 104,200; May 11; Gaz. vol. 214; p. 677.
Geo. Borgfeldt & Co., New York, N. Y. Aluminum and enameled metal ware. No. 104,413; May 25; Gaz. vol. 214; p. 1317.
Geo. H. Bowman Company, Cleveland, Ohio. Certain named household utensils. No. 104,415; May 25; Gaz. vol. 214; p. 1317.
General Electric Company, Schenectady, N. Y. Electric incandescent lamps. Nos. 104,169–70; May 4; Gaz. vol. 214; p. 340.
German American Brewing Co., Buffalo, N. Y. Beer. No. 104,303; May 18; Gaz. vol. 214; p. 1021.
Grady Mfg. Co., The, Long Island City, N. Y. Cleanser. No. 104,422; May 25; Gaz. vol. 214; p. 1317.
Gray, Carrie L., executrix. (See Gray, Thomas.)
Gray Helpuall Company. (See Gray, Thomas, assignor.)
Gray, Thomas, deceased; C. L. Gray, executrix, assignor to The Gray Helpuall Company, Hillsboro, N. H. Medicine for certain named ailments. No. 104,384; May 25; Gaz. vol. 214; p. 1316.
Grossmith, John L., London, England. Perfumed soap. No. 104,361; May 25; Gaz. vol. 214; p. 1315.
Harding, Tilton & Company, Boston, Mass. Mercerized and otherwise processed cotton yarns. No. 104,348; May 25; Gaz. vol. 214; p. 1315.
Hawk Fish Company, Seattle, Wash. Canned salmon. No. 104,119; May 4; Gaz. vol. 214; p. 339.
Helios Manufacturing Company, Philadelphia, Pa. Secondary batteries and arc-lamps. No. 104,326; May 18; Gaz. vol. 214; p. 1022.
Heller, Isaak, New York, N. Y. Waistbands for trousers. No. 104,219; May 11; Gaz. vol. 214; p. 677.
Heywood Toilet Specialties Co., New York, N. Y. Certain pharmaceutical preparations for toilet use. No. 104,388; May 25; Gaz. vol. 214; p. 1316.
Hills Bros. Co., The, New York, N. Y. Tapioca. No. 104,326; May 18; Gaz. vol. 214; p. 1022.
Hirsch, Henry, Toledo, Ohio. Clover, alsike, timothy, alfalfa, &c., grass-seeds. No. 104,349; May 25; Gaz. vol. 214; p. 1315.
Holzer & Wickner, New York and Brooklyn, N. Y. Stamped art needlework and embroidery. No. 104,220; May 11; Gaz. vol. 214; p. 677.
Hurd, Charles R., New York, N. Y. Woolen piece goods. No. 104,369; May 25; Gaz. vol. 214; p. 1315.
Hydraulic-Press Brick Company, St. Louis, Mo. Brick. No. 104,423; May 25; Gaz. vol. 214; p. 1317.
India Rubber Company, New Brunswick, N. J., and New York, N. Y. Battery-jars. No. 104,410; May 25; Gaz. vol. 214; p. 1317.
International Harvester Corporation, Chicago, Ill. Four-cycle stationary engines and parts thereof. No. 104,389; May 25; Gaz. vol. 214; p. 1316.
International High Speed Steel Company, New York, N. Y. Hollow and solid bars of steel. No. 104,257; May 11; Gaz. vol. 214; p. 679.
International Sugar Feed No. Two Co., Minneapolis, Minn. Mixed feed for live stock. Nos. 104,328–9; May 18; Gaz. vol. 214; p. 1022.
Interstate Puncture Proof Company, Denver, Colo. Compound for curing punctures in tires. No. 104,147; May 4; Gaz. vol. 214; p. 340.
J. H. Bunnell & Co., New York, N. Y. Dry batteries, fire-alarm boxes, electric lanterns, &c. No. 104,176; May 4; Gaz. vol. 214; p. 340.
J. I. Case Plow Works, Racine, Wis. Plows, cultivators, planters, &c., and parts thereof. Nos. 104,189–90; May 4; Gaz. vol. 214; p. 341.
James B. Clow & Sons, Chicago, Ill. Radiators. No. 104,117; May 4; Gaz. vol. 214; p. 339.
Janney & Co., Thomas, Philadelphia, Pa. Leather in unmanufactured form. No. 104,305; May 18; Gaz. vol. 214; p. 1021.
John Chatillon & Sons, New York, N. Y. Weighing machines and scales. No. 104,203; May 11; Gaz. vol. 214; p. 677.
John Douglas Company, The, Cincinnati, Ohio. Water-closet fixtures. No. 104,380; May 25; Gaz. vol. 214; p. 1316.
John F. Jelke Co., Chicago, Ill. Oleomargarin and butterin. No. 104,148; May 4; Gaz. vol. 214; p. 340.
John Hauck Brewing Company, The, Cincinnati, Ohio. Beer. Nos. 104,386–7; May 25; Gaz. vol. 214; p. 1316.
Joseph Fahys & Company, New York, N. Y. Knife-blades. No. 104,255; May 11; Gaz. vol. 214; p. 679.
Kallenberg, Herman, Jr., New Rochelle, N. Y. Hair-restorer. No. 104,288; May 18; Gaz. vol. 214; p. 1021.
Kamm & Schellinger Brewing Co., The, Mishawaka, Ind. Beer. No. 104,171; May 4; Gaz. vol. 214; p. 340.
Kaplon, Abraham, Summit, N. J. Aprons. No. 104,289; May 18; Gaz. vol. 214; p. 1021.

Kennedy Manufacturing Company, Fort Wayne, Ind. Travelers' bags and hand-grips. No. 104,330; May 18; Gaz. vol. 214; p. 1022.
Kittle, Charles A., New York, N. Y. Absorbent cotton in certain named forms. No. 104,351; May 25; Gaz. vol. 214; p. 1315.
Knox Hat Company, Inc., New York, N. Y. Hats and caps. No. 104,221; May 11; Gaz. vol. 214; p. 677.
Koenigsmark Mill Company, Waterloo, Ill. Self-rising wheat-flour. No. 104,120; May 4; Gaz. vol. 214; p. 339.
Kohler Co., Kohler, Wis. Cleanser. No. 104,121; May 4; Gaz. vol. 214; p. 339.
L. & A. Baking Company, Sioux Falls, S. D. Bread. No. 104,331; May 18; Gaz. vol. 214; p. 1022.
Langley & Michaels Co., San Francisco, Cal. Certain named pharmaceutical preparations. No. 104,424; May 25; Gaz. vol. 214; p. 1317.
Loose-Wiles Biscuit Company, Kansas City, Mo. Stick-candy. No. 104,332; May 18; Gaz. vol. 214; p. 1022.
Loose-Wiles Biscuit Company, Boston, Mass. Biscuit. No. 104,391; May 25; Gaz. vol. 214; p. 1316.
Luxel Company, Inc., The, Montpelier, Vt. Remedy to prevent abortion in cows. No. 104,392; May 25; Gaz. vol. 214; p. 1316.
Lyon Tire and Rubber Co., Chicago, Ill. Pneumatic tires and parts thereof, tire-casings, and supplies. No. 104,222; May 11; Gaz. vol. 214; p. 678.
M. and N. Co., Pittsburgh, Pa. Skin-lotion for chapped hands, face, and lips, sunburn, &c. No. 104,165; May 4; Gaz. vol. 214; p. 340.
Macfadden, Bernarr, Chicago, Ill. Food consisting of grains, nuts, and fruit. No. 104,258; May 11; Gaz. vol. 214; p. 679.
Macleay Estate Co., The, Portland, Oreg. Canned salmon. No. 104,306; May 18; Gaz. vol. 214; p. 1021.
Marsh Baking Co., Inc., Stamford, Conn. Bread, wrapped and unwrapped. No. 104,172; May 4; Gaz. vol. 214; p. 340.
Marshall Field & Company, Chicago, Ill. Linen, cotton, and mixed linen and cotton piece goods. No. 104,382; May 25; Gaz. vol. 214; p. 1316.
Martin, Charles C., Denver, Colo. Cheese. No. 104,307; May 18; Gaz. vol. 214; p. 1021.
Meyer, Johannes, Brooklyn and New York, N. Y. Medicinal pills and tablets for treating certain named diseases. No. 104,393; May 25; Gaz. vol. 214; p. 1316.
Meyer & Thompson Co., Inc., The, New York, N. Y. Cured fish. No. 104,259; May 11; Gaz. vol. 214; p. 679.
Miller, Aiten S., New York, N. Y. Certain packings for the joints of gas-pipes. No. 104,122; May 4; Gaz. vol. 214; p. 339.
Miller, Hess & Company, Incorporated, Akron, Pa. Ladies', misses', and children's shoes of rubber, leather, or canvas. No. 104,333; May 18; Gaz. vol. 214; p. 1022.
Minneapolis Bedding Company, Minneapolis, Minn. Bedsprings. No. 104,334; May 18; Gaz. vol. 214; p. 1022.
Moan, Margaret, Ruthven, Iowa. Salve. No. 104,223; May 11; Gaz. vol. 214; p. 678.
Mock, Adolph L., New York, N. Y. Cigarettes and smoking-tobacco. No. 104,181; May 4; Gaz. vol. 214; p. 341.
Moody, Julia H. V., New York, N. Y. Furniture-polish. No. 104,290; May 18; Gaz. vol. 214; p. 1021.
Motor Accessories, Incorporated, Boston, Mass. Lubricating-grease. No. 104,224; May 11; Gaz. vol. 214; p. 678.
"Mundus" Aktiengesellschaft der Vereinigten Oesterreichischen Bugholzmoebel-Fabriken ("Mundus" United Austrian Bent Wood Furniture Manufacturers Ltd.), Vienna, Austria-Hungary. Certain named furniture. No. 104,151; May 4; Gaz. vol. 214; p. 340.
Mysto Mfg. Co., The, New Haven, Conn. Toys. No. 104,352; May 25; Gaz. vol. 214; p. 1315.
N. L. Birge Sons Company, The, Bristol, Conn. Certain named knitted underwear. No. 104,197; May 11; Gaz. vol. 214; p. 677.
Nashua Card Gummed & Coated Paper Company, Nashua, N. H. Paper wrappers for food products. No. 104,260; May 11; Gaz. vol. 214; p. 679.
Nathan Manufacturing Company, New York, N. Y. Steam, check, and relief valves, gage-cocks, and strainers. No. 104,225; May 11; Gaz. vol. 214; p. 678.
National Pin Company, The, Derby, Conn. Headed wire pins for toilet and desk use. No. 104,226; May 11; Gaz. vol. 214; p. 678.
National Refining Company, The, Cleveland, Ohio. Axle-grease. No. 104,152; May 4; Gaz. vol. 214; p. 340.
National Sewing Machine Co., Belvidere, Ill. Sewing-machines. No. 104,227; May 11; Gaz. vol. 214; p. 678.
National Washboard Company, Chicago, Ill.; Saginaw, Mich., and Memphis, Tenn. Washboards. No. 104,335; May 18; Gaz. vol. 214; p. 1022.
New England Coal & Coke Company, Boston, Mass. Coal. No. 104,228; May 11; Gaz. vol. 214; p. 678.
Nichols, George H., New York, N. Y. Negligée and work shirts. No. 104,191; May 4; Gaz. vol. 214; p. 341.
North Carolina Lumber Co., Lake Waccamaw, N. C. Shingles. No. 104,229; May 11; Gaz. vol. 214; p. 678.
Northfield Iron Company, Northfield, Minn. Shapes, bars, and sheets of metal. No. 104,261; May 11; Gaz. vol. 214; p. 679.
Nu-Iron Mfg. Co., assignor to R. O. Stallsmith, York, Pa. Liquid preparation for worn castings or cast-iron to make them look like new. No. 104,230; May 11; Gaz. vol. 214; p. 678.
Oakley, Washburne F., Minneapolis, Minn. Oil-polish for wood, leather, and other non-metallic surfaces. No. 104,353; May 25; Gaz. vol. 214; p. 1315.
Osterman, Martin, Jamestown, N. Y. Toilet soap. No. 104,291; May 18; Gaz. vol. 214; p. 1021.
Ouerbacker Coffee Co., The, Louisville, Ky. Roasted coffee and rice. No. 104,292; May 18; Gaz. vol. 214; p. 1021.
Palmetto Products Company, Inc., New York, N. Y. Textile rugs, mats, and runners and cotton bagging. No. 104,123; May 4; Gaz. vol. 214; p. 339.
Parker Wire Goods Company, Worcester, Mass. Certain named hardware and plumbing supplies. No. 104,182; May 4; Gaz. vol. 214; p. 341.
Peterson, William J., New York, N. Y. Domes, reflectors, diffusers, and bowls. No. 104,426; May 25; Gaz. vol. 214; p. 1317.
Peyton Paper Co., Duluth, Minn. Certain named roofing materials. No. 104,308; May 18; Gaz. vol. 214; p. 1021.
Phillips, Roy A., Cleveland, Ohio. Furniture-dressing. No. 104,262; May 11; Gaz. vol. 214; p. 679.
Pierce Oil Corporation, Richmond, Va., and St. Louis, Mo. Certain named oils and greases. No. 104,124; May 4; Gaz. vol. 214; p. 339.
Plumb, Chas. L., New York, N. Y. Wheat-flour. No. 104,125; May 4; Gaz. vol. 214; p. 339.
Plymouth Milling Company, Le Mars, Iowa. Wheat and corn flours. No. 104,394; May 25; Gaz. vol. 214; p. 1316.
Politzer Toy Mfg. Co., Inc., New York, N. Y. Dolls and stuffed toy animals. No. 104,354; May 25; Gaz. vol. 214; p. 1315.
Pressed Steel Manufacturing Company, Philadelphia, Pa. Antifriction-bearings. No. 104,231; May 11; Gaz. vol. 214; p. 678.
Price, Calvin, Chicago, Ill. Chewing-gum. No. 104,336; May 18; Gaz. vol. 214; p. 1022.
Puck Publishing Corporation, New York, N. Y. Weekly periodicals. No. 104,337; May 18; Gaz. vol. 214; p. 1022.
R. Petri Wine Company, Inc., San Francisco, Cal. Wines. No. 104,153; May 4; Gaz. vol. 214; p. 340.
R. Petri Wine Company, Inc., San Francisco, Cal. Whisky, brandy, cordials, and rum. No. 104,154; May 4; Gaz. vol. 214; p. 340.
Rabith, Mike, Barberton, Ohio. Salve for external ailments. No. 104,395; May 25; Gaz. vol. 214; p. 1316.
Radiator-Fix Company, Inc., New York, N. Y. Chemical solution for leaks in radiators of internal-combustion engines. No. 104,232; May 11; Gaz. vol. 214; p. 678.
Rains, Harry S., New York, N. Y. Leather vanity-bags. No. 104,126; May 4; Gaz. vol. 214; p. 339.
Rankin Company, Inc., Roanoke, Va. Pendants, charms, and brooches. No. 104,155; May 4; Gaz. vol. 214; p. 340.
Rapp, Ralph, New York, N. Y. Bath-powder. No. 104,367; May 25; Gaz. vol. 214; p. 1315.
Reliance Manufacturing Company, Chicago, Ill. Boys' blouses. No. 104,265; May 11; Gaz. vol. 214; p. 679.
Rentner, M. & H., New York, N. Y. Ladies' dresses. No. 104,127; May 4; Gaz. vol. 214; p. 339.
Renzie Drug Company, The, Limited, Wellington, New Zealand. Medicines or specifics for the relief of certain named diseases. No. 104,338; May 18; Gaz. vol. 214; p. 1022.
Rice Stix Dry Goods Company, St. Louis, Mo. Men's and boys' overalls, jumpers, work pants and shirts, &c. No. 104,363; May 25; Gaz. vol. 214; p. 1315.
Richardson, Alonzo F., New York, N. Y. Medicinal tonics. No. 104,311; May 18; Gaz. vol. 214; p. 1022.
Rosegold Manufacturing Co., The, Worcester, Mass. Ladies' and misses' dresses. No. 104,156; May 4; Gaz. vol. 214; p. 340.
Rudge-Whitworth, Limited, Coventry, England. Wheels for motor cars and cycles, automobiles, and cycle-cars. No. 104,396; May 25; Gaz. vol. 214; p. 1316.
Rudge-Whitworth, Limited, Coventry, England. Motor cars and cycles, automobiles, and cycle-cars. No. 104,397; May 25; Gaz. vol. 214; p. 1316.
Rust-Parker-Martin Company, Augusta, Me., and Duluth, Minn. Certain named foods. No. 104,128; May 4; Gaz. vol. 214; p. 339.
Rust-Parker-Martin Company, Augusta, Me., and Duluth, Minn. Dried beef, bloaters, smoked herring, &c. No. 104,129; May 4; Gaz. vol. 214; p. 339.
Rutherford Rubber Company, Rutherford, N. J. Fiber hoof-protectors. No. 104,233; May 11; Gaz. vol. 214; p. 678.
Salt's Textile Manufacturing Company, The, Bridgeport, Conn., and New York, N. Y. Velvets and plushes in the piece. Nos. 104,173–4; May 4; Gaz. vol. 214; p. 340.
Salt's Textile Manufacturing Company, The, Bridgeport, Conn., and New York, N. Y. Coats, cloaks, wraps, and capes. No. 104,266; May 11; Gaz. vol. 214; p. 679.
Sands, Taylor & Wood Company, Boston, Mass. Wheat-flour. No. 104,234; May 11; Gaz. vol. 214; p. 678.
Sargent & Company, New Haven, Conn. Certain named cutlery and tools. No. 104,293; May 18; Gaz. vol. 214; p. 1021.
Sargent & Company, New Haven, Conn. Certain named hardware supplies. No. 104,294; May 18; Gaz. vol. 214; p. 1021.
Schneider, George C., Brooklyn, N. Y. Candles. No. 104,398; May 25; Gaz. vol. 214; p. 1316.

Sekine, Ioji, New York, N. Y. Tooth-brushes. No. 104,427; May 25; Gaz. vol. 214; p. 1317.
Semel & Co., J. H., New York, N. Y. Hosiery. No. 104,399; May 23; Gaz. vol. 214; p. 1316.
Sicher & Co., D. E., New York, N. Y. Combination-garment. No. 104,295; May 18; Gaz. vol. 214; p. 1021.
Siegel & Co., Cologne-Braunsfeld, Germany. Metal, glass, porcelain, stove, and stone polishes. No. 104,130; May 4; Gaz. vol. 214; p. 339.
Sig Silberberg Company, Inc., New York, N. Y. Guimpes, vestees, chemisettes, &c. No. 104,362; May 25; Gaz. vol. 214; p. 1315.
Simen and Louis Eckert, Edward C., Pittsburgh, Pa. Boots, shoes, slippers, and footwear. No. 104,235; May 11; Gaz. vol. 214; p. 678.
Simon & Salzenstein, Dallas, Tex. Cigars. No. 104,131; May 4; Gaz. vol. 214; p. 339.
Simplex Manufacturing Co., New York, N. Y. Paint and varnish removers. No. 104,183; May 4; Gaz. vol. 214; p. 341.
Sims Cereal Company, Inc., Minneapolis, Minn. Malt and wheat breakfast food. No. 104,339; May 18; Gaz. vol. 214; p. 1022.
Sioux City Brick and Tile Company, Sioux City, Iowa. Brick. No. 104,340; May 18; Gaz. vol. 214; p. 1022.
Smith, Coral L., Detroit, Mich. Popcorn confection. No. 104,269; May 11; Gaz. vol. 214; p. 679.
Spokane Fruit Growers Co., Spokane, Wash. Fresh apples and peaches. No. 104,132; May 4; Gaz. vol. 214; p. 339.
St. Jacob Enterprise Mill Co., St. Louis, Mo., and St. Jacob, Ill. Wheat-flour. No. 104,341; May 18; Gaz. vol. 214; p. 1022.
Stallsmith, Robert O. (See New-Iron Mfg. Co., assignor.)
Stamer, J., Savannah, Ga. Remedy for the tobacco habit. No. 104,236; May 11; Gaz. vol. 214; p. 678.
Starnes, Herbert, Atlanta, Ga. Rubber tires and casings. No. 104,184; May 4; Gaz. vol. 214; p. 341.
Steiner & Son, Asbury Park, N. J. Night-shirts and pajamas. No. 104,102; May 4; Gaz. vol. 214; p. 341.
Sterling Portland Cement Company, New York, N. Y. Hydraulic cement. No. 104,133; May 4; Gaz. vol. 214; p. 339.
Stevenson, William M., Springfield, Mass. Textile carpets and rugs. No. 104,309; May 18; Gaz. vol. 214; p. 1022.
Stix, Baer & Fuller Dry Goods Company, St. Louis, Mo. Cotton piece goods. No. 104,428; May 25; Gaz. vol. 214; p. 1317.
Tetlow, Clara, Philadelphia, Pa. Complexion-powders. No. 104,400; May 25; Gaz. vol. 214; p. 1316.
Textile Products Company, Boston, Mass. Dresses. No. 104,237; May 11; Gaz. vol. 214; p. 678.
Textile Shirt Co., The, Cincinnati, Ohio. Men's dress and negligée shirts. Nos. 104,134–5; May 4; Gaz. vol. 214; p. 339.
Thompson's Malted Food Company, Phoenix, Ariz., and Waukesha, Wis. Certain malted foods. No. 104,159; May 4; Gaz. vol. 214; p. 340.
Thornton Sanitary Drinking Device Co., Kansas City, Mo. Disinfectant, sanaseptic, and germicide for household purposes. No. 104,310; May 18; Gaz. vol. 214; p. 1022.
Tiona Oil Company, Binghamton, N. Y. Lubricating-oils. No. 104,271; May 11; Gaz. vol. 214; p. 679.
Tippenhauer, Henry R., New York, N. Y. Coffee. No. 104,272; May 11; Gaz. vol. 214; p. 679.
Tormohlen, Herbert V., Portland, Ind. Poultry and eggs for breeding and hatching. No. 104,364; May 25; Gaz. vol. 214; p. 1315.
Torres, Jose, Brooklyn, N. Y. Granulated-composition-cork disks and tin bottle-caps made up with granulated-cork disks. No. 104,342; May 18; Gaz. vol. 214; p. 1022.
Triumph Liquid Soap Company, Grinnell, Iowa. Soaps. No. 104,238; May 11; Gaz. vol. 214; p. 678.
Trujillo-Marin, Lorenzo, New York, N. Y. Pills, candles, suppositories, and salves. No. 104,425; May 25; Gaz. vol. 214; p. 1317.
Twombly, Willard L., New York, N. Y. Automobiles, cycle-cars, and motor-cycles. No. 104,355; May 25; Gaz. vol. 214; p. 1315.
U-Auto Varnish Co., Cleveland, Ohio. Varnish. Nos. 104,273–9; May 11; Gaz. vol. 214; p. 679.
Union Salt Company, The, Cleveland, Ohio. Salt. Nos. 104,160–1; May 4; Gaz. vol. 214; p. 340.
United Drug Company, Boston, Mass. Sealing-wax, library-paste, mucilage, &c. No. 104,356; May 25; Gaz. vol. 214; p. 1315.
United Drug Company, Boston, Mass. Certain named dental, medical, and surgical supplies and appliances. No. 104,357; May 25; Gaz. vol. 214; p. 1315.
United Drug Company, Boston, Mass. Writing fluid, carbon-paper, ink pads and ribbons. No. 104,358; May 25; Gaz. vol. 214; p. 1315.
United Fuel & Supply Co., Detroit, Mich. Coal. No. 104,343; May 18; Gaz. vol. 214; p. 1022.
United Lead Company, New York, N. Y. Tempering-lead. No. 104,239; May 11; Gaz. vol. 214; p. 678.
United Sealing Machine Company, Springfield, Mass. Envelop-sealing machines. No. 104,185; May 4; Gaz. vol. 214; p. 341.
United States Envelope Company, Springfield, Mass. Paper drinking-cups and cartons and cabinets to contain such cups. Nos. 104,401–3; May 25; Gaz. vol. 214; p. 1316.
United States Wire Mat Co., Decatur, Ill. Fly-killers. No. 104,136; May 4; Gaz. vol. 214; p. 339.
Universal Motor Truck Company, Detroit, Mich. Motor vehicles, trucks, running-gears, chassis, and bodies. No. 104,365; May 25; Gaz. vol. 214; p. 1315.
Verder Brothers, Hollis, N. H. Popcorn. No. 104,175; May 4; Gaz. vol. 214; p. 340.
Victor Electric Company, Chicago, Ill. Certain named medical and surgical appliances. No. 104,404; May 25; Gaz. vol. 214; p. 1317.
Victor Manufacturing and Gasket Co., Chicago, Ill. Cut gaskets of metal and metal and asbestos. No. 104,240; May 11; Gaz. vol. 214; p. 678.
W. G. & E. G. Murphy Co., Inc., New York, N. Y. Blend whisky. Nos. 104,149–50; May 4; Gaz. vol. 214; p. 340.
W. P. Fuller & Co., San Francisco, Cal. Varnishes. Nos. 104,323–4; May 18; Gaz. vol. 214; p. 1022.
W. V. Bowater & Sons Ltd., London, England. Waste printed papers for remanufacture. No. 104,298; May 18; Gaz. vol. 214; p. 1021.
Waldes & Co., Prague-Wrschowitz, Austria-Hungary. Snap-fasteners. No. 104,241; May 11; Gaz. vol. 214; p. 678.
Walsh, James J., Buffalo, N. Y. Carbon-remover. No. 104,242; May 11; Gaz. vol. 214; p. 678.
Ward Baking Company, New York, N. Y. Bread, rolls, biscuits, &c. No. 104,162; May 4; Gaz. vol. 214; p. 340.
Ward Baking Company, New York, N. Y. Bread. No. 104,163; May 4; Gaz. vol. 214; p. 340.
Ward, Meehan Company, Philadelphia, Pa. Toweling, bath and wash mats, and washcloths. No. 104,405; May 25; Gaz. vol. 214; p. 1317.
Warrell, Alexander, Worcester, Mass. Lubricants. Nos. 104,186–7; May 4; Gaz. vol. 214; p. 341.
Washington Drug Products Co., Inc., New York, N. Y. Poultice. No. 104,406; May 25; Gaz. vol. 214; p. 1317.
Waters, David F., Cortland, N. Y. Compound preparation for the treatment of diarrhea and cholera in domestic animals. No. 104,429; May 25; Gaz. vol. 214; p. 1317.
West Disinfecting Company, New York, N. Y. Disinfectants and insecticides. No. 104,407; May 25; Gaz. vol. 214; p. 1317.
Wilkie, Alexander, Edinburgh, Scotland. Ladies' coats and costumes. No. 104,243; May 11; Gaz. vol. 214; p. 678.
William Lea & Sons Company, The, Wilmington, Del. Cornmeal. No. 104,390; May 25; Gaz. vol. 214; p. 1316.
Willison, Ella L. K., Chicago, Ill. Certain pharmaceutical preparations for toilet use. No. 104,164; May 4; Gaz. vol. 214; p. 340.
Wittwer, John J., Sr., Seattle, Wash. Hair-cleanser. No. 104,430; May 25; Gaz. vol. 214; p. 1317.
Wm. S. Hills Company, Boston, Mass. Wheat-flour. No. 104,327; May 18; Gaz. vol. 214; p. 1022.
Wood-Beazley Seed Co., Springfield, Mo. Alfalfa, clover, timothy, &c. No. 104,408; May 25; Gaz. vol. 214; p. 1317.
Wood, Clarence W., Syracuse, N. Y. Mirror-glass for shaving and toilet purposes. No. 104,280; May 11; Gaz. vol. 214; p. 679.
Young, Smyth, Field Company, Philadelphia, Pa. Monthly house organs. No. 104,344; May 18; Gaz. vol. 214; p. 1023.

ALPHABETICAL LIST OF REGISTRANTS OF LABELS.

Alexander, M. W., West Lynn, Mass. "N. A. S. O. Standard First Aid Jar." (For Standard First-Aid Jars.) No. 18,465; May 18; Gaz. vol. 214; p. 1024.
Aromint Co., The, Cincinnati, Ohio. "Aromints." (For Mints.) No. 18,435; May 11; Gaz. vol. 214; p. 681.
Bokel, J. A., Baltimore, Md. "Cherry Pepsin Tonic, A Compound." (For a Medicinal Tonic.) No. 18,422; May 4; Gaz. vol. 214; p. 342.
Cereal Meal Co., The, Denver, Colo. "Cereal Meal." (For a Cereal Health Food.) No. 18,436; May 11; Gaz. vol. 214; p. 681.
Channell Chemical Company, Chicago, Ill. "O-Cedar Combination Set." (For Mops and Dust-Cloths.) No. 18,466; May 18; Gaz. vol. 214; p. 1024.
Columbian Steel Tank Co., Kansas City, Mo. "Tanks For The World." (For Steel Tanks.) No. 18,437; May 11; Gaz. vol. 214; p. 681.
Consumers Bread Co., Kansas City, Mo. "Aunt Mary's Loaf Cake." (For Cake.) No. 18,473; May 25; Gaz. vol. 214; p. 1318.
Cooper, Frank J., San Francisco, Cal. "Fruit Stix." (For Confections Made from Fruits.) No. 18,438; May 11; Gaz. vol. 214; p. 681.
Corby Baking Co., The, Washington, D. C. "Corby Cake." (For Chocolate Cake.) No. 18,474; May 25; Gaz. vol. 214; p. 1318.
Crow, John S., Memphis, Tenn. "'Jitney' Fizz." (For Beverages.) No. 18,454; May 11; Gaz. vol. 214; p. 681.
Eckstein, Herman E., New York, N. Y. "Hopewell Orchards." (For Fruits.) No. 18,439; May 11; Gaz. vol. 214; p. 681.
Edwards & Chamberlin Hardware Co., The, Kalamazoo, Mich. "Rainbow Roofing." (For Composition Rolled Roofing.) No. 18,440; May 11; Gaz. vol. 214; p. 681.
Edwards & Chamberlin Hardware Co., The, Kalamazoo, Mich. "Cyclone Roofing." (For Composition Rolled Roofing.) No. 18,441; May 11; Gaz. vol. 214; p. 681.
Everett, Heaney & Co., New York, N. Y. "Republican." (For Piece Goods.) No. 18,423; May 4; Gaz. vol. 214; p. 342.
Fenway Breweries, Boston, Mass. "The Beer Without A Substitute." (For Beer.) No. 18,424; May 4; Gaz. vol. 214; p. 342.
Fortriede, Chris., Cincinnati, Ohio. "White Seal." (For Cigars.) No. 18,442; May 11; Gaz. vol. 214; p. 681.
Fortriede, Chris., Cincinnati, Ohio. "Blue Seal." (For Cigars.) No. 18,443; May 11; Gaz. vol. 214; p. 681.
German-American Coffee Co., Omaha, Nebr. "Fontenelle." (For Coffee.) No. 18,444; May 11; Gaz. vol. 214; p. 681.
Glickman, Harris, New York, N. Y. "Zip The Zip." (For a Non-Alcoholic Beverage.) No. 18,425; May 4; Gaz. vol. 214; p. 342.
Haas & Sons, Geo., San Francisco, Cal. "Supreme Sweets." (For Confections.) No. 18,445; May 11; Gaz. vol. 214; p. 681.
Hashiba, Frank Y., New York, N. Y. "Mikado." (For Table Sauce.) No. 18,446; May 11; Gaz. vol. 214; p. 681.
Hawley, Wm. E., St. Louis, Mo. "Bonita." (For a Cleaner.) No. 18,472; May 18; Gaz. vol. 214; p. 1024.
Hood River Apple Vinegar Co., Hood River, Oreg. "Yellow Newtown." (For Cider Vinegar.) No. 18,475; May 25; Gaz. vol. 214; p. 1318.
Japanese Tissue Mills, Holyoke, Mass. "Hy-GN-IC Napkins." (For Paper Napkins.) No. 18,447; May 11; Gaz vol. 214; p. 681.
Johnston, John W., Rochester, N. Y. "Snow White." (For a Water-Color Paint.) No. 18,476; May 25; Gaz. vol. 214; p. 1318.
Kalamazoo Stationery Co., Kalamazoo, Mich. "Venus Perfect Writing Paper." (For Writing-Paper.) No. 18,448; May 11; Gaz. vol. 214; p. 681.
Kalamazoo Stationery Co., Kalamazoo, Mich. "Selected Quality Linen Finish Writing Paper." (For Writing-Paper.) No. 18,449; May 11; Gaz. vol. 214; p. 681.
Kalamazoo Stationery Co., Kalamazoo, Mich. "Ramona Linen Writing Paper." (For Writing-Paper.) No. 18,477; May 25; Gaz. vol. 214; p. 1318.
Kalamazoo Stationery Co., Kalamazoo, Mich. "Pure Linen Writing Paper." (For Writing-Paper.) No. 18,478; May 25; Gaz. vol. 214; p. 1318.
Kalamazoo Stationery Co., Kalamazoo, Mich. "Flaxon Linen Fabric Writing Paper." (For Writing-Paper.) No. 18,479; May 25; Gaz. vol. 214; p. 1318.
Kalamazoo Stationery Co., Kalamazoo, Mich. "De Luxe Linen Lawn Writing Paper." (For Writing-Paper.) No. 18,480; May 25; Gaz. vol. 214; p. 1318.
Kendall, Burney J., Geneva, Ill. "Dr. B. J. Kendall's Hair Tonic for Diseases of the Hair and Scalp." (For a Preparation for Diseases of the Hair and Scalp.) No. 18,426; May 4; Gaz. vol. 214; p. 342.
King Philip Mills, Fall River, Mass. "Good Nightie." (For Nainsook.) No. 18,481; May 25; Gaz. vol. 214; p. 1318.
Mahon-Stoltz Company, Ottumwa, Iowa. "Stimulo." (For Coffee.) No. 18,427; May 4; Gaz. vol. 214; p. 342.
Mally & Schattenberg, Crystal City, Tex. "Dose Record Label." (For Drugs.) No. 18,482; May 25; Gaz. vol. 214; p. 1318.
Matson Coffee Co., Salt Lake City, Utah. "Hotel Utah brand." (For Coffee.) No. 18,483; May 25; Gaz. vol. 214; p. 1318.
Matson Coffee Company, Salt Lake City, Utah. "Mountain Home Brand." (For Coffee.) No. 18,428; May 4; Gaz. vol. 214; p. 342.
Mint Products Company, Incorporated, New York, N. Y. "Aut-O-Mint, A Dainty Confection." (For Lozenges.) No. 18,467; May 18; Gaz. vol. 214; p. 1024.
Mint Products Company, Incorporated, New York, N. Y. "Pep-O-Mint Life Savers, A Dainty Confection." (For Lozenges of Peppermint Flavor.) No. 18,484; May 25; Gaz. vol. 214; p. 1318.
Mint Products Company, Incorporated, New York, N. Y. "Cl-O-Ve Life Savers, A Dainty Confection." (For Lozenges of Clove Flavor.) No. 18,485; May 25; Gaz. vol. 214; p. 1318.
Mint Products Company, Incorporated, New York, N. Y. "Wint-O-Green Life Savers, A Dainty Confection." (For Lozenges of Wintergreen Flavor.) No. 18,486; May 25; Gaz. vol. 214; p. 1318.
Montague, Julia C., Philadelphia, Pa. "MontaguMello." (For Confectionery Coating.) No. 18,468; May 18; Gaz. vol. 214; p. 1024.
Myers, Henry R., Covington, Ky. "Joy." (For a Beverage.) No. 18,487; May 25; Gaz. vol. 214; p. 1318.
National Table Waters Co., Wilmington, Del. "Klamensi Spring Water." (For Spring-Water.) No. 18,450; May 11; Gaz. vol. 214; p. 681.
Newbold & Bradley, Bluefield, W. Va. "Newbold & Bradley Laxative Capsules Bluefield, W. Va." (For Medicine in Capsule Form.) No. 18,429; May 4; Gaz. vol. 214; p. 342.
Pect Bros. Mfg. Co., Kansas City, Kans. "Sea Foam." (For a Washing-Powder.) No. 18,431; May 4; Gaz. vol. 214; p. 342.
Petroleum Products Company, San Francisco, Cal. "National Motor Naphtha." (For Motor-Naphtha.) No. 18,451; May 11; Gaz. vol. 214; p. 681.
Petroleum Products Company, San Francisco, Cal. "National Benzine—The Ideal Motor Spirit." (For Benzene.) No. 18,452; May 11; Gaz. vol. 214; p. 681.
Phy-to-lax Company, Paterson, N. J. "Phy-to-lax." (For Cereals.) No. 18,432; May 4; Gaz. vol. 214; p. 342.
Roland Co., The, Seattle, Wash. "Falfeine." (For Flavoring.) No. 18,433; May 4; Gaz. vol. 214; p. 342.
Romano & Co., A. A., Rochester, N. Y. "Amaro Romano." (For a Tonic.) No. 18,453; May 11; Gaz. vol. 214; p. 681.
S. S. White Dental Mfg. Co., The, Philadelphia, Pa. "Violet Talcum Powder." (For Violet Talcum Powder.) No. 18,455; May 11; Gaz. vol. 214; p. 681.
S. S. White Dental Mfg. Co., The, Philadelphia, Pa. "The S. S. White Tooth Brush." (For a Tooth-Brush.) No. 18,456; May 11; Gaz. vol. 214; p. 681.
S. S. White Dental Mfg. Co., The, Philadelphia, Pa. "The S. S. White Tooth Brush." (For Tooth-Brushes.) No. 18,457; May 11; Gaz. vol. 214; p. 681.
S. S. White Dental Mfg. Co., The, Philadelphia, Pa. "Almond Cream." (For Almond Cream.) No. 18,458; May 11; Gaz. vol. 214; p. 681.
S. S. White Dental Mfg. Co., The, Philadelphia, Pa. "S. S. White Tooth Paste." (For Tooth-Paste.) No. 18,459; May 11; Gaz. vol. 214; p. 681.
Schulze, Paul, Chicago, Ill. "Big-Dandy Bread." (For Bread.) No. 18,488; May 25; Gaz. vol. 214; p. 1318.
Shiwanov, Ludwig, New York, N. Y. "Ex-Corns." (For a Corn-Remover.) No. 18,489; May 25; Gaz. vol. 214; p. 1318.
Tebbetts and Garland Store, The Chicago, Ill. "Red Horse Inn." (For Foods.) No. 18,469; May 18; Gaz. vol. 214; p. 1024.
Venus Company, Brooklyn, N. Y. "Venus Lavender Astringent." (For an Astringent.) No. 18,434; May 4; Gaz. vol. 214; p. 342.

Vola Importing Company, New York, N. Y. "Vola." (For Chianti Wine.) No. 18,470; May 18; Gaz. vol. 214; p. 1024.

Wheeler Beauty Co., New York, N. Y. "Wheeler's Hair Coloring." (For Hair-Dye and Hair-Colorings.) No. 18,460; May 11; Gaz. vol. 214; p. 681.

White & Wyckoff Mfg. Co., Holyoke, Mass. "Community Flax." (For Stationery.) No. 18,461; May 11; Gaz. vol. 214; p. 681.

White & Wyckoff Mfg. Co., Holyoke, Mass. "Goody Two-shoes." (For Stationery.) No. 18,462; May 11; Gaz. vol. 214; p. 681.

Wierseching, Edward H., Binghamton, N. Y. "Lacquer-shine Metal Polish." (For Metal-Polish.) No. 18,463; May 11; Gaz. vol. 214; p. 681.

Wm. M. Palmer Mfg. Co., Inc., The, New York, N. Y. "Aromita Silver Cleansup." (For a Silver-Cleaner.) No. 18,430; May 4; Gaz. vol. 214; p. 342.

Young, Frank A., Lawton, Okla. "107." (For Cigars.) No. 18,471; May 18; Gaz. vol. 214; p. 1024.

Zulu Manufacturing Company, Chicago, Ill. "Golden Fruit." (For Chewing-Gum.) No. 18,464; May 11; Gaz. vol. 214; p. 681.

PRINTS.

Amazon Cotton Mills, Thomasville, N. C. "Amazon." (For Knitting-Yarns.) No. 3,904; May 18; Gaz. vol. 214; p. 1024.

American Art Works, The, Coshocton, Ohio. "Lasts Everlastingly." (For Brick.) No. 3,897; May 11; Gaz. vol. 214; p. 682.

B. F. Goodrich Co., The, Akron, Ohio. "Goodrich Safety Tread." (For Pneumatic Tires.) No. 3,912; May 18; Gaz. vol. 214; p. 1024.

B. V. D. Company, The, New York, N. Y. "Early to Bed Early to Rise Short Length Sleeping Suits—Now you're wise." (For Sleeping-Suits.) No. 3,905; May 18; Gaz. vol. 214; p. 1024.

B. V. D. Company, The, New York, N. Y. "Tonight's the Night." (For Sleeping-Suits.) No. 3,906; May 18; Gaz. vol. 214; p. 1024.

B. V. D. Company, The, New York, N. Y. "'Between You and the Sun' Stands B. V. D." (For Athletic Underwear.) No. 3,907; May 18; Gaz. vol. 214; p. 1024.

B. V. D. Company, The, New York, N. Y. "Some Nap!" (For Sleeping-Suits.) No. 3,908; May 18; Gaz. vol. 214; p. 1024.

B. V. D. Company, The, New York, N. Y. "First Aid to the Light Sleeper." (For Sleeping-Suits.) No. 3,909; May 18; Gaz. vol. 214; p. 1024.

B. V. D. Company, The, New York, N. Y. "Be Prepared!" (For Athletic Underwear.) No. 3,910; May 18; Gaz. vol. 214; p. 1024.

B. V. D. Company, The, New York, N. Y. "This Man Feels Fine." (For Athletic Underwear.) No. 3,911; May 18; Gaz. vol. 214; p. 1024.

Celli, John E., Philadelphia, Pa. "Eusozo." (For a Medicine.) No. 3,898; May 11; Gaz. vol. 214; p. 682.

Cream of Wheat Co., Minneapolis, Minn. "Playing Store." (For Wheat Breakfast Food.) No. 3,917; May 25; Gaz. vol. 214; p. 1318.

E. Greenfield's Sons, New York, N. Y. "Greenfield's Chocolate Sponge." (For Candy.) No. 3,892; May 4; Gaz. vol. 214; p. 342.

E. La Montagne's Sons, New York, N. Y. "To Green River." (For Whisky.) No. 3,915; May 18; Gaz. vol. 214; p. 1024.

Giunta, Anthony A., Philadelphia, Pa. "'Giuseppi Garibaldi' Brand." (For Macaroni.) No. 3,899; May 11; Gaz. vol. 214; p. 682.

Globe Automatic Sprinkler Co., The, Cincinnati, Ohio. "Globe Sprinklers." (For Sprinklers.) No. 3,891; May 4; Gaz. vol. 214; p. 342.

Grand Rapids Refrigerator Co., Grand Rapids, Mich. "Like a clean china dish." (For Refrigerators.) No. 3,900; May 11; Gaz. vol. 214; p. 682.

Hendee Mfg. Co., The, Springfield, Mass. "The Indian." (For Motor-Cycles.) No. 3,913; May 18; Gaz. vol. 214; p. 1024.

Liggett & Myers Tobacco Company, Jersey City, N. J., and St. Louis, Mo. "His Bait." (For Cigarettes.) No. 3,901; May 11; Gaz. vol. 214; p. 682.

Liggett & Myers Tobacco Company, Jersey City, N. J., and St. Louis, Mo. "Duke's Mixture." (For Smoking-Tobacco.) No. 3,914; May 18; Gaz. vol. 214; p. 1024.

Old Ben Mining Corporation, Chicago, Ill. "Old Ben Coal." (For Coal.) No. 3,893; May 4; Gaz. vol. 214; p. 342.

Pittsburg Hickson Company, East Butler, Pa. "Hickson's Twin Sagless." (For Springs for Beds, Cots, and Couches.) No. 3,902; May 11; Gaz. vol. 214; p. 682.

Platt & Washburn Refining Company, New York, N. Y. "Veedol." (For Veedol.) No. 3,903; May 11; Gaz. vol. 214; p. 682.

Thos. Cusack Company, Chicago, Ill. "Extreme positions without strain anywhere." (For Underwear.) No. 3,918; May 25; Gaz. vol. 214; p. 1318.

Thos. Cusack Company, Chicago, Ill. "Models for all shapes." (For Underwear.) No. 3,919; May 25; Gaz. vol. 214; p. 1318.

Thos. Cusack Company, Chicago, Ill. "Ease—Comfort." (For Underwear.) No. 3,920; May 25; Gaz. vol. 214; p. 1318.

Thos. Cusack Company, Chicago, Ill. "Closed comfortable trouser crotch." (For Underwear.) No. 3,921; May 25; Gaz. vol. 214; p. 1318.

Thos. Cusack Company, Chicago, Ill. "Adjusted in a jiffy." (For Underwear.) No. 3,922; May 25; Gaz. vol. 214; p. 1318.

Thos. Cusack Company, Chicago, Ill. "Rockinchair." (For Underwear.) No. 3,923; May 25; Gaz. vol. 214; p. 1318.

Thos. Cusack Company, Chicago, Ill. "Tailored Union Suits." (For Underwear.) No. 3,924; May 25; Gaz. vol. 214; p. 1318.

Thos. Cusack Company, Chicago, Ill. "Natural crouse fullness for extreme positions." (For Underwear.) No. 3,925; May 25; Gaz. vol. 214; p. 1318.

Thos. Cusack Company, Chicago, Ill. "Regulars Short Stouts Slim Jims." (For Underwear.) No. 3,926; May 25; Gaz. vol. 214; p. 1318.

Thos. Cusack Company, Chicago, Ill. "$1 to $6 a suit." (For Underwear.) No. 3,927; May 25; Gaz. vol. 214; p. 1318.

Thos. Cusack Company, Chicago, Ill. "Ease, Comfort." (For Underwear.) No. 3,928; May 25; Gaz. vol. 214; p. 1318.

Thos. Cusack Company, Chicago, Ill. "No hot webbing necessary at the waist." (For Underwear.) No. 3,929; May 25; Gaz. vol. 214; p. 1318.

Thos. Cusack Company, Chicago, Ill. "Crotch exactly like your trousers." (For Underwear.) No. 3,930; May 25; Gaz. vol. 214; p. 1318.

West, Julius A., Washington, D. C. "The Sweater Shop." (For Sweater-Garments.) No. 3,916; May 18; Gaz. vol. 214; p. 1024.

White Company, The, Cleveland, Ohio. "The Latest White Four-Thirty Touring." (For Touring-Cars.) No. 3,894; May 4; Gaz. vol. 214; p. 342.

White Company, The, Cleveland, Ohio. "The Latest White Four-Forty-Five Landaulet-Limousine." (For Landaulet-Limousines.) No. 3,895; May 4; Gaz. vol. 214; p. 342.

Wood-Wilson Company, Inc., The, New York, N. Y. "Young America Brand." (For Boys' Blouses, Shirts, Pajamas, and Night-Robes.) No. 3,896; May 4; Gaz. vol. 214; p. 342.

DISCLAIMER.

Kast, Edward R., Baltimore, Md.; disclaimer filed by inventor and assignee, The Kast Inserting and Gathering Machine Company. Signature-handling mechanism. No. 1,083,617; disclaimer filed Apr. 28, 1915; Gaz. vol. 214; p. 346.

ALPHABETICAL LIST OF INVENTIONS

FOR WHICH

PATENTS WERE ISSUED DURING THE MONTH OF MAY, 1915.

[Abbreviations: "Gaz."—Official Gazette.]

Abdominal support. L. M. Finch. No. 1,139,656; May 18; Gaz. vol. 214; p. 755.
Abrading-disk. C. Krug. No. 1,139,541; May 18; Gaz. vol. 214; p. 713.
Abrasive implement. J. C. Smith. No. 1,139,817; May 18; Gaz. vol. 214; p. 811.
Abrasive wheels and the like, Forming and binding material for use in. J. G. Vail and J. D. Carter. No. 1,139,739; May 18; Gaz. vol. 214; p. 783.
Absorbent-cotton-wrapping machine, Automatic. I. Kornbluh. No. 1,140,044; May 18; Gaz. vol. 214; p. 892.
Accordion. G. Anderson. No. 1,139,010; May 11; Gaz. vol. 214; p. 492.
Accounting, Method and means for statistical. W. J. Crumpton. No. 1,138,089; May 4; Gaz. vol. 214; p. 130.
Acetylene-generators, Water-shed for. A. S. Phelps. No. 1,138,685; May 11; Gaz. vol. 214; p. 375.
Acid compound, Diacidylpyrocatechin - ortho - carboxylic-. E. Rietz. No. 1,140,716; May 25; Gaz. vol. 214; p. 1159.
Acid derivative, 2.3-oxynaphthoic-. M. Kahn and A. Ossenbeck. No. 1,140,747; May 25; Gaz. vol. 214; p. 1171.
Acid monocalcium phosphate, Producing. R. Stewart. No. 1,137,806; May 4; Gaz. vol. 214; p. 30.
Acoustic instrument. H. W. Hess. No. 1,138,755; May 11; Gaz. vol. 214; p. 401.
Adding and recording machine. H. Landsiedel. No. 1,138,875; May 11; Gaz. vol. 214; p. 444.
Adding-machine. F. C. Rinsche. No. 1,138,793; May 11; Gaz. vol. 214; p. 415.
Adding-machine or the like. D. W. Shiek. No. 1,139,814; May 18; Gaz. vol. 214; p. 810.
Adding-machine signal mechanism. D. W. Shiek. No. 1,139,813; May 18; Gaz. vol. 214; p. 809.
Address-plate, Selective. U. G. Lee. No. 1,139,544; May 18; Gaz. vol. 214; p. 714.
Addressing-machine. U. G. Lee. No. 1,141,065; May 25; Gaz. vol. 214; p. 1282.
Adjusting-post. B. Ames. No. 1,140,433; May 25; Gaz. vol. 214; p. 1062.
Advertising apparatus. S. M. Hirsch. No. 1,138,478; May 4; Gaz. vol. 214; p. 266.
Advertising apparatus. R. Overfield, L. B. Hamsley, and E. Burns. No. 1,139,795; May 18; Gaz. vol. 214; p. 803.
Advertising device. H. J. Cusack. No. 1,140,446; May 25; Gaz. vol. 214; p. 1066.
Advertising device. R. F. Dunham. No. 1,138,737; May 11; Gaz. vol. 214; p. 394.
Advertising device. J. B. Furber. No. 1,140,148; May 18; Gaz. vol. 214; p. 928.
Advertising device. H. S. Shafer. No. 1,139,812; May 18; Gaz. vol. 214; p. 809.
Advertising device and the like. H. K. Harris. No. 1,138,471; May 4; Gaz. vol. 214; p. 264.
Advertising device, Time-controlled. F. R. and C. P. Davis. No. 1,138,090; May 4; Gaz. vol. 214; p. 130.
Advertising mechanism. A. Gottschalk and J. S. Hollowell. No. 1,140,675; May 25; Gaz. vol. 214; p. 1146.
Aerial conveyer. R. Waddell; No. 1,140,725; May 25; Gaz. vol. 214; p. 1162.
Aeroplane. M. E. Clark. No. 1,140,444; May 25; Gaz. vol. 214; p. 1066.
Aeroplane. E. C. Parsons. No. 1,141,002; May 25; Gaz. vol. 214; p. 1262.
Aeroplane-balance. G. Mezzatesta. No. 1,140,180; May 18; Gaz. vol. 214; p. 940.
Agitator. J. C. King. No. 1,140,465; May 25; Gaz. vol. 214; p. 1074.
Air-brake-hose protector. A. R. Peffers. No. 1,139,797; May 18; Gaz. vol. 214; p. 804.
Air-brake system. P. Comerford. No. 1,138,193; May 4; Gaz. vol. 214; p. 166.
Air-brake-system releasing device. N. E. Hirsch. No. 1,139,866; May 18; Gaz. vol. 214; p. 828.
Air-compressor. H. Harford. No. 1,138,215; May 4; Gaz. vol. 214; p. 172.
Air-compressor. W. M. Melmore. No. 1,139,991; May 18; Gaz. vol. 214; p. 872.
Air engine, Variable-capacity compressed-. B. V. Nordberg. No. 1,138,886; May 11; Gaz. vol. 214; p. 448.
Air purifier and washer. C. A. Geddes. No. 1,139,358; May 11; Gaz. vol. 214; p. 612.
Air-spring. J. G. Funk. No. 1,140,344; May 18; Gaz. vol. 214; p. 996.
Air washing and conditioning apparatus. W. H. Carrier. No. 1,138,081; May 4; Gaz. vol. 214; p. 127.
Airship, J. W. Boughton. No. 1,138,724; May 11; Gaz. vol. 214; p. 390.
Alarm: *See*—
Burglar or fire alarm. Tire-alarm.
Fire-alarm.
Alarms or other devices, Apparatus for operating. A. C. Rowley. No. 1,138,249; May 4; Gaz. vol. 214; p. 184.
Album-leaves, Card-holder for. G. Kiernan. No. 1,140,904; May 25; Gaz. vol. 214; p. 1227.
Alcoholic fermentation. R. de Fazi. No. 1,140,882; May 25; Gaz. vol. 214; p. 1219.
Alkaline chlorids, Apparatus for electrolysis of. K. Ochs. No. 1,138,400; May 4; Gaz. vol. 214; p. 240.
Alligator-wrench. R. Acton. No. 1,138,168; May 4; Gaz. vol. 214; p. 158.
Aluminate solutions, Treating. H. Howard. No. 1,137,860; May 4; Gaz. vol. 214; p. 48.
Amalgamator. F. P. Arnold and G. F. Wedeman. No. 1,139,324; May 11; Gaz. vol. 214; p. 599.
Amalgamator. C. W. Patten. No. 1,139,067; May 11; Gaz. vol. 214; p. 512.
Ammonia and the like, Producing. J. E. Bucher. No. 1,138,191; May 4; Gaz. vol. 214; p. 165.
Ammunition-hoist. F. Reichard. No. 1,138,149; May 4; Gaz. vol. 214; p. 151.
Ampul. E. W. Pierce. No. 1,139,368; May 11; Gaz. vol. 214; p. 616.
Amusement device. W. E. Davis. No. 1,138,091; May 4; Gaz. vol. 214; p. 131.
Anchor. C. W. Edwards. No. 1,137,745; May 4; Gaz. vol. 214; p. 9.
Anchor. J. Masak. No. 1,139,202; May 11; Gaz. vol. 214; p. 560.
Animal-dip, Preparation of a concentrated. R. M. Chapin. No. 1,137,844; May 4; Gaz. vol. 214; p. 43.
Animal-releasing device. T. Kollner. No. 1,139,539; May 18; Gaz. vol. 214; p. 712.
Animal-releasing device. E. Noennig. No. 1,139,563; May 18; Gaz. vol. 214; p. 721.
Animal-trap. D. D. Dennis. No. 1,139,501; May 18; Gaz. vol. 214; p. 700.
Animal-trap. E. T. Marsh. No. 1,138,132; May 4; Gaz. vol. 214; p. 146.
Animal-trap. W. A. Seeley and H. M. Vetterlein. No. 1,139,587; May 18; Gaz. vol. 214; p. 729.
Annunciator, Mechanical. L. C. Swain. No. 1,140,631; May 25; Gaz. vol. 214; p. 1133.
Annunciator, Self-restoring. A. C. Reid. No. 1,138,688; May 11; Gaz. vol. 214; p. 376.
Anticreeper. P. W. Moore. No. 1,140,845; May 18; Gaz. vol. 214; p. 996.
Anticreeper. B. Wolhaupter. No. 1,139,891; May 11; Gaz. vol. 214; p. 624.
Antiseptic compound. W. J. Knox. No. 1,139,774; May 18; Gaz. vol. 214; p. 795.
Antiskid attachment for tires. A. G. Bruce. No. 1,138,189; May 4; Gaz. vol. 214; p. 164.
Antiskid attachment for tires. A. Gorecki. No. 1,140,590; May 25; Gaz. vol. 214; p. 1118.
Apparel, Head wearing-. M. F. Harris and W. D. Lewis. No. 1,139,675; May 18; Gaz. vol. 214; p. 762.
Apparel, Wearing-. M. Herman. No. 1,138,951; May 11; Gaz. vol. 214; p. 470.
Apron, Mechanic's. G. E. Kelly and E. J. Emery. No. 1,139,532; May 18; Gaz. vol. 214; p. 710.
Arch, Fire-. C. E. Miller. No. 1,138,043; May 4; Gaz. vol. 214; p. 112.
Armature-spring. B. Ames. No. 1,140,432; May 25; Gaz. vol. 214; p. 1062.
Article-carrier. G. M. Euson. No. 1,140,585; May 25; Gaz. vol. 214; p. 1116.
Article-feeding mechanism. A. M. Augensen. No. 1,138,588; May 4; Gaz. vol. 214; p. 201.

Asparagus-cutter. E. W. Moore. No. 1,137,777; May 4; Gaz. vol. 214; p. 19.
Assorting and delivering mechanism. D. W. Colby. No. 1,139,401; May 11; Gaz. vol. 214; p. 628.
Astronomical educational apparatus. L. M. Houseknecht. No. 1,140,160; May 18; Gaz. vol. 214; p. 932.
Athletic ball. T. A. and J. Olivir. No. 1,140,845; May 25; Gaz. vol. 214; p. 1205.
Atomizer or the like. A. De Vilbiss. No. 1,140,301; May 18; Gaz. vol. 214; p. 980.
Auger. J. Lund. No. 1,139,198; May 11; Gaz. vol. 214; p. 559.
Auger, Earth-. B. B. Phillips and C. W. Evans. No. 1,140,607; May 25; Gaz. vol. 214; p. 1124.
Auto-motor starter. A. Blair. No. 1,141,033; May 25; Gaz. vol. 214; p. 1271.
Automatic lubricator. A. Mertsheimer. No. 1,139,697; May 18; Gaz. vol. 214; p. 769.
Automobile. E. Gruenewald. No. 1,139,861; May 18; Gaz. vol. 214; p. 826.
Automobile. F. Hemenway. No. 1,139,763; May 18; Gaz. vol. 214; p. 791.
Automobile. C. H. Taylor and B. B. Neuteboom. No. 1,138,904; May 11; Gaz. vol. 214; p. 454.
Automobile and other vehicle fender. A. M. Kennedy. No. 1,140,164; May 18; Gaz. vol. 214; p. 934.
Automobile-bodies into lounges, Foldable seat for converting two-seated. J. E. Wright. No. 1,140,931; May 25; Gaz. vol. 214; p. 1238.
Automobile-body. L. C. Duncan. No. 1,139,021; May 11; Gaz. vol. 214; p. 497.
Automobile-body. J. B. Entz. No. 1,140,139; May 18; Gaz. vol. 214; p. 926.
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Automobile chemical-engine. J. A. Thomas. No. 1,137,927; May 4; Gaz. vol. 214; p. 71.
Automobile controlling device. V. Lancia. No. 1,138,577; May 4; Gaz. vol. 214; p. 297.
Automobile-curtain. H. J. Tiffany and G. A. Young. No. 1,140,858; May 25; Gaz. vol. 214; p. 1211.
Automobile door mechanism. Y. Kariva. No. 1,138,117; May 4; Gaz. vol. 214; p. 140.
Automobile-fender. C. K. White. No. 1,139,830; May 18; Gaz. vol. 214; p. 816.
Automobile fuel-tank. A. Orton. No. 1,139,439; May 11; Gaz. vol. 214; p. 642.
Automobile-jack. I. W. Furman. No. 1,140,149; May 18; Gaz. vol. 214; p. 920.
Automobile-jack, Automatic. S. D. Smith. No. 1,140,624; May 25; Gaz. vol. 214; p. 1130.
Automobile-lock. C. R. Saunders. No. 1,138,796; May 11; Gaz. vol. 214; p. 416.
Automobile-lock. P. W. Smith. No. 1,139,733; May 18; Gaz. vol. 214; p. 781.
Automobile-lock, Combination. R. E. Coyner. No. 1,137,742; May 4; Gaz. vol. 214; p. 8.
Automobile locking device. A. H. Leeker. No. 1,140,383; May 25; Gaz. vol. 214; p. 1044.
Automobile-radiator. N. T. E. Skinner. No. 1,140,196; May 18; Gaz. vol. 214; p. 945.
Automobile running-gear. D. C. Cookingham and J. H. Hertner. No. 1,138,732; May 11; Gaz. vol. 214; p. 393.
Automobile steering device. D. H. Buckley. No. 1,139,453; May 11; Gaz. vol. 214; p. 646.
Automobile-wheel. J. C. Awalt and T. F. Stevens. No. 1,140,560; May 25; Gaz. vol. 214; p. 1108.
Automobile-wheels and the like, Shipping-shoe for. A. S. McMillan and J. F. Curdie. No. 1,139,988; May 18; Gaz. vol. 214; p. 871.
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Automobiles, Electric-lighting system for. J. Bijur. No. 1,137,831; May 4; Gaz. vol. 214; p. 38.
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Automobiles, motor-boats, and the like, Device to prevent theft or unauthorized use of. H. F. Fagan. No. 1,140,141; May 18; Gaz. vol. 214; p. 926.
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Automobiles, Pneumatic cushion for. E. A. Wilcox. No. 1,140,645; May 25; Gaz. vol. 214; p. 1137.
Automobiles, Stove attachment for. E. S. Mumma. No. 1,140,055; May 18; Gaz. vol. 214; p. 896.
Automobiles, Theft-prevention device for. F. K. Fassett. No. 1,139,757; May 18; Gaz. vol. 214; p. 789.
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Awning-cord-operating protector device. J. M. Hanf. No. 1,138,218; May 4; Gaz. vol. 214; p. 171.
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Axle, Buggy-. C. B. Elliott and E. Kurtz. No. 1,140,138; May 18; Gaz. vol. 214; p. 926.
Axle construction. W. J. Sleffel. No. 1,141,078; May 25; Gaz. vol. 214; p. 1286.
Axle construction for motor-vehicles, Rear-. C. L. Smith. No. 1,138,900; May 11; Gaz. vol. 214; p. 452.
Axle extension, Emergency. C. Henthorn and W. T. Wehe. No. 1,139,182; May 11; Gaz. vol. 214; p. 553.
Axle parts, Connection of. E. Bugatti. No. 1,140,496; May 25; Gaz. vol. 214; p. 1086.
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Bag. E. B. Stimpson. No. 1,138,699; May 11; Gaz. vol. 214; p. 380.
Bag-filling machine. A. M. Bates. No. 1,138,618; May 11; Gaz. vol. 214; p. 351.
Bag-filling machine. A. M. Bates. No. 1,140,867; May 25; Gaz. vol. 214; p. 1214.
Bag-frame fastener. B. vom Eigen. No. 1,139,826; May 18; Gaz. vol. 214; p. 814.
Bag-lock. R. A. Teel. No. 1,141,022; May 25; Gaz. vol. 214; p. 1267.
Bag-turning machine. D. F. Stein. No. 1,140,627; May 25; Gaz. vol. 214; p. 1131.
Baggage-rack. F. E. Howard. No. 1,139,868; May 18; Gaz. vol. 214; p. 829.
Bagging-machine. A. C. Sargent. No. 1,140,484; May 25; Gaz. vol. 214; p. 1082.
Bait, Artificial. E. D. Myers. No. 1,140,279; May 18; Gaz. vol. 214; p. 972.
Bait-receptacle. E. Spitzler. No. 1,140,625; May 25; Gaz. vol. 214; p. 1131.
Baker's double tin stick lady-lock pans. N. Huth. No. 1,139,037; May 11; Gaz. vol. 214; p. 502.
Baking-pan. C. E. Pierce. No. 1,139,445; May 11; Gaz. vol. 214; p. 644.
Baling-press. C. B. W. Smith. No. 1,141,088; May 25; Gaz. vol. 214; p. 1289.
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Ball inflater and sealer. A. A. Green. No. 1,138,749; May 11; Gaz. vol. 214; p. 398.
Ball-mill. F. E. Marcy. No. 1,137,878; May 4; Gaz. vol. 214; p. 54.
Banana food and making same. H. E. Plunkett. No. 1,138,888; May 11; Gaz. vol. 214; p. 448.
Bananas, Preserving. H. E. Plunkett. No. 1,138,887; May 11; Gaz. vol. 214; p. 448.
Band-brake. R. M. Brown. No. 1,141,035; May 25; Gaz. vol. 214; p. 1271.
Band-brake. C. R. Shannon. No. 1,141,014; May 25; Gaz. vol. 214; p. 1264.
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Band-knife. C. J. Holscher. No. 1,137,973; May 4; Gaz. vol. 214; p. 88.
Bandage, Therapeutical. A. A. Morek and H. Goldblatt. No. 1,138,579; May 4; Gaz. vol. 214; p. 298.
Bank, Coin-actuating savings-. F. Wright. No. 1,139,006; May 11; Gaz. vol. 214; p. 491.
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Bar or tube, Machine for turning and cutting off pieces from a. G. B. Taylor. No. 1,140,208; May 18; Gaz. vol. 214; p. 948.
Barber's chair. J. R. Hibbets. No. 1,138,477; May 4; Gaz. vol. 214; p. 266.
Bark-rossing machine. W. E. Beadle. No. 1,139,012; May 11; Gaz. vol. 214; p. 493.
Barrel-rack. R. L. Wright. No. 1,139,007; May 11; Gaz. vol. 214; p. 491.
Barrels, Removable cover for metal. A. Schroeder. No. 1,140,535; May 25; Gaz. vol. 214; p. 1101.
Base-exchanging substances, Manufacturing. R. Gans. No. 1,140,262; May 18; Gaz. vol. 214; p. 967.
Basket-bottoms, Machine for heading and boring. W. H. Pridgen. No. 1,139,223; May 11; Gaz. vol. 214; p. 566.
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Bath-tub, Collapsible. A. E. Presson. No. 1,139,576; May 18; Gaz. vol. 214; p. 725.
Bath-tub spraying attachment. H. Barnes. No. 1,140,347; May 25; Gaz. vol. 214; p. 1031.
Batteries, Electrolyte for secondary. W. Morrison. No. 1,139,214; May 11; Gaz. vol. 214; p. 563.
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Bearers. E. W. Cooper. No. 1,140,254; May 18; Gaz. vol. 214; p. 964.
Bearing. H. E. Williams. No. 1,138,822; May 11; Gaz. vol. 214; p. 425.
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Bearing for rotating cylinder-engines, Connecting-rod. W. E. Minue. No. 1,138,001; May 4; Gaz. vol. 214; p. 97.

Bearing-housing. S. M. Kintner. No. 1,138,666; May 11; Gaz. vol. 214; p. 368.
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Beating-engine. E. A. Jones. No. 1,140,830; May 25; Gaz. vol. 214; p. 1200.
Beauty-mark. F. Frankel. No. 1,140,975; May 25; Gaz. vol. 214; p. 1253.
Bed and divan or sofa, Convertible. J. Luppino. No. 1,139,785; May 18; Gaz. vol. 214; p. 799.
Bed construction, Spring-. C. D. and P. D. Miller and J. O. Gadberry. No. 1,139,050; May 11; Gaz. vol. 214; p. 506.
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Bed-spring tightener. H. La Roe. No. 1,138,491; May 4; Gaz. vol. 214; p. 270.
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Beet pulling and topping machine. P. Pederson and G. T. Gilkerson. No. 1,140,847; May 25; Gaz. vol. 214; p. 1205.
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Belt-shifting device. J. Smedman. No. 1,140,774; May 25; Gaz. vol. 214; p. 1179.
Belt, Waist-. L. Rechtschaffen. No. 1,139,310; May 11; Gaz. vol. 214; p. 594.
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Bench-leg. G. W. Bailey. No. 1,141,083; May 25; Gaz. vol. 214; p. 1287.
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Billiard-cue-tip fastener. L. Clarielli. No. 1,139,340; May 11; Gaz. vol. 214; p. 605.
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Boat-motor. O. W. Hult. No. 1,138,294; May 4; Gaz. vol. 214; p. 200.
Boats, Holding and disengaging gear for ships'. H. W. Gavin. No. 1,139,116; May 11; Gaz. vol. 214; p. 530.
Bobbin. G. H. Benjamin. No. 1,140,352; May 25; Gaz. vol. 214; p. 1033.
Bobbin. W. E. Bennett. No. 1,140,868; May 25; Gaz. vol. 214; p. 1214.
Bobbin-holder. I. Snow. No. 1,140,203; May 18; Gaz. vol. 214; p. 947.
Bobbin-holder for spoolers. O. L. Owen. No. 1,137,889; May 4; Gaz. vol. 214; p. 58.
Boiler: *See*—
Egg-boiler. Steam-boiler.
Locomotive-boiler.
Boiler-casing. I. M. Hope. No. 1,139,527; May 18; Gaz. vol. 214; p. 708.
Boiler-cleaning tool. M. O. Lewis. No. 1,140,047; May 18; Gaz. vol. 214; p. 893.
Boiler fire-box, Locomotive-. G. M. Bean. No. 1,138,066; May 4; Gaz. vol. 214; p. 122.
Boiler fire-box, Locomotive-. J. P. Neff. No. 1,138,058; May 4; Gaz. vol. 214; p. 118.
Boiler fire-box, Locomotive-. L. Parish. No. 1,138,062; May 4; Gaz. vol. 214; p. 120.
Boiler-flue-cleaner system. F. W. Linaker. No. 1,138,301; May 4; Gaz. vol. 214; p. 202.
Boiler-flues, Means for preserving. J. P. Danbrook. No. 1,139,350; May 11; Gaz. vol. 214; p. 608.
Boiler for utilising waste heat. C. J. Bacon. No. 1,138,346; May 4; Gaz. vol. 214; p. 220.
Boiler furnace, Locomotive-. F. F. Gaines. No. 1,138,060; May 4; Gaz. vol. 214; p. 119.
Boiler furnace, Locomotive-. F. F. Gaines. No. 1,138,061; May 4; Gaz. vol. 214; p. 120.
Boiler furnace, Locomotive-. C. B. Moore. No. 1,138,032; May 4; Gaz. vol. 214; p. 108.
Boiler furnace, Locomotive-. C. B. Moore. No. 1,138,034; May 4; Gaz. vol. 214; p. 108.
Boiler furnace, Locomotive-. C. B. Moore. No. 1,138,035; May 4; Gaz. vol. 214; p. 109.
Boiler furnace, Locomotive-. C. B. Moore. No. 1,138,038; May 4; Gaz. vol. 214; p. 110.
Boiler furnace, Locomotive-. C. B. Moore. No. 1,138,039; May 4; Gaz. vol. 214; p. 110.
Boiler furnace, Locomotive-. C. B. Moore. No. 1,138,040; May 4; Gaz. vol. 214; p. 111.
Boiler furnace, Locomotive-. C. B. Moore. No. 1,138,042; May 4; Gaz. vol. 214; p. 111.
Boiler furnace, Locomotive-. C. B. Moore. No. 1,138,046; May 4; Gaz. vol. 214; p. 113.
Boiler furnace, Locomotive-. C. B. Moore. No. 1,138,047; May 4; Gaz. vol. 214; p. 113.
Boiler furnace, Locomotive-. C. B. Moore. No. 1,138,048; May 4; Gaz. vol. 214; p. 114.
Boiler furnace, Locomotive-. C. B. Moore. No. 1,138,049; May 4; Gaz. vol. 214; p. 114.
Boiler furnace, Locomotive-. C. B. Moore. No. 1,138,050; May 4; Gaz. vol. 214; p. 115.
Boiler furnace, Locomotive-. C. B. Moore. No. 1,138,051; May 4; Gaz. vol. 214; p. 115.
Boiler furnace, Locomotive-. C. B. Moore. No. 1,138,052; May 4; Gaz. vol. 214; p. 115.
Boiler furnace, Locomotive-. J. P. Neff. No. 1,138,031; May 4; Gaz. vol. 214; p. 107.
Boiler furnace, Locomotive-. J. P. Neff. No. 1,138,055; May 4; Gaz. vol. 214; p. 117.
Boiler furnace, Locomotive-. J. P. Neff. No. 1,138,068; May 4; Gaz. vol. 214; p. 123.
Boiler furnace, Locomotive-. L. Parish. No. 1,138,056; May 4; Gaz. vol. 214; p. 117.
Boiler furnace, Steam-. C. E. Googins. No. 1,140,674; May 25; Gaz. vol. 214; p. 1146.
Boiler-scale, Removing. G. Jayne. No. 1,139,873; May 18; Gaz. vol. 214; p. 831.
Boilers and the like, Automatic feed-regulator for steam-. E. Hannemann. No. 1,140,742; May 25; Gaz. vol. 214; p. 1169.
Boilers, Apparatus for cleaning smoke-tubes of. C. H. Shepler and J. W. Shearer. No. 1,139,911; May 18; Gaz. vol. 214; p. 844.
Boilers, Apparatus for cleaning smoke-tubes of marine and other multitubular. C. H. Shepler and J. W. Shearer. No. 1,139,910; May 18; Gaz. vol. 214; p. 844.
Boilers, Water-circulator for steam-. E. W. Bray. No. 1,139,334; May 11; Gaz. vol. 214; p. 603.
Bolster. A. M. Jostad. No. 1,140,831; May 25; Gaz. vol. 214; p. 1200.
Bolster, Collapsible bed-. F. W. Hahn. No. 1,139,719; May 18; Gaz. vol. 214; p. 777.
Bolster-stake holder. C. Faust. No. 1,139,655; May 18; Gaz. vol. 214; p. 754.
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Expansion-bolt. Locking-bolt.
Lock-bolt. Screw-bolt.
Bolt-head and making same. L. H. Brightman. No. 1,139,479; May 18; Gaz. vol. 214; p. 692.
Book, Record-. F. W. Davis. No. 1,138,636; May 11; Gaz. vol. 214; p. 357.

Bookbinder. P. Nyboe. No. 1,139,057; May 11; Gaz. vol. 214; p. 509.
Boot, Skating and hockey. A. L. Johnson. No. 1,139,530; May 18; Gaz. vol. 214; p. 709.
Boots and shoes, Apparatus for use in the manufacture of. P. J. Wentworth. No. 1,138,584; May 4; Gaz. vol. 214; p. 300.
Boots and shoes, Machine for use in the manufacture of. A. Bates; No. 1,140,349; May 25; Gaz. vol. 214; p. 1031.
Boots and shoes, Making and incorporating stiffening-pieces in the forepart of. R. P. Elliott. No. 1,137,850; May 4; Gaz. vol. 214; p. 44.
Boots and shoes, Manufacture of. P. J. Wentworth. No. 1,138,585; May 4; Gaz. vol. 214; p. 300.
Boots and shoes. Production of. G. B. Binette. No. 1,138,444; May 4; Gaz. vol. 214; p. 255.
Boots and shoes without lasting, Manufacturing welted. E. Langenohl. No. 1,138,961; May 11; Gaz. vol. 214; p. 473.
Boring bars and the like, Adjustable cutter for. T. E. Pattinson. No. 1,140,201; May 18; Gaz. vol. 214; p. 966.
Boring holes in the earth, Machine for. J. V. Gudmond-Höyer. No. 1,139,275; May 11; Gaz. vol. 214; p. 583.
Bottle and jar closure. O. A. J. Becher. No. 1,140,103; May 18; Gaz. vol. 214; p. 914.
Bottle, Antirefillable. H. Schultz. No. 1,138,419; May 4; Gaz. vol. 214; p. 246.
Bottle-cap. G. W. Mitchell. No. 1,139,792; May 18; Gaz. vol. 214; p. 802.
Bottle-capping machine. J. J. Gaynor. No. 1,140,031; May 18; Gaz. vol. 214; p. 887.
Bottle-capping machines, Seal-feed for. C. Winter. No. 1,140,090; May 18; Gaz. vol. 214; p. 908.
Bottle-capping mechanism. T. L. Valerius and O. Larsen. No. 1,139,931; May 18; Gaz. vol. 214; p. 851.
Bottle-closure. G. Feczko. No. 1,139,508; May 18; Gaz. vol. 214; p. 702.
Bottle-filling machine. S. B. Goff. No. 1,140,032; May 18; Gaz. vol. 214; p. 887.
Bottle, Hermetically-sealed. C. M. Kline. No. 1,138,704; May 11; Gaz. vol. 214; p. 404.
Bottle, Non-refillable. C. A. Ford. No. 1,140,452; May 25; Gaz. vol. 214; p. 1069.
Bottle, Non-refillable. T. F. Frewen. No. 1,140,588; May 25; Gaz. vol. 214; p. 1117.
Bottle, Non-refillable. H. L. Hart. No. 1,139,280; May 11; Gaz. vol. 214; p. 585.
Bottle, Non-refillable. J. J. A. Miller. No. 1,138,682; May 11; Gaz. vol. 214; p. 374.
Bottle, Non-refillable. F. J. Pardini. No. 1,139,900; May 18; Gaz. vol. 214; p. 840.
Bottle, Non-refillable. G. F. Pinsuti. No. 1,139,446; May 11; Gaz. vol. 214; p. 644.
Bottle-shipping case. G. G. Roberts. No. 1,139,582; May 18; Gaz. vol. 214; p. 728.
Bottle-stopper. G. F. Pinsuti. No. 1,140,062; May 18; Gaz. vol. 214; p. 899.
Bottle-stopper. A. H. Wirz. No. 1,140,928; May 25; Gaz. vol. 214; p. 1237.
Bottles and other round vessels, Automatic machine for blowing seamless. G. Lefort. No. 1,139,545; May 18; Gaz. vol. 214; p. 714.
Bottles, Device for preventing the fraudulent refilling of. F. C. Herbert. No. 1,140,744; May 25; Gaz. vol. 214; p. 1170.
Bottles, Machine for applying crowns to. R. F. Jungnickel. No. 1,140,832; May 25; Gaz. vol. 214; p. 1200.
Bottles, Safety-lock for milk-. L. Levitt and I. Rendelman. No. 1,139,780; May 18; Gaz. vol. 214; p. 797.
Bowling-alley accessory. M. Seitz. No. 1,139,588; May 18; Gaz. vol. 214; p. 729.
Bowling-balls and the like, Grip for. A. J. Watson. No. 1,139,827; May 18; Gaz. vol. 214; p. 814.
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Boiler fire-box. Outlet-box.
Display-box. Paper box.
Folding box. Pull or control box.
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Mail-box. Signal-box.
Mail and parcel-post box. Sound-box.
Match-box. Tobacco-box.
Medicine-box. Water-meter box.
Metal box. Window and veranda box.
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Box, M. M. King. No. 1,138,384; May 4; Gaz. vol. 214; p. 234.
Box, P. Richard. No. 1,139,801; May 18; Gaz. vol. 214; p. 805.
Box-blank machine. H. Brown. No. 1,140,297; May 18; Gaz. vol. 214; p. 978.
Box-cover fastener. F. D. Van Valkenburgh. No. 1,139,316; May 11; Gaz. vol. 214; p. 596.
Box-flanging machine. S. T. Brown. No. 1,138,351; May 4; Gaz. vol. 214; p. 222.
Box-marking machine. J. N. Shotwell. No. 1,138,985; May 11; Gaz. vol. 214; p. 482.
Box-opener. R. H. Baker. No. 1,140,016; May 18; Gaz. vol. 214; p. 882.
Box-press. S. G. Smith. No. 1,140,410; May 25; Gaz. vol. 214; p. 1054.
Bracelet. A. Hadley. No. 1,140,677; May 25; Gaz. vol. 214; p. 1147.
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Braiding-machine carrier. G. F. McCahey. No. 1,138,231; May 4; Gaz. vol. 214; p. 177.
Braiding-machine carrier. A. Paquette. No. 1,138,243; May 4; Gaz. vol. 214; p. 182.
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Brake attachment to vehicles. J. Holliday. No. 1,138,871; May 11; Gaz. vol. 214; p. 443.
Brake-beam. J. M. Rohlfing. No. 1,140,614; May 25; Gaz. vol. 214; p. 1126.
Brake-beam. J. M. Rohlfing. No. 1,140,615; May 25; Gaz. vol. 214; p. 1127.
Brake-beam. L. L. Whitney. No. 1,140,080; May 18; Gaz. vol. 214; p. 908.
Brake-beam strut. J. M. Rohlfing. No. 1,140,616; May 25; Gaz. vol. 214; p. 1127.
Brake for trolley-drums and the like. A. C. Johnston. No. 1,140,829; May 25; Gaz. vol. 214; p. 1200.
Brake-hanger, Non-chattering. A. Wallace. No. 1,138,430; May 4; Gaz. vol. 214; p. 250.
Brake-head. A. H. Peycke. No. 1,140,058; May 18; Gaz. vol. 214; p. 897.
Brake-head, Adjustable. W. C. Hedgcock. No. 1,140,035; May 18; Gaz. vol. 214; p. 880.
Brake-head, Adjustable. A. H. Peycke. No. 1,140,057; May 18; Gaz. vol. 214; p. 896.
Brake mechanism for maximum-traction trucks. J. A. Brooks. No. 1,138,842; May 11; Gaz. vol. 214; p. 433.
Brake mechanism, Windlass. H. Hanson. No. 1,140,374; May 25; Gaz. vol. 214; p. 1041.
Brake-rigging, Locomotive. F. E. Schwentler. No. 1,138,253; May 4; Gaz. vol. 214; p. 185.
Brake-rigging, Radial-truck. F. E. Schwenter. No. 1,138,252; May 4; Gaz. vol. 214; p. 185.
Brake-shoe. C. D. Pettis. No. 1,138,784; May 11; Gaz. vol. 214; p. 412.
Brake-shoe. W. L. Post. No. 1,139,798; May 18; Gaz. vol. 214; p. 804.
Brake wheel, Hand-. F. J. Harrison and W. J. Knox. No. 1,139,676; May 18; Gaz. vol. 214; p. 762.
Bread-wrapping machine. C. Mettler. No. 1,140,522; May 25; Gaz. vol. 214; p. 1095.
Bread-wrapping machine and machine for similar purposes. R. J. Seator. No. 1,140,620; May 25; Gaz. vol. 214; p. 1128.
Brick and supporting means therefor, Arch-. J. P. Neff. No. 1,138,036; May 4; Gaz. vol. 214; p. 109.
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Brick-forming die. L. Warstler and P. F. Loichot. No. 1,140,640; May 25; Gaz. vol. 214; p. 1135.
Brick-kiln. K. W. Klose. No. 1,138,387; May 4; Gaz. vol. 214; p. 235.
Brick-kiln construction. K. W. Klose. No. 1,138,386; May 4; Gaz. vol. 214; p. 235.
Brick-kilns, Air-box of. J. C. Boss. No. 1,138,532; May 4; Gaz. vol. 214; p. 283.
Brick-pallet. A. J. and F. F. Bentley. No. 1,140,104; May 18; Gaz. vol. 214; p. 914.
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Bridge, Vertical-lift. T. Rall. No. 1,140,316; May 18; Gaz. vol. 214; p. 985.
Bridle-bit. C. H. Falls. No. 1,140,971; May 25; Gaz. vol. 214; p. 1252.
Broiler, Gas-. W. J. Serrill. No. 1,140,338; May 18; Gaz. vol. 214; p. 993.
Bronzing or metal-surfacing machine. E. Weinglirtner and W. Friess. No. 1,140,642; May 25; Gaz. vol. 214; p. 1136.
Brooder. H. M. Opseth. No. 1,139,459; May 11; Gaz. vol. 214; p. 649.
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Broom attachment. E. G. Skroder. No. 1,140,490; May 25; Gaz. vol. 214; p. 1084.
Broom-bridle. R. W. Morgan. No. 1,139,701; May 18; Gaz. vol. 214; p. 771.
Broom-cover. M. Miller. No. 1,138,305; May 4; Gaz. vol. 214; p. 204.
Broom-guard. S. G. Wilson. No. 1,139,320; May 11; Gaz. vol. 214; p. 597.

Broom-head. O. T. Cook. No. 1,138,934; May 11; Gaz. vol. 214; p. 464.
Broom rack and holder. F. F. Ward. No. 1,140,422; May 25; Gaz. vol. 214; p. 1058.
Brush. C. A. Fogarty. No. 1,138,466; May 4; Gaz. vol. 214; p. 262.
Brush. R. Haldenwang, Jr. No. 1,139,517; May 18; Gaz. vol. 214; p. 705.
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Brush-making. A. E. Silander. No. 1,137,915; May 4; Gaz. vol. 214; p. 67.
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Buckle. J. Chary. No. 1,138,540; May 4; Gaz. vol. 214; p. 286.
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Buffing mechanism. J. F. O'Connor. No. 1,139,709; May 18; Gaz. vol. 214; p. 773.
Builder-motion. E. H. Kristek. No. 1,139,877; May 18; Gaz. vol. 214; p. 832.
Building, Metallic. W. W. Taylor. No. 1,141,021; May 25; Gaz. vol. 214; p. 1267.
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Building-wood and for treating raw logs and trunks, Apparatus for smoothing. A. Svendsen. No. 1,139,383; May 11; Gaz. vol. 214; p. 621.
Bulkhead construction. J. R. Wemlinger. No. 1,137,938; May 4; Gaz. vol. 214; p. 75.
Bundle-tying device. S. C. Burlingame. No. 1,140,246; May 18; Gaz. vol. 214; p. 961.
Buoy, Log-. J. H. Johnson. No. 1,139,123; May 11; Gaz. vol. 214; p. 532.
Burglar-alarm lock. J. Baltes. No. 1,139,152; May 11; Gaz. vol. 214; p. 548.
Burglar or fire alarm. G. Spitz. No. 1,140,081; May 18; Gaz. vol. 214; p. 905.
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Burner. L. S. Chadwick. No. 1,138,729; May 11; Gaz. vol. 214; p. 391.
Bust-supporter. G. B. Smith. No. 1,139,448; May 11; Gaz. vol. 214; p. 645.
Butcher-block cleaner. W. E. De Graff. No. 1,139,500; May 18; Gaz. vol. 214; p. 699.
Button. M. Koppelman. No. 1,139,425; May 11; Gaz. vol. 214; p. 637.
Button. E. O. Presby. No. 1,137,789; May 4; Gaz. vol. 214; p. 24.
Button. C. S. Winn. No. 1,141,090; Mar. 25; Gaz. vol. 214; p. 1290.
Button and buttonhole marking device. W. S. Fredland. No. 1,140,304; May 18; Gaz. vol. 214; p. 981.
Button, Separable. C. G. Sjöberg. No. 1,137,918; May 4; Gaz. vol. 214; p. 68.
Buttons, Safety device for cuff-. H. R. Rogalsky. No. 1,139,137; May 11; Gaz. vol. 214; p. 537.
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Cabinet and winding machine, Ribbon. L. W. Worsham and J. A. Hautier. No. 1,138,598; May 4; Gaz. vol. 214; p. 305.
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Cable-armor joint. W. P. Traver and L. F. Theis. No. 1,137,931; May 4; Gaz. vol. 214; p. 72.
Cable-grip, Automatic-releasing. R. M. Dixon. No. 1,138,197; May 4; Gaz. vol. 214; p. 167.
Calculating-machine. F. C. Rinsche. No. 1,138,792; May 11; Gaz. vol. 214; p. 415.
Calculator. C. A. Mellicke. No. 1,140,838; May 25; Gaz. vol. 214; p. 1202.
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Calipers. J. A. Miller. No. 1,137,885; May 4; Gaz. vol. 214; p. 56.
Calipers, Micrometer-. C. Beschke. No. 1,140,611; May 25; Gaz. vol. 214; p. 1126.
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Can-body-compressing mechanism. J. A. Gray. No. 1,140,676; May 25; Gaz. vol. 214; p. 1147.
Can-closure. D. B. Tamagno. No. 1,140,295; May 18; Gaz. vol. 214; p. 977.
Can-filling machine. H. C. Smart. No. 1,138,511; May 4; Gaz. vol. 214; p. 276.
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Cans to closing-machines, Device for feeding filled. C. H. Englar. No. 1,140,807; May 25; Gaz. vol. 214; p. 1190.
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Candy-making machine. E. R. Knott. No. 1,138,576; May 4; Gaz. vol. 214; p. 297.
Candy-pulling machine. E. F. McCarthy and E. W. Wilson. No. 1,139,786; May 18; Gaz. vol. 214; p. 799.
Cane-stripper. F. Doze. No. 1,139,756; May 18; Gaz. vol. 214; p. 789.
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Car adjustable side bearing, Railway-. C. B. Patch. No. 1,140,184; May 18; Gaz. vol. 214; p. 941.
Car, Ballast-. J. O. Neikirk. No. 1,138,006; May 4; Gaz. vol. 214; p. 99.
Car-body. F. E. Pixley. No. 1,138,309; May 4; Gaz. vol. 214; p. 205.
Car, Box-. A. Stucki. No. 1,137,922; May 4; Gaz. vol. 214; p. 70.
Car construction, Antitelescopic. H. M. Pflager. No. 1,140,059; May 18; Gaz. vol. 214; p. 897.
Car, Convertible. P. M. Beard. No. 1,140,654; May 25; Gaz. vol. 214; p. 1140.
Car-coupling. H. E. Doerr. No. 1,138,198; May 4; Gaz. vol. 214; p. 167.
Car-coupling. I. Gause. No. 1,140,976; May 25; Gaz. vol. 214; p. 1253.
Car-coupling. M. B. Giberson. No. 1,138,650; May 11; Gaz. vol. 214; p. 362.
Car-coupling. L. Olcsvary. No. 1,139,217; May 11; Gaz. vol. 214; p. 564.
Car-coupling. M. Sable. No. 1,138,321; May 4; Gaz. vol. 214; p. 211.
Car-coupling. T. H. Simpson. No. 1,138,695; May 11; Gaz. vol. 214; p. 379.
Car-coupling. G. J. Willett. No. 1,140,223; May 18; Gaz. vol. 214; p. 953.
Car-coupling, Automatic. C. H. Stark. No. 1,139,382; May 11; Gaz. vol. 214; p. 621.
Car door, Grain-. C. W. and A. Bash. No. 1,140,100; May 18; Gaz. vol. 214; p. 913.
Car door, Grain-. G. H. Fahrenbruch. No. 1,137,747; May 4; Gaz. vol. 214; p. 9.
Car-door operating and locking device. H. Pitts. No. 1,139,904; May 18; Gaz. vol. 214; p. 842.
Car-door-operating mechanism, Dump-. A. Campbell. No. 1,140,111; May 18; Gaz. vol. 214; p. 916.
Car draft-rigging, Railway-. G. A. Johnson. No. 1,139,875; May 18; Gaz. vol. 214; p. 831.
Car draft-rigging, Railway-. G. A. Johnson. No. 1,140,162; May 18; Gaz. vol. 214; p. 938.
Car draft-rigging, Railway-. W. H. Miner. No. 1,139,791; May 18; Gaz. vol. 214; p. 801.
Car draft-rigging, Railway-. J. F. O'Connor. No. 1,138,138; May 4; Gaz. vol. 214; p. 148.
Car draft-rigging, Railway-. J. F. O'Connor. No. 1,138,139; May 4; Gaz. vol. 214; p. 148.
Car draft-rigging, Railway-. J. F. O'Connor. No. 1,139,058; May 11; Gaz. vol. 214; p. 509.
Car draft-rigging, Railway-. J. F. O'Connor. No. 1,139,060; May 11; Gaz. vol. 214; p. 510.
Car draft-rigging, Railway-. C. B. Patch. No. 1,137,891; May 4; Gaz. vol. 214; p. 58.
Car drive system, Motor-. H. F. Hitner. No. 1,139,678; May 18; Gaz. vol. 214; p. 763.

Car, Dumping-. A. E. Ostrander and F. H. Gibbs. No. 1,140,606; May 25; Gaz. vol. 214; p. 1124.
Car end construction, Tank-. H. E. Parsons. No. 1,140,707; May 25; Gaz. vol. 214; p. 1156.
Car end framing. O. Hochberg. No. 1,140,630; May 25; Gaz. vol. 214; p. 1148.
Car heating and ventilating system. E. Varner. No. 1,139,089; May 11; Gaz. vol. 214; p. 519.
Car, Ore-. W. C. Carr. No. 1,140,497; May 25; Gaz. vol. 214; p. 1087.
Car-platforms, Auxiliary step for. J. R. Kunzelman. No. 1,141,064; May 25; Gaz. vol. 214; p. 1281.
Car platforms, Trap-door for railway-. E. F. Chaffee. No. 1,140,951; May 25; Gaz. vol. 214; p. 1244.
Car replacer and derailer. B. L. Zeagler and C. L. Strykes. No. 1,140,938; May 25; Gaz. vol. 214; p. 1239.
Car-roof. D. W. Hawksworth. No. 1,137,968; May 4; Gaz. vol. 214; p. 87.
Car-roof, Metal. C. C. Murphy. No. 1,140,842; May 25; Gaz. vol. 214; p. 1204.
Car-roof, Metal. W. P. Murphy. No. 1,139,363; May 11; Gaz. vol. 214; p. 614.
Car-seats, Series of reversible. S. Smith. No. 1,138,420; May 4; Gaz. vol. 214; p. 247.
Car side bearing, Railway-. E. A. Le Beau. No. 1,139,543; May 18; Gaz. vol. 214; p. 713.
Car-step, Extension. S. J. Swanson. No. 1,138,998; May 11; Gaz. vol. 214; p. 488.
Car-step, Extension. B. Underwood. No. 1,140,547; May 25; Gaz. vol. 214; p. 1104.
Car-step, Folding double. H. G. Rego. No. 1,138,975; May 11; Gaz. vol. 214; p. 478.
Car, Tank-. G. P. Binder. No. 1,140,656; May 25; Gaz. vol. 214; p. 1140.
Car, Transfer-. J. A. Gunn. No. 1,139,411; May 11; Gaz. vol. 214; p. 631.
Car-uncoupling device. A. E. Ostrander. No. 1,140,706; May 25; Gaz. vol. 214; p. 1156.
Car-underframe. E. B. Bergendahl. No. 1,141,084; May 25; Gaz. vol. 214; p. 1287.
Car underframe, Railway-. J. F. O'Connor. No. 1,139,059; May 11; Gaz. vol. 214; p. 510.
Car-underframe structure. J. C. Barber. No. 1,138,615; May 11; Gaz. vol. 214; p. 350.
Car-unloading machine. M. B. Jennings. No. 1,140,461; May 25; Gaz. vol. 214; p. 1072.
Cars, Adjustable side bearing for railway-. J. F. O'Connor. No. 1,139,061; May 11; Gaz. vol. 214; p. 510.
Cars and similar structures, Trap-door for railway-. R. T. Axe. No. 1,138,070; May 4; Gaz. vol. 214; p. 123.
Cars, Combined folding door-step and seat for. C. G. Weatherly. No. 1,140,641; May 25; Gaz. vol. 214; p. 1136.
Cars, Reicing. P. H. Tobin. No. 1,140,215; May 18; Gaz. vol. 214; p. 951.
Cars, Revolving turret for motor-. J. W. De Cou. No. 1,140,364; May 25; Gaz. vol. 214; p. 1037.
Cars, Sanding device for street-. W. A. Sault. No. 1,140,618; May 25; Gaz. vol. 214; p. 1128.
Cars, Upper buffing mechanism for railway-. L. J. Berg. No. 1,137,734; May 4; Gaz. vol. 214; p. 5.
Carbid-container, Multiple. A. L. Hansen. No. 1,137,755; May 4; Gaz. vol. 214; p. 12.
Carbureter. G. A. F. Ahlberg. No. 1,138,829; May 11; Gaz. vol. 214; p. 428.
Carbureter. H. W. Allen. No. 1,140,232; May 18; Gaz. vol. 214; p. 956.
Carbureter. J. M. Dayton. No. 1,139,851; May 18; Gaz. vol. 214; p. 822.
Carbureter. F. G. Folberth. No. 1,138,204; May 4; Gaz. vol. 214; p. 169.
Carbureter. C. B. Kent. No. 1,141,085; May 25; Gaz. vol. 214; p. 1288.
Carbureter. C. B. Kent. No. 1,141,086; May 25; Gaz. vol. 214; p. 1288.
Carbureter. H. L. Rakestraw. No. 1,140,064; May 18; Gaz. vol. 214; p. 899.
Carbureter. W. F. Rothe. No. 1,140,071; May 18; Gaz. vol. 214; p. 902.
Carbureter. R. H. Smillie. No. 1,139,914; May 18; Gaz. vol. 214; p. 845.
Carbureter. N. C. Stamps. No. 1,140,721; May 25; Gaz. vol. 214; p. 1160.
Carbureter. N. C. Stamps. No. 1,140,722; May 25; Gaz. vol. 214; p. 1161.
Carbureter for explosive-engines. W. J. Rubesky. No. 1,140,000; May 18; Gaz. vol. 214; p. 876.
Carbureter for internal-combustion engines. E. F. Abernethy. No. 1,137,727; May 4; Gaz. vol. 214; p. 3.
Carbureter or vaporiser for explosive-engines. E. F. Abernethy. No. 1,137,728; May 4; Gaz. vol. 214; p. 3.
Carbureters, Proportioning device especially designed for. H. N. Motsinger. No. 1,140,525; May 25; Gaz. vol. 214; p. 1097.
Carding-machine feeding mechanism. J. B. Howe. No. 1,138,567; May 4; Gaz. vol. 214; p. 294.
Cards, Musical educational game-. J. A. Bostwick. No. 1,139,098; May 11; Gaz. vol. 214; p. 523.
Cards, Playing-. J. L. Brister. No. 1,138,534; May 4; Gaz. vol. 214; p. 284.
Cards, Playing-. A. W. Browne. No. 1,140,441; May 25; Gaz. vol. 214; p. 1064.
Carlines, Bracing for. R. G. Ellis. No. 1,140,668; May 25; Gaz. vol. 214; p. 1144.
Carpenter's combination-tool. D. J. Annis. No. 1,138,722; May 11; Gaz. vol. 214; p. 389.
Carpet-sweeping appliance. C. L. Baender. No. 1,138,437; May 4; Gaz. vol. 214; p. 252.
Carpets and the like, Device or means for the protection of. N. Harrop. No. 1,140,264; May 18; Gaz. vol. 214; p. 967.
Carriage-coupling. W. Atkins. No. 1,140,863; May 25; Gaz. vol. 214; p. 1212.
Carrier: *See*—
Article-carrier.
Braiding-machine carrier.
Cartridge-box carrier.
Coin-carrier.
Cuspidor-carrier.
Disinfectant pencil-carrier.
Egg-carrier.
Endless carrier.
Fragile-article carrier.
Ice-cream-cone carrier.
Infant's combination-carrier.
Carrying device. A. S. Reifsnyder. No. 1,141,005; May 25; Gaz. vol. 214; p. 1262.
Cart, Ash-. H. Mecking. No. 1,139,307; May 11; Gaz. vol. 214; p. 593.
Carton. S. Goodkind. No. 1,138,469; May 4; Gaz. vol. 214; p. 263.
Carton-blank. G. A. Robinson. No. 1,140,288; May 18; Gaz. vol. 214; p. 975.
Carton weighing and filling machine. C. Redd. No. 1,140,915; May 25; Gaz. vol. 214; p. 1231.
Cartridge-belt. F. R. Batchelder. No. 1,139,629; May 18; Gaz. vol. 214; p. 744.
Cartridge belt or carrier. V. H. Jennings. No. 1,139,874; May 18; Gaz. vol. 214; p. 831.
Cartridge-box carrier. J. P. Lenharth. No. 1,139,779; May 18; Gaz. vol. 214; p. 797.
Cartridge, Hydraulic. D. V. Sickman. No. 1,141,077; May 25; Gaz. vol. 214; p. 1285.
Carving-machine. E. R. Lochman. No. 1,138,126; May 4; Gaz. vol. 214; p. 144.
Case: *See*—
Bottle-shipping case.
Cigarette-case.
Display-case.
Ever-case.
Shipping-case.
Show-case.
Case-hardening compound. A. O. Blaich. No. 1,138,073; May 4; Gaz. vol. 214; p. 124.
Cash and autographic register. W. A. Chryst. No. 1,140,443; May 25; Gaz. vol. 214; p. 1065.
Cash-register. W. H. Muzzy. No. 1,140,476; May 25; Gaz. vol. 214; p. 1079.
Cash-register, Multiple-counter. F. Skerl. No. 1,137,919; May 4; Gaz. vol. 214; p. 68.
Caster. E. H. Costlow. No. 1,139,105; May 11; Gaz. vol. 214; p. 526.
Caster. J. M. Webster. No. 1,138,818; May 11; Gaz. vol. 214; p. 424.
Caster for furniture, Ball-bearing. M. D. Gray. No. 1,139,271; May 11; Gaz. vol. 214; p. 582.
Casting-machine, Continuous. G. Mellen. No. 1,139,887; May 18; Gaz. vol. 214; p. 836.
Casting-machine guide, Continuous-. G. Mellen. No. 1,139,889; May 18; Gaz. vol. 214; p. 836.
Casting-machines, Automatic metal-feed for continuous. G. Mellen. No. 1,139,888; May 18; Gaz. vol. 214; p. 836.
Casting, Method of and apparatus for continuous. G. Mellen. No. 1,139,885; May 18; Gaz. vol. 214; p. 835.
Casting-pot. G. Mellen. No. 1,139,886; May 18; Gaz. vol. 214; p. 835.
Castings, Apparatus for producing. C. H. Bierbaum. No. 1,138,443; May 4; Gaz. vol. 214; p. 254.
Catalyzers, Preparing. A. J. Spieler. No. 1,139,592; May 18; Gaz. vol. 214; p. 731.
Catch and release, Magazine. G. Hammond. No. 1,138,378; May 4; Gaz. vol. 214; p. 232.
Catch, Automatic. P. T. Roeder. No. 1,140,852; May 25; Gaz. vol. 214; p. 1208.
Cattle-guard. B. Estes and E. B. Robinson. No. 1,138,548; May 4; Gaz. vol. 214; p. 289.
Cattle-guard. J. Lawrie and D. F. Brazel. No. 1,140,171; May 18; Gaz. vol. 214; p. 937.
Cedar chest. E. H. Lane. No. 1,138,578; May 4; Gaz. vol. 214; p. 298.
Cell-case filler. F. O. Wels. No. 1,140,643; May 25; Gaz. vol. 214; p. 1137.
Cellulose or lignocellulose material, Hydrated. J. A. De Cew. No. 1,141,799; May 25; Gaz. vol. 214; p. 1188.
Cement and fibrous material, Apparatus for mixing. J. Nellettil. No. 1,138,397; May 4; Gaz. vol. 214; p. 239.
Cement-applying machine. W. F. Lautenschlager. No. 1,140,602; May 25; Gaz. vol. 214; p. 1122.
Cement-molds, Collapsible core for. J. Vickers. No. 1,137,932; May 4; Gaz. vol. 214; p. 73.
Cementing-machine. H. Holden. No. 1,138,565; May 4; Gaz. vol. 214; p. 294.
Cementing-machine. C. P. Stanbon. No. 1,138,903; May 11; Gaz. vol. 214; p. 453.
Centering device. A. Crook. No. 1,140,123; May 18; Gaz. vol. 214; p. 921.
Centrifugal machines, Suspension and driving means for. M. H. Barker. No. 1,139,473; May 18; Gaz. vol. 214; p. 680.
Cereal former and toaster. O. M. Graves. No. 1,138,747; May 11; Gaz. vol. 214; p. 398.
Certificates and the like, Machine for making and recording. W. L. Ohmer and J. E. McAllister. No. 1,139,567; May 18; Gaz. vol. 214; p. 722.

Chain, Jewelry-. D. J. Pearce. No. 1,138,405; May 4; Gaz. vol. 214; p. 242.
Chain-links, Making. J. M. Dodge. No. 1,139,019; May 11; Gaz. vol. 214; p. 456.
Chain, Multiplate drive-. F. L. Morse. No. 1,138,236; May 4; Gaz. vol. 214; p. 179.
Chain, Multiplate power-. F. L. Morse. No. 1,138,237; May 4; Gaz. vol. 214; p. 179.
Chain, Sprocket-. E. S. Leaycraft. No. 1,138,766; May 11; Gaz. vol. 214; p. 404.
Chair: *See*—
Barber's chair.
Dental chair.
Chair. C. A. Johnson. No. 1,139,183; May 11; Gaz. vol. 214; p. 554.
Chair attachment, Barber's-. T. J. Kolocotronis. No. 1,137,764; May 4; Gaz. vol. 214; p. 15.
Chair attachment, Rocking-. H. M. Ziegler and E. L. Wirtz. No. 1,138,270; May 4; Gaz. vol. 214; p. 191.
Chair fan attachment, Rocking-. W. L. Kline. No. 1,139,299; May 11; Gaz. vol. 214; p. 591.
Chairs and like furniture, Apparatus for the manufacture of seats and backs for. E. E. Peck. No. 1,140,846; May 25; Gaz. vol. 214; p. 1205.
Change-maker, Automatic. G. W. Hollingsworth. No. 1,140,458; May 25; Gaz. vol. 214; p. 1071.
Charcoal, Apparatus for making wood-. L. Félizat. No. 1,137,852; May 4; Gaz. vol. 214; p. 45.
Chart, Educational. C. E. Birch. No. 1,139,329; May 11; Gaz. vol. 214; p. 601.
Check-controlled apparatus. W. L. Hamilton. No. 1,138,589; May 4; Gaz. vol. 214; p. 302.
Cheese-cover. C. M. Hank. No. 1,140,153; May 18; Gaz. vol. 214; p. 930.
Cheese-cutter. F. P. Dunn. No. 1,139,405; May 11; Gaz. vol. 214; p. 629.
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Child's seat. C. H. Wolfert. No. 1,140,730; May 25; Gaz. vol. 214; p. 1164.
Chimney. M. Carney. No. 1,138,726; May 11; Gaz. vol. 214; p. 390.
Chimney-motor. E. R. Lewis and L. Salzinger. No. 1,140,990; May 25; Gaz. vol. 214; p. 1258.
Chin-support for dead persons. J. H. Gilbaugh. No. 1,139,670; May 18; Gaz. vol. 214; p. 760.
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Chuck. H. Boring. No. 1,140,567; May 25; Gaz. vol. 214; p. 1110.
Chuck. T. J. Fegley and G. O. Leopold. No. 1,138,465; May 4; Gaz. vol. 214; p. 262.
Chuck, Tap-leading. D. C. Klausmeyer. No. 1,140,905; May 25; Gaz. vol. 214; p. 1228.
Chute. O. E. West. No. 1,138,431; May 4; Gaz. vol. 214; p. 250.
Chute-loader and hog-holder, Folding stock. R. L. Dillinger. No. 1,139,755; May 18; Gaz. vol. 214; p. 788.
Cigarette-case. S. Holtzclaw and D. H. Garnett. No. 1,140,305; May 18; Gaz. vol. 214; p. 981.
Cigarette-package. A. F. Hetherington. No. 1,138,382; May 4; Gaz. vol. 214; p. 233.
Cigarette-supporter. H. Saart. No. 1,140,072; May 18; Gaz. vol. 214; p. 903.
Cigars, Apparatus for curing or artificially aging. G. E. Goldstein. No. 1,137,752; May 4; Gaz. vol. 214; p. 11.
Cigars, Machine for applying bands to. W. C. Briggs. No. 1,138,275; May 4; Gaz. vol. 214; p. 193.
Circuit-breaker. R. B. Macnish. No. 1,139,789; May 18; Gaz. vol. 214; p. 800.
Circuit-breaker. W. M. Scott. No. 1,138,800; May 11; Gaz. vol. 214; p. 418.
Circuit-breaker, Centrifugal. C. F. Rumold. No. 1,137,908; May 4; Gaz. vol. 214; p. 64.
Circuit-breaker, Time-limit. H. A. Steen. No. 1,140,007; May 18; Gaz. vol. 214; p. 879.
Circuit-closer for electric-lighted levels or plumbs. A. R. Jones. No. 1,139,295; May 11; Gaz. vol. 214; p. 590.
Circuit-controller. L. L. Tatum. No. 1,138,808; May 11; Gaz. vol. 214; p. 420.
Circuit device, Separable. C. J. Klein. No. 1,139,687; May 18; Gaz. vol. 214; p. 765.
Circuit-interrupter. W. Cooner. No. 1,140,957; May 25; Gaz. vol. 214; p. 1246.
Circuit-interrupter. H. P. Davis and C. Aalborg. No. 1,140,961; May 25; Gaz. vol. 214; p. 1248.
Circuit-interrupter. F. W. Harris. No. 1,138,754; May 11; Gaz. vol. 214; p. 400.
Circulating system. N. M. La Porte. No. 1,138,962; May 11; Gaz. vol. 214; p. 474.
Circulation-control system. E. F. Edgecombe, Jr. No. 1,138,854; May 11; Gaz. vol. 214; p. 437.
Circulator. F. W. Gulbert. No. 1,138,864; May 11; Gaz. vol. 214; p. 441.
Clamp: *See*—
Clutch-clamp.
Door-clamp.
Insulator-clamp.
Music-clamp.
Rail-clamp.
Rod-clamp.
Tape-clamp.
Clamp. C. A. Taylor. No. 1,138,905; May 11; Gaz. vol. 214; p. 454.
Clamp. J. J. Tracy. No. 1,140,632; May 25; Gaz. vol. 214; p. 1133.
Classifier and dewaterer. W. J. Boudwin. No. 1,140,793; May 25; Gaz. vol. 214; p. 1186.
Classifier, Rotary. C. O. Michaelsen. No. 1,140,700; May 25; Gaz. vol. 214; p. 1154.
Cleaner: *See*—
Blower-cleaner.
Butcher-block cleaner.
Coal-cleaner.
Ear and finger-nail cleaner.
Gin-saw cleaner.
Pneumatic suction-cleaner.
Rake-cleaner.
Vacuum-cleaner.
Well-cleaner.
Window-cleaner.
Cleaners, Combined hydraulic motor and vacuum-creating means for. W. A. Doble. No. 1,138,852; May 11; Gaz. vol. 214; p. 436.
Cleaning device. J. A. De Vito. No. 1,139,352; May 11; Gaz. vol. 214; p. 609.
Cleaning-tool. J. M. Stabel. No. 1,139,736; May 18; Gaz. vol. 214; p. 782.
Cleat, Traction-wheel. F. I. and B. P. Remy and A. Berger. No. 1,140,067; May 18; Gaz. vol. 214; p. 901.
Clevis. J. W. Hartley. No. 1,138,867; May 11; Gaz. vol. 214; p. 441.
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Clothes-line clip.
Collar-clip.
Locking-clip.
Paper-binding clip.
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Clock, Electrically-driven. T. Rushton. No. 1,138,979; May 11; Gaz. vol. 214; p. 480.
Clock mechanism, Time-. A. L. Sohm. No. 1,138,989; May 11; Gaz. vol. 214; p. 483.
Clock, Self-winding. G. H. Myrick. No. 1,140,477; May 25; Gaz. vol. 214; p. 1079.
Clock, Striking, lever or marine. W. E. Porter. No. 1,139,369; May 11; Gaz. vol. 214; p. 616.
Clocks, Calendar attachment for. W. W. Bass. No. 1,139,474; May 18; Gaz. vol. 214; p. 690.
Clog, Dancing-. C. D. Neely. No. 1,138,684; May 11; Gaz. vol. 214; p. 375.
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Closures, Means for shifting. A. S. Nichols. No. 1,138,137; May 4; Gaz. vol. 214; p. 147.
Cloth-board with cushioning edges. W. T. Wilson. No. 1,138,434; May 4; Gaz. vol. 214; p. 251.
Cloth-boards, Mechanism for making. A. M. Chaffee. No. 1,138,537; May 4; Gaz. vol. 214; p. 285.
Cloth-cutting machine, Electric. N. Komow. No. 1,141,087; May 25; Gaz. vol. 214; p. 1289.
Cloth-winding machine. D. Gessner. No. 1,139,513; May 18; Gaz. vol. 214; p. 704.
Clothes-drier. M. W. Walker. No. 1,139,605; May 18; Gaz. vol. 214; p. 735.
Clothes-line clip. E. W. Salkeld. No. 1,139,908; May 18; Gaz. vol. 214; p. 843.
Clothes-line holder. J. Baeumle. No. 1,140,787; May 25; Gaz. vol. 214; p. 1183.
Clothes-line holder. T. H. Seifert. No. 1,137,796; May 4; Gaz. vol. 214; p. 25.
Clothes-line reel and stretcher. D. T. Timberlake. No. 1,138,810; May 11; Gaz. vol. 214; p. 421.
Clothes-line support. C. Koffer. No. 1,140,986; May 25; Gaz. vol. 214; p. 1256.
Clothes-wringer, Safety. N. B. Hutton. No. 1,139,122; May 11; Gaz. vol. 214; p. 532.
Clutch. J. D. Ens. No. 1,140,867; May 25; Gaz. vol. 214; p. 1038.
Clutch. J. Hribar. No. 1,139,977; May 18; Gaz. vol. 214; p. 867.
Clutch-clamp. F. Starr. No. 1,139,595; May 18; Gaz. vol. 214; p. 731.
Clutch for hoisting-engines. G. P. Wern. No. 1,137,989; May 4; Gaz. vol. 214; p. 75.
Clutch for reversing-gearing. H. A. Tuttle. No. 1,140,346; May 18; Gaz. vol. 214; p. 996.
Clutch for winding-engines or other machines. W. F. Smeeth. No. 1,140,293; May 18; Gaz. vol. 214; p. 976.
Clutch, Friction-. O. M. Alexander. No. 1,139,249; May 11; Gaz. vol. 214; p. 574.
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Clutch, Friction-. G. Fornaca. No. 1,138,099; May 4; Gaz. vol. 214; p. 133.
Clutch, Friction-. A. Jaeckel. No. 1,139,765; May 18; Gaz. vol. 214; p. 792.
Clutch, Magnetic. A. W. Whitcomb. No. 1,139,005; May 11; Gaz. vol. 214; p. 490.
Clutch mechanism. J. J. Doidge. No. 1,140,885; May 25; Gaz. vol. 214; p. 1221.
Clutch mechanism. B. M. W. Hanson. No. 1,140,826; May 18; Gaz. vol. 214; p. 989.
Clutch, Positive. G. A. Peterson. No. 1,139,443; May 11; Gaz. vol. 214; p. 643.
Clutch, Ratchet-. J. H. Smith. No. 1,140,199; May 18; Gaz. vol. 214; p. 946.
Coal breaker and scraper. J. P. Considine. No. 1,138,627; May 11; Gaz. vol. 214; p. 354.
Coal-cleaner. J. R. Montgomery. No. 1,140,999; May 25; Gaz. vol. 214; p. 1261.
Coal into a marketable fuel, Converting fine. J. Evans. No. 1,140,735; May 25; Gaz. vol. 214; p. 1166.
Coaster-brake. M. H. Johnson. No. 1,138,956; May 11; Gaz. vol. 214; p. 471.
Coaster-brake. G. W. Van Deren. No. 1,139,145; May 11; Gaz. vol. 214; p. 540.
Coaster-brake. O. C. Watkins. No. 1,139,090; May 11; Gaz. vol. 214; p. 520.

Coaster, Convertible. E. Ellerman. No. 1,140,805; May 25; Gaz. vol. 214; p. 1190.
Coating porous substances. J. W. Aylsworth. No. 1,139,470; May 18; Gaz. vol. 214; p. 689.
Coating with fusible material. C. F. Jenkins. No. 1,139,291; May 11; Gaz. vol. 214; p. 588.
Cock, Ball-. J. H. Johnson. No. 1,140,377; May 25; Gaz. vol. 214; p. 1042.
Cock, Ball-. G. B. Moore and A. J. Pratt. No. 1,140,054; May 18; Gaz. vol. 214; p. 895.
Cock, By-pass gas-. J. Elser. No. 1,140,026; May 18; Gaz. vol. 214; p. 885.
Cock, Gas-. J. H. McMurray. No. 1,139,208; May 11; Gaz. vol. 214; p. 562.
Cock, Stop-. J. W. Hays. No. 1,137,969; May 4; Gaz. vol. 214; p. 87.
Cocks, Construction of. R. Bablon. No. 1,140,938; May 25; Gaz. vol. 214; p. 1240.
Coffee-pot. L. Howard. No. 1,139,288; May 11; Gaz. vol. 214; p. 588.
Coffin. G. F. Brown. No. 1,139,254; May 11; Gaz. vol. 214; p. 576.
Coiling device. L. E. Haynes. No. 1,140,980; May 25; Gaz. vol. 214; p. 1254.
Coin-carrier. T. L. Martin. No. 1,138,133; May 4; Gaz. vol. 214; p. 146.
Coin-delivering machine. E. B. Birkenbeuel. No. 1,139,838; May 18; Gaz. vol. 214; p. 818.
Coin-register. W. G. Kirchhoff. No. 1,138,385; May 4; Gaz. vol. 214; p. 234.
Coin tube and tray. F. Vogel. No. 1,139,604; May 18; Gaz. vol. 214; p. 735.
Coke-producing plant. F. Tschudy. No. 1,139,088; May 11; Gaz. vol. 214; p. 519.
Colander. M. J. Herbstreet. No. 1,139,033; May 11; Gaz. vol. 214; p. 501.
Collapsible table for paper-hangers' use. P. Scardino. No. 1,140,073; May 18; Gaz. vol. 214; p. 903.
Collar-clip. L. C. Welchman. No. 1,139,452; May 11; Gaz. vol. 214; p. 646.
Collar-fastener, Triple-hook. F. E. Sprague. No. 1,140,541; May 25; Gaz. vol. 214; p. 1102.
Combining and emulsifying substances, Device for. J. B. Vogelsang. No. 1,140,548; May 25; Gaz. vol. 214; p. 1105.
Combustion apparatus. J. S. Cox. No. 1,140,802; May 25; Gaz. vol. 214; p. 1189.
Compasses. J. Novak. No. 1,140,844; May 25; Gaz. vol. 214; p. 1204.
Compasses and dividers, Combination. T. Chabre. No. 1,140,800; May 25; Gaz. vol. 214; p. 1188.
Composing-machines, Mechanism for removing ribs from the die-cylinders of record-strip. F. Sally. No. 1,140,854; May 25; Gaz. vol. 214; p. 1209.
Compressor, Multistage. A. C. E. Rateau. No. 1,140,065; May 18; Gaz. vol. 214; p. 900.
Computing device. W. I. Webber. No. 1,138,817; May 11; Gaz vol. 214; p. 424.
Computing-machine. H. W. Jones. No. 1,140,684; May 25; Gaz. vol. 214; p. 1149.
Concentrator. C. F. Paige. No. 1,140,764; May 25; Gaz. vol. 214; p. 1176.
Concrete bricks or blocks, Mold for poured. W. D. Moore. No. 1,140,840; May 25; Gaz. vol. 214; p. 1203.
Concrete columns, Apparatus for constructing. H. S. Taft. No. 1,139,384; May 11; Gaz. vol. 214; p. 622.
Concrete floor and ceiling construction, Reinforced-. P. Burchartz. No. 1,140,571; May 25; Gaz. vol. 214; p. 1111.
Concrete form for curbs, walks, &c. A. R. Teters. No. 1,140,776; May 25; Gaz. vol. 214; p. 1179.
Concrete material, Producing uniform density in. C. L. Norton. No. 1,140,703; May 25; Gaz. vol. 214; p. 1155.
Concrete-mixers, Actuating means for dumping. J. M. Bruns. No. 1,140,298; May 18; Gaz. vol. 214; p. 978.
Concrete piles in the ground, Apparatus for making. G. Feder. No. 1,140,303; May 18; Gaz. vol. 214; p. 980.
Concrete post, Reinforced-. J. P. Kimble. No. 1,137,982; May 4; Gaz. vol. 214; p. 91.
Concrete reinforcement. N. E. Clark. No. 1,138,932; May 11; Gaz. vol. 214; p. 463.
Concrete slabs or plates, Machine for making. C. L. Norton. No. 1,140,702; May 25; Gaz. vol. 214; p. 1155.
Concrete slabs or plates, Machine for making. C. L. Norton. No. 1,140,704; May 25; Gaz. vol. 214; p. 1155.
Concrete structures, Apparatus for forming. A. S. Merriett. No. 1,137,998; May 4; Gaz. vol. 214; p. 96.
Concrete-tunnel form. A. A. Brewer. No. 1,139,335; May 11; Gaz. vol. 214; p. 603.
Concrete work, Device for spacing and supporting reinforcing-bars in. L. N. Lukens. No. 1,139,987; May 18; Gaz. vol. 214; p. 871.
Condenser, Steam-. H. A. Duc, Jr. No. 1,139,505; May 18; Gaz. vol. 214; p. 701.
Condenser, Steam-. G. Peterson. No. 1,139,135; May 11; Gaz. vol. 214; p. 537.
Condenser, Surface. L. D. Lovekin. No. 1,139,547; May 18; Gaz. vol. 214; p. 715.
Condensing apparatus. M. Leblanc. No. 1,140,172; May 18; Gaz. vol. 214; p. 937.
Condiment-holder. G. M. Bright. No. 1,139,841; May 18; Gaz. vol. 214; p. 819.
Confectionery centers of fruit products or other foodstuffs, Depositing into chocolate. W. Boyd. No. 1,138,929; May 11; Gaz. vol. 214; p. 462.
Connecting device, Resilient. J. P. Wilson. No. 1,139,319; May 11; Gaz. vol. 214; p. 597.
Connector. W. A. Bonnell. No. 1,138,074; May 4; Gaz. vol. 214; p. 124.
Conserving organic substances. H. Goslar. No. 1,138,602; May 4; Gaz. vol. 214; p. 307.
Contactor. F. L. Eager. No. 1,138,853; May 11; Gaz. vol. 214; p. 437.
Container. A. M. Hulbert. No. 1,138,954; May 11; Gaz. vol. 214; p. 471.
Continuous-burning furnace for burning enamel ware. C. Bickmeier and D. A. Liston. No. 1,140,105; May 18; Gaz. vol. 214; p. 914.
Control system. A. J. Hall. No. 1,140,901; May 25; Gaz. vol. 214; p. 1226.
Control system, Geometrically-progressive. C. J. Henschel and C. Messick. No. 1,139,972; May 18; Gaz. vol. 214; p. 865.
Convertible bench. O. F. Malmberg. No. 1,139,693; May 18; Gaz. vol. 214; p. 767.
Conveyer. E. L. Gale, Jr. No. 1,138,100; May 4; Gaz. vol. 214; p. 134.
Conveyer for metal rods. J. R. George. No. 1,139,027; May 11; Gaz. vol. 214; p. 499.
Conveyer, Swinging. J. N. Kallor. No. 1,137,979; May 4; Gaz. vol. 214; p. 90.
Cooker, Automatic. O. E. Vance and P. S. Baker. No. 1,139,032; May 18; Gaz. vol. 214; p. 851.
Cooking oil-bearing material, Method of and apparatus for. A. W. French. No. 1,140,808; May 25; Gaz. vol. 214; p. 1191.
Cooking-receptacle. V. T. Taylor. No. 1,141,020; May 25; Gaz. vol. 214; p. 1267.
Cooler. V. V. Pittman. No. 1,138,505; May 4; Gaz. vol. 214; p. 274.
Copper from a sulfate solution, Extracting. N. V. Hybinette. No. 1,140,682; May 25; Gaz. vol. 214; p. 1148.
Copying device. W. Bauersfeld. No. 1,138,347; May 4; Gaz. vol. 214; p. 220.
Cord-lead. S. Heyman. No. 1,138,476; May 4; Gaz. vol. 214; p. 266.
Core for use in molds and forms. J. G. Chalfant and H. G. Haun. No. 1,140,499; May 25; Gaz. vol. 214; p. 1087.
Core-retaining device. M. D. Kuhlke. No. 1,140,045; May 18; Gaz. vol. 214; p. 892.
Cores, Making collapsible. P. Bacher. No. 1,139,325; May 11; Gaz. vol. 214; p. 599.
Cork-extractor. J. H. A. Stapley. No. 1,140,082; May 18; Gaz. vol. 214; p. 905.
Cork, Mold for forming blocks of. F. R. Metz and E. Hornstein. No. 1,139,699; May 18; Gaz. vol. 214; p. 770.
Corn-cutter. F. Fournier. No. 1,139,856; May 18; Gaz. vol. 214; p. 824.
Corn header, Kafir-. J. W. Hoover. No. 1,138,953; May 11; Gaz. vol. 214; p. 470.
Corn-shelling machine. C. P. Oeth. No. 1,138,779; May 11; Gaz. vol. 214; p. 409.
Cornet. M. J. Kalashen. No. 1,139,297; May 11; Gaz. vol. 214; p. 590.
Cornucopia-holder. J. Lindberg. No. 1,139,128; May 11; Gaz. vol. 214; p. 534.
Corrugated pipe. F. N. Holmquist. No. 1,140,981; May 25; Gaz. vol. 214; p. 1254.
Corset, Life-saving. P. F. Leitner. No. 1,139,043; May 11; Gaz. vol. 214; p. 504.
Corset, Reinforced. F. G. McDermott. No. 1,140,691; May 25; Gaz. vol. 214; p. 1152.
Corset, Surgical. H. A. Prince. No. 1,137,899; May 4; Gaz. vol. 214; p. 61.
Cotton-boll picker. D. Hewitt. No. 1,138,952; May 11; Gaz. vol. 214; p. 470.
Cotton-chopper. J. P. Findley. No. 1,140,144; May 18; Gaz. vol. 214; p. 928.
Cotton-huller. J. C. Conrad. No. 1,139,345; May 11; Gaz. vol. 214; p. 607.
Cotton-loader. A. Newell. No. 1,138,007; May 4; Gaz. vol. 214; p. 99.
Cotton-picker. L. H. Creekmore. No. 1,139,492; May 18; Gaz. vol. 214; p. 696.
Cotton-picker's knee-rest. P. Prince. No. 1,138,973; May 11; Gaz. vol. 214; p. 478.
Couch and bed, Combined. C. Pessarra. No. 1,139,442; May 11; Gaz. vol. 214; p. 643.
Counter-molding machine. R. A. Lancey. No. 1,138,123; May 4; Gaz. vol. 214; p. 142.
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Carriage-coupling.
Flume-joint coupling.
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Hose-coupling.
Pipe-coupling.
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Coupling. C. W. Beaufort. No. 1,138,072; May 4; Gaz. vol. 214; p. 124.
Coupling. J. B. Elliott. No. 1,138,946; May 11; Gaz. vol. 214; p. 468.
Coupling-lock. E. P. Kinne. No. 1,140,166; May 18; Gaz. vol. 214; p. 935.

Covering surfaces. J. P. Boulton. No. 1,138,928; May 11; Gaz. vol. 214; p. 461.
Cow-tail holder. E. Quick. No. 1,140,186; May 18; Gaz. vol. 214; p. 942.
Cradle, Folding. L. Rakowsky. No. 1,138,247; May 4; Gaz. vol. 214; p. 183.
Crane and other hoisting apparatus. A. Wilson and J. Robson. No. 1,139,944; May 18; Gaz. vol. 214; p. 855.
Crane, Sluing. F. Smulders. No. 1,139,915; May 18; Gaz. vol. 214; p. 846.
Crane, Traveling. H. Shoemaker. No. 1,140,076; May 18; Gaz. vol. 214; p. 903.
Crate, Bottle-. G. Klenk. No. 1,139,535; May 18; Gaz. vol. 214; p. 711.
Crate, Egg-. T. H. Gibbon. No. 1,139,669; May 18; Gaz. vol. 214; p. 759.
Crate, Egg-. E. L. Heninger and D. Reed, Jr. No. 1,138,475; May 4; Gaz. vol. 214; p. 265.
Crate, Folding shipping-. J. O. Engle. No. 1,138,096; May 4; Gaz. vol. 214; p. 132.
Crate or box, Folding. A. Von Schluembach. No. 1,138,814; May 11; Gaz. vol. 214; p. 422.
Crate, Poultry-. W. R. White. No. 1,138,918; May 11; Gaz. vol. 214; p. 458.
Crate, Shipping-. C. A. Agar. No. 1,140,231; May 18; Gaz. vol. 214; p. 956.
Crib, Baby-. H. H. Bugele. No. 1,138,451; May 4; Gaz. vol. 214; p. 257.
Crib, Child's. R. Bradshaw. No. 1,140,439; May 25; Gaz. vol. 214; p. 1064.
Crocheted article and producing the same. F. Mahnken and L. L. Van Nice. No. 1,139,989; May 18; Gaz. vol. 214; p. 871.
Cross-tie. J. F. Carpenter. No. 1,138,080; May 4; Gaz. vol. 214; p. 127.
Crucible and like furnace. A. C. Ionides, Jr. No. 1,138,482; May 4; Gaz. vol. 214; p. 268.
Crucible-furnace. E. Hallgren. No. 1,138,866; May 11; Gaz. vol. 214; p. 441.
Cruller-cutter. A. Verstraete. No. 1,140,219; May 18; Gaz. vol. 214; p. 952.
Crushing-mill. J. D. Millar. No. 1,139,790; May 18; Gaz. vol. 214; p. 801.
Cryptograph. B. M. Des Jardins. No. 1,138,851; May 11; Gaz. vol. 214; p. 436.
Cue-rack and the like. F. C. Hobbs. No. 1,141,060; May 25; Gaz. vol. 214; p. 1280.
Cultivator. J. B. Bartholomew. No. 1,138,925; May 11; Gaz. vol. 214; p. 460.
Cultivator. F. E. Davis. No. 1,138,635; May 11; Gaz. vol. 214; p. 357.
Cultivator. J. E. Evans. No. 1,140,970; May 25; Gaz. vol. 214; p. 1251.
Cultivator. W. P. Harper. No. 1,139,118; May 11; Gaz. vol. 214; p. 531.
Cultivator. S. D. Poole. No. 1,140,767; May 25; Gaz. vol. 214; p. 1176.
Cultivator, Adjustable-frame. F. Beasley. No. 1,140,019; May 18; Gaz. vol. 214; p. 882.
Cultivator and drag, Combined. H. Steinfort. No. 1,138,024; May 4; Gaz. vol. 214; p. 104.
Cultivator or plow attachment. W. W. E. Boyer. No. 1,139,840; May 18; Gaz. vol. 214; p. 819.
Cultivator, Two-row. L. E. Waterman. No. 1,137,935; May 4; Gaz. vol. 214; p. 74.
Culvert, Sheet-metal. J. H. Dean. No. 1,140,362; May 25; Gaz. vol. 214; p. 1036.
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Cup-holder. A. R. Hussey. No. 1,138,758; May 11; Gaz. vol. 214; p. 402.
Curbs, Form for making. F. W. Eschen. No. 1,138,740; May 11; Gaz. vol. 214; p. 395.
Current-diverter. T. D. Robinson. No. 1,140,317; May 18; Gaz. vol. 214; p. 985.
Current machine, Direct-. C. W. Girvin. No. 1,139,203; May 11; Gaz. vol. 214; p. 560.
Currents, System for producing high-tension. C. I. Zimmerman. No. 1,139,023; May 18; Gaz. vol. 214; p. 742.
Curtain and shade holder, Window. J. H. Linn. No. 1,138,493; May 4; Gaz. vol. 214; p. 271.
Curtain, Combined transom and door. E. J. Croft. No. 1,140,665; May 25; Gaz. vol. 214; p. 1144.
Curtain-holder. S. B. Walker. No. 1,139,451; May 11; Gaz. vol. 214; p. 646.
Curtain-pole. A. and A. Schmalz. No. 1,140,074; May 18; Gaz. vol. 214; p. 903.
Curtain-pole support. J. W. Cordingley. No. 1,140,255; May 18; Gaz. vol. 214; p. 964.
Curtain-rod, Double-spring adjustable. G. A. Buckley. No. 1,140,570; May 25; Gaz. vol. 214; p. 1111.
Curtain-support. G. M. Weitzel. No. 1,138,336; May 4; Gaz. vol. 214; p. 217.
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Cushion-seat. F. J. Folli. No. 1,140,973; May 25; Gaz. vol. 214; p. 1252.
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Cushion-wheel. E. H. Schur. No. 1,140,771; May 25; Gaz. vol. 214; p. 1178.
Cuspidor-carrier. E. Ruafeldt. No. 1,137,909; May 4; Gaz. vol. 214; p. 65.
Cuspidor-handling device. J. G. MacRae. No. 1,138,131; May 4; Gaz. vol. 214; p. 145.
Cut-off, Automatic. A. A. Cummings. No. 1,140,666; May 25; Gaz. vol. 214; p. 1144.
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Cutter. C. A. Schmitt. No. 1,140,402; May 25; Gaz. vol. 214; p. 1052.
Cutter-head. E. H. Waugh. No. 1,137,937; May 4; Gaz. vol. 214; p. 75.
Cutter-head. E. H. Waugh. No. 1,138,816; May 11; Gaz. vol. 214; p. 423.
Cutting apparatus. G. Hansen. No. 1,139,179; May 11; Gaz. vol. 214; p. 552.
Cutting implement. A. O. Brigance. No. 1,138,076; May 4; Gaz. vol. 214; p. 125.
Cutting mechanism. F. G. Feeley. No. 1,138,369; May 4; Gaz. vol. 214; p. 229.
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Cycle and saddle therefor, Motor-. D. S. Troxel. No. 1,140,724; May 25; Gaz. vol. 214; p. 1162.
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Cycle side-car frame, Motor-. R. F. Rogers. No. 1,140,069; May 18; Gaz. vol. 214; p. 901.
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Damper. L. L. Brown and C. H. Patek. No. 1,140,871; May 25; Gaz. vol. 214; p. 1215.
Damping-machine. W. S. Eaton. No. 1,138,095; May 4; Gaz. vol. 214; p. 132.
Dandy-roll. J. R. Sinclair. No. 1,140,856; May 25; Gaz. vol. 214; p. 1210.
Dehorner. D. E. Weaver. No. 1,141,025; May 25; Gaz. vol. 214; p. 1268.
Delinking. O. C. Winestock. No. 1,138,596; May 4; Gaz. vol. 214; p. 304.
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Demand apparatus. J. T. Dempster. No. 1,139,169; May 11; Gaz. vol. 214; p. 548.
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Demand-indicator. W. E. Porter. No. 1,138,786; May 11; Gaz. vol. 214; p. 412.
Dental bridge and crown. F. H. Skinner. No. 1,140,537; May 25; Gaz. vol. 214; p. 1102.
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Dental bridge attachment, Removable. F. H. Skinner. No. 1,140,539; May 25; Gaz. vol. 214; p. 1102.
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Dental instrument. H. M. Crawford. No. 1,138,631; May 11; Gaz. vol. 214; p. 355.
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Dental tool. C. M. Carr. No. 1,138,355; May 4; Gaz. vol. 214; p. 224.
Dental tray. T. L. Riley. No. 1,139,581; May 18; Gaz. vol. 214; p. 727.
Dental work, Impression-holder for. A. L. Dearth. No. 1,140,363; May 25; Gaz. vol. 214; p. 1036.
Deodorizing device. W. H. Sartain. No. 1,140,533; May 25; Gaz. vol. 214; p. 1101.
Depurator and surgical instrument, Combined. W. T. McFarland. No. 1,138,881; May 11; Gaz. vol. 214; p. 446.
Desiccating apparatus. J. C. MacLachlan. No. 1,138,769; May 11; Gaz. vol. 214; p. 405.
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Desks and the like, Locking device for. C. T. Westmoreland. No. 1,139,940; May 18; Gaz. vol. 214; p. 854.
Detachable-blade knife. M. Parker. No. 1,139,796; May 18; Gaz. vol. 214; p. 804.
Detachable handle. S. A. Duncan. No. 1,140,967; May 25; Gaz. vol. 214; p. 1250.

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Detergent for scouring and dyeing and making same, Alkali-free. J. Barrington. No. 1,139,326; May 11; Gaz. vol. 214; p. 599.
Detinning tin scrap, boxes, or the like, Apparatus for. H. Goldschmidt. No. 1,139,410; May 11; Gaz. vol. 214; p. 631.
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Die-stock. L. B. Curtis. No. 1,140,504; May 25; Gaz. vol. 214; p. 1089.
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Diesel engine, Two-cycle multiple-expansion. G. C. Davison. No. 1,138,938; May 11; Gaz. vol. 214; p. 465.
Dipping and drying articles, Machine for. D. W. Roberts. No. 1,140,068; May 18; Gaz. vol. 214; p. 901.
Direction-indicator, Vehicle. W. W. Bell. No. 1,138,834; May 11; Gaz. vol. 214; p. 430.
Dish, Nut-. J. M. Harper. No. 1,138,288; May 4; Gaz. vol. 214; p. 198.
Dish-rag holder. R. C. Odoms. No. 1,139,565; May 18; Gaz. vol. 214; p. 721.
Dish-washer. C. H. Baer. No. 1,140,561; May 25; Gaz. vol. 214; p. 1109.
Dish-washer. F. H. Stevens. No. 1,139,313; May 11; Gaz. vol. 214; p. 595.
Dish-washing device. A. Kraut. No. 1,139,426; May 11; Gaz. vol. 214; p. 637.
Dishes and similar articles, Cleaning-machine for. E. A. Fagerlund and A. A. H. Börjeson. No. 1,139,406; May 11; Gaz. vol. 214; p. 629.
Disinfectant pencil-carrier. L. C. Witkowski. No. 1,138,524; May 4; Gaz. vol. 214; p. 280.
Disinfecting apparatus. J. R. Van Dyne. No. 1,139,740; May 18; Gaz. vol. 214; p. 783.
Dispensing apparatus. W. A. Hilliard. No. 1,138,291; May 4; Gaz. vol. 214; p. 199.
Dispensing device. L. Fisenne. No. 1,139,758; May 18; Gaz. vol. 214; p. 789.
Display-box for writing-paper. W. A. Pike. No. 1,140,061; May 18; Gaz. vol. 214; p. 898.
Display-cabinet. J. B. Tinsley. No. 1,138,913; May 11; Gaz. vol. 214; p. 456.
Display-case. A. W. Gussner and L. H. Carufel. No. 1,138,753; May 11; Gaz. vol. 214; p. 400.
Display device. O. G. Rust. No. 1,140,318; May 18; Gaz. vol. 214; p. 986.
Display-fixture for garments. A. Gustafson. No. 1,138,601; May 4; Gaz. vol. 214; p. 306.
Display-rack. E. S. Frazier and A. Gustafson. No. 1,138,600; May 4; Gaz. vol. 214; p. 306.
Display-rack. O. F. Kime. No. 1,138,488; May 4; Gaz. vol. 214; p. 270.
Display-rack. J. Reichert. No. 1,137,900; May 4; Gaz. vol. 214; p. 61.
Display-rack. C. F. Stewart. No. 1,138,995; May 11; Gaz. vol. 214; p. 486.
Display-rack for whips. C. H. Baumeister. No. 1,140,102; May 18; Gaz. vol. 214; p. 913.
Display-rack. Rotary. A. Vanderveld. (Reissue.) No. 13,920; May 18; Gaz. vol. 214; p. 998.
Display-stand. C. C. Vosburgh. No. 1,138,265; May 4; Gaz. vol. 214; p. 190.
Display-stand, Vender's. E. Brumhoff. No. 1,137,947; May 4; Gaz. vol. 214; p. 79.
Displaying apparatus, Card-. D. W. Barrow. No. 1,140,348; May 25; Gaz. vol. 214; p. 1031.
Distributing-machine, Portable. W. H. Calnan. No. 1,139,844; May 18; Gaz. vol. 214; p. 820.
Distributing mechanism. J. H. Michener, Jr. No. 1,139,133; May 11; Gaz. vol. 214; p. 536.
Distribution system. J. L. Johnson. No. 1,139,294; May 11; Gaz. vol. 214; p. 589.
Distribution system. R. B. Williamson. No. 1,138,341; May 4; Gaz. vol. 214; p. 219.
Ditching-machine. G. A. Kimbrel. No. 1,139,190; May 11; Gaz. vol. 214; p. 556.
Ditching-machine. S. L. Moser. No. 1,138,002; May 4; Gaz. vol. 214; p. 97.
Diving apparatus. W. J. Rogers. No. 1,139,805; May 18; Gaz. vol. 214; p. 806.
Doffer-ring. O. L. Taft. No. 1,137,925; May 4; Gaz. vol. 214; p. 71.
Doll. L. V. Aronson. No. 1,140,651; May 25; Gaz. vol. 214; p. 1139.
Doll, puppet, toy figure, and the like, Stuffed. L. Rees. No. 1,139,997; May 18; Gaz. vol. 214; p. 875.
Doll's head. M. E. Radick. No. 1,138,412; May 4; Gaz. vol. 214; p. 244.
Door-catch. F. E. Howard. No. 1,139,869; May 18; Gaz. vol. 214; p. 830.
Door-check. D. E. Willard. No. 1,140,320; May 18; Gaz. vol. 214; p. 986.
Door-check. D. E. Willard. No. 1,140,321; May 18; Gaz. vol. 214; p. 987.
Door check and closer. W. K. Henry. No. 1,140,457; May 25; Gaz. vol. 214; p. 1070.
Door-clamp. R. H. Crowel. No. 1,138,088; May 4; Gaz. vol. 214; p. 130.
Door closer and check, Combined. H. G. Voight. No. 1,140,637; May 25; Gaz. vol. 214; p. 1184.
Door-hanger means. A. B. Springstead. No. 1,139,734; May 18; Gaz. vol. 214; p. 781.
Door-mat. H. J. Otis. No. 1,139,899; May 18; Gaz. vol. 214; p. 840.
Door, Metal. S. G. Bolin. No. 1,138,837; May 11; Gaz. vol. 214; p. 431.
Door, Metal. P. E. Hegstedt. No. 1,138,105; May 4; Gaz. vol. 214; p. 135.
Door operating and locking device. H. Pitts. No. 1,139,905; May 18; Gaz. vol. 214; p. 842.
Door-operating device. L. C. Norton. No. 1,138,306; May 4; Gaz. vol. 214; p. 204.
Dowel. C. E. Evans. (Reissue.) No. 13,915; May 11; Gaz. vol. 214; p. 653.
Doweling-machine. J. R. Frantz. No. 1,137,854; May 4; Gaz. vol. 214; p. 46.
Downdraft continuous kiln. F. D. Shaw. No. 1,140,719; May 25; Gaz. vol. 214; p. 1160.
Draft-gear. J. R. Cardwell. No. 1,137,951; May 4; Gaz. vol. 214; p. 80.
Draft-gear. C. J. Nash. No. 1,140,311; May 18; Gaz. vol. 214; p. 983.
Draft-gear, Friction. J. M. Rohlfing. No. 1,141,093; May 25; Gaz. vol. 214; p. 1291.
Draft-gear, Friction. J. M. Rohlfing. No. 1,141,094; May 25; Gaz. vol. 214; p. 1292.
Draft-rigging, Machine for testing and registering the action of. W. H. Miner. No. 1,137,999; May 4; Gaz. vol. 214; p. 96.
Draft-rigging mechanism. G. H. Forsyth. No. 1,137,961; May 4; Gaz. vol. 214; p. 84.
Draft-rigging, Single-center-sill. A. Copony. No. 1,137,950; May 4; Gaz. vol. 214; p. 80.
Draft-rigging stop member. W. A. Geiger. No. 1,139,665; May 18; Gaz. vol. 214; p. 758.
Drafting conic sections, Instrument for. J. D. Keppy. No. 1,139,298; May 11; Gaz. vol. 214; p. 590.
Drafting implement, Combination. J. E. Bailey. No. 1,139,746; May 18; Gaz. vol. 214; p. 785.
Drag, Road-. H. M. Davis. No. 1,138,735; May 11; Gaz. vol. 214; p. 394.
Drain. G. J. Dehn. No. 1,139,647; May 18; Gaz. vol. 214; p. 751.
Drain, Land-. A. C. Johnson. No. 1,140,903; May 25; Gaz. vol. 214; p. 1227.
Draw-head and air-coupling, Combined. L. and J. Le Compte. No. 1,140,382; May 25; Gaz. vol. 214; p. 1043.
Drawbridge. H. A. Icke. No. 1,140,984; May 25; Gaz. vol. 214; p. 1255.
Drawbridge circuit-controller. F. Marsellis. No. 1,139,047; May 11; Gaz. vol. 214; p. 506.
Drawing-board attachment. E. E. Barnard. No. 1,139,011; May 11; Gaz. vol. 214; p. 493.
Drier: *See*—
Clothes-drier. Lumber-drier.
Drier. H. P. Coe. No. 1,138,086; May 4; Gaz. vol. 214; p. 129.
Drier. C. E. Geiger. No. 1,139,663; May 18; Gaz. vol. 214; p. 757.
Drier. A. Slaysman, Jr. No. 1,139,815; May 18; Gaz. vol. 214; p. 810.
Drying apparatus and process. W. M. Grosvenor. No. 1,138,751; May 11; Gaz. vol. 214; p. 399.
Drying copra, Apparatus for. C. Pombo and T. del Casal. No. 1,141,003; May 25; Gaz. vol. 214; p. 1262.
Drying-machine feeder. C. E. Geiger. No. 1,139,664; May 18; Gaz. vol. 214; p. 758.
Drill: *See*—
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Drill. B. Kunitz. No. 1,140,988; May 25; Gaz. vol. 214; p. 1257.
Drill. I. Lapidus. No. 1,138,490; May 4; Gaz. vol. 214; p. 270.
Drill attachment. C. Swanberg. No. 1,138,423; May 4; Gaz. vol. 214; p. 248.
Drill-bit making and sharpening machine. S. V. Rawlings. No. 1,140,396; May 25; Gaz. vol. 214; p. 1049.
Drill-operating tool. R. Gabrielsky. No. 1,140,811; May 25; Gaz. vol. 214; p. 1192.
Drill reaming-bit, Prospecting-. W. T. Underwood. No. 1,138,332; May 4; Gaz. vol. 214; p. 215.
Drills, Auxiliary operating attachment for. A. G. McCormack. No. 1,138,767; May 11; Gaz. vol. 214; p. 405.
Drilling machine, Ceiling-. H. G. Carlson. No. 1,137,837; May 4; Gaz. vol. 214; p. 40.
Drilling-rig, Portable. C. D. Randall. No. 1,138,506; May 4; Gaz. vol. 214; p. 274.
Drinking fountain or faucet. A. I. Fischer. No. 1,140,507; May 25; Gaz. vol. 214; p. 1090.
Drinks or other liquids, Apparatus for delivering and mixing. A. J. L. Eckersley. No. 1,140,888; May 25; Gaz. vol. 214; p. 1221.
Drive-chains, Correcting the pitch of. S. D. Locke. No. 1,139,044; May 11; Gaz. vol. 214; p. 505.
Driving mechanism. J. T. Brisson. No. 1,139,634; May 18; Gaz. vol. 214; p. 746.
Driving mechanism. F. H. Van Houten. No. 1,140,319; May 18; Gaz. vol. 214; p. 986.
Driving mechanism, Treadle-operated. G. G. White. No. 1,141,026; May 25; Gaz. vol. 214; p. 1268.

Drum and cymbal beater. G. W. Bowman. No. 1,138,839; May 11; Gaz. vol. 214; p. 432.
Drum for the working of any kind of grain. L. Topf. No. 1,138,331; May 4; Gaz. vol. 214; p. 215.
Dumb-bell. C. T. Day. No. 1,138,459; May 4; Gaz. vol. 214; p. 260.
Duplicating-machine. C. F. Green. No. 1,139,117; May 11; Gaz. vol. 214; p. 530.
Duplicating machine, Stencil-. A. B. Dick. No. 1,140,883; May 25; Gaz. vol. 214; p. 1220.
Dust-cloth holder. W. T. Moss. No. 1,139,561; May 18; Gaz. vol. 214; p. 720.
Dust-pan. W. E. A. Pipher. No. 1,138,504; May 4; Gaz. vol. 214; p. 274.
Dust-pan. H. Zuber. No. 1,141,031; May 25; Gaz. vol. 214; p. 1270.
Duster. M. P. Allen. No. 1,138,922; May 11; Gaz. vol. 214; p. 459.
Dye, Sulfur. B. Jaeckel. No. 1,140,745; May 25; Gaz. vol. 214; p. 1170.
Dyeing-machines, Spreader attachment for collapsible beams for. J. M. Payne. No. 1,140,283; May 18; Gaz. vol. 214; p. 973.
Dyestuffs and making same, Arylamino-anthraquinone. G. Kränzlein, R. Hagenbach, and F. Giloy. No. 1,138,670; May 11; Gaz. vol. 214; p. 370.
Dyestuffs, Arylamino-anthraquinone. G. Kränzlein. No. 1,139,540; May 18; Gaz. vol. 214; p. 713.
Dynamo-driving mechanism. J. L. Creveling. No. 1,139,493; May 18; Gaz. vol. 214; p. 696.
Dynamo, Ignition-. C. T. Mason. No. 1,140,386; May 25; Gaz. vol. 214; p. 1045.
Dynamo, Ignition-. C. T. Mason. No. 1,140,993; May 25; Gaz. vol. 214; p. 1259.
Dynamo-machine, Direct-current. W. Luyken. No. 1,139,201; May 11; Gaz. vol. 214; p. 559.
Ear and finger-nail cleaner. G. J. Metzger. No. 1,138,967; May 11; Gaz. vol. 214; p. 476.
Ear-ring, Hoop. C. F. Nesler. No. 1,139,309; May 11; Gaz. vol. 214; p. 594.
Earth-boring machine, Portable. A. Flesher. No. 1,139,176; May 11; Gaz. vol. 214; p. 551.
Edge-setting-machine attachment. R. J. B. Monchamp. No. 1,138,884; May 11; Gaz. vol. 214; p. 447.
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Educational appliance. S. J. Spitler. No. 1,138,807; May 11; Gaz. vol. 214; p. 420.
Educational device. J. R. Clark. No. 1,139,256; May 11; Gaz. vol. 214; p. 577.
Egg-beater or the like. A. W. Johnston and A. A. Norton. No. 1,140,341; May 18; Gaz. vol. 214; p. 994.
Egg-boiler. W. L. Deming. No. 1,138,850; May 11; Gaz. vol. 214; p. 436.
Egg-candler. H. Johnson and A. C. Hollingworth. No. 1,141,062; May 25; Gaz. vol. 214; p. 1281.
Egg-carrier. M. Barrow. No. 1,139,628; May 18; Gaz. vol. 214; p. 744.
Egg-carrier. B. Schverma. No. 1,140,005; May 18; Gaz. vol. 214; p. 878.
Egg-carrier. M. K. Swartz. No. 1,138,514; May 4; Gaz. vol. 214; p. 278.
Egg-container. W. H. Lewis. No. 1,139,302; May 11; Gaz. vol. 214; p. 592.
Egg-shipping container. E. T. Nowell. No. 1,140,280; May 18; Gaz. vol. 214; p. 972.
Eggs, Preservation of. H. J. Keith. No. 1,137,761; May 4; Gaz. vol. 214; p. 14.
Ejector. M. Leblanc. No. 1,137,767; May 4; Gaz. vol. 214; p. 16.
Elastic wheel. P. B. Marcus and E. R. Böhme. No. 1,139,429; May 11; Gaz. vol. 214; p. 638.
Electric-cable terminal. G. L. Herz. No. 1,139,973; May 18; Gaz. vol. 214; p. 866.
Electric-circuit regulator. T. Varney. No. 1,140,926; May 25; Gaz. vol. 214; p. 1236.
Electric compensator. G. A. Burnham. No. 1,140,247; May 18; Gaz. vol. 214; p. 961.
Electric condenser or Leyden jar. A. N. Hovland. No. 1,139,976; May 18; Gaz. vol. 214; p. 867.
Electric conductors, Device for relieving the pull on the rope for coupling devices for. W. Schmidt. No. 1,139,138; May 11; Gaz. vol. 214; p. 537.
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Electric device, Vapor. E. Weintraub. No. 1,138,163; May 4; Gaz. vol. 214; p. 156.
Electric door-operating apparatus, Floor selector-switch for. H. Pitts. No. 1,139,902; May 18; Gaz. vol. 214; p. 840.
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Electric-line support. T. Varney. No. 1,138,702; May 11; Gaz. vol. 214; p. 381.
Electric machine, Dynamo-. B. G. Lamme. No. 1,138,672; May 11; Gaz. vol. 214; p. 370.
Electric machine, Dynamo-. O. F. Sire. No. 1,138,254; May 4; Gaz. vol. 214; p. 186.
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Electric meter. W. M. Stempel. No. 1,138,513; May 4; Gaz. vol. 214; p. 277.
Electric motor. H. E. Adams. No. 1,137,729; May 4; Gaz. vol. 214; p. 4.
Electric-power-transmission pole. G. D. Cangia. No. 1,139,487; May 18; Gaz. vol. 214; p. 695.
Electric regulation. J. L. Creveling. No. 1,138,632; May 11; Gaz. vol. 214; p. 356.
Electric socket and shade-holder. G. P. Knapp. No. 1,138,297; May 4; Gaz. vol. 214; p. 201.
Electric switch. J. H. Hall. No. 1,138,212; May 4; Gaz. vol. 214; p. 171.
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Electric switch. C. J. Klein. No. 1,138,874; May 11; Gaz. vol. 214; p. 444.
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Electric vulcanizer. C. A. Pfanstiehl. No. 1,139,069; May 11; Gaz. vol. 214; p. 513.
Electrical apparatus and circuit. A. L. Sohm. No. 1,138,991; May 11; Gaz. vol. 214; p. 484.
Electrical battery. W. Hoppie. No. 1,140,826; May 25; Gaz. vol. 214; p. 1199.
Electrical-circuit-changing mechanism. A. L. Sohm. No. 1,138,990; May 11; Gaz. vol. 214; p. 484.
Electrical connection or pigtail. A. S. McDaniel. No. 1,141,069; May 25; Gaz. vol. 214; p. 1283.
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Electrical driving system. H. C. Leake. No. 1,138,299; May 4; Gaz. vol. 214; p. 202.
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Elevator. H. J. Buck. No. 1,140,110; May 18; Gaz. vol. 214; p. 915.
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Elevator safety device. F. Pastor. No. 1,139,570; May 18; Gaz. vol. 214; p. 723.
Elevator signaling device. H. L. Kilbourne. No. 1,140,165; May 18; Gaz. vol. 214; p. 934.
Embroidering-machine. M. Schoenfeld. No. 1,139,587; May 18; Gaz. vol. 214; p. 728.
Embroidering-machine, Automatic. K. Eggart. No. 1,139,506; May 18; Gaz. vol. 214; p. 702.
Embroidering-machine, Jacquard. H. Saurer. No. 1,139,375; May 11; Gaz. vol. 214; p. 618.
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Embroidery-machine take-up. C. Farmer. No. 1,139,958; May 18; Gaz. vol. 214; p. 860.
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End-cell switch. J. W. Achard. No. 1,140,322; May 18; Gaz. vol. 214; p. 987.

End-gate rod and lock. E. P. Carlin. No. 1,140,796; May 25; Gaz. vol. 214; p. 1187.
End-gate tightener. H. S. Kiesau. No. 1,138,762; May 11; Gaz. vol. 214; p. 403.
End-stake pockets and end-sill brace, Combined. E. R. Viberg. No. 1,137,812; May 4; Gaz. vol. 214; p. 31.
Endless carrier. W. J. Turnbull. No. 1,140,923; May 25; Gaz. vol. 214; p. 1235.
Engine: *See*—
Air-engine.
Automobile chemical-engine.
Beating-engine.
Diesel engine.
Explosive-engine.
Gas-engine.
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Rotary engine.
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Traction-engine.
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Engine-cooling device. G. S. Jacobs. No. 1,139,289; May 11; Gaz. vol. 214; p. 588.
Engine-cooling system. F. E. Kube. No. 1,140,987; May 25; Gaz. vol. 214; p. 1257.
Engine-hood cover. C. D. Miller. (Reissue.) No. 13,916; May 11; Gaz. vol. 214; p. 654.
Engine igniter, Gas-. C. C. Freston. No. 1,141,051; May 25; Gaz. vol. 214; p. 1277.
Engine installation, Marine-. A. Büchi. No. 1,138,077; May 4; Gaz. vol. 214; p. 125.
Engine sparking device. W. M. Stempel. No. 1,138,512; May 4; Gaz. vol. 214; p. 277.
Engine starter and electric generator, Combined gas-. J. D. Taylor. No. 1,140,011; May 18; Gaz. vol. 214; p. 880.
Engine-starter, Electric. M. P. Mitchell. No. 1,139,210; May 11; Gaz. vol. 214; p. 562.
Engine starter, Gas-. S. S. Krayer. No. 1,138,765; May 11; Gaz. vol. 214; p. 404.
Engine-starting apparatus, Internal-combustion-. W. E. Eastman. No. 1,137,847; May 4; Gaz. vol. 214; p. 43.
Engine-starting device, Internal-combustion-. O. Brisbois. No. 1,140,331; May 18; Gaz. vol. 214; p. 991.
Engine-starting mechanism, Internal-combustion-. A. Loomis. No. 1,139,783; May 18; Gaz. vol. 214; p. 798.
Engine-stop. G. H. McFeaters. No. 1,140,694; May 25; Gaz. vol. 214; p. 1152.
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Engines for the utilization of waste heat, Controlling means for. J. H. Missong. No. 1,138,774; May 11; Gaz. vol. 214; p. 407.
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Engines, Fuel-economizer for internal-combustion. H. A. Stone. No. 1,139,081; May 11; Gaz. vol. 214; p. 517.
Engines off a dead-center, Mechanism for removing. G. C. Brittain. No. 1,140,355; May 25; Gaz. vol. 214; p. 1033.
Engines, Oil-feed for internal-combustion. E. Teeter. No. 1,137,926; May 4; Gaz. vol. 214; p. 71.
Engines, Oil-indicator for internal-combustion. H. N. Speer. No. 1,140,080; May 18; Gaz. vol. 214; p. 905.
Engines, Pilot attachment for traction-. R. B. Hartsough. No. 1,138,590; May 4; Gaz. vol. 214; p. 302.
Engines, Roll for beating-. G. Miller. No. 1,138,393; May 4; Gaz. vol. 214; p. 237.
Engines, Self-starter for internal-combustion. C. A. Place. No. 1,137,788; May 4; Gaz. vol. 214; p. 23.
Engines, Starting mechanism for explosive-. S. A. Strickland. No. 1,140,416; May 25; Gaz. vol. 214; p. 1056.
Engines, Vaporizer for internal-combustion. G. J. Boutet. No. 1,140,944; May 25; Gaz. vol. 214; p. 1242.
Envelop. W. E. Westberg. No. 1,139,003; May 11; Gaz. vol. 214; p. 489.
Envelop-opener. E. L. Perry. No. 1,139,572; May 18; Gaz. vol. 214; p. 724.
Envelop, Parcel-post. M. R. Mace. No. 1,139,552; May 18; Gaz. vol. 214; p. 717.
Envelop, Safety-. T. O. Huston. No. 1,140,595; May 25; Gaz. vol. 214; p. 1120.
Escapement. H. A. Myers. No. 1,138,775; May 11; Gaz. vol. 214; p. 408.
Escutcheon-plate. L. A. Wilbur. No. 1,137,823; May 4; Gaz. vol. 214; p. 35.
Evaporator. F. M. De Beers. No. 1,140,881; May 25; Gaz. vol. 214; p. 1219.
Excavating-machine. H. McDermott. No. 1,139,690; May 18; Gaz. vol. 214; p. 766.
Excavating-shovel. C. A. Morris. No. 1,139,559; May 18; Gaz. vol. 214; p. 719.
Excavator. M. G. Bunnell. No. 1,140,662; May 25; Gaz. vol. 214; p. 1143.
Excrement-receptacle. J. C. White. No. 1,139,941; May 18; Gaz. vol. 214; p. 854.
Exercising apparatus. R. N. Diehl. No. 1,138,196; May 4; Gaz. vol. 214; p. 166.
Exercising-machine. E. J. Kerns. No. 1,139,126; May 11; Gaz. vol. 214; p. 533.
Expanding-roller. C. Ugnon. No. 1,140,546; May 25; Gaz. vol. 214; p. 1104.
Expansion-bolt. H. G. Osborne. No. 1,139,712; May 18; Gaz. vol. 214; p. 774.
Expansion-bolt. L. R. Zifferer. No. 1,138,345; May 4; Gaz. vol. 214; p. 220.
Explosive. G. Burgschmiet. No. 1,139,339; May 11; Gaz. vol. 214; p. 605.
Explosive. C. Schanandoah. No. 1,141,009; May 25; Gaz. vol. 214; p. 1263.
Explosive barrier. G. E. Ellis. No. 1,140,137; May 18; Gaz. vol. 214; p. 925.
Explosive-engine. A. G. Ellis. No. 1,138,648; May 11; Gaz. vol. 214; p. 362.
Explosive-engine. R. Ragan. No. 1,139,578; May 18; Gaz. vol. 214; p. 726.
Explosive-engine, Rotary hydrocarbon. C. W. Horn. No. 1,138,566; May 4; Gaz. vol. 214; p. 294.
Extension-table. J. Krasnodemski. No. 1,140,466; May 25; Gaz. vol. 214; p. 1075.
Extension-table. C. F. Schlueter. No. 1,139,730; May 18; Gaz. vol. 214; p. 780.
Extractor: *See*—
Cork-extractor.
Wax-extractor.
Eyeglass-guard. I. M. Schwab. No. 1,141,011; May 25; Gaz. vol. 214; p. 1264.
Eyeglasses and the like articles, Holder for. G. H. Clapham. No. 1,140,024; May 18; Gaz. vol. 214; p. 885.
Eye, Mechanical. J. A. Manning. No. 1,137,772; May 4; Gaz. vol. 214; p. 17.
Eye-shield. G. T. Phelps. No. 1,139,444; May 11; Gaz. vol. 214; p. 643.
Fabric: *See*—
Hose fabric.
Knitted fabric.
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Pile fabric.
Textile fabric.
Wire fabric.
Fabric-folding machine. W. S. Mills. No. 1,140,388; May 25; Gaz. vol. 214; p. 1046.
Facing-blocks. F. G. Niemeyer. No. 1,140,913; May 25; Gaz. vol. 214; p. 1231.
Fan, Oscillating. E. Marelli. No. 1,138,390; May 4; Gaz. vol. 214; p. 236.
Fan, Rotary. W. H. Carrier. No. 1,138,083; May 4; Gaz. vol. 214; p. 128.
Farm machinery. A. J. Albracht and J. Wessel. No. 1,138,720; May 11; Gaz. vol. 214; p. 388.
Fastener-setting machine. W. Shaw. No. 1,139,449; May 11; Gaz. vol. 214; p. 645.
Fastening device. W. T. Scott. No. 1,140,291; May 18; Gaz. vol. 214; p. 976.
Fastening device. G. C. Snyder. No. 1,138,020; May 4; Gaz. vol. 214; p. 103.
Fastening devices, Attaching. G. C. Snyder. No. 1,138,021; May 4; Gaz. vol. 214; p. 103.
Fats and oils and the products derived from the same, Aromatizing. N. Sulzberger. No. 1,140,629; May 25; Gaz. vol. 214; p. 1132.
Faucet. W. S. Bridges. No. 1,138,187; May 4; Gaz. vol. 214; p. 164.
Faucet. M. Denzinger. No. 1,139,754; May 18; Gaz. vol. 214; p. 788.
Faucet. H. Macdonald. No. 1,138,604; May 4; Gaz. vol. 214; p. 307.
Feed-driving mechanism. F. Pierce. No. 1,138,970; May 11; Gaz. vol. 214; p. 477.
Feed mixer and carrier. J. M. Moore. No. 1,141,000; May 25; Gaz. vol. 214; p. 1261.
Feeder, Animal-. F. M. Glitner. No. 1,138,102; May 4; Gaz. vol. 214; p. 134.
Feeder, Chick-. F. Enos, Jr. No. 1,138,365; May 4; Gaz. vol. 214; p. 227.
Feeder, Hog-. J. B. Hershey. No. 1,141,059; May 25; Gaz. vol. 214; p. 1280.
Feeder, Live-stock. R. Henderson. No. 1,138,950; May 11; Gaz. vol. 214; p. 470.
Felly-band. J. Kelsey. No. 1,139,772; May 18; Gaz. vol. 214; p. 795.
Felt-making machines, Wrist-pin for. F. A. Headson. No. 1,137,757; May 4; Gaz. vol. 214; p. 12.
Fence-fabric stretcher, Woven-wire-. S. W. Tate. No. 1,139,238; May 11; Gaz. vol. 214; p. 571.
Fence-post. P. J. Hindmarsh. No. 1,140,156; May 18; Gaz. vol. 214; p. 931.
Fence-tightening device. C. L. Loftus. No. 1,138,127; May 4; Gaz. vol. 214; p. 144.
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Wheel-fender.
Fender. C. H. Barton. No. 1,137,829; May 4; Gaz. vol. 214; p. 37.
Fender or the like. O. A. Ross. No. 1,140,336; May 18; Gaz. vol. 214; p. 993.
Ferruginous zinc-chlorid solution, Treating. S. H. Lawton. No. 1,137,871; May 4; Gaz. vol. 214; p. 52.
Fertilizer and producing same. C. A. Black and W. H. Teare. No. 1,140,437; May 25; Gaz. vol. 214; p. 1063.
Fiber-trimming apparatus. M. S. Weaver. No. 1,139,609; May 18; Gaz. vol. 214; p. 737.
Fifth-wheel. J. A. Morey. No. 1,139,703; May 18; Gaz. vol. 214; p. 771.
File, Bill-. F. J. Kristofek. No. 1,140,750; May 25; Gaz. vol. 214; p. 1172.
File, Document-. M. Kummer. No. 1,137,765; May 4; Gaz. vol. 214; p. 15.
File fastener, Letter-. J. C. Hub, Jr. No. 1,138,872; May 11; Gaz. vol. 214; p. 443.

Filling appliance. H. J. Hick. No. 1,139,677; May 18; Gaz. vol. 214; p. 762.
Filing-cabinet. V. G. Gilbreath and S. T. Williamson. No. 1,140,589; May 25; Gaz. vol. 214; p. 1117.
Filing-cabinet. J. L. Tindale. No. 1,141,089; May 25; Gaz. vol. 214; p. 1290.
Filling apparatus. N. M. La Porte. No. 1,140,169; May 18; Gaz. vol. 214; p. 936.
Film-feeding mechanism. A. Schustek. No. 1,139,731; May 18; Gaz. vol. 214; p. 780.
Film-rewinding device. C. V. Foote. No. 1,138,205; May 4; Gaz. vol. 214; p. 169.
Film-roll holder. L. Mandel. No. 1,137,771; May 4; Gaz. vol. 214; p. 17.
Filter. W. E. Richardson. No. 1,137,902; May 4; Gaz. vol. 214; p. 62.
Filter. W. F. Warden. No. 1,140,726; May 25; Gaz. vol. 214; p. 1163.
Filter, Faucet-. J. Boulard. No. 1,139,331; May 11; Gaz. vol. 214; p. 602.
Filter, Oil-. W. F. Warden. No. 1,140,727; May 25; Gaz. vol. 214; p. 1163.
Filter plate, Mash-. J. Schaefer. No. 1,138,251; May 4; Gaz. vol. 214; p. 184.
Filter-mass washer. J. Kraus. No. 1,139,776; May 18; Gaz. vol. 214; p. 796.
Filter-press. J. Johnson. No. 1,139,767; May 18; Gaz. vol. 214; p. 793.
Filtering sugar-juices, Centrifugal device for. L. G. G. Dibbets. No. 1,138,608; May 4; Gaz. vol. 214; p. 309.
Finish-remover. C. Ellis. No. 1,140,449; May 25; Gaz. vol. 214; p. 1068.
Finish-remover-applying device. C. Ellis. No. 1,139,353; May 11; Gaz. vol. 214; p. 609.
Fire-alarm and sprinkler operating apparatus. A. Marcante. No. 1,140,837; May 25; Gaz. vol. 214; p. 1202.
Fire-alarm system, Automatic. F. Gottschalk. No. 1,139,859; May 18; Gaz. vol. 214; p. 825.
Fire-escape. I. F. Otto. No. 1,140,281; May 18; Gaz. vol. 214; p. 973.
Fire-escape extension. J. Pauly. No. 1,140,708; May 25; Gaz. vol. 214; p. 1156.
Fire-extinguisher. A. E. Allen. No. 1,137,827; May 4; Gaz. vol. 214; p. 36.
Fire-extinguisher, Automatic. E. Daucher. No. 1,140,960; May 25; Gaz. vol. 214; p. 1247.
Fire-resisting closure, Sheet-metal. J. Brogden and J. W. Watkins. No. 1,139,842; May 18; Gaz. vol. 214; p. 819.
Firearm. G. Hammond. No. 1,138,376; May 4; Gaz. vol. 214; p. 231.
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Firearm. G. Hammond. No. 1,138,379; May 4; Gaz. vol. 214; p. 232.
Firearm. G. Hammond. No. 1,140,512; May 25; Gaz. vol. 214; p. 1091.
Firearm. G. Hammond. No. 1,140,513; May 25; Gaz. vol. 214; p. 1092.
Firearm. L. B. Purcell. No. 1,140,715; May 25; Gaz. vol. 214; p. 1159.
Firearm-sight. J. Windridge. No. 1,138,708; May 11; Gaz. vol. 214; p. 383.
Firearm-sight. J. Windridge. No. 1,138,709; May 11; Gaz. vol. 214; p. 383.
Fireman's helmet. J. M. Ganzer. No. 1,139,177; May 11; Gaz. vol. 214; p. 551.
Fireproof cabinet. R. Friedrich. No. 1,140,670; May 25; Gaz. vol. 214; p. 1145.
Fish, Preserving and marketing fresh. A. M. McDougall. No. 1,140,178; May 18; Gaz. vol. 214; p. 939.
Fish-splitting machine. C. Letin and F. Frey. No. 1,138,300; May 4; Gaz. vol. 214; p. 202.
Fishing device. D. Conekin. No. 1,138,541; May 4; Gaz. vol. 214; p. 286.
Fishing device. D. Conekin. No. 1,138,542; May 4; Gaz. vol. 214; p. 287.
Fishing-reel. V. Bordner. No. 1,139,252; May 11; Gaz. vol. 214; p. 576.
Fishing-reel. F. V. Phillips. No. 1,140,608; May 25; Gaz. vol. 214; p. 1125.
Fishing-tackle. G. W. Upton. No. 1,140,779; May 25; Gaz. vol. 214; p. 1180.
Fishing-trawl. W. P. Ryan. No. 1,138,896; May 11; Gaz. vol. 214; p. 451.
Flat-iron holder and waxer. G. W. Hawkins. No. 1,140,265; May 18; Gaz. vol. 214; p. 967.
Flood and spot light, Adjustable. W. J. Davis, Jr., and A. P. Nirdlinger. No. 1,140,880; May 25; Gaz. vol. 214; p. 1218.
Floor-covering, Composition. W. Cowan. No. 1,140,958; May 25; Gaz. vol. 214; p. 1247.
Floor, Endless. W. S. Ayres. No. 1,140,236; May 18; Gaz. vol. 214; p. 958.
Floor-polisher. F. A. Schultz. No. 1,139,809; May 18; Gaz. vol. 214; p. 808.
Floor, Revolving dining-room. A. Martzolf. No. 1,140,176; May 18; Gaz. vol. 214; p. 938.
Flow of combustible fluids, Safety device for controlling the. W. H. Paine. No. 1,140,313; May 18; Gaz. vol. 214; p. 984.
Flue cleaning and straightening machine. K. Matheus. No. 1,140,387; May 25; Gaz. vol. 214; p. 1045.
Flue-stop, Adjustable. W. E. Hart. No. 1,139,279; May 11; Gaz. vol. 214; p. 585.
Fluid-compressor regulator. W. M. Donaldson. No. 1,138,199; May 4; Gaz. vol. 214; p. 167.
Fluid-ejector. M. Leblanc. No. 1,138,125; May 4; Gaz. vol. 214; p. 143.
Fluid heating and cooling apparatus. L. D. Lovekin. No. 1,139,549; May 18; Gaz. vol. 214; p. 716.
Fluid-pressure brake system. W. H. Sauvage. No. 1,139,376; May 11; Gaz. vol. 214; p. 618.
Fluid-pressure motor. C. J. Olson. No. 1,138,969; May 11; Gaz. vol. 214; p. 476.
Flume-joint coupling. W. D. Himes. No. 1,138,657; May 11; Gaz. vol. 214; p. 384.
Flush-tank. D. S. McIlroy and W. Gibb. No. 1,140,053; May 18; Gaz. vol. 214; p. 895.
Flushing mechanism. B. Bensen. No. 1,139,397; May 11; Gaz. vol. 214; p. 626.
Fly-killer, Fountain-feed. S. Goldhammer. No. 1,139,030; May 11; Gaz. vol. 214; p. 500.
Fly-screen. R. N. Pitcher. No. 1,139,574; May 18; Gaz. vol. 214; p. 725.
Fly-swatter. E. Brockman. No. 1,138,448; May 4; Gaz. vol. 214; p. 256.
Fly-trap. R. H. Cox. No. 1,141,039; May 25; Gaz. vol. 214; p. 1273.
Flying-machine. G. Grandini. No. 1,139,860; May 18; Gaz. vol. 214; p. 826.
Flying-machine. S. R. Smith. No. 1,139,820; May 18; Gaz. vol. 214; p. 812.
Folding box. W. Grunow, Jr. No. 1,140,741; May 25; Gaz. vol. 214; p. 1168.
Folding box. C. M. Johnson. No. 1,137,759; May 4; Gaz. vol. 214; p. 13.
Folding-machine. A. A. Boyce. No. 1,138,185; May 4; Gaz. vol. 214; p. 163.
Food and preparing the same, Stock. T. B. Walker. No. 1,140,638; May 25; Gaz. vol. 214; p. 1135.
Food from bean-vines, Manufacture of. D. Y. Strauss. No. 1,141,079; May 25; Gaz. vol. 214; p. 1286.
Foot-arch-supporting saddle. I. Custar. No. 1,140,879; May 25; Gaz. vol. 214; p. 1218.
Foot-gear. E. A. Llewellyn and J. R. Briggs. No. 1,139,197; May 11; Gaz. vol. 214; p. 558.
Forging wheels. A. R. Hunt and J. H. Grose. No. 1,140,681; May 25; Gaz. vol. 214; p. 1148.
Form, Adjustable dress-. J. F. Dinn. No. 1,137,744; May 4; Gaz. vol. 214; p. 8.
Form, Dress-. G. W. Bardwell. No. 1,140,941; May 25; Gaz. vol. 214; p. 1241.
Form, Garment-. D. H. Shapiro. No. 1,140,407; May 25; Gaz. vol. 214; p. 1053.
Fountain: *See*—
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Printing-machine ink-fountain.
Fragile-article carrier. W. D. Thomas. No. 1,140,857; May 25; Gaz. vol. 214; p. 1210.
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Frequency-meter. P. Gordon. No. 1,137,965; May 4; Gaz. vol. 214; p. 86.
Frictional coupling. W. J. Bernett. No. 1,138,926; May 11; Gaz. vol. 214; p. 461.
Fruit-collecting apparatus. J. H. Brewer. No. 1,138,930; May 11; Gaz. vol. 214; p. 462.
Fruit-gatherer. T. M. Raney. No. 1,138,789; May 11; Gaz. vol. 214; p. 414.
Fruit-grader. G. D. Parker. No. 1,139,714; May 18; Gaz. vol. 214; p. 775.
Fruit-grading machine. H. R. Francis. No. 1,139,510; May 18; Gaz. vol. 214; p. 703.
Fruit-grading machine. H. W. Welton. No. 1,140,782; May 25; Gaz. vol. 214; p. 1181.
Fruit-jar. L. A. Scholz. No. 1,140,486; May 25; Gaz. vol. 214; p. 1082.
Fruit-press. S. E. Thoman. No. 1,137,808; May 4; Gaz. vol. 214; p. 30.
Fuel-brick. W. Rakowski. No. 1,140,395; May 25; Gaz. vol. 214; p. 1049.
Fuel-briquet. C. J. Schneider. No. 1,138,016; May 4; Gaz. vol. 214; p. 102.
Fuel-feeding apparatus. R. Niedergesaess. No. 1,139,708; May 18; Gaz. vol. 214; p. 773.
Fuel-feeding apparatus. G. L. Swift. No. 1,140,207; May 18; Gaz. vol. 214; p. 948.
Furnace: *See*—
Boiler-furnace.
Continuous-burning furnace.
Crucible-furnace.
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Hot-mill furnace.
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Smelting-furnace.
Furnace. W. N. Best. No. 1,140,732; May 25; Gaz. vol. 214; p. 1165.
Furnace. R. S. Moore. No. 1,139,558; May 18; Gaz. vol. 214; p. 719.
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Furnace arch, Locomotive-. C. B. Moore. No. 1,138,041; May 4; Gaz. vol. 214; p. 111.
Furnace arch, Locomotive-. A. W. Nelson. No. 1,138,054; May 4; Gaz. vol. 214; p. 116.

Furnace casing, Downdraft-. K. Prinz zu Löwenstein. No. 1,140,908; May 25; Gaz. vol. 214; p. 1229.
Furnace-grate. H. Benton. No. 1,139,097; May 11; Gaz. vol. 214; p. 528.
Furnace-grate. C. B. Roberts. No. 1,138,977; May 11; Gaz. vol. 214; p. 479.
Furnace-grate. C. B. Roberts. No. 1,138,978; May 11; Gaz. vol. 214; p. 480.
Furnace-hearth. J. H. Klepinger. No. 1,140,042; May 18; Gaz. vol. 214; p. 891.
Furnace or forge. G. F. Beach. No. 1,140,350; May 25; Gaz. vol. 214; p. 1032.
Furnace-regulator, Automatic. C. E. Anderson. No. 1,139,095; May 11; Gaz. vol. 214; p. 522.
Furnaces, Briquet for use in zinc-. G. S. Brooks. No. 1,137,835; May 4; Gaz. vol. 214; p. 40.
Furniture, Combination. J. W. Woodard. No. 1,140,554; May 25; Gaz. vol. 214; p. 1106.
Furniture, Convertible. M. H. Stuewe. No. 1,138,997; May 11; Gaz. vol. 214; p. 487.
Fuse, Electric safety. R. C. Cole. No. 1,140,953; May 25; Gaz. vol. 214; p. 1245.
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Gage-glass. W. J. and J. H. Hanlon. No. 1,139,518; May 18; Gaz. vol. 214; p. 705.
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Game. H. L. Cusick. No. 1,139,497; May 18; Gaz. vol. 214; p. 698.
Game. M. Maris. No. 1,138,233; May 4; Gaz. vol. 214; p. 178.
Game apparatus. J. S. Betschart. No. 1,139,949; May 18; Gaz. vol. 214; p. 857.
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Game, Card. H. H. McNair. No. 1,138,678; May 11; Gaz. vol. 214; p. 373.
Garbage-burner. W. J. Keep. No. 1,138,662; May 11; Gaz. vol. 214; p. 366.
Garbage-reservoir. E. Netter. No. 1,139,436; May 11; Gaz. vol. 214; p. 641.
Garden implement. J. A. Bozarth. No. 1,138,274; May 4; Gaz. vol. 214; p. 193.
Garment. J. H. Brown. No. 1,138,623; May 11; Gaz. vol. 214; p. 353.
Garment. A. Malsin. No. 1,139,881; May 18; Gaz. vol. 214; p. 833.
Garment, Combination-. J. Michaelis. No. 1,138,681; May 11; Gaz. vol. 214; p. 374.
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Gas-bags or other fluid-retaining envelops for airships or other purposes, Forming. T. Sloper. No. 1,140,921; May 25; Gaz. vol. 214; p. 1234.
Gas-benches, Pressure control for. H. A. Carpenter and A. W. Warner. No. 1,138,727; May 11; Gaz. vol. 214; p. 391.
Gas-burner. A. H. Merrill. No. 1,139,608; May 18; Gaz. vol. 214; p. 770.
Gas-burner. C. V. Roberts and J. W. Butler. No. 1,138,416; May 4; Gaz. vol. 214; p. 246.
Gas-burner and automatic cut-off therefor. J. E. Jargstorff. No. 1,140,161; May 18; Gaz. vol. 214; p. 933.
Gas-burner, Incandescent. G. Baty and R. M. Ryan. No. 1,138,833; May 11; Gaz. vol. 214; p. 430.
Gas burner, Kerosene-. W. F. Day. No. 1,140,361; May 25; Gaz. vol. 214; p. 1036.
Gas-burner tip. T. A. Bell. No. 1,140,655; May 25; Gaz. vol. 214; p. 1140.
Gas-distributing mechanism. D. E. Murray. No. 1,140,278; May 18; Gaz. vol. 214; p. 972.
Gas-engine. W. Kelly. No. 1,140,163; May 18; Gaz. vol. 214; p. 933.
Gas-generating apparatus, Coal-. H. A. Carpenter. No. 1,140,797; May 25; Gaz. vol. 214; p. 1187.
Gas-generating apparatus, Coal-. H. A. Carpenter. No. 1,140,798; May 25; Gaz. vol. 214; p. 1188.
Gas-generating machines, Actuating mechanism for. N. J. Russell. No. 1,138,151; May 4; Gaz. vol. 214; p. 152.
Gas-generator. W. Mitchell. No. 1,141,072; May 25; Gaz. vol. 214; p. 1284.
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Gas, Means for handling and transporting liquid. G. L. Cabot. No. 1,140,250; May 18; Gaz. vol. 214; p. 963.
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Gas-retort chambers and the like, Heating coal-. J. M. Rusby. No. 1,140,337; May 18; Gaz. vol. 214; p. 993.
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Gate. J. W. Clark. No. 1,139,168; May 11; Gaz. vol. 214; p. 546.
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Gear-shifter, Automatic. A. N. Adams. No. 1,138,719; May 11; Gaz. vol. 214; p. 387.
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Gear, Speed-changing. E. M. and A. G. Rayburn. No. 1,138,415; May 4; Gaz. vol. 214; p. 245.
Gear, such as valve mechanism, Distribution-. A. Lafitte. No. 1,138,960; May 11; Gaz. vol. 214; p. 473.
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Gearing. G. Fornaca. No. 1,138,098; May 4; Gaz. vol. 214; p. 133.
Gearing. E. L. Gale, Sr. No. 1,140,369; May 25; Gaz. vol. 214; p. 1038.
Gearing. C. J. Marth. No. 1,139,695; May 18; Gaz. vol. 214; p. 768.
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Gearing. T. J. Smith. No. 1,140,078; May 18; Gaz. vol. 214; p. 904.
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Gearing for motor-trucks, Hoisting-. F. Mueller. No. 1,138,004; May 4; Gaz. vol. 214; p. 98.
Gearing for portable power-tables. G. B. Keil. No. 1,137,862; May 4; Gaz. vol. 214; p. 43.
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Glass-melting tank-furnace. G. E. Howard. No. 1,138,111; May 4; Gaz. vol. 214; p. 138.
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Governor attachment. J. Hawkins and B. F. Loftin. No. 1,141,054; May 25; Gaz. vol. 214; p. 1279.
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Grease-cup. O. Zerk. No. 1,138,527; May 4; Gaz. vol. 214; p. 281.
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Hammer-mill, Adjustable. G. S. Tebbetts, Jr. No. 1,139,920; May 18; Gaz. vol. 214; p. 847.
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Handle-attaching means. G. Oravetz. No. 1,141,001; May 25; Gaz. vol. 214; p. 1261.
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Horse-releaser. E. Kosta. No. 1,140,516; May 25; Gaz. vol. 214; p. 1093.
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Hospital apparatus. R. H. Sleicher. No. 1,138,582; May 4; Gaz. vol. 214; p. 299.
Host-cutter. J. Jaksa. No. 1,139,766; May 18; Gaz. vol. 214; p. 792.
Hot-mill furnace. O. B. Golding. No. 1,138,555; May 4; Gaz. vol. 214; p. 291.
Hot-water heater, Instantaneous. J. O. Schulte. No. 1,139,379; May 11; Gaz. vol. 214; p. 610.
Hot-water or steam and hot-air heater, Combined. E. C. Barth. No. 1,140,239; May 18; Gaz. vol. 214; p. 958.
Hot-water-system regulator. W. L. Belknap and M. G. Cunningham. No. 1,140,565; May 25; Gaz. vol. 214; p. 1110.
Hub for wheels, Spring-. G. H. Thomas. No. 1,139,600; May 18; Gaz. vol. 214; p. 733.
Hub, Wheel-. W. P. Hopwood and P. H. Kroh. No. 1,139,867; May 18; Gaz. vol. 214; p. 820.
Huller: *See*—
Cotton-huller.
Humidifier. F. B. Comins. No. 1,139,640; May 18; Gaz. vol. 214; p. 748.
Humidity-regulating apparatus, Safety means for. W. H. Carrier. No. 1,138,084; May 4; Gaz. vol. 214; p. 128.
Hydraulic motor. F. J. Osterholtz. No. 1,139,995; May 18; Gaz. vol. 214; p. 874.
Hydrocarbon-burner. J. E. Sheaffer. No. 1,140,621; May 25; Gaz. vol. 214; p. 1130.
Hydrocarbon-motor. E. F. Roberts. No. 1,138,892; May 11; Gaz. vol. 214; p. 450.
Hydrocarbon-motor. M. Tibbetts. No. 1,138,908; May 11; Gaz. vol. 214; p. 455.
Hydrogenating unsaturated organic material. C. Ellis. No. 1,138,201; May 4; Gaz. vol. 214; p. 168.
Hydrostatic recorder. C. M. Allen. No. 1,137,945; May 4; Gaz. vol. 214; p. 77.
Hygrostat or thermostatic device. W. H. Carrier. No. 1,138,082; May 4; Gaz. vol. 214; p. 127.
Hypodermic-needle mount. R. F. Hopper. No. 1,139,975; May 18; Gaz. vol. 214; p. 867.
Ice-cream-cone carrier. D. R. Smith. No. 1,140,540; May 25; Gaz. vol. 214; p. 1102.
Ice-cream-cone disher. T. J. Brandt. No. 1,138,533; May 4; Gaz. vol. 214; p. 283.
Ice-cream-cone machine. F. A. Bruckman. No. 1,138,450; May 4; Gaz. vol. 214; p. 257.
Ice-cream container. C. Ottosen and H. R. Wright. No. 1,138,144; May 4; Gaz. vol. 214; p. 150.
Ice-cream dipper. E. Walker. No. 1,138,703; May 11; Gaz. vol. 214; p. 381.
Ice-cream dipper. E. Walker. No. 1,138,704; May 11; Gaz. vol. 214; p. 381.
Ice-cream disher. E. Walker. No. 1,138,705; May 11; Gaz. vol. 214; p. 382.
Ice-cream disher. E. Walker. No. 1,138,706; May 11; Gaz. vol. 214; p. 382.
Ice-creeper. C. R. Seybert. No. 1,140,075; May 18; Gaz. vol. 214; p. 903.
Ice, Harvesting. E. C. Porter. No. 1,138,313; May 4; Gaz. vol. 214; p. 207.
Ice, Harvesting. H. D. Pratt. No. 1,138,411; May 4; Gaz. vol. 214; p. 244.
Ice-harvesting apparatus. E. C. Porter. No. 1,138,312; May 4; Gaz. vol. 214; p. 207.
Ice-tongs. D. Henderson. No. 1,140,592; May 25; Gaz. vol. 214; p. 1118.
Ignition and lighting system, Automatic. J. A. Heany. No. 1,139,521; May 18; Gaz. vol. 214; p. 706.
Ignition system. D. B. Hughes. No. 1,138,569; May 4; Gaz. vol. 214; p. 295.
Ignition system, Dual. A. P. Brush. No. 1,139,255; May 11; Gaz. vol. 214; p. 577.
Illusion device. K. Hashimoto. No. 1,137,756; May 4; Gaz. vol. 214; p. 12.
Illusion of scenes in colors, Presenting the. T. A. Edison. No. 1,138,360; May 4; Gaz. vol. 214; p. 225.

Implement-socket fastening. J. W. Riddell. No. 1,139,724; May 18; Gaz. vol. 214; p. 779.
Imposing-table and proof-press. F. C. Leethem. No. 1,139,984; May 18; Gaz. vol. 214; p. 870.
Incinerator. W. C. McKeown. No. 1,140,472; May 25; Gaz. vol. 214; p. 1077.
Index-plate and apparatus for using same, Flash. A. R. Ferguson. No. 1,139,509; May 18; Gaz. vol. 214; p. 702.
Index-system guide. J. H. Rand, Jr. No. 1,140,480; May 25; Gaz. vol. 214; p. 1080.
Indicator: *See*—
Demand-indicator.
Direction-indicator.
Rifle-range shot-indicator.
Signal-indicator.
Sparking indicator.
Test-indicator.
Vehicle direction-indicator.
Indicator. W. F. Caldwell. No. 1,139,486; May 18; Gaz. vol. 214; p. 694.
Indicator. L. Church. No. 1,139,489; May 18; Gaz. vol. 214; p. 695.
Indicator. D. O. Lawrence. No. 1,138,124; May 4; Gaz. vol. 214; p. 143.
Inductive apparatus, Stationary. H. C. Soule. No. 1,140,922; May 25; Gaz. vol. 214; p. 1234.
Infant's combination-carrier. A. Hellfritzsch. No. 1,139,762; May 18; Gaz. vol. 214; p. 791.
Ingot-mold. S. E. Hitt and J. I. Peyton. No. 1,139,284; May 11; Gaz. vol. 214; p. 556.
Ingot-mold. J. I. Peyton and S. E. Hitt. No. 1,139,219; May 11; Gaz. vol. 214; p. 564.
Inhaler. C. A. Garske. No. 1,139,357; May 11; Gaz. vol. 214; p. 611.
Ink from paper-stock, Removing. M. Cline and C. F. Rhodes. No. 1,138,085; May 4; Gaz. vol. 214; p. 128.
Insect-trap. C. A. Pipenhagen. No. 1,139,717; May 18; Gaz. vol. 214; p. 776.
Insecticide-distributer. J. Frank. No. 1,140,453; May 25; Gaz. vol. 214; p. 1069.
Instep-support. W. H. Horn, Jr. No. 1,140,159; May 18; Gaz. vol. 214; p. 932.
Insulated handle for metal vessels. A. E. Hobson. No. 1,137,972; May 4; Gaz. vol. 214; p. 88.
Insulating-coverings of oxid on wires, bands, &c., Producing and protecting. E. W. Küttner. No. 1,137,986; May 4; Gaz. vol. 214; p. 92.
Insulating material, Composite. H. B. MacFarland and R. G. Shoemaker. No. 1,139,305; May 11; Gaz. vol. 214; p. 593.
Insulating material, Manufacturing. W. J. Longmore. No. 1,138,676; May 11; Gaz. vol. 214; p. 372.
Insulating-sheets, Machine for forming cementitious. J. E. Lappen. No. 1,140,601; May 25; Gaz. vol. 214; p. 1122.
Insulating-sheets, Machine for making fiber. J. E. Lappen. No. 1,139,983; May 18; Gaz. vol. 214; p. 869.
Insulating system. C. J. Trucano. No. 1,140,633; May 25; Gaz. vol. 214; p. 1133.
Insulating-tube machine. C. L. Fortescue. No. 1,137,853; May 4; Gaz. vol. 214; p. 45.
Insulation, Producing mica. J. R. Sanborn. No. 1,138,091; May 11; Gaz. vol. 214; p. 377.
Insulation, thermal or otherwise, Retaining-batten for. H. H. Schroyer. No. 1,137,793; May 4; Gaz. vol. 214; p. 25.
Insulator. T. W. Beatty. No. 1,139,748; May 18; Gaz. vol. 214; p. 786.
Insulator. R. A. Manwaring and J. T. Hessel. No. 1,140,050; May 18; Gaz. vol. 214; p. 894.
Insulator-bracket. F. A. Bowdle. No. 1,139,950; May 18; Gaz. vol. 214; p. 857.
Insulator-clamp. W. S. Lee. No. 1,140,603; May 25; Gaz. vol. 214; p. 1123.
Intaglio-plate-cleaning device. H. A. W. Wood. No. 1,138,342; May 4; Gaz. vol. 214; p. 219.
Internal-combustion engine. W. Backman. No. 1,138,271; May 4; Gaz. vol. 214; p. 192.
Internal-combustion engine. C. E. Baker and E. M. De Long. No. 1,138,831; May 11; Gaz. vol. 214; p. 429.
Internal-combustion engine. T. P. Brooke. No. 1,139,336; May 11; Gaz. vol. 214; p. 604.
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Internal-combustion engine. F. J. C. F. Knaak. No. 1,138,575; May 4; Gaz. vol. 214; p. 297.
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Internal-combustion engine. W. H. Osterman. No. 1,139,713; May 18; Gaz. vol. 214; p. 775.
Internal-combustion engine. I. Perugini. No. 1,138,783; May 11; Gaz. vol. 214; p. 411.
Internal-combustion engine. P. Pringle. No. 1,140,394; May 25; Gaz. vol. 214; p. 1048.
Internal-combustion engine. F. A. Sharpneck and L. O. Gilliland. No. 1,140,292; May 18; Gaz. vol. 214; p. 976.
Internal-combustion engine. L. W. Sheridan. No. 1,140,489; May 25; Gaz. vol. 214; p. 1083.
Internal-combustion engine. J. N. Williams. No. 1,139,617; May 18; Gaz. vol. 214; p. 740.
Internal-combustion engine. W. Wills. No. 1,138,824; May 11; Gaz. vol. 214; p. 426.
Iron: *See*—
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Self-heating iron.
Iron, Hardening. S. L. Brown. No. 1,140,568; May 25; Gaz. vol. 214; p. 1111.
Ironing-board attachment for kitchen-tables, Disappearing. L. Spady. No. 1,140,411; May 25; Gaz. vol. 214; p. 1054.
Ironing machine, Collar-. W. W. Quinn. No. 1,138,686; May 11; Gaz. vol. 214; p. 376.
Ironing-table and step-ladder, Combination. E. Velarde. No. 1,140,636; May 25; Gaz. vol. 214; p. 1134.
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Jar-cover. I. Bell. No. 1,139,328; May 11; Gaz. vol. 214; p. 600.
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Jars and bottles, Air-tight cover for. S. W. Paacall. No. 1,138,308; May 4; Gaz. vol. 214; p. 205.
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Joint. A. W. Martin. No. 1,138,406; May 4; Gaz. vol. 214; p. 272.
Junction-board. H. and R. Hodgson and J. Glazbrook. No. 1,139,764; May 18; Gaz. vol. 214; p. 792.
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Key-case, Pocket. A. C. McFarland. No. 1,138,768; May 11; Gaz. vol. 214; p. 405.
Key-holder. D. W. Putnam. No. 1,139,370; May 11; Gaz. vol. 214; p. 610.
Keyhole-guard. T. E. Dunlap. No. 1,140,258; May 18; Gaz. vol. 214; p. 965.
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Kiln. S. P. Beebout and T. E. Morgan. No. 1,139,327; May 11; Gaz. vol. 214; p. 599.
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Kinetoscopes, Automatic shutter for. J. D. Engelbrett. No. 1,138,364; May 4; Gaz. vol. 214; p. 227.
Kitchen utensil. M. Sárl. No. 1,138,897; May 11; Gaz. vol. 214; p. 451.
Knee-joint. W. F. Lang. No. 1,138,298; May 4; Gaz. vol. 214; p. 201.
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Knife. G. J. Kelley. No. 1,139,979; May 18; Gaz. vol. 214; p. 868.
Knitted fabric. F. Clewley. No. 1,139,342; May 11; Gaz. vol. 214; p. 605.
Knitted fabric. F. Clewley. No. 1,139,343; May 11; Gaz. vol. 214; p. 606.
Knitting-machine. J. B. and J. T. Paxton. No. 1,140,709; May 25; Gaz. vol. 214; p. 1157.
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Knitting machine, Automatic circular-. J. Lawson. No. 1,140,269; May 18; Gaz. vol. 214; p. 968.
Knitting-machine blower. C. A. Bazino. No. 1,141,034; May 25; Gaz. vol. 214; p. 1271.
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Knitting-machine latch-opening mechanism. W. J. Elliott. No. 1,139,173; May 11; Gaz. vol. 214; p. 549.
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Knob-shank, Screwless. T. E. Crouch. No. 1,139,496; May 18; Gaz. vol. 214; p. 698.
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Kola preparation, Making a. G. C. Zimmermann. No. 1,140,934; May 25; Gaz. vol. 214; p. 1239.
Labeling machine, Bottle-. A. L. Flower. No. 1,140,736; May 25; Gaz. vol. 214; p. 1166.
Labels to bottles, cans, and similar objects, Machine for gumming and applying. C. L. Hatchett and E. G. Rhodes. No. 1,141,053; May 25; Gaz. vol. 214; p. 1278
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Ladder. H. Dunderdale. (Reissue.) No. 13,914; May 11; Gaz. vol. 214; p. 653.
Ladder and ironing-board, Combination step-. R. C. Lowe. No. 1,139,784; May 18; Gaz. vol. 214; p. 799.
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Ladder-support. T. H. Tasker. No. 1,138,583; May 4; Gaz. vol. 214; p. 300.
Ladle-skimmer and heat-protector, Mechanical. J. E. Fazakerley. No. 1,139,960; May 18; Gaz. vol. 214; p. 860.
Laminated structures, Making. J. E. Rhoads. No. 1,140,187; May 18; Gaz. vol. 214; p. 942.
Lamp. G. D. McPhail. No. 1,139,691; May 18; Gaz. vol. 214; p. 766.
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Lamp-burner. H. F. Stevens. No. 1,140,415; May 25; Gaz. vol. 214; p. 1056.
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Lamp-chimney holder. P. Dodokin. No. 1,139,503; May 18; Gaz. vol. 214; p. 700.
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Lamp, Electric. C. H. Fischer. No. 1,140,894; May 25; Gaz. vol. 214; p. 1223.
Lamp, Electric-arc. F. W. Gore. No. 1,139,965; May 18; Gaz. vol. 214; p. 862.
Lamp, Electrical incandescent. H. Gerdien and M. von Pirani. No. 1,139,668; May 18; Gaz. vol. 214; p. 759.
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Lantern. E. J. McDade and F. F. Dorsey. No. 1,139,788; May 18; Gaz. vol. 214; p. 800.
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Last, Collapsible. W. A. Krentler. No. 1,139,040; May 11; Gaz. vol. 214; p. 503.
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Latch. H. Weide. No. 1,137,819; May 4; Gaz. vol. 214; p. 34.
Latch. W. H. Whittier. No. 1,140,553; May 25; Gaz. vol. 214; p. 1106.
Latch, Door-. M. J. Keough. No. 1,137,863; May 4; Gaz. vol. 214; p. 49.
Latch, Door-. F. E. Richardson. No. 1,139,311; May 11; Gaz. vol. 214; p. 504.
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Latch, Gate-. E. J. Taylor. No. 1,138,026; May 4; Gaz. vol. 214; p. 105.
Latch, Gate-. W. C. Vesper. No. 1,138,516; May 4; Gaz. vol. 214; p. 278.
Latch, Night-. J. H. Shaw. No. 1,137,800; May 4; Gaz. vol. 214; p. 27.
Latch protector or preserver. W. J. Elliott. No. 1,139,262; May 11; Gaz. vol. 214; p. 570.
Lathe. W. E. Severance. No. 130,235; May 11; Gaz. vol. 214; p. 570.
Lathe attachment. H. W. Oster. No. 1,139,063; May 11; Gaz. vol. 214; p. 511.
Lathe attachment. J. Patterson. No. 1,137,892; May 4; Gaz. vol. 214; p. 59.
Lathe attachment. A. E. Wicklund and A. T. Britton. No. 1,138,821; May 11; Gaz. vol. 214; p. 425.
Lathe, Automatic. K. Jung. No. 1,140,468; May 25; Gaz. vol. 214; p. 1073.
Lathe, Automatic multiple-spindle. C. M. Conradson. No. 1,140,299; May 18; Gaz. vol. 214; p. 979.
Lathe, Engine-. G. C. Gardner and J. A. Grow. No. 1,139,026; May 11; Gaz. vol. 214; p. 499.
Lathes, Automatic brake for. W. L. Miller. No. 1,139,555; May 18; Gaz. vol. 214; p. 718.
Lathes, Turret-slide mechanism for turret-. J. C. Potter. No. 1,140,479; May 25; Gaz. vol. 214; p. 1080.
Lather-producing device. H. Reiche. No. 1,139,228; May 11; Gaz. vol. 214; p. 567.
Laundry-dripboard. E. Jordan. No. 1,138,661; May 11; Gaz. vol. 214; p. 366.
Lavatories and the like, Manufacture of. R. E. Crane. No. 1,138,629; May 11; Gaz. vol. 214; p. 355.
Lawn-edger. P. Imhof and W. J. Kelly. No. 1,139,978; May 18; Gaz. vol. 214; p. 868.
Leather and making the same, Artificial. L. Lilienfeld. No. 1,140,174; May 18; Gaz. vol. 214; p. 938.
Lens-grinding machine. W. K. Rogers. No. 1,140,488; May 25; Gaz. vol. 214; p. 1081.
Lens-hood and vignetter, Combination. C. R. Howard. No. 1,137,975; May 4; Gaz. vol. 214; p. 88.
Lenses, Mechanism for making bifocal. H. A. Scheuerle. No. 1,140,401; May 25; Gaz. vol. 214; p. 1051.
Lever-latching mechanism, Reverse-. C. L. Heisler. No. 1,140,743; May 25; Gaz. vol. 214; p. 1169.
Lever-lock. C. R. Saunders. No. 1,138,795; May 11; Gaz. vol. 214; p. 416.
Levers, Lock for two relatively movable. B. P. Youmans. No. 1,140,431; May 25; Gaz. vol. 214; p. 1061.
Lid-lifter. J. E. Buss. No. 1,137,949; May 4; Gaz. vol. 214; p. 79.
Life-preserver. A. H. W. Cleave. No. 1,140,858; May 25; Gaz. vol. 214; p. 1035.
Life-preserver. S. G. Hines. No. 1,137,971; May 4; Gaz. vol. 214; p. 87.
Life-preserver. J. Macaulay. No. 1,138,495; May 4; Gaz. vol. 214; p. 272.
Life-saving apparatus. C. Rydell. No. 1,138,319; May 4; Gaz. vol. 214; p. 210.
Life-saving device. B. Zopfi. No. 1,139,624; May 18; Gaz. vol. 214; p. 742.
Life-saving suit. A. Crinnion. No. 1,140,025; May 18; Gaz. vol. 214; p. 885.
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Lifter. A. S. Evans. No. 1,139,854; May 18; Gaz. vol. 214; p. 824.
Lifting-jack. E. Erickson and P. Sjostrom. No. 1,139,263; May 11; Gaz. vol. 214; p. 580.
Lifting-jack. C. S. Lehman. No. 1,140,907; May 25; Gaz. vol. 214; p. 1228.
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Light apparatus, Automatic intermittent-. F. J. H. Rustige. No. 1,140,617; May 25; Gaz. vol. 214; p. 1127.
Light diminishing apparatus, Reflected-. J. F. Harrell. No. 1,139,277; May 11; Gaz. vol. 214; p. 584.
Lighting apparatus. E. Seitz. No. 1,140,405; May 25; Gaz. vol. 214; p. 1052.
Lighting-fixture. J. R. Cravath. No. 1,137,954; May 4; Gaz. vol. 214; p. 81.
Lighting-fixture apparatus. N. D. Bishop. No. 1,138,836; May 11; Gaz. vol. 214; p. 431.
Lightning-rod-point bracket. T. W. Dodd. No. 1,140,582; May 25; Gaz. vol. 214; p. 1115.
Link-mesh-making machine. A. C. Pratt. No. 1,139,790; May 18; Gaz. vol. 214; p. 805.
Link-press. H. Videtto. No. 1,137,813; May 4; Gaz. vol. 214; p. 32.
Linotype-machines and producing same, Rule-holding slug-form for. H. A. Spurgeon, A. T. Hunt, and W. G. Baker. No. 1,139,593; May 18; Gaz. vol. 214; p. 731.
Linter-front-driving mechanism. L. K. Stephens. No. 1,139,596; May 18; Gaz. vol. 214; p. 732.
Liquid-aerating device. H. V. R. Read. No. 1,138,248; May 4; Gaz. vol. 214; p. 183.
Liquid-dispenser. H. C. Lyons. No. 1,139,129; May 11; Gaz. vol. 214; p. 534.
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Liquids with ultra-violet rays, Apparatus for treating. V. Henri, A. Helbronner, and M. von Recklinghausen. No. 1,140,818; May 25; Gaz. vol. 214; p. 1195.
Liquors, Method and means for treatment of waste. H. K. Moore. No. 1,137,780; May 4; Gaz. vol. 214; p. 20.
Loading and screening coal and other material by power, Automatic machine for. A. H. Reynolds. No. 1,138,790; May 11; Gaz. vol. 214; p. 414.

Lock; *See*—
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Bag-lock. Permutation-lock.
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Coupling-lock. Sash-lock.
Lever-lock. Tire-rim lock.
Nut-lock. Window-lock.
Nut and bolt lock.
Lock. F. I. Kimball. No. 1,137,762; May 4; Gaz. vol. 214; p. 14.
Lock. I. D. Merritt. No. 1,137,775; May 4; Gaz. vol. 214; p. 18.
Lock. O. J. Olm. No. 1,139,218; May 11; Gaz. vol. 214; p. 564.
Lock. A. A. Page. No. 1,137,785; May 4; Gaz. vol. 214; p. 22.
Lock. A. A. Page. No. 1,137,786; May 4; Gaz. vol. 214; p. 23.
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Lock. J. H. Shaw. No. 1,137,798; May 4; Gaz. vol. 214; p. 26.
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Lock. B. Van Hoesen. No. 1,139,933; May 18; Gaz. vol. 214; p. 851.
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Locking-bolt for safe or vault doors and the like, Emergency. F. L. Horspool. No. 1,138,218; May 4; Gaz. vol. 214; p. 173.
Locking-clip. L. Steinberger. No. 1,139,141; May 11; Gaz. vol. 214; p. 538.
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Locomotive fire-boxes, Baffle-wall for. H. D. Savage. No. 1,138,045; May 4; Gaz. vol. 214; p. 113.
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Logging-hook. H. Hardisty. No. 1,139,761; May 18; Gaz. vol. 214; p. 790.
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Loom, Circular. M. R. Rhomoser. No. 1,139,073; May 11; Gaz. vol. 214; p. 514.
Loom, Filling-replenishing. T. Martin. No. 1,140,520; May 25; Gaz. vol. 214; p. 1095.
Loom for weaving double pile fabrics. A. W. Binz. No. 1,137,832; May 4; Gaz. vol. 214; p. 38.
Loom picking-motion, Weaving-. E. Zipper. No. 1,138,528; May 4; Gaz. vol. 214; p. 282.
Loom-shuttle, Automatically-threading. A. E. Rhoades. No. 1,138,316; May 4; Gaz. vol. 214; p. 208.
Loom shuttle-tension. J. Poisson. No. 1,138,310; May 4; Gaz. vol. 214; p. 206.
Looms, Thread-cutter for the depleted weft of weft-replenishing. E. H. Ballou. No. 1,138,272; May 4; Gaz. vol. 214; p. 192.
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Machine-brake. A. R. Ogburn. No. 1,139,566; May 18; Gaz. vol. 214; p. 722.
Machine element, Means for guiding a reciprocating non rotating. G. Sipp. No. 1,139,591; May 18; Gaz. vol. 214; p. 730.
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Manure-spreader. T. Brown. No. 1,139,482; May 18; Gaz. vol. 214; p. 693.
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Map and table-top, Revolving. C. A. Miller. No. 1,141,070; May 25; Gaz. vol. 214; p. 1283.
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Milking apparatus. G. Sinclair. No. 1,139,590; May 18; Gaz. vol. 214; p. 730.
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Mower, Lawn-. J. P. Patterson. No. 1,140,526; May 25; Gaz. vol. 214; p. 1097.
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Mowers, Hay-raking attachment to. D. P. Jones. No. 1,138,223; May 4; Gaz. vol. 214; p. 175.
Mowing-machine. C. Lorenson. No. 1,140,175; May 18; Gaz. vol. 214; p. 938.
Muffler. W. R. McCulla. No. 1,140,693; May 25; Gaz. vol. 214; p. 1152.
Multiple-unit heater. W. S. Elliott. No. 1,139,172; May 11; Gaz. vol. 214; p. 549.
Music-clamp. W. W. and E. V. Malone. No. 1,138,302; May 4; Gaz. vol. 214; p. 203.
Music-holder. C. G. Moberg. No. 1,140,277; May 18; Gaz. vol. 214; p. 971.
Music-leaf turner. S. B. Marble. No. 1,140,695; May 25; Gaz. vol. 214; p. 1153.
Music-leaf turner. E. Olson. No. 1,139,438; May 11; Gaz. vol. 214; p. 642.
Music-leaf turner. J. J. Retzler and J. L. Shelton. No. 1,140,612; May 25; Gaz. vol. 214; p. 1126.
Music-player. D. G. Hauss and A. Dom. No. 1,138,103; May 4; Gaz. vol. 214; p. 135.
Music-rolls, Expression-markings for player-piano. C. S. Jaasey. No. 1,140,746; May 25; Gaz. vol. 214; p. 1170.
Musical instrument, Self-playing. L. B. Doman. No. 1,141,044; May 25; Gaz. vol. 214; p. 1275.
Musical instruments, Bridge for stringed. A. Shutt. No. 1,138,803; May 11; Gaz. vol. 214; p. 419.
Nail holder and carrier. U. G. McJunken. No. 1,139,879; May 18; Gaz. vol. 214; p. 833.
Nailing-machine. H. W. Morgan. No. 1,140,605; May 25; Gaz. vol. 214; p. 1124.
Necktie. J. L. Clark, Jr. No. 1,139,016; May 11; Gaz. vol. 214; p. 495.
Necktie. W. H. Smith. No. 1,140,201; May 18; Gaz. vol. 214; p. 946.
Needle machines, Feeding mechanism for multiple-. J. R. Moffatt. No. 1,139,051; May 11; Gaz. vol. 214; p. 507.
Nest-box, Hen's. C. O. O. Huseby. No. 1,138,757; May 11; Gaz. vol. 214; p. 401.
Nest, Trap-. C. T. King. No. 1,138,664; May 11; Gaz. vol. 214; p. 367.
Nest trap, Hen's-. W. H. Collins. No. 1,139,849; May 18; Gaz. vol. 214; p. 822.
Net fabric, Twisted-. F. Clewley. No. 1,139,344; May 11; Gaz. vol. 214; p. 606.
Newspaper-conveyer. F. W. Fullerton. No. 1,138,609; May 4; Gaz. vol. 214; p. 309.
Nitrogen compounds from organic substances of animal origin, Production of soluble. E. Bohon. No. 1,138,348; May 4; Gaz. vol. 214; p. 221.
Nitrogen, Fixing atmospheric. J. E. Bucher. No. 1,138,190; May 4; Gaz. vol. 214; p. 165.
Nitroglycerin, Facilitating the separation of. R. Weyel. No. 1,138,916; May 11; Gaz. vol. 214; p. 457.
Nitroglycerin, Facilitating the separation of. R. Weyel. No. 1,138,917; May 11; Gaz. vol. 214; p. 458.
Non-blinding device. E. Aderente. No. 1,140,096; May 18; Gaz. vol. 214; p. 911.
Note-sheet-guiding device. W. M. Stone. No. 1,139,082; May 11; Gaz. vol. 214; p. 517.
Nozzle, Spraying-. P. T. Naylor. No. 1,138,500; May 4; Gaz. vol. 214; p. 273.
Numbering-head. A. H. Smith. No. 1,138,323; May 4; Gaz. vol. 214; p. 212.
Nut and bolt lock. O. King, T. H Fox, and J. L. O. King. No. 1,138,574; May 4; Gaz. vol. 214; p. 297.
Nut device, Lock-. E. F. Gobatti. No. 1,138,861; May 11; Gaz. vol. 214; p. 440.
Nut, Lock-. G. W. Rhoads and C. S. Small. No. 1,140,286; May 18; Gaz. vol. 214; p. 974.
Nut, Lock-. J. Pinto. No. 1,138,409; May 4; Gaz. vol. 214; p. 243.
Nut, Lock-. O. Anderson. No. 1,140,234; May 18; Gaz. vol. 214; p. 957.
Nut-lock. J. Purnselley. No. 1,139,225; May 11; Gaz. vol. 214; p. 566.
Nut, Lock-. I. C. Woodward. No. 1,137,941; May 4; Gaz. vol. 214; p. 76.
Nut-lock. L. G. Channell. No. 1,140,876; May. 25; Gaz. vol. 214; p. 1217.
Nut-lock. J. R. Formby. No. 1,140,974; May 25; Gaz. vol. 214; p. 1252.
Nut-lock. J. R. Glynn. No. 1,139,029; May 11; Gaz. vol. 214; p. 500.
Nut-lock. F. A. Harris. No. 1,140,902; May 25; Gaz. vol. 214; p. 1227.
Nut-lock. A. Hella. No. 1,140,037; May 18; Gaz. vol. 214; p. 890.
Nut-lock. G. E. Howe. No. 1,140,594; May 25; Gaz. vol. 214; p. 1119.
Nut-lock. A. A. King. No. 1,139,191; May 11; Gaz. vol. 214; p. 556.
Nut-lock. W. S. Lail. No. 1,139,196; May 11; Gaz. vol. 214; p. 558.
Nut-lock. W. F. Ludwick. No. 1,140,468; May 25; Gaz. vol. 214; p. 1076.
Nut-lock. R. T. McClure. No. 1,140,272; May 18; Gaz. vol. 214; p. 970.
Nut-lock. A. E. Myers. No. 1,139,897; May 18; Gaz. vol. 214; p. 839.
Nut-lock. J. C. Robinson and J. Andrews. No. 1,141,007; May 25; Gaz. vol. 214; p. 1263.
Nut-lock. C. F. Schwab. No. 1,138,898; May 11; Gaz. vol. 214; p. 451.
Nut-lock. J. Smith. No. 1,139,819; May 18; Gaz. vol. 214; p. 812.
Nut-locking device. A. E. Lotstrom. No. 1,138,878; May 11; Gaz. vol. 214; p. 445.
Nut-tapping machine. R. H. Smith. No. 1,138,901; May 11; Gaz. vol. 214; p. 452.
Oar, Motor-. E. Burroughs. No. 1,138,078; May 4; Gaz. vol. 214; p. 126.
Odometer. A. W. Wessoleck. No. 1,140,426; May 25; Gaz. vol. 214; p. 1059.
Oil-burner. A. G. Tesch. No. 1,139,922; May 18; Gaz. vol. 214; p. 848.
Oil burner, Crude-. C. Wirth. No. 1,138,165; May 4; Gaz. vol. 214; p. 156.
Oil-can. O. R. Rydquist. No. 1,138,794; May 11; Gaz. vol. 214; p. 416.
Oil-can, Safety. A. L. Hansen. No. 1,140,034; May 18; Gaz. vol. 214; p. 888.
Oil from exhaust-steam, Apparatus for reclaiming. M. Collins. No. 1,140,118; May 18; Gaz. vol. 214; p. 918.
Oil-heater. S. Vannatta. No. 1,140,780; May 25; Gaz. vol. 214; p. 1181.
Oil to road-surfaces, Apparatus for applying. H. G. Knief. No. 1,138,489; May 4; Gaz. vol. 214; p. 270.
Oils, Treating hydrocarbon. C. H. Washburn. No. 1,138,266; May 4; Gaz. vol. 214; p. 190.
Oiler, Road-. J. R. Kinney. No. 1,139,423; May 11; Gaz. vol. 214; p. 636.
Oiling device for dough-divider machines. C. H. Heilig. No. 1,139,181; May 11; Gaz. vol. 214; p. 553.
Opener. W. C. Curran. No. 1,138,456; May 4; Gaz. vol. 214; p. 259.
Opticopictorial apparatus. F. von Madaler. No. 1,139,241; May 11; Gaz. vol. 214; p. 571.
Ordnance. D. J. Cartwright. No. 1,137,953; May 4; Gaz. vol. 214; p. 81.
Ore-grinder. E. F. McCool. No. 1,138,966; May 11; Gaz. vol. 214; p. 475.
Ore-pocket door. C. G. Baumgartner. No. 1,140,436; May 25; Gaz. vol. 214; p. 1063.
Ore-separator. H. H. McGovern. No. 1,139,206; May 11; Gaz. vol. 214; p. 561.
Ore-sintering apparatus. A. F. Plock. No. 1,140,710; May 25; Gaz. vol. 214; p. 1157.
Ore-treating apparatus. B. MacDonald. No. 1,139,428; May 11; Gaz. vol. 214; p. 638.
Ores, Leaching. J. A. McCaskell. No. 1,137,874; May 4; Gaz. vol. 214; p. 53.
Orthodontia appliance. C. F. Montag. No. 1,140,759; May 25; Gaz. vol. 214; p. 1174.
Osteopathic apparatus. F. D. Powell. No. 1,137,898; May 4; Gaz. vol. 214; p. 60.
Outlet-box. M. Robinson. No. 1,140,917; May 25; Gaz. vol. 214; p. 1232.
Oven, Baker's. H. Crouthamel. No. 1,139,349; May 11; Gaz. vol. 214; p. 608.
Oven, Baking-. W. S. Corby and J. L. Parsons, Jr. No. 1,138,935; May 11; Gaz. vol. 214; p. 464.
Oven-door. E. F. Griffin. No. 1,139,272; May 11; Gaz. vol. 214; p. 582.
Oven, Heat-retaining. A. P. Hawley. No. 1,140,154; May 18; Gaz. vol. 214; p. 931.
Overcheck-hook. I. E. Cornell. No. 1,139,166; May 11; Gaz. vol. 214; p. 547.
Overseaming cup-feed machines, Feeding mechanism for. L. Onderdonk. No. 1,137,784; May 4; Gaz. vol. 214; p. 22.
Oxygen-generator. T. Griswold, Jr., and E. O. Barstow. No. 1,140,373; May 25; Gaz. vol. 214; p. 1040.
Package-tie. M. A. Smith. No. 1,141,018; May 25; Gaz. vol. 214; p. 1266.
Package tier, Adjustable letter-. U. J. Burke. No. 1,139,100; May 11; Gaz. vol. 214; p. 524.
Packing. G. McCadden. No. 1, 139,306; May 11; Gaz. vol. 214; p. 593.
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Pail attachment, Milking-. E. G. Powers. No. 1,140,528; May 25; Gaz. vol. 214; p. 1098.

Pail rack, Sanitary candy-. J. O. Wiles. No. 1,138,340; May 4; Gaz. vol. 214; p. 218.
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Panel-board fitting. H. U. Badeau. No. 1,141,032; May 25; Gaz. vol. 214; p. 1271.
Paper and similar fabrics, Means for delivering moistened or glue-coated. A. M. Chaffee. No. 1,138,538; May 4; Gaz. vol. 214; p. 286.
Paper-binding clip. L. E. Baltzley. No. 1,139,627; May 18; Gaz. vol. 214; p. 744.
Paper box. J. M. Puley. No. 1,138,788; May 11; Gaz. vol. 214; p. 413.
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Paper-drying machine. A. Aldrich. No. 1,139,625; May 18; Gaz. vol. 214; p. 742.
Paper-hanging device. J. N. Campbell. No. 1,140,112; May 18; Gaz. vol. 214; p. 916.
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Paper-making machines, Stock-gate controller for. T. French. No. 1,140,029; May 18; Gaz. vol. 214; p. 886.
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Paper-pulp, Apparatus for disintegrating fibrous material used in the manufacture of. W. H. Stobie. (Reissue.) No. 13,919; May 18; Gaz. vol. 214; p. 998.
Paper-stock-beating machine. H. A. Frambach. No. 1,140,737; May 25; Gaz. vol. 214; p. 1166.
Paper, Treating writing-. E. H. Clifton. No. 1,140,253; May 18; Gaz. vol. 214; p. 964.
Paper vessels, Holder for folding. B. I. Rike. No. 1,139,579; May 18; Gaz. vol. 214; p. 727.
Paper vessels, Holder for folding. B. I. Rike and J. R. Klin. No. 1,139,580; May 18; Gaz. vol. 214; p. 727.
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Permutation-lock. A. Leksuczin. No. 1,140,751; May 25; Gaz. vol. 214; p. 1172.
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Peroxid of hydrogen, Manufacturing. W. Weber. No. 1,138,520; May 4; Gaz. vol. 214; p. 279.
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Photographic exposing mechanism. W. F. Folmer. No. 1,139,023; May 11; Gaz. vol. 214; p. 497.
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Pictures on films, Composition of matter for restoring the. F. W. Hochstetter. No. 1,139,683; May 18; Gaz. vol. 214; p. 764.
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Plow attachment, Sulky-. P. A. Doyle. No. 1,138,546; May 4; Gaz. vol. 214; p. 288.
Plow, Gang-. C. A. Brostrom. No. 1,139,751; May 18; Gaz. vol. 214; p. 787.
Plow, Reversible-disk. A. P. McKay. No. 1,137,770; May 4; Gaz. vol. 214; p. 17.
Plow-stock shield. H. B. Baucom. No. 1,138,273; May 4; Gaz. vol. 214; p. 193.
Plowshare. M. Mares. No. 1,140,275; May 18; Gaz. vol. 214; p. 971.
Plowshare, Detachable. I. A. Weaver. No. 1,137,817; May 4; Gaz. vol. 214; p. 33.
Plowshares, Pulverizing attachment for. D. S. Carter. No. 1,137,952; May 4; Gaz. vol. 214; p. 81.
Pneumatic-action mechanism, Individual. W. F. Deitemeier. No. 1,138,840; May 11; Gaz. vol. 214; p. 435.
Pneumatic concentrator. R. D. O. Johnson. No. 1,139,186; May 11; Gaz. vol. 214; p. 554.
Pneumatic-despatch-tube apparatus. E. A. Fordyce. No. 1,138,206; May 4; Gaz. vol. 214; p. 169.
Pneumatic players, Transposing mechanism for. W. C. Stephenson. No. 1,138,155; May 4; Gaz. vol. 214; p. 153.
Pneumatic suction-cleaner. E. A. Martin. No. 1,140,992; May 25; Gaz. vol. 214; p. 1258.
Pocket safety device. C. Redinger. No. 1,138,507; May 4; Gaz. vol. 214; p. 275.
Pole, Sectional supporting-. T. Younis. No. 1,138,826; May 11; Gaz. vol. 214; p. 426.
Pole, Vehicle-. M. E. Anderson. No. 1,138,436; May 4; Gaz. vol. 214; p. 252.
Polishing device. C. E. Houston. No. 1,140,593; May 25; Gaz. vol. 214; p. 1119.
Polishing-machine. H. J. Webb. No. 1,140,424; May 25; Gaz. vol. 214; p. 1059.
Polishing or grinding machine. W. V. Robinson. No. 1,139,728; May 18; Gaz. vol. 214; p. 780.
Polycycle. D. G. Finley. No. 1,139,174; May 11; Gaz. vol. 214; p. 550.
Polycycle. D. G. Finley. No. 1,139,175; May 11; Gaz. vol. 214; p. 550.
Poncho. C. E. Knoblauch. No. 1,138,220; May 4; Gaz. vol. 214; p. 177.
Pool-tables, Ball-return for. M. H. Bernhard. No. 1,137,736; May 4; Gaz. vol. 214; p. 6.
Portable tank. J. B. Bartholomew. No. 1,137,733; May 4; Gaz. vol. 214; p. 5.
Post: *See*—
Adjusting-post. Rubbing-post.
Concrete post. Sign-post.
Fence-post.
Poster or display-card. W. D. Roy. No. 1,139,075; May 11; Gaz. vol. 214; p. 515.
Pot: *See*—
Casting-pot. Coffee-pot.
Pot-holder. J. T. Morgan. No. 1,139,212; May 11; Gaz. vol. 214; p. 563.
Potato-picker. J. Flynn. No. 1,138,371; May 4; Gaz. vol. 214; p. 229.
Pouncing-pad. A. Turner. No. 1,139,928; May 18; Gaz. vol. 214; p. 840.
Pour-out stopper. J. T. Craw. No. 1,140,959; May 25; Gaz. vol. 214; p. 1247.
Power-transmission apparatus. C. N. Dutton. No. 1,138,094; May 4; Gaz. vol. 214; p. 131.
Power transmission, Hydraulic-. J. M. W. Kitchen. No. 1,138,607; May 11; Gaz. vol. 214; p. 368.
Power-transmission mechanism. F. F. Dorsey. No. 1,140,132; May 18; Gaz. vol. 214; p. 923.
Power-transmission system, Electric. J. R. Markle. No. 1,139,882; May 18; Gaz. vol. 214; p. 834.
Preserving perishable articles, Packing means for. E. R. Gill. No. 1,139,359; May 11; Gaz. vol. 214; p. 612.
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Box-press. Link-press.
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Press. W. H. and W. W. Chapman. No. 1,139,845; May 18; Gaz. vol. 214; p. 821.
Press having revolving pressing-surfaces. M. Johansen. No. 1,140,683; May 25; Gaz. vol. 214; p. 1149.
Presses or the like, Automatic stop mechanism for. W. J. Kent. No. 1,139,773; May 18; Gaz. vol. 214; p. 795.
Presses, Safety device for. F. Graffenberger. No. 1,138,374; May 4; Gaz. vol. 214; p. 230.
Pressing-machine. D. M. Cooper. No. 1,139,346; May 11; Gaz. vol. 214; p. 607.
Presser-foot mechanism. H. A. Ballard. No. 1,139,626; May 18; Gaz. vol. 214; p. 743.
Primary battery. D. Elmes. No. 1,138,363; May 4; Gaz. vol. 214; p. 227.
Prime mover. M. W. Johnson, Jr. No. 1,140,515; May 25; Gaz. vol. 214; p. 1092.
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Printer's catch or registering means. A. R. Warren and A. F. Bals. No. 1,137,816; May 4; Gaz. vol. 214; p. 33.
Printer's galley-lock. E. Weltzel. No. 1,140,728; May 25; Gaz. vol. 214; p. 1163.
Printing an enlargement from a negative-film, Means for. H. E. Lenah and J. L. Schwenk. No. 1,138,963; May 11; Gaz. vol. 214; p. 474.
Printing and marking machines, Inking device for. E. Woodward. No. 1,138,711; May 11; Gaz. vol. 214; p. 384.
Printing-frame. W. Johnson. No. 1,139,768; May 18; Gaz. vol. 214; p. 793.
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Printing-machine ink-fountain. J. J. Halliwell. No. 1,137,856; May 4; Gaz. vol. 214; p. 46.
Printing-machine ink-rolls. E. Ocumpaugh. No. 1,139,710; May 18; Gaz. vol. 214; p. 774.
Printing machine, Transfer-. R. E. Kimball. No. 1,140,748; May 25; Gaz. vol. 214; p. 1171.
Printing-plates, Machine for cooling stereotype. E. C. Collins. No. 1,138,731; May 11; Gaz. vol. 214; p. 392.
Printing-press attachment. A. L. Smith. No. 1,140,197; May 18; Gaz. vol. 214; p. 945.
Printing-press, Combined multicolor and perfecting web. G. E. Pancoast. No. 1,138,782; May 11; Gaz. vol. 214; p. 410.
Printing-press cylinders, Blanket for. N. J. and F. J. Gauthier. No. 1,140,511; May 25; Gaz. vol. 214; p. 1091.
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Projectile. J. Karlik. No. 1,140,041; May 18; Gaz. vol. 214; p. 891.
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Promenades and playing-courts, Construction of. W. G. K. Birkinshaw and C. A. Brown. No. 1,140,241; May 18; Gaz. vol. 214; p. 960.
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Propelling steamships or other vessels, Means for. B. F. Wright. No. 1,140,786; May 25; Gaz. vol. 214; p. 1183.
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Pulp, Machine for making plates from. F. W. Waterman. No. 1,139,002; May 11; Gaz. vol. 214; p. 489.
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Pump. A. A. Bowser. No. 1,138,621; May 11; Gaz. vol. 214; p. 352.
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Pump, Centrifugal. J. Lehne and W. Lucke. No. 1,139,042; May 11; Gaz. vol. 214; p. 504.
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Pump, Deep-well. F. B. Warring. No. 1,139,607; May 18; Gaz. vol. 214; p. 738.
Pump for vacuum cleaning systems. G. B. Bartley. No. 1,138,617; May 11; Gaz. vol. 214; p. 351.
Pump, Pneumatic. A. J. Tyler. No. 1,139,930; May 18; Gaz. vol. 214; p. 850.
Pump, Rotary. T. Hye, W. B. Campbell, and T. A. Bateman. No. 1,140,983; May 25; Gaz. vol. 214; p. 1255.
Pump, Spark-plug. F. C. H. Straasburger. No. 1,139,017; May 18; Gaz. vol. 214; p. 846.
Pump, Steam vacuum-. J. G. Robinson. No. 1,138,893; May 11; Gaz. vol. 214; p. 450.
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Pump, Stroke-regulator for windmill-. A. E. Gault. No. 1,138,550; May 4; Gaz. vol. 214; p. 289.
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Pumping apparatus. V. P. Bailey. No. 1,140,939; May 25; Gaz. vol. 214; p. 1240.
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Pumping apparatus, Current-operated. J. M. Trull. No. 1,138,158; May 4; Gaz. vol. 214; p. 154.
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Purse. A. J. Meier. No. 1,138,882; May 11; Gaz. vol. 214; p. 447.
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Quinolin compound and producing the same. A. B. Davis. No. 1,138,936; May 11; Gaz. vol. 214; p. 464.
Quinolin compound and producing the same. A. B. Davis. No. 1,138,937; May 11; Gaz. vol. 214; p. 465.
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Radiator cooling attachment. W. J. Hickey. No. 1,139,034; May 11; Gaz. vol. 214; p. 501.
Radiator-valve, Thermostatic. C. Stickle. No. 1,140,083; May 18; Gaz. vol. 214; p. 905.
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Rail-anchor. A. L. Stanford. No. 1,139,381; May 11; Gaz. vol. 214; p. 620.
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Rail-antispreading attachment. M. E. Simpson. No 1,138,510; May 4; Gaz. vol. 214; p. 276.
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Rail-supporting structure. J. G. Hailstone and C. Dietz. No. 1,139,966; May 18; Gaz. vol. 214; p. 863.
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Railway appliance. F. A. McRae. No. 1,139,551; May 18; Gaz. vol. 214; p. 717.
Railway-coaches, Safety attachment for. O. A. Wolfe. No. 1,139,619; May 18; Gaz. vol. 214; p. 741.
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Railway-crossing. E. N. Strom. No. 1,140,008; May 18; Gaz. vol. 214; p. 879.
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Railway draft-rigging. W. H. Miner. No. 1,138,000; May 4; Gaz. vol. 214; p. 97.
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Railway safety device. W. J. Melvin and H. J. Burbridge. No. 1,138,883; May 11; Gaz. vol. 214; p. 447.
Railway sanitary apparatus. G. W. and I. S. Kelley. No. 1,138,486; May 4; Gaz. vol. 214; p. 269.
Railway-signal. J. P. Coleman. No. 1,138,087; May 4; Gaz. vol. 214; p. 129.
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Railway-switch. I. A. Call. No. 1,138,606; May 4; Gaz. vol. 214; p. 308.
Railway-switch, Automatic. J. Dubois and J. E. Jones. No. 1,140,966; May 25; Gaz. vol. 214; p. 1250.
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Railway-tie, Metallic. J. F. Vallin. No. 1,138,428; May 4; Gaz. vol. 214; p. 249.
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Railway-train safety device. O. M. De Munnick. No. 1,140,580; May 25; Gaz. vol. 214; p. 1114.

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Rake. J. A. Gould. No. 1,139,270; May 11; Gaz. vol. 214; p. 582.
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Razor-blade holder, Safety-. M. Becker. No. 1,140,942; May 25; Gaz. vol. 214; p. 1241.
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Recording instrument. S. T. Park and J. E. Phillips. No. 1,138,011; May 4; Gaz. vol. 214; p. 100.
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Refrigerating apparatus. H. H. Southworth and F. W. Wolf. No. 1,139,460; May 11; Gaz. vol. 214; p. 649.
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Refrigerator-car-door-locking mechanism. G. Q. Lewis. No. 1,140,517; May 25; Gaz. vol. 214; p. 1093.
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Refuse-burner. E. E. Fitzgerald. No. 1,139,658; May 18; Gaz. vol. 214; p. 755.
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Refuse sorting and feeding device. W. S. Parsons. No. 1,138,245; May 4; Gaz. vol. 214; p. 182.
Regenerator. G. L. Danforth, Jr. No. 1,140,125; May 18; Gaz. vol. 214; p. 921.
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Cash and autographic register. Telephone-call register.
Register-bands, Perforating apparatus for making. E. Ehrhardt. No. 1,138,945; May 11; Gaz. vol. 214; p. 467.
Regulating system. J. Bijur. No. 1,140,106; May 18; Gaz. vol. 214; p. 914.

Regulator: *See*—
Electric-circuit regulator. Heater-regulator.
Fluid-compressor regulator. Hot-water-system regulator.
Furnace-regulator.
Reinforcing-clip. H. I. Steffa. No. 1,140,204; May 18; Gaz. vol. 214; p. 947.
Relay for signal systems, Track-. G. B. Gray. No. 1,138,748; May 11; Gaz. vol. 214; p. 398.
Relay, Overhead and reverse-current. F. Conrad. No. 1,137,840; May 4; Gaz. vol. 214; p. 41.
Relay, Polarized. G. B. Gray. No. 1,140,739; May 25; Gaz. vol. 214; p. 1107.
Relay, Time-limit. G. A. Burnham. No. 1,140,249; May 18; Gaz. vol. 214; p. 962.
Reservoir and tank. W. Mueser. No. 1,138,394; May 4; Gaz. vol. 214; p. 238.
Resilient-hub wheel. D. Silvestri. No. 1,140,622; May 25; Gaz. vol. 214; p. 1130.
Resilient wheel. H. Clifford. No. 1,139,630; May 18; Gaz. vol. 214; p. 747.
Resilient wheel. W. B. Gray. No. 1,139,673; May 18; Gaz. vol. 214; p. 761.
Resilient wheel. M. F. Kettler. No. 1,140,686; May 25; Gaz. vol. 214; p. 1150.
Resilient wheel. H. Lauridsen. No. 1,137,988; May 4; Gaz. vol. 214; p. 93.
Resilient wheel. R. T. Park. No. 1,139,065; May 11; Gaz. vol. 214; p. 512.
Resilient wheel. B. Walters. No. 1,140,088; May 18; Gaz. vol. 214; p. 908.
Resistance device. S. E. Huenerfauth. No. 1,138,659; May 11; Gaz. vol. 214; p. 365.
Resurfacing-tool. J. H. Richardson. No. 1,140,398; May 25; Gaz. vol. 214; p. 1049.
Retaining means. A. Hella. No. 1,140,030; May 18; Gaz. vol. 214; p. 889.
Retorts, Door mechanism for vertical. J. H. Taussig. No. 1,140,339; May 18; Gaz. vol. 214; p. 994.
Retorts, Heating. F. T. Beers. No. 1,140,351; May 25; Gaz. vol. 214; p. 1032.
Retorts, Means for charging vertical. J. H. Taussig. No. 1,140,340; May 18; Gaz. vol. 214; p. 994.
Retting. M. A. Adam and W. J. Fernie. No. 1,140,290; May 18; Gaz. vol. 214; p. 977.
Reversible seat for tram-cars and other purposes. J. E. Anger. No. 1,140,097; May 18; Gaz. vol. 214; p. 911.
Reversible seat for tram-cars and other purposes. J. E. Anger. No. 1,140,342; May 18; Gaz. vol. 214; p. 995.
Revolving dining-room table. J. A. Oberg and J. R. Eckman. No. 1,139,564; May 18; Gaz. vol. 214; p. 721.
Rifle, Magazine-. D. B. Bubar. No. 1,140,245; May 18; Gaz. vol. 214; p. 961.
Rifle-range shot-indicator. E. D. Church. No. 1,139,846; May 18; Gaz. vol. 214; p. 821.
Rim, Demountable. J. B. Arthur. No. 1,139,151; May 11; Gaz. vol. 214; p. 542.
Rim, Demountable. P. J. and C. C. Neubig, Jr. No 1,138,502; May 4; Gaz. vol. 214; p. 273.
Rim-tool. H. C. Emerick. No. 1,140,806; May 25; Gaz. vol. 214; p. 1190.
Ring: *See*—
Doffer-ring. Metal cinch rigging-ring.
Ear-ring. Packing-ring.
Embroidery-ring. Piston-ring.
Ring-expander. F. O. Anderson. No. 1,139,149; May 11; Gaz. 214; p. 541.
Ring-frame tool. L. H. Rooney. No. 1,139,806; May 18; Gaz. vol. 214; p. 807.
Rivet-set retainer. W. H. Shipler. No. 1,140,536; May 25; Gaz. vol. 214; p. 1101.
Riveting apparatus, Electric. F. P. Kobert. No. 1,139,800; May 11; Gaz. vol. 214; p. 591.
Road. R. P. Scott. No. 1,138,983; May 11; Gaz. vol. 214; p. 481.
Road-bed. S. Mahurin. No. 1,139,692; May 18; Gaz. vol. 214; p. 767.
Road-levelling machine. C. H. Jones. No. 1,140,985; May 25; Gaz. vol. 214; p. 1256.
Rock-drill. M. A. Knapp. No. 1,138,612; May 4; Gaz. vol. 214; p. 310.
Rock-drill. W. L. Smith. No. 1,139,139; May 11; Gaz. vol. 214; p. 538.
Rock-drill, Power. F. P. Porter. No. 1,140,185; May 18; Gaz. vol. 214; p. 941.
Rock-drills for supplying water thereto, Attachment for. C. Hansen. No. 1,138,214; May 4; Gaz. vol. 214; p. 172.
Rod: *See*—
Curtain-rod. End-gate rod.
Rod-clamp. M. M. Cox. No. 1,138,195; May 4; Gaz. vol. 214; p. 166.
Rod coupling, Sectional-. L. L. Mast. No. 1,140,052; May 18; Gaz. vol. 214; p. 895.
Rods and tubes from plastic metal, Apparatus for making. G. Mellen. No. 1,139,884; May 18; Gaz. vol. 214; p. 834.
Roll-trimming machine. M. F. Anderson. No. 1,139,322; May 11; Gaz. vol. 214; p. 598.
Roller: *See*—
Expanding roller. Land-roller.
Roller. F. S. Morton. No. 1,137,781; May 4; Gaz. vol. 214; p. 21.

Rolling hollow-headed metal bars. S. R. Vannaman. No. 1,140,087; May 18; Gaz. vol. 214; p. 907.
Rolling-mill roll. N. King, Sr. No. 1,138,665; May 11; Gaz. vol. 214; p. 368.
Rolling transmission mechanism. F. O. Woodland. No. 1,139,393; May 11; Gaz. vol. 214; p. 625.
Roof or floor structure. L. Baumgartl. No. 1,140,731; May 25; Gaz. vol. 214; p. 1164.
Roofing. A. W. Phippen. No. 1,137,895; May 4; Gaz. vol. 214; p. 59.
Roofing, Metallic. W. H. Kuhr. No. 1,140,835; May 25; Gaz. vol. 214; p. 1201.
Roofing, Sheet-metal. C. B. Edwards. No. 1,140,667; May 25; Gaz. vol. 214; p. 1144.
Roofing, Sheet-metal. E. W. Edwards. No. 1,137,746; May 4; Gaz. vol. 214; p. 9.
Rope machine, Cordage-. C. E. Dailey. No. 1,141,040; May 25; Gaz. vol. 214; p. 1274.
Rotary engine. J. E. Christensen. No. 1,140,952; May 25; Gaz. vol. 214; p. 1244.
Rotary engine. F. Hupe. No. 1,138,481; May 4; Gaz. vol. 214; p. 267.
Rotary internal-combustion engine. C. E. Broman. No. 1,140,870; May 25; Gaz. vol. 214; p. 1214.
Rotary internal-combustion engine. J. F. Levering. No. 1,138,388; May 4; Gaz. vol. 214; p. 235.
Rotary machine. J. L. Webb and C. C. Murdy. No. 1,139,937; May 18; Gaz. vol. 214; p. 858.
Rotary switch, Key-operated. M. Guett. No. 1,138,752; May 11; Gaz. vol. 214; p. 399.
Rubber, Forming hollow articles of. F. A. Cigal. No. 1,139,341; May 11; Gaz. vol. 214; p. 605.
Rubber, Machine for preparing. J. E. Pointon. No. 1,138,410; May 4; Gaz. vol. 214; p. 243.
Rubbing-post. C. Goeden. No. 1,138,558; May 4; Gaz. vol. 214; p. 291.
Rug-hanger. J. S. Griffin. No. 1,139,273; May 11; Gaz. vol. 214; p. 583.
Rug-retainer. B. F. Forsyth. No. 1,137,748; May 4; Gaz. vol. 214; p. 9.
Ruling-machine. G. A. Zeiser. No. 1,138,716; May 11; Gaz. vol. 214; p. 386.
Rule for type-slugs. H. A. Spurgeon, A. T. Hunt, and W. G. Baker. No. 1,139,594; May 18; Gaz. vol. 214; p. 731.
Running-board bracket. W. E. Fowler, Sr. No. 1,140,147; May 18; Gaz. vol. 214; p. 928.
Sad-iron, Electric. W. A. Braun. No. 1,138,841; May 11; Gaz. vol. 214; p. 432.
Sad-iron stand. S. A. Fletcher. No. 1,140,146; May 18; Gaz. vol. 214; p. 928.
Sad-iron support. K. Ebner. No. 1,138,176; May 4; Gaz. vol. 214; p. 160.
Sad-iron support. J. F. Lamb. No. 1,139,688; May 18; Gaz. vol. 214; p. 765.
Saddle-press. H. L. Wendorf. No. 1,140,551; May 25; Gaz. vol. 214; p. 1105.
Safe construction. M. Mosler and C. Bartels. No. 1,140,524; May 25; Gaz. vol. 214; p. 1096.
Safety device. M. J. Bottinelli. No. 1,139,839; May 18; Gaz. vol. 214; p. 818.
Safety limit-switch. H. A. Everett. No. 1,138,366; May 4; Gaz. vol. 214; p. 228.
Safety-pin catch. T. S. Bennett. No. 1,139,836; May 18; Gaz. vol. 214; p. 817.
Safety-switch for electric train controls. R. Hamlen. No. 1,138,287; May 4; Gaz. vol. 214; p. 198.
Salt, Damp-proofing. J. D. Miller. No. 1,140,995; May 25; Gaz. vol. 214; p. 1260.
Salt-stand. C. R. West. No. 1,130,147; May 11; Gaz. vol. 214; p. 541.
Sand bricks and the like, Device for making damp-. A. E. Nicklin. No. 1,140,391; May 25; Gaz. vol. 214; p. 1047.
Sand cutting and mixing apparatus. V. E. Minich. No. 1,139,362; May 11; Gaz. vol. 214; p. 613.
Sash-fastener. W. H. Nelson. No. 1,138,396; May 4; Gaz. vol. 214; p. 238.
Sash-fastener. A. H. Newpher. No. 1,139,706; May 18; Gaz. vol. 214; p. 772.
Sash-fastener. H. L. Norton. No. 1,138,008; May 4; Gaz. vol. 214; p. 99.
Sash-fastener. H. L. Norton. No. 1,138,009; May 4; Gaz. vol. 214; p. 100.
Sash-holder. E. Olson. No. 1,138,242; May 4; Gaz. vol. 214; p. 181.
Sash-holder. J. P. Williams. No. 1,138,823; May 11; Gaz. vol. 214; p. 425.
Sash lift and lock, Window-. L. Schmidt and S. Brunstein. No. 1,140,770; May 25; Gaz. vol. 214; p. 1178.
Sash-lock. A. B. Brown. No. 1,140,046; May 25; Gaz. vol. 214; p. 1242.
Sash-lock. F. T. Feicht. No. 1,140,027; May 18; Gaz. vol. 214; p. 886.
Sash lock, Window-. C. H. Anderson. No. 1,137,828; May 4; Gaz. vol. 214; p. 37.
Sash, Metal window-. B. S. McClellan. No. 1,139,787; May 18; Gaz. vol. 214; p. 800.
Sash-operating device, Multiple-. J. Matthews, E. W. Freeman, and W. H. S. Bateman. No. 1,139,205; May 11; Gaz. vol. 214; p. 561.
Sash, Stay and fastener for storm-. V. Lockwood. No. 1,139,781; May 18; Gaz. vol. 214; p. 798.
Saw. A. L. Cline. No. 1,137,828; May 4; Gaz. vol. 214; p. 41.
Saw-bench structure. W. R. Fox and E. W. Cleveland. No. 1,139,959; May 18; Gaz. vol. 214; p. 756.
Saw-guard. A. A. Buttan. No. 1,140,400; May 25; Gaz. vol. 214; p. 1050.
Saw machine, Band-. A. P. Thomas and G. Carlson. No. 1,139,823; May 18; Gaz. vol. 214; p. 813.
Saw-set. J. M. Smith. No. 1,139,818; May 18; Gaz. vol. 214; p. 811.
Saw-teeth, Insertible. W. R. Kendall. No. 1,141,063; May 25; Gaz. vol. 214; p. 1281.
Saws, Inserted tooth for. S. J. Brown. No. 1,140,021; May 18; Gaz. vol. 214; p. 883.
Sawmill-dog-locking device. J. W. Morris. No. 1,139,055; May 11; Gaz. vol. 214; p. 508.
Scaffold, Trestle-. G. Bonenberger. No. 1,138,838; May 11; Gaz. vol. 214; p. 431.
Scale. C. M. Goodrich. No. 1,140,813; May 25; Gaz. vol. 214; p. 1193.
Scale. F. T. Richards. No. 1,140,530; May 25; Gaz. vol. 214; p. 1090.
Scale. C. E. Riedel. No. 1,139,998; May 18; Gaz. vol. 214; p. 875.
Scale, Automatic weighing-. G. M. Ludlow. No. 1,140,836; May 25; Gaz. vol. 214; p. 1201.
Scale, Bagging-. W. H. Sawyer. No. 1,140,485; May 25; Gaz. vol. 214; p. 1082.
Scale, Coin-operated weighing-. H. S. Mills. No. 1,139,993; May 18; Gaz. vol. 214; p. 873.
Scale, Computing-. J. Hopkinson. No. 1,140,824; May 25; Gaz. vol. 214; p. 1197.
Scale, Computing-. J. Hopkinson. No. 1,140,825; May 25; Gaz. vol. 214; p. 1198.
Scale for refrigerators, Ice-. B. M. Henley. No. 1,139,522; May 18; Gaz. vol. 214; p. 706.
Scale, Spring-balance. F. Reichmann. No. 1,138,687; May 11; Gaz. vol. 214; p. 376.
Scow, Self-dumping. F. P. Eastman. No. 1,138,463; May 4; Gaz. vol. 214; p. 261.
Scraper and rake, Combined. F. C. Boynton. No. 1,138,840; May 11; Gaz. vol. 214; p. 432.
Scraper for roller-mills, Adjustable. F. Stacey. No. 1,139,236; May 11; Gaz. vol. 214; p. 570.
Screen: *See*—
Fly-screen. Window-screen.
Screen. W. S. Potter. No. 1,139,447; May 11; Gaz. vol. 214; p. 645.
Screen and shutter, Combined. A. N. Eaton. No. 1,138,944; May 11; Gaz. vol. 214; p. 467.
Screen, curtain, and the like. W. B. Knapp. No. 1,138,668; May 11; Gaz. vol. 214; p. 369.
Screw, bolt, or nail, Expansible. A. C. Hottenroth. No. 1,139,219; May 4; Gaz. vol. 214; p. 174.
Screw-driver. S. Takaes. No. 1,139,083; May 11; Gaz. vol. 214; p. 518.
Screw machine, Metal-. B. M. W. Hanson. No. 1,140,323; May 18; Gaz. vol. 214; p. 987.
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Screw machine, Metal-. B. M. W. Hanson. No. 1,140,325; May 18; Gaz. vol. 214; p. 988.
Screw-machines, Stop-cock for. R. R. Brown. No. 1,139,752; May 18; Gaz. vol. 214; p. 787.
Scrubbing-machine brush adjustment. W. S. Finnell. No. 1,139,407; May 11; Gaz. vol. 214; p. 629.
Seal. R. A. Edgar. No. 1,140,133; May 18; Gaz. vol. 214; p. 924.
Seal. P. J. Mitten. No. 1,139,556; May 18; Gaz. vol. 214; p. 718.
Seal-fastening. T. E. Murray and G. K. Jessup. No. 1,139,052; May 11; Gaz. vol. 214; p. 507.
Seal, Snap-. E. J. Brooks. No. 1,138,350; May 4; Gaz. vol. 214; p. 222.
Seals, Machine for selecting, treating, and applying closure-. A. Westlake. No. 1,137,820; May 4; Gaz. vol. 214; p. 34.
Sealing cans. G. S. Hume. No. 1,141,061; May 25; Gaz. vol. 214; p. 1281.
Sealing device. F. W. Clary and C. H. Bissell. No. 1,139,490; May 18; Gaz. vol. 214; p. 695.
Sealing machine, Envelop-. C. H. Davis. No. 1,139,409; May 18; Gaz. vol. 214; p. 699.
Sealing machine, Package-. C. F. Chapman. No. 1,140,574; May 25; Gaz. vol. 214; p. 1112.
Sealing machine, Package-. L. D. Morton. No. 1,138,238; May 4; Gaz. vol. 214; p. 180.
Sealing means for boxes. H. B. Walter. No. 1,140,927; May 25; Gaz. vol. 214; p. 1236.
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Selective switch. E. E. Kleinschmidt. No. 1,140,749; May 25; Gaz. vol. 214; p. 1171.
Selector-switch. J. N. Reynolds. No. 1,139,722; May 18; Gaz. vol. 214; p. 778.
Self-heating iron. F. H. Hartzell. No. 1,139,862; May 18; Gaz. vol. 214; p. 827.
Self-locking pin. G. C. Brown. No. 1,139,337; May 11; Gaz. vol. 214; p. 604.
Self-piling reel. H. J. Frost. No. 1,140,810; May 25; Gaz. vol. 214; p. 1192.

Separating-machine. W. S. Ayres. No. 1,139,250; May 11; Gaz. vol. 214; p. 575.
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Separator. G. A. Fowler. No. 1,138,741; May 11; Gaz. vol. 214; p. 396.
Serum container and injector. H. L. Reed. No. 1,139,720; May 18; Gaz. vol. 214; p. 777.
Sewage and other wastes, Process and apparatus for purifying. L. C. Frank. No. 1,139,024; May 11; Gaz. vol. 214; p. 498.
Sewage disinfection. L. C. Frank. No. 1,141,050; May 25; Gaz. vol. 214; p. 1277.
Sewage-disposal apparatus. J. M. Davidson. No. 1,139,402; May 11; Gaz. vol. 214; p. 628.
Sewer-trap. R. Harkness. No. 1,140,815; May 25; Gaz. vol. 214; p. 1194.
Sewed-article seam. W. Arbetter. No. 1,140,235; May 18; Gaz. vol. 214; p. 957.
Sewing hat-leathers into hat-bodies. W. P. Gammons, Jr. No. 1,139,662; May 18; Gaz. vol. 214; p. 757.
Sewing-machine. A. H. De Voe. No. 1,140,581; May 25; Gaz. vol. 214; p. 1115.
Sewing-machine. D. S. Seymour. No. 1,137,797; May 4; Gaz. vol. 214; p. 26.
Sewing-machine. R. G. Woodward. No. 1,139,008; May 11; Gaz. vol. 214; p. 521.
Sewing machine, Button-. G. S. Gatchell. No. 1,140,372; May 25; Gaz. vol. 214; p. 1040.
Sewing-machine, Double-chain-stitch. M. Hemleb. No. 1,140,670; May 25; Gaz. vol. 214; p. 1147.
Sewing-machine edging-guide. R. G. Woodward. No. 1,138,343; May 4; Gaz. vol. 214; p. 219.
Sewing machine, Eyelet-. D. Noble. No. 1,139,437; May 11; Gaz. vol. 214; p. 641.
Sewing-machine feeding mechanism. J. Hayes, Jr. No. 1,139,863; May 18; Gaz. vol. 214; p. 827.
Sewing machine, Hat-sweat-. W. A. Knight and L. Bauer. No. 1,138,669; May 11; Gaz. vol. 214; p. 369.
Sewing-machine, Lock-stitch. E. Erickson. No. 1,138,858; May 11; Gaz. vol. 214; p. 439.
Sewing-machine loop-retainer. L. Onderdonk. No. 1,137,782; May 4; Gaz. vol. 214; p. 22.
Sewing-machine presser-foot. C. McNeil. No. 1,140,753; May 25; Gaz. vol. 214; p. 1173.
Sewing-machine, Ruffling. L. Onderdonk. No. 1,140,763; May 25; Gaz. vol. 214; p. 1175.
Sewing-machine stitch-forming mechanism. W. N. Parkes. No. 1,141,092; May 25; Gaz. vol. 214; p. 1291.
Sewing-machine take-up. E. Erickson. No. 1,140,584; May 25; Gaz. vol. 214; p. 1116.
Sewing-machine thread-controller. R. G. Woodward. No. 1,139,094; May 11; Gaz. vol. 214; p. 522.
Sewing-machine thread-guard. J. W. Darley, Jr. No. 1,139,261; May 11; Gaz. vol. 214; p. 579.
Sewing-machine thread severing and holding mechanism. J. W. Darley, Jr. No. 1,141,041; May 25; Gaz. vol. 214; p. 1274.
Sewing-machine tucking-guide. L. Onderdonk. No. 1,139,062; May 11; Gaz. vol. 214; p. 510.
Sewing-machine upper-thread-controlling device. J. R. Moffatt. No. 1,139,793; May 18; Gaz. vol. 214; p. 802.
Sewing-machine work-holder. J. E. Van Deventer. No. 1,140,217; May 18; Gaz. vol. 214; p. 951.
Shade. Y. Yamamoto. No. 1,140,002; May 18; Gaz. vol. 214; p. 909.
Shade and curtain holder, Combined. E. W. Thompson. No. 1,139,000; May 11; Gaz. vol. 214; p. 488.
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Shade fixture, Window-. I. B. Wolfe. No. 1,138,166; May 4; Gaz. vol. 214; p. 157.
Shade hanger, Window-. C. N. Hiner. No. 1,130,074; May 18; Gaz. vol. 214; p. 866.
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Shaft-coupling. H. C. Hart. 1,140,978; May 25; Gaz. vol. 214; p. 1253.
Shaft-coupling. F. Shaw. No. 1,140,855; May 25; Gaz. vol. 214; p. 1209.
Shaft-coupling. H. Steinhart. No. 1,140,628; May 25; Gaz. vol. 214; p. 1132.
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Shaft-guard. W. J. Perkins. No. 1,139,441; May 11; Gaz. vol. 214; p. 642.
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Sharpening-machine for edge-tools. H. W. Busler. No. 1,139,485; May 18; Gaz. vol. 214; p. 694.
Shaving-cup, Sanitary. E. W. Wilson. No. 1,138,825; May 11; Gaz. vol. 214; p. 426.
Shaving set. H. J. Gaisman. No. 1,140,030; May 18; Gaz. vol. 214; p. 887.
Shears. I. W. Frank. No. 1,140,897; May 25; Gaz. vol. 214; p. 1225.
Sheet-feeders, Driving mechanism for. G. Spiess. No. 1,138,327; May 4; Gaz. vol. 214; p. 214.
Sheet-feeding apparatus. A. B. Dick. No. 1,140,864; May 25; Gaz. vol. 214; p. 1220.
Sheet-metal box. G. Klenk. No. 1,139,536; May 18; Gaz. vol. 214; p. 711.
Sheet-metal box. G. Klenk. No. 1,139,537; May 18; Gaz. vol. 214; p. 712.
Sheet-metal can. S. Marzynski. No. 1,137,879; May 4; Gaz. vol. 214; p. 54.
Shelving. F. Aronson. No. 1,138,586; May 4; Gaz. vol. 214; p. 301.
Shelving. J. E. Bales. No. 1,140,940; May 25; Gaz. vol. 214; p. 1240.
Shield, Sanitary. E. L. Bainbridge-Bell. No. 1,138,440; May 4; Gaz. vol. 214; p. 253.
Ship and like winch arrangement. G. T. Macfarlane. No. 1,139,131; May 11; Gaz. vol. 214; p. 535.
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Shipping-can. L. R. Steel. No. 1,140,414; May 25; Gaz. vol. 214; p. 1055.
Shipping-case. E. B. McHose. No. 1,139,207; May 11; Gaz. vol. 214; p. 561.
Shipping-case, Combination collapsible. F. M. Fernandes. No. 1,140,972; May 25; Gaz. vol. 214; p. 1252.
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Shipping-case, Metallic. W. A. Dunlap. No. 1,138,644; May 11; Gaz. vol. 214; p. 360.
Shipping-package. M. Lachman. No. 1,138,121; May 4; Gaz. vol. 214; p. 141.
Shipping-package attachment. A. Hitzert. No. 1,139,523; May 18; Gaz. vol. 214; p. 707.
Shipping-package, Collapsible. D. H. Shapiro. No. 1,141,076; May 25; Gaz. vol. 214; p. 1285.
Shipping-receptacle. M. Lachman. No. 1,138,119; May 4; Gaz. vol. 214; p. 141.
Shirt. A. H. Kimmel. No. 1,140,834; May 25; Gaz. vol. 214; p. 1201.
Shirt, Apparel-. T. L. Rubinstein. No. 1,138,895; May 11; Gaz. vol. 214; p. 451.
Shirts, Means for attaching collars and other neckwear to. B. Joachim and B. Davidson. No. 1,139,293; May 11; Gaz. vol. 214; p. 589.
Shock-absorber. W. T. Clark. No. 1,140,357; May 25; Gaz. vol. 214; p. 1034.
Shock-absorber. J. W. Jones. No. 1,140,596; May 25; Gaz. vol. 214; p. 1120.
Shock-absorber. G. C. Martin. No. 1,137,997; May 4; Gaz. vol. 214; p. 96.
Shock-absorber for vehicles. F. V. Phillips. No. 1,140,478; May 25; Gaz. vol. 214; p. 1079.
Shock-absorber, Vehicle. A. Semmig. No. 1,138,017; May 4; Gaz. vol. 214; p. 102.
Shock-absorbing wheel. E. Clement. No. 1,130,164; May 11; Gaz. vol. 214; p. 546.
Shoe. F. Gustaveson. No. 1,138,557; May 4; Gaz. vol. 214; p. 292.
Shoe. W. C. H. P. and F. A. Hedgecock. No. 1,138,473; May 4; Gaz. vol. 214; p. 265.
Shoe. S. Tadakuma. No. 1,139,598; May 18; Gaz. vol. 214; p. 733.
Shoe. E. O. Teague. No. 1,138,425; May 4; Gaz. vol. 214; p. 248.
Shoe, Arch-supporting. J. F. Teehan. No. 1,137,807; May 4; Gaz. vol. 214; p. 30.
Shoe-bottom filler. A. Thoma. No. 1,138,910; May 11; Gaz. vol. 214; p. 456.
Shoe-breaking-in machine. H. M. Klingenfeld and A. H. Inbusch. No. 1,140,599; May 25; Gaz. vol. 214; p. 1121.
Shoe-cleaning device. O. J. McGann. No. 1,138,282; May 4; Gaz. vol. 214; p. 178.
Shoe construction. A. H. Buttles. No. 1,139,014; May 11; Gaz. vol. 214; p. 494.
Shoe-counter, Metallic. B. F. McCoy. (Reissue.) No. 13,912; May 4; Gaz. vol. 214; p. 313.
Shoe-filler. A. Thoma. No. 1,138,909; May 11; Gaz. vol. 214; p. 456.
Shoe-insole. T. F. Rooney. No. 1,140,918; May 25; Gaz. vol. 214; p. 1233.
Shoe, Low-cut. C. L. Whitcomb. No. 1,138,164; May 4; Gaz. vol. 214; p. 156.
Shoe-polishing machine. E. Jones. No. 1,139,531; May 18; Gaz. vol. 214; p. 700.
Shoe-puller. C. F. Thomas. No. 1,139,144; May 11; Gaz. vol. 214; p. 540.
Shoe-shanks, Machine for fastening metal stiffeners to. B. B. Waterman. No. 1,140,423; May 25; Gaz. vol. 214; p. 1058.
Shoe-shining machine. A. H. R. Heller. No. 1,138,868; May 11; Gaz. vol. 214; p. 442.
Shoe-turning machine. G. B. Gardner. No. 1,140,454; May 25; Gaz. vol. 214; p. 1069.
Shoe-uppers, Making. K. Engel. No. 1,139,653; May 18; Gaz. vol. 214; p. 753.
Shoes, Machine for operating on. E. I. La Chapelle. No. 1,140,467; May 25; Gaz. vol. 214; p. 1075.
Shoes, Making. E. O. Teague. No. 1,138,426; May 4; Gaz. vol. 214; p. 248.
Shoemaker's jack. O. Jensen. No. 1,138,883; May 4; Gaz. vol. 214; p. 234.
Shovel: *See*—
Excavating-shovel.
Shovel-board. E. W. Dennis. No. 1,138,545; May 4; Gaz. vol. 214; p. 288.
Shovel or spade attachment. K. Siedow. No. 1,138,018; May 4; Gaz. vol. 214; p. 102.
Show-case. L. W. Welch. No. 1,138,599; May 4; Gaz. vol. 214; p. 306.
Show-case, Sanitary. J. F. Deardorff. No. 1,138,089; May 11; Gaz. vol. 214; p. 465.

Shower-bath, Curtainless. A. E. Kenney. (Reissue.) No. 13,911; May 4; Gaz. vol. 214; p. 313.
Shuttle-operating mechanism. G. G. Sands. No. 1,138,418; May 4; Gaz. vol. 214; p. 246.
Shuttle-threading attachment. W. J. Roberts. No. 1,140,287; May 18; Gaz. vol. 214; p. 974.
Side-frame cross connection. W. J. Lynch. No. 1,140,049; May 18; Gaz. vol. 214; p. 894.
Sidewalk and road form. J. N. Heltzel. No. 1,141,057; May 25; Gaz. vol. 214; p. 1280.
Sieve, Corrugated rotary. O. L. Larson. No. 1,139,041; May 11; Gaz. vol. 214; p. 504.
Sifter. W. Nichthauser. No. 1,137,886; May 4; Gaz. vol. 214; p. 57.
Sifter, Ash-. C. Martin. No. 1,138,679; May 11; Gaz. vol. 214; p. 373.
Sign and holder. W. C. Graebe. No. 1,140,977; May 25; Gaz. vol. 214; p. 1253.
Sign, Electric. H. S. Williams. No. 1,139,614; May 18; Gaz. vol. 214; p. 739.
Sign, Illuminated. F. N. Poulallon. No. 1,139,222; May 11; Gaz. vol. 214; p. 506.
Sign, Illuminated. E. A. Rich, Jr. No. 1,139,723; May 18; Gaz. vol. 214; p. 778.
Sign, Illuminating-. J. Armantage and F. Roehrig. No. 1,139,395; May 11; Gaz. vol. 214; p. 626.
Sign-post. J. H. Ridenour. No. 1,139,802; May 18; Gaz. vol. 214; p. 806.
Signal: *See*—
Mail-box signal. Vehicle-signal.
Railway-signal.
Signal-box. T. H. S. Cone. No. 1,139,258; May 11; Gaz. vol. 214; p. 578.
Signal device. S. T. Warner. No. 1,138,029; May 4; Gaz. vol. 214; p. 106.
Signal-indicator, Shipwreck. B. F. Nixon. No. 1,137,782; May 4; Gaz. vol. 214; p. 21.
Signal-station, Police. K. J. Wallace. No. 1,138,334; May 4; Gaz. vol. 214; p. 216.
Signal station, Visual-. A. L. Sohm. No. 1,138,988; May 11; Gaz. vol. 214; p. 483.
Signal-transmission means. J. McFell. No. 1,140,471; May 25; Gaz. vol. 214; p. 1077.
Signals at danger, Electromagnetic device for notifying and recording the passing of. H. Cousin. No. 1,139,347; May 11; Gaz. vol. 214; p. 608.
Signaling apparatus. H. C. Davis and E. D. Chadwick. No. 1,138,543; May 4; Gaz. vol. 214; p. 287.
Signaling apparatus. J. F. Duggan. No. 1,141,047; May 25; Gaz. vol. 214; p. 1276.
Signaling device. H. B. Anderson. No. 1,140,492; May 25; Gaz. vol. 214; p. 1085.
Signaling device. G. J. Spohrer and W. E. Bean. No. 1,138,023; May 4; Gaz. vol. 214; p. 104.
Signaling device, Motor-vehicle. J. A. Thompson. No. 1,138,809; May 11; Gaz. vol. 214; p. 421.
Signaling system, Composite electric. W. N. Phinney. No. 1,138,013; May 4; Gaz. vol. 214; p. 101.
Signaling system, Selective. E. E. Kleinschmidt. No. 1,140,378; May 25; Gaz. vol. 214; p. 1042.
Silo. F. W. Cram. No. 1,137,842; May 4; Gaz. vol. 214; p. 42.
Silo. E. E. Hinchliff. No. 1,138,869; May 11; Gaz. vol. 214; p. 442.
Silo hoisting apparatus. H. Santrock. No. 1,138,322; May 4; Gaz. vol. 214; p. 212.
Sinker-wheel mechanism. W. T. Barratt. No. 1,140,098; May 18; Gaz. vol. 214; p. 912.
Skate, Roller-coaster. J. C. Tutt. No. 1,138,263; May 4; Gaz. vol. 214; p. 189.
Skates, Ankle-brace for. D. T. McLoney. No. 1,140,473; May 25; Gaz. vol. 214; p. 1078.
Skewer-mounting. H. G. Kimball. No. 1,137,983; May 4; Gaz. vol. 214; p. 91.
Skids of skidways, Means for cleaning and oiling the. F. W. Kolb. No. 1,137,867; May 4; Gaz. vol. 214; p. 50.
Skins, Machine for applying toggles to. W. R. Sutherland. No. 1,138,328; May 4; Gaz. vol. 214; p. 214.
Skins, Machine for applying toggles to. W. R. Sutherland. No. 1,138,329; May 4; Gaz. vol. 214; p. 214.
Skiving-machine. H. A. Brown. No. 1,139,480; May 18; Gaz. vol. 214; p. 692.
Skiving-machine. N. V. Dyer. No. 1,138,645; May 11; Gaz. vol. 214; p. 360.
Sleeve. H. Kaminkowitz. No. 1,140,685; May 25; Gaz. vol. 214; p. 1150.
Slicing-machine meat-guide. G. J. Sayer. No. 1,138,602; May 11; Gaz. vol. 214; p. 377.
Slipper. H. W. Shinn. No. 1,140,193; May 18; Gaz. vol. 214; p. 944.
Slitting-machine. F. G. Feeley. No. 1,139,355; May 11; Gaz. vol. 214; p. 610.
Small-arm. P. T. Godsal. No. 1,139,268; May 11; Gaz. vol. 214; p. 581.
Smelting furnace, Ore-. G. P. Gibson. No. 1,138,651; May 11; Gaz. vol. 214; p. 362.
Smoke and gas consumer. W. H. Topley. No. 1,140,544; May 25; Gaz. vol. 214; p. 1103.
Smoke-consumer. H. Kleman. No. 1,139,194; May 11; Gaz. vol. 214; p. 557.
Smoke-producing device for routing wild animals. A. M. Abern. No. 1,140,018; May 18; Gaz. vol. 214; p. 882.
Soap dispenser, Liquid-. A. D. Hill. No. 1,138,107; May 4; Gaz. vol. 214; p. 136.
Soaps, Manufacture of hard. J. Leimdörfer. No. 1,138,230; May 4; Gaz. vol. 214; p. 177.
Sock, Athletic. S. West. No. 1,138,521; May 4; Gaz. vol. 214; p. 280.
Socket-wrench, Adjustable. W. G. Butler. No. 1,140,947; May 25; Gaz. vol. 214; p. 1243.
Soda content of waste liquor, Recovering the. H. K. Moore. No. 1,137,779; May 4; Gaz. vol. 214; p. 20.
Soda-cup, Sanitary. D. F. Curtin. No. 1,139,018; May 11; Gaz. vol. 214; p. 495.
Sodium-bisulfite crystals, Drying. H. Howard. No. 1,138,658; May 11; Gaz. vol. 214; p. 365.
Sodium-silicate composition. J. G. Vail and J. D. Carter. No. 1,139,741; May 18; Gaz. vol. 214; p. 784.
Sodium silicate, Dissolving. W. H. Stanton and J. G. Vail. No. 1,138,595; May 4; Gaz. vol. 214; p. 304.
Soldering device. F. Kandel. No. 1,138,760; May 11; Gaz. vol. 214; p. 403.
Sole and heel for slippers. J. H. Wallace. No. 1,140,639; May 25; Gaz. vol. 214; p. 1135.
Sole-channeling machine. F. E. Valois. No. 1,140,086; May 18; Gaz. vol. 214; p. 907.
Sole, Detachable metallic shoe-. A. N. Ring. No. 1,140,613; May 25; Gaz. vol. 214; p. 1126.
Sole fastening and trimming machine. W. T. B. Roberts, No. 1,139,727; May 18; Gaz. vol. 214; p. 779.
Solids from liquids, Apparatus for continuously separating. J. V. Dorr. No. 1,140,131; May 18; Gaz. vol. 214; p. 923.
Sorting heterogeneous material, Apparatus for. D. R. Bryan. No. 1,139,484; May 18; Gaz. vol. 214; p. 694.
Sound-box. A. W. Schmidt. No. 1,137,911; May 4; Gaz. vol. 214; p. 65.
Sound-detector. W. Hopple. No. 1,140,827; May 25; Gaz. vol. 214; p. 1199.
Sound-reproducing machine. C. W. Waller. No. 1,139,387; May 11; Gaz. vol. 214; p. 623.
Sound-reproducing machines, Stylus for. P. Catucci. No. 1,138,354; May 4; Gaz. vol. 214; p. 223.
Sound-reproducing machines, Stylus-positioning and circuit-controlling means for. C. W. Ebeling. No. 1,138,646; May 11; Gaz. vol. 214; p. 361.
Sounds by means of Hertzian waves, Apparatus for transmitting. W. Harrison. No. 1,139,413; May 11; Gaz. vol. 214; p. 632.
Spark-arrester. H. L. Needham. No. 1,140,911; May 25; Gaz. vol. 214; p. 1230.
Spark-arrester. P. L. Raymond. No. 1,138,890; May 11; Gaz. vol. 214; p. 449.
Spark-plug. R. J. Farrell and F. A. Ardron. No. 1,139,654; May 18; Gaz. vol. 214; p. 754.
Spark-plug. W. H. Gates. No. 1,141,052; May 25; Gaz. vol. 214; p. 1278.
Spark-plug. J. A. Gilbert. No. 1,138,372; May 4; Gaz. vol. 214; p. 230.
Spark-plug. W. M. Marean. No. 1,139,694; May 18; Gaz. vol. 214; p. 767.
Spark-plug. A. Schmidt. No. 1,138,797; May 11; Gaz. vol. 214; p. 417.
Spark-plug. J. Triska. No. 1,138,811; May 11; Gaz. vol. 214; p. 421.
Spark-plug attachment. R. K. McDougal. No. 1,137,992; May 4; Gaz. vol. 214; p. 94.
Spark-plug terminal connection. J. P. Blauvelt. No. 1,138,445; May 4; Gaz. vol. 214; p. 255.
Spark-plugs, Trouble-detector for. G. M. Beard. No. 1,138,441; May 4; Gaz. vol. 214; p. 254.
Sparking indicator. C. E. Harlan. No. 1,140,816; May 25; Gaz. vol. 214; p. 1194.
Spectacles. J. C. Wells. No. 1,139,146; May 11; Gaz. vol. 214; p. 540.
Speed-changing mechanism. H. G. C. Schwarze. No. 1,139,078; May 11; Gaz. vol. 214; p. 516.
Speed mechanism, Adjustable. W. McEnerney. No. 1,137,769; May 4; Gaz. vol. 214; p. 16.
Speedometer. F. A. Wieland. No. 1,137,822; May 4; Gaz. vol. 214; p. 35.
Speedometer and tire-meter. W. P. Hammond. No. 1,138,653; May 11; Gaz. vol. 214; p. 363.
Speedometer, Marine. C. H. Kenney. No. 1,138,226; May 4; Gaz. vol. 214; p. 175.
Sphygmometer. W. E. Haseltine. No. 1,139,519; May 18; Gaz. vol. 214; p. 705.
Spike-machine. J. W. Ames and L. J. Batzle. No. 1,138,171; May 4; Gaz. vol. 214; p. 158.
Spill-gate. A. J. Collar. No. 1,139,104; May 11; Gaz. vol. 214; p. 526.
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Spinning and twisting machine. P. Saracco. No. 1,138,981; May 11; Gaz. vol. 214; p. 481.
Spinning and twisting paper and other fibrous materials. T. A. Boyd. No. 1,139,333; May 11; Gaz. vol. 214; p. 602.
Spinning device. C. M. Olmsted. No. 1,138,142; May 4; Gaz. vol. 214; p. 149.
Spool-clip. M. L. Wood. No. 1,140,226; May 18; Gaz. vol. 214; p. 954.
Spool or cord holder. F. H. Van Loozen. No. 1,138,812; May 11; Gaz. vol. 214; p. 421.
Spooler. A. E. Rhoades. No. 1,140,768; May 25; Gaz. vol. 214; p. 1177.
Spray-trough for cooling condensers. F. F. Bentley. No. 1,139,156; May 11; Gaz. vol. 214; p. 544.

Sprayer. N. M. McCauley. No. 1,140,177; May 18; Gaz. vol. 214; p. 939.
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Armature-spring. Vehicle-spring.
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Spring. A. J. Dilley. No. 1,137,845; May 4; Gaz. vol. 214; p. 43.
Spring. C. I. Earll. No. 1,138,738; May 11; Gaz. vol. 214; p. 395.
Spring. G. F. Garrity. No. 1,140,455; May 25; Gaz. vol. 214; p. 1070.
Spring. E. E. Slick. No. 1,139,732; May 18; Gaz. vol. 214; p. 781.
Spring-dampener. C. E. Bauer. No. 1,140,101; May 18; Gaz. vol. 214; p. 913.
Spring-puller, Adjustable. W. E. Christopher. No. 1,139,488; May 18; Gaz. vol. 214; p. 695.
Spring suspension system. A. W. Dreyfus. No. 1,140,257; May 18; Gaz. vol. 214; p. 965.
Spring-wheel. L. O. Corwin and W. M. Arnold. No. 1,138,194; May 4; Gaz. vol. 214; p. 166.
Spring-wheel. J. E. Dawsey. No. 1,140,963; May 25; Gaz. vol. 214; p. 1249.
Spring-wheel. C. O. Heggem. No. 1,139,282; May 11; Gaz. vol. 214; p. 586.
Spring-wheel. C. Hoff. No. 1,139,285; May 11; Gaz. vol. 214; p. 587.
Spring-wheel. C. Hoff. No. 1,139,286; May 11; Gaz. vol. 214; p. 587.
Sprinkler. W. S. Tidswell. No. 1,139,086; May 11; Gaz. vol. 214; p. 519.
Square. R. W. Requa. No. 1,139,229; May 11; Gaz. vol. 214; p. 568.
Square, Separable steel. J. A. Wray. No. 1,140,555; May 25; Gaz. vol. 214; p. 1107.
Square, Take-down. F. I. Kimball. No. 1,139,189; May 11; Gaz. vol. 214; p. 555.
Stacker, Hay-. J. E. Blansett. No. 1,139,157; May 11; Gaz. vol. 214; p. 544.
Stair construction, Metallic. W. Dowling and W. A. Schroeder. No. 1,138,642; May 11; Gaz. vol. 214; p. 360.
Stair, Counterbalanced. E. L. Keuling. No. 1,140,833; May 25; Gaz. vol. 214; p. 1201.
Stamp, Time-. J. C. Wilson. No. 1,139,247; May 11; Gaz. vol. 214; p. 573.
Stamping mechanism. F. Wilkinson. No. 1,140,013; May 18; Gaz. vol. 214; p. 881.
Stamping of letters, post-cards, and the like, Mechanism for the. F. Wilkinson. No. 1,140,014; May 18; Gaz. vol. 214; p. 881.
Stanchion, Cattle-. H. and E. S. Barsness. No. 1,138,616; May 11; Gaz. vol. 214; p. 350.
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Display-stand. Salt-stand.
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Starting and stopping device, Automatic. F. B. Davenport. No. 1,138,458; May 4; Gaz. vol. 214; p. 259.
Station-indicating device. W. W. Kintner. No. 1,139,424; May 11; Gaz. vol. 214; p. 636.
Stays, Machine for applying tips to garment-. M. D. Watrous. No. 1,139,608; May 18; Gaz. vol. 214; p. 736.
Steam-boiler. J. P. Neff. No. 1,138,057; May 4; Gaz. vol. 214; p. 118.
Steam-boiler. M. W. Sewall. No. 1,140,406; May 25; Gaz. vol. 214; p. 1053.
Steam-generator. W. Mitchell. No. 1,139,430; May 11; Gaz. vol. 214; p. 639.
Steam-generator. W. Mitchell. No. 1,139,431; May 11; Gaz. vol. 214; p. 639.
Steam-generator. W. Mitchell. No. 1,141,071; May 25; Gaz. vol. 214; p. 1283.
Steam-regenerative accumulator. L. P. L. Battu. No. 1,140,435; May 25; Gaz. vol. 214; p. 1063.
Steam-separator. C. Armstrong. No. 1,139,150; May 11; Gaz. vol. 214; p. 542.
Steel, Making. G. E. Weissenburger. No. 1,140,550; May 25; Gaz. vol. 214; p. 1105.
Steering mechanism. E. D. Clapp. No. 1,139,399; May 11; Gaz. vol. 214; p. 627.
Steering-wheel. J. Bjorn. No. 1,140,943; May 25; Gaz. vol. 214; p. 1241.
Stencil-cutting-machine feed device. F. A. Johnson. No. 1,138,759; May 11; Gaz. vol. 214; p. 402.
Stencil-strips, Machine for making. S. Elliott. No. 1,140,889; May 25; Gaz. vol. 214; p. 1222.
Stenciling-machines, Offset-preventing device for. J. E. Shaver, Jr. No. 1,139,380; May 11; Gaz. vol. 214; p. 620.
Stentering-machine clip. A. A. Whitley. No. 1,141,081; May 25; Gaz. vol. 214; p. 1287.
Sterilizing milk, cream, beverages, and other alimentary substances. A. Rutter. No. 1,140,717; May 25; Gaz. vol. 214; p. 1160.
Stirrup. N. W. Leadbetter. No. 1,138,492; May 4; Gaz. vol. 214; p. 271.
Stitching-machine. F. A. Risberg. No. 1,140,531; May 25; Gaz. vol. 214; p. 1100.
Stitching machine, Buttonhole-. F. A. Read. No. 1,140,482; May 25; Gaz. vol. 214; p. 1081.
Stitching machines, Conveyer for boot-. M. Christensen. No. 1,140,734; May 25; Gaz. vol. 214; p. 1165.
Stoker, Automatic. A. C. Nelson. No. 1,138,501; May 4; Gaz. vol. 214; p. 273.
Stoker for feeding coal-dust or other comminuted fuels, Furnace-. C. L. Heisler. No. 1,140,817; May 25; Gaz. vol. 214; p. 1195.
Stoker, Mechanical. J. E. Murphy. No. 1,140,761; May 25; Gaz. vol. 214; p. 1175.
Stone, Artificial. G. Atterbury. No. 1,140,550; May 25; Gaz. vol. 214; p. 1108.
Stone-cutting machine. M. Ahearn. No. 1,137,731; May 4; Gaz. vol. 214; p. 4.
Stone-gathering machine. E. C. Helmke. No. 1,139,032; May 11; Gaz. vol. 214; p. 501.
Stone grinding and polishing machine. G. R. Murray. No. 1,138,683; May 11; Gaz. vol. 214; p. 375.
Stone raker and loader. C. E. Culp and A. T. Wilks. No. 1,139,168; May 11; Gaz. vol. 214; p. 547.
Stone slab, plate, and the like, Artificial-. F. M. E. von Mollenbruck. No. 1,139,934; May 18; Gaz. vol. 214; p. 852.
Stoneworking-machine, Universal. O. Bauer. (Reissue.) No. 13,918; May 18; Gaz. vol. 214; p. 997.
Stool, Milking-. T. C. Oler. No. 1,138,781; May 11; Gaz. vol. 214; p. 410.
Stool, Pail-. E. A. Oliver. No. 1,138,141; May 4; Gaz. vol. 214; p. 149.
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Storage battery. R. Hurley. No. 1,138,220; May 4; Gaz. vol. 214; p. 174.
Store-fixture. E. B. Collette, E. P. Larry, and N. Buras. No. 1,139,257; May 11; Gaz. vol. 214; p. 577.
Store-service apparatus and the like. F. D. Powell. No. 1,137,897; May 4; Gaz. vol. 214; p. 60.
Stove. J. Brewer. No. 1,139,750; May 18; Gaz. vol. 214; p. 787.
Stove. L. S. Chadwick. No. 1,140,874; May 25; Gaz. vol. 214; p. 1216.
Stove. J. K. Mohler. No. 1,139,211; May 11; Gaz. vol. 214; p. 563.
Stove. V. A. Pitsch. No. 1,139,575; May 18; Gaz. vol. 214; p. 725.
Stove. A. W. Roth. No. 1,139,231; May 11; Gaz. vol. 214; p. 568.
Stove and furnace, Heating. G. G. Garey. No. 1,139,857; May 18; Gaz. vol. 214; p. 824.
Stove, Cook-. W. Brandenburg and D. J. Barker. No. 1,138,622; May 11; Gaz. vol. 214; p. 353.
Stove, Heating-. E. H. Castle. No. 1,140,950; May 25; Gaz. vol. 214; p. 1244.
Stove, Hot-blast. P. J. Brown. No. 1,140,872; May 25; Gaz. vol. 214; p. 1216.
Stove-lid. J. F. Henry. No. 1,141,058; May 25; Gaz. vol. 214; p. 1280.
Stove-lid. N. E. Rice. No. 1,140,529; May 25; Gaz. vol. 214; p. 1099.
Stove, Oil-. L. S. Chadwick. No. 1,138,536; May 4; Gaz. vol. 214; p. 285.
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Stoves and furnaces, Fire-pot for. J. F. Kernan and W. J. Owens. No. 1,140,464; May 25; Gaz. vol. 214; p. 1074.
Stovepipe-forming machine. R. R. Dietrich. No. 1,138,639; May 11; Gaz. vol. 214; p. 358.
Stovepipe-section. R. Orr and B. S. Annis. No. 1,138,402; May 4; Gaz. vol. 214; p. 241.
Strainer. H. B. Holt. No. 1,140,459; May 25; Gaz. vol. 214; p. 1071.
Strainer. C. G. Miller. No. 1,140,758; May 25; Gaz. vol. 214; p. 1174.
Strainer. H. W. Miller. No. 1,139,992; May 18; Gaz. vol. 214; p. 872.
Straw-holder. E. O'Connor. No. 1,139,365; May 11; Gaz. vol. 214; p. 615.
Strip-holder. C. J. Alfred. No. 1,137,732; May 4; Gaz. vol. 214; p. 5.
Structure, Collapsible metallic. J. O. Ellinger. No. 1,140,448; May 25; Gaz. vol. 214; p. 1067.
Stump-puller. F. R. Smith. No. 1,140,409; May 25; Gaz. vol. 214; p. 1054.
Sugar-bearing bodies, Producing. G. H. Benjamin. No. 1,140,353; May 25; Gaz. vol. 214; p. 1033.
Sugar-container. J. Hirshfeld. No. 1,140,822; May 25; Gaz. vol. 214; p. 1197.
Suitcase-hasp. T. J. Carroll. No. 1,140,949; May 25; Gaz. vol. 214; p. 1243.
Sulfite liquor, Apparatus for fermenting. P. G. Ekström. No. 1,139,507; May 18; Gaz. vol. 214; p. 702.
Sulfite liquor to a powder, Reducing waste. F. H. Kennard. No. 1,138,118; May 4; Gaz. vol. 214; p. 141.
Sulfur from sulfur gases, Recovering elemental. W. F. Lamoreaux and C. W. Renwick. No. 1,140,310; May 18; Gaz. vol. 214; p. 982.
Superheater. P. Thomsen. No. 1,139,601; May 18; Gaz. vol. 214; p. 733.
Superheater for boilers. G. Cook. No. 1,140,956; May 25; Gaz. vol. 214; p. 1246.
Superheater, Steam-. W. F. J. Casey. No. 1,140,116; May 18; Gaz. vol. 214; p. 918.
Support. C. Mathewa. No. 1,139,204; May 11; Gaz. vol. 214; p. 560.
Supporting-bracket. C. H. Greenwood. No. 1,138,750; May 11; Gaz. vol. 214; p. 399.

Surface combustion burner. E. J. Allen. No. 1,139,321; May 11; Gaz. vol. 214; p. 598.
Suspender-loop. E. L. Ashley. No. 1,138,587; May 4; Gaz. vol. 214; p. 301.
Suspension device. A. Rosenberg. No. 1,137,906; May 4; Gaz. vol. 214; p. 64.
Swimming device. A. H. Brown. No. 1,140,107; May 18; Gaz. vol. 214; p. 915.
Swing. G. F. Shermer. No. 1,138,802; May 11; Gaz. vol. 214; p. 419.
Swing. M. Thomas. No. 1,140,211; May 18; Gaz. vol. 214; p. 940.
Swing, Rotary. F. Schwarz. No. 1,139,232; May 11; Gaz. vol. 214; p. 569.
Switch: *See*—
Electric switch.
Electrically-operated switch.
End-cell switch.
Railway-switch.
Rotary switch.
Safety-switch.
Safety limit-switch.
Selective switch.
Selector-switch.
Time-switch.
Track-switch.
Switch. C. J. Anderson. No. 1,140,491; May 25; Gaz. vol. 214; p. 1084.
Switch. O. E. McCoy. No. 1,137,875; May 4; Gaz. vol. 214; p. 53.
Switch. H. Pitts. No. 1,139,903; May 18; Gaz. vol. 214; p. 841.
Switch and fuse, Combined. R. Elsman and C. Dallerup. No. 1,138,857; May 11; Gaz. vol. 214; p. 428.
Switch and safety-stop for elevated conveyer-tracks. H. Weickel. No. 1,139,611; May 18; Gaz. vol. 214; p. 738.
Switch key, Electrical-. W. Kaisling. No. 1,138,224; May 4; Gaz. vol. 214; p. 175.
Switch mechanism. E. M. Robinson. No. 1,140,916; May 25; Gaz. vol. 214; p. 1232.
Switch mechanism, Railway-. J. Dubois and J. E. Jones. No. 1,140,965; May 25; Gaz. vol. 214; p. 1240.
Switch-operating mechanism, Car-. G. A. Errington. No. 1,138,203; May 4; Gaz. vol. 214; p. 168.
Switch-operating mechanism for electric railways. R. M. Craig. No. 1,140,579; May 25; Gaz. vol. 214; p. 1114.
Switch-point controller. E. Beaupré. No. 1,139,740; May 18; Gaz. vol. 214; p. 786.
Switch-stand. N. O. Goldsmith. No. 1,139,964; May 18; Gaz. vol. 214; p. 862.
Switching device. B. G. Lamme and J. L. M. Yardley. No. 1,138,673; May 11; Gaz. vol. 214; p. 371.
Switching device. R. A. McClure. No. 1,138,880; May 11; Gaz. vol. 214; p. 446.
Synchronizing apparatus. C. S. Andres. No. 1,140,434; May 25; Gaz. vol. 214; p. 1062.
Synchronizing system. B. P. Rowe. No. 1,138,689; May 11; Gaz. vol. 214; p. 376.
Table: *See*—
Bed-table.
Collapsible table.
Extension-table.
Imposing-table.
Ironing-table.
Physician's treating-table.
Revolving dining-room table.
Table. U. J. Klix. No. 1,140,379; May 25; Gaz. vol. 214; p. 1042.
Table attachment for beds. F. Gottesman. No. 1,137,753; May 4; Gaz. vol. 214; p. 11.
Table guard or fiddle, Ship's-. N. F. Ramsay. No. 1,138,974; May 11; Gaz. vol. 214; p. 478.
Tablet or the like. E. M. Africn and B. E. McSheehy. No. 1,139,304; May 11; Gaz. vol. 214; p. 625.
Tag, Envelop-. M. R. Mace. No. 1,139,553; May 18; Gaz. vol. 214; p. 717.
Talking-machine. W. H. Camfield. No. 1,138,843; May 11; Gaz. vol. 214; p. 434.
Talking-machine. T. Metzeler. No. 1,137,883; May 4; Gaz. vol. 214; p. 56.
Talking-machine. W. H. Pumphrey. No. 1,139,224; May 11; Gaz. vol. 214; p. 566.
Talking-machine, Commercial. A. A. Zaiss. No. 1,139,947; May 18; Gaz. vol. 214; p. 856.
Talking-machine stopping device. C. C. James. No. 1,139,421; May 11; Gaz. vol. 214; p. 635.
Talking-machines, Stop for tone-arms of. G. Busch. No. 1,141,037; May 25; Gaz. vol. 214; p. 1272.
Tank: *See*—
Automobile fuel-tank.
Flush-tank.
Portable tank.
Tape-clamp. E. M. Hewitt. No. 1,140,820; May 25; Gaz. vol. 214; p. 1196.
Tar macadam, Plant for making. N. Taylor. No. 1,138,906; May 11; Gaz. vol. 214; p. 454.
Taximeter, Recording-. G. S. Maxwell. No. 1,138,680; May 11; Gaz. vol. 214; p. 373.
Teeth, Backing for artificial. A. J. Asch. No. 1,140,936; May 25; Gaz. vol. 214; p. 1239.
Telautographic apparatus. G. S. Tiffany. No. 1,137,929; May 4; Gaz. vol. 214; p. 72.
Telegraph, Printing-. O. L. Kleber. No. 1,138,958; May 11; Gaz. vol. 214; p. 472.
Telegraph receiver, Printing-. C. G. Ashley. No. 1,138,830; May 11; Gaz. vol. 214; p. 428.
Telegraph receiver, Printing-. J. E. Wright. No. 1,140,861; May 25; Gaz. vol. 214; p. 1212.
Telegraph sending apparatus, Printing-. F. D. Pearne. No. 1,137,804; May 4; Gaz. vol. 214; p. 59.
Telegraphic instrument. J. J. Ghegan. No. 1,140,151; May 18; Gaz. vol. 214; p. 929.
Telegraphy, Radio. E. Raymond-Barker. No. 1,139,226; May 11; Gaz. vol. 214; p. 567.
Telegraphy, Wireless. B. Graves. No. 1,138,652; May 11; Gaz. vol. 214; p. 363.
Telephone. E. S. and C. D. Stewart. No. 1,138,698; May 11; Gaz. vol. 214; p. 370.
Telephone attachment, Sanitary. T. H. R. Miller. No. 1,140,996; May 25; Gaz. vol. 214; p. 1260.
Telephone-call recorder. C. M. Rose. No. 1,140,070; May 18; Gaz. vol. 214; p. 902.
Telephone-call register. W. G. Dodge and C. H. Leave. No. 1,138,283; May 4; Gaz. vol. 214; p. 196.
Telephone-exchange system. G. Babcock. No. 1,138,174; May 4; Gaz. vol. 214; p. 159.
Telephone-exchange system. L. Polinkowsky. No. 1,139,006; May 18; Gaz. vol. 214; p. 843.
Telephone-exchange trunking system. F. R. McBerty. No. 1,138,879; May 11; Gaz. vol. 214; p. 445.
Telephone-guard. E. O. Loeber. No. 1,140,048; May 18; Gaz. vol. 214; p. 893.
Telephone, Loud-speaking. W. Harrison. No. 1,140,263; May 18; Gaz. vol. 214; p. 967.
Telephone-mouthpiece protector. L. A. Collins. No. 1,140,954; May 25; Gaz. vol. 214; p. 1245.
Telephone-receivers, Tuning. H. J. Power. No. 1,138,147; May 4; Gaz. vol. 214; p. 150.
Telephone responding apparatus, Automatic. E. J. Cressey. No. 1,138,734; May 11; Gaz. vol. 214; p. 393.
Telephone signaling system. E. A. Mellinger. No. 1,140,329; May 18; Gaz. vol. 214; p. 990.
Telephone system. G. Babcock. No. 1,138,175; May 4; Gaz. vol. 214; p. 160.
Telephone system. P. G. Bernholz. No. 1,140,658; May 25; Gaz. vol. 214; p. 1141.
Telephone system. E. E. Kleinschmidt. No. 1,137,865; May 4; Gaz. vol. 214; p. 40.
Telephone system, Intercommunicating. H. T. Slee. No. 1,138,255; May 4; Gaz. vol. 214; p. 186.
Telephone-transmitter. D. Koenig. No. 1,138,959; May 11; Gaz. vol. 214; p. 473.
Telephone-transmitter attachment. T. Luby. No. 1,138,389; May 4; Gaz. vol. 214; p. 236.
Telephonic apparatus. H. C. Egerton. No. 1,140,366; May 25; Gaz. vol. 214; p. 1037.
Telephonic circuits, Compensating device for. S. G. Brown. No. 1,140,946; May 25; Gaz. vol. 214; p. 1242.
Telephotographic apparatus. L. J. R. Holst. No. 1,138,217; May 4; Gaz. vol. 214; p. 173.
Temperature-controlling device. M. O. Snediker. No. 1,137,921; May 4; Gaz. vol. 214; p. 60.
Temple-tip, Adjustable. C. H. Perkins. No. 1,138,012; May 4; Gaz. vol. 214; p. 101.
Tennis rackets, Tension means for lawn-. P. D. Parsons. No. 1,140,282; May 18; Gaz. vol. 214; p. 973.
Test-indicator, Universal. J. N. Warner. No. 1,139,936; May 18; Gaz. vol. 214; p. 852.
Testing device. J. W. White. No. 1,137,821; May 4; Gaz. vol. 214; p. 34.
Textile fabric. F. G. Murch. No. 1,139,705; May 18; Gaz. vol. 214; p. 772.
Textile-machine stop mechanism. J. C. Pratt. No. 1,140,063; May 18; Gaz. vol. 214; p. 899.
Thermo-couples, Protecting-hood for. A. F. Mitchell. No. 1,140,701; May 25; Gaz. vol. 214; p. 1154.
Thermostats and the like, Adjusting means for. P. F. Johnson. No. 1,139,185; May 11; Gaz. vol. 214; p. 554.
Thread-gage. C. L. Bailey. No. 1,138,438; May 4; Gaz. vol. 214; p. 253.
Thread-waxing device. J. J. Doidge. No. 1,140,886; May 25; Gaz. vol. 214; p. 1221.
Threshing-machine. J. A. Bergren. No. 1,138,835; May 11; Gaz. vol. 214; p. 430.
Threshing-machine and grain-separator. R. B. Babb. No. 1,140,237; May 18; Gaz. vol. 214; p. 958.
Threshold. E. Krause. No. 1,139,195; May 11; Gaz. vol. 214; p. 558.
Throttling mechanism, Automatic. G. R. Rörner. No. 1,139,478; May 18; Gaz. vol. 214; p. 601.
Ticket-holder. I. S. Downing. No. 1,137,846; May 4; Gaz. vol. 214; p. 43.
Ticket, Pin-. M. O. Anthony. No. 1,140,935; May 25; Gaz. vol. 214; p. 1239.
Tie: *See*—
Cross-tie.
Metallic tie.
Package-tie.
Rail-tie.
Railway-tie.
Tie-clasp. J. L. Scheu. No. 1,139,585; May 18; Gaz. vol. 214; p. 728.
Tie-joints, Forming. P. A. Dubus. No. 1,141,046; May 25; Gaz. vol. 214; p. 1276.
Tile, Irrigation-. L. H. Frink. No. 1,138,370; May 4; Gaz. vol. 214; p. 229.
Tile-machine feeder. S. Miller. No. 1,137,776; May 4; Gaz. vol. 214; p. 19.
Time-check for oil-presses and other machines, Automatic. T. Bell. No. 1,139,251; May 11; Gaz. vol. 214; p. 575.
Time-cost meter. J. T. Quigley. No. 1,139,718; May 18; Gaz. vol. 214; p. 777.
Time-detector. Watchman's. E. E. Wadsworth. No. 1,140,859; May 25; Gaz. vol. 214; p. 1211.
Time-recorder, Workman's. W. T. Geltz. No. 1,137,962; May 4; Gaz. vol. 214; p. 84.
Time-switch, Electrically-operated. J. W. Pennewill and M. R. Buchanan. No. 1,138,406; May 4; Gaz. vol. 214; p. 242.

Time-switch, Pneumatic. G. H. Parsons. No. 1,139,066; May 11; Gaz. vol. 214; p. 512.
Tin-plate-cleaning apparatus. W. G. Moore. No. 1,138,184; May 4; Gaz. vol. 214; p. 146.
Tire. F. S. Bryant. No. 1,139,338; May 11; Gaz. vol. 214; p. 605.
Tire. J. A. Rabbitt. No. 1,138,246; May 4; Gaz. vol. 214; p. 168.
Tire. J. N. Ratterree. No. 1,138,318; May 4; Gaz. vol. 214; p. 208.
Tire. P. C. Traver. No. 1,137,930; May 4; Gaz. vol. 214; p. 72.
Tire. C. Varnell. No. 1,138,027; May 4; Gaz. vol. 214; p. 105.
Tire alarm, Automobile and other wheel-. E. S. Phelps. No. 1,138,407; May 4; Gaz. vol. 214; p. 242.
Tire and rim, Automobile. J. S. Lyons. No. 1,138,129; May 4; Gaz. vol. 214; p. 145.
Tire-armor. G. W. Hardy. No. 1,138,559; May 4; Gaz. vol. 214; p. 292.
Tire-armor, Non-skid. F. Grobal. No. 1,139,274; May 11; Gaz. vol. 214; p. 583.
Tire armor, Rubber-. F. H. Talbot. No. 1,138,999; May 11; Gaz. vol. 214; p. 488.
Tire attachment, Auxiliary. F. J. Gibbs. No. 1,137,963; May 4; Gaz. vol. 214; p. 85.
Tire, Automobile-. T. A. Hall. No. 1,140,591; May 25; Gaz. vol. 214; p. 1118.
Tire-bolting machine. B. F. McCullough. No. 1,138,180; May 4; Gaz. vol. 214; p. 145.
Tire construction. W. D. Trigalet. No. 1,140,778; May 25; Gaz. vol. 214; p. 1180.
Tire-core. M. Bracey. No. 1,140,242; May 18; Gaz. vol. 214; p. 960.
Tire-filler. W. N. Oursler. No. 1,137,888; May 4; Gaz. vol. 214; p. 58.
Tire-filler mold. H. J. Hardie. No. 1,139,276; May 11; Gaz. vol. 214; p. 584.
Tire gaiter, Pneumatic-. J. T. McGuire. No. 1,137,876; May 4; Gaz. vol. 214; p. 53.
Tire grip, Wheel-. G. A. Lyon. No. 1,139,304; May 11; Gaz. vol. 214; p. 592.
Tire-mender tool. J. A. Anderson. No. 1,141,082; May 25; Gaz. vol. 214; p. 1287.
Tire, Pneumatic. R. S. Stratton. No. 1,139,597; May 18; Gaz. vol. 214; p. 732.
Tire, Pneumatic. W. D. Trigalet. No. 1,140,777; May 25; Gaz. vol. 214; p. 1180.
Tire-protector. O. M. Thomas. No. 1,138,911; May 11; Gaz. vol. 214; p. 456.
Tire, Puncture-proof. D. M. Rothenberger. No. 1,139,807; May 18; Gaz. vol. 214; p. 807.
Tire, Resilient. C. De Lukacsevics. No. 1,139,260; May 11; Gaz. vol. 214; p. 579.
Tire, Resilient vehicle-. D. Arnold. No. 1,139,523; May 11; Gaz. vol. 214; p. 598.
Tire rim-lock, Pneumatic-. H. P. Kraft and P. W. Kantzman. No. 1,137,868; May 4; Gaz. vol. 214; p. 50.
Tire-securing device. B. C. Seaton. No. 1,140,487; May 25; Gaz. vol. 214; p. 1083.
Tire-shoe and constructing same. C. T. Dickey. No. 1,138,092; May 4; Gaz. vol. 214; p. 181.
Tire valve, Pneumatic-. J. C. McCall. No. 1,137,768; May 4; Gaz. vol. 214; p. 16.
Tire, Vehicle-. J. R. Gammeter. No. 1,140,370; May 25; Gaz. vol. 214; p. 1039.
Tire, Vehicle-. W. K. Leonard. No. 1,140,752; May 25; Gaz. vol. 214; p. 1172.
Tire, Vehicle-. J. R. Vickery. No. 1,138,813; May 11; Gaz. vol. 214; p. 422.
Tire, Vehicle and auto. J. F. Shafer. No. 1,140,191; May 18; Gaz. vol. 214; p. 943.
Tires and the like, Making inner tubes for vehicle-. A. W. Savage. No. 1,138,250; May 4; Gaz. vol. 214; p. 184.
Tires, Cushion-rim for pneumatic. W. W. Robinson. No. 1,139,583; May 18; Gaz. vol. 214; p. 728.
Tires, Deflating-tool for pneumatic. J. B. Wiley. No. 1,140,222; May 18; Gaz. vol. 214; p. 963.
Tires, Device for detachment of rims from. F. Perkins. No. 1,140,315; May 18; Gaz. vol. 214; p. 984.
Tires, Grip-tread armor for elastic. H. D. Weed. No. 1,139,388; May 11; Gaz. vol. 214; p. 623.
Tires, Inlet and relief valve for pneumatic. A. F. Voss. No. 1,139,965; May 18; Gaz. vol. 214; p. 852.
Tires, Inner tube for pneumatic. C. L. Dawson. No. 1,138,544; May 4; Gaz. vol. 214; p. 288.
Tires on crushing and grinding wheels, rolls, and the like, Means for securing. M. A. Nicol. No. 1,138,899; May 4; Gaz. vol. 214; p. 240.
Tires, Puncture-closer for pneumatic. H. W. Sampson. No. 1,140,718; May 25; Gaz. vol. 214; p. 1160.
Tires, Puncture-plug for pneumatic. B. W. Spitler. No. 1,139,140; May 11; Gaz. vol. 214; p. 538.
Tobacco and match box, Combined. T. F. Samuel and J. H. Wolcott. No. 1,138,980; May 11; Gaz. vol. 214; p. 480.
Tobacco-box, Combination. J. M. White. No. 1,141,027; May 25; Gaz. vol. 214; p. 1269.
Tobacco-stripping machine. W. P. Hammond. No. 1,140,456; May 25; Gaz. vol. 214; p. 1070.
Toe-board. J. G. Viche. No. 1,139,240; May 11; Gaz. vol. 214; p. 571.
Toggle. H. W. Winter. No. 1,140,428; May 25; Gaz. vol. 214; p. 1060.
Toilet appliance. J. A. F. Danner. No. 1,139,551; May 11; Gaz. vol. 214; p. 609.
Tongs. W. Smith. No. 1,140,200; May 18; Gaz. vol. 214; p. 946.
Tongue draft appliance, Vehicle. H. T. Jenney. No. 1,137,977; May 4; Gaz. vol. 214; p. 89.
Tool, Chain-engaging. H. T. C. Meyer. No. 1,140,757; May 25; Gaz. vol. 214; p. 1174.
Tool, Combination. H. M. Demmer. No. 1,139,648; May 18; Gaz. vol. 214; p. 751.
Tool, Combination-. A. J. Schemmer. No. 1,138,162; May 4; Gaz. vol. 214; p. 162.
Tool, Combination-. L. Weinstein. No. 1,139,038; May 18; Gaz. vol. 214; p. 853.
Tool, Compound. S. E. Dent. No. 1,140,125; May 18; Gaz. vol. 214; p. 922.
Tool-holder. C. B. Sechrest. No. 1,140,772; May 25; Gaz. vol. 214; p. 1178.
Tool, Percussive. L. C. Bayles. No. 1,138,179; May 4; Gaz. vol. 214; p. 161.
Tool, Percussive. A. H. Gibson. No. 1,138,209; May 4; Gaz. vol. 214; p. 170.
Tool-retainer. J. T. Sullivan. No. 1,137,423; May 4; Gaz. vol. 214; p. 70.
Tool, Rim-. A. Calleson. No. 1,140,023; May 18; Gaz. vol. 214; p. 884.
Tools, Making hand-. G. A. Wood. No. 1,139,392; May 11; Gaz. vol. 214; p. 624.
Tooth, Artificial. J. A. Gardner. No. 1,139,265; May 11; Gaz. vol. 214; p. 580.
Tooth, Artificial. A. E. Gibson. No. 1,139,028; May 11; Gaz. vol. 214; p. 499.
Tooth, Artificial. J. L. Williams. No. 1,139,615; May 18; Gaz. vol. 214; p. 735.
Tooth-regulating appliance. F. W. Drissler. No. 1,139,170; May 11; Gaz. vol. 214; p. 548.
Torch. A. J. and I. F. Fausek. No. 1,139,959; May 18; Gaz. vol. 214; p. 860.
Torch. J. S. Frederickson. No. 1,138,549; May 4; Gaz. vol. 214; p. 289.
Torpedo-guard. A. M. Evans. No. 1,139,113; May 11; Gaz. vol. 214; p. 529.
Torpedo-guard. E. R. Trammell. No. 1,139,239; May 11; Gaz. vol. 214; p. 571.
Towel-rack. J. G. Painton. No. 1,139,366; May 11; Gaz. vol. 214; p. 615.
Toy, Aerial. C. M. Olmsted. No. 1,138,401; May 4; Gaz. vol. 214; p. 241.
Toy, Automatic. J. W. Colglazier. No. 1,139,955; May 18; Gaz. vol. 214; p. 859.
Toy book, Animated. W. R. Cross. No. 1,139,648; May 18; Gaz. vol. 214; p. 749.
Toy gun. A. C. Anthony. No. 1,138,529; May 4; Gaz. vol. 214; p. 282.
Toy, Mechanical. B. F. Bain. No. 1,140,788; May 25; Gaz vol. 214; p. 1184.
Toy mechanism, Talking-. L. V. Aronson. No. 1,140,647; May 25; Gaz. vol. 214; p. 1138.
Toy mechanism, Talking-. L. V. Aronson. No. 1,140,648; May 25; Gaz. vol. 214; p. 1138.
Toy mechanism, Talking-. L. V. Aronson. No. 1,140,649; May 25; Gaz. vol. 214; p. 1138.
Toy mechanism, Talking-. L. V. Aronson. No. 1,140,650; May 25; Gaz. vol. 214; p. 1139.
Toy or joke article. A. Talke. No. 1,140,418; May 25; Gaz. vol. 214; p. 1057.
Toy safe. J. Chein. No. 1,138,626; May 11; Gaz. vol. 214; p. 564.
Toy top. I. Heidenreich. No. 1,139,119; May 11; Gaz. vol. 214; p. 531.
Toy vehicles, Steering-gear for. M. V. B. Evesson. No. 1,140,586; May 25; Gaz. vol. 214; p. 1116.
Toy wheelbarrow. A. Molnar. No. 1,139,432; May 11; Gaz. vol. 214; p. 639.
Toys, Motor for. P. J. Geayer. No. 1,138,556; May 4; Gaz. vol. 214; p. 291.
Track-switch. J. B. Bulmer. No. 1,138,624; May 11; Gaz. vol. 214; p. 353.
Tracker and tension device. G. A. Jaeger. No. 1,140,460; May 25; Gaz. vol. 214; p. 1072.
Tracker, Automatic. F. W. Draper. No. 1,138,461; May 4; Gaz. vol. 214; p. 261.
Traction-engine. G. T. Strite and F. H. Bierman. No. 1,138,996; May 11; Gaz. vol. 214; p. 486.
Traction-wheel. H. E. Hamilton. No. 1,139,968; May 18; Gaz. vol. 214; p. 864.
Traction-wheel. E. A. Johnston. No. 1,139,769; May 18; Gaz. vol. 214; p. 794.
Tractor. W. P. Allen. No. 1,139,009; May 11; Gaz. vol. 214; p. 492.
Tractor. J. G. Casterlin. No. 1,138,453; May 4; Gaz. vol. 214; p. 258.
Tractor. C. J. Eastman. No. 1,140,969; May 25; Gaz. vol. 214; p. 1251.
Tractor. D. M. Hartsough. No. 1,139,414; May 11; Gaz. vol. 214; p. 632.
Tractor cooling system. A. Williams. No. 1,138,436; May 4; Gaz. vol. 214; p. 251.
Tractors, Antitipping device for. D. M. Hartsough. No. 1,138,610; May 4; Gaz. vol. 214; p. 310.
Tractors, Draft-bar connection for. D. M. Hartsough. No. 1,138,611; May 4; Gaz. vol. 214; p. 310.
Train-control system. G. P. Thurber. No. 1,137,811; May 4; Gaz. vol. 214; p. 31.

Train-controlling device, Automatic. L. Atwood. No. 1,139,948; May 18; Gaz. vol. 214; p. 857.
Train-controlling device, Automatic. A. L. Bower. No. 1,138,349; May 4; Gaz. vol. 214; p. 221.
Train-stop, Automatic. E. R. Hill. No. 1,138,216; May 4; Gaz. vol. 214; p. 178.
Train-stop, Automatic. A. Johnson. No. 1,140,268; May 18; Gaz. vol. 214; p. 968.
Train-stop, Automatic. H. F. W. Kohlbach. No. 1,140,380; May 25; Gaz. vol. 214; p. 1043.
Train-stop, Automatic. A. G. Turpen. No. 1,141,023; May 25; Gaz. vol. 214; p. 1267.
Train-stop, Automatic. E. H. Wulff. No. 1,138,344; May 4; Gaz. vol. 214; p. 220.
Train-stopping apparatus. M. R. Fulks. No. 1,139,512; May 18; Gaz. vol. 214; p. 703.
Train-stopping apparatus. C. C. Hole. No. 1,139,525; May 18; Gaz. vol. 214; p. 707.
Train-stopping apparatus. W. Purcell. No. 1,139,136; May 11; Gaz. vol. 214; p. 537.
Train-stopping mechanism, Automatic. G. W. Brownell. No. 1,140,109; May 18; Gaz. vol. 214; p. 915.
Trains, Automatic device for controlling the speed of. L. W. Horne and W. N. Crane. No. 1,138,109; May 4; Gaz. vol. 214; p. 187.
Trains, Device for delivering pouches from moving. G. Burrell. No. 1,140,022; May 18; Gaz. vol. 214; p. 884.
Transformer. L. C. Nichols. No. 1,140,843; May 25; Gaz. vol. 214; p. 1204.
Transformer. F. Sieber. No. 1,140,920; May 25; Gaz. vol. 214; p. 1233.
Transformer-protector. O. B. Allgood. No 1,138,170; May 4; Gaz. vol. 214; p. 158.
Transformer, Series. G. A. Burnham. No. 1,138,625; May 11; Gaz. vol. 214; p. 353.
Transmission apparatus, Hydraulic. J. De Martino. No. 1,138,771; May 11; Gaz. vol. 214; p. 406.
Transplanting trees, Apparatus for. J. B. Spuhr. No. 1,139,735; May 18; Gaz. vol. 214; p. 781.
Transport-lorry. J. M. L. Spangenberg. No. 1,138,422; May 4; Gaz. vol. 214; p. 247.
Transporting means, Overhead. E. W. Hays. No. 1,140,327; May 18; Gaz. vol. 214; p. 989.
Trap: *See*—
Animal-trap. Mouse-trap.
Fly-trap. Nest-trap.
Insect-trap. Sewer-trap.
Trap. C. G. Duncan. No. 1,138,943; May 11; Gaz. vol. 214; p. 467.
Tray, Folding. J. J. Stroud. No. 1,138,156; May 4; Gaz. vol. 214; p. 153.
Tread-plate shaper. G. R. Gibson. No. 1,139,266; May 11; Gaz. vol. 214; p. 580.
Tree-handling apparatus. D. F. Prevost. No. 1,138,972; May 11; Gaz. vol. 214; p. 477.
Trestle, Extension-. F. H. Moulton. No. 1,140,390; May 25; Gaz. vol. 214; p. 1047.
Tricycle, Motor-. E. S. Beach. No. 1,139,835; May 18; Gaz. vol. 214; p. 817.
Trimmer: *See*—
Edge-trimmer.
Trolley. M. Lev, Jr. No. 1,140,689; May 25; Gaz. vol. 214; p. 1151.
Trolley. W. Schaake. No. 1,138,693; May 11; Gaz. vol. 214; p. 378.
Trolley-contact. A. H. Caven. No. 1,138,279; May 4; Gaz. vol. 214; p. 195.
Trolley-lines, Steady-brace for. G. A. Mead and W. H. Kempton. No. 1,138,773; May 11; Gaz. vol. 214; p. 407.
Trolley mechanism. G. E. Lynch. No. 1,138,965; May 11; Gaz. vol. 214; p. 475.
Trolley-pole. J. De Angelis. No. 1,140,126; May 18; Gaz. vol. 214; p. 921.
Trolley-wheel mount. G. H. Bolus. No. 1,138,723; May 11; Gaz. vol. 214; p. 389.
Trolley-wire-centering device. R. T. Fingado. No. 1,140,587; May 25; Gaz. vol. 214; p. 1117.
Trolley-wires, Suspension device for. G. H. Bolus. No. 1,138,184; May 4; Gaz. vol. 214; p. 163.
Trough: *See*—
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Trousers attachment. J. J. Carney. No. 1,140,251; May 18; Gaz. vol. 214; p. 963.
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Truck. E. Whalley. No. 1,138,337; May 4; Gaz. vol. 214; p. 217.
Truck, Car-. S. M. Curwen. No. 1,138,357; May 4; Gaz. vol. 214; p. 224.
Truck, Casket-. C. B. Dolge. No. 1,138,641; May 11; Gaz. vol. 214; p. 359.
Truck-coupling. E. Fitzgerald. No. 1,139,657; May 18; Gaz. vol. 214; p. 755.
Truck, Elevator-. S. C. Cropp. No. 1,139,494; May 18; Gaz. vol. 214; p. 697.
Truck, Hand-. C. S. Calhoun. No. 1,139,636; May 18; Gaz. vol. 214; p. 747.
Truck, Hand-. A. H. Campbell. No. 1,140,795; May 25; Gaz. vol. 214; p. 1187.
Truck, Hand-. W. H. McCarthy. No. 1,137,993; May 4; Gaz. vol. 214; p. 94.
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Truck, Logging-. E. G. Chandler. No. 1,140,875; May 25; Gaz. vol. 214; p. 1217.
Truck, Motor-. F. D. Burris. No. 1,139,635; May 18; Gaz. vol. 214; p. 746.
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Truck, Starch-drying. M. P. Reynolds. No. 1,139,072; May 11; Gaz. vol. 214; p. 514.
Trucks, Antifriction mechanism for car-. J. E. Cooper. No. 1,140,300; May 18; Gaz. vol. 214; p. 979.
Trucks, Journal-box for. E. E. Whittenburg. No. 1,141,029; May 25; Gaz. vol. 214; p. 1269.
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Trumpet-action. R. Orsi. No. 1,138,403; May 4; Gaz. vol. 214; p. 241.
Trunk. W. R. Roberts. No. 1,139,726; May 18; Gaz. vol. 214; p. 779.
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Tub-seat. G. W. Turner. No. 1,139,824; May 18; Gaz. vol. 214; p. 813.
Tube and pipe expander. H. E. Pollard. No, 1,138,311; May 4; Gaz. vol. 214; p. 206.
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Tube-mill. W. B. Easton. No. 1,139,651; May 18; Gaz. vol. 214; p. 752.
Tubes Machine for forming seamed. O. J. Groehn. No. 1,137,966; May 4; Gaz. vol. 214; p. 86.
Tubes, Manufacture of seamless. S. E. Diescher. No. 1,139,957; May 18; Gaz. vol. 214; p. 859.
Tubing coupling, Flexible-. A. Sundh. No. 1,139,821; May 18; Gaz. vol. 214; p. 812.
Tubing, Flexible. C. W. Svenson. No. 1,140,417; May 25; Gaz. vol. 214; p. 1056.
Tubing, Flexible. A. W. Wessoleck. No. 1,140,425; May 25; Gaz. vol. 214; p. 1059.
Tubing, Manufacturing. M. B. Lloyd. No. 1,141,066; May 25; Gaz. vol. 214; p. 1282.
Tubing, Reinforced. M. B. Lloyd. No. 1,141,067; May 25; Gaz. vol. 214; p. 1283.
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Tuning sound-producing bars or tubes, Means for. P. T. Young. No. 1,140,932; May 25; Gaz. vol. 214; p. 1239.
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Turbine. G. W. Crawford. No. 1,138,630; May 11; Gaz. vol. 214; p. 355.
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Turbine-engine, Gas. E. M. and J. F. Maxwell. No. 1,139,696; May 18; Gaz. vol. 214; p. 768.
Turbine, Pressure-. E. Buehle. No. 1,137,948; May 4; Gaz. vol. 214; p. 79.
Turret, Tool-holding. E. P. Burrell. No. 1,140,733; May 25; Gaz. vol. 214; p. 1165.
Twine cutting and retaining device. F. M. Holmes. No. 1,138,756; May 11; Gaz. vol. 214; p. 401.
Two-cycle engine. F. W. Willey and W. Galletly. No. 1,138,919; May 11; Gaz. vol. 214; p. 458.
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Type-writer attachment. G. W. Palmer. No. 1,139,367; May 11; Gaz. vol. 214; p. 615.
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Type-writer cover. R. C. Rochelle. No. 1,139,804; May 18; Gaz. vol. 214; p. 806.
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Type-writers, adding-machines, and the like, Attachment for. E. J. Barker. No. 1,140,493; May 25; Gaz. vol. 214; p. 1085.
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Type-writing machine. J. C. McLaughlin. No. 1,140,274; May 18; Gaz. vol. 214; p. 970.
Type-writing machine. S. L. W. Merlin. No. 1,140,330; May 18; Gaz. vol. 214; p. 990.
Type-writing machine. W. Metzroth. No. 1,139,800; May 18; Gaz. vol. 214; p. 837.
Type-writing machine. J. B. Secor. No. 1,140,190; May 18; Gaz. vol. 214; p. 943.
Type-writing machine. H. H. Steele. No. 1,138,992; May 11; Gaz. vol. 214; p. 485.
Type-writing machine. H. H. Steele. No. 1,138,993; May 11; Gaz. vol. 214; p. 485.
Type-writing machine. B. C. Stickney. No. 1,139,080; May 11; Gaz. vol. 214; p. 517.
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Type-writing machine. F. A. Young. No. 1,139,046; May 18; Gaz. vol. 214; p. 856.
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Typographical composing and casting machines, Distributing mechanism of. C. Muehleisen. No. 1,139,704; May 18; Gaz. vol. 214; p. 772.
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Typographical machine. D. S. Kennedy. No. 1,139,080; May 18; Gaz. vol. 214; p. 868.
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Typographical machine. J. R. Rogers. No. 1,137,905; May 4; Gaz. vol. 214; p. 63.
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Uncoupling device. C. A. Carscadin and G. A. Woodman. No. 1,140,114; May 18; Gaz. vol. 214; p. 917.
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Undergarment. L. H. Crawford. No. 1,140,122; May 18; Gaz. vol. 214; p. 920.
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Undergarment, Woman's. E. Emmers. No. 1,139,652; May 18; Gaz. vol. 214; p. 753.
Underreamer. E. R. Beckert. No. 1,139,096; May 11; Gaz. vol. 214; p. 522.
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Union suit. M. G. Rosenthal. No. 1,139,099; May 18; Gaz. vol. 214; p. 875.
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Universal coupling, &c. W. Kennedy. No. 1,139,125; May 11; Gaz. vol. 214; p. 533.
Universal coupling. F. Simons. No. 1,140,720; May 25; Gaz. vol. 214; p. 1160.
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Upper-pulling mechanism. P. J. Wentworth. No. 1,139,613; May 18; Gaz. vol. 214; p. 738.
Urethroscope or endoscope. F. Cerbo. No. 1,139,015; May 11; Gaz. vol. 214; p. 494.
Vacuum-cleaner. R. R. Smith. No. 1,140,294; May 18; Gaz. vol. 214; p. 977.
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Vacuum renovating apparatus. J. H. Templin. No. 1,139,084; May 11; Gaz. vol. 214; p. 518.
Valve. C. N. Allerding. No. 1,138,721; May 11; Gaz. vol. 214; p. 388.
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Valve. W. Ballard. No. 1,140,017; May 18; Gaz. vol. 214; p. 882.
Valve. R. P. Barnstead. No. 1,140,653; May 25; Gaz. vol. 214; p. 1140.
Valve. W. Birkbeck and W. H. Ashman. No. 1,138,531; May 4; Gaz. vol. 214; p. 283.
Valve. O. Brisbois. No. 1,140,382; May 18; Gaz. vol. 214; p. 991.
Valve. S. D. Chapman. No. 1,139,162; May 11; Gaz. vol. 214; p. 546.
Valve. N. B. Creighton. No. 1,140,359; May 25; Gaz. vol. 214; p. 1035.
Valve. A. Jaquish. No. 1,139,290; May 11; Gaz. vol. 214; p. 588.
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Valve. G. Schmidt. No. 1,140,619; May 25; Gaz. vol. 214; p. 1128.
Valve. L. C. Steele. No. 1,138,994; May 11; Gaz. vol. 214; p. 486.
Valve. W. S. Sutton. No. 1,140,630; May 25; Gaz. vol. 214; p. 1132.
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Valve and indicating mechanism, Air-. H. B. Ashelman and J. S. Johnson. No. 1,140,937; May 25; Gaz. vol. 214; p. 1230.
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Valve, Automatic. F. E. Woodruff and W. K. Bishop. No. 1,140,429; May 25; Gaz. vol. 214; p. 1060.
Valve, Automatic shut-off. H. H. Southworth and G. A. Gase. No. 1,139,462; May 11; Gaz. vol. 214; p. 650.
Valve, Automobile engine-lock. J. G. Ritz. No. 1,141,006; May 25; Gaz. vol. 214; p. 1263.
Valve, Balance slide-. H. P. Robinson. No. 1,140,188; May 18; Gaz. vol. 214; p. 942.
Valve, Check-. G. A. Gase. No. 1,139,455; May 11; Gaz. vol. 214; p. 647.
Valve-closing means. F. Hirschfeld and R. Harburger. No. 1,140,821; May 25; Gaz. vol. 214; p. 1196.
Valve, Compression stop and waste. C. Walker. No. 1,138,160; May 4; Gaz. vol. 214; p. 154.
Valve, Controlling-. L. E. Jones, J. W. Breakey, and W. F. Casey. No. 1,139,876; May 18; Gaz. vol. 214; p. 832.
Valve-controlling mechanism, Throttle-. F. E. Judd. No. 1,130,685; May 18; Gaz. vol. 214; p. 765.
Valve device for internal-combustion engines. M. G. Chandler. No. 1,139,101; May 11; Gaz. vol. 214; p. 525.
Valve device, Relief-. W. V. Turner. No. 1,139,602; May 18; Gaz. vol. 214; p. 734.
Valve for fluid-pressure mains, Safety-. J. R. Cable. No. 1,139,952; May 18; Gaz. vol. 214; p. 858.
Valve for gas-engines. E. Berliner and H. D. Chapman. No. 1,139,807; May 18; Gaz. vol. 214; p. 818.
Valve for instantaneous water-heaters, Water-. R. C. Frampton. No. 1,138,859; May 11; Gaz. vol. 214; p. 439.
Valve for internal-combustion engines. G. E. Frazer. No. 1,139,661; May 18; Gaz. vol. 214; p. 756.
Valve for internal-combustion motors, Rotary conical. O. B. Campbell, Jr. No. 1,139,953; May 18; Gaz. vol. 214; p. 858.
Valve, Gas-engine. C. H. Parker. No. 1,137,890; May 4; Gaz. vol. 214; p. 58.
Valve, Gas-regulating. C. A. Thomas. No. 1,140,420; May 25; Gaz. vol. 214; p. 1057.
Valve-gear, Locomotive. F. W. Fritchey. No. 1,138,207; May 4; Gaz. vol. 214; p. 170.
Valve-gear-shifting mechanism. K. Rushton. No. 1,141,008; May 25; Gaz. vol. 214; p. 1263.
Valve-governing device for combustion-motors, Fuel-. F. Schwarz. No. 1,141,013; May 25; Gaz. vol. 214; p. 1264.
Valve, Irrigating-. H. F. Gardner. No. 1,140,510; May 25; Gaz. vol. 214; p. 1091.
Valve, Means for releasing a check-. J. B. Mowry. No. 1,138,230; May 4; Gaz. vol. 214; p. 180.
Valve mechanism. F. P. Snow. No. 1,138,824; May 4; Gaz. vol. 214; p. 213.
Valve mechanism for locomotives, Throttle-. W. E. Woodard. No. 1,140,091; May 18; Gaz. vol. 214; p. 909.
Valve, Mixing-. W. J. Cook. No. 1,138,628; May 11; Gaz. vol. 214; p. 354.
Valve, Non-return stop-. A. Schade. No. 1,137,910; May 4; Gaz. vol. 214; p. 65.
Valve-plug for volatile-containers. R. M. Taylor and A. G. Broe. No. 1,139,483; May 11; Gaz. vol. 214; p. 650.
Valve, Pneumatic. A. J. Tyler. No. 1,140,634; May 25; Gaz. vol. 214; p. 1133.
Valve, Pressure-. B. S. Price. No. 1,140,713; May 25; Gaz. vol. 214; p. 1158.
Valve, Pressure-controlled. J. H. Castle and W. G. Rogers. No. 1,138,278; May 4; Gaz. vol. 214; p. 194.
Valve, Regulating-. F. T. Kitchen. No. 1,139,533; May 18; Gaz. vol. 214; p. 710.
Valve, Relief-. E. F. Gebhardt. No. 1,138,551; May 4; Gaz. vol. 214; p. 289.
Valve, Relief-. R. S. Whitney. No. 1,138,838; May 4; Gaz. vol. 214; p. 218.

Valve, Reversible flush-. J. B. Williams. (Reissue.) No. 13,913; May 4; Gaz. vol. 214; p. 314.
Valve-reversing gear, Steam-engine. C. J. Mellin. No. 1,140,328; May 18; Gaz. vol. 214; p. 989.
Valve, Rotary. D. Bowman. No. 1,138,446; May 4; Gaz. vol. 214; p. 255.
Valve, Rotary. E. E. Hobbs. No. 1,137,758; May 4; Gaz. vol. 214; p. 13.
Valve, Rotary. C. A. Swackhammer. No. 1,140,206; May 18; Gaz. vol. 214; p. 948.
Valve, Sanitary filling-. G. W. Haverstick and T. J. McKee. No. 1,140,514; May 25; Gaz. vol. 214; p. 1092.
Valve-spring compressor. J. J. Eagan. No. 1,138,462; May 4; Gaz. vol. 214; p. 261.
Valve, Stop-. W. G. Potter. No. 1,139,221; May 11; Gaz. vol. 214; p. 585.
Valve, Throttle-. G. Frink. No. 1,140,738; May 25; Gaz. vol. 214; p. 1167.
Varnish-drying oven. J. C. Gillette. No. 1,139,858; May 18; Gaz. vol. 214; p. 825.
Vault-doors, Means for automatically closing. F. W. Rodler. No. 1,139,074; May 11; Gaz. vol. 214; p. 515.
Vault-locking mechanism. J. W. Carpenter. No. 1,137,739; May 4; Gaz. vol. 214; p. 7.
Vehicle. F. T. Ramsey. No. 1,138,148; May 4; Gaz. vol. 214; p. 151.
Vehicle-body, Metallic. J. Ledwinka. No. 1,139,457; May 11; Gaz. vol. 214; p. 648.
Vehicle-brake. A. G. Helfer. No. 1,138,561; May 4; Gaz. vol. 214; p. 293.
Vehicle buffer, Motor-. G. A. Lyon. No. 1,140,909; May 25; Gaz. vol. 214; p. 1229.
Vehicle control. E. A. Sperry. No. 1,137,804; May 4; Gaz. vol. 214; p. 29.
Vehicle-control system. J. T. Cade. No. 1,140,356; May 25; Gaz. vol. 214; p. 1034.
Vehicle direction-indicator. A. W. Youngkvist. No. 1,140,229; May 18; Gaz. vol. 214; p. 955.
Vehicle, Electric motor-. F. A. Lambert and F. H. Hardy. No. 1,138,122; May 4; Gaz. vol. 214; p. 142.
Vehicle, Horse-drawn. J. P. Brownlee. No. 1,138,352; May 4; Gaz. vol. 214; p. 223.
Vehicle-jack. C. E. Warner. No. 1,139,243; May 11; Gaz. vol. 214; p. 572.
Vehicle jack and turn-table. J. Hajduk. No. 1,139,516; May 18; Gaz. vol. 214; p. 704.
Vehicle, Motor-. W. P. Bradshaw. No. 1,138,447; May 4; Gaz. vol. 214; p. 256.
Vehicle, Motor-. L. H. Dyer. No. 1,139,853; May 18; Gaz. vol. 214; p. 823.
Vehicle, Motor-. E. Gruenfeldt. No. 1,139,674; May 18; Gaz. vol. 214; p. 761.
Vehicle moving attachment, Motor-. S. M. Wetzel. No. 1,138,915; May 11; Gaz. vol. 214; p. 457.
Vehicle, Passenger-. A. F. Paul. No. 1,137,893; May 4; Gaz. vol. 214; p. 59.
Vehicle running-gear, Stabilizing mechanism for. W. E. Bock. No. 1,138,183; May 4; Gaz. vol. 214; p. 162.
Vehicle-signal. L. O'Brien. No. 1,140,393; May 25; Gaz. vol. 214; p. 1048.
Vehicle signal device. J. C. Edwards. No. 1,138,361; May 4; Gaz. vol. 214; p. 226.
Vehicle speed-control device. W. S. Menden. No. 1,137,882; May 4; Gaz. vol. 214; p. 55.
Vehicle-spindle. W. L. Black. No. 1,140,792; May 25; Gaz. vol. 214; p. 1186.
Vehicle-spring. W. Dornan. No. 1,139,504; May 18; Gaz. vol. 214; p. 701.
Vehicle-spring. A. M. Lane. No. 1,137,987; May 4; Gaz. vol. 214; p. 92.
Vehicle spring suspension. J. J. Charley. No. 1,137,741; May 4; Gaz. vol. 214; p. 7.
Vehicle spring suspension device. V. H. Sears. No. 1,139,909; May 18; Gaz. vol. 214; p. 844.
Vehicle-spring with air-cushion. D. B. Adams. No. 1,140,095; May 18; Gaz. vol. 214; p. 911.
Vehicle storm-front and sun-shield, Combined. T. S. Crapp. No. 1,138,280; May 4; Gaz. vol. 214; p. 195.
Vehicle suspension device. C. Contal. No. 1,140,055; May 25; Gaz. vol. 214; p. 1245.
Vehicle suspension-spring. E. Fuller. No. 1,140,671; May 25; Gaz. vol. 214; p. 1145.
Vehicle-top. G. E. Seidel. No. 1,140,404; May 25; Gaz. vol. 214; p. 1052.
Vehicle top-holder. R. C. Wall. No. 1,139,742; May 18; Gaz. vol. 214; p. 784.
Vehicle-wheel. J. B. Bartholomew. No. 1,138,177; May 4; Gaz. vol. 214; p. 161.
Vehicle-wheel. J. and C. Cerny. No. 1,139,638; May 18; Gaz. vol. 214; p. 747.
Vehicle-wheel. T. E. Murray. No. 1,139,894; May 18; Gaz. vol. 214; p. 838.
Vehicle-wheel. T. E. Murray. No. 1,139,895; May 18; Gaz. vol. 214; p. 838.
Vehicle-wheel. T. E. Murray. No. 1,139,896; May 18; Gaz. vol. 214; p. 838.
Vehicle-wheel. C. M. Petersen. No. 1,140,766; May 25; Gaz. vol. 214; p. 1176.
Vehicle-wheel. C. V. Popp. No. 1,140,284; May 18; Gaz. vol. 214; p. 973.
Vehicle-wheel. C. F. Ward and W. H. Chy. No. 1,138,335; May 4; Gaz. vol. 214; p. 217.
Vehicle wheel, Road-. E. W. Thomas. No. 1,139,924; May 18; Gaz. vol. 214; p. 848.
Vehicles, Automatic speed control for. A. G. Helfer. No. 1,138,560; May 4; Gaz. vol. 214; p. 292.
Vehicles, Combined radiator and headlight for motor-. H. L. Bock. No. 1,138,182; May 4; Gaz. vol. 214; p. 162.
Vehicles driven by mixed power, Apparatus for controlling motor-. H. Pieper. No. 1,140,849; May 25; Gaz. vol. 214; p. 1206.
Vehicles, Pneumatic cushioning device for. E. V. Sanders. No. 1,140,002; May 18; Gaz. vol. 214; p. 877.
Vehicles, Speed-limiting apparatus for motor-. G. W. Pierce. No. 1,140,060; May 18; Gaz. vol. 214; p. 897.
Vehicles, Spring-frame for motor-driven. W. E. Bock. No. 1,138,181; May 4; Gaz. vol. 214; p. 162.
Vending-machine. A. H. Bowman. No. 1,138,075; May 4; Gaz. vol. 214; p. 124.
Vending-machine. C. N. Ogden. No. 1,139,711; May 18; Gaz. vol. 214; p. 774.
Vending-machine. J. Troldl. No. 1,138,261; May 4; Gaz. vol. 214; p. 188.
Vending-machine. S. Wein and J. Hluda. No. 1,140,220; May 18; Gaz. vol. 214; p. 952.
Vending-machine. J. Winkelmeyer. No. 1,139,248; May 11; Gaz. vol. 214; p. 574.
Vending machine, Coin-. J. W. Forbes. No. 1,140,451; May 25; Gaz. vol. 214; p. 1068.
Vending-machine, Coin-controlled. E. A. Bolen. No. 1,140,438; May 25; Gaz. vol. 214; p. 1064.
Vending-machine, Multiple-compartment coin-controlled. H. D. Kippen, A. T. Brown, and J. T. White. No. 1,139,039; May 11; Gaz. vol. 214; p. 503.
Vending machine, Raisin-. A. F. Wells and J. Saxton. No. 1,139,828; May 18; Gaz. vol. 214; p. 815.
Vending machine, Stamp-. J. F. Tefft. No. 1,140,210; May 18; Gaz. vol. 214; p. 949.
Vending-machines and the like, Coin-controlled mechanism for. E. V. Boddy. No. 1,139,477; May 18; Gaz. vol. 214; p. 691.
Vending or actuating mechanism, Coin-controlled. W. H. Walker. No. 1,130,242; May 11; Gaz. vol. 214; p. 572.
Vent-pipe. F. J. Moore. No. 1,137,778; May 4; Gaz. vol. 214; p. 20.
Ventilating apparatus. L. S. Hackney. No. 1,138,470; May 4; Gaz. vol. 214; p. 264.
Ventilating appliance. J. Rasntch. No. 1,140,609; May 25; Gaz. vol. 214; p. 1125.
Ventilator: *See*—
Hat-ventilator.
Ventilator. D. P. Gosline. No. 1,139,672; May 18; Gaz. vol. 214; p. 760.
Vessel. C. Goru. No. 1,138,862; May 11; Gaz. vol. 214; p. 440.
Vessel, Sheet-metal. F. Westerbeck. No. 1,138,268; May 4; Gaz. vol. 214; p. 191.
Vessels, Safety appliance for submarine. J. S. Fraser. No. 1,139,409; May 11; Gaz. vol. 214; p. 630.
Vestibule-frame, Cast-steel. G. L. Wall. No. 1,138,028; May 4; Gaz. vol. 214; p. 106.
Vibration-absorbing support. F. S. Boerries. No. 1,139,158; May 11; Gaz. vol. 214; p. 544.
View-finder, Automatic. W. W. King. No. 1,137,864; May 4; Gaz. vol. 214; p. 49.
Violin. F. M. Mecartea. No. 1,140,697; May 25; Gaz. vol. 214; p. 1153.
Vise-automatic. T. S. Homans. No. 1,139,420; May 11; Gaz. vol. 214; p. 635.
Vise, Rapid-acting. H. H. Abernathy. No. 1,140,646; May 25; Gaz. vol. 214; p. 1137.
Volatile liquids, Cleaning device utilizing. F. D. Farnam. No. 1,137,959; May 4; Gaz. vol. 214; p. 83.
Vote machine, Ballot-. W. Haney. No. 1,140,033; May 18; Gaz. vol. 214; p. 888.
Voting-machine. H. O. Rugh. No. 1,141,075; May 25; Gaz. vol. 214; p. 1285.
Voting-machine control. H. O. Rugh. No. 1,141,074; May 25; Gaz. vol. 214; p. 1284.
Voting-machines, Interlock for cumulative voting on. W. J. Lausterer. No. 1,137,766; May 4; Gaz. vol. 214; p. 15.
Vulcanizer. D. R. Searles. No. 1,139,284; May 11; Gaz. vol. 214; p. 570.
Vulcanizing apparatus. T. H. Rieder. No. 1,138,791; May 11; Gaz. vol. 214; p. 414.
Vulcanizing device, Portable. L. C. Lawall. No. 1,140,381; May 25; Gaz. vol. 214; p. 1043.
Wagon-body, Tilting. J. Ledwinka. No. 1,139,456; May 11; Gaz. vol. 214; p. 648.
Wagon-brake and horse-hitching apparatus, Combined. C. M. Singleton. No. 1,140,195; May 18; Gaz. vol. 214; p. 945.
Wagon, Display-. C. H. Northrup. No. 1,139,215; May 11; Gaz. vol. 214; p. 563.
Wagon, Dumping-. J. Thompson. No. 1,140,213; May 18; Gaz. vol. 214; p. 950.
Wagon, Dumping-. T. Wright. No. 1,139,945; May 18; Gaz. vol. 214; p. 856.
Wagon end door, Delivery-. J. Ledwinka. No. 1,139,458; May 11; Gaz. vol. 214; p. 648.
Wagon-seat support. C. R. Sachs. No. 1,140,769; May 25; Gaz. vol. 214; p. 1177.
Wagon-step. A. C. Smith. No. 1,141,017; May 25; Gaz. vol. 214; p. 1266.

Wagons, Road-grader attachment for. A. Amundson. No. 1,138,172; May 4; Gaz. vol. 214; p. 189.
Walks, roads, and the like, Border-strip for. C. E. Haas. No. 1,139,515; May 18; Gaz. vol. 214; p. 704.
Wall structure, Insulated. V. E. Lane. No. 1,140,687; May 25; Gaz. vol. 214; p. 1150.
Wall-surfaces, Plastering. C. Weber. No. 1,139,901; May 11; Gaz. vol. 214; p. 520.
Walls, Corner-strip for. W. R. Hunter. No. 1,138,955; May 11; Gaz. vol. 214; p. 471.
Warp stop mechanism. T. J. O'Connell. No. 1,139,994; May 18; Gaz. vol. 214; p. 873.
Warping-machine. E. Bloom. No. 1,138,620; May 11; Gaz. vol. 214; p. 352.
Washboard. E. W. Clinchard. No. 1,139,847; May 18; Gaz. vol. 214; p. 821.
Washboiler clothes-drainer. M. A. Long. No. 1,139,782; May 18; Gaz. vol. 214; p. 798.
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Dish-washer.
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Glass-washer.
Washing appliance, Pneumatic. M. L. Smith. No. 1,138,806; May 11; Gaz. vol. 214; p. 420.
Washing-machine. M. L. Ramey. No. 1,139,907; May 18; Gaz. vol. 214; p. 843.
Washing-machine-actuating mechanism. C. M. Dumond. No. 1,139,404; May 11; Gaz. vol. 214; p. 628.
Washing-machine agitator. F. J. Tallant. No. 1,138,157; May 4; Gaz. vol. 214; p. 153.
Washing-machine-operating gearing. G. More. No. 1,139,893; May 18; Gaz. vol. 214; p. 837.
Washing-machine-operating mechanism. J. E. Kelly. No. 1,138,487; May 4; Gaz. vol. 214; p. 269.
Washing machine, Package-. G. and R. C. Schock. No. 1,139,377; May 11; Gaz. vol. 214; p. 619.
Washing-machine, Pounder. N. Fulcher and J. H. Pickett. No. 1,139,511; May 18; Gaz. vol. 214; p. 703.
Watch. C. L. Depollier. No. 1,139,111; May 11; Gaz. vol. 214; p. 528.
Watch case and movement protector. E. A. Roney. No. No. 1,139,374; May 11; Gaz. vol. 214; p. 618.
Watch-protector. G. Kaak. No. 1,139,187; May 11; Gaz. vol. 214; p. 555.
Watches, Cigar-cutter crown for. E. E. Stockton. No. 1,138,256; May 4; Gaz. vol. 214; p. 186.
Watchcase, &c. C. L. Depollier. No. 1,139,107; May 11; Gaz. vol. 214; p. 527.
Watchcase, &c. C. L. Depollier. No. 1,139,108; May 11; Gaz. vol. 214; p. 527.
Watchcase, &c. C. L. Depollier. No. 1,139,109; May 11; Gaz. vol. 214; p. 527.
Watchcase, &c. C. L. Depollier. No. 1,139,110; May 11; Gaz. vol. 214; p. 528.
Watchcase, Convertible. T. F. Hathaway. No. 1,139,415; May 11; Gaz. vol. 214; p. 633.
Watchcase, Convertible. T. F. Hathaway. No. 1,139,416; May 11; Gaz. vol. 214; p. 633.
Water and other liquids by ultra-violet rays, Apparatus for the treatment of. V. Henri, A. Helbronner, and M. von Recklinghausen. No. 1,140,819; May 25; Gaz. vol. 214; p. 1195.
Water by means of ozonized air, Apparatus for purifying. G. E. Erlwein and C. Knips. No. 1,138,202; May 4; Gaz. vol. 214; p. 168.
Water-calming device. J. F. White. No. 1,139,246; May 11; Gaz. vol. 214; p. 573.
Water-closet. I. P. Clark. No. 1,140,252; May 18; Gaz. vol. 214; p. 963.
Water-closet for yachts and other small boats. P. E. Monroe. No. 1,139,700; May 18; Gaz. vol. 214; p. 770.
Water-closet, Sanitary. F. J. Graves. No. 1,140,814; May 25; Gaz. vol. 214; p. 1194.
Water-closets, Valve for seat-action. W. G. Newton. No. 1,138,241; May 4; Gaz. vol. 214; p. 181.
Water, Device for supplying cooling-. H. H. Southworth. No. 1,139,461; May 11; Gaz. vol. 214; p. 650.
Water-distributing mechanism. W. Coburn and C. W. Davis. No. 1,139,848; May 18; Gaz. vol. 214; p. 822.
Water-gage. W. F. Green. No. 1,138,285; May 4; Gaz. vol. 214; p. 197.
Water-heater. A. Forsyth. No. 1,140,896; May 25; Gaz. vol. 214; p. 1225.
Water-heater. R. F. Metcalfe. No. 1,140,910; May 25; Gaz. vol. 214; p. 1229.
Water-heater. D. H. Mosteller. No. 1,138,593; May 4; Gaz. vol. 214; p. 303.
Water-heater, Electrical. S. L. Varvel. No. 1,139,001; May 11; Gaz. vol. 214; p. 488.
Water-meter. C. G. Brodie. No. 1,140,661; May 25; Gaz. vol. 214; p. 1142.
Water-meter. H. I. Dilts. No. 1,138,640; May 11; Gaz. vol. 214; p. 359.
Water-meter box. M. M. Kane. No. 1,139,188; May 11; Gaz. vol. 214; p. 555.
Water-motor. R. E. Kirtley. No. 1,140,598; May 25; Gaz. vol. 214; p. 1121.
Water-motor. T. Maltby. No. 1,140,756; May 25; Gaz. vol. 214; p. 1173.
Water-purifier. J. C. Eckliff. No. 1,140,802; May 18; Gaz. vol. 214; p. 980.
Water-purifying apparatus. H. B. Hartman. No. 1,139,969; May 18; Gaz. vol. 214; p. 864.
Water-purifying apparatus. H. B. Hartman. No. 1,139,970; May 18; Gaz. vol. 214; p. 864.
Water, Softening. K. Schrempp. No. 1,139,378; May 11; Gaz. vol. 214; p. 619.
Water supply, Installation for warm-. H. Jaugera. No. 1,140,597; May 25; Gaz. vol. 214; p. 1121.
Water, Treating. W. H. Williams. No. 1,139,613; May 18; Gaz. vol. 214; p. 740.
Watering-trough. J. A. Maynard. No. 1,139,132; May 11; Gaz. vol. 214; p. 585.
Waterproofing material, Apparatus for treating articles of paper, cardboard, and the like with. A. Stephen. No. 1,140,626; May 25; Gaz. vol. 214; p. 1181.
Wave-motor. L. Mayolino. No. 1,140,521; May 25; Gaz. vol. 214; p. 1095.
Wax. H. P. Vest. No. 1,139,603; May 18; Gaz. vol. 214; p. 735.
Wax-extractor. W. J. Brisius. No. 1,140,669; May 25; Gaz. vol. 214; p. 1142.
Waxing paper, Machine and method for. W. L. Carter. No. 1,140,878; May 25; Gaz. vol. 214; p. 1216.
Web-cutting mechanism. L. Huffman. No. 1,139,828; May 18; Gaz. vol. 214; p. 709.
Web-cutting mechanism. A. Novick. No. 1,140,862; May 25; Gaz. vol. 214; p. 1047.
Weigher. C. Buchholz. No. 1,137,836; May 4; Gaz. vol. 214; p. 40
Weighing and sorting apparatus. W. Fasackerley. No. 1,141,048; May 25; Gaz. vol. 214; p. 1276.
Weighing-machine, Automatic. W. J. Phelps. No. 1,139,070; May 11; Gaz. vol. 214; p. 513.
Weight-testing machine. E. H. Waugh. No. 1,137,936; May 4; Gaz. vol. 214; p. 74.
Welding. M. B. Lloyd. No. 1,141,068; May 25; Gaz. vol. 214; p. 1283.
Welding aluminium and aluminium-containing alloys, Compound for. E. Thaulow. No. 1,139,923; May 18; Gaz. vol. 214; p. 848.
Welding, Electric-resistance. A. M. Stanley. No. 1,138,154; May 4; Gaz. vol. 214; p. 152.
Well-cleaner. J. L. Wilson. No. 1,140,225; May 18; Gaz. vol. 214; p. 954.
Well coupling, Oil-. A. B. Sollinger. No. 1,138,421; May 4; Gaz. vol. 214; p. 247.
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Well-reamer. H. R. Hughes. No. 1,139,529; May 18; Gaz. vol. 214; p. 709.
Well system, Cold-storage-. F. M. Dunn and R. G. Krob. No. 1,138,547; May 4; Gaz. vol. 214; p. 289.
Well-tubing anchor. R. C. Baker. No. 1,140,789; May 25; Gaz. vol. 214; p. 1184.
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Wells, Operating oil-. W. D. Huff. No. 1,140,982; May 25; Gaz. vol. 214; p. 1264.
Welt-strip. O. C. Davis. No. 1,139,403; May 11; Gaz. vol. 214; p. 628.
Wheel: *See*—
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Cushion-wheel.
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Fifth-wheel.
Gear-wheel.
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Wheel. T. C. Benbow. No. 1,138,442; May 4; Gaz. vol. 214; p. 254.
Wheel. C. E. Bridges. No. 1,139,951; May 18; Gaz. vol. 214; p. 857.
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Wheel-brake. J. T. Westwood. No. 1,138,707; May 11; Gaz. vol. 214; p. 383.
Wheel demountable rim, Automobile-. E. K. Baker. No. 1,140,652; May 25; Gaz. vol. 214; p. 1139.
Wheel-fender. F. Leach. No. 1,137,872; May 4; Gaz. vol. 214; p. 52.
Wheel-mount. P. F. Chanute. No. 1,140,573; May 25; Gaz. vol. 214; p. 1112.
Wheel-rim, Vehicle. E. O. Moses. No. 1,139,702; May 18; Gaz. vol. 214; p. 771.
Wheel-scraper. G. W. Taylor. No. 1,139,599; May 18; Gaz. vol. 214; p. 783.
Wheels, Balancing device for. O. C. Little. No. 1,138,592; May 4; Gaz. vol. 214; p. 303.
Wheels, Trammel-gage for vehicle-. C. C. Dedreux. No. 1,138,736; May 11; Gaz. vol. 214; p. 394.
Whip, Electric. H. C. Dixon. No. 1,140,365; May 25; Gaz. vol. 214; p. 1037.
Whipping device. J. T. Walsh. No. 1,139,606; May 18; Gaz. vol. 214; p. 735.
Winding-machine. C. Ryden. No. 1,138,320; May 4; Gaz. vol. 214; p. 210.
Winding-machine. C. R. Underhill. No. 1,140,924; May 25; Gaz. vol. 214; p. 1235.
Winding machine, Pirn or cop. T. A. Boyd. No. 1,139,832; May 11; Gaz. vol. 214; p. 602.
Windmill. R. Clade. No. 1,139,103; May 11; Gaz. vol. 214; p. 525.
Windmill. W. Weiner. No. 1,140,221; May 18; Gaz. vol. 214; p. 953.
Window. K. L. Lodvee. No. 1,137,991; May 4; Gaz. vol. 214; p. 94.

Window. F. Mesker and J. Benc. No. 1,139,308; May 11; Gaz. vol. 214; p. 594.
Window. G. Miller. No. 1,138,302; May 4; Gaz. vol. 214; p. 237.
Window. W. S. Warren. No. 1,139,244; May 11; Gaz. vol. 214; p. 573.
Window and veranda box. A. J. Martin. No. 1,139,883; May 18; Gaz. vol. 214; p. 834.
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Window-cleaner. W. T. Baugh. No. 1,139,834; May 18; Gaz. vol. 214; p. 817.
Window-cleaning device. C. B. Runge. No. 1,140,001; May 18; Gaz. vol. 214; p. 876.
Window construction. C. E. Somers. No. 1,138,326; May 4; Gaz. vol. 214; p. 213.
Window-lock. A. Hundert. No. 1,139,870; May 18; Gaz. vol. 214; p. 830.
Window-screen. W. E. James. No. 1,138,295; May 4; Gaz. vol. 214; p. 200.
Window-screen. G. H. Lambert. No. 1,139,982; May 18; Gaz. vol. 214; p. 869.
Window-screen. R. J. Stanley. No. 1,140,413; May 25; Gaz. vol. 214; p. 1055.
Window-screen attachment. H. Higgin. No. 1,140,376; May 25; Gaz. vol. 214; p. 1041.
Windows, Glass-holding device for metallic. R. S. Drummond. No. 1,140,887; May 25; Gaz. vol. 214; p. 1221.
Wire-coiling mechanism. E. James. No. 1,139,872; May 18; Gaz. vol. 214; p. 830.
Wire fabric for ornamental wear. F. P. and H. W. Collingwood. No. 1,140,445; May 25; Gaz. vol. 214; p. 1066.
Wire-fabric-machine reel. C. E. Safford. No. 1,139,077; May 11; Gaz. vol. 214; p. 516.
Wire-gauze, Means for giving a finished surface to. F. Stonier. No. 1,138,257; May 4; Gaz. vol. 214; p. 186.
Wire lengths or other strips, Mechanism for producing and applying. W. L. Wright. No. 1,140,228; May 18; Gaz. vol. 214; p. 954.
Wire, Low-expansion. B. E. Eldred. No. 1,140,136; May 18; Gaz. vol. 214; p. 925.
Wire-reducing machine. F. H. Sleeper. No. 1,137,920; May 4; Gaz. vol. 214; p. 69.
Wire reeling and unreeling machine. C. H. Dooley. No. 1,138,940; May 11; Gaz. vol. 214; p. 466.
Wire stretching or pulling device. L. E. Carson. No. 1,140,115; May 18; Gaz. vol. 214; p. 917.
Wood fiber, Preparing. J. H. Thickens. No. 1,138,907; May 11; Gaz. vol. 214; p. 455.
Wood-preservative. J. A. De Cew. No. 1,140,127; May 18; Gaz. vol. 214; p. 922.
Woodworking-tool. C. L. Oakley. No. 1,138,777; May 11; Gaz. vol. 214; p. 408.
Work-bench attachment. L. H. Brimball. No. 1,140,243; May 18; Gaz. vol. 214; p. 960.
Work-support. E. E. Winkley. No. 1,138,710; May 11; Gaz. vol. 214; p. 384.
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Woven screen. W. S. Potter. No. 1,139,469; May 11; Gaz. vol. 214; p. 652.
Wrapping annuli, Machine for. P. E. Welton. No. 1,140,729; May 25; Gaz. vol. 214; p. 1163.
Wrapping-machine. E. Jagenberg. No. 1,140,030; May 18; Gaz. vol. 214; p. 890.
Wrench: *See*—
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Wrench. O. Agnew. No. 1,137,942; May 4; Gaz. vol 214; p. 76.
Wrench. J. A. Bean. No. 1,140,018; May 18; Gaz. vol. 214; p. 882.
Wrench. A. Cudoszki. No. 1,138,847; May 11; Gaz. vol. 214; p. 435.
Wrench. W. Kaylor. No. 1,138,572; May 4; Gaz. vol. 214; p. 296.
Wrench. O. P. Kilpatrick. No. 1,138,957; May 11; Gaz. vol. 214; p. 472.
Wrench. J. E. Milcoff. No. 1,140,276; May 18; Gaz. vol. 214; p. 971.
Wrench. E. S. Miller. No. 1,137,884; May 4; Gaz. vol. 214; p. 56.
Wrench. H. Ysskin. No. 1,140,862; May 25; Gaz. vol. 214; p. 1212.
Wringer: *See*—
Clothes-wringer. Mop-wringer.
Wringer. W. F. Kurtz. No. 1,140,989; May 25; Gaz. vol. 214; p. 1257.
Wringer-rolls, Quick release for. S. M. Marshall. No. 1,138,770; May 11; Gaz. vol. 214; p. 406.
Wringers, Safety attachment for clothes-. H. Loeffler. No. 1,139,546; May 18; Gaz. vol. 214; p. 714.
Wrist-pin fastening. M. D. Franey. No. 1,139,962; May 18; Gaz. vol. 214; p. 861.
Writer, Check-. L. M. Todd and C. G. Tiefel. No. 1,138,330; May 4; Gaz. vol. 214; p. 215.
Writing-machine. O. F. Bamberg and E. Weinhold. No. 1,138,832; May 11; Gaz. vol. 214; p. 429.
Writing machine, Cipher-. E. H. Hebern. No. 1,141,055; May 25; Gaz. vol. 214; p. 1279.
X-ray apparatus. S. T. Hutton. No. 1,138,113; May 4; Gaz. vol. 214; p. 138.
Yoke, Extensible neck-. G. L. Waddell. No. 1,138,518; May 4; Gaz. vol. 214; p. 279.
Yoke for cattle. H. R. Knox. No. 1,139,538; May 18; Gaz. vol. 214; p. 712.
Zinc sulfate, Production of. R. Bonastre Llopart. No. 1,140,354; May 25; Gaz. vol. 214; p. 1038.

ALPHABETICAL LIST OF DESIGNS.

Article of manufacture. W. Blakeman. No. 47,373; May 25; Gaz. vol. 214; p. 1292.
Article of manufacture. W. De Ville. No. 47,377; May 25; Gaz. vol. 214; p. 1293.
Article of manufacture. E. A. Farr. No. 47,379; May 25; Gaz. vol. 214; p. 1293.
Article of manufacture. J. T. Wigley. Nos. 47,314–15; May 4; Gaz. vol. 214; p. 321.
Automobile-body. W. B. West. No. 47,313; May 4; Gaz. vol. 214; p. 320.
Automobile-wheel. L. C. Schwab. No. 47,390; May 25; Gaz. vol. 214; p. 1295.
Automobiles, Hood and cowl-dash attachment for. J. and H. Schneider. No. 47,307; May 4; Gaz. vol. 214; p. 319.
Bed-spring. P. Krakauer. No. 47,336; May 11; Gaz. vol. 214; p. 658.
Boat, Pleasure-. I. Chase. No. 47,375; May 25; Gaz. vol. 214; p. 1295.
Book-rack. J. H. Jewett. No. 47,302; May 4; Gaz. vol. 214; p. 318.
Bottle. R. Coane. No. 47,355; May 18; Gaz. vol. 214; p. 1000.
Bottle. T. C. Wheaton. No. 47,393; May 25; Gaz. vol. 214; p. 1296.
Bottle, Poison-. W. W. and E. Haya. No. 47,298; May 4; Gaz. vol. 214; p. 318.
Bottle, Poison-. A. F. Stephenson. No. 47,348; May 11; Gaz. vol. 214; p. 660.
Box, Tobacco and match. W. J. Fricke. No. 47,289; May 4; Gaz. vol. 214; p. 316.
Bracelet, Watch-. C. L. Depollier. No. 47,376; May 25; Gaz. vol. 214; p. 1293.
Bracket. J. F. Egan. No. 47,287; May 4; Gaz. vol. 214; p. 315.
Bread-board. J. Campbell. No. 47,322; May 11; Gaz. vol. 214; p. 656.
Button. M. Silverman. No. 47,391; May 25; Gaz. vol. 214; p. 1295.
Button, badge, or similar article. B. R. Jolly and P. L. Fowler. No. 47,303; May 4; Gaz. vol. 214; p. 319.
Button, Collar-. F. A. Canfield. No. 47,374; May 25; Gaz. vol. 214; p. 1293.
Carbureter. C. B. Kent. No. 47,304; May 4; Gaz. vol. 214; p. 319.
Cars, motor-busses, or the like vehicles, Cover for drivers of motor-. M. C. Morris. No. 47,306; May 4; Gaz. vol. 214; p. 319.
Casket handle, Burial-. C. Blesch. No. 47,281; May 4; Gaz. vol. 214; p. 315.
Chafing-dish. F. Kuhn and F. E. Shallor. No. 47,384; May 25; Gaz. vol. 214; p. 1294.
Cinch-ring. G. Buerman. No. 47,282; May 4; Gaz. vol. 214; p. 315.
Cup. F. A. Sebring. No. 47,342; May 11; Gaz. vol. 214; p. 659.
Dish. R. H. Stoltz. No. 47,368; May 18; Gaz. vol. 214; p. 1002.
Doll. T. H. Hindle, Jr. No. 47,361; May 18; Gaz. vol. 214; p. 1001.
Electric-light shade. H. Pickhardt. No. 47,367; May 18; Gaz. vol. 214; p. 1002.
Emblem or similar article. J. C. Miller. No. 47,387; May 25; Gaz. vol. 214; p. 1295.
Fabric. S. L. Crownfield. No. 47,356; May 18; Gaz. vol. 214; p. 1000.
Fabric, Textile. H. R. Mallinson. No. 47,338; May 11; Gaz. vol. 214; p. 659.
Fender, Front. R. J. Myars. No. 47,340; May 11; Gaz. vol. 214; p. 659.
Fire-extinguisher casing. R. S. Hickish. Nos. 47,299–300; May 4; Gaz. vol. 214; p. 318.
Game-board. D. H. Wiggins. No. 47,370; May 18; Gaz. vol. 214; p. 1002.
Gas-cocks or the like, Key for. H. Hultgren. Nos. 47,325–7; May 11; Gaz. vol. 214; pp. 656–7.
Glass, Drinking-. F. E. Anderson. No. 47,354; May 18; Gaz. vol. 214; p. 999.
Glass, Piece of. P. Ebeling. No. 47,284; May 4; Gaz. vol. 214; p. 316.
Glass vessel. G. G. Wilmarth. No. 47,352; May 11; Gaz. vol. 214; p. 661.
Glass vessel or similar article. P. Ebeling. No. 47,285; May 4; Gaz. vol. 214; p. 316.
Hat-rack. J. Fetzer. No. 47,359; May 18; Gaz. vol. 214; p. 1000.
Hinge. W. W. Wood. No. 47,353; May 11; Gaz. vol. 214; p. 661.
Lace. M. A. Haldeman. Nos. 47,293–7; May 4; Gaz. vol. 214; pp. 317–18.
Lace edging. S. N. Goodman. No. 47,291; May 4; Gaz. vol. 214; p. 317.
Lamp-chimney. A. Jenkins. No. 47,301; May 4; Gaz. vol. 214; p. 318.
Lamp-shade. J. Beiswanger. No. 47,321; May 11; Gaz. vol. 214; p. 656.
Lighting-fixture. E. F. Guth. No. 47,324; May 11; Gaz. vol. 214; p. 656.
Lighting-fixture part. P. I. Ansorge. Nos. 47,316–20; May 11; Gaz. vol. 214; p. 655.
Lighting-fixtures, Shell for. A. E. Tepfer. No. 47,349; May 11; Gaz. vol. 214; p. 660.
Lighting-fixtures, Shower-pan for. P. Mohrmann. No. 47,339; May 11; Gaz. vol. 214; p. 659.
Linoleum, oil-cloth, or floor-covering. C. F. Humphreys. Nos. 47,328–32; May 11; Gaz. vol. 214; pp. 657–8.
Linoleum, oil-cloth, or floor-covering. C. M. Post. No. 47,341; May 11; Gaz. vol. 214; p. 659.
Linoleum, oil-cloth, or floor-covering. M. H. Solms. Nos. 47,345–6; May 11; Gaz. vol. 214; p. 660.
Medallion or similar article of jewelry. G. Karabatos. No. 47,383; May 25; Gaz. vol. 214; p. 1294.
Molding, Metal. A. C. Terrell. No. 47,309; May 4; Gaz. vol. 214; p. 320.
Paper-cutter or similar article. W. Speltel. No. 47,392; May 25; Gaz. vol. 214; p. 1296.
Pencil-casing. D. Wall. No. 47,311; May 4; Gaz. vol. 214; p. 320.
Pencil-container. J. M. Van Alst. No. 47,350; May 11; Gaz. vol. 214; p. 661.
Pin. J. F. Faber. No. 47,378; May 25; Gaz. vol. 214; p. 1293.
Plate. P. Albrecht. No. 47,372; May 25; Gaz. vol. 214; p. 1292.
Plate. A. J. Knopf. No. 47,363; May 18; Gaz. vol. 214; p. 1001.
Plate. F. A. Sebring. No. 47,344; May 11; Gaz. vol. 214; p. 660.
Plate or similar article. L. C. Lewis. No. 47,337; May 11; Gaz. vol. 214; p. 658.
Pliers, cutters, and similar articles, Member of a pair. K. Peterson. No. 47,389; May 25; Gaz. vol. 214; p. 1295.
Pneumatic sweepers, Suction-nozzle for. L. L. Ferguson. No. 47,358; May 18; Gaz. vol. 214; p. 1000.
Razor-strap holder. M. Mihills. No. 47,386; May 25; Gaz. vol. 214; p. 1295.
Ridge-roll finish. P. Mohrmann. No. 47,388; May 25; Gaz. vol. 214; p. 1295.
Rug. R. M. De Hart. No. 47,323; May 11; Gaz. vol. 214; p. 656.
Saucer. F. A. Sebring. No. 47,343; May 11; Gaz. vol. 214; p. 659.
Shade. N. Kopp. Nos. 47,334–5; May 11; Gaz. vol. 214; p. 658.
Soap-distributers, Casing for. M. M. Marcuse. No. 47,366; May 18; Gaz. vol. 214; p. 1002.
Spoon. T. J. Lowery. No. 47,305; May 4; Gaz. vol. 214; p. 319.
Spoons, forks, or similar articles, Handle for. W. A. Jameson. No. 47,362; May 18; Gaz. vol. 214; p. 1001.
Spoons, forks, or similar articles, Handle for. B. P. Jenks. No. 47,381; May 25; Gaz. vol. 214; p. 1294.
Spoons, forks, or similar articles, Handle for. T. B. Lashar. No. 47,364; May 18; Gaz. vol. 214; p. 1001.
Spoons, forks, or similar articles, Handle for. G. C. Lunt. No. 47,365; May 18; Gaz. vol. 214; p. 1001.
Stove, Gas heating-. H. C. Fritz. No. 47,380; May 25; Gaz. vol. 214; p. 1294.
Table. G. L. Harrison. No. 47,360; May 18; Gaz. vol. 214; p. 1000.
Table-ornament. A. G. Weiser. No. 47,312; May 4; Gaz. vol. 214; p. 320.
Table-ornament. A. G. Weiser. No. 47,369; May 18; Gaz. vol. 214; p. 1002.
Tile, Wall-. H. N. Goldsmith. No. 47,290; May 4; Gaz. vol. 214; p. 317.
Tire. D. Spence. No. 47,347; May 11; Gaz. vol. 214; p. 660.
Tire. W. H. Yule. No. 47,371; May 18; Gaz. vol. 214; p. 1002.
Tire, Vehicle-. E. J. Willis. No. 47,351; May 11; Gaz. vol. 214; p. 661.
Toy bank. W. J. Somerville. No. 47,308; May 4; Gaz. vol. 214; p. 320.
Toy bank or similar article. G. G. Drayton. No. 47,357; May 18; Gaz. vol. 214; p. 1000.
Vaccination-shield. E. E. Kleinschmidt. No. 47,333; May 11; Gaz. vol. 214; p. 658.
Vanity-case. E. A. Guthman. No. 47,292; May 4; Gaz. vol. 214; p. 317.
Vault, Burial-. C. L. Johnson. No. 47,382; May 25; Gaz. vol. 214; p. 1294.
Vehicle-body. R. B. Fageol. Nos. 47,287–8; May 4; Gaz. vol. 214; p. 316.
Washboiler. C. Wacaser. No. 47,310; May 4; Gaz. vol. 214; p. 320.

ALPHABETICAL LIST OF TRADE-MARKS.

Aluminum and enameled metal ware. Geo. Borgfeldt & Co. No. 104,413; May 25; Gaz. vol. 214; p. 1317.
Ankle-supporters and wristbands, Athletic. H. J. Collis. No. 104,300; May 18; Gaz. vol. 214; p. 1021.
Apple-butter. R. F. Brinton. No. 104,285; May 18; Gaz. vol. 214; p. 1021.
Apples and peaches, Fresh. Spokane Fruit Growers Co. No. 104,132; May 4; Gaz. vol. 214; p. 339.
Aprons. A. Kaplon. No. 104,289; May 18; Gaz. vol. 214; p. 1021.
Asphaltum. Anglo Mexican Petroleum Products Company. No. 104,282; May 18; Gaz. vol. 214; p. 1021.
Automobiles, cycle-cars, and motor-cycles. W. I. Twombly. No. 104,355; May 25; Gaz. vol. 214; p. 1315.
Bags and hand-grips, Travelers'. Kennedy Manufacturing Company. No. 104,330; May 18; Gaz. vol. 214; p. 1022.
Bags, Leather vanity-. H. S. Bains. No. 104,126; May 4; Gaz. vol. 214; p. 339.
Baling-presses. The Davenport Manufacturing Co. No. 104,144; May 4; Gaz. vol. 214; p. 339.
Bars, billets, castings, forgings, &c., of pure iron. The American Rolling Mill Co. No. 104,245; May 11; Gaz. vol. 214; p. 678.
Batteries and arc-lamps, Secondary. Helios Manufacturing Company. No. 104,325; May 18; Gaz. vol. 214; p. 1022.
Batteries, fire-alarm boxes, electric lanterns, &c., Dry. J. H. Bunnell & Co. No. 104,176; May 4; Gaz. vol. 214; p. 340.
Battery-jars. India Rubber Company. No. 104,410; May 25; Gaz. vol. 214; p. 1317.
Bearings, Antifriction-. Pressed Steel Manufacturing Company. No. 104,231; May 11; Gaz. vol. 214; p. 678.
Beef, bloaters, smoked herring, &c., Dried. Rust-Parker-Martin Company. No. 104,129; May 4; Gaz. vol. 214; p. 339.
Beer. German American Brewing Co. No. 104,303; May 18; Gaz. vol. 214; p. 1021.
Beer. The John Hauck Brewing Company. Nos. 104,386–7; May 25; Gaz. vol. 214; p. 1316.
Beer. The Kamm & Schellinger Brewing Co. No. 104,171; May 4; Gaz. vol. 214; p. 340.
Beverages, Malt. The Bavarian Brewing Company. No. 104,409; May 25; Gaz. vol. 214; p. 1317.
Biscuit. Loose-Wiles Biscuit Company. No. 104,331; May 25; Gaz. vol. 214; p. 1316.
Blouses, Boys'. Reliance Manufacturing Company. No. 104,265; May 11; Gaz. vol. 214; p. 679.
Books, Series of. Barse & Hopkins. No. 104,359; May 25; Gaz. vol. 214; p. 1315.
Boots and shoes. Burley & Stevens. No. 104,141; May 4; Gaz. vol. 214; p. 339.
Boots and shoes. Chipman, Harwood & Co. No. 104,204; May 11; Gaz. vol. 214; p. 677.
Boots and shoes, Leather. S. Fleming. No. 104,118; May 4; Gaz. vol. 214; p. 339.
Boots, shoes, and slippers, Leather. E. A. Weil Company. No. 104,187; May 4; Gaz. vol. 214; p. 339.
Boots, shoes, slippers. L. Eckert. No. 104,213; May 11; Gaz. vol. 214; p. 677.
Boots, shoes, slippers, and footwear. E. C. Simen and L. Eckert. No. 104,235; May 11; Gaz. vol. 214; p. 678.
Box-strapping, Metal. Cary Manufacturing Co. No. 104,177; May 4; Gaz. vol. 214; p. 340.
Brake-linings. American Asbestos Company. No. 104,194; May 11; Gaz. vol. 214; p. 677.
Bread. L. & A. Baking Company. No. 104,331; May 18; Gaz. vol. 214; p. 1022.
Bread. Ward Bros. Co. No. 104,163; May 4; Gaz. vol. 214; p. 340.
Bread, rolls, biscuits, cakes, &c. Ward Baking Company. No. 104,162; May 4; Gaz. vol. 214; p. 340.
Bread, wrapped and unwrapped. Marsh Baking Co. No. 104,172; May 4; Gaz. vol. 214; p. 340.
Brick. Hydraulic-Press Brick Company. No. 104,423; May 25; Gaz. vol. 214; p. 1317.
Brick. Sioux City Brick and Tile Company. No. 104,340; May 18; Gaz. vol. 214; p. 1022.
Brick and construction-tile. Boone Brick Tile and Paving Company. No. 104,284; May 18; Gaz. vol. 214; p. 1021.
Bronzing-powder. Crown Bronze Powder Company. No. 104,422; May 18; Gaz. vol. 214; p. 1022.
Brushes, Tooth-. I. Sekine. No. 104,427; May 25; Gaz. vol. 214; p. 1317.
Candies in tablet form. E. Greenfield's Sons. No. 104,304; May 18; Gaz. vol. 214; p. 1021.
Candy. Bunte Brothers. Nos. 104,316–17; May 18; Gaz. vol. 214; p. 1022.
Candy, Stick-. Loose-Wiles Biscuit Company. No. 104,332; May 18; Gaz. vol. 214; p. 1022.
Candles. G. C. Schaelder. No. 104,398; May 25; Gaz. vol. 214; p. 1316.
Canned fruits. Benton County Growers' Association. No. 104,314; May 18; Gaz. vol. 214; p. 1022.
Canned salmon. Hawk Fish Company. No. 104,119; May 4; Gaz. vol. 214; p. 339.
Canned salmon. The Macleay Estate Co. No. 104,306; May 18; Gaz. vol. 214; p. 1021.
Caramels. Blanke-Wennecker Candy Co. No. 104,247; May 11; Gaz. vol. 214; p. 678.
Carbon-remover. J. J. Walsh. No. 104,242; May 11; Gaz. vol. 214; p. 678.
Carpet-sweeper. The Fair. No. 104,420; May 25; Gaz. vol. 214; p. 1317.
Carpets and rugs, Textile. W. M. Stevenson. No. 104,309; May 18; Gaz. vol. 214; p. 1022.
Cars and cycles, automobiles, and cycle-cars, Motor. Rudge-Whitworth. No. 104,397; May 25; Gaz. vol. 214; p. 1316.
Cement, Hydraulic. Sterling Portland Cement Company. No. 104,133; May 4; Gaz. vol. 214; p. 339.
Ceresin. Ernst Schliemann's Export-Ceresin-Fabrik, Gesellschaft mit beschränkter Haftung. Nos. 104,157–8; May 4; Gaz. vol. 214; p. 340.
Chairs, baskets for tennis-balls, bedroom suits, &c., Barbers' arm-. "Mundus" Aktiengesellschaft der Vereinigten Oesterreichischen Bugholzmoebel-Fabriken ("Mundus" United Austrian Bent Wood Furniture Manufacturers Ltd.). No. 104,151; May 4; Gaz. vol. 214; p. 340.
Cheese. C. C. Martin. No. 104,307; May 18; Gaz. vol. 214; p. 1021.
Cigarettes and smoking-tobacco. A. L. Mock. No. 104,131; May 4; Gaz. vol. 214; p. 341.
Cigars. Simon & Salsenstein. No. 104,131; May 4; Gaz. vol. 214; p. 339.
Cleanser. The Grady Mfg. Co. No. 104,422; May 25; Gaz. vol. 214; p. 1317.
Cleanser. Kohler Co. No. 104,121; May 4; Gaz. vol. 214; p. 339.
Closet fixtures, Water-. The John Douglas Company. No. 104,380; May 25; Gaz. vol. 214; p. 1316.
Clothing, Certain named. Cohen, Goldman & Co. No. 104,167; May 4; Gaz. vol. 214; p. 340.
Clothing, Certain named men's. Briede & Rogovsky. No. 104,166; May 4; Gaz. vol. 214; p. 340.
Coal. New England Coal & Coke Company. No. 104,228; May 11; Gaz. vol. 214; p. 678.
Coal. United Fuel & Supply Co. No. 104,348; May 18; Gaz. vol. 214; p. 1022.
Coats and costumes, Ladies'. A. Wilkie. No. 104,243; May 11; Gaz. vol. 214; p. 678.
Coats, cloaks, wraps, and capes. The Salt's Textile Manufacturing Company. No. 104,266; May 11; Gaz. vol. 214; p. 679.
Coffee. Bowers Bros. No. 104,345; May 18; Gaz. vol. 214; p. 1023.
Coffee. H. R. Tippenhauer. No. 104,272; May 11; Gaz. vol. 214; p. 679.
Coffee and rice, Roasted. The Querbacker Coffee Co. No. 104,292; May 18; Gaz. vol. 214; p. 1021.
Confection, Popcorn. C. L. Smith. No. 104,269; May 11; Gaz. vol. 214; p. 679.
Cork disks and tin bottle-caps made up with granulated-cork disks. J. Torres. No. 104,342; May 18; Gaz. vol. 214; p. 1022.
Cork, disks made therefrom, and bottle-closures, Artificial. The Crown Cork & Seal Co. of Baltimore City. No. 104,419; May 25; Gaz. vol. 214; p. 1317.
Cornmeal. The William Lea & Sons Company. No. 104,390; May 25; Gaz. vol. 214; p. 1316.
Cotton, Absorbent. C. A. Kittle. No. 104,351; May 25; Gaz. vol. 214; p. 1315.
Cotton piece goods. Stix, Baer & Fuller Dry Goods Company. No. 104,428; May 25; Gaz. vol. 214; p. 1317.
Cotton-seed meal and cake. Choctaw Sales Company. No. 104,319; May 18; Gaz. vol. 214; p. 1022.
Cutlery and tools, Certain named. Sargent & Company. No. 104,293; May 18; Gaz. vol. 214; p. 1021.
Dental, medical, and surgical appliances, Certain named. Continental Rubber Works. No. 104,209; May 11; Gaz. vol. 214; p. 677.
Dental, medical, and surgical supplies and appliances, Certain named. United Drug Company. No. 104,257; May 25; Gaz. vol. 214; p. 1315.
Dentifrices and mouth-wash. R. G. Blackie. No. 104,196; May 11; Gaz. vol. 214; p. 677.
Disinfectant, sanaseptic, and germicide for household purposes. Thornton Sanitary Drinking Device Co. No. 104,310; May 18; Gaz. vol. 214; p. 1022.
Disinfectants and insecticides. West Disinfecting Company. No. 104,407; May 25; Gaz. vol. 214; p. 1317.

Dolls. E. I. Horsman Co. No. 104,350; May 25; Gaz. vol. 214; p. 1315.
Dolls and stuffed toy animals. Politzer Toy Mfg. Co. No. 104,354; May 25; Gaz. vol. 214; p. 1315.
Domes, reflectors, diffusers, and bowls. W. J. Peterson. No. 104,426; May 25; Gaz. vol. 214; p. 1317.
Dresses. Textile Products Company. No. 104,237; May 11; Gaz. vol. 214; p. 678.
Dresses, Ladies'. M. & H. Rentner. No. 104,127; May 4; Gaz. vol. 214; p. 339.
Dresses, Ladies' and misses'. The Rosegold Manufacturing Co. No. 104,156; May 4; Gaz. vol. 214; p. 340.
Dresses, waists, and suits, Ladies', misses,' and children's. Elseman Bros. Mfg. Co. No. 104,431; May 25; Gaz. vol. 214; p. 1317.
Electric alarms, batteries, bells, boxes, cables, &c. Frank H. Stewart Electric Co. No. 104,270; May 11; Gaz. vol. 214; p. 679.
Electric generators. H. E. Elrod. No. 104,168; May 4; Gaz. vol. 214; p. 340.
Electrical wires and cables, Rubber-covered. The Electric Cable Company. No. 104,214; May 11; Gaz. vol. 214; p. 677.
Engines and parts thereof, Four-cycle stationary. International Harvester Corporation. No. 104,389; May 25; Gaz. vol. 214; p. 1316.
Envelop-sealing machines. United Sealing Machine Company. No. 104,185; May 4; Gaz. vol. 214; p. 341.
Feed for live stock, Mixed. International Sugar Feed No. Two Co. Nos. 104,328–9; May 18; Gaz. vol. 214; p. 1022.
Fencing, gates, and fence-posts, Metal. Dwiggins Wire Fence Company. No. 104,381; May 25; Gaz. vol. 214; p. 1316.
Fertilizer. American Agricultural Chemical Co. No. 104,370; May 25; Gaz. vol. 214; p. 1315.
Fertilizers. American Agricultural Chemical Co. No. 104,312; May 18; Gaz. vol. 214; p. 1022.
Fertilizers. Columbia Guano Company. No. 104,321; May 18; Gaz. vol. 214; p. 1022.
Fish, Cured. The Meyer & Thompson Co. No. 104,259; May 11; Gaz. vol. 214; p. 679.
Flags, Manufactured. Annin & Co. No. 104,313; May 18; Gaz. vol. 214; p. 1022.
Flavoring compound, Vanilla. J. B. Bernbrock. No. 104,347; May 25; Gaz. vol. 214; p. 1315.
Flour, Self-rising wheat-. Koenigsmark Mill Company. No. 104,120; May 4; Gaz. vol. 214; p. 339.
Flour, Wheat-. Commercial Milling Co. No. 104,418; May 25; Gaz. vol. 214; p. 1317.
Flour, Wheat-. Wm. S. Hills Company. No. 104,327; May 18; Gaz. vol. 214; p. 1022.
Flour, Wheat-. C. L. Plumb. No. 104,125; May 4; Gaz. vol. 214; p. 339.
Flour, Wheat-. Sands, Taylor & Wood Company. No. 104,234; May 11; Gaz. vol. 214; p. 678.
Flour, Wheat-. St. Jacob Enterprise Mill Co. No. 104,341; May 18; Gaz. vol. 214; p. 1022.
Flours, Wheat and corn. Plymouth Milling Company. No. 104,394; May 25; Gaz. vol. 214; p. 1316.
Fly-killers. United States Wire Mat Co. No. 104,136; May 4; Gaz. vol. 214; p. 339.
Food consisting of grains, nuts, and fruit. B. Macfadden. No. 104,258; May 11; Gaz. vol. 214; p. 679.
Food, Malt and wheat breakfast. Sims Cereal Company. No. 104,339; May 18; Gaz. vol. 214; p. 1022.
Foods, Certain named. Rust-Parker-Martin Company. No. 104,128; May 4; Gaz. vol. 214; p. 339.
Foods in paste form or a dry state, Certain malted. Thompson's Malted Food Company. No. 104,159; May 4; Gaz. vol. 214; p. 340.
Friction fabric and insulating-tape. Continental Rubber Works. No. 104,208; May 11; Gaz. vol. 214; p. 677.
Furniture-dressing. R. A. Phillips. No. 104,262; May 11; Gaz. vol. 214; p. 679.
Furniture-polish. J. H. V. Moody. No. 104,290; May 18; Gaz. vol. 214; p. 1021.
Fuses. The Ensign-Bickford Company. No. 104,217; May 11; Gaz. vol. 214; p. 677.
Fuses. The Ensign-Bickford Company. No. 104,286; May 18; Gaz. vol. 214; p. 1021.
Garment, Combination-. D. E. Sicher & Co. No. 104,295; May 18; Gaz. vol. 214; p. 1021.
Gaskets of metal and metal and asbestos, Cut. Victor Manufacturing and Gasket Co. No. 104,240; May 11; Gaz. vol. 214; p. 678.
Gasolene-gages. Boston Auto Gage Co. No. 104,414; May 25; Gaz. vol. 214; p. 1317.
Ginghams, seersuckers, plaids, &c. Aurora Cotton Mills. No. 104,283; May 18; Gaz. vol. 214; p. 1021.
Goggles, eyeglasses, spectacles, and mountings therefor. F. A. Hardy & Co. No. 104,385; May 25; Gaz. vol 214; p. 1316.
Golf-balls. The B. F. Goodrich Company. No. 104,287; May 18; Gaz. vol. 214; p. 1021.
Grains used as cattle feed. Atlantic Export Company. No. 104,195; May 11; Gaz. vol. 214; p. 677.
Grease, Axle-. The National Refining Company. No. 104,152; May 4; Gaz. vol. 214; p. 340.
Grease, Lubricating-. Motor Accessories, Incorporated. No. 104,224; May 11; Gaz. vol. 214; p. 678.
Guimpes, vestees, chemisettes, collars, and cuffs. Sig Silberberg Company. No. 104,362; May 25; Gaz. vol. 214; p. 1315.
Gum, Chewing-. C. Price. No. 104,336; May 18; Gaz. vol. 214; p. 1022.
Hair-cleanser. J. J. Wittwer, Sr. No. 104,430; May 25; Gaz. vol. 214; p. 1317.
Hair-restorer. H. Kallenberg, Jr. No. 104,288; May 18; Gaz. vol. 214; p. 1021.
Hardware and plumbing supplies, Certain named. The American Hardware Corporation. Nos. 104,138–9; May 4; Gaz. vol. 214; p. 339.
Hardware and plumbing supplies, Certain named. Parker Wire Goods Company. No. 104,182; May 4; Gaz. vol. 214; p. 341.
Hardware supplies, Certain named. The American Hardware Corporation. No. 104,281; May 18; Gaz. vol. 214; p. 1021.
Hardware supplies, Certain named. Sargent & Company. No. 104,294; May 18; Gaz. vol. 214; p. 1021.
Hats. The Fair. No. 104,256; May 11; Gaz. vol. 214; p. 679.
Hats and caps. Knox Hat Company. No. 104,221; May 11; Gaz. vol. 214; p. 677.
Hoof-protectors, Fiber. Rutherford Rubber Company. No. 104,233; May 11; Gaz. vol. 214; p. 678.
Hosiery. J. H. Semel & Co. No. 104,399; May 25; Gaz. vol. 214; p. 1316.
Household utensils, Certain named. The Geo. H. Bowman Company. No. 104,415; May 25; Gaz. vol. 214; p. 1317.
Incandescent bulbs. E. J. Deuth. No. 104,252; May 11; Gaz. vol. 214; p. 678.
Insecticides and fungicides. Ansbacher Insecticide Co. No. 104,366; May 25; Gaz. vol. 214; p. 1315.
Jewelry. The Baer & Wilde Co. No. 104,376; May 25; Gaz. vol. 214; p. 1316.
Knife-blades. Joseph Fahys & Company. No. 104,255; May 11; Gaz. vol. 214; p. 679.
Knit underwear. J. J. Byron. No. 104,142; May 4; Gaz. vol. 214; p. 339.
Knitted underwear, Certain named. The N. L. Birge Sons Company. No. 104,197; May 11; Gaz. vol. 214; p. 677.
Knitted underwear, Ladies'. Cooper, Coate & Casey Dry Goods Co. No. 104,417; May 25; Gaz. vol. 214; p. 1317.
Lamps, Electric incandescent. General Electric Company. Nos. 104,169–70; May 4; Gaz. vol. 214; p. 340.
Lead, Tempering-. United Lead Company. No. 104,239; May 11; Gaz. vol. 214; p. 678.
Leather, Unmanufactured. E. V. Gale Co. No. 104,421; May 25; Gaz. vol. 214; p. 1317.
Leather, Unmanufactured. T. Janney & Co. No. 104,305; May 18; Gaz. vol. 214; p. 1021.
Lenses, Ophthalmic. F. A. Hardy & Co. No. 104,218; May 11; Gaz. vol. 214; p. 677.
Linen, cotton, and mixed linen and cotton piece goods. Marshall Field & Company. No. 104,382; May 25; Gaz. vol. 214; p. 1316.
Lotion, Skin-. M. and N. Co. No. 104,165; May 4; Gaz. vol. 214; p. 340.
Lubricants. A. Warrell. Nos. 104,186–7; May 4; Gaz. vol. 214; p. 341.
Medical and surgical appliances, Certain named. Victor Electric Company. No. 104,404; May 25; Gaz. vol. 214; p. 1317.
Medicine for certain named ailments. T. Gray. No. 104,384; May 25; Gaz. vol. 214; p. 1316.
Medicines or specifics for indigestion, dyspepsia, heartburn, flatulence, &c. The Rensie Drug Company. No. 104,338; May 18; Gaz. vol. 214; p. 1022.
Metal, glass, porcelain, stove, and stone polishes. Siegel & Co. No. 104,130; May 4; Gaz. vol. 214; p. 339.
Metal shapes, bars, and sheets. Northfield Iron Company. No. 104,261; May 11; Gaz. vol. 214; p. 679.
Milk and cream. The Belle Vernon Mapes Dairy Co. No. 104,297; May 18; Gaz. vol. 214; p. 1021.
Mirror-glass for shaving and toilet purposes. C. W. Wood. No. 104,280; May 11; Gaz. vol. 214; p. 679.
Musical-instrument note-sheets. American Piano Co. No. 104,140; May 4; Gaz. vol. 214; p. 339.
Musical instruments. The Aeolian Company. No. 104,115; May 4; Gaz. vol. 214; p. 339.
Needlework and embroidery, Stamped art. Holzer & Wickner. No. 104,220; May 11; Gaz. vol. 214; p. 677.
Oil, Olive-. Enrique Grana e Hijos. No. 104,216; May 11; Gaz. vol. 214; p. 677.
Oils and greases. Pierce Oil Corporation. No. 104,124; May 4; Gaz. vol. 214; p. 339.
Oils, Lubricating-. Tiona Oil Company. No. 104,271; May 11; Gaz. vol. 214; p. 679.
Oleomargarin. R. B. Cramer. No. 104,211; May 11; Gaz. vol. 214; p. 677.
Oleomargarin and butterin. John F. Jelke Co. No. 104,148; May 4; Gaz. vol. 214; p. 340.
Organs and pianos. The B. Shoninger Co. Nos. 104,267–8; May 11; Gaz. vol. 214; p. 679.
Organs, Monthly house. - Young, Smyth, Field Company. No. 104,344; May 18; Gaz. vol. 214; p. 1023.
Overalls, jumpers, work pants and shirts, &c. Rice Stix Dry Goods Company. No. 104,363; May 25; Gaz. vol. 214; p. 1315.
Packings for gas-pipe joints. A. S. Miller. No. 104,122; May 4; Gaz. vol. 214; p. 339.
Paint and varnish removers. Simplex Manufacturing Co. No. 104,183; May 4; Gaz. vol. 214; p. 341.
Paints and painters' materials, Certain named. The Bridgeport Wood Finishing Co. No. 104,299; May 18; Gaz. vol. 214; p. 1021.

Paints, Mixed. Detroit Graphite Co. No. 104,251; May 11; Gaz. vol. 214; p. 678.
Paints, Mixed. Donaldson and Donaldson. No. 104,212; May 11; Gaz. vol. 214; p. 677.
Paper bags. Badger Bag & Paper Co. Nos. 104,372–5; May 25; Gaz. vol. 214; p. 1316.
Paper drinking-cups and cartons and cabinets to contain same. United States Envelope Company. Nos. 104,401–3; May 25; Gaz. vol. 214; p. 1316.
Paper, envelops, tablets, &c., Writing and printing. Eaton, Crane & Pike Company. No. 104,179; May 4; Gaz. vol. 214; p. 341.
Paper, Sensitized photographic. Eastman Kodak Co. No. 104,254; May 11; Gaz. vol. 214; p. 679.
Paper wrappers for food products. Nashua Card Gummed & Coated Paper Company. No. 104,260; May 11; Gaz. vol. 214; p. 679.
Papers for remanufacture, Waste printed. W. V. Bowater & Sons. No. 104,298; May 18; Gaz. vol. 214; p. 1021.
Paving-blocks, Wood. American Creosoting Company. No. 104,296; May 18; Gaz. vol. 214; p. 1021.
Pendants, charms, and brooches. Rankin Company. No. 104,155; May 4; Gaz. vol. 214; p. 340.
Periodicals, Weekly. Puck Publishing Corporation. No. 104,337; May 18; Gaz. vol. 214; p. 1022.
Petroleums, oils, naphthas, &c., Crude. Cardalitos Oil Company. No. 104,248; May 11; Gaz. vol. 214; p. 678.
Pharmaceutical preparations, Certain named. Langley & Michaels Co. No. 104,424; May 25; Gaz. vol. 214; p. 1317.
Pharmaceutical preparations for toilet use, Certain. Heywood Specialties Co. No. 104,388; May 25; Gaz. vol. 214; p. 1316.
Pharmaceutical preparations for toilet use, Certain. E. L. K. Willison. No. 104,164; May 4; Gaz. vol. 214; p. 340.
Piano-players, player-pianos, &c., Note-sheets for. American Piano Co. No. 104,346; May 25; Gaz. vol. 214; p. 1315.
Pills and tablets for treating certain named diseases. J. Meyer. No. 104,393; May 25; Gaz. vol. 214; p. 1316.
Pills, candles, suppositories, and salves. L. Trujillo-Marin. No. 104,425; May 25; Gaz. vol. 214; p. 1317.
Pins, Headed wire. The National Pin Company. No. 104,226; May 11; Gaz. vol. 214; p. 678.
Plows, cultivators, planters, &c., and parts thereof. J. I. Case Plow Works. Nos. 104,189–90; May 4; Gaz. vol. 214; p. 341.
Polish for wood, leather, and other non-metallic surfaces, Oil-. W. F. Oakley. No. 104,353; May 25; Gaz. vol. 214; p. 1315.
Popcorn. Verder Brothers. No. 104,175; May 4; Gaz. vol. 214; p. 340.
Poultice. Washington Drug Products Co. No. 104,406; May 25; Gaz. vol. 214; p. 1317.
Poultry and eggs for breeding and hatching. H. V. Tormohlen. No. 104,364; May 25; Gaz. vol. 214; p. 1315.
Powder, Bath-. R. Rapp. No. 104,367; May 25; Gaz. vol. 214; p. 1315.
Powders, Complexion-. C. Tetlow. No. 104,400; May 25; Gaz. vol. 214; p. 1316.
Preparation for the treatment of diarrhea and cholera in domestic animals, Compounded. D. F. Waters. No. 104,429; May 25; Gaz. vol. 214; p. 1317.
Preparation for the treatment of the tobacco habit. The Bako Co. No. 104,246; May 11; Gaz. vol. 214; p. 678.
Preparation for worn castings or cast-iron to make them look like new. Nu-Iron Mfg. Co. No. 104,230; May 11; Gaz. vol. 214; p. 678.
Publication, Monthly shoe-trade. Boot and Shoe Recorder Publishing Company. No. 104,315; May 18; Gaz. vol. 214; p. 1022.
Radiators. James B. Clow & Sons. No. 104,117; May 4; Gaz. vol. 214; p. 339.
Radiators of internal-combustion engines, Solution for leaks in. Radiator-Fix Company. No. 104,232; May 11; Gaz. vol. 214; p. 678.
Remedy for the tobacco habit. J. Stamer. No. 104,236; May 11; Gaz. vol. 214; p. 678.
Remedy to prevent abortion in cows. The Luxel Company. No. 104,392; May 25; Gaz. vol. 214; p. 1316.
Rice. Gannon Grocery Company. No. 104,302; May 18; Gaz. vol. 214; p. 1021.
Rompers and outer suits, Children's. Ely & Walker Dry Goods Co. No. 104,145; May 4; Gaz. vol. 214; p. 340.
Roofing materials, Certain named. Peyton Paper Co. No. 104,308; May 18; Gaz. vol. 214; p. 1021.
Rubber bumpers, antirattlers, hand-grips, &c. Continental Rubber Works. No. 104,207; May 11; Gaz. vol. 214; p. 677.
Rubber goods, Certain named manufactured. Continental Rubber Works. No. 104,206; May 11; Gaz. vol. 214; p. 677.
Rubber matting, stair-treads, printers' blankets, and hospital-sheeting. Continental Rubber Works. No. 104,210; May 11; Gaz. vol. 214; p. 677.
Rubber solution for the repair of rubber tires, Packages of. The B. F. Goodrich Company. No. 104,383; May 25; Gaz. vol. 214; p. 1316.
Rugs, mats, runners, and cotton bagging, Textile. Palmetto Products Company. No. 104,123; May 4; Gaz. vol. 214; p. 339.
Rugs, Textile. Dickey & McMaster. No. 104,253; May 11; Gaz. vol. 214; p. 678.
Rules, Circular slide-. The Commercial Calculator Co. No. 104,205; May 11; Gaz. vol. 214; p. 677.
Saleratus, bicarbonate of soda, and sal-soda. Church & Dwight Company. Nos. 104,249–50; May 11; Gaz. vol. 214; p. 678.
Saleratus, bicarbonate of soda, and sal-soda. Church & Dwight Company. No. 104,320; May 18; Gaz. vol. 214; p. 1022.
Salt. The Union Salt Company. Nos. 104,160–1; May 4; Gaz. vol. 214; p. 340.
Salt, Bath-. A. D. Adams. No. 104,193; May 11; Gaz. vol. 214; p. 677.
Salve. M. Moan. No. 104,223; May 11; Gaz. vol. 214; p. 678.
Salve for cuts, bruises, &c. M. Rabith. No. 104,395; May 25; Gaz. vol. 214; p. 1316.
Scissors and shears. The Acme Shear Company. No. 104,244; May 11; Gaz. vol. 214; p. 678.
Seeds, Alfalfa, clover, timothy, &c. Wood-Beasley Seed Co. No. 104,408; May 25; Gaz. vol. 214; p. 1317.
Seeds, Clover, alsike, timothy, &c., grass-. H. Hirsch. No. 104,349; May 25; Gaz. vol. 214; p. 1315.
Sewing-machines. National Sewing Machine Co. No. 104,227; May 11; Gaz. vol. 214; p. 678.
Shingles. North Carolina Lumber Co. No. 104,229; May 11; Gaz. vol. 214; p. 678.
Shirts and pajamas, Night-. Steiner & Son. No. 104,192; May 4; Gaz. vol. 214; p. 341.
Shirts, Dress and negligée. The Textile Shirt Co. No. 104,135; May 4; Gaz. vol. 214; p. 339.
Shirts, Men's dress and negligée. The Textile Shirt Co. No. 104,134; May 4; Gaz. vol. 214; p. 339.
Shirts, Negligée and work. G. H. Nicholas. No. 104,191; May 4; Gaz. vol. 214; p. 341.
Shoes and slippers, Leather and felt. Daniel Green Felt Shoe Company. No. 104,301; May 18; Gaz. vol. 214; p. 1021.
Shoes, Ladies' leather and canvas. The A. E. Pitts Shoe Company. No. 104,263; May 11; Gaz. vol. 214; p. 679.
Shoes, Ladies', misses', and children's. Miller, Hess & Company. No. 104,333; May 18; Gaz. vol. 214; p. 1022.
Shoes, Men's leather and canvas. The A. E. Pitts Shoe Company. No. 104,264; May 11; Gaz. vol. 214; p. 679.
Sleds. S. L. Allen & Co. No. 104,116; May 4; Gaz. vol. 214; p. 339.
Snap-fasteners. Waldes & Co. No. 104,241; May 11; Gaz. vol. 214; p. 678.
Soap for the face and hands, Cream. Embury & De Melt. No. 104,215; May 11; Gaz. vol. 214; p. 677.
Soap, Perfumed. J. L. Grossmith. No. 104,361; May 25; Gaz. vol. 214; p. 1315.
Soap, Toilet. Colgate & Co. No. 104,416; May 25; Gaz. vol. 214; p. 1317.
Soap, Toilet. M. Osterman. No. 104,291; May 18; Gaz. vol. 214; p. 1021.
Soaps. Triumph Liquid Soap Company. No. 104,238; May 11; Gaz. vol. 214; p. 678.
Soaps, Toilet, medicinal, and shaving. Barclay & Co. No. 104,412; May 25; Gaz. vol. 214; p. 1317.
Sodium powder used as a cleansing compound. Charon Products Company. No. 104,143; May 4; Gaz. vol. 214; p. 339.
Spad. Black Diamond Spad Co. No. 104,368; May 25; Gaz. vol. 214; p. 1315.
Spark-plugs. Champion Spark Plug Company. No. 104,202; May 11; Gaz. vol. 214; p. 677.
Spelter. Chance & Hunt. No. 104,377; May 25; Gaz. vol. 214; p. 1316.
Springs, Bed-. Minneapolis Bedding Company. No. 104,334; May 18; Gaz. vol. 214; p. 1022.
Steel bars and forgings, High-speed. Columbia Tool Steel Company. No. 104,378; May 25; Gaz. vol. 214; p. 1316.
Steel bars, Hollow and solid. International High Speed Steel Company. No. 104,257; May 11; Gaz. vol. 214; p. 679.
Stiffening cords, blades, and tapes. Castlebone Company. No. 104,201; May 11; Gaz. vol. 214; p. 677.
Tapioca. The Hills Bros. Co. No. 104,326; May 18; Gaz. vol. 214; p. 1022.
Tea, coffee, chocolate, cocoa, and bouillon. American Thermos Bottle Company. No. 104,371; May 25; Gaz. vol. 214; p. 1315.
Tires and casings, Rubber. H. Starnes. No. 104,184; May 4; Gaz. vol. 214; p. 341.
Tires and parts thereof, tire-casings, and supplies, Pneumatic. Lyon Tire and Rubber Co. No. 104,222; May 11; Gaz. vol. 214; p. 678.
Tires, Compound for curing punctures in. Interstate Puncture Proof Company. No. 104,147; May 4; Gaz. vol. 214; p. 340.
Tonic, Medical. The Cooper Medicine Co. No. 104,379; May 25; Gaz. vol. 214; p. 1316.
Tonics and antibilious pills, Chill and liver. Crystal Pharmacy. No. 104,360; May 25; Gaz. vol. 214; p. 1315.
Tonics, Medicinal. A. F. Richardson. No. 104,311; May 18; Gaz. vol. 214; p. 1022.
Toweling, bath-mats, washmats, and cloths. Ward, Meehan Company. No. 104,405; May 25; Gaz. vol. 214; p. 1317.
Toys. The Mysto Mfg. Co. No. 104,352; May 25; Gaz. vol. 214; p. 1315.
Toys, Certain named. Geo. Borgfeldt & Co. No. 104,200; May 11; Gaz. vol. 214; p. 677.

Trousers-waistbands. I. Heller. No. 104,219; May 11; Gaz. vol. 214; p. 677.
Valves, gage-cocks, and strainers, Steam, check, and relief. Nathan Manufacturing Company. No. 104,225; May 11; Gaz. vol. 214; p. 678.
Varnish. The U-Auto Varnish Co. Nos. 104,278–9; May 11; Gaz. vol. 214; p. 679.
Varnish. C. A. Willey Company. No. 104,188; May 4; Gaz. vol. 214; p. 341.
Varnishes. Berry Brothers. No. 104,196; May 11; Gaz. vol. 214; p. 677.
Varnishes. W. P. Fuller & Co. Nos. 104,323–4; May 18; Gaz. vol. 214; p. 1022.
Vehicles, trucks, running-gears, &c. Motor. Universal Motor Truck Company. No. 104,365; May 25; Gaz. vol. 214; p. 1315.
Velvets and plushes in the piece. The Salt's Textile Manufacturing Company. Nos. 104,178–4; May 4; Gaz. vol. 214; p. 340.
Violin-strings, accordions, concertinas, &c. The Fred Gretsch Mfg. Co. No. 104,146; May 4; Gaz. vol. 214; p. 340.
Vises and lathe-dogs. Bonney Vise & Tool Works. No. 104,199; May 11; Gaz. vol. 214; p. 677.
Washboards. National Washboard Company. No. 104,335; May 18; Gaz. vol. 214; p. 1022.
Waters, Mineral. Alqua Medicinal Water Co. No. 104,411; May 25; Gaz. vol. 214; p. 1317.
Wax, library-paste, mucilage, &c., Sealing-. United Drug Company. No. 104,356; May 25; Gaz. vol. 214; p. 1315.
Weighing machines and scales. John Chatillon & Sons. No. 104,203; May 11; Gaz. vol. 214; p. 677.
Wheels, Motor and cycle car, automobile, and motor-cycle. Rudge-Whitworth. No. 104,396; May 25; Gaz. vol. 214; p. 1316.
Whisky, Blend. W. G. & E. G. Murphy Co. Nos. 104,149–50; May 4; Gaz. vol. 214; p. 340.
Whisky, brandy, cordials, and rum. R. Petri Wine Company. No. 104,154; May 4; Gaz. vol. 214; p. 340.
Wine, Champagne-. Crandon et Cie. No. 104,178; May 4; Gaz. vol. 214; p. 341.
Wines. R. Petri Wine Company. No. 104,153; May 4; Gaz. vol. 214; p. 340.
Wires and cables, Rubber-covered. Electric Cable Company. No. 104,180; May 4; Gaz. vol. 214; p. 341.
Woolen piece goods. C. R. Hurd. No. 104,369; May 25; Gaz. vol. 214; p. 1315.
Wrenches, tire-tools, pliers, &c. Central Automobile Supply Company. No. 104,318; May 18; Gaz. vol. 214; p. 1022.
Writing-fluid, carbon-paper, ink pads and ribbons. United Drug Company. No. 104,358; May 25; Gaz. vol. 214; p. 1315.
Yarns, Mercerized, &c., cotton. Harding, Tilton & Company. No. 104,348; May 25; Gaz. vol. 214; p. 1315.

ALPHABETICAL LIST OF LABELS.

"Almond Cream." (For Almond Cream.) The S. S. White Dental Mfg. Co. No. 18,458; May 11; Gaz. vol. 214; p. 681.
"Amaro Romano." (For a Tonic.) A. A. Romano & Co. No. 18,453; May 11; Gaz. vol. 214; p. 681.
"Aromints." (For Mints.) The Aromint Co. No. 18,435; May 11; Gaz. vol. 214; p. 681.
"Aromita Silver Cleanzup." (For a Silver-Cleaner.) The Wm. M. Palmer Mfg. Co. No. 18,430; May 4; Gaz. vol. 214; p. 342.
"Aunt Mary's Loaf Cake." (For Cake.) Consumers Bread Co. No. 18,473; May 25; Gaz. vol. 214; p. 1318.
"Aut-O-Mint, A Dainty Confection." (For Lozenges.) Mint Products Company. No. 18,467; May 18; Gaz. vol. 214; p. 1024.
"Big-Dandy Bread." (For Bread.) P. Schulze. No. 18,488; May 25; Gaz. vol. 214; p. 1318.
"Blue Seal." (For Cigars.) C. Fortriede. No. 18,443; May 11; Gaz. vol. 214; p. 681.
"Bonita." (For a Cleaner.) W. E. Hawley. No. 18,472; May 18; Gaz. vol. 214; p. 1024.
"Cereal Meal." (For a Cereal Health Food.) The Cereal Meal Co. No. 18,436; May 11; Gaz. vol. 214; p. 681.
"Cherry Pepsin Tonic, A Compound." (For a Medicinal Tonic.) J. A. Bokel. No. 18,422; May 4; Gaz. vol. 214; p. 342.
"Cl-O-Ve Life Savers, A Dainty Confection." (For Lozenges of Clove Flavor.) Mint Products Company. No. 18,485; May 25; Gaz. vol. 214; p. 1318.
"Community Flax." (For Stationery.) White & Wyckoff Mfg. Co. No. 18,461; May 11; Gaz. vol. 214; p. 681.
"Corby Cake." (For Chocolate Cake.) The Corby Baking Co. No. 18,474; May 25; Gaz. vol. 214; p. 1318.
"Cyclone Roofing." (For Composition Rolled Roofing.) The Edwards & Chamberlin Hardware Co. No. 18,441; May 11; Gaz. vol. 214; p. 681.
"De Luxe Linen Lawn Writing Paper." (For Writing-Paper.) Kalamazoo Stationery Co. No. 18,480; May 25; Gaz. vol. 214; p. 1318.
"Dose Record Label." (For Drugs.) Maltby & Schattenberg. No. 18,482; May 25; Gaz. vol. 214; p. 1318.
"Dr. B. J. Kendall's Hair Tonic For Diseases of the Hair and Scalp." (For a Preparation for Diseases of the Hair and Scalp.) B. J. Kendall. No. 18,426; May 4; Gaz. vol. 214; p. 342.
"Ex-Corns." (For a Corn-Remover.) L. Shiwanov. No. 18,489; May 25; Gaz. vol. 214; p. 1318.
"Falfeine." (For Flavoring.) The Roland Co. No. 18,432; May 4; Gaz. vol. 214; p. 342.
"Flaxon Linen Fabric Writing Paper." (For Writing-Paper.) Kalamazoo Stationery Co. No. 18,479; May 25; Gaz. vol. 214; p. 1318.
"Fontenelle." (For Coffee.) German-American Coffee Co. No. 18,444; May 11; Gaz. vol. 214; p. 681.
"Frut Stix." (For Confections Made from Fruits.) F. J. Cooper No. 18,438; May 11; Gaz. vol. 214; p. 681.
"Golden Fruit." (For Chewing-Gum.) Zulu Manufacturing Company. No. 18,464; May 11; Gaz. vol. 214; p. 681.
"Good Nightie." (For Nainsook.) King Philip Mills. No. 18,481; May 25; Gaz. vol. 214; p. 1318.
"Goody Two-shoes." (For Stationery.) White & Wyckoff Mfg. Co. No. 18,462; May 11; Gaz. vol. 214; p. 681.
"Hopewell Orchards." (For Fruits.) H. E. Eckstein. No. 18,439; May 11; Gaz. vol. 214; p. 681.
"Hotel Utah brand." (For Coffee.) Matson Coffee Co. No. 18,483; May 25; Gaz. vol. 214; p. 1318.
"Hy-GN-IC Napkins. (For Paper Napkins.) Japanese Tissue Mills. No. 18,447; May 11; Gaz. vol. 214; p. 681.
"Jitney' Fizz." (For Beverages.) J. S. Crow. No. 18,454; May 11; Gaz. vol. 214; p. 681.
"Joy." (For a Beverage.) H. R. Myers. No. 18,487; May 25; Gaz. vol. 214; p. 1318.
"Klamensi Spring Water." (For Spring-Water.) National Table Waters Co. No. 18,450; May 11; Gaz. vol. 214; p. 681.
"Lacquershine Metal Polish." (For Metal-Polish.) E. H. Wiersching. No. 18,463; May 11; Gaz. vol. 214; p. 681.
"Mikado." (For Table Sauce.) F. Y. Hashiba. No. 18,446; May 11; Gaz. vol. 214; p. 681.
"Mint-O-Green Life Savers, A Dainty Confection." (For Lozenges of Wintergreen Flavor.) Mint Products Company. No. 18,486; May 25; Gaz. vol. 214; p. 1318.
"MontaguMello." (For Confectionery Coating.) J. C. Montague. No. 18,468; May 18; Gaz. vol. 214; p. 1024.
"Mountain Home Brand." (For Coffee.) Matson Coffee Company. No. 18,428; May 4; Gaz. vol. 214; p. 342.
"N. A. S. O. Standard First Aid Jar." (For Standard First-Aid Jars.) M. W. Alexander. No. 18,465; May 18; Gaz. vol. 214; p. 1024.
"National Benzine—The Ideal Motor Spirit." (For Benzene.) Petroleum Products Company. No. 18,452; May 11; Gaz. vol. 214; p. 681.
"National Motor Naphtha." (For Motor-Naphtha.) Petroleum Products Company. No. 18,451; May 11; Gaz. vol. 214; p. 681.
"Newbold & Bradley Laxative Capsules Bluefield, W. Va." (For Medicine in Capsule Form.) Newbold & Bradley. No. 18,429; May 4; Gaz. vol. 214; p. 342.
"O-Cedar Combination Set." (For Mops and Dust-Cloths.) Channell Chemical Company. No. 18,466; May 18; Gaz. vol. 214; p. 1024.
"107." (For Cigars.) F. A. Young. No. 18,471; May 18; Gaz. vol. 214; p. 1024.
"Pep-O-Mint Life Savers, A Dainty Confection." Mint Products Company. No. 18,484; May 25; Gaz. vol. 214; p. 1318.
"Phy-to-lax." (For Cereals.) Phy-to-lax Company. No. 18,432; May 4; Gaz. vol. 214; p. 342.
"Pure Linen Writing Paper." (For Writing-Paper.) Kalamazoo Stationery Co. No. 18,478; May 25; Gaz. vol. 214; p. 1318.
"Rainbow Roofing." (For Composition Rolled Roofing.) The Edwards & Chamberlin Hardware Co. No. 18,440; May 11; Gaz. vol. 214; p. 681.
"Ramona Linen Writing Paper." (For Writing-Paper.) Kalamazoo Stationery Co. No. 18,477; May 25; Gaz. vol. 214; p. 1318.
"Red Horse Inn." (For Foods.) The Tebbetts and Garland Store. No. 18,469; May 18; Gaz. vol. 214; p. 1024.
"Republican." (For Piece Goods.) Everett, Heaney & Co. No. 18,423; May 4; Gaz. vol. 214; p. 342.
"S. S. White Tooth Paste." (For a Tooth-Paste.) The S. S. White Dental Mfg. Co. No. 18,459; May 11; Gaz. vol. 214; p. 681.
"Sea Foam." (For a Washing-Powder.) Peet Bros. Mfg. Co. No. 18,431; May 4; Gaz. vol. 214; p. 342.
"Selected Quality Linen Finish Writing Paper." (For Writing-Paper.) Kalamazoo Stationery Co. No. 18,449; May 11; Gaz. vol. 214; p. 681.
"Snow White." (For a Water-Color Paint.) J. W. Johnston. No. 18,476; May 25; Gaz. vol. 214; p. 1318.
"Stimulo." (For Coffee.) Mahon-Stoltz Company. No. 18,427; May 4; Gaz. vol. 214; p. 342.
"Supreme Sweets." (For Confections.) G. Haas & Sons. No. 18,445; May 11; Gaz. vol. 214; p. 681.
"Tanks For The World." (For Steel Tanks.) Columbian Steel Tank Co. No. 18,437; May 11; Gaz. vol. 214; p. 681.
"The Beer Without A Substitute." (For Beer.) Fenway Breweries. No. 18,424; May 4; Gaz. vol. 214; p. 342.
"The S. S. White Tooth Brush." (For a Tooth-Brush.) The S. S. White Dental Mfg. Co. Nos. 18,456–7; May 11; Gaz. vol. 214; p. 681.
"Venus Lavender Astringent." (For an Astringent.) Venus Company. No. 18,434; May 4; Gaz. vol. 214; p. 342.
"Venus Perfect Writing Paper." (For Writing-Paper.) Kalamazoo Stationery Co. No. 18,448; May 11; Gaz. vol. 214; p. 681.
"Violet Talcum Powder." (For Violet Talcum Powder.) The S. S. White Dental Mfg. Co. No. 18,455; May 11; Gaz. vol. 214; p. 681.
"Vola." (For Chianti Wine.) Vola Importing Company. No. 18,470; May 18; Gaz. vol. 214; p. 1024.
"Wheeler's Hair Coloring." (For Hair-Dye and Hair-Colorings.) Wheeler Beauty Co. No. 18,460; May 11; Gaz. vol. 214; p. 681.
"White Seal." (For Cigars.) C. Fortriede. No. 18,442; May 11; Gaz. vol. 214; p. 681.
"Yellow Newtown." (For Cider Vinegar.) Hood River Apple Vinegar Co. No. 18,475; May 25; Gaz. vol. 214; p. 1318.
"Zip The Zip." (For a Non-Alcoholic Beverage.) H. Glickman. No. 18,425; May 4; Gaz. vol. 214; p. 342.

PRINTS.

"Adjusted in a jiffy." (For Underwear.) Thos. Cusack Company. No. 3,922; May 25; Gaz. vol. 214; p. 1318.

"Amason." (For Knitting-Yarns.) Amason Cotton Mills. No. 3,904; May 18; Gaz. vol. 214; p. 1024.

"Be prepared!" (For Athletic Underwear.) The B. V. D. Company. No. 3,910; May 18; Gaz. vol. 214; p. 1024.

"'Between You and the Sun' stands B. V. D." (For Athletic Underwear.) The B. V. D. Company. No. 3,907; May 18; Gaz. vol. 214; p. 1024.

"Closed comfortable trouser crotch." (For Underwear.) Thos. Cusack Company. No. 3,921; May 25; Gaz. vol. 214; p. 1318.

"Crotch exactly like your trousers." (For Underwear.) Thos. Cusack Company. No. 3,930; May 25; Gaz. vol. 214; p. 1318.

"Duke's Mixture." (For Smoking-Tobacco.) Liggett & Myers Tobacco Company. No. 3,914; May 18; Gaz. vol. 214; p. 1024.

"Early to Bed Early to Rise Short Length Sleeping Suits—Now you're wise." (For Sleeping-Suits.) The B. V. D. Company. No. 3,905; May 18; Gaz. vol. 214; p. 1024.

"Ease—Comfort." (For Underwear.) Thos. Cusack Company. No. 3,920; May 25; Gaz. vol. 214; p. 1318.

"Ease—Comfort." (For Underwear.) Thos. Cusack Company. No. 3,928; May 25; Gaz. vol. 214; p. 1318.

"Eusoso." (For a Medicine.) J. E. Celli. No. 3,898; May 11; Gaz. vol. 214; p. 682.

"Extreme positions without strain anywhere." (For Underwear.) Thos. Cusack Company. No. 3,918; May 25; Gaz. vol. 214; p. 1318.

"First Aid to the Light Sleeper." (For Sleeping-Suits.) The B. V. D. Company. No. 3,909; May 18; Gaz. vol. 214; p. 1024.

"'Giuseppi Garibaldi' Brand." (For Macaroni.) A. A. Giunta. No. 3,899; May 11; Gaz. vol. 214; p. 682.

"Globe Sprinklers." (For Sprinklers.) The Globe Automatic Sprinkler Co. No. 3,891; May 4; Gaz. vol. 214; p. 342.

"Goodrich Safety Tread." (For Pneumatic Tires.) The B. F. Goodrich Co. No. 3,912; May 18; Gaz. vol. 214; p. 1024.

"Greenfield's Chocolate Sponge." (For Candy.) E. Greenfield's Sons. No. 3,892; May 4; Gaz. vol. 214; p. 342.

"Hickson's Twin Sagless." (For Springs for Beds, Cots, and Couches.) Pittsburgh-Hickson Company. No. 3,902; May 11; Gaz. vol. 214; p. 682.

"His Bait." (For Cigars.) Liggett & Myers Tobacco Company. No. 3,901; May 11; Gaz. vol. 214; p. 682.

"Lasts Everlastingly." (For Brick.) The American Art Works. No. 3,897; May 11; Gaz. vol. 214; p. 682.

"Like a clean dish." (For Refrigerators.) Grand Rapids Refrigerator Co. No. 3,900; May 11; Gaz. vol. 214; p. 682.

"Models for all shapes." (For Underwear.) Thos. Cusack Company. No. 3,919; May 25; Gaz. vol. 214; p. 1318.

"Natural Blouse fullness for extreme positions." (For Underwear.) Thos. Cusack Company. No. 3,925; May 25; Gaz. vol. 214; p. 1318.

"No hot webbing necessary at the waist." (For Underwear.) Thos. Cusack Company. No. 3,929; May 25; Gaz. vol. 214; p. 1318.

"Old Ben Coal." (For Coal.) Old Ben Mining Corporation. No. 3,893; May 4; Gaz. vol. 214; p. 342.

"$1 to $6 a suit." (For Underwear.) Thos. Cusack Company. No. 3,927; May 25; Gaz. vol. 214; p. 1318.

"Playing Store." (For Wheat Breakfast Food.) Cream of Wheat Co. No. 3,917; May 25; Gaz. vol. 214; p. 1318.

"Regulars Short Stouts Slim Jims." (For Underwear.) Thos. Cusack Company. No. 3,926; May 25; Gaz. vol. 214; p. 1318.

"Rockinchair." (For Underwear.) Thos. Cusack Company. No. 3,923; May 25; Gaz. vol. 214; p. 1318.

"Some Nap!" (For Sleeping-Suits.) The B. V. D. Company. No. 3,908; May 18; Gaz. vol. 214; p. 1024.

"Tailored Union Suits." (For Underwear.) Thos. Cusack Company. No. 3,924; May 25; Gaz. vol. 214; p. 1318.

"The Indian." (For Motor-Cycles.) The Hendee Mfg. Co. No. 3,913; May 18; Gaz. vol. 214; p. 1024.

"The Latest White Four-Forty-Five Landaulet-Limousine." (For Landaulet-Limousines.) The White Company. No. 3,895; May 4; Gaz. vol. 214; p. 342.

"The Latest White Four-Thirty Touring." (For Touring-Cars.) The White Company. No. 3,894; May 4; Gaz. vol. 214; p. 342.

"The Sweater Shop." (For Sweater-Garments.) J. A. West. No. 3,916; May 18; Gaz. vol. 214; p. 1024.

"This Man Feels Fine." (For Athletic Underwear.) The B. V. D. Company. No. 3,911; May 18; Gaz. vol. 214; p. 1024.

"To Green River." (For Whisky.) E. La Montagne's Sons. No. 3,915; May 18; Gaz. vol. 214; p. 1024.

"Tonight's the Night." (For Sleeping-Suits.) The B. V. D. Company. No. 3,906; May 18; Gaz. vol. 214; p. 1024.

"Veedol." (For Veedol.) Platt & Washburn Refining Company. No. 3,903; May 11; Gaz. vol. 214; p. 682.

"Young America Brand." (For Boys' Blouses, Shirts, Pajamas, and Night-Robes.) The Wood-Wilson Company. No. 3,896; May 4; Gaz. vol. 214; p. 342.

DISCLAIMER.

Signature-handling mechanism. E. R. Kast. No. 1,083,617; date of patent Jan. 6, 1914; disclaimer filed Apr. 28, 1915; Gaz. vol. 214; p. 346.

OFFICIAL GAZETTE

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VOLUME CCXV.

JUNE,

1915.

WASHINGTON:
GOVERNMENT PRINTING OFFICE.
1915.

ERRATA.

1,141,697, page 3, second claim, lines 5–6, for the word "thicknesses" read *thickness*.

1,141,765, page 62, second claim, line 10, for the word "for" read *from*.

1,142,746, page 615, in heading, assignment, State of incorporation, for "New York" read *New Jersey*.

1,142,760, page 626, in heading, assignment, for "assignor to El Dorado Jones, Chicago, Ill." read *assignor, by mesne assignments, to Sun Utilities Company, Chicago, Ill.*

1,142,882, page 706, fourth claim, line 6, for the word "growing" read *flowing*.

1,143,182, page 812, second claim, lines 4–5, strike out the words "secured to the outer sides of said flanges on both sides of the frame" and insert the words *disposed in the plane of the frame and lying against the outer sides of said flanges on both sides of the frame secured to the flanges*.

1,143,364, page 876, first claim, line 2, strike out the words "adapted to be secured against a wall."

1,143,539, page 935, first claim, line 3, before the word "electrodes" insert the words *removable means for closing the ends of said chambers;* same claim, lines 3–4, strike out the words "removable means for closing the ends of said chambers."

1,143,690, page 1009, third claim, line 10, after the word "said" insert the word *stepped*.

1,143,757, page 1034, strike out all after number—heading, drawing, and claims—and insert the word WITHDRAWN.

1,144,063, page 1141, third claim, lines 6–7, strike out the words "of the said armature face."

1,144,128, page 1165, in heading, assignment, name of assignee, for "James F. Terry" read *James F. Ferry*.

13,921, (Reissue,) page 292, fourth claim, line 11, after the word "being" insert the word *between*.

940,037, (Adverse Decisions,) page 670, the notice as to claim 118 is an error, the interference having been dissolved as to such claim.

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THE OFFICIAL GAZETTE

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The patents of this issue were pending an average of 25.6 months.

TO RESIDENTS OF THE UNITED STATES.

States.	Patents and Designs.	Trade-Marks, Labels, and Prints.	States.	Patents and Designs.	Trade-Marks, Labels, and Prints.
Alabama	5	.....	North Carolina	3	1
Arizona	1	.....	North Dakota	1	1
Arkansas	4	1	Ohio	67	6
California	26	5	Oklahoma	4	.....
Colorado	4	2	Oregon	7	2
Connecticut	19	5	Pennsylvania	86	14
Delaware	1	2	Rhode Island	12	.....
Florida	4	5	South Carolina	1	.....
Georgia	5	2	South Dakota	3	1
Idaho	1	.....	Tennessee	3	.....
Illinois	74	6	Texas	12	2
Indiana	14	3	Utah	1	1
Iowa	7	.....	Vermont	3	.....
Kansas	8	1	Virginia	6	2
Kentucky	8	2	Washington	13	3
Louisiana	3	.....	West Virginia	6	.....
Maine	1	1	Wisconsin	24	4
Maryland	6	1	Wyoming	1	.....
Massachusetts	72	13			
Michigan	33	6	Alaska, District of	.....	.....
Minnesota	17	1	Canal Zone	.....	.....
Mississippi	3	1	District of Columbia	4	.....
Missouri	23	2	Hawaii Territory	1	1
Montana	.....	.....	Philippine Islands	.....	.....
Nebraska	6	1	Porto Rico	.....	.....
Nevada	.....	1	U. S. Army	.....	.....
New Hampshire	1	2	U. S. Navy	.....	.....
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New Mexico	1	.....	Total to residents of the United States	756	157
New York	125	54			

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Countries.	Patents and Designs.	Trade-Marks.	Countries.	Patents and Designs.	Trade-Marks.
Argentina	.....	.....	Mexico	1	.....
Austria-Hungary	1	.....	Netherlands	.....	5
Belgium	1	.....	New South Wales	4	.....
British India	.....	.....	New Zealand	4	.....
British West Indies	.....	.....	Norway	.....	.....
Canada	13	.....	Portugal	.....	.....
Cape Colony	.....	.....	Queensland	.....	.....
Chile	.....	.....	Roumania	.....	.....
Costa Rica	.....	.....	Russia	1	.....
Cuba	.....	.....	Scotland	3	1
Denmark	.....	.....	South Africa	.....	.....
England	16	4	Spain	.....	.....
Finland	.....	.....	Sweden	3	.....
France	6	1	Switzerland	6	.....
Germany	28	2	Transvaal, South Africa	.....	.....
Guatemala	.....	.....	Victoria	2	.....
India	.....	.....	Western Australia	1	.....
Ireland	.....	.....			
Isle of Jersey	.....	.....	Total to residents of foreign countries	85	13
Italy	.....	.....			
Japan	.....	.....			

Drawings.

RULE 38.

38. When there are drawings, the description will refer to the different views by figures and to the different parts by letters or numerals, (preferably the latter.)

RULE 52—EXTRACT.

(6) The different views should be consecutively numbered. Letters and figures of reference must be carefully formed. They should, if possible, measure at least one-eighth of an inch in height, so that they may bear reduction to one twenty-fourth of an inch; and they may be much larger when there is sufficient room. They must be so placed in the close and complex parts of drawings as not to interfere with a thorough comprehension of the same, and therefore should rarely cross or mingle with the lines. When necessarily grouped around a certain part, they should be placed at a little distance, where there is available space, and connected by short broken lines with the parts to which they refer. They must never appear upon shaded surfaces, and when it is difficult to avoid this, a blank space must be left in the shading where the letter occurs, so that it shall appear perfectly distinct and separate from the work. If the same part of an invention appear in more than one view of the drawing it must always be represented by the same character, and the same character must never be used to designate different parts.

It is suggested that numerals or letters be used without exponents.

Foreign Patents.

RULE 29. The receipt of Letters Patent from a foreign government will not prevent the inventor from obtaining a patent in the United States, unless *the application on which the foreign patent was granted was filed more than twelve months prior to the filing of the application in this country, in which case no patent shall be granted in this country.*

APPLICATIONS UNDER EXAMINATION.

Condition at Close of Business May 29, 1915.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action. New.	Amended	No. of applications awaiting action.
314	1. Fences; Fences, Gates; Harrows and Diggers; Plows; Seeders and Planters; Trees, Plants, and Flowers.	Feb. 25	Feb. 20	472
128	2. Bee Culture; Curtains, Shades, and Screens; Dairy; Label Pasting and Paper Hanging; Paper Files and Binders; Medicines; Pneumatics; Presses; Tents, Canopies, Umbrellas, and Canes; Tobacco.	Dec. 19	Mar. 2	783
175	3. Annealing and Tempering; Electric Heating and Rheostats; Electrochemistry; Metal-Founding; Metallurgy; Plastic Metal Working.	May 19	May 19	98
332	4. Conveyers; Elevators; Excavating; Hoisting; Loading and Unloading; Pneumatic Despatch; Railway Mail Delivery; Traversing Hoists.	Dec. 21	May 10	639
167	5. Bookbinding; Harvesters; Jewelry; Music.	Feb. 17	May 8	319
318	6. Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Liquid Coating Compositions; Plastic Compositions; Preserving; Sugar and Salt; Substance Preparation.	Dec. 1	May 5	538
312	7. Educational Appliances; Clutches; Games and Toys; Motors; Optics; Velocipedes.	Mar. 23	May 1	447
121	8. Beds; Chairs; Furniture; Kitchen and Table Articles; Store Furniture; Supports.	Jan. 2	May 10	1145
142	9. Air and Gas Pumps; Fluid-Pressure Regulators; Hydraulic Motors; Motors, Fluid; Motors, Fluid-Current; Pumps.	Sept. 14	Apr. 24	761
235	10. Carriages and Wagons	Jan. 22	May 5	677
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329	13. Arms, Projectiles, and Explosive Charges, Making; Bolt, Nail, Nut, Rivet, and Screw Making; Boring and Drilling; Button Making; Chain, Staple, and Horseshoe Making; Driven, Headed, and Screw Threaded Fastenings; Gear Cutting, Milling, and Planing; Metal Drawing; Metal Forging and Welding; Metal Rolling; Metal Tools and Implements, Making; Metal Working; Needle and Pin Making; Nut and Bolt Locks; Turning.	Apr. 7	Apr. 24	407
307	14. Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal-Bending; Metal-Ornamenting; Sheet-Metal Ware, Making; Tools; Wire Fabrics and Structure; Wire-Working.	Jan. 18	May 3	285
308	15. Bread, Pastry, and Confection Making; Coating; Fuel; Glass; Laminated Fabrics and Analogous Manufactures; Paper-Making and Fiber Liberation; Plastic Block and Earthenware Apparatus; Plastics.	Jan. 19	May 11	641
109	16. Electric Signaling; Radiant Energy; Telegraphy; Telephony.	Feb. 12	Mar. 1	475
308	17. Matrix-Making; Paper Manufactures; Printing; Type-Bar Making.	Mar. 20	May 15	158
327	18. Injectors and Ejectors; Liquid Heaters and Vaporizers; Miscellaneous Heat-Engine Plants; Steam and Vacuum Pumps; Steam-Engines; Steam-Engine Valves.	Apr. 23	Apr. 27	297
236	19. Dampers, Automatic; Furnaces; Heating Systems; Stoves and Furnaces.	Mar. 26	Apr. 10	230
179	20. Artificial Limbs; Builders' Hardware; Cutlery; Dentistry; Locks and Latches; Safes; Undertaking.	May 3	Apr. 30	191

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378	38. Animal Husbandry; Earth Boring; Fishing and Trapping; Stationery; Stone-Working; Wells.	Jan. 15	May 5	505
321	39. Water Distribution	Mar. 1	Apr. 16	464
280	40. Baggage; Bottles and Jars; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Shipping and Storing Vessels; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles.	Dec. 10	Apr. 14	1097
125	41. Railway Draft Appliances; Resilient Tires and Wheels.	Mar. 19	May 1	283
279	42. Railway Signaling; Signals; Electricity-Transmission to Vehicles.	Jan. 2	Feb. 20	723
382	43. Baths and Closets; Electricity, Medical and Surgical; Fire-Extinguishers; Sewerage; Surgery; Water Purification.	Apr. 26	Apr. 22	278

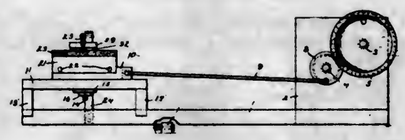
Oldest new case, Sept. 14; oldest amended, Jan. 23.
Total number of applications awaiting action..... 19,648

161	TRADE-MARKS, DESIGNS, LABELS AND PRINTS:			
	Trade-Marks	Apr. 10	May 14	778
	Designs	Feb. 24	Mar. 2	524
	Labels and Prints	May 17	May 14	78

PATENTS

GRANTED JUNE 1, 1915.

1,141,095. SHARPENER FOR HAIR-CLIPPERS. WILLIAM G. ACKERMAN, Westpoint, Nebr. Filed Jan. 12, 1915. Serial No. 1,825. (Cl. 51—7.)

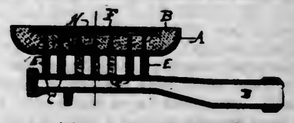


1. In a device for sharpening clipper blades, a supporting structure, a pair of horizontally disposed plates carried by said supporting structure and having their facing sides spaced from each other, a block slidably mounted upon said plates, means for preventing vertical and lateral movement of said block, a sharpening stone detachably carried by said block, and means for holding a clipper blade in engagement with the upper surface of said sharpening stone, and means for moving said sharpening stone forwardly and rearwardly upon said supporting structure for sharpening said blade.

2. In a device for sharpening clipper blades, a supporting structure, a pair of plates supported by said supporting structure and upwardly therefrom, in a horizontal plane, said plates having their facing sides spaced from each other, a block slidably mounted upon said plates, a depending lug formed upon said block and between the facing sides of said plates for preventing the lateral movement thereof, means for preventing vertical movement of said slot, a sharpening stone detachably carried by said slot; a standard secured to said supporting structure, an arm pivotally connected to said standard, a plate having a clipper blade detachably attached thereto, said plate having a longitudinal groove formed in the upper face thereof for receiving the lower edge of said arm for holding said clipper blade in engagement with the upper surface of said sharpening stone, and means for moving said sharpening stone forwardly and rearwardly upon said plate for sharpening said cutter blade.

3. In a device for sharpening clipper blades, a supporting structure, a pair of horizontally disposed plates supported by said supporting structure and upwardly therefrom, said plates having their facing sides spaced from each other, a block slidably mounted upon said plates, a pair of upstanding plates carried by said block and provided for gripping the side edges of the sharpening stone, means for tightening the grip of said plates upon the sharpening stone, a standard carried by said supporting structure, an arm pivotally carried by said standard, a plate for detachably supporting a clipper blade, said plate being provided with a longitudinal groove for receiving the lower edge of said arm for holding said clipper blade upon the upper surface of said sharpening stone, a pitman rod connected to said block and means for reciprocating said pitman rod for moving said block longitudinally upon said plate for sharpening the under surface of said stone, and means for preventing vertical and lateral movement of said block and said stone.

1,141,096. GAS HEATER AND STOVE. ERNEST J. ALLEN, Albany, N. Y., assignor to Rathbone, Sard & Company, Albany, N. Y., a Corporation. Filed Apr. 25, 1914. Serial No. 834,474. (Cl. 158—99.)



A hearth comprising a receptacle; fire brick placed therein; a series of conduits passing through said receptacle and said fire brick; a gas mixing chamber with which said conduits register; and a perforated plate in said hearth above the openings of said conduits.

1,141,097. SPUR-GEARING. KARL ALQUIST, Rugby, England. Filed July 18, 1911. Serial No. 639,210. (Cl. 74—28.)

1. A gear wheel having a body portion built up of a plurality of peripherally toothed plates securely bound together at their central portions and with the outer portions unbound and slightly spaced apart so as to be free to yield at right angles to the planes of the plates, said plates being of substantial thickness as compared to the width of the space between them.

2. A gear wheel having a body portion built up of a plurality of plates rigidly supported at their central portions only, and slightly spaced apart at their peripheral portions, and helical teeth formed in the periphery of said body portions, said plates being of substantial thicknesses as compared to the width of the space between them.

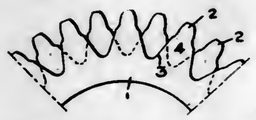
3. A gear wheel having a body portion built up of a plurality of plates rigidly supported at their central portions only, and slightly spaced apart at their peripheral portions, and helical teeth formed in the periphery of said body portion, said plates being of substantial thickness as compared to the width of the space between them, and said teeth being longer than necessary to increase their flexibility.

4. A gear wheel having a body portion built up of a plurality of plates rigidly supported at their central portions and spaced apart at their outer portions, said plates being of substantial thickness as compared to the width of the space between them, and helical teeth formed in the periphery of said body portion.

5. A gear wheel comprising a plurality of circular laminations, space plates and end plates of less diameter than the laminations, said laminations being of substantial thickness as compared to the thickness of the spaced plates, means for rigidly clamping said laminations, space plates and end plates together, and helical teeth formed in the periphery of said laminations.

[Claims 6 to 8 not printed in the Gazette.]

1,141,098. FLEXIBLE GEAR. KARL ALQUIST, Schenectady, N. Y. Filed July 25, 1912. Serial No. 711,546. (Cl. 74—29.)



1. A gear comprising a central or body portion provided with a plurality of radial arms yieldable axially of the gear with their outer ends thickened and shaped into tooth sections which collectively form helical teeth.

2. A helical gear built up of a plurality of elements, each element having a plurality of tooth sections constructed to yield axially upon the application of a tangential force and the number of tooth sections on each element being less than the number of teeth of the complete gear.

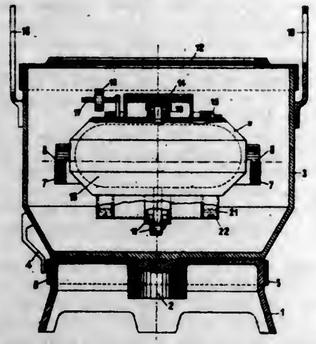
3. A helical gear built up of a plurality of transverse elements, each element having a plurality of radial arms yieldable perpendicularly to the plane of the element and provided at their outer ends with tooth sections.

4. A helical gear built up of a plurality of transverse elements, each element having a plurality of radial arms yieldable perpendicularly to the plane of the element and provided at their outer ends with tooth sections of a thickness greater than said element.

5. A helical gear built up of a plurality of transverse elements, each element having tooth portions extending outwardly therefrom, the number of said tooth portions on each element being one-half the whole number of teeth of the complete gear and the thickness of said tooth portions being substantially double the thickness of the body or central portion of an element.

[Claims 6 and 7 not printed in the Gazette.]

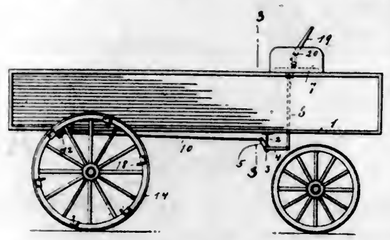
1,141,099. ARTIFICIAL HORIZON. HERMANN AN SCHÜTZ-KAEMPFE, Neumühlen, near Kiel, Germany. Filed Feb. 27, 1914. Serial No. 821,353. (Cl. 74—78.)



An artificial horizon comprising a movable system including a gyroscope having a normally vertical axis, suspension means for said system the axis of which is situated closely above the center of gravity of the movable system, and further suspension means the axis of which is at right angles to the axis of the first-mentioned suspension means and situated materially above the said center of gravity.

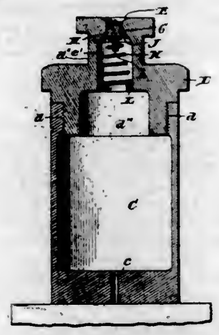
1,141,100. VEHICLE WHEEL-LOCK. OTTO E. BRAUN, Brooklyn, N. Y. Filed Sept. 16, 1914. Serial No. 862,093. (Cl. 21—8.)

In a vehicle wheel lock, a vehicle body having a pair of longitudinal sides, a tiltable seat hinged to one of said sides, seat-supporting means on the other side, a crank-shaft journaled to the vehicle bottom, a pivoted rod connecting the seat to said crank-shaft, a casing likewise secured to the vehicle bottom a spring-influenced bolt housed within the casing, a cable connecting the crank-shaft to



the bolt, a vehicle wheel having a stop that is set inwardly from the wheel rim and is adapted to be engaged by the bolt, and means for limiting the play of the bolt.

1,141,101. GREASE-CUP. MATTHIAS G. BROWN, Gulfport, Miss. Filed June 4, 1913. Serial No. 771,735. (Cl. 184—89.)

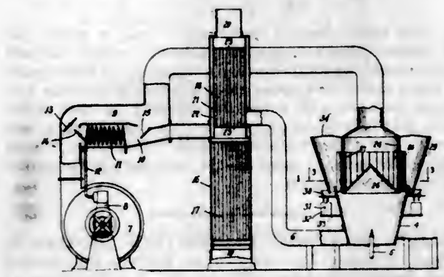


1. In a grease cup, a cap portion formed with a hollow interior bordering a tapered valve seat adapted to open to a fill opening, a valve engaging said valve seat and having a pointed conical end projecting into the fill opening so as to leave a space surrounding the pointed end of the valve within said fill opening, and means for normally forcing the valve to its seat, said valve being relatively narrow in diameter as compared to the width of the chamber within the cap portion to enable semi-solid greases to pass around the valve and through the chamber, and the pointed end of the valve being adapted to pierce said semi-solid greases, substantially as described.

2. In a grease cup, a cap portion formed with a hollow interior bordering a tapered valve seat adapted to open to a fill opening, a valve engaging said valve seat and having a pointed conical end projecting into the fill opening so as to leave a space surrounding the pointed end of the valve within said fill opening, and means for normally forcing the valve to its seat, said valve being relatively narrow in diameter as compared to the width of the chamber within the cap portion to enable semi-solid greases to pass around the valve and through the chamber, and the pointed end of the valve being adapted to pierce said semi-solid greases, the back surface of the valve being dished, substantially as and for the purpose described.

3. In a grease cup, a cap portion formed with a hollow interior bordering a tapered valve seat adapted to open to a fill opening, a valve engaging said valve seat and having a pointed conical end projecting into the fill opening so as to leave a space surrounding the pointed end of the valve within said fill opening, and means for normally forcing the valve to its seat, said valve being relatively narrow in diameter as compared to the width of the chamber within the cap portion to enable semi-solid greases to pass around the valve and through the chamber, and the pointed end of the valve being adapted to pierce said semi-solid greases, and means for normally forcing the valve to its seat comprising a spiral spring with its convolutions arranged in tapered formation to leave a wide space around the upper convolutions immediately adjoining the valve and a wide unobstructed inner space within the lower convolutions, said convolutions being relatively widely separated with reference to each other to permit ready passage of the greases therebetween and therethrough, substantially as and for the purpose described.

1,141,102. DESICCATING APPARATUS. STERLING H. BUNNELL, New Canaan, Conn., assignor to The Griscom-Russell Company, a Corporation of Delaware. Filed May 9, 1914. Serial No. 837,360. (Cl. 99—5.)



1. A desiccating apparatus comprising the combination of a receptacle, means for admitting heated air to the receptacle and causing the air to set up a circular motion within the receptacle, a sprayer for spraying the material to be desiccated into the air within the receptacle and means for rapidly cooling the air and the product carried thereby; substantially as described.

2. A desiccating apparatus comprising the combination of a receptacle, means for admitting air to the receptacle and causing the air to set up a circular motion within the receptacle, a spraying apparatus for spraying the material to be desiccated into the moving body of air and means for cooling the air and the product carried thereby while continuing the circular movement of the air; substantially as described.

3. A desiccating apparatus comprising the combination of a receptacle, means for forcing the heated air into the receptacle to establish a circular movement of the air within the receptacle, a sprayer for spraying the material to be desiccated into the moving body of air and means for introducing cooler air into the moving body of heated air for rapidly cooling the same; substantially as described.

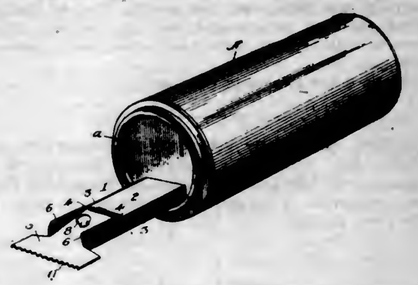
4. A desiccating apparatus comprising the combination of a receptacle circular in cross-sections, means for forcing heated air tangentially into the receptacle to establish a circular motion of the air within the receptacle, a sprayer for spraying the material to be desiccated into the moving body of air within the receptacle and means for rapidly cooling the air and the product carried thereby; substantially as described.

5. A desiccating apparatus comprising the combination of a receptacle circular in cross-sections, means for forcing heated air tangentially into the receptacle, spraying apparatus for spraying the material to be desiccated into the moving body of air and means for cooling the air and the product carried thereby while continuing the circular movement of the air; substantially as described.

[Claims 6 to 17 not printed in the Gazette.]

1,141,103. ROOFER'S SPREADING-TOOL FOR FORMING CEMENT JOINTS. BENJAMIN G. CASLER, Tonawanda, N. Y. Filed Oct. 31, 1914. Serial No. 869,616. (Cl. 91—67.4.)

1. A roofer's tool for spreading liquid cement, said tool having a conduit the side walls and top wall thereof being disconnected adjacent to its exit, the top wall of said conduit being extended beyond the exit and constituting a spreader integrally connected with the top wall.



2. A roofer's tool for spreading liquid cement, comprising a conduit which terminates in a spreader having a serrated edge, the exit of the conduit being adjustable as to its cross-sectional area and located below the spreader termination of the conduit.

3. In a roofer's tool for spreading liquid cement, the combination with a conduit which terminates in a spreader integrally connected with the top wall thereof, and whose top and side walls are disconnected adjacent to the spreader, of means for adjusting the top wall with relation to the bottom of the conduit at the exit of the conduit and maintaining a constant area of the exit after adjustment thereof.

4. In a roofer's tool for spreading liquid cement, the combination with a conduit which terminates in a spreader and whose top and side walls are disconnected adjacent to the spreader, of a thumb screw and spring for adjusting the top wall with relation to the bottom wall at the exit of the conduit.

5. A roofer's tool for spreading liquid cement, said tool having a conduit the top and side walls thereof being disconnected adjacent to the exit of the conduit, the top wall having vertically disposed flanges which engage the side walls of the conduit.

[Claims 6 and 7 not printed in the Gazette.]

1,141,104. PROCESS OF TREATING COTTON-SEED. ALBERT B. CARR, Atlanta, Ga., assignor to The Procter and Gamble Company, Cincinnati, Ohio, a Corporation of Ohio. Filed July 24, 1913. Serial No. 780,921. (Cl. 99—8.)

1. The method of treating cottonseed to preserve it for storage in bulk, which consists in partially coagulating the albuminous substances of the kernel with the atmosphere excluded therefrom to prevent oxidization, and then cooling.

2. The method of treating cottonseed to preserve it for storage in bulk, which consists in heating the kernels to a temperature sufficient to partially cook or coagulate the albuminous matter with the kernels individually protected from the atmosphere, and then cooling them while still thus protected, to a temperature such as will not continue to cook or heat them when subsequently stored in bulk.

3. The method of treating cottonseed to preserve it for storage in bulk, which consists in heating the kernels to a temperature of 130° to 180° to partially cook the kernels with the kernels protected individually from the atmosphere, and then cooling them while still thus protected, to a temperature of 80° to 40°.

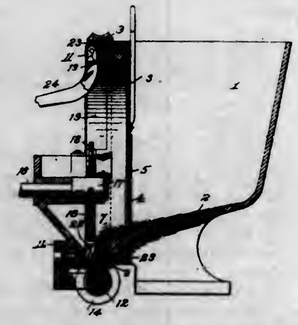
4. The method of treating cottonseed to preserve it for storage in bulk for subsequent manufacture of food products or for planting, which consists in heating the kernels to a temperature sufficient to partly cook them without destroying their germinating quality with the kernels protected individually from the atmosphere, and then cooling them while still thus protected, to a temperature such as will not continue to cook or heat them when subsequently stored in bulk and which will not destroy their germinating quality.

5. The method of treating cottonseed to facilitate the manufacture and enhance the value of food products

therefrom, which consists in heating the kernels while retaining them in their hulls, to a temperature sufficient to partially cook them, and then cooling them in their unhulled condition to a temperature not sufficient to continue to cook or heat them when subsequently stored in bulk.

[Claim 6 not printed in the Gazette.]

1,141,105. MACHINE FOR FEEDING SAFETY-PIN SHIELDS. WILLIAM A. COURTLAND, Brooklyn, N. Y., assignor to American Pin Company, Waterbury, Conn., a Corporation of Connecticut. Filed Feb. 9, 1914. Serial No. 817,654. (Cl. 163—7.)



1. In a machine for feeding safety pin shields, a conveyer provided with pockets for receiving safety pin shields having branches of different thickness, said pockets being suitably formed to receive said shields endwise only when the same ends are presented thereto and with said branches in predetermined relative positions corresponding to the relative thickness of said branches.

2. In a machine for feeding safety pin shields of greater width adjacent one end than the other and of greater thickness along one edge than the other, a conveyer provided with pockets suitably formed to hold said shields only when the ends of lesser width are presented to the pockets and only when the edges of lesser thickness are arranged in predetermined relation to said pockets.

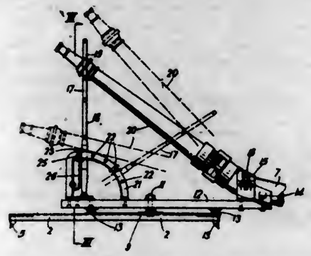
3. In a machine for feeding safety pin shields, a hopper, said shields having open and closed ends of different cross sectional areas, the open end of said shield being of greater thickness along one edge than along the other, a conveyer provided with pockets adapted to pass into and out of said hopper, the openings into said pockets being intermediate in size to the cross sectional areas at the open and closed ends respectively of said shields and wider on one side than on the other, said pockets being thereby adapted to accommodate the closed ends only of said shields and then only when the legs of said shields are arranged in a predetermined relation to each other.

4. In a machine for feeding safety pin shields of greater width adjacent one end than adjacent the other end and of greater thickness adjacent one edge than adjacent the other edge thereof, a conveyer provided with pockets suitably formed to hold said shields only when the ends of lesser width are presented toward the pockets and only when the edges of lesser thickness are arranged in predetermined relation to said pockets, and a chute suitably disposed to receive the shields from said conveyer and suitably formed to retain said shields in their arranged relations.

5. In a machine for feeding safety pin shields embodying branches of different sizes, a hopper, a conveyer moving through said hopper, said conveyer being provided with pockets opening upwardly in a portion of the conveyer arranged relatively low in the hopper, the entrances into said pockets being adapted to admit said shields only when the heavier branches are all arranged in the same relative direction.

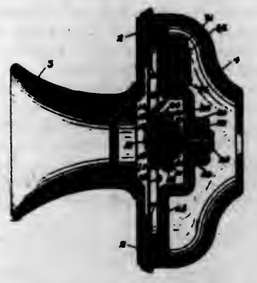
[Claims 6 to 13 not printed in the Gazette.]

1,141,106. HOSE-NOZZLE SUPPORT. GEORGE DAVIS, Sharon, Pa. Filed Dec. 18, 1913. Serial No. 807,503. (Cl. 248—29.)



A hose nozzle support comprising a base, a rotary carrier pivoted thereon, parallel quadrants secured on said carrier, said quadrants having a plurality of corresponding holes along their upper sides, a nozzle supporting arm pivoted between and supported laterally by said quadrants, said arm being provided with a lug having a hole therein, and a pin adapted to pass through the hole in said lug and selected holes in said quadrants to secure the arm at different angles.

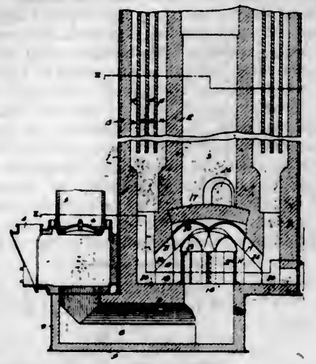
1,141,107. TELEPHONE-TRANSMITTER. WILLIAM W. DEAN, Chicago, Ill., assignor to Kellogg Switchboard and Supply Company, Chicago, Ill., a Corporation of Illinois. Filed Jan. 27, 1902. Serial No. 91,456. (Cl. 179—124.)



In a telephone transmitter the combination with a front plate, of a bridged member supported thereby, a suitable main diaphragm carried by said front plate, a support and independent chamber for the granules carried by said diaphragm and detachably secured thereto, said chamber comprising a cup-shaped member having a supplemental diaphragm and clamping ring forced over the periphery of said member for peripherally securing said supplemental diaphragm to said member so as to seal the same, a pair of disk faced studs one secured to said cup member and main diaphragm and the other being secured to said auxiliary diaphragm, the disk portions of said studs being located within said chamber, a pair of electrodes carried inside of said member by said studs, means for rigidly securing the stud associated with the auxiliary diaphragm directly to said bridge member, and comminuted conducting material within said chamber between said electrodes.

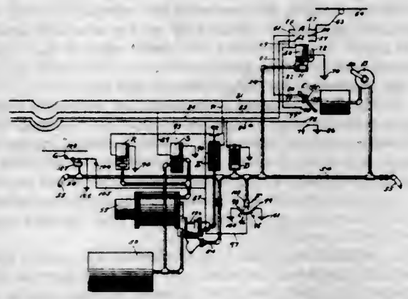
1,141,108. HOT-BLAST STOVE. AMBROSE N. DIEHL, Duquesne, Pa. Filed Mar. 1, 1915. Serial No. 11,441. (Cl. 75—52.)

1. In a hot blast stove, the combination of a central combustion chamber, an annular flue surrounding the combustion chamber, said flue containing checkerwork forming a series of lengthwise vertical passages connected with the combustion chamber at the top of the stove, a distributing chamber below the bottom of the combustion chamber having a plurality of radial passages opening into the annular flue, a flue opening into the distributing chamber through the bottom of the stove, and an annular wall within said distributing chamber having an open upper end opening into the distributing chamber.



2. In a hot blast stove, the combination of a central combustion chamber, an annular flue surrounding the combustion chamber, said flue containing checkerwork forming a series of lengthwise vertical passages connected with the combustion chamber at the top of the stove, a distributing chamber below the bottom of the combustion chamber having a plurality of radial passages opening into the annular flue, a flue opening into the distributing chamber through the bottom of the stove, and an annular wall within said distributing chamber having an open upper end opening into the distributing chamber, the upper end of said annular wall extending upwardly to at least the level of the lowest point of the top of the radial passages connecting the annular flue with the distributing chamber.

1,141,109. ELECTROPNEUMATIC BRAKE FOR RAILWAY-CARS. JAMES S. DOYLE, New York, N. Y., assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Apr. 23, 1910. Serial No. 557,186. (Cl. 188—4.)



1. In an electro-pneumatic brake, the combination with an electro-pneumatic device for effecting a service application of the brakes, an electro-pneumatic device for effecting an emergency application of the brakes, and a motorman's brake switch for controlling the circuits of said devices, of a master switch for also controlling said circuits.

2. In an electro-pneumatic brake, the combination with electro-pneumatic devices for respectively effecting a service application, an emergency application, and the release of the brakes and a brake switch for controlling the circuits of said devices, of a master switch for also controlling said circuits.

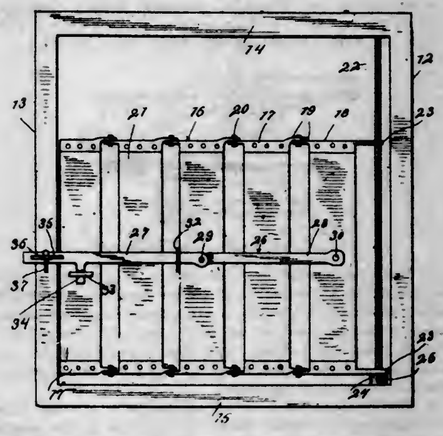
3. In an electro-pneumatic brake, the combination with a plurality of circuits for controlling the brakes and a brake switch for controlling said circuits, of a master switch for also controlling said circuits.

4. In an electro-pneumatic brake, the combination with a plurality of circuits for controlling the brakes and a brake switch for controlling said circuits, of a master switch for also controlling said circuits and adapted to render one or more of said circuits ineffective.

5. In an electro-pneumatic brake, the combination with electro-pneumatic devices for controlling the brakes and a brake switch for controlling the electric circuits of said devices, of a master switch for also controlling said circuits and means associated with said master switch for effecting an application of the brakes.

[Claims 6 to 13 not printed in the Gazette.]

1,141,110. FOLDABLE PARTITION. CLARENCE W. ELLWOOD, Vermont, Wis. Filed Aug. 1, 1914. Serial No. 854,568. (Cl. 39—19.)



1. In an apparatus of the character described, a supporting structure, a foldable partition pivotally connected therewith to swing in a substantially horizontal plane, a latch-bar pivotally connected with the pivoted end of the foldable partition, means detachably connecting the latch-bar with the free end of the foldable partition, and means detachably connecting the free end of the latch-bar with the supporting structure.

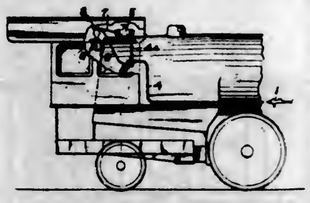
2. In apparatus of the character described, a supporting structure, a foldable partition pivotally connected therewith to swing in a substantially horizontal plane, a latch-bar formed of pivoted outer and inner sections, means to pivotally connect the free end of the inner section to the pivoted end of the foldable partition, means to detachably connect the free end of the outer section with the free end of the foldable partition, and means to detachably connect the free end of the outer section to the supporting structure.

3. In apparatus of the character described, a supporting structure, a foldable partition pivotally connected therewith and embodying a plurality of horizontally swinging sections, means for permanently vertically adjusting the foldable partition, a combined latch-bar and brace arranged upon one side of the foldable partition and formed in a plurality of members pivoted together to swing in a substantially vertical plane with one member pivoted to swing in a substantially vertical plane with the pivoted end of the foldable partition, means detachably connecting the other member with the free end of the foldable partition, and means for detachably connecting the free end of the last named member with the supporting structure.

4. In apparatus of the character described, a supporting structure, a foldable partition pivotally connected therewith to swing in a substantially horizontal plane and embodying a plurality of horizontally swinging sections, means for permanently vertically adjusting the foldable partition, a combined latch-bar and brace arranged upon

one side of the foldable partition and formed in a plurality of members pivoted together at their inner ends to swing in a substantially vertical plane with one member pivoted to the pivoted end of the foldable partition to swing in a substantially vertical plane, a depending tongue carried by the outer portion of the other member, a bracket secured to the free end of the foldable partition and adapted to receive the depending tongue, a second bracket secured to the foldable partition between the ends thereof to removably receive the last named member, and means to detachably connect the free end of the last named member with the supporting structure.

1,141,111. CONNECTION FOR LOCOMOTIVE DRIFTING-VALVES. ALBERT G. ELVIN, Somerville, N. J., and JOHN L. MOHUN, Brooklyn, N. Y., assignors, by mesne assignments, to Franklin Railway Supply Company, Wilmington, Del., a Corporation of Delaware. Filed Jan. 15, 1914. Serial No. 812,258. (Cl. 121—14.)

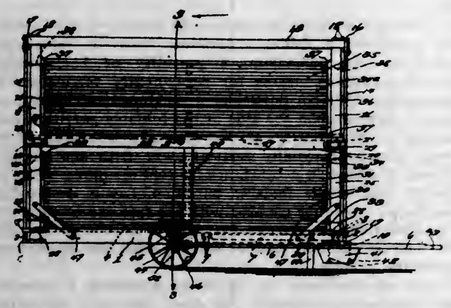


1. The combination in a locomotive, of a drifting valve for supplying a limited quantity of steam to the engine when running with throttle closed, an auxiliary device having a manually operated member adapted to be set to a certain required position, and means controlled by said manually operated member for cutting off the supply of steam for said drifting valve.

2. The combination in a locomotive, of a drifting valve for supplying a limited quantity of steam to the engine when running with throttle closed, a steam operated lubricating device for the engine, a hand valve for closing the supply of steam to the lubricator, and means controlled by said hand valve for cutting off the supply of steam for the drifting valve.

3. The combination in a locomotive, of a drifting valve for supplying a limited quantity of steam to the engine when running with throttle closed, a fluid pressure actuated valve for controlling the supply of steam for the drifting valve, a steam operated lubricating device for the engine, and a hand valve controlling the supply of steam to the lubricator and to said pressure actuated valve.

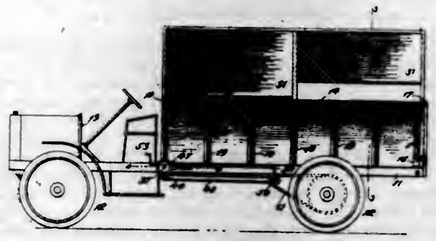
1,141,112. PORTABLE HAY-RACK. SAMUEL R. EWING, Owensboro, Ky. Filed Dec. 12, 1914. Serial No. 876,815. (Cl. 21—74.)



1. A hay rack comprising base and superimposed frames spaced apart, forward and rear standards to support the super-imposed frames, reinforcing means for the standards, longitudinal frames comprising a plurality of slats arranged centrally, one above the base frame, and one above the super-imposed frame, and means for securing the slatted frames to the said standard.

2. A hay rack comprising a base frame, forward and rear standards rising from the base frame and centrally thereof, a beam connecting the upper ends of said standards, vertical bars bracing the standards and connected to the said beam, a second frame spaced apart above the base frame and connected to the standards to form upper and lower compartments, standards connected to and bracing the corners and side bars of the base and second frame, slatted elongated partitions dividing the upper and lower compartments longitudinally, one partition being arranged above the other and spaced apart therefrom to form an air channel, spacing blocks between the forward and rear ends of the partitions and said standards, supporting wheels for the whole structure of the hay rack, and a tongue bar having a rest block connected to the rack.

1,141,113. DUMPING-VEHICLE. WILLIAM Y. GAMBEE, Brooklyn, N. Y. Filed Jan. 6, 1913. Serial No. 740,359. (Cl. 21—20.)



1. A vehicle comprising a body-portion having an end gate, an endless belt constituting the bottom of said body portion, and an endless chain of supporting rollers between the sides of said belt, said rollers being connected by pivoted links having studs loosely entering the ends of said rollers.

2. A vehicle comprising a body-portion, an endless belt constituting the bottom thereof and having endless chains at its side edges, an endless chain of transverse belt-supporting members between the sides of said belt, front and rear shafts having thereon sprocket wheels for the belt chains and drums for said chain of transverse members, and a frame for supporting the upper side of said chain of transverse members and maintaining the same in supporting relation to the upper side of said belt.

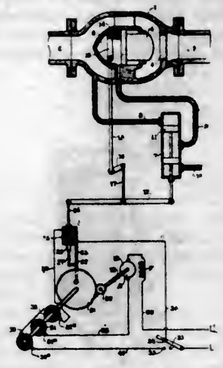
3. A vehicle comprising a body-portion, an endless flexible belt constituting the bottom of said body-portion having transverse rods embedded therein, endless chains secured to the ends of said rods, an endless chain of transverse belt-supporting members between the sides of said belt, front and rear shafts having thereon sprocket wheels for the belt-chains, and drums on said shafts for said chain of transverse members.

4. A vehicle comprising a body-portion, an endless flexible belt constituting the bottom of said body-portion having transverse rods embedded therein, endless chains secured to the ends of said rods, an endless chain of transverse belt-supporting members between the sides of said belt, front and rear shafts having thereon sprocket wheels for the belt-chains and supports for said chain of transverse members, and a frame for supporting the upper side of said chain of transverse members and maintaining the same in supporting relation to the upper side of said belt.

5. A vehicle comprising a body-portion having an end gate, an endless belt constituting the bottom of said body-portion, movable members extending along the sides of said body-portion and carrying sealing means to engage the side edge portions of said belt, and sealing means to engage the front and rear ends of said bottom, said movable members being projected in the path of said gate and adapted to be moved on the closing of the gate to act against the belt.

[Claims 6 to 8 not printed in the Gazette.]

1,141,114. CONTROLLER FOR FLUID-PRESSURE-ACTUATED DEVICES. CLARK T. HENDERSON, Milwaukee, Wis., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed June 29, 1914. Serial No. 847,975. (Cl. 137—4.)



1. In combination, a fluid pressure actuated device, a control valve therefor actuated thereby toward normal position and independent means assisting in effecting full movement of said valve to normal position.

2. In combination, a fluid pressure actuated device, a control valve therefor operable to effect movement of said device and actuated by said device toward normal position, and independent means acting automatically to assist in returning said valve to normal position upon completion of movement of said device.

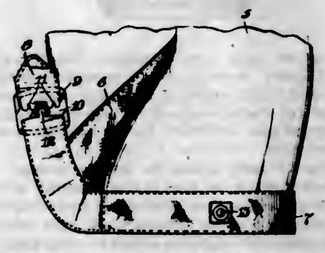
3. In combination, a fluid pressure actuated device, a control valve therefor operable to effect movement of said device and actuated by said device toward normal position and means acting automatically after a definite time interval to insure full movement of said valve to normal position.

4. In combination, a fluid pressure actuated device, a control valve therefor operable to effect movement of said device, an operative connection between said valve and said device tending to restore the former to normal position upon movement of the latter and electromagnetically controlled means acting to insure full movement of said valve to normal position.

5. In combination, a fluid pressure actuated device, a control valve therefor operable to effect movement of said device, an operative connection between said valve and said device tending to restore the former to normal position upon movement of the latter and electromagnetically controlled means acting to insure full movement of said valve to normal position after a definite time interval.

[Claims 6 to 19 not printed in the Gazette.]

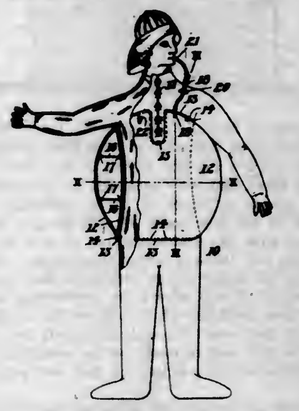
1,141,115. ADJUSTABLE GARMENT-CLOSURE. FRED HIRSH, New York, N. Y., assignor to Adjusta Company, a Corporation of New York. Filed Sept. 3, 1913. Serial No. 787,835. (Cl. 2—122.)



1. In knickerbockers, a band closure encircling the lower end of each leg and having a suitably extended outer end, a slide adjustably mounted upon the extended outer end of the band and having its middle bar provided with an open slot, and a headed stud attached to the inner end of the band and adapted to be engaged by the slot in the middle bar of the slide.

2. A garment comprising, in combination with a placket and a band closure having an end suitably extended beyond the outer edge of the placket, a fastening member adjustably and detachably mounted upon the extended end of the band and coöperating fastening elements carried by the fastening member and the other end of the band respectively which are adapted to secure said parts together and require a shortening and tightening of the closure for their separation.

1,141,116. LIFE-SAVING SUIT. JOSEPH HORVATH, Cherry Valley, Pa. Filed Mar. 17, 1915. Serial No. 14,931. (Cl. 9—20.)



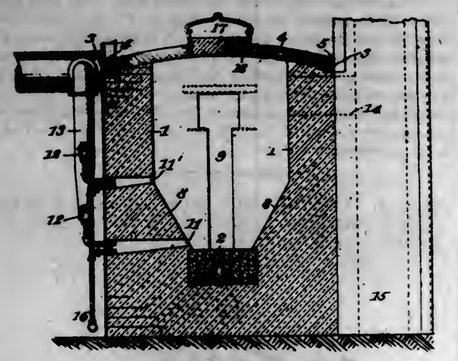
The combination with a water-proof suit including a laced front section, of a buoyant member carried by the body portion thereof and extending between the shoulders and waist line, said buoyant member including a pair of spaced side walls terminating at their upper and lower ends in an integral seam extension, a substantially U-shaped cut away portion provided in the front of the buoyant member to provide a clearance for the lacing portion of the garment, inflating means for the buoyant member, means for limiting the separating movement of the side walls of the buoyant member and means also for deflating the same.

1,141,117. METHOD OF REDUCING COKE TO PRODUCE BATTERY-CARBONS. HARRY T. JOHNSON, New York, N. Y.; Nettie F. Johnson administratrix of said Harry T. Johnson, deceased. Filed Feb. 3, 1913. Serial No. 746,054. (Cl. 204—65.)

1. The herein-described improved method of reducing coke or similar material to a carbon of high electrical conductivity, consisting in bringing a mass of coke to a highly heated state by burning the coke in a furnace, forcing air through the heated mass of coke and thoroughly agitating the mass by mechanical means and continuing the operation until all of the impurities are removed and the mass is reduced to a carbon of the desired low resistance.

2. The herein-described method of reducing petroleum coke to a material of high electrical conductivity, consisting in burning the coke in a furnace, introducing into the mass of coke after the same has become highly heated a quantity of air under forced draft and thoroughly agitating the mass of coke and continuing the operation until the mass is thoroughly calcined and all impurities are removed so as to produce a carbon of the maximum conductivity as and for the purpose described.

1,141,118. KILN OR FURNACE FOR TREATMENT OF CARBONACEOUS MATERIALS. HARRY T. JOHNSON, New York, N. Y.; Nettie F. Johnson administratrix of said Harry T. Johnson, deceased. Filed Feb. 3, 1913. Serial No. 746,055. (Cl. 202—9.)



1. In a kiln or furnace for reducing petroleum coke or other carbonaceous material to a carbon conductor, the combination with a fire-pot having a flat floor, a hopper bottom and front and rear openings as described, of two horizontal ranges or series of ports consisting of chambers formed in the side walls of said fire-pot and having outlets flush with the inside surface of said wall, means for supplying air through pipes terminating within said ports, means for supplying gas through pipes terminating in the same ports and means for controlling the supply of air and gas as described to permit the combustion to be started by gas forced through said ports into the mass, together with air, and to continue the operation of reduction by cutting off the supply of gas and supplying air alone.

2. In a kiln or furnace for reducing petroleum coke or other carbonaceous material to a carbon conductor, a fire-pot having a flat imperforate floor free from obstruction and inclined or hopper sides extending from front to rear of the furnace and down to the said floor, means for introducing air or gas through ports located in the side walls and having openings flush with the side of the fire-pot, a vertical rear opening in said fire-pot enlarged at its top and embracing a portion only of the rear wall or confines of the fire-pot and a front opening whereby the reduced contents collected on the floor may be pushed out of the pot over the flat floor by a tool inserted through said rear opening as and for the purpose described.

3. In a kiln or furnace for reducing petroleum coke or other carbonaceous material to a carbon conductor, a fire-pot having a flat imperforate floor, two horizontal ranges or series of ports opening into the said fire-pot flush with the side thereof and arranged one series above the other and means for supplying to said ports at will gas alone, or a mixture of air and gas, or air only, as and for the purpose described.

1,141,119. INDICATING-RELAY. WILLIAM KAISLING, Chicago, Ill., assignor to Kellogg Switchboard & Supply Company, Chicago, Ill., a Corporation of Illinois. Filed July 5, 1913. Serial No. 777,576. (Cl. 175—321.)

1. A relay having an electromagnetic element, an armature therefor, a contact spring, a second contact spring carried by said armature and adapted when said armature is actuated to establish wiping contact with said first aforesaid contact spring, a bridge member secured to said electromagnetic element having a projecting finger carrying a stop for said second aforesaid contact spring, a retractile spring for said armature, and a stop-arm forming part of said bridge member with which said retractile spring co-acts.

2. A relay having an electromagnetic element, an armature therefor, a keeper for said electromagnetic element with which said armature coöperates, and an indicator pivotally supported upon said armature and coöperating with said keeper to occupy different indicating positions.

3. A relay having an electromagnetic element, a core for said element, an armature for said element, a projection provided upon said core, and an indicator pivotally supported upon said armature and coöperating with said projection to occupy different indicating positions depending upon the energization or deënergization of said element.

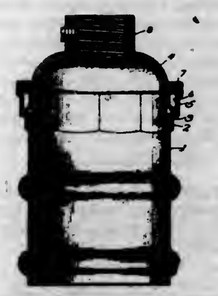


4. A relay having an electromagnetic element, an armature for said element, and an indicator pivotally supported upon said armature having means for coöperating with a stationary portion of said electromagnetic element to occupy different indicating positions upon the energization or deënergization of said electromagnetic element.

5. A relay having an electromagnetic element, an armature therefor, a spring extended from said armature, an arm carried by said armature and provided with a stop against which said spring impinges, and a second spring with which said first spring is adapted for engagement upon actuation of said armature, the further movement of said armature after engagement of said springs carrying said stop arm away from said first aforesaid spring.

[Claims 6 to 8 not printed in the Gazette.]

1,141,120. CASING-CAP FOR LAMP-SOCKETS. CHARLES J. KLEIN, Milwaukee, Wis., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed Nov. 15, 1911. Serial No. 660,345. (Cl. 173—362.)



1. A cap for lamp socket casings comprising a dome portion of heavy stock having a spreading flange at its open end and a rim of relatively light stock beaded over said flange and rigidly secured to said dome portion, said rim having integral shoulders for engagement with a complementary part.

2. A cap for lamp socket or similar casings, comprising a dome portion of heavy stock having an integral bushing at its contracted end and a spreading flange at its open end, and a rim of relatively light stock beaded over said flange and rigidly secured to said dome portion, said rim having integral shoulders for engagement with a complementary part.

1,141,121. SEPARABLE CONNECTOR FOR ELECTRICAL CONDUCTORS. CHARLES J. KLEIN, Milwaukee, Wis. Filed Jan. 13, 1913. Serial No. 741,771. (Cl. 173—328.)



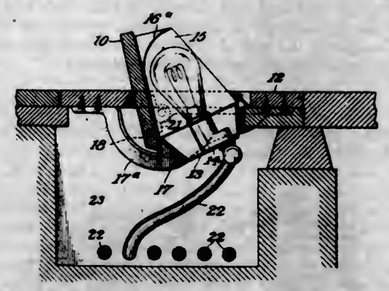
1. An electric connector comprising, in combination, a pair of bases, a rigid contact on each thereof, said contacts being adapted to interengage by relative rotation of said bases after the same are brought together for effecting an axial lock thereof, and separate resilient means to lock said bases against relative rotation after the interlocking of said contacts.

2. An electric connector comprising, in combination, two insulating bases, a rigid contact on one, a rigid and a resilient contact on the other, said rigid contacts having coöperating shoulders to lock said bases against separation and said first mentioned rigid contact and said resilient contact having coöperating shoulders to lock said bases against relative rotation.

3. An electric connector comprising, in combination, a pair of complementary bases, a pair of oppositely disposed rigid contacts on one, a pair of oppositely disposed rigid contacts on the other, and a pair of resilient contacts superposed on said second mentioned rigid contacts, said bases being adapted to be brought together when said contacts are out of registry and to be thereafter relatively rotated, said rigid contacts having coöperating shoulders interlocked by said relative rotation of said bases to effect an axial lock thereof, and said first mentioned rigid contacts and said resilient contacts having coöperating shoulders interlocked after the interlocking of said first mentioned shoulders to effect a rotative lock of said bases.

4. An electric connector comprising, in combination, a pair of complementary bases, a rigid contact on one, a rigid contact on the other, said contacts having coöperating shoulders to lock said bases against separation, and a resilient contact on one of said bases adapted to engage with the rigid contact on the other to insure intimate electrical interconnection, said resilient contact and its coöperating rigid contact also having coöperating shoulders to lock said bases against relative rotation.

1,141,122. STAGE-FOOTLIGHTS. ANTON T. KLIEGL, New York, N. Y. Filed May 25, 1914. Serial No. 840,732. (Cl. 240—3.)



1. The combination with a stage floor having a narrow opening across the front, of a plurality of light-carriers arranged end to end to fill said opening flush with the floor and pivoted at their ends between the front and rear edges of the carriers to permit the said front and rear edges to swing to positions respectively below and above the surface of the stage, and lamps carried by the carriers on the underside thereof.

2. The combination with a stage floor having a narrow opening across the front, of a plurality of light-carriers arranged end to end and filling said opening flush with the surface of the floor and pivoted at their ends to swing upwardly and forwardly, means to support the carriers when in depressed position, and lamps on the underside of each carrier.

3. The combination with a stage floor having a transversely arranged opening at the front, brackets spanning said openings from front to rear below the floor, a lamp carrier pivoted at its ends between its front and rear edges to said brackets whereby when the carrier is in raised position only a portion thereof projects above the surface of the floor, and means on the underside of the carrier for supporting a plurality of lamps.

4. The combination of a stage floor having a narrow transverse opening at the front, a carrier pivoted at its ends in said opening to permit the rear edge of the carrier to swing upwardly and forwardly and the forward edge downwardly and rearwardly, whereby only a portion of the carrier extends above the surface of the floor when in raised position, and lamp supporting means on the underside of the carrier.

5. The combination of a stage floor having a narrow transverse opening at the front, a carrier fitting the opening and adapted to lie flush with the surface of the floor, pivoted supports for the carrier, connected to the carrier at the ends of the same and between the front and rear edges thereof, and lamp-supporting means on the underside of the carrier.

[Claims 6 to 10 not printed in the Gazette.]

1,141,123. BABY-WALKER. FRANK H. KNIGHT, Lancaster, Pa., assignor to M. J. Knight, Lancaster, Pa. Filed Oct. 27, 1913. Serial No. 797,625. (Cl. 155—45.)



1. In a baby walker, a child-supporting member and a base, in combination with two telescopic parts and a shifting intermediate device for supporting said member, one of said parts being provided with an internal chamber consisting of a shallower portion and a deeper portion, also with a downwardly presented shoulder between these two portions of the chamber, and the other telescopic part being provided with a shoulder, said telescopic parts being adapted to be locked by said intermediate device when the latter is in the shallower portion of said chamber and in contact with the shoulder of the other telescopic part, but to be freed for telescopic contraction by inverting the baby walker and loosening the said shifting device so that it may pass into the deeper portion of said chamber.

2. In a baby walker, a child-supporting member and a base, in combination with a telescopic connection supporting said member and comprising a rod or bar provided with a recess and a shoulder, a part provided with a casing having an internal chamber and telescopic connection with said rod or bar and a ball contained in said chamber, the latter consisting of a deeper portion and a shallower portion and the said casing being provided with an internal, downwardly presented shoulder between these two portions, the said telescopic parts being arranged and adapted to be locked by said ball when the latter is in the shallower portion of said chamber and in contact with the shoulder of the other telescopic part, but to be freed for telescopic contraction by inverting the baby walker and allowing the ball to roll into the deeper portion of said chamber.

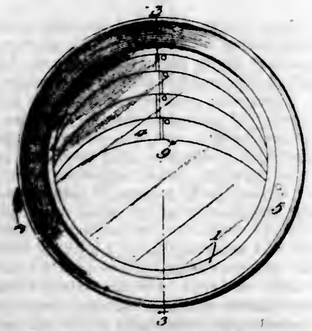
3. In a baby walker, a child-supporting ring and an annular base, in combination with a series of intervening connections supporting said ring, each of said connections consisting of two telescopic parts provided with a ball and arranged and adapted to be locked by the engagement of said parts with said ball at a certain point of telescopic extension, the inner one of said concentric parts being provided with a shoulder and the other one of said parts being provided with an internal chamber comprising a shallower portion and a deeper portion, also with a downwardly presented shoulder between said portions, the said parts being adapted to be freed for telescopic contraction by inverting the baby walker and causing said ball to roll into said deeper portion of said chamber out of locking contact with the said inner telescopic part.

4. In a baby walker, a child-supporting ring and an annular base, in combination with a series of intervening connections consisting of two telescopic parts pivoted respectively to said ring and said base, and provided with a ball for locking said parts together at a certain point of telescopic extension, one of said parts having a shoulder and the other telescopic part being provided with a chamber divided by a downwardly presented shoulder into a deeper portion and a shallower portion, the former portion being above the latter and the said parts being locked when the ball is in the shallower portion of the chamber and against the shoulder of the first mentioned telescopic part, but the said parts being adapted to be freed by inverting the baby walker and causing the ball to roll into the deeper portion of said casing out of locking contact with the first mentioned telescopic part.

5. In a collapsible baby-walker, a baby-supporting member and a base therefor, in combination with intervening telescopic connections pivotally connected at their ends to said member and base and provided with automatic means for locking the parts of said connections together at a certain point of extension, also with means arranged to simultaneously lock against pivotal motion the parts of said connections attached to said baby-supporting member, all of these locking means being adapted to be automatically left free after the inversion of the baby-walker.

[Claims 6 and 7 not printed in the Gazette.]

1,141,124. HEADLIGHT-SHIELD. JOHN KOBS, Jr., and MARVIN STEWART, Ashland, Ky. Filed Dec. 4, 1914. Serial No. 875,422. (Cl. 240—45.)



1. A shade for automobile search-lights comprising a series of sections which are designed to fit one against another and all pivoted at one end at a common point, and means for raising and lowering said sections at their free ends.

2. A shade for automobile search-lights comprising a housing, a series of vertically movable sections located in said housing, said sections being designed to fit one against another and to move in planes paralleling one another and the end of said housing, all of said sections being pivoted at one end at a common point, and means carried by one section for causing all the sections to move into their concealed position.

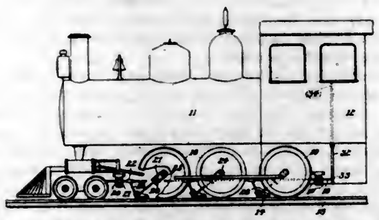
3. A shade for automobile search-lights comprising a housing, a series of vertically movable crescent-shaped members of different lengths located in said housing, said sections being movable in planes paralleling one another and the end of said housing, all of said members being pivoted at one end at a common point, and a projection carried by one member for causing all of them to move together.

4. A shade for automobile search-lights comprising a series of crescent-shaped members which are all pivoted at one end at a common point, manipulating means at the free end of the lowermost member, and a lug extending from said member for engaging the other members to cause all to move together.

5. The combination with a housing, of a series of crescent-shaped members pivoted at one end at a common point, a guide-rod with which each of said members engages at its free end, locking means for said members, and a lug carried by the lowermost member for causing all of them to move in unison.

[Claim 6 not printed in the Gazette.]

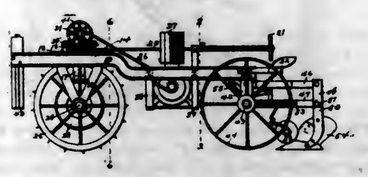
1,141,125. RAILWAY-BRAKE. MICHAEL A. KOSTECKI, Hartford, Conn. Filed Mar. 3, 1915. Serial No. 11,807. (Cl. 188—65.)



1. A railway brake comprising a shiftable bar, vertically movable resiliently mounted journaling means for the said bar, casings journaled to the axles of a vehicle, substantially triangular shaped chock blocks, connecting rods having their lower ends pivoted to the said blocks and their upper ends resiliently mounted within the said casings, and supporting rods pivotally connected between the said bar and blocks.

2. A vehicle brake comprising mounting brackets, shiftable blocks carried by said brackets, resilient mounting means for the said blocks, a longitudinally shiftable supporting bar journaled in the said blocks, a triangular shaped brake shoe having a longitudinal bottom groove and a corrugated curved upper portion and positioned forwardly of a vehicle wheel, a coller secured to said bar, pivotal connections between the said shoe and coller, a casing journaled upon the axle of the said wheel and having a recess therein, a connecting rod having one end pivoted to the said shoe and its other end mounted within the said recess, resilient mounting means within the said recess engaging the end of said rod positioned therein, and longitudinal shifting means for the said bar.

1,141,126. TRACTOR. HARRY W. LEAVITT, Waterloo, Iowa. Filed Sept. 16, 1913. Serial No. 789,990. (Cl. 21—114.)



1. A tractor comprising a main frame, a turntable member carried by the forward portion of said frame, a mating member arranged beneath the first member, roller bearings between said members, a sleeve formed on the lower member, worm-gearing connected with the upper end of said sleeve, a yoke fixed to and depending from the lower member on opposite sides of said sleeve, an axle shaft journaled in said yoke and arranged horizontally beneath said sleeve, traction supporting wheels fixed to said axle shaft in adjacent relations and within said yoke, a bevel gear fixed to said axle shaft between said wheels, a shaft journaled in said sleeve, a bevel pinion fixed to the lower end of said shaft and meshing with said bevel gear, a driving shaft journaled on the frame, bevel gear connections between the driving shaft and the upper end of the vertical shaft, a motor geared to the driving shaft, and means for securing an implement to the rear end portion of the frame.

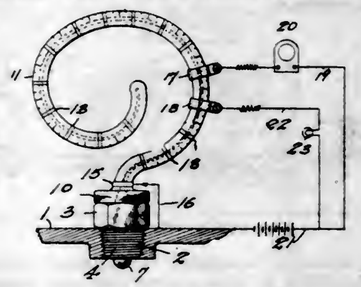
2. A tractor comprising a main frame composed of connected beams and cross-bars, a turntable member carried by the cross-bars between forward end portions of said beams, a mating turntable member arranged beneath the first member, roller bearings being interposed between said members, a sleeve formed on the lower member and extending through the upper member, a worm gear fixed to the upper end of said sleeve, a hand-operated worm adapted to rotate said worm gear, yoke arms fixed to and depending in spaced relations from the lower turntable member within the frame, an axle shaft journaled horizontally in and connecting the lower ends of said arms, counterpart traction wheels fixed in adjacent relations to said axle shaft and between said arms, a bevel gear fixed to said shaft between said wheels, a shaft journaled vertically in and extending at both ends from said sleeve, a bevel pinion fixed to the lower end of said vertical shaft and meshing with said bevel gear, a driving shaft journaled horizontally on the frame, bevel gear connections between the driving shaft and the upper end of the vertical shaft, a motor geared to the driving shaft, and means for securing an implement to the rear end of the frame.

3. A tractor comprising a main frame, a turntable-member carried by the forward portion of said frame, a mating member arranged beneath the first member, roller bearings between said members, a yoke fixed to and depending from the lower member, an axle shaft journaled in said yoke, traction supporting wheels fixed to said axle shaft side by side and in spaced relations, a bevel gear fixed to said axle shaft between said wheels, a shaft journaled in upright position in said lower member and extending between said wheels, a bevel pinion fixed to the lower end of the latter shaft and meshing with said bevel gear, a driving shaft journaled on the frame, bevel gear connections between the driving shaft and the upper end of the upright shaft, a motor underslung on the central portion of said frame and geared to the driving shaft, and a hand-operated worm gear acting on the lower turntable member.

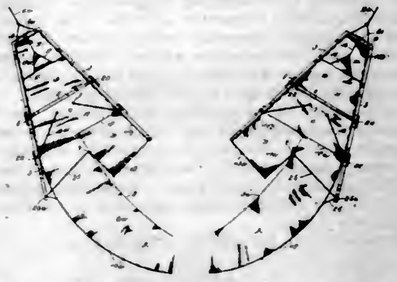
4. A tractor comprising a main frame formed of spaced beams side by side and offset upwardly between their ends and cross-bars connecting said beams, a turntable member carried by the higher forward portion of said frame, a mating member arranged beneath the first member, roller bearings between said members, a yoke fixed to and depending from the lower member, an axle shaft journaled in said yoke, traction supporting wheels fixed to said axle shaft side by side in spaced relations, a bevel gear fixed to said axle shaft between said wheels, a shaft journaled in upright position in said lower member and extending between said wheels, a bevel pinion fixed to the lower end of the latter shaft and meshing with said bevel gear, a driving shaft journaled on the frame, bevel gear connections between the driving shaft and the upper end of the upright shaft, a motor underslung on the central portion of said frame and geared to the driving shaft, and a hand-operated worm gear steering device acting on the lower turntable member and extending to the rear of said frame.

1,141,127. ELECTRIC SIGNAL. JOSEPH LIÈVRE, Corpus Christi, Tex. Filed Feb. 5, 1915. Serial No. 6,327. (Cl. 177—355.)

The combination with the motor water jacket, of a hollow screw plug having a seat for a bulb therein, and screwed on to said bulb, said bulb having an elongated stem with a bore therein and mercury in said bulb and bore, conductors and conductor rings spaced throughout the length of said stem, a metallic sleeve slidable on the stem adapted to co-act with one of said rings, and an electric circuit including an alarm from said sleeve to the metal of the water jacket and to another point on the stem, substantially as described.



1,141,128. SEINE. ANDREW MATTSON, Bellingham, Wash. Filed Dec. 22, 1913. Serial No. 808,098. (Cl. 43—20.)



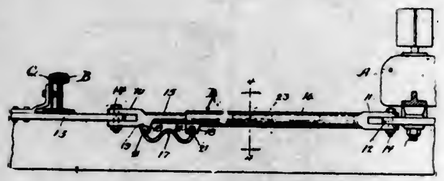
1. A trawling seine comprising a central lead section consisting of a net provided with floats along its upper edge and sinkers along its lower edge, said lower edge extending forward from said upper edge and headers communicating with the opposite ends of said lead section, said headers consisting of communicating pockets partially spaced by inclined nets suitably supported at their inner edges, the outer pocket having a jigger net, devices by means of which the walls of said jigger may be drawn against the inner ends of said lead, and means for collapsing and drawing the bottom and sides of the net up to the frame work supporting said net.

2. A trawling seine comprising a central lead portion consisting of a net having floats along its rear edge and sinkers along its forward edge, said forward edge being shorter than the rear edge so as to extend the former normally in front of the latter and headers arranged in the opposite ends of said lead, each of said headers composed of beams arranged in triangular form and suitable braces and having floats supporting same, said headers being divided into a series of communicating pockets the outer pocket having a jigger net, devices by means of which the walls of said jigger may be drawn across the inner sides of said lead, and means for collapsing and drawing the bottom and sides of the net up to the above mentioned said frame work, the last mentioned means comprising a plurality of posts, pulleys suitably mounted on said posts and ropes running over and intercommunicating with said pulleys and connecting with the bottom wall of said net.

1,141,129. SWITCH-ROD. WILLIAM R. MCCOLLOM, Chicago, Ill. Filed Oct. 15, 1914. Serial No. 866,743. (Cl. 104—96.)

1. A switch rod comprising two members, the one slidably connected to the other and having a breakable con-

nection forming a positive connection therebetween, capable of being broken when subjected to undue strain, and a frictional element between said two members for temporarily holding them in position when said breakable connection is broken.



2. A switch rod comprising two members frictionally secured together to resist relative lengthwise movement, one having a slidable connection with the other, and, also, a positive connection therewith, comprising a comparatively fragile element.

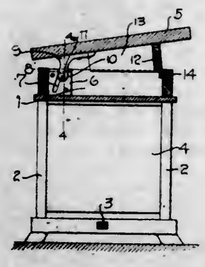
3. A switch rod comprising two members, one having a frictional, slidable connection with the other, and a curved, comparatively fragile, connecting member secured to and connecting said two members against relative lengthwise movement.

4. A switch rod comprising two members, one having a frictional, slidable connection with the other and a comparatively fragile connecting member secured to and connecting said two members against relative lengthwise movement, except when broken, said fragile member being formed with one or more reverse curved portions.

5. A switch rod comprising two members, one being movable lengthwise upon the other, a spring interposed between said two members for frictionally securing them together against relative lengthwise movement, and an additional, comparatively fragile, connecting member secured to and positively connecting said two members except when broken.

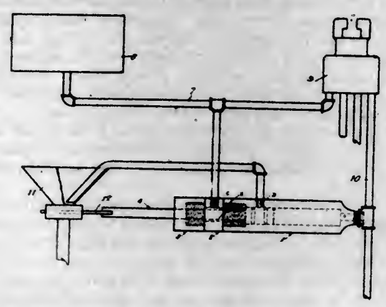
[Claims 6 to 9 not printed in the Gazette.]

1,141,130. PIANO-BENCH. JOHN C. MCCRARY, Columbia, Mo. Filed Apr. 30, 1913. Serial No. 764,602. Renewed Nov. 4, 1914. Serial No. 870,304. (Cl. 155—22.)



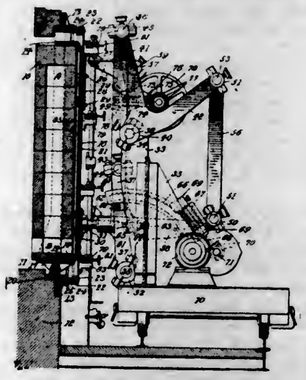
A piano bench including a body having end walls, side walls and a base, a movable top for said bench, a longitudinally extending rib fixed upon the inner face of one of the side walls, a flange secured to the under side of the top, said top normally resting upon the upper edges of the side and end walls and said flange engaging upon the base of said body, supports fixed to the inner faces of the end walls and contiguous to the opposite side wall of the body, and members fixed to the under side of the top adjacent its opposite ends, said latter supports being provided with means with which said members are movably engaged and by which said top is directed laterally when the same is lifted from the body walls and the flange thereon disposed in position for engagement upon said rib.

1,141,131. EMERGENCY SAND-VALVE. JOHN H. MCGRATH, Knoxville borough, Pa. Filed Dec. 24, 1914. Serial No. 878,930. (Cl. 105—263.)



The combination in an emergency sand valve of a cylinder having a counterbored hole to admit compressed air from the supply pipe on one side of the piston head through a port leading from the supply pipe into one end of the cylinder, the other end of the cylinder connected with the compressed air emergency brake pipe, with a piston having two rings, the portion thereof between the rings covering, when not in action, a port in the cylinder leading to the sand box, the one end of the piston protruding from the cylinder through a stuffing box nut to be connected with the sand lever, and the other end of the piston having a "boss" on it that is divided into four slots so that the piston can not shut off the compressed air in the port leading to the emergency pipe, all substantially as set forth.

1,141,132. OPERATING DEVICE FOR COKE-OVEN DOORS. CHARLES V. MCINTIRE, Indianapolis, Ind., assignor to H. Koppers Company, Chicago, Ill. Filed Dec. 8, 1913. Serial No. 805,216. (Cl. 254—84.)



1. A device of the character described comprising a door frame, a door, an upper hook and a lower abutment adapted to engage the door, a link carrying said hook and abutment, and pivotally mounted means for moving said link toward and away from the door frame.

2. A device of the character described comprising a door frame, a door, a carrier, a hook supported thereby and adapted to engage the door, means for effecting a movement of the hook relatively to the carrier, an abutment on the carrier adapted to engage the door, and pivotally mounted means for moving said carrier toward and away from the door frame.

3. A device of the character described comprising a door frame, a door, a carrier, a hook supported thereby and adapted to engage the door, means for effecting a movement of the hook relatively to the carrier, an abutment adjustably secured to the carrier and adapted to engage the floor, and pivotally mounted means for moving said carrier toward and away from the door frame.

4. A device of the character described comprising a door frame, a door, a carrier, an upper door-engaging member supported thereby, means for moving said member in a vertical direction independent of the carrier, a lower door-engaging member supported by the carrier, and pivotally mounted means for moving said carrier toward and away from the door-frame.

5. A device of the character described comprising a door frame, a door, a carrier, an upper door-engaging member supported thereby, means for moving said member in a vertical direction independent of the carrier, a lower door-engaging member supported by the carrier, means for adjusting said lower member, and pivotally mounted means for moving said carrier toward and away from the door frame.

[Claims 6 to 12 not printed in the Gazette.]

1,141,133. GAS-TIGHT SEAL. KARL MENSING, Hanau, Germany, assignor to General Electric Company, a Corporation of New York. Filed Oct. 30, 1913. Serial No. 798,248. (Cl. 175—50.)



1. The combination of an envelop having a projecting mouth, a mechanically fitted closure therefor, a receptacle surrounding said projecting mouth, a sealing liquid in said receptacle, the shape of said receptacle and the amount of the sealing liquid being adapted to cover with said liquid the joint between the walls of the envelop and the mechanically fitted closure in all positions of said envelop and an external closure for said receptacle.

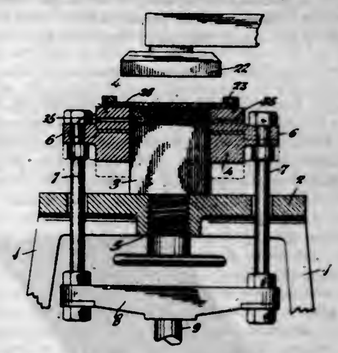
2. In an electrical apparatus, an envelop having a projecting mouth, a fitted electrically conducting closure therefor, a receptacle surrounding said closure, a conducting liquid partly filling said receptacle sufficient in amount to cover the joint between said closure and the adjacent wall of the envelop in all positions of the apparatus, and an external conducting closure for said receptacle.

3. In an electrical apparatus, an evacuated envelop, and current-conveying means therefor comprising a solid conductor embedded in an outwardly projecting section of said envelop, a receptacle surrounding said projecting section and said conductor, said receptacle having a pocket adjoining the section into which said conductor is sealed to provide space for a gas bubble out of contact with the exposed end of the conductor, a quantity of mercury in said envelop proportioned to cover the joint between said conductor and the adjacent wall in all positions of said envelop, and a conducting closure for said receptacle.

4. The combination of a gas-tight envelop, a mechanically fitted closure in the wall of said envelop, a receptacle surrounding the external end of said closure, a body of mercury in said receptacle, the end of said closure projecting with a surrounding wall into said receptacle so that it will be immersed in mercury even when inverted, and an external closure for said receptacle.

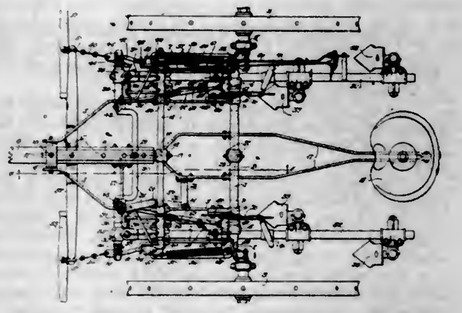
1,141,134. METHOD OF MAKING TILE. OTTO METZNER, Cincinnati, Ohio, assignor to The Rookwood Pottery Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Nov. 25, 1913. Serial No. 803,011. (Cl. 25—156.)

The method of manufacturing glazed tile, which consists in depositing the powdered clay in a die, sifting a substantial layer of glaze thereon, smoothing off the top surface of the glaze, compressing the two materials to form a tile, at the same time first permitting the entrained air to escape laterally at points opposite the body of tile, thus preventing any disturbance of the glaze, then before final compression cutting off the air escape,



and then firing the tile in a kiln to form the finished article.

1,141,135. CULTIVATOR. CLEMENT W. MICHAEL, Racine, Wis., assignor to J. I. Case Plow Works, Racine, Wis., a Corporation. Filed Oct. 14, 1912. Serial No. 725,716. (Cl. 97—35.)



1. In a cultivator, the combination with a frame, of a pole pivoted in front of its rear end to said frame, a seat bar pivoted at its forward end to the forward end of said frame, and connections between the rear end of said pole and said seat bar.

2. In a cultivator, the combination with a frame, of a pole pivoted thereto, a front arch connected to said pole, cultivator gangs connected to said front arch, a laterally swinging seat bar pivotally mounted at its forward end upon the forward part of said frame and having a sliding connection with said frame intermediate its ends, and connections between said seat bar and said pole for swinging the frame and gangs to one side or the other.

3. In a cultivator, the combination with a frame, of a pole pivoted thereto, a front arch connected to said pole, cultivator gangs connected to said front arch, a laterally swinging seat bar pivotally mounted at its forward end and having a sliding connection with said frame intermediate its ends, and operating connections extending from between the ends of said seat bar to the rear end of said pole.

4. In a cultivator, the combination with a wheel-supported frame, of a pole pivoted thereto in front of its rear end, a laterally swinging seat bar pivotally mounted at its forward end and having a sliding connection between its ends with said frame, and connections between said seat bar and the rear end of said pole for swinging the latter in one direction when the seat bar is shifted in the opposite direction.

5. In a cultivator, the combination with a wheel-supported frame, of a pole pivoted thereto in front of its rear end, a laterally swinging seat bar pivotally mounted

at its forward end and having a sliding connection between its ends with said frame, a swinging lever on the frame and links connecting said lever to the rear end of the pole and to said seat bar respectively.

[Claims 6 to 14 not printed in the Gazette.]

1,141,136. FIREPROOF AND WATERPROOF COVERING AND PROCESS OF MAKING. WILLIAM J. MOELLER, Wyoming, Ohio, assignor to The Philip Carey Manufacturing Company, Lockland, Ohio, a Corporation of Ohio. Filed July 9, 1912. Serial No. 708,510. (Cl. 91—70.)



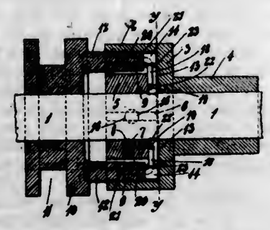
1. An incombustible and waterproof article of manufacture, comprising an asbestos mill-board saturated with candle tar or stearin pitch, substantially as set forth and for the purposes specified.

2. As an article of manufacture, an incombustible and waterproof shingle comprising an asbestos mill-board saturated and impregnated with candle tar or stearin pitch, substantially as set forth and for the purposes specified.

3. The herein described process which consists in saturating and impregnating asbestos mill-board with candle tar and allowing the same to season whereby it becomes tough and hard and both incombustible and water-proof, substantially as set forth and for the purposes specified.

4. The herein described process which consists in saturating and impregnating asbestos mill-board with heated candle tar, compressing the sheet to remove excess of candle tar and to produce a closer union of the fibers to the saturant, then cooling the same and allowing it to season by oxidation, whereby it becomes tough and hard and incombustible and waterproof, substantially as set forth and for the purposes specified.

1,141,137. CLUTCH. OSCAR W. MUELLER, Cincinnati, Ohio. Filed Apr. 30, 1914. Serial No. 835,352. (Cl. 192—13.)



1. In a clutch, in combination with two elements to turn together or be released from each other, a shell fixed to one element, a core fixed to the other element with a space around the core inside the shell, a segment in this space, means on the core engaging with the segment and causing it to turn with the core, means movable in said space and engaging with said segment to bring it into contact with the interior of the shell when moved in one direction and release it from said contact when moved in the other direction, and a spring drawing the segment away from the interior of the shell when the segment is released by said means.

2. In a clutch, in combination with two elements to rotate together or be released from each other, a shell fixel to one element, a core fixed to the other element with a space around it inside the shell, the interior of the shell being concentric with the element to which it is fixed, a segment in this space, means causing the segment to rotate with the core, means movable axially of the elements and engaging with said segment to move the segment out into contact with the interior of the shell when said means is moved in one direction, or release said segments from the shell when said means is moved in the other direction, and a spring engaging with the segment and drawing it inward when said means releases the segment.

3. In a clutch, in combination with a shaft and an element to rotate with or be released from the shaft, a shell fixed to said element, a core fixed to said shaft with a space around it inside the shell, the interior of the shell being concentric with the shaft, segment parts in this space, each with a side inclined toward the side of the other, means causing the segment parts to rotate with the core and an arm movable along the shaft and having tapering sides entering between the inclined sides of said segment parts and wedging the segment parts out into contact with the interior of the shell when moved in one direction and releasing the segment parts from said contact when moved in the other direction.

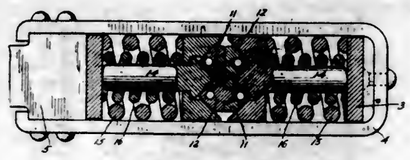
4. In a clutch, in combination with two elements to rotate together or be released from each other, a shell fixed to one element, a core fixed to the other element with a space around it inside the shell, the interior of the shell being concentric with the element to which it is fixed segment parts in this space, each with a side inclined toward the side of the other, means causing the segment parts to rotate with the core, an arm movable axially of the elements and having tapering sides entering between the inclined sides of said segment parts and wedging the segment parts out into contact with the interior of the shell when moved in one direction and releasing the segment parts from said contact when moved in the other direction, and a spring engaging with each segment part and extending from the one part to the other, spreading when the segment parts are wedged out into contact with the shell, but contracting and drawing the segment parts out of said contact when released by said arm.

5. In a clutch, in combination with two elements to rotate together or be released from each other, a shell fixed to one element, a core fixed to the other element with a space around it inside the shell, the interior of the shell being concentric with the element to which it is fixed, a segment in this space, means causing the segment to rotate with the core, means movable axially of the elements and engaging said segment to move the segment out into contact with the interior of the shell when said means is moved in one direction, or release said segment from the shell when said means is moved in the other direction, and a spring engaging with the segment and drawing it inward when said means releases the segment, said core having a recess admitting said spring.

[Claims 6 to 27 not printed in the Gazette.]

1,141,138. FRICTION DRAFT-GEAR. EDWARD W. NEWELL, Pittsburgh, Pa., assignor to The Westinghouse Air Brake Company, Wilmerding, Pa., a Corporation of Pennsylvania. Filed Feb. 17, 1914. Serial No. 819,184. (Cl. 213—64.)

1. In a friction gear, the combination of a resistance spring, a friction element having oppositely inclined faces and movable in a direction to compress said spring, a centrally disposed wedge, another friction element having oppositely inclined faces but immovable in the direction to compress said spring, a second central wedge facing opposite to the first, and laterally and longitudinally movable wedge blocks interposed between the opposing inclined faces of the central wedges and said friction elements, the centrally disposed wedges being free from contact with said spring.



2. In a friction draft gear, the combination with a pair of oppositely disposed springs, of movable members arranged at the proximate ends of the springs, each having oppositely inclined friction faces, plunger wedges arranged longitudinally within the springs and having oppositely disposed friction faces, and wedge blocks interposed between the movable members and plunger wedges and having oppositely disposed friction faces for engaging the friction faces of said members and the friction faces of plunger wedges.
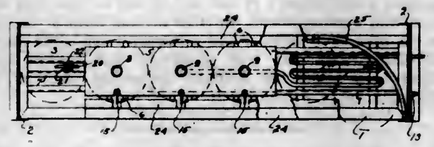
3. In a friction gear, the combination of a pair of resistance springs arranged in tandem, a pair of followers interposed between the proximate ends of said springs and each having oppositely inclined friction faces, a frame having stops engaging said followers in the normal release position, a pair of oppositely facing central wedges extending through the respective followers, and laterally and longitudinally movable wedge blocks interposed between the opposing inclined faces of the central wedges and said followers.

4. In a friction draft gear, the combination with a pair of tandem springs and a follower plate at the remote ends of the springs, of a plunger wedge arranged longitudinally within each spring and adapted to engage with the corresponding follower plate and each provided with friction faces at the proximate ends, and friction elements having friction faces for engaging the friction faces of the plunger wedges, one plunger wedge being held stationary by engagement with the adjacent follower plate under movement of the other plunger wedge through engagement with the other follower plate.

5. In a friction draft gear, the combination with springs arranged in longitudinal alinement, a follower plate at the opposite ends of each spring, and side plates adapted to be secured to the car center sills and provided with stops for each of the follower plates, of projections carried by the inner follower plates and extending into the restricted space formed by the inner stops and provided with oppositely inclined friction faces and elements having friction faces adapted to engage the friction faces of the inner follower plates.

[Claim 6 not printed in the Gazette.]

1,141,139. CLEANING APPARATUS. FREDERICK H. OGILVIE, Jersey City, N. J., assignor to Wisner Manufacturing Company, New York, N. Y., a Corporation of New York. Filed Apr. 28, 1914. Serial No. 834,911. (Cl. 141—7.)



1. The combination of means for supporting thereon a plurality of inverted storage vessels having mouths with outward extending rims, retaining means extending along the supporting means to engage the rims of the mouths of said vessels on opposite sides of the same, whereby said vessels cannot be displaced from the supporting means except by movement along the latter, and one or more devices for delivering cleaning agent to the vessels as they are moved along the supporting means.

2. The combination of means for supporting thereon a plurality of inverted storage vessels having mouths with outward extending rims, a one-way movable stop at one end of said means, retaining means extending away from said stop along the supporting means to engage the rims of the mouths of said vessels on opposite sides of the same, whereby said vessels cannot be displaced from the supporting means except by movement along the latter, and one or more devices for delivering cleaning agent to the vessels as they are moved along the supporting means.

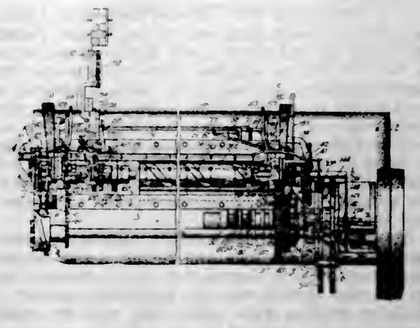
3. The combination of means for supporting thereon a plurality of inverted storage vessels having mouths with outward extending rims, angle-iron retainers extending along the supporting means to engage the rims of the mouths of the said storage vessels on opposite sides of the same, whereby said vessels cannot be displaced from the supporting means except by movement along the latter, and one or more devices for delivering cleaning agent to the vessels as they are moved along the supporting means.

4. The combination of means for supporting thereon a plurality of inverted storage vessels having mouths with outward extending rims, a one-way movable stop at one end of said means, angle-iron retainers extending away from the stop along the supporting means to engage the rims of the mouths of the vessels on opposite sides thereof, whereby said vessels cannot be displaced from the supporting means except by movement along the latter, and one or more devices for delivering cleaning agent to the vessels as they are moved along the supporting means.

5. The combination of means for supporting thereon a plurality of storage vessels, a U-shaped strap transversely mounted on said means and carried below the same, a pivot carried by the upper part of said strap, a stop movably mounted on the pivot and extending above the level of the supporting means, and resilient means for holding the lower end of the stop against the bottom of the strap.

[Claims 6 and 7 not printed in the Gazette.]

1,141,140. BED-BOTTOM-FABRIC-ASSEMBLING MACHINE. WILBER J. PINE, Oshkosh, Wis. Filed Sept. 13, 1911. Serial No. 649,159. (Cl. 140—7.)



1. In a machine of the character described, the combination of means for disposing chain in parallel lengths, and a traveling cross-link applying mechanism, together with means for shifting the same step by step lengthwise the chain.

2. In a machine of the character described, the combination of means for disposing chain in parallel lengths, a traveling wire feeding and cross-link forming and applying mechanism, and means for shifting the same step by step lengthwise the chain.

3. In a machine of the character described, the com-

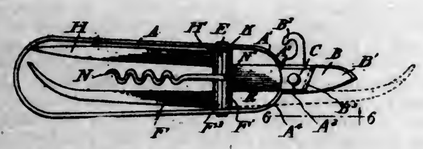
bination of means for feeding a length of chain, means for severing the same, means for laterally displacing it, means for holding two such lengths of chain taut and spaced apart in parallelism with eyes of the links thereof opposite each other, a traveling cross link applying mechanism, and means for shifting the same from one pair of chain link eyes to another.

4. In a machine of the character described, the combination of means for feeding a length of chain, means for severing the same, means for laterally displacing it, means for holding two such lengths of chain taut and spaced apart in parallelism with eyes of the links thereof opposite each other, a traveling wire feeding and cross-link forming and applying mechanism, and means for intermittently shifting the same.

5. In a machine of the character described, the combination of means for feeding a length of chain, means for severing the same, means for laterally displacing it, means for holding two such lengths of chain taut and spaced apart in parallelism with eyes of the links thereof opposite each other, a traveling cross-link applying mechanism, and means for shifting the same from one pair of chain link eyes to another and reversing its step by step movement.

[Claims 6 to 13 not printed in the Gazette.]

1,141,141. COMBINATION-TOOL. OLIVER N. PLANTE, Lowville, N. Y. Filed Feb. 4, 1915. Serial No. 6,045. (Cl. 7—16.)

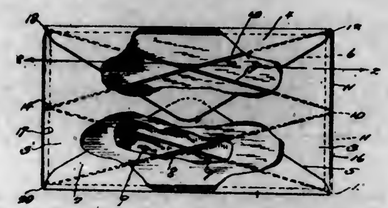


1. In combination with a handle made up of a strap of iron bent in oblong form and having a solid projecting portion at one end thereof, said handle having a recess in the edge thereof and the projection provided with a shoulder forming one wall of the recess, a pin mounted in the opposite walls of the handle, a tool having a boss at its inner end pivotally mounted upon said pin and adapted to swing into said recess and engage the shoulder formed upon said projection, and means for holding the tool in said recess.

2. In combination with a handle made up of a strap of iron bent in oblong form and having a solid projecting portion at one end thereof, said handle having a recess in the edge thereof and the projection provided with a shoulder forming one wall of the recess, a resilient member fastened to said projection, a pin mounted in the opposite walls of the handle, a tool having a boss at its inner end pivotally mounted upon said pin and adapted to swing into said recess and engage the shoulder formed upon said projection, the inner end of said resilient member being adapted to engage the shoulder of the boss to hold the tool in said recess.

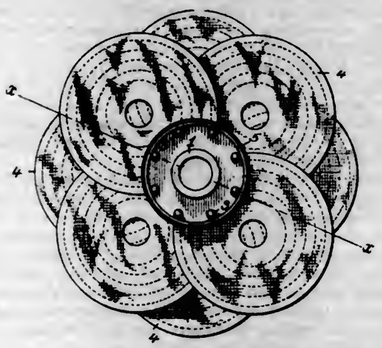
3. In combination with a handle made up of a strap of iron bent in oblong form and having a solid projecting portions at one end thereof, said handle having a recess in the edge thereof and the projection provided with shoulders forming walls coöperating with the recess, a resilient member fastened to said projection, a pin mounted in the opposite walls of the handle, carrying tools each having a boss at its inner end pivotally mounted upon said pin and adapted to swing into said recess and engage the shoulder formed upon said projection, the inner end of said resilient member being adapted to engage the shoulder of the boss to hold the tool in said recess, and means upon said pin for throwing the resilient end of said member out of said notch when it is desired to swing the tools into the space between the walls of the handle.

1,141,142. DEVICE FOR OPENING ENVELOPS. EDWARD PRUTZMAN, Lewisburg, Pa. Filed Dec. 12, 1914. Serial No. 876,827. (Cl. 229—86.)



In combination with an envelop, an opener therefor comprising a thread having angularly arranged intersecting parts arranged adjacent the inner face of the body of the envelop, said thread having angularly arranged intersecting parts arranged adjacent to the inner faces of the end flaps of the envelop, said angular portions adjacent the body, and the angular portions of the thread adjacent the end flaps merging upon the exterior of the fold of one of the end flaps and forming a pair of loops to be pulled in one direction, one of the angular portions adjacent the other end flap, and one of the angular portions adjacent the body of the envelop merging together and forming a single loop adjacent the exterior of the fold of the other end flap, said single loop designed to be pulled.

1,141,143. ROTARY POLISHING-BRUSH. ALBERT L. RADLEIN and GUSTAF SELANDER, Chicago, Ill. Filed June 17, 1914. Serial No. 845,534. (Cl. 51—1.)



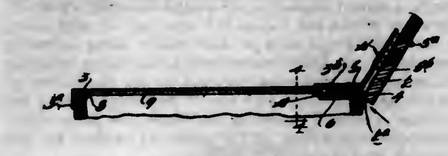
1. A rotary polishing brush comprising, a central hub member, a cluster of woven fabric disks associated with said hub member, and a series of holding studs carried by said hub member with a plurality of said holding studs passing through eccentrically located orifices in each disk of the cluster, substantially as set forth.

2. A carrying hub for rotary polishing brushes of the class described, the same comprising a pair of hub sections associated in spaced relation, a cluster of intermediate studs secured at one end to one of said hub sections and passing loosely through orifices formed therefor in the other hub section, and a laterally extending sleeve associated with the last mentioned hub section and adapted to house the laterally projecting ends of the aforesaid studs, substantially as set forth.

1,141,144. DISPLAY-COVER FOR BOXES. PAUL RAPAPORT, New York, N. Y. Filed Mar. 30, 1914. Serial No. 828,121. (Cl. 217—58.)

1. A display cover comprising a frame adapted to fit over a box, a protecting sheet, a support for the sheet at one side of the frame, a gripping member for the sheet

pivotally carried by the frame at another side of the frame and supporting the adjacent portion of said sheet, and one or more arms connected with said frame and secured to said gripping member and adapted for connection with the box lid.



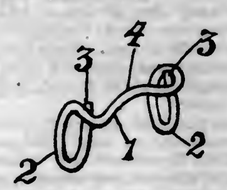
2. A display cover comprising a frame adapted to fit over a box, a protecting sheet, a support for the sheet at one side of the frame, a gripping member for the sheet pivotally carried at another side of the frame, and one or more arms connected with said frame for engagement with the box lid, and a spring coacting with said gripping member and frame to clamp said member against said protecting sheet.

3. A display cover comprising a frame adapted to fit over a box and provided with a ledge along one side, a transparent sheet having one edge supported by said ledge, a gripping member pivotally carried by said frame to engage along an edge of said glass sheet to retain the latter removably within the frame, means to maintain said gripping member pressed toward said glass sheet, and means connected with said frame to coact with the box lid to retain the latter in an opened position.

4. A display cover comprising a frame adapted to fit over a box, a protecting sheet, a support for the sheet at one side of the frame, a gripping member for the sheet at another side of the frame, means pivotally supporting said member upon said frame, and one or more arms connected with said pivotal member and having means to receive the box lid.

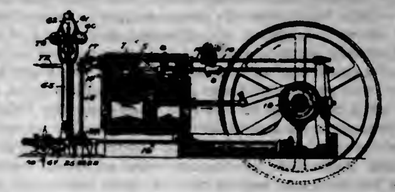
5. A display cover comprising a frame adapted to fit over a box, a protecting sheet, a support for the sheet at one side of the frame, a gripping member for the sheet at another side of the frame, a rod pivoted upon said frame, said member being secured to said rod, said rod being provided with means to receive the lid of the box, and a spring coacting with said frame and member for normally causing said member to engage said sheet.

1,141,145. CLIP. FRED S. RICKERD, Detroit, Mich., assignor to Detroit Wire Spring Company, Detroit, Mich., a Corporation of Michigan. Filed June 24, 1910. Serial No. 568,748. (Cl. 5—29.)



The combination with a pair of contiguous rods having divergent end portions, of a clip for securing them together comprising a round metal bar bent near its ends to form arms that lie in substantially parallel planes transverse to the general plane of the intermediate connecting portion, the arms being folded on themselves to form eyelets each embracing the contiguous rods between the divergent end portions, the extremities of the arms overlapping the loops of the eyelets at the bends between the loops and the intermediate connecting portion and abutting the concave sides of the bends, the connecting portion of the clip bar between the eyelets being curved inwardly between the eyelets to a point beyond the line connecting the extremities of the arms and coöperating with the inclosed portions of the rods to form a lock for retaining the overlapping extremities from movement toward each other.

1,141,146. AUTOMATIC CONTROL OF CUT-OFF VALVES. WILLIAM F. ROACH, Frostburg, Md. Filed Nov. 6, 1912. Serial No. 729,848. (Cl. 121—112.)



1. Governor mechanism for steam-engines of the type having slide valves provided with adjustable cut-off blocks, supplying power to an energy-storing system, comprising oppositely rotatable mechanism for causing said blocks to approach or recede, actuating means for said mechanism, and a relay device under the combined control of a speed governor and the energy of the system to control said actuating means.

2. Governor mechanism for steam engines of the type having slide valves provided with adjustable cut-off blocks, comprising actuating mechanism for causing said blocks to approach or recede, a relay device for connecting said actuating mechanism to move the blocks in either direction to thereby change the point of cut-off, and pressure-controlled means and speed-controlled means acting independently to effect the operation of said relay device.

3. Governor mechanism for steam engines of the type having slide valves provided with adjustable cut-off blocks, comprising oppositely rotatable mechanism for causing said blocks to approach or recede, actuating means for said mechanism, coupling mechanism for connecting said actuating means to said rotatable mechanism to cause rotation in either direction, and a relay device under the combined control of fluid-pressure and a speed governor to control said coupling mechanism.

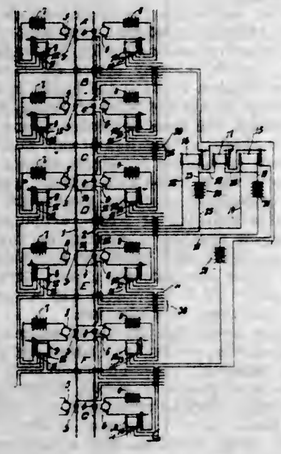
4. Governor mechanism for steam engines of the type having slide valves provided with adjustable cut-off blocks, comprising oppositely rotatable mechanism for causing said blocks to approach or recede, actuating means for said mechanism, coupling mechanism for connecting said actuating means to said rotatable mechanism, to cause rotation in either direction, and a fluid-operated relay device under the combined control of fluid-pressure and a speed governor to control said coupling mechanism.

1,141,147. RAILWAY SIGNAL APPARATUS. CHRISTIAN F. RUMOLD, Berea, Ky. Filed Aug. 12, 1913. Serial No. 784,392. (Cl. 246—30.)

1. In railway signal apparatus, the combination with rails of a track substantially electrically insulated from each other, and respectively divided into sections longitudinally of the rails, said sections being insulated from each other, thereby forming blocks, of motor apparatus for each block, electro-magnetic means for controlling the motor apparatus by energization and deënergization of the means, three separate electro-magnetic means controlling current supply to the aforesaid means, one of these three means being in a circuit including one rail of one of the blocks substantially from one end of the block to the other, and another of these means being likewise in a circuit with the other rail of said block, and the third one of these means being in a circuit depending for completion upon electrical connection of the one rail to the other rail of said block, the first and second ones of these means being normally energized but the third one of these means being normally deënergized, and becoming energized on the connection of said two rails together, any one of these three means being alone capable of affecting the motor-apparatus-controlling means, and a source of current for the respective electro-magnetic means.

2. In railway signal apparatus, the combination with rails of a track substantially electrically insulated from each other, and respectively divided into sections longitu-

dinally of the rails, said sections being insulated from each other, thereby forming blocks, of motor apparatus for each block, electro-magnetic means for controlling the motor apparatus by energization and deënergization of the means, three separate electro-magnetic means controlling current supply to the aforesaid means, one of these three means being in a circuit including one rail of one of the blocks substantially from one end of the block to the other, and another of these means being likewise in a circuit with the other rail of said block, and the third one of these means being in circuit depending for completion upon electrical connection of the one rail to the other rail of said block, this last means being of lower resistance than the first and second ones of these means and being normally deënergized while the first and second of these means are normally energized, and, upon connection of said two rails together, current being shunted from said first and second means to this last means of lower resistance and thereby energizing it, any one of these three means being capable of affecting the motor-apparatus-controlling means, and a source of current for the respective electro-magnetic means.



3. In railway signal apparatus the combination with rails of a track substantially electrically insulated from each other, and respectively divided into sections longitudinally of the rails, said sections being insulated from each other, thereby forming blocks, of motor apparatus for each block, electro-magnetic means for controlling the motor apparatus by energization and deënergization of the means, a set of three separate electro-magnetic means to each block controlling current supply to the aforesaid means of some other block, one of these three means being in a circuit including one rail of one of the blocks substantially from one end of the block to the other, and another of these means being likewise in a circuit with the other rail of said block, and the third one of these means being in a circuit depending for completion upon electrical connection of the one rail to the other rail of said block, the first and second ones of these means being normally energized but the third one of these means being normally deënergized and becoming energized on the connection of said two rails together, any one of these three means being alone capable of affecting the respective motor-apparatus-controlling means, and a source of current for the respective electro-magnetic means.

4. In railway signal apparatus, the combination with rails of a track substantially electrically insulated from each other, and respectively divided into sections longitudinally of the rails, said sections being insulated from each other, thereby forming blocks, of motor apparatus for each block, electro-magnetic means for controlling the motor apparatus by energization or deënergization of the means, a set of three separate electro-magnetic means to each block, controlling current supply to the aforesaid means of an adjacent block, one of these three means being in a circuit including one rail of one of the blocks substantially from one end of the block to the other, and another of these means being likewise in a circuit with the other rail of said block, and the third one of these means being in a circuit depending for completion upon electrical connection of the one rail to the other rail of said block, the first and second ones of these means being normally energized, but the third one of these means being normally deënergized and becoming energized on the connection of said two rails together, any one of these three means being alone capable of affecting the respective motor-apparatus-controlling means, and a source of current for the respective electro-magnetic means.

5. In railway signal apparatus, the combination with rails of a track substantially electrically insulated from each other, and respectively divided into sections longitudinally of the rails, said sections being insulated from each other, thereby forming blocks, of motor apparatus for each block, electro-magnetic means for controlling the motor apparatus by energization and deënergization of the means, three separate electro-magnetic means to each block controlling current supply to the aforesaid means of two next adjacent blocks, one of these three means being in circuit including one rail of the block substantially from one end of the block to the other, and another of these means being likewise in a circuit with the other rail of said block, and the third one of these means being in a circuit depending for completion upon electrical connection of the one rail to the other rail of said block, the first and second ones of these means being normally energized but the third one of these means being normally deënergized and becoming energized on the connection of said two rails together, any one of these three means being alone capable of affecting the respective motor-apparatus-controlling means, and a source of current for the respective electro-magnetic means.

[Claims 6 to 11 not printed in the Gazette.]

1,141,148. LEUCO COMPOUNDS AND PROCESS OF MAKING SAME. ALBRECHT SCHMIDT and ADOLF STEINDORFF, Höchst-on-the-Main, Germany, assignors to Farbwerke vorm. Meister Lucius & Brüning, Höchst-on-the-Main, Germany. Filed Dec. 6, 1911. Serial No. 664,182. (Cl. 8—6.)

1. The herein-described process of making stable concentrated preparations of leuco compounds and their alkali salts of the dyestuffs of the "hydron-blue" series, which consists in incorporating with said leuco compounds bodies which do not readily dry up and are soluble in water.

2. The herein-described process of making stable concentrated preparations of leuco compounds and their alkali salts of the dyestuffs of the "hydron-blue" series, which consists in incorporating with said leuco compounds organic reducing agents which do not readily dry up and are soluble in water.

3. The herein-described process of making stable concentrated preparations of leuco compounds and their alkali salts of the dyestuffs of the "hydron-blue" series, which consists in incorporating with said leuco compounds water-soluble carbohydrates.

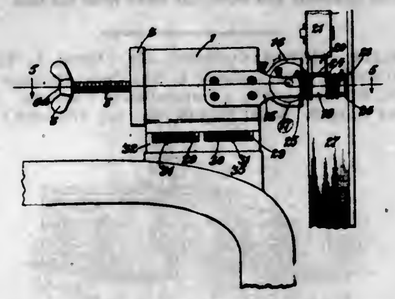
4. The herein-described process of making stable concentrated preparations of leuco-compound alkali salts of the dyestuffs of the "hydron-blue" series, which consists in heating the dyestuff with glucose and alkali hydrates.

5. The herein-described process of making stable concentrated preparations of leuco-compound alkali salts of the dyestuffs of the "hydron-blue" series, which consists in heating the dyestuff with glucose and alkali-hydrates, and evaporating to dryness.

[Claim 6 not printed in the Gazette.]

1,141,149. OILER FOR ELEVATOR GUIDE-RODS. WALTER A. SHEARWOOD, Webster Groves, Mo. Filed Dec. 7, 1914. Serial No. 875,869. (Cl. 184—23.)

1. A device of the character described comprising a receptacle, ports therein, members projecting therefrom, movable arms disposed upon said members, housings carried by said arms, rollers mounted in said housings, channels in said arms and members communicating with said ports, and means for forcing a lubricant from said receptacle through said ports and channels.



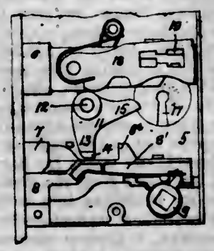
2. A device of the character described comprising a receptacle, ports therein, members projecting therefrom, movable arms disposed upon said members, housings carried by said arms, rollers mounted in said housings, channels in said arms and members communicating with said ports, and automatic means for forcing a lubricant from said receptacle through said ports and channels.

3. A device of the character described comprising a receptacle, ports therein, members projecting therefrom, movable arms disposed upon said members, housings carried by said arms, rollers mounted in said housings, channels in said arms and members communicating with said ports, means for retaining said arms in yielding contact with the guide-rods of an elevator, and means for forcing a lubricant from said receptacle through said ports and channels.

4. A device of the character described comprising a receptacle, ports therein, a roller mounted adjacent to an extremity thereof, members projecting from said receptacle on either side of said roller, movable arms disposed upon said members, housings carried by said arms, rollers mounted in said housings, channels in said arms and members communicating with certain of said ports, and means for forcing a lubricant from said receptacle through said port and channels.

5. A device of the character described comprising a support, a receptacle slidably connected therewith, springs adapted to yieldingly resist the movement of said receptacle relative to said support, ports in said receptacle, members projecting therefrom, movable arms disposed upon said members, housings carried by said arms, rollers mounted in said housings, channels in said arms and members communicating with said ports, and means for forcing a lubricant from said receptacle through said ports and channels.

1,141,150. LOCK. WILLIAM E. SPARKS, New Haven, Conn., assignor to Sargent & Company, New Haven, Conn., a Corporation of Connecticut. Filed May 1, 1914. Serial No. 835,708. (Cl. 70—74.)



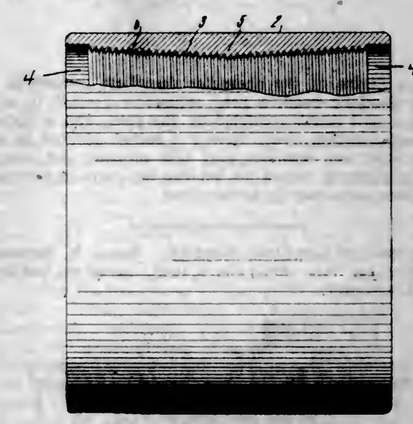
1. In a lock, a key-bolt, a key to retract said bolt, and a pair of thumb-bolts retractable by said key prior to the retraction of the key-bolt, but on the same rotation of the key; substantially as described.

2. In a lock, a key bolt, a thumb bolt, a key for operating the key bolt, and a lever actuated by said key to retract the thumb bolt, prior to the retraction of the key bolt by said key; substantially as described.

3. In a lock, a pair of thumb turn bolts, and a common retracting lever therefor operated by direct engagement with a key; substantially as described.

4. In a lock, a key bolt, a key to operate the same, a pair of thumb turn bolts, a retracting lever common to both of said thumb turn bolts, and a part on said retracting lever extending into the path of rotation of the key for said key bolt at such a point that either, or both, of the thumb bolts is retracted by the key prior to the key bolt; substantially as described.

1,141,151. PIPE-COUPLING. FRANK N. SPELLER, Pittsburgh, Pa., assignor to National Tube Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed June 6, 1914. Serial No. 843,332. (Cl. 137—28.)



1. A pipe coupling formed of metal, having internal screw threads, and having a coating of softer metal on said threads, the coating metal increasing in thickness from the middle of its length toward the ends of the coupling.

2. A pipe coupling formed of rolled steel, having internal screw threads, and having a coating of spelter on said threads, the spelter coating increasing in thickness from the middle of the length toward the ends of the coupling.

1,141,152. PORTABLE SUPPORT FOR ELECTRIC LAMPS. OLIVER E. STAHL, Pittsburgh, Pa. Filed July 28, 1914. Serial No. 853,612. (Cl. 248—20.)

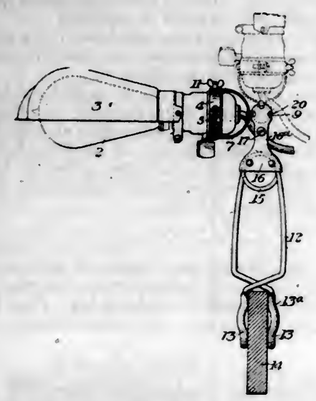
1. A device of the character described, comprising a lamp engaging clamp, and a support engaging clamp, said clamps having a ball and socket connection, and the members of said connection having interengaging means for holding the parts in different relative adjustments, substantially as described.

2. A device of the character described, comprising a lamp clamping band, a yoke adjustably pivoted thereto, and a support engaging clamp, the support engaging clamp and the yoke having a universally movable connection between them, substantially as described.

3. A device of the character described, comprising a lamp clamping band, a yoke adjustably pivoted to said band, a ball member carried by the yoke, and a spring support engaging clamp having a socket adapted to receive said ball member, substantially as described.

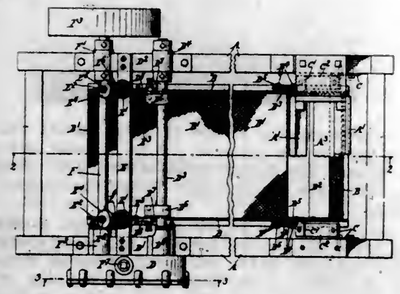
4. A device of the character described, comprising a lamp clamping band, a yoke adjustably pivoted to said band, a ball member carried by the yoke, and a spring

support engaging clamp having a socket adapted to receive said ball member, said socket consisting of two spring members adjustably secured to each other, substantially as described.



5. A device of the character described, comprising a lamp clamping band, a yoke adjustably pivoted to said band, a ball member carried by the yoke, and a spring support-engaging clamp having a socket adapted to receive said ball member, said ball member and socket having engaging means for holding the parts in different positions, substantially as described.

1,141,153. PULSATING SCREEN. EDGAR B. SYMONS, Milwaukee, Wis. Filed Feb. 7, 1913. Serial No. 746,695. (Cl. 83—56.)



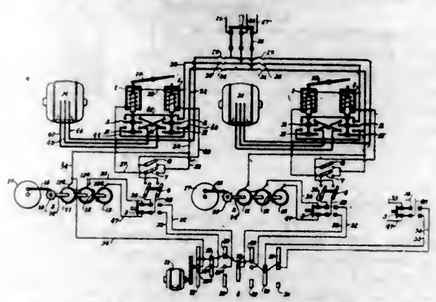
1. A screen comprising a perforated fabric, a frame to support the same, means for feeding the material to be screened onto one end of such fabric, means for confining the fabric during operation to planes parallel one to the other and means for moving it bodily swiftly upwardly and longitudinally away from the feed and slowly in the reverse direction.

2. A screen comprising a perforated fabric, a frame to support the same, means for feeding the material to be screened onto one end of such fabric, and means for moving it bodily swiftly upwardly and longitudinally away from the feed and slowly in the reverse direction, such motion equal at both ends.

3. A screen comprising a perforated fabric located in a substantially horizontal plane, a frame to support the same, means for feeding the material to be screened onto one end of such fabric and elastic supporting devices, one at each end of the fabric frame and both adapted to give a vertical and horizontal motion to the end of the frame with which it is associated.

4. A screen comprising a perforated fabric, a frame to support the same, means for feeding the material to be screened onto one end of such fabric, a spring support for each end of the fabric frame adapted to impart both vertical and horizontal motion to the end of the frame with which it is associated and means for moving the frame downwardly and rearwardly in the direction toward the feed and to release it so that said springs may move it swiftly upwardly and forwardly away from the feed.

1,141,154. MOTOR-CONTROLLER. LEWIS L. TATUM, Milwaukee, Wis., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed Jan. 8, 1913. Serial No. 740,760. (Cl. 172—239.)



1. In a controller for a plurality of electric motors, in combination, a plurality of reversing means, one for each motor, and automatic means for controlling said former means to effect operation thereof at different times.

2. In a controller for a plurality of electric motors, in combination, a plurality of reversing means, one for each motor and automatic means for controlling said former means to effect operation thereof successively to reverse the motors successively.

3. In a controller for electric motors, in combination, reversing means for a motor, a device effecting operation of said means periodically, a second device adapted to similarly control a plurality of said means, and means for operatively connecting said reversing means to either of said devices to be controlled thereby independently of the other.

4. In combination, a motor, reversing means therefor, a device operated by said motor to control said means to periodically reverse said motor, a second independently operated device adapted to similarly control a plurality of said reversing means, and means for operatively connecting said reversing means to either of said devices.

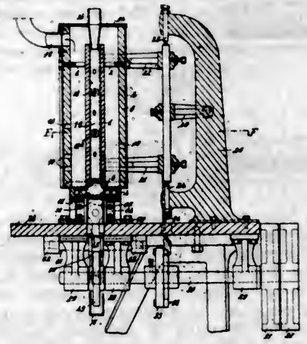
5. In a controller for electric motors, in combination, reversing means, an automatically operated device associated with said means to cause periodic reversals of the motor controlled thereby, manually controlled means associated with said former means to operate the motor in either direction at will and means for disconnecting first mentioned means from said device.

[Claims 6 to 12 not printed in the Gazette.]

1,141,155. APPARATUS FOR HARDENING VERY THIN METALLIC PLATES. GEORGES THUILLIER, Nogent en Bassigny, France, assignor to Gillette Safety Razor Company, Boston, Mass., a Corporation of Maine. Filed Mar. 25, 1908. Serial No. 423,248. (Cl. 148—36.)

1. Apparatus for hardening thin metallic plates comprising, in combination, a muffle, means for heating said muffle externally so that its temperature increases from one end to the other, means for advancing the plates one by one to the outlet end of the muffle so that they will be progressively heated, and means for hardening the plates immediately at their exit from the muffle.

2. Apparatus for hardening thin metallic plates, comprising, in combination, a vertical muffle, formed with an internal passage-way, a furnace surrounding the muffle, burners suitably distributed at the lower part of this furnace so that the bottom of the muffle will be directly heated and the upper part only by conduction and by the hot gases which rise in the furnace, means for advancing the plates in said passage-way so that they will be progressively heated, and means for hardening these plates immediately they leave the muffle.



3. Apparatus for hardening thin metallic plates, comprising, in combination, a muffle having an internal passage-way, means for heating said muffle so that its temperature increases from one of its ends to the other, a system of stops, means for moving said stops alternately so as to close and open the passage-way and let the plates descend progressively and means for hardening the plates immediately they fall from the muffle.

4. Apparatus for hardening thin metallic plates, comprising, in combination, a muffle, a furnace for heating the muffle externally in such manner that its temperature increases from one end to the other, said furnace being formed with a number of orifices, a system of stops passing through the orifices for permitting the plates to descend to the lower part of the muffle so that they will be progressively heated, nickel tubes surrounding the stops and preventing the flame from coming in contact with the plates being heated, and means for hardening the plates immediately they leave the muffle.

5. Apparatus for hardening thin metallic plates, comprising, in combination, a muffle formed with an internal passage-way, means for heating the muffle externally in such manner that its temperature increases from one end to the other, means for advancing the plates to the lower part of the muffle so that they will be progressively heated, a system of two plane cold metallic surfaces below the passage-way and means for bringing said surfaces together and moving them apart so as to press the plate immediately it leaves the muffle.

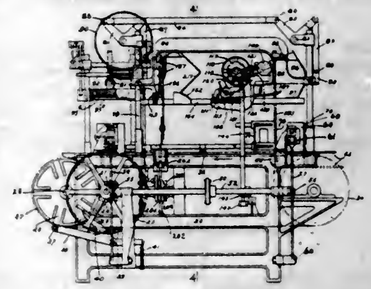
[Claims 6 to 25 not printed in the Gazette.]

1,141,156. CARTON-SEALING MACHINE. EDWARD G. TREMAINE, Newark, N. J., assignor to Automatic Weighing Machine Company, Newark, N. J., a Corporation of New York. Filed Jan. 15, 1913. Serial No. 742,095. (Cl. 93—6.)

1. The combination of a frame and a series of mechanisms held thereby for operating on carton tops; a carrier operating horizontally under said mechanisms, coöperating therewith, and adapted to convey cartons to them in succession; and means to fix the frame at various elevations above the carrier; with extensible power transmitting rods connecting the mechanism of the carrier with that of said frame.

2. The combination of two frames one over the other; means to vary their distances apart; a carrier for cartons on the lower frame; a series of mechanisms on the upper frame operating on the tops of such cartons; and side rails fixed on the upper frame at variable distances apart, beside the path of cartons, whereby the tops of the moving cartons are closely confined laterally.

3. The combination of two frames one over the other; means to vary their distances apart; a carrier for cartons on the lower frame; a series of mechanisms on the upper frame operating on the tops of such cartons; and fixed side rails, variable in position on the upper frame, beside the path of cartons, whereby the tops of the moving cartons are closely confined laterally, and means whereby the height of an individual carrier may be varied to approximate in elevation the various positions of the mechanisms on the upper frame, whereby the tops of the cartons are propelled through said mechanisms by force applied substantially horizontally.

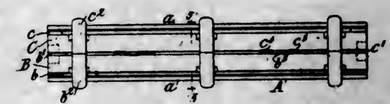


4. The combination of mechanisms for operating on cartons; a carrier coöperating therewith; separate frames supporting respectively said mechanisms and said carrier; guides on the one frame projecting perpendicularly to the line of said carrier and engaging the other frame; and bell cranks pivoted at a fixed distance from the carrier; links connecting one arm of each bell crank with the frame supporting said mechanisms; and links joining together the remaining arms of the several bell cranks, whereby all work in unison to vary the distance of said frames apart.

5. The combination of mechanisms for operating on cartons; a carrier coöperating therewith; separate frames supporting respectively said mechanisms and said carrier; bell cranks pivoted at a fixed distance from the carrier; links connecting one arm of each bell crank with the frame supporting said mechanisms; links joining together the remaining arms of the several bell cranks, whereby all work in unison to vary the distance of said frames apart; and irreversible gearing controlling the turning of the bell cranks.

[Claims 6 to 24 not printed in the Gazette.]

1,141,157. TEMPORARY BINDER. CLARENCE D. TRUSSELL, Poughkeepsie, N. Y. Filed June 10, 1914. Serial No. 844,147. (Cl. 129—24.)



1. In a temporary binder, a back plate, a pair of oppositely disposed prong carrying plates mounted thereon and extending substantially the length thereof, a plurality of prongs or half rings carried by each of said prong carrying plates and attached thereto at or near the rear edges of said plates, each of said prongs being solid and of substantially oval form in cross section.

2. In a temporary binder, a pair of prong carrying plates having their inner edges adjacent one another and solid prongs formed integral with each of said plates but of greater thickness, and substantially oval in cross section, and each of said prongs attached to its respective plate at or near the rear edge thereof.

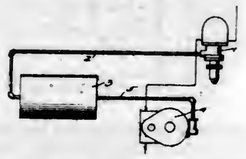
3. In a temporary binder, a pair of sheet metal prong carrying plates and solid prongs formed integral with each of said plates but of greater thickness and substantially oval in cross section, and each of said prongs attached to its respective plate at or near the rear edge thereof.

4. In a temporary binder, a spring plate and oppositely disposed prong carrying plates, each of said prong carrying plates extending substantially the length of said spring plate and having a plurality of separated bearing contacts with said spring plate.

5. In a temporary binder, a spring plate and oppositely disposed prong carrying plates, each of said prong carrying plates having a plurality of separated bearing contacts with said spring plate and said prong carrying plates being reduced in thickness at said contacts.

[Claims 6 to 27 not printed in the Gazette.]

1,141,158. BLOW-OUT DEVICE FOR ELECTRIC-PUMP GOVERNORS. WALTER V. TURNER, Edgewood, Pa., assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Continuation in part of application Serial No. 463,605, filed Nov. 20, 1908. This application filed Jan. 24, 1910. Serial No. 539,664. (Cl. 175—308.)



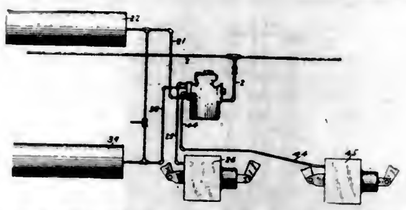
1. The combination with a pressure governor for pumps comprising an electric switch, an actuating piston therefor, and means for controlling the fluid pressure on said piston, of a blow-out valve device for controlling the supply of fluid to said switch, a spring acting on one side of said valve device and tending to hold the same closed, means for supplying fluid to the opposite side of said valve device upon movement of the switch from the closed position to open said valve device, and means for supplying fluid to the spring side of said valve device in the cut out position of the switch to close said valve device.

2. The combination with a pressure governor for pumps comprising an electric switch device, an actuating piston therefor, and means for controlling the fluid pressure on said actuating piston, of a blow-out valve device for controlling communication for supplying air to said switch device, a spring tending to maintain said communication closed, means for supplying fluid to the opposite side of said valve device in the act of separating the switch contacts to open communication for supplying fluid to said switch device, said switch piston being adapted in its outward movement to supply air to the spring side of said blow-out valve device to thereby permit the spring to actuate said valve device and close said blow-out communication.

3. The combination with a pressure governor for pumps comprising an electric switch device, an actuating piston therefor, and means for controlling the fluid pressure on said actuating piston, of a blow-out valve device operated by the flow of air to the actuating piston for supplying air to said switch device, means controlled by the movement of said actuating piston to its cut out position for supplying fluid to the opposite side of said blow out valve device, and a spring for operating said valve device to cut off the supply of air to said switch device.

4. The combination with a pressure governor for pumps comprising an electric switch, an actuating piston therefor, and means for controlling the fluid pressure on said actuating piston, of a blow-out valve device for controlling the supply of fluid to said switch, a spring acting on one side of said valve device and tending to hold the same closed, means for admitting fluid which actuates the switch piston to the opposite side of said valve device, to thereby effect the opening of said valve device, and means operating upon movement of the switch piston to the cut-out position for admitting fluid to the spring side of said valve device to equalize the fluid pressures on opposite sides thereof and thereby permit the spring to close the same.

1,141,159. CONTROL-VALVE DEVICE FOR FLUID-PRESSURE BRAKES. WALTER V. TURNER, Edgewood, Pa., assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Mar. 14, 1910. Serial No. 549,229. (Cl. 188—1.)



1. In a fluid pressure brake, the combination with a train brake pipe, an application chamber, means operated according to variations in brake pipe pressure for controlling the pressure in said chamber, and valve means governed by the pressure in the application chamber for controlling the supply of fluid to a service brake cylinder area, of means operating in emergency applications to supply fluid to an emergency brake cylinder area.

2. In a fluid pressure brake, the combination with a train brake pipe, a chamber, and means governed by variations in brake pipe pressure for controlling the supply of fluid to said chamber, of a valve mechanism governod by the pressure in said chamber for controlling the supply of fluid to a service brake cylinder area, and means operating under a sudden reduction in brake pipe pressure for supplying fluid to an emergency brake cylinder area.

3. In a fluid pressure brake, the combination with a train brake pipe, of an application chamber, a valve mechanism operated by the pressure in said chamber for supplying fluid to one brake cylinder area, an automatic valve device subject to variations in train pipe pressure for controlling the pressure in the application chamber, and means controlled by said automatic valve device for supplying fluid to a larger brake cylinder area upon a sudden reduction in train pipe pressure.

4. In a fluid pressure brake, the combination with a train brake pipe, a service brake cylinder, an emergency brake cylinder, a chamber, and means governed by the pressure in said chamber for controlling the supply of fluid to the service brake cylinder, of valve mechanism operated by variations in train pipe pressure for controlling the supply of fluid to said chamber, and means operating in emergency applications for supplying fluid to both brake cylinders.

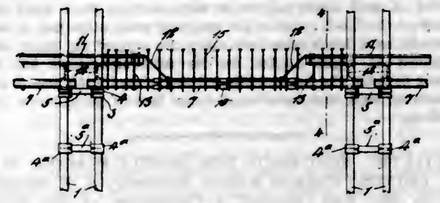
5. In a fluid pressure brake, the combination with a train pipe and a service brake cylinder, of an application chamber, a valve mechanism operated by varying the pressure in said chamber for supplying fluid to the service brake cylinder, an emergency brake cylinder, an automatic valve device operating upon a gradual reduction in train pipe pressure for varying the pressure in the application chamber and means operated by the automatic valve device upon a sudden reduction in train pipe pressure for supplying fluid to the emergency brake cylinder.

[Claims 6 to 45 not printed in the Gazette.]

1,141,160. REINFORCED-CONCRETE BUILDING CONSTRUCTION. GUY B. WAITE, New York, N. Y. Filed Aug. 17, 1911. Serial No. 644,685. (Cl. 72—15.)

1. A reinforced concrete construction comprising a skeleton column frame made up of light, unfabricated angle irons, clamps for securing said angle irons together at their ends, anchoring clamps secured about said irons at the ceiling height, floor beam supporting clamps secured to said irons above the anchoring clamps, column braces connecting together said floor beam supporting clamps, a floor beam projecting into said columns, shear bars carried by said floor beams, and concrete embedding the column frame, floor beams and shear bars.

2. A reinforced concrete structure comprising a series of columns of light skeleton steel construction formed of a plurality of angle irons vertically arranged and abutting together at their ends, frictional clamping means extending around the ends of said irons, friction floor-anchoring clamps secured to said column irons at any suitable points, supporting bars connected to said clamps, floor beams supported by said bars and extending into the columns, reinforcing beams extending through the columns above the floor beams and slightly below the upper surface of the finished floor, and a mass of concrete embedding the columns, floor beams and reinforcing beams.



3. A reinforced concrete structure comprising a series of skeleton columns, each of said columns being made up of light iron members vertically arranged and placed end to end, frictional clamps extending around said column irons and clamping them together, anchoring clamps extending around the column irons, floor beam-supporting clamps extending around said irons and resting on the anchoring clamps, floor beam-supporting bars carried by these latter clamps, floor beams resting on said floor beam-supporting bars, and a mass of concrete embedding the columns and the floor beams.

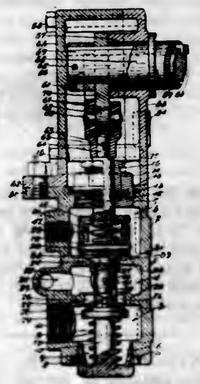
4. A reinforced concrete structure comprising a series of skeleton columns, each of said columns being made up of light angle irons vertically arranged and abutting together at their ends, frictional clamps extending around said column irons and clamping them together, floor beam-anchoring clamps extending around the column irons, floor beam-supporting clamps extending around said irons and resting on the anchoring clamps, floor beam-supporting bars carried by these latter clamps, floor beams resting on said floor beam supporting bars, reinforcing bars extending through the columns above the floor beams and projecting a suitable distance on opposite sides of the columns, shear bars extending from the floor beams upwardly to a point above the reinforcing beams, some of said shear bars embracing the reinforcing beam, and a mass of concrete embedding said column irons, floor beams, reinforcing beams and shear bars.

5. A reinforced concrete structure comprising a series of skeleton columns, each of said columns being made up of light iron members vertically arranged and placed end to end, frictional clamps extending around said column irons and securing them together, anchoring clamps secured to said irons, floor beams supporting clamps secured on said irons and resting on the anchoring clamps, floor beam supporting bars carried by these latter clamps, floor beams resting on said floor beam supporting bars and consisting of a pair of members arranged side by side in the same horizontal plane and separated from each other for a suitable distance, the ends of said floor beam members extending into the column structures and converging toward said ends, and a mass of concrete embedding the columns and floor beams.

[Claims 6 to 15 not printed in the Gazette.]

1,141,161. VALVE MECHANISM. JEAN F. WEBB, Jr., New York, N. Y., assignor to The International Signal Company, Incorporated, New York, N. Y. Filed Apr. 27, 1914. Serial No. 834,866. (Cl. 188—1.)

1. In a valve mechanism, a casing inclosing a plurality of chambers, a valve element controlling communication between said chambers, a valve stem including telescoping bodies projected into one chamber to engage said valve element, means continuously tending to unseat said valve element, and means coöperative with the stem for holding said valve element seated, said last named means including a cam shaft and an operative connection between said stem and said cam shaft.



2. In a valve mechanism, a casing inclosing a plurality of chambers, a valve element controlling communication between said chambers, a valve stem projected into one chamber to engage said valve element, means continuously tending to unseat said valve element, and means cooperative with the stem for holding said valve element seated, said stem including a yieldable body that operatively engages said valve element.

3. In a valve mechanism, a casing inclosing a plurality of chambers, a valve element controlling communication between said chambers, a valve stem projected into one chamber to engage said valve element, means continuously tending to unseat said valve element, and means cooperative with the stem for holding said valve element seated, said stem including a cup, a second cup telescoping said stem cup, means limiting the telescopic movement between said cups, and a spring continuously tending to force said cups apart, said second cup being operatively engaged with said valve element.

4. In a valve mechanism, a casing inclosing a plurality of chambers, a valve element controlling communication between said chambers, a valve stem projected into one chamber to engage said valve element, means continuously tending to unseat said valve element, and means coöperative with the stem for holding said valve element seated, said stem including a cup, a second cup telescoping said stem cup, means limiting the telescopic movement between said cups, a spring continuously tending to force said cups apart, and a contact pin carried by said valve element and operatively engaging said second cup.

5. A valve mechanism including a casing, said casing inclosing a plurality of chambers, valved passages between said chambers, separable valve elements controlling said passages, means for coupling said valve elements together whereby when one passage is closed the other will be open and vice versa, means continuously tending to seat one of said valve elements, a stem adapted to engage the other of said valve elements, and means engaging said stem to hold said other valve element seated.

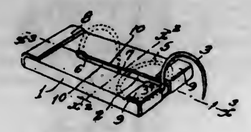
[Claims 6 to 18 not printed in the Gazette.]

1,141,162. DETACHABLE BUTTON AND SAFETY-PIN. FRANK E. WILLIAMS, Alhambra, Cal. Filed Oct. 27, 1910. Serial No. 589,463. (Cl. 24—162.)

1. The combination with a looped pin having a head and a point, of a body formed of a back and two wings; said wings being provided with recesses and folded over the back to form a slot, and said pin being arranged with its head between the wings and the back and adapted to slide in the slot to open and close the pin; and means forming a stop to resiliently engage the head.

2. A device of the class set forth comprising a looped pin having a head and a point, and a body composed of a

plate having a back, wings provided with recesses and bent over the back to cover the head and to form a slot for the pin, and tangs bent over the wings to hold them in place.



3. A device of the class set forth comprising a looped pin having a head and a point, and a body composed of a plate having a back, wings provided with recesses and bent over the back to cover the head and to form a slot for the pin and tangs bent over the wings to hold them in place, said recesses being bent to form resilient means to prevent too free movement of the pin.

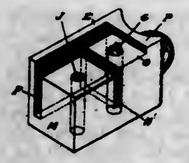
1,141,163. VENTILATING-SCREEN. HOMER S. WILSON, Richmond, Va., assignor of one-half to Henry P. Rea, Bellevue, Ky. Filed May 7, 1914. Serial No. 837,048. (Cl. 98—31.)



1. A ventilator comprising a frame, an aperture provided in said frame above its vertical center, a screen provided in said aperture, and a hood, the lower portion of which is curved to form substantially a segment of a circle, having its center on a line at approximately the vertical center of the lower closed portion of the frame, and the upper portion of the hood extending on a line tangential to said circle, and connected to the frame above the screen, the ends of said hood being closed, and an inlet opening being provided in the bottom of said hood.

2. A ventilator comprising a frame, a movable part adjustably secured thereto, an aperture provided in the frame above its vertical center, a screen provided in said aperture, and a hood, the lower portion of which is curved to form substantially a segment of a circle having its center on a line, at approximately the vertical center of the lower closed portion of the frame, and the upper portion of the hood extending on a line, tangential to said circle and connected to the frame above the screen, the ends of said hood being closed and an inlet opening being provided in the bottom of said hood.

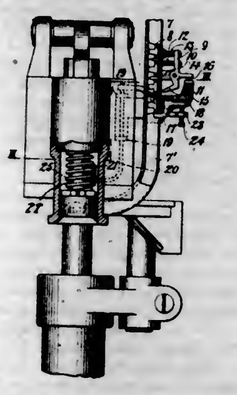
1,141,164. IRON BEDSTEAD. WILLIAM P. WINNE, Albany, N. Y., assignor to Henry M. Sage, Menands, N. Y. Filed Aug. 12, 1914. Serial No. 856,468. (Cl. 5—55.)



1. A corner block for iron bedsteads provided with a groove adapted to receive one side of an angle bar; a cutaway portion adapted to support the other side of said angle bar; a bolt adapted to pass through the angle bar and through the block, said block also provided with a groove at right angles to the first mentioned groove for receiving one side of an angle bar placed at right angles to the first mentioned angle bar, the block cut away to permit of the other side of said last mentioned angle bar resting beneath the first mentioned angle bar when in position in the block.

2. In an iron bedstead, a corner block provided with a groove adapted to receive one side of one of the angle bars, said blocks cut away at the top to permit the upper portion of said angle bar to be substantially flush with the top of the block; means for securing said angle bar to the block, said block also cut away to permit an angle bar placed at right angles to the first mentioned bar to rest beneath the first mentioned angle bar; with means for holding said last mentioned angle bar in position in the block.

1,141,165. SEAL-FEED FOR BOTTLE-SEALING MACHINES. CHARLES WINTER, Woodbury, N. J., assignor to Star Seal Company, a Corporation of New York. Filed Feb. 21, 1910. Serial No. 544,988. (Cl. 113—114.)



1. In apparatus for automatically feeding seals to bottle seal applying machines, the combination of a sealing head, a movable seal holder therein, a seal runway having one portion stationary and the other portion movable with the sealing head, means operated by the movable seal holder for releasing a single seal from the movable portion of the runway, and means operated by the movement of the sealing head for releasing a single seal from the stationary portion of the runway.

2. In apparatus for automatically feeding seals to bottle seal applying machines, the combination of a sealing head, a movable seal holder therein, a seal runway having one portion stationary and the other portion movable with the sealing head, means operated by the movable seal holder for releasing a single seal from the movable portion of the runway on the down stroke of the sealing head, and means operated by the movement of the sealing head for releasing a single seal from the stationary portion of the runway on the up stroke of the sealing head.

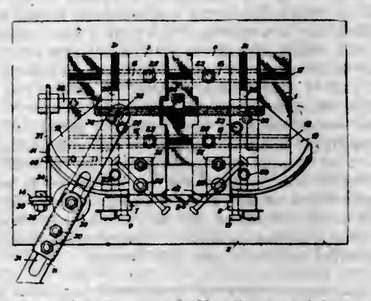
3. In bottle seal applying machines, the combination of a reciprocating sealing head, a seal holder disposed therein to reciprocate therewith and to be movable relative thereto during a sealing operation, a seal runway, means operatively connected to the head for releasing a seal in said runway on the upward movement of the head, a stop operating in the runway to support the released seal, and means carried by said head and operatively connected to the seal holder to be operated upon the relative movement of the seal holder and head for moving the stop to release the seal.

4. In bottle seal applying machines, the combination of reciprocating sealing mechanism comprising parts having relative motion during a sealing operation, a stationary runway, a runway secured to reciprocate with one of the said sealing mechanism parts to bring it to and from the said stationary runway, mechanism in operable connection with another of said sealing mechanism parts to be operated by the said relative movement of said parts to effect a feeding of one seal to the sealing mechanism for each sealing operation, and means operated by the upward stroke of said sealing mechanism for feeding a seal from said stationary runway to said reciprocating runway.

5. In bottle seal applying machines, the combination of reciprocating sealing mechanism comprising parts having relative motion during a sealing operation, a stationary runway, a runway secured to reciprocate with one of the said sealing mechanism parts to bring it to and from the said stationary runway, mechanism in operable connection with the other of said sealing mechanism parts to be operated by the said relative movement of said parts to effect a feeding of one seal to the sealing mechanism for each sealing operation, a pair of stops one above the other operating within said stationary runway, and an arm moving upwardly with the upward stroke of said sealing mechanism to operate said stops to engage them intermittently with adjacent seals to permit the lowermost seal to escape to the lower runway and the column of seals to advance until the next seal is engaged by the lower stop.

[Claims 6 to 8 not printed in the Gazette.]

1,141,166. COIL-FORMER FOR ARMATURES. JOHN A. WIRTH, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Jan. 26, 1910. Serial No. 540,210. (Cl. 153—46.)



1. A former for armature half coils comprising a clamp for the straight portion of the coil, a relatively stationary forming tool having a circumferentially curved edge surface, means for forming one end of the half-coil on said relatively stationary tool, and means for producing a relatively short bend in the half-coil at the end of the straight portion after the end of the coil is shaped on the curved surface of the forming tool, the axis of the said last-named bend being angularly disposed with respect to the axis of the said forming tool.

2. A former for armature half-coils comprising a clamp for the straight portion of the coil, a removable templet having a stepped notch adapted to be engaged by the ends of the conductors of an unformed half-coil held in the clamp, a relatively stationary forming tool having a circumferentially curved edge surface, means for forming one end of the half-coil on the tool, and means for producing a relatively short radius bend in the half-coil at the end of the straight portion after the end of the coil is shaped on the curved surface of the forming tool.

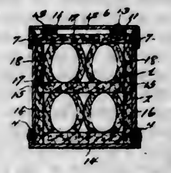
3. A former for armature half-coils comprising a clamp for the straight portion of the coil, a removable templet having a stepped notch adapted to be engaged by the ends of the conductors of an unformed half-coil held in the clamp, a relatively stationary forming tool having a circumferentially curved edge surface, means for forming one end of the half-coil on the tool, and a rotatable bending block for producing a relatively short radius bend in the half-coil at the end of the straight portion.

4. A forming device for armature half-coils comprising a supporting plate, a pair of clamping blocks adjustably supported thereon, relatively stationary forming tools having circumferentially curved edge surfaces and adjustably secured to the blocks, a single lever adapted to be pivoted at the center of curvature of either of the tools, a roll or wheel adjustably affixed to the lever, and bending tools rotatably mounted at the ends of the blocks, the clamping jaws of said blocks being substantially tangent to the curved surfaces of said relatively stationary forming tools.

5. A forming device for armature half-coils comprising an adjustable clamp for the straight portion of the coil that consists of two blocks having clamping jaws at corresponding ends, and means for adjusting the blocks toward and away from each other, forming tools having curved surfaces, adjustably supported by said blocks, and bending tools at the ends of the said blocks for producing bends in the half-coil at the ends of the straight portion after it is shaped on the forming tools.

[Claims 6 to 8 not printed in the Gazette.]

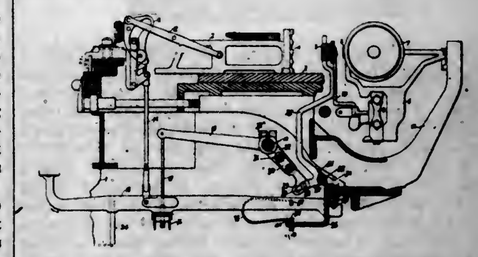
1,141,167. EGG-CRATE. WILLIAM WOLZ and JONATHAN V. PAXSON, Three Oaks, Mich. Filed Apr. 8, 1914. Serial No. 830,435. (Cl. 217—29.)



1. In combination with a shipping crate, a lining of padding adjacent its interior surface, tiers of egg holders arranged inside of said padding and provided with an intermediate padding, each holder comprising a strip of felt having its ends stitched together, said strip being elongated and having its ends curved so that when said ends are so stitched, the holder corresponds substantially to the shape of the egg.

2. In combination, tiers of egg holders, each holder comprising an elongated strip having its ends so curved that when the ends of said strips are connected together, the holder tapers toward each end to correspond with the shape of the egg, means for holding the ends of the strip together, and a padded crate for said holders.

1,141,168. TYPE-WRITING MACHINE. NILS H. ANDERSON, Middletown, Conn., assignor to The Noiseless Typewriter Company, Middletown, Conn., a Corporation of Connecticut. Filed Oct. 11, 1910. Serial No. 586,466. (Cl. 197—154.)



1. In a typewriter machine, in combination, a platen roller, a type action, a ribbon positioned in the path of travel of the type and normally exposing the printing point, pivotally mounted tensioning members, a spring normally holding the same in position to tension the ribbon.

and cam means coacting therewith whereby the tension of said ribbon is relieved when said type action has been partially actuated.

2. In a typewriting machine, in combination, a platen roller, a type action, a ribbon normally exposing the printing point, ribbon-tensioning members, a spring normally holding the same in position to tension said ribbon, a pin on said members, and cam means coacting with said pin to relieve the tension on said ribbon when the type action is actuated.

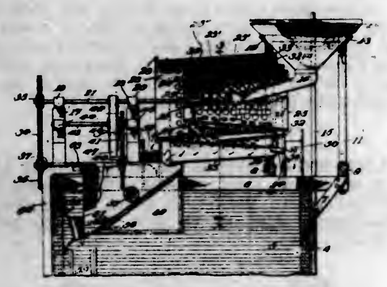
3. In a typewriting machine, in combination, a platen roller, a type action, a ribbon normally exposing the printing point, pivotally mounted ribbon tensioning members, a spring normally holding the same in position to tension said ribbon, a pin on said members, and an adjustable cam member having a cam slot adapted to coact with said pin to relieve the tension on said ribbon when the type action is actuated.

4. In a typewriting machine, in combination, a platen roller, a type action, a ribbon normally exposing the printing point, ribbon-tensioning members, a spring coacting with and normally holding the same in position to tension said ribbon, a pin on said members, and an adjustable cam member having a cam slot, said slot having a shoulder intermediate its ends adapted to coact with said pin to move said ribbon-tensioning members as said type action is actuated.

5. In a typewriting machine, in combination, a platen roller, a type action, a ribbon normally exposing the printing point, pivotally mounted ribbon-tensioning members, a spring normally holding the same in position to tension said ribbon, a pin on said members, and an adjustable cam member having a cam slot, said slot having a shoulder intermediate its ends adapted to coact with said pin to move said ribbon-tensioning members when said type action has been actuated a predetermined amount.

[Claims 6 to 30 not printed in the Gazette.]

1,141,169. GRAVEL SCREENING AND WASHING MACHINE. CHARLES P. BIESANZ, Winona, Minn., assignor to Biesanz Stone Company, Winona, Minn., a Corporation of Minnesota. Filed Jan. 21, 1915. Serial No. 3,508. (Cl. 83—56.)



1. In a screening machine, the combination with a framework, of a shaft mounted thereon, a collar on said shaft, a screen mounted on said collar, a skirt for said screen, a second screen carried by said first mentioned screen and said collar, a skirt for said second screen and a third screen carried by said second screen and its skirt.

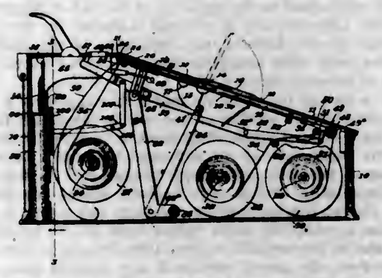
2. In a screening machine, the combination with a shaft, of a flanged collar thereon, an outwardly flaring screen mounted thereon, an imperforate skirting inclosing a portion of the inner end of the screen and supported by the collar, a second inwardly flaring screen mounted upon said first mentioned screen, a plurality of brackets between said second mentioned screen and said collar, an imperforate skirting mounted upon said second mentioned screen and inclosing a portion of the inner end thereof, a third outwardly flaring screen mounted upon said second mentioned screen and a plurality of brackets carried by said second mentioned skirting adapted to support said third screen.

3. In a screening machine, the combination with a shaft, of a collar mounted thereon, an outwardly flaring frusto-conical screen mounted upon said collar, a hopper provided with a spout adapted to discharge into the interior of said screen, a trough adapted to receive the material discharge from said screen, an inwardly flaring frusto-conical screen mounted upon said first mentioned screen, a plurality of brackets carried by said collar adapted to support said second mentioned screen, means adapted to receive material discharged from said screen, an outwardly flaring screen supported by said second mentioned screen, means adapted to receive the material discharged from said third mentioned screen and means adapted to receive material sifted by said third mentioned screen.

4. In a screening machine, the combination with a shaft provided with a collar, of an outwardly flaring frusto-conical screen mounted thereon, a second inwardly flaring frusto-conical screen mounted upon said first mentioned screen, a frusto-conical imperforate skirting carried by said first mentioned screen adapted to convey material sifted therethrough to said second mentioned screen, a plurality of brackets between said collar and said second mentioned screen, a third screen supported by said second mentioned screen, an imperforate frusto-conical skirting carried by said second mentioned screen adapted to feed material sifted therethrough to said third mentioned screen, a plurality of brackets between said skirting and said third mentioned screen adapted to support the same and means adapted to supply material to said screens.

5. In a screening machine, the combination with a framework, of a plurality of standards mounted thereon, a shaft carried by said standard, a flanged collar on said shaft, an outwardly flaring frusto-conical screen mounted on said collar, a hopper provided with a spout discharging into said screen, a frusto-conical imperforate skirting carried by said collar and adapted to inclose a portion of the inner end of said screen whereby to collect and convey material discharged therethrough, an inwardly flaring frusto-conical screen mounted upon said first mentioned screen, a plurality of brackets carried by said collar adapted to support said second mentioned screen, an inwardly flaring imperforate frusto-conical skirting supported by said second mentioned screen, a third screen mounted upon said second mentioned screen and said second mentioned skirting and independent means for conveying and storing material sifted by each of the said screens.

1,141,170. VENDING-MACHINE. HERMANN BOERNER, St. Louis, Mo., assignor to W. D. Mahaney, St. Louis, Mo. Filed July 19, 1913. Serial No. 780,051. (Cl. 11—36.)



1. In a machine of the class described, a casing having an opening, a plate below said opening, a closure for the opening, there being a second opening formed in said casing through which is adapted to issue a web of paper from the interior of the casing, a plate normally closing the last mentioned opening, means coöperating with and actuated by a closing movement of the closure for moving the paper across the first mentioned plate, and means coöperating with the paper feeding means and under control of the closure for moving the plate which normally closes the second mentioned opening to permit the discharge of a portion of the paper supply from the casing.

2. In a machine of the class described, a casing having an opening, a plate below said opening, a closure for the opening, there being a second opening in the casing through which a web of paper from the interior of the casing is adapted to discharge, means coöperating with and under control of the closure for effecting a feeding movement of the paper through said second opening, a toothed segment connected to the closure, and a detent, the point of which is adapted to engage the teeth of said segment, which toothed segment and detent coöperate to prevent reverse movement of the closure after the same has been partially opened or closed.

3. In a machine of the class described, a casing having an opening, a plate below said opening, a closure for the opening, there being a second opening in the casing through which a web of paper from the interior of the casing is adapted to discharge, gripping devices adapted to engage the edges of the paper and feed the same positively across the plate, means for moving the gripping members into position to engage the paper, and which gripping members are actuated by a closing movement of the closure to feed the paper across the plate and discharge the same through a second opening in the casing.

4. In a machine of the class described, a casing provided with an opening, a closure for said opening, a plate within the casing below the opening therein, which plate serves as a support for webs of paper contained within the housing, paper gripping devices, comprising pairs of oppositely arranged plates mounted for sliding movement on the sides of the plate and adapted to grip and feed a portion of the paper through the opening in the casing, means coöperating with the closure and actuated by the opening movement thereof for moving said gripping devices to the lower end of the plate, and which last mentioned means moves the gripping devices to the upper end of the plate upon a closing movement of said closure, means for causing said devices to grip the paper when moved to the lower end of the plate, and means for causing said gripping devices to release the paper when moved to the upper end of the plate.

5. In a machine of the class described, a casing having an opening, a plate below said opening, a closure for said opening, said plate serving as a support for webs of paper during their movement within the casing, a transfer sheet adapted to feed between the two webs of paper during their movement over the plate, gripping members adapted to engage the edges of the webs of paper and feed the same positively across the plate, one of which webs of paper discharges through a second opening in the casing, and means whereby a closing movement of the closure of the first mentioned opening effects a feeding movement of the paper gripping members to feed the paper across the plate.

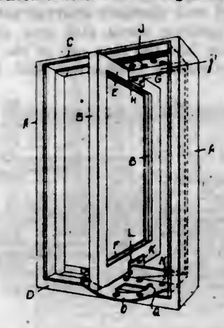
1,141,171. CASEMENT-HINGE. BENJAMIN JOSEPH BROWNJOHN, Sydney, New South Wales, Australia. Filed May 27, 1914. Serial No. 841,230. (Cl. 16—108.)

1. A lower hinge mounting for a middle hung casement sash, comprising a leaf attachable to the sash and a butt attachable to the sill, said butt forming a weather strip and rearward thereof below the sash rail a sloping water race and overlying the sash sill, a segmental plate, and fastening means on the sash for engaging said plate.

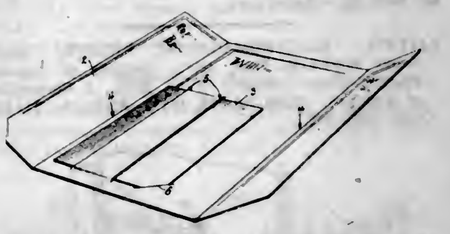
2. In a bottom hinge mounting for a middle hung casement sash, a hinge butt depressed below the upper plane of the sash sill, and water race rearward thereof.

3. A hinge mounting for a middle hung casement sash comprising a leaf and a butt, whereof the leaf is attachable to the face of the sash and the butt to the sash frame, said sash frame having cut away portions, said butt and leaf setting flush in the closed position tight up to the sash face so as to act as a weather strip covering portions of the sash cut away to provide swinging clearance over the rabbet stop of the frame.

4. A lower mounting hinge for a middle hung casement sash, comprising a leaf K, a butt M, and integral with said butt, a water race N and a segmental plate O overlying the sill and said plate provided with bolt holes adapted to receive a bolt carried by the sash, substantially as described.



1,141,172. FOLDED LETTER-CARD. HINMAN H. CLARK, Seattle, Wash. Filed Jan. 29, 1913. Serial No. 744,919. (Cl. 120—74.)

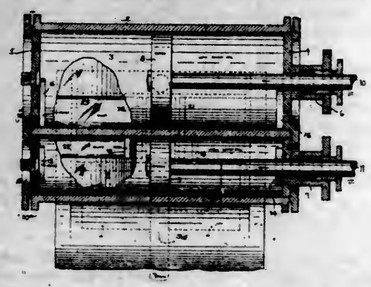


A folded letter card comprising a body portion of substantially rectangular form adapted on its outer side to receive the return address and postage stamp, said card including two folders, one extending from each longitudinal edge of the body portion, said folders being of a width substantially equal to one half of the body portion, said body portion having two parallel slits near one longitudinal edge and to one side of the center, an address card adapted to be projected through said slits to expose the address portion, said address card being of substantially lesser dimensions than that of said body portion and one edge of said address card being held in the fold between said body portion and one of said folders, said body portion having a diagonal slit to receive one of the corners of said address card opposite to the edge that is held in the fold, all being arranged substantially as shown and for the purposes described.

1,141,173. COMBINED COMPOUND ENGINE. JACOB COMBS, Fayette county, near Montgomery, W. Va. Filed Oct. 30, 1912. Serial No. 728,720. (Cl.121—35.)

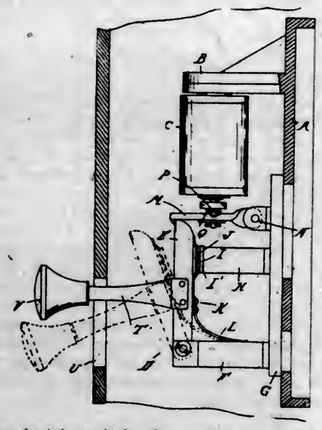
A balanced slide valve for compound engines having a housing containing high and low pressure cylinders, placed side by side and with their pistons rigidly connected; the body of said valve being in the shape of a rectangular prism, said housing having a chamber for said valve body, a central exhaust port from the chamber and steam admittance ports leading to each end of said chamber, a rear end steam passage and a front end steam passage for each cylinder, all of said passages opening into the extreme ends of their respective cylinders, and ports at the adjacent ends of the passages leading into said valve chamber, the two said passage-ports for the low pressure cylinder being closer together than the two ports for the high pressure cylinders; said valve

body having a cavity on one side always communicating with said exhaust port, and a live steam duct through its body with openings on the same side as said cavity but in front and rear thereof; whereby said body, when in its forward position opens said rear passage-port to admit fresh steam into the rear end of the high pressure cylinder, simultaneously connecting said front passage



port for the high pressure cylinder with said rear passage-port of the low pressure cylinder by way of said valve duct, in order to pass live steam from the front end of the high pressure cylinder to the rear end of the low pressure cylinder, said valve cavity simultaneously connecting said front passage-port of the low pressure cylinder with the exhaust port.

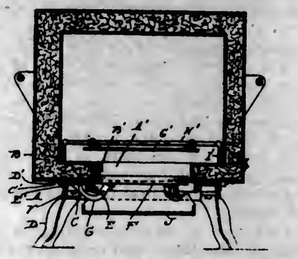
1,141,174. ELECTROMAGNETIC SWITCH. LLOYD GROFF COPEMAN, Flint, Mich., assignor to Copeman Electric Stove Company, Flint, Mich., a Corporation of Michigan. Filed July 28, 1911. Serial No. 641,004. (Cl. 175—282.)



In an electric switch, the combination with an insulator base, of a post projecting therefrom, a switch blade pivotally connected to said post, a resilient strip secured to said blade, a contact member upon said strip, a co-operating post against which said contact member is adapted to be pressed by said switch blade, a second resilient strip secured to said blade having a projecting portion in contact with the post projecting from said base, and a common securing means for both of said resilient strips.

1,141,175. ELECTRIC STOVE. LLOYD GROFF COPEMAN, Flint, Mich., assignor to Copeman Electric Stove Company, Flint, Mich., a Corporation of Michigan. Filed Apr. 18, 1913. Serial No. 762,061. (Cl. 219—35.)

1. In an electrical heating element, the combination with a base provided with an aperture, an electrical heating element arranged in said aperture and carried by the base, and a combined flanged drip-pan and shield detachably connected to the base and arranged beneath said heating element.



2. An electrical hot plate, comprising a base having an aperture therein, an electrical heating element arranged in the aperture, bearings upon the underside of the base, and a combined shield and drip-pan detachably carried by said bearings.

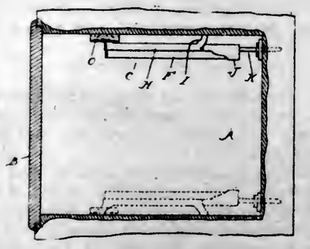
3. An electrical hot plate, comprising a base having an aperture therein, an electrical heating element arranged in said aperture and carried by the base, a switch mounted upon the base, electrical connections between the switch and the hot plate, and a shield intermediate the switch and hot plate for said electrical connectors.

4. The combination with an electrical hot plate including an electrical heating element, of an oven supported thereon and provided with an apertured portion arranged over the heating element, a rack positioned in the oven and spaced from the bottom thereof, and a deflector carried by the rack and extending across said opening.

5. The combination with a hot-plate, including a base and an electrical heating element supported upon said base and projecting above the plane of the top face thereof, of a closed oven detachably engaging said base having the bottom thereof provided with an aperture of a size to receive said hot-plate, and members projecting from the bottom face of the oven and engaging the skirting of the pan for positioning the oven upon the base to maintain the walls of the apertured portion out of contact with the hot-plate.

[Claims 6 and 7 not printed in the Gazette.]

1,141,176. ELECTRICALLY-HEATED OVEN. LLOYD GROFF COPEMAN, Flint, Mich., assignor to Copeman Electric Stove Company, Flint, Mich., a Corporation of Michigan. Filed Jan. 23, 1914. Serial No. 813,935. (Cl. 219—35.)



1. The combination with an oven casing of a reversible electrical heating unit, and means for mechanically and electrically engaging said unit respectively adjacent to the top and the bottom of said oven casing and in reverse positions.

2. The combination with an oven casing of an electrical heating unit in the form of a hot plate adapted to directly radiate the generated heat from one side only, said plate having an exposed naked resistor in one surface thereof, and means for mechanically and electrically connecting said hot plate in reverse positions adjacent respectively to the top and bottom of said oven casing.

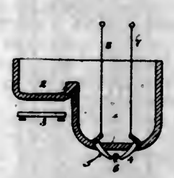
3. The combination with an oven casing of a detachable electrical heating unit comprising an insulator supporting plate, a resistor mounted thereon, legs projecting from said plate on the opposite side from said resistor, and means for reversibly, mechanically and electrically engaging said unit with its legs bearing respectively upon the bottom and against the top of the oven casing to form a heat-insulating air space between said unit and oven casing in each position.

4. The combination with an oven casing, of an electrical heating unit provided with projecting terminal contacts, socket terminal contacts mounted on a vertical wall of the oven casing adapted to detachably engage said projecting terminal contacts, said socket contacts being positioned respectively near the oven casing top and bottom to engage said projecting terminal contacts when said heating unit is positioned respectively at the top and the bottom of said oven casing and in reverse positions.

5. The combination with an oven casing, of a combined reversible electrical heating unit and stand, and means for detachably, mechanically and electrically engaging said combined unit and stand adjacent to the top and bottom of said oven casing to form a heat-insulating air space between said unit and stand and oven casing in each position.

[Claim 6 not printed in the Gazette.]

1,141,177. PROCESS OF TREATING LEAD. CARLETON ELLIS, Montclair, N. J., assignor to Ellis-Foster Company, a Corporation of New Jersey. Filed July 31, 1911. Serial No. 641,606. (Cl. 83—91.)



1. In the process of making white lead the step which comprises heating lead to melt same, forcing the molten product in streams into mutual impingement and in exploding the molten spray by a jet of steam.

2. In the process of making white lead, the step which comprises melting lead, forcing the molten metal into two or more streams and in causing these streams to mutually impinge under substantial pressure; whereby the metal is comminuted.

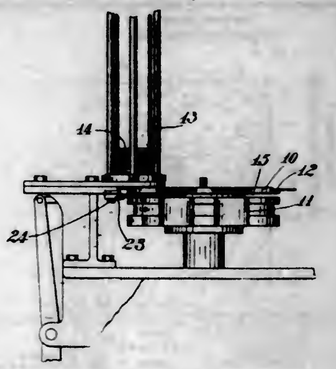
1,141,178. MEANS FOR STERILIZING VESSEL-CLOSURES. WILLIAM B. FENN, Columbus, Ohio, assignor to The Wedoit Company, Columbus, Ohio, a Corporation of Ohio. Filed June 16, 1913. Serial No. 773,906. (Cl. 99—8.)

1. In combination with a machine for closing cans with an applied closure, means for applying a sterilising fluid directly to the closure prior to the application of the closure to the can substantially as described.

2. In combination with a machine for closing cans with an applied closure, said machine including means for containing a stack of such closures, means for applying a sterilising agent to the stack of closures and to a closure after it is withdrawn from the stack and before it is applied to the can to be closed.

3. In combination with a machine for closing cans with an applied closure, said machine including a turret or carrier adapted to carry a closure, means associated with said turret or carrier adapted to project a sterilising agent upon the closure while being carried by the turret or carrier.

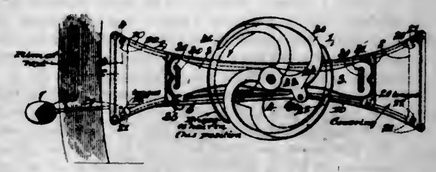
4. The combination with a machine for closing cans with an applied closure, said machine including a holder for a stack of closures and a carrier for transporting the closures, one at a time from the stack, of means for projecting a sterilizing agent onto the stacked closures and also onto the transported closure.



5. A sterilizing device for can closures in a can closing machine, consisting of a pair of plates united to form a chamber for a sterilizing agent, one of said plates being perforated for spraying the sterilizing agent onto the closure and means whereby the sterilizing agent is admitted to said chamber.

[Claim 6 not printed in the Gazette.]

1,141,179. HAT PIN AND FASTENER. SAMUEL B. FRANKENFIELD, Stroudsburg, Pa. Filed July 6, 1914. Serial No. 849,114. (Cl. 132—25.)

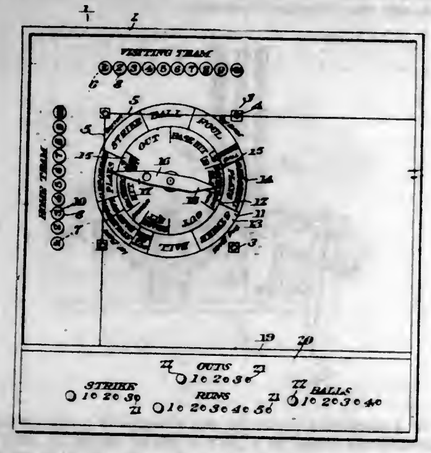


In a hat fastener, a bridge member consisting of a yieldable body bowed to lie within the crown of a hat with its ends adjacent to the rim of the hat, said ends adapted to be secured to the hat adjacent to the rim, a cross plate secured to said yieldable bridge member, said cross plate having its ends bent to engage the bridge member, said cross plate being of less length than the length of said bridge member, and a penetrating auger pivotally and pendently mounted on said cross plate, said auger having an ear, said cross plate having an apertured ear, and an operating rod secured to said auger ear and projected through said apertured ear and adapted to project through the side of the hat crown to a position where it may be grasped by the operator.

1,141,180. GAME APPARATUS. EARLE L. FREELAND, New York, N. Y. Filed Jan. 5, 1915. Serial No. 688. (Cl. 46—63.)

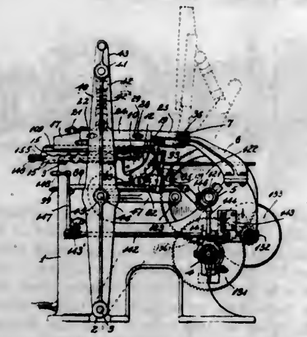
A game board arranged to simulate a ball-field, said board being marked with concentric annular sections divided by radial lines to indicate play controlling spaces, the spaces of the inner section indicating plays by the fielding team, the spaces of the outer section indicating plays for the batting team, and including one or more spaces which indicate a definite play by the batting team and also indicate that the next play is by the fielding team and a pivoted pointer having two sections of different lengths to coöperate with the respective annular sections, whereby when the longer section of the pointer indi-

cates the particular spaces in the outer annular section referred to, the following play is by the fielding team



through the shorter section of the pointer coöperating with the spaces of the inner annular section.

1,141,181. IRONING-PRESS. LADBROOK H. FREEMAN, Cleveland, Ohio, assignor to The Guggenheim Laundry Machinery Company, Cleveland, Ohio, a Corporation of Ohio. Filed Aug. 24, 1911. Serial No. 645,737. (Cl. 68—9.)



1. In a laundry press, an internal ironing member, a neck band former structure comprising a front curved portion and rear foot portions, means for adjusting the parts of the neck band former for various sizes of neck bands, said neck band former being within the end of the internal ironing member throughout the various adjustments, and the foot portions being movable laterally in said adjustments, and an external ironing member coextensive with the board and having a neck band former recess of substantially V-shape with a curve in the angle corresponding to the curve of the forward curved portion of the neck band former, the side walls of the V-shaped recess being in parallel alinement with planes touching the sides of the forward curved portion and the foot portions in the various adjustments of the neck band former.

2. In an ironing press, means for ironing the bosom and front sides of the shoulders in a substantially unbroken surface, a neck band former, means for ironing the yoke, means for supplying heat to the yoke ironing means and means carried by the yoke ironing means and heated thereby for pressing and ironing an inwardly extending curve into the rear portion of the neck band.

3. In an ironing press, an internal ironing member having a bosom ironing face and a yoke ironing face, a neck band former mounted upon the face of the internal ironing member and adjacent to the yoke ironing face, said neck band former having an inwardly curved back ironing face for the rear portion of the neck band, a yoke ironer coöperating with the yoke ironing face, and a projection carried thereby and conforming to the configuration of the rear curved surface of the neck band former whereby an inwardly extending curve is pressed into the rear portion of the neck band, and means for supplying heat to the several parts.

4. In an ironing press, an internal ironing member having a bosom ironing portion and a yoke ironing portion, and a yoke ironing plate movably mounted upon the yoke ironing portion, an external ironing member, and a yoke ironer coöperating with the yoke ironing plate.

5. In an ironing press, an internal ironing member having a bosom ironing portion and a yoke ironing portion, a yoke ironing plate yieldingly mounted upon the yoke ironing portion, and a yoke ironer coöperating with such ironing plate.

[Claims 6 to 10 not printed in the Gazette.]

1,141,182. ACETYLENE-GENERATOR. GEORGE L. FREETO, Mechanicsburg, Ill. Filed Dec. 7, 1912. Serial No. 735,545. (Cl. 48—52.)



1. The combination in an acetylene generator, of a main carbid supply hopper, an emergency hopper positioned in said main hopper and adapted to contain an auxiliary supply of calcium carbid, said emergency hopper pivoted out of equilibrium, an emergency tray also adapted to support a charge of carbid hinged to said emergency hopper and positioned to normally support the emergency hopper in equilibrium, a bent wire positioned to normally support the emergency tray and thereby the hopper, and means for releasing the bent wire from such supporting relation with the emergency tray and hopper, substantially as described.

2. The combination in an acetylene generator, of a main carbid supply hopper, an emergency hopper positioned in said main hopper and adapted to contain an auxiliary supply of calcium carbid, a bell over said emergency hopper adapted to engage therewith upon the exhaustion of the gas in said generator, said emergency hopper pivoted out of equilibrium, an emergency tray also adapted to support a charge of carbid hinged to said emergency hopper and positioned to normally support the emergency hopper in equilibrium, a bent wire positioned to normally support the emergency tray and thereby the hopper, means for releasing the bent wire from supporting relation with the tray to allow the tray to dump its charge of calcium carbid into the generator, whereby the bell may ascend from engagement with the emergency hopper, substantially as described.

3. The combination in an acetylene generator, of a carbid supply hopper, a bell, an emergency hopper carried by said carbid supply hopper, an emergency tray carried by the emergency hopper, said emergency hopper pivoted in the carbid hopper out of equilibrium and normally held in equilibrium by a hook in engagement with the emergency tray, a hook adapted to normally support said emergency tray and thereby said emergency hopper, a balancing rod secured to said emergency hopper and adapted to support the emergency hopper in equilibrium after the withdrawal of the hook from supporting relation with the emergency tray by engagement with the bell when the bell is at its lowest position, whereby a charge of carbid is dumped into the carbid supply hopper upon the raising of the bell occasioned by the generation of gas from carbid dumped from the emergency tray, and means for releasing the hook from supporting relation with the emergency tray, substantially as described.

1,141,183. SAFETY-RAZOR. GEORGE H. GILLETTE, New York, N. Y., assignor to Gillette Safety Razor Company, a Corporation of Massachusetts. Filed May 3, 1911. Serial No. 624,837. (Cl. 30—12.)



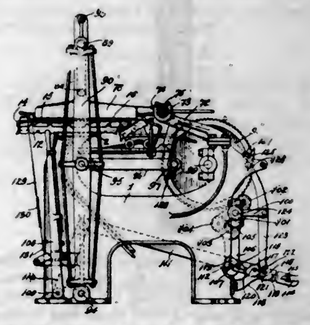
1. A safety razor comprising a thin blade provided at its rear edge with a stiffening piece, a handle, and a blade holding head having a base portion rigidly secured to one end of the handle and provided at its front edge with a guard, a rear portion extending upwardly behind the rear edge of the blade and provided with a shoulder forming a seat for the same, and a spring portion extending forwardly over said stiffening piece and thence downwardly into position to engage the front portion of the blade and press its cutting edge toward the guard, said spring portion being shaped to make contact with the front edge of the stiffening piece and thereby prevent forward movement of the blade.

2. A safety razor comprising a thin blade provided at its rear edge with a stiffening piece, a handle, and a blade-holding head having a base portion rigidly secured to one end of the handle and provided at its front edge with a guard, a rear portion extending upwardly behind the rear edge of the blade and provided with a shoulder forming a seat for the same, and a spring portion extending forwardly over said stiffening piece and thence downwardly into position to engage the front portion of the blade and press its cutting edge toward the guard, said spring portion being shaped to make contact with the front edge of the stiffening piece and thereby prevent forward movement of the blade, and means for lifting the cutting edge of the blade from the guard to adjust the distance between them.

3. In a safety razor, a handle member and a blade holder, the said blade holder being rigidly mounted on said handle, a blade mounted in said holder, a guard, and means carried by the handle member for directly engaging the blade intermediate its ends to adjust the cutting edge in a direction away from the guard, said means comprising a rotatable stem mounted in said handle and a head carried by said stem, said head being formed with a cam surface which upon rotation of the stem varies the distance of the cutting edge of the blade from the guard by the pressure of the head against the blade.

1,141,184. IRONING-PRESS. SOLOMON D. GUGGENHEIM, Cleveland, Ohio. Filed Sept. 26, 1910. Serial No. 583,790. (Cl. 68—9.)

1. In an ironing press, an internal bosom ironing member having an ironing surface co-extensive with the bosom and extending beyond the shoulder seams to a point coincident with a transverse line touching the rear curve of the neck band, means for pressing the yoke of the shirt to this line, and an external bosom ironing member having a recess for the neck band and an ironing face coextensive with the ironing surface of the internal ironing member.



2. In an ironing press, an internal bosom ironing member having a bosom ironing face, an internal yoke ironing member having a yoke ironing face, said ironing faces meeting at substantially a line corresponding to the shirt folding line and extending from the neck band across the shoulder, suitable external ironing members coöperating with the internal bosom ironing member and the internal yoke ironing member, mechanism for operating the several parts, and means for supplying a heating medium to the several parts.

3. In an ironing press, an internal ironing member having a substantially unbroken bosom ironing face and a yoke ironing face, said faces meeting at substantially a line corresponding to the folding line of a shirt or waist, an external bosom ironing member, a yoke ironing member, mechanism for operating the several parts, and means for supplying a heating medium to the several parts.

4. In an ironing press, an internal ironing member having a bosom ironing face and a yoke ironing face, said faces meeting to form substantially a folding line across the shoulders and touching the rear portion of the neck band, means upon the internal ironing member and engaging in the neck band for locating the shirt or waist upon the internal ironing member, an external bosom ironing member, a yoke ironing member, means for operating the several parts, and means for supplying a heating medium to the several parts.

5. In an ironing press, an internal ironing member having a bosom ironing face and a yoke ironing face, said faces meeting to form substantially a folding line across the shoulders and touching the rear portion of the neck band, a neck band former upon the internal ironing member and engaging in the neck band for locating the shirt or waist upon the internal ironing member, an external bosom ironing member, a yoke ironing member, means for operating the several parts, and means for supplying a heating medium to the several parts.

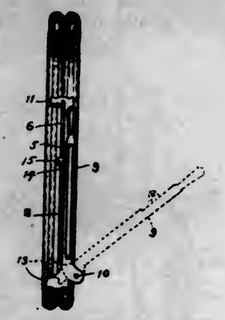
[Claims 6 to 13 not printed in the Gazette.]

1,141,185. TIRE-CARRIER. ALEXANDER HARNISHFEGER, Evansville, Ind., assignor to Rimolox Tire Carrier Co., Evansville, Ind., a Corporation of Indiana. Filed Sept. 26, 1914. Serial No. 863,641. (Cl. 224—29.)

1. A tire-carrier comprising a base-plate, arms radiating therefrom and having tire-supporting seats at their outer ends, an arm depending from said plate, and a lever mounted upon said arm and having a tire-supporting seat at its outer end and terminating in a handle extending above said base-plate.

2. A tire-carrier comprising a base-plate, arms radiating therefrom and having tire-supporting seats at their outer ends, an arm depending from said plate, a lever

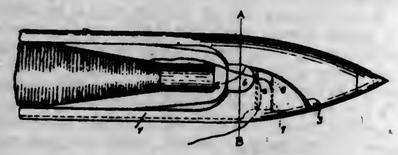
mounted upon said arm and having a tire-supporting seat at its outer end and terminating in a handle extending above said plate, and means for securing said lever to said plate.



3. A tire-carrier comprising a base-plate adapted to be affixed to a vehicle and having an opening therethrough, tire supporting arms radiating from said base-plate, a lever mounted upon one of said arms and having tire supporting means at its outer end, said lever terminating in a handle and extending above said plate, means on said lever for registering with the opening in said plate, and means for securing said lever and plate together.

4. A tire-carrier comprising a base-plate, upper tire supporting arms associated with said plate, a lower arm associated with said plate and shorter in length than said upper arms, a clamping lever mounted upon the lower end of said arm and extending above said base-plate for conveniently swinging the same, and means associated with said lever for securing the same to said base-plate.

1,141,186. LOOM-SHUTTLE. PATRICK F. HIGGINS, Fall River, Mass. Filed June 17, 1913. Serial No. 774,102. (Cl. 139—46.)



1. A loom-shuttle having a tubular eye-member placed transversely in the delivery-end thereof, said eye-member having an eye formed in one of its side-walls with an ingress-opening at its bottom side, and a thread-inlet slot in its opposite side-wall, said shuttle being formed with vertical and horizontal connecting threading-slots communicating with the thread-inlet slot of the eye-member.

2. A loom-shuttle having a tubular eye-member placed transversely in the delivery-end thereof, said eye-member having in its side-wall next the bobbin an eye open at its bottom, and a thread-inlet slot in its opposite side-wall inclined upward from the outer end of the eye-member, and a downwardly curved shoulder for conducting the thread from the slot to the opening of the eye, said shuttle being formed with vertical and horizontal connecting threading-slots communicating with the thread-inlet slot of the eye-member.

3. A loom-shuttle having a tubular eye-member placed transversely in the delivery-end thereof, said eye-member having in its side-wall next the bobbin an eye open at its bottom, and a thread-inlet slot in its opposite side-wall inclined upwardly from the outer end of the eye-member, said slot at the outer end of the eye-member being at substantially the bottom-side of said member, said shuttle being formed with vertical and horizontal connecting threading-slots communicating with the thread-inlet slot of the eye-member.

4. A loom-shuttle having an eye-member placed transversely in the delivery-end thereof, said eye-member formed with an eye open at its bottom, in combination with a recess formed in the shuttle-body at the delivery-end thereof having its bottom-wall above the openings to the eye, and threading-slots for leading the thread to said eye.

5. A loom-shuttle having a tubular eye-member placed transversely in the delivery-end thereof, said eye-member being cut away at its inner end to form a projecting-portion extending from its upper side, an eye formed in the projecting-portion in the side next the bobbin having an opening at its bottom, a thread-inlet slot formed in the eye-member extending upward from its outer end to the upwardly curved under edge of the projecting portion on that side of the eye-member, said curved edge continuing into the end-edge of the projecting-portion and the end-edge into the under edge of the projecting-portion on the eye side of the eye-member which latter edge is curved downwardly and rearwardly to the opening of the eye, and vertical and horizontal threading slots in the shuttle-body communicating with the thread-inlet slot of the eye-member.

[Claim 6 not printed in the Gazette.]

1,141,187. ELECTRIC ALARM-BELL. GUSTAV ADOLPH HUBER, New York, N. Y. Filed May 16, 1912. Serial No. 697,771. (Cl. 177—7.)



1. An electric alarm including in combination two plates one at least being magnetizable, said plates being arranged substantially parallel to each other, a core arranged between and connected to said plates, the plates constituting the magnet heads and constituting also covers for the winding about the core, one of said plates having an extension to one side from the foregoing structure, a plurality of binding posts mounted on said extension, one of said posts being insulated from said plate and another of said posts being electrically connected with said plate, an armature coöperating with the edges of said plates, and electrically connected with said plate carrying the binding posts, a make and break device for said armature including a bracket insulated from said plates, and a wire constituting a winding for said core and connecting from said insulated binding post to said bracket.

2. An electrical alarm including in combination two substantially parallel metal plates, a core uniting said plates, a winding about said core, said plates constituting the magnet heads and constituting also a cover for the winding, an armature, a make and break device, binding posts and circuit connections between said winding, make and break and binding posts.

3. In an electrical alarm two flat metal plates substantially parallel to each other and to a supporting surface, a core extending perpendicularly between said plates, the core spacing apart and holding together the plates, and a projection fixed to and extending outwardly from the plate which is nearer the supporting surface.

4. In an electrical alarm two flat metal plates substantially parallel to each other and to a supporting surface and constituting the back and front of the device, a core extending perpendicularly between said plates, and a projection extending rearwardly from the back plate concentric with the core, the core and projection being apertured to take a fastening screw.

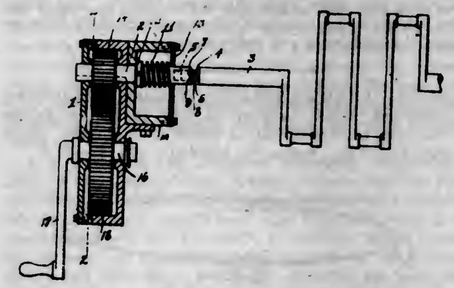
5. In an electrical alarm two flat metal plates substantially parallel to each other and to a supporting surface and constituting the back and front of the device, a core extending perpendicularly between said plates, and spacing apart the plates, said plates and core being apertured through to take a screw to fasten the device to a support.

1,141,188. METALLIC MOLDING. GUSTAVE A. JOHNSON, Newark, N. J. Filed May 12, 1913. Serial No. 766,941. (Cl. 247—8.)



A metallic molding comprising a back-plate having suitably disposed perforations for the insertion therethrough of fastening screws, a U-shaped portion providing a trough connected with the lower edge of said back-plate and extending longitudinally throughout the length of the latter, the free edge of said U-shaped portion having an outwardly bent lip providing a holding-rim, the upper edge of said back-plate being bent forward and downward to provided a female receiving-bead, a removable cover-member the upper marginal edge of which is adapted to be received in said female receiving-bead, a female holding-bead connected with the lower marginal edge of said cover-member adapted to be sprung over said holding-rim of said U-shaped portion to retain said cover-member in closing relation to said trough formed by said U-shaped portion.

1,141,189. CRANKING DEVICE FOR EXPLOSIVE-ENGINES. HORACE M. KAUFFMAN, South Bend, Ind. Filed Mar. 7, 1914. Serial No. 823,206. (Cl. 74—7.)

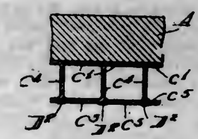


1. A cranking device comprising a crank shaft, a crank stem in line with the crank shaft, an auxiliary crank shaft arranged below the stem, a gear mounted upon the auxiliary shaft, a pinion mounted upon the stem and at all times in mesh with the gear, said stem having independent longitudinal movement with relation to the pinion, and means for connecting the stem and crank shaft at one limit of movement of the stem.

2. A cranking device comprising a crank shaft, a longitudinally movable crank stem terminally notched and disposed in line with the crank shaft, said shaft being formed in part to fit within the stem, a pin projecting from the shaft to coöperate with the notch in the stem, a pinion arranged upon the stem and the stem being mounted for sliding movement therethrough, an auxiliary crank shaft mounted below the stem and having a crank on one end thereof, and a gear secured upon the auxiliary shaft and meshing with the pinion, the diameter of the gear being materially greater than that of the pinion.

3. A cranking device comprising a crank shaft, including a crank stem in line with the crank shaft, an auxiliary crank shaft arranged below the stem, a gear mounted upon the auxiliary shaft, a pinion mounted upon the stem and at all times in mesh with the gear, said stem having independent longitudinal movement with relation to the pinion, means for connecting the stem and crank shaft at one limit of movement of the stem, and yielding means for normally holding said stem and engine crank shaft in disconnected relation.

1,141,190. PROCESS OF MANUFACTURING BUCKET-WHEELS. JOHN E. KILKER and CHARLES W. DAKE, Chicago, Ill., assignors to Pyle-National Electric Headlight Company, Chicago, Ill., a Corporation of New Jersey. Filed Aug. 4, 1913. Serial No. 782,960. (Cl. 29—23.5.)



1. The process of constructing a bucket wheel, which consists in placing and attaching each separate bucket separately in position upon the wheel and subsequently attaching each separate bucket to its neighbor.

2. The process of constructing bucket wheels which consists in separately positioning and attaching each individual bucket to the bucket wheel and subsequently attaching each bucket to its neighbor by a heat process.

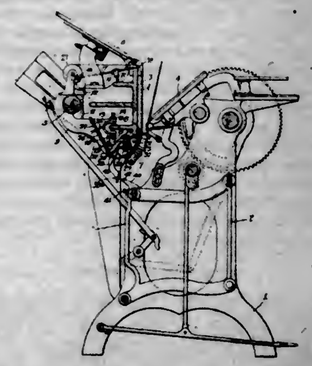
3. The process of constructing bucket wheels, which consists in positioning and attaching each separate bucket separately to the wheel and in subsequently closing the open space between the wall of one bucket and the adjacent bucket and rigidly attaching the buckets together.

4. The process of constructing the bucket wheels which consists in separately positioning and fastening each bucket on the bucket wheel, and in subsequently welding each bucket to the adjacent bucket.

5. The process of constructing a turbine rotor which consists in fastening buckets to the rotor body and securing said buckets together.

[Claims 6 to 20 not printed in the Gazette.]

1,141,191. PRINTING-PRESS. KARL F. KIRKMAN, Delray, Fla., assignor to Automatic Press Feeder Company, Chicago, Ill., a Corporation of Illinois. Filed Nov. 14, 1913. Serial No. 801,031. (Cl. 101—14.)



1. In combination with a type bed of a printing press, an inking ribbon movable across the face of said bed, a winding reel therefor, a positively actuated roller which is arranged in advance of the reel and over which the ribbon passes, means for holding the reel with a yielding

pressure against the roller, and means actuated by the movements of the press for intermittently rotating the roller.

2. In combination with a type bed of a printing press, an inking ribbon movable across the face of said bed, a winding reel therefor, a positively actuated roller which is arranged in advance of the reel and over which the ribbon passes, means for rotating the roller, and a pivoted frame in which the reel is mounted and which holds the reel against the roller.

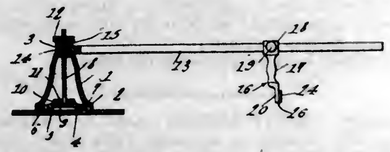
3. In combination with a type bed of a printing press, an inking ribbon movable across the face of said bed, a winding reel therefor, a positively actuated roller which is arranged in advance of the reel and over which the ribbon passes, means for rotating the roller, and a frame in which the reel is mounted and which is spring-pressed to press the reel against the roller.

4. In combination with a type bed of a printing press, an inking ribbon movable across the face of said bed, a winding reel therefor, a positively actuated roller which is arranged in advance of the reel and over which the ribbon passes, means for rotating the roller, a frame in which the reel is mounted and which is spring-pressed to press the reel against the roll, a pivoted arm actuated by the movements of the press, and driving connections between the arm and roller.

5. In combination with a type bed of a printing press, an inking ribbon movable across the face of said bed, a winding reel therefor, a positively actuated roller which is arranged in advance of the reel and over which the ribbon passes, means for rotating the roller, a frame in which the reel is mounted and which is spring-pressed to press the reel against the roll, a pivoted arm actuated by the movements of the press, a gear wheel on the same axis as the pivot of said arm, a pinion on said roller meshing with the gear, and a ratchet drive connection between the arm and the gear wheel.

[Claims 6 to 14 not printed in the Gazette.]

1,141,192. GLASS-CUTTER. FRANK KLENSK, Scranton, Pa. Filed Feb. 11, 1915. Serial No. 7,517. (Cl. 33—27.)

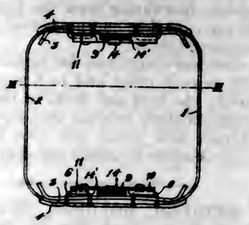


1. In a device of the character described, a cup-shaped body, the rim of the body having an inwardly inclined annular groove, a vacuum cup having an inwardly inclined rib engaging the said groove, means carried by the body for drawing the vacuum cup thereinto, an arm pivoted to the body to swing around the axis thereof, and an implement carried by the arm.

2. In a device of the character described, a cup-shaped body, a vacuum cup attached to the rim thereof, the body having a reduced boss remote from the vacuum cup, a screw slidable through the boss and connected at one end to the central portion of the vacuum cup, a nut threaded upon the screw and bearing against the boss, an arm having a bearing journaled upon the boss, and an implement carried by the arm.

1,141,193. CORE-MOLD. CHARLES D. MCARTHUR, Pittsburgh, Pa., assignor to Blaw Steel Construction Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed May 7, 1913. Serial No. 766,043. (Cl. 25—128.)

1. In combination, a core comprising alternate walls each consisting of an inner and an outer plate, means releasably securing said plates together and having opposing spring edges, and other walls interposed between such alternate walls and having their side edges yieldingly gripped between the spring edges of the said inner and outer plates.



2. In combination, a core comprising alternate walls each consisting of an inner and an outer plate having opposing spring edges, the inner plate being provided with perforations, means carried by the outer plates and projecting through the perforations, locking means for engaging the first mentioned means and securing the inner and outer plates together, and other walls interposed between such alternate walls and having their side edges yieldingly gripped between the spring edges of said inner and outer plates.

3. In combination, a core comprising alternate walls each consisting of an inner and an outer plate, the inner plate being provided with perforations, means carried by the outer plates and projecting through the perforations, slide locking members for engaging the first mentioned means and securing the inner and outer plates together, a member extending longitudinally of the interior of the core for operating the locking members, and other walls interposed between such alternate walls and having their side edges releasably held between the said inner and outer plates.

4. In combination, a core comprising alternate walls each consisting of an inner and an outer plate, the inner plate being provided with perforations, means carried by the outer plates and projecting through the perforations, slide locking members for engaging the first mentioned means and securing the inner and outer plates together, a member extending longitudinally of the interior of the core and having a lost motion connection with the locking members, and other walls interposed between such alternate walls and having their side edges releasably held between the said inner and outer plates.

1,141,194. VEHICLE-SPRING. MICHAEL M. MCINTYRE, Cleveland, Ohio, assignor to The Perfection Spring Company, Cleveland, Ohio, a Corporation of Ohio. Filed Jan. 13, 1913. Serial No. 741,640. (Cl. 21—97.)



1. The combination, with a vehicle frame and axle, of a spring secured to the axle, a tension spring substantially non-deflectably connected at its ends to the frame and having a limited play, and a spring connected to the last mentioned spring and to the first mentioned spring.

2. The combination, with a vehicle frame and axle, of a spring connected to the axle, a tension spring substantially non-deflectably connected at its ends to the vehicle frame and having a limited play, and a spring connected to the body of the second spring, back-to-back, and having an end connected to the first-mentioned spring.

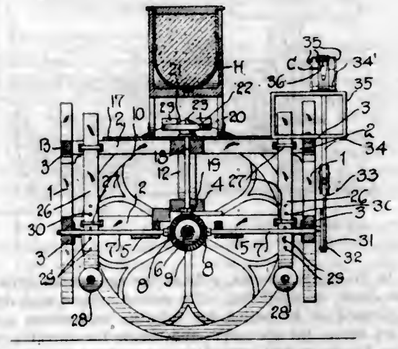
3. The combination, with a vehicle frame and axle, of a semi-elliptic spring secured to the axle, a tension spring substantially non-deflectably connected at its ends to the frame and having a limited play, and a spring intermediate of the other springs and having its body connected to the body of the last mentioned spring and an end connected to an end of the first mentioned spring.

4. The combination, with a vehicle frame and axle, of a spring connected to the axle, a tension spring substantially non-deflectably connected at its ends to the frame, and a spring connected to the central portion of the latter spring and having an end extending around and flexibly connected to an end of the first mentioned spring.

5. The combination, with a vehicle frame and axle, of a semi-elliptic spring secured to the axle, a tension spring substantially non-deflectably connected at its ends to the frame, and a spring secured to the central portion of the second spring back-to-back and having an end flexibly connected to an end of the first mentioned spring, the third spring being lighter and more yielding than the first mentioned spring.

[Claims 6 to 16 not printed in the Gazette.]

1,141,195. AGRICULTURAL MACHINE. ORA O. MCKINNEY, Frankfort, Ind. Filed Sept. 30, 1914. Serial No. 864,316. (Cl. 74—7.)



1. A device of the character described comprising a body, a drive shaft carried thereby, wheels mounted upon the shaft and adapted for engagement with the surface on which the device rests, one of said wheels serving as an operating means for the shaft, a movable device carried by the body, an operative connection between the movable device and drive shaft, means for adjusting the body relative to its supporting surface, and traction wheels carried by said means for engaging the surface on which the body rests.

2. A device of the character described comprising a body, a drive shaft carried thereby, wheels mounted upon the shaft and adapted for engagement with the surface on which the device rests, one of said wheels serving as an operating means for the shaft, a movable device carried by the body, an operative connection between the movable device and drive shaft, means for adjusting the body relative to its supporting surface, wheels carried by said means adapted to engage the surface on which the device rests, said drive shaft being capable of endwise movement to control the operative connection therebetween and the movable device, and means for controlling the endwise movement of the shaft.

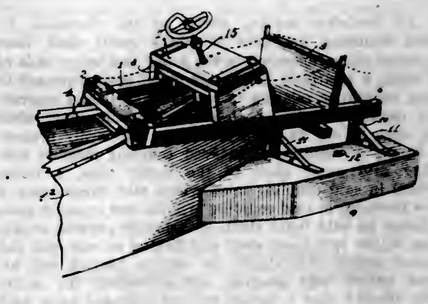
3. A device of the character described comprising a body, a drive shaft carried thereby, supporting wheels mounted upon the shaft, a movable element carried by the body, an operative connection between the movable element and the drive shaft, means for adjusting the body relative to its supporting surface whereby the wheels of the shaft may be brought in or out of contact with the supporting surface and wheels carried by said means adapted to ride over the surface on which the device rests.

4. A device of the character described comprising a body, a drive shaft carried thereby, means for rotating said drive shaft, a movable element carried by the body, an operative connection between the drive shaft and the movable element, vertically adjustable members carried by the body, wheels carried by the lower extremities of the members adapted to contact with the supporting surface, and means carried by the vertical members coacting with the body for adjusting the position of the body relative to the supporting surface.

5. A device of the character described comprising a body, a drive shaft carried thereby, wheels mounted on the shaft and adapted to engage the surface on which the device rests and to maintain the body elevated above said surface, a movable element carried by the body, an operative connection between the drive shaft and the movable element, vertically movable members carried by the body at opposite sides of the shaft, and means carried by the vertical members coacting with the body for adjusting the position of the body relative to the supporting surface.

[Claim 6 not printed in the Gazette.]

1,141,196. CANOE MOTOR-FRAME. DONALD MCLAREN, Fort William, Ontario, Canada, assignor of one-half to John J. Robinson, Fort William, Ontario, Canada. Filed Mar. 15, 1915. Serial No. 14,607. (Cl. 115—17.)



1. In a device of the character described, an inner frame, securing means therefor, an outer frame pivotally connected at its inner end to the inner end of the inner frame, spring supporting means therefor, and motor attaching means carried by the said outer frame.

2. In a device of the character described, an inner frame, securing means therefor, means for bracing the inner frame and for preventing lateral movement thereof, an outer frame pivotally connected at its inner end to the inner end of the inner frame, spring supporting means therefor carried by the inner frame, and motor attaching means carried by the said outer frame.

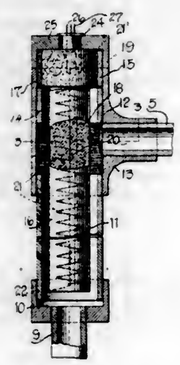
3. In a device of the character described, an inner frame, securing means therefor, means for bracing the inner frame and for preventing lateral movement thereof, an outer frame pivotally connected at its inner end to the inner end of the inner frame, spring supporting means therefor carried by the inner frame, motor attaching means carried by the said outer frame, and means for supporting the weight of a motor.

4. In a device of the character described, an inner frame, securing means therefor, means for bracing the inner frame and for preventing lateral movement thereof, an outer frame pivotally connected at its inner end to the inner end of the inner frame, spring supporting means therefor carried by the inner frame, motor attaching means carried by the said outer frame, and motor supporting floats carried by the said outer frame.

5. In a device of the character described, an inner frame, securing means therefor, means for bracing the inner frame and for preventing lateral movement thereof, an outer frame pivotally connected at its inner end to the inner end of the inner frame, spring supporting means therefor carried by the inner frame, motor attaching means carried by the said outer frame, motor supporting floats carried by the said outer frame, and means for raising the said outer frame.

[Claim 6 not printed in the Gazette.]

1,141,197. ELECTRICAL HEATER. ALBERT S. MACK, Klamath Falls, Oreg. Filed Oct. 29, 1914. Serial No. 869,292. (Cl. 219—39.)



1. An electrical heating device of the character described including an outer elongated metal shell, inlet and outlet pipes connected to the lower and upper ends of said shell, a relatively thin inner metal shell arranged in spaced concentric relation to the outer shell and substantially co-extensive in length therewith, said inner shell being open at one end and having an outwardly projecting flange, an interiorly threaded coupling member connecting said outer shell to the outlet pipe, a collar threaded in said coupling upon which said flange rests, a sleeve threaded in said coupling member and engaged upon the flange on said inner shell, an asbestos packing snugly fitting within said inner shell and having an enlarged end disposed within said sleeve, an electric heating coil arranged within said packing and extending the entire length thereof, and a removable cap threaded upon said sleeve to retain said inner shell and the packing within said outer shell.

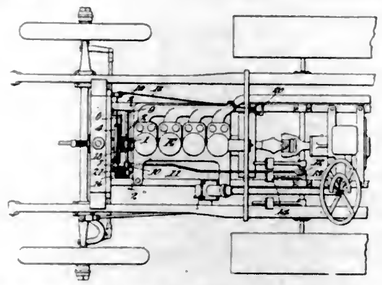
2. An electrical heating device of the character described including an outer shell, a relatively thin inner metallic shell disposed in spaced relation to the outer shell and open at its upper end, a solid mass of non-conducting material entirely filling said inner shell and projecting beyond the open end thereof, means for removably retaining said non-conducting material within the inner shell and also holding said inner shell against movement with respect to the outer shell, and a wire heating coil extending through said mass of non-conducting material, the turns of said coil being held in definite spaced relation to each other by the material.

3. An electrical heating device of the character described including an outer shell, an inner metallic shell spaced from said outer shell and open at its upper end, a solid mass of non-conducting material entirely filling said inner shell and having an enlarged upper end portion approximately equal to the internal diameter of the outer shell, means detachably mounted upon the outer shell to removably retain the non-conducting material within said inner shell, and an electric heating coil extending through said mass of non-conducting material and entirely confined within the same.

4. An electrical heating device of the character described including an outer cylindrical shell, a relatively thin inner metallic shell spaced from said outer shell, inlet and outlet pipes detachably connected to the opposite ends of said outer shell, a solid mass of non-conducting material entirely filling said inner shell and extending above the upper end thereof, means removably mounted upon the connection between the outlet pipe and the outer shell to hold the inner shell and the packing against relative movement and also with respect to said outer shell, and an electric heating coil extending through said mass of material, the turns of said coil being held in definite spaced relation by the material.

5. An electrical heating device of the character described including an outer cylindrical shell, a relatively thin inner metallic shell spaced from the outer shell and having an upper open end provided with an outwardly extending flange, outlet and inlet pipes connected to the upper and lower ends respectively of said outer shell, a solid mass of non-conducting material entirely filling the inner shell and having an enlarged upper end portion resting upon said flange, means removably mounted upon the upper end of said outer shell to removably hold said inner shell and the packing in place and prevent movement of the same with respect to said outer shell, and an electric heating coil having its turns embedded within said non-conducting material and held in definite spaced relation thereby.

1,141,198. MECHANICAL STARTING DEVICE FOR EXPLOSION-ENGINES. MARY PIERSON MITCHELL, Eaton, Ohio. Filed Nov. 19, 1914. Serial No. 873,025. (Cl. 123—185.)



1. In an engine starter, a drum for connection with an engine shaft, an operating cable wound around said drum and adapted to be pulled for rotating said drum, a retracting device for the cable, and means for operably connecting the drum and retracting device whereby when the drum has rotated a predetermined amount it will actuate the retracting device to produce a slack in the cable between said device and drum.

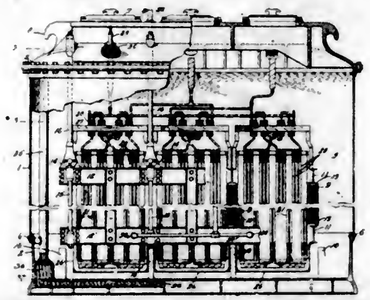
2. In an engine starter, a drum for connection with an engine shaft, an operating cable wound upon said drum and adapted to be pulled for rotating the same, a retracting device for the cable including a drum upon which the cable is normally wound, and means operatively connecting said drums whereby when the first drum has rotated a predetermined amount it will rotate the second drum to produce a slack in the cable between the drums.

3. In an engine starter, a drum adapted for connection with an engine shaft, an actuating cable wound upon said drum and adapted to be pulled for rotating the same, a retracting device for the cable including a drum upon which the cable is normally wound, an eccentric pin carried by the second drum, and a tappet carried by the first drum and arranged to engage the eccentric pin and rotate the second drum when the first drum is rotated a predetermined amount, and thereby produce a slack in the cable between the drums.

1,141,199. THREE-PHASE TRANSFORMER. WALTER S. MOODY, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Apr. 3, 1906. Serial No. 309,631. (Cl. 171—124.)

1. In combination, a casing filled with oil or other insulating fluid, a transformer immersed therein comprising core and coil portions the transformer being provided with independent ventilating spaces for the core and coils discharging into the casing, a closed chamber at one end of said transformer communicating with said independent ventilating spaces, and a circulating system arranged to deliver insulating fluid to the said closed chamber and to withdraw the same from the top of the transformer casing.

2. In combination, a casing filled with oil or other insulating fluid, a transformer immersed therein comprising core and coil portions the transformer being provided with independent ventilating spaces for the core and coils discharging into the casing, and a circulating system arranged to direct a flow of insulating fluid through said independent ventilating spaces into the casing and to withdraw the same from the top of the casing.



3. In combination, a casing filled with oil or other insulating fluid, a transformer immersed therein comprising core and coil portions the transformer being provided with independent ventilating spaces for the core and coils discharging into the casing, and a circulating system connected to each of the said independent ventilating spaces and to the transformer casing near the top thereof so as to direct independent streams of insulating fluid respectively through ventilating spaces for the core and the winding.

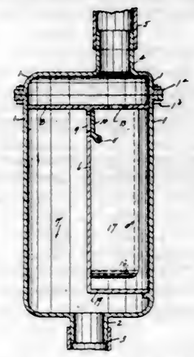
4. In combination, a casing filled with oil or other insulating fluid, a transformer immersed therein comprising core and coil portions the transformer being provided with independent ventilating spaces for the core and coils discharging into the casing, a circulating system connected to each of the said independent ventilating spaces and to the transformer casing near the top thereof so as to direct independent streams of insulating fluid respectively through the ventilating spaces for the core and the winding, and means for controlling the flow of the liquid in said circulating system.

5. In combination, a casing filled with oil or other insulating fluid, a transformer immersed therein comprising a core portion made up of laminæ assembled in sections separated from each other to provide ventilating openings between adjacent sections, and coil portions having ventilating openings therethrough, a tubular casing separating the winding from the core and spaced therefrom so as to render the core ventilating passages independent of the passages through the coils, and a circulating system comprising means for directing a flow of insulating fluid through said independent ventilating spaces.

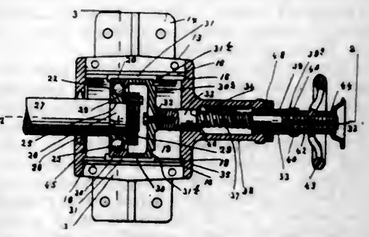
[Claims 6 to 25 not printed in the Gazette.]

1,141,200. HEATING-DRUM. LYMAN L. MOORE, Seattle, Wash. Filed June 6, 1914. Serial No. 843,355. (Cl. 257—172.)

A device of the character described including a casing, said casing having a central nipple at its lower end and a nipple at its upper end, the upper of which is offset with respect to the vertical center line of the drum proper, a vertical partition having a draft opening within said casing, a transverse partition provided with a shaft opening positioned in said casing a spaced distance from the upper end thereof and connected with one end of the vertical partition, a pair of vertical partitions projecting from the face of the first mentioned vertical partition, the lower ends of the last named vertical partitions being spaced above the lower ends of the first mentioned vertical partition, a transverse horizontal partition connected with the lower end of the first mentioned vertical partition and the adjacent wall of the casing, said last mentioned transverse horizontal partition being positioned beneath the second mentioned vertical partitions, said first mentioned vertical partition having openings below the first mentioned transverse horizontal partition, and a damper plate positioned upon the first mentioned vertical partition and adapted to cover one of the said openings.



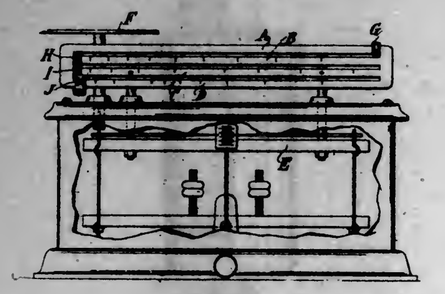
1,141,201. AXIALLY-ADJUSTABLE BALL-BEARING. EDMUND G. MUNSON, Whitesboro, N. Y., assignor to Munson Brothers Company, Whitesboro, N. Y. Filed Nov. 5, 1914. Serial No. 870,394. (Cl. 64—36.)



1. The combination in an axially adjustable ball bearing of an elongated mounting having longitudinal grooves therein, an interiorly grooved outer ball race member rotatably mounted in said mounting and movable longitudinally thereof, an oppositely disposed exteriorly grooved inner ball race member adapted to be secured to the end of a rotating member, balls in said race grooves, a thrust collar slidably mounted in said mounting and bearing against one edge of said outer ball race member, clamps slidably housed in the mounting grooves and having inwardly projecting ends engaging the non-contiguous edges of said thrust collar and said outer ball race member whereby said members are clamped to axially move together in said mounting but said race member is allowed independent rotative movement in said mounting and means for moving said thrust collar lengthwise of said mounting and holding it in place.

2. The combination in an axially adjustable ball bearing of an elongated mounting having longitudinal grooves therein, an interiorly grooved outer ball race member rotatably mounted in said mounting and movable longitudinally thereof, an oppositely disposed exteriorly grooved inner ball race member adapted to be secured to the end of a rotating member, balls in said race grooves, a thrust collar rotatably and slidably mounted in said mounting and bearing against one edge of said outer ball race member, clamps slidably housed in the mounting grooves and having inwardly projecting ends engaging the non-contiguous edges of said thrust collar and said outer ball race member whereby said members are clamped to axially move together in said mounting but allowed independent rotative movement in said mounting and means for moving said thrust collar lengthwise of said mounting and holding it in place.

1,141,202. WEIGHING-SCALE. MAX MÖNNICH, Arlington, N. J., assignor to The Textile Balance Company, New York, N. Y., a Corporation of New York. Filed Dec. 26, 1913. Serial No. 808,850. (Cl. 73—30.)

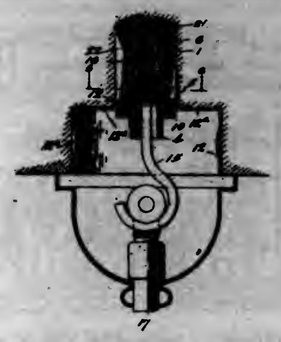


1. A scale for weighing samples of yarn or the like having a plurality of beam elements and suitable weights therefor, and having its elements graduated as separate sections of theoretical beams covering in succession the entire range desired, the empty scale being designed to balance with all the weights at the zero ends of their beam elements, and adapted to weigh from the lightest to the heaviest samples by sliding the weight on the first element to a balance or to its outermost position, and successively shifting the weights on the other elements in the same way until a balance is obtained, said elements being graduated to indicate successive numbers bearing inverse relations to the corresponding weights.

2. In a scale for weighing objects in terms of their fractional part of a given weight, a scale beam comprising a plurality of beam elements each graduated to represent a convenient section of a theoretical beam having inverse graduations extending from unity toward a fraction of infinite denominator representing zero weight, the scale beam elements representing successive sections of such beam and being graduated to different scales whereby they represent sections of such theoretical beams of different lengths, each section thus constituting a serial continuation of the next with its graduations of a different scale of magnitude, and slide weights on said beam elements respectively, the scale adapted to commence weighing the lightest object within its range with said slide weights at their least effective positions, and to weigh from the lightest to the heaviest objects within its range by sliding the weight on the first element to a balance or to its outermost position, and then (if necessary) sliding the weight on the next element in like manner, and so on, until the object is counterbalanced.

3. In a scale for weighing objects in terms of their fractional part of a given weight, a scale beam comprising a plurality of beam elements each graduated to represent a convenient section of a theoretical beam having inverse graduations extending from unity toward a fraction of infinite denominator representing zero weight, the scale beam elements representing successive sections of such beam and being graduated to different scales whereby they represent sections of such theoretical beams of different lengths, each section thus constituting a serial continuation of the next with its graduations of a different scale of magnitude, and slide weights on said beam elements respectively, the scale adapted to commence weighing the lightest object within its range with said slide weights at their least effective positions, and to weigh from the lightest to the heaviest objects within its range by sliding the weight on the first element to a balance or to its outermost position, and then (if necessary) sliding the weight on the next element in like manner, and so on, and means for counterpoising the weight of the lightest object within the range of the scale comprising a balance weight movable from a position for balancing the scale when empty to a position for weighing an object of such minimum weight.

1,141,203. FAN AND FIXTURE SUPPORT. DONALD H. MURPH, Dallas, Tex., assignor of one-half to Henry Elmer Hobson, Dallas, Tex. Filed Nov. 5, 1913, Serial No. 799,314. Renewed Nov. 7, 1914. Serial No. 870,927. (Cl. 72—106.)



1. A device of the character described, consisting of a socket portion, means for securing the said socket portion to a supporting structure, a seating surface in the base portion of the socket, a tubular threaded stud integral with the said base portion, a hollow soft metal core retained within the hollow portion of the said socket portion for the purpose of receiving a threaded member, and a threaded nut for engaging the said threaded stud.

2. A device of the character described, consisting of a socket portion, means for securing the same to a supporting structure, means for preventing a rotating movement of the device with respect to the supporting structure, a seating surface formed in the base portion of the socket, a tubular threaded stud integral with the said base portion, a threaded locking nut for engaging the said stud, a hollow soft metal filling or core retained within the said socket for the purpose of receiving a threaded member, and means for preventing turning of the said core within and with respect to the said socket portion.

3. A device of the character described, consisting of a socket portion, a supporting rod receiving portion integral therewith, a seating surface at the base portion of the socket, a tubular threaded stud integral with the said base portion, a locking nut for engaging the said stud, and a hollow soft metal core retained within the said socket portion for the purpose of receiving a threaded member.

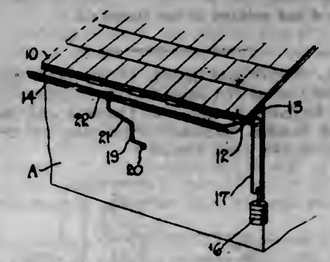
4. A device of the character described, consisting of a socket portion, means for securing the said socket portion to a supporting structure, a seating surface in the base portion of the socket, a stud integral with the base portion, and a core retained within the said socket portion for the purpose of receiving and retaining a depending supporting member.

5. A device of the character described, consisting of a socket portion, means for securing the same to a supporting structure, means for preventing a rotating movement of the device with respect to the supporting structure, a seating surface formed in the base portion of the socket, a threaded stud integral with the base portion, and a threaded locking nut for engaging the said stud.

[Claim 6 not printed in the Gazette.]

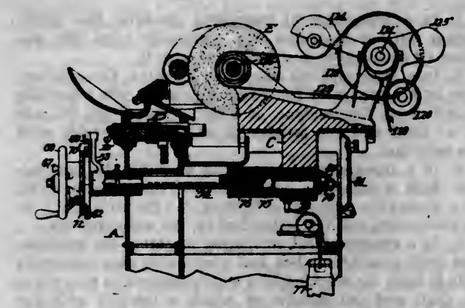
1,141,204. GUTTER. FRANK F. NOCH, Lester, W. Va. Filed Mar. 10, 1915. Serial No. 13,441. (Cl. 108—28.)

The combination with the eaves of a building, of a gutter, means swingingly supporting the gutter, means normally holding the gutter in operative receiving position, and a rod member for limiting the swinging movement of the gutter when the same is moving into receiving position, said rod being provided at its upper terminal with a hook adapted to embrace the outer edge of the gutter, said rod being pivotally mounted at its lower terminal, whereby it may be swung to dispose the hook member at different elevations for increasing or decreasing the length of the



arc through which the gutter may swing when moving from non-receiving to receiving position.

1,141,205. WHEEL-FEED FOR GRINDING-MACHINES. CHARLES H. NORTON, Worcester, Mass., assignor to Norton Grinding Company, Worcester, Mass., a Corporation of Massachusetts. Original application filed June 6, 1913, Serial No. 772,055. Divided and this application filed July 22, 1914. Serial No. 852,386. (Cl. 51—4.)



1. In a grinding machine, the combination of a feed screw, a grinding wheel slide connected therewith and operated thereby, a hand wheel and a ratchet wheel both independently and rotatably mounted with respect to the feed screw, slow speed gearing comprising a gear fixed to the ratchet wheel for connecting the hand wheel with the feed screw, means for positively connecting the ratchet wheel and hand wheel, whereby the feed screw can be operated directly by the hand wheel, and means whereby said gear can be disconnected from the hand wheel.

2. In a grinding machine, the combination of a feed screw, a grinding wheel slide connected therewith and operated thereby, a hand wheel, a ratchet wheel, slow speed gearing comprising a member secured to the ratchet wheel for connecting the hand wheel with the feed screw, means for operating the ratchet wheel by power, and means for locking the ratchet wheel in stationary position, whereby the hand rotation of the hand wheel will be transmitted to the feed screw through the slow gearing.

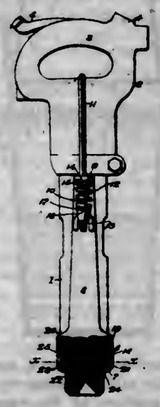
3. In a grinding machine, the combination of a feed screw, a grinding wheel slide connected therewith and operated thereby, a hand wheel, a ratchet wheel, slow speed gearing for connecting the hand wheel with the feed screw, means for operating the ratchet wheel by power, means for locking the hand wheel and ratchet wheel together, and means for locking the ratchet wheel in stationary position when the ratchet and hand wheels are not locked together, whereby the hand rotation of the hand wheel will be transmitted to the feed screw through the slow gearing.

4. In a grinding machine, the combination of a feed screw, a grinding wheel slide connected therewith and operated thereby, a hand wheel and a ratchet wheel both independently and rotatably mounted with respect to the feed screw, slow speed gearing for connecting the hand wheel with the feed screw, means for operating the ratchet wheel by power, means for positively connecting the ratchet wheel and hand wheel, whereby the feed screw can be operated directly by the hand wheel, means for locking the ratchet wheel in stationary position when the ratchet and hand wheels are not locked together, whereby the hand rotation of the hand wheel will be transmitted to the feed screw through the slow gearing, and means whereby said slow gearing can be disconnected from the hand wheel.

5. In a grinding machine, the combination with a wheel slide, of a feed screw for operating it, a hand wheel on the feed screw adapted to be positively connected thereto and disconnected therefrom, a ratchet device connected with said feed screw comprising a pawl, a ratchet wheel having teeth thereon in position to be engaged and operated by said pawl, means for fixing said ratchet wheel with respect to the hand wheel when desired, and means whereby said ratchet wheel can be locked positively in stationary position to permit a slow hand feed.

[Claims 6 to 17 not printed in the Gazette.]

1,141,206. CLUTCH FOR A PNEUMATIC HAMMER. SAMUEL OLDHAM, Philadelphia, Pa. Filed Dec. 31, 1914. Serial No. 879,862. (Cl. 78—44.5.)



1. In a clutch for a pneumatic hammer, an open socket adapted to movably fit upon the lower end of the hammer-barrel and having an annular flange in its bottom opening, a bail adapted to straddle the end of the handle-socket, yielding connections between the legs of the bail and the socket, and a split collet adapted to slidingly fit in the socket and adapted to engage a rivet-set to have limited longitudinal play within it.

2. In a clutch for a pneumatic hammer, an open socket adapted to movably fit upon the lower end of a hammer-barrel and having bars adapted to bear against the sides of the latter and said open socket having an annular flange, a bail adapted to straddle the handle-socket, expanding and contractible connections between the legs of the bail and the bars of the socket, and a split collet adapted to slidingly fit in the socket and to receive a rivet-set having limited longitudinal play in the same.

3. In a clutch for a pneumatic hammer, an open-ended socket adapted to movably fit upon the lower end of a hammer-barrel and formed with means for supporting a rivet-set longitudinally movable therein and upwardly extending bars adapted to bear against the sides of the barrel and formed with perforated ears at their upper ends, a bail adapted to straddle the handle-socket of the hammer and having screw-threaded legs projecting through said ears, nuts upon said screw-threaded legs, and coil-springs upon said legs and bearing against said ears and nuts.

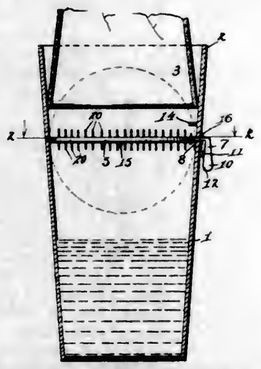
4. A pneumatic percussion tool and a rivet-set having a shank fitting in the barrel of the tool and having a wide

peripheral recess, a socket having an open bottom formed with an annular flange and adapted to movably fit upon the lower end of the tool-barrel and provided with bars adapted to extend upward along the sides of the barrel and formed with perforated ears at their upper ends, a bail straddling the handle socket and having screw-threaded legs projecting through said ears, nuts upon said threaded legs, coil-springs upon said legs between the ears and nuts, and a split collet movable within the socket and formed with an interior flange movable in the recess of the rivet-set.

5. In a clutch for a pneumatic hammer, an open socket adapted to movably fit upon the lower end of the hammer-barrel and having an annular flange in its bottom opening, a bail adapted to straddle the end of the handle-socket, yielding connections between the legs of the bail and the socket, and a collet adapted to slidingly fit in the socket and adapted to engage a rivet-set to have limited longinal play within it.

[Claim 6 not printed in the Gazette.]

1,141,207. BEVERAGE-MIXER. LUDGER M. PARENT, Boston, Mass. Filed Jan. 16, 1914. Serial No. 812,497. (Cl. 31—63.)



1. A beverage mixer comprising a container, rotatable means disposed within said container for breaking up and thinning thickened portions of the contents of the container, and means to limit the rotation of said first named means.

2. A beverage mixer comprising a container, a rotatable strainer mounted within said container, means carried by by said strainer for breaking up and thinning thickened portions of the contents upon engagement of the contents thereagainst when motion is imparted to the mixer, and means disposed within said container for limiting the movement of said strainer.

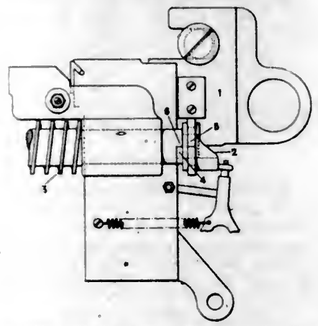
3. A beverage mixer comprising a container having one end open, a rotatable strainer located within said container and local to the open end thereof, means for normally holding said strainer in a non-straining position with respect to said container, and means disposed within said container for limiting the movement of said strainer.

4. A beverage mixer, comprising a container having one end open, a rotatable strainer located within said container and local to the open end thereof, means for rotating said strainer from the exterior of said container, means disposed within said container for limiting the movement of said strainer, and means coacting with said rotating means for normally holding said strainer in a non-straining position with respect to said container.

5. A beverage mixer, comprising a container, a strainer mounted within said container to rotate on an axis transverse to the axis of said container and comprising a foraminous diaphragm having means associated therewith for breaking up and thinning the thickened portions of the contents upon engagement of the contents thereagainst when motion is imparted to said container and said strainer is disposed in a plane parallel to the axis of said container.

[Claim 6 not printed in the Gazette.]

1,141,208. TYPOGRAPHICAL COMPOSING-MACHINE. HERBERT PEARCE and JOHN ERNEST BILLINGTON, Broadheath, England, assignors to Linotype and Machinery Limited, London, England. Filed Mar. 24, 1915. Serial No. 16,580. (Cl. 199—7.)



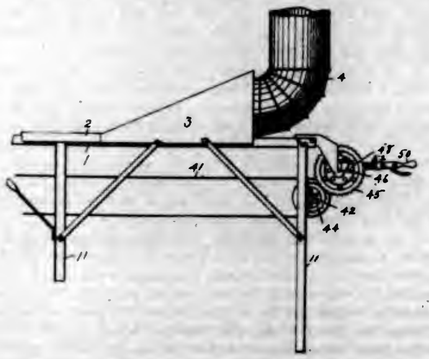
1. In a typographical composing machine, the combination with a separator box removable from the machine, of a separator cam removable with it.

2. In a typographical composing machine, the combination with a separator box and a separator cam removable with it from the machine, of a clutch connecting the cam to its shaft and one member of which is removable with the said cam.

3. In a typographical composing machine, the combination with a separator box removable from the machine, of a separator cam and a bearing for the cam, both removable with, and the latter fast to, the separator box.

4. In a typographical composing machine, the combination with a separator box and a separator cam removable with it from the machine, of a clutch connecting the cam to its shaft and one member of which is integral with the cam, the cam and clutch being bored out to fit on the shaft.

1,141,209. MACHINE FOR PAINTING TIN AND OTHER METALS. WILLIAM E. PHILIPP, Baltimore, Md. Filed Feb. 20, 1914. Serial No. 819,873. (Cl. 91—51.)



1. In a painting machine, the combination of a drier, a stationary guide on one side of said drier extending the full length thereof, an automatically adjustable guide on the opposite side of said drier extending the full length thereof, means at the discharge end of the drier to force air therethrough, a paint tank at one end of said drier, a drum adapted to revolve in said paint tank, means for revolving said paint drum, and means at the opposite end of said drier to draw the tin therethrough after being painted.

2. In a painting machine, the combination of a drier, a stationary guide on one side of said drier extending the full length thereof, an automatically adjustable guide on the opposite side of said drier extending the full length thereof, means at the discharge end of the drier to force air therethrough, a paint tank, a drum adapted to revolve in said paint tank, means for revolving said paint drum, a shaft mounted at the opposite end of said drier, and means carried by said shaft to grip the end of the tin and draw it through the said drier when the said shaft is revolved.

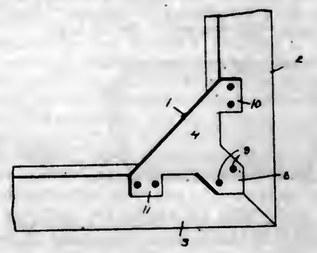
3. In a painting machine, the combination of a drier, a stationary guide on one side of said drier extending the full length thereof, an automatically adjustable guide on the opposite side of said drier extending the full length thereof, means at the discharge end of the drier to force air therethrough, a paint tank, a drum adapted to revolve in said paint tank, means for revolving said paint drum, a shaft mounted at the opposite end of said drier, and means carried by said shaft to grip the end of the tin and draw it through the said drier and upon which the tin is wound when the said shaft is revolved.

4. In a painting machine, the combination of a drier, a stationary guide on one side of said drier extending the full length thereof, an automatically adjustable guide on the opposite side of said drier extending the full length thereof, means at the discharge end of the drier to force air therethrough, a tank having an agitator therein, means for operating said agitator, a drum adapted to revolve in said paint tank, means for revolving said drum, a shaft mounted at the opposite end of said drier, and means carried by said shaft to grip the end of the tin and draw it through the said drier when the shaft is revolved.

5. In a painting machine, the combination of a drier, a stationary guide on one side of said drier extending the full length thereof, an automatically adjustable guide on the opposite side of said drier extending the full length thereof, means at the discharge end of the drier to force air therethrough, a paint tank, a drum adapted to revolve in said paint tank, means for revolving said drum, a shaft mounted at the opposite end of said drier, and means carried by said shaft to grip the tin and draw it through the drier when the shaft is revolved.

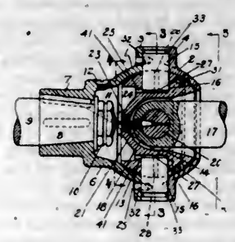
[Claims 6 and 7 not printed in the Gazette.]

1,141,210. ANGLE-BRACE. GEORGE H. PIERSON, Buffalo, N. Y. Filed Dec. 23, 1913. Serial No. 808,357. (Cl. 20—92.)



An angle brace comprising a metallic body of right angled triangular outline, bottom and side attaching flanges struck up from the body and extending in the same direction from one face thereof, said flanges being spaced inwardly from and arranged in parallel relation to the bottom and vertical side edges of the body, respectively, tongues formed by striking the flanges up from the body, said tongues being located in the plane of the body and outwardly beyond the flanges, and a strut located between two of said tongues and inwardly beyond the flanges, said strut being formed by a portion of the body.

1,141,211. UNIVERSAL JOINT. SYDNEY I. PRESCOTT, Brooklyn, N. Y., assignor to Motorflex Equipment Company, New York, N. Y., a Corporation of New York. Filed Jan. 27, 1913. Serial No. 744,424. (Cl. 74—19.)



1. In a universal joint, the combination with a driving member, of a driven member, an oscillatory member interposed between the driving member and the driven member and partially inclosed by the driving member in such manner that there is formed between the oscillatory member and the driving member an inclosed lubricant reservoir, pivots connecting the driving member and the oscillatory member, pivots connecting the driven member and the oscillatory member said parts being provided with means coöperating with the reservoir for causing the centrifugal force developed by the rotating joint to force lubricant from the reservoir to and along all of the pivots, and a packing ring sunk in the outer surface of the oscillatory member and wiping the inner surface of the driving member for preventing lubricant from passing to the side of the oscillatory member opposite the reservoir.

2. In a universal joint, the combination with a driving member, of a driven member, an oscillatory member interposed between the driving member and the driven member and partially inclosed by the driving member in such manner that there is formed between the oscillatory member and the driving member an inclosed lubricant reservoir, pivots connecting the driving member and the oscillatory member, pivots connecting the driven member and the oscillatory member, said oscillatory member having a series of conduits leading from the reservoir one to and along each of the pivots whereby the centrifugal force developed by the rotating joint forces lubricant from the reservoir to and along all of the pivots, and a packing ring sunk in the outer surface of the oscillatory member and wiping the inner surface of the driving member for preventing lubricant from passing to the side of the oscillatory member opposite the reservoir.

3. In a universal joint, the combination with a chambered two-part substantially spherical driving member, of a driven shaft having a T-head, a chambered substantially spherical oscillatory member inclosing the T-head of the driven shaft and located within the driving member with its center co-incident with the center of the driving member and arranged to coöperate with the chamber of the driving member to form an inclosed lubricant reservoir at one end of the oscillatory member and provided with means coöperating with the reservoir for causing the centrifugal force developed by the rotating joint to force lubricant from the reservoir to and along all of the pivots, pivots clamped between the two parts of the driving member and journaled in the oscillatory member on its transverse equatorial plane, and a pin carried by the T-head of the driven shaft and projecting from both ends of said T-head to form pivots journaled in the oscillatory member on its transverse equatorial plane at right angles to the driving member pivots.

4. In a universal joint, the combination with a chambered two-part substantially spherical driving member, of a driven shaft having a T-head, a chambered substantially spherical oscillatory member inclosing the T-head of the driven shaft and located within the driving member with its center co-incident with the center of the driving member and arranged to coöperate with the chamber of the driving member to form an inclosed lubricant reservoir at one end of the oscillatory member and provided with a se-

ries of conduits leading from the reservoir one to and along each of the pivots, pivots clamped between the two parts of the driving member and journaled in the oscillatory member on its transverse equatorial plane, a pin carried by the T-head of the driven shaft and projecting from both ends of said T-head to form pivots journaled in the oscillatory member on its transverse equatorial plane at right angles to the driving member pivots.

5. In a universal joint, the combination with a chambered two-part substantially spherical driving member, of a driven shaft having a T-head, a chambered substantially spherical oscillatory member inclosing the T-head of the driven shaft and located within the driving member with its center co-incident with the center of the driving member and arranged to coöperate with the chamber of the driving member to form an inclosed lubricant reservoir at one end of the oscillatory member and provided with a series of conduits leading from the reservoir one to and along each pivot, pivots clamped between the two parts of the driving member and journaled in the oscillatory member on its transverse equatorial plane, a pin carried by the T-head of the driven shaft and projecting from both ends of said T-head to form pivots journaled in the oscillatory member on its transverse equatorial plane at right angles to the driving member pivots, and a packing ring sunk in the outer surface of the oscillatory member and wiping the inner surface of the driving member, each of the driving member pivots having its inner end chamfered and provided with lubricant cross channels in register with the conduit leading to said pivot, and each of the driven member pivots having a circumferential lubricant channel in register with the conduit leading to said pivot.

[Claims 6 and 7 not printed in the Gazette.]

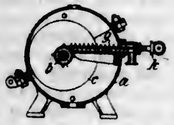
1,141,212. MUSHROOMING BULLETS. CHARLES HENRY AUGUSTUS FREDERICK LOCKHART ROSS, Balnagown Castle, county of Ross, Scotland. Filed Feb. 13, 1915. Serial No. 8,102. (Cl. 102—28.)



1. A sharp nosed bullet comprising a mushrooming tube having a pointed outer end composed of a wall of uniform thickness formed by closing the open end of the tube and provided with an integral bottom located in the body of the bullet, substantially as described.

2. A sharp nosed bullet comprising a mushrooming tube having a pointed outer end composed of a wall of uniform thickness formed by closing the open end of the tube and conforming to the outer contour of the nose of the bullet said tube being provided with an integral bottom located in the body of the bullet, substantially as described.

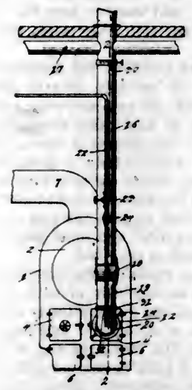
1,141,213. FILTERING DEVICE. GUSTAV ADOLF SCHÜTZ and ADOLF FRIEDRICH SCHÜTZ, Wurzen, Germany. Filed Jan. 20, 1915. Serial No. 3,388. (Cl. 210—14.)



1. In a filtering device, the combination with a receptacle, a hollow shaft rotatably arranged within said receptacle, filter elements fixed on said shaft in communication with its interior, of screw conveyers rotatably arranged between the filter plates and extending between the shaft and openings in the receptacle wall, and means for rotating the shaft and the conveyers.

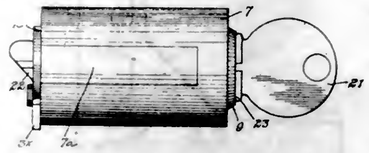
2. In a filtering device, the combination with a receptacle, a hollow shaft rotatably arranged within said receptacle, filter elements fixed on said shaft in communication with its interior, of screw conveyers rotatably arranged between the filter plates and extending between the shaft and openings in the receptacle wall, means for rotating the shaft and the conveyers and means for introducing compressed air into the receptacle above the conveyers.

1,141,214. HULL-BURNER. WILLIAM VERNON SNEED, Vernon, Tex. Filed May 13, 1913. Serial No. 767,382. (Cl. 110—102.)



A furnace door comprising a body having a central aperture therein, a collar formed on the door adjacent to the aperture and surrounding the same, an outwardly extending flange formed at the free edge of the collar, a ring surrounding the periphery of the flange, an inwardly extending flange formed on the ring and arranged to engage the outwardly extending flange to retain the ring in position on the collar, a second inturned flange on the ring, the second flange being on the end of the ring opposite to the first mentioned inwardly extending flange, the second inturned flange being partially cut away to form openings, a conveyer tube, an outwardly extending flange on the conveyer tube, said flange being cut away so that the same will pass through the openings formed in the second inturned flange, and a plate arranged to be substituted to close the aperture in the door when the conveyer tube is not in use.

1,141,215. LOCK. ALFRED L. SOHM, Los Angeles, Cal., assignor to Sohm Electric Signal & Recording Company, Chicago, Ill., a Corporation of Arizona. Filed Mar. 28, 1912. Serial No. 686,857. (Cl. 70—46.)



1. In a lock, a stationary element, a rotatable element, and a plurality of independently restrained longitudinally movable wards carried by said rotatable element, said stationary element having a corresponding plurality of annular grooves disposed side by side at irregular intervals, in which groove said wards may ride.

2. In a lock, a stationary element, a rotatable element, a plurality of independently restrained longitudinally movable wards carried by said rotatable element, said stationary element having a single annular groove for each of said wards, said grooves being disposed side by side.

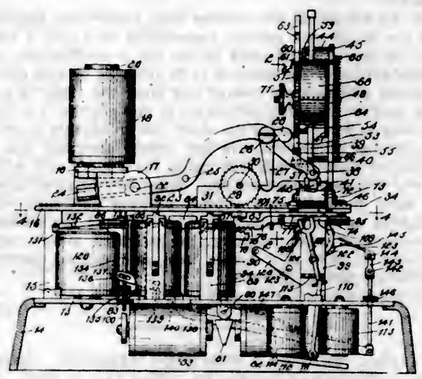
3. In a lock, a stationary element, a rotatable element, a plurality of independently restrained longitudinally movable wards carried by said rotatable element, said stationary element having a corresponding plurality of annular grooves disposed side by side at right angles to the axis of said rotatable element, in which grooves said wards may ride.

4. In a lock, a stationary element, a rotatable element, a plurality of longitudinally movable wards carried by said rotatable element, said wards being distributed along the axis of said rotatable element at irregular intervals, a single annular groove for each ward in said stationary element, and a spring for each ward tending to hold it out of line with its corresponding groove.

5. In a lock, a stationary element, a rotatable element, longitudinally movable wards carried by said rotatable element, said stationary element having annular grooves disposed at right-angles to the axis of the rotatable element in which grooves said wards may ride, springs tending to hold said wards out of line with said grooves, and a key for insertion in said rotatable part, said key having engaging surfaces along its side to encounter said wards and bring the same into line with said grooves.

[Claims 6 to 11 not printed in the Gazette.]

1,141,216. ELECTRICAL RECORDING APPARATUS. ALFRED L. SOHM, Chicago, Ill., assignor to Sohm Electric Signal & Recording Company, Chicago, Ill., a Corporation of Arizona. Filed Oct. 5, 1912. Serial No. 724,024. (Cl. 234—41.5.)



1. In a recording device, the combination of a horizontally movable type bar, guiding means for said type bar, and electrical means for shifting said type bar longitudinally in both directions from a neutral position.

2. In a recording device, the combination of a longitudinally movable type bar having a plurality of characters thereon, means for guiding said type bar, electrical means for shifting said type bar to a plurality of positions, electrical means for determining the said positions and means for making an imprint of the character brought in position.

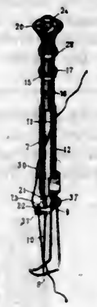
3. In a recording device, in combination, a reciprocating horizontal type bar adapted to occupy a plurality of positions, supports for said type bar, electrical means for shifting said type bar, means for determining the positions of said type bar on both sides from a neutral position.

4. In a recording device, in combination, a horizontally shifting type bar adapted to occupy a plurality of positions, a plurality of characters on said type bar, guides for said bar, projections on said bar, electromagnets for shifting said type bar both ways from a neutral position, electromagnets for determining certain positions of said type bar, the armatures of said electromagnets being arranged to engage the bosses on said type bar, means for determining the extreme positions of said type bar.

5. In a recording device, the combination of a reciprocating horizontal type bar, supports for said type bar, said type bar having a plurality of characters thereon, spring means for maintaining said type bar in neutral printing position, and electrical means for shifting said type bar both ways from said neutral printing position.

[Claims 6 to 23 not printed in the Gazette.]

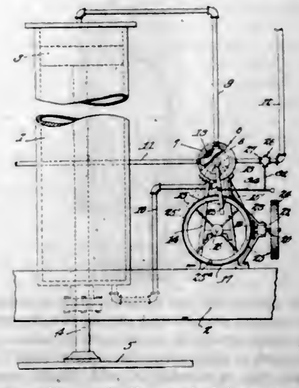
1,141,217. EMBROIDERY DEVICE. PETER SOLAINI, New York, N. Y. Filed July 7, 1914. Serial No. 849,417. (Cl. 112—40.)



1. In an embroidery device, a tubular holder, a tubular needle carrier slidably engaged in said holder provided with a threaded shank portion projecting above the top of the holder, a needle mounted in the lower end of the carrier, a threaded abutment engaged on the upper threaded shank portion of the needle carrier and arranged by engagement with the top of the holder to limit the downstroke of the needle carrier, an outwardly projecting looped member on the lower end of the needle carrier, a rod loosely engaged in the carrier extending up through said looped member and up through the tubular carrier, a closure to the upper end of said tubular carrier provided with a guide opening through which the upper end of the rod projects, a handle on the upper extended end of the rod, a thread pocket on the lower end of the rod arranged to coöperate with the looped member aforesaid and a spring on the needle carrier bearing against the inner wall of the tubular holder to hold said carrier against too free movement in the holder.

2. In an embroidery device, the combination with a holder, a needle carrier reciprocating therein, a needle mounted on said carrier, a reciprocating thread-tensioning element reciprocably mounted on the carrier and means for varying the stroke of said reciprocating thread-tensioning element on the needle carrier.

1,141,218. AUTOMATIC CONTROLLER FOR COTTON-TRAMPERS. TROY W. SPARKS, Eden, Tex. Filed Nov. 7, 1914. Serial No. 870,850. (Cl. 121—97.)

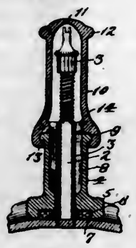


1. An automatic controller embodying an oscillatory valve having a pair of arms, and a pair of wheels rotatable

in opposite directions and having tappets for alternately engaging and swinging the said arms.

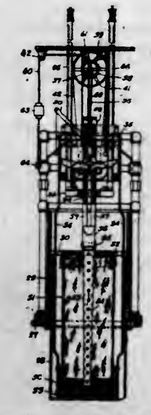
2. An automatic controller of the character described, comprising a frame, a controlling valve structure carried thereby including an oscillatory valve having arms at its opposite sides and arranged at an angle relative to one another, opposite wheels carried by the frame, the said arms projecting over the sides of the wheels, the wheels having tappet pins projecting therefrom for alternately engaging and swinging the respective arms to oscillate the valve to reversel positions, and a rotary driving member disposed between and operatively engaged to the said wheels and carried by the frame.

1,141,219. VALVE-STEM-PROTECTIVE DEVICE. GEORGE M. STADELMAN, Akron, Ohio, assignor to The Goodyear Tire & Rubber Company, Akron, Ohio, a Corporation of Ohio. Filed Jan. 15, 1915. Serial No. 2,417. (Cl. 152—12.)



A valve stem protective device comprising a rigid sleeve threaded on the valve stem and provided at one end with an annular exteriorly-placed bead, and a rubber cap having a wall around its open end inwardly-converging, said cap further provided with an annular inwardly-projecting bead spaced from the converging open end to provide between said converging portion and said bead a bead-receiving groove to receive the bead on the sleeve.

1,141,220. BAG-FILLING APPARATUS. GEORGE STONE, North Andover, Mass., assignor to M. T. Stevens and Sons Company, North Andover, Mass., a Corporation of Massachusetts. Filed Oct. 28, 1913, Serial No. 797,755. Renewed Dec. 4, 1914. Serial No. 875,519. (Cl. 100—57.)



1. In an apparatus for packing bags, a rammer, a continuously moving driver, and means for transmitting motion from said driver to move said rammer, said driver being arranged to disconnect itself from said transmitting means when the resistance of said means reaches a predetermined degree.

2. In an apparatus for packing bags, a rammer, a continuously moving driver, means for transmitting motion from said driver to move said rammer, and yielding means arranged to maintain driving connection between said driver and transmitting means, said driver being arranged to disconnect itself from said transmitting means when the resistance of said transmitting means overpowers said yielding means.

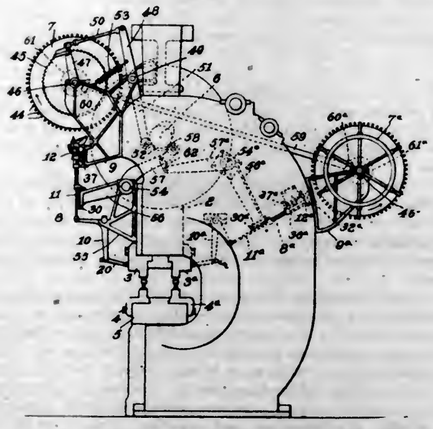
3. In an apparatus for packing bags, a rammer, a continuously moving driver, means for transmitting motion from said driver to move said rammer, and yielding means arranged to maintain driving connection between said driver and transmitting means, said driver being arranged to disconnect itself from said transmitting means when the resistance of said transmitting means overpowers said yielding means, said yielding means being arranged to maintain said driver out of driving relation with said transmitting means when said driver has been disconnected as aforesaid.

4. An apparatus for packing bags, comprising supports for the mouth and bottom respectively of a bag, a rammer for pressing the stock in the bag, a continuously rotating driver, means adapted to be actuated by said driver to move said rammer toward and from the stock in said bag, said driver being adjustable to forward and reverse driving positions and to a neutral position relatively to said means, and means operable by the resistance of the stock to the pressing movement of said rammer for adjusting said driver to reverse the movement of said rammer.

5. An apparatus for packing bags, comprising supports for the mouth and bottom respectively of a bag, a rammer for pressing the stock in the bag, a continuously rotating driver, means adapted to be actuated by said driver to move said rammer toward and from the stock in said bag, said driver being adjustable to one position for driving said rammer toward the stock, and to another position for driving said rammer in the reverse direction, and to a neutral position, weighted means for holding said driver in the first-mentioned position, said driver being arranged to move itself to said neutral position and shift said weighted means in consequence of arresting the pressing movement of said rammer, and weighted means being adapted to shift said driver from said neutral position to reverse driving position.

[Claims 6 to 8 not printed in the Gazette.]

1,141,221. MULTIPLE PUNCHING-MACHINE. GEORGE PAUL THOMAS, Glenshaw, Pa. Filed Dec. 5, 1912. Serial No. 735,123. (Cl. 164—114.)



1. In a punching machine, the combination with a frame, and a reciprocating head; of a plurality of normally inactive punches adjustably carried by said head, a plurality of separately removable punch-selecting guns borne by said frame, and means effective upon the reciprocation of said head to cause said guns to render desired punches active.

2. In a punching machine, the combination with a frame and a reciprocating head; of a plurality of normally inactive punches adjustably borne by said head, a plurality of separately adjustable and separately removable punch selecting guns borne by said frame and connected to said punches, and means operating through said guns for rendering desired punches active.

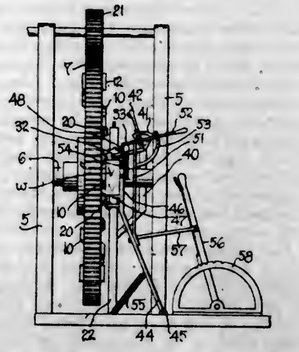
3. In a punching machine, the combination with a frame and a reciprocating head; of a plurality of normally inactive punches adjustably borne by said head, a plurality of separately adjustable punch selecting guns borne by said frame, and consisting of movable and stationary members, each of said stationary gun members being secured to said punch frame by a single clamping member, and means effective upon the reciprocation of said head for moving said movable gun members.

4. In a punching machine, the combination with a frame and a reciprocating head; of a plurality of normally inactive punches adjustably secured to said head; a plurality of separately adjustable and separately removable punch selecting guns secured to said frame and operatively connected to said punches; each of said guns consisting of a stationary frame, a rod movable through said frame and carrying a trip finger adapted to engage said frame, and a bell crank lever having its arm connected to said rod and to said punches; and means operated in coördination with the reciprocation of said head for tripping said fingers.

5. In a metal-punching machine, the combination of a frame, a reciprocating head mounted therein, a plurality of normally inactive punches adjustably borne by said head, a rotatable cylindrical templet provided with a plurality of adjustable radially extending fingers, a plurality of separately adjustable punch-selecting guns borne by said frame and adapted in alternate position to control the operation of said punches, and means for operating said head and rotating said templet.

[Claims 6 to 16 not printed in the Gazette.]

1,141,222. EXCELSIOR-CUTTING MACHINE. WILLIAM A. WALKER, Enterprise, Miss. Filed July 3, 1914. Serial No. 848,869. (Cl. 144—188.)

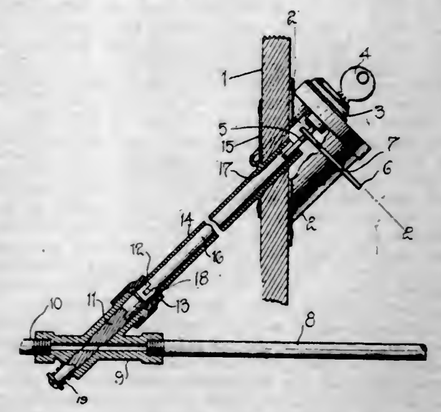


1. In a machine of the character described, a rotary disk, a plurality of cutters mounted upon said disk, a block holder arranged upon one side of the rotary axis of the disk and including a pivotally mounted bar having a socket in one end, manually operable means mounted in said socket for releasably holding a block in position on said bar, and a spring connected to said bar and normally acting to move the block toward the cutting face of the disk.

2. In a machine of the character described, a rotary disk, a plurality of cutters mounted upon said disk, a block holder arranged upon one side of the rotary axis of the disk and including a pivotally mounted bar having a socket in one end and a laterally projecting lug formed on the bar at the inner end of the socket, a block clamping member slidably mounted in said socket to engage a block and clamp the same upon said lug, a lever connected to said clamping member to actuate the same, a spring connected to said bar and normally acting to move the same toward the cutting face of the disk, and manually operable means connected to said bar to move the block away from the disk.

3. In a machine of the character described, a rotary disk, a plurality of cutters mounted upon said disk, a block holder arranged upon one side of the rotary axis of the disk and including a pivotally mounted bar having a socket in one end, a sprig held bar engaged in said socket, said pivoted bar being provided with a laterally projecting lug at the lower end of said socket to engage one end of the block, a lug upon said spring held bar to engage and clamp against the other end of the block, a lever pivotally connected to the spring held bar to move the same and disengage the clamping lug from the block, a guard roller mounted upon said pivoted bar and disposed beyond the block engaging lug thereon, a spring connected to said bar and normally acting to move the block toward the cutting face of the disk, and manually operable means connected to said bar to move the block away from the disk.

1,141,223. AUTOMOBILE-LOCK. BEN WATTS, Pasco, Wash., assignor of one-third to Robert A. Galloway, Pasco, Wash., and one-third to Grosvenor H. De Pue, Seattle, Wash. Filed July 13, 1914. Serial No. 850,707. (Cl. 137—7.)



1. The combination with an automobile having a fuel feed pipe and a dashboard, of a valve casing mounted in the length of said pipe and having a tubular extension detachably connected thereto and passing upward and rearward through the dashboard, a lock casing removably mounted upon the rear face of the dashboard and entirely disconnected from said tubular extension, a lock in said casing including a rotatable stem, a valve disposed in the valve casing, and a rod operatively connecting said stem with the valve for common rotary movement, the stem of the lock being disengageable from the rod by relative longitudinal movement and the rod being detachable from the valve by longitudinal movement.

2. The combination with an automobile having a fuel feed pipe and a dashboard, of a valve casing mounted in the length of said pipe and having a tubular extension detachably connected thereto and passing upward and rearward through the dashboard, a lock casing removably mounted upon the rear face of the dashboard and entirely disconnected from said tubular extension, a lock in said casing, including a rotatable stem, a valve disposed in the valve casing, a rod operatively connecting said stem with the valve for common rotary movement, the

stem of the lock being disengageable from the rod by relative longitudinal movement, the rod being detachable from the valve by longitudinal movement, said valve projecting at its lower end beyond the valve casing, and a spring surrounding the lower end of the valve, urging the valve to its seat but permitting the valve to be forced upward to thereby force the upper end of the rod out of the extension from the valve casing.

3. The combination with an automobile having a fuel feed pipe and a dashboard extending at right angles to the feed pipe; of a valve casing disposed in the length of the feed pipe forward of the dashboard and having a barrel upwardly and rearwardly inclined, a conical valve disposed in the barrel, a spring urging said valve to its seat, a tubular casing extending upward from said barrel and passing through the dashboard and connected thereto, an actuating rod passing through the casing and detachably engaging the valve, a key operated locking mechanism mounted upon the rear face of the dashboard and including a rotatable member, and a handle extending out through the casing whereby the member may be rotated upon the insertion of a key in the lock, said rotatable member having detachable engagement with said actuating rod.

1,141,224. PROCESS OF COATING WOVEN FABRICS, PAPER, AND THE LIKE. OTTO CARL EMIL PAUL WAWRZINIOK, Dresden, Germany. Filed July 20, 1909. Serial No. 508,677. (Cl. 91—68.)

1. The process of treating flexible woven fabrics, paper or the like, which consists in applying to the surface of the flexible fabric to be coated adhesive material in powdered form and in a non-active state, in which state the adhesive material is capable of being spread over and evenly laid on or removed from said surface, and then subjecting the material thus coated to an agent which renders active the non-active adhesive material to cause it to firmly adhere to the fabric and form thereon a flexible surface coating, substantially as described.

2. The process of treating flexible woven fabrics, paper or the like, which consists in applying to the flexible fabric to be coated adhesive material in powdered form and moistened by an agent which is inactive to dissolve the adhesive, whereby adhesive material applied to the material to be coated can be spread over or removed from said material, and subjecting the fabric with the non-active adhesive thereon to the action of a solvent in gasified form, to cause the adhesive to become active and form a pliable surface coating on said fabric.

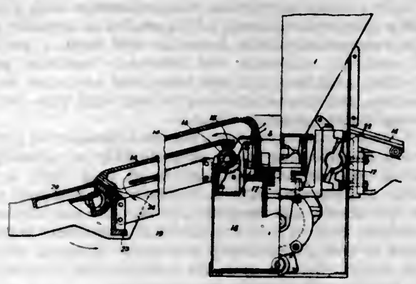
3. The process of making artificial leather, which consists in applying to a strip of fabric, a layer of adhesive material in a plastic but inactive state and consisting of nitrocellulose or its equivalents mixed with oil paint, and then subjecting the fabric with the layer of inactive adhesive to the action of a solvent which renders the adhesive active to affix it to the fabric and form thereon a pliable surface coating.

1,141,225. POCKET READING-GLASS. GEORGE W. WELLS, Southbridge, Mass. Filed Jan. 8, 1912. Serial No. 670,320. (Cl. 88—39.)



As an article of manufacture, a lens mounting comprising a frame having lugs carried by the terminal ends thereof, said lugs being offset vertically with respect to said frame, a handle formed to provide a pair of arms, the free ends of said arms being provided with laterally offset flattened portions arranged between and pivotally connected with said lugs so that when the handle is swung to over-lie the lens it will be positioned in spaced parallel relation thereto to accommodate a case.

1,141,226. MECHANICALLY-OPERATED GRATE FOR FURNACES. WILFRED ROTHERY WOOD, London, England. Filed Nov. 28, 1914. Serial No. 874,587. (Cl. 110—47.)



1. In furnace grates of the class having hollow reciprocating grate bars of box like cross section adapted to carry the draft and in combination, means for reciprocating the bars, a substantially wedge shaped outer end to the movable bars, a supporting bar having an upwardly inclined surface forming a support for the lower face of the wedge shaped end of the movable bar so that a rising and falling movement is produced as the bar reciprocates, and a dump plate over the inner edge of which the movable bars can reciprocate.

2. In furnace grates of the class having hollow reciprocating grate bars of box like cross section adapted to carry the draft and in combination, means for reciprocating the bars, a substantially wedge shaped outer end to the movable bars, a supporting bar having an upwardly inclined surface forming a support for the lower face of the wedge shaped end of the movable bar so that a rising and falling movement is produced as the bar reciprocates, a dump plate over the inner edges of which the movable bars can reciprocate the top surface of said dump plate being placed practically in the same plane as the top surface of the bars and approximately at the same inclination.

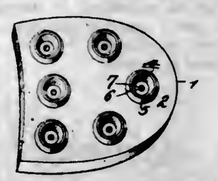
3. In furnace grates of the class having hollow reciprocating grate bars of box like cross section adapted to carry the draft and in combination, means for reciprocating the bars, a substantially wedge shaped outer end to the movable bars, a supporting bar having an upwardly inclined surface forming a support for the lower face of the wedge shaped end of the movable bar so that a rising and falling movement is produced as the bar reciprocates, a draft opening from the hollow bar on the furnace side of said supporting bar and a dump plate over the inner edge of which the movable bars can reciprocate.

4. In furnace grates of the class having hollow reciprocating grate bars of box like cross section adapted to carry the draft and in combination, means for reciprocating the bars, a substantially wedge shaped outer end to the movable bars, a supporting bar having an upwardly inclined surface forming a support for the lower face of the wedge shaped end of the movable bar so that a rising and falling movement is produced as the bar reciprocates, a draft opening from the hollow bar on the furnace side of said supporting bar, a dump plate over the inner edge of which the movable bars can reciprocate, the top surface of said dump plate being placed practically in the same plane as the top surface of the bars and approximately at the same inclination.

1,141,227. RUBBER HEEL. IRVING R. BAILEY, Akron, Ohio, assignor to The Goodyear Tire and Rubber Company, Akron, Ohio, a Corporation of Ohio. Filed Nov. 2, 1914. Serial No. 869,848. (Cl. 36—35.)

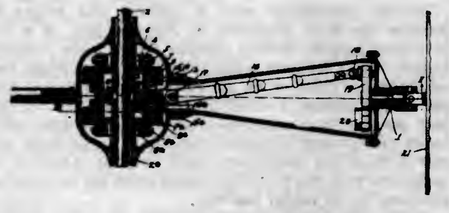
A heel tread comprising a body of elastic material provided on its lower face with a plurality of downwardly-projecting integral lugs each in the general form of a conic frustum and each lug provided with an upwardly-extending and centrally-disposed frusto-conically-formed

recess, the body above each recess provided with an upwardly-extending recess axially-disposed with reference to one of the first recesses and in open communication therewith, the upper end of each upper recess provided



with a relatively wide flat communicating enlargement, and an apertured washer positioned in each enlargement and with its axis in alinement with the axis in the upper recess, said washers providing anchorages for the heads of nails used for holding the heel in position.

1,141,228. TRANSMISSION MECHANISM. JOSEPH E. BISSELL, Pittsburgh, Pa. Filed Aug. 20, 1913. Serial No. 785,764. (Cl. 74—53.)



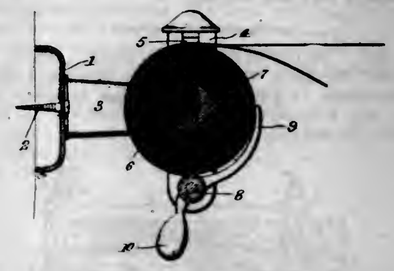
1. In a transmission, the combination with a rotary driving shaft, and a rotary driven shaft having its axis substantially at right angles to that of the driving shaft; of a clutch having one member thereof mounted for arcuate movement upon and adapted to operatively engage the driven shaft, and a spring arm eccentrically connected at one end through a universal joint to the driving shaft and pivotally secured at its other end to said clutch member, the pivot axis being substantially at right angles to the axis of the driven shaft, said drum being transversely yielding but longitudinally rigid.

2. In a transmission mechanism, the combination with a rotary driving shaft, and a rotary driven shaft transversely disposed to said driving shaft; of a clutch casing secured to said driven shaft and rotatable therewith, a pair of clutch rings rotatably mounted upon and each adapted when moved in opposite directions to engage said clutch casing, and a supplementary clutch ring rotatably mounted upon said casing between said first mentioned rings and adapted to engage one or the other thereof, and a spring arm pivoted at one end to said ring and eccentrically connected through a universal joint to said driving shaft.

1,141,229. ROLL OF PAPER TOWELS OR THE LIKE AND METHOD OF MAKING THE SAME. CHARLES B. BUERGER, New York, N. Y., assignor of one-half to Sigmund Lippstadt, New York, N. Y. Filed Mar. 28, 1914. Serial No. 828,020. (Cl. 206—58.)

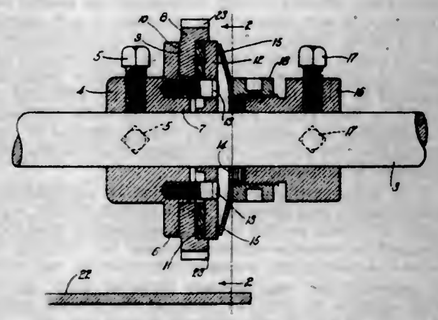
1. As an article of manufacture, a core having wound thereon a series of separate detached sheets of paper such as paper towels the outer end of each sheet overlapping and being on the outside of the inner end of the succeeding sheet.

2. The method of winding detached sheets of paper such as paper towels in a roll which consists in winding a sheet on a core until only a few inches of the sheet at the end remain unwound, placing the end of a second sheet between the unwound end of said first sheet and the body of the roll whereby the outer end of the first sheet overlaps the inner end of the succeeding sheet, continuing the winding of the new sheet and the overlapped end of the first sheet until the winding of the second sheet is almost completed and then continuing the same operation with succeeding sheets.



3. As a new article of manufacture, a package comprising a series of separate detached articles wound in a roll, the outer end of each article overlapping and being on the outside of the inner end of the succeeding article.

1,141,230. BRAKE FOR ROTARY SHAFTS. WILLIAM W. BURKE, Bennington, Vt., assignor of one-fourth to James E. Burke and one-fourth to Alexander J. Cooper, Bennington, Vt. Filed Jan. 15, 1914. Serial No. 812,321. (Cl. 74—13.)

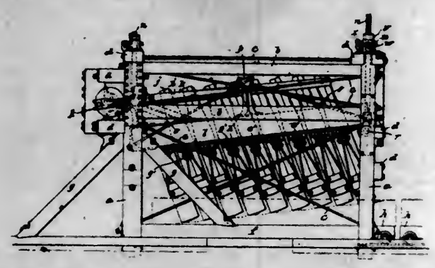


1. A brake having, in combination, a shaft, a collar fast thereto, an annular flange on said collar, a disk slidable on said shaft toward and away from said collar, a plurality of guide pins fast to said collar and extending therefrom longitudinally of said shaft into sliding engagement with said disk, whereby said disk is prevented from rotating on said shaft, a ratchet rotatably mounted on said collar with one face thereof bearing against said flange, a friction ring encircling said shaft within said ratchet and contacting with the opposite face of said ratchet, a flat spring mounted on said shaft adjacent to said disk, said spring having a plurality of arms adapted to engage said disk and force the same against said friction ring with a yielding pressure, an adjustable nut encircling said shaft in contact with said spring and adapted to vary the pressure of said arms against said disk and a pawl mounted on a stationary support and adapted to be moved into and out of engagement with said ratchet.

2. A brake having, in combination, a shaft, a collar fast thereto, an annular flange on said collar, a disk slidable on said shaft toward and away from said collar, means for preventing the rotation of said disk relatively to said shaft, a ratchet rotatably mounted on said collar with one face thereof bearing against said flange, a friction ring encircling said shaft between said ratchet and said disk, a flat spring mounted upon said shaft adjacent to said disk, said spring having a plurality of arms adapted to engage said disk and force the same against said friction ring with a yielding pressure, a stationary collar fast to said shaft at a distance from said disk, an adjustable nut hav-

ing screw-threaded engagement with said stationary collar adapted to engage said spring and to be adjusted on said stationary collar to vary the pressure of said arms against said disk, and a pawl adapted to be moved into and out of engagement with said ratchet.

1,141,231. STONE-SAWING MACHINE. ELROY A. CHASE, Northfield, Vt., assignor, by direct and mesne assignments, to American Granite Saw Company, Kittery, Me., a Corporation of Maine. Filed Nov. 13, 1909. Serial No. 527,873. (Cl. 125—18.)



1. A stone cutting machine having in combination a cutter supporting frame, a plurality of cutters pivoted on said frame and arranged in edge-wise alinement, a support for the stone, and means for adjusting said frame, said means being effective to very the angle of the general cutting plane of said cutters with reference to said support.

2. A stone cutting machine having in combination a main frame, a supplementary frame carried thereby, a plurality of cutters pivoted to the supplementary frame and arranged in edgewise alinement, means for vibrating the cutters on their pivots, a support for the stone, and means for adjusting the supplementary frame, effective to vary the angle of the general cutting plane of said cutters with reference to said support.

3. A stone cutting machine having in combination a main frame, a supplementary frame carried thereby, a plurality of cutters pivoted to the supplementary frame and arranged in edgewise alinement, means for vibrating the cutters on their pivots, a support for the stone, and means for adjusting the supplementary frame at either or both ends, effective to cary the angle of the general cutting plane of said cutters with reference to said support.

4. In a stone cutting machine, the combination of a main frame, a saw frame carried thereby, a series of heads independently pivoted to the saw frame, cutters carried thereby edgewisely in alinement, means for simultaneously vibrating the saw heads on their pivots, and means for independently adjusting the respective ends of the saw frame vertically.

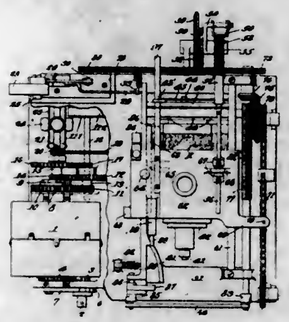
5. In a stone cutting machine, the combination of a main frame, a saw frame carried thereby, a series of heads independently pivoted to the saw frame, cutters carried thereby edgewisely in alinement, means for simultaneously vibrating the saw heads on their pivots, and means for adjusting the saw frame, whereby the cutter blades can act on different thicknesses of stone without disturbing the driving connections for the saw heads.

[Claims 6 to 13 not printed in the Gazette.]

1,141,232. MULTIPLE-RECORD PHONOGRAPH. WALTER EDGAR CHILDERS, Mertzon, Tex. Filed June 9, 1914. Serial No. 844,052. (Cl. 181—4.)

1. The combination with a carriage mounted for backward and forward movement, of means for positively feeding the carriage in one direction, a continuously operating flexible element constituting returning means, means for automatically disengaging the carriage from its feeding means upon reaching one limit of its movement, and means upon the carriage for engaging the returning means upon release of the carriage from its feeding means.

2. The combination with a carriage and means for feeding the same positively in one direction, of a continuously moving flexible element constituting returning means, means for automatically rocking the carriage upon reaching one limit of its movement to disengage it from its feeding means, and a coupling element upon the carriage and movable into engagement with the returning means when the carriage is rocked.



3. The combination with a carriage and means for feeding the same positively in one direction, of a continuously moving flexible element constituting returning means, means for automatically rocking the carriage upon reaching one limit of its movement to disengage it from its feeding means, a coupling element upon the carriage and movable into engagement with the returning means when the carriage is rocked, and means coöperating with the carriage for maintaining said coupling means in engagement with the returning means until the carriage has returned to its initial position.

4. The combination with a guide rod, of a carriage mounted to slide and to rock thereon, means for positively feeding the carriage in one direction, a continuously moving flexible element constituting returning means, a continuously oscillating lifting element, means upon the carriage and movable into engagement with the lifting element when the carriage reaches one limit of its movement, and means upon the carriage and shifted thereby when the carriage is lifted, into engagement with the returning means.

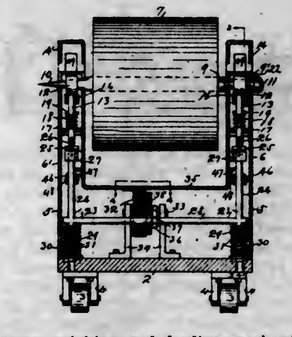
5. The combination with a guide rod, of a carriage mounted to slide and to rock thereon, means for positively feeding the carriage in one direction, a continuously moving flexible element constituting returning means, a continuously oscillating lifting element, means upon the carriage and movable into engagement with the lifting element when the carriage reaches one limit of its movement, means upon the carriage and shifted thereby when the carriage is lifted, into engagement with the returning means, and means for holding said carriage in lifted position until returned to its initial point.

[Claims 6 to 14 not printed in the Gazette.]

1,141,233. PAPER-STOCK FEEDING AND WEIGHING MACHINE. STANLEY J. DAVIS, Watertown, N. Y. Filed Sept. 19, 1914. Serial No. 862,551. (Cl. 73—46.)

1. In a paper feeding and weighing mechanism, a shaft for supporting a roll of paper, bearings for said shaft, said bearings depressed by the weight of the paper on said shaft, springs for lifting said bearings and said shaft after the paper is unwound, means for locking said shaft in the feeding position, and means actuated by the depressing of said bearings for indicating the weight of the paper at the start of each feeding operation.

2. In a paper feeding and weighing machine, a shaft for supporting a roll of paper to be fed into a beater, means for locking said shaft in the feeding position, vertically movable bearings for said shaft, said bearings depressible by the weight of the paper carried by said shaft, springs for lifting said bearings and said shaft to their upper positions after the paper is unwound, rocking levers for rendering the locking means inoperative while the bearings are in the upper position, a weight indicator, and means actuated by the depressing movement of the bearings for actuating said indicator.



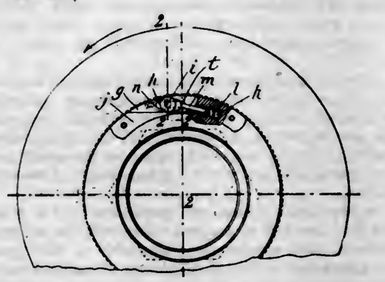
3. A paper weighing and feeding mechanism, including a shaft for supporting a roll of paper, latches for locking said shaft in the feeding position, bearings for said shaft, said bearings depressible under the weight of the paper carried by said shaft, resilient means for lifting and holding said bearings in the upper position after the paper has been unwound from said shaft, a weight indicator, and means actuated by the depressing movement of said bearings for operating said latches and also said indicator.

4. In a feeding and weighing mechanism, a frame, having severed portions connected by hinges, a shaft piercing the severed portions, yieldable bearings for supporting said shaft, latches for locking said severed portions to the stationary parts of the frame, a balanced-lever having arms constantly in engagement with the said bearings, means actuated by said lever for controlling said latches, a weight indicator, and means controlled by said lever for actuating said indicator.

5. In a paper feeding machine, a shaft for supporting a roll of paper to be fed into a beater, a hinged-support for said shaft, vertically movable bearings for said shaft, said bearings depressible by the weight of the paper carried by said shaft, springs for raising said bearings and said shaft after the paper has been fed into the beater, and bolts for locking said shaft in the feeding position, said bolts actuated by the depressing movement of said bearings.

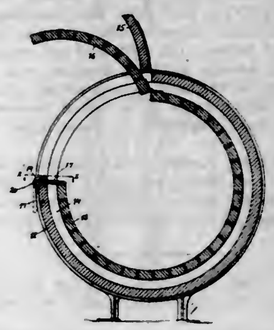
[Claims 6 and 7 not printed in the Gazette.]

1,141,234. DETACHABLE WHEEL FOR VEHICLES. ARTHUR DE CONINCK, Woluwe-St.-Lambert, near Brussels, Belgium. Filed Jan. 2, 1912. Serial No. 669,023. (Cl. 21—31.)



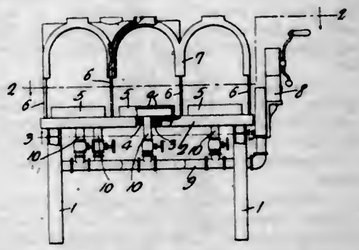
In a detachable wheel, in combination with a permanent, recessed hub provided with grooves and having a flange, a holder secured to said hub for holding the spokes of the wheel, claws upon said holder engaging said grooves, a cap adapted to be screwed onto said hub and provided with a tapering recess, a roller within the recess of said cap, a spring operated driver within a hole of said cap for normally pushing said roller into the shallowest portion of the tapering recess of said cap and jamming said roller between the flange of said hub and said cap for locking the latter against unscrewing, said roller being adapted to be pushed into the wider portion of said recess by a special tool adapted to be introduced through an opening of said cap for allowing an unscrewing of the same, substantially as described.

1,141,235. WASHING-MACHINE. GEDEON J. DE HAY, Brockton, Mass. Filed Jan. 11, 1915. Serial No. 1,511. (Cl. 68—18.)



The combination with a two-cylinder washing machine, of a guard plate formed to enter a doorway in the outer cylinder and bridge the space between the outer and inner cylinders, and having hinge pintles at its ends, and fixed hinge plates attached to the outer cylinder at opposite ends of the doorway therein, and having elongated sockets in which said pintles are free to turn and slide, to permit the guard plate to either hang downwardly from the doorway outside the outer cylinder, or to project inwardly through said doorway, the hinges formed by said pintles and plates permanently connecting the guard plate with the outer cylinder.

1,141,236. UNIVERSAL AIR-BLAST. JACOB DIEHL, Glenbeulah, Wis. Filed Apr. 18, 1914. Serial No. 832,846. (Cl. 75—180.)



1. An air blast, having a fuel containing member, consisting of a base plate, three walls upstanding therefrom at three sides thereof to form a receptacle open at one side and the top, the front edges of the two opposed walls terminating in alinement with the front edge of the base plate, and a hollow flat top projection carried by the base and having its edges spaced from the walls, said hollow projection being provided with a gas and air inlet through the bottom of the base, the surface of the top of the projection being perforated uniformly throughout its area for the even distribution of air and gas therefrom into the fuel body.

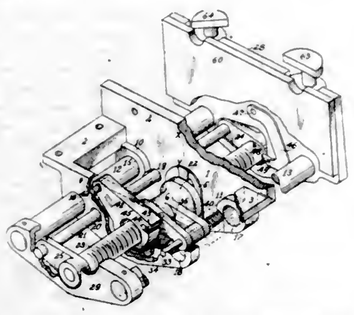
2. A universal air blast, including a base plate having a plurality of air blast directing openings therethrough, a

plurality of hollow projections above the base plate and in communication with the respective openings, there being one opening to each projection, and a plurality of upstanding walls carried by the base plate and providing a plurality of compartments or chambers one to each projection, there being a space between the walls and the respective projections in each chamber and each chamber being open toward the outer edge of the base plate to permit of the introduction of fuel material and articles to be heated therewithin.

3. A universal air blast, including a base plate having a plurality of air blast directing openings therethrough, a plurality of hollow projections above the base plate and in communication with the respective openings, there being one opening to each projection, a plurality of upstanding walls carried by the base plate and providing a plurality of compartments or chambers one to each projection, there being a space between the walls and the respective projections in each chamber and each chamber being open toward the outer edge of the base plate to permit of the introduction of fuel and articles to be heated therewithin, and a plurality of hoods supported upon the upper edges of the walls.

4. An air blast, having a fuel containing member, provided with three upstanding walls, and a perforated gas and air delivering flat top rectangular member disposed to provide a space between its sides and the walls.

1,141,237. VISE. CHARLES SUMNER EVANS, Berkeley, Cal. Filed Oct. 28, 1911. Serial No. 657,211. (Cl. 81—36.)



1. In a vise, a nut, a screw spindle terminating in a head, and supports permitting said spindle to be moved transversely while maintaining its parallelism into and out of engagement with said nut by lateral pressure upon said head.

2. In a vise having a jaw adapted to be moved by a screw spindle, a screw spindle terminating in a head, said screw spindle being movable transversely by lateral pressure upon said head, and means engaging said spindle adapted to maintain the parallelism of the spindle in all its positions.

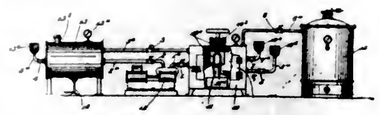
3. In a vise, a main frame, a nut, a slidable frame, and a screw spindle terminating in a head, said spindle being movable transversely to disengage or engage said nut by lateral pressure upon said head, and means for maintaining said spindle parallel to its normal operative position.

4. In a vise, a slidable frame, a screw spindle terminating in a head, means pivotally attached to said frame adapted to carry said screw spindle and to maintain its parallelism when shifted transversely by lateral pressure upon said head.

5. In a vise, a main frame, a nut engaging said frame, a slidable frame, a screw spindle terminating in a head carried by said slidable frame, supports permitting said spindle to be moved at right angles to its axis into and out of engagement with said nut by lateral pressure upon said head, and means for locking the spindle in engagement with the said nut.

[Claims 6 to 44 not printed in the Gazette.]

1,141,238. METHOD OF PRESERVING FOOD PRODUCTS. WILLIAM B. FENN, Columbus, Ohio, assignor to The Wedoit Company, Columbus, Ohio, a Corporation of Ohio. Filed Feb. 27, 1907. Serial No. 359,652. (Cl. 99—8.)



1. The improved method of treating food products and preparing them for market which consist in subjecting the product to the action of a vacuum while in the portable container in which the product is to go to the consumer, admitting a germicidal gas or vapor to the air exhausted interior of the said container, subjecting the product in the container again to the action of a vacuum, and hermetically closing the container while preventing the admission thereinto of atmospheric or non-sterile air.

2. The improved method of treating food products when preparing them for market which consists in placing an open container holding the product and in which said product is to go to the consumer in a closed chamber, exhausting the air from the said chamber, admitting a germicidal gas or vapor to said chamber, again exhausting the gaseous and vaporous contents of the chamber, and hermetically closing the container while preventing the admission thereinto of atmospheric or non-sterile air.

3. The improved method of treating food products and preparing them for market which consists in subjecting the product to the action of a vacuum while in the portable container in which the product is to go to the consumer, admitting a germicidal gas or vapor to the air exhausted interior of the said container, subjecting the product in the container again to the action of a vacuum, and hermetically closing the container while *in vacuo*.

4. The improved method of treating food products when preparing them for market which consists in placing an open container holding the product and in which said product is to go to the consumer in a closed chamber, exhausting the air from said chamber, admitting a germicidal gas or vapor to said chamber, again exhausting the gaseous and vaporous contents of the chamber, and hermetically closing the container while *in vacuo*.

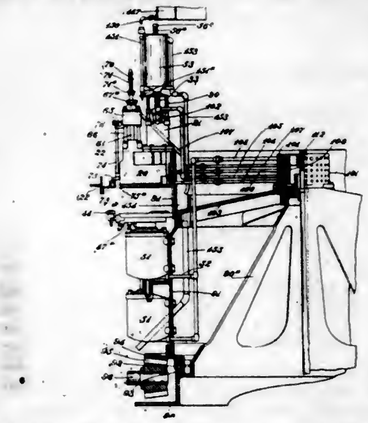
5. In a method of treating a food product in preparing it for market, the following steps, to wit: subjecting the product in an open container in which it is to go to the consumer to the action of a germicidal gas or vapor, subjecting the product to the action of a vacuum, and hermetically closing the container while preventing the admission thereinto of atmospheric or non-sterile air.

[Claims 6 and 7 not printed in the Gazette.]

1,141,239. APPARATUS FOR STERILIZING PERISHABLE MATERIALS. WILLIAM B. FENN, Columbus, Ohio, assignor to The Wedoit Company, Columbus, Ohio, a Corporation of Ohio. Filed June 24, 1910. Serial No. 568,674. (Cl. 99—2.)

1. In sterilizing means, the combination of a device to inclose the open end of a vessel containing the material to be treated, a nozzle to enter the material to be treated, means for supplying a sterilizing agent under pressure through the nozzle, and means whereby the nozzle is actuated to enter said material by the pressure of the sterilizing agent.

2. In sterilizing means, the combination of a device to inclose the open end of a vessel containing the material to be treated, said device provided with a fluid passage, means associated with said device for injecting a hot gaseous sterilizing agent under pressure into the material to be treated, and means for opening and closing said passage after the injection of the sterilizing agent, a condenser with which said passage communicates, said means for opening and closing said passage adapted to automatically open said passage after the application of the treating gas to permit the vapors rising from the material to enter said condenser.



3. In sterilizing means, the combination of a device to inclose the open end of a vessel containing the material to be treated, said device provided with fluid passage, a nozzle to enter the material to be treated carried by said device, means for supplying a hot sterilizing agent under pressure to the nozzle, means for opening and closing said passage, a condenser with which said passage communicates, said means for opening and closing said passage adapted to automatically open said passage after the nozzle has entered said material, to permit the vapors rising from the material to enter said condenser.

4. In sterilizing means, the combination of a device to inclose the open end of a vessel containing the material to be treated, said device provided with fluid passage, a nozzle to enter the material to be treated slidingly carried by said device, means for supplying a hot sterilizing agent under pressure to the nozzle, means for opening and closing said passage, a condenser with which said passage communicates, said means for opening and closing said passage adapted to automatically open said passage after the nozzle has entered said material to permit the vapors rising from the material to enter said condenser.

5. In sterilizing means, a receiver for the can containing material to be treated, a treating device for the material within the can and a can capping device in said receiver, a receiver closer, a can support movable with reference to the receiver, and means for moving the can support to place the can under the treating device or under the capping device.

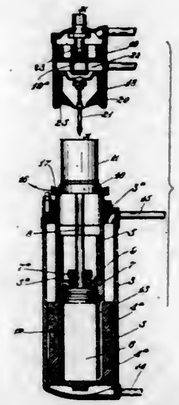
[Claims 6 to 56 not printed in the Gazette.]

1,141,240. STERILIZING-MACHINE. WILLIAM B. FENN, Columbus, Ohio, assignor to The Wedoit Company, Columbus, Ohio, a Corporation of Ohio. Filed Nov. 19, 1910, Serial No. 593,181. Renewed Feb. 23, 1915. Serial No. 10,120. (Cl. 99—2.)

1. In a sterilizing machine, the combination with sterilizing devices, of means for supporting the vessel containing material to be treated including a main cylinder, a hollow structure therein formed as a piston, an auxiliary piston in said hollow structure, a vessel support proper on said auxiliary piston and ducts for conveying fluid pressure to operate both pistons, substantially as described.

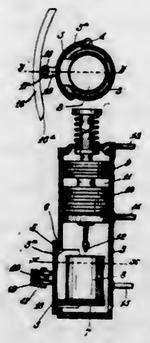
2. In a sterilizing machine, the combination with sterilizing devices, of means for supporting the vessel containing material to be treated including a main cylinder, a hollow structure therein formed as a piston, an auxiliary piston in said hollow structure, a vessel support proper on said auxiliary piston, ducts for conveying pressure to elevate the hollow structure and relatively depress the auxiliary piston and conversely to depress the hollow structure and elevate the auxiliary piston.

3. In a sterilizing machine, the combination with sterilizing devices, of means for supporting a vessel containing material to be treated including a main cylinder, a hollow structure therein formed as a piston, an auxiliary piston in said hollow structure, a vessel support proper on said auxiliary piston, said hollow structure adapted to inclose said vessel support, and ducts for conveying fluid pressure to cause said parts to be moved to inclose or expose a vessel on said support.



4. In a sterilizing machine, the combination of a holder for a vessel containing material to be sterilized, a carrier with respect to which the holder is vertically movable, a main support with respect to which the carrier is vertically movable, means for moving the carrier with respect to the support and the holder with respect to the carrier, means for coöperating with the carrier when it is in uppermost position to form a closed chamber, and sterilizing means positioned within the chamber thus formed and adapted to act upon material in a vessel on the holder when the holder is in uppermost position.

1,141,241. TREATING-CHAMBER FOR STERILIZING-MACHINES. WILLIAM B. FENN, Columbus, Ohio, assignor to The Wedoit Company, Columbus, Ohio, a Corporation of Ohio. Filed Nov. 22, 1910. Serial No. 593,634. (Cl. 99—2.)



1. In a sterilizing machine, the combination of a chamber having an opening for the insertion of a vessel, and means in the chamber for applying a sterilizing agent to a vessel in said chamber, a door for said opening, and a shelf on said door to receive the vessel.

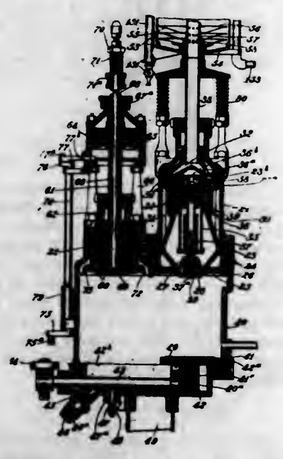
2. In a sterilizing machine, the combination of a chamber, having an opening in its upright side for the insertion of a vessel, and means in the chamber for applying a

sterilizing agent to a vessel in said chamber, a door for the said opening and a shelf on said door to receive the vessel.

3. In a sterilizing machine, the combination of a chamber having an opening for the insertion of a vessel, and means in the chamber for applying a sterilizing agent to a vessel in said chamber, a door for said opening and means whereby said door may be automatically closed when the chamber is moved toward the same.

4. In a sterilizing machine, the combination of a movable chamber having an opening for the insertion of a vessel, means in the chamber for applying a sterilizing agent to a vessel in said chamber, a door for said opening and means consisting of a rail toward which the door may be moved to close the same, substantially as described.

1,141,242. PROCESS OF STERILIZING ORGANIC MATERIAL. WILLIAM B. FENN, Columbus, Ohio, assignor to The Wedoit Company, Columbus, Ohio, a Corporation of Ohio. Original application filed June 24, 1910, Serial No. 568,674. Divided and this application filed Oct. 3, 1911. Serial No. 652,571. (Cl. 99—8.)



1. The process of sterilizing a perishable material consisting in intermittently jetting a hot gaseous sterilizing agent into the body of the material.

2. The process of sterilizing a perishable material consisting in intermittently jetting with a plurality of radiating jets a hot gaseous sterilizing agent into the body of the material.

3. The process of sterilizing a perishable material which consists in placing the material in a series of relatively small containers and intermittently jetting a hot gaseous sterilizing agent into the bodies of material in the containers.

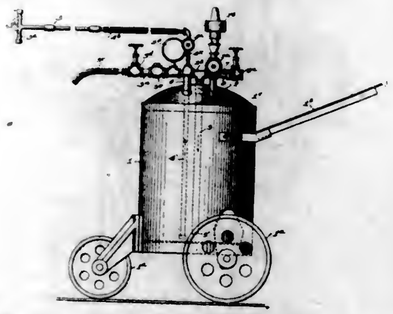
4. The process of sterilizing a perishable material consisting in subjecting the material to a succession of jettings of a hot gaseous sterilizing agent of gradually increasing effect.

5. The process of sterilizing a perishable material consisting in subjecting the material to a succession of jettings of a hot gaseous sterilizing agent of gradually increasing force.

[Claims 6 to 17 not printed in the Gazette.]

1,141,243. PROCESS FOR CLEANING SURFACES. OLIVER M. FOSTER, Cleveland, Ohio, assignor to Walter J. Rich, Cleveland, Ohio. Original application filed Oct. 14, 1914, Serial No. 866,575. Divided and this application filed Mar. 6, 1915. Serial No. 12,708. (Cl. 87—5.)

1. The process of cleaning which consists in forming a solution of water and detergent material capable of being transformed into lather, transforming said solution under pressure into a homogeneous lather substantially devoid of free or unconfined liquid, applying said lather under pressure to the surface to be cleaned, and then washing off from said surface the cleaning agents and foreign substances.



2. The process of cleaning which consists in forming a solution of water and detergent material capable of being transformed into lather, subjecting such solution to the action of compressed air to form a homogeneous lather substantially devoid of free or unconfined liquid, applying said lather under pressure to the surface to be cleaned, and then washing off from said surface the cleaning agents and foreign substances.

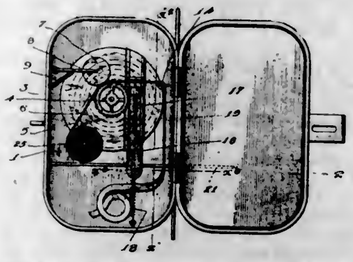
3. The process of cleaning which consists in forming a solution of water and detergent material capable of being transformed into lather, subjecting such solution to the action of compressed air to form a homogeneous lather substantially devoid of free or unconfined liquid, applying said lather under air pressure to the surface to be cleaned, and then washing off from said surface the cleaning agents and foreign substances.

4. The process of cleaning which consists in forming a solution of water and detergent material capable of being transformed into lather, subjecting such solution to the action of compressed air to form a homogeneous lather substantially devoid of free or unconfined liquid, forcing said lather under the further action of such compressed air against the surface to be cleaned and finally washing off said surface with water.

5. The process of cleaning which consists in forming a solution of water and soap or soap-like material, subjecting such solution to the action of compressed air to form a substantially homogeneous lather, spraying said lather under pressure against the surface to be cleaned, and then washing off from said surface the cleaning agents and foreign substances.

[Claims 6 to 10 not printed in the Gazette.]

1,141,244. WATCHMAN'S RECORDING-CLOCK. FRANK P. FOWLER, Phoenix, Ariz. Filed Mar. 24, 1913. Serial No. 756,602. (Cl. 234—40.)



1. A recording device comprising a case, a clock therein, a tape actuated by the clock, a slide, a punch carried by said slide and resting adjacent said tape, a pair of pins carried on said slide, a shaft extending between said pins, a cam mounted on said shaft and engaging at all times both of said pins, and means for turning said shaft to cause said eccentric to actuate said slide and cause the punch to puncture the tape.

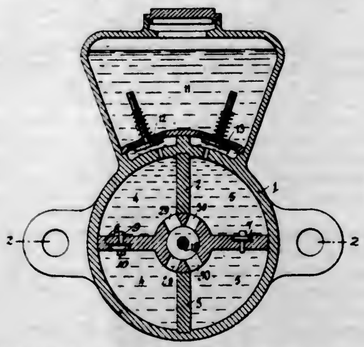
2. A recording device comprising a case, a clock therein, a tape actuated by the clock, a punch, means for actuating said punch to punch the tape and to disengage the punch positively from the tape after punching the tape, and a key adapted to operate said punch-actuating means to effect said punching and disengaging operations of the punch when said key is turned a complete revolution.

1,141,245. REELING DEVICE. CHARLES W. GILLESPIE, El Paso, Tex. Filed July 7, 1914. Serial No. 849,481. (Cl. 242—98.)



A device of the character specified comprising a cup-shaped case member having a centrally located spring arbor, a reel member journaled on the arbor and having a peripheral cord channel and a central spring chamber, the wall of said reel member extending from the peripheral cord channel to the arbor being arranged parallel with and in proximity to the inner face of the cup-shaped case member whereby a spring chamber of maximum transverse dimensions is provided, a cord secured at one end in the cord channel of the reel member and extending peripherally through the case member, a convolute spring secured at one end to the central arbor and at the opposite end to the reel member, a cover plate closing the open side of the case member and open side of the reel member, said cover plate being centrally supported by the spring arbor against inward deflection, and a clamping nut comprising a disk-like member having a convex inner face secured directly on the end of the arbor outside of the cover plate and forming with said cover plate an inwardly converging clamp in which the free end of the cord may be clamped and held.

1,141,246. HYDRAULIC BRAKE DEVICE. MAURICE HOUDAILLE, Paris, France, assignor to Societe Houdaille & Sabot, Paris, France. Filed Apr. 16, 1910. Serial No. 555,885. (Cl. 74—69.)

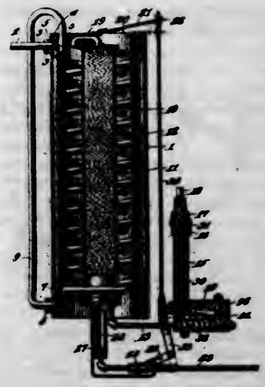


1. In a hydraulic shock-absorber a casing, a compensating tank arranged thereon, valves between the tank and casing, partitions fixed within said casing dividing said casing into two compartments, oscillating blades arranged between said fixed blades, a horizontal perforated hub for said blades said perforations connecting together the compartments, a piston in said hub adjusting the size of the perforations, an axial screw-threaded rod in the hub, an axial screw driving rod arranged in a water-tight manner against said axial rod, and means for attaching said hub to the movable body whose shocks are to be absorbed.

2. In a hydraulic shock-absorber a casing, a compensating tank arranged thereon, valves between the tank and casing, partitions fixed within said casing dividing said casing into two compartments, oscillating blades arranged between said fixed blades, a horizontal perforated hub for said blades said perforations connecting together the compartments, a screw-threaded rod arranged within said hub, a piston terminating one end of said rod and adapted to regulate the section of said perforations, a tapped portion within said hub, said screw-threaded rod fitting within said tapped portion, a screw driving rod adapted to operate said screw-threaded rod, a washer inserted between the screw driving rod and the end of the hub, a crank on said hub for attaching said hub to the movable body whose shocks are to be absorbed and a nut adapted to hold said screw driving rod and washer and said crank.

3. In a hydraulic shock-absorber a casing, a compensating tank arranged thereon, valves between the tank and casing, partitions fixed within said casing dividing said casing into two compartments, oscillating blades arranged between said fixed blades, a horizontal perforated two-part hub for said blades said perforations connecting together the compartments, two screw-threaded rods arranged within said hub, pins in said fixed partitions projecting into said perforations, pistons terminating one end of said rods and adapted to regulate the sections of said perforations, tapped portions within said hub, said screw-threaded rods fitting within said tapped portion, screw driving rods adapted to operate each screw-thread, a washer inserted between each screw driving rod and the ends of the hub, cranks on said hub for attaching the two parts of said hub to the movable body whose shocks are to be absorbed and nut adapted to hold each screw driving rod and washer and each crank.

1,141,247. AUTOMATIC WATER-HEATER. CHARLES LEMUEL HUDLER, St. Louis, Mo. Filed Aug. 8, 1914. Serial No. 855,801. (Cl. 122—169.)



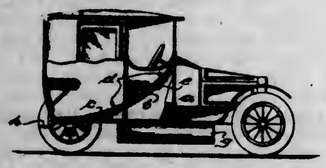
1. In a water heater, an upright water jacket having an inlet at its upper end, a coil disposed within the jacket, a riser connecting the lower end of the jacket and upper end of the said coil, a second coil disposed within the first mentioned coil, the lower ends of the coils being connected, and an upright elongated chamber disposed within the said second coil, the upper end of the second coil being connected to the upper end of the chamber, and the chamber having a lower outlet.

2. In a water heater, a cylindrical water jacket, a water supply pipe connected to one end thereof and having a lateral outlet within the jacket, and an outlet connected to the other end of the jacket and having a lateral inlet within the jacket projecting in a direction opposite to the direction in which the said lateral outlet of the supply pipe extends, so as to impart a whirling motion to the water flowing through the jacket.

3. In a water heater, a cylindrical water jacket, and nipples engaged to the jacket at its ends and having lateral branches within the jacket extending in opposite directions so as to impart a whirling motion to the water flowing through the jacket.

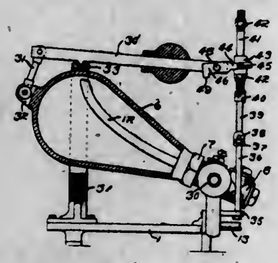
4. In a water heater, a cylindrical water jacket, and inlet and outlet nipples engaged through the outer wall of the jacket adjacent the ends therof, the nipples having heads fitting snugly within the jacket and provided with lateral branches projecting in opposite directions, so as to impart a whirling motion to the water flowing through the jacket.

1,141,248. MOTOR-CAR. FRIEDRICH KADLEC, Fiume, Austria-Hungary. Filed June 26, 1914. Serial No. 847,432. (Cl. 21—90.)



The herein described improvements in motor cars, comprising the combination with the separate under frame and upper portion of the car, of a slanting guide bar attached to each side of the said under frame, another bar resting on each of the guide bars, wedges connecting each pair of bars, and a spring influenced bolt to keep the wedges normally in engaged position, all as and for the purpose set forth.

1,141,249. STEAM-TRAP. FRANK A. LITTLEFIELD, Nashua, N. H., assignor to Nashua Machine Company, Nashua, N. H., a Corporation of Maine. Original application filed Dec. 2, 1909, Serial No. 531,034. Divided and this application filed Oct. 21, 1910. Serial No. 588,232. (Cl. 137—103.)



1. A steam trap comprising a tilting chamber, counterweighting means therefor, and a wholly mechanical friction shock absorber coöperating with said means.

2. A steam trap comprising a tilting chamber, counterbalancing means therefor and a shock absorbing clamp operatively connected to said chamber and means intermittently to place said clamp in active and in inactive positions.

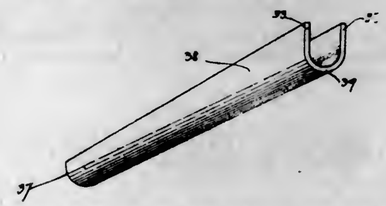
3. A steam trap comprising a tilting chamber, and a clamp bodily movable during the tilting movement of said chamber and having relatively movable parts acting as a shock absorber upon such relative movement and means intermittently to place said clamp in active and in inactive positions.

4. A steam trap comprising a tilting chamber, a counterbalancing lever therefor, and a shock-absorbing clamp operatively connected thereto, and means rendered operative by the tilting of the chamber for intermittently placing said clamp in clamping position.

5. A steam trap comprising a tilting chamber, a counterweighting lever, a clamping member connected to said lever, and means rendered operative by the tilting of the chamber to impart relative movement to said lever and member thereby to place the clamp in clamping position.

[Claims 6 to 24 not printed in the Gazette.]

1,141,250. WEDGE. DANIEL B. LUTEN, Indianapolis, Ind. Original application filed Sept. 25, 1906, Serial No. 336,157. Divided and this application filed July 26, 1911. Serial No. 640,710. (Cl. 74—8.)



1. A wedge having two longitudinally-converging edges, one of said edges being of curved cross section substantially constant in form and size throughout the length of that edge, and the other edge comprising a plurality of separated substantially parallel members.

2. A wedge formed of a piece of sheet metal having two converging edges and doubled so that said two edges of the sheet metal piece lie substantially in the same plane with each other and converge with the plane tangent to the piece at the medial line thereof.

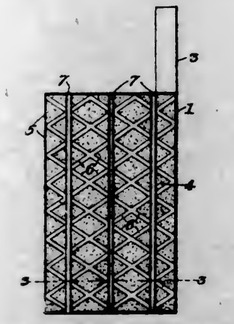
3. A wedge formed of a piece of sheet metal doubled so that the middle of the piece has a substantially semi-annular cross-section and the two edges of the piece lie substantially in the same plane with each other and converge with the plane tangent to the piece at the medial line thereof.

4. A wedge having a substantially U-shaped cross section of substantially uniform thickness with the base of the U of substantially uniform curvature throughout the length of the wedge and the legs of the U of gradually diminishing length toward one end of the wedge.

5. A wedge having a substantially U-shaped cross section of substantially uniform thickness with the legs of the U of gradually diminishing length toward one end of the wedge and the thickness of the U substantially uniform throughout.

[Claim 6 not printed in the Gazette.]

1,141,251. PLATE FOR SECONDARY BATTERIES. JOSEPH O. LUTHY, San Antonio, Tex. Filed July 7, 1914. Serial No. 849,389. (Cl. 204—29.)



1. An electrode for secondary batteries including a supporting grid with a filling of active material and an inherently porous enamel-like coating enveloping the electrode.

2. An electrode for secondary batteries including a supporting grid with a filling of active material and a porous enamel-like coating consisting of pulverized pumice-stone and silicate of soda.

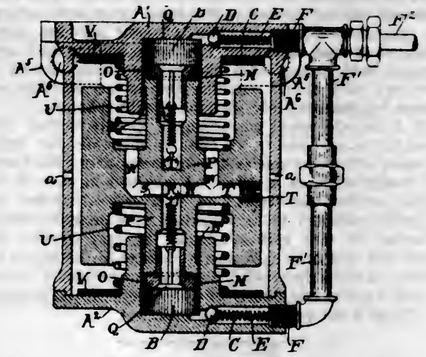
3. An electrode for secondary batteries including a supporting grid with a filling of active material, a foraminous screen covering the face of said electrode and an inherently porous enamel-like coating applied to said screen.

4. An electrode for secondary batteries including a supporting grid with a filling of active material, a foraminous conducting screen covering the face of said electrode and an inherently porous enamel-like coating applied to said screen.

5. An electrode for secondary batteries including a supporting grid with a filling of active material, a foraminous screen covering the face of said electrode and a porous enamel-like coating consisting of pulverized pumice-stone and silicate of soda applied to said screen.

[Claims 6 to 8 not printed in the Gazette.]

1,141,252. PUMP. WILLIAM D. LUTZ, Allendale, N. J. Filed July 29, 1913. Serial No. 781,867. (Cl. 230—27.)



1. In an air pump, the combination of multi-pump-barrels, a reciprocable casing carrying said barrels, pistons for said barrels operated by inertia, the barrels and pistons positioned opposite each other in substantially the same axial alinement and operable together as a unit.

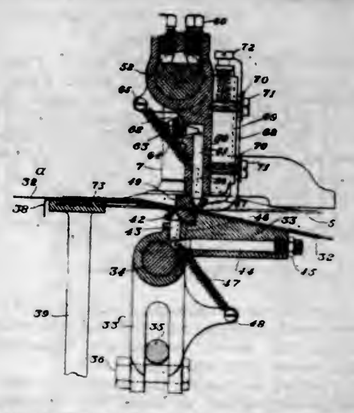
2. In an air pump, the combination of multi-pump-barrels, a reciprocable casing carrying said barrels, pistons for said barrels, the barrels and pistons set opposite each other in axial alinement, and means consisting of a freely movable body or mass the inertia of which operates the pistons.

3. In a compound acting air pump, the combination of a reciprocable casing, multi-pump barrels, hollow pistons therein, check valves in the pistons, air ducts leading from the barrels to a pressure tank, valves seated between the barrels and tank in the ducts, and a mass affixed to the pistons, freely movable in the casing, the inertia of which mass operates the pistons.

4. In an air pump, the combination of a reciprocable casing, a pump barrel, a hollow piston, therein, a check valve in the piston, an air duct leading from the barrel to a pressure tank, a valve seated between the barrel and tank in the duct, and a mass affixed to the piston, freely movable in the casing, the inertia of which mass operates the piston.

5. In a compound acting air pump, the combination of a casing, multi-pump barrels, hollow pistons therein, check valves in the pistons, air ducts leading from the barrels to a pressure tank, valves seated between the barrels and tank in the ducts, a mass affixed to the pistons movable in the casing, and springs between the top of the said mass and the top of the casing, and between the bottom of the said mass and the bottom of the casing, the first mentioned springs being weaker than those between the bottom of the said mass and the casing, to maintain the said mass in equilibrium.

1,141,253. LEATHER-SCARFING MACHINE. FRANK W. MERRICK, Boston, Mass. Filed Aug. 31, 1912. Serial No. 718,164. (Cl. 69—16.)



1. In a scarfing machine, in combination, a cutter, reversely-disposed members between which the work is presented to the edge of said cutter, said members respectively having opposite axes substantially coincident with their working faces and approximately in the plane of the said edge, and means for swinging the respective members toward each other to close them together upon the work.

2. In a scarfing machine, in combination, a cutter, reversely-disposed oppositely-swinging members between which the work is presented to the edge of said cutter, and cone-pivots for the said members having the points thereof located substantially coincident with the working faces of said members and approximately in the plane of the said edge.

3. In a scarfing machine, in combination, a cutter, reversely-disposed oppositely-swinging members between which the work is presented to the edge of said cutter, cone-pivots for the said members having the points thereof located substantially coincident with the working faces of said members and approximately in the plane of the said edge, and means for adjusting the said cone-pivots with relation to the said plane.

4. In a scarfing machine, in combination, a cutter, reversely-disposed oppositely-swinging members between which the work is presented to the edge of said cutter, said members respectively having opposite axes substantially coincident with their working faces and approximately in the plane of the said edge, and means for relatively adjusting the pivotal axes of said members transversely of said axes to vary the distance therebetween and the length of cut.

5. In a scarfing machine, in combination, a cutter, a work-gage movable toward the cutter with the work in the feeding of the latter to the edge of the cutter, a second work-gage coöperating with the first work-gage in presenting the work obliquely to the said edge, and means for effecting relative adjustment of said work-gages in such manner as to vary the length of the scarfing cut.

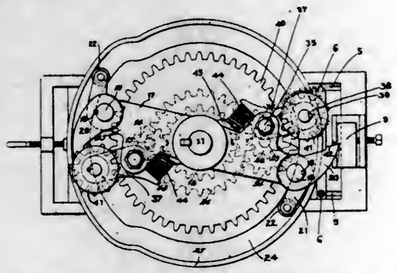
[Claims 6 to 35 not printed in the Gazette.]

1,141,254. CUTTING MECHANISM. EDMUND C. MORGAN, Morgan Park, Ill. Filed June 27, 1910. Serial No. 569,172. (Cl. 90—31.)

1. In automatic apparatus for sharpening cutting mechanism, the combination with a plurality of cutters and means for rotating the same continuously in a horizontal plane, of a grinding device associated with each cutter, and means for automatically operating the cutters for sharpening each cutter at intervals.

2. In a cutting mechanism, the combination with a continuously operated cutter, of a sharpening means

therefor traveling with the cutter, and means for automatically moving said cutter into and out of sharpening relation with respect to the sharpening means while the cutter is in motion.



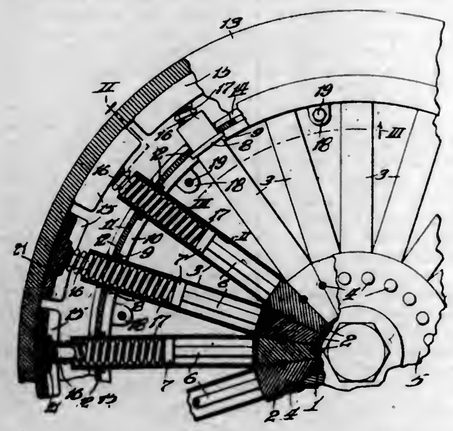
3. In a cutting mechanism, the combination of a traveling cutter, means traveling with the cutter for sharpening said cutter, and means for operably connecting said sharpening means with said cutter.

4. In a cutting mechanism, the combination with a continuously moving cutter, of means for supporting said cutter, a cutter sharpening means carried by said cutter-supporting means and traveling with the cutter, and means for moving said cutter into and out of sharpening relation with the sharpening means.

5. In a cutting mechanism, the combination with a continuously moving cutter, of means for supporting said cutter, a cutter sharpening means carried by said cutter-supporting means and traveling with the cutter, and means for moving said cutter into and out of sharpening relation with the sharpening means, said means being operated by the operation of the machine.

[Claims 6 to 52 not printed in the Gazette.]

1,141,255. RESILIENT VEHICLE-WHEEL. EMANUEL S. MORRIS, St. Louis, Mo. Filed Dec. 11, 1913. Serial No. 805,901. (Cl. 152—31.)



1. A vehicle wheel comprising a flexible casing, shoes mounted in said casing, a channel for said casing, an annulus mounted in said channel, a series of tubular spokes having their outer ends mounted in said annulus, means mounted in said spokes for resiliently holding said shoes against said casing, said channel providing means for clamping said casing, annulus and spokes together.

2. A vehicle wheel comprising a flexible casing, shoes mounted in said casing, an annulus engaging said casing, a series of tubular spokes having their inner ends mounted in said annulus, a shoulder formed on each of said spokes, said shoulders adapted to bear against said annulus, means mounted in said spokes for resiliently holding said shoes against said casing, and a channel for clamping said casing, annulus and spokes together, said channel adapted to bear against one side of said shoulders of said spokes.

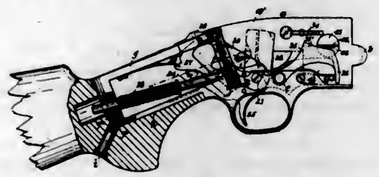
3. A vehicle wheel comprising a hollow flexible tire, a series of radially arranged shoes mounted in said tire and adapted to bear against the inner periphery thereof, a lug formed on each of said shoes, a channel for said tire, a series of radially arranged tubular spokes engaging said channel, a shoulder formed adjacent one end of each of said spokes, said shoulders adapted to bear on the outer periphery of said channel, an annulus mounted in said channel over said shoulders of said spokes, a helical spring mounted in each of said spokes, each of said springs engaging each of said lugs of said shoes, said springs adapted to bear outwardly against said shoes, said channel adapted to clamp said casing, annulus and spokes together.

4. A vehicle wheel comprising a flexible casing, shoes mounted in said casing, a channel for said casing, said channel comprising a pair of circular sections, semi-circular openings formed in the adjacent edges of said sections, said semicircular openings of said sections being oppositely disposed, an annulus mounted in said channel, a series of tubular spokes having their outer ends mounted in said semicircular openings of said sections, means mounted in said spokes for resiliently holding said shoes against said casing, said channel providing means for clamping said casing, annulus and spokes together, and means for clamping said sections of said channel.

5. A vehicle wheel comprising a flexible casing, shoes mounted in said casing, an annulus engaging said casing, a series of tubular spokes having their outer ends mounted in said annulus, a filler rod mounted in each of said spokes, a shoulder formed on each of said spokes, said shoulders adapted to bear against said annulus, springs mounted in said spokes adapted to bear against said shoes and said filler rods, and a channel for clamping said casing, annulus and spokes together, said channel adapted to bear against one side of said shoulders of said spokes.

[Claim 6 not printed in the Gazette.]

1,141,256. TUBULAR-MAGAZINE RIFLE. CHARLES A. NELSON, Utica, N. Y., assignor to Savage Arms Company, Utica, N. Y., a Corporation of New York. Filed Dec. 18, 1912. Serial No. 737,441. (Cl. 42—17.)



1. In combination, means for holding and exploding the charge including a receiver having a rearward tang, a stock having at its forward end a mortise entering from the top side of the stock and opening forwardly thereof and having its bottom and rear surfaces angularly disposed and receiving the tang, and a screw entered through the stock from the bottom side thereof into the tang substantially at the apex of the angle formed by said surfaces and extending in a line bisecting said angle, substantially as described.

2. In combination, means for holding and exploding the charge including a receiver having a rearward tang, a stock having at its forward end a mortise entering from its top side and open forwardly and receiving the tang, said mortise having a longitudinal bottom surface and a rearward upright surface, and means to secure the tang in the stock including a single screw extending in a line at an angle to each of said surfaces of the mortise and thereby maintaining surfaces of the tang against both said surfaces of the mortise, substantially as described.

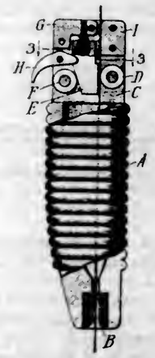
3. In combination, the receiver, the barrel, the fixed cartridge magazine delivering the cartridges contained therein butt-end foremost into the receiver, and means to remove a cartridge crosswise thereof from the delivery portion of the magazine and then breech the same, said means having cartridge-removing and breeching movement relatively to said magazine delivery portion and said portion having a lateral opening facing the direction of removal of the cartridge and extending to the end of said portion and narrower than the head but wider than the body of the cartridge, substantially as described.

4. In combination, the receiver, the barrel, the cartridge magazine, a normally fixed terminal for the magazine delivering the cartridges butt-end foremost into the receiver, and means to remove a cartridge crosswise thereof from the terminal and then breech the same, said terminal having an opening facing the direction of removal of the cartridge and extending to the end of said terminal and narrower than the head but wider than the body of the cartridge, substantially as described.

5. In combination, the receiver, the barrel, a magazine terminal opening rearwardly into the receiver, a carrier arranged opposite the rearward end of the terminal and adapted to receive a cartridge delivered butt-end foremost from the terminal, and means for thereupon shifting the carrier toward the barrel, said terminal on the side thereof adjoining the barrel having an opening extending to the rear of the terminal and narrower than the head but wider than the body of the cartridge, substantially as described.

[Claims 6 to 30 not printed in the Gazette.]

1,141,257. TOOL FOR HANDLING WIRE. RALPH H. NORTON, Chicago, Ill., assignor to Acme Steel Goods Company, Chicago, Ill., a Corporation of Illinois. Filed Jan. 10, 1912. Serial No. 670,394. (Cl. 24—136.)

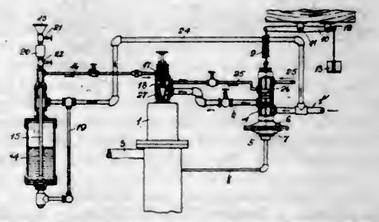


1. A tool of the character described comprising a casing exteriorly forming a handle and having a wire way extending longitudinally therethrough, a spring-pressed gripping plate formed with a cam surface mounted to slide in said casing adjacent said wire way, a roller abutment arranged to coact with said cam surface of the gripping plate to jam such plate toward the wire way, a second roller adjacent the wire way opposite to said gripping plate, and a thumb lever for shifting said gripping plate against the stress of its spring.

2. A tool of the character described comprising a casing exteriorly forming a handle and having a wire way extending longitudinally therethrough, a spring-pressed notched gripping plate mounted to slide in said casing adjacent said wire way and provided with a cam surface, a roller mounted in said casing and arranged to coact with said cam surface on the sliding plate to yieldingly jam the latter toward the wire way, and a pivoted release lever engaging the notch in said sliding plate.

3. A tool of the character described comprising a casing having a handle portion and a pair of end plates, a spring-pressed sliding gripping plate mounted between said end plates, said gripping plate being provided with serrations upon one edge and a cam surface upon its opposite edge, a roller mounted between said end plates adjacent said serrations, a second roller mounted between said end plates arranged to coact with said cam surface, and a thumb-lever mounted between said end plates and arranged to move said sliding plate against its stress.

1,141,258. LIQUID-FEEDER FOR BURNERS, &c. EDWARD P. NOYES, Winchester, Mass., assignor, by mesne assignments, to Charles W. Brown, trustee, Pittsburgh, Pa. Filed Aug. 18, 1906, Serial No. 331,114. Renewed Oct. 2, 1914. Serial No. 864,640. (Cl. 48—155.)



1. In a liquid-fuel carbureter, the combination of a passage including a mixing-chamber having air and fuel inlets constituting an aspirator with a restricted air throat, an automatic air valve commanding substantially the entire air ingredient of the mixture and biased to close, said valve being differentially controlled by the air-pressure anterior to itself tending to open the valve and the mixing-chamber pressure posterior to said aspirator tending to close the valve, and a fuel reservoir connected with said fuel inlet and subject in its upper portion to substantially the air pressure anterior to said valve.

2. In an air and liquid-fuel mixer, the combination of a mixing chamber having an inlet for substantially its entire air supply and a pressure-balanced valve controlling said inlet, an aspirator provided with a restricted air throat in the course of said air supply, a liquid-fuel reservoir subject to the air-pressure anterior to said valve, and having a fuel discharge duct provided with an outlet to said chamber at the aspirator, above the level of the reservoir, and a septum attached to the air-inlet valve and subject in one direction to the mixing-chamber pressure and to a substantially constant valve-closing force, and in the other direction to the air-pressure anterior to the valve.

3. In an air and liquid-fuel mixer, the combination of a mixing chamber having an air-supply pipe and an eduction pipe, an inlet valve in said air-supply pipe controlled differentially by the air-pressure anterior and posterior to itself, a fuel-reservoir having a discharge outlet to the mixing chamber, and a duct connecting the upper space of said fuel reservoir with a point in the air-supply pipe anterior to the inlet valve.

4. In combination, a mixing chamber having inlets for air, gaseous fuel and liquid fuel, the liquid-fuel inlet being of normally-fixed aperture, air and gas valves controlling the air and gaseous-fuel inlets and both controlled automatically by the pressures anterior and posterior to the air valve, and means for maintaining a pool of liquid fuel with its surface subject to the anterior air pressure for supplying the liquid-fuel inlet.

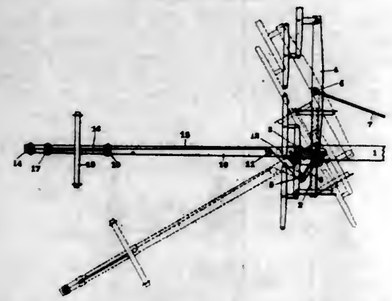
5. In combination, a mixing chamber having liquid-fuel and gaseous-fuel inlet nozzles and an inlet for air-supply, valves controlling respectively the air and gaseous-fuel inlets and controlled differentially by the air-pressures anterior and posterior to the air valve, and means to feed liquid fuel to the liquid-fuel nozzle by the difference of pressure imposed by the air valve.

[Claims 6 to 10 not printed in the Gazette.]

1,141,259. DRAFT DEVICE. NORMAN K. OLMSTED, Moline, Ill., assignor to Deere & Company, Moline, Ill., a Corporation of Illinois. Filed Aug. 6, 1913. Serial No. 783,401. (Cl. 21—189.)

1. In a draft mechanism, the combination of a stub tongue, a pole pivotally connected to the stub tongue to

swing laterally, an equalizer pivotally supported on the stub tongue, a neck yoke on the pole, and means on the stub tongue and pole and connected with the neck yoke to maintain substantially constant the distance of the latter from the equalizer when the pole is moved.



2. In a draft mechanism, the combination of a stub tongue having a support, a pole pivotally connected to the stub tongue to swing laterally, an equalizer pivotally mounted on a support on the stub tongue, a neck yoke on the pole, and means on the stub tongue and pole and connected to the neck yoke to maintain substantially constant the distance of the latter from the equalizer when the pole is moved.

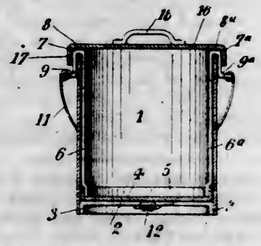
3. In a draft mechanism, the combination of a stub tongue having a support, a pole pivotally connected to the stub tongue to swing laterally, an equalizer pivotally mounted on a laterally extended support on the stub tongue, a neck yoke on the pole, and means on the stub tongue and pole and connected to the neck yoke to maintain substantially constant the distance of the latter from the equalizer when the pole is moved.

4. In a draft device, the combination of a stub tongue having a support, a pole pivotally connected to the stub tongue to swing laterally, an equalizer pivotally mounted on a laterally extended support on the stub tongue, a neck yoke on the pole, and means on the stub tongue and pole and connected to the neck yoke to move the latter forwardly when the pole is turned in one direction.

5. In a draft device, the combination of a stub tongue having a support, a pole pivotally connected to the stub tongue to swing laterally, an equalizer pivotally mounted on a support on the stub tongue, a neck yoke slidably mounted on the pole and adapted to move forwardly when the pole is turned in one direction and rearwardly when the pole is turned in the opposite direction, and means on the stub tongue and pole and connected to the neck yoke to maintain substantially constant the distance of the latter from the equalizer when the pole is turned.

[Claim 6 not printed in the Gazette.]

1,141,260. GARBAGE-RECEPTACLE. GUSTAV C. PANSEGRAU, New York, N. Y., assignor of one-half to Paul M. Pansegrau, New York, N. Y. Filed July 30, 1914. Serial No. 854,126. (Cl. 220—115.)



1. In a receptacle for the purpose specified, a removable base, means retaining said base within the receptacle, and means for disengaging said retaining means by turning the said base in its plane about its own axis.

2. In a receptacle for the character stated, a removable base, means retaining said base within the receptacle, means for disengaging said retaining means by turning the said base in its plane about its own axis, and means for lifting the said base out of the receptacle.

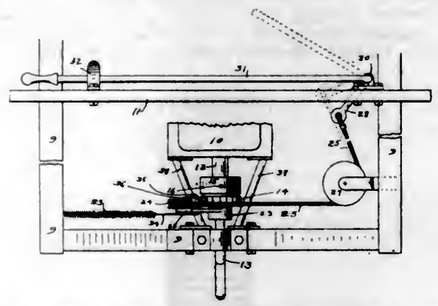
3. A receptacle comprising a shell, a bracing member at the lower end of said shell, a removable base resting on said bracing member, means retaining said base within the shell, and means for disengaging said retaining means by turning the said base about its own axis.

4. A receptacle comprising a shell, a bracing member extending crosswise over the lower end of said shell, a removable base resting on said bracing member, means retaining said base within the shell, and means for disengaging and retaining means by turning the said base about its own axis.

5. A receptacle comprising a shell, a bracing member extending crosswise over the lower end of said shell, a removable base resting on said bracing member, lugs on the underside of said base engaging means retaining said base within the shell, and means for disengaging said lugs from the said retaining means by turning the said base about its own axis.

[Claims 6 to 9 not printed in the Gazette.]

1,141,261. MOTOR-STARTER. JOHN A. PARKINSON, Sioux City, Iowa. Filed Sept. 24, 1913. Serial No. 791,663. (Cl. 123—185.)



1. A device of the class described comprising in combination with the main-shaft and starting-crank, a ratchet-wheel mounted upon the main-shaft; a retractable lever fulcrumed coaxially with said ratchet-wheel; a pawl pivoted on said lever to engage said ratchet-wheel, said pawl having a portion engageable by a stop whereby it is normally disengaged from said ratchet-wheel; a hand-lever fulcrumed upon the dash; a flexible link between said levers; a second ratchet-wheel mounted upon the starting-crank; and dogs upon the said first ratchet-wheel adapted to engage said second ratchet-wheel and be thrown outwardly therefrom by centrifugal force.

2. A device of the class described comprising in combination with the main-shaft and starting-crank, a ratchet-wheel mounted upon the main-shaft; a ratchet-wheel mounted on the starting-crank; dogs pivoted on said first ratchet-wheel and engageable by said second ratchet-wheel; a retractable lever fulcrumed coaxially with said ratchet-wheels and having its outer end off-set and arched concentric with the fulcrum and provided with a peripheral groove; a pawl pivoted on said lever to engage said first ratchet-wheel, said pawl having a portion engageable by a stop whereby it is normally disengaged from the ratchet-wheel; a post pivoted to said pawl and extended into said groove; a hand-lever fulcrumed upon the dash; a flexible link between said hand-lever and the first said lever, said link being disposed within said groove and adapted, when traction is made upon it, to force said post inwardly.

3. A device of the class described comprising in combination with the main-shaft and starting-crank, a ratchet-wheel mounted upon the main-shaft and provided with depressions in one side thereof; dogs pivoted within said depressions; a ratchet-wheel having a hub mounted upon the starting-crank, encircled by said first ratchet-wheel and adapted for engagement with the dogs; a retractable lever integral with a collar freely mounted on the hub of said second ratchet-wheel, said lever having a pawl pivoted thereon for engagement with said first ratchet-wheel; and a flexible link secured to said lever and terminating upon a hand-lever controlled from the driver's seat.

4. A device of the class described comprising in combination with the main-shaft, starting-crank, and a ratchet-wheel mounted on the main-shaft and having depressions in one side thereof, dogs pivoted in said depressions; a ratchet-wheel having a hub mounted upon the starting-crank, encircled by said first ratchet-wheel and adapted for engagement with said dogs; a retractable lever mounted freely upon the hub of said second ratchet-wheel and provided with a pawl for engagement with said first ratchet-wheel, a stop to normally disengage said pawl from said ratchet-wheel; and means for operating said lever comprising a hand-lever fulcrumed upon the dash and a flexible link between said hand-lever and first-named lever.

5. In a motor-starter a ratchet-wheel mounted upon the main-shaft and provided with depressions in one side thereof, dogs pivoted within said depressions, and a ratchet-wheel having a hub mounted upon the starting-crank and adapted for engagement with said dogs, in combination with a retractable lever having an integral collar mounted freely upon the hub of the second said ratchet-wheel, said lever being off-set rearwardly and terminating in a segment having a peripheral groove therein; a pawl pivoted upon said lever to engage said first ratchet-wheel, said pawl having a heel off-set forwardly below the lever, a stop to normally engage said heel and disengage the pawl from said first ratchet wheel, a post secured to said pawl and extended into the off-set portion of the lever; a flexible link secured to said lever and within the groove; and means for imparting traction to said flexible link controlled from the driver's seat.

1,141,262. REED-ORGAN PIPE. ADIN PARSONS, Bondi, near Sydney, New South Wales, Australia. Filed Sept. 11, 1913. Serial No. 789,242. (Cl. 84—22.)



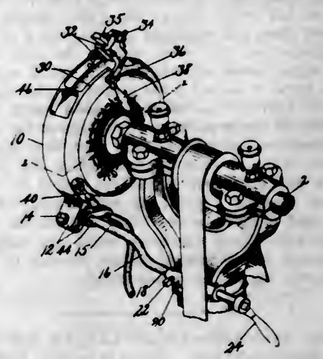
1. A reed organ pipe comprising a boot; a metal cap comprising a disk provided with a depending rim fitting into the top of the boot and with a central orifice; a reed socket having its upper end soldered in said orifice and projecting through the same; and a pipe socket surmounting the projecting end of the reed socket and soldered thereto.

2. A reed organ pipe comprising a boot; a cap mounted on the top thereof and provided with a tapered, depending reed socket; a reed having its upper end frictionally held in said socket; a tongue secured to said reed; and a stop carried by said reed for engagement with the lower end of the socket to limit the movement of said reed end into said socket.

3. A reed organ pipe comprising a boot; a metal cap comprising a disk provided with a depending rim fitting into the top of the boot and with a central orifice; a tapered reed socket depending within the boot and having its upper end soldered in said orifice and projecting through the same; a reed having its upper end frictionally held in said socket; a tongue secured to said reed; a stop carried by said reed for engagement with the lower end of the socket to limit the movement of said reed end into said socket; and a pipe socket surmounting the projecting end of the reed socket and soldered thereto.

4. A reed organ pipe comprising the combination, with a boot and its cap, of a tapered socket secured to said cap and depending within said boot; a reed having its upper end frictionally engaged in said socket and provided with a flattened face having an opening formed therethrough; a cross-piece arranged within said reed adjacent said opening; and a tongue soldered to said cross-piece.

1,141,263. MACHINE FOR WAX-TREATING PARTS OF BOOTS AND SHOES. CHARLES PEASE, Beverly, Mass., assignor to United-Xpedite Finishing Company, Berwick, Me., a Corporation of Maine. Filed June 7, 1906. Serial No. 320,622. (Cl. 51—17.)



1. In a machine of the class described, a wax applying wheel having a textile covering, in combination with a wax supplying device, and a movably mounted friction block located substantially at the rear side of the wheel, and means, including a handle extending forwardly within the reach of the operator, for moving the block toward or from position for frictionally engaging and heating the surface of the wax applying wheel.

2. In a machine of the class described, the combination with a work-rubbing wheel, of a friction block for engaging said wheel, a support mounted for angular movement to carry the block bodily toward the wheel, means for moving the support, and a connection between the block and the support arranged to permit angular movement of the block upon the support.

3. In a machine of the class described, the combination with a work-rubbing wheel, of means for heating the acting face of the wheel, and supplying the wheel with wax, comprising a chambered block supported adjacent to one side of the wheel, a burner arranged to delived a flame into said chambered block, and a holder for unmelted wax supported on said block, said means having provision for protecting the wax from the heat of the burner.

4. In a machine of the class described, the combination with a work-rubbing wheel, of a block having a curved face formed to embrace a portion of the periphery of the wheel, a longitudinal channel in said block, a burner arranged at the lower end of the channel for heating the block, a holder for unmelted wax at the other end of the block, and a shield for diverting the heat from the wax.

5. In a machine of the class described, the combination with a work-rubbing wheel, and means for rotating it, of a holder for a stick of meltable wax arranged in position to present the wax to the wheel and comprising separable clamping members having backwardly and outwardly inclined side faces forming a channel widest at its rear side, and means for forcing said clamping members together whereby the stick is clamped between said side faces and the rear wall of the holder.

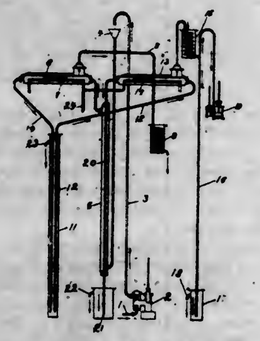
[Claims 6 and 7 not printed in the Gazette.]

1,141,264. SHOCK-ABSORBER. CHARLES W. PRICE, St. Louis, Mo. Filed Apr. 21, 1914. Serial No. 833,435. (Cl. 21—50.)



A shock absorber comprising a one piece V-shaped yoke, a transverse member seated in the upper ends of the legs thereof and serving as a point of attachment for a vehicle spring, spacing thimbles loosely mounted on the ends of said transverse member between the upper ends of the yoke and the vehicle spring, a plate removably positioned on the lower end of the yoke, flanges depending from said plate and engaging the side edges of the transverse member at the lower end of the yoke to prevent lateral displacement of said plate, a spiral spring seated on said plate, a second plate seated on the upper end of the spiral spring, legs on said second plate, which legs bear upon the upper portions of the legs of the yoke, guide ribs formed on the sides of said legs, the upper ends of said legs being notched to form seats for the spacing thimbles, and a transverse member seated in the legs on the plate to form a point of attachment for a vehicle spring, said plates and the lower end of the yoke being provided with alined apertures which are adapted to receive means for imparting initial tension to the spiral spring when the device is assembled.

1,141,265. PROCESS AND APPARATUS FOR CONTINUOUS DISTILLATION. FRITZ RASCHIG, Ludwigshafen-on-the-Rhine, Germany. Filed Jan. 8, 1913. Serial No. 740,804. (Cl. 196—16.)



1. The continuous process of fractional distillation at constant temperatures which comprises passing the liquid to be fractionally distilled successively and continuously through a series of retorts heated to constant temperatures and maintained under progressively increasing vacua, and continuously removing from each retort the distillate formed therein and the undistilled liquid.

2. The continuous process of fractional distillation at constant temperatures which comprises supplying the liquid to be distilled to a distillation retort heated to such temperature and maintained at about atmospheric pressure, continuously removing the distillate from such retort, removing the undistilling liquid in a continuous manner from said retort to another retort maintained at such temperature and at a decreased pressure and continuously removing the distillate and undistilled liquid for said last mentioned retort.

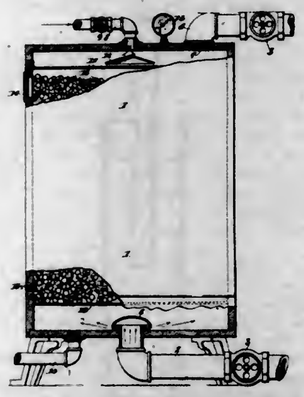
3. The continuous process of fractional distillation at constant temperatures which comprises supplying the liquid to be distilled to a distillation retort heated to such temperature and maintained at about atmospheric pressure, continuously removing the distillate from such retort, removing the undistilled liquid in a continuous manner from said retort and supplying the same through a suitable conduit to another retort maintained at such temperature and under a high vacuum, maintaining a head of liquid in the supply conduit corresponding approximately to the vacuum employed, and continuously removing the distillate and the undistilled liquid from said last mentioned retort.

4. The continuous process of fractional distillation at constant temperatures which comprises passing the liquid to be fractionally distilled successively and continuously through a series of retorts maintained under progressively increasing vacua, continuously removing from each retort the distillate formed therein, continuously removing from each retort the undistilled liquid, and supplying the liquid to each retort and removing the liquid therefrom through conduits containing heads of liquids corresponding to the vacuum in such retorts.

5. An apparatus for the continuous distillation of oils, comprising two or more retorts arranged in series, means for heating said retorts, means for continuously feeding oil to said retorts and for continuously removing the distillate and the residue from each of said retorts separately, and means for maintaining each successive retort under a lower pressure than the preceding retort.

[Claims 6 to 9 not printed in the Gazette.]

1,141,266. ABSORPTION AND REACTION TOWER FOR ACIDS, &c. FRITZ RASCHIG, Ludwigshafen-on-the-Rhine, Germany. Filed May 26, 1914. Serial No. 841,174. (Cl. 23—1.)



1. An absorption and reaction apparatus comprising a tower charged with small cylinders of substantially uniform size arranged in a promiscuous manner.

2. An absorption and reaction apparatus comprising a tower charged with small sheet metal cylinders of substantially uniform size arranged in a promiscuous manner.

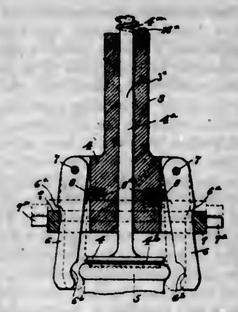
3. An absorption and reaction apparatus described comprising a tower charged with small cylinders of substantially uniform size arranged in a promiscuous manner, and said tower being provided near its upper end with means for supplying liquid thereto and removing gases therefrom, and at its lower end with means for supplying gases thereto and removing liquid therefrom.

4. An absorption and reaction apparatus comprising a tower charged with small cylinders of substantially uniform size arranged in a promiscuous manner, said tower being provided with means for supplying reacting fluids thereto and for removing the products of reaction therefrom.

5. An absorption and reaction apparatus comprising a tower charged with small catalytic-carrying cylinders of substantially uniform size arranged in a promiscuous manner.

[Claims 6 to 8 not printed in the Gazette.]

1,141,267. BOTTLE-CAPPING MACHINE. ALBERT D. RAY and CHARLES N. RUSSELL, Cleveland, Ohio. Filed Apr. 16, 1914. Serial No. 832,163. (Cl. 113—4.)



1. In a bottle capping machine, a stationary head, a spring resisted plunger stem mounted therein and terminating in a plunger head the latter being provided with an inset disk portion adapted to receive the disk portion of the bottle cap and to fit into the mouth of the bottle, and spring resisted depending jaws projecting beneath said plunger head and provided at their inner free sides with bottle bead receiving grooves adapted to crimp the skirt portion of the bottle cap about the bottle beading after the insertion and retention of the disk portion of the bottle cap in the mouth of the bottle by said plunger head.

2. In a bottle capping machine, the combination with a stationary head, and a spring resisted plunger stem mounted therein and provided with a plunger head having an inset disk portion adapted to receive the cap disk and to fit into and insert the latter in the mouth of the bottle; of cap crimping spring resisted jaws mounted in said stationary head and surrounding and projecting beneath said plunger head, the free inner sides of said jaws being provided with bottle bead receiving grooves to receive and constrict the skirt or bottle bead engaging portion of the bottle cap about the bottle beading in the final application of the latter.

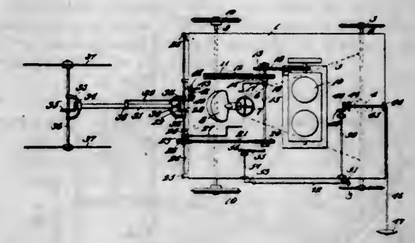
3. In a bottle capping machine, a stationary head, a spring resisted plunger stem mounted therein and terminating in a plunger head the latter being provided with an inset disk portion adapted to fit into the mouth of the bottle and to receive the disk portion of the bottle cap in the act of receiving the latter within the groove of the bottle mouth, and a plurality of spring resisted cap crimping jaws carried by said stationary head and provided at their free inner sides with bottle bead receiving grooves extending beneath said plunger head and being adapted to finally crimp the skirt or beaded portion of the bottle cap about the beaded portion of the bottle when the latter is elevated to a position in horizontal alinement with said bead receiving grooves.

4. In a bottle capping machine, a stationary head, a spring resisted plunger stem mounted therein and terminating in a plunger head the latter being provided with an inset disk portion adapted to fit into the mouth of the bottle, a plurality of jaws pivotally mounted in said stationary head and surrounding and projecting beneath said plunger head, the free inner sides of said jaws being provided with bottle bead receiving grooves, a plurality of springs interposed between said stationary head and said pivotally mounted jaws to normally hold the latter in an open position, a collet surrounding said jaws and adapted to simultaneously close the same against the resistance of said springs, a bottle carrying plunger adapted to carry a bottle against said plunger head in the act of initially inserting the bottle cap therein, and means for operating said collet whereby to close said jaws and finally crimp the skirt portion of the bottle cap about the bottle beading after the insertion and retention of the disk portion of the bottle cap in the mouth of the bottle by said plunger head and said bottle carrying plunger.

5. In a bottle capping machine, a frame provided at its top with a head, a spring resisted vertically movable plunger head mounted therein, said head having an inset disk portion adapted to receive the disk portion of the bottle cap and to fit into the mouth of the bottle, a bottle carrying plunger beneath said head, a plurality of depending jaws carried by said head and surrounding said plunger head, said jaws being provided with bottle bead receiving grooves, means for moving said bottle carrying plunger whereby the bottle carried by the latter is adapted to initially receive the bottle cap from said spring resisted plunger head and the beading of said bottle is brought into alinement with said grooves of said jaws, and means for closing said jaws about the skirt or beaded portion of said bottle cap after the insertion and retention of the latter in said bottle by said plunger head and the elevation of the beaded portion of said bottle as aforesaid.

[Claim 6 not printed in the Gazette.]

1,141,268. ICE-SAWING MACHINE. FRANK E. REED, Lacon, Ill., assignor of forty-five one-hundredths to Charles C. Roth, Lacon, Ill. Filed June 21, 1913. Serial No. 775,111. (Cl. 125—14.)

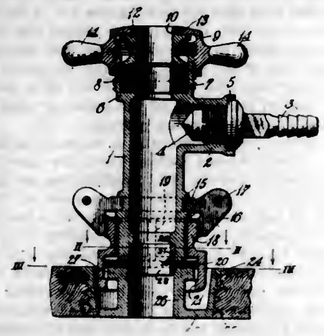


In an ice-sawing machine, a supporting structure; an ice saw carried thereby; an engine on the supporting structure and operatively connected with the saw; a primary shaft extended substantially parallel to the line of advance of the machine and journaled on the supporting structure in front of the engine, the primary shaft embodying an arm disposed transversely of the line of advance of the machine; a marker on the arm adjacent its end; a secondary shaft disposed transversely of the line of advance of the machine and journaled on the supporting structure; intermeshing beveled pinions on the shafts; and means operatively connected with the secondary shaft for actuating the same from a point to the rear of the engine thereby to dispose the marker on opposite sides of the supporting structure.

1,141,269. BEER-TAP AND BUSHING. FRANK E. RICH, Detroit, Mich., assignor to American Tap Bush Co., Detroit, Mich., a Corporation of Michigan. Filed June 8, 1912. Serial No. 702,456. (Cl. 225—3.)

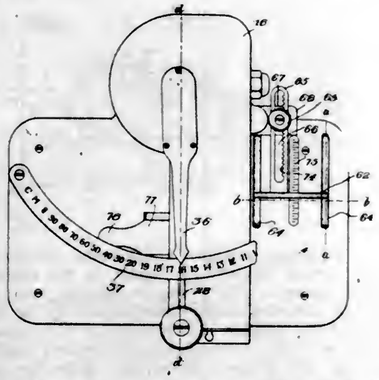
In a beer tap, a casing, an annular shoulder therein, a tube extending in the end of said casing and having an annular flange against said shoulder, said casing having the end thereof peened to retain said tube against said shoulder, a holding member on the end of said casing with

an inner uninterrupted flange forming an oval opening, a bushing, a nipple carried by said bushing and adapted to be telescoped by said holding member and receive the end of said tube, oppositely disposed flanges on said nipple adapted to overlie the inner flange of said holding member and interlock said member with said nipple, oppositely



disposed lugs on the wide portion of the flange of said holding member and adapted to limit the interlocking action of the said member and the nipple, and a detachable washer surrounding said tube between the end of the casing and the flanged end of the nipple and engaging the inner walls of said holding member.

1,141,270. PRINTING-MACHINE. CHARLES H. SAMPSON, Rochester, N. Y., assignor to Peerless Check Protecting Company, Rochester, N. Y., a Corporation of New York. Filed Oct. 29, 1913. Serial No. 798,125. (Cl. 101—57.)



1. In a printing machine, the combination with a type wheel having a printing surface provided with grooves, and a platen for coöperation with said printing wheel having serrations for entering the grooves of the printing surface of means for adjusting the platen comprising a support having a way in which the platen may be raised, lowered, and moved longitudinally, a screw having screw-threaded engagement with the under side of the platen and loosely engaging the support, screws having screw threaded engagement with the support and bearing against the bottom of the platen on opposite sides of the first-named screw, and screws having screw-threaded engagement with opposite ends of the platen and loosely engaging the support.

2. In a printing machine, the combination with a type wheel having a printing surface provided with grooves, of a pivotally mounted lever having a transverse groove, a platen having a serrated face for coöperation with the printing surface and longitudinally movable in the groove of the lever, a screw loosely engaging the lever and having screw-threaded engagement with the bottom of the platen, screws having screw threaded engagement with the lever and bearing against the bottom of the platen on opposite sides of the first-named screw, and screws having screw threaded engagement with opposite ends of the platen and heads bearing against the pivoted lever at the ends of the groove.

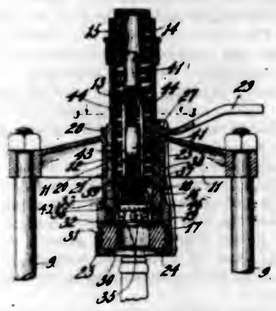
3. In a printing machine, the combination with a type wheel having a printing surface provided with grooves, of a pivotally mounted lever having a transverse groove, a platen having a serrated face for coöperation with the printing surface, said platen being mounted in the groove of the lever, means for raising and lowering the platen within said groove, and two screws having screw threaded engagement with opposite ends of the platen and also having heads engaging the lever in proximity to the ends of the groove in order to shift the platen longitudinally within the grooves.

4. In a printing machine, the combination with a rotary type wheel, of a locking member for holding the type wheel against rotation, a platen lever, a platen carried by the lever and adapted to coöperate with the type wheel, and a connection between the lever and the locking member for moving the latter to locking position and then permitting the lever to continue its movement after the locking member has locked the rotary type wheel.

5. In a printing machine, the combination with a rotary type wheel, of a movable locking dog for holding the type wheel against rotation, a platen for coöperation with the type wheel, and operating mechanism for the platen having a resilient connection with the movable locking dog causing the latter to lock the type wheel before the platen engages the type wheel and then permitting the independent movement of the platen toward the type wheel.

[Claims 6 to 14 not printed in the Gazette.]

1,141,271. FILLING AND CAPPING MACHINE. PETER J. SCHLOEMER and HENRY E. KRUEGER, Oshkosh, Wis. Filed Sept. 25, 1911. Serial No. 651,117. (Cl. 226—28.)

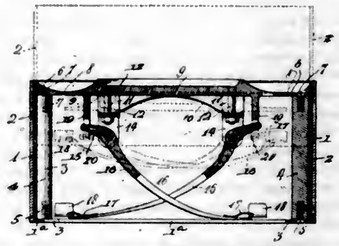


1. A filling and capping machine, comprising a casing, cap applying means carried by said casing, a compression collar extending over the lower end of the casing, cam engaging arms extending upwardly from the compression collar, a cam collar engaged by said arms, a compressible sealing collar interposed between the compression collar and the lower portion of the casing and adapted to have its bore contracted when compressed, and means for feeding liquid to said casing.

2. A filling and capping machine, comprising a casing, cap applying means carried by said casing, a compression collar surrounding the lower end portion of the casing and provided with an inwardly extending annular flange, said compression collar provided with cam engaging arms extending upwardly therefrom, a cam collar surrounding the casing and provided with upwardly extending cam surfaces which are engaged by the cam arms, a compressible sealing collar interposed between the annular flange of the compression collar and the lower portion of the casing and adapted to have the bore contracted when compressed, and means for feeding a charged liquid to said casing.

3. A filling and capping machine, comprising a casing, cap applying means within said casing, arms connected to and supporting said casing and provided with openings, a compression collar surrounding the lower end of the casing and provided with an inwardly extending annular flange, said compression collar provided with upstanding cam engaging arms which are adapted to extend through the openings of the supporting arms, a cam collar surrounding the casing and resting on the supporting arms and provided with upper cam surfaces which are engaged by the upper ends of the cam arms, a compressible sealing collar interposed between the annular flange of the compression collar and the casing and adapted to have its bore contracted when compressed, an inlet pipe communicating with the casing, and an automatic escape valve also connected with said cap applying means.

1,141,272. FLAT-IRON SUPPORT AND SAFETY-GUARD. FRANK SCHULLER, Jersey City, N. J. Filed Mar. 7, 1914. Serial No. 823,098. (Cl. 68—27.)



1. A support and guard for heated articles comprising in combination, an outer casing, a movable guard wall disposed in said outer casing, a depressible supporting platform adapted to hold heated articles, and means connecting said platform with said movable guard wall whereby upon depression of the platform the guard wall will move upwardly into a position to protect the heated article.

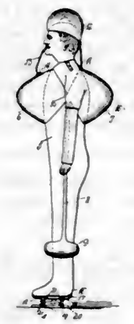
2. A support and guard for heated articles comprising in combination, an outer casing, a movable guard wall disposed in said casing, a depressible supporting platform adapted to hold heated articles, means connecting said platform with said movable guard wall whereby upon the depression of the platform the guard wall will move upwardly into a position to surround the said heated article, and means for returning said sides to their normal position.

3. A support and guard for heated articles, comprising in combination, an outer casing, a movable guard wall disposed in said casing, a depressible supporting platform adapted to hold heated articles, means connecting said platform with said movable guard wall whereby upon depression of the platform the guard wall will move upwardly into a position to surround the heated article, and spring means for returning said platform and guard walls to their normal positions.

4. A support and guard for heated articles comprising in combination, an outer casing having a continuous vertical wall, a continuous movable guard wall disposed in said casing adjacent the vertical wall thereof, a depressible supporting platform adapted to hold heated articles, means operated by said depressible platform for elevating said movable guard wall, and spring means for returning said platform to its normal position.

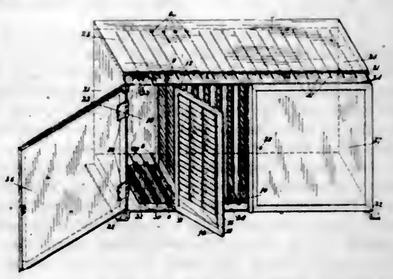
5. A support and guard for heated articles, comprising in combination, an outer casing having a continuous vertical wall, a frame work disposed in said casing, a movable guard wall disposed between said framework and the vertical wall of said casing, a top-plate supported on said framework and having an opening therethrough, a depressible platform disposed in said opening, transverse girders carried by said top-plate supporting springs adapted to resiliently support said depressible platform, oppositely disposed bifurcated members pivotally carried by said transverse girders and having one end engaging said platform and the other end engaging said movable guard wall whereby upon the depression of said platform said movable guard wall is moved upwardly into a position surrounding said heated article.

1,141,273. LIFE-SAVING SUIT. PAUL SIMON, Perth Amboy, N. J. Filed Jan. 9, 1915. Serial No. 1,332. (Cl. 9—20.)



A life-saving suit for aeronauts comprising, in combination, a suit made of water-tight material, provided with a plurality of airtight pockets and an air-tight helmet all communicating with each other through channels made of the same material, means for inflating said air-tight pockets and helmet with air from the lungs of the wearer, said suit terminating at the lower extremities in double rubber soles connected with each other by straps, springs between each pair of soles and means integral with said soles to keep said springs securely in position, substantially as and for the purpose set forth.

1,141,274. TICKET-RACK AND STORAGE SYSTEM FOR SAME. MAX A. SKALL, New York, N. Y. Filed Dec. 18, 1913. Serial No. 807,394. (Cl. 211—37.)



1. A ticket rack comprising a rectangular frame, surrounding a plate of sheet metal, backed by a plate of fibrous material, hinge bars on said frame, extending its top and bottom edges, provided with apertures for hinge pins, and ticket holders, formed by bending a rectangular plate at three sides at a right angle to the plate, fastened one upon the other in slanting position and forming rows of ticket compartments, held by said base, said ticket compartments having an entrance opening at their top and being closed on their other sides.

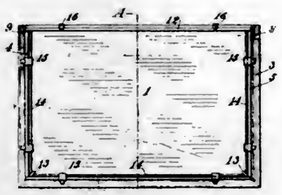
2. In a storage cabinet for tickets, a base section, three vertical sides, and a roof section, a door forming the front side of said cabinet, a series of alining elongated apertures in said base and roof sections extending from points near the door opening to points near the rear side of said

cabinet, and ticket racks provided with alining projections at their upper and lower edges, apertures in said projections to accommodate hinge pins which slidably engage said alining apertures and rotate in said projections.

3. In a storage cabinet for tickets, the combination with a casing having top and bottom plates provided with alining elongated apertures, of a plurality of ticket racks provided with projections at their upper and lower sides, slidably engaging said longitudinal apertures in the base and top plates of said casing and a projecting roof above said top plate covering the upper projections.

4. In a storage cabinet for ticket racks the combination with a casing provided with elongated apertures in its base and top plates, guide bars parallel to said apertures, and terminating slightly behind the front end of said apertures, ticket racks sliding between said guide bars and provided with hinge bars, and hinge pins which slide in said apertures, at their upper and lower sides; said hinge bars engaging the front edges of the guide bars when the hinge pins are at the extreme front end of the apertures and turned out of alinement with the apertures.

1,141,275. SHOW-CASE CONSTRUCTION. MAX A. SKALL, New York, N. Y. Filed Oct. 21, 1914. Serial No. 867,694. (Cl. 211—25.)



1. In a show case a skeleton frame of horizontal rods, vertical rods placed at the corners of the show case, to connect the horizontal rods to the base of the case, plates forming the walls of the case placed around said frame, clamping members inserted between the edge of a side plate and the lower face of the top plate, said clamping members being provided with projections to guide the outside face of a side plate and embrace the front edge of the top plate, the part projecting into the show case being adapted to be bent in place after assembling the side plates, to form an alining flange for connection with the rods of the frame.

2. In a show case a skeleton frame consisting of rods, supported on the base of the case to form a guide for the inside faces of the side plates of said case, clamping means placed on the upper edge of said plate provided with an outer flange to guide the outside face of one of said plates and with an inner flange bent around one of said rods to tie the upper edge of said plate to the frame.

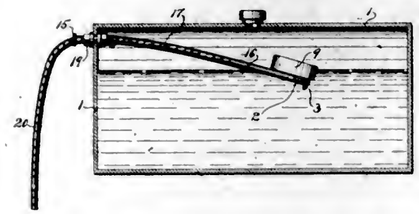
3. The combination with a skeleton frame of a clamping member interposed between two plates of a show case formed in angular relation to each other, said clamping member being provided with a projecting flange, adapted to engage a rod of the frame running along the upper inside corner formed by these plates and acting as a guide for the inside face of a side plate.

4. In a show case a skeleton frame of horizontal rods, vertical rods supporting said horizontal rods, plates forming the walls of the case placed around said frame, a pair of spaced clamping members on the same side of the case, interposed between two plates of the show case formed in angular relation to each other, said clamping members being provided with means, to engage said rods and to space said clamping members a definite, but selective distance from each other.

5. In a show case the combination with a skeleton frame of rods held at the base of the case, and horizontal rods supported at the upper ends of said vertical rods, plates forming the walls of the case placed on the outer sides of said frame, of clamping means attached to said rods, indefinite but selective position along said rods interposed between two of said plates and flanges on said clamping means adjustable to the obliquity of the angle formed by said plates to hold said plates in the desired relation.

[Claims 6 to 8 not printed in the Gazette.]

1,141,276. CARBURETER. ELMER S. SMITH, Newark, N. J., assignor to Float-Jet Carburetor Co., Newark, N. J., a Corporation of New Jersey. Filed Apr. 17, 1914. Serial No. 832,514. (Cl. 48—169.)



1. A carbureter comprising a receptacle for liquid fuel, a floating hollow-member within said receptacle open at its opposite ends, a jet-piece provided with a restricted fuel passage connected with the side of said hollow member and communicating with the interior thereof, the outer end of said jet-piece being maintained submerged in the liquid fuel contained in said receptacle, means for connecting one open end of said hollow member with the atmosphere exterior of said receptacle, and means connected with the other open end of said hollow member providing a gas outlet leading through and out of said receptacle.

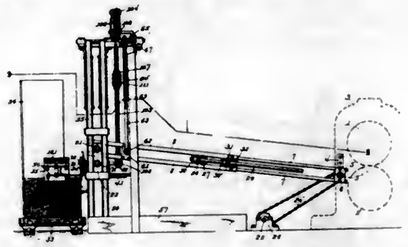
2. A carbureter comprising a receptacle for liquid fuel, a floating hollow member within said receptacle open at its opposite ends, a jet-piece provided with a restricted fuel passage connected with the side of said hollow member and communicating with the interior thereof, the outer end of said jet-piece being maintained submerged in the liquid fuel contained in said receptacle, yieldable air-conveying means for connecting one open end of said hollow member with the atmosphere exterior of said receptacle, yieldable gas-conveying means connected with the other open end of said hollow member providing a gas outlet leading through and out of said receptacle, said respective yieldable conveying means being adapted to permit the free unobstructed rise and fall of said floating hollow member within said receptacle.

3. A carbureter comprising a receptacle for liquid fuel, a U-shaped tubular member, a float connected with said U-shaped tubular member for supporting the same on the surface of said liquid fuel, a jet-piece having a fuel-passage therethrough connected with said U-shaped member so as to be maintained submerged in said liquid fuel, said jet-piece having a jet-portion extending into the interior of said U-shaped tubular member, means for introducing air into one end of said U-shaped tubular member, and means connected with the other end of said U-shaped tubular member through which the gaseous fuel is discharged and carried through the body of said receptacle.

4. A carbureter comprising a receptacle for liquid fuel, a U-shaped tubular member, a float connected with said U-shaped tubular member for supporting the same on the surface of said liquid fuel, a jet-piece having a fuel-passage therethrough connected with said U-shaped member so as to be maintained submerged in said liquid fuel, said jet-piece having a jet-portion extending into the interior of said U-shaped tubular member, a yieldable conveying means connected with one end of said U-shaped tubular member and passing through the body of said receptacle so that its outer end is open to the atmosphere, a second yieldable conveying means providing an outlet for the gaseous fuel connected with the other end of said U-shaped tubular member, through which communication with the engine cylinders may be had, said respective yieldable

conveying means being adapted to permit the free unobstructed rise and fall of said float and U-shaped tubular member connected therewith.

1,141,277. SHEET TRANSPORTING AND STACKING APPARATUS. GEORGE Z. SMITH, Follansbee, W. Va., assignor of one-third to Thomas H. Rogers and one-third to Gilbert Follansbee, Follansbee, W. Va. Filed Feb. 7, 1914. Serial No. 817,376. (Cl. 214—6.)



1. In apparatus for transporting and piling metal sheets, a carrying-off table, sheet conveying means mounted on said table, means actuated by said conveying means for evenly stacking sheets delivered from said table, said stacking means comprising reciprocating devices which operate at right angles to each other, and means actuated by contact with the stack of sheets for intermittently elevating the delivery end of said table a predetermined distance.

2. In apparatus for transporting and piling metal sheets, a carrying-off table, sheet conveying means mounted on said table means actuated by said conveying means for evenly stacking sheets delivered from said table, said stacking means comprising a device which reciprocates against the rear ends of said sheets and a device which moves against one of the lateral edges of said sheets, and means actuated by contact with the stack of sheets, for intermittently elevating the delivery end of said table a predetermined distance.

3. In apparatus for transporting and piling metal sheets, a table, sheet conveying means mounted on said table, sheet stacking means actuated by said conveying means and operating against two adjacent edges of the sheets delivered from the conveying means, said stacking means comprising a longitudinally reciprocating sheet-pushing device and a laterally reciprocating sheet-pushing device, and means actuated by contact with the stack of sheets for intermittently elevating the delivery end of said table a predetermined distance.

4. In apparatus for transporting and piling metal sheets, a table, sheet conveying means mounted on said table, sheet-stacking means actuated by said conveying means, automatic means for elevating the delivery end of said table, and means actuated by contact with the stack of sheets for intermittently actuating said elevating means.

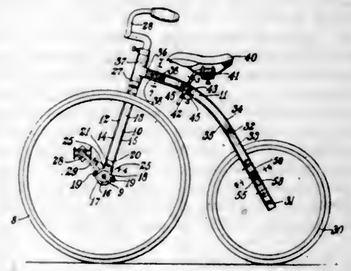
5. In apparatus for transporting and piling metal sheets, a table, sheet conveying means mounted on said table, sheet-stacking means actuated by said conveying means, and means actuated by contact with the stack of sheets for intermittently elevating the delivery end of the table a predetermined distance.

[Claims 6 to 20 not printed in the Gazette.]

1,141,278. VELOCIPEDE. JAMES C. SMITH, Elyria, Ohio, assignor to The Machine Parts Company, Elyria, Ohio, a Corporation of Ohio. Filed Dec. 5, 1914. Serial No. 875,597. (Cl. 208—93.)

1. In a velocipede, a pair of frame members made of channel iron with the channel portions turned inwardly, a saddle block fitting within the channels, and means for holding the frame members and saddle block together.

2. In a velocipede, the combination of wheels, a frame, a saddle, a saddle post, a saddle block perforated for the post, a pair of frame members made of channel iron, a frame head to which said members are connected at one end, said saddle post block fitting within the channels and engaging the inside walls thereof, arms on said block extending from the block within the channels, said block and arms being substantially concealed within the channels, and means to hold the channel block in the channels, said means and block serving to bind said members together.



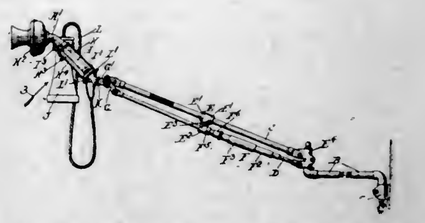
3. In a velocipede, the combination of wheels, a frame, a saddle, a saddle post, a saddle block perforated for the post, a pair of frame members made of channel iron, a frame head to which said members are connected at one end, said saddle post block fitting within the channels and engaging the inside walls thereof, said block being protected by the channels and substantially concealed therein, and means to hold the saddle block in the channels, said means and block serving to bind said members together.

4. In a velocipede, the combination of wheels, a frame connecting the wheels together including a fork whose prongs are made of channel irons, means to connect the front wheel in the fork, including a member provided with an arm fitting within the channel iron of the fork prong and engaging the inside walls thereof, the hollow portion of the channel iron facing the wheel and means to hold said arm in said channel, the walls of the channel serving as a brace and support for said arm.

5. In a velocipede, a pair of converging frame members made of channel iron with the channel surfaces turned toward each other, a saddle block mounted within the channel portions at the point of convergence of said frame members, and means to connect said block and frame members together, said block serving to space said frame members apart.

[Claims 6 to 8 not printed in the Gazette.]

1,141,279. TELEPHONE APPARATUS. THEODORE SMITH, Chicago, Ill., assignor to Theo. Smith Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Aug. 14, 1905. Serial No. 274,121. (Cl. 179—150.)



1. A telephone apparatus comprising an adjustable bracket, a cylindrical part pivotally connected therewith and provided with a curved neck, the pivot connecting said cylindrical part to the adjustable bracket being in line with the center of the cylindrical part and at an angle to the axis of said cylindrical part, a transmitter rigidly connected with said neck, a pivoted lever connected with said neck so as to move therewith and provided with a circuit varying device, and a receiver hook pivotally connected with said lever.

2. A telephone apparatus comprising an adjustable bracket, a cylindrical part pivotally connected therewith and provided with a curved neck, a transmitter rigidly connected with said neck, a lever pivotally connected with said cylindrical part and provided with a circuit varying device, and a receiver hook pivotally connected with said lever, said lever and receiver hook located at one side of the pivot about which said transmitter and cylindrical part move, the pivot for said lever being exterior to said cylindrical part.

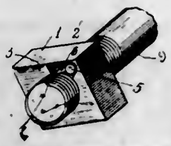
3. A telephone apparatus comprising an adjustable bracket, a cylindrical part pivotally connected therewith, and provided with a curved neck, a transmitter rigidly connected with said neck, a lever pivotally connected with said cylindrical part and provided with a circuit varying device, and a receiver hook pivotally connected with said lever, said lever and receiver hook located at one side of the pivot about which said transmitter and cylindrical part move, said cylindrical part provided with a removable side piece by means of which the interior is exposed, and a signaling device located on said removable side piece.

4. A telephone apparatus comprising an adjustable bracket, a cylindrical part pivotally connected therewith and provided with a curved neck, a transmitter connected with said curved neck, a receiver hook and lever pivotally connected with said cylindrical part above the pivot about which it moves, the receiver hook and lever being pivotally connected together, the pivot for said lever being exterior to said cylindrical part.

5. A telephone apparatus comprising an adjustable bracket, a receiver and transmitter pivotally connected therewith and provided with a self-adjusting mechanism intermediate the adjustable bracket and said receiver and transmitter whereby the relative position of the two is automatically adjusted as the adjustable bracket is moved to its various positions, said self-adjusting mechanism comprising two parts side by side, one part at an acute angle with the other, one of said parts carrying the receiver and the other part carrying the transmitter.

[Claims 6 and 7 not printed in the Gazette.]

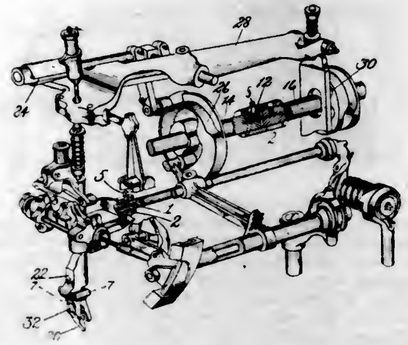
1,141,280. SELF-LOCKING NUT. JOHN J. SNYDER, Jersey City, N. J. Filed Aug. 31, 1914. Serial No. 859,383. (Cl. 151—12.)



The combination with a threaded bolt having a plurality of longitudinal grooves in its threaded part, of a nut having in one corner of its outer face a recess, a pivot stud rigidly mounted in said recess, a pawl pivotally mounted on said stud, a spring passed around the hub of said pawl having one end bearing against the outer wall of said recess, the other end in engagement with the outer edge of said pawl, and tending to keep the latter in a position projecting into the bore of the nut, so as to engage said longitudinal grooves of the bolt and automatically prevent the nut from coming off, the bottom of said recess slanting downwardly from the outer wall thereof toward the bore of the nut and adapted to keep said pawl jammed out of engagement with said bolt, thereby allowing said nut to be removed from said bolt, substantially as set forth.

1,141,281. COUPLING. ALVAH C. SPENCER, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Jan. 26, 1907. Serial No. 354,207. (Cl. 64—13.)

1. A coupling comprising an outer member having an opening of uniform cross section therein, an inner member formed to enter said opening or to be withdrawn therefrom, said inner member having a slit extending longitudinally thereof and dividing one portion of the member from another portion within the opening, and a screw threaded through one of said divided portions of the inner member and engaging the other portion to effect expansion of the member, the outer member having an aperture in position to afford access to the screw and elongated to permit said members to be secured together in different positions of adjustment, and the coupling being constructed to permit free relative sliding movement of the inner and outer members to separate said members when the screw is removed.



2. A coupling comprising an outer member having an opening of uniform cross section therein, an inner member having a part of uniform cross section to enter said opening, the inner member having a slit dividing one portion thereof from another portion within the opening, and a screw threaded through one of said divided portions of the inner member and engaging the other portion to effect lateral expansion of the member, the outer member having an aperture in position to receive the head of the screw, and the coupling being constructed to permit free relative movement of the inner and outer members to separate said members when the screw is removed.

3. In a coupling, the combination with a shaft section and a sleeve encircling and extending beyond the end portion thereof and secured thereto, of a second shaft section having its end portion slitted longitudinally and formed to enter said extended portion of the sleeve, the opening in said sleeve and the second shaft section within the opening being of uniform cross section, and a screw threaded laterally into said slitted portion of the second shaft section and arranged to expand said portion within the sleeve, the sleeve having an aperture formed to receive the head of the screw and elongated to permit the sleeve and the second shaft section to be secured in different relative positions of adjustment, the coupling being formed to permit free relative turning and endwise sliding movements of the sleeve and the second shaft section when the screw is removed.

1,141,282. LIQUID-TREATING APPARATUS. HUBERT M. SPROSS, Arlington, N. Y., assignor to The Delaval Separator Company, New York, N. Y., a Corporation of New Jersey. Filed May 2, 1914. Serial No. 835,795. (Cl. 233—21.)

1. In a liquid treating machine, the combination of a support, a spider rotatably mounted thereon about an axis, means for locking said spider to said support when in normal position so as to prevent accidental rotation, and a can having an outlet which is out of alinement with said axis and normally over the receiver of the machine.

2. In a liquid treating machine, the combination of a support, a spider rotatably mounted thereon about an axis, automatic means for locking said spider to said support when in normal position so as to prevent accidental rotation, and a can having an outlet out of alinement with said axis and normally over the receiver of the machine.

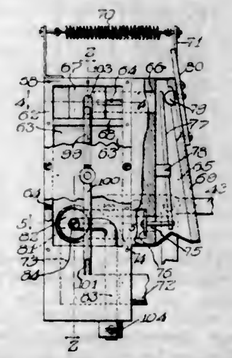
3. In a liquid treating machine, the combination of a support, a spider rotatably mounted thereon about an axis, means permitting the spider to rise relatively to the support, means for locking said spider when in normal position so as to prevent its accidental rotation relative to said support, and a can having an outlet out of alinement with said axis and normally over the receiver of the machine.

4. In a liquid treating machine, the combination of a support, a spider rotatably mounted thereon about an axis, means permitting the spider to rise relatively to the support, automatic means for locking said spider when in normal position so as to prevent its accidental rotation relative to said support, and a can having an outlet out of alinement with said axis and normally over the receiver of the machine.

5. In a liquid treating machine, the combination of a support, a spider rotatably mounted thereon about an axis, means for causing the spider to rise relatively to said support as it is turned aside from its normal position, and a can having an outlet out of alinement with said axis and normally over the receiver of the machine.

[Claims 6 to 9 not printed in the Gazette.]

1,141,283. TEMPO-REGULATOR AND REWINDING MECHANISM FOR PIANO-PLAYERS. ADOLF A. STEINHILBER, Rock Island, Ill., assignor to Artista Piano Player Company, Milan, Ill., a Corporation of Illinois. Filed Oct. 11, 1911. Serial No. 653,983. (Cl. 84—168.)



1. In a tempo regulator, the combination of a motor, air exhausting means connected with the motor and embodying a passage, a governor pneumatic arranged in the passage and through which the air passes, means controlled by the action of the pneumatic for controlling the passage, means for varying the time of operation of the last said means relative to the movement of said pneumatic, a regulator valve for also controlling the passage, means for controlling the last said valve, a shunt passage for the air from the motor around said pneumatic, and means for controlling said shunt passage.

2. In a tempo regulator, the combination of a motor, air exhausting means connected with the motor and embodying a passage, a pneumatic arranged in said passage and through which the air passes, said pneumatic embodying a movable member, means connected with said member and tending normally to expand the pneumatic, a valve controlled by said movable member and adapted to close the passage, means whereby the movement of said member to expand the pneumatic will control the valve, means for varying the time of the opening of said valve relative to the movement of said member, means for controlling the passage of air into the pneumatic, a shunt passage for the air around the pneumatic, and means for controlling the shunt passage.

3. In a tempo regulator, the combination of a motor, air exhausting means therefor embodying a passage for the air, a collapsible pneumatic in the passage and through which the air passes, said pneumatic embodying a movable member, a valve for controlling the passage, adjustable means between the valve and movable member of the pneumatic, whereby the movement of said member will actuate the valve, means tending normally to expand the pneumatic, a shunt passage for the air from the motor around the pneumatic and connected with the first said passage, and a manually controlled valve for connecting and disconnecting the said passages.

4. In a tempo regulator, the combination of a motor, air exhausting means therefor embodying a passage for the air, a collapsible pneumatic in the passage and through which the air passes, said pneumatic embodying a movable member, a valve for controlling the passage, an adjustable means between the valve and movable member of the pneumatic, whereby the movement of said member will actuate the valve, means tending normally to expand the pneumatic, a shunt passage for the air from the motor around the pneumatic and connected with the first said passage, a manually controlled valve for connecting and disconnecting the said passages, and a third valve, the latter being adapted to control the passage of the air into the pneumatic.

5. In a tempo regulator, the combination of a motor, air exhausting means therefor embodying a passage for the air, a collapsible pneumatic in the passage and through which the air passes, said pneumatic embodying a movable member, a valve for controlling the passage, adjustable means between the valve and movable member of the pneumatic, whereby the movement of said member will actuate the valve, means tending normally to expand the pneumatic, a shunt passage for the air from the motor around the pneumatic and connected with the first said passage, a manually controlled valve for connecting and disconnecting the said passages, a third valve, the latter being adapted to control the passage of the air into the pneumatic, and manual means for controlling the last said valve at will.

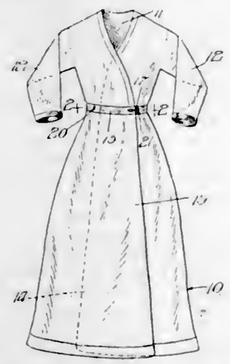
[Claims 6 to 9 not printed in the Gazette.]

1,141,284. BODY-GARMENT. JAMES STONE, La Crosse, Wis. Filed Oct. 5, 1914. Serial No. 864,971. (Cl. 2—145.)

1. A body-garment having inner and outer overlapping flaps, said garment being provided at the waistband thereof with a tubular portion forming a slide-way, a belt or tape located in said slide-way, said tubular portion being provided adjacent the lateral margins of each flap with a hole or slot, one opening into said slide-way from the inside of the garment, and the other opening into said slide-way from the outside of the garment, said holes or slots enabling the free end portions of said belt or tape to be extended from said slide-way, one inside and the other outside of the garment, and the end portion of said belt extending inside of the garment having detachable connection with the inner flap, and the end portion of the belt extending outside of the garment having detachable connection with the outer flap.

2. A body-garment having two overlapping reversible flaps, said garment being provided with a tubular waistband forming a slide-way, a belt located in said slide-way

and provided between its ends with means enabling the length of said belt to be varied, said tubular waistband being provided adjacent the lateral margins of each of said flaps with oppositely disposed holes or slots, one opening into said slide-way from the inside of the garment, and the other opening into said slide-way from the outside of the garment; said holes or slots permitting the free end portions of said belt to emerge from said slide-way and be extended either inside or outside of the garment, depending upon which of said flaps is outermost when said flaps are overlapped, and the free ends of said belt adapted to detachably engage said flaps when the latter are overlapped.

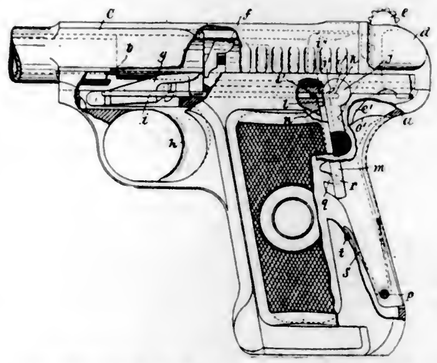


3. A body-garment having two overlapping reversible flaps, said garment being provided at the waistband thereof with a tubular portion forming a slide-way, a belt located in said slide-way, said tubular portion being provided adjacent the lateral margins of each of said flaps with oppositely disposed holes or slots, one opening into said slide-way from the inside of the garment and the other opening into said slide-way from the outside of the garment; said holes or slots enabling the free end portions of said belt to emerge from said slide-way and be extended either inside or outside of the garment, depending upon which of said flaps is outermost, when said flaps are overlapped, and the free ends of said belt being provided with fastening members adapted to detachably engage said flaps.

4. A body-garment having two overlapping reversible flaps, said garment being provided at the waistband thereof with a tubular portion forming a slide-way, a belt located in said slide-way, said tubular portion being provided adjacent the lateral margins of each of said flaps with oppositely disposed holes or slots, one opening into said slide-way from the inside of the garment and the other opening into said slide-way from the outside of the garment; said holes or slots enabling the free end portions of said belt to emerge from said slide-way and be extended either inside or outside of the garment, depending upon which of said flaps is outermost, when said flaps are overlapped; the free ends of said belt being provided with fastening members adapted to detachably engage said flaps and said belt, embracing means permitting the length of said belt to be varied.

5. A body-garment having two reversible flaps, said garment being provided at the waistband thereof with a tubular portion forming a slide-way, a belt located in said slideway, said tubular portion being provided adjacent the lateral margins of each of said flaps with oppositely disposed holes or slots, one opening into said slide-way from the inside of the garment, and the other opening into said slide-way from the outside of the garment; said holes or slots enabling the free end portions of said belt to emerge from said slide-way and be extended either inside or outside of the garment, depending upon which of said flaps is outermost, when said flaps are overlapped, and the free ends of said belt adapted to detachably engage said flaps.

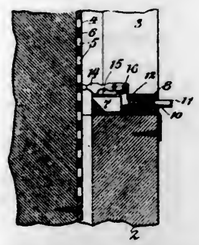
1,141,285. FIREARM. WILLIAM L. SWARTZ, Utica, N. Y., assignor to Savage Arms Company, Utica, N. Y., a Corporation of New York. Filed Mar. 24, 1914. Serial No. 826,883. (Cl. 42—70.)



1. In combination, with a gun having a frame and a movable firing-mechanism-including train, means for blocking the firing movement of said train including an upright bar up-and-down movable into and out of movement-blocking relation to said train and having its upper portion laterally offset, the frame having a guideway receiving said offset part of the bar, and manually actuated actuating means for said bar, said means and the frame side below the guideway confining the lower part of said bar between them.

2. In combination, with a gun having a frame and having in one side of said frame guideways meeting at an angle to each other, a movable firing-mechanism-including train including a bar slidably arranged in one of said guideways, and means for blocking the firing movement of said train including another bar slidably movable in the other guideway into and out of movement-blocking relation to the first bar.

1,141,286. SASH-LOCK. GEORGE TAKACS, Buffalo, N. Y. Filed July 19, 1913. Serial No. 780,006. (Cl. 16—143.)

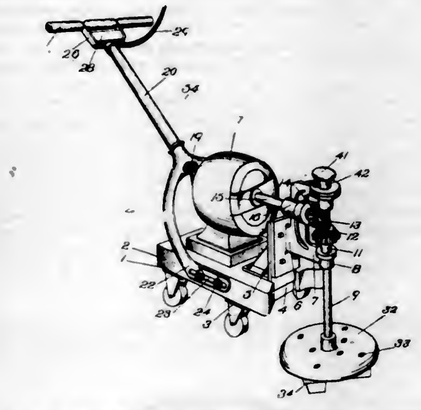


1. A lock for windows having members which are relatively movable comprising a rack arranged on one of said members, a locking bolt mounted on the other member and adapted to engage said rack, a trip lever connected with said bolt and adapted to engage a part on the window member which carries said rack for holding said bolt out of engagement from said rack and means operating to press said bolt yieldingly toward said rack.

2. A lock for windows having upper and lower movable sashes, a rack secured to the upper sash, a locking bolt adapted to engage said rack, a casing which is mounted on the lower sash and in which the locking bolt is guided, a spring interposed between said casing and bolt and operating to hold the latter yieldingly in engagement with said rack, a trip lever pivoted on said bolt and adapted to engage said rack, and a spring adapted to move said lever away from said rack.

3. A lock for windows having upper and lower movable sashes, a rack secured to the upper sash, a locking bolt adapted to engage said rack, a casing which is mounted on the lower sash and in which the locking bolt is guided, a spring interposed between said casing and bolt and operating to hold the latter yieldingly in engagement with said rack, a trip lever pivoted on said bolt and adapted to engage said rack, a spring adapted to move said lever away from said rack and a stop device for limiting the movement of said trip lever away from said rack.

1,141,287. FLOOR-POLISHER. WILLIAM B. THAYER, Kansas City, Mo. Filed Jan. 13, 1914, Serial No. 811,832. Renewed Mar. 5, 1915. Serial No. 12,412. (Cl. 51—13.)



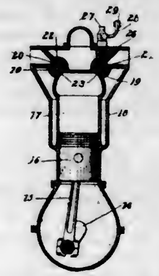
1. In a floor polishing machine, a supporting member comprising body and ground wheels, a polisher supported on said body, means for actuating the polisher, and a handle having yoke arms at its lower end overlying the side edges of the body member and provided with slots, and pins on said body member projected through said slots and anchoring the yoke arms to the body member.

2. In a floor polishing machine comprising a portable supporting member, having a socketed forward end, a bracket fixed to said supporting member within said socketed end, bearing members on said bracket, a shaft revolubly mounted in said bearing member, a polishing head fixed on said shaft, a bevel gear feathered on said shaft and adapted for support on said bearing member, a second shaft revolubly mounted in said bracket at right angles to said first shaft, a bevel gear fixed to said second shaft and meshing with the bevel gear on said first shaft, a motor directly connected to said second shaft, a knob having pin and slot connection with the upper end of said first shaft for raising said polishing head through said socket, a latch pivotally mounted on said bearing member and adapted for projection beneath said knob to hold said polishing head in elevated position, a tubular handle adjustably mounted on said supporting member, a hand grip on said handle, circuit wires in said tubular handle, and a switch in said hand grip for controlling current in said circuit wires.

1,141,288. HYDROCARBON-MOTOR. MILTON TIBBETTS, Detroit, Mich., assignor to Packard Motor Car Company, Detroit, Mich., a Corporation of Michigan. Filed July 18, 1912. Serial No. 710,310. (Cl. 123—182.)

1. In a hydrocarbon motor, the combination with the cylinder and a rotary valve, means in said valve independent of the main valve port for relieving the cylinder pressure during a part of the compression stroke of the motor, and means operative manually independently of the valve for controlling the action of said first means.

2. In a hydrocarbon motor, the combination with the cylinder and a rotary valve, of means operative with the valve in its normal operative position for relieving the cylinder pressure during a part of the compression stroke.



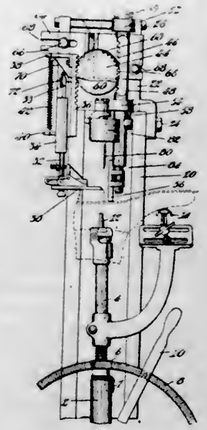
3. In a hydrocarbon motor, the combination with the cylinder and a rotary valve, of means operative with the valve in its normal operative position for relieving the cylinder pressure during a part of the compression stroke, and means for manually controlling the operation of the first said means.

4. In a hydrocarbon motor, the combination with the cylinder and a rotary valve, of means operative with the valve in its normal operative position for relieving the cylinder pressure during a part of the compression stroke, and a valve for manually controlling the operation of said means.

5. In a hydrocarbon motor, the combination with the cylinder having a port and a rotary exhaust valve, said valve having a main exhaust port and an auxiliary exhaust port, both of which ports are constantly in a registering plane with the cylinder port, of means for normally maintaining said auxiliary port inoperative and for bringing said auxiliary port into operation.

[Claims 6 to 10 not printed in the Gazette.]

1,141,289. SHOEMAKING-MACHINE. EVERETT W. VARNEY, Newton, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Jan. 15, 1912. Serial No. 671,231. (Cl. 12—47.)



1. In a machine of the class described, the combination with a shoe support, and a cutting tool arranged to be reciprocated toward and from the shoe between fixed limits, of clamping means arranged to be moved by pressure of the shoe and means for positively arresting said clamping means after a movement thereof which is determined automatically in accordance with a characteristic of the shoe being operated upon.

2. In a machine of the class described, the combination with a shoe support and a breasting knife mounted for reciprocation toward and from a fixed limit of movement, of a movable presser tread plate against which the shoe may be pressed and clamped by movement of the shoe support, means for positively and directly arresting the presser plate after a movement the extent of which is determined automatically by the height of the heel being treated, and means for raising the shoe support to clamp the shoe against the arresting means.

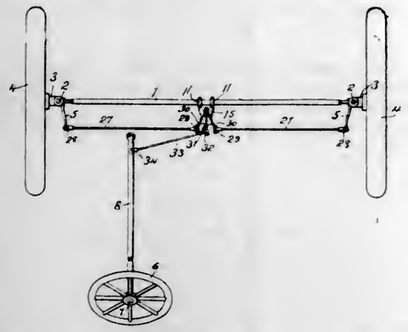
3. In a machine of the class described, the combination with a knife and means for actuating the same, of a presser plate and a stop both mounted for movement in the same direction, connections between the presser plate and the stop permitting movement of the plate and the stop independently and also together, and means for limiting movement of the two together.

4. A machine of the class described, having, in combination, a reciprocating knife, a presser plate mounted for movement in the same direction as the knife, an abutment for the plate, means operated by movement of the presser plate for adjusting the abutment, and means for arresting the abutment when the shoe has assumed a predetermined relation to the limit of the knife stroke.

5. A machine of the class described, having, in combination, a shank engaging stop, a resiliently depressed member for engaging the tread face of the heel and movable independently of said stop, and means rendered effective upon contact of the shoe with said stop for arresting upward movement of said resiliently depressed member.

[Claims 6 to 21 not printed in the Gazette.]

1,141,290. VEHICLE STEERING MECHANISM. LEON J. WEATHERWAX, De Queen, Ark. Filed Nov. 28, 1914. Serial No. 874,367. (Cl. 21—200.)



1. In a vehicle steering mechanism, the combination with an axle, of a bracket having a groove, the sides of which converge toward each other, the bracket being secured to said axle, an oscillatable member pivoted to said bracket and adapted when oscillated to alternately bear against the sides of said groove, yielding means for normally forcing said oscillatable member toward the bottom of said groove, two spindles pivoted to said axle, means connecting said oscillatable member and said spindles by which the spindles may be simultaneously swung, when the oscillatable member is swung, a steering operating member, and means actuated by said operating member for oscillating said oscillatable member.

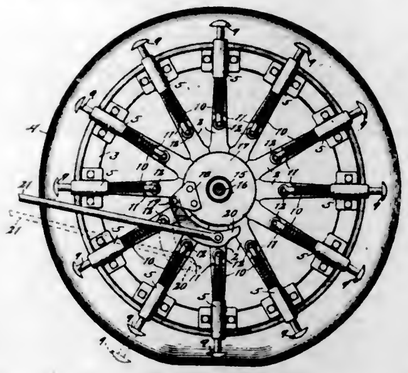
2. In a vehicle steering mechanism, the combination with an axle, of a member secured thereto provided with an inclined surface, an oscillatable member pivoted to said member, and adapted when oscillated to move upwardly and downwardly upon said inclined surface, yielding means for normally forcing said oscillatable member downwardly on said inclined surface, two spindles pivoted to said axle, means for simultaneously swinging said spindles actuated by said oscillatable member, and means for oscillating said oscillatable member.

3. In a vehicle steering mechanism, the combination with an axle, of a member secured thereto having an inclined surface, an oscillatable member pivoted to said member and when oscillated movable upwardly and downwardly on said surface, a spring for normally forcing the oscillatable member downwardly on said inclined surface, two spindles pivoted to said axle, means actuated by said oscillatable member for simultaneously swinging said spindles, and means for oscillating said oscillatable member.

4. In a vehicle steering mechanism, the combination with an axle, of a member secured thereto having an inclined surface, an oscillatable member adapted when oscillated to move upwardly and downwardly on said inclined surface, a bolt pivotally connecting said members and upon which the oscillatable member is slidable, a coil spring encircling said bolt and normally forcing said oscillatable member against said inclined surface, two spindles pivoted to said axle, and means actuated by said oscillatable member for simultaneously swinging said spindles.

5. In a vehicle steering mechanism, the combination with an axle, of a member secured thereto having a groove with converging sides, an oscillatable member pivoted to said member and adapted when oscillated to alternately bear against said converging sides, yielding means for normally forcing said oscillatable member toward the bottom of said groove, two spindles pivoted to said axle, means actuated by said oscillatable member for simultaneously swinging said spindles, and means for oscillating said oscillatable member.

1,141,291. VEHICLE-ARRESTER. PHILIP J. WEBER, Jr., Chicago, Ill. Filed Oct. 8, 1914. Serial No. 865,638. (Cl. 21—210.)



1. In a vehicle, the combination with the running gear and axle, of a wheel mounted on said axle, a series of radially movable rods mounted on said wheel, means for normally holding said rods in retracted position, and a rod-operating cam movable in a vertical plane, said cam when in one position having that portion of its working edge which is farthest from the center of the axle in front of a vertical plane passing through the center of the axle.

2. In a vehicle, the combination with the running gear and axle, of a wheel mounted on said axle, a series of radially movable rods mounted on said wheel, means for normally holding said rods in retracted position, and a rod-operating cam movable in a vertical plane, said cam when in one position being non-active upon said rods and in another position having the point of maximum eccentricity in front of a vertical plane passing through the axis of the wheel.

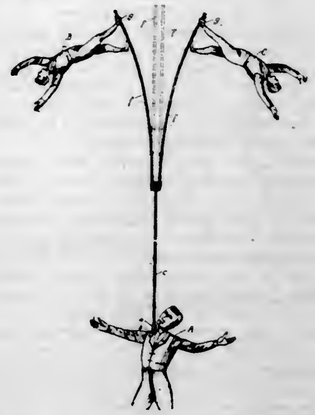
3. In a vehicle, the combination with the running gear and axle, of a wheel mounted on said axle, a series of radially movable rods mounted on said wheel, and a rod-operating cam movable in a vertical plane, said cam when in one position acting upon the rod most nearly vertical to bring said rod into action, and said cam when in another position being out of engagement with the rod most nearly vertical and being in engagement with the rod in front of the rod most nearly vertical.

4. In a vehicle, the combination with the running gear and axle, of a wheel mounted on said axle, a series of radially movable rods mounted on said wheel, means for normally holding said rods in retracted position, a rod-operating cam pivotally attached at one end to said running gear and adapted to oscillate in a plane parallel to the plane of the wheel, the cam pivot being eccentric to the wheel and in advance of the axis thereof, and means for holding said cam in two different positions relative to its pivot, said cam in one position being non-active upon the rods and in another position having the point of maximum eccentricity of its working edge in advance of the wheel axis.

5. In a vehicle, the combination with the running gear and axle, of a wheel mounted on said axle, a series of radially movable rods mounted on said wheel, yielding means for normally holding said rods retracted, a cam for operating said rods pivotally attached at one end to said running gear at a point considerably in front of the axle, said cam being adapted to oscillate in a plane parallel to the plane of the wheel, and means for controlling said cam, the cam being capable of being swung downward to a position where the free end thereof will clear the rod temporarily vertical and at the same time project the rod in advance thereof.

[Claim 6 not printed in the Gazette.]

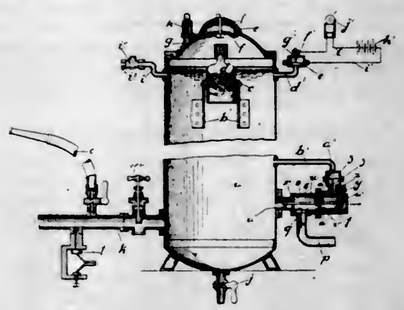
1,141,292. IMPLEMENT FOR ACROBATIC TRICKS. BRUNO WEISE, New York, N. Y. Filed Jan. 26, 1915. Serial No. 4,463. (Cl. 46—70.)



1. An acrobatic implement comprising, in combination, a stem made of resilient light material, means for conveniently supporting said stem on the shoulder of a person, a plurality of branches of similar material as said stem, connected thereto at its upper end, normally parallel therewith and adapted to be bent by the weight of a person suspended from the upper end of said branches, and means for the suspension of a person by one of its feet near the upper end of each of said branches, substantially as and for the purpose set forth.

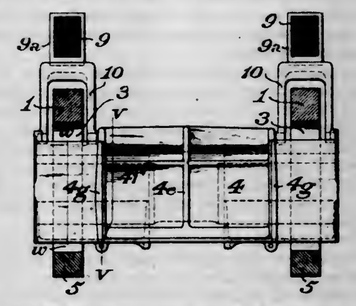
2. In a device of the character described, in combination, a ferrule integral with a shoulder-strap fitting on the shoulder of a man, a pole inserted in said ferrule adapted to be carried therein in a vertical position, a triple ferrule having a central section closed at its top, placed on top of said pole, and two lateral sections closed at their bottom, one pole similar to said first mentioned pole inserted in each of said lateral sections of said triple-ferrule and supported therein normally in a vertical position, and straps adapted to take up the foot of a person fastened to said last mentioned two poles near the upper ends thereof, substantially as and for the purpose set forth.

1,141,293. CHEMICAL FIRE-EXTINGUISHING APPARATUS. CHARLES WOKES, Toronto, Ontario, Canada. Filed Mar. 30, 1914. Serial No. 828,181. (Cl. 169—24.)



In a fire extinguishing apparatus, the combination of a chemical tank, a valve chamber connected therewith having an inlet and a waste outlet, a valve mechanism within the valve chamber comprising a valve between the inlet and chemical tank, a rod for said valve, a diaphragm on the valve rod between the inlet and the waste outlet, said diaphragm having an orifice through which a leakage may occur into the valve chamber beyond the diaphragm, a valve controlling the waste outlet, a pressure chamber, a diaphragm therein for actuating the waste outlet valve, a connection between the pressure chamber and the chemical tank whereby the generation of gas within the chemical tank will automatically actuate the diaphragm in the pressure chamber to open the waste outlet valve for the operation of the valve controlling the passage through the inlet to the chemical tank.

1,141,294. LOCOMOTIVE DRIVING-BOX. WILLIAM E. WOODARD, Schenectady, N. Y. Filed Jan. 27, 1915. Serial No. 4,624. (Cl. 105—17.)

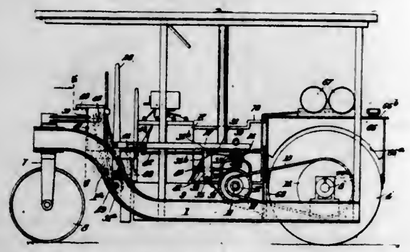


1. A driving box structure for a locomotive driving axle, consisting of an integral member, of substantially inverted U section, adapted to receive a journal bearing at each of its ends, and having end faces which are without flanges and are adapted to abut against wheel hubs, and lateral flanges adapted to abut against the inner sides of frame pedestal shoes and wedges.

2. A driving box structure for a locomotive driving axle, consisting of an integral member of substantially inverted U section, adapted to receive a journal bearing at each of its ends, and having end faces which are without flanges and are of width substantially equal to the diameter of wheel hubs against which they are adapted to abut, and lateral flanges adapted to abut against the inner sides of frame pedestal shoes and wedges.

3. A driving box structure for a locomotive driving axle, consisting of an integral member of substantially inverted U section, adapted to receive a journal bearing at each of its ends throughout a distance substantially greater than the width of the adjoining frame member in which the driving box is to be fitted, and having end faces which are without flanges and are adapted to abut against wheel hubs, and lateral flanges adapted to abut against the inner sides of frame pedestal shoes and wedges.

1,141,295. TRACTOR OPERATED BY INTERNAL-COMBUSTION ENGINE. EDWARD WRIGHT, Brooklyn, N. Y. Filed Jan. 31, 1914. Serial No. 815,638. (Cl. 21—114.)



1. In a tractor, an internal combustion engine, a driving shaft geared to the traction wheel or roller thereof, two clutch gears journaled on said shaft and driven in opposite directions by the engine, a clutch member slidably mounted on said shaft, a brake for stopping the tractor, a reversing lever and connections therefrom to said clutch member and brake, adapted in the intermediate position of the lever to hold the clutch member out of engagement with the clutch gears and apply the brake, and when the lever is moved to either of its extreme positions to release the brake and engage the clutch member with one or the other of said clutch gears.

2. In a tractor, an internal combustion engine, a driving shaft geared to the traction wheel or roller of the tractor, a brake for stopping the tractor, reversing mechanism for connecting the engine to the driving shaft for operation in either direction, means operatively connected with said mechanism for setting the brake when said mechanism is brought to the neutral position from either engaging position, and means for operating said brake independently of the reversing mechanism when said mechanism is in its engaging position.

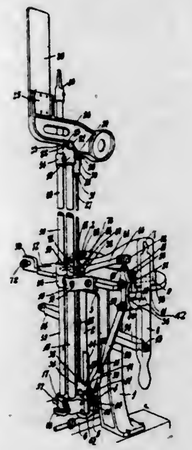
3. In a tractor, an internal combustion engine, a driving shaft geared to the traction wheel or roller of the tractor, two clutch gears journaled on said shaft and driven in opposite directions by the engine, an intermediate clutch member and a clutch lever for operating the same, a shaft having means thereon for shifting the clutch lever, and having also an eccentric thereon, a brake operable by the eccentric, and manually controlled means for turning said latter shaft.

4. In a tractor, an internal combustion engine, a driving shaft geared to the traction wheel or roller of the tractor, two clutch gears journaled on said shaft and driven in opposite directions by the engine, an intermediate clutch member and a clutch lever for operating the same, a shaft having means thereon for shifting the clutch lever, a pinion and an eccentric on said latter shaft, a rack-bar engaging said pinion, manually controlled means for moving the rack-bar, and a brake for the driving shaft movable by said eccentric.

5. In a tractor, an internal combustion engine, a driving shaft geared to the traction wheel or roller of the tractor, two clutch gears journaled on said shaft and driven in opposite directions by the engine, an intermediate clutch member and a clutch lever for operating the same, a shaft having means thereon for shifting the clutch lever, a pinion on said latter shaft, a rack-bar engaging said pinion, and manually controlled means for moving said rack-bar.

[Claims 6 to 9 not printed in the Gazette.]

1,141,296. SWITCH-STAND SEMAPHORE MECHANISM. FRANK C. ANDERSON, Cincinnati, Ohio, assignor to The American Valve & Meter Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Apr. 11, 1914. Serial No. 831,299. (Cl. 246—41.)



1. In combination with a switch stand comprising a switch-operating element requiring initial movement in one plane before being movable in another plane to operate the switch, a semaphore comprising a semaphore arm and a movable lamp support, a semaphore lever movable in a plane substantially parallel to the plane of initial movement of the switch-operating element, operative connection from this semaphore lever to the semaphore arm, and operative connection from this semaphore lever to the lamp support, said semaphore lever having disengageable operative connection with the switch-operating element, whereby the semaphore arm and lamp support are simultaneously and completely operated during the initial movement of the switch-operating element.

2. In combination with a switch stand comprising a switch-operating element requiring initial movement in one plane before being movable in another plane to operate the switch, a semaphore comprising a semaphore arm and a movable lamp support, a semaphore lever movable in a plane substantially parallel to the plane of initial movement of the switch-operating element, operative connection from this semaphore lever to the semaphore arm, and operative connection from this semaphore lever to the lamp support, said semaphore lever having disengageable operative connection with the switch-operating element, whereby the semaphore arm and lamp support are simultaneously and completely operated during the initial movement of the switch-operating element, and means carried along with said switch-operating element in its switch-operating movement and thereby projected into the path of travel of part of the operative connection between said semaphore lever and the lamp support, whereby operation of said semaphore lever and, consequently, of said semaphore arm along with the lamp support, independently of the switch operation, is prevented.

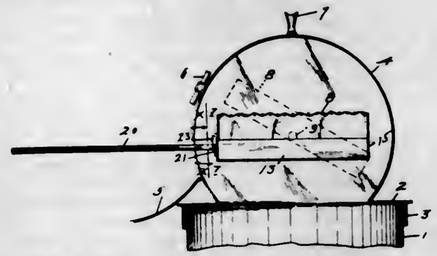
3. In combination with a switch stand comprising a switch-operating element requiring initial movement in a substantially vertical plane before being movable in a substantially horizontal plane to operate the switch, a semaphore comprising a semaphore arm movable in a substantially vertical plane, and a lamp shaft rotatable in a substantially horizontal plane, and supporting means for said semaphore arm and lamp shaft, and disengageable operative connection between said switch-operating element and said semaphore arm and lamp shaft, respectively, whereby said semaphore arm and lamp shaft are simultaneously and completely operated during the initial movement of the switch-operating element.

4. In combination with a switch stand comprising a switch-operating element requiring initial movement in a substantially vertical plane before being movable in a substantially horizontal plane to operate the switch, a semaphore comprising a semaphore arm movable in a substantially vertical plane, and a lamp shaft rotatable in a substantially horizontal plane, and supporting means for said semaphore arm and lamp shaft, a semaphore lever movable in a vertical plane, an arm on the lamp shaft, operative connection between the semaphore lever and the arm, a rod pivoted to the semaphore arm, operative connection between said rod and said semaphore lever, and disengageable operative connection between the switch-operating element and the semaphore lever, whereby the semaphore arm and the lamp shaft are simultaneously and completely operated during the initial movement of the switch-operating element.

5. In combination with a switch stand comprising a switch-operating element requiring initial movement in a substantially vertical plane before being movable in a substantially horizontal plane to operate the switch, a semaphore comprising a semaphore arm movable in a substantially vertical plane, and a lamp shaft rotatable in a substantially horizontal plane, and supporting means for said semaphore arm and lamp shaft, a semaphore lever movable in a substantially vertical plane, an arm on the lamp shaft, a connecting head making operative engagement wtih the arm, a connecting element between the connecting head and the semaphore lever, a rod pivoted to the semaphore arm, operative connection between said rod and the semaphore lever, and disengageable operative connection between the semaphore lever and said switch-operating element, whereby the semaphore arm and the lamp shaft are simultaneously and completely operated during the initial movement of the switch-operating element.

[Claims 6 to 24 not printed in the Gazette.]

1,141,297. ASH-SIFTER. ADOLPH P. ANDREWS, Minneapolis, Minn. Filed Feb. 5, 1915. Serial No. 6,283. (Cl. 83—60.)



1. The combination with a hood, of a reversible sieve journaled in said hood, and having a detachable catch pan opposed to its sieve surface, said pan being in the form of a shovel having a detachable handle, a lock for securing said pan to the sieve box, said lock arranged to be released by the application of the handle to the shovel, and means independent of said handle for oscillating said sieve box.

2. The combination with a hood, of a reversible sieve box, mounted in said hood, and having a detachable catch pan opposed to its sieve surface, said pan being in the form of a shovel having a detachable handle, said sieve box having an extension closing the cutting edge of said shovel when applied thereto.

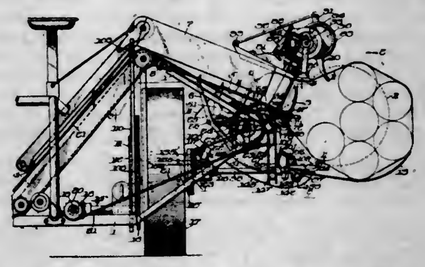
3. The combination with a hood, of a reversible sieve box, journaled in said hood, and having a detachable catch pan opposed to its sieve surface, said pan being in the form of a shovel having a detachable handle, said sieve box having an extension closing the cutting edge of said shovel when applied thereto, and means independent of said handle for oscillating said sieve box.

4. The combination with a hood having a door equipped opening, of a reversible sieve box intermediately journaled in said hood, and having a detachable catch pan opposed to its sieve surface, said pan being in the form of a shovel having a detachable handle, said handle being insertible through the door opening of said hood in applying and removing said pan from the sieve box, and means independent of said handle for oscillating said sieve box.

5. The combination with a hood having a door equipped opening, of a reversible sieve box intermediately journaled in said hood, and having a detachable catch pan opposed to its sieve surface, said pan being in the form of a shovel having a detachable handle, said handle being insertible through the door opening of said hood in applying and removing said pan from the sieve box, and means for locking said sieve box in an inverted position.

[Claims 6 to 8 not printed in the Gazette.]

1,141,298. GRAIN-HARVESTER. JOHN F. APPLEBY, Davenport, Iowa, assignor of one-half to Peter D. Middlekauff, Chicago, Ill. Filed Sept. 22, 1913. Serial No. 791,006. (Cl. 56—122.)



1. A grain harvester including mechanism for assembling and tying grain in bundles; means for positioning a loop of string with the open end of the loop in position to receive tied bundles from the position where they are tied; tying mechanism for tying the grain into bundles; another tying mechanism for tying the loop about assembled bundles; mechanism common to the tying mechanisms for operating the same; means interposed between said common mechanism and the loop tying mechanism for omitting operations of the loop tying mechanism whereby the loop will not be tied until a plurality of bundles are received therein; a needle for presenting an end of each shock loop string to the loop tying mechanism; and means operated by said needle when moved to present a loop string end to the loop tying mechanism to adjust said interposed means to permit the loop tying mechanism then to operate.

2. A grain harvester including mechanism for assembling and tying grain in bundles; means for positioning a loop of string with the open end of the loop in position to receive tied bundles from the position where they are tied; tying mechanism for tying the grain into bundles; another tying mechanism for tying the loop string about assembled bundles; mechanism common to the tying mechanisms for operating the same; means interposed between said common mechanism and the loop tying mechanism for omitting operations of the loop tying mechanism whereby the loop will not be tied until a plurality of bundles are received therein; a needle for presenting an end of each shock loop string to the loop tying mechanism; means operated by said needle when moved to present a loop string end to the loop tying mechanism to adjust said interposed means to permit the loop tying mechanism then to operate; and means whereby the running gear of the harvester operates the aforesaid common mechanism.

3. A grain harvester including mechanism for assembling and tying grain in bundles; mechanism for tying pluralities of bundles into shocks; mechanism common to the tying mechanisms for operating the same; means interposed between said common mechanism and the shock tying mechanism for omitting operations of the shock tying mechanism whereby the shock will not be tied until it

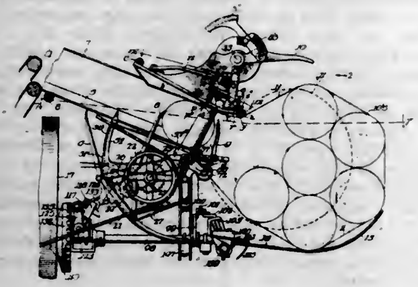
has received the proper number of bundles; a needle for presenting an end of a shock tying string to the shock tying mechanism; and means operated by said needle when moved to present an end of the shock tying string to the shock tying mechanism to adjust said interposed means to permit the shock tying mechanism then to operate.

4. A grain harvester including mechanism for assembling and tying grain in bundles; mechanism for tying pluralities of bundlea into shocks; mechanism common to the tying mechanisms for operating the same; means interposed between said common mechanism and the shock tying mechanism for omitting operations of the shock tying mechanism whereby the shock will not be tied until it has received the proper number of bundles; a needle for presenting an end of a shock tying string to the shock tying mechanism; means operated by said needle when moved to present an end of the shock tying string to the shock tying mechanism to adjust said interposed means to permit the shock tying mechanism then to operate; and means whereby the running gear of the harvester operates said common mechanism.

5. A grain harvester including mechanism for assembling grain into bundles and assembling bundles into shocks; a shock carrier including laterally outsetting shock supporting arms; mechanism for rearwardly folding a forward portion of the carrier to the adjacent side of the harvester in the deposit of a formed shock; and mechanism for lifting the rear portion of the carrier and also rearwardly folding this portion of the carrier to the adjacent side of the harvester to escape the deposited shock.

[Claims 6 to 10 not printed in the Gazette.]

1,141,299. GRAIN-HARVESTER. JOHN F. APPLEBY, Peoria, Ill., assignor of one-half to Peter D. Middlekauff, Chicago, Ill. Filed Sept. 26, 1914. Serial No. 863,742. (Cl. 56—122.)



1. A grain harvester including mechanism for assembling grain into bundles; mechanism for tying twine about the bundles; mechanism for tying twine about a plurality of bundles to assemble the same into shocks, said tying mechanisms including a needle for tying bundles and a needle, contiguous to the first mentioned needle, for tying the bundles into shocks and mechanism for operating the bundle needle a plurality of times for each operation of the shocker needle and for causing the points of both operating needles to operate in close approximation.

2. A grain harvester including mechanism for assembling grain into bundles; mechanism for tying twine about the bundles; mechanism for tying twine about a plurality of bundles to assemble the same into shocks, said tying mechanisms including a needle for tying bundles and a needle, contiguous to the first mentioned needle for tying the bundles into shocks and mechanism for operating the bundle needle a plurality of times for each operation of the shocker needle, the bundle needle having its penetrating end formed to overlie the penetrating end of the shocker needle.

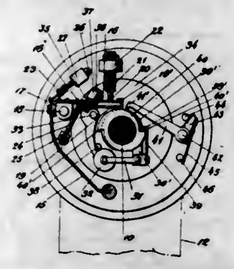
3. A grain harvester including mechanism for assembling grain into bundlea; mechanism for tying twine about the bundles; and mechanism for tying twine about a plurality of bundles to assemble the same into shocks, said tying mechanisms including a needle for tying bundles and a needle, contiguous to the first mentioned needle for tying the bundles into shocks, the bundle needle having its penetrating end formed to overlie the penetrating end of the shocker needle.

4. A grain harvester including mechanism for assembling grain into bundles; mechanism for tying twine about the bundles; and mechanism for tying twine about a plurality of bundles to assemble the same into shocks, said tying mechanisms including a needle for tying bundles and a needle, contiguous to the first mentioned needle for tying the bundles into shocks, the bundle needle having its penetrating end formed to overlie the penetrating end of the shocker needle.

5. A grain harvester incliduding mechanism for assembling grain into bundles; mechanism for tying twine about the bundles; mechanism for tying twine about a plurality of bundles to assemble the same into shocks, said tying mechanisms including a needle for tying bundles and a needle for tying the bundles into shocks; mechanism for operating the bundle needle a plurality of times for each operation of the shocker needle; a knotting mechanism common to both needles and serving in coöperation therewith to tle knots upon the bundles and shock; and mechanism for causing the points of both operating needles to operate in close approximation.

[Claims 6 to 12 not printed in the Gazette.]

1,141,300. CIRCUIT-BREAKER. BENJAMIN F. BAILEY, Ann Arbor, Mich. Filed Aug. 15, 1912. Serial No. 715,217. (Cl. 123—166.)

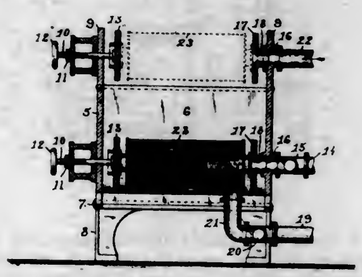


1. In a circuit breaker, stationary and movable contacts, a rotatable shaft, a cam loosely mounted in relation to the shaft and having a plurality of shouldered portions for engaging said movable contact to move the latter into engagement with the stationary contact, a member fixed to rotate with the shaft, and a yieldable arm connected to said member to rotate therewith, said arm being adapted in one direction of rotation of the shaft to engage one of said shoulders on the cam to couple the latter to said member, and being adapted to disengage said shoulder upon rotation of the shaft in the opposite direction, for the purpose described.

2. In a circuit breaker, stationary and movable contacts, a rotatable shaft, a cam loosely sleeved upon the shaft and having a plurality of shouldered portions for actuating said movable contact, a member fixed to rotate with the shaft, and a spring arm connected to said member to rotate therewith and having a hook-shaped portion engaging one of said shoulders on the cam in one direction of rotation of said member to couple the cam to said member, said hook-shaped portion being adapted to disengage said shoulder upon rotation of the shaft in the opposite direction.

3. In a circuit breaker, stationary and movable contacts, a rotatable shaft, a cam loosely sleeved upon the shaft having a plurality of shouldered portions for actuating said movable contact, a carrier loosely sleeved upon said shaft having a laterally-extending arm, a member fixed to rotate with said shaft, a connection between said arm and said member, and a spring arm carried by the first-mentioned arm, provided with a hook-shaped portion engageable with one of said shouldered portions upon rotation of the shaft in one direction to couple the cam to said member, said hook-shaped portion being disengageable from the shouldered portions of the cam when the shaft is rotated in the opposite direction.

1,141,301. DYEING-MACHINE. SAMUEL BARKER, Providence, R. I. Filed Nov. 10, 1914. Serial No. 871,382. (Cl. 8—19.)



1. In a dyeing machine, an open top tank, means for operatively supporting a beam in the tank adjacent the bottom, means for operatively supporting a beam over the tank, means for forcing dyeing liquor through the yarn on the beam in the lower position and means for connecting the beam in the upper position to a source of dry air supply.

2. In a dyeing machine, an open top tank, means for clamping a beam in the tank in a lower position, means for clamping a beam above the tank, means for forcing dyeing liquor through the yarn on the beam in the lower position and means for connecting the beam in the upper position to a source of air supply under pressure, whereby the surplus liquor is extracted from the yarn and the yarn dried on the beam in the machine.

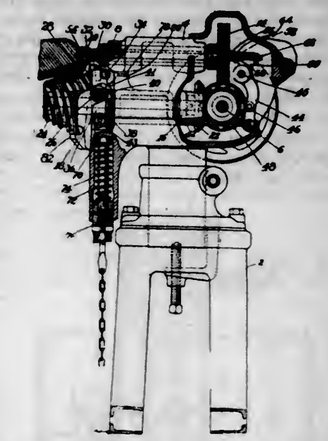
3. A dyeing machine comprising an open top tank, a lower clamping mechanism on one end of the tank, an upper clamping mechanism on the same end of the tank, a rotary pump, pipe connections from the pump to the opposite end of the tank, and pipe connections from the pump to the bottom of the tank.

4. A dyeing machine comprising an open top tank, a lower clamping mechanism on one end of the tank, an upper clamping mechanism on the same end of the tank, a rotary pump, pipe connections from the pump to the opposite end of the tank, pipe connections from the pump to the bottom of the tank and a pipe connection from the tank on a line with and in axial alinement with the upper clamping mechanism.

5. A dyeing machine comprising twin tanks each tank having a dyeing chamber closed at the bottom sides and ends and open at the top, the ends of the tank extending above the open top of the dyeing chamber, a base having legs supporting each tank, a lower screw-clamp on the end and having a hand wheel on its outer end and a head on its inner end in the dyeing chamber, an upper screw-clamp on the raised end having a hand wheel on its outer end and a head on its inner end over the dyeing chamber, a rotary pump, pipe connections from the pump to the end of each tank, pipe connections from the pump to the bottom of each tank and a pipe connection from the raised end of each tank on a line with and in axial alinement with its corresponding upper screw clamp.

1,141,302. MACHINE FOR USE IN THE MANUFACTURE OF BOOTS AND SHOES. ARTHUR BATES, Leicester, England, assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Oct. 6, 1911. Serial No. 653,117. (Cl. 12—17.)

1. A machine of the class described having, in combination, a work feeding wheel and a coöperating roll both rotatable about approximately parallel axes and constructed and arranged to engage directly opposite portions of the sides of a sole incorporated in a shoe at and adjacent the sole edge and mechanisms for rotating both wheel and roll in the same direction and at different peripheral speeds.



2. A machine of the class described having, in combination, a work feeding wheel, a spirally ribbed channel closing roll coöperating therewith, the wheel and roll being rotatable about substantially horizontal axes and being constructed and arranged to engage opposite sides of the margin of the sole of a shoe, mechanism for rotating the wheel and mechanism for rotating the roll at a peripheral speed many times greater than that of the wheel.

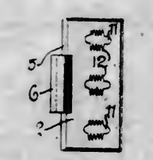
3. A machine of the class described having, in combination, a frusto-conical work feeding wheel and a frusto-conical spirally ribbed work supporting roll, both being mounted on substantially horizontal axes with their bases oppositely directed and being constructed and arranged to engage opposite sides of the margin of a sole, together with mechanisms for rotating the wheel and roll at substantially different speeds.

4. A machine of the class described having, in combination, a work feeding wheel and a coöperating roll constructed and arranged to engage opposite sides of the margin of the sole of a shoe and vibrating pounding tools constructed and arranged to act respectively upon the upper and upon the edge of the sole.

5. A machine of the class described having, in combination, a roll provided with means for closing the channel of the sole of a shoe, a coöperating vibrating tool for pounding the edge of the sole, means for rotating the roll continuously at a relatively high speed and means for actuating the pounding tool simultaneously in a direction approximately parallel to the tread face of the sole to impart a rapid succession of blows to the edge of the sole.

[Claims 6 to 13 not printed in the Gazette.]

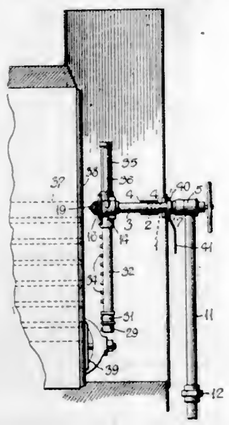
1,141,303. HINGE. FRANK H. BENNETT and EDWARD A. ROBERTSON, Sheffield, Ala. Filed Dec. 21, 1914. Serial No. 878,407. (Cl. 16—112.)



The combination in a device of the character described, of a hinged leaf having a plurality of parallel bolt receiv-

ing slots, a series of spaced teeth formed at each edge of each slot, a securing plate adapted to engage over the leaf, said plate being provided with a plurality of alined openings, said openings being spaced from each other distances corresponding to the spaces between the slots of the leaf, and a plurality of teeth formed at the edge of each opening, said last mentioned teeth being directed at right angles to the plate and being adapted to be engaged between the teeth of the leaf for holding the leaf and plate against longitudinal and transverse movement with respect to each other, the openings of the plate being adapted to register with the slots of the leaf.

1,141,304. BLOWER FOR BOILERS. JAMES C. BENNETT, Detroit, Mich. Filed Feb. 1, 1915. Serial No. 5,397. (Cl. 122—391.)



1. In a steam blower for boilers having a flue sheet, an ejector head adjustable in its longitudinal dimensions and in a plane parallel with the flue sheet of the boiler, and manually operated means in said head for adjusting said head during the injection of steam.

2. In a steam blower, an ejector head adjustable in its longitudinal dimension and adapted to eject steam, means in said head for increasing or decreasing the length of the same during an injection of steam, and means on said head for locking said head against accidental adjustment.

3. In a blower for boilers having flue sheets, and oscillatory head permanently located in front of a flue sheet, a reciprocal element in said head, and means carried by said head for locking said reciprocal element relative to said head.

4. In a steam ejector for blowing boiler flues, an oscillatory head adapted to have the outer end thereof moved in an irregular course during the ejection of steam, and means in said head for regulating the course traversed by the outer end of said head.

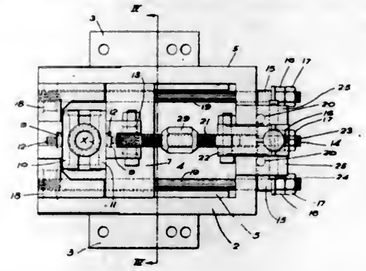
5. In a steam blower for boilers, an oscillatory head adapted for permanent location in a plane parallel with the boiler sheet, a telescopic steam ejecting member carried thereby, and rigid means in said head for shifting said telescopic member.

[Claims 6 to 14 not printed in the Gazette.]

1,141,305. CHUCK. OSCAR W. BERG, Kewanee, Ill., assignor to National Tube Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed Nov. 21, 1914. Serial No. 873,276. (Cl. 10—107.)

1. A chuck comprising a slide, gripping jaws movably mounted on the slide, an equalizing lever pivoted on the end of said slide, means connecting one end of said equalizing lever to one jaw and the opposite end thereof to the other jaw, and an operating lever pivotally mounted on the slide and connected to one gripping jaw for actuating said jaws.

2. A chuck comprising a slide, gripping jaws movably mounted on the slide, equalizing levers on the end of said slide, means connecting one end of the levers to one jaw and the opposite end of said levers to the other jaw, and an operating lever pivotally mounted on the slide and connected to one gripping jaw for actuating the jaws, said operating lever being adjustably connected to the jaw to vary the position of the jaws on said slide.

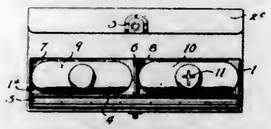


3. A chuck comprising a slide, gripping jaws movably mounted on the slide, equalizing levers on the end of said slide, means connecting one end of the levers to one jaw and the other end thereof to the other jaw, an operating lever pivotally mounted on the slide and connected to one gripping jaw for actuating said jaws, and a stop on the slide engaging the operating lever to limit the closing movement of the gripping jaws.

4. A chuck comprising a slide having means for attachment to a machine tool, oppositely facing movable gripping jaws on the slide, an operating lever adjustably connected to one jaw for varying the closing movement of the jaws, and means pivoted on the slide, for adjustably connecting one jaw with the other to vary the width of opening between said jaws, said means equalizing the movement of the jaws in closing the jaws.

5. A chuck comprising a slide having means for attachment to a machine tool, gripping jaws movably mounted on said slide, equalizing levers pivoted on said slide, means connecting one end of said levers to one gripping jaw, means connecting the adjacent ends of said levers to the other jaw, an operating lever and means adjustably connecting said operating lever with one gripping jaw whereby the jaws are positively actuated.

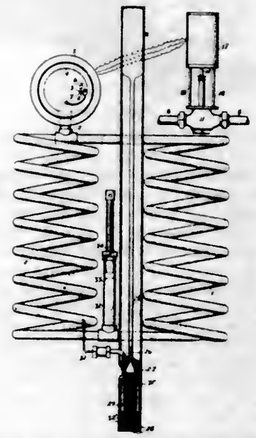
1,141,306. PORTABLE MASS SET. GERARD C. M. BIERENS, Towner, N. D. Filed May 1, 1914. Serial No. 835,608. (Cl. 206—19.)



A portable mass set for the use of priests, including a case open at the top and upper portion of the front thereof, the upper front corners of the ends of the case being correspondingly beveled, a longitudinal partition parallel to and slightly spaced from the front of the case and extending upwardly to edges of the beveled corners of the ends of the case so as to have a height greater than that of the front of the case and less than that of the back of the case, a central transverse partition dividing the space at the rear of the longitudinal partition into two flask receiving compartments, flasks having a height corresponding to the depth of the case and fitted within the flask receiving compartments, a shallow box having a length corresponding to the length of the case and a width less than the height of the case but greater than the front of the case, said box being adapted to be received edgewise within the front compartment so that the box

or either one of the flasks can be readily grasped and removed from the front of the case, and a cover for the case.

1,141,307. THERMO-ELECTRIC REGULATING SYSTEM. GEORGE N. BLANCHARD, San Francisco, Cal., assignor of one-half to William Henry Busch, Jr., San Francisco, Cal. Filed Dec. 2, 1912. Serial No. 734,546. (Cl. 177—128.)



1. In a regulating system of the class described, the combination with a Bourdon tube, electric circuits controlled by the movement thereof a thermo chamber; a connection between said chamber and said Bourdon tube, a body of confined liquid, and a connection between the interior of said thermo chamber and said body of confined liquid, said liquid being operated by variations of pressure in the thermo chamber for opposing the pressures therein to regulate the operation of said Bourdon tube to make or break the electric circuit controlled thereby.

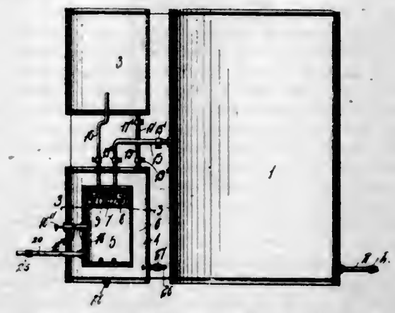
2. In a regulating system of the class described, the combination with a Bourdon tube, electric circuits controlled by the movement thereof a thermo chamber, a connection between said chamber and said Bourdon tube, a body of confined mercury, and a connection between the interior of said thermo chamber and said body of confined mercury, said mercury being operated by variations of pressure in the thermo chamber for opposing the pressures therein to regulate the operation of said Bourdon tube to make or break the electric circuit controlled thereby.

3. In a regulating system of the class described, the combination with a Bourdon tube, electric circuits controlled by the movement thereof a thermo chamber, a connection between said chamber and said Bourdon tube, means in said chamber for regulating the pressure therein independently of the rise or fall of temperature around said chamber, a body of confined liquid, and a connection between said thermo chamber and said body of confined liquid, said liquid being operated by variations of pressure in the thermo chamber for opposing the pressures therein to regulate the operation of said Bourdon tube to make or break the electric circuit controlled thereby.

4. In a regulating system of the class described, the combination of a Bourdon tube, electric circuits controlled thereby, a thermo coil, a connection between said coil and said tube, vertically disposed a tube provided with a capillary bore terminating at its lower end in an enlarged bore open at its lower end and surrounded by an enlarged chamber adapted to contain a body or mercury, and a connection between the interior of said thermo coil and said last mentioned chamber, whereby the height of the body of mercury in said capillary bore is regulated by variations of pressure in the thermo coil, and said mercury as it rises and falls in said capillary bore opposing the pressures in said thermo coil to regulate the operation of said Bourdon tube to make or break the electric circuits controlled thereby.

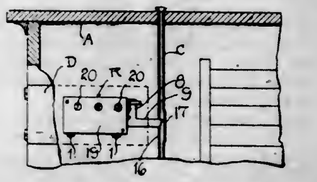
5. In a regulating system of the class described, the combination of a Bourdon tube, electric circuits controlled thereby, a thermo coil, a connection between said coil and said tube, means in said coil for regulating the pressure therein independently of the rise or fall of temperature around said coil, a vertically extended tube provided with a capillary bore terminating at its lower end in an enlarged bore open at its lower end, and surrounded by an enlarged chamber adapted to contain a body of mercury, and a connection between the interior of said thermo coil and said last mentioned chamber, whereby the height of the body of mercury in said capillary bore is regulated by variations of pressure in the thermo coil to regulate the operation of said Bourdon tube to make or break the electric circuit controlled thereby.

1,141,308. POWER-GENERATOR. GEORGE BOLTZ, Amy, Kans. Filed July 7, 1913. Serial No. 777,751. (Cl. 60—36.)



The combination with a tank for compressed air, a reservoir for a hydrocarbon fluid, a water tank and a generating chamber arranged spaced apart within the water tank, of a body of asbestos arranged at one end of the generating chamber, a grate member extending transversely of the generating chamber and confining the asbestos at the end of such chamber, a valved spray pipe extending through the water tank and into the generating chamber in the front of the grate, said spray pipe having a lateral port therein through which the water in the water tank may pass, said water being admitted to the generating chamber in the form of a spray, a pipe leading from the hydrocarbon reservoir to the asbestos body to supply hydrocarbon fluid thereto, a valved pipe for conducting air under pressure to the reservoir to force the hydrocarbon fluid therefrom into the generating chamber, a valved pipe for conducting air from the compressed air tank to the generating chamber where it is mixed with the hydrocarbon fluid at the asbestos body within the generating chamber, a valved pipe for conducting air to the water tank to force the water into the generating chamber, and a valved pipe for conducting the steam and heated gases generated in the generating chamber to the point of use.

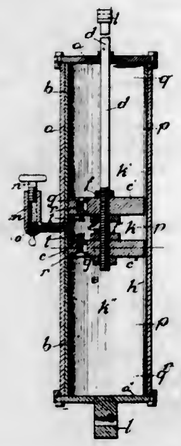
1,141,309. REGISTER. JOSEPH BOZIC, Johnstown, Pa. Filed Feb. 20, 1915. Serial No. 9,631. (Cl. 235—91.)



In combination with a check controlled apparatus including a chute, a register comprising an operating mem-

ber movable under the influence of a check, said chute being provided in one of its faces with a suitable opening through which the movable operating member of the register is directed, the opposite face of the chute adjacent the opening being offset outwardly.

1,141,310. SHOCK-ABSORBER. CHARLES FRANKLIN BRADBURN, Delmer, Ontario, Canada. Filed Aug. 20, 1914. Serial No. 857,623. (Cl. 21—105.)



1. A shock absorber comprising a liquid filled cylinder, and a double piston therein, said piston containing a chamber, having ports with valves opening outwardly, the cylinder having a longitudinal groove of a varying cross section, to cause the liquid to offer a variable resistance to the motion of the piston relatively to the cylinder.

2. A shock absorber comprising a liquid filled cylinder, and a double piston therein, said piston containing a chamber, having ports with valves opening outwardly, the cylinder having a longitudinal groove of a varying cross section, to cause the liquid to offer a variable resistance to the motion of the piston relatively to the cylinder, this resistance being negligible as the piston moves from its mid-position outwardly across the middle transverse planes of the cylinder but increasing as the piston approaches the limit of its extreme strokes and reaching a maximum thereat, this resistance rapidly decreasing when the piston reverses its motion at either of these limits and becoming negligible when the piston continues its travel inwardly toward its mid-position or mid-stroke.

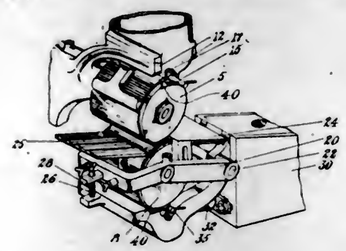
3. A shock absorber comprising a liquid filled cylinder, and a double piston, said piston containing a chamber, having parts with valves opening outwardly, the cylinder having a longitudinal groove of a varying cross section, to cause the liquid to offer a variable resistance to the motion of the piston, and in such manner that the resistance is practically negligible as the piston moves across the middle portions of the cylinder, but increasing as the piston approaches the limits of its extreme strokes, and, as the piston reverses its motion to recede to mid-position, capable either of rapid or of instant decrease to negligible proportions.

4. A shock absorber comprising a cylinder, and a piston therein, said cylinder having a removable lining, having a lengthwise groove of variable cross section, and said piston having a chamber with ports controlled by outwardly-opening valves.

5. A shock absorber comprising a cylinder, and a piston therein, said cylinder having a lengthwise groove of variable cross section, and said piston having a chamber with ports controlled by outwardly-opening valves.

[Claim 6 not printed in the Gazette.]

1,141,311. CEMENTING-MACHINE. MICHAEL F. BROGAN, Lawrence, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Aug. 28, 1907. Serial No. 390,481. (Cl. 91—51.)

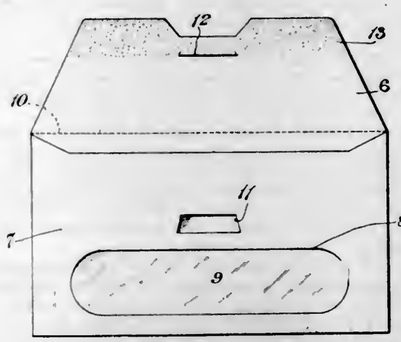


1. In a cementing machine, the combination with a cement reservoir and a cement applying roll, of a device for controlling the flow and distribution of cement arranged in close proximity to the roll and comprising a shaft having a planed side and adapted to be adjusted to permit the cement to flow past said planed side and to be distributed upon the roll by one edge thereof.

2. In a cementing machine, the combination with a cement applying roll and a supporting roll, and a yieldingly upheld frame pivoted at one side of the supporting roll and provided with bearings for said roll, of tables arranged at either side of said roll and supported by the frame whereby they are maintained in constant relation to the roll.

3. A cementing machine having, in combination, a roll, a coöperating roll, means for supplying cement to said rolls, and valves for selectively varying the amount of cement supplied to said rolls.

1,141,312. ENVELOP. THOMAS J. BROWN, Crestwood, Ky. Filed June 30, 1914. Serial No. 848,233. (Cl. 229—71.)



An envelop including a back having large and small openings therein, a transparent covering for said large opening, a flap having the marginal portion gummed, and a tongue struck out from the gummed portion of said flap lying entirely within the edge of the latter and adapted to overlie and extend through said small opening when said flap is closed and secure the contents of the envelop in adjusted position behind said transparent covering.

1,141,313. COVERING FOR DISPLAY-FORMS. JASON LE ROY BURR, Gloversville, N. Y., assignor to The Gloversville Silk Mills, Gloversville, N. Y., a Corporation of New York. Filed Oct. 14, 1910. Serial No. 586,972. (Cl. 211—13.)

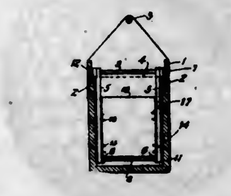
1. A covering for a shoe-display form comprising a body-portion made of fabric highly elastic transversely of the form, comparatively inelastic longitudinally of the form, shaped to receive and cover the upper part of the form, and open at the bottom to receive the form, and a toe-piece of fabric highly elastic longitudinally of the form and comparatively inelastic transversely of the form and connected with said body-portion, and covering the toe-portion of the form.



2. A covering for display-forms made of two pieces of fabric stitched together, one of said pieces of fabric forming a pocket to receive one end of the form, and being more highly elastic transversely of, than longitudinally of, said form, and the other piece of fabric forming a pocket for the other end of the form, and being more highly elastic longitudinally of, than transversely of, the form.

3. A covering for display forms comprising a piece of fabric elastic in one direction and comparatively inelastic in a direction at right angles thereto, a second piece of fabric elastic in one direction and comparatively inelastic in a direction at right angles thereto and secured to the first piece of fabric with the lines of elasticity thereof at right angles to the lines of elasticity of the first piece, said pieces being adapted to cover opposite ends of the form whereby the covering is self-retained thereon.

1,141,314. PHOTOGRAPHIC DEVELOPING APPARATUS. EUGENE W. CALDWELL, New York, N. Y. Continuation of application Serial No. 838,448, filed May 14, 1914. This application filed Dec. 19, 1914. Serial No. 878,010. (Cl. 95—98.)



1. In photographic developing apparatus, a movable developing tank having an oscillating axis above the normal liquid level therein and provided with a celluloid inner surface and supporting shelves on the sides of the tank adjacent the top thereof, developing frames having wide sides formed of celluloid provided with outwardly projecting suspending shoulders adjacent the top thereof to coöperate with said supporting shelves in the tank and provided with inwardly projecting supports for the plates adjacent the bottom of said sides, metallic spacing rods having ends embedded in the enlarged top and bottom ends of said sides to rigidly fasten the members together, a projecting covering of celluloid arranged over the exposed portion of said rods and plate holding devices on the cooperating inner faces of said sides and comprising celluloid holding pins embedded in said sides and arranged on both sides of the plate, there being separated holding pins adjacent the bottom of the sides to promote convenient disengagement of the plates.

2. In photographic developing apparatus, a movable developing tank provided with supporting shelves on the sides of the tank adjacent the top thereof, developing frames having wide sides formed of celluloid provided with outwardly projecting suspending shoulders adjacent the top thereof to coöperate with said supporting shelves in the tank and provided with inwardly projecting supports for the plates adjacent the bottom of said sides, metallic spacing rods having ends embedded in the enlarged top and bottom ends of said sides to rigidly fasten the members together, a projecting covering of celluloid arranged over the exposed portion of said rods and plate holding devices on the coöperating inner faces of said sides and comprising celluloid holding pins embedded in said sides and arranged on both sides of the plate, there being separated holding pins adjacent the bottom of the side members to promote convenient disengagement of the plate.

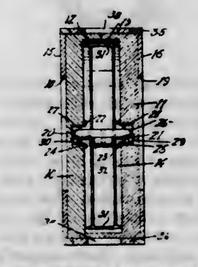
3. In photographic developing apparatus, a plate developing frame having side members formed of wide strips of celluloid provided with outwardly projecting suspending shoulders adjacent the top thereof adapted to coöperate with supporting members and provided with inwardly projecting supports for the plates adjacent the bottom of said side members, metallic spacing rods having ends embedded in the enlarged top and bottom ends of said side members to rigidly fasten the frame members together, a protecting tubular shield of celluloid arranged over the exposed portion of each of said rods and plate holding devices on the coöperating inner faces of said side members and comprising celluloid holding pins embedded in said side members and arranged on both sides of the center line of said side members to coöperate with opposite faces of the plate, there being separated holding pins adjacent the bottom of the side members to promote convenient disengagement of the plate.

4. In photographic developing apparatus, a plate developing frame having side members formed of wide strips of celluloid provided with outwardly projecting suspending shoulders adjacent the top thereof adapted to coöperate with supporting members and provided with inwardly projecting supports for the plates adjacent the bottom of said side members, metallic spacing rods having ends embedded in the enlarged top and bottom ends of said side members to rigidly fasten the frame members together and plate holding devices on the coöperating inner faces of said side members and comprising celluloid holding pins embedded in said side members and arranged on both side of the center line of said side members to coöperate with opposite faces of the plate.

5. In photographic developing apparatus, a plate developing frame having side members formed of wide strips of inert tough material provided with outwardly projecting suspending members adjacent the top thereof adapted to coöperate with supporting shelves in tanks and provided with inwardly projecting supports for the plates adjacent the bottom of said members, metallic spacing rods secured to the enlarged top and bottom ends of said side members to rigidly fasten the frame members together, an inert protecting covering arranged over the exposed portion of each of said rods and plate holding devices on the coöperating faces of said side members and comprising celluloid holding pins embedded in said side members and arranged on both sides of the center line of said side members to coöperate with opposite faces of the plate, there being holding pins adjacent the bottom of the side members to promote convenient disengagement of the plate.

[Claims 6 to 22 not printed in the Gazette.]

1,141,315. GRAVITY-OPERATED LEVEL. CHARLES DOUGLASS CAUGHRON, Santa Ana, Cal. Filed Nov. 4, 1913. Serial No. 799,253. (Cl. 33—215.)



1. The combination with a level stock having an opening extending laterally therethrough and slots on its up-

per and lower edges communicating with said opening, a transparent casing having a chamber therein and adapted to be mounted in the opening in the stock with its peripheral edges exposed through said slots, an arbor incased within said chamber and journaled in depressions in said casing opening only to the chamber therein, an indicator on said arbor, a weight for normally maintaining the indicator in a vertical position, and annular face plates formed with degree marks on opposite sides of the transparent casing by which the latter is held in place in the stock for indicating the degree of inclination of said stock.

2. In a gravity operated level, a stock having a transverse opening therethrough and a sight slot on the edge thereof communicating with said opening, a pair of transparent plates arranged within the opening, having inwardly-extending flanges joined together to form a chamber between said plates, and oppositely-disposed depressions centrally of the plates opening only to the space therebetween, an arbor arranged with its ends extending into and terminating in said depressions, ball bearings in the depressions forming an antifriction support for said arbor, an indicator on the arbor extending on the opposite sides thereof within the chamber, and a weight on said arbor for normally maintaining the indicator in a vertical position.

3. The combination with a level stock having an opening extending laterally therethrough and having slots on its upper and lower edges communicating with said opening, a transparent casing having a chamber therein and adapted to be mounted within the opening in the stock, an arbor within said casing, a pair of parallel members rigidly mounted on said arbor and extending on opposite sides thereof, having connecting end portions arranged to extend transversely across the slots in the stock adjacent thereto and a weight operating on said arbor to normally maintain said parallel members in a vertical position.

4. The combination with a level stock having an opening extending laterally therethrough and having slots on its upper and lower edges communicating with said opening, a transparent casing having a chamber therein and adapted to be mounted within the opening in the stock, an arbor within said casing, a member rigidly mounted on said arbor and extending on opposite sides thereof, having end portions arranged to extend transversely across the slots in the stock adjacent thereto and a weight operating on said arbor to normally maintain said member in a vertical position.

1,141,316. CABLE-HANGER. WALTER L. COCKRELL, Cameron, W. Va. Filed Nov. 9, 1914. Serial No. 871,000. (Cl. 248—33.)



1. A cable hanger consisting of two complemental sections of non-flexible material, each section comprising two connected sleeve segments, and interengaging means formed on said sections whereby the latter are joined together in embracing relation to a cable and messenger wire, said means being interengaged only by longitudinal sliding movement of one section with respect to the other.

2. A cable hanger consisting of two complemental sections of non-flexible material, each section comprising two connected sleeve segments, each segment having its terminal edge shaped to form a portion which is adapted to interlock with the similar portion of an adjacent segment, said portions being adapted to be engaged and disengaged only by relative longitudinal sliding movement of the sections.

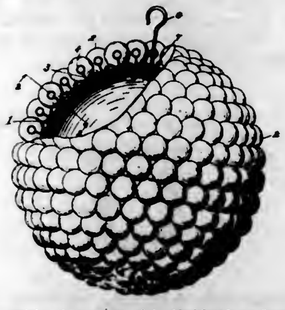
3. A cable hanger consisting of two complemental sections, each section comprising two rigidly connected sleeve segments, each segment having a portion adapted to assume interlocking engagement with the similar portion of an adjacent segment, said sections being engaged and disengaged only by relative endwise movement.

4. A cable hanger consisting of two complemental sections composed of non-flexible material, each section comprising two sleeve segments and an integral connecting web, said webs having inclined faces which coincide between a cable and a messenger wire, and the segments of one section being interlocked with those of the other section in embracing relation to said cable and said messenger wire, said sections being adapted to be carried into and out of interlocking relation only by endwise movement of one section with respect to the other.

5. A cable hanger consisting of two complemental sections, each section comprising two sleeve segments and an integral connecting web, said webs having inclined faces which coincide between a cable and a messenger wire, adjacent segments having their terminal edges curved laterally on a compound curve to form a longitudinal terminal jaw and a rearwardly located groove, the grooves of one section receiving the jaws of the other section whereby said sections are maintained in complemental embracing relation to an interposed cable and a messenger wire, the introduction of said jaws in said grooves being accomplished only by relative endwise movement of said sections

[Claims 6 to 15 not printed in the Gazette.]

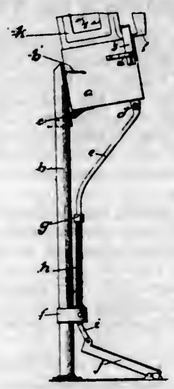
1,141,317. ORNAMENTATION. JOHN S. CORREA, Denver, Colo. Filed Dec. 18, 1913. Serial No. 807,480. (Cl. 41—10.)



1. As a combined means of individual and collective article display and ornamentation, a main support provided with a plurality of spring clips for holding said articles to be displayed readily detachable in juxtaposition around said main support to envelop same, the arms of said spring clips being substantially of lesser length than the diameter of the article displayed and practically hidden thereby, and said main support being substantially of the same contour as the articles displayed, whereby there is produced a design display of the individual articles as an ornamental whole in the form of an enlarged imitation of the individual articles displayed, substantially as described.

2. As a combined means of individual and collective article display and ornamentation, a main support provided with a plurality of substantially semi-circular spring clips formed of resilient wire terminating in engaging loops adapted to hold the articles to be displayed readily detachable in juxtaposition around said main support, said main support and springs clips being substantially hidden thereby, and said main support being substantially of the same contour as the articles displayed, whereby there is produced a design display of the individual articles as an ornamental whole in the form of an enlarged imitation of the individual articles displayed, substantially as described.

1,141,318. FARE-BOX-SUPPORTING STAND. WILLIAM COX, Toronto, Ontario, Canada. Filed June 1, 1914. Serial No. 842,294. (Cl. 232—7.)



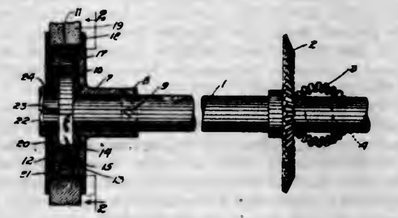
1. In a fare box supporting stand, the combination of a support, a fare box receptacle hinged thereto, a spring tensioned rod connected to the receptacle, a guide for the connecting rod, and a treadle connected to said rod.

2. In a fare box supporting stand, the combination of a support, a fare box receptacle hinged thereto, a spring tensioned rod connected to the receptacle, a guide for the connecting rod, a treadle, and a link connecting the treadle to the connecting rod.

3. In a fare box supporting stand, the combination of a support, a fare box receptacle, a spring tensioned packing member on the inner side of the fare box receptacle, a member hinged to the outer side of the fare box receptacle, and a plate carried by said hinged member to press the packing member against the fare box in the receptacle.

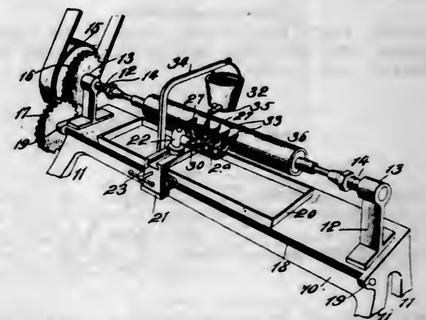
4. In a fare box supporting stand, the combination of a support, a fare box receptacle, a spring tensioned packing member on the inner side of the fare box receptacle, a hinged member on the outer side of the fare box receptacle, a plate carried by said hinged member to press the packing member against the fare box in the receptacle, and means carried by said hinged member to lock the fare box in the receptacle.

1,141,319. DRIVE MECHANISM. HORATIO G. COYKENDALL, San Jose, Cal. Filed Feb. 9, 1914. Serial No. 817,481. (Cl. 192—22.)



In a device of the class described, a drive shaft and means for rotating the same, a driven member surrounding said drive shaft and free to rotate thereon, said driven member provided with an annular flange overhanging said shaft, a cam carried by said drive shaft and rotatable therewith and positioned within said annular overhanging flange, said cam provided on its peripheral edge with a plurality of flattened faces, a flange roll supporting disk free on said shaft and lying adjacent one side face of said cam with its flange overlying the peripheral edge of said cam, said disk formed on its flanged edge with a roller receiving seat, a plate rotatably mounted on said shaft adjacent the opposite face of said disk and secured to the flange thereof, a locking roller in each of said seats for engagement with the annular flange of said driven member, a plate detachably secured to said driven member and rotatable therewith for inclosing said roll supporting structure, and a retaining nut secured to said shaft.

1,141,320. MANUFACTURE OF PRINTERS' ROLLERS. SAMUEL CRUMP, New York, N. Y., assignor to The Crump Company, New York, N. Y., a Corporation of New York. Filed Dec. 12, 1913. Serial No. 806,186. (Cl. 91—68.)



1. The method hereinbefore described of forming or completing a printer's roller by applying the composition, while in a melted state, in a layer or layers, as required, to the stock or the body already thereon, which consists in rotating the stock or roller-body in the presence of a body of the melted composition held against a portion of the same, causing a relative traveling movement between said stock or roller-body and said body of melted composition whereby a spirally wound ribbon or width of said composition is taken by said stock or roller-body, and rendering the ribbon-layer of composition, as taken by the printer's roller, of uniform outer surface.

2. The method hereinbefore described of forming or completing a printer's roller by applying the composition, while melted, in layers to the stock or body already thereon, which consists in rotating the stock in the presence of the melted composition held against a portion of the circumference of said stock or body, rendering the layer of composition taken by the roller uniform in thickness, and adjusting the relation of the melted composition to the roller as the latter increases in diameter.

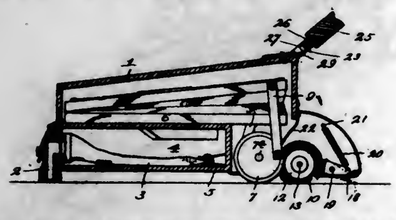
3. The method hereinbefore described of forming or completing a printer's roller by applying the composition, while melted, in layers to the stock or body already thereon, which consists in rotating the stock, holding a body of the melted composition against a portion of the circumference of the stock or body thereon and during such rotation causing said body of melted composition to successively travel along the same, rendering each spiral ribbon or layer of composition taken by the roller for a layer thereon uniform in thickness, and adjusting the relation of the body of melted composition to the roller as the latter increases in diameter.

4. The method hereinbefore described of forming or completing a printer's roller by applying the composition, while melted, in layers to the stock or body already thereon, which consists in rotating the stock, holding a body of the melted composition against a portion of the circumference of the stock or body thereon and during such rotation causing said body of melted composition to successively travel along the same, rendering each spiral ribbon or layer of composition taken by the roller for a layer thereon uniform in thickness, wiping away the spiral lead line that may be left by the traveling body of melted composition, and adjusting the relation of the body of melted composition to the roller as the latter increases in diameter.

5. The method hereinbefore described of forming or completing a printer's roller by applying the composition, while melted, in layers to the stock or body already there-

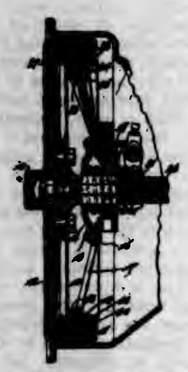
on, which consists in rotating the stock, holding a body of the melted composition against a portion of the circumference of the stock or body thereon and during such rotation causing said body of melted composition to successively travel along the same, rendering each spiral ribbon or layer of composition taken by the roller for a layer thereon uniform in thickness, maintaining the level of the body of melted composition during its travel substantially constant, and adjusting the relation of the body of melted composition to the roller as the latter increases in diameter.

1,141,321. VACUUM-CLEANER. JOHN B. DE COSTA, Kansas City, Mo. Filed July 2, 1914. Serial No. 848,573. (Cl. 15—60.)



In a machine of the character described, a case, a ball pivotally mounted upon said case, a transverse reinforcing member on said ball, a headed screw extending through the ball and said reinforcing member, a handle removably-engaged by said screw, and a trip pivoted to the case and adapted to be engaged by the head of said screw.

1,141,322. FRICTION-CLUTCH. JOHN F. DODGE, Detroit, and HORACE E. DODGE, Grosse Point, Mich., assignors to Dodge Brothers, Detroit, Mich., a Corporation of Michigan. Filed Oct. 27, 1914. Serial No. 868,802. (Cl. 192—8.)



1. In a friction clutch, the combination of a clutch member having a flexible facing and provided with sockets under said facing, cups or caps guided in said sockets by means of their skirt portions, their closed ends being presented toward said facing, and helical springs located in said sockets and seated within the skirt portions of said cups or caps to press the said closed ends against said facing.

2. In a friction clutch, the combination of a clutch member having a flexible facing and provided with sockets under said facing, cups or caps guided in said sockets, and the closed ends of which are rounded off and are in contact with said facing, and helical springs located in said sockets and extending into said cups or caps to press them against said facing.

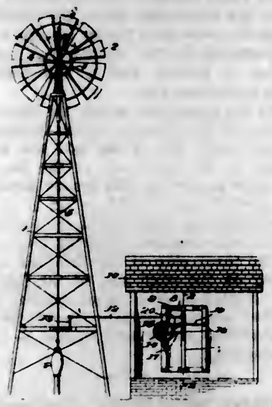
3. In a friction clutch, the combination of a clutch member having a flexible facing, and provided with sockets under said facing, the inner surfaces of the bottoms of said sockets being tapered to form seats, cups or caps guided in said sockets with their closed ends toward said facing, and helical springs located in said sockets with their inner ends centered in said seats, while their outer ends extend into said cups or caps to press them against said facing.

4. In a friction clutch, the combination of the male cone rim having a flexible facing and provided with sockets under said facing, a hub, an intermediate connecting portion or portions for said hub and said rim, said sockets terminating in said connecting portion or portions, cups or caps guided in said sockets with their closed ends toward said facing, and helical springs located in said sockets and extending into said cups or caps to press them against said facing.

5. In a friction clutch, the combination of a male cone rim, a hub, and spokes connecting said hub and rim, said rim having a flexible facing and provided with sockets which extend into the ends of said spokes, cups or caps guided in said sockets with their closed ends toward said facing, and helical springs located in said sockets and extending into said cups or caps to press them against said facing.

[Claims 6 to 8 not printed in the Gazette.]

1,141,323. MEANS FOR CONVERTING MOTION. FREDERICK H. DRYDEN, Montgomery City, Mo. Filed May 18, 1913. Serial No. 767,401. (Cl. 74—20.)



1. The combination of a driving crank shaft, a fixed support, a vibratory bar pivoted at one end to said support, connections between the driving shaft and said bar whereby the bar will be vibrated, a driven crank shaft, a lever pivoted upon the vibratory bar and fitted at one end to the driven crank shaft to actuate the same, and resilient connections between the free end of the said lever and the fixed support.

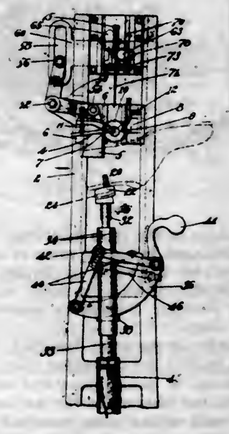
2. The combination of a driving crank shaft, a fixed support, a vibratory bar pivoted at its lower end to said support, devices connecting the driving shaft with said bar, a driven crank shaft, an angle lever pivoted at its angle upon the said bar and having one end fitted on the driven crank shaft, and a yieldable pressure device bearing upon the free end of the angle lever.

3. The combination of a driving crank shaft, a fixed support, a vibratory bar pivoted at one end to said support, a driven crank shaft, means connecting the driving crank shaft with the vibratory bar, an angle lever pivoted at its angle upon the vibratory bar and connecting the driven crank shaft therewith, and springs mounted at opposite sides of the angle lever and attached to the free end of said lever.

4. The combination of a fixed support, a guide thereon, a driving crank shaft, a vibratory bar fulcrumed at one end upon the support and having its free end playing in the said guide, means connecting the driving crank shaft with said bar, a driven crank shaft, an angle lever pivoted at its angle upon the vibratory bar and attached at one end to the driven crank shaft, and springs secured to the fixed support at opposite sides of the angle lever and attached to the free end of said lever.

5. The combination of a fixed support, a guide thereon, a vibratory bar fulcrumed at one end on the support and having its opposite end playing freely in said guide, a driving shaft, a connecting rod actuated by the driving shaft and adjustably secured to the vibratory bar, a driven crank shaft, an angle lever adjustably pivoted at its angle to the vibratory bar and having one arm connected to the driven crank shaft, and a yieldable pressure device acting on the free end of the other arm of the angle lever.

1,141,324. SHOEMAKING-MACHINE. EDWARD ERICKSON, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Dec. 15, 1911. Serial No. 666,054. (Cl. 12—47.)



1. In a machine of the class described, the combination of a knife, a presser plate movable by the work, a shoe positioning stop, and means operated by the stop for holding the plate against displacement during the operation of the knife.

2. A machine of the class described, having, in combination, a presser plate to be moved up by the work, a stop for engaging the shank, a knife, and means controlled by the stop for locking the presser plate.

3. A machine of the class described, having, in combination, a presser plate movable by the work, a stop for engaging the shank and movable by the presser plate, and a knife the lower limit of whose stroke has a constant relation to the position to which the stop is moved by the presser plate.

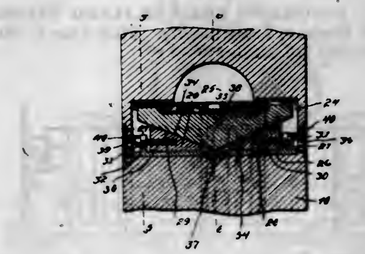
4. A machine of the class described, having, in combination, a knife having a constant stroke, a shoe support for raising the shoe, a plate arranged to contact with the tread face of the heel and to be elevated thereby, a stop arranged to contact with the shank, and connections between said stop and said plate for arresting further movement of the plate when the shoe is in proper relation to the limit of the knife stroke.

5. In a machine of the class described, the combination of a breasting knife having a stroke of constant length, and means which engages the heel and is movable by the heel for automatically clamping heels of varying thickness with the tread face of the shoe shank at the lower limit of the knife stroke.

[Claims 6 to 56 not printed in the Gazette.]

1,141,325. SPIRIT-LEVEL. FRANK A. EWER, Victor, N. Y. Filed May 9, 1912. Serial No. 696,211. (Cl. 33—214.)

In a spirit level, the combination with a body portion having a recess, of a plate secured in the bottom of said recess, a pivoted rocking block mounted on the plate, said block carrying a spirit tube, the bottom of said block being formed with longitudinally extending and oppositely inclined faces, longitudinally disposed wedge blocks mounted on the plate below and engaging the inclined



faces of the rocking block and adjusting screws mounted on the plate and connected to the wedge blocks, for moving said wedge blocks under the rocking block to rock the same on its pivot whereby the rocking block is prevented from movement laterally.

1,141,326. LAST. EDWARD D. GALLAGHER, New York, N. Y., assignor to Ancell H. Ball and Thomas A. Ball, a Copartnership trading under the name of Best & Company, New York, N. Y. Filed Jan. 25, 1915. Serial No. 4,095. (Cl. 12—133.)



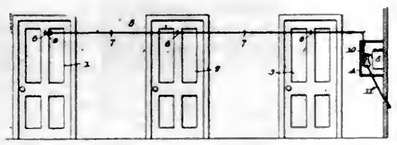
1. A shoe last comprising a body having its entire under-surface substantially even except that it is concaved or depressed within an area which is relatively small as compared with the area of said substantially even surface, at a location to one side of and directly behind that corresponding with the big toe joint so as to be intersected by an approximately central longitudinal line at said surface, said concavity or depression having dimensions approximately one-half the width of said surface and, transversely, substantially the same measurement at least as said width, and being coincident with the location of the metatarsal bones of the human foot.

2. A shoe last, comprising a forepart and a heel part, and having a waist with its inner longitudinal side portion curved abnormally inwardly toward an imaginary straight line which equally divides those transverse portions of the heel part and forepart which are directly contiguous to the end portions of said waist, the degree of separation between said curve and imaginary line corresponding approximately with one third or less of the distance across the narrowest part of the bottom of said waist, the under-surface of which last is concaved or depressed at a location which is coincident with the location of the metatarsal bones of the human foot.

3. A shoe last, comprising a forepart and a heel part, and having a waist with its inner longitudinal side portion curved abnormally inwardly toward an imaginary straight line which equally divides those transverse portions of the heel part and forepart which are directly contiguous to the end portions of said waist, the degree of separation between said curve and imaginary line corresponding approximately with one-third or less of the distance across the narrowest part of the bottom of said waist, while above the said bottom the width of the said

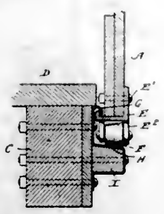
waist is greater and lies approximately equally to both sides of said line, the under-surface of which last is concaved or depressed at a location which is coincident with the location of the metatarsal bones of the human foot.

1,141,327. AUTOMATIC BURGLAR-ALARM SYSTEM. LOUIS H. GERMAN, Louisville, Ky. Filed June 4, 1914. Serial No. 843,110. (Cl. 179—5.)



In an automatic burglar alarm system, a closed receptacle, a signal sending instrument in said receptacle, eyes secured to the doors of the building, a wire passed through said eyes, a fixed connection between one end of said wire and the eye on the adjacent door, an elastic connection between the remaining end of said wire and the instrument in said receptacle, and means adapted to be attached to the outer side of the protected structure and connected to said instrument to hold the latter against operation and detachable from the outer side of the building to release said instrument.

1,141,328. FREIGHT-CAR CLOSURE. FRANK J. GILROY, Buffalo, N. Y. Filed Apr. 3, 1915. Serial No. 19,031. (Cl. 20—22.)



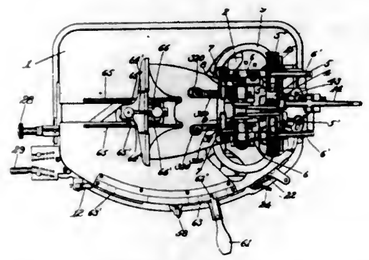
1. The combination with a car, of a horizontal metal member fixed to the exterior of the car slightly below the plane of its floor and provided with a continuous flange forming a downwardly open hook, a rigid upwardly closed rib parallel to the hook, below the same and projecting materially farther from the car wall, and a door provided at its lower margin with a flange engaging said hook.

2. The combination with a car, of a track member of sheet metal bent to form at its upper margin a continuous downwardly open hook and below the hook a parallel upwardly closed rib projecting materially farther than the hook from the car wall, and having its upper face downwardly and outwardly inclined and fixed to the car below the door opening, and a door carrying rollers to rest upon said rib and provided with a marginal hook to engage the hook first mentioned.

3. The combination with a car, of a metal strip bent to form along its upper margin a continuous downwardly open hook and between its margins a hollow track rib parallel to the hook and projecting farther from the car wall, devices fixing the strip to the exterior of the car below its door opening, a door having at its lower side a flange engaging said hook, and rollers mounted on the door and resting upon said rib.

4. The combination with a car, of a metal strip fixed to the exterior of the car below its door opening, bent to form a continuous hook along its upper margin and a hollow track rib between its margins, a door having at its lower side a flange engaging said hook, rollers carried by the door and resting upon said rib, and a strip of suitable material filling said rib, said rib having its upper surface outwardly and downwardly inclined and as a whole projecting beyond the vertical plane of said hook.

1,141,329. VAMP-MARKING MACHINE. PERLEY R. GLASS, Brookline, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Dec. 11, 1908. Serial No. 467,075. (Cl. 33—4.)



1. In a machine of the class described, the combination with devices arranged to mark a vamp at separated points, of means associated therewith to control the distance of the marks from the edges of the vamp, said devices being supported for swinging movements toward and from the edges of the vamp.

2. In a machine of the class described, the combination with marking devices for indicating on a vamp the position for a toe-cap, of means associated with said devices for determining the distance of the marks from the edges of the vamp, said means being mounted for free movements simultaneously in opposite directions whereby they may open to receive a vamp or may close to engage and position the vamp relatively to the marking devices.

3. In a machine of the class described, the combination of marking devices for indicating on a vamp the position for a toe-cap and means associated with said devices for determining the distance of the marks from the edge of the vamp, said devices being supported for marking movements and said means being supported for free lateral movements in opposite directions, and a single device for effecting the lateral movements.

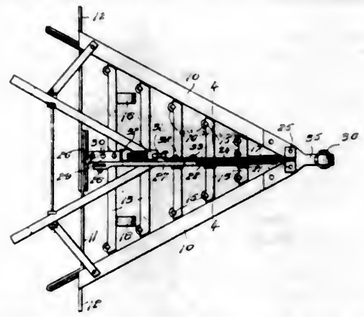
4. In a machine of the class described, the combination of devices for marking a vamp to indicate the position for a toe-cap and means associated with said devices for determining the distance of the marks from the edge of the vamp, said devices being supported for marking movements and said devices and means being supported for free lateral movements in opposite directions, and means extending toward the front of the machine and capable of effecting a simultaneous opening or closing movement of said parts by a single operation.

5. In a machine of the class described, the combination with a marker mounted for free swinging movements above the bed of the machine, of a gage associated with said marker and arranged to engage the edge of a vamp to be located on said bed.

[Claims 6 to 88 not printed in the Gazette.]

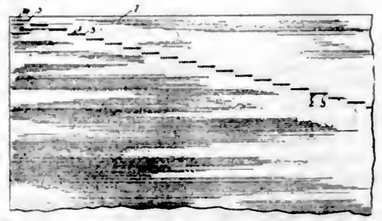
1,141,330. EXTENSION-HARROW. JAMES L. GLAWSON, Americus, Ga., assignor of one-half to Hiram W. Knowlton, Americus, Ga. Filed Aug. 27, 1913. Serial No. 786,964. (Cl. 55—103.)

A harrow comprising a frame formed of angleiron in the shape of a V, the sides of said V-shaped frame having the vertical webs extended rearwardly, a cross bar at the rear end of said frame having loops near the ends receiving the extensions of said sides, laterally extending apertured wings connected with the sides of said frame



for attaching other harrows to produce a gang, and harrow tooth beams secured upon the sides of said frame.

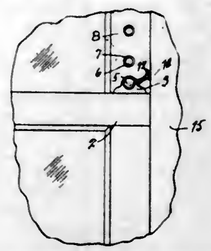
1,141,331. KEY-TESTER FOR PLAYER-PIANOS. PETER GÖDDERTZ, New York, N. Y. Filed May 28, 1914. Serial No. 841,495. (Cl. 84—162.)



1. In a device of the character described, a music roll for player pianos or other automatic musical instruments, said music roll having means for playing all the sounds expressible by said musical instrument, in the ordinary succession from the deepest to the highest tone or otherwise, said means providing for both long and short notes.

2. In a device of the character described, a music roll for player pianos, having apertures for playing each key in succession from the left to the right of the key board of said player piano, and performing each tone five times in succession as a one-sixteenth tone and once as a half tone.

1,141,332. SASH-LOCK. HARRY W. GOODNOW, Indianapolis, Ind., assignor of one-half to Harry W. Heckman, Indianapolis, Ind. Filed June 27, 1914. Serial No. 847,638. (Cl. 16—52.)



A device of the class described comprising a support including parallel members, a pin loosely mounted in said parallel members, said pin being provided with an elongated longitudinal slot, a cam member mounted upon said pin adapted for rotation therewith, and a stop member carried by said cam member and engaged in said slot of the pin to limit longitudinal movement of the latter.

1,141,333. CHOKER-HOOK. HENRY HARDISTY, Raymond, Wash., assignor of one-half to Elias Pierson, South Bend, Wash. Filed July 29, 1914. Serial No. 853,839. (Cl. 24—241.)



1. A choker hook of the class described including a hook, clamping means for gripping a line or cable at any point to prevent the same from slipping longitudinally through the hook, said means comprising a clamping member hinged to the bill of the hook and arranged to swing inwardly and outwardly to and from the shank, said clamping member having a line or cable gripping jaw extending across the space between the bill and the shank and arranged to coöperate with the bottom of the hook in gripping the line or cable, and means for securing the clamping member in such frictional engagement with the line or cable.

2. A choker hook of the class described including a hook, clamping means for gripping a line or cable at any point to prevent longitudinal movement of the same through the hook, said means comprising a substantially L-shaped clamping member hinged to the bill and arranged to swing inwardly and outwardly to and from the shank, said clamping member being composed of a straight jaw extending across the space between the bill and the shank and arranged to coöperate with the bottom of the hook in gripping the line or cable, and a lip or flange extending outwardly from the inner end of the jaw and fitting against the inner face of the shank when the clamping member is closed, and locking means for securing the lip or flange to the shank.

3. A choker hook of the class described including a hook, a clamping member hinged to the bill of the hook and arranged to swing inwardly and outwardly to and from the shank of the hook, and a key having a smooth stem mounted for sliding and rotary movement on the said member and provided with means for engaging the shank, said key having an operating arm arranged to maintain the key in its engaging position, and the said clamping member being constructed to receive and form a guard for the gravity arm to prevent the same from being displaced when the hook is dragged over the ground.

4. A device of the class described including a hook, a substantially L-shaped clamping member hinged to the bill of the hook and arranged to swing inwardly and outwardly to and from the shank of the hook, said clamping member being provided adjacent to its angle with an exterior groove, and a key mounted for sliding and rotary movement on the clamping member and provided with means for engaging the shank, said key having a gravity operating arm normally arranged in the groove of the clamping member, which forms a shield to prevent the gravity operating arm from being displaced when the choker hook is dragged over the ground.

5. A device of the class described including a hook provided in the rear face of its shank with an enlarged recess and having an opening extending from the recess to the front face of the shank and provided at one side with a reduced extension, a clamping member hinged to the bill of the hook and provided with a lip or flange arranged to bear against the shank, said lip or flange having an opening registering with the opening of the shank and enlarged at the rear face of the said lip or flange to provide a recess, and a key having a smooth stem mounted for rotary and longitudinal sliding movement in the lip or flange and provided with a lug of a size to be received within the recess of the lip or flange and also to pass through the extension of the opening in the shank,

whereby the clamping member may be locked to the shank by carrying the lug out of alinement with the said extension of the opening, said key having an operating arm and a clamping member being arranged to form a shield for the same to prevent the operating arm from being displaced when the hook is dragged over the ground.

1,141,334. NUT-LOCKING DEVICE. HENRY HARDISTY, Raymond, Wash., assignor of one-half to Elias Pierson, South Bend, Wash. Filed Nov. 17, 1914. Serial No. 872,570. (Cl. 151—48.)

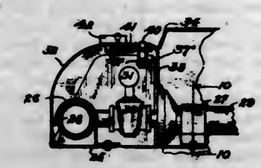


1. A nut locking device including a nut provided with a tubular extension having a smooth inner bearing portion and an outer ratchet portion, an arm or member provided with a bearing opening into which the said smooth bearing portion extends, the ratchet portion being of substantially the same diameter as the bearing portion so as to pass through the bearing opening of the arm or member, said arm or member being reduced at the bearing opening to form an outer guard or flange and an inner shoulder, a pawl or dog pivoted at the inner shoulder and engaging the ratchet portion of the nut, and a spring pivoted to the arm and normally engaging the pawl for urging the same toward the said ratchet portion, said spring being adapted to be turned on its pivot to release the pawl or dog and permit the same to be swung out of engagement with the ratchet portion of the nut to allow free rotary movement of the latter.

2. A nut locking device including spaced nuts having ratchet and bearing portions, arms or members provided at one end with openings receiving the bearing portions of the nuts, and a bar adjustably and detachably connecting the other ends of the arms or members.

3. A nut locking device including spaced nuts having ratchet and bearing portions, arms or members provided at one end with openings receiving the bearing portions of the nuts, said arms or members being provided at their other ends with grooves, and a connecting bar slidably interlocked with the grooves of the arms or members and forming an adjustable connection between the same.

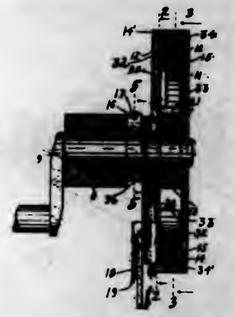
1,141,335. SAFETY DEVICE FOR STOVES. WILLIAM F. HAJEK, Chicago, Ill. Filed Jan. 19, 1914. Serial No. 812,953. (Cl. 126—42.)



1. In a device of the class described, a base plate, hooks adjustably mounted thereon and adapted to engage the gas pipes of a stove to maintain said base plate beneath its gas valves, and a hood hinged to said base plate and adapted to be swung over the gas valves to prevent access thereto.

2. In a device of the class described, a base plate, hooks attached thereto and adapted to engage over the manifold gas supply pipes of a gas stove, hooks adjustably connected with said base plate and adapted to engage over the individual burner supply pipes, said sets of hooks adapted to maintain said base plate beneath its gas valves, and a hood hinged to said base plate and adapted to be swung over the gas valves to prevent access thereto.

1,141,336. MAGNETO. PETER HAMM, Milwaukee, Wis. Filed Oct. 17, 1913. Serial No. 795,616. (Cl. 123—149.)

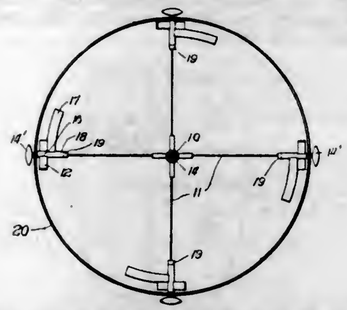


1. A magneto comprising a member, a non-rotatable armature mounted thereon and provided with primary and secondary coils, permanent magnets revoluble therearound, a circuit interrupter included in the primary circuit, for interrupting the current in the primary, and means for advancing or retarding the spark, comprising a split sleeve forming a part of said member and adjustably mounted upon the engine frame.

2. A magneto, comprising a member, a non-rotatable armature mounted thereon and having poles projecting therefrom, primary and secondary circuit coils surrounding said poles, a circuit interrupter included in the primary coil circuit, for interrupting the circuit therein, a rotatable member mounted upon the shaft of the engine adjacent said armature, permanent magnets mounted on said rotatable member, said magnets extending around the poles of the armature, and pole shoes connecting adjacent magnet ends together, said pole shoes having pointed ends, to positively fix the points of break between the magnets and the pole pieces of the armature.

3. A magneto, comprising a fixed member mounted upon the engine frame, a non-rotatable armature mounted thereon and provided with primary and secondary coils, a member carrying permanent magnets mounted upon the engine shaft and revoluble therewith, a switch included in the primary circuit, and operable by said revoluble member, to interrupt the primary circuit, and a manually operable switch mounted on said fixed member, for continuously interrupting the primary circuit.

1,141,337. AIR-PROPELLER. JAMES R. HAYDON, Chicago, Ill. Filed Sept. 3, 1914. Serial No. 859,941. (Cl. 170—167.)



1. An air propeller comprising a hub, centrifugally tensioned radial elements fixed at their inner ends thereto, and blades pivotally carried by the outer ends of said elements and balanced with respect to rotation about their axes.

2. An air propeller comprising a hub, centrifugally tensioned radial elements fixed at their inner ends thereto, blades pivotally carried at the outer ends of said elements and balanced with respect to rotation about their axes and air controlled means for maintaining the angular position of the blades.

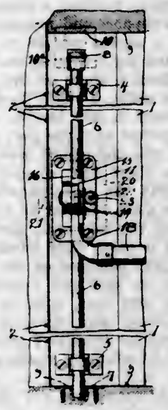
3. An air propeller comprising a hub, centrifugally tensioned radial elements fixed at their inner ends thereto, blades pivotally mounted on said radial elements and balanced with respect to rotation about their axes and vanes controlling the angle of presentation of the blades to the air.

4. An air propeller comprising a hub, centrifugally tensioned radial elements fixed at their inner ends thereto, blades carried by the outer ends of said elements, and means to support said radial elements and the blades when the propeller is at rest.

5. An air propeller comprising a hub, centrifugally tensioned radial elements fixed at their inner ends thereto, blades carried by the outer ends of said elements, and a circumferential supporting ring with which the radial elements having sliding connection.

[Claims 6 and 7 not printed in the Gazette.]

1,141,338. PANIC-BOLT CONSTRUCTION. HENDERSON F. HILL, Bloomfield, N. J., assignor to The American Hardware Corporation, New Britain, Conn., a Corporation of Connecticut. Filed Nov. 25, 1914. Serial No. 873,849. (Cl. 70—120.)



1. In combination, a door, top and bottom latch bolts on the inner face thereof, a bolt-operating bar upon said inner face in operative retracting connection with said bolts, a separate and assembled lock mechanism carried by the door including an intermediate latch bolt at the side edge of the door with a manually controlled operating member therefor on the outside of the door and with a rotatable latch-retracting spindle in operative connection with said outside operating member, said latch spindle extending to the inside of the door and having a pinion thereon meshing with the rack of said inside bar, a manually controlled inside operating member coöperating with said inside bar independently of said latch spindle connections, said inside and outside operating members being arranged to severally effect retraction of said top, intermediate and bottom latch bolts substantially simultaneously, a connecting element of said operative connections between said spindle and inside bar, being removable without affecting the operative connection between said top and bottom latch bolts and said manually controlled inside operating member.

2. In combination, a door, top and bottom latch bolts on the inner face thereof, a bolt-operating bar upon said inner face in operative retracting connection with said bolts, said inside bar having a rack, a separate and assembled lock mechanism carried by the door including an intermediate latch bolt at the side edge of the door with a manually controlled operating member therefor on the outside of the door and with a rotatable latch-retracting spindle in operative connection with said outside operating member, said latch spindle extending to the inside of the door and having a pinion thereon meshing with said inside bolt-operating bar rack, a manually controlled inside operating member coöperating with said inside bar independently of said latch spindle pinion and rack connections, said inside and outside operating members being arranged to severally effect retraction of said top, intermediate and bottom latch bolts substantially simultaneously, a connecting element of said operative connections between said spindle and inside bar, being removable without affecting the operative connection between said top and bottom latch bolts and said manually controlled inside operating member.

3. In combination, a door, top and bottom latch bolts on the inner face thereof, a bolt-operating bar upon said inner face in operative retracting connection with said bolts, said inside bar having a rack and an abutment separate therefrom, a separate and assembled lock mechanism carried by the door including an intermediate latch bolt at the side edge of the door with a manually controlled operating member therefor on the outside of the door and with a rotatable latch-retracting spindle in operative connection with said outside operating member, said latch spindle extending to the inside of the door and having a pinion thereon meshing with the rack of said inside bar, a manually controlled inside operating member coöperating with said inside bar abutment independently of said latch spindle rack and pinion connections, said inside and outside operating members being arranged to severally effect retraction of said top, intermediate and bottom bolts substantially simultaneously, a connecting element of said operative connections between said spindle and inside bar, being removable without affecting the operative connection between said top and bottom latch bolts and said manually controlled inside operating member.

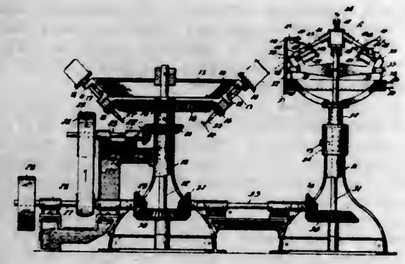
4. In combination, a door, top and bottom latch bolts on the inner face thereof, a bolt-operating bar guided on said inner face and in operative retracting connection with said bolts, a separate and assembled lock mechanism carried by the door including an intermediate latch bolt at the side edge of the door with a manually controlled operating member therefor on the outside of the door and with a rotatable latch-retracting spindle in operative connection with said outside operating member, said latch spindle extending to the inside of the door, a plate supported on the inside of the door adjacent said inside bar, said plate having an aperture therein to receive said latch spindle, operative connections between said latch spindle and said inside bar, and an inside manually controlled operating member operatively connected with said inside bar independently of said latch spindle connections, said inside and outside operating members being arranged to severally effect retraction of said top, intermediate and bottom latch bolts substantially simultaneously.

5. In combination, a door, top and bottom latch bolts on the inner face thereof, a bolt-operating bar guided on said inner face and in operative retracting connection with said bolts, said bar having a rack thereon and an abutment separate therefrom, a separate and assembled lock mechanism carried by the door including an intermediate latch bolt at the side edge of the door, with a manually controlled operating member therefor on the outside of the door and with a rotatable latch-retracting spindle in operative connection with said outside operating member, said latch spindle extending to the inside of the door, a plate supported on the inside of the door adjacent said inside bar, said plate having an aperture therein to receive said latch spindle, a pinion carried by said spindle and meshing with the rack on said inside bar, and a manually controlled operating member carried by said plate and arranged to engage said inside bar abutment, said inside and outside operating members being

arranged to severally effect retraction of said top, intermediate and bottom latch bolts, substantially simultaneously.

[Claims 6 to 8 not printed in the Gazette.]

1,141,339. CONTINUOUS CAN-SPRAYING MACHINE. JOHN G. HODGSON, Maywood, Ill., assignor to American Can Company, New York, N. Y., a Corporation of New Jersey. Filed May 5, 1913. Serial No. 765,572. (Cl. 91—45.)



1. A spraying machine of the character described including, in combination: a continuously rotatable carrier having an article holding chuck thereon; and a separate, continuously rotatable carrier located adjacent said first named carrier and having a spraying device thereon, said carriers being rotatable about parallel axes, the said machine comprising means for changing the angle of the axis of the can to the axis of the spraying device so as to coat all parts of the interior of the can, substantially as specified.

2. A spraying machine of the character described including, in combination: two carriers rotatable about parallel axes, one of said carriers being provided with an article holding chuck rotatably mounted thereon and the other of said carriers having a spraying device mounted thereon; mechanism for rotating said chuck; and means, automatically operable, for controlling said spraying devices, the said machine comprising means for changing the angle of the axis of the can to the axis of the spraying device so as to coat all parts of the interior of the can, substantially as specified.

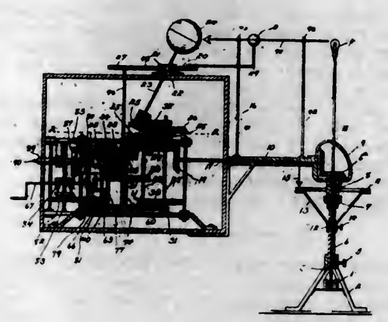
3. A spraying machine of the character described including, in combination: two carriers each continuously rotatable about a vertical axis, one of said carriers having a chuck rotatably mounted thereon and the other of said carrriers having a spraying device mounted thereon; mechanism for continuously rotating said chuck; and automatically operable means for controlling said spraying devices, the said machine comprising means for changing the angle of the axis of the can to the axis of the spraying device so as to coat all parts of the interior of the can, substantially as specified.

4. A spraying machine of the character described including, in combination: a rotatable carrier having a plurality of article holding chucks bodily movable therewith and rotatably mounted thereon; a second carrier rotatable about an axis parallel to the axis of rotation of said first named carrier and having a plurality of spraying devices thereon; and automatically operable means for controlling said spraying devices, the said machine comprising means for changing the angle of the axis of the can to the axis of the spraying device so as to coat all parts of the interior of the can, substantially as specified.

5. In a can spraying mechanism, in combination: a rotatable can carrier having an article holding chuck thereon; and a separate rotatable carrier located adjacent to the said can carrier, and having a spraying device thereon; the said carriers being relatively arranged to change the angle of the axis of the can to the axis of the spraying device during the spraying operation so as to coat all parts of the interior of the can; substantially as specified.

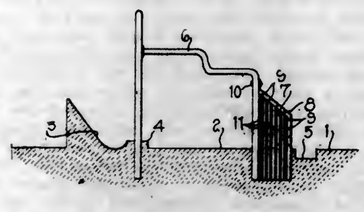
[Claims 6 to 9 not printed in the Gazette.]

1,141,340. EDUCATIONAL APPARATUS. LLOYD M. HOUSEKNECHT, Picayune, Miss. Filed Sept. 19, 1914. Serial No. 862,542. (Cl. 35—3.)



In an apparatus for the purpose set forth, the combination of a light-affording medium, a support, a tubular arm connected with the support and revoluble about the light-affording medium, a casing carried by said arm, means carried by the casing for revolving the arm and the casing about said medium, a stand on the casing and having a socket bearing, a globe, a shaft fixed to the globe and having a ball disposed in said bearing and also having a gear, a gear intermeshed with the gear on the globe shaft, means for driving the last-named gear, a revoluble arm receiving the globe shaft and adapted to hold the gear thereof in mesh with the complementary gear and also adapted to hold the globe shaft at an angle of inclination, means for revolving the said arm, shafts carried by the casing and adapted to carry clock hands, means for rotating said shafts, a gear mounted on the stand and having an arm and a ball on said arm representing the moon, means for rotating said gear, uprights on the arm that swing with the casing, said uprights being detachable from said arm, a pointer removably arranged on the arms and between the light-affording medium and the globe, a pointer carried by said arm and an annulus connected with the support and opposed to and adapted to coöperate with said pointer.

1,141,341. ATTACHMENT FOR STALL-PARTITIONS. DAVID J. HOWELL, Waukesha, Wis. Filed May 16, 1914. Serial No. 839,103. (Cl. 119—27.)



The combination with a stall partition frame, of a vertically disposed anti-slipping plate connected to the outer end of the frame and extending longitudinally therefrom, said plate being provided with vertical corrugations extending the entire length of the plate.

1,141,342. CASTER-SOCKET. BENJAMIN H. JONES, St. Louis, Mo. Filed Oct. 5, 1914. Serial No. 864,980. (Cl. 16—4.)



A socket for a caster, said socket comprising a spiral consisting of several turns of resilient metal, the outer convolutions of said spiral being spaced apart and the inner convolution terminating in a coil to receive a pintle.

1,141,343. PAPER BOX. JOHN L. JONES, Toronto, Ontario, Canada, assignor to Dominion Paper Box Company, Limited, Toronto, Ontario, Canada. Filed Aug. 4, 1914. Serial No. 855,002. (Cl. 229—34.)



1. A paper box formed from an integral sheet of material consisting of a bottom, four walls, corner pieces folded diagonally and turned in against opposite walls; a pair of locking tongues on each of said opposed walls having their inner sides substantially perpendicular to the bottom, the inner sides of the corner pieces being provided with slots to receive the tongues; a pair of locking tongues on each of said opposed walls between the aforesaid tongues fitting within the folded corner pieces and substantially contacting with the angle of the fold.

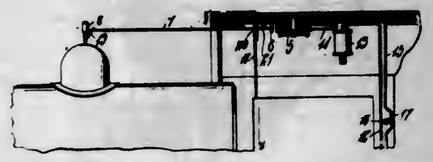
2. A paper box formed from an integral sheet of material consisting of a bottom, four walls, corner pieces folded diagonally and turned in against opposite walls; a pair of locking tongues on each of said opposed walls having their inner sides substantially perpendicular to the bottom, the inner sides of the corner pieces being provided with slots to receive the tongues; a pair of locking tongues on each of said opposed walls between the aforesaid tongues fitting within the folded corner pieces and substantially contacting with the angle of the fold; and fastening means securing the last mentioned tongues, the corner pieces and walls together.

3. A paper box formed from an integral sheet of material consisting of a bottom, four walls, corner pieces folded diagonally and turned in against opposite walls; a pair of locking tongues on each of said opposed walls having their inner sides substantially perpendicular to the bottom, the inner sides of the corner pieces being provided with slots to receive the tongues; a pair of locking tongues on each of said opposed walls between the aforesaid tongues fitting within the folded corner pieces and substantially contacting with the angle of the fold; and flaps on said walls turned in and having their ends shaped to tuck under the corner pieces.

4. A paper box formed from an integral sheet of material consisting of a bottom, four walls, corner pieces folded diagonally and turned in against opposite walls; a pair of locking tongues on each of said opposed walls having their inner sides substantially perpendicular to the bottom, the inner sides of the corner pieces being provided with slots to receive the tongues; and infolded parts on the said walls between the tongues suitably engaged both under and in the folds of the corner pieces to retain said parts in their infolded position and stiffening the end walls of the box.

5. A blank for a paper box comprising an integral sheet of material scored and cut to form a bottom; four side walls; corner pieces connecting the walls adapted to fold diagonally and provided with slots; and end flaps on opposite walls each cut to form two tongues with their inner sides substantially perpendicular to the edge of the wall, a pair of tongues with their outer sides against the adjacent sides of the first mentioned tongues, and a central part or flap having its ends extended over the second mentioned tongues, the slots in the corner pieces being so placed that the first mentioned tongues may be engaged therein when the box is set up.

1,141,344. AUTOMATIC WHISTLING DEVICE. GUSTIE J. JUNTUNEN, Dollar Bay, Mich. Filed Aug. 6, 1913. Serial No. 783,388. (Cl. 246—25.)



A whistling device for railroad locomotives comprising an electromagnet mounted upon the locomotive, a normally open electric circuit including said magnet, means for closing said circuit at predetermined points in the travel of the locomotive, a rod slidably mounted on the locomotive and having one end connected to the whistle valve lever and its other end provided with an armature adapted to be attracted by said magnet when the latter is energized to move the rod longitudinally and open the whistle valve, a lever pivoted on the locomotive and provided with an opening through which said rod passes, and a flange on said rod adapted to be engaged by the lever when moved in one direction to slide the rod in the direction of the magnet and manually effect the sounding of the whistle.

1,141,345. LAUNDRY SUNDRY. HORACE L. KINGSLEY, Racine, Wis. Filed June 16, 1914. Serial No. 845,437. (Cl. 211—13.)



1. A distending brace having the form of the interior of a stiff-starched laundered and bowed cuff-end of a shirt-sleeve and which is detachably retained in the cuff to fill the breakable portion of the same.

2. A distending brace consisting of a form member of sufficiently stiff bendable material and an inner hollow member to which the form member is fastened and bent to therewith have the general shape of a stiff-starched laundered and bowed cuff-end of a shirt sleeve with which said brace is temporarily engageable inside of the same to resist breaking down of the bow of said cuff under pressure thereon.

3. A device consisting of a form member of sufficiently stiff bendable material, and a brace-member of similar material having lapping ends fastened together but otherwise curvilinear in said form bent and fastened thereon, the device as a whole conforming to the general shape of a stiff-starched, laundered and uncreased closed cuff-end of a shirt-sleeve with which it is engageable to retain the shape of the cuff.

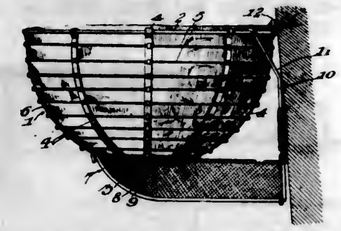
4. A device consisting of a form of sufficiently stiff bendable material having the general shape of a stiff-starched, laundered and uncreased closed cuff-end of a shirt-sleeve when the ends of said form are fastened together, said form being provided with buttonholes for

registration with those of a cuff in which it may be detachably secured.

5. A device consisting of a form member of sufficiently stiff bendable material having apertures therein adjacent to its ends, and a brace-member on which the form-member is fastened and bent to therewith have the general shape of a stiff-starched, laundered and uncreased closed cuff-end of a shirt-sleeve when the ends of said form-member are fastened together; the apertures therein being for registration with buttonholes of a cuff in which said device may be detachably secured.

[Claim 6 not printed in the Gazette.]

1,141,346. HEN'S NEST. WILFRED KOYEN and OLE CHRISTIAN ERICKSON, Detroit Harbor, Wis. Filed June 25, 1914. Serial No. 847,243. (Cl. 119—48.)



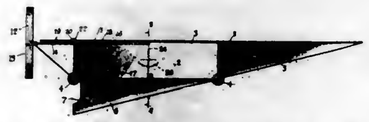
1. A nest of the class described comprising a bowl-shaped frame having a central opening in the bottom thereof, a lining for the frame, a receptacle to receive eggs passed through the opening in the latter, said frame secured at adjacent points on its upper edge to the wall of a structure, and supporting means depending from the upper and lower edges of the frame to carry said receptacle, with an offset portion to hold the frame and receptacle in a slightly upwardly inclined position from the structure wall to carry the eggs to the rear of said receptacle.

2. In a nest of the class described, a bowl-shaped frame having an opening in the bottom thereof and secured at its upper edge to the wall of a structure, a lining therefor, a receptacle having its forward end held beneath the lower portion of the frame adjacent the opening therein, and said receptacle projecting laterally toward the said structure, and two supporting wires for said receptacle having their forward ends secured to said frame adjacent the opening therein, and their rear ends secured to the upper edge of the frame at points on either side of the adjacent fasteners to the structure wall, said supporting wires having an offset portion for holding said frame and receptacle slightly inclined upward from said wall.

3. In a nest of the class described, a bowl-shaped frame having an opening in the bottom thereof and secured at its upper edge to the wall of a structure, supporting wires secured to the upper and lower edges of said frame and depending therefrom, a receptacle supported by said wires having its forward end held beneath the opening in said frame and projecting rearwardly toward the said structure and the supporting wires depending from the upper edge of the frame being offset to project against the structure wall, thereby holding said frame and receptacle in a slightly inclined upward position upon said wall to carry the eggs dropped in said receptacle to the rear.

4. In a nest of the class described, a bowl-shaped frame comprising upper and lower ring members, the former being of greater diameter than the latter, arcuate connecting strips therebetween, said strips being each provided with spring locking tongues and a spirally designed wire member connected at its ends with said ring members and circumscribing said strips, the coils of said wire member being engaged with the locking tongues of said strips, a lining for the frame extending from the upper to the lower ring member and leaving an opening in the bottom of the frame, and a receptacle carried by the frame to receive eggs passed through the opening in the latter.

1,141,347. MONOPLANE. FRANK KRAMSKY and EDWARD KRAMSKY, Chicago, Ill. Filed Sept. 13, 1913. Serial No. 789,587. (Cl. 244—14.)



1. An air craft comprising a monoplane, a car supported thereby, a propeller located at the rear of the car, and a central keel below said monoplane, a portion extending below said car comprising two fins hinged at their upper edges and adapted to be swung into different inclined planes.

2. An air craft comprising a monoplane, a car supported thereby, a propeller at the rear of the car, and a central keel extending below said monoplane, a portion of said keel projecting below said car comprising two fins adapted to be moved independently into different inclined planes.

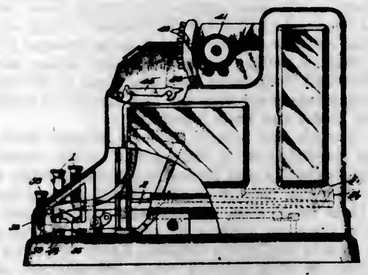
3. An air craft comprising a monoplane, a car supported thereby below said monoplane, a propeller at the rear thereof, and a longitudinal central keel extending below said car that increases in depth from the forward end of the craft to the rear end thereof, a portion of said keel extending below said car comprising two fins mounted on parallel axes, and adapted to be actuated from a position within the car.

4. An air craft comprising a monoplane, a car supported thereby below the same, and a longitudinal central keel extending below said car that increases in depth from the bow to the stern of the monoplane, a portion of said keel below said car comprising two equal parts mounted on parallel rock shafts, means for actuating said rock-shafts from a position within the car.

5. An air craft comprising a monoplane, a car supported by said monoplane below the same, and a central keel increasing in depth from the bow to the stern of said monoplane, a portion extending under said car comprising two fins hinged at their upper edges to parallel rock-shafts, independent means within the car for rocking the shafts.

[Claims 6 to 13 not printed in the Gazette.]

1,141,348. ADDING-MACHINE. HARRY LANDSIEDEL, Poplar Bluff, Mo., assignor, by mesne assignments, to The Dalton Adding Machine Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Mar. 6, 1911. Serial No. 612,722. (Cl. 235—60.)



1. In an adding machine, a key-board comprising a plurality of super-imposed rows of keys, a carriage controlled by said keys, means holding said carriage, pins in said carriage, automatic means for moving a number of said pins to operative position when said carriage is moved in one direction, key devices operable to release said carriage while said pins remain in operative position therein, and tabulating stops determining the distance of the movement of said carriage when it is released as aforesaid, substantially as described.

2. In an adding machine a carriage, keys operable to set up numbers in said carriage, means to prevent operation of more than one of said keys at a time, tabulating mechanism whereby said carriage may be permitted to move a predetermined distance, and a device controlled by said tabulating mechanism to prevent operation of said keys at the time said tabulating mechanism is in operation, substantially as specified.

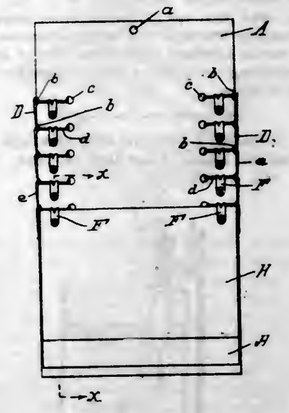
3. In an adding machine, the combination with the movable pin carriage, keys for setting up numbers in said carriage, tabulating mechanism for causing said carriage to move a predetermined distance, and means controlled by said keys to prevent operation of said tabulating mechanism during the operation of said keys, substantially as described.

4. In an adding machine, a carriage, means holding said carriage, series of pins in said carriage, keys for raising said pins, a latch device effective to hold said pins when raised by said keys, automatic means for raising a number of said pins when said carriage moves in one direction, tabulating stops carried by said carriage, and tabulating mechanism operable to set said tabulating stops and release said carriage, substantially as described.

5. In an adding machine, a movable carriage, movable pins in said carriage, escapement mechanism controlling said carriage, keys operable to set said pins and cause said escapement mechanism to operate effectively to move said carriage, latch devices in said carriage holding said pins when they are moved by said keys, and a key operable to release all of said pins and to cause said escapement to operate, substantially as described.

[Claims 6 to 23 not printed in the Gazette.]

1,141,349. DISPLAY-CARD. ALBERT R. LARRABEE, Jersey City, N. J. Filed Sept. 10, 1914. Serial No. 860,993. (Cl. 40—102.)



1. In a display card, a body having a plurality of longitudinal series of holes and marginal cavities, and a plurality of transversely-disposed loops formed from a filament engaged in said holes and cavities.

2. In a display card, a body having a plurality of longitudinal series of holes and marginal cavities, a plurality of transversely disposed loops formed from a filament engaged in said holes and cavities, and suspending members pivotally mounted in said loops.

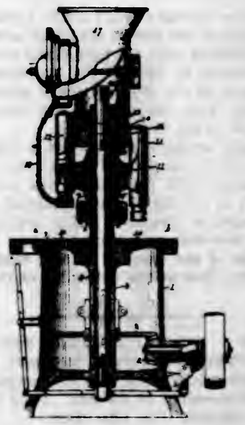
3. In a display card, a body provided with a plurality of longitudinal series of holes adjacent an edge thereof and with cavities in said edges, the holes and cavities being in alinement with each other, and a filament engaged in said holes and formed into loops with the material at the closed ends of the loops disposed in said cavities.

4. In a display card, the combination of a body provided with a plurality of longitudinal series of holes, transverse loops formed from a filament passing through the holes with portions of the filament extended along the edge of said body, and suspension members pivotally mounted on the loops.

5. In a display card, the combination of a body provided with longitudinal series of holes upon its lateral margins, and cavities in its lateral edges in transverse alinement with the holes, loops registering in the holes and cavities formed from a continuous filament, and suspension members pivotally mounted on the loops.

[Claim 6 not printed in the Gazette.]

1,141,350. BOTTLE-SEALING MACHINE. CLARENCE J. LAWSON, Yonkers, N. Y., assignor to Columbia Machine & Stopper Corporation, New York, N. Y., a Corporation of New York. Filed Jan. 6, 1914. Serial No. 810,573. (Cl. 113—2.)



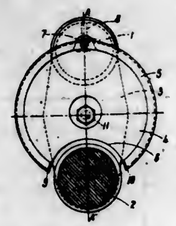
1. In a bottle sealing machine the combination of a plurality of bottle supports and an equal number of sealing heads slidably mounted thereover in alinement therewith, the supports and heads rotating together, a stationary cam ring the cam portion of which engages the heads for positively raising and lowering them, and means for supplying the sealing heads with closures during rotation.

2. In a bottle sealing machine, the combination of a base, a fixed vertical shaft therethrough, a sleeve surrounding the shaft, driving means engaging the sleeve to rotate it, a plurality of bottle supports on the sleeve, an equal number of sealing heads slidably mounted on the sleeve above the bottle supports, the supports and heads rotating together in alinement, a cam ring secured to the shaft, the cam portion of which engages the sealing heads for positively raising and lowering them.

3. In a bottle sealing machine the combination of a base, fixed vertical shaft therethrough, a sleeve surrounding the shaft, the upper part of which is adjustable with respect to the lower part, a plurality of bottle supports on the lower part of the sleeve, an equal number of sealing heads slidably mounted on the upper part of the sleeve in alinement with the bottle supports, a cam ring secured to the shaft the cam portion of which engages the sealing heads for positively raising and lowering them, and means for rotating the sleeve and attached parts.

4. In a bottle sealing machine, the combination of a base, a vertical shaft therethrough and fixed to the base, a sleeve surrounding the shaft, the upper part being adjustable with respect to the lower part, a plurality of bottle supports on the lower part of the sleeve, an equal number of sealing heads slidingly mounted on the upper part of the sleeve in alinement with the bottle supports, a cam ring vertically slidable, but non-rotatable, on the shaft the cam portion of which engages the sealing heads for positively raising and lowering them, means for supplying the heads with caps and means for rotating the sleeve and attached parts.

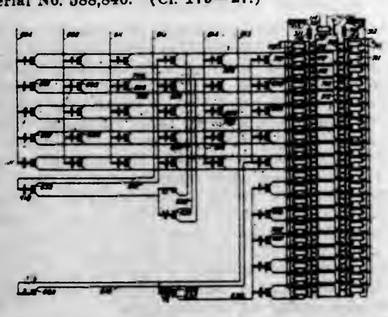
1,141,351. LUBRICATION OF MOTORS. PIERRE LÉONARD LEISSE, Billancourt, France, assignor to Louis Renault, Billancourt, France. Filed Jan. 19, 1914. Serial No. 813,081. (Cl. 184—7.)



1. In a motor having a crank shaft, a lubricant-collecting disk secured to the side of the crank arm and disposed in eccentric relation with the axis of the crank shaft, and a conduit adapted to conduct the lubricant collected on said disk to one of the adjacent crank pins, said conduit communicating with the disk at the extremity of the greatest radius of the disk.

2. In a motor having a crank shaft, a lubricant-collecting disk secured to one side of one of the crank arms in eccentric relation with the axis of the crank shaft and provided with a peripheral groove adapted to collect lubricant splashed on the disk, and a conduit adapted to conduct the lubricant so collected in said groove to the surface of one of the crank pins, said conduit communicating with the disk at the extremity of the greatest radius thereof.

1,141,352. SEMI-AUTOMATIC TELEPHONE-EXCHANGE SYSTEM. FRANK R. MCBERTY, New Rochelle, N. Y., assignor to Western Electric Company, New York, N. Y., a Corporation of Illinois. Filed Oct. 24, 1910. Serial No. 588,840. (Cl. 179—27.)



1. In a sender, a selection controlling device and a sequence switch controlling said device alternately to render it effective for operation and to restore it to normal a plurality of times during a single sending operation.

2. In a sender, a series of counting relays selectively operated to determine the number of controlling impulses transmitted, and electromagnetic means arranged to render said series of counting relays effective a plurality of times during a single sending operation.

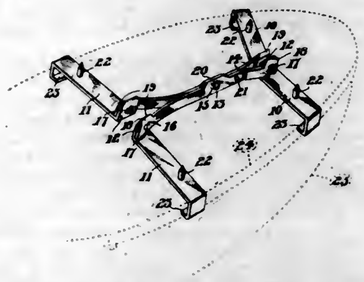
3. In a sender, a series of counting relays selectively operated to determine the number of selection controlling impulses transmitted, and a sequence switch adapted to render said series of counting relays effective successively a plurality of times during a single sending operation.

4. In a sender, the combination with a series of coöperating electromechanisms selectively operated to determine the number of impulses, of a selecting circuit, and electromagnetic means for automatically associating said series of electromechanisms with said selecting circuit a plurality of times during a single sending operation.

5. In a sender, the combination with a series of selection controlling electromechanisms, of a selecting circuit, and an electromagnetic switching apparatus arranged to automatically render said series of electromechanisms effective for operation and to restore them to normal a plurality of times during a single sending operation.

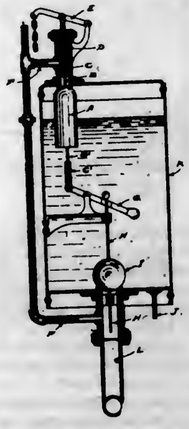
[Claims 6 to 46 not printed in the Gazette.]

1,141,353. ICE-CREEPER. MARTIN MARKOWICZ, Erie, Pa. Filed Mar. 3, 1915. Serial No. 11,905. (Cl. 36—62.)



An ice creeper comprising two pairs of outwardly projecting arms, one of said pairs of arms being shorter than the other pair of arms, sole engaging hooks at the opposite outer ends of the said arms extending upon one side of the device, sharpened lugs upon the inner spaced ends of the said arms projecting in opposite direction from the said hooks, projecting sharpened calks upon the same side of said arms as the said lugs, two resilient connectors centrally secured together and provided with terminating feet rigidly secured to the outer faces of the said lugs and having sharpened edges registering with the sharpened edges of the said lugs, the said connectors being provided with substantially centrally projecting sharpened ribs and restricting means adjacent the shorter pair of arms adapted for positioning such arms closer together than the longer pair of arms.

1,141,354. CLOSET-FLUSHING APPARATUS. MICHAEL MAUER, Detroit, Mich. Filed May 18, 1914. Serial No. 839,372. (Cl. 4—5.)

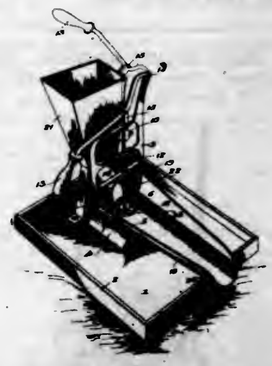


1. In a closet flushing apparatus, the combination of a flushing tank and the air outlet therefrom, a float valve located therein adapted to close off the exit of air therefrom, a lift valve adapted when seated to close off the egress of liquid therefrom, and means connecting the two valves whereby the air valve is first operated to discharge air and then both valves are operated, means for operating said connecting means, substantially as described.

2. In a closet flushing apparatus, the combination of a flushing tank and the air outlet therefrom, a float valve located therein adapted to close off the exit of air therefrom, a lift valve adapted when seated to close off the egress of liquid therefrom, and means connecting the two valves whereby the air valve is first operated to discharge air and then both valves are operated, means for operating said connecting means and a by-pass air passage leading from the outlet of said flushing tank to an air space above the air float valve, substantially as described.

3. In a closet flushing apparatus, the combination of a closed flushing tank adapted to hold liquid and air under compression, a float valve located therein operated by inclosed liquid and adapted when closed to prevent egress of air therefrom, an air vent opening directly to the atmosphere, a lift valve adapted when seated to close off the egress of liquid therefrom, connecting means between said valves to open said valves, means for operating said connecting means, a slip connection in the means connecting said valves whereby the air valve is operated to discharge air from said tank in advance of the discharge of liquid therefrom, substantially as described.

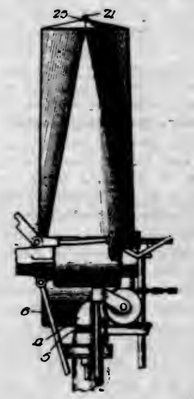
1,141,355. CHERRY-PITTER. WILHELM MURI, Stockton, Cal. Filed Dec. 8, 1914. Serial No. 876,138. (Cl. 146—5.)



In a fruit pitter, the combination with a fruit holder, of a hopper having a discharge opening correlated to the holder in such manner that the fruits are adapted to pass by gravity into the holder, one at a time, and to be blocked or restrained by a fruit when the latter is in the holder, a discharge spout having an upwardly extending inclined lip adapted to engage the fruit in the holder, means for pitting the fruit when in the holder, and an inclined stripper arranged above said lip for discharging the pitted fruit into the spout, said lip also being adapted to insure the entry of the stripped fruit into the spout.

1,141,356. GEAR-CASING FOR POWER TRANSMISSION. LA VERNE NOYES, Chicago, Ill., assignor to Aermotor Company, Chicago, Ill., a Corporation of Illinois. Filed Oct. 7, 1914. Serial No. 865,454. (Cl. 74—56.)

1. A gear structure including the base portion of a housing; two upright pinions mounted in such base portion; two upright gear wheels in mesh with said pinions; an upright load rod disposed between the planes of rotation of said gears and pinions and located near their place of meshing; pitmen connecting the gear wheels with the upper end of the load rod; a guide for directing the upper ends of the pitmen and load rod in their movement; and a hood fastened into engagement with the base portion of the housing and covering said pinions, gear wheels, pitmen and guide, the top of the hood having a contour which defines a parallelogrammatic figure one of whose diagonal axes is substantially in the plane of movement of the upper ends of the pitmen, the contour of the bottom of the hood also defining a parallelogrammatic figure having two sides substantially parallel with the planes of movement of the pitmen and longer than the remaining sides, the axes at the top of the hood being perpendicular to the sides of the figure at the bottom of the hood, the sides of the hood having eight triangular faces each of four of which being defined by the sides of the parallelogrammatic figure defined by the contour of the top of the hood and the respectively underlying corners of the parallelogrammatic figure defined by the contour of the bottom of the hood, while the remaining four faces are defined by the sides of the parallelogrammatic figure defined by the contour of the bottom of the hood and the respectively overlying corners of the parallelogrammatic figure defined by the contour of the top of the hood.



2. A gear structure including the base portion of a housing; two upright pinions mounted in such base portion; two upright gear wheels in mesh with said pinions; an upright load rod disposed between the planes of rotation of said gears and pinions and located near their place of meshing; pitmen connecting the gear wheels with the upper end of the load rod; a guide for directing the upper ends of the pitmen and load rod in their movement; and a hood fastened into engagement with the base portion of the housing and covering said pinions, gear wheels, pitmen and guide, the top of the hood having a contour which defines a parallelogrammatic figure one of whose diagonal axes is substantially in the plane of movement of the upper ends of the pitmen, the contour of the bottom of the hood also defining a parallelogrammatic figure having two sides substantially parallel with the planes of movement of the pitmen and longer than the remaining sides, the axes at the top of the hood being perpendicular to the sides of the figure at the bottom of the hood, the sides of the hood having eight triangular faces each of four of which being defined by the sides of the parallelogrammatic figure defined by the contour of the top of the hood and the respectively underlying corners of the parallelogrammatic figure defined by the contour of the bottom of the hood, while the remaining four faces are defined by the sides of the parallelogrammatic figure defined by the contour of the bottom of the hood and the respectively overlying corners of the parallelogrammatic figure defined by the contour of the top of the hood.

3. A gear structure including the base portion of a housing; two upright pinions mounted in such base portion; two upright gear wheels in mesh with said pinions; an upright load rod disposed between the planes of rotation of said gears and pinions and located near their place of meshing; pitmen connecting the gear wheels with the upper end of the load rod; a guide for directing the upper ends of the pitmen and load rod in their movement; and a hood fastened into engagement with the base portion

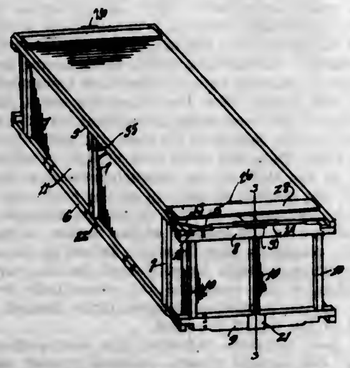
of the housing and covering said pinions, gear wheels, pitmen and guide, the top of the hood having axes of unequal length which intersect at the axis of the load rod, one of the aforesaid axes being included substantially in the plane of movement of the upper ends of the pitmen, the contour of the bottom of the hood defining a parallelogrammatic figure having two sides substantially parallel with the planes of movement of the pitmen and longer than the remaining sides, the axes at the top of the hood being perpendicular to the sides of the figure at the bottom of the hood.

4. A gear structure including the base portion of a housing; two upright pinions mounted in such base portion; two upright gear wheels in mesh with said pinions; an upright load rod disposed between the planes of rotation of said gears and pinions and located near their place of meshing; pitmen connecting the gear wheels with the upper end of the load rod; a guide for directing the upper ends of the pitmen and load rod in their movement; and a hood fastened into engagement with the base portion of the housing and covering said pinions, gear wheels, pitmen and guide, the top of the hood having a contour which defines a parallelogrammatic figure one of whose diagonal axes is substantially in the plane of movement of the upper ends of the pitmen, the contour of the bottom of the hood also defining a parallelogrammatic figure having two sides substantially parallel with the planes of movement of the pitmen and longer than the remaining sides, the axes at the top of the hood being perpendicular to the sides of the figure at the bottom of the hood.

5. A gear structure including the base portion of a housing; two upright pinions mounted in such base portion; two upright gear wheels in mesh with said pinions; an upright load rod disposed between the planes of rotation of said gears and pinions and located near their place of meshing; pitmen connecting the gear wheels with the upper end of the load rod; a guide for directing the upper ends of the pitmen and load rod in their movement; and a hood fastened into engagement with the base portion of the housing and covering said pinions, gear wheels, pitmen and guide, the top of the hood having axes of unequal length which intersect at the axis of the load rod, one of the aforesaid axes being included substantially in the plane of movement of the upper ends of the pitmen.

[Claims 6 to 8 not printed in the Gazette.]

1,141,357. COLLAPSIBLE EGG-CASE. WILLIAM E. PEYTON, Sherman, Okla. Filed Mar. 11, 1914. Serial No. 823,998. (Cl. 217—16.)

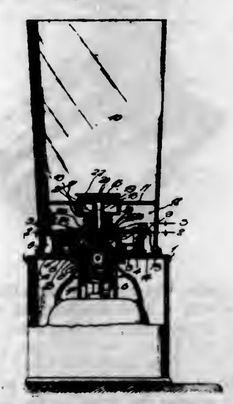


1. A collapsible case comprising a pair of side walls including skeleton frames, a pair of end walls having skeleton frames, the upper and lower bars of said first mentioned frames projecting across the upper and lower bars of the second mentioned frames, U-shaped corner rods connecting the meeting ends of the frame bars and cutting diagonally across the corners of the case, a rigid bottom and supporting plates carried by the side and end walls to removably retain the bottom within the case in engagement with the inner faces of the walls.

2. A collapsible case comprising a pair of side walls, a pair of end walls, the side and end walls each including a skeleton frame having upper and lower bars, the upper and lower bars of the end walls having their outer longitudinal edges notched adjacent their terminals to receive the extremities of the upper and lower bars of the end walls, a U-shaped fastening rod at each corner of the case, the arms of said rods being extended through the upper and lower bars of the walls, and the central portions of the fasteners cutting diagonally across the corners of the case, a rigid bottom and supporting plates secured to the walls and extending into engagement with the lower surface of the bottom to hold said bottom removably within the case.

3. A collapsible case comprising bottom, side and end walls, a lid to coöperate with the bottom, side and end walls, transverse bars secured at the ends of said lid upon the outer face thereof, spring catches slidable between the bars and lid having inwardly turned terminals forming hooks at their outer ends, said end walls having recesses at their upper edges, cross over plates bridging said recesses, said spring catches designed to coöperate with said cross over plates and a pair of bars pivoted between said first named bars and said lid and arranged to extend beyond the longitudinal edges of said lid and engage the side walls of said case.

1,141,358. DRINK-MIXING MACHINE. ROY W. PORTMANN, Norwood, Ohio. Filed Dec. 21, 1914. Serial No. 878,334. (Cl. 31—63.)



1. In a device of the class described the combination of a container having a bottom disposed inwardly some distance from its lower edge, said bottom having a recess therein with an opening through its lower wall, an agitator normally housed in said recess, and having a stem extending through the opening therein, a driving element and coöperating means on said stem and driving element for detachably connecting them, and means whereby when said stem and element are connected the agitator will be projected above said recess.

2. In a device of the class described the combination of a container having a bottom disposed inwardly some distance from its lower edge, said bottom having a recess therein with an opening through its lower wall, an agitator normally housed in said recess and having a stem extending through the opening therein, a driving element, and coöperating means on said stem and driving element for detachably connecting them, and coöperating means carried by said container and driving element for connecting the latter with an electric current.

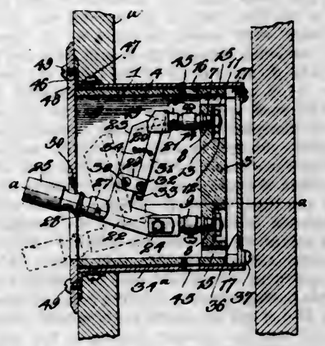
3. In a device of the class described the combination of a container having an opening in its bottom, an agitator mounted in said container and having a stem extending through said opening, a laterally extending collar carried by said stem, a coiled spring encircling said stem and bearing on said collar, a motor having a driving shaft and means for connecting said stem and shaft whereby the agitator is relieved from the tension of said spring.

4. In a device of the class described, a container having its bottom wall spaced inwardly from its lower edge, a depression in said bottom having an opening through its lower wall, a depending collar surrounding said opening, an agitator mounted in said container and having a stem extending through the opening in the bottom wall of said recess, said agitator being normally housed in said recess and provided with means for closing the recess when so housed, a driving element having an upwardly projected shaft, means for disengageably uniting said shaft and stem, a coiled spring encircling the collar around said opening, a vertically movable collar carried by said stem against which said spring bears which adapts it to retract the agitator within said recess, and means for relieving said stem from the tension of said spring operable on the connection of said stem and shaft.

5. In a device of the class described a container having its bottom wall spaced inwardly from its lower edge, a depression in said bottom having an opening through its lower wall, a depending collar surrounding said opening, an agitator mounted in said container and having a stem extending through the opening in the bottom wall of said recess, said agitator being normally housed in said recess and provided with means for closing the recess when so housed, a driving element having an upwardly projected shaft, means for disengageably uniting said shaft and stem, a coiled spring encircling the collar around said opening, a vertically movable collar carried by said stem against which said spring bears which adapts it to retract the agitator within said recess, a collar loosely carried by said stem and means for disengaging said collar from the stem when said stem and shaft are connected.

[Claims 6 to 9 not printed in the Gazette.]

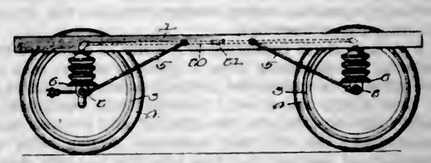
1,141,359. SWITCH-BOX. ALEXANDER C. POWER, Pendleton, Oreg. Filed Sept. 19, 1910. Serial No. 582,654. (Cl. 247—5.)



1. The herein described switch box including an outer rectangular casing open upon its front side, the casing body consisting of top and bottom walls and integral side and rear walls detachably secured to said top and bottom walls, an insulating casing disposed within the outer casing but entirely disconnected therefrom, said inner and outer casings having openings in their top and bottom walls, said inner casing being provided with lugs projecting from its rear face for engagement with the rear wall of the outer casing whereby the openings of the insulating casing are disposed in coinciding relationship with the openings of the outer casing, said inner casing also having its front side open and the front edges of the walls of said casing being disposed in the same plane, as the front edges of the walls of the outer casing, and a face plate removably attached to the outer casing and extending over the open sides of the inner and outer casings and intimately engaged with the front edges of the walls of said casings.

2. The herein described switch box comprising an outer casing of rectangular form in cross section having openings in its top and bottom walls and adjacent to the rear end thereof, an insulating inner casing disposed within said outer casing and having an integral rear wall provided with spacing lugs to engage the rear wall of the outer casing, said inner casing also being provided in its top and bottom walls with openings to register with the openings in the corresponding walls of the outer casing when said lugs engage with the rear wall of the outer casing, the front sides of said inner and outer casings being open and the forward edges of the walls of said casings being disposed in the same plane, and a face plate removably secured to the top and bottom walls of the outer casing and engaging with the forward edges of the walls of both of said casings to prevent longitudinal movement of the inner casing with respect to the outer casing.

1,141,360. PNEUMATIC CUSHION. HERBERT F. RUDD, Belpre, Kans. Filed July 20, 1912. Serial No. 710,585. (Cl. 21—50.)



1. A pneumatic cushion structure including a plurality of alined communicating resilient dish shaped elements; abutments between which such plurality of dish shaped elements are interposed; and an abutment interposed between adjacent dish shaped units.

2. A pneumatic cushion structure including a plurality of alined communicating resilient dish shaped elements; abutments between which such plurality of dish shaped elements are interposed; and an abutment interposed between adjacent dish shaped units, the communication between said dish shaped elements being established through the abutment intervening between the same.

3. A pneumatic cushion structure including a plurality of alined communicating resilient dish shaped elements bulging in the same direction; abutments between which such plurality of dish shaped elements are interposed; and an abutment interposed between adjacent dish shaped units, the abutments that engage the bulging portions of said resilient elements themselves bulging toward said resilient elements, the bulging portions of the resilient elements engaging the bulging portions of the abutments.

4. A pneumatic cushion structure including a plurality of alined communicating resilient dish shaped elements, bulging in the same direction; abutments between which such plurality of dish shaped elements are interposed; and an abutment interposed between adjacent dish shaped units, the communication between said dish shaped elements being established through the abutment intervening between the same, the abutments that engage the bulging portions of said resilient elements themselves bulging toward said resilient elements, the bulging portions of the resilient elements engaging the bulging portions of the abutments.

5. A pneumatic cushion structure including a plurality of alined communicating resilient dish shaped elements substantially conically shaped and bulging in the same direction; abutments between which such plurality of dish shaped elements are interposed; and an abutment interposed between adjacent dish shaped units, the abutments that engage the bulging portions of said resilient elements themselves being substantially conically shaped and bulg-

ing toward said resilient elements, the bulging portions of the resilient elements engaging the bulging portions of the abutments.

[Claims 6 to 9 not printed in the Gazette.]

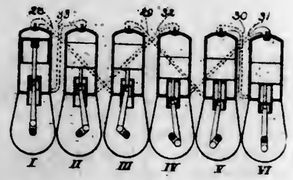
1,141,361. LAMP-SHADE. WILLY SCHMIDT, Frankfort-on-the-Main, and PAUL MÜLLER, Dortmund, Germany, assignors to G. Schanzenbach & Co. G. M. B. H., Frankfort-on-the-Main, Germany, a Firm. Filed Feb. 21, 1913. Serial No. 749,955. (Cl. 240—103.)



1. A lamp shade consisting of a series of ribs, each rib comprising two connected sections arranged at an angle to each other, one of said sections being composed of translucent material and being arranged at an angle to the light rays, and the second section being arranged at such an angle to the first mentioned section, that all light rays reflected back from the first section will fall vertically upon the second section, substantially as and for the purpose described.

2. A lamp shade consisting of a series of connected ribs radiating longitudinally from a common center, each rib consisting of two connected sections arranged at an angle to each other, one of said sections being composed of translucent material and the other of said sections being transparent; the said first mentioned section being arranged at an angle to the light rays, and the said second section being arranged at such an angle to the first mentioned section that all light rays reflected back from the first section will fall vertically upon the said second section, substantially as and for the purpose described.

1,141,362. INTERNAL-COMBUSTION ENGINE. HENRY SCHMITT, Shreveport, La. Filed Apr. 28, 1913. Serial No. 764,062. (Cl. 123—59.)



1. In a two-cycle engine, the combination of a plurality of cylinders having inlet and exhaust ports and each provided with a pump chamber, pistons in said cylinders connected to move together with a plurality of the same movable through their power stroke at the same time, a passage connecting each pump chamber with the inlet of the cylinder in which its piston is next in advance in the cycle of operation of a piston in the cylinder having said pump chamber, whereby a charge may be forced into one cylinder while its piston is moving on its power stroke, by a piston moving on its power stroke in another cylinder, and means for controlling the admission of charges into the cylinders from said passages, operated in timed relation to the actuation of the pistons.

2. In a two-cycle engine, the combination of a plurality of cylinders each having an inlet at its upper end and an exhaust port near its lower end, said lower end being closed to form a pump chamber, pistons in said cylinders, a crank shaft to which said pistons are connected with its cranks arranged at angles to each other of not more than ninety degrees, a passage connecting each pump chamber with the inlet of a cylinder in which its piston is next in advance in the cycle of operation to the piston in the cylinder having said chamber, and means operating in timed relation to the actuation of the pistons for controlling the inlets to the cylinders.

3. In a two-cycle engine, the combination of a plurality of cylinders each having an inlet at one end and an exhaust port intermediate its ends and a pump chamber in its lower end, a piston in each cylinder adapted to cover and uncover the exhaust port, a crank shaft having its cranks set at an angle to each other of not more than ninety degrees, means connecting the cranks of the crank shaft and the pistons, valves controlling the inlets of the cylinders, means actuated by the crank shaft for actuating said valves, a passage leading from the inlet of each cylinder to the pump chamber of the cylinder in which the piston therein is next in the cycle of operation to the piston in the cylinder from the inlet of which the passage leads, a manifold for supplying explosive charges to the several passages adjacent to said valves, and a valve controlling the inlet from said manifold into each passage, whereby the down stroke of the piston in one cylinder compresses the charge in the passage leading to the inlet of another cylinder in which its piston is moving in the same direction.

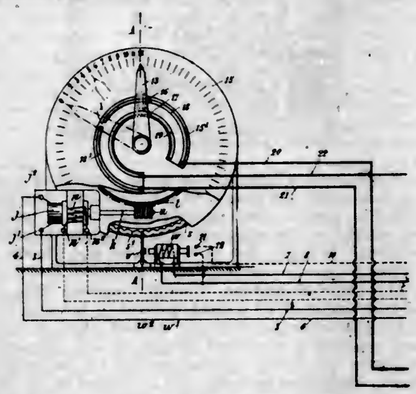
4. In a two-cycle engine, the combination of a plurality of cylinders each having an inlet at its upper end, an exhaust port intermediate its ends, a pump chamber in its lower end, and a passage at one side of the cylinder communicating with the inlet of the cylinder, a base for the several cylinders formed with separate passages, one passage opening into the pump chamber of each cylinder at one end and communicating at its opposite end with a passage of another cylinder extending to the inlet of said cylinder, each of said passages in the base and connected cylinder passage together forming a passage connecting the pump chamber of one cylinder with the inlet of the cylinder in which the piston therein is next in advance in the cycle of operation of the piston in the other cylinder into the pump chamber of which the passage opens, valves controlling the inlets of the several cylinders, means for opening said valves in timed relation to the movements of the pistons, a manifold connected to the several cylinder passages adjacent to said valves to supply explosive charges thereto, and valves for controlling the inlets from said manifold to said passages.

5. In a two-cycle engine, the combination of a plurality of cylinders, each having an inlet at its upper end, a passage extending laterally from said inlet and downward at one side of the cylinder to the lower end thereof, said cylinder being also formed with an exhaust port intermediate its ends, and a pump chamber in its lower end, a manifold connected to the laterally extending passages of the several cylinders to supply explosive charges thereto, a valve in each passage controlling the flow of explosive charges from the manifold into each passage, a valve controlling the inlet for each cylinder, means operating in timed relation to the movements of the pistons for opening said valves, a piston in each cylinder adapted to cover and uncover the exhaust port, and a base to which the several cylinders are secured, said base being formed with a separate passage opening into the pump chamber of each cylinder at one end connected at its opposite end with the passage of another cylinder leading to the inlet of said cylinder, said passages together forming a passage connecting the pump chamber of one cylinder with the inlet at the upper end of a cylinder in which the piston therein is next in advance in the cycle of operation to the piston in the cylinder to the compression chamber of which said passage is connected.

[Claim 6 not printed in the Gazette.]

1,141,363. INSTALLATION PERMITTING OF ELECTRICALLY ACTUATING APPARATUS AT A DISTANCE FROM A CENTRAL STATION. EUGÈNE SCHNEIDER, Le Creuzot, France. Filed Mar. 23, 1911. Serial No. 616,457. (Cl. 177—338.)

1. In a system of the character described, the combination of an indicator at a transmitting station and another indicator at a receiving station, a motor associated with each for operating said indicators, electric circuits for said motors, another circuit for controlling the receiving station motor circuit independently of the transmitting station motor and having terminals controlled by a movable contact adapted to open the controlling circuit and stop the last-named motor at a predetermined position of said contact.



2. In a system of the character described, the combination of an indicator and a driven-member, a motor associated with each, an interrupted conductor associated with said driven-member, a contact movable with said driven-member engaging said interrupted conductor and breaking the circuit of said driven-member motor when it reaches the interrupted part of said conductor, means connecting said motors in circuit with a source of current, and means for cutting out of circuit the motor associated with said indicator.

3. In a system of the character described, the combination of an indicator and a driven member, a motor associated with each, a contact movable with said driven member, an interrupted conductor engaged by said contact, means connecting said motors in circuit with a source of current, means for cutting out of circuit the motor associated with said indicator, and means automatically breaking the circuit through the motor associated with said driven member when said contact reaches the interrupted part of said conductor.

4. In a system of the character described, the combination of an indicator and a driven member each provided with a driving motor and each having an escapement means for simultaneously operating said escapements, means for disconnecting said indicator motor, and other means for stopping said driven-member motor.

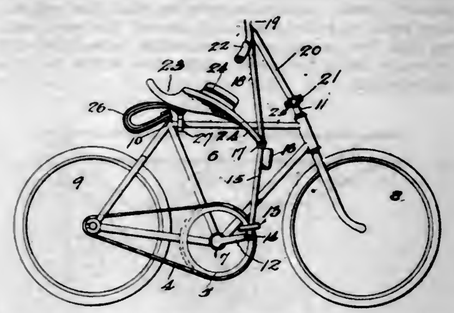
5. In a system of the character described, the combination of an indicator and a driven member, each provided with a driving motor and each having electromagnetic escapement, electric circuits for operating said escapements, and means operated by one escapement for synchronizing the movements of said indicator and driven member.

[Claims 6 to 17 not printed in the Gazette.]

1,141,364. BICYCLE PROPULSION. NINKO SPANOVIC, Pittsburgh, Pa., assignor of one-half to Herman A. Phillips, Washington, D. C. Filed Mar. 28, 1914. Serial No. 827,922. (Cl. 208—23.)

1. In a bicycle propelling device, in combination with the frame and steering post, a crank shaft and crank arms, pedals on said arms, side arms pivoted to the crank arms, links pivoted to the side arms, a handle bar pivoted to said links, and a single link pivoted to the steering post having pivotal connection to said handle bar.

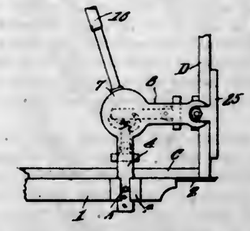
2. In a bicycle propelling mechanism in combination with the frame and steering post, a pair of oscillatable crank arms, and a pedal on each arm, of a side arm connected to each crank arm, a saddle resiliently supported in the frame and pivotally connected to said side arms, upwardly extending side links connected to the side arms, a handle bar connected to the links, and a link pivoted on the steering post for pivotally supporting said side links and handle bar.



3. In a bicycle propelling mechanism in combination with the frame and steering post, a pair of oscillatable crank arms, and a side arm connected to each crank arm, a resiliently supported bifurcated saddle straddling the frame and pivotally connected to said side arms, a handle bar and side links supported therefrom and connected to said side arms, and a link pivoted on the steering post for pivotally supporting said side links and handle bar.

4. The combination in a bicycle propelling device with the crank, crank arms, frame, and steering post, of a pair of side arms pivoted to said crank arms each having a knee plate, and a saddle resiliently supported in the frame pivotally connected to said side arms, a pair of side links pivoted to said side arms, and a supporting link pivoted to the steering post and pivotally connected to said side links.

1,141,365. WOOD-CLAMP. WEBSTER G. STROZIER, Washington, D. C., assignor, by direct and mesne assignments, to The Strozier-Sinclair Mfg. Co., Inc., Washington, D. C. Filed Aug. 22, 1914. Serial No. 858,101. (Cl. 144—289.)



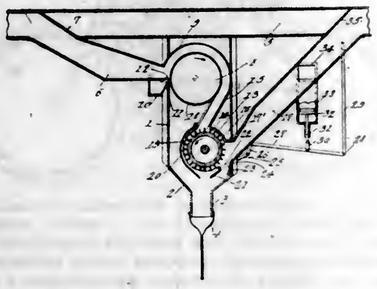
1. The combination with adjustable standards, arms extending therefrom, and a holding plate connecting the arms, of a shaft journaled upon the standards, means for rotating the shafts, jaws guided by the standards and arms respectively, and coöperating means upon the shaft and jaws for simultaneously shifting said jaws along diverging lines.

2. The combination with adjustable standards, arms extending therefrom, and a holding plate connecting the arms, of a shaft journaled upon the standards, means for rotating the shaft, jaws guided by the standards and arms respectively, and coöperating means upon the shaft and jaws for simultaneously shifting said jaws along diverging lines, and yielding means for backing one of the jaws.

1,141,366. COTTON-CLEANER. CLARENCE DAVIS TERRELL and JOHN LEWIS MASK, Covington, Ga. Filed Nov. 23, 1914. Serial No. 873,549. (Cl. 13—19.)

1. A machine for cleaning seed cotton, including a housing, suction flues communicating with opposed walls of

the housing, a perforated conveying drum within the housing and in the line of suction from one flue to the other, a toothed cylinder mounted for rotation within the housing and adapted to throw cotton into one of the flues, means for directing cotton from the drum to said cylinder, a screen concave coöperating with the cylinder, there being an outlet below and adapted to receive material from the concave, and a collapsible valve for closing the outlet during the creation of suction within the flues and housing.



2. A seed cotton cleaner including a casing, suction flues communicating with opposed portions of the casing, a perforated drum mounted for rotation in the casing and in the line of suction from one flue to another, a collecting receptacle adjacent the suction inlet of the casing, said receptacle having an inlet close to the periphery of the drum, a valve for closing the inlet, and a toothed cylinder for receiving material passing from the drum to the outlet suction flue.

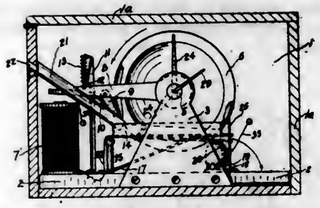
3. In a machine for cleaning seed cotton, a housing having inlet and outlet suction flues communicating with opposed portions thereof, a perforated drum mounted for rotation within the housing and in line of suction, a receptacle having an inlet adjacent the periphery of the drum and at the discharge end of the inlet flue, a valve for closing said inlet of the receptacle, a toothed cylinder for receiving material delivered from the drum, said cylinder being in line of suction and constituting means for throwing material into the outlet flue, there being an opening in the bottom of the outlet flue and adjacent the cylinder, a valve, means operated by suction within the outlet flue for opening the valve, said valve being normally closed.

4. In a machine for cleaning seed cotton, a housing having inlet and outlet suction flues communicating with opposed portions thereof, there being an outlet in the bottom of the housing, a collapsible valve closing the outlet, a perforated drum mounted for rotation in the housing and in line of suction, said drum being located close to the discharge end of the inlet flue, a receptacle having an inlet close to the discharge end of the inlet flue, a valve for closing said inlet, a toothed cylinder mounted in line of suction and adapted to receive material from the drum, said cylinder constituting means for throwing material into the outlet flue, a screen concave coöperating with the cylinder and above the outlet of the housing, a valve normally in closed position, and means operated by suction within the outlet flue for moving said valve into position to open an opening in the bottom of the outlet flue.

5. In a cotton cleaning machine, the combination with a suction flue having an opening in the bottom thereof, of a toothed cylinder for engaging cotton and throwing across said opening and into the flue, a valve normally closing the opening in the flue, a cylinder in communication with the flue, a piston within the cylinder and adapted to be shifted by suction within the flue, and means operated by the piston for opening the valve when said piston is shifted under the action of suction.

[Claim 6 not printed in the Gazette.]

1,141,367. TELEPHONE-CALL-REGISTERING DEVICE. VICTOR THOMPSON, Vancouver, British Columbia, Canada. Filed Oct. 13, 1914. Serial No. 866,538. (Cl. 179—6.5.)



1. A telephone call registering device comprising a casing, a base within the casing, an electro-magnet supported on the said base, a rotatably supported shaft, a toothed wheel secured on the said shaft, a lever swingably carried by the shaft normally free of the magnet and adapted to be depressed by the magnet when magnetized, means for returning the said lever to its normal position when the magnet is demagnetized, a pawl operated by the said lever and normally engaging the said toothed wheel so as to impart progressive movement thereto at each depression of the lever, an electric terminal carried by the base, an electrical conducting table hingedly supported on the base adapted to be depressed to make contact with the said terminal by the weight of a coin when placed on the table and to be freed from contact with the terminal when the coin is removed, means for directing a coin from outside the said casing on to the said table, means carried by the said shaft for removing the coin from the table at a predetermined point in the rotation of the said shaft, and means for magnetizing and de-magnetizing the said magnet.

2. A telephone call registering device, comprising a casing, a base removably carried within the casing, an electro-magnet supported on the said base, a rotatably supported shaft, a toothed wheel secured on said shaft, a lever swingably carried by the shaft and having its extremity above the said magnet and normally free therefrom, said lever being adapted to be depressed by the magnetizing of the magnet, means for returning the lever to its normal position when the magnet is de-magnetized, a pawl operated by the said lever and normally engaging the said toothed wheel to impart a progressive movement thereto at each depression of the lever, means for preventing backward movement of the said wheel, a vertically adjustable electrical terminal carried by the said base, an electrical conducting table hingedly supported on the base and adapted to be depressed by a suitable coin when placed thereon so as to make contact with said terminal and said magnet and to break contact therebetween when the coin is removed, members carried by the said shaft adapted to engage a coin on the said table and to remove same therefrom at a predetermined point in the rotation of the said shaft, means for magnetizing and de-magnetizing the said magnet, and means for indicating the position of the said members with relation to the said table at any time.

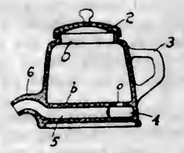
3. In a telephone call registering device, the combination with a normally broken electrical circuit, means for supplying current thereto, and hand operated means for making and breaking the circuit, of a suitably supported index card, each index mark thereon representing one telephone call, a pointer extending centrally through the card to indicate on the face thereof, electro-magnetic means adapted to impart progressive movement to the said pointer so that it will move successively from one index mark to the other, said electro-magnetic means being operated by the making and breaking of the electrical circuit by the hand operated means, a coin receiving plate adapted to prevent the operation of the said electro-magnetic means unless a coin is present on the plate, and means for removing the coin automatically from the plate when the pointer has completed a predetermined travel.

4. A telephone call registering device, comprising, a casing having a coin slot in one end and an opening in one side, an index card closing said opening, a base removably carried within said casing, an electro-magnet on said base, a bracket on each side of the base and opposite to each other, a shaft rotatably supported in said brackets, a toothed wheel secured on said shaft, a lever swingably carried on said shaft and having its extremity above said magnet and normally free therefrom, said lever being adapted to be depressed by the magnetizing of the magnet, a vertical post member secured to the base provided with a stop portion engaging the lever in its normal position, a spring extending from the upper end of the said post member and connected to said lever, a pawl operated by the lever and normally engaging the said toothed wheel to move same in one direction at each depression of the lever, means for preventing opposite movement of the toothed wheel, an electrical terminal carried by the base, said terminal being provided with an upwardly extending threaded portion and having an interiorly threaded cap fitting the said portion and rotatable thereon, an electrical conducting slotted plate hingedly supported on said base in an approximately horizontal position, one end of said plate being normally in connection with said magnet and its opposite end being above said terminal and normally free therefrom, said plate being adapted to be depressed when a coin is present thereon so that its free end will contact with said cap, a coin chute between the coin slot and the said plate, fingers on the said shaft adapted to engage a coin on the plate to throw the coin therefrom at a predetermined point of their travel, a pointer operated by said shaft extending centrally through said index card to indicate on the face thereof, and means for magnetizing and de-magnetizing the said magnet.

5. A telephone call registering device comprising a graduated index card, a traveling pointer co-acting therewith, a normally open electric circuit, a switch interposed in the circuit and composed of a stationary terminal member, a depressible terminal member designed to receive and be depressed by the weight of a coin, a manually operated switch also interposed in the circuit, mechanism operated by each closing of the circuit for imparting a step-by-step movement to the pointer, and means for automatically relieving the depressible terminal member of the weight of the coin coincident with the arrival of the pointer at the last indicator graduation, as and for the purpose specified.

[Claims 6 to 10 not printed in the Gazette.]

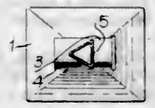
1,141,368. SUGAR-BOWL. JOHN M. TRAVIS, St. Louis, Mo. Filed Aug. 25, 1913. Serial No. 786,489. (Cl. 221—98.)



1. A container for fluent material having a raised bottom provided with an opening at a point contiguous to the wall of the container and chargeable from a point above said bottom, a measuring chamber below and in communication with said opening, a conduit below said bottom communicating with said chamber at the one end and gently curving upward at its other end to connect with a spout on the outside of the container and near the bottom thereof at a point diametrically opposite said opening, said spout merging directly with said conduit whereby the fluent material in the measuring chamber may be freely discharged through said spout when the container is tilted.

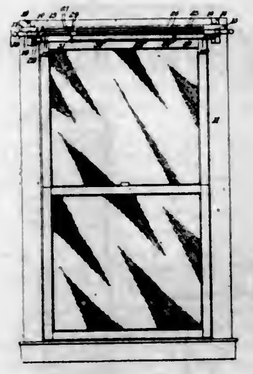
2. A container for fluent material having a raised bottom provided with an opening at a point contiguous to the wall of the container and chargeable from a point above said bottom, a handle for the container adjacent said opening, a measuring chamber below and in communication with said opening, a conduit below said bottom communicating with said chamber at the one end and gently curving upward at its other end to connect with a spout on the outside of the container and near the bottom thereof at a point diametrically opposite said opening and handle, said spout merging directly with said conduit whereby the fluent material in the measuring chamber may be freely discharged through said spout when the container is tilted.

1,141,369. POISON-BOTTLE. HARMON TURNER, New Brookland, S. C. Filed Aug. 12, 1914. Serial No. 856,480. (Cl. 215—77.)



A bottle having an upstanding neck, tubular portions projecting laterally from the neck at diametrically opposite points thereof and intermediate of its ends, one of said portions being closed at its outer end, a stopper adapted for engagement in said laterally projecting portions to extend across the bore of the neck, the portion of the neck above the laterally projecting portions being triangular in cross section, and the apex of the triangular portion of the neck being disposed toward the closed tubular portion.

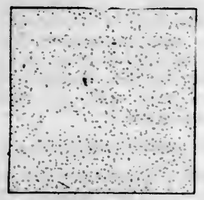
1,141,370. ADJUSTABLE CURTAIN-HOLDER. ANDREW URDZELA, Hamtramck, Mich. Filed Dec. 1, 1914. Serial No. 874,998. (Cl. 156—23.)



1. A device of the class described comprising spaced brackets terminating in open hooks, a curtain pole resting within said hooks, bow springs carried by said brackets, a clamping pole rigidly secured to the free ends of said springs and normally bearing upon the said curtain pole, pivoted arms upon said brackets positionable within the line of movement of said clamping pole, pairs of spaced rods carried by the said brackets, and inter-engaging members upon said rods slidably attached to the companion pair of such rods.

2. A pole provided with cylindrical end portions overlapping main portions semi-cylindrical in cross section and the said sections having longitudinal alining radial slots therethrough, clip plates secured to the overlapped ends of the said sections and projecting through the slot of the adjacent section, a flange upon the projecting free end of said plates whereby said sections are slidably retained in their assembled relations.

1,141,371. ABRASIVE. GEORGE VIRNEBURG, Chicago, Ill. Filed Apr. 11, 1914. Serial No. 831,282. (Cl. 51—1.)



1. An article of manufacture comprising a piece of fabric, a coating of glue, and a coating of an abrasive, said fabric and coating being impregnated with a compound of a metal and an oil.

2. As an article of manufacture, a piece of fabric, a coating of glue, and a coating of an abrasive, said fabric and coating being impregnated with a compound of an oil, metal and wax.

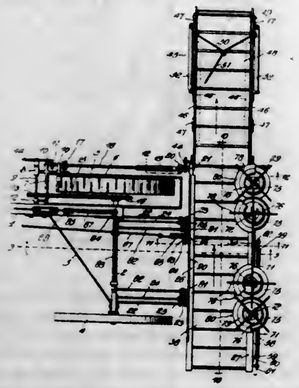
3. An article of manufacture comprising a piece of fabric, a coating of glue, and a coating of an abrasive, said fabric and coating being impregnated with a compound of an oil, the oxid of a metal, resin, and wax.

4. As an article of manufacture, a piece of fabric, a coating of glue, and a coating of an abrasive, said fabric and coating being impregnated with a compound of benzin, resin, lead oxid, nickel oxid, and beeswax.

5. An article of manufacture comprising a piece of fabric, a coating of glue, and a coating of an abrasive, said fabric and coating being impregnated with a compound of a primary compound "A" consisting of benzin 58%, resin 41.5%, lead oxid .5%; a compound "B" consisting of benzin 48%, resin 51.4%, nickel oxid .6%; and beeswax.

[Claim 6 not printed in the Gazette.]

1,141,372. KAFIR-CORN HEADER. CLAUDE WOODALL, Supply, Okla. Filed Oct. 22, 1914. Serial No. 868,047. (Cl. 56—131.)



1. A corn header including a transverse track, a carriage slidable thereon, a cutting mechanism mounted on said carriage, guides near the opposite ends of the track, a flexible operating element passing around said guides and connected to the carriage, and means whereby said element may be moved around said guides to adjust the carriage on the track, combined with means independent of said flexible element, for operating said mechanism.

2. A corn header including a transverse track, a carriage slidable thereon, a cutting mechanism mounted on said carriage, a guide wheel near one end of the track, a guide near the other end thereof, a flexible operating element passing around said guide and said wheel and secured to the carriage, and means whereby said guide wheel may be rotated in either direction to adjust the carriage on the track, combined with means independent of the flexible element, for actuating the cutting mechanism.

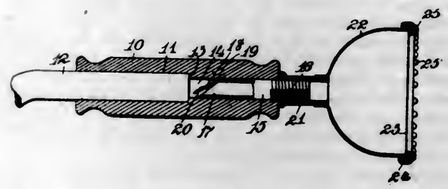
3. A corn header comprising a transverse track, a carriage slidable thereon, cutting mechanism on said carriage, a hollow track spaced from the first named track, a bearing on the carriage and slidably mounted on the hollow track, guides near the ends of the first track, a flexible operating element passing around said guides and through said hollow track, said element being connected to the carriage, and means whereby said element may be moved around the guides.

4. A corn header comprising a transverse track, a carriage slidable thereon and including an upright plate contacting with one side of the track, and a flange projecting laterally from the upper edge of said plate and overlying said track, the other edge of said flange being turned downwardly into contact with the other side of the track, cutting mechanism mounted on the carriage, a second track spaced from the first named track, and a bearing on the carriage and slidably mounted on the second track.

5. A Kafir corn header comprising a pair of parallel tracks spaced one from the other, a carriage plate having a hooked-shaped upper edge slidably and removably disposed on one of said tracks, and having a guide slidably engaging the other track, combined with cutting means carried by the carriage plate, and means to adjust the latter longitudinally in respect to the tracks.

[Claims 6 to 8 not printed in the Gazette.]

1,141,373. VIBRATOR. HENRY BEHM, Elizabeth, N. J., assignor of one-half to William S. Heal, Elizabeth, N. J. Filed Sept. 17, 1914. Serial No. 862,189. (Cl. 128—16.)



1. In a vibrator, a handle adapted to vibrate, the handle having a bore therein for the passage of liquid, a tool on the end of the handle, and a vibrating leaf secured in said bore and projecting toward the inlet end thereof.

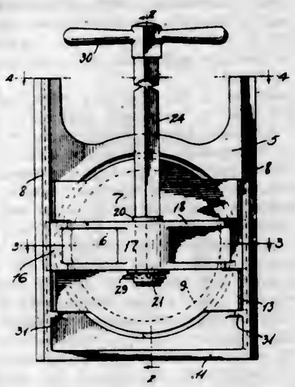
2. In a vibrator, a handle adapted to vibrate, a flexible hose connection on said handle, the handle having a longitudinal bore for the passage of liquid, a tube in said handle and projecting into and from the end of the bore, a tool secured to the projecting end of the tube, and a vibrating leaf arranged at an incline on the inner end of the tube.

3. In a vibrator, a handle, a flexible hose attached to one end of the handle, a vibrating tool at the other end of the handle, the handle having a longitudinal bore for the passage of liquid from the hose to the tool, and a vibrating leaf secured at one end in the bore and inclined toward the inlet end thereof.

4. In a vibrator, a handle, a flexible hose attached to one end of the handle, the handle having a bore extending longitudinally through it for the passage of liquid, a tube in the bore and projecting therefrom, a tool secured on the projecting end of the tube, and an inclined vibrating leaf secured to the inner end of the tube.

5. In a vibrator, a handle, a flexible hose attached to one end of the handle, the handle having a bore extending longitudinally through it for the passage of liquid, a tube in the bore and projecting therefrom, the projecting end of the tube being screw-threaded, a vibrating tool secured on the end of the tube, and a vibrating leaf secured to the inclosed part of the tube.

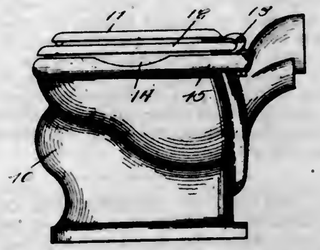
1,141,374. GATE-VALVE. EDWARD T. BOWEN, Los Angeles, Cal., assignor to Kellar-Thomason Company, a Corporation of California. Filed June 9, 1913. Serial No. 772,601. (Cl. 61—46.)



1. An irrigating gate mechanism comprising a gate, a holding bar therefor, having an elongated bearing extending longitudinally thereof, a valve stem having a traveling engagement with said elongated bearing, and an eccentric carried by said stem and adapted to seat and unseat the valve, the said elongated bearing permitting the valve stem to accommodate itself to the action of said eccentric.

2. A gate valve mechanism comprising a valve slide having a projection formed with a journal bearing therein, a supporting bar having a recess adapted to receive said projection, a cam member mounted in said recess and adapted to engage the said journal bearing, bushings interposed between said cam member and the said bar, the bar having elongated openings for permitting of the movement of said bushings in correspondence with said cam member and means for turning the said cam member.

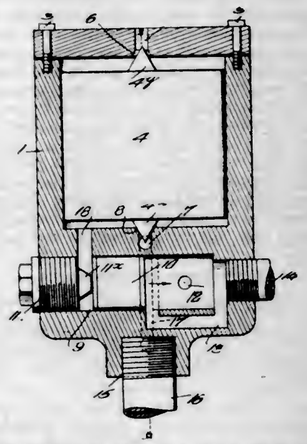
1,141,375. WATER-CLOSET. GEORGE P. BOWDREN, Hempstead, N. Y. Filed July 15, 1913. Serial No. 779,210. (Cl. 4—21.)



As an article of manufacture, a water closet bowl having a superposed rim integral with the body of the bowl and upon which the closet seat is adapted to rest, the solid top wall of said rim having elongated concaved recesses formed therein at opposite sides thereof, and providing means for ventilating the bowl when the closet seat rests upon the rim and a ventilating pipe integral with the bowl.

1,141,376. VALVE MECHANISM. JAMES GRANT BUCHANAN, Cananea, Mexico, assignor to Hiram A. Hatfield, Forest Grove, Oreg. Filed Apr. 6, 1914. Serial No. 829,862. (Cl. 188—1.)

1. In a valve mechanism for air brakes, a casing provided with a main valve chamber, a weighted valve disposed in said chamber, a pipe for connecting one end of said valve casing with a supply of compressed air, a passage within said valve casing normally closed by said weighted valve and adapted to be uncovered by excess of air pressure in the passage, an outlet pipe, and means for establishing communication between said main valve chamber and said outlet pipe, said means being controlled by the pressure of air in said main valve chamber.



2. In a valve mechanism for air brakes, a casing provided with a main valve chamber, a weighted valve disposed in said chamber, a pipe for connecting one end of said valve casing with a supply of compressed air, a passage within said valve casing normally closed by said weighted valve and adapted to be uncovered by excess of air pressure in the passage, an outlet pipe, and means for establishing communication between said main valve chamber and said outlet pipe, said means comprising a piston valve disposed within a bore in said valve casing, a passage connecting said main valve casing with said bore, and a passage arranged to be uncovered by the movement of said piston valve for connecting said bore with said outlet pipe.

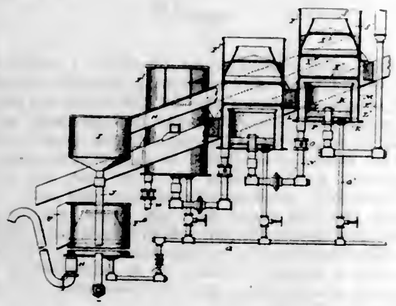
3. In a valve mechanism for air brakes, a casing provided with a main valve chamber, a weighted valve disposed in said chamber, a pipe for connecting one end of said valve casing with a supply of compressed air, a passage within said valve casing normally closed by said weighted valve and adapted to be uncovered by excess of air pressure in the passage, an outlet pipe, means for establishing communication between said main valve chamber and said outlet pipe, said means comprising a piston valve disposed within a bore in said valve casing, a passage connecting said main valve casing with said bore, a passage arranged to be uncovered by the movement of said piston valve for connecting said bore with said outlet pipe, and an exhaust passage normally uncovered and adapted to be covered when the piston valve uncovers the passage between the interior of the bore and the outlet pipe.

4. In a valve mechanism for air brakes, a casing provided with a main valve chamber, a weighted valve disposed in said chamber, a pipe for connecting one end of said valve casing with a supply of compressed air, a passage within said valve casing normally closed by said weighted valve and adapted to be uncovered by excess of air pressure in the passage, an outlet pipe, means for establishing communication between said main valve chamber and said outlet pipe, said means comprising a piston valve disposed within a bore in said valve casing, a passage connecting said main valve casing with said bore, a passage arranged to be uncovered by the movement of said piston valve for connecting said bore with said outlet pipe, and an exhaust passage normally uncovered and adapted to be covered when the piston valve uncovers

the passage between the interior of the bore and the outlet pipe, and exhaust passage being covered by the reverse movement of said piston valve.

5. In a valve mechanism for air brakes, a casing provided with a main valve chamber, a weighted valve disposed in said chamber, a pipe for connecting one end of said valve casing with a supply of compressed air, a passage within said valve casing normally closed by said weighted valve and adapted to be uncovered by excess of air pressure in the passage, an outlet pipe, means for establishing communication between said main valve chamber and said outlet pipe, said means comprising a piston valve disposed within a bore in said valve casing, a passage connecting said main valve casing with said bore, a passage arranged to be uncovered by the movement of said piston valve for connecting said bore with said outlet pipe, an exhaust passage normally uncovered and adapted to be covered when the piston valve uncovers the passage between the interior of the bore and the outlet pipe, said exhaust passage being covered by the reverse movement of said piston valve, and a screw plug at one end of said bore for limiting the movement of said piston valve.

1,141,377. ORE-CONCENTRATING APPARATUS. JOHN M. CALLOW, Salt Lake City, Utah, assignor, by mesne assignments, to Metals Recovery Company, a Corporation of Maine. Filed Oct. 6, 1913. Serial No. 793,695. (Cl. 83—85.)



1. In apparatus of the character described, the combination of a tank or receptacle adapted to receive ore pulp and a substance having the property of frothing in the presence of a gaseous medium and agitation, a casing within the lower portion of the tank and separated therefrom to form a surrounding space or chamber, a body of porous material within said inner casing and supported above the bottom thereof so as to form a chamber between said porous body and the bottom of the tank, a feed-pipe terminating in the lower portion of the tank above the porous body and adapted to deliver the pulp into the casing above said body, a pipe leading into the chamber below said porous body and adapted to admit a gaseous medium under pressure thereinto, said porous body subdividing the gaseous medium and distributing the same irregularly substantially throughout the entire surface of the pulp, and a discharge means connecting with the space or chamber between the inner casing and the tank and adapted to deliver therefrom the heavier material which has settled into said space.

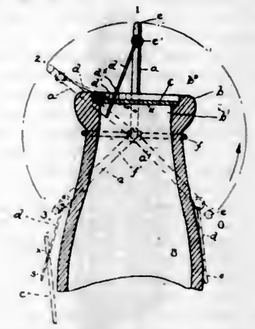
2. In apparatus of the character described, the combination of a tank or receptacle adapted to receive ore pulp and a substance having the property of frothing in the presence of a gaseous medium and agitation, a casing within the lower portion of the tank and separated therefrom to form a surrounding space or chamber, a body of porous material within said inner casing and supported above the bottom thereof so as to form a chamber between said porous body and the bottom of the tank, a feed-pipe terminating in the lower portion of the tank above the porous body and adapted to deliver the pulp into the casing above said body, a pipe leading into the chamber below said porous body and adapted to admit a gaseous medium under pressure thereinto, said porous body subdividing the gaseous medium and distributing the same irregularly substantially throughout the entire surface of the pulp, a discharge means connecting with the space or chamber between the inner casing and the tank and adapted to deliver therefrom the heavier material which has settled into said space, and a cone-shaped member in the upper part of the casing below the top thereof and through which the accumulating frothy contents of the tank pass and over which they are discharged.

4. In apparatus of the character described, the combination of a tank or receptacle adapted to receive ore pulp and a substance having the property of frothing in the presence of a gaseous medium and agitation, a casing within the lower portion of the tank and separated therefrom to form a surrounding space or chamber therebetween, a body of porous material within said inner casing and supported above the bottom thereof so as to form a chamber between said porous body and the bottom of the tank, a feed pipe terminating in the lower portion of the tank above the porous body and adapted to deliver pulp into the casing above said porous body, a pipe leading into the chamber below said porous body and adapted to admit a gaseous medium under pressure thereinto, said porous body subdividing said gaseous medium and distributing the same irregularly substantially throughout the entire surface of the pulp, a discharge means connecting with the space or chamber between the inner casing and the tank and adapted to deliver therefrom the heavier material, which has settled into said space, a conical member in the upper portion of the casing forming a surrounding gutter between itself and the inner wall of said tank and into which gutter the froth produced in the tank is allowed to overflow, and means for conducting the froth from said gutter.

1,141,378. DEVICE FOR WITHDRAWING CLOSURE-CAPS FROM MILK-BOTTLES. JOHN CARNEY, Pawtucket, R. I. Filed May 6, 1914. Serial No. 836,615. (Cl. 215—53.)

1. A device for uncapping milk-bottles or other analogous containers, the same consisting of a metal bail or frame having a transverse tie or bar terminating in oppositely disposed arms extending at substantially right angles therefrom, a spear-like piercing element permanently supported and axially movable on said tie, the free end portion of said spear adapted, when in use, to be pressed through the cap to withdraw the latter from the container and retain said cap impaled thereon, and means for securing the frame to the container, said securing means having the frame pivoted thereto and capable of swinging arcuate movements thereon.

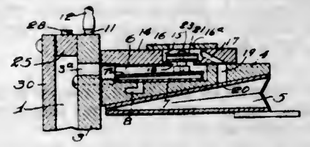
2. In a device for withdrawing the caps or seals from the mouth of milk-bottles or like containers, the combination of a bail or frame having downwardly extending arms arranged to be pivotally connected to the outer neck portion of the container, said bail having a tie integral therewith uniting the upper portion of said arms and capable of swinging across the mouth of the bottle, and a cap-piercing element carried by said tie arranged for independent turning movement on the latter, for the purpose herein set forth.



3. The combination of a bent bail or frame, a band having the frame pivoted thereto adapted to be permanently connected to the neck of a container, a member arranged to pierce and remove the cap or closure from the container, said piercing member being mounted to turn axially on said bail, and means for maintaining the piercing member in position on the bail against lateral movement.

4. In a device of the character described, the combination with a bottle having its neck provided with a discharge opening extending through a recessed annular seat, of a bail arranged for swinging movement indirectly pivoted to the exterior of said neck, a piercing member permanently pivoted to and movable bodily with the bail, said piercing member also capable of independent movement on the bail, and means for centralizing or positioning the piercing element on the bail.

1,141,379. PNEUMATIC ACTION FOR AUTOMATIC PLAYERS. MELVILLE CLARK, Chicago, Ill., assignor to Melville Clark Piano Company, Chicago, Ill., a Corporation of Illinois. Filed Jan. 28, 1914. Serial No. 814,911. (Cl. 84—178.)



1. In a pneumatic player action, in combination, a substantially flat exhaust chamber; a motor-pneumatic-supporting board mounted edgewise on one surface of the exhaust chamber; a series comprising a multiplicity of motor pneumatics mounted on one side of the board, the board having air pockets opening at the opposite side of the board which communicate with the exhaust chamber and with the pneumatics respectively; blocks which cover the said pockets at their open side; valve chambers in said pockets through which the air pockets, respectively, communicate with the respective motor pneumatics; covers for said valve chambers mounted on the side of the blocks opposite that which is seated on the board; said blocks and valve chamber covers being removably secured, and securing means exteriorly accessible while the board remains mounted on the exhaust chamber; valves in the respective valve chambers controlling said motor pneumatic communications respectively; primary pneumatics in the pockets respectively, adapted to be connected with the respective valves, the board having ducts leading to said pneumatics, and means by which said ducts are adapted for communication with the tracker.

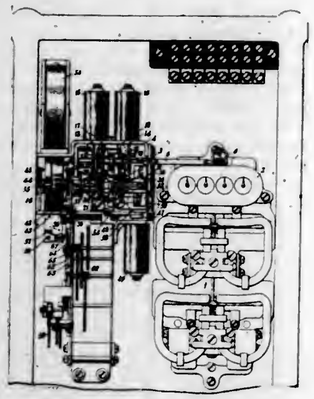
2. In a pneumatic player action, in combination, a substantially flat exhaust chamber; a motor-pneumatic-supporting board mounted edgewise on one surface of the exhaust chamber; a series comprising a multiplicity of motor pneumatics mounted on one side of the board, the board having air pockets opening at the opposite side of the board which communicate with the exhaust chamber and with the pneumatics respectively; blocks which cover the said pockets at their open side; valve chambers in said pockets through which the air pockets, respectively, communicate with the respective motor pneumatics; covers for said valve chambers mounted on the side of the blocks opposite that which is seated on the board; said blocks and valve chamber covers being removably secured, and securing means exteriorly accessible while the board remains mounted on the exhaust chamber; valves in the respective valve chambers controlling said motor pneumatic communications respectively; primary pneumatics in the pockets respectively operatively connected with the respective valves; the board having ducts from the primary pneumatics respectively to the surface of said board abutting on the wall of the exhaust chamber, said wall having ducts registering with the first mentioned ducts respectively, and adapted for connections to lead to a tracker.

3. In a pneumatic player action, in combination with an exhaust chamber having in one side wall thereof ducts for communication with the tracker, said ducts extending in said wall opposite the lapping edge of a transverse wall of said chamber; ducts extending transversely in such transverse wall and leading into the first-mentioned ducts respectively, and cross ports bored through said transverse wall intersecting said transverse ducts, and adjusting screws set into the outer ends of said cross ports extending across transverse ducts and adjustable to regulate the communication through said cross ports between the tracker-connected ducts and the exhaust chamber.

4. In a pneumatic player action, in combination with an exhaust chamber having in one side wall thereof ducts for communication at one end with the tracker and at the other end with primary pneumatics; a member having chambers in which such primary pneumatics are mounted, and ducts in said member leading from the primary pneumatics in said chambers, said member being mounted on the exhaust chamber with said last mentioned ducts registering with the first-mentioned ducts in the wall of said exhaust chamber, said last-mentioned ducts extending to their emergence for connection with the tracker past the lapping edge of a transverse wall of said exhaust chamber, and ports leading from said ducts respectively to the surface of said wall on which said transverse wall abuts, said transverse wall having ducts extending through it from edge to edge registering at one edge with said ports and closed at the other edge by the opposite wall of the exhaust chamber; cross ports bored through said transverse wall emerging at one end in the exhaust chamber and at the other end in an exteriorly exposed surface of said wall, and adjusting screws set into the exposed ends of said cross ports extending across the transverse ducts therein and adjustable to regulate the communication through said cross ports between the primary pneumatics and the exhaust chamber.

5. In a pneumatic player action, in combination with an exhaust chamber, a member mounted thereon having individual chambers for primary pneumatics communicating respectively with the exhaust chamber, the wall on which such member is mounted having ducts for connecting the primary pneumatics with a tracker, each of said ducts emerging at the upper edge of such wall; transverse ducts in the upper edge wall of the exhaust chamber leading into said first-mentioned ducts respectively, and cross ports bored through said upper edge wall intersecting said transverse ducts, and adjusting screws set into the upper ends of said transverse ports extending across the transverse ducts and adjustable to regulate the communication through said cross ports between the primary pneumatics and the exhaust chamber.

1,141,380. ELECTRICAL MEASURING INSTRUMENT. FRANK CONRAD, Swissvale, Pa., assignor, by mesne assignments, to Chicago Electric Meter Company, Chicago, Ill., a Corporation of Illinois. Filed June 4, 1906. Serial No. 320,123. (Cl. 234—35.)



1. In an electrical measuring instrument, the combination with means for registering and indicating directly the total of the forces exerted through a given circuit, of means for printing a record of the maximum force so exerted during a given interval of time.

2. The combination with a shaft that rotates at variable speeds, of a member that is deflected an amount proportional to the total number of rotations of said shaft during a given period of time, means for retaining the said member in the extreme position to which it has been moved during and until the expiration of a longer interval of time, and means for simultaneously effecting records denoting the positions of the member at the expirations of said longer periods and the period during which the position is assumed.

3. In an electrical measuring instrument, the combination with parts that are moved alternately during given periods of time in accordance with the total amounts of power that transverse the circuits during said periods, and a part that is moved thereby an amount proportional to the greatest movements thereof.

4. The combination with a movable member, of parts that are moved thereby independently and alternately in accordance with the total amounts of movement of said member during given periods of time.

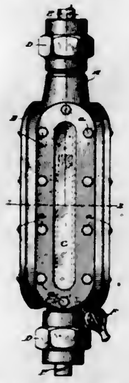
5. The combination with a movable member, of parts that are moved thereby independently and alternately in accordance with the total amounts of movement of said member during given periods of time, and a part that is moved by the aforesaid parts an amount proportional to the greatest movements thereof.

[Claims 6 to 24 not printed in the Gazette.]

1,141,381. WATER-GAGE. JAMES E. CUNLIFF, Buffalo, N. Y. Filed Feb. 17, 1912. Serial No. 678,431. (Cl. 73—54.)

1. In a means for protecting the ordinary water glass and forming a supplementary glass, the combination with said water glass of a metallic body provided with openings, transparent panels provided with webs covering said openings in said body, flanges formed on said body and surrounding said openings, packing between the webs of said panels and said flanges, plates for holding the panels to said body and a packing between said plates and the web of said panels, a coupling nut on each end of said body and a packing in said coupling nut for making a tight joint around said water glass.

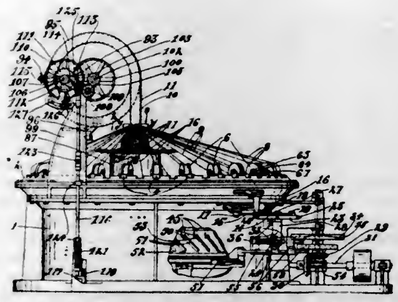
2. In a water-gage, the combination of a metallic body composed of a single piece of material, said body having side openings, transparent panels covering side openings, a transparent tube passing through the center of said metallic body, couplings at the top and bottom of said body, to form a steam and water tight chamber, in said body, and exterior to said tube, and means communicating with said chamber, to indicate the breakage of said tube and whereby the contents of said chamber may be retained in the event of the breaking of said tube.



3. In a water-gage, the combination of a circular glass tube surrounded by a metallic body having glass sides attached thereto in a steam and water tight manner, and forming a chamber between said glass tube and said metallic body, said body provided with a cylindrical neck at each end, and having coupling nuts screwed over each of said necks, and into each of which coupling nuts are fitted steam and water tight gaskets, said metallic body being formed of a single piece of material, and having a vent valve in the lower portion of said body communicating with said chamber.

4. In a water gage, the combination of a permanent shield of refractory material provided with sight openings, transparent panels covering said openings and provided with webs around their outer edges, packing means between said webs and said shield, plates for holding said panels to said shield, packing means between said plates and said webs, said shield adapted to be placed on an ordinary water glass which extends through said shield in such a manner as to form a chamber between said shield and said water glass, an opening in the base of said shield communicating with said chamber whereby the steam and water may escape to indicate the breaking of said water glass, and means to close said opening whereby said shield becomes a secondary water glass.

1,141,382. CIRCULAR BRAIDER. ADOLPH L. DE LEEUW, Cincinnati, Ohio. Filed Feb. 6, 1911. Serial No. 606,903. (Cl. 28—4.)



1. A tire-weaving machine of the nature disclosed combining a mandrel providing a curved weaving surface contoured like the section of the tire to be woven, a plurality of strand carriers arranged about said mandrel to feed spring wire strands to said weaving surface at angles progressively increased to the center of said mandrel from one side to the other thereof, means for producing a systematic shift in the relation of one series of said carriers to another series thereof to effect an interweaving of the strands, and means for maintaining said strands under tension.

2. A tire-weaving machine of the nature disclosed combining a mandrel providing a suitably contoured weaving surface, a plurality of strand carriers located at progressively greater distances from said mandrel and each adapted to feed spring wire strands to said mandrel under tension, and means for producing an interweaving shift of said strand-carriers relative to one another to effect an interweaving of said strands progressively varying from one side of said mandrel to the other.

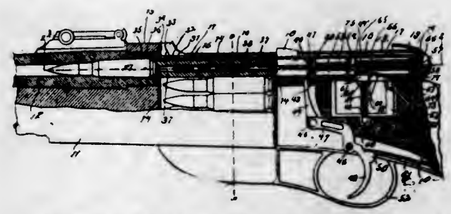
3. A tire-weaving machine of the nature disclosed combining a mandrel providing an annular weaving surface, a first and a second series of strand carriers, the members of each series being equispaced in an orbit eccentrically related to said mandrel and each adapted to feed a spring wire strand to the surface of said mandrel, and means for producing a relative progressive movement between said mandrel and the first series in one direction and the second series in the opposite direction while effecting an interweaving of the members of said series.

4. In a machine of the character described, the combination of a mandrel and strand carriers moving in opposite directions about said mandrel, said mandrel located eccentric to the paths of movement of said strand carriers.

5. In a machine of the character described, the combination of reversely moving strand carriers moving about central axes, and a forming mandrel eccentric thereto, whereby the stretches between said forming mandrel and carriers are shorter at one side than at the other side of said mandrel.

[Claims 6 to 35 not printed in the Gazette.]

1,141,383. GUN OR RIFLE. WILLIAM M. DOUGLAS, Galveston, Tex. Filed July 3, 1914. Serial No. 848,817. (Cl. 42—3.)



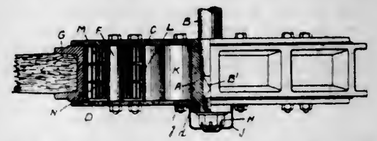
1. In a gun or rifle, a barrel having its rear end provided with a breech-bolt casing, a reciprocatory breech-bolt having slidable engagement with the breech-bolt casing, a firing pin carried by the breech-bolt and movable longitudinally thereof, a lock to normally hold the breech-bolt against rearward movement, a lock operating member carried by the breech-bolt to move longitudinally with relation thereto, spring means to effect the forward longitudinal movement of the firing pin and subsequently the forward longitudinal movement of the lock operating member to release the breech-bolt after the firing pin has reached the end of its forward travel, and trigger means adapted to hold and release the firing pin with respect to forward movement.

2. In a gun or rifle, a barrel having its rear end provided with a breech-bolt casing, a reciprocatory breech-bolt having slidable engagement therewith, a pivoted lock element adapted to engage and disengage the breech-bolt, means to normally hold the pivoted lock element in a position to engage with the breech-bolt, a member carried by the breech-bolt and movable longitudinally thereof and carrying a device to slidably engage with the pivoted lock element to move the same out of engagement with the breech-bolt upon the forward movement of the member, a spring to move the member forwardly when free to move in that direction, and cartridge firing means carried by the breech-bolt and controlling the forward movement of the member.

3. In a gun or rifle, a barrel having its rear end provided with a breech-bolt casing, a reciprocatory breech-bolt having slidable engagement therewith, a firing pin carried by the breech-bolt, a spring to move the firing pin forwardly when released, a lock to normally hold the breech-bolt against rearward movement, a lock operating member carried by the breech-bolt to move longitudinally thereof and having engagement with the spring, and a second spring engaging the lock operating member, substantially as described.

4. In a gun or rifle, a barrel having its rear end provided with a breech-bolt casing, a reciprocatory breech-bolt having slidable engagement therewith, a firing pin carried by the breech-bolt, a spring to move the firing pin forwardly when released, a pivoted lock lever normally engaging the breech-bolt to hold it against rearward movement, a lock operating member carried by the breech-bolt to move longitudinally thereof and provided with a downwardly inclined depression tail to slidably engage the lock lever and having its forward end engaging the spring, a spring having greater strength than the first named spring and engaging the rear end of the lock operating member, and trigger means to temporarily hold the firing pin against movement.

1,141,384. WHEEL FOR COMMON ROAD-VEHICLES. GEORGE EDWARD DOYLE, Sydney, and GEORGE BARDEN, Newtown, near Sydney, New South Wales, Australia. Filed Mar. 5, 1914. Serial No. 822,561. (Cl. 152—44.)



In a wheel for vehicles the combination of a hub having an integral wide flange, a removable flange adapted to form with said integral flange an annular space, a spoke-collar arranged in said space and free to move relatively to said hub both radially and circumferentially, cylindrical casings circularly arranged in said spoke collar at an equal distance from said hub and substantially of the same width as the said spoke collar, a plurality of flat spiral springs disposed side by side within each of said casings, spacing washers between adjacent springs in each casing, bolts connecting said flanges and supporting the inner ends of said springs, thimbles surrounding said bolts for spacing said flanges, and a wheel rim supported by said spoke collar.

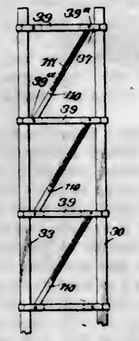
1,141,385. METALLIC COLUMN, &c. JULIAN O. ELLINGER, New York, N. Y. Filed Oct. 4, 1911. Serial No. 652,698. (Cl. 189—12.)

1. A collapsible metallic building structure comprising a series of spaced longitudinal members arranged in an angular relation, transverse elements arranged on opposite sides of the structure and rigidly secured to the longitudinal elements and having bent ends, and other transverse elements arranged on the other and opposite sides of the structure and having their ends pivotally connected to the bent ends of the first mentioned transverse elements.

2. A collapsible skeleton metallic building structure comprising a series of spaced longitudinal members arranged in an angular relation, transverse straps connecting by welds the longitudinal members together in pairs, and links arranged at an angle with the straps and connecting the pairs of longitudinal members with each other, and having their ends pivoted to projections from the straps.

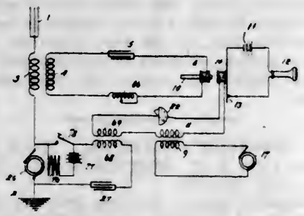
3. A collapsible skeleton metallic structure, certain of whose opposite sides are each formed of longitudinal members and transverse members rigidly secured thereto to

connect the same together, said transverse members having ends bent to extend around the longitudinal members, the flanges on one side of the structure extending toward the flanges on the other side thereof, and links pivoted to said flanges to permit the two sides to be folded toward each other.



4. A collapsible skeleton metallic structure, comprising a series of longitudinal members arranged in an angular relation and transverse members spaced along the lengths of the longitudinal members and connecting the same with each other, the transverse members comprising links and straps arranged on different sides of the structure, at an angle to each other, the strips being rigidly secured to the longitudinal members and having flanged ends, and the links being pivoted to said ends, and diagonal braces arranged on the sides containing the links, each of said braces being pivoted at one end to one of said flanged ends of a strap and having slidable connection at the other end with another flanged end of a strap.

1,141,386. METHOD OF TRANSMITTING AND RECEIVING ELECTRICAL ENERGY. REGINALD A. FESSENDEN, Brant Rock, Mass., assignor, by mesne assignments, to Samuel M. Kintner, Pittsburgh, Pa., and Halsey M. Barrett, Bloomfield, N. J., receivers. Original application filed Aug. 26, 1904, Serial No. 222,301. Divided and this application filed Nov. 22, 1907. Serial No. 403,285. (Cl. 250—13.)



1. The method of detecting the presence of alternating currents which comprises exciting a field at the station where such currents are received by said received currents, maintaining a supplementary field interacting with said first field, by means of a local source of energy, and meanwhile producing by said local source a compensating field which nullifies its signal producing effect at the receiving station, while signals are being sent from said station.

2. The method of simultaneously sending and receiving wireless signals which comprises exciting a field by the received oscillations, exciting a second field by oscillations locally produced and having a frequency definitely differing from those received, causing the two fields to interact to produce a signal, and transmitting electric waves of a frequency definitely differing from those being received, substantially as described.

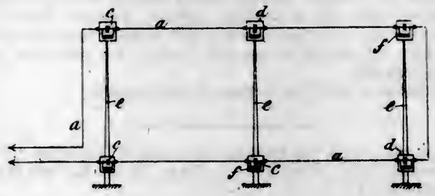
3. The method of signaling which comprises exciting a field of force by oscillations received at a station, exciting a supplementary field by a local high frequency source and operating a receiving indicating instrument by the combined effects of said two fields, generating oscillations for sending from the same station and neutralizing their effect on the receiving instrument by causing interaction in the field excited by received oscillations.

4. In wireless telegraphy the method of receiving at a sending station which comprises exciting a field of force by the received oscillations and also by the oscillations being sent, annulling the effects of the latter on a receiving instrument operated by the influence of said field excited by the received oscillations by oscillations in a local field.

5. In wireless telegraphy, the method of receiving at a sending station which comprises exciting a local field of force both by the sent and received oscillations and annulling the effect of the former on a supplementary local field excited by a local source and operating an indicating instrument by the combined effects of said field and the field excited by received oscillations.

[Claim 6 not printed in the Gazette.]

1,141,387. AERIAL CONDUCTOR. CHARLES SAMUEL FRANKLIN, London, England, assignor to Marconi Wireless Telegraph Company of America, New York, N. Y., a Corporation of New Jersey. Filed Dec. 31, 1913. Serial No. 809,607. (Cl. 250—33.)



1. In a system of wireless telegraphy, an aerial conductor consisting of a closed circuit in a vertical plane, having condensers distributed around it, the capacity of each being such that it compensates for the inductance of the part of the conductor joining it to the next condenser, substantially as described.

2. In a system of wireless telegraphy, an aerial conductor consisting of a closed circuit in a vertical plane, having condensers distributed around it, the capacity of each being such that it compensates for the inductance of the part of the conductor joining it to the next condenser, and a coil of high inductance shunting each condenser, substantially as described.

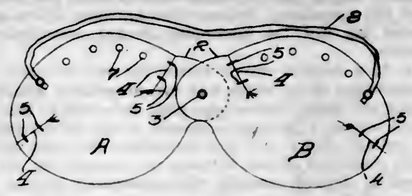
3. In a system of wireless telegraphy, an aerial conductor consisting of a closed circuit in a vertical plane, having condensers distributed around it, the capacity of each being such that it compensates for the inductance of the part of the conductor joining it to the next condenser, a coil of high resistance shunting each condenser, and a water proof case containing each condenser and its inductance, substantially as described.

1,141,388. GOGGLES. GILBERT D. GEORGE, St. Paul, Minn. Filed July 20, 1914. Serial No. 851,926. (Cl. 2—149.)

1. An eye protector, comprising, two flexible shields overlapping centrally and pivotally united to fold in substantially a single plane, each of said shields having its outer edge formed with a dart and the adjacent edges of said dart being united evenly.

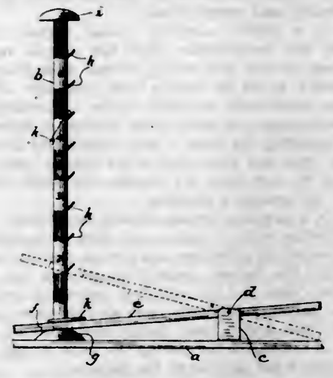
2. An eye protector, consisting of a flexible shield having its edge formed with a dart and means for holding the adjacent edges of said dart evenly united.

3. An eye protector, comprising, in combination, two flexible transparent shields overlapping centrally and pivotally united to fold in substantially a single plane, each of said shields having its edge formed with a dart



and means for evenly uniting the adjacent edges of said dart.

1,141,389. TOY. GEORGE W. GERDING, Philadelphia, Pa. Filed Oct. 5, 1914. Serial No. 864,988. (Cl. 46—59.)



1. A toy comprising a base-plate, a post projecting upward therefrom, a ring strung upon the post, hand-controlled ring-actuating means adapted to project the ring upwardly along the post, and pins along the post adapted to engage and catch the ring in its descent.

2. A toy comprising a base-plate, a ring-actuating plate pivotally supported from the base plate on a horizontal axis, a post projecting upward from the base-plate and extending through a hole in the ring-actuating plate, pins projecting from the post, and a ring strung upon the post above the ring-actuating plate.

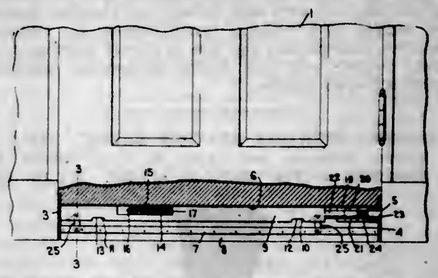
3. A toy comprising a base-plate, a post projecting upward therefrom, pins on the post, said pins extending obliquely upward, a ring strung upon the post, and hand-controlled ring-actuating means adapted to project the ring upward along the post, whereby the ring in its descent will catch upon one of the pins.

4. A toy comprising a base-plate, a ring-actuating plate pivoted on the base plate, a post projecting upward from the base-plate, a ring strung upon the post, and a series of pins arranged in vertical alinement along the front of the post and extending obliquely upward.

5. A toy comprising a base-plate, a post projecting upward from the rear thereof, a ring strung upon the post, a ring-actuating plate pivotally supported from the front part of the base-plate on a horizontal axis and provided in its rear portion with a hole through which the post extends, a series of pins arranged along the front of the post, and a cap on the top of the post.

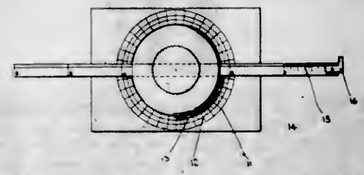
1,141,390. WEATHER-STRIP ATTACHMENT. WILLIAM H. GODFREY, Somerville, Mass. Filed Sept. 15, 1913. Serial No. 789,772. (Cl. 20—68.)

In a weather strip, a metallic casing therefor U-shaped in cross section, a one-piece actuator longitudinally slidably mounted in said casing adjacent to the base thereof, a recess in the top of said actuator intermediate of its ends and adjacent to said base, a compression spring in said recess inclosed within the walls of said casing and the wall of the recess of said actuator whereby the spring will be prevented from buckling, a pin secured in the walls of the metallic casing passing through said recess adja-



cent the end of the spring, and means connecting said actuator to said weather strip adjacent the ends thereof and adapted to project said weather strip laterally as the actuator is moved longitudinally against the force of the spring.

1,141,391. BEVEL-PROTRACTOR AND DEPTH-GAGE FOR DIE-MAKERS. EMIL G. HANTZ, South Connellsville, Pa. Filed Dec. 9, 1914. Serial No. 876,224. (Cl. 33—102.)



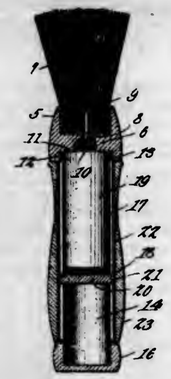
1. A device for the purpose set forth comprising a base provided with graduations, a plug extending up through said base and including a head and hollow bifurcated body portion having peripheral threads, a longitudinal shiftable scale member mounted upon the base and extending through said bifurcated body portion, a grooved clamping member seated upon the base and overlapping said scale member and means engaging with the threads of the plug and said clamping member for setting up a clamping action between the clamping member, scale member and base to prevent shifting of the scale member.

2. A device for the purpose set forth comprising a base, a plug extending up therethrough and having peripheral threads, a longitudinal shiftable scale member mounted upon the base and extending through the plug, a clamping member mounted upon the base and overlapping said scale member, a spring controlled element bearing against said scale member and means engaging with the threads of the plug and with said element and clamping member for setting up a clamping action between the clamping member, scale member and base to prevent shifting of the scale member.

3. A device for the purpose set forth comprising a base, a plug extending up therethrough and having peripheral threads, a longitudinal shiftable scale member mounted upon the base and extending through the plug, a clamping member mounted upon the base and overlapping said scale member, a spring controlled element bearing against said scale member and means engaging with the threads of the plug and with said element and clamping member for setting up a clamping action between the clamping member, scale member and base to prevent shifting of the scale member, and said scale member capable of being revolved upon the base when said clamping action is relieved and during the revolving thereof carrying said plug, clamping member and means therewith.

4. A device for the purpose set forth comprising a base, a plug extending up therethrough and having peripheral threads, a longitudinal shiftable scale member mounted upon the base and extending through the plug, a clamping member mounted upon the base and overlapping said scale member, a spring controlled element bearing against said scale member and means engaging with the threads of the plug and with said element and clamping member for setting up a clamping action between the clamping member, scale member and base to prevent shifting of the scale member, said base having graduations associated with said scale member.

1,141,392. FOUNTAIN SHAVING-BRUSH. HENRY A. HEATH, Urbanna, and JAMES E. GRAY, Saluda, Va. Filed Nov. 24, 1914. Serial No. 873,684. (Cl. 15—50.)

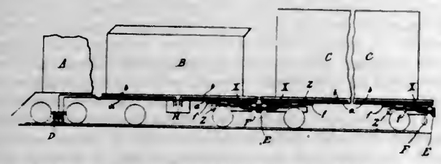


1. A brush of the character described comprising a cylindrical forward end, bristles in said end, an inner tube communicating through the end with the bristles, a piston in the inner tube, and means, outside of the inner tube and fixed against longitudinal movement, for propelling the piston in the inner tube to force its contents into the bristles.

2. A brush of the character described comprising a cylindrical forward end, bristles in said end, an inner tube communicating through the end with the bristles, a piston in the inner tube, and a rotatable tube, outside of the inner tube and fixed against longitudinal movement, for propelling the piston in the inner tube to force its contents into the bristles.

3. A brush of the character described comprising a cylindrical forward end, bristles in said end, an inner tube communicating through the end with the bristles, and provided with longitudinal slots, a piston in the inner tube having threaded wings projecting through the slots, and an outer tube encompassing and adapted to rotate on the inner tube and fixed against longitudinal movement, said outer tube having interior threads engaging the threads of the wings.

1,141,393. SAFETY COUPLING-RELEASE SYSTEM FOR RAILWAY-TRAINS. ARTHUR F. HETHERINGTON, New York, N. Y. Filed Dec. 4, 1909. Serial No. 531,367. (Cl. 213—58.)



1. In a coupling release system for railway trains, the combination of an engine and car, of coupling means between the same, devices operating to uncouple the coupling means, a member supported so as to normally be in contact with a rail, and connections between the member and the uncoupling devices whereby when the member leaves the rail the uncoupling devices are caused to operate.

2. In a coupling release system for railway trains, the combination of an engine and car, of coupling means between the same, devices operating to uncouple the coupling means, a member supported so as to be normally in contact with a rail, and connections including electrically controlled devices between the member and the uncoupling devices whereby the uncoupling devices are thrown into operation when the member leaves the rail.

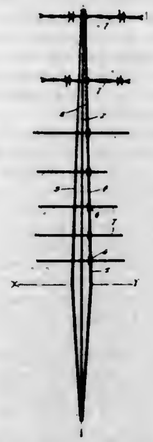
3. In a coupling release system for railway trains, the combination with an engine and cars, of coupling devices, fluid pressure means for uncoupling said devices, electrically controlled means for actuating said fluid pressure means, a normally deënergized electric circuit throughout the train controlling said electrical actuating means, and a local circuit controlled by the derailment of the engine for closing said train circuit.

4. In a safety coupling release system for railway trains, the combination with the engine and cars, of coupling devices and safety chains, fluid pressure means connected so as to release said couplings and coupling chains, electrically actuated valves controlling said fluid pressure means, a main train circuit, a storage battery for energizing the same, a shoe adapted to bear upon one of the rails and connected to the engine, and means controlled by said shoe for closing the main train circuit when the engine is derailed.

5. In a coupling release system for railway trains, the combination with an engine and cars, of coupling devices, compressed air cylinders and pistons therein operating to uncouple the devices, connections between the compressed air train pipe and the cylinders including electrically operated valves, a normally open electric circuit controlling said valves, and a local circuit controlled by the derailment of the engine for closing the train circuit.

[Claim 6 not printed in the Gazette.]

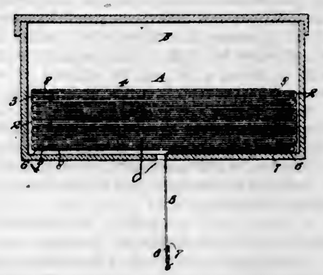
1,141,394. WIRE FENCE. GEORGE HUTCHINSON, Chicago, Ill. Filed Feb. 10, 1915. Serial No. 7,433. (Cl. 256—57.)



1. In combination a fence post of substantially U or like section, a plurality of fence wires passing across the open side of said post, and fasteners on one side only of the post engaging the fence wires, the fasteners being arranged in increasing distances, laterally from the center line of the post, downwardly from the top and the topmost fastener being at said center line.

2. In combination a fence post of substantially U or like section, a plurality of fence wires passing across the open side of said post, and fasteners on the post engaging the fence wires, the fasteners being arranged only along one edge of the post in increasing distances, laterally from the center line of the post, downwardly from the top and the topmost fastener being at said center line.

1,141,395. INTERLEAVED PAPER ARTICLES. CLARENCE L. JOHNSTON and HORACE P. BROWN, Oakland, Cal. Filed Dec. 1, 1913. Serial No. 803,912. (Cl. 206—57.)

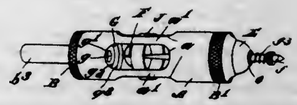


1. A stack of leaves for use in a slotted container consisting of a series of sheets, each sheet being folded into an under long part and a top short part, the free end of the long part being folded over to form a relatively narrow hand gripping flap of double thickness, said sheets being arranged so that the flaps of the sheets are engaged between and directly with the under and top parts of an adjacent sheet and at the central line of fold of the sheet whereby when a lower sheet is pulled out of the container slot same will draw the hand gripping flap of the next sheet through the slot and then will disengage itself from said adjacent sheet without completely pulling the latter through the slot.

2. A paper stack consisting of a series of U-shaped leaves one of the free ends of each of which is turned outwardly and folded over to form a hand gripping part of double thickness, said sheets being disposed so that the hand gripping flaps of adjacent leaves are alternately located at opposite ends of the stack and are received in the space between and directly engaged with the parts of said adjacent leaves.

3. A paper stack consisting of a series of leaves having a lower long part provided with a hand gripping folded over flap and a short upper part, said leaves being arranged so that the short upper part and the flap of two adjacent leaves extend in the same plane and at their free edges confront one another and are received between the upper and lower parts of a third leaf.

1,141,396. CENTER AND AXIS INDICATOR. HILDAIGE JUBINVILLE, Dracut, Mass. Filed Dec. 16, 1912. Serial No. 736,951. (Cl. 33—172.)



1. The combination in a center and axis indicator, of means adapted to be grasped by and turned with a revolving holder, a pointer carried by said means and free to turn in all directions about a fixed center, and a disk carried by said means and having concentric circles and a central spot marked thereon, said spot being in alinement with said center of said pointer and with the center of rotation of said holder.

2. The combination in a center and axis indicator of a case provided with sight-openings and with a closed end, having a socket, a ball free to turn in all directions in said socket, a pointer passing through said ball and closed end and a disk located in said case and having concentric circles and a central spot marked thereon, said spot being in alinement with the axis of rotation of said case and with the center of said ball.

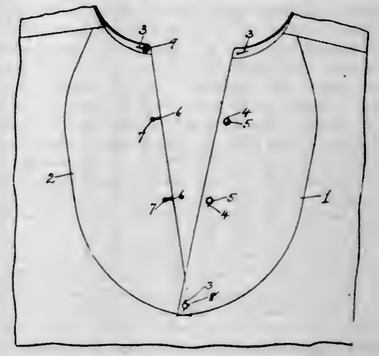
3. The combination in a center and axis indicator of a case provided with sight-openings and with a closed end, having a socket, a ball free to turn in all directions in said socket, a pointer passing through the center of said ball and being free to move longitudinally in said ball, a disk arranged in said case and having concentric circles and a central spot marked thereon, said spot being in alinement with said center of said pointer and with the center of said ball, and elastic means for pressing said needle away from said disk.

4. The combination in a center and axis indicator of a case provided with sight-openings and with a closed end and having a socket, a ball free to turn in all directions in said socket, a pointer passing through said ball and closed end, a disk located in said case and having concentric circles and a central spot marked thereon, said spot being in alinement with the center of said pointer and with the center of rotation of said case, and an annular mirror arranged within said case around said pointer and opposite said disk.

5. The combination in a center and axis indicator, of a case provided with sight-openings and having a socket, a ball free to turn in all directions in said socket, a pointer passing through said ball and projecting from said ball and socket, a disk located in said case and having concentric circles and a central spot marked thereon, said spot being in alinement with the center of said pointer, and a female center adapted to be secured on said projecting end of said pointer.

[Claim 6 not printed in the Gazette.]

1,141,397. OPEN-BOSOM DRESS-SHIRT. HOWARD S. KENNEDY and CHARLES M. CONNOLLY, Troy, N. Y., assignors, by mesne assignments, to Cluett, Peabody & Co., Inc., Troy, N. Y., a Corporation of New York. Filed June 16, 1911. Serial No. 633,472. (Cl. 2—41.)

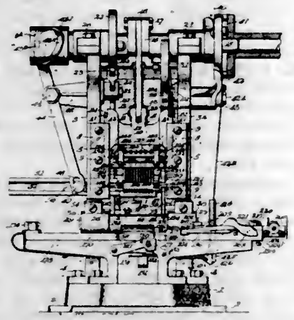


1. An open-front dress-shirt having inner and outer bosom-members provided with means for securing together said members at top and bottom, one of said means being pivotal, said outer member being provided intermediately of its ends with a stud-hole, and said inner member being provided with a notch extending inward from its edge, and terminating in an eyelet-end opposite said stud-hole in the outer member.

2. An open-front dress-shirt having inner and outer bosom-members provided with means for securing together said members at top and bottom, one of said means being pivotal, said outer member being provided intermediately of its ends with a stud-hole, and said inner member being provided with a V-shaped notch extending inward from its edge, and terminating in an eyelet-end opposite said stud-hole in the outer member.

3. An open-front dress-shirt having inner and outer bosom-members provided with means for securing together said members at top and bottom, said outer member being provided intermediately of its ends with a stud-hole, and said inner member being provided with a notch extending inward from its edge, and terminating in an eyelet-end opposite said stud-hole in the outer member, said inner bosom-member having thickened portions adjacent to the outer side of said eyelet-end.

1,141,398. BRUSH-MAKING MACHINE. FRANK E. KRESS, Denver, Colo. Filed Aug. 12, 1913. Serial No. 784,417. (Cl. 15—7.)



1. In a brush making machine, the combination with a support for a brush back, provided with a plurality of bristles receiving apertures, of a supporting frame, a hopper supported by said frame, provided with a weight controlled force feed plate, said hopper being arranged to receive bristles stacked on end and arranged vertically, a comb device at the discharge end of said hopper provided with pin teeth arranged to extend into the bristles and divide them into independent groups at the discharge end of said hopper, a reciprocating separator arranged to separate said groups of bristles from said comb and hopper, a toothed bundler bar on said separator arranged to swing up from said separator and engage said separated groups of bristles and separate them from the grouping comb of the hopper into bundles, a bundle gripping device and carrier arranged to grip the bundles when in the bundler and to convey them in operative relation to a brush back on said apertured support, said gripper comprising means including a fixed hooked bar and a reciprocating hooked tooth bar arranged to surround and grip to said bundles, and means including reciprocating needles and guide sleeves for inserting said bundles in the bristles receiving apertures of said brush back.

2. In a brush making machine, the combination with a supporting frame, an apertured-block on said frame adapted to support a correspondingly apertured brush back in position to receive the brush making bristles or hair, of a pressure feed hopper connected to said frame, means including a comb device for dividing the bristles at the discharge end of said hopper into individual groups, means including a shuttle device for separating said groups of bristles from said hopper and for assembling them into bundles, means including an oscillating bundle gripping device for gripping said bundles at the shuttle and conveying them in inserting relation to said brush back, guide sleeves on said oscillating gripping device arranged in alinement with the bristles receiving apertures of said brush back, and reciprocating plunger needles arranged to push said bundles through said guide sleeves into the apertures in said brush back.

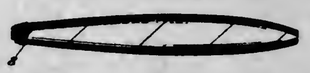
3. In a brush making machine, the combination with a supporting frame, a crank-shaft mounted on said frame, a power driven clutch arranged to rotate said crank shaft, means including spring controlled pawls for automatically throwing said clutch out of engagement with said crank shaft at two predetermined points in its rotative movement, a die block on said frame adapted to receive a brush back, provided with rows of bristles receiving apertures and also with wire receiving apertures in one end, a reciprocable wire gripping device arranged to insert a wire in the apertures in said back, a bristles holding and feeding hopper on said frame, means including a graduating feed plate at the discharge end of said hopper, means including a reciprocating shuttle device and an oscillating separator and bundler attached to said shuttle for grouping said bristles into bundles, means including an oscillating plate, a fixed hooked tooth bar on said plate and a reciprocating hooked tooth plate arranged to coöperate with the fixed bar to surround and grip the bundles and convey them in operative relation to said bristle receiving back, and means including guide sleeves adapted to receive said bundles and reciprocating needles arranged to push said bundles down through said sleeves into the bristles receiving apertures of said back, and means connected with said wire inserting device for inserting a piece of wire in said back in engagement with said bundles whereby they are secured in the apertures of said back against accidental displacement.

4. In a brush making machine, the combination of a base plate, a pair of standards mounted on said base plate, a crank shaft journaled in the upper end of said standards, a cam mounted on and secured to said crank shaft, a crank arm pivotally secured to the adjacent standard and provided with a roller at one end which is in engagement with said cam, a lever pivotally connected at one end to the opposite end of said crank arm, a hub provided with trunnion shaft portions journaled in said standards below said crank shaft, a lug projecting from said hub, said lug being pivotally connected at its outer end to the opposite end of said lever, a plate portion projecting from the opposite side of said hub from said lug, said hub and plate having an oscillating reciprocating movement about a quarter of a circle, said cam and rock arm and lever being arranged to swing said plate from a vertical position down to a horizontal position on the downward stroke of its swinging movement, a bristles holding and feeding hopper supported by said frame having its feed end adjacent to the vertical position of said plate, means including a reciprocable device for separating and bundling the bristles in operative quantities from said hopper, means including a cam mounted on said crank shaft and a lever pivotally connected to a lug portion of said hub and provided with a roller at its opposite end for raising intermittently said plate on the upward swinging stroke of its oscillating reciprocating movement, a bundle gripping device on the outer end of the plate of said hub, means including a cam lug and lever mechanism for locking said gripping device when in operative relation to said bundler, and bundle receiving guides on said plate at the side of said gripping device, and arranged to receive bundles of bristles from it, and means for rotating said crank shaft.

5. In a brush making machine, the combination with a support adapted to receive a brush back, of a supporting bed plate, standards secured to said bed plate, a vertically reciprocating cross-head slidably mounted in said standards, a connecting rod pivotally connected at one end to said cross-head and pivotally connected to the crank portion of said crank shaft at its opposite end, a set of bundle engaging and inserting needles mounted in said cross-head, each of said needles being removably secured to said cross-head and provided with flattened chisel ends containing a tapering recess extending transversely across the flat edge of each needle, a bristles receiving hopper mounted on said frame, means including a comb and a separator for adjustably feeding bristles from said hopper, and for grouping them into bundles, a bundle gripping device arranged to grip the bundles adjacent to said separator, and carry them in operative inserting relation to said brush back guide apertures for said needles, and means for imparting a reciprocating movement to said cross-head and operative movement to its coöperative mechanism.

[Claims 6 to 25 not printed in the Gazette.]

1,141,399. CIGAR AND PROCESS OF MAKING SAME. WILLIAM L. LIGETY, New York, N. Y., assignor to Rosalie H. Ligety, Brooklyn, N. Y. Filed May 1, 1914. Serial No. 835,595. (Cl. 131—52.)



1. A cigar comprising a body portion and an exterior tobacco wrapper wrapped about the body portion, having a portion extending beyond the end of the body portion forming a strand coiled about the end of the cigar as a core in a plurality of convolutions, whereby the end of the wrapper is retained in position and protectively reinforced.

2. A cigar comprising a body portion and an exterior tobacco wrapper wrapped about the body portion, having a portion extending beyond the end of the body portion forming a strand coiled about the end of the cigar as a core in a plurality of convolutions, the end of said strand being tucked underneath the adjacent convolution, whereby the end of the wrapper is retained in position and protectively reinforced.

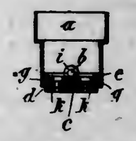
3. A cigar comprising a body portion and an exterior tobacco wrapper wrapped about the body portion, having a portion extending beyond the end of the body portion forming a strand coiled about the end of the cigar as a core in a plurality of contiguous convolutions, the end of said strand being tucked underneath the adjacent convolution, whereby the end of the wrapper is retained in position and protectively reinforced.

4. A cigar comprising a body portion and an exterior tobacco wrapper wrapped about the bolt portion, said wrapper having a portion extending beyond the body portion including a strengthening vein, and forming a strand coiled about the end of the cigar as a core in a plurality of convolutions, whereby the end of the wrapper is retained in position and protectively reinforced.

5. The method of making a cigar consisting in winding a tobacco leaf about the body portion so as to leave a portion projecting beyond the end of the body portion, twisting the projecting portion into a strand, winding said strand about the end of the cigar as a core in a plurality of convolutions and securing the end of the strand in place upon the body of the cigar.

[Claims 6 to 9 not printed in the Gazette.]

1,141,400. CAP FOR INCANDESCENT LAMPS. AIMÉ MARIN, Vitry-sur-Seine, France. Filed July 8, 1913. Serial No. 777,817. (Cl. 176—32.)



1. Caps for incandescent electric lamps, having a shaped socket and an insulating disk forming the bottom of the cap, said insulating disk being of hardened cardboard, said socket being of aluminum, said metal socket being tightened upon said disk, said disk being provided with diametrically opposite recesses, said cardboard disk allowing the metal of the socket to be tightened upon the disk, the latter being adapted to maintain its integral form under the tightening pressure, said socket having gudgeons adapted to fit in said recesses.

2. Caps for incandescent electric lamps, having a shaped socket and an insulating disk forming the bottom of the cap, said insulating disk being of hardened cardboard, said socket being of aluminum, said metal socket being tightened upon said disk, said disk being provided with diametrically opposite recesses, said cardboard disk allowing the metal of the socket to be tightened upon the disk, the latter being adapted to maintain its integral form under the tightening pressure, said socket having gudgeons adapted to fit in said recesses, said gudgeons having collars integral thereon adapted to fit and be held between said socket and disk.

1,141,401. FILING APPLIANCE. THOMAS G. MAXWELL, Alliance, Ohio, assignor, by mesne assignments, to The McCaskey Register Company, (incorporated in 1914,) Alliance, Ohio, a Corporation of Ohio. Filed Dec. 17, 1908. Serial No. 468,005. (Cl. 45—2.)

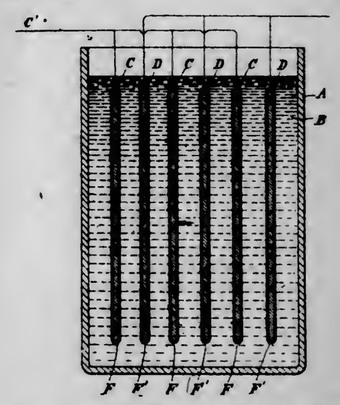


1. In an account appliance, the combination of a slip holding leaf or frame, U-shaped strips secured thereto to form pockets on the said leaf or frame and means for securing slips upon the said leaf or frame.

2. In an account appliance, the combination of a pivotally mounted bill holding leaf, U-shaped strips secured thereto to form pockets on the said leaf, and a rubbing bar supported by each of said strips.

3. In a filing appliance, the combination of a bill holding leaf adapted to swing from one position to another, a U-shaped strip secured to said leaf to form a pocket, and a rubbing bar arranged in said pocket, the side members of said strip terminating in a plane co-incident with the face of said bar.

1,141,402. ELECTROLYTIC APPARATUS EMPLOYING FILMED ELECTRODES. RALPH D. MERSHON, New York, N. Y. Filed June 19, 1913. Serial No. 774,562. (Cl. 175—315.)



1. An electrolytic apparatus comprising a containing vessel, electrodes therein having heat-resistant electrolytic films, and an original electrolyte contained in the vessel and immersing the electrodes.

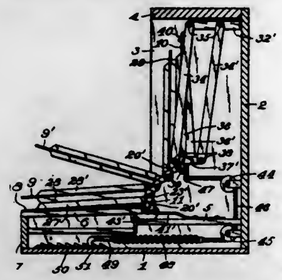
2. An electrolytic apparatus comprising a containing vessel; electrodes therein coated with heat-resistant, electrolytic films; and an original electrolyte in the vessel, immersing the electrodes and containing a film-producing material in solution.

3. An electrolytic apparatus comprising a containing vessel; electrodes therein, coated with heat-resistant electrolytic films; and an original electrolyte in the vessel, containing borax.

4. An electrolytic condenser comprising a containing vessel; aluminum electrodes therein, coated with heat-resistant electrolytic films; and an original electrolyte in the vessel.

5. An electrolytic condenser comprising a containing vessel; aluminum electrodes therein, coated with heat-resistant electrolytic films; and an original electrolyte in the vessel, containing borax and a free acid.

1,141,403. FILING APPLIANCE. EMERSON B. MOSELEY, Alliance, Ohio, assignor, by mesne assignments, to The McCaskey Register Company, (incorporated in 1914,) Alliance, Ohio, a Corporation of Ohio. Filed Apr. 8, 1908. Serial No. 425,915. (Cl. 45—2.)



1. Filing appliances including a case, a pair of pivoting hooks mounted in the case with the loops of the hooks rearward of the points thereof, a plurality of bill-holding leaves arranged as a group, connections between the leaves permitting them to swing relatively to each other, one end leaf of the series of leaves having pivots removably connected to the pivoting hooks, means for supporting the opposite end leaf of the series of leaves, and a spring connected with the case and having operative connection with one of the end leaves and acting to cause pressure between the pivots and the loops of the hooks to normally hold the leaves in substantially upright positions.

2. Filing appliances including a case, a pair of pivoting hooks mounted in the case with the loops of the hooks rearward of the points thereof, a plurality of bill-holding leaves arranged as a group, the foremost and rearmost leaves being outer leaves of the group, means loosely connecting the leaves one to another, all the leaves being normally upright in the case, the foremost one of the leaves having a pair of pivots connected to the pivoting hooks, all the leaves being movable to horizontal positions, means supporting the rearmost one of the leaves, a spring connected with the case, and means serving to connect the spring operatively with one of the outer leaves, the spring acting to cause pressure between the pair of pivots and the loops of the pair of hooks to normally hold the leaves in substantially upright positions.

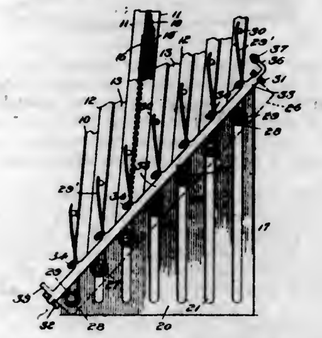
3. In a filing appliance, the combination of a plurality of leaves, means for normally supporting the leaves as a whole uprightly in echelon comprising a relatively stationary support for one end leaf, a movable support for the other end leaf, and means connecting the normally lower ends of the leaves loosely together; whereby the leaves are suspended between the supports and are permitted to form a rectangular pack as they are swung from upright to reclined position.

4. Filing appliances including a series of leaves arranged as a normally upright group, a series of hinge-rods having each a pair of links rigid thereon and connecting the normally lower ends of the leaves together, the hinge rods being rotatively connected each to a leaf, and the links connected pivotally to an adjacent leaf.

5. Filing appliances including a case, a series of leaves grouped uprightly in the case and the rearmost one of the leaves supported in the case, and means connecting the normally lower ends of the leaves loosely together whereby the leaves intermediate of the foremost and rearmost leaves are suspended in echelon relative to the rearmost one of the leaves, the foremost one of the leaves being pivotally connected with the case.

[Claims 6 to 17 not printed in the Gazette.]

1,141,404. FILING APPLIANCE. EMERSON B. MOSELEY, Alliance, Ohio, assignor, by mesne assignments, to The McCaskey Register Company, (incorporated in 1914,) Alliance, Ohio, a Corporation of Ohio. Filed June 11, 1908. Serial No. 437,998. (Cl. 45—2.)



1. An account register having in combination a plurality of bill holder frames of uniform size, each provided with pivots adjacent one edge thereof, and means for supporting the frames when in use with their free ends in stepped relationship to each other, said means comprising series of pivotal bearings arranged in an inclined plane and adapted to receive the respective pivots of the bill holder frames and series of guides, each terminating at one end in one of said pivotal bearings and having its other end in a plane at an angle to the inclined plane of said pivotal bearings.

2. In an account register, the combination of a plurality of bill holder frames of uniform size, pivots for each of said bill holder frames adjacent one edge thereof, and a series of guides for said frame pivots by which said frames, single or in groups, may be guided to and fro from a position in which they are in substantially a rectangular pack to one in which their free ends are in stepped relationship to each other, each said guide terminating in a pivotal bearing to receive the frame pivot guided by it, and said pivotal bearings being arranged in an inclined plane to position and support said frames with their free ends in stepped relationship to each other.

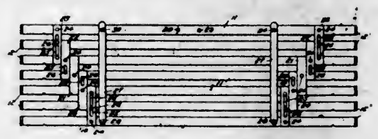
3. In an account register, the combination of a plurality of bill holder frames of uniform size, pivots for each of said bill holder frames adjacent one edge thereof, a series of pivotal bearings uniformly spaced apart in an inclined plane, and means for guiding said frames from a substantially rectangular pack relationship to each other into position with their respective pivots supported in the pivotal bearings of said inclined series and their free ends uniformly spaced apart in stepped relationship to each other.

4. An account register comprising a plurality of bill carrying frames of uniform size having at opposite sides laterally extending pivots, a connecting and positioning frame having two series of pivot guides arranged one at either side of said bill carrying frames, the ends of the guides of each series terminating in stepped relation to each other from front to rear, and the pivots on said bill carrying frames entering corresponding guides in said positioning and connecting frame, and means for retaining said bill carrying frames with their pivots at the said ends of their respective guides, which are in stepped relationship to each other, and oscillatable about the axes of their pivotal connections respectively.

5. An account register comprising a plurality of uniform sized bill carrying frames having at opposite sides laterally extending pivots, supporting means for said frames comprising two members arranged at opposite sides of said frames, each of said members having a series of slots, and each slot of one series forming with a slot of the other series a pair of guides arranged to slidably receive the pivots of an adjacent bill carrying frame, and each slot having a closed end stepped relative to the closed ends of adjoining slots and forming a bearing for one pivot of the adjacent frame, whereby the latter is oscillatable about the axes of its pivots, and means for retaining the pivots of each frame at the bearing ends of the adjacent slots.

[Claims 6 to 30 not printed in the Gazette.]

1,141,405. FILING APPLIANCE. EMERSON B. MOSELEY, Alliance, Ohio, assignor, by mesne assignments, to The McCaskey Register Company, (incorporated in 1914,) Alliance, Ohio, a Corporation of Ohio. Filed July 30, 1908. Serial No. 446,185. (Cl. 45—2.)



1. In a filing appliance, the combination of a series of frames, a series of bases, one for each frame, means for pivoting each frame to an adjacent base, and two sets of paralleling bars, each bar of each set being secured to a base and extending to or beyond the means which secure an adjoining bar to a base and having sliding engagement with an adjoining bar or bars, the bars of one set being arranged side by side relative to each other oppositely to the relative arrangement of the bars of the other set.

2. In an accounting appliance, the combination of a series of bill holding leaves, a series of bases, one for each leaf, means for pivoting the leaves upon the bases, two series of paralleling bars, each series being arranged near the opposite ends of the bases, and means for securing each of said bars of a series to an adjacent base, each of said bars extending to or beyond the means which secure an adjoining bar to a base when the bases and leaves are in operative position.

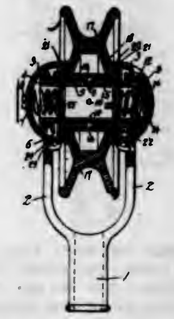
3. In an accounting appliance, the combination of a series of bases, a series of bill holding leaves one for each base and arranged parallel thereto, means for pivotally mounting each of said leaves upon a base, and a series of cross bars each secured to certain of the said bases, arranged to permit the bases to move relative to each other but maintaining them in parallelism, each of said cross bars extending transversely across three of said bases, when the bases and leaves are in operative position, and means carried by one end base and having detachable connection with the other end base for securing the leaves and bases in separated position or in closed position.

4. In an accounting appliance, the combination of a series of bases, a series of bill holding leaves, means for pivotally mounting each of said leaves upon a base, and means for maintaining the said bases in parallelism and permitting them to be separated from each other, the said means comprising a series of cross bars slidably mounted relative to each other, and means for securing each of said bars to a base, each of said bars extending to or beyond the means for securing an adjoining bar to a base, and means carried by one end base and having detachable connection with the other end base for maintaining the bases in closed position when the leaves and bases are arranged for storage, or in separated position when the leaves and bases are arranged for operation.

5. In an account register, the combination of a set of swinging bill-holding frames, a supporting base therefor comprising a bar for each frame having up-turned ends in which the frame is pivoted, cross pieces located near the respective ends of the supporting frame, each cross piece being rigidly connected to one of the supporting bars and overlying another, the cross pieces having sliding connection with those bars to which they are not rigidly secured, and arranged while connecting the bars to permit them to be either separated or brought close together side by side, and adjustable latches arranged, when adjusted to one position, to hold the bars separated and when adjusted to another position to hold them together side by side, substantially as set forth.

[Claims 6 to 9 not printed in the Gazette.]

1,141,406. TROLLEY-WHEEL. JAMES C. OLLARD, Tacoma, Wash. Filed Mar. 3, 1913. Serial No. 751,745. (Cl. 64—66.)



1. In a device of the class described, the combination with a harp having complementary semispheroidal cups formed on the ends of its tines, one of said cups having a wall dividing it into a central chamber and a surrounding annular chamber, the other cup having a hole corresponding with the central chamber; and an axle extending between the cups and mounted in the central chamber and in the hole and having an end plate closing said hole.

2. In a device of the class described, the combination with a harp having complementary semispheroidal cups formed on the ends of its tines, one of said cups having a wall dividing it into a central chamber and a surrounding annular chamber, the other cup having a hole corresponding with the central chamber; an axle extending between the cups and mounted in the hole and in the central chamber; and a removable cap fitting in said hole and completing the shape of the cup.

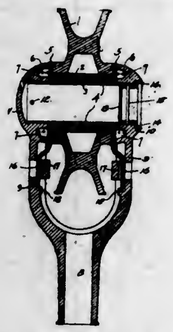
3. In a device of the class described, the combination with a harp having cups formed on the ends of its tines, one of said cups having a large central hole therethrough; circular walls formed in said cups and adapted to form an annular chamber in each cup; a hollow shaft engaged and held by said circular walls and of smaller diameter than the hole through the one cup; and a cap fitting in said hollow shaft and in the hole in the cup to close them.

4. In a device of the class described, the combination with a harp having cups formed on the ends of its tines, one of said cups having a large central hole therethrough; circular walls formed in said cups and adapted to form an annular chamber in each cup; a hollow shaft engaged and held by said circular walls and of smaller diameter than the hole through the one cup; a cap fitting in said hollow shaft and in the hole in the cup to close them; and a pin secured in said circular wall adjacent the cap and passing through the hollow shaft wall and through the cap fitting therein whereby the said shaft and cap are held from movement in the harp.

1,141,407. TROLLEY-HARP. JAMES C. OLLARD, Tacoma, Wash. Filed Apr. 8, 1914. Serial No. 830,376. (Cl. 64—66.)

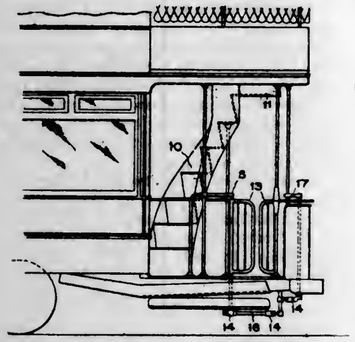
1. In a trolley harp, the combination with a shank adapted to be fastened on a trolley pole; a pair of tines extending from the shank; annular spring-retaining chambers formed in each tine; a pair of loose plates closing said spring-retaining chambers; a lug extending down from each of said plates; a shoulder formed on each tine whereon said lug rests; and a loop formed on each tine, through which said lug passes, whereby said plate is loosely held in front of said spring-retaining chamber.

2. In a trolley harp, the combination with a shank adapted to be fastened on a trolley pole; a pair of tines extending from the shank; annular spring-retaining chambers formed in each tine; a pair of loose plates closing



said spring-retaining chambers; a lug extending down from each of said plates; and means formed on the tines and adapted to be engaged by the lug, whereby said plates are loosely held in front of said spring-retaining chambers.

1,141,408. PASSENGER-VEHICLE. ABRAM FRANK PAUL, Philadelphia, Pa., and ARNOLD J. TANNER, North Haven, Conn., assignors to Prepayment Car Sales Company, New York, N. Y., a Corporation of West Virginia. Filed Sept. 19, 1913. Serial No. 790,700. (Cl. 105—199.)



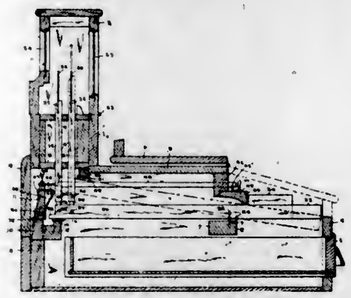
1. A double deck passenger vehicle having an end platform and a stairway thereon the lowest step of the stairway being adjacent to the end bulkhead of the vehicle which atairway is located wholly on one side of the car and rises toward the end of the car and an exit on the same side of the car under the top landing of said stairway, substantially as described.

2. A double deck passenger vehicle having an end platform and a stairway thereon the lowest step of the stairway being adjacent to the end bulkhead of the vehicle which stairway rises toward the end of the car, an exit at the side of the car under the top landing of said stairway, a gate or barrier for opening and closing the exit and mechanism consisting of a handle, links, and levers for operating the gate from a distant point, substantially as described.

3. A passenger vehicle having a body portion and an end platform with an intervening bulkhead, a rail or barrier on the platform dividing the same into entrance and exit spaces communicating with entrance and exit steps on one side of the platform, a stairway located on the other side of the platform within the entrance space with the base of the stairway opposite the exit step, a passage defined from the lowest step of the stairway to the said exit step, the stairway rising away from the said bulkhead, and an exit on the same side of the car with the stairway and located beneath the top landing of the stairway, substantially as described.

4. A passenger vehicle having a platform divided into separate entrance and exit spaces by means of a barrier which establishes a conductor's position and a "pay-point" for passengers, and a stairway on the platform located within the entrance space and having its lower step opposite the exit space only and beyond the "pay-point" and opposite a defined passageway leading to the exit step aforesaid, substantially as described.

1,141,409. EDUCATIONAL APPLIANCE. JAMES E. PEOPLES, Alva, Okla. Filed May 16, 1914. Serial No. 839,116. (Cl. 35—9.)



1. An indicating device comprising a sectional casing, transverse supporting bars connected to one of the sections of said casing, a hinged member attached on one of the said transverse bars, a spring operating device connected to said hinged member, means to lock said hinged member against the operation of said spring, vertical bars supporting indicating devices, and means upon said hinged member to lock said vertical supporting bars in elevated position, said last mentioned locking means being released upon the operation of said first mentioned locking means.

2. An educational device comprising means to elevate educational characters, hinged means to retain said educational characters in elevated position, means to release said retaining means, and means to lock said retaining means against movement upon its hinges.

3. An educational device, comprising operating means, supporting means, indicating means mounted in said supporting means having like indications upon the opposite faces thereof, hinged means to lock said supporting means in an elevated position and spring actuated means to release said locking means.

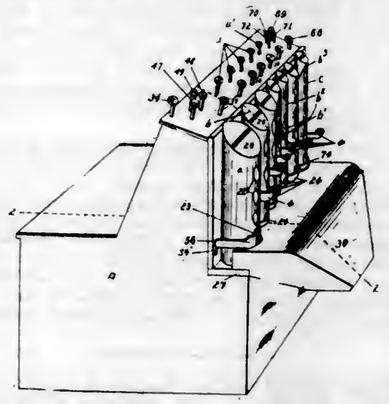
4. An educational device comprising a plurality of pivoted operating devices, a plurality of supporting devices connected to said operating devices, a plurality of of double faced indicating devices mounted in said supporting devices, a hinged device having a plurality of locking means to lock said supporting devices in an elevated position, and means to release said locking means.

5. An educational device comprising a casing, double faced indicating devices housed in said casing, operating means to elevate said indicating devices into view, a pivoted device supporting a plurality of locking means, said locking means being flexible against action in one direction and inflexible against action in the opposite direction, and means to shift said locking means out of operative position.

1,141,410. CHANGE-MAKING AND COIN-DISPENSING MACHINE. JAMES A. PLOPPER, Portland, Oreg. Filed Feb. 7, 1913. Serial No. 746,971. (Cl. 133—2.)

1. In a change-making machine, an ejector bar reciprocable for ejecting a coin; means for automatically returning the ejector-bar to its initial position; a lateral projection on the ejector bar inclined from the horizontal; a pawl, such pawl provided with a lateral head; and said

engaging projections of the ejector bar and the pawl arranged to tilt the former during its return movement after having been operated to eject a coin.



2. In a change-making machine, an ejector bar reciprocable for ejecting a coin; means for automatically returning the ejector bar to its initial position; a lateral projection on the ejector bar; and a pawl overlying the ejector bar, such pawl provided with a lateral head formed with a pendent serrated flange arranged for engaging with the lateral projection of the ejector bar on the return movement of the latter after having been operated to eject a coin, if the latter action is not compieted.

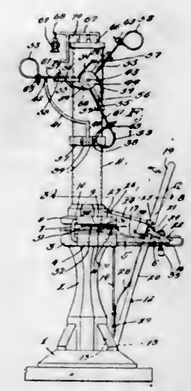
3. In a change-making machine, an ejector bar reciprocable for ejecting a coin; means for automatically returning the ejector bar to its initial position; a lateral projection on the ejector bar; a pawl overlying the ejector bar, such pawl provided with a lateral head formed with a pendent serrated flange arranged for engaging with the lateral projection of the ejector bar on the return movement of the latter after having been operated to eject a coin, if the latter action is not completed; and said engaging projections of the ejector-bar and the pawl also arranged to tilt the former during its return movement after having been operated to eject a coin.

4. In a change-making machine, an ejector bar reciprocable for ejecting a coin; means for automatically returning the ejector bar to its initial position; a lateral projection on the ejector bar inclined from the horizontal; a pawl overlying the ejector bar, such pawl provided with a lateral head formed with a pendent serrated flange arranged for engaging with the lateral projection of the ejector bar on the return movement of the latter after having been operated to eject a coin, if the latter action is not completed; and said engaging projections of the ejector-bar and the pawl also arranged to tilt the former during its return movement after having been operated to eject a coin.

5. In a change-making machine, individual ejector mechanism for the respective coins; connections between the individual mechanisms so arranged that the operation of any one of the keys will simultaneously operate the ejector mechanisms of all coins of lesser denomination than that marked on such key, but not the ejector mechanism of the coin having the same denomination as that marked on such key; key-operated deductor mechanism, whereby the individual ejector mechanism may be placed in a state for being excluded from said simultaneous action; automatic means for returning to normal state the individual ejector mechanism acted upon by said deducting mechanism, such automatic means arranged to operate after the ejector mechanism has operated to eject a coin; and manual, supplemental, resetting means, whereby all the individual ejector mechanisms acted upon by said deducting mechanisms may be restored to normal state independently of said automatic means.

[Claims 6 to 17 not printed in the Gazette.]

1,141,411. AUTOMATIC TRAIN-ORDER CRANE. DAVID A. POOL, Maceo, Ky. Filed Oct. 3, 1914. Serial No. 864,752. (Cl. 258—2.)



1. In a despatch delivering apparatus, a crane, a revoluble spring tensioned reel having radially extending spokes and provided with detachable despatch holding loops, a spring tensioned T-shaped dog carried by each spoke to clamp the shank of the loop in position on the spoke.

2. In a despatch delivering apparatus, a crane, a revoluble spring tensioned reel having radially extending spokes and provided with detachable despatch holding loops, a spring tensioned T-shaped dog carried by each spoke to clamp the shank of the loop in position on the spoke, means to support the shank of the loop to hold the reel against rotation by the spring tensioned means.

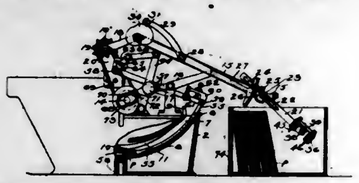
3. In a despatch delivering apparatus, a crane, a revoluble spring tensioned reel having radially extending spokes and provided with detachable despatch holding loops, a spring tensioned T-shaped dog carried by each spoke to clamp the shank of the loop in position on the spoke, means for removing the crane to a lateral position closer to a train, a device for holding the crane in such position, said spring tensioned means of the reel mechanism including means having connections to actuate said device to release the crane, and means for returning the crane to its normal position.

4. In a despatch delivering apparatus, a supporting column having guide ears, a U-shaped slide mounted in said ears, a bar connected to the column and having a U-shaped portion straddling said slide, a latch on the U-shaped portion, a crane including a mechanism for holding a pluralty of despatch holding loops, and supported upon the slide, connections between the crane, and the slide, including a spring tensioned operating lever in said connections, for moving the crane and the slide laterally, a device on the lever to be engaged by said latch to hold the crane and the lever in an adjusted position, said mechanism of the crane including means having connections to actuate the latch to release the lever, as a despatch holding loop is detached.

5. In a despatch delivering apparatus, a supporting column having guides thereon, a slide mounted in the guides, a bar connected to the column having a loop portion receiving said slide, a latch on the loop portion, a crane including a mechanism for holding a plurality of despatch holding loops and mounted upon the slide, connections between the crane and the slide, an oscillatory member in the connection for moving the crane and the slide laterally, said oscillatory member having means to be engaged by said latch to hold the crane in an adjusted position, and means actuated by said mechanism to operate the latch to release said oscillatory member, as a despatch holding loop is detached.

[Claim 6 not printed in the Gazette.]

1,141,412. MANIPULATION OF SHEET-METAL PLATES. ELMER C. POOL, New Castle, Pa. Filed Apr. 14, 1908. Serial No. 427,046. (Cl. 91—12.6.)



1. The combination with a machine for tinning metal plates, of a magnet operating to move plates one by one from a pile in which the plates bear one against another, and means for moving the magnet to deliver the plate carried thereby to the tinning machine.

2. The combination with a machine for tinning metal plates, and a support for a pile of plates to be delivered to the machine with the plates of the pile in face-wise engagement one with another, of a magnet adapted to engage the exposed face of the outermost plate of the pile and with said plate constituting an armature for the magnet, the magnet including means for spreading the magnetic lines of force in the direction of the plane of the magnet-engaged surface of the plate for substantially confining said lines to the engaged plate, and means for moving the magnet to deliver the plate carried thereby to the tinning machine.

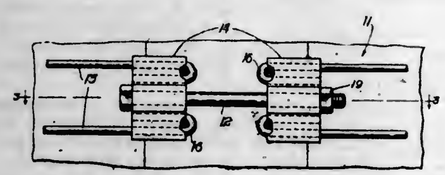
3. The combination with a machine for tinning metal plates, of a magnet adapted to engage the exposed face of the outermost plate of a pile of plates with the engaged plate constituting an armature for the magnet, the magnet including means for spreading magnetic lines of force in the direction of the plane of the magnet-engaged surface of the plate for substantially confining said lines to the engaged plate, and means for moving the plate-carrying magnet relatively to the tinning machine.

4. The combination with a tinning machine, of a magnet carrier, means for moving the carrier relatively to the machine, and plate-lifting magnets mounted on the carrier, each magnet having elongated pole-terminals for engaging the plates.

5. The combination with a tinning machine, of a carrier consisting of inner and outer parts jointed together to afford movement of the outer part on the inner part, mechanism operatively connected to the inner part for moving the jointed carrier relatively to the machine, means for moving the outer part of the carrier relatively to the inner part thereof, and plate-moving means supported by the outer part of the carrier.

[Claims 6 to 24 not printed in the Gazette.]

1,141,413. HOOP FOR SILOS AND LIKE TANKS. ANDREW RASMUSSEN, Racine Junction, Wis., assignor to Peerless Silo Supply Co., Racine, Wis., a Corporation of Wisconsin. Filed Mar. 13, 1914. Serial No. 824,365. (Cl. 217—95.)

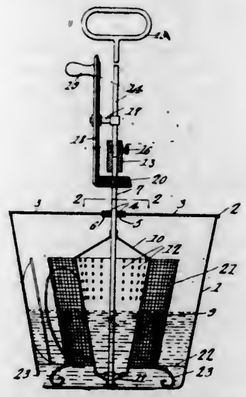


1. A hoop for a silo and like tank comprising a plurality of sections arranged end to end and constituting the principal length of the hoop, each section consisting of separate twin hoop members and end fittings to the opposite sides of which the ends of the hoop members are attached, and hoop tighteners extending between and attached to adjacent end sections between the ends of the twin members to draw the hoops together and to equalize the tensioning of the hoop members about the tank.

2. A hoop for a silo and other tanks comprising separate twin hoop members, constituting the principal length of the hoop, fittings extending across the ends of said members and provided at opposite sides with openings to receive the ends of the hoop members, whereby they are attached to said fittings, said fittings being provided centrally between said openings with other openings to receive a tension member, and a tension member extending through the latter openings to draw the hoop ends together and to equalize the tensioning of the hoop members about the tank.

3. A hoop for a silo and other tanks composed of twin hoop members, fittings at the ends thereof, said fittings being provided with openings through which said membes extend and provided with other openings, and the ends of the members being bent back upon themselves to enter said latter openings, whereby to attach said members to said fittings, said fittings being further provided between the twin members with other openings and hoop fasteners extending through the latter openings to draw the hoop ends together and to tighten the hoop about the tank.

1,141,414. DISH-WASHER. GABRIEL F. RAY, Roswell, N. Mex. Filed Mar. 17, 1914. Serial No. 825,347. (Cl. 141—9.)



1. An agitating device comprising a receptacle, a cover therefor including separable sections, the cover sections having coöperating notches forming an opening, a bearing disposed within the said opening and having a peripheral groove engaging the edge portions of the said notches and providing flanges overlapping the top and bottom of the cover sections, a bearing secured upon the bottom of the receptacle, a shaft journaled through the first mentioned bearing and having its lower end journaled within the second mentioned bearing, and an agitator carried by the shaft within the receptacle.

2. An agitating device comprising a receptacle having a cover, an upright rotary shaft journaled through the cover and having its lower end journaled upon the bottom of the receptacle, an agitator carried by the shaft within the receptacle, an upright spindle having a handle at its upper end, the lower end of the spindle and the upper end of the shaft having inter-engageable means for enabling the spindle to be detachably mounted upon the shaft, an actuating mechanism carried by the spindle, and means carried by the shaft engageable with the said mechanism when the spindle is assembled with the shaft, to enable the shaft to be rotated.

1,141,415. PROJECTILE. WILLIAM KING RICHARDSON, Leavenworth, Kans. Filed Mar. 20, 1915. Serial No. 15,773. (Cl. 102—28.)

1. A hollow projectile provided with a cap, a cylindrical portion, and a detachable hollow base whose walls are substantially of the same thickness as the main projectile walls, and having an inwardly inclined wall terminating in a reduced diameter at right angles to the axis of the projectile and having a reduced unobstructed opening through its rear wall communicating with the free interior air space of said base.

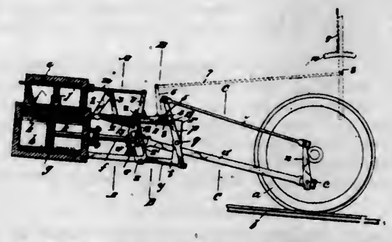


2. A hollow projectile provided with a cap that has an ogive greater than the ogive of the shot upon which it is mounted, a cylindrical portion that but slightly exceeds in length the caliber of the projectile, and a beveled base.

3. A hollow projectile provided with a cap the ogive of which is struck on at least 6 caliber radius, a cylindrical portion of less diameter than the bourrelet that but slightly exceeds in length the caliber of the projectile, and a beveled base terminating in a reduced diameter.

4. A hollow projectile provided with a sharp pointed cap having a central longitudinal recess of uniform diameter on its inner face to intersect with the hardened point of the shot upon which the cap is mounted, a cylindrical portion that but slightly exceeds in length the caliber of the projectile and less diameter than the bourrelet, and a beveled base.

1,141,416. VALVE-GEAR. GEORGE F. RICHART, Grand Junction, Colo. Filed Aug. 7, 1913. Serial No. 783,516. (Cl. 121—99.)



1. A valve-gear comprising a link; a pair of swinging arms linked thereto; and an eccentric-rod which controls one of said arms.

2. A valve-gear comprising a link; a pair of swinging arms between which said link is interposed and to which the same is linked; and an eccentric-rod which controls one of said arms.

3. A valve-gear comprising a link; a pair of swinging arms linked thereto and together; and an eccentric-rod which controls one of said arms.

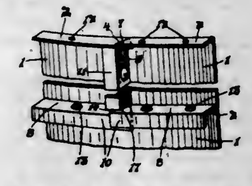
4. A valve-gear comprising a link; a lead-and-lap lever; a motion-arm; a reverse lever which controls said link; radius-rods one of which connects said link and motion-arm and the other of which connects said link and lever; and an eccentric-rod connected to said lever.

5. A valve-gear comprising a link; a valve-rod; a rocking support which carries said link and is connected with said valve-rod; a pair of swinging arms linked to said link; and an eccentric-rod connected to one of said arms.

[Claims 6 to 9 not printed in the Gazette.]

1,141,417. SHEET-METAL STRUCTURAL SECTION. JULIUS H. SCHLAFLY, Canton, Ohio, assignor to The Canton Culvert Company, Canton, Ohio, a Corporation of Ohio. Filed Aug. 17, 1914. Serial No. 857,045. (Cl. 189—34.)

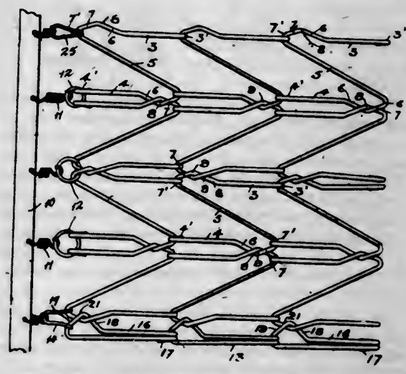
1. In a silo, a plurality of sections, each section comprising a rectangular sheet metal body portion provided at its edges with outstanding flanges, the flanges of adjacent sections abutting each other, the outer edges of the vertical flanges of a section being shorter than the distance between its horizontal flanges, the outer edges of the horizontal flanges of a section being longer than the distance between its vertical flanges, whereby the horizontal flanges of adjacent sections overlap each other at their ends.



2. In a silo, a plurality of sections, each section comprising a rectangular sheet metal body portion provided at its edges with vertical and horizontal, simple, outstanding flanges and compound flanges including outstanding portions and auxiliary brace portions lying in planes transverse to said outstanding portions, the outer edges of the vertical flanges of a section being shorter than the distance between its horizontal flanges, the outer edges of a horizontal section being longer than the distance between its vertical flanges, whereby the horizontal flanges of the adjacent sections overlap each other at their ends, the simple, outstanding flanges of each section connected to the outstanding portions of the compound flanges of adjacent sections to form connecting seams and said auxiliary portions extending over and protecting said seams and bracing said outstanding, simple flanges and outstanding portions against distortion.

3. In a silo, a plurality of sections, each section comprising a rectangular sheet metal body portion provided at its edges with vertical and horizontal marginal, outturned, connecting flanges, the outer edges of the vertical flanges of a section being shorter than the distance between its horizontal flanges, the outer edges of the horizontal flanges of a section being longer than the distance between its vertical flanges, whereby the horizontal flanges of adjacent sections overlap each other at their ends, the connecting flanges of adjacent sections abutting each other, means for fastening the abutting flanges together to form seams and one of the flanges of each seam being provided with an auxiliary flange extending at right angles to the abutting flange of said seam and covering the joint, between said abutting flanges.

1,141,418. WIRE FABRIC. JACUB SCHWARTZMAN, Brooklyn, N. Y. Filed June 24, 1913. Serial No. 775,478. (Cl. 245—5.)



1. A metal fabric for bed springs comprising a multiplicity of wire units arranged in rows, each unit consisting of a pair of parallel straight portions connected by an inclined portion and having intermediate the juncture points of such inclined part and the ends of such straight

portions laterally deflected angular portions, each such angular portion having an offset portion.

2. A metal fabric for bed springs comprising a multiplicity of wire units arranged in rows, each unit consisting of a pair of parallel straight portions connected by an inclined portion and having intermediate the juncture points of such inclined part and the ends of such straight portions laterally deflected angular portions, each such angular portion having an offset portion, and each straight portion terminating in a hook or loop.

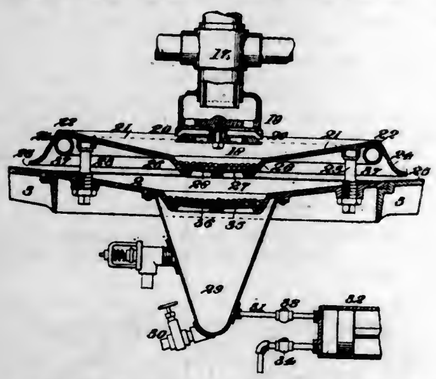
3. A metal fabric for bed springs comprising a multiplicity of wire units arranged in rows, each unit consisting of a pair of parallel straight portions connected by an inclined portion, each of said straight portions terminating at its end in a loop or hook and at its opposite end in a bulged formed portion having an offset.

4. A metal fabric for bed springs comprising a multiplicity of wire units arranged in rows, each unit consisting of a pair of parallel straight portions connected by an inclined portion, extending from a point adjacent to one end of one straight portion to a point adjacent to the opposite end of the other straight portion, each of said straight portions terminating at one end in a loop or hook and intermediate said end and its point of connection with the inclined portion in an offset portion.

5. A metal fabric for bed springs comprising a multiplicity of wire units arranged in rows, each unit consisting of a pair of parallel straight portions connected by an inclined portion, each of said straight portions terminating at one end in a loop or hook and intermediate said end and its point of connection with the inclined portion in a projecting portion having an offset portion.

[Claims 6 to 11 not printed in the Gazette.]

1,141,419. COMBINED BATEA, JIG, AND PAN MOTION CONCENTRATOR. KARL SENN, Alameda, Cal. Filed June 18, 1914. Serial No. 845,841. (Cl. 83—58.)



1. The combination in a concentrator, of a concave pan with a central discharge, means for feeding pulp at the center of the pan, a screen in the pan discharge and supporting a mobile mass, the particles of which are too large to pass through the screen, means for gyrating the pan to agitate said mass and the ore solids concentrated, the concentrate gravitating toward and through the screen and the gangue being washed outwardly by the wave action and water flow, means for hydraulically jigging the concentrate and the mobile mass at the screen, and a preliminary separator superposed above the pan discharge and into which the feeding means discharges pulp, the rim of the separator being adjustable relative to the surface of the pan to form an annular mouth, through which a counter-current, derived from the jigging means, runs outward.

2. The combination in a concentrator, of a concave pan with a central discharge, means for feeding pulp at the center of the pan, a screen in the pan discharge and supporting a mobile mass, the particles of which are too large to pass through the screen, means for gyrating the pan to agitate said mass and the ore solids concentrated, the concentrate gravitating toward and through the screen and the gangue being washed outwardly by the wave action and water flow, means for hydraulically jigging the concentrate and the mobile mass at the screen, a preliminary separator superposed above the pan discharge and into which the feeding means discharges pulp, the rim of the separator being adjustable relative to the surface of the pan to form an annular mouth, through which a counter-current, derived from the jigging means, runs outward, and means for adding clear water below the separator to the pulp.

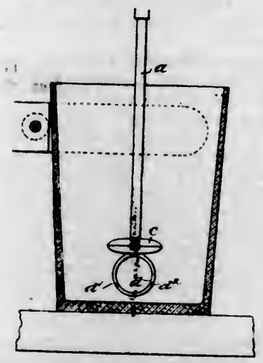
3. The combination in a concentrator, of a concave pan with a central discharge, means for feeding pulp at the center of the pan, a screen in the pan discharge and supporting a mobile mass, the particles of which are too large to pass through the screen, means for gyrating the pan to agitate said mass and the ore solids concentrated, the concentrate gravitating toward and through the screen and the gangue being washed outwardly by the wave action and water flow, means for hydraulically jigging the concentrate and the mobile mass at the screen, a preliminary separator superposed above the pan discharge and into which the feeding means discharges pulp, the rim of the separator being adjustable relative to the surface of the pan to form an annular mouth, through which a counter-current, derived from the jigging means, runs outward, and means for adding clear water below the separator to the pulp and for varying the strength of the counter-current.

4. In a concentrator, a pan, a bowl thereabove and spaced therefrom, said pan having a central discharge in its bottom, means to feed fluid up through said discharge to allow same to radiate through said space, and means independent of the first named means and arranged in the space between the pan and bowl to direct fluid toward the bowl periphery.

5. In a concentrator, a pan, a bowl thereabove and spaced therefrom, means to vertically adjustably vary the space between the pan and bowl so as to allow variable restriction of the peripheral discharge between the pan and bowl, and means to feed water in said space from the center radially and outwardly therefrom.

[Claims 6 to 10 not printed in the Gazette.]

1,141,420. BEATER OR AGITATOR. BURT E. SHATTUCK, Boston, Mass., assignor to Dow Surgical Battery Company, Boston, Mass., a Corporation of Massachusetts. Filed Oct. 2, 1911. Serial No. 652,296. (Cl. 31—42.)



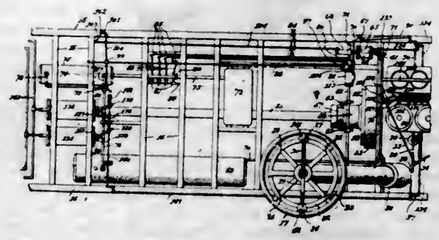
1. A mixing agitator or beater adapted to be connected to a shaft and adapted to be immersed in the liquid to be beaten, comprising beating elements eccentric to the shaft and an imperforate plate or disk secured to the upper ends of said elements and having a convex under surface overlying the elements to prevent spattering of the liquid.

2. A mixing agitator for beating fluid food products comprising a rotatable shaft adapted to enter the liquid acted on, beating elements eccentric to the shaft carried and rotated thereby below the lower end thereof, and an imperforate disk or plate, so arranged over the beating elements and between the same and the shaft as to cause a flow of the liquid outward, downward, and inward.

3. A cream whipper, comprising a rotatable shaft adapted to be entered into a receptacle containing cream, a disk or button affixed to the end of said shaft and lying in a plane transverse to the shaft, and a loop or ring connected to the under side of the disk and occupying a plane perpendicular thereto and including the axis of the shaft, said disk and loop being connected together and detachable from said shaft as a unit.

4. A mixing agitator or beater comprising a disk having a convex under surface and having provisions for being mounted detachable on a shaft, and beating elements extending downwardly from the under side of said disk on opposite sides of the center thereof, said elements being bent toward each other and joined together at a distance below the disk.

1,141,421. MOTOR-VEHICLE CONTROLLING MECHANISM. HIRAM H. SHELTERS, Rock Island, Quebec, Canada. Filed Dec. 23, 1913. Serial No. 808,475. (Cl. 21—90.)



1. In a motor vehicle, a steering-wheel, a throttle-lever mounted adjacent thereto, fluid operated means for manipulating a plurality of control mechanisms of the vehicle, and means attached to said throttle-lever for controlling said fluid operated means.

2. In a motor vehicle, a steering-wheel, a throttle-lever mounted adjacent thereto, a transmission having a changing-gear, a fluid-operated means for manipulating said changing-gear, a speed selecting mechanism, and means attached to said throttle-lever for controlling said speed selecting mechanism and said fluid-operated means.

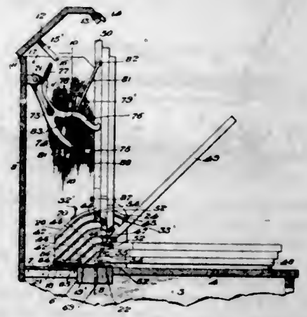
3. In a motor vehicle, a steering-wheel, a throttle-lever mounted adjacent thereto, a transmission having a changing-gear, a fluid-operated means for manipulating said changing-gear, a speed selecting mechanism, a fluid-operated brake operating means, and means attached to said throttle-lever for controlling said speed selecting mechanism and said brake operated means.

4. In a motor vehicle, a steering-wheel, a throttle-lever mounted adjacent thereto, a transmission having a changing-gear, a fluid-operated means for manipulating said changing-gear, a speed selecting mechanism, fluid-operated means for manipulating said selecting mechanism and controlling the fluid-operated means for the changing-gear, and means attached to said throttle-lever for controlling said fluid-operated means which manipulates the said selecting mechanism.

5. In a motor vehicle, a steering-wheel, a throttle-lever mounted adjacent thereto, a transmission having a changing-gear, a fluid-operated means for manipulating said changing-gear, a speed-selecting mechanism, an engine-clutch, fluid operated means for manipulating said selecting mechanism, the engine clutch and for controlling the fluid operated means of the changing-gear, and means attached to said throttle-lever for controlling said fluid operated means which manipulates the said selecting mechanism.

[Claims 6 to 9 not printed in the Gazette.]

1,141,422. FILING APPLIANCE. ELLIS T. SILVIUS, Indianapolis, Ind., assignor, by mesne assignments, to The McCaskey Register Company, (incorporated in 1914,) Alliance, Ohio, a Corporation of Ohio. Original application filed May 4, 1909, Serial No. 493,923. Divided and this application filed Feb. 5, 1913. Serial No. 746,301. (Cl. 45—2.)



1. The combination of a casing, a series of leaves operatively mounted in the casing, connections between the leaves permitting them to swing relatively to each other with a concomitant movement toward and from the foremost leaf, a member pivoted to said casing behind the leaves, and means actuated by the movement of the rearmost leaf engaging said member for holding said leaf in upright position.

2. The combination of a casing, a series of leaves operatively mounted in the casing, connections between the leaves permitting them to swing relatively to each other with a concomitant movement toward and from the foremost leaf, a member pivoted to said casing behind the leaves, a spring normally tending to swing the lower end of said member forward, and means actuated by the movement of the rearmost leaf engaging said member for holding said leaf in upright position.

3. The combination of a casing, a series of frames, connections between the frames permitting them to swing relatively to each other, means for pivotally supporting the foremost frame, an abutment pivoted in the casing and arranged to engage the rearmost frame, a device carried by the rearmost frame for actuating said abutment, and means for controlling the operation of said device.

4. The combination of a case, a series of frames arranged to be assembled face to face normally in upright position, means including connections between the frames for supporting said frames and permitting them to swing relatively to each other, an abutment pivoted in said case and arranged to engage the rearmost frame, a device carried by the rearmost frame having operative connection with said abutment and provided with a pin, and a guide device for said pin carried by the case for controlling the operation of said pin.

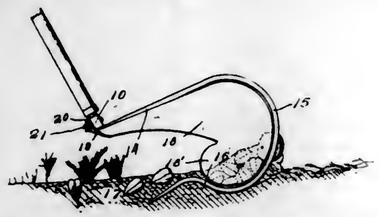
5. The combination of a casing, a series of frames, connections between the frames permitting them to swing relatively to each other, means for pivotally supporting the foremost frame, an abutment movably mounted in the casing and arranged to engage the rearmost frame, and means actuated by the rearmost frame for operating said abutment to maintain the rearmost frame upright and to move it forward.

[Claims 6 to 20 not printed in the Gazette.]

1,141,423. CLAM-RAKE. MICHAEL P. SIMAS, New Bedford, Mass., assignor of one-half to Julio Vasconcellos, New Bedford, Mass. Filed Nov. 22, 1913. Serial No. 802,491. (Cl. 43—12.)

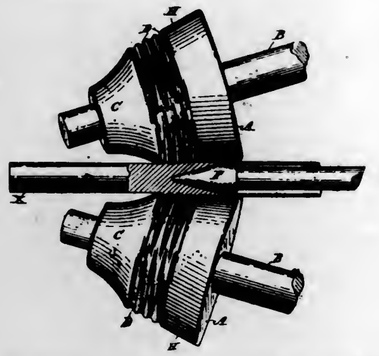
1. An oyster and clam rake comprising a cross piece, a multiplicity of tines carried thereby, each extending rearwardly therefrom a distance and being then curved down forwardly and upwardly, and their outer end portions extending forwardly spaced below the cross piece.

2. A rake for clams and the like comprising a handle, a cross bar at the lower end thereof, a plurality of alined parallel tines carried by the cross bar each extending rearwardly, thence downwardly, forwardly and upwardly, their outer ends being then extended forwardly a distance, spaced below the bar.



3. A rake for clams and the like comprising an operating means, a cross bar movable thereby, a plurality of parallel tines carried by the bar extending rearwardly therefrom and recurved forwardly, plates at each end of the rake corresponding in form to the space within the tines, their forward portions being secured to the bar, and their rear parts being spaced outwardly of and parallel to the outer tines at each end.

1,141,424. MANUFACTURE OF SEAMLESS TUBES. FRANK E. SIMPKINS, Youngstown, Ohio. Filed Apr. 17, 1911, Serial No. 621,654. Renewed Oct. 23, 1914. Serial No. 868,333. (Cl. 80—62.)



1. The method of rolling tubes consisting in subjecting the metal to non-slipping rolling from the beginning to the end of the rolling operation by varying the rolling speed in proportion to diameter variations in the metal, and piercing the metal simultaneously with rolling it.

2. The method of rolling tubes consisting in piercing a blank and thereby changing its diameter and simultaneously subjecting the metal to non-slipping rolling by varying the rolling speed in proportion to diameter variations of the metal.

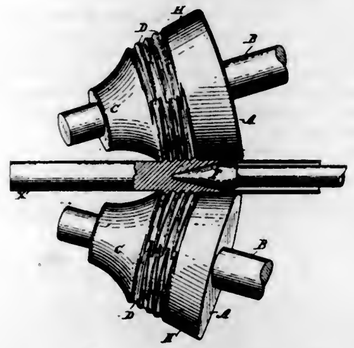
3. The method of rolling tubes consisting in piercing a blank and thereby varying its diameter, subjecting the blank to non-slipping rolling by varying the rolling speed in proportion to diameter variations of the blank, and kneading the exterior of the blank simultaneously with rolling and piercing it.

4. The method of rolling tubes consisting in piercing a blank and thereby varying its diameter, subjecting the blank while being pierced to non-slipping rolling by varying the rolling speed in proportion to diameter variations of the blank, kneading the exterior of the blank during the first portion of the rolling operation, and smoothing the exterior thereof during the latter portion of the rolling operation.

5. The method of rolling tubes consisting in simultaneously piercing and varying the diameter of a blank, kneading the exterior of the blank in planes in advance of the inception of the piercing operation and in other planes which intersect the pierced cavity, and subjecting the blank while being pierced to non-slipping rolling by varying the rolling speed in proportion to diameter variations of the blank.

[Claim 6 not printed in the Gazette.]

1,141,425. APPARATUS FOR ROLLING SEAMLESS TUBES. FRANK E. SIMPKINS, Youngstown, Ohio. Filed Apr. 17, 1911, Serial No. 621,655. Renewed Oct. 23, 1914. Serial No. 868,334. (Cl. 80—13.)



1. In the manufacture of seamless tubes, rotatable pass-forming bodies mounted to provide a pass which diverges toward its outlet end with the body surfaces constituting the pass formed with irregularities having rounded surfaces which grip and knead the metal without injuring its fiber, and a piercing mandrel within the pass.

2. In the manufacture of seamless tubes, rotatable pass-forming bodies mounted to provide a pass which diverges toward its outlet end with the surfaces of the bodies at the pass inlet and for a distance inwardly therefrom formed with irregularities having rounded surfaces which grip and knead the metal without injuring its fiber, and a piercing mandrel within the pass.

3. In the manufacture of seamless tubes, rotatable bodies mounted to form a pass which diverges toward its outlet end with the surfaces of the bodies at the pass inlet formed with metal kneading irregularities, and a piercing mandrel in the pass with its point located inwardly from the pass inlet.

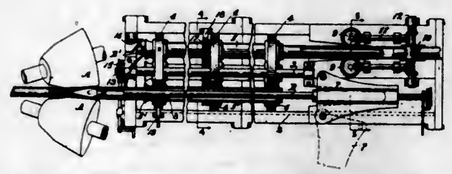
4. In the manufacture of seamless tubes, rotatable pass-forming bodies having their axes disposed obliquely to each other and to the axis of the pass, the axial lines of the rolls crossing each other between the ends of the pass, and a mandrel in the pass with its point located rearwardly from the crossing of the roll axes.

5. In the manufacture of seamless tubes, rotatable pass-forming bodies having their axes disposed obliquely to each other and to the pass axis, with the axial lines of the rolls crossing each other intermediate the ends of the pass, the bodies formed with metal kneading irregularities, and a mandrel in the pass with its point located rearwardly from the beginning of such irregularities.

[Claims 6 to 24 not printed in the Gazette.]

1,141,426. MANDREL STRIPPING AND COOLING MECHANISM. FRANK E. SIMPKINS, Youngstown, Ohio. Original application filed May 3, 1911, Serial No. 624,868. Divided and this application filed Aug. 19, 1912, Serial No. 715,905. Renewed Feb. 1, 1915. Serial No. 5,548. (Cl. 80—11.)

1. The combination of pass-forming rolls, a mandrel carrier movable relatively to the rolls, a mandrel holder on the carrier adapted to be moved by the latter into and out of position for receiving a mandrel from the rolls, and a cooling chamber into which the carrier is adapted to move the mandrel-supporting holder.



2. The combination of pass-forming rolls, a mandrel carrier at the delivery side of the rolls with the carrier rotatable about a horizontal axis, a plurality of mandrel holders on the carrier adapted successively to receive mandrels from the rolls, and a cooling chamber in which the under portion of the carrier travels and through which it is adapted to move the mandrel holders.

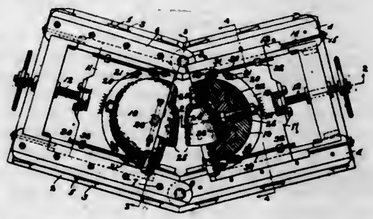
3. The combination of pass-forming rolls, a mandrel carrier at the delivery side of the rolls and adapted to receive a mandrel from the latter, the carrier mounted to rotate about a horizontal axis, and a cooling chamber in which the under portion of the carrier travels and through which it is adapted to move the mandrel received from the rolls.

4. The combination of pass-forming rolls, a cooling chamber, and a mandrel carrier adapted to receive a mandrel from the roll pass and move it into the cooling chamber.

5. The combination of pass-forming rolls, a cooling chamber, a mandrel carrier rotatable through the cooling chamber with a portion of the carrier at the exterior of the chamber and adapted to receive a mandrel from the roll pass.

[Claims 6 to 16 not printed in the Gazette.]

1,141,427. TUBE-ROLLING MILL. FRANK E. SIMPKINS, Youngstown, Ohio. Filed Aug. 19, 1912, Serial No. 715,906. Renewed Dec. 4, 1914. Serial No. 875,533. (Cl. 80—13.)



1. In a mill for cross rolling, the combination of opposed rolls normally in fixed position relatively to the pass formed thereby, and a normally fixed support for each roll adjustable about axes disposed at right angles to each other.

2. In a mill for cross rolling, the combination of opposed rolls normally in fixed position relatively to the pass formed thereby, and a normally fixed support for each roll adjustable about a vertical axis which intersects the roll.

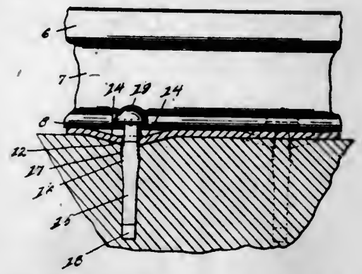
3. In a mill for cross rolling, the combination of opposed rolls normally in fixed position relatively to the pass formed thereby, and a normally fixed support for each roll adjustable about a vertical axis and also about a horizontal axis.

4. In a mill for cross rolling, the combination of opposed rolls normally in fixed position to form a horizontal roll pass, and a normally fixed support for each roll adjustable about a perpendicular axis which intersects the roll.

5. In a mill for cross rolling, the combination of opposed rolls normally in fixed position to form a horizontal roll pass, and a normally fixed support for each roll with each roll adjustable about axes disposed at right angles to each other and with one of said axes disposed at right angles to the axis of the roll pass.

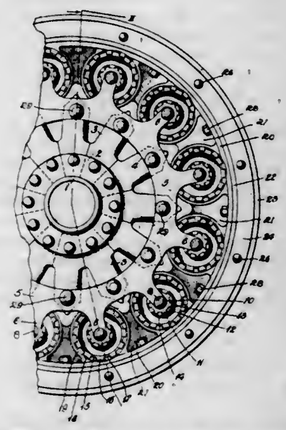
[Claims 6 to 19 not printed in the Gazette.]

1,141,428. RAIL-PLATE. FRANK M. SIMPSON, Alameda, Cal. Filed May 3, 1913. Serial No. 765,376. (Cl. 238—2.)



In combination, a wood tie, a rail plate positioned upon said tie having apertures and slits extending outwardly from said apertures forming tongues disposed transversely of said tie, a rail positioned on said plate between said apertures, spikes including shanks positioned through said apertures and in said tie, and heads engaged against the base of said rail, the shanks of said spikes having lateral enlargements adjacent the heads to depress said tongues and compress the fibers in the portions of the wood tie underlying said tongues, and teeth formed on said enlargements embedded in the compressed portions of said tie and engaged with said tongues to prevent upward movement of said spikes.

1,141,429. VEHICLE-WHEEL. SELDEN L. SIMPSON, Detroit, Mich., assignor of one-half to William E. Currie, Detroit, Mich. Filed Jan. 23, 1914. Serial No. 813,827. (Cl. 152—28.)



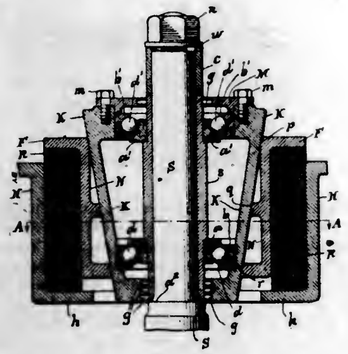
1. In a vehicle wheel, a felly, a rim, cylindrical housings carried by said rim in proximity to said felly, a tire carried by said rim, bands mounted in said housings, tubes concentrically of said housings for supporting said felly and yieldable fabricated bodies arranged between said bands and said tubes.

2. In a vehicle wheel, a felly, sets of radiating arms carried thereby, bolts connecting the arms of each set, a rim, cylindrical housings carried by said rim and extending between the arms of each set, bands mounted in said housings, hard rubber sleeves interlocked with said bands,

tubes supported between said arms, hard rubber sleeves interlocked with said tubes, and soft rubber bodies between said hard rubber sleeves.

3. An element of vehicle construction, comprising a fixed housing, a metal band mounted in said housing, a rubber body having the periphery thereof interlocked with said band and a supporting member interlocked with said body and yieldingly supported concentric of said body and capable of radial movement relatively to said housing.

1,141,430. CENTRIFUGAL HANGER. HARRY H. STEPHENS, Philadelphia, Pa. Filed May 13, 1913. Serial No. 767,255. (Cl. 64—48.)



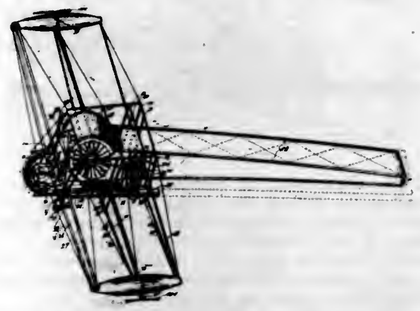
1. In apparatus of the character described, the combination with a hanger having an internal vertical face, a shaft supporting member divided into a plurality of circumferential sections having external vertical faces, a resilient buffer intervening between the inner face of said hanger and the outer vertical faces of said sections, and a non-expansible shaft bearing member disposed within and engaging said sections.

2. In apparatus of the character described, the combination with a hanger having an internal vertical face, a shaft supporting member divided into a plurality of circumferential sections having external vertical faces, a resilient buffer intervening between the inner face of said hanger and the outer vertical faces of said sections, and a non-expansible exteriorly conical shaft bearing member disposed within and engaging inner conical surfaces of said sections.

3. In apparatus of the character described, the combination with a hanger having an internal vertical face, a shaft supporting member divided into a plurality of circumferential sections having external vertical faces, a resilient buffer intervening between the inner face of said hanger and the outer vertical faces of said sections, a non-expansible shaft bearing member disposed within and engaging said sections, outwardly extending top flanges on said sections engaging the top of said buffer, and an inwardly extending bottom flange on said hanger engaged by said buffer.

1,141,431. FLYING-MACHINE. FRANK STEINMANN, St. Louis, Mo. Filed July 1, 1912. Serial No. 707,124. (Cl. 244—14.)

1. In a flying machine, in combination with main sustaining planes, a compressed air actuated tiltable stabilizing propeller located at the extreme outer end of each sustaining plane, and operatively connected to a plurality of air tanks extending longtiudinally of the machine and forming, in conjunction with the sustaining planes a base for the machine and also a means for keeping it afloat when alighting on water, means for propelling the machine along a launching rail consisting of a frame attached to the lower part of the base and provided with bearings in which are journaled a drive wheel and a rear landing wheel respectively, a roller grip safety attachment on said frame for guiding the machine along the launching rail and adapted to be disengaged therefrom when an ascending flight is to be made, and lateral cables to balance the machine when it is not in motion.



2. In a flying machine, in combination with sustaining planes, a compressed air actuated tiltable stabilizing propeller located on the end of each sustaining plane, means under the control of the operator for driving the same and setting the same at different angles, a plurality of compressed air tanks running longitudinally of the machine and forming, in conjunction with the sustaining planes, a base for the machine and also a means for keeping it afloat when alighting on water, a frame provided with bearings attached to the underside of the base, a driving wheel journaled in said bearings and adapted to engage with the launching rail, a chain and sprocket drive for rotating the driving wheel, lateral balancing wheels, and a roller safety grip for guiding the machine along the rail and capable of being disengaged therefrom when an ascending flight is to be made.

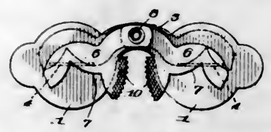
3. In a flying machine, in combination with sustaining planes a compressed air actuated tiltable stabilizing propeller mounted on the end of each sustaining plane, a pivoted stabilizing plane in the form of a casing consisting of a canvas covered truss frame of slotted pipes extending longitudinally of the machine, means for setting the stabilizing plane to any angle at the will of the operator, comprising a hand wheel, air tanks adapted to act as floats, a wheel frame extending longitudinally of the machine, and a drive wheel and a rear wheel mounted thereon and adapted to engage with a rail, driving means for the drive wheel, and a launching roller grip operated by rods and cams under the control of the operator.

4. In a flying machine, in combination with a sustaining plane, an elevation plane mounted on trunnions supported by suitable standards secured to compressed air tanks constituting a floating body to sustain the machine on water, connecting means extending between said trunnions and forming a housing for a power plant comprising an air compressor and suitable motors, said elevation plane comprising a truss frame of endless slotted pipes extending longitudinally of the machine and parallel to the direction of flight, said truss frame being formed with a large circular front end and tapering to a small circular rear end; means for covering said truss frame, consisting of canvas, balls of suitable material sewed into said canvas at suitable intervals along its sides and adapted to be inserted into the slotted pipes, a shaft passing transversely through the circular front end of the truss frame and suitably supported therein, wind wheels mounted on the ends of said shaft, means for elevating said elevation plane and said wind wheels, main propellers mounted on said elevation plane and driven by suitable gearing actuated from the power planes, and suitable means to drive the air compressor from the wind wheel shaft.

5. In a flying machine an elevation plane and a hand wheel tilting device for the same, said plane consisting of a pair of parallel slotted pipes, each in the form of a longitudinally extending closed curve, a flexible covering extending between said pipes and passing through the slots in the same, spaced balls sewed into the edges of said covering and located in the interior of said pipes, and serving to guide the covering along the runways formed by said pipes, and means for shifting said covering into any position along the pair of slotted pipes.

[Claims 6 to 8 not printed in the Gazette.]

1,141,432. OPTICAL DEVICE FOR VIEWING MOVING PICTURES. HENRY F. STOWELL, Rochester, N. Y. Filed Nov. 3, 1914. Serial No. 870,144. (Cl. 88—1.)



1. A non-flicker device for viewing moving pictures comprising a pair of eyepieces composed of thin opaque material and each provided with a restricted sight opening of variable width.

2. A non-flicker device for viewing moving pictures comprising a pair of eyepieces composed of thin opaque material and each provided with a stenopaic slot of variable width.

3. A non-flicker device for viewing moving pictures comprising a pair of eyepieces composed of thin opaque material and each provided with a sight opening and with a movable shutter device for restricting the width of said opening.

4. A non-flicker device for viewing moving pictures comprising a pair of eyepieces composed of thin opaque material and each provided with a sight opening and with a pivoted shutter device arranged to swing across the latter for restricting the width of said opening.

5. A non-flicker device for viewing moving pictures comprising a pair of eyepieces composed of thin opaque material and each provided with a sight opening and with a pivoted shutter device arranged to swing across the latter for restricting the width of said opening, both shutter devices being mounted upon the same pivot.

[Claims 6 and 7 not printed in the Gazette.]

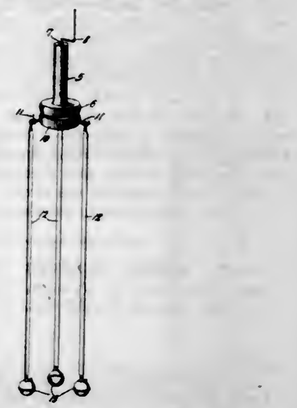
1,141,433. TUBE-CLEANER. HARPER E. STRATTON, Empire, Ohio. Filed Nov. 24, 1913. Serial No. 802,645. (Cl. 83—64.)



1. A tube cleaner comprising a yoke with integral inwardly-bowed flexible arms, having forwardly-facing shoulders provided on their outer faces, semi-cylindrical cutting blades having shanks detachably connected to said arms, the rear ends of said shanks being disposed in abutting relation to said shoulders, a block with a central threaded eye therein interposed between said arms and having its opposite edges slidably engaging the inner faces of said arms, lugs carried by said block disposed in embracing relation to the lateral edges of said arms, and a handle swiveled in said yoke and having a threaded stem directed through the eye of the block, whereby rotation of said handle accomplishes longitudinal movement of said block for adjusting the relative positions of the cutting blades.

2. A tube cleaner comprising a yoke having inwardly bowed flexible arms, a pair of semi-cylindrical scraper blades detachably connected to said arms, a handle having swivel connection with the cross member of said yoke, a longitudinally movable spreader interposed between said arms, said spreader having a threaded eye therein, and a threaded stem carried by said handle operatively disposed within the eye of said spreader.

1,141,434. TOY. JOAO TOSTA, Lowell, Mass. Filed Jan. 12, 1915. Serial No. 1,775. (Cl. 46—46.)

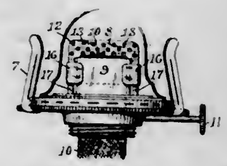


1. In a toy of the class described, a stationary member, a rotary member suported therein, flexible strips connected at intervals with the rotary member, and sounding devices on the free ends of the flexible strips.

2. In a toy of the class described, a handle having a head, a shaft rotatably supported in the handle, a head on the shaft, eye members mounted in the periphery of the last named head, colored ribbons connected to the eye-members, and bells on the free ends of the ribbons.

3. In a toy of the class described, a handle having a head, a shaft rotatably supported in the handle, a hand crank at one end of the shaft, a head on the other end of the shaft, flexible ribbons secured at intervals to the last named head, and each being of a different color relative to one another, and bells on the free ends of the ribbons.

1,141,435. OIL-LAMP BURNER. JOHN PHILEMON TRUESDELL, Tiverton, R. I., assignor of one-third to George Frederick Masterson and one-third to Roderick Allan McIntire, Providence, R. I. Filed Feb. 1, 1915. Serial No. 5,479. (Cl. 67—72.)



1. An oil lamp burner of the flat wick type having a flat plate positioned flat against the flat side of the wick tube and extending above the tube a predetermined distance, said plate having a plurality of cone-shaped cavities, each cavity having a mouth toward the wick tube and an aperture in its bottom, said mouth being approximately four times larger than the aperture.

2. In an oil lamp burner of the flat wick type, a plate flat against the flat side of the wick tube and extending a predetermined distance above the wick tube, said plate having a plurality of cavities, each cavity having a mouth toward the wick tube and an aperture in its bottom, and means for detachably securing the plate to the burner.

3. In an oil lamp burner of the flat wick type, a rectangular shaped plate against the flat side of the wick tube and extending a predetermined distance above the wick tube, said plate having a plurality of cone-shaped cavities, each cavity having a comparatively large mouth facing the wick tube and an aperture in its bottom, and means for detachably securing the plate to the wick tube.

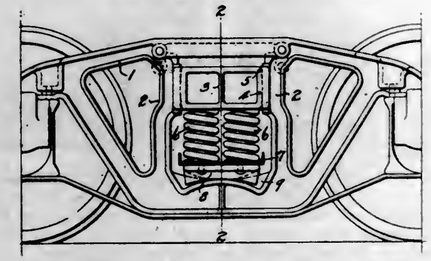
4. In a flat wick oil lamp burner, a rectangular shaped plate flat against the flat side of the wick tube and ex-

tending a predetermined distance above the wick tube, said plate having a plurality of cone-shaped cavities, each cavity having a comparatively large mouth facing the wick and an aperture in its bottom, the center of the aperture being on a line with the center of the mouth, means for adjusting the plate for height and means for detachably securing the plate to the wick tube.

5. An oil lamp burner of the flat wick type having a flat plate on the flat side of the wick tube, said plate having a plurality of cavities, each cavity having a comparatively large mouth facing the wick tube and a central aperture in its bottom, said aperture being less than half the size of the mouth of the cavity.

[Claim 6 not printed in the Gazette.]

1,141,436. SPRING-BOLSTER BEARING FOR CAR-TRUCKS. JOHN A. TURNER, Mobile, Ala. Filed Oct. 20, 1914. Serial No. 867,635. (Cl. 105—243.)



1. A spring bolster bearing for car trucks including the truck side frame provided with a stationary curved rocker bearing-seat, and the spring bolster carrying a rocker-block provided with a curved rolling surface contacting with said bearing-seat and having an arc of different radius from that of the bearing-seat.

2. A spring bolster bearing for car trucks including the truck side frame provided with a stationary curved rocker bearing-seat having a plurality of curved bearing units, and the spring bolster having a rocker-block provided with a plurality of curved rolling surfaces representing arcs of different radii and respectively engaging the separate bearing units.

3. A spring bolster bearing for car trucks including the truck side frame provided with a stationary curved rocker bearing-seat having a plurality of curved bearing units, and the spring bolster having a rocker-block provided with a plurality of curved rolling surfaces respectively engaging the separate bearing units, said rolling surfaces of the rocker-block representing arcs of different radii from those of the said units.

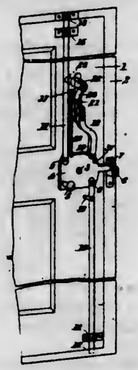
4. A spring bolster bearing for car trucks including the truck side frame provided with a stationary curved rocker bearing-seat having a plurality of curved bearing units reversely related to one another, and a spring bolster carrying a rocker-block having a plurality of curved rolling surfaces also reversely related to one another and respectively engaging the separate bearing units of the bearing-seat.

5. A spring bolster for car trucks including the truck side frame provided with a stationary curved rocker bearing-seat having a plurality of curved bearing units reversely related to one another, and a spring bolster carrying a rocker-block having a plurality of curved rolling surfaces representing arcs of different radii from those of the said units, said curved rolling surfaces also reversely related and respectively engaging the separate bearing units of the bearing-seat.

[Claims 6 to 13 not printed in the Gazette.]

1,141,437. LOCK. JOHN UNTERLENDER, New York, N. Y. Filed Apr. 20, 1914. Serial No. 833,274. (Cl. 70—74.)

1. A locking apparatus comprising in combination, a pivoted plate, a latching member rigid with said plate, a bolt extending partly through the door, and connections between said bolt and said plate for operating the latter, said bolt having a lug thereon for engaging a key whereby the bolt may be moved longitudinally.



2. A locking apparatus comprising in combination, a pivoted plate, a latching member rigid with said plate, a bolt extending partly through the door, connections between said bolt and said plate for operating the latter, said bolt having a lug thereon for engaging a key whereby the bolt may be moved longitudinally, and an apertured plate normally covering the end of said bolt.

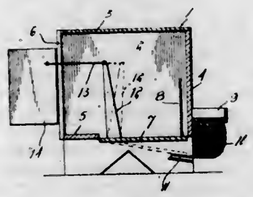
3. A locking apparatus comprising in combination, a locking member, a bolt extending partway through the door and having a lug thereon, connections between said member and said bolt for operating the former, and a key having a bayonet slot therein for pulling said bolt forward by engagement with said lug.

4. A locking apparatus comprising in combination, a locking member, a bolt extending partway through said door, connections between said bolt and said member for operating the latter, a pivoted plate arranged to cover the end of said bolt under normal conditions, said plate having an aperture therein adapted to register with the end of said bolt, and having notches therein, and a key adapted to operate said bolt and also having projections adapted to engage said notches for turning said pivoted plate into position to expose the end of the bolt.

5. A locking apparatus comprising in combination, a pivoted plate, a latching member rigid with said plate, a bolt extending partway through the door, and connections between said bolt and said plate for operating the latter, said bolt having means thereon for engaging a key whereby the bolt may be moved longitudinally.

[Claims 6 and 7 not printed in the Gazette.]

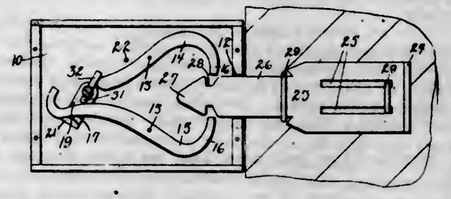
1,141,438. HEN'S NEST. DAVID S. WELCHMAN, Grover, Wyo. Filed Dec. 9, 1912. Serial No. 735,709. (Cl. 119—47.)



A hen's nest comprising a box having an open end and a closed end, a floor internally of the box adjacent to the door, a platform hingedly connected to the floor, springs attached to the walls of the box supporting the opposite end of said platform, an arm rising from the platform adjacent to its hinged connection with the floor, a link connecting the upper end of the arm and the door, a

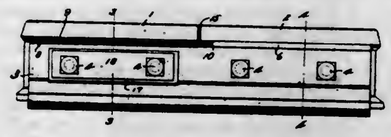
frame secured to and extending from the closed end of the box, a bar limiting the downward movement of the platform supported by the sides of the box below the frame, a receptacle supported by said frame and said bar, said platform being rocked by the weight of a fowl, thereby rocking the arm and closing the door.

1,141,439. SLIDING-DOOR LOCK. WILLIAM S. WOODWARD, Burt, Mich. Filed Apr. 6, 1914. Serial No. 830,009. (Cl. 70—31.)



In a lock, the combination of a bolt adapted for attachment to a relatively movable element and having opposed notches in its side edges, a keeper comprising a pair of members pivotally supported upon a relatively fixed element and having opposed fingers engageable in respective notches of the bolt when the latter is in locking position, a pivoted element supported from the relatively fixed element and engaging one of the members of the keeper to limit movement thereof in one direction, key operated means provided at one side with a projection insertible in an opening in said pivoted element whereby the latter will be swung to move the keeper member engaged thereby out of locking relation to the bolt, and a projection carried at the opposite side of said key operated means and engageable with the other member of the keeper during the swinging of said pivoted element to move the last named member out of locking relation to the bolt.

1,141,440. INSULATED RAIL-JOINT. BANCROFT G. BRAINE, New York, N. Y., assignor to The Rail Joint Company, New York, N. Y., a Corporation of New York. Filed Jan. 16, 1915. Serial No. 2,724. (Cl. 239—5.)



1. An insulated rail joint including in combination with the rails, a joint bar in electrical contact with the head of one rail and having an air-gap insulation from the head of the other rail.

2. An insulated rail joint including in combination with the rails, a joint bar in electrical contact with the head of one rail and having an air-gap insulation beneath the head of the other rail, and insulation between the bar and the rail flanges.

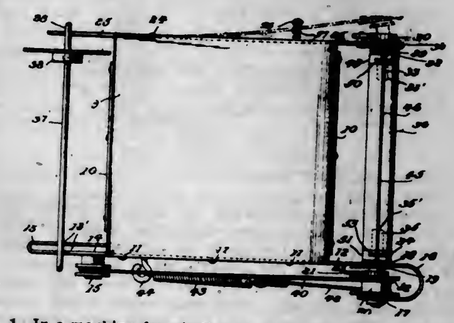
3. An insulated rail joint including in combination with the rails, a joint bar in electrical contact with the head of one rail and having an air-gap insulation beneath the head of the other rail, and insulation between the bar and the flange of the latter rail.

4. An insulated rail joint including in combination with the rails, a joint bar having an electrical bearing contact with the head of one rail and having an electrically insulating air-gap spacing from the head of the other rail, and electrical base insulation extending along both rails.

5. An insulated rail joint including in combination with the rails, a joint bar having an electrical bearing contact with the head of one rail and having an electrically insulating air-gap spacing from the head of the other rail, and electrical insulation for the bases of both rails.

[Claims 6 to 19 not printed in the Gazette.]

1,141,441. REWINDING WALL-PAPER MACHINE. ROYAL B. CAMPBELL, Three Rivers, Mich. Filed July 5, 1913. Serial No. 777,547. (Cl. 242—55.)



1. In a machine for winding paper or the like, the combination of a platform having extensions at one end, bearings formed in the extensions, a shaft supported in the bearings, a bracket at one corner of the platform, said bracket having alined bearings, a shaft mounted in the alined bearings, the inner end of said shaft having a flat side, a pulley on the shaft, means for rotating the pulley, a yielding arm on one side of the platform and extending beyond the end of the same and formed with a bearing in alinement with the bearings in the bracket, a shaft mounted in the bearing in the yielding arm, said latter shaft having a flat surface, a roll formed at its ends with openings corresponding to the shape of the inner ends of the two shafts and in which said shafts fit, said roll having a recess extending across its periphery, web securing means fitting in the recess, and a spring engaging the yielding arm to hold the roll and shafts in coöperative relation.

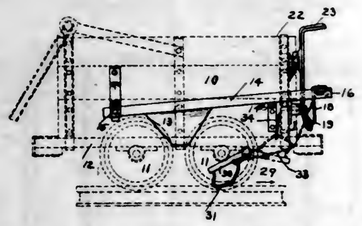
2. In a machine for winding paper or the like, the combination of a platform, a bracket extending from one corner of the platform, a short shaft mounted in the bracket, means for rotating the short shaft, a yielding arm secured to the side of the platform, and extending beyond one end of the latter, a short shaft mounted in the yielding arm in alinement with the short shaft supported in the bracket, the inner end of both of said short shafts having flat surfaces, a roll formed at its ends with recesses corresponding to the shape of the ends of the short shafts, and in which the inner ends of the latter engage, said roll having a recess on its periphery, a collar on the short shaft adjacent the yielding arm and bearing against one end of the roll, a second collar having openings extending through it and a notch to straddle the short shaft supported in the bracket and bearing against one end of the roll, pins extending from the end of the roll and fitting in the openings in the second mentioned collar, and web securing means mounted on the second mentioned collar and engaging the recess in the roll.

3. In a machine for winding paper, the combination of two alined short shafts having flat surfaces at their inner ends, means for rotating one of the short shafts, a roll having openings in its ends corresponding to and in which the inner ends of the short shafts fit, collars at the ends of the roll and mounted on the short shafts, web securing means secured to one of the collars and means on the opposite collar for locking the web securing means.

1,141,442. MINE TIPPLE-CAR. JOHN COZILETS, Coupon, Pa. Filed July 14, 1913. Serial No. 778,967. (Cl. 188—76.)

1. A car brake mechanism including in combination with the car body, a frame pivoted thereto and having

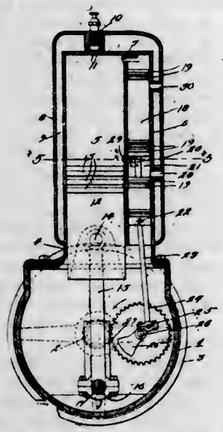
brake shoes, a lever connected to said frame for actuating the same, emergency brake means pivoted to the underside of the car body and adapted to engage with the trackway, flexible means connecting the said emergency brake means with the frame, the said emergency brake being automatically operated upon backward movement of the car.



2. A car brake mechanism including in combination with the car body, a frame comprising a pair of brake arms each pivoted at one end to the car body and connected to each other at the opposite end, a lever pivoted to the car body and connected to the said frame for actuating the same, emergency drag brake means carried by the car body and connected with said frame, said emergency brake being automatically operated upon backward movement of the car.

3. A car brake mechanism including in combination with the car body, a frame pivoted thereto and having brake shoes, a lever pivoted to the car body and connected with said frame, and emergency brake means carried by the underside of the car body and connected with said frame, said emergency brake means including a yoke pivoted to the car body, an arm integral therewith and depending therefrom, and a resilient drag brake shoe connected with the said arm, and adapted to engage with the trackway to apply the brake shoes carried by the frame, upon backward movement of the car.

1,141,443. EXPLOSIVE-ENGINE. JESSE TEMPLE CURTIS, Bement, Ill. Filed Aug. 20, 1914. Serial No. 857,657. (Cl. 123—53.)



1. In an internal combustion engine, a casing having dominant and auxiliary chambers, pistons operable therein, one being a dominant piston and the other an auxiliary piston, an exhaust port in the auxiliary chamber, a port of communication between the upper end of the dominant and auxiliary chambers offset above said exhaust port and being open during the working strokes of said pistons, a port of communication between the lower portions of the dominant and auxiliary chambers, an intake port in the lower portion of the auxiliary chamber offset below the port of communication between the lower end of the auxiliary and dominant chambers, said auxiliary piston having means forming communications between the intake port and the explosion chamber through the lower port of communication between the dominant or explosion chamber and the auxiliary chamber when the dominant piston is at the limit of its downward stroke, and means of connection between the dominant and auxiliary pistons whereby the auxiliary piston is held substantially at its limit of its upward stroke with the exhaust port closed while the dominant piston is making its compression stroke, the firing of the charge immediately following the compression stroke thereby forcing both pistons downwardly.

2. In an internal combustion engine, a casing having dominant and auxiliary chambers, pistons operable therein, one being a dominant piston and the other an auxiliary piston, an exhaust port in the auxiliary chamber, a port of communication between the upper end of the dominant and auxiliary chambers offset above said exhaust port and being open during the working strokes of said pistons, a port of communication between the lower portions of the dominant and auxiliary chambers, an intake port in the lower portion of the auxiliary chamber offset below the port of communication between the lower end of the auxiliary and dominant chambers, said auxiliary piston having an annular channel adjacent its lower portion forming communication between the intake port and the explosion chamber through the port of communication between the lower portions of the dominant or explosion and auxiliary chambers when the dominant piston is at the limit of its downward stroke, and means of connection between the dominant and auxiliary pistons whereby the auxiliary piston is held substantially at its limit of its upward stroke with the exhaust port closed while the dominant piston is making its compression stroke, the firing of the charge immediately following the compression stroke thereby forcing both pistons downwardly.

1,141,444. CROSS-TIE. THOMAS DAVIS, Vancouver, British Columbia, Canada. Filed July 30, 1913. Serial No. 782,147. (Cl. 238—5.)

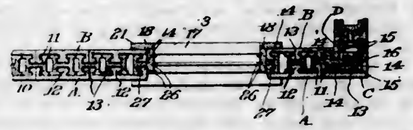


1. A cross tie for railways comprising in combination, a U-shaped sleeper provided with laterally projecting flanges, a chair plate mounted on and secured to the flanges of said sleeper and provided with rigid outer rail-engaging shoes and having longitudinally disposed dovetailed ways formed therein, movable rail-engaging shoes having dove-tailed extensions adapted to fit said ways, and bar means for locking said movable shoes in engagement with said rails, substantially as described.

2. A railway cross tie, including a base of substantially U-shape cross section, a cover for said base extending substantially throughout the length thereof, said cover having rail-engaging shoes carried upon the ends thereof, said cover having a longitudinally disposed aperture therein, a portion of said cover being disposed adjacent the ends of said aperture to provide dovetail recesses, detachable rail engaging shoes insertible in said dovetail recesses to engage a rail, and a locking bar having its ends connected to each of said rail engaging shoes, as and for the purpose set forth.

1,141,445. CONCRETE BUILDING CONSTRUCTION. JOHN O. DAVISON, Memphis, Tenn. Filed July 10, 1914. Serial No. 850,227. (Cl. 72—99.)

In a building construction, a sectional wall, a casement comprising a base sill having cut-away portions in opposite ends thereof, vertical stiles engaged in the notches, a head piece supported by the stiles, locking flanges formed on the stiles, flanges formed on the sections of the wall for locking engagement with the first-named flanges, the said vertical stiles and head piece being formed with

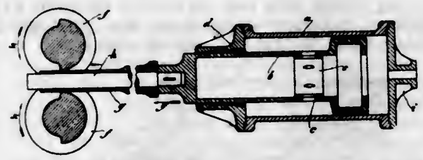


grooves in their inner faces, parting strips inserted within the grooves, and facing extensions formed on the sill stiles and head piece.

1,141,446. NON-CORROSIVE COMPOUND FOR REFRIGERATOR-CARS AND THE LIKE. JUDSON A. DE CEW, Montreal, Quebec, Canada. Filed Nov. 4, 1910, Serial No. 590,740. Renewed Apr. 27, 1915. Serial No. 24,352. (Cl. 252.)

A composition for use with ice in icing cars consisting of salt mixed with approximately 5% alkali.

1,141,447. ROLLING-MACHINE. OSCAR DELLWITZ, Tegel, near Berlin, Germany. Filed Dec. 29, 1914. Serial No. 879,588. (Cl. 80—14.)



1. In a pilgering mill, the combination comprising a cylinder adapted to be supplied with a compressed fluid, a piston mounted within said cylinder and adapted to leave a hollow space between a portion of said piston and the forward end of the cylinder, said piston having means of communication with the hollow space and being adapted in its movement to close said means of communication so as to form a cushion, and a mandrel mounted in said piston.

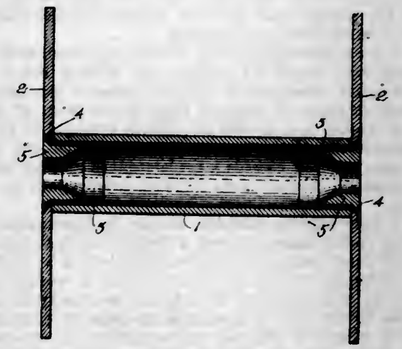
2. In a pilgering mill, the combination comprising a cylinder adapted to be supplied with a compressed fluid at its rear end, a hollow piston mounted in said cylinder, the rear end of the piston being open and communicating with the cylinder, said piston being so arranged in the cylinder as to form a hollow space between a projecting part of the piston and the forward end of the cylinder, said piston having means of communication with said hollow space, and being adapted on its movement to close said means of communication so as to form a cushion, and a mandrel mounted in the forward end of said piston.

3. In a pilgering mill, the combination comprising a cylinder adapted to be supplied with a compressed fluid, a hollow piston in said cylinder having a reduced portion adapted to pass through the forward end of the cylinder and forming a hollow space around said reduced portion, said reduced portion having means of communication between the interior of the hollow piston and the hollow space, the piston in its movement being adapted to close said means of communication so as to form a cushion, and a mandrel mounted in the reduced portion of the piston.

4. In a pilgering mill, the combination comprising a cylinder adapted to be supplied with a compressed fluid, a hollow piston in said cylinder, having a reduced portion adapted to pass through the forward end of the cylinder and forming a hollow space around said reduced portion, said reduced portion having means of communication between the interior of the hollow piston and the hollow space, the piston in its movement being adapted to close said means of communication so as to form a cushion, means for varying the cross section of the means of communication, and a mandrel mounted in the reduced portion of the piston.

5. In a pilgering mill, the combination comprising a cylinder adapted to be supplied with a compressed fluid, a hollow piston in said cylinder, having a reduced portion adapted to pass through the forward end of the cylinder and forming a hollow space around said reduced portion, said reduced portion having means of communication between the interior of the hollow piston and the hollow space, the piston in its movement being adapted to close said means of communication so as to form a cushion, a sleeve having apertures mounted in the reduced portion of the piston, said sleeve being capable of adjustment to vary the cross section of said means of communication, and a mandrel mounted in the reduced portion of the piston.

1,141,448. SPOOL. JOHN W. EDSON, Hingham Center, Mass., assignor to Louis E. Vose, Walpole, Mass. Filed Jan. 23, 1913, Serial No. 743,748. Renewed Nov. 13, 1914. Serial No. 872,030. (Cl. 242—124.)



1. A spool comprising a body, head disks at the ends of the body each having a hardened unyielding center and a surrounding unhardened resilient zone, and securing devices engaging the hardened centers of the heads and securing the heads to the ends of the body.

2. A spool comprising a tubular body, paper head disks at the ends of the body each having a hardened center and a surrounding unhardened zone, and securing plugs fitting within the body and provided with flanges engaging the hardened centers of the heads and securing them against the ends of the body.

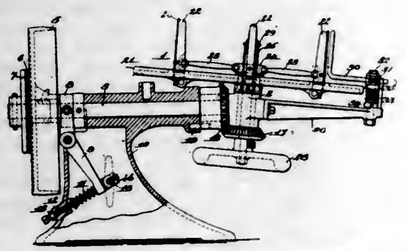
3. A spool comprising a tubular body, paper head disks at the ends of the body each having a hardened center and edge and an intermediate unhardened zone, and securing plugs in the ends of the body engaging the hardened centers of the heads and securing them to the ends of the body.

1,141,449. WELT-WINDING MACHINE. ANDREW EPPLER, Lynn, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Aug. 1, 1910. Serial No. 574,966. (Cl. 242—55.)

1. A welt winding machine, having, in combination, a rotary winding reel having a plurality of arms, mechanism for rotating the reel, a guide arm permanently supported parallel to the axis of rotation of the reel, and means for yieldingly maintaining the arm in operative relation to the reel to permit the strip of welting to be wound and bind the strip tightly to the reel.

2. A welt winding machine, having, in combination, a rotary winding reel comprising a plurality of arms, the winding reel adapted to revolve about an axis substantially at right angles to the axis about which it rotates and a guide yieldably mounted adjacent to the winding reel and adapted to revolve with the reel, the guide being parallel to the arms of the reel and pressing against the

strip of welting as it is wound upon the reel, and a stop to limit the movement of the guide when the winder is inoperative, substantially as described.

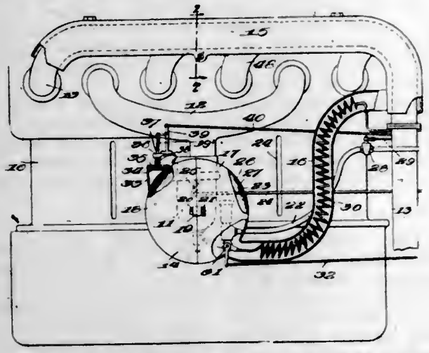


3. A welt winding machine, having, in combination, a drive shaft, a winding reel supported upon one end of the drive shaft with its axis substantially at right angles to the axis of the drive shaft, means for rotating the reel about its own axis as the drive shaft is rotated, and a clutch connected to the drive shaft and arranged to slip when the tension upon the welt exceeds a predetermined amount, substantially as described.

4. A welt winding machine, having, in combination, a winding reel, means for rotating the winding reel in a circular path substantially at right angles to the axis of rotation to impart a uniform twist to the strip of welt as it is wound, and driving mechanism arranged to allow the movements of the reel to slow down when the tension upon the welt exceeds a predetermined amount while maintaining a constant ratio of twist, substantially as described.

5. A welt winding machine, having, in combination, a winding reel arranged to wind a strip of welting from an exterior point, means for revolving the reel in a circular path to impart a twist to the welt as it is wound, and means for simultaneously rotating the reel about an axis inclined to the axis of revolution in order to cause the strip of welting to generate the surface of the cone and wind evenly upon the reel, substantially as described.

1,141,450. DEVICE FOR SUPPLYING HEATED AIR TO CARBURETERS. OSCAR G. ERICKSON, Detroit, Mich. Filed Mar. 12, 1914. Serial No. 824,229. (Cl. 48—149.)



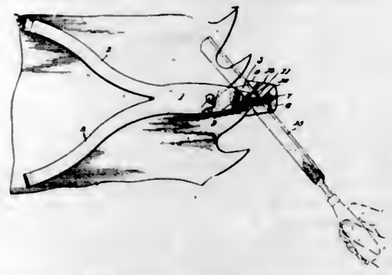
1. A carbureter attachment including a casing adapted for detachable engagement about a corbureter, a heating jacket adapted to be positioned about the exhaust manifold of an engine, an air pipe communicating between the heating jacket and casing, the casing being provided with an opening, a normally closed spring-pressed valve at all times capable of opening under internal pressure normally closing the opening, and means for opening the valve.

2. A carbureter attachment including a casing adapted for detachable engagement about a carbureter, a heating jacket adapted to be positioned about the exhaust manifold of an engine, an air pipe communicating between the heating jacket and casing, the casing being provided with an opening, a normally closed spring pressed valve at all times capable of opening under internal pressure normally closing the opening, and means for opeing the valve, said means permitting automatic opening of the valve, due to excessive pressure in the casing.

3. In a fuel supply system, the combination with a carbureter, of high and low grade fuel supply pipes leading to the intake of the carbureter, a cutoff valve in the high grade fuel supply pipe remote from the carbureter, whereby the said pipe holds a reserve supply of fuel after the valve is closed, a cutoff valve in the low grade fuel supply pipe adjacent the carbureter, whereby the low grade fuel pipe is prevented from acting as a reserve container when its valve is closed, a casing inclosing the carbureter, a heating jacket adapted to surround the exhaust manfold of an engine, and a hot air pipe communicating between the jacket and casing, a portion of the low grade fuel supply pipe being led through the air supply pipe.

4. An attachment for carbureters including a casing adapted to inclose a carbureter, a heating jacket adapted for attachment about the exhaust manifold of an engine, an air supply pipe leading from the jacket to the casing, and a fuel supply pipe extending through the air supply pipe and into the casing being adapted for attachment to the fuel intake port of a carbureter in the casing.

1,141,451. TOOL FOR USE IN FILING SWAGED SAW-TEETH. JOSEPH F. ERLEI, Milan, Wis. Filed May 28, 1914. Serial No. 841,652. (Cl. 33—202.)



1. A device for the purpose set forth comprising a supporting member adapted to rest upon a saw, and a gage carried by said supporting member and provided with a recess to receive a tooth of the saw and also provided with a guide at each side of the said recess and in rear of the outer end of the same for a saw-tooth-treating tool.

2. A device for the purpose set forth comprising a main supporting member, and a gage carried thereby, said gage being provided with a recess adapted to receive a saw-tooth and having guide walls rising from its upper surface and intersecting the said recess.

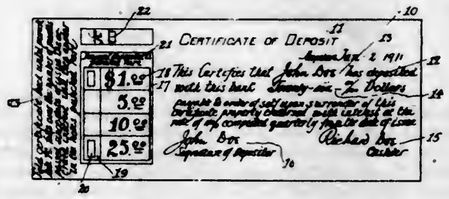
3. A device for the purpose set forth comprising a main supporting member, and a gage carried by said member, said gage being provided adjacent its inner end with a V-shaped recess to embrace a saw-tooth, and having a beveled upper surface and a guide wall rising from said surface at both sides of the recess at an angle thereto in rear of the outer end of the same.

4. A device for the purpose set forth comprising a main supporting bar having a downwardly extending portion adapted to pass between adjacent saw-teeth and a platform extending outwardly from the end of said downwardly turned portion, and a gage carried by said platform and having its inner end fitting closely against the said down-turned portion and provided at opposite sides of said portion with V-shaped recesses and with diagonally disposed guide walls at the opposite sides of each of said recesses and at an angle thereto and in rear of the outer end thereof.

5. A device for the purpose set forth comprising a main supporting member, a platform carried by said member and arranged to form a rest for a saw tooth, and a gage secured on said platform and provided adjacent the main supporting member at opposite sides of its medial longitudinal line with V-shaped recesses, each adapted at times to engage a saw tooth resting on the platform, the upper surface of the gage being beveled downwardly from its medial longitudinal line to its sides, and diagonally disposed vertical guide walls being provided on said surface, each of said walls extending from the side of the gage to the inner end of the same and intersecting the walls of a recess between the ends thereof.

[Claim 6 not printed in the Gazette.]

1,141,452. INTEREST-BEARING INSTRUMENT OF OBLIGATION. CLARENCE M. FAITHFULL, Liberty, Mo. Filed May 4, 1911, Serial No. 625,001. Renewed Apr. 27, 1915. Serial No. 24,345. (Cl. 11—13.)



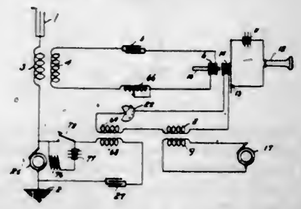
1. An interest bearing certificate of obligation comprising a body-portion having a certificate portion on its obverse face and interest amount indicating portion on its reverse face, the certificate portion including indicia for selectively indicating amounts, said interest indicating portion having indicia representing periods of elapsed time and also indicia representing interest amounts, the interest amount indicia including separate interest amount values for each amount value of the certificate, said certificate portion having means for permitting visual inspection of both a selected time period and the correlated interest amount for the selected certificate amount when the interest amount portion is folded upon the reverse face of the certificate portion.

2. An interest bearing certificate of obligation comprising a body-portion having a certificate portion on its obverse face and interest amount indicating portion on its reverse face, the certificate portion including indicia for selectively indicating amounts, said interest indicating portion having indicia representing periods of elapsed time and also indicia representing interest amounts, the interest amount indicia including separate interest amount values for each amount value of the certificate, said certificate portion having means for permitting visual inspection of both a selected time period and the correlated interest amount for the selected certificate amount when the interest amount portion is folded upon the reverse face of the certificate portion.

3. An interest bearing certificate of obligation comprising a body-portion having a certificate portion on its obverse face and interest amount indicating portion on its reverse face, the certificate portion including indicia for selectively indicating amounts, said interest indicating portion having indicia representing periods of elapsed time and also indicia representing interest amounts, the interest amount indicia including separate interest amount values for each amount value of the certificate, said certificate portion having means for permitting visual inspection of both a selected time period and the correlated interest amount for the selected certificate amount when the interest amount portion is folded upon the reverse face of the certificate portion, said means including an opening through the certificate adjacent the selected certificate amount.

4. An interest bearing certificate of obligation comprising a body-portion having a certificate portion on its obverse face and an interest amount indicating portion on its reverse face, the certificate portion including indicia for selectively indicating amounts, said interest indicating portion having indicia representing periods of elapsed time and also indicia representing interest amounts, the interest amount indicia including separate interest amount values for each amount value of the certificate, said certificate portion having windows therein adjacent the certificate indicia amounts, the interest amount portion of the certificate adapted to be folded upon the reverse face of the certificate portion whereby when the two portions are superposed visual inspection of the selected time period and correlated interest amount data may be had through the windows.

1,141,453. APPARATUS FOR THE TRANSMISSION AND RECEIPT OF ELECTRICAL ENERGY. REGINALD A. FESSENDEN, Brant Rock, Mass., assignor, by mesne assignments, to Samuel M. Kintner, Pittsburgh, Pa., and Halsey M. Barrett, Bloomfield, N. J., receivers. Original application filed Aug. 26, 1904, Serial No. 222,301. Divided and this application filed Nov. 22, 1907, Serial No. 403,286. Renewed Feb. 19, 1915. Serial No. 9,417. (Cl. 250—13.)



1. An indicator for received alternating currents comprising a local oscillations producer and devices forming a field of force continuously excited thereby, a field excited by the received oscillations, and means operated by the coöperation of said two fields for producing signals, the whole being adapted to annul the influence of the locally generated field on the indicator when the field for excitation by the received oscillations is not excited.

2. An indicator for alternating currents comprising a coil excited by received currents, a second coil excited by locally produced continuously acting currents, and an indicator operated by the combined effects of the two coils, the indicator being adapted for normally annulling the signal-producing effect of the locally excited coil on the indicator when the other coil is not excited by received oscillations.

3. Receiving apparatus for wireless telegraphy comprising a practically continuously acting local source of oscillations and a receiver field excited thereby, a second local producing source, and means for annulling its effect on the receiver field, substantially as described.

4. In wireless telegraphy, the combination with a receiving device comprising a local source of continuous oscillations, of a sending source of oscillations, and means for annulling the effect of said sending source on the receiver whereby to send and receive simultaneously.

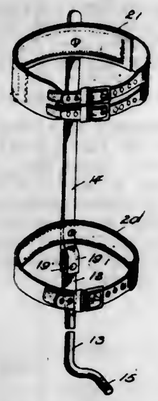
5. In wireless signaling the combination at a receiving station of devices forming a field of force excited by oscillations received, devices forming a supplementary field and local means for exciting it, an indicating instrument operated by interaction of said two fields, a sending source, and means in the locally excited field to counteract the effect of sending oscillations on the field excited by received oscillations whereby to prevent disturbance of the receiving instrument.

[Claim 6 not printed in the Gazette.]

1,141,454. SKATE ATTACHMENT. EDWIN FORDICE, Fairbury, Nebr. Filed Apr. 1, 1914, Serial No. 828,774. Renewed Feb. 15, 1915. Serial No. 8,347. (Cl. 46—53.)

1. An attachment for skates comprising a lower member having one terminal extending at right angles thereto and adapted to be pivotally engaged through a skate run-

ner, the right-angled extension being directed forwardly and thence upwardly, an upper member pivotally united to the lower member, a band connected to the upper member and adapted to engage around the ankle portion of the wearer of the skate, and a band adapted to be engaged around the leg portion of the wearer of the skate.



2. An attachment for skates comprising a lower member having one terminal extending at right angles thereto and thence directed forwardly and upwardly and flattened at its upper end, said right-angled portion adapted to be pivotally engaged through a skate runner, an upper member forked at its lower end to engage over the flattened portion of the lower member and pivotally united thereto, a band connected to the upper member and adapted to engage around the ankle portion of the wearer of the skate, and a band adapted to be engaged around the leg portion of the skate.

1,141,455. POT-COVER. JAMES F. FOSTER, Buffalo, N. Y. Filed Mar. 5, 1909. Serial No. 481,255. (Cl. 53—8.)



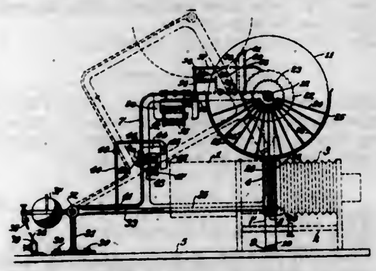
1. A cover having a folding handle provided at its ends with pivots journaled on the central portion of the cover, and a folding brace for the handle arranged between said pivots and having its pivot arranged substantially at right angles to the handle-pivots, the free end of said brace, when folded, terminating short and clear of said handle-pivots.

2. The combination of a cover provided on its central portion with a raised annular bead, a folding handle having its ends pivoted to opposite portions of said bead, and a brace for the handle hinged to the central part of the cover between the ends of handle and constructed of a length to fold wholly within the space bounded by said bead.

3. A cover having a folding handle pivoted to the central portion thereof, and a folding brace for the handle located between the ends thereof and pivoted to swing substantially at right angles to the handle, the main portion of the handle, when folded, extending beyond and clear of the sides of the brace.

4. A cover having a folding handle provided at its ends with pivots journaled on the central portion of the cover, and a folding brace for the handle arranged between said pivots and having its pivot arranged substantially at right angles to the handle-pivots, the main portion of the handle extending beyond the sides of the brace and the free end of the brace terminating short of the handle pivots.

1,141,456. PICTURE-SLIDE CONTROLLER FOR STEREOPTICONS. VICTOR FREDERIKSEN, Roanoke, Va. Filed Sept. 29, 1913. Serial No. 792,584. (Cl. 88—27.)



1. In a picture slide controller for stereopticons, the combination of a drum having grooves adapted to receive picture slides, a cross-head adapted to convey the picture slides from said grooves into and out of the path of the light of the stereopticon, an electromagnet adapted to move said cross-head, and a second electromagnet adapted to revolve said drum for a portion of a revolution, the movement of the said cross-head by the first electromagnet being further adapted to complete the electric circuit to the said second electromagnet.

2. In a picture slide controller for stereopticons the combination of a drum having grooves adapted to receive picture slides, a cross head adapted to convey the picture slides from said grooves first into the path of the light of the stereopticon and then back into the said grooves, an electromagnet adapted to move the said cross head, an electric circuit adapted to be alternately opened and closed by the movement of said cross head when it conveys a picture slide into and out of the path of the light of the stereopticon respectively and a second electromagnet embraced in the said electric circuit and adapted to revolve the said drum for a portion of a revolution when the said electric circuit is closed by the aforesaid movement of the crosshead.

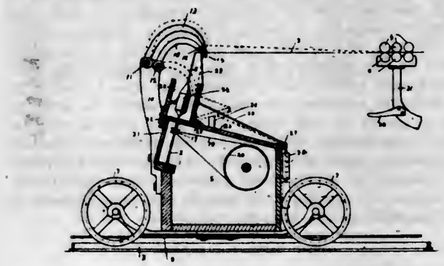
3. In a picture slide controller for stereopticons the combination of a drum having grooves adapted to receive picture slides, a cross head adapted to convey the picture slides from said grooves first into the path of the light of the stereopticon and then back into the said grooves, a lever adapted to actuate said cross head, an electromagnet adapted to actuate the said lever, a second electromagnet adapted to revolve the aforesaid drum for a portion of a revolution, and means for alternately opening and closing the electric circuit to the said second electromagnet from the movements of the aforesaid lever.

4. In a picture slide controller for stereopticons the combination of a drum having grooves adapted to receive picture slides, a horizontally disposed lever pivoted below said drum, said lever being bifurcated at its forward end, a cross head carried in the arms of said lever and adapted to alternately rise and fall in guides with the forward ends of said lever, the said cross head being further adapted to receive a picture slide from grooves in the said drum when in the uppermost position of its travel, an electromagnet adapted to actuate said lever, a second electromagnet adapted to revolve the said drum for a portion of a revolution each time the said second electromagnet is excited, and means for closing the electric circuit to the said second electromagnet when the said cross head is in the uppermost position of its travel.

5. In a picture slide controller for stereopticons the combination of a drum having grooves adapted to receive picture slides said drum being mounted on a horizontal shaft, a cross head adapted to convey the picture slides from said grooves first into the path of the light of the stereopticon and then back into the said grooves, a horizontally disposed lever adapted to actuate said cross head, an electromagnet adapted to actuate the said lever, a pair of reversely disposed ratchet wheels mounted on the shaft of the said drum, ratchet pawls adapted to engage the teeth of the said ratchet wheels, a second electromagnet adapted to move the first of the said ratchet pawls to revolve the said drum for a portion of a revolution, and projections on the first of the said ratchet pawls adapted to force the second of the said ratchet pawls into or out of engagement with the teeth of the second of the aforesaid ratchet wheels to limit the movement of the said drum.

[Claims 6 to 9 not printed in the Gazette.]

1,141,457. PROTECTING DEVICE FOR COTTON-SPINNING MACHINES. BEIRNE GORDON, Jr., Utica, N. Y. Filed Dec. 16, 1914. Serial No. 877,615. (Cl. 118—9.)



1. In a cotton spinning machine, the combination of spindles rapidly rotating during the drawing and twisting of the cotton and slowly revolving during the winding thereon of the cotton, a faller guide positioned above the spindles during said rapid rotation and moving down and back beside the spindles during the winding operation, a movable protector on the receiving side of the spindles, and means for positioning said protector beside the spindles during their rapid rotation and for withdrawing it therefrom during the winding operation.

2. In a cotton spinning machine, the combination of spindles rapidly rotating during the drawing and twisting of the cotton and slowly revolving during the winding thereon of the cotton, a faller guide positioned above the spindles during said rapid rotation and moving down and back beside the spindles during the winding operation, a movable protector on the receiving side of the spindles, means for positioning said protector beside the spindles during their rapid rotation and for withdrawing it therefrom during the winding operation and a protector arranged along the other side of the row of spindles.

3. In a cotton spinning machine, the combination of spindles rapidly rotating during the drawing and twisting of the cotton and slowly revolving during the winding thereon of the cotton, a faller guide positioned above the spindles during said rapid rotation and moving down and back beside the spindles during the winding operation, a movable protector on the receiving side of the spindles, and means operatively connected to said machine for positioning said protector beside the spindles during their rapid rotation and for withdrawing it therefrom during the winding operation.

4. In a cotton spinning machine, the combination of spindles rapidly rotating during the drawing and twisting of the cotton and slowly revolving during the winding thereon of the cotton, a faller guide positioned above the spindles during said rapid rotation and moving down and back beside the spindles during the winding operation, a movable protector on the receiving side of the spindles, means operatively connected to said machine for positioning said protector beside the spindles during their rapid rotation and for withdrawing it therefrom during the winding operation, and a protector arranged along the other side of the row of spindles.

5. In a cotton spinning machine, the combination of spindles rapidly rotating during the drawing and twisting of the cotton and slowly revolving during the winding thereon of the cotton, a faller guide positioned above the spindles during said rapid rotation and moving down and back beside the spindles during the winding operation, a movable protector on the receiving side of the spindles, means operatively connected to said faller guide for positioning said protector beside the spindles during their rapid rotation and means for withdrawing it therefrom during the winding operation.

[Claims 6 to 10 not printed in the Gazette.]

1,141,458. PROCESS FOR MAKING SYRUP FROM CIDER AND OTHER FRUIT-JUICES. HERBERT C. GORE, Takoma Park, Md. Filed Oct. 7, 1914. Serial No. 865,436. (Dedicated to the public.) (Cl. 99—11.)

1. A process for making syrup from fruit juices, consisting in adding a neutralizing agent to the juice, agitating the solution and heating it, subjecting the heated solution to filtration, then concentrating the filtered solution and removing therefrom salts of the corresponding organic acids formed from the action of the neutralizing agent on the fruit juice, substantially as described.

2. A process for making syrup from fruit juices, consisting in adding a neutralizing agent to the juice, agitating the juice simultaneously with the addition of the neutralizing agent, heating the agitated solution to a boiling temperature, then subjecting the solution to filtration for removing suspended matter contained therein, evaporating the residue and then passing the solution through a filter press for separating from the syrup salts of the corresponding organic acids formed from the action of the neutralizing agent on the fruit juice from the syrup, substantially as specified.

3. A process for making syrup from fruit juices, consisting in adding milk of lime to the juice and simultaneously stirring the juice, then heating the solution to a temperature of 212° F., and subjecting the heated solution to filtration for removing therefrom suspended matter, evaporating the solution for separating into crystals the calcium malate contained therein, and finally passing the mixture through a filter press for separating the crystalline calcium malate, substantially as specified.

4. A process for making syrup from fruit juices, consisting in adding milk of lime to the juice in amount not sufficient completely to neutralize the acidity of the juice, agitating the solution and heating it, subjecting the heated solution to filtration, then concentrating the filtered solution and removing therefrom salts of the corresponding organic acids formed from the action of the milk of lime on the fruit juice, substantially as described.

1,141,459. TOY. MARJORIE T. GREGG, Brookline, Mass. Filed Oct. 15, 1914. Serial No. 866,872. (Cl. 46—40.)



1. A toy of the character described comprising a skeleton or frame having a body part, arms, and legs, a strip

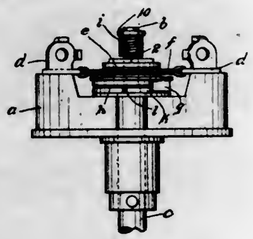
of fabric wound upon one of said arms beginning at its end and extending to the shoulder, thence around the body part and extending along one of said legs, and another strip of fabric wound upon the other of said arms beginning at its end and extending to the shoulder, thence around the body part and extending along the other of said legs, and means to bind said strips about said legs.

2. A toy of the character described comprising a skeleton or frame having a body part, arms and legs, a strip of fabric folded over one shoulder of said frame and extending along the leg opposite said shoulder, another strip of fabric folded over the other shoulder of said frame and extending along the leg opposite said shoulder, said strips crossing each other, and means to bind said strips about said body part and legs.

3. A toy of the character described comprising a skeleton or frame having a body part, arms and legs, strips of fabric wound upon each of said arms, a strip of fabric folded over one shoulder of said frame and extending along the leg opposite said shoulder, another strip of fabric folded over the other shoulder of said frame and extending along the leg opposite said shoulder, said two last named strips crossing one another, and means to bind said two last named strips about said legs and said body part.

4. A toy of the character described comprising a skeleton or frame having a body part, arms and legs, a strip of fabric wound upon one of said arms beginning at its end and extending to the shoulder, thence around the body part and extending along one of said legs, another strip of fabric wound upon the other of said arms beginning at its end and extending to the shoulder, thence around said body part and extending along the other of said legs, another strip of fabric folded over one shoulder of said frame and extending along the leg opposite said shoulder, another strip of fabric folded over the other shoulder of said frame and extending along the leg opposite said shoulder, said two last named strips crossing one another, and means to bind said two last named strips about said legs and said body part.

1,141,460. ELECTRIC SWITCH. MONROE GUETT, Hartford, Conn., assignor to The Hart & Hegeman Manufacturing Company, Hartford, Conn., a Corporation of Connecticut. Filed Feb. 25, 1911. Serial No. 610,823. (Cl. 175—288.)

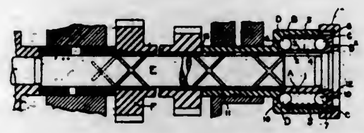


1. In an electric switch the combination with a base, stationary contacts thereon, an oscillating spindle and an oscillating pole element loosely mounted on the spindle and including a switch plate coöperating with said stationary contacts, of means for holding said switch plate to permit relative rotary movement of the spindle, means for subsequently moving the spindle and switch plate together, a spring for moving said switch plate relatively to said spindle and a stop to limit the throw of the switch plate by the spring, all of said motions being in one direction to accomplish the breaking of the circuit, and means for moving said pole element and spindle together in the opposite direction.

2. In an electric switch the combination with a base, stationary contacts thereon, an oscillating spindle, an oscillating pole element loosely mounted on the spindle and including a switch plate adapted for coöperation with said stationary contacts, and a spring connecting said pole element and spindle, of a stop plate carried by the spindle and provided with two spaced shoulders, a stop lug carried by the pole element and projecting between the shoulders and the stop plate, one of the shoulders on the stop plate being adapted to engage said stop lug to move said pole element and spindle together in one direction to cause the frictional engagement of the switch plate and stationary contact, said switch plate being frictionally held during the initial movement of the spindle and its attached stop plate in the opposite direction, the other shoulder of said stop plate then engaging the stop lug to move said switch plate out of engagement with the stationary contacts, the spring which was made tense during the initial movement of the spindle finally moving said switch plate in the same direction but relatively to the spindle.

3. In an electric switch, the combination with a base and stationary contacts mounted thereon, and an oscillating spindle mounted therein, of an oscillating pole element loosely mounted on the spindle and including a switch plate adapted for frictional engagement with said stationary contacts, a spring forming a driving connection between said spindle and pole element, a stop plate carried by the spindle and a stop lug carried by the pole element, said spindle being adapted for rotary motion in one direction relatively to said pole element in order to store up power in said spring, said parts then moving together to disengage said switch plate from said stationary contacts, said pole element then moving relatively with respect to said switch plate to break the circuit, and means for causing said spindle and pole element to move together in the opposite direction.

1,141,461. SAFETY-COUPLING. ROBERT T. HAZELTON, Cincinnati, Ohio, assignor to The Cincinnati Milling Machine Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Jan. 5, 1915. Serial No. 548. (Cl. 64—13.)



1. A transmission device of the nature disclosed combining a first series of balls; a second series of balls spaced away from said first series; a first member intervening between said two series of balls and provided with sockets for individually receiving each ball of said series; a second member having a part provided with seats for individually receiving the balls of the one series, an oppositely located part having a series of seats adapted to receive the balls of the second series; springs for resiliently positioning said balls to exert a thrust in opposite directions on the parts of such second member to balance said two members against relative lateral movement, means for positively rotating one of said members, and means for deriving motion from the other member.

2. A transmission device of the nature disclosed combining an annular member providing a series of apertures; balls located at the open ends of each aperture; springs for urging said balls in opposite directions out of said apertures; a second member having a serrated face co-acting with the balls at one end of said apertures and an element rigid with said second member and provided with a serrated face co-acting with the balls at the other end of said apertures.

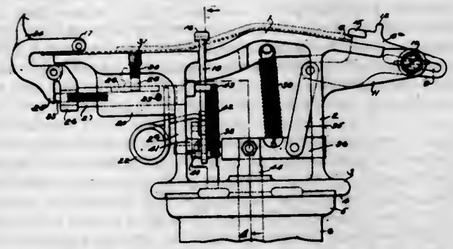
3. A transmission device of the nature disclosed combining a circumscribing member having an annular side-wall provided with a series of ball-seats; an annular member concentrically within said first member; a first series of balls yieldingly carried by said second member and co-acting with the ball-seats of said first member; a second series of balls arranged in opposition to said first series and carried by said second member; a member non-rotatably secured to said first member and having a series of ball-seats co-acting with said second series of balls; and means for adjusting said member laterally with relation to said first member.

4. A mechanism of the nature disclosed combining a motion-transmitting shaft; a first and a second series of balls arranged concentrically with said shaft; means for urging said balls apart; means for restraining a revolution of said balls about said shaft; a sleeve surrounding said shaft and co-acting with the one series of said balls; and a part non-rotatably secured to said sleeve and co-acting with the other series of said balls to balance the stresses thereof and to permit of a momentary rotary movement between said sleeve and said shaft when a predetermined stress maximum has been exceeded.

5. A yieldable safety-coupling of the nature disclosed combining an annular circumscribing member having a side-wall provided with a circumferential series of ball-seats; a collar connected to said member at a distance from said wall and also having a series of ball-seats; an annular member intervening between said collar and said wall and carrying two series of balls, springs for forcing the balls of the one series away from the balls of the other series and into said ball-seats; and means for adjusting the distance between said collar and said wall.

[Claims 6 to 10 not printed in the Gazette.]

1,141,462. WORK-SUPPORT FOR SOLES OF BOOTS AND SHOES. WILLIAM H. HOOPER, Lynn, and THOMAS H. SEELY, Boston, Mass., assignors to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Nov. 4, 1912. Serial No. 729,230. (Cl. 12—123.)



1. A work support, having, in combination, a sole supporting form shaped to present a predetermined curvature in conformity with that assumed by the sole when secured to a last, and means for causing a supported sole to conform to the curvature of the form comprising a plurality of clamps for engaging the feather of the sole at separate points, and connected mechanism for operating the clamps, substantially as described.

2. A work support, having, in combination, a sole supporting form shaped to present a predetermined curvature in conformity with that assumed by the sole when secured to a last, a clamp for engaging the sole at the toe, a pair of clamps for engaging the sole at the shank, springs for holding said clamps normally disengaged from the sole, and means for successively operating the toe and shank engaging clamps into yielding engagement with the sole, substantially as described.

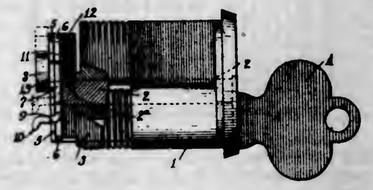
3. A work support, having, in combination, a sole supporting form shaped to present a predetermined curvature in conformity with that assumed by the sole when secured to a last, a clamp for engaging the sole at the toe, a pair of clamps for engaging the sole at the shank, and a single means for successively operating the toe and shank engaging clamps, substantially as described.

4. A work support, having, in combination, a rotary sole supporting form shaped to present a predetermined curvature in conformity with that assumed by the sole when secured to a last, sole clamps for engaging and causing a supported sole to conform to the curvature of the form, mechanism for operating the clamps, actuating means for said mechanism, and means permitting a rotation of said form and mechanism about said actuating means, substantially as described.

5. A work support, having, in combination, a sole supporting form shaped to present a predetermined curvature in conformity with that assumed by the sole when secured to a last, a device for gaging and clamping the toe of the sole on the form, a pivot therefor about which the device swings to engage the sole, and an adjusting means for positioning the pivot point to accommodate the device for different sizes of soles, substantially as described.

[Claims 6 to 11 not printed in the Gazette.]

1,141,463. CYLINDER-LOCK. NORMAN B. HURD, New Britain, Conn., assignor to The American Hardware Corporation, New Britain, Conn., a Corporation of Connecticut. Original application filed July 3, 1914, Serial No. 848,845. Divided and this application filed Dec. 12, 1914. Serial No. 876,757. (Cl. 70—92.)



1. A cylinder lock comprising a casing, a rotatable element therein, a plurality of keys for rotating said element, a roll-back or cam operatively connected and rotated by the rotation of said element and having at least three different positions radially thereof, with means normally tending to hold said cam in one of said positions, and means controlled by two different of said plurality of keys for moving said cam into a second and third of said positions, respectively.

2. A cylinder lock comprising a casing, a rotatable element therein, a plurality of keys for rotating said element, a roll-back or cam carried by and rotating with said element and having at least three different positions radially thereof, with means normally tending to hold said cam in one of said positions, and means controlled by two different of said plurality of keys for moving said cam into second and third positions, respectively.

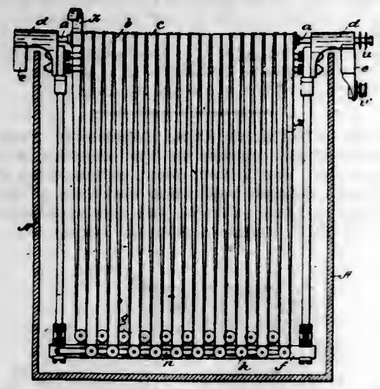
3. A cylinder lock comprising a casing, a rotatable element therein, a plurality of keys for rotating said element including at least two keys longer than the others and of different lengths relatively, a roll-back or cam carried by and rotating with said element and having at least three different positions radially thereof, with means normally tending to hold said cam in one of said positions, and with means controlled by said two longer keys for moving said cam into the second and third positions, respectively.

4. A cylinder lock comprising a casing, a rotatable element therein, a plurality of keys for rotating said element including at least two keys longer than the others and each of different lengths relatively, a roll-back or cam carried by and rotating with said element having at least two spaced abutments and also having at least three different positions relative to said element with means normally tending to hold said cam in one of said positions, said two longer keys being adapted to engage said two abutments respectively to move said cam into second and third positions, respectively.

5. A cylinder lock comprising a casing, a rotatable element therein, a plurality of keys for rotating said element, a roll-back or cam fixedly connected to and rotating with said element, a second and relatively movable cam carried by and rotating with the first cam and having at least three different positions relative thereto, with means normally holding said second cam in one of said positions, and with means controlled by two different of said plurality of keys for moving said second cam into second and third positions, respectively.

[Claim 6 not printed in the Gazette.]

1,141,464. APPARATUS FOR DEVELOPING AND WASHING CINEMATOGRAPHIC FILMS. ROBERT JAVAULT, Paris, France, assignor to Société Francaise des Films & Cinematographes, "Eclair," Paris, France. Filed Dec. 8, 1911. Serial No. 664,671. (Cl. 95—94.)



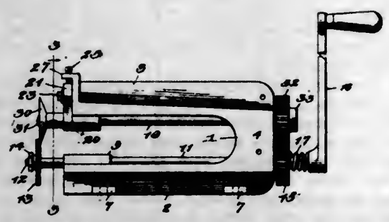
1. In apparatus for treating cinematographic films or the like, the combination of a vat, a shaft provided with idle rolls and drive rolls alternating with each other, mounted in said vat, a support in said vat and a plurality of rolls mounted thereon having their axes of rotation at right angles to that of said shaft whereby the film is twisted and untwisted through 90° and maintained in alinement with the driving rolls without side thrust.

2. In apparatus for treating cinematographic films or the like, the combination of a vat, a shaft provided with idle rolls and drive rolls alternating with each other and mounted in said vat, a support in said vat and guide rolls mounted thereon some of which are stationary mounted and others yieldingly mounted to act as tension rolls and having their axes of rotation at right angles to that of said shaft whereby the film is twisted and untwisted through 90° and maintained in alinement with the driving rolls without side thrust.

3. In apparatus for treating cinematographic films or the like, the combination of a shaft provided with film guiding and film driving rolls mounted thereon, each driving roll having sprocket disks fast to the shaft and adapted to engage perforations in a film, and loosely mounted side washers adjacent said disks adapted to follow the movement of the film and prevent wear of its edge portions.

4. In apparatus for treating cinematographic films or the like, a receptacle, and means therein for advancing the film while twisting and untwisting said film during such movement.

1,141,465. LEATHER-CUTTING MACHINE. HERBERT KEHLER, Warsaw, Ind. Filed July 28, 1913, Serial No. 781,673. Renewed Mar. 22, 1915. Serial No. 16,256. (Cl. 164—63.)



1. A leather cutting machine comprising a frame having upper and lower arms thereon, an operating shaft revolubly and slidably mounted in the lower arm of the frame and projecting beyond the ends thereof, a cutter carried on one end of said shaft, a gear slidably keyed on the opposite end thereof, an operating member fixed also on the last mentioned end of said shaft, a coil spring encircling the shaft between said gear and operating member, an additional shaft mounted for rotation in the upper arm of said frame and having its ends extending beyond the latter, a gear carried on the last mentioned shaft engaging the first mentioned gear, an additional cutter carried on the opposite end of said last mentioned shaft and engaged with the cutter on the first mentioned shaft, and means for adjusting the cutter-carrying end of the last mentioned shaft vertically in the upper arm of the frame.

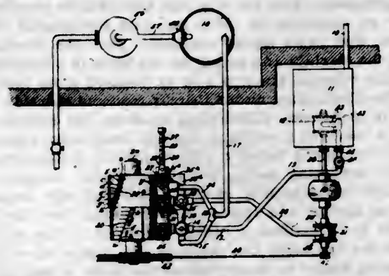
2. In a leather cutting machine, a frame comprising a lower shaft supporting arm and an upper shaft supporting arm spaced above said lower arm, a lower cutter operating shaft revolubly and slidably mounted in said lower arm of the frame, a cutter mounted on one end of said shaft, a gear slidably keyed on the opposite end thereof, an operating member fixed on this end of the shaft, a spring arranged between said gear and operating member, an upper cutter operating shaft having a revoluble engagement at one end with the upper portion of the frame, a gear keyed to this end of the shaft and engaged with the gear on the lower shaft, an upper shaft supporting sleeve adapted to revolubly support the outer end of said upper shaft, means to adjustably secure said sleeve to the upper arm of the frame, and an upper cutter mounted on said upper shaft and having an operative engagement with the said lower cutter.

3. In a leather cutting machine, a supporting frame comprising lower and upper shaft supporting arms, a lower cutter supporting and operating shaft slidably and revolubly mounted in said lower arm, an operating member engaged with said shaft, an upper cutter supporting and operating shaft revolubly mounted at one end in said upper arm of the frame and geared at this end to the lower cutter operating shaft, a sleeve adapted to revolubly support the outer end of the upper shaft, a plate arranged on said sleeve having therein notches, clamping screws engaged with said notches and with the outer end of the upper arm of the frame whereby said sleeve is adjustably secured to said arm to support the outer end of the upper shaft in its adjusted positions, a stop screw arranged on the outer end of said upper arm and adapted to engage said plate whereby the sleeve is securely held in its adjusted positions, a cutter secured to the outer end of said upper shaft, a coacting cutter secured to the adjacent end of the lower shaft, and means to hold said lower cutter in yielding engagement with the upper cutter.

4. In a leather cutting machine, a supporting frame comprising upper and lower shaft supporting arms spaced apart and integrally connected at one end, said frame having in its inner end a lower shaft bearing aperture and an upper tapered shaft bearing aperture, a bearing on the outer end of said lower arm, a lower cutter operating shaft revolubly and slidably mounted in said bearing and in the lower bearing aperture at the opposite end of the frame, an upper cutter operating shaft revolubly mounted at its inner end in said tapered bearing aperture, a sleeve adjustably secured to the outer end of the upper arm and adapted to revolubly support the outer end of said upper shaft, a cutter secured to the outer end of the upper shaft and comprising a disk having a flat outer surface and having its inner surface beveled to form a sharp cutting edge with the outer surface a lower cutter fixed on the outer end of said lower shaft and comprising a disk having a milled edge, and means to yieldingly hold said lower cutter in operative engagement with the flat outer surface of the upper cutter.

1,141,466. FLUID-MIXING APPARATUS. WILLIAM WALLACE KEMP and WILLIAM H. VAN HORN, Baltimore, Md. Filed Aug. 13, 1913. Serial No. 784,652. (Cl. 48—180.)

1. In a fluid mixing apparatus, the combination with a mixing receptacle, and means for compelling a plurality of fluids under pressure to be delivered separately thereinto, of a plurality of devices each adapted to interrupt the flow of one of said fluids, a plurality of mechanisms each for periodically operating one of such devices, and means for changing the relative periods of operation of said mechanisms.



2. In a fluid mixing apparatus, the combination with a mixing receptacle, and means for compelling a plurality of fluids under pressure to be delivered separately thereinto, of a plurality of devices interrupting the flow of said fluids for controlling the proportionate quantities delivered, means for periodically operating such devices, and means for changing the relative periods of such operations.

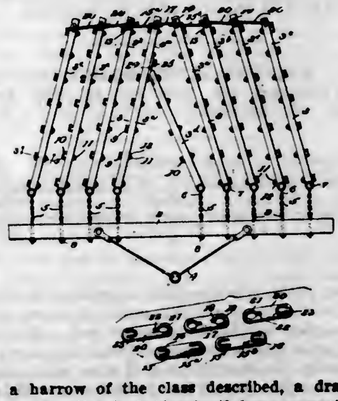
3. In a fluid mixing apparatus, the combination with a mixing receptacle, means for compelling a plurality of fluids under pressure to be delivered separately thereinto, of a plurality of devices for interrupting the flow of said fluids for controlling the proportionate quantities delivered, means for periodically operating such devices, and means for changing the relative periods of such operations.

4. In a fluid mixing apparatus, the combination with a mixing receptacle, and means for compelling a plurality of fluids under pressure to be delivered separately thereinto, of a plurality of devices interrupting the flow of said fluids for controlling the proportionate quantities delivered, means for periodically operating said devices, and means for simultaneously changing the relative periods of such operations.

5. In a fluid mixing apparatus, the combination with a mixing receptacle, and means for compelling a plurality of fluids under constant pressure to be delivered separately thereinto, of a plurality of devices each interrupting the flow of a fluid to control the delivery thereof to said receptacle, a separate means for periodically operating each of said devices, and means for simultaneously changing the relative periods of such operation.

[Claims 6 to 25 not printed in the Gazette.]

1,141,467. DRAG-HARROW. FRANK KRAMER, Tiskilwa, Ill. Filed Mar. 12, 1914. Serial No. 824,236. (Cl. 55—32.)



1. In a harrow of the class described, a draft beam, and a harrow section including tooth bars connected to the beam, and links connecting the ends of the tooth bars, the connection of each link with one of the tooth bars being rigid and with the next adjacent tooth bar being movable.

2. In a harrow of the class described, a draft beam, tooth bars connected to the beam, and links connecting the rear ends of the bars and having openings receiving the said ends of the bars, the walls of certain of the openings being notched and the adjacent end of the bars having studs arranged for passage through the notches when the links are turned to predetermined position to permit the removal thereof.

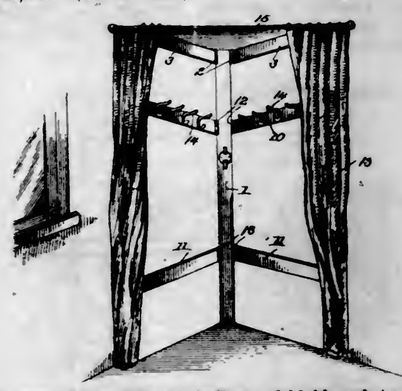
3. In a harrow of the class described, a draft beam, tooth bars flexibly connected to the beam and extending rearward therefrom, links fitting the rear ends of the bars and connecting the bars for relative movement in vertical planes, the links having openings to receive the rear ends of the related bars, one opening of each of certain of the links removably receiving the rear end of one bar and rotatably engaging the said end of said bar and the other opening non-rotatably receiving the end of the next adjacent bar.

4. A drag harrow of the character described including two pairs of tooth bars disposed one pair on each side of the line of draft, the bars of each pair being rigidly connected to each other, a connection between the adjacent bars of both pairs spacing said bars but permitting them to have relative movement in a vertical plane, and laterally disposed bars having links rotatably engaging the outer bars of the first named pairs of bars for movement in a vertical plane.

5. A drag harrow of the character described including a draft beam, a pair of tooth bars disposed one on each side of the line of draft, flexibly connected to the draft beam and extending rearward therefrom in convergent relation, a link having rotatable engagement with the rear ends of both of said bars, bars extending parallel to the first-named bars and rigidly connected thereto, and bars extending parallel to the second named bars and connected thereto for free relative movement in a vertical plane, all of said bars being flexibly connected to the draft beam, and an intermediate bar disposed between the first-named bars flexibly connected at its forward end to the draft beam and at its rear end detachably connected to one of the first-named bars.

[Claims 6 to 8 not printed in the Gazette.]

1,141,468. PORTABLE WARDROBE. ANDREW S. LAWTON, Brockton, Mass. Filed July 15, 1912. Serial No. 709,555. (Cl. 45—118.)



A portable wardrobe including a foldable substantially triangular skeleton frame comprising a central upright adapted to be positioned in the corner of a room at the juncture of the adjacent side walls thereof, upper side arms having their inner ends beveled and pivotally connected to the adjacent longitudinal edges of the central upright and their outer faces bearing directly against the adjacent side walls of the room, lower side arms pivotally connected with the longitudinal edges of the central upright and also bearing against the adjacent side walls of the room, forward uprights connecting the outer ends of the upper and lower side arms, intermediate hook carrying side arms having their inner ends pivotally connect-

ed with the adjacent longitudinal edges of the central upright and their outer ends secured to the forward uprights, means arranged upon the upper longitudinal edges of the upper side arms and disposed to operatively support a cover, and means arranged upon the outer ends of the upper side arms for supporting a curtain pole.

1,141,469. PROCESS FOR THE MANUFACTURE OF SOLID BODIES FROM POWDER. HEINRICH LEISER, Charlottenburg, Berlin, Germany. Filed Sept. 27, 1912. Serial No. 722,584. (Cl. 29—148.)

1. The process for making solid shapes from metal powders, which consists in molding a mixture of crystalline and amorphous metal powder, in which the crystalline metal predominates, and heating the molded mixture to convert the amorphous metal into crystalline metal.

2. The process for making solid metallic shapes which consists in preparing a mixture of crystalline and amorphous metal or metals in powder form, the crystalline metal predominating, subjecting said mixture to pressure in a mold and heating it to convert the amorphous metal into crystalline metal.

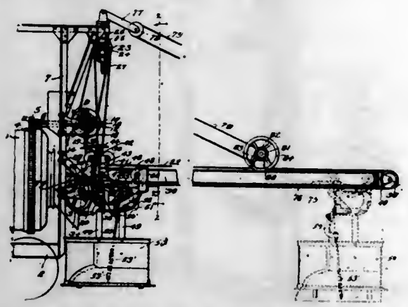
3. The process for making solid shapes from metals having a high melting point, which consists in preparing a mixture of crystalline and amorphous powders of the said metal or metals, the crystalline powder predominating in the mixture, subjecting said mixture to heavy pressure in a mold, and heating the pressed mixture to convert the amorphous metal into crystalline metal.

4. The process for making solid metallic shapes which consists in preparing a mixture of crystalline and amorphous metal or metals, more than 80 per cent. of the mixture being crystalline metal, subjecting said mixture to heavy pressure in a mold and heating the pressed mixture to convert the amorphous metal into crystalline metal.

5. The process for making solid metallic shapes which consists in heating a compressed mixture of more than 90 per cent. of crystalline metal powder and less than 10 per cent. of amorphous metal powder to convert the amorphous metal into crystalline metal.

[Claims 6 to 9 not printed in the Gazette.]

1,141,470. DISTRIBUTING MECHANISM FOR CONCRETE-MIXERS. ERICH H. LICHTENBERG, Milwaukee, Wis., assignor to Koehring Machine Co., Milwaukee, Wis. Filed Oct. 21, 1912. Serial No. 727,017. (Cl. 214—14.)



1. In combination, a boom, a cam carried thereby, a carriage mounted to travel along said boom, a bucket supported by the carriage, discharging means for the bucket comprising a trip arm engaged by said cam when the bucket is in its charging position so that the discharging means cannot be operated while the carriage is in its charging position, and a table connected with the carriage to move the latter along the boom to a bucket discharging position so as to disengage the trip arm from the cam whereby to render the discharging means operative.

2. In a concrete distributing machine, in combination, a boom, a carriage arranged to travel along the boom, a bucket suspended from the carriage and having bottom doors, discharge means for said doors comprising a trip arm pivotally mounted on the carriage, a cam so positioned on the boom that when the carriage and bucket are in their normal charging position said cam is maintained in engagement with the trip arm aforesaid to prevent liability of operation of the latter and discharging of the bucket, and cable means connected with the carriage to move the carriage and bucket on the boom to a discharging position wherein the trip arm is released from said cam and the discharging means thereby rendered operable.

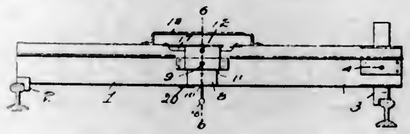
3. In a concrete distributing machine, the combination, with a boom, of a carriage movable lengthwise thereof, a bucket supported thereby, trip means for discharging the bucket, actuating means sustained by the carriage and shiftable independently of the bucket and trip means to impinge against and actuate the latter and leave the same free to be normalized, a bucket sustained by the carriage, means for operating the carriage and connected with the actuating means to thereby cause the latter to impinge the trip means to discharge the bucket, and means to automatically normalize the trip means.

4. In a concrete distributing machine, in combination, a boom, a carriage mounted thereon and provided with spaced guides, a slide mounted for movement in said guides, a cable permanently connected with said slide to shift the slide relative to the carriage and to move the slide and carriage simultaneously, a bucket supported by the carriage and having bottom doors, and means intermediate the slide and said bottom doors of the bucket comprising a trip member engageable by the slide in its movement to release and open said doors when the carriage and bucket reach a predetermined position on the boom, an arm connected with said trip member, and a part supported by the boom to engage the last mentioned arm when the carriage assumes its bucket charging position to thereby close the doors of the bucket and maintaining engagement with said arm to prevent accidental opening of the doors until the carriage and bucket move toward discharging position.

5. In a concrete distributing machine, in combination, a supporting structure, a carriage mounted thereon, a bucket supported by the carriage, a cam offstanding from the said structure at a side thereof, bucket discharging means including a trip device supported on the carriage, an arm connected with said trip device and normally engaging said offstanding cam to hold the trip device in a position maintaining the bucket closed and preventing discharging of the same, cable means for operating the bucket, a slide supported within the carriage and housed thereby so as to coact with the trip means to discharge the bucket, said carriage having guides in which the slide is mounted, and a connection intermediate the cable means and the slide so that relative movement of the carriage and slide may be effected as well as simultaneous movement of these parts under the control of the cable means.

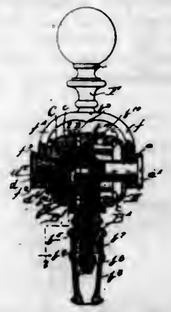
[Claims 6 to 24 not printed in the Gazette.]

1,141,471. RAILWAY LEVEL-BOARD. WILLIAM MCCLURE, Boughton, Ark. Filed June 18, 1912. Serial No. 704,402. (Cl. 33—143.)



A device of the type described, including a track-gaging member having a keeper-like guide arranged centrally thereof, a slide, having, at its upper end, a shoulder and equipped with means for ascertaining the center of the railway track, the shoulder of said slide being adapted to engage said guide, said slide also being provided with a vertical arrangement of adjusting perforations, said guide having a central perforation, and an adjusting pin engaging said guide-perforation and any one of the vertical arrangements of perforations of said slide.

1,141,472. SODA-WATER FAUCET. JOSEPH A. MCCORMICK, Chicago, Ill. Filed Dec. 4, 1907. Serial No. 405,053. (Cl. 225—25.)



1. In a faucet the combination with a valve seat, of a rotatable valve, a collar fitted over the valve, one or more arms on said collar, and clamping means engaged on said arm adapted to adjustably clamp said valve upon its seat.

2. In a faucet the combination with a valve seat, of an outwardly directed flange around said seat, a rotatable valve fitting in said flange, a packing washer between the valve seat and valve, a collar fitted over the valve and around the flange, arms on said collar and clamping means engaged on said arms adapted to adjust the collar longitudinally to hold the valve upon its seat.

3. In a faucet the combination with a faucet body, of a valve seat, concentric flanges surrounding the valve seat, a rotatable valve fitted within the inner flange, a stem integral with said valve, a collar fitted over the stem and valve having its inner end fitting between the flanges, arms on said collar extending through apertures in the body and clamping means engaged on said arms adapted to adjust the pressure of said valve upon its seat.

4. In a device of the class described the combination with a faucet body, of a valve seat on one side of said body, a rotatable valve, a washer fitted between the seat and valve, a collar fitted over the valve and bearing against the same, a plurality of arms on said collar extending to the opposite side of the body from the collar, and clamping means threaded on said arms on the opposite side of the body from the valve, adapted to draw said valve upon its seat with any degree of pressure.

5. In a device of the class described a body provided with a central inlet passage and a plurality of outlet passages, a flat valve seat, a washer fitted thereagainst having apertures to register with said passages, a valve bearing against the washer, said valve having a passage therein adapted to connect the inlet with any of the outlet passages, and coacting clamping members on the opposite sides of the body adapted by rotation of the member opposite the valve to draw the other member to adjust said valve against the washer to afford a tight joint at all times.

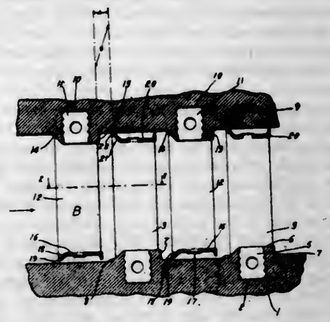
[Claims 6 to 12 not printed in the Gazette.]

1,141,473. STEAM-TURBINE. JOHN F. METTEN, Philadelphia, Pa., assignor to The Wm. Cramp & Sons Ship & Engine Building Company, a Corporation of Pennsylvania. Filed July 6, 1912. Serial No. 707,978. (Cl. 121—57.)

1. A shroud ring for connecting the moving blades of a turbine having its entering side coned outwardly with a sharp edge at the points of greatest diameter at the blade tips to direct the fluid flow inwardly.

2. In a turbine, the combination with a turbine element having a circumferential beveled shoulder, and projecting blades supported by said shoulder, of a shroud ring carried by said blades, said shroud ring having an oppositely beveled surface coöperating with said beveled surface to concentrate the flow.

3. In a turbine, the combination with a stationary element having an internally projecting beveled shoulder, and internally projecting blades supported by said shoulder, of a movable element separated from said stationary element to form a fluid passage and having a circumferential beveled shoulder axially displaced from the shoulder of said stationary element, said beveled portions being inclined in the direction of flow toward the middle of said fluid passage, of moving blades supported by the shoulder of said moving element, the entrance portions of said blades overlying said beveled portions.

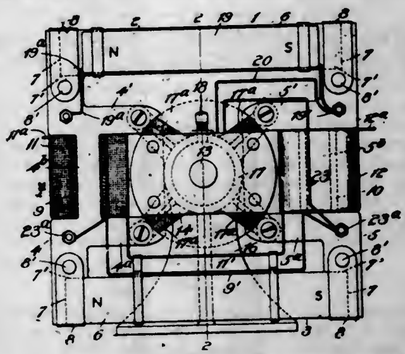


4. In a turbine, the combination with a stationary element having inwardly projecting blades, of a shroud ring carried thereby having one side beveled from the blade tips inwardly, and a movable element having outwardly projecting blades axially displaced from said stationary blades, and a shroud ring carried by said moving blades having its side corresponding to the beveled side of said stationary ring beveled outwardly.

5. The combination with stationary blades having a shroud ring beveled outwardly from the entering sides of the blades, of oppositely projecting axially displaced movable blades having a shroud ring beveled oppositely to the bevel on said stationary ring from the entering sides of said movable blades.

[Claims 6 to 9 not printed in the Gazette.]

1,141,474. INDUCTOR-GENERATOR. JOHN L. MILTON, Chicago, Ill., assignor, by mesne assignments, to Webster Electric Company, Racine, Wis., a Corporation of West Virginia. Filed July 16, 1907, Serial No. 384,049. Renewed Apr. 29, 1914. Serial No. 835,332. (Cl. 171—209.)



1. In an inductor-alternator, the combination of two permanent straight-bar magnets, a pair of magnetic members secured at their ends to said magnets for connecting poles of like polarity and forming with said magnets a substantially rectangular field-frame, two polar projections on each of said magnetic members, unlike polar projections being arranged in diametrically opposite pairs, generating windings carried by said magnetic members between the polar projections thereof, and a movable inductor for establishing a magnetic short-circuit first through one pair and then through the other pair of dia-

metrically opposite polar projections so that the magnetic lines of force may travel first in one direction and then in the other through said generating windings.

2. In an inductor-alternator, the combination of oppositely disposed field-magnets, a pair of magnetic members arranged at right angles to said field magnets for connecting poles of like polarity, two polar projections on each of said magnetic members, unlike polar projections being arranged in diametrically opposite pairs, generating windings carried by said magnetic members between the polar projections thereon, and a movable inductor constructed to span first one pair and then the other pair of diametrically opposite polar projections for simultaneously reversing the direction of the magnetic flux through said windings.

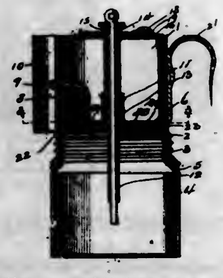
3. In an inductor-alternator, the combination of a magnetic field structure provided with magnetic connecting members between poles of like polarity, two polar projections on each of said magnetic connections, generating windings carried by said connections between the polar projections thereof, and an inductor movable in the plane of the field structure for periodically reversing the direction of the magnetic flux simultaneously through said windings.

4. In an inductor-alternator, the combination of two permanent straight-bar magnets, a pair of magnetic members secured at their ends to sa'd magnets for connecting poles of like polarity and forming with said magnets a substantially rectangular field frame, two polar projections carried by each of said magnetic members, unlike polar projections being arranged in diametrically opposite pairs, generating windings on said magnetic members between the polar projections thereof, and an inductor movable in the plane of the field structure for periodically reversing the direction of the magnetic flux simultaneously through both windings.

5. In an inductor-alternator, the combination of two permanent straight-bar magnets, a pair of magnetic pole members secured at their ends to said magnets for connecting poles of like polarity and forming with said magnets a substantially rectangular field frame, one of said magnetic pole members being provided with two projections, a generating winding carried by the part of said last-mentioned magnetic member connecting said projections, and a movable inductor for establishing a magnetic short-circuit through one and then the other of said polar projections and the opposite magnetic polar member of the rectangular field frame so that the magnetic lines of force may travel first in one direction and then in the other through said generating winding.

[Claims 6 to 12 not printed in the Gazette.]

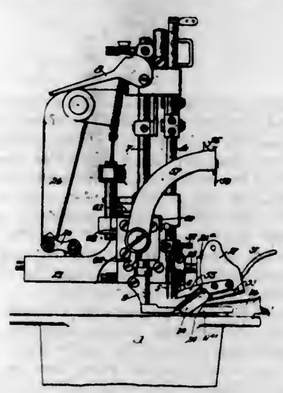
1,141,475. ACETYLENE-LAMP. ARTHUR B. MITCHELL, Birmingham, Ala. Filed Aug. 12, 1913. Serial No. 784,408. (Cl. 48—4.)



1. In combination, a carbid lamp, a water tank, a carbid container having a gas filtering screen across its upper portion, said tank having an upstruck channel formed around its bottom intermediate the center thereof and its periphery and its inner and outer annular walls adapted to engage the center and marginal wall of said screen, an outlet port formed in said channel, and a gas pipe leading from said outlet port, said screen being removably mounted between the container and tank, substantially as described.

2. In combination, a carbid lamp, a water tank, a carbid container having a gas filtering screen across its upper portion, said tank having an upstruck channel formed around its bottom intermediate the center thereof and its periphery, an outlet port formed in said channel, a gas pipe leading from said outlet port and a spider detachably mounted between the water tank and the said filtering screen and having transverse arms lying across said screen, said screen being removably mounted on the container.

1,141,476. SEWING-MACHINE. JAMES R. MOFFATT, Chicago, Ill., assignor to Union Special Machine Company, Chicago, Ill., a Corporation of Illinois. Filed July 9, 1909. Serial No. 506,805. (Cl. 112—16.)



1. A gathering mechanism for sewing machines including a gathering blade, a reciprocating member carrying said gathering blade, and manually operated devices for moving said gathering blade transversely of said reciprocating member, whereby the same may be rendered operative or inoperative.

2. A gathering mechanism for sewing machines including a gathering blade, a reciprocating member carrying said gathering blade, manually operated devices for moving said blade transversely of said reciprocating member, and means for holding said blade in inoperative position.

3. A gathering mechanism for sewing machines including a gathering blade, a reciprocating member carrying said gathering blade, means for moving said blade transversely of said reciprocating member, means for holding said blade in inoperative position, and automatic means for returning said gathering blade to operative position when released from its holding means.

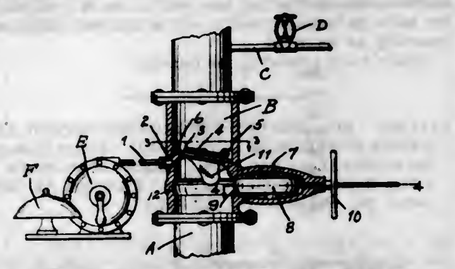
4. A gathering mechanism for sewing machines including a gathering blade, a reciprocating member carrying said gathering blade, means for moving said gathering blade transversely of said reciprocating member, a latch for holding said gathering blade in inoperative position, and a spring for returning said gathering blade to operative position when released from said latch.

5. A gathering mechanism for sewing machines, including a reciprocating member, a bar slidingly supported on said reciprocating member, so that it may be moved transversely of said reciprocating member, a gathering blade carried by said sliding bar, and manually operated devices for moving said sliding bar on said reciprocating member.

[Claims 6 to 40 not printed in the Gazette.]

1,141,477. AUTOMATIC SPRINKLING SYSTEM. WILLIAM E. MONTGOMERY, Lewiston, Me., assignor to Rockwood Sprinkler Company, a Corporation of Massachusetts. Filed Aug. 14, 1913. Serial No. 784,829. (Cl. 169—23.)

1. The combination with a water distributing pipe, of an alarm pipe connected therewith, a check valve arranged within the water distributing pipe and normally adapted to close the water alarm pipe, and a gate valve adapted to be operated to cut off the flow of water through the water distributing pipe and simultaneously open the check valve to permit the passage of water through the water alarm pipe.



2. The combination with a water distributing pipe, of a main valve casing, a check valve pivoted within the main valve casing and provided with a projection extending from one side thereof, a water alarm pipe communicating with the casing and having its inlet normally closed by the check valve, a gate valve casing communicating with the main casing, and a gate valve housed in said casing when in operative position and adapted to be actuated to cut off the flow of water through the main casing and water distributing pipe, and simultaneously lift the check valve to permit the flow of water through the water alarm pipe.

3. The combination with a water distributing pipe, of a main valve casing, a check valve pivoted within the main valve casing to prevent the flow of water backward therethrough, a water alarm pipe communicating with the casing and having its inlet normally closed by the check valve, and a gate valve housed in said casing when in operative position and adapted to be actuated to cut off the flow of water through the main casing and water distributing pipe, and simultaneously life the check valve to permit the flow of water through the water alarm pipe.

1,141,478. APPLIANCE FOR POLISHING FLOORS OR FLOOR-COVERINGS. WILLIAM MOUNT, Sydney, New South Wales, Australia. Filed Aug. 21, 1913. Serial No. 785,979. (Cl. 91—27.)
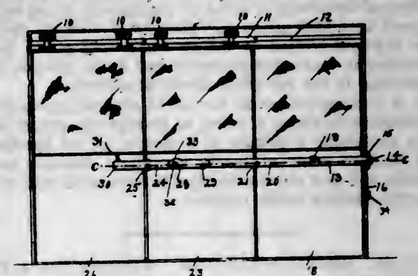


1. In polishing appliances for floors and floor coverings, in combination, a hollow rectangular box frame reversible within a U-shaped frame pivotally attached thereto and having a push handle, a lid on one horizontal side of said box frame, a transverse receptacle contained within said box frame and open at one end and closed at the other by a transverse distributing roller rotatable by floor contact, said roller having a circular ratchet plate affixed to its spindle, a spring held pawl engaging with said plate and attached to said box frame, and brushes disposed on said frame ahead and rearwardly of said roller as herein set forth.

2. A polishing appliance for floors and floor coverings, consisting of a hollow box frame, a U-shaped frame having its ends pivotally attached to said box frame, a handle attached to said U-shaped frame, a lid closing one horizontal side of said box frame, a transverse receptacle contained within said box frame and open at one end and closed at the other by a transverse distributing roller rotatable by floor contact, said roller having a circular ratchet plate affixed to its spindle, a spring held pawl engaging with said plate and attached to said box frame, brushes disposed on said frame ahead and rearwardly of said roller, and a loose roller contained within said receptacle.

3. A polishing appliance for floors and floor coverings comprising a casing, means for depositing and spreading a plastic polishing medium on the floor formed on one side of said casing, means for polishing said floor secured to the oppositely disposed side of said casing, a frame, and its complemental handle provided, said casing revolubly mounted in said frame, substantially as described.

4. A polishing appliance for floors and floor coverings comprising a substantially rectangular hollow casing, a one-way roller revolubly mounted in said casing and projecting beyond the side thereof, spreaders secured to said casing adjacent said roller and serving to normally space said roller from the floor to receive the polishing medium, means for polishing said floor secured to the oppositely disposed side of said casing, a frame including its complemental handle provided, said casing revolubly mounted in said frame, substantially as described.

1,141,479. LOCKING-BAR FOR GATES. JOHN MUELLER, Providence, R. I. Filed Apr. 18, 1913. Serial No. 761,932. (Cl. 39—94.)



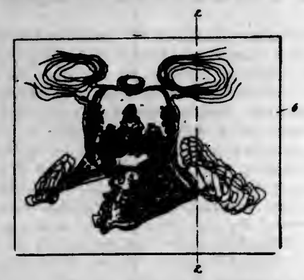
The combination with a gate comprising a plurality of sliding sections one of which is provided with a key opening, of a bar comprising a plurality of members, one of which is pivoted near its middle to one of the sections of said gate, a second member of said bar being pivoted at one end to a fixed point independent of the door, and a pivot connecting the other end of the second member to the first member, said pivot being upwardly offset from the medial line of said members, a third member pivoted near one end to another gate section and at its opposite end to said first bar member by a pivot downwardly offset from the medial line of said bars, and a lip on said first bar member for engaging said third bar member between its two pivoting points, whereby said offset pivots cause said bar members when in alinement to positively lock said gate sections against any opening strain, one end of said third member being projected beyond its pivotal connection to said section and extending beneath said key opening when said bar is in locking position, whereby a key may be passed through said opening to depress the end of said member to break the joints of said bar and permit said door to be opened.

1,141,480. TRANSPARENT MODEL FOR ANATOMICAL STUDY. HASHIME MURAYAMA, New York, N. Y. Filed Aug. 11, 1914. Serial No. 856,306. (Cl. 35—16.)

1. A transparent model for use in studying anatomical specimens comprising transparent plates each having reproduced thereon photographically an enlarged drawing of a transverse section of the anatomical specimen, said plates being assembled in serial order and each containing a photographically reproduced drawing of a corresponding different serially separated section of the specimen.

2. A transparent model for use in studying anatomical specimens comprising a series of transparent plates superimposed the one upon the other and each containing a

photographically reproduced enlarged drawing of a transverse section of the specimen to be studied.

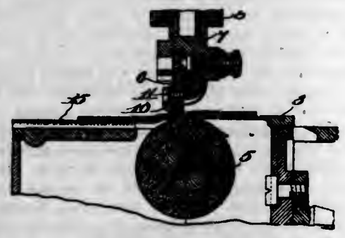


3. A transparent model for use in studying anatomical specimens comprising a series of transparent plates superimposed the one upon the other each containing a photographically reproduced enlarged drawing of a transverse section of a specimen to be studied, the reproduced drawing of the section of one plate being of a section taken at a different point from that of the next succeeding plate in regular serial order.

4. A transparent model for use in studying anatomical specimens comprising a series of transparent plates superimposed upon each other, each plate containing the picture of a different section of the specimen, said plates being assembled in successive predetermined serial relation corresponding to the relatively displaced sections.

5. A transparent model for use in studying anatomical specimens comprising a series of transparent plates each plate containing a picture of a section of the specimen, said sections being at points a uniform distance apart serially, and said plates assembled flatwise upon each other in corresponding serial relation.

1,141,481. SKIVING-MACHINE. MATTHEW NALLY, New York, N. Y., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Aug. 5, 1911. Serial No. 642,474. (Cl. 69—9.5.)



1. A skiving machine having, in combination, a skiving knife, a feed roll at one side of the knife, a presser foot upon the opposite side of the knife having a projection thereon, and a plate supported between the feed roll and presser foot and having a slot arranged to receive the projection upon the presser foot, substantially as described.

2. A skiving machine having, in combination, a skiving knife, a feed roll at one side of the knife, a presser foot upon the opposite side of the knife, a rib mounted upon the presser foot and a plate supported between the feed roll and presser foot and having a longitudinal slot into which the rib projects centrally, substantially as described.

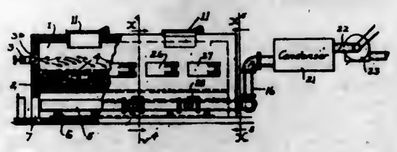
3. A skiving machine having, in combination, a skiving knife, a feed roll at one side of the knife, a presser foot upon the opposite side of the knife having a projection thereon, and a plate supported between the feed roll and presser foot having a longitudinal slot arranged to receive the projection and an enlarged opening at the commencement of the slot, substantially as described.

4. A skiving machine having, in combination, a skiving knife, a feed roll at one side of the knife, a presser foot upon the opposite side of the knife having a rib, and means engaging the work on opposite sides of the rib for gaging the width of cut, substantially as described.

5. A skiving machine having, in combination, a skiving knife, a feed roll, a work support provided with a slot of uniform width, and means for pressing the surface of the material through the slot into position to be removed by the knife in order to form a cut of uniform width, substantially as described.

[Claim 6 not printed in the Gazette.]

1,141,482. PROCESS FOR EXTRACTING POTASH AND OTHER SUBSTANCES FROM KELP. SIMON RUDOLPH OPPENHEIM, Long Beach, Cal., assignor of one-fourth to Julius Reinhaus, Santa Ana, Cal. Filed Oct. 12, 1914. Serial No. 866,398. (Cl. 23—22.)

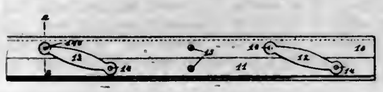


1. The process of charring dried kelp for the purpose of extracting potash and other salts, which consists in placing the charge in a horisontal layer, applying directly to the top of said layer a flame to ignite to a blaze the upper portion thereof, and then extinguishing the flame and allowing the blazing portion of the kelp to subside to a glowing condition, and thus continuing the combustion by means of a downward draft until the whole charge is charred, but not incinerated.

2. The process of charring dried kelp for the purpose of extracting potash and other salts, which consists in placing the kelp in a substantially horisontal layer, applying to the top of said layer a direct flame to ignite the upper portion thereof, continuing the application of said flame until a considerable portion of the kelp contiguous thereto is converted to a glowing condition, then discontinuing said flame, the walls of the furnace being maintained in a relatively cool condition, then continuing the down draft of the furnace until the whole layer of kelp is charred but not incinerated.

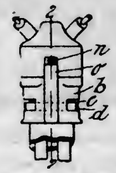
3. The process of charring dried kelp, which consists in placing the char in a specially constructed down draft furnace, then directing against the upper portion of the kelp mass a flame to heat such portion sufficiently to bring the same to a glowing condition, then maintaining a down draft to draw the moisture away from said glowing portion of the kelp and increasing the glowing area as the moisture is withdrawn from beneath the same, until the entire mass is properly charred, the heat within all portions of the furnace being constantly maintained at a temperature less than 350 degrees centigrade.

1,141,483. PARALLEL-RULER. CHARLES C. PFEIFFER, Hoboken, N. J., assignor to Keuffel & Esser Company, Hoboken, N. J., a Corporation of New Jersey. Filed Nov. 25, 1913. Serial No. 802,913. (Cl. 33—108.)



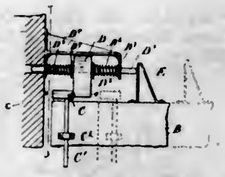
A parallel rule, comprising two rules, links connecting the rules, and pivots securing the links to the rules, one of said rules having an elongated opening and one of the pivots comprising a head to which the link is pivotally connected, said head engaging one side of the rule beneath the link without clamping the link and having a socket in the elongated opening, and a screw engaging the opposite side of the rule and threaded into the socket, said screw device clamping the head against movement and at the same time permitting the free pivotal movement of the link.

1,141,484. TERMINAL FITTING FOR ELECTRIC CONDUITS. JAMES C. PHELPS, Springfield, Mass. Filed Oct. 23, 1912. Serial No. 727,319. (Cl. 247—12.)



A terminal fitting, comprising in combination, a cap holding member adapted to be secured to a conduit and formed with a shouldered recess, a cap member adapted to lie within, closely fit and bear upon said shouldered recess, said cap member being provided with oppositely disposed inclined recesses in the outer surface thereof, oppositely arranged arms extending upwardly from said cap holding member and adjacent to said cap member, set screws angularly disposed in said arms relative to the axis of said cap, said screws adapted to engage with said inclined recesses in said cap to force and hold the same against said shouldered recess in said cap holding member.

1,141,485. DOOR-CHECK. WALDO D. PUTNAM, New York, N. Y. Filed Aug. 4, 1914. Serial No. 854,917. (Cl. 70—102.)



1. In a device of the character set forth, a bar mounted to slide endwise, a latch carried by said bar and arranged to move therewith, a dog carried by the door and adapted to engage said latch in the closing movement of such door and lock the latter, means carried by such door arranged to move said bar endwise after the engagement of said dog and latch, yielding means actuated by the movement of said bar in one direction to cushion the closing movement of such door, and yielding means actuated by the movement of said bar in the opposite direction to cushion the rebound of such door after the engagement of said dog and latch.

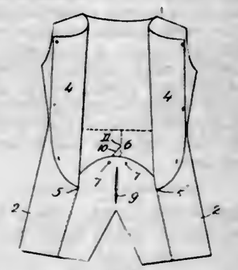
2. In a device of the character set forth, a bar mounted to slide endwise, a latch carried by said bar, a dog carried by the door and adapted to engage said latch in the closing movement of such door, an arm on the latter arranged to strike said bar and move it endwise after the engagement of said latch and dog, and means actuated by such movement of said bar to arrest yieldingly the closing movement of said door.

3. In a device of the character set forth, a bracket, a bar mounted to slide endwise therein, a latch carried by said bar, a dog carried by the door and adapted to engage said latch in the closing movement of said door, an arm on the latter arranged to strike said bar and move it endwise after the engagement of said latch and dog, and springs arranged to resist yieldingly the endwise movement of said bar in either direction.

4. In a device of the character set forth, a bracket, a bar mounted to slide endwise therein, a latch carried by said bar and mounted to swing thereon, springs on said bar, one on each side of said latch between the latter and said bracket, a dog carried by the door and arranged to contact with said latch in the closing movement of such door and to swing and engage said latch, and an arm carried by such door arranged to strike said bar and move it endwise in one direction against the force of one of said springs after the engagement of said latch and dog, the other of said springs arranged to resist yieldingly an endwise movement of said bar in the opposite direction.

5. In a device of the character set forth, a bracket having lugs thereon, a bar slidably mounted in said lugs, a latch carried by said bar and mounted to swing thereon, a collar on said bar on each side of said latch, a spring between each of said collars and its adjacent lug, said latch having an angular face, a dog carried by the door and having an angular face adapted in the closing movement of such door to contact with the angular face of said latch and swing and engage the latter, and an arm carried by such door arranged to strike said bar and move it endwise in one direction in opposition to one of said springs and thereby cushion the closing movement of such door, the other of said springs arranged to resist an endwise movement of said bar in the opposite direction induced through said dog and latch and thereby cushion a rebounding movement of such door.

1,141,486. COMBINATION-GARMENT. EDWARD J. QUIGLEY, New York, N. Y. Filed Mar. 21, 1914. Serial No. 826,218. (Cl. 2—144.)



1. A combination garment comprising a one-piece suit, consisting of shirt and drawers combined, the front of said shirt being cut on a straight line from the neck to the vicinity of the waist line, and thence laterally in both directions to a mid-point on the outside of the drawers, thereby forming two flaps which may be turned backward laterally from the neck to the drawers, the lower ends of said flaps being arranged to overlap the front of said drawers, and means for buttoning said flaps together, and to the front of said drawers.

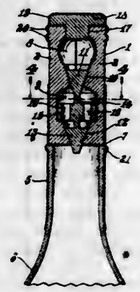
2. A combination garment comprising a one-piece suit, consisting of shirt and drawers combined, the back of said drawers, comprising the seat, being cut on a line starting from a mid-point in the back to the inner side of the bottom of one of the drawer legs.

1,141,487. NON-REFILLABLE BOTTLE. EUGENE RÉ, St. Louis, Mo. Filed July 10, 1914. Serial No. 850,133. (Cl. 215—68.)

1. In a non-refillable bottle the combination with a bottle of a casing separated longitudinally into a plurality of parts of such diameter as to adapt it to be seated upon end upon the neck of said bottle, fluid controlling valve means located within said casing and a retaining wrapping extending around said casing and overlapping the bottle neck, said wrapping serving to secure the casing to the bottle and to hold the parts of the casing together.

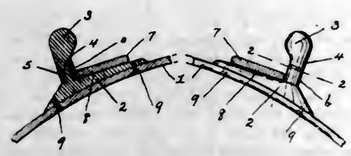
2. In a non-refillable bottle the combination with a bottle of a valve casing divided longitudinally into a plurality of parts and seated upon its end upon the neck of the bottle, said casing being internally recessed to form a plurality of valve chambers and valve seats, a pair of valves arranged to engage said valve seats, a connecting stem between said valves, guiding means arranged to engage the

inner wall of the casing, said guiding means being carried by said stem and means for binding the sections of the casing against lateral displacement with relation to each other and against longitudinal displacement with relation to the bottle neck.



3. In a non-refillable bottle the combination with a bottle of a valve casing divided longitudinally into a plurality of parts and of such diameter as to adapt it to be seated upon end upon the neck of said bottle in longitudinal alinement therewith, said casing being internally recessed to form a plurality of valve chambers and valve seats, said valve seats being formed complementally upon all of the parts of the valve casing, a pair of valves arranged to engage said valve seats, a connecting stem between said valves, guiding means arranged to engage the inner wall of the casing, said guiding means being carried by said stem, and a flexible wrapping overlapping the sections of the casing and the bottle neck to thereby bind the sections of the casing together and to secure the casing upon the bottle neck.

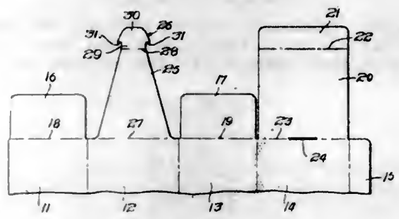
1,141,488. REIN-SUPPORTER. ORRIN B. READ, Troy, N. Y. Filed Oct. 26, 1912. Serial No. 727,910. (Cl. 54—73.)



A rein-supporter comprising a base, a head, a connecting shank having a cylindrical portion of reduced diameter, and a split sheet-metal roller inclosing the cylindrical reduced portion of the shank substantially flush with the neighboring portion thereof.

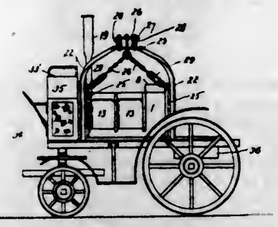
1,141,489. CONTAINER. RALPH R. RICHARDSON, Chicago, Ill., assignor to Chicago Carton Company, Chicago, Ill., a Corporation of Illinois. Filed Feb. 28, 1914. Serial No. 821,625. (Cl. 229—38.)

1. A container, having side walls and provided at one end with inner and outer overlapping flaps, one of said flaps being provided at its free end with a locking head joined to said flap by a relatively short neck portion, the latter being divided from said flap by a fold line by which said locking head and said flap may be placed in a position substantially at right angles to said flap, said locking head having its inner margin extending laterally from said neck portion and forming a rearwardly facing locking shoulder, and locking slit in the other of said flaps and so arranged that said locking head and said neck portion must be placed in a position substantially parallel to the sides of said locking slit in order to be inserted into the latter, said locking slit having a length less than the extreme width of said locking head, and said locking shoulder extending beyond the adjacent end of said locking slit, when said flaps are interlocked.



2. A container, having side walls and provided at one end with inner and outer overlapping flaps, one of said flaps being provided at its free end with a locking head joined to said flap by a relatively short neck portion, the latter being divided from said flap by a fold line by means of which said locking head and said neck portion may be placed in a position substantially at right angles to said flap, said locking head having its inner margins extending laterally from and upon opposite sides of said neck portion and forming rearwardly facing locking shoulders, and a locking slit in the other of said flaps and so arranged that said locking head and said neck portion must be placed in a position substantially parallel to the sides of said locking slit in order to be inserted into the latter, said locking slit having a length less than the extreme width of said locking head, and said locking shoulders extending beyond the ends of said locking slit, when said flaps are interlocked.

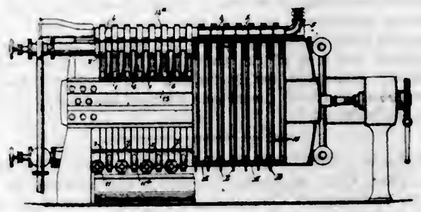
1,141,490. PORTABLE OR FIELD COOKING APPARATUS. JAMES FERDINAND GROOM ROBERTS, Wellington, New Zealand. Filed Mar. 26, 1913. Serial No. 756,851. (Cl. 126—268.)



1. Portable cooking apparatus comprising an oven and a transport wagon having pillars projecting upward therefrom and connected together at their top ends, a plate overlying the pillar ends, cushion springs arranged between the plate and the pillars, a shackle bolt passing down through them and suspended from the plate, suspension chains connecting the shackle bolt with the oven and spring cushioned connections between the oven corners and the wagon floor, substantially as specified.

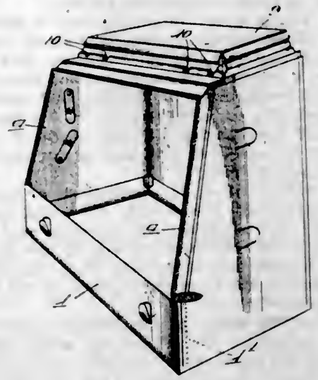
2. Portable cooking apparatus consisting of an oven formed by a casing having a fire place in its forward end water boilers arranged in the casing and extending upward on each side of the fire place and through the top of the casing, cooking chambers arranged to extend inward from each side of the casing at the rear of the fire place and positioned to leave spaces between them and the casing top, back end and bottom, and flues constructed between the cooking chambers and the casing to convey the heat from the fire place along within the top and down within the back and along within the bottom of the casing, to the forward end thereof, and then rearward to an escape flue situated at the back end of the casing, in combination with a wagon having means for suspending the oven thereon substantially as specified.

1,141,491. METHOD FOR EXTRACTING WORT FROM MASHES. JOSEPH SCHAEFER, Frankfort-on-the-Main, Germany. Filed Mar. 19, 1912. Serial No. 684,715. (Cl. 210—13.)



The method herein described of separating wort from grains which consists in forming the grains into trapezoidal cakes increasing in thickness toward the bottom, said cakes being spaced apart, the faces of each cake being ribbed uniformly from top to bottom, then treating the cakes through said ribbed portions by water, introduced into alternate spaces between said cakes without alteration of the pressure on the cakes at any part of their surfaces due to the head of this water, whereby uniform separation of the wort throughout the cake is obtained.

1,141,492. STACK-HEAD FOR HOT-AIR STACKS OR CONDUITS. ALBERT G. SCHERER, Chicago, Ill., assignor to The Excelsior Steel Furnace Company, Chicago, Ill., a Corporation of Illinois. Filed June 8, 1914. Serial No. 843,671. (Cl. 137—75.)



1. A stack head for hot air stack comprising a casing of substantially rectangular cross section formed with a register opening and a plurality of openings for connection with sections of stack, the rim of one of said openings being formed to enter an adjacent section of stack, said rim being provided with oppositely disposed slots for the reception of the walls of a section of lesser breadth, and tongues secured to the inner surface of said stack head adjacent said last mentioned opening and adapted to be flexed to enter a section of less breadth.

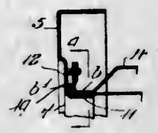
2. A stack head for hot air stack comprising a casing of substantially rectangular cross section formed with a register opening and a plurality of openings for connection with sections of stack, the rim of one of said openings being formed to enter and lock with an adjacent section of stack, said rim being provided with oppositely disposed slots for the reception of the walls of a section of lesser breadth, and tongues secured to the inner surface of said stack head adjacent said last mentioned opening and adapted to be flexed to enter a section of less breadth.

3. A stack head for hot air stack comprising a double wall casing of substantially rectangular cross section formed with a register opening and a plurality of openings for connection with sections of stack, the rim of one of said openings being formed to enter an adjacent section of stack, said rim being provided with oppositely disposed slots for the reception of the walls of a section of lesser breadth, and tongues secured to the inner surface of said stack head adjacent said last mentioned opening and adapted to be flexed to enter a section of less breadth.

4. A stack head for hot air stack comprising a double wall casing of substantially rectangular cross section formed with a register opening and a plurality of openings for connection with sections of stack, the rim of one of said openings being formed to enter and lock with an adjacent section of stack, said rim being provided with oppositely disposed slots for the reception of the wall of a section of lesser breadth, and tongues secured to the inner surface of said stack head adjacent said last mentioned opening and adapted to be flexed to enter a section of less breadth.

5. A stack comprising a section of casing of substantially rectangular cross section formed with a plurality of openings for connection with other sections of stack, the rim of one of said openings being formed to enter an adjacent section of stack, said rim being provided with oppositely disposed slots for the reception of the walls of a section of lesser breadth, and tongues secured to the inner surface of said section of stack adjacent said last mentioned opening and adapted to be flexed to enter a section of less breadth.

1,141,493. MEANS FOR SECURING REGISTER-FRAMES TO STACK-HEADS. ALBERT G. SCHERER, Chicago, Ill., assignor to The Excelsior Steel Furnace Company, Chicago, Ill., a Corporation of Illinois. Filed Oct. 9, 1914. Serial No. 865,815. (Cl. 98—49.)



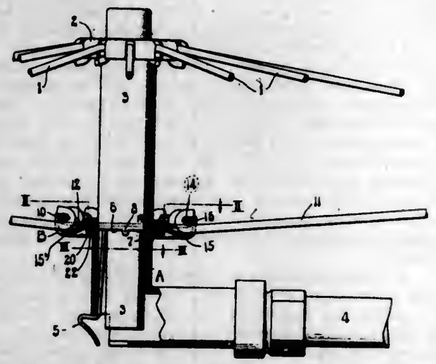
1. The combination with a stack head having an opening therein and an upturned lip adjacent the upper edge of said opening, of a register frame mounted on said head and surrounding said opening, a bolt tapped through said frame above said lip, and a pawl having a threaded engagement with the outer end of said bolt adapted to engage and be clamped against said lip by the rotation of said bolt.

2. The combination of a stack head having an opening therein, and an upturned lip adjacent the upturned edge of said opening, of a register frame mounted on said head and surrounding said opening, a pawl carried by said frame and adapted to engage said lip, and a bolt upon which said pawl is threadedly and pendently mounted so that the tightening of said bolt locks said pawl against said lip.

3. The combination with a stack head having an opening therein, of a register frame mounted on said head and surrounding said opening, means for securing said frame to said head comprising a bolt tapped through said frame and into said pawl one end of which engages the adjacent portion of said head, and a slot below said bolt through which access may be had to said pawl.

4. The combination with a stack head having an opening therein and an upturned lip adjacent the upper edge of said opening, of a register frame mounted on said head and surrounding said opening, a bolt trapped through said frame above said lip, a pawl threadedly mounted on the outer end of said bolt adapted to engage and be clamped against said lip, and a segmental slot below said bolt through which said pawl is accessible.

1,141,494. UMBRELLA. HERMAN E. SCHULTZ, Jr., and FRANK WETTSTROTH, St. Louis, Mo., assignors to Zittlosen Manufacturing Company, St. Louis, Mo., a Corporation of Missouri. Filed May 3, 1913. Serial No. 765,272. (Cl. 135—28.)



1. An umbrella comprising a supporting head formed with vertical notches in its upper end, with an outwardly projecting horizontal flange for supporting a lower notch ring and with an upwardly extending flange surmounting the horizontal flange of the supporting head around which the lower notch ring is seated, a supporting central stem or staff, seating on the supporting head within the upwardly extending flange and formed with depending lugs fitting in the vertical notches of the supporting head, and means for securing the stem or staff to the supporting head.

2. An umbrella comprising a supporting head formed with an outwardly projecting horizontal flange, with an upwardly extending flange and with a laterally outwardly extending lug surmounting the horizontal flange of the supporting head, and a lower notch ring seating on the horizontal flange of the supporting head, consisting of a lower guide member formed with an annular depression, with peripheral tongues, with flexible extensions on some of its tongues and with a central opening for the upwardly extending flange and a recess for the lug, and a ring carrying member seated in the guide member formed with peripheral notches, with flexible peripheral tongues, and with a central opening for the upwardly projecting flange, having a recess for the lug and a pivot ring around which the flexible tongues are bent; the upwardly extending flange being bent outwardly over the inner edges of the guide and ring carrying members.

1,141,495. PAPER TOWEL. ARTHUR H. SCOTT, Oak Lane, Pa. Filed Nov. 28, 1910. Serial No. 594,484. (Cl. 92—39.)



1. As an article of manufacture, a paper towel consisting of a two-ply web of crinkled paper having interposed fibers of absorbent material in less dense association arranged between the two plies to impart to the towel a greater thickness of body than that due to the two layers of crinkled paper and without materially increasing the stiffness.

2. As an article of manufacture, a towel or such like article consisting of a two-ply sheet of crinkled paper and having interposed between the two plies a layer of absorbent fibers extending across the recesses formed by the crinkled portions of the paper and holding the two-plies slightly separated for increasing the thickness and absorbent capacity of the article without materially increasing its stiffness.

1,141,496. VEHICLE WHEEL-RIM. EDWIN C. SHAW, Akron, Ohio, assignor, by mesne assignments, to The B. F. Goodrich Company, a Corporation of New York. Filed May 2, 1910. Serial No. 558,973. (Cl. 152—21.)



1. In a vehicle wheel, in combination, a fixed wheel member, a detachable tire carrying rim seated thereon, a bushing projecting transversely through said fixed wheel member and having a notch at one side thereof, and a bolt journaled in said bushing, said bolt having an eccentric head and a lug adapted to enter said notch.

2. In a vehicle wheel, in combination, a fixed wheel member, a detachable tire carrying rim seated thereon, a split locking ring engaging said members, said locking ring having a groove in its outer face, and means for retaining said locking ring in position, said means comprising a plurality of bolts journaled in said fixed wheel member, said bolts having L-shaped heads, the tips of which enter the groove in said locking ring and contact with both walls thereof.

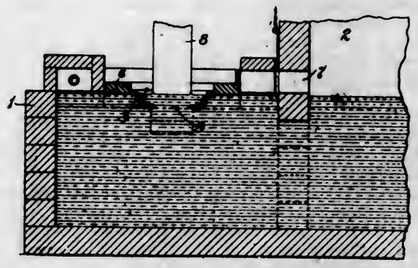
3. In a vehicle wheel, in combination, a fixed wheel member, a detachable tire-carrying rim seated thereon, a split locking ring engaging said members, said locking ring having a centrally located groove in one side thereof, and a member secured to said wheel and having a wedging claw adapted to enter the groove in the ring and thereby position the ring.

4. In a vehicle wheel, in combination, a fixed wheel member, a detachable tire-carrying rim seated thereon, a split locking ring engaging said members, said locking ring having a centrally located groove in one side thereof, said groove having outwardly diverging walls, and means for retaining said locking ring in position including a plurality of bolts mounted on said fixed wheel member, each of said bolts having a wedging claw adapted to enter the groove in the ring and thereby position said ring.

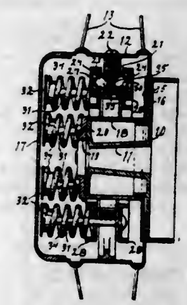
5. In a vehicle wheel, in combination, a fixed wheel member, a detachable tire-carrying rim seated thereon, a bushing projecting transversely through said fixed wheel member, and a bolt journaled in said bushing and having an eccentric projection coöperating with said bushing to positively lock said bolt against rotation when in operative position, and means on said bolt for retaining said rim upon said fixed wheel member.

1,141,497. GLASS-DRAWING APPARATUS. HARRY G. SLINGLUFF, Pittsburgh, Pa., assignor to Pittsburgh Plate Glass Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Jan. 28, 1908. Serial No. 413,002. (Cl. 49—17.1.)

In apparatus for drawing glass cylinders, the combination with a tank, of a drawing member with an opening therethrough lying partially submerged in and surrounded by the glass of the tank with the upper edge lying above the surface of the glass, the opening through the said drawing member being larger at the top than at the bottom with the edge of the portion of least diameter projecting beneath the edge of the cylinder being drawn, whereby the glass in the drawing member is partially segregated from the glass in the tank beneath the drawing member.



1,141,498. RESILIENT WHEEL. THEODORE J. SMULSKI, Milwaukee, Wis. Filed June 5, 1914. Serial No. 843,172. (Cl. 152—39.)



1. In a resilient wheel, the combination of a plurality of movable wheel members, each of said members having bearing cup holding members secured thereto, floating bearing cup holding rings disposed on either side of said bearing cup holding members, a plurality of bearings in the cups formed by said cup holding members and rings, and means for resiliently securing said bearings within the cups comprising means secured to one of said rings, a plurality of springs mounted on said last named means respectively and operatively connected to the other of said rings.

2. In a resilient wheel, the combination of a pair of movable wheel members, a bearing cup holding member secured to each of said members, a ring on either side of said bearing cup holding members having bearing cups registering with the bearings cups in said members, bearings disposed in the cups formed by said rings and said cup holding members, a plurality of bolts secured to one of said rings, and a plurality of springs mounted on said bolts respectively and operatively connected to the other of said rings, said springs being disposed in a plane opposite to the plane of movement of said movable wheel members and acting uniformly on said rings to resist outward movement thereof.

3. A resilient wheel comprising movable wheel members, a plurality of floating rings between said members, a plurality of bolts secured to one of said rings, a plurality of springs mounted on said bolts respectively and bearing against the other ring, and means on both of said movable members and said rings for permitting the rings to move outwardly against the action of said springs.

4. A resilient wheel comprising movable wheel members, a plurality of floating rings between said members, spring-securing means secured to one of said rings, a plurality of springs mounted on said securing means respectively and bearing against the other ring, and means on both of said movable members and said rings for permitting the rings to move outwardly against the action of said springs.

5. A resilient wheel comprising movable wheel members, a plurality of floating rings between said members, spring-securing means fixedly secured to one of said rings and slidably mounted in the other ring, a plurality of springs mounted on said securing means respectively and bearing against said other ring, and means on both of said movable members and said rings for permitting the rings to move outwardly against the action of said springs.

1,141,499. FLUID-GAGE. CARL W. STAHLE, Everett, Mass., assignor to Boston Auto Gage Company, Boston, Mass., a Corporation of Massachusetts. Filed June 12, 1914. Serial No. 844,816. (Cl. 73—82.)



1. In a fluid gage, the combination with a supporting member adapted to be extended through the wall of a tank, of a bracket at one end of said supporting member, a shaft bearing at said end of the supporting member separate from the bracket and by which the bracket is held in position, an indicator-operating shaft extending longitudinally of the supporting member and rotatably mounted in said bearing member, a float-controlled bevel gear journaled on the bracket, and a bevel gear intermeshing therewith and carried by said shaft.

2. In a fluid gage, the combination with a supporting member adapted to be inserted through the wall of a tank and provided with a shaft bearing, of an indicator-operating shaft extending longitudinally of said member and rotatably mounted in said bearing, an indicator, means whereby it is controlled by said shaft, a bracket adjustably clamped to the end of the supporting member and adjustable relative to but positioned by said bearing, a stud carried by the bracket, intermeshing bevel gears carried by the shaft and stud, respectively, and a float arm connected to the bevel gear operating on said stud.

3. In a fluid gage, the combination with a supporting member adapted to be inserted through the wall of a tank, of a bracket carried thereby, an indicator-operating shaft journaled in the supporting member, and indicator means whereby it is controlled by the shaft, intermeshing bevel gears supported on said bracket and shaft, respectively, and by which the shaft is operated, a float arm connected to one of said bevel gears, and adjustable stop members carried by the bracket and by which the swinging movement of the float arm is limited.

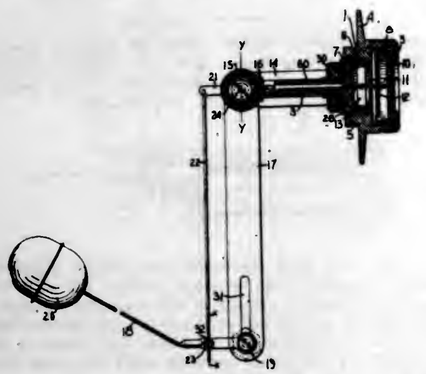
4. In a fluid gage, the combination with a supporting member, of a bearing member sustained thereby at one end thereof, an indicator-operating shaft extending longitudinally of said supporting member and journaled in the bearing member, an indicator, means whereby it is controlled by said shaft, a bevel gear on said shaft, a bracket having a foot portion engaging the end of the supporting member and through which the bearing member extends, a nut on the bearing member for clamping the bracket to the tubular member, a bevel gear on the bracket meshing with the bevel gear on the shaft, and a float arm connected to the bevel gear on said bracket.

5. In a fluid gage, the combination with a tubular supporting member, of a bearing member sustained thereby at one end thereof, an indicator-operating shaft extending longitudinally of said supporting member and journaled in the bearing member, an indicator, means whereby it is controlled by said shaft, a bevel gear on said shaft, a bracket having a foot portion engaging the end of the sup-

porting member and through which the bearing member extends, a nut on the bearing member for clamping the bracket to the tubular member, a bevel gear on the bracket meshing with the bevel gear on the shaft, a float arm connected to the bevel gear on said bracket, and adjustable stops on the bracket for limiting the swinging movement of the float arm.

[Claims 6 to 9 not printed in the Gazette.]

1,141,500. FLUID-GAGE. CARL W. STAHLE, Everett, Mass., assignor to Boston Auto Gage Company, Boston, Mass., a Corporation of Massachusetts. Filed June 26, 1914. Serial No. 847,521. (Cl. 73—82.)



1. In a gage, the combination with a supporting member provided with means to be secured to the wall of a tank, of an indicator-operating shaft journaled in said supporting member, an arm connected to said member and capable of movement into different angular positions relative to said shaft, a float arm pivoted to said arm, and connections between said float arm and said shaft.

2. In a gage, the combination with a supporting member provided with means to be secured to the wall of a tank, of an indicator-operating shaft journaled in said supporting member, an arm connected to said member and capable of movement into different angular positions relative to said shaft, a float arm adjustably pivoted to said arm, and adjustable connections between said float arm and said shaft.

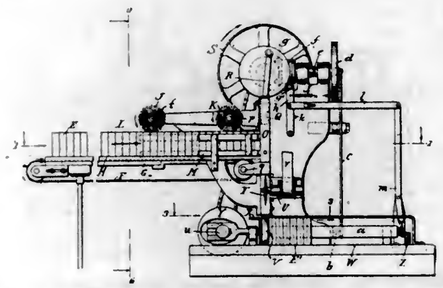
3. In a gage, the combination with a supporting member having means for securing it to the wall of a tank, of an indicator-operating shaft journaled in said supporting member, bevel gearing sustained by said member for operating said shaft, an arm connected to said supporting member and capable of adjustment into different angular positions relative to said shaft, a float arm pivoted to said arm, and connections between said float arm and said gearing.

4. In a gage, the combination with a supporting member having means for securing it to the wall of a tank, of an indicator-operating shaft journaled in said supporting member, bevel gearing sustained by said member for operating said shaft, an arm connected to said supporting member and capable of adjustment into different angular positions relative to said shaft, a float arm adjustably pivoted to said arm, and adjustable connections between said float arm and said gearing.

5. In a gage, the combination with a head adapted to be secured to the wall of a tank, of an indicator-operating shaft rotatably sustained by said head, a bracket connected to said head, intermeshing bevel gears carried by said shaft and bracket, respectively, an arm sustained by said bracket and capable of movement into different angular positions relative to said shaft, a float arm pivoted to said arm, and connections between said float arm and the bevel gear carried by the bracket.

[Claim 6 not printed in the Gazette.]

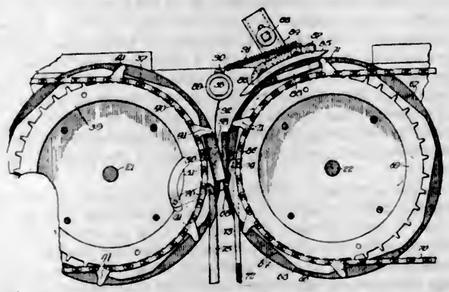
1,141,501. BOX-DELIVERING MECHANISM. JULIUS A. STOCK, Chicago, Ill., assignor to W. C. Ritchie & Company, Chicago, Ill., a Corporation of Illinois. Filed July 17, 1913. Serial No. 779,486. (Cl. 193—24.)



1. In a machine of the class described, the combination of means for delivering articles successively in longitudinal series, means acting automatically upon the delivery of a predetermined number of articles to discharge the same in a group transversely of the delivery, said means comprising a pusher, means for actuating the same, continuously operating driving means, a clutch interposed between the actuating and the driving means, and means arranged in the path of and actuated automatically upon the delivery of a predetermined number of articles to operate the clutch.

2. In a machine of the class described, the combination of means for delivering articles successively in longitudinal series, means acting automatically upon the delivery of a predetermined number of articles to discharge the same in a group transversely of the delivery, said means comprising a pusher, a cam for actuating the same, continuously operating driving means, a clutch interposed between the cam and the driving means, and means arranged in the path of and actuated automatically upon the delivery of a predetermined number of articles to operate the clutch.

1,141,502. BOX-ASSEMBLING MACHINE. JULIUS A. STOCK, Chicago, Ill., assignor to W. C. Ritchie & Company, Chicago, Ill., a Corporation of Illinois. Filed July 2, 1914. Serial No. 848,530. (Cl. 93—55.)



1. In a machine of the character described, the combination of an endless-conveyer for box-bodies, and an adjacent opposed companion endless conveyer for box-covers having marginal flanges, said conveyers being adapted to bring said bodies and covers individually into register with and applying them to one another with the cover-flanges telescopically fitted over the box-bodies, substantially as described.

2. In a machine of the character described, the combination of an endless-conveyer adapted to transport box-bodies, and an adjacent companion endless conveyer adapted to transport box-covers having marginal flanges and during their conveyance to bring them individually into register with and apply them to the box-bodies during their travel with the cover-flanges telescopically fitted over the box-bodies, substantially as described.

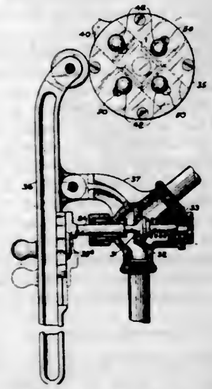
3. In a machine of the character described, the combination of an endless-conveyer adapted to continuously transport box-bodies with substantially straight sides, and an adjacent companion opposed endless-conveyer adapted to continuously transport box-covers of substantially the same shape as the box-bodies and having marginal flanges and during the travel of the bodies and covers to bring them individually into register with and apply them to the box-bodies with the cover-flanges telescopically fitted over the box-bodies, substantially as described.

4. In a machine of the character described, the combination of means to temporarily limit the extent of telescoping of a box-cover over a box-body, and means to apply the cover to the body during the action of said limiting-means and complete the placing of the cover fully on the box after the temporary action of such limiting means ceases, substantially as described.

5. In a machine of the character described, the combination of means to temporarily limit the extent of telescoping of a box-cover over a box-body, and means to apply the cover over the body at one end and turn the cover down over the body during the action of said limiting-means and complete the placing of the cover fully on the box after the temporary action of said limiting-means ceases, substantially as described.

[Claims 6 to 27 not printed in the Gazette.]

1,141,503. CONTROLLER-CAM DEVICE. CLEMENT F. STREET, Schenectady, N. Y., assignor to The Locomotive Stoker Company, Wilmerding, Pa., a Corporation of Pennsylvania. Filed Aug. 16, 1911. Serial No. 644,476. (Cl. 121—97.)



1. In a controller cam device, the combination with a valve for controlling the supply of fluid pressure and a lever for actuating the same, of a cam disk having cam members for operating said lever, and an adjustable latch mounted on the lever for engaging or disengaging the valve connection.

2. In a controller cam device, the combination with a valve for controlling the flow of fluid, a lever for actuating the same, and a continuously operating cam for actuating said lever, of a manually adjustable means for temporarily disengaging the connection between said lever and the valve.

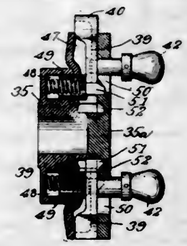
3. In a controller cam device, the combination with a valve for controlling the flow of fluid, a lever for actuating the same, and a continuously operating cam for actuating said lever, of manually operated means for adjusting the connection between the lever and valve for varying the intensity of the fluid blasts.

4. In a controller cam device, the combination with a valve for controlling the flow of fluid, a lever for actuating the same, and a continuously operating cam for actuating said lever, of a latch device between said lever and valve for adjusting the extent of valve opening or for disengaging the connection.

5. In a controller cam device, the combination with a valve for controlling the flow of fluid, a lever for actuating the same, and a continuously operating cam for actuating said lever, of an adjustable latch device mounted on said lever and having stops of different lengths for engaging the valve.

[Claims 6 and 7 not printed in the Gazette.]

1,141,504. CONTROLLER-CAM DEVICE. CLEMENT F. STREET, New York, N. Y., assignor to The Locomotive Stoker Company, Wilmerding, Pa., a Corporation of Pennsylvania. Original application filed Aug. 16, 1911, Serial No. 644,476. Divided and this application filed Oct. 8, 1913. Serial No. 794,015. (Cl. 74—1.)



1. In a controller cam device, the combination of a disk, a cam member mounted to slide radially thereon, and manually operated means for reciprocating said cam member to extend the same beyond or withdraw the same within the periphery of the disk.

2. In a controller cam device, the combination of a disk having radial guide ways, a cam member mounted to slide in said guide ways, and a handle fastened to said cam member for manually reciprocating the same.

3. In a controller cam device, the combination of a disk having guide ways, a cam member mounted to slide in said guide ways, a handle fastened to said cam member for manually reciprocating the same, and a spring latch device for holding the cam member in its extended position.

4. A controller cam device, comprising a cam disk, a plurality of cam members mounted to slide radially thereon, means for manually reciprocating said cam members, and a spring latch device for holding the same in their respective positions.

5. A controller cam device, comprising a cam disk, a plurality of cam members mounted to slide radially thereon, and having projections for engaging notches in said disk, springs bearing upon said cams for normally locking the same in position, and handles for manually reciprocating said cams.

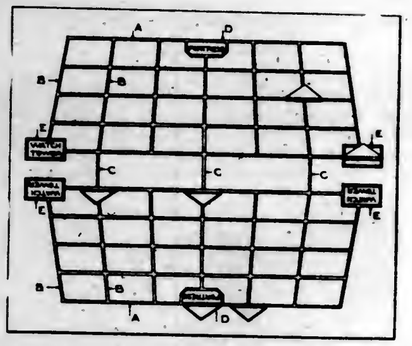
[Claims 6 and 7 not printed in the Gazette.]

1,141,505. GAME APPARATUS. JOSEPHINE E. TILDEN, Minneapolis, Minn., assignor of one-half to Bertha L. McMillan, Minneapolis, Minn. Filed Apr. 29, 1908, Serial No. 429,980. Renewed Aug. 12, 1914. Serial No. 856,493. (Cl. 46—64.)

1. A game apparatus comprising a board having a surface representing fields of battle, each field having a series of horizontal lines and a series of converging lines and parallel lines extending across the spaces between the fields, each field having an irregular space at the rear thereof designated for a fortress and in the front on the left and right of each field a rectangular space designated for watch towers, and movable pieces representing officers, privates and individuals connected with an army corps, said pieces having names on their rear faces indicating the character or individual represented by each piece.

2. A game apparatus, comprising a board having a surface representing fields of battle, each field having a series of horizontal lines and a series of converging lines,

and parallel lines extending across the spaces between the fields, each field having a space on the left and right designated for observers, and movable pieces representing officers, privates and individuals connected with an army corps, said pieces having names on their rear faces indicating the character or individual represented by each piece.

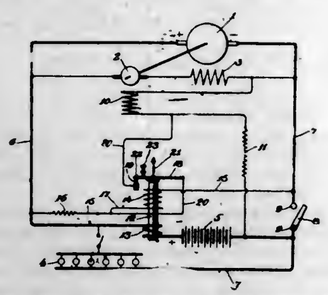


3. A game apparatus, comprising a board having a surface representing field of battle and movable pieces representing officers, privates and individuals connected with an army corps, said pieces having names on their rear faces indicating the character or individual represented by each piece, the names on the pieces representing the characters of both sides being visible to the umpire of the game.

4. A game apparatus comprising a board having a surface representing a field of battle, and movable pieces representing officers, privates and implements of war, each of said pieces having a name or character invisible to the opposing player during the playing of the game.

5. A game apparatus comprising a board having a surface representing a field of battle and movable pieces representing individuals or implements of war connected with an army, said pieces having names or characters indicating the particular individuals or implements represented by said pieces, the names of the pieces representing the characters of both sides being invisible to the opposing player.

1,141,506. ELECTRICAL SYSTEM OF DISTRIBUTION. WILLIAM A. TURBAYNE, Lancaster, N. Y., assignor to Gould Coupler Company, a Corporation of New York. Filed Feb. 15, 1910, Serial No. 544,027. Renewed June 3, 1913. Serial No. 771,551. (Cl. 171—313.)



1. In an electrical system of distribution, a variable speed generator and its field, a work circuit and storage battery connected to be fed in parallel thereby, an opposing auxiliary dynamo arranged to regulate the field of the generator, a controlling field coil on the auxiliary dynamo connected in a circuit across the generator, a resistance in series with said coil, a vibrating armature and contact arranged to open and close said last mentioned circuit, and a coil in shunt to said contact and dynamo field for magnetically controlling said vibrating armature, so that upon the closing of the armature and contact the attraction of said last mentioned coil will be decreased to properly compensate for the variations in the attractive force of the armature.

2. In an electrical system of distribution, a generator driven at a variable speed, and means for regulating the voltage of the generator, said means including a main regulating coil and its circuit, a resistance in series with said coil, a vibrating armature and contact arranged to open and close said circuit, and a coil in shunt to said contact and coil for controlling said vibrating armature, so that upon the closing of the armature and contact the attraction of said last mentioned coil will be decreased to properly compensate for the variations in the attractive force of the armature.

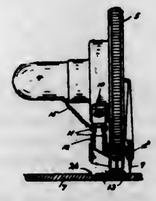
3. The combination of a circuit to be regulated, means for regulating said circuit, a main regulating coil and its circuit for said means, a resistance in series with said coil, a vibrating armature and contact arranged to open and close said circuit, and a coil in shunt to said contact and coil for controlling said vibrating armature, so that upon the closing of the armature and contact the attraction of said last mentioned coil will be decreased to properly compensate for the variations in the attractive force of the armature.

4. The combination of a circuit to be regulated, means for regulating said circuit, a main controlling coil and its circuit for said means, a vibrating armature and contact for opening and closing said circuit, a coil controlling the vibrations of said armature, and a resistance so connected in series with both coils that when said circuit is closed the voltage across the resistance is varied, said resistance being also so arranged that variations in the voltage thereacross will produce variations in the strength of said last mentioned coil to properly compensate for variations in the attractive force of said armature as it moves toward or away from its controlling coil.

5. The combination of a circuit to be regulated, means for regulating said circuit, a controlling coil and its circuit for said means, an electromagnet, a contact and a vibrating armature coöperating therewith and operated by said electromagnet for opening and closing said last mentioned circuit, the periodicity of the vibrations of the armature thereby determining the regulation of the circuit to be regulated, and a resistance adapted to be connected in circuit by movement of said armature, said resistance being connected in circuit with windings on the electromagnet, to cause the armature to be attracted with greater force when withdrawn from the magnet to compensate for variations in the attractive force of the armature.

[Claims 6 to 8 not printed in the Gazette.]

1,141,507. AUTOMATIC STOPPING DEVICE FOR PHONOGRAPHS. EDWARD C. WALTER, New York, N. Y. Filed Nov. 4, 1913. Serial No. 799,220. (Cl. 181—3.)



1. In a phonograph, a rotating member, a swinging member engaging said rotating member, and a plurality of arms and normally separated overlapping contact-points mounted on and insulated from the swinging member and movable under the influence of the rotating member to eliminate the separation between the contact-points and permit them to contact one with the other.

2. In combination, a swinging member, arms mounted thereon and insulated therefrom, and overlapping contact-points and disk-engaging cushion-elements carried by the forward ends of the arms.

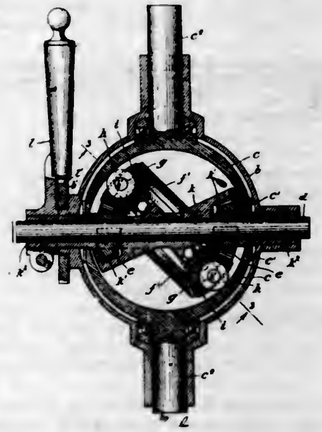
3. In combination, a swinging member, a pair of overlapping arms carried thereby, cushions carried by the forward ends of the arms, and springs engaging the rear ends of the arms.

4. In combination, a swinging member, a support carried thereby, a plate at each side of the support, an arm fulcrumed to each plate, cushions carried by the forward ends of the arms, overlapping contact-points also carried by said arms, and springs connecting with the arms and the plates.

5. In combination a swinging-member, a support fastened to the member, two plates fastened to the support and insulated from one another and from the member, and arms fastened to the plates and overlapping one another and movable to abut against each other.

[Claims 6 to 26 not printed in the Gazette.]

1,141,508. POWER-TRANSMISSION DEVICE. CARL W. WEISS, New York, N. Y. Filed Aug. 7, 1913. Serial No. 783,511. (Cl. 74—7.)



1. A power transmission device comprising a driving element and a driven element, a coöperating body operatively connected with one of said elements, a mutor, clutch members interposed between the coöperating body and the mutor, and operating connections between the mutor and the other of said first named elements.

2. A power transmission device comprising a driving element and a driven element, a coöperating body operatively connected with one of said elements and having a spherical bearing surface, a rotatable mutor mounted concentrically with the coöperating body and with its axis oblique to the axis of the coöperating body, clutch members interposed between the mutor and the spherical bearing surface of the coöperating body, and operating connections between the mutor and the other of said first named elements.

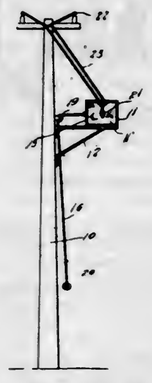
3. A power transmission device comprising a driving element and a driven element, a coöperating body operatively connected with one of said elements, and having a spherical bearing surface, a rotatable mutor mounted concentrically with the coöperating body and with its axis oblique to the axis of the coöperating body, rolling clutch members interposed between the mutor and the spherical bearing surface of the coöperating body, and operating connections between the mutor and the other of said first named elements.

4. A power transmission device comprising a driving element and a driven element, a coöperating body operatively connected with one of said elements and having a spherical bearing surface, a rotatable mutor mounted concentrically with the coöperating body and with its axis oblique to the axis of the coöperating body, rolling clutch members mounted on the mutor and coacting with the spherical bearing surface of the coöperating body, and operating connections between the mutor and the other of said first named elements.

5. A power transmission device comprising a driving element and a driven element, a coöperating body operatively connected with one of said elements, a mutor, clutch members interposed between the coöperating body and the mutor, means to vary the relative angular position of the mutor with respect to the coöperating body, and operating connections between the mutor and the other of said first named elements.

[Claims 6 to 18 not printed in the Gazette.]

1,141,509. CAR-SIGNAL. SADIE WIDEMAN, Niles, Mich. Filed July 31, 1911. Serial No. 641,451. (Cl. 116—22.)



A signaling device for electric railways comprising an inclosing box mounted on a suitable support, a source of light within the box, horizontally swinging spring held doors on opposite sides of the box and arranged to open toward an approaching car, reflectors on the inner faces of the doors, and means for opening the doors, whereby when one of the doors is opened the light within the box will be visible through the opening of the box and reflected from the reflector of the other door through the opening.

1,141,510. PROCESS OF PREPARING SOLUTIONS OF CELLULOSE. RICHARD WILLSTÄTTER, Berlin-Dahlem, Germany. Filed May 14, 1914. Serial No. 838,476. (Cl. 106—40.)

1. The process of producing solutions containing dissolved cellulose which comprises treating the cellulose with hydrochloric acid containing not less than 39% HCl.

2. In the art of preparing cellulose products the improvement which comprises dissolving the cellulose in with hydrochloric acid containing not less than 39% HCl.

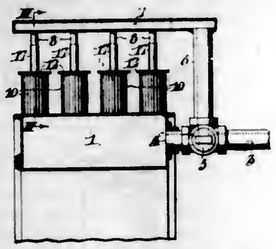
3. In the art of preparing cellulose products the improvement which comprises dissolving the cellulose in hydrochloric acid containing not less than 39.5% HCl.

1,141,511. COOLING DEVICE FOR THE WATER CIRCULATION OF AUTOMOBILE-ENGINES. ARTHUR P. WOLFE, Vineland, N. J. Filed Nov. 20, 1912. Serial No. 732,415. (Cl. 257—125.)

1. A cooling apparatus for the water circulation of an automobile engine, including devices the outer surfaces of which are subjected to cooling air, devices for subdividing the water to be cooled into fine streams and directing the same to said air-cooled devices, and means for subdividing said streams into fine films on the inner surfaces of the

air-cooled devices, said devices being closed at the sides and open at the top for permitting free access of air to the interior of each of said air-cooled devices, whereby the water to be cooled is maintained at atmospheric pressure.

2. A cooling apparatus for the water circulation of an automobile engine, including devices the outer surfaces of which are subjected to cooling air, devices for subdividing the water to be cooled into fine streams and directing the same to said air-cooled devices, a tube extending from each air-cooled device and open to the atmosphere to permit free acess of air to the interior of said devices, said tubes extending above said devices, whereby the water vapors passing from the devices with the air will be condensed in the tubes and returned to said devices, and means supported by the tubes in the air-cooled devices for subdividing the streams into fine films on the inner faces of said air-cooled devices.



3. A cooling apparatus for the water circulation of an automobile engine, including a series of drums having their outer surfaces exposed to the air, a pipe connected with the top of each drum for directing a stream of water thereto, means for dividing and directing the stream of water in each drum against the interior surface of the drum, and a pipe for each drum which extends therefrom and is open to the atmosphere for permitting access of air to the interior of the drum and for condensing the vapors passing from the drum with the air and returning said water vapors to the drum.

4. A cooling apparatus for the water circulation of an automobile engine, including a series of metal drums having corrugated peripheries, the outer surfaces of said drums being exposed to the air, devices for directing the water to be cooled in sub-divided streams into said drums, means for directing said streams against the inner periphery of the drum, whereby they are sub-divided into fine films, and means for permitting free access of air to the interior of said drums.

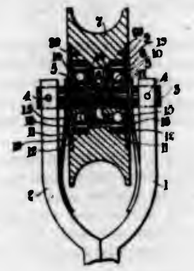
5. A cooling apparatus for the water circulation of an automobile engine, including a series of metal drums having corrugated peripheries, a pipe for each drum for directing the water to be cooled into the drums, a baffle plate in each drum for directing the water discharged therethrough against the corrugated periphery of the drum, whereby the water is sub-divided into a plurality of fine films, a tube connected to each baffle plate, and extending from the drum for permitting free access of air to the drum beneath the baffle plate.

[Claims 6 and 7 not printed in the Gazette.]

1,141,512. TROLLEY-WHEEL. HENRY CARL ADAM, Hamilton, and JACOB CHRISTOPHER ADAM, Trenton, Ontario, Canada. Filed July 13, 1914. Serial No. 850,666. (Cl. 64—36.)

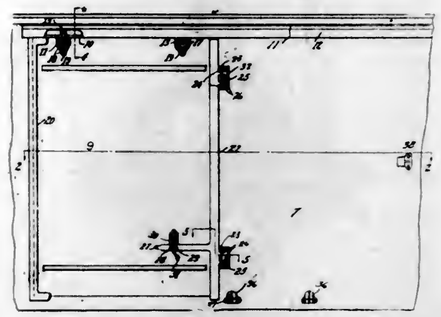
1. In combination in a trolley wheel, an axle with bearing elements keyed thereto, lubricant agitating means carried by said elements, of a rotatable member having recesses, bearing elements located in some of said recesses, plates located in other of said recesses and antifriction members located between the first mentioned and last mentioned bearing elements.

2. In combination in a trolley wheel, an axle with bearing elements keyed thereto, radial pins carried by said bearing elements, a rotatable member having recesses bearing elements located in some of said recesses, plates located in other of said recesses and antifriction members



located between the first mentioned and last mentioned bearing elements.

1,141,513. DOOR CONSTRUCTION FOR FREIGHT-CARS. CHARLES F. ALLEN, Los Angeles, Cal. Filed Mar. 3, 1914. Serial No. 822,126. (Cl. 20—23.)

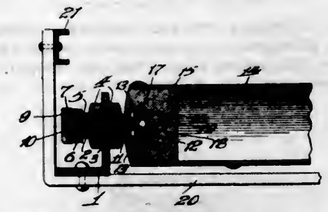


1. The combination with a car having a door opening, of a suspended door adapted to enter said opening and be positioned flush with the wall of the car, and means for forcing said door into and out of said flush position, said means including a pivoted lever arranged to engage the rear side of the door near one edge thereof, and a cleat separate from said lever and pivoted at the same fulcrum point, said cleat being arranged to engage said lever and operate it to force the door out from flush position, said cleat when moved in the reverse direction forcing said door to its flush position.

2. The combination with a car having a door opening and a door adapted to fit within said opening, of means for forcing said door laterally into and out of the door opening, said means including a pair of pivoted levers, one of which is provided with a finger at its inner end to engage the rear side of the door and an arm at its outer end adapted to be engaged by the other lever, said levers being independently movable.

3. The combination with a car having a door opening, of a suspended door adapted to enter said opening and be positioned flush with the wall of the car in which said opening occurs, and means for forcing the door into and out of said flush position, said means including a cleat pivoted to the side wall of the car adjacent one vertical edge of the door opening therein and when in closed position fitting over the joint between the door edge and the edge of the opening, and a pair of separate, short levers pivoted on the same pivots as said pivoted cleat, each of said levers having a finger on its inner end adapted to engage the rear side of the door and an arm on its outer end which is engaged by the cleat when the cleat is swung from closed to open position.

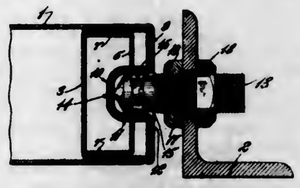
1,141,514. BEARING FOR CONVEYER-ROLLERS. JOHN A. ALVEY, St. Louis, Mo., assignor, by mesne assignments, to Alvey Manufacturing Company, St. Louis, Mo., a Corporation of Missouri. Original application filed Oct. 4, 1911, Serial No. 652,830. Divided and this application filed July 5, 1912. Serial No. 707,837. (Cl. 64—36.)



1. A bearing for conveyer rollers comprising two approximately parallel spindle supports of relatively thin rolled metal connected at intervals, two spindles mounted in adjusted position in oppositely disposed transverse holes in said spindle supports, said holes being larger than said spindles, whereby said spindles can be adjusted in axial alinement, each of said spindles being screw-threaded for a portion of its length and having said screw threaded portion disposed through the hole therefor, a pair of nuts on the screw-threaded portion of each spindle, one of said nuts being arranged on each side of the corresponding spindle support, said nuts clamping said spindle support between them, the inwardly projecting ends of said spindles constituting bearings, said conveyer roller having a recess in each end face thereof, said recesses being adapted to receive the bearing ends of said spindles, and thrust bearings in said recesses between the bottoms of said recesses and the ends of said spindles.

2. A bearing for a conveyer roller, said bearing comprising two approximately spaced parallel spindle supports of relatively thin rolled metal and connected at intervals, spindles screw-threaded for a portion of their length and mounted in oppositely alined holes in said spindle supports, said holes being larger than said spindles, whereby said spindles can be adjusted in axial alinement, a pair of nuts on the screw-threaded portion of each spindle, one of said nuts being arranged on each side of the corresponding spindle support, said nuts clamping said spindle supports between them, each spindle having a ball recess at its inner end and a ball race around it adjacent thereto, said conveyer roller having recesses in its end faces adapted to receive the inner ends of said spindles, and bearing balls in said ball races and said ball recesses arranged to contact with the side and bottom walls of said recesses of said conveyer roller.

1,141,515. BEARING FOR CONVEYER-ROLLERS. JOHN A. ALVEY, St. Louis, Mo., assignor to Alvey Manufacturing Company, St. Louis, Mo., a Corporation of Missouri. Filed Feb. 13, 1914. Serial No. 818,453 (Cl. 64—39.)



1. In a bearing for conveyer rollers, a tubular roller, a cup fastened in each end of said roller, a cap secured to the edge of said cup, a smaller bearing cup secured to said cap, a spindle adjustably supported at each end of said roller, and antifriction members between the walls of each bearing cup and the corresponding spindle.

2. In a bearing for conveyer rollers, a cup, an annular spacing member within said cup having legs engaging the bottom of said cup and lugs extending toward the edge of said cup, a cap secured to the edge of said cup and having a concave portion supported in said spaced member, a bearing cup removably secured in said concave portion, and adapted to receive one end of a spindle.

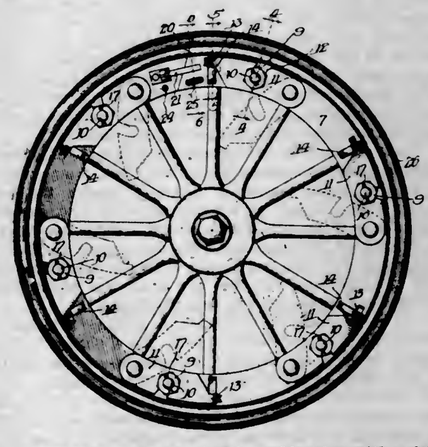
3. In a bearing for conveyer rollers, a roller having a bearing cup secured to each end, a bearing spindle supported at each end of said roller and having one end extending into said cup, antifriction members between each cup and said end of its corresponding spindle, and a nut on said spindle having a recess in one face thereof adapted to engage said antifriction members and to hold them in position.

4. In a bearing for conveyer rollers, a tubular roller, a cup pressed into each end of said roller, a spacing member within each cup having legs engaging the bottom thereof, a cap having a concave portion supported by each spacing member, the edge of each cup being crimped over the edge of the corresponding cup, and a bearing cup of hardened steel removably mounted in said concave portion of each cap.

5. In a bearing for conveyer rollers, a roller, a cap secured to each end of said roller and having a concave portion therein, a bearing cup of hardened steel removably supported in said concave portion of each cap, said bearing cup having an imperforate bottom, a spindle adjustably supported at each end of said roller, each of said spindles being pointed at one end and engaging the bottom of the corresponding bearing cup, and antifriction members between the walls of each bearing cup and the corresponding spindle.

[Claim 6 not printed in the Gazette.]

1,141,516. AUTOMOBILE-WHEEL. JOHN ANDERSON, Chicago, Ill. Filed July 9, 1912. Serial No. 708,470. (Cl. 152—21.)



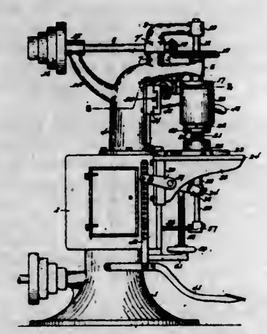
1. In an automobile wheel, the combination with a felly, of a detachable rim having a peripheral flange on its under face adapted to fit the front side of said felly, bolts projecting from the front side of said felly, said flange being slotted to slip over said bolts, and latches pivoted to said flange and arranged to swing into locking engagement with said bolts.

2. In an automobile wheel, the combination with a felly, of a detachable rim having a radially extending peripheral flange extending from near the front edge of the under surface of said rim, bolts carried by said felly and projecting through the front face thereof, nuts upon the ends of said bolts, said flange being slotted to slip over said bolts, and latches corresponding to said bolts, said latches each consisting of a metallic plate pivoted upon said flange at one side of the corresponding slot and provided with a

slot for receiving the bolt, whereby said latches are adapted to swing into locking engagement beneath said nuts.

3. In an automobile wheel, the combination with a felly provided with a felly-band of wedge-shaped cross-section tapering toward the front side of said felly; of a demountable wheel rim having an under surface tapered in a direction opposite to the taper of said felly-band and adapted to fit thereover; bolts projecting from the front side of said felly; and latches pivoted to said wheel rim and arranged to swing into locking engagement with said bolts.

1,141,517. ELECTRICAL WELDING APPARATUS. WILLIAM E. ANDREWS, Bellaire, Ohio, assignor of one-half to W. A. Stellers, Bellaire, Ohio. Filed Nov. 9, 1914. Serial No. 870,988. (Cl. 219—4.)



1. In a machine for electrically welding ends on tubular bodies, a rotatable support for an end blank, a support for the tubular body, means for moving one of said supports toward the other to introduce said body and said blank into proper relative engaging positions, an electrode disposed within said body, an electrode disposed without said body and adapted for movement into coöperative relation to the first mentioned electrode, means for rotating the body and the end blank between said electrodes, and a transformer circuit for said electrodes, normally disconnected portions of said circuit being connected when said body and said blank assume engaging positions.

2. In a machine for electrically welding ends on tubular bodies, a rotatable support for an end blank, a support for the tubular body, means for laterally moving the body support into and out of registry with the end support, means for shifting said body support endwise toward the end support to introduce the body into proper position in engagement with the end blank, a pair of electrodes disposed in coöperative relation, and means for rotating the body and end blank between said electrodes.

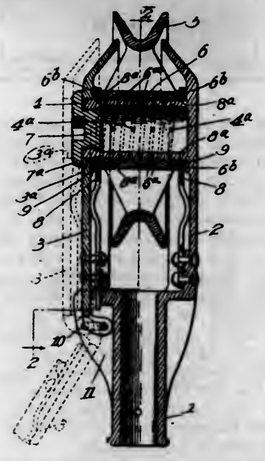
3. In a machine for electrically welding bottoms on tubular bodies, a rotatable support for a flanged bottom blank, a support for the tubular body, means for moving the body support laterally into and out of registry with said bottom support, means for shifting one of said supports endwise to introduce the end of said body within the embrace of the flange of said bottom for forming a joint, and electrodes operating against the internal and external surface at said joint.

4. In a machine for electrically welding bottoms on tubular bodies, a rotatable support for a flanged bottom blank, a support for the tubular body, means for moving the body support laterally into and out of registry with said bottom support, means for shifting one of said supports endwise to introduce the end of said body within the embrace of the flange of said bottom for forming a joint, and electrodes operating against the internal and external surface at said joint, one of said electrodes being movable to and from operative position.

5. In a machine for electrically welding bottoms on tubular bodies, a rotatable support for a flanged bottom blank, a support for the tubular body, means for moving the body support laterally into and out of registry with said bottom support, means for shifting one of said supports endwise to introduce the end of said body within the embrace of the flange of said bottom for forming a joint, and electrodes operating against the internal and external surface at said joint, and means for rotating the support for the bottom blank.

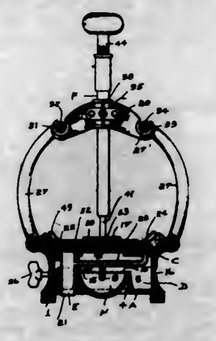
[Claims 6 to 9 not printed in the Gazette.]

1,141,518. TROLLEY-WHEEL MOUNT. LEONARD W. ASHLEY, Milwaukee, Wis., assignor of one-half to E. M. McVicker, Milwaukee, Wis. Filed Oct. 9, 1911. Serial No. 653,494. (Cl. 64—67.)



In combination with a trolley wheel having an axially chambered hub; a harp or hanger for the wheel comprising front and back plates, one of which is hinged to the harp for swinging away from the other plate, an axially chambered bearing for the wheel hub rigid with said other plate, the hinged plate having a circular aperture to receive and support the projecting end of the bearing, the hinge connection of the hinged plate to the harp comprising in one of said members pintle slots elongated in direction parallel to the wheel axis to permit direct insertion of the end of the bearing in the aperture of said hinged plate, and means for closing the end of the axial chamber of the bearing and retaining the hinged side plate engaged with said bearing.

1,141,519. VULCANIZER. JAMES E. BANCROFT, Toledo, Ohio, assignor to Toledo Computing Scale Company, Newark, N. J., a Corporation of New Jersey. Filed July 5, 1910. Serial No. 570,318. (Cl. 18—18.)



1. A vulcanizer comprising a body having an internal combustion chamber, a burner, and a reservoir for fuel, said chamber having its top adapted to form a thermal

plate, and provided with a cavity for the material for a patch, a bail-like arm so pivotally coupled to each side of the body as to locate the respective lateral connecting bar to each bail above the respective side of the body parallel therewith, a pair of cross bars pivoted to one of the bails and movable lengthwise thereon adapted to detachably engage the lateral bar of the opposite bail, and means depending from each cross arm adapted to be brought to bear upon the thermal plate.

2. A vulcanizer comprising a body having an internal combustion chamber, there being a cavity for the material for a patch over the combustion chamber, a burner and a fuel reservoir pipe connected to said burner and provided with a controlling valve, clamping means comprising a bail pivoted to each side of the body and one or more cross-bars movable upon the lateral bar of the respective bail, each cross-bar having an end pivotally coupled to the lateral arm of one of the bails and the opposite end detachably coupled to the lateral arm of the opposite bail, pressure means depending from each cross-bar toward the top of the combustion chamber comprising an upward lockable ratchet sleeve, a top headed stem movable within the bore of the sleeve, and a pressure screw bearable upon the head of the stem.

3. A vulcanizer comprising an inclosed combustion chamber provided with means for generating heat, a supplementary top imposable over the combustion chamber, said top having a metallic container for the material for a patch and having inherent interstices for the diffusion of vapors, a water container depending from the top of the combustion chamber provided with outlet ports to the diffusing body of the supplementary top to supply it with water vapors, and means to releasably clamp a tube or a tire to the top of the combustion chamber.

4. A vulcanizer comprising a hollow body having a top section and a bottom section adapted to conjointly form a combustion chamber, said bottom section being adapted to contain a fixed quantity of heating means, a container for water depending into the combustion chamber from the under side of the top section provided with top outlets for the generated vapors of water, a container for the material for a patch, means adapted to restrictively diffuse and vent the vapors of water along the margin of the top, and means to clamp a tube or a tire over the patch container.

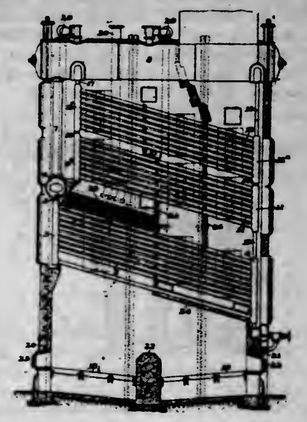
5. A vulcanizer comprising a body provided with a combustion chamber and a container for a fixed quantity of heating means, a top over the combustion chamber having a central container for the material for a patch and having its body composed of a nonconducting material but adapted to diffuse and permit the discharge of vapors of water supplied thereto, a container for water extending into the combustion chamber having ports to feed the diffusing material of the top, and means adapted to press a tube or a tire upon the top and a plate to distribute applied pressure over the body of the tire.

[Claims 6 to 9 not printed in the Gazette.]

1,141,520. WATER-TUBE BOILER. JOHN E. BELL, New York, N. Y., assignor to The Babcock & Wilcox Company, New York, N. Y., a Corporation of New Jersey. Filed Dec. 26, 1905. Serial No. 293,170. (Cl. 122—472.)

1. In a steam boiler, the combination with upper and lower banks of substantially longitudinally disposed tubes, a steam and water drum, said banks being provided with separate connections for conducting the steam generated therein directly to the steam and water drum, means for causing the products of combustion to make serial passes transversely over said tubes, and a superheater located between the banks.

2. In a steam boiler, the combination with upper and lower banks of substantially longitudinally disposed tubes, a steam and water drum, said banks being provided with separate connections for conducting the steam generated therein directly to the steam and water drum, substantially vertical baffles extending transversely of the tubes for causing the products of combustion to have an upward and downward passage across the tubes, and a superheater located in the up-passages of the gases.



3. In a horizontal water tube boiler, the combination with an upper set of substantially vertical end headers or boxes, of a plurality of inclined water tubes connecting the same, a lower set of substantially vertical end headers or boxes, one of the same being disposed in vertical alinement with the corresponding upper header, the other being arranged in a different plane the corresponding upper header, inclined water tubes connecting the lower headers, a substantially horizontal steam and water chamber located above both sets of headers, an intermediate or subdrum located between the upper and lower headers that are in vertical alinement and connected to both, a subdrum located over the lower header that is out of vertical alinement with the upper header and connected to said lower header, a direct connection between said latter subdrum and the steam and water chamber, and an independent direct connection between the corresponding upper header and the steam and water chamber.

4. In a steam boiler, the combination with longitudinally disposed upper and lower banks of tubes, of a transverse pass for the products of combustion having an upper restricted portion, and a superheater located in the lower larger portion of said pass.

5. In a steam boiler, the combination with longitudinally disposed upper and lower banks of tubes, of a transverse upward pass for the products of combustion, across the tubes having an upper restricted portion, and a downward transverse pass across the tubes communicating with the upward pass and having a restricted lower portion.

[Claims 6 to 10 not printed in the Gazette.]

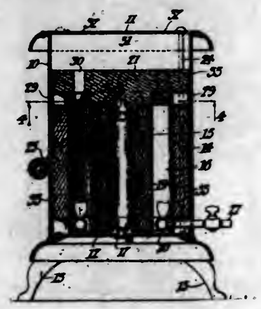
1,141,521. GAS-STOVE. WILLIAM N. BEST, New York, N. Y. Filed Feb. 1, 1915. Serial No. 5,395. (Cl. 126—85.)

1. A gas stove including a sheet metal casing, separate inner and outer concentric refractory walls spaced apart to leave an annular combustion chamber, an annular burner within said chamber, and a refractory top wall for said annular chamber, said outer wall having a series of radially extending air inlet openings adjacent the lower end thereof, and a series of radially extending gas outlet openings adjacent the upper end thereof.

2. A gas stove including a sheet metal casing, separate inner and outer concentric refractory walls spaced apart to leave an annular combustion chamber, an annular burner within said chamber, and a separate refractory top wall for said annular chamber, said top wall having a series of gas outlet passages therethrough from said annular chamber and said stove having a series of air inlet apertures adjacent to said burner.

3. A gas stove having a sheet metal casing including a peripheral wall and top and bottom walls, two separate

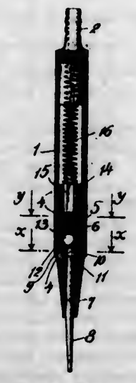
concentric walls of refractory material within said casing and spaced apart to form an annular chamber having an inlet at the lower end and an outlet at the upper end, a transverse wall of refractory material within said casing and beneath said top wall, and a bail having the opposite ends thereof projecting through said casing and into said transverse wall to relieve the bottom of the weight of said top wall when said stove is lifted by said bail.



4. A gas stove including three blocks of refractory material, two of said blocks forming separate inner and outer concentric walls spaced apart to leave an annular combustion chamber, the upper edge of said outer wall being higher than said inner wall and the other of said blocks forming a top wall having a depending central portion engaging with said inner wall and a peripheral portion engaging with said outer wall, an annular burner within said annular chamber at the lower end thereof, and separate annular series of openings communicating with said chamber, one of said series being at the lower end and serving as air inlets and the other of said series being at the upper end and serving as gas outlets.

5. A gas stove including three blocks of refractory material, two of said blocks forming separate inner and outer concentric walls spaced apart to leave an annular combustion chamber having an air inlet at the lower end and an outlet at the upper end, and the other of said blocks forming a top wall having a peripheral portion engaging with said outer wall and having a central portion engaging with said inner wall, an annular burner within said annular chamber at the lower end thereof and adjacent to said inlet, and means for holding said blocks together in the specified relationship.

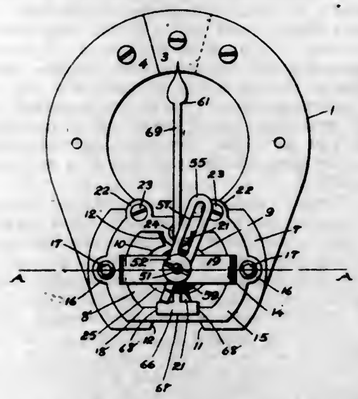
1,141,522. LIQUID-COLORING IMPLEMENT. JOHN A. BOYAJEAN, Jersey City, N. J. Filed Apr. 15, 1912. Serial No. 690,739. (Cl. 120—43.)



1. In an implement for applying coloring matter, a tubular body member provided with a long outlet passage having an annular seat surrounding the inner end thereof, an enlargement above said seat and a second enlargement above the first enlargement, and a spring pressed tracing member provided with a head on its upper end engaging the annular seat and normally received in the enlargement above the seat, a stem portion loosely guided in the passage, and a long tapered point projecting out beyond the end of the passage a distance at least equal to the length of the first enlargement aforesaid, whereby by pressure on the tracing point, the head on the tracing member may be forced up into the second enlargement to provide increased space and afford freer flow around and under the head and down around the tracing point.

2. In an implement for applying coloring matter, a tubular body member provided with a long passage having an annular seat surrounding the inner end thereof, an enlargement above said seat and a second enlargement above the first enlargement, a tracing and separating member provided with a head on its upper end normally received in the enlargement above the annular seat, a stem portion loosely guided in the passage, and a long tapered point projecting out beyond the end of the passage a distance at least equal to the length of the first enlargement aforesaid, whereby by pressure on the tracing point, the head on the tracing member may be forced up into the second enlargement to provide increased space and afford freer flow around and under the head and down around the tracing point, a ball above the head received in the second enlargement and fitting the upper end of the first enlargement to form a valve and a spring pressed follower slidingly engaged in the second enlargement above the valve therein.

1,141,523. ELECTRICAL MEASURING INSTRUMENT. IVAR W. BRÖGGER, Newark, N. J. Filed Mar. 22, 1913. Serial No. 756,143. (Cl. 171—95.)



1. In an electrical measuring instrument, a magnet with adjacent poles, a moving coil between said poles, a core within said moving coil, and magnetic conductors projecting toward each other from the facing sides of the poles above and below said moving coil and having their adjacent edges concavely curved so that the moving coil is traversed by substantially the same number of lines of force in different angular positions.

2. In an electrical measuring instrument, a magnet with adjacent poles, a moving coil between said poles, and magnetic conductors projecting toward each other from the facing sides of the poles above and below said moving coil and having their adjacent edges concavely curved at their middle portions and inclined outwardly apart at their end portions.

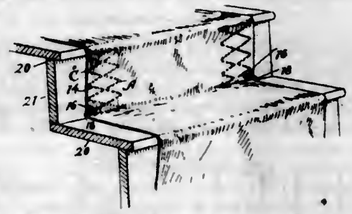
3. In an electrical measuring instrument, a magnet with adjacent poles having facing sides curved in the plane of the magnet, a moving coil between said poles, a core within said moving coil, and magnetic conductors projecting toward each other from said facing sides of the poles above and below said moving coil and having their edges concavely curved so that the moving coil is traversed by substantially the same number of lines of force in different angular positions.

4. In an electrical measuring instrument, a magnet with adjacent poles having facing sides curved in the plane of the magnet, a moving coil between said poles, and magnetic conductors projecting toward each other from said facing sides of the poles above and below said moving coil and having their edges concavely curved at their middle portions and inclined outwardly apart at their end portions.

5. In an electrical measuring instrument, a magnet with adjacent poles having facing sides concavely curved at their middle portions and inclined outwardly apart at their end portions, a moving coil between said curved portions of the facing sides of the poles, and magnetic conductors projecting toward each other from said facing sides of the poles above and below said moving coil and having their edges concavely curved at their middle portions and inclined outwardly apart at their end portions in substantially the planes of the said inclined end portions of the pole faces.

[Claims 6 to 21 not printed in the Gazette.]

1,141,524. STAIR-CARPET FASTENER. HENRY J. BRUEHLER, Cleveland, Ohio. Filed Feb. 12, 1915. Serial No. 7,912. (Cl. 16—140.)



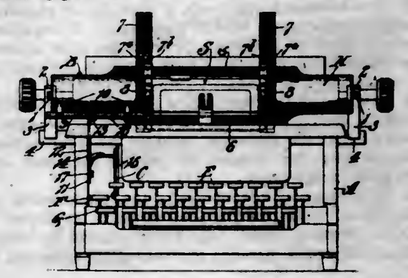
1. The combination of a frame member adapted to occupy a position close to a stair riser and to engage the top surface of one adjacent stair tread and the bottom surface of the overhanging front edge of the next higher stair tread,—which frame has at its lower end two alined forwardly projecting eyes, a carpet holder comprising a straight bar which is threaded through and is slidable endwise in said eyes and is provided at its outer end with an inwardly bent arm adapted to pass in front of a carpet and to engage therewith.

2. The combination of a frame member adapted to occupy a position close to a stair riser and to engage the top surface of one adjacent stair tread and the bottom surface of the overhanging front edge of the next higher stair tread,—which frame has at its lower end two alined forwardly projecting eyes, a carpet holder comprising a straight bar which is threaded through and is slidable in said eyes and is provided at its outer end with an inwardly bent arm adapted to be passed in front of a carpet and to engage therewith, and means imparting to said bar a tendency to turn in the direction to press the carpet holding arm against the front face of the carpet.

3. The combination of a frame member made of resilient steel wire bent to form a horizontal top member, a horizontal bottom member and sinuously bent side members, and two forwardly projecting eyes at the juncture of said side members and bottom bar, a carpet holder made of spring wire bent to form a straight middle portion which is threaded through said eyes and is movable lengthwise therein, and an inwardly bent arm at one end of said bar adapted to project over the edge of a carpet strip and engage the front surface thereof, and having at the other end an inwardly bent arm which is passed behind the adjacent side frame member.

1,141,525. STENCIL-WRITING ATTACHMENT FOR TYPE-WRITING MACHINES. FRANK W. BUFFUM, Louisiana, Mo. Filed Aug. 17, 1914. Serial No. 857,233. (Cl. 197—135.)

1. A stencil-writing attachment for typewriting machines comprising a pivotally mounted holder for holding the stencil in operative position adjacent the platen of the machine, and means for automatically rocking said holder when certain characters on the type bars are placed in printing position.



2. A card-writing attachment for typewriting machines comprising a shiftable holder for retaining the card in operative position adjacent the platen of the machine, and means for automatically changing the angularity of said holder with respect to said platen when it is desired to print certain characters on said card.

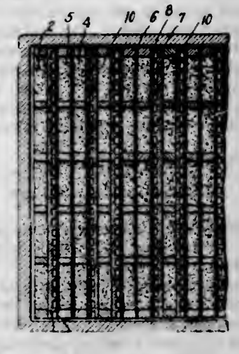
3. A device of the character described comprising a rigid frame that lies across the front face of the platen of a shift key typewriter, means for retaining said frame in an approximately vertical position when normally printing on the typewriter, and means for bodily moving said frame out of its vertical position when printing with the shift key of the typewriter operative.

4. In a stencil-writing attachment for typewriting machines, the combination of a typewriter provided with a shift key, a frame for holding the stencil in operative position adjacent the platen of the typewriter, and a connection between said frame and said shift key, whereby whenever said shift key is actuated, the position of said frame with respect to said platen will be changed.

5. In a stencil-writing attachment for typewriting machines, the combination of a typewriter having a movable support for the type bars thereof, a frame mounted on said machine that holds the stencil in operative position adjacent the platen, and a link connecting said frame to said movable support.

[Claims 6 to 17 not printed in the Gazette.]

1,141,526. STORAGE-BATTERY CELL. RUFUS N. CHAMBERLAIN, Chicago, Ill., assignor to Gould Storage Battery Company, a Corporation of New York. Filed Mar. 23, 1914. Serial No. 826,534. (Cl. 204—29.)



1. In a storage battery cell, a group of positives, each having internal spaces adapted to place interior active material in direct communication with electrolyte and a group of negatives, each directly exposed to electrolyte only on its outside.

2. In a storage battery cell, a plurality of plate elements of substantially the same thickness, each positive consist-

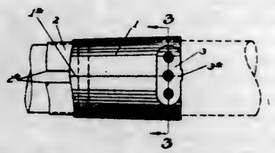
ing of two of said elements united mechanically and electrically but with an internal chamber between them in direct communication with the electrolyte, and each negative consisting of but one of said elements.

3. In a storage battery cell, a plurality of positive elements in combination with a less number of negative elements so that the difference between the total number of elements and the number of couples equals the total number of negative elements.

4. In a storage battery cell, a plurality of positive elements in combination with a plurality of negative elements so that the difference between the total number of elements and the number of couples increases in an arithmetic progression.

5. In a storage battery cell, the combination of a plurality of both positive and negative elements, each negative element, except two, being adapted to coöperate with all the active material of two positive elements.

1,141,527. VEHICLE BOW-SOCKET. JAMES CHESTER COSS, Detroit, Mich. Filed June 30, 1914. Serial No. 848,243. (Cl. 21—62.)



1. In a tubular bow socket provided with a longitudinally extending seam, a reinforcing member mounted within the bow receiving end of said bow socket and extending across said seam and welded to said bow socket on opposite sides of said seam.

2. In a tubular bow socket having a longitudinally extending joint, a reinforcing element extending across said joint and spot welded to said bow socket at the bow receiving end thereof, one of said spot welds extending through said joint.

3. A tubular bow socket, comprising inner and outer tubular members provided with a longitudinally extending seam, and inner and outer bridge members welded thereto and connected by a web portion at the ends of said tubular member.

4. A reinforcing element for tubular bow sockets, comprising oppositely disposed curved spaced members connected at one edge by means of a connecting web portion and adapted to be disposed interiorly and exteriorly of the walls of said socket at one end thereof.

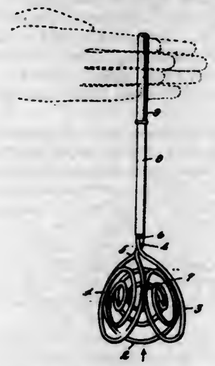
5. In a tubular bow socket, the combination with an outer tubular member provided with an inwardly extending longitudinal seam, and an inner split tubular member having its edges abutting against said seam; of spaced reinforcing bridge members welded to and through said inner and outer tubular members and said inwardly extending seam.

[Claim 6 not printed in the Gazette.]

1,141,528. AGITATOR. ANDREW C. CUNNINGHAM, North Chicago, Ill. Filed Jan. 18, 1915. Serial No. 2,847. (Cl. 107—41.)

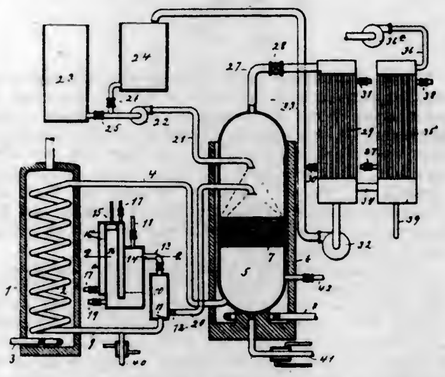
1. An agitator composed of a plurality of elements each of which comprises a continuous length of wire, one end of which is bent into a plurality of convolutions lying in the same plane to form a coiled agitating portion, the coiled portions so formed being grouped about the longitudinal axis of the agitator and connected at their adjacent lateral edges, the uncoiled portions of the several wires being extended away from the coiled portions, for the purpose described.

2. An agitator composed of a plurality of elements each of which comprises a continuous length of wire, one end of which is bent into a plurality of convolutions lying in the same plane to form a coiled agitating portion, the coiled portions so formed being grouped about the longitudinal axis of the agitator and inclined with respect



thereto and connected at their adjacent lateral edges, the uncoiled portions of the several wires being extended away from the coiled portions, for the purpose described.

1,141,529. PROCESS FOR THE PRODUCTION OF GASOLENE AND NAPHTHA FROM CRUDE OILS, PETROLEUM PRODUCTS, TAR-OIL, OR SIMILAR PRODUCTS. PAUL DANCKWARDT, near Dardanelle, Ark. Filed Mar. 4, 1914. Serial No. 822,282. (Cl. 196—25.)
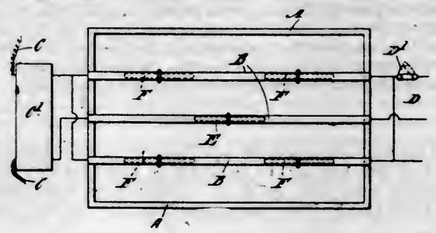


Process of producing gasolene from crude oil, its products or similar oil consisting in spraying into the vapor space of the retort, and so into the liquid to be distilled, a heated liquid which is practically indistillable in the circumstances of the operation and is insoluble in the liquid to be distilled, then withdrawing it from the liquid to be distilled to pass through a heater to be returned in cyclic course to the retort, the evolved vapor being meantime continuously collected from the retort.

1,141,530. TREATMENT OF IRON. ANGELO VACANI DISMORR, county of Buckingham, England. Filed Jan. 31, 1914. Serial No. 815,667. (Cl. 204—14.)

1. The process of treating iron or steel to change its characteristics, which consists in subjecting it to the action of an electrolytic bath in which the piece to be treated forms an electrode, and passing through said electrode and bath a current of a voltage in excess of the ordinary range of voltages employed in electroplating work.

2. The method of treating iron or steel to change its characteristics, which consists in electrolytically depositing thereon a coating, and then subjecting the piece to an electrolytic bath in which it forms an electrode and while

therein subjecting it to the action of a current of a voltage in excess of the ordinary range of voltages employed in electroplating work.



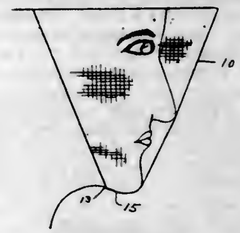
3. The method of treating iron or steel to change its characteristics, which consists in electrolytically depositing thereon a coating of carbon and nickel, and then subjecting the piece to an electrolytic bath in which it forms an electrode and while therein subjecting it to the action of a current of a voltage in excess of the ordinary range of voltages employed in electroplating work.

4. The process of treating iron and steel to change its physical characteristics, which consists in subjecting it to the action of an electrolytic bath in which it forms an electrode, and while in said bath subjecting it for a portion of the time to the action of a low tension current and for another period of time to a high tension current.

5. The process of treating iron and steel to change its physical characteristics, which consists in subjecting it to the action of an electrolytic bath in which it forms an electrode, and while in said bath subjecting it for a portion of the time to the action of a low tension current and for another period of time to a high tension current, and employing as other electrodes materials which will deposit a coating on the piece during its treatment.

[Claims 6 to 27 not printed in the Gazette.]

1,141,531. VEIL. MARIE U. DIXEY, New York, N. Y. Filed May 20, 1914. Serial No. 839,788. (Cl. 2—116.)



1. As an article of manufacture, a veil comprising a section of normally substantially transversely flat woven net having its upper and lower longitudinal edges of substantially the same length, and provided above, and adjacent the lower longitudinal edge with a relatively short outwardly bulging pocket approximately equi-distantly spaced from the opposite ends of the lower longitudinal edge of the veil with the lower flat portions of the veil extending beyond the pocket upon opposite sides thereof for substantial distances.

2. As an article of manufacture, a veil comprising a section of normally substantially transversely flat woven net, provided above and near its lower longitudinal edge with a relatively short outwardly bulging pocket with flat portions of the veil extending beyond the pocket upon opposite sides thereof for substantial distances.

8. As an article of manufacture, a veil comprising a section of normally flat woven net provided near its lower longitudinal edge with an outwardly bulging pocket restricted to the substantially central portion of the veil with flat portions of the veil extending beyond the pocket upon opposite sides thereof for substantial distances.

1,141,532. WINDOW-VENTILATOR. HERBERT WILLIAM DREW, Chicago, Ill. Filed Nov. 19, 1910. Serial No. 593,228. (Cl. 98—31.)



1. In a device of the class described, a casing adapted to be inserted beneath the window, said casing being provided with an aperture, a closure for said aperture, means connecting said closure to said casing, said means being also adapted to firmly hold said closure bodily displaced from said casing and in any desired deflecting position about an axis with respect to said casing.

2. In a device of the class described, a casing adapted to be inserted beneath the window, said casing being provided with an aperture, a closure for said aperture, means connecting said closure to said casing, said means being frictionally secured to said casing, said closure being frictionally secured to said means, whereby said closure may be held bodily displaced in said casing and in any one of a plurality of deflecting positions.

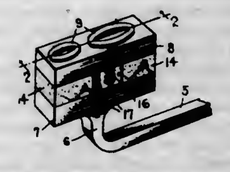
3. In a window ventilator, a frame, and a deflector, said deflector being connected to said frame by an arm, said arm permitting said deflector to swing bodily outward from said frame, said arm being adapted to hold said deflector in an adjusted deflecting position with respect to said frame when said deflector is in an outwardly displaced position.

4. In a window ventilator, a frame, an arm hingedly connected along one portion to said frame, and a deflector, said deflector being frictionally hinged to the extremities of said arm, whereby said deflector may be rotated to any desired position about the extremities of said arm in relation to said frame and retained in such position.

5. In a window ventilator, a frame, an arm having its intermediate portion seated in a groove in said frame, a strip adjacent said groove frictionally engaging said arm to form a hinged connection between said arm and said groove, and a deflector carried by offset extremities on said arm, said deflector being connected to said extremities by means of frictional engagement, whereby said deflector may be rotated about its engagement with said arm as an axis and held in an adjusted position in relation to said frame.

[Claims 6 to 9 not printed in the Gazette.]

1,141,533. TYPE-WRITER. DALTON B. FALOON, Dubois, Pa. Filed Dec. 24, 1914. Serial No. 878,923. (Cl. 197—36.)



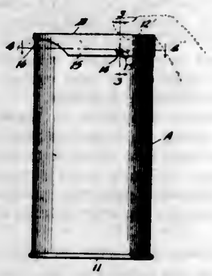
1. The combination with a swinging type lever provided near its end with an attaching plate, having apertures upon opposite sides of the end of the type lever; of a type plate arranged near and spaced from the attaching plate; guide bolts rigidly secured to the attaching plate

near its ends and fitting snugly in the apertures to reciprocate therein without partaking of perceptible lateral movement with relation thereto; and elastic means arranged between the two plates.

2. The combination with a swinging type lever provided near its end with an attaching plate having apertures disposed upon opposite sides of the end of the type lever; of a type plate arranged near and spaced from the attaching plate; guide bolts rigidly secured to the attaching plate near its ends and fitting snugly in the apertures to reciprocate therein without partaking of perceptible lateral movement with relation to the attaching plate; and apertured elastic pads confined between the two plates and receiving the guide bolts therethrough.

3. The combination with a type lever provided with an attaching plate having transverse apertures near its opposite ends, of a type plate having guide bolts rigidly secured thereto and passing through the apertures, nuts carried by the free ends of the guide bolts, apertured elastic pads arranged between the plates and receiving the guide bolts, and coil springs arranged between the plates and engaging the same between the elastic pads.

1,141,534. RECEPTACLE. BEN K. FORD, Detroit, Mich., assignor to Detroit Can Company, Detroit, Mich., a Corporation of New Jersey. Filed June 15, 1912. Serial No. 703,894. (Cl. 206—41.)



1. A receptacle of the character described comprising, in combination, a body member having an open top and outwardly resilient sides, and a cover having at its sides a pair of opposite inwardly extending hinge pintles which enter elongated recesses formed in the said sides of the body; substantially as specified.

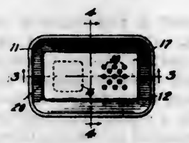
2. A receptacle of the character described, comprising, in combination; a body member having relatively stiff outwardly resilient side walls composed of fibrous material, said body member having an open top; and a metallic cover having at its sides inwardly extending metallic pintles formed by striking up the metal of the cover, said pintles being adapted to wear and form elongated pivot slots in the side walls, said cover being bodily movable with respect to said body member; substantially as specified.

3. A receptacle having an ovaliformed body the upper edge of which is cut away at one end of the body, combined with a flanged cover the flange of which closely embraces the upper end of the body and is cut away at the end of the cover remote from the said cut away portion of the body, whereby the bodily movement of the cover toward the cut away portion of the body is permitted and a pouring opening is formed.

4. A receptacle of the character described comprising, in combination, an ovaliformed body member having its side walls composed of resilient material formed with longitudinally extending slots, and a metallic cover hinged thereto, said metallic cover having a depending flange adapted to fit over the body when in closed position and having hinge pintles formed integrally therewith and adapted to take into said longitudinally extending slots in the side walls of the body member.

5. A receptacle of the character described comprising, in combination, an ovaliformed body member having outwardly resilient side walls, formed with elongated pivot bearing slots, and a metallic cover hinged thereto, said metallic cover having a depending flange adapted to fit the body and having hinge pintles formed integrally therewith and adapted to take into the said slots in the side walls of the body member, the upper edge of the body member being cut away at the end adjacent the hinge pintles and the flange of the cover being cut away at the opposite end.

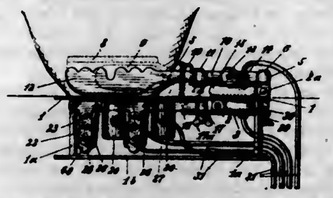
1,141,535. DREDGE OR SIFTER-TOP CAN. LOUIS J. FREUNDT, Chicago, Ill., assignor to American Can Company, New York, N. Y., a Corporation of New Jersey. Filed Aug. 1, 1913. Serial No. 782,417. (Cl. 221—62.)



1. A top for dredge cans, consisting of a main portion which is bent upward, outward and downward at its edges so as to form a countersunk top surface and a raised grooved flange adapted to receive the upper edge of the can body, the portion of the said top within the raised flange being formed with a raised rectangular portion having under-bent opposite straight sides 15 which extend above the said raised flange, and the top of said raised portion being formed at one end with a hole and being imperforate at the other end; combined with a sliding cover having at opposite sides inturned straight flanges 18 engaging beneath the said under-bent sides 15 and arranged above the said raised flange, the said cover being reversible, end for end, and being formed at one end with perforations and being imperforate at the other end.

2. A top for dredge cans, consisting of a main portion which is bent upward, outward and downward at its edges so as to form a countersunk top surface and a raised grooved flange adapted to receive the upper edge of the can body, the portion of the said top within the raised flange being formed with a raised rectangular portion having under-bent opposite straight sides 15 which extend above the said raised flange, and the top of said raised portion being formed at one end with a hole and being imperforate at the other end; combined with a sliding cover having at opposite sides inturned straight flanges 18 engaging beneath the said under-bent sides 15 and arranged above the said raised flange, the said cover being reversible, end for end, and being formed at one end with perforations and being imperforate at the other end, the cover being formed at the end remote from the said perforations with the depending flange 20.

1,141,536. MILKING-MACHINE. JOHANNES IGNAZ FRIEDRICH, Dusseldorf, Germany, assignor of one-half to Johannes Gerhardt, Dusseldorf, Germany. Filed Dec. 29, 1914. Serial No. 879,501. (Cl. 31—95.)



1. Machine for milking udders consisting of means movable in a horisontal and a vertical direction for operating on the teats and of means movable in a horisontal and a vertical direction for operating on the halves of the udder, which are gripped by the said means, means for operating said operating means.

2. Machine for milking udders consisting of means for operating on the udder and on the teats, levers, to which said means are fitted, rocking plates to which the said levers are pivoted, a main plate to which the said rocking plates are pivoted, means for operating the said rocking plates and means for operating the said levers.

3. Milking machine consisting of means for operating on the udder, a main plate carrying said udder-operating means, a rocking plate fitted to said main plate, means for operating said rocking plate, arms adjustably fitted to said rocking plate, at the end of each arm a fixed member, said member having at the top a curved section and below a plate, a movable member at the end of each arm, a plate on said movable member, several superimposed movable pressing plates on said plate, springs pressing said pressing plates toward the fixed member, and means for rocking said movable member.

4. Milking machine consisting of means for operating on the udder, a main plate carrying said udder-operating means, a rocking plate on said main plate, means for operating said rocking plate, arms adjustably fitted to said rocking plate, a fixed member at the end of each arm, said member having at the top a curved section and below a plate, a movable member at the end of each arm, a plate on said movable member, several superimposed movable pressing plates on said plate, springs adapted to press said plates toward the fixed member, said springs increasing in strength in an upward direction, and means for operating the movable member.

5. Milking machine, consisting of means for operating on the udder, a main plate carrying said udder-operating means, a rocking plate, on said main plate, means for operating said rocking plate, arms adjustably fitted to said rocking plate, at the end of each arm two fixed members, the one of said fixed members having above a curved section and below a plate, a movable member between the said two fixed members on the arm, on said movable member a plate, several superimposed sliding pins with pressing plates at their ends in this plate, on said pins springs of different strengths, which press the upper pins with their plates more strongly toward the fixed member with the plate than the lower pins, an inflatable air cushion between the movable member and the other fixed member, a spring pressing the movable member against the said air-cushion.

[Claim 6 not printed in the Gazette.]

1,141,537. PNEUMATIC TIRE. HERBERT B. GILLETTE, Grand Rapids, Mich. Continuation of applications Serial No. 724,499, filed Oct. 8, 1912, and Serial No. 760,141, filed Apr. 10, 1913. This application filed Dec. 6, 1913. Serial No. 805,177. (Cl. 152—18.)



1. In a pneumatic tire structure, the combination of an outer casing, an inner tube, a retaining rib curved in cross section secured centrally to the inside of the wall of the said outer casing, protector segments of soft rubber thick at the center and extended to thin edges at each side, with central longitudinal arc shaped notches adapted to engage said rib, said segments being provided with beveled joint flaps on one edge at their inner sides and with beveled portions corresponding to said flaps at the opposite edges, disposed upon said rib, and a breaker strip of fabric incorporated in the outer portion of said soft rubber segments at each side of the engaging notch, coacting substantially as described for the purpose specified.

2. In a pneumatic tire structure, the combination of an outer casing, an inner tube, a retaining rib curved in cross section secured centrally to the inside of the wall of the said outer casing, protector segments of soft rubber thick at the center and extended to thin edges at each side, with central arc shaped notches adapted to engage said rib, said segments being provided with beveled joint flaps on one edge at their inner sides and with beveled portions corresponding to said flaps at the opposite edges, disposed upon said rib, and fabric incorporated in the outer portion of said soft rubber segments at each side of the engaging notch, coacting substantially as described for the purpose specified.

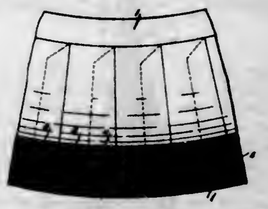
3. In a pneumatic tire structure, the combination of an outer casing, an inner tube, a retaining rib curved in cross section secured centrally to the inside of the wall of the said outer casing, and protector segments of soft rubber thick at the center and extended to thin edges at each side, with central arc shaped notches adapted to engage said rib, said segments being provided with beveled joint flaps on one edge at their inner sides and with beveled portions corresponding to said flaps at the opposite edges, disposed upon said rib, coacting substantially as described for the purpose specified.

4. In a pneumatic tire structure, the combination of an outer casing, an inner tube, a retaining rib curved in cross section secured centrally to the inside of the wall of the said outer casing, a gummed strip cemented in said tire to which said rib is stitched, and protector segments of soft rubber thick at the center and extended to thin edges at each side, with central longitudinal arc shaped notches adapted to engage said rib, said segments being provided with beveled joint flaps on one edge at their inner sides and with beveled portions corresponding to said flaps at the opposite edges, disposed upon said rib coacting substantially as described for the purpose specified.

5. In a pneumatic tire structure, the combination with the outer casing, of a retaining rib curved in cross section, secured centrally to the inside wall of the outer casing.

[Claims 6 to 11 not printed in the Gazette.]

1,141,538. PNEUMATIC TIRE. HERBERT B. GILLETTE, Grand Rapids, Mich. Filed May 8, 1914. Serial No. 837,112. (Cl. 152—18.)



1. In a pneumatic tire structure, the combination of an outer casing, an inner tube, protector segments of soft rubber thick in the center and extending to thin edges at each side, said segments being provided with beveled joint flaps on one edge at their inner sides and with beveled portions corresponding to said flaps at the opposite edges, said segments being cemented to the inner wall of said outer casing, all coacting substantially as described for the purpose specified.

2. In a pneumatic tire, the combination of an outer casing, an inner tube, and resilient protector strips of flat rubber having overlapping beveled joint flaps and having the central portions thereof cemented to the inner wall of said outer casing, said resilient protector strips being disposed in a flexed position and tending to regain the flat position, the resiliency of said protector strips causing them to exert outward pressure against the inner face of said outer casing, all coacting substantially as described and for the purpose specified.

3. In a pneumatic tire structure, the combination of an outer casing, an inner tube, and resilient protector strips having the central portions thereof cemented to the inner wall of said outer casing, said resilient protector strips being disposed in a flexed position and tending to regain the flat position, the resiliency of said protector strips causing them to exert outward pressure against the inner face of said outer casing.

1,141,539. MEANS FOR REGULATING THE TENSION ON THE DRIVING-BELTS OF MOTOR-CYCLES AND THE LIKE. GEORGE GREER and MARTIN CARNEY, Fitzherbert West, Palmerston North, New Zealand. Filed June 30, 1914. Serial No. 848,158. (Cl. 64—5.)



1. Means for the purpose described consisting of a driving shaft, a circular plate eccentrically journaled upon the driving shaft and having a flange concentric with the plate, a pulley ring mounted on such flange and formed with gear teeth around its internal periphery, a pinion upon the end of the inner shaft gearing with such teeth, means whereby the pulley ring is retained upon the plate and means whereby the plate may be turned upon its eccentric journal, substantially as specified.

2. Means for the purpose described consisting, in combination with a motor cycle having a driving shaft, of a circular plate eccentrically journaled upon the driving shaft, a toothed quadrant upon one edge of the plate, a fixture upon the motor cycle, a worm wheel gearing with a quadrant and mounted to rotate within said fixture, a rod spindle for operating such worm wheel, and a driving pulley mounted to rotate concentrically upon the plate and geared with the driving shaft, substantially as specified.

1,141,540. AMMUNITION. FREDERICK MARTEN HALE, Bromley, England. Filed May 15, 1914. Serial No. 838,732. (Cl. 102—2.)



1. A shell adapted to be discharged from air-craft comprising a rotatable wind-vane arming device mounted on the rear portion of the body of the shell and adapted by its rotation in relation to said body to arm the shell, and means adapted to prevent further rotation of said device in relation to said body after the shell has become armed thereby.

2. A shell adapted to be discharged from air-craft comprising helically arranged wind-vanes fixed on the rear portion of the body of the shell, a rotatable wind-vane arming device mounted on said rear portion and adapted by its rotation in relation to said body to arm the shell, and means adapted to prevent further rotation of said device in relation to said body after the shell has become armed thereby.

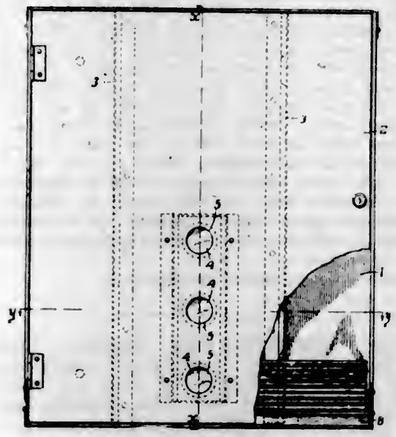
3. A shell adapted to be discharged from air-craft comprising a rotatable wind-vane arming device mounted on the rear portion of the body of the shell and adapted by its rotation in relation to said body to arm the shell, means adapted to prevent further rotation of said device in relation to said body after the shell has become armed thereby, and means adapted normally to lock said wind-vane arming device in relation to said body.

4. A shell adapted to be discharged from air-craft comprising helically arranged wind-vanes fixed on the rear portion of the body of the shell, a rotatable wind-vane arming device mounted on said rear portion and adapted by its rotation in relation to said body to arm the shell, means adapted to prevent further rotation of said device in relation to said body after the shell has become armed thereby, and means adapted normally to lock said wind-vane arming device in relation to said body.

5. A shell adapted to be discharged from air-craft comprising a rotatable wind-vane arming device mounted on the rear portion of the body of the shell and adapted by its rotation in relation to said body to arm the shell, means adapted to prevent further rotation of said device in relation to said body after the shell has become armed thereby, means adapted normally to lock said wind-vane arming device in relation to said body, and means adapted to be caused by the discharge of the shell from the air-craft to unlock said wind-vane arming device.

[Claims 6 to 17 not printed in the Gazette.]

1,141,541. DISPENSING MEANS FOR PAPER FOR TOILET OR TOWEL PURPOSES. ERNEST A. HAMILTON, Philadelphia, and FRANK W. CALVERT, Narberth, Pa., assignors to Scott Paper Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed May 16, 1914. Serial No. 838,905. (Cl. 211—29.)



1. In a device of the character stated, a cabinet providing a chamber adapted to contain a plurality of sheets of paper arranged in superposed relation and each sheet folded to form a tab which is independent and out of contact with the tab of other sheets, said chamber having a wide opening at the bottom thereof for delivering the said sheets, a narrow ledge bounding one side of said opening for supporting one side of the assembled sheets but leaving the tab free to project through said opening, a wide shelf bounding the opposite side of said opening for supporting the other side of said sheets, said shelf being inclined upwardly toward said opening to direct the weight of one side of the assembled sheets away from said opening and having its inner edge above the inner edge of said narrow ledge whereby said sheets are maintained in operative relation with the tab of the bottom sheet free to depend through said opening by its weight.

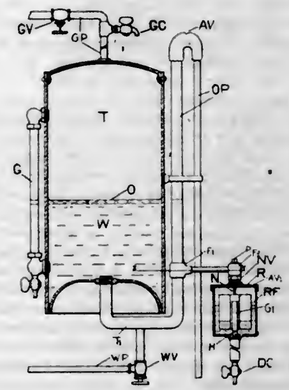
2. In a device of the character stated, a cabinet providing a chamber adapted to contain a plurality of sheets of paper arranged in superposed relation and each sheet folded to form a tab which is independent of and out of contact with the tabs of other sheets, said chamber having an opening at the bottom thereof for delivering the said sheets, a narrow ledge bounding one side of said opening and inclined downwardly toward and bounding one side of said opening for supporting one side of the assembled sheets but leaving the tab of the bottom sheet free to fall and project itself through said opening, a wide shelf spaced from said ledge and bounding the opposite side of said opening for supporting the other side of the sheets, said shelf inclined upwardly toward said opening and having its upper transverse edge lying in a horizontal plane above and parallel to the upper part of said ledge, whereby the body of said sheets are supported approximately at the middle and sag down at the ends and positively supported upon the wide shelf while leaving the other ends lightly supported upon the ledge with the lowermost tab free to fall through the opening.

1,141,542. KEEPER FOR HASPS. WALTER H. HART, New Britain, Conn., assignor to The Stanley Works, New Britain, Conn., a Corporation of Connecticut. Filed Dec. 14, 1914. Serial No. 877,000. (Cl. 70—83.)



In a safety hasp, the combination with the hasp leaf longitudinally slotted, of a swivel comprising a chambered base, a washer located within the chamber, and a swivel provided with double shanks which pass through an aperture in and are rotatable with respect to the base, the ends of said shanks passing through said washer being riveted over, connecting them to the said washer to cause the two parts to move together, the depth of the chamber in said base being greater than the thickness of said washer to permit free play of said washer with respect to said base.

1,141,543. GAS-COLLECTING APPARATUS. JOSEPH W. HAYS, Chicago, Ill. Filed Mar. 27, 1913. Serial No. 757,105. (Cl. 23—3.)



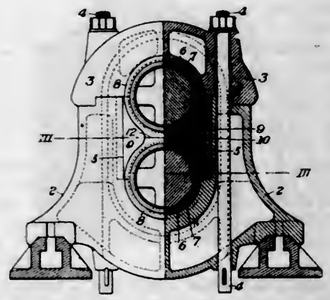
1. A gas collecting apparatus consisting of a vessel having a gas inlet tube at the top thereof and a water supply pipe near the bottom; an overflow tube for water connected at the bottom of said vessel and extending upward to the top of same; a trap between said overflow tube and said vessel; a tube connection on said overflow tube above said trap and a float governed water-flow regulator on said last mentioned tube.

2. A gas collecting device consisting of a vessel having a gas inlet tube at the top thereof and a water supply pipe near the bottom; a shut off valve on said gas inlet tube and another on said water supply pipe; a discharge tube near the bottom of said tank; a flow regulator and a valve on said discharge tube; a trap in said discharge tube and an overflow tube connected therewith.

3. A gas collecting apparatus consisting of a tank having a pipe connection at the top with inlet and outlet valves for gas; an inlet tube for water near the bottom of the tank having a shut-off valve thereon; a water outflow regulator; a tube connecting said tank with said water outflow regulator and a valve in said tube governed by said outflow regulator.

4. A gas collecting apparatus consisting of a tank having two tube connections, the one at the top and the other at the bottom; a shut off valve on each of said tube connections; a branch tube on said bottom tube at a point between the tank and the valve on said bottom tube; a float governed water-flow regulator on said branch tube whereby the head of water in said regulator is maintained at constant level irrespective of the level of the water in said tank.

1,141,544. PINION-HOUSING. AXEL H. HELANDER, WYMAN EATON, and JOHN Z. COLLIER, Youngstown, Ohio, assignors to The William Tod Company, Youngstown, Ohio, a Corporation of Ohio. Filed Mar. 2, 1914. Serial No. 822,033. (Cl. 64—10.)



1. A pinion housing having a recessed window and a lower semi-cylindrical shell receiving recess, a removable spacing block within the window and having a plurality of shell receiving recesses, a cap having a corresponding shell receiving recess formed therein, a shell for receiving the pinion necks in one of the recesses in the spacing block and the recess in the housing, a similar shell in another recess in the spacing block and the cap, and bolts for securing the cap in position for retaining the shells and spacing block in position within the window; substantially as described.

2. A pinion housing having its window recessed at the side and a shell receiving recess in the bottom thereof, seats at the lower ends of the side recesses, a removable spacing block seated within the side recesses and resting on said seats, said spacing block having upper and lower recesses, a cap having a shell receiving recess, a shell for a pinion neck seated within the recess in the bottom of the spacing block and the window of the housing, a similar shell seated within the recess in the upper portion of the spacing block and cap, and securing bolts for securing the cap in position on the housing to retain the shells and spacing blocks in position; substantially as described.

3. A pinion housing having a recessed window and a lower semi-cylindrical shell receiving recess, a removable spacing block within the window and having a plurality of shell receiving recesses, a cap having a corresponding shell receiving recess formed therein, a shell for receiving the pinion necks in one of the recesses in the spacing block and the recess in the housing, a similar shell in another recess in the spacing block and the cap, bolts for securing the cap in position for retaining the shells and spacing block in position within the window, and means on the shells for preventing rotation of the shells relative to the housing; substantially as described.

1,141,545. LEATHER SUBSTITUTE AND METHOD OF MAKING IT. REGINALD OLIVER HERZOG, Prague, Austria-Hungary, and AUGUST MEIER, Berlin, Germany. Filed Oct. 10, 1912. Serial No. 725,033. (Cl. 154—2.)

1. A leather substitute containing tanned microörganisms.

2. A leather substitute containing a tanned layer of microörganisms and a strengthening body or substance.

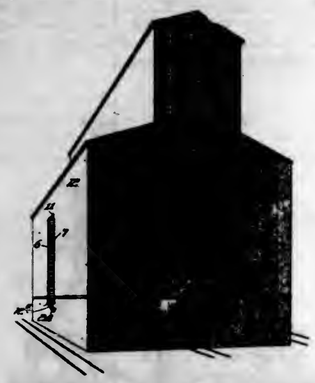
3. A leather substitute containing a tanned layer of microörganisms and a softening agent.

4. A leather substitute containing a tanned layer of microörganisms and an albuminous substance.

5. As a new article of manufacture, a leather, substitute comprising split leather and a formation of microorganisms.

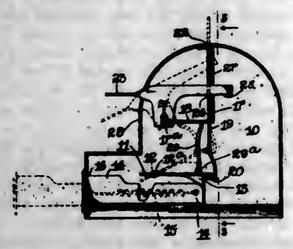
[Claims 6 to 13 not printed in the Gazette.]

1,141,546. GRAIN-DRIER. GEORGE H. HESS, La Grange, Ill. Filed May 27, 1914. Serial No. 841,255. (Cl. 34—34.)



Grain-drying apparatus comprising a structure having openings in its sides and adapted to support the grain to be dried, means adapted to connect the upper end of the structure with the interior of a building for receiving grain, and means adapted to convey the grain from the lower end of said structure into said building, said structure being so located relative to the wall of said building that said wall will extend at the rear portion of said structure and at substantially right angles to the sides of the latter and deflect natural currents of air into said openings, for the purpose set forth.

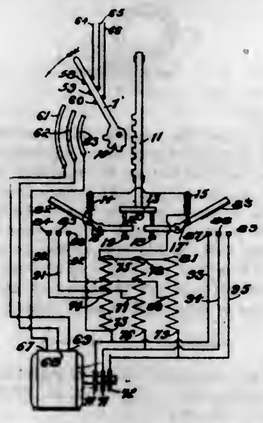
1,141,547. TOY CASH-REGISTER. DAVID HEYMAN, New York, N. Y. Filed Dec. 17, 1914. Serial No. 877,691. (Cl. 235—22.)



1. In a toy cash register, the combination of a casing, a bracket supported therein, keys pivotally mounted on said bracket, indicating plates slidable in said casing and having slots through which portions of said keys pass, each of said indicating plates having a hook formed at its lower end, a rocking plate having its rear edge projecting over the booked ends of said indicating plates, a drawer slidable under said rocking plate, stops on said rocking plate and engageable with said drawer to retain the latter in the casing, and means for protracting said drawer when released from said stops.

2. A toy cash register, comprising a casing a rocking plate mounted in said casing, a drawer slidable on the base of the casing under said rocking plate, stops depending from said rocking plate into the path of said drawer to lock the same in the casing, means for normally maintaining said rocking plate in a substantially horizontal position, a series of keys pivotally mounted within said casing, and a series of indicating plates in operative engagement with said keys and having hooked ends adapted to engage and tilt said rocking plate.

1,141,548. CONTROLLING DEVICE FOR MOTORS. FREDERICK HYMANS, Shaler township, Allegheny county, Pa., assignor to Otis Elevator Company, Jersey City, N. J., a Corporation of New Jersey. Filed Apr. 10, 1911. Serial No. 619,956. (Cl. 172—288.)



1. In combination, a motor, a source of electric supply, a main switch arm for controlling the motor circuit, a motor starting resistance, a secondary switch for controlling the starting resistance and constructed to close when not acted upon externally and cut out the said starting resistance, an electro magnetic winding in shunt with respect to said resistance and tending to hold the secondary switch open when current is flowing therethrough, releasable means out of contact with the main switch arm adapted to hold the secondary switch open, and means whereby movement of the main switch arm first closes the motor circuit and thereafter engages the releasable means.

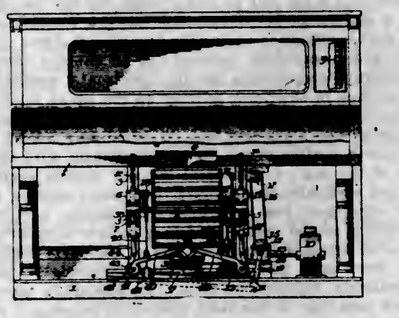
2. In combination, an alternating current induction motor, a source of electric supply, a main switch arm for controlling the motor circuit, a variable resistance in the secondary circuit of the motor, a secondary switch mechanism arranged to normally close and cut out such resistance, a releasable means out of contact with the main switch arm for holding the switch mechanism against closure, and means whereby movement of the main switch arm first closes the motor circuit and thereafter engages the releasable means.

3. In combination, an alternating current induction motor, a source of electric supply, a main switch arm for controlling the motor circuit, a variable resistance in the secondary circuit of the motor, a plurality of secondary switches each arranged to control a portion of the said resistance and each adapted to normally close and cut out a portion of the said resistance, releasable means for holding the switches against closure, an electro magnetic winding for each switch in shunt with the said resistance and each arranged to hold its switch open when sufficient current is flowing therethrough, the said windings being of different strength so that one portion of the resistance after another is cut out as the speed of the motor increases, and means whereby movement of the main switch arm first closes the motor circuit and thereafter engages the releasable means.

4. In combination, an alternating current induction motor, a source of electric supply, a main switch arm for controlling the motor circuit, a variable resistance in the secondary circuit of the motor, a secondary switch arranged to normally close and cut out a portion of such resistance, a releasable means out of contact with the main switch arm for holding the switch against closure, and means whereby movement of the main switch arm first closes the motor circuit and thereafter engages the releasable means.

5. In combination, an alternating current induction motor, a source of electrical supply, a main switch arm for controlling the motor circuit, a variable resistance in the secondary circuit of the motor, a secondary switch arranged to normally close and cut out a portion of such resistance, an electro magnetic winding in shunt with respect to the said resistance and tending to hold the switch open when current is flowing therethrough, releasable means out of contact with the main switch arm adapted to hold the secondary switch open, and means whereby movement of the main switch arm first closes the motor circuit and thereafter engages the releasable means.

1,141,549. COIN-OPERATED AUTOMATIC PIANO-PLAYER. JOHN P. LOOR, Grand Rapids, Mich., assignor to National Piano Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Aug. 7, 1912. Serial No. 713,716. (Cl. 84—225.)



1. In a piano-playing apparatus, a stationary tracker-board, music-sheet rolls, a rotatable support therefor the axis of which is parallel to that of said rolls, an extensible shaft connected to rotate said support, and means for bodily moving said support to carry said music-sheets into or out of engagement with said tracker-board whereby said shaft is extended.

2. In a piano playing apparatus, a stationary tracker-board, music-sheet rolls, a rotatable support therefor, and a shaft upon which the same is mounted, suspended reciprocable carriers in which said shaft is journaled, and means for moving said carriers to bring the music-sheet into engagement with said tracker-board.

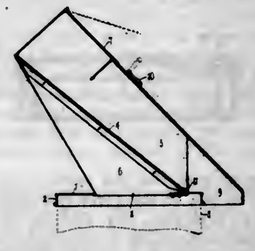
3. In a piano playing apparatus, a stationary tracker-board, music-sheet rolls, a rotatable support therefor, and a shaft upon which the same is mounted, an extensible shaft for actuating the shaft of said support, reciprocable carriers in which the shaft for the support is journaled, and means for moving said carriers to bring the music-sheet into engagement with said tracker-board.

4. In a piano playing apparatus, a stationary tracker-board, a series of pairs of music-sheet rolls, a rotatable support for said rolls, a shaft for said support, bearing devices for said shaft, bellows, and means actuated thereby that simultaneously move said bearings and thereby bring the music-sheets into engagement with said tracker-board.

5. In a piano playing apparatus, a stationary tracker-board, a series of pairs of music-sheet rolls, a rotatable support for said rolls, a shaft therefor, means for revolving said shaft; bearing devices for said shaft, bellows, and means actuated thereby that simultaneously move said bearings and thereby bring the music-sheets into engagement with said tracker-board.

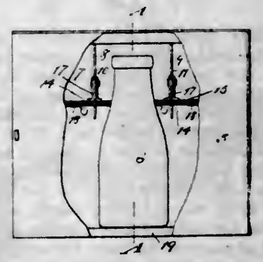
[Claims 6 to 8 not printed in the Gazette.]

1,141,550. ASH-SIFTER. CARL KAISER, New York, N. Y., assignor, by mesne assignments, to Minna Froesé, New York, N. Y. Filed May 17, 1911. Serial No. 627,789. (Cl. 83—60.)



An ash sifter comprising a cylindrical base having a circumferential depending flange adapted to surround the top of an ash barrel or can, a chute uprising from the base, a screen dividing the chute into ash and cinder chambers, the discharge end of the cinder chamber projecting beyond and downwardly to the lower edge of the cylindrical base, the inner wall of the discharge end being formed by the said circumferential depending flange, the base having a free opening centrally located therethrough for the passage of the ashes from the ash chamber directly into the barrel, and a Z shaped brace adapted to engage the base in one bight and the lower end of said screen in the other bight at a point intermediate the sides of the screen.

1,141,551. MILK-SAFE. CARL KAISER, New York, N. Y., assignor to Minna Froesé, New York, N. Y. Filed Sept. 5, 1912. Serial No. 718,676. (Cl. 232—42.)



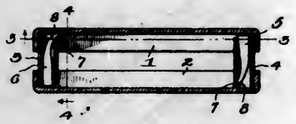
1. A milk safe having a bottle receiving opening in the top, a bottle delivery opening at right angles thereto and a spring actuated shelf hinged to the wall opposite the delivery opening for automatically preventing the removal of the bottle through the receiving opening.

2. A milk safe having a plurality of bottle receiving openings in the top, a bottle delivery opening at right angles thereto and a spring actuated shelf for each receiving opening hinged to the wall opposite the delivery opening for automatically preventing the removal of the bottle through its receiving opening.

3. A milk safe having a bottle receiving opening in the top, a bottle delivery opening at right angles thereto, a spring actuated shelf hinged to the wall opposite the delivery opening, and a stop located between the shelf and the top for limiting the upward movement of the shelf and preventing the removal of the bottle through the receiving opening.

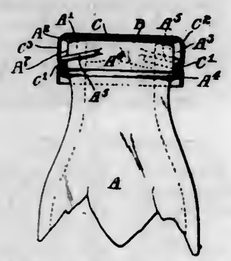
4. A milk safe having a plurality of bottle receiving openings in the top, a bottle delivery opening at right angles thereto, a spring actuated shelf for each receiving opening, hinged to the wall opposite the delivery opening, and stops located between each shelf and the top for limiting the upward movement of the shelf and preventing the removal of the bottle through its receiving opening.

1,141,552. LINK FOR EXPANSIBLE BRACELETS. RUFUS KING, Plainville, Mass., assignor to Bugbee & Niles Co., Providence, R. I., a Corporation of Rhode Island. Filed Nov. 14, 1914. Serial No. 872,120. (Cl. 59—82.)



In combination with the two parts of a bracelet link, a hollow post on one of the parts and rigidly secured at its inner end to said part, said post having an aperture adjacent its inner end and on its side, and a tapered malleable pin borne by the other part and receivable in the post and having its point extending through the aperture.

1,141,553. BOTTLE-CLOSURE. JOSEPH MOSES WARD KITCHEN, East Orange, N. J. Filed Jan. 3, 1914. Serial No. 810,105. (Cl. 215—85.)



1. In a bottle closure, the combination of, (1) a lip, and (2) a coöperating compression closure cap for the lip, said lip and said cap comprising means for causing the downward compression of parts of the cap upon said lip, said closure cap having an internal diameter sufficiently greater than the exterior of the neck of the bottle closed by the bottle closure, to provide an annular space or chamber surrounding said lip adapted to contain gas in amount not less than one two-hundredth of the volumetric capacity of the bottle closed by said closure, said cap having a skirt portion approximately of a height of and not less than one-half of one inch to allow through its vertical expansion under the influence of heat, for gas to pass out from said bottle during the heating of the bottle, and for containing a band of air to pneumatically prevent the infection of the upper level of said lip from infected air or moisture from without said cap.

2. In a bottle closure, the combination of, (1) a lip, and (2) a compression closure cap coöperating with said lip, said lip and said cap having the following features: a vertical side surface to said lip, a sealing surface at the upper level of the lip, a conditional seal at the lower level of the lip, an outward and downward curvature of the lip projected from the highest level of the lip, said curvature having annularly a uniformly uninterrupted and smooth surface; said cap having a vertical skirt part and a horizontal part and a curved centering surface connecting the vertical skirt part and the horizontal part of the cap; said curved surfaces having equal radii, said curved part in the cap gradually merging from and with the skirt portion to and with the horizontal portion of the cap and being free from indented irregularities in the curved surface or the parts immediately adjacent to the curved surface; the vertical outer side surface of said lip and the vertical skirt part of said cap being of sufficient difference in horizontal diameter to provide a space between them for containing an amount of gas equal to the amount of gas or other matter ejected from the interior of the bottle when the contents of the bottle is heated at a temperature destructive to pathogenic germs, said space approximating one two-hundredth of volumetric capacity of the bottle closed by said closure.

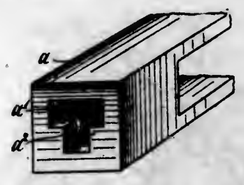
3. In a bottle closure, the combination of, (1) a lip, (2) a coöperating metal cap, said lip and cap having the following features: an outwardly and downwardly curved surface projecting annularly from the upper level of said lip, locking lugs on the lip at a level below said curved surface, a bellring on said lip; a curved surface in the metal cap of substantially the same vertical radius and approximate horizontal annular diameter as the curvature projected from the lip and fitting to and forming with the projected curvature of the lip a conditional seal, locking lugs in the vertical sides of said cap at a level below the curved surfaces of the metal cap, said cap having a skirt portion of a horizontal diameter substantially equal to the horizontal external diameter of said bellring and conditionally closely fitting to the bellring during a vertical movement of said cap in securing sealing of said closure; said curved surfaces, the peripheral parts of the horizontal parts of the cap, and said skirt portion being free from any shoulder, indentation or other irregularities of surface except as to instruck lugs in said skirt portion.

4. In a bottle closure, the coöperating combination of, (1) a neck, (2) a lip, (3) an imperforate cap for the lip, and (4) a sealing gasket compressed between the lip and the cap, said combination having the following features: an outward and downwardly rounded and an annular horizontal uninterrupted surface to the lip, a horizontal annular sealing surface to the lip, a bellring on the lip at a low level of the lip, said bellring forming a conditional seal at said low level, two glass cam lugs on said lip at a level below the curved portion of the lip for engagement with the cam lugs of the cap; a horizontal annular sealing surface in the cap vertically located over the sealing surface, a vertical skirt part and a peripheral horizontal part to the cap and a curved gasket centering surface without indentation or irregularities of surface of the parts connecting said skirt part and said peripheral horizontal part or immediately adjacent to them, two oppositely placed instruck cam lugs in the skirt portion of the cap at a level below the curved portion of the lip, and (3) an indrawn part of the neck of the bottle at a level immediately below the skirt portion of the cap and bellring.

5. In a bottle closure, the combination of, (1) a bottle lip having a horizontal annular sealing surface on said lip and an outward and downward curvature extending from said sealing surface; said lip having a bellring annularly surrounding the lip at a low level of the vertical skirt part of the cap and forming a conditional seal with a vertical skirt part of a cap, said lip comprising glass compression lugs on the lip; (2) a cap for the lip, said cap having a flat horizontal compression surface pressing against the horizontal sealing surface, a vertical skirt part, a vertically curved centering surface connecting the peripheral horizontal part of the cap with the vertical skirt part of the cap, compression lugs in the vertical part of the cap; and (3) a detachable disk-gasket coöperatively joining the lip and the cap, said gasket being larger in diameter than the said sealing surface of said lip; said vertical skirt part of the cap having an annular surface without indentations other than said compression lugs; said glass compression lugs having a horizontally outward projection between the lip and the cap greater than is needed to secure the compression of and retention of the disk-gasket against said sealing surface, such extended projection of said glass lugs and said bellring providing for an adequate air space surrounding said lip for holding a volume of sterilised air relatively equal in bulk to the air forced from said bottle in the heating of the bottle, the inner side of the skirt part and curved centering surface and peripheral horizontal surface of the cap being smoothly merged and entirely free from indentation, shoulder or other interrupted smoothness of surface.

[Claims 6 to 11 not printed in the Gazette.]

1,141,554. SCAFFOLD-SUPPORT. AUGUST KLUMPP, Munich, Germany. Filed Nov. 26, 1913. Serial No. 803,245. (Cl. 72—108.)

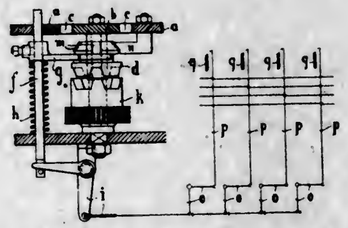


1. A scaffold support, comprising a hollow dowel, adapted to be permanently secured to a building structure, having an opening in its front face, and retaining means, comprising claws extending inwardly from said opening substantially parallel with the base of the dowel and spaced therefrom, in combination with a bracket bolt adapted to hookingly coöperate with said dowel.

2. A scaffold support, comprising a hollow dowel, means thereon for securing it to a building structure, said dowel having a T-shaped opening in its front face, and claws extending inwardly from said T-opening and spaced from the base of said dowel, in combination with a bracket bolt adapted to be hookingly locked with said claws.

3. A scaffold support, comprising a hollow dowel with a T-shaped opening in the front face, and inwardly directed retaining claws flanking the upper part of both sides of the reduced portion of said T-opening, in combination with a bracket-bolt, whose operative end is of the cross-section of the reduced portion of the T-opening, and lugs on said bolt extending laterally therefrom and adapted to lock with said retaining means.

1,141,555. BRAIDING-MACHINE. EMIL KRENZLER, Barmen, Germany. Filed June 9, 1914. Serial No. 843,972. (Cl. 28—4.)



1. In a lace braiding machine, a rotary plate having four equidistant slots in its peripheral part, in combination with a stop for said plate, a movable clutch member arranged below said plate and similarly provided with four slots which are individually adapted and arranged to receive said stop when presented thereto, a yielding device adapted automatically to move said member into such locking position, a driving gear for said plate provided with a clutch member, and means actuated by a pattern for shifting the former clutch member into operative engagement with the latter clutch member.

2. In a lace braiding machine, a rotary plate having four equidistant slots in its peripheral part, in combination with a stop for said plate, a movable clutch member similarly provided with an equal number of corresponding slots which are individually adapted and arranged to receive said stop when presented thereto, means for moving said clutch member into engagement with said stop, a clutch member for driving said plate and automatic means for shifting the former clutch member out of engagement with said stop and into engagement with the latter clutch member.

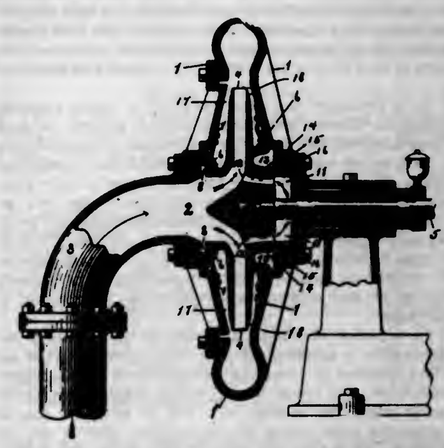
3. In a lace braiding machine, a series of rotary plates, each having four equidistant slots in its peripheral part, in combination with a corresponding series of similarly slotted clutch members, a corresponding series of stops for said rotary plates adapted to engage them individually, a corresponding series of clutch members for driving said plates and automatic means for shifting each of the former clutch members, as predetermined, out of engagement with its stop and into engagement with the corresponding clutch member of the other series.

4. In lace-braiding machines, a number of rotary plates each adapted to act as a driver in any one of four positions, in combination with a corresponding series of clutch members adapted to engage stops in the same positions, a series of stops arranged for such engagement, a series of clutch members for driving said plates and means for shifting any one of the first series of clutch members out of engagement with its stop and into engagement with the corresponding clutch member of the plate-driving series.

5. In lace-braiding machines, a rotary plate operative at four equidistant points of its periphery, in combination with a rotating coupling member adapted for engagement at a corresponding number of points, a stop arranged to engage said member at such points, means for driving said plate, a coupling member governing said means, devices for shifting the former coupling member automatically out of engagement with said stop and into engagement with the second coupling member, four knives adapted to move successively at the quarter revolutions of the first mentioned clutch member and means engaged by said knives for coupling and uncoupling this clutch member to and from said plate.

[Claim 6 not printed in the Gazette.]

1,141,556. CENTRIFUGAL PUMP. FERDINAND W. KROGH, San Francisco, Cal. Filed Aug. 17, 1908. Serial No. 448,974. (Cl. 103—43.)



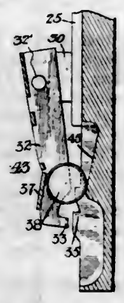
1. In a centrifugal pump the combination with the casing and the impeller therein, an intermittently closed pressure chamber in the impeller and an open face vacuum chamber in the casing, an annular outward projecting flange on said impeller abutting the outer edge of said vacuum chamber and adapted to form suction communication with said pressure chamber.

2. In a centrifugal pump the combination with the casing and the impeller therein, an annular pressure chamber in the impeller surrounding the hub thereof and a vacuum chamber in the casing surrounding the impeller shaft, an annular outward projecting flange on the impeller, forming the inner wall of the pressure chamber, adapted to

establish communication between said chamber and the vacuum chamber, and a removable wearing ring at the outward end of said projecting flange engaging corresponding wearing ring on said casing.

3. In a centrifugal pump, the combination with the casing and the impeller therein, a suction inlet at one side of the impeller, a depression in the casing opposite said suction inlet forming a vacuum chamber around the impeller shaft, a series of channels in said impeller, permanently communicating said vacuum chamber with said suction inlet, an intermittently closed annular pressure chamber in the impeller around said channels adapted to form a suction chamber by the lateral movement of the impeller and a flange in said impeller provided with a removable wearing ring adapted to open and close communication between the vacuum and suction chambers.

1,141,557. VENDING-MACHINE. JOHN F. KRCMA, Chicago, Ill. Filed Nov. 27, 1911. Serial No. 662,673. (Cl. 194—57.)



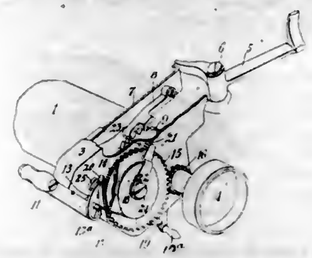
1. In a device of the class described, a frame recessed angularly, a slidable bar thereon, a lever pivoted on said bar and adapted, together with said frame, to form a coin slot, said recess acting normally to check the passage of a coin, means for actuating said sliding bar causing the coin to roll in said angular recess and thrust said pivoted lever outwardly to permit passage of the coin, and means on said lever adapted to engage said frame to prevent actuation of said sliding bar without the coaction of a proper coin.

2. In a device of the class described, a frame recessed angularly, a slidable bar thereon, a lever pivoted on said bar and adapted, together with said frame, to form a coin slot, said recess acting normally to check the passage of a coin, a flange on said lever forming a part of said slot, means for actuating said sliding bar causing the coin to roll in said angular recess and thrust said pivoted lever outwardly to permit passage of the coin, a spring to hold said lever normally toward said frame, and a tooth on said lever adapted to engage a notch in said frame to prevent actuation of said sliding bar without the coaction of a proper coin.

3. In a device of the class described, an angularly recessed frame, a slidable bar thereon, a lever pivoted on said bar adapted to form one side of a coin slot, a flange on said lever, said recess in said frame coacting with said flange to check the passage of a coin in said slot, means for actuating said sliding bar causing the coin to roll in said recess and thrust said pivoted lever outwardly to permit passage of the coin, and a tooth on said flanged lever adapted to engage a notch in said frame to prevent actuation of said sliding bar without the coaction of a proper coin.

1,141,558. TYPE-WRITING MACHINE. ALFRED G. F. KUBOWSKI, New York, N. Y., assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Filed July 23, 1910. Serial No. 573,407. (Cl. 197—114.)

1. In a typewriting machine, the combination with a platen, and a line-space wheel and detent therefor, of a gross line-spacing mechanism including a train of gears connected with the platen, a pivotally supported crank having a pawl which, when the crank is rocked in one direction, operates the train of gears to advance the platen, means connected to said crank for releasing the detent, and means to lock the platen against overthrow when operated by said crank.



2. In a typewriting machine, the combination with a platen and a regular line space mechanism therefor, of an auxiliary platen turning mechanism including a train of gears, one of which is connected with the platen, a pivotally supported driving mechanism to turn another of said gears to rotate the platen in one direction, and a switch engaged by the driving mechanism on its return stroke to hold it disengaged from the gear to permit the platen to be turned independently thereof in either direction.

3. In a typewriting machine, the combination with a platen, a regular line-space mechanism including a notched line-space wheel, and a detent for said wheel, of an auxiliary platen turning mechanism including a train of gears, one of which is connected to the platen, a pivotally-supported driver to operate the gears to turn the platen in one direction, a releasing lever operated by the driving mechanism to render the line-space wheel detent idle during the rotation of the platen when driven through the gearing, means to return the driving mechanism to original position to enable the engagement of the detent with its line-space wheel, and a switch effective to hold the driving mechanism disengaged from the gearing to enable the platen to be turned in either direction independently thereof.

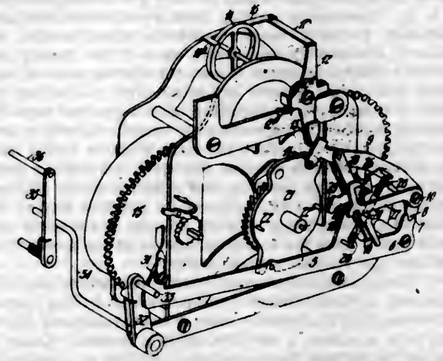
4. In a typewriting machine, the combination with a platen, a regular line-space mechanism including a notched line-space wheel, and a detent for said wheel, of an auxiliary platen turning mechanism comprising a pinion connected with the platen, a gear meshing with the pinion, a driving mechanism to operate the gear to turn the platen, and having a cam, a cam lever rocked by the cam when the driving mechanism is operated in one direction, to disengage and hold the detent in idle position, and a switch normally maintaining the driving mechanism disconnected from the gear to enable the platen to be turned in either direction independently thereof.

5. In a typewriting machine, the combination with a platen frame, a platen, and a regular line-space mechanism therefor, of a pinion connected with the platen, a gear journaled on the platen frame and meshing with the pinion, a pivotally supported finger lever having a pawl, a ratchet turning with the gear and engaged by the pawl to turn the platen when the finger lever is swung in one direction, a stop in the path of the pawl and an offset abutment on the pawl to engage the stop near its point of support to avoid straining the stop, and means to disengage the pawl from operative position.

[Claims 6 to 21 not printed in the Gazette.]

1,141,559. COIN-CONTROLLED TYPE-WRITING MACHINE. ALFRED G. F. KUBOWSKI, New York, N. Y., assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Filed May 14, 1912. Serial No. 697,131. (Cl. 161—1.)

1. The combination with a manually-operable machine, of a lock for locking the same against actuation, a clockwork, a wheel connected therewith, a brake, a brake releasing device for throwing the brake out of engagement with said wheel and starting the clockwork, means to release said lock simultaneously with the starting of the clockwork, mechanism for holding said brake-releasing device in position to retain the brake out of engagement with the wheel, and means driven from the clockwork to trip said holding mechanism and cause the brake and lock to be restored.



2. The combination with clockwork, of a wheel connected therewith, a brake lever fulcrumed adjacent said wheel, a slightly yielding projection extending from said lever and engaging the periphery of the wheel at the side thereof diametrically opposite from said lever at a point nearly in a line with the axis of the wheel and the fulcrum of the lever, said projection serving as a friction brake for the wheel when the lever is swung in one direction and also adapted to hug the periphery of the wheel so as to exert a starting impulse thereon when the lever is swung in the opposite direction, mechanism for swinging said lever out of engagement with the wheel, means for locking said mechanism in position to hold the brake lever off the wheel, means driven from said clockwork to trip the locking means and release said mechanism, and means to throw the brake lever into engagement with the wheel when the locking means is tripped.

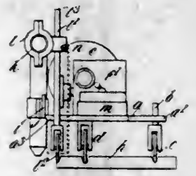
3. The combination with a manually-operable machine, of a lock to normally prevent operation of the machine, a clock-work, a wheel connected therewith, a brake lever comprising a brake movable into and out of engagement with the wheel to stop and start the clockwork, manually-controlled means to release said lock and actuate the brake lever to release the wheel, said lever mounted to move for some distance in contact with the wheel, and give a starting impulse to the clockwork while being thrown out of engagement with the wheel, whereby the clockwork is started concomitantly with the release of said lock, and means controlled by the clockwork to effect the automatic restoration of the lock and brake.

4. The combination with clockwork, of a wheel connected therewith, a brake mounted adjacent said wheel, a spring to throw the brake into frictional engagement with said wheel so as to exert a braking effect thereon, a brake-releasing device to throw and hold the brake out of engagement with said wheel to release the same, said brake having a path of movement substantially coinciding for some distance with the path of movement of the wheel, the continued contact between the brake and wheel during the release of the latter serving to give a starting impulse to the same, means to restrain the brake-releasing device in operative position, and a trip driven by the clockwork to release said restraining means and permit the brake to be thrown by its spring to braking position.

5. The combination with clockwork, of a wheel connected therewith, a lever fulcrumed adjacent said wheel, a slightly yielding projection extending from said lever and frictionally engaging the wheel at a point nearly in a line with the axis of the wheel and the fulcrum of the lever, said projection serving as a friction brake for the wheel when the lever is swung in one direction, and also adapted to hug the periphery of the wheel so as to give a starting impulse thereto when the lever is swung in the opposite direction, a spring to apply the brake, an arm to hold the brake off the wheel, a latch to hold said arm in operative position, and a trip driven by the clockwork to trip the latch and permit the spring to apply the brake.

[Claims 6 to 18 not printed in the Gazette.]

1,141,560. APPARATUS FOR SEVERING METALS BY FUSION. CHARLES TIBBIT LACK, Impington, England, assignor of one-half to Chivers & Sons, Limited, Histon, England. Filed Nov. 25, 1914. Serial No. 874,053. (Cl. 75—90.)

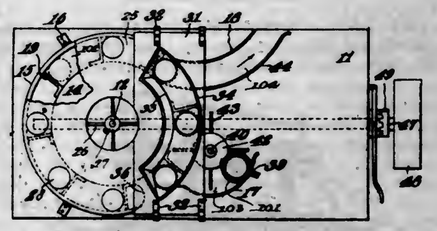


1. In apparatus for severing metals by fusion, the combination with a blow pipe, of a carriage, adjustable wheels on said carriage for adjusting the angle of cut and a motor geared to one of the wheels of the carriage to propel the same during the severing operation.

2. In apparatus for severing metals by fusion, the combination with a blow pipe, of a carriage, adjustable wheels on said carriage for adjusting the angle of cut, a motor geared to one of the wheels of the carriage to propel the same during the severing operation, and an adjustable support carried by the blow pipe for controlling the path of movement of the carriage.

3. In apparatus for severing metals by fusion, the combination with a blow pipe of a carriage, adjustable wheels on said carriage for adjusting the angle of cut, a motor geared to one of the wheels of the carriage to propel the same during the severing operation, and a reversible vertical support for the blow pipe which can be set thereon in such a manner as to confine the movement of the carriage to a circular path.

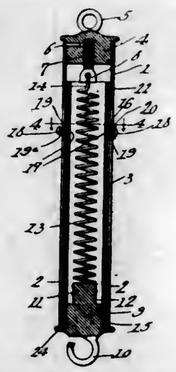
1,141,561. AUTOMATIC CAN-FILLING MACHINE. CARL A. LARSON, Oswego, N. Y. Filed Jan. 12, 1914. Serial No. 811,674. (Cl. 226—17.)



In a can filling machine, a supporting frame embodying a base; a shaft journaled for rotation in the frame; a plurality of measuring compartments carried by the shaft; a shaft supported arm individual to each compartment and constituting means for advancing cans along the base in vertical alinement with the compartments; a hopper beneath which a part of the compartments register at one time; and a frame supported plate forming a closure for the lower ends of the compartments which are beneath the hopper, the plate having a notch in one edge and the diameter of each compartment being slightly greater than the distance between the base of the notch and one end wall of the hopper, whereby the discharge from the compartment into the can will be initiated by the weight of the

material into the hopper, the notch being of approximately semi-circular form thereby to effect a complete opening of the bottom of the compartment when the compartment and the can are partially beneath the plate.

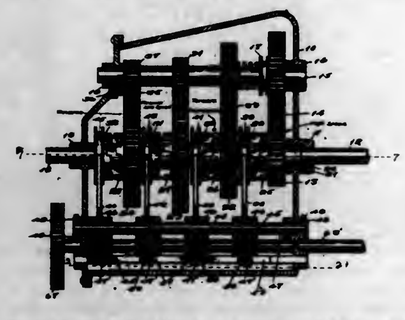
1,141,562. TESTING-SCALE. LOUIS E. LAW, Putnam, Conn. Filed Jan. 8, 1915. Serial No. 1,184. (Cl. 73—46.)



1. A testing scales comprising telescoping members, a spring connecting them, and a ring disposed within the outer telescoping member and surrounding the inner one, the ring frictionally engaging the outer telescoping member to hold its position with respect thereto, and the inner telescoping member having a portion to seat against the ring for moving the ring with it when the telescoping members are moved longitudinally relative to one another, the outer telescoping member having a graduated scale for coöperation with the said ring.

2. A testing scales comprising a tubular casing having a longitudinal slot, a plunger slidable within the casing, a spring connecting the plunger and casing, and a split expansion ring mounted within the casing to frictionally engage the same and surrounding the plunger, the casing having a graduated scale adjacent the said slot, the ring having a portion working within the said slot and provided with a pointer coöperating with the said scale, and the plunger having a collar adapted to bear against said ring and move the ring with it when the plunger is drawn outwardly.

1,141,563. TRANSMISSION-GEARING. DONALD S. LEECH and MERLIN S. EVANS, Lima, Ohio. Filed Apr. 29, 1914. Serial No. 835,141. (Cl. 74—59.)



1. In transmission gearing, a clutch mechanism, an element connected with the clutch mechanism to render the same active and inactive, a movable shifting member provided with means for affording operative connection with a bolt, a bolt connected with the element and movable transversely of the shifting member toward and away from the same to coöperate with the means thereof, and means to shift the bolt laterally with respect to the shifting member.

2. In transmission gearing, a clutch mechanism, a longitudinally movable shifting member provided with holding means, an element associated with the clutch mechanism to render the same active and inactive and movable with relation to the longitudinally movable shifting member to engage and disengage the holding means thereof, means to move the element, and means to move the shifting member.

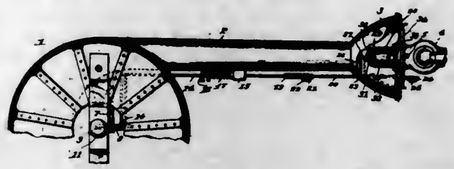
3. In transmission gearing, driving and driven rotatable members, normally inactive variable speed driving devices to successively operatively connect the driving and driven rotatable members, a movable shifting member normally free from operative connection with the driving devices, a friction clutch operating lever connected with the shifting member to approximately simultaneously render the friction clutch inactive for cutting off the engine from the driving rotatable member and move the shifting member to the starting position, and selective means to operatively connect one of the normally inactive driving devices with the shifting member whereby the same is rendered active upon the return movement of the lever which renders the friction clutch active.

4. In transmission gearing, driving and driven rotatable members, normally inactive variable speed driving devices to successively operatively connect the driving and driven rotatable members, a movable shifting member, means to render the driving devices active including a plurality of connecting members movable into and out of engagement with the shifting member, selective means to move one of the connecting members into engagement with the shifting member while the other connecting members disengage the same, and means to move the shifting member.

5. In transmission gearing, driving and driven rotatable members, normally inactive variable speed driving devices to successively operatively connect the driving and driven rotatable members, clutch elements corresponding in number with the driving devices and adapted when actuated to render the driving devices operative, a movable shifting member, bolts corresponding in number with the clutch elements and connected therewith and adapted to be successively moved into operative engagement with the shifting member, and selective means to move one of the bolts into engagement with the shifting member while the others disengage the same.

[Claims 6 to 12 not printed in the Gazette.]

1,141,564. AUTOMATIC CUT-OFF FOR GAS-STOVE BURNERS. LOUIS E. LEMLEY and ROBERT N. LEOPARD, New Orleans, La. Filed Apr. 15, 1914. Serial No. 832,093. (Cl. 126—52.)



1. In a gas stove provided with a burner, a gas controlling valve, a conduit between the valve and burner, a valve casing connected to the discharge end of the burner and opening into the conduit in the line of flow of fluid therethrough and provided with a valve seat at the end toward the burner, a valve within the valve casing responsive to gas pressure to automatically close, a member associated with the burner and mounted for movement by articles placed over the burner, and connections between said last-named member and the valve casing and provided with a terminal portion in position to enter the valve casing through the outlet end thereof to engage and dislodge the valve from the valve seat.

2. In a gas stove provided with a burner, a gas controlling valve, a conduit leading from the valve to the burner, a supplementary valve casing and valve housed therein and applied to the gas outlet of the main gas valve, said valve casing having a flaring outlet in the line of flow of gas through the main gas valve, and the valve within the casing being freely responsive to flow of gas to seat against the smaller end of the flaring outlet and closing said outlet, and means extending from the burner to the flaring opening of the supplementary valve casing and responsive to articles placed over the burner to then force the supplementary valve against the action of the gas pressure from its seat.

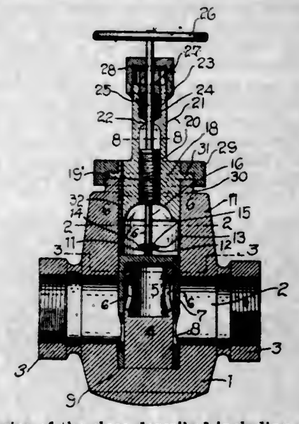
3. In a gas stove provided with a burner, a main gas controlling valve, a conduit leading therefrom to the burner, a supplementary valve casing and valve therein carried by the discharge end of the main gas valve, said casing comprising a hollow plug with the end remote from that applied to the main valve reduced in diameter and then flaring with the flaring portion constituting the gas outlet of the supplementary casing and the valve being in the form of a ball valve freely movable under gas pressure and in the direction of flow thereof to seat at the small end of the flaring opening for closing the latter, a member located at the burner and movable by objects placed over the burner, and connections between said movable member and the supplementary valve casing, said connections being provided with a terminal portion movable into and out of the supplementary valve casing to dislodge the ball valve when moved into said casing.

4. In a gas stove provided with a burner, a main gas controlling valve, a conduit leading therefrom to the burner, a supplementary valve casing and valve therein carried by the discharge end of the main gas valve, said casing comprising a hollow plug with the end remote from that applied to the main valve reduced in diameter and then flaring with the flaring portion constituting the gas outlet of the supplementary casing and the valve being in the form of a ball valve freely movable under gas pressure and in the direction of flow thereof to seat at the small end of the flaring opening for closing the latter, a member located at the burner and movable by objects placed over the burner, and connections between said movable member and the supplementary valve casing, said connections being provided with a terminal portion movable into and out of the supplementary valve casing to dislodge the ball valve when moved into said casing, and said connections being provided with means constraining them toward the inactive position and also provided with means for adjusting the effective length of said connections.

5. In a gas stove, the combination with a gas burner provided with a gas conduit leading therefrom, a terminal hood for the conduit, and a controlling valve entering the hood, of a hollow plug adapted to the discharge end of the valve, said plug having a valve seat therein and a valve responsive to gas pressure to move to the closed position, a rod carried by the tubular conduit and entering the hood and there provided with a pin movable into and out of the valve plug into and out of engagement with the valve therein, direction-changing means mounted on the gas burner and connected to the rod, and another rod carried by the direction-changing means and having a terminal portion in the path of an article placed in operative relation to the burner, both rods being provided with telescoping portions for the adjustment of their effective lengths, and means for normally constraining the rods to the inactive position, the first-named rod being of a length to extend entirely through the hood and there provided with an adjustable stop means for locking the rod in position to maintain the valve within the valve plug in the open position.

1,141,565. GLOBE-VALVE. MALCOLM NEIL LENNING, Esk Bank, Saskatchewan, Canada. Filed Jan. 19, 1914. Serial No. 813,074. (Cl. 137—5.)

1. A device of the class described including a body member having a transverse opening and further provided with a longitudinal opening communicating therewith, an inwardly extending portion adapted to project across the transverse opening and extend into the longitudinal opening, said extension being provided with a transverse opening, a valve member substantially circular in form and movably mounted upon said extended portion, said valve member being provided at its inner end with a transverse opening adapted to communicate with the opening in the extension, a plug arranged within the outer end of the longitudinal opening, a threaded member mounted for rotary and reciprocatory movement within said plug, a stem formed upon each end of the threaded member, the inner of said stems having loose connection with the valve member, a hollow extended portion carried by the plug, the second stem of the threaded member extending through said portion, a hand wheel carried by the outer end thereof, a cap threaded upon the outer end of the portion to retain the stem on the threaded member in position and said plug being provided with a longitudinal bore adapted for the reception of lubricant to the interior of the body, as and for the purpose set forth.



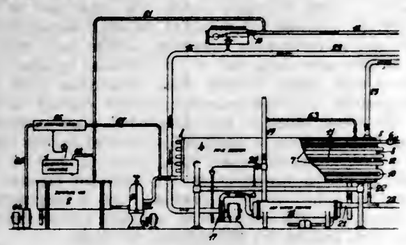
2. A device of the class described including a body member having a transverse central opening, an inwardly projecting portion extending into the opening at the center of the body, a movable valve member mounted upon said inwardly extending portion and adapted normally to close a portion of said opening, a projection formed on said body having an opening therein communicating with the transverse opening, a plug arranged within the second opening, a threaded member mounted for rotary and reciprocating movement within said plug, a stem formed upon each end of said threaded member, one of said stems having loose communication with the valve member, and a hand wheel carried by the other of said stems whereby to rotate the threaded member and reciprocate the valve.

3. A device of the class described including a body member having a transverse opening, an inwardly extending portion adapted to project across said opening and provided with an opening, a valve member movably mounted upon said extended portion and provided with an opening adapted to communicate with the opening in the extended portion, an extension formed on said body, a plug arranged therein, a threaded member mounted for rotary reciprocating movement within said plug, a stem formed upon each end of the threaded member, one of said stems having loose connection with the valve member, the other stem extending upwardly through the plug, packing arranged around the outer end of said stem, means removably secured to the outer end of said plug to retain the packing in position, and a hand wheel carried by the outer end of said stem, whereby to rotate the threaded member and reciprocate the valve to open and close the opening in the body member.

1,141,566. PROCESS OF PASTEURIZING MILK. JAMES F. LESTER, New York, N. Y., assignor to Richard Merrifield, New York, N. Y. Filed Aug. 2, 1912. Serial No. 712,841. (Cl. 99—15.)

1. In the process of pasteurizing milk, the improvement which consists in forcing milk heated to substan-

tially a pasteurizing temperature through a filtering medium into a storage chamber and thence into bottles, the temperature to which the milk was first heated being substantially maintained during the filtering, storing and bottling operations.

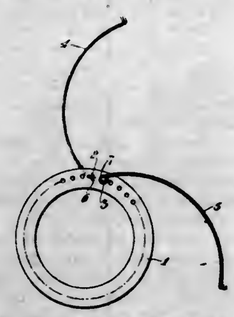


2. The process of treating milk, which consists in heating the milk, then forcing the heated milk to substantially a pasteurizing temperature through a filtering medium, then filling it into a container, the temperature to which the milk was first heated being substantially maintained during the filtering and filling operations then sealing said container and then subjecting the milk in the container to pasteurizing conditions by flowing in contact with the container for a suitable time, a liquid having a pasteurizing temperature substantially as and for the purpose described.

3. The process of treating milk, which consists in heating the milk, then forcing the heated milk to substantially a pasteurizing temperature through a filtering medium, then filling it into a container, the temperature to which the milk was first heated being substantially maintained during the filtering and filling operations then sealing said container, then subjecting the milk in said container to pasteurizing conditions by flowing in contact with the container for a suitable time, a liquid having a pasteurizing temperature and then cooling said milk by flowing in contact with the container a liquid having a lower temperature than a pasteurizing temperature, substantially as and for the purposes described.

4. The process of treating milk, which consists in heating it to substantially a pasteurizing temperature, then removing bacteria from it by filtration, and then subjecting the filtered milk to pasteurizing conditions, the milk at all times being kept at a temperature not less than that to which it was first heated.

1,141,567. LINER FOR CENTRIFUGAL SEPARATORS. HUGO LINDEBERG, Eskilstuna, Sweden. Filed Apr. 24, 1914. Serial No. 834,110. (Cl. 233—42.)



1. In a liner for centrifugal separators, the combination of approximately vertical plates adapted to turn on approximately vertical axes at their inner edge, a hinge-pin for each plate, supporting means for said hinge-pins, and portions on said plates adapted to encircle said hinge-pins arranged so that the encircling portions of adjacent plates do not come opposite each other, substantially as and for the purpose set forth.

2. In a liner for centrifugal separators, the combination of approximately vertical plates adapted to turn on approximately vertical axes at their inner edge, rings arranged axially to each other, a hinge-pin for each plate secured in said rings, and portions on said plates adapted to encircle said hinge-pins alternately between and outside of said rings for adjacent plates, substantially as and for the purpose set forth.

3. In a liner for centrifugal separators, the combination of approximately vertical plates adapted to turn on approximately vertical axes at their inner edge, rings arranged axially to each other, a hinge-pin for each plate secured in and extending alternately between and outside of said rings for adjacent hinge-pins, and portions on said plates adapted to encircle said hinge-pins alternately between and outside of said rings for adjacent plates, substantially as and for the purpose set forth.

1,141,568. POST-HOLE AUGER. JULIAN C. LINDSAY, Forest Depot, Va. Filed June 3, 1914. Serial No. 842,744. (Cl. 255—22.)



1. An apparatus of the class described, comprising an anchor including a pointed head, flexible arms carried thereby and holding the anchor against accidental displacement, a threaded rod carried by said head, and a protecting and driving tube extending over said threaded rod and resting upon the top surface of said head adapted to transmit a force thereto and to protect said threaded rod.

2. An apparatus of the class described, comprising an anchor with a threaded rod, a clutch threadedly engaging the same, and a cutter including outstanding blades adapted to engage said clutch, to rotate the same by a rotation in one direction, and to disengage the same by a limited rotation in the opposite direction.

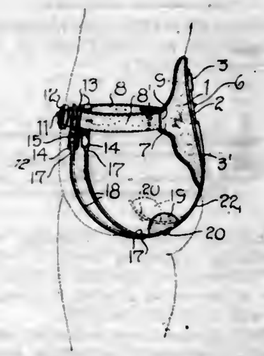
3. A hole drilling apparatus, comprising an anchor with a threaded rod, a clutch threadedly engaging the same and including upstanding jaws, a cutter head with downwardly extending jaws adapted to interlock and rotate in one direction, with the jaws of the clutch, and adapted to be disengaged therefrom when rotated in the opposite direction, and means engaging the cutter head for the forcible rotation thereof.

4. A hole drilling apparatus, comprising an anchor with a threaded rod, a split sleevelike clutch threadedly engaging the same and including upstanding jaws, a cutter head with downwardly extending jaws adapted to interlock and rotate in one direction, with the jaws of the clutch, and adapted to be disengaged therefrom when rotated in the opposite direction, and means engaging the cutter head for the forcible rotation thereof.

1,141,569. TRUSS. JOHN M. MCCLURE, Winchester, Ky. Filed Jan. 13, 1914. Serial No. 811,888. (Cl. 128—26.)

1. A device of the character described comprising a back pad provided with retaining means, two alined spaced

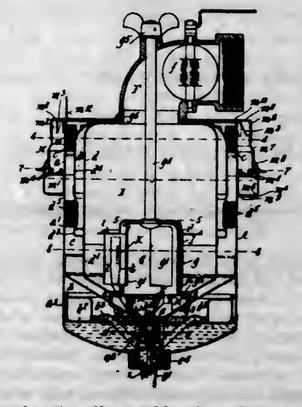
loops carried by said pad, one of said loops being of a length in excess of the other, a stud projecting outwardly from the pad intermediate the loops, an elongated resilient member having one extremity adapted for insertion through the loops of the pad and provided with longitudinally spaced openings to receive the stud of the pad, and an anus pad carried by the free extremity of the resilient member.



2. A device of the character described comprising a back pad provided with retaining means, vertically spaced alined loops carried by the pad, the lowermost of said loops being of a length in excess of the upper loop, a stud projecting from the pad at a point intermediate the loops, an elongated resilient member having one extremity insertible through the loops and provided with longitudinally spaced openings adapted to receive the stud, and an anus pad carried by the free extremity of the resilient member.

3. A device of the character described comprising a back pad provided with retaining means, vertically spaced alined loops carried by the pad, the lowermost of said loops being of a length in excess of the upper loop, a stud projecting from the pad at a point intermediate the loops, an elongated resilient member having one extremity insertible through the loops and provided with longitudinally spaced openings adapted to receive the stud, an anus pad carried by the free extremity of the resilient member, and retaining means coacting with the free extremity of the resilient member.

1,141,570. CARBURETER. HERBERT MCCORNACK, West Chester, Pa. Filed Aug. 15, 1910. Serial No. 577,144. (Cl. 48—155.1.)



1. In a carbureter, the combination of air supply means, a liquid fuel supply nozzle, a carbureting chamber located close to said fuel nozzle and into which said fuel and air are directly discharged and in which the air is carbureted, said chamber having a circular wall and being provided with non-driven means for causing the air and fuel to rotate therein and with an outlet for the explosive mixture which is located inwardly from said circular wall whereby the unvaporized liquid is thrown outwardly against said circular wall and is trapped in the carbureting chamber, and a normally open passage which leads from said chamber to said nozzle and through which the unvaporized liquid flows from the carbureting chamber back to said fuel supply nozzle, substantially as set forth.

2. In a carbureter, the combination of air supply means, a liquid fuel supply nozzle, a carbureting chamber in which the air is carbureted by contact with the liquid fuel having a circular wall and provided with stationary members for causing the air and fuel to rotate therein and with an outlet for the explosive mixture which is located inwardly from said circular wall whereby the unvaporized liquid is thrown outwardly against said circular wall and is trapped in the carbureting chamber, and a normally open passage leading from said chamber to said nozzle for returning said unvaporized fuel to the fuel supply nozzle, substantially as set forth.

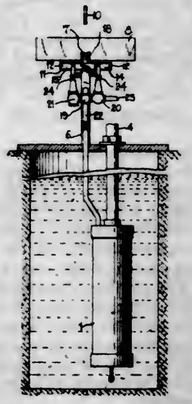
3. In a carbureter, the combination of air and liquid fuel supply means, a carbureting chamber for circular cross-section, means for causing the mixture of air and fuel to rotate in said carbureting chamber for separating the unvaporized liquid from the mixture, and means for regulating the fuel supply by the separated liquid, substantially as set forth.

4. In a carbureter, the combination of air and liquid fuel supply means, means for separating the unvaporized liquid from the mixture of air and fuel, and means for regulating the fuel supply by the separated liquid, substantially as set forth.

5. In a carbureter, the combination of a main liquid fuel supply means, air supply means, means for separating the unvaporized liquid from the mixture of air and fuel, and means for returning the separated liquid to the fuel supply means for reglating the supply of fuel from said main supply means, substantially as set forth.

[Claims 6 to 27 not printed in the Gazette.]

1,141,571. COMPRESSION-PUMP. ROBERT E. MCGLYNN, San Francisco, Cal. Filed Aug. 12, 1914. Serial No. 856,425. (Cl. 103—8.)



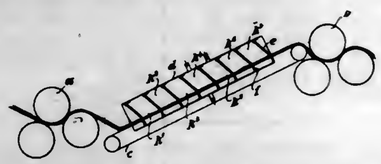
1. A device of the character described comprising a conduit leading from a suitable source of compression, a valve interposed in said conduit for controlling the flow therethrough, an exhaust valve in communication with said conduit, reversely directed swinging arms, an operative connection between one of the arms and the first mentioned valve, an operative connection between the second arm and the exhaust valve, the adjacent extremities of the arms being provided with reversely directed cam grooves, a rock arm, a pin carried by the rock arm directed

through both of the grooves, and means for imparting rocking movement to the arm.

2. A device of the character described comprising a conduit leading from a suitable source of compression, a valve interposed in said conduit for controlling the flow therethrough, an exhaust valve in communication with said conduit, reversely directed swinging arms, an operative connection between one of the arms and the first mentioned valve, an operative connection between the second arm and the exhaust valve, the adjacent extremities of the arms being provided with reversely directed cam grooves, a rock arm, a pin carried by the rock arm directed through both of the grooves, and gravity means for imparting rocking movement to the arm.

3. A device of the hcaracter described comprising a conduit leading from a suitable source of compression, a valve interposed in said conduit for controlling the flow therethrough, an exhaust valve in communication with said conduit, reversely directed swinging arms, an operative connection between one of the arms and the first mentioned valve, an operative connection between the second arm and the exhaust valve, the adjacent extremities of the arms being provided with reversely directed cam grooves, a rock arm, a pin carried by the rock arm directed through both of the grooves, a drip pan supported for rocking movement, said arms being connected thereto, a partition dividing the pan into two compartments, means for delivering a fluid within the compartments of the pan, said compartments being provided with discharge openings.

1,141,572. EXTRACTION OF JUICE FROM SUGAR-CANE AND SIMILAR SACCHARINE MATERIAL. OSCAR MENGELBIER, Berlin, Germany. Filed Sept. 6, 1913. Serial No. 788,451. (Cl. 127—8.)



1. Apparatus for extracting juice from sugar cane and similar saccharine material, comprising a chamber divided into a plurality of approximately steam tight compartments, means whereby the bagasse resulting from preliminary pressing operations is conveyed through the chamber, and means for treating the bagasse during its passage first with steam and afterward with highly heated diluting liquid, substantially as and for the purposes specified.

2. Apparatus for extracting juice from sugar cane and similar saccharine material, comprising a chamber divided into two main compartments to which steam and highly heated diluting liquid are respectivly supplied, and one or more additional compartments in front of and at the rear of the two main compartments, all the compartments being approximately steam tight and arranged in series, substantially as and for the purposes specified.

3. Apparatus for extracting juice from sugar cane and similar saccharine material, comprising a chamber divided into a series of approximately steam tight compartments by means of suitably spaced partitions and a conveyer band that conducts the bagasse through the chamber, substantially as described.

4. Apparatus for extracting juice from saccharine plants; comprising a chamber, a conveyer-band for bagasse traveling in one direction through said chamber, partitions above and below said band dividing said chamber into primary and secondary compartments, a steam inlet and a hot liquid inlet for said primary and secondary compartments respectively, said compartments being approximately steam tight.

5. Apparatus for extracting juice from saccharine plants; comprising a chamber, a conveyer-band for bagasse traveling in one direction through said chamber, partitions above and below said band dividing said chamber into primary and secondary compartments, a steam inlet and a hot liquid inlet for said primary and secondary compartments respectively, said compartments being approximately steam tight; said partitions being secured on said band so as to partake of its travel.

[Claim 6 not printed in the Gazette.]

1,141,573. COVER-SHIFTING MECHANISM. FREDERIC MERIAN, Pittsburgh, Pa. Filed Apr. 23, 1914. Serial No. 834,022. (Cl. 212—4.)



1. Cover shifting mechanism consisting of a pivoted vertically swinging supporting lever, a rolling support therefor, and independently operable mechanism having a definite range of movement adapted to engage said lever and move it with its rolling support.

2. Cover shifting mechanism consisting of a pivotally mounted vertically swinging supporting lever having a rolling support, a shifting pocket, and an actuating element having a definite range of movement adapted to swing the lever and engage the pocket to shift the lever.

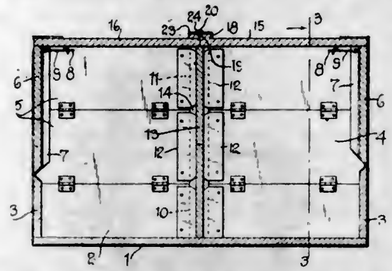
3. Cover shifting mechanism consisting of a pivoted vertically swinging supporting lever, a rolling support therefor, and independently operable mechanism having a definite range of movement adapted to engage said lever and move it with its rolling support and to automatically disengage therefrom.

4. In combination, a rolling carrier, a vertically swinging lever pivoted thereon, a pocket operatively connected with the carrier, and means having a definite range of movement for engaging the lever and pocket adapted to actuate the lever and shift it and its carrier.

5. In combination, a rolling carrier, a vertically swinging lever pivotally mounted thereon and adapted to be connected with a cover or the like, a pocket connected with the carrier, and a chain drive having projections adapted to swing the lever and engage the pocket for raising and shifting the cover.

[Claims 6 to 10 not printed in the Gazette.]

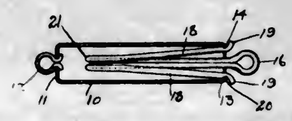
1,141,574. FOLDING CRATE. WILLIAM H. NAUMAN, Philadelphia, Pa. Filed Apr. 22, 1914. Serial No. 833,789. (Cl. 217—15.)



1. A folding crate including a bottom having upstanding side and end flanges, side and end walls hingedly connected to said side and end flanges, means connecting said side and end walls when in set up position, said side walls having vertically disposed grooves arranged in opposed relation, guide plates secured upon opposite side of the grooves, a division board having oppositely disposed flanges formed in each side thereof and adapted to be movably mounted behind said guide plates, top sections hingedly connected to the end walls and adapted to fold inwardly, a rotatable rod carried by one of the top sections and having offset portions, and hook members adapted to engage over the offset portion at the ends of the rods to retain the top sections in their closed positions.

2. A folding crate consisting of a bottom having upstanding side and end flanges, sectional side and end walls hingedly connected to said side and end flanges, the side walls and side flanges being provided with vertically disposed grooves arranged in opposed relation, guide plates secured upon opposite sides of the grooves, a division board having opposed flanges formed at opposite side edges and adapted to be engaged behind said guide plates, a sectional cover, each of said sections being hingedly connected to the end walls and adapted to fold inwardly upon the division board, a strip formed at the outer extremity of one of the top sections and adapted to project beyond the opposite top section when in a closed postion, a rotatable rod carried by the strip, offset portions formed at the ends of said rod, catch members secured to the side walls, whereby the offset portions of the rod will engage beneath said catch members upon the rotation of the rod, a loop formed at the intermediate portion of the rod, and means engaging the loop for holding the rod against rotation after the ends thereof have been engaged with the hooks.

1,141,575. CONNECTOR FOR NECK-CHAINS. WILLIAM R. NAYLOR, Providence, R. I., assignor to B. A. Ballou and Company, Inc., Providence, R. I., a Corporation of Rhode Island. Filed Jan. 11, 1912. Serial No. 670,598. (Cl. 24—230.)



1. In a chain connector, the combination with a tubular body having an open end surrounded by a flange, of a click formed of a single piece of wire bent upon itself at its middle to form a loop at the bent end and providing a middle portion formed of two parts, each of said parts being again bent upon themselves to form spring arms to engage said flange, the wire at said last mentioned bends being compressed together to increase the resiliency of said spring arms, the outer ends of said spring arms having outwardly turned manipulationg ends.

2. In a chain connector, the combination with a tubular body closed at one end and having a swivel eye connected thereto, the opposite end of said body having its edge turned inward to form a flange, of a click formed of a single piece of wire doubled at its middle upon itself forming a loop at the end and providing a middle body portion forming two parts, each of these parts being again doubled back nearly upon said middle portion forming a pair of opposing spring arms to engage said flange, said last named folded ends being swaged together to afford greater resiliency to said spring arms, said spring arms being provided with outwardly turned manipulating ends.

3. In a chain connector, the combination with a tubular body having an open end provided with a flange, of a click formed of a single piece of wire semi-circular in cross section bent upon itself at its middle to form a loop at the bent end and providing a middle portion formed of two parts, each of said parts being again bent upon themselves to form spring arms to engage said flange, the wire at said last mentioned bends being compressed together to increase the resiliency of said spring arms, the outer ends of said spring arms having outwardly turned manipulating ends.

1,141,576. ELECTRIC HEATING DEVICE. EDWARD J. OVINGTON, Brookline, Mass., assignor to Simplex Electric Heating Company, Cambridge, Mass., a Corporation of Massachusetts. Filed June 4, 1912. Serial No. 701,532. (Cl. 219—41.)

1. Apparatus of the kind described, comprising means for transforming electric current energy into heat, circuit connections thereto having a disconnectible portion, means for positively disconnecting such portion with provision for holding the same normally inactive, and means operable by abnormal pressure conditions in the apparatus for releasing said disconnecting means for action.



2. Apparatus of the kind described, comprising means for transforming current energy into heat, circuit connections thereto having a disconnectible element, means for effecting the disconnection of such element, a trigger for holding said means normally inactive, and means operated by expansion within the apparatus under abnormal thermal conditions for tripping said trigger to release said disconnecting means.

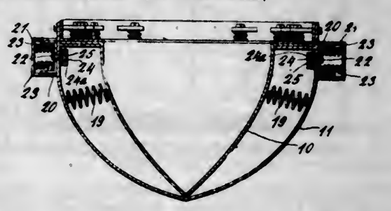
3. Apparatus of the kind described, comprising an electric resistance element, circuit connections thereto having a disconnectible plug, a spring arranged to act on said plug for disconnecting the same, a trigger for normally holding said spring inactive, and means operated by abnormal pressure conditions in the apparatus for tripping said trigger.

4. Apparatus of the kind described, comprising an electric resistance element, circuit connections thereto having a disconnectible element, a spring for disconnecting said element, means for normally holding said spring inactive, and a diaphragm controller for said means.

5. Apparatus of the kind described, comprising an electric resistance element, circuit connections thereto having a disconnectible portion, motive means for disconnecting said portion having a trigger control normally holding the same inactive, and a toggle device arranged to be operated by expansion within the apparatus for governing said trigger.

[Claims 6 to 12 not printed in the Gazette.]

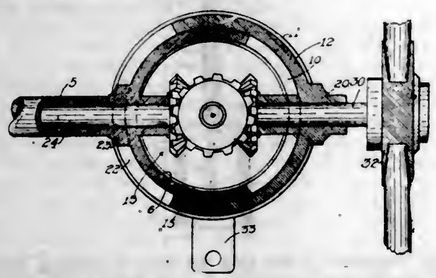
1,141,577. SHIP'S FENDER. JOHN PAULAUSKI, Chicago, Ill. Original application filed Sept. 4, 1914, Serial No. 861,593. Divided and this application filed Dec. 9, 1914. Serial No. 876,327. (Cl. 114—219.)



1. The combination with a ship's hull, of a fender therefor comprising a belt extending along the hull and composed of telescoping sections, said sections being channel-shaped, in cross-section, with their outstanding flanges oppositely disposed and slidably overlapping, springs interposed between the sections, and fastening means passing through the hull and the inner section.

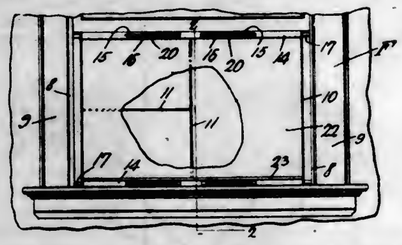
2. The combination with a ship's hull, of a fender therefor comprising a belt extending along the hull and composed of telescoping sections, springs between said sections, bolts fastening the inner section to the hull, said bolts passing through the hull, and caps mounted on the hull on the inside thereof over the inner ends of the bolts.

1,141,578. WHEEL-DRIVING MECHANISM. MARCUS W. PETERS, La Fayette, N. Y., assignor of one-half to Morrell Murphy, Manlius, N. Y. Filed Sept. 5, 1913. Serial No. 788,227. (Cl. 21—90.)



A wheel driving mechanism comprising a tubular axle, a cylindrical shell open at its upper and lower ends and formed integral upon one end of the axle with its axis arranged in a vertical plane, the shell being formed on its outer side centrally of its ends with a horizontal circumferential slot, a second cylindrical shell surrounding the first mentioned shell and having a circumferential horizontal slot to accommodate the axle, the opposite end walls of the last mentioned slot serving to limit movement of the axle in opposite directions, a top formed on the second mentioned shell and having its main or central portion extended inwardly to provide a circular bearing channel, the upper and lower edges of the first mentioned shell being engaged in said bearing channels, bearing balls positioned in said bearing channels and engaged with the edges of the first mentioned shell, a vertical shaft extending centrally through the bottom and top of the second mentioned shell, a drive shaft extending through the tubular axle and projecting into the first mentioned shell, a stub axle extending through the second mentioned shell and through the slot in the first mentioned shell, beveled gears secured to the opposite ends of the drive shaft and stub axle, and beveled gears loosely mounted upon the vertical shaft and meshing with the first mentioned gears.

1,141,579. WINDOW ATTACHMENT. THOMAS PODMORE, Wilkes-Barre, Pa. Filed May 2, 1914. Serial No. 835,954. (Cl. 45—104.)



1. An attachment of the character described, comprising a casing, the top and bottom of which have their inner edges curled to form guide sleeves, the guide sleeves having longitudinal slots and series of lateral notches communicating with the slots, a pair of securing rods slidably disposed within each guide sleeve and projectable beyond the ends thereof, and knobs carried by the rods and slidable within the said slots to engage in the said notches, the remote ends of the rods having means for binding within the sashways of a window frame when the knobs are engaged in the notches.

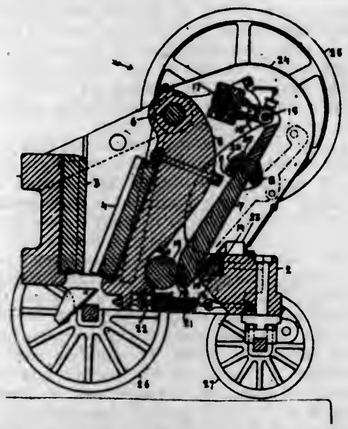
2. An attachment of the character described, comprising a casing, the top and bottom of which have their inner edges curled to form guide sleeves, the said guide sleeves having longitudinal slots and series of lateral notches communicating with the said slots, a pair of securing rods slidably disposed within each guide sleeve and projectable beyond the ends thereof, the rods being provided with angular fingers at their remote ends, and knobs carried by the securing rods and slidable within the said slots to engage in the said notches when the said fingers enter and wedge within the sash ways of a window frame.

1,141,580. POLISHING-MITT. JOHN E. REDDICK, Philadelphia, Pa. Filed Apr. 24, 1914. Serial No. 834,139. (Cl. 15—16.)



A polishing mitt, comprising a front portion and a shorter back portion of skin having an outer pilar surface and secured at their edges to fit over the palm of the hand and over the backs of the fingers, a long waterproof wrist and back-portion and a short inner wrist-portion having their outer edges stitched to said front and back portions and having their side edges stitched together and a retaining device secured to the wrist portion and crossing the same.

1,141,581. STONE-CRUSHING MACHINE. TURE GUSTAF RENNERFELT, Stockholm, Sweden. Filed Mar. 25, 1913. Serial No. 756,791. (Cl. 83—53.)



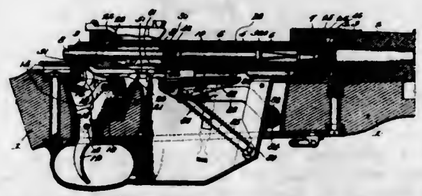
1. The combination of a frame; a jaw provided with a concave surface journaled in the frame; a lever having a fulcrum in the frame; said lever having a convex face; a roller mounted loosely between the said concave surface and the said convex face; and means for oscillating the lever; the center of curvature of the convex face being located substantially vertically below the fulcrum of the lever.

2. The combination of a frame; a jaw having a concave surface journaled in the frame; a lever fulcrumed in the frame; said lever having a convex face; a roller held by friction between the said concave surface and the said convex face; and means for swinging the lever back and forth; the center of curvature of said concave surface as well as said roller being located in a substantially vertical line passing through the journal of said jaw, whereby said roller may move in a substantially straight line passing through its centers of pressure.

3. The combination of a frame; a jaw having a concave surface journaled in the frame; a lever having a fulcrum in the frame; said lever having a convex face; a roller held by friction between the concave surface of the jaw and the convex face of the lever; means for oscillating the lever; said roller being located near to the lower end of the jaw and substantially vertically under the journal, whereby a line passing through the centers of pressure on the roller will also substantially pass through the lower end of the jaw.

4. The combination of a frame; a jaw having a concave surface journaled in the frame; a lever having a convex face fulcrumed in the frame; a roller mounted loosely between the said concave surface and the said convex face; a plate secured to the jaw to facilitate the mounting of the roller; and means for swinging the lever back and forth.

1,141,582. FIREARM. CHARLES HENRY AUGUSTUS FREDERICK LOCKHART ROSS, Balnagown Castle, county of Ross, Scotland. Filed Oct. 30, 1913. Serial No. 798,607. (Cl. 42—18.)



1. In a fire arm the combination of a receiver having screw threads; a bolt having a head adapted to engage said threads; a longitudinally movable sleeve slidingly associated with said bolt; connections comprising cams between said sleeve and bolt by which the latter may be rotated by the movement of the former; interengaging teeth carried by said bolt and sleeve; a firing pin; a cocking head rigidly connected to said pin; and a main spring associated with said pin adapted to be compressed by the motion of said sleeve, substantially as described.

2. In a firm arm the combination of a bolt and sleeve slidingly associated and provided with interengaging teeth; a receiver having screw threads; a head carried by said bolt adapted to engage said screw threads; an unlocking cam adapted to be struck by said head to disengage said teeth; and cams carried by said bolt and sleeve adapted to cause said head to be rotated into locking engagement with said screw threads, substantially as described.

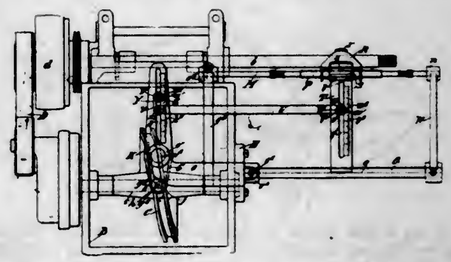
3. In a fire arm the combination of a bolt and sleeve slidingly associated and provided with interengaging teeth; a main spring held under compression by said bolt and sleeve when said teeth are engaged; a receiver having screw threads; a head carried by said bolt adapted to engage said screw threads; an unlocking cam adapted to be struck by said head to disengage said teeth; and cams carried by said bolt and sleeve adapted to cause said head to be rotated into locking engagement with said screw threads, substantially as described.

4. In a fire arm the combination of a bolt and sleeve slidingly associated and provided with interengaging teeth; a firing pin; a main spring associated with said pin and held under compression when said teeth are engaged; a receiver having screw threads; a head carried by said bolt adapted to engage said screw threads; an unlocking cam adapted to be struck by said head to disengage said teeth; and cams carried by said bolt and sleeve adapted to cause said head to be rotated into locking engagement with said screw threads, substantially as described.

5. In a fire arm the combination of a bolt and sleeve slidingly associated and provided with interengaging teeth; a receiver having screw threads; a head carried by said bolt adapted to engage said screw threads; an unlocking cam adapted to be struck by said head to disengage said teeth; a single thread associated with said screw threads adapted to be struck by said head after said teeth are disengaged; and cams carried by said bolt and sleeve adapted to cause said head to be rotated into locking engagement with said screw threads, substantially as described.

[Claims 6 to 22 not printed in the GAZETTE.]

1,141,583. WINDING-MACHINE. CLAES RYDEN, Cranston, R. I., assignor to Universal Winding Company, Portland, Me., a Corporation of Maine. Filed Apr. 18, 1913. Serial No. 761,983. (Cl. 242—9.)



1. In a winding machine, the combination with the winding-spindle and traverse-guide, of an oscillating rocker-arm for reciprocating the guide, a corresponding arm attached to the guide, a link connecting the two arms, means to adjust said link on both arms with respect to the axis of oscillation of the rocker-arm, and index devices on both arms for indicating the extent of adjustment at each end of the link to provide for an accurate setting thereof at both of its ends to insure a constant speed of traverse of the guide and a uniform spacing of the coils of winding.

2. In a winding machine, the combination with the winding-spindle and traverse-guide, of means to support the guide to adapt it to be reciprocated in a path parallel with the axis of the spindle, a rocker-arm, means to oscillate the rocker-arm, a link connecting the rocker-arm with the guide, means to adjust the link bodily to vary its position in relation to the axis of oscillation of the rocker-arm while maintaining it substantially parallel with the path of travel of the guide, and index devices for indicating the extent of adjustment at each end of the link to provide for an accurate setting thereof at both of its ends to insure a constant speed of traverse of the guide.

3. In a winding machine, the combination with the winding-spindle and traverse-guide, of an oscillating arm for reciprocating the guide, said arm formed with a longitudinal slot, a similar arm attached to the guide and also formed with a corresponding slot, a link connecting said arms, means at the ends of the link slidable in the slots to adjust the link on both arms to vary the length of traverse of the guide, and index devices on both arms for indicating the extent of adjustment at each end of the link to provide for an accurate setting of the latter at both of its ends to insure a constant speed of traverse of the guide.

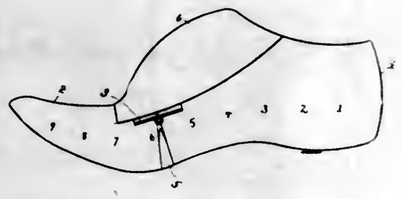
4. In a winding machine, the combination with the winding-spindle, of a rod arranged parallel with the spindle, a sleeve slidable on said rod, a traverse-guide mounted on the sleeve, an arm attached to the sleeve, an oscillating rocker-arm, a link connecting the two arms and adjustable on both of them to vary the extent of traverse of the guide without causing an inconstant speed of traverse thereof, and index devices on both arms for indicating the extent of adjustment at both ends of the link to provide for an accurate setting thereof.

5. In a winding machine, the combination with the winding-spindle, of two rods arranged parallel with said spindle, a sleeve slidable on one of the rods, a traverse-

guide mounted on the sleeve, an arm attached to the sleeve and arranged to slide on the opposite rod, an oscillating rocker-arm, a link connecting the two arms and adjustable on both of them to maintain it substantially parallel with the rods during the oscillation of the rocker-arm, and two separate index devices to indicate the extent of adjustment at each end of the link to provide for an accurate setting of the latter at both of its ends to insure a constant speed of traverse of the guide.

[Claims 6 to 8 not printed in the Gazette.]

1,141,584. SHOE-LAST. CHARLES SCHAEFER, Toledo, Ohio. Filed Aug. 8, 1914. Serial No. 855,876. (Cl. 12—134.)

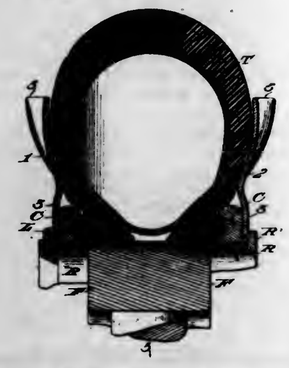


1. As a new article of manufacture a shoe last having the toe thereof hinged to the body provided with a wedge for holding the two parts at their proper relative angles, and a metal strap for holding these parts in their adjusted position.

2. In a shoe last the combination of a body, a toe piece hinged thereto, a wedge for determining the adjustment between the two sections, and a metal strap for holding the sections in their adjustment as specified.

3. In a shoe last the combination of a body, a toe piece hinged thereto, a wedge for determining the adjustment between the two sections, a metal strap for holding the sections in their adjustment as specified, and an instep section adapted to cover the hinge and complete the shape of the last as specified.

1,141,585. TIRE-PROTECTOR. JOHN C. SCHLEICHER, Mount Vernon, N. Y. Filed Feb. 5, 1914. Serial No. 816,804. (Cl. 152—10.)

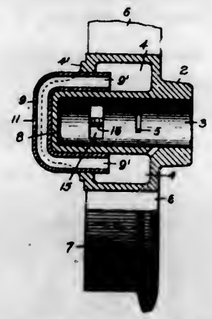


1. In a vehicle wheel, the combination with a rim having a deflatable tire mounted thereon, annular protecting plates secured to said rim on opposite sides of said tire and shaped to conform to the sides of a pneumatic tire when inflated, said plates having radially extending pockets on their inner faces to receive and support the side walls of a tire when deflated.

2. In a vehicle wheel, the combination with a rim having a deflated tire mounted thereon, annular protecting plates secured to said rim on opposite sides of said tire and shaped to conform to the sides of a pneumatic tire when inflated, said plates being corrugated to provide a serpentine tread with pockets on its inner face to receive and support the side walls of a tire when deflated.

3. In combination with a wheel rim having a pneumatic tire mounted thereon, annular plates secured to said rim on opposite sides of said tire, said plates each having a flat inner portion and its remaining portion arcuate in cross section and a laterally extending flange at the periphery of said arcuate portion, and corrugated to form a serpentine tread with pockets on its inner face.

1,141,586. SELF-OILING WHEEL. CHESTER D. SENSENICH, Irwin, Pa., assignor to Irwin Foundry & Mine Car Company, Irwin, Pa., a Corporation of Pennsylvania. Filed Mar. 25, 1915. Serial No. 16,996. (Cl. 64—26.)



1. A self-oiling car wheel having a cast-metal hub formed with a closed-end bearing cavity, the hub being cast with an oil chamber extending around and in communication with said cavity, and a tube extending around the closed extremity of the hub and with the ends of the tube entered in the oil chamber with the pipe secured in position by casting the metal of the hub in embracing engagement therewith, the tube formed with a filling opening.

2. A self-oiling car wheel having a cast-metal hub formed with a closed-end bearing cavity and with an oil chamber extending around and in communication with the cavity, a U-shaped tube extending around the closed extremity of the hub with its ends entered in the oil chamber, the metal at the exterior of the closed hub end being cast in embracing engagement with the tube and thereby seating and securing the tube in the hub extremity, said tube having a filling opening.

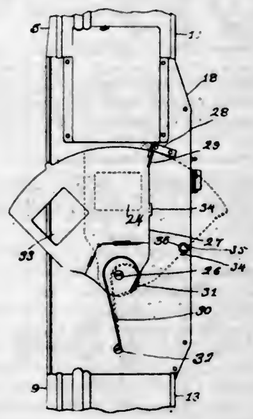
1,141,587. BILLIARD-CUE. WALTER E. SMITH, Winfield, Kans. Filed Aug. 2, 1913, Serial No. 782,716. Renewed Apr. 22, 1915. Serial No. 23,219. (Cl. 46—9.)



1. A cue comprising a body portion, a screw embedded therein and projecting therebeyond, a ferrule rotatably engaging said cue body portion and said screw, said ferrule provided with a dovetailed slot extending transversely across the outer extremity thereof, a tip with a dovetailed extension fitting within the said ferrule dovetailed slot and threadedly engaging the said screw.

2. A cue comprising a body portion with a reduced cylindrical extension projecting therefrom, a screw embedded in said extension and projecting axially therebeyond, a ferrule provided with alined bores extending therethrough, one of said bores rotatably engaging said body portion extension, the other of said bores rotatably and slidably engaging said screw, said ferrule provided with a dovetailed slot extending transversely thereacross and communicating with the said bores, a tip provided with a dovetailed extension fitting in and interlocking with the said ferrule dovetailed slot, said screw projecting within the dovetailed slot of the ferrule and threadedly engaging said tip, said screw drawing the tip toward the said extension and compressing the ferrule therebetween, said screw engaging the said tip substantially central thereof and forcing the sides of the dovetailed extension into wedged engagement with the sides of the dovetailed slot of the ferrule.

1,141,588. MOVING-PICTURE MACHINE. EDWARD H. SPERBERG, Kansas City, Mo. Filed Dec. 23, 1913. Serial No. 808,379. (Cl. 88—17.)



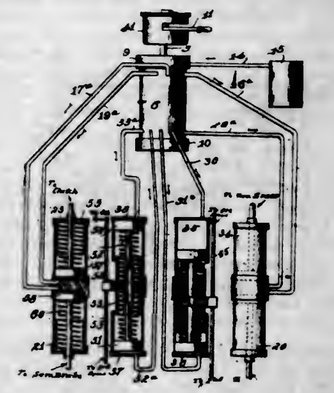
1. In a moving picture machine having a projecting apparatus, a casing, a door therefor composed of two members at right angles to each other, one of said members being hinged to the casing and provided with a light aperture, means for holding said door closed, and means for automatically closing said aperture immediately upon the movement of the door on the release of the door holding means, the outer member of the door being designed to extend across the projecting apparatus when the door is opened.

2. In a moving picture machine having a projecting apparatus, a casing, a door therefor composed of two members at right angles to each other, one of said members being hinged to the casing and provided with a light aperture, a shutter carried by said member, means for holding such shutter in position to uncover said aperture when the door is closed, and means for automatically moving such shutter to cover such aperture immediately upon the opening of the door, the outer member of the latter being designed to extend across the projecting apparatus when the door is opened.

3. In a moving picture machine having a projecting apparatus, a casing, a door therefor composed of two members at right angles to each other, one of said members being hinged to the casing and provided with a light aperture, a shutter carried by said member and having an aperture designed to register with the aperture of the door, means for holding such shutter with its aperture in register with that of the door while the door is closed, and means for automatically moving the shutter to conceal the aperture of the door immediately upon the door being moved after being released by the door holding means, the outer member of the door being designed to extend across the projecting apparatus when the door is opened.

4. The combination with a casing and a stud projecting therefrom, of a door for the casing having a light aperture therein, a shutter carried by the door for closing said aperture, said shutter being pivoted to the door and having a lug designed to be engaged and held by said stud when the door is closed, a spring for moving said shutter to cover said aperture when the door is opened, and a stop for limiting the movement of the shutter.

1,141,589. FLUID-PRESSURE AUTOMOBILE CONTROL MECHANISM. NICHOLAS TAYLOR, Muskogee, Okla., assignor, by direct and mesne assignments, of three-fourths to Taylor Automatic Air Control Company, a Corporation of Oklahoma, one-eighth to E. A. Edmondson, and one-eighth to Frank Stroupe, Muskogee, Okla. Filed Oct. 26, 1912. Serial No. 727,994. (Cl. 74—58.)



1. A fluid pressure controlling system for motor vehicles, comprising a fluid-pressure controlled master-member actuator, fluid-pressure controlled selective drive-member actuators, independently adjustable master and selecting valves for controlling the supply of fluid to the respective actuators named, and means through which the master valve controls supply of fluid to the selecting valve.

2. A fluid pressure controlling system for motor vehicles, comprising a fluid-pressure controlled master-member actuator, fluid-pressure controlled selective drive-member actuators, independently adjustable master and selecting valves for controlling the supply of fluid to the respective actuators named, and means through which the master valve controls supply of fluid to the selecting valve; said master valve being adapted to exercise its control over the selecting valve in advance of controlling the master member actuator.

3. A fluid pressure controlling system for motor vehicles, comprising a fluid-pressure controlled master member actuator, fluid-pressure controlled selective drive-member actuators, independently adjustable master and selecting valves for controlling the supply of fluid to the respective actuators named, and means through which the master valve controls supply of fluid to the selecting valve, said system embodying a brake actuator and a clutch actuator, and said master valve exercising its control over the brake actuator, then over the selecting valve, and then over the clutch-actuator.

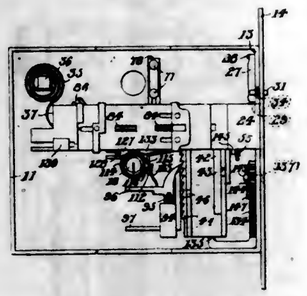
4. A fluid pressure controlling system for motor vehicles, comprising a fluid-pressure controlled master member actuator, fluid-pressure controlled selective drive-member actuators, independently adjustable master and selecting valves for controlling the supply of fluid to the respective actuators named, and means through which the master valve controls supply of fluid to the selecting valve; said system embodying a brake actuator and a master clutch actuator, and said master valve exercising its control over the selecting valve in advance of controlling the master clutch actuator; said master valve being adapted to supply pressure medium to said selecting valve and said clutch actuator in the order named, by rotation in one direction, and to exhaust pressure medium from said clutch actuator and cut off supply of pressure medium from said selecting valve, by counter-rotation.

5. In a fluid pressure control for motor vehicles, a master controlling element, a selective controlling element; independently movable valves for the respective controlling elements; and a common manipulating arm movable

at will into controlling relation to either valve; said arm being out of controlling relation to each valve when in controlling relation to the other valve.

[Claims 6 to 10 not printed in the Gazette.]

1,141,590. DOOR-LOCK MECHANISM. LEO TURK, East Youngstown, Ohio. Filed Dec. 26, 1914. Serial No. 879,101. (Cl. 70—14.)



1. In combination with a door, a lock, a shiftable bolt for the lock, an inner knob, a latch swingingly positioned adjacent the inner knob, pivoted engaging hooks upon the said bolt, a slidable plate upon said bolt adapted for withdrawing the said hooks when slidably moved upon the bolt, and a ward upon said inner knob operatively engageable with the said plate and bolt and operable upon turning the inner knob for retracting the bolt when the latch is in one position.

2. In combination with a door, a lock, a shiftable bolt for the lock, an inner knob, a latch swingingly positioned adjacent the inner knob, pivoted engaging hooks upon the said bolt, a slidable plate upon said bolt adapted for withdrawing the said hooks when slidably moved upon the bolt, a ward upon said inner knob operatively engageable with the said plate and bolt and operable upon turning the inner knob for retracting the bolt when the latch is in one position, a projecting lug upon said bolt, and a shiftable step operable by said latch in the line of movement of said lug and adapted for preventing a retraction of the bolt when the latch is in another position.

3. A lock comprising a shiftable bolt, an inner and an outer knob, a swinging latch adjacent the inner knob, normally projecting engaging hooks carried by the said bolt, a depressing plate for the said hooks slidably carried by the said bolt, an actuator operatively connected to the said plate and having a side notch therein, a lug rigidly connected to the said latch and positioned within the said notch of the actuator during a shifting movement of the said lug and thereby operably connected to the said bolt for shifting the same when the latch is swung to one extreme limit of its movement.

4. A lock comprising a casing, a shiftable bolt within said casing, an outer knob, operative connections between the said knob and bolt, normally projected spring pressed hooks carried by said bolt, underlying bolt locking members independently shiftable transversely of and located adjacent the said bolt, engaging flanges on the said bolt locking members having edge notches, hooks carried by the said bolt adapted for alining with the said edge notches when the said locking members are in their releasing positions, push button means adjacent the said outer knob, and shiftable means operable by said push buttons and engageable with said locking members for shifting the latter to their said inoperative positions.

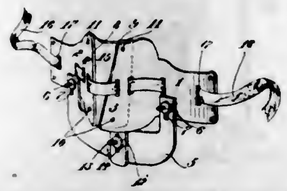
5. A lock comprising a casing, a shiftable bolt within said casing, an outer knob, operative connections between the said knob and bolt, normally projected spring pressed hooks carried by said bolt, bolt locking members independently shiftable transversely of and located adjacent the said bolt, engaging hooks upon said bolt, flanges carried by the said locking members and having edge notches therein adapted for alining with the said hooks when the said locking members are in their releasing positions, push button means adjacent the said outer knob, shiftable means operable by said push buttons and engageable with said locking members for shifting the latter to their said inoperative positions, dog-engaging means and returning means for the said locking members, and dis-engaging means carried by the said bolt and engageably positioned within the plane of the said dog engaging means whereby the said locking members are automatically released upon a retraction of the said bolt.

[Claims 6 to 26 not printed in the Gazette.]

1,141,591. ARTIFICIAL BUILDING COMPOSITION. IMRE UJHÁZY, Osaka, Va. Filed Oct. 30, 1914. Serial No. 869,397. (Cl. 106—38.)

A building composition comprising the following ingredients and proportions thereof:—one pound of sawdust, three ounces of cream cheese, one and one-half ounces of slaked lime mixed with a solution of one-half ounce of borax dissolved in one-tenth of a quart of water.

1,141,592. NOSE-FORMER. MARIE ULLICH, Zurich, Switzerland. Filed Dec. 15, 1913. Serial No. 806,796. (Cl. 128—28.)



1. A nose former comprising a support, two independent plates, each rotatably mounted on the support and having a pivot pin at right angles to the plate, and independent means to independently secure each plate in different positions.

2. A nose former comprising a support, two independent plates, each having a pivot pin at right angles to the plate and rotatably and laterally movable in the support and means including the pins to independently secure each plate in different positions.

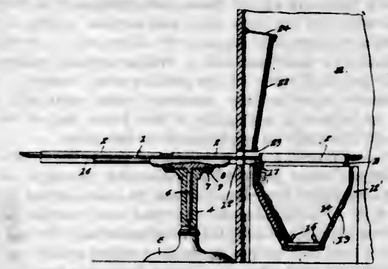
3. In a nose-former two plates, a bar connecting said plates and having oblong holes in said bar, a screw on each of said plates passing through one of said oblong holes, nuts on said screws for securing these plates in the desired position on said bar and means for securing the nose former on the head.

4. In a nose-former two plates, a bar connecting said plates and having oblong holes in said bar, a screw on each of said plates passing through one of said oblong holes, nuts on said screws for securing these plates in the desired position on said bar, a resilient plate adjustably mounted on the bar and pressing from beneath on the diaphragm of the nose and means for securing the nose former on the head.

5. In a nose former two plates having bent flaps directed one toward another, a bar connecting said plates and having oblong holes in said bar, a screw on each of said plates passing through one of said oblong holes, nuts on said screws for securing these plates in the desired position on said bar, a resilient plate adjustably connected to the bar and pressing from beneath on the diaphragm of the nose, a bent plate pressing against said two first mentioned plates and means for securing the nose former on the head.

1,141,593. EGG-TESTING APPARATUS. YSBRAND VAN WOERDEN, Chicago, Ill. Filed May 7, 1914. Serial No. 836,996. (Cl. 99—6.)

1. In egg testing apparatus, the combination with a dark room of a rotary table extending partly within the dark room through openings in the walls thereof, said table being arranged to receive the eggs to be tested and illuminating means within the dark room to shine through the eggs on the table when the table is rotated.



2. In egg testing apparatus, the combination with a rotary table of a dark room having certain walls thereof provided with alined openings to receive a portion of the table, said table being provided with openings arranged in pairs to contain trays of eggs, a receptacle having its upper end open mounted within said dark room beneath the table and illuminating means within the receptacle.

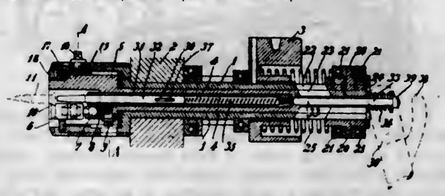
3. In egg testing apparatus the combination with a rotary table of a dark room having certain walls thereof provided with openings to receive a portion of the table, said table provided with openings arranged in pairs to receive trays of eggs, receptacles arranged on opposite sides of each pair of openings and a light arranged within the dark room beneath that portion of the table therein and a receptacle having its upper end open mounted within the dark room under the table and housing the light.

4. In egg testing apparatus the combination with a circular rotatable table to contain eggs of a dark room having a portion of the table extending therein, a receptacle having its upper end open mounted within the dark room beneath the table, illuminating means mounted within the bottom of the receptacle, reflecting means mounted within the receptacle, said illuminating means to shine through the eggs on that portion of the table within the dark room, and a mirror arranged above said table within the dark room to enable the operator to see the backs of the eggs.

5. In egg testing apparatus the combination with a dark room of a rotatable table extending partly within the dark room and having openings arranged in pairs adjacent its periphery, egg trays to be positioned within the openings being open at their tops and bottoms and supporting eggs, receptacles mounted on the table adjacent the openings therein, a receptacle mounted within the dark room and having its upper end open and slightly spaced from the under face of the table, illuminating means mounted within the receptacle and a mirror arranged within the dark room above that portion of the table therein.

[Claims 6 and 7 not printed in the Gazette.]

1,141,594. CHUCK FOR HOLDING WORK-PIECES. GUSTAV WEBER, Hagen, Germany. Filed Oct. 3, 1914. Serial No. 864,777. (Cl. 29—124.)



1. In a chuck for holding work-pieces such as wood-screws, the combination of a work-piece holder comprising clamps for the work-piece, a tubular casing surrounding said holder and provided with clamp-operating means which normally hold said clamps in their closed position but which release the same when relative rotation between said holder and casing occurs, said holder and casing being carried by concentrically mounted spindles provided with relatively oblique, longitudinal guides, and axially displaceable means engaging said guides for effecting said relative rotation.

2. In a chuck for holding work-pieces such as wood screws, the combination of a work-piece holder comprising clamps for the work-piece, a tubular casing surrounding said holder and provided with clamp-operating means which normally hold said clamps in their closed position but which release the same when relative rotation between said holder and casing occurs, said holder and casing being carried by concentrically mounted spindles provided with relatively oblique, longitudinal slots, and axially displaceable means engaging said slots for effecting said relative rotation.

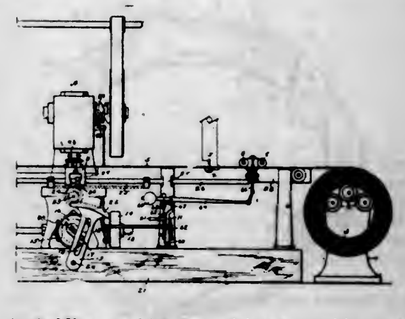
3. In a chunk for holding work-pieces such as wood-screws, the combination of a work-piece holder comprising clamps for the work-piece, a tubular casing surrounding said holder and provided with clamp-operating means which normally hold said clamps in their closed position but which release the same when relative rotation between said holder and casing occurs, said holder and casing being carried by concentrically mounted spindles provided with relatively oblique, longitudinal guides, and axially displaceable, spring-controlled means engaging said guides for effecting said relative rotation.

4. In a chuck for holding work-pieces such as wood-screws, the combination of a work-piece holder comprising clamps for the work-piece, a tubular casing surrounding said holder and provided with clamp-operating means which normally hold said clamps in their closed position but which release the same when relative rotation between said holder and casing occurs, said holder and casing being carried by concentrically mounted spindles provided with relatively oblique, longitudinal slots, and a spring-controlled collar axially displaceable on the spindles and having an internal sliding block engaging said slots.

5. In a chuck for holding work-pieces such as wood-screws, the combination of a work-piece holder comprising clamps for the work-piece, a tubular casing surrounding said holder and provided with clamp operating means which normally hold said clamps in their closed position but which release the same when relative rotation between said holder and casing occurs, said holder and casing being carried by concentrically mounted spindles provided with relatively oblique, longitudinal slots, a collar axially displaceable on the spindles, a helical spring coaxial with said spindles and ball-bearings located between said spring and collar.

[Claims 6 to 13 not printed in the Gazette.]

1,141,595. MACHINE FOR MANUFACTURING STEEL STUDDING. EUGENE WIET, San Francisco, Cal., assignor to Parrott & Company, San Francisco, Cal., a Corporation of California. Filed Oct. 30, 1912. Serial No. 728,680. (Cl. 29—34.)



1. A studding machine comprising a notching press, a cutting off press, clutch mechanisms on both of said presses, a channeling press, a clip placing mechanism and a clip clenching press, in combination with a synchro-

nizing mechanism geared to the said clutch mechanisms of said presses, and a reciprocating feed mechanism geared to said synchronizing mechanism, notching dies operated by said notching press adapted to be forced through and engage strips of studding material and move forward with the feed mechanism when so engaged, to disengage from said strips and return with said feed mechanism leaving said strip advanced, the actions of all of said elements being synchronized and coördinated with the action of said notching dies.

2. A studding machine comprising a holder for continuous reels of studding strip, runways for said strips, notching dies, means for forcing said dies through said strips a reciprocating feed mechanism engaging said dies, means for disengaging said dies from said strip at the forward limit of the movement of said feed mechanism, a synchonizing mechanism coördinating the actions of said dies and the feeding mechanism at predetermined intervals, a cutting off mechanism for said strips controlled by said synchronizing mechanism, a channeling mechanism engaging said strips at intervals controlled by said synchronizing mechanism, a feed pawl fixed on the feeding mechanism and engaging the notches formed by the notching dies, a tie placing mechanism controlled by the feed mechanism, a clenching die acting on said ties and the said strips at intervals determined by the synchronizing mechanism, and an ejecting pawl fixed on the feeding mechanism and engaging the successive notches formed by the notching dies.

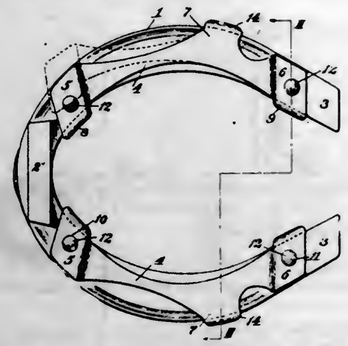
3. A studding machine comprising a runway, a notching means, a channeling means and a tie clenching means interposed in said runway, means for advancing the material being operated on from one means to the other, a driving means, and means for synchronizing the actions of the above recited means.

4. A studding machine comprising a runway, a notching means, a cutting off means, a channeling means; and a tie clenching means interposed in said runway, means associated with the notching means for advancing the material being operated on from one means to the other, a driving means, and means for synchronizing the actions of the above recited means.

5. A studding machine comprising a runway, a notching means, a cutting off means, a channeling means and a tie clenching means interposed in said runway, a tie-placing means adjacent to said runway, means associated with the notching means for advancing the material being operated on from one means to the other, a driving means, and means for synchronizing the actions of the above recited means.

[Claims 6 to 17 not printed in the Gazette.]

1,141,596. ATTACHMENT FOR HORSESHOES. MILO F. WILSON, New Brighton, Pa. Filed Mar. 13, 1912. Serial No. 683,478. (Cl. 168—30.)

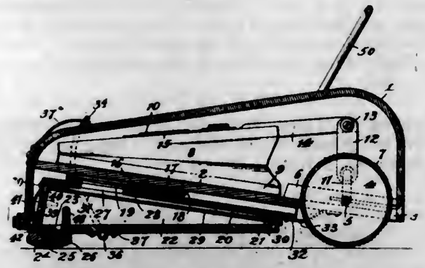


1. An attachment for horse-shoes comprising end portions which carry projecting calks with the faces of the portions opposite the calks formed to seat against the exposed face of a horse-shoe, the rear end portion having an end configuration adapted to substantially fit and abut against a heel calk of the horse-shoe substantially throughout the width of the shoe, each end portion having a holding member adapted to engage the shoe and to retain the attachment in position, and a bridge portion connecting the end portions, said bridge portion also having a holding member, said holding members being relatively positioned to require a springing of the front end of the attachment inwardly in applying it to the shoe.

2. An attachment for horse-shoes comprising end portions which carry projecting calks with the faces of the portions opposite the calks formed to seat against the exposed face of a horse-shoe, the rear end portion having an end configuration adapted to substantially fit and abut against a heel calk of the horse-shoe substantially throughout the width of the shoe, each end portion having a holding member adapted to engage the shoe and to retain the attachment in position, and a bridge portion connecting the end portions, said bridge portion also having a holding member, said holding members being relatively positioned to require a springing of the front end of the attachment inwardly in applying it to the shoe, the holding portion of the bridge connection being adjacent the rear end portion, whereby the springing movement will be substantially restricted to the forward portion of the attachment and permit the rear end portion and heel calk of the shoe to serve as guides in positioning the attachment on the shoe.

3. An attachment for horse-shoes comprising end portions which carry projecting calks with the faces of the portions opposite the calks formed to seat against the exposed face of a horse-shoe, the rear end portion having an end configuration adapted to substantially fit and abut against a heel calk of the horse-shoe substantially throughout the width of the shoe, each end portion having a holding member adapted to engage the shoe and to retain the attachment in position, and a bridge portion connecting the end portions, said bridge portion also having a holding member, said holding members being relatively positioned to require a springing of the front end of the attachment inwardly in applying it to the shoe, said bridging connection extending parallel to and spaced from the face of the shoe, and having a thickness less than the thickness of either end portion.

1,141,597. VACUUM-CLEANER. MORRIS S. WRIGHT, Worcester, Mass., assignor to M. S. Wright Company, Worcester, Mass., a Corporation of Massachusetts. Filed Mar. 12, 1913. Serial No. 753,757. (Cl. 15—60.)



1. A portable vacuum cleaner comprising an elongated horizontally disposed casing having a closed front end wall, a supporting wheel, a push handle, vacuum creating means within the casing operatively connected with the supporting wheel, a dust chamber, a filtering bag within the dust chamber, and in communication with the vacuum creating means, a dust inlet nozzle projecting downwardly below said end wall to engage a surface and in communication with the filtering bag, a closure wall inclosing the end of the dust box, said closure wall being inclosed by the casing, and means whereby said closure wall may be bodily removed from the dust box independently of the nozzle.

2. In a vacuum cleaner, the combination of a casing, vacuum creating means, a dust box positioned below the vacuum creating means and inclosed by the side walls of the casing, and having a dust inlet nozzle secured thereto adjacent one end to engage the surface, said dust box and nozzle being removable together as a unit from the casing.

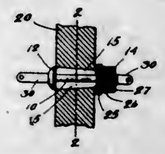
3. In a vacuum cleaner, the combination of a casing having an inclined bottom wall, vacuum creating means positioned on said wall and within the casing, a dust box positioned beneath said wall in communication with said vacuum creating means, said dust box being inclosed by the walls of the casing and having a downwardly projecting inlet nozzle adjacent the forward end thereof.

4. In a vacuum cleaner, the combination of a casing, an elongated partition wall within the casing, vacuum creating means positioned on said wall within the casing, a dust box arranged below said wall and in communication with the vacuum creating means, said dust box having a downwardly projecting inlet nozzle secured thereto, and means for removably supporting the dust box in position against said partition wall and within the casing, and an end wall of the box being also removable.

5. In a vacuum cleaner, the combination of a dust box with top, bottom and sides, and a removable end wall, an inclosing casing for said box, a supporting wheel for the casing, vacuum creating means operatively connected with said wheel, and a nozzle adjacent the forward end of the dust box removable therewith and independent of said removable end wall.

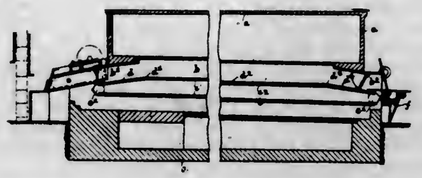
[Claims 6 to 12 not printed in the Gazette.]

1,141,598. CIRCUIT-WIRE TERMINAL. ALFRED A. ZIEGLER, Boston, Mass. Continuation of application Serial No. 701,976, filed Feb. 6, 1912. This application filed Jan. 8, 1913. Serial No. 740,774. (Cl. 173—259.)



A wire terminal consisting of a cylinder body having a head at one end and a threaded portion at the opposite end, the body intermediate the head and threaded portion being formed with radial fins extending longitudinally of the body and of gradually decreasing projection from the head toward the threaded end, the body being extended beyond the head and threaded portion to provide flexible fins.

1,141,599. BAKER'S OVEN. GEORGE SAMUEL BAKER, London, England. Filed Mar. 14, 1913. Serial No. 754,340. (Cl. 107—57.)



1. In a baker's oven, a baking chamber having an inlet at one end and an outlet at the other end and an endless sole plate adapted to travel through said chamber and directly receive the goods to be baked, said sole plate at the inlet end of said chamber being inclined upwardly for a short distance, then inclined downwardly in a rectilinear path with a gentle declivity to near the discharge end, and then again more sharply downwardly in the same direction to its termination substantially as and for the purpose described.

2. In a baker's oven, a baking chamber having an inlet at one end and an outlet at the other end and an endless sole plate adapted to travel in a circuitous path through said chamber and directly receive the goods to be baked, said sole plate at the inlet end of said chamber being inclined upwardly for a short distance, then inclined downwardly in a rectilinear path with a gentle declivity to a point adjacent the discharge end of said chamber, and thence again more sharply downwardly in the same direction to said discharge end, the lowermost part of the discharge end of the sole plate being in a lower plane than the corresponding lowermost part of the sole plate at the inlet end substantially as and for the purpose described.

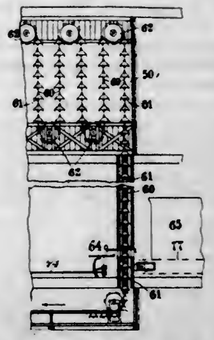
3. In a baker's oven, a baking chamber having feeding and discharge devices associated therewith, and movable supporting means within the baking chamber for initially elevating the material being baked to a relatively high point in the oven, and for lowering said material as it approaches the outlet of the oven, said movable supporting means projecting outwardly below a part of the feeding means substantially as described.

4. In a baker's oven, a baking chamber having feeding and discharge devices associated therewith, and movable supporting means within the baking chamber for initially elevating the material being baked to a relatively high point in the oven, and for lowering said material as it approaches the outlet of the oven, said movable supporting means projecting outwardly in opposite directions below portions of said feeding and discharging means.

5. In a baker's oven, a baking chamber having feeding and discharge devices associated therewith, and movable supporting means within the baking chamber for initially elevating the material being baked to a relatively high point in the oven, and for lowering said material as it approaches the outlet of the oven, said movable supporting means projecting at its feed end outwardly beyond the baking chamber.

[Claim 6 not printed in the Gazette.]

1,141,600. APPARATUS FOR PROVING DOUGH PREPARATORY TO BAKING. GEORGE SAMUEL BAKER, London, England. Original application filed July 13, 1909, Serial No. 507,307. Divided and this application filed Sept. 22, 1913. Serial No. 791,050. (Cl. 107—57.)



1. An apparatus for the final proving of dough preparatory to baking which includes a proving chamber having inlet and outlet, a main endless conveyer positioned to travel through said chamber in a circuitous course and provided with suspended means for supporting dough receptacles; reciprocating means adjacent the inlet of the chamber for feeding the receptacles onto the supporting means of the main conveyer, and reciprocating means for discharging the receptacles from the support of said main conveyer.

2. An apparatus for the final proving of dough preparatory to baking which includes a proving chamber having

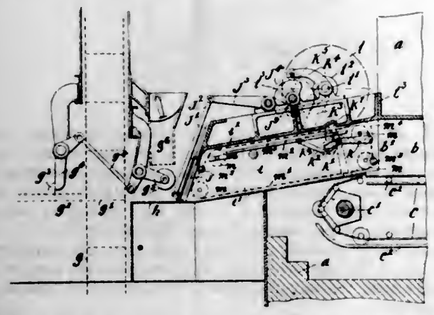
inlet and outlet, a main endless conveyer positioned to travel through said chamber in a circuitous course and provided with pivotally suspended means for supporting dough receptacles, means adjacent the inlet of said chamber for feeding said receptacles to the main conveyer comprising an endless feeding conveyer adapted for movement in a direction rectangular to said main conveyer, reciprocating means for transferring the receptacles from said feed conveyer onto the supporting means of the main conveyer, and reciprocating means adapted to discharge the receptacles from the supports of said main conveyer.

3. An apparatus for the final proving of dough preparatory to baking which includes a proving chamber having inlet and outlet, main endless conveyer positioned to travel through said chamber in a circuitous course, and provided with suspended supports for dough receptacles, means adjacent the inlet of said chamber for feeding the receptacles onto said supports comprising a reciprocating slide and interrupted gearing operatively connected therewith, and means for discharging the receptacles from said supports, said means comprising a reciprocating slide and interrupted gearing operatively connected therewith.

4. An apparatus for the final proving of dough preparatory to baking which includes a proving chamber having inlet and outlet, a main endless conveyer positioned to travel through said chamber in a circuitous course and provided with suspended supports for dough receptacles, means adjacent the inlet of said chamber for feeding the receptacles onto said supports comprising a reciprocating slide and interrupted gearing operatively connected therewith, and means for discharging the receptacles from said supports, said means comprising a slide reciprocatable in a direction at right angles to said conveyer, interrupted gearing in operative connection with said slide, and a stopping finger adapted to remove the receptacles from said slide during the reciprocation thereof.

5. An apparatus for the final proving of dough preparatory to baking which includes a proving chamber having inlet and outlet, a main endless conveyer positioned to travel through said chamber in a circuitous course and provided with pivotally suspended means for supporting dough receptacles, means adjacent the inlet of said chamber for feeding said receptacles to the main conveyer comprising an endless feeding conveyer adapted for movement in a direction rectangular to said main conveyer, means for transferring the receptacles from said feed conveyer onto the supporting means of the main conveyer, said means comprising a reciprocating slide and interrupted gearing in operative connection therewith, and means adapted to discharge the receptacles from the supports of said main conveyer, said means comprising a reciprocating slide and interrupted gearing in operative connection therewith.

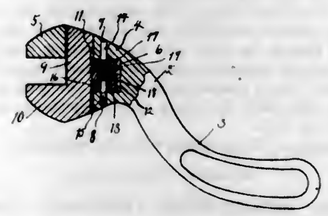
1,141,601. BAKER'S OVEN. GEORGE SAMUEL BAKER, London, England. Original application filed Mar. 14, 1913, Serial No. 754,340. Divided and this application filed Dec. 26, 1913. Serial No. 808,794. (Cl. 107—57.)



1. In a baker's oven, an automatic feed device comprising a feed chamber, forward and rear doors for said chamber, a conveyer within said chamber adapted to engage the goods and force same through said chamber, and means for operating the forward and rear doors and conveyer in definite time relation to open the forward door, feed the goods along the chamber, close said forward door and open the rear door.

2. In a baker's oven, an automatic feed device comprising a feed chamber, forward and rear doors for said chamber, a conveyer within said chamber adapted to engage the goods and force same therethrough, said conveyer comprising chains passing about the chamber and transverse rods or equivalents secured to said chains at intervals, and means for operating the forward and rear doors and the conveyer in definite time relation, to feed the goods along the chamber and open the forward door while the rear door is closed and vice versa.

1,141,602. LOST-MOTION TAKE-UP FOR TOOLS. JOSEPH G. BAKER, Allentown, Pa., assignor to J. Edward Durham, Philadelphia, Pa. Filed Aug. 6, 1913. Serial No. 783,422. (Cl. 81—155.)

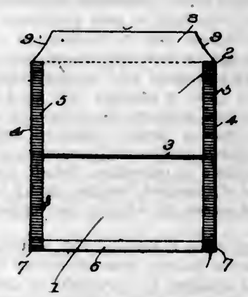


1. In a device of the character stated a wrench comprising a handle, a head having a cavity therein, a stationary jaw projecting from said head, a movable jaw provided with a shank slidably mounted in the head, said shank having sectional threads which project into the cavity, an operating screw provided with an opening passing part way therethrough, another opening of greater diameter passing the remainder of the way therethrough, thereby forming a shoulder, a journaled screw threaded into the head and passing through said openings in the operating screw, a helical spring coiled about the journaled screw, one end thereof resting against the shoulder, and the opposite end against one of the side walls of the cavity in the head, thereby taking up the lost motion between the operating screw and the working face of the movable jaw.

2. A wrench comprising a head having a cavity therein, an integral handle formed therewith, a stationary jaw projecting from said head, a movable jaw slidably mounted in said head and provided with sectional threads, an adjusting screw of less length than the cavity in the head mounted in said cavity and arranged to coact with the sectional threads for operating the movable jaw, said screw having a central bore therethrough of two different diameters to produce a shoulder, a screw mounted in the head for journaling the adjusting screw thereon, and a helical spring coiled about the journaled screw and contained within the larger portion of the bore in the adjusting screw, one end of said spring resting against the shoulder within the adjusting screw and the other end against one of the walls of the cavity in the head, whereby said adjusting screw is forced toward the stationary jaw for taking up the lost motion between the operating screw and the working face between the movable jaw.

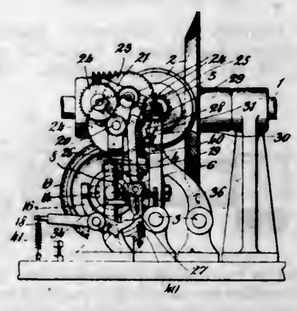
1,141,603. ENVELOP. LOUIS BELTRAMINI, Spring Valley, Ill. Filed Oct. 9, 1914. Serial No. 865,907. (Cl. 229—82.)

The herein described envelop comprising side margins folded over against the body portion of the envelop and provided with an adhesive substance, a bottom marginal strip folded underneath said side margins, and a flat at the top of the envelop for holding a letter in place, said flap



having adhesive substance on its rear side, and said envelop adapted to be folded on the horizontal central line.

1,141,604. SPOOLING-MACHINE. ALBERT BELZ, Unter-Goldach, Switzerland. Filed June 9, 1914. Serial No. 844,013. (Cl. 242—16.)



1. In a device for securing the free thread end of bobbins for spooling machines, means to form a central winding of the thread around the main winding, and a member brought into operation at the beginning of the central winding to conduct a portion of the thread being wound under the previously wound portion of the central winding.

2. In a device for securing the free thread end of bobbins for spooling machines, means to wind the thread around the central portion of the main winding, and a resilient ring shaped member brought into contact with the bobbin after the main winding thereof is completed, said member having conical ends to conduct a portion of the thread being wound under the previously wound portion of the central winding.

3. In a device for securing the free thread end of bobbins for spooling-machines, a movable bracket, an auxiliary thread-guide carried by said bracket, a ring-shaped wire having resilient and conical ends resting on the bobbin and lying between the bobbin and the central windings wound on the bobbin, said ring being capable of rotating in the bracket, means for throwing said wire and auxiliary thread-guide out of operation while the bobbin is wound up and means for moving said thread-guide into the path of movement of the thread after the winding up of the bobbin.

4. In a device for securing the free thread end of bobbins for spooling-machines, a pivotally mounted frame, a slotted drum acting as a thread-guide and supported by said frame, a movable bracket carried by an arm of said frame, an auxiliary thread-guide carried by said bracket, a ring-shaped wire having resilient and conical ends resting on the bobbin and lying between the bobbin and the central windings to be wound on the bobbin, said ring being capable of rotating in the bracket and means for swinging said arm of the frame to bring said auxiliary thread-guide and said wire into the operative position.

5. In a device for securing the free thread end of bobbins for spooling-machines, a main driving shaft, a bobbin-shaft, means for transmitting the drive from the main shaft to the bobbin-shaft, an auxiliary shaft, means for transmitting the drive from the main shaft to the auxiliary shaft, a cam shaped disk fixed to said auxiliary shaft, a double-arm lever pivotally mounted on the machine-frame, one of said lever-arms working together with said disk, a pivotally mounted frame, a slotted drum acting as a thread-guide and supported by said frame, a movable bracket, an arm on said frame carrying the bracket and working together with the other arm of said lever, an auxiliary thread-guide carried by said bracket, a ring-shaped wire having resilient and conical ends resting on the bobbin and lying between the bobbin and the central windings to be wound on the bobbin, said ring being capable of rotating in the bracket and means for pivoting said lever as soon as the auxiliary shaft is rotated to bring the auxiliary thread-guide and said wire into their operative position.

1,141,605. THERMO-[illegible]. JULIUS BOEKEL and JOHN H. SCHERER, Philadelphia, Pa., assignors to said Boekel. Filed Oct. 20, 1914. Serial No. 867,595. (Cl. 200—31.)



1. A horizontal bar, vertical segmental plates attached to the respective ends of said bar and adapted to fit over an upstanding collar, a vertical rod attached to, and depending from, said bar, and a squared block secured to the lower end of said rod, in combination with two compound metal arms attached at their lower ends to said block and having their upper and free contact carrying arms directly opposite each other to make and break the electrical circuit as said arms move toward or away from each other.

2. A pair of segmental plates adapted to engage a neck or upstanding collar of a receptacle, in combination with means attached to said plates and suspended within said receptacle, a pair of thermoscopic arms attached to said means, but insulated from each other, and extending up between the said plates and electrical contacts carried by the upper ends of said arms for opening or closing an electrical circuit.

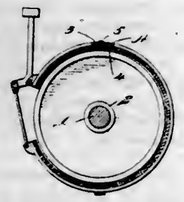
3. A pair of electrical contacts and thermoscopic elements to which they are attached, in combination with means adapted to fit on the neck or upstanding collar of a receptacle and intervening means whereby the said thermoscopic elements are suspended within the same.

4. A rod and means adapted to fit on the neck of a receptacle for suspending said rod within the latter, in combination with compound metallic arms carried by the lower part of said rod, out extending up out of said receptacle, and electrical contacts carried by the upper parts of said arms for thermostatically closing an electric circuit.

5. Means adapted to fit on a tubular part, in combination with a pair of thermoscopic arms and intervening devices suspended by said means, and electric contacts carried by said arms above said means.

[Claims 6 to 8 not printed in the Gazette.]

1,141,606. BRAKE AND BRAKE-LINER. WILLIAM T. BONNER, Trenton, N. J., assignor, by mesne assignments, to The Asbestos Brake Company, Trenton, N. J., a Corporation of New Jersey. Filed June 22, 1909, Serial No. 503,625. Renewed Oct. 28, 1914. Serial No. 869,146. (Cl. 74—13.)



1. In a braking element, a plurality of plies of wire-reinforced asbestos fabric, said plies being impregnated with drying oil and the outer ply being faced with a rubber composition.

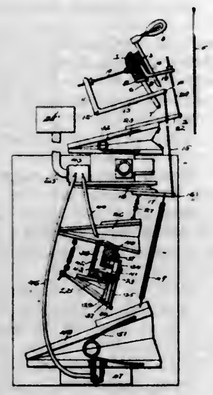
2. A brake provided with a liner comprising a plurality of united plies of wire-reinforced asbestos fabric impregnated with drying oil, said liner carrying a facing layer of rubber composition.

3. In a braking element a plurality of asbestos plies comprising one or more plies of oil-impregnated reinforced asbestos and one or more plies of rubber.

4. In a brake, the combination of a holding element and a liner comprising one or more plies of oil-impregnated reinforced asbestos and one or more plies of rubber.

5. A band brake comprising a holding element and a brake band therefor comprising assembled plies of woven, metal-reinforced asbestos containing an oil impregnation, intercalated layers of rubber composition between such plies and a facing of rubber composition, said plies being stitched together.

1,141,607. EXPRESSION DEVICE FOR AUTOMATIC MUSICAL INSTRUMENTS. GEORGE P. BRAND, New York, N. Y. Filed May 10, 1910, Serial No. 560,409. Renewed Oct. 9, 1914. Serial No. 865,950. (Cl. 84—160.)



1. A hammer rail, a tension chest, a pneumatic for actuating the hammer rail, normally directly communicating with the tension chest and actuated by variations of pressure therein, a tension device acting in opposition to the said pneumatic and means for varying the tension thereof.

2. A hammer rail, a tension chest, an actuating pneumatic for said hammer rail normally in direct communication with said chest and actuated by variations of pressure therein, a tension device connected therewith, an auxiliary tension device connected to said pneumatic and operable in opposition thereto and in conjunction with the first-named tension device to inflate the pneumatic and means for varying the tension of said tension devices.

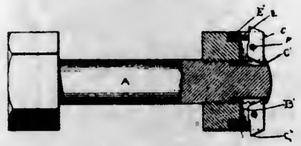
3. A tension chest, a hammer rail, an actuating pneumatic therefor and actuated by variations of pressure in said chest, a tension device connected with said pneumatic, an auxiliary tension device connected to said pneumatic and operable in opposition thereto and in conjunction with the first-named tension device to inflate the pneumatic and means for varying the tension of said tension devices.

4. A tension chest, a hammer rail, a pneumatic for actuating the same directly communicating with said tension chest and actuated by variations of pressure therein, and two independent tension devices connected to said pneumatic and means for varying the tension of said tension device.

5. A tension chest, a hammer rail, a pneumatic for actuating the same directly connected with said tension chest, two independent tension devices connected to said pneumatic, and a cut-off for one of said tension devices.

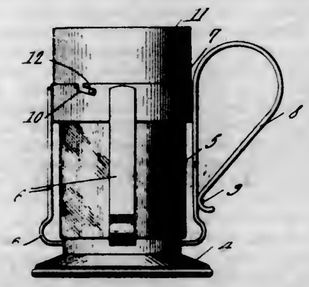
[Claims 6 to 27 not printed in the Gazette.]

1,141,608. AUTOMATIC LOCK-NUT. ERWIN E. BRUBAKER, Kiskiminetas township, Armstrong county, Pa. Filed Aug. 30, 1912. Serial No. 717,979. (Cl. 151—6.)



In a device of the character described the combination of a screw threaded shank having a plurality of longitudinally extending diametrically opposite grooves arranged in the screw threaded section of the shank, a nut having recesses formed within its outer face, pawls of substantially a rhomboidal shape in elevation pivotally mounted within said recesses, said pawls being disengaged from the shank and lying flush with the nut when engaged by a wrench, and the inner acute angle engaging the grooves in said shank and the outer acute angle extending beyond the outer wrench engaging surface of the nut when in locked position.

1,141,609. GLASS-HOLDER. LOUIS P. CANNING, Athens, Ga. Filed Nov. 26, 1913. Serial No. 803,256. (Cl. 65—61.)



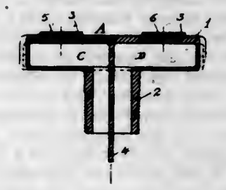
A glass holder comprising a base, a sleeve, spaced connections between the sleeve and base, each of said connections having an outwardly offset resilient portion, said sleeve being adapted to receive a glass mounted on the base, a cup-like cover, and coöperating means upon the cover and sleeve adapted to draw the cover downwardly onto the glass when said cover is rotated relative to the sleeve.

1,141,610. ARTIFICIAL-STONE CEMENT. GIOVANNI CAPECE, Providence, R. I. Filed July 31, 1914. Serial No. 854,315. (Cl. 106—31.)

1. The herein described artificial stone cement, consisting of beeswax, rosin, varnish, powdered lead, powdered brick and Portland cement, substantially as described and in approximately the proportions specified.

2. The herein described artificial stone cement, consisting of beeswax 1.80 grams, rosin 4.30 grams, varnish 0.30 grams, powdered lead 3.15 grams, powdered brick 2.90 grams and Portland cement 15.10 grams, substantially as described.

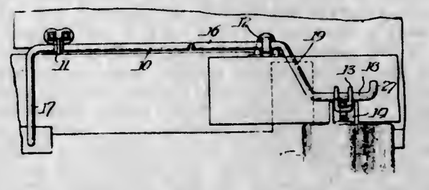
1,141,611. FITTING FOR HOT-WATER-RADIATOR CONNECTIONS. PHILIP H. CARLYON, Jr., Dunkirk, N. Y. Filed June 4, 1912. Serial No. 701,594. (Cl. 137—75.)



1. A radiator fitting having in one wall a passage divided by a partition, and in the opposite wall two passages spaced from each other, the latter passages being so located with reference to the first-named passage that when the partition is in a vertical plane the axes of the two passages will lie below a horizontal plane passing through the axis of the first named passage.

2. A hollow T-shaped radiator fitting having a substantially central passage in one wall and a plurality of passages in the opposite wall, the axes of all the passages lying on the arc of a circle.

1,141,612. UNCOUPLING DEVICE. CHARLES A. CARSCADIN and GEORGE A. WOODMAN, Chicago, Ill. Filed Jan. 31, 1914. Serial No. 815,658. (Cl. 213—59.)



1. An uncoupling device for railway cars comprising an operating rod adapted to be secured to a car, and a rigid member passing through the eye of the locking pin of the coupler and having its opposite ends looped about said rod and slidable longitudinally thereof.

2. An uncoupling device for railway cars comprising an operating rod, means for slidably securing said operating rod to the car to permit movement of said rod longitudinally of the car, and means connected to the locking pin of the coupler having its opposite ends looped about said rod and slidably connected to said rod to move transversely of the car.

3. An uncoupling device for railway cars comprising an operating rod adapted to be secured to a car and having a lifting arm offset from the body portion of said rod and disposed substantially horizontally and at right angles to the longitudinal axis of the car, and a member engaging the locking pin of the coupler at its center and slidably embracing said lifting arm at its ends.

4. An uncoupling device for railway cars comprising a rod adapted to be secured to a car and provided with a horizontally disposed lifting arm, and a rigid member disposed through the locking pin of said coupler and having an eye at one end and a hook at the other, said eye and said hook slidably embracing said lifting arm.

5. An uncoupling device for railway cars comprising an operating rod secured to a car and provided with an integral lifting arm offset from the body portion of said rod disposed substantially horizontally and at right angles to the longitudinal axis of the car, a rigid member embracing said rod with both ends and disposed through the eye of the locking pin of the coupler, said rod being upturned at its end to prevent disengagement of said rod and member.

1,141,613. CHUCK. SAMUEL M. COFFMAN, Kansas City, Mo. Filed Feb. 9, 1914. Serial No. 817,531. (Cl. 29—109.)



1. In a device of the character described, a stock, and a member having universal movement and consisting of a socket secured to the stock, a ball adjustably mounted in said socket, and a jaw-carrying member adjustably mounted in the ball; means carried by the jaws for engaging the work to be operated upon, yielding means for normally retarding independent movement of the parts constituting said member, and means for locking said parts from independent movement.

2. In a device of the character described, a stock, an adjustable member at one end of said stock to support the work to be operated upon, a pump-center adjustably mounted in the stock for engaging the rear end of the work, a stem adjustably engaging said pump-center, an expander on said stem to force the pump-center into frictional contact with the stock, a sleeve embracing the rear portion of the stem, a collar on said stem and slidably mounted in the sleeve, and an expansion spring interposed between said collar and the rear end of the sleeve.

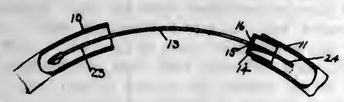
3. In a device of the character described, a stock having a forwardly tapered end, a sleeve free to move longitudinally and laterally upon said tapered end, said sleeve having ball segment ends, a supplemental chuck-carrying member having universal movement and mounted upon the stock and the forward segment of the sleeve, and means engaging the rear segment of the sleeve and said member to lock the latter from universal movement.

4. In a device of the character described, a stock having a forwardly tapered end, a sleeve free to move longitudinally and laterally upon said tapered end, a supplemental chuck-carrying member having universal movement and mounted upon the stock and the forward end of the sleeve, a nut rotatably mounted upon said member, said nut having internal threads, and an externally threaded member engaging the rear end of the sleeve and the threads of the nut whereby when the latter is rotated in one direction said externally threaded member causes the sleeve to lock the first member from universal move ment.

5. In a device of the character described, a stock having a forwardly tapered end, a sleeve free to move longitudinally and laterally upon said tapered end, said sleve having ball segment ends, a supplemental chuck-carrying member having universal movement and mounted upon the stock and the forward segment of the sleeve, an internally threaded nut rotatably mounted upon said member, a spring interposed between said nut and the member to secure the latter from accidental movement, and means

engaging the rear segment of the sleeve and the threads of the nut, whereby when the latter is rotated in one direction the sleeve will be drawn backward to firmly lock the member from universal movement.

1,141,614. BRACELET. EDGAR I. COOMBS, Providence, R. I., assignor to B. A. Ballou and Company, Inc., Providence, R. I., a Corporation of Rhode Island. Filed Apr. 3, 1913. Serial No. 758,620. (Cl. 63—7.)



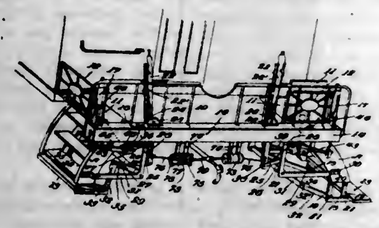
1. A bracelet comprising two tubular sections hinged together and having imperforate side walls, a guard member secured to one section and provided with a resilient portion, a guide member secured to the other section and movable therewith to engage the resilient portion of the guard member when the tubular sections are in closed relation to increase the tension upon the resilient portion sufficiently to provide a friction lock.

2. A bracelet comprising two tubular sections hinged together and having imperforate walls, a guard member secured to one section and provided with integral inwardly yielding spring fingers, and a guide member secured to and movable with the other section and provided with an inwardly extending lip to engage said spring fingers when the two sections are in closed position to increase the tension upon said fingers sufficiently to provide a friction lock.

3. A bracelet comprising two tubular sections hinged together at one end and having imperforate walls, a guard member secured to one section and provided with one or more integral yieldable spring fingers having curved ends therein, and a guide member attached to the other section and movable therewith, said guide member having an inwardly extending lip to engage said spring fingers when the sections are in closed position to increase the tension upon said fingers sufficiently to provide a friction lock, said guard member having means coöperating with the guide member for limiting the separating movement of said sections.

4. A bracelet comprising two tubular sections hinged together, and having imperforate walls, a guard member secured to one section and provided with a resilient portion, an integral resilient stop finger, a guide member secured to the opposite section and frictionally engaging said resilient portion when the two sections are in closed position, whereby the bracelet may be opened by a pull sufficient to overcome the frictional engagement, said guide abutting said stop finger when the sections are in open position.

1,141,615. FOLDING AND EXTENSION CAR-STEP. JASPER S. COXEY, Aberdeen, Wash. Filed June 23, 1914. Serial No. 846,833. (Cl. 105—88.)



1. The combination with a car platform, of a gate, a drop door, an extensible auxiliary step, an operating lever controlling the auxiliary step, a second operating lever independent of the first-mentioned lever and controlling the gate and door, a pneumatic device operatively connected to the first-mentioned lever, and means whereby the first and second-mentioned levers may be operatively connected for consonantly effecting the extending of the steps and opening of the gate and door or folding of the steps and closing of the gate and door.

2. The combination with a car platform, of a gate mounted for horizontal swinging movement, a drop door mounted for horizontal swinging movement, an extensible pivotally mounted step, an operating lever controlling the step, a second lever independent of the first-mentioned lever for controlling the gate and door, a pivoted disk member, a link connecting the disk to the second-mentioned lever, a rod pivotally connecting the door and disk whereby the swinging of the disk in one direction will open the door and the swinging of the disk in the other direction will close the door, a vertically movable member connected to the gate and adapted upon downward movement to open the gate and upon upward movement to close the gate, and a link pivoted intermediate its length to the car platform and terminally connected to said vertically movable member and to the disk for operatively connecting the gate to the second-mentioned lever.

3. The combination with a car platform, of a gate mounted for horizontal swinging movement, a door mounted for vertical swinging movement, a pivotally mounted extensible step, a lever pivoted to the car platform and controlling the extensible step, a second lever pivoted to the car platform and operatively connected to both the gate and door for controlling the opening and closing of the gate and door, said first and second mentioned levers being independently operable, a pneumatic device operatively connected to the first-mentioned lever for controlling the movement of the same, and a hook member carried by one of the levers and engageable with the other lever whereby the levers may be operatively connected, said levers when operatively connected being adapted to be actuated by the pneumatic device for simultaneously extending the extensible step and opening the gate and door, or to simultaneously fold the step and close the gate and door.

4. The combination with the platform of a car, of a gate including a body portion and a post, said post being journaled for rotation in a vertical plane and being provided in its face with a serpentine groove, and means for swinging the gate, said means including an operating lever pivoted in the platform, a disk pivotally attached to the platform, a link freely connecting the disk and lever, a vertically movable rod, a collar carried by the upper terminal of the rod, said collar surrounding the post and being slidable thereon, a lug extending radially from the inner face of the collar, said lug being disposed within the said groove and being adapted for movement therethrough to rotate the post, and a lever connecting the operating rod and disk whereby the operating lever may be swung to move the operating rod in a vertical plane.

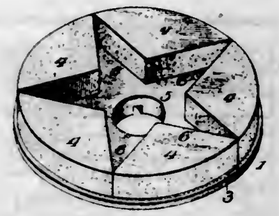
5. The combination with a car platform, of a gate and an operating mechanism therefor, said gate including a body portion, and a vertically disposed rotatably mounted post having a serpentine facial groove, said operating mechanism including an operating lever, a collar embracing the post and slidable vertically thereon, a lug formed integrally with the collar and disposed for movement through the groove in the post, and means operatively connecting the collar and lever whereby the lever may be swung to slide the collar vertically on the post.

1,141,616. POLISHING-HEAD. LESLIE CRANE, Rutland, Vt., assignor to F. R. Patch Mfg. Co., Rutland, Vt., a Corporation of Vermont. Filed Feb. 19, 1915. Serial No. 9,280. (Cl. 51—11.)

1. A polishing head, comprising a body having a series of abrasive blocks arranged thereon to form a substantially star-shaped opening between the series of said blocks.

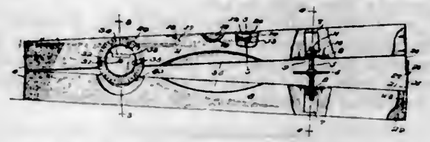
2. A polishing head, comprising a body having a central opening, a series of segmental abrasive blocks having contacting portions arranged upon said body to form radial chambers having converging walls.

3. A polishing head, comprising a body portion having means for supporting the same upon a tubular spindle and provided with a peripheral flange, a series of abrasive segments secured upon said body having contacting portions adjacent said flange forming a central opening, and radial chambers having converging walls.



4. A polishing head, comprising a circular body provided with a peripheral depending flange and a central opening, a series of abrasive blocks having two straight edges, and a curved edge arranged on said body with the curved edge in contact with the flange of said body, the outer corners of said blocks being in contact with one another, said blocks forming radial chambers having converging walls.

1,141,617. LEVEL. IRVIN S. CREAMER, Pleasant Hall, Pa. Filed Apr. 22, 1913. Serial No. 762,950. (Cl. 33—88.)
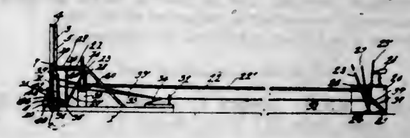


1. A level of the character described composed of two longitudinal sections hingedly connected at one end, the inner face of the sections being recessed, plates disposed upon the inner faces of the sections and having inwardly turned ears extending into said recesses, nuts disposed between said ears and having trunnions pivotally engaging the ears, a right and left hand screw engaging said nuts, the screw being provided with a disk at its middle whereby it may be rotated.

2. A level of the character described including two longitudinal sections hingedly connected at one end, means disposed between the ends of the sections for shifting them into parallel or divergent relation, a slotted scale plate attached to the end face of one of the sections and having graduations on its face, the end of the said section beneath the slotted plate being partially cut away to form a recess, and an angular strip attached to the other section having its extremity outwardly bent and extended through the slot, the terminal portion of the bent extremity being laterally widened to extend laterally over the face of the recess.

3. A level of the character described formed in two longitudinal sections hingedly connected at one end, the inner face of each of the sections being recessed, a plate disposed against the inner face of each section and extending over said recess, said plate having angularly bent ears extending into the recess, nuts pivotally mounted one in each pair of ears, and a right and left hand screw extending through said nuts, the middle of the screw being formed with a head greater in diameter than the width of the sections whereby the screw may be manipulated.

4. A level of the character described having a bubble glass recess upon its face, a bubble glass therein, a cap on one end of the bubble glass and having a projecting tongue, a pin engaging the tongue and permitting the bubble glass to have pivotal movement with relation to the pin, a cap mounted on the other end of the glass and having a perforation, and a screw passing through said perforation and into the body of the level, said screw being notched to engage the cap.

1,141,618. GUN-CLUB SCORING-MACHINE. ALBERT D. CROSLEY and ANDREW R. STENNERSON, Jewell, Iowa. Filed Nov. 17, 1914. Serial No. 872,607. (Cl. 234—1.)



1. A scoring machine, including a supporting frame, a card carrying frame carried thereby and mounted for straight line vertical movement, a card mounted in the latter frame for straight line horizontal movement, a type bar mounted for movement to and from the card, means for operating the type bar, means actuated thereby for imparting step-by-step vertical movement to the card carrying frame, and coöperable means carried by the card and the card carrying frame to impart step-by-step horizontal movement to the card as the card carrying frame is moved to lowermost position.

2. A scoring machine, including a supporting frame, a card carrying frame carried thereby and mounted for straight line vertical movement, a card mounted in the latter frame for straight line horizontal movement, a type bar mounted for movement to and from the card, means for operating the type bar, means actuated thereby for imparting a step-by-step vertical movement to the card carrying frame, coöperable means carried by the card and the card carrying frame to impart step-by-step horizontal movement to the card as the card carrying frame is moved to lowermost position, and manually controlled means for releasing the means for imparting step-by-step vertical movement to the card carrying frame to permit the frame to fall by gravity and cause the operating of the coöperable means.

3. A scoring machine, including a supporting frame, a card carrying frame carried thereby and mounted for straight line vertical movement, a card mounted in the latter frame for straight line horizontal movement, two type bars mounted for movement to and from the card, means for guiding the bars to the same type presentation position upon the card, separate means for operating each type bar, separate means actuated by each type bar operating mechanism for imparting step-by-step vertical movement to the card carrying frame, one of the latter means when inactive acting as a retrograde movement preventing means to hold the card carrying frame against falling, and coöperable means carried by the card and the card carrying frame to impart step-by-step horizontal straight line movement to the card as the card carrying frame is moved to its lowermost position.

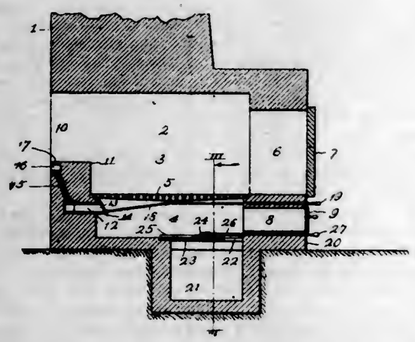
4. A scoring machine, including a supporting frame, a card carrying frame carried thereby and mounted for straight line vertical movement, a card mounted in the latter frame for straight line horizontal movement, two type bars mounted for movement, to and from the card, means for guiding the bars to the same type presentation position upon the card, separate means for operating each type bar, separate means actuated by each type bar operating mechanism for imparting step-by-step vertical movement to the card carrying frame, one of the latter means when inactive operating as a retrograde movement preventing means to hold the card carrying frame against falling, manually controlled means for releasing both of the means that actuate the card carrying frame to permit the card carrying frame to fall by gravity, and coöperable means carried by the card and the card carrying frame to impart a step-by-step horizontal movement to the card as the card carrying frame lowers.

5. A scoring machine, including a supporting frame, a card carrying frame carried thereby and mounted for

straight line vertical movement, a card mounted in the latter frame for straight line horizontal movement, a type bar mounted for movement to and from the card, means for operating the type bar, means actuated thereby for imparting step-by-step vertical movement to the card carrying frame, coöperable means carried by the card and the card carrying frame to impart step-by-step horizontal movement to the card as the card carrying frame is moved to lowermost position, and an audible alarm actuated as the horizontal movement is imparted to the card.

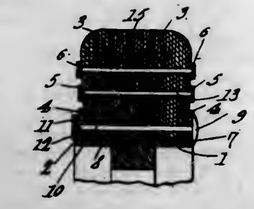
[Claims 6 to 16 not printed in the Gazette.]

1,141,619. KILN. ROBERT L. DENNISON, Kansas City, Mo. Filed July 21, 1913. Serial No. 780,261. (Cl. 25—148.)



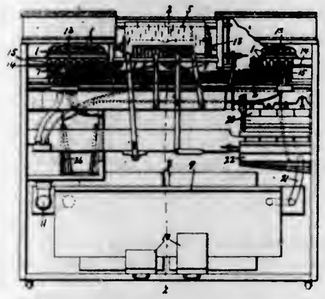
A kiln of the class described comprising a furnace including a combustion chamber having a bridge wall, said bridge wall having a longitudinal cavity formed therein, an air receptacle embedded in the bridge wall and disposed below the cavity, a plurality of inclined nozzles leading from the air receptacle to the bottom of the cavity, the top wall of said cavity being disposed directly above the upper open ends of the nozzles, said air receptacle having a branch extending into the ash pit of the furnace, a damper hingedly connected to said extended end, a rod slidably and frictionally engaged in the outer wall of the furnace, a link pivotally connecting said damper and rod, and a handle formed upon the outer end of the rod, said rod being held in its adjusted position by its frictional engagement with the furnace wall.

1,141,620. TIRE. FRANK DEXTER, Vista, Fla. Filed Mar. 30, 1914. Serial No. 828,339. (Cl. 152—1.)



The combination with a wheel rim having an annular flange at one side thereof, of a tire including an annular course of blocks, inner rings upon the inner and outer sides of the tire, one of said rings engaging the flanged end of the rim, a ring insertible between the other one of the inner rings and the rim, a bolt extended transversely through the said inner and outer rings and having a head lapping said inserted ring to hold it in position, means engaging the bolt and lapping the flange of the rim to hold the tire against displacement relative to the rim, and a packing interposed between the blocks and rim.

1,141,621. PNEUMATIC SELF-PLAYING MUSICAL INSTRUMENT. LEWIS B. DOMAN, Elbridge, N. Y., assignor to Amphion Piano Player Company, Elbridge, N. Y., a Corporation of New York. Original application filed Mar. 9, 1905, Serial No. 249,250. Divided and this application filed Nov. 28, 1908. Serial No. 464,988. (Cl. 84—178.)



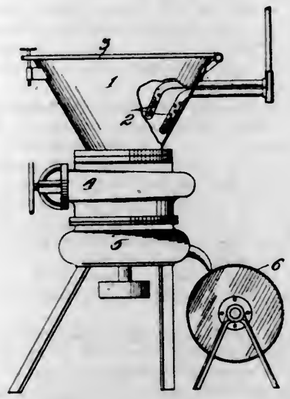
1. An auto-pneumatic piano playing device having striker pneumatics varied in area from one part to another part of the scale, those for the bass tones being of less area than those for the treble tones.

2. An auto-pneumatic piano playing device having striker pneumatics varied in width from one part to another part of the scale.

3. In a self-playing musical instrument, a series of striker pneumatics for the bass notes gradually reduced in capacity from right to left.

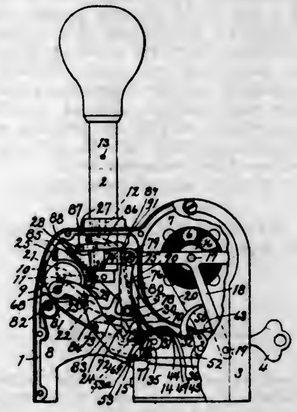
4. In a self-playing musical instrument, a series of striker pneumatics corresponding to different tones of the instrument, those for the bass tones gradually decreasing in width from right to left in combination with means for controlling the operation of said pneumatics.

1,141,622. PROCESS OF TREATING FOOD REMNANTS. EDWARD C. EMERY, Los Angeles, Cal. Filed Sept. 9, 1912. Serial No. 719,460. (Cl. 99—5.)



Preparing a homogeneous food product from clean waste food of an unspoiled character, consisting in subjecting the waste foods to steam under pressure for a prolonged time in a closed vessel to sterilize the same and prevent the condensation of the steam, without cooking or extracting any of the juices from the foods and to dissolve and cause an absorption of the dissolved greases and fats by the foods treated, then reducing the mass to a homogeneous pulp and causing a further absorption of the dissolved greases and fats, and finally toasting the mass.

1,141,623. COUNTER MECHANISM. CHARLES J. FANCHER, Thompsonville, Conn., assignor to The Extensive Manufacturing Company, New York, N. Y., a Corporation of New York. Original application filed June 21, 1911, Serial No. 634,395. Divided and this application filed Jan. 8, 1914. Serial No. 811,087. (Cl. 235—91.)



1. Mechanism, of the class described, comprising a counter, operating means for such counter, means to render said counter-operating means inactive, and means operated by an advancing unit to release said counter-operating means.

2. Mechanism, of the class described, comprising a counter, operating means for such counter, unit-actuating means, means to render said counter-operating means inactive, and means, operated by an object advanced by said unit-actuating means, to release said counter-operating means.

3. Mechanism, of the class described, comprising feeding mechanism, transfer mechanism, a counter, locking and releasing means for such counter, and a plunger arranged and adapted to operated both of said mechanisms and said counter when unlocked and to reset said locking and releasing means.

4. Mechanism, of the class described, comprising means to detach a unit from a flexible strip, coacting means to count the same, counter-controlling means, operated by the strip when advanced and means to advance the strip to present another unit for detachment and to reset said counter-controlling means, said advancing means being controlled by said detaching means.

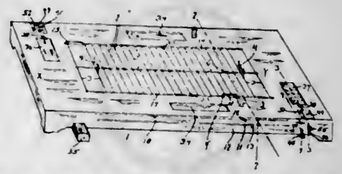
5. Mechanism, of the class described, comprising a supporting frame provided with a counter, a plunger mounted to reciprocate in said frame, coöperating spring-pressed gripping jaws mounted to oscillate in said frame and operatively connected with said plunger, counter-operating means dependent for action on the action of said jaws, and flexible strip- or unit-feeding mechanism and counter-releasing mechanism within said frame, said feeding mechanism being operated by the gripping-jaw mechanism, and said counter-releasing mechanism being operated by a strip or unit in the grasp of the jaws, and reset by said gripping-jaw mechanism.

[Claims 6 to 15 not printed in the Gazette.]

1,141,624. GAME APPARATUS. ROBERT M. FULLERTON, Spokane, Wash. Filed Nov. 17, 1913. Serial No. 801,532. (Cl. 46—63.)

1. A game apparatus comprising a game board lined to simulate a foot ball field and provided with a guide-way portion running from goal to goal, a foot ball game piece slidable in said guide-way portion and proportioned to lie in reading proximity to the field markings on said board, and means extending on opposite sides of the game board for sliding said game piece, substantially as described.

2. A game apparatus comprising a game board lined to simulate a foot ball field, a foot ball game piece slidable centrally of the field from goal to goal, linesmen game pieces slidable marginally of the field, independent devices extending laterally of the game board for operating the last named game pieces, and said first named game piece having operating devices extending to opposite sides of the board, substantially as described.

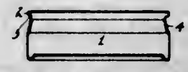


3. A game apparatus comprising a game board lined to simulate a rectangular foot ball field and having a groove extending centrally of the field from goal to goal and grooves extending marginally of the field, a foot ball game piece slidable in said central groove, and linesmen game pieces slidable in said marginal grooves, substantially as described.

4. In a game apparatus, a game board provided with a marked off game portion having a slot, said board being provided with depending sides having slots, a game piece slidable in the slot of said game portion and having a base projecting downwardly therethrough below the board, a guide-way secured to the bottom of the board on opposite sides of said slot and comprising side walls and a bottom wall with the latter in supporting engagement with the bottom of said base to support the game piece with its upper portion in reading proximity to said game portion, the side walls of said guide-way having slots, and actuator rods attached to the base of said game piece at their inner ends and extending through the slots of said guide-way and said depending sides and terminating in finger grips accessible from the exterior of said depending sides, substantially as described.

5. In a game apparatus, a game board provided with a marked off game portion and slots disposed centrally and laterally of said portion, said board having depending sides provided with upper and lower slots, a game piece slidable in said central slot and having operating rods projecting outwardly through the lower slots of said sides, and game pieces slidable in said lateral slots and each having an operating rod projecting through one of said upper slots of said depending sides, substantially as described.

1,141,625. BOX-LID. GEORGE GARDNER, South Melbourne, Victoria, Australia. Filed Jan. 19, 1914. Serial No. 813,061. (Cl. 220—6.)

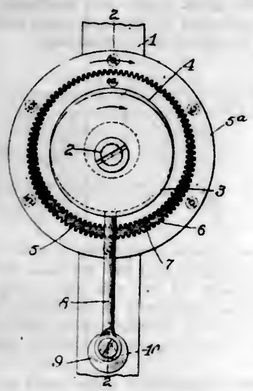


A box comprising a body portion having an inwardly projecting annular flange formed in its side, the upper portion of said side converging inwardly from the inner edge of said flange, and a lid having a downwardly diverging side portion of substantially the same dimensions as the converging portion of the body and of smaller diameter than the lower portion of said body, whereby the lower edge of the lid engages the flange when the parts of the box are assembled, said lid having an annular projection formed above its diverging side and out of contact with the upper edge of the side of the body, for the purpose specified.

1,141,626. MECHANICAL MOVEMENT. BERNARD GRANVILLE, New York, N. Y. Filed Oct. 28, 1913. Serial No. 797,852. (Cl. 74—35.)

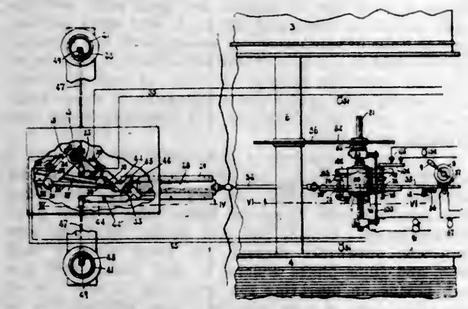
A mechanical movement comprising in combination, a frame, a bearing thereon, a driven gear centrally mounted on said bearing, a driving member eccentrically mounted on the bearing, an intermediate cam gear carried on said driving member and eccentric relation to the bearing and driven gear, said intermediate cam-gear being in constant mesh with the gear of the driven gear, and a depending

member having one end carried by the intermediate cam gear and the other end guided on the frame to move with



the same eccentric relation thereto that the cam disk bears to the bearing, substantially as described.

1,141,627. GATE-OPERATING MECHANISM. ALBERT J. GURNEY, Herrin, Ill. Filed Jan. 21, 1914. Serial No. 813,540. (Cl. 187—49.)



1. The combination with a shaft and a cage operable therein, of a gate at an entrance to said shaft, a gate operating device for moving said gate, and means for automatically locking said gate operating device when the cage moves away from said shaft entrance and automatically unlocking said gate operating device when the cage reaches said entrance; said means including a traveler movable in unison with said cage, and a locking device under the control of said traveler.

2. The combination with a shaft and a cage operable therein, of a gate at an entrance to said shaft, a gate operating device for moving said gate, and means for automatically locking said gate operating device when the cage moves away from said shaft entrance and automatically unlocking said gate operating device when the cage reaches said entrance; said means including a dog for locking said gate operating device, a traveler for retaining said dog in its operative position while the cage is away from said entrance, and means for moving said traveler in unison with said cage.

3. The combination with a shaft and a cage operable therein, of a gate at an entrance to said shaft, a gate operating device for moving said gate, and means for automatically locking said gate operating device when the cage moves away from said shaft entrance and automatically unlocking said gate operating device when the cage reaches said entrance; said means including a lock for said gate operating device, a traveler adapted to prevent the operation of said lock, and means for moving said traveler in unison with said cage.

4. The combination with a shaft and a cage operable therein, of a gate at an entrance to said shaft, a gate operating device for moving said gate, means for automatically locking said gate operating device when the cage moves away from said shaft entrance and automatically unlocking said gate operating device when the cage reaches said entrance, and an unlocking device under control of the operator for rendering said locking means ineffective.

5. The combination with a shaft and a cage operable therein, of a gate at an entrance to said shaft, a gate operating device for moving said gate, means for automatically unlocking said gate operating device when the cage moves away from said shaft entrance and automatically unlocking said gate operating device when the cage reaches said entrance, and an unlocking device under control of the operator for rendering said locking means ineffective combined with an indicator for showing the position of said unlocking device.

[Claims 6 to 11 not printed in the Gazette.]

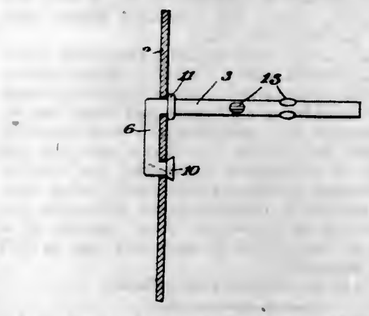
1,141,628. WASHING-MACHINE. LAWRENCE HAMILTON, Liverpool, England. Filed Mar. 21, 1914. Serial No. 826,453. (Cl. 68—19.)



1. An improved pounder for washing clothes and other articles, consisting of an inverted trough-shaped member having a plurality of perforations extending over approximately its entire surface, and a plurality of valves mounted upon the upper face of said member and serving to close some, but not all, of the perforations, said valves being held to their seats when reflex or back pressure occurs, but being free to lift to open all the perforations for the upward passage of the water current.

2. A pounder for washing clothes and the like, comprising an inverted trough shaped member, a plurality of perforations almost all over its surface, a rod attached centrally to the member serving to enable it to be moved up and down, a center lift valve mounted on the center rod, lift valves arranged at suitable radii around same, and seated on the upper surface of the trough shaped member so as to close some of the perforations, and pins for guiding the valves and enabling them to freely lift with the upward passage of the water current.

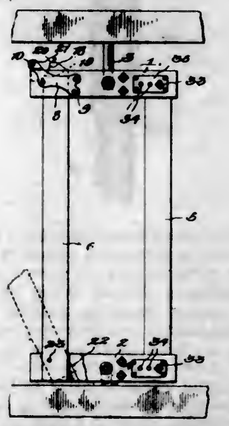
1,141,629. WEIGHING-SCALE AND OTHER MEASURING INSTRUMENT. MARIUS H. HANSEN, Chicago, Ill. Filed Feb. 21, 1914. Serial No. 820,220. (Cl. 116—49.)



1. A device of the class described, having a pointer having through it two perforations, a shaft passing through one of said perforations with a tight fit, a portion projecting laterally from the end of the shaft and lying against the surface of the pointer and a second portion projecting laterally from the portion last aforesaid and passing through the second perforation of the pointer with a tight fit.

2. In a device of the class described, the combination of a pointer having through it two perforations, a shaft passing through one of said perforations with a tight fit, a portion projecting laterally from the end of the shaft and lying against one surface of the pointer, a shoulder on the shaft lying against the opposite surface of the pointer, a portion projecting laterally from the laterally projecting portion first aforesaid and passing through the second perforation of the pointer with a tight fit, the extremity of the last named laterally projecting portion being upset or riveted against the surface of the pointer.

1,141,630. CATTLE-STANCHION. GEORGE E. HASKINS, Milford, Conn. Filed May 6, 1914. Serial No. 836,793. (Cl. 119—149.)



1. In a cattle stanchion, in combination with the pivoted bar thereof, a pair of brackets disposed on opposite sides of the upper end of the bar each having an inwardly offset perforated lug, one of the lugs having a projection which provides a bottom and an inner vertical stop, a lock member having ears, journals on the ears received in said lugs, said lock member having a vertical face at one end and an inner convex face, and said bar having a cam on one side to engage the vertical face, and a concave face which receives said convex face when the parts are in locked position, and a shoulder at the upper end of the convex face to seat on the top end of the bar, said lugs being offset to receive the upper end of the bar in the space therebetween.

2. In a cattle stanchion, a pivoted bar having an inner cam face and an outer concaved portion both at its upper end, a gravity operated lock having a depending outer part to engage the cam face and a convex inner part to be conformably received in said concaved portion of the bar, and a shoulder extending outwardly from said convex part to seat upon the extreme upper end of the bar, and means to limit the extent of swinging movement of the lock.

3. In a cattle stanchion, a pivoted bar having the inner face of its upper end beveled and having the outer face of its upper end formed with a concave face, a segmental shaped block the convex face of which is approximately 90° receivable in said concave face of the bar, and a projection on the block extending outwardly from one end of the convex face and being adapted for direct seating engagement on that part of the extreme upper edge of the bar between the beveled and concave faces of the bar.

1,141,631. FLUID-METER. HARVEY C. HAYES, Cambridge, Mass., assignor of forty-nine one-hundredths to Edwin W. Nick, Erie, Pa. Filed Mar. 21, 1913. Serial No. 755,959. (Cl. 73—167.)

1. In a fluid meter, a chamber having an inlet and outlet for fluid to be measured, arranged to whirl the fluid in a spiral vortex in transit through the chamber, pressure taps from the chamber, one near the vortex center with its aperture pointing in the axial direction of spiral flow, the other near the periphery of the vortex, and means to determine the difference in fluid pressure at the taps.

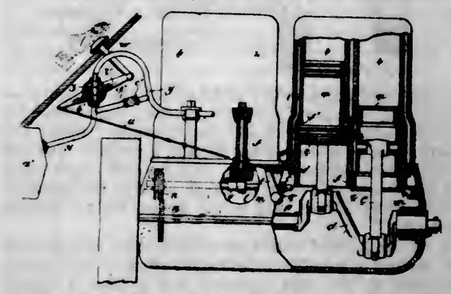
2. In a fluid center, a vortex chamber, a tangential inlet and axial outlet therefor, and pressure taps from the vortex chamber, one nearer the center of the vortex than the other, and means to determine the difference of fluid pressure at the taps.



3. In a fluid meter, a vortex chamber, an inlet and outlet therefor, a pressure tap at the axis of the vortex chamber and opening toward the outlet, and another pressure tap near the periphery of the vortex, and means to determine the difference of fluid pressure at the taps.

4. In a fluid meter, a vortex chamber, a tangential inlet and axial outlet therefor, a pressure tap at the axis of the vortex chamber and opening toward the outlet, and another pressure tap near the periphery of the vortex, and means to determine the difference of fluid pressure at the taps.

1,141,632. SELF-STARTING INTERNAL-COMBUSTION ENGINE. JOHN ALLEN HEANY, Washington, D. C. Filed Apr. 29, 1912. Serial No. 693,888. (Cl. 123—1.)



1. In combination with a multiple cylinder explosive engine having enlarged supplemental pistons and cylinders, a port entering the upper end of each of the supplemental cylinders, valves controlling these ports and means operated from the engine shaft for opening these valves, means for rendering the valve operating means inoperative during the pumping action and while the engine is running under its own power, said supplemental cylinders each being provided with an exhaust port at the end opposite the aforesaid inlet port.

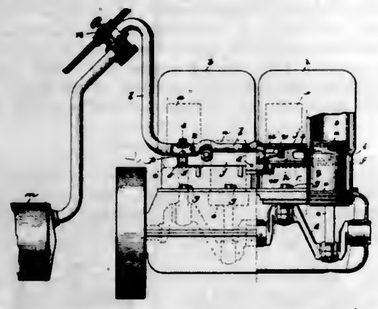
2. In combination with a multiple explosive engine, having enlarged supplemental pistons and cylinders, each supplemental cylinder being provided with inlet and exhaust ports, an air reservoir and conduits connecting it to the inlets, valves for these inlets opening toward the air reservior and means operated from the engine for opening said valves, a valve in the conduit connecting the reservoir to the aforesaid inlets, and means for simultaneously opening said valve and shifting the inlet valve actuating mechanism into operative position.

3. In combination with a multiple-cylinder explosive engine, having enlarged supplemental pistons and cylinders,

each supplemental cylinder being provided with inlet and exhaust ports, an air reservoir and conduits connecting it to the inlets, valves for said inlets, and means operated from the engine for opening said valves, a valve in the conduit connecting the reservoir to the aforesaid inlets, and means for simultaneously opening said valve and shifting the inlet valve-actuating mechanism into operative position, said inlet valves adapted to act as check valves when the valve-actuating mechanism is in inoperative position to permit the supplemental pistons to pump air into the reservoir.

4. In combination with a multiple-cylinder explosive engine, having air-compressing means associated with each cylinder, each air-compressing means being provided with inlet and exhaust ports, an air reservoir and conduits connecting it to the inlets, valves for said inlets, and means operated from the engine for opening said valves, a valve in the conduit connecting the reservoir to the aforesaid inlets, and means for simultaneously opening said valve and shifting the inlet valve mechanism into operative position, said inlet valves adapted to act as check valves when the valve-actuating mechanism is in inoperative position to permit the air-compressing means to pump air into the reservoir.

1,141,633. SELF-STARTING INTERNAL-COMBUSTION ENGINE. JOHN ALLEN HEANY, Washington, D. C. Filed Mar. 27, 1913. Serial No. 757,166. (Cl. 123—181.)



1. In combination with a multiple cylinder explosive engine having enlarged supplemental pistons and cylinders, a port at the upper end of each supplemental cylinder and another port at the lower end thereof, a pressure tank and valved means connecting said tank to said upper ports, and means operated from the crank shaft of the engine to automatically control said valved means, for the purpose set forth.

2. In combination with a multiple cylinder explosive engine having enlarged supplemental cylinders and pistons connected to the main cylinders and pistons, a storage tank and a conduit connecting the same to ports in the upper ends of said supplemental cylinders, each of said supplemental cylinders being also provided with a port at its lower end adapted to put the interior of the cylinder into communication with the atmosphere upon the down stroke of the supplemental piston working therein, valve mechanism operated from the engine for controlling the ports at the upper ends of the supplemental cylinders, and means whereby when the engine is running on fuel power said valve mechanism will be rendered inoperative, means being provided for converting one of the supplemental cylinders into a pumping cylinder to recharge the tank when said valve mechanism is thus rendered inoperative.

3. In combination with a multiple cylinder explosive engine having enlarged supplemental pistons and cylinders, a storage tank and means whereby air from said tank may be employed to start the engine through the medium of all said supplemental cylinders and pistons, and means whereby when the engine is running under its own fuel one of the supplemental cylinders will be converted into a pump and will serve to recharge the tank and the remaining supplemental cylinders will alternately compress and expand entrapped air and thus serve as air cushions.

1,141,634. TUBULAR ELECTRIC POCKET-LAMP. GUSTAV P. HEINRICH, Brooklyn, N. Y., assignor to Interstate Electric Novelty Company, New York, N. Y., a Corporation of New York. Filed Jan. 28, 1915. Serial No. 4,820. (Cl. 240—8.5.)



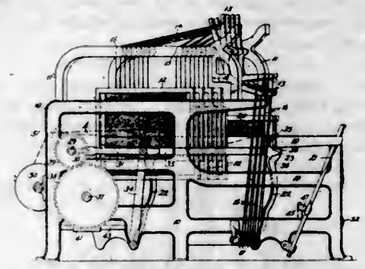
1. An electric pocket-lamp, comprising a casing consisting of a plurality of detachably connected members, one of said members being cut away to form a yieldable tongue, a tubular conducting element within the casing member carrying the tongue, insulating material located between said conducting element and the casing member which carries the same, a circuit closer carried by said tongue and normally out of contact with the conducting material, said insulating material being cut away in line with said circuit closer whereby said contact can be caused to impinge upon said conducting material, a lamp carried by said casing, and a battery within the casing in circuit with said lamp and the conducting element within said casing.

2. An electric pocket-lamp comprising a casing consisting of a plurality of detachably connected members, one of said members being cut away to form a yieldable tongue, a tubular conducting element within the casing member carrying the tongue, insulating material located between said conducting element and the casing member which carries the same, a circuit closer carried by said tongue and normally out of contact with the conducting material, said insulating material being cut away in line with said circuit closer whereby said contact can be caused to impinge upon said conducting material, a lamp carried by said casing, a battery within the casing in circuit with said lamp and the conducting element within said casing, and a fastening device secured to one of said casing members consisting of a clip and a resilient tongue carried thereby, said clip covering the cut out portion in the casing member to which it is secured, said clip being also provided with an opening for the passage therethrough of the circuit closer carried by said tongue.

3. An electric pocket-lamp consisting of a casing arranged to contain a battery, said casing being cut away to form a resilient tongue, a circuit closer carried by said tongue, arranged to close the circuit between said battery and said casing when said tongue is forced inwardly, conducting means within said casing in circuit with said battery but normally out of contact with said circuit closer, and a fastening device carried by said casing and located over said tongue and covering the cut out portion adjacent the tongue, said fastening device having an opening in the body thereof through which the circuit closer can be manipulated.

4. An electric pocket-lamp, comprising a casing, said casing being cut away to form a yieldable circuit-closing tongue, a lamp carried by said casing at one end thereof, a battery within said casing having its carbon-pole in contact with one of the circuit-members of the lamp, insulating material between the battery and said casing, a metallic conductor located between the battery and the insulating material but out of contact with the battery, and an electrical conductor contacting with said metallic conductor and the zinc end of said battery, said insulating material being provided with an opening alining with the circuit-closing tongue whereby said tongue can be caused to contact with said metallic conductor.

1,141,635. LOOM. ALBERT H. HENDERSON and JOSEPH T. MAHON, Baltimore, Md., assignors to The Henderson Rubber Company, Baltimore, Md., a Corporation of Maryland. Filed Aug. 20, 1913. Serial No. 785,754. (Cl. 139—18.)



1. In a loom, a lay, and swords for carrying and vibrating said lay, pivotal connection between the swords and the lay to permit independent movement of the lay, and cushioning means interposed between the swords and the lay to limit said independent movement.

2. In a loom, a lay, and swords for carrying and vibrating said lay, pivotal connection between the swords and the lay to permit independent movement of the lay, stops on each sword at the rear of and below the lay, and cushioning means interposed between the lay and each of said stops.

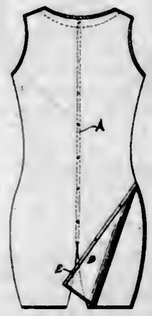
3. In a loom, a lay, and swords for carrying and vibrating said lay, pivotal connection between the swords and the lay to permit independent movement of the lay, stops on each sword at the rear of and beneath the lay forming an abutment to limit independent movement of the lay, and cushioning means interposed between the lay and said stops.

4. In a loom for weaving a fabric having a straight warp and an inclined weft, the combination with a lay diagonally arranged with respect to the direction of the warp, of swords each connected at one of its ends by a pivot pin associated with said lay and the other end pivoted to the frame, substantially as set forth.

5. In a loom for weaving a fabric having a straight warp and an inclined weft, the combination with a lay diagonally arranged with respect to the direction of the warp, swords pivoted to the lay and to the frame, yielding devices between the lay and the sword, means for swinging said lay with the warp, and a plurality of harness frames diagonally parallel to said lay, substantially as set forth.

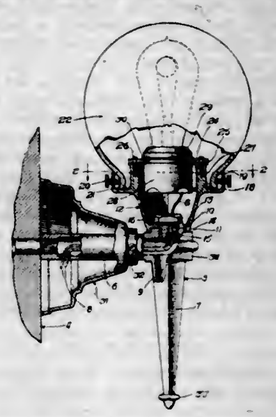
[Claims 6 to 12 not printed in the Gazette.]

1,141,636. UNDERWEAR. MARK M. HENDERSON, New York, N. Y. Filed Nov. 22, 1911. Serial No. 661,693. (Cl. 2—144.)



A union suit provided in one leg only with an opening extending down the outer side thereof from a point near the waist line through the lower end of the leg of the garment, and also provided with a second, independent opening, in the shirt portion extending from the neck to the crotch thereof.

1,141,637. ELECTRIC-LIGHT FIXTURE AND THE LIKE. WILLIAM D. HERWIG, Jr., Chicago, Ill. Filed Aug. 28, 1914. Serial No. 859,058. (Cl. 240—73.)



1. In a fixture of the class described, the combination of an L-shaped member one of the arms of which is hollow and is adapted to constitute the horizontal arm, a shouldered portion on the said member opposite to the other arm thereof, there being an opening in the said shouldered portion in communication with the hollow arm, a base member having its lower edge of contour suitable to seat down against the said shouldered portion, an opening in said base member having its lower end suitably positioned to register with the opening in said shouldered portion, there being a flange on the upper end of said base member, an outwardly extending lip on said base member having its edge upturned and of lesser elevation than the upper edge of the flange, there being a drainage opening in said lip, a plate mounted on the upper edge of the flange, and a socket supported by and connected to said plate.

2. In a fixture of the class described the combination of an L-shaped member one of the arms of which is adapted to constitute a horizontal arm and is hollow, a perforation in communication with the opening of said hollow arm and terminating adjacent to the other arm, a hollow base member secured to the first mentioned member and having an opening adapted to register with said perforation, a plate mounted upon and secured to the upper edge of the base member, a socket carried by said plate and depending therefrom, and a lip encircling the base member at a point below the upper edge thereof, the outer edge of said lip being upturned and terminating at a point below the upper edge of the base member.

3. In a fixture of the class described the combination of an L-shaped member, one of the arms of which is provided with a perforation and is adapted to constitute a horizontal arm, said perforation terminating adjacent to the point of junction between the arms and opposite to the other arm, a hollow base member secured to the first mentioned member at said point of junction and opposite to the last mentioned arm, the opening in said hollow base member registering with the aforementioned perforation, a socket connected to the upper edge of the hollow base member, and a lip extending out from the hollow base member and having its outer base upturned, said outer edge terminating in a plane below the upper edge of the hollow base member.

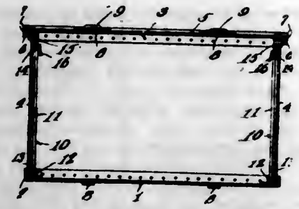
4. In a fixture of the class described the combination of an L-shaped member one of the arms of which is hollow and is adapted to constitute a horizontal arm, the opening of said hollow arm terminating adjacent to the point of juncture between the two arms and opposite to the other arm, there being a shoulder surrounding the point

of termination of said opening, a hollow base member having its lower end seated within said shoulder, there being an opening in the lower end of said hollow base member adapted to register with the point of termination of the first mentioned opening, a nipple threaded into the first mentioned opening and extending up into the hollow base member, a perforated nut threaded onto said nipple and securing the hollow base member in engagement with the L-shaped member, a socket connected to the upper edge of the hollow base member, and a lip outwardly extending from the hollow base member at a point beneath the upper edge thereof, the periphery of said lip being upturned and terminating at a point below the upper edge of the hollow base member.

5. In a fixture of the class described the combination of a hollow base member having an upwardly extending flange, and having an outwardly projecting annular lip, the periphery of said lip being upturned and terminating in a plane beneath the upper edge of the flange, a plate seated upon and secured to the upper edge of the flange, there being a central perforation in said plate, and a socket entered within the perforation and depending into the body of the member and secured to the plate.

[Claims 6 and 7 not printed in the Gazette.]

1,141,638. HAMPER. EDWYN HILL, San Antonio, Tex. Filed July 10, 1914. Serial No. 850,201. (Cl. 150—49.)



1. A hamper comprising a container including a bottom, a rim member, and collapsible walls connecting them; props disposed within the container, hinged to the bottom, and having their free ends engageable with the rim member when the same is raised; and latches carried by the rim member and engageable with the free ends of the props to hold them in place.

2. A hamper comprising a container including a bottom, a rim member, and collapsible walls connecting them; props hinged to the bottom and having their free ends arranged to swing under the rim member when the rim member is raised; and latches pivoted to the rim member to swing over the free ends of the props.

3. A hamper comprising a container including a bottom, a rim member, and collapsible walls connecting them; props within the container and each including a pair of struts hinged to the bottom at the respective corners of the container, and a cross bar connecting the free ends of the struts and adapted to fit under the rim member when the rim member is raised; and latches carried by the rim member and engageable over the said cross bars to hold them in place.

1,141,639. SODA-ASH PROCESS. JULES HECTOR HIRT, El Paso, Tex. Filed Feb. 11, 1913. Serial No. 747,606. (Cl. 23—22.)

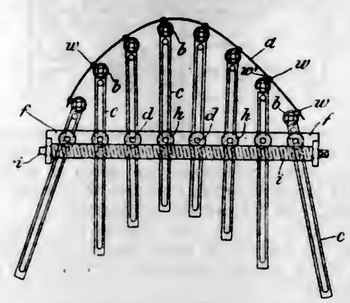
1. The process of making soda ash consisting in making sodium sulfid in hot, fluid state; granulating it in wet saw-dust; mixing it and wet saw-dust with raw limestone in excess and in subjecting the mixture of granulated sodium-sulfid, wet saw-dust, and raw limestone to heat which effects reaction of the constituents of said mixture rapidly and at about red heat.

2. The process of making soda ash, consisting in subjecting a mixture of sodium sulfid, wet saw-dust, and raw limestone to heat sufficient to effect reaction of the constituents rapidly at about red heat.

3. The process of making soda ash, consisting in flowing hot sodium sulfid into mixture with moist saw-dust and raw limestone in excess, and in heating the mixture to about red heat to effect chemical reaction.

4. In the process of making soda ash, the step consisting in flowing hot sodium sulfid into moist saw-dust to reduce the temperature of the sulfid below its spontaneous-ignition point.

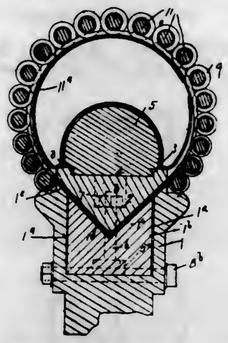
1,141,640. INSTRUMENT FOR COPYING AND MEASURING CURVED OUTLINES. PAUL DANIEL EDOUARD HUGUENIN, La Tour-de-Peilz, Switzerland. Filed July 14, 1914. Serial No. 850,851. (Cl. 33—176.)



1. An instrument for reproducing curved lines comprising a flexible band, guide arms hinged at their corresponding ends to said band, a rigid ruler, and means for simultaneously securing the said guide arms to said ruler after the position of the band has been determined.

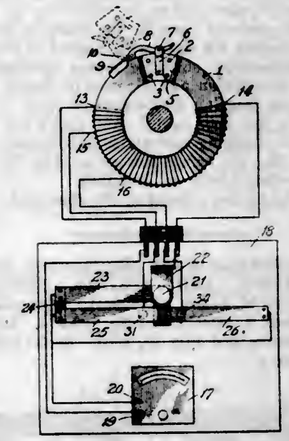
2. An instrument for reproducing curved lines comprising a steel band, a plurality of slotted guide arms, to the corresponding ends of which the said steel band is hinged, a rigid straight ruler, a plurality of screws passing through the slots of said guide arms and secured to the said ruler and corresponding in number to the said guide arms, a nut on each of the said screws, each nut being provided with a worm wheel, and a screw shaft mounted in the said ruler and with which the worm wheels of the said nuts mesh so that all the said nuts may be turned simultaneously to tighten or loosen the said guide arms relatively to the said ruler.

1,141,641. RESILIENT TIRE. EUGENE JACQUEMIN, Kent, Wash. Filed Apr. 1, 1914. Serial No. 828,925. (Cl. 152—8.)



In an article of the class described, the combination with an annularly grooved felly, of a plurality of wires arranged side by side, and each of which has convolutions adjacent to each other and which vary in size, the largest of which convolutions is at the midsection of the wire, the ends of each wire being formed into V shaped hooks, a circular and annularly recessed member fitted within the annular groove around the felly, and means for securing the said member to the felly, a second circular member which is V shaped and which fits within the annular recess in the first mentioned member and with which the V shaped hooks upon the said wires are adapted to engage, nut and bolt means for securing the said members to each other, whereby the said V shaped hooks are bound between the members, and a filler adapted to be passed along through the convolutions in the wires whereby each of the wires is held in place with respect to the others.

1,141,642. ELECTRICAL MEASURING APPARATUS. OTTO ALBRECHT KNOPP, Oakland, Cal., assignor to Pacific Gas & Electric Company, San Francisco, Cal., a Corporation of California. Filed Jan. 11, 1912. Serial No. 670,600. (Cl. 175—183.)



1. A portable measuring set for alternating current mains, comprising a magnetizable core having an opening in its side adapting it to slip over the main to envelop the same, said core carrying a continuous winding arranged in sections, an indicating instrument for connection with said winding to receive current therefrom, and a plurality of switch blades each electrically connected with said indicating instrument and means for connecting said blades to different points along said sectional winding to vary the range of the apparatus in accordance with the magnitude of the current flowing in said main.

2. A measuring apparatus for an alternating current conductor, said apparatus having a core with an opening in its side and adapted to slip over the conductor into inductive relation therewith with the main positioned centrally with respect to the core, said core carrying a continuous winding closely encircling the side of the core opposite said opening, said winding being arranged in sections, an indicating instrument connected with said winding, and a plurality of manually operative switch blades electrically connected to said instrument, and means for connecting said blades one after another to different points along said winding to vary the indicating range of the apparatus in accordance with the magnitude of the current carried by said conductor, said variations in range being effected by varying the number of active turns in said winding and one of said blades being affected by movement of any of the others.

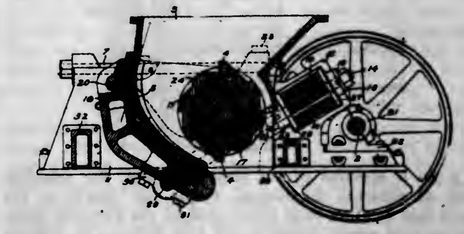
3. In a measuring apparatus, the combination of a ring shaped magnetizable core having two parts hinged together and adapted for opening up to receive at the center of the ring a conductor under measurement, a winding encircling one side of said core and arranged in sections, an indicating instrument arranged for connection with different points along said winding, and a plurality of manually operative spring blades electrically connected to said indicating instrument and operative to vary the quantity of current delivered from said winding to said indicating instrument, by shifting the point of connection with said winding one of said blades being moved out of contact when any of the others are depressed to shift connections.

4. In a measuring apparatus, the combination of a magnetizable core in two parts and carrying a winding, said core being adapted to open and slip over and symmetrically encircle a straight conductor to form a current transformer, an indicating instrument connected to receive current from the winding of said transformer, and three spring blades permanently connected with said indicating instrument one of said blades being normally in connection with an outer end of said winding and the other blades being movable into connection with intermediate points of said winding for quickly varying the number of transformer turns effective for sending current through said indicating instrument, said first-named blade projecting below the other blades and being movable thereby when either of them is depressed.

5. A portable cable-testing apparatus, comprising a magnetizable core of circular outline carrying a winding having two portions adapted for opening to symmetrically inclose a straight conductor, thereby forming a current transformer, an indicating instrument connected directly to one terminal of said winding, and switching means for shifting the connection for the other terminal of said instrument to different points along said winding while the instrument circuit remains closed in accordance with the magnitude of the current flowing in the conductor which is enveloped by the magnetizable core, said switch means comprising three spring blades permanently connected with one terminal of said instrument, one of said blades being normally in connection with an outer terminal of the winding on said core, said last-named blade having an extension projecting under the ends of the other blades, said other blades being each movable downward to establish connection with an intermediate point on said winding, this downward movement being effective to open the connection with the outer terminal by movement of the blade normally connected therewith.

[Claims 6 and 7 not printed in the Gazette.]

1,141,643. ROLL-CRUSHER. WILLIAM H. LIEBER, Milwaukee, Wis., assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis., a Corporation of Delaware. Filed June 23, 1913. Serial No. 775,971. (Cl. 83—14.)



1. In a crusher, a rotatable roll having a plurality of slugger knobs, means for positively rotating said roll, and an elastically restrained movable anvil having a curved crushing surface which gradually approaches and extends under said roll, the curvature of said anvil surface being such that the angle is obtuse opening toward the crusher discharge and formed between the leading end of a tangent to the roll surface passing through any point of the anvil surface and the tangent to the anvil surface at that point, and said anvil having corrugations at its inlet and extending along said anvil and in the direction of rotation of said roll.

2. In a crusher, a rotatable roll having a plurality of slugger knobs, means for positively rotating said roll, and an anvil having a curved surface which gradually approaches and extends under said roll, said anvil having corrugations at its upper end extending in the direction of rotation of said roll and the curvature of said anvil surface being such that the angle is obtuse opening to-

ward the crusher discharge and formed between the leading end of a tangent to the roll surface passing through any point of the anvil surface and the tangent to the anvil surface at that point.

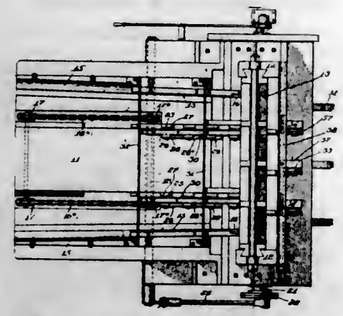
3. In a crusher, a rotatable roll, and an anvil having a curved crushing surface which begining at a point above said roll gradually approaches and extends under said roll, the supper end of said anvil having corrugations extending in the direction of rotation of said roll and the curvature of said anvil crushing surface being such that the angle is obtuse opening toward the crusher discharge and formed between the leading end of a tangent to the roll surface passing through any point of the anvil surface and the tangent to the anvil surface at that point.

4. In a crusher, a rotatable roll, and an anvil having a crushing surface adjacent said roll, the upper portion of said anvil surface having corrugations extending in the direction of rotation of said roll and being so shaped that the angle is obtuse opening toward the crusher discharge and formed between the leading end of a tangent to the roll surface passing through any point of the anvil surface and the tangent to the anvil surface at that point.

5. In a crusher, a rotatable roll, an anvil having a crushing surface adjacent said roll, the shape of the upper portion of said anvil surface being such that the angle is obtuse opening toward the crusher discharge and formed between the leading end of a tangent to the roll surface passing through any point of the anvil surface and the tangent to the anvil surface at that point, and common means for elastically restraining movement of the lower end of said anvil both toward and away from said roll.

[Claims 6 to 23 not printed in the Gazette.]

1,141,644. METAL-SHEARING MACHINE. CHARLES D. MCDONALD, Chicago, Ill., assignor to McDonald Machine Co., Chicago, Ill., a Corporation of Illinois. Filed May 18, 1914. Serial No. 839,408. (Cl. 164—48.)



1. In a machine of the class described, the combination of shearing mechanism, means for advancing the work into position to be acted upon by the shearing mechanism, said means acting in the first instance to position the work with respect to the shearing mechanism to trim an edge thereof and acting upon each subsequent movement to position the work whereby a blank of predetermined width is formed and the same shearing mechanism acting to produce both the trimming and blank forming cuts, substantially as described.

2. In a machine of the class described, the combination of shearing mechanism, means for advancing the work into position to be acted upon by the shearing mechanism, said means acting initially to position the work with respect to the shearing mechanism to trim an edge thereof and acting at each subsequent operation to position the work to produce a blank of predetermined width, and means independent of the feeding means for centering the work with respect to the shearing mechanism prior to each shearing operation, substantially as described.

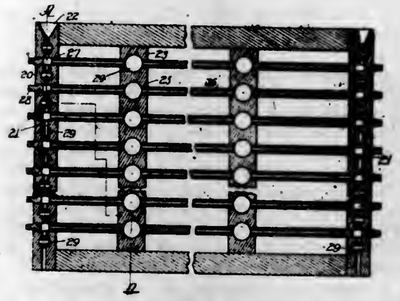
3. In a machine of the class described, the combination of shearing mechanism, means for advancing the work into position to be operated on by the shearing mechanism, means for centering the work with respect to the shearing mechanism comprising shiftable means arranged beyond the shearing mechanism and shiftable means arranged in front of the shearing mechanism, and means for adjusting the position of the front shiftable means, substantially as described.

4. In a machine of the class described, the combination of shearing mechanism, means for feeding the work into position to be acted upon by the shearing mechanism, means for centering the work with respect to the shearing mechanism comprising tension influenced means beyond the shearing mechanism and coöperating means in front of the shearing mechanism, said latter means comprising gravity actuated fingers, a mounting for said fingers, and means for adjusting the mountings toward and from the shearing mechanism, substantially as described.

5. In a machine of the class described, the combination of shearing mechanism, means for advancing the work into position to be operated upon by the shearing mechanism, means for centering the work with respect to the shearing mechanism comprising shiftable means arranged beyond the shearing mechanism and a series of fingers arranged in front of the shearing mechanism, a plate for each of said fingers, a bar upon which said plates are mounted, and means for adjusting said plates longitudinally of said bar whereby they are moved toward or from the shearing mechanism, substantially as described.

[Claims 6 to 18 not printed in the Gazette.]

1,141,645. INTERLOCKING MECHANISM FOR VOTING-MACHINES AND SIMILAR STRUCTURES. JOHN HOWARD MCELROY, Chicago, Ill. Original application filed Sept. 2, 1899, Serial No. 729,274. Divided and this application filed July 13, 1904. Serial No. 216,309. (Cl. 235—55.)



1. In a device to prevent the simultaneous operation of more than a certain number of keys, the combination with a fluid-tight reservoir having a certain capacity for a fluid of a series of push keys whose ends in one position pass into the reservoir to diminish the capacity of the reservoir for the fluid when a key is operated as compared with its capacity when the key is unoperated.

2. In a device to prevent simultaneous operation of more than a certain number of keys, the combination with a fluid-tight reservoir having a certain capacity for a fluid, said reservoir having series of cylinders opening therein, of a series of movable keys coöperating therewith and provided with pistons operating in said cylinders to diminish the capacity of the reservoir for the fluid when a key is operated as compared with its capacity when the key is unoperated, said pistons being rigidly connected with and constituting parts of said keys.

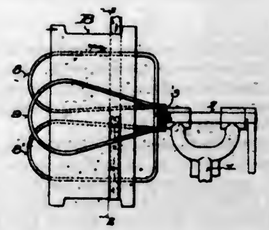
3. In a device to prevent the simultaneous operation of more than a certain number of keys, the combination with a fluid-tight reservoir having a certain capacity for a fluid, of a series of movable keys coöperating therewith, connections between said keys and a reservoir whereby a key in one position diminishes the capacity of the reservoir for the fluid as compared with its capacity when the key is in the other position, and means other than the keys for regulating the capacity of the reservoir comprising one or more screw-threaded bolts which pass into said reservoir.

4. In a device to prevent the simultaneous operation of more than a certain number of keys, the combination with a plurality of fluid-tight reservoirs having a certain capacity for a fluid, of corresponding plural series of movable keys coöperating therewith, connections between each series of said keys and its associated reservoir whereby a key in one position diminishes the capacity of the reservoir for the fluid as compared with its capacity when the key is in another position, and means for connecting and disconnecting adjacent reservoirs at will to organize single-candidate and multi-candidate groups as may be desired, comprising two channels between each parallel adjacent reservoir located at the ends thereof, and a stop cock located in each of said channels to open or close it as may be desired, the channels at one end serving to permit the entrance of the fluid to the reservoirs while the other serves to permit the escape of the air therefrom.

5. In a device to prevent the simultaneous operation of more than a certan number of keys, the combination with a fluid-tight reservoir having a certain capacity for a fluid of a series of push keys whose ends pass into the reservoir and against the wall thereof when in their operative position, to diminish the capacity of the reservoir for the fluid as compared with its capacity when the key is unoperated.

[Claims 6 to 20 not printed in the Gazette.]

1,141,646. WINDING-MACHINE FOR RIBBONS, LACES, OR THE LIKE. ERNEST J. MARCOUILLER, Oconto Falls, Wis. Filed Mar. 23, 1914. Serial No. 826,624. (Cl. 242—61.)

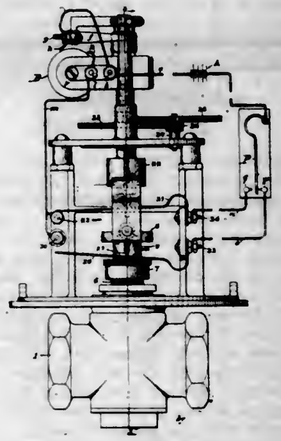


A winding machine attachment comprising a head having a hub for attachment to said winding machine, the head being formed from flexible wire extending from the hub the said wire being folded upon itself to form outer longitudinally disposed card-engaging loops, and an intermediate loop, the side stretches of which overlap the inner side stretches of the outer loops.

1,141,647. MEANS FOR CONTROLLING FLOW OF FLUIDS. LAWRENCE A. MERK, Pittsburgh, Pa., assignor of one-half to James Hay, Pittsburgh, Pa. Filed Nov. 24, 1909. Serial No. 529,730. (Cl. 236—4.)

1. A device for controlling the flow of fluids, including a valve formed with a stem, a frame, a yoke formed with resilient arms and mounted upon the frame, means for moving the yoke in a direction substantially parallel to the axis of the valve stem, and toggle members disposed between the valve stem and the resilient arms of the yoke, the said toggle members being adapted to be thrown into and out of alinement with each other by the movement of the yoke and the resiliency of the arms of the yoke coöperating with the toggle members to snap the valve open or shut according to the direction in which the yoke is moving.

2. A device for controlling the flow of fluids, including a valve formed with a stem, a frame, a motor upon the frame, a yoke formed with resilient arms, means actuated by the motor for moving the yoke in a direction substantially parallel to the axis of the valve stem, toggle members disposed between the valve stem and the arms of the yoke, the said toggle members having a spring action due to the resiliency of the arms of the yoke and being adapted to be thrown into and out of alinement with each other by the movements of the yoke to produce a quick opening and closing of the valve, and automatic means for controlling the motor.



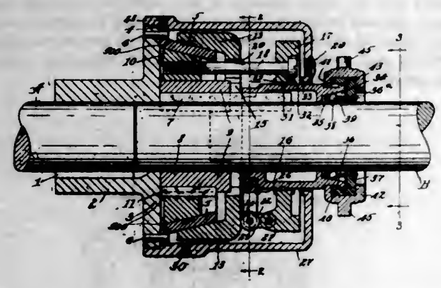
3. A device for controlling the flow of fluids, including a valve formed with a stem, a frame, an electric motor upon the frame, a yoke, means actuated by the motor for moving the yoke in a direction substantially parallel to the axis of the valve stem, toggle members disposed between the valve stem and the arms of the yoke, the said toggle members having a spring action and being adapted to be thrown into and out of alinement with each other by the movements of the yoke so as to produce a quick opening and closing of the valve, contacts controlling the flow of current to the electric motor, means carried by the valve stem for engaging the contacts, current being shut off from the motor when the valve is actuated and the said contact engaging means of the valve stem is moved from engagement with one contact to engagement with the opposite contact, and means for starting the motor when the said contact engaging means of the valve stem is in engagement with either of the contacts.

4. In a mechanism of the character described, the combination of a motor, a frame, a shaft supported in said frame and adapted to be driven by said motor, a yoke supported on said shaft, a valve having a stem, the upper end of which is connected to a block, oppositely projecting fingers carried on said block, toggle members disposed between said block and the dependent ends of said yoke and adapted to be thrown upwardly and downwardly out of the horizontal with a quick movement by the movement of said yoke, contacts adapted to be actuated by the fingers carried by said block, and electric circuits to said motor.

5. A device for controlling the flow of fluids, including a valve formed with a stem, a frame, a motor upon the frame, a shaft adapted to be driven by the motor, a yoke supported by said shaft, means actuated by the rotation of the shaft for imparting a reciprocating movement to the yoke, a block upon the valve stem, toggle members disposed between said block and the ends of the yoke, the said toggle members having a spring action and being adapted to be thrown into and out of alinement with each other by the movements of the yoke to produce a quick opening and closing of the valve, means actuated by the movements of the valve for stopping the motor when the valve is moved from one position to the opposite position, and means for starting the motor.

[Claims 6 to 9 not printed in the Gazette.]

1,141,648. CLUTCH. CLYDE B. MITCHELLA, Akron, Ohio, assignor of one-half to William A. Heaney, Akron, Ohio. Filed Dec. 18, 1913. Serial No. 807,372. (Cl. 192—7.)



1. The combination with a driving and a driven element, of a frusto-conical shell carried by one element, a pair of clutch members movably carried by the other element and each having a tapered face that is arranged to engage one of the tapered faces of the shell, a member reciprocable with respect to the last mentioned element, connections between the reciprocating member and the clutch members for moving said clutch members in opposite directions and into engagement with said shell, and means coöperating with the last mentioned element and the reciprocating member for locking the reciprocating member against movement when the clutch members are in engagement with the aforesaid shell.

2. The combination with a driving and a driven element, one of said elements comprising a shaft, a pair of clutch members which are carried by and are slidable with respect to the shaft, an intermediate clutch member which is carried by the other element and adapted to be engaged on its opposite sides by the former members, a sleeve slidable upon the shaft adjacent one of the slidable clutch members, a body movable toward and away from this last mentioned clutch member, means for connecting the other slidable clutch member with the body, means for separating the body and the adjacent clutch member, and further means for locking said parts in separated position.

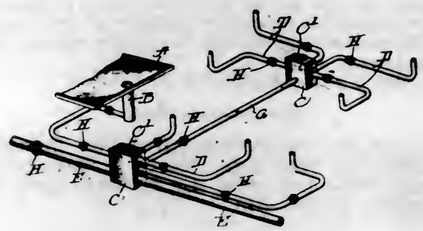
3. The combination with a driving and a driven element, one of said elements comprising a shaft, a pair of clutch members carried by and slidable with respect to the shaft, an intermediate clutch member which is carried by the other element and adapted to be engaged on its opposite sides by the former members, a sleeve slidable upon the shaft adjacent one of the slidable clutch members, a body movable toward and away from the last mentioned clutch member, means connecting the other slidable clutch member with the body, means for separating the body and the adjacent clutch member, said means comprising links which are pivoted to the body, friction rollers carried by the free ends of the links for engagement with the adjacent clutch member, and further links which connect said free ends of the former links with the end of the sleeve.

4. The combination with a driving and a driven element, one of said elements consisting of a shaft, of a clutch which comprises a head, a frusto-conical shell which is carried thereby, an inner clutch member which is carried by and is slidable with respect to the shaft and which has a tapered face for engagement with the inner face of the shell, an outer clutch member slidable upon the shaft and having a portion overhanging the shell which is tapered for coöperation with its outer face, a sleeve slidably mounted upon the shaft adjacent the last mentioned clutch member, an annulus slidable upon said sleeve, means connecting the annulus with the inner clutch member, and means actuated upon the movement of the sleeve for separating the annulus and the outer clutch member.

5. The combination with a driving and a driven element, one of said elements consisting of a shaft, of a clutch which comprises a head, a frusto-conical shell which is carried thereby, an inner clutch member which is carried by and is slidable with respect to the shaft and which has a tapered face for engagement with the inner face of said shell, an outer clutch member slidable upon the shaft and having a portion overhanging the shell which is tapered for coöperation with its outer face, a sleeve slidably mounted upon the shaft adjacent the last mentioned clutch member, an annulus slidable upon said sleeve and having a series of ears, connections between the annulus and the inner clutch member, links pivoted to the ears of the annulus, anti-friction devices carried by the free ends of the links and adapted to traverse the adjacent surface of the outer clutch member, and links connecting the free ends of the former links to the end of the sleeve.

[Claims 6 to 11 not printed in the Gazette.]

1,141,649. OIL-DRIP-RETURN SYSTEM. WILLIAM L. MORRIS, Fort Wayne, Ind., assignor to S. F. Bowser & Co., Inc., Fort Wayne, Ind., a Corporation of Indiana. Filed Feb. 14, 1912. Serial No. 677,606. (Cl. 184—106.)



1. An oil drip return system comprising a return main, a junction box connected in series in the return main, drain pipes, group manifolds to which some of the drain pipes are connected, and means connecting each group manifold with a junction box.

2. An oil drip return system comprising a return main, junction boxes in series in the return main, lateral pipes leading from the junction boxes, group manifolds connected to the lateral pipes, and drain pipes, some of which lead to the group manifold, and others to the main junction boxes.

3. An oil drip return system comprising a plurality of independent groups, oil drains, each of which communicates with a separate source of oil drippings, a common manifold for each of said groups, a return main, junction boxes in series with the return main, an individual pipe leading from each manifold at a point below the entrance thereto of said drains to one of the junction boxes and normally adapted to maintain said manifold substantially drained of its contents, and a closure for each manifold and junction box whereby access may be had to the interior thereof.

4. An oil drip return system comprising a return main, a junction box connected in series with the main, a plurality of individual oil drains communicating with and adapted to receive oil drippings from a plurality of separate sources, and a manifold for the individual oil drains connected with a junction box, the drains and the return main having sufficient pitch to cause the oil to flow therethrough by gravity.

5. An oil drip return system comprising a plurality of groups of oil drains, a manifold junction box for each group, another junction box connected with the manifold junction box of each group, a common return main in series with one or more junction boxes adapted to drain the oil from the junction boxes as fast as it is delivered thereto from the manifold junction boxes, and removable covers for the junction boxes above the points where the oil enters.

[Claims 6 to 11 not printed in the Gazette.]

1,141,650. JACK HAMMER-DRILL. SAMUEL OLDHAM, Philadelphia, Pa. Filed Sept. 16, 1914. Serial No. 861,978. (Cl. 121—20.)



1. In a fluid-actuated impact tool, a tool socket, a sleeve adapted to be rotated and reciprocated and to engage said tool socket, and pneumatic means for actuating said sleeve alternately into and out of engagement with said tool socket.

2. In a fluid-actuated impact tool, a tool socket, a sleeve adapted to be rotated and reciprocated and to interlock with said tool socket, means for rotating said sleeve, and pneumatic means for actuating said sleeve alternately into and out of engagement with said tool socket to actuate the same.

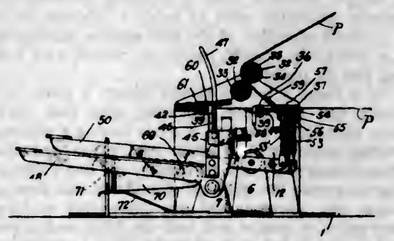
3. In a fluid-actuated impact tool, a drilling or boring implement, a tool socket therefor, a sleeve adapted to be rotated and reciprocated and to engage said tool socket, and pneumatic means for actuating said sleeve alternately into and out of engagement with said tool socket to actuate the same.

4. In a fluid-actuated impact tool, a drilling or boring implement, a tool socket therefor having ratchet teeth thereon, a sleeve adapted to be rotated and reciprocated and provided with ratchet teeth in engagement with the teeth of said tool socket, and pneumatic means for actuating said sleeve alternately into and out of engagement with said tool socket.

5. The combination of a cylinder, a plunger therein, a tool socket, a sleeve, interlocking devices common to said socket and sleeve, air actuated plugs bearing on said sleeve, means for effecting the rotation of said sleeve and socket, and means for admitting fluid pressure to said plugs.

[Claims 6 to 11 not printed in the Gazette.]

1,141,651. TYPE-WRITING MACHINE. JAMES J. O'REGAN, Woodhaven, N. Y. Filed Sept. 3, 1914. Serial No. 859,953. (Cl. 197—6.)



1. In a typewriter, a frame comprising a base and a carriage bed fixed thereto, a carriage supported on said bed for reciprocation, paper-feeding mechanism supported by said carriage, a platen carried by said carriage and fixed relatively thereto, means for guiding the paper at its edges and faces over said platen and impression-making mechanism pivotally mounted on said base and operatively positioned relatively to said platen.

2. In a typewriter, a frame comprising a base and a carriage bed fixed thereto, a carriage supported on said bed for reciprocation, a paper-feeding mechanism supported by said carriage, a platen carried by said carriage, means for guiding the paper between said bed and said platen and impression-making mechanism pivotally mounted on said base and operatively positioned relatively to said platen.

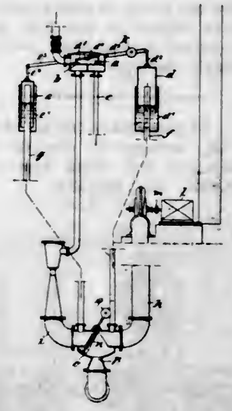
3. In a typewriter, a base plate, a carriage bed, one of said members having a resilient flange, means on said flange for engaging said other member to hold the members together, said means being held in operative relation by the resilience of said flange.

4. In a typewriter, a frame comprising a base plate and a carriage bed, said base and bed having interlocking parts, and said base being resilient whereby said parts may be sprung into interlocked relation and held in that position by the resilience of the bed.

5. In a typewriter, a frame comprising a base and a carriage bed, said bed comprising a top and resilient supporting pieces, said base and pieces having interlocking parts and being held in interlocked position by the resilience of said pieces.

[Claims 6 to 27 not printed in the Gazette.]

1,141,652. BLOWING SYSTEM FOR FURNACES. HEINRICH POETTER, Dusseldorf, Germany. Filed May 8, 1914. Serial No. 837,210. (Cl. 230—32.)



1. In a furnace installation the combination of a blowing device adapted to be driven by power with a second blowing device adapted to be actuated by a steam jet, means, whereby upon the failure of power supply to the first mentioned blowing device, steam can be automatically supplied to the second blowing device, thereby maintaining the blast, and blast pipes leading from said blowing devices to a common blast delivery pipe.

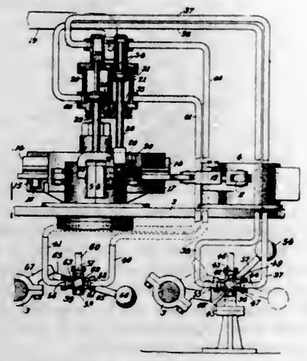
2. In a furnace installation the combination of a blowing device adapted to be driven by power with a second blowing device adapted to be actuated by a steam jet, means whereby, upon the failure of power supply to the first mentioned blowing device, steam can be automatically supplied to the second blowing device thereby maintaining the blast, blast pipes leading from said blowing devices to a common blast delivery pipe and at the junction of said blast pipes and delivery pipe, a flap valve adapted, when subject to excess of pressure in one of the blast pipes to close the passage between the other blast pipe and the delivery pipe.

3. In a furnace installation, the combination of a blowing device adapted to be driven by power with a second blowing device adapted to be actuated by a steam jet, a valve chamber, a steam pipe communicating therewith, a lever mounted to oscillate within said valve chamber and connected to a shaft extending to the exterior of said chamber, valves carried by the arms of said lever, one of said valves being adapted when unseated to supply steam to the blast from the first mentioned blowing device and the other of them when unseated to supply steam to said jet, seats for said valves within said chamber, a second lever connected to said shaft externally of said chamber, bells carried by the arms of said second lever, cisterns containing liquid, wherein said bells are partially immersed, blast pipes leading from said blowing devices

to a common blast delivery pipe, at the junction of said blast pipes and delivery pipe, a flap valve adapted, when subject to excess of pressure in one of the blast pipes, to close the passage between the other blast pipe and the delivery pipe, and pipes connecting said blast pipes with the interiors of said bells above the level of liquid in said cisterns.

4. In a furnace installation, the combination of a blowing device adapted to be driven by power with a second blowing device adapted to be actuated by a steam jet, a valve chamber, a steam pipe communicating therewith, a lever mounted to oscillate within said valve chamber and connected to a shaft extending to the exterior of said chamber, valves carried by the arms of said lever; one of said valves being adapted when unseated to supply steam to the blast from the first mentioned blowing device and the other of them when unseated to supply steam to said jet, seats for said valves within said chamber, a second lever connected to said shaft externally of said chamber, a counterweight on said second lever, and means adapted to raise said lever and counterweight when the first mentioned blowing device is operative, but to allow said lever to descend under the action of said weight when the said blowing device is inoperative, the first mentioned lever and the valves carried thereby being thus simultaneously and correspondingly operated.

1,141,653. GLASS-MOLD LOCK. JULIUS PROEGER, Pittsburgh, Pa., assignor of one-half to Charles N. Brady, Washington, Pa. Filed Sept. 24, 1913. Serial No. 791,465. (Cl. 49—42.)



1. In a lock for glass molds the combination of a fork adapted to engage portions of the mold, having arms fixed in relation to each other, a locking device connected with said fork, and automatic means for causing the said fork to engage portions of said mold and for operating said locking device.

2. A glass mold lock, comprising a fork adapted to embrace portions of the mold, a screw in one arm of said fork, and means for successively causing the said fork to embrace portions of the mold and for tightening the said screw.

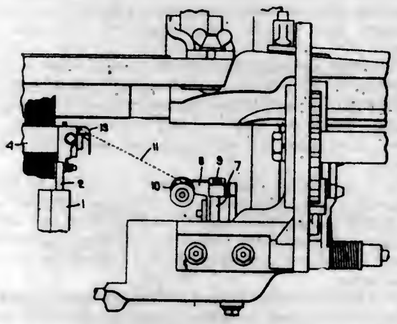
3. A glass mold lock comprising two arms, means for causing the said arms to embrace portions of the mold, a secondary locking device connected with one of the said arms, and automatic means for operating the said secondary locking device.

4. A glass mold lock comprising two arms adapted to embrace portions of the mold, means for bringing the said arms into fixed position in relation to said mold, an additional locking device connected with one of the said arms, and automatic means for operating the said locking device.

5. The combination of a mold table, a driving shaft, means connected with said driving shaft to cause the mold table to rotate intermittently, divided molds on said table, projections on said molds, two arms adapted to engage said projections, a secondary locking device connected with one of said arms, and means connected with said driving shaft to cause the said arms to engage the projections on one of the molds and to operate said secondary locking device to hold the mold closed during a portion of the time that the mold is in pressing position.

[Claims 6 and 7 not printed in the Gazette.]

1,141,654. GUIDE FOR THREAD-CUTTING TEMPLES. ALONZO E. RHOADES, Hopedale, Mass., assignor to Draper Company, Hopedale, Mass., a Corporation of Maine. Filed Sept. 10, 1914. Serial No. 861,145. (Cl. 139—85.)



1. In a loom, a temple, a thread cutter carried thereby, means for carrying the filling end forwardly, a pair of vertically separated guides on said temple provided with laterally and forwardly extending guiding edges to guide the filling end into the field of action of said cutter, the lower of said guides having therein a forwardly opened notch to receive and hold the filling end in position.

2. In a loom, a temple, a thread cutter carried thereby, means for carrying the filling end forwardly, a pair of vertically separated guides on said temple provided with laterally extending divergent guiding edges to guide the filling end into the field of action of said cutter, the lower of said guides having therein a forwardly open notch to receive and hold the filling end in position.

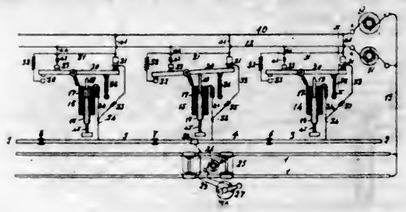
3. In a loom, a temple, a thread cutter carried thereby, means for carrying the filling end forwardly, a guide on said temple provided with a laterally, downwardly and forwardly extending edge to guide a released filling end into the field of action of the said shuttle, said guide having a forwardly opened notch to receive and hold the filling end in position.

4. In a loom, a temple thread cutter, a guide having a laterally and forwardly extending edge just above the cutting plane of the cutter, a guide having a guiding edge extending laterally just below said plane and then extending downwardly and forwardly, the two guiding edges acting to insure the guiding of a filling end into cutting position, the lower guide also presenting a forwardly opened notch to receive and hold the filling end in position.

5. In a loom, a temple thread cutter, a guide having a guiding edge extending laterally just below the cutting plane of the said cutter and then extending downwardly and forwardly to direct a filling end into cutting position, said guide being also provided with a forwardly opened notch to receive and hold the filling end in position.

1,141,655. ELECTRIC-RAILWAY SYSTEM. WILLIAM ROBINSON, Brooklyn, N. Y. Filed Aug. 1, 1904. Serial No. 219,057. (Cl. 191—17.)

1. In an electric railway system, a working current feeder, a working or contact conductor normally disconnected therefrom, a low potential feeder, a circuit instrument comprising a solenoid or magnet provided with a single continuous winding, a switch under control thereof, one terminal of said solenoid being normally disconnected from said working current feeder and connected, through said switch, to the low potential feeder, and means coöperating with said switch and solenoid for disconnecting said low potential feeder from said solenoid and connecting the working current feeder thereto, on closing circuit through said solenoid.

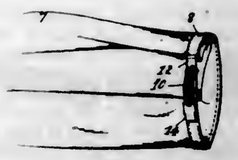


2. In an electric railway system, a working current feeder, a working or contact conductor normally disconnected therefrom, a low potential current feeder, a circuit instrument embodying a solenoid or magnet provided with a continuous winding and having one terminal electrically connected to said working conductor and the other to said low potential feeder, means under control of said solenoid or magnet for disconnecting said low potential feeder from said solenoid and connecting the working current feeder to said working or contact conductor on closing circuit through said solenoid, whereby said solenoid will control the transmission of working current to a train which may be on the section of working conductor with which said solenoid is connected.

3. In an electric railway system, a working current feeder, an auxiliary feeder carrying current of lower potential than the working current, a working conductor, a switch magnet having one terminal connected to said working conductor and the other connected normally to said auxiliary feeder through the switch controlled by said switch magnet, means for disconnecting the auxiliary feeder from said switch magnet, and connecting the working current feeder to said working or contact conductor in parallel to said switch magnet on closing circuit between said switch magnet and its return.

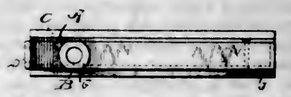
4. In an electric railway system, the combination of a working or high potential current feeder, a working or contact conductor normally disconnected therefrom, a low potential current feeder, a circuit instrument including a solenoid or magnet having one terminal connected electrically to said working conductor, and the other normally connected electrically to said low potential feeder, and means under control of said solenoid for disconnecting said low potential feeder from said solenoid, and connecting the working current feeder to said working conductor.

1,141,656. ADJUSTABLE SLEEVE-PROTECTOR. SAMUEL ROSENBAUM and BENATT FINKELSTEIN, Los Angeles, Cal. Filed Aug. 19, 1913. Serial No. 785,498. (Cl. 2—95.)



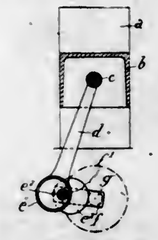
A sleeve protector, comprising a fabric body member, a continuous non-elastic band of tape on one end of said body member, an elastic band secured to said tape and extending parallel therewith, a metallic loop on the tape spaced from the connection between the tape and the elastic band through which said elastic band passes, and a hook mounted on the end of the elastic band adapted to engage with the non-elastic tape.

1,141,657. FUEL-SAVING DEVICE. ERNST SCHAEFER, Scranton, Pa., assignor, by mesne assignments, to George E. Pettey, Memphis, Tenn. Filed Sept. 30, 1912. Serial No. 723,109. (Cl. 126—15.)



An air feeding device comprising two plates spaced apart to form a heating chamber, inlet and discharge openings therefor, and members angular in cross section on the inner side of each plate extending into close proximity to the opposite plate arranged in overlapping relation to each other forming a flat tortuous air passage.

1,141,658. INTERNAL-COMBUSTION ENGINE. WALTHER SCHMIED, Geneva, Switzerland. Filed Nov. 2, 1910. Serial No. 590,310. (Cl. 123—78.)



1. In a four cycle internal combustion engine, and in combination, a cylinder, a piston, a connecting rod secured at one end to the piston, a crank, a crank pin, and an eccentric on the crank pin and to which the opposite end of the connecting rod is secured, the said eccentric being loosely mounted on the said crank pin and unassociated with any mechanical parts, except the connecting rod and crank pin, so that by the action of centrifugal force it automatically changes its position in the operation of the engine to lengthen the piston travel during the exhaust and suction strokes, and to shorten the piston travel to its normal length during the compression and expansion strokes, the latter action being effected by the pressure exerted against the piston during these last named strokes.

2. In a four cycle internal combustion engine, and in combination, a cylinder, a piston, a connecting rod secured at one end to the piston, a crank, a crank pin, and an eccentric on the crank pin and to which the opposite end of the connecting rod is secured, and a counter-weight connected to the said eccentric, the said eccentric being loosely mounted on the said crank pin and unassociated with any mechanical parts, except the connecting rod and crank pin, so that by the action of centrifugal force it automatically changes its position in the operation of the engine to lengthen the piston travel during the exhaust and suction strokes, and to shorten the piston travel to its normal length during the compression and expansion strokes, the latter action being effected by the pressure exerted against the piston during these last named strokes.

1,141,659. WEEDER. ELTON H. SCOTT, Somerville, Mass. Filed May 27, 1914. Serial No. 841,372. (Cl. 55—65.)

1. A weeder having, in combination, a handle, and a plurality of parallelly arranged prongs projecting from one end of said handle, the extremities of said prongs having outwardly and inwardly inclined beveled faces, said inwardly inclined faces being of less area and extent than said outwardly inclined faces whereby the points of said prongs will each lie outside of a plane containing the median axial line of its prong.

2. A weeder having, in combination, a handle, a plurality of parallelly arranged prongs projecting from one end of said handle, a footpiece on said handle by means of which said prongs may be moved to penetrate the earth, said prongs having outwardly and inwardly inclined faces of large and small areas respectively at their extremities whereby the extremity of each prong will lie intermediate a plane containing the median axial line of its prong and the outer faces thereof, said outwardly inclined faces being adapted to cause a divergence of the free ends of the prongs during the penetration of the earth by said prongs, said inwardly inclined faces being adapted to retard the diverging of said prongs.



3. A weeder having, in combination, a handle, a plurality of parallelly arranged prongs projecting from one end of said handle, the outer extremities of said prongs having outwardly inclined beveled faces, said outer extremities of said prongs also having inwardly inclined beveled faces of substantially less area and extent than said outwardly inclined faces whereby the extremity of each prong will lie intermediate a plane containing the median axial line of its prong and the outer face thereof, and a footpiece slidable longitudinally of said prongs adapted to be moved by foot pressure to remove the weeds from said prongs.

4. A weeder having, in combination, a handle, a plurality of prongs projecting from one end of said handle, the free ends of said prongs having outwardly inclined beveled faces, a footpiece arranged to slide longitudinally of said prongs to remove weeds therefrom, and a footpiece on said handle by means of which said prongs may be forced into the earth, said latter footpiece constituting a stop for said movable footpiece.

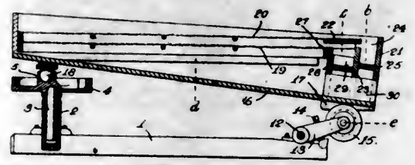
5. A weeder having, in combination, a handle, a plurality of prongs projecting from one end of said handle, the free ends of said prongs having outwardly inclined beveled faces, a wire frame interlocking with said prongs, a portion of the wire thereof extending upwardly and encircling said handle, and a footpiece on said frame by means of which weeds may be removed from said prongs.

[Claim 6 not printed in the Gazette.]

1,141,660. SIFTING-MACHINE. LOWE E. SIMPSON, Cincinnati, Ohio, assignor to The Orville Simpson Company, Cincinnati, Ohio. Filed Feb. 3, 1915. Serial No. 5,821. (Cl. 83—56.)

1. A sifting machine comprising, a sieve-box, a pair of wheels disposed below the tail end of the sieve-box, shoes carried by the sieve-box and bearing on the treads of the wheels, mechanism for gyrating the head end of the sieve-box, and means for vertically adjusting said wheels independently of each other to modify the longitudinal and transverse declination of the sieve-box, combined substantially as set forth.

2. A sifting machine comprising, a sieve-box, mechanism for supporting and gyrating its head end, a pair of pivoted arms disposed below the tail end of the sieve-box on axes transverse to the screen, wheels carried by these arms on axes transverse to the screen and supporting the tail end of the sieve-box, and set-screws for angularly adjusting the arms independently of each other to raise and lower the tail end of the sieve-box, combined substantially as set forth.



3. A sifting machine comprising, a vertical bearing, a crank having a shaft journaled in said bearing and having in its upper portion a spherical crank-socket, means for supporting said crank, mechanism for rotating said crank, a sieve-box having its head end disposed over said crank, a spherical crank-pin carried by the sieve-box and engaging said socket and supporting the head of the screen, and means for supporting and guiding the tail end of the sieve-box, and adjusting its two sides independently, combined substantially as set forth.

4. A sifting machine comprising, a vertical bearing, a crank-shaft journaled in said bearing, a crank-disk on the upper end of said shaft and provided with a spherical crank-socket and with a plain lower surface, a driving-shaft disposed radially to said crank-shaft, a friction-disk secured to said driving-shaft and engaging the lower surface of the crank disk and adjustable along the driving shaft, a sieve-box having its head end disposed over and supported by said crank-disk, a spherical crank-pin carried by the sieve-box and engaging said socket, and means for supporting and guiding the tail end of the sieve-box and adjusting its two sides independently, combined substantially as set forth.

5. A sifting machine comprising, a vertical bearing, a crank-shaft journaled and slidable therein, a crank-disk carried by the upper end of said crank-shaft and having in its upper portion a spherical crank-socket and having a plain lower surface, a driving-shaft disposed radially to the crank-shaft, a friction-disk carried by the driving-shaft and engaging the plain surface of the crank-disk, a sieve-box having its head end disposed over and supported by the crank-disk, a spherical crank-pin carried by the sieve-box and engaging said socket, means for supporting and guiding the tail end of the sieve-box and adjusting its two sides independently, a vertically moving member disposed below said crank-disk and adapted to elevate the head of the screen and raise the disk out of contact with the friction disk, and hand-operated mechanism for raising and lowering said vertically movable member, combined substantially as set forth.

[Claim 6 not printed in the Gazette.]

1,141,661. COLLAPSIBLE ICE-CREAM BOX. BERNHARDT SMYLE and CHARLES SMYLE, Brooklyn, N. Y. Filed Aug. 24, 1914. Serial No. 858,286. (Cl. 229—26.)

1. A collapsible box having a bottom, sides, a front and a back all connected together, and having a single tongue and slot connection adapted to hold all of said parts in the shape of a box while the box is open at the top, comprising two registering slots and a single tongue fitting into the slots.

2. A collapsible box having a bottom, sides, a front and a back all connected together, and having a single tongue and slot connection adapted to hold all of said parts in the shape of a box while the box is open at the top, comprising two registering slots and a single tongue fitting into the slots, the tongue being attached to the front.

3. A collapsible box having a bottom, sides, a front and a back all connected together and having a single tongue and slot connection adapted to hold all of said parts in the shape of a box, comprising a plurality of overlapping front flaps having slots and a tongue passing through said slots.

4. A collapsible box having a bottom, sides, a front and a back all connected together and having a single tongue and slot connection adapted to hold all of said parts in the shape of a box, comprising a plurality of overlapping front flaps having slots and a tongue passing through said slots, said tongue being located on the front.

5. A collapsible box having a bottom, sides, a front, a back all connected together and having a single tongue and slot connection adapted to hold all of said parts in the shape of a box, comprising front flaps having slots and a tongue passing through said slots, and a top having a tongue also fitting in said slots.

[Claims 6 to 9 not printed in the Gazette.]

1,141,662. TOILET-BRUSH. WILLIAM H. BRIDGES, Grand Rapids, Mich. Filed June 8, 1914. Serial No. 843,776. (Cl. 15—30.)

In a toilet brush, a channeled frame, a revoluble bristle holders pivotally mounted in said frame, bristles mounted on said holders, gear teeth formed on one side of said holders; a slide having openings to receive said teeth, slidingly mounted in the frame, said frame having a slot through the back, a handle on the slide projecting through said slot, a latch pivotally mounted on the back of the frame in position to be made to engage the handle and lock the slide in desired positions.

1,141,663. APPAREL-BELT. WILLIAM A. JACOBSON, Paterson, N. J., assignor to Novelty Manufacturing Company, Paterson, N. J., a Corporation of New Jersey. Filed Jan. 8, 1915. Serial No. 1,066. (Cl. 241—8.)

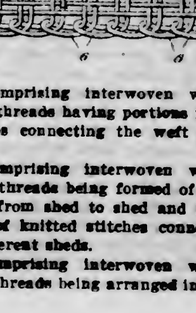


1. An apparel belt including an elongated casing member having longitudinal marginal folds formed in a different thread-arrangement from that of the intervening longitudinal part of said member and also including a stiff flat lining member incased in said casing member and having its margins snugly occupying said folds.

2. An apparel belt including an elongated casing member having longitudinal marginal folds formed in a more flexible thread-arrangement than that of the intervening longitudinal part of said member and also including a stiff flat lining member incased in said casing member and having its margins snugly occupying said folds.

3. An apparel belt including an elongated fabric casing member having longitudinal marginal folds formed in a different thread arrangement, and a flat stiff lining member snugly fitting said casing member and having its margins snugly occupying the folds thereof, said folds presenting an appearance contrasting with the intervening part of the casing member.

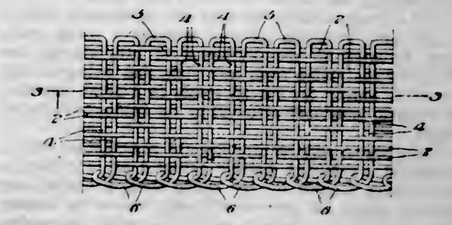
1,141,664. TOWEL-RACK. FRANK CARL STIEFEL, Philadelphia, Pa., assignor to The Curtis Publishing Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed June 27, 1914. Serial No. 847,609. (Cl. 45—32.)



1. A device of the class described comprising the combination of a pair of straight rigid immovable pins in parallel relation and of which one is tubular, a spring lock of which the bolt is projectible into and retractible from the tubular pin, a button below the tubular pin, and a rod provided at one end with a plate having a key-hole slot for the button and at the other end with a head and a notch adapted to coöperate with the spring bolt, substantially as described.

2. A device of the class specified comprising the combination of a rod having a straight pin portion, terminal connections for immovably holding the rod, and a straight immovable pin parallel with said pin portion, whereby a group of clean towels in flat relation hangs solely from the two pin portions and whereby each towel is conveniently presented and may be used even for the face while secured by one corner to the rod, substantially as described.

1,141,665. WOVEN FABRIC. WILLIAM G. STEWART, Chester, Pa. Filed Nov. 16, 1914. Serial No. 872,312. (Cl. 139—9.)



1. A fabric comprising interwoven warp and weft threads, the weft threads having portions forming a chain of knitted stitches connecting the weft threads of the different sheds.

2. A fabric comprising interwoven warp and weft threads, the weft threads being formed of one continuous thread extending from shed to shed and having portions forming a chain of knitted stitches connecting the weft threads of the different sheds.

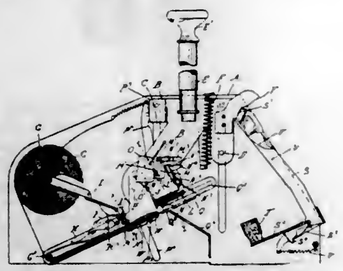
3. A fabric comprising interwoven warp and weft threads, the weft threads being arranged in pairs in differ-

ent sheds, one pair in a shed, the said pairs of weft threads being connected at one edge of the fabric by single threads each of which connects one thread of one pair with one thread of the next adjacent pair, and the said pairs of weft threads being connected at the other edge of the fabric by double threads each of which connects the two threads of one pair with the two threads of the next adjacent pair.

4. A fabric comprising interwoven warp and weft threads, the weft threads being arranged in pairs in different sheds, one pair in a shed, and each pair forming part of a loop which incloses the next adjacent pair.

5. A fabric comprising interwoven warp and weft threads, the weft threads being arranged in pairs in different sheds, one pair in a shed, said pairs being connected at one edge of the fabric by threads each of which connects one thread of one pair with one thread of the next adjacent pair, and each of said pairs forming part of a loop which incloses the next adjacent pair at the other edge of the fabric.

1,141,666. STAMP-AFFIXING MACHINE. JOHN C. STENAD, Highland Park, Mich., assignor to Mail-ometer Company, Detroit, Mich., a Corporation of Michigan. Filed Oct. 20, 1910. Serial No. 588,098. (Cl. 216—28.)



1. In a stamp affixing machine, the combination with a plunger, of a swinging guide for a stamp strip, a pawl for advancing the stamp strip operated by the movement of the guide, means carried by said guide and actuated by the initial movement of the plunger for cutting off the end stamp, and means carried by said guide for affixing the stamps.

2. In a stamp affixing machine, the combination with a plunger, and a movable guide for the stamp strip, of cooperating means for advancing the strip along said guide during movement of the latter, a cut-off mechanism carried by said guide and actuated during the initial movement of the plunger for cutting off the end stamp, and stamp affixing mechanism carried by said guide.

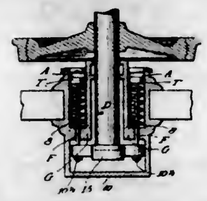
3. In a stamp affixing machine the combination with a plunger, of a swinging member carrying a stamp strip, means actuated by the depression of said plunger for cutting off the stamp from said strip and swinging said member to convey the cut off stamp to a fixing position, and a stamp moistener actuated by the depression of said plunger.

4. In a stamp affixing machine, the combination with a plunger, of a swinging member actuated by said plunger and carrying a guide for the stamp strip, a cut-off, and retaining means for the cut-off stamp, means for locking said member from movement during the initial depression of said plunger, means operated during said initial depression of the plunger for successively operating the stamp retaining means and the cut-off, and means for unlocking and coupling said swinging member to said plunger upon the further depression thereof whereby said severed stamp is carried to the position for affixing.

5. In a stamp affixing machine, the combination with a plunger, of a swinging member having mounted thereon retaining means for a cut-off stamp, a cut-off, a stamp guide and a presser foot, and connecting means whereby upon the depression of said plunger the end stamp is first engaged by said retaining means, the cut-off is then operated, the swinging member depressed to carry the cut-off stamp to affixing position, and the presser foot actuated to press the stamp against the surface to which it is to be affixed, and associated means for moistening the stamp and feeding the strip along said guide.

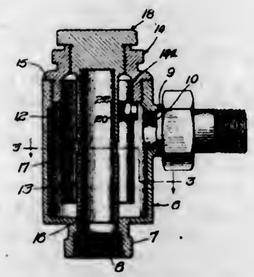
[Claims 6 to 15 not printed in the Gazette.]

1,141,667. THRUST-BEARING JOURNAL-BOX. LUTHER C. THOMPSON, Washington, D. C., assignor to Ferdinand Franz, Baltimore, Md. Filed Sept. 29, 1913. Serial No. 792,477. (Cl. 105—243.)



In a thrust-bearing, the combination of a journal-box having lugs near one end thereof, an axle, a bar extending across the end of the axle, drawbars attached to the crossbar at one end, and having heads at the opposite ends, the draw-bars passing through said lugs, and compression springs surrounding the draw-bars between said heads and said lugs, all for the purpose set forth.

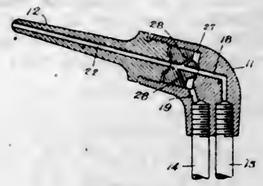
1,141,668. WATER-SEAL VALVE. WILLIAM THUMM, Chicago, Ill. Filed Mar. 2, 1914. Serial No. 822,083. (Cl. 182—15.)



1. In a valve of the class described, the combination of a casing inclosing a chamber for water of condensation and having an open upper end, said chamber having a bottom outlet and a side inlet between its upper and lower ends, a closure cap for the open upper end of the chamber, said cap comprising an outer section adapted to be threaded into the open upper end of the casing and in close engagement with the end face of the wall of the casing and an independently movable central section threaded into the outer section, the threaded engagement having a sufficient length for a partial withdrawal of the central section without breaking the closure of the cap for the open end of the casing, a sleeve carried by the outer section and depending into the casing chamber with its lower end terminating above the bottom wall of the casing, a hollow member carried by the central section of the closure cap and having an axial passage in communication with the outlet and the chamber of the casing, the lower end of the hollow member projecting into the mouth of the outlet when the central section of the closure cap is fully entered into position, and closing direct communication between the chamber of the casing and the outlet, the partial receding of the central section of the cap withdrawing the end of the hollow member and opening direct communication between the chamber and the outlet without impairing the closure for the upper end of the chamber, substantially as described.

2. In a valve of the class described, the combination of a casing inclosing a chamber for water of condensation and having an open upper end, said chamber having a bottom outlet and a side inlet between its upper and lower ends, a closure cap for the open upper end of the chamber of the casing, said cap comprising an outer section adapted to be entered into and closely engage the wall of the casing at its upper end and an independently movable central section closely entered into and engaging the outer section the length of engagement between the central section and outer section being of sufficient length for a partial withdrawal of the central section without breaking the closure of the cap at the open end of the casing, a sleeve secured at its upper end to the outer section of the closure cap and downwardly extending into the chamber with its lower end terminating above the bottom of the chamber, a tubular member downwardly extending from the central section of the closure cap and passing through the sleeve with its lower end, when the central section of the cap is fully entered, projecting into the mouth of the outlet and closing direct communication between the chamber and outlet and adapted to be raised with the partial withdrawal of the central section of the closure cap and open communication direct between the chamber of the casing and the outlet breaking the closure of the cap, said tubular member having an axial passage with side ports for discharging water of condensation, substantially as described.

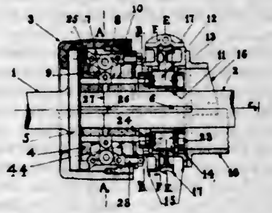
1,141,669. WELDING-TORCH. SCOTT H. TOLMAN, Boston, Mass. Filed July 15, 1913. Serial No. 779,159. (Cl. 158—109.)



1. A welding torch comprising a head, a plug therein and a tip, said plug being between confronting end faces of said head and tip and having engagement with said faces, said head and tip having interengaging screw threads whereby said tip is brought to bear with force against said plug, said engagement between said head and plug, and said engagement between said plug and tip being limited to circular line engagement, said head, plug and tip having meeting passageways forming one continuous passageway, the circumference of said passageway at the junction of said head and plug coinciding with such circular line of engagement thereat, and the circumference of said passageway at the junction of said plug and tip coinciding with such circular line of engagement thereat.

2. A welding torch comprising a head member and a plurality of other members including a tip member, said members being arranged in a series and in abutting end to end relation, said head member and tip member being the end members of such series and having interengaging screw-threads whereby said tip member may be brought to bear with force against the contiguous intermediate member, each of the abutting end faces of all said members being formed to limit its engagement with the abutting end face of the respective contiguous member to a circular line, said members having longitudinally extending meeting passageways forming one continuous passageway through all said members, the circumference of said continuous passageway being coincident with such circular line of engagement at each of said abutting faces, a plurality of said members having other passageways the delivery end or ends of which join said continuous passageway between abutting end faces of said members.

1,141,670. FRICTION-CLUTCH AND MEANS FOR OPERATING SAME. ERNEST G. TURNER, Philadelphia, Pa., assignor of one-half to Luther D. Lovekin, Philadelphia, Pa. Filed Mar. 12, 1913. Serial No. 753,805. (Cl. 192—7.)



1. A clutch mechanism and means for operating same, comprising a pair of driving disks engaged and actuated by a driving shaft and provided with friction-bearing clutch surfaces engaging in the closed or clutched relation similar surfaces on a driven disk, and a driven disk engaging a driven shaft and for actuating same and provided with friction bearing clutch surfaces engaged in the closed or clutch relation by the similar surfaces on said driving disks and actuated by the same, and a series of toggle levers engaging said driving disks in their clutching and unclutching movements and engaged by actuating links, and links engaging and actuating said toggle-levers and engaged by actuating rods, and rods engaging and actuating said links and engaged by an actuating sleeve, and a sleeve mounted on said driving shaft and engaging and actuating said rods and engaged by an actuating non-rotating screw-threaded collar, and a non-rotating screw-threaded collar engaging and actuating said sleeve and engaged by an actuating screw-threaded worm-gear, and a screw-threaded worm-gear engaging said collar and engaged by an actuating gear-worm, and a gear-worm engaging and actuating said worm-gear and engaged by an operating shaft, and an operating shaft engaging said gear-worm for actuating same, and a fixed bearing adapted for supporting said worm-wheel gearing and operating shaft aforesaid.

2. A clutch mechanism and means for operating same, comprising a pair of driving disks the hubs of which are provided with grooves engaged by splines attached to a driving shaft and with friction bearing clutch surfaces engaging in the closed or clutched relation similar surfaces on a driven disk, and splines attached to a driving shaft and in engagement with the grooves of said driving disks, and a driven disk engaging a driven shaft and for actuating same and provided with friction bearing clutch surfaces engaged in the closed or clutch relation by the similar surfaces on said driving disk and actuated by the same, and a series of toggle levers engaging said driving disks in their clutching and unclutching movements and engaged by actuating links, and links engaging and actuating said toggle-levers and engaged by actuating rods, and rods engaging and actuating said links and engaged by an actuating sleeve, and a sleeve mounted on said driving shaft and engaging and actuating said rods and engaged by an actuating non-rotating screw-threaded collar, and a non-rotating screw-threaded collar engaging and actuating said sleeve and engaged by an actuating screw-threaded worm-gear, and a screw-threaded worm-gear engaging said collar and engaged by an actuating gear-worm, and a gear-worm engaging and actuating said worm-gear and engaged by an operating shaft, and an operating shaft engaging said gear-worm for actuating same, and a fixed bearing adapted for supporting said worm-wheel gearing and operating shaft aforesaid.

3. A clutch mechanism and means for operating same, comprising a pair of driving disks the hubs of which are provided with grooves engaged by splines attached to a driving shaft and with friction bearing clutch surfaces engaging in the closed or clutched relation similar surfaces on a driven disk, and splines attached to a driving shaft in engagement with the grooves of said driving disks and

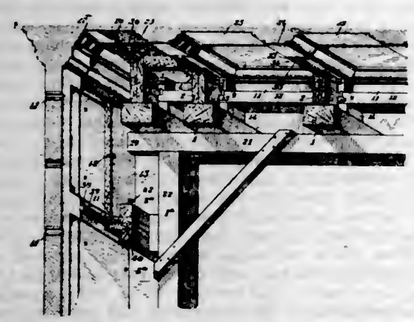
provided with a stop for limiting the open travel of one of said pair of driving disks, and a driving shaft provided with a stop for limiting the opening travel of the other of said pair of driving disks, and a driven disk engaging a driven shaft and for actuating same and provided with friction bearing clutch surfaces engaged in the closed or clutched relation by the similar surfaces on said driving disks and actuated by the same, and a series of toggle levers engaging said driving disks in their clutching and unclutching movements and engaged by actuating links, and links engaging and actuating said toggle-levers and engaged by actuating rods, and rods engaging and actuating said links and engaged by an actuating sleeve, and a sleeve mounted on said driving shaft and engaging and actuating said rods and engaged by an actuating non-rotating screw threaded collar, and a non-rotating screw threaded collar engaging and actuating said sleeve and engaged by an actuating screw-threaded worm-gear, and a screw-threaded worm-gear engaging said collar and engaged by an actuating gear-worm, and a gear-worm engaging and actuating said worm-gear and engaged by an operating shaft, and an operating shaft engaging said gear-worm for actuating same, and a fixed bearing adapted for supporting said worm-wheel gearing and operating shaft aforesaid.

4. In a clutch mechanism for the transmission of mechanical power, an operating gear consisting of a worm-and-wheel gearing acting through a non-rotating screw-threaded collar in engagement with the wheel of said worm-and-wheel gearing, and said collar actuating a movable rotating sleeve in combination with means engaged by said sleeve and adapted for opening and closing said clutch mechanism by means of said operating gear.

5. In a clutch mechanism for the transmission of mechanical power, splines provided with stops in combination with a driving shaft provided with a stop said spline and shaft stops being adapted for equalizing the opening travel of the clutching elements of said mechanism, and clutching means adapted for the transmission of mechanical power from said driving to a driven shaft, and means for operating said clutching means.

[Claim 6 not printed in the Gazette.]

1,141,671. CONCRETE CONSTRUCTION. FRANK M. VOGAN, Canton, Ohio. Filed Feb. 4, 1913. Serial No. 746,189. (Cl. 25—131.5.)



1. For concrete construction the combination of a plurality of mold units adapted to be contiguously arranged and provided with out-turned flanges at all edges thereof and a plurality of false-work units adapted to be connected together in arrangement corresponding to the arrangement of said marginal flanges of said mold units and provided with slots adapted to receive said marginal flanges, whereby to connect and support said mold units.

2. For concrete construction the combination of a plurality of sheet metal mold units provided with mold faces and with out-turned marginal flanges, certain of said units contiguously arranged and disposed with their mold faces in a horizontal plane to cast a ceiling and certain of said mold units contiguously arranged with their mold faces in a vertical plane to cast a side wall, false-work units connected together in arrangement corresponding to the arrangement of the marginal flanges of the mold units for casting the ceiling and provided with slots adapted to receive said marginal flanges and a plurality of false-work units connected together in arrangement corresponding to the arrangement of the marginal flanges of the mold units for casting the side wall and provided with slots adapted to receive said marginal flanges, certain units of the false-work for the side wall supporting the false-work units for the ceiling.

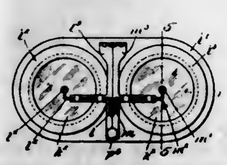
3. For concrete construction, in combination with sheet metal mold units having out-turned flanges at all edges thereof, false stringer units and false joist units supported by said stringer units, said stringer units and joist units provided with slots adapted to receive said flanges.

4. For concrete construction, the combination of rectangular sheet metal mold units provided with out-turned flanges at all edges thereof and parallel false stringer units and parallel false joist units transverse to and supported by said stringer units, said stringer units and joist units provided with slots adapted to receive said flanges.

5. For concrete construction, in combination with sheet metal mold units provided with marginal flanges at all edges thereof, false stringer units provided with flange receiving slots and transverse mold joint notches and false joist units disposed transversely with reference to said stringer units and provided with flange receiving slots, the slots of said joist units registering with said notches to continue the slots of said joist units into the slots of the stringer units.

[Claim 6 not printed in the Gazette.]

1,141,672. SOUND REPRODUCING OR RECORDING MACHINE. GEORGE H. UNDERHILL, Boston, Mass. Original application filed June 11, 1904, Serial No. 212,079. Divided and this application filed May 27, 1905. Serial No. 262,579. (Cl. 181—10.)



1. In an apparatus of the class described, a plurality of coöperating stylus points, tension means for said points and means for equalizing the tension.

2. In an apparatus of the class described the combination with a plurality of stylus points arranged to cooperate one with the other in substantially the same portion of the same record groove, connecting means between the same and movable therewith, of a plurality of diaphragms connected respectively with said points, each of said diaphragms having a separate chamber.

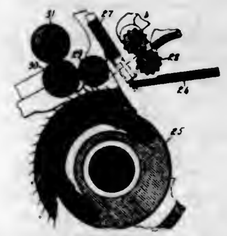
3. In an apparatus of the class described the combination with a plurality of stylus points arranged to cooperate one with the other in substantially the same portion of the same record groove, of a plurality of diaphragms laterally disposed with respect to the record groove and connected with said points.

4. In an apparatus of the class described, the combination with a plurality of diaphragms having their respective sound boxes grouped with reference to substantially the same point of stylus action, of vibratory mechanism for each of said diaphragms including independent stylus points and stylus connections diverging generally from such point of stylus action.

5. In a sound-reproducing or sound-recording machine the combination with a plurality of coöperating diaphragms, of coöperating and inter-connected stylus points for said diaphragm.

[Claims 6 to 16 not printed in the Gazette.]

1,141,673. METHOD OF COMBING COTTON. GEORGE M. WHITIN, Whitinsville, Mass., assignor to The Whitin Machine Works, Whitinsville, Mass., a Corporation of Massachusetts. Filed May 23, 1913. Serial No. 769,348. (Cl. 19—6.)

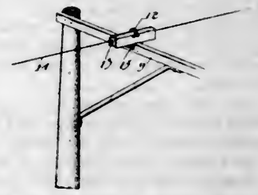


1. The method of combing which consists in twice subjecting the same stock to the action of a moving combing element, combing only the forward ends of the fibers during the first operation, and only the opposite ends during the second operation.

2. The method of combing cotton which consists in passing a continuous lap through a comber in which the forward ends only are subjected to the action of a series of moving combing needles and are successively detached from the body of the lap and overlapped on previously detached and similarly combed fibers, then reversing the direction of the sliver resulting from such combing, and repassing the same through a similar comber in such reversed direction.

3. The method of combing which consists in collecting combed sliver from a Heilman type comber in a can or receptacle, reversing such can or receptacle, drawing the sliver from the reversed end of such receptacle and winding the same into a lap roll, and then directly feeding such lap roll through a comber of the same type.

1,141,674. SAFETY DEVICE. FRANCIS P. WITHERS, Chicago, Ill., assignor to Associated Engineers Company, Chicago, Ill., a Corporation of Illinois. Filed Dec. 29, 1913. Serial No. 809,190. (Cl. 173—28.)



1. A lineman's protector adapted for temporary mounting on a cross-arm consisting of a rigid form closed at the top and two sides to cover the insulator and a portion of the conductor on either side thereof, having means for slidably engaging a cross-arm independently of the insulator and conductor to thereby support the form in position, said means having means to accommodate the conductor without touching the same as said protector is mounted in place and withdrawn from said cross-arm.

2. A lineman's protector adapted for temporary mounting on a cross-arm consisting of a rigid form closed at the top and two sides to cover the insulator and a portion of the conductor on either side thereof, and having means for slidably engaging a cross-arm independently of the insulator and conductor to thereby support the form in position, said last aforesaid means consisting of a pair of depending arms adapted to engage the opposite sides of the cross-arm, having slots to accommodate the conductor during withdrawal and replacement of said protector.

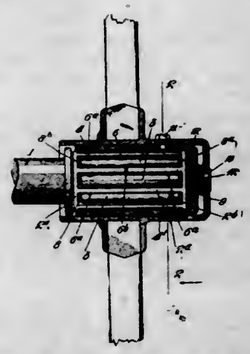
3. A lineman's protector adapted for temporary mounting on a cross-arm consisting of a rigid form closed at the top and two sides to cover the insulator and a portion of the conductor on either side thereof, and having means for slidably engaging a cross-arm independently of the insulator and conductor to thereby support the form in position, said last aforesaid means consisting of a pair of depending arms adapted to engage the opposite sides of the cross-arm, said arms having grooves to accommodate the conductor as the device is being mounted in place or removed.

4. A lineman's protector adapted for temporary mounting on a cross-arm consisting of a rigid form closed at the top and two sides to cover the insulator and a portion of the conductor on either side thereof, and having means for engaging a cross-arm independently of the insulator and conductor to thereby support the form in position, said last aforesaid means consisting of a pair of depending arms adapted to engage the opposite sides of the cross-arm, said arms having grooves to accommodate the conductor as the device is being mounted in place or removed, said form having end walls provided with grooves to accommodate the conductor when the device is being mounted in place or removed.

5. A lineman's protector adapted for temporary mounting on a cross-arm consisting of a rigid form closed at the top and two sides to cover the insulator and a portion of the conductor on either side thereof, and having means for engaging a cross-arm independently of the insulator and conductor to thereby support the form in position, said last aforesaid means consisting of a pair of depending arms adapted to engage the opposite sides of the cross-arm, said arms having grooves to accommodate the conductor as the device is being mounted in place or removed, said form having end walls provided with grooves to accommodate the conductor when the device is being mounted in place or removed, and a covering of soft rubber upon the exposed outer surface of said form.

[Claim 6 not printed in the Gazette.]

1,141,675. ANTIFRICTION-BEARING. MELVIN A. YEAKLEY, Canton, Ohio, assignor to John E. McLain, Canton, Ohio. Filed Nov. 10, 1908. Serial No. 461,967. (Cl. 64—62.)



1. In a bearing, the combination of an axle, a series of rollers, and means for spacing said rollers relatively to each other, said means including a ring arranged at one end of said rollers and loosely mounted on said axle and a plurality of laterally yieldable devices extending longitudinally of said rollers and supported from said ring and each arranged to engage the outside periphery of an adjacent roller.

2. In a bearing, the combination of a cage comprising a ring and a series of bars, a series of rollers mounted between the bars, and a spring strip arranged between each roller and a bar.

3. In a bearing, the combination of a cage comprising a ring and a series of bars, a series of rollers mounted between the bars, and a spring strip arranged between each roller and one side of each bar.

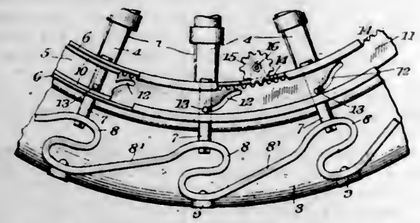
4. In a bearing, the combination of a cage comprising a ring and a series of bars, a series of rollers mounted be-

tween the bars, and a spring strip arranged between each roller and one side of each bar and all of the strips being arranged on the same side thereof.

5. In a bearing, the combination of a series of rollers, bars for spacing the rollers apart, and a spring strip arranged between each roller and an adjoining bar.

[Claims 6 to 8 not printed in the Gazette.]

1,141,676. ANTISKIDDING DEVICE FOR VEHICLES. OLIVER H. YOUNG, Brooklyn, N. Y. Filed May 23, 1914. Serial No. 840,409. (Cl. 21—209.)



1. In an antiskidding device, the combination with a wheel, of a plurality of circumferentially spaced radially reciprocable members mounted upon the wheel, a radially compressible spring associated with each of said members and having one of its ends secured thereto and disposed inwardly with respect to its opposite ends, a ground-engaging member carried by the outer end of each spring, and common means associated with all of the reciprocable members by which they may be adjusted simultaneously and secured in adjusted position.

2. In an anti-skidding device, the combination with a wheel, of a plurality of circumferentially spaced radially reciprocable members mounted upon the wheel, a radially compressible spring associated with each of said members and having one of its ends secured thereto and disposed inwardly with respect to its opposite end, an elongated circumferentially inclined spring extension connecting the outer end of each spring with the inner end of an adjacent spring, a ground-engaging member carried by the outer end of each spring, and means by which the said reciprocable members may be adjusted and secured in adjusted position.

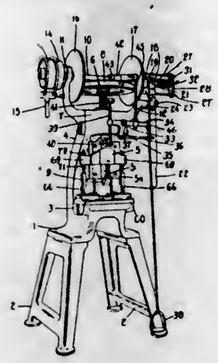
3. In an anti-skidding device, the combination with a wheel, of a plurality of circumferentially spaced radially reciprocable members mounted upon the wheel, a radially compressible spring associated with each of said members, and having one of its ends secured thereto and disposed inwardly with respect to its opposite end, a ground-engaging member carried by the outer end of each spring, and means by which the said reciprocable members may be adjusted simultaneously and secured in adjusted position.

4. In an anti-skidding device, the combination with a wheel, of a plurality of circumferentially spaced radially reciprocable members mounted upon the wheel, a radially compressible spring associated with each of said members and having one of its ends secured thereto and disposed inwardly with respect to its opposite end, an elongated circumferentially inclined spring extension connecting the outer end of each spring with the inner end of an adjacent spring, a ground-engaging member carried by the outer end of each spring, and means by which said reciprocable members may be adjusted simultaneously and secured in adjusted position.

5. In an anti-skidding device, the combination with a wheel, of a plurality of circumferentially spaced radially reciprocable members mounted upon the wheel, a ground-engaging member carried by each of said reciprocable members, an annular member mounted upon the wheel for circumferential adjustment and provided with a plurality of diagonal slots corresponding in position to the said reciprocable members, a lateral pin projecting from each of the last-named members for engagement within the corresponding slot of the annular member, and means by which the annular member may be adjusted, the said slots of the annular member having their end portions extended circumferentially.

[Claims 6 and 7 not printed in the Gazette.]

1,141,677. POWER-PRESS. EDMUND W. ZEH, Newark, N. J. Filed Dec. 17, 1913. Serial No. 807,327. (Cl. 153—34.)



1. In a press, the combination of a frame, a screw mounted in said frame, a head on one end of said screw adapted to slide in said frame, a friction wheel on the other end of said screw, drive disks at opposite edges of said friction wheel, a slidable shaft for said drive disks, a cap for the end of said shaft, a spring around said cap tending to slide said shaft to engage one of said drive disks with the friction wheel, and means for sliding the shaft against said tendency of the spring to engage the other drive disk.

2. In a press, the combination of a frame, a screw mounted in said frame, a head on one end of said screw adapted to slide in said frame, a friction wheel on the other end of said screw, drive disks at opposite edges of said friction wheel, a slidable shaft for said drive disks, a cap for the end of said shaft, means for lubricating between said end of the shaft and said cap, a spring around said cap tending to slide said shaft to engage one of said drive disks with the friction wheel, and means for sliding the shaft against said tendency of the spring to engage the other drive disk.

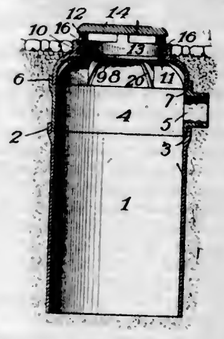
3. In a press, the combination of a frame, a screw mounted in said frame, a head on one end of said screw adapted to slide in said frame, a friction wheel on the other end of said screw, drive disks at opposite edges of said friction wheel, a slidable shaft for said drive disks, an adjustable yoke fixed transversely of the shaft at a distance from the end thereof and providing a spring bearing, a spring engaging said bearing at one end, a member between the other end of said spring and the shaft longitudinally stationary with respect to the shaft and nonrotatable with respect to the spring, and means for manually sliding the shaft against said tendency of the spring to engage the other drive disk.

4. In a press, the combination of a frame, a screw mounted in said frame, a head on one end of said screw adapted to slide in said frame, a friction wheel on the other end of said screw, drive disks at opposite edges of said friction wheel, a slidable shaft for said drive disks, a spring tending to slide said shaft to engage one of said drive disks with the friction wheel, a brake adapted to engage the friction wheel upon upward movement thereof, and means connected to said brake for sliding the shaft against said tendency of the spring to engage the other drive disk.

5. In a press, the combination of a frame, a screw mounted in said frame, a head on one end of said screw adapted to slide in said frame, a friction wheel on the other end of said screw, drive disks at opposite edges of said friction wheel, a slidable shaft for said drive disks, a spring tending to slide said shaft to engage one of said drive disks with the friction wheel, a hand lever for retracting the shaft against said spring, a cross-lever fulcrumed on said frame and having a downwardly projecting bell-crank arm, a link connecting said bell-crank arm to said hand lever, a treadle connected to one arm of said cross-lever, means on the sliding head for depressing the other end of the cross-lever, a brake adapted to engage the friction wheel upon upward movement thereof, and a link connecting said brake to the arm of the cross-lever to which said treadle is connected.

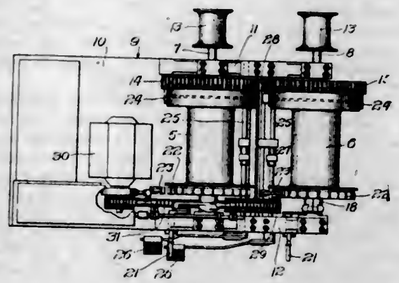
[Claims 6 to 15 not printed in the Gazette.]

1,141,678. CATCH-BASIN. ARLON D. BAILEY, Winchendon, Mass., assignor of one-third to Archie C. Towne and one-third to Charles T. Brown, Winchendon, Mass., Copartners. Filed Dec. 23, 1912. Serial No. 738,136. (Cl. 182—10.)



A catch basin comprising a lower section of uniform cross section, adapted for disposition below the level of the soil, and open at both ends, whereby the same may be sunk into position by removal of soil from the interior thereof, an upper section providing a removable perforated cover plate disposed substantially at the level of the soil, and an intermediate section providing an inner wall continuous with the inner walls of said upper and lower sections, whereby the cleaning of the basin is unobstructed, said intermediate section having an outlet passage leading therefrom.

1,141,679. ELECTRICALLY-DRIVEN HOIST. WENDELL A. BARKER, Chicago, Ill., assignor to Thomas Elevator Company, Chicago, Ill., a Corporation of Illinois. Filed Nov. 24, 1913. Serial No. 802,842. (Cl. 254—185.)



In a hoist, the combination with a stationary framework, of oppositely disposed sets of bearing journals carried thereby, transversely extending shafts mounted in said journals and free to rotate in them, a main gear mounted on each shaft between the bearings thereof and adjacent to the corresponding bearing, a winding drum mounted free to rotate on each shaft between the main gear thereof and the opposite bearing, a friction clutch device between each hoisting drum and the corresponding main gear, shifting mechanism mounted on each shaft between the corresponding drum and bearing away from the main gears, a jack shaft journaled in the frame work and lying parallel to the aforementioned shafts, a pinion on one end of said jack shaft meshing with both of the main gears, a sprocket on the other end of the jack shaft and lying substantially in the plane of the aforementioned shifting mechanisms, a motor secured to the framework and mounted to one side of the hoisting drums, a driving sprocket on said motor lying in line with the sprocket on the jack shaft, and a chain connecting both of the sprockets together and extending between the end of one drum and the framework, and beneath the shifting mechanism of the said drum, whereby the entire power is transmitted from the chain through the entire length of the jack shaft to the pinion thereon, and whereby the elasticity of the entire length of the jack shaft is available for the absorption of shocks and the like.

1,141,680. PRESSING DEVICE. CHARLES O. BARNES, Detroit, Mich. Filed Aug. 20, 1914. Serial No. 857,714. (Cl. 100—57.)



1. In a pressing device, the combination with a body member having engaging devices at its respective ends for a presser member, of a presser member consisting of a spring plate bowed from end to end and adapted near its respective ends to engage said engaging devices, whereby material may be pressed between said body member and said bowed presser member.

2. In a pressing device, the combination of a body member having side flanges, a bow-spring presser member, and means at respective ends of the body member to receive the presser member to press material between said presser member and body member.

3. A pressing device, comprising a body member having side flanges and engaging means for a presser member at respective ends of said flanges, and a bowed presser member to enter between said side flanges and project under said engaging means, whereby said bowed presser may be flattened to press material between itself and said body member.

4. A pressing device comprising a body member having side flanges and having inwardly projecting lugs at the ends of said flanges, and a bowed spring presser to enter between said flanges and under said lugs, whereby said presser will be flattened to press material between itself and the body member.

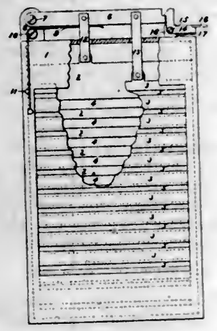
5. A necktie pressing device comprising a body member to receive the tie therein, a separable resilient bowed plate to enter within said body member and means on the body member to engage respective ends of said bowed plate, whereby the resilience of said plate will apply pressure to the tie within the body member.

1,141,681. PHOTOGRAPHIC SHUTTER. EDWARD H. R. BARTON, Englewood, N. J. Filed May 2, 1911. Serial No. 624,644. (Cl. 95—55.)

1. In a photographic shutter, a frame surrounding an opening, sets of slats adapted to completely close said opening, and means to move said sets of slats within said opening, the slats of each set all moving at the same speed but the speeds of the sets being different, so as to open or expose all parts of said opening and to completely close it again, substantially as, and for the purposes set forth.

2. In a photographic shutter, a frame surrounding an opening, two sets of slats adapted to completely close said

opening, and means to move said sets of slats within said opening, the slats of each set all moving at the same speed but the speeds of the two sets being different, so as to open or expose all parts of said opening and to completely close it again, substantially as, and for the purposes set forth.



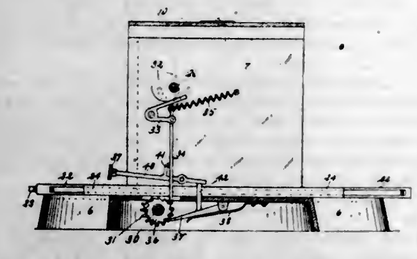
3. In a photographic shutter, a frame surrounding an opening, two sets of slats adapted to completely close said opening, and means to move said sets of slats within said opening without withdrawing them from it, the slats of each set all moving at the same speed but the speeds of the two sets being different, so as to open or expose all parts of said opening and to completely close it again, substantially as, and for the purposes set forth.

4. In a photographic shutter, a frame surrounding an opening, two sets of slats adapted to completely close said opening, and means to move said sets of slats within said opening without withdrawing them from it, the slats of each set all moving at the same speed but the speeds of the two sets being different, so as to open or expose all parts of said opening at a plurality of points at the same time and to completely close it again, substantially as, and for the purposes set forth.

5. In a photographic shutter, more than one slide, each slide having a plurality of openings, and means to move the said slides at different speeds so as to open and close the shutter, substantially as, and for the purposes set forth.

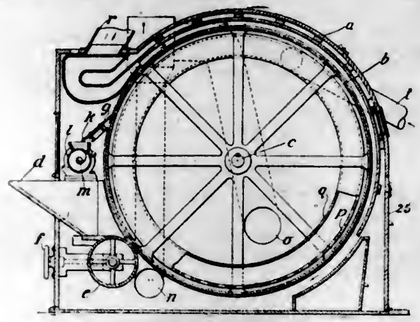
[Claims 6 to 10 not printed in the Gazette.]

1,141,682. RATCHET DRIVING MECHANISM FOR CUTTERS. CHARLES P. BASS, Los Angeles, Cal. Filed Nov. 19, 1913. Serial No. 802,004. (Cl. 74—54.)



In apparatus of the class specified, the combination of a shaft, a second shaft, a ratchet wheel on the second shaft, a spring-pressed dog bearing against the ratchet wheel, a pivotally mounted bell crank, a cam on the first mentioned shaft adapted to bear against the bell crank, a pawl pivotally connected to the bell crank, a spring arranged to hold the pawl against said ratchet wheel, and means for moving the dog and the pawl away from the ratchet wheel at will, consisting of a pivotally mounted lever having an arm thereon bearing against said pall, and a bar interposed between said lever and said dog.

1,141,683. CHOCOLATE-TEMPERING MACHINE. ALONZO L. BAUSMAN, Chicopee, Mass., assignor to National Equipment Company, Springfield, Mass., a Corporation of Massachusetts. Filed May 16, 1913. Serial No. 768,140. (Cl. 99—5.)



1. In a chocolate tempering machine, a casing, a rotatable drum therein, a feeding device arranged to feed a viscous or fluid material to the periphery of the drum in a thin stream, passages in said casing for the flow of a temperature-controlling medium, means for enabling the material to leave the drum in a stream together with mechanism for controlling the flow of the temperature-controlling medium comprising an inlet for a hot and an inlet for a cold stream of said medium to said passages, valves for said inlets, a thermostat with its sensitive element located directly in the stream of material leaving said drum, a contact member for said thermostat, and circuits including means to open and close said inlet valves arranged to be controlled by the movement of the thermostat contact member, all for the purpose described.

2. Apparatus for bringing pasty materials or a semi-liquid to a predetermined temperature, comprising conveying means, means to direct a fluid at approximately the same temperature as that required for the said material over the surface of said conveying means, means to feed material to said conveying means, means to take the material from said conveying means together with mechanism for controlling the flow of said fluid over the conveying means, including a passage, a valve therein, means to operate the valve, and a thermostat having a part located directly in the flow of the material being treated and controlling the valve-operating means, all for the purpose described.

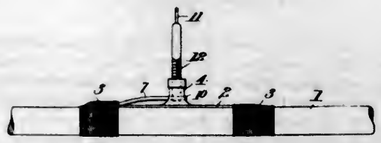
3. Apparatus for bringing pasty material or a semi-liquid to a predetermined temperature, comprising conveying means, means to feed material to said conveying means, means to direct a fluid at approximately the same temperature as that required for the said material against the conveying means together with mechanism for controlling the means to direct said fluid comprising a thermostat having a part located directly in said material, said thermostat being connected to said directing means to operate the latter, all for the purpose described.

4. Apparatus for bringing pasty material or semi-liquids to a predetermined temperature, comprising conveying means, means to feed material to said conveying means, together with means to direct a fluid of approximately the same temperature as that required for said material against the conveying means including a conductor for hot and a conductor for cold air, a pipe into which both said conductors lead, valves in said conductors, and a thermostat having a part placed directly in the flow of the material from said conveying means and connection from said thermostat to said valves.

5. In a chocolate tempering machine, a conveying means, means to feed material to said conveying means, means to cause the material to leave said conveying means after it has traveled a certain distance therewith, a casing for said conveying means, together with means to direct a fluid of approximately the same temperature as that required for said material into said casing and against the conveying means including an inlet to said casing with connections to two sources of fluid at different temperatures, valves in said connections, and a thermostat-control-device with its sensitive part placed directly in the stream of material leaving said conveying means arranged to control said valves whereby the proper temperature of the fluid may be maintained.

[Claims 6 and 7 not printed in the Gazette.]

1,141,684. FISHING-POLE ATTACHMENT. GEORGE BECHER, New York, N. Y. Filed Mar. 9, 1915. Serial No. 13,257. (Cl. 43—37.)

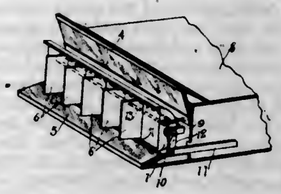


1. The combination with a stud having a screw threaded socket and a transverse passage intersecting with said socket, of a resilient locking tongue extending into said passage acros the socket, and a screw threaded shank to fit said socket and having a transverse notch in its end to automatically interlock with the tongue when said shank is screwed into the socket.

2. The combination with a plate to be secured to a fishing pole or other article, of a stud mounted on said plate and having a screw threaded socket and a transverse passage intersecting with said socket, a resilient locking tongue rigdly secured to the plate at a point well removed from the stud and having its free end portion extending into the passage in the stud past the socket, and a screw threaded shank to fit said socket and having a transverse notch in its end to automatically interlock with the tongue when said shank is screwed into the socket.

3. The combination with a stud having a screw threaded socket and a transverse passage intersecting with said socket, of a resilient locking tongue extending into said passage across the socket, and a screw threaded shank to fit said socket and having a transverse notch in its end to automatically interlock with the tongue when said shank is screwed into the socket, said notch and the portion of the tongue which engages it being angular for the purpose specified.

1,141,685. SIGN. JACKSON OGDEN BELKNAP, Mobile, Ala., assignor to Wilber C. Belknap, New York, N. Y. Filed June 20, 1914. Serial No. 846,281. (Cl. 40—30.)



1. In a sign, a device constituting an inscription surface having an inscription at one part, a mirror acting to reflect that inscription when the device is in one position, having another inscription at another part, another mirror to reflect that inscription when the device is in another position, and movable flaps secured to said device and adapted to bear inscriptions thereon and to swing from one position to another as the device is adjusted from one position to another.

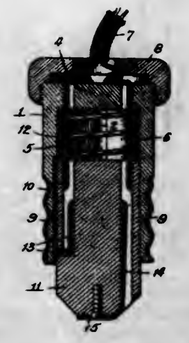
2. In a sign, a device constituting an inscription surface having an inscription at one part, a mirror acting to reflect that inscription when the device is in one position, having another inscription at another part, another mirror to reflect that inscription when the device is in another position, and movable flaps secured to said device and adapted to bear inscriptions thereon and to swing from one position to another as the device is adjusted from one position to another, and mechanism to operate the device to cause it to change its positions.

3. In a sign, a device constituting an inscription surface having one inscription at one part thereof, a mirror positioned to reflect said inscription when the device is in one position, and having an inscription at another part thereof, and another mirror to reflect the latter inscription when the device is in a changed position, the relation of the parts being such that when one mirror is reflecting one inscription, the other mirror is inactive.

4. In a sign, an oscillatory device having an inscription surface with one inscription at one side of the center of oscillation, a mirror at that side of the center to reflect said inscription, and an inscription at the other side of said center, and a mirror at that side to reflect the last named inscription.

5. In a sign, a device having inscription surfaces, with an inscription at one part thereof, a mirror acting to reflect that inscription when the device is in one position, another inscription at another part thereof, another mirror to reflect that inscription when the device is in another position, flaps secured to said device and adapted to swing from one position to another as the device is adjusted from one position to another, and an electric light located within the device and adapted to illuminate the inscriptions thereon.

1,141,686. ATTACHMENT-PLUG. EL DORADO JONES, Moline, Ill. Filed May 7, 1914. Serial No. 836,848. (Cl. 173—343.)



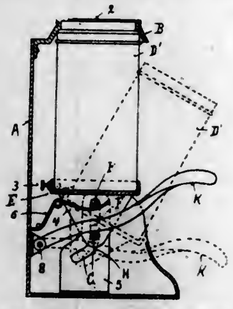
1. In an attachment plug, the combination of a pair of members formed to fit and have electrical connections with the terminals of a stationary socket, one of said members being movably mounted in the other member, a spring tending to move said movable member in one direction, and resilient contact fingers carried by said members and disposed in pairs adapted to be brought into electrical connection when the movable member has movement against the spring, aforesaid, individual fingers of the respective pairs having connection with the respective terminals of the plug, substantially as set forth.

2. In an attachment plug, the combination of a pair of members formed to fit and have electrical connections with the terminals of a stationary socket, one of said members being slidingly mounted in a non-revoluble manner in the other member, a spring tending to move said movable member in one direction, and resilient contact fingers carried by said members and disposed in pairs and adapted to be brought into electrical connection when the movable member has movement against the spring, aforesaid, individual fingers of the respective pairs having connection with the respective terminals of the plug, substantially as set forth.

2. In an attachment plug, the combination of a pair of members formed to fit and have electrical connections with the terminals of a stationary socket, one of said members being movably mounted in the other member, a spring tending to move said movable member in one direction, and a plurality of longitudinally arranged resilient contact fingers carried by said members and disposed in alined pairs adapted to be brought into electrical connection when the movable member has movement against the spring, aforesaid, individual fingers of the respective pairs having connection with the respective terminals of the plug, substantially as set forth.

4. In an attachment plug, the combination of a pair of members formed to fit and have electrical connections with the terminals of a stationary socket, one of said members being slidingly mounted in a non-revoluble manner in the other member, a spring tending to move said movable member in one direction, a plurality of longitudinally arranged resilient contact fingers carried by said members and disposed in alined pairs adapted to be brought into electrical connection when the movable member has movement against the spring, aforesaid, individual fingers of the respective pairs having connection with the respective terminals of the plug, substantially as set forth.

1,141,687. VENDER'S DISPLAY-STAND. EDWARD BRUNHOFF, Cincinnati, Ohio. Filed Dec. 5, 1914. Serial No. 875,558. (Cl. 211—6.)



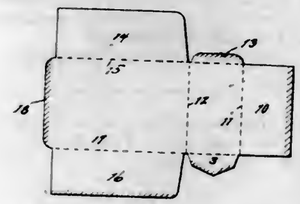
1. A display stand comprising a casing, lids stationarily carried by said casing, container supporting brackets to detachably hold containers, cams carried by said casing to guide said brackets, a lever to depress said brackets, and means to yieldingly hold said brackets in elevated position with the mouth of said containers in contact with said lids.

2. A display stand comprising a casing, a lid stationarily carried by said casing, a container supporting bracket movably supported relative to said casing to yieldingly support a container with its mouth against said lid, cam guides to guide said supporting bracket to cause it to descend substantially vertically and then to assume an inclined position, a lever to depress said supporting bracket, and means to yieldingly hold said bracket in elevated position.

3. A display stand comprising a casing, a container lid stationarily carried by said casing, a container supporting bracket movable relative to said casing and yieldingly held in its elevated position to hold the container carried thereby in contact with said lid, guides to direct the movements of said bracket to cause the bracket to first descend to clear the container from said lid and then to assume an inclined position, and means to depress said bracket.

4. A display stand comprising a casing, a container lid stationarily carried by said casing, a container supporting bracket yieldingly supported in cam guides carried by said casing to normally yieldingly hold a container in contact with said lid, and when depressed to guide said container away from said lid and to a position to expose the contents of the container, and means to depress said bracket.

1,141,688. DOUBLE ENVELOP. CLARENCE P. CHAMBERLIN and CHESTER T. FEZZEY, Detroit, Mich. Filed Nov. 11, 1914. Serial No. 871,453. (Cl. 229—72.)



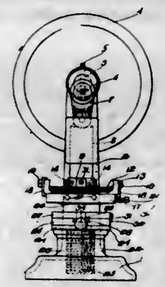
1. A blank for forming a double compartment envelop comprising a main body portion having two comparatively large side flaps less in length than the said body and adapted to be folded thereover, one of said flaps being gummed to secure the flaps in folded relation, and a gummed end flap adapted to be folded over and secured to the ends of the said side flaps; said body portion having additional comparatively small gummed side flaps adjacent the first mentioned side flaps and extending approximately half the remaining length of the body portion, the remaining part of the said body portion being gummed at the end and adapted to be folded upon itself and secured in place, the two small gummed side flaps being adapted to be folded over the said folded body portion and secured thereto.

2. A double compartment envelop composed of a blank formed of a single piece of material having a main body portion provided with opposite side flaps less in length than the said body and adapted to be folded thereover, one of said flaps being gummed for attachment to the other to secure the flaps in folded relation, a gummed end flap adapted to be folded over and secured to the ends of the said side flaps; said body portion having additional gummed side flaps parallel with the first mentioned side flaps and the adjacent end of the body portion being gummed and being adapted to be folded upon itself and secured in place, said additional gummed side flaps being adapted to be folded over the ends of said folded body portion and secured thereto.

3. A double compartment envelop composed of a blank formed of a single piece of material having a body portion provided with two comparatively large side flaps greater in length than half the length of the body portion and adapted to be folded thereover, one of said flaps being gummed and attachable to the other to secure the flaps in folded relation, a gummed end flap adapted to be folded over and secured to the ends of the said side flaps, the compartment thus formed being open at the opposite end, a clasp secured to the overlapped portion of said side flaps; said body portion of the blank having additional comparatively small gummed side flaps adjacent the first mentioned side flaps and extending approximately half the remaining length of the body portion, the body portion being gummed at the end and adapted to be folded upon itself and secured in place, the folded body portion having an aperture at the folded end to receive the clasp when the compartments are in folded relation, the two small gummed side flaps being adapted to be folded over the folded body portion and secured thereto.

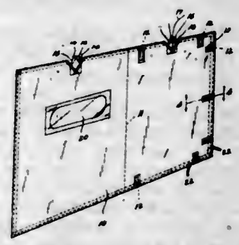
1,141,689. ELECTRIC EMBOSSING APPARATUS. EDWIN N. CHANDLER, Braintree, Mass., assignor to Simplex Electric Heating Company, Boston, Mass., a Corporation of Massachusetts. Filed June 13, 1910. Serial No. 566,493. (Cl. 69—2.)

An embossing machine, having a main frame, a vertically sliding die carrier arranged to reciprocate in said frame, a die head secured to the lower end of the carrier and having a deep horizontally disposed open recess in its upper portion, an electric heating device of less thickness than the depth of said recess arranged in the recess, conductors for the heating device extending through the rear wall of the die head, and a die removably held in the



lower most portion of the die head and in heat receiving relation to the heating means and parallel therewith.

1,141,690. GARMENT-PROTECTOR. LORA COMINGORE, Anderson, Ind. Filed May 26, 1913. Serial No. 769,914. (Cl. 206—7.)

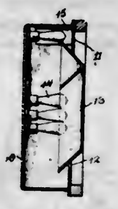


1. A garment protector comprising a sheet of suitable material foldable to bring one section overlying the other, fold-retaining members carried by said sheet adjacent the free edges of one section thereof, whereby the free edges of the two sections may be folded together and retained in folded position, two coöperating edges on the two sections respectively having only certain parts which fold, leaving unfolded other parts which register when the two sections are folded together, thus forming an opening, a projecting tongue carried by each section of said sheet at the part left unfolded so that the two tongues register when the two sections are folded together, such projecting tongues having free corners foldable about a garment hanger stem projected from the interior of the protector, and a retaining wire carried by one section of the sheet adjacent the projecting tongue.

2. A garment protector comprising a sheet of sutiable material foldable to bring one section overlying the other, fold-retaining members carried by said sheet adjacent the free edges of one section thereof, whereby the free edges of the two sections may be folded together and retained in folded position, two coöperating edges on the two sections respectively having only certain parts which fold, leaving unfolded other parts which register when the two sections are folded together, thus forming an opening, a projecting tongue carried by each section of said sheet at such unfolded part so that the two tongues register when the two sections are folded together, and such projecting tongues having free corners foldable about a garment hanger stem projected from the interior of the protector.

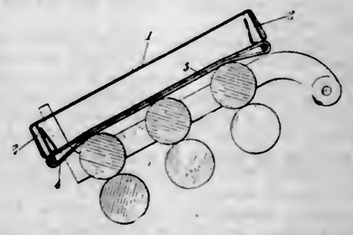
1,141,691. ILLUMINATED SIGN. ABNER F. CONNER and GUY L. WILLETT, Indianapolis, Ind., assignors to Thos. Cusack Company, Chicago, Ill., a Corporation. Filed Jan. 22, 1912. Serial No. 672,729. (Cl. 40—133.)

1. A sign including a plate with an opening therethrough, a character V-shape in cross section with the tapering portion projecting through said opening and beyond said plate and partially filling said opening, and lighting means back of said plate and located beside the inclined surfaces of said character in position to throw light directly on the same to be deflected outwardly beyond the plate.



2. A sign including a plate with an opening therethrough, a character V-shape in cross section with the tapering portion projecting through said opening and beyond said plate and partially filling said opening, lighting means back of said plate and located beside the inclined surfaces of said character in position to throw light directly on the same to be deflected outwardly beyond the plate, and partition plates arranged to localize the light from each of said lighting means upon the surrounding restricted portions of the character, whereby different colored lights may be thrown upon different portions of said character.

1,141,692. CLEARER-COVER. JAMES A. COOPER, Whitinsville, Mass., assignor to The Whitin Machine Works, Whitinsville, Mass., a Corporation of Massachusetts. Filed Aug. 5, 1914. Serial No. 855,128. (Cl. 118—26.)



1. A clearer for the drafting rolls of cotton-spinning and like machines, comprising a clearer frame and a flexible sheet material mounted thereon, having a hard, shiny surface in resilient contact with the working face of one or more of said rolls.

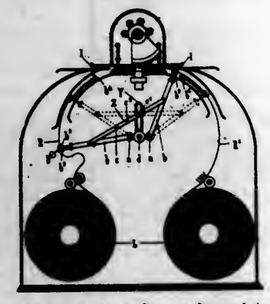
2. A clearer for the rolls of cotton-spinning and like machines, comprising a clearer frame and a sheet of leather stretched thereon, the "hair" side of the leather being glazed and adapted to be mounted in rubbing contact with the working faces of the rolls.

1,141,693. PRINTING DEVICE FOR CASH-REGISTERS OR CASH-DELIVERY APPARATUS. FRIEDRICH CORELL, Berlin, Germany. Filed Nov. 16, 1910. Serial No. 592,617. (Cl. 235—3.)

1. In a printing apparatus for cash registers, provided with oppositely disposed feed and delivery openings: suitable printing mechanism; means to retain a supply of material to be printed upon by said printing mechanism; means to present the material to said printing mechanism; and means to temporarily arrest the delivery of the said material to permit the printing mechanism to print material other than the said material.

2. In a printing apparatus for cash registers, provided with oppositely disposed feed and delivery openings; suitable printing mechanism; means to retain a supply of material to be printed upon by said printing mechanism; a driving roller and a spring pressed roller between which said material is adapted to pass to be presented thereby to said printing mechanism; and means to disengage said spring pressed roller from said driving roller to temporarily arrest the delivery of the said material.

3. In a printing apparatus for cash registers, provided with oppositely disposed feed and delivery openings and with a further delivery opening; suitable printing mechanism; means to retain a supply of material to be printed upon by said printing mechanism; means to present the material to said printing mechanism; and a pivoted flap to receive the printed material from one of said oppositely disposed feed and delivery openings to convey it to the said delivery opening.



4. In a printing apparatus for cash registers, provided with oppositely disposed feed and delivery openings and with a further delivery opening: suitable printing mechanism; means to retain a supply of material to be printed upon by said printing mechanism; means to present the material to said printing mechanism; a pivoted flap to receive the printed material from one of said oppositely disposed feed and delivery openings to convey it to the said delivery opening; and means to place said pivoted flap in inoperative position.

5. In a printing apparatus for cash registers, provided with oppositely disposed feed and delivery openings: suitable printing mechanism; means to retain a supply of material to be printed upon by said printing mechanism; a driving roller and a spring pressed roller between which said material is adapted to pass to be presented thereby to said printing mechanism; a pivoted flap to receive the printing material from one of said oppositely disposed feed and delivery openings to convey it to the said delivery opening; means to place said pivoted flap in inoperative position; and means to disengage said spring pressed roller from said driving roller to temporarily arrest the delivery of said material.

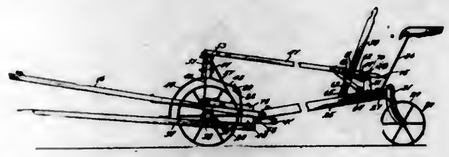
1,141,694. GRATING-MACHINE. HENRY CREMER, Chicago, Ill. Filed Oct. 12, 1914. Serial No. 866,411. (Cl. 146—9.)



In a grating machine, a support, a rotary grating member, means for reversibly mounting the said member on the support to rotate and grate in opposite directions, means for supporting material to be ground in operative relation with the said member, and a plurality of oppositely disposed means to regulate the degree of fineness of the material ground and coöperating with the said member in either direction of rotation thereof.

1,141,695. HAY-RAKE. JOSEPH DAIN, Ottumwa, Iowa, assignor to Dain Manufacturing Company of Iowa, Ottumwa, Iowa. Filed Apr. 13, 1908. Serial No. 426,817. (Cl. 56—66.)

1. The combination of a rake-head having raking-devices, carrying-wheels therefor, a frame extending rearwardly from said rake-head, and pivotally connected therewith wheels supporting said frame at the rear, vertically rocking means connecting said rear wheels with said frame, and draft-devices connected directly with said rake-head.



2. A rake, comprising a rake-head having rake-teeth and an upper frame, said rake-head being adapted to be rocked so that the rake-teeth assume a substantially vertical position, means carried by the rake-head for supporting the same when in the latter position, wheels supporting said rake-head when in its normal position, a rake-frame extending rearwardly from said rake-head, one or more caster-wheels supporting said rake-frame at the rear, and means connected with the rear portion of said rake-frame and adapted to positively engage the upper frame of said rake-head for holding the rake-teeth in either their normal or in their substantially vertical position.

3. A rake, comprising a rake-head having rake-teeth and an upper frame, said rake-head being adapted to be rocked so that the rake-teeth assume a substantially vertical position, one or more runners carried by said rake-head and projecting rearwardly therefrom in a plane substantially parallel with the plane of the rake-teeth, wheels supporting said rake-head when in its normal position, a rake-frame extending rearwardly from said rake-head, one or more caster-wheels supporting said rake-frame at the rear, and means connected with the rear portion of said rake frame and adapted to positively engage the upper frame of said rake-head for holding the rake-teeth in either their normal or in their substantially vertical position.

4. A rake, comprising a rake-head having rake-teeth and an upper frame, one or more runners carried by said rake-head and projecting rearwardly therefrom in a plane substantially parallel with the plane of the rake-teeth, wheels supporting said rake-head when in its normal position said rake-head being adapted to be rocked so that the rake teeth assume a substantially vertical position, one or more caster-wheels supporting said frame at the rear, and one or more pull-poles connected with the rear portion of said frame and with the upper portion of said rake-head for bracing said parts, said pull-holes having means for securing the rake-head when the rake teeth are in substantially vertical position.

5. A rake, comprising a rake-head having rake-teeth and an upper frame, one or more runners carried by said rake-head and projecting rearwardly therefrom in a plane substantially parallel with the plane of the rake-teeth, wheels supporting said rake-head when in its normal position said rake-head being adapted to be rocked so that the rake-teeth assume a substantially vertical position, an axle, one or more caster-wheels supporting said frame at the rear, and one or more pull-poles connected with the rear portion of said frame and with the upper portion of said rake-head for bracing said parts, said pull-holes having means for engaging the axle of the rake-head to hold the rake-teeth in substantially vertical position.

[Claims 6 to 10 not printed in the Gazette.]

1,141,696. DRAFT-RIGGING. GARIBALDI DE FERNANZO, Philadelphia, Pa. Filed June 18, 1914. Serial No. 845,788. (Cl. 213—2.)

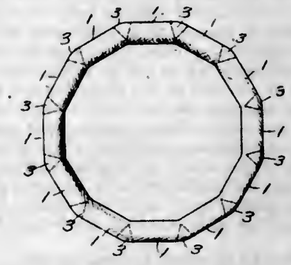
1. In a draft rigging, the combination with a support, a casing connected to the support, a rod projecting through the casing, a car coupling secured to the rod, a piston secured on the rod in the casing, said casing cylindrical and of largest diameter at its center and tapering to both ends, said casing at its ends of cylindrical form and smallest diameter, and of substantially the same diameter as the piston, and said piston having valved by-passing ports in its opposite faces communicating with the periphery of the piston, substantially as described.



2. In a draft rigging, the combination with a support, a casing connected to the support, a rod projecting through the casing, a car coupling secured to the rod, a piston secured on the rod in the casing, said piston having valved by-passing ports in its opposite faces communicating with the periphery of the piston, substantially as described.

3. The combination with a support, of brackets secured to the support and having flanges spaced apart, a casing, heads removably secured to the ends of the casing and having stuffing boxes therein, one of said heads having flanges located between the flanges of the support, a rod extending through the stuffing boxes, a piston on the rod in the casing, and a coupling connected to one end of the rod, substantially as described.

1,141,697. TIRE-LINING. LOUIS PHILIP DESLAURIERS, Ware, Mass. Filed Oct. 28, 1914. Serial No. 868,987. (Cl. 66—4.)



1. A lining for rubber tubes comprising a knitted fabric, consisting of a plurality of cylindrical sections having their axes inclined and provided with an integral gusset at the ends of adjacent sections.

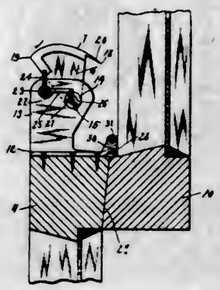
2. A lining for rubber tubes comprising a knitted fabric consisting of a plurality of cylindrical sections having their axes inclined and provided with an integral gusset at the ends of adjacent sections, said gusset being of substantially a wedge shape and being a continuation of the stitches of the cylindrical portions on either side thereof.

3. In a lining for pneumatic tires, a substantially circular continuous tube comprising a series of cylindrical sections, adjacent sections having their axes inclined toward one another and their inner edges abutting one another, and gussets disposed at the ends of adjacent sections.

4. In a lining for pneumatic tires, a substantially circular continuous tube comprising a series of cylindrical sections, adjacent sections having their axes inclined toward one another and their inner edges abutting one another, and wedge-shaped gussets disposed at the ends of adjacent sections, said gussets forming integral continuations of the cylindrical portions on each side thereof.

5. In a lining for pneumatic tires, a substantially circular continuous tube comprising a series of cylindrical sections, adjacent sections having their axes inclined toward one another and their inner edges abutting one another, and wedge-shaped gussets disposed at the ends of adjacent sections, said gussets forming integral continuations of the cylindrical portions on each side thereof, the inner sides of said cylindrical portions being provided with a guide for cutting the fabric formed by omitting one of the threads.

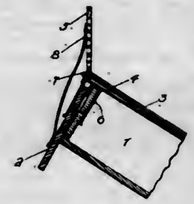
1,141,698. SASH-FASTENER. CHAUNCEY DE VOE, New York, N. Y. Filed June 16, 1914. Serial No. 845,406. (Cl. 16—19.)



1. The combination with the upper and lower sashes of a window, of a locking lever fulcrumed to said lower sash, said locking lever having a cam-shaped end adapted to bear against said upper sash, the lower portion of the cam-shaped end of said lever being substantially decreased in thickness, thereby forming a spring-like tail ending in a knife edge for causing resilient contact between said cam and said upper sash.

2. The combination with the upper and lower sashes of a window, of a frume secured to said lower sash, a spindle rotatably mounted in said frame, a lever rigidly secured to said spindle, said lever being provided with a locking cam adapted to bear against said upper sash, a shoulder upon said spindle, said spindle being also provided with a recess, and a pawl having a lug fulcrumed to said frame, said lug being adapted to bear, at will, against said shoulder or to be seated in said recess for holding said cam in locking and unlocking positions, respectively, in relation to said upper sash.

1,141,699. AUXILIARY BOX-COVER. RAIFORD WALKER DOUGLAS, Miami, Fla. Filed June 4, 1914. Serial No. 842,975. (Cl. 217—58.)

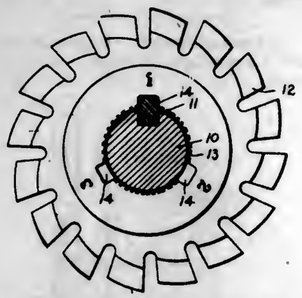


An auxiliary box cover, a plurality of longitudinally spaced depending inverted U-shaped clips hingedly connected therewith and composed of resilient material, said cover having an upright extension at its clip carrying edge, and a spring secured at one end to the rear face of said extension with its other end depending into position to engage the rear wall of a box when applied.

1,141,700. MILLING-CUTTER. HENRY E. EBERHARDT, Newark, N. J., assignor to Newark Gear Cutting Machine Co., Newark, N. J., a Corporation of New Jersey. Filed Nov. 1, 1913. Serial No. 798,635. (Cl. 29—103.)

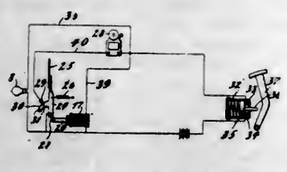
1. The combination with a rotary arbor and a single key thereon, of a milling cutter having a circular hole in the center thereof and provided with a plurality of keyways for said key whereby the cutter may be driven by said arbor.

2. The combination with a rotary arbor and a key thereon, of a milling cutter provided with a circular central hole for the said arbor and with three keyways extending



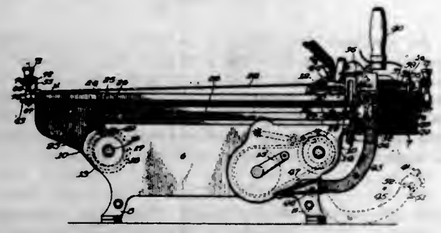
outwardly therefrom and substantially 120° apart whereby the cutter may be driven by said arbor, the said cutter being provided at the respective keyways with suitable characters to differentiate the said keyways.

1,141,701. VEHICLE-INDICATOR. PHILIP H. FIELDING, East Norwalk, and FREDERIC E. LEWIS, 2d, Saugatuck, Conn.; said Fielding assignor to said Lewis. Filed Apr. 8, 1913. Serial No. 759,596. (Cl. 177—339.)



In a vehicle indicator, a casing having openings in its rear face, an electric light in said casing opposite one of said openings, an indicator movable into and out of indicating position opposite the other of said openings, electromagnetic means for actuating said indicator, an electrically operated audible signal in said casing, parallel branch circuits for said lamp, indicator actuating means, and said signal respectively, a circuit adapted to be controlled by the vehicle brake common to said branch circuits, and a contact carried by said indictaor located in the branch circuit of said audible signal.

1,141,702. MULTIPLE COPYING-MACHINE. JOHN J. FLANIGAN, Chicago, Ill., assignor to Duplicator Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Oct. 24, 1914. Serial No. 868,468. (Cl. 101—99.)



1. In a multiple copying machine, the combination with the frame and bed, and a copying apron mounted on the latter, of means for squaring one end of a paper sheet preliminary to impressing the same on said apron, comprising a gage-bar located opposite and across one end of the bed, and a carrier for said gage-bar pivoted to swing in a direction lengthwise of the frame and bed.

2. In a multiple copying machine, the combination with the frame and bed, and a copying apron mounted on the latter, of means for squaring one end of a paper sheet preliminary to impressing the same on said apron comprising a gage-bar located opposite and across one end of the bed, a carrier for said gage-bar pivoted at its lower end beneath said bed so as to swing outwardly and downwardly of one end of the latter, and means for normally holding said gage-bar and its carrier in elevated position.

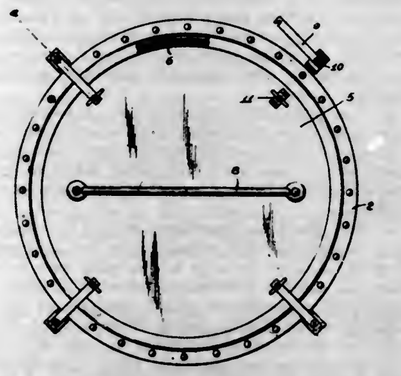
3. In a multiple copying machine, the combination with the frame and bed, and a copying apron mounted on the latter, of means for squaring one end of a paper sheet preliminary to impressing the same on said apron comprising a gage-bar located opposite and across one end of the bed, a pair of arms at their upper ends carrying said gage-bar and pivoted at their lower ends to the machine frame beneath said bed so as to swing outwardly and downwardly of one end of the latter, and spring means for normally holding said gage-bar and arms in elevated position.

4. In a multiple copying machine, the combination with the frame and bed, and a copying apron mounted on the latter, of means for squaring one end of a paper sheet preliminary to impressing the same on said apron comprising a gage-bar located opposite and across one end of the bed, a carrier for said gage-bar pivoted at its lower end beneath said bed so as to swing outwardly and downwardly of one end of the latter, and means for automatically locking said gage-bar in working position when moved thereto from idle position.

5. In a multiple copying machine, the combination with the frame and bed, and a copying apron mounted on the latter, of means for squaring one end of a paper sheet preliminary to impressing the same on said apron comprising a gage-bar located opposite and across one end of the bed, a pair of arms at their upper ends carrying said gage-bar and pivoted at their lower ends to the machine frame beneath said bed so as to swing outwardly and downwardly of one end of the latter, spring means normally urging said gage-bar and arms to elevated position, and means for automatically locking said gage-bar and arms in elevated position comprising a pair of stop-lugs on the machine frame, a bail pivoted to and between said arms, and latch members rigid with the arms of said bail operating to automatically move into locking engagement with said stop-lugs when said arms reach their fully raised position.

[Claims 6 to 13 not printed in the Gazette.]

1,141,703. SILO-DOOR. CALVIN C. FOUTS, Middletown, Ohio. Filed Aug. 7, 1914. Serial No. 855,544. (Cl. 220—124.)



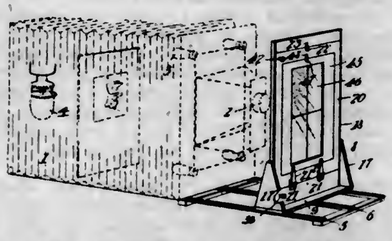
1. A silo door construction comprising, a jamb-ring secured at the door-opening in the silo shell and projecting outwardly from the outer surface of the shell and having its outermost portion projecting inwardly beyond the margin of the door-opening, packing held by such inwardly

projecting portion of the door-jamb, a door seated in the door-opening in the shell and having its interior surface substantially flush with the interior surface of the shell, a flange projecting away from the outer surface of the door and adapted to make contact with said packing, a hinge disposed within the shell and uniting the door to the shell, and fastening devices coöperating with the exterior of the shell and door and serving to draw the door outwardly, combined substantially as set forth.

2. A silo door construction comprising, a jamb-ring secured to the outer surface of the silo shell and projecting outwardly therefrom around the door-opening and having a portion projecting radially inward of the door-opening, a packing carried by said radially inwardly projecting portion of the jamb-ring, a hinged door mounted for open ing inwardly and adapted to seat against such packing, levers having their heels secured to the shell outside the jamb-ring and engaging over the outer face of the jamb-ring and projecting radially inward thereof, and bolts carried by the outer face of the door and adapted to engage the inner ends of said levers and draw the levers against the outward projection of the jamb-ring and draw the door against said packing, combined substantially as set forth.

3. A silo-door construction comprising, a jamb-ring secured to the silo shell and projecting outwardly therefrom, a door adapted to open inwardly and to close outwardly against the jamb-ring, pivots carried by the shell around said jamb-ring, bolts carried by the door in correspondence with the position of said pivots, and levers resting on the outer projection of the jamb-ring and having their outer ends mounted on said pivots and their inner ends engaged by said bolts, combined substantially as set forth.

1,141,704. EASEL. ELSAMUR S. FRENCH and WALTER H. CARSON, Denver, Colo.; said Carson assignor to said French. Filed Nov. 19, 1913. Serial No. 801,811. (Cl. 88—24.)



1. An easel, comprising a frame having a plate glass arranged therein, and a second frame movably mounted in respect to the first frame, having a ground glass arranged therein adapted to contact with the plate glass.

2. An easel, comprising a series of nesting frames, two of said frames being provided with contacting glass plates, and a carriage for supporting said frames, one of said plates being a focusing glass.

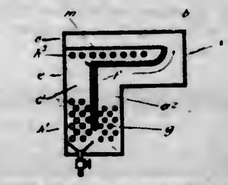
3. An easel, comprising a frame having pockets formed in the side bars thereof, threaded rods mounted in said pockets, mask strips connecting said rods and provided with nuts mounted upon said rods, and means for rotating said threaded rods to move said mask strips toward and away from each other.

4. An easel, comprising a frame having pockets formed in the side bars provided with longitudinal slits, rods mounted in said pockets provided with oppositely threaded ends, mask strips provided with nuts mounted upon said rods, and means for rotating said rods for adjusting said mask strips in respect to one another.

5. A photographic easel, comprising a movable carriage, a frame fixed to said carriage, a second frame nesting in the fixed frame having a plate glass secured therein, and a third frame nesting within the second frame having a ground glass arranged therein coacting with the plate glass.

[Claims 6 to 14 not printed in the Gazette.]

1,141,705. DRYING SYSTEM. WILLIAM M. GROSVENOR, New York, N. Y. Filed Aug. 17, 1908. Serial No. 448,824. (Cl. 34—3.)



1. In a drying system, a suitable chamber forming a closed cyclic path for the drying medium and arranged so that in one portion of the path the drying medium will pass upwardly and in another portion will pass downwardly, means arranged to heat the drying medium as it passes upwardly and means arranged to cool the drying medium as it passes downwardly, said chamber having means for holding the material to be dried in the upper part of said path where the gases will pass downwardly to the cooling means immediately on leaving the material to be dried, whereby an increase in vapor density of the gases, due to the drying medium coming in contact with the material, acts to aid the circulation of the drying medium.

2. In a drying system, a suitable chamber forming a cyclic path for the drying medium and arranged so that in one portion of the path the drying medium will pass upwardly and in another portion will pass downwardly, means arranged to heat the drying medium as it passes upwardly and means arranged to cool the drying medium as it passes downwardly, said chamber having means for holding the material to be dried at a part of said path where the gases will pass downwardly to the cooling means on leaving the material to be dried, whereby an increase in vapor density of the gases, due to the drying medium coming in contact with the material, acts to aid the circulation of the drying medium.

3. In a drying system, an evaporating chamber for drying out liquids, two conduits extending downwardly from said chamber and united at their lower extremities to form a continuous passage to and from the evaporating chamber, one conduit being provided with means for imparting heat to a medium therein and the other conduit being provided with cooling means.

4. In a drying system, an evaporating chamber for drying out liquids, two conduits extending downwardly from said chamber and united at their lower extremities to form a continuous passage to and from the evaporating chamber, one conduit being provided with means for imparting heat to a medium therein and the other conduit being provided with cooling means, said cooling means being located in the lower portion of said conduit.

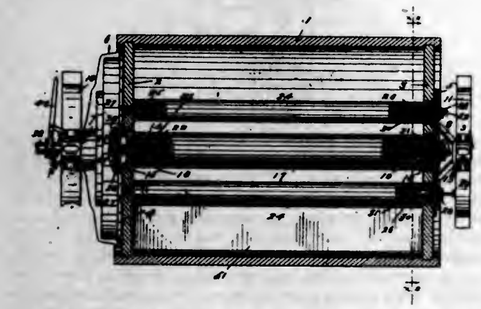
5. In a drying system, a suitable chamber forming a closed cyclic path for the drying medium and so arranged that the drying medium will pass upwardly in one portion thereof and downwardly in another portion thereof, means arranged to heat the drying medium as it passes upwardly, and means arranged to cool the drying medium as it passes downwardly, said chamber having means for holding the material to be dried, said last mentioned means being arranged in the upper part of said path so that the medium will pass upwardly thereto and the mixed gases or vapors will pass downwardly therefrom, said cooling means being arranged partly in the upper part of said path so that the drying medium will come in contact therewith immediately after leaving the material to be dried, and partly in the lower portion of said path.

[Claims 6 and 7 not printed in the Gazette.]

1,141,706. COMBINED CHURN AND BUTTER-WORKER. HERBERT A. HENDRIX, Albert Lea, Minn. Original application filed Sept. 10, 1913, Serial No. 789,078. Divided and this application filed June 20, 1914. Serial No. 846,232. (Cl. 31—25.)

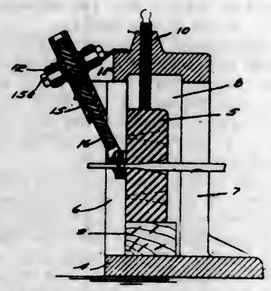
1. The combination with a drum, and means for rotating the same, of an eccentric working roller loosely jour-

naled in the drum, and a pin mounted in the drum with freedom for endwise movement but held against rotation with respect thereto, said pin having an angular extension adapted to be inserted into an angular seat formed in the eccentric working roller for locking the same against rotation with respect to the drum, at will.



2. The combination with a drum, and means for rotating the same, of an eccentric working roller loosely journaled in the drum, and a pin mounted in a stuffing box in the drum with freedom for endwise movement but held against rotation with respect thereto, said pin having an angular extension adapted to be inserted into an angular seat formed in the eccentric working roller for locking the same against rotation with respect to the drum, at will.

1,141,707. AUTOMATIC WIRE-GAGE AND DETECTOR. JOSEPH HERMAN, South Bartonville, Ill., assignor to Keystone Steel & Wire Company, Peoria, Ill., a Corporation of Illinois. Filed July 8, 1912. Serial No. 708,307. (Cl. 205—16.)



1. In a device of the character described, and in combination with a stand, adapted to support a plate or die; a wire gage, a block for holding the gage, a support having a pivotal connection with said stand, a member having a slidable relation with said support, said block having a pivotal connection with said member.

2. In a device of the character described, and in combination with a stand, adapted to support a plate or die; a wire gage, a block for holding the gage, an arm pivotally connected to said stand, a tubular member or sleeve carried by said arm, a member loosely carried in said tubular member or sleeve, said block having a pivotal connection with said member.

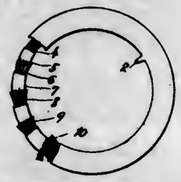
3. In a device of the character described, and in combination, a stand, a plate or die supported thereon; a wire gage, a support for the gage, means for supporting said support on said stand, and means for yieldingly holding the said support in a position so that the gage will be normally maintained in a vertical position and adjacent said plate or die.

4. In a device of the character described, and in combination, a stand, a plate or die supported thereon; a wire gage, a block for supporting said gage, an arm having a pivotal connection with said stand, means carried by said arm for supporting said block, and a spring carried by the arm and engaging the supporting means for the block, for yieldingly holding said block normally in vertical position and adjacent said plate or die.

5. In a device of the character described, and in combination, a stand, a plate or die supported thereon; a wire gage, a holder for the gage, a rod, and means for pivotally connecting the holder to said rod, a support for the rod, said support being journaled to said stand, and means for normally holding said rod in a position with the flat face of said holder adjacent said plate or die.

[Claims 6 to 22 not printed in the Gazette.]

1,141,708. METHOD OF MAKING TIRES. JOSEPH H. HILL, Wilmington, Del. Filed Sept. 8, 1911. Serial No. 648,390. (Cl. 154—14.)



1. The method of making a tire structure consisting in forming and inflating an annular tubular rubber core, covering the inflated core with overlying concentric tubes of continuous braided fabric, and interposing rubber between said layers, and completing the tire by molding and vulcanization while maintaining the continuity of said braiding.

2. The method of making a beaded tire consisting in forming and inflating an annular tubular rubber core, covering the inflated core with overlying concentric layers of continuous braided fabric alternating with rubber, applying a tread, beading strip, and tension wires thereto, and completing the tire by molding and vulcanization while maintaining the continuity of said braiding.

3. The method of making a beaded tire, consisting in forming and inflating an annular tubular rubber core, covering the inflated core with overlying concentric layers of continuous braided fabric alternating with rubber, applying tension wires between certain of said layers of braided fabric, and a tread and beading externally thereof and completing the tire ready for use while maintaining the continuity of said fabric by molding and vulcanization.

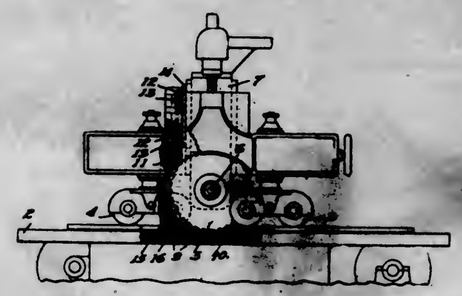
4. The method of making a tire structure consisting in forming and inflating an annular tubular rubber core, covering the inflated core with overlying concentric tubes of continuous braided fabric, interposing rubber between said layers, and completing the tire by molding and vulcanization while maintaining the inflation and the continuity of said braiding.

1,141,709. ATTACHMENT FOR EDGING OR JOINTING MACHINES. JOSEPH H. HISCOCK, Minneapolis, Minn. Filed Feb. 4, 1915. Serial No. 6,055. (Cl. 143—49.)

1. The combination, with a table, of a feed chain operating therein and composed of links having a longitudinal slot therein, a circular saw having teeth operating within said slot as said chain is moved along, and means depending within said slot in the rear of the saw for guiding edging strips out of the path of the saw teeth.

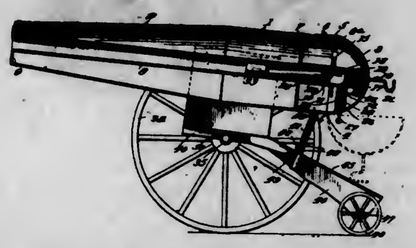
2. The combination, with a table having a recess in the top thereof and a feed chain operating within said recess and provided with a slot running lengthwise of said chain, a circular saw depending within said recess and said slot, and a shoe mounted in the rear of the saw and fitting within said slot beneath and adjacent the teeth of the saw.

3. The combination, with a table having a recess and a slotted feed belt operating therein, of a circular saw having its teeth depending within said slot, a hanger mounted in the plane of the saw and provided with a shoe fitting within the slot in said belt adjacent to and beneath the teeth of the saw, said shoe operating to de-



flect edgings and the like out of said slot and out of the path of the saw teeth.

1,141,710. TOY CANNON. ZACHARIAH E. HOUSE, Cass Lake, Minn. Filed Jan. 28, 1915. Serial No. 4,869. (Cl. 42—55.)



1. A device of the character specified, comprising an inner cylindrical casing and an outer inclosing casing, said casings being flush at one end and being connected at the said end, a rigid support between the casings near the opposite end, a fluid tight cap engaging the said other end of the inner casing, a cap cover hinged to the outer casing at the rear end to open downwardly, latch mechanism for holding the cover closed, a support rigidly fixed within the inner casing at the cap, and having means at the end adjacent to the cap for supporting a paper firing cap at the inner end of the firing pin and in contact with the pin, the barrel being adapted to receive a projectile at the outer end of the said support, the cap having a cylinder coaxial with the inner casing when the cap is closed, a spring pressed plunger within the cylinder for engaging the firing pin, means for retracting the plunger, and a releasable latch for holding the plunger in set position, the cap of the inner casing being removable with the firing pin to permit the insertion of the explosive cap, oppositely arranged ammunition cases having bearing openings in their adjacent walls, the outer casing of the gun having oppositely extending journal pins for engaging the openings to pivotally support the gun, said ammunition cases having registering transverse bearing sleeves on their under sides, an axle passing through the sleeves and provided at its ends with wheels outside of the ammunition cases, a trail between the ammunition cases and having means for engaging over the axle and provided at its rear end with a wheel, a rack bar pivoted to the gun near the cap or cover and extending through an opening in the trail, and a spring pressing the rack bar into engagement with the opening to hold the gun in adjusted position.

2. A device of the character specified, comprising an inner cylindrical casing and an outer inclosing casing, said casings being flush at one end and being connected at the said end, a rigid support between the casings near

the opposite end, a fluid tight cap engaging the said other end of the inner casing, a cap cover hinged to the outer casing at the said end to open downwardly, latch mechanism for holding the cover closed, a support rigidly fixed within the inner casing at the cap, and having means at the end adjacent to the cap for supporting a paper fulminate cap at the inner end of the firing pin and in contact with the pin, the barrel being adapted to receive a projectile at the outer end of the said support, the cap having a cylinder coaxial with the inner casing when the cap is closed, a spring pressed plunger within the cylinder for engaging the firing pin, means for withdrawing the plunger, and a releasable latch for holding the plunger in set position, the cap of the inner casing being removable with the firing pin to permit the insertion of the explosive cap.

3. A device of the character specified, comprising an inner cylindrical casing and an outer inclosing casing, said casings being flush at one end and being connected at the said end, a rigid support between the casings near the opposite end, a fluid tight cap engaging the said other end of the inner casing, a cap or cover hinged to the outer casing at the said end to open downwardly, latch mechanism for holding the cover closed, a support rigidly fixed within the inner casing at the cap, and having means at the end adjacent to the cap for supporting a paper fulminate cap at the inner end of the firing pin and in contact with the pin, the barrel being adapted to receive a projectile at the outer end of the said support, a spring actuated striker supported by the cap or cover for engaging the outer end of the firing pin to explode the cap, and releasable means for restraining the operation of the striker.

4. A device of the character specified, comprising an inner cylindrical casing and an outer inclosing casing, said casings being flush at one end and being connected at the said end, a rigid support between the casings near the opposite end, a fluid tight cap engaging the said other end of the inner casing, a cap or cover hinged to the outer casing at the said end to open downwardly, latch mechanism for holding the cover closed, a support rigidly fixed within the inner casing at the cap, and having means at the end adjacent to the cap for supporting a paper fulminate cap at the inner end of the firing pin and in contact with the pin, the barrel being adapted to receive a projectile at the outer end of the said support, and striking mechanism carried by the cap for engaging the pin to explode the cap.

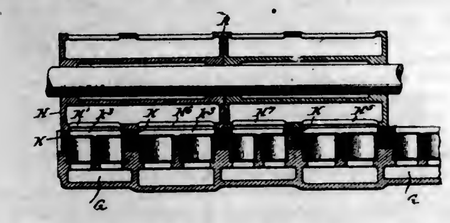
5. In a device of the character specified, the combination with the barrel having at one end a detachable cap provided with an axial firing pin, an inclosing casing for the barrel, the end of the barrel remote from the cap opening through the adjacent end of the casing, said casing having a cover at the end adjacent to the cap and inclosing the cap, said cover having a spring controlled striker for striking the firing pin, and having a releasable latch for restraining the operation of the striker, and means within the barrel for supporting a paper explosive cap for contact with the inner end of the firing pin, said means comprising a block or rod having lugs for supporting the cap in upright position, and adapted to limit the inward movement of a projectile at the other end.

[Claims 6 and 7 not printed in the Gazette.]

1,141,711. INTERNAL-COMBUSTION ENGINE. MAURITZ C. INDAHL, Philadelphia, Pa. Filed May 24, 1912. Serial No. 699,396. (Cl. 123—59.)

1. In an explosive engine, a rotary cylindrical valve having corresponding independent oppositely disposed sets of inlet ports in its cylindrical wall and passages connecting the ports of each set and corresponding independent oppositely disposed sets of exhaust ports in its cylindrical wall and passages connecting the ports of each set, a cylinder having oppositely disposed ports in position to register simultaneously each with one port of the corresponding oppositely disposed ports of each set in the valve and inlet and exhaust passages having ports for

registering respectively with the other port of each set and through which motive fluid is conducted to and the burned gases away from the valve.



2. In an explosive engine, the combination with a cylinder having ports arranged diametrically opposite to and facing each other, of a rotary cylindrical valve mounted between the ports on an axis intersecting the axis of the ports, said valve having corresponding independent oppositely disposed sets of inlet ports and passages connecting the ports of each set and corresponding independent oppositely disposed sets of exhaust ports and passages connecting the ports of each set, said cylinder ports and one of the ports of each set of valve ports being in the same vertical plane, and inlet and exhaust passages having ports in position to register respectively with the other ports of the sets and through which motive fluid is conducted to and the burned gases away from the valve.

3. In an explosive engine, the combination with a cylinder having oppositely branching passages at its upper end terminating in oppositely disposed ports facing each other, of a rotary cylindrical valve mounted between said ports on an axis at right angles to the axis of the cylinder, said valve having diametrically opposite inlet ports and diametrically opposite exhaust ports for successively establishing communication simultaneously with the said cylinder ports, and independent inlet and exhaust ports in the cylindrical wall of the valve on opposite sides of the first mentioned valve ports but in communication therewith and ported supply and exhaust ducts with which they register successively.

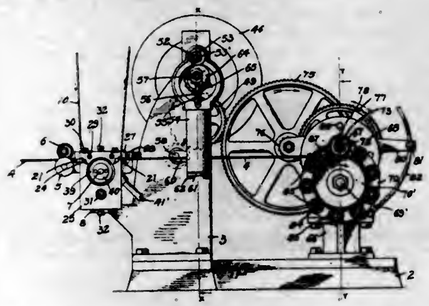
4. In an explosive engine, the combination with a cylinder having oppositely branching passages at its upper ends terminating in diametrically opposite ports facing each other, a valve chamber intermediate said ports with its axis at right angles to the axis of the cylinder, and a water chamber surrounding said valve chamber, of a cylindrical valve mounted in said valve chamber and having diametrically opposite ports for registering simultaneously with the cylinder ports, said valve also having inlet and exhaust ports in its cylindrical wall and in transverse planes on opposite sides of said first mentioned ports and inlet and exhaust ports and passages through which motive fluid is supplied to and the burned gases conducted away from the valve positioned to periodically register with the last mentioned valve ports.

5. In an explosive engine, the combination with a cylinder having oppositely branching passages terminating in oppositely disposed ports facing each other, and inlet and exhaust passages each having oppositely disposed ports facing each other, said inlet and exhaust ports being located in different planes on opposite sides of the axis of the cylinder, of a rotary cylindrical valve having diametrically opposite ports for registering with the cylinder ports, inlet ports and exhaust ports respectively in the planes of the said passage ports, and independent passages within said valve for establishing communication between the inlet ports on each side of the valve and exhaust ports on each side of the valve.

[Claims 6 to 17 not printed in the Gazette.]

1,141,712. TUBE-FORMING MACHINE. EDWARD E. JOHNSON, St. Paul, Minn. Filed June 4, 1908. Serial No. 436,648. (Cl. 29—33.)

1. The combination with means for forming a groove in a wire, of means for continuously feeding said wire thereto, of means for punching a series of holes successively through said wire as it is delivered from said groove forming means.



2. The combination with means for forming a longitudinal groove in a flattened wire, of means for continuously feeding said wire thereto, means for trimming the edge of said wire and means for punching holes successively through said wire as it is delivered from said groove forming means.

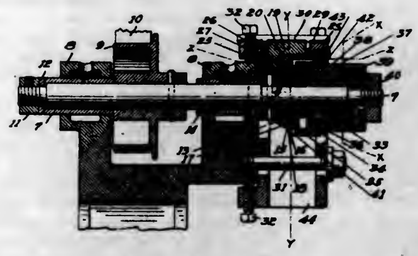
3. The combination with a supporting frame, of a punching head mounted thereon, means for laterally oscillating said head, means for continuously feeding a wire through said head, means for punching holes successively in said wire as it is fed through said head and means subsequently operating upon said wire for forming a flat surface thereon.

4. The combination with a supporting frame, of an oscillating punching head mounted thereon, means for adjusting said head vertically, means for laterally oscillating said head, means for continuously feeding the wire through said head, and means for punching a series of holes successively in the wire as it is fed through said head.

5. The combination with a supporting frame, of a stud mounted thereon, an eccentric bushing carried by said stud, a punching head journaled on said bushing, means for feeding a wire through said head, means for punching a series of holes successively in said wire, as it is fed through said head, and means for oscillating said head about said eccentric bushing, and in the direction longitudinally of said wire.

[Claims 6 to 14 not printed in the Gazette.]

1,141,713. WIRE GROOVING AND MILLING MACHINE. EDWARD E. JOHNSON, St. Paul, Minn. Original application filed June 4, 1908, Serial No. 436,648. Divided and this application filed Mar. 17, 1913. Serial No. 754,915. (Cl. 90—18.)



1. The combination, with a circular saw, of a guide arranged above the saw and having a groove in its under surface through which a wire is fed, the walls of said groove supporting the wire on the top, bottom and inner edge, and a milling device for the edge of the wire.

2. The combination, with a circular saw, of a guide having a groove to receive a wire and arranged to hold the face of the wire upon said saw, and a milling device mounted to operate upon one edge of the wire.

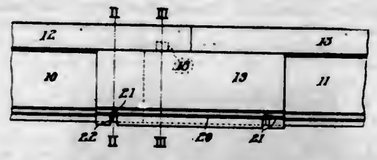
3. The combination, with a circular saw, of a guide having a groove above said saw and adapted to receive a wire and guide the same, a housing wherein said guide is mounted and means for adjusting said housing vertically to vary the position of the guide with respect to the saw and a milling device mounted to operate on the edge of the wire.

4. The combination, with a circular saw, of a guide having a groove therein to receive a wire, said guide having an inclined face on one side and a wedge device, and means for adjusting said wedge device lengthwise to move said guide laterally and change the position of said groove with respect to the saw and a revolving milling tool mounted to operate on the edge of the wire.

5. The combination, with a circular saw, of a guide through which the wire is fed past the saw, and means for regulating the tension thereon and a milling tool operating on the edge of the wire.

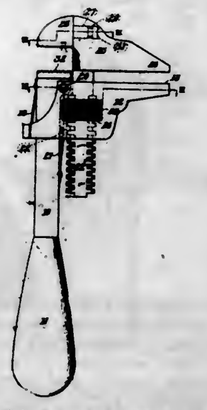
[Claims 6 to 16 not printed in the Gazette.]

1,141,714. RAIL-JOINT. JOHAN JUHÁSZ and JIM HORVÁTH, Scalp Level, Pa. Filed Sept. 16, 1914. Serial No. 862,001. (Cl. 239—8.)



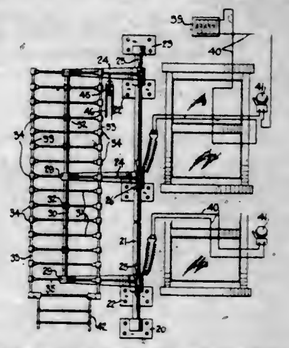
A device of the class described comprising two similar rails, one of the same having an end portion of its web cut away forming an extended tread portion, the said tread portion being provided with a rectangular socket in its lower face, said socket being wholly within the rail head and being of the width of the rail web, the other of said rails having an end portion with its tread cut away at the end thereof forming an extended web and base flange portion, the web portion being of uniform thickness from end to end of the rail, an upwardly projecting substantially square lug upon the upper edge of said web portion and adapted to seatingly receive the said socket thereover when the said rails are in longitudinal alinement with the treads and webs forming a continuous rail, and an inclosing housing slidably mounted upon the said rail ends and engaging the bases and webs thereof.

1,141,715. WRENCH. JOSEPH KISH, Cobalt, Ontario, Canada. Filed Sept. 9, 1914. Serial No. 860,958. (Cl. 81—98.)



A wrench comprising a shank having a jaw at its outer end, a sleeve pivoted to said shank, an outer jaw shank slidably-mounted in said sleeve, said outer jaw shank having a socket formed therein, an auxiliary jaw, a stem carried by the auxiliary jaw received in said socket, ball bearings between the end of the stem and the bottom of the socket, said stem having a peripheral annular groove adjacent its end, and a retaining screw threaded into the outer jaw shank having its inner end received in the stem groove.

1,141,716. COMBINED FIRE-ESCAPE AND ALARM. CHARLES RICKARD KJELLSTROM, Rockford, Ill. Filed May 18, 1914. Serial No. 839,246. (Cl. 200—27.)



1. In a fire escape including a ladder having a movable rung, opposing electric contacts on said rung and said ladder respectively, for closing an electric circuit, said contacts being inserted in said circuit whereby the circuit will be closed on the moving of the rung.

2. In a fire escape including a ladder having a movable rung, opposing electric contacts on said rung and said ladder respectively, bearings in the ladder for said rung, said bearings having longitudinal slots allowing slight vertical movement of said rung, said contacts being inserted in a circuit whereby the circuit will be closed on the moving of the rung.

3. In a fire escape including a ladder having a movable rung, opposing electric contacts on said rung and said ladder respectively, bearings in the ladder for said rung, said bearings having longitudinal slots allowing slight vertical movement of said rung, and springs normally holding the rung in its uppermost position, said contacts being inserted in a circuit whereby the circuit will be closed on the moving of the rung.

4. In a fire escape including a ladder having a movable rung, opposing contacts on said rung and said ladder respectively, bearings in the ladder for said rung, said bearings having longitudinal slots allowing slight vertical movement of said rung, springs normally holding the rung in its uppermost position, a locking member retaining the rung in its lowermost position, said contacts being inserted in a circuit whereby the circuit will be closed on the moving of the rung.

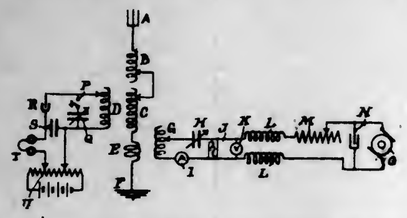
5. In a fire escape including a ladder having a movable rung, opposing contacts on said rung and said ladder respectively, for closing an electric circuit, said contacts being inserted in said circuit whereby the circuit will be closed on the moving of the rung, a central post from which the ladder is suspended, a hinge-device for swinging the ladder horizontally from inoperative to operative position, and means for securing the ladder in the latter position.

[Claims 6 to 16 not printed in the Gazette.]

1,141,717. TRANSMITTING INTELLIGENCE BY RADIANT ENERGY. JOHN WARREN LEE, Brooklyn, and JOHN L. HOGAN, Jr., West Rockaway, N. Y., assignors, by mesne assignments, to Samuel M. Kintner, Pittsburgh, Pa., and Halsey M. Barrett, Bloomfield, N. J., receivers. Filed Nov. 16, 1912. Serial No. 731,747. (Cl. 250—8.)

1. The method of receiving oscillating current energy by first combining it with the energy of a separately pro-

duced auxiliary oscillating current whose frequency is slightly different from the frequency of the received current, and then rectifying and utilizing the combined current to operate an indicator.



2. The method of wireless signaling which comprises exciting a receiving circuit by the received wave energy and also by an auxiliary alternating current of a frequency so related to the frequency of the received energy as to produce beats therewith, and then rectifying and using this composite current to operate a receiving instrument, whereby to amplify the effect of the received signal.

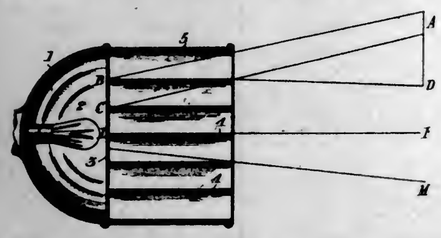
3. The method of wireless signaling which comprises the constant production of an auxiliary oscillating current of frequency similar to that of the received signaling waves, combining such auxiliary current with the received current, electrically rectifying the combined current, and utilizing it to operate an indicator.

4. An amplifier and discriminator for wireless signal receiving apparatus, comprising an auxiliary source of current adapted to excite the receiving circuits with a frequency near to, and diifferent from the frequency of the current of the received waves, means for electrically rectifying the current resulting from the combined effects of said two currents, and an indicator operated by the rectified current.

5. A receiver for wireless signaling, comprising an antenna, a cumulatively and proportionally responsive detector associated therewith, a current operated indicator, and an independent coöperating source of current also associated with the antenna and having a frequency differing slightly from the frequency of the received signaling current, so as to produce beats therewith and thereby operate the indicator by the combined currents.

[Claims 6 and 7 not printed in the Gazette.]

1,141,718. SCREEN FOR HEADLIGHTS AND OTHER LAMPS. JOHN J. MARTIN, St. Louis, Mo. Filed Nov. 9, 1914. Serial No. 871,021. (Cl. 240—45.)

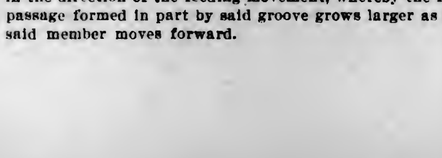


1. The combination with a lamp of the class described, of a crate-like screen arranged transversely in front of the lamp and having spaced thin and vertical plates and spaced thin and horizontal plates and rectangular interstices, formed by said plates, all extending in the direction in which light is projected from the lamp and also having reflecting the lower surfaces of the horizontal plates and non-reflecting the surfaces of the vertical plates and the upper surfaces of the horisontal plates.

2. The combination with a lamp of the class described, of a screen arranged transversely in front of the light of the lamp and having a series of thin spaced planes and a second series of thin spaced planes disposed at angles to the planes of the first-named series, and interstices formed between planes of the two series, all extending in the direction in which light is projected from the lamp and also having non-reflecting those surfaces of the planes which are liable to come within the field of vision of an observer at one side of the plane of the screen, and reflecting the under surfaces of one series of planes.

3. The combination with a lamp of the class described, of a screen arranged transversely in front of the light of the lamp and having a series of thin spaced planes and a second series of thin spaced planes disposed at angles to the planes of the first-named series, and interstices formed between planes of the two series, all extending in the direction in which light is projected from the lamp and also having non-reflecting those surfaces of the planes which are liable to come within the field of vision of an observer at one side of the plane of the screen.

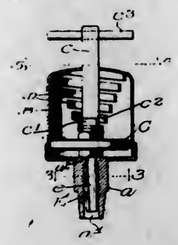
1,141,719. METHOD OF OXIDIZING STEEL OR IRON SHEETS. ARTHUR J. MASKREY, Canton, Ohio, assignor of one-half to John E. Carnahan, Canton, Ohio. Filed Oct. 14, 1913. Serial No. 795,095. (Cl. 148—41.)



1. The process of oxidizing steel or iron sheets consisting in placing a pack of sheets in a retort impervious to the gases of combustion, then heating the sheets in the retort to an annealing temperature, then removing the pack of sheets from the retort and then separately exposing the sheets while heated to an oxidizing agent.

2. The process of oxidizing steel or iron sheets consisting in annealing the sheets in a pack in a retort impervious to the gases of combustion, then removing the pack of sheets from the retort and then separately exposing the sheets while heated to an oxidizing agent.

1,141,720. GREASE-CUP. JAMES G. MARTIN, Chicago, Ill., assignor, by mesne assignments, to James G. Kellogg, Chicago, Ill. Filed Nov. 22, 1911. Serial No. 661,660. (Cl. 184—45.)



1. A grease cup having a feed opening, and means for increasing the size of said opening as the lubricant is discharged, comprising a member which is movable endwise only in said opening, being held by the sides of the opening against rotation therein; said member having a flat side with a longitudinal groove therein which is tapered in the direction of the feeding movement, whereby the feed passage formed in part by said groove grows larger as the said member moves forward.

2. A grease cup having a feed opening, and means for increasing the size of said opening as the lubricant is discharged, comprising a member which is movable endwise only in said opening, being held by the sides of the opening against rotation therein; said member having a flat side with a longitudinal groove therein which is tapered in the direction of the feeding movement, whereby the feed passage formed in part by said groove grows larger as the said member moves forward, and a feeding plunger movable with said member to force the lubricant out through said passage.

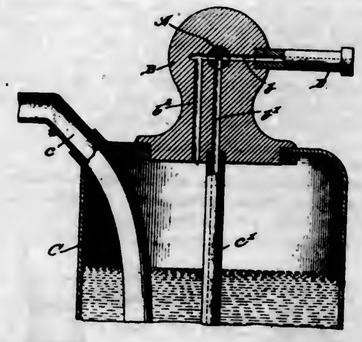
3. A grease cup having a feed opening, and means for increasing the size of said opening as the lubricant is discharged, comprising a member which is movable endwise only in said opening, being held by the sides of the opening against rotation therein; said member having a flat side with a longitudinal groove therein which is tapered in the direction of the feeding movement, whereby the feed passage formed in part by said groove grows larger as the said member moves forward, a plunger rigid with said member, and a spring for moving the plunger and member to feed the lubricant out through said passage.

4. A grease cup having a feed opening, and means for increasing the size of said opening as the lubricant is discharged, comprising a member which is movable endwise in said opening, said member having a longitudinal groove which is tapered in the direction of the feeding movement, whereby the feed passage formed in part by said groove grows larger as the said member moves forward, a body with a hole, a base upon which the body is held, a plunger rigid with said member and provided with a stem which extends through said hole, said stem being non-rotatable in said hole except at the base thereof, and said member being non-rotatable in said opening, whereby the body cannot be removed except when the plunger is at the limit of its upward movement.

5. A grease cup having a feed opening, and means for increasing the size of said opening as the lubricant is discharged, comprising a member which is movable endwise only in said opening, being held by the sides of the opening against rotation therein; said member having a flat side with a longitudinal groove therein which is tapered in the direction of the feeding movement, whereby the feed passage formed in part by said groove grows larger as the said member moves forward, said member having another groove of like character, whereby a plurality of variable feed openings are provided.

[Claims 6 to 12 not printed in the Gazette.]

1,141,721. ATOMIZER. JAMES G. MARTIN, Chicago, Ill., assignor, by mesne assignments, to James G. Kellogg, Chicago, Ill. Filed Apr. 19, 1912. Serial No. 691,940. (Cl. 128—2.)



1. An atomizer comprising a movable valve member and casing therefor, having air and liquid passages which come together within said member, the casing having a discharge opening leading from the side of said member, opened and closed by a movement of said member.

2. An atomizer comprising a movable valve member and casing therefor, having passages whereby the atomizing action of point where the air and liquid come together is within said member, said member having three lateral openings which inter-communicate internally of said member, and said casing having three passages each of which registers with one of said openings when the said member is in atomizing position, said member cutting off one of said passages and leaving the others open when adjusted to a different position.

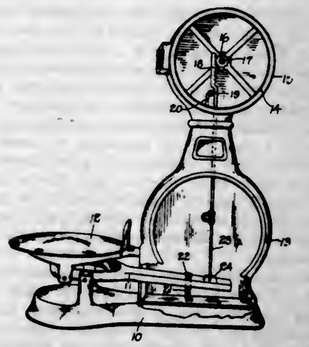
3. An atomizer comprising a rotary valve member and casing therefor, having passages whereby the atomizing action or point where the air and liquid come together is within said member, means for supplying compressed air to one of said passages, and means for supplying liquid to the second passage, the third passage serving to discharge the air and liquid intermingled within said member, and rotation of said member directly controlling all of said passages.

4. An atomizer comprising a movable valve member and casing therefor, having passages whereby the atomizing action or point where the air and liquid come together is within said member, said member being rotatable, and the arrangement of said passages being such that operation of said member serves to cut off one of said passages and leave the other open, to change the character of the discharge.

5. An atomizer comprising a movable valve member and casing therefor, having three passages whereby the atomizing action or point where the air and liquid come together is within said member, said member being rotatable, and the arrangement of said passages being such that operation of said member serves to cut off any one of said passages and connect together the other two passages, to permit discharge of either the air or liquid alone.

[Claims 6 to 12 not printed in the Gazette.]

1,141,722. SPRING WEIGHING-SCALE. EMIL MENZ, Hamilton, Ohio, assignor, by mesne assignments, to The Computing Scale Company, Dayton, Ohio, a Corporation. Filed Nov. 21, 1913. Serial No. 802,298. (Cl. 73—46.)



1. In a weighing scale having a housing, a beam, a base, a spring between the beam and the base for controlling the beam, a drum, a rack bar extending from the beam to the drum for operating it, said rack bar consisting of two separate portions in alinement with each other, and a thermostat between said portions and secured rigidly thereto.

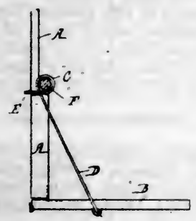
2. In a weighing scale having a housing, a beam, a base, a spring between the beam and the base for controlling the beam, a drum, a rack bar extending from the beam to the drum for operating it, said rack bar consisting of two separate portions in alinement with each other, a thermostat consisting of a horse-shoe-shaped steel bar and a brass horse-shoe-shaped bar within the steel bar and rigidly secured thereto, and means for securing the ends of the portions of the rack bar to the ends of the thermostat, whereby the thermostat becomes a part of the rack bar.

1,141,723. VEHICLE-TIRE. THERON R. PALMER, Erie, Pa. Filed May 1, 1913. Serial No. 764,879. (Cl. 152—14.)



An anti-skid pneumatic tire, having a plurality of peripheral rows of raised cups connected by diagonal ribs, substantially as described.

1,141,724. AUTOMATICALLY-FOLDING SEAT. FREDERICK WILLIAM RASMUSSEN, Pahiatua, New Zealand. Filed July 28, 1914. Serial No. 853,611. (Cl. 155—22.)



1. An automatically folding seat comprised by a back portion having a seat portion hinged to its lower end and a suspending frame consisting of a horizontal bar, loops encircling the bar one on each side of the seat back and a stirrup connection with the loops underlying and pivoted to the seat portion, substantially as specified.

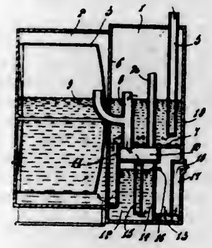
2. An automatically folding seat comprised by a back portion having a seat portion hinged to its lower end so as to fold thereon and a suspending frame consisting of a horizontal bar, loops encircling the bar, one on each side of the seat back, a stirrup connection with the loops underlying and pivoted to the seat portion and a guide connection with the loops encircling the seat back, substantially as specified.

3. An automatically folding seat comprised by a back portion having a seat portion hinged to its lower end, and a suspending frame consisting of a horizontal bar, and a stirrup underlying and pivoted to the seat portion and extending upward on both sides and loosely encircling such horizontal bar, and a stop projecting forwardly from the back portion and underlying the horizontal bar, substantially as specified.

1,141,725. GAS-METER. ANDREW ROGERS, Wellington, New Zealand. Filed Mar. 27, 1914. Serial No. 827,636. (Cl. 73—1.)

1. In a gas meter, an inlet chamber, a registering chamber, a partition separating said chambers and a passage for water leading from said inlet chamber to the registering chamber at such a position below the water level in said inlet chamber whereby when the water level is lowered in said inlet chamber through unequal pressures in said chambers the head of water between said chambers will prevent gas passing from said inlet chamber to said registering chamber, substantially as set forth.

2. In a gas meter, an inlet chamber, a registering chamber, a passage for water leading from said inlet chamber to the bottom of said registering chamber, a water seal compartment having a water overflow to the exterior of the meter, and an entrance pipe forming a passage for gas from said inlet chamber into said registering chamber and also forming a water overflow from said inlet chamber to said water seal compartment, substantially as set forth.

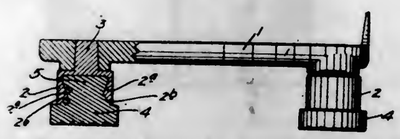


3. In a gas meter, an inlet chamber, a registering chamber, a water seal compartment having a water overflow to the exterior of the meter, an entrance pipe forming a passage for gas from said inlet chamber into said registering chamber and also forming a water overflow from said inlet chamber to said water seal compartment, and a passage for water between said chambers at such a position below the water level in said chambers whereby the head of water between said chambers will prevent gas being forced into said registering chamber other than through said entrance pipe substantially as set forth.

4. In a gas meter, an inlet chamber, a registering chamber, an entrance pipe forming a passage for gas from said inlet chamber into said registering chamber, a passage for water leading from said inlet chamber to the said registering chamber at such a position whereby the head of water between said chambers will prevent gas being forced into said registering chamber other than through said entrance pipe, a water seal compartment having a water overflow to the exterior of the water, and a closed chamber having communication with said water seal compartment, said closed chamber having communication with said entrance pipe, substantially as set forth.

5. In a gas meter, an inlet chamber, a registering chamber, a passage for water leading from said inlet chamber to the registering chamber, a water-seal compartment having a water overflow to the interior of the meter, an entrance pipe forming a passage for gas from said inlet chamber into said registering chamber, a closed chamber with which the bottom of said entrance pipe communicates, said water seal compartment being divided into two chambers, a pipe from said closed chamber depending into one of said chambers, an orifice near the top of said chamber whereby water overflows from said chamber into the other chamber, and means in said other chamber whereby the water reaches the overflow pipe of said water-seal compartment, substantially as set forth.

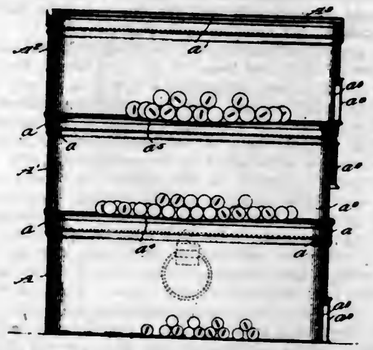
1,141,726. DETACHABLE HORSESHOE-CALK. PATRICK J. RYAN, Minneapolis, Minn. Filed Jan. 11, 1915. Serial No. 1,523. (Cl. 168—13.)



A cup-shaped metallic horse shoe calk provided with a shank adapted to be inserted into a seat in a horse shoe, the interior of said calk having a downwardly converging interior surface and a downwardly flaring surface below

the same, and a calk tread of pliable or elastic material formed with a shank that is provided with a peripheral channel that is approximately V-shaped in cross section and having a tapered extremity above said V-shaped channel which adapts the said shank to be compressed and forced into the said calk, and, by its expansion therein, to hold the said tread to the said calk.

1,141,727. SHOE-BUTTON SEPARATOR. ALEXANDER F. SEAMAN, Pottsville, Pa. Filed July 17, 1913. Serial No. 779,457. (Cl. 83—60.)



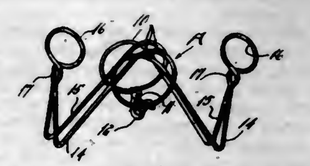
1. A shoe button separator of the character described comprising a casing consisting of a plurality of superposed sections, of which the lowermost section is provided with a closed base and each of the sections thereabove has a perforated base and a portion of its wall depending below the base to telescopingly fit around the upper edge of the wall of the next lowermost section, each of the sections including the lowermost section having an independent outlet and a closure normally covering the said outlet, all for the purpose described.

2. A shoe button separator of the character described comprising a vertical tubular casing consisting of a plurality of superposed sections, each of which sections is provided with a cylindrical wall and an upper open end, and each having an independent outlet and a vertically sliding door normally closing the outlet, the lowermost section of the casing having a closed base and each of the sections thereabove having a perforated base and a portion of its said wall depending below its base whereby each of the upper sections may be telescopingly engaged with the upper open end of the next lowermost section, all for the purpose described.

3. A shoe button separator comprising a cylindrical casing consisting of a plurality of superposed sheet metal sections, of which the lowermost section is provided with a closed base and each of the sections thereabove has a perforated base, each of said latter sections also having outstanding circumferential ribs adjacent their upper and lower ends, the lower rib of each of said sections forming an internal circumferential groove to receive the edge of its base and the upper groove forming an external limiting ring to receive the lower edge of the wall of the next section thereabove telescopingly disposed thereon, and each of said sections, including the lowermost section, having an outlet and a closure normally covering the said outlet.

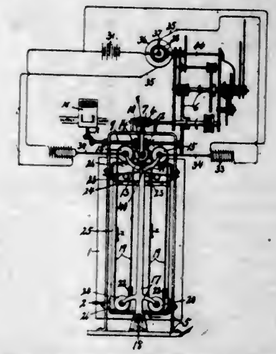
1,141,728. CLOTHES-PIN. HATTIE H. SELL, Gilbertsville, Pa. Filed Mar. 26, 1914. Serial No. 827,420. (Cl. 24—139.)

A clothes pin formed from a single strand of resilient wire bent to form a plurality of coils and two pairs of cooperating clamping arms, the arms of one pair extending from the outer members of the coils and the arms of the other pair extending from the inner members of the coils, the connected portions of said clamping arms being bent to form loops disposed in planes at right angles to the central plane of the pin, and one end of the wire connecting the outermost coils and the other end of the wire being



secured to one of the outer coils and bent U-shaped and having its terminal adapted for detachable engagement with the other outer coil.

1,141,729. RECORDING INSTRUMENT FOR WATTMETERS. SIMON B. STORER, Syracuse, N. Y., assignor, by mesne assignments, to Chicago Electric Meter Company, Chicago, Ill., a Corporation of Illinois. Filed Oct. 3, 1906. Serial No. 337,315. (Cl. 234—5.5.)



1. A recording wattmeter comprising integrating wattmeter mechanism for measuring and registering the consumption of electric energy, means for forming a record corresponding with the integrations of said mechanism, a time keeping mechanism combined with means for operating said recording mechanism by said time keeping mechanism, said means comprising an electric circuit and a circuit closing device therein actuated by the time keeping mechanism.

2. A recording electricity meter comprising integrating electricity meter mechanism for measuring and registering the consumption of electric current, means for automatically providing a record corresponding with the integrations of said mechanism, operating mechanism for periodically operating said means, time keeping mechanism combined with said operating mechanism, to automatically actuate said means at predetermined times through the agency of electrical devices and the electrical devices aforesaid, said electrical devices consisting of a time-wheel provided with the periodic circuit closing apparatus.

3. In combination, an integrating electricity meter responsive to the duration and strength of an electric current passing through the meter, a movable recording element, connections between a movable element of the electricity meter and said recording element for actuating the latter at a speed proportionate to that of the moving element of the electricity meter, electromagnetic mechanism adapted when actuated to cause the recording element to record its position, and a chronometer controlling the energization of said electromagnetic mechanism.

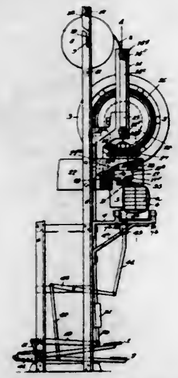
4. In combination, an integrating electricity meter comprising revolving mechanism responsive to the duration and strength of an electric current passing through the meter and a register driven by the revolving mechanism, a platen carrying a record sheet, a recording element movable relative to the platen, means actuated by a revolving element of the meter to move the recording element in

one direction, electromagnetic mechanism adapted upon actuation to cause the recording element to mark its position upon the record sheet carried by said platen, and a chronometer controlling the energization of said electromagnetic mechanism.

5. In combination, with a revolving element, a chronometer rotated cylinder, a recording device movable along said cylinder, separate actuating devices for moving the recording device in one direction along said cylinder, and chronometer controlled means for alternately throwing said actuating devices into connection with the revolving element at regular predetermined intervals of time, each of said actuating devices having means for returning it toward its starting position at the ends of the intervals of time.

[Claims 6 to 12 not printed in the Gazette.]

1,141,730. BUNDLING-MACHINE. CHARLES THACKER, Ironton, Ohio. Filed Dec. 3, 1914. Serial No. 875,271. (Cl. 100—31.)



1. An upright machine for bundling with wire, adapted to be worked by an operator standing before the machine; the same having, in combination, a suitable frame, provided with bundle supports and a wire reel, a wire twister and cutter including a spindle and head member having an axial vertical bore through which the wire can be pulled downward to form successive loops around the bundles, and cutter members rotatable with said spindle and head member, means for actuating said twister and cutter, and means for pulling the wire upward to tighten its successive loops.

2. An upright machine for bundling with wire, adapted to be worked by an operator standing before the machine; the same having, in combination, a suitable frame provided with bundle supports and a wire reel, a wire twister and cutter including a spindle and head member having an axial vertical bore through which the wire can be pulled downward to form successive loops around the bundles, and cutter members rotatable with said spindle and head member, an upwardly pulling wire tightener, a hand wheel and bevel gearing for manually actuating said twister and cutter, a pedal and connections for actuating said wire tightener, and a pedal and appurtenances for bending down the fastening twists of the wire.

3. In a bundling machine, the combination of a wire twister and cutter including rotatable members adapted to fasten the wire loops with locked twists, said members having an axial bore and a wire guide within which the wire is freely movable in the loop forming and tightening operations, and an end holding socket adapted to impart a withdrawal resisting bend to the wire during a part turn of said rotatable members; means for actuating the twister and cutter to form said bend and subsequently to complete the twisting and cutting operation; and means for pulling the wire to tighten a loop around the bundle immediately after said part turn and before the resumption of the twisting operation.

4. In a bundling machine, the combination of a wire twister and cutter, including a spindle and head member having an axial bore, and endwise movable knife and a counterpart rotatable with said spindle and head member; said knife having a trumpet-shaped wire guide in communication with said bore, a wire holding socket, a notch within which said socket is formed and cutting edges formed by said guide and said notch, and said counterpart having cutting edges matching those of said knife; means for actuating said twister and cutter first to impart to the socket held end of the wire a withdrawal resisting bend, and subsequently to complete the twisting and cutting operations, and means for tightening the wire around the bundle between said bend forming actuation and the resumption of the twisting operation.

5. In an upright machine for bundling with wire, means for fastening tightened loops of the wire around the bundles by locked twists, comprising a rotatable twister head having an axial vertical bore, a transverse bottom rib through which said bore extends and a pair of peripherally projecting tappet lugs; a subjacent endwise movable knife having a wire guide in communication with said bore, a socket to admit the free end of the wire, a notch within which said socket is formed, cutting edges formed by said guide and said notch respectively and alternately protruding cam ends; a bottom member embracing said rib and said knife, attached to said head, and provided with cutting edges matching those of said knife; means for giving said twister head and knife a part turn to impart to the wire a withdrawal resisting bend and subsequently continuing their rotation to complete the twisting operation; means for pulling the wire upward through said guide and bore to tighten a loop around a bundle after said part turn and before the twisting operation is resumed; and a tumbler mounted parallel to said head, having peripheral teeth engaged by said lugs, and a segmental projection which successively engages said cam ends of the knife after the twisting operation, to sever the wire and scrap, and to restore the knife to its normal position; substantially as hereinbefore specified.

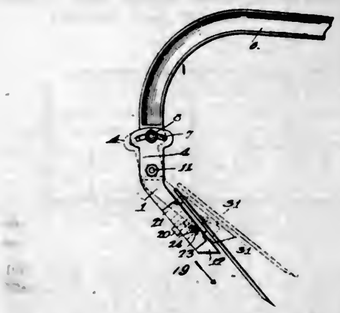
1,141,731. SICKLE-BAR AND PITMAN-ROD CONNECTOR. HOWARD URIE, Twin Falls, Idaho. Filed Aug. 28, 1912. Serial No. 717,537. Renewed Mar. 3, 1915. Serial No. 11,877. (Cl. 74—17.)



A device of the class described, including a pair of members, a connector for said members, said connector comprising a yoke-shaped member consisting of a pair of vertically disposed parallel spaced legs, bearings on the inner faces of the legs and engaging with the terminal of one of said members for establishing pivotal connection between said members, a horizontal cross bar formed integral with and connecting the upper extremities of said legs, a bolt passing through the legs at a point medially thereof for retaining the bearings in engagement with said last named member, means securing one end of the other of said members to the cross bar, one of said members having a pair of downwardly extending and relatively spaced ears for embracing the legs of the connector, a spacing block located between the legs of the connector at a point above and in spaced parallel relation with said bolt, and another bolt passing through the said ears, legs and block.

1,141,732. CULTIVATOR-FOOT. CAUGHEY C. VANCE, Memphis, Tex. Filed Nov. 12, 1914. Serial No. 871,747. (Cl. 97—11.)

1. In a cultivator foot structure, a body portion having its upper end bifurcated for forming arms, said arms adapted for receiving the lower end of a cultivator shovel supporting arm therebetween, the lower portion of said body portion being angled forwardly from said bifurcated portion, said lower angled portion being provided with a side recess formed in one side thereof, a plurality of recesses formed in said forwardly angled portion and in spaced relation with each other along the length of the same, means for seating in said spaced recesses for detachably connecting a cultivating shovel to said foot, and means for seating in said facial recess for preventing the accidental removal of said first named means.



2. In a cultivator foot structure, a body portion having its upper end bifurcated for forming arms, said arms being adapted for receiving therebetween the lower end of a cultivator shovel supporting arm, said arms being provided with arcuate slots for adjusting the position of said shoe upon said arm, the lower portion of said body portion being angled forwardly from said upper bifurcated portion, said lower portion being provided with a plurality of spaced recesses formed therein, a lug for seating in any one of said recesses, a plate formed upon said lug, said plate being provided for connection with a cultivator shovel, and means for holding said lug in any one of said spaced recesses for preventing accidental removal therefrom.

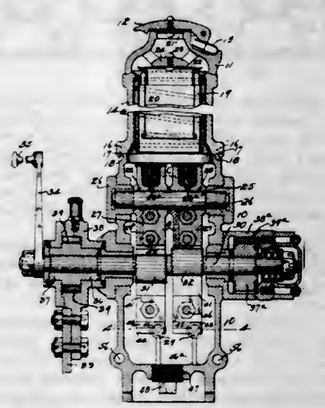
3. In a cultivator foot structure, a cultivator foot being provided with a plurality of recesses formed therein, a lug for seating in said recesses, said lug having an enlarged head formed upon one end and a plate formed upon the other end, said plate being provided for connection with an ordinary cultivating shovel, said cultivator foot being provided with a side recess communicating with said spaced recesses, a plate seated in said facial recess for preventing accidental removal of said lugs from any one of said recesses, and means for locking said plate in said facial recess against accidental removal.

1,141,733. AUTOMATIC OIL-FEEDING DEVICE. AXEL S. VOGT, Altoona, Pa. Filed Apr. 14, 1914. Serial No. 831,762. (Cl. 184—27.)

1. An oiling device including a casing having an oil reservoir and valved oil ports in communication therewith, pump units arranged in the reservoir of the casing and including offset oppositely disposed pump plungers of different diameters and oppositely disposed offset cylinders for said pump plungers, one cylinder of each unit communicating with one of said valved oil ports, and having an outlet connecting with the inlet of the other of said cylinders, the said other cylinder also having an outlet passage, a common yoke adapted to operate both of said pump plungers, and means for actuating said yoke.

2. An oiling device including an oil receptacle, swinging yokes mounted therein, pairs of oppositely disposed pump plungers being of different diameters and actuated by a common yoke, pump cylinders receiving said pump plungers, eccentric means for actuating the yokes, and means for lubricating the eccentrics independent of the oil level in the oil receptacle.

3. An oiling device including a casing having an oil reservoir, a multiple-chamber submerged oil pump inclosed thereby, said pump including plunger means for delivering constant supplies of oil in different directions, power actuated pendent yokes for moving the plunger means, said plunger means including a plurality of pump plungers of different diameters, adapted to force a portion of the oil from the larger pump plunger chamber into the chamber of the smaller pump plunger, and pump cylinders receiving said plungers.

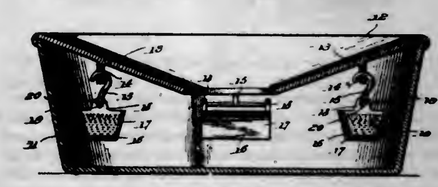


4. An oiling device including an oil receptacle, means for straining the oil within the said receptacle, oil plunger yokes, a shaft for supporting the yokes, an eccentric carrying shaft for operating the yokes, power and hand operated means for rotating the said eccentric carrying shaft, ratchet means for locking the shaft against backward rotation, a plurality of different diametered pump plungers engaged by the yokes, and pump cylinders receiving said pump plungers.

5. An oiling device including a casing having an oil reservoir, a yoke shaft arranged across said reservoir, plunger actuating yokes mounted on said yoke shaft, an eccentric yoke operating shaft journaled in said casing and having ratchet means, oil plungers of different diameter engaged by a common yoke and oppositely disposed, pump cylinders receiving said oil plungers, and valved oil conveying means communicating with the reservoir and pump cylinders having the oil plungers.

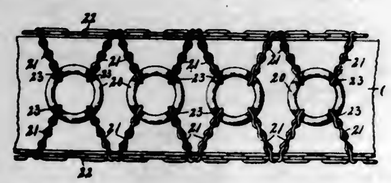
[Claims 6 to 8 not printed in the Gazette.]

1,141,734. CUSPIDOR. SAMUEL O. WALTERS, Royersford, Pa. Filed Mar. 27, 1914. Serial No. 827,720. (Cl. 4—30.)



In a cuspidor, the combination with a body, of a cover therefor, said cover being provided with a central opening having its face depressed toward said central opening, lugs formed with and projecting from the underside of the cover at a point between its outer edge and the edge of said opening, hooks passing through the openings in said lugs, and cups containing disinfectant supported by said hooks wholly within the body whereby the fumes emitted from the disinfectant is confined within the body as long as possible to kill all germs contained therein.

1,141,735. GRIP-TREAD FOR VEHICLE-TIRES. HARRY D. WEED, Canastota, N. Y., assignor to Walter B. Lashar, Bridgeport, Conn. Filed Mar. 13, 1906. Serial No. 305,754. (Cl. 152—14.)



1. A grip-tread for the tires of wheels comprising longitudinal retaining members, sections of cross-chains having their ends connected with said retaining members, and tread-rings, said rings having alternately disposed large and reduced portions, said reduced portions providing annular receiving spaces in which the end-links of said cross-chains are arranged and connected with said reduced portions.

2. A grip tread for the tires of wheels comprising tread rings having alternately disposed large and reduced portions, and attaching members connected to said reduced portions.

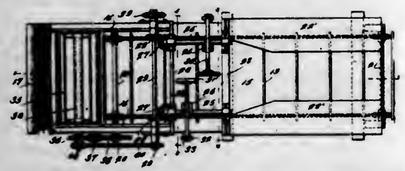
3. A grip tread for resilient wheel tires comprising tread members presenting closed open-centered outlines to the tire and having alternately disposed projecting wearing portions and depressed attaching portions and attaching members connected to said depressed attaching portions.

4. A tread grip for resilient wheel tires comprising tread members presenting closed open-centered outlines to the tire and having projecting wearing portions to engage the roadway and depressed attaching portions and attaching members connected to said depressed attaching portions.

5. A chain mat for resilient tires comprising side chains, tread pieces presenting closed open-centered outlines to the tire, and securing chains for each tread piece secured to either side chain at remote points and to each tread piece at fixed locations.

[Claims 6 to 9 not printed in the Gazette.]

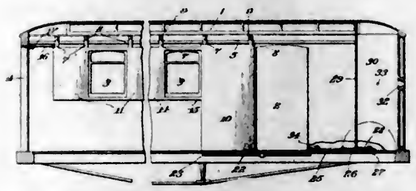
1,141,736. FEEDING DEVICE FOR CORN-SHREDDERS. PETER WEYMANN, Melrose, Minn. Filed Apr. 10, 1914. Serial No. 831,012. (Cl. 130—5.)



1. In a feeder for shredding machines, a frame, an endless conveyer, guides for said conveyer, crank shafts supported longitudinally above the conveyer, combined cutting and spreading members pivoted on the cranks of said shaft and having blades movable transversely of the conveyer and the cutting edges of which are disposed longitudinally with respect to the conveyer, and links connecting the outer ends of said cutting and spreading members with the frame; the guides of the conveyer being interrupted in the path of the cutting and spreading members, in combination with means for actuating the conveyer and and the crank shafts.

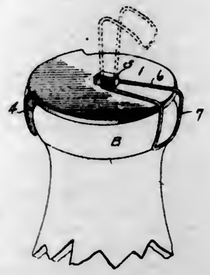
2. In a machine of the class described, the combination with a conveyer and a frame whereon said conveyer is guided, of crank shafts supported longitudinally above the same, cutting and spreading members including arms pivoted on the cranks of said shafts, and broad hoe-shaped cutting blades fixed on the inner ends of said arms, movable transversely of the conveyer and having cutting edges disposed longitudinally with respect to the conveyer, links connecting the outer ends of said arms with the frame, and means for actuating the conveyer and for rotating the crank shafts in opposite directions imparting to the cutting and spreading members orbital movements whereby they will be caused to sweep over the top face of the conveyer transversely toward the outer edges of the latter.

1,141,737. SAFETY APPARATUS FOR RAILWAY-CARS. BENJAMIN F. WILLIAMS, Grand Rapids, Mich. Filed July 17, 1914. Serial No. 851,587. (Cl. 39—92.)



The combination with a car body having door and window openings therein, of closures movable to close said openings, means connecting said closures for simultaneous movement, horizontal rods connected to said closures, a horizontal actuating shaft journaled transversely of the car body and capable of rotary movement, arms connected to said shaft, links pivoted to the outer ends of said arms and having the remaining extremities thereof pivotally connected to said rods and movable bodily from one side of said shaft to the other in the movement of the shaft whereby the rods will be slid horizontally to actuate said closures to closed positions, said links having grooves in the under edges thereof designed to receive said shaft when the links are actuated to door closing position, and means for actuating said shaft.

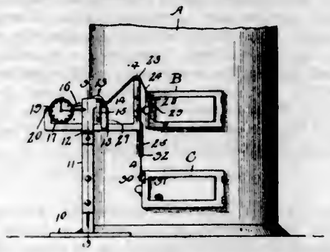
1,141,738. BOTTLE-CAP. ELIHU WILLIAMS, Youngstown, Ohio. Filed Feb. 5, 1915. Serial No. 6,366. (Cl. 215—37.)



1. A bottle cap comprising a body having an offset sealing plug, a peripheral cap flange and a single rigid bottle engaging abutment lug depending from said flange, and a spring wire locking bail pivotally carried by the top of the cap body, said locking bail having a hooked clamping end working in opposition to said abutment lug.

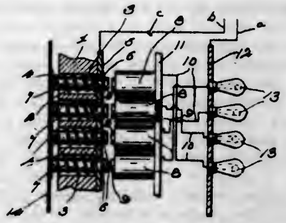
2. A bottle cap comprising a body having on its bottom face a central offset sealing plug, and at the edge thereof provided with a single depending laterally and vertically curved bottle engaging abutment member, a raised pivot boss centrally located on the upper face of said cap body, and a locking bail pivotally mounted in said boss and adapted to swing toward the cap body, said bail having a hooked clamping end working in opposition to said abutment member.

1,141,739. TIME MECHANISM FOR FURNACES. JOHN F. WILLIAMS, Wilkes-Barre, Pa. Filed Feb. 25, 1914. Serial No. 820,990. (Cl. 161—8.)



A time mechanism of the class described comprising a support formed in two sections adjustably connected to each other, a yoke at the upper end of the support, a winding drum journaled in said yoke, a U-shaped frame fixed to one limb of the yoke, a guide member adjustably connected to one arm of the frame, a swinging holder pivoted to the other arm of the frame and adapted to receive a clock, a resilient catch on the said holder and engageable with the other limb of the yoke to lock the holder, a curvilinear arm adjustably connected to the arm of the frame carrying the guide member, a cable detachably connected to the drum and adapted to be wound and unwound therefrom and having branches trained through the guide member and over the curvilinear arm for connection with a pair of doors for the alternate opening and closing of the same, a weight connected with said cable, and means operative by the alarm key of the said clock when in the holder for releasing the drum whereby the cable will become detached therefrom for operation by the weight.

1,141,740. ELECTRIC DISPLAY-BOARD. NOAH L. WINE, Fort Myers, Fla., assignor of one-fourth to Frank T. McNulty and one-fourth to Lucius C. Curtright, Fort Myers, Fla. Filed Nov. 25, 1914. Serial No. 874,023. (Cl. 177—349.)

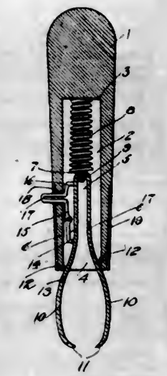


1. An electric display board comprising a series of contact pins mounted in a suitable support and provided with flat extending heads which form a flat almost unbroken surface, a flexible blackboard or screen, and a series of electro-magnets, electric light bulbs and connections whereby when a sign or legend is traced upon the blackboard, the contact pins are pushed in against the cores of said magnets to display the same by the electric light bulb.

2. An electric display board comprising a series of spring actuated contact pins having smooth heads thereon, a flexible blackboard or sheet suspended in contact with said heads, a series of electro-magnets having cores in alinement with said contact pins, electric lights and connections whereby a sign or legend traced upon the blackboard will be reproduced by the electric light.

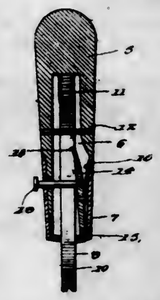
3. An electrical display board comprising spring actuated contact pins mounted in apertures in a suitable support, said pins having smooth heads adapted to lie in an almost continuous flush surface, a flexible blackboard or sheet suspended in contact with heads, electro-magnets having their cores mounted in alinement with said pins, electric light bulbs connected to said magnets, connections between the electric lights and the contact pins, a switch in said connections, and means whereby when a sign is placed upon the blackboard or a sheet it will be reproduced in the electric lights by contact of the pins with the electric-magnet cores.

1,141,741. TACK-PULLER. ELMER WISEMAN, Milwaukie, Oreg. Filed Mar. 10, 1914. Serial No. 823,775. (Cl. 145—42.)



In a tack extractor, a handle having a bore open at one end of the handle, a gripping element longitudinally movable in the bore and having a pair of spring projected jaws provided with cam portions bearing against the sides of the bore at the open end thereof and coacting therewith to close the jaws when said gripping element is moved inwardly in the handle, a spring to project the gripping element from the open end of the handle, and a catch to lock the gripping element in the handle when in gripping, retracted position.

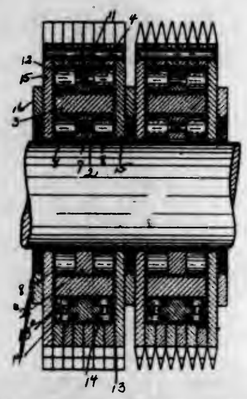
1,141,742. TACK-PULLER. ELMER WISEMAN, Milwaukie, Oreg. Filed July 24, 1914. Serial No. 852,859. (Cl. 254—18.)



A tack extractor comprising a handle having a bore, a ferrule closing said bore and having an elongated slot in one end thereof communicating with said bore, an extracting element constructed from a single length of material and comprising companion normally separated jaws having portions extending into the bore and portions extending outwardly therefrom for engagement with the end walls of the slot so as to be moved thereby into gripping relation when downward pressure is applied to the handle, a spring pressed locking element arranged within the ferrule and loosely supported by the closed end thereof and adapted to operate through an opening in the handle for engagement with said jaws to retain the latter in gripping relation, a manipulating member secured to said element and projecting through the handle and adapted to be pushed inwardly to release said element, means for automatically projecting said jaws to normal position

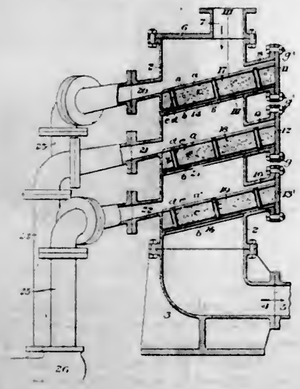
upon release of said element, and a pin extended transversely through the handle between the jaws and adapted to engage the closed end thereof to limit the forward movement of the jaws.

1,141,743. ROLLER-BEARING. WILLIAM F. WITTICH, Erie, Pa. Filed July 3, 1911. Serial No. 636,706. (Cl. 64—62.)



In a roller bearing, the combination of outer and inner walls; a roller carrying ring next to the inner wall; a roller carrying ring next to the outer wall; an interposed floating ring; and rollers mounted on each side of said roller carrying rings with their axes extending in an axial direction relatively to the bearing and engaging said walls and said floating ring, said roller carrying rings having rollers mounted thereon with their axes extending in a radial direction.

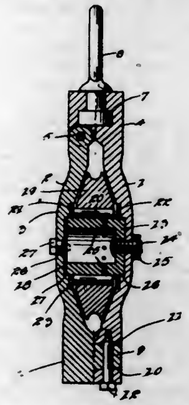
1,141,744. WATER-FILTER. HARRY WOODS, Steubenville, Ohio; Allie Woods administratrix of said Harry Woods, deceased. Filed Aug. 20, 1910. Serial No. 578,185. (Cl. 210—18.)



1. A filter having a vertically disposed casing, said casing having an inlet at the top thereof and an outlet at the bottom for the liquid to be filtered, a filter screen within said casing disposed at an angle to the vertical and horizontal planes of said casing, a depository extending outwardly from the casing at one side thereof adjacent to the top of the screen, the entrance to said depository being approximately the same width as the screen, to permit the material filtered from the liquid to freely pass into said depository from edge to edge of the screen, substantially as described.

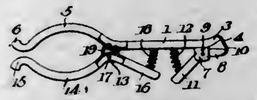
2. A filter having a vertically disposed rectangular casing, said casing having an inlet at the top thereof and an outlet at the bottom for the liquid to be filtered, a plurality of filter screens within said casing disposed at an angle to the vertical and horizontal planes of said casing, a plurality of depositories extending outwardly from the casing at one side thereof, there being a depository adjacent to each screen, the entrance to each depository being approximately the same width as the screen, to permit the material filtered from the liquid to freely flow from the tops of the screens into the depositories from edge to edge thereof, substantially as described.

1,141,745. PULLEY-BLOCK. ROBERT H. WORRELL, Surveyor, W. Va., assignor of one-fourth to James H. Miller, Hinton, W. Va., and one-fourth to George W. Johnson, Parkersburg, W. Va. Filed Feb. 25, 1914. Serial No. 820,870. (Cl. 254—193.)



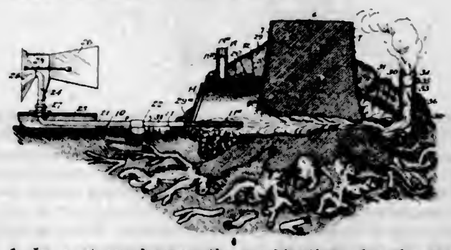
A pulley block comprising a pair of side plates hingedly secured together and having central circular recesses surrounded by annular grooves, a hollow cylindrical bearing pin having one end open, means securing the closed end of said bearing pin in the recess in one of said side plates, the opposite open end of said bearing pin being removably seated in the recess in the other side plate, a washer plate interposed between the open end of said bearing pin and the adjacent side plate, keys formed adjacent the opposite ends of said bearing pin, said bearing pin having a plurality of radial openings therethrough, a pair of annular bearing members seated in said annular grooves and having recesses therein receiving said keys, a sheave rotatably mounted upon said bearing pin, and a plurality of bearing rollers interposed between said sheave and said pin and between the annular bearing members of the pair.

1,141,746. COW-TAIL HOLDER. JULIUS ZENKE, Dakota, Minn. Filed May 1, 1914. Serial No. 835,727. (Cl. 119—105.)



The herein described cow tail holder comprising a main member having fixed jaws at opposite ends thereof, U-shaped clips secured to said main member near its ends, and a pair of jaws pivotally mounted in said clips and respectively opposed to the first named jaws and each provided with a lever arm, said fixed jaws and pivotally mounted jaws forming clamps at opposite ends of the holder, one of said clamps being adapted to engage the gambrel of the leg and the other clamp being adapted to engage the tail, the clip of the pivoted gambrel engaging jaw being provided with a flange at one side forming a stop to prevent said pivoted jaw from closing against the fixed gambrel engaging jaw and springs to normally hold the pivoted jaws in engaged position and arranged between the main member and the lever arms of the pivoted jaws.

1,141,747. APPARATUS FOR BURNING STUMPS. SAMUEL F. ZYSSET, Thomas, Oreg. Filed Mar. 12, 1914. Serial No. 824,153. (Cl. 110—21.)



1. In a stump burner, the combination of a furnace provided with a combined draft and smoke outlet and open at its bottom and at one end to be located against one side of a stump, an air inlet pipe extending into the lower part of said furnace with its inner end in close proximity to the stump and movable progressively therethrough to supply air to the stump as a hole is burned therethrough and mechanism for directing a current of air into said air inlet pipe.

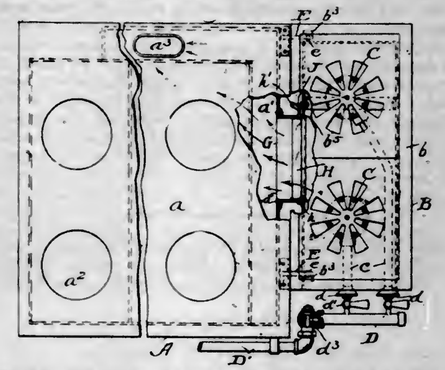
2. In a stump burner, the combination with a furnace adapted to be located against one side of a stump, an air pipe movably extending into the lower portion thereof with its inner end in close proximity to the stump, of a wind inlet funnel connected to said pipe, a supporting member carrying said wind funnel and movable bodily toward and away from the stump, and a wind controlled vane for shifting said funnel into position to receive the air and direct the same through the air inlet pipe into the furnace.

3. In a stump burner, the combination of a furnace to be located upon one side of a stump, a hood to be located upon the opposite side of said stump and provided with an outlet for the products of combustion, and a draft pipe extending into said furnace to facilitate the burning of a hole through the stump, and a wind funnel connected with said draft pipe and movable bodily therewith toward and from said stump.

4. In a stump burner, the combination of a furnace to be located upon one side of a stump, draft inducing mechanism comprising a hood to be located upon the opposite side of said stump and provided with an outlet for products of combustion, a draft pipe movably extending into the lower part of said furnace through the door thereof and movable bodily toward said stump, said draft pipe being admitted through an open end slot in said furnace door to facilitate the removal of said furnace and its replacement with a charge of earth after a hole is burned through said stump.

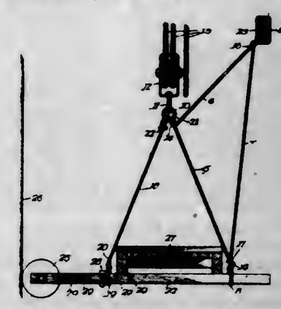
1,141,748. COOKING-RANGE. HENRY A. AHRENS, Cleveland, Ohio, assignor to The H. Franke Steel Range Company, Cleveland, Ohio, a Corporation of Ohio. Filed Oct. 19, 1914. Serial No. 867,319. (Cl. 126—36.)

1. A cooking range having below its top and in communication with the stove pipe hole thereof a space through which the heated products of combustion in said stove will flow to said stove pipe hole, a box-like drop leaf which contains a gas burner and is hinged to the stove at one end thereof on an axis which is below the top of the stove and below the top of the drop leaf,—which box-like drop leaf has a hole through that side which is adjacent to the stove when the drop leaf is in a horizontal position, which hole is above the axis on which the drop leaf is hinged, and means for supplying gas to said burner when the drop leaf is in its horizontal position, combined with a flue box fixed to the adjacent end of the stove and projecting therefrom toward the drop leaf above the hinge axis of said drop leaf and in position to register with the hole in said drop leaf when the latter is in the horizontal position, and a damper in said flue-box.



2. A cooking range having below its top and in communication with the stove pipe hole thereof a space through which the heated products of combustion in said stove will flow to said stove pipe hole, a box-like drop leaf which contains a gas burner and is hinged to the stove at one end thereof on an axis which is below the top of the stove and below the top of the drop leaf,—which box-like drop leaf has a hole through that side which is adjacent to the stove when the drop leaf is in a horizontal position, which hole is above the axis on which the drop leaf is hinged, and means for supplying gas to said burner when the drop leaf is in its horizontal position, combined with a flue box fixed to the adjacent end of the stove and projecting therefrom toward the drop leaf above the hinge axis of said drop leaf and in position to register with the hole in said drop leaf when the latter is in the horizontal position, and a damper in said flue-box, and a projection on said drop leaf adapted to engage and move said arm, and thereby open the damper as the drop leaf swings to its horizontal position.

1,141,749. PENDANT-SCAFFOLD SUPPORT. WHITFIELD H. ALLEY, Chicago, Ill. Filed Dec. 24, 1914. Serial No. 878,961. (Cl. 20—82.)



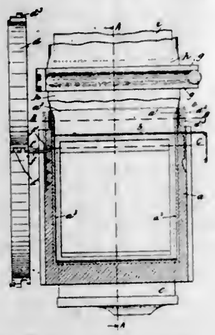
1. In a pendant scaffold support, the combination of a triangular frame member having at one corner a cross-bar stirrup, at another corner a safety-rail loop, and at its third corner an eye to engage a suspending device, and a depending leg member flexibly connected at its upper end to the eye of said frame member and having a cross-bar stirrup at its lower end.

2. A pendant scaffold support comprising, in combination, side frames each having angularly adjustable suspen-

sion legs flexibly connected to each other at their upper ends and formed with cross-bar stirrups at their lower ends, cross-bars carried by said stirrups and each formed with a series of spaced holes therein, and stop-bolts engaging said holes and coöperating with said stirrups to prevent a creeping movement of the latter relatively to said cross-bars.

3. A pendant scaffold support comprising, in combination, side frames each comprising a triangular frame member formed at its three corners with a cross-bar stirrup, a safety-rail loop, and a suspension eye, respectively, and a depending leg member flexibly connected at its upper end to said triangular frame member and formed with a cross-bar stirrup at its lower end, cross-bars mounted in said stirrups and each formed with a series of spaced holes therein, and stop-bolts engaging said holes and coöperating with the cross-bar stirrups of said depending leg members to prevent creeping of the latter relatively to said cross-bars.

1,141,750. DARK SLIDE FOR PHOTOGRAPHIC CAMERAS. HAROLD CECIL ANDREWS, London, England. Filed Feb. 19, 1914. Serial No. 819,786. (Cl. 95—72.)



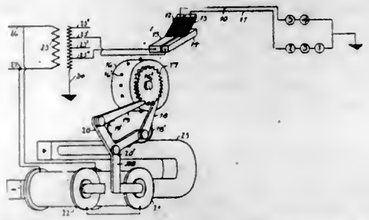
1. In a photographic dark-slide open at one of the narrow sides and provided with a sliding cover and a projecting mouth-piece for fixing a plate holder, the combination of a shallow rectangular box and exposing slide, with a grooved lining inserted into the said box and projecting over the same so as to form a projecting mouth-piece, and a transverse shutter guided in the said lining, substantially as described.

2. A photographic dark-slide comprising a shallow rectangular box having an open face provided with a movable cover and on one of its narrow sides an opening for the insertion of dry plates, an open rectangular frame inserted into the said box and adapted to hold a dry-plate, and a transverse shutter guided in the said frame, the said frame projecting over the open end of the said box in the form of a mouth-piece with funnel-shaped opening for introducing the dry-plates, substantially as described.

3. In a photographic dark-slide open at one of the narrow sides and provided with a sliding cover, the combination of a shallow rectangular box open at one end, with a pair of sliding covers forming the flat sides of the dark-slide, a grooved lining inserted into the said box and projecting over the open end of the same, so as to form a projecting mouth-piece, and a transverse shutter guided in the said lining and movable parallel to the flat sides of the dark-slide, substantially as described.

4. In a photographic dark-slide open at one of the narrow sides and having a projecting mouth-piece for introducing a dry-plate from the open end, the combination of the dark-slide with a flexible bag adapted to fit over the projecting mouth-piece, and a clamping piece secured to the plate holder by means of a link pivoted to one of the narrow sides of the same at a distance from the projecting mouth-piece and adapted to turn the clamping device into a position approximately parallel with the narrow side, substantially as described.

1,141,751. PRINTING-TELEGRAPH SYSTEM AND ALPHABET. CHARLES G. ASHLEY, Chicago, Ill., assignor to General Engineering and Construction Company, Limited, Toronto, Ontario, Canada, a Corporation of Ontario. Filed May 27, 1912. Serial No. 629,870. (Cl. 178—30.)



1. In a printing telegraph system, a source of primary current, means for utilizing said current to effect translatory motion, means for deriving a secondary current from said primary current, a plurality of printing types, operating magnets associated therewith, and means for utilizing said translatory motion jointly with said secondary current to selectively impress on said operating magnets, current impulses of variant polarity.

2. In a printing telegraph system, a source of primary current, means for inductively deriving a secondary current from said primary current, said secondary current being displaced in its phase relation with said primary current, means for utilizing said primary current to effect translatory motion, a plurality of printing devices, operating magnets therefor, and means for utilizing the maximum instantaneous value of said secondary currents at instants of cessation of said translatory motion, to impress upon selected groups of said operating magnets current impulses of variant polarity.

3. In a printing telegraph system, a source of primary current, a transmitting tape, means for utilizing said current to impart lineal motion to said tape, means for deriving a secondary current from said primary current, a plurality of printing types, operating magnets associated therewith, and means for utilizing the lineal motion of said tape jointly with said secondary current to impress on said operating magnets, current impulses of variant polarity.

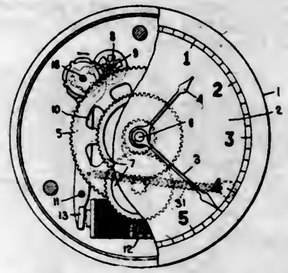
4. In a printing telegraph system, a primary source of alternating current, means for deriving a secondary source of current from said primary source, means for utilizing said primary source of current to effect translatory motion, means for utilizing said secondary source of current for transmission purposes, a plurality of printing types, operating magnets associated with said printing types and means for utilizing said translatory motion jointly with said secondary current to selectively impress on said operating magnets current impulses of variant polarity.

5. In a printing telegraph system, a primary source of current, means for deriving a secondary source of current from said primary source, said secondary source being displaced in its phase relation with said primary current, a transmitting tape, means for utilizing said primary current to impart lineal motion to said tape, a plurality of printing elements, operating magnets associated therewith, and means for utilizing the maximum instantaneous value of said secondary current at instants of cessation of the lineal motion of said tape to impress upon said operating magnets current impulses of variant polarity.

[Claims 6 to 26 not printed in the Gazette.]

1,141,752. SECONDARY CLOCK-MOVEMENT. FRED S. ATKINSON, Brookline, Mass. Filed Nov. 12, 1913. Serial No. 800,690. (Cl. 58—26.)

1. In a secondary clock movement, the combination with a clock train, of a driving pinion by which said clock train is operated, a star wheel situated exterior to the clock train and supported independently thereof, a vibrating actuator acting directly on the star wheel to give the latter an intermittent rotary movement, and an intermittent gearing between said star wheel and driving gear arranged to move the driving gear forward at each forward movement of the star wheel.



2. In a secondary clock movement, the combination with a clock train, of a driving pinion by which said clock train is operated, a toothed member exterior to the driving gear supported independently thereof, a vibrating actuator for intermittently moving the tooth member, and an intermittent gearing connecting the tooth member and driving pinion by which the driving pinion is given a forward movement at each forward movement of the tooth member, and means normally locking the driving pinion from movement which means is rendered inoperative during the initial forward movement of the tooth member and is rendered operative again during the final forward movement.

3. In a secondary clock movement, the combination with a clock train, of a driving pinion by which said clock train is operated, a gear member connected with the driving pinion, a rotary toothed member to intermittently advance the gear member, a vibrating actuator to intermittently rotate the toothed member, a locking member rigid with the toothed member and having separated concentric locking portions and a member rigid with the gear member and provided with concave portions to fit the locking portions of the locking member.

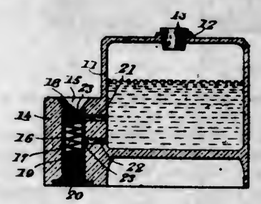
4. In a secondary clock movement, the combination with a vibrating actuator having separated actuating fingers, of a star wheel situated between said fingers and provided with teeth which are engaged by said fingers for intermittently advancing said star wheel, a toothed member rigid with the star wheel, a gear member actuated by the toothed member, a driving pinion rigid with the gear member and a locking member rigid with the star wheel and normally locking the gear member from movement, said locking member releasing the gear member during its initial forward movement to permit the gear member to be advanced and then relocking said gear member during the final forward movement.

5. In a secondary clock movement, the combination with a clock train, of a driving pinion by which said clock train is operated, a toothed member for giving said driving pinion an intermittent movement, a shaft on which said toothed member is loosely mounted, a vibrating actuator for intermittently moving the toothed member, intermittent gearing between said toothed member and said driving pinions and means associated with said gearing for holding the toothed member in proper position on its shaft.

[Claims 6 and 7 not printed in the Gazette.]

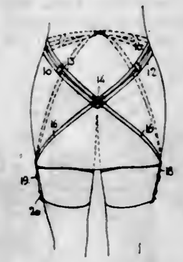
1,141,753. INK-WELL. WALTER BAILEY, Smith River, Cal. Filed Apr. 17, 1914. Serial No. 832,576. (Cl. 120—68.)

An ink well comprising a body forming a reservoir, said body having an integral offset tubular portion providing a dipping well, with a plurality of superposed passages connecting the reservoir with the tubular part of the offset portion, a tubular casing in the tubular part of the offset portion, said casing having a plurality of openings in registration with the said passages, a stopper slidable in the casing and normally forming the bottom of the dipping well, a spring disposed in the casing and connecting with the stopper to normally hold the same in position to form the bottom of the dipping well said stopper when in normal position closing one of the passages from the reservoir to the casing, said passage being opened when the stopper is actuated against the action of the spring



and moved downwardly in said tubular casing so that fluid in the reservoir can flow into the dipping well, an absorbent element in said tubular casing, and a closure threaded into the under side of the offset portion to hold said casing in the tubular part of the offset portion whereby said casing will be rigidly secured therein.

1,141,754. GARMENT-SUPPORTER. JESSIE H. BANCROFT, New York, N. Y. Filed Feb. 14, 1913. Serial No. 748,352. (Cl. 241—2.)



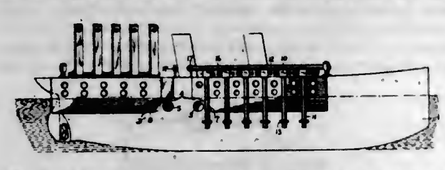
1. A garment supporter comprising,—a waist band, elastic members depending from the central parts of the front and rear of said waist band to the sides thereof uniting to form a V on each side of the waist band, each of said V's having branches unequal in length, the longer branch of each V depending from the rear of the waist band, and means depending from the apex of each V for securing a garment thereto, the shorter branch of each V leading to the front of the waist band causing the waist band to depend in front when the means at the apex of the V are secured to a garment.

2. A garment supporter comprising a waist band, a V on each side of said waist band, each of said V's having unequal branches, the longer branch of each V being secured to the center at the rear of the band, the other branch of each V being secured to the center of the front, and means at the apex of each V whereby a garment may be supported on the waist band, the shorter branch of each V causing the waist band to depend in front when a garment is secured to the means at the apex of the V.

1,141,755. LIFE-BOAT. DAVID BASILE, Bridgeport, Conn. Filed Feb. 10, 1915. Serial No. 7,321. (Cl. 114—77.)

1. In a ship of the character described, a body provided with a plurality of comparatively large notches, said body being provided with walls overlapping one end of said notches, a boat arranged in each of said notches having an undercut rear end whereby there is an open space back of each of the boats opposite said walls, said walls being formed with openings and inwardly moving covers whereby water may freely enter into the space back of the respective boats, propelling means arranged in the boat, said propelling means including a screw in the undercut

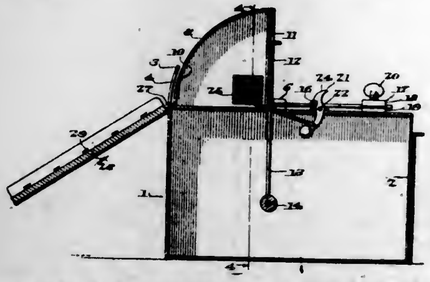
space at the rear of the boat, and means for removably connecting said boats to said ship in the respective notches.



2. In a device of the character described, a main ship provided with a plurality of openings therein, a boat arranged in each of said openings, a pivotally mounted locking device connected with said ship and overlapping each of said boats, and retaining bars connected with said overlapping devices and with said ship for normally locking said boats in said openings.

3. In a device of the character described, a main ship provided with a plurality of notches or indentations, walls extending from the ship structure overlapping said notches at one end, each of said walls having an opening therein, a cover for each of said openings designed to open freely inwardly, a boat arranged in each of said notches provided with a propelling member at the rear adapted to be positioned opposite said walls, and adjustable means connected with said ship for normally locking said boats in said notches.

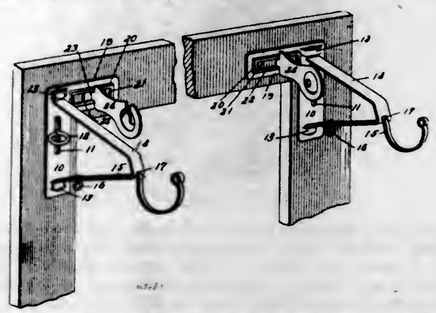
1,141,756. TRAP. ROSCOE C. BELL, WILLIAM H. ROBERSON, and DAVID CLINTON HINDERLITER, Mount Carmel, Ill. Filed Aug. 27, 1914. Serial No. 858,907. (Cl. 43—24.)



In a trap, a receptacle having its top provided with an opening arranged at one end of the receptacle, an arcuate shield upon the end of the receptacle and projecting above the open top portion thereof, an inclined ladder connected with the end and leading to the opening in the shield, a hood trunnioned in bearings upon the top and closing the opening thereof, said hood having a curved front provided with an opening which registers with the opening in the shield and which is disposed directly to the rear of the shield, rods extending longitudinally from the rear of the hood over the top of the receptacle, a connecting bar for the rods, a pivoted catch having a weighted end, the hooked portion of the catch projecting through an opening in the top of the receptacle and engaging with the connecting bar of the rods for sustaining the floor of the hood flush with the top of the receptacle, a trigger comprising a wire having a hooked end, said trigger being connected with the weighted end of the receptacle and having its hooked end passing through an opening in the bottom of the hood at the rear of said hood, as and for the purpose set forth.

1,141,757. SHADE AND CURTAIN-POLE HANGER. HERVEY S. BITTING, Lancaster, Pa., assignor to Joseph F. Bruederly, Lancaster, Pa. Filed July 11, 1913, Serial No. 778,613. Renewed Apr. 28, 1915. Serial No. 24,559. (Cl. 156—24.)

1. A fixture of the class described comprising a base-plate having a vertical limb in which is formed a vertical slot and a horizontal limb provided with a horizontal seat, a single fastening means engaging said plate through the vertical slot by which said plate may be adjustably mounted on a window frame, a curtain-pole bracket detachably mounted on said vertical limb, and a shade roller bracket horizontally adjustable and detachably mounted in said seat on said horizontal limb.



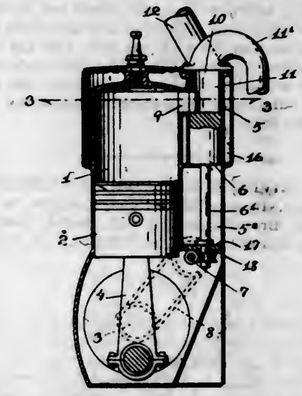
2. A fixture of the class described comprising a base-plate of inverted L-shape formed with a vertical slot and a horizontal seat, a single fastening means passing through said slot in the vertical limb of said plate to permit vertical adjustment, bracket engaging seats formed on said vertical limb on either side of said slot, a spring curtain-pole bracket detachably engaging said seats, and a self-locking shade-roller bracket adjustably and detachably mounted in a slot in said seat in the horizontal limb.

3. A fixture of the class described comprising a base-plate of inverted L-shape the vertical limb of which is provided with a longitudinal slot, a single fastening means adapted to turn to engage the slot in said limb when in one position and hold the plate fixed and to be disengaged from the slot when turned into another position, bracket-engaging seats formed on said vertical limb on either side of said slot, a spring curtain-pole bracket detachably engaging said seats, an elongated locking seat having a bracket receiving slot therein on the horizontal limb of said base-plate, a shade-roller bracket adjustably mounted in said slotted seat and disengageable therefrom upon loosening the base-plate, and automatic locking means for holding said bracket in operative position in said seat.

4. A fixture of the class described comprising a base-plate of inverted L-shape, the vertical limb of which is provided with a longitudinal slot; a thumb screw with an elongated head engaging said slot and serving by said head to secure said base-plate in place when in one position, but disengageable from the base-plate through said slot when in another position; apertured seats formed in the vertical limb of said plate on either side of said slot; a spring curtain-pole bracket having a horizontal leg, an inclined leg and a seat-engaging foot on each leg which resiliently engage said apertured seats; an adjustable pole-seat slidingly mounted in an opening in the projecting angle of said bracket; fastening means to secure said adjustable pole-seat to th einclined slotted leg of said bracket; a recessed slotted seat formed in the horizontal limb of said base-plate; an adjustable shade-roller bracket having an angular foot to engage said slotted seat, said foot adapted to bear against the window casing and maintain the bracket in adjusted position when the base-plate is secured in place, and automatic locking means between said bracket when in operative position and its seat.

1,141,758. ROTARY VALVE FOR EXPLOSIVE-ENGINES. FRANCIS P. BLUBAUGH, Fort Scott, Kans. Filed Mar. 20, 1915. Serial No. 15,916. (Cl. 123—80.)

In an explosive engine, a crank chamber, parallel adjacent valve chambers, a lower chamber below the valve chamber and having a partition between the same and said crank chamber, parallel rotary valves in said valve chambers provided respectively with inlet and exhaust openings in the lateral walls thereof, said valves having open upper ends, and shafts located in said lower chamber and having journal bearings in said partition, inlet and exhaust conduits communicating with the open ends of said valves,



and driving connections between the crank shaft and the shafts of the rotary valves, including worm gearing and a sprocket chain connection between the crank shaft and the worm shaft.

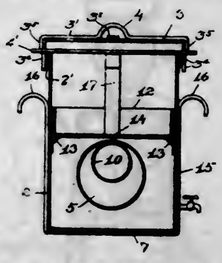
1,141,759. CHANGE-HANDLER. PAWEL BOCHENEK, Brooklyn, N. Y. Filed May 29, 1914. Serial No. 841,906. (Cl. 133—14.)

1. A change handling device comprising a base having spaced upstanding legs opposite each other, a horizontally disposed hollow body supported by the legs in superposed relation to the base and having a circular opening, bearings formed interiorly of the casing, an extension arm swingingly pivoted to one of the bearings, a discharge funnel supported by the arm, a rocking lever pivoted to the other bearing and having elongated slots near opposite ends, a lug on the funnel and engageable in one of the slots in the lever, a shutter for normally closing the opening in the casing, a lug on the shutter and engaged with the other slot in the lever, spaced parallel guide rods mounted in the casing at opposite sides of its opening, guide members integral with the shutter and slidably engaged on the rods, and means for tensioning the discharge funnel when pulled upon.

2. A change handling device comprising a base having spaced upstanding legs opposite each other, a horizontally disposed hollow body supported by the legs in superposed relation to the base and having a circular opening, bearings formed interiorly of the casing, an extension arm swingingly pivoted to one of the bearings, a discharge funnel supported by the arm, a rocking lever pivoted to the other bearing and having elongated slots near opposite ends, a lug on the funnel and engageable in one of the slots in the lever, a shutter for normally closing the opening in the casing, a lug on the shutter and engaged with the other slot in the lever, spaced parallel guide rods mounted in the casing at opposite sides of its opening, guide members integral with the shutter and slidably engaged on the rods, and a spring connected with one end of the casing and to the discharge funnel.

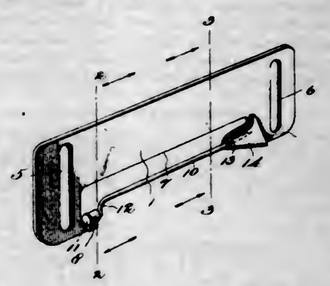
1,141,760. STEAMING APPARATUS. JOHN H. BOYLES, Winston-Salem, N. C. Filed Jan. 26, 1915. Serial No. 4,490. (Cl. 126—346.)

A portable steaming apparatus, comprising a casing having side, bottom and end walls and a removable cover, a tubular furnace connecting the end walls of said casing, trays having perforated bottom walls located above and separated from said furnace, straps extending up the side walls of said casing and terminating in outward extending handles, and straps extending upwardly from said



trays and terminating below said cover in inward extending handles, said cover having straps provided with down-turned inward-offset ends having when the cover is supported in raised position engagement with the sides of the casing, to brace the cover against displacement.

1,141,761. BUTTONHOLE-GUIDE. IDA BROWN, San Francisco, Cal. Filed June 23, 1914. Serial No. 846,824. (Cl. 223—54.)



1. A button hole guide comprising a plate having a slot at each end thereof, and a pin provided with an offset portion mounted in one end of the plate and provided with a guide at the opposite end, said pin forming a guide for the loop in the thread for forming the button hole, and said plate having a plane edge lying parallel to the pin.

2. A button hole guide comprising a plate having oppositely disposed slots for securing the plate to the material by means of pins extending through said slots, said plate having a straight edge, and a pin mounted in the plate and disposed parallel to the straight edge, said pin forming a guide and being connected at one end to a keeper.

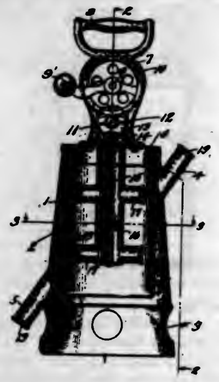
3. A button hole guide comprising a plate having a slot at each end thereof and an offset pin pivoted to one side or end of the plate and extending across parallel with one edge of said plate, said pin having a keeper on the plate.

4. A button hole guide comprising a flat plate having a slot at each end thereof, a pin pivoted near its head to one side or end of said plate, said pin having a head at one end and a point at the opposite end, said pin having an offset near the head and said pin adapted to lie parallel to one of the straight edges of the plate.

1,141,762. BUTTER-MERGING APPARATUS. LUCIUS A. BROWN, Clay Center, Nebr. Filed Sept. 9, 1914. Serial No. 860,915. (Cl. 31—42.)

1. In a butter merging apparatus, the combination of a container, an agitator extending into the container comprising a tubular body and tubular arms extending ra-

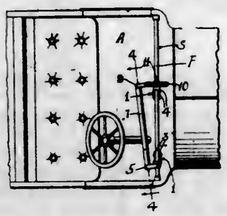
dially therefrom, said body and arms being adapted to contain a medium for varying the temperature of the contents of the container, and means for rotating said body.



2. In butter merging apparatus, a temperature varying agitator comprising a tubular body and tubular arms disposed about the body and extending radially therefrom, and actuating means therefor, each of the arms having a detachable cap at its outer end.

3. In butter merging apparatus, a temperature varying agitator comprising a central shaft, a tubular body fixed to and carried by the shaft, tubular arms extending from the shaft, a detachable cap closing the outer end of one of the arms and means for rotating the shaft.

1,141,763. EYE-SHIELD FOR ATTACHMENT TO AUTOMOBILES. PETER DE BROWN and HENRY A. SCHULTZ, Kawkawlin, Mich. Filed May 28, 1914. Serial No. 841,654. (Cl. 21—148.)

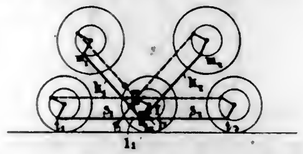


1. The combination with the upper transverse bar of a wind shield, of a pair of horizontal plates overlying said bar and having transverse attaching flanges embracing the opposite sides of said bar, an arm pivoted to one of said plates, a slotted tube having one of its ends rigidly secured to said arm, a second arm rigidly secured to and projecting laterally from the opposite end of said tube, a slotted link pivoted to said second arm and overlying the other plate, a set screw passing through the slot in said link and into said plate, a roller in the tube, and a screen carried by said roller and projecting through the slot in said tube.

2. In a device of the class described, the combination with a transverse horizontal support, of a tube having one end closed, its other end being threaded, a cap closing said threaded end and having threads interengaging the threads thereon, a rigid arm projecting laterally from said cap and lying in a horizontal plane, a second horizontal rigid arm projecting laterally from the closed end of the tube, a pivotal connection between the first mentioned arm and the support, a link pivoted to said second arm, means on the support to slidably and removably receive said link, a roller in the tube, and a screen wound around said roller.

3. The combination with a support, of a slotted tube spaced therefrom and having one closed end and one open threaded end, a cap closing said threaded end and having screw threads interengaging the threads thereon, a rigid arm projecting laterally from the closed end of the tube, an additional rigid arm projecting laterally from the cap, a pivotal connection between one arm and the support, means adjustably connecting the other arm with said support, a roller revolubly mounted in the tube, and a screen wound upon said roller and extending therefrom through the slot in the tube.

1,141,764. DRIVING MECHANISM OF VEHICLES. JACOB BUCHLI, Baden, Switzerland, assignor to Aktiengesellschaft Brown Boveri & Cie., Baden, Switzerland. Filed Aug. 19, 1912. Serial No. 715,948. (Cl. 105—259.)



1. A vehicle drive including two motors and three pairs of driving wheels, said motors being arranged above said wheels, a crank in connection with each of said motors and each of said wheels on one side of the vehicle and a further crank in connection with each of said motors and each of said wheels on the other side of the vehicle, said cranks being displaced by 90° in relation to one another, coupling rods connecting the wheel cranks respectively on each side of the vehicle and independently arranged coupling rods connecting the motor cranks on each side of the vehicle with said wheel crank coupling rods on each side of the vehicle; as set forth.

2. A vehicle drive including two motors and four sets of driving wheels, said motors being arranged above said wheels, a crank in connection with each of said motors and each of said wheels on one side of the vehicle and a further crank in connection with each of said motors and each of said wheels on the other side of the vehicle, said cranks being displaced by 90° in relation to one another, coupling rods connecting the wheel cranks respectively on each side of the vehicle and independently arranged coupling rods connecting the motor cranks on each side of the vehicle with a point between two wheel cranks in aforesaid wheel crank coupling rods; as set forth.

3. A vehicle drive comprising two motors, a plurality of driving wheels on each side of the vehicle, said motors being situated above said wheels, coupling rods for the driving wheels of each side, and means for independently transmitting the motion of both motors to the driving wheels on each side of the vehicle.

4. A vehicle drive comprising two motors and a plurality of driving axles, said motors being situated above said axles, means transmitting the motion of one axle to the other axles and means arranged independently of each other transmitting the motion of the two motors to one of said axles through mutually flexible coupling rods; as set forth.

5. A vehicle drive comprising a plurality of driving shafts and a plurality of driven shafts, means connecting the driven shafts of one side of the vehicle said means including a flexible connection and means connecting the driven shafts of the other side of said vehicle, said means also including a flexible connection and displaced through an angle with relation to said means, further means connecting one of the driving shafts with a point in the means connecting the driven shafts on each side of the vehicle respectively and independent means also on each side of the vehicle flexible with respect to said further means connecting the other driving shaft to the same points in the connections between the driven shafts; as set forth.

1,141,765. DISK BLADE. OTTO BERT BULLARD, Spalding, Nebr. Filed Sept. 25, 1914. Serial No. 863,590. (Cl. 97—64.)



A cultivator disk comprising a circular dished plate having a plurality of radial projections, each provided with a lateral offset edge and a normal edge, and V-shaped plates having oppositely extending lips, said lips being attached to the offset and normal edges of adjoining projections.

1,141,766. COMPOUND RAILWAY-RAIL. THOMAS BURKE, Cleveland, Ohio, assignor of one-third to Frederick A. Leatnow and one-third to Louis Bernstein, Cleveland, Ohio. Filed Jan. 2, 1915. Serial No. 119. (Cl. 239—16.)



1. A compound rail comprising a base having a web integral therewith, the opposite sides of the web having longitudinal recesses along the same, a head having depending flanges fitting on opposite sides of the web and covering said recesses, fastening means between said web and flanges, and separate fastening means between the webs of adjacent rails.

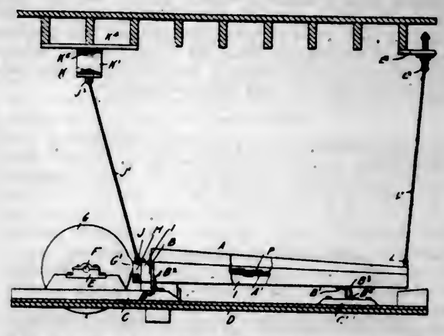
2. A compound rail comprising a base having a web thereon, said web having recesses on opposite sides thereof, and a head having depending flanges fitting against the opposite sides of the web, the flanges having bosses pressed into said recesses to hold the head on the web.

3. A compound rail comprising a base having a web thereon provided with longitudinal recesses along opposite sides thereof, and a head having depending flanges pressed at intervals into said recesses to form bosses engaging therein.

4. A compound rail comprising a base having a web thereon with a wedge shaped upper part having recesses in opposite sides thereof, and a head having depending flanges fitting on said upper part, the flanges being pressed into said recesses at different points along the same, to form engaging bosses.

1,141,767. ACTUATING DEVICE FOR PERCUSSION-TABLES. ALONZO C. CAMPBELL, Asheville, N. C. Filed Apr. 22, 1914. Serial No. 833,658. (Cl. 83—88.)

1. The combination with a percussion table having a percussion head, of an actuating device comprising a massive revoluble wheel having a percussion tappet of diminutive throw, and of high kinetic energy, actuating said percussion table, the said table being of such reduced proportions of mass relatively to the wheel, that the recoil of the impact shall not disturb the stability of the wheel in its bearings or cause it to falter.



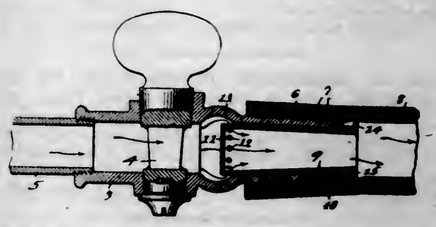
2. In a machine of the class described, a pan having an impact head at its forward end, a massive revoluble fly wheel provided on its peripheral face with a percussion tappet coacting with the impact head of the pan, means for mounting the pan whereby the pan has a rearward and downward movement under the force of the impact, and a tension device having a flexible connection with the forward end of the pan and adapted to exert an upward and forward pull on the said pan.

3. In an impact jig-pan of the class described, a pan, freely swinging riffles, legs pivoted to the front and rear ends of the pan, the hindmost leg being radially shorter and thus describing a larger angular amplitude, rearward and downward, a resistant massive fly wheel with tappet impinging the returning head of the pan, and tension means connected in inclined relation to the pan and adapted to counterbalance the downward component of motion and to return the pan into the path of the tappet.

4. In a machine of the class described, the combination with a pan mounted for rearward and downward movement, a massive revoluble fly wheel provided on its peripheral face with a percussion tappet adapted to engage one end of the said pan, and a spring device connected with the said pan adapted to draw the latter toward the peripheral face of the said fly wheel and to exert an upward and a forward pull on the said pan.

5. The combination with a percussion table mounted to oscillate and having a percussive head, of a massive revoluble wheel of large diameter provided on its peripheral face with an integral percussion tappet adapted to engage the percussive head of said table to impart instantaneous rebound to said table, and tension means connected with the percussion table and adapted to return the latter into the path of the tappet.

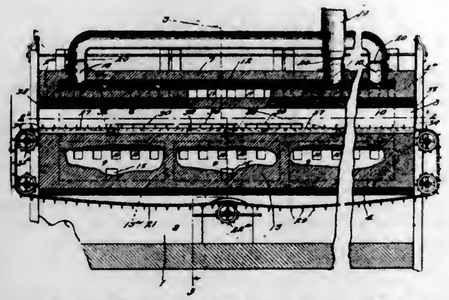
1,141,768. GAS-COCK. GEORGE W. CAMPBELL, Jr., Philadelphia, Pa. Filed Mar. 3, 1915. Serial No. 11,673. (Cl. 137—30.)



The combination with a gas-cock having a tubular member thereon and a gas-hose on said member; of a tapered slide-valve in said member closed at its inner end and provided with lateral perforations adjacent thereto, said tubular member being provided with a tapered bore serving as a seat for said valve when the latter is

in its outermost position and serving to close said perforations, the outer end of said valve being open and provided with a flange of slightly greater diameter than that of the interior of the hose, whereby said hose will maintain said valve in innermost position, and a spring interposed between the outer end of said tubular member and said flange and tending to seat said valve when said hose is removed from said tubular member.

1,141,769. METHOD OF OXIDIZING STEEL OR IRON SHEETS. JOHN E. CARNAHAN and ARTHUR J. MASKREY, Canton, Ohio. Filed Aug. 16, 1912. Serial No. 715,371. (Cl. 148—41.)



1. The process of oxidizing steel or iron sheets which consists in subjecting the sheets to the action of heat in the presence of an oxidizing agent until they are heated to but not beyond the temperature required for oxidizing the surfaces to the desired color, and then withdrawing them from the action of the heat.

2. The process of oxidizing steel or iron sheets which consists in subjecting separate sheets to the action of heat in the presence of an oxidizing agent until they are heated to but not beyond the temperature required for oxidizing the surfaces to the desired color, and then withdrawing them from the action of the heat.

3. The process of oxidizing steel or iron sheets which consists in subjecting the sheets to the action of an indirect heat in the presence of an oxidizing agent until they are heated to but not beyond the temperature required for oxidizing the surfaces to the desired color, and then withdrawing them from the action of the heat.

4. The process of oxidizing steel or iron sheets which consists in subjecting separate sheets to the action of an indirect heat in the presence of an oxidizing agent until they are heated to but not beyond the temperature required for oxidizing the surfaces to the desired color, and then withdrawing them from the action of the heat.

5. The process of oxidizing steel or iron sheets which consists in subjecting the sheets to the action of heat in the presence of an oxidizing agent in a substantially closed chamber until they are heated to but not beyond the temperature required for oxidizing the surfaces to to the desired color, and then withdrawing them from the action of the heat.

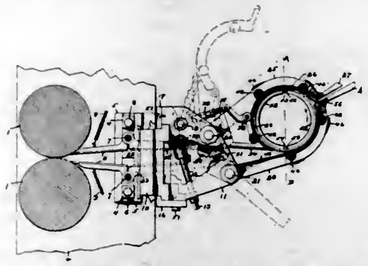
[Claims 6 to 12 not printed in the Gazette.]

1,141,770. METHOD OF BLUING STEEL OR IRON SHEETS. JOHN E. CARNAHAN, Canton, Ohio. Filed Jan. 2, 1914. Serial No. 809,834. (Cl. 148—41.)

The method of bluing heated steel or iron sheets which consists in oxidizing the sheets by steam or other oxidizing agent, and at the same time subjecting the sheets to the action of sulfur fumes at a temperature exceeding 700° F.

1,141,771. SPOOLING DEVICE. WILLIAM H. CARPENTER, Bristol, Conn. Filed Dec. 29, 1913. Serial No. 809,368. (Cl. 242—78.)

1. In combination with companion rolls; a non-removable collapsible block; a cylindrical spool having intermeshing engagement with said block, whereby the same may be placed on or taken off from said block; means for guiding a strip from said rolls to said spool; arms pivotally mounted between said rolls and block and arranged so that the ends thereof abut against each other when in their closed position; friction rolls within said arms substantially parallel with said spool; and means for yieldingly mounting said rolls, whereby the same will always maintain a substantial alinement with the axis of said collapsible block if the axis of said rotary collapsible block and arms are not in substantial alinement with each other.



2. In combination with companion rolls; a non-removable, collapsible block; a hollow, cylindrical spool, having an intermeshing engagement with said collapsible block, whereby it may be readily placed on or taken off from said block; means for guiding a strip from said rolls to said spool; companion shafts betwen said rolls and spool; an arm upon each of said shafts; an operative connection between said arms, whereby movement of one is transmitted to the other; an auxiliary arm pivoted to one of said arms and movable therewith; means for varying the relative position of said auxiliary arm with the arm to which it is connected; rolls mounted in said arms and auxiliary arm; and yielding means connected with the opposite ends of said rolls whereby one end thereof may yield a relatively greater distance than the opposite end thereof.

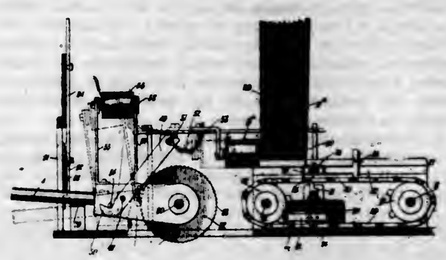
3. In combination with companion rolls and a rotary winding element; of means for guiding a strip of metal from said rolls to said winding element; means, movable toward and away from said winding element, for holding the strip against the periphery thereof; friction rolls mounted in said last mentioned means; and means at the opposite ends of said rolls that permit a relatively greater yielding action to said rolls at one end than at the other end.

4. In combination with companion rolls; a non-removable collapsible block; a cylindrical spool having intermeshing engagement with said block, whereby the same may be placed on or taken off from said block; means for guiding a strip from said rolls to said spool; arms pivotally mounted between said rolls and block and arranged so as to be limited in their movement toward each other and hold a fixed relation toward each other when in their closed positions; friction rolls within said arms substantially parallel with said spool; and means for yieldingly mounting said rolls, whereby the same will always maintain a substantial alinement with the axis of said collapsible block if the axis of said rotary collapsible block and arms are not in substantial alinement with each other.

1,141,772. VENDING-MACHINE. JACOB CARTUN, Philadelphia, Pa. Filed Mar. 2, 1914. Serial No. 821,919. (Cl. 194—7.)

1. A vending machine comprising means for suporting a number of papers in position, means whereby to render each paper magnetically attractable, and means for withdrawing each of the papers successively, the said withdrawing means being in the form of electrically energized devices for attracting the papers and placed in circuit through the dropping of a coin.

2. A vending machine comprising a means for supporting a number of papers in position, means whereby to render each paper magnetically attractable, and means for successively withdrawing a single paper, said withdrawing means comprising electro-magnets in circuit with a suitable battery and directly acting upon each paper, the circuit being coin-controlled.



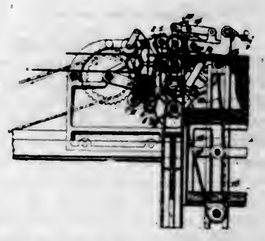
3. A vending machine having means for supporting a number of papers in position, a piece of magnetic material in each paper, and means involving an electro-magnet for successively withdrawing single papers, the circuit containing the electro-magnet being coin-controlled.

4. A vending machine comprising means for supporting a number of papers in position, each paper containing a piece of magnetic material, and a coin-controlled magnet movable relatively to the papers and adapted to withdraw them successively when the magnet is moved successively relative to the said papers.

5. A vending machine comprising means for supporting a number of papers in position, a piece of magnetic material in each paper, a magnet adapted to coöperate with the magnetic material in each paper successively, means for moving the magnet in order to withdraw the paper, and coin-controlled means for closing the circuit through the said magnet.

[Claims 6 to 30 not printed in the Gazette.]

1,141,773. PILE-ELEVATOR FOR SHEET-FEEDING MACHINES. ERNEST O. CARTWRIGHT, Springfield, Ohio, assignor of one-third to Louis K. Fisher, Dayton, Ohio, and one-third to Byron D. Campbell, West Milton, Ohio. Filed Feb. 10, 1913. Serial No. 747,379. (Cl. 101—36.)



1. A pile elevator for sheet feeding machines comprising in combination with means for feeding off the topmost sheet or sheets at predetermined times; means for lifting the sheet pile to a normal level, operative mechanism therefor operative upon the removal of a top sheet or sheets for setting the lifting means into action, the said mechanism including a driving ratchet, a pawl, a pawl carrying member, an adjustable device for moving the pawl and having provision for timing the stroke of the pawl, means continuously tending to disengage the pawl from the ratchet, and a reciprocably mounted member held in loose contact with the pawl and coöperating with the sheet pile for moving the pawl into engagement with the ratchet.

2. In a pile elevating mechanism for sheet feeding machines in which is included means for feeding off the topmost sheet or sheets at predetermined times; means for lifting the sheet pile to a normal level, actuating mechanism therefor operative upon the removal of a top sheet or sheets from the sheet pile for setting the lifting means into action, the said mechanism including a driving ratchet, a pawl, and a swinging carrying member on which the pawl is supported, means for adjusting the carrying member to thereby determine the time of swing of the said member and the consequent effective stroke of the pawl, means for normally forcing the pawl out of engagement with the ratchet and other means that coöperates with the sheet pile for engaging the pawl after it has completed its thrust or ratchet engaging stroke to cause the pawl to engage the ratchet.

3. A sheet pile elevator for sheet feeding machines that comprises in combination with means for feeding off the topmost sheet or sheets from the pile; means for automatically raising the elevator to bring the top of the sheet pile to a normal plane with respect to the sheet feeding means, the said elevator raising means including a step-by-step ratchet wheel controlled lift, an eccentric controlled arm, a pawl carried thereby that is normally held out of engagement with the ratchet wheel, means for moving the pawl into operative engagement with the said ratchet wheel, the said means being set into operation when the top of the sheet pile drops to a predetermined degree from the normal level, and means for timing the throw of the eccentric controlled arm that carries the pawl and the consequent rotation of the ratchet wheel and the lift movement of the pile elevator governed by the movement of the said ratchet.

4. A sheet pile elevator for sheet feeding machines, that comprises in combination with a means for feeding off the topmost sheet or sheets from the pile, at predetermined intervals; a means for automatically raising the elevator to bring the top of the sheet pile to a normal plane with respect to the sheet feeding means, said elevator raising means including a step-by-step ratchet wheel controlled lift, an eccentric controlled arm and a pawl carried thereby that is normally held out of engagement with the ratchet and a means for moving the said pawl into operative engagement with the ratchet wheel, said means being set into operation when the top of the sheet pile drops to a predetermined degree from the normal level, the eccentric that controls the pawl carrying arm being adjustably mounted with respect to the ratchet wheel whereby to time the throw of the pawl and the consequent rotation of the ratchet and the lift movement of the pile elevator.

5. A sheet pile elevator for sheet feeding means; that comprises in combination with means for feeding off the topmost sheet or sheets from the pile at predetermined intervals, a means for automatically raising the elevator to bring the top of the sheet pile to a normal plane with respect to the sheet feeding means, the said elevator raising means including a step-by-step ratchet wheel controlled lift, an eccentric controlled arm and a pawl carried thereby that normally tends to move out of engagement with the ratchet wheel, the said means being set into operation when the top of the sheet pile drops to a predetermined degree from the normal level, said means including a calipering rod for engaging the top of the sheet and a connection that coacts with the said rod and with the ratchet engaging pawl and adapted for forcing the said pawl into engagement with the said ratchet wheel as the calipering rod falls, and an eccentric that controls the pawl carrying arm, the said eccentric being adjustably mounted upon one of the driven shafts of the machine.

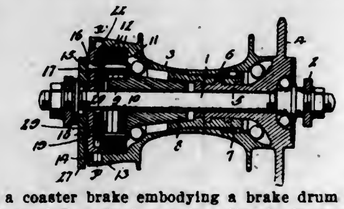
[Claim 6 not printed in the Gazette.]

1,141,774. INTERNAL COASTER-BRAKE LOCK. WILLIAM C. CHAPMAN, Grovetown, Ga., assignor of one-half to John F. Brickle, Augusta, Ga. Filed May 20, 1914. Serial No. 839,845. (Cl. 208—57.)

1. In a coaster brake embodying a brake drum carried by the hub and a coöperating brake member, a supporting frame for such brake member and a lock mechanism for holding the wheel against rotation mounted upon the supporting frame and adapted to be inclosed by means of the brake drum so as to be concealed thereby.

2. In a coaster brake embodying a brake drum connected with the hub, a coöperating brake member, a supporting frame for such brake member, means for holding such

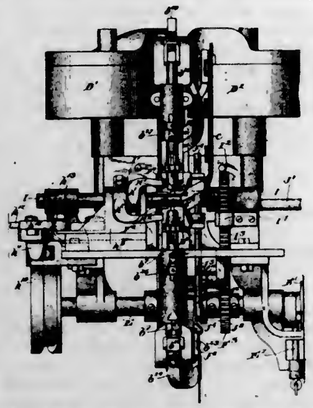
drum in fixed position, and a lock mechanism mounted upon the brake member supporting frame and adapted to engage the brake drum to hold the wheel against rotation.



3. In a coaster brake embodying a brake drum carried by the hub of the wheel, a coöperating brake member, a supporting frame for the brake member, a lock bolt mounted upon the brake member supporting frame and adapted to engage the brake drum, a spring normally tending to project the lock bolt and a detent mounted upon the brake member supporting frame to engage the lock bolt and hold the same in retracted position.

4. In a coaster brake, the combination of a brake drum connected with a wheel hub, a coöperating brake member, a supporting frame for the brake member, a lock mechanism mounted upon the brake member supporting frame and adapted to coöperate with the brake drum, a cap for inclosing the lock mechanism and held to the brake member supporting frame and means for securing the said cap to the frame of the machine to prevent turning.

1,141,775. LACING HOOK OR STUD SETTING MACHINE. WALTER J. COOMBS, Quincy, Mass., assignor to Tubular Rivet & Stud Company, Boston, Mass., a Corporation of Massachusetts. Filed June 17, 1905. Serial No. 265,638. (Cl. 218—17.)



1. A machine for setting lacing hooks or studs having in combination two opposed sets of hook setting devices fixed in the direction of feed, and mechanism for feeding hooks to each set of hook setting devices.

2. A machine for setting lacing hooks or studs having in combination an anvil plate provided with a hook setting anvil on each side arranged one in line with the other, two opposed hook supporting plates, mechanism for feeding hooks onto said plates, mechanism for reciprocating said plates, and mechanism for disengaging said plates from the hooks after the setting operation.

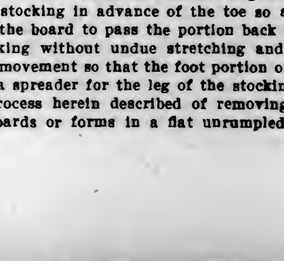
3. A machine for setting lacing hooks or studs having in combination, two reversely arranged setting anvils in line with each other, two opposed hook supporting plates coöperating therewith, mechanism for feeding hooks onto said plates, two opposed feeding punches, and mechanism operating said punches in unison to engage the work, advance into register with the anvils, disengage the work and return to initial position.

4. A machine for setting lacing hooks or studs, having in combination two fixed reversely arranged setting anvils in line with each other, two opposed hook supporting plates, guideways through which hooks are fed to the plates, mechanism for reciprocating the plates between the ends of the guideways and the anvils, mechanism for disengaging the plates from the hooks, mechanism for transferring hooks from the guideways to the plates, and mechanism for feeding hooks to the guideways with their shanks in reverse positions.

5. A machine for setting lacing hooks or studs having in combination, an anvil plate provided with a hook setting anvil on each side arranged one in line with the other, two coöperating hook supporting plates mounted in fixed relation to the anvils in the direction of the feed mechanism for feeding hooks onto said plates, clamping plates for holding the work against opposite sides of the anvil plate, and mechanism for withdrawing said clamping plates.

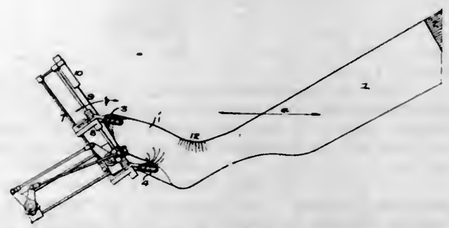
[Claims 6 to 17 not printed in the Gazette.]

1,141,776. TAIL-LAMP. PETER COOPER, Ada, Mich. Filed Nov. 21, 1914. Serial No. 873,401. (Cl. 240—46.)



A vehicle tail lamp comprising a cylindrical lamp case, a pair of electric lamps mounted eccentrically therein and adapted to be independently energized, a panel of clear glass covering the illuminating face of said case, a colored panel behind the latter covering one of said lamps, and a reflector behind the other pitched at an inclination to focus the rays of light on the adjacent part of the roadway.

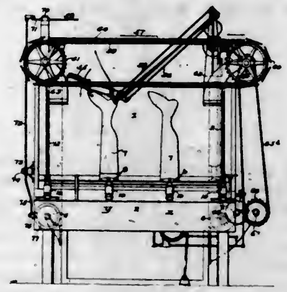
1,141,777. PROCESS OF REMOVING STOCKINGS FROM STOCKING-BOARDS. HARRY COULSTON, Philadelphia, Pa., assignor to The Philadelphia Textile Machinery Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Feb. 26, 1913. Serial No. 750,873. (Cl. 26—16.)



1. The process herein described of removing stockings from flat boards or forms in a flat unrumpled condition, said process consisting in grasping the heel and toe of the stocking and engaging the board or form, moving one part with respect to the other and withdrawing the heel portion of the stocking in advance of the toe so as to allow the heel of the board to pass the portion back of the heel of the stocking without undue stretching and then continuing the movement so that the foot portion of the board will act as a spreader for the leg of the stocking.

2. The process herein described of removing stockings from flat boards or forms in a flat unrumpled condition, said process consisting in grasping the stocking at the heel and at the toe, moving the heel toward the toe so that it will be removed in advance of the toe to allow the heel of the board to pass the portion back of the heel of the stocking without undue stretching and continuing the movement on a line which will cause the foot portion of the board to act as a spreader for the leg portion of the stocking, then turning the foot of the stocking so that when the board is removed from the stocking the foot thereof will have the same relation to the leg as it had prior to the removal, the stocking being flat and unrumpled and propertly spread throughout its entire length.

1,141,778. MEANS FOR REMOVING STOCKINGS FROM FORMS. HARRY COULSTON and WALTER M. SCHWARTZ, Philadelphia, Pa., assignors to The Philadelphia Textile Machinery Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Dec. 26, 1913. Serial No. 808,856. (Cl. 26—14.)



1. The combination in apparatus for removing stockings from forms, of a carrier; a form thereon; gripping mechanism arranged to engage the foot only of a stocking; and means for moving said gripping mechanism away from the carrier and form so that the stocking will be removed from the form without wrinkling.

2. The combination of a carrier; means for intermittently moving the carrier; a stocking form mounted on the carrier; gripping mechanism for engaging the toe and heel only of the stocking; means timed by the movement of the carrier for moving the gripping mechanism so that when the form is at rest the stocking will be withdrawn from the form by the gripping mechanism without rumpling.

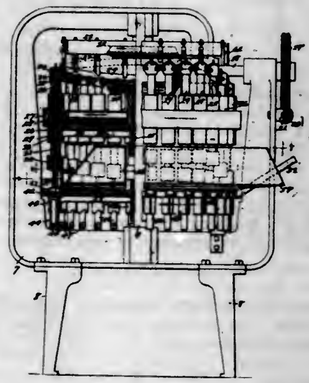
3. The combination in means for moving stockings from forms, of a form; means for traversing the form; a pivoted arm; gripping mechanism carried by the arm for engaging a stocking on the form; means for actuating the jaws of the gripping mechanism and for actuating the arm; means for supporting the stocking, after it has been removed from the form, so located as to receive the stocking as it is withdrawn from the form and released from the gripping mechanism.

4. The combination in means for removing stocking from forms, of a table; a carrier arranged to travel in an endless path in the table; means for traversing the carrier; a stocking form mounted on the carrier; gripping mechanism for engaging the toe and heel of a stocking; means carrying the gripping mechanism; an endless conveyer arranged back of the path of the gripping mechanism to receive the stocking; and an arm located so that when it is actuated it will carry the stocking as it is released by the gripping mechanism and place it on the conveyer.

5. The combination of a table; carriers arranged to travel over the table; means for traversing the carriers; a stocking form mounted in each carrier; gripping mechanism arranged to engage the heel and toe of a stocking; an arm carrying the said mechanism; means for actuating the arm and the gripping mechanism so as to cause the mechanism to engage a stocking on a form and to remove it therefrom; an intermittently moving conveyer onto which the stockings are placed; and means for intermittently moving the conveyer at intervals so that a certain number of stockings can be piled, one on top of another, and the conveyer intermittently moved so as to receive another pile.

[Claims 6 to 8 not printed in the Gazette.]

1,141,779. NUT-TAPPING MACHINE. THOMAS MARION DANIELS and JULIUS C. HOLSCHEMACHER, Chicago, Ill., assignors, by mesne assignments, to Daniels Safety Device Company, Chicago, Ill., a Corporation of Illinois. Filed Sept. 22, 1914. Serial No. 862,876. (Cl. 10—132.)



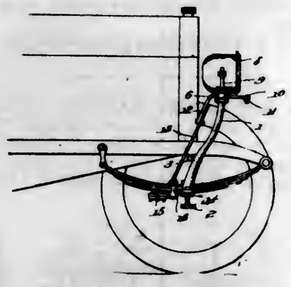
1. A nut tapping machine, comprising a support, a revoluble nut carrier, means for engaging each of a plurality of nuts thereon, a spindle carrier, a rotating spindle over each nut, means for revolving said carriers simultaneously, a tap held in each spindle, positive means for forcing said spindles downwardly to force said taps into nut engagement, a slidable rod in each spindle projecting thereover and resting on the tap, and a cam for forcing said rods downwardly successively to force the corresponding taps out of said spindles.

2. A nut tapping machine, comprising a support, a revoluble nut carrier, means for engaging each of a plurality of nuts thereon, a revolving spindle carrier, a rotating spindle therein over each nut, a tap in each spindle, a cam for forcing said spindles downwardly to carry said taps into nut engagement, a slidable rod in each spindle projecting thereover and bearing on the tap, and a cam for forcing said rods downwardly successively to force the corresponding taps out of said spindles.

3. A nut tapping machine, comprising a support, a revoluble nut carrier, means for engaging each of a plurality of nuts thereon, a spindle carrier, means for revolving the same, a rotating spindle over each nut, a tap in each spindle, a cam for forcing said taps into nut engagement, a rod slidable in each spindle projecting thereover and resting on the tap, a cam for forcing said rods downwardly successively to force the corresponding taps out of said spindles, and means for returning said taps to said spindles.

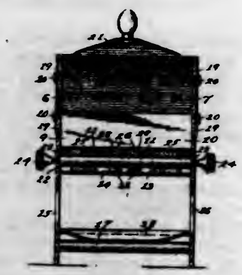
4. A nut tapping machine, comprising a support, a revoluble nut carrier thereon, means for holding each of a plurality of nuts thereon, a revoluble spindle carrier, a plurality of rotating spindles therein, a tap in each spindle over the corresponding nut, a cam for forcing said taps into nut engagement, a cam for forcing said taps out of said spindles and clear of the respective nuts, a tubular receiver for each tap beneath each nut, means for removing the tapped nuts from their carrier, and a cam for raising said receivers successively to return said taps to their respective spindles.

1,141,780. HEADLIGHT. JOHN R. DAVIS and ULLIE M. RICHARDSON, Vine Grove, Ky., assignors to Rex Revolving Light Company, Inc., Vine Grove, Ky., a Corporation of Kentucky. Filed Mar. 10, 1914. Serial No. 823,831. (Cl. 240—62.)



In a headlight for vehicles, the combination of a standard, adapted for attachment to the front axle of the vehicle and extending outwardly and upwardly therefrom and having a reduced portion, such standard and reduced portion being made tubular for receiving the means whereby the light producing medium is supplied to the lamp, a lamp carried by the reduced portion of the standard and a casing for receiving the lamp and mounted upon the reduced part of the standard to turn thereon.

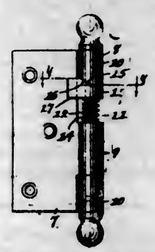
1,141,781. TOOTHPICK-HOLDER. CHARLES DICKSON, Elizabeth, N. J. Filed July 10, 1914. Serial No. 850,170. (Cl. 206—22.)



A device of the class described, comprising a support, a hopper thereon provided with an opening in the bottom thereof, a cylindrical casing beneath said hopper and in communication therewith and open at its bottom, a shaft in said casing and concentric therewith, means exterior of said casing for rotating said shaft, a grooved roller arranged centrally of said shaft and approximately of the diameter of the interior of said casing, and complemental rollers carried by said shaft, adjacent the ends of said casing, of a smaller diameter than the interior of said casing.

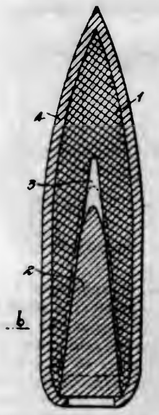
1,141,782. SELF-LOCKING HINGE. CHARLES DIENER, New York, N. Y. Filed Mar. 25, 1915. Serial No. 16,939. (Cl. 16—111.)

A self-locking hinge, comprising a pair of leaves provided with interengaging knuckles, one knuckle of one leaf being spaced from the knuckle of the other leaf and provided with a camming edge, a pintle passed through said knuckles, a dog slidable on said pintle having projecting arms extending over opposite surfaces of one of said leaves and provided with a camming edge normally engaged with said first named camming edge, and a spring on said pintle bearing on the adjacent surfaces of said dog and the knuckle of said second named leaf and normally insuring engagement of said cam edges, said dog being



moved out of normal position in the opening movement of one leaf with respect to the other leaf.

1,141,783. BULLET OR PROJECTILE FOR FIREARMS. ALEXANDER DOBREGEANSKY, St. Petersburg, Russia. Filed Nov. 29, 1913. Serial No. 803,691. (Cl. 102—28.)

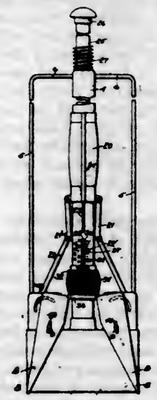


A projectile for fire arms, composed of a core of soft heavy metal having a central longitudinally extending substantially conical chamber opening at the base, and a cone of light hard metal inserted in the chamber, the height of the cone being less than the depth of the chamber to form an air chamber at the inner end of the chamber and between the cone and the core, and a covering for the core, said covering having an inward extension at the base of the core and engaging the base of the cone to hold the cone in place, the cone being adapted to be driven farther into the cavity by the explosion of the charge to limit the capacity of the air chamber, to protect the cone against bending when it strikes an obstacle, and to prevent the exit of the heated gases of the explosion by the radial expansion of the projectile.

1,141,784. BUTTER-CUTTER. HENRY B. DROSIN and MAX GORDON, New York, N. Y.; said Drosin assignor to said Gordon. Filed Aug. 31, 1914. Serial No. 859,357. (Cl. 31—65.)

1. A butter cutter comprising a rectangular box having its length horizontal and open at its bottom, an upright handle connected with the center of and disposed at right-angles to the top of the box, a pair of cutters movable inwardly from the ends of the box, and actuating means for the cutters, said actuating means including an element slidable on and axially of the handle.

2. A butter cutter comprising a rectangular box having its length horizontal and open at its bottom, an upright handle connected with the center of and disposed at right-angles to the top of the box, a pair of cutters movable inwardly from the ends of the box, guides fixed on the top of the box and with which the cutters engage, whereby the cutting portions of the cutter will move rectilineally along the open side of the box, and operating means connected with the cutters for moving the same simultaneously, said operating means including a tubular grip slidable longitudinally of the handle.



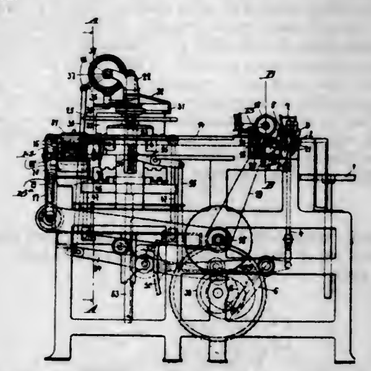
3. A device for cutting material into cakes, comprising an open bottom box, a tubular handle connected therewith, a plunger disposed in the box, a rod connected with the plunger and extending through the handle, said handle having a slot, a stop device disposed in the handle and projecting into the box for limiting the movement of the plunger, said device having a member extending out of the slot, a rotatable adjusting ring surrounding the handle and having a threaded engagement with the member for adjusting the stop, and means for preventing the ring from moving axially of the handle.

4. A cutting device of the class described comprising a box open at its bottom, pivoted cutting elements mounted on the box and having wires movable along the bottom of the box, lever frames mounted on the box and connected with the cutting elements, guide means for guiding the movement of the elements to cause the wires to move in a common plane and along the bottom of the box, a handle rod connected with the box, a sleeve slidable thereon, connections between the sleeve and lever frames for actuating the cutting elements, a plunger within the box, a plunger rod connected with the plunger and extending through the handle rod, a tubular stop disposed around the plunger rod and housed within the handle rod for determining the position of the plunger and thereby the capacity of the box, and a ring rotatably mounted on the handle rod and operatively connected with the stop for adjusting the same.

5. An apparatus of the class described comprising a cutting box, a handle rod connected with the center of the box and extending at right-angles to the length of the latter, bracing elements connected with the extremity of the handle rod and with the ends of the box and serving as grips for operating the apparatus, a plunger within the box, a rod extending through the handle rod and connected with the plunger, a knob on the outer end of the plunger rod, and a spring on the plunger rod and bearing on the handle rod and adapted to be engaged by the knob as the plunger rod is moved to eject the material from the box, whereby the spring can lift the plunger when the operator releases the knob.

1,141,785. PAMPHLET-COVERING MACHINE. AUGUST DWORAK, Stuttgart, Germany. Filed Aug. 20, 1913. Serial No. 785,795. (Cl. 11—33.)

1. A machine of the class described comprising in combination feeding rollers for the covers, means for applying glue to the inside of said covers, rollers for grooving said covers, a rotating member for delivering blocks of sheets to the covers having movable serrated clamping jaws, means for applying the cover to the block of sheets, movable jaws carried by said means and serrated along their edges, said serrations engaging between the serrations on the jaws of the rotating member, substantially as described.



2. A machine of the class described comprising in combination feeding rollers for the covers, a gluing device for applying glue to the inside of said covers, rollers for grooving said covers, a rotating member having movable jaws of which one is serrated along its lower edge and the other is provided with a plate hinged thereto and serrated along its lower edge, a device for applying the cover to the block of sheets, movable jaws carried by said device and serrated along their edges, said serrations engaging between the serrations on the jaws of the rotating member substantially as set forth.

3. A machine of the class described comprising in combination feeding rollers for the covers, a gluing device for applying glue to the inside of said covers, grooving rollers for said covers, a rotating member having movable jaws of which one is serrated along its lower edge and the other is provided with a plate hinged thereto and serrated along its lower edge, a vertically reciprocated device for applying the cover to the block of sheets, movable jaws carried by said device and serrated along their edges, said serrations engaging between the serrations on the jaws of the rotating member, and stops for prizing apart the said movable jaws of the vertically reciprocated device shortly before they reach their highest position and as they reach their lowest position, substantially as set forth.

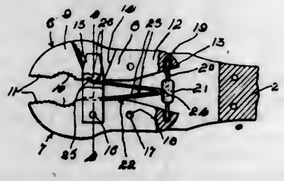
4. A machine of the class described comprising in combination feeding rollers for the covers, a gluing device for applying glue to the inside of said covers, rollers for grooving said covers, a rotating member having movable jaws of which one is serrated along its lower edge and the other is provided with a plate hinged thereto and serrated along its lower edge, a vertically reciprocated device for applying the cover to the block of sheets, movable jaws carried by said device and serrated along their edges, said serrations engaging between the serrations on the jaws of the rotating member, a stop for prizing the movable jaws of the vertically reciprocated device apart shortly before they reach their highest position, consisting of a lever mounted in the path of travel of said jaws and so as to be incapable of motion in an upward direction but capable of movement in a downward direction, whereby the movable jaws are prized apart as they move up, snap together over said stop, and move downwardly in closed position, and a stop for prizing said jaws apart as they reach their lowest position consisting of a wedge-shaped projection, substantially as described.

5. A machine of the class described comprising in combination feeding rollers for the covers, a gluing device for applying glue to the inside of said covers, rollers for grooving said covers, a rotating member having movable jaws of which one is serrated along its lower edge and the other is provided with a plate hinged thereto and serrated along

its lower edge, a vertically reciprocated device for applying the cover to the block of sheets, movable jaws carried by said device and serrated along their edges, said serrations engaging between the serrations on the jaws of the rotating member, stops for prising the said movable jaws of the vertically reciprocated device apart shortly before they reach their highest position and as they reach their lowest position, a movable plate mounted between the jaws of said device, means for controlling the movement of said plate consisting of a movable plate mounted on said reciprocating member, bolts mounted on said plate, pins actuating said plate, said bolts engaging the head of said pins, and a projection on said plate and a stop engaged by said projection as the reciprocating member reaches its lowest position whereby said plate is moved so as to release the heads of the said pins, substantially as set forth.

[Claims 6 to 8 not printed in the Gazette.]

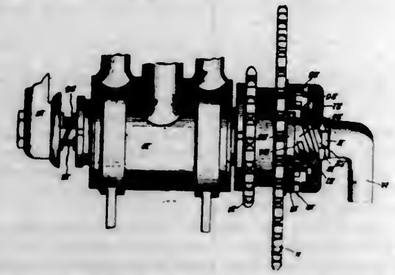
1,141,786. WRENCH. WALTER O. EILERT, Valley Center, Kans. Filed Jan. 11, 1915. Serial No. 1,626. (Cl. 81—111.)



1. A wrench of the character described including a handle having parallel extensions, said parallel extensions being provided with arcuate slots near one end, jaw members, pins extending through the jaw members and into the arcuate slots to hold the jaw members in place, guides carried by one of the jaw members and jaw faces formed at the ends of the jaw members, the arcuate slots being so shaped as to cause the jaw members to close upon movement of the handle in relation thereto.

2. A wrench of the character described including a handle, parallel extensions formed on the handle, said parallel extensions being provided with arcuate slots, said slots being so positioned that if they were joined they would form an oval extending transversely of the handle, jaw members between the parallel extensions in the handle, pins extending through the jaw members and into the arcuate slots to engage the walls thereof and cause the jaw members to close, guides carried by one of the jaw members to hold the two jaw members in direct alinement, means carried by the inner ends of the jaw members to adjust the distance between the outer ends thereof and a spring to force the outer ends of the jaw members apart.

1,141,787. ENGINE-STARTING DEVICE FOR MOTORCYCLES. FREDERICK S. ELLETT, Elmira, N. Y. Filed Apr. 27, 1914. Serial No. 834,766. (Cl. 192—9.)



1. In a device of the class described, the combination of a supporting member, a wheel rotatable thereon, a rotatable shaft having a screw thereon, a nut on said screw having clutch teeth, coöperating teeth carried by said wheel, retarding means for said nut permitting said screw to be rotated relative to the nut, and means limiting the relative movement of said screw and nut so as to prevent thrust between said wheel and nut in an axial direction when said teeth are in driving engagement.

2. In a device of the class described, the combination of a supporting member, a wheel rotatable thereon, a rotatable shaft coaxial with said wheel and having a screw thereon, a nut on said screw having clutch teeth, means for holding said nut to permit said screw to be rotated relatively thereto, coöperating teeth carried by said wheel adapted to engage with the teeth on said nut when the nut moves in an axial direction, said screw and said nut having coöperating parts adapted to limit the axial movement of the nut so as to prevent thrust between said wheel and nut in an axial direction when said teeth are in driving engagement.

3. In a device of the class described, the combination of a supporting member, a wheel rotatable thereon, a rotatable shaft coaxial with said wheel and having a screw thereon, a nut on said screw having clutch teeth, means for holding said nut to permit said screw to be rotated relatively thereto, coöperating teeth carried by said wheel adapted to engage with the teeth on said nut when the nut is moved in an axial direction, said screw and said nut having their interengaging threads so formed as to limit the relative movement of the screw and nut and prevent thrust in an axial direction between said nut and said wheel.

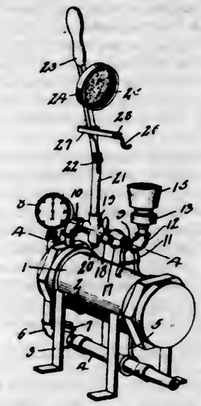
4. In a device of the class described, the combination of a supporting member, a wheel rotatable thereon and provided with a series of substantially rectangular teeth, a rotatable and axially movable shaft coaxial with said wheel and having a screw thereon, a nut on said screw having teeth adapted to engage with the teeth on said wheel, retarding means for holding said nut to permit said screw to be rotated relatively thereto, spring means adapted to move said shaft in one direction axially to effect the interengagement of said teeth, said spring means being also adapted to permit said shaft to move axially in the opposite direction, whereby said nut may continue to turn on said screw when said teeth are in endwise engagement, and means whereby said nut is rotated relatively to said wheel.

5. In a device of the class described, the combination of a supporting member, a wheel rotatable thereon and provided with a series of clutch teeth, a rotatable axially movable shaft coaxial with said wheel and having a screw thereon, a nut on said screw having teeth adapted to engage with the teeth on said wheel, retarding means for holding said nut to permit said screw to be rotated relatively thereto, spring means pressing said shaft in one direction and adapted to permit the shaft to move axially in the opposite direction whereby said nut may continue to turn on said screw when said teeth are in endwise engagement, and means whereby said nut is rotated relatively to said wheel.

[Claims 6 and 7 not printed in the Gazette.]

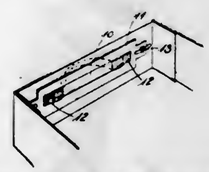
1,141,788. CASTING APPARATUS. JAMES MARTIN FEERICK, Nashville, Tenn. Filed Nov. 24, 1914. Serial No. 873,844. (Cl. 22—69.)

In a dental casting apparatus, the combination with a vacuum chamber, and a vacuum pipe communicating therewith, said pipe being arranged in a horizontal position and having means for the attachment of a mold thereto, of a controlling valve in said pipe having a handle verticaly disposed when the valve is in closed position, an upright rising from the pipe, a hand lever pivotally connected with said upright and carrying a cap having a lining of absorbent material, adapted upon the downward movement of the lever to move into mold closing position, a valve actuating arm projecting at right angles from the lever, a sleeve carried by said arm and adjustable longitudinally of the lever, said sleeve being provided with a set screw for securing it in adjusted position, a finger having a hook-shape end to engage and move the valve handle from a normally vertical to a horizontal position,



whereby the valve is open to establish communication between the vacuum chamber and mold, said finger being pivotally mounted for adjustment upon said arm, and means for securing said finger in adjusted position.

1,141,789. PAPER-BOX HANDLE. CARL J. FREESE, Elyria, Ohio. Filed Sept. 29, 1914. Serial No. 864,049. (Cl. 229—52.)



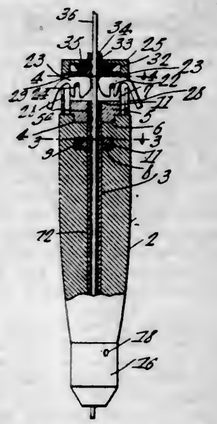
A paper box comprising a body section having transverse slits in one of the sides thereof, a tape having its ends projecting interiorly of said body section through said slits, a reinforcing member having a slot the length of which is equal to the distance between the slits in said section, said reinforcing member having also an opening at each end of said slot through which the ends of said tape are made to project after the said ends have been passed through the slot in the reinforcement, and means securing the ends of said reinforcing member to said body section so that the ends of the tape are locked between the reinforcing member and the body section, and a cover section having a slot through which the tape is adapted to project, when said body section is engaged by said cover.

1,141,790. TIE-HANDLE. GEORGE W. FURTH, Cleveland, Ohio. Filed Apr. 10, 1913. Serial No. 760,312. (Cl. 24—134.)

1. In a device of the class described, a handle having a bore and provided with a transverse opening extended therethrough from side to side and intersecting the bore; an anchor mounted in the opening and extended across the bore, the anchor having an aperture; a support mounted on one end of the handle; a securing device engaged with the support and the anchor and passing through a portion of the handle, the securing device constituting means for alining the aperture in the anchor with the bore; a tube mounted in the bore and in the aperture and assembled with the support; and a gripping means on the support and coöperating with the tube.

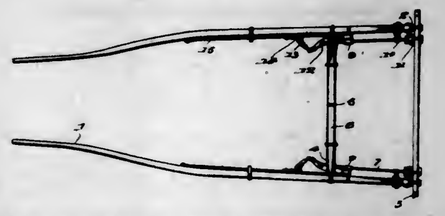
2. In a device of the class described, a handle having a bore; a support mounted on the handle and having a projection; a cam lever having an open notch in one edge receiving the projection; and a single yieldable means engaging the cam to actuate the cam with respect to the bore and to hold the notch engaged with the projection.

3. In a device of the class described, a body, having a bore and comprising as constituent parts, a support and a cam, one of which constituent parts is provided with a notch in its edge, the other of which constituent parts is provided with a projection registering in the notch; and a single yieldable means engaging the cam to actuate the cam with respect to the bore and to hold the projection and the notch interengaged.



4. In a device of the class described, a body provided with a bore and including a support; a cam coöperating with the bore; and a cap assembled with the body and inclosing the support; the cam and the support having interengaged elements permitting a disengaging of the cam from the support when the cam and the cap are moved in a common direction.

1,141,791. VEHICLE SHAFT ATTACHMENT. DEVILLO B. GIBBONS, Hermon, N. Y. Filed Nov. 10, 1914. Serial No. 871,358. (Cl. 21—36.)



1. An attachment for shafts comprising a yoke-shaped member connecting the axle and the cross bar, arms connecting the yoke-shaped member with the shafts, and means connecting the arms with the traces.

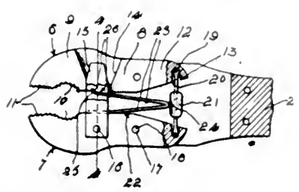
2. An attachment for vehicle shafts comprising a yoke-shaped member having its connecting portion secured beneath the cross bar of said shafts and its terminals connected to the axle of the vehicle, arms connecting the attachment with the shafts, and flexible members connected to the arms and having means for securing them to the traces.

3. A vehicle attachment comprising a yoke-shaped member having its connecting portion secured beneath the cross bar of the shafts and its terminals connected to the axle of the vehicle, of arms connecting the attachment to the shafts and holding said attachment away from the bowed portion thereof, straps connected to said arms, eye members adapted to be attached to the traces and snap connectors for joining the straps and the eye members.

its lower edge, a vertically reciprocated device for applying the cover to the block of sheets, movable jaws carried by said device and serrated along their edges, said serrations engaging between the serrations on the jaws of the rotating member, stops for prizing the said movable jaws of the vertically reciprocated device apart shortly before they reach their highest position and as they reach their lowest position, a movable plate mounted between the jaws of said device, means for controlling the movement of said plate consisting of a movable plate mounted on said reciprocating member, bolts mounted on said plate, pins actuating said plate, said bolts engaging the head of said pins, and a projection on said plate and a stop engaged by said projection as the reciprocating member reaches its lowest position whereby said plate is moved so as to release the heads of the said pins, substantially as set forth.

[Claims 6 to 8 not printed in the Gazette.]

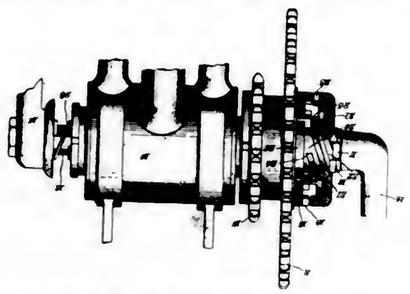
1,141,786. WRENCH. WALTER O. EILERT, Valley Center, Kans. Filed Jan. 11, 1915. Serial No. 1,626. (Cl. 81—111.)



1. A wrench of the character described including a handle having parallel extensions, said parallel extensions being provided with arcuate slots near one end, jaw members, pins extending through the jaw members and into the arcuate slots to hold the jaw members in place, guides carried by one of the jaw members and jaw faces formed at the ends of the jaw members, the arcuate slots being so shaped as to cause the jaw members to close upon movement of the handle in relation thereto.

2. A wrench of the character described including a handle, parallel extensions formed on the handle, said parallel extensions being provided with arcuate slots, said slots being so positioned that if they were joined they would form an oval extending transversely of the handle, jaw members between the parallel extensions in the handle, pins extending through the jaw members and into the arcuate slots to engage the walls thereof and cause the jaw members to close, guides carried by one of the jaw members to hold the two jaw members in direct alinement, means carried by the inner ends of the jaw members to adjust the distance between the outer ends thereof and a spring to force the outer ends of the jaw members apart.

1,141,787. ENGINE-STARTING DEVICE FOR MOTORCYCLES. FREDERICK S. ELLETT, Elmira, N. Y. Filed Apr. 27, 1914. Serial No. 834,766. (Cl. 192—9.)



1. In a device of the class described, the combination of a supporting member, a wheel rotatable thereon, a rotatable shaft having a screw thereon, a nut on said screw having clutch teeth, coöperating teeth carried by said wheel, retarding means for said nut permitting said screw to be rotated relative to the nut, and means limiting the relative movement of said screw and nut so as to prevent thrust between said wheel and nut in an axial direction when said teeth are in driving engagement.

2. In a device of the class described, the combination of a supporting member, a wheel rotatable thereon, a rotatable shaft coaxial with said wheel and having a screw thereon, a nut on said screw having clutch teeth, means for holding said nut to permit said screw to be rotated relatively thereto, coöperating teeth carried by said wheel adapted to engage with the teeth on said nut when the nut moves in an axial direction, said screw and said nut having coöperating parts adapted to limit the axial movement of the nut so as to prevent thrust between said wheel and nut in an axial direction when said teeth are in driving engagement.

3. In a device of the class described, the combination of a supporting member, a wheel rotatable thereon, a rotatable shaft coaxial with said wheel and having a screw thereon, a nut on said screw having clutch teeth, means for holding said nut to permit said screw to be rotated relatively thereto, coöperating teeth carried by said wheel adapted to engage with the teeth on said nut when the nut is moved in an axial direction, said screw and said nut having their interengaging threads so formed as to limit the relative movement of the screw and nut and prevent thrust in an axial direction between said nut and said wheel.

4. In a device of the class described, the combination of a supporting member, a wheel rotatable thereon and provided with a series of substantially rectangular teeth, a rotatable and axially movable shaft coaxial with said wheel and having a screw thereon, a nut on said screw having teeth adapted to engage with the teeth on said wheel, retarding means for holding said nut to permit said screw to be rotated relatively thereto, spring means adapted to move said shaft in one direction axially to effect the interengagement of said teeth, said spring means being also adapted to permit said shaft to move axially in the opposite direction, whereby said nut may continue to turn on said screw when said teeth are in endwise engagement, and means whereby said nut is rotated relatively to said wheel.

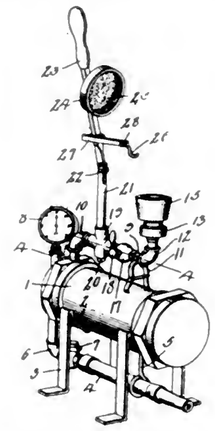
5. In a device of the class described, the combination of a supporting member, a wheel rotatable thereon and provided with a series of clutch teeth, a rotatable axially movable shaft coaxial with said wheel and having a screw thereon, a nut on said screw having teeth adapted to engage with the teeth on said wheel, retarding means for holding said nut to permit said screw to be rotated relatively thereto, spring means pressing said shaft in one direction and adapted to permit the shaft to move axially in the opposite direction whereby said nut may continue to turn on said screw when said teeth are in endwise engagement, and means whereby said nut is rotated relatively to said wheel.

[Claims 6 and 7 not printed in the Gazette.]

1,141,788. CASTING APPARATUS. JAMES MARTIN FEERICK, Nashville, Tenn. Filed Nov. 24, 1914. Serial No. 873,844. (Cl. 22—69.)

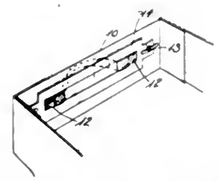
In a dental casting apparatus, the combination with a vacuum chamber, and a vacuum pipe communicating therewith, said pipe being arranged in a horizontal position and having means for the attachment of a mold thereto, a controlling valve in said pipe having a handle vertically disposed when the valve is in closed position, an upright rising from the pipe, a hand lever pivotally connected with said upright and carrying a cap having a finger absorbent material, adapted upon the downward movement of the lever to move into mold closing position, a valve actuating arm projecting at right angles from the lever, a sleeve carried by said arm and adjustable longitudinally of the lever, said sleeve being provided with a

for securing it in adjusted position, a finger having a hook-shape end to engage and move the valve from a normally vertical to a horizontal position,



whereby the valve is open to establish communication between the vacuum chamber and mold, said finger being pivotally mounted for adjustment upon said arm, and means for securing said finger in adjusted position.

1,141,789. PAPER-BOX HANDLE. CARL J. FREESE, Elyria, Ohio. Filed Sept. 29, 1914. Serial No. 864,049. (Cl. 229—52.)



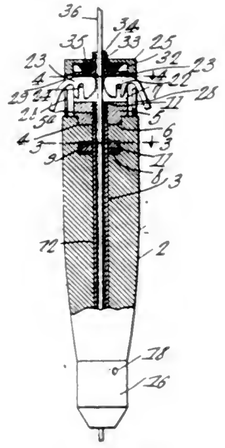
A paper box comprising a body section having transverse slits in one of the sides thereof, a tape having its ends projecting interiorly of said body section through said slits, a reinforcing member having a slot the length of which is equal to the distance between the slits in said section, said reinforcing member having also an opening at each end of said slot through which the ends of said tape are made to project after the said ends have been passed through the slot in the reinforcement, and means securing the ends of said reinforcing member to said body section so that the ends of the tape are locked between the reinforcing member and the body section, and a cover section having a slot through which the tape is adapted to project, when said body section is engaged by said cover.

1,141,790. TIE-HANDLE. GEORGE W. FURTH, Cleveland, Ohio. Filed Apr. 10, 1913. Serial No. 760,312. (Cl. 24—134.)

1. In a device of the class described, a handle having a bore and provided with a transverse opening extended therethrough from side to side and intersecting the bore; an anchor mounted in the opening and extended across the bore, the anchor having an aperture; a support mounted on one end of the handle; a securing device engaged with the support and the anchor and passing through a portion of the handle, the securing device constituting means for holding the aperture in the anchor with the bore; a tube mounted in the bore and in the aperture and assembled with the support; and a gripping means on the support and operating with the tube.

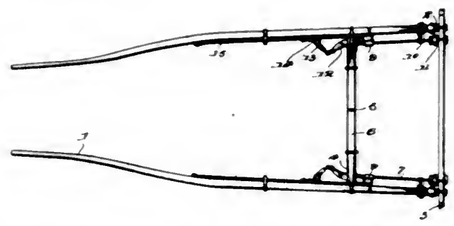
In a device of the class described, a handle having a support mounted on the handle and having a projection, a cam lever having an open notch in one edge receiving the projection; and a single yieldable means engaging the cam to actuate the cam with respect to the bore and to hold the notch engaged with the projection.

3. In a device of the class described, a body, having a bore and comprising as constituent parts, a support and a cam, one of which constituent parts is provided with a notch in its edge, the other of which constituent parts is provided with a projection registering in the notch; and a single yieldable means engaging the cam to actuate the cam with respect to the bore and to hold the projection and the notch interengaged.



4. In a device of the class described, a body provided with a bore and including a support; a cam coöperating with the bore; and a cap assembled with the body and inclosing the support; the cam and the support having interengaged elements permitting a disengaging of the cam from the support when the cam and the cap are moved in a common direction.

1,141,791. VEHICLE SHAFT ATTACHMENT. DEVILLO B. GIBBONS, Hermon, N. Y. Filed Nov. 10, 1914. Serial No. 871,358. (Cl. 21—36.)

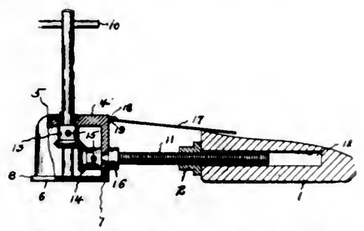


1. An attachment for shafts comprising a yoke-shaped member connecting the axle and the cross bar, arms connecting the yoke-shaped member with the shafts, and means connecting the arms with the traces.

2. An attachment for vehicle shafts comprising a yoke-shaped member having its connecting portion secured beneath the cross bar of said shafts and its terminals connected to the axle of the vehicle, arms connecting the attachment with the shafts, and flexible members connected to the arms and having means for securing them to the traces.

3. A vehicle attachment comprising a yoke-shaped member having its connecting portion secured beneath the cross bar of the shafts and its terminals connected to the axle of the vehicle, of arms connecting the attachment to the shafts and holding said attachment away from the bowed portion thereof, straps connected to said arms, eye members adapted to be attached to the traces and snap connectors for joining the straps and the eye members.

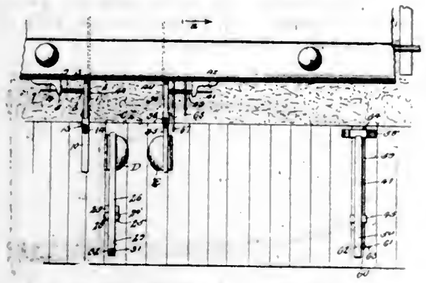
1,141,792. SHOE-ELONGATOR. MAX GOLDSTONE, New Haven, Conn. Filed Aug. 18, 1913, Serial No. 785,349. Renewed Nov. 27, 1914. Serial No. 874,356. (Cl. 12—130.)



1. In a shoe elongator, the combination with a foot section; of a nut connected therewith upon the outside thereof; a hollow heel section; a plate connected therewith closing the hollow portion thereof and having a prong thereon that projects rearwardly of said heel section and prevents the premature disengagement of the shoe elongator from the shoe; a shaft rotatably mounted in said heel section and journaled in said plate; a second shaft also rotatably mounted therein and having a threaded engagement with said nut; and a gear fixed to each of said shafts within said heel section and intermeshing with each other.

2. In a shoe elongator, the combination with a foot section; of a nut connected therewith upon the outside thereof; a hollow heel section; a plate connected therewith closing the hollow portion thereof; means for preventing the premature disengagement of the shoe elongator from the shoe; a shaft rotatably mounted in said heel section and journaled in said plate; a second shaft also rotatably mounted therein and having a threaded engagement with said nut; and a gear fixed to each of said shafts within said heel section and intermeshing with each other.

1,141,793. MAIL-BAG RECEIVING AND DELIVERING APPARATUS. ROBERT J. HARLEY, Reed City, Mich. Filed Apr. 10, 1914. Serial No. 831,027. (Cl. 258—11.)



1. The combination with a delivering device having relatively movable bag gripping portions, of a receiving device having companion relatively movable gripping portions operable for the passage of the gripping portions of the delivering device therebetween.

2. The combination with a delivering device having relatively movable bag gripping portions, of a receiving device having companion relatively movable gripping portions operable for the passage of the gripping portions of the delivering device therebetween, and means for normally holding said portions of the receiving device spaced relatively when the device is in receiving position.

3. The combination with a delivering device having relatively movable bag gripping portions, of a receiving device having companion relatively movable gripping portions operable for the passage of the gripping portions of the delivering device therebetween, means for normally holding said portions of the receiving device spaced relatively when the device is in receiving position, and means for rendering the said portions active to a gripping engagement with the bag on receipt of the bag between said portions.

4. In mail bag receiving and delivering mechanism a receiving device having relatively movable gripping portions, means for moving said portions, means for holding said portions against the action of the moving means, a delivering device adapted to pass between the gripping portions of the receiving device, and means for releasing the holding means automatically on predetermined relative positions of the receiving device and the delivering device.

5. In mechanism of the character described, a receiving device having relatively movable gripping portions, means for moving the portions relatively into gripping positions, means for normally holding the portions against the action of the moving means, delivering mechanism on the car adapted to pass between the relatively movable portions of the receiving device, and means on the car controlling the holding means of the receiving device to render the gripping portions of the receiving device active under the action of the moving means of said device.

1,141,794. DRINKING-FOUNTAIN AND WASTE-RECEPTACLE. DANIEL L. HARRIS, Wichita, Kans. Filed July 22, 1914. Serial No. 852,459. (Cl. 137—11.)



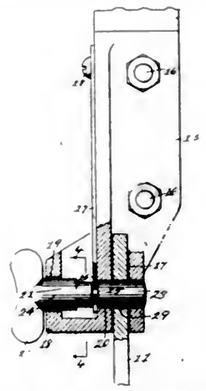
1. In a fountain, the combination with a bowl, of arches projecting from the bowl, a body supported on the arches, faucets on the body, a water supply pipe connecting with the faucets, and passing through one of the arches, draining members on the body communicating with the other arch, and positioned to receive drip from the faucet whereby to drain therethrough into the bowl any waste water from the faucet, and a drain pipe connecting with the bowl and depending therefrom to receive from the bowl the discharge water and any foreign substances contained in the bowl.

2. In a fountain, the combination with a base, of a hollow body thereon, a bowl supported on the hollow body, hollow arches on the bowl, a second hollow body on the arches, a water supply pipe in the base and extending through the lower hollow body and one of the arches, faucets on the upper hollow body and connecting with the pipe therein for conducting the water to the faucets, a drain pipe in the lower hollow body and connecting with the bowl, draining members on the upper hollow body to receive any waste fluid discharged from the faucet, and a pipe in the upper hollow body and having the draining members communicating therewith, said pipe connecting with the other hollow arch to conduct the waste water into the said bowl.

3. In a fountain, the combination with a base, of a hollow body thereon, a bowl supported on the hollow body, hollow arches on the bowl, a second hollow body on the arches, a water supply pipe in the base and extending through the lower hollow body and one of the arches, to the upper hollow body whereby water can be conducted to the upper hollow body, faucets on the upper hollow body connecting with the pipe therein for conducting the water to the faucets, a drain pipe in the lower hollow body connecting with the bowl, draining members on the upper hollow body to receive any waste fluid discharged from the faucet, a pipe in the upper hollow body having the draining members communicating therewith, said pipe connecting with the other hollow arch to conduct the waste water into the said bowl, and a perforated sprayer pipe in the bowl connecting with the last mentioned hollow arch whereby the waste water from the drain members will be sprayed into the bowl.

4. In a fountain, a base, a plurality of superposed hollow bodies on the base, a bowl interposed between said bodies and supported by one of them, arches on the bowl supporting the other body, faucets on the other body, a supply pipe passing through the bodies and communicating with the faucets, drain pipes adapted to receive the drip from the faucets and communicating with the bowl, and a drain pipe communicating with the bowl and passing downwardly through the first mentioned body and said base.

1,141,795. PUMP-ROD CONNECTOR. MATHEW HARTSER, Herndon, Kans. Filed July 6, 1914. Serial No. 849,132. (Cl. 74—17.)

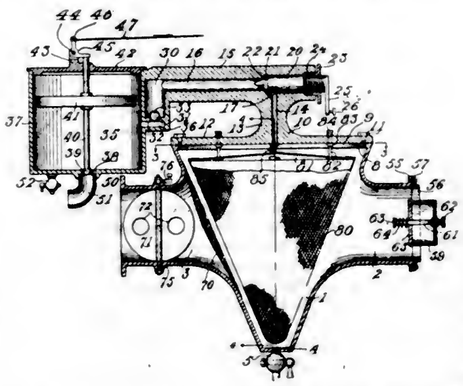


The combination, of a pole, a rod provided with an opening in the upper end thereof, a guide for said rod carried by said pole and having a hook-shaped member thereon provided with an elliptical opening therethrough, said guide having a circular opening therethrough on the axis of said elliptical opening, all of said openings being in the same vertical plane, a pin slidable in said guide openings provided with a cylindrical section rotatable in said guide openings and with an elliptical section slidable in said elliptical section and prevented from rotation when therein, said pin having a peripheral groove intermediate its length, and a plate spring secured to said guide and engaged in said peripheral groove, within the hook-shaped member, whereby said spring limits the movement of said pin in either direction, said elliptical pin section maintaining said pin in outermost position when arranged transversely of said elliptical guide opening, and said spring maintaining said pin in innermost position when said elliptical pin section and said elliptical guide opening are in register, to lock said guide and rod together.

1,141,796. CARBURETER. OSCAR S. HERTZOG, Philadelphia, Pa. Filed Jan. 27, 1914. Serial No. 814,761. (Cl. 48—168.)

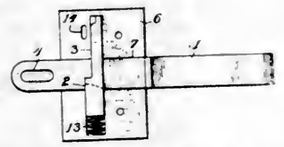
1. In combination, a carbureting chamber, an inverted conical screen member arranged within said chamber, a fuel inlet centrally disposed above said member, means for directing the fuel from said inlet to one side of the member so that the fuel will be distributed over one-half of the latter, an air inlet port arranged at the side of the member adjacent that half of the screen over which the fuel is distributed, and an outlet port diametrically disposed at the opposite side of the chamber.

2. In combination, a carbureting chamber, an inverted conical screen member arranged within the chamber, a top for said chamber having a fuel inlet, a conical member closing the screen and spaced from the top of said chamber, means interposed between said top and conical member for distributing the fuel over approximately one-half of the latter, an air inlet port arranged at the side of the chamber adjacent that half of the screen over which the fuel is distributed, and an outlet port diametrically disposed at the opposite side of the chamber.



3. In combination, a carbureting chamber, an inverted conical member arranged within said chamber, a top for said chamber having a fuel inlet, a conical member closing said screen and spaced from said top, a flange rising from said conical member engaging said top, said flange being disposed to one side of said inlet to direct the fuel to one side of the screen so as to be distributed over approximately one-half thereof, an inlet port arranged at the side of the chamber adjacent that half of the screen over which the fuel is distributed, and an outlet port diametrically disposed at the opposite side of the chamber.

1,141,797. LOCK. FRANCIS M. HETTRICK, Yelm, Wash. Filed Aug. 4, 1914. Serial No. 855,016. (Cl. 70—5.)

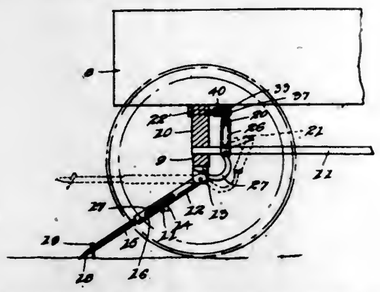


In combination, a locking bar having a notch, a lock casing comprising two members, one of such members having a transverse groove or channel and alined recesses above and below such transverse groove and the other member having a vertical recess extending across the transverse groove and in communication at its end with the said recesses, a lock bolt arranged in the said vertical recess and provided at its ends with lateral enlargements to enter the before mentioned recesses, one of such lateral enlargements having a beveled end to project across the transverse groove and engage the notch of the lock bar.

1,141,798. VEHICLE-SCOTCH. JOHN H. HOLT, Lawrenceburg, Tenn. Filed Oct. 31, 1914. Serial No. 869,610. (Cl. 21—8.)

1. A vehicle scotch comprising a road engaging member pivoted adjacent the rear of the vehicle and comprising a pair of telescoping members and a spring arranged between the telescoping members, a crank shaft, a pair of curved bars carried by said road engaging member, a link connecting said bars with said crank shaft, means for rotating said crank shaft, means for normally holding the road engaging member in spaced relation to the road and

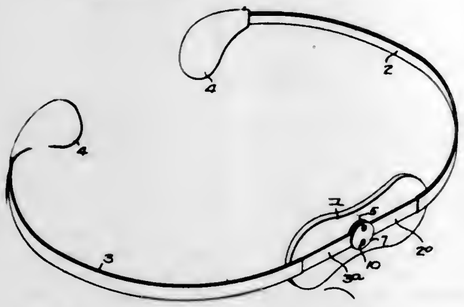
means carried adjacent to the outer end of the outermost of said telescoping members to engage the surface of the road in combination with the adjacent outer end of said outermost telescoping member.



2. A scotch for vehicles comprising a tubular member pivoted on said vehicle, a pointed road engaging rod slidable within the tubular member, cushioning means arranged within the tubular member to engage the inner end of said rod, a pair of curved bars secured adjacent the pivoted end of said tubular member, a crank shaft rotatably mounted on the vehicle, a U-shaped link pivotally connected with the crank shaft and said curved bars, a shaft journaled upon said vehicle, a lever fixed on said shaft and having a toothed segmental lower terminal, a gear wheel fixed on said crank shaft, and engaging said toothed segmental portion and means for normally holding said road engaging member in spaced relation to the road.

3. In combination with the rear bolster of a vehicle, a pair of shafts journaled on the bolster and arranged one above the other, a scotch carried by the lowermost shaft and adapted to engage the surface of the road when the shaft is rotated in one direction, an operating lever carried by the upper shaft and having connection with the lowermost shaft, and a spring encircling the upper shaft adapted to automatically return the scotch to normal position when the operating lever is released.

1,141,799. TRUSS. WILLIAM H. HORN, Jr., Philadelphia, Pa., assignor to Wm. H. Horn & Brother, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Aug. 21, 1913. Serial No. 786,028. (Cl. 128—26.)



1. The combination in a truss of a pad; side members consisting of two strips of spring material having a substantial rectangular section; with means for connecting said strips to the pad, consisting of a plate having a depression into which the overlapping ends of said strips closely fit so as to be held from turning relatively to said pad; and means for causing said plate to clamp said strips to the pad.

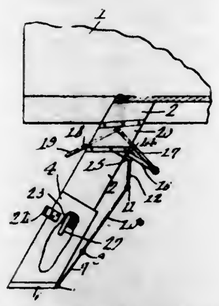
2. The combination in a truss of a pad; a plate fixed thereto and provided with a depression; spring side members overlapping one another upon said plate; a second plate; and means for separably connecting said plates to adjustably clamp the strips between the same.

3. The combination in a truss of a pad; a plate mounted thereon and having a depression; a second plate also having a depression; screws adjustably connecting said plates; and two side members of spring material having their ends of substantially rectangular section overlapped within the passageway formed by the depressions of the two plates, said members closely fitting said passageway so as to be held by the walls thereof from turning relatively to the pad.

4. The combination in a truss of a pad; a plate fixed thereto; a second plate adjustably mounted on the first plate; two spring members overlapping each other between the plates; and means on the plates for preventing their rotation with the pad relatively to said members.

5. The combination in a truss of a pad; two imperforate over-lapping flat side members; and means for rigidly clamping said members to said pad.

1,141,800. EXTENDED STEP. LEWIS T. JACK, Mount Sterling, Iowa. Filed Jan. 11, 1915. Serial No. 1,651. (Cl. 105—87.)



1. In a device of the class described; a main step; an auxiliary step mounted to slide thereon; a fixed guide; a flexible actuating member extended through the guide and comprising a free end; means on the auxiliary step for holding the free end of the actuating member detachably; and means for operatively connecting the other end of the actuating member with the auxiliary step.

2. In a device of the class described, a main step; an auxiliary step mounted to slide thereon; a fixed guide on the main step; a flexible actuating member extended through the guide; means for operatively connecting one end of the flexible actuating member with the rear portion of the auxiliary step; and means on the auxiliary step, below the guide, for receiving the other end of the actuating member detachably.

3. In a device of the class described, a main step; an auxiliary step mounted to slide on the main step; a rock shaft journaled on the main step and provided with crank arms; a connection between one crank arm and the auxiliary step; a flexible actuating member extended transversely of the main step and operatively connected with the other arm on the rock shaft and having a freely swinging end; a guide on the main step and receiving the flexible actuating member slidably; and means carried by the auxiliary step for receiving said end of the flexible actuating member detachably.

4. In a device of the class described, a main step; an auxiliary step mounted to slide on the main step; a rock shaft journaled for rotation on the main step and provided with a crank arm; means for operatively connecting the rock shaft with the auxiliary step; a primary link pivoted to the crank arm and extended transversely of the main step; a secondary link pivoted to the primary link and adapted to extend downward; a guide on the main step and receiving the primary link slidably; and means carried by the auxiliary step for receiving the secondary link detachably when the latter is downwardly extended.

5. In a device of the class described, a main step; an auxiliary step mounted to slide on the main step; a rock shaft provided with a crank arm; means for supporting the rock shaft; means for connecting the rock shaft operatively with the auxiliary step; a primary link pivoted to the crank arm and extended transversely of the main step; a depending secondary link pivoted to the forward end of the primary link; and a clip on the auxiliary step, the clip being adapted to receive the secondary link detachably.

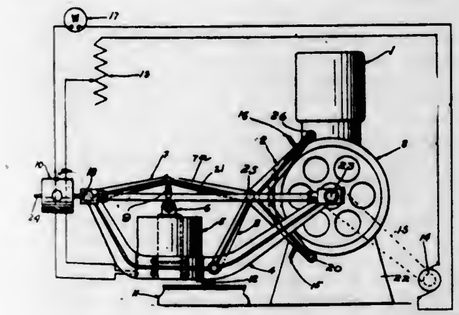
1,141,801. DISPLAY-SIGN FOR STORE-WINDOWS. OWEN JAMES, Fall River Mass. Filed Nov. 26, 1913. Serial No. 803,247. (Cl. 40—130.)



1. A display device for store windows, etc., comprising a frame with an opening therein, stencil plates and means for holding the same adjacent to said opening, a swinging frame with a ground glass plate mounted therein and positioned behind said stencil plates, lamps positioned below the stencil plates, and a reflector for throwing the rays of light from the lamps into the space at the rear of said ground glass, as set forth.

2. A display device for store windows, etc., comprising a frame with an opening therein, stencil plates and means for holding the same adjacent to said opening, means for supporting the frame, a pipe and means for supporting the latter below the stencil plates, a curved reflector secured to said frame below the stencil plates, lamps carried by the pipe at right angles to the plane of the stencil plates and above the reflector, a ground glass and frame therefor held parallel and adjacent to the stencil plates and above said lamps, as set forth.

1,141,802. ABSORPTION-DYNAMOMETER. NATHAN C. JOHNSON, Englewood, N. J., assignor to Tinius Olsen Testing Machine Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Jan. 7, 1914. Serial No. 810,841. (Cl. 73—15.)



1. The combination in an absorption dynamometer of a stationary friction member formed to engage a rotating member; an electro-magnet for actuating said friction member; with an electric generator driven by the rotary element and electrically connected to the electro-magnet.

2. The combination in an absorption dynamometer of a stationary friction member formed to engage a rotating member; an electro-magnet for actuating said friction member; an electric generator driven by the rotary element and electrically connected to the electro-magnet; and a device for measuring the rotative force exerted on said friction member.

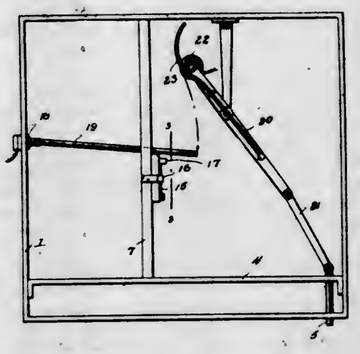
3. The combination in an absorption dynamometer of a member for frictionally engaging a rotating element; an electro-magnet for actuating said friction member; a weighing apparatus for measuring the rotative force exerted on said member; a generator driven by the rotating element, and connections between said generator and the electro-magnet.

4. The combination in an absorption dynamometer of a member for frictionally engaging a rotating element; an electro-magnet for actuating said friction member; weighing apparatus for measuring the rotative force exerted on said member; a generator driven by the rotating element; connections between said generator and electro-magnet; with means for varying the current flowing from the generator to the electro-magnet.

5. The combination in an absorption dynamometer of a brake shoe; a rotary member; an electromagnet independent of said parts and mounted to force said shoe into engagement with the periphery of the rotary member; and a device for measuring the force exerted on said rotary member by said brake shoe.

[Claims 6 to 21 not printed in the Gazette.]

1,141,803. ELECTRIC SWITCH. FRANK KEMERER, Kersey, Pa. Filed Oct. 8, 1912. Serial No. 724,566. (Cl. 175—282.)

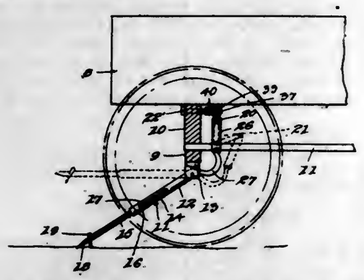


1. A control switch for mining turbine pumps, a frame, a contact rod forming one circuit terminal supported on the frame for vertical and lateral movement, means for guiding the rod and deflecting it laterally in its vertical movement in one direction, a trolley lever including a contact wheel to engage the rod in the elevation of the lever, said lever being of a length to permit disengagement of the rod from the wheel at a predetermined position of the lever, and means for elevating the rod and restoring it to normal position for engagement by the wheel in its upward movement.

2. A control switch for mining turbine pumps, a frame, a contact rod forming one circuit terminal supported on the frame for vertical and lateral movement, means for guiding the rod and deflecting it laterally in its vertical movement in one direction, a trolley lever including a contact wheel to engage the rod in the elevation of the lever, said lever being of a length to permit disengagement of the rod from the wheel at a predetermined position of the lever, and means to elevate the rod and restore it to normal path to be engaged by the wheel.

3. A control switch for mining turbine pumps, a frame, a contact rod forming one circuit terminal supported on the frame for vertical and lateral movement, means for guiding the rod and deflecting it laterally in its vertical movement in one direction, a trolley lever including a contact wheel to engage the rod in the elevation of the lever, said lever being of a length to permit disengagement of the rod from the wheel at a predetermined position of the lever, a push bar to elevate the rod and laterally deflect the same to restore it to normal position, and means carried by the lever to operate the push bar.

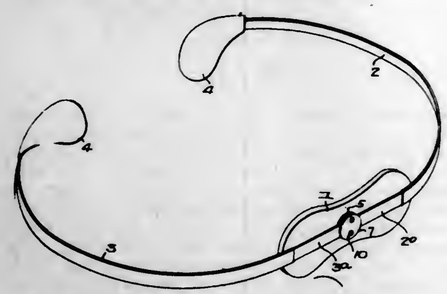
means carried adjacent to the outer end of the outermost of said telescoping members to engage the surface of the road in combination with the adjacent outer end of said outermost telescoping member.



2. A scotch for vehicles comprising a tubular member pivoted on said vehicle, a pointed road engaging rod slidable within the tubular member, cushioning means arranged within the tubular member to engage the inner end of said rod, a pair of curved bars secured adjacent the pivoted end of said tubular member, a crank shaft rotatably mounted on the vehicle, a U-shaped link pivotally connected with the crank shaft and said curved bars, a shaft journaled upon said vehicle, a lever fixed on said shaft and having a toothed segmental lower terminal, a gear wheel fixed on said crank shaft, and engaging said toothed segmental portion and means for normally holding said road engaging member in spaced relation to the road.

3. In combination with the rear bolster of a vehicle, a pair of shafts journaled on the bolster and arranged one above the other, a scotch carried by the lowermost shaft and adapted to engage the surface of the road when the shaft is rotated in one direction, an operating lever carried by the upper shaft and having connection with the lowermost shaft, and a spring encircling the upper shaft adapted to automatically return the scotch to normal position when the operating lever is released.

1,141,799. TRUSS. WILLIAM H. HORN, Jr., Philadelphia, Pa., assignor to Wm. H. Horn & Brother, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Aug. 21, 1913. Serial No. 786,028. (Cl. 128—26.)



1. The combination in a truss of a pad; side members consisting of two strips of spring material having a substantial rectangular section; with means for connecting said strips to the pad, consisting of a plate having a depression into which the overlapping ends of said strips closely fit so as to be held from turning relatively to said pad; and means for causing said plate to clamp said strips to the pad.

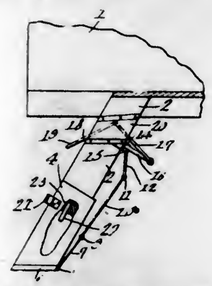
2. The combination in a truss of a pad; a plate fixed thereto and provided with a depression; spring side members overlapping one another upon said plate; a second plate; and means for separably connecting said plates to adjustably clamp the strips between the same.

3. The combination in a truss of a pad; a plate mounted thereon and having a depression; a second plate also having a depression; screws adjustably connecting said plates; and two side members of spring material having their ends of substantially rectangular section overlapped within the passageway formed by the depressions of the two plates, said members closely fitting said passageway so as to be held by the walls thereof from turning relatively to the pad.

4. The combination in a truss of a pad; a plate fixed thereto; a second plate adjustably mounted on the first plate; two spring members overlapping each other between the plates; and means on the plates for preventing their rotation with the pad relatively to said members.

5. The combination in a truss of a pad; two imperforate over-lapping flat side members; and means for rigidly clamping said members to said pad.

1,141,800. EXTENDED STEP. LEWIS T. JACK, Mount Sterling, Iowa. Filed Jan. 11, 1915. Serial No. 1,651. (Cl. 105—87.)



1. In a device of the class described; a main step; an auxiliary step mounted to slide thereon; a fixed guide; a flexible actuating member extended through the guide and comprising a free end; means on the auxiliary step for holding the free end of the actuating member detachably; and means for operatively connecting the other end of the actuating member with the auxiliary step.

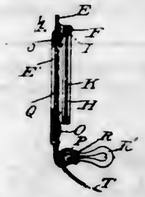
2. In a device of the class described, a main step; an auxiliary step mounted to slide thereon; a fixed guide on the main step; a flexible actuating member extended through the guide; means for operatively connecting one end of the flexible actuating member with the rear portion of the auxiliary step; and means on the auxiliary step, below the guide, for receiving the other end of the actuating member detachably.

3. In a device of the class described, a main step; an auxiliary step mounted to slide on the main step; a rock shaft journaled on the main step and provided with crank arms; a connection between one crank arm and the auxiliary step; a flexible actuating member extended transversely of the main step and operatively connected with the other arm on the rock shaft and having a freely-swinging end; a guide on the main step and receiving the flexible actuating member slidably; and means carried by the auxiliary step for receiving said end of the flexible actuating member detachably.

4. In a device of the class described, a main step; an auxiliary step mounted to slide on the main step; a rock shaft journaled for rotation on the main step and provided with a crank arm; means for operatively connecting the rock shaft with the auxiliary step; a primary link pivoted to the crank arm and extended transversely of the main step; a secondary link pivoted to the primary link and adapted to extend downward; a guide on the main step and receiving the primary link slidably; and means carried by the auxiliary step for receiving the secondary link detachably when the latter is downwardly extended.

5. In a device of the class described, a main step; an auxiliary step mounted to slide on the main step; a rock shaft provided with a crank arm; means for supporting the rock shaft; means for connecting the rock shaft operatively with the auxiliary step; a primary link pivoted to the crank arm and extended transversely of the main step; a depending secondary link pivoted to the forward end of the primary link; and a clip on the auxiliary step, the clip being adapted to receive the secondary link detachably.

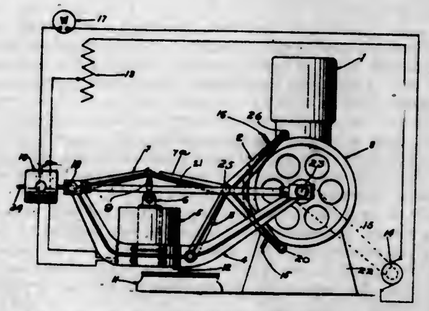
1,141,801. DISPLAY-SIGN FOR STORE-WINDOWS. OWEN JAMES, Fall River Mass. Filed Nov. 26, 1913. Serial No. 803,247. (Cl. 40—130.)



1. A display device for store windows, etc., comprising a frame with an opening therein, stencil plates and means for holding the same adjacent to said opening, a swinging frame with a ground glass plate mounted therein and positioned behind said stencil plates, lamps positioned below the stencil plates, and a reflector for throwing the rays of light from the lamps into the space at the rear of said ground glass, as set forth.

2. A display device for store windows, etc., comprising a frame with an opening therein, stencil plates and means for holding the same adjacent to said opening, means for supporting the frame, a pipe and means for supporting the latter below the stencil plates, a curved reflector secured to said frame below the stencil plates, lamps carried by the pipe at right angles to the plane of the stencil plates and above the reflector, a ground glass and frame therefor held parallel and adjacent to the stencil plates and above said lamps, as set forth.

1,141,802. ABSORPTION-DYNAMOMETER. NATHAN C. JOHNSON, Englewood, N. J., assignor to Tinius Olsen Testing Machine Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Jan. 7, 1914. Serial No. 810,841. (Cl. 73—15.)



1. The combination in an absorption dynamometer of a stationary friction member formed to engage a rotating member; an electro-magnet for actuating said friction member; with an electric generator driven by the rotary element and electrically connected to the electro-magnet.

2. The combination in an absorption dynamometer of a stationary friction member formed to engage a rotating member; an electro-magnet for actuating said friction member; an electric generator driven by the rotary element and electrically connected to the electro-magnet; and a device for measuring the rotative force exerted on the friction member.

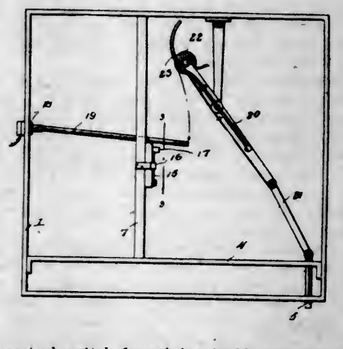
3. The combination in an absorption dynamometer of a member for frictionally engaging a rotating element; an electro-magnet for actuating said friction member; a weighing apparatus for measuring the rotative force exerted on said member; a generator driven by the rotating element, and connections between said generator and the electro-magnet.

4. The combination in an absorption dynamometer of a member for frictionally engaging a rotating element; an electro-magnet for actuating said friction member; weighing apparatus for measuring the rotative force exerted on said member; a generator driven by the rotating element; connections between said generator and electro-magnet; with means for varying the current flowing from the generator to the electro-magnet.

5. The combination in an absorption dynamometer of a brake shoe; a rotary member; an electromagnet independent of said parts and mounted to force said shoe into engagement with the periphery of the rotary member; and a device for measuring the force exerted on said rotary member by said brake shoe.

[Claims 6 to 21 not printed in the Gazette.]

1,141,803. ELECTRIC SWITCH. FRANK KEMERER, Kersey, Pa. Filed Oct. 8, 1912. Serial No. 724,566. (Cl. 175—282.)

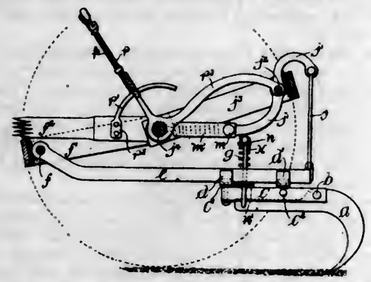


1. A control switch for mining turbine pumps, a frame, a contact rod forming one circuit terminal supported on the frame for vertical and lateral movement, means for guiding the rod and deflecting it laterally in its vertical movement in one direction, a trolley lever including a contact wheel to engage the rod in the elevation of the lever, said lever being of a length to permit disengagement of the rod from the wheel at a predetermined position of the lever, and means for elevating the rod and restoring it to normal position for engagement by the wheel in its upward movement.

2. A control switch for mining turbine pumps, a frame, a contact rod forming one circuit terminal supported on the frame for vertical and lateral movement, means for guiding the rod and deflecting it laterally in its vertical movement in one direction, a trolley lever including a contact wheel to engage the rod in the elevation of the lever, said lever being of a length to permit disengagement of the rod from the wheel at a predetermined position of the lever, and means to elevate the rod and restore it to normal path to be engaged by the wheel.

3. A control switch for mining turbine pumps, a frame, a contact rod forming one circuit terminal supported on the frame for vertical and lateral movement, means for guiding the rod and deflecting it laterally in its vertical movement in one direction, a trolley lever including a contact wheel to engage the rod in the elevation of the lever, said lever being of a length to permit disengagement of the rod from the wheel at a predetermined position of the lever, a push bar to elevate the rod and laterally deflect the same to restore it to normal position, and means carried by the lever to operate the push bar.

1,141,804. CULTIVATOR. DENIS JOHN LAMPRELL and FREDERICK COOK, Dowerin, Western Australia, Australia. Filed Sept. 4, 1913. Serial No. 788,169. (Cl. 97—35.)



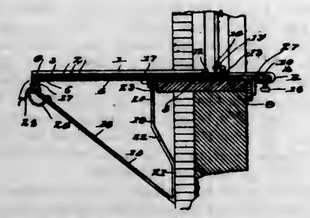
1. In a cultivator, the combination of a frame provided with a cross-bar; a horizontal guide bracket rigidly secured to said bar; a tine pivoted intermediate its ends to said bracket; and a pressure spring for normally holding the front end of said tine in raised position.

2. In a wheeled cultivator, the combination of a cultivator frame; an axle to which said frame is connected; a rearwardly-extending arm carried by said axle; a second frame pivotally connected at its front end to said cultivator frame and suspended at its rear end from said arm; and resilient devices for normally holding said second frame in lowered position.

3. In a wheeled cultivator, the combination of a cultivator frame; an axle to which said frame is connected; a longitudinally-arranged arm fulcrumed intermediate its ends in the cultivator frame; a second frame pivotally connected at its front end to the cultivator frame and suspended at its rear end from the rear end of said arm; and resilient means connected to the front end of said arm for normally holding said second frame in lowered position.

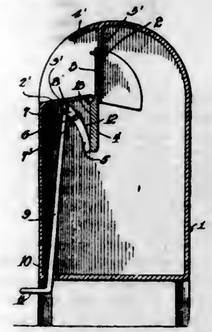
4. In a wheeled cultivator, the combination of a cultivator frame; an axle to which sad frame is connected; a rearwardly-extending arm carried by said axle; a longitudinally-arranged arm pivotally connected intermediate its ends to the rear end of the first-named arm; a link suspended from the rear end of the second-named arm; a second frame pivotally connected at its front end to the cultivator frame and having its rear end connected to said link; and resilient connections between said axle and the front end of the second-named arm for normally holding said second frame in lowered position.

1,141,805. WINDOW-SCAFFOLD. ANTON P. LEADHOLM and CARL J. EFRAIMSON, Omaha, Nebr. Filed July 17, 1914. Serial No. 851,560. (Cl. 20—87.)



A window scaffold comprising a platform, bracket strips secured longitudinally to the underside of the platform and adjacent to the respective side edges thereof, each of said bracket strips having a downturned outer end provided with a fastening opening, means connected with the inner ends of said bracket strips for securing the same to the projecting ledge of a window sill and braces connected with the respective bracket strips and adapted to fold inwardly parallel with the underside of the platform and outwardly at right angles to said platform, each of said braces having a short vertical arm and a long inclined arm, said long inclined arm having its outer end bent to lie parallel with the downturned outer end of the cooperating bracket strip and pivoted thereto and provided with a fastening opening to register with the fastening opening in said strip, and said short vertical arm having a lower wall engaging portion, an upper portion lying in rear of the vertical plane of said wall engaging portion and pivoted to the bracket strip and an intermediate offset holding said portions in the described relation, and a fastening member carried by the inclined arm of the brace and engageable with the openings in the bracket and brace to secure the brace in working position.

1,141,806. MAIL-BOX. JOHN E. LOUDENSLAGER, Jr., Hagerstown, Md. Filed Jan. 15, 1913. Serial No. 742,251. (Cl. 232—45.)

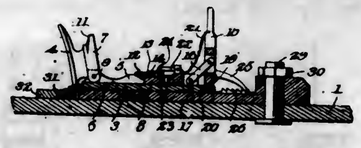


1. In a device of the character described, a receptacle including top, bottom and front walls, the front wall of said receptacle being extended inwardly, forming the receptacle with a receiving opening and providing a horizontally disposed stop, a closure for said opening pivotally connected at its medial portion to the free transverse edge of said stop, a support disposed beneath said stop, and closure operating means pivotally mounted on said support and housed within the receptacle, and having a portion extended through an opening in the bottom of said receptacle to provide a manipulating portion for said operating means.

2. In a device of the class described, a receptacle including top, bottom and front walls, the front wall of said receptacle being extended inwardly, forming the receptacle with a receiving opening and providing a horizontally disposed stop, a closure for said opening pivotally connected at its medial portion to the free transverse edge of said stop, a support disposed within the receptacle and beneath said stop, and closure operating means pivotally mounted on said support and having a portion thereof extended through an opening in the bottom of said receptacle to provide a manipulating portion for said operating means, a second stop formed at right angles to the first mentioned stop and adapted to limit the movement of the closure in one direction and the other of said stops limiting the movement of the closure in the opposite direction.

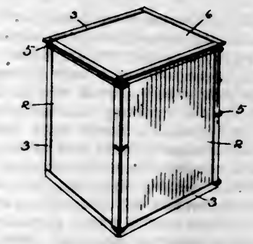
1,141,807. WARP-LINE CLEAT. JOEL LUCIA, Portland, Oreg. Filed Aug. 5, 1914. Serial No. 855,254. (Cl. 114—218.)

1. In a warp line cleat, the combination of a bracket, guide members upon the bracket, a cleat hinged or pivoted to said guide members, a latch slidably engaging the guide members and movable into and out of engagement with the base of the cleat, a locking device for holding the latch in engaging position, a pivoted lever, a link connecting said lever with the sliding latch, a flexible connection between said lever and the locking device, a toothed detent, and a dog pivoted to the lever and engaging said detent.



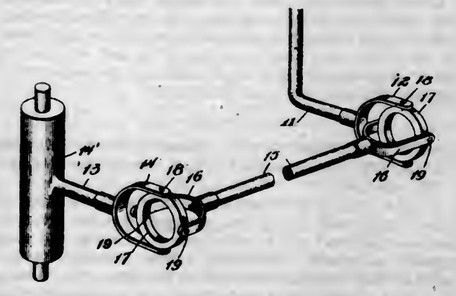
2. In a warp line cleat, a retaining flange, a support having an end movable into and out of engagement with said flange and having its opposite end pivoted, and a cleat mounted upon said support.

1,141,808. PORTABLE FOLDING SCREEN. EVELYN G. MCGINLEY, Boston, Mass. Filed Aug. 29, 1912. Serial No. 717,812. (Cl. 45—106.)



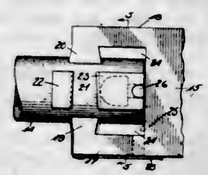
A portable folding fireproof screen, consisting of a right line series of flat rectangular side wall sheets of asbestos of similar size, having perforated metal binding strips on their margins and eyelets extending through the same at a short distance from said margins, detachable rings engaging said eyelets and connecting the adjacent vertical marginal portions of said sheets, said rings having diameters twice said distance, a flat rectangular covering sheet of asbestos of larger size having also perforated metal binding strips on its margin and eyelets therethrough, said covering sheet being offset at right angles to said series of wall sheets and being connected to the horizontal marginal portion of one of said wall sheets by detachable rings in engagement with the eyelets of the edge of said offset sheet, whereby the former sheets are held in marginal contact at any angle and the latter sheet is adjustable in horizontal position over and upon the upper edges of the series of wall sheets when they are placed in upstanding position thereunder, all the sheets, including the offset sheet, being foldable together in parallel relation and in contact with each other.

1,141,809. HEAD-LAMP CONTROL. JAMES A. MCKIM, Greensburg, Ind. Filed May 9, 1914. Serial No. 837,466. (Cl. 240—62.)
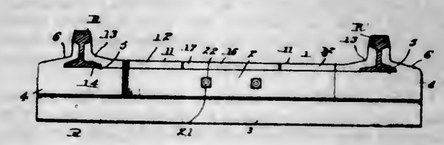


In automatic head lamp control, a vertical oscillatory lamp shaft having a reduced journal portion terminating in annular shoulders in spaced relation to each other, a bearing bracket for said shaft, a diametrically divided sectional bearing embracing said journal portion of the lamp shaft between said shoulders and insertible in said bracket, retaining means for said sectional bearing, and automatically controlled means for oscillating said lamp shaft and admitting of the relative movements of the body and running gear of the vehicle.

1,141,810. DRAW-BAR AND COUPLING-CONNECTOR. WILLIAM H. MAHONEY, Hingham, Mass. Filed Oct. 21, 1914. Serial No. 867,799. (Cl. 213—42.)



A device as characterized comprising, a yoke embodying a plurality of extended arms, said arms having each an inturned dovetailed wedge shaped projection; a coupler shank adapted for insertion between said projections; a plurality of lugs rigidly mounted on said shank in paired relation, the members of said pairs being spaced apart and having the adjacent edges shaped in correspondence with the side edges of said projections; means for locking the said shank in service position; an elongated key head extensible within the end of said shank, and means provided on said shank to engage said key head when said shank is in service position.

1,141,811. RAILWAY-TIE. SARPALA MARTIN, Ishpeming, Mich. Filed Nov. 27, 1914. Serial No. 874,282. (Cl. 238—5.)

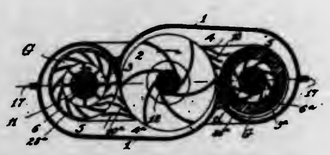


1. In a metal tie, a body member having a central longitudinal rib upon its underface, the ends of the tie being formed with rail engaging flanges, the top of the tie having a longitudinally extending channel, the central portion of which being widened and having its opposite walls parallel and vertically straight, the reduced end extensions of the channel having their walls beveled, clamps, said clamps each including a body having a head portion provided with a rail engaging flange, the underface of each of the bodies being formed with longitudinally extending dovetailed ribs adapted to engage with the angular walls of the end portions of the channel, a holding block including a head and having its underface provided with a central flange adapted to be received within the central portion of the channel and to contact with the side walls thereof and with the opposite ends of the clamps, transversely arranged securing means for retaining the holding block within the channel of the tie, and wedge members between the ends of the holding block and the end of the clamps.

2. A metal tie having its underface provided with a central longitudinally extending rib, its ends widened to provide rail seats and having rail engaging flanges which overlie the seats, the face of the tie between the seats being channeled longitudinally, the central portion of the channel being widened and having vertically straight walls, while the reduced end portions of the channels have angular side walls providing dove-tailed recesses, the rail

engaging flanges having longitudinally extending pins, the rail seats having vertically projecting studs, rail clamps, said clamps having body portions of a width corresponding with that of the tie and head portions of a width corresponding with that of the widened ends of the tie and of the rail engaging flanges thereof, said heads having their ends cut to provide rail engaging flanges, the body having its underface formed with a centrally arranged dove-tailed rib which is adapted to be received within one of the end recesses of the channel of the tie, a holding block, said block including a head and a central flange, the opposite walls of which being vertically straight and adapted to be received within the central portion of the channel, means passing transversely through the tie and flange for securing the holding block to the tie and its ends in contact with the ends of the clamps, and wedge members between the ends of the holding block and the ends of the clamps.

1,141,812. HYDRAULIC MECHANISM FOR TRANSMISSION OF POWER. ANTHONY GEORGE MALDON MICHELL, Melbourne, and HENRY CLEMENT NEWTON, Kew, near Melbourne, Victoria, Australia. Filed Dec. 5, 1912. Serial No. 735,129. (Cl. 138—5.)



1. In hydraulic transmission mechanism of the type having as driving element an outward flow centrifugal pump and as driven element an inward flow reaction turbine, helical chambers substantially as described surrounding the pump and turbine elements respectively and connected mouth to mouth, as and for the purposes set forth.

2. In hydraulic transmission mechanism an outward flow pump rotor discharging the circulated fluid into two peripheral helical chambers each surrounding substantially one half of the periphery of such rotor, and two turbine elements each receiving the circulated fluid discharged from one of such helical chambers as and for the purposes set forth.

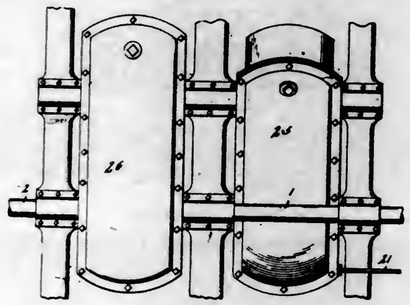
3. In hydraulic transmission mechanism an outward flow pump element arranged to discharge portions of the circulated fluid simultaneously into a plurality of peripheral helical chambers each surrounding a portion of the periphery of the pump element and a plurality of turbine elements each receiving the portion of circulated fluid discharged from one of such chambers into a peripheral helical chamber, the helical chambers discharging and receiving each such portion of the circulated fluid being connected mouth to mouth, substantially as described.

4. In hydraulic transmission mechanism of the type specified, a double turbine rotor with a corresponding double peripheral series of non-rotatable guide-vanes surrounding it, one section of such guide-vanes being arranged to co-act with one section of such rotor to produce forward rotation, and the other pair of such sections being arranged to co-act to produce reverse rotation, with means for closing the outlets of either the forward guide-vanes, or the reverse guide vanes, or both together, at will, substantially as described.

5. In hydraulic transmission mechanism of the type specified, the combination, with two turbine elements, of double turbine-rotors with a double peripheral series of guide-vanes in each such element, one section of the rotor and one section of such series of guide-vanes in each such element being arranged for forward rotation, and the other pair of such sections in each such element being arranged for reverse rotation, with means for closing the outlets of either the forward guide-vanes, or the reverse guide-vanes, or both together, at will.

[Claims 6 to 10 not printed in the Gazette.]

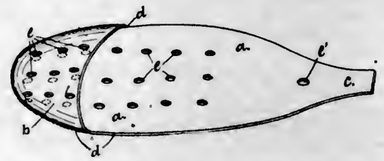
1,141,813. TRANSMISSION-GEARING. WILLIAM ALLAN MILLIS, Wheatland, Cal. Filed Apr. 24, 1914. Serial No. 834,173. (Cl. 74—34.)



1. Transmission gearing comprising a drive shaft and a driven shaft, driving and driven gears respectively fast on said shafts, a pinion carrier wheel, planetary pinions carried thereby and meshing with said driving and driven gears, a retarding wheel geared to the pinion carrier wheel, and means for retarding said last named wheel including a liquid pump, a liquid tight casing inclosing said pump and containing liquid, and valve mechanism for controlling and varying the supply of liquid to said pump.

2. Transmission gearing comprising a drive shaft and a driven shaft, driving and driven gears respectively fast on said shafts, a pinion carrier wheel, planetary pinions carried thereby and meshing with said driving and driven gears, teeth on the periphery of said pinion carrier wheel in a common plane with the axes of said pinions, a retarding wheel meshing with the teeth of the pinion carrier wheel, means for retarding said last named wheel including a liquid pump, a liquid tight casing inclosing said pump and containing liquid, and valve mechanism for controlling and varying the supply of liquid to said pump.

1,141,814. FOOT-SOCK. DENNIS MITCHELL, Waterloo, England. Filed July 20, 1914. Serial No. 851,940. (Cl. 2—23.)

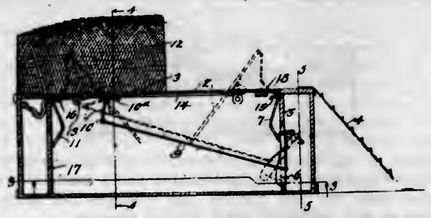


1. An inner sock made of a single piece of material, comprising a sole portion having a reduced extension to form a heel tab, and a cap portion, the sole and cap portions being perforated.

2. An inner sock made of a single blank of material, said blank comprising a sole piece having a reduced extension to form a heel tab, said blank having a wing portion on the front, said wing being turned up and over and its edges stitched to the side edges of the sole piece to form a cap, the sole and cap being perforated.

1,141,815. ANIMAL-TRAP. THORBY I. MOEN, Chippewa Falls, Wis. Filed June 9, 1914. Serial No. 844,070. (Cl. 43—24.)

1. In a trap of the class described, the combination of a pair of pivoted trap doors, a trigger member pivotally mounted adjacent one of said doors for holding the same against movement, connecting means intermediate the other of said doors and one end of the trigger for moving the latter corresponding with the pivotal movement of the last mentioned door into disengaging and engaging positions with respect to the first mentioned door, and yieldable means on the first mentioned door for springing into engagement with the trigger when the latter is in its normal engaging position.



2. In a trap of the class described, the combination of a pair of pivoted trap doors, a trigger member pivotally mounted beneath one of said doors for holding the same against movement, connecting means intermediate the other of said doors and one end of the trigger for moving the latter corresponding with the pivotal movement of the last mentioned door into disengaging and engaging positions with respect to the first mentioned door, a spring on the first mentioned door for engaging with the trigger when the latter is in its normal engaging position, and stop means engageable by the yieldable means for limiting movement of the first mentioned door.

3. In a trap of the class described, the combination of a receptacle, trap doors pivotally mounted on said receptacle, a weighted trigger pivotally secured adjacent one of said doors and normally disposed in an upright position, a yieldable loop member pendent from said door and engaged by the trigger to normally hold the door against movement, a double arm lever secured to the other of said doors, a link member connected to one of the arms of the aforesaid lever, an operating lever disposed adjacent the trigger and connected thereto at one end and to the link at its other end whereby upon springing of the trap doors to cause the last mentioned door to resume its normal operative position, and stop members for limiting pivotal movement of the doors when sprung.

1,141,816. PROCESS OF PRODUCING A FOOD PRODUCT. EDWARD JAMES MOOKLAR, Honolulu, Hawaii. Filed Dec. 11, 1913. Serial No. 806,102. (Cl. 99—11.)

1. The process of producing a food product comprising the crystallization of the sugar of the fruit of the algaroba tree, grinding of said crystallized fruit, and roasting of the ground crystallized fruit until the same has attained a brown color.

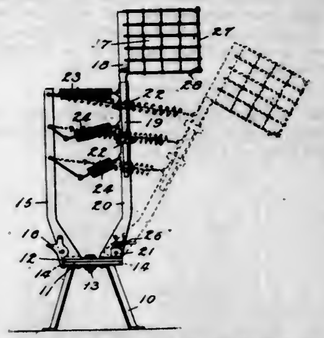
2. The process of producing a food product comprising the drying of the clean pods and beans of the algaroba tree to the point of crystallization of the sugar contained in the pods and beans, grinding the crystallized pods and beans, and roasting said ground matter until the same has reached a substantially brown color.

3. The process of producing a food preparation comprising the drying of the fruit of the algaroba tree to approximately 205° centigrade, then grinding the said fruit to the desired fineness, and finally roasting the ground meal until the same reaches a substantially brown color.

4. The process of producing a food preparation comprising the drying of the fruit including the pods of the algaroba tree to the point of crystallization of the sugar contained in such fruit, then grinding said fruit to the desired fineness, roasting the ground meal until the same attains a substantially brown color, removing the extract from the ground meal by percolation and filtration and then evaporate the filtrate to dryness.

1,141,817. MAIL-BAG CATCHER. JACOB W. MOORE, Oxford, Ark. Filed June 4, 1914. Serial No. 842,987. (Cl. 258—20.)

1. A mail bag catcher comprising a frame, a mail receptacle movably mounted on the frame so that it may move to and fro with reference to the frame, and a series of separate successively acting cushion devices attached to the frame independently of each other, and to the mail receptacle independently of each other.



2. A mail bag catcher comprising a frame, a mail receptacle movably mounted on the frame so that it may move to and fro with reference to the frame, and a series of separate successively acting cushioning devices attached to the frame independently of each other, and to the mail receptacle independently of each other, said devices consisting of springs of graduated length.

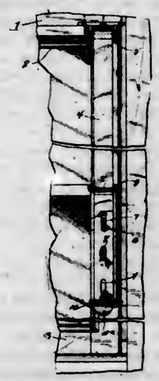
3. A mail bag catcher comprising a frame having a vertical standard, a mail bag receptacle, an arm pivoted to the frame and rising therefrom, and a series of successively acting springs connected at one end to said standard and at the other end to said arm, the points of connection of the springs with said arm being at different distances along the arm.

4. A mail bag catcher comprising a receptacle-carrying standard pivoted to swing on a horibontal axis, a spring normally holding it in a vertical position, other shorter springs connected with it and adapted successively to be brought into action and a stationary member to which said springs are connected.

5. A mail bag catcher comprising a receptacle-carrying standard pivoted to swing on a horizontal axis, a spring normally holding it in a vertical position, other shorter springs connected with it and adapted successively to be brought into action, a stationary member to which said springs are connected and a locking dog pivoted to said standard.

[Claims 6 and 7 not printed in the Gazette.]

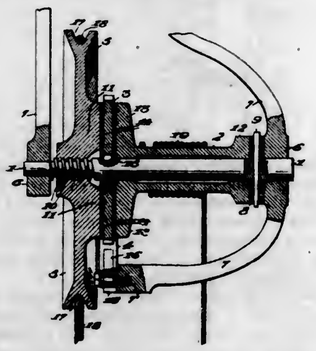
1,141,818. SASH-HANGER. WILLIAM PEEK MOSES, Bowmanville, Ontario, Canada. Filed July 21, 1914. Serial No. 852,270. (Cl. 16—116.)



In a window provided with upper and lower sashes, an elongated plate secured to the side stile of the lower sash

and terminating at its upper end in a forwardly projecting slotted hook-like portion, rollers secured to the head of the window frame, a ribbon passing over said rollers and having one end secured to the top sash, and having its opposite end adjustably connected to the lower sash, said ribbon being movable through said slot, and a stop carried by the lower end of the ribbon for engagement with said hook to prevent the ribbon from passing through the slot therein.

1,141,819. HOISTING-DRUM AND CLUTCH. MALCOMB B. MOYER, Montevideo, Minn. Filed Feb. 9, 1914. Serial No. 817,642. (Cl. 57—116.)

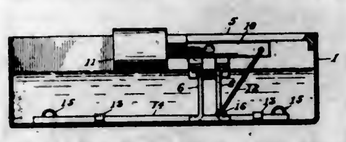


1. A hoist comprising a horizontal shaft, bearings revolubly supporting the opposite ends thereof, screw threads on one end portion of the shaft and terminating at the inner side of the adjacent bearing, a stop collar secured on the other end portion of the shaft and contacting with the other bearing, a drum revolubly mounted on the shaft and contacting at one end with said collar, a ratchet wheel keyed to but slidable on the shaft and contacting with the other end of the drum, a pawl for preventing movement of said ratchet wheel, in one direction, an operating wheel having an internally threaded hub mounted on the threads of the shaft, the inner end of the hub contacting with the ratchet wheel and the outer end thereof being spaced from the adjacent bearing, and means whereby said wheel may be rotated in one direction to rotate the drum, and in the opposite direction to cause its hub to contact with the adjacent bearing for the purpose set forth.

2. A hoist comprising a horizontal shaft mounted to rotate, one end of said shaft having screw threads, a stop collar secured to the other end of the shaft, a drum revolubly mounted in the shaft and contacting at one end with the collar, a friction disk keyed to but slidable on the shaft, said disk contacting on one side, with the other end of the drum and having ratchet teeth on its outer edge, an operating wheel having an internally threaded hub mounted to revolve on the threaded end of the shaft, said hub contacting with the other side of said ratchet disk, means for rotating said wheel in either direction, bearings in which the ends of the shaft are revolubly mounted, a downwardly and inwardly curved arm depending from the bearing adjacent the collar, and a pawl pivoted to said downwardly and inwardly curved arm and coacting with the ratchet, whereby rotation of the shaft in one direction is prevented.

1,141,820. LIQUID-LEVEL-ALARM APPARATUS. LOUIS MOZOLAN, Montgomery, Ala. Filed June 5, 1914. Serial No. 843,298. (Cl. 177—10.)

In a float actuated circuit closer, a pan, a circuit closer secured to said pan, a horizontal lever within said pan, a fulcrum post connected to one end of said lever, a float on the other end of said lever, a horizontal arm pivoted within said pan and having one end in engagement with said circuit closer, a connection between the other end of said arm and lever whereby said circuit closer will be influenced to close the circuit as the fluid level rises, guides



secured to the bottom wall of said pan, a horizontal rod slidably mounted within said guides, and a connection between said rod and fulcrum post whereby the fulcrum point of said horizontal lever may be changed.

1,141,821. AMUSEMENT APPARATUS. GEORGE MULLER, Ridgewood, N. J. Filed May 23, 1914. Serial No. 840,478. (Cl. 46—27.)



1. An amusement apparatus, comprising a mast mounted to turn on its axis, a superstructure having a hub mounted to slide up and down on the said mast and turning with the latter, passenger carriers suspended from the said superstructure, means for turning the said mast, and means for raising and lower the said superstructure.

2. An amusement apparatus, comprising a mast mounted to turn on its axis, a superstructure having a hub mounted to slide up and down on the said mast and turning with the latter, passenger carriers suspended from the said superstructure, a driving gear for the said mast, a vertically sliding support for the hub of the superstructure, and raising and lowering means for the said support.

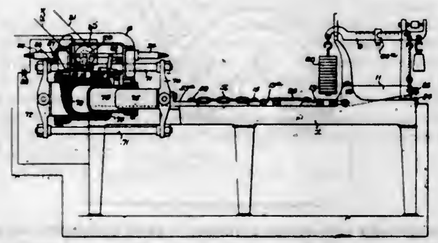
3. An amusement apparatus, comprising a mast mounted to turn on its axis, a superstructure having a hub mounted to slide up and down on the said mast and turning with the latter, passenger carriers suspended from the said superstructure, a driving gear for the said mast, fixed guides, rods slidable in the said guides and arranged on opposite sides of the said mast, a cross head on the upper ends of the said rods and supporting the said hub, and means for imparting an up and down sliding motion to the said rods.

4. An amusement apparatus, comprising a mast mounted to turn on its axis, a superstructure having a hub mounted to slide up and down on the said mast and turning with the latter, passenger carriers suspended from the said superstructure, a driving gear for said mast, fixed guides, rods slidable in the said guides and arranged on opposite sides of the said mast, a cross head on the upper ends of the said rods and supporting the said hub, a drum adapted to be driven from the said driving gear, and ropes winding on the said drum and connected with the said rods.

5. An amusement apparatus, comprising a mast mounted to turn on its axis, a superstructure having a hub mounted to slide up and down on the said mast and turning with the latter, passenger carriers suspended from the said superstructure, a driving gear for the said mast, fixed guides, rods slidable in the said guides and arranged on opposite sides of the said mast, a cross head on the upper ends of the said rods and supporting the said hub, a drum, a flexible connection between the drum and the said rods, a drum shaft driven from the said driving gear and on which the said drum is mounted to turn loosely, a clutch for connecting the said drum and shaft, and a brake for braking the drum.

[Claims 6 to 12 not printed in the Gazette.]

1,141,822. PROOF-TESTING MACHINE. TINIUS OLSEN, Philadelphia, Pa., assignor to Tinius Olsen Testing Machine Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Jan. 14, 1913. Serial No. 741,981. (Cl. 73—51.)



1. The combination in a testing machine of two members for engaging a body to be tested; loaded lever mechanism connected to one of said members; power actuated stressing mechanism operative on the other member; with means connecting said two sets of mechanism and including a device for causing the latter mechanism to apply to the body under test, a stress less than its breaking strength and thereafter automatically remove the same.

2. The combination in a testing machine of members for engaging a body to be tested; loaded lever mechanism connected to one of said members; means for automatically reciprocating the other member; and a device connecting said means with the lever mechanism for rendering the reciprocating means in operative when the stress on the body engaged thereby has reached a predetermined point less than its breaking strength.

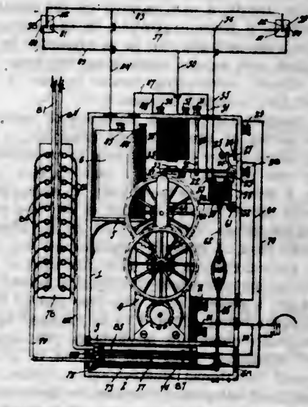
3. The combination in a testing machine of two members for engaging a body to be tested: power actuated means for moving one of said members toward and from the other; loaded lever mechanism operative on the other of said members; and means connected with the lever mechanism for automatically stopping the stressing action of the means for moving the first member when a predetermined stress has been applied to the body under test.

4. The combination in a testing machine of two members for engaging a body to be tested; power actuated means for moving one of said members relatively to the other to apply a tensile stress to said body; a device for measuring the stress applied; and means controlled by said device for automatically cutting off the moving power from said member when the body has been subjected to a predetermined stress less than its ultimate tensile strength.

5. The combination in a testing machine of two members for engaging a body to be tested; mechanism for automatically reciprocating one of said members through a predetermined path to apply a tensile stress to a body under stress; and means controlled by said device for automatically stopping movement of said member before it has completed its possible path of movement in order to limit the stress applied to the body under test.

[Claims 6 to 15 not printed in the Gazette.]

1,141,823. TELEPHONE-SIGNAL. ELISHA HAMLIN OSBORN, Sauk Center, Minn. Filed Mar. 5, 1914. Serial No. 822,708. (Cl. 179—51.)



1. The combination with a telephone switch board and telephone circuit of a device of the character described, including a magneto, a plurality of bars connected in circuit with one terminal of a telephone switchboard, a second set of bars connected in circuit with the opposite terminal of the telephone switchboard, a bar adapted to connect all of the bars in one set simultaneously, a second bar adapted to connect all the bars in the second set simultaneously, a wire connecting one set of bars to the magneto, an automatic switch, a wire connecting the switch to the other set of bars, a wire connecting the switch and magneto, an electromagnet, a lever, said lever controlling the automatic switch, an armature on said lever and adapted to be attracted by the electromagnet, a train of gears to operate the magneto, means to control the flow of electricity through the electromagnet, and electrically controlled means to throw all the telephone circuits in circuit simultaneously.

2. The combination with a plurality of telephone circuits of a device of the character described, comprising a magneto, a train of gears for operating said magneto, means to cause the gears to revolve, a cam carried by one of said gears, a power supply, an electromagnet in circuit with the power supply, a switch for controlling the operation of the electromagnet, a lever, a lug carried by one of said gears and adapted to engage the lever to hold the gear from rotation, a contact arm on the lever, a contact spring adapted to coöperate with the contact arm, a second electromagnet, a lever, the free end of said lever being adapted to be engaged by the cam on the gear wheel so that said lever will be raised when the gear wheel is rotated, the second mentioned electromagnet being adapted to attract the lever and also being in circuit with the power supply, means to control the energizing of the second mentioned electromagnet, and means controlled by the second mentioned lever to throw in the telephone circuits when either of the switches are operated.

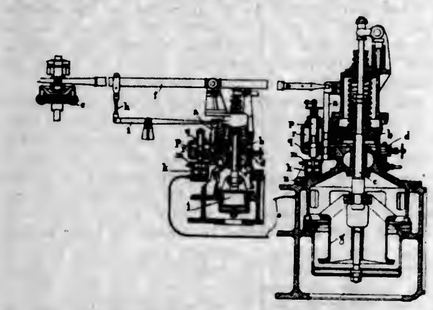
3. The combination with a plurality of telephone circuits of a device of the character described including a magneto, means to control the operation of said magneto, a cam carried by the magneto controlling means, an electromagnet, a lever adapted to be attracted by said electromagnet, a contact arm on the lever, and a contact spring adapted to be engaged by the contact arm, means connected with the contact arm, contact spring and magneto, to throw in the telephone circuits, and means automatically and electrically operated to control the throwing in of the telephone circuits.

4. The combination with a telephone switchboard carrying a plurality of telephone circuits, of a magneto, means in circuit with the magneto to throw in the telephone circuits through the switchboard, a weight operated

mechanism to drive the magneto, electrically controlled means to automatically release the weight operated means and set the magneto in operation, an automatic switch operated by the electrically controlled means to cut in the magneto circuit, a cam carried by the magneto driving mechanism, a lever controlled by the cam, an armature on the lever and adapted to be attracted by a second electromagnet and means connecting the lever with the telephone circuit controlling means to cut in the telephones and give a signal thereon.

5. The combination with a plurality of telephone circuits of a device of the character described, a magneto, a train of gears to set said magneto in operation, a stop carried by one of said gears, a cam carried by one of said gears, a lever, an electromagnet, an armature carried by said lever, an extension formed at the free end of the lever, said armature being adapted to be attracted by the electromagnet, a contact arm formed on the lever, a contact spring coöperating with the contact arm and adapted to be engaged when the lever is raised, a second electromagnet, a second lever, the free end of the second mentioned lever being adapted to be engaged by the cam on the magneto operating mechanism, an armature on the second mentioned lever and adapted to be attracted by the second mentioned electromagnet, means to cut in the plurality of telephones, means to operate the telephone cutting in means, and wires connecting the magneto through the contact arm and contact spring with the telephone cutting in means to complete a circuit through the cutting in means to the telephones and thereby ring the bells on each of the telephones.

1,141,824. VALVE-CONTROLLING DEVICE. CHARLES ALGERNON PARSONS, ALFRED QUINTIN CARNEGIE, and GEOFFRY LAWRENCE PARSONS, Newcastle-upon-Tyne, England; said Geoffry Lawrence Parsons and Alfred Quintin Carnegie assignors to said Charles Algernon Parsons. Filed Feb. 3, 1913. Serial No. 746,026. (Cl. 121—118.)



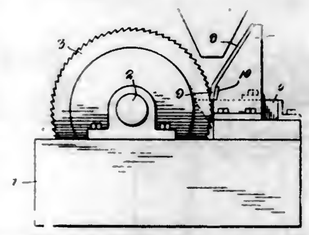
1. The combination with a mixed pressure turbine having low and high pressure supply conduits and valves controlling the same of independent motors for actuating each of said valves and separate pairs of controlling means for each of said motors each of said pairs comprising a speed responsive device and a pressure responsive device said devices operating in series.

2. The combination with a mixed pressure turbine having low pressure and high pressure supply conduits and valves controlling the same of independent motors for actuating each of said valves separate independent speed responsive means in conjunction with each of said motors said means acting simultaneously and in the same sense separate independent pressure responsive means in conjunction with said motors said pressure responsive means acting simultaneously and inversely.

3. The combination with a mixed pressure turbine having a low pressure and high pressure supply conduits and valves controlling the same of independent motors for actuating each of said valves a relay slide valve for each of said motors a speed responsive device controlling said relay valves secondary slide valves beyond said relay valves and means responsive to the pressure in the low pressure supply conduit controlling said secondary valves and said motors independently of the speed responsive device.

4. The combination with a mixed pressure turbine having low pressure and high pressure supply conduits and valves controlling the same of independent motors for actuating each of said valves a relay slide valve for each of said motors a speed responsive device controlling said relay valves simultaneously to open or close the same secondary slide valves beyond said relay valves and means responsive to the pressure in the low pressure supply conduit controlling said secondary valves and said motors simultaneously and inversely independently of the speed responsive device.

1,141,825. FEED-GRINDER. LEONIDAS PETHOUD, Beatrice, Nebr. Filed Nov. 26, 1913. Serial No. 803,312. (Cl. 83—6.)



A grinder comprising a frame, a shaft journaled upon the frame, a set of saws fixed to the shaft, a set of disks fixed to the shaft and interposed between the saws and maintaining the saws in spaced relation, a set of bars fixed to the frame and having end portions which project into the spaces between the saws and which terminate in close proximity to the peripheries of the disks, a block mounted upon the frame above the bars, a plate mounted upon the block and having at its lower edge teeth which project into the spaces between the bars and which rest against the upper edges of the said bars, the said plate being disposed at a tangent to a circle struck from the center of the saws and the upper surfaces of the teeth disposed at an angle to the upper surface of the body of the plate, and a bar mounted upon he block beneath the plate and the teeth thereof and having a surface in close proximity to the ends of the saws and which bridges the spaces between the teeth of the plate, the lower edge of the last mentioned bar resting upon the upper edges of the first mentioned bars.

1,141,826. HAIR-DRYING FRAME. THOMAS CHARLES RANDALL, Newport, R. I. Filed Dec. 2, 1914. Serial No. 875,116. (Cl. 34—26.)



1. A hair drying device comprising a frame consisting of a pair of arcuate members pivotally connected together, a pair of cross members pivotally connected together and pivotally connected respectively with the first mentioned members at points at opposite sides of the pivotal connection between such first mentioned members, and a neck piece permanently pivotally connected with one of the cross members and detachably connected with the other cross member, and when connected with such other cross member the arcuate and cross members are held in fixed relation, the points of pivotal connections having their axes parallel, whereby the parts of the frame are foldable in a single plane.

2. A hair drying device comprising a frame including a neckpiece to engage the back of the neck, and tie strings connected with the neckpiece to fasten the device to the head, members pivotally carried by the frame and curved pieces pivotally connected with the lower ends of the members and adapted to rest on the shoulders to support the frame in outstanding position.

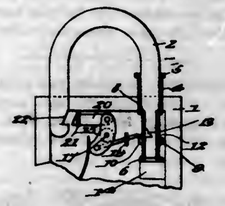
3. A hair drying device comprising a frame, means for mounting the frame on the body of a person at the back of the neck, and a plurality of members movably mounted on the frame and spaced apart, whereby different portions of the hair after being combed or dried can be kept separate from other portions.

4. A hair drying appliance of the class described, comprising a frame adapted to be applied to the rear of the head at the neck of the user, and a plurality of spaced pivotally mounted fingers on the frame for holding separately dried or combed portions of the hair.

5. An appliance of the class described comprising a frame including a pair of concentric arcuate members each composed of sections pivotally connected together, members pivotally connected with the first mentioned members and holding the same normally in parallel relation, shoulder-engaging devices pivotally connected with the frame, and a neck-engaging device connected with the second mentioned members and coöperating therewith for holding the frame open.

[Claims 6 and 7 not printed in the Gazette.]

1,141,827. PERMUTATION-PADLOCK. ULRICH REIDT, Los Angeles, Cal. Filed Feb. 12, 1914. Serial No. 818,427. (Cl. 70—113.)

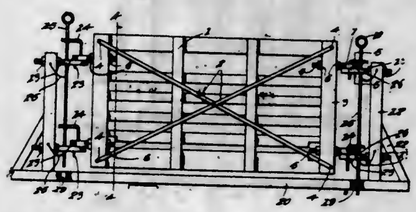


1. A lock comprising a casing, a shackle slidable therein, a sleeve rotatably journaled upon one terminal of said shackle and disposed for its greater length within the casing, said shackle having notches adjacent each end, said sleeve having an opening therein arranged to communicate with the notch in the adjacent end of said shackle, an annular flange formed on said sleeve adjacent to the opening and being provided with a recess, an annular flange formed on the extreme inner end of said sleeve, bolts pivoted within the casing and adapted for registration with the notches in said shackle, one of said bolts being arranged to bear upon the upper face of the flange that is arranged adjacent to the opening in said sleeve when said sleeve is rotated and spring means for normally holding said bolts in extended position.

2. A lock comprising a casing, a shackle slidable in said casing, a sleeve rotatably journaled upon said shackle and disposed partly within said casing and having an opening therein intermediate its ends, an annular flange thereon adjacent to the opening, a recess therein, an annular flange on the lower end of said sleeve, a bolt pivoted within said casing and arranged to extend through said opening, said shackle having a notch therein disposed for alinement with said opening, said bolt arranged to fit within the notch and disposed at its free end normally above said first named flange and means for normally holding said bolt in extended position.

3. A lock comprising a casing, a shackle slidable in said casing and having notches adjacent each end, a sleeve mounted upon said shackle and disposed partly within said casing, a pair of bolts slidable and pivotally mounted within said casing and arranged to coöperate with said notches, said sleeve having an opening therein to receive one of the bolts, said opening arranged to aline with one of the notches in said shackle whereby the bolt may engage said last named notch, and means for normally yieldingly holding said bolts in extended position.

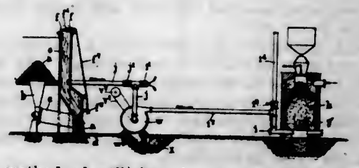
1,141,828. GATE-HINGE. ELZA RHODY, Farmland, Ind. Filed Sept. 8, 1914. Serial No. 860,678. (Cl. 16—49.)



1. A gate hinge comprising the combination with a post and hinge members projecting laterally therefrom, of a gate, hinge members projecting from the ends of the gate and adapted to seat on the upper face of the post hinge members, a rod engaged through said post hinge members, hinge arms adjustably mounted on said rod and having depending portions engaged to the first and second mentioned hinge members.

2. A gate hinge comprising the combination with a post and hinge members projecting laterally therefrom, of a gate, hinge members projecting from the ends of the gate and adapted to seat on the upper face of the post hinge members, a rod engaged through said post hinge members, hinge arms mounted on said rods, and having depending portions engaged through the first and second mentioned hinge members and means for holding the second mentioned hinge members against movement upon the first mentioned hinge members.

1,141,829. METHOD OF WORKING AMMONIA-RECOVERY PRODUCER-GAS PLANTS. THOMAS RIGBY, Dumfries, Scotland, assignor to Wetcarbonizing Limited, London, England. Filed May 13, 1911. Serial No. 626,955. (Cl. 48—203.)

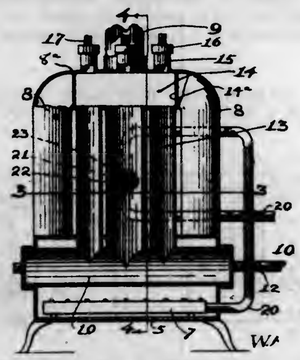


The method of utilizing the vapors generated in the driers of a briqueting plant consisting in mixing them with air in suitable proportion, compressing the mixture, extracting suspended matters and passing the mixture at the desired pressure to a gas producer system; substantially as and for the purposes described.

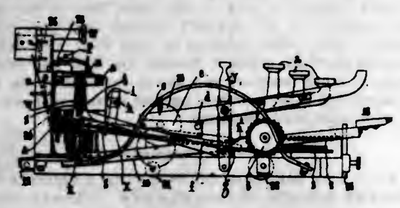
1,141,830. WATER-HEATER. CHARLES A. ROBBINS and WILLIAM F. ROTH, Nevada, Ohio. Filed Oct. 12, 1914. Serial No. 866,376. (Cl. 126—350.)

A device of the character described comprising a hollow body, a burner arranged within said body, a manifold arranged in spaced relation above said body, partitions arranged in said manifold dividing the latter into two chambers, a horizontally disposed imperforate pipe having open ends supported within and projecting outwardly of the ends of said body, a plurality of vertically disposed pipes communicating with said horizontally disposed pipe,

extending upwardly through the top of said body and communicating with one of the chambers in said manifold, hollow extensions on said manifold communicating with said chamber, removable caps closing said extensions, removable closures for the ends of said horizontally disposed pipe, a plurality of vertically disposed pipes communicating directly with said body at their lower ends, and communicating with the other chamber in said manifold at their upper ends, and a discharge pipe connected with the second mentioned chamber of said manifold.



1,141,831. TYPE-WRITER. WILLIAM ERNEST RUSSELL, Upper Wortley, Leeds, England. Filed May 12, 1914. Serial No. 838,085. (Cl. 197—55.)



1. In a typewriter, in combination, a carriage, a rotatable type drum mounted on said carriage, rails extending across the machine for supporting said carriage, means for raising and lowering said rails and means for tilting the rails, as set forth.

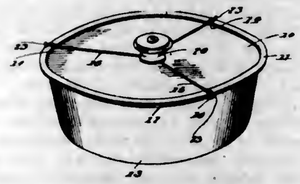
2. In a typewriter, in combination, a carriage, a rotatable type drum mounted on said carriage, with its axis at right angles to the direction of traverse of the carriage, means upon the carriage for rotating the type drum, rails extending across the machine for supporting said carriage, means for raising and lowering said rails, and means for tilting the rails, as set forth.

3. In a typewriter, in combination, a carriage, a rotatable type drum mounted on said carriage with its axis at right angles to the direction of traverse of the carriage, means upon the carriage for rotating the type drum, a plurality of rings of types disposed angularly to one another upon the type drum, rails extending across the machine for supporting said carriage, means for raising and lowering said rails, and means for tilting the rails, as set forth.

4. In a typewriter, in combination, a carriage, a rotatable type drum mounted on said carriage with its axis at right angles to the direction of traverse of the carriage, means upon the carriage for rotating the type drum, a plurality of rings of types disposed angularly to one another upon the type drum, rails extending across the machine for supporting the said carriage, means for raising and lowering and also for tilting said rails, and type inking means supported by said rails and traversed with said carriage, as set forth.

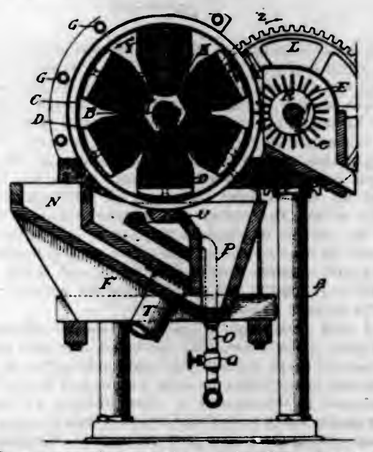
5. In a typewriter, in combination, a carriage, a rotatable type drum mounted in said carriage, means upon the carriage for rotating the type drum, a track extending across the machine for supporting said carriage, a rack upon said track, pawls upon the carriage engaging said rack, means traversible with the carriage for actuating said pawls, means for raising and lowering and also for tilting said track, type inking means supported by said track and traversed with said carriage, and a bar extending across the machine for operating the type drum rotating means, as set forth.

1,141,832. COVER FOR RECEPTACLES. WILLIAM J. RUST, Solitt, Ill. Filed May 29, 1914. Serial No. 841,907. (Cl. 53—8.)



A cover for receptacles having a handle revoluble thereon, diametrically extending wire-like locking members projecting across the cover and having their free ends bent to engage the periphery of the receptacle and lock the cover thereto, lateral projections formed by bending the inner ends of said locking members laterally, with said lateral projections resilient and pivoted to the under side of the handle whereby when the handle is rotated a pull will be exerted on said locking members, and a bolt revolubly supporting the handle upon the cover, with the resilient lateral extensions of the locking members connecting with the under side of the handle adapted to curve around the bolt upon operating said handle.

1,141,833. MAGNETIC ORE-SEPARATOR. SVEN RAGNAR SALWÉN, Grangesberg, Sweden, assignor to American Grondal Company, New York, N. Y., a Corporation of New York. Filed Oct. 9, 1914. Serial No. 865,924. (Cl. 83—7.)

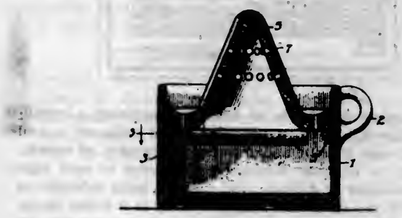


1. In a magnetic separator, a plurality of magnets of alternating polarity mounted on a suitable axis, a rotary magnetic drum arranged around said magnets and in close proximity to their poles, and means for rotating the magnets and drum simultaneously in opposite directions.

2. In a magnetic separator, a plurality of magnets of alternating polarity mounted on a suitable axis, a rotary magnetic drum arranged around said magnets and in close proximity to their poles, and means for rotating the magnets and drum simultaneously in opposite directions, in combination with means for washing the ore while it is tumbling over the face of the drum.

3. In a magnetic separator, a plurality of magnets of alternating polarity mounted on a suitable axis, a rotary magnetic drum arranged around said magnets and in close proximity to their poles, and means for rotating the magnets and drum simultaneously in opposite directions, in combination with a magnetic off-taker arranged at least 180° distant in the direction of the rotation of the drum from the point at which the ore is fed to the drum, together with means for constantly washing the ore while it is tumbling over the face of the drum to the off-taker.

1,141,834. LEMON-SQUEEZER. LOUISE SCHATTERMAN, Moline, Ill. Filed May 2, 1913, Serial No. 765,020. Renewed May 3, 1915. Serial No. 25,631. (Cl. 100—49.)



1. In a lemon squeezer, a container formed with a plurality of integral ledges spaced apart from each other, a handle for said container and an extractor formed with an integral apertured flared base adapted to be removably seated upon said ledges.

2. In a lemon squeezer, a container formed with a plurality of integral ledges spaced apart from each other, a handle for said container, an extractor normally disposed above said container and a seed retainer formed integral with said extractor and adapted to rest normally upon the aforesaid ledges.

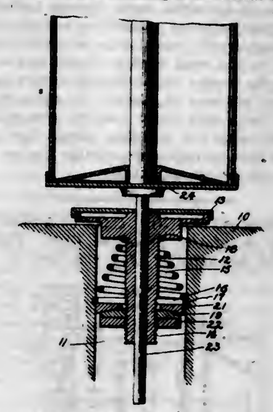
3. In combination, a cup having corners and a handle projecting outwardly of one of the corners so that the corner diagonally opposite said handle will be directly beneath the handle when the cup is tilted thereby, supporting ledges projecting internally of the cup and having their end portions spaced from each at the corners of the cup to provide delivery passages, a conical member having a base seated on the ledges and provided with grating ribs, said member having openings therein and having its base curved upward to cause the lemon to hug the cone when pressed thereon.

1,141,835. JOURNAL-BEARING. FRANK J. SCHISLER, Winthrop, Minn. Filed May 6, 1912. Serial No. 695,442. (Cl. 64—48.)

1. A bearing of the character described comprising a bearing sleeve, a flexible centering device comprising a spring having one end rigidly supported, the other end of said spring supporting said sleeve and being free to move laterally, and means carried by the bearing sleeve for varying the tension on said spring, said tension-varying means also including means for effecting a rocking adjustment of said centering device.

2. A bearing of the character described comprising a bearing sleeve, a centering spring having one end in engagement with said sleeve and free to move laterally, means for rigidly supporting the other end of said spring, a centering washer engaging said spring, means carried by said bearing sleeve for providing a universal connection between the sleeve and said centering washer, said universal connection including means for adjusting the tension of said spring.

3. A bearing of the character described comprising a bearing sleeve, a centering spring for supporting said bearing sleeve, a centering washer engaging said spring, and a nut working on said sleeve and engaging said washer to vary the tension on said spring, said nut and washer having complemental faces forming a universal bearing.

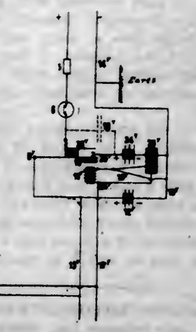


4. A bearing of the character described comprising a bearing sleeve, a conical bearing spring having one end engaging said sleeve, a centering washer engaging the other end of said spring and a nut working on said sleeve and engaging said washer to vary the tension on said spring, said nut and washer having complemental faces forming a universal bearing.

5. A bearing of the character described comprising a bearing sleeve having a flange at one end, a centering spring having one end engaging said flange, a centering washer engaging the other end of said spring, and a nut working on said sleeve and engaging said washer to vary the tension on said spring, said nut and washer having complemental faces forming a universal bearing.

[Claim 6 not printed in the Gazette.]

1,141,836. DEVICE FOR WORKING WEAK-CURRENT INSTALLATIONS. FRITZ SCHRÖTER, Wilmersdorf, near Berlin, Germany, assignor to the Firm of Elektrizitäts-Aktiengesellschaft Hydrawerk, Charlottenburg, near Berlin, Germany. Filed Feb. 20, 1914. Serial No. 819,981. (Cl. 171—314.)



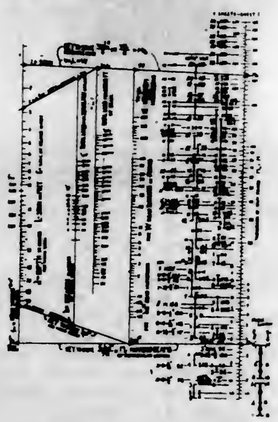
1. A system of operating weak-current installations by means of storage batteries, comprising a storage battery, a relay, a charging circuit, means to connect said battery with said charging circuit when the relay is energised, and means to short-circuit said relay when the charge-content of said battery exceeds a predetermined value.

2. A system of operating weak current installations by means of storage batteries comprising a weak current circuit, a charging circuit, two storage batteries one connected constantly in the weak current circuit and normally in parallel with the second, an automatic switch in the weak current circuit adapted to control the connection of the

two batteries with each other and the connection of the second battery with the charging circuit during the discharge of the first battery.

3. A system of operating weak current installations by means of storage batteries comprising a weak current circuit, a charging circuit, two storage batteries one connected constantly in the weak current circuit and normally in parallel with the second, an automatic switch in the weak current circuit adapted to control the connection of the two batteries with each other and the connection of the second battery with the charging circuit during the discharge of the first battery and a charge limiter connected in the circuit of the second battery.

1,141,837. DESIGNING OR CALCULATING CHART. CHARLES W. SCHUBERT, Cleveland, Ohio. Filed May 19, 1914. Serial No. 839,536. (Cl. 235—89.)



1. A chart of the kind described, comprising a series of parallel lines marked with graduations dividing the same, said lines being spaced apart distances related to each other and to the divisions of the graduations, and a plurality of indicia of structural elements beside said lines and related in position to the graduation.

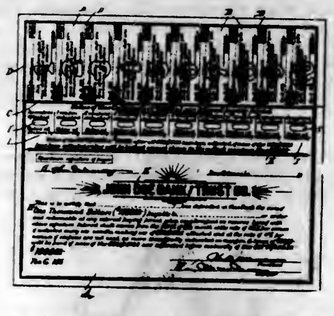
2. A chart of the kind described, comprising a series of parallel lines or axes provided with graduations, and indicia of various structural elements respectively, the distance apart of the lines or axes, and the division of the graduations, and the location of the indicia of said elements, being all related to each other, and adapted for the solution of formulas by a straight line crossing the chart or axes.

3. A chart of the kind described, comprising a series of five parallel axes 6, 7, 8, 9 and 10 spaced apart as follows: axis 9 midway between axes 6 and 10, axis 7 midway between axes 6 and 9, and axis 8 one-third of the distance between axes 6 and 9, from axis 9; and logarithmic graduations plotted along said axes as follows: on axes 6 and 10 to a relation of one, on axis 9 to one-half, on axis 8 to one-third, and on axis 7 to one-fourth.

1,141,838. COUPON CERTIFICATE OF DEPOSIT. MORITZ S. SENTON, New Orleans, La. Filed June 27, 1913. Serial No. 776,083. (Cl. 11—13.)

1. A coupon certificate of deposit, comprising a certificate of deposit provided with a series of panels having openings, and interest coupons detachably and foldably connected with the said certificate of deposit adjacent the said panels and in register therewith the back of each coupon having maturity value of the certificate marked thereon, the said maturity value appearing at the corresponding panel opening on folding the coupons upon the back of the certificate.

2. A coupon certificate of deposit, comprising a certificate of deposit, a series of interest coupons detachable from one another and arranged along one edge of, and foldable with respect to the said certificate of deposit, the said certificate of deposit having a series of panels on its face and along its said edge, each of which panels is opposite to and corresponds with one of the coupons, and is provided with an opening through which a portion of one surface of its respective coupon will show when the series of coupons are folded upon the certificate of deposit.



3. A coupon certificate of deposit comprising a certificate of deposit having spaces marked out adjacent to and along one edge thereof and forming a plurality of panels, a plurality of coupons detachably connected to said edge of the certificate of deposit, said coupons being foldable on the back of the certificate and extending in a series thereabout, each of said coupons bearing on its reverse side its respective maturity value of the entire certificate and being arranged opposite to one of the said panels and having its interest value on its obverse side, the said panels having openings in which the maturity value of the certificate appears when the coupons are folded upon the back of the certificate.

1,141,839. DIFFERENTIAL ANTISKIDDING DRIVING MECHANISM. BERNHARD SETTERGREN, Chicago, Ill., assignor to Monte C. Merker, New York, N. Y. Filed Jan. 27, 1913. Serial No. 744,360. (Cl. 21—90.)



1. The combination with a rotative shaft of a wheel freely rotatable thereon, a clutch member rigidly secured to the wheel, a complemental clutch member having limited rotation on the shaft, diametrically disposed means projecting therefrom and a cam operated by the shaft and provided with a groove engaged by said means to bring said clutch members into engagement when the shaft is rotated in either direction.

2. The combination with a shaft of a wheel freely rotatable thereon, a clutch member rigidly secured to the wheel, a complemental coacting clutch member having limited rotation on the shaft, radially disposed rollers mounted thereon and a cam rigidly secured to, and operated by, the shaft and grooved to engage said rollers to bring said clutch members into engagement when the shaft is rotated in either direction.

3. The combination with a shaft of a wheel freely rotatable thereon, a female clutch member rigidly secured to the wheel, a complemental male clutch member having limited rotation on the shaft, radially disposed rollers mounted thereon and a cam having an angled peripheral groove and operated by the shaft to actuate said clutch member by means of rollers into engagement with said female screw when the shaft is rotated in either direction.

4. A differential clutch for motor vehicles comprising the driving axle, the driving wheels rotatably secured on each end thereof, a clutch member secured on the inner side of each wheel concentric with the axle, a complemental clutch member secured in operative relation therewith at each end of the axle and having limited movement on the axle, cams rigidly fixed on the axle adjacent each of the last named clutch members and radially projecting means on each of said members engaged by one of said cams to permit the cam to positively actuate the same into engagement with its complemental member when the shaft is rotated in either direction.

5. A differential clutch for motor vehicles comprising the driving axle, the driving wheels rotatably secured on each end thereof, a clutch member secured on the inner side of each wheel concentric with the axle, a complemental clutch member supported in operative relation therewith at each end the axle and adjustable and having limited rotation on the axle, a cam rigidly fixed on the shaft adjacent each of the last named clutch members, and studs projecting from said clutch member into engagement with said cam.

[Claims 6 to 9 not printed in the Gazette.]

1,141,840. METHOD OF MAKING BOOTS AND SHOES. PERCY W. SHAW, Lynn, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed June 20, 1914. Serial No. 846,272. (Cl. 12—145.)

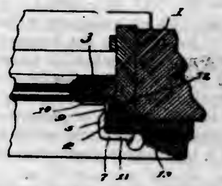


1. A method of making boots and shoes which comprises lasting in the toe portion of the upper and securing it in lasted position by a toe wire retained at its opposite ends by metallic fasteners, inserting a thread fastener across the toe wire adjacent each end, and removing the metallic fasteners.

2. A method of making boots and shoes which comprises lasting in the toe portion of the upper and securing it in lasted position by a toe wire retained at its opposite ends by metallic fasteners, inserting a thread fastener across the toe wire adjacent each end, removing the metallic fasteners, and bending the ends of the toe wire back about the thread fasteners to lock the toe wire in place.

3. A method of making boots and shoes which comprises lasting in the toe portion of the upper and securing it in lasted position by a toe wire retained at its opposite ends by metallic fasteners, inserting thread fasteners across the toe wire adjacent each end of the toe wire and at the tip of the toe, and removing the metallic fasteners.

1,141,841. WINDOW-LOCK. ROBERT D. SHUMATE, Spray, N. C. Filed Feb. 9, 1915. Serial No. 7,055. (Cl. 16—18.)



1. In combination, a frame, a pair of sashes slidable therein, a notched bar secured to the frame and lying parallel to both sashes, and catches secured to said sashes and adapted to coöperate with said notched bar, each catch having its body portion coöperating with said notched bar and its extremities engaging one of the window sashes and one side of the frame respectively.

2. In combination, a frame, a pair of sashes slidable therein, a notched bar secured to the frame and lying parallel to both sashes, and catches secured to said sashes and adapted to coöperate with said notched bar, each catch comprising a resilient strip bent to have a body portion and right angular bent extremities, one of which is secured to the window sash and the other frictionally engages the frame, the said body portion being adapted to resiliently engage the notches in said bar for holding the sash in its adjusted position.

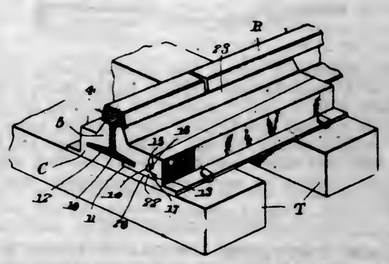
3. In combination, a frame, a pair of sashes slidable therein, a notched bar secured to the frame and lying parallel to both sashes, and catches secured to said sashes and adapted to coöperate with said notched bar, each catch having its body portion coöperating with said notched bar and its extremities engaging one of the window sashes and one side of the frame respectively, one of the extremities at its juncture with the body portion being deflected so as to coöperate with one edge of said notched bar.

1,141,842. HARNESS-BUCKLE. JOHN F. SMIEJA, Royalton, Minn. Filed July 8, 1914. Serial No. 849,794. (Cl. 24—169.)



A harness buckle comprising a pair of spaced members rectangular in cross section forming the sides of the buckle, four spaced cross bars secured to the lower edges of the said members, three of which being arranged in close relation and in close proximity to one end of the buckle, and four spaced cross bars secured to the upper edges of said members, three of which being arranged in close relation and in close proximity to the remaining end of the buckle.

1,141,843. RAIL-CONNECTING MEANS. ELMER G. SMITH, Fostoria, Ohio. Filed Aug. 25, 1914. Serial No. 858,501. (Cl. 239—6.)



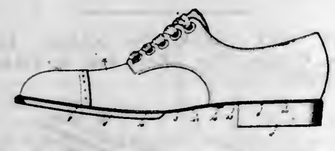
1. In a rail joint, a chair including a base upon which the rails rest and having a flange for engaging the rails, the said base having a longitudinally channeled portion, one of the longitudinal walls of which being inclined from one end of the base to the opposite end thereof, the said inclined wall being grooved parallel with the horizontal portion of the channel, to provide a tongue, a removable member having one of its sides formed with a flange to engage the rails, and its opposite side inclined from one of its ends to its opposite end, the said inclined side being channeled to receive the tongue of the chair, and automatic means for locking the removable member upon the chair member.

2. A rail joint including a chair having a base upon which the rails rest, the base having one of its sides

formed with a rail engaging flange, the said base being channeled longitudinally and the outer wall of the said channeled portion being grooved to provide a tongue, a removable member having a base, a portion of which underlies the base of the rails, and being formed with a flange which engages with the sides of the rails, the opposite side of the removable member being provided with a groove to receive the tongue of the chair, a spring pressed pin upon the chair, and the removable member having depressions arranged in a line with the spring pressed member to receive the said member to lock the movable member upon the chair proper.

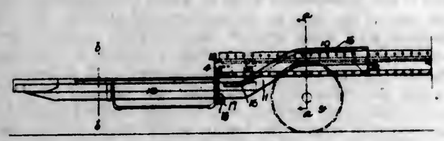
3. A rail chair including a base upon which the rails rest, and which has one of its sides formed with a flange to engage with the sides of the rails, the said base having a longitudinal channel within the rail seat, the outer wall of the channel being inclined from one of the ends of the chair to the opposite end thereof, the said outer wall having a lower groove and an upper groove providing a tongue, the walls of the groove and tongue agreeing with the inclination of the said side, the upper wall being beveled, the said upper wall at the reduced end of the chair having a spring pressed pin, a removable member including a base which has its inner side provided with a flange which engages with the rail, and the said base below the flange receiving the portions of the rail projecting beyond the rail seat of the chair proper, the opposite side of the removable member being inclined from one of its ends to the opposite end thereof to agree with the inclined walls of the chair proper, said outer wall of the removable member being centrally grooved to receive the tongue of the chair, the wall above the groove being beveled and coacting with the beveled upper wall of the chair proper, and the said beveled wall of the removable member being provided with a plurality of intersecting depressions any one of which receiving the spring pressed member of the chair proper to retain the removable member upon the chair.

1,141,844. DETACHABLE SOLE AND HEEL FOR BOOTS AND SHOES. HORACE SIDNEY SMITH, Youngstown, Ohio, assignor to Horace Sidney Smith, trustee. Filed Aug. 25, 1914. Serial No. 858,476. (Cl. 36—15.)



The combination with a boot or shoe having an inner sole, of a retaining plate secured to the inner sole and provided with a projecting marginal retaining flange, detachable sole and heel sections, and retaining strips upon said sections having inturned heads to engage and interlock with said flange, said strips being provided with extensions adapted for interlocking engagement with each other.

1,141,845. CAR-FRAME. WARREN M. SMITH, Moores, Pa., assignor to The J. G. Brill Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed June 17, 1914. Serial No. 845,690. (Cl. 105—204.)

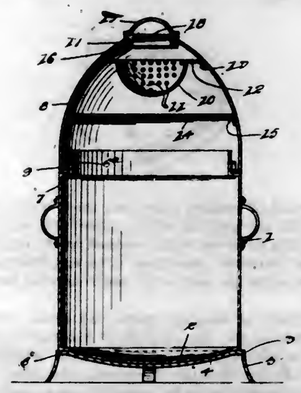


1. The combination in a car, of a car frame; a platform; and longitudinal beams supporting the platform and carried by the car frame, said beams being bent upward so as to extend above the floor of the car and rigidly secured to the transverse sill and to one of the transverse beams.

2. The combination in a car frame having longitudinal beams, a transverse sill and transverse beams, of a plate form; longitudinal beams secured to the under side of the sill of the main frame of the car and arranged to carry the platform, said beams being bent upward so as to clear the mechanism of the axle and to extend above the floor of the car; with a reinforcing angle secured to the portion of the beam extending above the floor of the car.

3. The combination in a car frame having longitudinal beams, a transverse sill and transverse beams, of a platform; longitudinal beams secured to the under side of the sill of the main frame of the car and arranged to carry the platform, said beams being bent upward so as to clear the mechanism of the axle and to extend above the floor of the car; a reinforcing angle secured to the portion of the beam extending above the floor of the car, the upper flange of each portion of the beam extending above the floor of the car being cut away; and longitudinal seats having their front panels located in front of the beams.

1,141,846. GARBAGE-CAN. LEONARDO SPREMULLI and ARNALDO MANUPPELLI, Ellsworth, Pa., assignors of one-third to Anthony Marcello Costa, Bentleyville, Pa. Filed Jan. 13, 1914, Serial No. 811,884. Renewed Apr. 14, 1915. Serial No. 21,449. (Cl. 220—115.)

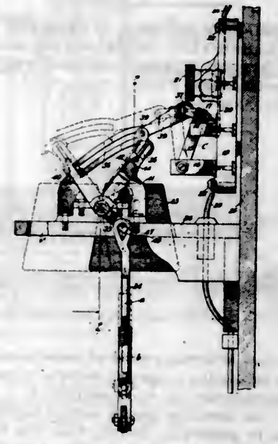


A garbage can comprising a cylindrical body portion and a stand for supporting the can comprising a concaved body plate and a plurality of integral supporting legs whereby the can is spaced from the ground, said body portion having a convex bottom wall and provided adjacent its periphery with a flat horizontal portion, said body plate having a flat horizontal portion adjacent its periphery adapted for engagement with the flat horizontal portion on the bottom wall of said can whereby the can is prevented overturning relative to the stand.

1,141,847. PRESSURE-CONTROLLED ELECTRIC SWITCH FOR MOTOR-OPERATED PUMPS. SIDNEY S. STAHL, Connellsville, Pa. Filed Apr. 21, 1914. Serial No. 833,529. (Cl. 175—287.)

1. The combination of a support including a horizontal shelf, a switch mounted on the support above the shelf and including a movable contact, a crank journaled at its bottom on the shelf, a lost motion connection between the crank and movable contact for throwing the same to and from circuit-closing position, a pendulum weight carried by and suspended from the upper portion of the crank, an actuator, and a lost motion connection between the crank and actuator.

2. The combination of a support including a horizontal shelf, a switch mounted on the support above the shelf and including a movable contact, a crank journaled at its bottom on the shelf, a lost motion connection between the crank and movable contact for throwing the same to and from circuit-closing position, a pendulum weight carried by and suspended from the upper portion of the crank, an actuator, and a lost motion connection between the crank and actuator, and stop devices arranged on the shelf for limiting the movement of the crank and taking the pull of the weight from the actuator.



3. The combination of a supporting structure including a shelf having an opening, a switch mounted on the support and including a swinging contact, an arm having its lower end journaled on the shelf adjacent the opening thereof, a lost motion connection between the said arm and movable contact, a weight suspended from the upper portion of the arm and extending through the opening, whereby the ends of the opening limit the swing of the weight, an actuator, a lost motion connection between the actuator and arm for moving the latter, and stops on the shelf for limiting the swing of the arm in either direction from a vertical line passing through the center on which the arm swings.

1,141,848. WATERPROOFING COMPOUND FOR CEMENT, CONCRETE, AND THE LIKE. FRANK R. STEHM, Des Moines, Iowa, assignor to Enamel Concrete Company, Des Moines, Iowa, a Corporation of South Dakota. Filed Jan. 22, 1912. Serial No. 672,651. (Cl. 106—33.)

1. The process of making water proofing compound which consists in mixing sixty gallons of kerosene oil, spermaceti wax ten pounds and cotton seed oil two and one-half gallons and heating the mixture to a temperature high enough to cause the kerosene oil to dissolve the wax.

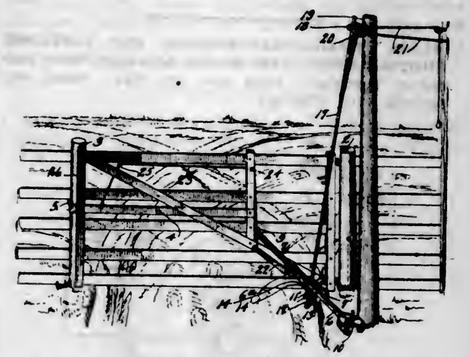
2. The herein described water proofing compound consisting of the following ingredients in about the proportions named, kerosene oil sixty gallons, spermaceti wax ten pounds and cotton seed oil two and one half gallons.

3. The herein described water proofing compound for cement, concrete or the like comprising kerosene oil, spermaceti wax and cotton seed oil, the spermaceti wax being dissolved in the kerosene oil.

4. A process for making liquid water proofing material for cement, consisting in mixing kerosene oil, spermaceti wax, cotton seed oil in about the proportions of sixty gallons, ten pounds and two and one-half gallons, respectively, heating the mixture to about one hundred eighty degrees Fahrenheit, whereby the same will be brought to a fluid condition and the wax dissolved in the kerosene oil.

5. A water proofing compound comprising the following ingredients in about the proportions named, kerosene oil sixty gallons, spermaceti wax ten pounds, cotton seed oil two and one-half gallons, said mixture being mingled with about twelve parts of water.

1,141,849. GATE-OPERATING MEANS. MARCUS ALLEN STICKLEY, Strasburg, Va. Filed Jan. 30, 1915. Serial No. 5,292. (Cl. 39—14.)



1. Gate operating mechanism of the class described comprising a lever connected at one end to the gate and at its other end fixed adjacent to said gate, said lever consisting of jointed sections, one of said sections having a lateral arm, operating means for actuating the lever sections to thereby operate the gate comprising a shifting lever adapted to coöperate with the arm aforesaid, and means adapted to coact with the shifting lever to insure coperation of the latter with the arm.

2. Gate operating mechanism of the class described comprising a lever connected at one end to the gate and at its other end fixed adjacent to the gate, said lever consisting of jointed sections, one of said sections having opposing rigid lifting extensions, operating means for actuating the lever sections to thereby operate the gate comprising a freely pivoted lever adapted to abut with said extensions, and means coacting with the pivoted lever to insure coöperation of the same when actuated with one of the extensions in one position of the gate, and with the opposite extension in another position of said gate.

3. Gate operating mechanism of the class described comprising a lever connected at one end to the gate and at its other end fixed adjacent to the gate, said lever consisting of jointed sections, one of said sections having opposing rigid lifting extensions, operating means for actuating the lever sections to thereby operate the gate comprising a freely pivoted lever adapted to abut with said extensions, and a stop member arranged adjacent to the shifting lever and adapted to engage the same when actuated at one side to cause movement in one direction in one position of the gate and at the other side to cause movement in the opposite direction in another position of the gate.

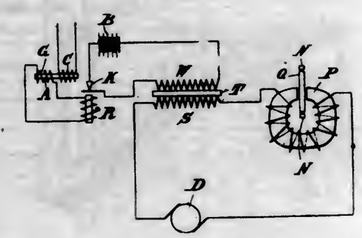
4. Gate operating mechanism of the class described comprising jointed sections forming a toggle, one of the toggle members being connected to the gate and another fixedly secured adjacent thereto, lateral arms formed on one of the toggle members, a lever pivoted adjacent to said arms for coaction therewith when actuated to lift against said arms, an operating member connected to one end of the lever, and a double-armed shiftable stop member arranged adjacent to the pivoted lever and engageable with its other end to cause coöperation of the lever when actuated with the proper arm according to the position of the gate.

5. Gate operating mechanism of the class described comprising jointed sections forming a toggle, one of the toggle members being connected to the gate and another fixedly secured adjacent thereto, lateral arms formed on one of the toggle members, a lever pivoted adjacent to said arms for coaction therewith when actuated to lift against said arms, and operating means for actuating said lever including a guide member connected thereto at

one end, said guide member normally maintaining the lever in coacting position with respect to the arms aforesaid.

[Claims 6 to 9 not printed in the Gazette.]

1,141,850. IMAGE-TRANSFORMER FOR DISTANCE PHOTOGRAPHY. CURT STILLE, Zehlendorf-West, near Berlin, Germany. Filed Apr. 22, 1913. Serial No. 762,925. (Cl. 178—6.)



1. The process of converting light rays consisting in generating alternating current impulses in accordance with the light intensities of an object; impressing said impulses upon a direct current; and then subjecting polarized light rays to the influence of the resultant field of electric force.

2. The process of converting light rays consisting in polarizing the light rays; and subjecting the polarized light to the influence of simultaneous strong direct and weak alternating electric currents.

3. An apparatus for converting light rays comprising an electro-optical polarizing device; and means for producing simultaneously direct and alternating currents within said device.

4. An apparatus for converting light rays comprising an electro-optical polarizing device; and means for generating a magnetic field in the polarizer by a primary direct current and a secondary alternating current.

5. An apparatus for converting light rays comprising a local direct current circuit; an electro-optical polarizing device in said circuit; and an alternating current circuit adapted to carry electric current impulses dependent upon the variation of light intensity of the object.

[Claim 6 not printed in the Gazette.]

1,141,851. PEN-HOLDING DEVICE. BENJAMIN F. STOGSDILL, San Francisco, Cal. Filed Jan. 27, 1914. Serial No. 814,781. (Cl. 120—14.)

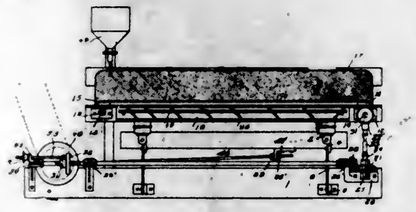


1. In a device of the class described, the combination of a pen holding member, a shell to receive said member, a relatively stationary core adapted to be inserted longitudinally into the shell into coöperation with the latter to hold the pen holding member in operative position therebetween, means for actuating the holding member to slide the same into operative or inoperative position, and interlocking means positively engaging the core with the shell for preventing accidental displacement of the core when in position in the shell.

2. In a device of the class described, the combination of a pen holding member, a shell to receive said member, a core adapted to be inserted longitudinally into the shell into coöperation with the latter to hold the pen holding member in operative position therebetween, means for actuating the holding member to slide the same into operative or inoperative position, and interlocking means for preventing accidental displacement of the core when in position in the shell, said means forming a stop member for the actuating means aforesaid.

3. In a device of the class described, a shell, a core insertible therein and formed with a notched flange, a projection to interlock with the notch of said flange to hold the core from displacement, a pen holding member disposed between the core and shell, and means for retracting the pen holding member into the shell, said means coöperating with the projection aforesaid to limit movement of the pen holding member into the shell.

1,141,852. PROCESS OF AND APPARATUS FOR SIZING OR CLASSIFYING COMMINUTED MATERIALS. HENRY M. SUTTON, WALTER L. STEELE, and EDWIN G. STEELE, Dallas, Tex. Filed July 21, 1913. Serial No. 780,360. (Cl. 83—84.)



1. The process of sizing a mass of comminuted material, consisting in subjecting a mass of material containing particles of different sizes in dry condition, to a continuous movement in one direction upon a moving support, causing the particles to gravitally deviate from the line of normal movement, retarding said gravital deviation and so proportioning the forces, that the deviation shall be proportional to the size of the respective particles, and separately collecting the thus sized particles.

2. The process of sizing a mass of comminuted material, consisting in subjecting a mass of material containing particles of different sizes in dry condition, to a continuous movement in one direction upon a continuously moving support, causing the particles to gravitally deviate from the line of normal movement of the material, retarding said gravital deviation to cause the particles to travel contiguously and so proportioning the forces, that the deviation shall be proportional to the size of the respective particles, and separately collecting the thus sized particles.

3. The process of sizing a mass of material, consisting in supporting said material upon an inclined roughened surface, continuously moving said surface in one direction, agitating said material upon said surface to cause the material to move at an angle to the movement of the surface proportioned solely to the sizes of the grains of the mass, and separately collecting the thus sized articles.

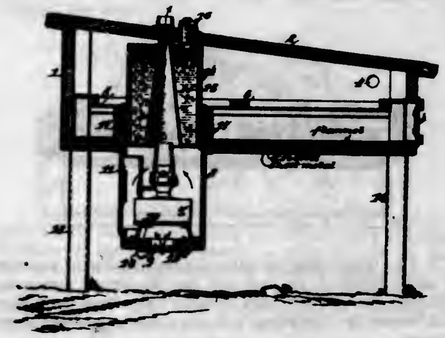
4. The process of separating comminuted material, containing particles of different sizes, consisting in continuously moving and agitating said material when in a dry condition, subjecting said material to the force of gravity to cause said material to move in lines deviating from the continuous movement of said material at angles proportioned to their sizes, exerting a resistance on said material against the force of gravity, and separately collecting the thus sized particles.

5. The process of sizing a mass of pulverulent material, consisting in feeding the material dry, upon a continuously moving inclined roughened supporting surface, agitating the mass, causing the components of the mass to deviate from the line of normal movement at angles proportionate to their sizes, and separately collecting the so sized particles.

[Claims 6 to 18 not printed in the Gazette.]

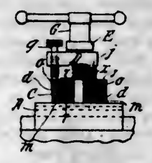
1,141,853. BROODER. EDGAR TAYLOR, Yonkers, N. Y. Filed Apr. 17, 1912. Serial No. 691,311. (Cl. 119—30.)

An incubator heater comprising a combustion chamber supported thereby, a metallic cylindrical boiler superimposed above said chamber and adapted to contain a quantity of water, a tapering flue centrally mounted in said boiler and opening into said combustion chamber at its large end and into the atmosphere at its small end, a fibrous sheeting spaced above the bottom of the incubator,



and a cylindrical wire mesh guard encircling said boiler and having its edges contacting with the under surface of the fibrous sheeting and the top surface of the bottom of the incubator respectively.

1,141,854. TOOL-HOLDER FOR LATHES. FREDERICK D. VAN NORMAN, Springfield, Mass. Filed July 29, 1913. Serial No. 781,735. (Cl. 82—37.)



1. In combination, a tool holder comprising lower and upper clamping blocks, the lower block having a tool support, the upper block having two separated clamping portions, adapted to overlie the tool support, and at an opposite portion thereof a third bearing portion, means for affording a bearing support to said third bearing portion and means for confining a tool shank between the said tool support and the two separated clamping portions of the upper block.

2. In combination, a tool holder comprising lower and upper clamping blocks, the lower block having two tool supporting members the upper surfaces of which are at varying heights, the upper block having two separated clamping portions adapted to overlie either of said tool supports, and a third portion adjustably supported over the lower block and means for confining a tool shank between the upper and lower blocks.

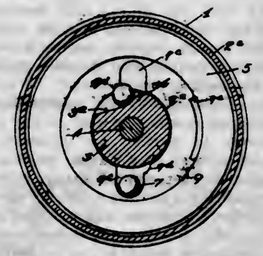
3. A tool holder comprising a base block and an upper block and means for imparting a clamping bind thereto, the base block having a plurality of upwardly opening channels one of which has a curved base, a tool supporting locker member having a curved bottom in the one of said channels, a tool supporting member in another of said channels, the upper surfaces of the two tool supporting members being at varying heights.

4. The combination with a tool holder having an upright bolt, of lower and upper clamping blocks having apertures for said bolt, the lower block having an upwardly opening channel with a curved base, a tool supporting member adapted for engagement in said channel, the upper block having at its one end two separated clamping members, and its opposite end adjustably supported above the lower block, and means carried by the bolt and located above the upper block for imparting a clamping bind thereto.

5. In a tool holder, in combination, a post, a lower and an upper clamping block having apertures for said post, the lower block having two tool supporting members, the tops of which are at varying heights, the upper block having its one end formed with two separated clamping portions, and adapted to overlie either of said tool supports, and having its other end supported over the lower block, and means carried by the post and located above the upper clamping block for imparting a clamping bind thereto.

[Claims 6 to 9 not printed in the Gazette.]

1,141,855. EYEGLASS-CHAIN REEL. OTTO B. WEDELL, Elgin, Ill. Filed July 13, 1912. Serial No. 709,185. (Cl. 242—98.)



1. In a chain reel device, in combination with a casing, comprising a front plate and a back plate adapted to be engaged with each other; bearing members mounted rigidly on the inner faces of the front and back plates, respectively, said bearing members having journal bearings alined with each other; a chain-drum and a spring which resists its rotation in one direction, said drum having a peripheral chain-channel and a web medially situated in respect to the width of said channel, and a journal to which said web extends and is rigidly secured, the journal being mounted rotatably in said bearings, whereby one of said journal bearings may be extended along the journal substantially to the web.

2. In a chain reel, in combination with a casing comprising a front plate and a back plate, adapted to be engaged with each other; bearing members mounted rigidly on said front and back plates, respectively, having journal bearings alined with each other; a chain-drum comprising a peripheral chain-channel; a web medially situated with respect to the channel and a central hub portion extending off one side of the web, concentric with the chain-drum journal; a journal member to which said web extends and to which it is secured by said hub extending there-along, the journal member being mounted rotatably in said bearing members, one of said bearing members being in cup form having its flange extending concentrically about the drum hub, and the other being extended along said journal member substantially to said medial web; a helical spring connected at its inner end to and adapted to be coiled about said cup flange in the annular space at one side of the web, and having its outer end connected to the drum, and a locking device situated at the opposite side of the web in the annular space between the chain channel and the bearing at that side.

3. In a chain reel, in combination with a cupped casing member having a centrally seated cup-shaped shaft bearing and having its cup flange provided with a notch, a chain drum having its shaft mounted in said bearing and comprising a peripheral member for winding the chain, a hub portion fast on the shaft, and a web connecting them, the flange of the shaft bearing being substantially larger than the hub and thus inclosing an annular space around said hub, and a spring coiled about said cupped bearing adjacent the web having its outer end engaged with the drum and its inner end hooked into the said notch with the end of the hook occupying the said annular space.

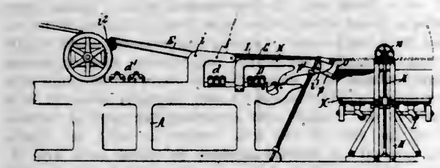
4. In an eye-glass holder in combination with a casing comprising front and back plates, bearing members mounted upon the inner faces of said plates, respectively, having journal bearings alined with each other; a chain

drum comprising a web situated medially with respect to the width of the drum periphery; a journal member mounted rotatably in said bearings and to which the web extends, the latter having a hub extended off one side along the journal member for securement of the drum to the journal; a spring located at that side of the web in the annular space between said hub and the drum periphery, and means by which said spring is connected at the inner end to the bearing member and at the outer end to the drum, the bearing member at the other side of the web being extended along the journal member substantially to said web, and having a peripheral notch; a member located in the annular space at that side of the web between said bearing member and the drum periphery and rigid with the drum; said member having a slot in its inner circumference opening toward the periphery of the bearing member, and a tumbler element located in the slot and adapted to enter the notch in the periphery of the bearing member.

5. In an eye-glass holder, the combination of a back plate, a cup-shaped member secured to the same and co-acting therewith to provide an inclosure, a notched bearing member secured to the inner portion of the back plate, a bearing member secured to the inner portion of the cup, a reel having a portion rotatably mounted within both of said bearing members, and a spring which resists its rotation in one direction, a slotted element on the reel adapted to travel adjacent to he periphery of the notched bearing member, and a tumbler element within the slot of the slotted member serving to co-act with the notch of the notched member for locking purposes, substantially as described.

[Claim 6 not printed in the Gazette.]

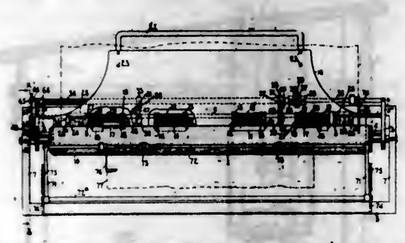
1,141,856. SHEET-DELIVERY ATTACHMENT FOR PRINTING-PRESSES. CHARLES A. WHITE, Buffalo, N. Y., assignor, by direct and mesne assignments, to Economic Press Delivery Company, Buffalo, N. Y., a Corporation of New York. Filed July 22, 1909. Serial No. 508,921. (Cl. 101—34.)



1. The combination of oppositely arranged spaced standards which are supported in upright position, elevating supports which project toward each other from and are movable vertically on said standards, vertical screws journaled on said standards for raising and lowering said supports, said supports having guide parts engaging said standards, handles arranged to rotate at the outer sides of said standards and operatively connected to said elevating screws for turning the same, and a support for a pile of sheets adapted to rest on said elevating supports between said standards, said standards and screws being disconnected above the base portions of the standards so as to leave an unobstructed space between the standards for said sheet support and the pile of sheets theron, substantially as set forth.

2. The combination with a support for a pile of sheets, of portable standards supported in upright position and movable into operative relation to the support, elevating supports movable vertically on said standards and having parts adapted to engage said support for the pile of sheets, each standard having mounted thereon separate and independent means for raising and lowering the elevating support on said standard, said means including an operating handle arranged at the outer side of the standard, said standards being disconnected above the base portions thereof so as to leave an unobstructed space between the standards for said sheet support and the pile of sheets thereon.

1,141,857. TYPE-WRITING MACHINE. CLIO B. YAW, Arlington, N. J., assignor, by mesne assignments, to Remington Typewriter Company, Ilion, N. Y., a Corporation of New York. Filed Mar. 1, 1912. Serial No. 680,785. (Cl. 197—127.)



1. In a typewriting machine, the combination of a platen, a paper deflector, an end stop for the paper, means for affording movement of said deflector away from the platen, and means for concurrently moving said stop toward the platen.

2. In a typewriting machine, the combination of a platen, a paper deflector curved to conform substantially thereto, a paper stop, means for affording movement of said paper deflector away from the platen, and means for concurrently moving said paper stop substantially radially toward the platen and in a path transverse of the path of said deflector.

3. In a front-strike typewriting machine, the combination of a platen, a paper deflector normally engaged with the platen, said deflector curving around the under and forward side thereof and terminating a short distance below the printing line, a paper stop independent of the deflector, a main feed roller arranged forward of said paper stop, and means for affording movement of said deflector away from the platen to provide an opening between the platen and the deflector through which the paper may be introduced from the front side of the platen to coöperate with the paper stop.

4. In a front-strike typewriting machine, the combination of a platen, a paper deflector curving around the platen and terminating a short distance below the printing line, a paper stop at the rear of the platen and normally in inoperative position, means for affording movement of the deflector away from the platen to provide an opening through which paper may be introduced from the front of the machine, and means for concurrently moving said paper stop to operative position.

5. In a front-strike typewriting machine, the combination of a platen, a paper deflector curving around the platen and terminating a short distance below the printing line, a paper stop at the rear of the platen and normally in inoperative position, means for affording movement of the deflector away from the platen to provide an opening through which paper may be introduced from the front of the machine, and means for concurrently moving said paper stop to operative position, said paper stop moving toward the platen through an opening in said deflector but being separated from the platen when in working position.

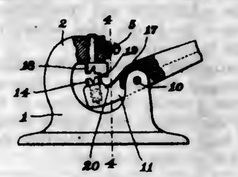
[Claims 6 to 31 not printed in the Gazette.]

1,141,858. BENDING APPARATUS. HUGO ADERER, Bloomfield, N. J., assignor to J. F. Jelenko & Company, a Copartnership composed of Jesse J. Jelenko and Hugo Aderer, New York, N. Y. Filed Oct. 16, 1914. Serial No. 866,928. (Cl. 31—15.)

1. A bending apparatus comprising a base, a movable member pivoted thereto, and grooved dies coöperating with each other carried by said respective members, said dies being adjustably mounted on their respective members for relative adjustment toward and from each other.

2. A bending apparatus comprising a base, a movable member pivoted thereto, and grooved dies coöperating with each other carried by each of said members, said dies being relatively rotatably adjustable.

3. A bending apparatus comprising relatively movable members, one member carrying one grooved die and the other members carrying two grooved dies coöperating therewith, each of said dies being rotatably adjustable with respect to the supporting member and also linearly adjustable with respect to said member across a line through the dies.

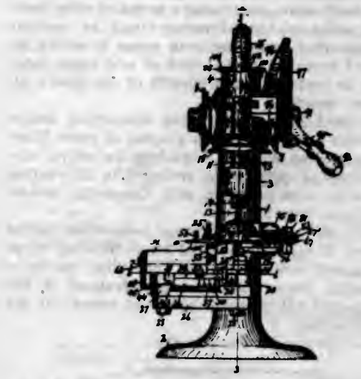


4. A bending apparatus comprising a base having a downwardly extending bending projection, and a separated fulcrum, a movable bifurcated member pivoted on said fulcrum and having separated bending projections coöperating with said downwardly extending bending projection on the base, said projections also carrying coöperating transversely grooved dies.

5. In a strip bending appliance, the combination with a base having a C-shaped standard rising therefrom and carrying a downwardly facing grooved die, of a bending lever pivoted to said base in front of the opening of said standard and having bifurcation carrying grooved dies coöperating with the die carried by the standard.

[Claims 6 and 7 not printed in the Gazette.]

1,141,859. LENS-DRILLING MACHINE. GUSTAV A. BADER, Rochester, and CHAUNCEY W. HOWLAND, Geneva, N. Y., assignors to The Standard Optical Company, Geneva, N. Y., a Corporation of New York. Filed Sept. 12, 1912. Serial No. 719,950. (Cl. 77—32.)



1. In a lens drilling machine, a reciprocatory frame, a retracting spring therefor, a drill spindle mounted on the frame to move therewith, a lever, and means actuated by said lever for moving said frame against the action of the retracting spring including a spring of greater power than said retracting spring.

2. In a lens drilling machine, an axially movable drill spindle, retracting means therefor, and additional means for moving the drill spindle against the action of its retracting means including a spring of greater power than said retracting means.

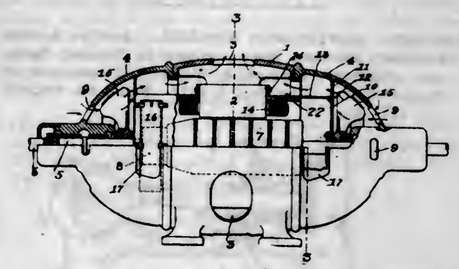
3. In a lens drilling machine, a main frame, a drill spindle movable axially thereon, a rock arm pivoted to the frame, an operating lever, means including a spring for transmitting motion from the lever to the rock arm, and additional means for transmitting motion from the rock arm to the drill spindle.

4. In a lens drilling machine, a main frame, a drill spindle movable axially thereon, a rock arm pivoted to the frame, an operating lever, means including a spring for transmitting motion from the lever to the rock arm, additional means for transmitting motion from the rock arm to the drill spindle, and means for limiting the movement of the rock arm in the operation of drilling irrespective of the lever.

5. In a lens drilling machine, means for moving a drill axially toward and from the work comprising, in combination, relatively movable rocking members having means for limiting their relative movement in one direction, a spring connecting said members, one of said members being an operating lever, and means for transmitting motion from the other member to the drill.

[Claims 6 to 11 not printed in the Gazette.]

1,141,860. ELECTRIC MOTOR OR GENERATOR. HERBERT A. BALCOME, Boston, Mass., assignor to The Holtzer-Cabot Electric Company, Brookline, Mass., a Corporation of Massachusetts. Filed Oct. 24, 1910. Serial No. 588,630. (Cl. 171—252.)



1. An electric motor or generator having, in combination, an outer supporting frame, a stator provided with pole pieces and field coils for the pole pieces, an armature, an armature shaft, and thin-walled heat-conducting inner coverings which, in conjunction with the stator and the shaft, inclose the inner ends of the pole pieces, the armature and the field coils, substantially as described.

2. An electric motor or generator having, in combination, an outer supporting frame, a stator provided with pole pieces and field coils for the pole pieces, an armature, an armature shaft, thin-walled heat-conducting inner coverings which, in conjunction with the stator and the shaft inclose the inner ends of the pole pieces, the armature and the field coils, and blowing means for causing a cooling circulation of air within the supporting frame and over the outer surfaces of the inner coverings, substantially as described.

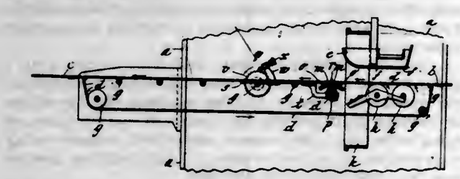
3. An electric motor or generator having, in combination, an outer supporting frame, an armature supported by said frame, a dust-proof casing having thin-walled heat-conducting portions for covering rotating parts of the machine, and blowing means for causing a cooling circulation of air over the outer surface of the covering means, substantially as described.

4. An electric motor or generator having, in combination, an outer supporting frame, a field magnet and armature supported thereby, a dust-proof casing having thin-walled heat-conducting portions for covering rotating parts of the motor or generator, and blowing means for causing a cooling circulation of air over the outer surface of the covering means, substantially as described.

1,141,861. CONVEYER-BELT FOR CONFECTIONERY-MACHINES. ALONZO LINTON BAUSMAN, Chicopee, Mass., assignor to National Equipment Company, Springfield, Mass., a Corporation of Massachusetts. Filed Jan. 7, 1911. Serial No. 601,488. (Cl. 91—3.)

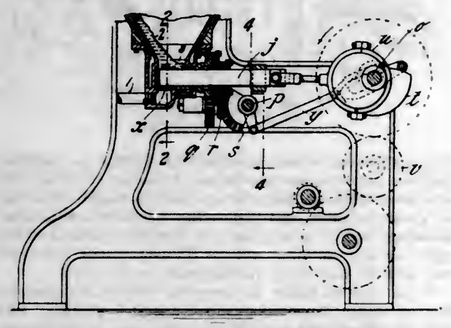
1. In candy machinery, an endless flexible conveyer, a deflecting device therein arranged to form a break in the top surface thereof, whereby two conveyer sections are formed, a coating device disposed above one section and a shaking device on the other section to impart vibrating

motions thereto, whereby said deflecting device prevents the transmission of said vibratory motion from one section to the other.



2. In a candy coating machine, an endless conveyer for the candy, a deflecting device adapted to deflect the conveyer intermediate the end extremities thereof, a shaking device located between said deflecting device and one end extremity of the conveyer and adapted to vibrate said conveyer, said deflecting device arranged to prevent the transmission of vibrations therethrough.

1,141,862. CONTINUOUS COOKER. ALONZO LINTON BAUSMAN, Chicopee, Mass., assignor to National Equipment Company, Springfield, Mass., a Corporation of Massachusetts. Filed Jan. 2, 1912. Serial No. 668,988. (Cl. 127—4.)



1. In a continuous cooker, a chamber adapted to receive the cooked syrup, means for obtaining a vacuum in said chamber, and a discharging mechanism at the outlet of the chamber comprising a reciprocating plunger, a sleeve surrounding the plunger, except for a space corresponding to the outlet of the chamber, means for withdrawing the plunger when the open space in the sleeve registers with the outlet, means for rotating the sleeve until the open space therein registers with an outlet port, and means for thereupon advancing the plunger to discharge the syrup.

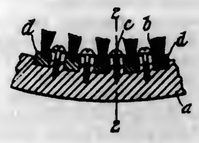
2. A container adapted to contain syrup, means for creating a vacuum therein, and means for discharging the syrup from the container without breaking the vacuum therein comprising an outlet large enough for the syrup to readily fall therethrough, a rotatable cylinder with an opening to register with the outlet, a piston within the cylinder, means for rotating the cylinder to close the outlet for the chamber and until the opening of the cylinder registers with an outlet port, and means for thereafter forcing the piston into the cylinder to expel the syrup through the outlet port.

3. A container adapted to contain syrup, said container having a spacious outlet, means for creating a vacuum therein, and discharging mechanism comprising a rotatable sleeve with an opening to register with the outlet of the container, an outlet pipe, a plunger in the sleeve, and means to withdraw the plunger when the opening in the sleeve registers with the outlet allowing the syrup to fall into the sleeve, means for rotating the sleeve until the opening registers with the outlet pipe and closes the outlet of the container, and means to thereupon force the plunger in the sleeve to expel the syrup through the outlet pipe, whereby a continuing vacuum is maintained in the container.

4. A container adapted to contain syrup, said container having a spacious outlet, means for creating a vacuum therein, an outlet pipe for the container, discharging mechanism located between the outlet for the container and the outlet pipe, operable to open the spacious outlet and close the outlet pipe and then to close the spacious outlet and open the outlet pipe, whereby the vacuum is maintained in the container.

5. In a continuous cooker and in combination, a vacuum chamber having a discharge outlet, and means associated with the outlet whereby the contents of the chamber may be positively discharged, said means being so constructed as to at no time allow communication from the exterior to the interior of said chamber.

1,141,863. BRUSH-LINED SIEVE. ALONZO LINTON BAUSMAN, Chicopee, Mass., assignor to National Equipment Company, Springfield, Mass., a Corporation of Massachusetts. Filed May 10, 1913. Serial No. 766,915. (Cl. 107—44.)



1. A brush-lined sieve, comprising brush-holding members together with separate sieve-forming strips, said members being constructed with the bristles adjacent to but not passing through the openings of the sieve.

2. A brush-lined sieve, comprising brush-holding members and separate sieve-forming strips, together arranged with the bristles of said members extending above and adjacent to the said means but without passing therethrough.

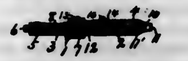
3. A brush-lined sieve, comprising a series of sieve-forming strips, a series of brush-forming strips to coperate therewith, supporting means for both series of strips, all constructed and arranged so that each of said brush forming strips can be replaced independently of the others, all for the purpose described.

4. A brush-lined sieve, comprising supporting means having removably-mounted thereon a series of brush-forming strips, a series of separate sieve-forming strips, several of each series of strips being arranged in alternating arrangement with each other on said supporting means, all for the purpose described.

5. A brush-lined sieve, comprising supporting means having a series of separate parallel brush-forming strips arranged in spaced relation on the supporting means, a series of parallel sieve-forming strips arranged in the spaces between the first-mention series of strips, all for the purpose described.

[Claim 6 not printed in the Gazette.]

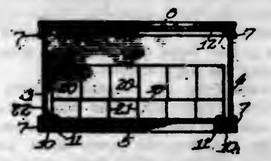
1,141,864. TOOL-HOLDER. PHILIAS J. BOUCHER, Geneva, N. Y., assignor to The Standard Optical Company, Geneva, N. Y., a Corporation of New York. Filed Jan. 9, 1913. Serial No. 740,958. (Cl. 144—32.)



1. A tool holder comprising a chuck having a central lengthwise opening for a tool, an axially adjustable end thrust bearing for one end of the tool, and a work centering sleeve slidable on the chuck relatively to the opposite end of the tool.

2. A tool holder comprising a chuck having a central lengthwise opening for a tool, an axially adjustable end thrust bearing for one end of the tool, and a yielding stop normally projecting beyond the working end of the tool to limit the movement of the tool relatively to the work.

1,141,865. COLLAPSIBLE OR INTERCHANGEABLE CASE. JOHN L. BUEHL, Chicago, Ill. Filed Mar. 14, 1913. Serial No. 754,229. (Cl. 217—20.)

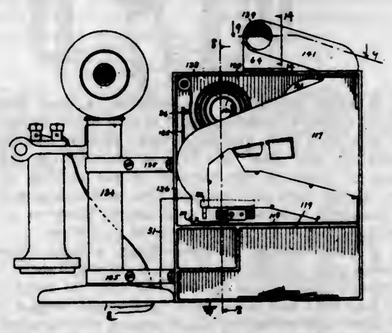


1. A case of the kind described comprising side and end walls, means for detachably locking the same together at the corners, a bottom, means on the walls of the case for supporting the bottom, a spacing rack arranged within the case and provided with means engaging the walls of the case and the bottom and serving to maintain the rack and bottom in place.

2. A case of the kind described, comprising side and end walls, some of said walls being provided with recesses, means for detachably locking the walls together at the corners, a bottom, means on the walls of the case for supporting the bottom, a spacing rack arranged within the case and provided with portions engaging the bottom and the recesses in the walls of the case, and serving to maintain the rack and bottom in place.

3. A case of the kind described, comprising side and end walls, some of said walls being provided with recesses, means detachably locking said walls together at the corners, a bottom, means on the walls of the case for supporting the bottom, a spacing rack arranged within the case, said rack being provided with supporting legs resting upon the bottom and having lateral extensions engaging said recesses and maintaining the rack and bottom in place.

1,141,866. TELEPHONE PAY-STATION. GILBERT CHRISTIAN, Detroit, Mich., assignor to The Wilcke-Armstrong Company, Detroit, Mich., a Corporation of Michigan. Filed Sept. 9, 1911. Serial No. 648,506. (Cl. 179—6.5.)

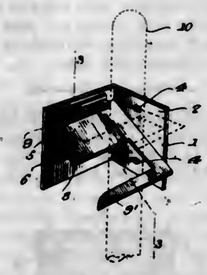


1. In a signal device for telephone pay-stations, the combination of a telephone transmitter and a rigid support for the same comprising a case having a back-board, a bell secured to said back-board, a coin guide in the case, electrically operated means for striking the bell, line wires extending from the pay station to the current source at the central station, a normally open electric circuit connecting said line wires, and said striking means, means for closing the circuit, said means comprising a pivoted contact member having a heavy end and a light end, a spring contact secured to one end, an abutment upon which the heavy end normally rests, and a contact with which the spring contact is adapted to engage when the lighter end of the member is depressed by the weight of a coin.

2. In a signal device for telephone pay-stations, the combination of a telephone transmitter and a case for an electrically operated signal rigidly attached to said transmitter, a signal therein, a central station and a current source at the central station, line wires leading from the central station to the pay station, normally open circuits at the pay station between the line wires and the signal operating device, means for closing said circuits, said means comprising a pivoted contact member having a heavy rear end and a front end, a spring contact secured to the front end, an abutment upon which the rear end of the contact member normally rests, and a second contact with which the spring contact is adapted to engage when the lighter end of the contact member is depressed by the weight of a coin.

3. In a signal device for telephone pay stations, the combination of a telephone transmitter, a signal, electrically operable means to sound the signal, a central station and a line wire connecting it to the transmitter, a current source at the central station, and a normally open circuit connecting to the line wire and the signal sounder adapted to be closed so that a current over the line wire will cause the signal to be sounded at the pay station, means for closing said circuit, said means comprising a pivoted contact member having a heavy end and a light end, a spring contact secured to one end, an abutment upon which the heavy end normally rests, and a contact with which the spring contact is adapted to engage when the lighter end of the member is depressed by the weight of a coin.

1,141,867. HOLDING OR SUSPENDING DEVICE. JEREMIAH H. DAUGHERTY and MARTIN L. HAHN, Royalton, Pa. Filed July 25, 1914. Serial No. 853,195. (Cl. 24—249.)



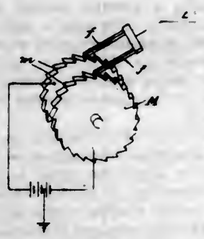
In a broom holder, a bracket comprising two right angular sides which are adapted to be arranged vertically of a support and one of said sides being secured to the support, a plate connected with the second side of the bracket and having its upper edge bent to provide a longitudinally extending barrel, the said plate below the barrel being slitted vertically and longitudinally and the metal between the slits being outturned to provide an angular tongue, a broom suspending member comprising a flat substantially rectangular plate, said suspending plate having one of its edges formed with a longitudinal slot providing a bar which is adapted to be received in the barrel of the first mentioned plate and whereby said suspending plate is hingedly connected with the bracket and is adapted to normally contact with the tongue of the aforementioned plate, the said suspending plate having a substantially rectangular slot which enters from its edge opposite that disposed adjacent to the supporting side of the bracket.

1,141,868. AUTOMATIC TELEGRAPHY. PATRICK B. DELANY, South Orange, N. J., and Nantucket, Mass., assignor to Telepost Company, New York, N. Y., a Corporation of Maine. Original application filed Dec. 29, 1908, Serial No. 469,804. Divided and this application filed Apr. 27, 1911. Serial No. 623,603. (Cl. 178—17.)

1. In an automatic telegraph transmitter, a circular contact member having a plurality of contact edges against which bears, through perforations of a transmitting tape, a fixed signal transmitting contact.

2. In an automatic telegraph transmitter a contact wheel having a plurality of contact edges and a coöper-

ating fixed transmitting contact finger, said wheel being adapted to be set to hold in position any one of the edges to be acted upon by the contact finger, combined with means for making and breaking contact of the active edge and finger.

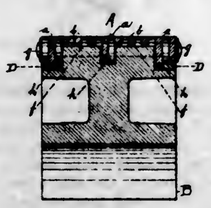


3. In an automatic telegraph transmitter, a rotatable contact wheel having a plurality of contact edges combined with a fixed transmitting contact coöperating with said edges, an electric circuit including the wheel and transmitting contact and means for actuating the contact to break the circuit.

4. In an automatic telegraph transmitter, a normally fixed contact wheel adapted to be rotated and having a plurality of contact edges combined with a fixed coöperating transmitter contact and means for actuating the contact to break the electric circuit in which the wheel and contact are included.

5. In an automatic telegraph transmitter, a fixed flexible contact maker combined with a series of interchangeable contact makers each having an edge against which the flexible contact maker is adapted to press through perforations in a transmitting tape.

1,141,869. DRIVING-CHAIN FOR TRANSMITTING POWER. CHARLES H. DOUGLAS, Springfield, Mass., assignor to Douglas Saw & Machinery Co., Boston, Mass. Filed Nov. 15, 1913. Serial No. 801,182. (Cl. 74—31.)



1. In a power drive chain structure, the combination with a wheel having driving teeth and unyielding circumferentially smooth peripheral surfaces at the sides of the teeth, of a driving chain provided with driving links for meshing with the driving teeth of the wheel, and other links shaped to coöperate with the smooth surfaces of the gear wheel the position of the smooth surfaces with respect to the throats between the teeth and the relation of the second-named links to the first-named links and to the smooth surfaces being such as to hold the driving links from bottoming engagement with the throats between the teeth.

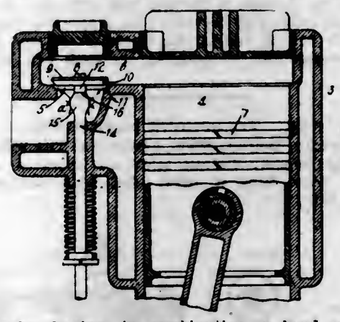
2. A chain drive comprising a gear wheel having rigid or unyielding shoulders or ledges at the sides of the teeth, and a chain having links with ends shaped to engage the faces of the teeth and intermediate recesses shaped to receive the teeth, and other links having edge portions adapted to ride on the shoulders or ledges at the sides of the teeth, the diameter of the shoulders or ledges with respect to the throats between the teeth and the radial position of the second-named links with respect to the first-named links being such as to hold the first-named links from bottoming engagement with the throats between the teeth and the outer ends of the teeth from bottoming in the recesses of said links.

3. In a chain drive, the combination of a chain composed of active or power links and other supporting links for the power links, and a gear wheel having teeth for engaging the power links and provided with rigid or unyielding means for the supporting links constructed and arranged with respect to said supporting links so as to prevent the power links from forcibly striking the gear wheel between the teeth thereof.

4. In a chain drive, the combination with a chain composed of active or power links and other links constituting supporting links for the power links, of a gear wheel having teeth for engaging the power links, and ledges for engagement by the supporting links, said ledges being in the form of rigid or unyielding rings applied to the gear wheel, and removable therefrom to give place to like rings of greater external diameter to compensate for stretch of the drive chain, and said ledges and supporting links being related to prevent the power links from forcibly striking the gear wheel between the teeth thereof.

5. In a chain drive, a chain composed of active or power links and other links constituting supporting links for the power links, and a gear wheel having teeth for engaging the power links and rigid or unyielding peripheral ledges for receiving the supporting links, the ledges being of greater radial distance from the axis of the gear wheel than the bottoms of the throats between the teeth of the gear wheel, whereby the supporting links prevent the power links from striking the bottoms of said throats.

1,141,870. VALVE. ROBERT L. ELLERY, Toledo, Ohio. Filed Sept. 10, 1913. Serial No. 789,028. (Cl. 137—32.)



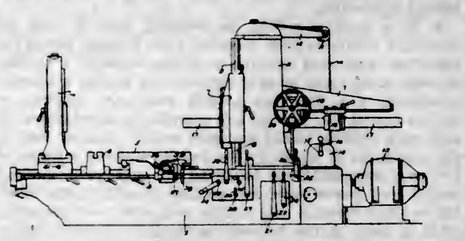
1. A valve having, in combination, a head provided with an inclined circumferential face, a stem formed integral with said head, and an annular bulbous enlargement formed on said stem, the largest diameter of said enlargement being in the vicinity of the portion of said stem alining with said inclined face, said enlargement being gradually reduced from said largest diameter in both directions to the normal diameter of said stem.

2. A valve having, in combination, a head formed of tungsten steel and provided with a circumferential working face, a stem formed of the same material and integral with said head and surrounded by a recess formed within said head and extending substantially therethrough, and a shank of carbon steel welded to said stem.

3. A valve comprising a tungsten steel head provided with an inclined circumferential face, a stem formed integral with said head surrounded by a recess formed within and extending substantially through said head, and a carbon steel shank welded to said stem.

1,141,871. BORING-MILL. WILLIAM J. HAGMAN and EDWARD H. WRAY, Philadelphia, Pa. Filed Dec. 3, 1913. Serial No. 804,536. (Cl. 77—3.)

The combination of a supporting base frame; a bilaterally symmetrical main post mounted thereon and provided with a central slot extending vertically from front to rear; a bilaterally symmetrical saddle adjustably mounted in the slot of the post and extending in the central vertical plane of the base frame; an arm projecting from the top of the post at an angle to said central plane; a pulley on the arm; a cable passing over the pulley and having one end connected to the saddle; a counter weight on the opposite end of said cable; a motor for driving the machine mounted at the rear thereof with its armature shaft



in the central plane; a series of spindles for controlling the operation of the machine and extending transversely of the same; with two controlling handles respectively fixed on the opposite ends of each of said spindles in position to be operated from opposite sides of the machine.

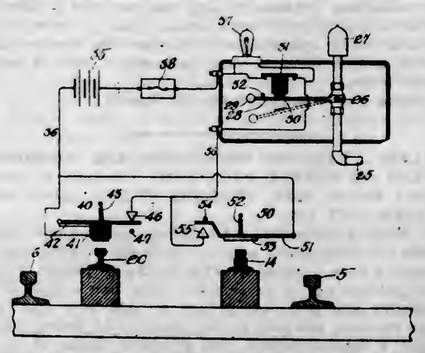
1,141,872. PROCESS FOR PRODUCING WOOLLIKE EFFECTS ON COTTON FABRICS. GEORGES HERRLEIN, Wattwil, Switzerland. Filed May 28, 1914. Serial No. 841,594. (Cl. 8—20.)

1. The described process for producing wool-like effects on cotton fabrics, consisting of taking mercerized fabrics and subjecting them for some minutes to the action of sulfuric acid of a concentration of from 49° to 51° Bé. and then washing out the acid.

2. The described process for the production of woollike pattern effects on cotton fabrics consisting of subjecting for some minutes to the action of sulfuric acid of from 49° to 51° Bé. the places of mercerized cotton fabrics where pattern effects are to be produced and then washing out the acid.

3. The described process for the production of wool-like pattern effects on cotton fabrics consisting of printing the required pattern on mercerized cotton fabrics with sulfuric acid from 49° to 51° Bé. and finally washing out the acid after some minutes.

1,141,873. AUTOMATIC CONTROL SYSTEM FOR RAILWAY-TRAINS. ARTHUR S. JONES, Brookline, Mass., assignor of one-half to Lincoln C. Cummings, Brookline, Mass. Filed Feb. 17, 1913. Serial No. 748,876. (Cl. 246—58.)



1. An automatic control system for railway trains having, in combination, a track divided into blocks, an electromagnet on the road bed, connections for energizing the magnet when the block ahead is clear and for deënergizing the magnet when the block ahead is occupied, an armature on the road bed near the electro-magnet, brakes on the train and means for setting the brakes including an electric circuit, a circuit breaker in said circuit comprising a magnet arranged to be attached by the armature on the road bed, and a circuit maker in shunt with the circuit breaker comprising an armature arranged to be attracted by the magnet on the road bed to close the circuit, substantially as described.

2. An automatic control system for railway trains having, in combination, a track divided into blocks, a magnet on the road bed, connections for energizing the magnet when the block ahead is clear, an armature on the road bed near the magnet, brakes on the train and means for setting the brakes including a normally closed electric circuit which, when broken, operates to set the brakes, a circuit breaker in said circuit, a magnet connected with the circuit breaker and arranged to be attracted by the armature on the road bed to open the circuit breaker, a circuit maker shunted around the circuit breaker, and an armature connected with the circuit maker and arranged to be attracted by the magnet on the road bed to close the circuit maker, substantially as described.

3. An automatic control system for railway trains having, in combination, brakes on the train and means for operating the brakes including a normally closed electric circuit the opening of which operates to set the brakes, a normally closed circuit breaker in the circuit, means on the road bed for operating the circuit breaker to open the said circuit at intervals, a normally open circuit maker shunted around the circuit breaker, and means on the road bed for operating the circuit maker in case the track ahead is clear so as to cause the circuit maker to close a shunt around the circuit breaker and prevent the setting of the brakes, substantially as described.

4. An automatic control system for railway trains having, in combination, a track divided into blocks, brakes on the train and means for operating the brakes including a normally closed electric circuit the opening of which causes the brakes to be set, a circuit breaker in said circuit, and means comprising a member on the road bed for opening and then closing the circuit breaker before the train enters a block, a circuit maker in shunt with the circuit breaker, means for operating the circuit maker having an electrical connection with the block ahead and operating, when the block ahead is clear, to keep the circuit maker closed while the circuit breaker is open, and operating, when the block ahead is occupied, to allow the circuit maker to remain open while the circuit breaker is open, substantially as described.

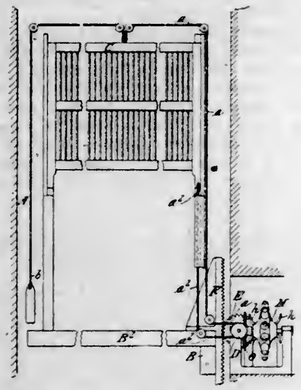
5. An automatic control system for railway trains having, in combination, a track divided into blocks, an electro-magnet on the road bed, connections for energizing the magnet when the block ahead is clear, an armature on the road bed near the electro-magnet, brakes on the train and means for setting the brakes including an electric circuit, a circuit breaker in said circuit comprising an electro-magnetic device coöperating with the armature on the road bed to open the circuit breaker when the train passes over the armature, and a circuit maker in shunt with the circuit breaker comprising an armature coöperating with the magnet on the road bed to close the circuit maker, substantially as described.

[Claims 6 to 9 not printed in the Gazette.]

1,141,874. ELEVATOR-GATE-OPERATING MECHANISM. ALBANY LANDRY, Indian Orchard, Mass. Filed Nov. 25, 1913. Serial No. 802,866. (Cl. 187—58.)

An automatic operating mechanism, the combination with an elevator gate, and cables connected for oppositely operating the gate, of a vertical rack bar movable with the elevator, a bed plate, a shaft made of universally connected sections mounted on the bed plate, one of the sections being fixed against other than rotative movement, the other section being mounted for rotative and lateral oscillatory movement, gearing connected with the first mentioned section and adapted to be engaged by the rack to rotate the shaft, a wheel having radial teeth throughout the greater portion of its circumference, a shaft mounted on the bed plate and supporting said wheel reversing cam members mounted on that portion of the

wheel free of teeth, a spur gear mounted on the laterally movable portion of the shaft to engage the teeth of the wheel, an extension on said gear to be engaged by the reversing members to laterally shift the shaft and gear, a



drum on which the respective cables are wound, a shaft mounted in the bed plate for supporting the drum and gearing intermediate the wheel shaft and drum shaft to operate the drum in the movement of the wheel.

1,141,875. WINDING MECHANISM FOR FORMING YARN OR THREAD PACKAGES. JAMES K. LANNING, Boston, Mass. Filed Aug. 8, 1912. Serial No. 713,985. (Cl. 118—1.)

1. A traverse motion for winding yarn on yarn receivers, comprising in combination rotatable spindles, a ring rail, a rotatable builder element, a building lever and a ring-rail-rod engaging lever both mounted to oscillate in planes lengthwise of the ring frame, said builder lever having two arms, one adapted to be acted upon by said builder element and the second arm extending upwardly toward the ring rail, a flexible element having one end fixedly connected to said ring-rail-rod engaging lever, a rotatable scroll carried by said upwardly extending arm of the builder lever and to which the other end of said flexible element is connected.

2. In a traverse motion for winding yarn on yarn receivers, a rotating yarn receiver, yarn guiding means cooperating with the receiver, a builder element, a builder arm acted on by said builder element, a flexible connection between and flexibly associated with said yarn guiding means and said builder arm, and by the movement of which by said builder element a series of traverse movements is imparted to said yarn guiding means, means active upon said flexible connection at its portion operatively associated with the builder arm to effect, through said flexible connection, an increasing shift or gain of the traverse movement along the yarn receiver throughout the formation of the base of the package, and an increasing traverse movement throughout the package, means incrementally to lift said active means and the adjacent portion of the flexible connection toward said yarn receiver in effecting said gain and traverse, and means to rotate said means active upon the flexible connection, thereby to present successive portions thereof to said flexible connection.

3. In a traverse motion for winding yarn on yarn receivers, a rotatable yarn receiver, yarn guiding means cooperating with said receiver, a builder element, a builder member acted upon by said element and having a portion extending in a direction toward said yarn receiver, a flexible connection between and operatively associated with said yarn guiding means and said builder member and by the movement of which by the builder element a series of traverse movements is imparted to said yarn guiding means, and means upon said portion of said builder member to effect through said flexible connection an increasing shift or gain of the traverse movements along the yarn receiver throughout the formation of the base of the package and an increasing traverse movement throughout the package, and including a rotary member.

4. In a traverse motion for winding yarn on yarn receivers, a rotating yarn receiver, yarn guiding means cooperating with the receiver, a builder element, a builder lever having two angularly related arms upon one of which said builder element is adapted to act, the other arm extending toward the yarn receiver, a flexible connection between and operatively associated with said yarn guiding means and with the said other arm of said builder lever and by the movement of which flexible connection by the builder element, a series of traverse movements is imparted to said yarn guiding means, means upon said second arm of the builder lever and active upon said flexible connection to effect throughout said flexible connection an increasing shift or gain of the traverse movement along the yarn receiver throughout the formation of the base of the package, and an increasing traverse movement through the package, and means to rotate said means active upon the flexible connection, thereby to present successive portions of its surface to the flexible connection.

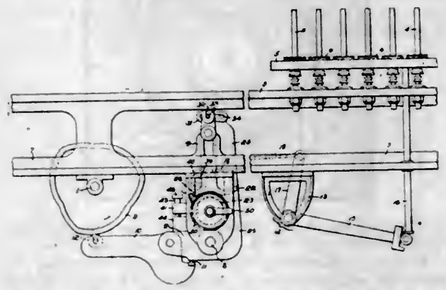
5. In a traverse motion for winding yarn on yarn receivers, a continuously rotating yarn receiver, yarn guiding means coöperating with the receiver, a builder element, a builder lever having two angularly related arms upon one of which said builder element is adapted to act, the other arm extending toward the yarn receiver, a flexible connection between and operatively associated with said yarn guiding means and with the said other arm of said builder lever and by the movement of which flexible connection by the builder element, a series of traverse movements is imparted to said yarn guiding means, means upon the second arm of said flexible connection and movable therealong toward the yarn receiver, and to which means one end of said flexible connection is attached, and means to rotate said means active upon the flexible connection and to move it along said second arm of said builder lever.

[Claims 6 to 15 not printed in the Gazette.]

1,141,876. WINDING MECHANISM FOR FORMING YARN OR THREAD PACKAGES. CHARLES D. LANNING, Boston, Mass. Filed Aug. 8, 1912. Serial No. 713,986. (Cl. 118—1.)

1. Winding mechanism for forming yarn packages comprising in combination with a constantly rotating yarn receiver, a yarn guide traversable lengthwise thereof, yarn guide holding means, an actuator lever, and coöperating connecting and governing devices on said lever and between the same and said holding means, said devices comprising a flexible element, and governing means on said lever about which the flexible element passes, means to move said governing means outward from the fulcrum of the lever, and a headed pin or bolt carried by said lever, and to which the end of the flexible element is connected and along which the flexible element may be let out.

2. In a traverse motion for winding yarn on yarn receivers, a rotating yarn receiver, yarn guiding means cooperating with said receiver, a builder element, a builder arm acted on by said element, a flexible connection attached to said yarn guiding means and operatively connected to said building arm, means active upon said flexible connection between its ends to control the traverse and the gain, and means constituting the connection between said flexible connection and said builder arm and acting to detract from the gain during the initial formation of the package.



3. In a traverse motion for winding yarn on yarn receivers, a rotating yarn receiver, yarn guiding means, cooperating with said receiver, a builder element, a building arm acted on by said element, a flexible connection attached to said yarn guiding means and operatively connected to said builder arm, means active upon said flexible connection between its ends to control the traverse and the gain, and means attached to one end of said flexible connection and constituting the operative connection of said flexible connection to said builder arm, to detract from the gain during the initial formation of the package.

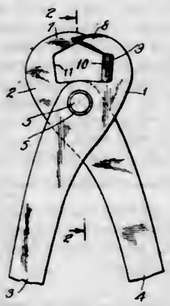
4. In a traverse motion for winding yarn on yarn receivers, a rotating yarn receiver, yarn guiding means cooperating with the receiver, a builder element, a builder member acted on by said element, a flexible element between said yarn guiding means and said member, means active upon said flexible element between its ends to control the traverse and the gain, and means to modify the gain during the initial formation of the package, wherein the portion of said flexible element operatively connected to said builder-member has limited movement only, with respect to a part of said builder member that is at a fixed distance from the ends of the latter.

5. In a traverse motion for winding yarn on yarn receivers, a rotating yarn receiver, yarn guiding means cooperating with the receiver, a builder element, a builder lever acted on by said element, a flexible element between said yarn guiding means and said lever, means active upon said flexible element between it sends to control the traverse and the gain, and means to modify the gain during the initial formation of the package, wherein said flexible element is operatively connected to the yarn guiding means and the portion thereof operatively connected to said lever having limited movement only with respect to a part of said builder lever that is at a fixed distance from the pivot of said lever.

[Claims 6 to 22 not printed in the Gazette.]

1,141,877. CHAIN-TOOL. THOMAS C. LUCE, Stratford, Conn., assignor to American Chain Company, Incorporated, Bridgeport, Conn., a Corporation of New York. Filed Mar. 25, 1915. Serial No. 16,843. (Cl. 81—15.)

1. In chain tools adapted for use in opening or closing chain tire grips and so forth, substantially flat closing jaws each having an integral handle and of substantially the same thickness throughout its entire extent, a pivot connecting said jaws and holding their coöperating faces in substantial alinement under operating conditions, said jaws having gripping sockets, one of which is offset so as to be in substantial alinement with the gripping socket of the other jaw and project considerably out of the plane of the jaw in which it is formed, lapping opening jaws extending toward each other beyond said sockets and having substantially flat meeting faces and inclined edges to form lapping points, one of said opening jaws having a narrow point of relatively great height perpendicular to said meeting faces and having gradually increasing width as it extends away from said point to form a wedging opening jaw and the coöperating opening jaw having a substantially duck bill flat point and having gradually increasing height away from said meeting faces as it extends away from its point to have an alining action upon the doubled loop portion of an attaching hook.



2. In chain tools adapted for use in opening or closing chain tire grips and so forth, substantially flat closing jaws each having a handle, a pivot connecting said jaws and holding their coöperating faces in substantial alinement under operating conditions, said jaws having gripping sockets, one of which is offset so as to be in substantial alinement with the gripping socket of the other jaw and project considerably out of the plane of the jaw in which it is formed, lapping opening jaws extending toward each other beyond said sockets to act as wedging lateral retainers therefor and having substantially flat meeting faces and inclined edges to form lapping points, one of said opening jaws having a narrow point of relatively great height perpendicular to said meeting faces and having gradually increasing width as it extends away from said point to form a wedging opening jaw and the coöperating opening jaw having a substantially flat point and having gradually increasing height away from said meeting faces as it extends away from its point to have an alining action upon the double loop portion of an attaching hook.

3. In chain tools adapted for use in opening or closing chain tire grips and so forth, substantially flat pivot portions each having an integral handle and of substantially the same thickness throughout its entire extent, a pivot connecting said pivot portions and holding their coöperating faces in substantial alinement under operating conditions, said pivot portions being formed with lapping opening jaws extending toward each other and having substantially flat meeting faces substantially in the plane of the coöperating faces of said pivot portions and inclined edges to form lapping points, one of said opening jaws having a narrow point of relatively great height perpendicular to said meeting faces and having gradually increasing width as it extends away from said point to form a wedging opening jaw and the coöperating opening jaw having a substantially duck bill flat point and having gradually increasing height away from said meeting faces as it extends away from its point to have an alining action upon the double loop portion of an attaching hook.

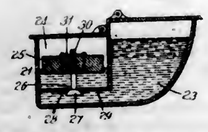
4. In chain tools adapted for use in opening or closing chain tire grips and so forth, substantially flat pivot portions each having a handle, a pivot connecting said pivot portions and holding their coöperating faces in substantial alinement under operating conditions, said pivot portions being formed with lapping opening jaws extending toward each other and having substantially flat meeting faces and inclined edges to form lapping points, one of said opening jaws having a narrow point of relatively great height perpendicular to said meeting faces and having increasing width as it extends away from said point

to form a wedging opening jaw and the coöperating opening jaw having a substantially flat point and having increasing height away from said meeting faces as it extends away from its point to have an alining action upon the double loop portion of an attaching hook.

5. In chain tools adapted for use in opening or closing chain tire grips and so forth, lapping opening jaws extending toward each other and having substantially flat meeting faces and inclined edges to form lapping points, one of said opening jaws having a narrow point of relatively great height perpendicular to said meeting faces and having gradually increasing width as it extends away from said point to form a wedging opening jaw and the cooperating opening jaw having a substantially duck bill flat point and having gradually increasing height away from said meeting faces as it extends away from its point and adapted to have an alining action upon the double loop portion of an attaching hook and operating handles connected to said jaws.

[Claim 6 not printed in the Gazette.]

1,141,878. HEEL-BURNISHING MACHINE. CARL A. MATSON, Lynn, Mass., assignor of one-half to Albert M. Hoyt, Swampscott, Mass. Filed Sept. 29, 1911. Serial No. 651,898. (Cl. 51—17.)



1. In a burnishing machine for boots and shoes, a wax pot embodying in its construction a wax reservoir also having a wax supply chamber and a float chamber, said float chamber being intermediate said reservoir and supply chamber and connecting said chambers, said wax pot having a recess formed in the bottom thereof, the walls of said recess forming a portion of the walls of each of said wax chambers and said reservoir; in combination with a single means to heat the walls of said recess whereby the wax in said chambers and said reservoir is retained in a liquid state, a float within said float chamber adapted to control the flow of wax therethrough, a burnishing wheel, and means to remove the superfluous wax from the periphery of said burnishing wheel.

2. A burnishing machine for boots and shoes having, in combination, a burnishing wheel, a shield inclosing a portion of the periphery of said wheel and formed in two parts, the lower of said parts adapted to be moved toward and from the axis of said burnishing wheel, and the upper of said parts movable relative to said lower part, whereby said parts may be separated to allow the removal of said burnishing wheel, a wax pot supported by the lower part of said shield, and an idler roll yieldingly mounted to rotate in the upper part of said shield and engaging the periphery of said burnishing wheel.

3. A burnishing machine for boots and shoes having, in combination, a burnishing wheel, a shield inclosing a portion of the periphery thereof and formed in two parts, one of said parts adapted to be moved toward and from the axis of said wheel, the other of said parts being pivoted to rock upon said first-named part, means to lock said parts against relative movement, a wax pot integral with said first-named part, and means mounted on said second-named part to engage the periphery of said wheel to remove the superfluous wax therefrom.

1,141,879. DESICCATING PROCESS. IRVING S. MERRELL and OLIVER E. MERRELL, Syracuse, N. Y., assignors to Merrell-Soule Company, Syracuse, N. Y., a Corporation of New York. Original application filed Apr. 4, 1910, Serial No. 553,444. Divided and this application filed Dec. 11, 1914. Serial No. 876,634. (Cl. 99—5.)

1. The process of desiccating liquids containing organic elements, which consists in creating a whirling current of air within a desiccating chamber, creating a whirling spray of the liquid to be desiccated and bringing such air and spray into contact so that the liquid constituents are vaporized.



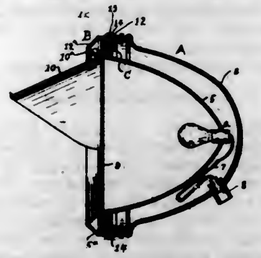
2. The process of desiccating liquids containing organic elements, which consists in creating a whirling current of air within a desiccating chamber, forcibly injecting the liquid into said chamber in the form of a finely divided whirling mist.

3. The process of desiccating liquids containing organic elements, which consists in creating a whirling current of air within a desiccating chamber, forcibly injecting within such whirling air the liquid in the form of a finely divided whirling mist.

4. The process of desiccating liquids containing organic elements which consists in creating a whirling current of air within a desiccating chamber, subjecting the liquid to a high pressure, imparting to the liquid under pressure a whirling motion, forcing the whirling liquid by such pressure through a minute orifice whereby it is ejected in the form of a finely divided mist into the said whirling current of air and thereby held in suspension during a period necessary to practically completely vaporize the liquid constituents.

5. The process of desiccating liquids containing organic elements which consists in creating a whirling current of air within a desiccating chamber, said current traveling in a pathway of gradually increasing diameter from the place of projection into the chamber, subjecting the liquid to a high pressure, imparting to the liquid under pressure a whirling motion, forcing the whirling liquid by such pressure through a minute orifice whereby it is ejected in the form of a finely divided mist into the said whirling current of air and thereby held in suspension during a period necessary to practically completely vaporize the liquid constituents.

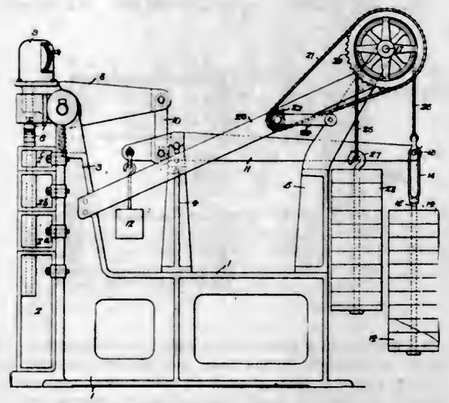
1,141,880. LAMP. JOHN F. MITCHELL, Santa Monica, Cal., assignor to Ethel P. Young, Los Angeles, Cal. Filed Dec. 29, 1914. Serial No. 879,469. (Cl. 240—48.4.)



A lamp having a body within which are disposed a source of illumination and a main reflector, a swinging member hinged upon said body, and a supplemental reflector carried by the swinging member; said swinging member comprising an annulus provided with a flange, said supplemental reflector being provided with a flange adapted to be engaged with said flange in said annulus, there

being a transparent plate applied to the flange of said supplemental reflector and means being provided for cooperation with the annulus to hold the transparent plate to the flange upon the supplemental reflector and said flange to the flange upon the annulus.

1,141,881. MACHINE FOR TESTING HARDNESS. TINIUS OLSEN, Philadelphia, Pa., assignor to Tinius Olsen Testing Machine Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Aug. 20, 1909. Serial No. 513,855. (Cl. 73—51.)



1. A testing machine including means for applying a load to a piece under test, the same consisting of a lever, a weight capable of operating on said lever to apply a load, and means for applying the weight to the lever or removing it therefrom consisting of a pulley, a flexible connection between said pulley and said weight, and a counter weight acting through said connection to raise the weight.

2. A testing machine including means for applying a load to a piece under test consisting of a lever; a member shaped to be capable of acting on said lever; an actuating weight and a counter weight operative on said member; and means operative at will for adjusting the member to cause the actuating weight to be applied to the lever.

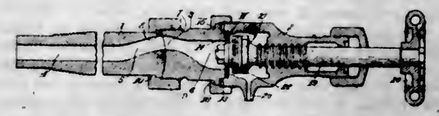
3. A testing machine including means for applying a load to a piece to be tested, the same consisting of a lever, a shaft carried by the frame of the machine, two pulleys thereon, a weight hung from one pulley and capable of operating on the lever to actuate the machine, a second weight hung from the other pulley in position to counterbalance the first weight, and means for turning the shaft.

4. A testing machine including means for applying a load to a body under test, the same consisting of a lever having a knife edge, a slotted yoke having bearings capable of coöperating with said knife edge, a weight hung from said yoke, a shaft, two pulleys thereon, a cable wound on one pulley and connected to said yoke, a second cable wound in the opposite direction on the other pulley, a counterbalance weight attached to said second cable, a sprocket wheel on the shaft, a second sprocket wheel mounted on the frame of the machine, a chain connecting said sprocket wheels, and a handle for operating the second sprocket wheel.

5. The combination in a testing machine, of means for supporting a body under test, a member having a hard portion capable of engaging such body, means for applying a load to said member, a longitudinally movable bar, capable of engaging the body under test, a spindle having a roller engaged by said longitudinally movable bar, an indicating arm connected to the spindle, and a scale place to coöperate with said arm.

[Claim 6 not printed in the Gazette.]

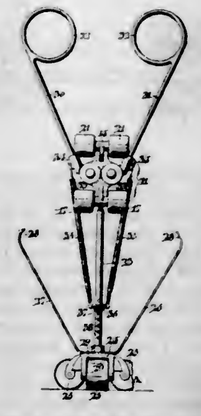
1,141,882. VALVE. EDWARD O'MALLEY, Chicago, Ill., assignor to O'Malley-Beare Valve Company, Chicago, Ill., a Corporation of Delaware. Filed Sept. 12, 1911. Serial No. 648,975. (Cl. 137—4.)



1. In a gage cock, a valve cap carrying a valve stem, valve head and a discharge nozzle, a seat base, a boiler engaging portion and means for rotatably connecting the seat base to the boiler engaging portion, the seat base and boiler engaging portion having a central passage gradually diverging from the center line having the crown of the divergence at the connection, with the passage at the crown entirely without the center line and the passageway from the crown increasing in diameter to the outer end of the seat base.

2. In a gage cock, a valve cap provided with a valve stem, valve head, discharge nozzle, and an internal annular flange upon the walls thereof, a seat base, a removable seat plate thereon, means engaging the seat base and cap for adjustably securing the seat base to hold a plurality of seat plates against the annular flange, said means provided with a stop terminating the inward movement of the seat base a sufficient distance from the flange to allow a single seat plate to be rotatably mounted therebetween, a boiler engaging member rotatably engaging the seat base and a shut off formed at their jointure by the rotation of the seat base thereon.

1,141,883. FABRIC-TUBE-OPENING DEVICE. BERTRAND A. PARKES, Barren Hill, Pa., assignor to The Philadelphia Drying Machinery Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed July 8, 1913. Serial No. 777,822. (Cl. 26—16.)



1. A drying apparatus including feed rollers to which a tube to be dried is fed upwardly in a vertical direction, a tube opening and untwisting device adapted to engage and separate the inner walls of the tube, said device having a central head, entering rolls carried by said central head for engaging and initially opening the tube, and means independent of the tube for supporting said opening device in said tube and for preventing the same from traveling with the tube.

2. A drying apparatus including feed rollers to which a tube to be dried is fed upwardly in a vertical direction, a tube opening and untwisting device adapted to engage and separate the inner walls of the tube, said device having a central head, spaced rolls carried thereby, entering rollers carried by said central head for engaging and

initially opening the tube, and rollers for engaging the outer face of the tube between the rolls on the central head for supporting the opening device and preventing the same from traveling with the tube.
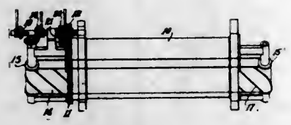
3. A drying apparatus including feed rollers, to which a tube to be dried is fed upwardly in a vertical direction, a tube opening and untwisting device adapted to engage and separate the inner walls of the tube, said device having a central head, spaced rolls carried thereby, entering rolls carried by said central head for initially opening the tube, and yielding arms adjacent said entering rolls for spreading the tube and rollers for engaging the outer face of the tube between the rolls on the central head for supporting the opening device and preventing the same from traveling with the tube.

4. A fabric tube opening device comprising a supporting head, a depending rod carried thereby, opening rolls supported at the lower end of the rod for engaging and initially opening the tube, yielding arms mounted at the lower end of the rod and extending upwardly therefrom for engaging and separating the walls of the tube, and means carried by the central head, whereby said opening device may be supported by members outside of the tube and held from movement with the tube.

5. A fabric tube opening device comprising a supporting head, a rod depending from said head, opening rolls carried at the lower end of said rod for engaging and initially opening the tube, arms mounted adjacent the lower end of the rod and extending upwardly therefrom for engaging and separating the walls of the tube, and arms connected with the central head and projecting upwardly therefrom for further separating the tube and holding the same flat, and springs for normally forcing said last named arms outwardly against the walls of the tube.

[Claims 6 and 7 not printed in the Gazette.]

1,141,884. FORMING-MACHINE. GUNTHER H. PETRI, Boston, Mass. Filed Aug. 10, 1909. Serial No. 512,141. (Cl. 107—9.)



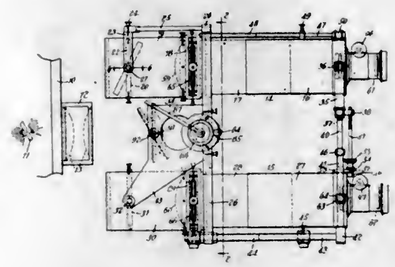
1. A forming machine for plastic masses comprising a rotating hollow drum and a continuous surfaced conveyer passing therethrough adjacent to the drum-wall, said conveyer being set at an incline transversely downward to its edge, said edge being adjacent to the drum wall, and means to move the conveyer endwise through the drum.

2. A forming machine for plastic masses comprising a rotating hollow drum and a continuous surfaced conveyer passing therethrough adjacent to the drum-wall, said conveyer being set at an incline transversely downward to the drum-wall; means to move the conveyer endwise through the drum; and means to vary the relative directions of movements of the conveyer and the drum.

3. A forming machine for plastic masses comprising two continuously moving elements having surfaces arranged in V-shaped relation to each other, one of said surfaces moving horizontally and being exposed vertically and adapted to underlie and carry a mass upon itself through the apparatus; and the other moving continuously in a vertical direction, being adjacent to the course of said horizontal motion and adapted to act upon the mass thereon; the horizontally moving element having its said carrying surface inclined transversely downward toward the vertically moving surface, to form said V-shape, whereby gravity maintains said mass on the horizontally moving surface and in contact with the vertically moving surface, and the latter surface maintains the mass above the horizontally moving surface.

4. A forming machine for plastic masses comprising a rotating hollow drum and an endless belt and means to guide the belt through the drum in both longitudinal directions thereof, the oppositely moving portions of the belt being arranged and adapted with respect to the drum interior wall whereby each of said portions of the belt may engage a plastic mass between itself and the portion of drum-wall adjacent to itself.

1,141,885. PROJECTING APPARATUS. GEORGE L. W. PALMER, Cambridge, Mass., assignor to Greene M-F-G. Co., Boston, Mass., a Corporation of Massachusetts. Filed Nov. 7, 1913. Serial No. 799,797. (Cl. 88—26.)



1. A projecting apparatus having, in combination, two tubes, a reflector in the rear end of each of said projecting tubes, a lens in each of said tubes, respectively, located in front of said reflectors and a mirror movable as one part located out of alinement with said tubes and adapted to deflect rays of light projected thereon against said reflectors.

2. A projecting apparatus having, in combination, two projector tubes, a reflector in the rear end of each of said tubes, a lens in each of said tubes respectively located in front of said reflectors and a deflector located out of alinement with said tubes and adapted to deflect rays of light projected thereon against said reflectors and means arranged to guide said deflector so that the same may be moved transversely of said rays of light and toward and away from each of said tubes, respectively, whereby said rays of light may all gradually be deflected to one of said reflectors.

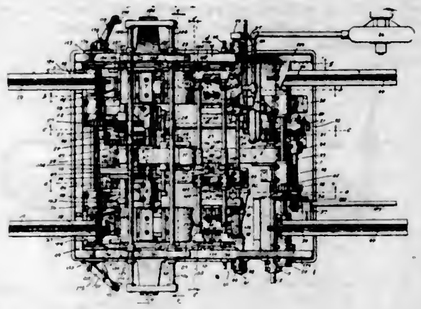
3. A projecting apparatus having, in combination, two projector tubes, a reflector in the rear end of each of said tubes, a lens in each of said tubes, respectively, located in front of said reflectors, a deflector located out of alinement with said tubes and adapted to deflect rays of light projected thereon against said reflectors and means adapted to move said deflector transversely of said rays of light and toward and away from each of said tubes, respectively, whereby said rays may all gradually be deflected to one of said reflectors.

4. A projecting apparatus having, in combination, two projector tubes, a mirror located in the rear end of each of said projector tubes, a deflector adapted to simultaneously deflect rays of light into said tubes and movable as one part transversely of said rays of light and toward and away from each of said tubes, respectively, and means adapted to guide said deflector whereby the same may be moved transversely of said rays of light toward and away from said tubes, respectively, and whereby said rays may all gradually be deflected into one of said tubes.

5. A projecting apparatus having, in combination, two projecting tubes, a mirror located in the rear end of each of said projector tubes, a deflector adapted to simultaneously deflect rays of light into said tubes and means adapted to move said deflector transversely of said rays of light and toward and away from each of said tubes, respectively, whereby said rays may all be gradually deflected into one of said tubes.

[Claims 6 to 25 not printed in the Gazette.]

1,141,886. MACHINE FOR ADZING AND BORING TIES. GEORGE C. PURDY and DANIEL W. EDWARDS, Rockford, Ill., assignors to Greenlee Bros. & Company, Rockford, Ill., a Corporation of Illinois. Filed Mar. 24, 1911. Serial No. 616,711. (Cl. 144—3.)



1. A tie adzing and boring machine comprising adzing mechanism and boring mechanism, in combination with a feeding device reciprocable past the adzing mechanism for carrying a tie past the adzing mechanism, and feeding and holding devices for positioning the adzed tie to be operated upon by the boring mechanism, said last mentioned devices being operatively connected with the first mentioned device in such manner that said last mentioned devices feed a tie to boring position and clamp said tie in said boring position during the boring operation, while simultaneously the first mentioned device feeds the next succeeding tie through the zone of operation of the adzing mechanism.

2. An adzing and boring machine comprising a tie support, a rotary cutting tool, a reciprocable boring tool, means for centering and holding the work in position to be bored, and means for operating said elements and for feeding ties along said support past said tools, so that work is fed past the rotary cutting tool while simultaneously work is centered and held and operated upon by the boring tool, the approach of work to the respective tools occurring in alternate sequence.

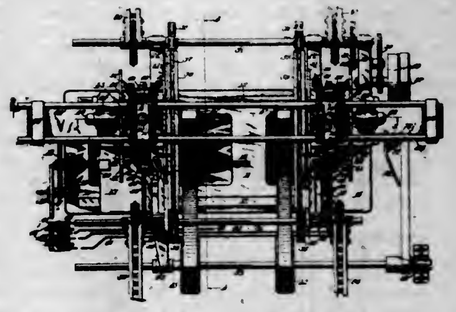
3. An adzing and boring machine comprising adzing mechanism, boring mechanism, and means for feeding ties in succession past said mechanisms and holding one tie stationary in boring position while a succeeding tie is passing the adzing mechanism, said means including a pair of reciprocatory dogs adapted to respectively feed the ties to the adzing mechanism and then to the boring mechanism, the operations of said dogs being so timed that they reciprocate in alternate sequence.

4. In a machine of the character set forth, the combination with a reciprocatory boring tool, of a cutting tool associated therewith, means for moving the boring tool to bore a hole in an article, a reciprocatory dog movable to positions on opposite sides of the cutting tool for moving an article past the cutting tool, a drive shaft, and rotary means operated by the drive shaft and connected to the tool moving means and to the dog for simultaneously reciprocating the same.

5. In a machine of the character set forth, the combination with a support having a track thereon, of a rotary cutting tool mounted on the support, a reciprocatory boring tool mounted on the support, a pair of carriers slidably mounted on the track, movable dogs mounted on the carriers, one of said dogs being movable to positions on opposite sides of the cutting tool engaging an article to move the article past the cutting tool, the other constituting means for moving the article from the cutting tool to the boring tool, and operating means connected to the carriers for simultaneously moving the same in opposite directions.

[Claims 6 to 9 not printed in the Gazette.]

1,141,887. TIE-GAINING MACHINE. GEORGE C. PURDY and DANIEL W. EDWARDS, Rockford, Ill., assignors to Greenlee Bros. & Company, Rockford, Ill., a Corporation of Illinois. Filed Apr. 1, 1913. Serial No. 758,172. (Cl. 144—133.)



1. A gaining machine comprising a gaining cutter, a rectangular frame surrounding the cutter, the ends of said frame being parallel with the axis of the cutter and being pivotally supported, the side members forming carrying rails along which an article moves to be gained, and means for adjusting the position of the pivotal support of the frame relative to the cutter in order to vary the depth to which the article is to be gained.

2. In a machine of the character set forth, a gaining cutter, a platform along which an article moves to the gaining cutter to be gained thereby, said platform being in a set relation to said cutter for obtaining a predetermined depth of gaining, and being movable to vary said depth of gain, according to the angle of the article face relative to the cutting face of the gaining cutter, and means for adjusting the platform relatively to the cutter to vary said predetermined depth of gain without affecting its movement by the article to be gained.

3. In a gaining machine, the combination of gaining cutters and means for carrying an article to the gaining cutters, of movable supports adapted to carry an article when it is being gained, the supports being adapted to conform to the angle of an irregular face of the article to be gained and to adjust the article in relation to the cutters so that said cutters will gain throughout the length of their cutting faces, means for indicating the angling of said supports, and means for moving each support for varying the depth of gain by independent operation of each of the operable means.

4. In a tie gaining machine, the combination of a gaining cutter mechanism for feeding ties in succession past said cutter and means positioned adjacent to said cutter for supporting the stock at each end of the cutter during the cutting operation, said means being movable by irregularities in the surface of the stock during the travel of the stock thereover to cause a cut which will compensate for such irregularities to be produced.

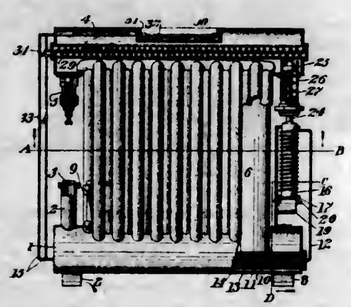
5. In a tie gaining machine, the combination of a gaining cutter mounted in stationary bearings, mechanism for feeding ties sidewise past said cutter and means disposed adjacent the ends of said cutter for supporting the stock at each end of the cutter during the cutting operation, said means being adapted to conform to irregularities in the surface of the stock traveling thereover, so that the differences in the stock at the ends of the cutter will be compensated for in the cut produced.

[Claims 6 to 16 not printed in the Gazette.]

1,141,888. PORTABLE ELECTRICALLY-HEATED RADIATOR. CONRAD SCHMIDT, Spokane, Wash. Filed May 12, 1913. Serial No. 767,061. (Cl. 219—34.)

1. The combination with a portable tubular radiator, having a boiler and a steam drum or dome, a series of circulation and radiation tubes connecting said boiler

and steam drum or dome, an electric heater in said boiler, and a source of electric supply for said heater, of a rheostat connected in circuit between said heater and the source of supply and including a movable contact piece, and means connected to said movable contact piece and exposed to and operable by variations of pressure in said steam drum or dome to move said contact piece over said rheostat to gradually cut in or out more or less of the resistance of said rheostat and thereby vary the current supplied to said electric heater to automatically regulate the heating capacity of the radiator in accordance with the temperature desired.



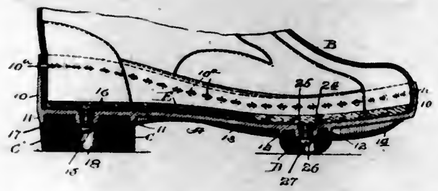
2. The combination with a portable radiator, having a boiler and a steam drum or dome, a series of circulation and radiation tubes connecting said boiler and steam drum or dome, electric heating elements arranged in said boiler, and a source of electric supply for said heating elements, of a pair of rheostats having their resistance coils connected in circuit with said heating elements, a movable contact yoke connected with the source of supply and engaging the coils of said rheostats, a spring supported piston to which said contact yoke is connected, and a cylinder for said piston opening into said steam drum or dome and exposing said piston to the pressure therein, whereby said piston is caused to move said contact piece over said rheostats to gradually cut in or out more or less of the resistance coils thereof to vary the amount of current supplied to said heating elements and thereby automatically regulating the heating capacity of said radiator in accordance with the temperature desired.

3. In a radiator of the type described, a boiler, an electric heating element arranged in said boiler for heating water therein, a steam drum or dome communicating with said boiler, an electric heating element arranged in said steam drum or dome for superheating the steam generated therein by said boiler and connected in series with the boiler heating element, an electric cooking element arranged in the upper part of said steam drum or dome and connected in series with said heating elements, and switches interposed between said boiler heating element and said superheating and cooking elements for cutting in or out of circuit either or both said superheating and cooking elements.

4. In a radiator of the type described, a boiler, a steam drum or dome communicating with said boiler, an electric heating element arranged in said boiler for heating the water therein and generating steam in said steam drum or dome, an electric cooking element arranged in the upper part of said steam drum or dome and connected in series with said boiler heating element, and a switch interposed between said boiler heating element and said cooking element for cutting in or out the circuit to said cooking element.

1,141,889. BOOT, SHOE, AND THE LIKE. SOFUS TROLLE, Racine, Wis., assignor to Racine Aluminum Shoe Company, Racine, Wis. Filed Dec. 23, 1914. Serial No. 878,811. (Cl. 36—36.)

1. An article of foot wear having a bottom provided with an inflexible section, a ground engaging member having an opening which extends through it and a part which extends across the opening, the inflexible section having a boss which extends into said opening and also having an opening which extends through the boss and is open at the inner surface of the bottom, a bushing removably mounted in the opening in the boss and held therein against displacement, the said bushing being hollow, and a fastening element extending through the part of the ground engaging member which extends across the opening in the latter, the said fastening element also extending into the bushing and being secured to the latter.



2. An article of foot wear having a bottom provided with an inflexible section, a ground engaging member having an opening which extends through it and a part which extends across the opening, the inflexible section having a hollow boss which is downwardly tapered internally and extends into said opening and also having an opening which extends through the boss and is open at the inner surface of the bottom, a hollow, externally tapered internally threaded bushing removably mounted in the opening in the boss and a fastening screw which extends through the part extending across the opening in the ground engaging member and also engages the bushing.

3. An article of foot wear having an inflexible section provided with a recess having spaced projections, a relatively soft ground engaging member whose upper end is seated in the recess, said member having embedded therein a metallic reinforcing element with projections to engage the projections in the recess of the bottom, and means engaging the metallic reinforcing element for detachably securing the ground engaging member to the inflexible section.

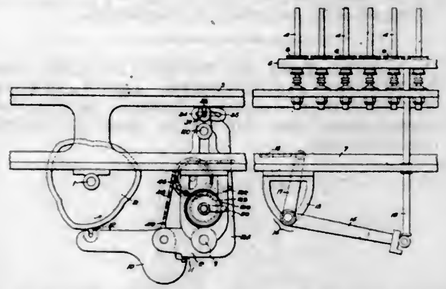
4. An article of foot wear having an inflexible section provided with a recess having a set of spaced projections, a relatively soft ground engaging member whose upper end is seated in the recess, said member having embedded therein a metallic reinforcing element with a set of projections to engage the projections in the recess of the inflexible section, one set of said projections being hollow and receiving the other set, and means engaging the metallic reinforcing element for detachably securing the ground engaging member to the inflexible section.

5. An article of foot wear comprising an inflexible section having a recess and formed within the boundaries of the recess with a hollow boss and studs, a relatively soft ground engaging member formed with an opening to receive said boss and having a metallic reinforcing element provided with hollow projections to receive the studs, and means having connection with the reinforcing element and boss for securing the ground engaging member detachably to the inflexible section.

[Claims 6 to 10 not printed in the Gazette.]

1,141,890. WINDING MECHANISM. CHARLES B. WEBSTER, Fall River, Mass., assignor to James K. Lanning, Boston, Mass. Filed May 28, 1913. Serial No. 770,425. (Cl. 118—1.)

1. Winding mechanism for forming packages comprising in combination with a rotating yarn receiver and a yarn guide traversable lengthwise thereof, a traverse and gain controlling mechanism for the guide; said mechanism embodying an actuator lever having a to and fro stroke, yarn guide holding means and coöperating connecting and governing devices on said lever and between the same and said holding means; said devices comprising a flexible element adapted to move to and fro with said lever, and governing means on said lever active on said flexible element and to which the latter is connected, to move the point of engagement thereof with said flexible element gradually and incrementally outward from the fulcrum of said lever, thereby gradually to increase the traverse, said governing means including a rotatable member, means to move the same, and a second flexible element operatively connected to said member and also to the actuator lever; the said connecting and governing devices further comprising a second oscillatory pivoted member positively connected to said first flexible element and having coöperative relation with said yarn guide holding means.



2. Winding mechanism for forming packages comprising in combination with a rotating yarn receiver and a yarn guide traversable lengthwise thereof, a traverse and gain controlling mechanism for the guide; said mechanism embodying an actuator lever having a to and fro stroke, yarn guide holding means, and coöperating connecting and governing devices on said lever and between the same and said holding means; said devices comprising a flexible element adapted to move to and fro with said lever, and governing means on said lever active on said flexible element and to which the latter is connected, to move the point of engagement thereof with said flexible element gradually and incrementally outward from the fulcrum of said lever, thereby gradually to increase the traverse, said governing means including a rotatable member, means to move the same outward from the axis of the actuator lever; and a second flexible element operatively connected to the said rotatable member and also to the actuator lever; the said connecting and governing devices further comprising a second oscillatory pivoted member positively connected to said first flexible element and having coöperative relation with said yarn guide holding means.

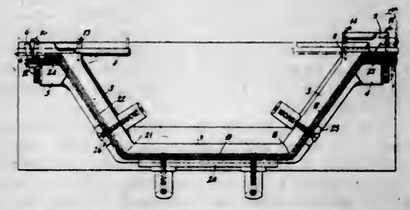
3. Winding mechanism for forming packages comprising in combination with a rotating yarn receiver and a yarn guide traversable lengthwise thereof, a traverse and gain controlling mechanism for the guide; said mechanism embodying an actuator lever having a to and fro stroke, yarn guide holding means and coöperating connecting and governing devices on said lever and between the same and said holding means; said devices comprising a flexible element adapted to move to and fro with said lever, and governing means on said lever active on said flexible element and to which the latter is connected, to move the point of engagement thereof with said flexible element gradually and incrementally outward from the fulcrum of said lever, thereby gradually to increase the traverse, said governing means including a rotatable sheave, means to move the same outward from the fulcrum of the lever, a second flexible element operatively connected to said sheave and also to said actuator lever, the said connecting and governing devices further comprising a second oscillatory, pivoted member positively connected to said first mentioned flexible element and having coöperative relation with said yarn guide holding means.

4. Winding mechanism for forming packages comprising in combination with a rotating yarn receiver and a yarn guide traversable lengthwise thereof, a traverse and gain controlling mechanism for the guide; said mechanism embodying an actuating lever having a to and fro stroke, yarn guide holding means and coöperating connecting and governing devices on said lever and between the same and said holding means; said devices comprising a flexible element adapted to move to and fro with said lever, and governing means on said lever active on said flexible element to move the point of engagement thereof with said flexible element gradually and incrementally outward from the fulcrum of said lever, thereby gradually to increase the traverse, said governing means including a nut having a rotatable sheave, means to move said nut outwardly from the fulcrum of the lever; a second flexible element operatively connected to said sheave and to said actuator lever, said connecting and governing devices further comprising a second, oscillatory, pivoted member positively connected to said first mentioned flexible element and having coöperative relation with said yarn guide holding means.

5. Winding mechanism for forming packages comprising in combination with a rotating yarn receiver and a yarn guide traversable lengthwise thereof, a traverse and gain controlling mechanism for the guide; said mechanism embodying an actuator lever having a to and fro stroke, yarn guide holding means and coöperating connecting and governing devices on said lever and between the same and said holding means; said devices comprising a flexible element adapted to move to and fro with said lever, and governing means on said lever active on said flexible element, to move the point of engagement thereof with said flexible element gradually and incrementally outward from the fulcrum of said lever, thereby gradually to increase the traverse, said governing means including a nut having a sheave, a screw to move said nut outward from the fulcrum of the lever, and a second flexible element operatively connected to said sheave and to said actuator lever, the said connecting and governing devices further comprising a member positively connected to said first flexible element and having coöperative relation with said yarn guide holding means.

[Claims 6 to 24 not printed in the Gazette.]

1,141,891. COIL-FORMER FOR ARMATURES. JOHN A. WIRTH, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Original application filed Jan. 26, 1910, Serial No. 540,210. Divided and this application filed July 17, 1912. Serial No. 710,029. (Cl. 153—10.)



1. A coil former comprising a base having a curved surface, one principal tool projecting upwardly therefrom, clamps for holding the conductors in engagement with the surface of the tool during the coil-forming operation, and a plurality of pivotally mounted spacing fingers for determining the formation of the terminals of the conductors and their relations to each other.

2. A coil former comprising a base having a curved surface, a principal tool thereon, a clamp for holding the conductors during the coil-forming operation in engagement with one surface of the tool, a removable templet for determining the relative longitudinal positions of the several conductors, and a plurality of pivotally attached spacing fingers for forming the terminals of the conductors.

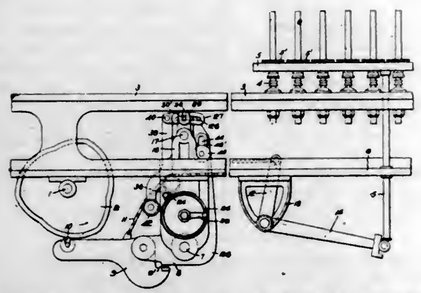
3. A coil former comprising a base having a cylindrically curved surface, a principal tool thereon, means for holding the conductors in engagement with one surface of the tool, a removable forming tool, spacing mem-

bers for forming the terminals of the conductors, and a pivoted guide block for holding the conductor terminals in engagement with said forming tool.

4. A coil former comprising a base having a cylindrically curved surface, a principal tool thereon, a means for holding the conductors in engagement with one surface of the principal tool, a removable templet for determining the relative longitudinal position of the several conductors, a removable forming tool for forming the terminals of the conductors, and pivotally mounted fingers for spacing the said terminals from one another.

5. A coil former comprising a base having a curved surface, a principal tool thereon, a means for holding the conductors in engagement with one surface of the principal tool, a removable templet for determining the relative longitudinal position of the several conductors, a removable forming tool attached to the base and projecting upwardly therefrom, pivotally mounted fingers for spacing the conductor terminals from one another, and a guide block for holding the conductor terminals in engagement with the forming tool and the spacing fingers.

1,141,892. WINDING MECHANISM. JOHN V. CUNNIFF, Fall River, Mass., assignor to James K. Lanning, Boston, Mass. Filed Mar. 20, 1912. Serial No. 685,030. (Cl. 118—1.)



1. In a traverse motion for winding yarn on yarn receivers, a rotating yarn receiver, yarn guiding means cooperating with the receiver, a builder element, a builder member acted on by said element, a flexible member having a fixed point of connection with said member and operatively associated with said yarn guiding means, and governing means carried by said member and active upon said flexible member between its ends to effect through said member an increasing shift or gain of the traverse movement along the yarn receiver and an increasing traverse movement.

2. In a traverse motion for winding yarn on yarn receivers, a rotating yarn receiver, a ring rail, ring rail lifting means, a builder element, a builder arm acted on by said element, a flexible connection attached to said ring rail lifting means and connected to said arm at a fixed distance from the end of the latter, and governing means mounted upon said builder arm and active upon said flexible connection between its ends to effect through said connection an increasing shift or gain of the traverse movement along the yarn receiver and an increasing traverse movement.

3. In a traverse motion for winding yarn on yarn receivers, a rotating yarn receiver, a ring rail, ring rail lifting means, a builder element, a builder arm acted on by said element, a flexible connection attached to said ring rail lifting means and connected to said arm at a fixed distance from the end of the latter, and means mounted upon said builder arm and active upon said flexible connection to shorten the effective length of said connection.

4. In a traverse motion for winding yarn on yarn receivers, a rotating yarn receiver, a ring rail, ring rail lifting means, a builder element, a builder arm acted on by said element, a flexible connection attached to said ring rail lifting means and connected to said arm at a fixed distance from the end of the latter, and governing means mounted upon said builder arm and active upon said flexible connection between its ends to form a bight therein of progressively increasing acuteness.

5. A traverse motion for winding yarn on yarn receivers comprising, in combination, rotatable spindles, a ring rail, ring rail lifting means, a rotatable builder-element, an oscillatory builder arm adapted to be acted on by the latter, a nut carried by said arm and movable outwardly in substantially the plane of oscillation of said arm, a flexible connection adapted to be acted upon by said nut between its ends and secured to said ring rail lifting means and fixedly connected to said builder arm, and means to impart outward travel to said nut.

[Claims 6 to 20 not printed in the Gazette.]

1,141,893. YARN OR THREAD PACKAGE AND METHOD OF WINDING SAME. JOHN V. CUNNIFF, Fall River, Mass., assignor to James K. Lanning, Dorchester, Mass. Filed May 3, 1912. Serial No. 694,938. (Cl. 242—160.)



1. A yarn or thread package characterized by a receiver, and a plurality of nested layers, each consisting of a plurality of coils, the basal layers of the package being of minimum length, the subsequent layers being progressively shifted along the receiver by amounts which progressively increase throughout the base of the package, the layers of said package being of uniformly increasing length throughout the package, the amount of yarn or thread coiled at the tip end of the respective layers successively diminishing from the basal end to the tip of the package.

2. A yarn or thread package characterized by a receiver and a yarn mass wound thereon having tapering ends and a cylindrical body, said yarn mass consisting of a plurality of nested layers each consisting of a plurality of coils, the basal layers of the package being of minimum length, the subsequent layers being progressively shifted along the receiver by amounts which progressively increase throughout the base of the package, the layers of said package being of uniformly increasing length throughout the package, the amount of yarn or thread coiled at the tip end of the respective layers successively diminishing from the basal end to the tip of the package.

3. A yarn or thread package characterized by a receiver and a plurality of nested layers, each consisting of a plurality of coils, the basal layers of the package being of minimum length, the subsequent layers being progressively shifted along the receiver by amounts which progressively increase throughout the base of the package, the lowermost coil of each layer being laid above the lowermost coil of the immediately preceding layer, the layers of said package being of uniformly increasing length throughout the package, the amount of yarn or thread coiled at the tip end of the respective layers successively diminishing from the basal end to the tip of the package.

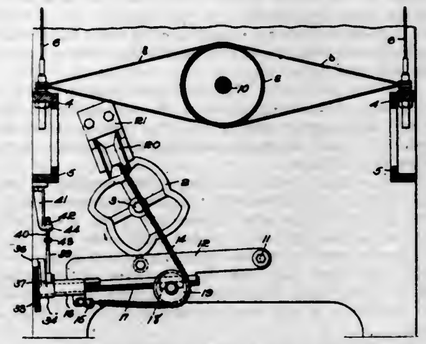
4. A yarn or thread package characterized by a receiver

and a plurality of nested layers, each consisting of a plurality of coils, the basal layers of the package being of minimum length, the subsequent layers being progressively shifted along the receiver by amounts which progressively increase throughout the base of the package, and which substantially uniformly increase throughout the remainder of the package, the layers of said package being of uniformly increasing length throughout the package, the amount of yarn or thread coiled at the tip end of the respective layers successively diminishing from the basal end to the tip of the package.

5. A yarn or thread package characterized by a receiver and a yarn mass wound thereon having tapering ends, and a cylindrical body, said yarn mass consisting of a plurality of nested layers each consisting of a plurality of coils, the basal layers of the package being of minimum length, the subsequent layers being progressively shifted along the receiver by amounts which progressively increase throughout the base of the package, and which substantially uniformly increase throughout the remainder of the package, the layers of said package being of uniformly increasing length throughout the package, the amount of yarn or thread coiled at the tip end of the respective layers successively diminishing from the basal end to the tip of the package.

[Claims 6 to 13 not printed in the Gazette.]

1,141,894. WINDING MECHANISM FOR FORMING YARN OR THREAD PACKAGES. JOHN V. CUNNIFF, Fall River, Mass., assignor to James K. Lanning, Dorchester, Mass. Filed July 1, 1912. Serial No. 706,910. (Cl. 118—1.)



1. Winding mechanism for forming yarn packages comprising in combination, a rotating yarn receiver and a yarn guide traversable lengthwise thereof, a traverse and gain controlling mechanism for the guide, said mechanism embodying an actuator lever having a to and fro stroke, yarn guide holding means, and coöperating connecting and governing devices on said lever and between the same and said means, said devices comprising a flexible element operatively connected at one end portion to the yarn guide holding means and having its other end portion attached to said lever at a fixed distance from the pivot thereof, means on said lever forming a bight in the flexible element, and means to move said bight forming means incrementally toward the point of attachment of the flexible element to said lever during the building operation.

2. Winding mechanism for forming yarn packages comprising in combination, a rotating yarn receiver and a yarn guide traversable lengthwise thereof, a traverse and gain controlling mechanism for the guide, said mechanism embodying an actuator lever having a to and fro stroke, yarn guide holding means, and coöperating connecting and governing devices on said lever and between the same and said means, the said devices comprising a flexible element connected at one end portion to the yarn guide holding means and connected at its other end portion to said lever, means on said lever forming a bight in the flexible element, and means to move said bight forming means during the building operation toward the open part of the bight.

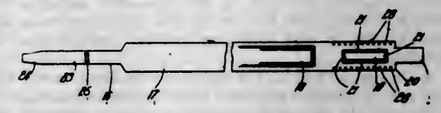
3. Winding mechanism for forming yarn packages comprising in combination, a constantly rotating yarn receiver and a yarn guide traversable lengthwise thereof, a traverse and gain controlling mechanism for the guide, said mechanism embodying an actuator lever having a to and fro stroke, yarn guide holding means, and coöperating connecting and governing devices on said lever and between the same and said means, the said devices comprising a flexible element operatively connected at one end portion to said yarn guide holding means and attached at its other end portion to said lever, means on the lever forming a bight in the flexible element, and means to move the bight forming means by uniform increments during the building operation in a direction to effect a let-off of said flexible element from said actuator lever.

4. Winding mechanism for forming yarn packages comprising in combination, a constantly rotating yarn receiver and a yarn guide traversable lengthwise thereof, a traverse and gain controlling mechanism for the guide, said mechanism embodying an actuator lever having a to and fro stroke, yarn guide holding means, and coöperating connection and governing devices on said lever and between the same and said means, the said devices comprising a flexible element operatively connected at one end portion to said yarn guide holding means and fixedly connected at its other end portion to said lever at a fixed distance from the pivot thereof, means on said lever forming a bight in the flexible element, and means to move said bight forming means during the building operation by increments toward the open part of the bight.

5. Winding mechanism for forming yarn packages comprising in combination with a constantly rotating yarn receiver and a yarn guide traversable lengthwise thereof, traverse and gain controlling mechanism for the guide, said mechanism embodying an actuator lever having a to and fro stroke, a bell crank lever, a poker arm operatively connected thereto, a flexible element operatively connected at one end portion to said bell crank lever and at its other end portion to said actuator lever at a fixed distance from the pivot of the latter, means on said actuator lever to form a bight in the flexible element, and means to move said bight forming means by increments during the building operation toward the open part of said bight.

[Claims 6 to 16 not printed in the Gazette.]

1,141,895. CAR-DOOR SEAL. WARREN F. FRASER, Boston, Mass., assignor to Fraser-Tufts Manufacturing Company, Boston, Mass., a Corporation of Massachusetts. Filed June 11, 1914. Serial No. 844,561. (Cl. 70—99.)



1. A seal formed of a strip of flexible sheet metal bent backwardly upon itself at one end thereof to form a chamber with an entrance at one end of said chamber in its lower half and a tongue projecting into said chamber adjacent to and above said entrance, the upper half of said chamber having converging side walls, and the opposite end of said strip being bent to form a hook with sides converging toward the end of said hook, said strip capable of being bent between its ends, whereby said hook may be inserted in said chamber engaging the tongue therein and with the end of said hook projecting into the upper half of said chamber and with the converging sides of said hook engaging the converging side walls of said chamber.

2. A seal formed of a strip of flexible sheet metal having two depressions adjacent to each other extending lon-

gitudinally of said strip of metal at one end thereof, the depression nearest said end being shorter than the other of said depressions and having its opposite sides converging, the end of said strip being bent backwardly upon itself between said depressions to form a chamber, said end terminating beyond said shorter depression in a tongue narrower than said longer depression and wider than the narrowest portion of said shorter depression, said tongue also being bent backwardly over said shorter depression to lie within said chamber, the opposite end of said strip terminating in another tongue narrower than said longer depression and having its sides converging at the free end thereof.

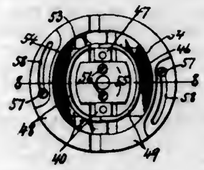
3. A seal formed of a strip of flexible sheet metal having two depressions adjacent to each other extending longitudinally of said strip of metal at one end thereof, the depression nearest said end being shorter than the other of said depressions and having its opposite sides converging, said end terminating beyond said shorter depression in a tongue narrower than said longer depression and wider than the narrowest portion of said shorter depression, said tongue being bent backwardly over said shorter depression and said strip being bent backwardly on itself between said depressions until said depressions are oppositely disposed to each other forming a chamber with said tongue projecting thereinto, the opposite end of said strip terminating in another tongue narrower than said longer depression and having its sides converging at the end thereof and a portion thereof bent backwardly upon itself to form a hook on the opposite face of said strip from said depressions, said strip of metal capable of being bent between its ends and said hook inserted in said chamber engaging the tongue therein, with the end of said hook projecting into that portion of said chamber formed by said shorter depression.

4. A seal formed of a strip of flexible sheet metal having two depressions adjacent to each other extending longitudinally of said strip of metal at one end thereof, the depression nearest said end being shorter than the other of said depressions and having its opposite sides converging, said end terminating beyond said shorter depression in a tongue narrower than said longer depression and wider than the narrowest portion of said shorter depression, said tongue being bent backwardly over said shorter depression and said strip being bent backwardly on itself between said depressions until said depressions are oppositely disposed to each other forming a chamber with said tongue projecting thereinto and with the abutting edges of said strip adjacent to said chamber welded together, the opposite end of said strip terminating in another tongue narrower than said longer depression and having its sides converging at the end thereof and a portion thereof bent backwardly upon itself to form a hook on the opposite face of said strip from said depressions, said strip of metal capable of being bent between its ends and said hook inserted in said chamber engaging the tongue therein, with the end of said hook projecting into that portion of said chamber formed by said shorter depression.

5. A seal formed of a strip of flexible sheet metal having two depressions adjacent to each other extending longitudinally of said strip of metal at one end thereof, the depression nearest said end being shorter than the other of said depressions and having its opposite sides converging, said end terminating beyond said shorter depression in a tongue narrower than said longer depression and wider than the narrowest portion of said shorter depression, said tongue being bent backwardly over said shorter depression and said strip being bent backwardly on itself between said depressions until said depressions are oppositely disposed to each other forming a chamber with said tongue projecting thereinto, the opposite end of said strip terminating in another tongue narrower than said longer depression and having its sides converging at the end thereof and a portion thereof bent backwardly upon itself to form a hook on the opposite face of said strip from said depressions and a projection on said face constituting a guard, said strip of metal capable of being bent between its ends and said hook inserted in said chamber engaging the tongue therein, with the end of said hook projecting into that portion of said chamber formed by said shorter depression.

[Claim 6 not printed in the Gazette.]

1,141,896. MACHINE FOR CUTTING LENSES. CHAUNCEY W. HOWLAND, Geneva, N. Y., assignor to The Standard Optical Company, Geneva, N. Y., a Corporation of New York. Filed Sept. 12, 1912. Serial No. 719,939. (Cl. 33—28.)



1. A lens cutting machine having elliptical lens form sections adjustable transversely of the major axis thereof and means adjustably connecting said sections.

2. An elliptical lens form for lens cutting machines comprising opposite sections relatively adjustable transversely of the major axis of the lens form, rotarily adjustable means for adjusting said sections and means for holding the sections in their adjustable positions.

3. An elliptical lens form for lens cutting machines composing opposite sections relatively adjustable transversely of the major axis of the lens form, said sections having cam slots eccentric to their axis of revolution, rotarily adjustable means engaging said slots for adjusting said sections and means for holding the sections in their adjusted positions.

4. A lens cutting machine having an elliptical lens form comprising elliptically grooved plates adjustable transversely of the major axis of the form, means for adjusting said plates and means for holding the sections in their adjusted positions.

5. In a lens cutting machine, a lens support, a rotary lens form co-axial therewith, means for transmitting rotary motion to the lens support and form, a lens cutter and supporting spindle therefor, said lens form having elliptically grooved plates adjustable transversely of the axis of the form, and connections between the cutter spindle and grooves of the plates for moving the cutter spindle relatively to the axis of revolution of the lens and form.

[Claims 6 and 7 not printed in the Gazette.]

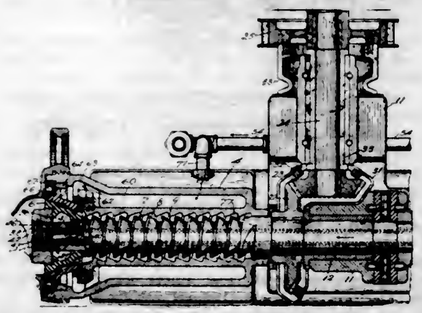
1,141,897. COMPOSITION FOR COVERING FLOORS, WALLS, AND OTHER SURFACES. GIOVANNI LIZIERI, Newcastle-upon-Tyne, England, assignor to The Florentine Flooring Company Limited, Newcastle-upon-Tyne, England. Filed Jan. 16, 1914. Serial No. 812,572. (Cl. 106—24.)

1. A composition for covering floors, walls, and other surfaces comprising one part of Florentine cement, three parts of a mixture comprising essentially substantially equal parts of sawdust, ground cork, asbestos and pumice stone, and a solution of soft soap in water in the proportion of three quarters of a pound of soap to a gallon of water, the said solution being added in the proportion of one part to two parts by measure of the aforesaid materials.

2. A composition for covering floors, walls, and other surfaces consisting of one part of Florentine cement, three parts of a mixture consisting of substantially equal parts of sawdust, ground cork, asbestos, pumice stone and ground paper, and a solution of soft soap in water in the proportion of three quarters of a pound of soap to a gallon of water, the said solution being added in the proportion of one part to two parts by measure of the aforesaid materials.

3. A composition for covering floors, walls, and other surfaces comprising Florentine cement, a mixture of sawdust, cork, asbestos, and pumice stone, and a solution comprising essentially soft soap in water in the proportions substantially as described.

1,141,898. GRINDING-MILL. JOSEPH MERRITT, Hartford, Conn., assignor to Beech-Nut Packing Company, Canajoharie, N. Y., a Corporation of New York. Filed Oct. 16, 1909. Serial No. 523,095. (Cl. 83—13.)



1. The combination, in a grinding mill, of a casing provided with a fixed grinding member, a rotatable forcing screw within the casing, provided with a grinding member, respectively coöperating with the casing and with the fixed grinding member to feed material in an axial direction to, and grind it between the said grinding members, means for conducting a tempering medium longitudinally through the forcing screw into contact with the rotating grinding member and longitudinally back again within the forcing screw.

2. The combination, in a grinding mill, of a casing provided with a fixed grinding member, a rotatable forcing screw within and coöperating with the casing to feed material in an axial direction along the screw, a grinding member carried by the screw, and coöperating with the said fixed grinding member to grind the material fed to it by the screw, means for conducting a tempering medium longitudinally through the forcing screw into contact with the rotating grinding member and longitudinally back again through the forcing screw, and means for directing the tempering medium outside of the forcing screw and around the fixed grinding member.

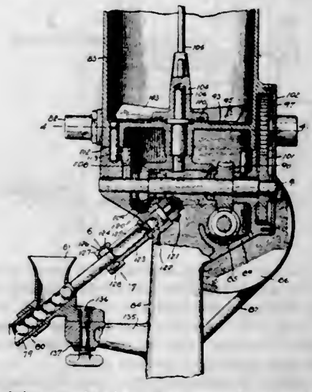
3. The combination, in a grinding mill, of a casing provided with a fixed grinding member, a rotatable forcing screw provided with a grinding member, and disposed within the casing and the fixed grinding member, respectively, and coöperating therewith to feed the material in an axial direction toward, and grind it between, the said grinding members, means for conducting a tempering medium longitudinally through the forcing screw into contact with its grinding member, and longitudinally back again through the forcing screw, and means for conducting the same tempering medium thence to the casing, around the forcing screw, and around the fixed grinding member.

4. The combination, in a grinding mill, of a casing having a seat for receiving a rotary forcing screw, an inclosed space for circulating a tempering medium around the said seat, a grinding member removably seated in the casing with its outer surface exposed to the flow of the circulating medium, and means for making fluid-tight joints between the outer surface of the grinding member and the inner and outer walls of the said circulating space, whereby the tempering medium may circulate from the casing to and around the grinding member without escaping through said joints.

5. The combination, in a grinding mill, of a casing provided with a fixed grinding member, a forcing screw mounted for rotation within the casing, a rotary grinding member carried by the said forcing screw, in coöperative relation to the fixed grinding member, and means for conducting a tempering medium longitudinally within the forcing screw directly to the rotary grinding member, and a separate conduit for conducting the water from the grinding member longitudinally back again through the forcing screw.

[Claims 6 to 17 not printed in the Gazette.]

1,141,899. FEEDING AND BLENDING MECHANISM FOR GRINDING-MILLS. JOSEPH MERRITT, Hartford, Conn., assignor to Beech-Nut Packing Company, Canajoharie, N. Y., a Corporation of New York. Original application filed Oct. 16, 1909, Serial No. 523,095. Divided and this application filed June 1, 1912. Serial No. 700,969. (Cl. 83—44.)



1. In mixing mechanism, the combination of a reservoir having a substantially horizontal floor, a trough extending across a portion of the floor of the reservoir, with an outlet through the side thereof, a rotary conveyer disposed in the said trough and feeding the material along the said trough and out of the said outlet, and a sweeper mounted to swing over the said floor in a tangential relation to the said conveyer.

2. In mixing mechanism, the combination of a reservoir having a substantially horizontal floor, a trough extending across a portion of the floor of the reservoir, with an outlet through the side thereof, a rotary conveyer disposed in the said trough and feeding the material along the said trough and out of the said outlet, a sweeper mounted to swing over the said floor in a tangential relation to the said conveyer, and a rotary stirrer above the sweeper, for loosening and letting down the material upon the sweeper and conveyer.

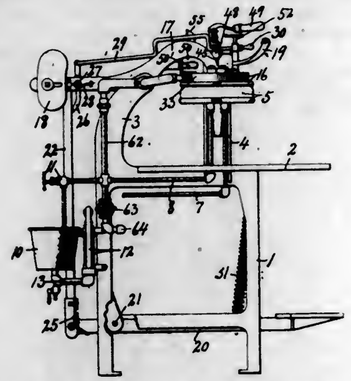
3. In feeding mechanism, the combination of a reservoir having a substantially horizontal floor, a trough recessed across a portion of the said floor with an outlet through the side wall of the reservoir, a rotary conveyer disposed in the said trough mainly below the general level of the floor, and extending through the said outlet, sweeper blades mounted to rotate on a vertical axis at one side of the said conveyer and arranged to swing over the said floor and conveyer in a substantially tangential relation to the conveyer.

4. In mixing mechanism, the combination of a reservoir having a substantially horizontal floor, a rotary stirring device journaled in the floor of the reservoir and having a gear below the floor, a rotary conveyer extending across the floor of the receptacle through an outlet in the side thereof and having a gear on the outer side of the receptacle, and driving gearing below the said reservoir meshing with the gears of the stirrer and conveyers, respectively.

5. In feeding mechanism, the combination of a substantially circular reservoir having a substantially horizontal floor, a vertical shaft journaled in the said floor and provided with means for stirring the materials in the reservoir, a screw conveyer extending across the floor of the

reservoir, and out through the side thereof below the stirring devices, and gearing for driving the said shaft and conveyer.

1,141,900. CLOTHES-PRESSING MACHINE. THEODORE D. PALMER, Syracuse, N. Y., assignor to T. D. Palmer Company, Syracuse, N. Y., a Corporation. Filed May 24, 1910. Serial No. 563,115. (Cl. 68—9.)



1. In a clothes pressing machine, two pressing elements connected for direct pressure, one of the pressing elements having two disconnected steam chambers, and means for supplying steam to each of said chambers independently of the other chamber, one of the chambers having a foraminous side forming a presser plate.

2. In a clothes pressing machine, two pressing elements connected for direct pressure, one of the pressing elements having two disconnected steam chambers, means for supplying steam to each of said chambers independently of the other chamber, one of the chambers having a foraminous side forming a pressure plate, and means for superheating the steam in transit to said chambers.

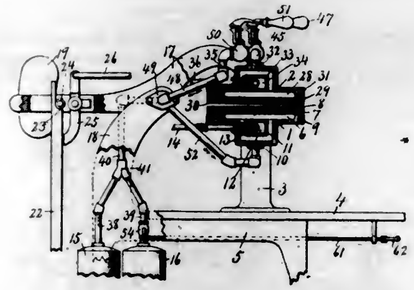
3. In a clothes pressing machine, two pressing elements of substantially the same length and width arranged one above the other and of considerably greater length than width, the upper pressing element being provided with non-communicating steam chambers having separate steam inlets and separate devices operable at will for controlling the passage of steam through said inlets, one of the chambers having a perforated press plate forming the bottom thereof, a fabric press cloth secured to said upper pressing element and extending across the underside of the perforated press plate, a drain pipe leading from the other chamber, and means for moving the upper pressing element toward and from the lower element.

4. In a clothes pressing machine, a buck for supporting the garment to be pressed, an oscillatory supporting frame fulcrumed intermediate its ends and having its front end provided with a press head movable toward and from the buck, a counter-weight mounted upon and adjustable along the rear end of the frame toward and from the fulcrum, a handle on the press head for rocking it down against the action of the counterweight, a pedal lever, a pawl having its lower end pivoted to the pedal lever and its upper end provided with a shoulder movable into and out of locking engagement with a portion of the oscillatory frame, and means operable at will for forcing the pawl from its holding position.

5. In a clothes pressing machine a supporting buck for the garment to be pressed, a superposed press head having separate steam chambers located one above the other, the lower chamber being provided with a foraminous bottom forming a presser plate, a steam supply pipe leading to the lower chamber and provided with a valve, a branch pipe leading from said supply pipe to the upper chamber and also provided with a valve, and means for superheating the steam in transit to said chambers.

[Claims 6 to 10 not printed in the Gazette.]

1,141,901. CLOTHES-PRESSING MACHINE. THEODORE D. PALMER, Syracuse, N. Y., assignor to T. D. Palmer Company, Syracuse, N. Y., a Corporation. Filed July 5, 1910. Serial No. 570,386. (Cl. 68—9.)



1. In a clothes pressing machine, two pressing elements one of which is provided with a foraminous presser plate and an internal heater in combination with means for introducing compressed air into the pressing element having the perforated press-plate and heater whereby the air is heated in transit through the perforations.

2. In a clothes pressing machine, two pressing elements one of which is movable toward and from the other, one of said elements having a foraminous press-plate, and means for mixing air under pressure and moisture and supplying the mixture to the interior of the pressing element having the perforated press-plate.

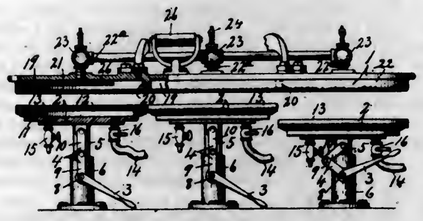
3. In a clothes pressing machine, two pressing elements one of which is movable toward and from the other, one of said elements having a foraminous press-plate, and means for supplying water spray under pressure to the interior of the pressing element having the foraminous press-plate.

4. In a clothes pressing machine, two pressing elements one of which is movable toward and from the other one of said elements having a foraminous press-plate, means for supplying moisture in the form of a spray to the interior of the pressing element having the foraminous press-plate, and means within the pressing element having the foraminous press-plate for converting such moisture into steam.

5. In a clothes pressing machine, a source of supply for compressed air, two hollow pressing elements connected to said source of supply and provided with foraminous press-plates, and separate devices for controlling the flow of compressed air to said elements whereby compressed air may be supplied to either face of the garment independently of the other or to both faces simultaneously.

[Claims 6 to 12 not printed in the Gazette.]

1,141,902. GARMENT-PRESSING MACHINE. THEODORE D. PALMER, Syracuse, N. Y., assignor to T. D. Palmer Company, Syracuse, N. Y., a Corporation. Filed Jan. 25, 1911. Serial No. 604,626. (Cl. 68—9.)



1. A garment pressing machine comprising two pressing elements, one of which is composed of chambered sections,

each movable independently toward and from the other element, said elements being fixed against relative lateral movement.

2. In a garment pressing machine, a vertically movable press head having separate chambers, and a buck composed of sections, one for each of said chambers, each section being movable to and from the head.

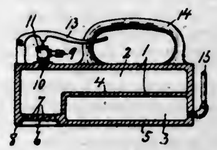
3. A garment pressing machine comprising two pressing elements, one of such elements being composed of sections, each movable independently of and toward and from the other element, said other element having non-communicating steam chambers each co-acting with one of said sections.

4. In a garment pressing machine, a buck and a swinging press head, one of such parts being composed of sections, one of which sections is movable toward and from the other part independently of another section.

5. In a garment pressing machine, a buck and a press head, one of such parts being composed of chambered sections arranged end to end, one of the sections being adjustable relatively to another section toward and from the other part, and means for locking the adjustable section in its pressing position.

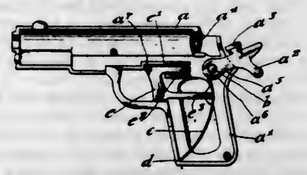
[Claim 6 not printed in the Gazette.]

1,141,903. SAD-IRON. THEODORE D. PALMER, Syracuse, N. Y., assignor to T. D. Palmer Company, Syracuse, N. Y., a Corporation. Filed Nov. 17, 1911. Serial No. 660,859. (Cl. 68—26.)



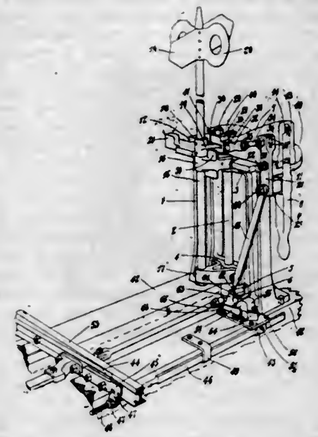
A sad iron having non-communicating compartments; one of said compartments having an imperforate bottom forming an ironing plate, the other of said compartments having a relatively smaller perforated bottom portion slightly raised above and forward of the imperforate ironing plate; a flange around said perforated plate, the lower surface of the flange being in the same plane as the bottom of the imperforate ironing plate; means for supplying the compartment having the perforate bottom with moisture; and means for heating the other compartment, substantially as described.

1,141,904. TOY CAP-PISTOL. THOMAS O. SCHRADER, Allentown, Pa., assignor to The Dent Hardware Company, Fullerton, Pa., a Corporation of Pennsylvania. Filed Jan. 28, 1915. Serial No. 4,810. (Cl. 42—54.)



A toy cap-pistol having a barrel provided with a depending hand-hold, a hammer having a perforated body and notched extremity, said hammer mounted on a pin in said hand-hold, a leaf spring engaging the notched extremity of said hammer and a slidable trigger having two rear arms of different lengths, said trigger movable crosswise in said hand-hold and one of said arms arranged to engage said spring with the hammer in a cocked position and said trigger extending through one end of the casing of said hand-hold and engaged at one corner by the offset in the barrel of said pistol, substantially as and for the purposes described.

1,141,905. COMBINED TARGET AND INTERLOCK OPERATING SWITCH-STAND. FRANK C. ANDERSON, Cincinnati, Ohio, assignor to The American Valve & Meter Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Oct. 15, 1913. Serial No. 795,223. (Cl. 246—41.)



1. In combination with a switch stand and a target thereon and interlocking mechanism for said switch stand, a combination target-operating and interlock-operating lever mounted on said switch stand, operative connection between said lever and said target, operative connection between said lever and said interlocking mechanism, a switch-operating element requiring initial movement in one plane before being movable in another plane to operate the switch, and disengagable operative connection between this element and said lever, whereby said lever is moved during said initial movement of said element.

2. In combination with a switch stand and a target thereon and interlocking mechanism for said switch stand, a combination target-operating and interlock-operating lever mounted on said switch stand, operative connection between said lever and said target, operative connection between said lever and said interlocking mechanism, a switch-operating element requiring initial movement in one plane before being movable in another plane to operate the switch, disengageable operative connection between this element and said lever, whereby said lever is moved during said initial movement of said element, and means preventing movement of said lever when the element and lever are disengaged from each other.

3. In combination with a switch stand and a target thereon and interlocking mechanism for said switch stand, a combination target-operating and interlock-operating lever mounted on said switch stand, operative connection between said lever and said target, operative connection between said lever and said interlocking mechanism, a switch-operating element requiring initial movement in one plane before being movable in another plane to operate the switch, disengageable operative connection between this element and said lever, whereby said lever is moved during said initial movement of said element, and means carried along with said element in its switch-operating movement, and preventing movement of said lever when said element and lever are disengaged from each other.

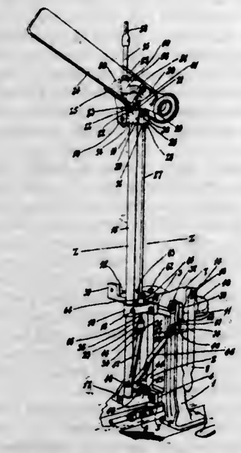
4. In combination with a switch stand and a target thereon and interlocking mechanism for said switch stand, a switch-operating element requiring initial movement in one plane before being movable in another plane to operate the switch, a lever engageable with said element during said initial movement, operative connection between this lever and the target, operative connection between this lever and the interlocking mechanism, whereby the target and the interlocking mechanism are completely

operated during said initial movement of said element, and means carried along with said element in its switch-operating movement, and thereby projected into the path of travel of said target operative connection, whereby operation of said target and interlocking mechanism independently of the operation of said element is prevented.

5. In combination with a switch stand and a target thereon and interlocking mechanism for said switch stand, a switch-operating element requiring initial movement in one plane before being movable in another plane to operate the switch, a lever engageable with said element during said initial movement, operative connection between this lever and the target, operative connection between this lever and the interlocking mechanism, whereby the target and the interlocking mechanism are completely operated during said initial movement of said element, means carried along said element in its switch-operating movement, and thereby projected into the path of travel of said target operative connection, whereby operation of said target and interlocking mechanism independently of the operation of said element is prevented, and stationary guiding means on said switch stand for the target operative connection, said means carried along with said element forming another guiding means for the operative connection during said initial movement of said element.

[Claims 6 to 16 not printed in the Gazette.]

1,141,906. SWITCH-STAND SEMAPHORE MECHANISM. FRANK C. ANDERSON, Cincinnati, Ohio, assignor to The American Valve & Meter Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Nov. 20, 1913. Serial No. 802,021. (Cl. 246—41.)



1. In combination with a switch band and a semaphore thereon, a main switch-operating shaft, a fulcrum-head fixed to said main shaft to rotate it, a switch-operating lever pivoted in the fulcrum-head, a stationary plate having a slot, said switch-operating lever being received in the slot and requiring to be initially swung on its pivot in the fulcrum-head to disengage from the slot and permit rotation of the fulcrum-head and main shaft, a vertically movable semaphore arm, means supporting the arm for vertical movement; a semaphore-operating lever pivoted concentric with the pivoting of the switch-operating lever, means for operative engagement between the switch-operating lever and this semaphore-operating lever, whereby the two levers swing together during the initial movement of said switch-operating lever, and operative connection between this semaphore-operating lever and the semaphore-arm, whereby said arm is completely operated during said initial swinging of the switch-operating lever.

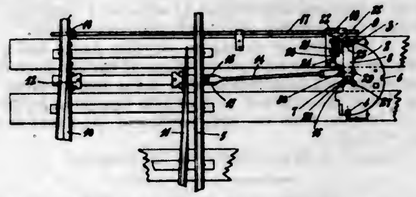
2. In combination with a switch stand and a semaphore thereon, a main switch-operating shaft, a fulcrum-head fixed to said main shaft to rotate it, a switch-operating lever pivoted in the fulcrum-head, a stationary plate having a slot, said switch-operating lever being received in the slot and requiring to be initially swung on its pivot in the fulcrum-head to disengage from the slot and permit rotation of the fulcrum-head and main shaft, a vertically movable semaphore-arm, means supporting the arm for vertical movement, a semaphore-operating lever pivoted concentric with the pivoting of the switch-operating lever, means for operative engagement between the switch-operating lever and this semaphore-operating lever, whereby the two levers swing together during the initial movement of said switch-operating lever, a semaphore-operating rod connected to said arm, a link, a stationary fulcrum for the link, a primary connecting rod from the semaphore-operating lever to the link, and a secondary connecting rod from the link to the semaphore-operating rod, whereby said semaphore is completely operated during said initial swinging of the switch-operating lever.

3. In combination with a switch stand and a semaphore thereon, a main switch-operating shaft, a fulcrum-head fixed to said main shaft to rotate it, a switch-operating lever pivoted in the fulcrum-head, a stationary plate having a slot, said switch-operating lever being received in the slot and requiring to be initially swung on its pivot in the fulcrum-head to disengage from the slot and permit rotation of the fulcrum-head and main shaft, a vertically movable semaphore-arm, means supporting the arm for vertical movement, a semaphore-operating lever pivoted concentric with the pivoting of the switch-operating lever, means for operative engagement between the switch-operating lever and this semaphore-operating lever, whereby the two levers swing together during the initial movement of said switch-operating lever, a semaphore-operating rod connected to said arm, and operative connection between the semaphore-operating lever and the semaphore-operating rod, whereby the arm is completely operated during said initial swinging of the switch-operating lever.

4. In combination with a switch stand and a semaphore thereon, a main switch-operating shaft, a fulcrum-head fixed to said main shaft to rotate it, a switch-operating lever pivoted in the fulcrum-head, a stationary plate having a slot, said switch-operating lever being received in the slot and requiring to be initially swung on its pivot in the fulcrum-head to disengage from the slot and permit rotation of the fulcrum-head and main shaft, a vertically movable semaphore-arm, means supporting the arm for vertical movement, a semaphore-operating lever pivoted concentric with the pivoting of the switch-operating lever, means for operative engagement between the switch-operating lever and this semaphore-operating lever, whereby the two levers swing together during the initial movement of said switch-operating lever, a semaphore-operating rod connected to said arm, operative connection between said semaphore-operating lever and said semaphore-operating rod whereby the arm is completely operated during said initial swinging of said switch-operating lever, a segment on said fulcrum-head, and a keeper on said semaphore-operating rod, adapted to engage with said segment and prevent operation of said arm independently of the operation of the switch-throwing lever during removal of the switch-throwing lever from its initial position.

[Claims 6 to 11 not printed in the Gazette.]

1,141,907. SWITCH-STAND CRANK MECHANISM. FRANK C. ANDERSON, Cincinnati, Ohio, assignor to The American Valve & Meter Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Sept. 28, 1914. Serial No. 863,834. (Cl. 104—25.)



1. In switch stand crank mechanism, in combination with a switch, a switch stand and interlocking mechanism, and means whereby the switch stand operates the interlocking mechanism, means operatively connecting the switch stand to the switch comprising a crank having four means for operative connection, any of which means may be used according to the position of the switch stand relative to the switch and to the direction of turn-out of the switch.

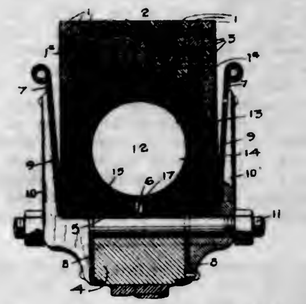
2. In switch stand crank mechanism, in combination with the point rail of a switch, and a switch stand comprising switch-operating mechanism, interlocking mechanism, and means whereby the switch-operating mechanism operates the interlocking mechanism during an initial movement preliminary to a movement to shift the point rail of the switch, a connecting rod connected to the point rail, a crank comprised in said switch-operating mechanism having four means to connect said connecting rod to said crank, any of which means may be used, according to the position of the switch stand relative to the switch and to the direction of turnout of the switch.

3. In switch stand crank mechanism, in combination with the point rail of a switch, and a switch stand comprising switch-operating mechanism, interlocking mechanism, and means whereby the switch-operating mechanism operates the interlocking mechanism during an initial movement preliminary to a movement to shift the point rail of the switch, a connecting rod connected to the point rail, a crank comprised in said switch-operating mechanism having four connecting means spaced substantially ninety degrees apart and on equal radii.

4. In switch stand crank mechanism, in combination with the point rail of a switch, and a switch stand comprising switch-operating mechanism, interlocking mechanism, and means whereby the switch-operating mechanism operates the interlocking mechanism during an initial movement preliminary to a movement to shift the point rail of the switch, a connecting rod connected to the point rail, a crank having four openings, any one of which may receive a connecting pin, said openings being spaced substantially ninety degrees apart and on equal radii.

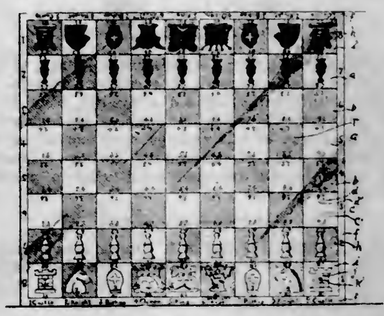
5. In a switch stand crank mechanism, in combination with the point rail of a switch, and a switch stand comprising switch-operating mechanism, interlocking mechanism, and means whereby the switch-operating mechanism operates the interlocking mechanism during an initial movement preliminary to a movement to shift the point rail of the switch, a connecting rod connected to the point rail, a crank having four openings, and a pin having a shank adapted to be driven into any one of the openings, said shank having a keyway, and each opening having a keyway to register with the keyway of the shank, a pin to fit the registering keyways, an end part to the pin past the shank, and means engaging with the end part to hold said pin with its shank in any one of said openings, said openings being spaced substantially ninety degrees apart and on equal radii.

1,141,908. VEHICLE-TIRE. WILLIAM H. BOYES, Brooklyn, N. Y. Filed Nov. 21, 1911. Serial No. 661,510. (Cl. 152—10.)



A vehicle tire comprising a plurality of flat flexible rings assembled together with their flat faces in contact, a pair of outer rings also flat throughout and of the same material, but extending radially inward to a greater depth, whereby an annular space of rectangular and four cornered section is provided between them, a rubber cushion of rectangular transverse section filling this annular cavity, said rubber cushion having an annular interior cavity of rounded transverse section and an inner tube within this cushion.

1,141,909. GAME-BOARD. LOUIS PAUL D'AUTREMONT, Duluth, Minn. Filed Dec. 29, 1914. Serial No. 879,514. (Cl. 46—64.)

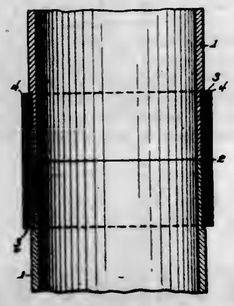


1. In a game apparatus, a game-board having a portion of its surface divided into a number of squares, each of the squares having two numbers of two digits each, one of the numbers near the front of the square and facing the front of the board, and one of the numbers near the back of the square and facing the back of the board, a portion exterior to the portion divided into squares containing sets of consecutive numbers, one number located at each end of the vertical and horizontal rows of squares, the numbers below the vertical rows of squares corresponding to the first digit of the numbers facing the front of the board on the squares of their respective rows, and the numbers at the right of the horizontal rows of squares corresponding to the second digit of the numbers facing the front of the board on the squares of their respective rows, and the same with the numbers facing the back of the board when the board is turned around; certain of the squares having indicia, certain of the indicia having consecutive numbers, a number of game-pieces adapted for movement over the board and corresponding to the indicia

on the squares, certain of the game-pieces bearing numbers corresponding to the numbers at the ends of the vertical rows of squares and to the numbers on the numbered indicia.

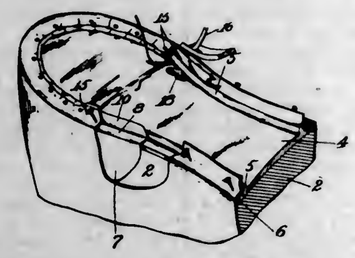
2. In a game apparatus, a game-board having a portion of its surface divided into seventy two squares, nine squares from left to right and eight squares from front to back, each of the squares having two numbers of two digits each, a portion exterior to the portion divided into squares containing sets of consecutive numbers, one number located at each end of the vertical and horizontal rows of squares and corresponding to certain digits of the numbers on the squares of their respective rows; indicia on the first and last row of squares having consecutive numbers, a number of game-pieces bearing numbers corresponding to the numbers at the ends of the vertical rows of squares and to the number on the indicia on the first and last row of squares, the numbers on the indicia and at the ends of the vertical rows of squares indicating by corresponding numbers the squares on which the game-pieces corresponding to the indicia and having corresponding numbers are to be initially placed.

1,141,910. CASING-COUPLING. JESSE A. MASON, Mannington, W. Va. Filed Apr. 10, 1914. Serial No. 831,059. (Cl. 166—4.)



The combination with the adjacent exteriorly threaded ends of well-casing sections, of a coupling therefor comprising an interiorly threaded sleeve-like body the exterior diameter of which is uniform throughout and greater than that of said sections, each end of said body presenting a plane circumferential surface disposed at right angles to the axis and constituting a projecting earth cutting shoulder.

1,141,911. SHOE. HERBERT J. PERCY, Lynn, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Sept. 9, 1910. Serial No. 581,179. (Cl. 36—68.)



1. A heel stiffener having an inturned flange the edge of which at the rear portion of the heel is formed to lie flat upon the heel seat and is coterminous with the stiffener, said edge being turned upwardly from adjacent the breast line of the heel to the ends of the stiffener to present lips for attachment to the rear portions of a welt innersole lip.

2. A heel stiffener having an inturned flange formed with upturned lips which extend from the front ends of the stiffener rearwardly and terminate at points remote from the rear end of the stiffener.

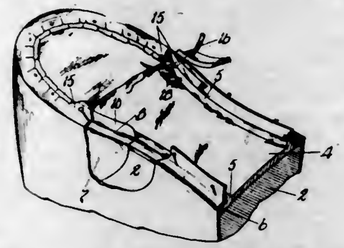
3. A heel stiffener having a short upstanding lip at each end portion and an inturned flange that extends from the rear of the upstanding lip on one end portion of the stiffener around to the rear of the upstanding lip of the other end portion of the stiffener, said flange being formed to lie throughout its width substantially flat upon the heel seat of a shoe and having its inner edge coincident with the terminal edge of the stiffener.

4. A heel stiffener formed to present on a wing portion thereof an abrupt edge visible to the inseam sewing machine operator and located to serve as a guide for the operator in beginning and terminating the inseam.

5. A heel stiffener having an inturned flange and a lip upturned from the edge of the flange at the end portion of each wing and terminating at a point remote from the rear end of the stiffener, each of said lips being separated by an incision from the edge portion of the flange in the rear thereof.

[Claims 6 to 20 not printed in the Gazette.]

1,141,912. MANUFACTURE OF WELT-SHOES. HERBERT J. PERCY, Lynn, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Original application filed Sept. 9, 1910, Serial No. 581,179. Divided and this application filed Aug. 17, 1911. Serial No. 644,498. (Cl. 12—142.)



1. That improvement in methods of making welt shoes which consists in molding a heel stiffener to present at the front portion of each wing an inturned flange and an upturned lip, assembling said stiffener and a lipped innersole in coöperative relation, with said stiffener lips contiguous to the innersole lips, and sewing the lips of the stiffener and innersole together.

2. That improvement in methods of making welt shoes which consists in molding a heel stiffener to present at the front portion of each wing a lip shaped to stand upwardly from the face of the innersole at the same distance inwardly from the edge of the assembled shoe as the outer face of the innersole lip, assembling parts of the shoe including said stiffener, an innersole and an upper, and lasting the shoe with said lips of the stiffener and innersole in contact with each other.

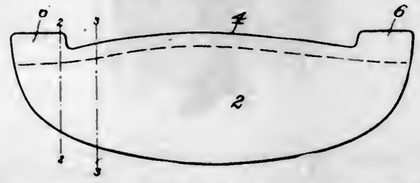
3. That improvement in methods of making welt shoes which consists in molding a heel stiffener prior to the lasting operation to present at the front portion of each wing an upturned lip, assembling the stiffener and an innersole with said lip standing up edgewise relatively to the face of the inner sole from the heel seat forwardly along the shank and securing the stiffener to the innersole.

4. That improvement in methods of making welt shoes which consists in slitting a heel stiffener from its inner edge outwardly at points which will come under the heel of the shoe, molding the stiffener to form at the rear thereof between the slits a flange to lie throughout its width upon the heel seat face of the inner sole, and to form from said slits forwardly flanges of less width to lie on the feather of the innersole and lips projecting at substantially right angles to said flanges to stand against and parallel to the outer face of the lip of the innersole, assembling the shoe, and sewing the lips of the innersole and stiffener together.

5. That improvement in methods of making shoes which consists in forming a heel stiffener at each side of the heel with a normally upturned portion arranged to indicate the points for the beginning and the ending of the inseam, assembling and lasting the shoe and inseaming the shoe from one indication point around the forepart to the other indication point.

[Claims 6 to 12 not printed in the Gazette.]

1,141,913. HEEL-STIFFENER. MATTHIAS BROCK, Boston, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Sept. 3, 1913. Serial No. 787,874. (Cl. 36—68.)



1. A heel stiffener blank adapted to be assembled in a shoe as a straight stiffener or to be molded into suitable heel shape prior to assembling in a shoe and having, on the edge which is to overlie the sole in the shoe, extensions running from the shank ends backwardly a short distance to constitute pulling up members to be engaged for pulling up the stiffener ends in the lasting operation.

2. A heel stiffener blank adapted to be assembled in a shoe as a straight stiffener or to be molded into suitable heel shape prior to assembling in a shoe and having that portion which is to be located at the bottom of the shoe formed with an irregular edge comprising a portion of substantially regular contour of a length to extend around the heel from a position at or near the breast line on one side of the heel to a similar point on the other side, and extensions running from said regular portion of the edge toward the ends of the stiffener to constitute pulling up members to be engaged for pulling up the stiffener ends in the lasting operation.

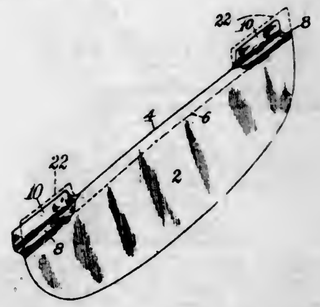
3. A heel stiffener blank adapted to be assembled in a shoe as a straight stiffener or to be molded into suitable heel shape prior to assembling in a shoe and having an extension from one edge constituting a pulling up member running along a portion of the stiffening that extends into the shank of the shoe and adapted to project upwardly in the pulled over shoe into position to be seized by the laster for pulling up the stiffener end during the heel lasting operation.

4. A heel stiffener blank adapted to be assembled in a shoe as a straight stiffener or to be molded into suitable heel shape prior to assembling in a shoe and having that edge portion which is to be located at the bottom of the shoe of suitable contour to provide for forming a relatively narrow flange to overlie the edges of the insole at the curved portion of the heel seat and a flange of greater width to extend from said narrow portion forwardly into the shank of the shoe.

5. A heel stiffener blank adapted to be assembled in a shoe as a straight stiffener or to be molded into suitable heel shape prior to assembling in a shoe and having that edge portion which is to be located at the bottom of the shoe of suitable contour to provide for forming a flange of substantially uniform width overlying the edges of the heel seat, and extensions near the ends of the stiffener located to project from the edge of said flange in the assembled shoe and formed to provide pulling up members whereby the wings of the stiffener may be brought to proper position in the lasting operation without distorting the shape of the flange portion of the stiffener.

[Claim 6 not printed in the Gazette.]

1,141,914. SHOE. MATTHIAS BROCK, Boston, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Continuation of application Serial No. 706,655, filed June 29, 1912. This application filed Nov. 14, 1913. Serial No. 800,970. (Cl. 36—68.)



1. A heel stiffener having its edge upright and in substantially the vertical plane of its body portion around the heel seat and molded to present inturned flages shaped to the feather of the innersole in front of the heel breast.

2. A heel stiffener of substantially straight formation widthwise and having upon its end portions, on the edge which is to be located at the bottom of the shoe, molded flanges shaped to overlie a portion of the innersole.

3. A heel stiffener having, on the edge which is to overlie the innersole in the shoe, molded portions running from the shank ends backwardly a short distance and each comprising an inturned flange and an upstanding lip which terminates at a point remote from that portion of the stiffener which is to be located at the rear of the heel, said lips including widthwise extensions of said stiffener to constitute pulling members to be engaged for positioning the stiffener ends in the lasting operation.

4. A heel stiffener having that portion which is to be located at the bottom of the shoe formed with an edge of substantially regular contour of a length to extend around the heel from a position at or near the breast line on one side to a similar position on the other side, and molded portions running from said regular edge portion toward the ends of the stiffener and each comprising an inturned flange and an upstanding lip, said lips forming offsets or extensions from said regular edge portion of the stiffener to constitute pulling members to be engaged for positioning the stiffener ends in the lasting operation.

5. A heel stiffener having on that edge which is to be located at the bottom of the shoe molded portions adjacent to the ends of the stiffener and each comprising an inturned flange of a width to overlie the feather of the innersole and an upstanding lip adapted to stand adjacent to the innersole rib, said lips including widthwise extensions of the stiffener which terminate at points remote from that portion of the stiffener which is to be located at the rear of the heel and are formed to serve as pulling members to be engaged for positioning the stiffener ends in the lasting operation.

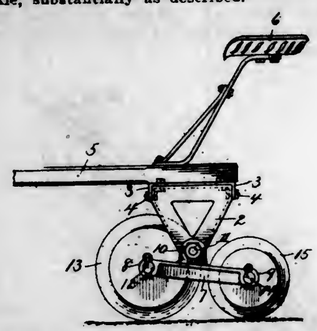
[Claims 6 and 7 not printed in the Gazette.]

REISSUES.

13,921. LAND ROLLER OR PULVERIZER. WILEY JULIUS DUNHAM, Berea, Ohio, assignor to The Dunham Company, Berea, Ohio, a Corporation of Ohio. Filed Mar. 8, 1915. Serial No. 13,035. Original No. 1,094,201, dated Apr. 21, 1914, Serial No. 661,538. (Cl. 55—21.)

1. A land roller having a main frame, a rocking frame, an axle mounted in the rear end of the rocking frame, a second axle mounted in the front end of said rocking frame, roller disks mounted on each of said axles, and

means for connecting the rocking frame to the main frame to place the greatest weight on the roller disks on the front axle, substantially as described.



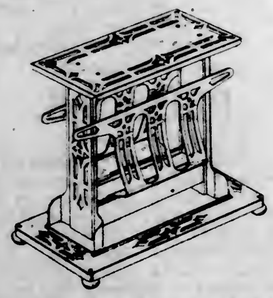
2. A land roller having a main frame, a rocking frame pivotally connected to each end of the main frame, said rocking frames being connected to the main frame in front of the center thereof, an axle mounted in the rear ends of both rocking frames, a second axle mounted in the front ends of both of said rocking frames, a plurality of roller disks mounted on the rear axle, and a plurality of roller disks mounted on the front axle, the roller disks on the front axle being of larger diameter than the roller disks on the rear axle, substantially as described.

3. In a land roller, the combination of a main frame consisting of cross-bars and two downwardly projecting end members, a secondary frame pivotally mounted on each end member so as to freely oscillate thereon, two parallel shafts mounted in said secondary frames, a plurality of pulverizer disks mounted on the forward shaft, a plurality of pulverizer disks of smaller diameter than said first named disks mounted upon the rear shaft, the axis of oscillation of said secondary pivoted frames being located between vertical planes passing through the axes of said shafts.

4. In a land roller, the combination of a main frame consisting of cross-bars and two downwardly projecting end members, two secondary frames, each secondary frame having an upwardly projecting lug pivotally connected to the respective end member, two parallel shafts mounted in said secondary frames in a plane below the pivotal connection between said frames and the end members, a plurality of pulverizer disks mounted upon the forward shaft, a plurality of pulverizer disks of smaller diameter than said first named disks mounted upon the rear shaft, the axis of oscillation of the secondary pivoted frames being vertical planes passing through the axes of said shafts.

DESIGNS.

47,394. TOASTER-FRAME. GEORGE E. CURTISS, New Britain, Conn. Filed Apr. 17, 1915. Serial No. 22,191. Term of patent 14 years.



The ornamental design for a toaster frame as shown.

47,395. SAVINGS-BANK. ARLANDO T. HARRELL, Chicago, Ill. Filed Jan. 23, 1915. Serial No. 4,061. Term of patent 14 years.



The ornamental design for a savings bank as shown.

47,396. BRAID. ELIAS ISRAEL, New York, N. Y. Filed Mar. 20, 1915. Serial No. 15,961. Term of patent 3½ years.



The ornamental design for braid, as shown.

47,397. IMITATION-STRAW-BRAID FABRIC FOR HATS. ELIAS ISRAEL, New York, N. Y. Filed Mar. 20, 1915. Serial No. 15,962. Term of patent 3½ years.



The ornamental design for imitation straw braid fabric for hats, as shown and described.

47,398. CABINET FOR TALKING-MACHINES. ELDRIDGE R. JOHNSON, Merion, and EUGENE T. KIEFFER, Philadelphia, Pa., assignors to Victor Talking Machine Company, a Corporation of New Jersey. Filed Mar. 30, 1915. Serial No. 18,186. Term of patent 14 years.



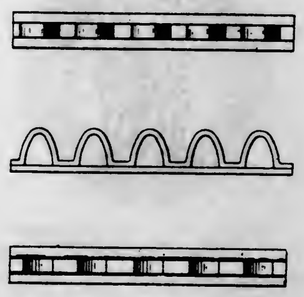
The ornamental design for a cabinet for a talking machine, as shown.

47,399. CABINET FOR TALKING-MACHINES. EUGENE T. KIEFFER, Philadelphia, Pa., assignor to Victor Talking Machine Company, a Corporation of New Jersey. Filed Feb. 11, 1915. Serial No. 7,602. Term of patent 14 years.



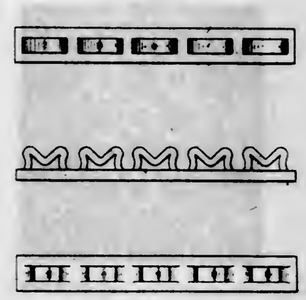
The ornamental design for a cabinet for a talking machine, as shown.

47,400. JEWELRY-GALLERY. LOUIS E. LADD, Providence, R. I., assignor to Potter and Buffinton Company, a Corporation of Rhode Island. Filed Jan. 25, 1915. Serial No. 4,381. Term of patent 7 years.



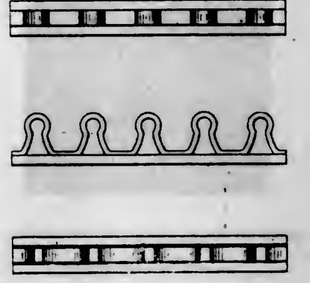
The ornamental design for a jewelry gallery, as shown.

47,401. JEWELRY-GALLERY. LOUIS E. LADD, Providence, R. I., assignor to Potter and Buffinton Company, a Corporation of Rhode Island. Filed Jan. 25, 1915. Serial No. 4,382. Term of patent 7 years.



The ornamental design for a jewelry gallery, as shown.

47,402. JEWELRY-GALLERY. LOUIS E. LADD, Providence, R. I., assignor to Potter and Buffinton Company, a Corporation of Rhode Island. Filed Jan. 25, 1915. Serial No. 4,383. Term of patent 7 years.



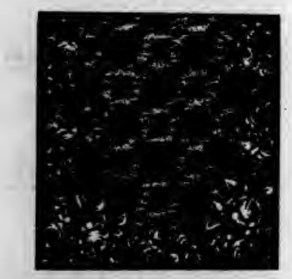
The ornamental design for a jewelry gallery, as shown.

47,403. RUG. ADOLPH PETZOLD, Philadelphia, Pa., assignor to John H. Bromley and Edward Bromley, Copartners trading as John Bromley & Sons, Philadelphia, Pa. Filed Apr. 13, 1915. Serial No. 21,133. Term of patent 7 years.



The ornamental design for a rug, as shown.

47,404. RUG. ADOLPH PETZOLD, Philadelphia, Pa., assignor to John H. Bromley and Edward Bromley, Copartners trading as John Bromley & Sons, Philadelphia, Pa. Filed Apr. 13, 1915. Serial No. 21,134. Term of patent 7 years.



The ornamental design for a rug, as shown.

47,405. RUG. ADOLPH PETZOLD, Philadelphia, Pa., assignor to John H. Bromley and Edward Bromley, Copartners trading as John Bromley & Sons, Philadelphia, Pa. Filed Apr. 13, 1915. Serial No. 21,135. Term of patent 7 years.



The ornamental design for a rug, as shown.

47,406. RUG. ADOLPH PETZOLD, Philadelphia, Pa., assignor to John H. Bromley and Edward Bromley, Copartners trading as John Bromley & Sons, Philadelphia, Pa. Filed Apr. 13, 1915. Serial No. 21,136. Term of patent 7 years.



The ornamental design for a rug, as shown.

47,407. RUG. ADOLPH PETZOLD, Philadelphia, Pa., assignor to John H. Bromley and Edward Bromley, Copartners trading as John Bromley & Sons, Philadelphia, Pa. Filed Apr. 13, 1915. Serial No. 21,137. Term of patent 7 years.



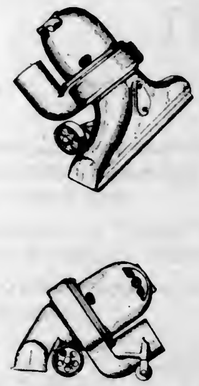
The ornamental design for a rug, as shown.

47,408. DOLL. ANNA C. RENWICK, Flushing, N. Y. Filed Feb. 25, 1915. Serial No. 10,640. Term of patent 3½ years.



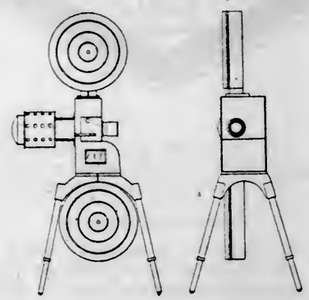
The ornamental design for a doll as shown.

47,409. SUCTION-CLEANER CASING. WILLIAM W. ROSENFIELD, New York, N. Y. Filed Oct. 31, 1914. Serial No. 869,708. Term of patent 14 years.



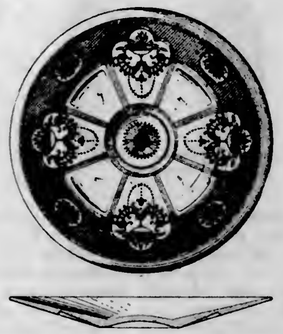
The ornamental design for a suction cleaner casing, as shown.

47,410. CASING FOR MOVING-PICTURE MACHINES. HERMAN E. ROYS, New York, N. Y., assignor, by mesne assignments, to Cameoscope Corporation, a Corporation of New York. Filed Oct. 31, 1914. Serial No. 869,704. Term of patent 3½ years.



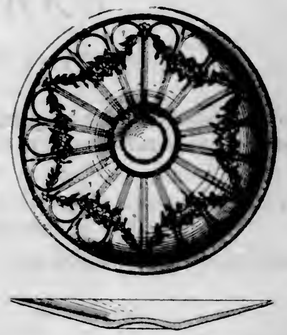
The ornamental design for a casing for a moving-picture machine, as shown.

47,411. DISH. HENRY P. SINCLAIRE, Corning, N. Y. Filed Feb. 23, 1915. Serial No. 10,139. Term of patent 14 years.



The ornamental design for a dish substantially as shown.

47,412. DISH. HENRY P. SINCLAIRE, Corning, N. Y. Filed Feb. 23, 1915. Serial No. 10,140. Term of patent 14 years.



The ornamental design for a dish substantially as shown.

47,413. CUP OR SIMILAR ARTICLE. JULES H. VENON, New York, N. Y. Filed Nov. 18, 1913. Serial No. 801,749. Term of patent 7 years.



The ornamental design for a cup or similar article, as shown.

47,414. SPOON, FORK, OR SIMILAR ARTICLE. HENRY L. WALLACE, Wallingford, Conn. Filed Feb. 15, 1915. Serial No. 8,387. Term of patent 3½ years.



The ornamental design for a spoon, fork or similar article, as shown.

TRADE-MARKS

PUBLISHED JUNE 1, 1915.

The following trade-marks are published in compliance with section 6 of the act of February 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of this date.

Marks applied for "under the ten-year proviso" are registrable under the provision in clause (b) of section 5 of said act as amended February 18, 1911.

As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.

Ser. No. 63,237. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) GOODRICH DRUG CO., Omaha, Nebr. Filed May 1, 1912.



Which is printed in blue and white.
Particular description of goods.—Toilet Soaps.
Claims use since Jan. 1, 1905.

Ser. No. 64,911. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CHARLES GULDEN, New York, N. Y. Filed July 25, 1912. Under ten-year proviso.



The trade-mark consists of a round squat glass bottle having a relatively long and wide neck portion, a body portion with substantially horizontal top and bottom and vertical sides, and a relatively low foot portion of a somewhat larger diameter than the main portion of the neck of the bottle, all as more specifically shown in the accompanying drawing, the cover of the bottle not forming part of my trade-mark.
Particular description of goods.—Mustard.
Claims use since 1875.

Ser. No. 69,316. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) J. M. DELANEY & CO., New York, N. Y. Filed Mar. 25, 1913.



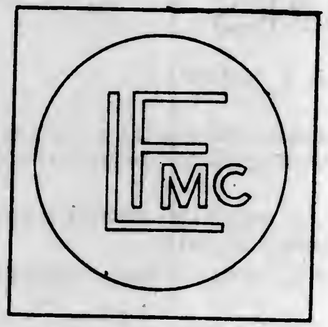
The words "Prime Oak, J. M. Delaney & Co." are disclaimed.
Particular description of goods.—Sole-Leather.
Claims use since January, 1909.

Ser. No. 71,890. (CLASS 39. CLOTHING.) PALMER-MCLELLAN SHOEPACK CO., LTD., Fredericton, New Brunswick, Canada. Filed July 22, 1913.



The words "Palmer-McLellan Shoepack Co., Ltd., Fredericton, N. B." and the word "Palmer" are disclaimed.
Particular description of goods.—Shoepacks.
Claims use since on or about the 1st of October, 1912.

Ser. No. 74,465. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE LOCOMOTIVE FINISHED MATERIAL CO., Atchison, Kans. Filed Dec. 9, 1913.



Particular description of goods.—The Following Finished Locomotive-Engine Parts, viz: Cylinders, Cylinder-Bushings, Valve-Chamber Bushings, Piston-Heads, Piston Bull-Rings, Shoes and Wedges, Piston-Valves, and Slide-Valves.
Claims use since Apr. 23, 1913.

Ser. No. 74,466. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE LOCOMOTIVE FINISHED MATERIAL CO., Atchison, Kans. Filed Dec. 9, 1913.

PAKRING

Particular description of goods.—The Following Finished Locomotive-Engine Parts, viz: Cylinders, Cylinder-Bushings, Valve-Chamber Bushings, Piston-Heads, Piston Bull-Rings, Shoes and Wedges, Piston-Valves, and Slide-Valves.
Claims use since Apr. 23, 1913.

Ser. No. 75,537. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) PLYMOUTH ROCK GELATINE CO., Boston and Brighton, Mass. Filed Jan. 29, 1914.



Particular description of goods.—Gelatin.
Claims use since Aug. 1, 1913.

Ser. No. 75,538. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) PLYMOUTH ROCK GELATINE CO., Boston and Brighton, Mass. Filed Jan. 29, 1914.

PRISCILLA

Particular description of goods.—Gelatin.
Claims use since Aug. 1, 1913.

Ser. No. 75,597. (CLASS 30. CROCKERY, EARTHENWARE, AND PORCELAIN.) MINTONS, LIMITED, Stoke-upon-Trent, England. Filed Jan. 31, 1914.


MINTONS
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Ser. No. 82,888. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) GEO. R. STARRS, Paterson, N. J. Filed Nov. 24, 1914.



Particular description of goods.—Valve-Disks.
Claims use since the year 1909.

Ser. No. 83,127. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) PILGRIM MANUFACTURING CO., New York, N. Y. Filed Dec. 7, 1914.



Particular description of goods.—Massage-Creams, Hair and Scalp Tonics, Shampoo Preparations, Dry and Liquid Face-Powders, Talcum Powders, Complexion-Creams, Deodorizing-Creams, Freckle-Creams, and Dry and Liquid Rouges, Cold-Creams, Peroxid Creams.
Claims use since February, 1912.

Ser. No. 83,182. (CLASS 33. GLASSWARE.) EDWARD F. MALLORY, New York, N. Y. Filed Dec. 9, 1914.

SHAMPOO-SHELL

Particular description of goods.—Glass Distributing Receptacles and Bottles.
Claims use since Oct. 15, 1914.

Ser. No. 83,260. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) PORCELA-RADAX COMPANY, Pittsburgh, Pa. Filed Dec. 12, 1914.

PORACO

Particular description of goods.—A Cleansing-Powder for Cleaning Closet-Bowls, Porcelain and Vitreous Ware.
Claims use since Dec. 2, 1914.

Ser. No. 83,299. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MISSMER MFG. CO., Paterson, N J. Filed Dec. 15, 1914.

C&M

KAM-PHO

Particular description of goods.—A Liniment.
Claims use since the year 1909.

Ser. No. 83,446. (CLASS 39. CLOTHING.) MARGLOUS MANUFACTURING COMPANY, St. Louis, Mo. Filed Dec. 21, 1914.



Consisting of the representation of a lion.
Particular description of goods.—Overalls and Jumpers.
Claims use since about Aug. 1, 1898.

Ser. No. 83,545. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) AUTOMOBILE TIRE CO. INC., New York, N Y. Filed Dec. 28, 1914.

SURETY

Particular description of goods.—Rubber Pneumatic Outer Automobile Tires or Casings and Rubber Pneumatic Inner Tubes.
Claims use since February, 1914.

Ser. No. 83,549. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) EDWARDS & LOOMIS CO., Chicago, Ill. Filed Dec. 28, 1914.



Particular description of goods.—Mixed-Grain Feeds for Poultry and Poultry Mash Feeds.
Claims use since on or about July 31, 1908.

Ser. No. 83,640. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) THE HORACE PARTRIDGE COMPANY, Boston, Mass. Filed Jan. 2, 1915.



Particular description of goods.—Base-Ball Mitts, Base-Ball Gloves, Base-Balls, Foot-Balls, Tennis-Balls, Basket-Balls, Golf-Balls, Bats, Masks, Protectors, Nets and Supports Therefor, Goals, Golf-Clubs, Caddy-Bags, Rackets, Covers, and Presses Therefor, Marking-Tapes.
Claims use since Nov. 18, 1914.

Ser. No. 83,686. (CLASS 39. CLOTHING.) A. GERSHEL & Co., New York, N. Y. Filed Jan. 5, 1915.

CROSS COUNTRY

Comprising the words "Cross Country."
Particular description of goods.—Outer Coats, Cloaks, and Suits for Men, Women, Misses, and Children.
Claims use since Dec. 24, 1914.

Ser. No. 83,740. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) THE SALT'S TEXTILE MANUFACTURING COMPANY, Bridgeport Conn., and New York, N. Y. Filed Jan. 8, 1915.

DRES-FUR

Particular description of goods.—Velvets and Plushes in the Piece.
Claims use since about Nov. 1, 1914.

Ser. No. 83,741. (CLASS 39. CLOTHING.) THE SALT'S TEXTILE MANUFACTURING COMPANY, Bridgeport, Conn., and New York, N. Y. Filed Jan. 8, 1915.

DRES-FUR

Particular description of goods.—Women's, Children's, and Infants' Coats, Cloaks, Wraps, and Capes.
Claims use since about Nov. 1, 1914.

Ser. No. 83,778. (CLASS 38. PRINTS AND PUBLICATIONS.) THE MOTION PICTURE TRADE DIRECTORY CO., INC., New York, N. Y. Filed Jan. 11, 1915.

The Motion Picture TRADE DIRECTORY

Particular description of goods.—A Periodical Publication, Published Quarterly, Containing in Classified Form the Names and Addresses of Manufacturers and Dealers in Everything Used in the Construction, Maintenance, and Operation of a Motion-Picture Theater and Advertising Relating to the Same.
Claims use since Jan. 18, 1914.

Ser. No. 83,785. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE UNSINGER RAZOR BLADE COMPANY, Fremont, Ohio. Filed Jan. 11, 1915.

U·R·B·O

Particular description of goods.—Razor-Blades, Safety-Razors and Parts Thereof, and Twine-Cutters.
Claims use since Nov. 27, 1914.

Ser. No. 83,867. (CLASS 50. MERCHANDISE NOT OTHERWISE CLASSIFIED.) THE ADVERTOGRAM CO., Chicago, Ill. Filed Jan. 15, 1915.

Rotogram

Particular description of goods.—Illuminated Structural Show-Window Signs.
Claims use since Sept. 1, 1914.

Ser. No. 83,939. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) PACKAGE CONFECTIONERY COMPANY, Boston, Mass. Filed Jan. 18, 1915.



Particular description of goods.—Candy.
Claims use since Oct. 20, 1914.

Ser. No. 84,007. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) MACANDREWS AND FORBES COMPANY, Camden, N. J. Filed Jan. 21, 1915.

Fiberlic

Particular description of goods.—Dry, Paste, and Ready-Mixed Paints.
Claims use since Dec., 1, 1914.

Ser. No. 84,049. (CLASS 39. CLOTHING.) JACOB BINSWANGER, Chicago, Ill. Filed Jan. 25, 1915.

BINSETTE

Particular description of goods.—Drawers, Gowns, Slips, and Sleeping-Garments Made of Muslin, Flannel, or Similar Material.
Claims use since Dec. 14, 1914.

Ser. No. 84,078. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) COVENTRY PREMIER, LIMITED, Coventry, England. Filed Jan. 25, 1915. Under ten-year proviso.



Particular description of goods.—Velocipedes, Motor-Cycles, Cycle-Cars, and Motor-Cars.
Claims use since on or about the 20th of June, 1885.

Ser. No. 84,216. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) JACOB DE BEER, Johnstown, N. Y. Filed Jan. 30, 1915.



Particular description of goods.—Base-Balls.
Claims use since Mar. 1, 1909.

Ser. No. 84,226. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) PRATT & LAMBERT, INC., Buffalo, N. Y. Filed Jan. 30, 1915.

Effecto

Particular description of goods.—Dry, Paste, and Ready-Mixed Paints, Stains, Paints and Enamels for Coating Wood, Metal, and Cement Surfaces, Enameled Undercoatings for Wood or Metal Surfaces, Driers, Fillers, Varnishes, and Paint and Varnish Removers.
Claims use since Dec. 13, 1913.

Ser. No. 84,233. (CLASS 37. PAPER AND STATIONERY.) AMERICAN WRITING PAPER CO., Holyoke, Mass. Filed Feb. 1, 1915. Under ten-year proviso.

PARSONS

Particular description of goods.—Writing and Printing Paper Known as Extra-Superfine and Colored Flats.
Claims use since May 16, 1891.

Ser. No. 84,247. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) THE PORTAGE RUBBER CO., Akron, Ohio. Filed Feb. 1, 1915.

PORTAGE

Particular description of goods.—Rubber Vehicle-Tires.
Claims use since February, 1910.

Ser. No. 84,248. (CLASS 37. PAPER AND STATIONERY.) PARSONS PAPER COMPANY, Holyoke, Mass. Filed Feb. 1, 1915. Under ten-year proviso.

PARSONS

Particular description of goods.—Writing and Printing Papers Known as Bond, Linen, and Ledger.
Claims use since May 16, 1891.

Ser. No. 84,266. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) KEEBLER-WEYL BAKING COMPANY, Philadelphia, Pa. Filed Feb. 2, 1915.



Particular description of goods.—Cake, Bread, Biscuits, and Cakes.
Claims use since Dec. 24, 1914.

Ser. No. 84,317. (CLASS 39. CLOTHING.) RELIANCE MANUFACTURING COMPANY, Chicago, Ill. Filed Feb. 5, 1915.



The trade-mark consists of a picture of a company of soldiers in a substantially equilateral triangle bounded by a pair of right triangles, one of which is colored red and the other blue. No claim is made for the exclusive right to the use of the word "Army."
Particular description of goods.—Shirts.
Claims use since Oct. 1, 1914.

Ser. No. 84,322. (CLASS 37. PAPER AND STATIONERY.) STANDARD WALL PAPER CO., Hudson Falls, N. Y. Filed Feb. 5, 1915.

"DECOTAS"

Comprising the word "Decotas."
Particular description of goods.—Wall-Paper.
Claims use since Jan. 28, 1915.

Ser. No. 84,370. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) JABURG BROTHERS, New York, N. Y. Filed Feb. 8, 1915.



No claim being made to the exclusive use of the words "Snow White" except in conjunction with the other features shown on the drawing herein presented.
Particular description of goods.—A Powdered Milk for Cream Filling, Cakes, and Bread.
Claims use since Jan. 19, 1911.

Ser. No. 84,481. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) THE ENTERPRISE MANUFACTURING COMPANY, Akron, Ohio. Filed Feb. 12, 1915.



Particular description of goods.—Fish-Hooks, Reels, Leaders, Artificial Flies, Baits, Spoons, Swivels, Sinkers, Fish-Scalers, Fish-Spears, Hook-Extractors, Fish-Stringers, Lines, Floats, Clearing-Rings, Connecting-Links, Chugging-Rigs, Casting-Weights, Fishing-Rods, Furnished Lines, Gaff-Hooks, Guts, Line-Spreaders, Landing-Nets, Spinners, Set-Line Snaps and Rings, and Trollers.
Claims use since on or about Nov. 1, 1914.

Ser. No. 84,547. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) CALIFORNIA FRUIT BEVERAGE COMPANY, Los Angeles, Cal. Filed Feb. 16, 1915.



The bear being printed in brown, the scroll in blue, and the leaves in green.
Particular description of goods.—Pineapple Mixture, Non-Alcoholic, Both Carbonated and Not Carbonated.
Claims use since July, 1912.

Ser. No. 84,687. (CLASS 27. HOROLOGICAL INSTRUMENTS.) GOODMAN BROTHERS, Columbus, Ohio. Filed Feb. 23, 1915.



The picture being fanciful.
Particular description of goods.—Watches and Clocks.
Claims use since Feb. 10, 1915.

Ser. No. 84,707. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) THE JACK SHANNON COMPANY, Chicago, Ill. Filed Feb. 23, 1915.



The words "Trade Mark" and "Chicago" being disclaimed.
Particular description of goods.—Base-Balls, Base-Ball Bats, Base-Ball Bases, Base-Ball Gloves, Base-Ball Masks, Basket-Balls, Basket-Ball Goals, Boxing-Gloves, Foot-Balls, Volley-Balls, Golf-Clubs, Golf-Bags, Hand-Balls, Ice-Skates, Indoor Balls, Punching-Bags, Tennis-Balls, Tennis-Rackets, Tennis-Nets, Tennis-Presses.
Claims use since Jan. 1, 1915.

Ser. No. 84,710. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) SCHEIDEL-WESTERN X-RAY COIL CO., Chicago, Ill. Filed Feb. 23, 1915.



Particular description of goods.—Cautery-Transformers; Treatment-Transformers; Bath-Cabinets; Dental Coils; Radiographic Tables; Radiostereoscopic Table; Stereoscopes for Electrotherapeutic Use; Diagnostic Boxes; Trochoscope; Leg-Supports; Trendelenberg Attachment; Radioscopes; Sphygmomanometers; Combined X-Ray and Treatment Transformers for Therapeutic Use; Vibrator Outfits; Vibrating Chairs.
Claims use since Jan. 1, 1913.

Ser. No. 84,761. (CLASS 24. LAUNDRY APPLIANCES AND MACHINES.) WILLIAM HOPE, Springfield, Ohio. Filed Feb. 25, 1915.

SUCCESS

Particular description of goods.—Washing-Machines.
Claims use since Dec. 10, 1910.

Ser. No. 84,850. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) LIEBENTHAL BROS. & CO., Cleveland, Ohio. Filed Mar. 1, 1915.

HUMPTY DUMPTY

Particular description of goods.—Candy.
Claims use since Feb. 9, 1915.

Ser. No. 84,885. (CLASS 17. TOBACCO PRODUCTS.) LA POPPEA CIGAR COMPANY, Los Angeles, Cal. Filed Mar. 1, 1915.



The picture shown in the drawing is fanciful and not of any particular person.
Particular description of goods.—Cigars.
Claims use since May 1, 1914.

Ser. No. 84,886. (CLASS 17. TOBACCO PRODUCTS.) LA POPPEA CIGAR COMPANY, Los Angeles, Cal. Filed Mar. 1, 1915.



Particular description of goods.—Cigars.
Claims use since May 1, 1914.

Ser. No. 84,898. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) GERMANTOWN ALMEGUM MANUFACTURING CO., Philadelphia, Pa. Filed Mar. 3, 1915.

MOGUL

Particular description of goods.—Rubber, Leather, and Fabric Tires.
Claims use since Feb. 24, 1915.

Ser. No. 84,956. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) DANISH BUTTER IMPORT CO., New York, N. Y. Filed Mar. 5, 1915.



Particular description of goods.—Butter.
Claims use since August, 1914.

Ser. No. 84,978. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) ETNA CHEMICAL COMPANY, Etna, Pa. Filed Mar. 6, 1915.



Particular description of goods.—Polish for Metal.
Claims use since Mar. 3, 1915.

Ser. No. 84,997. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) O. F. HAGEMAN, Lorain, Ohio. Filed Mar. 8, 1915.

NA-ME-GAH

Particular description of goods.—Coffee.
Claims use since Jan. 16, 1915.

Ser. No. 84,999. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) OKADA & ICHIDA COMPANY, San Francisco, Cal. Filed Mar. 8, 1915.

大関

The trade-mark consists of Japanese characters, which, being translated, mean in English "Champion."
Particular description of goods.—Rice and Dried Beans.
Claims use since about Jan. 1, 1915.

Ser. No. 85,006. (CLASS 6. FOODS AND INGREDIENTS OF FOODS.) CHARLES JAMES IBBOTT, Edmonds, British Columbia, Canada. Filed Mar. 8, 1915.



Particular description of goods.—Starch-Gloss.
Claims use since Jan. 30, 1915.

Ser. No. 85,014. (CLASS 32. FURNITURE AND UPHOLSTERY.) THE CLEMETSEN COMPANY, Chicago, Ill. Filed Mar. 8, 1915.

"2 in 1"

Particular description of goods.—Articles of Furniture—Namely, Desks, Tables, Stands, Cabinets, and Parts Thereof.
Claims use since prior to Jan. 1, 1913.

Ser. No. 85,028. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) AMALGAMATED CONCESSIONS CO., San Francisco, Cal. Filed Mar. 9, 1915.



Particular description of goods.—Confections—to wit, Candy, Popcorn, and Peanuts.
Claims use since Dec. 15, 1914.

Ser. No. 85,029. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) AMALGAMATED CONCESSIONS CO., San Francisco, Cal. Filed Mar. 9, 1915.

RED BOY

Particular description of goods.—Confections—to wit, Candy, Popcorn, and Peanuts.
Claims use since Dec. 15, 1914.

Ser. No. 85,040. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) HOCHSCHILD, KOHN & CO., Baltimore, Md. Filed Mar. 9, 1915.

ERMINOL

Particular description of goods.—Toilet Soap.
Claims use since July, 1909.

Ser. No. 85,170. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) ROBERT D. PRYDE, Orange, Conn. Filed Mar. 15, 1915.

BULL DOG



Particular description of goods.—Golf-Club Heads.
Claims use since on or about Nov. 10, 1911.

Ser. No. 85,175. (CLASS 48. MALT EXTRACTS AND LIQUORS.) ABNER-DRURY BREWING CO., Washington, D. C. Filed Mar. 16, 1915.

OLD MONKS BREW



No claim is made for the words "Old Monks Brew" except in connection with the picture shown.
Particular description of goods.—Beer.
Claims use since Aug. 25, 1914.

Ser. No. 85,188. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) LEO KOHN, New York, N. Y. Filed Mar. 16, 1915.

FRILAROB

Particular description of goods.—Barley and Wheat Used for Foods, Peas in the Form of Split Peas, Pepper, and Malt.
Claims use since Feb. 15, 1915.

Ser. No. 85,196. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE WORRELL MFG. CO., St. Louis, Mo. Filed Mar. 16, 1915.

Vermingo

Particular description of goods.—Insecticides and Disinfectants.
Claims use since September, 1910.

Ser. No. 85,228. (CLASS 32. FURNITURE AND UPHOLSTERY.) THE CLEMETSEN COMPANY, Chicago, Ill. Filed Mar. 18, 1915.

CLEMCO

Particular description of goods.—Articles of Furniture—Namely, Desks, Tables, Stands, Cabinets, Chairs, and Parts Thereof.
Claims use since Jan. 1, 1902.

Ser. No. 85,231. (CLASS 37. PAPER AND STATIONERY.) MAX GREENEBAUM, New York, N. Y. Filed Mar. 18, 1915.

LAURENTIC

Particular description of goods.—Writing and Printing Paper.
Claims use since Mar. 1, 1915.

Ser. No. 85,241. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) NATIONAL FLORAL CORPORATION, New York, N. Y. Filed Mar. 18, 1915.

National Florist

No claim being made to the word "Florist."
Particular description of goods.—Growing Plants, Cut Flowers, Seeds, Roots, Tubers, and Bulbs.
Claims use since Mar. 3, 1915.

Ser. No. 85,275. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) JOHN OLIVER JOHNSON, Chicago, Ill. Filed Mar. 20, 1915.

VELOUR

Particular description of goods.—Lawn-Seeds.
Claims use since about the 15th day of March, 1915.

Ser. No. 85,286. (CLASS 24. LAUNDRY APPLIANCES AND MACHINES.) STRAUSE GAS IRON COMPANY, Philadelphia, Pa. Filed Mar. 20, 1915.

EVERYWOMAN'S

Particular description of goods.—Gas-Irons.
Claims use since Mar. 13, 1915.

Ser. No. 85,309. (CLASS 24. LAUNDRY APPLIANCES AND MACHINES.) HOOPER SONS' MANUFACTURING CO., Philadelphia, Pa. Filed Mar. 22, 1915.

DREAM
BLUE STRIPE NET

Which consists of the words "Dream Blue Stripe," accompanied by the representation of a blue stripe, no claim being made herein to the exclusive right to use the word "Net."
Particular description of goods.—Laundry-Nets.
Claims use since Dec. 5, 1914.

Ser. No. 85,310. (CLASS 24. LAUNDRY APPLIANCES AND MACHINES.) HOOPER SONS' MANUFACTURING CO., Philadelphia, Pa. Filed Mar. 22, 1915.

IMPERIAL
BLUE STRIPE NET

Which consists of the words "Imperial Blue Stripe," accompanied by the representation of a blue stripe, no claim being made herein to the exclusive right to use the word "Net."
Particular description of goods.—Laundry-Nets.
Claims use since Oct. 8, 1914.

Ser. No. 85,320. (CLASS 39. CLOTHING.) PIONEER SHOE & RUBBER COMPANY, Minneapolis, Minn. Filed Mar. 22, 1915.

BULLSEYE

Particular description of goods.—Waterproof Clothing—Namely, Rain-Coats for Men, Women, and Children.
Claims use since Jan. 15, 1915.

Ser. No. 85,345. (CLASS 3. BAGGAGE, HORSE EQUIPMENTS, PORTFOLIOS, AND POCKET-BOOKS.) WALDEN W. SHAW LIVERY CO., Chicago, Ill. Filed Mar. 23, 1915.

SHAW

No claim is made for the representation of the tag shown.
Particular description of goods.—Metal Tags.
Claims use since Oct. 5, 1913.

Ser. No. 85,356. (CLASS 37. PAPER AND STATIONERY.) R. P. ANDREWS PAPER COMPANY, Washington, D. C. Filed Mar. 24, 1915.



EVERY AMERICAN CITIZEN
SHOULD VISIT WASHINGTON
THE MOST BEAUTIFUL CITY IN THE WORLD

The words "Every American Citizen Should Visit Washington the Most Beautiful City in the World" being disclaimed.
Particular description of goods.—Bond-Paper.
Claims use since Mar. 12, 1915.

Ser. No. 85,421. (CLASS 39. CLOTHING.) THE CHARLES WILLIAM STOKES, INC., Brooklyn, N. Y. Filed Mar. 25, 1915.

ARMITE

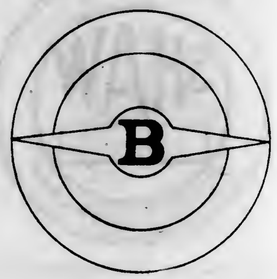
Particular description of goods.—Gloves.
Claims use since Mar. 17, 1915.

Ser. No. 85,440. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) A. & M. KARAGHEUSIAN, New York, N. Y. Filed Mar. 26, 1915.

SHAH-ABBAS

Particular description of goods.—Textile Rugs.
Claims use since February, 1915.

Ser. No. 85,447. (CLASS 50. MERCHANDISE NOT OTHERWISE CLASSIFIED.) MARY E. PORTER, Lewistown, Ill. Filed Mar. 26, 1915.



Particular description of goods.—Bee-Escapes.
Claims use since Mar. 15, 1915.

Ser. No. 85,454. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) WILLIAM J. H. STRONG, Beloit, Wis. Filed Mar. 26, 1915.

BREEZE

Particular description of goods.—Unitary Fluid-Pressure-Motor-Driven Fans and Parts Thereof.
Claims use since Mar. 18, 1915.

Ser. No. 85,459. (CLASS 43. THREAD AND YARN.) HENRY L. TIFFANY, New Bedford, Mass. Filed Mar. 26, 1915.

KNITALL

Particular description of goods.—Yarn, Thread, and Twine and Wound Packages Thereof.
Claims use since June, 1911.

Ser. No. 85,461. (CLASS 39. CLOTHING.) THE H. L. WILLING CO., Detroit, Mich. Filed Mar. 26, 1915.

FAST-MAIL

Particular description of goods.—Men's, Boys', and Children's Overalls.
Claims use since 1902.

Ser. No. 85,498. (CLASS 39. CLOTHING.) JOHN M. VAN HEUSEN, Boston, Mass. Filed Mar. 27, 1915.

MAN

Particular description of goods.—Rubber Heels.
Claims use since Mar. 15, 1915.

Ser. No. 85,503. (CLASS 24. LAUNDRY APPLIANCES AND MACHINES.) R. D. ROBINSON, Cincinnati, Ohio. Filed Mar. 27, 1915.

THE ELECTRIC PROCESS

An exclusive right in the words "The Electric Process" is disclaimed.
Particular description of goods.—Electric Equipments for Power Washing-Machines, Said Equipments Being Adapted to Send Currents of Electricity Through the Water in the Washing-Machines.
Claims use since March, 1914.

Ser. No. 85,547. (CLASS 39. CLOTHING.) MANNING PHILLIPS, New York, N. Y. Filed Mar. 30, 1915.

THE HIKER



Particular description of goods.—Women's and Misses' Outer Suits and Coats.
Claims use since Mar. 15, 1915.

Ser. No. 85,575. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HYMAN MANOWITZ, New York, N. Y. Filed Mar. 31, 1915.

PLUMAID

Particular description of goods.—A Preparation for the Treatment of Ailments Arising from Indigestion and Constipation.
Claims use since Sept. 1, 1914.

Ser. No. 85,599. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) ANCYL BEARDSLEE, Columbus, Ohio. Filed Apr. 1, 1915.

VANITY

Particular description of goods.—A Liquid Composition for Wood-Polish, Such as Used for Automobile-Bodies, Furniture, and Interior House Wood Finish.
Claims use since about Oct. 1, 1914.

Ser. No. 85,608. (CLASS 39. CLOTHING.) THE GANO DOWNES CLOTHING CO., Denver, Colo. Filed Apr. 1, 1915.

WAFER-WATE

Particular description of goods.—Outer Shirts, Undershirts, Union Suits, Drawers, and Pajamas Made from Textile Material.
Claims use since July, 1914.

Ser. No. 85,628. (CLASS 12. CONSTRUCTION MATERIALS.) CHEMICAL CONSTRUCTION COMPANY, Charlotte, N. C. Filed Apr. 2, 1915.

ACIPRUF

Particular description of goods.—Acid-Proof Construction-Cements.
Claims use since Mar. 9, 1915.

Ser. No. 85,652. (CLASS 37. PAPER AND STATIONERY.) THE SELBERT PAPER CO., Cincinnati, Ohio. Filed Apr. 2, 1915.

TIGER



Particular description of goods.—Printing and Writing Paper, Wrapping-Paper, Toilet-Paper, and Tissue-Paper.
Claims use since January, 1907.

Ser. No. 85,673. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MINA KLINE, Buffalo, N. Y. Filed Apr. 3, 1915.

PLUSH BLUSH

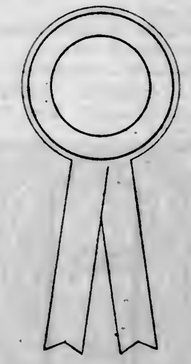
Particular description of goods.—Face-Powder.
Claims use since Sept. 1, 1914.

Ser. No. 85,701. (CLASS 31. FILTERS AND REFRIGERATORS.) THE BUCKLEY-NEWHALL COMPANY, New York and Brooklyn, N. Y. Filed Apr. 5, 1915.

BLUE RIBBON

Particular description of goods.—Refrigerators.
Claims use since Aug. 10, 1910.

Ser. No. 85,702. (CLASS 31. FILTERS AND REFRIGERATORS.) THE BUCKLEY-NEWHALL COMPANY, New York and Brooklyn, N. Y. Filed Apr. 5, 1915.



The trade-mark consists of a medallion with pendent streamers, both being printed in blue.
Particular description of goods.—Refrigerators.
Claims use since Aug. 10, 1910.

Ser. No. 85,726. (CLASS 38. PRINTS AND PUBLICATIONS.) CURRENT LITERATURE PUBLISHING COMPANY, New York, N. Y. Filed Apr. 6, 1915.

CURRENT OPINION

Particular description of goods.—Monthly Magazines.
Claims use since Jan. 1, 1913.

Ser. No. 85,728. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ABRAM GOLDSTEIN, Easton, Pa. Filed Apr. 6, 1915.

OLD-FASHIONED
EUROPEAN
LINIMENT



No claim being made to the exclusive use of the expression "Old-Fashioned European Liniment."
Particular description of goods.—A Liniment.
Claims use since Saturday, Mar. 29, 1915.

Ser. No. 85,740. (CLASS 16. PAINTS AND PAINTERS' MATERAILS.) F. J. BARNARD & CO., INC., Boston, Mass. Filed Apr. 7, 1915.

BARCO

Comprising the word "Barco."
Particular description of goods.—Book-Lacquer.
Claims use since Mar. 1, 1915.

Ser. No. 85,748. (CLASS 39. CLOTHING.) INTERWOVEN STOCKING COMPANY, New Brunswick, N. J. Filed Apr. 7, 1915.



No claim being made to the words "Toe and Heel" and "Punta y Talon" apart from the mark shown in the drawing.
Particular description of goods.—Hosiery.
Claims use since Aug. 18, 1914.

Ser. No. 85,774. (CLASS 29. BROOMS, BRUSHES, AND DUSTERS.) CHAS. E. CARROLL, Newport, Ark. Filed Apr. 8, 1915.

Use-a-U

Particular description of goods.—Tooth-Brushes.
Claims use since Mar. 31, 1914.

Ser. No. 85,781. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) NOVO MANUFACTURING CO. INC., New York, N. Y. Filed Apr. 8, 1915.

NOVO

Particular description of goods.—Electric Batteries and Casings Therefor.
Claims use since about Mar. 25, 1915.

Ser. No. 85,782. (CLASS 39. CLOTHING.) ORIGINAL SAMPLE CLOAK & SUIT COMPANY, Cincinnati, Ohio. Filed Apr. 8, 1915.



Particular description of goods.—Women's Coats, Dresses, Outer Suits, Outer Skirts, Shirt and Dress Waists, and Hats.
Claims use since October, 1912.

Ser. No. 85,791. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) THE J. B. WILLIAMS COMPANY, Glastonbury, Conn. Filed Apr. 8, 1915.

Iridesca

Particular description of goods.—Toilet Soap.
Claims use since about Mar. 8, 1915.

Ser. No. 85,801. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE BAYER COMPANY INC., New York, N. Y. Filed Apr. 9, 1915.

SALOFENO

Particular description of goods.—A Remedy for Rheumatic Affections and Neuralgias.
Claims use since Oct. 1, 1891.

Ser. No. 85,823. (CLASS 38. PRINTS AND PUBLICATIONS.) THE TICKER PUBLISHING CO., New York, N. Y. Filed Apr. 9, 1915.

THE TREND LETTER

Particular description of goods.—A Weekly Financial Publication.
Claims use since the year 1912.

Ser. No. 85,824. (CLASS 38. PRINTS AND PUBLICATIONS.) THE TICKER PUBLISHING CO., New York, N. Y. Filed Apr. 9, 1915.

THE MAGAZINE OF WALL STREET

Particular description of goods.—A Fortnightly Financial Publication.
Claims use since the year 1907.

Ser. No. 85,826. (CLASS 39. CLOTHING.) WHEELER & MOTTER MERCANTILE COMPANY, St. Joseph, Mo. Filed Apr. 9, 1915.

HEEL AND TOE



No claim being made to the words "Heel and Toe" apart from the mark shown in drawing.
Particular description of goods.—Men's and Boys' Socks.
Claims use since Dec. 1, 1914.

Ser. No. 85,829. (CLASS 10. FERTILIZERS.) AMERICAN AGRICULTURAL CHEMICAL CO., New York, N. Y. Filed Apr. 10, 1915.

GOLD COIN

Particular description of goods.—Fertilizer.
Claims use since 1880.

Ser. No. 85,830. (CLASS 10. FERTILIZERS.) AMERICAN AGRICULTURAL CHEMICAL CO., New York, N. Y. Filed Apr. 10, 1915.



Particular description of goods.—Ground-Bone Fertilizers.
Claims use since Jan. 5, 1891.

Ser. No. 85,861. (CLASS 39. CLOTHING.) MERRILL SILK COMPANY, Hornell, N. Y. Filed Apr. 10, 1915.

SMARTSET

Particular description of goods.—Ladies' and Misses' Silk Gloves, Silk Hosiery, Silk Underwear—Namely, Silk Bloomers and Silk Vests.
Claims use since January, 1915.

Ser. No. 85,897. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) REBECCA FINGER AND CO., Chicago, Ill. Filed Apr. 12, 1915.



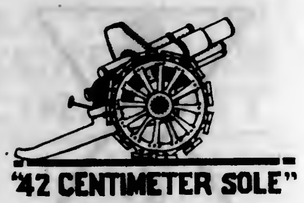
The use of the word "Cream" shown in connection with the trade-mark is disclaimed.
Particular description of goods.—A Face-Cream.
Claims use since Feb. 9, 1915.

Ser. No. 85,906. (CLASS 48. MALT EXTRACTS AND LIQUORS.) MISSION BREWING COMPANY, San Diego, Cal. Filed Apr. 12, 1915.

Hopski

Particular description of goods.—A Fermented Malt Liquor of Low Alcoholic Content.
Claims use since the 6th day of February, 1915.

Ser. No. 85,929. (CLASS 39. CLOTHING.) NEENAH SHOE COMPANY, Neenah, Wis. Filed Apr. 13, 1915.



Exclusive right to use of the word "Sole" being disclaimed.

Particular description of goods.—Boots and Shoes Made Wholly or in Part of Leather and Cloth, Said Shoes Being Made with a Specially-Prepared Composition Sole.

Claims use since Mar. 22, 1915.

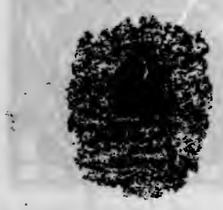
Ser. No. 85,937. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ANTHONY PHARMACY, New York, N. Y. Filed Apr. 14, 1915.

ANTALKA

Particular description of goods.—Candy Laxative.

Claims use since Apr. 12, 1915.

Ser. No. 85,939. (CLASS 15. OILS AND GREASES.) CONTINENTAL ASBESTOS CORPORATION, Worcester, Mass. Filed Apr. 14, 1915.



All rights to the use of the words "Guarantees Quality and Service" are disclaimed.

Particular description of goods.—Lubricants for Gears of All Kinds, Compression-Cups, and Axles.

Claims use since Mar. 20, 1915.

Ser. No. 85,943. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) JOHN W. MASURY & SON, New York, N. Y. Filed Apr. 14, 1915.

NOMAR

Particular description of goods.—Varnishes, Stains, and Enamels.

Claims use since Jan. 3, 1902.

Ser. No. 85,954. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) AMSTERDAMSCHE LIKEURSTOKERIJ "'T LOOTSJE" DER ERVEN LUCAS BOLS, Amsterdam, Netherlands Filed Apr. 15, 1915.



The facsimile signature was written by one of the firm, no claim being made to the word "Bols" in printed type.

Particular description of goods.—Gins and Liqueurs.

Claims use since Jan. 1, 1875.

Ser. No. 85,955. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) GEO. BORGFELDT & CO., New York, N. Y. Filed Apr. 15, 1915.



Particular description of goods.—Nettings, Veilings, Scrims, Marquisettes, Cretonnes, Sateens, Denim, Silkaline, Ticking, Linen, India Linen, Linen Crash, Lawn, Cotton Duck, Canvas, Batiste, Cotton and Silk Crape, Ladies' and Children's Cotton, Linen, and Silk Handkerchiefs and Neckerchiefs, Voiles, Chiffons, Muslins, Crêpe de Chines, Malines, Illusions, Laces, (Piece Goods,) and Veils.

Claims use since Mar. 23, 1915.

Ser. No. 85,957. (CLASS 30. CROCKERY, EARTHENWARE, AND PORCELAIN.) GEO. BORGFELDT & CO., New York, N. Y. Filed Apr. 15, 1915.



Particular description of goods.—Plates, Plaques, Mugs, Cups, China Bric-à-Brac, Fern-Dishes, Washstand Sets, Dresser Sets, Table Sets, Writing-Desk Sets, and Vases.

Claims use since Mar. 22, 1915.

Ser. No. 86,013. CLASS 39. CLOTHING.) L. H. CLARK MFG. CO., Brooklyn, N. Y. Filed Apr. 17, 1915.

Sani-A-Pron

Particular description of goods.—Aprons.

Claims use since December, 1914.

Ser. No. 86,022. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) TOCH BROTHERS, New York, N. Y. Filed Apr. 17, 1915.

DUSTOP

Particular description of goods.—Oil and Water Proof Paints.

Claims use since Mar. 12, 1915.

Ser. No. 86,049. (CLASS 6. CHMEICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) NATIONAL STARCH CO., New York, N. Y. Filed Apr. 19, 1915. Under ten-year proviso.

KINGSFORD'S

Particular description of goods.—Starch for Laundry and Manufacturing Purposes.

Claims use since 1848.

Ser. No. 86,052. (CLASS 38. PRINTS AND PUBLICATIONS.) PROFITABLE STOREKEEPING COMPANY, Chicago, Ill. Filed Apr. 19, 1915.

PROFITABLE STOREKEEPING

Particular description of goods.—A Monthly Magazine.

Claims use since about the 7th day of April, 1915.

Ser. No. 86,054. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) PAIGE & JONES CHEMICAL CO., New York, N. Y., and Hammond, Ind. Filed Apr. 19, 1915.



Particular description of goods.—Preparations for the Removal and Prevention of Scale in Boilers.

Claims use since Jan. 2, 1915.

Ser. No. 86,084. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE INTRAVENOUS PRODUCTS COMPANY, Denver, Colo. Filed Apr. 21, 1915.

VENEMETINE

Particular description of goods.—Pyorrhea Dentalis and Alveolaris.

Claims use since Apr. 14, 1915.

Ser. No. 86,120. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) S. C. SITTERSON, Kinston, N. C. Filed Apr. 22, 1915.

NECTO-COLA

Particular description of goods.—A Non-Intoxicating Carbonated Beverage.

Claims use since Mar. 4, 1915.

Ser. No. 86,125. (CLASS 39. CLOTHING.) A. J. TOWER COMPANY, Boston, Mass. Filed Apr. 22, 1915.

ARROW AJT BRAND

No claim being made to the word "Brand" apart from the mark shown in the drawing.

Particular description of goods.—Oiled Clothing.

Claims use since the 15th of March, 1900.

Ser. No. 86,144. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) MINNESOTA CHEMICAL MANUFACTURING COMPANY, St. Paul, Minn. Filed Apr. 23, 1915.



Particular description of goods.—Varnish-Preserver.

Claims use since Dec. 1, 1914.

Ser. No. 86,161. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) SURPASS CHEMICAL CO. INC., Menands and Albany, N. Y. Filed Apr. 23, 1915.

AUTOGYP

Consists of the word "Autogyp."

Particular description of goods.—Bleaching Salts, Bleaching-Sodas, Cleaning and Dyeing Preparations.

Claims use since on the 4th day of September, 1914

Ser. No. 86,172. (CLASS 39. CLOTHING.) JULIUS A. WEST, Washington, D. C. Filed Apr. 23, 1915.

Official KNIT

No claim being made to the exclusive use of the words "Knit Coat" except as associated with the other features of this mark.

Particular description of goods.—Sweaters.

Claims use since Apr. 19, 1915.

Ser. No. 86,184. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) JAMES J. O'TOOLE, Evansville, Ind. Filed Apr. 24, 1915.

TAXI-FAN

No claim being made to the word "Fan."

Particular description of goods.—Electric Fans.

Claims use since Mar. 1, 1915.

Ser. No. 86,194. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) FERDINAND WESTHEIMER & SONS, St. Joseph, Mo., and Cincinnati, Ohio. Filed Apr. 24, 1915.



Particular description of goods.—Ginger-Ale, Sarsaparilla, Plain Club-Soda, Root-Beer, Grape-Juice, Orangeade, Non-Intoxicating Soda, Soft Drinks, Aerated and Carbonated Waters or Liquids, Fruit and other Syrups Combined with Carbonated or Aerated Waters.

Claims use since Apr. 16, 1915.

Ser. No. 86,209. (CLASS 39. CLOTHING.) THE KAUT-REITH SHOE COMPANY, Carthage, Mo. Filed Apr. 26, 1915.

PLAYHOUSE

Particular description of goods.—Boots and Shoes of Kid, Leather, and Canvas.

Claims use since Apr. 1, 1915.

Ser. No. 86,219. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) WULLSCHLEGER & CO., New York, N. Y. Filed Apr. 26, 1915.

CREPE FLORETTE

No claim is made to the word "Crepe" apart from the mark shown in the drawing.

Particular description of goods.—Silk Chiffon.

Claims use since Apr. 12, 1915.

Ser. No. 86,223. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) ETNA CHEMICAL COMPANY, Etna, Pa. Filed Apr. 27, 1915.

RAINBOW

Particular description of goods.—Polish for Wood and Furniture.

Claims use since Mar. 3, 1915.

Ser. No. 86,250. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) INGERSOLL-RAND COMPANY, Jersey City, N. J., and New York, N. Y. Filed Apr. 28, 1915.

INVINCIBLE

Particular description of goods.—Fluid-Operated Hammer-Drills.

Claims use since the 26th day of March, 1915.

Ser. No. 86,270. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) DANIEL B. HILL, Eugene, Oreg. Filed Apr. 29, 1915.

DMC PACKAGE OUTFIT

The words "Package Outfit" shown in the drawing are hereby disclaimed.

Particular description of goods.—Towels, Bureau-Scarfs, Table-Runners, Handkerchiefs, Pillow-Tops, Doilies, Napkins, and Table-Cloths.

Claims use since Apr. 22, 1915.

Ser. No. 86,304. (CLASS 39. CLOTHING.) THE SALT'S TEXTILE MANUFACTURING COMPANY, Bridgeport, Conn., and New York, N. Y. Filed Apr. 30, 1915.

NU-LAMB

Particular description of goods.—Women's, Children's, and Infants' Coats, Cloaks, Wraps, and Capes.

Claims use since about Mar. 25, 1915.

Ser. No. 86,316. (CLASS 31. FILTERS AND REFRIGERATORS.) FUCHS-KELLY COMPANY, New York, N. Y. Filed May 1, 1915.

F=K

Particular description of goods.—Super-coolers.

Claims use since Dec. 1, 1914.

Ser. No. 86,333. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) PHOENIX MANUFACTURING CO., Eau Claire, Wis. Filed May 1, 1915.

CENTIPED

Particular description of goods.—Gas Traction-Engines.

Claims use since the 7th day of January, 1914.

Ser. No. 86,338. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) BURTON CASSADAY, West Terre Haute, Ind. Filed May 3, 1915.

Crescent Cola

Particular description of goods.—Soft Drinks Drawn from the Fountain or Sealed in Bottles.

Claims use since Mar. 5, 1914.

Ser. No. 86,367. (CLASS 39. CLOTHING.) LANDAU, GOLDBERG & LEVY, New York, N. Y. Filed May 4, 1915.

Admiration Clothes

Comprising the words "Admiration Clothes," no claim being made to the word "Clothes" apart from the mark shown in the drawing.

Particular description of goods.—Men's and Young Men's Outer Clothes and Overcoats.

Claims use since Mar. 20, 1915.

Ser. No. 86,373. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE AMERICAN AXE & TOOL COMPANY, Glassport, Pa., and New York, N. Y. Filed May 5, 1915.

TIGRE



Particular description of goods.—Agricultural Corn-Knives, Bush-Hooks, Axes, Hatchets, Machetes, Adzes, Hoes, Hay-Knives, Bill-Hooks, Grass-Hooks, Shovels, Macanas, Cumas, Trimmers, Harpoons, Picks, Mattocks, Spades, Crowbars, Hammers, Chisels, and Scythes.

Claims use since Jan. 1, 1914.

Ser. No. 86,374. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE AMERICAN AXE & TOOL COMPANY, Glassport, Pa., and New York, N. Y. Filed May 5, 1915.

CONDOR



Particular description of goods.—Agricultural Corn-Knives, Bush-Hooks, Axes, Hatchets, Machetes, Adzes, Hoes, Hay-Knives, Bill-Hooks, Grass-Hooks, Shovels, Macanas, Cumas, Trimmers, Harpoons, Picks, Mattocks, Spades, Crowbars, Hammers, Chisels, and Scythes.

Claims use since Jan. 1, 1914.

Ser. No. 86,407. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) PARLIN & ORENDORFF CO., Canton, Ill. Filed May 5, 1915.

PERFECTO

Particular description of goods.—Cultivators.

Claims use since Apr. 15, 1915.

Ser. No. 86,468. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) BERDAN AND COMPANY, Toledo, Ohio. Filed May 8, 1915.

CHEF



Particular description of goods. — Cider, Ginger-Ale, Grape-Juice, Fruit-Juices, Soda-Fountain Beverages, Pop, Orange-Juice, Mineral Water.
Claims use since Apr. 1, 1902.

Ser. No. 86,471. (CLASS 29. BROOMS, BRUSHES, AND DUSTERS.) GEO. BORGFELDT & Co., New York, N. Y. Filed May 8, 1915.

ROYAL BENGAL

Particular description of goods.—Toilet, Cloth, Tooth, Nail, and Hair Brushes.
Claims use since Apr. 12, 1915.

Ser. No. 86,484. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) THOMAS J. MOLLOY, Brooklyn, N. Y. Filed May 8, 1915.

HOOT MON

Particular description of goods.—Scotch Whisky.
Claims use since Apr. 21, 1915.

Ser. No. 86,490. (CLASS 39. CLOTHING.) ROYAL MFG. CO., Gloucester, Mass.; New York, N. Y.; Boston, Mass., and Chicago, Ill. Filed May 8, 1915.



Particular description of goods.—Dresses.
Claims use since September, 1914.

TRADE-MARK REGISTRATIONS GRANTED

JUNE 1, 1915.

104,432. SELF-RISING WHEAT-FLOUR. THE ACME MILLS, Hopkinsville, Ky.
Filed September 5, 1913. Serial No. 72,684. PUBLISHED DECEMBER 1, 1914.

104,433. FERTILIZERS. AMERICAN AGRICULTURAL CHEMICAL CO., New York, N. Y.
Filed January 8, 1915. Serial No. 83,722. PUBLISHED MARCH 23, 1915.

104,434. LIQUID CHEMICAL SOLUTION FOR REMOVING RUST AND GREASE FROM METAL SURFACES. AMERICAN CHEMICAL PAINT COMPANY, Philadelphia, Pa.
Filed January 7, 1915. Serial No. 83,716. PUBLISHED MARCH 23, 1915.

104,435. CERTAIN NAMED PHARMACEUTICAL PREPARATIONS FOR TOILET USE. EUGENE M. ATTRIDGE, Binghamton, N. Y.
Filed January 7, 1915. Serial No. 83,707. PUBLISHED MARCH 23, 1915.

104,436. HAIR-TONIC. BARCLAY & Co., Wilmington, Del., and New York, N. Y.
Filed January 28, 1915. Serial No. 84,156. PUBLISHED MARCH 23, 1915.

104,437. HAIR-TONIC, FACE-CREAM, LINIMENTS, BLOOD-PURIFIER, HAIR-DYES, TALCUM POWDER, DENTIFRICE, AND FLORAL EXTRACTS. BARCLAY & Co., Wilmington, Del., and New York, N. Y.
Filed January 28, 1915. Serial No. 84,158. PUBLISHED MARCH 23, 1915.

104,438. FIBER CHAIR-SEATS. BISON FIBRE COMPANY, INC., Buffalo, N. Y.
Filed January 16, 1915. Serial No. 83,893. PUBLISHED MARCH 23, 1915.

104,439. COAL. BLOCTON CAHABA COAL Co., Piper, Ala.
Filed February 1, 1915. Serial No. 84,234. PUBLISHED MARCH 23, 1915.

104,440. COMPOSITE RUBBER PACKING FOR PISTONS. BOWERS RUBBER WORKS, San Francisco, Cal.
Filed February 16, 1914. Serial No. 75,924. PUBLISHED MARCH 9, 1915.

104,441. PERMISSIVE EXPLOSIVES. BURTON POWDER COMPANY, Pittsburgh, Pa.
Filed January 29, 1915. Serial No. 84,189. PUBLISHED MARCH 23, 1915.

104,442. MONTHLY MAGAZINES. CHAPPLE PUBLISHING COMPANY, Boston, Mass.
Filed January 9, 1915. Serial No. 83,750. PUBLISHED MARCH 16, 1915.

104,443. COLLARS. J. & M. COHN, New York, N. Y.
Filed February 26, 1915. Serial No. 84,780. PUBLISHED MARCH 23, 1915.

104,444. WASHING-POWDER. THE CUDAHY PACKING COMPANY, Chicago, Ill.
Filed September 9, 1914. Serial No. 81,128. PUBLISHED NOVEMBER 10, 1914.

104,445. KID GLOVES. JAMES H. DUNHAM & Co., New York, N. Y.
Filed February 10, 1915. Serial No. 84,425. PUBLISHED MARCH 23, 1915.

104,446. HOSIERY. DURHAM HOSIERY MILLS, Durham, N. C.
Filed February 20, 1915. Serial No. 84,649. PUBLISHED MARCH 23, 1915.

104,447. HONEY, CANE-SYRUP. ESTATE OF RICHARD DEIGNAN, Columbus, Ga., by R. C. Deignan and John F. Deignan, Columbus, Ga., executors.
Filed January 24, 1914. Serial No. 75,398. PUBLISHED MARCH 9, 1915.

104,448. DETERGENT CLEANING PREPARATION. FAXON, WILLIAMS & FAXON, Buffalo, N. Y.
Filed July 18, 1912. Serial No. 64,809. PUBLISHED NOVEMBER 3, 1914.

104,449. BUTTER AND EGGS. SOL GOLDSTEIN, Chicago, Ill.
Filed June 19, 1914. Serial No. 79,214. PUBLISHED OCTOBER 20, 1914.

104,450. CIGARS. HEINEMAN BROS., Baltimore, Md.
Filed December 18, 1914. Serial No. 83,377. PUBLISHED MARCH 16, 1915.

104,451. MAPS. E. HENCE & Co., New York, N. Y.
Filed August 31, 1914. Serial No. 80,898. PUBLISHED JANUARY 12, 1915.

104,452. SAUCE OR RELISH. HOE & Co., LIMITED, Manchester, England.
Filed January 9, 1914. Serial No. 75,054. PUBLISHED MARCH 9, 1915.

104,453. SIZED, STIFFENED, AND FINISHED CLOTH FOR BINDING PRINTED BOOKS. THE HOLLISTON MILLS, Norwood, Mass.
Filed January 28, 1915. Serial No. 84,174. PUBLISHED MARCH 23, 1915.

104,454. BREAD. OSWALD JAEGER BAKING Co., Milwaukee, Wis.
Filed January 11, 1915. Serial No. 83,781. PUBLISHED MARCH 16, 1915.

104,455. REMEDY FOR CERTAIN NAMED AILMENTS. Mrs. L. W. JAMES, State Line, Miss.
Filed February 9, 1915. Serial No. 84,403. PUBLISHED MARCH 23, 1915.

104,456. PAPER ICE-BLANKETS AND NURSERY-BLANKETS. KALAMAZOO VEGETABLE PARCHMENT COMPANY, Kalamazoo, Mich.
Filed January 22, 1915. Serial No. 84,036. PUBLISHED MARCH 16, 1915.

104,457. WATER-SOFTENERS AND CLEANSERS. KLEANALL CHEMICAL COMPANY, Hyde Park, Pa.
Filed January 7, 1915. Serial No. 83,717. PUBLISHED MARCH 16, 1915.

104,458. BUTTER. S. S. LARD, Houston, Tex.
Filed March 12, 1914. Serial No. 76,584. PUBLISHED JUNE 2, 1914.

104,459. COSMETIC FOR EFFECTING THE GROWTH OF THICK AND LONG EYELASHES AND EYEBROWS. LASHNEEN COMPANY, Philadelphia, Pa.
Filed January 29, 1915. Serial No. 84,200. PUBLISHED MARCH 23, 1915.

104,460. LADIES' HATS. PAULINE LIEBERMAN, New York, N. Y.
Filed February 17, 1915. Serial No. 84,582. PUBLISHED MARCH 23, 1915.

104,461. WRITING-PAPER. E. E. LLOYD PAPER Co., Chicago, Ill.
Filed January 23, 1915. Serial No. 84,060. PUBLISHED MARCH 16, 1915.

104,462. ROUGES. R. H. MACY & Co., New York, N. Y.
Filed January 2, 1915. Serial No. 83,620. PUBLISHED MARCH 16, 1915.

104,463. COMPOUND SULFUR OINTMENT. MENLEY & JAMES, LIMITED, New York, N. Y.
Filed January 6, 1915. Serial No. 83,699. PUBLISHED MARCH 16, 1915.

104,464. WORK-SHIRTS, JACKETS, TROUSERS, AND OVERALLS. MOHAWK OVERALL CO., Detroit, Mich.
Filed April 18, 1914. Serial No. 77,560. PUBLISHED MARCH 23, 1915.

104,465. NEWSPAPER. MORNING JOURNAL ASSOCIATION, New York, N. Y.
Filed February 18, 1914. Serial No. 76,006. PUBLISHED MARCH 16, 1915.

104,466. CONDENSED MILK. N. V. FABRIEK VAN MELKPRODUCTEN "EXCELSIOR," Woerden, Netherlands.
Filed August 4, 1914. Serial No. 80,294. PUBLISHED MARCH 16, 1915.

104,467. CONDENSED MILK. N. V. FABRIEK VAN MELKPRODUCTEN "EXCELSIOR," Woerden, Netherlands.
Filed August 4, 1914. Serial No. 80,296. PUBLISHED MARCH 16, 1915.

104,468. CONDENSED MILK. NAAML. VENN. "EXCELSIOR" FABRIEK VAN MELKPRODUCTEN, Woerden, Netherlands.
Filed October 7, 1914. Serial No. 81,720. PUBLISHED MARCH 16, 1915.

104,469. CONDENSED MILK. NAAML. VENN. "EXCELSIOR" FABRIEK VAN MELKPRODUCTEN, Woerden, Netherlands.
Filed October 7, 1914. Serial No. 81,721. PUBLISHED MARCH 16, 1915.

104,470. CONDENSED MILK. NAAML. VENN. FABRIEK VAN MELKPRODUCTEN "EXCELSIOR," Woerden, Netherlands.
Filed October 7, 1914. Serial No. 81,722. PUBLISHED MARCH 16, 1915.

104,471. BATH-POWDER. NATIONAL BATH POWDER COMPANY, Fort Smith, Ark.
Filed December 18, 1914. Serial No. 83,382. PUBLISHED MARCH 23, 1915.

104,472. BAKING-SODA, BAKING-POWDER, BLUING, AND AMMONIA. NATIONAL GROCERY COMPANY, Jersey City, N. J.
Filed January 20, 1915. Serial No. 83,981. PUBLISHED MARCH 23, 1915.

104,473. PIANO-PLAYERS, SELF-PLAYING PIANOS, ORCHESTRIONS, REPRODUCTION-PIANOS, STRINGED PIANOS, STRINGED ORCHESTRIONS, AND PARTS THEREOF. THE OPERATORS' PIANO CO., Chicago, Ill.
Filed January 13, 1915. Serial No. 83,834. PUBLISHED MARCH 16, 1915.

104,474. ANIMAL-TRAPS. OSHKOSH TRAP & NOVELTY CO., Oshkosh, Wis.
Filed July 27, 1914. Serial No. 80,105. PUBLISHED JANUARY 26, 1915.

104,475. ORANGES, GRAPE-FRUIT, AND TANGERINES. JESSE J. PARRISH, Titusville, Fla.
Filed January 5, 1915. Serial No. 83,689. PUBLISHED MARCH 16, 1915.

104,476. RUBBER HEELS AND SOLES. WILLARD PERKINS, San Francisco, Cal.
Filed December 9, 1914. Serial No. 83,185. PUBLISHED JANUARY 19, 1915.

104,477. MISSES' OUTER SUITS AND COATS. I. & M. PHILLIPS, New York, N. Y.
Filed December 5, 1914. Serial No. 83,096. PUBLISHED MARCH 23, 1915.

104,478. LAXATIVE GUM. LOUIS H. PINCO, New York, N. Y.
Filed January 29, 1915. Serial No. 84,202. PUBLISHED MARCH 23, 1915.

104,479. BEER. PITTSBURGH BREWING COMPANY, Pittsburgh, Pa.
Filed January 30, 1915. Serial No. 84,225. PUBLISHED MARCH 23, 1915.

104,480. INCUBATOR. RADIO-ROUND INCUBATOR CO., Wayne, Nebr.
Filed September 28, 1914. Serial No. 81,532. PUBLISHED MARCH 23, 1915.

104,481. BLUE AND LAUNDRY ARTICLES CONTAINING BLUE. RECKITTS (U. S. A.), LTD., New York, N. Y., and New Brunswick, N. J.
Filed January 28, 1915. Serial No. 84,179. PUBLISHED MARCH 23, 1915.

104,482. INNER TUBES FOR TIRES. THE REPUBLIC RUBBER COMPANY, Youngstown, Ohio.
Filed October 11, 1911. Serial No. 59,107. PUBLISHED FEBRUARY 11, 1913.

104,483. CHEMICAL CLOSETS AND SANITARY WASH-STANDS. ROWE SANITARY MFG. CO., Detroit, Mich.
Filed December 17, 1914. Serial No. 83,353. PUBLISHED MARCH 23, 1915.

104,484. VALVES FOR HEATING APPARATUS AND DAMPER-REGULATORS. SAFETY VAPOR HEATING CO., Buffalo, N. Y.
Filed October 31, 1914. Serial No. 82,313. PUBLISHED MARCH 16, 1915.

104,485. CURTAINS AND DRAPERIES. THE SCRANTON LACE COMPANY, Scranton, Pa.
Filed February 11, 1915. Serial No. 84,468. PUBLISHED MARCH 23, 1915.

104,486. STOMACH-DROPS. RICHARD SIMON, Newton, N. J.
Filed March 24, 1914. Serial No. 76,909. PUBLISHED MARCH 23, 1915.

104,487. WASHING COMPOUNDS IN CERTAIN FORMS FOR CLEANING OR WASHING WALLS, CEILINGS, FLOORS, AND THE LIKE. HARVEY E. SNYDER, Akron, Ohio.
Filed October 22, 1914. Serial No. 82,084. PUBLISHED MARCH 16, 1915.

104,488. CERTAIN NAMED PHARMACEUTICAL PREPARATIONS. CHARLES BOROMEO SPIES, New York, N. Y.
Filed February 5, 1915. Serial No. 84,319. PUBLISHED MARCH 23, 1915.

104,489. FACE-POWDER. CLARA TETLOW, Philadelphia, Pa.
Filed May 7, 1914. Serial No. 78,116. PUBLISHED MARCH 23, 1915.

104,490. CEMENT FOR PACKING OR JOINTING METALLIC JOINTS. THOMAS & BISHOP, London, England.
Filed November 18, 1914. Serial No. 82,678. PUBLISHED MARCH 23, 1915.

104,491. COTTON DUCK. TURNER, HALSEY COMPANY, New York, N. Y.
Filed January 6, 1915. Serial No. 83,702. PUBLISHED FEBRUARY 23, 1915.

104,492. REMEDY FOR RHEUMATISM. SCHUYLER C. UNRUH, Benton Harbor, Mich.
Filed October 20, 1914. Serial No. 82,041. PUBLISHED MARCH 23, 1915.

104,493. HIGH CHAIRS FOR BABIES. WABASH SANITRAY CO., Wabash, Ind.
Filed January 8, 1915. Serial No. 83,742. PUBLISHED MARCH 23, 1915.

104,494. FIREWORKS. EDWARD H. WAGNER, New York, N. Y.
Filed January 20, 1915. Serial No. 83,987. PUBLISHED MARCH 23, 1915.

104,495. COTTON PIECE GOODS. WEGELIN & SCHWEIZER, New York, N. Y.
Filed November 17, 1914. Serial No. 82,651. PUBLISHED MARCH 23, 1915.

104,496. COMPOUND FOR TREATMENT OF DANDRUFF AND ECZEMA AND FOR USE AS A HAIR-TONIC. WHETZEL, BILLUPS AND PICKRELL, Colfax, Wash.
Filed December 3, 1914. Serial No. 83,057. PUBLISHED MARCH 23, 1915.

104,497. CERTAIN NAMED MEDICINES AND PHARMACEUTICAL PREPARATIONS. JOHN WYETH & BROTHER, INCORPORATED, Philadelphia, Pa.
Filed December 16, 1914. Serial No. 83,338. PUBLISHED MARCH 23, 1915.

104,498. ARTICLE FOR CLEANSING, POLISHING, AND SCOURING. HARRY S. WILLIAMS, Springfield, Ohio.
Filed November 16, 1914. Serial No. 82,635. PUBLISHED JANUARY 26, 1915.

104,499. DOLLS AND CERTAIN NAMED TOYS MADE OF PYROXYLIN COMPOUNDS. RHEINISCHE GUMMI UND CELLULOID FABRIK, Mannheim-Neckarau, Germany.
Filed July 3, 1914. Serial No. 79,544. PUBLISHED MARCH 23, 1915.

104,500. ABDOMINAL BELTS. THE WEIL CORSET CO., New Haven, Conn.
Filed November 7, 1914. Serial No. 82,478. PUBLISHED MARCH 23, 1915.

104,501. STOMACH-BITTERS. THE AHRENDT & SONS CO., Toledo, Ohio.
Filed January 19, 1915. Serial No. 83,950. PUBLISHED MARCH 9, 1915.

104,502. EXTERNAL REMEDIES FOR THE TREATMENT OF CERTAIN NAMED AILMENTS. MARY J. NUNES, Tonopah, Nev.
Filed July 9, 1913. Serial No. 71,622. PUBLISHED MARCH 23, 1915.

104,503. CITRUS FRUITS. EAGLE LAKE CITRUS GROWERS ASSOCIATION, Eagle Lake, Fla.
Filed January 9, 1915. Serial No. 83,754. PUBLISHED MARCH 16, 1915.

104,504. LUBRICATING OILS AND GREASES. FISKE BROTHERS REFINING CO., New York, N. Y.
Filed January 9, 1915. Serial No. 83,758. PUBLISHED MARCH 23, 1915.

104,505. RUG AND INSECT EXTERMINATOR. FLASH CHEMICAL COMPANY, Boston, Mass.
Filed January 30, 1915. Serial No. 84,217. PUBLISHED MARCH 23, 1915.

104,506. CHEWING-GUM AND CANDY. FRANK H. FLEER CORPORATION, Philadelphia, Pa.
Filed July 9, 1914. Serial No. 79,063. PUBLISHED MARCH 16, 1915.

104,507. ANESTHETICS, OBTUNDENTS, AND SIMILAR PHARMACEUTICAL PREPARATIONS. GENUNG & MAYER, West Haven, Conn.
Filed January 25, 1915. Serial No. 84,081. PUBLISHED MARCH 23, 1915.

104,508. LIQUEUR. E. GODFREE, FELTON & CO., Westminster, England.
Filed January 16, 1915. Serial No. 83,898. PUBLISHED MARCH 23, 1915.

104,509. LARD SUBSTITUTE COMPOSED OF COTTONSEED OIL AND BEEF-FAT. W. R. GRACE & CO., New York, N. Y.
Filed November 27, 1914. Serial No. 82,935. PUBLISHED MARCH 16, 1915.

104,510. MOTION-PICTURE-PROJECTING MACHINES AND CAMERAS. KINAK MOTION PICTURE COMPANY INC., New York, N. Y.
Filed August 29, 1914. Serial No. 80,875. PUBLISHED DECEMBER 1, 1914.

104,511. PREPARED PAINTS, VARNISHES, AND ENAMELS. KING PAINT MFG. CO., New York, N. Y.
Filed January 12, 1915. Serial No. 83,801. PUBLISHED MARCH 23, 1915.

104,512. CITRUS FRUITS. LAKELAND CITRUS GROWERS ASSOCIATION, Lakeland, Fla.
Filed January 13, 1915. Serial No. 83,830. PUBLISHED MARCH 16, 1915.

104,513. CITRUS FRUITS—NAMELY, ORANGES, LEMONS, TANGERINES, GRAPE-FRUIT, AND LIMES. LAKELAND CITRUS GROWERS ASSOCIATION, Lakeland, Fla.
Filed January 13, 1915. Serial No. 83,831. PUBLISHED MARCH 16, 1915.

104,514. CERTAIN NAMED ARTICLES COMPOSED OF PLASTIC MATERIAL. JULES EUGÈNE LEGAVRE, Paris, France.
Filed December 9, 1913. Serial No. 74,467. PUBLISHED JANUARY 26, 1915.

104,515. COLD-CREAM AND SKIN-CLEANSER. LENA RIVEARS, Portland, Oreg.
Filed November 23, 1914. Serial No. 82,794. PUBLISHED JANUARY 26, 1915.

104,516. ELECTRICAL LIGHTING MEANS FOR MOTION-PICTURE AND OTHER AUDITORIUMS. SHADO-LITE MANUFACTURING COMPANY, Beaver Falls, Pa.
Filed December 23, 1914. Serial No. 83,496. PUBLISHED MARCH 23, 1915.

104,517. COMPOUND FOR CLEANING AND POLISHING METAL SURFACES. GEORGE E. SIMONS, Seattle, Wash.
Filed September 28, 1914. Serial No. 81,535. PUBLISHED JANUARY 26, 1915.

104,518. ILLUMINATING-GLASSWARE. STEUBEN GLASS WORKS, Corning, N. Y.
Filed December 9, 1914. Serial No. 83,188. PUBLISHED MARCH 23, 1915.

104,519. CHEWING-GUM. ALBERT M. STOCKWELL, Rochester, N. Y.
Filed March 7, 1914. Serial No. 76,452. PUBLISHED MARCH 9, 1915.

104,520. SOUP-FLOURS MADE OF CERTAIN NAMED BEANS, PEAS, BARLEY, AND RICE. THOMPSON MILLING COMPANY, Philadelphia, Pa.
Filed November 24, 1914. Serial No. 82,894. PUBLISHED MARCH 16, 1915.

104,521. ALFALFA FOR FEEDING PURPOSES. VIRGINIA ALFALFA CORPORATION, Richmond, Va.
Filed September 22, 1913. Serial No. 72,999. PUBLISHED MARCH 16, 1915.

104,522. MONTHLY MAGAZINE. AMERICAN MANUFACTURING CO., Boston, Mass., and New York, N. Y.
Filed January 9, 1915. Serial No. 83,744. PUBLISHED MARCH 9, 1915.

104,523. DRIED FRUITS. THE J. K. ARMSBY CO., San Francisco, Cal.
Filed December 19, 1914. Serial No. 83,396. PUBLISHED MARCH 16, 1915.

104,524. WRAPPING-PAPER. BADGER BAG & PAPER CO., Wausau, Wis., and Chicago, Ill.
Filed December 2, 1914. Serial No. 83,013. PUBLISHED MARCH 16, 1915.

104,525. SAFETY FUSE-PLUGS AND CARTRIDGES. CORNELIUS C. BALASSA, New York, N. Y.
Filed February 11, 1915. Serial No. 84,446. PUBLISHED MARCH 23, 1915.

104,526. CARBONATED NON-ALCOHOLIC BEVERAGES. GEORGE A. BANCROFT, Natick, Mass.
Filed February 9, 1915. Serial No. 84,395. PUBLISHED MARCH 23, 1915.

104,527. COFFEE-PERCOLATORS. JACOB B. BLEICHRODE, New York, N. Y.
Filed January 9, 1915. Serial No. 83,747. PUBLISHED MARCH 23, 1915.

104,528. PREPARATION FOR THE TREATMENT OF DIPHTHERIA, SORE THROAT, PNEUMONIA, AND LA GRIPPE. BORDER CHEMICAL COMPANY, Revere, Mass.
Filed September 9, 1914. Serial No. 81,125½. PUBLISHED JANUARY 26, 1915.

104,529. DISINFECTANT, ANTISEPTIC, INSECTICIDE, AND GERMICIDE. BORDEN CHEMICAL COMPANY, Revere, Mass.
Filed September 9, 1914. Serial No. 81,126½. PUBLISHED JANUARY 26, 1915.

104,530. LIGHTNING-RODS, LIGHTNING-ROD PARTS, LIGHTNING-ROD FIXTURES, LIGHTNING-ROD POINTS, AND LIGHTNING-ROD ORNAMENTS. COLE BROTHERS LIGHTNING ROD COMPANY, St. Louis, Mo.
Filed February 11, 1915. Serial No. 84,449. PUBLISHED MARCH 30, 1915.

104,531. LIGHTNING-RODS, LIGHTNING-ROD PARTS, LIGHTNING-ROD FIXTURES, LIGHTNING-ROD POINTS, AND LIGHTNING-ROD ORNAMENTS. COLE BROTHERS LIGHTNING ROD COMPANY, St. Louis, Mo.
Filed February 11, 1915. Serial No. 84,450. PUBLISHED MARCH 30, 1915.

104,532. ELECTRICAL AND GALVANIC CARBONS. C. CONRADTY, Nuremberg, Germany.
Filed January 28, 1915. Serial No. 84,168. PUBLISHED MARCH 23, 1915.

104,533. AUTOMOBILE RUBBER TIRES. DOUBLE TREAD TIRE COMPANY, INC., New York, N. Y.
Filed December 26, 1914. Serial No. 83,530. PUBLISHED MARCH 16, 1915.

104,534. CERTAIN NAMED MACHINERY AND PARTS THEREOF. THE FAFNIR BEARING COMPANY, New Britain, Conn.
Filed January 22, 1915. Serial No. 84,025. PUBLISHED MARCH 23, 1915.

104,535. PRINTED ANNUAL PUBLICATION. R. M. FORD & CO., INC., New York, N. Y.
Filed November 17, 1914. Serial No. 82,641. PUBLISHED MARCH 23, 1915.

104,536. FIGS. THE HILLS BROTHERS COMPANY, New York, N. Y.
Filed February 28, 1914. Serial No. 76,244. PUBLISHED JULY 28, 1914.

104,537. FIGS AND DATES. THE HILLS BROTHERS COMPANY, New York, N. Y.
Filed March 23, 1914. Serial No. 76,855. PUBLISHED JULY 28, 1914.

104,538. POLISHES FOR WOODWORK, PIANOS, FURNITURE, AUTOMOBILES, POLISHED SURFACES OF ALL KINDS, LINOLEUM, &c. INSTANT PRODUCTS CO., Buffalo, N. Y.
Filed January 25, 1915. Serial No. 84,085. PUBLISHED MARCH 23, 1915.

104,539. JEWELERS' PIERCING-SAWS. L. H. KELLER & COMPANY, New York, N. Y.
Filed January 2, 1915. Serial No. 83,622. PUBLISHED MARCH 23, 1915.

104,540. CERTAIN NAMED FOODS. KLAUBER WANGENHEIM CO., San Diego, Cal.
Filed October 10, 1914. Serial No. 81,787. PUBLISHED MARCH 16, 1915.

104,541. COFFEE. G. LINDBERG, Tacoma, Wash.
Filed January 5, 1915. Serial No. 83,688. PUBLISHED MARCH 16, 1915.

104,542. HOOF-NIPPERS. THE LOWE MANUFACTURING COMPANY, Enderlin, N. D.
Filed January 28, 1915. Serial No. 84,177. PUBLISHED MARCH 23, 1915.

104,543. ADJUSTABLE HAT-LININGS. LYNAT, LTD., London, England, and Philadelphia, Pa.
Filed December 11, 1914. Serial No. 83,228. PUBLISHED MARCH 23, 1915.

104,544. PLUG, TWIST, CUT PLUG, SMOKING-TOBACCO, AND LEAF-TOBACCO. MACLIN-ZIMMER-McGILL TOBACCO CO., INCORPORATED, Petersburg, Va.
Filed October 26, 1914. Serial No. 82,176. PUBLISHED MARCH 23, 1915.

104,545. CANNED PINEAPPLE. PEARL CITY FRUIT CO., LTD., Honolulu, Territory of Hawaii.
Filed October 22, 1914. Serial No. 82,081. PUBLISHED MARCH 16, 1915.

104,546. CHEESE. PHENIX CHEESE CO., New York, N. Y.
Filed January 2, 1915. Serial No. 83,634. PUBLISHED MARCH 16, 1915.

104,547. COVERING MEANS FOR IRONING-BOARDS. ALBERT D. ROCHAU, Michigan City, Ind.
Filed January 12, 1915. Serial No. 83,794. PUBLISHED MARCH 23, 1915.

104,548. HAIR-TONIC, HAIR-RESTORER, AND HAIR-POMADE. HANI A. ROSENBERG, New York, N. Y.
Filed January 30, 1915. Serial No. 84,228. PUBLISHED MARCH 23, 1915.

104,549. PURE BUTTER OF COCOANUT FOR FRYING, BAKING, AND SHORTENING. SAUTÉ PRODUCTS CORPORATION, New York, N. Y.
Filed December 7, 1914. Serial No. 83,136. PUBLISHED MARCH 16, 1915.

104,550. CIGARS. ISIDOR TEITELBAUM, Cleveland, Ohio.
Filed January 22, 1915. Serial No. 84,045. PUBLISHED MARCH 23, 1915.

104,551. PRIMING OR SIZING COAT FOR WALLS AND CEILINGS. TRUSSED CONCRETE STEEL COMPANY, Detroit, Mich.
Filed December 23, 1914. Serial No. 83,504. PUBLISHED MARCH 23, 1915.

104,552. PROTECTIVE IRON AND STEEL PAINTS. TRUSSED CONCRETE STEEL COMPANY, Detroit, Mich.
Filed December 23, 1914. Serial No. 83,505. PUBLISHED MARCH 23, 1915.

104,553. KNITTED AND WOVEN, DRESS, NEGLIGÉE, AND WORK SHIRTS, DRAWERS, UNION SUITS, GLOVES, AND HOSE. GURNSEY B. WILLIAMS COMPANY, Syracuse, N. Y.
Filed February 15, 1910. Serial No. 47,826. PUBLISHED MARCH 23, 1915.

104,554. REGULABLE ELECTRIC-LIGHTING APPARATUS, DIMMERS FOR ELECTRIC-LIGHT FIXTURES. WIRT COMPANY, Portland, Me., and Philadelphia, Pa.
Filed February 26, 1915. Serial No. 84,799. PUBLISHED MARCH 23, 1915.

104,555. GINS. ANDREW FORBES, Philadelphia, Pa.
Filed February 2, 1915. Serial No. 84,263. PUBLISHED MARCH 30, 1915.

104,556. COTTON-FELT MATTRESSES. BLOOM & GODLEY CO., Trenton, N. J.
Filed November 16, 1914. Serial No. 82,609. PUBLISHED MARCH 30, 1915.

104,557. REMEDY FOR RHEUMATISM PUT UP IN POWDER, LIQUID, TABLET, CAPSULE, WAFER, AND PILL FORM. JOHN J. BOCKAR, New York, N. Y.
Filed January 29, 1915. Serial No. 84,188. PUBLISHED MARCH 23, 1915.

104,558. CANNED PEAS, CANNED CORN, AND CANNED TOMATOES. GIRARD GROCERY COMPANY, Philadelphia, Pa.
Filed October 26, 1914. Serial No. 82,172. PUBLISHED MARCH 16, 1915.

104,559. IMPRESSION MATERIAL IN POWDERED FORM FOR DENTAL PURPOSES. ARTHUR E. HEALY, D. D. S., New York, N. Y.
Filed January 26, 1915. Serial No. 84,119. PUBLISHED MARCH 30, 1915.

104,560. COFFEE AND TEA. THE HOLBROOK GROCERY CO., Keene, Woodsville, and Nashua, N. H.
Filed January 8, 1915. Serial No. 83,730. PUBLISHED MARCH 16, 1915.

104,561. COFFEE AND TEA. THE HOLBROOK GROCERY CO., Keene, Woodsville, and Nashua, N. H.
Filed January 8, 1915. Serial No. 83,733. PUBLISHED MARCH 16, 1915.

104,562. INFANTS' HOSE. HUB HOSIERY MILLS, Boston, Mass.
Filed February 26, 1915. Serial No. 84,800. PUBLISHED MARCH 23, 1915.

104,563. CRACKERS. THE LINDQUIST CRACKER CO., Denver, Colo.
Filed January 13, 1915. Serial No. 83,833. PUBLISHED MARCH 16, 1915.

104,564. ELECTRIC LAMPS, ELECTRIC-LAMP STANDS, ELECTRIC-LIGHT FIXTURES, AND ELECTRIC-LIGHT BRACKETS. MAXWELL-RAY COMPANY, Milwaukee, Wis.
Filed February 27, 1915. Serial No. 84,817. PUBLISHED MARCH 23, 1915.

104,565. CRACKERS AND BISCUITS. NEW ENGLAND BISCUIT COMPANY, Worcester, Mass.
Filed November 30, 1914. Serial No. 82,982. PUBLISHED MARCH 16, 1915.

104,566. SEEDS. NORTHRUP, KING & CO., Minneapolis, Minn.
Filed February 8, 1915. Serial No. 84,379. PUBLISHED MARCH 23, 1915.

104,567. READY-MIXED WASHABLE FLAT WALL WATERPROOF COATING. THE O'BRIEN VARNISH CO., South Bend, Ind.
Filed February 24, 1914. Serial No. 76,119. PUBLISHED JANUARY 19, 1915.

104,568. PORTLAND CEMENT. THE OGDEN PORTLAND CEMENT CO., Ogden, Utah.
Filed January 15, 1915. Serial No. 83,879. PUBLISHED MARCH 30, 1915.

104,569. ROASTED COFFEE. THE QUERBACKER COFFEE CO., Louisville, Ky.
Filed December 10, 1914. Serial No. 83,206. PUBLISHED MARCH 16, 1915.

104,570. SEWING-MACHINES. THE PRISCILLA PUBLISHING CO., Boston, Mass.
Filed December 21, 1914. Serial No. 83,449. PUBLISHED MARCH 16, 1915.

104,571. CHEWING-GUM. PULVER COMPANY INC., Rochester, N. Y.
Filed January 8, 1915. Serial No. 83,735. PUBLISHED MARCH 16, 1915.

104,572. CERTAIN NAMED CANDIES, SYRUPS, AND HONEY. RIGNEY & COMPANY, INC., Brooklyn, N. Y.
Filed January 8, 1915. Serial No. 83,738. PUBLISHED MARCH 16, 1915.

104,573. HAIR-NETS. RUDOLPH SAENGER CO., New York, N. Y.
Filed March 2, 1915. Serial No. 84,891. PUBLISHED MARCH 30, 1915.

104,574. HAIR-NETS. RUDOLPH SAENGER CO., New York, N. Y.
Filed March 2, 1915. Serial No. 84,893. PUBLISHED MARCH 30, 1915.

104,575. HAIR-NETS. RUDOLPH SAENGER CO., New York, N. Y.
Filed March 2, 1915. Serial No. 84,894. PUBLISHED MARCH 30, 1915.

104,576. HAIR-NETS. RUDOLPH SAENGER CO., New York, N. Y.
Filed March 2, 1915. Serial No. 84,895. PUBLISHED MARCH 30, 1915.

104,577. OLIVE-OIL. SAN ANTONIO DRUG COMPANY, San Antonio, Tex.
Filed June 11, 1913. Serial No. 71,027. PUBLISHED MARCH 30, 1915.

104,578. ORANGES AND GRAPE-FRUIT. SMYRNA & HAWK PARK CITRUS GROWERS ASSOCIATION, New Smyrna, Fla.
Filed January 13, 1915. Serial No. 83,845. PUBLISHED MARCH 16, 1915.

104,579. CONCRETE-MOLDING APPARATUS FOR CASTING CONCRETE IN SITU. UNIT-WALL CONSTRUCTION COMPANY, New York, N. Y.
Filed January 5, 1915. Serial No. 83,691. PUBLISHED MARCH 30, 1915.

104,580. PICKLED HERRINGS IN BARRELS. ALEXANDER WOOD & SON, Peterhead, Scotland.
Filed January 13, 1915. Serial No. 83,844. PUBLISHED MARCH 16, 1915.

104,581. SURFACE-COATING APPARATUS OF A SPRAY TYPE. THE DE VILBISS MANUFACTURING CO., Toledo, Ohio.
Filed December 8, 1914. Serial No. 83,153. PUBLISHED MARCH 23, 1915.

104,582. RUFFLINGS. CHS. BERGENSTEIN & CO., New York, N. Y.
Filed February 1, 1915. Serial No. 84,235. PUBLISHED MARCH 30, 1915.

104,583. SWEATERS. TREINIS BROS., New York, N. Y.
Filed July 24, 1913. Serial No. 71,958. PUBLISHED NOVEMBER 17, 1914.

TRADE-MARK REGISTRATIONS RENEWED.

12,700. ANTIDOTE FOR RHEUMATISM. BERNARD G. AMEND, New York, N. Y.; Eimer & Amend, successor.
Registered October 27, 1885. Renewed October 27, 1915.

LABELS

REGISTERED JUNE 1, 1915.

18,490.—*Title:* "BERWICK." (For Cake.) JOHN W. ALDEN, Boston, Mass. Filed April 29, 1915.

18,491.—*Title:* "MISSION PUNCH." (For Punch.) W. H. G. BUCK, San Diego, Cal. Filed March 18, 1915.

18,492.—*Title:* "TEASEL." (For Canned Sugar-Corn.) CANASTOTA CANNING COMPANY, Canastota, N. Y. Filed April 7, 1915.

18,493.—*Title:* "'NO-SMART' FACE LOTION." (For a Face-Lotion.) ROCCO DI NONNO, Meriden, Conn. Filed February 17, 1915.

18,494.—*Title:* "YELLOW NEWTOWN." (For Cider.) HOOD RIVER APPLE VINEGAR CO., Hood River, Oreg. Filed May 8, 1915.

18,495.—*Title:* "MOOSE-HEART." (For Cigars.) EDWARD B. HORNER, Lancaster, Pa. Filed January 26, 1915.

18,496.—*Title:* "LAX-OLA, THE KEY TO HEALTH." (For Laxative Tablets.) INTERNATIONAL PHARMACEUTICAL COMPANY, Chicago, Ill. Filed April 22, 1915.

18,497.—*Title:* "DELIGHT CLEANER." (For a Scouring and Cleaning Preparation.) J. D. JIDAS BROS. & CO., Chicago, Ill. Filed March 29, 1915.

18,498.—*Title:* "OUR CLUB." (For Cigars.) THE MOEHLE LITHOGRAPHIC COMPANY, New York, N. Y. Filed May 6, 1915.

18,499.—*Title:* "WALTON ARMS." (For Cigars.) THE MOEHLE LITHOGRAPHIC COMPANY, New York, N. Y. Filed May 6, 1915.

18,500.—*Title:* "MEDAL BOND." (For Cigars.) THE MOEHLE LITHOGRAPHIC COMPANY, New York, N. Y. Filed May 6, 1915.

18,501.—*Title:* "STUART ARMS." (For Cigars.) THE MOEHLE LITHOGRAPHIC COMPANY, New York, N. Y. Filed May 6, 1915.

18,502.—*Title:* "COTTON QUEEN." (For Mattresses.) NATIONAL BEDDING CO., Leavenworth, Kans. Filed March 8, 1915.

18,503.—*Title:* "BURRILL'S TOOTH POWDER." (For Tooth-Powder.) NEW ENGLAND LABORATORY CO., Lynn, Mass. Filed April 22, 1915.

18,504.—*Title:* "KNIFE AND FORK BRAND METAL POLISH." (For a Metal-Polish.) STANDARD POLISH COMPANY, Rapid City, S. D., and Chicago, Ill. Filed April 26, 1915.

18,505.—*Title:* "ROSE TIP THEMELIS SPECIALS." (For Cigarettes.) THEMELIS BROS. COMPANY, Atlanta, Ga., and New York, N. Y. Filed February 8, 1915.

PRINTS

REGISTERED JUNE 1, 1915.

3,931.—*Title:* "GLAD HAND." (For Coffee.) KAUFMANN & STRAUSS CO., New York, N. Y. Filed May 8, 1915.

3,932.—*Title:* "FIRST AID TO A GOOD COMPLEXION." (For Aleppo Cold-Cream.) NEW ENGLAND LABORATORY CO., Lynn, Mass. Filed November 6, 1914.

3,933.—*Title:* "ATHENA." (For Silver.) R. WALLACE & SONS MFG. CO., Wallingford, Conn. Filed May 7, 1915.

DECISIONS

OF THE

COMMISSIONER OF PATENTS

AND OF

UNITED STATES COURTS IN PATENT CASES.

DECISIONS OF THE U. S. COURTS.

Court of Appeals of the District of Columbia.

IN RE BRAEMER.

Decided February 1, 1915.

PATENTABILITY—NON-INVENTION.

A method which consists in circulating air through a fluid-spray having a temperature lower than the normal temperature of the atmosphere, recirculating the cooling fluid, and varying the temperature of the cooling fluid under the control of the condition of the air after being treated to and removed from the influence of the said fluid *Held* lacking in patentable invention in view of the prior art, which discloses the identical process, but applies it under conditions which normally require heating the air and adding to its humidity.

Mr. R. M. Barr for the appellant.

Mr. R. F. Whitehead for the Commissioner.

SHEPARD, *C. J.*:

This is an appeal from a decision of the Commissioner refusing a patent containing the following claims:

1. The herein described method of treating air, which consists in circulating the air through a fluid spray having a temperature lower than the normal temperature of the atmosphere, recirculating the cooling fluid, and varying the temperature of the cooling fluid under the control of the condition of the air after being treated to and removed from the influence of the said fluid.

2. The herein described method of treating air, which consists in circulating the air through a fluid spray having a temperature lower than the normal temperature of the atmosphere, removing the air out of the influence of the fluid spray and precipitating the excess of moisture from the air, recirculating the cooling fluid, and causing it to act upon fresh bodies of air and varying the temperature of the cooling fluid under the control of the condition of the air after being treated to and removed from the influence of the said fluid, whereby its humidity may be maintained substantially constant.

3. The herein described method of lowering the temperature of air supplied to a building or compartment therein, consisting in passing a current of air through a body of cooling fluid maintained at a temperature below the normal temperature of the atmosphere, recirculating the cooling fluid to a minimum temperature, and varying the temperature of the cooling fluid above its minimum temperature under the control of the condition of the treated air after being subjected to the action of and removed out of the influence of the cooling fluid.

4. The herein described method of lowering the temperature of air supplied to a building or compartment therein, consisting in passing a current of air through a spray of cooling fluid maintained at a temperature below the normal temperature of the atmosphere, recirculating the cooling fluid in contact with fresh bodies of air, cooling the said recirculated fluid to a minimum temperature and varying the temperature of the spray of cooling fluid above its minimum temperature by causing a portion of the fluid before being sprayed to be maintained in circulation out of the influence of the means for imparting its minimum temperature, under the control of the condition of the air after it has been treated to the cooling fluid and removed from its influence.

The rejection was based on reference to the following patents: Sedlacek, 601,716, April 5, 1898; Vollmann, 741,855, October 20, 1903; Cattaneo *et al.*, 839,362, December 25, 1906; Carrier, 854,270, May 21, 1907.

By the method set out in the claims air is drawn through a spray of cold brine which chills the air normally to the dew-point. The air thus denuded of a part of its moisture is delivered into the rooms of a building, being warmed up again before delivering it to the rooms or not as desired. The suggested use is chiefly for summer, whereby dry air of suitable temperature is delivered throughout the building.

The patent to Carrier discloses an apparatus intended for use, primarily, in winter-time in ventilating factories, particularly woolen-mills, and maintaining the temperature and humidity within prescribed limits. He passes the air through a spray maintained at a desired predetermined temperature, and after the air has passed the spray it is delivered into the rooms through a heater.

Before the final hearing by the Commissioner affidavits were filed by Braemer and by his attorney, both experts in the art. It is stated in these affidavits that there is no possible way in which the Carrier process can be worked to lower the temperature of the air being treated below the normal temperature of the atmosphere, nor to reduce the humidity below the normal humidity of the air; and that under no conditions can the applicant's apparatus produce the process described in the Carrier patent. These two processes are stated to be diametrically opposite.

Considering these affidavits, it was said by the Commissioner:

It will be observed, however, that this is entirely a question of the temperature of the spray relatively to that of the air brought through it. If, for example, in Carrier's process the spray were at 63 degrees temperature and the air outside of the building were at a higher temperature, Carrier's process would be effective to lower the temperature of the air provided the heater were shut down, which proviso applies equally to applicant's process.

If, also, at the same time the air outside were saturated, as, for example, during rain, the chilling of the air in the spray of the Carrier process would partly deniude it of moisture and on being heated at the heater after passing the spray, it would be drier air than the air outside.

Carrier describes the identical process of the applicant. He applies it under conditions which normally require heating the air and adding to its humidity, but this does not leave it open to the applicant to obtain a patent for the use of Carrier's process, to chill and reduce the humidity of the air, by merely changing the temperature of the spray.

In this conclusion we agree with the Commissioner. The decision is affirmed and the clerk will certify this decision to the Commissioner of Patents as required by law.

Affirmed.

Court of Appeals of the District of Columbia.

SMITH *v.* KIHLGREN.

Decided February 1, 1915.

INTERFERENCE—PRIORITY—SUFFICIENCY OF EVIDENCE TO ESTABLISH REDUCTION TO PRACTICE.

Where there is evidence from credible witnesses showing that the machine of S. contained every element of the issue, was in existence and for aught that appears easily accessible to K., *Held* that it is probable that the evidence upon this point would have been met had it been possible to do so and that the evidence under these circumstances was sufficient to establish that the machine of S. was a reduction to practice of the invention in issue.

Mr. W. A. Megrath and *Mr. C. C. Billings* for the appellant.

Mr. D. P. Wolhaupter for the appellee.

ROBB, *J.:*

Appeal from a Patent Office decision in an interference proceeding awarding priority of invention to the senior applicant, the appellee here. The invention relates to a machine for decorating or "stroking" candies by making a ridge either straight, zigzag, S-shaped, curved or looped, upon the pieces of candy as they are carried beneath a receptacle comprising an element of the stroke.

The counts of the issue are three in number and read as follows:

1. A machine for stringing pastry material comprising a receptacle for said material provided with a suitable outlet opening, means for causing the receptacle to move in a circular path, and a device in the receptacle to effect the agitation of the material at or near said outlet opening.

2. A stringing machine for pastry material comprising a receptacle for said material having a discharge orifice, a device disposed at or near said orifice to agitate and expel said material and means to cause the receptacle to move in a path eccentric to its orifice to deposit the material in a looped manner on a moving object.

3. In a chocolate stringing-machine, a receptacle for containing the material and provided with a discharge orifice, means for moving the receptacle whereby the flow of material from the orifice may be directed either in a line eccentric with or eccentric to, the axis of the receptacle, and a device disposed at or near said orifice to agitate said material.

As will be readily seen from an examination of these counts, the invention comprises a receptacle containing a pastry material with which the decorating is done, means for giving to the receptacle containing this material a circular or eccentric movement to deposit the material in a corresponding form or line, and means within the receptacle to agitate the material. Count 2, in addition, requires that the last-mentioned means shall both "agitate and expel" the decorative material.

The appellee Kihlgren alleges conception and disclosure as of June 26, 1908, and drawings July 30th of that year. He filed his application on September 23rd, following. We shall assume that he conceived and disclosed the invention as alleged. Smith, the appellant, has been engaged in the making of candy machinery since at least 1904, when he made a chocolate-marking device which, however, did not contain the elements of the counts in issue. In about October, 1907, he built a machine which, when first constructed, contained all the elements of these counts save one. The receptacle containing the pastry material, while capable of a longitudinal and transverse movement, would not accomplish both movements automatically. The cam for the longitudinal movement had been perfected but the cam for the transverse movement had not been at that time. Mr. Smith, in his direct testimony, was asked when this machine with the "longitudinally and transversely movable stroking device" was completed, and replied that it was—

complete in such conditions as we would show it to a customer some time before the date of February 27, 1908,

and that he had actually used it for stroking candies for—

three or four months in order to perfect it before we would bring a customer here to see it in operation. I say thoroughly perfected.

He was again asked whether, prior to the end of February, 1908, he operated this first machine for the purpose of stroking candies, and replied:

Many times. In fact, it was necessary to do so in order to develop the same to a *commercial success;*

that on February 27, 1908, he showed this machine to a Mr. Hoops of Hawley & Hoops, Mulberry street, New York city, and sold him a machine for his firm which was delivered on March 12th, following. Hawley & Hoops paying $2,500 therefor; that he built a number of similar machines that year, which were sold and went into actual use. In his cross-examination Mr. Smith gave the names and addresses of several of the firms who purchased these machines. Mr. William J. Lacey, a mechanical draftsman testifying for Mr. Smith, stated that while they were experimenting with the first machine there was talk about a cam to operate the zigzag and the curved stroke, and that he told Mr. Smith "it could be done." He was asked whether he made any drawings and replied that he made some about May, 1908, but that "the device had been worked out" previous to that time and he had seen it in operation. Mr. William F. Heller, foreman and assistant superintendent of the factory where the Smith machines were built, testified that prior to the sale to Hawley & Hoops he had seen a machine operate so as to make a straight, circular, and zigzag stroke. In cross-examination he was asked how the different strokes were produced, and replied:

Why, for the straight stroke, had a longitudinal cam movement. Then by wanting the circular stroke, the zigzag or S there was a cam for giving a transverse movement.

He was then asked how a circular stroke could be produced "by means of the same device" and replied:

With a longitudinal and transverse movement with cams laid out for same;

that these two movements produced zigzag, S-shaped and circular strokes "according to the shape of the cam," each desired stroke requiring a different-shaped cam. Mr. Hoops corroborated appellant as to the purchase of a machine in March, 1908, and further testified that his firm had continued such use during the busy season down to the time he testified. He was asked in cross-examination when he had last used it, and answered:

We have been running it now for five months steady. We are running it now.

It further appeared that there had been no substantial change in the machine.

Smith's application was filed November 20, 1908, a little less than two months after Kihlgren's filing date. Each of the tribunals of the Patent Office has found that the application disclosed every element of the issue and each has found that the machine which was sold to Hawley & Hoops in March, 1908, which it will be noted was more than three months before Kihlgren's date of conception, responded to every element of the issue save one. Each of the tribunals reached the conclusion that Smith's evidence did not show that this early machine contained "means for causing the receptacle to move in a circular path," and therefore awarded priority to Kihlgren. We are unable to accept this finding. While the evidence on this point is not as clear as it might have been, we are satisfied that Smith had completed his invention prior to the sale of the Hoops machine. The principal contention, when the testimony was taken, related to the means for agitating and expelling the pastry material from the receptacle. That being so, less attention was given to the point now urged. There is evidence from credible witnesses that the Hoops machine contained every element of the issue and, inasmuch as that machine was in existence and for aught that appears easily accessible to the appellee, it is probable that appellant's evidence upon this point would have been met had it been possible to do so. (*Schneider v. Driggs*, 36 App. D. C., 116; 162 O. G., 1000; 1911, C. D., 276.) Moreover, it must be remembered that the manufacture and sale of other machines followed the manufacture and sale of this machine, and the evidence tends to show that those machines contained the same means for forming the stroke. This evidence, too, stands uncontradicted.

The decision must be reversed, and priority awarded Smith.

Reversed.

Court of Appeals of the District of Columbia.

ANGLO-AMERICAN INCANDESCENT LIGHT COMPANY *v.* GENERAL ELECTRIC COMPANY.

Decided March 29, 1915.

TRADE-MARKS—OPPOSITION—GOODS OF THE SAME DESCRIPTIVE PROPERTIES—INCANDESCENT ELECTRIC LAMPS AND INCANDESCENT GAS-MANTLES.

Incandescent electric lamps and incandescent gas-mantles *Held* to be goods of the same descriptive properties.

Mr. F. S. Appleman for the appellant.

Mr. Thos. J. Johnston for the appellee.

ROBB, *J.:*

Appeal from a decision of the Patent Office sustaining the opposition of the appellee to the registration by the appellant of the word "Mazda" as a trade-mark for incandescent gas-mantles.

The appellee registered and very extensively advertised and used this word as a trade-mark for incandescent electric lamps prior to its adoption and use by the appellant. The evidence fully sustains the finding of the Examiner of Interferences that appellant—

not only knew of the prior use of the word "Mazda" upon electric lamps by the General Electric Company (the appellee), but adopted the same for gas mantles because of the publicity which the mark had attained from its extensive advertising by the latter company.

The Trade-Mark Act, (33 Stat., 724.) to which we have many times referred, denies registration to trade-marks which are identical with a registered or known trade-mark owned and in use by another and appropriated to merchandise of the same descriptive properties, or which so nearly resemble such a registered or known trade-mark as to be likely to cause confusion or mistake in the mind of the public or to deceive purchasers, if appropriated to merchandise of the same descriptive properties. As we said in *Phoenix P. and V. Co. v. Lewis & Bro.*, (32 App. D. C., 285; 139 O. G., 990; 1909, C. D., 303.) in enacting this legislation Congress evidently intended to prevent the registration of a mark that would enable an unscrupulous dealer to obtain the benefit of a valuable trade reputation established by conscientious effort and fair dealing, to the injury of the public as well as to one who had established such a reputation. It is our duty, therefore, to give the act such a practical interpretation as will effectuate its obvious intent. In the above-cited case we ruled that—

two trade-marks may be said to be appropriated to merchandise of the same descriptive properties, in the sense meant by the statute, when the general and essential characteristics of the goods are the same.

The *Century Dictionary* thus defines the noun "property":

Any character always present in an individual or a class; an essential attribute; a peculiar quality; loosely, any quality or characteristic.

We think Congress, in using the words "descriptive properties," intended that they should be given their popular signification. Giving them that signification, no trade-mark may be registered when it is appropriated to goods of the same general qualities or characteristics as those of the goods to which another trade-mark already has been appropriated. In *American Stove Co. v. Detroit Stove Co.* (31 App. D. C., 304; 134 O. G., 2245; 1908, C. D., 407) we ruled that gasolene-stoves and coal or wood stoves were goods of the same descriptive properties, within the meaning of the Trade-Mark Act. We think that decision controlling here. It was pointed out that the two classes of stoves were devoted to the same general use, that of heating and cooking; in other words, that their general qualities or characteristics were so nearly identical that the vending of each by two rival manufacturers, under the same trade-mark, would be likely to cause confusion, to the injury of the one first to adopt the mark and to the general public. In the present case, as in the above-cited case, the goods are used for the same purposes, namely, artificial lighting. They not only are usually sold by the same dealer but frequently are used together on combination-fixtures. While, of course, no one of average intelligence would purchase a "Mazda" gas-mantle in the belief that it was a "Mazda" electric lamp, the average person *would* believe that he was purchasing the product of the manufacturer of "Mazda" lamps. (See *Walter Baker Co. v. Harrison*, 32 App. D. C., 272; 138 O. G., 770; 1909, C. D., 284.) It requires no

argument to demonstrate that injury might result from such confusion, both to the appellee and to the general public.

The decision is affirmed.

Affirmed.

Changes in Classification.

(ORDER No. 2,200.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., May 20, 1915.

The following changes in the classification of inventions are hereby directed, to take effect immediately:

In class 240, Illumination, (Division XXX,) establish the following subclasses and definitions:

	Lanterns—		Lanterns—
	Projectors—		Projectors—
	Dimmers—		Screen—
45.1.	Color-screen,	48.6.	Bulb.
45.4.	Curtain,	48.4.	Lens.
45.6.	External pivoted,		
45.2.	Shutter-slats,		

45.1. LANTERNS, PROJECTORS, DIMMERS, COLOR-SCREEN. Projector dimmers in which the light-intercepting member is a screen for transmitting colored light.

45.2. LANTERNS, PROJECTORS, DIMMERS, SHUTTER-SLATS. Projector dimmers which comprise a plurality of pivoted light-intercepting members.

45.4. LANTERNS, PROJECTORS, DIMMERS, CURTAIN. Projector dimmers in which the light-intercepting member comprises a sheet of flexible material.

45.6. LANTERNS, PROJECTORS, DIMMERS, EXTERNAL PIVOTED. Projector dimmers in which the light-intercepting member is pivoted and in its light-intercepting position is external to the projector casing.

48.4. LANTERNS, PROJECTORS, SCREEN, LENS. Projectors having a screen or deflecting means which is positioned near the lens.

48.6. LANTERNS, PROJECTORS, SCREEN, BULB. Projectors using electric light bulbs wherein the screen or light-intercepting means is a coating or covering for the bulb.

The patents contained in these subclasses have been taken for the most part from class 240, Illumination, subclasses 41, Lanterns, Projectors; 45, Lanterns, Projectors, Dimmers, and 47, Lanterns, Projectors, Screen.

In same class, subclass—

Lanterns—
Projectors—
45. Dimmers,

cancel the existing definition and substitute therefor the following:

45. LANTERNS, PROJECTORS, DIMMERS. Projectors provided with devices adapted to intercept or divert some or all of the projected light, together with operating means for adjusting such devices or rendering the same operative.

Note.—Where the dimming is accomplished by changing from a high to a low power source, the device is classified in this class, subclass 37, Lanterns, Convertible.

Search Class—
240—ILLUMINATION, subclasses 41, Lanterns, Projectors, for projectors wherein the lenses are adjustable relative to the light source, and 44, Lanterns, Projectors, Adjustable light or reflector, for projectors wherein the reflectors are adjustable relative to the light source.

In same class, subclass—

Lanterns—
Projectors—
47. Screen,

change the number to 48.2, cancel the existing definition, and substitute the following:

48.2. LANTERNS, PROJECTORS, SCREEN. Projectors provided with devices adapted to intercept or divert the light rays in order to reduce the power of the projected light; also such devices *per se* when adapted for use with projectors.

Note.—See class 240, ILLUMINATION, subclasses 15, Lanterns Dark; 20, Lanterns, Photographic; 23, Lanterns, Signal, Color-screen, and 39, Lanterns, Hand, Color-screen.

Search Class—
240—ILLUMINATION, subclasses 45, Lanterns, Projectors, Dimmers, and the subclasses thereunder, for such devices provided with operating means for adjusting or rendering the same operative, and 108, Shades, and the subclasses thereunder, for shades not particularly adapted for use with projectors.

THOMAS EWING,
Commissioner.

Interference Notices.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., May 24, 1915.

Domingo Mendia & Co., their assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Maclin-Zimmer-McGill Tobacco Co., Incorporated, Market and Tabb streets, Petersburg, Va., for registration of a trade-mark and trade-mark registered October 6, 1891, No. 20,202, to Domingo Mendia & Co., 110 Laitad street, Habana, Cuba, and a notice of such declaration sent by registered mail to said Domingo Mendia & Co. at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Domingo Mendia & Co., their assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

J. T. NEWTON, *First Assistant Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., May 21, 1915.

Morgan & Brehaut, their assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of E. Carré Company, 6–10 North Franklin street, Mobile, Ala., for registration of a trade-mark and trade-mark registered September 29, 1903, No. 41,186, to Morgan & Brehaut, Cottage Grove, Oreg., and the registry return receipt for the notice of such declaration sent to Morgan & Brehaut having been returned signed by Harry C. Hart, administrator Brehaut Estate, and said Hart having failed to file evidence of his right to intervene on behalf of Morgan & Brehaut, notice is hereby given that unless said Morgan & Brehaut, their assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

J. T. NEWTON, *First Assistant Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., May 17, 1915.

William H. Fosmer, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of The Ohio Butterine Co., of Nos. 46–50 Walnut street, Cincinnati, Ohio, for registration of a trade-mark and trade-mark registered June 30, 1896, No. 28,480, to William H. Fosmer, of No. 110 La Salle street, Chicago, Ill., and a notice of such declaration sent by registered mail to said William H. Fosmer at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said William H. Fosmer, his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

J. T. NEWTON, *First Assistant Commissioner.*

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ISSUE OF JUNE 8, 1915.

Patents	873—No.	1,141,915 to No.	1,142,787, inclusive.
Designs	32—No.	47,415 to No.	47,446, inclusive.
Trade-Marks	107—No.	104,584 to No.	104,690, inclusive
Labels	9—No.	18,506 to No.	18,514, inclusive
Prints	11—No.	3,934 to No.	3,944, inclusive.
Reissues	5—No.	13,922 to No.	13,926, inclusive.
Total	1037		

The patents of this issue were pending an average of 22.9 months.

TO RESIDENTS OF THE UNITED STATES.

States.	Patents and Designs.	Trade-Marks, Labels, and Prints.	States.	Patents and Designs.	Trade-Marks, Labels, and Prints.
Alabama	7	.....	North Carolina	.....	.....
Arizona	1	.....	North Dakota	1	.....
Arkansas	3	.....	Ohio	50	4
California	42	5	Oklahoma	3	.....
Colorado	17	3	Oregon	5	.....
Connecticut	15	5	Pennsylvania	78	5
Delaware	1	.....	Rhode Island	6	1
Florida	4	.....	South Carolina	9	3
Georgia	6	.....	South Dakota	2	.....
Idaho	3	.....	Tennessee	4	5
Illinois	88	12	Texas	8	1
Indiana	22	2	Utah	3	.....
Iowa	9	1	Vermont	4	.....
Kansas	11	.....	Virginia	1	1
Kentucky	10	.....	Washington	8	1
Louisiana	6	.....	West Virginia	5	.....
Maine	3	1	Wisconsin	17	3
Maryland	10	4	Wyoming	4	.....
Massachusetts	64	9			
Michigan	39	3	Alaska, District of	.....	.....
Minnesota	14	9	Canal Zone	.....	.....
Mississippi	1	.....	District of Columbia	7	.....
Missouri	25	3	Hawaii Territory	3	.....
Montana	3	.....	Philippine Islands	.....	.....
Nebraska	6	1	Porto Rico	.....	.....
Nevada	2	1	U. S. Army	.....	.....
New Hampshire	3	.....	U. S. Navy	.....	.....
New Jersey	47	14			
New Mexico	.....	.....	Total to residents of the United States.	814	124
New York	134	27			

TO RESIDENTS OF FOREIGN COUNTRIES.

Countries.	Patents and Designs.	Trade-Marks.	Countries.	Patents and Designs.	Trade-Marks.
Argentina	.....	.....	Natal	.....	.....
Austria-Hungary	5	.....	Netherlands	.....	.....
Belgium	.....	.....	New South Wales	2	.....
British India	.....	.....	New Zealand	.....	.....
British West Indies	.....	.....	Norway	.....	1
Canada	13	1	Portugal	.....	.....
Cape Colony	.....	.....	Queensland	.....	.....
Chile	.....	.....	Roumania	.....	.....
Costa Rica	.....	.....	Russia	.....	.....
Cuba	.....	.....	Scotland	2	.....
Denmark	.....	.....	South Australia	.....	.....
England	24	.....	Spain	.....	.....
Finland	.....	.....	Sweden	2	.....
France	8	.....	Switzerland	6	.....
Germany	23	1	Transvaal, South Africa	.....	.....
Guatemala	.....	.....	Victoria	2	.....
India	1	.....	Western Australia	1	.....
Ireland	.....	.....			
Italy	.....	.....	Total to residents of foreign countries	89	3
Luxemburg	.....	.....			
Mexico	.....	.....			

Changes in Classification.

(ORDER No. 2,202.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., May 27, 1915.

The following change in the classification of inventions is hereby directed, to take effect immediately:

In class 24, Buckles, Buttons, Clasps, Etc., (Division XXXV,) establish the following subclass and definition:

Buttons and fasteners—
90.5. Loss-preventing devices.

90.5. BUTTONS AND FASTENERS, LOSS-PREVENTING DEVICES. Buttons having devices additional to the conventional parts of a button for guarding against unbuttoning and devices peculiar to that use.

The patents contained in this subclass have been taken for the most part from class 24, Buckles, Buttons, Clasps, Etc., subclasses 90, Buttons and fasteners; 104, Buttons and fasteners, Separable, and 155, Pin-fasteners, Loss-preventing devices.

ERRATA.

The following corrections in the Manual of Classification, as revised to January 1, 1912, are hereby directed:

On page 28, class 24, Buckles, Buttons, Clasps, Etc., change the title of subclass 2, Album fastenings, to read "Album fasteners."

On page 36, class 49, Glass, change the title of subclass 68, Molds, Cooling and heating, to read "Molds, Cooling or heating."

On page 52, class 95, Photography, change the title of subclass 36, Cameras, Successive plate-sections, to read "Cameras, Successive plate-section."

On page 92, class 221, Dispensing, at the top of the second column, move the subclass title, Cut-offs, one space to the left, coördinate with the title Detachable below.

THOMAS EWING,
Commissioner.

APPLICATIONS UNDER EXAMINATION.

Condition at Close of Business June 5, 1915.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action. New.	Amended	No. of applications awaiting action.
314	1. Fences; Fences, Gates; Harrows and Diggers; Plows; Seeders and Planters; Trees, Plants, and Flowers.	Feb. 25	Feb. 20	486
128	2. Bee Culture; Curtains, Shades, and Screens; Dairy; Label Pasting and Paper Hanging; Paper Files and Binders; Medicines; Pneumatics; Presses; Tents, Canopies, Umbrellas, and Canes; Tobacco.	Jan 2	Mar. 2	777
175	3. Annealing and Tempering; Electric Heating and Rheostats; Electrochemistry; Metal-Founding; Metallurgy; Plastic Metal Working.	May 24	May 21	72
232	4. Conveyers; Elevators; Excavating; Hoisting; Loading and Unloading; Pneumatic Despatch; Railway Mail Delivery; Traversing Hoists.	Dec. 21	May 17	630
167	5. Bookbinding; Harvesters; Jewelry; Music.	Mar. 8	May 12	315
318	6. Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Liquid Coating Compositions; Plastic Compositions; Preserving; Sugar and Salt; Substance Preparation.	Dec. 9	May 5	530
312	7. Educational Appliances; Clutches; Games and Toys; Motors; Optics; Velocipedes.	Apr. 6	May 5	447
131	8. Beds; Chairs; Furniture; Kitchen and Table Articles; Store Furniture; Supports.	Jan. 15	May 17	1137
142	9. Air and Gas Pumps; Fluid-Pressure Regulators; Hydraulic Motors; Motors, Fluid; Motors, Fluid-Current; Pumps.	Oct. 1	May 19	740
235	10. Carriages and Wagons	Feb. 15	May 5	656
154	11. Boot and Shoe Making; Boots, Shoes, and Leggings; Button, Eyelet, and Rivet Setting; Harness; Leather Manufactures; Nailing and Stapling; Whips and Whip Apparatus.	May 1	May 18	98
322	12. Journal-Boxes, Pulleys, and Shafting; Lubrication; Machine Elements.	Mar. 29	May 19	612
329	13. Arms, Projectiles, and Explosive Charges, Making; Bolt, Nail, Nut, Rivet, and Screw Making; Boring and Drilling; Button Making; Chain, Staple, and Horseshoe Making; Driven, Headed, and Screw Threaded Fastenings; Gear Cutting, Milling, and Planing; Metal Drawing; Metal Forging and Welding; Metal Rolling; Metal Tools and Implements, Making; Metal Working; Needle and Pin Making; Nut and Bolt Locks; Turning.	Apr. 20	May 5	398
307	14. Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal-Bending; Metal-Ornamenting; Sheet-Metal Ware, Making; Tools; Wire Fabrics and Structure; Wire-Working.	Jan. 22	May 6	295
308	15. Bread, Pastry, and Confection Making; Coating; Fuel; Glass; Laminated Fabrics and Analogous Manufactures; Paper-Making and Fiber Liberation; Plastic Block and Earthenware Apparatus; Plastics.	Feb. 1	May 17	631
109	16. Electric Signaling; Radiant Energy; Telegraphy; Telephony.	Feb. 12	Mar. 1	455
303	17. Matrix-Making; Paper Manufactures; Printing; Type-Bar Making.	Mar. 26	May 22	155
327	18. Injectors and Ejectors; Liquid Heaters and Vaporizers; Miscellaneous Heat-Engine Plants; Steam and Vacuum Pumps; Steam-Engines; Steam-Engine Valves.	May 5	Apr. 27	280
236	19. Dampers, Automatic; Furnaces; Heating Systems; Stoves and Furnaces.	Mar. 27	Apr. 24	226
179	20. Artificial Limbs; Builders' Hardware; Cutlery; Dentistry; Locks and Latches; Safes; Undertaking.	May 8	May 6	170
112	21. Brakes and Gins; Carding; Cloth-Finishing; Cordage; Felt and Fur; Knitting and Netting; Silk; Spinning; Weaving; Winding and Reeling.	Feb. 15	Apr. 23	364
249	22. Aeronautics; Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Boats and Buoys; Firearms; Marine Propulsion; Ordnance; Ships.	May 7	May 7	244
379	23. Acoustics; Coin-Handling; Horology; Recorders; Registers; Time-Controlling Mechanism.	Feb. 1	Feb. 5	479
144	24. Apparel; Apparel Apparatus; Sewing-Machines.	Jan. 8	May 11	467
315	25. Butchering; Mills; Threshing; Vegetable Cutters and Crushers.	May 5	May 15	143
106	26. Electricity, Generation; Motive Power.	Nov. 28	Mar. 22	500
372	27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus.	Apr. 9	May 3	256
65	28. Internal-Combustion Engines	Apr. 20	Apr. 22	407
147	29. Coopering; Fire-Escapes; Ladders; Roofs; Wheelwright-Machines; Wooden Buildings; Wood-Sawing; Wood-Turning; Woodworking; Woodworking-Tools.	Mar. 24	Apr. 1	309
152	30. Illuminating-Burners; Illumination; Liquid and Gaseous Fuel Burners; Type-Writing Machines.	Jan. 30	May 19	291
172	31. Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Glue.	Mar. 13	Apr. 30	258
278	32. Agitating; Carbonating Beverages; Dispensing Beverages; Dispensing; Domestic Cooking Vessels; Gas and Liquid Contact Apparatus; Heat Exchange; Ornamentation; Packaging Liquids; Refrigeration.	Jan. 2	May 7	660
71	33. Bridges; Hydraulic Engineering; Masonry and Concrete Structures; Metallic Building Structures; Paving.	Feb. 11	Apr. 20	374
304	34. Railways; Railway-Brakes; Railway Rails and Joints; Railway Rolling-Stock; Railway Ties and Fasteners.	Apr. 30	Apr. 26	217
57	35. Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Garment-Supporters; Toilet.	Mar. 10	May 27	520
264	36. Driers; Geometrical Instruments; Measuring Instruments; Photography.	Mar. 22	May 14	626
107	37. Electric Lamps; Electricity, Conductors; Electricity, Conduits; Electricity, General Applications.	Dec. 14	Mar. 25	660
378	38. Animal Husbandry; Earth Boring; Fishing and Trapping; Stationery; Stone-Working; Wells.	Jan. 16	May 7	495
321	39. Water Distribution	Mar. 1	Apr. 17	463
280	40. Baggage; Bottles and Jars; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Shipping and Storing Vessels; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles.	Jan. 13	Apr. 16	1062
125	41. Railway Draft Appliances; Resilient Tires and Wheels.	Mar. 24	May 5	273
279	42. Railway Signaling; Signals; Electricity-Transmission to Vehicles.	Jan. 4	Mar. 1	705
382	43. Baths and Closets; Electricity, Medical and Surgical; Fire-Extinguishers; Sewerage; Surgery; Water Purification.	Apr. 26	Apr. 22	271

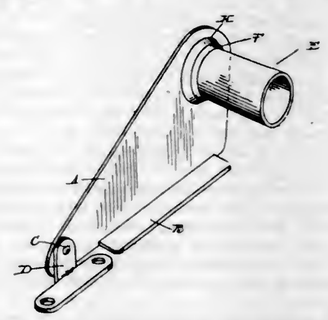
Oldest new case, Oct. 1; oldest amended, Feb. 5.
Total number of applications awaiting action..... 19,154

161	TRADE-MARKS, DESIGNS, LABELS AND PRINTS:			
	Trade-Marks	Apr. 21	May 17	856
	Designs	Mar. 3	May 4	517
	Labels and Prints	May 25	May 21	67

PATENTS

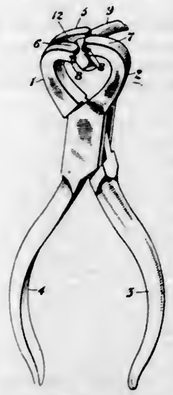
GRANTED JUNE 8, 1915.

1,141,915. RAIL AND BRACKET CONSTRUCTION FOR VEHICLES. EDWARD L. ACKERMAN, Detroit, Mich., assignor to Joseph N. Smith & Company, Detroit, Mich., a Corporation of Michigan. Filed Aug. 7, 1914. Serial No. 855,639. (Cl. 21—15.)



A rail and bracket construction comprising a tubular rail having a circumferential bead formed therein, a sheet metal bracket apertured to fit said rail and provided with a laterally extending flange bearing against said bead, and a portion of said rail beyond said bead expanded to fit within said flange and form an interlock.

1,141,916. PLIERS. JULIUS ADERER, New York, N. Y. Filed Aug. 28, 1913. Serial No. 787,079. (Cl. 81—15.)



1. Pliers for bending flat bars in the plane of their flatness, and comprising a pair of pivotally connected jaws, one of these having a relatively narrow beak provided with a work engaging V-shaped notch, and the other having two beaks, located in position for the other beak to pass into the space between them with a constant wide clearance between the adjacent sides of the beaks, and each provided with a work engaging V-shaped notch alined with the notches on the other beaks.

2. Pliers for bending flat bars in the plane of their flatness wherein one jaw is provided with a pair of spaced apart beaks, each having means for engaging both sides of a flat bar at one edge or inwardly thereof for preventing twisting of the bar during the bending operation, the other of said jaws being provided with a relatively narrow beak movable into the space between the beaks of the said pair with a constant wide clearance between the adjacent sides of the beaks, and having means alining with the engaging means of the pair of beaks for engaging both sides of the said bar at the other edge or inwardly thereof for preventing twisting of the bar during the bending operations.

3. Liugual bar bending pliers having two jaws, one of said jaws being provided with a relatively narrow beak and the other of said jaws being provided with a pair of beaks located in position for the beak on the other jaw to pass into the space between them with a constant wide clearance between the adjacent sides of the beaks and each of said beaks being provided with alined notches for engaging bars of various thicknesses for preventing lateral twisting of the bar during the bending of the same in the plane of its flatness.

1,141,917. SCRAPER. WILLIAM A. ANDERSON, Greenfield, Ohio. Filed Apr. 29, 1914. Serial No. 835,329. (Cl. 119—83.)

1. A scraper of the kind described comprising a body portion curved transversely to its length to conform it to the body of an animal, having its inner side depressed between its lateral edges to form a concave face to receive the moisture displaced by the edge of said body portion, and provided at one end with a handle.

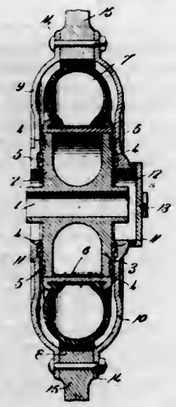
2. A scraper of the kind described comprising a strip of metal curved about a longitudinal axis to form a concave face on one side thereof to receive the moisture displaced by the edge thereof and curved about a transverse axis to conform it to the body of an animal and having an end portion forming a handle.

3. A scraper of the kind described comprising a strip of metal curved throughout its length on a longitudinal axis, curved for a portion of its length about a transverse axis and having a portion which is not curved about a transverse axis.

1,141,918. PNEUMATIC WHEEL. GEORGE WM. ATKINSON, Denver, Colo. Filed Feb. 1, 1913. Serial No. 745,650. (Cl. 152—41.)

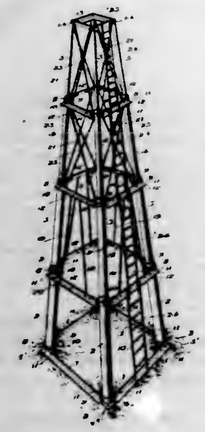
In a wheel, in combination, a cylindrical bearing, said bearing having an axle receiving opening, said bearing being formed at each side with a cylindrical raceway, an inflated tube secured around said bearing, a cylindrical flange formed upon each side of said cylindrical bearing

in a plane with said races, a cylindrical flange formed upon each side of said bearing concentrically with said first mentioned flange, two disks, an annular collar formed upon one of said disks, an inner flange formed upon said collar of an equal diameter with one of said last mentioned flanges, an inturned flange formed upon the other disk equal in diameter to the other of said last mentioned flanges, said disk arranged to bear against said first mentioned flanges and having their flanges arranged to abut



the similar side flanges of said bearing, each of said disks being dish-shaped, antifriction balls disposed in said annular recesses and in the spaces formed by said abutting flanges, a flange formed upon each of said disks and disposed in parallel relation, whereby to provide a space between the disk and said inflated tire, and a circumferentially extending series of spokes secured between said disk flanges, and a resilient rim interposed between said spokes and said inflatable tire.

1,141,919. DERRICK. HENRY AUCHU, Emporium, Pa. Filed June 29, 1014. Serial No. 847,896. (Cl. 189—16.)



In a knock-down derrick, a standard or upright composed of telescopic sections, and means for supporting upper sections from lower ones consisting of a plug at the lower end of the upper section, a removable transverse pin carried by the lower section and serving as a support for said plug, and a removable pin on the upper section, said pin resting on the upper end of the lower section.

1,141,920. METHOD OF MANUFACTURING ARSENATE OF LEAD. EDWIN O. BARSTOW, Midland, Mich., assignor, by mesne assignments, to The Cleveland Trust Company, trustee, Cleveland, Ohio, a Corporation of Ohio. Filed June 10, 1911. Serial No. 632,445. (Cl. 23—13.)

1. The method of separating arsenic acid from a solution containing an admixture of hydrochloric acid, which consists in adding to such solution a lead compound capable of forming lead chlorid with the hydrochloric acid; separating out the lead chlorid thus formed; and then adding a lead compound capable of forming lead arsenate.

2. The method of separating arsenic acid from a solution containing an admixture of hydrochloric acid, which consists in adding to such solution a lead compound capable of forming lead chlorid with the hydrochloric acid; separating out the lead chlorid thus formed; and then reacting with the arsenic acid on an oxygen derivative of lead capable of forming lead arsenate.

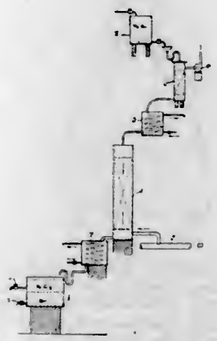
3. The method of separating arsenic acid from a solution containing an admixture of hydrochloric acid, which consists in adding to such solution a lead compound capable of forming lead chlorid with the hydrochloric acid; separating out the lead chlorid thus formed; and then reacting with the arsenic acid on lead oxid.

4. The method of separating arsenic acid from a solution containing an admixture of hydrochloric acid, which consists in stirring such solution with an oxygen derivative of lead capable of forming lead chlorid with such hydrochloric acid and of forming arsenate of lead with such arsenic acid, in amount sufficient to combine with the hydrochloric acid present; and then reacting with the arsenic acid on a further amount of such oxygen derivative of lead.

5. The method of separating arsenic acid from a solution containing an admixture of hydrochloric acid, which consists in stirring such solution with an oxygen derivative of lead capable of forming lead chlorid with such hydrochloric acid and of forming arsenate of lead with such arsenic acid, in amount sufficient to combine with the hydrochloric acid present; and then reacting with the arsenic acid on a further amount of such oxygen derivative of lead, the latter being used in quantity insufficient to combine with all the arsenic acid present.

[Claims 6 to 10 not printed in the Gazette.]

1,141,921. PROCESS OF MAKING BROMIN. EDWIN O. BARSTOW, Midland, Mich., assignor to The Dow Chemical Company, Midland, Mich., a Corporation of Michigan. Filed Nov. 6, 1911. Serial No. 658,658. (Cl. 23—10.)



1. The process of making bromin, which consists in treating iron bromid solution with chlorin, whereby iron bromid solution is formed and bromin set free, the iron bromid solution being of such strength as to produce an iron chlorid solution wherein such bromin is practically insoluble so as to cause such bromin to collect as a liquid; and then separating the bromin from such iron chlorid solution.

2. The process of making bromin, which consists in treating iron bromid solution with chlorin, whereby iron chlorid solution is formed and bromin set free, the iron bromid solution being of such strength as to produce an iron chlorid solution wherein such bromin is practically insoluble so as to cause such bromin to collect as a liquid; and then allowing the bromin to separate by gravity from the iron chlorid solution.

3. The process of making bromin, which consists in treating iron bromid solution with chlorin, whereby iron chlorid solution is formed and bromin set free, the iron bromid solution being of such strength as to produce an iron chlorid solution wherein such bromin is practically insoluble so as to cause such bromin to collect as a liquid; allowing the bromin to separate by gravity from the iron chlorid solution; and then drawing off such bromin and removing any traces of chlorin therefrom.

4. The process of making bromin, which consists in treating iron bromid solution with chlorin, whereby iron chlorid solution is formed and bromin set free, the iron bromid solution being of such strength as to produce an iron chlorid solution wherein such bromin is practically insoluble so as to cause such bromin to collect as a liquid; allowing the bromin to separate by gravity from the iron chlorid solution; and then drawing off such bromin and agitating the same with more iron bromid solution to remove any traces of chlorin therefrom.

5. The process of making bromin, which consists in treating a strong solution of iron bromid with chlorin gas, whereby iron chlorid solution is formed and bromin set free, the resulting iron chlorid solution being of such strength as to render such bromin practically insoluble therein so as to cause the same to collect as a liquid; allowing the bromin to separate out by gravity from the iron chlorid solution; and then drawing off such bromin and agitating the same with more iron bromid solution to remove any traces of chlorin therefrom.

[Claims 6 to 9 not printed in the Gazette.]

1,141,922. PROCESS OF MAKING BROMIN. EDWIN O. BARSTOW, Midland, Mich., assignor to The Dow Chemical Company, Midland, Mich., a Corporation of Michigan. Filed Nov. 7, 1911. Serial No. 658,938. (Cl. 23—10.)

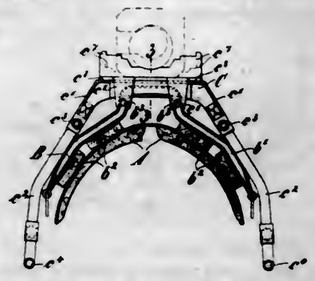
1. The process of making bromin which consists in reacting upon a solution of a bromid and a bromate with sulfuric acid, whereby a sulfate solution is formed and bromin set free, the solution of bromid and bromate being sufficiently strong to cause such freed bromin to collect as a liquid, substantially as described; and then separating the bromin from such sulfate solution by gravity.

2. In a process of making bromin, the step which consists in reacting upon a solution of a bromid and a bromate with sulfuric acid, whereby a sulfate solution is formed and bromin set free, the solution of bromin and bromate being sufficiently strong to cause such freed bromin to collect as a liquid, substantially as described.

3. In a process of making bromin, the step which consists in reacting upon a solution of the bromid and bromate of an alkali metal with sulfuric acid, whereby a sulfate solution of such metal is formed and bromin set free, the solution of bromid and bromate being sufficiently strong to cause such freed bromin to collect as a liquid, substantially as described.

4. In a process of making bromin, the step which consists in reacting upon a solution of the bromid and bromate of an alkali metal with sulfuric acid, whereby a sulfate solution of such metal is formed and bromin set free, the bromid used being in the proportion of five molecules to one of the bromate and the solution of such bromid and bromate being sufficiently strong to cause such freed bromin to collect as a liquid, substantially as described.

1,141,923. DEVICE FOR CONVEYING LOADS ON PACK-ANIMALS. ADOLF BERKER and FRIEDRICH SACHTLEBEN, Essen-on-the-Ruhr, Germany, assignors to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Filed Feb. 20, 1912. Serial No. 678,977. (Cl. 54—37.)



1. A pack saddle comprising a pad, a saddle tree and a load carrier, said saddle tree having metal yokes with girth straps for securing said saddle tree and pad to the pack animal, and interengaging locking means on said saddle tree and said load carrier, said means being self locking and self releasing upon mounting said load carrier on said saddle tree and dismounting it respectively.

2. A pack saddle comprising a pad, a saddle tree and a load carrier, said saddle tree having metal yokes with girth straps for securing said saddle tree and pad to the pack animal, and interengaging locking means on said saddle tree and said load carrier, said means being situated at the top of said yokes and being self locking and self releasing upon mounting said load carrier on said saddle tree and dismounting it respectively.

3. A pack saddle comprising a pad, a saddle tree and a load carrier, said saddle tree having metal yokes with girth straps for securing said saddle tree and pad to the pack animal, and interengaging locking means on said saddle tree and said load carrier, said means being self locking and self releasing upon mounting said load carrier on said saddle tree and dismounting it respectively, said means comprising fork plates and studs corresponding thereto.

4. A pack saddle comprising a pad, a saddle tree and a load carrier, said saddle tree having metal yokes with girth straps for securing said saddle tree and pad to the pack animal, and interengaging locking means on said saddle tree and said load carrier, said means being self locking and self releasing upon mounting said load carrier on said saddle tree and dismounting it respectively, said means comprising channels on said load carrier constructed to grip the top portion of each of said yokes.

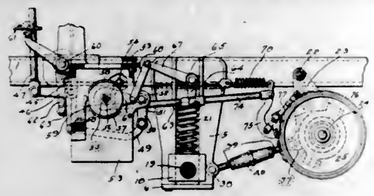
5. A pack saddle comprising a pad, a saddle tree and a load carrier, said saddle tree having metal yokes with girth straps for securing said saddle tree and pad to the pack animal, interengaging locking means on said saddle tree and said load carrier, said means being self locking and self releasing upon mounting said load carrier on said saddle tree and dismounting it respectively, said means comprising channels on said load carrier constructed to grip the top portion of each of said yokes to prevent longitudinal displacement, fork-plates on said load carrier and corresponding studs on the top portion of said yokes to prevent transverse displacement of said carrier relative to said saddle tree.

[Claims 6 and 7 not printed in the Gazette.]

1,141,924. MOTOR-TRUCK. SANFORD J. BERNHEIMER, St. Louis, Mo., assignor to The Electromobile Company, St. Louis, Mo., a Corporation of Delaware. Original application filed June 12, 1913, Serial No. 773,866. Divided and this application filed Nov. 4, 1914. Serial No. 870,234. (Cl. 21—90.)

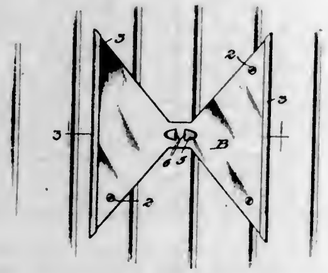
In a motor truck, a drive-shaft, a source of electrical energy, a motor, a normally open electric circuit between

said motor and source of electrical energy, said circuit including a switch having a rotatably movable member, a brake mechanism for said shaft, a spring yieldingly maintaining said brake mechanism normally in braking engagement with said shaft, and means on the truck adapted to simultaneously release said brake mechanism against the tension of said spring and actuate said switch-member



to close the circuit between said motor and source of electrical energy, said means including a lever, a pivoted bell-crank lever, a rod pivotally connected to said lever and to one arm of said bell-crank lever, a second rod pivotally connected to said brake mechanism and to said mentioned arm of said bell-crank lever, and a link pivotally connected to said switch member and to the other arm of said bell-crank lever.

1,141,925. FREIGHT-CAR-CARD HOLDER. THOMAS AUSTIN BIGGS, Rapid City, S. D. Filed Feb. 26, 1914. Serial No. 821,174. (Cl. 40—10.)



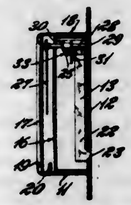
1. The combination of a card having an elongated opening, a holder having a button formed with an elongated edge to enter the opening when the card is in a certain position, and flanges with which the edges of the card may be engaged when the latter is turned on the button to a different position.

2. A card holder comprising a plate having a pair of members bent into oppositely disposed L-shaped lugs forming together a button outstanding from the plate and integral therewith, the head of the button being elongated, devices on the plate to either side of the button and spaced from the ends thereof, in combination with a card having an opening so shaped as to receive the button when the card is in a given position, and opposite edges of the card being engageable with the said devices when the card is turned on the button.

1,141,926. OVEN-THERMOMETER. CHARLES D. BOLIN and LUCIUS E. MORE, St. Louis, Mo., assignors to National Thermo Company, St. Louis, Mo., a Corporation of Missouri. Filed Aug. 27, 1913. Serial No. 786,850. (Cl. 73—119.)

1. An oven thermometer comprising a casing carrying a one-piece bracket, an index-pointer pivot journaled in said bracket and casing, an arm carried by said pivot, a heat sensitive spring secured at one end to said casing and having at its other end means for connecting it to said arm, and said bracket having an adjustable stop formed integral therewith adapted to limit movement of said arm and spring in one direction.

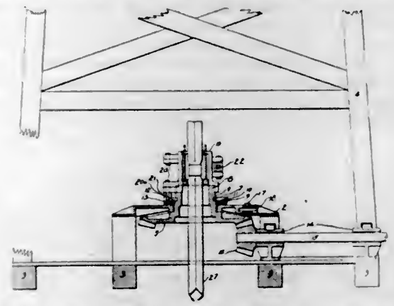
2. An oven thermometer comprising a closed casing inclosing a bi-metallic heat sensitive spring, said spring having one end projecting through said casing whereby the heat of said oven is conducted directly through both metallic elements of said spring.



3. In an oven thermometer, a casing inclosing a bimetallic heat sensitive spring, said spring having one end secured to and projecting through said casing whereby the heat of said oven is conducted directly to and through both metallic elements of said spring.

4. A bi-metallic spring for an oven thermometer, said spring having two elements each of which has as an integral part thereof a lateral projection from one edge mating with the like projection of the other and adapted to be secured to a supporting casing by passing through an opening in the wall thereof.

1,141,927. WELL-SINKING APPARATUS. PETER BOYD, Pittsburgh, and AUGUSTUS M. SAUNDERS, McKeesport, Pa., assignors to The National Tube Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed Nov. 17, 1911. Serial No. 660,846. (Cl. 255—19.)



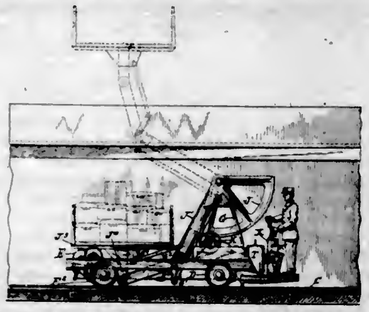
A well sinking apparatus including a rotary and a chuck, and a combined tubular reamer and casing of polygonal cross-section, said chuck having angularly-disposed straight bearing faces for loosely embracing and rotating the casing by engaging a plurality of the plane sides thereof with broad bearings against said sides of the polygonal tubular casing, and also permitting endwise movement of the polygonal tubular casing through the chuck, the corners of the polygonal tubular casing operating as a reamer on the walls of the well during the drilling operation.

1,141,928. ELEVATING BAGGAGE-TRUCK. THOMAS E. BROWN, New York, N. Y., assignor to Otis Elevator Company, Jersey City, N. J., a Corporation of New Jersey. Filed Jan. 15, 1913. Serial No. 742,125. (Cl. 105—17.)

1. A truck adapted to run on tracks, an elevating platform, a crane to elevate the same, means to actuate the crane, and a crosshead to guide and steady the crane in its movement.

2. A truck adapted to run on tracks, an elevating platform, a vertically oscillatory crane comprising substantially an elbow lever, one end pivoted to the under side of the platform and the other end formed of a gear-toothed sector, and a power-actuable toothed-gearing meshing with the sector to oscillate the crane.

3. A truck adapted to run on tracks, an elevating platform, a vertically oscillatory crane, comprising substantially an elbow lever, one end pivoted to the under side of the platform and the other end formed of a gear-toothed sector, an upright or stand on which the crane is fulcrumed, means to maintain the platform level in its elevating movement, comprising a bent lever pivoted to the crane and links connecting the same with the platform and stand, and a power-actuable gear-toothed gearing, meshing with the sector, to oscillate the crane.

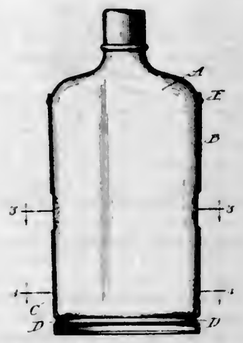


4. A truck adapted to run on tracks, an elevating platform, power means to elevate the same, a brake to hold the platform elevated and to retard its rate of elevating.

5. A truck adapted to run on tracks and comprising an elevating platform, an electric motor to elevate the same, a brake for the platform, means to apply the brake, and an electromagnet to release the same.

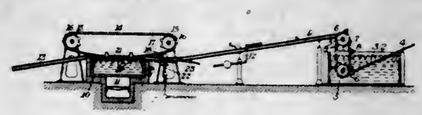
[Claim 6 not printed in the Gazette.]

1,141,929. FLASK OR GUARD. AUGUST BRUEBACH, Chicago, Ill. Filed Mar. 27, 1914. Serial No. 827,524. (Cl. 215—3.)



The combination with a flat tapered flask, of a container therefor comprising a sheet-metal sleeve open at both ends and conforming in general shape with the body of the flask, and provided at its lower end portion with inwardly extending projections adapted to engage the flask and maintain free passages for fluid between said parts, the length of the periphery of the upper end portion of the flask being less than the length of the inner periphery of the opposed portion of the sleeve, the latter being elliptical and flexible and having its normal greater diameter less than the greatest width of the flask and adapted to yield to increase said greater diameter as the flask is forced into the same, there being air spaces between the flat sides of the flask and the opposing walls of the upper portion of said sleeve, the latter decreasing in width from its upper end to its point of engagement with the lower end of the contained flask, there being passage for fluid between the upper flat sides of the flask and the opposing walls of the sleeve continuous with the first-named passages for fluid.

1,141,930. APPARATUS FOR GALVANIZING. NEWTON W. BUCH, New Castle, Pa., assignor to Safety Armorite Conduit Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed June 28, 1913. Serial No. 776,430. (Cl. 91—12.6.)



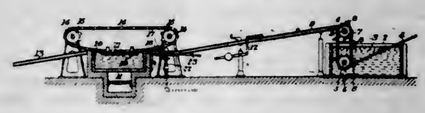
1. Apparatus for hot galvanizing, comprising a tank for containing the galvanizing material, a conveyer arranged over said tank, and supporting devices adapted to detachably engage the conveyer and also to engage the pipes to suspend them within the galvanizing material within the tank, said supporting devices having means for closing the ends of the pipe against the entrance of the galvanizing material into the interior of the pipe, substantially as described.

2. Apparatus for hot galvanizing, comprising a tank for containing the molten galvanizing material, a conveyer passing over said tank, supporting members having vented socket portions for engaging the ends of the pipe and also having means for detachably connecting them to the conveyer, and means for holding the pipe down in the molten metal as it is moved along by the conveyer while suspended by said supporting members, substantially as described.

3. Apparatus for hot galvanizing, comprising a tank containing a molten galvanizing metal, an endless conveyer mounted over said tank, and supporting members having sockets adapted to engage and close the ends of the pipes to be galvanized and also having means for connecting them to said conveyer, substantially as described.

4. Apparatus for hot galvanizing, comprising a tank for containing the molten metal, a conveyer arranged over said tank, and supporting members having sockets to receive and close the ends of the pipes to be galvanized and also having vent openings extending therethrough and upwardly to points which will be above the level of the molten metal in said tank, together with means for connecting them to the conveyer, substantially as described.

1,141,931. METHOD OF GALVANIZING. NEWTON W. BUCH, New Castle, Pa., assignor to Safety Armorite Conduit Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Original application filed June 28, 1913, Serial No. 776,430. Divided and this application filed Oct. 20, 1914. Serial No. 867,577. (Cl. 91—70.2.)



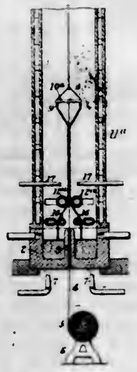
1. The herein described method of coating pipes, which consists in applying closures to the ends of the pipe to be coated, at least one of said closures having a vent opening, and then moving the pipe through a heated coating bath while maintaining said vent opening above the level of the coating material in the bath, substantially as described.

2. The herein described method of coating pipes having threaded end portions, which consists in applying removable vented closures to the ends of the pipe of a character to cover the threads thereof, and moving the pipe through a heated coating bath while maintaining the vent openings of said closures above the level of the coating material in the bath, substantially as described.

3. The herein described method of coating pipes, which consists in applying closures to the ends of the pipe to be coated, at least one of said closures having a vent opening, and then moving the pipe through a heated coat-

ing bath by engagement with said closures while maintaining said vent opening above the level of the coating material in the bath, substantially as described.

1,141,932. DRAWING GLASS. CLARENCE P. BYRNES, Sewickley, Pa. Filed July 26, 1905. Serial No. 271,284. (Cl. 49—17.)



1. The method of making wire glass, consisting in continuously withdrawing glass from the upper portion of a molten glass bath, shaping it into sheet or plate form as it is withdrawn, combining a metal fabric or structure with the successive body portions of the sheet at a point above the level of the bath, and uniting the same thereto, substantially as described.

2. The method of making wire glass, which consists in drawing a sheet of glass upwardly from a mass of molten glass and then embedding a metallic fabric in said drawn sheet, while the drawing action continues; substantially as described.

3. The method of making glass sheets, consisting in simultaneously drawing two layers of glass and uniting them together during drawing and while plastic; substantially as described.

4. The method herein described which consists in simultaneously drawing two layers of glass on opposite sides of a reinforce and forcing such layers together and on to the sides of the reinforce; substantially as described.

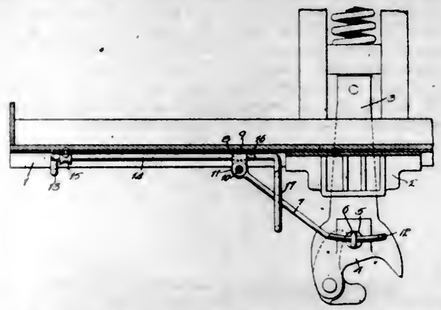
5. The method of making wire glass, consisting in continuously withdrawing glass from the upper portion of a molten glass bath, shaping it into sheet or plate form as it is withdrawn, and continuously uniting a metal fabric or structure with the successive portions of the sheet after initial formation; substantially as described.

[Claims 6 to 26 not printed in the Gazette.]

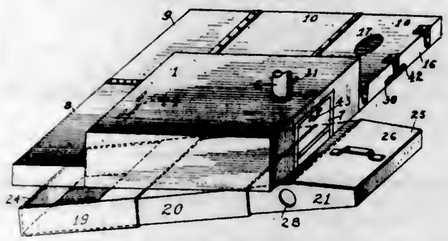
1,141,933. UNCOUPLING MECHANISM. LEWIS T. CANFIELD, Chicago, Ill. Filed Sept. 23, 1914. Serial No. 863,059. (Cl. 213—59.)

1. Mechanism for uncoupling railroad cars, including an uncoupling pin; an obliquely disposed lift arm mounted at one end and having sliding and lifting engagement at its other end with the uncoupling pin; and a handle shaft carying a crank which is in lifting and sliding engagement with an intermediate oblique portion of the lift arm, the end of the lift arm which is in lifting and sliding engagement with the uncoupling pin being curved to conform substantially to the curve of bodily movement of the pin as the coupler swings sidewise.

2. Mechanism for uncoupling railroad cars, including an uncoupling pin; an obliquely disposed lift arm mounted at one end and having sliding and lifting engagement at its other end with the uncoupling pin; a handle shaft carrying a crank which is in lifting and sliding engagement with an intermediate oblique portion of the lift arm; a bracket having two branches between which the handle shaft passes and between which the mounted end of the lift arm is disposed; and a pin which assembles the bracket and lift arm, the handle shaft being interposed between the base of the bracket and the latter pin, thereby to be maintained in assembly.



1,141,934. FIELD STOVE, OVEN, RANGE, AND THE LIKE. OSCAR J. CHARLES, Fort McPherson, Ga. Filed Oct. 25, 1913. Serial No. 797,337. (Cl. 126—29.)



1. A device of the class described, comprising a heat utilizing member having an inlet opening at one side near the bottom and having an outlet opening in combination with an L-shaped burner casing having the outer end of one arm communicating with said inlet opening and the other arm disposed beside said heat utilizing member and having a fuel fee dopening at its outer end.

2. In a device of the class described, the combination of a heat utilizing member having a gas inlet at the rear near the bottom thereof, and an L-shaped casing having one arm extending across the rear of said heat utilizing member and communicating with said gas inlet opening, and having another arm extending along the side of said heat utilizing member and provided with a fuel feed opening at its front.
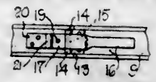
3. A device of the class described, comprising an oven having an inlet opening at one side near the bottom and having an outlet opening, and an L-shaped casing having one end communicating with said inlet opening and having a fuel door at its opposite end, said casing being open at the bottom and adapted to serve as a cover for a trench adapted to constitute a fire box and combustion chamber for said oven.

4. A device of the class described, comprising a rectangular oven member having a gas inlet opening at the rear, and an L-shaped casing extending across the rear and along one side of said bottom section and having a fuel door at its front end for the purpose specified, said L-shaped casing being made up of separable sections adapted to be nested with said oven member.

5. A device of the class described, comprising a rectangular oven and an L-shaped trench cover, said cover comprising a plurality of sections adapted to nest with said oven, one of said sections being adapted to overlap the others when nested with the oven, and fastening means acting between the oven and said one section for securing all of said sections together.

[Claims 6 to 12 not printed in the Gazette.]

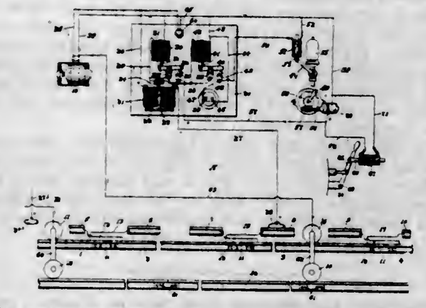
1,141,935. DEMOUNTABLE RIM FOR WHEEL-TIRES. ELBA O. COLLINS, Chillicothe, Ohio. Filed Jan. 16, 1915. Serial No. 2,664. (Cl. 152—21.)



1. A demountable rim for wheel tires including a plurality of hingedly connected metal rim sections adapted for relative movement whereby the same may be engaged against the inner side of the tire, a latch lever pivotally mounted upon the extremity of one section, a keeper secured upon the extremity of the opposed rim section and provided with a curved lip to receive one end of said lever, said lever being provided adjacent to its latter end and between the same and its pivot with an opening, and an inwardly projecting stud fixed to the latter rim section for engagement in said opening to positively hold the rim sections against relative circumferential movement.

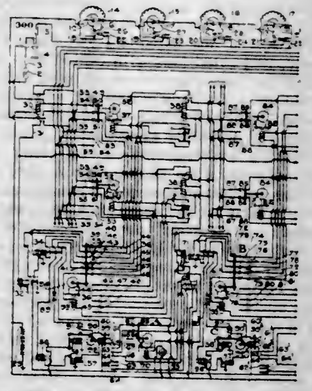
2. A demountable rim for wheel tires including a plurality of hingedly connected rim sections adapted to be engaged against the inner face of the wheel tire, a latch lever pivotally mounted upon the extremity of one of the rim sections and having a cylindrically formed terminal, a keeper member fixed to the extremity of the opposed rim section and provided with a curved lip to receive the cylindrical extremity of the latch lever, and additional means on the latter rim section to coöperate with the lever and positively prevent relative circumferential movement of the rim sections.

1,141,936. ELECTRIC SIGNAL AND TRAIN CONTROL. ELIAS W. CONKELL, Bessemer, Ala., assignor of nine-twentieths to Ira C. Fason, Bessemer, Ala. Filed July 10, 1914. Serial No. 850,145. (Cl. 246—58.)



In an apparatus of the character described, a main circuit, means carried by the train for automatically closing said main circuit, a generator in said circuit, an electromagnet in said main circuit adapted to be energized when said circuit is closed, a contact plate adapted to be engaged by the armature of said electro-magnet when said electro-magnet is energized, an air brake control switch solenoid electrically connected to said contact plate, an air brake controlling switch blade adapted to be operated by the armature of said solenoid, an electrical connection between said blade and one side of said generator, a terminal adapted to be engaged by said switch blade, an air brake controller motor electrically connected to said terminal, an electrical connection from said motor to the other side of said generator, a throttle controlling solenoid electrically connected to said terminal, an electrical connection leading from said solenoid back to said other side of the generator, a signal switch solenoid electrically connected to said contact plate, a signal switch adapted to be operated by the armature of said signal switch solenoid, an electrical connection between said signal switch and said air brake controller switch, a second terminal adapted to be engaged by said signal switch, signal lamps, a wire leading from said second mentioned terminal and connected to said signal lamps and leading back to said other side of the generator, a whistle controlling solenoid, a wire leading from said second mentioned terminal to said whistle controlling solenoid and a wire from said whistle controlling solenoid to said other side of the generator.

1,141,937. TELEPHONY. ELMER R. CORWIN, Chicago, Ill., assignor, by mesne assignments, to Frank B. Cook Company, Chicago, Ill., a Corporation of Illinois. Filed Apr. 5, 1913. Serial No. 759,021. (Cl. 179—18.)



1. A telephone exchange system including telephone lines extending from substations to an exchange; extensions for such telephone lines adapted for connection therewith in successive order; successively operating electro-magnetic switching devices respectively coöperatively related with the successively related extensions in their order and in the order of operation of said electro-magnetic switching devices and operating in succession for connecting such extensions in successive order with calling telephone lines; successively operating calling line extending switching devices at each of the substations of said telephone lines that are respectively adapted for operative association in the order of their succession with the successively operating electro-magnetic switching devices in the order of succession of the latter; and electromagnetic means whereby the calling line extending switching devices which succeed the first at a calling station are successively brought into coöperative relation with their line, and operated by the extensions associated with preceding calling line extending switching devices for this purpose when such extensions are connected with the line of such calling line extending switching devices.

2. A telephone exchange system including telephone lines extending from substations to an exchange; extensions for such telephone lines adapted for connection therewith in successive order; successively operating electro-magnetic switching devices respectively coöperatively related with the successively related extensions in their order and in the order of operation of said electro-magnetic switching devices and operating in succession for connecting such extensions in successive order with calling telephone lines; successively operating calling line extending switching devices at each of the substations of said telephone lines that are respectively adapted for operative association in the order of their succession with the successively operating electro-magnetic switching devices in the order of succession of the latter; and electromagnetically controlled devices whereby the calling line extending switching devices which succeed the first at a calling station, and to which succeeding calling line extending switching devices said electromagnetically controlled devices are individual, are successively brought into coöperative relation with their line, these electromagnetically controlled devices being respectively operated in succession by the extensions associated with preceding calling line extending switching devices for this purpose when such extensions are connected with the line of such calling line extending switching devices.

3. A telephone exchange system including telephone lines extending from substations to an exchange; extensions for such telephone lines adapted for connection therewith in successive order; successively operating electro-magnetic switching devices respectively coöperatively related with successively related extensions in their order and in the order of operation of said electro-magnetic switching devices and operating in succession for connecting such extensions in successive order with calling telephone lines; calling line extending switching devices at stations of said telephone lines for effecting the operation of said electro-magnetic switching devices successively in their order; and means for preventing the effective operation of said calling line extending switching devices to connect succeeding extensions with calling lines until preceding extensions have been connected with calling lines, and operated by extensions connected with the calling lines to permit them to operate to connect succeeding extensions with the preceding extensions.

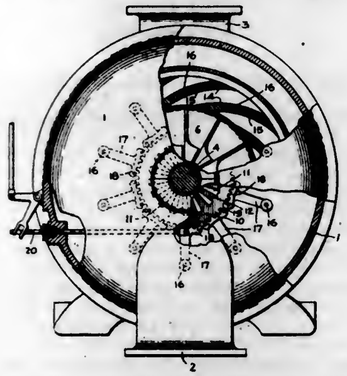
4. A telephone exchange system including telephone lines whose stations, when calling, are to have telephone line extensions connected therewith; extensions for such telephone lines adapted for connection therewith in successive order; successively operating electro-magnetic switching devices respectively coöperatively related with the successively related extensions in their order and in the order of operation of said electro-magnetic switching devices and operating in succession for connecting such extensions in successive order with calling telephone lines; successively operating calling line extending switching devices at each of the substations of said telephone lines that are respectively adapted for operative association in the order of their succession with the successively operating electro-magnetic switching devices in the order of succession of the latter; and electro-magnetic means whereby the calling line extending switching devices which succeed the first at a calling station are successively brought into coöperative relation with their line and operated by the extensions associated with preceding calling line extending switching devices for this purpose when such extensions are connected with the line of such calling line extending switching devices.

5. A telephone exchange system including telephone lines whose stations, when calling, are to have telephone line extensions connected therewith; extensions for such telephone lines adapted for connection therewith in successive order; successively operating electro-magnetic switching devices respectively coöperatively related with the successively related extensions in their order and in the order of operation of said electro-magnetic switching devices and operating in succession for connecting such extensions in successive order with calling telephone lines; successively operating calling line extending switching devices at each of the substations of said telephone lines that are respectively adapted for operative association in the order of their succession with the successively operating electro-magnetic switching devices in the order of succession of the latter; and electro-magnetically controlling devices whereby the calling line extending switching devices which succeed the first at a calling station, and to which succeeding calling line extending switching devices said electro-magnetically controlled devices are individual, are successively brought into coöperative relation with their line, these electro-magnetically controlled devices being respectively operated in succession by the extensions associated with preceding calling line extending switching devices for this purpose when such extensions are connected with the line of such calling line extending switching devices.

[Claims 6 to 27 not printed in the Gazette.]

1,141,938. AIR-REGULATING DEVICE FOR CENTRIFUGAL COMPRESSORS. CLARENCE P. CRISSEY, East Orange, N. J., assignor to General Electric Company, a Corporation of New York. Filed Jan. 17, 1913. Serial No. 742,614. (Cl. 230—11.)

1. In a centrifugal air compressor, the combination of a casing having an inlet opening and an outlet opening, a shaft, a plurality of double inlet impellers mounted on said shaft, and a valve associated with each impeller to control the admission of fluid to one side thereof, said valves being arranged on opposite sides of adjacent impellers whereby the end thrust is balanced.



2. The combination with a centrifugal air compressor having a double inlet impeller, of a discharge chamber provided with a partition in line with the web of said impeller, discharge vanes in each compartment of said chamber, and means located between the discharge vanes and operable to change the contour of the channels therebetween for controlling the effective area of such discharge channels.

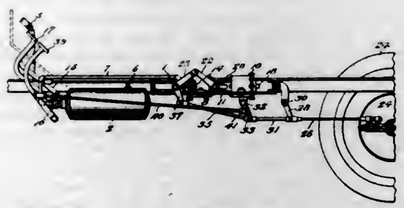
3. The combination with a centrifugal air compressor having a double inlet impeller, of a discharge chamber provided with a partition in line with the web of said impeller, main discharge vanes in each compartment of said chamber, and auxiliary vanes for controlling the effective area of the discharge channels between the main vanes.

4. The combination with a centrifugal air compressor having a double inlet impeller and walls forming stationary discharge channels at the periphery thereof, of means for regulating the admission of fluid to one side of said impeller, and means for regulating the effective area of the discharge channels.

5. The combination with a centrifugal air compressor having a double inlet impeller, of means for regulating the admission of fluid to one side of said impeller, means for regulating the effective area of the discharge channels, and means for effecting said regulations simultaneously.

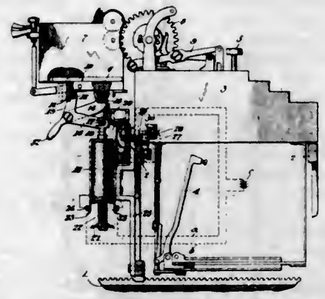
[Claims 6 and 7 not printed in the Gazette.]

1,141,939. AIR-BRAKE FOR MOTOR-CARS. IRVIN CRUM, Selma, Ala. Filed July 21, 1914. Serial No. 852,216. (Cl. 188—3.)



Air brake apparatus for motor cars, comprising an air pump, a compressed air storage tank, a brake cylinder in communication with said tank, a spring-containing cylinder in axial alinement with the brake cylinder, a slotted yoke connecting said cylinders in fixed relative positions, a piston in the brake cylinder, a piston rod extending therefrom into the spring-containing cylinder, a spring in the last named cylinder which acts on the piston rod to return the piston to its position of rest, a cross arm carried by said piston rod and working in the slotted yoke, a rock shaft, toggle arms connecting said rock shaft with said cross arm, a brake shoe, and operating connections between said rock shaft and brake shoe.

1,141,940. RESTORING MECHANISM FOR ADDING-MACHINES. JOSEPH FRANK CULVERWELL, Washington, D. C., assignor to Elliott-Fisher Company, Harrisburg, Pa., a Corporation of Delaware. Filed Feb. 24, 1910. Serial No. 545,696. (Cl. 235—59.)



1. The combination with a plurality of relatively adjustable computing devices each including carrying means, of restoring mechanism common to the carrying means of said computing devices and operative to restore the same simultaneously.

2. The combination with a plurality of computing devices relatively adjustable to different column positions and each including carrying mechanism, restoring means therefor, of operatng mechanism common to the restoring means of the several computing devices and arranged to operate the same simultaneously.

3. The combination with a plurality of computing devices relatively adjustable laterally and each including carrying means, of restoring mechanism common to the carrying means of the several computing devices and operative in the various adjusted positions of the latter to restore said carrying means simultaneously.

4. The combination with a plurality of computing devices relatively adjustable laterally and each having carrying mechanism and restoring means therefor, of a universal operating member in constant coöperative relation with the restoring means of the several computing devices.

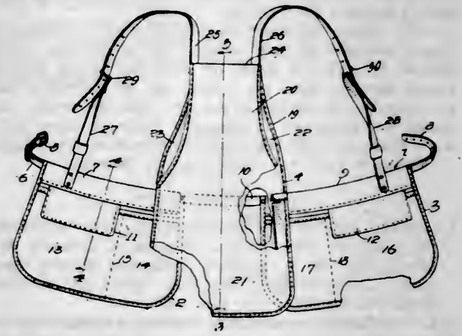
5. The combination with a plurality of computing devices relatively adjustable in a lateral direction and each including carrying devices and restoring means therefor, of a universal bar disposed transversely of the registers and movable to operate the several restoring means.

[Claims 6 to 35 not printed in the Gazette.]

1,141,941. COMBINED GAME AND SHELL BAG. JACOB DANZ, 2d, Los Angeles, Cal. Filed Feb. 9, 1915. Serial No. 7,011. (Cl. 224—7.)

1. A belt, shell compartments secured to the ends of the belt, an inner section secured to the center of the belt and overlapping the shell compartments, an outer section parallel with the inner section, an accordion plait connecting the outer section and the inner section below the belt, said outer and inner sections extending some distance above the belt with their edges unconnected and straps connecting the upper ends of the inner and outer sections to near the ends of the belt.

2. A combined game and shell bag, comprising a belt, shell compartments secured to the ends of the belt and extending downwardly, an inner section secured to the center of the belt and extending upwardly and downwardly and overlapping the shell compartments, an outer section parallel with the inner section, an accordion plait connecting the outer section and the inner section along the edges below the belt, the outer and inner sections being unconnected along their side edges above the belt and connected together across their upper edges, and



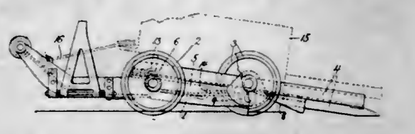
straps connecting the upper corners of the inner and outer sections to near the ends of the belt.

1,141,942. FOLDING CUFF. CHARLES W. T. DAVIES, New York, N. Y. Filed July 26, 1913. Serial No. 781,310. (Cl. 2—79.)



A folding cuff having inner and outer folds provided with buttonholes adapted to receive cuff buttons and connected at their vertical side edges by one or more intermediate connectors independent of the cuff buttons, the remaining portions of the folds being disconnected.

1,141,943. MINING-MACHINE TRUCK. CHARLES E. DAVIS, Chicago, Ill., assignor to Goodman Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Sept. 14, 1912. Serial No. 720,366. (Cl. 105—32.)



1. A mining machine truck comprising a stationary frame mounted on four wheels and a movable frame constituting the bed of the truck and capable of revolving about the axle line of the pair of wheels farthest from the loading end of the frame.

2. A mining machine truck comprising a stationary frame mounted on four wheels and a movable frame capable of revolving about the axle line of the pair of wheels farthest from the loading end of the frame and also capable of moving lengthwise with the truck.

3. A mining machine truck comprising a stationary frame mounted on four wheels and a movable frame capable of revolving about the axle line of the pair of wheels farthest from the loading end of the frame and also capable of moving lengthwise with the truck, a latch to prevent the said longitudinal motion occurring before the mining machine reaches a predetermined position on the truck.

4. A mining machine truck comprising a stationary frame mounted on four wheels and a movable frame capable of revolving about the axle line of the pair of

wheels farthest from the loading end of the frame and also capable of moving lengthwise with the truck, and means for causing the movable frame to move forward when unloading the machine.

5. A mining machine truck comprising a stationary frame mounted on four wheels and a movable frame capable of revolving about the axle line of the pair of wheels farthest from the loading end of the frame and also capable of moving lengthwise with the truck, and means for propelling the movable frame to move backward with the machine under predetermined conditions.

[Claims 6 to 9 not printed in the Gazette.]

1,141,944. RESINOUS COMPOSITION AND PROCESS OF MAKING THE SAME. EDWARD S. DAWSON, Jr., Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Apr. 9, 1914. Serial No. 830,802. (Cl. 106—15.)

1. A resinous composition comprising a mixed ester of a polyhydric alcohol, a polybasic acid and a monobasic acid, said mixed ester having associated therewith a neutral oily ester, said composition being a flexible, fusible, soluble solid convertible by heat to an insoluble, infusible condition while retaining flexibility.

2. An insulating composition comprising a glycerol ester of phthalic and oleic acids, having associated therewith castor oil, said composition being a fusible, soluble, reddish resin convertible by heat to an infusible, insoluble resin possessing flexibility.

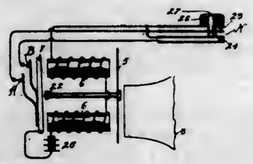
3. A resinous composition comprising a mixed glycerin ester of phthalic and oleic acids, having indistinguishably incorporated therewith castor oil, said composition being convertible by heat to an infusible, insoluble, flexible resin from which the castor oil is non-separable by solvents.

4. A reddish, flexible resin, comprising castor oil and a glycerid of phthalic and oleic acids, the castor oil being extractable by solvents, said resin being convertible by heating to an infusible, insoluble resin from which castor oil is non-extractable.

5. A flexible resinous condensation product saponifiable with alkali to yield glycerin, and the salt of phthalic, oleic and ricinoleic acids.

[Claims 6 to 9 not printed in the Gazette.]

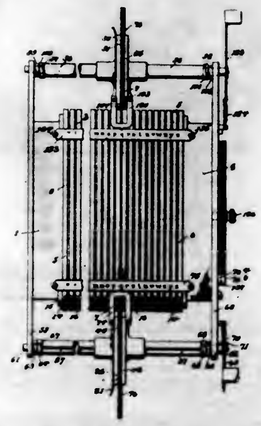
1,141,945. ELECTRICAL SIGNALING DEVICE. WILLIAM W. DEAN, Chicago, Ill., assignor to Kellogg Switchboard and Supply Company, Chicago, Ill., a Corporation of Illinois. Filed May 25, 1912. Serial No. 699,694. (Cl. 177—7.)



1. A signaling device comprising a suitably supported diaphragm, an electromagnet and armature, an anvil rod rigidly supported by the diaphragm and operatively related to the armature, a pair of flexible contact springs carried by the armature, an adjustable contact for each contact spring providing different periods of contact between the spring and contact screw when the armature vibrates, and circuit connections whereby either contact and electromagnet are included in circuit to produce different frequencies of vibration of the armature and diaphragm.

2. A signaling device comprising a suitably supported diaphragm, an electromagnet and armature operatively related to the diaphragm, a pair of flexible contact springs carried by the armature, a stationary contact for each contact spring, stops for said contact springs providing different periods of contact between the spring and stationary contact when the armature vibrates, and circuit connections including said electromagnet and contacts to produce different frequencies of vibration of the armature and diaphragm.

1,141,946. TYPE SETTING AND DISTRIBUTING MACHINE. ALONZO G. DECKER, Orangeville, Md., assignor to The National Lettergraph Company, Baltimore, Md., a Corporation of Maryland. Filed Feb. 9, 1912. Serial No. 676,493. (Cl. 101—130.)



1. The combination with a type magazine, having a series of type channels, of a type holder movable transversely of said type channels to be brought into alinement therewith, and resilient means adapted to yield to the movement of said holder in coming into alinement with said channels, in two opposite directions.

2. The combination with a type magazine, having a series of open end type channels, of a type holder carriage, a movable support on which said carriage is mounted to travel transversely of said channels, and yielding means normally exerting pressure against said support in two opposite directions of the carriage travel.

3. The combination with a type magazine, having a plurality of type channels, of a type transferring carriage movable transversely of said channels, a longitudinally movable shaft on which said carriage is slidably mounted, and resilient means resisting the longitudinal movement of said shaft.

4. The combination with a type magazine, having a plurality of type channels, of a type transferring carriage movable transversely of said channels, a longitudinally movable support on which said carriage is slidably mounted, and means bearing continuously against said support to resist its movement in two opposite directions, but yieldable to said movement of said support.

5. The combination with a type magazine having a plurality of type channels, a longitudinally yieldable shaft extending transversely of said type channels, and a type holder carriage provided with an opening through which said shaft passes to permit the carriage to slide on the shaft and the shaft to rotate in said opening.

[Claims 6 to 32 not printed in the Gazette.]

1,141,947. PRODUCTION OF AMMONIA. FREDRIK W. DE JAHN, New York, N. Y., assignor to General Chemical Company, New York, N. Y., a Corporation of New York. Filed Aug. 2, 1913. Serial No. 782,696. (Cl. 23—21.)

1. The process of producing ammonia which comprises passing a mixture containing nitrogen and hydrogen over a catalytic agent containing nickel, sodium and nitrogen.

2. The process of producing ammonia which comprises passing a mixture containing nitrogen and hydrogen over a heated catalytic agent containing nickel, sodium and nitrogen.

3. The process of producing ammonia which comprises passing a mixture containing nitrogen and hydrogen under pressure over a heated catalytic agent containing nickel, sodium and nitrogen.

4. The process of making ammonia which comprises passing a mixture containing nitrogen and hydrogen under a pressure less than 100 atmospheres over a heated catalytic agent containing nickel, sodium and nitrogen.

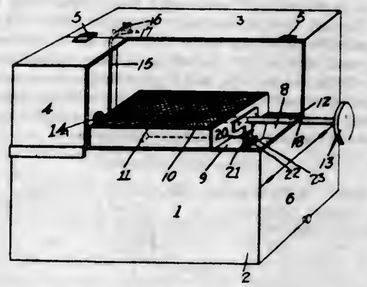
1,141,948. PRODUCTION OF AMMONIA. FREDRIK W. DE JAHN, New York, N. Y., assignor to General Chemical Company, New York, N. Y., a Corporation of New York. Filed July 8, 1914. Serial No. 849,680. (Cl. 23—21.)

1. The herein described process of producing ammonia, which comprises suitably passing a gaseous mixture containing nitrogen and hydrogen in contact with a heated catalytic agent containing (1) cobalt, (2) sodium and (3) nitrogen.

2. The herein described process of producing ammonia, which comprises suitably passing a gaseous mixture containing nitrogen and hydrogen under pressure in contact with a heated catalytic agent containing (1) cobalt, (2) sodium and (3) nitrogen.

3. The herein described process of producing ammonia, which comprises suitably passing a gaseous mixture containing nitrogen and hydrogen under a pressure less than 100 atmospheres in contact with a heated catalytic agent containing (1) cobalt, (2) sodium and (3) nitrogen.

1,141,949. ASH-SIFTER. WILLIAM HUSTON DELANEY, Toronto, Ontario, Canada. Filed Feb. 24, 1915. Serial No. 10,242. (Cl. 83—60.)



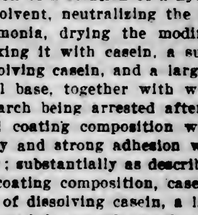
1. An ash sifter comprising a main casing having a cover portion, a sifter having a sifter frame designed to fit over an ash pan and to be detachably secured thereto, and swingable means for pivotally supporting the sifter within the casing so as to swing longitudinally thereof when in the inverted position.

2. In an ash sifter, the combination with the ash pan, of a frame surrounding the upper edge of the ash pan and provided with a sieve, detachable connecting means between the frame and ash pan, a receiving casing, swingable means for pivotally supporting the ash pan and sieve within the casing, comprising a hook hanger having a right angular extension at its upper end swingably secured to the top of the casing and a hook on its lower end adapted to pivotally support said ash pan and sieve, and means for swinging the ash pan and sieve so as to give a shaking movement to the ash pan and sieve in the casing, as and for the purpose specified.

1,141,950. LADDER. ERNEST CHAS. DICKINSON, Anniston, Ala. Filed Mar. 13, 1914. Serial No. 824,898. (Cl. 228—17.)

1. The herein described ladder, consisting of main and extension sections, a rod slidably mounted with reference to one of said sections, a clamping nut engaging said rod, and spring actuated means carried by one section and engaging said rod to properly support said sections when used as a stepladder.

2. The herein described ladder, consisting of the main and extension sections pivoted together, the extension section being provided with a slot having a series of recesses in one wall, guide strips carried by the main section and formed with a recess providing a seat, links, rods secured to the ends of said links and guided in the slot and guide strips and adapted to engage the recesses of said strips and slot.



3. The herein described ladder, consisting of the main and extension sections, a rod pivotally connecting said sections, movable catches for supporting said rod when the ladder is adjusted, links connecting and bracing said sections, and guides for said links carried by said sections.

1,141,951. PAPER-COATING COMPOSITION AND METHOD OF MAKING THE SAME. ANDREW A. DUNHAM, Bainbridge, N. Y., assignor to Casein Company of America, New York, N. Y., a Corporation of New Jersey. Filed May 9, 1911. Serial No. 625,990. (Cl. 134—20.)

1. The method of producing a composition for use in paper coating, which comprises modifying a body of starch by the action of a hydrolyzing agent, neutralizing the modified starch by means of ammonia, and admixing it with casein, a substance having the power of dissolving casein, and a large proportion of a suitable mineral base, together with water, the modification of the starch being arrested after proceeding so far that the final coating composition will have a free flowing consistency and strong adhesion when applied as a coating to paper; substantially as described.

2. The method of producing a composition for use in paper coating, which comprises modifying a body of starch by the action of a solution of a hydrolyzing agent, evaporating the solvent, neutralizing the modified starch by means of ammonia, and admixing it with casein, a substance having the power of dissolving casein, and a large proportion of a suitable mineral base, together with water, the modification of the starch being arrested after proceeding so far that the final coating composition will have a free flowing consistency and strong adhesion when applied as a coating to paper; substantially as described.

3. The method of producing a composition for use in paper coating, which consists in modifying a body of starch by the action of a solution of a hydrolyzing agent, evaporating the solvent, neutralizing the modified starch by means of ammonia, drying the modified neutralized starch, and admixing it with casein, a substance having the power of dissolving casein, and a large proportion of a suitable mineral base, together with water, the modification of the starch being arrested after proceeding so far that the final coating composition will have a free flowing consistency and strong adhesion when applied as a coating to paper; substantially as described.

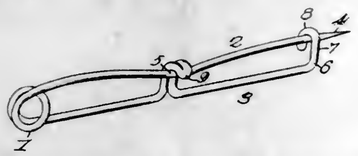
4. As a paper coating composition, casein, a substance having the power of dissolving casein, a large proportion of a suitable mineral base and starch which has been modified by a hydrolyzing agent to such an extent that when admixed with water, the composition will be strongly adhesive, of free flowing consistency, and capable of use without leaving superficial brush marks when applied as a coating to paper; substantially as described.

5. As a paper coating composition, casein, a substance having the power of dissolving casein, a large proportion of a suitable mineral base and starch which has been modified by a hydrolyzing agent to such an extent that when admixed with water, the composition will be strongly

adhesive, of free flowing consistency, and capable of use without leaving superficial brush marks when applied as a coating to paper, said composition having been treated with formaldehyde; substantially as described.

[Claim 6 not printed in the Gazette.]

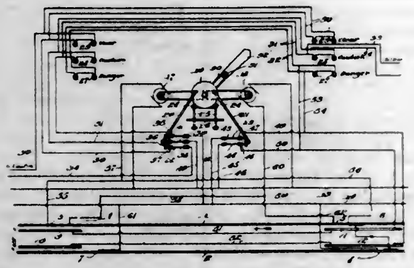
1,141,952. SAFETY-PIN. CHELCIAS E. FAULKS, Pueblo, Colo. Filed Aug. 21, 1913. Serial No. 785,987. (Cl. 24—161.)



1. A safety pin having pin and back portions, said back portion provided with a relatively long pin-retaining portion formed at the end thereof and further provided with an intermediate pin-retaining portion of reduced length with respect to said first-named retaining portion, and said pin portion bowed in its central extent to follow substantially the variation of disposition of the retaining portions and to be sprung into each.

2. A safety pin having pin and back portions, said back portion having a relatively long pin-retaining portion opening for insertion and removal of the pin from one side of the device and also having an intermediate pin retaining portion of reduced length with respect to said first retaining portion and opening for insertion and removal of the pin on that side opposite to the opening of said first retaining portion, and said pin portion bowed in its body extent to follow substantially the variation of disposition of the retaining portions and to be sprung into place within the confines of the intermediate retaining portions and subsequently to a confined position within the end-retaining portion.

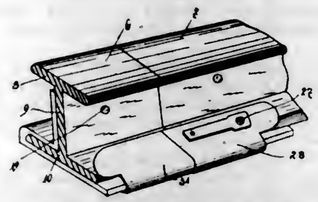
1,141,953. ELECTRIC TRAIN CONTROL. LEONARD J. FILITTI, Albany, N. Y. Filed Mar. 17, 1914. Serial No. 825,313. (Cl. 246—31.)



1. A track arranged in blocks, a series of signals including a clear lamp, a caution lamp, and a danger lamp arranged at the terminal of each block, mains energized from a remote source, conductors leading from the mains to each of said signals of each series, a switch simultaneously controlling the clear and caution signals of each series, a second switch controlling the danger signal of each series, and opposed motors for actuating the switches and track carried contacts at the respective ends of the blocks electrically connected to and controlling said motors, the clear lamp of one block being in series with the caution lamp of the block in advance.

2. A track arranged in blocks, a series of signals including a clear lamp, a caution lamp, and a danger lamp arranged at the terminal of each block, mains energized from a remote source, conductors leading from the mains to each of said signals of each series, a switch simultaneously controlling the clear and caution lamp of each series, a second switch controlling the danger signal of each series, and opposed motors, links connected thereto for actuating the switches and contacts at the respective ends of the blocks for controlling said motors, control means carried by the track traveling vehicle, spaced contacts arranged between the tracks and normally energized from the mains, and circuit closing elements carried by the vehicle and engaging said last mentioned contacts to operate the train control means.

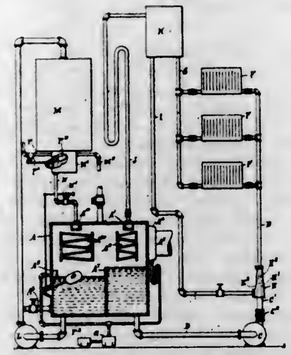
1,141,954. COMBINED RAIL CHAIR AND JOINT. JOHN GARAY, Filbert, W. Va. Filed Sept. 21, 1914. Serial No. 862,758. (Cl. 239—6.)



1. A combined rail chair and joint comprising a chair plate formed with a vertically disposed splice bar having pins capable of engaging in the webs of a pair of track rails, said splice bar including a base overlapping the bases of the track rails, and a clamping section consisting of a pair of members hinged to said chair plate and capable of being swung to overlap the bases of a track rail.

2. A combined rail chair and joint comprising a chair plate formed with a vertically disposed splice bar having pins capable of engaging in the webs of a pair of track rails, said splice bar including a base overlapping the bases of the track rails, and a clamping section consisting of a pair of members hinged to said chair plate and capable of being swung to overlap the bases of a track rail, and means for locking said members together.

1,141,955. HOT-WATER HEATING SYSTEM. GEORGE H. GIBSON, Montclair, N. J. Filed Sept. 22, 1913. Serial No. 791,002. (Cl. 237—58.)



1. In combination an open water heater comprising a heating chamber, a steam supply connection to said chamber, a hot water circulating, heat radiating system connected to and receiving hot water from and returning cold water to said chamber, a cooling tower, and regulable means for passing water from said chamber into said cooling tower and returning it to said chamber whereby the temperature of the water delivered by the heater to the heating system and the steam condensing capacity of the heater may be varied by varying the rate at which water is passed to the cooliug tower and returned to said chamber

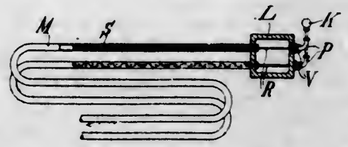
2. In combination, an open water heater compriaing a heating chamber, a steam supply connection to said chamber, a hot water circulating, heat radiating system connected to and receiving hot water from and returning cold water to said chamber, a vacuum pump connected to said chamber, a cooling tower, and regulable means for passing water from said chamber into said cooling tower and returning it to said chamber whereby the temperature of the water delivered by the heater to the heating system and the steam condensing capacity of the heater may be varied by varying the rate at which water is passed to the cooling tower and returned to said chamber.

3. In combination an open water heater comprising a heating chamber, a steam supply connection to said heating chamber, a hot water circulating, heat radiating system, a cooling tower, means for withdrawing water from said heater and delivering it in regulable proportions to said heating system and to said cooling tower, and for returning water from the heating system and tower to said heater whereby the temperature of the water delivered by the heater to the heating system and the steam condensing capacity of the heater may be varied by varying the rate at which water is passed to the cooling tower and returned therefrom to said chamber.

4. In combination, an open water heater comprising a heating chamber, a steam supply connection to said chamber, a hot water circulating, heat radiating system connected to and receiving hot water from and returning cold water to said chamber, a cooling tower, a common pump for withdrawing water from said chamber and delivering it to said heating system and cooling tower, and regulable means for varying the amount of water passing through the cooling tower and means for returning water to said chamber from said tower and system.

5. In combination, an open water heater comprising a heating chamber, a steam supply connection to said heating chamber, a hot water circulating, heat radiating system including a circulating pump and radiators receiving water from and discharging back into said heating chamber, a cooling tower receiving the water from said circulating system at the supply side of the radiators and returning water to said heating chamber, and valved means for regulating the amount of water passing through said cooling tower.

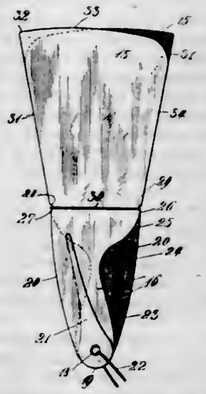
1,141,956. DEVICE FOR REGULATING THE TEMPERATURE OF SUPERHEATED STEAM. KARL GUTHARDT, Kiel-Hassee, Germany, assignor to Fried. Krupp Aktiengesellschaft Germaniawerft, Kiel-Gaarden, Germany. Filed Apr. 9, 1913. Serial No. 760,034. (Cl. 122—479.)



1. A device for regulating the temperature of superheated steam having a serpentine shaped conduit for the superheated steam comprising a steam entering chamber, a steam exhaust chamber and a plurality of horizontally disposed pipes joined by short bends connecting said two chambers; a sprinkler inserted in each of the horizontally disposed pipes which are situated nearest said entering chamber, a helical partition surrounding each of said sprinklers causing the passing steam to receive a whirling motion, each of said sprinklers being connected with the water chamber in the main boiler, and means for regulating the quantity of water entering said sprinklers.

2. A device for regulating the temperature of superheated steam having a serpentine shaped conduit for the superheated steam comprising a steam entering chamber, a steam exhaust chamber and a plurality of horizontally disposed pipes joined by short bends connecting said two chambers; a sprinkler inserted in each of the horizontally disposed pipes which are situated nearest said entering chamber, a helical partition surrounding each of said sprinklers causing the passing steam to receive a whirling motion, each of said sprinklers being connected with the water chamber in the main boiler, and hand operated means for regulating the quantity of water entering said sprinklers; said sprinklers being closed at their inner ends and provided with a plurality of holes arranged in two rows on either side of said helical partition and parallel thereto; whereby an adjustable quantity of water may be inserted into the first part of the horizontally disposed pipes which are situated nearest said entering chamber, thereby partly or wholly suppressing the superheating of the steam, said water being converted into useful steam.

1,141,957. FAN. RICHARD HALDENWANG, Jr., Brooklyn, N. Y. Filed July 8, 1914. Serial No. 849,668. (Cl. 230—33.)



1. A fan comprised of two like side elements forming integral blade and handle portions, one of said elements being reversed and superimposed upon the other, and a uniting means connecting the handle portions in such manner that they may freely pivot thereon.

2. A fan comprised of two side members of uniform contour, one overlying the other and forming respectively blade and handle elements, a tubular rivet pivotally engaging the handle portions and a constraining means adapted to maintain the member in a normally closed position.

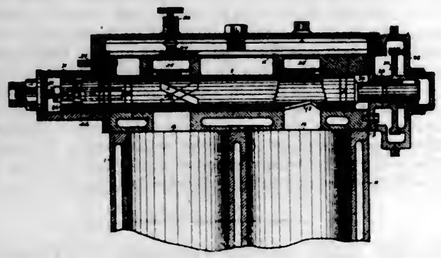
3. A fan comprised of two side members of uniform contour, one overlying the other and forming respectively blade and handle elements, a tubular rivet pivotally engaging the handle portions and a constraining means surrounding the exterior sides and edges of said members whereby they are held normally in a closed position.

4. A fan comprised of two similar sides forming blade and handle portions, a pivotal engaging means securing said sides in such manner that one side may move relative to the other, an elastic band embracing both of said sides thereby constraining them against opening or lateral displacement and means combined with said sides for supporting said band, said side elements being adapted to act as depositories for miscellaneous flat articles.

5. A fan comprised of two similar side members, each constituting a full handle and a partial blade element, one being superimposed on the other, a pivotal connection therebetween, a reinforcement on the exterior of each of said handles, a border formed with said reinforcement extending along the side and upper edges of the blade portion and a constraining means embracingly engaging said blade portions.

[Claims 6 to 10 not printed in the Gazette.]

1,141,958. ROTARY-VALVE MECHANISM. FREDERICK E. HARPST, Houston, Tex., assignor of twenty-five one-hundredths to W. O. Ilfrey, Houston, Tex. Filed May 18, 1914. Serial No. 839,292. (Cl. 123—190.)



1. In a device of the character described, the combination with an internal combustion engine cylinder, of a head secured to said cylinder, said head having a cylindrical chamber extending transversely relative to the engine cylinder, a hollow rotary valve in said chamber, opposing ports in the valve wall, said ports having a corresponding inclination to the axis of rotation, a corresponding port communicating with the interior of the cylinder and arranged to register with the valve port as the valve rotates, said cylinder ports having a corresponding inclination to the valve ports, means for rotating the valve and means for imparting a lengthwise movement to the valve while said ports are registering.

2. In a device of the character described, a valve chamber, a hollow rotary valve therein, provided with ports inclined to the axis of rotation, an internal combustion engine cylinder to which the valve chamber is secured, inlets thereto arranged to register with the valve ports and having a corresponding inclination, a seat in the chamber wherein said valve rotates, and means for rotating the valve.

3. In a device of the character described, the combination with an internal combustion engine cylinder, of a head for said cylinder, said head having a cylindrical valve chamber arranged adjacent the cylinder, a port through which said cylinder and chamber communicate, a hollow rotary valve in said chamber being provided with opposing ports, said valve ports and cylinder port being arranged to register and having a corresponding inclination to the axis of valve rotation, a means for rotating the valve and a mechanism in operative connection with the valve and imparting a lengthwise thrust thereto at the time of the registration of a valve port and the cylinder port.

4. In a device of the character described, a valve seat, a rotary valve seated thereon and provided with ports inclined to the axis of rotation, said seat being also provided with ports, which register with the valve ports and have a corresponding inclination to that of said valve ports.

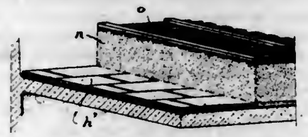
5. In a device of the character described, a valve seat, a rotary valve seated thereon and provided with ports inclined to the axis of rotation, said seat being also provided with ports, which register with the valve ports and have a corresponding inclination to that of said valve ports, means for rotating the valve and a mechanism in operative connection with the valve and imparting a lengthwise thrust thereto during the registration of said ports.

[Claims 6 to 10 not printed in the Gazette.]

1,141,959. WATER-FILTER. HUGO HERZBRUCH, Datteln, Germany. Filed June 26, 1913. Serial No. 775,833. (Cl. 210—8.)

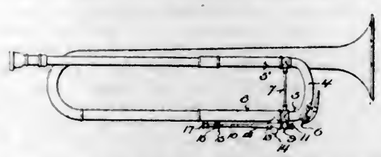
1. A filtering installation comprising a porous filtering bottom, a layer of filtering granules supported on said bottom and a rigid grid supported on the filtering granules.

2. A filter for clarifying water, consisting therein that a filtering layer of finely granulated, dense material such as sand or the like, rest on a support the porosity of which allows water to pass therethrough, a plurality of filter beds being arranged side by side with supply conduit common to all but with inlets from said supply conduit at different levels.



3. A filter for clarifying water, consisting therein a filtering layer of finely granulated, dense material, such as sand or the like rests on a support the porosity of which allows water to pass therethrough, a plurality of filter beds being arranged side by side with supply conduit at different levels, the outlets from the several beds being all at the height of the highest water level in said supply conduit.

1,141,960. TUNING-SLIDE AND STOP FOR TRUMPETS, &c. WILLIAM E. HIGGINS, Milwaukee, Wis. Filed Jan. 31, 1914. Serial No. 815,595. (Cl. 84—8.)



1. In a trumpet or other horn having a tuning-slide, the combination of said tuning-slide and the guide-tubes therefor, a stop rigid with a branch of the slide, a rod attached to the stop, a sleeve in rear of said stop and in which the rod is slidable, a stationary clamp in which the sleeve is adjustable longitudinally of the instrument, and another stop adjustable on the rod back of said sleeve.

2. In a trumpet or other horn having a tuning-slide, the combination of said tuning-slide and the guide-tubes therefor, a stationary clamp, a sleeve adjustable in the clamp longitudinally of the instrument, and a slide-actuating stop-rod having free sliding engagement with the sleeve, the adjustment of said sleeve serving to limit the adjustment of said rod and slide to one or the other of two predetermined positions.

1,141,961. COMPOSITION OF MATTER FOR DESTROYING GERMS OR INSECTS. JAMES GRANT HILL Lindsay, Cal. Filed May 14, 1914. Serial No. 838,597. (Cl. 167—6.)

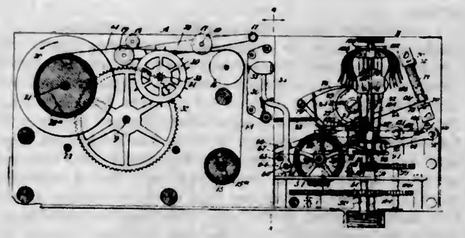
1. A composition of matter for destroying germs, insects and the eggs thereof, comprising nicotin sulfate, a saponaceous material, and water.

2. A composition of matter for destroying germs, insects and the eggs thereof, comprising approximately one pound of nicotin sulfate, twenty-five pounds of soap, and one hundred gallons water.

1,141,962. RECORDING APPARATUS. MATTHEW IRION and ADOLF E. MUELLER, Louisville, Ky. Filed Nov. 13, 1913. Serial No. 800,761. (Cl. 234—33.)

1. In a speed recording apparatus for vehicles, the combination of a tape-holding spool from which a record tape unwinds during recording and on which the tape is adapted to be rewound, a spool on which the tape winds during recording, a mechanism for turning the last-mentioned-spool, a clock-operated device for controlling the rate of movement of the tape, and guiding means constantly engaging the tape and mounted adjacent the said device adapted to be manually actuated to release the tape from the said device and hold it released while the tape is rewound on the first-mentioned spool.

2. In a speed recording apparatus for vehicles, the combination of a supporting body, a spool mounted on the body and on which a record tape is adapted to be wound, a tape-holding spool removable mounted on the said body and from which the tape unwinds during recording and on which the tape is adapted to be rewound after recording, means for turning the first-mentioned spool to wind the tape thereon, a clock-operated device engaging the tape during recording to time the movement of the tape, and a lever mounted on the body and arranged to engage the tape for releasing the latter from said device during the rewinding of the tape on the second-mentioned spool, said lever having a handle which is adapted to be held by one hand to maintain the tape released from the said device while the other hand actuates the first-mentioned spool to rewind the tape.



3. In a speed recording apparatus for vehicles, the combination of a clock mechanism, a record tape feeding mechanism, a toothed wheel geared to the clock mechanism to rotate in timed relation therewith and arranged to mesh with the tape, and a device for throwing the same into and out of engagement with the said wheel for permitting the removal or insertion of the tape, said device including means constantly engaged with the tape and on which the tape passes.

4. In a speed recording apparatus for vehicles, the combination of a pair of reels for the record tape, means for driving one of the reels to wind the tape thereon from the other reel, means for turning said other reel to wind the tape thereon, a clock mechanism, a wheel connected with the clock mechanism to rotate therewith and having sharp teeth arranged to perforate the tape and control the rate of feed thereof, a lever, and means mounted on the lever and constantly engaging the tape for moving the latter into and out of engagement with the said wheel for permitting the rewinding of the impressioned tape and the insertion of a new tape.

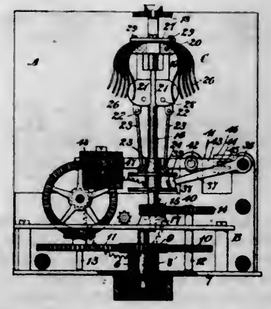
5. In a speed recorder for vehicles, the combination of a tape carrying reel, a driven reel on which the tape winds, a clock mechanism, a toothed wheel driven by the clock mechanism and having its teeth arranged to perforate the tape and control the rate of feed thereof, and a movable device mounted in fixed relation to the toothed wheel and constantly engaging the tape between toothed wheel and the driven reel for moving the tape into and out of engagement with the toothed wheel.

[Claims 6 to 8 not printed in the Gazette.]

1,141,963. SPEED-INDICATING AND MILEAGE-REGISTERING APPARATUS. MATTHEW IRION and ADOLF EDUARD MUELLER, Louisville, Ky. Filed Apr. 11, 1914. Serial No. 831,237. (Cl. 264—15.)

1. A speedometer comprising a rotating element adapted to be connected to a moving part, the speed of which is to be measured, a speed responsive device geared to the said rotating element, a speed indicating hand, and connecting means between the speed responsive device and hand, said device consisting of centrifugally acting weights, and a plurality of springs acting successively against and arranged in the path of the outward movement of the weights.

2. In a speedometer, the combination of a scale-bearing dial, a hand movable thereover, a speed responsive device including centrifugally-acting weights, a connection between the weights and hand for moving the latter, and a plurality of springs disposed in the path of the weights and arranged to successively oppose the outward movement thereof.



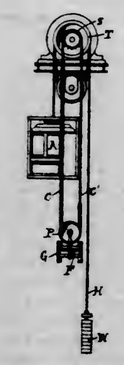
3. In a speedometer, the combination of a rotating shaft, centrifugally-acting weights connected therewith, a sliding element on the shaft and connected with the weights, a speed indicating hand, connecting means between the hand and said sliding element, and a plurality of nested springs mounted on the shaft and arranged to be engaged by the weights, the weight-engaging portions of the springs being normally spaced apart to act successively on the weights in opposing their outward movement.

4. In a speedometer, the combination of a scale, a hand movable thereover, and a speed responsive device connected with the said hand, said device including a centrifugally acting element, and a plurality of devices opposing the centrifugal movement of the weights and arranged to act successively and cumulatively in opposing the centrifugal movement of the element.

5. In a speedometer, the combination of a scale, a hand movable thereover, and a speed responsive device connected with the said hand, said device including a centrifugally acting element, a plurality of devices opposing the centrifugal movement of the weights and arranged to act successively and cumulatively in opposing the centrifugal movement of the element, and means for independently adjusting the tension of the said devices.

[Claims 6 to 8 not printed in the Gazette.]

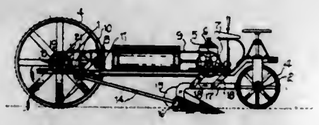
1,141,964. ELEVATOR. GRIFFITH JOHN, Yonkers, N. Y., assignor to Otis Elevator Company, Jersey City, N. J., a Corporation of New Jersey. Filed Aug. 16, 1912. Serial No. 715,314. (Cl. 187—94.)



1. In an elevator, the combination of a car, counterweight and connecting cables, and means running at a speed less than that of the cables for counterbalancing the cables without increasing the tension thereon.

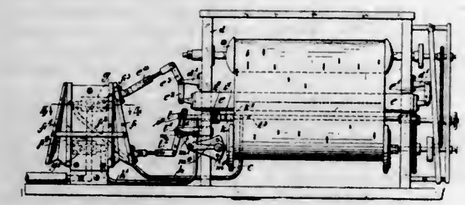
2. In an elevator, the combination of a car, counterweight and connecting cables, and means running at a speed less than that of the car for counterbalancing the said cables without increasing the tension thereon.

1,141,965. PLOW. EARL G. KIMMEL, Stoyestown, Pa. Filed Feb. 21, 1914. Serial No. 820,288. (Cl. 97—53.)



A plow, embodying a wheel supported frame, a motor mounted thereon, a shaft rotatably mounted adjacent the rear end of the frame and driven from the motor, a crank arm carried by the shaft provided with a plurality of alined openings, a plow including a beam, a pitman rod having one end connected in one of the openings of the crank arm and the other end pivotally connected with the plow, and links having one end pivotally connected to the frame and the other end pivotally connected to the plow beam, said links being of equal length, whereby the plow is caused to reciprocate in a horizontal plane.

1,141,966. NOTE-SHEET-GUIDING DEVICE. ERVIN J. KRUCK, New York, N. Y. Filed May 21, 1914. Serial No. 839,945. (Cl. 84—161.)



1. In a note-sheet guiding device, the combination of a tracker-bar, means for causing a note-sheet to travel over the tracker-bar, said tracker-bar and note-sheet being relatively movable in a lateral direction, a motor connected to adjust the lateral relation between the tracker-bar and the note-sheet, pneumatic controlling devices for said motor, said devices including a movable member provided with a terminal controlling port and a controller movable by contact with the edge of the note-sheet to control such terminal port, and operating connections between the motor and such movable member whereby the latter is moved with relation to the controller.

2. In a note-sheet guiding device, the combination of a tracker-bar, means for causing a note-sheet to travel over the tracker-bar, said tracker-bar and note-sheet being relatively movable in a lateral direction, a pneumatic motor connected to adjust the lateral relation between the tracker-bar and the note-sheet, pneumatic controlling devices for said motor, said devices including a movable member provided with a terminal controlling port and a controller movable by contact with the edge of the note-sheet to control such terminal port, and operating connections between the motor and such movable member whereby the latter is moved with relation to the controller.

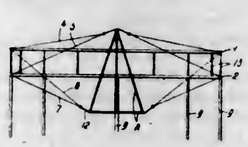
3. In a note-sheet guiding device, the combination of a tracker-bar, means for causing a note-sheet to travel over the tracker-bar, said tracker-bar and note-sheet being relatively movable in a lateral direction, a motor connected to adjust the lateral relation between the tracker-bar and the note-sheet, pneumatic controlling devices for said motor, said devices including a movable member provided with two terminal controlling ports and a controller movable by contact with the edge of the note-sheet to open or close one or the other of such terminal ports, and operating connections between the motor and such movable member whereby the latter is moved with relation to the controller.

4. In a note-sheet guiding device, the combination of a tracker-bar, means for causing a note-sheet to travel over the tracker-bar, said tracker-bar and note-sheet being relatively movable in a lateral direction, a motor connected to adjust the lateral relation between the tracker-bar, and the note-sheet, pneumatic controlling devices for said motor, said devices including a movable member provided with a terminal controlling port and a spring-pressed controller movable by contact with the edge of the note-sheet to control such terminal port, and operating connections between the motor and such movable member whereby the latter is moved with relation to the controller.

5. In a note-sheet guiding device, the combination of a tracker-bar, means for causing a note-sheet to travel over the tracker-bar, said tracker-bar and note-sheet being relatively movable in a lateral direction, a motor connected to adjust the lateral relation between the tracker-bar and the note-sheet, pneumatic controlling devices for said motor, said devices including a movable member having chambers connecting severally with the motor and provided severally with terminal controlling ports and a controller movable by contact with the edge of the note-sheet to control such terminal ports, and operating connections between the motor and such movable member whereby the latter is moved with relation to the controller.

[Claims 6 to 13 not printed in the Gazette.]

1,141,967. METALLIC FRAMEWORK CONSTRUCTION. CAMILLE LACOSTE, Paris, France. Filed Aug. 11, 1913. Serial No. 784,217. (Cl. 108—23.)



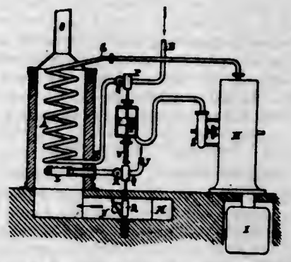
1. A light truss of skeleton frame for building structures comprising a circular girder made of vertically rigidly spaced rings, a central skeleton strut projecting materially both above the upper and below the lower boundary planes of the circular girder and itself comprising an open truss providing both vertical and horizontal rigidity, ties connecting the upper and lower ends of said strut to the upper and lower rings of the girder, and further ties connecting the upper and lower rings respectively to the truss to tensionally resist strain in the opposite direction from the first-mentioned ties.

2. A light truss or skeleton frame for building structures comprising a circular girder made of vertically rigidly spaced rings, a central skeleton strut projecting materially both above the upper and below the lower boundary planes of the circular girder and itself comprising an open truss providing both vertical and horizontal rigidity, and ties connecting each end of said strut to both the upper and lower rings of the girder.

3. A light truss or skeleton frame for building structures comprising a polygonal frame made of girders secured together at their ends to form a polygon and comprising upper and lower members and struts, each such frame inclosing a circular girder made of vertically rigidly spaced rings, a central tetrahedral skeleton strut projecting materially both above the upper and below the lower boundary planes of the circular girder and itself comprising an open truss providing both vertical and horizontal rigidity, ties connecting each end of said strut to both the upper and the lower rings of the girder, and other ties connecting the corners of the polygonal girder-frame to the ends of the central strut.

4. A light-truss or skeleton frame for building structures comprising a series of polygonal frames arranged in a common plane and made of girders secured together at their ends to form a polygon and comprising upper and lower members and struts, each such frame inclosing a circular girder made of vertically rigidly spaced rings, a central skeleton strut projecting materially both above the upper and below the lower boundary planes of the circular girder and itself comprising an open truss providing both vertical and horizontal rigidity, ties connecting each end of said strut to both the upper and the lower rings of the girder, ties connecting the corners of the polygonal girder frame to the ends of the central strut, and further ties connecting the ends of the skeleton struts of the individual girders to one another at both ends.

1,141,968. STEAM-TURBINE. MAURICE LEBLANC, Croissy, France, assignor to Societe Anonyme Pour L'Exploitation des Procedes Westinghouse Leblanc, Paris, France. Filed Feb. 20, 1914. Serial No. 820,019. (Cl. 122—448.)



1. The combination of a steam turbine, a flash boiler heated by combustible fluid and air, automatic means for regulating the supply of feed water to the boiler, and automatic means for regulating the supply of combustible fluid and air for heating the boiler.

2. The combination of a steam turbine, a condenser, a diffuser interposed between the chamber in which the turbine wheel rotates and the condenser, a flash boiler heated by combustible fluid and air, automatic means for regulating the supply of feed water to the boiler, and automatic means for regulating the supply of combustible fluid and air for heating the boiler.

3. The combination of a steam turbine having a single wheel, a flash boiler heated by combustible fluid and air, an unobstructed connection between said turbine and said boiler, automatic means for regulating the supply of feed water to the boiler, and automatic means for regulating the supply of combustible fluid and air for heating the boiler.

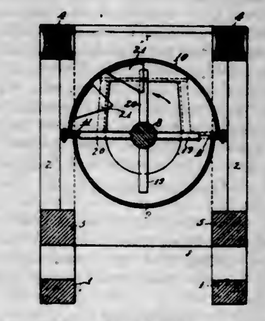
4. The combination of a single expansion steam turbine, a flash boiler heated by combustible fluid and air, a direct connection between said turbine and said boiler, automatic means for regulating the supply of feed water to the boiler, and means for regulating the supply of combustible fluid and air for heating the boiler in such a way that the supply thereof is proportional to the feed water supplied to the boiler.

5. The combination of a single expansion steam turbine, a flash boiler heated by combustible fluid and air, a speed governor for said turbine adapted to regulate the supply of feed water to the boiler and also to regulate the supply of combustible fluid and air for heating the boiler.

[Claims 6 to 10 not printed in the Gazette.]

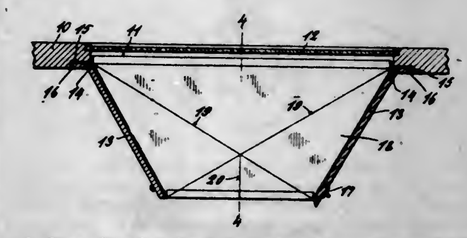
1,141,969. BRAN AND MIDDLINGS FINISHER. THOMAS MCFEELY, Folcroft, Pa., and LANDIS ROMICK, Niles, Ohio, assignors to Thomas McFeely Company, a Copartnership consisting of Thomas McFeely and Lenore McFeely, Folcroft, Pa. Filed Aug. 23, 1911. Serial No. 645,494. (Cl. 83—50.)

The combination in a bran and middlings finisher of a casing consisting of semicylindrical top and bottom sections of which the bottom section is smaller in diameter than the top section and has laterally extended flanges along its longitudinal edges forming plane ledges within the casing; a series of abutments extending inwardly



from the inner surface of said casing; a rotary shaft extending through the casing; with beater arms on the shaft placed to be operative between the abutments and formed to convey material through the casing.

1,141,970. FOCUSING-HOOD FOR CAMERAS. RUCHI MATSUDA, Chicago, Ill. Filed Jan. 11, 1914. Serial No. 1,569. (Cl. 95—47.)



1. In a focusing hood for cameras, the combination with the back of the camera having an opening provided with a focusing surface; of a pair of opposite light-excluding doors for said opening, said doors meeting at their free edges when closed and forming a closure for the opening, and flexible light-excluding curtains secured at opposite sides to the edges of the doors which extend between the meeting and the hinge edges thereof, and closing up the space between said edges when the doors are open.

2. In a focusing hood for cameras, the combination with the back of the camera having an opening provided with a focusing surface; of a pair of opposite light-excluding doors for said opening, said doors meeting at their free edges when closed and forming a closure for the opening, and flexible light-excluding curtains secured at opposite sides to the edges of the doors which are adjacent to the meeting and the hinge edges thereof, and closing up the space between said edges when the doors are open, said curtains folding behind the doors when the latter are closed.

3. In a focusing hood for cameras, the combination with the back of the camera having an opening provided with a focusing surface; of a pair of opposite light-excluding doors for said opening, said doors meeting at their free edges when closed and forming a closure for the opening, and flexible light-excluding curtains secured at one edge to the frame and at their two adjacent edges to the edges of the doors which extend between the meeting and the hinge edges thereof, said curtains closing up the space between said edges when the doors are open.

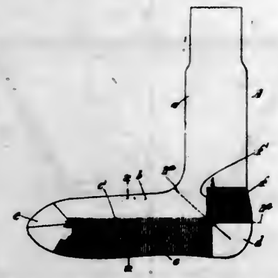
4. In a focusing hood for cameras, the combination with the back of the camera having an opening provided with a focusing surface; of a pair of opposite light-excluding doors for said opening, said doors meeting at

their free edges when closed and forming a closure for the opening, and flexible light-excluding curtains secured at one edge to the frame and at their two adjacent edges to the edges of the doors which extend between the meeting and the hinge edges thereof, said curtains closing up the space between said edges when the doors are open, and being foldable behind the doors when the latter are closed.

5. In a focusing hood for cameras, the combination with the back of the camera having an opening provided with a focusing surface; of a pair of opposite light-excluding doors for said opening, said doors meeting at their free edges when closed and forming a closure for the opening, and flexible light-excluding curtains secured at one edge to the frame and at the two adjacent edges to the edges of the doors which extend between the meeting and the hinge edges thereof, said curtains closing up the space between said edges when the doors are open, each curtain having diagonal creases extending between its corners, and a crease extending from the intersection of said diagonal creases to the free edge of the curtain and perpendicular to said edge, on which creases the curtain folds.

[Claims 6 and 7 not printed in the Gazette.]

1,141,971. REINFORCED TUBULAR FABRIC AND PROCESS OF KNITTING THE SAME. JOHN WYCKOFF METTLER, East Millstone, and WILLIAM E. SMITH, Milltown, N. J., assignors to Kilbourn Manufacturing Corporation, New Brunswick, N. J., a Corporation of New Jersey. Filed July 2, 1914. Serial No. 848,533. (Cl. 66—4.)



1. The herein described process of knitting a tubular fabric having a portion of each course extending less than all the way around the tube knit with larger stitches than the remaining portion of the fabric, the enlarged stitches being reinforced, which consists in carrying the splicing thread in each course through the enlarged stitches and into a plurality of the tight stitches at either side of that portion of the fabric formed by the enlarged stitches, to tie the ends of the reinforcing thread and prevent them from being drawn to the exterior of the fabric.

2. The herein described process of knitting a seamless stocking, which consists in knitting the leg and top of the foot with a tight stitch, knitting the sole portion with stitches sufficiently larger than those in the corresponding courses in the top of the foot to make the sole portion longer and wider than the corresponding portion of the top of the foot to fashion the stocking, and carrying a reinforcing thread through the said enlarged stitches of the sole portion and into a plurality of the tight stitches of the top of the foot adjacent to the sole portion at opposite sides of the foot portion of the stocking to tie the ends of the reinforcing threads when the latter are severed, and prevent them from being drawn to the outer surface of the stocking.

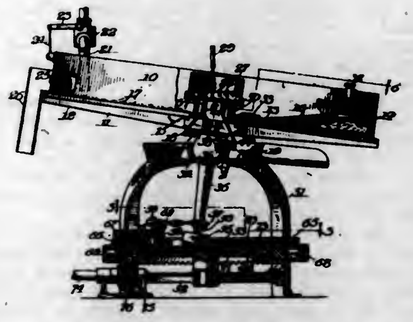
3. The herein described process of knitting a seamless stocking, which consists in knitting the main portion of the leg and top of the foot with a tight stitch, knitting the rear portion of the leg above the heel with a slightly enlarged stitch to accommodate a reinforcing thread, introducing a reinforsing thread into the said enlarged stitches in each course, and carrying it into a plurality of the tight stitches in the corresponding courses of the ankle portion at each side of the portion of the stocking formed by said enlarged reinforced stitches, to tie the ends of the reinforcing threads when severed, and prevent them from being drawn to the outer surface of the stocking.

4. The herein described process of knitting a seamless stocking, which consists in knitting the main portion of the leg and top of the foot with a tight stitch, knitting the rear portion of the leg above the heel with a slightly enlarged stitch to accommodate a reinforcing thread, and knitting the sole portion of the foot with sufficiently larger stitches than those in the corresponding courses of the top of the foot to make the sole portion of the foot longer and wider than the top of the foot to fashion the stocking, introducing a reinforcing thread into the said enlarged stitches of the said reinforced portions, and carrying the reinforcing thread into a plurality of the tight stitches of the other portions of the fabric, at each side of the reinforcing threads, when severed and prevent them from being drawn to the outside of the fabric.

5. The herein described tubular fabric having a portion extending less than all the way around the tube formed of larger stitches than the remaining portion, said enlarged stitches containing a reinforcing thread, and said reinforcing thread extending into a plurality of the tight stitches at each side of the fabric formed by said enlarged reinforced stitches to tie the ends of the reinforcing threads when the latter is severed.

[Claims 6 to 8 not printed in the Gazette.]

1,141,972. PAN-MOTION CONCENTRATOR. CHARLES H. MUHLEMAN, Western Springs, Ill., assignor of fifty-five one-hundredths to Frank Low, St. Louis, Mo. Filed June 4, 1914. Serial No. 842,862. (Cl. 83—88.)



1. In a concentrator, in combination, a pan and a supporting column therefor, means for tilting the column, means for tilting the pan independently of the column and means for revolving the column about a vertical axis without rotation of the column.

2. In a concentrator, in combination, a pan and a supporting column therefor, means for tilting the column, means for tilting the pan independently of the column, means for revolving the column about a vertical axis without rotation of the column, and a vibrator acting on the column.

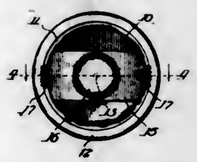
3. In a concentrator, in combination, a tilting column, a pan mounted thereon, a rotatable member guidedly receiving the lower end of the column, a crank journaled on the said rotatable member, connection between the crank and column and means for turning the crank in its said journal during the rotation of the said rotatable member.

4. In a concentrator, in combination, a tilting column, a pan mounted thereon, a rotatable member guidedly receiving the lower end of the column, a crank journaled on the said rotatable member, a link connecting the crank and column, means for turning the crank in its said journal during the rotation of the said rotatable member, and means for adjusting the throw of the crank.

5. In a concentrator, in combination, a tilting column, a pan mounted thereon, a rotatable member guidedly receiving the lower end of the column, a crank journaled on the said rotatable member, a link connecting the crank and column, means for turning the crank in its said journal during the rotation of the said rotatable member, and means for adjusting the length of the said link.

[Claims 6 to 9 not printed in the Gazette.]

1,141,973. CAN-CAP WITH VENT-SHIELD. JESSE W. NICHOLS, Chicago, Ill. Filed May 22, 1911. Serial No. 628,845. (Cl. 220—59.)



1. A can cap provided with a centrally-disposed downwardly-struck conical portion having a vent opening in its apex, and a vent shield secured to the under side of said cap and having a centrally-disposed cup-shaped portion of unbroken frusto-conical shape and disposed below the downwardly-struck portion in spaced relation to the vent opening, said shield portion entirely surrounding the downwardly-struck portion of the cap and being positioned with its peripheral edge close to said cap throughout.

2. A can cap provided with a vent opening, and a vent shield comprising a metal strip secured at its ends only to the under side of the cap and provided with an intermediate depressed cup portion lying beneath the vent opening with the periphery of the cup portion in spaced relation with the cap, thereby to exclude the passage of solder and permit the escape of air, steam and the like.

1,141,974. BEARING. NORBERT L. OBRECHT and NEWTON SKILLMAN, Detroit, Mich., assignors to O. and S. Bearing Company, Detroit, Mich., a Partnership composed of Harry Skillman, Norbert L. Obrecht, and Newton Skillman. Filed Aug. 30, 1913. Serial No. 787,542. (Cl. 64—10.)



1. A bearing comprising inner and outer longitudinally engageable sections, and a bushing of compressed expansible material arranged intermediate the inner and outer sections and exerting an expansible pressure thereupon, one of said sections being provided with an inclined portion, whereby the bushing is radially compressed during the assembling of the inner and outer sections.

2. A bearing comprising an outer member, a bushing of compressed expansible material therein, and an inner member inserted longitudinally through the bushing and upon which said bushing exerts an expansible pressure, said inner member having one end tapered, whereby the bushing is radially compressed during the assembling of the inner and outer members.

3. A bearing comprising a sleeve, a bushing of compressed expansible material therein, a shaft longitudinally insertible through the bushing and having one end tapered, whereby the bushing is radially compressed during the assembling of the sleeve and shaft.

4. A bearing comprising a sleeve provided with flanges at its opposite ends, a bushing of compressed expansible material therein, a shaft insertible longitudinally through said bushing and having its forward end tapered, whereby the bushing is radially compressed during the insertion of the shaft through the bushing.

5. The combination with inner and outer longitudinally engageable members arranged for relative movement, of a bushing of compressed expansible material arranged intermediate the inner and outer members and exerting an expansible pressure thereupon, one of said members being provided with an inclined portion, whereby the bushing is radially compressed during the assembling of the inner and outer members.

1,141,975. PNEUMATIC CONTROLLER. JOHN L. OSBORNE, Rochester, N. Y., assignor to Judson Governor Company, Rochester, N. Y., a Corporation of New York. Filed Apr. 8, 1914. Serial No. 830,471. (Cl. 230—24.)



1. In a pneumatic controller the combination of a valve-member provided with a valve-seat, a second valve-member movable relatively to the first and also having a valve-seat, a third valve-member movable relatively to the first and second and adapted to coöperate with both of said valve-seats, means tending to hold the third valve-member in engagement with said seats, and means for moving the second valve-member relatively to the first, whereby it is engaged with and disengaged from the third valve-member, and also caused to move the latter out of engagement with the first valve member.

2. In a pneumatic controller, the combination of two concentric and relatively movable valve-members provided with similarly-disposed valve-seats, a third valve-member movable relatively to the first two and adapted to cooperate with both of said seats, means tending to force the third valve-member into engagement with the seats of the first two valve-members, and means for moving the inner one of the first two valve-members relatively to the others in a direction to cause it to engage and disengage the third valve-member, and to move the latter out of engagement with the seat on the outer one of the first two valve-members.

3. In a pneumatic controller, the combination, with a pneumatic motor, of a valve-casing communicating with said motor and provided with a feed-passage for conducting compressed motive-fluid to the motor, and an exhaust-port for discharging motive-fluid therefrom; means actuated by variations in the pressure of the motive-fluid; and valve-members coöperating with and controlled by said means, and controlling said feed-passage and exhaust-port, said means being adapted, upon the attainment of a predetermined pressure in the motive-fluid, to first close the exhaust-port, and then open the feed-passage, and upon a drop in the pressure of the motive-fluid to a predetermined point, to first close the feed-passage and then open the exhaust-port.

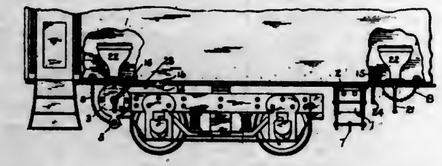
4. In a pneumatic controller, the combination of a fixed valve-member having an annular valve-seat and an ex-

haust-port terminating thereat, and having also a bore concentric with the valve-seat; a second valve-member in the form of a plunger movable in said bore, the second valve-member having a valve-seat at the end adjacent the first-mentioned valve-seat, and a longitudinal passage terminating at said seat; a third valve-member having surfaces adapted to engage both of said valve-seats and having intermediate openings for the passage of fluid; resilient means tending to force the third valve-member into engagement with the valve-seats upon the other two valve-members; and means for actuating the second valve-member to cause it to move into and out of engagement with the third valve-member, and to cause the latter to be moved into and out of engagement with the valve-seat on the first valve-member.

5. In a pneumatic controller, the combination of a fixed valve-member having an annular valve-seat and an exhaust-port terminating thereat, and having also a bore concentric with the valve-seat; a second valve-member in the form of a plunger movable in said bore, the second valve-member having a valve-seat at the end adjacent the first-mentioned valve-seat, a pressure-sustaining surface, of substantial area surrounding its said valve-seat, and a longitudinal passage terminating at said seat; a third valve-member having surfaces adapted to engage both of said valve-seats and having intermediate openings for the passage of fluid; resilient means tending to force the third valve-member into engagement with the valve-seats upon the other two valve-members; and means for actuating the second valve-member to cause it to move into and out of engagement with the third valve-member, and to cause the latter to be moved into and out of engagement with the valve-seat on the first valve-member.

[Claim 6 not printed in the Gazette.]

1,141,976. SOIL-RECEPTACLE FOR WATER-CLOSETS. STEPHEN PETER, Omaha, Nebr., assignor of one-half to Charles C. Campbell, Hastings, Nebr. Filed Mar. 8, 1915. Serial No. 12,867. (Cl. 4—20.)



1. A soil receptacle of the specified class, comprising a bifurcated jacket pivoted to swing about a vertical axis under the car, a frame pivoted to turn about a horizontal axis between the arms of the bracket, a bucket seated normally upright in the frame, and means for tilting the frame pivotally to empty the bucket.

2. A soil receptacle of the specified class, comprising a bifurcated bracket pivoted about a vertical axis under the car, means for holding the bracket in a predetermined pivotal position, a frame pivoted about a horizontal axis between the arms of the bracket, and normally occupying a predetermined pivotal position, a bucket seated upright in the frame in that position, and means for tilting the frame pivotally to empty the bucket.

3. A soil receptacle of the specified class, comprising a pivotally adjustable bracket, means for holding the bracket elastically in a predetermined pivotal position, a frame pivoted in the bracket and balanced pivotally in a predetermined position, a bucket removably seated in the frame, and standing right side up when the frame is in that position, and means for tipping the frame pivotally to empty the bucket.

4. A soil receptacle of the specified class, comprising a bifurcated bracket pivoted to swing about a vertical axis under the car, means for holding the bracket in a predetermined pivotal position, a frame pivotally movable between the arms of the bracket, a bucket seated in the frame, and means for tilting the frame pivotally.

1,141,977. PLUMB-BOB SUPPORT. ALSON ROGERS, Warren, Pa. Filed Mar. 14, 1912. Serial No. 683,851. (Cl. 24—136.)



1. A plumb-bob support including a suspension-rod formed with a transverse passage and with a lengthwise-extending recess at one end thereof and with a second passage below said transverse passage; a sleeve mounted free to slide lengthwise along said suspension-rod and formed with perforations which are arranged to register with the ends of said transverse passage; and a plumb-bob suspending-cord which passes through the latter and said perforations and then through said second passage and which is squeezed into said recess automatically, when said sleeve is displaced downwardly along said suspension-rod by a pull exerted through said cord.

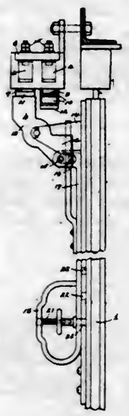
2. A plumb-bob support including a suspension member formed with a transverse passage and with a second passage below the same; a sleeve member mounted free to slide lengthwise along said suspension member and formed with perforations which are arranged to register with the ends of said transverse passage; and a plumb-bob suspending-cord which passes through the latter and said perforations then through said second passage; one of said members being formed near one end of said transverse passage with a lengthwise-extending recess into which said cord is squeezed, when said sleeve member is displaced downwardly along said suspension member automatically by a pull exerted through said cord.

3. A plumb-bob support including a suspension member formed with a transverse passage and with a second passage located below the same; a sleeve member mounted free to slide lengthwise along said suspension member and formed with perforations which are arranged to register with the ends of said transverse passage; and a plumb-bob suspending-cord which passes through the latter and said perforations and is then slidably connected with said suspension member passing through said second passage; one of said members being formed near one end of said transverse passage with a lengthwise-extending V-shaped recess into which said cord is squeezed, when said sleeve member is displaced downwardly along said suspension member automatically by a pull exerted through said cord.

4. A plumb-bob support including a suspension member formed with a transverse passage; a sleeve member mounted slidably on said suspension member and formed with perforations which are arranged to register with the ends of said transverse passage and one of which is elongated to form a slot; and a plumb-bob suspending cord which passes through said transverse passage and perforations, the elongated one of the latter permitting the sleeve to be displaced downwardly along said suspension rod and the other of said perforations and the transverse passage being of substantially the same diameter as the plumb-bob cord; one of said members being formed near one end of said transverse passage with a recess into which said cord is squeezed, when said sleeve member is displaced downwardly along said suspension member by the pull exerted by the force of gravity through said cord.

1,141,978. [WITHDRAWN.]

1,141,979. ELECTRIC ELEVATOR. ALBERT ROZIER, Wembley, England. Filed June 14, 1912. Serial No. 703,615. (Cl. 172—152.)



1. In an electrically controlled elevator, the combination of an elevator gate, switch mechanism adjacent the path of movement of said gate for controlling the operation of the elevator, and manually controlled selective means arranged to operate said switch mechanism upon the closing of the gate.

2. In an electrically controlled elevator, the combination of a switch for effecting an upward movement of the elevator, an additional switch for effecting a downward movement of the elevator, a gate, and selective means on the gate operative upon closing said gate for effecting the operation of either of said switches at will.

3. In an electrically controlled elevator, the combination of a switch for effecting an upward movement of the elevator, an additional switch for effecting a downward movement of the elevator, a gate, and selective mechanism on the gate movable into position to effect the operation of either of said switches upon the closing of said gate.

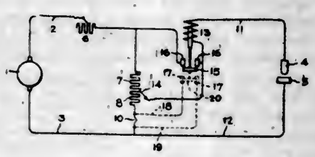
4. In an electrically controlled elevator, the combination of a switch for effecting an upward movement of the elevator, an additional switch for effecting a downward movement of the elevator, a gate, a device movable with the gate and co-acting with either of said switches upon closing the gate, and selective means for operating said device.

5. In an electrically controlled elevator, the combination of a switch for effecting an upward movement of the elevator, an additional switch for effecting a downward movement of the elevator, a gate, a device movable with the gate and co-acting with either of said switches upon closing the gate, selective means for operating said device, and means for locking said selective means in the desired position.

[Claims 6 to 8 not printed in the Gazette.]

1,141,980. ARC-WELDING SYSTEM. JOHN A. SEEDE, Niskayuna, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Jan. 31, 1914. Serial No. 815,822. (Cl. 219—8.)

1. In an arc welding system a source of energy, resistance means connected across said source, connections for connecting the work across a portion of said resistance means, and means operable when energy is supplied to the work for removing from the welding circuit that portion of the resistance means therein.



2. In an arc welding system a source of energy, resistance means connected across said source, connections for connecting the work across an adjustable portion of said resistance means, and means operable when energy is supplied to the work for removing from the welding circuit that portion of the resistance means therein.

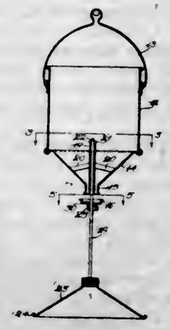
3. In an arc welding system a source of energy, resistance means connected across said source, connections for connecting the work across a portion of said resistance means and means for transferring one of said connections from an intermediate point to an extremity of said resistance means when energy is supplied to the work.

4. In an arc welding system, a source of energy, resistance means connected across said source, connections for connecting the work across a portion of said resistance means and means for transferring one of said connections from an intermediate point to an extremity of said resistance and for opening the circuit through the resistance means.

5. In an arc welding system, a source of energy, resistance means connected across said source, connections for connecting the work across an adjustable portion of said resistance means and means for transferring one of said connections from an intermediate point to an extremity of said resistance means when energy is supplied to the work.

[Claim 6 not printed in the Gazette.]

1,141,981. AUTOMATIC POULTRY-FEEDER. WILLIAM A. SEXTON, Newton, Mass. Filed Nov. 6, 1913. Serial No. 799,453. (Cl. 119—70.)



1. A poultry feeder comprising a receptacle having a contracted outlet in its bottom, a tray of greater area than the outlet, and means for supporting said tray below and spaced from said outlet, whereby the tray is adapted to support an exposed inclined bank of food below the outlet, and to permit a limited escape of the food, the supporting means and tray being movable to dislodge food from the

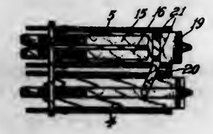
bank, and provided, below the tray, with a food deflector adapted to retain fragments of the dislodged food and to be moved by the impact of a beak on the deflector.

2. A poultry feeder comprising a receptacle having a contracted outlet in its bottom, a fixed elongated bearing extending upwardly from the lower portion of the outlet into the receptacle, a rod having a closing head resting loosely on the upper end of the bearing, said rod extending downwardly through the bearing and outlet and being oscillatively supported by said head and bearing, and a tray secured to said rod and adapted to support an exposed bank of food below the outlet.

3. A poultry feeder comprising a receptacle having a contracted outlet in its bottom, a fixed elongated bearing extending upwardly from the lower portion of the outlet into the receptacle, a rod having a closing head resting loosely on the upper end of the bearing, said rod extending downwardly through the bearing and outlet and being oscillatively supported by said head and bearing, a tray secured to said rod and adapted to support an exposed bank of food below the outlet, and means on the lower portion of the rod whereby the rod and tray may be oscillated to dislodge food from said bank.

4. A poultry feeder comprising a receptacle having a contracted outlet in its bottom, a fixed bearing above said outlet, a rod downwardly extended through the outlet and oscillatively supported by said bearing, a tray secured to said rod and adapted to support an exposed bank of food below the outlet, and a deflector on the lower portion of the rod adapted to retain food dislodged from the bank and to be moved laterally by the impact of a beak to cause an oscillating movement of the tray and the dislodgment of food from the bank.

1,141,982. RELAY. CHARLES A. SIMPSON, Chicago, Ill., assignor to Kellogg Switchboard and Supply Company, Chicago, Ill., a Corporation of Illinois. Filed June 2, 1910. Serial No. 564,563. (Cl. 175—325.)



1. In a pair of electromagnets, the combination with a contact spring, of a normally retracted armature for one of the magnets, means operated by the other magnet to move and lock said contact to an alternate position, and means actuated by said armature to unlock and restore said contact to a normal position, substantially as described.

2. In a pair of electromagnets, the combination with a contact spring, of an armature and contact springs for one of the magnets, means operated by the other magnet to move the first said contact to an alternate position, and means actuated by said armature to restore said contact to a normal position and move the other contacts to an alternate position, substantially as described.

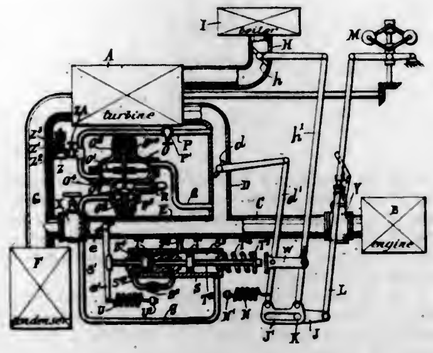
3. In a pair of electromagnets, the combination with a contact, of means adapted to be actuated by one of the magnets, whereby said contact is moved to and locked in an alternate position, and means controlled by the other magnet to prevent said first magnet from moving said contact to an alternate position if said magnet has not previously operated or to unlock and restore said contact if said first magnet has already operated, substantially as described.

4. In a pair of electromagnets, the combination with a contact spring, of a catch for one of said magnets adapted to hold said spring in a normal position, an armature for the other magnet having a member secured thereto, means controlled by said first magnet to operate said catch, whereby said spring is moved to an alternate position, and means controlled by said second magnet to operate its armature, whereby said member moves said spring to its normal position.

5. In a pair of electromagnets, the combination with a contact spring, of a catch for holding said spring in a normal position, means for operating said catch by one of said magnets whereby said spring is adapted to move to an alternate position, and means operated by the other magnet to prevent said spring from moving to an alternate position when said catch is actuated.

[Claims 6 to 9 not printed in the Gazette.]

1,141,983. POWER-GENERATING SYSTEM. CHARLES H. SMOOT, New York, N. Y., assignor to Rateau, Battu, Smoot Company, New York, N. Y., a Corporation of New York. Filed Apr. 11, 1912. Serial No. 690,057. (Cl. 121—118.)



1. In a power generating system, the combination with an engine, of regulating means therefor comprising a valve regulating the passage of steam to the engine, means responsive to the speed of the engine for adjusting said valve and means responsive to the difference in pressures at the opposite sides of said valve due to its throttling action for modifying the action of said regulating means.

2. A power generating system comprising in combination, an engine, a valve regulating the passage of steam to the engine, means responsive to the speed of the engine for adjusting said valve and means responsive to the difference in pressures at the opposite sides of said valve due to its throttling action for modifying the speed regulating effect of said valve.

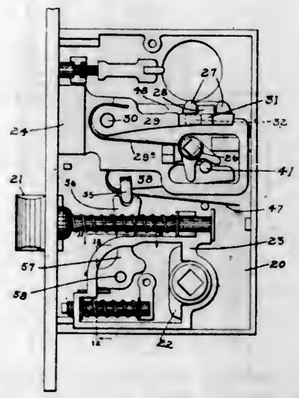
3. A power generating system comprising in combination, an engine, a throttle valve-controlling the passage of steam to the engine, means responsive to the speed of the engine for adjusting said throttle valve and means responsive to the difference in pressures at the opposite sides of said valve due to its throttling action for modifying the pressure of the steam entering said valve.

4. In a power generating system the combination with a plurality of engines receiving steam from a plurality of sources at different pressures, of a throttling valve responsive to the speed of one of said engines for controlling the passage of steam to one of said engines from one of said sources, and means, responsive to the differential in pressure at opposite sides of said valve due to its throttling action, for controlling the supply of steam from another of said sources.

5. A power generating system comprising in combination, two engines receiving steam in series, a valve controlling the passage of steam from one engine to the other, means responsive to the speed of the engine receiving steam through said valve for adjusting the latter, a by-pass about said second engine for steam passing through the first engine, a valve controlling said by-pass and means for adjusting said valve in response to the differences in pressure at the opposite sides of the first mentioned valve due to the throttling action of the latter.

[Claims 6 to 11 not printed in the Gazette.]

1,141,984. LOCK. WILLIAM E. SPARKS, New Haven, Conn., assignor to Sargent & Company, New Haven, Conn., a Corporation of Connecticut. Filed Nov 29, 1913. Serial No. 803,724. (Cl. 70—92.)



1. In a lock, a sliding member, a plurality of tumblers therefor, a cylinder lock, a bit carried by said cylinder lock to engage one of said tumblers, and another bit eccentric to the first carried by said cylinder lock to engage another tumbler; substantially as described.

2. In a lock, a case, two members in said case, a cylinder lock mechanism associated with said case, two bits or rollbacks for said cylinder lock mechanism adapted to operate the respective members aforesaid, and a plurality of keys for said cylinder lock mechanism, one of said bits or rollbacks being displaceable relative to the other and relative to one of said members by one of said keys; substantially as described.

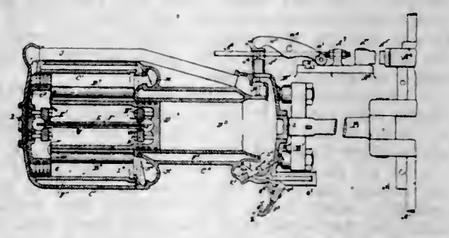
3. In a lock, a case, two movable members therein, a cylinder lock mechanism associated with said case, a rollback for said cylinder lock mechanism fixed in cooperation with one of said members, and a second rollback for said cylinder lock mechanism movable relative to the first rollback and to the other member by means of a certain key; substantially as described.

4. In a lock, a case, a cylinder lock secured in an opening in said case, separate members in said case adapted for operation by said cylinder lock, said members having operating abutments or surfaces lying in different planes, and separate bits or rollbacks carried by said cylinder lock and rotatable by certain keys, one of said rollbacks being permanently rotatable into engagement with one of said members, and the other rollback being normally rotatable out of engagement with the other member but projectable into engagement with such other member by means of a certain key; substantially as described.

5. In a lock, a case, a cylinder lock secured in an opening in said case, separate members in said case adapted for operation by said cylinder lock, said members lying in different planes, and separate bits carried by said cylinder lock, one of said bits normally lying in the plane of one of said members, and the other bit normally lying out of the plane of the other member, but projectable into such plane; substantially as described.

[Claims 6 to 23 not printed in the Gazette.]

1,141,985. GAS-ENGINE. ELMER A. SPERRY, Chicago, Ill. Filed Dec. 10, 1892. Serial No. 454,752. (Cl. 123—36.)



1. In a four-cycle internal combustion engine, a combustion cylinder, an air compressor, a passage or pipe connecting the two for supplying air to the cylinder, a fuel supply in the passage between the compressor and the combustion cylinder, and means for preventing the passage of fuel from said fuel supply into said cylinder except during a fourth stroke in the cyclic operation of the engine.

2. In a heat engine the combination of the following elements: an engine shaft, a cylinder provided with a clearance space, an expansion cylinder, means for conveying exhaust gases from the first named cylinder to said expansion cylinder, moving pistons for such cylinders mechanically connected to the engine shaft, an air tank, a power compressor for supplying the tank, conduit means leading from the tank to the first named cylinder, and a fuel supply for said engine.

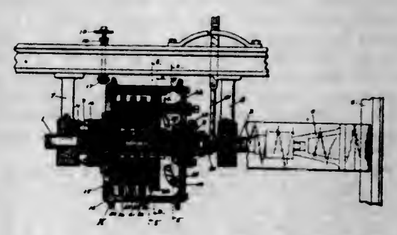
3. In a heat engine, the combination, with two substantially parallel cylinders and another cylinder forming substantially an extension of both said parallel cylinders, of compound piston means comprising members arranged to work within said parallel cylinders and a member arranged to work within such other cylinder.

4. In a heat engine, the combination, with two substantially parallel cylinders and a larger cylinder forming a terminal extension of said parallel cylinders and common thereto, of a pair of pistons arranged to work within said larger cylinder, and means coupling said pistons together.

5. In a heat engine, the combination with two substantially parallel cylinders and another cylinder arranged at one pair of adjacent ends of said cylinders and forming a common terminal extension of both in the general direction of their length, of compound piston means comprising members arranged to work within said parallel cylinders and a member arranged to work within such other cylinder.

[Claims 6 to 65 not printed in the Gazette.]

1,141,986. ELEVATOR SAFETY DEVICE. WALTER C. STRANG, Yonkers, N. Y. Filed Dec. 4, 1912. Serial No. 734,827. (Cl. 187—91.)



1. In an elevator safety device, the combination with rail-gripping clamp-jaws, of actuating mechanism, friction disks interposed between said actuating mechanism and

said clamp jaws, and means to effect the successive operation of said disks.

2. In an elevator safety device, the combination of rail clamps, a rotatable safety drum for actuating said clamps, intermediate mechanism comprising a plurality of friction disks for transmitting motion from the drum to the said clamps, and automatic means to effect the successive operation of said disks.

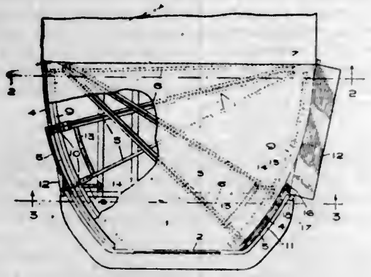
3. In an elevator safety device, the combination of rail clamps, right and left screws for actuating said clamps, a safety drum, and friction mechanism for transmitting motion of the drum to the same with increasing power.

4. In an elevator safety device, the combination of rail clamps; right and left screws for actuating said clamps, a safety drum, and a multiple disk friction mechanism for transmitting cumulative power from the drum to the screws.

5. In an elevator safety device, the combination of rail clamps, right and left screws for actuating said clamps, a safety drum, and frictional and positive driving mechanism interposed between the drum and actuating screws.

[Claims 6 to 22 not printed in the Gazette.]

1,141,987. CAR. JOSEPH B. STRAUSS, Chicago, Ill. Filed Jan. 2, 1908. Serial No. 409,045. (Cl. 105—88.)



1. The combination with a vestibule for cars, having an opening through which passengers pass, of a swinging section having a rotary movement about a pivotal point outside of said section and located at the edge of the vestibule, said swinging section and pivotal point being on opposite sides of the center line of the car, and a sector extending between the pivotal point and said swinging section.

2. The combination with a vestibule for cars of a swinging section extending from the top to the bottom of said vestibule having a rotary movement about a pivotal point at one side of such section, and a movable step connected with said section and adapted to be moved to an inoperative position when the section is moved to its closed position.

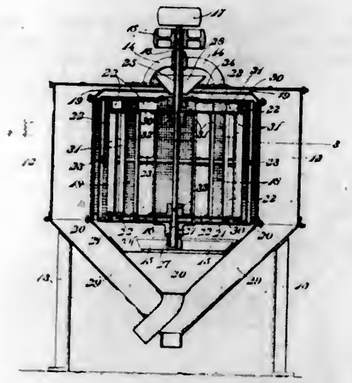
3. The combination with a vestibule of a swinging section extending from the top to the bottom of said vestibule, a substantially horizontal radial member connected at one end to said section and movably connected at the other end to a fixed part formed in the arc of a circle, and means for moving said section in the arc of a circle to open or close the vestibule, said horizontal radial member extending across said vestibule, the fixed part to which it is attached being at one side of the vestibule, the opposite ends of said radial member being on opposite sides of the center line of the car.

4. The combination with a vestibule of a swinging section, a substantially horizontal radial member connected at one end to said section and movably connected at the other end to a fixed part formed in the arc of a circle, means for moving said section in the arc of a circle to open or close the vestibule, and a step associated with said section, the position of which is controlled by the movement of said section.

5. A vestibule for cars comprising a swinging section, a plurality of supporting devices at the bottom of said section and located beneath the car platform, said section projecting below the platform of the car at the point where the supporting devices are connected thereto, said supporting devices adapted to be moved with relation to each other as the swinging section is opened and closed.

[Claims 6 to 20 not printed in the Gazette.]

1,141,988. SCREEN OR SEPARATOR. THOMAS JOSEPH STURTEVANT, Wellesley, Mass., assignor to Sturtevant Mill Company, a Corporation of Maine. Filed Mar. 1, 1913. Serial No. 751,560. (Cl. 83—56.)



1. In a separator, the combination with a suitable casing, of a vertically disposed stationary screen within the said casing, a vertically disposed rotating fan arranged adjacent to said screen and provided with alternating reversely inclined blades all disposed in one circular plane and serving to produce alternating reversing or pulsating air currents, and means for supplying to the upper part of the separating means the material to be screened.

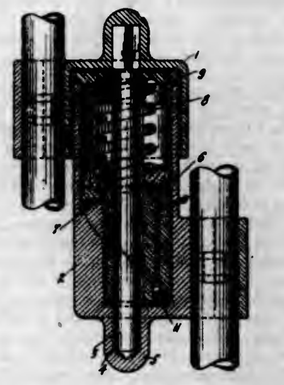
2. In a separator, the combination with a suitable casing, of a vertically disposed stationary screen within the said casing, a vertically disposed rotating fan arranged adjacent to said screen and provided with alternating reversely inclined blades, for the purpose of producing alternating reversing or pulsating air currents, means for supplying to the upper part of the separating means the material to be screened, and a second vertically arranged, rotary fan within and coöperating with the first-named fan and rotatable independently thereof.

3. In a separator, the combination with a suitable casing, of a vertically disposed stationary screen within the said casing, a vertically disposed rotating fan arranged adjacent to said screen and provided with alternating reversely inclined blades, for the purpose of producing alternating reversing or pulsating air currents, means for supplying to the upper part of the separating means the material to be screened, and a non-pulsating current, vertically arranged, rotary fan coöperating with the first-named fan and rotatable independently thereof.

4. In a separator, the combination with a suitable casing, of a vertically disposed stationary screen within the said casing, a vertically disposed rotating fan arranged adjacent to said screen and provided with alternating reversely inclined blades all disposed in one circular plane and serving to produce alternating reversing or pulsating air currents, means for supplying to the upper part of the separating means the material to be screened, and means for keeping separate and discharging the tailings and fine material.

5. In a separator, the combination with a suitable vertical casing, of a vertically disposed stationary screen within the said casing, a vertically disposed rotating fan arranged adjacent to said screen and provided with alternating reversely inclined blades all disposed in one circular plane and serving to produce alternating reversing or pulsating air currents, and said fan comprising an upper end head adapted to serve as a centrifugal distributer for the material to be screened, and means for supplying the material to be screened to said centrifugal distributer.

1,141,989. HINGE. AUGUST SUNDH, Hastings-upon-Hudson, N. Y. Filed Feb. 27, 1915. Serial No. 10,900. (Cl. 16—88.)



1. In a hinge, the combination of stationary parts and movable parts, these parts being telescopic and one being adapted to contain lubricant, coöperating mechanism consisting of a central spindle, a cam member with a circular track forming right and left hand inclines converging toward a common point, a carrier for said cam, a compression spring surrounding the spindle and interposed between the cam member and the stationary member, the cam member being loosely fitted in the stationary member, a valve member in said cam, said valve cooperating with the movement of the cam member to control the lubricant and thereby governing the working of the hinge.

2. In a hinge adapted to be manually operated from a center position to one side or the other, the combination of stationary parts and movable parts, a cam member within said parts, a stationary carrier for said cam, central guiding means for said parts and said cam, and a compression spring surrounding said central guiding means and interposed between the cam member and the stationary part, said spring adapted to act on the cam member and thereby bring the hinge from one side or the other back to a central position.

3. In a hinge adapted to be manually operated from a central position to one side or the other, the combination of a stationary part, a cover for said stationary part, a spindle located in a central position relative to said part and guided therein and extending through said cover, a movable part connecting with said spindle, a cam member having a circular track forming right and left hand inclines converging toward a common point, a carrier for said cam, a compression spring surrounding the spindle and interposed between said cam member and the cover of the stationary part, the inclines formed on the circular track of the cam member adapted to travel on the carrier and compress the spring when the hinge is manually operated from a central position to one side or the other, said spring when compressed forcing the cam member down to initial position, thereby bringing the hinge back from one side or the other to a central position.

4. In a hinge adapted to be manually operated from a central position to one side or the other, the combination of stationary parts and movable parts, a cam member within said parts constructed with a circular track forming right and left hand inclines converging toward a common point, a stationary carrier for said cam member, central guiding means for said cam member, a compression spring surrounding said central guiding means and interposed between the cam member and the stationary part, mechanism to transmit the manual operation to the cam member and thereby raise the cam member causing it to ride on the inclines on the carrier, from a central position to one side or the other, thereby to compress the spring, and lubricant within said stationary part operated by said cam member for controlling the action of the hinge.

5. In a hinge, the combination of a stationary member and a movable member, a cover for the stationary member, a central spindle with bearings at the bottom of the stationary member and in the cover of the same member, said spindle extending through said cover and rigidly connected with the movable member, a cam member adapted to be turned from a central position to one side or the other, and movable longitudinally of said spindle, said cam member having a circular track forming right and left hand inclines converging toward a common point, and a spring interposed between said cam member and the cover of the stationary member and surrounding the spindle, the action of said spring operating to control the hinge.

[Claim 6 not printed in the Gazette.]

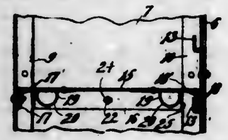
1,141,990. MINE-CAR WHEEL AND AXLE. FREDERICK A. SWEET, Salt Lake City, Utah. Filed Nov. 28, 1914. Serial No. 874,383. (Cl. 105—67.)

1. In combination, a wheel hub comprising a bored body and a counterbored head integral therewith, the said head having a suitably disposed annular groove, internally thereof; with an axle having its end spaced somewhat apart from the face of the said head, the said axle comprising a shank, a cylindrical neck adjacent the shank, a terminal knob adjacent, and of larger diameter than, the neck, the end of the knob being adapted to bear against the inside of the head, and a plurality of balls adapted in conjunction with the said head and the said knob to retain the said wheel hub on the axle.

2. In combination, a wheel hub comprising a bored body and a counterbored head integral therewith, and said head having a suitably disposed annular groove, internally thereof: with an axle having its end spaced somewhat apart from the inside face of the said head, the said axle comprising a shank, a cylindrical neck adjacent the shank, a terminal knob adjacent, and of larger diameter than, the neck, the end of the knob being adapted to bear against the inside of the head, and a plurality of balls adapted in conjunction with the said head and the said knob to retain the said wheel hub on the axle, and means for allowing the introduction of the said balls into the said groove.

3. In a wheel hub and axle, having coacting ball-retaining grooves, the combination with the said hub, of a suitable plug removably held in a corresponding opening leading through the said hub into the said grooves; a protruding key suitably disposed in the said plug, and projections on the said hub adapted to engage the said protruding key for the purpose specified.

1,141,991. METAL SHELVING. ALBERT C. TERRELL, Grand Rapids, Mich., assignor to Terrell's Equipment Company, a Corporation of Michigan. Filed Nov. 23, 1910. Serial No. 593,761. (Cl. 211—27.)



1. A shelf, comprising a plate of sheet metal having one of its edges bent at an angle to the plate and overlapped upon the bent portion to form a flange of double thickness, and a reinforcing strip of angled metal fastened to the plate with one of the angled portions of the strip extending between the overlapped portion of the plate edge.

2. A shelf, comprising a plate of sheet metal having one of its edges bent at an angle to the plate and overlapped upon the bent portion to form a flange of double thickness, and a reinforcing strip of angled and channeled metal fastened to the plate with the angled portion of the strip extending between the overlapped portion of the plate edge.

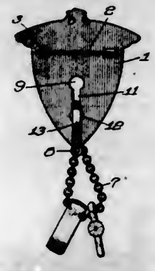
3. A shelf, comprising a plate of sheet metal having its front and rear side edges bent downwardly at an angle to the plate and overlapped upon the bent portions to form flanges of double thickness and also having its end edges bent at an angle to form end flanges, and reinforcing strips of angled and channeled metal fastened to and extending along the front and rear edge portions of the plate with the angled portions of the strips extending between the overlapped portions of the plate edges.

4. Shelving, comprising a back portion provided with forwardly and upwardly projecting catches, end and intermediate uprights forming angled reinforcing bars extending along their front and rear edges, said rear edge bars being rigidly connected to the back and provided with projecting catches, shelves formed of sheet metal plates and having their front and rear side edges bent downwardly at an angle and overlapping upon the bent portions to form flanges of double thickness and also having their end edges bent at an angle to form end flanges, reinforcing strips of angled and channeled metal fastened to and extending along the front and rear edge portions of the plate with the angled portions of the strips extending between the overlapped portions of the plate edges, said rear edge flanges of the shelves engaging the projecting catches of the back and the reinforcing bars, bolts extending through the intermediate upright and the end flanges of the shelves adjacent thereto and positioned on each side thereof, and other bolts binding the flanges adjacent to the end uprights thereto.

1,141,992. SAFETY RING-HOLDER. KARL L. TOELCKE, Chicago, Ill. Filed Sept. 8, 1914. Serial No. 860,558. (Cl. 24—13.)

1. A safety ring holder comprising a slotted member, a flexible ring suspending member, one end of which is permanently attached to said slotted member, a grooved stud carried by the free end of said suspending member and adapted to be inserted and retained in the slot of said member, and means for preventing accidental displacement of the stud from the slot.

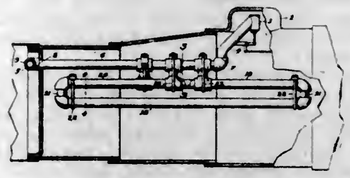
2. A safety ring holder comprising a member having a key hole slot, a flexible suspending member attached permanently at one end to said slotted member and carrying at its free end a headed stud adapted to be detachably locked in said key hole slot, and spring means for releasably holding said stud in said slot.



3. A safety ring holder comprising a key hole slotted member to which is permanently attached one end of a flexible ring-suspending member, a plate carried by the other end of said flexible member, having a headed stud adapted to be inserted in said key hole slot, and means mounted on said slotted member for releasably holding said stud in said slot.

4. The combination with a plate having a pin at its upper end and a keyhole slot at its lower end; of a flexible member having one end connected to the lower extremity of the plate, a stud connected to the other end of said flexible member and comprising a body portion, a neck extending from said body portion and adapted to engage the lower end of said keyhole slot, said neck being elongated in cross-section to prevent turning in the slot, a head on said neck adapted to pass through the larger end of the keyhole slot, said head being of dimensions sufficient to prevent movement through the lower end of the keyhole slot, and a spring carried by said plate and arranged to yieldably hold the stud in the lower end of said keyhole slot.

1,141,993. SUPERHEATER. SOLOMON TRIPP, La Junta, Colo. Filed July 25, 1914. Serial No. 853,198. (Cl. 122—463.)



A superheater comprising a main pipe having an inlet end and a delivery end separated by an intervening compartment, coils at opposite sides of said main pipe, each comprising a continuous outer tube and a pair of inner tubes communicating at their outer ends with the ends of the outer tube, connections between the delivery inner tube of one coil and the receiving inner tube of the other coil and the said compartment of the main pipe, and connections between the inner ends of the other inner tubes of the coils and the inlet and delivery ends of the main pipe, respectively.

1,141,994. MANUFACTURE OF NITRIC ACID. CARL UEBEL, Heidelberg, Germany. Filed Sept. 16, 1913. Serial No. 790,137. (Cl. 23—1.)

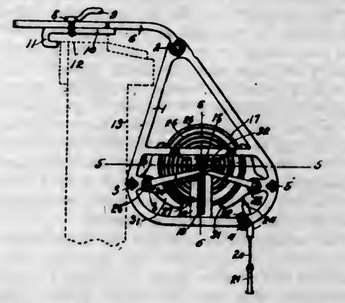
1. The method of producing nitric acid by reaction between sulfuric acid and a predetermined quantity of nitrate, which comprises the initial operation of supplying to the sulfuric acid employed a part only of the nitrate, heating to a temperature at which the parts thus introduced will be decomposed but which will allow only nitric acid of high percentage to distil off, then introducing the remainder of the nitrate and heating further to effect its decomposition.

2. The method of producing nitric acid by reaction between sulfuric acid and a predetermined quantity of nitrate, which comprises the initial operation of supplying to the sulfuric acid employed a part only of the nitrate, heating to a temperature at which the part thus introduced will be decomposed but which will allow only nitric acid of high percentage to distil off, then introducing the remainder of the nitrate and heating further to effect its decomposition, the second heating being conducted in two stages in one of which it is so restricted as to permit only nitric acid of high percentage to distil off, and in the other of which it is increased to a degree sufficient to drive off the remainder of the nitric acid together with the accompanying water-vapor.

3. The method of producing nitric acid from sulfuric acid and a predetermined quantity of nitrate, which comprises an initial operation wherein the sulfuric acid and a part only of the nitrate are introduced simultaneously and gradually into the reaction vessel, their introduction being so regulated that during said initial operation the sulfuric acid is always in excess, heating to a temperature at which the nitrate thus introduced will be decomposed but which will allow only nitric acid of high percentage to distil off; then adding the remainder of the nitrate, and effecting its decomposition.

4. The method of producing nitric acid from sulfuric acid and a predetermined quantity of nitrate, which comprises an initial operation wherein the sulfuric acid and a part only of the nitrate are introduced simultaneously and gradually into the reaction vessel, their introduction being so regulated that during said initial operation the sulfuric acid is always in excess, heating to a temperature at which the nitrate thus introduced will be decomposed but which will allow only nitric acid of high percentage to distil off; then adding the remainder of the nitrate, and effecting its decomposition, the introduction of the remainder of the nitrate being likewise gradual.

1,141,995. FIRE-ESCAPE. GEORGE F. UPTON, Kansas City, Mo. Filed July 27, 1914. Serial No. 853,293. (Cl. 254—153.)



1. In a fire escape, a supporting frame provided with means for being attached to a building, a rope adapted to support a person, a reel, to the periphery of which said rope is attached, rotatably mounted in said frame and movably mounted in said frame and movable by weight applied to said rope to a predetermined position, yielding means for resisting movement of the reel toward said position, means actuated by said reel for applying a braking pressure to said reel when it has arrived at said predetermined position, said braking pressure being greater than that exerted by the reel in effecting the braking pressure, and means for turning the reel to rewind thereon said rope.

2. In a fire escape, a supporting frame provided with means for being attached to a building, a rope adapted to support a person, a reel, to which said rope is attached, rotatably mounted in said frame and movable by weight applied to said rope to a pre-determined position, yielding means for resisting movement of the reel toward said position, a brake adapted to be applied to the reel, a lever disposed in the path of movement of said reel, and means by which said lever applies said brake to said reel with a pressure exceeding that applied to the lever, when the reel has arrived at said predetermined position, and yielding means for resisting rotation of said reel by the unwinding therefrom of said rope.

3. In a fire escape, a supporting frame provided with means for being attached to a building, a rope adapted to support a person, a reel, to which said rope is attached, rotatably mounted in said frame and bodily movable thereon by weight applied to said rope to a predetermined position, yielding means for resisting movement of said reel toward said position, a spring arranged to be wound by and connected with said reel as the rope is unwound therefrom, said spring having strength sufficient to rewind said rope on said reel, a brake adapted to be applied to said reel when the reel has been moved to said predetermined position, and means including a lever operable by said reel for applying to said brake a pressure exceeding that applied to the lever.

4. In a fire escape, a supporting frame provided with means for being attached to a building, a reel rotatable in said frame and bodily movable thereon to a predetermined position, a gear wheel attached to said reel, a rack attached to said frame and adapted to engage said gear wheel when the reel has been moved from an initial position to the predetermined position, a rope attached to said reel and adapted to be wound thereon and unwound therefrom, the reel being movable by a pull on said rope from said initial position into a position in which the gear wheel will engage said rack, the reel being movable by a pull on the rope to a position in which the gear wheel will be disengaged from said rack, yielding means normally exerting a pressure tending to force said reel to said initial position, a spring for turning said reel to rewind said rope, a brake adapted to be applied to said reel, and means for applying said brake to said reel when said gear wheel is engaged with said rack.

5. In a fire escape, a supporting frame provided with means for being attached to a building, a reel rotatable in said frame and movable thereon to a predetermined position, a rack secured to said frame, a gear wheel rotatable with said reel and adapted to engage said rack, when said reel has been moved from an initial position to said predetermined position, the reel being movable to a position in which the gear wheel will have become disengaged from said rack, means for resisting the movement of said reel from said initial position and for retracting the reel to said initial position, a spring attached to said frame and to said reel and adapted to be wound when the reel is turned in one direction, a rope attached to said reel and adapted when pulled so as to be unwound therefrom to turn said reel in said direction, the reel being movable by a pull on said rope to a position in which the gear wheel will engage said rack, and to a position in which the gear wheel will run out of engagement with said rack, a brake, and means actuated by said reel when it has moved to said predetermined position for applying said brake to said reel.

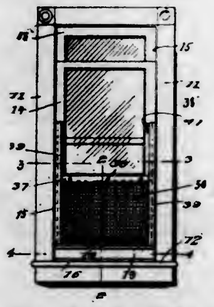
[Claims 6 to 11 not printed in the Gazette.]

1,141,996. WINDOW-SCREEN. OLIVER E. VANASDALE, Erie, Pa. Filed May 27, 1914. Serial No. 841,315. (Cl. 156—39.)

1. In a device of the class described, a casing adapted to be attached to a window and including a cover member spaced at its inner edge from the path of the adjacent sash member of the window, a holding strip adapted to be attached to said sash and to completely fill the space between the casing cover and the sash when the sash is closed, the upper edge of the strip being flush with the outer face of the cover member and forming a continuation of the same, and screen material attached at one edge to said strip and adapted to be disposed within said casing.

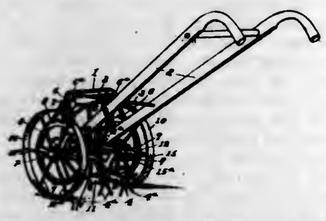
2. In a device of the class described, a casing adapted to be attached to a window, brackets within said casing and having journal bearings and open slots, a spring

actuated roller having journals engaging the bearings of said brackets, a guide roller having journals detachably engaging said open slots, and screen material connected at one end to said roller and adapted to be connected at the other end to a window sash and engaging over said guide roller.



3. In a device of the class described, a casing adapted to be attached to a window, brackets within said casing and having journal bearings and open slots, a spring actuated roller having journals engaging the bearings of said brackets, a guide roller having journals detachably engaging said open slots, grooved guide strips adapted to be attached to a window, and screen material connected at one end to said roller and adapted to be connected at the other end to a window sash and engaging by its edges in the grooves of said strips.

1,141,997. ROTARY WEEDER AND CULTIVATOR. ARBA E. VROOMAN and HOWARD F. VROOMAN, Painesville, and STARLEY S. SWANSON, Bellevue, Ohio, assignors to The Vrooman Company, Bellevue, Ohio, a Corporation of Ohio. Filed May 5, 1914. Serial No. 836,449. (Cl. 97—25.)



1. A cultivator, comprising a frame, universally adjustable bearing brackets carried thereby, flexible driving shafts carried by some of said brackets and provided with rotary weeder elements, and supporting wheels operatively connected to said shafts.

2. In a cultivator, a frame, universally adjustable bearing bracket members carried thereby, driving shafts mounted on some of said bracket members, driving means for said shafts, and rotary weeder elements connected to and driven by said driving shafts.

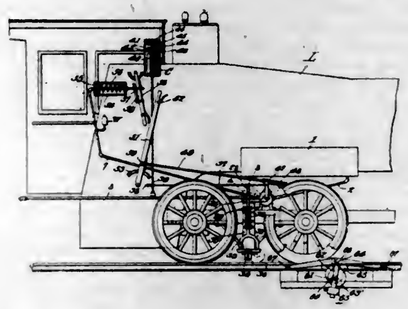
3. A cultivator, comprising an arched frame, universally adjustable bearing brackets carried thereby, flexible driving shafts carried by said brackets, rotary weeder elements carried by said shafts, and supporting wheels operatively connected to the latter.

4. In a cultivator, a plurality of horizontally and vertically extending bracket rods adjustably connected to each other, bearing sleeves adjustably mounted on said vertically extending bracket rods, and driving shafts and rotary weeder elements carried by said bearing sleeves.

5. In a cultivator, a frame provided with longitudinally and vertically extending bracket rods, clamping members connecting same, flexible shafts vertically and laterally adjustable on said vertically extending bracket rods, and rotary weeder elements connected to said flexible shafts.

[Claims 6 to 10 not printed in the Gazette.]

1,141,998. TRAIN-CONTROL APPARATUS. WILLIAM H. WEBLER and LEROY G. GHENT, Sodus Center, N. Y. Filed Apr. 14, 1914. Serial No. 831,851. (Cl. 246—59.)



1. The combination with an air brake system, and a throttle lever, of mechanism for operating the air brake system and the throttle lever, including a valve for venting the train pipe and air brake system under caution conditions, a second valve for venting the train pipe under emergency conditions, a third valve connected to the air brake system for actuating the throttle lever, and a ram actuated means for automatically operating the first and third valves simultaneously and the second valve independently of the other valves.

2. The combination with an air brake system, and a throttle lever, of mechanism for operating the air brake system and the throttle lever, including a valve for venting the train pipe and air brake system under caution conditions, a second valve for venting the train pipe under emergency conditions, a third valve connected to the air brake system for actuating the throttle lever, a ramp actuated means for automatically operating the first and third valves simultaneously and the second valve independently of the other valves, and manually controlled means for returning the valves to normal condition.

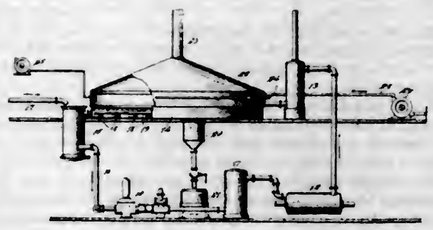
3. The combination with an air brake system, and a throttle lever, of mechanism for operating the air brake system and the throttle lever, including a valve for venting the train pipe and air brake system under caution conditions, a second valve for venting the train pipe under emergency conditions, a third valve connected to the air brake system for actuating the throttle lever, a ramp actuating means for automatically operating the first and third valves simultaneously and the second valve independently of the other valves, and a visual signal for indicating caution and emergency conditions operably connected to the ramp actuated means.

4. The combination with an air brake system, and a throttle lever, of mechanism for operating the air brake system and the throttle lever, including a valve for venting the train pipe and air brake system under caution conditions, a second valve for venting the train pipe under emergency conditions, a third valve connected to the air brake system for actuating the throttle lever, a ramp actuated means for automatically operating the first and third valves simultaneously and the second valve independently of the other valves, a visual signal for indicating caution and emergency conditions operably connected to the ramp actuated means, and a recording means for recording the number of actuations of the respective valves.

5. The combination with an air brake system, and a throttle lever, of mechanism for operating the air brake system and the throttle lever, including a valve for venting the train pipe and air brake system under caution conditions, a second valve for venting the train pipe under emergency conditions, a third valve connected to the air brake system for actuating the throttle lever, a ramp actuated means for automatically operating the first and third valves simultaneously and the second valve independently of the other valves, a visual signal for indicating caution and emergency conditions operably connected to the ramp actuated means, and manually controlled means for resetting the valves to normal condition.

[Claims 6 to 8 not printed in the Gazette.]

1,141,999. PROCESS FOR THE MANUFACTURE OF SALT. CHARLES L. WEIL, St. Clair, Mich., assignor to Diamond Crystal Salt Company, St. Clair, Mich., a Corporation of Michigan. Filed May 13, 1911. Serial No. 626,939. (Cl. 127—16.)



1. The process of making salt from brine which comprises circulating brine through a suitable heating system and delivering it in a hot saturated condition into a main evaporating or circulating pan maintained in an atmosphere of controlled composition and there allowing such brine to undergo self-evaporation, and controlling the kind of salt produced by a rippling agitation of the surface of the brine in said pan to an extent governed by the size of grain desired.

2. The process of making salt from brine which comprises circulating brine through a suitable heating system and delivering it in a hot saturated condition into a main evaporating or circulating pan maintained in an atmosphere of controlled composition, there allowing such brine to undergo self-evaporation, and controlling the kind of salt produced by agitation of the surface of the brine in said pan to an extent governed by the size of grain desired, by fine jets of air under pressure directed against such surface.

3. The process of making salt from brine which comprises circulating brine through a suitable heating system and delivering it in a hot saturated condition into a main evaporating or circulating pan maintained in an atmosphere of controlled composition, there allowing such brine to undergo self-evaporation, and controlling the kind of salt produced by agitation of the surface of the brine in said pan to an extent governed by the size of grain desired, by fine jets of air under pressure directed obliquely against such surface and creating a rippling thereof.

4. The process of making salt from brine which comprises circulating brine through a suitable heating system and delivering it in a hot saturated condition into a main evaporating or circulating pan maintained in an atmosphere of controlled composition, there allowing such brine to undergo self-evaporation, and controlling the kind of salt produced by agitation of the surface of the brine in said pan to an extent governed by the size of grain desired, by a series of jets of air under pressure directed obliquely against such surface in an inward direction from the outer portions thereof.

5. The process of making salt from brine which comprises circulating the brine through a suitable superheating system into a hooded main evaporating or circulating pan in which the salt is formed, said pan being provided with a vapor discharge outlet and with means for controlling the composition of the atmosphere within the hood, and controlling the kind of salt produced by agitation of the surface of the brine in said pan to an extent governed by the size of grain desired, by jets of air under pressure directed against such surface.

[Claims 6 to 12 not printed in the Gazette.]

1,142,000. BLANK FOR MAKING RAKES AND FORKS. LARNED S. WHITNEY, Wallingford, Vt. Filed Mar. 25, 1910, Serial No. 551,442. Renewed Oct. 25, 1913. Serial No. 797,329. (Cl. 76—111.)



1. A blank for making tined implements of the class described, comprising a section of metal stock sufficient to form two similar implements, said section of metal stock having two sides for forming the heads of such implements, and portions intermediate said sides consisting of separated metal to form tines, such separated metal comprising a plurality of intermeshing sections, each adjacent section being integral with the opposite side and extending at an angle thereto, then parallel with said sides for a short distance, then at an angle to said sides, and again parallel therewith, whereby the last mentioned parallel section of one tine will be parallel with the first mentioned parallel section of another tine, and whereby the angular sections of both such tines coincide.

2. A blank for rakes, forks and hooks comprising a straight portion of stock for the head and portions of the stock for the teeth or tines separated from each other by substantially the distance which separates the completed teeth or tines, all extending in the same general direction from one side of the head stock, with the blank considered as flat, at angles with the line of the head stock for some distance therefrom and at different angles throughout the remainder of their length, with the outer ends of the parts of the stock for the teeth or tines extending in line with one another and parallel with the head stock.

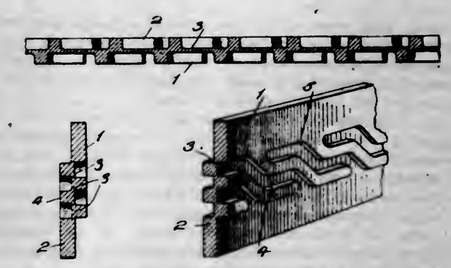
3. A blank for making tined implements of the type described comprising a plate of metal stock, the two edges supplying metal for the heads of the implements, and a section intermediate the edges consisting of intermeshing tines having their extremities approximately parallel with the edges and of a length corresponding substantially to the distance which separates the tines when the implement is completed.

4. A blank for making tined implements of the class described comprising a plate of metal, the two edges supplying metal for the heads of the implements, and a section intermediate the edges consisting of a plurality of angularly disposed intermeshing tines, each tine arranged in a broken line so that its first bend is such a distance from the edge that it premits space for the intermeshing portion of the adjacent tine.

5. A blank for making tined implements of the class described comprising a plate of metal, the two edges supplying metal for the heads of the implements, and a section intermediate the edges consisting of intermeshing tine portions, each tine portion extending from one head in a broken line, the outer part of which is parallel to the opposite head portion.

[Claim 6 not printed in the Gazette.]

1,142,001. METHOD OF MAKING RAKES, FORKS, AND THE LIKE. LARNED S. WHITNEY, Fiskdale, Mass. Filed July 10, 1913. Serial No. 778,236. (Cl. 76—111.)



1. A process of manufacturing tined implements comprising pressing on opposite sides of a piece of stock

with dies each shaped to cover a blank and so arranged that the tine portions of one blank intermesh with the tine portions of the other, continuing such pressure until the two blanks are off-set with respect to each other, separating said blanks and shaping the blanks thus obtained.

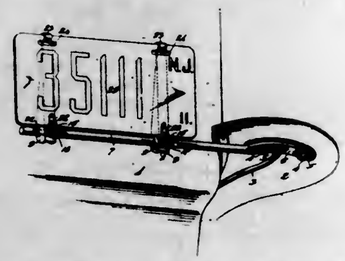
2. A process of manufacturing tined implements comprising pressing on opposite sides of a piece of stock with dies each shaped to cover a blank and so arranged that the tine portions of one blank intermesh with the tine portions of the other, continuing such pressure until the portion of the stock forming one blank is off-set and almost, but not quite, severed from the portion of the stock forming the other blank, pressing said portions back toward the same plane, thereby severing them, and shaping the blanks thus obtained.

3. A process of manufacturing tined implements comprising severing a piece of stock into two blanks with intermeshing tine portions oblique to the head portions of said blanks, relatively longitudinally displacing the blanks so as at least partially to straighten said tine portions, and shaping said blanks.

4. A process of manufacturing tined implements, comprising severing a piece of stock into two blanks, each blank having tine portions at least in part oblique to the head portion of said blank and intermeshing with the tine portions of the other blank, pressing upon opposite ends of said blanks so as to cause relative longitudinal displacement of the blanks, whereby said tine portions are at least partially straightened while holding said blanks against laterally bending, and shaping said blanks.

5. A process of manufacturing tined implements, comprising pressing on opposite sides of a piece of stock with dies each shaped to cover a blank comprising a head portion and tine portions at least in part oblique to its head portion and so arranged that the tine portions of one blank intermesh with the tine portions of the other, continuing such pressure until the two blanks are off-set with respect to each other, severing said blanks, pressing on opposite ends of said blanks so as to cause a relative longitudinal displacement of said blanks whereby said tine portions are at least partially straightened, and shaping said blanks.

1,142,002. NUMBER-PLATE HOLDER FOR MOTOR-VEHICLES. ADAM WILLHARDT, Elizabeth, N. J. Filed July 10, 1912. Serial No. 708,550. (Cl. 40—129.)



1. A sign-plate holder comprising a supporting bar, and a rigid standard having means for securing it in transverse position thereon and provided at opposite ends with means for gripping the sign-plate at both faces and adjacent opposite margins thereof.

2. A sign-plate holder comprising a supporting bar, a plurality of longitudinally and circularly adjustable standards mounted thereon and each carrying at one end fastening means adapted to interlock with apertures in one margin of the sign-plate and at the other end clamping means adapted for engagement with the other margin of said sign-plate, and fastening means for maintaining said standards in their adjusted position and serving also to hold the clamping means in position.

3. A sign-plate holder comprising a supporting bar, and a standard having sign-plate fastening means and provided at its base with a lateral seat engaging one side of said bar and a strap embracing the other side of said bar and terminating in a bolt passing through said standard an provided with a clamp-nut whereby the standard is secured upon said bar suitably for adjustment both endwise and circularly thereof.

4. A sign plate holder comprising a supporting bar, and a standard having positively acting sign-plate fastening means at one end and provided at the opposite end with a lateral seat engaging one side of said bar and a flexible strap engaging the other side of said bar and terminating in a bolt passing through the standard laterally of said seat and provided with a clamp-nut and interposed laterally extending sign-plate clamping washer overlying said seat, whereby the tightening of the nut serves to secure the standard adjustably in position upon said bar and to clamp the adjacent margin of the sign-plate upon the standard.

5. A sign-plate holder comprising a supporting bar, and a standard having positively acting sign-plate fastening means at one end and provided at the opposite end with a lateral seat engaging one side of said bar and a flexible strap engaging the other side of said bar and terminating in a bolt passing through the standard and provided with a clamp-nut and an interposed sign-plate clamping washer having an interlocking connection with said nut, whereby the tightening of the nut serves to secure the standard adjustably in position upon said bar and to clamp the adjacent margin of the sign-plate upon the standard.

1,142,003. SINGLE-TRIGGER MECHANISM FOR DOUBLE-BARRELED GUNS. HARTWELL L. WILLIAMS, Rison, Ark. Filed Feb. 25, 1913. Serial No. 750,682. (Cl. 42—42.)

1. A single trigger mechanism for double barreled guns including sears, one for each barrel, a trigger constantly out of engagement with the sears, a sear tripping member separate from but operatively engaged with the trigger normally lying in safety position to prevent movement of the trigger and manually shiftable from a safety position into a position of operative engagement with either sear, a sear tripping member separate from the trigger and from the manually shiftable sear tripping member but coacting therewith and in operative engagement with the trigger and automatically movable into position to trip an untripped sear upon a single actuation of the trigger, and an adjusting member mounted upon the upper face of the gun and operatively connected to the first mentioned sear tripping member to shift the latter.

2. A single trigger mechanism for double barreled guns including sears, one for each barrel, a single trigger, a single sear tripping member in operative engagement at all times with the trigger and manually movable into a position to operatively engage with either sear, a separate but coacting sear tripping member automatically movable into position between both of the sears and the trigger upon a single actuation of the trigger, and an adjusting member mounted upon the upper face of the gun and operatively connected to the first named sear tripping member to shift the latter.

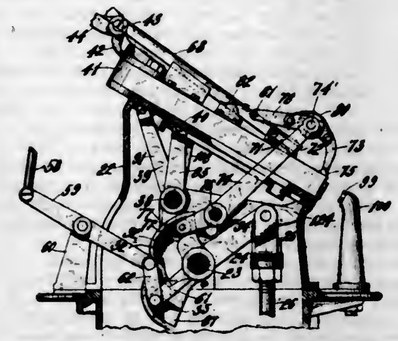
3. A single trigger mechanism for double barreled guns including sears, one for each barrel, a trigger, a single sear tripping member manually slidable longitudinally into position between either one of the sears and the trigger, a separate but coacting sear tripping member disposed in engagement with the trigger and slidable into position between the trigger and both of said sears, means urging the last named tripping member into such position upon a single actuation of the trigger, and an adjusting member mounted upon the upper face of the gun and operatively connected to the sear tripping member to shift the latter.

4. A single trigger mechanism for double barreled guns including sears, one for each barrel, a trigger, a manually shiftable sear tripping member in operative engagement at all times with the trigger and manually movable longitudinally into a position of operative engagement with either sear or into a position out of engagement with both sears, and means for preventing a sear tripping movement of the trigger and said member when in the latter position.

5. A single trigger mechanism for double barreled guns including a trigger safety lock, a trigger locking member having a projecting lug at its forward end, sears, one for each barrel, a trigger and a sear tripping member in operative engagement with the trigger and manually movable longitudinally from a safety position into a position to have operative engagement with either sear or into a safety position out of operative engagement with both sears, and a projection upon the sear tripping member engaging beneath the lug on the trigger locking member when the said tripping member is in its safety position.

[Claims 6 to 42 not printed in the Gazette.]

1,142,004. BUTTON-ATTACHING MACHINE. WILLIAM H. WYMAN, Oshkosh, Wis. Filed Mar. 13, 1913. Serial No. 753,966. (Cl. 218—8.)



1. A button-attaching machine comprising a casing, a button hopper pivotally connected to said casing, a wire-feeding mechanism carried by the casing, a wire-cutting and staple-forming and setting mechanism carried by the casing, means for feeding buttons from the button hopper to the staple-forming and setting mechanism, a series of levers pivoted to the casing and connected to the mechanisms, a rock shaft journaled in the casing, means connected to said rock shaft and button hopper for rocking said button hopper, a series of rock cams carried by the shaft for actuating the levers and means for operating said rock shaft.

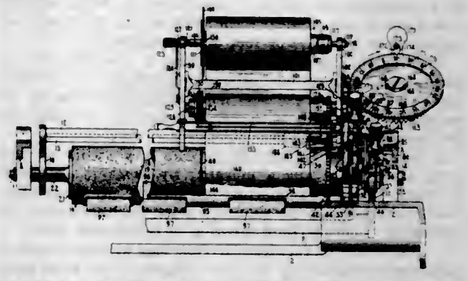
2. A button-attaching mechanism comprising a casing, a button hopper pivotally secured to said casing, a wire-feeding mechanism carried by the casing, a reciprocal mechanism for cutting the wire and forming and setting a staple therefrom mounted on the casing, mechanism for moving buttons from the button hopper to the reciprocal mechanism, a rock shaft, means connected to the rock shaft and the hopper for oscillating the hopper, a series of cams mounted on said shaft, levers actuated by the cams and having connections with the different mechanisms, and means for operating said rock shaft.

3. In a button-attaching machine, the combination of a casing, staple forming mechanism comprising a reciprocal forming member and an oscillating forming finger coöperating with said member to form the loop and legs of the staple, staple-setting mechanism comprising a reciprocal punch member and a clenching die, levers pivotally mounted in the casing and connected to said reciprocal forming member and said reciprocal punch member respectively, a rock shaft journaled in the casing, a series of rock cams carried by said shaft for actuating said levers and said forming finger, and means for operating said rock shaft.

4. In a button-attaching machine, the combination of a casing, a bearing shaft mounted in said casing, staple forming mechanism comprising a reciprocal forming member mounted on the casing and an oscillatory forming finger pivotally mounted on said bearing shaft, staple-setting mechanism comprising a reciprocal punch member slidably mounted on said reciprocal forming member and a clenching die, levers pivotally mounted on said bearing shaft and connected to said reciprocal forming member and said reciprocal punch member respectively, a rock shaft journaled in the casing, a series of rock cams carried by said rock shaft for actuating said levers and said forming finger, and means for operating said rock shaft.

5. In a button-attaching machine the combination with a casing, staple-forming mechanism comprising a reciprocal forming member having a guideway therein and a forming finger coöperating with said member to form the loop and legs of the staple, and staple-setting mechanism comprising a reciprocal punch member slidably mounted in said guideway and a clenching die, of means for operating said mechanisms comprising levers pivotally mounted in the casing and connected to said reciprocal forming member and said reciprocal punch member respectively, a rock shaft journaled in the casing, a series of rock cams carried by said rock shaft, and means for operating said rock shaft.

1,142,005. TYPE-WRITING MACHINE. CLIO B. YAW, Arlington, N. J., assignor, by mesne assignments, to Remington Typewriter Company, Ilion, N. Y., a Corporation of New York. Filed Feb. 5, 1913. Serial No. 746,303. (Cl. 197—132.)



1. In a typewriting machine, the combination of means for supporting and feeding a plurality of work sheets, line spacing devices coöperating with said means and operative by a single finger piece, and means for setting variably said line spacing devices to afford an operation of said line spacing devices to feed either of said plurality of work sheets independently of the other or both of said work sheets together at will.

2. In a typewriting machine, the combination of two platens, platen line spacing devices operative by a single finger piece, and means for affording adjustment of said devices to line space either platen separately as desired by an actuation of said finger piece or both of said platens simultaneously by an actuation of said finger piece.

3. In a typewriting machine, the combination of two platens, line spacing ratchet wheels one for each platen, a plurality of pawls one for each ratchet wheel, a single finger piece operative on both pawls, and pawl setting means comprising devices for setting said pawls so as to throw either one into operation and the other out of operation.

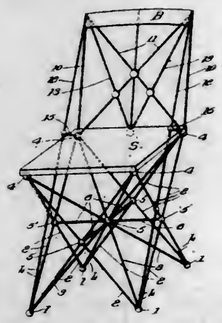
4. In a typewriting machine, the combination of two platens, line spacing ratchet wheels, one for each platen, pawls, one for each ratchet wheel, a single finger piece operative on both pawls, and pawl setting means comprising

devices for setting said pawls alternatively in position for operation and also comprising other devices for assisting to simultaneously render both of said pawls operatively engageable with said ratchet wheels when said finger piece is actuated whereby at will either platen alone may be rotated while the other remains stationary and whereby both platnes may be caused simultaneously to rotate together.

5. In a typewriting machine, the combination of two line spacing pawl devices, and setting means mounted on said devices for varying their normal relationship to each other, said setting means moving on and with said pawl devices during line spacing actuations.

[Claims 6 to 33 not printed in the Gazette.]

1,142,006. FURNITURE CONSTRUCTION. JOEL D. BARBER, New York, N. Y. Filed Jan. 23, 1914. Serial No. 813,846. (Cl. 155—3.)



1. An article of furniture having its supports composed of a plurality of members associated to form skeleton structures of pyramidical form each having its vertex substantially at the base or foot of the support.

2. An article of furniture having a plurality of supports said supports comprising a plurality of members associated to form skeleton supporting structures of pyramidical form each with vertices both at the top and bottom of the structure.

3. An article of furniture having a plurality of supports each comprising a plurality of members associated to form skeleton supporting structures of pyramidical form, said pyramidical supports being in intersecting arrangement whereby they interact to brace each other.

4. An article of furniture having legs arranged each to comprise a plurality of members associated to form skeleton pyramidical supports, said members being in intersecting arrangement whereby they interact to brace each other against deflective movement.

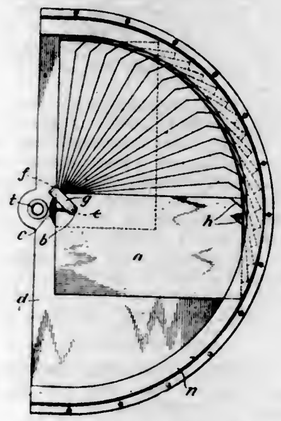
5. An article of furniture having supports composed of a plurality of members associated to form a series of upright and reversed skeleton tetrahedrons in intersecting arrangement whereby they interact to brace each other.

[Claims 6 to 11 not printed in the Gazette.]

1,142,007. CARD SYSTEM. ADOLPH H. BAUER, New York, N. Y. Filed July 5, 1913. Serial No. 777,445. (Cl. 129—16.)

1. In a device of the character described, a number of cards placed one upon the other, a support for the cards, means secured to the support for pivotally engaging the cards, and stops extending one from each card to provide an abutment for the adjacent card when in normal position to provide a continually visible portion on each card and adapting the said adjacent card to be swung about the said means away from its stop thereby exposing the card to view containing the stop from which the adjacent card is moved.

2. In a device of the character described, a number of cards placed one upon the other, a support for the cards, means secured to the support for pivotally engaging the cards, and stops extending one from each card to provide an abutment for the adjacent card when in normal position to provide a continually visible portion on each card and adapting the said adjacent card to be swung about the said means away from its stop thereby exposing the card to view containing the stop from which the adjacent card is moved, and a circular guide for engaging free ends of the cards to hold them upon the support.



3. In a device of the character described, a number of cards placed one upon the other and provided with open slots, a support for the cards, a post extending from the support for engaging the cards through the open slots in pivotal engagement, and stops one on each card affording an abutment for the adjacent card to provide a continually visible portion on each card and adapting the said adjacent card to be swung about the said post away from its stop to thereby expose the card to view containing the stop from which the adjacent card is moved.

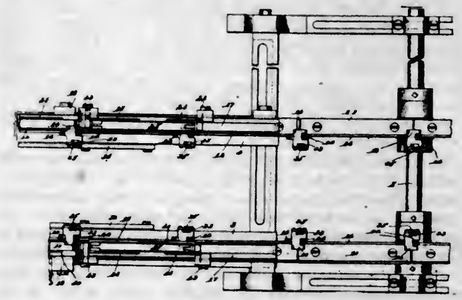
4. In a device of the character described, a number of cards placed one upon the other, a support for the cards, means secured to the support for pivotally engaging the cards, stops extending one from each card to provide an abutment for the adjacent card when in normal position to provide a continually visible portion on each card and adapting the said adjacent card to be swung about the said means away from its stop thereby exposing the card to view containing the stop from which the adjacent card is moved, and a circular guide for engaging free ends of the cards to hold them upon the support.

5. In a device of the character described, a number of cards placed one upon the other, a support for the cards, means secured to the support for pivotally engaging the cards, a circular guide secured to the support in spaced relation therewith for holding the cards within said space, said guide adapted to guide the outer corner of each card in its movement about the pivot, and stops one on each card extending above said space to provide an abutment for the adjacent card when in normal position to provide a continually visible portion on each card and adapting the said adjacent card to be swung about the said means away from its stop thereby exposing the card to view containing the stop from which the adjacent card is moved.

[Claim 6 not printed in the Gazette.]

1,142,008. BOX-MACHINE. SERAPHINE F. BAUWENS, Chicago, Ill. Filed Apr. 8, 1912. Serial No. 689,196. (Cl. 1—14.)

1. In a box machine, the combination of a frame having cleat guiding and supporting channels in the sides thereof; a conveyer; feed members on said conveyer arranged to project into said channels to push cleats therethrough, said cleats being supported directly and entirely by said channels, means for adjusting said feed members longitudinally of said conveyer; and means for applying box sides to said cleats, substantially as described.



2. In a box machine, the combination of a frame having cleat guiding and supporting channels in the sides thereof; a conveyer; feed members on said conveyer arranged to project into said channels to push cleats therethrough, said cleats being supported directly and entirely by said channels, said feed members being arranged in a plurality of pairs of transversely alining members; means for adjusting said feed members longitudinally of said conveyer; and means for applying box sides to said cleats, substantially as described.

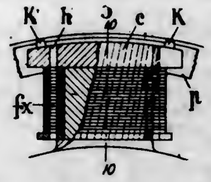
3. In a box machine, the combination of a frame having cleat guiding and supporting channels in the sides thereof; a conveyer; feed members on said conveyer arranged to project into said channels from one side to push cleats therethrough, said cleats being supported directly and entirely by said channels; means for adjusting said feed members longitudinally of said conveyers; and means for applying box sides to said cleats, substantially as described.

4. In a box machine, the combination of a frame having cleat guiding and supporting channels in the sides thereof; a conveyer; feed members on said conveyer arranged to project into said channels from one side to push cleats therethrough, said cleats being supported directly and entirely by said channels, said feed members being arranged in a plurality of pairs of transversely alining members; means for adjusting said feed members longitudinally of said conveyer; and means for applying box sides to said cleats, substantially as described.

5. In a box machine, the combination of a frame having cleat guiding and supporting channels in the sides thereof; a magazine positioned over each of said channels and arranged to support a stack of cleats with the bottom-most cleat resting in said channel; traveling feed means arranged to travel through said channels, engage each of said bottom-most cleats and push them through said channels, said cleats being supported directly and entirely by said channels; and means for applying box sides to said cleats, substantially as described.

[Claims 6 to 24 not printed in the Gazette.]

1,142,009. RADIAL-POLE DYNAMO-ELECTRIC MACHINE. OTTO TITUS BLÁTHY, Budapest, Austria-Hungary. Filed Jan. 31, 1912. Serial No. 674,581. (Cl. 171—252.)



1. In an electric device a field coil of edgewise wound conducting tape, each convolution of the coil being provided with cutaway portions registering with the cutaway portions of the succeeding convolutions and forming ventilating channels.

2. In a dynamo electric machine, a field coil of metallic tape wound edgewise, each convolution of the coil being provided with perforations, the perforations of each convolution registering with the perforations of the succeeding convolutions and forming substantially longitudinal ventilating channels.

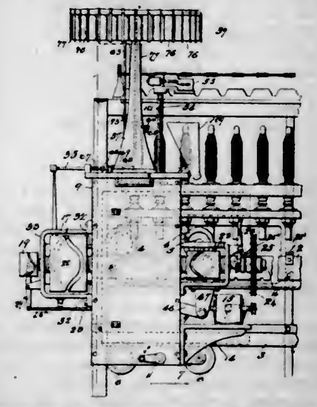
3. In a dynamo electric machine, a field of metallic conducting tape wound edgewise, the metal of each individual convolution of the coil being pierced between its edges, remote from its edges, with perforations, the perforations of each convolution registering with the perforations of the succeeding convolutions and coöperating to form substantially longitudinal ventilating passages entirely bounded laterally by the metal of the convolutions.

4. In a dynamo electric machine, the combination of a magnet core; a field coil of metallic tape wound edgewise around said core, the convolutions of the coil being provided with perforations coöperating to form longitudinal ventilating channels; and a pole shoe on the outer end of the core and adapted to permit the free escape of air from the ventilating channels.

5. In a dynamo electric machine, the combination of a magnet core; a field coil of metallic tape wound edgewise around said core, the convolutions of the coil being provided with perforations coöperating to form longitudinal ventilating channels; and a pole shoe on the outer end of said core for securing the field coil in place, and provided with channels forming continuations of said ventilating channels and passing through the pole face.

[Claims 6 to 15 not printed in the Gazette.]

1,142,010. BOBBIN-PLACING AND BOBBIN-REMOVING ATTACHMENT FOR SPINNING-MACHINES. ARTHUR G. BOOZER, Jr., and GEORGE HILL, Tucapau, S. C., assignors to Howard D. Colman, Luther L. Miller, and Harry A. Severson, Copartners doing business at Rockford, Ill., as Barber-Colman Company. Filed Nov. 8, 1907. Serial No. 401,308. (Cl. 118—13.)



1. In combination with a spinning machine having supports for bobbin doffing and bobbin placing mechanisms, of a carriage movable upon the supports and provided with bobbin doffing and bobbin placing mechanisms, means for imparting a step by step movement to the carriage and means for holding the carriage between each impulse against movement upon its support.

2. In combination with a spinning machine, a traveling bobbin removing and bobbin replacing mechanism, means for effecting an intermittent travel thereof along the front of the spinning machine, and means for holding such mechanism in fixed relation to the spindles of the spinning machine while removing and placing bobbins on the spindles.

3. In combination with a spinning machine, an intermittently traveling carriage having bobbin placing and

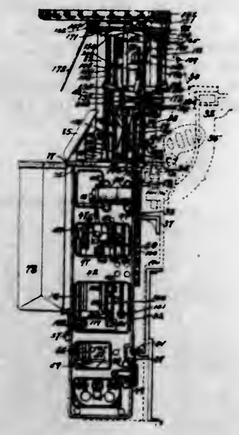
bobbin doffing means organized so that during the periodic stoppages of the carriage movement will be imparted to the bobbin engaging means; such movement being in line with the longitudinal axes of the spindles.

4. In bobbin placing and doffing mechanism for spinning machines, a carriage supported and actuated to have a step by step movement parallel with and equal to the distance between adjacent spindles, means for locking the carriage to the spinning machine during each periodic stoppage of the carriage, bobbin placing and bobbin doffing instrumentalities supported by the carriage and organized to be moved during the travel of the carriage into position for subsequent engagement with the bobbins, the bobbin placing and bobbin doffing instrumentalities being operatively connected with means for imparting to such instrumentalities during each periodic stoppage of the carriage movement in line with the longitudinal axes of the spindles.

5. In combination with a spinning machine, a bobbin removing and bobbin placing attachment, means for connecting the attachment to the spinning machine so that it may be moved in line with the spindles, and means for holding the attachment in fixed engagement with the spinning machine while placing and while removing bobbins from the spindles.

[Claims 6 to 140 not printed in the Gazette.]

1,142,011. DOFFING-MACHINE FOR SPINNING-FRAMES. ARTHUR GEO. BOOZER, Jr., and GEORGE HILL, Tucapau, S. C., assignors to Howard D. Colman, Luther L. Miller, and Harry A. Severson, Copartners doing business at Rockford, Ill., as Barber-Colman Company. Filed Mar. 16, 1909. Serial No. 483,821. (Cl. 118—13.)



1. The combination with a spinning machine having attached thereto a doffer-supporting rail and a guide rail, of a doffer frame having rail-engaging means attached thereto, and means for changing the position of a portion of said rail-engaging means with respect to the doffer frame to place another portion of said rail-engaging means in and out of engagement with the guide rail.

2. The combination with a spinning machine having attached thereto a longitudinal doffer supporting rail, a rack-bar and a guide rail, of a doffer frame having rail engaging means and an intermittently actuated gear for engagement with the rack-bar to move the doffer frame along the spinning frame and means on the doffer frame for lowering the same to place the gear out of engagement with the rack-bar.

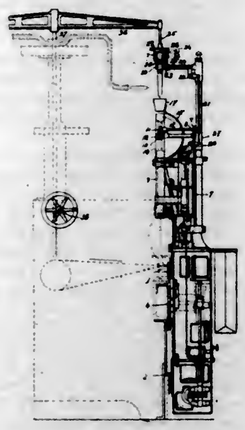
3. The combination with a spinning frame having attached thereto supporting and guide rails for a doffer frame, of a doffer frame having supporting and guide wheels for engagement with the rails, and means for simultaneously changing the position of the supporting wheels with respect to the doffer frame to change the vertical relation of the doffer frame to the supporting rails.

4. The combination with a spinning frame having attached thereto a supporting rail, a guide rail, one of the rails having recesses formed therein, of a doffer frame having bobbin removing and bobbin placing means, a vertically disposed gear on the doffer frame which engages with the rail having recesses formed therein, and means for intermittently rotating the gear to effect a step by step movement of the doffer mechanism along the front of the spinning frame.

5. The combination with a spinning frame having guide rails and a rack-bar, of doffing mechanism comprising a bobbin removing and a bobbin placing means, a vertically disposed and intermittently rotated gear mounted to engage the rack-bar for effecting a step by step movement of the bobbin removing and bobbin placing mechanism in front of the spinning frame the movement being the same as the distance between the spindles, and a motor on the doffer frame for actuating the gear and the bobbin removing and bobbin placing mechanism.

[Claims 6 to 88 not printed in the Gazette.]

1,142,012. DOFFING-MACHINE FOR SPINNING-FRAMES. ARTHUR GEO. BOOZER, Jr., and GEORGE HILL, Tucapau, S. C., assignors to Howard D. Colman, Luther L. Miller, and Harry A. Severson, Copartners doing business at Rockford, Ill., as Barber-Colman Company. Filed Mar. 22, 1909. Serial No. 485,001. (Cl. 118—13.)



1. In doffing mechanism for spinning frames, means secured to the spinning frame for carrying a plurality of bobbins, a bobbin placing mechanism which is movable along the front of the spinning frame, and means carried by the bobbin placing mechanism for releasing bobbins from the carrier.

2. In bobbin placing mechanism for spinning frames, a spinning frame having secured thereto a longitudinal bobbin carrier which is adapted to carry a number of bobbins sufficient to supply the spindles on one side of the spinning frame, a bobbin placing mechanism which is movable along the spinning frame, and means upon the bobbin placing mechanism for moving the bobbins supported by said carrier along the carrier.

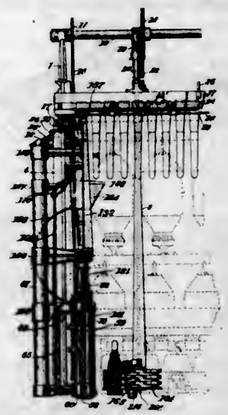
3. In doffing mechanism for spinning frames, the combination with a spinning frame having attached thereto a longitudinally maintained bobbin carrier, of a carriage which is movable along the spinning frame and mechanisms associated with said carriage for releasing an empty bobbin from the carrier and placing such empty bobbin upon a spindle of the spinning frame.

4. In doffing mechanism the combination with a spinning frame having maintained thereby a longitudinal bobbin carrier said carrier having retractile side located members for retaining bobbins in the carrier, of means on the doffing mechanism for actuating said retractile members to release a bobbin from the carrier.

5. In doffing mechanism for spinning frames, a horizontal bobbin carrier provided with retractile side members which constitute a part of the carrier, a follower on the doffer frame for moving bobbins along the carrier, and means for successive engagement with the side members to release a bobbin.

[Claims 6 to 45 not printed in the Gazette.]

1,142,013. DOFFING-MACHINE FOR SPINNING-FRAMES. ARTHUR GEO. BOOZER, Jr., and GEORGE HILL, Tucapau, S. C., assignors to Howard D. Colman, Luther L. Miller, and Harry A. Severson, Copartners doing business at Rockford, Ill., as Barber-Colman Company. Filed Apr. 15, 1911. Serial No. 621,317. (Cl. 118—13.)



1. In a bobbin removing mechanism for spinning frames, a vertically reciprocable and horizontally revoluble doffer head provided with bobbin engaging means located at each side of its center and means for actuating said head.

2. In a bobbin removing mechanism for spinning frames, a doffer head having bobbin engaging means at each end adapted to doff a full bobbin and means for alternately opening and closing the bobbin engaging means.

3. In doffing mechanism for spinning frames, a plurality of superimposed bobbin engaging means duplicated on opposite sides of a support, means for simultaneously moving the bobbin engaging means to release a bobbin maintained thereby and independently acting means for closing the opposite bobbin engaging means.

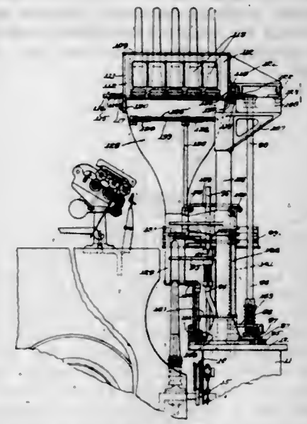
4. A doffer head for removing filled bobbins from spinning frames comprising duplex bobbin engaging means mounted to have a horizontal rotary motion and a vertically reciprocatory motion and means for simultaneously opening one set of bobbin engaging means and closing the other set of bobbin engaging means.

5. A doffer head having a reciprocatory member for separating bobbin engaging means and means for closing other bobbin engaging means which constitute a part of the doffer head.

[Claims 6 to 45 not printed in the Gazette.]

1,142,014. DOFFING-MACHINE. ARTHUR GEORGE BOOZER, Jr., Greenville, and GEORGE HILL, Tucapau, S. C., assignors to Howard D. Colman, Luther L. Miller, and Harry A. Severson, Copartners doing business at Rockford, Ill., as Barber-Colman Company. Filed Sept. 13, 1912. Serial No. 720,186. (Cl. 118—13.)

1. The combination of a spinning machine having a driving cable mounted thereon, said cable extending longitudinally along one side of the spinning machine and a doffer arranged to travel along said side of the spinning machine and having means adapted to be driven by said cable.



2. The combination of a spinning machine having a driving cable mounted thereon, and a doffer having a sheave adapted to be driven by said cable and means for moving the cable into engagement with said sheave.

3. A doffing machine having a driving sheave, a cable for driving said sheave, and means on the doffer for moving the cable into engagement with said sheave.

4. In combination, a spinning machine having a driving cable mounted thereon, a doffer having a driving sheave adapted to engage said cable, a pair of pivoted arms on the doffer, sheaves carried by said arms and adapted to engage said cable, and means for swinging said arms to move the cable into engagement with said driving sheave.

5. In combination, a spinning machine having a doffer supporting rail and a driving cable mounted thereon, and a doffer having rollers to run on said rail, vertically adjustable bearings for said rollers, a driving sheave adapted to be engaged by said cable, means for moving said cable into engagement with said sheave, and an operative connection between said means and said vertically adjustable bearings.

[Claims 6 to 35 not printed in the Gazette.]

1,142,015. DOFFING-MACHINE. ARTHUR GEORGE BOOZER, Jr., Greenville, and GEORGE HILL, Tucapau, S. C., assignors to Howard D. Colman, Luther L. Miller, and Harry A. Severson, Copartners doing business at Rockford, Ill., as Barber-Colman Company. Filed Sept. 13, 1912. Serial No. 720,187. (Cl. 118—13.)

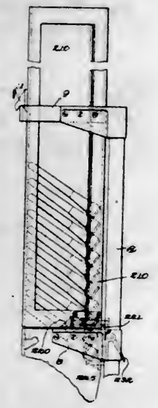
1. A doffing machine comprising two relatively movable carriages arranged to be individually supported upon a guide rail independently of each other, and doffing means carried by one of said carriages.

2. A doffing machine comprising two carriages arranged to be individually supported upon a guide rail for relative movement, means for giving one carriage a continuous traveling movement and the other carriage an intermittent movement; and doffing means carried by the intermittently moving carriage.

3. A doffing machine comprising two carriages arranged to be individually supported upon a guide rail for relative movement, one of the carriages being adapted to support the other when the machine is not in association with said guide rail; means for giving one carriage a continuous traveling movement and the other carriage an intermittent movement; and doffing means carried by the intermittently moving carriage.

4. A doffing machine comprising a main carriage; a secondary carriage adapted to be supported on a spinning

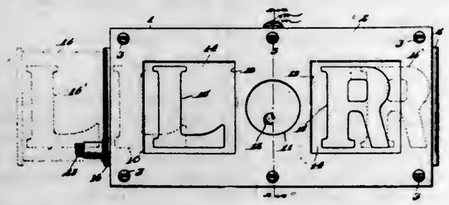
frame independently of said main carriage; doffing means carried by said secondary carriage; mechanism mounted upon the main carriage for giving a continuous movement to the main carriage and an intermittent movement to the secondary carriage; mechanism mounted on the secondary carriage for actuating said doffing means; and an operative connection between the two last mentioned mechanisms.



5. A doffing machine comprising a main carriage; a secondary carriage adapted to be supported on a spinning frame independently of said main carriage; a reciprocatory doffer head mounted on the secondary carriage; means on the secondary carriage for rotating said doffer head; mechanism on the main carriage adapted to give a continuous movement to the main carriage and an intermittent movement to the secondary carriage and adapted to reciprocate said doffer head; and a shaft driven from said mechanism and having a slidable and non-rotatable connection with said doffer-head-rotating means.

[Claims 6 to 31 not printed in the Gazette.]

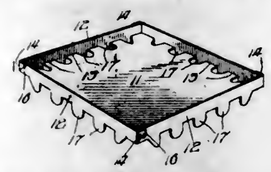
1,142,016. VEHICLE-SIGNAL. RAYMOND E. BOYLE, Chicago, Ill. Filed Mar. 16, 1914. Serial No. 825,041. (Cl. 40—65.)



1. A device of the class described comprising a housing having illuminating means arranged therein, the front side of said housing being provided with openings; transparent plates arranged in said openings; opaque members movably mounted in said housing behind said plates; means for normally holding said members in registration with said plates, said members, when moved from registration with said plates, being visible from without; and means for separably moving said members, said means comprising a member movably mounted in said housing adapted, when moved in one direction, to move one of said opaque members and, when moved in the other direction, to move the other of said opaque members, substantially as described.

2. A device of the class described comprising a housing having illuminating means arranged therein, the front side of said housing being provided with openings through which the light from said illuminating means is adapted to pass; opaque members movably mounted in said housing for movement into and out of registration with said openings, said members, when in registration with said openings, preventing the passage of light from said illuminating means therethrough and, when moved from registration with said openings, being visible from without; means for yieldingly holding said opaque members normally in registration with said openings; a reciprocatory member mounted in said housing adapted, when moved in one direction, to actuate one of said opaque members, and, when moved in the other direction, to actuate the other of said opaque members; and a shiftably mounted elongated flexible element connected with said reciprocatory member for reciprocating the same, substantially as described.

1,142,017. SEPARATOR. HOWARD J. BROWN, Marseilles, Ill., assignor to Howe and Davidson Company, East Orange, N. J., a Corporation of New Jersey. Filed May 11, 1914. Serial No. 837,678. (Cl. 229—42.)



1. A separator made of sheet material and adapted for use in a container for crackers and like articles, said separator comprising a flat body member having on the opposite margins thereof flange portions, projecting above and below said body member; the flange portions on each margin being in the same plane and made rigid with each other and adapted to engage articles above and below said body member.

2. A separator made of sheet material and adapted for use in a container for crackers and like articles, said separator comprising a flat body member having on its opposite margins integral flange portions, projecting above and below said body member; the flange portions on each margin being in the same plane and made rigid with each other and adapted to engage articles above and below said body member.

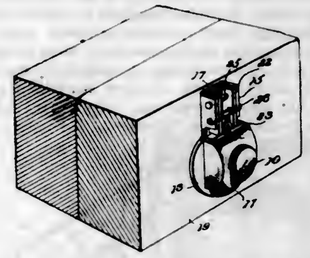
3. In combination with a container for crackers and like articles, a separator made of sheet material and adapted to be placed in said container, said separator comprising a flat body member having on its opposite margins flange portions, projecting above and below said body member; the flange portions on each margin being made rigid with each other, arranged parallel to the inner surface of the adjacent side wall of the container, and adapted to engage articles above and below said body member.

4. In combination with a container for crackers and like articles, a separator made of sheet material and adapted to be placed in said container, said separator comprising a flat body member provided on at least one of its margins with a flange portion, projecting to one side of said body member, and a plurality of laterally spaced tongues projecting to the other side of said body member and being made rigid with and in the same plane with said flange portion; the flange and tongues on one margin of said body member having flatwise bearing against the inner surface of the adjacent side wall of said container and adapted to engage articles above and below said body member.

5. A separator made of sheet material and adapted for use in a container for crackers and like articles, said separator comprising a flat, rectangular body member having on each margin thereof a flange portion, projecting to one side of said body member, and a plurality of tongues projecting to the other side of said body member; the flange portion and tongues on each margin being integral, in the same plane and rigid with each other, and adapted to engage articles above and below said body member.

[Claims 6 to 10 not printed in the Gazette.]

1,142,018. COMBINATION NUT-LOCK AND WASHER. WILLIAM C. BUCK, Lethbridge, Alberta, Canada. Filed Feb. 17, 1914, Serial No. 819,274. Renewed Apr. 28, 1915. Serial No. 24,574. (Cl. 151—59.)



1. A nut lock including a plate having an opening for the passage of a bolt, means for preventing the independent rotary movement of the plate when in operative position, upstanding flanges formed on the plate, a pawl pivotally connected to the plate, said pawl being formed with longitudinally extending flanges and a transversely extending head bearing against one end face of each flange, said head being adapted to engage a nut, the flanges formed on the pawl being adapted to be received between and frictionally engage against the side faces of the flanges formed on the plate, and means for locking the pawl in operative position.

2. A nut lock including a plate having an opening for the passage of a bolt, means for preventing the independent rotary movement of the plate when in operative position, said plate being formed with flanges, a pawl pivotally connected to the plate and having flanges formed thereon, an upstanding head formed on the pawl and adapted to engage a nut, the flanges of the plate and the flanges of the pawl having apertures formed therein, and means disposed within said apertures for locking the pawl in operative position.

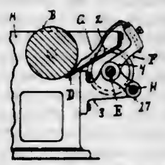
3. A nut lock including a plate having an opening for the passage of a bolt, means for preventing the independent rotary movement of the plate when in operative position, a pawl pivotally connected to the plate, said pawl being formed from a suitable metallic blank having transversely extending incisions formed therein, the sides of the blank being bent upwardly to provide flanges and one extremity of the blank being bent upwardly in alinement with said incisions to form a head disposed to contact with the adjacent extremities of said flanges, said head being adapted to engage a nut, and means for locking the pawl in operative position.

4. A nut lock including a plate having an opening for the passage of a bolt, means for preventing the independent rotary movement of the plate when in operative position, a pawl mounted upon the plate and provided with an upstanding head adapted to engage a nut, and means formed on said pawl and engaging said head, said means forming an abutment for the head.

5. A nut lock including a plate having an opening for the passage of a bolt, means for preventing the independent rotary movement of the plate when in operative position, a pawl mounted upon said plate and having an upstanding head formed thereon adapted to engage a nut, and a flange formed on the pawl and engaging said head, said flange forming an abutment for the head.

1,142,019. INK-MIXING MECHANISM FOR PRINTING-PRESSES. CHARLES H. BUETTNER, Cincinnati, Ohio. Filed June 29, 1914. Serial No. 848,035. (Cl. 101—74.)

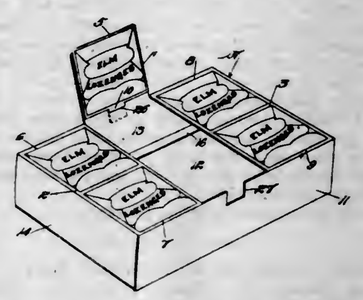
1. In an ink distributing mechanism, an ink distributing member in combination with feeding mechanism comprising a traveling carriage on which said ink distributing member is adjustably mounted with the free end of said ink distributing member as the center of adjustment, the ink fountain to feed said carriage backward and forward, mechanism to drive said feed shaft alternately in opposite directions, a shifting rod to reverse the direction of rotation of said feed shaft, and means carried by said carriage to actuate said shifting rod when said ink distributing member has reached the limits of its path of travel.



2. In an ink distributing mechanism, an ink distributing member in combination with feeding mechanism comprising a carriage on which said ink distributing member is mounted to travel to and fro across the printing press, a threaded feed shaft to feed said carriage in either direction, clutch members loose on said feed shaft and positively driven in opposite directions, a sliding clutch member non-rotatably carried by said feed shaft, a shifting rod provided with adjustable resilient stop members to be engaged by said carriage, said carriage to shift said sliding clutch member alternately into engagement with the respective loosely mounted clutch members to reverse the direction of feed of said carriage.

3. In an ink distributing mechanism, an ink distributing member in combination with feeding mechanism comprising a carriage on which said ink distributing member is mounted to travel to and fro across the printing press, a threaded feed shaft to feed said carriage in either direction, clutch members loose on said feed shaft and positively driven in opposite directions, a sliding clutch member non-rotatably carried by said feed shaft, a shifting rod movable endwise and engaging said sliding clutch member, and adjustable spring cushioned collars on said shafting rod to be engaged by said carriage to shift said sliding clutch member alternately into engagement with the respective loosely mounted clutch members to reverse the direction of feed of said carriage.

1,142,020. DISPLAY-CONTAINER. JOHN F. CARVER, Roslindale, Mass. Filed June 30, 1914. Serial No. 848,143. (Cl. 211—28.)



1. A display container for boxes of merchandise, said container having a top cover, a portion of said top cover comprising a portion movable with relation to the remaining top portion, said top portions being marked to represent a plurality of panels each of which is of a size and shape like the top face of one of the smaller boxes which the container is intended to hold.

2. A display container for boxes of merchandise, said container having a hinged cover portion for a portion only of the top surface of the container and an independent cover portion for the remaining surface of the top of the container, all of said top portions being pan-

eled off to form panels each of which is printed like the top surface of the boxes which the container is intended to hold.

3. A display container for boxes of merchandise, said container having a hinged cover for a portion of the top and an independent cover portion for the remaining surface of the top of the container, all of said top portions being paneled off to form panels each of which is printed like the top surface of the boxes which the container is intended to hold, the said hinged cover portion being of a size and shape equal to a multiple of the top face of the smaller boxes within the container and said hinged cover and other cover portions having the panels marked in replica of the markings on the top of the boxes within the container.

4. A display container for boxes of merchandise, formed of a single sheet of material blanked out, said blank having a body portion which forms the top of the container when set up, two side and two end flap portions which form the sides and ends of the container, one of said side flap portions having an extension which forms the bottom of the container, tuck flaps connecting the said side and end forming flaps, said top forming portion being printed on its upper face in panel arrangement, each panel being printed like the top face of each of the boxes which the container is intended to hold, the said top being slit to form a portion thereof into a hinge cover comprising one or more of said printed panel portions complete, said hinge cover having also a tongue integral therewith which is slit out of the front side portion of the container, said cover portion extending from the front to the rear edge of the top and folded transversely of its middle, the rear edge of said cover portion being creased to form the hinge and having a slit therein to receive the said tongue when said hinged cover is folded upon itself.

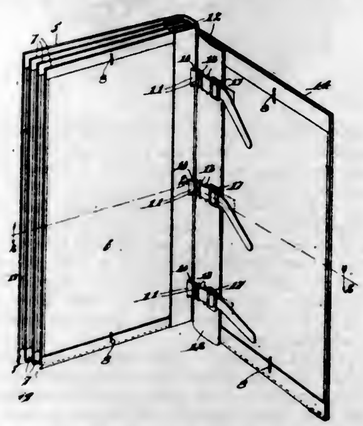
5. A display container for boxes of merchandise, formed of a single sheet of material blanked out, said blank having a body portion which forms the top of the container when set up, two side and two end flap portions which form the sides and ends of the container, one of said side flap portions having an extension which forms the bottom of the container, tuck flaps connecting the said side and end forming flaps, said top forming portion being printed on its upper face in panel arrangement with a plurality of panels, each panel being printed like the top face of each of the boxes which the container is intended to hold, the said top being slit to form a portion thereof into a hinge cover comprising some of said printed panel portions, said hinged cover having also a tongue integral therewith which is slit out of the front side portion of the container, said cover portion extending from the front to the rear edge of the top and folded transversely of its middle, the rear edge of said cover portion being creased to form the hinge and having a slit therein to receive the said tongue when said hinged cover is folded upon itself, the panel portions of said hinge cover being printed in such manner that when the cover is opened and folded the printed matter both on the front and the rear panel will read from the top down.

[Claim 6 not printed in the Gazette.]

1,142,021. LOOSE-LEAF BINDER. THOMAS CHAMBERS, Chicago, Ill. Filed Aug. 31, 1914. Serial No. 859,489. (Cl. 229—42.)

1. A loose leaf binder comprising a cover member; flexible element at one edge thereof; leaves provided with means coöperating with said flexible elements to effect a hinge joint; a flexible flap on said edge of said cover member provided with rows of openings corresponding to said flexible elements; a second cover member having openings adjacent one edge, said flexible elements being passed through openings in said flap, through the openings in said second cover member and back through the same openings in said flap; and means for securing the free ends of said elements, substantially as described.

2. A loose leaf binder comprising a cover member; flexible elements at one edge thereof; leaves having reinforcing rods extending along one edge thereof and slots adjacent said rods to receive said elements; a flexible flap secured to said edge of said cover member and provided with rows of slots adapted to receive said elements; a second cover member provided with a reinforcing rod along one edge thereof and slots adjacent said rods to receive said elements; and buckles on the inner side of said second cover member positioned somewhat back from the edge thereof and adapted to engage said elements, substantially as described.



3. A loose leaf binder comprising a cover member; flexible straps at one edge thereof; leaves having reinforcing rods extending along one edge thereof and slots adjacent said rods to receive said straps; a flexible flap secured to said edge of said cover member and provided with rows of slots adapted to receive said straps; a second cover member provided with a reinforcing rod along one edge thereof and slots adjacent said rod to receive said straps; and buckles on the inner side of said second cover member positioned somewhat back from the edge thereof and adapted to engage said straps, substantially as described.

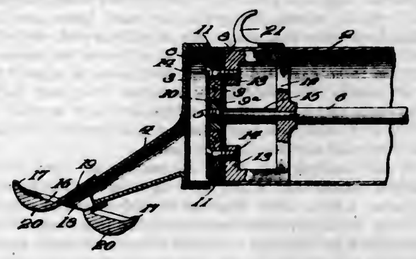
4. A loose leaf binder comprising a cover member; flexible straps at one edge thereof; leaves having reinforcing rods extending along one edge thereof and slots adjacent said rods to receive said straps; a flexible flap secured to said edge of said cover member and provided with rows of slots adapted to receive said straps; a second cover member provided with a reinforcing rod along one edge thereof and slots adjacent said rod to receive said straps, said straps being passed through slots in said flap, through the slots in said second cover member and back through the same slots in said flap; and buckles on the inner side of said second cover member positioned somewhat back from the edge thereof and adapted to engage said straps, substantially as described.

1,142,022. DEVICE FOR POINTING BRICK WALLS. RICHARD H. CHAPPELL, Rolla, Mo. Filed Oct. 27, 1913. Serial No. 797,681. (Cl. 72—138.)

1. A pointing device of the character described including a trowel plate having a discharge aperture, aliining members disposed on the under side of the trowel plate forward and rearward of said aperture, said members being tapered toward the adjacent ends of the trowel plate and adapted to engage in the seam between two courses of brick, a mortar receptacle communicating with the aperture in the trowel plate, and means for discharging mortar from said receptacle.

2. A pointing device of the character described including a trowel plate having a discharge aperture less in width than the trowel plate, aliining members disposed on the under side of the trowel plate forward and rearward of said aperture, said members being rounded in cross section and tapered toward their opposite ends.

3. In a pointing device of the character described, a trowel plate having a perforation through which mortar may be discharged, a medially placed guide on the outer face of said trowel plate in a line with said perforation, said trowel plate extending upward and outward on each side of a median line.



4. A pointing device of the character described, including a trowel plate having a discharge aperture, a guide member disposed on the under face of the trowel plate in line with said aperture and adapted to engage in the seams between two courses of brick, said trowel plate being slightly angular in cross section to provide portions extending upward and outward on each side of a median line, a mortar receptacle communicating with the aperture in the trowel plate, and means for causing the discharge of mortar from said receptacle.

5. In a pointing device of the character described, a trowel plate having a perforation for the discharge of mortar, and a pressing member arranged upon the outer face of said plate, said plate being provided with angularly disposed faces diverging from said pressing member upon opposite sides thereof.

[Claims 6 and 7 not printed in the Gazette.]

1,142,023. SUCTION APPARATUS FOR DENTAL CASTING APPARATUS. EDWARD L. CHOTT, Chicago, Ill., assignor of one-half to Hugo J. Chott, Chicago, Ill. Filed Nov. 15, 1912. Serial No. 731,508. (Cl. 230—27.)



1. In a casting apparatus the combination of a cylinder having a longitudinal slot in one side, said slot being provided with a plurality of locking notches; a reciprocatory piston in said cylinder; a spring connected with said piston and adapted to cause an operative stroke thereof to tend to produce a vacuum in one end of said cylinder and a handle connected with said piston and projecting through said slot, said handle being adapted to engage said notches to lock said piston in different positions and thus for different lengths of operative strokes, substantially as described.

2. In a casting apparatus the combination of a cylinder having a longitudinal slot in one side, said slot being provided with a plurality of locking notches; a reciprocatory and rotatable piston in said cylinder; a spring connected with said piston and adapted to cause an operative stroke thereof to tend to produce a vacuum in one end of said cylinder; and a handle connected with said piston and projecting through said slot, said handle being adapted to engage said notches to lock said piston in different positions and thus for different lengths of operative strokes, substantially as described.

3. In a casting apparatus the combination of a cylinder having a longitudinal slot in one side, said slot being provided with a plurality of locking notches; a reciprocatory and rotatable piston in said cylinder; a tubular piston rod connected with said piston; a spring arranged in said piston rod, one end of said spring being connected with said piston and the other end being connected with said cylinder, and arranged to cause an operative stroke of said piston to tend to produce a vacuum in one end of said cylinder; and a handle connected with said piston and projecting through said slot, said handle being adapted to engage said notches to lock said piston in different positions and thus for different lengths of operative strokes, substantially as described.

4. A pump comprising a cylinder having a longitudinal slot in one side, said slot being provided with a plurality of locking notches; a reciprocatory piston in said cylinder; a spring connected with said piston and adapted to cause an operative stroke thereof to tend to produce a vacuum in one end of said cylinder; and a handle connected with said piston and projecting from said slot, said handle being adapted to engage said notches to lock said piston in different positions and thus for different lengths of operative strokes, substantially as described.

5. A pump comprising a cylinder having a longitudinal slot in one side, said slot being provided with a plurality of locking notches; a reciprocatory and rotatable piston in said cylinder; a spring connected with said piston and adapted to cause an operative stroke thereof to tend to produce a vacuum in one end of said cylinder; and a handle connected with said piston and projecting through said slot, said handle being adapted to engage said notches to lock said piston in different positions and thus for different lengths of operative strokes, substantially as described.

[Claim 6 not printed in the Gazette.]

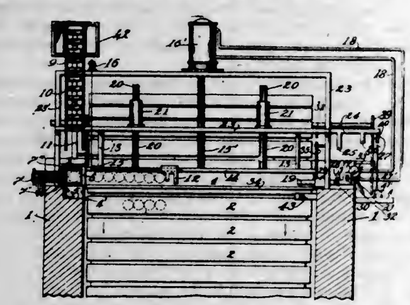
1,142,024. DENTAL TOOL. EDWARD L. CHOTT, Chicago, Ill., assignor of one-half to Hugo J. Chott, Chicago, Ill. Filed Oct. 13, 1913. Serial No. 794,891. (Cl. 81—18.)



A tool comprising a head having parallel ears projecting from one end thereof and an internally threaded sleeve projecting from the opposite end thereof; a hollow handle fitted over said sleeve; a pair of clamping jaws pivoted between said ears; a ferrule secured to said head and encompassing the corresponding end of said handle

above said sleeve; and a rod threaded in said sleeve, extending through said handle and provided with a conical point engaging between the inner ends of said jaws, substantially as described.

1,142,025. AUTOMATIC CONVEYER AND DISTRIBUTER. HARRY C. CHRISTOE, Alton, Ill. Filed Aug. 1, 1911. Serial No. 641,713. (Cl. 49—47.)



1. In combination with an annealing oven, a frame secured in front of the oven, a shelf disposed in front of said oven and arranged to receive articles to be annealed, a reciprocatable frame arranged to actuate on said shelf and to push the articles therefrom into said oven, a hinged member disposed on said shelf and arranged to be actuated when said frame is moved over said shelf so that the articles on the latter will be guided to said oven, a forked guide disposed on said frame and arranged to slide thereon and means for keeping said guide toward the entrance end of the shelf on which the articles are assembled, said means permitting the guide to move toward the other end of said shelf as additional articles are placed thereon, a push rod arranged to engage with the articles when they fill said shelf, a cylinder for actuating said frame, a pipe system for permitting the fluid pressure to enter said cylinder for actuating it, a valve for controlling said pressure, said valve having an arm thereon arranged to be actuated by said push rod, an arm attached to said frame and arranged to actuate said push rod in reverse direction after the articles on said shelf have been pushed into said oven, said arm having another projection thereon for actuating said valve so that the cylinder will cause the frame to return to its normal position, and means for placing articles on said shelf.

2. In combination with an annealing oven having shelves rotatable on a plurality of drums actuated by a motor, a frame disposed in front of said oven, a shelf disposed transversely in front of said oven, a hinged member secured to the inner edge portion of said shelf and arranged to be readily moved, a forked guide movable on said frame, a rack arranged to receive the articles for said oven and arranged to guide them so that they will enter on said shelf and means for pushing said articles on said shelf against said forked guide, a push rod disposed adjacent one end of said shelf and arranged to be actuated by said articles when they are pushed adjacent thereto, and means actuated by said push rod so that the articles on said shelf will be pushed onto the shelves of said oven.

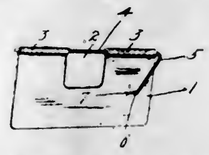
3. In combination with an annealing oven having shelves rotatable on a plurality of drums actuated by a motor, a frame disposed in front of said oven, a shelf disposed over said oven shelves, a hinged member secured to the inner edge portion of said shelf and arranged to be readily moved, a forked guide movable on said frame, a rack arranged to receive the articles for said oven and adapted to guide them so that they will enter on said shelf, and means for pushing said articles on said shelf against said forked guide, a push rod disposed adjacent one end of said shelf and arranged to be actuated by said articles when pushed adjacent thereto, and means actuated by said push rod so that the articles on said shelf will be pushed onto the shelves of said oven, means for controllably guiding the articles to said rack and means for actuating said hinged member.

4. In combination with an annealing oven having shelves rotatable on a plurality of drums and actuated by a motor, a false shelf disposed in said oven and over said shelves, a hinged member, disposed on the inner side of said shelf for guiding the articles to be annealed thereon, a frame reciprocatable and disposed in front of said oven and over said shelves and arranged to push the articles from the false shelf to the shelves of the oven, guides for said frame, means for actuating said frame and said hinged member and means for actuating and controlling said last mentioned means, a rack arranged to receive the articles to be annealed and for guiding them to said false shelf, means for pushing the articles from said rack to said shelf and a plurality of rollers arranged to guide said articles on said rack, and means for controlling the movement of said articles on said rollers.

5. In combination with an annealing oven having shelves rotatable on a plurality of drums and actuated by a motor, a false shelf disposed in said oven and over said shelves, a hinged side disposed on the inner edge of said false shelf for guiding the articles to be annealed thereon, a frame reciprocatable and disposed in front of said oven and over said shelf and arranged to push the articles on the latter to the shelves of the oven, guides for said frame, means for actuating said frame and said hinged side, and means for actuating and controlling said last mentioned means, a rack arranged to receive the articles to be annealed and for guiding them to said false shelf and means for transferring the articles from said rack to said shelf, and a plurality of rollers arranged to guide said articles to said rack and means for controlling the flow of articles on said rollers, a supporting frame for the various parts mentioned, means for controlling said motor, a guide disposed on said shelf and arranged to be actuated by the incoming articles on said false shelf and means for controlling the movement of said rollers and the frame.

[Claims 6 to 8 not printed in the Gazette.]

1,142,026. CALF-WEANER. WILLIAM A. COBBAN, Culbertson, Mont. Filed July 17, 1914. Serial No. 851,433. (Cl. 119—142.)



A calf weaner, comprising a guard plate having a notch in one edge adapted to embrace the nasal septum, the notched edge of said guard plate being rolled to afford a pair of alined seats on opposite sides of said notch, and a lock pin, slidably mounted in said seats for movement through said notch and through the nasal septum, one end of said lock pin being laterally bent and terminating in a hook adapted to enter a perforation in the body of said guard plate, under a spring action, for holding said pin in an operative position.

1,142,027. SOLENOID. ROBERT C. DA COSTA, Trenton, N. J., assignor to John A. Roebling's Sons Company, a Corporation of New Jersey. Filed Apr. 3, 1912. Serial No. 688,304. (Cl. 175—21.)



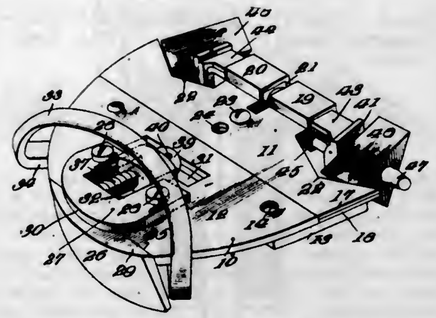
1. The combination, with a spool formed of insulating material having a conductor buried in the material and thereby insulated, said conductor having an exposed bared end, said spool being provided at its periphery intermediate its ends with a pocket or recess exposing a portion of said conductor, of an electric coil of insulated wire wound upon said spool and having its inner end bared and in contact with the conductor in said pocket or recess.

2. The combination, with a spool formed of insulating material having a conductor buried in the material and thereby insulated, said conductor having exposed portions at each end of the spool, said spool being provided at its periphery intermediate its ends with a pocket or recess exposing a portion of said conductor, of an electric coil of insulated wire wound upon said spool and having its inner end bared and in contact with the conductor in said pocket or recess.

3. A spool or bobbin for electrical coils, said spool being formed of insulating material and having a conductor buried in the material of said spool and thereby insulated, said conductor having an exposed bared end, a portion of the material at the periphery of the spool intermediate its ends being removed to lay bare a portion of said conductor and form a pocket or recess.

4. A spool or bobbin for electrical coils, said spool being formed of insulated material and having a conductor buried in the material of said spool and thereby insulated, said conductor extending to each end of the spool, and having exposed bare ends of sufficient area to form a soldered connection, a portion of the insulated material at the periphery of the spool intermediate its ends being removed to lay bare a portion of said conductor and form a pocket or recess of sufficient area to form a soldered connection.

1,142,028. HORSESHOE ATTACHMENT. JAMES A. DAVIS, Washington, D. C. Filed Aug. 26, 1914. Serial No. 858,657. (Cl. 168—30.)



1. The combination with a horseshoe, of a device of the character described including a sole plate, a longitudinally adjustable clamping yoke carried by the sole plate, and a pair of laterally extensible clamping plates carried by the sole plate and engageable against the heel portion of the horseshoe for holding the sole plate in position thereon.

2. The combination with a device of the character described, of a sole plate formed in two adjustably connected sections, a clamping yoke adjustable longitudinally with respect to the sole plate and adapted to engage over the toe of a horse's hoof, and a pair of laterally extending clamping plates engageable against the heel portion of a horseshoe.

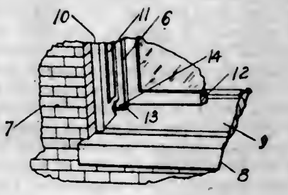
3. A device of the character described including a sole plate consisting of two adjustably connected sections, a shoulder plate adapted to engage against the inner edge of a horseshoe at the toe portion thereof, a clamping yoke engaging the bottom face of the sole plate and adapted to embrace the toe portion of a horse's hoof, a screw rod threaded through the yoke member and engageable against the shoulder plate for moving the yoke longitudinally with respect to the sole plate, and a pair of laterally extensible clamping plates carried by the sole plate and adapted to engage against the heel portions of the horseshoe.

4. A device of the character described including a sole plate consisting of two adjustably connected sections, longitudinally adjustable clamping means for holding the sole plate in position against a horseshoe, and laterally adjustable clamping means engageable with the heel portion of the horseshoe for holding the sole plate in position thereon.

5. A device of the character described including a sole plate, a clamping yoke adjustable longitudinally thereof, a screw rod controlling the adjustment of the clamping yoke, a pair of sleeve members slidably connected to the sole plate and adapted to move laterally with respect thereto, clamping plates formed terminally of the sleeve members and adapted to engage against the heel portion of a horseshoe, and a screw rod controlling the adjustment of the sleeve members.

[Claims 6 to 15 not printed in the Gazette.]

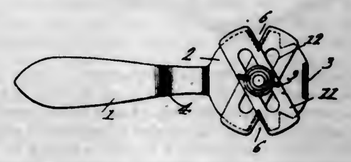
1,142,029. WINDOW-BEAD FASTENER. ALPHONSE J. DES CHAMPS, Hartford, Conn. Filed Sept. 28, 1908. Serial No. 455,033. (Cl. 16—29.)



1. In combination in a window frame, a holder having a base and a projection rising from its upper surface, said base having means to fasten the holder, and a parting strip having a recess removed from its front edge and positioned to engage said projection.

2. In combination in a window frame, a holder having a base and a lip rising from its upper surface, said base having means to fasten the holder, and a parting strip having a slot extending across it at a distance from its front edge and positioned to engage said lip.

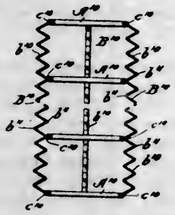
1,142,030. KNIFE-SHARPENER. GEORGE B. N. DOW and JAMES F. CAVANAUGH, Manchester, N. H. Filed Feb. 17, 1915. Serial No. 8,840. (Cl. 76—86.)



1. A sharpener of the class described comprising a head having a notch, and a support projecting from the head; a pair of crossed blades pivoted to the head, the blades being movable to cause their edges to define a sharpening notch, one blade being movable to coöperate with the notch in the head, the support engaging the said blade to act as a stop therefor when the said blade is in coöperating relation to the notch in the head.

2. A sharpener of the class described comprising a head having a notch, and a support projecting from the head; a pair of crossed blades pivoted to the head, the blades being movable to cause their edges to define a sharpening notch, one blade being movable to coöperate with the notch in the head, and the support engaging the said blade to act as a stop therefor while the said blade is in coöperating relation to the notch in the head, the support having a transverse shoulder engaging one blade thereby to support the said blade and the superposed blade.

1,142,031. COLLAPSIBLE CONCRETE REINFORCEMENT. JULIAN O. ELLINGER, New York, N. Y. Filed May 22, 1911. Serial No. 628,619. (Cl. 72—76.)

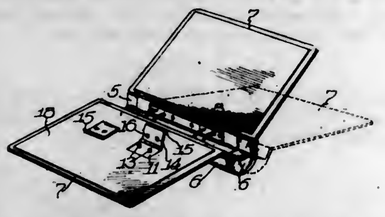


1. A collapsible or extensible concrete reinforcement, comprising a series of members and other members connecting the same together, the connecting members being each composed of pivotally connected plates and the first-mentioned members being arranged along the length of the connecting members and attached thereto.

2. A collapsible or extensible concrete reinforcement, comprising a series of open members and other members connecting the same together, the connecting members being each composed of pivotally connected plates and the first-mentioned members being arranged along the length of the connecting members and attached thereto.

3. A collapsible or extendible concrete reinforcement, comprising a series of open members formed of rods or bars and other members attached at intervals to and connecting the first members together, each of said second members being composed of a plate or strap bent in zigzag fashion and adapted to be collapsed or expanded at the bends thereof, to regulate the respective horizontal positions of the first mentioned members.

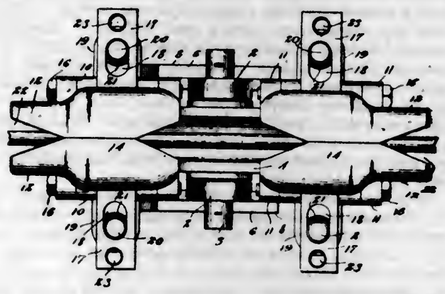
1,142,032. LOOSE-LEAF BINDER AND PERFORATOR. ANTHONY FAIFER, Chicago, Ill., assignor, by mesne assignments, to Harry E. Wright, Chicago, Ill. Filed July 27, 1912. Serial No. 711,772. (Cl. 129—7.)



In a loose leaf binder and perforator, a cover member having a recess in its face; a plate set in said recess with its upper surface below the face of said cover; upstanding pins on said plate; a plate hinged to said first mentioned plate and having perforations therein adapted to fit and receive said pins; and a sheet of material covering the inner side of said cover, extending over said recess and said first mentioned plate and having openings therethrough accommodating said pins and the hinges between said first and second mentioned plates.

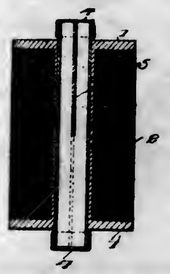
1,142,033. TROLLEY-WHEEL GUARD. JAMES A. GALLAGHER and EDWARD T. HERBOLTZHEIMER, Columbus, Ohio. Filed Feb. 19, 1915. Serial No. 9,403. (Cl. 191—78.)

1. In a trolley wheel guard, the combination with the trolley harp, of a casing embodying plates secured to the respective limbs of said harp at opposite sides of the trolley wheel and interconnected, and jaws pivoted to the upper edges of said plates at the forward and rear end portions thereof and designed to receive the trolley wire in advance of and behind the trolley wheel and having the confronting faces thereof formed with coöperating grooves to accommodate the trolley wire and diverging outwardly from each other from the upper end edges toward the lower end edges.



2. In a trolley wheel guard, the combination with the trolley harp, of plates secured to the respective limbs of said harp at opposite sides of the trolley wheel, jaws pivoted to said plates at the forward and rear end portions thereof and designed to receive the trolley wheel in advance of and behind the trolley wheel, arms secured to the respective jaws and projecting outwardly therefrom and formed with elongated slots, arms secured to said plates below the first-mentioned arms respectively and projecting outwardly from the plates, pins secured to said last arms and projecting upwardly therefrom through the respective slots in the first-mentioned arms, and springs surrounding said pins and acting upon the first-mentioned arms to hold the jaws normally in closed position.

1,142,034. CORE FOR ELECTROMAGNETS. PLUMB F. GERDING, Chicago, Ill. Filed Apr. 9, 1912. Serial No. 689,668. (Cl. 175—21.)



1. A core for electromagnets, comprising a tubular body, a strip of magnetic material extending lengthwise within the body and bearing by its edges against the inner face thereof, and a filling of magnetic particles surrounding the strip.

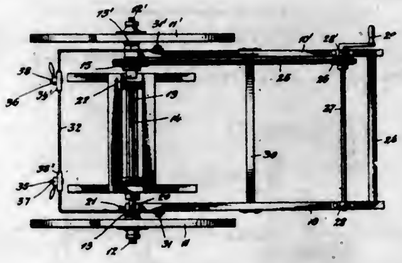
2. A core for electromagnets, comprising a tubular body, a cruciform conductor of magnetic material equal in width to the width of the body extending longitudinally within the body, and a filling of particles of magnetic material in which the said conductor is embedded.

3. A core for electromagnets, comprising a tubular body, a magnetic conductor comprising interlocked strips fitted within and extending longitudinally of the body, and a filling of magnetic material in which the conductor is embedded.

4. A core for electromagnets, comprising a tubular body, a filling of particles of magnetic material inclosed within the body, and magnetic conductor embedded in the filling extending lengthwise of and engaging the body to hold it against collapsing.

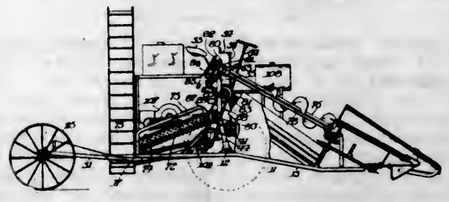
5. A core for electro-magnets including a tubular body, a magnetic conductor strip extending diametrically across the body and throughout the length thereof, and a filling of magnetic material between said strip and body.

1,142,035. WIRE-WINDING MACHINE. CHARLES A. HANSON, Donovan, Ill. Filed Apr. 5, 1913. Serial No. 759,088. (Cl. 242—93.)



In a machine of the character described, the combination of a wheel holder, and a frame supporting the same, of a wire guide consisting of a pair of side-members facing each other and having their horizontal portions telescoping one into the other, and means for adjustably positioning the vertical portions of said side-members to the frame.

1,142,036. DRIVING MECHANISM FOR CORN-HARVESTERS AND THE LIKE. WILLIAM HIBBS, Piano, Ill. Original application filed July 20, 1911, Serial No. 639,563. Divided and this application filed Jan. 26, 1914. Serial No. 814,388. (Cl. 56—113.)

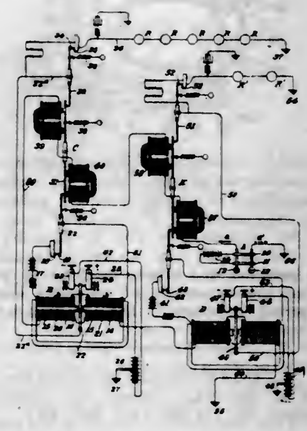


1. In a harvesting machine, in combination, a harvester frame, a traction wheel supporing the frame, means for tilting the frame upon the axis of the said traction wheel as a pivot, a gear carried by the traction wheel, two pinions carried by the frame and each meshing with the gear, a motor carried by the frame, mechanism operatively connecting the motor with each pinion said mechanism being constructed to drive the pinions in opposite directions and each mechanism including a clutch.

2. In a corn harvester, in combination, a pair of frames pivotally connected upon a horizontal transverse axis, a traction wheel having its axis coincident with the axis of pivotal connection of the frames, an additional supporting wheel mounted in one of the frames, means for tilting the other frame upon the said axis, downwardly and forwardly inclined snapping rolls and a motor mounted in the last mentioned frame, the snapping rolls being located in front of the said axis, and driving connection between the motor and the snapping rolls and between the motor and the traction wheel whereby the elevation at which the snapping rolls operate is adjusted by the said tilting and neither of the said driving connections is disturbed by the said tilting.

3. In a corn harvester, in combination, a pair of frames pivotally connected upon a horizontal transverse axis, a traction wheel having its axis coincident with the axis of pivotal connection of the frames, an additional supporting wheel mounted in one of the frames, means for tilting the other frame upon the said axis, downwardly and forwardly inclined snapping rolls and a motor mounted in the last mentioned frame at opposite sides of the said axis, the snapping rolls being located in front of the axis, and driving connection between the motor and the snapping rolls and between the motor and the traction wheel whereby the elevation at which the snapping rolls operate is adjusted by the said tilting, the weight of the motor in making the said adjustment; and neither of the said driving connections is disturbed by the making of the said adjustment.

1,142,037. LOCAL-CIRCUIT-CONTROLLING APPARATUS FOR PRINTING-TELEGRAPH SYSTEMS. GEORGE S. HILTZ, New York, N. Y., assignor to Stock Quotation Telegraph Company, New York, N. Y., a Corporation of New York. Filed Sept. 8, 1914. Serial No. 860,593. (Cl. 178—23.)



1. The combination with one or more receivers, of a local circuit therefor, a relay connected with the local circuit to control the same, a relay-circuit to magnetize the relay, a main-line circuit through the relay to actuate the same in conjunction with the magnetization produced by the relay-circuit, an electromagnetic controlling device in the main-line circuit, and means actuated by said device to keep the local circuit and the relay circuit closed when the main-line circuit is closed and operating automatically to open the local circuit and the relay circuit when the main-line circuit is opened, as set forth.

2. The combination of a relay having a local energizing circuit, a main-line circuit through the relay to additionally energize the relay, one or more receivers having a local energizing circuit controlled by the relay, an electromagnet in the main-line circuit and energized by current therein, an armature in the field of the electromagnet, and means actuated by the armature to keep the receiver and relay circuit closed when current is flowing in the main-line circuit and to keep the same open when the main line circuit is open.

3. The combination with a main transmitting-circuit, of a relay therein having a local energizing circuit, one or more receivers having a local circuit controlled by the relay, and automatic means under the control of the main transmitting circuit to open and close both said local circuits.

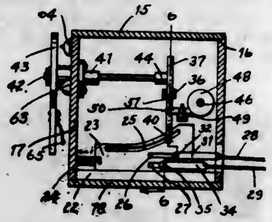
4. The combination with a main transmitting circuit, and means therein for sending current impulses of alternating polarity in said circuit, of a pole-changing relay in the main transmitting circuit, one or more receivers having a local circuit controlled by the relay to receive current impulses in predetermined correspondence with current impulses in the transmitting circuit, and automatic means controlled by the transmitting circuit to open and close the local circuit.

5. The combination with a main transmitting circuit, of a pole-changing relay therein, one or more receivers having a local circuit connected with the relay to receive alternating current-impulses in predetermined correspond-

ence with the current impulses in the main transmitting circuit, and automatic means to open the local circuit when the main transmitting circuit is dead.

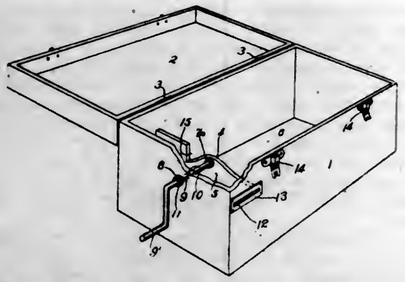
[Claims 6 to 12 not printed in the Gazette.]

1,142,038. VEHICLE-INDICATOR. HARRY K. HODGEBOOM, Montrose, N. Y. Filed Mar. 26, 1914. Serial No. 827,437. (Cl. 116—31.)



In a signal for automobiles, the combination of a brake lever, a rotatable signal arm, means for normally holding said signaling arm in non-indicating position, means operated by the actuation of the brake lever to apply the brake for rotating said arm to signaling position, means for locking said arm against movement to non-indicating position, and means operated by subsequent movement of the automobile for releasing said locking means to permit movement of the arm to non-indicating position.

1,142,039. TENNIS-COURT-MARKING-TAPE OUTFIT. WILLIAM H. HOLCOMB, Chicago, Ill. Filed Dec. 21, 1914. Serial No. 878,459. (Cl. 242—60.)

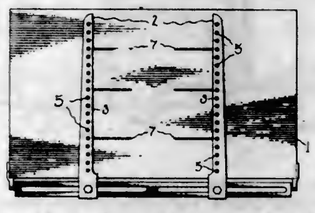


1. In a device of the class described, the combination of a storage receptacle for coiled tapes, having a partition located therein and coacting with an adjacent wall to form guide members, bearings in said partition and wall, and a crank having the shaft thereof removably journaled in said bearings and arranged to secure a tape thereto, said shaft being adapted to be readily withdrawn axially from said bearings so as to release said coil of tape.

2. In a device of the class described, the combination of a storage receptacle for coiled tapes, having a partition located therein and coacting with an adjacent wall to form guide members, bearings in said partition and wall, and a crank having the shaft thereof removably journaled in said bearings and arranged to secure a tape thereto, said shaft being adapted to be readily withdrawn axially from said bearings so as to release said coil of tape, said receptacle being provided with a slot in one side thereof leading to the space between said partition and said adjacent end and located so as to guide the tape during the reeling thereof.

3. In a tennis-court taping kit, the combination of a receptacle for storing a plurality of coils of tape, a support arranged in parallel relation to one wall of the receptacle and spaced therefrom a distance substantially equal to the width of the tape, and a crank having its shaft removably journaled in said wall and support, said shaft being arranged to engage and secure a tape thereto for the purpose of coiling it and being adapted to be withdrawn axially for releasing the coil of tape without unwinding it.

1,142,040. PLATEN-PRESS GRIPPER. RICHARD HOLLAND and FREDERICK J. DUNN, Detroit, Mich. Filed Mar. 8, 1915. Serial No. 12,726. (Cl. 101—115.)



1. Grippers for a platen press, comprising parallel flat arms having confronting straight edges, said arms having closely arranged openings therein with the walls of the openings screwthreaded, the straight edges of said arms having sockets therein intersecting said openings, fingers in the sockets of said arms, and screws in the openings of said arms engaging said fingers.

2. A platen press gripper comprising a flat arm having formed in an edge thereof sockets, said arm having openings in a flat face thereof intersecting the inner ends of the sockets of said arm, fingers extending into the sockets, and means in the openings of said arms engaging said fingers to hold the same therein.

1,142,041. MILK-SKIMMER. DAVID E. HUBBELL, Elgin, Ill. Filed Aug. 6, 1913. Serial No. 783,284. (Cl. 65—28.)

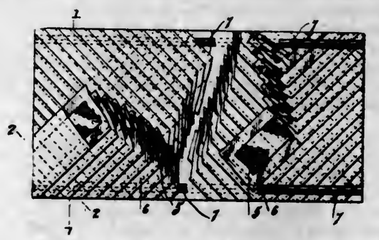


A milk skimmer consisting of two separable parts, one part comprising a tubular member adapted to be inserted in the neck of a bottle and open at both ends, the lower end of said member being inwardly tapered, the second part being a cup shaped closure of sufficient size to hold an appreciable quantity of fluid, adapted to be inserted in said tubular member and comprising a flat circular bottom and side walls tapered to fit the lower portion of said tubular member and an upwardly extending handle on each of said parts, substantially as described.

1,142,042. METHOD OF MAKING TIRE-COVERS. JOHN THOMAS JOHNSON and FREDERICK G. MASON, Caulfield, Victoria, Australia. Filed Mar. 7, 1913. Serial No. 752,557. (Cl. 154—14.)

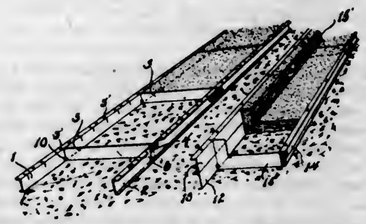
The improved method of making a pneumatic tire cover which consists in the utilization of short strips of woven fabric faced on both sides with rubber so as to envelop a strip and that are then laid in series diagonally upon an annular former or mold, upon which is a rubber sheet, in such a way that each strip of a series overlaps the next strip of the same series, then superposing upon the first

series another series of strips at right angles thereto, retaining the whole with annular beads, and vulcanizing the



same, with a rubber tread in a press or form, as herein explained.

1,142,043. PAVING-FORM. CHARLES D. MCARTHUR, Pittsburgh, Pa., assignor to Blaw Collapsible Steel Centering Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed Sept. 11, 1911. Serial No. 648,787. (Cl. 25—118.)



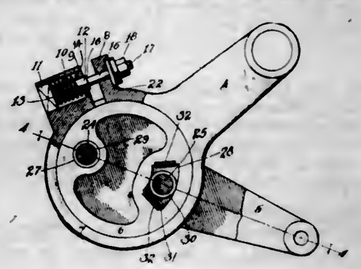
1. In combination in a paving form, a longitudinally extending member and an opposing longitudinally extending member comprising two channel irons with their ends spaced apart and their flanges turned outwardly, means for detachably securing the two adjacent ends of the channels together, a vertically movable spacing plate between the two members and having a perforated lug portion fitting between the said adjacent ends of the channel, and a removable holding member extending through the perforation in the lug portion and lying beneath the upper flanges of the channels.

2. In combination in a paving form, a pair of substantially parallel metal sections having vertical web portions and horizontal outwardly projecting flanges at their upper edges, one of such sections having a slot extending through the flange and web, a vertically removable spacing plate extending between the sections and having one end fitting against the slotted section and provided with a perforated lug fitting the slot when the plate is in position, and a holding member extending through the perforation in the lug and lying beneath the flange so as to bear against the flange and web and maintain the plate against vertical and endwise movement.

1,142,044. SHOCK-ABSORBER. JOHN A. MCKNIGHT, Chicago, Ill., assignor, by mesne assignments, to Spring Governor Company, Chicago, Ill., a Corporation of Illinois. Filed June 4, 1914. Serial No. 843,113. (Cl. 21—105.)

1. A shock absorber comprising a pair of arms, the outer ends of which are adapted to move toward or away from each other, a friction band secured to one of said arms, a tension regulator upon said friction band, a disk with which said band is in frictional engagement, means connecting the other of said arms to said disk, a projecting member carried upon said last-mentioned arm, said disk being provided with a slot or recess adapted to receive said projecting member, said projecting member being adapted to engage the wall of said slot after said last-mentioned arm has moved a predetermined distance.

2. A shock absorber comprising a pair of arms, the outer ends of which are adapted to move toward or away from each other, a friction band secured to one of said arms, a tension regulator upon said friction band, a disk with which said band is in frictional engagement, means connecting the other of said arms to said disk, a projecting member carried upon said last-mentioned arm, said disk being provided with a slot or recess adapted to receive said projecting member, said projecting member being adapted to engage the wall of said slot after said last-mentioned arm has moved a predetermined distance, said last-mentioned arm being provided with a projecting bolt, said bolt being in pivotal relation with said disk.



3. A shock absorber comprising a pair of arms the outer ends of which are adapted to move toward or away from each other, a friction disk in connection with one of said arms and a friction band encircling and clamping said disk and connected to the other of said arms, a pair of lugs upon said band, one of said lugs being recessed, a bolt having a non-circular head received within said recess, a spring intermediate said head and a wall of said recess, and a locking means coöperating with one end of said bolt and with the other of said lugs.

4. A shock absorber comprising a pair of arms the outer ends of which are adapted to move toward or away from each other, a friction disk in connection with one of said arms and a friction band encircling and clamping said disk and connected to the other of said arms, a pair of lugs upon said band, a bolt cross-connecting said lugs, means for holding said bolt against rotation, a spring coacting with said bolt, a nut bearing a toothed face secured upon said bolt, and a toothed member adapted to coöperate with said toothed face, said last-mentioned member being locked against rotary movement.

5. A shock absorber comprising a pair of arms the outer ends of which are adapted to move toward or away from each other, a friction disk in connection with one of said arms and a friction band encircling and clamping said disk and connected to the other of said arms, a pair of lugs upon said band, a bolt cross-connecting said lugs, means for holding said bolt against rotation, a spring coacting with said bolt, a nut bearing a toothed face secured upon said bolt, and a toothed member adapted to coöperate with said toothed face, one of said lugs being recessed and said toothed member being received within said recess, said recess and said member being non-circular in shape, thereby to prevent rotation of said toothed member.

1,142,045. STAY FOR CORSETS, COLLARS, &c. CLIFFORD J. MCLEOD, Hyde Park, Mass. Filed Sept. 24, 1913. Serial No. 791,512. (Cl. 2—76.)

1. The stay herein described consisting of a resilient strip having transverse slots extended inward from its edges, at its end-portion, which are made of a gradually increasing length toward the end of the stay, whereby the resiliency of the end-portion of the stay is gradually increased.

2. The stay herein described consisting of a resilient strip having transverse slots extended inward from its edges, at its end-portion, which are made of a gradually increasing length, and disposed at gradually decreasing distances apart, toward the end of the stay, whereby the

resiliency of the end-portion of the stay is gradually increased.



3. The stay herein described consisting of a resilient strip having transverse slots extended inward from its edges, and a paper-cover for said stay having transverse scores or corrugations arranged opposite the slots, whereby the cover is adapted to bend transversely to conform to the bending of the stay.

1,142,046. POST. CHARLES L. MICHOD, Chicago, Ill. Filed Oct. 29, 1914. Serial No. 869,213. (Cl. 189—29.)



1. A post comprising an upright of general L-shape in cross section and wings fitting flatwise against the flanges of said upright and disposed at an angle to each other and arranged in relatively overlapping position, the upper edge of each wing extending at an angle to said upright and the upper edge of one of said wings extending in a plane above the upper edge of the other of said wings.

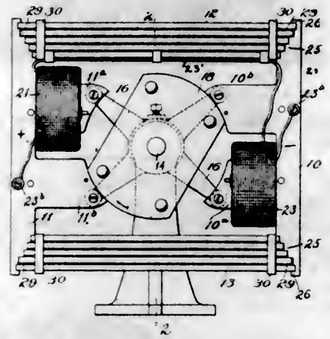
2. A post comprising an upright, wings fitting flatwise against the sides of said upright, and disposed at an angle to each other and adjustable along said upright, and means for holding said wings in adjusted position on said upright.

3. A post comprising an upright of L-shape in cross section, wings fitting against the flanges of said upright, at its lower end, and U-bolts passing through apertures in said wings and adapted to secure the latter in different positions of vertical adjustment on said upright.

1,142,047. INDUCTOR-GENERATOR. JOHN L. MILTON, Chicago, Ill., assignor of one-half to Towner K. Webster, Chicago, Ill. Filed Feb. 12, 1907. Serial No. 357,041. (Cl. 171—209.)

1. In a field-magnet structure, the combination of a suitable support, a non-magnetic member carried thereby and provided with radially extending arms, a pair of pole-pieces secured to said arms and held thereby in fixed relation to each other, a plurality of magnets having their ends connected with adjacent ends of said pole-pieces, and wedges inserted between adjacent magnets to hold the same firmly against the pole-pieces.

2. In the field magnet of an electric generator, the combination of a plurality of magnets, each of which is recessed at an end, a laminated pole piece cut away to form stepped surfaces, said magnets being adapted to abut against said stepped surfaces, with the pole piece fitting in the recesses, a support for said pole piece formed of non-magnetic material, means on said pole piece overlying the end portion of the outermost magnet, and wedges to maintain the outermost magnet against said overlying means and the remaining magnets against the stepped surfaces, substantially as described.



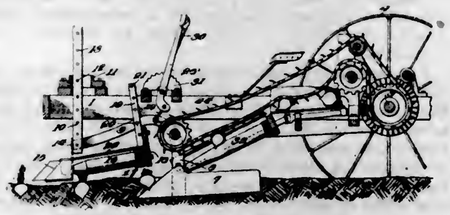
3. In the field magnet of an electric generator, the combination of a plurality of permanent straight-bar magnets, a pair of pole-pieces for connecting the like poles of said magnets and forming therewith a closed magnetic frame, said pole-pieces being cut away to receive the adjacent ends of said magnets, means carried by said pole-pieces and overlying the outermost of said magnets to hold said parts in magnetic contact, wedges inserted between adjacent magnets, and means for holding said pole-pieces in fixed relation to each other.

4. A field-magnet for an electric generator comprising two oppositely disposed groups of permanent straight-bar magnets, a pair of laminated pole-pieces connecting like polar ends of said magnets and forming therewith a substantially rectangular structure, means entirely independent of said magnets for holding said pole piece in fixed relation to each other, and wedges between the magnets to maintain the same fixed relatively to the edges of the laminations forming said pole-pieces.

5. A field magnet structure for a machine of the character described, comprising two groups of permanent straight bar magnets, a pair of pole pieces arranged between said groups of magnets to form a rectangular frame and having at either end tongue and groove connection with the adjacent end of the adjoining group of magnets, and connecting means of non-magnetic material arranged to hold the parts of said frame assembled.

[Claims 6 to 18 not printed in the Gazette.]

1,142,048. BEET-HARVESTER. THOMAS S. MOORE, Shoshoni, Wyo., assignor of one-half to Mort Williams, Wheatland, Wyo. Filed Oct. 11, 1913. Serial No. 794,684. (Cl. 55—107.)



1. In a beet harvester, the combination of a supporting frame, plow beams carried thereby, plows secured to said beams, and oppositely rotating parallel beet topping rollers carried by the plow beams in advance of the plows.

2. In a beet harvester, the combination of a supporting frame, plow beams disposed below the front end of the frame, adjustable hangers mounted on the frame and attached to the plow beams, plows carried by the rear ends of said beams, and oppositely rotating parallel beet topping rollers adjustably hung upon the front ends of the plow beams.

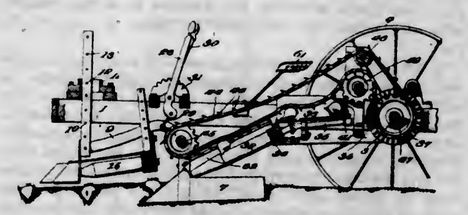
3. In a beet harvester, the combination of a main frame, plow beams disposed below the front end of the frame, plows carried by the rear ends of the plow beams, a lever mounted upon the main frame and connected to the rear ends of the plow beams to support the same, a hanger secured to the front ends of the plow beams and adjustably supported upon the main frame, a hanger adjustably secured to the plow beams between the ends thereof, and beet topping rollers hung upon and extending between the said last mentioned hanger and the hanger secured to the front ends of the plow beams.

4. In a beet harvester, the combination of a main frame, plow beams suspended from the front portion of the main frame, plows carried by the rear ends of said beams, a bracket at the front ends of said beams, a hanger adjustably attached to the beams in rear of the front ends thereof, gathering members carried by said bracket and beet topping rollers extending axially between said gathering members and said hanger.

5. In a beet harvester, the combination with a frame, of front and rear brackets suspended therefrom, deflectors secured to and projecting from the front bracket, topping rollers mounted in and extending between the said brackets, means for rotating said rollers simultaneously in opposite directions, and skids extending partly over the said rollers and extending downwardly and outwardly therefrom.

[Claims 6 and 7 not printed in the Gazette.]

1,142,049. UPROOTING MECHANISM FOR BEET-HARVESTERS. THOMAS S. MOORE, Shoshoni, Wyo., assignor of one-half to Mort Williams, Wheatland, Wyo. Original application filed Oct. 11, 1913, Serial No. 794,684. Divided and this application filed Feb. 25, 1914. Serial No. 820,941. (Cl. 55—106.)



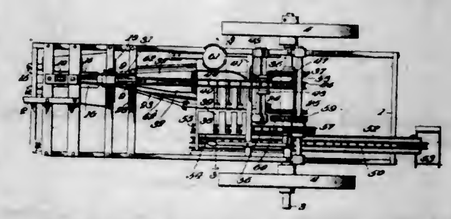
1. In a beet harvester, the combination of a supporting frame, plow beams carried thereby, means for adjusting the plow beams vertically, and lifting rollers having their rear ends journaled upon the frame and their front ends loosely connected with the plows.

2. In a beet harvester, the combination of a main frame, plow beams disposed below the front end of the frame, plows carried by the rear ends of the plow beams, a lever mounted upon the main frame and connected to the rear ends of the plow beams to support the same, a hanger secured to the front ends of the plow beams and adjustably supported upon the main frame, and lifting rollers connected with and extending upwardly and rearwardly from the plows.

3. In a beet harvester, the combination of a main frame, plow beams suspended from the front end of the main frame, plows carried by the rear ends of said beams, lifting rollers disposed in rear of the plow beams and extending upwardly and rearwardly from the plows, intermeshing pinions on the rear ends of the rollers, a flexible shaft disposed longitudinally of the frame and connected to one of the lifting rollers, and means on the frame acting upon the rear end of said shaft to rotate the same.

4. In a beet harvester, the combination of a supporting frame, plows hung thereon, lifting rollers supported by the plows and frame and extending longitudinally of the same, and guards extending longitudinally of the frame adjacent the rollers.

1,142,050. GATHERING AND DISCHARGING MECHANISM FOR BEET-HARVESTERS. THOMAS S. MOORE, Shoshoni, Wyo., assignor of one-half to Mort Williams, Wheatland, Wyo. Original application filed Oct. 11, 1913, Serial No. 794,684. Divided and this application filed Feb. 25, 1914. Serial No. 820,942. (Cl. 55—9.)



1. A beet harvester comprising a frame, uprooting members mounted on the frame at one side thereof, an elevator mounted on the frame at the opposite side thereof, a platform on the frame at one side of the elevator and in rear of the uprooting mechanism, means for delivering the beets from the uprooting members onto the platform, and means for pushing the beets over the platform transversely of the frame onto the elevator.

2. In a beet harvester, the combination of a main frame, a platform secured thereon and provided with slots disposed transversely of the main frame, an elevator mounted upon the main frame at one side of said platform, beet uprooting members disposed in advance of the platform, a carrier coöperating with the said beet uprooting members to deliver beets onto the platform, a shaft disposed below the platform, fingers carried by said shaft and playing through the slots in the platform to move the beets therefrom onto the elevator, and means for rotating said shaft.

3. In a beet harvester, the combination of a main frame, a platform secured thereon and provided with slots disposed transversely of the main frame, means for delivering beets upon said platform, and rotating fingers playing through the slots in the platform to move the beets laterally thereover.

1,142,051. VARIABLE-SPEED GEAR. MARTIN A. O'CONNOR, Providence, R. I., assignor to Providence Blower Company, Providence, R. I., a Corporation of Rhode Island. Filed June 20, 1910. Serial No. 567,790. (Cl. 74—41.)

1. A variable speed gear having a concentric toothed arc and an eccentric toothed arc upon the periphery thereof.

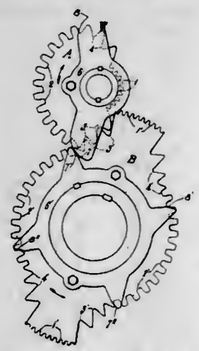
2. A variable speed gear having a series of concentric toothed arcs and a series of eccentric toothed arcs, the teeth on the eccentric arcs being cam-shaped.

3. A variable speed gear having two concentric toothed arcs of different diameters and two eccentric toothed arcs connecting said concentric toothed arcs, the teeth on said eccentric toothed arcs being cam-shaped and of varying size.

4. A pair of variable speed gears comprising a driving gear and a driven gear, said gears being provided upon the periphery thereof with means whereby the driving gear will drive the driven gear at both constant and variable speeds.

5. A pair of variable speed gears comprising a driving gear and a driven gear, each of said gears having a high speed concentric toothed arc, a low speed concentric

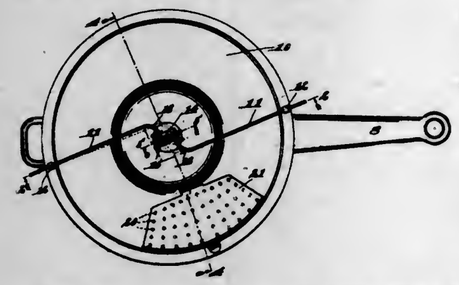
toothed arc, an eccentric toothed arc arranged and adapted to accelerate the speed of the driven gear, and an ec-



centric toothed arc arranged and adapted to retard the speed of said driven gear.

[Claims 6 to 10 not printed in the Gazette.]

1,142,052. COOKING UTENSIL. HERMAN A. PAQUETTE, Chicago, Ill., assignor to H. A. P. Cooking Utensil Mfg. Co., Chicago, Ill., a Corporation of Illinois. Filed July 30, 1914. Serial No. 854,027. (Cl. 53—8.)

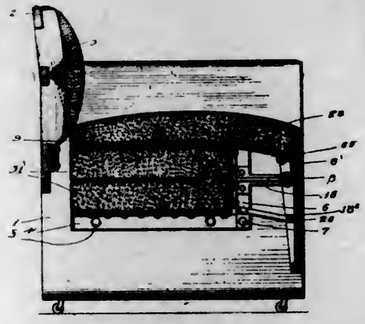


1. The combination with a cooking utensil having an outwardly extending lip around its top, of a cover therefor; two substantially radiating rods slidably secured to said cover and provided at their outer ends with hooks adapted to engage said lip; a rotatable member at the center of said cover between said rods; and angularly turned inner ends on said rods pivotally connected with diametrically disposed points of said member, substantially as described.

2. The combination with a cooking utensil having an outwardly extending lip around its top, of a cover therefor; two substantially radiating rods slidably secured to said cover and provided at their outer ends with hooks adapted to engage said lip; a rotatable member at the center of said cover between said rods; and angularly turned inner ends on said rods pivotally connected with diametrically disposed points of said member, substantially as described.

1,142,053. DAVENPORT. LEROY C. PHENIX, Los Angeles, Cal. Filed Mar. 4, 1914. Serial No. 822,302. (Cl. 5—49.)

1. The combination with a davenport frame, of an inner bed frame member rigidly secured to the frame, an intermediate bed frame member pivoted to the inner bed frame member, an outer bed frame member pivoted to the intermediate bed frame member, the front member connected with the bed frame member, a seat connected with the outer bed frame member and the front member, and braces secured to the intermediate bed frame member and to the front member, said seat when closed resting on the braces and said front member and disposed under the bed frame members when the latter are extended.



2. The combination with a davenport frame, of an inner bed frame member carried by the frame, an intermediate bed frame member pivotally connected to the inner bed frame member, an outer bed frame member pivoted to the intermediate bed frame member, brackets rigidly secured to the intermediate bed frame member and extending outwardly at right angles thereto and being arranged one above the other, a front member rigidly secured to said brackets, a seat secured to the upper edge of the front member and to the outer bed frame member, and rods connected with the outer bed frame member and front member and supporting said seat.

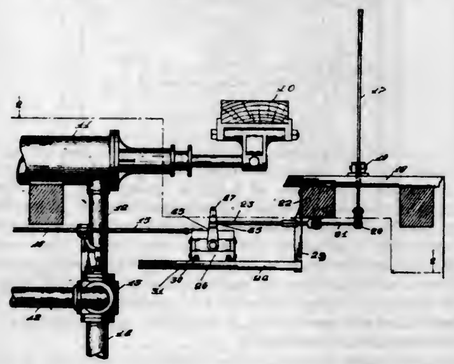
3. The combination of a davenport frame having end and back members rigidly connected together, an inner bed frame member connected to and extending between the end members of the davenport frame, an intermediate bed frame member pivotally connected to said inner bed frame member, and an outer bed frame member pivotally connected to said intermediate bed frame member, a seat connected to said outer bed frame member and to said intermediate bed frame member to extend over the outer bed frame member when the latter is folded over on the top of said inner bed frame member, and to extend under said outer bed frame member when the latter is extended, and bracing means connected to said intermediate and outer bed frame members, and adapted to extend beneath said seat when the bed frame is folded to support the seat.

4. The combination with a davenport frame of an inner bed frame member rigidly connected with the frame, an intermediate bed frame member pivotally connected with the inner bed frame member and being free from connection with the davenport frame, an outer bed frame member pivotally connected with the intermediate bed frame member and arranged to rest upon the inner bed frame member when in folded position, all of said bed frame members to lie in the same horizontal plane when extended, brackets secured to the ends of the intermediate bed frame member and extending outwardly therefrom, a bar carried by and between the ends of the brackets, a one-piece non-flexible front member secured against the bar in rigid parallel relation to the intermediate bed frame member, and a seat secured to the front member and the outer bed frame member, said seat and front member to lie beneath the bed frame members when the latter are extended.

5. The combination with a davenport frame of an inner bed frame member rigidly connected with the frame, an intermediate bed frame member pivotally connected with the inner bed frame member and being free from connection with the davenport frame, an outer bed frame member pivotally connected with the intermediate bed frame member and arranged to rest upon the inner bed frame member when in folded position, all of said bed frame members to lie in the same horizontal plane when extended, brackets secured to the ends of the intermediate bed frame member and extending outwardly therefrom, a bar carried by and between the ends of the brackets, a one-piece non-flexible front member secured against the bar in rigid parallel relation to the intermediate bed frame member, a seat secured to the front member and the outer bed frame member, said seat and front member to lie beneath the bed frame members when the latter are extended, and additional bracing means connected rigidly at its ends with the intermediate bed frame member and the front member.

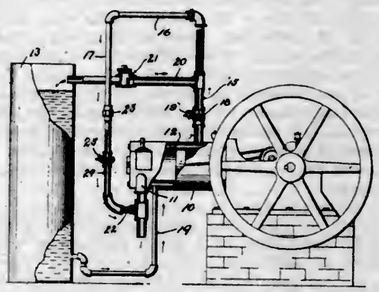
[Claim 6 not printed in the Gazette.]

1,142,054. VALVE-CONTROLLER. DE WITT C. PRESCOTT, Chicago, Ill. Filed Mar. 13, 1913. Serial No. 753,896. (Cl. 121—45.)



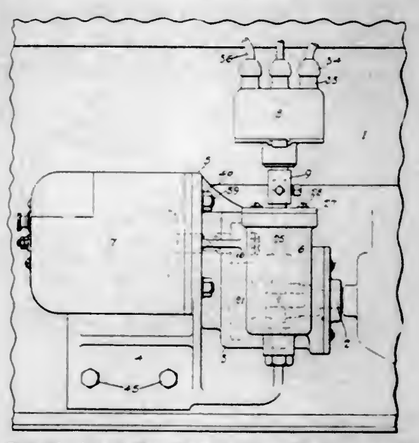
In a valve controller, in combination, a hand lever, a valve rod, a pair of oppositely facing racks, one being fixed and the other being connected to the valve rod, a gear engaging both of the said racks, a crank for turning the gear and connection between the crank and the hand lever.

1,142,055. WATER-CIRCULATING SYSTEM FOR EXPLOSIVE-ENGINES. WILLIAM B. PYLE, Robinson, Ill. Filed Dec. 19, 1912. Serial No. 737,729. (Cl. 123—170.)



The combination with an explosive engine including a water jacket and an exhaust pipe, of a water circulating system therefor comprising a water tank, a conduit connecting the lower end of the tank with the lower side of the water jacket of the engine, an inverted U-shaped conduit extending above the tank and having one limb connected to the upper side of the water jacket and the other end connected to the side of the exhaust pipe below the cylinder of the engine, a conduit connecting the first named limb with the upper end of the tank, said first named limb having an upwardly opening check valve below the last named conduit, a check valve in the last named conduit opening toward the tank, and a valve in the second named limb of the U-shaped conduit for controlling the effectiveness of the suction from the exhaust pipe.

1,142,056. COMBINED GENERATOR AND TIMER-DISTRIBUTER MOUNTING. JULIUS H. RICHARDS, Newark, N. J., assignor to Splitdorf Electrical Company, Newark, N. J. Filed Dec. 22, 1914. Serial No. 878,534. (Cl. 123—149.)



1. In a device of the character described, in combination, a generator, a timer-distributer, means for driving said generator and timer-distributer, a mounting plate adapted to receive the said generator and said timer-distributer, means for holding said generator onto said mounting, whereby when said means are removed said generator may be removed from said mounting without disturbing said timer-distributer, as described.

2. In a device of the character described, in combination, a generator, a timer-distributer, a driving shaft, a mounting common to both said generator and timer-distributer, said mounting having a flange to which said generator is detachably mounted, a shaft for said timer-distributer, a gear on said shaft, a gear on said driving shaft and meshing with said gear on the timer-distributer shaft, a housing for said gears integral with said mounting, a second flange on said mounting for supporting the mounting, the generator and the timer-distributer, substantially as described.

3. In a device of the character described, in combination, a generator having shaft extension, a timer-distributer having a shaft extension, a mounting common to both said generator and said timer-distributer, a housing integral with said mounting, a driving shaft extending into the housing on one side, said generator shaft extension extending into the housing on the opposite side of said driving shaft, said timer distributer shaft extension entering said housing at right angles to the said driving shaft, means within said housing for drivingly connecting the three said shafts, said mounting having a flange for detachably supporting said generator and a second flange for supporting all of said parts, substantially as described.

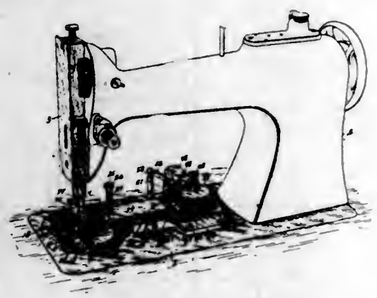
4. In a device of the character described, in combination, a mounting having two flanges and a gear housing integrally connected, a generator having a drive shaft adapted to be detachably fastened to one of said flanges, the other of said flanges being adapted to fasten the said mounting to a suitable support, a timer-distributer mounted above said housing and on a shaft extending into the housing, a drive shaft entering said housing and means within said housing for drivingly connecting the said three shafts.

5. In a device of the character described, in combination, a mounting having two flanges substantially at right angles to each other and a housing, a generator having a drive shaft, one of said flanges adapted to have said generator rigidly fastened thereto, a support, the other of said flanges adapted to be fastened to said support, said housing adapted to have a timer-distributer mounted above it and having a shaft extending thereinto, a driving shaft

extending into said housing and means within said housing for connecting the generator and timer-distributer shafts to said driving shaft.

[Claims 6 to 14 not printed in the Gazette.]

1,142,057. SEWING-MACHINE FOR ATTACHING LABELS. ARTHUR ROSENTHAL, Grand Rapids, Mich., assignor to Rose Label Machine Company, Grand Rapids, Mich. Filed Mar. 11, 1912. Serial No. 683,067. (Cl. 112—32.)



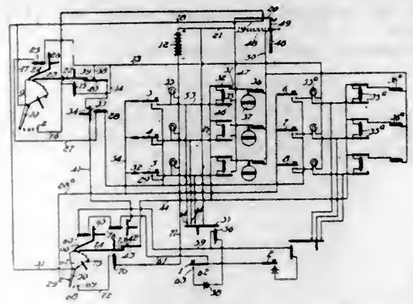
1. In a label attaching machine, the combination with the bed, arm, head, needle bar and driving means of a sewing machine, of a supporting base plate secured to the bed of said machine; an actuating lever frame structure carried thereby comprising a gear toothed frame part with inwardly projecting gear teeth; a swivel slide on the said supporting plate engaging in suitable ways on the said actuating lever frame; a presser foot carrying arm hinged to the said actuating lever frame; a suitable spring for putting pressure thereon; a presser foot frame carried by said presser foot arm; a presser foot with socket depressions on the opposite sides and ends thereof; spring pressed pins engaging said depressions; cam devices to withdraw said pins successively as the presser foot is moved to feed the label to the needle; a ratchet feed device; a pinion driven by said ratchet feed adapted to mesh with the gear toothed frame part of said actuating lever frame; a cam plate on said base plate; and a cam engaging gulde member carried by said actuating lever frame for guiding and controlling the motion of the feed device, all coacting substantially as described and for the purpose specified.

2. In a label attaching machine, having a head, a presser foot with socket depressions on the opposite sides and ends thereof; a presser foot frame to carry said foot; spring pressed pins engaging said depressions; suitable reciprocating heads for carrying said pins, radially disposed in said presser foot frame on three sides of said foot; a yielding arm with engaging pin for one side of said presser foot; a cam support carried by the head of said sewing machine, with suitable radial slots therein; cam members adjustable in said slots and disposed to coöperate with and actuate said pin members; friction rollers carried by the said reciprocating heads and yielding arm disposed to coact with the cam members whereby the pins are actuated and withdrawn successively; and means of actuating the said frame as specified.

3. In a label attaching machine, a presser foot with socket depressions on the opposite sides and ends thereof; spring pressed pins engaging said depressions; cam devices to withdraw said pins successively as the presser foot is moved to feed the label to the needle; and means for actuating the said presser foot to coöperate with said cams, as specified.

4. In a label attaching machine, the combination with a sewing machine, of a detachable presser foot; laterally yielding members for supporting the same; means for guiding said presser foot to the needle of the sewing machine; and actuating means for withdrawing said lateral supports successively to permit all sides of the foot to pass the needle, as specified.

1,142,058. VOTING-MACHINE. HARRY O. RUGH, Chicago, Ill., assignor to Railway Electric Manufacturing Co., Chicago, Ill. Filed Mar. 23, 1914. Serial No. 826,778. (Cl. 235—54.)



1. A voting machine of the character described having a plurality of individual electromagnetically controlled means for candidates of a given designation, a second plurality of individual electromagnetically controlled means for the candidates of a different designation, master controlling mechanism for all of said means for candidates of one designation, master controlling mechanism for all of said means for the candidates of the different designation, and means whereby the operative control by a second master mechanism is prevented after actuation of the first master mechanism.

2. A voting machine of the character described having a plurality of individual electromagnetically controlled means for candidates of a given designation, a second plurality of individual electromagnetically controlled means for the candidates of a different designation, master controlling mechanism for all of said means for candidates of one designation, master controlling mechanism for all of said means for the candidates of the different designation, and means including pawl and ratchet mechanism whereby the actuation of a second master mechanism nullifies the action of any previously actuated master mechanism.

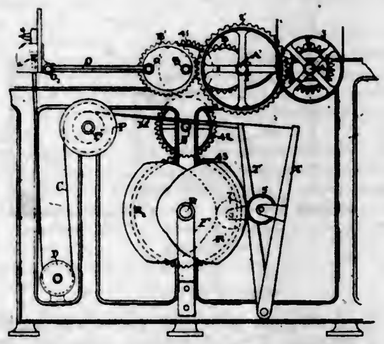
3. A voting machine of the character described having a plurality of individual electromagnetically controlled means for candidates of a given designation, a second plurality of individual electromagnetically controlled means for the candidates of a different designation, master controlling mechanism for all of said means for candidates of one designation, master controlling mechanism for all of said means for the candidates of the different designation, and means selectively responsive to strength of current to prevent operative control of said first aforesaid means by the simultaneous actuation of two master mechanisms.

4. A voting machine of the character described having a plurality of individual electromagnetically controlled means for candidates of a given designation, a second plurality of individual electromagnetically controlled means for the candidates of a different designation, master controlling mechanism for all of said means for candidates of one designation, master controlling mechanism for all of said means for the candidates of the different designation, and means selectively responsive to strength of current to prevent operative control of said electromagnetically controlled means by the simultaneous actuation of two master mechanisms.

5. A voting machine of the character described having a plurality of individual electromagnetically controlled means for candidates of a given designation, a second plurality of individual electromagnetically controlled means for the candidates of a different designation, master controlling mechanism for all of said means for candidates of one designation, master controlling mechanism for all of said means for the candidates of the different designation, and means whereby the operative control by a second master mechanism is prevented after actuation of the first master mechanism, said last aforesaid means including release mechanism for said electromagnetically controlled means.

[Claims 6 to 17 not printed in the Gazette.]

1,142,059. POSITIVE HIGH-SPEED SHUTTLE-MOTION. CHARLES ROBERT SAATWEBER, Paterson, N. J. Filed Nov. 28, 1913. Serial No. 803,371. (Cl. 139—49.)



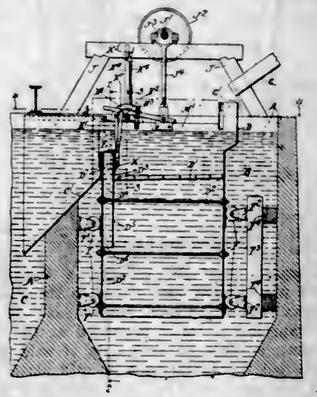
1. In a loom, the combination with the frame, the batten carrying rack and pinions and shuttles, operatively connected with a pair of treadles fulcrumed in the lower portion of said frame, of a driving shaft and actuating connections including eccentrics to drive from the shaft both the batten and the rack, communicating to each a variable speed, substantially as set forth.

2. In a positive high speed shuttle motion for looms, the combination with the frame, the batten, shuttles, rack and pinions carried by the batten, main driving shaft and eccentric driving connections between said driving shaft and the batten to communicate a variable speed to the batten, of treadles, connections between said treadles and the rack, a cam shaft mounted in said frame, a gear secured to said cam shaft inside the loom-frame, twin actuating cams oppositely arranged and secured to said cam shaft outside the loom-frame and adapted to alternately operate said treadles, a fixed gear on main driving shaft, an intermeshing gear connecting the fixed gear on the main shaft and the fixed gear on the cam shaft, an eccentrically arranged gear secured to the main shaft, a gear having an eccentrically arranged elliptical gear secured thereto and adapted to mesh with the eccentric gear secured on the main shaft and means for communicating power to said series of gears whereby the main shaft is driven at a variable speed so as to drive the shuttles at a variable speed, substantially as set forth.

1,142,060. COAL-WASHER. ALBERT J. SAYERS, Chicago, Ill., assignor to Link-Belt Company, Chicago, Ill., a Corporation of Illinois. Filed Aug. 29, 1913. Serial No. 787,254. (Cl. 83—80.)

1. In a washer the combination of a washing tank with a jig therein having a perforated bottom and material and refuse discharge openings at one side, means for reciprocating the jig therein, means for supplying material to the jig at a distance from the openings, an inertia chamber beneath the jig, a refuse chamber outside of the jig but connected at all times with the refuse discharge opening of the jig and connected with the inertia chamber whereby all the water from the inertia chamber is directed through the whole of the bed of material in the jig and the separated refuse is discharged into the inertia chamber and a downward extension of the refuse chamber into the inertia chamber, said inertia chamber and extension being attached to and movable with the jig.

2. In a washer the combination of a washing tank with a jig therein having a perforated bottom and material and refuse discharge openings at one side, means for reciprocating the jig, means for supplying material to the jig at a distance from the openings, a relatively deep downwardly extending inertia chamber beneath the jig, a refuse chamber outside of the jig closed above but connected at all times with the refuse discharge opening of the jig and connected with the inertia chamber whereby all the water from the inertia chamber is directed through the whole of the bed of material in the jig and the separated refuse is discharged into the inertia chamber and a downward extension of the refuse chamber into the inertia chamber, said extension being attached to and movable with the jig.



3. In a washer the combination of a washing tank with a jig therein having a perforated bottom and material and refuse discharge openings at one side, means for reciprocating the jig, means for supplying material to the jig at a distance from the openings, a relatively deep downwardly extending inertia chamber attached to the jig and beneath the jig, a refuse chamber outside of the jig closed above but connected at all times with the refuse discharge opening of the jig and connected with the inertia chamber whereby all the water from the inertia chamber is directed through the whole of the bed of material in the jig and the separated refuse is discharged into the inertia chamber and a downward extension of the refuse chamber into the inertia chamber, said extension being connected to and movable with the jig.

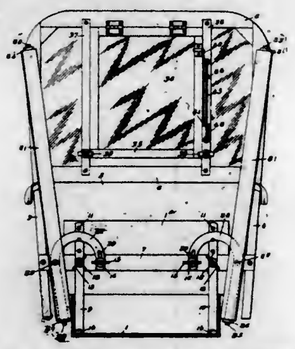
4. In a washer the combination of a washing tank with a jig therein having a perforated bottom and material and refuse discharge openings at one side, means for reciprocating the jig, means for supplying material to the jig at a distance from the openings, a relatively deep downwardly extending inertia chamber beneath the jig, a refuse chamber outside of but attached so as to reciprocate with the jig and connected with the refuse discharge opening of the jig and the inertia chamber whereby all the water is directed through the whole of the bed of material in the jig and the separated refuse is discharged into the inertia chamber, and a downward extension of the refuse chamber into the inertia chamber, said extension being connected to and movable with the jig.

5. In a washer the combination of a washing tank with a jig therein having a perforated bottom and material and refuse discharge openings at one side, means for reciprocating the jig, means for supplying material to the jig at a distance from the openings, a relatively deep downwardly extending inertia chamber attached to the jig and beneath the jig, a refuse chamber outside of but attached so as to reciprocate with the jig and connected with the refuse discharge opening of the jig and the inertia chamber whereby all the water is directed through the whole of the bed of material in the jig and the separated refuse is discharged into the in-

ertia chamber, and a downward extension of the refuse chamber, said extension being connected to and movable with the jig.

[Claims 6 to 9 not printed in the Gazette.]

1,142,061. STORM-FRONT FOR VEHICLES. GEORGE W. SCOTT, Troy, Ohio. Filed Mar. 3, 1911. Serial No. 612,123. (Cl. 21—81.)



1. In a storm front for vehicles, a frame, together with means for securing said frame to the vehicle body, side curtains carried by said frame, each of said side curtains comprising a roller journaled at the upper end of said frame, a plate on each side of said frame pivotally connected therewith, each of said plates having a journal at its lower end for the lower end of its corresponding roller and a slotted opening, and means for adjusting said plate to swing its journal laterally in a direction parallel with the plane of said frame and to a point within said frame, and a clamp extending through said slotted opening and through said frame for securing said plate in different positions of adjustment.

2. In a storm front for vehicles, the combination, with a vehicle body having a dash, of a frame of greater width than said dash, adjustable standards for supporting said frame from said body, plates having engaging portions thereon for the ends of said dash, side curtains journaled at the upper end of said frame, journals for said curtains at the lower end of said frame, each of said lower journals comprising a plate pivoted to said frame; a portion of each of said plates being formed on the arc of a circle having a slotted opening, each of said dash-engaging plates also having a slotted opening, and a clamp extending through the slotted opening of said dash-engaging plate and also through the slotted opening of said journal-plate for the purpose of adjustably securing said plates in position.

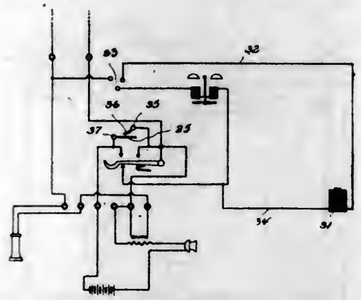
3. In a storm front for vehicles, the combination, with a vehicle body, of a frame, together with means for securing the same to said vehicle body, a side curtain, and a support for said side curtain pivoted to said frame near the lower end thereof whereby said curtain may be adjusted laterally with respect to said frame in a straight line parallel with the same and to a point within said frame.

4. In a storm front for vehicles, the combination, with a vehicle body, of a frame, together with means for securing the same to said vehicle body, an immovable wing secured to the side of said frame and projecting rearwardly therefrom, a side curtain, and a support at the lower end of said curtain pivotally connected to said frame inside of said wing whereby said curtain may be adjusted laterally with respect to said frame in a position to lie parallel with said wing and also in a straight line parallel with the plane of said frame and to a point within said frame.

5. In a storm front for vehicles, the combination, with a vehicle body, of a frame, together with means for securing the same in position at the front of said body, a curtain, and a downwardly extending arm pivotally connected to the frame near the lower end thereof, the lower end of said curtain being journaled in the lower end of said arm, whereby said arm may be adjusted laterally with respect to said frame in a straight line parallel therewith and to a point within said frame.

[Claim 6 not printed in the Gazette.]

1,142,062. SIGNAL DEVICE. METHOLD F. SITTA, Chicago, Ill. Filed Jan. 20, 1914. Serial No. 813,260. (Cl. 179—89.)

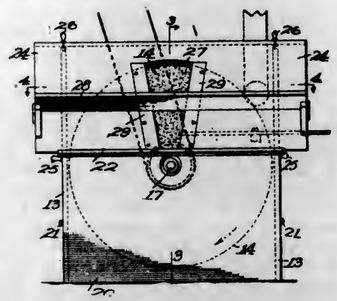


1. In a telephone answering device, the combination with a telephone, of an annunciator, means for actuating said annunciator, an electroresponsive device controlling said actuating means, means for cutting the bell out of the ringing circuit and connecting said electroresponsive device therein, and means for bridging the break in the transmitter circuit upon the energization of said electroresponsive device.

2. In a telephone answering device, the combination with a telephone, of an annunciator, a spring motor for actuating said annunciator, an electroresponsive device controlling said motor, means for cutting the telephone bell out of the ringing circuit and connecting said electroresponsive device therein, and means for bridging the break in the transmitter circuit upon the energization of said electroresponsive device.

3. In a telephone answering device, the combination with a telephone, of an annunciator, a spring motor for actuating said annunciator, an electroresponsive device controlling said motor, means for cutting the telephone bell out of the ringing circuit and connecting said electroresponsive device therein, and means operable from said electroresponsive device for bridging the break in the transmitter circuit upon the energization of said device.

1,142,063. SANDING-MACHINE. ALGERNON S. SPAULDING, Worcester, Mass., assignor to Thomas & Company, Inc., a Corporation of Massachusetts. Filed Feb. 26, 1915. Serial No. 10,853. (Cl. 51—13.)



1. The combination with a sanding wheel constituting a cone having an obtuse angle at the apex, of a flat work-rest having a segmental opening therethrough, through which the wheel projects.

2. The combination with a sanding wheel constituting a cone having an obtuse angle at the apex, of a flat work-rest located substantially transverse to the axis of the wheel and tangent to the conical surface of the wheel, and having an opening through it through which the wheel projects slightly.

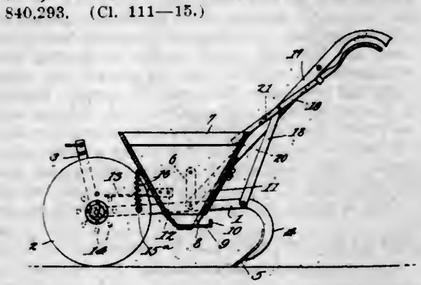
3. The combination with a conical sanding wheel of a comparatively flat shape, of a flat work-rest located with its operative surface substantially tangent to the conical surface of the wheel, and having a segmental opening through the same from the center of the wheel to its edge, whereby the wheel can project through the opening and have a surface thereof slightly beyond said operative surface and parallel therewith.

4. The combination with a conical sanding wheel, of a flat work-rest located substantially tangent to the conical surface of the wheel and having an opening through it, through which the wheel projects slightly, and a work-support on said work-rest, and adjustable thereon from the center to the edge of the wheel.

5. The combination with a conical sanding wheel, of a flat work-rest having a segmental opening therethrough, through which the wheel projects, and a work-support adjustable along said work-rest from the center to the edge of the wheel for varying the speed of the sanding surface on the work.

[Claims 6 to 9 not printed in the Gazette.]

1,142,064. GUANO-DISTRIBUTER. ROBERT W. STARLING, Hahira, Ga. Filed May 22, 1914. Serial No. 840,293. (Cl. 111—15.)

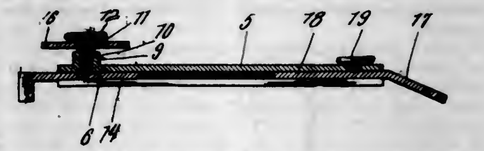


1. A fertilizer distributer embodying a pair of side beams, a hopper trunnioned between the said beams and having a lower discharge means, a ground wheel journaled between the forward ends of the beams and having an annular series of pins projecting from one side, a member secured to one side of the hopper above one of the said beams and having a forwardly projecting tappet arm cooperating with the said pins, a clamping and pivot bolt carried by the other beam, an angular bracket having the end of one arm engaged to the said bolt, the said arm of the bracket bearing against the inner side of the corresponding beam, and the other arm of the bracket projecting inwardly toward the said wheel, and a coiled wire retractile spring connecting the front wall of the hopper and the inwardly projecting arm of the bracket for holding the tappet arm in engagement with the said pins.

2. A fertilizer distributer including a frame, an oscillatory hopper carried by the frame and having a bottom, the rear wall of the hopper having a discharge opening immediately above the bottom and arranged between the sides of the hopper, the bottom of the hopper having a flat rearwardly projecting extension wider than the said discharge opening, a removable upstanding lateral lip mounted upon the rear end of the said extension and extending from one side edge of the said extension to the other, and means for vibrating the hopper.

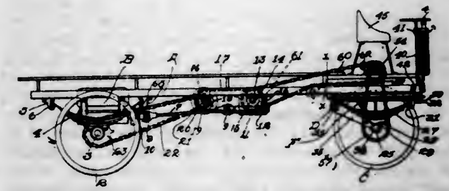
1,142,065. COMPOUND TOOL. THOMAS E. STEPHENSON, Penbrook, Pa. Filed Jan. 23, 1915. Serial No. 3,935. (Cl. 72—138.)

In apparatus of the character described, a tubular handle, a plow arranged at one end of the handle and extending transversely thereof and having a shank longitudinally adjustably mounted within the tubular handle, a clamping screw having an outer smooth portion and an inner screw-threaded portion having screw-threaded engagement with the tubular handle with its inner end adapted



to contact with the shank to lock it in adjustment at the desired longitudinal position with relation to the tubular handle, and a guide wheel rotatably mounted upon the outer smooth portion of the clamping screw, substantially as described.

1,142,066. TRACTOR. ALEXANDER W. SUTHERLAND, St. Paul, Minn. Filed Apr. 11, 1914. Serial No. 831,177. (Cl. 21—114.)



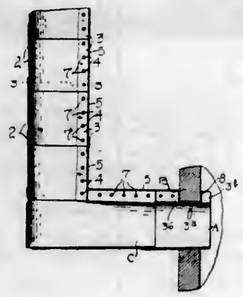
1. A tractor, comprising, in combination, a suitable frame having supporting wheels at its rear end, and a guiding wheel at its opposite end, a circle journaled below said frame and above said guiding wheel having a toothed rack on its periphery, a pinion meshing with the teeth of said rack by which said circle is adapted to be turned for steering pusposes, a pair of springs upon which said steering wheel is mounted to revolve, said springs being interposed between said circle and steering wheel to support the load of the vehicle on said steering wheel, a pair of driving arms rigidly connected and journaled upon said circle to permit their opposite ends swinging up and down in unison, said opposite ends being connected with said springs to prevent said wheel tilting from vertical position and means carried by said vehicle for revolving said steering wheel.

2. A tractor, comprising, in combination, a supporting frame, a pair of rear drive wheels adapted to be independently driven, a steering wheel below the forward end of said frame, a steering circle journaled below the forward end of said frame in a substantially horizontal plane having a toothed rack on its periphery, a pinion having teeth meshing with the teeth of said rack for steering purposes, a pair of supporting springs between said circle and said steering wheel, said steering wheel being journaled to revolve between said springs, a yoke having a body journaled upon said circle and a pair of rigidly supported arms connected to said springs, said arms being arranged to swing in unison and prevent said steering wheel tilting, a sprocket on each of said wheels, chain and sprocket mechanism connected with and arranged to revolve the sprockets on all of said wheels at the same speed, a prime mover carried by said vehicle for actuating said sprocket mechanism, and a slack adjuster for one of the belts which coöperates directly with the sprocket on said steering wheel, said adjuster being connected with said springs and arranged to actuate said adjuster and cause it to compensate for the variation in distance between the sprockets over which said belt passes.

1,142,067. MEANS FOR ANCHORING STOVEPIPES. WILLIAM B. TABOR, Staunton, Ill. Filed Jan. 30, 1915. Serial No. 5,271. (Cl. 126—307.)

1. The combination with a wall, of a pipe section projecting therefrom, and having radially projecting flanges, the flanges being cut away for a distance equal to the

thickness of the wall, the pipe section being inserted through an opening in said wall, the wall engaging the cut away portion to thereby interlock the pipe section to the wall, and means engaging said outstanding flanges and holding them abutted against each other to close the pipe section.

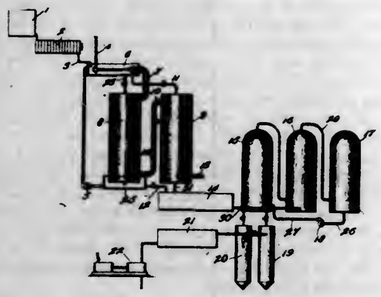


2. The combination with a wall, of a pipe section projecting therefrom, said section having radially projecting flanges, the flanges being cut away for a distance equal to the thickness of the wall, the pipe section being inserted through an opening in said wall, and said wall engaging in the cut away portion to thereby interlock the pipe section to the wall, and a cap fitting over that portion of the flange joint exterior to the wall and engaging the flanges.

3. As an article of manufacture, a hollow pipe section longitudinally split and provided with outwardly projecting longitudinally extending flanges, said flanges being cut away at one point to provide an opening adapted to permit said flanges to embrace a wall, said outwardly projecting flanges being adapted to be engaged with each other.

4. As an article of manufacture, a pipe section composed of yielding material, said section having a cylindrical body longitudinally split and formed with radially projecting confronting flanges, certain opposite portions of the flanges being separated from the remaining portions of the flanges, said separated portions being bent at an angle to the plane of the outstanding portions of the flanges and overlapping each other, the portions of the flanges so bent having a width equal to a wall into which the section is to be inserted to thereby form an interlocking notch in the outstanding flanges adapted to embrace said wall, said outstanding flanges being adapted to be closed against each other to thereby close the pipe section.

1,142,068. PROCESS OF MAKING MONO-AMMONIUM PHOSPHATE. FRANK S. WASHBURN, Nashville, Tenn. Filed Aug. 3, 1914. Serial No. 854,858. (Cl. 23—21.)



1. The process of making mono-ammonium phosphate, substantially devoid of di-ammonium phosphate from a solution of phosphoric acid which consists in feeding ammonia to said solution and testing the latter with a chemical indicator; and overcoming the lag of said indicator by so proportioning the quantities of acid and ammonia that said indicator will show a slight acid reaction, substantially as described.

2. The process of preventing the presence of substantial quantities of di-ammonium phosphate in the manufacture of mono-ammonium phosphate from a solution of phosphoric acid, which consists in treating said solution with ammonia until a chemical indicator shows a slight alkaline reaction; and then adding additional acid to an amount less than one per cent., substantially as described.

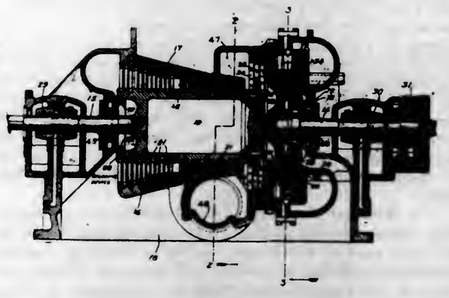
3. The process of making mono-ammonium phosphate substantially free from di-ammonium phosphate from phosphate rock and ammonia which consists in treating said rock with sulfuric acid to form a crude solution of phosphoric acid; treating said crude solution with ammonia until a chemical indicator shows a slight alkaline reaction; and then adding sufficient phosphoric acid to overcome the lag of said indicator and to cause the latter to show a slight acid reaction, substantially as described.

4. The process of making mono-ammonium phosphate substantially free from di-ammonium phosphate from phosphate rock and ammonia, which consists in treating said rock with sulfuric acid to form a crude solution of phosphoric acid; suitably filtering said solution; treating said crude filtered solution with ammonia until a chemical indicator shows a slight alkaline reaction; and then adding sufficient phosphoric acid to overcome the lag of said indicator and to cause the latter to show a slight acid reaction, substantially as described.

5. The process of making mono-ammonium phosphate substantially free from di-ammonium phosphate from phosphate rock and ammonia which consists in treating said rock with sufficient sulfuric acid to liberate the phosphoric acid and to dissolve the impurities present, thereby forming a crude solution of phosphoric acid; filtering said crude solution; treating said crude filtered solution with ammonia until a chemical indicator shows a slight alkaline reaction; and then adding sufficient phosphoric acid to overcome the lag of said indicator and to cause the latter to show a slight acid reaction, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,142,069. MARINE TURBINE. GEORGE WESTINGHOUSE, Pittsburgh, Pa., assignor to The Westinghouse Machine Company, East Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Sept. 17, 1912. Serial No. 720,867. Renewed Oct. 24, 1913. Serial No. 797,113. (Cl. 121—58.)



1. In a steam turbine, an ahead section divided into a high pressure stage followed by a stage of lower pressure, an astern section through which the steam flows in the same direction as the high pressure stage of the ahead section, and a valved passage for leading the exhaust from the astern section directly to the main turbine exhaust.

2. In a steam turbine an ahead section employing an impulse wheel followed by a stage of lower pressure, astern blades carried by said impulse wheel, and a valved passage for placing the exhaust of the astern section in direct communication with the turbine exhaust.

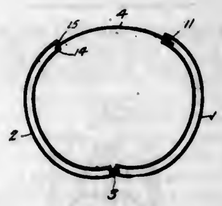
3. In a steam turbine, an ahead section, an astern section, a supplemental inlet leading to the ahead section, a valved passage for placing the astern section in direct communication with the main turbine exhaust, and a valve in the supplemental inlet connected to the exhaust valve of the astern section in such manner that as the valve in the astern section exhaust opens, the valve in the supplemental inlet closes, and vice versa.

4. In a steam turbine, a labyrinth packing system comprising a coned member on the turbine rotor and a cupped member in the turbine casing externally, differentially formed, and means whereby steam from said packing tends to hold said cupped member in normal position.

5. In a steam turbine, a running wheel carrying two concentric rows of reversely faced blades, a stage of lower pressure through which the steam from one of said rows of blades is adapted to pass, a main exhaust, and a valve for placing the outlet of said running wheel blades in direct communication with said exhaust.

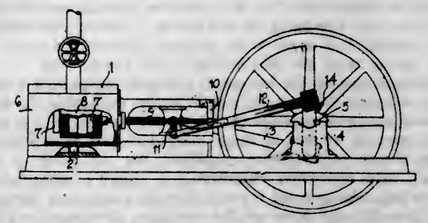
[Claims 6 to 36 not printed in the Gazette.]

1,142,070. BRACELET. HENRY WIEDMANN, Newark, N. J. Filed Aug. 2, 1911. Serial No. 641,970. (Cl. 63—7.)



A bracelet comprising two tubular sections hinged together at one end and having, at the other end, apertured, transverse walls; and a guard, comprising a one piece laterally rigid tongue longitudinally reciprocable, at one end, through the opening in one of said transverse walls, and provided, at said end, with a hook engageable with the inner surface of said transverse wall when the bracelet is in open position, said tongue having its other end projected through the opening in the other transverse wall, said other end of the tongue having a V-shaped recess, forming two legs, one of said legs being permanently secured to the bracelet-section into which it extends, and the other of said legs being provided with a notch engageable with one of said transverse walls, when the bracelet is in closed position, to lock the bracelet-sections against accidental opening, said last-named leg having an offset extending through the wall of the bracelet-section upon which said tongue is permanently mounted.

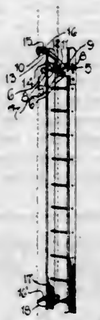
1,142,071. SLIDING VALVE FOR STEAM-ENGINES OR THE LIKE. JASON WILLIAMSON and ELMER WILLIAMSON, Greenwood, Tex. Filed Jan. 20, 1915. Serial No. 3,309. (Cl. 121—97.)



1. An engine comprising a cylinder, a steam chest in communication with the cylinder through the medium of ports, a piston within the cylinder, an operative engagement between the piston and drive shaft, a slide valve within the chest for controlling the flow through the ports, a stem carried by the slide valve extending exteriorly of the chest, a drive shaft provided with a crank, a pitman operatively engaged with the drive shaft, and a link in pivotal engagement with the stem of the slide valve and the pitman, said link being of a length less than the throw of the crank of the drive shaft.

2. An engine comprising a cylinder, a steam chest in communication with the cylinder through the medium of ports, a piston within the cylinder, an operative engagement between the piston and drive shaft, a slide valve within the chest for controlling the flow through the ports, a stem carried by the slide valve extending exteriorly of the chest, a drive shaft provided with a crank, a pitman operatively engaged with the drive shaft, a link in pivotal engagement with the stem of the slide valve and the pitman, said link being of a length less than the throw of the crank of the drive shaft, and supporting means for the projective portion of the stem of the slide valve.

1,142,072. LADDER-HOLDING DEVICE. DAVID H. WINGERD, Ramona, Kans. Filed Mar. 17, 1915. Serial No. 15,000. (Cl. 228—20.)



1. The combination with a ladder, of means for attaching the same to a pole including a loop pivotally supported upon the ladder and provided with an entrance opening in one side to receive the pole, said loop at opposite sides of the entrance opening being provided with reversely projecting spurs for gripping engagement in the pole, and means on the lower end of the ladder to clamp the same to the pole.

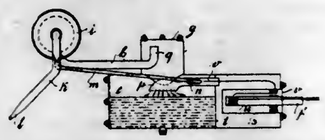
2. The combintion with a ladder, of means for attaching said ladder to a pole including a loop pivotally mounted for swinging movement upon the upper end of the ladder and having an entrance opening in one side to receive the pole, means for limiting the swinging movement of the loop in one direction to support the same in a projected position for engagement with the pole, said loop at opposite sides of the entrance opening therein having oppositely projecting spurs for gripping engagement in the pole, and means on the lower end of the ladder for clamping the same to the pole.

3. The combination with a ladder, of means for attaching the same to a pole including bearing brackets secured to the ladder rails adjacent their upper ends, a rod fixed in said brackets, a loop loosely mounted for swinging movement upon said rod, one of said brackets being provided with an inwardly projecting lug to limit the swinging movement of the loop in one direction and support the same for engagement with the pole, said loop having an entrance opening to receive the pole and reversely projecting spurs at opposite sides of said opening for gripping engagement in the pole, and means on the lower end of the ladder for clamping the same to the pole.

4. The combination with a ladder, of means for attaching the same to a pole including bearing brackets secured to the rails of the ladder at their upper ends, a rod fixed in said brackets, one of the brackets being provided with an inwardly projecting lug, a loop loosely engaged upon said rod for swinging movement and having an en-

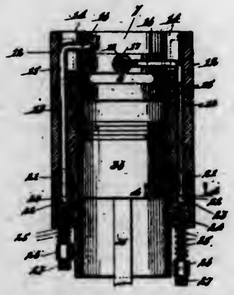
trance opening in one side, an adjustable stop arranged upon the rod to prevent longitudinal movement of the loop thereon and dispose the same in position for engagement with said lug whereby the loop is supported with respect to the ladder for engagement with the pole, said loop at opposite sides of the entrance opening having reversely projecting spurs for gripping engagement in the pole, and means on the lower end of the ladder to clamp the same to the pole.

1,142,073. EXPLOSION-ENGINE. ERNST WOLFF, Pforzheim, Germany. Filed July 21, 1914. Serial No. 852,282. (Cl. 123—194.)



In a combined exhaust silencer, purifier and deodorizer for explosion-engines, the combination of a water container, a plurality of receptacles through which the exhaust gases pass, an exhaust pipe with grate-like mouth to lead the gases into said water container vertically to the water level after their passage through said receptacles, a hollow ball having funnels with baffle-devices to receive said gases after their passage through the water container, a pipe to communicate between the lower end of said ball and said exhaust pipe and forming a nozzle in the latter, and a pipe to lead the gases from the ball into the atmosphere, substantially as and for the purpose set forth.

1,142,074. INTERNAL-COMBUSTION ENGINE. WILLIAM WOODWARD, Chicago, Ill. Filed Mar. 19, 1914. Serial No. 825,770. (Cl. 123—75.)



1. An internal combustion engine comprising a cylinder having inlet and exhaust ports in the walls thereof; separate inlet and exhaust valves sliding against the inner walls of said cylinder for controlling said ports; springs arranged to press said valves to their seats; and means for operating said valves, substantially as described.

2. An internal combustion engine comprising a cylinder having a port and a passage in the walls thereof; a valve in said cylinder for controlling said port; a slidable and rotatable stem provided with an arm extending through said passage into said cylinder and operatively engaging said valve; a spring arranged to tend to rotate said stem to press said valve to its seat; and means for reciprocating said stem to operate said valve, substantially as described.

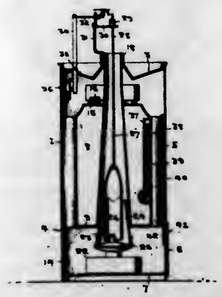
3. An internal combustion engine comprising a cylinder having a port in the wall thereof and a longitudinal passage communicating at one end with said cylinder; a valve in said cylinder for controlling said port; a stem rotatable and slidable in said passage and provided with an arm projecting into said cylinder and operatively engaging said valve; a spring arranged to tend to rotate said stem to press said valve to its seat; and means for reciprocating said stem to operate said valve, substantially as described.

4. An internal combustion engine comprising a cylinder having ports in the walls thereof and longitudinal passages communicating at one end with said cylinder; valves in said cylinder for controlling said ports; stems rotatable and slidable in said passages and provided with arms projecting into said cylinder and operatively engaging said valves; springs arranged to tend to rotate said stems to press said valves to their seats; and means for reciprocating said stems to operate said valves, substantially as described.

5. An internal combustion engine comprising a cylinder having a port in the wall thereof and a longitudinal passage communicating at one end with said cylinder; a valve in said cylinder for controlling said port; a stem rotatable and slidable in said passage and provided with an arm projecting into said cylinder and operatively engaging said valve; a spring arranged to tend to rotate said stem to press said valve to its seat; means for reciprocating said stem to operate said valve; and a packing arranged to seal said passage against leakage, substantially as described.

[Claims 6 to 14 not printed in the Gazette.]

1,142,075. AUTOMATIC TEMPERATURE-CONTROLLED RECEPTACLE. NATHAN BRILES, Custer, Okla. Filed Aug. 13, 1914. Serial No. 856,570. (Cl. 236—6.)

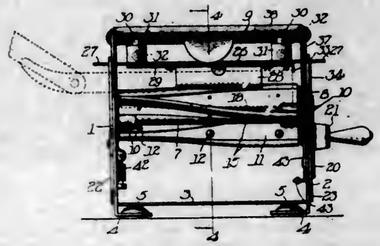


1. A device of the character specified comprising a casing, a cover therefor, a water jacket supported in said casing above the bottom thereof and provided with a central opening or flue, a lamp located in the casing below said flue, a thermostatic controller for the flame of the lamp, said controller comprising a thimble surrounding the wick, a hanger rod for said thimble passing up through the flue and the cover of the casing, and a thermostat connected up with the rod above the casing cover.

2. A device of the character specified comprising a casing, a cover therefor, a water jacket supported in said casing above the bottom thereof and provided with a central opening or flue, a lamp located in the casing below said flue, thermostatic controller for the flame of the lamp, said controller comprising a thimble surrounding the wick, a hanger rod for said thimble passing up through the flue and the cover of the casing, a thermostat within the casing, and connections passing through the cover of the casing from the thermostat to the hanger rod.

3. A device of the character specified comprising a casing, a cover therefor, a water jacket supported in said casing above the bottom thereof and provided with a central opening or flue, a lamp located in the casing below said flue, a thermostatic controller for the flame of the lamp, said controller comprising a thimble surrounding the wick, a hanger rod for said thimble passing up through the flue and the cover of the casing, a thermostat within the casing, a lever pivoted in the cover of the casing connected at its inner end to the thermostat, an elbow lever pivoted to the flue with one arm connected to the hanger rod, and a link connecting the outer end of the thermostat lever with the other arm of the elbow lever.

1,142,076. STROPPING-MACHINE. GEORGE BROWNING, Chicago, Ill., assignor to Perfection Razor Strop Company, Chicago, Ill., a Corporation of Illinois. Filed July 30, 1909. Serial No. 510,468. (Cl. 51—16.)



1. In a device of the kind described, a frame, a rotary member mounted upon said frame, and a stropping element mounted upon said member, in combination with a blade holder provided with a part loosely coöperating with said frame to rigidly maintain said blade holder in position, and means upon said blade holder adapted to engage a blade intermediate its back and edge and present the edge of said blade to said stropping element.

2. In a device of the kind described, a rotary member, and a stropping element mounted upon said member comprising resilient means extending longitudinally of, and rigidly attached to, said member, and stropping material inclosing the periphery of said resilient means, in combination with a blade holder, extending substantially parallel to the axis of said member adapted to engage the blade to control its position and permit lateral movement of the edge of said blade to adjust the same to said stropping element.

3. In a device of the kind described, a rotary member, and a stropping element, mounted upon said member with one end slightly farther from the axis of said member radially than its opposite end, in combination with a blade holder extending substantially parallel to the axis of said member adapted to engage the blade to control its position and permit lateral movement of the edge of said blade to adjust the same to said stropping element.

4. In a device of the kind described, a frame, a rotary member mounted upon said frame and a stropping element mounted upon said member, in combination with a bar having a part near each end loosely coöperating with said frame to rigidly maintain said bar in position and a blade holder adjustably mounted upon said bar adapted to engage a blade to control its position and present the same to said stropping element.

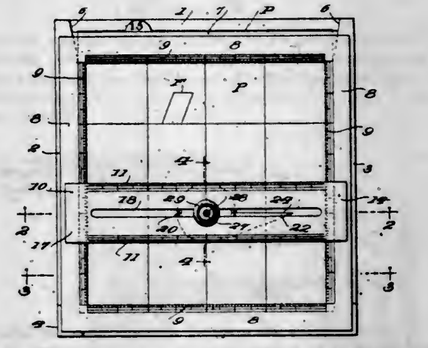
5. In a device of the kind described, a frame, a rotary member mounted upon said frame and a stropping element mounted upon said member, in combination with a bar having a part near each end loosely coöperating with said frame to rigidly maintain said bar in position and a blade holder adjustably mounted upon said bar adapted to engage a blade intermediate its back and edge and control its position and permit lateral movement of the edge of said blade to adjust the same to said stropping element.

[Claims 6 to 10 not printed in the Gazette.]

1,142,077. PLOTTER. CLINTON C. BUCHANAN, Bartow, Fla., assignor of one-third to John J. Boynton and one-third to Solon G. Wilson, Bartow, Fla. Filed Nov. 18, 1913. Serial No. 801,712. (Cl. 33—76.)

1. In a plotter, the combination with a drawing board having parallel strips along its sides; of a ruler movably mounted over the board and fitting slidably between said strips, its body being longitudinally slotted, a block slidably mounted in said slot and having an index, a protractor pivotally mounted on said block and having graduations adapted to coact with said index, and a wing projecting from said protractor, one edge of the former being radial and the other tangential to said protractor.

2. In a plotter, the combination with a drawing board having parallel strips along its sides; of a ruler movably mounted over the board and fitting slidably between said strips, its body being longitudinally slotted, a block slidably mounted in said slot and having an index, a protractor pivotally mounted on said block and having graduations adapted to coact with said index, and a pair of wings projecting from opposite sides of said protractor, one edge of each wing being radial and the other tangential to the protractor.



3. In a plotter, the combination with a drawing board having parallel strips along its sides; of a ruler movably mounted over the board and fitting slidably between said strips, the ruler having a body and an overlying transparent face plate, the latter provided with a longitudinal slot, a block overlying the body and projecting partway into said slot, a rigid index carried by said block between said body and face plate and standing on a line at right angles to the length of said slot, a protractor disposed above said body and beneath said block and index and having a circular row of graduations coacting with the tip of the index, a stem rising rigidly from the axis of said protractor and passing loosely through said block and slot and having a knob at its upper end, and means for holding said stem after the protractor has been set.

4. In a plotter, the combination with a drawing board having raised strips along its edges, of a ruler comprising a body dropped at its center so as to produce outwardly facing shoulders which slide against the inner edges of said strip and projecting ends which overlie said strips, the latter being graduated and the edges of the ruler also being graduated, a transparent face plate overlying the dropped portion of the ruler and having therein a longitudinal slot, a protractor rotatable intermediate said face plate and dropped portion of the ruler, an index disposed immediately above the protractor for coöperating with the latter, said index having a portion thereof projecting partway into said slot substantially as and for the purpose set forth.

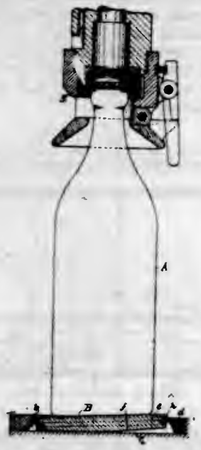
5. In a plotter, the combination with a drawing board, raised strips along three sides of the same cut away at their inner lower corners, a strip along the remaining side of the board and raised above the face of the latter, the upper inner corners of the side strips being cut away above the last-named strip, transparent face plates on all said strips, and graduations on the face plates; of a ruler having a dropped center and projecting ends adapted to overlie a pair of said celluloid face plates, for the purpose set forth.

[Claims 6 to 9 not printed in the Gazette.]

1,142,078. BOTTLE-SUPPORT FOR BOTTLE-SEALING MACHINES. AMOS CALLESON, Brooklyn, N. Y., assignor to Benjamin Adriance, Brooklyn, N. Y. Filed Oct. 15, 1913. Serial No. 795,212. (Cl. 113—2.)

1. In a machine for exerting pressure on a container in the direction of a line extending through its base or bottom, the combination of a recessed supporting member

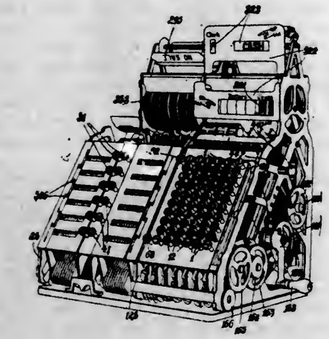
and a tilting seat member arranged in the recess of and supported by the supporting member, said members having approximately flush container supporting surfaces.



2. In a machine for exerting pressure on a container in the direction of a line extending through its base or bottom, the combination of a recessed supporting member, a tilting seat member arranged in the recess of and supported by the supporting member, and elastic means opposing yielding resistance to tilting movement of the seat member.

3. In a machine for exerting pressure on a container in the direction of a line extending through its base or bottom, the combination of a suitable recessed support, a tilting seat member receiving the contact of the container and arranged in the recess of said support, and sealing means surrounding said seat and fitted between the same and the surrounding surface of said recess.

1,142,079. CASH-REGISTER. JOSEPH P. CLEAL, Toronto, Ontario, Canada, assignor to The National Cash Register Company, Dayton, Ohio, a Corporation of Ohio, (incorporated 1906.) Filed Sept. 12, 1910. Serial No. 581,540. (Cl. 235—3.)



1. In an accounting machine, the combination with an operating mechanism, of a differentially movable element normally disconnected from said operating mechanism, and constructed to be positively connected thereto, and manipulative means controlling the positive connection of the operating mechanism and movable element and adapted to obstruct at different points the movement imparted to the latter by the operating mechanism.

2. In an accounting machine, the combination with an operating mechanism, of a differentially movable rack bar normally disconnected from said operating mechanism and constructed to be positively connected thereto, and manipulative means controlling the positive connection of said operating mechanism and rack bar and adapted to obstruct at different points the movement imparted to the latter by the operating mechanism.

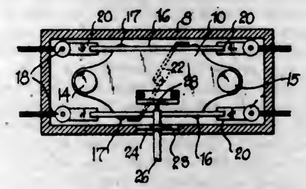
3. In an accounting machine, the combination with an operating mechanism, of a differentially movable element normally disconnected from said operating mechanism, a device carried by said element and constructed to be positively operated to connect the latter with the operating mechanism, and manipulative means controlling the positive connection of the operating mechanism and said element and adapted to obstruct at different points the movement imparted to the latter by the operating mechanism.

4. In an accounting machine, the combination with an operating mechanism, of a differentially movable rack bar normally disconnected from said mechanism, a second rack bar carried by the first mentioned rack bar and constructed to be positively operated to connect the latter with the operating mechanism, and manipulative means controlling the positive connection of the operating mechanism and the first mentioned rack bar, and the movement imparted to the latter by the operating mechanism.

5. In an accounting machine, the combination with an operating mechanism, of a differentially movable element normally disconnected therefrom, a device positively operated for connecting the operating mechanism and the movable element, and manipulative means controlling the positive connection of the operating mechanism and the said element, and adapted to obstruct at different points the movement imparted to the latter by the operating mechanism.

[Claims 6 to 139 not printed in the Gazette.]

1,142,080. TELEPHONE ATTACHMENT. JAMES H. CLEMONS, Ilion, N. Y., assignor of twenty-five one-hundredths to George Bates and twenty-five one-hundredths to Fred B. Cady, Ilion, N. Y. Filed July 18, 1914. Serial No. 851,783. (Cl. 179—30.)

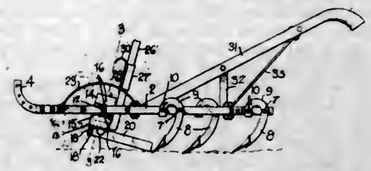


1. A device of the character described including a pivotally mounted bridge frame, conductor strips secured to the longitudinal edges of the frame, spring contacts at each terminal of each conductor, each of said contacts being normally in engagement with the adjacent conductor, a stop arm carried by the bridge piece, and a slidably mounted locking member adapted to engage against the stop member for locking the bridge member against return movement when moved in either direction.

2. In a device of the character described, a supporting base, a swingingly mounted bridge frame disposed in spaced relation to the base, parallel conductor strips secured to the longitudinal edges of the bridge frame, spring contact members arranged on the supporting base, there being a contact adjacent to each terminal of each conductor strip, all of said contacts being normally in engagement with the conductor strips, the conductor strips at either end of the bridge member being adapted to be freed from the adjacent contact member upon the swinging of the bridge frame, and spring pressed means arranged to lock the bridge member in an adjusted position, when swung in either direction.

3. In a device of the character described, a supporting base, a swingingly mounted bridge frame mounted in spaced relation to the base, parallel conductor strips secured to the longitudinal edges of the bridge frame, spring contact members arranged on the supporting base, there being a contact adjacent to each terminal of each conductor strip, all of said contacts being normally in engagement with the conductor strips, the conductor strips at either end of the bridge member being adapted to be freed from the adjacent contact member upon the swinging of the bridge frame, a stop arm projecting from the bridge frame and movable therewith, and a spring pressed slidable locking rod normally engaging against the face of the stop arm, said rod being adapted to move into engagement with the adjacent edge of the stop arm upon the swinging of the bridge frame in either direction, whereby the bridge frame is held against return movement until the rod is released.

1,142,081. COMBINED HARROW AND CULTIVATOR. WILLIAM W. DAVIS, Sylacauga, Ala. Filed Oct. 24, 1914. Serial No. 868,430. (Cl. 55—23.)



1. A device of the character described including a frame, a plurality of longitudinally extending cutting blades pivotally carried thereby, means for adjusting the elevation of the pivotal points of the blades with respect to the frame, and means for swinging the blades for adjusting the depth to which the same may engage in the ground.

2. A device of the character described including a frame, a plurality of longitudinally extending cutting blades carried by the frame, said blades being arranged in independent transversely alined sets, and independent operating means for swinging each set for controlling the depth to which the blades engage in the ground.

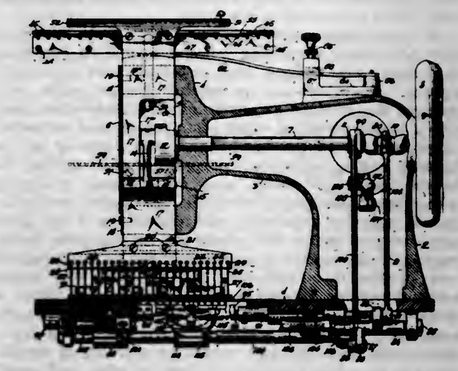
3. A device of the character described comprising a frame, said frame including a center bar and parallel side bars, a supporting rod extending through said side bars and center bar, substantially U-shaped supporting plates pivotally mounted on said supporting rod on opposite sides of the center bar, rearwardly extending parallel cutting blades carried by said plates, means for rocking said plates on said supporting rod to adjust the depth to which said blades extend, and means for holding said blades in any desired adjusted position.

4. A device of the character described comprising a frame including a center bar and parallel side bars, a supporting rod detachably engaged through said center bar and said side bars, a pair of substantially U-shaped supporting plates each having a longitudinal series of openings in each end thereof, said plates being positioned on opposite sides of the center bar of the frame, said supporting rod being engaged through one of the openings in each of the ends of said plates whereby the plates are pivotally carried by the frame, means for rocking said plates on said supporting rod whereby to adjust the depth to which the blades extend, and means for holding said plates in any desired adjusted position.

5. A device of the character described comprising a frame including a center bar and parallel side bars, a supporting rod detachably engaged through said center bar and said side bars, substantially U-shaped supporting plates arranged in the frame on opposite sides of said center bar, each of said plates having a longitudinal series of openings in its ends, said rod being adapted to engage with one of the openings in each end of the plates whereby said plates are pivotally supported in the frame, each of said plates having a longitudinal series of openings in the body portion thereof adjacent its forward edge, rearwardly extending knife blades having looped forward ends alined with the openings in the body portions of said plates, bolts disposed through the looped portions of the blades and the openings to secure the blades to the plates, spacing plates secured to the under faces of the blade supporting plates and arranged between the opposing faces of the adjacent blades to maintain the same in their parallel relation, means for adjusting said blade supporting plates whereby the blades may be disposed to engage to any desired depth, and means for holding said blade supporting plates in adjusted position.

[Claims 6 to 8 not printed in the Gazette.]

1,142,082. MULTIPLE-NEEDLE SEWING-MACHINE. PHILIP DIEHL and HERMANN EICHHORN, Elizabeth, N. J., assignors to The Singer Manufacturing Company, a Corporation of New Jersey. Filed Dec. 3, 1910. Serial No. 595,356. (Cl. 112—29.)



1. In a multiple needle sewing machine, the combination with the frame comprising a bed-plate and an overhanging bracket-arm, and a needle-actuating shaft sustained by and extending longitudinally of the bracket-arm, of a reciprocating needle-bar journaled both above and below said shaft in bearings of the bracket-arm disposed in a plane parallel with said shaft and having intermediate its ends an opening extending from one edge inwardly to substantially the center of its width and carrying alined and spaced bearing bosses extending inwardly from the edges, a pivotal pin entering said bearing bosses of the needle-bar, a crank-pin carried by said shaft, a pitman with one end embracing said crank-pin and the other end embracing the pivotal pin between said bearing bosses, a multiple needle-clamp fixed upon the lower end of the needle-bar and carrying a plurality of needles arranged in a line substantially parallel with said shaft, a loop-taking mechanism beneath said bed-plate and adapted for coöperation with said needles, and loop-taker actuating means.

2. In a multiple-needle sewing machine, the combination with the frame comprising a bed-plate and an overhanging bracket-arm, and a rotary needle-actuating shaft sustained by and extending longitudinally of the bracket-arm and carrying a crank-pin at its forward end, of a reciprocating needle-bar journaled both above and below said shaft in bearings of the bracket-arm arranged substantially in the plane of said shaft and having intermediate its ends an opening embracing the path of movement of said crank-pin and carrying alined and spaced bearing bosses at one end of said opening, a pivotal pin entering said bearing bosses of the needle-bar, a pitman with one end embracing said crank-pin and the other end embracing said pivotal pin between said bearing bosses, a multiple needle-clamp fixed upon the lower end of the needle-bar and carrying a plurality of needles disposed in a line substantially parallel with said shaft, needles secured in said sockets, loop taking mechanism beneath said bed-plate and adapted to coöperate with said needles in the production of stitches, and actuating means therefor.

3. In a multiple-needle sewing machine, the combination with the frame comprising a bed-plate and an overhanging bracket-arm formed with a hollow head containing alined needle-bar bearing slots open at the forward extremity of the bracket-arm head, a face-plate for closing the cavity of the hollow bracket-arm head and a needle-actuating shaft sustained by and extending longitudinally of the bracket-arm and carrying at its forward end a crank-pin moving in a path within the hollow bracket-arm head, of a reciprocating needle-bar comprising a flat plate journaled within said bearing slots, means independent of the face-plate removably secured upon the outer end of the bracket-arm head for confining the needle-bar within said bearing slots, a crank-and-pitman connection between said shaft and the needle-bar, a multiple needle-clamp fixed upon the lower end of said needle-bar and carrying a plurality of needles disposed in a line substantially parallel with said shaft, loop-taking mechanism, and means for actuating the same.

4. In a multiple-needle sewing machine, the combination with the frame comprising a bed-plate and an overhanging bracket-arm formed with a hollow head containing parallel needle-bar and presser-bar bearing slots each open at the forward extremity of the bracket-arm head, and a needle-actuating shaft sustained by and extending longitudinally of the bracket-arm and carrying at its forward end a crank-pin moving in a path within the hollow bracket-arm head, of a reciprocating needle-bar comprising a flat plate journaled within said needle-bar bearing slots, a presser-bar also comprising a flat plate and journaled within the presser-bar bearing slots, means common to the needle-bar and presser-bar for confining the same within their respective bearing slots, said means being removably secured upon the bracket-arm head, a crank-and-pitman connection between said shaft and the needle-bar, a multiple needle-clamp fixed upon the lower end of said needle-bar and carrying a plurality of needles disposed in a line substantially parallel with said shaft, loop-taking mechanism, means for actuating the same, and a presser-foot carried by said presser-bar.

5. In a multiple-needle sewing machine, the combination with the frame comprising a bed-plate and an overhanging bracket-arm, of a reciprocating needle-bar journaled in the bracket arm, needle-bar actuating means, a clamp detachably secured to said needle-bar and formed in one of its faces with a channel way and provided with means for holding a plurality of needles with their shanks abutting the upper wall of said channel way and for permitting changes in the number and spacing of the same, a presser-foot and supporting means therefor, a feed-actuating rock-shaft, a feed-lifting rock-shaft, actuating means for said rock-shafts, a feed-dog provided with a plurality of toothed surfaces, and adjustable connections between said feed-dog and the feed-actuating and feed-lifting rock-shafts whereby said feed-dog may be shifted sidewise to accommodate changes in the number and spacing of the needles.

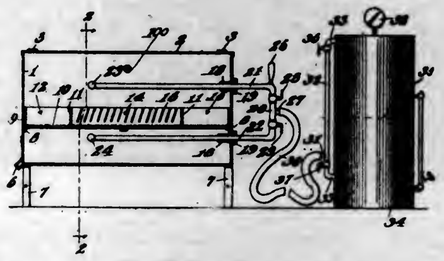
[Claims 6 and 7 not printed in the Gazette.]

1,142,083. STEAM AND HOT-WATER DISH-WASHER. ROBERT W. DODGE, Omaha, Nebr. Filed Aug. 24, 1914. Serial No. 858,304. (Cl. 141—9.)

1. In a dish washer, a casing; a dish holding means therein; a discharge member slidable in the casing and including arms located upon opposite sides of the dish holding means; a source of steam and hot water supply; and means for directing steam and hot water respectively into the arms selectively.

2. In a dish washer, a casing; a dish holding means therein; a discharge member slidable in the casing and including arms located upon opposite sides of the dish holding means; a source of steam and hot water supply; and means for directing a mixture of steam and hot water into the arms selectively.

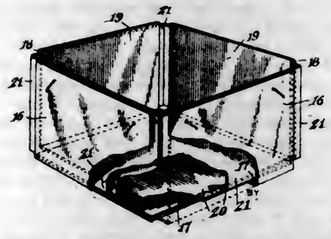
3. In a dish washer, a casing; a dish holding means therein; a discharge member slidable in the casing and including arms located upon opposite sides of the dish holding means; a source of steam and hot water supply; and means for directing steam and hot water, respectively, into the arms selectively, and for directing a mixture of steam and hot water into the arms selectively.



4. In a dish washer, a casing; a dish holding means therein; a U-shaped pipe including arms located upon opposite sides of the dish loading means, the pipe being slidable in the casing; valves in the U-shaped pipe; and a source of hot water and steam supply discharging into the U-shaped pipe between the valves.

5. In a dish washer, a casing; a dish holding means therein; a U-shaped pipe including arms located upon opposite sides of the dish holding means, the pipe being slidably mounted in the casing; a hot water and steam tank; a manifold connecting the upper and lower portions of the tank; valves in the manifold; valves in the U-shaped pipe; and a connection between that portion of the U-shaped pipe which lies between the valves of said pipe, and that portion of the manifold which lies between the valves of the manifold.

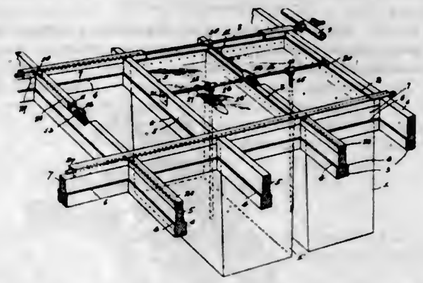
1,142,084. COLLAPSIBLE VENEER BOX. ORIN C. FENLASON, Hoquiam, Wash. Filed Jan. 10, 1914. Serial No. 811,380. (Cl. 229—23.)



A collapsible or knock-down box including a rectangular collapsible body, and a bottom forming strip secured to one terminal of the body at one of the side walls thereof and scored at intervals to form a lower or outer bottom portion, inner and outer side embracing portions, and an inner or upper bottom portion, said strip extending from the wall to which it is attached to the opposite side wall and bent upwardly exteriorly thereof and folded over the upper edge of the same and extending downwardly at the inner face of such side walls to the lower edge thereof, the free terminal portion of such strip extending across the body of the box and constituting an inner or upper bottom ply, and the free end of the latter being tucked under and engaged with the lower edge of the body at the side to which the strip is attached, whereby the strip is locked in position and the box held from collapsing.

1,142,085. APPARATUS FOR MAKING ICE. THOMAS B. MAGINNIS, Chicago, Ill., and THOMAS GAFFNEY, St. Louis, Mo. Filed Sept. 19, 1914. Serial No. 862,427. (Cl. 62—159.)

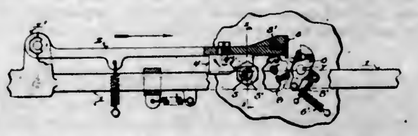
1. In apparatus for making ice, the combination with a plurality of individually removable receptacles, of a frame for said receptacles comprising a plurality of intersecting bars, a supply pipe extending along the face of one of said intersecting bars, one end of said supply pipe having a lead to a source of air under pressure, and said pipe at its opposite end being provided with a lateral seat, a transversely extending conduit having an open end engaging said seat and an apertured vertical tube depending from said conduit.



2. In apparatus for making ice, the combination with a plurality of individually removable receptacles, of a frame for said receptacles comprising a plurality of intersecting bars, a supply pipe extending along one of said intersecting bars, one end of said supply pipe having a lead to a source of air under pressure, a chambered head connected to the opposite end of said supply pipe and being apertured upon opposite sides, transversely extending conduits pivotally engaging and in open communication with said chambered head, and an apertured vertical tube depending from each of said conduits into one of said receptacles.

3. In apparatus for making ice, the combination with a plurality of individually removable receptacles, of a frame for said receptacles comprising a plurality of intersecting bars provided with shoulder portions forming seats for the receptacles, said receptacles having flanged portions engaging said seats, a supply pipe extending along the upper face of said intersecting bars, one end of said supply pipe having a lead to a source of air under pressure, a chambered head connected to the opposite end of said supply pipe, said chambered head being apertured upon opposite sides and having a tapered seat surrounding said aperture, a transversely extending conduit having a tapered end engaging said seat, an apertured vertical tube depending from said conduit into the said receptacle, a member forming a continuation of said transverse conduit and a seat in one of the intersecting bars for receiving the free end of said member to permit the engagement and disengagement of the conduit with said head when the can is in position in said frame.

1,142,086. IGNITER-ACTUATING MECHANISM. JOHN E. GILSON, Port Washington, Wis., assignor to Gilson Manufacturing Company, Port Washington, Wis. Filed Mar. 30, 1914. Serial No. 828,334. (Cl. 123—164.)



1. In an igniter mechanism having a spark-controlling trigger, an actuating dog having a nose engageable with the trigger, and a reciprocating valve-rod for imparting movement to said dog; the combination of an adjustable carrying means for advancing and retracting the dog relative to the trigger comprising a pin carried by the valve-rod, an eccentric sleeve mounted upon the pin constituting a pivot for said dog, a spring-controlled means for locking the sleeve in selective forward and rearward positions whereby the pivot point of the dog is shifted, an adjustable eccentric pin for supporting the outer end of said dog, a dog-lifting cam block interposed between the pin and dog, and means for adjusting the cam block backward or forward relative to the nose of said dog whereby the latter is elevated sooner or later in its forward movement.

2. In an igniter mechanism having a spark-controlling trigger, an actuating dog having a nose engageable with the trigger, and a reciprocating valve-rod for imparting movement to said dog; the combination of an adjustable carrying means for advancing and retracting the dog relative to the trigger comprising a pin carried by the valve-rod, an eccentric sleeve mounted upon the pin constituting a pivot for said dog, a spring-controlled means for locking the sleeve in selected forward or rearward positions whereby the dog nose is held in advanced or retracted position, a pin for supporting the outer end of said dog, a dog-lifting cam block interposed between the pin and dog, and means for adjusting the cam block backward or forward relative to the nose of said dog whereby the latter is elevated sooner or later in its forward movement.

3. An igniter actuating mechanism comprising a spring-controlled trigger, a reciprocative valve-rod, a pin carried by the valve-rod, an eccentric sleeve mounted upon the pin, a dog fulcrumed upon the eccentric sleeve having a nose for engagement with the trigger, quick adjusting means for shifting the eccentric sleeve whereby the pivot point of the dog is moved forwardly or backwardly to vary the distance between its engaging nose and said trigger, an eccentric guide pin for supporting the free end of the dog, a cam-block interposed between the dog and said pin, and means for adjusting the cam block with relation to the nose of the dog whereby the latter is raised coincident to forward movement of said dog sooner or later.

4. An igniter actuating mechanism comprising a reciprocative valve-rod, a dog, an eccentric pivot for the dog carried by the valve-rod, means for effecting quick adjustment of the eccentric pivot, whereby the dog is bodily moved forward or backward, means for locking the eccentric pivot in its adjusted position, an eccentric pin for the support of the outer end of said dog, a cam-block interposed between the eccentric pin and dog, and means for adjusting the cam-block backward and forward whereby the free end of the dog is lifted sooner or later coincident to forward movement of the same.

5. An igniter actuating mechanism comprising a reciprocative valve-rod, a dog having a tripping nose, means for pivotally adjusting the dog with relation to the rod, a pin for supporting the dog rearwardly of its nose, a cam-shoe carried by the free end of said dog for engagement with the pin, the cam-plate being provided with straight surfaces upon different planes connected by an oblique surface, and means for adjusting the cam-shoe upon the dog.

1,142,087. REINFORCEMENT FOR CONCRETE. JOHN F. GOLDING, Washington, D. C., assignor to H. N. Low, Washington, D. C. Filed Feb. 11, 1909. Serial No. 477,325. (Cl. 72—112.)



1. As a reinforcement for concrete and other purposes, the combination of a main tension bar formed with longitudinal and continuous grooves at its opposite sides, supplemental shear members connected at the desired points along the said bar, such supplemental or shear members having their ends situated in the said grooves and having portions extending to a distance from the main bar to be embedded in the concrete and transmit stresses therefrom to the main bar, two of such supplemental members being situated at opposite sides of that point of the main bar at which occurs the maximum stress and having central portions arranged in the grooves of the bar, on which portions and ends of the supplemental members the material of the bar at the sides of its grooves is forcibly compressed to form a permanent and complete union between the bar and said supplemental members, substantially as set forth.

2. In a metal reinforcement for concrete and other purposes, the combination of a main bar formed with longitudinal and continuous grooves at its opposite sides, supplemental or shear members secured at desired points along the bar, and a continuous supplemental or shear member forming a loop at a distance from the bar for interlocking with the concrete and having its central portion secured within the grooves of the bar, and having the lips of the grooves compressed upon said portions, the said portions extending past the median part of the bar which is to be subjected to the greatest stress.

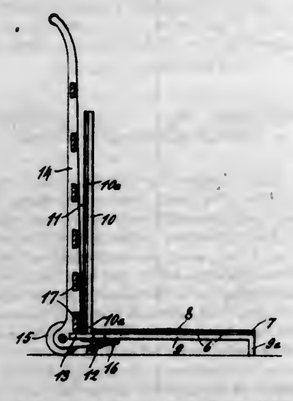
3. In a metal reinforcement for concrete and other purposes, the combination of a main bar formed with longitudinal and continuous grooves at its opposite sides, supplemental or shear members secured at desired points along the bar, and a continuous supplemental member or rod having its middle portion arranged and secured within the grooves of the main bar at opposite sides of the same, the lips of the groove being compressed upon said middle portions, and having its end portions extended from the bar in the form of loops adapted to interlock with the concrete, the said loops being at opposite sides of the median portion of the bar.

4. In a metal reinforcement for concrete and other purposes, the combination of a main bar formed with longitudinal grooves at its opposite sides, supplemental shear members secured along the bar between the lips of the said grooves and by compression of the said lips, the said shear members extending to a distance from the bar in the form of loops adapted to interlock with the concrete, the inner ends of said loops being bent around two oppositely extending lips of the main bar and into the grooves of the same at its opposite sides to the points where the shear members are secured; substantially as set forth.

5. In a metal reinforcement for concrete and other purposes, the combination of a main bar formed with longitudinal and continuous grooves at its opposite sides supplemental or shear members secured at desired points along the bar, the supplemental or shear members being formed of resilient material and adapted to lie at opposite sides of the bar in the said grooves and to be secured therein, the said two ends of the shear members being, before their application to the bar, of less distance apart than the thickness of the bar at the points where the shear members are applied, and adapted to spring inward toward each other against the bar in the grooves to hold the supplemental members in place on the bar by their own elasticity while the securing of the ends of the same is being performed.

[Claims 6 and 7 not printed in the Gazette.]

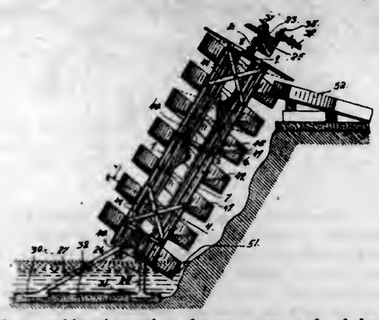
1,142,088. LOAD-SUPPORTING RACK. CLAUDE GREENE, Chicago, Ill. Filed Oct. 16, 1914. Serial No. 866,998. (Cl. 214—1.)



1. A rack of the character described comprising a base, a rear end wall rising from the base, and sills supporting the base, said sills having projecting rear ends extending beyond the aforesaid end wall.

2. A rack of the character described comprising a base, a rear end wall rising from the base, and sills supporting the base, said sills having projecting rear ends extending beyond the aforesaid end wall, the forward ends of the sills having feet, and the end wall having parts which extend downward below the base and coöperate with the feet to support the base in raised position.

1,142,089. WATER-ELEVATING DEVICE. JOSEPH NEWTON GRIMES, Denver, Colo. Filed Sept. 17, 1913. Serial No. 790,231. (Cl. 103—43.)



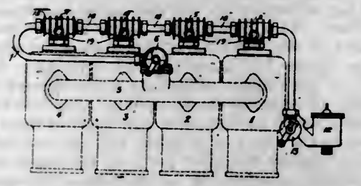
1. The combination of a frame composed of longitudinally disposed bars arranged to form a cylinder, spider members to which the bars are secured, and an open trough spirally arranged on the framework, the structure being journaled at top and bottom and suitably supported at an inclined position.

2. The combination of a framework composed of longitudinally disposed T-bars arranged in the form of a cylinder, a spider member having counterpart recesses to receive the T-bars, means for securing the T-bars to the spider members, and a trough spirally arranged on the framework, the structure being journaled at top and bottom in suitable supports and in an inclined position.

3. In a structure of the class described, the combination of a hollow skeleton framework composed of spider members and longitudinally disposed bars secured thereto, terminal shaft members secured to the spider members, stationary parts in which the shaft members are journaled at the top and bottom to cause the structure to assume an inclined position, a conduit spirally arranged on the said frame, and open at the top and bottom, and suitable means for rotating the structure, substantially as described.

4. In apparatus of the class described, the combination of a skeleton framework composed of T-bars, spider members and reinforcing rings, the T-bars being applied exteriorly to the spider members and rings which are equipped with counterpart recesses for the purpose, the tongues of the T-bars being innermost, a conduit spirally arranged exteriorly on the said frame and secured thereto, the said conduit being open at the bottom and top for inlet and discharge purposes, means for journaling the structure in an inclined position, and means for imparting the rotary movement thereto, substantially as described.

1,142,090. VAPORIZER FOR INTERNAL-COMBUSTION ENGINES. HENRY SINGLETON GRIESBACH, Chiswick, England. Filed Nov. 17, 1911. Serial No. 660,874. (Cl. 123—34.)

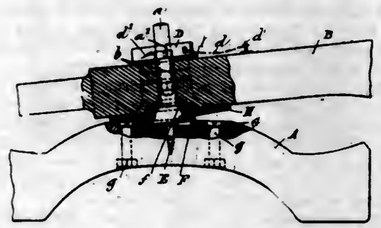


1. In combination with an internal combustion engine, a detachable cylindrical vaporizer having a spark plug aperture formed therein, a thin tubular member extending coaxially through said vaporizer, and a nipple formed on the vaporizer adapted to be screwed into the spark plug opening of the engine cylinder.

2. In combination with the cylinders of a multi-cylinder internal combustion engine, a separate casing detachably secured to each cylinder of the engine with its interior communicating with the interior of the engine cylinder, and a vaporizer tube passing through all of said casings and exposed between adjacent casings.

3. In combination with the separate cylinders of a multi-cylinder internal combustion engine, separate casings detachably secured to each cylinder with the interior of each casing communicating with the interior of the engine cylinder on which it is mounted, a water jacket for all of said casings, a vaporizer tube passing through all of said casings and exposed to the temperature of the water jacket between adjacent casings.

1,142,091. YOKE. ALEXIS GUÉRINEAU, Cholet, Maine-et-Loire, France. Filed Mar. 31, 1914. Serial No. 828,467. (Cl. 54—77.)



1. A head yoke comprising separate head pieces, a common cross bar extending across the tops of the said head pieces, a universal joint between each head piece and said cross bar, allowing said cross bar to oscillate both in a horizontal and vertical plane relative to each head piece, and means for limiting said oscillatory movements.

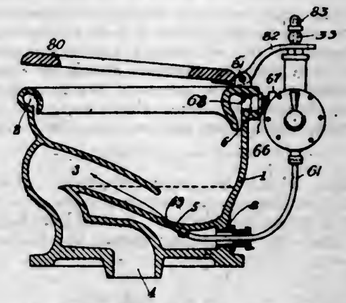
2. A head yoke comprising separate head pieces, a common cross bar extending across the tops of the said head pieces, a hemispherical joint between each head piece and said cross bar, allowing said cross bar to oscillate in a horizontal and vertical plane relative to each head piece, and means for limiting said oscillatory movements.

3. A head yoke comprising separate head pieces, a common cross bar extending across the tops of the said head pieces, a pin and socket joint between each head piece and said cross bar, consisting of a pin extending through said cross bar and having a hemispherical head working in a corresponding recess in the head piece, and so arranged as to allow said cross bar to oscillate about said pins and also to tilt in a vertical plane relative to each head piece, and means for limting the movements of said cross-bar.

4. A head yoke comprising separate head pieces, a common cross bar extending across the tops of the said head pieces, a pin and socket joint between each head piece and said cross bar, consisting of a pin extending through said cross bar and having a hemispherical head working in a corresponding recess in the head piece, and so arranged as to allow said cross bar to turn about said pins and also to tilt in a vertical plane relative to each head piece, and stops on one of the relatively movable parts for limiting the turning movements of said cross bar, the said spherical recess being provided with notches whereby the tilting of said cross bar in a vertical plane is limited by said pin striking the edges of said notch.

1,142,092. WATER-CLOSET VALVE. PHILIP HAAS, Dayton, Ohio. Filed Oct. 30, 1913. Serial No. 798,300. (Cl. 4—5.)

1. The combination with a water closet bowl provided with a flushing passage, of a valve casing provided with a central partition having an aperture therein, having an imperforate cylindrical wall forming a valve seat, said casing having an inlet chamber and an outlet chamber on opposite sides of said partition, a back pressure chamber, adjacent to the outlet chamber, and an inlet valve seat at a distance from said cylindrical aperture and in line therewith, a diaphragm separating the outlet and back pressure chambers, a normally closed inlet valve engaging the inlet valve seat, for preventing the flow of water through the casing, a normally open piston valve in the inlet chamber normally out of engagement with said imperforate cylindrical valve seat, for engaging and moving in said cylindrical valve seat during a portion of the movement of said valves in both directions, said valves being rigidly connected to the diaphragm for movement therewith, a connection between the outlet chamber and the flushing passage of the bowl, a relief valve for the back pressure chamber and means for establishing communication between the inlet chamber and the back pressure chamber, whereby the piston valve maintains the aperture in the partition closed during a portion of the return movement of said valves, to facilitate the refilling of the back pressure chamber, and prevent hammering, without interfering with the movement of said valves by said diaphragm.



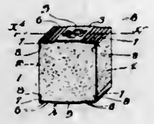
2. The combination with a water closet bowl provided with a trap, a rim flushing passage, and a jet flushing passage discharging longitudinally through the trap, of a valve casing provided with a central partition having a cylindrical aperture therein forming a valve seat, said casing having an inlet chamber and an outlet chamber on opposite sides of said partition, a back pressure chamber adjacent to the outlet chamber, and an inlet valve seat, a diaphragm separating the outlet and back pressure chambers, a normally closed inlet valve engaging the inlet valve seat, a normally open piston valve adapted to fit and move in said cylindrical valve seat, said valves being rigidly connected with the diaphragm for movement therewith, a connection between the outlet chamber and the rim flush passage of the bowl, a separate connection between the inlet chamber and the jet flush passage of the bowl, a relief passage for the back pressure chamber, a relief valve controlling said relief passage, means for establishing communication from the inlet chamber to the back pressure chamber, and means operable by the weight of the user for actuating the relief valve, whereby when the relief valve is opened the water will pass through both flushing apertures to wet the bowl and empty the trap until the piston valve is seated when the rim flush is cut off and a discharge through the jet passage continues to ventilate the bowl, so long as the relief valve remains open, and on the closing of the relief valve, water is delivered to both discharge passages until the inlet valve is closed by the diaphragm.

3. The combination with a water closet bowl provided with a trap, a rim flushing passage, and a jet flushing passage discharging longitudinally through the trap, of a valve casing provided with a central partition having a cylindrical aperture therein forming a valve seat, said casing having an inlet chamber and an outlet chamber on opposite sides of said partition, a back pressure chamber adjacent to the outlet chamber, an inlet aperture for the inlet chamber, a normally closed inlet valve for said aper-

ture, a normally open piston valve in the inlet chamber, constructed to engage and move in said cylindrical valve seat, a diaphragm separating the outlet and back pressure chambers, said valves being rigidly connected together and to the diaphragm for joint movement therewith, a relief valve for the back pressure chamber, means for establishing communication between the inlet aperture and the back pressure chamber, a connection from the inlet chamber to the jet passage, a connection from the outlet chamber to the rim flushing passage, a pivoted seat, operatively connected with the relief valve, and a spring for returning the relief valve and normally holding the seat in elevated position.

4. The combination with a water closet bowl provided with a trap, a rim flushing passage, and a jet flushing passage discharging longitudinally through the trap, of a valve casing provided with inlet and outlet passages separated by a partition having an aperture therein, a back pressure chamber, and a diaphragm separating it from the outlet chamber, a connection from the inlet chamber to the jet flushing passage, a connection from the outlet chamber to the rim flushing passage, a part connected with the diaphragm extending through the aperture in said partition, and provided with a normally closed valve for preventing admission of water to the inlet chamber, and a normally open valve for closing the aperture in the partition when the inlet valve is open, to discharge water continuously to the jet flushing passage, a relief valve for the back pressure chamber, means for establishing communication between the water supply and the back pressure chamber, a pivoted closet seat, and operative connections between the seat and the relief valve.

1,142,093. BUILDING CONSTRUCTION. CHARLES B. HARP, Los Angeles, Cal. Original application filed Dec. 2, 1912, Serial No. 734,637. Divided and this application filed May 22, 1913. Serial No. 769,311. (Cl. 72—44.)



1. In a building construction, a series of slabs forming an inner wall, a series of slabs forming an outer wall, short studs arranged with their inner edges flush with the inner face of the inner wall, and their outer edges flush with the outer face of the outer wall, a metal protecting plate covering the upper edge of the stud, and a similar plate covering the lower edge of the stud, the outer and inner corners of the upper plate bearing against the respective outer and inner slabs above said plate, and the outer and inner corners of the lower plate resting respectively against the upper edges of the outer and inner slabs below said plate.

2. A concrete building stud, and a metal p'·te bearing against the respective pressure sustaining ends thereof, each metal plate being formed with means on its face for receiving mortar to bond the adjacent member resting upon the plate.

3. As a new article of manufacture, a concrete building stud, and a metal plate on each end thereof, each metal plate having a series of corrugations extending transversely of the plate parallel with the outer and inner edge surfaces of the stud, said plate having lugs struck out from the center portion thereof, said lugs being molded in the stud.

4. A concrete building stud, and a metal plate on each end thereof, each metal plate having a series of corrugations extending transversely of the plate parallel with the outer and inner edge surfaces of the stud, the outer ends of the plate being bent at right angles to the plate and flush with the outer and inner edge surfaces of the stud, and being inbent along the lower edge and embedded in the stud.

5. A concrete stud and metal plate on each end thereof, said metal plate having transverse corrugations at each edge and the ends of the plate being bent above and flush with the surfaces of the outer and inner edges of the stud, each of said plates having dovetailed lugs struck out from the center portion of the plate and permanently embedded in the stud.

1,142,094. PROTECTIVE DUCT FOR FIRE-DETECTING CONDUCTORS. CHARLES A. HARSCH, New York, N. Y., assignor, by mesne assignments, to The Fire Detecting Wire Company, (Inc.,) New York, N. Y., a Corporation of New York. Filed Apr. 11, 1914. Serial No. 831,266. (Cl. 177—303.)

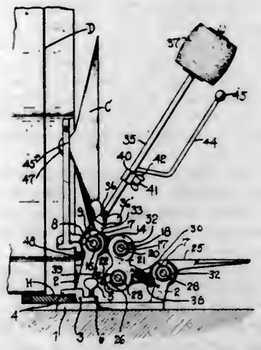


1. A duct formed of a material having high heat conductivity with a supporting flange, said duct and flange being in the form of a picture molding, in combination with a pair of insulated conductors fixed in close proximity with an intervening layer of metal having a low fusing point said conductor being located within said duct close to a series of perforations in said duct.

2. The combination of a duct formed of sheet metal having a high degree of heat conductivity, provided with a series of perforations in its exposed wall affording free access for air, and a pair of electric conductors located within said duct, said conductors being in close proximity, separated by a thin layer of insulating material and a thin layer of metal having a low fusing point.

3. The combination of a duct of sheet metal having a flange adapted for attachment to a support, said duct having perforations in its exposed surface adapted to admit heated air to its interior, and a fire detecting conductor located within said duct and protected thereby, said conductor having an insulating material and a material fusible at a low temperature, and a complemeutary conductor separated from the first-named conductor by said fusible material and said insulating material.

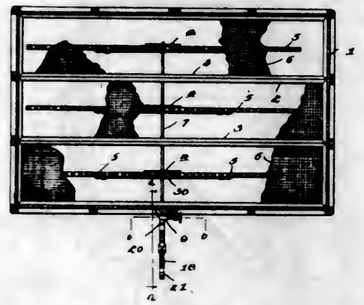
1,142,095. DRUM-BEATER. FRANK FREDERICK HENDRICKSON, Garfield, N. J. Filed Aug. 19, 1914. Serial No. 857,561. (Cl. 84—10.)



1. A device of the character described comprising side members provided with clamping means, uprights projecting from the side members, a pedal pivotally supported between certain of the uprights, a rod pivotally mounted between the remaining of the uprights at a point above the pivotal connection of the pedal, said rod being provided with a beater, a lever connection between the pedal and the rod, a retractable connection between the lever and an upright for supporting the pedal, and a retractable connection between the inner end of the pedal and the lower end of the rod.

2. A device of the character described compriaing side members provided with clamping means at one end thereof, uprights projecting from the side members adjacent the opposite extremities of the side members, the uprights adjacent the clamping means being longer than the uprights at the opposite ends of the side members, a pedal pivotally supported intermediate its length between the shorter uprights, a rod pivotally mounted between the upper extremities of the longer uprights, said rod being provided with a beater, a lever connection between the inner end of the pedal and the rod, a spring connected with the lever intermediate its length and with one of the shorter uprights, and a spring connecting the inner extremity of the pedal and the lower extremity of the rod.

1,142,096. BOLTING-CLOTH CLEANER. ALLEN C. HIGGINBOTHAM, Charleston, W. Va. Filed May 26, 1914. Serial No. 841,144. (Cl. 83—38.)



1. In combination with a sieve, cleaning brushes mounted for movement therein, a rack bar movable with and carried by the sieve, reversing devices at the ends of the rack bar, an operating rod for and movable with the brushes, a traveler on said rod and guided by the rack bar, a reversible dog mounted on the traveler, coacting with the rack bar to actuate the brushes and reversed by the reversing devices to cause the brushes to move first in one direction and then in the reverse direction.

2. In combination with a sieve, cleaning brushes mounted therein, an operating rod for the brushes, means carried by and driven by the gyratory movement of the sieve to move the actuating rod and thereby move the brushes, and means to regulate the speed of the rod and brushes.

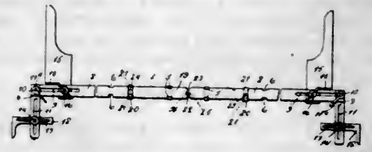
3. In combination with a sieve, cleaning bruahes mounted therein, an operating rod for the brushes, means carried by the sieve to move the actuating rod and thereby move the brushes, and means to regulate the speed of the rod and brushes and comprising a friction device bearing against the rod and means to vary the frictional tension of said device against the rod.

4. In combination with a sieve, cleaning brushes mounted therein, an operating rod connected to the brushes and extending through one side of the sieve, a carrier connected to said rod, a rack bar arranged exteriorly of the sieve and connected to said side thereof, reversing devices at the ends of the rack bar, a traveler on the rod and attached thereto and a dog carried by said carrier and to engage the rack bar, said dog being reversed by the reversing devices.

5. In combination with a sieve, a brush actuating rod extending therethrough, a carrier attached to and movable with the rod, brushes pivotally connected to the carrier and arranged for vertical movement and springs carried by the carrier and exerting their tension to raise the brushes and yet permit pivotal movement of the brushes.

1,142,097. ADJUSTABLE THRESHOLD-TRANSFER. GEORGE A. HILL, Sanford, Me. Filed Apr. 28, 1911. Serial No. 623,842. (Cl. 33—194.)

1. An adjustable threshold transfer bar having a longitudinal slot adjacent each end and consisting of sections adjustable one upon the other, a laterally extending strap on each of said sections, said straps being on opposite sides of said sections when assembled and each of said straps bent to form hooks opening toward each other and spaced from said sections, and said sections being provided with notches to receive such of said hooks as are on the other section, means for holding said sections in an adjustable position, a pair of arms—one of said pair of arms being adjustably secured through one of said end slots in said bar, and the other in the other of said slots, each of said arms having a recess in its end adjacent said bar, a second pair of arms—one of said second pair of arms being adjustably secured through one of said end slots and the other in the other of said slots, and provided with longitudinal slots, one each of another pair of arms adjustably secured in each of said last named slots, and means for securing said arms in adjustable relationship.



2. An adjustable threshold transfer comprising an adjustable bar consisting of a center section and two end sections, said center section having a laterally extending strap rigidly secured thereon at each end and notches in its side edges and a thumb screw in its center, said straps being bent to form hooks opening toward each other and spaced from said center section, said notches being opposite each other and equi-distant from said hooks, and said thumb screw being between said notches, said end sections each having a longitudinal slot at one end and a laterally extending strap rigidly secured thereon at the other end and notches in their edges, said last named straps being bent to form hooks opening toward each other and spaced from their respective sections and positioned to register with the notches in said center, and the notches in said end sections so positioned as to register with said hooks on said center section when said sections are being assembled to form said bar, gage arms mounted on the free ends of said end sections and means for securing said arms in adjusted positions, said thumb screw in said center section being adapted to prevent accidental separation of said sections.

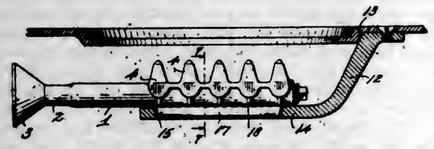
3. In an adjustable threshold transfer, an adjustable bar consisting of sections connected by laterally extending straps rigidly secured to the ends of said sections and having their ends bent to form hooks, said sections having notches on their edges spaced to register with said hooks when said sections are being assembled or dismembered, and means for securing said sections in an adjusted position, each end of said adjustable bar being provided with a longitudinal slot in which to secure gage arms.

4. In an adjustable threshold transfer, an adjustable bar consisting of a center section and two end sections, said center section having a laterally extending strap at each end, said straps being bent to form hooks, thumb nuts in said straps, notches in the center of its edges equi-distant from said hooks and a thumb screw in its center between said notches, said end sections each having a longitudinal slot at one end and a laterally extending strap at the other end and notches in their edges, said last named straps being bent to form hooks and said last named notches so positioned as to register with said hooks on said center section when said sections are being assembled to form said bar, said thumb nuts in said straps on said center section being adapted to secure the sections in an adjusted position, and said thumb screw between said notches in said center section being adapted to prevent accidental separation of said sections.

1,142,098. BURNER. GEORGE W. HOPKINS, Cleveland, Ohio. Filed Sept. 16, 1912. Serial No. 720,525. (Cl. 158—101.)

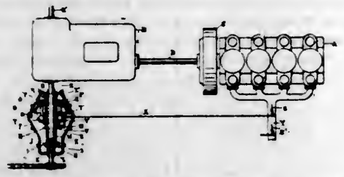
1. A burner for acetylene gas comprising a frame, a body portion, integral burner sections arranged parallel

and transverse with respect to the body portion and having inclined upper sides meeting at an apex and also having a gas slot at each apex, means formed integral with the burner sections for radiating the heat from one to the other, and integral means forming part of the burner for radiating the heat from the burner to the frame.



2. In a burner structure for acetylene comprising a frame, a body portion, a plurality of parallel burner sections formed integral with the body portion, a radiating rib cast with the main body portion, and means for receiving said rib and for transmitting the heat from the burner to the frame.

1,142,099. SPEED-REGULATOR FOR MOTOR-VEHICLES. MILLER REESE HUTCHISON, Bay Shore, N. Y. Filed July 27, 1906. Serial No. 328,027. Renewed Nov. 12, 1913. Serial No. 800,660. (Cl. 121—112.)



1. A vehicle, a motor therefor, and a plurality of power transmitting connections of different speed ratios, for applying the power to drive the vehicle at different speeds, in combination with a centrifugal governor, connections for driving the same at a speed proportional to the speed of travel of the vehicle, a spring acting to oppose the centrifugal tendency of the governor, a nut for adjusting said spring and calibrating indicator marks adjacent to said nut to indicate the road speed of the vehicle corresponding to given adjustment of said nut, and means operating to throttle the motor when the centrifugal tendency of the governor overbalances the opposing means.

2. An attachment for motor-vehicles comprising a sleeve adapted to be fitted over a section of a driven shaft of the differential driving gear, in combination with a centrifugal governor, means for adjusting the same, and means for securing the parts in a desired position of adjustment, all carried by said sleeve.

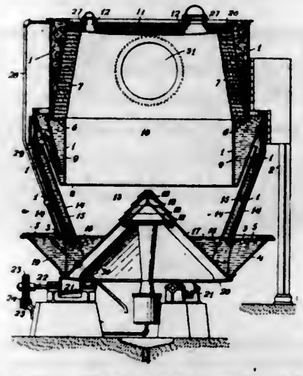
3. An attachment for motor-vehicles comprising a sleeve adapted to be fitted over a section of a driven shaft of the differential driving gear, in combination with a centrifugal governor, means for adjusting the same, and means for securing and sealing the parts in a desired position of adjustment, all carried by said sleeve.

4. A vehicle, a motor therefor, power transmitting connections for applying the power of said motor at different speed ratios to drive the vehicle, manually operable means for controlling said motor to vary the speed of said vehicle, in combination with a governor, connections for driving the same at a speed proportional to the speed of travel of the vehicle, and means independent of said first-mentioned means and out of control of the driver but controlled by the operation of said governor for limiting the speed of the motor.

5. The combination with a motor vehicle provided with a motor of the explosive type, mechanism operated by said motor for producing movement of said vehicle, means to operatively connect and disconnect said mechanism with and from said motor, and means connected with said mechanism at all times while the motor vehicle is in motion to respond to the speed of the vehicle irrespective of the speed of the motor and control or regulate the supply of explosive mixture to the motor to prevent said vehicle being driven by said motor beyond a predetermined speed independently of the will of the operator, and to leave said motor under control of the operator to develop its full power when the vehicle is being driven below said predetermined speed, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

1,142,100. GAS-PRODUCER. EBENEZER A. W. JEFFERIES and GEORGE H. ISLEY, Worcester, Mass., assignors to Morgan Construction Company, Worcester, Mass., a Corporation of Massachusetts. Filed Mar. 2, 1908. Serial No. 418,656. (Cl. 48—68.)



1. A gas producer having a stationary casing and an ash pan, with said casing extending into said ash pan to form a seal for the casing, an ash hopper inclosed within the lower part of said casing, and means for rotating said hopper.

2. A gas producer having a stationary casing and an ash pan, with said casing extending into said ash pan to provide a seal for said casing, an ash hopper supported upon said ash pan and inclosed in said casing, and means for rotating said pan and hopper.

3. A gas producer having a stationary casing, a rotatable ash hopper inclosed within the lower part of said casing, and a water seal between the lower edge of said ash hopper and the lower edge of said casing.

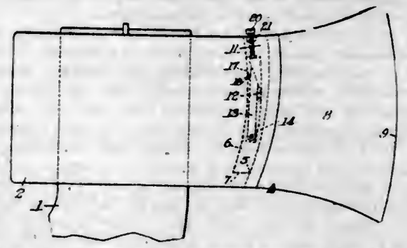
4. A gas producer having a casing divided horizontally with the upper portion stationary and the lower portion revoluble, said upper portion having a downward extension over said lower portion and provided with a water seal at its lower edge.

5. A gas producer comprising a casing divided horizontally, with the upper portion stationary and the lower portion revoluble, and a downward extension from said upper stationary portion inclosing said lower revoluble portion.

[Claims 5 to 16 not printed in the Gazette.]

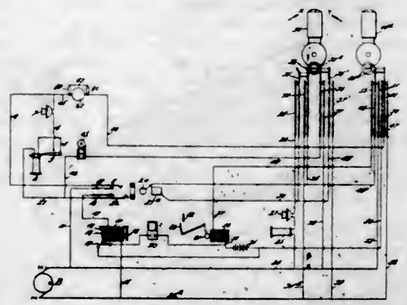
1,142,101. HATCHET. OLOF EMANUEL MYREN JOHNSON, Newett, Colo. Filed Aug. 21, 1911. Serial No. 645,235. (Cl. 145—3.)

A hatchet comprising a handle, a head secured to said handle and formed with a forwardly projected shoulder at its lower termination and with a lug receiving recess, oppositely disposed dovetails projected from the upper termination of the said head and prolonged its entire depth to abut the said shoulder, a detachable blade formed with a neck for insertion between the said dovetails, a head formed with a suitable recess made integral with the said neck for insertion between the body of the said hatchet-head and the dovetails, a spring actuated lever pivotally disposed within the recessed head, a lug carried by said lever for insertion in the recess in the hatchet-head, a beveled block normally engaging the



said lever and a screw for engagement with the said beveled block.

1,142,102. STORE-SERVICE CREDIT-SYSTEM APPARATUS. CHARLES F. KETTERING, Dayton, Ohio, assignor to The National Cash Register Company, Dayton, Ohio, a Corporation of Ohio, (Incorporated in 1906.) Original application filed Dec. 14, 1904, Serial No. 236,893. Divided and this application filed Feb. 19, 1907. Serial No. 358,278. (Cl. 177—352.)



1. In a system of the character described, a marking device; distant means for controlling said device; and means whereby said marking device is rendered unreasponsive to the controlling means in the absence of an article to be marked.

2. In a system of the character described, an electrically operable marking device; distant means for controlling said device; and means whereby said marking device is rendered unresponsive to the controlling means in the absence of an article to be marked.

3. In a system of the character described, an electrically operable marking device; distant means for controlling said device; and means including a shunt circuit whereby the marking device is rendered unresponsive to the controlling means in the absence of the article to be marked.

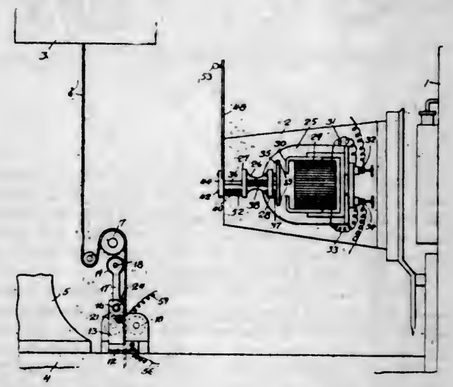
4. In a system of the character described, a stamping device; distant means for controlling said device; and means whereby said stamping device is rendered unresponsive to the controlling means in the absence of an article to be stamped.

5. In a system of the character described, a marking device; independently operable means at a distant station for controlling said device; and means whereby the marking device is rendered unresponsive to the independently operable means in the absence of the article to be marked.

[Claims 6 to 32 not printed in the Gazette.]

1,142,103. SAFETY-SHUTTER FOR MOTION-PICTURE MACHINES. FREDERICK R. KLINK, Canton, Ohio, assignor of one-third to John A. Bernower and one-third to Valentine L. Ney, Canton, Ohio. Filed Oct. 8, 1913. Serial No. 793,981. (Cl. 88—17.)

1. In a device of the character described, a support, a shutter, a shutter arm connected thereto and having pivotal connection with said support, a curved member connected to said shutter arm and provided with a groove concentric with the axis of pivotal connection of said shutter arm and support said grooves provided with a recessed portion, and a trip pin connected to said support, engaging said groove, adapted to move into and out of engagement with said curved member, and adapted to be seated in said recessed portion to hold said shutter arm against pivotal movement.



2. In a device of the character described, a support, a shutter, a shutter arm connected thereto and having pivotal connection with said support, said arm provided with a curved portion concentric with the axis of pivotal connection of said shutter arm and support, a trip pin connected to said support, said curved portion provided with a recess, and said trip pin adapted to move into and out of said recess and adapted to normally bear against said curved portion, when out of said recess, said pin adapted to hold said shutter arm against pivotal movement when located in said recess.

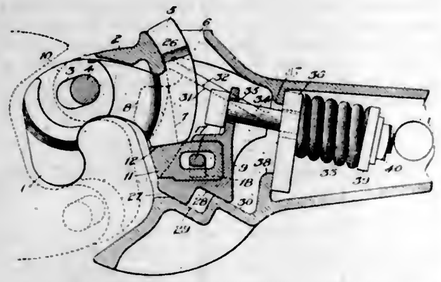
3. In a device of the character described, a support, a shutter arm provided with a shutter and having pivotal connection with said support, said shutter arm being provided with a curved portion concentric with the axis of pivotal connection of said shutter arm and support and provided with a recess, spring means normally tending to pivotally move said shutter arm, a trip pin slidably connected to said support, and provided at its rear end with an armature, spring means tending to urge the front end of said pin into engagement with said curved portion and into said recess, said pin, when in said recess, adapted to prevent pivotal movement of said shutter arm and an electro-magnet mounted upon said support and adapted, when energized, to attract said armature, whereby to retract said trip pin and free said shutter arm from the restraint of said pin.

1,142,104. CAR-COUPLING. SAMUEL F. KLOHS, Chicago, Ill. Filed Jan. 27, 1915. Serial No. 4,660. (Cl. 213—10.)

1. The combination with a coupler having a pivoted knuckle which is adapted to move longitudinally with respect to the head thereof while the parts are in coupled relation, a lock for said knuckle, and spring means operatively connected to said knuckle for retracting the same, said means being arranged within the contour of the coupler and lying wholly within a line which extends parallel to the longitudinal axis of the coupler and which passes through the pivotal axis on which the knuckle turns when rotating outwardly.

2. In a car coupler, the combination with a coupler head, of a knuckle yieldingly mounted thereon, said head and knuckle having a pin and slot connection permitting the knuckle to move relatively to the coupler head in the line of draft while the knuckle is locked, a lock for maintaining the knuckle in coupler relation with respect to said head, and a spring device operatively connected to the tail

of said knuckle and pulling thereon in all positions of the latter whether the knuckle is open or closed.



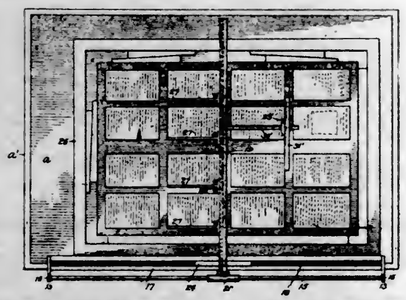
3. In a car coupler, the combination with a coupler head, of a knuckle movably mounted thereon so as to permit its outer end to approach and recede from the coupler head while the parts are in coupled relation, and means for causing the outer end of said knuckle to rotate inwardly when it is drawn outwardly.

4. In a car coupler, the combination with a coupler head, of a knuckle movably mounted thereon so as to permit its outer end to approach and recede from the coupler head while the parts are in coupled relation, and means for maintaining the knuckle in coupled relation with said head, said means being operative to cause a turning movement of said knuckle while the latter is in coupled relation with said head.

5. In a car coupler, the combination with a coupler head, of a knuckle movably mounted thereon so as to permit its outer end to approach and recede from the coupler head while the parts are in coupled relation, means for yieldingly connecting said head and knuckle, and means for causing an inward turning movement of the outer end of said knuckle while the latter is in coupled relation with said head.

[Claims 6 to 16 not printed in the Gazette.]

1,142,105. MAKE-UP DEVICE FOR PRINTERS. FRED W. LAKE, Moline, Ill. Filed Aug. 7, 1913. Serial No. 783,446. (Cl. 101—52.)



1. In a printer's make-up device, the combination of a guide, adapted to be secured to a support, a bar slidably and pivotally mounted on the guide, and fingers forming rigid right-angle squares with the edge of the bar and extending horizontally therefrom, and adjustable longitudinally thereon to indicate the correct position of a row of pages.

2. In a printer's make-up device, the combination of a guide, means for removably securing the guide to a support, a bar slidably and pivotally mounted on the guide, and fingers adjustable longitudinally along the whole length of the bar to indicate the position of a row of pages.

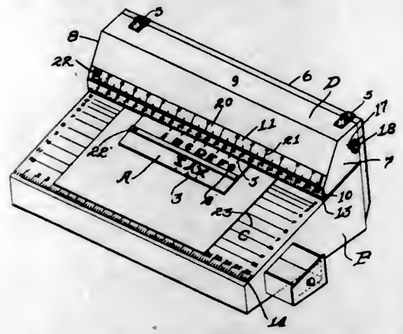
3. In a printer's make-up device, the combination of a guide-bracket adapted to be secured to a support, a shaft held in said bracket, a bar slidably mounted on the shaft, means between the bar and the bracket for guiding the bar longitudinally of the shaft, and fingers on the bar for indicating the position of a row of pages.

4. In a printer's make-up device, the combination of a guide-bracket, means for securing it to a support, a shaft held in said bracket, a bar slidably and pivotally mounted on the shaft, means between the bar and the bracket for guiding the bar longitudinally of the shaft, and fingers on the bar for indicating the position of a row of pages.

5. In a printer's make-up device, the combination of a guide-bracket adapted to be secured to a support, a shaft held in said bracket, a bar slidably mounted on the shaft, means between the bar and the bracket for guiding the bar longitudinally of the shaft, and fingers extending horizontally from said bar and adjustable thereon for indicating the position of a row of pages.

[Claims 6 to 18 not printed in the Gazette.]

1,142,106. STENCILING APPARATUS. HELLMUTH LEHMKUHL, St. Paul, Minn. Filed July 2, 1914. Serial No. 848,568. (Cl. 101—132.)



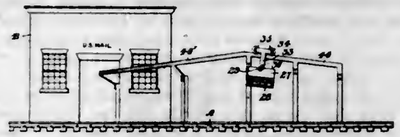
1. In a stenciling apparatus, the combination with a base, of a head frame carried by said base, said frame having a sight opening, spaced members supported within said frame, an endless band having scales printed thereon and passing about said spaced members to register with said opening, means for moving said band, and stencil plates each having openings corresponding to a scale on said band.

2. In a stenciling apparatus, the combination with a base, of a head frame carried by said base, said frame having a sight opening, a rotary drum journaled in said frame, a guide member secured in said frame, an endless band having a series of scales printed thereon and passing about said drum and said guide member to register with said opening, means for rotating said drum, and stencil plates each having openings corresponding to a scale on said band.

3. In a stenciling apparatus, the combination with a base, of a head frame hingedly connected to said base and having an angularly disposed edge adapted to engage and hold material to be stencilled, said frame having a sight opening, spaced members supported within said frame, an endless band having scales printed thereon and passing about said spaced members to register with said opening, means for moving said band, and stencil plates each having openings corresponding to a scale on said band.

4. In a stenciling apparatus, the combination with a base having a graduated scale, of a head frame carried by said base, said frame having a sight opening, a graduated scale on said frame in proximity to said sight opening and coöperating with the scale on said base, spaced members supported within said frame, an endless band having scales printed thereon and passing about said spaced members to register with said opening, means for moving said band, and stencil plates each having openings corresponding to a scale on said band.

1,142,107. MAIL-BAG CATCHING AND DELIVERING APPARATUS. JOHN LULEK, Cicero, Ill. Filed Aug. 19, 1914. Serial No. 857,537. (Cl. 258—10.)



1. In a device of the class described, a pair of spaced shafts, bracket arms slidably mounted at their ends on said shafts, an arm journaled intermediate the ends of said bracket arms, a normally vertical supporting member on the outer end of said arm, means for causing said supporting member to assume a horizontal position, and means for returning said supporting member to its normally vertical position.

2. In a device of the class described, the combination with a car provided with transverse shafts, of bracket arms slidably-mounted on said shafts, an arm journaled in said bracket arms, a normally-projecting U-shaped receptacle supporting member carried by the outer end of said arm, a guide roller carried by the outer end of said arm, a track over which said guide roller is adapted to travel to cause said U-shaped member to assume a horizontal position, and means for causing said U-shaped member to return to normally vertical position when said guide roller leaves said track.

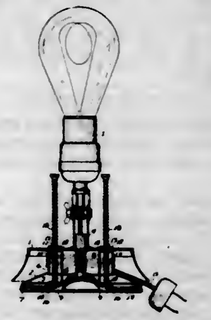
3. In a device of the class described, guide members, a bracket adjustably mounted on said guide members, an arm journaled in said bracket, means associated with said arm and guide members for causing said arm to return to normal position when revolved in its journaled bearing, bag-supporting means carried by the outer end of said arm, and coöperating means for causing said arm to rotate to lower the bag-supporting means.

4. In a device of the class described, a pair of parallel shafts, a bracket slidably mounted thereon, an arm rotatably mounted in said bracket, a mail catching member pivoted to the outer end of said arm, a spring for holding the same normally vertical, a track, means carried by said arm adapted to engage said track to cause said arm to revolve and lower the mail catch member, and means associated with said shafts and arm to return said arm to its initial position.

5. In a device of the class described, a pair of guide members, an arm adjustably supported relative to said guide members, track-positioned means adapted to engage said arm to partially rotate the same, and means associated with said arm and guide members adapted to restore said arm to its initial position.

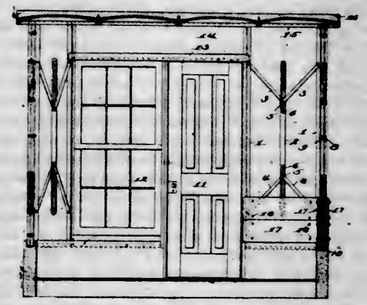
[Claims 6 and 7 not printed in the Gazette.]

1,142,108. LAMP-STAND BODY. WILLIAM A. MCKAY and MARTIN CLAUSSEN, San Francisco, Cal. Filed Nov. 11, 1913. Serial No. 800,311. (Cl. 240—53.)



A support for lamps and the like comprising apertured plates, a movable rod, and means for securing together said plates spaced from each other and for guiding said rod through said plates comprising a tie member having an apertured part at one end too large to pass through a hole in one of the plates and at the other end an apertured part sufficiently small to pass through a hole in the other plate and an apertured washer inserted between said latter part and plate.

1,142,109. REINFORCED CONCRETE CONSTRUCTION. MCKENDREE H. MCKEE, South Bend, Ind. Filed Jan. 9, 1913. Serial No. 741,084. (Cl. 72—110.)

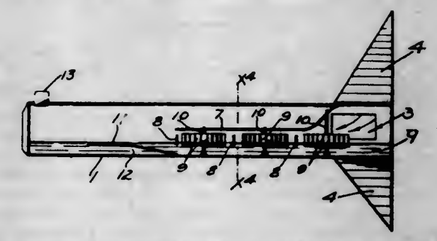


1. A reinforcing unit for use in concrete wall construction, comprising a pair of bars, an intermediate slotted adjusting bar, and links pivoted to the first named bars and to one another, the mutual pivots of the links being arranged in the slots of the adjusting bar.

2. A reinforcing unit for use in concrete wall construction, comprising a pair of bars, an intermediate slotted adjusting bar, and links pivoted to the first named bars and to one another, the links being arranged in upper and lower pairs, the mutual pivots of the links being arranged in the slots of the adjusting bar.

3. A reinforcing unit for use in concrete wall construction, comprising a pair of T-bars arranged in confronting relation, an intermediate slotted adjusting bar, and links arranged in upper and lower pairs, the links of each pair being pivoted at relatively opposite sides of the central flanges of said T-bars and being pivoted to one another at their adjoining ends, the mutual pivots of the links being arranged in the slots of the adjusting bar.

1,142,110. VENTILATOR FOR CARS. WILLIAM E. MCMULLIN, Minneapolis, Minn. Filed Aug. 10, 1914. Serial No. 855,959. (Cl. 98—46.)



1. A ventilator comprising a box constructed to contain water and having an intake port at one end of its outer side and having a discharge port at its inner side, whereby an air current will be directed through said box, and a rotary agitating wheel within said box freely mounted to rotate on a vertical axis with its lower portion immersed in water and with its upper portion projecting above the water, the axis of said wheel being at one side of the center line of the air current passed through said box, whereby said wheel will be rotated by the said air current, and the water will be positively agitated.

2. A ventilator comprising a box constructed to contain water and provided at the end of its outer side with an

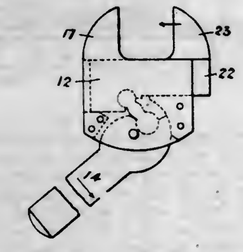
intake port and at its inner side with a discharge port, whereby an air current will be directed through said box, a plurality of rotary agitating wheels within said box freely mounted to rotate on vertical axes with their lower portions immersed in the water and their upper portions projecting above the water, said wheels having their axes offset from the center line of air current forced through said box, and a baffle strip extended transversely of said box between said wheels, with their lower edges spaced above the bottom of the box.

3. A ventilator comprising a box having an intermediate horizontal partition terminating forward of its rear end and provided at the front end of its outer side with an intake port directing air into said box below said partition, said box having discharge ports at its inner side, certain of which are located above said partition, and a cinder accumulating chamber on the bottom of said box extended rearward of said partition, having a top plate inclined toward the front end of said box and joining the bottom thereof, the said chamber being open at its rear end.

4. A ventilator comprising a box having an intermediate horizontal partition terminating forward of its rear end and provided at the front end of its outer side with an intake port directing air into said box below said partition, said box having a discharge port at its inner side located above said partition, and a rotary agitating wheel within said box below said partition mounted and rotated on a vertical axis with its lower portion immersed in water and its upper portion projecting above the water, the axis of said wheel being at one side of the central line of the air current passed through said box from said inlet port to said discharge port, whereby said wheel will be rotated by said air current and the water will be positively agitated.

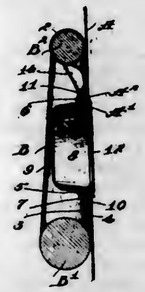
5. A ventilator comprising a box having an intermediate horizontal partition terminating forward of its rear end and provided at the front end of its outer side with an intake port directing air into said box below said partition, said box having a discharge port at its inner side located above said partition, and a rotary agitating wheel within said box below said partition mounted and rotated on a vertical axis with its lower portion immersed in water and its upper portion projecting above the water, the axis of said wheel being at one side of the central line of the air current passed through said box from said inlet port to said discharge port, whereby said wheel will be rotated by said air current and the water will be positively agitated, and a cinder accumulating chamber located on the bottom of said box and extended rearward of said horizontal partition and having its upper wall forwardly inclined and joined to the bottom of said box but open at its rear end to permit cinders, and the like, to be washed into the same.

1,142,111. WRENCH. WILLIAM H. MCNUTT, New York, N. Y., assignor to Carrie Emma Owen, Franklin, N. Y. Filed Sept. 17, 1913. Serial No. 790,220. (Cl. 81—126.)



A wrench of the character described comprising a body portion carrying an integral jaw, said jaw projecting forwardly beyond the plane of the body portion and having a flat under face along said forwardly projecting portion to constitute a guiding surface, a block projecting beyond the surface of said body portion in the same direction as said jaw and diagonally opposite said jaw, said block having a flat upper face constituting a guiding surface, a jaw carrying slide mounted to move transversely of said head and disposed between said guiding surfaces, a handle, means for pivoting said handle to said head upon the same side of said head as that upon which the slide lies, one edge of said handle above said pivot being provided with a socket, and the opposite edge of said handle above said pivot being formed upon the arc of a circle concentric with said pivot, that portion of the block adjacent said arcuate surface of the handle conforming to the curvature of the surface and lying in close contact therewith throughout, a pressure link having rounded ends, one of which is seated in said socket of the handle and said slide being provided with a socket which receives the opposite rounded end of the pressure link, the contact of the curved surface of the handle with the correspondingly shaped surface of the block serving to relieve the pivot of the strain where the jaws come to a position of rest in grasping an object.

1,142,112. MEANS FOR ATTACHING HANDLES TO CONTAINERS. OLE M. MATHISEN, La Crosse, Wis., assignor, by mesne assignments, of one-half to Wheeling Can Company, Wheeling, W. Va., a Corporation of West Virginia; Otto M. Schlabach, La Crosse, Wis., administrator of said Mathisen, deceased. Filed Oct. 28, 1910. Serial No. 589,559. (Cl. 220—30.)

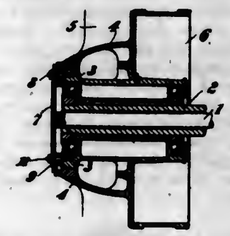


The combination of a container having an opening in one wall, a handle-engaging member lying along the outer face of said wall and having a similar sized opening therein registering with the opening in said wall, said handle-engaging member having a laterally extending annular flange integral therewith at the edge of the opening therein, said flange fitting in and extending through the opening in the container wall, and a securing member positioned at the inner side of the container wall and arranged to close the opening therein, said securing member comprising a cup-shaped element projecting outwardly through said opening and fitting within said flange to assist in holding the latter in place, and a disk element closing the cup and having an annular integral flange running about its periphery and engaging the cup element to secure said elements together, the last mentioned flange surrounding the inner edge of the flange on the handle-engaging member, the parts being compressed to rigidly interlock them together.

1,142,113. DETACHABLE WHEEL FOR MOTOR-CARS. HEINRICH MAYER and GUSTAV SCHLATTER, Arbon, Switzerland. Filed Apr. 5, 1915. Serial No. 19,404. (Cl. 21—31.)

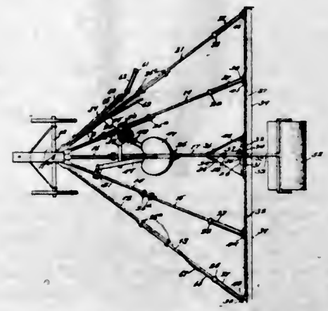
1. In a device of the class described, an axle casing, a driving shaft therein, an inner hub-part rotatable with respect to said casing, an outer hub-part detachably mounted on the inner hub-part, a driving head on said shaft having arms, an inwardly directed flange on said outer hub-part notched to correspond to said arms and engaged thereby, means securing the outer hub-part to the inner hub-part and means securing said arms to the inner hub-part.

2. In a device of the class described, an axle casing, a driving shaft therein, an inner hub part rotatable with respect to said casing, an outer hub part detachably mounted on the inner hub part, said inner hub part having a flat outer end and said outer hub part having a notched



flange overlapping said flat end, a flat spider on said shaft having radial arms interfitting with said notched flange and lying against the flat end of said inner hub part and means for securing the outer hub part to the inner hub part, and means securing the spider arms to said inner hub part.

1,142,114. GRADING AND LEVELING MACHINE. ANVY H. MILLER, Minburn, Iowa. Filed Nov. 2, 1914. Serial No. 869,747. (Cl. 37—7.)



1. A device of the character described, embodying an intermediate beam, a pair of beams arranged on each side thereof, a scraper connected with each pair of beams, and means for detachably connecting the scrapers with the central beam, and embodying means for detachably connecting one end of each of the scrapers for holding the scrapers in one position with respect to each other, the said side beams being longitudinally adjustable whereby the scrapers may be placed in tandem when the end of one of the blades is detached from the central beam.

2. A device of the character described, embodying an intermediate beam, a pair of beams arranged on each side thereof, a scraper connected with each pair of beams, means for detachably connecting the scrapers with the central beam, and embodying means for detachably connecting one end of each of the scrapers for holding the scrapers in one position with respect to each other, said beams being of sectional construction longitudinally adjustable whereby the scrapers may be placed in tandem when the end of one of the blades is detached from the central beam, said sectional construction of the beams also permitting the angular position of the scrapers to be varied.

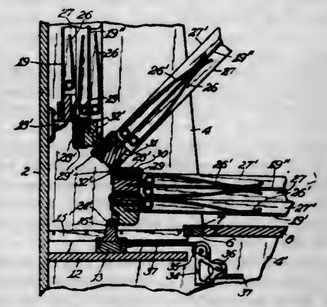
3. A device of the character described, embodying an intermediate beam, a pair of beams arranged on each side thereof, a scraper connected with each pair of beams, and means detachably connecting the scrapers with the central beam and embodying means for detachably connecting one end of the scrapers with the said intermediate beam, one of said pairs of beams being arranged at a higher elevation than the other pair of beams, said pairs of side beams being longitudinally adjustable, one pair of said beams adapted to be swung beneath the other pair when the respective scraper is detached from the said intermediate beam, to position the scrapers one in advance of the other.

4. A device of the character described, embodying an intermediate beam, a pair of beams arranged on each side thereof, a scraper connected with each pair of beams, and means detachably connecting one end of each of the scrapers with the said intermediate beam, one of said pairs of beams being arranged at a higher elevation than the other pair of beams, whereby the latter may be swung beneath the former when the respective scraper is detached from the said intermediate beam, and the length of the respective beam is varied, to position the scrapers one in advance of the other, said beams being constructed in sections adjustable with respect to each other to vary the length of the beams.

5. A device of the character described, embodying an intermediate beam, a pair of beams disposed on each side thereof, said pairs of beams being longitudinally adjustable to vary their length, scrapers connected with each of the said pairs of beams, means detachably securing the inner ends of the scrapers to the said intermediate beam, one of said pairs of beams being so positioned with respect to the other pair of beams and the said intermediate beam, as to be movable thereunder, when the inner end of the respective scraper is detached from said intermediate beam, and the length of the respective beam is varied to position one of the scrapers in advance of the other, and an additional beam to which that end of the scraper which has been detached from the said intermediate beam is secured, when the scrapers are so positioned.

[Claims 6 to 11 not printed in the Gazette.]

1,142,115. FILING APPLIANCE. EMERSON B. MOSELEY, Alliance, Ohio, assignor, by mesne assignments, to The McCaskey Register Company, (incorporated in 1914,) Alliance, Ohio, a Corporation of Ohio. Filed Nov. 7, 1910, Serial No. 590,998. Renewed Dec. 2, 1912. Serial No. 734,627. (Cl. 45—2.)



1. A filing appliance including a plurality of assembled leaves having each a plurality of guideways with end bearings at one side and a plurality of pivots on the opposite side thereof, the pivots being mounted in the guideways of adjacent leaves and thereby normally supporting the forward leaves in echelon, the leaves being movable relatively each to the other to form a rectangular pack.

2. In a filing appliance, a plurality of leaves having recesses in opposite sides thereof, guide-bars arranged opposite the recesses on one side of the leaves and having each a pair of opposing arms serving as pivot-bearings and secured to the leaf, and pivots on the opposite side of the leaves extending across the lower end portions of the recesses therein, the pivots that are on each leaf being arranged behind the guide-bars and movable partially in the adjacent recesses of the adjacent leaves.

3. In a filing appliance, a plurality of normally upright filing leaves having each a pivot on one side of the lower portion thereof and having also a bearing on the opposite side above the lower end thereof, normally resting upon the pivot of an adjacent one of the leaves, and means for

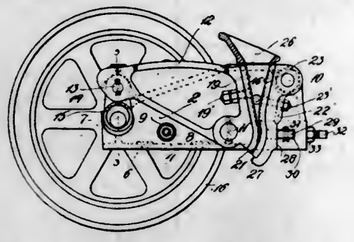
freely guiding the pivot of one leaf from normal position to the lower end of the nearer side of the adjacent leaf and permitting relative pivotal movement of the two leaves.

4. In a filing appliance, the combination with a plurality of normally upright filing leaves arranged face to face, one side of the lower portion of each leaf having a pivot, of means fixedly arranged on the opposite side of each leaf normally bearing upon the pivot of the next adjacent leaf and freely guiding the pivot to or from a position at the lower end or to or from a position distant from the lower end of the side of the leaf that faces the adjacent leaf, said means permitting pivotal movement of the leaves relatively each to the other at all relative positions of the pivot.

5. In a filing device, the combination with a plurality of filing leaves arranged face to face and normally in upright position, each one of the leaves having pivots on the forward portion of the lower end thereof, the rearward portion of the lower end of the rearmost one of the leaves being suitably supported, of guiding means fixedly arranged on the rearward side of the remaining leaves normally bearing upon and slidingly connecting the leaves with the pivots of the next adjacent leaves for enabling free shifting of the leaves longitudinally in close arrangement relatively each to the other and also permitting relative pivotal movement of the leaves.

[Claim 6 not printed in the Gazette.]

1,142,116. ROCK-CRUSHER. EDWARD H. MOYLE, Los Angeles, Cal. Filed Mar. 2, 1914. Serial No. 821,954. (Cl. 83—53.)



1. In a rock crusher, a plurality of spaced plates, means for connecting said plates, a stationary fulcrum shaft carried by said plates, a lever on said fulcrum shaft, a plate on said lever having a straight and curved face, the curve of said plate being for the greater part eccentric to said fulcrum shaft and concentric at the discharge end, means to operate said lever, a jaw trunnioned between said plates, a die plate on said jaw having a straight and curved face coöperating with the face of said plate on said lever and a thrust for said jaw.

2. In a rock crusher, a plurality of spaced plates, means for connecting said plates, a fulcrum shaft carried by said plates, a lever on said fulcrum shaft, means to operate said lever, a jaw trunnioned at its upper end and having its lower end hung free of and between said plates and capable of movement outwardly and beyond said plates, a thrust carried by said plates and in engagement with said free end of said jaw, and an adjusting means for said thrust.

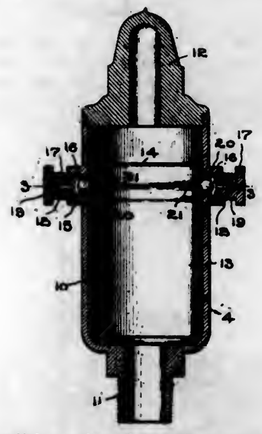
3. In a rock crusher, a plurality of spaced plates, means for connecting said plates, a stationary fulcrum shaft carried by said plates, a lever on said fulcrum shaft, means to operate said lever, a jaw trunnioned between said plates and capable of swinging outwardly beyond said plates, a transversely extending breakable means to hold said jaw stationary during operation of the crushed, and means to adjust said breakable means to regulate the degree of fineness of the product crushed.

4. In a rock crusher, a plurality of spaced plates, means for connecting said plates, a stationary fulcrum shaft carried by said plates, a lever on said fulcrum shaft, a plate on said lever having a curve eccentric and concentric to said fulcrum shaft, means to operate said lever, a jaw trunnioned between said places, a plate on said jaw coöperating with the plate on said lever, and a thrust for said jaw.

5. In a rock crusher, a plurality of spaced plates, means for connecting said plates, a stationary fulcrum carried by said plates, a lever on said fulcrum shaft, a shoe on said lever having a curve eccentric and concentric to said fulcrum shaft, means to operate said lever, a jaw trunnioned between said plates and capable of being swung rearwardly and beyond said plates, a die plate on said jaw coöperating with said shoe, said die plate having a straight and curved face, a breakable means to hold said jaw stationary, and an adjusting means for said breakable means.

[Claim 6 not printed in the Gazette.]

1,142,117. EQUALIZING-VALVE. JAMES J. NIVEN, Philadelphia, Pa. Filed Apr. 27, 1914. Serial No. 834,863. (Cl. 137—4.)



1. An equalizing valve of the character described, comprising a casing constructed at its lower end for attachment to a boiler, a hollow float in the casing having a closed upper end and an open lower end, and air inlet valves in the sides of the casing directly engaged by the float and controlled by the movement of the float, substantially as described.

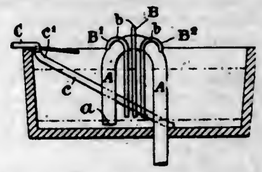
2. An equalizing valve of the character described, comprising a casing constructed at its lower end for attachment to a boiler, a hollow float in the casing having a closed upper end and an open lower end, air inlets in the sides of the casing, balls controlling said inlets, and said float directly engaging and adapted to move the balls, substantially as described.

3. An equalizing valve of the character described, comprising a casing constructed at its lower end for attachment to a boiler, a hollow float in the casing having a closed upper end and an open lower end, valve casings on the sides of the first-mentioned casing having openings therein communicating with the interior of the first-mentioned casing, plugs screwed into the valve casings and having air passages therethrough, balls in said openings adapted to close the air passages, and said float having a surface adapted to contact with the balls and controlling the movement of the balls by the vertical movement of the float, substantially as described.

4. An equalizing valve of the character described, comprising a casing having a screw-threaded nipple at its lower end, a plug screwed into the upper end of the casing, a hollow float in the casing having a closed upper end, and an open lower end, and valves in the sides of the casing directly engaged by and controlled by the float, substantially as described.

1,142,118. FLUSHING-CISTERN. RUDOLPH HENRIK PAUS, Shipley, England. Filed Dec. 1, 1913. Serial No. 804,039. (Cl. 4—5.)

1. In a flushing-cistern, a siphon, a pipe connected thereto, said pipe having an ever-open air-inlet aperture above the normal water-level, and its open lower end above the level of the influx of the siphon.

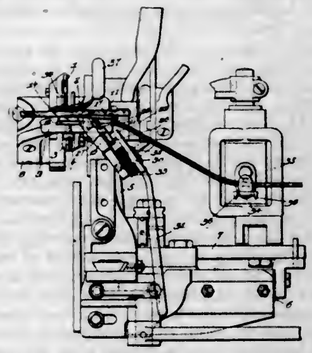


2. In a flushing-cistern, a siphon, a pipe connected at its upper end to said siphon and having its lower end slightly above the level of the influx end of the siphon, said pipe having a bore of relatively small diameter and having an ever-open air-inlet aperture above the normal water-level.

3. In a flushing-cistern, a siphon, a plurality of pipes connected at their upper ends to said siphon and having their lower ends slightly above the level of the influx end of said siphon, each of said pipes having a bore of relatively small diameter and having an ever-open air-inlet above the normal water-level.

4. In a flushing-cistern, a siphon, three pipes having bores of relatively small diameter, one of said pipes being connected to the siphon at its bend, and one of the other pipes being connected to each leg of said siphon, said pipes having ever-open air-inlet apertures above the normal water-level.

1,142,119. WELT LAYING AND ATTACHING MACHINE. ADAM H. PRENZEL, Halifax, Pa., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Aug. 15, 1913. Serial No. 784,908. (Cl. 112—20.)



1. A welt laying and attaching machine, having, in combination, welt attaching mechanism, a sole supporting table, means for feeding a sole and strip of welting past said mechanism, a knife arranged with the plane of its blade at an angle to the face of the sole for severing the welt strip on a bevel, and means for actuating the knife in a right line path transversely of the welt strip to sever it widthwise.

2. A welt laying and attaching machine, having in combination, welt attaching mechanism, a sole supporting table, means for feeding a sole and strip of welting beneath the sole past said mechanism, a knife beneath the sole normally retained at one edge of the welt strip, and means for advancing the knife through the welt strip from edge to edge.

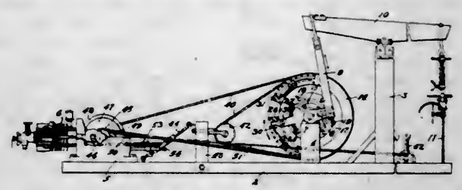
3. A welt laying and attaching machine, having, in combination, welt attaching mechanism, a sole supporting table, means for feeding a sole and strip of welting beneath the sole past said mechanism, a knife blade beneath the sole angularly arranged relatively to the sole face and provided with a cutting edge at one end, for severing the welt strip on a bevel, and means for advancing the knife widthwise through the welt.

4. A welt laying and attaching machine, having, in combination, welt attaching mechanism, a sole supporting table, a welt guide beneath the table having oppositely disposed transverse slots in its side walls forming a guideway, means for simultaneously feeding a sole on the table and a welt strip through the welt guide, a knife movable across the welt guide in said guideway to sever the welt strip widthwise, and means for operating the knife.

5. A welt laying and attaching machine, having, in combination, welt attaching mechanism, a sole supporting table, means for feeding a sole and strip of welting beneath the sole past said mechanism, a knife blade beneath the sole provided with a cutting edge at one end angularly arranged relatively to the sole face and in advance of the welt attaching mechanism for severing the welt strip on a bevel, and means for advancing the knife widthwise through the welt.

[Claims 6 to 10 not printed in the Gazette.]

1,142,120. CLUTCH AND CLUTCH-ACTUATING MEANS. CLARK F. RIGBY, Butler, Pa. Filed May 14, 1913. Serial No. 767,606. (Cl. 192—14.)



1. In well drilling apparatus, the combination of a shaft adapted to operate drilling tools, an actuating wheel for the shaft with the shaft and wheel adapted to rotate independently of each other, a clutch for connecting the wheel and shaft, and means actuated by independent movement of either the shaft or wheel for setting the clutch.

2. In well drilling apparatus, the combination of a shaft adapted to operate drilling tools, an actuating wheel for the shaft with the shaft and wheel having limited rotary movement independently of each other, a clutch for connecting the wheel and shaft, a clutch setting device movable with said shaft, and means carried by the wheel for actuating the setting device when either the shaft or the wheel has reached the limit of its independent movement.

3. In well drilling apparatus, the combination of a shaft adapted to operate drilling tools, an actuating wheel for the shaft with the shaft and wheel having limited rotary movement independently of each other, a clutch for connecting the wheel and shaft, a clutch setting device movable with the shaft and having independent movement in opposite directions and adapted when moved in either direction to set the clutch, and means carried by the wheel and adapted to independently move the clutch setting device when either the shaft or wheel has reached the limit of its independent movement.

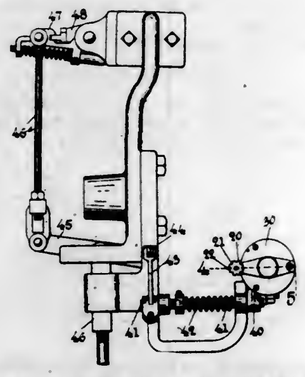
4. In well drilling apparatus, the combination of a shaft adapted to operate drilling tools, an actuating wheel for the shaft with the shaft and wheel having limited rotary movement independently of each other, an arm projecting from the shaft, a clutch for connecting the wheel and shaft, a clutch setting device pivoted to the arm and operatively connected to the clutch for setting the latter when moved in either direction on its pivot, and devices spaced apart on the wheel in the path of the clutch setting device with one of said devices adapted to engage and actuate the clutch setting device when either the shaft or the wheel has reached the limit of its independent movement.

5. In well drilling apparatus, the combination of a shaft adapted to actuate drilling tools, an actuating wheel for the shaft with the shaft and wheel having limited rotary movement independently of each other, an annular head carried by the wheel, an expansible clutch adapted when set to grip the said head, a support movable with the

shaft, a clutch setting device fulcrumed to the support and operatively connected to opposite portions of the clutch and adapted to set the latter when moved in either direction on its fulcrum, and devices spaced apart on the wheel in the path of the clutch setting device and adapted to actuate the latter when either the shaft or the wheel has reached the limit of its independent movement.

[Claims 6 to 15 not printed in the Gazette.]

1,142,121. WEFT-DETECTING MECHANISM. EPPA H. RYON, Waltham, Mass., assignor to Crompton & Knowles Loom Works, Worcester, Mass., a Corporation of Massachusetts. Filed Sept. 16, 1914. Serial No. 862,101. (Cl. 139—85.)



1. In a loom, in combination, weft replenishing mechanism, a weft detecting device, and means controlled by said weft detecting device effective to determine the operation of said weft replenishing mechanism, said means comprising a normally-collapsed pneumatic device having a passage to the atmosphere, and a member for closing said passage, said member being controlled by said weft detecting device.

2. In a loom, in combination, weft replenishing mechanism, a weft detecting device, and means controlled by said weft detecting device effective to determine the operation of said weft replenishing mechanism, said means comprising a normally-collapsed pneumatic device having a passage to the atmosphere, and a closure for said passage, said closure being directly controlled by said weft detecting device and being moved to open said passage when the weft detecting device contacts with a substantially exhausted weft carrier.

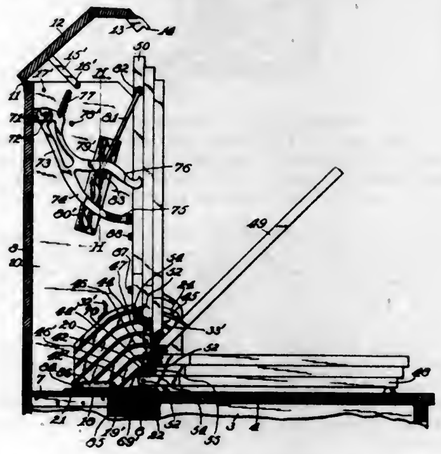
3. In a loom, in combination, weft replenishing mechanism, a weft detecting device, and means controlled by said weft detecting device effective to determine the operation of said weft replenishing mechanism, said means comprising a normally-collapsed pneumatic device having a passage to the atmosphere, and a closure for said passage movable with and controlled by said weft detecting device.

4. In a loom, in combination, weft replenishing mechanism, a weft detecting device comprising a feeler slide and a detecting point, and means controlled by said weft detecting device effective to determine the operation of said weft replenishing mechanism, said means comprising a normally-collapsed pneumatic device having a passage to the atmosphere, and a closure for said passage, said closure being controlled in its operations by the relative positions of said feeler slide and said detecting point.

5. In a loom, in combination, weft replenishing mechanism, a weft detecting device comprising a feeler slide and a detecting point, and means controlled by said weft detecting device effective to determine the operation of said weft replenishing mechanism, said means comprising a normally-collapsed pneumatic device having a passage to the atmosphere, and a closure for said passage, said closure being mounted to move with said detecting point relative to said slide to open said passage upon the substantial exhaustion of weft on the indicated weft carrier.

[Claims 6 to 11 not printed in the Gazette.]

1,142,122. FILING APPLIANCE. ELLIS T. SILVIUS, Indianapolis, Ind., assignor, by mesne assignments, to The McCaskey Register Company, (incorporated in 1914,) Alliance, Ohio, a Corporation of Ohio. Filed May 4, 1909. Serial No. 493,923. (Cl. 45—2.)



1. A credit accounting register including a base plate, a pair of pivot bearings secured on the base plate, a pair of guide-plates on opposite ends of the base plate having each a plurality of guide grooves therein, a plurality of normally upright frames having each a pair of pivots extending from its opposite sides, and a pair of arms carried by each of the frames except the rearmost one having guideways formed therein, the pivots of the foremost frame being mounted in the pivot bearings, and the pivots of the remaining frames extending through the guideways of the arms and into the guide grooves of the guide-plates, whereby said frames are connected together, all of the frames being movable to approximately horizontal positions.

2. The combination of a casing provided with a plurality of alined guides in its opposite sides, a series of frames normally arranged face to face and each provided with pivots extending from the opposite sides thereof, the pivots of one end frame of the series being fixed and the pivots of each of the remaining frames projecting into a pair of alined guides, and a pair of arms carried by each of the frames except the opposite end frame, said arms being formed with guide ways through which the pivots of the adjoining frame extend, whereby said frames are connected together, and the guide ways being open at one end to permit the detachment of the frames from each other.

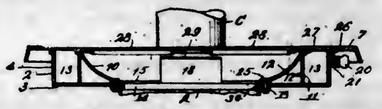
3. A credit-accounting register including a base plate, a pair of pivot-bearings secured on the base plate, a plurality of normally upright frames normally assembled together face to face, means for movably supporting said frames on the base, the said means including connections between the frames operating when one or more of them are reclined to move the lower ends of the remaining frames forwardly, pins mounted on the frames, one on each frame in alinement with the pivots thereof, and all but one having each a stirrup thereon, and springs on the guide-pins and having each an arm coöperating with the frame in proximity to the guide-pin, the spring for the foremost frame having also an arm anchored on the base, and the springs for the remaining frames having each an arm extending into the stirrup that is on the guide-pin of the frame adjacent thereto.

4. A credit-accounting register including a base-plate, a pair of pivot-bearings rigid on the forward end of the base plate, a pair of guide-plates on the base-plate and having each a plurality of guide-grooves therein, each guide-groove having a curved portion and a straight portion extending downward and rearward from the curved portion, a plurality of normally upright frames having each a pair of pivots, the pivots of the foremost one of the frames being mounted in the pivot-bearings and the pivots of the remaining frames extending into the guide-grooves, each frame excepting the rearmost frame having two arms thereon in which are slots receiving the pivots of the adjacent rearward frame, said arms supporting the pivots in the straight portions of said guide-grooves and acting to move the pivots into the curved portions of said guide-grooves when the forward frames are moved, said remaining frames being pivotally supported jointly by said guide-grooves and said arms, and means for supporting the base-plate rigidly.

5. A credit-accounting register including a base, two sectional guide-plates comprising each a main part secured to the base and a supplemental part hinged to the main part, said guide plates having curved concentrically-arranged guide-grooves therein that extend in the main parts and into and terminate in the supplemental parts, portions of the guide-grooves extending in the main parts tangentially from the curved portions of the guide-grooves downward and rearward, a pair of pivot-bearings rigid on the forward end of the base-plate, a plurality of frames, grouped together, the foremost one of the frames having pivots mounted on the pivot-bearings and the remaining frames having pivots mounted in said guide-grooves, means for connecting the frames together one with another, and means for securing the supplemental parts to the main parts of the guide-plates.

[Claims 6 to 22 not printed in the Gazette.]

1,142,123. STOVE. FRANK SMITH, Kansas City, Mo. Filed Dec. 14, 1914. Serial No. 877,089. (Cl. 126—4.)



1. A device of the character described, consisting of an outer chamber having a surrounding side wall and a bottom wall with a large opening therein, an inner chamber having a surrounding side wall and an inner wall sloping upward to its juncture with said side wall, said sloping wall having an opening at its lower portion registering with the opening in the bottom wall of the outer chamber, the side wall of the inner chamber being spaced from the side wall of the outer chamber to leave an intervening flue which communicates with two outlets leading from said inner chamber, a valve adapted to close one of said outlets, and a top plate to cover the inner and outer chambers, said top plate having an outlet communicating with the intervening flue.

2. A device of the character described, consisting of an outer chamber having a surrounding side wall and a bottom wall with a large opening therein, an inner chamber having a surrounding side wall and an inner wall flaring upward to its juncture with said side wall, said flaring wall having an opening at its lower portion registering with the opening in the bottom wall of the outer chamber, the side wall of the inner chamber being spaced from the side wall of the outer chamber, to leave an intervening flue which communicates with an outlet leading from said inner chamber, a top plate to cover the inner and outer chambers, said top plate having an opening therein over the inner chamber and an outlet communicating with the intervening flue, a collar surrounding said outlet, and lids to close the opening over the inner chamber.

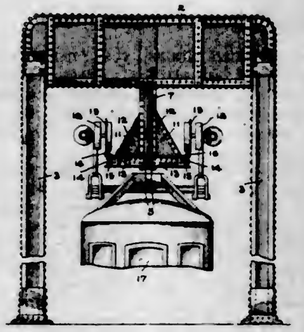
3. A device of the character described, consisting of an outer chamber having a surrounding side wall and a bottom wall with a large opening therein, an inner chamber having a surrounding side wall and an inner wall sloping upward to its juncture with said side wall, said sloping wall having an opening at its lower portion registering with the opening in the bottom wall of the outer chamber, the side wall of the inner chamber being spaced from the side wall of the outer chamber to leave an intervening flue which communicates with the outlet leading from said inner chamber, a top plate to cover the inner and outer chammbers and provided with an outlet communicating with the intervening flue, ribs depending from said top plate to engage the side walls of the chambers, and lugs projecting from the side wall of the outer chamber and forming means to which the top plate is removably secured.

4. A device of the character described, consisting of an outer chamber having an elliptical surrounding side wall and a bottom wall with a large circular opening therein, an inner chamber having an elliptical surrounding side wall and an inner concave wall sloping upward to its juncture with said side wall, said concave wall having a large circular opening registering with the opening in the bottom wall of the outer chamber, the side wall of the inner chamber being spaced from the side wall of the outer chamber to leave an intervening flue which communicates with an outlet leading from said inner chamber, and a top plate to cover the inner and outer chambers and having an outlet communicating with the intervening flue.

5. In combination with a stove open at its upper end, an outer chamber having a surrounding side wall and a bottom wall with a large opening therein to communicate with the upper portion of the stove, a flange on the bottom plate surrounding the opening therein and adapted to engage the upper portion of the stove, an inner chamber having a surrounding side wall and an inner wall sloping upward to its juncture with said side wall, said sloping wall having an opening at its lower portion registering with the opening in the bottom wall of the outer chamber, the side wall of the inner chamber being spaced from the side wall of the outer chamber to leave an intervening flue which communicates with an outlet leading from said inner chamber, and a top plate to cover the inner and outer chambers and having an outlet communicating with the intervening flue.

[Claims 6 and 7 not printed in the Gazette.]

1,142,124. SUSPENSION-RAILWAY. JOSIAH H. SMITH, Philadelphia, Pa., assignor to William H. Tigerman, Philadelphia, Pa. Filed Aug. 19, 1914. Serial No. 857,476. (Cl. 104—4.)



1. In a suspension railway, the combination with a longitudinal girder, comprising upper and lower chords consisting of angle bars secured together with gusset plates between them, and struts connecting the gusset plates, of cantalivers secured to certain of the struts and projecting laterally from both sides of the girder, and rail supporting beams secured to the outer ends of the cantalivers, substantially as described.

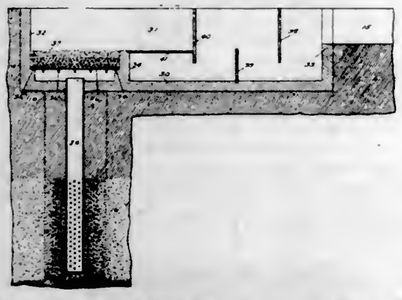
2. In a suspension railway, the combination with a longitudinal girder, comprising upper and lower chords consisting of angle bars secured together with gusset plates between them, and struts connecting the gusset plates, of cantalivers secured to certain of the struts and projecing laterally from both sides of the girder, each cantaliver comprising a triangular plate secured to the vertical struts, channel bars secured to the lower edges

of the plates at opposite sides thereof, angles secured to the outer ends of the channel bars, I-beams secured to the angles, and rails on the I-beams, substantially as described.

3. In a suspension railway, the combination with uprights, transverse girders connecting the uprights, and a longitudinal girder secured to and suspended from the transverse girders, of triangular plates secured to the longitudinal girder at opposite sides thereof, channel bars secured to the opposite sides of the plates and to the longitudinal girder, angle bars secured to the inclined edges of the plate, and rail supports at the outer ends of the channel bars, substantially as described.

4. In a suspension railway, the combination with uprights, transverse girders connecting the uprights, and a lingitudinal girder secured to and suspended from the transverse girders, of triangular plates secured to the longitudinal girder at opposite sides thereof, channel bars secured to the opposite sides of the plates and to the longitudinal girder, angle bars secured to the inclined edges of the plate, angles secured to the outer ends of the channel bars, I-beams secured to the angles, and rails on the I-beams, substantially as described.

1,142,125. SYSTEM AND APPARATUS FOR THE DRAINAGE AND RECLAMATION OF INUNDATED SURFACES OF LAND. EPHRAIM C. SOOY, Kansas City, Mo. Filed Jan. 17, 1914. Serial No. 812,842. (Cl. 61—9.)



1. In under-ground drains, the combination with a pocket therein, of an artificial water percolating bed within said pocket composed of separate graduated bodies of water percolating material one within the other and varying in porosity, and a conductor of waterleading to said artificial bed.

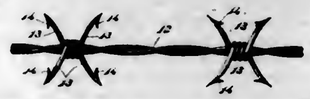
2. In under-ground drains, the combination with a pocket therein, of an artificial water percolating bed within said pocket composed of separate contiguous upright bodies of water percolating material, one within another and varying in porosity, and a conductor of water having perforations in its lower end portion leading within the innermost percolating body.

3. In under-ground drains the combination with a drain pipe, a drainage area of water absorbing material beneath the surface of the ground, and an articicial filtering bed composed of concentric bodies of water filtering material in said area varying in porosity and a water conducting pipe having perforations in its lower end extending within the said filtering bed, and a basin at the surface of the ground into which the upper end of said pipe extends.

1,142,126. FENCING-STRAND. THOMAS LEGGETT STURTEVANT, Quincy, Mass. Filed Dec. 5, 1914. Serial No. 875,601. (Cl. 256—6.)

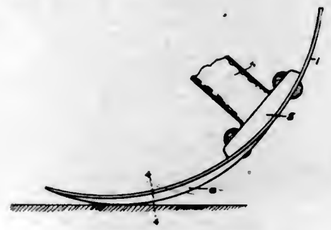
1. A metal fencing strand provided with pointed spurs having sharp barbs near their points, said barbs being inclined backwardly from the points of said spurs.

2. A metal fencing strand provided with pointed members disposed at intervals along its length, said pointed members having sharp, backwardly inclined barbs near their points.



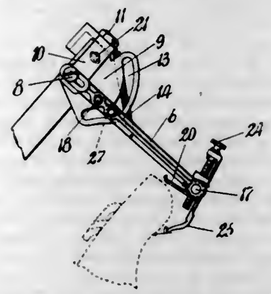
3. A metal fencing strand consisting of two or more wires twisted together and provided at intervals along its length with pointed members having sharp, backwardly inclined barbs near their points.

1,142,127. RAKE. GEORGE E. TOWNSEND, Springfield, Ohio. Filed Mar. 18, 1914. Serial No. 825,487. (Cl. 55—114.)



In a rake, a concaved body formed of sheet metal, said metal being stamped to form comparatively long curved teeth on its lower edge and also stamped to provide ribs on the rear side of each of said teeth, said ribs also extending into said body.

1,142,128. TIP-MEASURING APPARATUS FOR PULLING-OVER MACHINES. JAKOB TRIEM, Frankfort-on-the-Main, Germany, assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Oct. 17, 1913. Serial No. 795,803. (Cl. 12—4.)



1. Apparatus of the class described having, in combination, supporting means, a tip measuring device mounted to turn and also to slide thereon in moving from inoperative position around the toe of a shoe to operative position, and cam plates against which said device is guided and which are adjustable to guide the device in different paths appropriate for shoe toes of different shapes.

2. Apparatus of the class described having, in combination, a tip measurer supported for movement into tip measuring position, said measurer comprising members for engaging the toe end of the shoe and for overlying the tip of the shoe, and cam plates coöperating with said measurer to cause it to move in an arc for a predetermined distance while it travels around the end of the shoe toe and thereafter to approach the center of said arc during continued movement into tip measuring relation to the shoe.

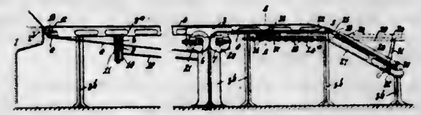
3. Apparatus of the class described having, in combination, supporting means, a tip measuring device movably mounted thereon, and means controlling the direction of movement of said device relatively to its support from an inoperative position around the toe of a shoe to operative position in a path other than a continuous arc, said controlling means comprising a cam and means yieldingly holding the measuring device to follow the path provided by the cam.

4. Apparatus of the class described having, in combination, supporting means, a tip measuring device movably mounted thereon, and means controlling the direction of movement of said device relatively to its support from an inoperative position around the toe of a shoe to operative position in a path other than a continuous arc, said controlling means being adjustable to produce paths of movement adapted to different shapes of shoe toes.

5. Apparatus of the class described having, in combination, supporting means, a tip measuring device movably mounted thereon, and means controlling the direction of movement of said device relatively to its support from an inoperative position around the toe of a shoe to operative position constantly around one center but in a path other than a continuous arc.

[Claims 6 and 7 not printed in the Gazette.]

1,142,129. MANUFACTURE OF CONFECTIONERY. HORACE WALKER and ROBERT BRUCE HAY, Bristol, England, assignors to H. J. Packer & Company, Limited, Bristol, England. Filed Aug. 24, 1914. Serial No. 858,290. (Cl. 107—7.)



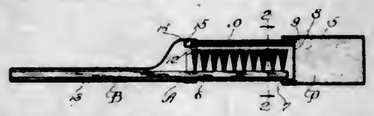
1. A delivery device for confectionery machines, comprising a movable delivery member having a downwardly curved portion at its discharge end, an inclined stripping member in tangential contact with said curved portion to receive the goods therefrom, and a normally stationary inclined member adapted to support a receptacle for receiving the goods from said stripping member by gravity, said inclined member being inclined sufficiently to permit the goods to slide down said receptacle by gravity alone.

2. A delivery device for confectionery machines, comprising a movable delivery member having a downwardly curved portion at its discharge end, an inclined stripping member in tangential contact with said curved portion to receive the goods therefrom, a pivoted inclined member to support a receptacle for receiving the goods from said stripping member by gravity, said inclined member being inclined sufficiently to permit the goods to slide down said receptacle by gravity alone, and means for adjusting the angle of inclination of said inclined member about its pivot.

3. A delivery device for confectionery machines, comprising a horizontally movable delivery member having a downwardly directed portion at its discharge end, an inclined stripping member coöperating with said downwardly directed portion to receive the goods therefrom, an inclined support for a receptacle to receive the goods from the stripping member, and a second inclined support for a further receptacle which may move by gravity onto said first mentioned support when the latter is vacant.

4. A delivery device for confectionery machines, comprising a horizontally movable delivery member having a downwardly directed portion at its discharge end, an inclined stripping member coöperating with said downwardly directed portion to receive the goods therefrom, an inclined support for a receptacle to receive the goods from the stripping member, a second inclined support for a further receptacle, and means for adjusting the first support for a further receptacle, and means for adjusting the first support to bring the two supports into alinement whereby receptacles on said second support may initiate a movement by gravity toward said first support.

1,142,130. CONTAINER FOR PASTE. CHARLES H. WARDWELL, Rutland, Vt., and ROBERT D. MORRISON, Providence, R. I. Filed June 26, 1914. Serial No. 847,524. (Cl. 221—79.)



1. A container comprising a brush receptacle having brush guiding members and a paste delivery mouth piece, which communicates with the exterior of said brush receptacle, and a paste receptacle adapted to closely fit the exterior of said brush receptacle and to progressively receive said brush receptacle.

2. A paste container comprising a cylindrical paste receptacle having an inner screw thread, a hollow cylindrical brush receptacle having an end wall and an exterior thread adapted to engage with the screw thread of said paste receptacle, said brush receptacle having an orifice through its end wall, a mouth piece fixed to the wall of said brush receptacle and receiving from said orifice, and a closure for said brush receptacle.

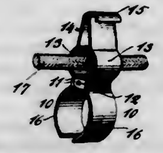
1,142,131. CANDY-BOX. LOUIS W. WHEELOCK, Wyncote, Pa. Filed Nov. 26, 1912. Serial No. 733,580. (Cl. 229—14.)



1. A box comprising a tray having an inner receptacle to contain the goods, an outer shell of larger dimensions than said inner receptacle to provide an air space around said receptacle, and spacing members interposed between and connecting the bottom of the inner receptacle to the bottom of the outer shell to form a unitary structure; and a lid having an inner portion provided with side walls arranged to telescope with the side walls of the inner receptacle of the tray, an outer shell surrounding the inner portion of said lid and having side walls arranged to telescope with the side walls of the outer shell of the tray, and spacing members interposed between and connecting the top of the inner portion of the lid to the top of the outer shell thereof to form a unitary structure.

2. A box comprising a tray portion and a cover portion, each having complementary side walls arranged to telescope each other, and each comprising an inner shell and an outer shell separated from each other by an air space, and spacing members interposed between and fixedly connecting the horizontal walls of each portion whereby the inner and outer shells of each portion form a unitary structure and whereby when assembled the inner shell shall be surrounded on all surfaces with a closed air space.

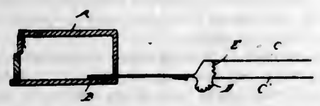
1,142,132. SUSPENDER-CLASP. MORTON K. YONTS, Louisville, Ky. Filed Jan. 26, 1915. Serial No. 4,417. (Cl. 24—250.)



A clasp comprising opposite jaw members pivotally connected intermediate their ends, said members having grip-

ping portions on one side of their pivotal connection, said members on the other side of their pivotal connection converging, and a suspension cord between said converging portions, and adapted to be wedged therebetween to operate the gripping portions of the jaw members, the extremity of one of the converging portions being hook-shaped, and the extremity of the other converging portion lying under said hook-shaped part.

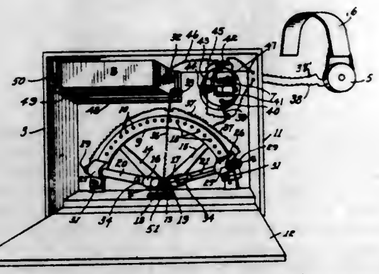
1,142,133. PYROMETER. KARL W. ZIMMERSCHIED, Detroit, Mich. Filed June 28, 1913. Serial No. 776,252. (Cl. 73—32.)



1. A renewable thermo-electric couple unit comprising shunt and series resistances, proportioned to correct individual characteristics of the couple.

2. The combination in a circuit, including the leads to a potentiometer, a thermo-couple, and shunt and series resistances in said circuit proportioned to correct individual characteristics of the couple.

1,142,134. AEROPLANE APPLIANCE. ASAHEL H. BARROWS, Chicago, Ill. Filed Aug. 26, 1912. Serial No. 716,948. (Cl. 177—311.)

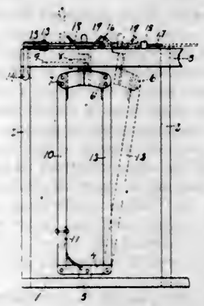


The combination with an aeroplane, of an inclinometer comprising a pivoted member having electric terminals, an electric sounding device, an electric circuit normally open at said terminals, means for adjusting the angle of inclination of said pivoted member, and means operable by the movements of said aeroplane for closing the circuit or electrically connecting said terminals.

1,142,135. CATTLE-STANCHION. HERMAN J. BABSNESS, Black Earth, Wis. Filed Jan. 14, 1914. Serial No. 812,169. (Cl. 119—148.)

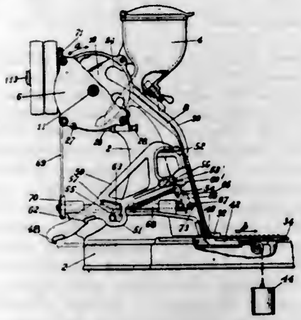
1. In a cattle stanchion comprising a frame, spaced uprights and a bow for securing the cattle, a plurality of straps disposed on top of the frame and extending forward thereof, apertures in the outer ends of said straps, a rod extending through said apertures longitudinally of the frame, a plurality of hasps or latches spaced along the rod and hingedly mounted thereon, set collars between the knuckles of said hasp adapted to secure said hasp in position on said rod, angular wings extending upward from said hasps adapted to raise said hasps when the loose member of the cattle securing bow comes in contact therewith, and closing over said loose member when its upper extension coincides with an aperture in the bottom of said hasps.

2. In a cattle stanchion, the combination with a sill, spaced uprights and top ribbons forming a frame, a bow for securing the cattle, a casting attached to the stationary stanchion member and extending upward and forming the left half of the upper trunnion to a point sufficiently below the cap on the right half of the upper trunnion, to permit the insertion of one prong of a link through a hole in the top of said casting, a link comprising a rod disposed upon a block and bent downward at right angles at



both ends, the front end disposed within a hole in the top of said casting and the rear prong passing downward through a hole in said block thereby holding the said casting and block in operative relation to each other, substantially as described.

1,142,136. MACHINE FOR HANDLING ARTICLES. ARTHUR BATES, Leicester, England, assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Apr. 13, 1908. Serial No. 426,865. (Cl. 18—37.)



1. In a machine of the class described, the combination with a raceway, of a magazine for supplying articles continuously to the raceway, a removable holder member having movement relatively to the raceway and provided with means for receiving a plurality of articles in succession directly from the raceway and for retaining said articles.

2. In a machine of the class described, the combination with a raceway, of a magazine for supplying articles continuously to the raceway, a holder member separable from the machine and movable relatively and provided with means for receiving a plurality of articles from said raceway during such relative movement and for retaining said articles after the holder member has been moved away from the raceway.

3. In a machine of the class described, the combination with a raceway, of a removable holder member provided with sockets each shaped to surround one of a plurality of articles carried by said raceway, and means for causing a continuous relative movement of said raceway and holder member for effecting transfer of the articles from the raceway to the holder member.

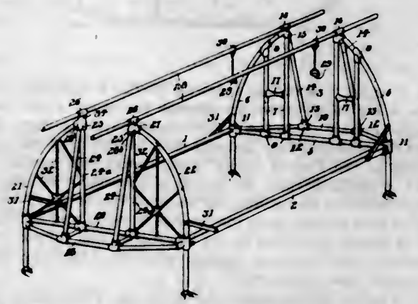
4. In a machine of the class described, the combination with a raceway having spaced side rails adapted to present articles carried thereby in predetermined position, of a holder member adapted to receive articles delivered from

said raceway in said predetermined position, and means for causing relative movement of said raceway and holder member in the direction of travel of said articles in the raceway for effecting the transfer of articles from said raceway to said holder member.

5. In a machine of the class described, the combination with a raceway, of a removable holder member adapted to receive from said raceway and retain for removal from the machine a predetermined number of articles carried by said raceway, and means for causing relative movement of said holder member and raceway for effecting such delivery.

[Claims 6 to 37 not printed in the Gazette.]

1,142,137. EXERCISING APPARATUS. ELLSWORTH B. BATHRICK, Akron, Ohio. Filed July 9, 1914. Serial No. 849,950. (Cl. 46—69.)



1. The combination with the head and foot members of a bed structure, of a pair of horizontal bars connecting said members, horizontally-disposed truss braces connecting the sides of said members and vertical supports between said truss braces and bars.

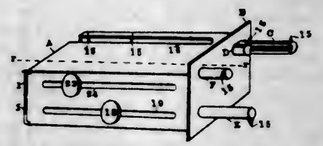
2. The combination with the head and foot members of a bed structure, each comprising separated side supports to permit access to the body from either end thereof, of a pair of horizontal exercising bars supported upon said side supports and connecting said head and foot members.

3. The combination with the head and foot members of a bed structure, of a pair of horizontal exercising bars supported upon said members, and means for supporting said bars comprising horizontally-alined sleeves provided with depending lugs, and sockets secured to said members adapted to receive said lugs.

4. The combination with the head and foot members of a bed structure, each comprising separated side supports to permit access to the bed from either end thereof, of a pair of horizontal exercising bars supported upon said side supports and connecting said head and foot members, truss rods connecting said side supports, vertical supports for said head and foot members, and means for connecting and supporting said horizontal bars and said side supports, each comprising a coupling device consisting of a plurality of integral sockets to receive the ends of said side supports and vertical supports, an upper socket, and sleeve members each having a depending lug fitting within said upper socket.

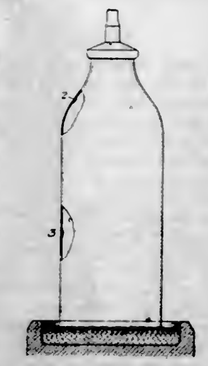
1,142,138. COMBINED LOCK AND BUTT GAGE. MATHEW F. BIERSDORF, Los Angeles, Cal. Filed Nov. 16, 1914. Serial No. 872,410. (Cl. 33—44.)

The combination in a lock and butt gage, of a frame formed of one piece of thin metal, a face plate affixed to one end of said frame said face plate having openings therein, a plurality of scribing bars slidably fitted through said openings into said frame, one bar provided with scribing points at each end, a scribing point on the outer end of one bar, a pair of bars tongued and grooved and made to move longitudinally against each other, a clamp within said frame engaging said bars said frame having a slot therein a thumb-screw through said slot and screwed into the opposite side of said clamp, a lock nut on the thumb-screw on the outer side of the frame, a shoulder on said thumb screw, a washer co-acting with said shoul-



der and against the side of said clamp, scribing points on each end of said bars, said frame having openings through which the scribing points on the inner ends of said bars operate.

1,142,139. METHOD OF DRAWING HOLLOW GLASS ARTICLES. FREDERIC L. BISHOP, Pittsburgh, Pa., assignor to Window Glass Machine Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed May 13, 1914. Serial No. 838,203. (Cl. 49—83.1.)



1. The method of drawing hollow glass articles, which consists in immersing a bait in a bath of molten glass and drawing the article therefrom; supplying gaseous fluid to the interior of the article during the drawing operation, and forming a vent opening in the wall of said article to allow a portion of such fluid to escape through such opening during the drawing operation, substantially as described.

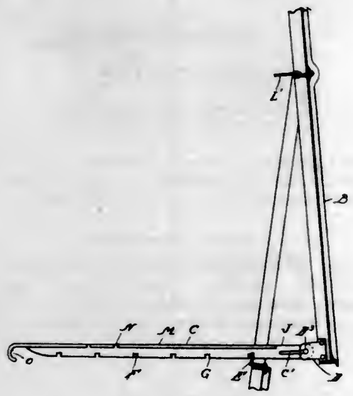
2. The method of drawing hollow glass articles, which consists in immersing a bait in a bath of molten glass and drawing the article therefrom, supplying gaseous fluid to the interior of the article during the drawing operation, and forming a plurality of vent openings in the wall of said article at different levels to allow a portion of such fluid to escape through such openings during the drawing operation, substantially as described.

3. The method of drawing hollow glass articles, which consists in immersing a bait in a bath of molten glass and drawing the article therefrom, supplying gaseous fluid to the interior of the article during the drawing operation, and forming a vent opening in the wall of said article during the initial portion of the drawing operation to allow a portion of such fluid to escape through such opening during the remainder of the drawing operation, substantially as described.

1,142,140. WINDOW-STAY. DELAMAR C. BRIGGS and CLARENCE W. DAVOCK, Detroit, Mich., assignors to Detroit Steel Products Company, Detroit, Mich., a Corporation of Michigan. Filed Nov. 25, 1912. Serial No. 733,386. (Cl. 16—28.)

1. A window stay comprising a bar having dove-tail notches in the edge thereof, a stationary flange for en-

gaging said notches, having an aperture therein for interlocking with the portion of said bar adjacent to the dovetail notches.



2. A window stay comprising a bar having dove-tail notches formed in the edge portions thereof, a stationary flange for engagement with said notches, having a notch therein for engaging the edge portion of said bar, and an aperture formed beneath said notch for interlocking with the angular edge portion of the notch in said bar.

3. The combination with a swinging window sash of a stay bar pivotally attached to said sash and longitudinally adjustable upon its pivot when in parallelism with the sash, a keeper apertured to correspond to the section of said stay, and having a lateral entrance slot of lesser width, said stay being cut away at one point for engagement with said entrance slot and interlocking with said keeper upon longitudinal adjustment.

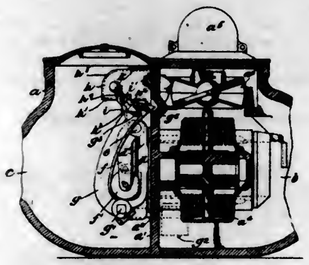
4. The combination with a swinging window of a stay therefor, comprising a notched bar having a flanged head, said bar being pivotally attached to said swinging window and adjustable longitudinally upon its pivot when in parallelism with the sash, a keeper apertured to correspond to the cross section of said bar and its flanged head, having an entrance slot of lesser width, said bar having its head portion cut away at one point for engagement with said entrance slot and interlocking with the keeper upon longitudinal adjustment from its entrance position.

5. The combination with a swinging window sash of a stay pivotally attached thereto, and comprising a bar of T-shaped cross section, the stem of said T being provided with a notched edge and the T-shaped head being cut away at one point, a flange with which said notched edge is engaged to hold the window in different positions of angular adjustment, and a keeper for engagement with said bar when in parallelism with said sash, apertured to correspond to the cross section of said bar, and having an entrance slot for engaging said bar at the point where the head is cut away, and means permitting the longitudinal adjustment of said bar when engaged with said keeper to lock the same.

[Claims 6 and 7 not printed in the Gazette.]

1,142,141. WATER-METER. JAMES M. BURTON, New York, N. Y., assignor to Neptune Meter Company, New York, N. Y., a Corporation of New Jersey. Filed Aug. 28, 1914. Serial No. 859,017. (Cl. 73—68.)

1. A meter comprising a casing having a high duty passage, a high duty valve to control the same, a low duty passage, a single valve constituting the sole control for the low duty passage, and arm carried on the low duty valve and an arm independent of the first named arm moving with the high duty valve and carrying a member unconnected with the first named arm but arranged to cooperate therewith, whereby the low duty valve is closed when the high duty valve is opened and vice versa.



2. A meter comprising a casing having a high-duty passage, a high-duty valve to control the same, a low-duty passage in said casing, a single-bladed butterfly valve disposed in said low-duty passage and constituting the sole control of the flow of water therethrough and having its shaft extended beyond the low-duty passage, a bifurcated arm secured to the projecting shaft of the butterfly valve and an arm moving with the high-duty valve and having a pin to engage the forks of the bifurcated arm to move the low-duty valve to closed position when the high-duty valve is opened, and vice versa.

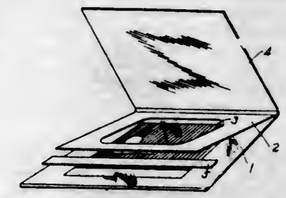
3. A meter comprising a casing having a high-duty passage, a high-duty valve to control the same, a low-duty passage in said casing, a butterfly valve disposed in the low-duty passage and constituting the sole control of the flow of water therethrough, a housing for the low-duty valve, a shaft for the valve journaled in said housing and having one end projected beyond the housing, a bifurcated arm fixed to the projecting end of said shaft and weighted to assist in the opening and closing movements of the low-duty valve, coöperating means carried by the bifurcated arm and the housing for limiting the amplitude of the oscillation of the shaft of the low-duty valve, and an arm movable with the high-duty valve and provided with a pin adapted to engage the forks of the bifurcated arm to close the low-duty valve when the high-duty valve is opened, and vice versa.

4. A meter casing having a high-duty passage, a high-duty valve to control the same, a low-duty passage in the casing, a single valve disposed in said low-duty passage to control the flow of water therethrough, operative connections between the low-duty valve and the high-duty valve whereby the low-duty valve is closed when the high-duty valve is opened and vice versa, and a valve housing for the low-duty valve having a spheroidal wall in such relation to the low-duty valve as to tend to restrict the flow of water through the low-duty passage at the time of change from high-duty flow to low-duty flow, to insure an immediate diversion of the flow from one passage to the other upon change of conditions.

1,142,142. [WITHDRAWN.]

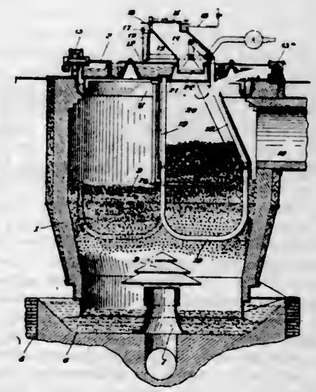
1,142,143. LANTERN-SLIDE. ARTHUR V. CAUGER, Kansas City, Mo. Filed June 11, 1912. Serial No. 703,092. (Cl. 40—125.)

1. A lantern slide comprising a back plate having matter thereon adapted for projection, a clear, transparent plate overlying said back plate, a mat having an opening therein located between said plates and surrounding the projectable matter on said back plate, an insert located between said mat and back plate and in line with the opening in the mat, and means for binding the plates together.



2. A lantern slide comprising a plate having matter thereon adapted for projection, a transparent plate overlying said back plate, a mat located between said plate and surrounding the projectable matter on the first named plate, and an insert located between the mat and the first named plate with its ends fixed to said plate and bearing matter intermediate its ends adapted for projection with the matter on said plate.

1,142,144. GAS-PRODUCER. WILLIAM BREWSTER CHAPMAN, New York, N. Y., assignor to Chapman Engineering Company, New York, N. Y., a Corporation of New York. Filed May 3, 1912. Serial No. 694,855. (Cl. 48—85.2.)



1. A gas producer having means for carrying the body of burning fuel, means for supplying to and maintaining on said burning fuel a body of fresh fuel, means for bringing about relative motion of said bodies of fuel whereby the burning fuel is pressed and the fresh fuel spread over the same, and an agitator working in the burning fuel below the top surface thereof, and in the vertical line of said body of unburned fuel.

2. A gas producer having a body to contain the burning fuel, an eccentrically located chamber to contain a supply of fresh fuel, said chamber open at its bottom to allow the fresh fuel to bear on the burning fuel, means for moving one of said parts relatively to the other and an agitator working in the burning fuel below the upper surface thereof, said agitator located in the vertical line of the chamber.

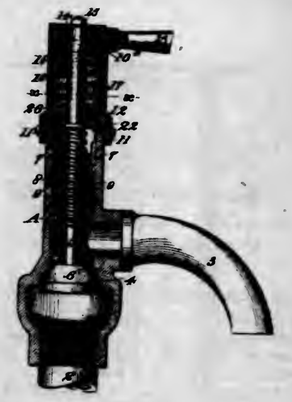
3. A gas producer having a body to contain the burning fuel, an eccentrically located chamber to contain a supply of fresh fuel, said chamber open at its bottom to allow the fresh fuel to bear on the burning fuel, means for moving one of said parts relatively to the other and an agitator having a substantially horizontal portion working in the burning fuel below and in vertical line with the said chamber.

4. A gas producer having means for carrying the body of burning fuel, means for supplying to and maintaining on said burning fuel a body of fresh fuel, means for bringing about relative motion of said bodies of fuel, whereby the burning fuel is pressed and the fresh fuel spread over the same, and a U-shaped agitator extending into the burning fuel under the said body of fresh fuel.

5. A gas producer having means for carrying the body of burning fuel, means for supplying to and maintaining on said burning fuel a body of fresh fuel, means for bringing about relative motion of said bodies of fuel, whereby the burning fuel is pressed and the fresh fuel spread over the same, and a U-shaped agitator extending into the burning fuel under the said body of fresh fuel, the agitator having its bend or middle portion working substantially horizontally in the burning fuel.

[Claims 6 and 7 not printed in the Gazette.]

1,142,145. SELF-CLOSING ATTACHMENT FOR FAUCETS. ADONIRAM J. COLLAR, Yreka, Cal. Filed Aug. 12, 1913. Serial No. 784,350. (Cl. 137—4.)

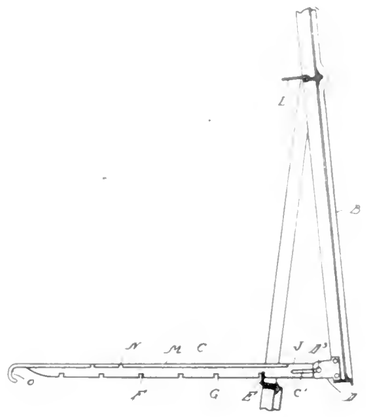


1. The combination with a faucet body, of a turnable valve stem, a casing secured to the faucet body surrounding the upper end of the stem, a handle secured to the stem, there being a cut-away part formed in the upper end of the casing through which the handle extends and by which the movement of the handle is limited, a coil spring in the casing surrounding the valve stem one end of which is secured to the handle, a lug in the casing to which the other end of the spring is secured, and a cap secured to the handle closing the upper end of the casing, said casing having a drainage opening formed in the lower end.

2. In combination with a faucet body, a valve stem, a casing connected to the faucet body and having an edge which has a horizontal and a downwardly inclined part, a handle on the stem which rides on said edge, a stop, and means operatively connected to the stem which when the handle rides on said horizontal part of said edge will be moved to engage said stop, and whereby when the handle rides on the inclined part of said edge the valve stem will be given movement to unseat the valve.

3. In combination with a faucet body, a threaded valve stem, a casing secured to the faucet body and surrounding the upper end of the stem, the upper end of the casing having a cutaway part which provides an edge having a horizontal and a downwardly inclined part, a cap closing the upper end of the casing, a handle connected to the stem and to the cap, said handle being movably engaged with said edge, a coil spring connected to the handle and casing and tending to turn the handle, a slidable nut engaged with the valve stem threads, and a stop which

ranging said notches, having an aperture therein for interlocking with the portion of said bar adjacent to the dovetail notches.



2. A window stay comprising a bar having dove-tail notches formed in the edge portions thereof, a stationary flange for engagement with said notches, having a notch therein for engaging the edge portion of said bar, and an aperture formed beneath said notch for interlocking with the angular edge portion of the notch in said bar.

3. The combination with a swinging window sash of a stay bar pivotally attached to said sash and longitudinally adjustable upon its pivot when in parallelism with the sash, a keeper apertured to correspond to the section of said stay, and having a lateral entrance slot of lesser width, said stay being cut away at one point for engagement with said entrance slot and interlocking with said keeper upon longitudinal adjustment.

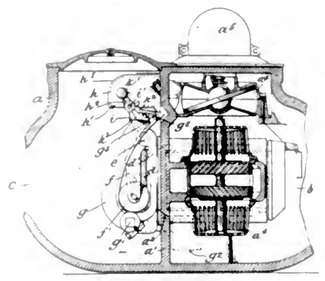
4. The combination with a swinging window of a stay therefor, comprising a notched bar having a flanged head, said bar being pivotally attached to said swinging window and adjustable longitudinally upon its pivot when in parallelism with the sash, a keeper apertured to correspond to the cross section of said bar and its flanged head, having an entrance slot of lesser width, said bar having its head portion cut away at one point for engagement with said entrance slot and interlocking with the keeper upon longitudinal adjustment from its entrance position.

5. The combination with a swinging window sash of a stay pivotally attached thereto, and comprising a bar of T-shaped cross section, the stem of said T being provided with a notched edge and the T-shaped head being cut away at one point, a flange with which said notched edge is engaged to hold the window in different positions of angular adjustment, and a keeper for engagement with said bar when in parallelism with said sash, apertured to correspond to the cross section of said bar, and having an entrance slot for engaging said bar at the point where the head is cut away, and means permitting the longitudinal adjustment of said bar when engaged with said keeper to lock the same.

[Claims 6 and 7 not printed in the Gazette.]

1,142,141. WATER-METER. JAMES M. BURTON, New York, N. Y., assignor to Neptune Meter Company, New York, N. Y., a Corporation of New Jersey. Filed Aug. 28, 1914. Serial No. 859,017. (Cl. 73—68.)

1. A meter comprising a casing having a high duty passage, a high duty valve to control the same, a low duty passage, a single valve constituting the sole control for the low duty passage, and arm carried on the low duty valve and an arm independent of the first named arm moving with the high duty valve and carrying a member unconnected with the first named arm but arranged to operate therewith, whereby the low duty valve is closed when the high duty valve is opened and vice versa.



2. A meter comprising a casing having a high-duty passage, a high-duty valve to control the same, a low duty passage in said casing, a single-bladed butterfly valve disposed in said low-duty passage and constituting the sole control of the flow of water therethrough and having its shaft extended beyond the low-duty passage, a bifurcated arm secured to the projecting shaft of the butterfly valve and an arm moving with the high-duty valve and having a pin to engage the forks of the bifurcated arm to move the low-duty valve to closed position when the high-duty valve is opened, and vice versa.

3. A meter comprising a casing having a high-duty passage, a high-duty valve to control the same, a low-duty passage in said casing, a butterfly valve disposed in the low-duty passage and constituting the sole control of the flow of water therethrough, a housing for the low-duty valve, a shaft for the valve journaled in said housing and having one end projected beyond the housing, a bifurcated arm fixed to the projecting end of said shaft and weighted to assist in the opening and closing movements of the low duty valve, coöperating means carried by the bifurcated arm and the housing for limiting the amplitude of the oscillation of the shaft of the low-duty valve, and an arm movable with the high-duty valve and provided with a pin adapted to engage the forks of the bifurcated arm to close the low-duty valve when the high-duty valve is opened, and vice versa.

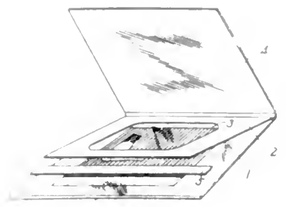
4. A meter casing having a high-duty passage, a high-duty valve to control the same, a low-duty passage in the casing, a single valve disposed in said low-duty passage to control the flow of water therethrough, operative connections between the low-duty valve and the high duty valve whereby the low-duty valve is closed when the high duty valve is opened and vice versa, and a valve housing for the low-duty valve having a spheroidal wall in such relation to the low-duty valve as to tend to restrict the flow of water through the low-duty passage at the time of change from high-duty flow to low-duty flow, to insure an immediate diversion of the flow from one passage to the other upon change of conditions.

1,142,142. [WITHDRAWN.]

1,142,143. LANTERN-SLIDE. ARTHUR V. CAUGER, Kansas City, Mo. Filed June 11, 1912. Serial No. 703,092. (Cl. 40—125.)

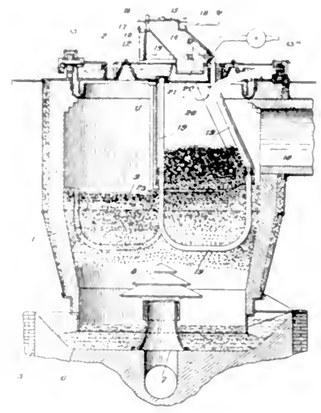
1. A lantern slide comprising a back plate having matter thereon adapted for projection, a clear, transparent plate overlying said back plate, a mat having an opening therein located between said plates and surrounding the projectable matter on said back plate, an insert located between said mat and back plate and in line with

...ng in the mat, and means for binding the plates ...



... A lantern slide comprising a plate having matter ... adapted for projection, a transparent plate overlying ... and back plate, a mat located between said plate and ... surrounding the projectable matter on the first named ... and an insert located between the mat and the first ... plate with its ends fixed to said plate and bearing ... intermediate its ends adapted for projection with ... matter on said plate.

1,142,144. GAS-PRODUCER. WILLIAM BREWSTER CHAPMAN, New York, N. Y., assignor to Chapman Engineering Company, New York, N. Y., a Corporation of New York. Filed May 3, 1912. Serial No. 694,855. (Cl. 48—85.2.)



... A gas producer having means for carrying the body ... of burning fuel, means for supplying to and maintaining on said burning fuel a body of fresh fuel, means for ... bringing about relative motion of said bodies of fuel whereby the burning fuel is pressed and the fresh fuel spread over the same, and an agitator working in the ... burning fuel below the top surface thereof, and in the ... vertical line of said body of unburned fuel.

... A gas producer having a body to contain the burning ... fuel, an eccentrically located chamber to contain a supply of fresh fuel, said chamber open at its bottom to allow the fresh fuel to bear on the burning fuel, means for moving one of said parts relatively to the other and an agitator working in the burning fuel below the upper surface thereof, said agitator located in the vertical line ... chamber.

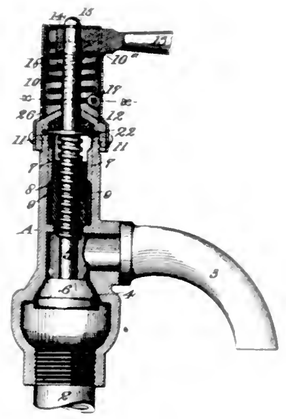
... A gas producer having a body to contain the burning ... an eccentrically located chamber to contain a supply of fresh fuel, said chamber open at its bottom to allow the fresh fuel to bear on the burning fuel, means for moving one of said parts relatively to the other and an agitator having a substantially horizontal portion working in the burning fuel below and in vertical line with the said chamber.

4. A gas producer having means for carrying the body of burning fuel, means for supplying to and maintaining on said burning fuel a body of fresh fuel, means for bringing about relative motion of said bodies of fuel, whereby the burning fuel is pressed and the fresh fuel spread over the same, and a U-shaped agitator extending into the burning fuel under the said body of fresh fuel.

5. A gas producer having means for carrying the body of burning fuel, means for supplying to and maintaining on said burning fuel a body of fresh fuel, means for bringing about relative motion of said bodies of fuel, whereby the burning fuel is pressed and the fresh fuel spread over the same, and a U-shaped agitator extending into the burning fuel under the said body of fresh fuel, the agitator having its bend or middle portion working substantially horizontally in the burning fuel.

[Claims 6 and 7 not printed in the Gazette.]

1,142,145. SELF-CLOSING ATTACHMENT FOR FAUCETS. ADONIRAM J. COLLAR, Yreka, Cal. Filed Aug. 12, 1913. Serial No. 784,350. (Cl. 137—4.)



1. The combination with a faucet body, of a turnable valve stem, a casing secured to the faucet body surrounding the upper end of the stem, a handle secured to the stem, there being a cut-away part formed in the upper end of the casing through which the handle extends and by which the movement of the handle is limited, a coil spring in the casing surrounding the valve stem one end of which is secured to the handle, a lug in the casing to which the other end of the spring is secured, and a cap secured to the handle closing the upper end of the casing, said casing having a drainage opening formed in the lower end.

2. In combination with a faucet body, a valve stem, a casing connected to the faucet body and having an edge which has a horizontal and a downwardly inclined part, a handle on the stem which rides on said edge, a stop, and means operatively connected to the stem which when the handle rides on said horizontal part of said edge will be moved to engage said stop, and whereby when the handle rides on the inclined part of said edge the valve stem will be given movement to unseat the valve.

3. In combination with a faucet body, a threaded valve stem, a casing secured to the faucet body and surrounding the upper end of the stem, the upper end of the casing having a cutaway part which provides an edge having a horizontal and a downwardly inclined part, a cap closing the upper end of the casing, a handle connected to the stem and to the cap, said handle being movably engaged with said edge, a coil spring connected to the handle and casing and tending to turn the handle, a slidable nut engaged with the valve stem threads, and a stop which

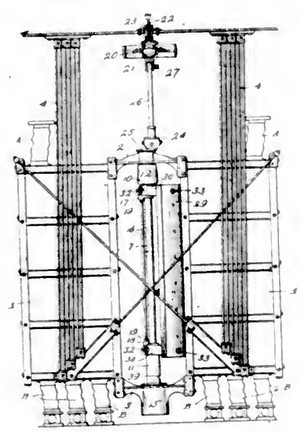
limits the upward movement of the nut prior to the handle engaging the downwardly inclined part of said edge.

4. In combination with a faucet body, a valve stem, a member connected to said stem, an element connected to the faucet body and having an abutment which has a horizontal and an inclined part, on which the member rides, and means whereby when said member rides on the inclined part of the abutment the valve stem will be actuated to unseat the valve, said member when riding on the horizontal part of the abutment effecting grinding of the valve on its seat.

5. In combination with a faucet body, a threaded valve stem and a member connected to said stem, a slidable nut on the stem, a stop to engage the nut to limit upward movement thereof, and means which engages said member and which holds the valve stem against lengthwise movement until the nut engages the stop.

[Claim 6 not printed in the Gazette.]

1,142,146. CONTROLLING MEANS FOR GYRATORY STRUCTURES. GEORGE W. COMBS, Leavenworth, Kans. Filed Aug. 28, 1911. Serial No. 646,321. (Cl. 83—38.)



1. In combination, a gyratory structure, a journaled shaft thereto adapted to gyrate therewith, and means to control gyratory motion of said shaft and the structure, consisting of an elongated member, and means movably connecting said member to the shaft at a plurality of points.

2. In combination, a gyratory body, a shaft thereto capable of orbital movement, and means to control orbital movement of said shaft consisting of an elongated member, and pivotal means operably-connecting said elongated member and the shaft at a plurality of points.

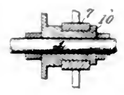
3. In combination, a body, yielding means supporting said body for gyration, a shaft to said body, and means to control gyratory motion of the body, consisting of an elongated weight, and means capable of vertical movement connecting the weight and the shaft and adapted to retain said weight parallel with the shaft.

4. In combination, a body suspended for gyration, a shaft thereto capable of lateral movement in any direction, means to control gyratory motion of the suspended body consisting of a vertically elongated weight movably-connected to the shaft and provided with pockets, and supplemental weights removably arranged within said pockets.

5. In combination, a gyratory structure, a centrally-disposed shaft thereto, and mean to control gyratory motion of the shaft consisting of an elongated member, and links operably-connecting said member and the shaft.

[Claims 6 to 8 not printed in the Gazette.]

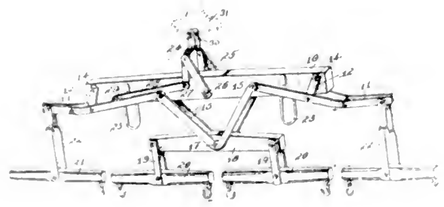
1,142,147. ENGINE-MOUNTING FOR AEROPLANES. WALLACE M. COOPER, Berkeley, Cal. Filed Apr. 27, 1914. Serial No. 834,613. (Cl. 244—25.)



1. An engine mounting for aeroplanes consisting in the combination of the aeroplane frame, an engine, and means for suspending said engine so that the plane is free to rock sidewise about the engine shaft as an axis and the engine is free to swing from the vertical outward to that position at which its moment about the axis neutralizes the torque of the propeller.

2. An engine mounting for aeroplanes consisting in the combination of the aeroplane frame, an engine, means for suspending said engine so that the plane is free to rock sidewise about the engine shaft as an axis and the engine weight adjusted to the torque of the propeller, and means for locking the engine against rocking movement.

1,142,148. CLEVIS ATTACHMENT FOR DRAFT-EVENERS. JOHN PAULUCCI CORMODE, Chatham, Ontario, Canada. Filed Mar. 30, 1914. Serial No. 828,940. (Cl. 21—76.)

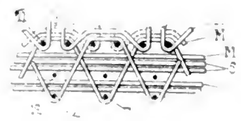


1. A clevis attachment for draft eveners comprising two spaced elongated plates, a link pivoted to one end of each of said plates, the other end of each of said plates being formed to receive a means for single point pivotal connection to an agricultural implement, and a relatively shorter link pivoted to each of said plates centrally between the ends thereof, the points of connection of both links on each plate being in substantial longitudinal alinement with respect to said plates, and the free ends of all of said links being adapted for suitable pivotal connection to an evener bar.

2. The combination with an evener bar, of a clevis attachment therefor comprising links pivotally connected to opposite sides and near one end thereof, relatively shorter links pivotally connected to opposite sides and centrally of said evener bar, spaced plates having off-set portions adapted to straddle said even bar, said plates each being pivotally connected at one end to one end of one of said first-mentioned links and each of said shorter links being pivotally connected to one of said plates intermediate the ends thereof, the points of connection of all of said links on said plates being in longitudinal alinement with respect to said plates, and means carried by the free ends of said plates for a single point connection to an agricultural implement.

1,142,149. PILE FABRIC. GEORGE CROSSLAND, Worcester, Mass., assignor to Crompton & Knowles Loom Works, Worcester, Mass., a Corporation of Massachusetts. Filed Oct. 12, 1914. Serial No. 866,259. (Cl. 139—71.)

1. A pile fabric having three planes of filling separated by two planes of warp, said fabric comprising filling threads, pile warps, binder warps, and stuffer warps, two pile warps passing under one filling thread, over two filling threads, and under an additional filling thread, four picks of filling being inserted within each crossing of the binder warps, two picks underlying alternate binder warps and alternate pile warps, one pick underlying a portion of the stuffer warps, and the remaining pick overlying the remaining portion of the stuffer warps and overlying alternate binder warps.



2. A pile fabric having three planes of filling separated by two planes of warp, said fabric comprising filling threads, pile warps, binder warps, and stuffer warps, the active pile warps forming pile tufts alternately and being confined upon the face of the fabric by the filling threads each certain of the stuffer warps and the inactive pile warps forming the upper warp plane and the remaining stuffer warps forming the lower warp plane.

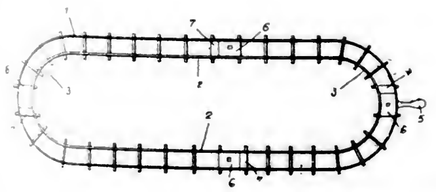
3. A pile fabric having three planes of filling separated by two planes of warp, said fabric comprising filling threads, two sets of pile warps, binder warps having different characteristics, and stuffer warps, the active pile warps having certain characteristics and forming pile tufts alternately, the inactive pile warps having different characteristics and coöperating with a portion of the stuffer warps to form the upper warp plane and the remaining stuffer warps forming the lower warp plane.

4. A pile fabric having three planes of filling separated by two planes of warp, said fabric comprising filling threads, pile warps, binder warps, and stuffer warps, the active pile warps passing under one filling thread, over two filling threads, and under an additional filling thread, four picks of filling being inserted within each crossing of the binder warps, two picks thereof underlying alternate binder warps and alternate acive pile warps, one pick underlying the inactive pile warps and a portion of the stuffer warps, and the remaining pick overlying alternate binder warps only.

5. A pile fabric having three planes of filling separated by two planes of warp, said fabric comprising filling threads, pile warps, binder warps, and stuffer warps, the active pile warps passing under one filling thread, over two filling threads, and under an additional filling thread, four picks of filling being inserted within each crossing of the binder warps, and being so disposed that they may be inserted in pairs simultaneously, whereby one row of pile tufts may be inserted in the fabric for every three picks of the loom.

[Claim 6 not printed in the Gazette.]

1,142,150. TOY RAILWAY. ROBERT A. DORRILL, Newark, N. J. Filed Mar. 18, 1915. Serial No. 15,367. (Cl. 104—45.)



1. The hereindescribed toy railway, comprising a continuous track and a transverse fulcrum through said track nearer one end thereof than the other.

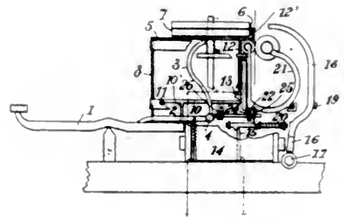
2. The hereindescribed toy railway, comprising an elongated continuous track having straight longitudinal portions and curved end portions, said curved end portions being upturned or bent.

3. The hereindescribed toy railway, comprising a continuous track, a transverse fulcrum beneath said track nearer one end thereof than the other, and a handle at the shorter end of the track for tilting it.

4. The hereindescribed toy railway, comprising sections, coöperating members upon the adjacent ends of two sections for securing them detachably together, and fulcrums upon two of said coöperating members near the middle of the track for said track to tilt upon.

5. The hereindescribed toy railway, comprising sections, coöperating telescopic members upon the adjacent ends of the sections the inner one having at its top a spring catch and the outer one having a recess to receive said catch, and fulcrums secured to the bottoms of the outer members near the middle of the track.

1,142,151. TYPE-WRITER WITH ELECTROMAGNETIC THRUST. JACOB DUBEN, Lugano, Switzerland. Filed Apr. 16, 1914. Serial No. 832,354. (Cl. 197—12.)



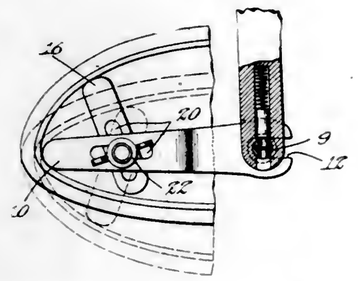
1. In a typewriter the combination with the keyboard, the type shuttle, the carriage, the printing hammer, and the ribbon, of mechanical means for adjusting the type shuttle from the keys, electro-magnetic means actuated from the keys and adapted to actuate the hammer, means for advancing the said carriage and the ribbon at each actuation of the hammer and an automatic make and break device adapted to cause the said electro-magnetic means to repeatedly actuate the said hammer when the keys are pressed down for a longer period, substantially as and for the purpose set forth.

2. In a typewriter of the kind described, the combination with the type-shuttle, the carriage, the hammer, the ribbon mechanism, and the key mechanism adapted to adjust the said type shuttle, of a printing hammer, an electro-magnet, an armature made intergral with said printing hammer and adapted to be actuated by said electro-magnet, a contact inserted in the circuit of said electro-magnet, means for closing the said contact at each pressing down of any of the keys, a second contact inserted into the circuit of said elecro-magnet and spring controlled means adapted to be actuated by the said hammer during its printing stroke so as to open the said contact and to close the said contact when the hammer returns into its position of rest and means adapted to be actuated by the means for actuating the said second contact and to cause the said ribbon to advance, substantially as and for the purpose set forth.

1,142,152. HOLDDOWN FOR LASTING-MACHINES. FREDRICK W. EAGER, Winthrop, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Sept. 27, 1913. Serial No. 792,120. (Cl. 12—14.)

1. A hold-down for lasting machines, comprising a member arranged to extend logitudinally of the shoe and to apply pressure to the toe end of the innersole, and a member arranged to extend on either side thereof, alternately

into position to engage the innersole of either a right shoe or a left shoe at the outer side of the toe.



2. A hold-down for lasting machines, comprising a carrier, a finger 10 secured to the carrier and extending lengthwise of the shoe at right angles to the carrier, and a supplemental finger pivoted to the finger 10 for lateral adjustment to contact with the innersole alternately at either lateral side of the finger 10.

3. A hold-down for lasting machines, comprising a member arranged to extend lengthwise of the shoe and to apply pressure to the toe end of the innersole at the inner side of the rib, and a member secured to said first member and arranged to be positioned to extend toward either lateral side of said first member into position to engage right and left innersoles adjacent to that portion of the rib which is on the outer side of the toe.

4. A hold-down for lasting machines, comprising, in combination, with a hold-down finger for engaging the tip of the toe of the innersole of a shoe, of a supplementary member to bear in a similar manner upon the outer side of the toe of the innersole, and a connection between said fingers permitting relative bodily adjustment of said fingers endwise to adapt them to fit different shapes of innersoles, substantially as described.

5. A hold-down for lasting machines, comprising a member arranged to extend lengthwise of the shoe and to apply pressure to the toe end of the innersole at the inner side of the rib, a second member connected thereto and arranged at an angle to said first member to bear in a similar manner upon the outer side of the toe of the innersole, said members being slotted, and a bolt engaging said slots and arranged to hold said members adjustably together.

1,142,153. MANUFACTURE, ISOLATION, AND ENRICHMENT OF RADIO-ACTIVE SUBSTANCES BY ADSORPTION FROM SOLUTIONS. ERICH EBLER, Heidelberg, Germany. Filed Dec. 8, 1913. Serial No. 805,406. (Cl. 23—13.)

1. Process of producing, isolating and enriching radioactive compounds by adsorption from solutions containing them comprising treating said solutions with hydrated peroxid of manganese containing material, separating the solution from the solid substance therein, treating said solid material with solvents for the radioactive substance adsorbed by the peroxid of manganese material and separating the radioactive solution from the manganese material.

2. Process of producing, isolating and enriching radioactive compounds by adsorption from solutions containing them comprising treating said solutions with hydrated peroxid of manganese containing material, separating the solution from the solid substance therein, treating said solid material with solvents for the radioactive substance adsorbed by the peroxid of manganese material and separating the radio-active solution from the manganese material and repeating the process till the desired enrichment of radium is reached.

3. Process of producing, isolating and enriching radioactive compounds by adsorbtion from solutions containing them comprising treating said solutions with hydrated peroxid of manganese, separating the solution from the solid substance therein, treating said solid material with solvents for the radioactive substance adsorbed by the peroxid of manganese material and separating the radioactive solution from the manganese material.

4. Process of producing, isolating and enriching radioactive compounds by adsorption from solutions containing them comprising treating said solutions with substances adapted to produce hydrated peroxid of manganese within the solutions, separating the solution from the solid substance so produced therein, treating said solid material with solvents for the radio-active substance adsorbed by the peroxid of manganese material and separating the radioactive solution from the manganese material.

5. Process of producing, isolating and enriching radioactive compounds by adsorption from solutions containing them comprising treating said solutions with permanganates in combination with reducing substances, separating the solution from the solid substance so produced therein, treating said solid material with solvents for the radioactive substance adsorbed by the peroxid of manganese material and separating the radioactive solution from the manganese material.

[Claims 6 and 7 not printed in the Gazette.]

1,142,154. METHOD OF TREATING RADIO-ACTIVE ORES AND INTERMEDIATE PRODUCTS. ERICH EBLER, Heidelberg, Germany. Filed Dec. 8, 1913. Serial No. 805,407. (Cl. 23—13.)

1. The process of treating mixtures containing radioactive substances (radium, mesothorium, thorium, etc.), which consists in subjecting the same to the action of a reducing agent adapted to react after igniting without external heating.

2. The process of treating mixtures containing radioactive substances (radium, mesothorium, thorium, etc.), which consists in subjecting the same to the action of a calcium-containing reducing agent.

3. The process of treating mixtures containing radioactive substances (radium, mesothorium, thorium, etc.), which consists in subjecting the same to the action of calcium hydrid.

4. The process of treating mixtures containing radioactive substances (radium, mesothorium, thorium, etc.), which consists in subjecting the same to the action of calcium hydrid and reducing agents requiring external heating for reaction.

5. The process of treating mixtures containing radioactive substances (radium, mesothorium, thorium, etc.), which consists in subjecting the same to the action of calcium hydrid and calcium carbid.

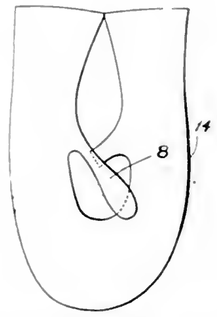
[Claims 6 to 13 not printed in the Gazette.]

1,142,155. METHOD OF MAKING SHOE-UPPERS. KARL ENGEL, Arlington, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Aug. 28, 1912. Serial No. 717,503. (Cl. 12—146.)

1. The method of making a shoe upper having integral, overlapping parts, which consists in blanking out the upper and then, while the upper is in its blank smooth condition, effecting a relative stretching of parts of said upper to bring them into substantially the desired final shape and relative location.

2. The method of making a shoe upper having an integral strap which consists in blanking out the upper with a strap portion and then effecting a relative stretching of the strap and remaining portions of the blank while the parts are in the blank condition to bring said strap into its desired final dimensions and position.

3. The method of making a shoe upper having an integral strap which consists in removing from the upper blank material to provide an opening into which the strap extends and then stretching said strap so that it overlies the side of said opening.

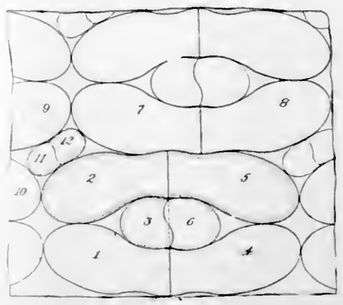


4. The method of making a shoe upper having an integral ankle strap, which consists in removing from a vamp blank material to provide an ankle opening and a throat opening, with an ankle strap extending from one side of said openings into one of said openings, and then stretching said strap into its desired final dimensions and position.

5. The method of making a shoe upper having an integral ankle strap, which consists in removing from a vamp blank material to provide an ankle opening and a throat opening, with an ankle strap extending from one side of said openings into said throat opening and a button or buckle tab extending from the other side of said openings to said strap, and then stretching said strap.

[Claims 6 and 7 not printed in the Gazette.]

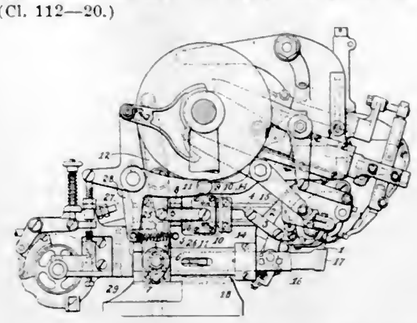
1,142,156. STOCK-CUTTING PROCESS. KARL ENGEL, Arlington, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Dec. 21, 1912. Serial No. 738,024. (Cl. 33—6.)



1. That improvement in methods of utilizing sole stock which consists in cutting from the sheet of stock two soles truncated at the heel ends, the lines of severance being so located that the inner edges of the foreparts will lie adjacent to each other and the longitudinal axes of the soles will be so disposed relatively to each other upon the sheet as to leave between their shank portions sufficient material to provide a heel lift of predetermined size, and in cutting the soles so determining the angle of cut at the truncated end of each sole with reference to the longitudinal axis of the sole that the cuts at said ends will be in subsequent alinement, and cutting out a heel lift from the stock in the space between the shank portions, the width of said lift being equal to that of said space.

2. That improvement in methods of utilizing sole stock which consists in cutting from the sheet of stock two pairs of sole blanks with their inner edges disposed toward each other, each pair of blanks being so shaped as to permit of separation by a single line of cut into two soles truncated at the heel ends, and in the cutting of the blanks so determining the angular relation of the longitudinal axes of the soles of each of the two pairs as to leave between the shank portions thereof sufficient material to provide two heel lifts of predetermined sizes, and cutting two heel lifts from the stock in the spaces between the shank portions, the width of said lifts being equal to the width of said spaces.

1,142,157. BACK-REST AND BACK-GAGE OR WELT-GUIDE MECHANISM. ANDREW EPPLER, Lynn, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Original application filed Aug. 8, 1908, Serial No. 447,542. Divided and this application filed Mar. 11, 1912. Serial No. 683,087. (Cl. 112—20.)



1. An inseam shoe sewing machine having, in combination, a work rest slide movable toward and from the shoe, a clutch roll for locking the slide against backward movement, a supporting member for the roll, and means for actuating said member to lock the slide against backward movement and unlock the slide.

2. An inseam shoe sewing machine having, in combination, a work rest slide movable toward and from the shoe provided with a longitudinal friction surface, a clutch roll to engage said surface and lock the slide against backward movement, and mechanism coöperating with the roll to lock the slide against backward movement and unlock the slide.

3. An inseam sewing machine having, in combination, a work rest slide movable toward and from the shoe provided with a longitudinal friction surface, a locking mechanism comprising a clutch roll engaging said surface and locking the slide against backward movement, a member provided with a surface engaging and supporting the roll inclined to said friction surface, and means for moving said member to release the roll and the slide intermittently in the operation of the sewing machine.

4. An inseam sewing machine having, in combination, a back gage slide, a back rest slide, clutch rolls for locking the slides, supporting members for the rolls, and means for actuating said members to lock and unlock the slides.

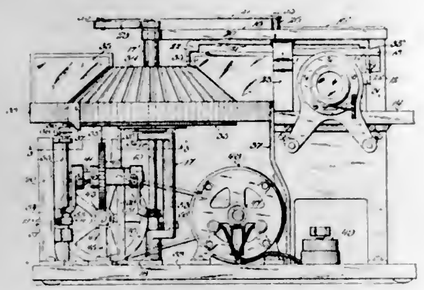
5. An inseam sewing machine having, in combination, a back gage slide and a back rest slide provided with longitudinal friction surfaces, clutch rolls to engage said surfaces, and mechanism coöperating with the rolls to lock and unlock said slides.

[Claims 6 to 11 not printed in the Gazette.]

1,142,158. STEREOPTICON. WALTER M. FISCHBACH, Milwaukee, Wis. Filed July 1, 1914. Serial No. 848,513. (Cl. 88—27.)

1. In combination with the slide-guides of a stereopticon lantern, a slide-carrier comprising a horizontal circular

plate radially grooved at regular intervals upon its upper side together with a conical crown of less base diameter than the plate upon which it is centered to turn therewith and which is provided with wall-slots matching with said plate-grooves, means for imparting intermittent rotary motion to the carrier, whereby slides therewith are successively registered with said guides; and means by which automatic reciprocation is had of a slide in the carrier and guides during a period of rest on the part of said carrier.



2. In combination with the slide-guides of a stereopticon lantern, a circular horizontally disposed slide-carrier, means for imparting intermittent rotary motion to the carrier whereby slides therewith are successively registered with said guides; a shaft extending above the carrier centrally of the same and provided with an upper crank, a slide-traveler, a guide for the traveler secured to said lantern and supported on a bearing for said shaft, a pitman in connection with said crank and traveler, and means for imparting intermittent rotary motion to the aforesaid shaft during a period of rest on the part of said carrier.

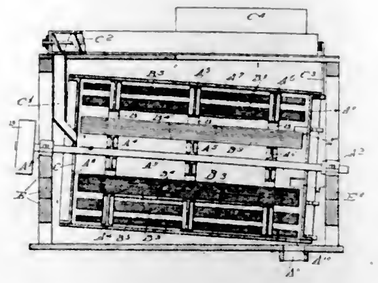
3. In combination with the slide-guides for a stereopticon-lantern, a rotatable slide-carrier comprising a horizontal circular plate having underside grooves at regular intervals thereof, a shaft having an upper crosshead provided with a pair of projections longitudinally thereof equi-distant from its axial center, means for imparting intermittent rotary motion to said shaft, whereby the projections of the crosshead are alternately engaged with said plate-grooves to transmit said motion to the carrier and thus register a slide therein with said guides, and means by which automatic reciprocation is had to said slide in said carrier and guides during a period of rest on the part of the carrier.

4. In combination with the slide-guides of a stereopticon-lantern, a rotatable slide-carrier comprising a horizontal circular plate having underside grooves at regular intervals thereof, a shaft having an upper crosshead provided with a center upper fin and a pair of projections, these projections being equi-distant in opposite directions from the fin, means for imparting intermittent rotary motion to said shaft, whereby said fin is moved in and out of said plate-grooves and said projections alternately engaged with said grooves to transmit said motion to the carrier and thus register a slide therein with said guides, and means by which automatic reciprocation is had of said slide in said carrier and guides.

5. In combination with the slide-guides of a stereopticon-lantern, a rotatable slide-carrier comprising a horizontal circular plate having underside grooves at regular intervals thereof, a shaft having an upper crosshead, a pair of pins adjustable in the crosshead to stand equidistant from its axial center, means for imparting intermittent rotary motion to the shaft, whereby the pins of the crosshead are alternately engaged with said plate grooves to transmit said motion to the carrier and thus register a slide therein within said guides, the degree of movement of the carrier being variable according to the adjustment of said pins; and means by which automatic reciprocation is had of said slide in said carrier and guides during a period of rest on the part of the carrier.

[Claims 6 to 11 not printed in the Gazette.]

1,142,159. PULVERIZER. PETER C. FORRESTER, West Tacoma, Wash. Filed Sept. 29, 1913. Serial No. 792,277. (Cl. 83—9.)



1. In a crushing machine, a plurality of groups of crushing members, said groups of crushing members being arranged annularly about a common axis of rotation and fixed with respect one to another, the members in said groups being free to move with respect one to another but constantly assembled *en masse* and means for rotating said groups in unison about said common axis and means for introducing material to be crushed to said groups at one end thereof adjacent the axis of rotation.

2. A crushing machine comprising a shaft and means for rotating it, spiders rigidly attached thereto and having apertures in register, a drum inclosing said spiders and provided with head plates closing the ends thereof, said drum having an opening in each of its ends, crushing bars loosely contained in said spider apertures and loosely abutting at either end on the head plates.

3. A crushing machine comprising a shaft and means for rotating it, spiders rigidly attached thereto and having apertures in register, a drum inclosing said spiders and provided with head plates closing the ends thereof, said drum having an opening in each of its ends, crushing bars loosely contained in said spider apertures and loosely abutting at either end on the head plates, the apertures in said spiders being arranged in concentric zones.

4. A crushing machine comprising a shaft and means for rotating it, spiders rigidly attached thereto and having apertures in register, a drum inclosing said spiders and provided with head plates closing the ends thereof, said drum having an opening in each of its ends, crushing bars loosely contained in said spider apertures and loosely abutting at either end on the head plates, the apertures in said spiders being arranged in concentric zones, and the apertures in the inner zone being larger than and less numerous than in the outer zone.

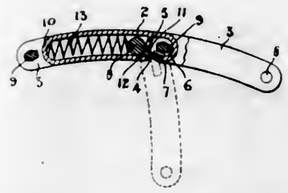
5. A crushing machine comprising a shaft and means for rotating it, spiders rigidly attached thereto and having apertures in register, a drum inclosing said spiders and provided with head plates closing the ends thereof, said drum having an opening in each of its ends, crushing bars loosely contained in said spider apertures and loosely abutting at either end on the head plates, the apertures in said spiders being arranged in concentric zones, and the crushing bars in the smaller apertures being smaller than those in the larger apertures.

[Claims 6 to 8 not printed in the Gazette.]

1,142,160. BRACELET-LINK. BERNARD GOLDSTEIN, Toronto, Ontario, Canada. Filed Apr. 10, 1914. Serial No. 831,047. (Cl. 59—79.)

1. In a bracelet, a link member having a cross bar connecting the side at one end and arranged in right angular relation thereto, the cross sectional width of said cross bar being greater than its thickness and its greater cross sectional dimension being arranged substantially parallel with the length of the link, and a flat link member of loop shape having a transverse opening on the inward side adjacent to one end and forming a hook adapted to re-

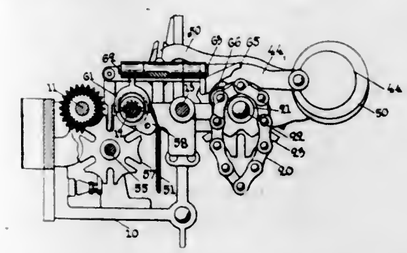
ceive the said cross bar of the aforesaid link member, said opening being of lesser width than the greater dimension of said bar.



2. In a bracelet, a link member of loop shape having an opening on the inward side adjacent to one end and forming a hook, and a link member formed of a pair of plates closing the sides of said loop and connected together at one end by a cross bar extending through said loop and at the other end by a flat cross bar adapted to enter the hook end of the adjacent link, said flat cross bar having a longitudinal cross sectional dimension greater than the width of the entrance to the hook.

3. A bracelet having links, each link formed of a loop shaped inner member having a hook shaped extension, and an outer member formed of a pair of plates closing the sides of the loop and connected at one end by a cross bar extending through the loop, said cross bar having a pin projection adapted to extend through a hole in the end of the loop to close the entrance to the hook, the other end of the side members being connected by a cross bar of flat cross sectional shape adapted to enter the hook end of the adjacent link, the greater dimension thereof being substantially parallel with the length of the link and of greater width than the entrance to the hook.

1,142,161. PATTERN MECHANISM FOR LOOMS. ALBERT A. GORDON, Jr., Worcester, Mass., assignor to Crompton & Knowles Loom Works, a Corporation of Massachusetts. Filed July 23, 1914. Serial No. 852,598. (Cl. 139—79.)

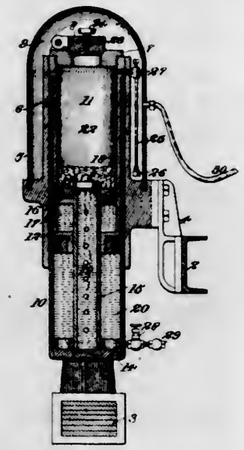


1. A pattern mechanism for looms having in combination a plurality of drop-box indicating-levers, a pattern-chain for moving said levers, auxiliary cams for moving the parts connected to certain of said levers, a cam shaft on which the auxiliary cams are fixed, a continuously rotated gear, connections from said gear to said cam shaft, including a slidable driving member, and a pattern chain for determining the position of said member.

2. A pattern mechanism for looms having in combination a plurality of drop-box indicating-levers, a pattern-chain for moving said levers, auxiliary cams for moving the parts connected to certain of said levers, a cam shaft on which the auxiliary cams are fixed, means to rotate said shaft intermittently, and a pattern controlled device for placing said last named means in operation, the feeding of the drop-box pattern-chain being suspended during the operation of the auxiliary cams.

3. A pattern mechanism for looms having in combination a plurality of drop-box indicating-levers, a pattern-chain for moving said levers, lifter rods supported on said levers, projections longitudinally adjustable on certain of said rods, auxiliary levers cooperating with said projections, cams for lifting said auxiliary levers, and auxiliary pattern mechanism for controlling the rotation of said cams.

1,142,162. FLUID-PRESSURE CUSHIONING AND WEIGHING MECHANISM. LUCIEN R. GRUSS, San Francisco, Cal. Filed Jan. 5, 1914. Serial No. 810,348. (Cl. 21—50.)



1. A fluid pressure device comprising in combination, a pair of telescoping cylinders, one of them carrying a piston dividing the space within the two cylinders into two chambers, one of said chambers having a greater diameter than the other, a valved piston carried by the other of the cylinders to divide the chamber of smaller diameter into two compartments, said valve forming a fluid connection between said compartments, and fluid connections between the individual chamber and the adjacent compartment.

2. A fluid pressure device comprising in combination a pair of upper and lower telescoping cylinders, a solid piston carried by the upper of said cylinders and dividing the space within the cylinders into two chambers of different diameters, a tube carried by the lower of said cylinders, a valved piston on said tube, said piston dividing one of said chambers into two compartments, a fluid connection between one of said compartments and the adjacent chamber, said connection comprising perforations in said tube, the construction and arrangement of the parts being such that the tube forms a guide for said solid piston.

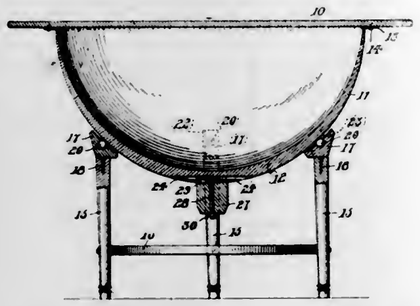
3. A hydro-pneumatic cushion apparatus, comprising a tubular member containing liquid, a compression head having concentric inner and outer walls telescoping on the opposite sides of said tubular member, a valved piston carried by said tubular member and telescoping within the inner wall of said compression head, and a second piston carried by said inner wall and telescoping within the tubular member and dividing said member into two chambers, one of said chambers being greater in diameter than the other.

4. A hydro-pneumatic cushion apparatus, comprising a tubular member containing liquid, an air compression head having concentric inner and outer walls telescoping on the opposite sides of the tubular member, a valved piston carried by the tubular member and telescoping within the inner wall of the compression head whereby on a telescopic action of the parts compression of the air takes place in the compression head, and a second piston carried by the inner wall of the compression head and telescoping within the tubular member, the arrangement of parts

being such that the telescopic action of the parts forces oil from the tubular member into the compression head to maintain an oil seal above said first mentioned piston for the compression head.

5. A fluid pressure device comprising in combination, a pair of telescoping cylinders, one of said cylinders carrying a piston dividing the space within the two cylinders into two chambers, the chamber below said piston having a greater diameter than the chamber above said piston, a second piston carried by the other cylinder to divide the upper chamber into two compartments, a valve in said piston forming a fluid connection between said compartments, and fluid connections between the lower chamber and the adjacent compartment.

1,142,163. SHIP'S TABLE. STANISLAW GRZYBOWSKI, Fort Wayne, Ind. Filed Feb. 25, 1915. Serial No. 10,491. (Cl. 114—195.)



1. A ship's table comprising a top, a bowl-shaped base carried by the top, angularly-disposed dove-tailed grooves formed in the bottom of the base, a bolt having a head seated in said grooves, a weight carried by said bolt, and ball-bearing carrying members for supporting the base.

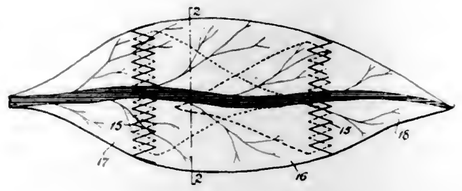
2. A ship's table comprising a top, a hollow semi-spherical base member carried thereby and being of increased cross-sectional area at the center thereof, angularly-disposed dove-tailed grooves formed in said member, said grooves terminating in enlarged openings at their outer ends and all meeting in the center to provide a single opening, a bolt having a head disposed within said grooves, a weight carried by said bolt, means for holding the bolt and weight immovable relative to said base member, supporting legs, and antifriction members between the legs and base.

3. A ship's table comprising a top, a bowl-shaped base carried thereby and being continuously curved, dove-tail grooves formed in said base and having straight bottom walls, a headed bolt slidably mounted in said grooves, a weight carried by said bolt and having its upper face curved coincident to the curvature of the outer face of the base, means for holding the base and weight relatively immovable, and anti-friction supporting members for said base.

4. A ship's table comprising a base member, supporting legs therefor, radially-disposed dove-tailed grooves communicating at their inner ends and terminating in enlarged openings at their outer ends, and a weight supporting member adjustably mounted in said grooves and adapted to be selectively positioned therein.

1,142,164. CIGAR-BUNCH AND PROCESS OF MAKING SAME. OSCAR HAMMERSTEIN, New York, N. Y. Filed Mar. 3, 1913. Serial No. 751,728. (Cl. 131—52.)

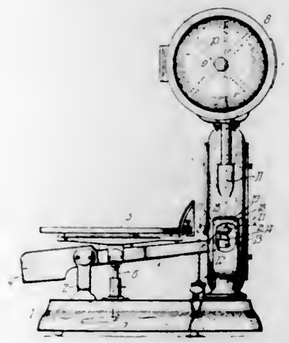
1. The process of making cigar bunches which consists in placing a plurality of filler leaves one upon the other and in registry with each other relatively to the central portion of each leaf, cutting said leaves transversely into end sections and intermediate sections, placing said end sections upon said intermediate sections and then rolling up the combined sections to form the bunch.



2. The process of making cigar bunches which consists in taking tobacco filler leaf piling it up with the leaves superimposed and in substantial registry with each other, cutting said filler leaf transversely of its length along undulating lines into end sections and an intermediate section, turning said end sections back upon said intermediate section with the normal outer ends of said end sections extending toward each other and then rolling up the combined sections to form the bunch.

3. The process of making cigar bunches which consists in placing a plurality of unstripped tobacco filler leaves one upon the other and in registry with each other, cutting said leaves transversely along zig-zag lines into end sections and intermediate sections, placing said end sections upon said intermediate sections and then rolling up the combined sections to form the bunch.

1,142,165. SCALE. CLARENCE H. HAPGOOD, Toledo, Ohio, assignor to Toledo Scale Company, Toledo, Ohio, a Corporation of New Jersey. Filed July 18, 1910. Serial No. 572,474. (Cl. 73—104.)



1. In a scale, a beam, a rocking member pivoted thereon and carrying a leaf spring, and connections for moving the indicating mechanism connected to the leaf spring.

2. In a scale, the combination with the beam and indicating mechanism, a rack and pinion for operating the indicating mechanism and connections between the rack and the beam including a rocking member pivoted to the beam and carrying a leaf spring to which the rack is connected.

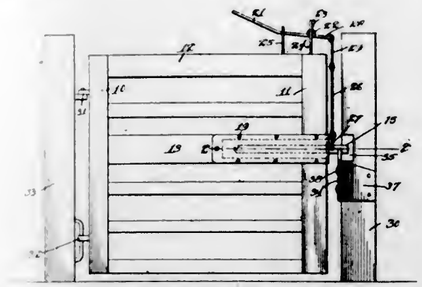
3. In a weighing scale having a rotary cylinder indicator, a beam 3 having an offset member 12, lugs 13, upon the member 12, a rocking member 14 pivoted between the lugs, a spring 15 secured along one edge to the rocking member and provided at its outer end with a collar 18, a rack bar 19 secured at one end within the collar, and a pinion upon the rotary cylinder with which the rack bar coöperates.

4. In a weighing scale having a beam and a computing drum, a connecting rod for rotating the latter, a casting pivoted to the scale beam and a spring connecting the casting and connecting rod.

5. In a weighing scale having a beam and a rotary indicator, a pinion on the shaft of the latter, a rack rod, the rack of which meshes with said pinion, a casting pivoted to the beam, a spring connecting the casting and rack rod, said casting being overweighted on that side of its pivotal axis on which the pinion is located.

[Claim 6 not printed in the Gazette.]

1,142,166. LATCH. WILLIAM F. HAYS, Osbornes Mills, W. Va. Filed May 28, 1914. Serial No. 841,645. (Cl. 70—28.)



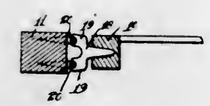
1. A gate provided with vertically extending end bars and longitudinally extending bars connecting said end bars, one of said longitudinally extending bars being provided with a cut out forming a housing communicating with a slot formed in one of said vertically extending bars, a strip inclosing said housing and having one end portion bent to extend about the slotted vertical bar and provided with a slot registering with the cutout of said vertical bar, a latch pivotally mounted in said housing and extending through the slots of said strip and vertical bar, a support carried by said gate and provided with an eye, a trigger provided with an eye engaging the eye of said support to pivotally mount said latch, a U-shaped element carried by said gate and limiting the vertical movement of said trigger, a rod pivotally connected with said latch, and a link pivotally connecting said rod with said trigger.

2. A gate provided with vertically extending bars and longitudinally extending bars, one of said longitudinally extending bars being provided with a cut out forming a housing communicating with a cut out formed in one of said vertical bars, a closure plate secured to said vertical bar and longitudinally extending bar to inclose said housing and having one end portion bent about said vertical bar and provided with a slot communicating with the cut out of said vertical bar, a latch pivotally mounted in said housing and extending through said vertical bar and strip, a U-shaped support formed of rod metal bent intermediate its length to form an eye, a trigger formed of rod metal bent intermediate its length to form an eye passing through the eye of said support, a U-shaped abutment carried by said gate and passing over said trigger, and flexible means connecting said trigger with said latch.

3. In a device of the character described a movably mounted latch, and operating means for said latch comprising a support provided with an eye, a trigger provided with an eye engaged by the eye of said support to pivotally mount the trigger, an abutment engaging the free end of said trigger to limit its pivot movement in one direction, a rod pivotally connected with said latch, and a link pivotally connected with said rod and trigger.

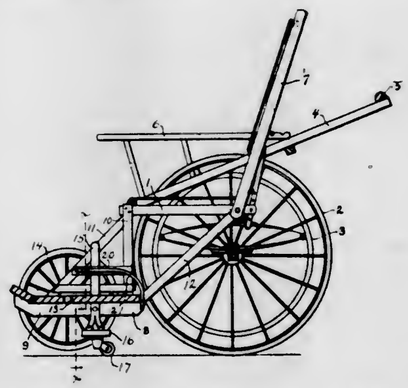
4. A gate, a latch pivotally connected with said gate, a post provided with a cut out, a catch plate fitting against said post beneath said cut out and provided with side extensions secured to the side pieces of said post, said catch plate having its upper end portion extending partially across said cut out and being provided with inclined edges leading to a notch to receive said latch when said gate is in a closed position, and means for moving said latch to an inoperative position to permit said gate to be opened.

1,142,167. HINGE. WILLIAM F. HAYS, Osbornes Mills, W. Va. Filed May 28, 1914. Serial No. 841,646. (Cl. 16—49.)



A hinge comprising a pair of U-shaped brackets having sharpened penetrating arms and a fork provided with a penetrating prong and with arms extending from said prong in spaced relation and provided with notches for receiving said brackets.

1,142,168. ROLLING-CHAIR. CHARLES N. HAZELTON, Morrison, Ill. Filed Nov. 19, 1913. Serial No. 801,786. (Cl. 155—11.)



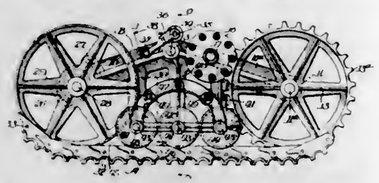
1. A rolling chair, comprising a pair of large carrying wheels; a seat-frame supported thereby; a pair of small carrying wheels rigidly united with said first-named wheels by said frame, normally operative, and adapted to act with said first-named wheels to propel said chair in a straight line; a cross-piece swingingly supported from said frame; swivel-rolling devices carried by said cross-piece; and means for actuating said cross-piece to bring said swivel-rolling devices in contact with the earth, and raise said small carrying-wheels from operation therewith.

2. A rolling-chair, comprising a pair of large carrying-wheels; a seat-frame supported thereby; a platform rigidly supported from said seat-frame; a small pair of normally operative wheels fixed to said platform, and acting with said first-named wheels to propel said chair in a straight line; a cross-piece, swingingly supported from said platform; swivel-rolling devices carried by said crosspiece; a hand-lever connected with said cross-piece and passing upwardly through said platform to a point convenient to the occupant of said chair, whereby said cross-piece may be operated to bring said swivel-roller devices into contact with the earth, and raise said small carrying wheels from operation therewith; means for locking said lever in position with said swivel-roller devices in engagement with the earth; and means for automatically locking said lever in position with said swivel-roller mechanism out of engagement with the earth.

1,142,169. TRACTION-TRUCK. ORLEY C. HOUGHTON, Davenport, Iowa, assignor to Bullock Tractor Company, Chicago, Ill., a Corporation of Illinois. Filed June 23, 1913. Serial No. 775,272. (Cl. 21—114.)

1. In a traction engine, the combination, of a main frame, an oscillating truck frame pivotally connected to

said main frame, said truck frame including a substantially triangular member having at its apex a shaft on which said truck frame is constructed to oscillate, said truck frame having downwardly-inclined members, there being at the ends of said inclined members bearings, shafts fixed in said bearings, a sprocket wheel rotatably mounted on one of said shafts, an idler wheel rotatably mounted on the other of said shafts, an endless track trained over said sprocket and said idler wheel, a bracket formed integrally with one of said inclined members at the rear side thereof and connecting said end bearing to the bearing at the apex of said triangular frame, said bracket being in spaced relation to said inclined frame-member, a bearing in said bracket adjacent to said apex-bearing, and a bearing in said inclined member in alinement with the bearing in said bracket, a driving shaft rotatably journaled in said bracket and said inclined member, a sprocket wheel affixed to said latter shaft between said bracket and the inclined member, and a lantern pinion affixed to said shaft at the outer side of said truck frame and engaging said chain-sprocket, there being in the bearing for the idler track-chain wheel-shaft eccentrically disposed means for varying the distance between said sprocket and the idler wheel.



2. In a tractor of the type described, a main frame, and a truck frame pivotally connected to said main frame, said truck frame including a substantially triangular body having at its apex a shaft on which said truck frame is constructed to oscillate, said truck frame having downwardly extending members terminating in bearings, a shaft in each of said bearings, a sprocket wheel rotatably mounted on one of said shafts, and an idler rotatably mounted on the other of said shafts, an endless track trained over said sprocket and said idler wheel, and means for supporting the truck frame upon the lower run of said endless track, said latter means including vertically-disposed legs pending from the inclined members of said truck frame, said legs terminating in bearings, a substantially semicircular frame fixed to said legs in spaced relation, said semi-circular frame having bearings in alinement with the bearings on said legs, shafts horizontally disposed in the latter bearings, and flanged bearing wheels mounted on said shafts constructed to rotate upon the upper surface of the lower run of said endless track.

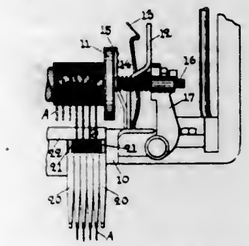
3. In a traction engine of the type described, the combination, of a main frame, a truck frame connected to said main frame, a driven sprocket and an idler wheel rotatably mounted in said truck frame, an endless track trained over said sprocket and said idler wheel, and means for varying the distance between said sprocket and said idler wheel, said means including a centrally bored hub at one terminal of said truck frame, a flanged hub, there being curved slots in said flange, a bore through said hub eccentric to the axis of rotation of said flanged hub, a shaft in the latter bore on which said idler wheel is constructed to rotate, and means for movably securing said flanged hub to the hub at the terminal of said truck-member.

4. In a traction engine having an endless, self-laying-track-band trained over a pair of spaced wheels, one of which, at least is a sprocket wheel, a lantern pinion constructed to engage said sprocket wheel, said lantern pinion comprising two annular disks in spaced relation, pins constructed to connect said disks, there being a central bore in each pin, and a cross-passage leading from the central bore to the periphery of said pin, a roller on each pin, an annular chamber at the flank of one of said annular disks, said chamber being of approximately the same diameter as said disk, there being in the wall of said chamber adjacent to the flank of said disk openings communicating with the central bores of said pins.

5. In a traction engine of the type described, having endless, self-laying track-band, a sprocket wheel over which said track-band is trained, a lantern pinion constructed to engage said sprocket wheel, said lantern pinion comprising two annular disks in parallel spaced relation, a series of pins constructed to connect said disks, there being in each pin a central bore and a radial passage leading from said central passage, a roller on each pin, a single annular chamber at the flank of one of said annular disks, there being in the wall of said chamber, openings communiating with all of the central bores of said pins.

[Claims 6 to 8 not printed in the Gazette.]

1,142,170. LOOM FOR WEAVING TUFTED FABRIC. GEORGE F. HUTCHINS, Worcester, Mass., assignor to Crompton & Knowles Loom Works, Worcester, Mass., a Corporation of Massachusetts. Filed May 28, 1914. Serial No. 841,611. (Cl. 139—23.)



1. In a loom for weaving tufted fabrics, in combination, a plurality of yarn tubes, and separate friction members supported by said yarn tubes, each frictionally engaging the tuft yarn in two adjacent tubes at points within said tubes to retard the passage of the yarn therethrough.

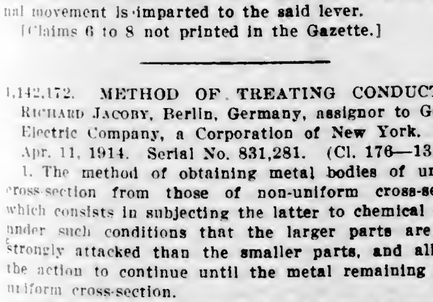
2. In a loom for weaving tufted fabrics, a carrier supporting a supply of tuft yarn, a pluarility of yarn tubes supported adjacent to said carrier, a spring friction device comprising a U-shaped friction member embracing one side of each of two adjacent tubes, and means to retain said member in operative position.

3. In a loom for weaving tufted fabrics, a carrier supporting a supply of tuft yarn, a plurality of yarn tubes supported adjacent to said carrier, spring friction devices each comprising a U-shaped friction member embracing one side of each of two adjacent tubes, and means to retain said devices in operative position, the depending portions of said U-shaped members being convexly curved at their lower ends to frictionally engage the yarn.

4. In a loom for weaving tufted fabrics, in combination, a carrier supporting a supply of tuft yarn, a plurality of yarn tubes supported adjacent to said carrier, and spring friction devices each comprising a U-shaped friction member embracing one side of each of two adjacent tubes, each member having an enlargement at its upper end and the sides of said tubes being curved outwardly at their upper ends within said enlargement and being thus effective to retain the friction member in operative position.

1,142,171. DOOR-OPENER. GEORGE O. HYLAND, Childress, Tex. Filed Jan. 29, 1913. Serial No. 744,982. (Cl. 39—91.)

1. A door-operating means for automobile structures including a latch bar, an operating shaft, a swing lever having a separable connection with the latch bar, and a connection between the shaft and lever to move the lever longitudinally in the initial movement of the shaft and to swing the lever in the subsequent movement thereof.



2. A door operating means for automobile structures including a latch bar, an operating shaft, a swing lever having a separable connection with the latch bar, a connection between the shaft and lever to move the lever longitudinally in the initial movement of the shaft and to swing the lever in the subsequent movement thereof, and a swing plate carried by the door to receive the lever.

3. A door operating means for automobile structures including a latch bar, an operating shaft, a swing lever having a separable connection with the latch bar, a connection between the shaft and lever to move the lever longitudinally in the initial movement of the shaft and to swing the lever in the subsequent movement thereof, and a swing plate pivotally mounted on the door to receive the lever.

4. A door operating means for automobile structures including a latch bar, an operating shaft, a swing lever having a separable connection with the latch bar, a connection between the shaft and lever to move the lever longitudinally in the initial movement of the shaft and to swing the lever in the subsequent movement thereof, and a swing plate pivotally mounted on the door, said lever being secured in said plate against other than sliding movement with relation thereto.

5. A door operating mechanism including a main shaft, an operating disk secured to the shaft and provided with diametrically opposite pins, a latch bar for the door, a swing lever connected with the latch bar and formed with a disk head, said disk head being formed for limited sliding movement with respect to the main shaft and with an opening to snugly receive one of said operating disk pins with an arcuate slot to receive the other of said pins, whereby in the initial movement of the shaft a longitudinal movement is imparted to the said lever.

[Claims 6 to 8 not printed in the Gazette.]

1,142,172. METHOD OF TREATING CONDUCTORS. RICHARD JACOBY, Berlin, Germany, assignor to General Electric Company, a Corporation of New York. Filed Apr. 11, 1914. Serial No. 831,281. (Cl. 176—132.)

1. The method of obtaining metal bodies of uniform cross-section from those of non-uniform cross-section, which consists in subjecting the latter to chemical action under such conditions that the larger parts are more strongly attacked than the smaller parts, and allowing the action to continue until the metal remaining has a uniform cross-section.

2. The method which consists in subjecting a conductor of non-uniform cross-section to chemical action under such conditions that the larger parts are more strongly attacked than the smaller parts.

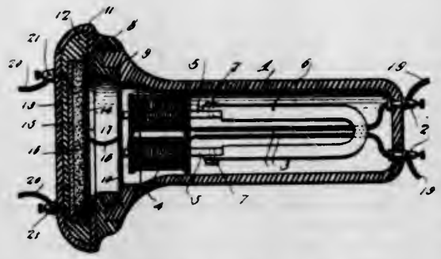
3. The method of obtaining filaments of uniform cross-section for incandescent lamps from those of non-uniform cross-section, which consists in subjecting the latter to chemical action under such conditions that the larger parts of the filaments are more strongly attacked than the smaller parts, and allowing the action to continue until the metal remaining has a uniform cross-section.

4. The method of treating tungsten filaments of non-uniform cross-section, which consists in subjecting them to chemical action under such conditions that the larger parts of the filaments are more strongly attacked than the smaller parts.

5. The method of obtaining flat tungsten bodies of uniform cross-section from those of non-uniform cross-section, which consists in subjecting the latter to chemical action under such conditions that the larger parts of the filaments are more strongly attacked than the smaller parts and continuing the process until the metal remaining has a uniform cross-section.

[Claims 6 to 11 not printed in the Gazette.]

1,142,173. TELEPHONE. GUSTAVUS A. JANICKE, Louisville, Ky. Filed Oct. 31, 1912. Serial No. 728,890. (Cl. 179—171.)



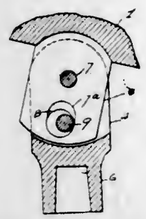
In a device of the character set forth, the combination with a tubular receiver body closed at one extremity and having the other end thereof outwardly flared and externally threaded, a permanent magnet in said body, electromagnets connected to the extremities of said permanent magnet, means for connecting said electromagnets with an external circuit, a shoulder formed around the interior of said body contiguous to the flared end thereof, a diaphragm disposed upon said shoulder in operative relation to the poles of said electromagnets, a collar having an internally threaded flange depending from its edge, said flange adapted to engage the threaded portion of said body, said collar having therein an annular opening surrounded by a depending flange adapted to project within the open end of said receiver body and engage said diaphragm to fixedly retain the latter; of a transmitter body having therein an annular recess, an internal shoulder formed on the transmitter body adjacent the outer end of said recess, a cap incasing said transmitter body, said cap having an inwardly projecting flange adapted to coöperate with the shoulder on said transmitter body whereby to form an annular groove, the diaphragm having its edge disposed within said groove, a metallic plate disposed at the inner end of said recess, carbon granules interposed between said plate and diaphragm, the latter co-acting with the first-mentioned diaphragm to form an air space between said receiver and transmitter, means to equalize the movement of the two diaphragms, and means whereby the last mentioned diaphragm and metallic plate may be connected to an exterior circuit.

1,142,174. PIANO-STOOL. BYRON O. JONES, Chicago, Ill. Filed Oct. 14, 1912. Serial No. 725,605. (Cl. 155—22.)

1. A piano stool comprising a top and a base, a single central standard connecting the top and base, a movable connection in said central standard between the top and the base whereby the top may be moved to an inclined position, and means contained in said central standard for locking the top in said inclined postion.

2. A seating device comprising a top, a base therefor, a central connection between the top and base comprising over-lapping parts on the top and base, a piece passing through said overlapping parts by means of which they are pivotally connected together, a second piece passing through said overlapping parts, said second piece located below the first mentioned piece, an eccentric connected

with said second piece and acting as an actuating device to move said top when the second piece is rotated and as a lock to hold said top in any of its various positions.



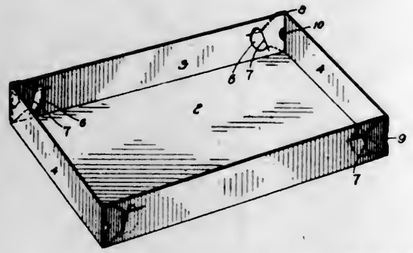
3. A seating device comprising a top and a base, a pivotal connection between said top and said base, a rotatable part mounted upon said base, an eccentric forming a part of said rotatable part and engaging the part connected with said top, said eccentric adapted when rotated to move the top in an inclined position.

4. A seating device comprising a top, a projection connected therewith near the middle thereof, a supporting piece for said top, a pivotal connection between said projection and said supporting piece, a rotatable part mounted upon said supporting piece, an eccentric connected with said rotatable part engaging said projection on the top, said eccentric adapted when rotated to move the top to an inclined position.

5. A seating device comprising a top, a supporting projection connected therewith, a supporting piece for said top, a pivotal connection between said supporting projection and said supporting piece, a rotatable part mounted upon said supporting piece, a cam connected with said rotatable part engaging said supporting projection on the top, a handle connected with said rotatable part and adapted when moved to one position to move the top to an inclined position, and when moved to another position to move said top to its flat position.

[Claims 6 to 9 not printed in the Gazette.]

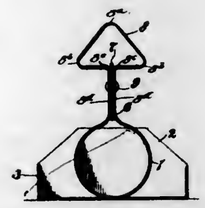
1,142,175. FOLDING BOX. JOSHUA J. JONES, Pittsburgh, Pa., assignor of one-third to Brabazon Rutherfoord and one-third to Charles P. Trimble, Pittsburgh, Pa. Filed Dec. 10, 1913. Serial No. 805,728. (Cl. 229—35.)



1. A box formed of a continuous blank of flexible material having bent up side and end flange members, one of said flange members at each corner of said box having an extension forming a corner piece adapted to extend around the full height of the adjacent flange, a locking portion on said extension adapted to engage a slot in said adjacent flange, and a flap lock struck out from one of said flange members and adapted to bear against the end edge of one of said flange members whereby the locking portion is prevented from extending into said slot farther than its normal locking position.

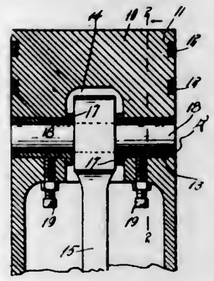
2. A box formed of a continuous blank of flexible material having bent up side and end flanges, one of said flanges at each corner of said box having an extension forming a corner piece and adapted to extend around the full height of the adjacent flange, a locking portion on said extension and engaging with a slot in said adjacent flange, and a locking flap struck out from one of said flanges and lying entirely within the said flange and coöperating with the end portion of one of said flanges whereby the flange is prevented from creeping beyond the corner of said box, said flap lock having its base in a line substantially perpendicular to the crease between the side flanges and the bottom of the box.

1,142,176. FEED-TROUGH. JAMES P. KENDRICK, Fayette, Mo. Filed May 28, 1914. Serial No. 841,590. (Cl. 119—61.)



In a feed trough, in combination, a tubular body portion, upstanding flanges formed longitudinally upon the ridge of said body portion, said flanges and said body portion formed with an incut portion U-shaped in outline, said flanges and said body portion formed with cutout portions upon the ends thereof, a horizontally disposed ride piece interposed between said flanges, a plurality of triangularly shaped roof portions formed with depending flanges diametrically opposite the apex of said roof portions, said flanges adapted to be secured upon said ridge piece above said incut portion, and a standard mounted upon both ends of said tubular body portion adapted to close said ends.

1,142,177. PISTON. FRANK D. KENNEDY, Galesburg, Ill. Filed June 30, 1914. Serial No. 848,298. (Cl. 121—104.)



1. The combination with a piston provided with a transverse bore and a longitudinal recess interrupting the bore and forming resulting bore sections, a longitudinally split tubular bushing mounted in each bore section, a circumscribing flange on the inner end of each bushing and bearing against the adjacent wall of the longitudinal recess, and means for contracting each bushing.

2. In combination, a piston provided with transversely arranged bore sections, a split, tubular bushing arranged in each of said sections, the confronting edges of each bushing normally spaced from each other, and one end of each bushing having a circumscribing flange of greater circumference than the bore and arranged at the inner terminal thereof, a wrist pin encircled by said bushings, and means for bringing the edges of either bushing into closer relationship and thereby reducing the circumference of the bushing and bringing it into closer relationship to said pin.

3. In combination, a piston having a transverse bore and a longitudinal recess interrupting it and forming resulting bore sections, longitudinally split tubular bushings arranged one in each bore section and each having a circumscribing flange on its inner end and disposed to lie against the inner end of the adjacent bore section, a wrist

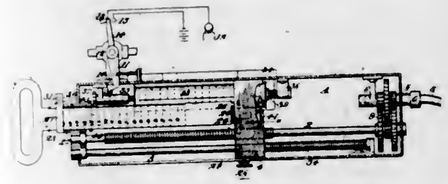
pin mounted in said bushings, a connecting rod engaged therewith, and a plurality of means whereby the circumference of either bushing may be reduced.

4. As an article of manufacture, a piston-bushing comprising a longitudinally slitted cylinder having an annular flange on one of its ends, the slit extending through said flange.

5. As an article of manufacture, a piston-bushing comprising a longitudinally slitted yielding cylinder having an annular flange on one of its ends, the slit extending through said flange.

[Claim 6 not printed in the Gazette.]

1,142,178. AUTOMATIC TRAIN CONTROL. GERALD KENNEY, San Francisco, Cal., assignor of twenty-four and one-half one-hundredths to Albert H. Herbert and twenty-four and one-half one-hundredths to John C. Newlands, San Francisco, Cal. Filed Nov. 24, 1914. Serial No. 873,712. (Cl. 246—14.)



1. An automatic train control comprising a carriage, means for moving said carriage at a reduced speed ratio in unison with the travel of the train, and means operated by the carriage for setting the brakes on the train, said means including a casing having a slot therein, a lever projecting through said slot into the path of travel of the carriage, and a train air brake controlling valve actuated by the movement of the lever.

2. An automatic train control comprising a carriage, means for moving said carriage at a reduced speed ratio in unison with the travel of the train, means operated by the carriage for setting the brakes on the train, and means for regulating the movement of the carriage so that the brakes may be set at any predetermined point, said means including a key, a casing having a keyway through which said key is insertible, a collar on the key adjustable to limit the movement of said key, and a cam on the key adapted to disengage the carriage moving means at a predetermined point.

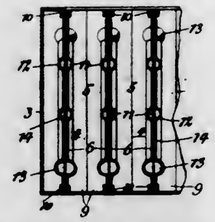
3. An automatic train control comprising in combination a casing, a carriage in said casing, a worm shaft extending longitudinally through the casing, means for driving said shaft from one of the wheels of the train, said shaft adapted to feed the carriage in one direction, and means operated by the carriage for setting the brakes on the train, said means including a lever mounted on the stem of the train air-brake controlling valve and projecting through the side of the casing into the path of travel of the carriage and movable thereby to open the air valve.

4. An automatic train control comprising, in combination, a casing, a carriage in said casing, a worm shaft extending longitudinally through the casing, means for driving said shaft from one of the wheels of the train, a nut on the carriage engageable with the worm shaft to advance the carriage in one direction, means for releasing the nut from the worm shaft, means for moving the carriage in an opposite direction to that transmitted by the worm shaft, means for regulating the length of said movement, said means including a key insertible through a slot in the end of the casing having a cam at the end to engage and release the nut from the worm shaft, a collar with means to adjust it longitudinally upon the key, and means operated by the carriage for setting the train brakes.

5. An automatic train control comprising in combination, a casing, a carriage in said casing, a worm shaft extending longitudinaly through the casing, means for driving said shaft from one of the wheels of the train, a nut on the carriage engageable with the worm shaft to feed the carriage in one direction, a key insertible through a keyway in the casing, a cam on the end of the key engageable with the nut to raise same out of engagement with the worm shaft to permit the carriage to be moved by means of the key in a direction opposite to that transmitted by the worm shaft, an adjustable stop on the key to limit the distance the carriage is moved, and means operated by the carriage for setting the train brakes.

[Claims 6 to 9 not printed in the Gazette.]

1,142,179. RADIATOR. ROBERT J. KIENDL, Buffalo, N. Y. Filed July 18, 1911. Serial No. 639,113. (Cl. 257—131.)



A radiator comprising upper and lower headers and a plurality of tubular sections connecting said headers, each of said sections having two side walls which are connected at their vertical edges, and a partition arranged between said walls and stopping at its vertical edges short of the vertical edges of said walls so as to form connecting passages at opposite vertical edges of said walls, each of said walls being provided on its inner side with a plurality of inclined channels the upper ones of which extend from the upper header to connecting passages at one of the vertical edges of said walls, the lower ones extending from the lower header to connecting passages at the other vertical edges of said walls, and the intermediate ones extending from the connecting passages at one of the vertical edges of the walls to the connecting passages at the other vertical edges of said walls, and the channels of one of said walls inclining in a direction opposite to the channels of the other wall and the two sets of channels communicating with each other at their extremities, whereby the water in passing from the upper to the lower header is caused to move in a substantially spiral path and successively along opposite sides of said partition and each of said channels being provided adjacent to the vertical edges of the partition with an enlargement.

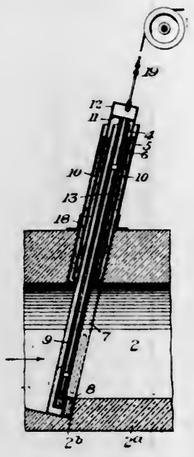
1,142,180. WATER-COOLED VALVE OR DAMPER. LUTHER L. KNOX, Avalon, Pa., assignor to Knox Pressed and Welded Steel Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed July 6, 1914. Serial No. 849,166. (Cl. 122—498.)

1. A valve or damper comprising a hollow water-cooled frame set in an oblique position in a flue wall and having a flue opening through its lower portion, and a hollow water-cooled valve or damper body arranged to slide and seat within said frame in an inclined position whereby the said body is held by gravity in close contact with the adjacent surface of the frame against which it bears, substantially as described.

2. A valve or damper comprising a hollow water-cooled frame set in an oblique position in a flue wall and having a flue opening through its lower portion, and a hollow water-cooled valve or damper body arranged to slide and seat within said frame in an inclined position whereby the said body is held by gravity in close contact with the adjacent surface of the frame against which it bears, said frame having open front and rear water chambers extending above the top of the flue and the valve or damper having depending aprons which extend within said chambers, substantially as described.

3. A hollow valve seating member having a flue opening therethrough and comprising a casing formed with

inner and outer walls, the inner wall surrounding a transverse vertical opening which extends downwardly within the casing from the upper end thereof to form an inclosing guideway for a valve or damper, the front portion of said guideway terminating at its bottom at about the top of the flue opening and the rear portion extending downwardly below said opening, said casing having openings at its upper end to receive seating members on the valve or damper, and means for maintaining a circulation of water through said member, substantially as described.



4. A valve or damper comprising a hollow body opening at its top into a water pan and having depending flanges or aprons spaced upon the body, means for introducing a cooling liquid into said body, and water pipes opening at their upper ends into the said water pan and extending downwardly between the aprons and the body, substantially as described.

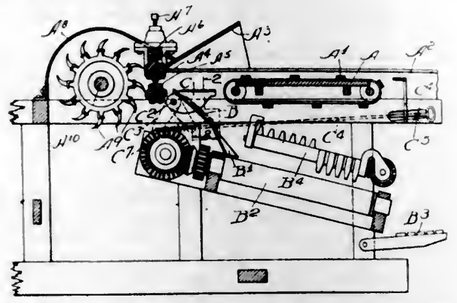
5. A valve or damper comprising a frame member consisting of a casing formed of inner and outer walls, the inner wall surrounding a transverse vertical opening which extends downwardly within the casing from the upper end thereof to form an inclosing guideway, said casing also having a horizontal flue opening intersecting the vertical opening, the spaces between the inner and outer walls of the casing at its upper portion being adapted to contain a cooling medium and having openings at its upper end, a hollow valve body arranged to slide in said guideway and having a water pan at its top communicating with the interior thereof, said valve having depending sealing aprons arranged to extend through the openings at the top of the frame into the water spaces thereof, and also having pipes communicating with this water pan and depending into said water spaces, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,142,181. CORN HUSKER-SHREDDER. FRANK N. G. KRANICH, Laporte, Ind., assignor to M. Rumely Co., Laporte, Ind., a Corporation of Indiana. Filed Aug. 10, 1914. Serial No. 855,957. (Cl. 130—5.)

1. In a corn husker shredder the combination of snapping rolls and a carrier having a gap between them with an inclined table beneath the gap and husking rolls toward which it leads, a series of fingers projecting upwardly through the inclined plate and means for holding the upper surface of said fingers in a substantially horizontal position to serve as a conveyer table between the carrier and the snapping rolls.

2. In a corn husker shredder the combination of snapping rolls and a carrier having a gap between them with an inclined table beneath the gap and husking rolls toward which it leads, a series of fingers projecting upwardly through the inclined plate and yielding means for holding the upper surface of said fingers in a substantially horizontal position to serve as a conveyer table between the carrier and the snapping rolls.



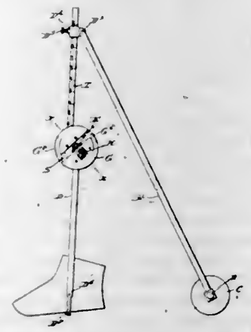
3. In a corn husker shredder the combination of snapping rolls and a carrier having a gap between them with an inclined table beneath the gap and husking rolls toward which it leads, a series of fingers projecting upwardly through the inclined plate and means for holding the upper surface of said fingers in a substantially horizontal position to serve as a conveyer table between the carrier and the snapping rolls and means for positively retracting the fingers during operation and without interfering with the operation of the machine.

4. In a corn husker shredder the combination of snapping rolls and a carrier having a gap between them with an inclined table beneath the gap and husking rolls toward which it leads, a series of fingers projecting upwardly through the inclined plate and yielding means for holding the upper surface of said fingers in a substantially horizontal position to serve as a conveyer table between the carrier and the snapping rolls and means for positively retracting the fingers during operation and without interfering with the operation of the machine.

5. In a corn husker shredder the combination of a carrier with snapping rolls, the same separated by a gap, husking rolls on a lower level, an inclined plate beneath the gap leading from the snapping rolls to the husking rolls and fingers pivotally mounted in the gap and separated so as to permit ears of corn to pass therebetween, said fingers mounted so as to form a horizontal guide table between the carrier and the snapping rolls.

[Claims 6 and 7 not printed in the Gazette.]

1,142,182. COMPUTING DEVICE. PAUL F. W. C. KRIPPENDORF, Lynn, Mass., assignor to Krippendorf Kalculator Company, Portland, Me., a Corporation of Maine. Filed Apr. 1, 1908. Serial No. 424,557. (Cl. 33—122.)



1. A measuring and calculating device of the character described, comprising a tracing arm provided with a tracing point, a radius arm pivoted to the tracing arm, a wheel mounted on the tracing arm to rotate about an axis in the vertical plane of the axis of said arm, and means to allow of the adjustment of said wheel to vary the angular position of its axis of rotation with respect to said plane.

2. A measuring and calculating device of the character described, comprising a tracing arm provided with a tracing point, a radius arm pivoted to the tracing arm, a wheel mounted on the tracing arm to rotate about an axis in the vertical plane of the axis of said arm, and means to allow of the adjustment of said wheel to vary the angular position of its axis of rotation with respect to said plane, and an indicator operatively connected with said wheel and operated thereby to indicate the desired area.

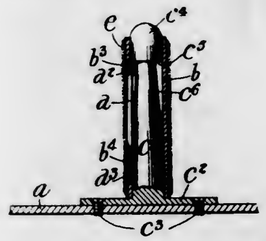
3. A measuring calculating device of the character described, comprising a tracing arm provided with a tracing point, a radius arm pivoted to the tracing arm, a wheel mounted on the tracing arm to rotate about an axis in the vertical plane of the axis of said arm, means to allow of the adjustment of said wheel to vary the angular position of its axis of rotation with respect to said plane, and graduations on the tracing arm to indicate the angular position of the wheel.

4. A measuring and calculating device of the character described, comprising a tracing arm provided with a tracing point, a radius arm pivoted to the tracing arm, a wheel mounted on the tracing arm to rotate about an axis in the vertical plane of the axis of said arm, means to allow of the adjustment of said wheel to vary the angular position of its axis of rotation with respect to said plane, and graduations on the tracing arm to indicate the angular position of the wheel, and an indicator operatively connected with said wheel and operated thereby to indicate the desired area.

5. A measuring instrument of the character described, comprising a tracing arm provided with a tracing point, a radius arm pivoted to the tracing arm, connecting means permitting the pivotal point of said arms to be adjusted to or from the tracing point to vary the effective length of the tracing arm, and indicating means adjustable to determine a predetermined fraction of the area bounded in the movement of the tracing arm.

[Claims 6 to 13 not printed in the Gazette.]

1,142,183. SAFETY SPOOL-HOLDER FOR SEWING-MACHINES. SAMUEL KRUGER, New York, N. Y. Filed Sept. 14, 1914. Serial No. 861,509. (Cl. 242—130.)



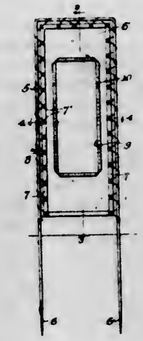
1. A thread spool holder adapted to be secured to the table of a sewing machine and comprising a standard and a thread spool provided with a spring which is adapted to engage said standard and to lock the spool thereon, said spring being held in operative position by the thread wound on the spool.

2. A thread spool holder adapted to be secured to the table of a sewing machine and comprising a standard, and a thread spool provided with a spring which is adapted to engage said standard, said spring being held in operative position by the thread wound on the spool; and being released when the thread is unwound from the spool.

3. A thread spool holder adapted to be secured to the table of a sewing machine and comprising a standard on which the spool is loosely mounted, said standard being provided with a part adapted to be engaged by a spring, and a spring mounted in said spool and adapted to engage said part, said spring being held in operative position by the thread wound on said spool.

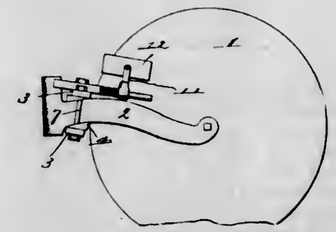
4. A thread spool comprising a standard provided with a head on which the spool is adapted to be placed, said spool being provided with a spring lock device adapted to engage said head and which is held in operative position by the thread wound on the spool.

1,142,184. BASE-BALL-PITCHER'S TARGET. JOHN N. LAWRENCE, Las Animas, Colo. Filed June 2, 1914. Serial No. 842,456. (Cl. 124—15.)



In a target, a vertically disposed inverted substantially U-shaped support, a flexible sheet stretched taut upon said support and having an opening, the height of which is approximately two and one-third greater than its width, a screen arranged rearwardly of the opening to form a back stop and disposed parallel to said sheet and connected thereto for deflecting baseballs passing through the opening toward the ground, and means for fastening the sheet to the support and sustaining it taut.

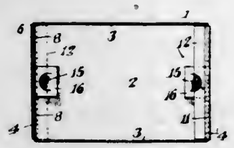
1,142,185. CLEANER FOR ROLLING COLTERS. WALDO JONATHAN LEE, Munson, Alberta Canada, assignor of one-half to Axel R. Olsen, Munson, Alberta, Canada. Filed July 3, 1914. Serial No. 848,920. (Cl. 97—79.)



1. The combination with a rolling colter, of bars extending in substantially horizontal planes parallel to and on opposite sides of said colter, arms pivotally mounted on the bars and adapted to swing in a vertical plane, springs bearing respectively on the bars and the arms and cleaning members carried by the arms.

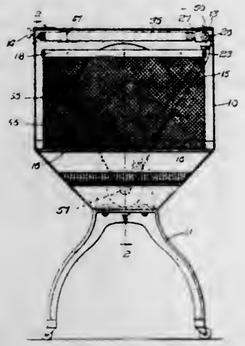
2. The combination with a rolling colter and its frame, of bars clamped thereto, a second set of bars adjustably arranged on the uppermost of the first mentioned bars, and extending parallel to and on opposite sides of the colter, springs carried by said second mentioned bars, arms extending inwardly and upwardly from said second mentioned bars and loosely mounted thereon, and scrapers carried by said arms, said springs bearing on said arms.

1,142,186. FOLDING BOX. BENJAMIN B. MCFADDEN, Binghamton, N. Y. Filed Feb. 14, 1914. Serial No. 818,730. Renewed Apr. 27, 1915. Serial No. 24,347. (Cl. 229—34.)



A folding box comprising a blank constructed of a single piece of material and including a central rectangular portion, foldable sides and ends hinged to the central rectangular portion and adapted to be arranged in planes at right angles to the same, the sides being provided with hinged terminal flaps adapted to be arranged transversely of the box, and the foldable ends being provided with hinged flaps foldable against the inner faces of the said terminal flaps and provided with hinged feet adapted to fit against the central rectangular portion of the blank, and spaced locking pieces secured throughout their entire peripheries flat against the central rectangular portion of the blank and extending inwardly from the terminals thereof, so as to lie beneath the foot pieces, said locking pieces being provided with integral tongues spaced from the peripheral edges of the locking pieces and engaging over and holding the foot pieces down upon the said locking pieces and locking the said foot pieces and the hinged flaps of the foldable ends firmly in position.

1,142,187. DISH-WASHING MACHINE. JOHN THOMAS MCGRATH, Bloomington, Ill. Filed June 19, 1914. Serial No. 846,085. (Cl. 141—9.)



1. A dish washing machine comprising a receptacle for the wash water, a dish basket therein, a spray pipe for discharging water on the dishes in the basket, means to force the wash water through said pipe and onto the dishes, and valve means controlled by the pressure of wash water adapted to open upon a predetermined pressure in the spray pipe to deliver water on the dishes.

2. A dish washing machine comprising a receptacle for the wash water, a dish basket therein, a spray pipe for discharging water on the dishes in the basket, means to force the wash water through the spray pipe and onto the dishes, valve means controlled by the pressure of the wash water adapted to open upon a predetermined pressure in the spray pipe to deliver water on the dishes, and adjusting means to vary the pressure at which the water is discharged from said spray pipe.

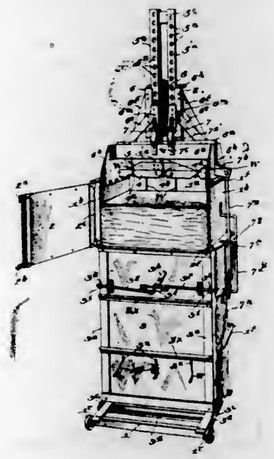
3. A dish washing machine comprising a receptacle for the wash water, a dish basket therein, a spray pipe for discharging water on the dishes in the basket, means to force wash water through the spray pipe on the dishes, said pipe being provided with spray openings, a valve sleeve fitted thereover and movable thereon and provided with ports adapted by movement of the sleeve to be brought into register with the spray pipe discharge openings, and means controlled by the pressure of water within the spray pipe to shift said valve sleeve to its open position.

4. A dish washing machine comprising a receptacle for the wash water, a dish basket therein, a spray pipe for discharging water on the dishes in the basket, means to force wash water through the spray pipe on the dishes, said pipe being provided with spray openings, a valve sleeve fitted thereover and movable thereon and provided with ports adapted by movement of the sleeve to be brought into register with the spray pipe discharge openings, yielding means to normally hold the valve sleeve in its closed position, and means acted upon by the pressure within the spray pipe to move the valve sleeve to its open position.

5. A dish washing machine comprising a receptacle for the wash water, a dish basket therein, a spray pipe for discharging water on the dishes in the basket, means to force wash water through the spray pipe on the dishes, said pipe being provided with spray openings, a valve sleeve fitted thereover and movable endwise of the pipe and provided with a longitudinal series of ports adapted to register with said discharge openings, a spring acting to normally hold the valve sleeve in its closed position and means acted upon by pressure within the spray pipe to shift the valve sleeve to its open position against the action of said spring.

[Claims 6 to 15 not printed in the Gazette.]

1,142,188. BALING-PRESS. LYNN W. MACOMBER, Battle Creek, Mich., assignor to ALsteel Manufacturing Company, Battle Creek, Mich., a Corporation of Michigan. Filed June 19, 1914. Serial No. 846,074. (Cl. 100—6.)



1. In combination, a baling chamber, a presser-head therein, perforated pull bars connected with said presser-head, an oscillating lever, dogs connected with said lever at opposite sides of its pivot and adapted to alternately engage the perforations in the related bars and depress said head when the lever is oscillated; springs for holding the dogs yieldingly in engagement with the perforated pull bars, means for raising the presser-head, and means for moving the dogs away from said bars to permit the presser-head to rise.

2. In a baler, the combination of a baling chamber, a presser-head therein, a pair of presser bars connected therewith, a pair of pull dogs each adapted to engage one of the said bars, a lever for reciprocating said dogs simultaneously in opposite directions; means for normally holding the dogs in yielding engagement with the bars, a spring for raising the presser-head, and means for guiding the dogs as they are reciprocated, and means for moving the dogs away from said bars and holding same out of engagement therewith to permit the presser-head to rise.

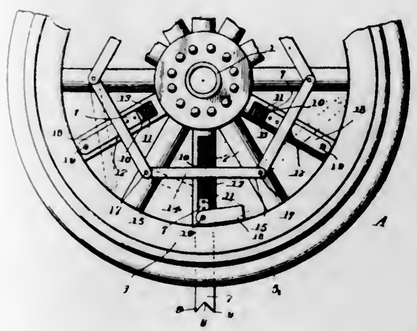
3. In combination, a baling chamber, a presser-head therein, a presser-bar connected therewith having a perforated flange, a dog adapted to engage the perforations in the flange, an oscillating lever for reciprocating said dog, means for yieldingly pressing the dog toward said bar and a guide for said dog; with a spring for raising said bar and presser-head, and means for disengaging the dog from said bar to permit the presser-plate to rise.

4. In combination, a baling chamber, a presser-head therein, a pair of presser-bars connected therewith, means for guiding said bars, a pair of pull dogs each adapted to engage the adjacent bar, and an oscillating lever for actuating said dogs simultaneously in opposite directions; with means for guiding said pull dogs, springs for yieldingly pressing the dogs toward said bars, means for automatically raising the presser-head, means for disengaging the dogs from said bars to permit the presser-head to rise, and means for controlling the ascent of the head.

5. In combination, a baling chamber, a presser-head therein, a pair of presser-bars connected therewith and extending out of the chamber, means for guiding said bars, a pair of pull dogs each adapted to engage one of the bars, an oscillating lever connected with said pull dogs for reciprocating them simultaneously in opposite directions; springs for yieldingly pressing the dogs toward said bars, a spring for raising said bars, means for disengaging the dogs from said bars to permit the presser-plate to rise, and means to retard the ascent of the presser-plate when being raised by the spring.

[Claims 6 to 15 not printed in the Gazette.]

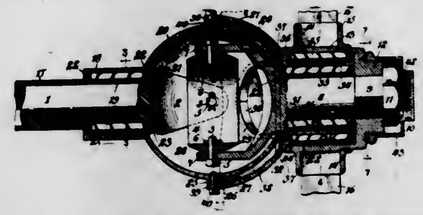
1,142,189. TRACTION-WHEEL. JOSEPH MENNE, Green Bay, Wis. Filed Aug. 5, 1914. Serial No. 855,257. (Cl. 21—211.)



1. A traction wheel for motor vehicles comprising a hub, rim and spokes, certain of said spokes being of tubular or hollow formation, spring-thrust traction spikes mounted to telescope into said tubular spokes and work through said rim, a lug on each spike projecting beyond the lateral plane of the respective spoke, and a locking bar for each spike, said bar being pivotally attached at one end to one of the spokes, detachably fastened at its opposite end to another spoke, and engaging said lug to hold the spike in a retracted position.

2. A traction wheel for motor vehicles comprising a hub, rim and spokes, certain of said spokes being of tubular or hollow formation, a tire consisting of two annular sections in spaced relation to each other leaving an intervening channel, spring-thrust traction spikes mounted to telescope into said tubular spokes and work through said rim and between said annular tire sections, a lug on each spike projecting beyond the lateral plane of the respective spoke, and a locking bar for each spike, said bar being pivotally attached at one end to one of the spokes, detachably fastened at its oppostie end to another spoke, and engaging said lug to hold the spike in a retracted position.

1,142,190. KNUCKLE CONNECTION FOR AUTOMOBILE-WHEELS. NICHOLAS C. MILLER, Dodgeville, Wis. Filed Mar. 22, 1913. Serial No. 756,255. (Cl. 21—90.)



1. In a combined driving and steering mechanism for vehicles, a drive shaft, a driven member, driving connections between the drive shaft and the driven member permitting movements of the driven member out of alinement with the drive shaft, a fixed casing receiving the driving connections and provided in its outer portion with a horizontal elongated slot for the driven member and having an outwardly projecting marginal flange at the said slot, said casing being otherwise completely closed so as to entirely inclose the driving connections, a curved shield pivoted at its inner edge to the said casing and movable over the exterior thereof, said shield being of a size to cover the slot and presenting a curved face to the outer marginal flange and supported by the same, and a wheel mounted for rotation on the outer portion of the shield and located beyond the vertical plane of the casing and the driving connections, said wheel being connected with the driven member.

2. In a combined driving and steering mechanism for vehicles, a drive shaft, a driven member, driving connections between the drive shaft and the driven member permitting movements of the driven member out of alinement with the drive shaft, an axle, a substantially spherical casing receiving the driving connections and composed of a substantially semispherical inner section fixed to the axle, and a substantially semispherical outer section rigidly secured to the inner section of the casing and provided in its outer portion with a horizontal slot for the driven member, said casing being otherwise completely closed so as to entirely inclose the driving connections, a shield pivotally connected to the casing and movable over the outer section thereof and being of a size to cover the slot in the out of alinement positions of the driven member, said shield having a bearing against the outer section at the walls of the slot, and a wheel mounted for rotation on the outer portion of the shield beyond the vertical plane of the casing and the driving connections, said wheel being connected with the driven member.

1,142,191. ENGINE-STARTER FOR AUTOMOBILES AND THE LIKE. JOHN W. MOORE, Sioux City, Iowa. Filed June 26, 1914. Serial No. 847,479. (Cl. 123—185.)



1. The combination with a stem for attachment to the shaft of a motor, of an annular ratchet revoluble with the stem, a revoluble actuating elements, a dog carried thereby and normally engaging the ratchet to rotate the stem and shaft in one direction with the actuating element, means for disengaging and holding said dog from the

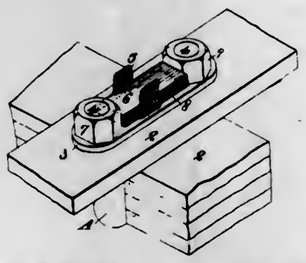
ratchet, a spring connection between said means and the dog for holding the dog in normal position, a fixed element, and means upon the actuating element and coöperating with the fixed element for shifting said dog disengaging means when the movement of the actuating element is reversed.

2. The combination with an annular ratchet for attachment to and rotation with the shaft of a motor, of a revoluble actuating element, a dog carried thereby and normally engaging the ratchet to rotate the shaft in one direction with the actuating element, a revoluble cam for disengaging and holding said dog from the ratchet, a spring connection between the cam and dog for holding the dog normally in engagement with the ratchet, a fixed element, and means upon the actuating element and cooperating with the fixed element for shifting said cam when the movement of the actuating element is reversed.

3. The combination with an annular ratchet for attachment to and rotation with the shaft of a motor, of a revoluble actuating element, a dog carried thereby and normally engaging the ratchet to rotate the shaft in one direction with the actuating element, means for disengaging and holding said dog from the ratchet, a fixed ratchet, and means upon the actuating element and coöperating with the fixed ratchet for shifting said dog disengaging means when the movement of the actuating element is reversed, said means on the actuating element including a lever, a dog pivotally mounted on the lever and adapted to slip over the fixed ratchet when moving with the actuating element during the actuation of the shaft, and to be rocked out of engagement with the teeth of the fixed ratchet during the reverse movement of the actuating element, said dog when rocked, constituting means for shifting the lever relative to the actuating element and holding it in shifted position, and means upon the lever for transmitting motion to the dog disengaging means.

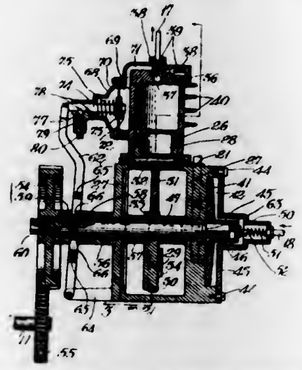
4. The combination with a fixed ratchet bar, an annular ratchet for rotation with the shaft of a motor, and an actuating element mounted for oscillation, of a dog carried by the actuating element and normally engaging the annular ratchet to rotate said ratchet and the shaft in one direction with the actuating element, a cam, an arm extending therefrom, a lever pivoted upon the actuating element, an extension on the lever and normally lapping said arm, a resilient spacing element between the actuating element and the arm, a dog pivotally connected to the lever and adapted to slip over the fixed ratchet bar during the movement of the actuating element while starting the motor, said ratchet bar constituting means for tilting the dog out of engagement with the teeth thereof when the actuating element is started on its reverse movement, said dog, when tilted, constituting means for shifting the lever to actuate the arm and cam thereby to disengage the dog from the annular ratchet.

1,142,192. MULTIPLE-NUT LOCK. DAVID G. MORGAN, San Francisco, Cal. Filed June 29, 1914. Serial No. 847,843. (Cl. 151—60.)



A lock for the nuts of a pair of bolts consisting of a plate apertured at its ends to receive the respective bolts, a U-shaped spring clip formed independent of the plate and having its base riveted to the outer side face of the plate at a point central of the length of the plate and a locking bar engageable with the clip and at its ends with the nuts, each of the ends of said bar being held in spaced relation to the outer side face of the plate by the said base of the clip whereby to allow an instrument to be inserted in said space at either end of the bar and the bar thereby disengaged from the clip.

1,142,193. STARTING DEVICE FOR INTERNAL-COMBUSTION ENGINES. FRANK MORGAN, Melrose, Mass. Filed Oct. 4, 1913. Serial No. 793,479. (Cl. 123—179.)



1. A starting device for internal combustion engines comprising in combination with an internal combustion engine a shaft, means on one end of said shaft for driving it from said engine, a rotary distributer operated by said shaft, a sleeve loosely mounted on said shaft, a pump operated by said sleeve and means for operatively connecting said sleeve to said shaft to operate said pump.

2. A starting device for internal combustion engines comprising in combination with an internal combustion engine a shaft, means on one end of said shaft for driving it from said engine, a rotary distributer operated by said shaft, a sleeve loosely mounted on said shaft, a pump operated by said sleeve and automatic means for operatively connecting said sleeve to said shaft to operate said pump when the pressure of the working fluid falls below a predetermined point.

3. A starting device for internal combustion engines comprising in combination with an internal combustion engine a shaft, means on one end of said shaft for driving it from said engine, a rotary distributer operated by said shaft, a sleeve loosely mounted on said shaft, a pump operated by said sleeve and a clutch for operatively connecting said sleeve to said shaft to operate said pump when the pressure of the working fluid falls below a predetermined point.

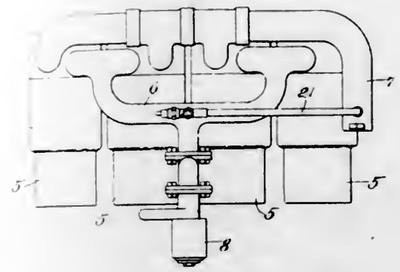
4. A starting device for internal combustion engines comprising in combination with an internal combustion engine a shaft, means on one end of said shaft for driving it from said engine, a rotary distributer operated by said shaft, a sleeve loosely mounted on said shaft, a pump operated by said sleeve, a clutch, and automatic means for operating said clutch when the pressure of the working fluid falls below a predetermined point.

5. A starting device for internal combustion engines comprising in combination with an internal combustion engine a shaft, means on one end of said shaft for driving it from said engine, a rotary distributer operated by said shaft, a sleeve loosely mounted on said shaft between said driving means and said distributer, a pump operated by said sleeve and means for operatively connecting said sleeve to said shaft to operate said pump.

[Claims 6 to 8 not printed in the Gazette.]

1,142,194. AUXILIARY VALVE FOR INTERNAL-COMBUSTION ENGINES. FRANK MORGAN, Melrose, Mass. Filed Dec. 19, 1914. Serial No. 878,008. (Cl. 123—124.)

1. The combination with an internal combustion engine having suitable intake and exhaust portions, of an auxiliary air valve, and means whereby said said valve is operated by the pressure of the exhaust to admit air to the operating mixture.



2. The combination with an internal combustion engine having suitable intake and exhaust portions, of an auxiliary air valve, means whereby said air valve is operated by the pressure of the exhaust to admit air to the operating mixture, and adjustable means for regulating the amount of pressure necessary to operate said valve.

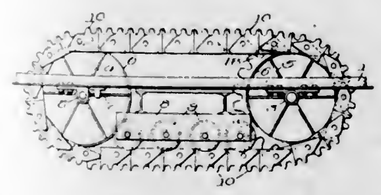
3. The combination with an internal combustion engine having suitable intake and exhaust portions, of an auxiliary air valve, and a connection between said valve and the exhaust whereby the pressure of the exhaust operates to open the valve when said pressure reaches a predetermined point.

4. The combination with an internal combustion engine having suitable intake and exhaust portions, of a valve for controlling the flow of air to the operating mixture, and means whereby said valve is operated to admit the air to said mixture when the pressure of the exhaust reaches a predetermined point.

5. The combination with an internal combustion engine having suitable intake and exhaust portions, of a valve, connections between the valve and the exhaust whereby when the pressure of the exhaust is increased by reason of an increase in consumption of explosion mixture in the engine, the valve is operated to allow an influx of air to the operating mixture.

[Claims 6 to 10 not printed in the Gazette.]

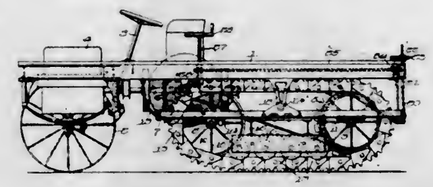
1,142,195. TRACK FOR VEHICLES. JOHN O. MORRIS, Davenport, Iowa, assignor, by mesne assignments, to Bullock Tractor Company, Chicago, Ill., a Corporation of Illinois. Filed Feb. 7, 1912. Serial No. 676,021. (Cl. 21—114.)



1. An endless track for vehicles formed of links each having tread portions formed in lengths that are sufficiently offset with respect to each other to bring similarly positioned offset lengths of the links substantially into alinement, the links adjacent each link terminating at the offset in such link.

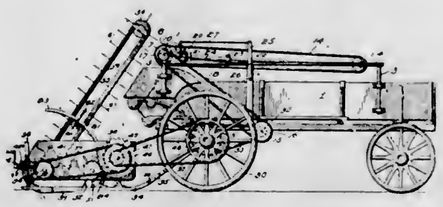
2. An endless track for vehicles formed of links each having tread portions formed in lengths that are sufficiently offset, at mid-length, with respect to each other to bring similarly positioned offset lengths of the links substantially into alinement, the links adjacent each link terminating at the offset in such link.

1,142,196. VEHICLE. JOHN O. MORRIS, Davenport, Iowa, assignor, by mesne assignments, to Bullock Tractor Company, Chicago, Ill., a Corporation of Illinois. Filed Feb. 7, 1912. Serial No. 676,022. (Cl. 21—114.)



A vehicle including a vehicle body; endless tracks, formed of links, upon which wheels of the vehicle may turn; two wheels for each track and about which such track passes; truck frames upon which are mounted the wheels about which each track passes; structures for opposing the upward flexure of the lower stretches of the tracks and comprising a plurality of rollers carried by the truck frames; and means for raising and maintaining elevated the rear ends of the truck frames and the rollers mounted thereupon whereby the forward portions of the tracks may alone rest upon the ground preparatory to changing the direction of travel of the vehicle, said structures coöperating with the forward track wheels in defining substantially definite points at which the tracks are confined to engagement with the ground when the tracks are tilted.

1,142,197. MANURE-LOADING APPARATUS. WILLIAM MURPHY, Eden Valley, Minn. Filed Apr. 13, 1914. Serial No. 831,436. (Cl. 214—10.)



1. In a loading apparatus, the combination of runners, a frame adjustable vertically above the runners, a breaker, a shoe and an elevator carried by said frame, racks carried by and extending upwardly from the runners, boxes arranged on the frame and receiving said racks, shafts journaled in said boxes and having pinions intermeshed with the racks, and means for adjustably fixing said shafts against rotation.

2. In a loading apparatus, the combination of runners, a frame carried thereby, means for taking material from the ground also carried by the runners, curvilinear racks connected to and extending upwardly from the runners, a swinging elevator pivoted to the frame, a shaft journaled in the frame of said elevator and having pinions intermeshed with said racks, means for adjustably fixing the shaft against rotation, and means for actuating the elevator.

3. The combination in a loading apparatus, of runners, curvilinear racks connected to and extending upwardly from the runners, a vertically adjustable frame having boxes receiving said racks, shafts journaled in the boxes and having pinions intermeshed with the racks, means for holding said shafts against rotation, a shoe, a breaker and an elevator carried by the frame, said elevator being pivoted to the frame, curvilinear racks connected to and extending upwardly from the runners, a shaft carried by

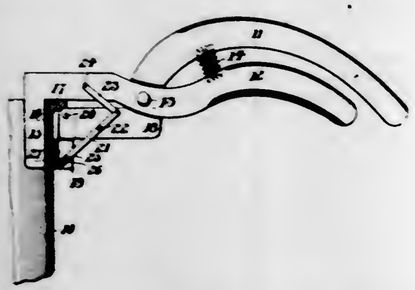
the elevator and having pinions intermeshed with said racks, and means for adjustably fixing said shaft against rotation.

4. In an apparatus for the purpose described, the combination of a vehicle having ground wheels and a body, means connected with the vehicle for taking material from the ground, an elevator on said means, means intermediate one of the ground wheels and the elevator for actuating the latter by the former, bails mounted above the body and pivotally connected therewith so as to swing transversely of the body, rollers carried by said bails, a roller mounted on the rear portion of the body, belts passed around said roller and also around the rollers in the bails and adapted to receive material from the elevator, and means intermediate one of the ground wheels of the vehicle and the bails for oscillating the bails.

5. In an apparatus for the purpose described, the combination of a vehicle having ground wheels and a body, conveyer belts mounted above the body and having forward portions constructed and arranged to be oscillated transversely of the body, and means intermediate one of the ground wheels of the forward portions of the belts for oscillating the latter, and means intermediate one of of the ground wheels and the belts for driving said belts.

[Claim 6 not printed in the Gazette.]

1,142,198. UTENSIL-LIFTER. MICHAEL NIEĆ, St. Catharines, Ontario, Canada. Filed July 30, 1914. Serial No. 854,166. (Cl. 65—32.)



1. A lifter comprising curved handles pivotally-connected together, an expansion spring between said handles, an angularly-positioned jaw portion upon one of said handles, an angularly-positioned jaw upon the other of said handles, a pivoted jaw carried by said angular jaw, link connections between said angular jaw, pivoted jaw and angularly positioned jaw portion whereby the said angular and pivoted jaws are adapted to coöperate with the jaw portion of the said first-named handle.

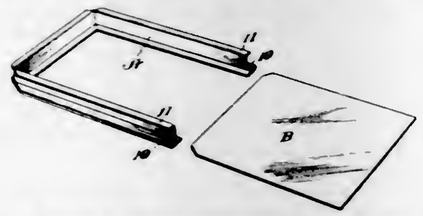
2. A lifter comprising curved handles pivotally-connected together, an expansion spring between said handles, an angularly-positioned jaw portion upon one of said handles, an angularly-positioned jaw upon the other of said handles, a pivoted jaw carried by said angular jaw, a lever carried by said angular jaw and having a slotted connection with said pivoted jaw, and an arm pivotally-connecting the free end of said lever and said jaw portion of the first-named handle whereby a closing of the pivoted jaw and of the handle jaw is simultaneously effected.

1,142,199. SHOE-LACE FASTENER. BERNARD G. OLSON, Chinook, Mont. Filed May 20, 1914. Serial No. 839,800. (Cl. 24—117.)

A device of the class described including a lace fastener consisting of a piece of elastic material provided with a single hook-engaging opening, a lace having its outer end looped through the hook-engaging opening of the said fastener, and a means for permanently securing the looped end of the lace to the body portion thereof, that portion of the elastic piece beyond the opening forming a finger hold to enable it to be readily engaged with and disengaged from one of the hooks of a shoe or the like, said elastic piece permitting the fastener to be stretched over the hook while the lace is taut.



1,142,200. PRINTER'S GALLEY. ALFRED S. ORCHARD, Philadelphia, Pa., assignor to Keystone Type Foundry, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Aug. 1, 1914. Serial No. 854,550. (Cl. 101—53.)



1. A printer's galley comprising a rim formed of a single piece of metal having outwardly extending flanges at its top and bottom edge, the lower flange being doubled with a groove between its two parts to receive the floor of the galley and said flanges being cut out at points corresponding to the corners of the back of the galley and bent with the parts outside of said cut-out portions at right angles to the part between said cut-out portions, a floor consisting of a metal plate inserted in the groove in said lower flange of the rim and rigidly secured therein, substantially as set forth.

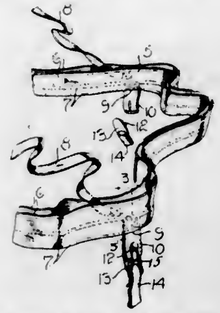
2. A printer's galley comprising a one-piece rim bent into appropriate form and having outwardly projecting flanges at its upper and lower edges, the lower flange being formed doubled with a groove between the two parts thereof, and a floor plate mounted in said groove and secured to said rim, substantially as set forth.

3. A printer's galley comprising a one-piece rim bent into appropriate form and having outwardly projecting flanges notched at the bends in said rim, the lower flange being formed doubled, and a floor plate secured in the groove between the two parts of said lower flange, substantially as set forth.

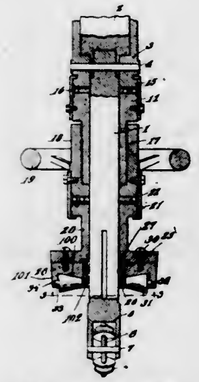
1,142,201. GARTER-SUPPORTER. CARL H. PETERSON, Denver, Colo. Filed Oct. 11, 1913. Serial No. 794,708. (Cl. 241—6.)

1. In a device of the character described, a leg encircling band having longitudinal folds extending the entire length thereof and stitched together adjacent to the line of folding of the band, said folds beyond the stitching being adapted to be arranged upon opposite sides of the lower edge of a drawers leg and to be securely stitched thereto, said band at the line of folding thereof being provided at spaced points with slits, tabs having one of their ends disposed through said slits and between the folds of the band and permanently secured to said folds, and tie strings secured at opposite ends of the band to one of the folds thereof.

2. In a device of the character described, a leg encircling band having longitudinal folds stitched together adjacent to the line of folding, said folds beyond the stitching being adapted to be arranged upon opposite sides of the lower edge of a drawer's leg and to be securely stitched thereto, tabs secured at one of their ends to the connected folds of the band and depending below the lower edge of said band, and tie strings secured to opposite ends of said band.



1,142,202. ROLLER-HEAD. FRANK X. PFLUGER, Portland, Oreg. Filed Aug. 6, 1914. Serial No. 855,517. (Cl. 153—81.)

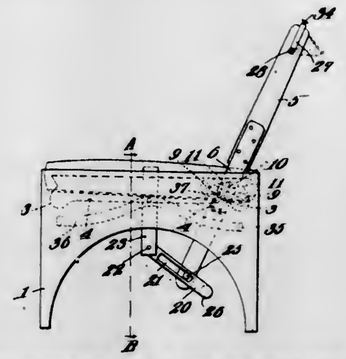


1. In a bushing flanger of the type described, a bearing; a spindle longitudinally movable therein; means for producing relative longitudinal movement between the spindle and the bearing; means for rotating the spindle and the bearing; a flanging element on the spindle; an annular casing carried by the bearing; and rollers mounted in the casing for axial rotation and for orbital movement about the spindle independently of the rotation of the casing, the rollers being adapted to contact peripherally with each other.

2. In a bushing flanger of the type described, a bearing; a spindle longitudinally movable therein; means for producing relative longitudinal movement between the spindle and the bearing; means for rotating the spindle and the bearing; a flanging element on the spindle; and an annular casing carried by the bearing; and rollers mounted in the casing for axial rotation and for orbital movement about the spindle independently of the rotation of the casing, the rollers being adapted to contact peripherally with each other, certain of the rollers in the casing being of greater diameter than other rollers in the casing.

1,142,203. CAR-SEAT. AUGUST C. RADER, Upper Montclair, N. J. Filed Nov. 4, 1912. Serial No. 729,508. (Cl. 155—2.)

1. The combination with a seat support having a guide formed with terminal recesses, of a seat-back, means movable therewith for becoming seated in the respective recesses to hold the back in active position, and means cooperating with said guide for elevating the seated means out of its recess when the back is shifted out of active position.



2. The combination with a seat support having a guide formed with a recess in its lower surface, of a seat-back, a roller movable therewith and adapted to be seated in the recess to hold the back in active position, and coöperating means upon the guide and upon the seat-back respectively, for elevating the roller out of the recess when the back is shifted out of active position.

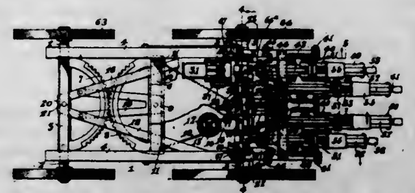
3. The combination with a seat support having a guide channel and recesses in the bottom of the channel, of a seat-back, rollers movable with the back and adapted to be seated in the respective recesses to hold the back in either of two active positions, and means movable with the seat back and coöperating with the bottom of the guide channel in which the rollers are mounted for elevating either roller out of the recess in which it is seated during the initial movement of the seat-back out of either active position.

4. The combination with a seat support having a channeled guide provided with terminal recesses, of a movable seat-back, a hanger depending therefrom, rollers in fixed relation to and movable with the hanger and adapted to travel along the bottom of the guide channel to hold the seat back in upstanding position and to become seated in the respective recesses to hold the back in an inclined position, and coöperating means upon the hanger and upon the bottom of the guide in which the rollers are mounted, for elevating the back and rollers to disengage the seated roller from the recessed portion of the channel.

5. The combination with a seat support having a channeled guide provided with terminal recesses, of a movable seat-back, rollers movable with the back and disposed in fixed relation thereto, said rollers being adapted to be seated within the respective recesses to hold the back in either of two active positions, a finger pivotally mounted and movable with the back, and projections upon the bottom of the channeled guide and adapted to be engaged by the finger to bodily elevate the back and rollers when the back is moved relative to the support.

[Claims 6 and 7 not printed in the Gazette.]

1,142,204. MOTOR-PROPELLED VEHICLE. WILLIAM SCHIERDING, Wallace, Idaho. Filed Nov. 15, 1913. Serial No. 801,197. (Cl. 21—124.)



1. A motor propelled vehicle including spaced crank shafts having corresponding crank bends, a link connecting

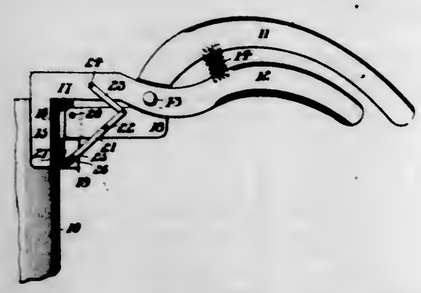
the elevator and having pinions intermeshed with said racks, and means for adjustably fixing said shaft against rotation.

4. In an apparatus for the purpose described, the combination of a vehicle having ground wheels and a body, means connected with the vehicle for taking material from the ground, an elevator on said means, means intermediate one of the ground wheels and the elevator for actuating the latter by the former, bails mounted above the body and pivotally connected therewith so as to swing transversely of the body, rollers carried by said bails, a roller mounted on the rear portion of the body, belts passed around said roller and also around the rollers in the bails and adapted to receive material from the elevator, and means intermediate one of the ground wheels of the vehicle and the bails for oscillating the bails.

5. In an apparatus for the purpose described, the combination of a vehicle having ground wheels and a body, conveyer belts mounted above the body and having forward portions constructed and arranged to be oscillated transversely of the body, and means intermediate one of the ground wheels of the forward portions of the belts for oscillating the latter, and means intermediate one of of the ground wheels and the belts for driving said belts.

[Claim 6 not printed in the Gazette.]

1,142,198. UTENSIL-LIFTER. MICHAEL NIEĆ, St. Catharines, Ontario, Canada. Filed July 30, 1914. Serial No. 854,166. (Cl. 65—32.)



1. A lifter comprising curved handles pivotally-connected together, an expansion spring between said handles, an angularly-positioned jaw portion upon one of said handles, an angularly-positioned jaw upon the other of said handles, a pivoted jaw carried by said angular jaw, link connections between said angular jaw, pivoted jaw and angularly positioned jaw portion whereby the said angular and pivoted jaws are adapted to coöperate with the jaw portion of the said first-named handle.

2. A lifter comprising curved handles pivotally-connected together, an expansion spring between said handles, an angularly-positioned jaw portion upon one of said handles, an angularly-positioned jaw upon the other of said handles, a pivoted jaw carried by said angular jaw, a lever carried by said angular jaw and having a slotted connection with said pivoted jaw, and an arm pivotally-connecting the free end of said lever and said jaw portion of the first-named handle whereby a closing of the pivoted jaw and of the handle jaw is simultaneously effected.

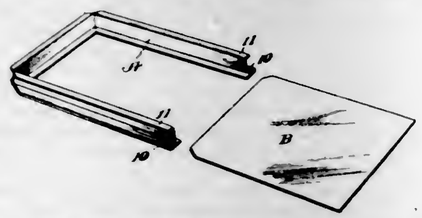
1,142,199. SHOE-LACE FASTENER. BERNARD G. OLSON, Chinook, Mont. Filed May 20, 1914. Serial No. 839,800. (Cl. 24—117.)

A device of the class described including a lace fastener consisting of a piece of elastic material provided with a single hook-engaging opening, a lace having its outer end looped through the hook-engaging opening of the said fastener, and a means for permanently securing the looped end of the lace to the body portion thereof, that portion of the elastic piece beyond the opening forming a finger hold to enable it to be readily engaged with and disengaged from one of the hooks of a shoe or



the like, said elastic piece permitting the fastener to be stretched over the hook while the lace is taut.

1,142,200. PRINTER'S GALLEY. ALFRED S. ORCHARD, Philadelphia, Pa., assignor to Keystone Type Foundry, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Aug. 1, 1914. Serial No. 854,550. (Cl. 101—33.)



1. A printer's galley comprising a rim formed of a single piece of metal having outwardly extending flanges at its top and bottom edge, the lower flange being doubled with a groove between its two parts to receive the floor of the galley and said flanges being cut out at points corresponding to the corners of the back of the galley and bent with the parts outside of said cut-out portions at right angles to the part between said cut-out portions, a floor consisting of a metal plate inserted in the groove in said lower flange of the rim and rigidly secured therein, substantially as set forth.

2. A printer's galley comprising a one-piece rim bent into appropriate form and having outwardly projecting flanges at its upper and lower edges, the lower flange being formed doubled with a groove between the two parts thereof, and a floor plate mounted in said groove and secured to said rim, substantially as set forth.

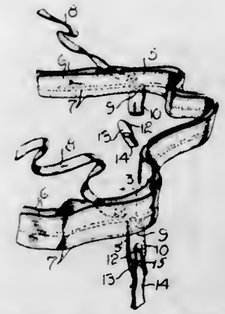
3. A printer's galley comprising a one-piece rim bent into appropriate form and having outwardly projecting flanges notched at the bends in said rim, the lower flange being formed doubled, and a floor plate secured in the groove between the two parts of said lower flange, substantially as set forth.

1,142,201. GARTER-SUPPORTER. CARL H. PETERSON, Denver, Colo. Filed Oct. 11, 1913. Serial No. 794,706. (Cl. 241—6.)

1. In a device of the character described, a leg encircling band having longitudinal folds extending the entire length thereof and stitched together adjacent to the line of folding of the band, said folds beyond the stitching being adapted to be arranged upon opposite sides of the lower edge of a drawers leg and to be securely stitched thereto, said band at the line of folding thereof being provided at spaced points with slits, tabs having one of their ends disposed through said slits and between the folds of the band and permanently secured to said folds, and tie strings secured at opposite ends of the band to one of the folds thereof.

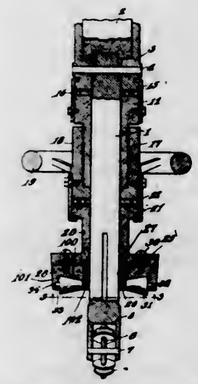
2. In a device of the character described, a leg encircling band having longitudinal folds stitched together adjacent to the line of folding, said folds beyond the stitching being adapted to be arranged upon opposite

sides of the lower edge of a drawer's leg and to be securely stitched thereto, tabs secured at one of their ends to the connected folds of the band and depending below



the lower edge of said band, and tie strings secured to opposite ends of said band.

1,142,202. ROLLER-HEAD. FRANK X. PFLUGER, Portland, Oreg. Filed Aug. 6, 1914. Serial No. 855,517. (Cl. 153—81.)

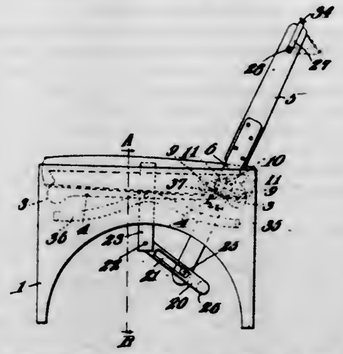


1. In a bushing flanger of the type described, a bearing; a spindle longitudinally movable therein; means for producing relative longitudinal movement between the spindle and the bearing; means for rotating the spindle and the bearing; a flanging element on the spindle; an annular casing carried by the bearing; and rollers mounted in the casing for axial rotation and for orbital movement about the spindle independently of the rotation of the casing, the rollers being adapted to contact peripherally with each other.

2. In a bushing flanger of the type described, a bearing; a spindle longitudinally movable therein; means for producing relative longitudinal movement between the spindle and the bearing; means for rotating the spindle and the bearing; a flanging element on the spindle; and an annular casing carried by the bearing; and rollers mounted in the casing for axial rotation and for orbital movement about the spindle independently of the rotation of the casing, the rollers being adapted to contact peripherally with each other, certain of the rollers in the casing being of greater diameter than other rollers in the casing.

1,142,203. CAR-SEAT. AUGUST C. RADER, Upper Montclair, N. J. Filed Nov. 4, 1912. Serial No. 729,508. (Cl. 155—2.)

1. The combination with a seat support having a guide formed with terminal recesses, of a seat-back, means movable therewith for becoming seated in the respective recesses to hold the back in active position, and means coöperating with said guide for elevating the seated means out of its recess when the back is shifted out of active position.



2. The combination with a seat support having a guide formed with a recess in its lower surface, of a seat-back, a roller movable therewith and adapted to be seated in the recess to hold the back in active position, and coöperating means upon the guide and upon the seat-back respectively, for elevating the roller out of the recess when the back is shifted out of active position.

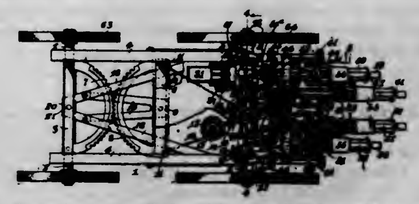
3. The combination with a seat support having a guide channel and recesses in the bottom of the channel, of a seat-back, rollers movable with the back and adapted to be seated in the respective recesses to hold the back in either of two active positions, and means movable with the seat back and coöperating with the bottom of the guide channel in which the rollers are mounted for elevating either roller out of the recess in which it is seated during the initial movement of the seat-back out of either active position.

4. The combination with a seat support having a channeled guide provided with terminal recesses, of a movable seat-back, a hanger depending therefrom, rollers in fixed relation to and movable with the hanger and adapted to travel along the bottom of the guide channel to hold the seat back in upstanding position and to become seated in the respective recesses to hold the back in an inclined position, and coöperating means upon the hanger and upon the bottom of the guide in which the rollers are mounted, for elevating the back and rollers to disengage the seated roller from the recessed portion of the channel.

5. The combination with a seat support having a channeled guide provided with terminal recesses, of a movable seat-back, rollers movable with the back and disposed in fixed relation thereto, said rollers being adapted to be seated within the respective recesses to hold the back in either of two active positions, a finger pivotally mounted and movable with the back, and projections upon the bottom of the channeled guide and adapted to be engaged by the finger to bodily elevate the back and rollers when the back is moved relative to the support.

[Claims 6 and 7 not printed in the Gazette.]

1,142,204. MOTOR-PROPELLED VEHICLE. WILLIAM SCHIERDING, Wallace, Idaho. Filed Nov. 15, 1913. Serial No. 801,197. (Cl. 21—124.)



1. A motor propelled vehicle including spaced crank shafts having corresponding crank bends, a link connecting

the crank bends for causing the shafts to rotate in unison, a push bar hung from the crank bend of one of the said shafts, and means for connecting the push bar with the crank bend of the other shaft for maintaining the push bar in a relatively rigid position.

2. A motor propelled vehicle including spaced crank shafts provided with corresponding crank bends, a push bar supported by the crank bend of one of the shafts, a brace or thrust bar connecting the push bar with the crank bend of the other shaft to maintain the push bar in a relatively rigid position, and means for rotating the shafts.

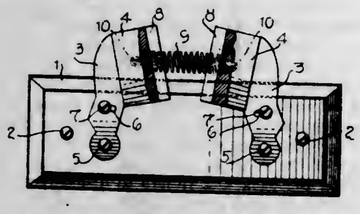
3. A motor propeller vehicle including spaced crank shafts provided with crank bends, a push bar hung from the crank bend of one of the shafts, a brace or thrust bar connecting the push bar with the crank bend of the other shaft, and a link connecting the crank bends for causing the shafts to rotate in unison.

4. A motor propelled vehicle including spaced crank shafts having crank bends, a push bar composed of slidably connected sections, one of the sections being connected with the bend of one of the shafts, means for connecting the other section of the push bar with the crank bend of the other shaft, and means for cushioning the sections of the push bar.

5. A motor propelled vehicle including a push bar comprising an upper section provided with a guide having spaced side portions forming an opening, a lower section slidable through the guide and extending into the said opening, and yieldable means for cushioning the lower section, said yieldable means being mounted in and exposed at the opening in the upper section.

[Claims 6 to 22, not printed in the Gazette.]

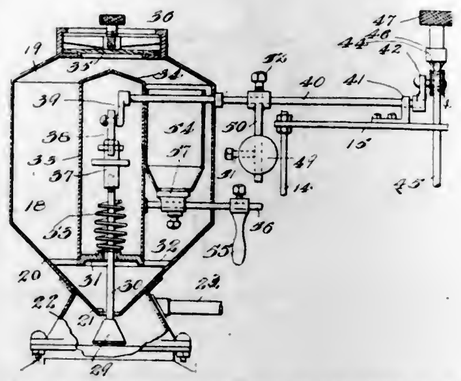
1,142,205. SUPPORT. CURTIS C. SCHNELL, Glen Rock, Pa. Filed Oct. 6, 1913. Serial No. 793,727. (Cl. 24—254.)



A device of the character described including a base, vertically disposed plates pivotally mounted on said base and projecting beyond an edge thereof, said projecting portions being provided with elongated clamping faces projecting laterally and outwardly therefrom, the opposed faces being longitudinally grooved, projections extending rearwardly from the rear faces of the plates above the upper edge of the base, a retractible member having its opposite extremities connected to said projections whereby said retractile member is entirely free of the base, each of said plates intermediate its point of pivotal connection and the clamping face carried thereby being provided with a transverse elongated slot, and projections carried by the base in vertical alinement with the pivots of the plates and one extended through each slot, the coaction between the projections and the slots serving to prevent the clamping faces contacting under the influence of the retractile member and serving to limit the separating movement of said plates.

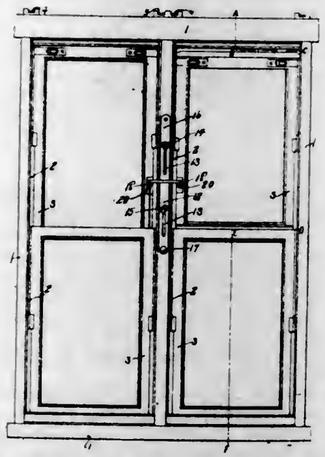
1,142,206. ACETYLENE-GAS GENERATOR. FREDERICK C. SCHRAMM, New Orleans, La., assignor of three-fourths to August J. Claverie and one-fourth to Claude A. Villars, New Orleans, La. Filed July 14, 1914. Serial No. 850,878. (Cl. 48—53.1.)

1. In an acetylene gas generator, the combination with the hopper having a valve opening therein, of a valve adapted to close said opening, a stem on the valve and a rock shaft operatively connected together, and means for rocking said shaft, and a supported spring coiled about said stem adapted to cushion the movement of said rock shaft.



2. The combination in an acetylene gas generator, with the carbid feed hopper having a valve opening, and a gas bell, of a valve with its stem supported in the hopper, a rock shaft for reciprocating said stem, an operating arm carried by the gas bell, and an anti-friction roller on the rock shaft, and a supported spring about the valve stem for cushioning excess movement of the gas bell.

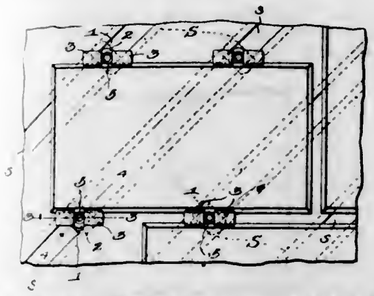
1,142,207. WINDOW OPENING AND CLOSING DEVICE. ALEXANDER STRUTHERS, London, England. Filed June 3, 1912. Serial No. 701,206. (Cl. 16—28.)



The combination with a window frame and sashes pivotally held in the frame, of a plate fixed to the frame, pins carried by the stationary plate, a movable plate having slots the slots adapted to accommodate the pins, for holding the movable plate into engagement with the fixed plate, a pin carried by each sash, arms having hooked ends, carried by the movable plate, the hooked ends of the arms adapted to engage the pins for holding the sashes in an adjusted position with relation to their frames and means for holding the movable plate in its positions of adjustment.

1,142,208. PLATE-HOOK. BURT F. UPHAM, Boston, Mass., assignor to United Printing Machinery Co., Boston, Mass., a Corporation of Massachusetts. Filed Apr. 15, 1914. Serial No. 832,028. (Cl. 101—169.)

1. A plate hook comprising a body portion adapted to be inserted into a slot, and a clamp member above the slot, said hook having a recess adapted to be engaged by the bent end of a separable driving tool whereby when so engaged the hook can be forced along the slot by striking the tool with a hammer.

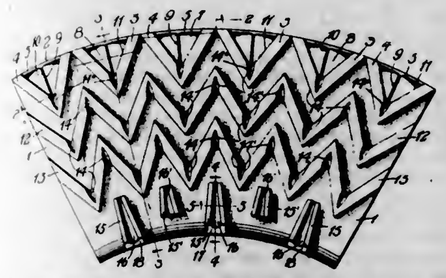


2. A plate hook having a body portion adapted to be inserted in a slot through the contracted mouth thereof and turned at an angle thereto and provided with a clamp member on its outer end above the slot, and having a recess extending through the clamp member and body, and a bolt in said recess adapted to be projected to lock the hook in the slot, the upper end of the recess being adapted to be engaged by the bent end of a separable driving tool whereby when so engaged the hook can be forced along the slot by striking the tool with a hammer.

3. A plate hook comprising an oblong body portion adapted to be inserted into a slot through the contracted mouth thereof and then turned at an angle thereto to retain it in the slot, a clamp member on the upper end of the body above the slot and integral therewith, said clamp member lying at an angle to the length of the body portion, said hook having a vertical opening extending through said clamp member and body for engagement with a hook adjusting tool, the lower portion of said opening within the body being threaded; and a bolt in the threaded portion of said opening adapted to be projected to engage the bottom of the slot and lock the bolt therein.

4. A plate hook comprising an oblong body portion adapted to be inserted into a slot through the contracted mouth thereof and then turned at an angle thereto to retain it therein, an integral collar on the upper end of the body adapted to lie within the mouth of the slot, a clamp member on the outer end of the collar above the slot and integral therewith, said clamp member lying at an angle to the length of the body portion; said hook having an opening extending through said clamp member, collar and body, for engagement with a hook adjusting tool, the lower part of the opening within the body being threaded; and a bolt in the threaded portion of said opening adapted to be projected to engage the bottom of the slot and lock the hook therein, substantially as described.

1,142,209. MILLSTONE-DRESS. WILLIAM VAN NOSTRAND, Dalton, N. Y. Filed Sept. 10, 1914. Serial No. 861,094. (Cl. 83—3.)



1. The combination with a rotatable plate and a plurality of V-shaped ribs thereon, of a plurality of transverse ribs interposed between the free ends of said V-shaped ribs and joined thereto, said transverse ribs being of less height than the V-shaped ribs.

2. The combination with a rotatable plate and a plurality of V-shaped ribs thereon, of a plurality of transverse ribs interposed between the free ends of the V-shaped ribs and joined thereto, said transverse ribs being of less height than the V-shaped ribs and being beveled on their inner sides.

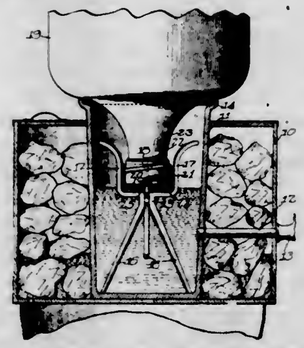
3. The combination with a rotatable plate, and a plurality of V-shaped ribs thereon, of a plurality of transverse ribs interposed between the free ends of the V-shaped ribs, said transverse ribs being of less height than the V-shaped ribs and radial ribs having their outer ends abutting said transverse ribs, their inner ends abutting the angles of the V-shaped ribs.

4. The combination with a rotatable plate, and a plurality of V-shaped ribs thereon, of a plurality of ridge shaped radial ribs interposed between the arms of said V-shaped ribs, said ridge shaped ribs increasing in thickness and width from one end to the other.

5. The combination with a rotatable plate and a plurality of V-shaped ribs thereon, of a plurality of transverse ribs interposed between the free ends of said V-shaped ribs, said transverse ribs being of less height than the V-shaped ribs, and ridge shaped ribs having their outer ends abutting the transverse ribs, said ridge shaped ribs gradually decreasing in thickness from the ends thereof located between the free ends of the V-shaped ribs to the angles of said V-shaped ribs.

[Claims 6 to 13 not printed in the Gazette.]

1,142,210. LIQUID-DISPENSING DEVICE. WALTER WAGNES, Chicago, Ill., assignor, by mesne assignments, to Rayvio Water Company, a Corporation of Illinois. Filed Feb. 29, 1912. Serial No. 680,622. (Cl. 225—40.)



1. In a device for dispensing drinking water and non-aerated beverages, the combination with a bottle-supporting, liquid-receiving vessel having means for permitting the liquid to be drawn therefrom as desired and having its upper end open for the reception of the neck of an inverted bottle, of a liquid-containing bottle adapted to be inverted into the open upper end of said vessel and have its neck project down into the vessel, a fragile puncturable seal affixed to said bottle for closing the opening thereof, which seal maintains the opening closed even after the bottle has been inverted, and a seal-puncturing device mounted within said vessel adapted to puncture said seal as the bottle is lowered into position and project through the seal into the mouth of the bottle, when the bottle is in its lowered position, said seal and puncturing device being so constructed that after the seal has been punctured a water-flow opening will be formed in the seal between the walls of the punctured portion and the side of the puncturing device to permit the water to flow freely from the bottle into the vessel, the seal being affixed to and removable with the bottle when the bottle is removed from the vessel after having been emptied.

2. In a device for dispensing drinking water and non-aerated beverages, the combination with a bottle-support-

ing, liquid-receiving vessel having means for permitting the liquid to be drawn therefrom as desired and having its upper end open for the reception of the neck of an inverted bottle, of a liquid-containing bottle adapted to be inverted into the upper end of said vessel and having its neck project down into the vessel, a fragile puncturable seal affixed to said bottle for closing the opening thereof, which seal maintains the opening closed even after the bottle has been inverted, and a seal-puncturing device removably mounted within said vessel adapted to puncture said seal as the bottle is lowered into position and project through the seal into the mouth of the bottle when the bottle is in its lowered position, said seal and puncturing device being so constructed that after the seal has been punctured a water-flow opening will be formed in the seal between the walls of the punctured portion and the sides of the puncturing device to permit the water to flow freely from the bottle into the vessel, the seal being affixed to and removable with the bottle when the bottle is removed from the vessel after having been emptied.

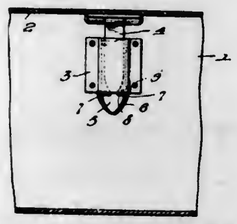
3. In a device for dispensing drinking water and non-aerated beverages, the combination with a bottle-supporting, liquid-receiving vessel having means for permitting the liquid to be drawn therefrom as desired and having its upper end open for the reception of the neck of an inverted bottle, of a liquid-containing bottle adapted to be inverted into the open end of said vessel and have its neck project down into the vessel, a seal having a fragile puncturable portion affixed to said bottle for closing the opening thereof, which seal maintains the opening closed even after the bottle has been inverted, and a seal-puncturing device mounted within said vessel adapted to puncture said seal as the bottle is lowered into position and project through the seal into the mouth of the bottle when the bottle is in its lowered position, said seal and puncturing device being so constructed that after the seal has been punctured a water-flow opening will be formed in the seal between the walls of the punctured portion and the side of the puncturing device to permit the water to flow freely from the bottle into the vessel, the seal being affixed to and removable with the bottle when the bottle is removed from the vessel after having been emptied.

4. In a device for dispensing drinking water and non-aerated beverages, the combination with a bottle-supporting, liquid-receiving vessel having means for permitting the liquid to be drawn therefrom as desired and having its upper end open for the reception of the neck of an inverted bottle, of a liquid-containing bottle adapted to be inverted into the open upper end of said vessel and have its neck project down into the vessel, a fragile puncturable seal affixed to said bottle for closing the opening thereof, which seal maintains the opening closed even after the bottle has been inverted, a seal-puncturing device mounted within said vessel adapted to puncture said seal as the bottl is lowered into position and project through the seal into the mouth of the bottle when the bottle is in its lowered position, means for guiding the mouth of the bottle toward said puncturing device, said seal and puncturing device being so constructed that after the seal has been punctured a water-flow opening will be formed in the seal between the walls of the punctured portion and the side of the puncturing device to permit the water to flow freely from the bottle into the vessel, the seal being affixed to and removable with the bottle when the bottle is removed from the vessel after having been emptied.

5. In a device for dispensing water or non-aerated beverages, the combination with a liquid-receiving vessel having means for permitting liquid to be drawn therefrom as desired, and having its upper end open for the reception of the neck of an inverted bottle, and a stand removably mounted in said vessel, said stand being provided with an upwardly projecting spike, and having upwardly extending arms for guiding the neck of the bottle toward said spike, of a liquid-containing bottle adapted to be inverted into the open upper end of said vessel, and a seal affixed to said bottle, said seal having a perforable portion adapted to be encountered and perforated by said spike, when said bottle is inverted into said vessel.

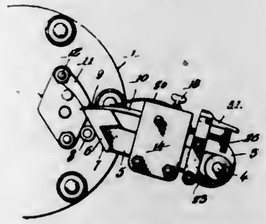
[Claim 6 not printed in the Gazette.]

1,142,211. FASTENER FOR BOX-COVERS. WALTER WAIDLICH, Detroit, Mich. Filed Nov. 26, 1913. Serial No. 803,273. (Cl. 70—82.)



In a box, a body, a lid secured therein, a keeper secured within the body, a hasp member hinged to the lid and arranged to pass through the keeper, a shouldered head on the hasp member, a spring having inwardly bent terminals to rest upon the shoulders of the head and expand beyond the sides of the keeper and means on the spring for preventing its extreme expansion under pressure.

1,142,212. TIMING AND IGNITION DEVICE. WILBUR W. WALKER, Hanford, Cal. Filed Jan. 16, 1914. Serial No. 812,520. (Cl. 123—164.)



1. In combination with the ignition device of an explosive engine, a member movable through operation of the engine crank shaft, a contact element movable bodily into and out of engaging proximity with said device, means to move said element relatively to said member, said member acting as a support therefor, and means locking said element in its various adjusted positions.

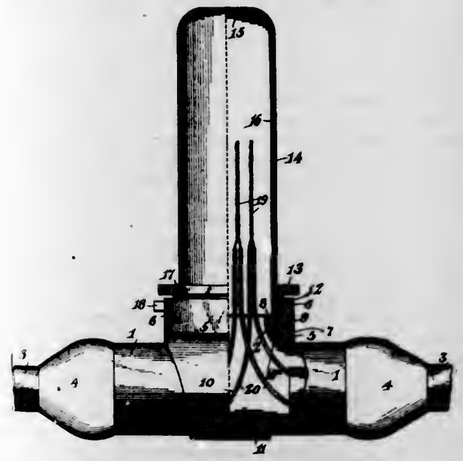
2. In combination with the ignition device of an internal combustion engine, a contact element engageable with the said device, support means for the said element, means actuatable to bodily move the said support means for adjusting the element relatively to the said device, means actuatable to adjust the element independently of its support means, a spring actuated fulcrum lever engageable with the said first mentioned adjusting means for automatically locking the said support means in its adjusted position, and means actuatable to lock the last mentioned adjusting means in its adjusted position, as and for the purpose set forth.

3. In combination with the ignition device of an internal combustion engine, a member reciprocable through movement of the engine crank shaft, a carriage mounted on said member, a bracket stationary relatively to the member, means movable relatively to the bracket for adjusting the carriage longitudinally upon the member, means operating automatically to lock the adjusting means in its adjusted position, a contact element fulcrumed to and bodily movable with the carriage, and means operating to adjust the element relatively to the carriage, said element being engageable with the said device for controlling ignition, as and for the purpose set forth.

4. In combination with an ignition device for explosive engines, an arm oscillatable upon said device, a reciprocatory arm actuatable through movement of the engine crank shaft, a roller carried by the engine and engageable with said reciprocatory arm to support the latter in operative position, a carriage adjustable longitudinally upon said reciprocatory arm, a contact movable bodily with said carriage, said contact being adapted for engagement with said oscillatory arm, the movement of said contact during reciprocation of said arm adapted to oscillate said first mentioned arm, means carried by said carriage and disposed for engagement with said contact to provide for vertical adjustment thereof, a bracket rigid with said reciprocatory arm, means carried by said bracket and disposed for engagement with said carriage to longitudinally adjust the latter upon said arm, and means including a lever fulcrumed to said lever and engageable with said last mentioned means to maintain the same incapable of actuation, as and for the purpose set forth.

5. In combination with the igniting device of an explosive engine, a member movable through operation of the engine crank shaft, a contact element movable relatively to said member, said member being at all times in engagement with said contact element to brace the latter at its point of contact, means to bodily move said element toward and from said device, and means to lock the element in its various adjusted positions.

1,142,213. SPLICE FOR LEAD-ARMORED CABLES. HERBERT THOMPSON WHALER, Miami, Fla. Filed Nov. 15, 1913. Serial No. 801,210. (Cl. 173—268.)



1. A splice for lead armored cables, comprising a body member of soft metal having an intermediate side neck integral therewith, and a separately formed collar surrounding the neck and provided with means embracing the body member opposite the neck to hold the collar to the body member independently of the neck.

2. A splice for lead armored cables, comprising an elongated continuous body member of soft metal with the ends adapted to receive and be united by wiped joints to the ends of the cable, said body member having an intermediate laterally projecting neck integral therewith, a separately formed collar secured to the body member and encircling the neck and provided with interior screw threads and with a gasket-receiving groove at the base of the screw threads, and an elongated cap member adapted to the collar to engage a gasket seated in the gasket-receiving groove.

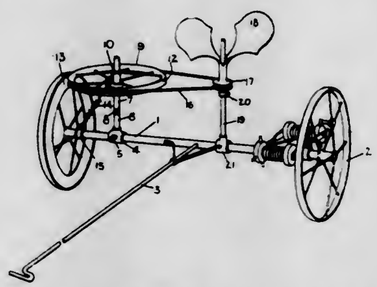
3. A splice for lead armored cables comprising an elongated soft metal body member having the ends adapted to receive and be united to the ends of the cable, said body member having an intermediate laterally projecting neck integral therewith, a separately formed collar applied to the neck and provided with interior screw threads and with a gasket receiving groove at the base of the screw threads, and an elongated cap member having an open end provided with a threaded ring adapted to the threaded portion of the collar and to engage a gasket seated in the gasket receiving groove, that portion of the collar interior to the groove being formed into a flange immediately engaging the neck of the body member and constituting an abutment for a gasket seated in the groove to prevent spreading of said gasket.

4. In a splice for lead armored cables, an elongated soft metal body member shaped at the ends to receive corresponding ends of the cable and to be united thereto, and said body member having an intermediate side neck integral therewith, and a separately formed cap-receiving collar surrounding the neck and provided with straps for embracing the body member to hold the collar in surrounding relation to the side neck.

5. A splice for lead armored cable comprising an elongated body member of like material to the cable armor and shaped at the ends to receive corresponding ends of the cable, and said body member having an intermediate side neck integral therewith, a separately formed collar surrounding the neck and provided with straps adapted to embrace the body member, and a cap member adapted to the collar for closing the side neck of the splice, the cap member and collar being provided with means for the application of a tool.

[Claims 6 to 9 not printed in the Gazette.]

1,142,214. WHIRLIGIG-CART. IRA T. WILLIAMS, Decatur, Ill. Filed Oct. 1, 1914. Serial No. 864,376. (Cl. 46—48.)



1. In a device of the character described and in combination, a frame, wheels supporting said frame, a driving wheel swingably mounted relative to said frame and adapted to bear against one of said first mentioned wheels, whereby when said device is moved said driving wheel will be rotated, a whirligig mounted on said frame and driving connections between said driving wheel and said whirligig to operate the same.

2. In a device of the character described and in combination, a frame, wheels supporting said frame, a driving wheel swingably mounted relative to said frame and adapted to bear against one of said first mentioned wheels, whereby when said device is moved, said driving wheel will be rotated, a whirligig mounted on said frame and driving connections between said driving wheel and said whirligig to operate the same and resilient means normally holding said driving wheel against said one of said first mentioned wheels.

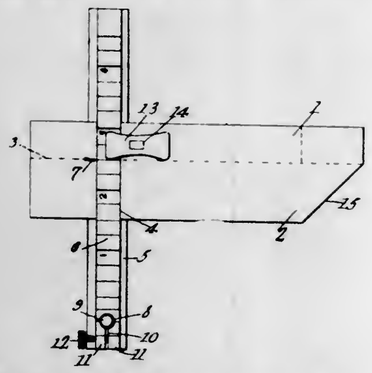
3. In a toy of the character described and in combination, a shaft or axle comprising a frame, wheels mounted on the ends thereof, an arm or extension secured to said shaft or axle having a rod or shaft pivotally connected thereto, a driving wheel mounted on said rod or shaft, resilient means connected to said frame and said rod or shaft for normally holding said driving wheel in contact with one of said first mentioned wheels, a whirligig mounted on said shaft or axle, and driving connections between said driving wheel and said whirligig whereby when the toy is propelled, the whirligig will be rotated.

4. In a toy of the character described and in combination, a shaft or axle comprising the frame, wheels mount-

ed on the ends thereof, one of said wheels having an annular plate or ring member secured thereto to provide a bearing surface, a driving wheel pivotally connected to said shaft or axle, resilient means for holding said driving wheel normally in contact with said bearing surface, a whirligig mounted on said frame and driving connections between said driving wheel and said whirligig whereby said whirligig is rotated when the toy is propelled.

5. In a toy of the character described and in combination, a shaft or axle comprising the frame, wheels mounted on the ends thereof, a whirligig mounted on said frame, connections between one of said wheels and said whirligig whereby when the toy is propelled the whirligig will be rotated, an odometer secured to said shaft or axle and adapted to be actuated by one of said wheels, said odometer comprising a plurality of supporting members or brackets having laterally extending arms, spools or rolls removably held between the pairs of corresponding arms and adapted to have a string or cord wound and unwound thereon, and means on said spools or rolls adapted to be actuated by one of said wheels.

1,142,215. MARKING-GAGE AND TRY-SQUARE. EDITH WIMMER, Loveland, and JOHN SEE, Steamboat Springs, Colo. Filed Aug. 21, 1914. Serial No. 857,897. (Cl. 33—42.)



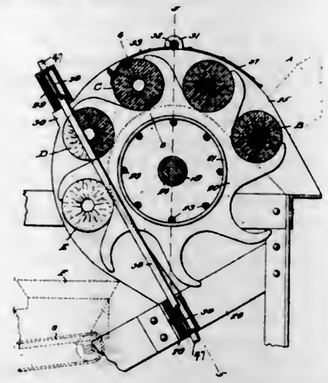
1. In a device of the character described, a stock having a channel, an arm slidable through the said channel, and a screw threaded into the stock and having a transverse thumb piece having its ends adapted to bear upon the arm and stock to bind the arm within the channel.

2. In a device of the character described, an angular stock having flanges, and an arm slidably engaged to one flange of the stock and having means for carrying a marking element, the said flange of the stock being relatively wide and having an open transverse slot extending to the other flange for receiving the marking element.

1,142,216. PINEAPPLE CORING AND SLICING MACHINE. FRED W. WOLF, Honolulu, Hawaii, assignor to F. W. Macfarlane, Honolulu, Hawaii. Filed Oct. 12, 1914. Serial No. 866,330. (Cl. 146—11.)

1. In a machine of the character described, a revoluble turret having a plurality of ribbed fruit-conveying disk members and means for retaining the aforesaid members in a fixed relation, a plurality of parallel fixed knife blades disposed between the aforesaid disk members exterior of the ribbed portion, means for adjustably mounting the aforesaid members, and means for coring the fruit while retained in the disk members in advance of the slicing operation.

2. In a machine of the character described, a reciprocating fruit coring tube, means operatively connected with a main shaft for operating the same, a revoluble turret comprising a plurality of plates having hooked star ends and means for mounting same in adjustable relation, fruit-slicing knives disposed between spaced portions of the aforesaid plates, and means for intermittently revolving the aforesaid turret.



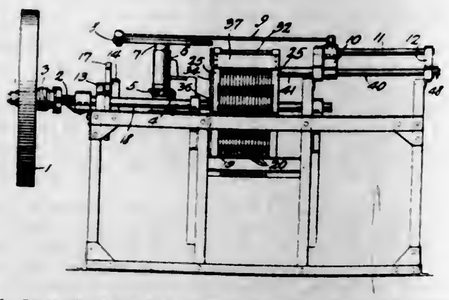
3. In a machine of the character described, a turret adapted to retain pineapples in a horizontal position comprising a plurality of hooked star-pointed plates spaced apart one from the other by offset ribs, bolts and hub members for fastening the plates together, a spacing sleeve, turret supporting members mounted on the main frame of the machine, and spaced diagonal braces to which a portion of the turret supporting members is secured.

4. In a machine of the class described, a turret adapted to retain pine-apples in a horizontal position comprising a plurality of hooked star-pointed plates spaced apart one from the other by offset ribs, means (including a spacing sleeve) for mounting the aforesaid plates in adjusted relations, diagonal braces by which the aforesaid members are supported, a knife holder mounted between the aforesaid braces, a corresponding upper knife holder, a plurality of fruit slicing knives disposed between spaced portions of the turret plates, and means adjustably securing the knives to the knife holders.

5. In a machine of the class described, a turret adapted to retain pine-apples in a horizontal position comprising a plurality of hooked star-pointed plates spaced apart one from the other by offset ribs, means for mounting the aforesaid plates in adjusted relation, a plurality of fruit slicing knives disposed between spaced portions of the turret plates, means for adjustably mounting same, a curved plate member disposed exterior of the turret to engage and hold fruit therein and means for swinging the said plate to an inoperative position intermittently.

[Claims 6 and 7 not printed in the Gazette.]

1,142,217. PINEAPPLE-CORER IN A PINEAPPLE CORING AND SLICING MACHINE. FRED W. WOLF, Honolulu, Hawaii, assignor to F. W. Macfarlane, Honolulu, Hawaii. Original application filed Oct. 12, 1914. Serial No. 866,330. Divided and this application filed Feb. 18, 1915. Serial No. 9,024. (Cl. 146—6.)

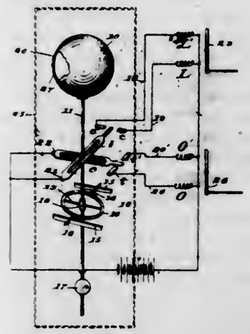


1. In a pineapple machine, the combination of an intermittently revoluble turret adapted to retain fruit in a stationary horizontal position during the coring operation, a horizontally slidable coring tube to core the fruit while in a stationary position, horizontally actuated reciprocating means driving the coring tube, and tubular protecting members within which the coring tube travels.

2. In a machine of the class described, the combination of a revoluble turret consisting of spaced plates having hooked, fruit-engaging star ends to retain the fruit in horizontal position, a pivotally mounted curved plate intermittently engaging over the fruit to retain it in a fixed position, a reciprocating coring tube positioned to core the fruit while engaged by the aforesaid plate, and means for actuating the coring tube to core the fruit during the interval that it is in stationary position, substantially as set forth.

3. In a pinapple machine, a revoluble turret having a plurality of hooked star end portions to convey the fruit, adjustable means engageable over the fruit to retain it in a fixed position relative to the portion of the turret in which it is disposed, and means for coring the fruit when thus retained.

1,142,218. STANDARD OF POSITION FOR AIRCRAFT. RUSHMORE WOOD, Brooklyn, N. Y. Filed Oct. 28, 1912, Serial No. 728,227. Renewed Oct. 30, 1914. Serial No. 869,485. (Cl. 244—29.)



1. In an aircraft, a standard of position comprising a balloon floating in air and secured to the craft by means permitting relative movement of the craft with respect thereto, and operating connections for balancing devices connected therewith and adapted to effect operation of balancing devices to correct unbalancing of the craft upon the movement of the craft with respect thereto.

2. In an aircraft, a standard of position comprising a balloon floating in air and secured to the craft by means permitting relative movement of the craft with respect thereto, and operating connections for balancing devices connected therewith and adapted to effect operation of balancing devices to correct unbalancing of the craft upon the movement of the craft with respect thereto, together with a counterbalancing means also connected with said balloon and through which the effects of external disturbing forces applied through the craft are nullified.

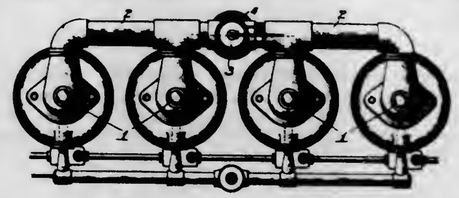
3. In an aircraft, a standard of position comprising a balloon device in which the controlling force is the buoyant force of the air on the device, the said device including a balloon, its mounting, and counterweight and being pivotally connected with the craft at its centroid, whereby the effects of external disturbing forces applied through the craft are nullified.

4. A standard of position comprising a balloon and rod structure adapted when pivotally mounted to exert a resultant upwardly directed controlling force, and having means on the horizontal axis of the centroid for pivotally connecting said standard with a craft.

5. A standard of position comprising a balloon device consisting of a gas-filled envelop, and a counterweight rigidly connected therewith, together with means for pivotally mounting the same on a horizontal axis located approximately at the centroid of the structure.

[Claims 6 to 8 not printed in the Gazette.]

1,142,219. GOVERNING AND THROTTLING DEVICE FOR INTERNAL-COMBUSTION ENGINES. ALBERT H. ZIEGLER, Oshkosh, Wis. Filed Aug. 20, 1913. Serial No. 785,641. (Cl. 123—103.)



1. In a device of the character described, the combination of a throttle case, a valve stem slidingly mounted therein, a valve head carried by said stem and adapted for movement into throttling relation with said case when the same is moved manually, said head being adapted to slide along said stem to automatically govern the passage of fluid through the case, substantially as described.

2. In a device of the character described, the combination of a throttle case, a valve stem slidingly mounted therein, a valve head carried by said stem and coöperating with said case to act as a throttle, manually operated means for shifting said stem to throttle the flow of fluid through said case, said head being slidingly mounted on said stem and capable of movement with respect thereto, and resilient means for returning said head to normal position after each movement therefrom.

3. A combined throttle valve and governing device comprising in combination a throttle case and throttle valve and manually operated means for shifting said valve to throttle the flow of fluid through said case, said valve having movement independent of the manual control and dependent on a difference in fluid pressure on the opposite sides of said valve also on the flow of fluid through the case and automatically moving to limit the flow of fluid through the case.

4. The combination of an internal combustion engine, of a fluid passage leading thereto and a throttle valve positioned to manually control the admission of fluid to said passage, the valve head of said throttle valve having movement independent of the valve stem and acting automatically to limit the passage of fluid through the throttle valve, irrespective of the manual setting of that valve.

5. In a device of the character described, the combination of a valve stem, a valve head slidingly mounted thereon, a casing inclosing said head and through which fluid may be admitted to an internal combustion engine, manually operated means for shifting said valve stem to throttle the incoming fluid by movement of the valve head with respect to its casing, and yielding means restraining the movement of said head along the valve stem when fluid is passing through the casing.

[Claims 6 to 8 not printed in the Gazette.]

1,142,220. ELECTROLYTE FOR THE PRODUCTION OF ALKALI AND ALKALINE-EARTH METALS. CHARLES ERNEST ACKER, New York, N. Y., assignor to The Nitrogen Company, a Corporation of New York. Original application filed Aug. 5, 1910, Serial No. 575,819. Divided and this application filed Oct. 30, 1914. Serial No. 869,404. (Cl. 204—21.)

1. An electrolyte for use in the production of alkali and alkaline-earth metals containing as its essential constituent a fused compound of the metal to be produced containing carbon and nitrogen.

2. An electrolyte for use in the production of alkali and alkaline-earth metals containing as its essential constituent a compound of the metal to be produced containing a carbon and nitrogen radical.

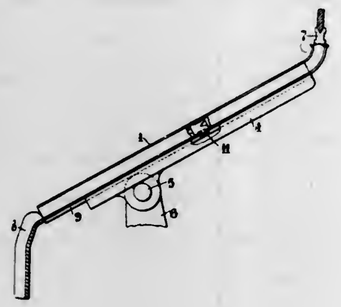
3. An electrolyte for use in the production of alkali and alkaline-earth metals containing as its essential constituent a cyanogen compound of the metal to be produced.

4. An electrolyte for use in the production of alkali metals containing as its essential constituent an alkali cyanid.

5. An electrolyte for use in the production of sodium, containing as its essential constituent sodium cyanid.

[Claim 6 not printed in the Gazette.]

1,142,221. TYPOGRAPHICAL MACHINE. CHRISTIAN AUGUSTUS ALBRECHT, Berlin, Germany, assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed Apr. 11, 1914. Serial No. 831,112. (Cl. 199—7.)



1. In a typographical machine, the combination of a magazine for the type or matrices removable from the machine at will, a laterally movable plate or bar located between the ends of the magazine for locking the type or matrices therein, and automatic means for moving said plate to active position as the magazine is removed from the machine.

2. In a typographical machine, the combination of a magazine for the type or matrices removable from the machine at will, a laterally movable plate or bar located between the ends of the magazine for locking the type or matrices therein, and automatic means for moving said plate to active and inactive position as the magazine is removed from and replaced in the machine, respectively.

3. Automatic means for respectively locking and unlocking the matrices in the partially full channels of the magazine of a typographical composing machine consisting of one or more transverse bars slidable across the bottom plate of a magazine and channeled to register therewith and having always one end projecting to engage with a stationary cam face to slide the engaging bar far enough across the magazine plate to block its matrix channels as that magazine is being taken off the machine, and to project the other end far enough to engage with another stationary cam face as the same magazine is being substituted for a predecessor, to make the channels in the bar register again with the said matrix channels.

4. In a typographical machine, the combination of a supporting frame mounted to swing downwardly from its normal position in the machine, a magazine for the type or matrices arranged on the supporting frame and removable at will therefrom, locking means carried by the magazine for preventing the escape of the type or matrices therefrom, and automatic mechanism for rendering said locking means active during the removal of the magazine from its supporting frame.

5. In a typographical machine, the combination of a supporting frame mounted to swing downwardly from its normal position in the machine, a magazine for the type or matrices arranged on the supporting frame and removable at will therefrom, locking means carried by the magazine for preventing the escape of the type or matrices therefrom, and automatic mechanism for rendering said locking means active and inactive as the magazine is removed from and replaced on its supporting frame, respectively.

[Claims 6 to 9 not printed in the Gazette.]

1,142,222. DISTRIBUTING MECHANISM OF TYPOGRAPHICAL COMPOSING-MACHINES. CHRISTIAN AUGUSTUS ALBRECHT, Berlin, Germany, assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed Mar. 29, 1915. Serial No. 17,905. (Cl. 199—7.)



1. In a typographical composing machine, the combination with a distributer rail and three distributer screws adapted to propel matrices along the said rail, of a fourth distributer screw also adapted to propel matrices along that rail and having its thread mutilated or gapped in the direction of its length.

2. In a typographical composing machine, the combination with a distributer rail adapted to support and release matrices at respectively different parts of its length, chutes adapted to receive matrices released from the distributer rail, two distributer screws adapted to engage the upper ears of a matrix and a third distributer screw adapted to engage one of the lower ears of such matrix, of a fourth distributer screw adapted to engage the other lower ear of that matrix and having gaps or mutilations in its thread located above the said chutes.

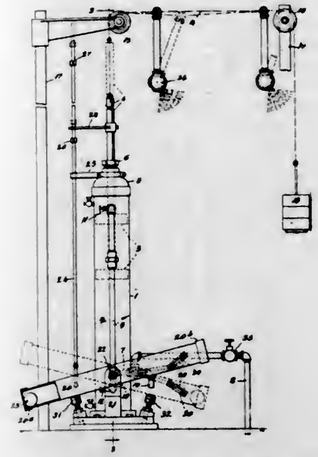
3. In a typographical composing machine, the combination with a distributer rail adapted to support and release matrices at respectively different parts of its length, font-distinguishing bridges adapted to support matrices released from the distributer rail, two distributer screws adapted to engage the upper ears of a matrix and a third distributer screw adapted to engage one of the lower ears of such matrix to propel it along the said rail and over the said bridges, of a fourth distributer screw adapted to engage the other lower ear of that matrix and having its thread divided by gaps or mutilations into a number of parts corresponding with the number of bridges, each such part terminating in the direction of travel of the matrices in the same vertical plane as does the adjacent bridge.

4. In a typographical composing machine, the combination with a distributer rail adapted to support and release matrices at respectively different parts of its length, font-distinguishing bridges adapted to support matrices released from the distributer rail, chutes adapted to receive matrices falling off the bridges, two distributer screws adapted to engnge the upper ears of a matrix and a third distributer screw adapted to engage one of the lower ears of such matrix, of a fourth distributer screw adapted to engage the other lower ear of that matrix and having gaps in its thread located above the said chutes.

5. In a typographical composing machine, the combination with a distributer rail adapted to support matrices, a font distinguishing bridge adapted to deliver matrices of different fonts to the said rail and into a chute respectively, the said chute, two distributer screws adapted to engage the upper ears of a matrix and a third distributer screw adapted to engage one of the lower ears of that matrix to propel it over and beyond the said bridge, of a fourth distributer screw adapted to engage the other lower ear of that matrix, and terminating in the direction of travel of the matrices in the same vertical plane as does the bridge.

1,142,223. IRRIGATING PLANT. AMOS ANDREWS, Plainfield, N. J. Filed Aug. 29, 1914. Serial No. 859,159. (Cl. 137—66.)

1. An irrigating plant comprising: spraying means including a pipe having an offset portion, a reciprocating water motor having a source of supply independent of said spraying means, means for varying at will the speed of said motor, to effect an indeterminate number of speeds within a given range, and connections between said motor and said offset portion whereby, upon the reciprocation of said motor, said pipe is given an oscillating movement at a speed independent of the rate of water supply to the pipe.



2. An irrigating plant comprising: spraying means including a pipe, cables by which said pipe is supported, a reciprocating water motor, means operatively connecting said motor and said pipe whereby the reciprocation of the former effects directly the oscillation of the latter, and means for varying the frequency of oscillation of the spraying means without substantially varying the rate of flow of water discharged by the spraying means.

3. An irrigating plant comprising: a perforated pipe having an offset portion, a motor including a piston, a cable attached at one end to said piston and extending over pulleys, the other end of the cable carrying weights, the cable connected at intermediate points to said offset portion, and means for supplying water to said motor independently of the water supply to said pipe.

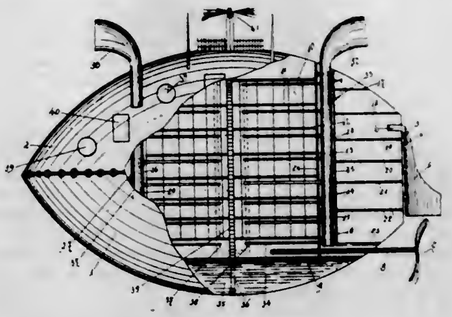
4. An irrigating plant comprising: a series of perforated pipes each provided with an offset portion, means for supporting said pipes to enable them to be rotated about their own axes, a reciprocating water motor including a piston, a cable attached at one end to said piston and extending over pulleys, the other end of the cable carrying weights, the cable connected at intermediate points to said offset portions, and means for supplying water to said motor independently of the water supply to said pipes, whereby the reciprocation of the piston effects an oscillation of the pipes.

5. An irrigating plant comprising: spraying means including a pipe having a bodily movement, a reciprocating water motor including a piston, a cable connected to said piston, means attached to the other end of the cable for maintaining the cable taut, a device in operative connection with said pipe and cable whereby the reciprocation of the piston and cable effects the movement of said pipe, and means for varying the speed of the water motor without substantially varying the rate of flow of the water discharged by the spraying means.

[Claims 6 to 11 not printed in the Gazette.]

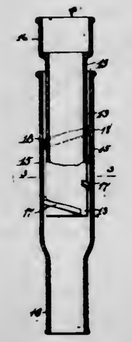
1,142,224. LIFE-BOAT. FRANCISSEK AUFINGER and JOSEFF LEMANKIEWICK, Braddock, Pa. Filed July 31, 1914. Serial No. 854,418. (Cl. 9—4.)

1. A life boat comprising a hull formed of two hollow substantially semi-elliptical sections secured together to provide inclosures, a plurality of vertical and horizontal partitions arranged therein to provide superposed decks therein, certain of the vertical partitions being spaced apart to provide chambers therebetween, a plurality of hollow stems arranged in said chambers and projecting through the upper section of said hull, the extreme upper ends thereof being enlarged and designed to form cowls, and a plurality of ventilating pipes formed on said stems and projecting laterally therefrom to points between certain of the horizontal partitions forming decks, and means for the propulsion of said hull.



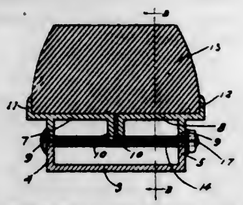
2. A life boat comprising a hull formed of a pair of hollow semi-oval sections secured together to provide an inclosure therein, a plurality of vertical and horizontal partitions arranged in the inclosure to provide intermediate and end decks superposed one upon the other, the vertical partitions being spaced one from the other to provide chambers, a plurality of hollow stems arranged in said chambers and projecting above the upper section of said hull, the extreme upper ends of said stems being enlarged and bent to form cowls, a plurality of laterally extending ventilating pipes carried on the stems and projecting between the intermediate decks, said ventilating pipes projecting through the adjacent vertical partitions, whereby to support said stems in position in the chambers, and means for the propulsion of said hull.

1,142,225. PLUMBER'S FIXTURE. NATHAN AUGUST, Jr., Newark, N. J. Filed July 18, 1912. Serial No. 710,245. (Cl. 137—28.)



A repair fixture for flanged pipes comprising a male member having an enlarged outer end, the member having a sleeve-like portion of considerable length with a helical rib on its inner end, a female member to contain the sleeve-like portion of the male member, the female member being of substantially the same diameter, except for a reduced outer end, and a short helical rib on the inside of the female member substantially equi-distant between its inner end and the reduced outer end, the last mentioned helical rib being adapted to receive the helical rib of the male member and also to act as a limit to the entrance of calking material.

1,142,226. WHEEL. JOSEPH RENÉ AYOTTE, Chicago, Ill., assignor to René Wheel Company, Chicago, Ill., a Corporation of Illinois. Filed May 25, 1914. Serial No. 840,930. (Cl. 152—7.)

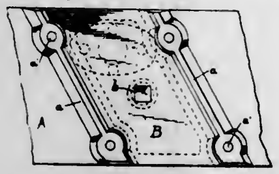


1. A wheel comprising a channel-shaped rim member, a pair of rings mounted on said rim member and adapted to support a tire, outwardly disposed flanges formed at the outer edges of said rings, bolts seated in the flanges of said channel-shaped rim member, and inwardly disposed flanges on said rings resting on said bolts inwardly of the heads and nuts thereof, said bolts and nuts being adapted to shift said rings together to clamp the tire between said outwardly disposed flanges.

2. A wheel comprising a channel-shaped rim member, the outwardly disposed flanges thereof having recesses formed in the edges thereof, bolts seated in said recesses, a pair of channel-shaped rings arranged with the flanges thereof opposed to the flanges of said rim member and recessed to receive said bolts, and outwardly disposed flanges formed on the outer edges of said rings, said bolts being adapted to shift said rings toward each other to clamp the tire between said outwardly disposed flanges.

3. A wheel comprising a channel-shaped rim member, the outwardly disposed flanges thereof having recesses formed in the edges thereof, bolts seated in said recesses, a pair of channel-shaped rings arranged with the flanges thereof opposed to the flanges of said rim member and recessed to receive said bolts and hold the same against rotation, and outwardly disposed flanges formed on the outer edges of said rings, said bolts being adapted to shift said rings toward each other to clamp the tire between said outwardly disposed flanges.

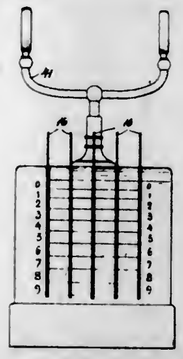
1,142,227. TRACTION-WHEEL. SAMUEL E. BEELER, Waynesboro, Pa., assignor to Frick Company, Waynesboro, Pa., a Corporation. Filed July 1, 1911. Serial No. 636,542. (Cl. 21—214.)



A traction wheel comprising a rim, cleats secured to said rim to extend obliquely across the face thereof and parallel with each other and formed with bulged out retaining portions on their oblique edges, a fill block adapted to fit between two adjacent cleats and formed with recesses in its edges of a form adapted to fit around the retaining bulged out portions of the cleats, and means for detachably securing said fill block to said rim, substantially as set forth.

1,142,228. IMPULSE-TRANSMITTER FOR AUTOMATIC TELEPHONE PLANTS. GOTTHILF ANSGARIUS BETULANDER, Södertörns Villastad, Sweden, assignor to The Betulander Automatic Telephone Company, Limited, London, England. Filed Feb. 26, 1913. Serial No. 750,762. (Cl. 179—90.)

1. An impulse transmitter for automatic telephone systems, consisting of a plurality of impulse mechanisms each including an impulse disk, means for adjusting said disk, a return device for said impulse disk adapted to be wound up by the adjustment of the disk, means for locking the return device in wound up position, and a coupling between the adjusting means and the return device operative in a forward adjustment but permitting a backward adjustment independently of the return device.



2. An impulse transmitter for automatic telephone systems, consisting of a plurality of impulse mechanisms each including an impulse disk, means for adjusting said disk, a return device for said impulse disk adapted to be wound up by the adjustment of the disk, means for locking the return device in wound up position, a coupling between the adjusting means and the return device operative in a forward adjustment but permitting a backward adjustment independently of the return device, and a yielding coupling between the adjusting means and the return device.

3. An impulse transmitter for automatic telephone systems consisting of a plurality of impulse mechanisms each including an adjustable impulse effecting member, a return device for said member, a common shaft connected to all return devices, a common speed regulator actuated by the said shaft, a spur gearing forming the connection between the shaft and each of the return devices and a ratchet wheel and pawl mechanism interposed between the shaft and each of the return devices.

4. An impulse transmitter for automatic telephone systems consisting of one or more impulse mechanisms each including an adjustable impulse effecting member, a return device for said member, a pinion carried by the return device and rolling on stationary teeth during the movement of the return device and a ratchet wheel firmly connected with the said pinion and transmitting the movement by means of pawls to a toothed wheel, a common shaft rotated by the said toothed wheel and a common speed regulator actuated by the shaft.

5. An impulse transmitter for automatic telephone systems consisting of a plurality of impulse mechanisms each including an impulse effecting member, means for adjusting said member, a return device for said member, a clutch adapted to connect the adjusting means with the impulse effecting member, means operated from the return device of the next preceding impulse mechanism and adapted to disengage the said clutch and means operated from the next preceding impulse mechanism and adapted to effect the connection between the adjusting means and the impulse effecting member by the adjustment of said mechanism.

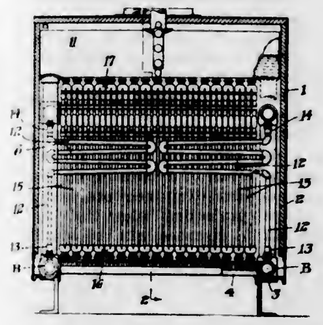
[Claims 6 to 8 not printed in the Gazette.]

1,142,229. STEAM-BOILER. JOHN H. BIGLOW, Brooklyn, N. Y. Filed Nov. 4, 1914. Serial No. 870,180. (Cl. 122—279.)

1. In a water tube steam boiler, the combination of a system of lower manifolds comprising side and rear manifolds, a system of upper manifolds, large return pipe connections between the two systems of manifolds for downward flow of water from the upper manifolds to the lower manifolds, a steam drum arranged at a higher elevation than the upper system of manifolds and connected therewith by upright large tubular portions, side water tubes rising from the lower side manifolds and connecting with the upper side manifold and having their intermediate portions extended halfway across the boiler laterally in return bends, the opposing bends from the two sides providing an open work roof to the fire box, and a plurality of water tubes extending up from the rear lower manifold to a point above the lateral return bend portions of the side tubes said rear tubes extending transversely forward toward and over said side return bends and connecting with the steam drum to provide a tubular back to the fire box and a secondary tubular roof to the same whereby the steam and water in the steam drum are out of the circulating zone of the water in the manifolds and tubes.

3. In a water tube boiler, the combination of a lower manifold system of pipes comprising longitudinal and rear manifolds, an upper manifold system of pipes having transverse and longitudinal portions, a transversely arranged steam chamber for water and accumulations of steam arranged wholly above the level of the manifold and receiving the steam therefrom, large water tubes for return circulation connecting the steam drum with the manifolds, vertical water tubes connecting at the top and bottom with the longitudinal manifold, said tubes having intermediate transverse portions providing return bends above the fire box space, and vertical water tubes connected at the bottom with the rear manifold and at the top with the steam drum for delivering the water from the rear manifold to the steam drum, said water tubes having transverse portions extending above the return bends of the side tubes, the construction of the boiler being such that the fire box is provided on its sides and back with vertical water tubes and on its roof with crossing return bends and transverse water tubes.

4. In a water tube boiler, the combination of a lower system of large pipes comprising longitudinal and rear manifolds, a steam drum arranged at a higher elevation than the upper system of manifolds and connected therewith by upright large tubular portions, side water tubes rising from the lower side manifolds of the lower system of manifolds and extending over the fire box space in return bends and connecting with the upper manifolds, and a plurality of water tubes rising from the rear manifold of the lower system of manifolds and extending forward above the return bends of the side tubes and connected at the front with the steam drum above the upper system of manifolds, said tubes providing tubular bounding walls and crown to the fire box, whereby all of the water tubes and systems of manifolds and main water tube circulating elements are below the water level in the boiler, and the steam and water in the steam drum are removed from the main water circulating zone of the boiler.

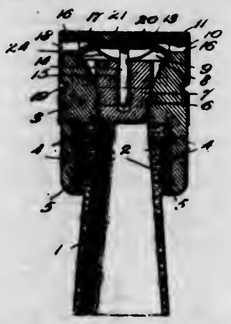


2. In a water tube boiler, the combination of a lower system of manifolds comprising side and back manifolds, an upper system of manifolds providing two side manifolds above the lower side manifolds, large tubular connections between the upper and lower manifolds, a steam drum arranged at a higher elevation than the upper system of manifolds and connected therewith by upright large tubular portions, side water tubes rising from the lower side manifolds and connecting with the upper side manifold and having their intermediate portions extended halfway across the boiler laterally in return bends, the opposing bends from the two sides providing an open work roof to the fire box, and a plurality of water tubes extending up from the rear lower manifold to a point above the lateral return bend portions of the side tubes said rear tubes extending transversely forward toward and over said side return bends and connecting with the steam drum to provide a tubular back to the fire box and a secondary tubular roof to the same whereby the steam and water in the steam drum are out of the circulating zone of the water in the manifolds and tubes.

3. In a water tube boiler, the combination of a lower manifold system of pipes comprising longitudinal and rear manifolds, an upper manifold system of pipes having transverse and longitudinal portions, a transversely arranged steam chamber for water and accumulations of steam arranged wholly above the level of the manifold and receiving the steam therefrom, large water tubes for return circulation connecting the steam drum with the manifolds, vertical water tubes connecting at the top and bottom with the longitudinal manifold, said tubes having intermediate transverse portions providing return bends above the fire box space, and vertical water tubes connected at the bottom with the rear manifold and at the top with the steam drum for delivering the water from the rear manifold to the steam drum, said water tubes having transverse portions extending above the return bends of the side tubes, the construction of the boiler being such that the fire box is provided on its sides and back with vertical water tubes and on its roof with crossing return bends and transverse water tubes.

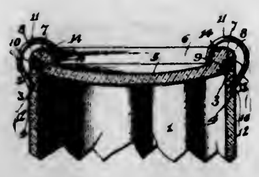
4. In a water tube boiler, the combination of a lower system of large pipes comprising longitudinal and rear manifolds, an upper manifold system of pipes having transverse and longitudinal portions, a steam drum for water and accumulations of steam and water arranged wholly above the level of the upper manifold system and the extensions of the return tubes connecting therewith, vertical water tubes connecting at the top and bottom with the longitudinal manifolds, large tubes connecting the side manifolds of the lower system with the upper manifold system for returning the water from the upper to the lower of the manifold systems and also having extensions above the upper manifold system to and opening into the steam drum, vertical water tubes connecting the longitudinal manifolds of the upper and lower systems of manifolds and having intermediate transverse portions providing return bends above the fire box space, and vertical water tubes connected at the bottom with the rear manifold and at the top in communication with the steam drum said water tubes having transverse portions extending above the return bends of the side water tubes.

1,142,230. NON-REFILLABLE BOTTLE. DAVID BIRCH, New York, N. Y. Filed May 17, 1913. Serial No. 768,318. (Cl. 215—66.)



In a non-refillable bottle a sleeve provided at its sides with outlet openings, a valve mounted within the sleeve, a keeper held in the sleeve and provided with a stem upon which the valve is slidably mounted, baffles mounted upon the stem one baffle having an annular rib which engages the other baffle whereby the major portions of the baffles are spaced from each other said baffles having in the vicinity of their peripheries openings which lie at one side of the openings in the sleeve and a spring interposed between the valve and the innermost baffle and serving to hold the valve in a closed position in the sleeve and the baffles in frictional contact with each other.

1,142,231. FRUIT-JAR. FRANK BRELLE, Sr., San Jose, Cal. Filed Aug. 5, 1914. Serial No. 855,245. (Cl. 215—87.)



1. A preserving jar comprising a body member of even diameter throughout with oppositely-disposed circumferentially extended grooves in its outer wall near the mouth end, a cap member having a plug portion adapted to enter the jar, and a peripheral head of a diameter to override the mouth end of the jar, said cap being adapted to confine a sealing gasket to the mouth of the jar, and temporary clips each having a yoke portion and elastic hook portions and adapted to engage in a respective one of the grooves of the body of the jar and over the bead

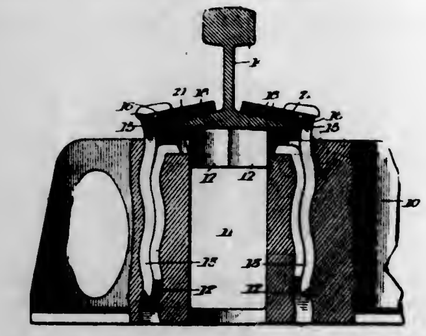
portion of the jar cap when applied to the body of the jar for yieldingly holding the cap in place during treatment of the jar to cause vacuum conditions therein.

2. A preserving jar comprising a body portion having exterior grooves near the mouth end, a cap member provided with a peripheral bead adapted to override the mouth end of the jar and a plug portion adapted to enter the mouth of the jar, a gasket of a width to extend from the outer edge of the bead portion of the cap member to the inner end of the plug portion thereof, and temporary clips each having a portion adapted to enter a respective groove in the outer face of the jar and provided with members adapted to engage the cap member behind and of a size to then be in spaced relation to the bead portion thereof and having a degree of elasticity to yield to pressure exerted on the cap member within the jar and tending to lift the cap from the jar.

3. A preserving jar comprising a body portion having circumferentially extended exterior grooves near the mouth end, a cap member provided with a peripheral bead adapted to override the mouth end of the jar and a plug portion adapted to enter the mouth of the jar, a gasket of a width to extend from the outer edge of the bead portion of the cap member to the inner edge of the plug portion thereof, and temporary clips each comprising a yoke portion and legs extending therefrom in substantially parallel relation one to the other and terminating in hook extremities of a size to extend about and in spaced relation to the bed of the cap and engage the upper surface of the cap back of the bead, each clip having a degree of elasticity to yield to pressure exerted from within the jar upon the cap and tending to lift it from the jar.

4. A preserving jar comprising a body portion and a cap member adapted to the body portion to confine a sealing gasket between the cap member and the mouth of the jar, and temporary clips for holding the cap portion to the jar preparatory to sealing the jar, each clip comprising a single piece of wire bent into an intermediate yoke with terminal legs extending therefrom at substantially right angles thereto and each ending in a rounded return portion forming an open hook of a size and having a degree of elasticity to engage the cap member by the end of the hook and be otherwise in spaced relation to said cap member when the yoke portion is in engagement with the jar and yield to pressure within the jar tending to force the cap member away from the jar.

1,142,232. INSULATING FASTENING MEANS FOR RAILS. AUGUSTUS FREEBORN BROWN, Havre de Grace, Md., assignor to Gorrell Steel Spike Lock Railroad Tie Corporation, Havre de Grace, Md., a Corporation of Maryland. Filed Feb. 15, 1915. Serial No. 8,275. (Cl. 238—4.)



1. In a rail fastening and insulating means, the combination with a rail and a tie having a rail seat and an opening below the same, a chair interposed between said rail and seat having a plate of insulating material on which the rail rests said chair having an opening and said insulating plate having a bottom projection entering said opening and forming therewith a vertical guide which permits the chair to move vertically but prevents a relative horizontal movement between the chair and tie.

2. In a rail fastening and insulating means, the combination with a rail and a tie having a rail seat and an opening below the same, of a chair interposed between said rail and seat and including a metallic member and a member of insulating material thereon, said metallic member having an opening alined with the opening in the tie and said insulating member having a projection on its under side to enter the opening in the metallic member for a substantial distance and to engage the walls thereof to prevent the horizontal movement of the chair relatively to said tie.

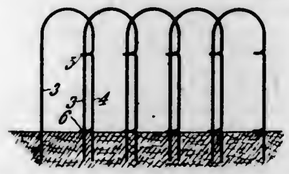
3. In a rail fastening and insulating means, the combination with a rail and a tie having a rail seat and an opening below the same, of a chair interposed between said rail and seat, said chair comprising a metal plate and a plate of insulating material resting thereon, each of said plates having openings adapted to be alined with each other and with the opening in the tie, and one of said plates having a projection entering the opening of the other plate and the opening in the tie whereby the chair is held against horizontal movement of and relatively to the tie.

4. In a rail fastening and insulating means, the combination with a rail and a tie having a rail seat and an opening below the same, of a metallic tie plate formed of insulating and non-insulating members, said members having bottom flanges projecting below their central portion and for a substantial distance into the opening of the tie, and forming flanges which permit a vertical movement of the chair without removing the flanges from their engagement with the walls of said opening.

5. In a rail fastening and insulating means, the combination with a track rail and a tie therefor, said tie having a rail seat and an opening below the same, of a metallic chair mounted on said tie and an insulating plate applied thereto, means forming interlocking engagement between said chair and insulating plate, said means comprising substantially vertical flanges projecting downwardly from said chair and plate and arranged in parallel close relation whereby the chair and insulating plate are held against horizontal displacement one relatively to the other.

[Claims 6 to 13 not printed in the Gazette.]

1,142,233. SECTIONAL FENCE. PERCY L. BRYNING, Boston, Mass., assignor to Parker Wire Goods Company, Worcester, Mass., a Corporation of Massachusetts. Filed June 15, 1914. Serial No. 845,159. (Cl. 256—33.)

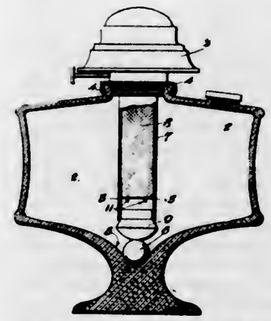


1. In a sectional fence construction, the combination of U-shaped units each one of which is formed from a single piece of wire, one limb only of which is formed with integrally connected and spaced loops arranged in a horizontal plane, whereby, when the other limb of the unit is passed through the loops a connected fence of any desired length and angular form may be constructed.

2. A sectional fence comprising a plurality of similar wicket members, each of said members being formed from a single piece of wire into two limb portions and a bent portion connecting the upper portion of said limb portions, one of said limb portions being formed with spaced horizontally arranged loops on one side of the limb and below the bent portion, whereby a continuous fence of any desired length may be formed by passing the unlooped limbs of the wicket members through the loops in the limbs of adjacent members.

3. A sectional fence comprising a plurality of similar U shaped units, each thereof formed from a single piece of wire, one limb only of each unit having integrally formed spaced loops arranged in a horizontal plane, and extending toward the unlooped limb, whereby when the unlooped limbs are successively passed through the loops of adjacent units a connected fence of any desired length and of any desired curvature is formed.

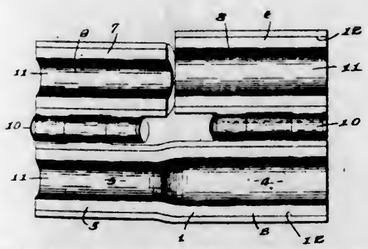
1,142,234. OIL-LAMP. JAMES BRYSON, Vancouver, British Columbia, Canada. Filed Mar. 30, 1915. Serial No. 18,136. (Cl. 67—73.)



1. A safety device for an oil lamp, said device comprising in combination, an oil reservoir having a depression in its bottom in alinement with the wick tube of the burner, a ball within the depression, an extension from the wick tube to the burner terminating adjacent the ball in the depression, and a valve resting on the ball and adapted to be acted on by it to close the lower end of the wick tube when the lamp is tilted at an angle where the ball will tend to roll out of the depression.

2. A safety device for an oil lamp, said device comprising in combination, an oil reservoir having a depression in its bottom in alinement with the wick tube of the burner, a ball within the depression, an extension from the wick tube of the burner terminating adjacent the ball in the depression, said extension having means adjacent the lower end for limiting movement of the wick thereto, and a valve resting on the ball and adapted to be acted on by it to close the lower end of the wick tube when the lamp is tilted at an angle where the ball will tend to roll out of the depression.

1,142,235. PIPE-CLAMP. ANDREW H. CALDWELL, Port Byron, N. Y. Filed July 11, 1913. Serial No. 778,526. (Cl. 81—39.)

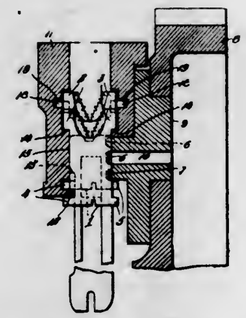


1. A pipe clamp including a main jaw formed with an angle therein between its ends, the working faces thereof on opposite sides of the angle being of different radii, and movable jaws coacting with the portions of the main jaw on opposite sides of its angle, substantially as and for the purpose described.

2. A pipe clamp comprising a main jaw having concave working faces of different radii for fitting different sizes of pipes, the working faces being arranged with their axes at an obtuse angle to each other, and jaws for coacting with the main jaw, each of the latter jaws having a working face complemental to one of the working faces of the main jaw, substantially as and for the purpose specified.

3. A pipe clamp comprising a main jaw including sections rigidly connected together and arranged end to end at an obtuse angle, the sections being formed with lengthwise channels opening into each other, the channels being concave and of different radii and arranged with their axes at an obtuse angle to each other, and a jaw for each section of the main jaw, each of the latter jaws having a channel complemental to one of the channels of the main jaw, substantially as and for the purpose set forth.

1,142,236. SPACER FOR USE IN TYPOGRAPHICAL MACHINES. CARL HERMANN CHRISTEL, Berlin, Germany, assignor to Mergenthaler Linotype Company, New York, N. Y., a Corporation of New York. Original application filed Nov. 15, 1909, Serial No. 528,222. Divided and this application filed Aug. 18, 1913. Serial No. 785,316. (Cl. 199—4.)



1. A justifying spacer for linotype machines comprising two coöperating wedge-shaped parts, one stationary and the other movable, the movable part having a mold-engaging edge and having its opposite edge recessed, for the purpose described.

2. A justifying spacer for linotype machines comprising two coöperating wedge-shaped parts, one stationary and the other movable, the movable part having a mold-engaging edge and having a portion extending from the mold engaging edge to the opposite edge of less body width than that of the matrices with which the spacer is designed to be associated, for the purpose described.

3. A justfying spacer comprising two coöperating wedge-shaped parts, one stationary and the other movable, the said stationary part having a portion extending from the mold engaging edge to the opposite edge of less body width than that of the matrices with which the spacer is designed to be associated.

4. A justifying spacer comprising two coöperating wedge-shaped parts, one stationary and the other movable, the said stationary part having a portion of less body width than the matrices at and near its lower end, and extending from the mold engaging edge to the opposite edge, for the purpose described.

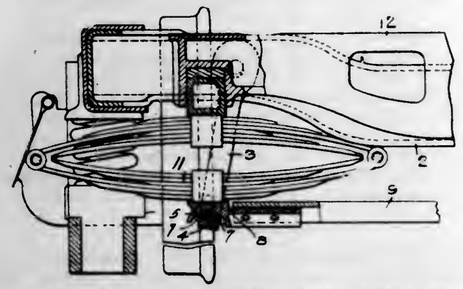
5. A justifying spacer comprising two coöperating wedge-shaped parts, one stationary and the other movable, and both said parts being less in width at portions in their length than the matrices with which they are designed to be associated, for the purpose described.

[Claim 6 not printed in the Gazette.]

1,142,237. BOLSTER-HANGER. ANDREW CHRISTIANSON, Butler, Pa., assignor to Standard Motor Truck Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Apr. 10, 1914. Serial No. 830,914. (Cl. 105—239.)

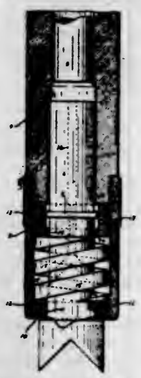
1. The combination of a bolster hanger, a shoe supported thereby having a convex frictional face, and a

spring-support having a concave frictional face engaging said first named frictional face.



2. The combination of a bolster-hanger, a shoe resting on the cross member of said hanger having an overhanging portion, said shoe having a convex frictional face, and a spring-support having a concave frictional face engaging said first named frictional face.

1,142,238. SHOCK-ABSORBER AND SAFETY ATTACHMENT FOR PERCUSSION-OPERATED TOOLS. GEORGE COOK, Sioux City, Iowa. Filed Aug. 31, 1914. Serial No. 859,538. (Cl. 78—44.5.)

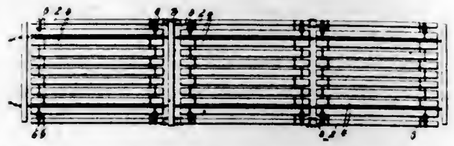


In an article of the class described, a percussion-operated tool and operating mechanism therefor including a barrel and a plunger reciprocating therein, said tool having two shoulders, in combination with a cylindrical casing adapted to freely inclose the shank of the tool and having an internal rim in one end and threaded at the other end for engagement with the barrel, a collar freely inclosed by the casing, adapted to receive the shank of the tool and engage one of the shoulders thereof and having a flange to engage said rim, a second collar inclosed by said casing and adapted to receive the shank of the tool, said second collar being divided longitudinally in two parts, each part having an internal shoulder adapted for engagement by the shoulder opposite to that engaged by said first collar, and a compression-spring interposed between said collars.

1,142,239. LOG-RAFT. GILBERT GERRY DAVIS, Vancouver, British Columbia, Canada. Filed Aug. 5, 1913, Serial No. 783,098. Renewed Apr. 20, 1915. Serial No. 22,716. (Cl. 9—15.)

1. A log raft, comprising the combination with two lines of boom sticks connected at intervals by swifters which maintain them parallel, of floor logs arranged within the boom sticks and connected to them by lines passing alternately under and over the floor logs, and means for securing a load of logs on the boom sticks and floor logs.

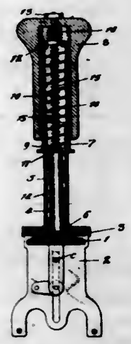
2. A log raft, comprising in combination, parallel boom sticks the ends of which are connected across by swifters, floor logs parallel to the boom sticks and connected to them by lines passing alternately over and under the floor logs, one line passing under while the other passes over, on which floor logs the load logs are placed, and overties across the load logs and connected at each side to the boom sticks by trip hooks.



3. A log raft, comprising the combination with parallel boom sticks, the ends of which are chain-connected together and cross connected by swifters between each pair of ends, floor logs between the boom sticks and parallel to them, said floor logs connected at intervals to the boom sticks by lines passing alternately over and under the floor logs, one line passing under while the other passes over, said lines connected to the boom sticks by trip hooks and overties connected to the boom sticks and passing over the load on the floor logs, the connection on one side being by trip hooks.

4. A log raft, comprising the combination with two sets of parallelly disposed boom-sticks, chains connecting the adjacent ends of said sticks together, swifters located crosswise between each pair of ends and connected to said chains, floor logs between each pair of boom-sticks and arranged parallel thereto, lines connected to said boom-sticks near the ends of the same and passing alternately over and under the floor logs, one line passing under while another passes over, trip hooks and overties connecting said lines to the boom sticks and passing over the load on the floor logs, the connection on one side only being by trip hooks, all being arranged whereby said raft is composed of a plurality of sections flexibly joined together, each section being in itself rigid, substantially as shown and for the purposes described.

1,142,240. HAND-STAMP. WILLIAM H. DODSON, New York, N. Y. Filed Nov. 11, 1912. Serial No. 730,583. (Cl. 101—70.)



1. A stamping apparatus comprising a frame, a movable printing head mounted therein, an inking-pad movable in the plane of movement of the printing head and normally out of contact of the said printing head and means for forcing the inking-pad into contact with said printing head and further operable in the same direction for causing the printing head to be brought into contact with the object upon which the impression is to be made by a single operation.

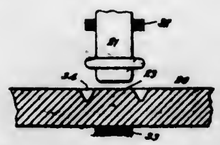
2. A hand stamp comprising a frame, a movable printing head mounted therein, an inking pad mounted in proximity to said printing head movable in the plane of movement of said printing head and normally out of contact therewith, and means initially operable to move said inking pad into contact with said printing head, the continued operation of said means in the same direction actuating said printing head.

3. A hand stamp comprising a frame, a movable printing head mounted therein, an inking pad movable in the plane of movement of said printing head and normally out of contact with said printing head, a handle operatively connected to said printing head and to said inking pad, and means whereby the initial movement of said handle will bring said inking pad into contact with said printing head, and whereby the continued movement of said handle in the same plane will operate said printing head.

4. A hand stamp comprising a frame, a movable printing head mounted therein, an inking pad movable in the plane of movement of said printing head and normally out of contact with said printing head, a handle operatively connected to said printing head and to said printing pad, means whereby the initial movement of said handle will bring said inking pad into contact with said printing head, and whereby the continued movement of said handle in the same plane will operate said printing head, and automatic means for returning the parts to their normal positions.

5. A hand stamp comprising a supporting frame, a movable reversible printing head mounted therein, an inking pad of approximately the same area as said printing head, movably mounted within said frame, and normally out of contact with said printing head, a handle operatively connected to said printing head and to said inking pad, means whereby the initial movement of said handle will bring said inking pad into contact with said printing head, and whereby the continued movement of said handle in the same direction will operate said printing head, and means for returning the parts to their normal positions.

1,142,241. ARMOR OR OTHER METAL PLATE. JULIAN O. ELLINGER, New York, N. Y., assignor, by direct and mesne assignments, of one-half to Universal Electric Welding Company, New York, N. Y., a Corporation of New York. Filed July 15, 1910. Serial No. 572,101. (Cl. 114—11.)



1. An armor plate, the surfaces of which differ in hardness, provided with fastening elements weldably united to the surface of lesser hardness, the entire structure being homogeneous.

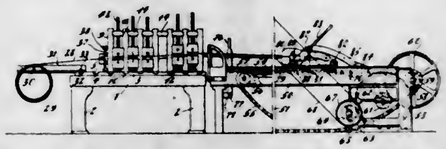
2. A plate of metal, the surfaces of which have a different degree of hardness, series of bolts projecting rearward from the surface which is of lesser hardness and integrally united thereto by electric welds, thereby forming a homogeneous structure.

3. A metal plate the front of which is harder than its back, a fastening element therefor having an end adapted to be weldably united to the back, said end having its portion for union with the back laterally expanded with an extremity of reduced cross sectional area.

4. A metal plate, a fastening element therefor, having an end adapted to be weldably united to the back of said plate, said back being grooved and said end having a flange above the lower extremity of the fastening element.

1,142,242. APPARATUS FOR FORMING SHEET METAL INTO SHAPES. ALFRED J. ELLIS and CHARLES E. NELLIS, Woodcliff-on-Hudson, N. J., assignors to A. J. Ellis, Inc., a Corporation of New Jersey. Filed Jan. 30, 1911. Serial No. 605,424. (Cl. 153—54.)

1. In an apparatus for bending sheet material into shapes, a roll train comprising a plurality of pairs of fluting rolls of different conformations and disposed at different elevations for successively shaping the sheet of material, each of said pairs of rolls being disposed at an elevation with respect to the other pairs of rolls such that any longitudinal curvature of the sheet of material caused by the shaping of the same between one pair of rolls will be straightened upon the sheet of material passing through the next pair of rolls and means for drawing the sheet of material through said rolls.



2. In an apparatus for forming sheet material into shapes, a roll train comprising a plurality of pairs of fluting rolls arranged to successively engage a sheet of material, supports for the same, said rolls being free to move laterally on said supports, means for drawing the material through the rolls, the adjustment of a roll with respect to the others being controlled by the conformations formed in the sheet of material.

3. In an apparatus for forming sheet material into shapes, a roll train comprising a plurality of pairs of rolls arranged to successively engage a sheet of material, one roll of the first pair being fixed against lateral movement, the other rolls being free to move laterally, the positioning of the other roll of the first pair and the remaining rolls of the train being controlled by the conformations in the sheet of material, and means for drawing said material through said rolls.

4. In an apparatus for forming sheet material into shapes, a roll train comprising a plurality of pairs of rolls arranged to successively engage a sheet of material, one roll of the first pair being fixed against lateral movement, the other rolls being free to move laterally, the initial positioning of the other roll of the first pair and the remaining rolls of the train being controlled by the conformations in the sheet of material, and means for drawing said material through said rolls, together with means for locking said rolls after they have been positioned.

5. An apparatus for forming sheet material into shapes, a roll train comprising a plurality of pairs of rolls arranged to successively engage and hold a sheet of material, each pair of rolls being of a different conformation and disposed at a different elevation, supports for said rolls, said rolls being free to move laterally on said supports, and means for locking one of the rolls of the one pair to engage the sheet of material and hold it against lateral movement.

1,142,243. PROCESS OF TREATING COTTON-SEED MEAL, COTTON-SEED MEATS, AND COTTON-SEED FLOUR. JESSE G. FALLS, Memphis, Tenn. Filed Aug. 23, 1913. Serial No. 786,279. (Cl. 99—10.)

1. The process of treating cotton seed meats, cotton seed meal, or cotton seed flour to produce a palatable food product, which consists in subjecting said meats, meal or flour to a high temperature sufficient to remove the disagreeable odor and flavor thereof, substantially as described.

2. The process of treating cotton seed meats, cotton seed meal, or cotton seed flour to produce a palatable food product, which consists in subjecting said meats, meal or flour to a temperature sufficiently high to remove the disagreeable flavor and odor of same, substantially as described.

3. The process of treating cotton seed meats, cotton seed meal, or cotton seed flour which consists in first subjecting the meats, meal or flour to a high temperature sufficient to remove the disagreeable flavor and odor of the meats, meal or flour to as great an extent as possible without burning same, and then using same with other food substances to form a food product, substantially as described.

1,142,244. FARE-BOX. HENRY H. FEFELL, Dayton, Ohio, assignor to Ohmer Fare Register Company, Dayton, Ohio, a Corporation of New York. Filed May 25, 1914. Serial No. 840,699. (Cl. 232—15.)



1. In a fare box, a casing, a cylindrical fare receptacle mounted in said casing and removable from the bottom thereof, a lid pivotally mounted in the mouth of said receptacle, ratchet devices mounted on the lid and the casing and adapted to close said lid as the receptacle is being withdrawn from the casing, said ratchet devices also preventing the insertion of the receptacle in the casing when the lid is closed, and means for locking said lid when moved to its closed position by said ratchet devices.

2. In a fare box, a casing, a fare receptacle mounted in said casing and removable through the bottom thereof, a lid for said receptacle pivotally mounted at the mouth thereof, a ratchet member attached to said lid, a pawl pivoted to the casing in operative relation with said ratchet member, said ratchet member and said pawl being adapted to move the lid to a closed position as the receptacle is being withdrawn from the casing, and means on the lid and the receptacle for locking said lid when moved to its closed position by said pawl and ratchet.

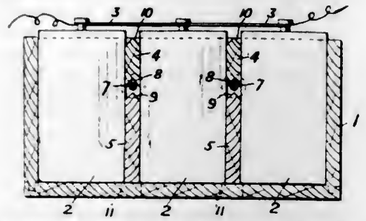
3. In a fare box, a casing, a fare receptacle mounted in said casing, a lid for said receptacle pivotally mounted in the mouth thereof, devices adapted to lock said lid when in its closed position, a ratchet member carried by said lid, a pawl mounted on the casing in operative relation with said ratchet member, said ratchet member and pawl being adapted to close the lid as the receptacle is being removed from the casing to prevent the insertion of said receptacle in said casing when the lid is closed, and means for supporting said receptacle in the casing.

4. In a fare box, a casing, a fare receptacle inserted in said casing, a hinged lid for said receptacle, a spring exerting influence to hold said lid in an opened position, a spring-lock carried by said lid, a ratchet carried by said lid, a pawl in operative relation with said ratchet and adapted to close said lid when the receptacle is withdrawn, said lid being provided with an opening which receives the pawl, the lid at one end of said opening and the pawl coöperating to prevent the insertion of the receptacle when the lid is closed, and means for holding the receptacle in the casing.

5. In a fare box, a casing, a fare receptacle inserted in said casing, a hinged lid for said receptacle, a spring exerting influence to hold said lid in an open position, a spring-controlled lock carried by said lid, a ratchet carried by said lid, a pawl in operative relation with said ratchet and adapted to close said lid when said receptacle is withdrawn, said lid being provided with an opening which receives the end of the pawl, one end of said opening and the pawl coöperating to prevent the insertion of the receptacle when the lid is closed, an alining pin carried by said receptacle, and means for holding said receptacle in the casing.

[Claim 6 not printed in the Gazette.]

1,142,245. MEANS FOR HOLDING CELLS IN A BATTERY-BOX. BRUCE FORD, Philadelphia, Pa. Filed Apr. 12, 1913. Serial No. 760,600. (Cl. 217—18.)

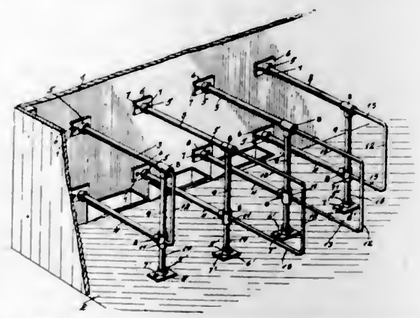


1. Means for holding cells in a battery box which comprise the combination of cells in the box, transversely arranged spacing boards between the cells and having clearance at their ends, and through bolts alined with the spacing boards and adapted to hold the side walls of the box tight up to the cells and cell walls tight up to the spacing boards, substantially as described.

2. Means for holding cells in a battery box which comprise the combination of cells in the box, transversely arranged spacing boards in superposed relation between the cells with space between the boards, and a through bolt arranged in the space between the boards and adapted to hold the side walls of the box up to the cells and cell walls up to the spacing boards, substantially as described.

3. Means for holding cells in a battery box which comprise the combination of cells in the box, transverse spacing boards packed between the cells and having respectively upwardly projecting tongues and grooves in superposed relation with space between, and a through bolt arranged in the space between the boards and adapted to hold the sides of the box against the cells and cell walls against the spacing boards, substantially as described.

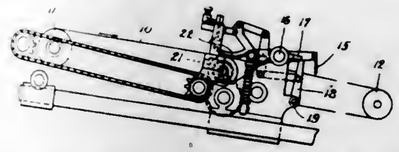
1,142,246. COW-STALL. RALPH GAGAN, Oconomowoc, Wis. Filed June 16, 1914. Serial No. 845,455. (Cl. 119—27.)



1. A stall of the class described comprising a plurality of parallel hollow tubes, collars carried upon the inner ends of said tubes, and being adapted to be fixedly secured to a support, T-joints carried upon the outer ends of said tubes, short pipes connecting said T-joints, and extending to support said tubes, a U-shaped extension frame slidably mounted within said tubes, said extension frame being adapted to be moved to an extended position for forming an enlarged stall or to be moved to a closed position for reducing the size of the stall and means carried by one of said T-joints and engaging said extension frame for holding the same in an extended position.

2. A stall of the class described comprising a stationary frame, a U-shaped extension frame slidably mounted upon said stationary frame, said U-shaped extension frame provided with notches, a spring actuated latch carried by said stationary frame, said extension frame being adapted to be moved to an extended position for forming an enlarged stall or to be closed for reducing the size of the stall, said spring actuated latch being adapted to fit within one of said notches when the extension frame is extended for preventing the extension frame from accidentally moving to a closed position.

1,142,247. MULTIPLE-SHEET DETECTOR FOR PAPER-FEEDING. VERNON GARNER, Boston, Mass., assignor to United Printing Machinery Company, Boston, Mass., a Corporation of Maine. Original application filed Nov. 16, 1912, Serial No. 731,862. Divided and this application filed Mar. 5, 1914. Serial No. 822,637. (Cl. 101—36.)

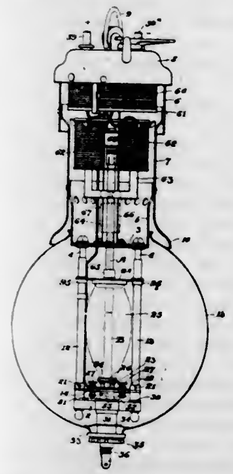


1. In a sheet feeder, the combination with an endless band conveyer, of calipering means arranged to be operated by two or more sheets, one upon another, upon said conveyer, and means arranged to stop the sheets between the ends of said conveyer, in consequence of operation of said calipering means.

2. In a sheet-feeder, movable means for supporting and conveying sheets one at a time, calipering means adapted to be operated by a plurality of sheets one upon another in transit, yielding means adapted normally to stand in the path of the sheets beyond said calipering means, and restraining means connected to said calipering means for holding said yielding means out of the path of the sheets, said restraining means being adapted to release said yielding means in consequence of operation of said calipering means.

3. In a sheet feeder, the combination with an endless band conveyer, of calipering means arranged to be operated by two or more sheets, one upon another, upon said conveyer, and an abutment arranged to be moved into the path of the sheets in front of the sheets and between the ends of said conveyer, in consequence of operation of said calipering means.

1,142,248. ELECTRIC-ARC LAMP. FREDERICK W. GORE, Quincy, Mass., assignor of one-fourth to Harry F. Asbury, Brooklyn, N. Y., and one-fourth to Frank Asbury, Huntington, N. Y. Filed Jan. 7, 1905. Serial No. 240,098. (Cl. 176—55.)



1. In an arc lamp, contacting upper and lower carbons, carriers therefor, means actuated by the flow of a current for raising the upper carbon, and separate means for simultaneously raising the lower carbon while in contact with the upper carbon, one of said carbons being moved relatively to the other carbon for a distance in excess of that through which the companion carbon is moved and at a time subsequent to the completion of the movement of said carbons while in contact with each other, whereby the arc is struck.

2. In an arc lamp, contacting upper and lower carbons, carrier therefor, means for guiding the lower carbon carrier in a rectilinear path, means operated by the flow of a current for lifting the upper carbon, and separate means for lifting the lower carbon simultaneously with, and at the speed of, the upper carbon, said current operated means for the upper carbon being adapted to move the upper carbon for a distance in excess of that through which the lower carbon is moved and to separate the upper carbon from the lower carbon at the completion of their simultaneous movement, whereby the arc is struck.

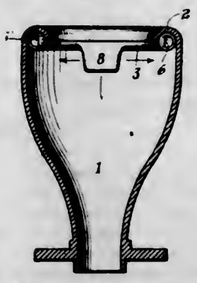
3. In an arc lamp, carbon carriers, upper and lower carbons adapted to contact with each other when no current is flowing, electrically-actuated mechanism for lifting the upper carbon and one of said carrier, and mechanical devices independent of said electrically-actuated devices for making the lower carbon rise simultaneously with the upward movement of the upper carbon, said electrically-actuated mechanism being effective in moving the upper carbon for a distance in excess of the distance through which the lower carbon is moved, thereby separating the carbons subsequent to the initial conjoint movement of the two carbons.

4. In an arc lamp, an upper carbon carrier, a lower carbon carrier, carbons in said carriers, means for directing each carbon carrier in a rectilinear path, means for limiting the upward movement of the lower carbon carrier, means operated by the flow of an electric current for moving one of the carbons and its carrier, and mechanism for moving the other carbon and its carrier in a path corresponding to that of the first named carbon, said carbons moving while in contact with each other and for a predetermined distance on the initial flow of current through the lamp, one of said devices being effective in moving one carbon for a distance in excess of that through which the other carbon is moved, thereby separating the two carbons subsequent to their conjoint movement, for establishing the arc.

5. In an arc lamp, contacting upper and lower carbons, carriers therefor, an electrically-controlled clutch for moving endwise the upper carbon, independent mechanism for moving the lower carbon while in contact with the first named carbon, thereby producing a closed path through the carbons for the initial flow of current through the lamp, and means for moving the upper carbon for a distance in excess of that through which the lower carbon is moved, thereby separating the carbons subsequent to their period of conjoint movement and striking the arc.

[Claims 6 to 19 not printed in the Gazette.]

1,142,249. DISCHARGING-NOZZLE FOR WATER-CLOSETS. WILLIAM U. GRIFFITHS, Philadelphia, Pa. Filed Aug. 23, 1913. Serial No. 786,231. (Cl. 4—18.)



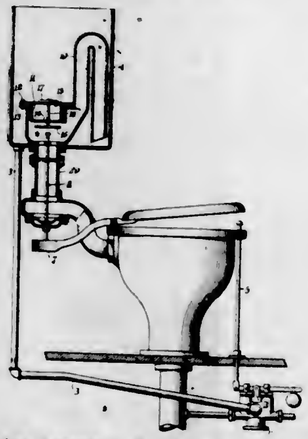
1. A nozzle for flushing water closet apparatus consisting of a tubular member having a relatively flat projection at its central portion to which water is supplied from a flush tank connection and the said projection having a

slot in the bottom and side walls thereof which slot extends in the direction of the length of the said tube, the size of the openings in the ends of the said tubular member being less than the transverse area of the interior of said tubular member at a distance from said open ends whereby the discharge of the water from the said open ends is retarded and restricted, the water which is discharged from the slot in the said projection being discharged downwardly and also laterally, the laterally flowing portions meeting and combining with the water discharged from the ends of the said tubular member, whereby the entire surface of the water closet hopper or bowl is covered.

2. A nozzle for flushing water closet apparatus, consisting of a curved tubular member having a relatively flat downwardly extending projection at its central portion, the said projection being provided with a slot through its bottom and side portions, said slot being situated in a plane extending in the direction of the length of the said tubular member and the said member having openings in its opposite ends and having means for partially closing the said openings, whereby the streams of water which are discharged from the restricted openings and from the portions of the slot in the sides of said projection meet and combine to entirely cover the interior surface of the water closet bowl or hopper.

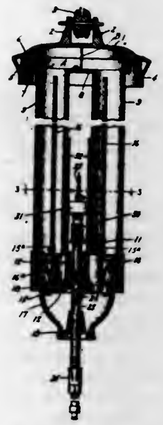
3. A nozzle for flushing water closet apparatus, consisting of a tubular member having a relatively flat projection at its central portion, to which water is supplied from flush tank connection and the said projection having a slot in the bottom and side walls thereof which slot extends in the direction of the length of the said tube, the said tubular member having open ends and also having means situated in the said open ends for partially closing the said openings and retarding the flow of water therefrom, the water which is discharged from the slot in the said projection being discharged downwardly and also laterally, the laterally flowing portion meeting and combining with the water discharged from the ends of the said tubular member, whereby the entire surface of the water closet hopper or bowl is covered.

1,142,250. FLUSH-TANK FOR WATER-CLOSET APPARATUS. WILLIAM U. GRIFFITHS, Philadelphia, Pa. Filed Aug. 23, 1913. Serial No. 786,232. (Cl. 4—5.)



In a flushing apparatus for water closets, the combination of a siphon having an enlarged portion constituting a part of its longer leg, said siphon being situated in a flush tank, a receptacle situated in the enlarged portion of the said siphon, the top and bottom of the said receptacle each having an opening therethrough, the opening in the top communicating with the flush tank and the opening in the bottom communicating with the longer leg of said siphon, valves for closing the said openings, means extending through the said receptacle and connecting the said valves together, and means for operating said valves to close one of the said openings and simultaneously open the other for the purpose stated.

1,142,251. ARC-LAMP. EMILE J. GUAY, Swampscott, Mass., assignor to General Electric Company, a Corporation of New York. Filed Oct. 25, 1912. Serial No. 727,730. (Cl. 176—52.)



1. In an arc lamp, an arc inclosure comprising a transparent or translucent globe open at the top within which the arc is formed, a drum closed at the top surmounting and communicating with the globe, and one or more tubes closed at the top surmounting and communicating with the drum, the drum having an annular partition and the tubes having vertical partitions substantially in alinement with the upper edge of the annular partition, the tube partitions terminating short of the upper ends of the tubes, whereby circulatory passages are formed from and to the globe.

2. In an arc lamp, a substantially air-tight arc inclosure comprising a light transmitting globe open at the top within which the arc is formed, a drum closed at the top surmounting the globe and communicating therewith, one or more tubes closed at the top surmounting the drum and communicating therewith, the drum being provided with an annular partition extending throughout its length and the tube or tubes being provided with partitions which are substantially continuous with the partition of the drum and terminating at a point short of the ends of the tubes, whereby circulatory passages are formed to and from the globe.

3. In an arc lamp, a substantially air-tight inclosure comprising a light transmitting globe within which the arc is formed, a drum closed at the top surmounting and communicating with the globe, a circular partition for the drum extending substantially from the top of the globe to the top of the drum, one or more tubes closed at the and terminating at a point short of the ends of the tubes, top surmounting and communicating with the drum, and partitions for said tubes substantially in alinement with the partition of the drum, and terminating short of the tops of the tubes, whereby circulatory passages are formed from and to the globe which open at a point substantially in the plane of the top of the globe.

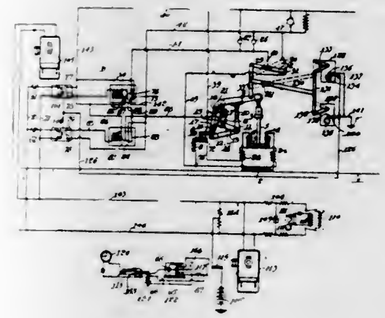
4. In an arc lamp, a globe within which the arc is formed, a drum closed at the top surmounting and communicating with the globe, a sleeve surrounding the upper electrode, a vertical annular partition for the drum, one of more tubes closed at the top ascending from and communicating with the drum, partitions for the tubes continuous with the partition for the drum and terminating short of the ends of the tubes, and depositing chambers formed at the tops of the tubes and communicating with said tubes, whereby circulatory passages comprising two annular openings formed in the drum and having their

orifice substantially in a plane with the top of the globe are formed to and from the globe.

5. In an arc lamp, a pair of electrodes, a substantially air-tight arc inclosure comprising a transparent of translucent globe, a drum surmounting and communicating with said globe, a partition for said drum and an envelop located above the drum having passages communicating with the respective passages formed by the drum and its partition, and means for deflecting the gases descending between said partition and said drum outwardly against the walls of the drum.

[Claim 6 not printed in the Gazette.]

1,142,252. REMOTE-CONTROL HIGH-POTENTIAL SWITCH. WILLIAM E. HARKNESS, East Orange, N. J. Filed Apr. 28, 1913. Serial No. 764,211. (Cl. 177—342.)



1. A device of the character described, comprising a switch element, means controlled by circuit conditions to cause automatic actuation of said element, a remotely controlled step-by-step device to control operation of said element to effect both circuit closure and opening and a line circuit and means at the other extremity of said line circuit to control said step-by-step device.

2. A device of the character described comprising a switch element, means controlled by circuit conditions to cause automatic actuation of said element, a remotely controlled step-by-step device to control operation of said element to effect both circuit closure and opening, answer back mechanism controlled by said element, and a line circuit and means at the other extremity of said line circuit to control said step-by-step device.

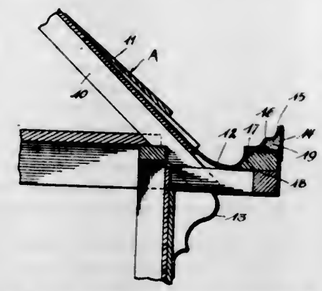
3. A device of the character described comprising a switch element, means controlled by circuit conditions to cause automatic actuation of said element, indicating apparatus to indicate the condition of said element, a remotely controlled step-by-step device to control operation of said element to effect both circuit closure and opening, and a line circuit and means at the other extremity of said line circuit to control said step-by-step device.

4. A device of the character described comprising a switch element, means controlled by circuit conditions to cause automatic actuation of said element, indicating apparatus to indicate the condition of said element, a remotely controlled step-by-step device to control operation of said element to effect both circuit closure and opening, answer back mechanism controlled by said element, and a line circuit and means at the other extremity of said line circuit to control said step-by-step device.

5. A system of the character described comprising a switch element, a remotely controlled step-by-step device to control operation of said element to effect circuit closure, a remotely controlled step-by-step device to control operation of said element to effect circuit rupture, and a line circuit and means at the other extremity of said line circuit to control said step-by-step device.

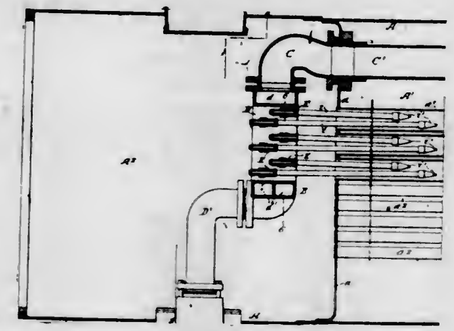
[Claims 6 to 10 not printed in the Gazette.]

1,142,253. STREAK-PREVENTING DEVICE FOR CORNICES. HENRY E. HARRIS, Boonton, N. J. Filed June 12, 1913. Serial No. 773,318. (Cl. 20—1.)



A device of the class described comprising a sheet metal plate adapted to surmount the flat top of a cornice, said plate being bent upon itself to form a vertical portion, the lower edge of which is adapted to be attached to the front edge of the cornice adjacent the flat top thereof, and an inclined portion adapted to overlie the flat top of the cornice, said inclined portion having a central outwardly curved section and a laterally directed free edge portion, the latter being adapted to be attached to the rear edge of the flat top of the cornice substantially as and for the purpose set forth.

1,142,254. SUPERHEATER. GEORGE R. HENDERSON and WILLIAM I. CANTLEY, Philadelphia, Pa., assignors, by mesne assignments, to Locomotive Superheater Company, Wilmington, Del., a Corporation of Delaware. Filed Sept. 27, 1911. Serial No. 651,501. (Cl. 122—462.)



1. The combination in a boiler having a smoke box and tubes, of a superheater having a header mounted in the smoke box and pipes extending from the header into the tubes, the header having a manifold at the top and bottom and a series of columns spaced apart, said columns being hollow, the alternate columns connecting with the upper manifold and the other columns connecting with the lower manifold, with a head on the end of each pipe, said heads being located in the space between the two columns, and means for forcing the heads apart and against the columns so as to make a steam tight joint between the heads and the columns.

2. The combination in a boiler, of a series of flue tubes, a superheater having a series of pipes extending into the flue tubes, a header having a series of spaced hollow columns and upper and lower manifolds, the alternate columns being connected to the upper manifold and the other columns to the lower manifold, said columns having furthermore openings in their side walls, and the pipes having heads located within the space between the columns and connected to the openings of said columns, the upper manifold being connected to the steam space

of the boiler and the lower manifold being connected to the steam chests of the cylinders.

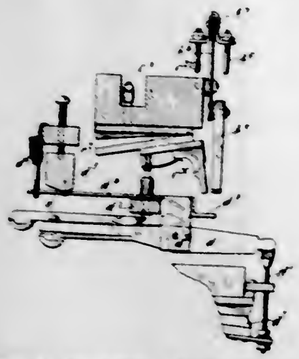
3. The combination in a superheater, of a locomotive boiler having a smoke box and flue tubes, a superheater having a header located in the smoke box of the boiler and made of a single casting and having spaced tubular columns, manifolds at the top and bottom, the upper manifold connecting with alternate columns and the other manifold connecting with the other columns, a series of pairs of heads mounted in the space between the columns, means for separating the heads and for forcing them against the walls of the columns, with pipes secured to each head and extending into a flue tube of the boiler, said pipes being connected at their outer ends so that the steam will circulate in its passage through the superheater.

4. The combination in a boiler having a smoke box and a series of flue tubes, of a superheater having a header located in the smoke box and having vertical hollow columns spaced apart, with upper and lower manifolds, the upper manifold connecting with alternate columns and the lower manifold connecting with the other columns, the side walls of each column having openings therein, heads mounted in the space between the columns and arranged to aline with the openings in the walls of the columns, means for securing the heads to the columns, and a circulating pipe attached to each head and extending into the flue tubes of the boiler, said circulating pipes being connected so that the steam will circulate therethrough, as it passes from the steam space of the boiler to the cylinders.

5. The combination in a superheater, of a header having columns spaced apart, one for saturated steam and the other for superheated steam, there being an opening in the side of each column, superheating pipes, a head secured to each pipe, said pipes being connected, one head being arranged in line with an opening in one column and the other head being arranged in line with the opening in the other column, means for forcing the heads apart, and rings forming a steam tight joint between the heads and the columns.

[Claims 6 to 13 not printed in the Gazette.]

1,142,255. MUSICAL INSTRUMENT. HENRY S. HORNBECK, Elizabeth, N. J., assignor to Volotone Company, Elizabeth, N. J., a Corporation of New Jersey. Filed Aug. 11, 1909. Serial No. 512,565. (Cl. 84—160.)



1. In a musical instrument, the combination of a series of actuating devices, a series of tone-producing devices, mechanical transmitting devices whereby the tone-producing devices are actuated severally by the actuating devices, mechanical means acting directly upon said mechanical transmitting devices to vary the action of all of the tone-producing devices collectively, and a series of mechanical means, independent of the last named means and acting directly and severally upon said mechanical transmitting devices simultaneously with said last named means, for varying each the action of one or more of said tone-producing devices at will.

2. In a musical instrument, the combination of a series of actuating devices, a series of tone-producing devices, mechanical transmitting devices whereby the tone-producing devices are actuated severally by the actuating devices, mechanical means acting directly upon said mechanical transmitting devices to vary the action of all of the tone-producing devices collectively, a series of mechanical means, independent of the last named means and acting directly and severally upon said mechanical transmitting devices simultaneously with said last named means, for varying each the action of one or more of said tone-producing devices at will, and selective means for determining the operation of any of said series of mechanical devices.

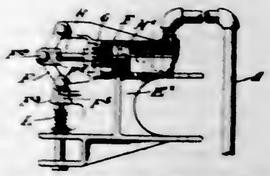
3. In a musical instrument, the combination of a series of actuating devices, a series of tone-producing devices, mechanical transmitting devices whereby the tone-producing devices are actuated severally by the actuating devices, mechanical means acting directly upon said mechanical transmitting devices to vary the action of all of the tone-producing devices collectively, a series of mechanical means, independent of the last named means and acting directly and severally upon said mechanical transmitting devices simultaneously with said last named means, for varying each the action of one or more of said tone-producing devices at will, actuating means for said series of mechanical means, and selective means for placing any of said series of actuating devices in operative relation with said actuating means.

4. In a musical instrument, the combination of a series of actuating devices, a series of tone-producing devices, mechanical transmitting devices whereby the tone-producing devices are actuated severally by the actuating devices, mechanical means acting upon said mechanical transmitting devices to vary the action of all of the tone-producing devices collectively, a series of mechanical means, independent of the last named means and acting severally upon said mechanical transmitting devices simultaneously with said last named means, for varying each the action of one or more of said tone-producing devices at will, a source of power, and a controller and selective connections through which any of said series of mechanical means can be placed in operative relation with said source of power.

5. In a musical instrument, the combination of a series of player pneumatics, a series of tone-producing devices, mechanical transmitting devices whereby the tone-producing devices are actuated severally by the actuating devices, mechanical means acting upon said mechanical transmitting devices for varying the action of all of the tone-producing devices collectively, a series of independent mechanical devices acting severally upon said mechanical transmitting devices for varying each the action of one or more of the tone-producing devices, a corresponding series of terminals to which said devices are operatively connected severally, a shiftable controller comprising a terminal for coöperation with any of said series of terminals, and a common source of power connected to the terminal on the controller.

[Claims 6 to 27 not printed in the Gazette.]

1,142,256. AUTOMATIC TRAIN-STOPPING DEVICE. LAWRENCE W. HORNE and WARREN N. CRANE, New York, N. Y., assignors of one-third to Albert C. Henry. Filed Jan. 24, 1913. Serial No. 743,941. (Cl. 246—59.)



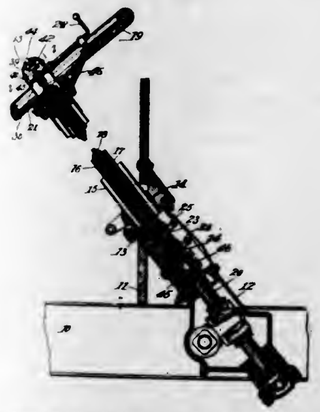
1. In an air brake system including a track trip a valve in the train line pipe adapted to be operated by said trip, a cylinder having a spring pressed piston connected with said train line pipe, a main throttle lever and an engineer's throttle lever removably connected thereto, together with means operated by the piston serving, when the train line valve is opened to disconnect said levers, permitting the main throttle lever to move to the "off" position.

2. An automatic steam shut off comprising a main throttle lever and an ordinary throttle lever having one general pivot, a latch bolt pivoted to said main throttle lever, a latching block on said ordinary throttle lever to receive said latch bolt, a cylinder included in an air brake system, a piston with a piston rod operating mechanism including a toggle joint connected with said piston rod and a spring to retract said piston and thereby extend said operating mechanism upon a reduction of pressure in said cylinder, means whereby the extension of said operating mechanism rocks said latch bolt, releasing its engagement with said latching block, and a tensional return for said latch bolt.

3. A device of the character described having in combination with a throttle valve, a plurality of valve levers, means for engaging said levers for simultaneous operation, a source of fluid pressure means connected with said source and adapted to disconnect said levers one from the other upon the release of the pressure of said fluid, said means being held from operation by the pressure of the fluid, as and for the purpose set forth.

4. A device of the character described having in combination with a throttle of a plurality of levers adapted to be engaged together, a cylinder and piston operable therein, and an air supply connected to said cylinder, and means comprising a toggle connected to said piston, and a latch operated thereby for releasing the said levers by the lowering of the air pressure in said cylinder, as and for the purpose set forth.

1,142,257. MOTOR-VEHICLE. RUSSELL HUFF, Detroit, Mich., assignor to Packard Motor Car Company, Detroit, Mich., a Corporation of Michigan. Filed July 27, 1912. Serial No. 711,881. (Cl. 21—06.)



1. In a motor vehicle steering gear, the combination with the oscillatable steering member having a steering wheel mounted on the upper end thereof, a casing carried by said steering member, a plurality of switches within said casing, and means projecting through said casing and adapted to actuate said switches.

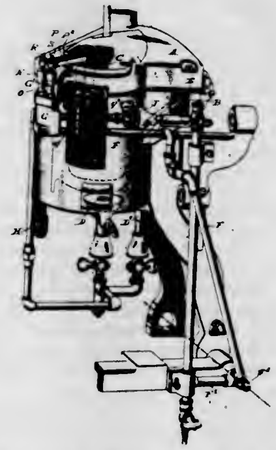
2. In a motor vehicle steering gear, the combination with the oscillatable steering member having a steering wheel mounted on the upper end thereof, of a casing carried by said steering member adjacent said wheel, a switch arranged within said casing, and a ring carried by said casing on the exterior thereof and connected with one terminal of said switch.

3. In a motor vehicle steering gear, the combination with the oscillatable steering member having a steering wheel at the upper end thereof, of a casing carried by said steering member adjacent said wheel, a switch within said casing, and means oscillatable on the exterior of said casing for operating said switch.

4. In a motor vehicle steering gear, the combination with the oscillatable steering member having a steering wheel at the upper end thereof, of a casing carried by said steering member adjacent said wheel, a plurality of switches arranged within said casing, a member projecting through the wall of said casing and adapted to be reciprocated to operate one of said switches, and a member oscillatable on the exterior of said casing for operating another of said switches.

5. In a motor vehicle steering gear, the combination with the oscillatable steering member having a steering wheel at the upper end thereof, a tubular casing secured to said steering member above the point of attachment of the steering wheel, a cap for closing the upper end of said tubular casing, a switch carried by said cap, a second switch arranged within said casing, and a ring arranged on the exterior of said casing and held in position by said cap and adapted to operate said second switch.

1,142,258. TYPOGRAPHICAL CASTING-MACHINE. DAVID S. KENNEDY, Brooklyn, N. Y., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed June 27, 1914. Serial No. 847,585. (Cl. 22—71.)



1. In a typographical casting machine, the combination of a casting pot, a plurality of heating devices located adjacent different portions of the pot, and automatic means subject to the heat of the metal in the casting pot for controlling each of the plurality of heating devices, said means being adjustable at will to vary the heating effect of one heating device with relation to that of the other.

2. In a typographical casting machine, the combination of a casting pot, a plurality of burners active upon the pot, one located beneath the pot and another located remotely from the first-mentioned burner, fuel-supplying means for the burners, and automatic means subject to the heat of the metal in the casting pot for controlling each of the plurality of burners, said means being adjustable at will to vary the heating effect of one burner with relation to that of the other.

3. In a typographical casting machine, the combination of a casting pot having a mouthpiece through which the molten metal is ejected, two burners, one located beneath the pot and the other in proximity to the mouthpiece thereof, fuel-supplying means for the burners, and automatic means subject to the heat of the metal in the casting pot for controlling each of said burners, said means being adjustable at will to vary the heating effect of one burner with relation to that of the other.

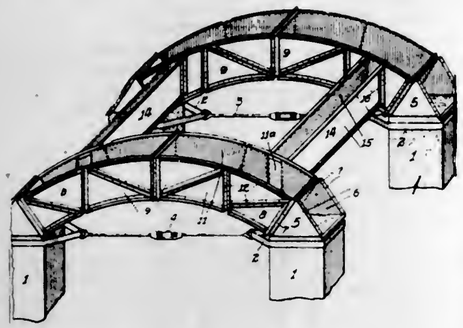
4. In a typographical casting machine, the combination of a casting pot, two burners active upon different portions of the pot, and fuel supplying means comprising two controlling valves one for each burner, a chamber wherein the valves are located, a supply pipe leading to the chamber,

and two branch pipes leading therefrom to the respective burners, together with thermostatic means subject to the heat of the molten metal for operating the valves.

5. In a typographical casting machine, the combination of a casting pot having an interior chamber for the molten metal and a mouth piece through which the molten metal is ejected, two burners, one located beneath the pot and the other in proximity to the mouth piece thereof, fuel supplying means for the burners, and two separate and independent thermostats located in the chamber for the molten metal for controlling the respective burners.

[Claims 6 and 7 not printed in the Gazette.]

1,142,259. CONCRETE CONSTRUCTION. JEAN H. KNOX, Oakland, Cal. Filed June 11, 1913. Serial No. 772,968. (Cl. 25—131.5.)



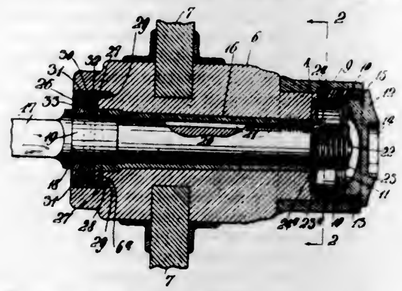
1. A mold adapted to form a unitary monolithic structure, comprising a plurality of sections adapted to form an arch form, angle irons adjacent the junctures of said sections, and obliquely disposed thereon, being adapted to unite and reinforce adjacent sections, piers supporting said molds, seat sections intermediate said piers and arch sections, said sections adapted to form a continuous U-shaped trough, and means secured to said piers, adapted to retain the mold in adjusted position, substantially as described.

2. A form for concrete arch construction, comprising a pair of arch forms, each of which is built up of a plurality of sections, each of said sections having side and bottom plates, said side plates being spaced apart the width of the arch rib required, the same being reinforced at their junctures by suitably disposed angle-irons, the flanges of the angle irons which lie along the bottom and side edges of any one section abutting against the corresponding flanges of the angles of the adjacent sections, means for connecting said flanges together, and open-top trough members connecting said two arch-forms from any two coinciding sections of each arch form, the said troughs opening into the interior of each arch-form and being removably connected therewith whereby brace beams will be formed integral with the concrete arch-ribs as set forth.

1,142,260. DUST-PROOF GUARD FOR AUTOMATIC AXLE-OILERS. JOHN J. MCGUIRE, New York, N. Y. Filed July 25, 1914. Serial No. 853,042. (Cl. 64—22.)

1. A device of the character described comprising a revoluble hub provided with an end portion and with an annular bearing surface, a fixed spindle extending into said hub, a collar mounted upon said spindle and extending into engagement with said annular bearing surface, said collar being provided with a groove, a packing located within said groove and engaging said annular bearing surface of said hub, and a spring carried by said collar and engaging said packing in order to press the latter against said annular bearing surface of said hub.

2. A device of the character described, comprising a fixed spindle, a collar mounted thereupon and provided with an annular flange and with an annular groove, said collar being further provided with an annular bearing surface disposed adjacent said groove, a spring of general annular form located within said groove, a packing of annular form disposed within said groove and engaging said spring, a hub revolubly mounted upon said spindle and provided with a bearing surface for engaging said



annular bearing surface of said collar, said hub being further provided with a groove into which extends said annular flange with which said collar is provided, and a packing disposed within said last mentioned groove and engaged by said flange.

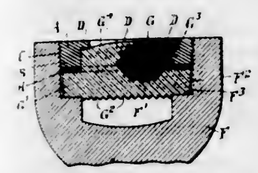
1,142,261. SHOCK-ABSORBER. BERTRAM C. MANBY, Carnegie, Pa. Filed June 27, 1914. Serial No. 847,713. (Cl. 21—105.)

1. In a shock absorber comprising a rotatable wheel frictionally mounted between fixed plates the combination of pawls adapted to engage the wheel whereby to rotate it against friction, and cams on the plates adapted to prevent engagement of the pawls and wheel except at predetermined limits of rise and fall of the vehicle body.

2. A shock absorber for spring mounted vehicles consisting of an arm attached to the vehicle body, an arm attached to the running gear frame, a common axle, plates mounted on the axle and attached to one arm, a toothed wheel rotatably mounted between said plates, spring operated pawls on the other arm adapted to engage the wheel in either direction of rotation of their bearing arm, cams on the plates adapted to prevent engagement of the pawls and wheel except at predetermined points of maximum and minimum rise of the vehicle body, means for adjusting the relative position of the cams, and means for adjusting the friction of the wheel and plates.

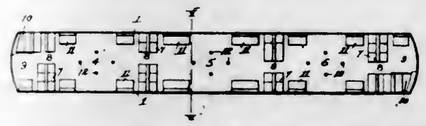
1,142,262. GAGE-GLASS. CLARENCE M. MENDENHALL, New York, N. Y. Filed Apr. 20, 1912. Serial No. 692,188. (Cl. 73—54.)

1. In a gage, the combination of a gage body formed with a sight aperture, a gage glass closing said aperture and formed with a body portion and with a marginal flange at the inner side of said body portion and a glass retaining member surrounding said body portion and acting against said flange and formed with a portion projecting in front of the outer face of the body portion of said glass.



2. In a gage, the combination of a gage body formed with a sight aperture, a gage glass closing said aperture and formed with a body portion and with a marginal flange at the inner side of said body portion, a packing holder surrounding the body portion of said glass, and a packing interposed between said holder and flange, said holder being provided with a series of separated flanges projecting in front of the outer face of the body portion of said glass.

1,142,263. PASSENGER-CAR. WILLIAM S. MENDEN, Brooklyn, N. Y., assignor to Megosin Company, Inc., a Corporation of New York. Filed Nov. 3, 1914. Serial No. 870,122. (Cl. 105—205.)



1. In a passenger car having its opposite lateral walls provided with doorways spaced longitudinally of the car, seats arranged transversely of said car and spaced from said doorways to form compartments corresponding to the doorways and other seats in each of said compartments arranged along the lateral walls between said doorways and the transversely arranged seats, all of said seats being faced inwardly into said compartments.

2. A passenger car having a lateral wall provided with doorways spaced longitudinally of the car and from the ends of said car, and a plurality of seats disposed transversely of said car on opposite sides of and spaced from each of said doorways to form compartments corresponding to said doorways respectively.

3. In a passenger car having lateral walls, seats arranged transversely of said car to form a plurality of compartments, said seats within each compartment being faced inwardly toward the central transverse plane of said compartment, and doorways for said compartments respectively in one of said lateral walls of the car.

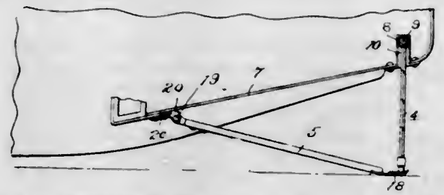
4. In a passenger car having lateral walls, seats arranged transversely of said car to form a plurality of compartments, said seats within each compartment being faced inwardly toward the central transverse plane of said compartment, and doorways for said compartments respectively in each of said lateral walls of the car.

5. In a passenger car having lateral walls, seats arranged transversely of said car to form a plurality of compartments, said seats within each compartment being faced inwardly toward the central transverse plane of said compartment, and doorways for said compartments respectively in one of said lateral walls of the car, said doorways being respectively centrally disposed with respect to the central transverse planes through said compartments.

[Claim 6 not printed in the Gazette.]

1,142,264. GATE FOR VEHICLES AND MEANS FOR MOUNTING SAME. WILLIAM S. MENDEN, Brooklyn, N. Y., assignor to Megosin Company, Inc., a Corporation of New York. Filed Dec. 5, 1914. Serial No. 875,664. (Cl. 105—19.)

1. The combination with vehicles connected in a train, of extensible barriers arranged in pairs in the space between adjacent ends of and on each side of said vehicles, said barriers being respectively mounted on posts journaled in said vehicles respectively, and means other than said barriers for holding the outer ends of said barriers in abutment with each other.



2. The combination with vehicles connected in a train, of extensible barriers arranged in pairs in the space between adjacent ends of and on each side of said vehicles, said barriers being respectively mounted on posts journaled in said vehicles respectively, and means other than said barriers for holding the outer ends of said barriers in abutment with each other, said barriers being arranged in alinement with the outer side walls of said vehicles.

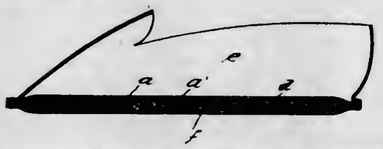
3. The combination with expansible barriers pivotally mounted on oppositely disposed axes, supports mounted to swing on axes respectively spaced from the first mentioned axes, and yieldable means tending to hold the free ends of said supports together, the free ends of said supports being connected to the free ends of said barriers.

4. The combination with oppositely disposed walls movable relatively to each other, of collapsible barriers carried by said walls respectively, each of said barriers being mounted to swing about one edge, a support pivotally connected to each of said walls at a distance from the barrier carried by that wall, and means tending to swing said support away from the wall, said supports being pivotally connected to the outer edges of said barriers to hold them in abutment.

5. The combination with a vehicle, of a barrier mounted to swing about an axis adjacent to one corner of said vehicle, a support swingingly mounted on a vertical axis adjacent the end of said vehicle and away from the first mentioned axis, said support being connected to said barrier, and means for holding said support in suitable position to hold said barrier in a position projecting from the end of said vehicle.

[Claims 6 and 7 not printed in the Gazette.]

1,142,265. MANUFACTURE OF SHOES. WILLIAM MENGE, Jr., Dolgeville, N. Y., assignor to Dolgeville Felt Shoe Company, Dolgeville, N. Y., a Corporation of New York. Filed Feb. 21, 1914. Serial No. 820,211. (Cl. 12—142.)

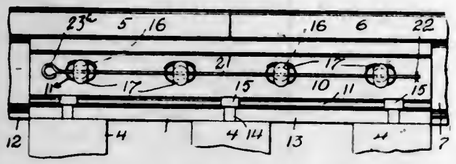


The method of making a turned slipper comprising an upper, an outer sole, an inner sole and a filler of carded material between them, marginally spaced from the edges of the inner and outer soles, consisting in placing such filler between the inner and the outer soles free from attachment thereto, then sewing together, in a single operation, the adjacent edges of the upper and the inner and outer soles, and finally turning and lasting the slipper; substantially as herein shown and described.

1,142,266. RAIL-JOINT. HARRY L. MERRIMAN and TONY MAY, Woodlawn, Pa. Filed Jan. 21, 1914. Serial No. 813,593. (Cl. 239—11.)

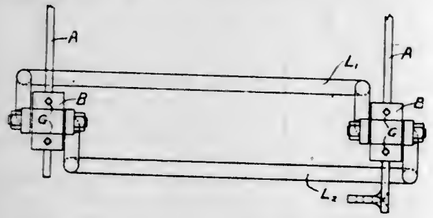
In a rail joint, the combination with the abutting rails, of fish plates adapted to wedge into the sides of the rails

and to overlap the ends thereof, locking members adapted to extend through elongated holes in the fish plates and the web of the rail between, said locking members having on each end an elongated shaped head with flattened sides, the overhang portion of the head being beveled in each direction on its inner surface, whereby when turned



the locking members engage the fish plates at each end and wedge them against and into the rails, and a tie bar adapted to pass through a plurality of the locking members, whereby to prevent their turning out of locked position, and a key to hold the tie bar locked in place, substantially as and for the purposes described.

1,142,267. SUSPENSION FOR AXLE-LIGHTING DYNAMOS. HERBERT G. MYERS, Chicago, Ill., assignor to The Electric Storage Battery Company, Philadelphia, Pa., a Corporation of New Jersey. Filed Oct. 1, 1913. Serial No. 792,744. (Cl. 105—238.)



1. Means for suspending a dynamo from a vehicle truck comprising side bars, a bearing saddle on each of said side bars having a bearing transverse to said bar, a pin movable in said bearing and projecting on either side thereof, and two loop bars for supporting the dynamo from below whereof the right hand ends are rigidly clamped to opposite ends respectively of one of said pins and the left hand ends to opposite ends respectively of the other pin, substantially as described.

2. Means for suspending a dynamo from a vehicle truck comprising side bars, a bearing saddle on each of said bars having a bearing transverse to said bar comprising a tubular bushing and means for clamping said bushing in a fixed position, a pin movable in said bushing and projecting on either side thereof, and two loop bars for supporting the dynamo from below whereof the right hand ends are rigidly clamped to opposite ends respectively of one of said pins and the left hand ends to opposite ends respectively of the other pin, substantially as described.

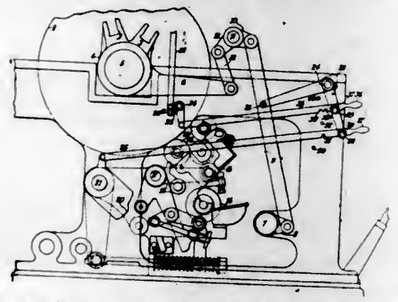
3. Means for suspending a dynamo from a vehicle truck comprising side bars, a bearing saddle on each of said side bars having a bearing transverse to said bar, a pin movable in said bearing and projecting on either side thereof, and two loop bars for supporting the dynamo from below whereof the opposite ends of one are supported by the right hand ends of the two pins respectively, and the opposite ends of the other are supported by the left hand ends of said pins respectively, substantially as described.

4. Means for suspending a dynamo from a vehicle truck comprising side bars, a bearing saddle on each of said side bars having a bearing transverse to said bar, a pin movable in said bearing and projecting on either side thereof, and two interchangeable loop bars for supporting the dynamo from below whereof the opposite ends of one are supported by the right hand ends of the two pins respectively, and the opposite ends of the other are supported by the left hand ends of said pins respectively, substantially as described.

5. The combination of a dynamo, side bars, a pair of pins supported by and turnable in respect to the side bars and a frame rigid with each end of each pin and with the dynamo.

[Claims 6 and 7 not printed in the Gazette.]

1,142,268. CONTROL OF THE TRIPPING MECHANISMS OF A PRINTING-PRESS. HERBERT PEARCE, THOMAS ROBERT GILLETT PARKER, and FRED WESLEY WRIGHT, Broadheath, England, assignors to Linotype and Machinery Limited, London, England. Filed July 22, 1912. Serial No. 710,884. (Cl. 101—100.)



1. In a printing press, a plurality of automatic tripping mechanisms capable of being tripped independently of each other and occasionally; a tripping mechanism operated automatically during each normal cycle of the press, independently of any one of the plurality above mentioned; means grouping the said plurality within easy reach and control of either the press feeder or the press attendant when in their respective normal working positions; means by which any or all of the said plurality can be manually tripped or untripped; and means by which any or all as aforesaid can be connected to the automatically operated tripping mechanism aforesaid.

2. In a printing press, a plurality of automatic tripping mechanisms capable of being tripped independently and occasionally; a tripping mechanism operated independently of any one of the plurality above mentioned; a bar from each of the plurality of mechanisms to be tripped; a grip presented by it clear of the press frame and in the immediate neighborhood and practically parallel with all the other grips so presented; a detachable connection between each of the said bars and the independently operated tripping mechanism; and a detent to hold the respective bar in its detached position.

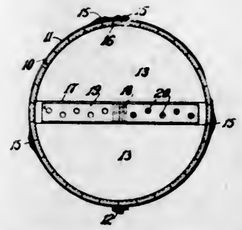
3. In a printing press, the combination of a plurality of tripping mechanisms operating automatically during the normal working of the press, manually operable means for controlling the operation of each of said mechanisms, and manual and detachable means for temporarily connecting said controlling means so that they may be automatically operated conjointly.

4. In a printing press, the combination of a plurality of tripping mechanisms operating automatically during the normal working of the press, manually operable means for controlling the operation of each of said mechanisms, a tripping mechanism operated automatically during each normal cycle of the press and independently of the mechanisms above mentioned, and manual and detachable means for temporarily connecting the independently operated mechanism with one or more of the controlling means as desired.

5. In a printing press, the combination of a plurality of automatically tripping mechanisms, an independently operated device operating automatically during each normal cycle of the press, and manually operable means for controlling the operation of each of the tripping mechanisms and detachably connected to said device; whereby the tripping mechanisms may be operated by the controlling means either independently or automatically and conjointly, as desired.

[Claim 6 not printed in the Gazette.]

1,142,269. KNOCKDOWN BARREL. DANIEL R. PRUDEN, Revere, and DANIEL W. WORMWOOD, Chelsea, Mass. Filed Mar. 28, 1911. Serial No. 617,358. (Cl. 217—78.)



The described improvement in barrels consisting of a circular head having three contiguous members all engaged peripherally in the croze of the staves but otherwise unsupported, the middle member being formed of two abutting sections united by an underneath hinge closing by an upward movement, in combination with a locking bar extending along the top of said middle member, rigidly secured to one section thereof and, beyond the hinge-joint, provided with removable fastenings, such bar thus, when fastened, reinforcing the middle member and when released forming a lever for removing it upwardly and opening the barrel, substantially as set forth.

1,142,270. FILTER. HANS REISERT, Cologne, Germany. Filed Apr. 11, 1914. Serial No. 831,182. (Cl. 210—8.)



1. A filter, comprising a filter bed, a reservoir chamber below the bed into which chamber air pressure may be introduced for driving the filtered water backward through the bed, and a duct affording vertical communication between said bed and the lower part of said reservoir chamber, said duct extending in a horizontal direction beneath said bed and being of a size to permit the passage of a workman along said duct.

2. A filter, comprising masonry inclosing walls, filter beds supported therein, covered reservoir chambers beneath said beds for the introduction of air pressure to drive the filtered water backward through the bed, and ducts extending longitudinally between said chambers and affording vertical communication between the lower parts of the same and the space immediately beneath the beds, said chambers and ducts having masonry walls.

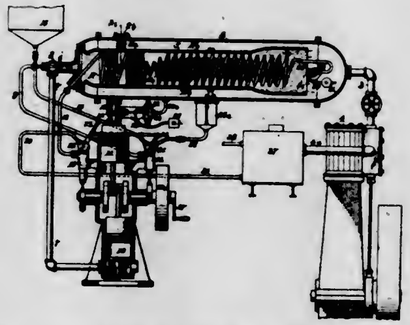
3. In a filter, the combination with a filter bed, of one or more reservoir chambers beneath said bed with a space between their roofs and said bed, said chambers having suitable means for introducing air under pressure therein to force the filtered water backward rapidly through the bed, and one or more ducts extending horizontally alongside said chambers, said ducts communicating with said chambers by openings at the bottom of the side walls thereof and at the top opening into said space.

4. A filter having a filter bed or beds, one or more wash-out chambers beneath the same, and one or more ducts extending horizontally alongside said chambers, said chambers and ducts having masonry walls and the chambers also having masonry roofs which slope laterally toward the ducts, the ducts communicating at the bottom with said chambers and at the top with the spaces between said roofs and the filter beds.

5. In a filter, the combination of a plurality of elongated filter beds disposed side by side, covered reservoir chambers beneath the beds having suitable means for introduction of air under pressure, and ducts extending the length of the beds beneath the same and affording communication between the beds and the lower parts of said chambers.

[Claims 6 to 10 not printed in the Gazette.]

1,142,271. METHOD AND MEANS FOR THE GENERATION OF COMPOUND MOTIVE FLUID. BENTLEY L. RINEHART, Philadelphia, Pa. Filed Apr. 18, 1913. Serial No. 761,884. (Cl. 60—31.)



1. The herein described method of generating a mixture of steam and gases and utilizing them as a motive force for a prime mover, which consists in supplying to a closed chamber carbonaceous materials and air in accurately measured and controlled quantities to produce perfect combustion, forcing the said combustion to take place under high pressure and thereby producing an exceedingly high temperature, utilizing a portion of the high temperature products of combustion for heating a confined body of water to a condition to give it a pressure considerably in excess of the pressure of the products of combustion in the closed chamber, delivering the said heated body of water in the form of spray into the heated products of combustion within the closed chamber in a continuous manner and causing the liberation of the water under the excessive pressure to cause the water to burst into great subdivision in the presence of the heated products of combustion, whereby the subdivided water is instantly converted into steam at a temperature and pressure lower than the temperature and pressure of the water before being liberated, supplying the steam and mixed gases to the prime mover in accordance with the requirements thereof, and controlling the volumes of the products of combustion and steam generated wholly by the variations in the conjoint pressures under which the same exist within the closed chamber and independently of the speed of the prime mover.

2. The herein described method of generating a mixture of steam and gases to be used as a motive force for engines, which consists in generating products of combustion under high pressure and temperature in a closed chamber, employing the said highly heated products of combustion under pressure to produce large volumes of steam within the chamber by raising measured quantities of water in a confined state to a higher pressure than that of the products of combustion and steam contained in the chamber and at a higher temperature than the steam contained in the said chamber, causing the said water under its highly heated condition and under its high pressure to be injected into the chamber and thereby to be converted into a state of spray or great subdivision at a lower temperature and pressure, and bringing said spray into intimate contact with the products of combustion within the chamber, and thereby instantly converting the sub-

divided water or spray into steam at the pressure of the products of combustion and at a less pressure and lower temperature than that under which the water was heated.

3. The herein described method of generating a motive fluid for operating engines and prime movers, which consists in generating a high temperature and pressure within a closed chamber by forcing into said chamber air and combustible fuel in predetermined in definitely measured proportions bearing constant and definite relation to each other and independent of the prime mover, supplying feed water to the heat of the products of combustion while shielded from direct contact therewith and generating thereby a pressure in excess of that in the chamber and producing from said feed water a highly heated finely divided spray of water under high pressure within the closed chamber, and intermingling the hot products of combustion and water spray to spontaneously convert the spray into steam at high pressure and temperature.

4. The herein described method of generating a motive fluid for operating engines and prime movers, which consists in generating a high temperature and pressure within a closed chamber by forcing into said chamber air and combustible fuel in predetermined mechanically measured proportions bearing constant and definite relation to each other and independent of the prime mover, supplying feed water to the heat of the products of combustion while shielded from direct contact therewith and producing from said feed water a highly heated finely divided spray of water under high pressure within the closed chamber, intermingling the hot products of combustion and water spray to spontaneously convert the spray into steam at high pressure and temperature, supplying the high pressure mixture of steam and hot gases to a prime mover, and varying the amount of measured quantities of air, fuel and water under the control of the pressure of the steam and products of combustion generated and wholly independent of the variations in the speed of the prime mover.

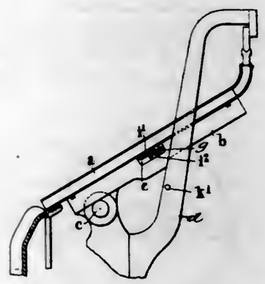
5. The herein described method of generating a motive fluid for operating engines and prime movers, which consists in generating a preliminary high temperature and pressure within a closed chamber independent of control by the engine or prime mover by forcing into said chamber air and combustible fuel in predetermined measured proportions by hand operation, utilizing the pressure so produced for automatically forcing into the said closed chamber air, fuel and water in predetermined mechanically measured relative proportions bearing definite and constant relations to each other and producing a spray of water under high pressure within the closed chamber, intermingling the hot products of combustion and water spray to convert the spray into steam at high pressure and temperature, and automatically varying the amount of the air, combustible fuel and water admitted into the closed chamber under the control of variations in the pressure therein while maintaining their relative proportions.

[Claims 6 to 18 not printed in the Gazette.]

1,142,272. TYPOGRAPHICAL MACHINE. KARL RÖGER, Berlin, Germany, assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed Apr. 11, 1914. Serial No. 831,109. (Cl. 199—7.)

1. Means for preventing matrices or type dies moving in the channels of their magazines while the latter are being changed, comprising a locking device for each channel adapted to engage within it and means adapted to put the device into locking position as the magazine is moved from its working position in the machine and to put it out of that position as the magazine is moved into working position in the machine.

2. The combination with a channel of a magazine containing matrices or type dies and movable out of or into its machine, of a pawl adapted to engage within the channel and pivoted on a lever fulcrumed on the outside of the magazine, a spring urging the pawl out of locking position in the channel, and means adapted to put the pawl into locking position as the magazine is moved from its working position in the machine and to allow the spring to put it out of locking position as the magazine is moved into working position in the machine.



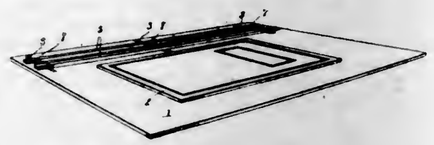
3. The combination with a channel of a magazine, of a lever fulcrumed thereon, a pawl carried by one end of the lever and working through the respective side of the magazine, a spring for withdrawing the pawl from the channel, an eccentric on the magazine and engaging with the lever for projecting the pawl into the channel, two arms radiating from the eccentric in different directions, and a projection adapted by being supported independently of the magazine, to rock the arms and reverse the position of the pawl during the movement of the magazine from or to its working position in the machine.

4. In a typographical machine, the combination of a magazine having channels for the type or matrices and mounted to be swung downwardly from its operative position, and locking means arranged to engage within the channels between their ends to prevent the shifting of the type or matrices in the partially filled channels during the downward swinging of the magazine.

5. A magazine for typographical machines having a series of channels for the type or matrices and provided at one end with a series of escapements to control their release from the channels, the said magazine being also provided between its ends with locking means to engage within the channels and prevent the rearward shifting of the matrices in those partially filled.

[Claims 6 to 11 not printed in the Gazette.]

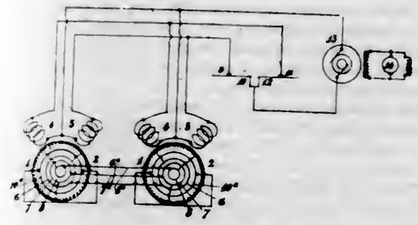
1,142,273. EMBOSSING-MACHINE. HENDRIK CHRISTIAAN ROOS, Grand Rapids, Mich. Filed Apr. 17, 1914. Serial No. 832,608. (Cl. 101—169.)



1. A bed plate for embossing machines formed with a plurality of parallel slots having head enlargements and a pair of scoring rules lying in parallelism and having relative adjustment, each of said rules having its face formed with a pair of parallel scoring edges, bolts passing through said rules and slots, and ends coöperating with the bolts and seated in the headed enlargements for securing said rules in any of their adjustments.

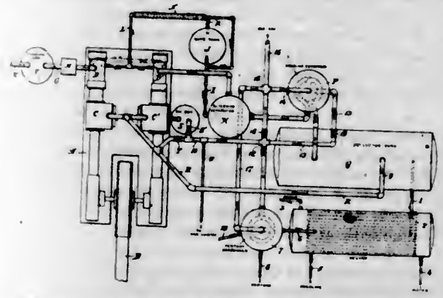
2. A bed plate for embossing machines formed with a plurality of parallel slots having head enlargements and a pair of scoring rules lying in parallelism and having relative adjustment, each of said rules having one face centrally depressed throughout the length thereof so as to form a pair of spaced scoring edges, bolts passing through said rules and slots, and ends coöperating with the bolts and seated in the headed enlargements for securing said rules in any of their adjustments.

1,142,274. MEANS FOR COLLECTIVELY ACTUATING AND CONTROLLING ALTERNATING-CURRENT MOTORS. JOSEPH LOUIS ROUTIN, Paris, France. Filed Jan. 17, 1914. Serial No. 812,648. (Cl. 172—293.)



In combination a plurality of electric repulsion motors, each having a rotor, having a winding and a commutator connected thereto, two brushes on said commutator, a conductor whereby said brushes are short circuited upon themselves, a plurality of slip rings, conductors severally connecting said slip rings to equidistant parts of the winding on said rotor, and a stator having two windings disposed to produce fields at equal angles in relation to said brushes, together with conductors whereby the slip rings of each motor are severally connected to the slip rings of the other motor or motors, a monophase electric current generator, and means for supplying current from said generator to the stator windings of said motors, said current supplying means comprising switches whereby the two stator windings of each motor can be separately or collectively supplied with current.

1,142,275. APPARATUS FOR OBTAINING LIQUID HYDROCARBONS. EMIL SCHILL, New York, N. Y., assignor to Continental Gas Compressing Corporation, a Corporation of New York. Filed June 1, 1914. Serial No. 842,035. (Cl. 196—25.)



1. The combination of a compressor for compressing natural gas mixtures containing gasolene, pentane and methane, an injecting nozzle communicating with the interior of said compressor adapted for the injection of a finely divided liquid, a collector to receive liquid constituents of the compressed gases as they leave the compressor, a condenser within which the gasolene is liquefied, a second condenser within which the pentane is liquefied while in the form of a separated gas, pipes passing through each of said condensers thereby dividing each of them into two separate passages, pipe connections for introducing the pentane as a separated gas into the pentane condenser and means for causing expansion of the separated methane component of the compressed gases and for drawing the cold expanded methane through one of the two separated passages in each of the two condensers above named while the gas to be subjected to the action of the cold methane traverses the other passages of said two condensers.

2. The combination of a compressor for compressing natural gas mixtures containing gasolene, pentane and methane, an injecting nozzle communicating with the interior of said compressor adapted for the injection of a finely divided liquid, a collector to receive liquid constituents of the compressed gases as they leave the compressor, a condenser within which the gasolene is liquefied, a second condenser within which the pentane is liquefied while in the form of a separated gas, pipes passing through each of said condensers thereby dividing each of them into two separate passages, pipe connections for introducing the pentane as a separated gas into the pentane condenser and a methane line including therein means for permitting the methane to expand and for conducting the expanded methane through one of the separated passages of each of the above mentioned two condensers while the gas to be subjected to the action of the cold expanded methane traverses the other passage of said condensers.

3. The combination of a compressor for compressing natural gas mixtures containing gasolene, pentane and methane, an injecting nozzle communicating with the interior of said compressor adapted for the injection of a finely divided liquid, a collector to receive liquid constituents of the compressed gases as they leave the compressor, a condenser within which the gasolene is liquefied, a second condenser within which the pentane is liquefied while in the form of a separated gas, pipes passing through each of said condensers thereby dividing each of them into two separate passages, pipe connections for introducing the pentane as a separated gas into the pentane condenser and a methane line including therein means for permitting the methane to expand and for conducting the expanded methane through one of the separated passages of each of the above mentioned two condensers while the gas to be subjected to the action of the cold expanded methane traverses the other passage of said condensers.

4. The combination of a compressor for compressing natural gas mixtures containing gasolene, pentane and methane, an injecting nozzle communicating with the interior of said compressor adapted for the injection of a finely divided liquid, a collector to receive liquid constituents of the compressed gases as they leave the compressor, a condenser within which the gasolene is liquefied, a second condenser within which the pentane is liquefied while in the form of a separated gas, each of said two collectors consisting of two separated passages so arranged that one should be subject to temperature conditions in the other, pipe connections for introducing the pentane as a separated gas into the pentane condenser and means for causing expansion of the separated methane component of the compressed gases and for drawing the cold expanded methane through one of the two separated passages in each of the two condensers above named while the gas to be subjected to the action of the cold methane traverses the other passages of said two condensers.

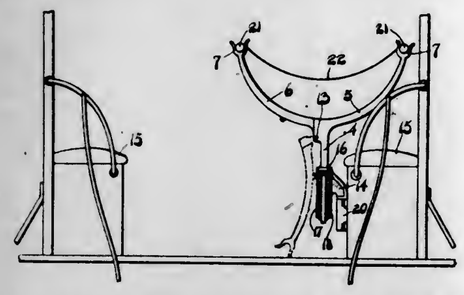
1,142,276. STRETCHER-SUPPORT. JESSE T. SHEETS, Covington, Ky. Filed Oct. 23, 1912. Serial No. 727,279. (Cl. 21—80.)

1. A stretcher support comprising, a rigidly mounted stretcher-supporting arm for engaging one side of a stretcher, and a pivotally mounted movable arm for engaging the other side of the streacher, the pivotal point of said movable arm being located below and to one side of the center of gravity of the movable arm when the arm is in the operative position.

2. A stretcher support comprising a standard having an arm-supporting shoulder formed thereon, a stretcher-supporting arm movably mounted on the standard and having means for engaging a stretcher located on the standard, said shoulder being so located as to engage said arm when the arm is in its operative position.

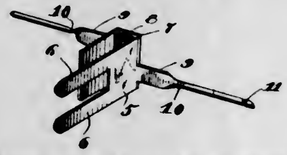
3. A stretcher support comprising a standard having an abutment formed thereon, a supporting arm rigidly

mounted on the standard and adapted to support one side of a stretcher, a movable supporting arm pivotally mounted on the standard and adapted to support the other side of the stretcher, said abutment being located between arms so as to engage the movable arm when it is in its upright position.



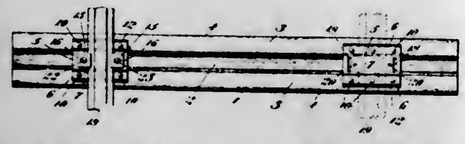
4. A stretcher support comprising a stationary arm having a slot formed therein and adapted to support one side of a stretcher, a movable arm pivotally secured to the stationary arm and adapted to support the other side of the stretcher, said movable arm having a tongue formed therein and adapted to engage the slot to hold said movable arm in alinement with said stationary arm.

1,142,277. SWITCH-KEY ATTACHMENT. EDMUND SIMPSON, New York, N. Y. Filed June 26, 1914. Serial No. 847,509. (Cl. 240—123.)



An attachment for a switch key including a U-shaped body having a central or web portion and corresponding cheeks of different lengths, the long cheek being slotted inwardly to define a pair of arms or bifurcations adapted to receive therebetween the shank of a switch key and to be bent to engage the other or short cheek to secure the U-shaped body in position on the key, a strap secured through the web portion of said body having oppositely directed arms formed integral therewith, and operating cords secured to the outer extremities of said arms.

1,142,278. METALLIC RAILWAY-TIE. EDWIN E. SLICK, Westmont borough, Pa. Filed Aug. 14, 1914. Serial No. 856,734. (Cl. 238—5.)



1. A metallic railway tie comprising a trough section, with integral wings projecting laterally therefrom and rail chairs of inverted channel section with laterally extending lower flanges mounted on the said wings.

2. A metallic railway tie comprising a longitudinally corrugated plate, and rail chairs of inverted channel section with laterally extending lower flanges attached to the upper portion of the side corrugations thereof.

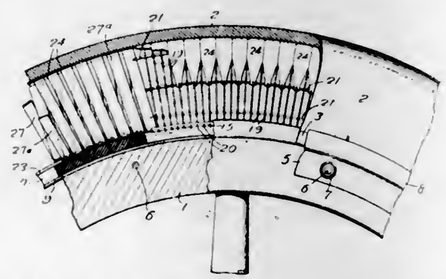
3. A metallic railway tie comprising a corrugated plate provided with a central depression and two integral inverted trough shaped side portions, rail chairs of inverted channel section with laterally extending lower flanges attached to the upper portions of the trough shaped side portions.

4. A metallic railway tie comprising a plate provided with a central longitudinally extending depressed portion, integral laterally extending upper flanges adjoining the said depressed portion, outwardly and downwardly projecting portions adjoining the luteral extending flanges, and rail chairs of inverted channel section with laterally extending lower flanges attached to the upper surfaces of the laterally extending flanges.

5. A metallic railway tie comprising a longitudinally corrugated plate, integral wings projecting laterally therefrom, rail chairs of inverted channel section with laterally extending lower flanges attached to the said wings, and means for fastening the rails to the rail chairs.

[Claims 6 to 11 not printed in the Gazette.]

1,142,279. SPRING-CUSHION TIRE. JAMES W. T. STEPHENS, New Orleans, La. Filed June 12, 1914. Serial No. 844,681. (Cl. 152—8.)



1. A device of the character specified, comprising in combination with the wheel, the shoe or casing, and the means in connection with the shoe and the wheel for holding the shoe in place on the wheel, said means including a spreader ring, said ring having an upwardly and outwardly extending flange at each side edge, a rim pad seated on the spreader ring within the shoe, an open framework encircling the wheel within the shoe and seated on the rim pad, said framework having steel holding rings spaced apart laterally, means for drawing the ends of each ring together for clamping it on the wheel, said rings resting upon the rim pad at the flanges of the spreader ring, and each flange having an inwardly extending rib extending outside of the adjacent holding ring, a plurality of resilient arms within the framework, and shield plates detachably connected with the framework at the tread of the casing.

2. A device of the character specified, comprising in combination with the wheel, the shoe or casing, a skeleton frame of approximately cylindrical form within the shoe or casing for expanding the same, cushioning elements within the frame, and protecting plates outside the frame between the same and the tread of the shoe, said plates being arched longitudinally and arranged transversely to the wheel alongside each other, each plate having hooks at its ends for detachably engaging the frame.

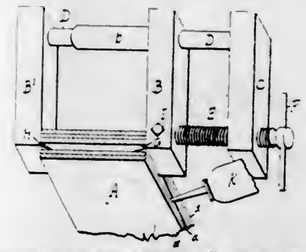
3. A device of the character specified, comprising in combination with the wheel, the shoe or casing having ribs at its side edges, and the means detachably connected with the wheel and having means for engaging the ribs to hold the shoe in place, of a split spreader ring engaging the periphery of the wheel between the ribs of the shoe and having means for holding the ribs from inward movement, means engaging the ends of the spreader ring for clamping the ring on the wheel, a resilient rim pad seated on the ring, and an open form framework of approximately cylindrical form within the shoe and seated on the rim pad, and engaging the inner surface of the shoe to expand the same.

4. A device of the character specified, comprising in combination with the wheel, the shoe or casing, and the means in connection with the shoe and the wheel for holding the shoe in place, a skeleton frame within the shoe for expanding the same, cushioning elements within the framework, and protector plates of arc-shape arranged between the framework and the shoe, each of the said plates having means at its ends for detachably engaging the framework to hold the plate in place.

5. A device of the character specified, comprising in combination with the wheel, the shoe or casing detachably connected with the wheel, of an open framework for expanding the shoe or casing, cushioning elements within the framework, and arc-shaped protector plates arranged alongside each other transversely of the wheel at the tread of the shoe or casing and detachably connected with the framework at their ends.

[Claim 6 not printed in the Gazette.]

1,142,280. LEAF-SEPARATOR FOR SPRINGS. JOHN H. STEVENSON and FREDERICK KNOWLSON, Ann Arbor, Mich.; said Stevenson assignor to said Knowlson. Filed Feb. 14, 1912. Serial No. 677,536. (Cl. 81—3.)



1. A leaf spreader for spreading leaf springs comprising a yoke, a wedge on one arm of the yoke, a wedge on the other, and means for advancing one of the wedges and maintaining it in advanced position.

2. In an apparatus for separating the leaves of springs, the combination of a pair of side pieces, a cross piece connecting them together and spacing them, a spur on one of the side pieces, a cross head, a sleeve attached to the cross head and slidably mounted on said cross piece, a spur on the cross head opposite said first mentioned spur and in horizontal alinement therewith, and a screw fastened to the cross head and passing through a threaded aperture in the side piece without the spur.

3. A device for spreading the leaves of vehicle springs comprising supporting means adapted to bridge a spring two oppositely positioned wedge parts thereon adapted to enter between the leaves of the springs from opposite sides thereof, and means for forcibly actuating the wedge parts to cause the same to spread the leaves, substantially as described.

4. A device for spreading the leaves of springs comprising two oppositely positioned wedge parts adapted to enter between the leaves of springs from opposite sides thereof, and means for forcibly actuating the wedge parts to cause the same to spread the leaves, and for retaining the wedge parts in adjusted position, substantially as described.

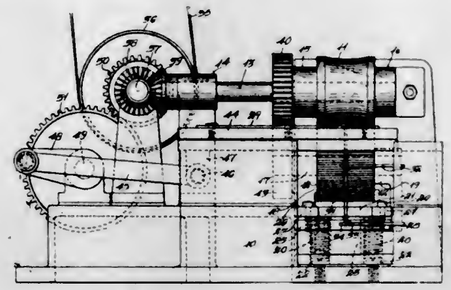
5. A device for spreading the leaves of springs comprising two oppositely positioned wedge parts adapted to enter between the leaves of springs from opposite sides thereof, and means for mechanically adjusting the wedges to fixed relative positions to retain the leaves in spread relation, substantially as described.

[Claim 6 not printed in the Gazette.]

1,142,281. SKIVING-MACHINE. JOHN HAMMOND STEWART, Lynn, Mass. Filed May 19, 1914. Serial No. 839,526. (Cl. 12—63.)

1. A skiving machine comprising a rotating feed roll, a skiving knife mounted to travel back and forth across the line in which that portion of the work acted upon by the knife is fed, and mechanism for so moving said knife at such a rate that each stroke of the knife requires for completion approximately the time required for a complete rotation of the feed roll.

2. A skiving machine comprising a rotating feed roll, a knife arranged to reciprocate across the line in which work is fed by the feed roll and mechanism for moving said knife back and forth at such a rate as to cause the knife to make one complete stroke while the feed roll makes one complete rotation.



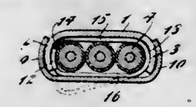
3. A skiving machine comprising a rotating feed roll, a back and forth moving knife arranged to travel in a line across the line in which work is fed by said roll, a crank shaft for moving said knife back and forth and gearing for rotating said roll and said shaft simultaneously at such rates that the roll makes two rotations while the shaft makes one rotation.

4. In a skiving machine, a work feeding roll, a reciprocating knife arranged to act upon work fed by the roll, and means for reciprocating said knife and rotating said roll at rates such as to give the roll approximately a complete rotation for each stroke of the knife.

5. A skiving machine comprising in combination a feeding roll, a rigid slide mounted adjacent to the delivery point of said roll and being movable across the line of feed of the roll, a crank and connecting rod mechanism for reciprocating a knife mounted on the slide with its edge directed toward the said delivery point, and interconnected gearing connected with the roll and crank designed and constructed to give said slide and knife one complete stroke during the time required for a complete revolution of the feed roll.

[Claims 6 and 7 not printed in the Gazette.]

1,142,282. DEVICE FOR TEMPORARILY RETAINING CONDUCTORS. JAMES S. STEWART, New York, N. Y., assignor to Annie Stewart, New York, N. Y. Filed Nov. 8, 1912. Serial No. 730,142. (Cl. 247—4.)

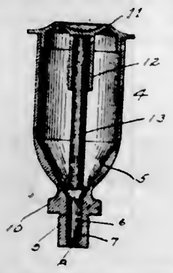


A wire retaining clip adapted for use with wiring molding having side flanges comprising a metallic strip bent to form one turn of a flat helix and having its extremities at one of the narrow ends of the helix, said extremities overlapping each other and said helix being shaped to have its narrow ends engage and interlock with the side flanges of the wiring molding.

1,142,283. AUTOMATIC GREASE-CUP. WALTER L. STINE, Niles, Cal. Filed Nov. 7, 1912. Serial No. 730,037. (Cl. 184—46.)

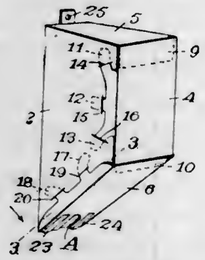
1. A grease cup comprising in combination, a casing and a plunger adapted to reciprocate in said casing, said casing being provided with an inner chamber which tapers downwardly and which is provided with a discharge chamber opening directly out of the lower end of said tapered portion, the walls of said discharge chamber intersecting the tapering walls of said first mentioned chamber and the connection between said chambers being entirely uninter-

rupted, said plunger being arranged to reciprocate in said last mentioned chamber and to lift entirely out of said last mentioned chamber at one end of its stroke.



2. A grease cup comprising in combination, a casing, a cap for said casing, a guide rigid with said cap, and a plunger adapted to reciprocate in said casing and engaging said guide, said casing being provided with an inner chamber which tapers downwardly and being provided with a discharge chamber opening directly out of the lower end of said tapered portion, the walls of said discharge chamber intersecting the tapering walls of said inner chamber and the connection between said chambers being entirely uninterrupted, and said plunger being so arranged as to move into and entirely out of said discharge chamber.

1,142,284. RECEPTACLE FOR COLLAPSIBLE DRINKING-CUPS. WILLARD E. SWIFT, Worcester, Mass., assignor to United States Envelope Company, Springfield, Mass., a Corporation of Maine. Filed July 7, 1913. Serial No. 777,621. (Cl. 206—57.)



1. A receptacle for collapsible drinking cups having convergent opposite edges, the receptacle being provided with an opening or slot in one of its faces, said opening or slot being shorter than the width of a portion of the space for holding the cups, whereby a portion of a cup wider than said opening is distorted when forcibly withdrawn therethrough.

2. A receptacle for collapsible drinking cups having convergent opposite edges, the space for the cups having convergent opposite sides, and there being an opening or slot at the narrower extremity of said cup space and in the plane of the normal position of a cup within the receptacle, whereby a portion of a cup wider than said opening is distorted when forcibly withdrawn therethrough.

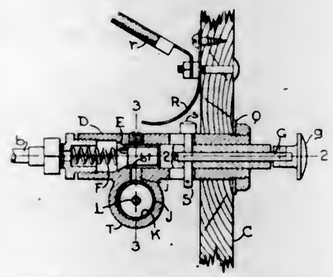
3. A receptacle for drinking cups having convergent opposite edges, the receptacle having an opening or slot to permit the withdrawal of a cup and having substantially immovable means for pressing against one of said convergent cup edges as the cup is withdrawn, whereby accidental displacement of the cup through the opening is prevented and the wider portion of the cup is distorted when forcibly withdrawn through the opening.

4. A receptacle for collapsible drinking cups having convergent opposite edges, the receptacle having a sloping face with convergent opposite edges, and sides extending upwardly from the convergent edges of said face, there being an opening or slot at the narrow end of said face to permit withdrawal of a cup from the receptacle, whereby a portion of a cup wider than said opening is distorted when forcibly withdrawn therethrough.

5. A receptacle for collapsible drinking cups having convergent opposite edges, the receptacle having a face with convergent edges, walls extending upwardly from the convergent edges of said face, and a wall above the narrow end of said face, the lower edge of the latter wall being spaced from the adjacent edge of said face to form an opening for the withdrawal of a cup from the receptacle, whereby a portion of a cup wider than said opening is distorted when forcibly withdrawn therethrough.

[Claims 6 to 9 not printed in the Gazette.]

1,142,285. STARTER. HORACE T. THOMAS, Lansing, Mich., assignor to Reo Motor Car Company, Lansing, Mich., a Corporation of Michigan. Filed July 5, 1912. Serial No. 707,754. (Cl. 123—180.)



1. The combination of an internal combustion engine having an intake passage, of a reservoir for gas under pressure, a passage adapted to form a communication between said intake and said reservoir, a valve controlling the passage between said reservoir and said intake, a second valve adapted to control the passage between said intake and said reservoir between the first named valve and the intake, means for manipulating said second valve to open the passage between the intake and the first named valve, said first named valve being adapted to be actuated by the suction of the engine.

2. The combination of an internal combustion engine having an intake passage, of a reservoir for gas under pressure, a passage adapted to form a communication between said intake and said reservoir, a valve controlling the passage between said reservoir and said intake, a second valve adapted to control the passage between said intake and said reservoir between the first named valve and the intake, means for actuating said second valve to open the passage between the intake and the first named valve, and means adapted to be actuated by the suction of the engine, for actuating the first named valve.

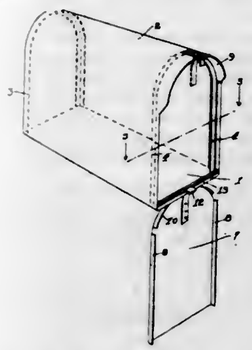
3. The combination of an internal combustion engine having an intake passage, a reservoir for gas under pressure, a passage adapted to form a communication between said intake and said reservoir, a valve controlling the passage between said reservoir and said intake, means adapted to be actuated by the suction of the engine for actuating said valve, and means for adjusting the action of said means for actuating the valve.

4. The combination of an internal combustion engine having an intake passage, a reservoir for gas under pressure, a conduit adapted to connect said intake pipe and said reservoir, a non-return valve *h* adapted to control the passage through said conduit opening toward said reservoir, a cylindrical portion T having a piston adapted to reciprocate therein, said piston being adapted to contact said valve to force the same from its seat and a passage forming a part of said conduit between the intake passage and said valve opening beneath said piston.

5. The combination of an internal combustion engine having an intake passage, a reservoir for gas under pressure, a conduit adapted to connect said intake pipe and said reservoir, a non-return valve *h* adapted to control the passage through said conduit opening toward said reservoir, a cylindrical part T having a piston adapted to reciprocate therein, said piston being adapted to contact said valve to force the same from its seat, a passage forming a part of said conduit between the intake passage and said valve opening beneath said piston, a spring governing the motion of said piston, and means for adjusting the position of said piston and spring relative to said valve.

[Claim 6 not printed in the Gazette.]

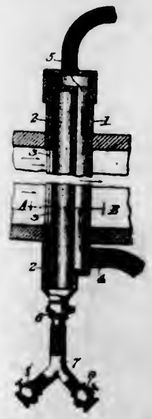
1,142,286. MAIL-BOX. JESSE CARL TRIMBLE, North Otter, Ill. Filed Apr. 20, 1914. Serial No. 833,271. (Cl. 232—45.)



1. In a mail-box, a body having a bottom, sides, top, back and an open front, a door vertically slidable across the open front, a spring catch member fixed to the top and having a hooked portion over-hanging the top, and a projecting lip fixed to the door and positioned to be engaged by the hooked portion of the spring catch to lock the door in its closed position.

2. In a mail-box, a body having a bottom, sides, top, back and an open front, a door vertically slidable across the open front, a projecting lip on said door adjacent the top thereof, a horizontal strip across the open front of the box forward of the door and adjacent the bottom of the box, and said horizontal strip positioned to engage the projecting lip on the door to prevent the door from falling away from the box when in its open position.

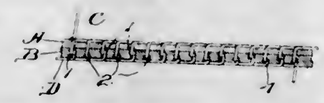
1,142,287. ENTRAINMENT-TESTER. HAROLD SAGE TRUSCOTT, Makaweli, Hawaii. Filed Aug. 14, 1913. Serial No. 784,759. (Cl. 257—29.)



1. The combination with evaporating apparatus and a vapor pipe leading therefrom, of an entrainment tester comprising, a vapor receiving chamber adapted to be located within said vapor pipe, means for cooling said chamber, and means for withdrawing samples of the vapor condensed within said chamber, substantially as described.

2. The combination with a vapor pipe, of a vapor receiving chamber adapted to collect a portion of the vapor passing through said pipe, means to cool the vapor so collected to condense the same, and means for withdrawing portions of the condensed vapor, substantially as described.

1,142,288. SEAM. FELIX E. VALOIS, Haverhill, Mass., assignor to Hamel Shoe Machinery Company, Lynn, Mass., a Corporation of Massachusetts. Filed July 30, 1913. Serial No. 781,980. (Cl. 112—34.)

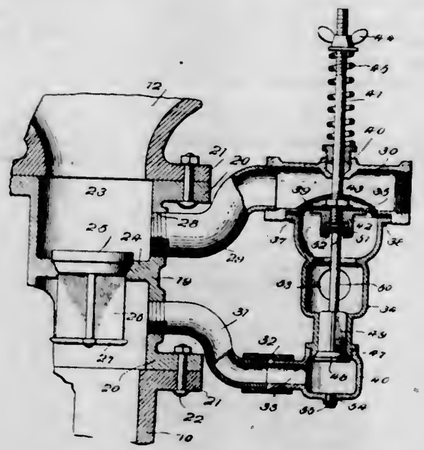


1. In combination with a plurality of layers of material, a series of stitches uniting them together, said stitches having locks which vary in depth in regular predetermined sequence and which have regular and predetermined variations in depth.

2. In combination with a plurality of layers of material, a series of stitches uniting them together, said stitches having locks which vary in depth in regular predetermined sequence and which have regular and predetermined variations in depth, some of said locks being located in predetermined order of arrangement nearer the outer surface of one of the layers of material which are united by the seam and others of said locks being located in predetermined order of arrangement nearer the contiguous surfaces of two of the layers.

3. In combination with a plurality of layers of material, a seam having locks which vary in depth in regular predetermined sequence and have regular and predetermined variations in depth, the stitches of varying depths being drawn equally taut.

1,142,289. RELIEF-VALVE FOR SPRAYING-PUMPS. DWIGHT W. WADSWORTH, Bangor, Mich. Filed Mar. 18, 1913. Serial No. 755,224. (Cl. 137—53.)



1. A relief valve including a body member providing an uninterrupted fluid passageway and a second passageway, a valve controlling flow of fluid through the second passageway, and a diaphragm cutting off communication between the passageways and subject to pressure of fluid passing through the first passageway adapted to open the valve upon excessive pressure in the first passageway.

2. A relief valve including a body member providing fluid passageways, a valve controlling flow of fluid through one of the passageways, a diaphragm cutting off communication between the passageways and adapted upon

excessive pressure in the other passageway to open the valve, the diaphragm being operable by pressure in the passageway not having the valve which is always open for passage of fluid, and means for adjusting the diaphragm to operate at varying pressures.

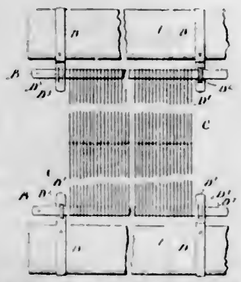
3. A relief valve including a tubular body member open at its ends and provided at one side with an opening, surrounded by a peripheral flange, a diaphragm extending across the opening, a stem carried by the diaphragm and slidable through the opposite side of the body member, a spring surrounding the stem exteriorly of the body member, an adjusting nut threaded upon the stem and bearing against the spring to tension the same, a second tubular body member provided at one end with a valve seat, and intermediate its length with a discharge opening and at its other end with a flange engaging in the flange surrounding the opening of the first body member to bear against the outer edge portion of the diaphragm, means for securing the body members together, and a valve coacting with the valve seat and having a valve stem operatively connected to the diaphragm.

4. A relief valve including a tubular body member provided at one side with an opening, said body member being open at its ends, a second tubular body member open at its ends adapted for attachment at one end about the opening of the first body member, said second body member being provided intermediate its length with a discharge nipple and at its free end with a valve seat, a pressure diaphragm clamped between the body members to shut off communication therebetween, a valve co-acting with the valve seat and operatively connected to the diaphragm to hold the valve to its seat until pressure against the opposite side of the diaphragm becomes too great, and means for varying the tension of the diaphragm.

5. A relief valve including a tubular body member provided at one side with an opening, said body member being open at its ends, a second tubular body member open at its ends adapted for attachment at one end about the opening of the first body member, said second body member being provided intermediate its length with a discharge nipple and at its free end with a valve seat, a pressure diaphragm clamped between the body members to shut off communication therebetween, a valve co-acting with the valve seat and operatively connected to the diaphragm to hold the valve to its seat until pressure against the opposite side of the diaphragm becomes too great, an elbow coupling carried by the free end of the second body member, and a drain plug located in said coupling.

[Claims 6 and 7 not printed in the Gazette.]

1,142,290. SUPPORT FOR HEDDLE-BARS. PAUL A. WAGNER, Carlstadt, N. J. Filed Oct. 21, 1914. Serial No. 867,732. (Cl. 139—73.)

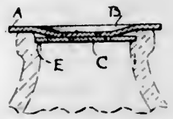


1. In a heddle bar support, a length of resilient material bent to form an open body portion adapted to inclose a harness shaft, and having arms shaped to lie together and receive and be interlocked by the introduction of a heddle bar therethrough, said arms arranged to grasp said bar at two separated outer points thereon and at an intermediate point and hold said bar frictionally against longitudinal movement, without transmitting torsional strains of such arms to said shaft and bar.

2. In a heddle bar support, a length of spring metal bent to form an open body portion adapted to inclose a harness shaft, and having arms arranged to lie face to face, each of said arms having a single loop on one face intermediate a pair of loops on the opposite face, the loops of one arm constructed to nest with the loops of the other arm and receive a heddle bar thrust through such nested loops, and hold said bar frictionally in opposition to a longitudinal movement relatively to such support.

3. In a heddle bar support, a strip of spring metal bent to form an open body portion adapted to inclose a harness shaft, spurs on said body portion adapted to engage such shaft, said body portion having arms formed integrally therewith and adapted to lie face to face, each of said arms having two slits parallel with its edges, with the metal between such slits bent out on one face to form a loop, and the metal on each side of such loop bent out on the opposite face to form two loops, the loops on one arm adapted to nest with those of the other and receive a heddle bar thrust through such nested loops.

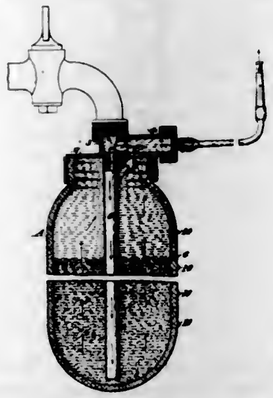
1,142,291. CAP FOR MILK-BOTTLES. ANDREW W. WEBER, Jackson, Mich. Filed July 26, 1913. Serial No. 781,289. (Cl. 215—14.)



1. A bottle closure of the character described comprising a pair of cap members, said cap members being each provided with separated openings and a cementitious binder interposed between the adjoining surfaces of said cap members and entering and forming plugs in said open portions to key the disk members together at correspondingly separated points, the openings in the two disk members being arranged out of alinement to correspondingly position the plugs in staggered relation.

2. A bottle closure of the character described comprising a pair of cap members, said cap members being provided with non-registering openings, and a cementitious binder interposed between the adjoining surfaces of said cap members and entering and forming plugs in said open portions to key the disk members together.

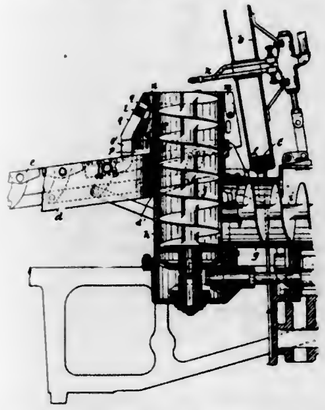
1,142,292. DISTRIBUTER FOR FERTILIZERS, DISINFECTANTS, AND THE LIKE. JOHN W. WHITE, Jr., Oakland, Cal. Filed Apr. 13, 1914. Serial No. 831,482. (Cl. 137—14.)



In a fertilizer distributer the combination of a wide mouthed transparent receptacle having a screw top, said top provided with a vertically disposed inlet adapted for attachment to a hose bib by which entering water is di-

rected downwardly, a pipe connected with the inlet and extending downwardly into the receptacle to a point adjacent the bottom thereof, said top having a lateral outlet arranged for connection with hose or the like, said outlet having a restricted port connection with the inlet above the tube and also having a port opening into the receptacle, a regulating valve for the last-named port, the latter and the port connecting the inlet and outlet together with the downwardly extending tube coöperating to equalize the strength of the solution delivered from the receptacle to the outlet, substantially as described.

1,142,293. AUTOMATIC STOKER. DAVID T. WILLIAMS, Paterson, N. J., assignor to Standard Stoker Company, Inc., Wilmington, Del., a Corporation of Delaware. Filed Oct. 29, 1913. Serial No. 798,009. (Cl. 110—44.)

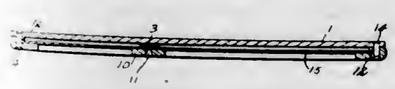


1. The combination of a grate, a fuel conveying means having its delivery portion arranged over the grate, and an upstanding guard affording a lateral support for the fuel on the grate and forming with said delivery portion a downwardly open space and having passages discharging laterally from said space, and said grate having an air passage extending upwardly therethrough from below and discharging into said space.

2. In combination, with a furnace grate including grate members one of which is fixed, a fuel conveying means having its delivery portion extending from below to a point above the grate, and a passaged guard for said delivery portion of the conveying means carried by said fixed grate member, some of the remaining grate members being supported by the fixed grate member and others by the guard.

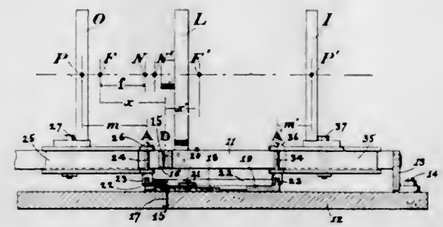
3. In combination, with a furnace grate including grate members one of which is fixed, a fuel conveying means having its delivery portion extending from below to a point above the grate, said fixed grate member being formed to embrace said delivery portion of the conveying means, and a passaged guard for said delivery portion of the conveying means extending around the same, some of the remaining grate members being supported by the fixed grate member and others by the guard.

1,142,294. SHIPPING-TAG. ELIJAH B. ATKINSON, Denver, Colo. Filed Apr. 21, 1914. Serial No. 833,491. (Cl. 40—17.)



A tag holder comprising a rear plate, a front plate, said front plate being held in spaced relation from the rear plate, a spring carried by the rear plate, the front plate being provided with a pair of spaced apertures, a partition between the apertures, teeth struck from the partition and bent inwardly therefrom, the partition being in direct alinement with the spring whereby when a card is inserted between the plates, the same will be pressed against the teeth of the partition and thereby firmly held in place.

1,142,295. AUTOMATIC-FOCUSING CAMERA. JOSEPH BECKER, Washington, D. C. Filed Aug. 26, 1911. Serial No. 646,185. (Cl. 88—24.)



1. The combination with a photographic camera, comprising an object support, a lens support and an image support; also automatic focusing mechanism for causing two of the said three supports to move with relation to the third, to produce desired changes in the size of the sharply focused image; such focusing mechanism comprising: first, a rotary cam face curved to conform with a plane curve and having its axis of rotation located to determine a series of varying radius vectors for varying the separation of the said object and lens supports; secondly, a rotary cam face curved to conform with a plane curve and having its axis of rotation located to determine a series of varying radius vectors for varying the separation of the said lens and image supports; thirdly, connections between the two cam faces for causing them to rotate simultaneously so that the angularly corresponding vectors of the two cam faces shall be brought into action at the same time.

2. The combination with a photographic camera, comprising an object support, a lens support and an image support; also automatic focusing mechanism for causing two of the said three supports to move with relation to the third, to produce desired changes in the size of the sharply focused image; such focusing mechanism comprising: first, a rotary cam face curved to conform with a plane curve and having its axis of rotation located to determine a series of varying vectors for varying the separation of the said object and lens supports; secondly, a rotary cam face curved to conform with a plane curve and having its axis of rotation located to determine a series of varying radius vectors for varying the separation of the said lens and image supports; thirdly, connections between the two cam faces for causing them to rotate simultaneously so that the angularly corresponding vectors of the two cam faces shall be brought into action at the same time; fourthly, means for adjusting and regulating the said vector lengths as required for different lenses.

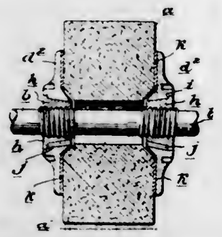
3. The combination with a photographic camera, comprising a lens support, an image support, and an object support, and ways adapted to guide two of said supports with relation to the third, of a rotary cam plate having its axis mounted perpendicularly to the direction of the ways in fixed relation to the lens support and adapted to act with opposite cam faces on the said object and image supports to move them simultaneously with relation to said lens support.

4. The combination with a photographic camera, comprising a lens support, an image support, and an object support, and ways adapted to guide two of said supports with relation to the third, of a plane cam plate eccentrically pivoted in fixed relation to said lens support and adapted to act with opposite cam faces on said other two supports.

5. The combination with a photographic camera, comprising a lens support, an image support, and an object support, and ways adapted to guide two of said supports with relation to the third, of a plane cam plate eccentrically pivoted in fixed relation to said lens support and adapted to act with opposite cam faces on said other two supports, the degree of eccentricity of said eccentric being adjustable.

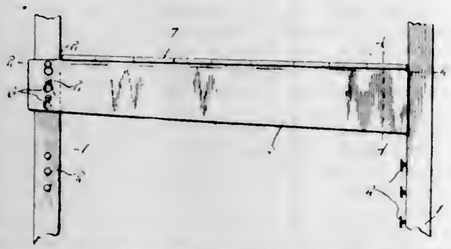
[Claims 6 to 8 not printed in the Gazette.]

1,142,296. PULP-GRINDSTONE. HENRY E. BELLEROSE, Lincoln, N. H. Filed Mar. 24, 1915. Serial No. 16,586. (Cl. 51—1.)



In combination with a threaded shaft, a grindstone, filler pieces and a pair of disks threaded on said shaft so as to clamp the stone, each of said disks being constructed of two concentric sections, one inserted in the other, the inserted section being threaded internally for engagement with the shaft and tapered inwardly externally to fit a correspondingly tapered opening in the outer section, means being provided for keying the two parts together, for the purpose set forth.

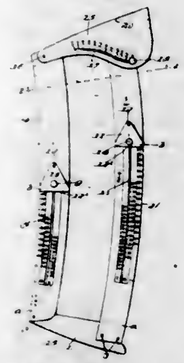
1,142,297. SCAFFOLD-BRACKET. ARTHUR R. BOYCE, Thief River Falls, Minn., assignor of one-half to Joseph M. Bishop, Thief River Falls, Minn. Filed Feb. 24, 1914, Serial No. 820,553. Renewed Apr. 21, 1915. Serial No. 22,947. (Cl. 20—81.)



In combination with spaced standards having headed lugs carried thereby, of brackets formed from sheet metal and having one of their ends provided with right angle head plates, said head plates having button hole slots formed therein, said brackets having similar slots formed in their other ends, said slots being adapted to detachably engage the headed lugs of the standards.

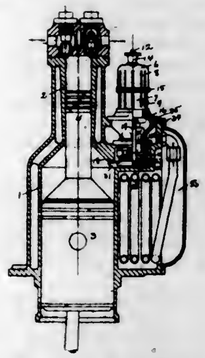
1,142,298. SKIRT-DRAFTING INSTRUMENT. FELIX BARIAULY, New Bedford, Mass. Filed May 25, 1912. Serial No. 699,770. (Cl. 33—14.)

1. In a skirt drafting instrument, a pair of spaced opposed side arms arranged in substantially parallel relation, an end arm connected rigidly to one end of one side arm and pivotally connected to the adjacent end of the other side arm, each of said side arms being longitudinally slotted and having a series of scales thereon for different grades of skirts, a marker for each arm, each marker having a guide pin that extends in the slot of the side arm and a thumb screw to hold the marker in any position to which it may be adjusted, a second end arm pivotally connected at one end to the opposite end of one side arm, said second end arm having a curved edge and a slot and having a scale adjacent the slot and corresponding to the scale on one of the side arms, and a thumb screw carried by the opposite side arm and projecting through the curved slot of the second named end arm.



2. In a skirt drafting instrument, a pair of spaced side arms each having a series of scales thereon those on one to indicate the hip and those on the other the waist measurements of different grades of skirts, a marker on each arm for coöperation with the scales thereof, an end arm connecting said side arms at one of the ends of the latter, and a second end arm adjustably connected to the opposite ends of the side arms and having a scale thereon which scale is similar to a scale on the arm indicating waist measurements.

1,142,299. COMPRESSOR. WALTER W. BROWN, Erie, Pa. Filed Mar. 12, 1914. Serial No. 824,149. (Cl. 230—34.)



1. In a compressor, the combination of a cylinder; a piston in said cylinder; inlet and discharge valves for said cylinder comprising an inlet member; a valve member secured to said inlet member having concentric passages in the valve member in opposite directions; and concentric check valves seating on said valve member in opposite directions and controlling said passages.

2. In a compressor, the combination of a cylinder; having a valve pocket, said pocket having a discharge opening and an opening leading to the cylinder, the pocket having annular shoulders at opposite sides of the discharge passage; an inlet member seated on one of said shoulders; a valve member seated on the outer of said shoulders and forming a joint with the inlet member, said valve member having oppositely directed passages; and a valve disk controlling the discharge passages arranged between the inlet member and the valve member, the valve disk controlling the inlet passages.

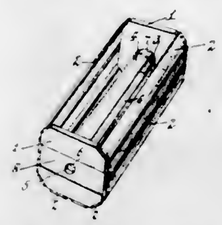
3. In a compressor, the combination of a cylinder having a valve pocket, said pocket having a discharge opening and an opening leading to the cylinder, the pocket having annular shoulders at opposite sides of the discharge passage; an inlet member seated on one of said shoulders; a valve member forming a joint with the inlet member and seating on the other of said shoulders, said valve member having passages leading in opposite directions, one leading from the inlet and the other to the discharge; a spring cap arranged on the valve member; a bolt for clamping the inlet member, valve member and spring cap together; and valves seating on the passages in the valve member.

4. In a compressor, the combination of a cylinder; a piston therein; inlet and discharge valves connected with the cylinder comprising an inlet member having a webbed head therein; a valve member forming a joint with the inlet member, said valve member having passages extending in opposite directions, one from within the valve member and the other from without the valve member; seats at the ends of the valve member surrounding said passages; and valves operating on said seats.

5. In a compressor, the combination of a cylinder; a piston therein; inlet and discharge valves connected with the cylinder comprising an inlet member having a webbed head therein; a valve member forming a joint with the inlet member, said valve member having passages extending in opposite directions, one from within the valve member and the other from without the valve member; seats at the ends of the valve member surrounding said passages; valves operating on said seats; and means for clamping the inlet and valve members together.

[Claims 6 and 7 not printed in the Gazette.]

1,142,300. VENTILATED PRODUCE-CRATE. FRANCIS MORTIMER BURNHAM, Kentfield, and CHARLES ALBERT MYERS, Berkeley, Cal. Filed Apr. 18, 1914. Serial No. 832,760. (Cl. 217—42.)



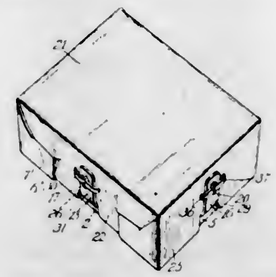
1. A ventilated produce-crate comprising ends, and spaced slats connecting said ends to form the outer wall; blocks seated and movable in sockets on the inner faces of the ends, said ends and blocks having registering holes made through them; and spaced slats connecting said blocks.

2. A ventilated produce-crate comprising ends, and spaced slats connecting said ends to form the outer wall; blocks seated and movable in sockets on the inner faces of the ends, said ends and blocks having registering holes made through them and the outer faces of the ends being grooved from the holes to the edges; and spaced slats connecting said blocks.

1,142,301. TEMPORARY CARRYING-CASE. JOSEPH A. CAMERON, Indianapolis, Ind. Filed Aug. 20, 1913. Serial No. 785,605. (Cl. 229—47.)

1. A carrying case comprising a main part including a wall and a tongue on the wall, the tongue having a hole therein, a cover part including a flange having a recess in its edge portion to receive the tongue, and two flexible fingers on the flange adjacent to the recess to be received into the hole in the tongue.

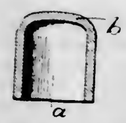
2. A carrying case comprising a bottom with four side portions and tongues thereon, there being a hole in the end portion of each tongue, and a top with four flange portions adapted to embrace the side portions and having each a recess in its edge portion, there being four recesses which receive the tongues respectively, each flange portion having a connecting device attached thereto adjacent to the end of the recess therein adapted to enter the hole in the tongue.



3. In a temporary carrying case, the combination of a bottom and four wall portions thereon, each wall portion having an aperture in the middle portion thereof, four tongues fixedly connected to the four portions respectively at the lower end of the aperture, there being a hole in each tongue, a separate top and four flange portions thereon adapted for entirely embracing the wall portions, each flange portion having a recess in its edge to receive one of the tongues, and four pairs of flexible fingers fixedly connected to the four flange portions respectively, a pair to each portion between the end of the recess and the base of the flange, to be received into the hole of the adjacent tongue.

4. In a temporary carrying case, the combination with a body part comprising a bottom and a wall, and flexible apertured tongues on the wall, of a cover part comprising a top and a flange thereon extending from the top and about the wall to the plane of said bottom, the edge of said flange having recesses therein to receive the body portions of the tongues, and flexible fastening devices fixedly secured to said flange adjacent to the inner ends of said recesses to engage said apertured tongues.

1,142,302. METHOD OF MAKING UNIONS AND THE LIKE. HJALMAR G. CARLSON, Worcester, Mass., assignor to Rockwood Sprinkler Company of Massachusetts, Worcester, Mass., a Corporation of Massachusetts. Filed Mar. 12, 1913. Serial No. 753,658. (Cl. 29—157.)



1. A method of making an article of sheet metal which consists in forming a cylindrical cup shaped blank from a circular disk of sheet metal, perforating the end thereof, forcing a plunger larger than the perforation against the perforated end and through it into the interior of the blank, and doubling over the end of the blank in which the perforation is located.

2. A method of forming a metallic article which comprises bending outwardly and doubling over inwardly the edge of a cylindrical blank, and concaving the inner part of said doubled edge to cause the inner surfaces thereof to come into contact throughout and to fill the entire space between them, whereby the end of said blank will have substantially twice the thickness of the metal of the original blank.

3. A method of forming an article of sheet metal which consists in providing a cup shaped blank having an open end and a perforation in the other end, forcing a plunger into said blank through the perforated end to bend the edge of the perforation inwardly, forcing the walls of the open end into contact with said plunger to shape the interior thereof, and exerting pressure on the edge of the

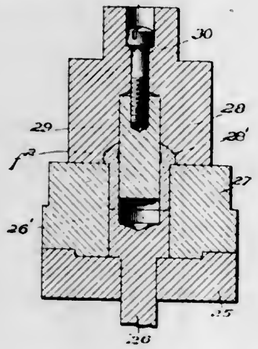
perforated end of the blank to double said edge inwardly against the plunger.

4. A method of forming an article from sheet metal which consists in providing a cup shaped blank having an open end and a perforation in the other end, and forcing a plunger into said blank through the perforated end to double the edge thereof inwardly against the plunger and to force said blank longitudinally in a set of dies to condense the double edge of the blank.

5. A method of forming a metallic article which consists in providing a cup shaped blank of sheet metal having an open end and a perforation in the other end, forcing a plunger into said blank through the perforated end, forcing the walls of the open end into contact with said plunger to shape the interior thereof, and exerting pressure on the edge of the perforated end of the blank to double said edge inwardly against the plunger, and to force said blank longitudinally in a set of dies to condense the doubled edge of the blank closely around said plunger, and finally compressing said doubled edge over on itself to fill the entire space between the two inner surfaces thereof and form a circumferential projection on the blank of substantially twice the thickness of the metal of the original blank.

[Claims 6 to 11 not printed in the Gazette.]

1,142,303. METHOD OF MAKING UNIONS AND THE LIKE. HJALMAR G. CAALSON, Worcester, Mass., assignor to Rockwood Sprinkler Company of Massachusetts, a Corporation of Massachusetts. Filed Dec. 3, 1914. Serial No. 875,356. (Cl. 29—157.)

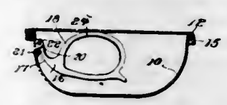


1. A method of making a member of a pipe union from sheet metal which consists in forming a disk shaped sheet metal blank into a cup-shaped form, perforating the end thereof, forcing a plunger axially into the blank through the perforation, and simultaneously forcing the blank longitudinally in a set of dies and compressing it to form the open end thereof into a cylindrical shape surrounding said plunger and the perforated end into a larger form in contact with the plunger at the bottom and top thereof.

2. A method of making a member of a pipe union from sheet metal which consists in providing a cup-shaped blank having an open end, punching out the entire opposite end thereof, introducing a plunger of the size of said opening into the interior of the cylindrical blank, holding the exterior of the open end of the blank in its original shape and compressing the edge of the opposite end around said plunger to increase its diameter, decrease its length, and keep its outer edge in contact with the plunger.

3. A method of making a member of a pipe union which consists in forming a cylindrical blank with both ends open and the corner of one end rounded over, introducing said blank into a set of dies having a passage therein of substantially the same size as the exterior diameter of the blank, placing a plunger of the same external diameter as the interior of the blank into the blank from the rounded end to hold the interior of the blank in shape, and bringing another die of said set against the rounded end of the blank to reduce the length thereof and increase the external diameter around said plunger.
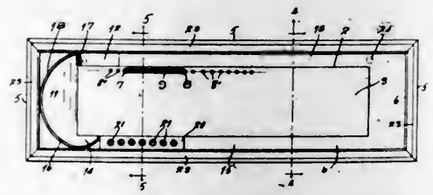
1,142,304. DRINKING-CUP. JOHN K. CHAMP, Paris, Ky. Filed Sept. 23, 1913. Serial No. 791,443. (Cl. 65—13.)



1. A drinking cup comprising a bowl, and a handle for the bowl having a shank pivoted to the wall of the bowl in close spaced relation thereto and downwardly spaced within the bowl vertically of said wall, the handle being movable upon its pivot to lie within the bowl and to lie exteriorly thereof, the said shank of the handle being arranged to engage over the rim of the bowl wall when the handle is in position exteriorly of the bowl, the said rim constituting a stop for the handle shank, the handle, when in position within the bowl, being arranged to have its shank rest against the wall of the bowl, whereby the handle proper will be spaced above the bottom of the bowl.

2. A drinking cup comprising a bowl, a bracket secured to the wall of the bowl interiorly thereof and downwardly spaced from the rim of the bowl, and a handle for the bowl having a shank pivotally connected to said bracket, the handle being movable upon its pivot to lie within the bowl and to lie exteriorly thereof, the shank of the handle being arranged to engage over the rim of the bowl wall when the handle is in position exteriorly of the bowl, the handle when in position within the bowl being supported above the bottom wall thereof by the engagement of said shank with the bracket.

1,142,305. GAME-TABLE. HERMAN T. CHISHOLM, Baltimore, Md., assignor of one-half to Walter F. Kilchenstein, Baltimore Md. Filed Sept. 4, 1914. Serial No. 860,240. (Cl. 46—62.)



1. In a game board, a supporting base board, a block mounted centrally in said base board, a molding extending upon the marginal edge of said board and being spaced from said block for forming channels between said block and the inner faces of said molding, a block positioned in one of said channels, a tapered approach formed integral with said block and projecting into another of said channels, and an arcuate ball guiding wall carried by said block.

2. In a game board, a supporting base board, a block mounted centrally in said base board, a molding extending upon the marginal edge of said board and being spaced from said block for forming channels between said block and the inner faces of said molding, a block positioned in one of said channels, a tapered approach formed integral with said block and projecting into another of said channels, an arcuate ball guiding wall carried by said block, a block slidably mounted within another of said channels and being provided with a plurality of facial pockets.

3. In a game board, a supporting base board, a block mounted centrally in said base board, a molding extending upon the marginal edge of said board and being spaced from said block for forming channels between said block and the inner faces of said molding, a block positioned in one of said channels, a tapered approach formed integral with said block and projecting into another of said channels, a block mounted in one of said channels and being provided with a plurality of facial pockets, and an arcuate ball guiding wall carried by said block, an elastic member supported by and upstanding from said first named

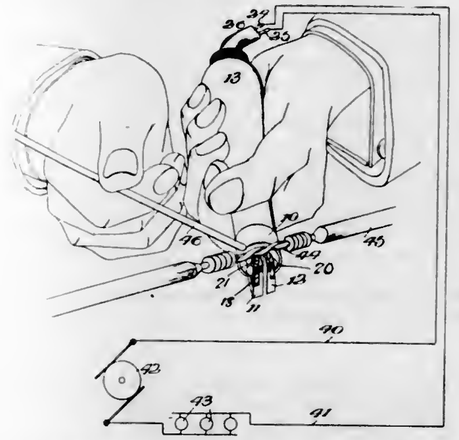
for receiving balls from said arcuate guiding wall and deflecting them into said pockets.

4. In a game board, a supporting base board an arcuate ball guiding wall carried by one end of said board, a block slidably carried by said base board and being provided with a plurality of facial pockets, and an elastic member supported by and upstanding from said base board for receiving balls from said arcuate guiding wall and deflecting them into said pockets.

5. In a game board structure, a game board having a plurality of upstanding pins detachably secured thereto, an elastic ball deflecting member detachably mounted upon said pins, and a block provided with a plurality of facial pockets slidably carried by said game board and adjustable with respect to said elastic member.

[Claims 6 to 14 not printed in the Gazette.]

1,142,306. ELECTRIC SOLDERING-IRON. JOHN G. CLEMENS, Buffalo, N. Y. Filed Nov. 21, 1914. Serial No. 873,347. (Cl. 219—26.)



1. A soldering tool including a handle, contact heads carried by the handle and insulated from each other, a contact proper of high resistance material in electrical engagement with one head, means for supplying current to one of the heads, and means for conducting current from the other head.

2. A soldering tool including a handle, contact heads carried by the handle and insulated from each other, a contact proper of carborundum in electrical engagement with one head, means for supplying current to one of the heads, and means for conducting current from the other head.

3. A soldering tool including a piece of carborundum, means for holding said piece of carborundum in engagement with the work to be operated upon, and means for supplying current to the carborundum and for conducting current from the work.

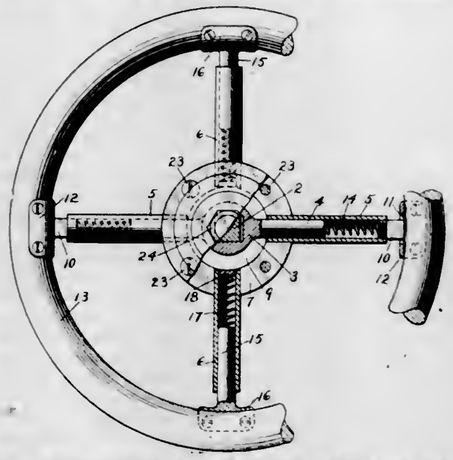
4. A soldering tool including spaced contact heads connected in series in a normally energized circuit, the circuit being broken between the contact heads, and a member formed of high resistance material carried by one of the heads and in electrical engagement therewith.

5. A soldering tool including spaced contact heads connected in series in a normally energized circuit, the circuit being broken between the contact heads, and a member formed of high resistance material carried by one of the heads and in electrical engagement therewith, said member being detachably secured to the head.

[Claims 6 and 7 not printed in the Gazette.]

1,142,307. HAND-WHEEL FOR AUTOMOBILES. HENRY C. CLEVE, Washington, D. C. Filed Oct. 30, 1914. Serial No. 869,423. (Cl. 74—33.)

1. The combination with a steering shaft for a motor vehicle, of a hand wheel for operating said shaft, comprising a rim, a yoke mounted on the shaft and provided with trunnions, sleeves forming spokes of the wheel and connected to the rim to permit relative lateral movement and containing said trunnions, and springs mounted in said sleeves for resisting lateral movement of the trunnions.



2. The combination with a steering shaft for a motor vehicle and a hand wheel for operating said shaft, of a yoke mounted on the shaft and rotatable therewith, sleeves forming spokes of the wheel, trunnions carried by said yoke and slidable in said sleeves, springs for resisting movement of the trunnions, other sleeves forming spokes at right angles to the first mentioned sleeves, pins secured to the rim of the wheel and slidable in said sleeves, and springs for resisting movement of said pins in the sleeves.

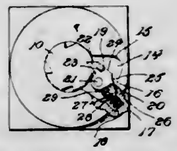
3. The combination with a steering shaft for a motor vehicle, of a hand wheel for operating said shaft comprising a rim, a collar surrounding said shaft, radial sleeves secured to said collar and forming wheel spokes, a yoke secured to the shaft and having oppositely extending trunnions slidable in one pair of sleeves, pins secured to the rim and slidable in another pair of sleeves disposed at right angles to the first pair and a slidable connection between the first pair of sleeves and the rim to permit lateral movement of said sleeves.

4. The combination with a steering shaft for a motor vehicle having a key shaped end, of a hand wheel adapted to be applied to said end and slidable longitudinally thereon, a collar secured to said shaft and springs carried by said collar for opposing longitudinal movement of the shaft relative to the wheel.

5. The combination with a steering shaft for motor vehicles, of a hand wheel for operating said shaft comprising a rim, a yoke mounted on said shaft and provided with trunnions, sleeves forming spokes of the wheel and extending substantially from the hub to the rim and containing said trunnions, and springs mounted within said sleeves between the trunnions and the rim.

[Claim 6 not printed in the Gazette.]

1,142,308. NUT-LOCK. JESSE Y. CLYMER and MARKIN L. HELLER, Richlandtown, Pa. Filed Mar. 12, 1914. Serial No. 824,281. (Cl. 151—12.)



1. A device of the character described including a nut bored to receive a bolt, said nut having a recess formed therein opening into said bore, one wall of said recess forming a stop shoulder, a pawl pivotally mounted upon

the nut and arranged in said recess, said pawl being adapted to project into the bore of the nut for engagement with the bolt, and a spring pressed plunger arranged to extend into the recess and disposed to engage the pawl, said plunger being adapted to maintain the pawl in operative position projected into the bore of the nut or in retracted inoperative position in engagement with said stop shoulder.

2. A device of the character described including a nut bored to receive a bolt, said nut having a recess formed therein opening into said bore, a pawl pivotally mounted upon the nut and disposed in said recess, said pawl being adapted to project into the bore of the nut for engagement with the bolt and being formed with a concaved seat and a spring pressed plunger arranged to extend into the recess and disposed to engage the pawl, said plunger being adapted to maintain the pawl in operative position projected into the bore of the nut or in retracted inoperative position in engagement with said seat.

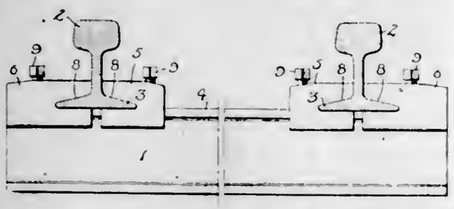
3. A device of the character described including a nut bored to receive a bolt, said nut having a recess formed therein opening into said bore, one wall of said recess forming a stop shoulder, a pawl pivotally mounted upon the nut and disposed in said recess, said pawl being formed with angularly disposed straight faces and having a concaved seat formed therein intermediate the converging extremities of said faces, said nut being provided with a socket opening into said recess, a spring arranged in said socket, and a plunger mounted in the spring, said plunger being formed with a head having a convex face and arranged to contact with the pawl and adapted to maintain the pawl in operative position projected into the bore of the nut for engagement with the bolt by the plunger engaging one of said straight faces formed on the pawl or to maintain the pawl in retracted inoperative position within the recess with the stop shoulder formed on the nut engaging one of the straight faces of the pawl and the convex face of the plunger engaging the concaved seat formed in said pawl.

4. A device of the character described including a nut bored to receive a bolt, a pawl pivotally mounted upon the nut and arranged to engage the bolt, a shoulder carried by the nut and providing a stop for the pawl, said pawl being formed with a seat, and means resiliently engaging said pawl upon one side of the pivotal axis thereof, said pawl being shiftable to a position to engage said stop with the seat thereof in engagement with said means and intersecting the pivotal center therebetween and the pawl.

5. A device of the character described including a nut bored to receive a bolt, a pawl pivotally mounted upon the nut and disposed to engage the bolt, said pawl being formed with a concave seat, a spring pressed plunger carried by the nut and engaging the pawl upon one side of the pivotal axis thereof, said plunger being formed with a head having a convex face, the pawl being movable to disengage the bolt with the convex face of the plunger engaging in said concave seat, the axis of the plunger intersecting the seat, and means carried by the nut for limiting the pawl in its movement in one direction.

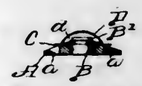
[Claim 6 not printed in the Gazette.]

1,142,309. RAIL-FASTENING DEVICE. ALFRED COBLE, Jr., Westerville, Ohio. Filed Nov. 9, 1914. Serial No. 871,159. (Cl. 238—4.)



The combination with an I beam whose upper corners are sharpened, a rail resting on said beam, and fastening means abutting one side of the rail, of a rectangular clamping block resting on the beam and having a transverse slot in one end receiving the base-flange on the other side of the rail, a pair of L-shaped flanges depending from the two sides of the block and having their horizontal portions contacting with the under sides of the horizontal flanges at the top of the I beam, and an upright set screw threaded downwardly through said block and bearing against the top of said I beam directly above its upright web, whereby tightening of said screw may deflect said horizontal flanges upwardly to present their sharpened upper corners for contact with the rail.

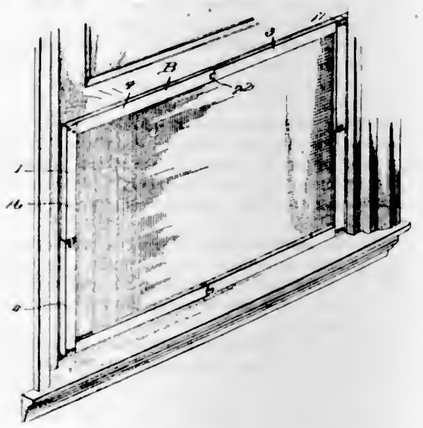
1,142,310. SAFETY-RAZOR. HOOPER COYNE, Baltimore, Md. Filed Oct. 5, 1914. Serial No. 865,116. (Cl. 30—12.)



1. In a safety razor, the combination with a holder provided with a plurality of flanged studs projecting from one side thereof, of a blade adapted to slip over said studs, and a sliding resilient locking piece arch-shaped in cross section and having the edges turned inward and slightly upward toward the arch, said member being, adapted to engage said flanged studs and to press down and hold the razor blade in position, substantially as described.

2. In a safety razor, the combination with a holder provided with a plurality of flanged studs projecting from one side thereof, of a blade adapted to slip over said studs, and a sliding resilient locking piece arch-shaped in cross section and having the edges turned inward and slightly upward toward the arch, the said inwardly-turned portions having beveled ends adapted to engage said flanged studs and to press down and hold the razor blade in position substantially as described.

1,142,311. WINDOW-SCREEN. MAX E. CRANDALL, Kingfisher, Okla., assignor of one-half to Martin J. Meier, Kingfisher, Okla. Filed Mar. 31, 1914. Serial No. 828,546. (Cl. 156—38.)



1. A window screen frame having its members composed of telescopically connected sections, each section being formed from a sheet blank formed to provide spaced side portions and edge portions integrally connected except between one of the side portions and one of the edge portions, the said side portion of each section being provided at its free edge with a flange for the connecting of the edge of a screen sheet.

2. As a new article of manufacture, a window screen frame member formed from a sheet blank bent to substantially hollow rectangular form and having one side provided with a flange overlapped by the edge portion of

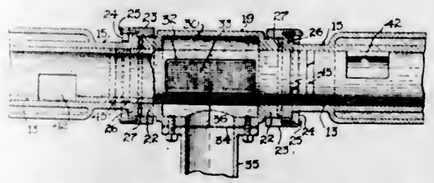
adjacent side, the said edge portion of the said adjacent side being provided with a flange lying in spaced relation with respect to the said side and adapted for the engagement therewith of an edge portion of a sheet of screen material.

3. As a new article of manufacture, a window screen frame member comprising telescopically fitted sections, each formed from a sheet blank bent to substantially hollow rectangular form, one side of each section being provided with a flange overlapped by the edge portion of an adjacent side of the section, the said adjacent side being provided with a flange lying in spaced relation with respect thereto, the said sections in their assembled relation being arranged with the said edge portion and the flange of the said adjacent side of one section received between the said adjacent side and the flange of the other section and telescopically.

4. A window screen frame comprising separably connected stile and rail members, each of the members being formed from a sheet blank bent to substantially hollow rectangular form, one of said members having two of its adjacent walls cut away at its ends, and the members associated therewith each having one end disposed within the cut away portion of the first-mentioned member, securing elements fitted through the assembled ends of the members, and means upon the members for the connection of a sheet of screen material.

5. In a window screen, a frame comprising stiles and rails consisting of telescopically connected sections, and means for holding the sections of each stile and each rail at adjustment comprising a strip bent at one end to engage the interfitted end of one section and at its other end bent to engage with the corresponding end of the other section.

1,142,312. INTERNAL-COMBUSTION ENGINE. WALTER M. CUSICK, Boston, Mass. Filed Oct. 24, 1912. Serial No. 727,483. (Cl. 123—59.)

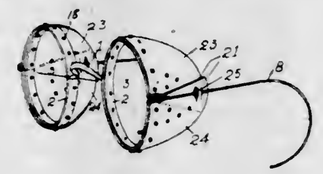


1. In a motor of the character described, in combination, a plurality of cylinders cast in pairs, and provided with separate inlet and exhaust ports in the head of each cylinder, cylindrical casings for inlet and exhaust valves integral with the cylinders of each pair, and arranged with the inlet valve casings in alinement with each other and with the exhaust valve casings in alinement with each other, hollow intermediate sections joining said alined inlet valve casings and said alined exhaust valve casings and detachable therefrom, means for securing said sections to the valve casings with which they coöperate, hollow rotary valves located in said casings and provided with ports coöperating with the ports in said cylinders, and means for rotating said valves.

2. In a motor of the character described, in combination, a plurality of cylinders cast in pairs, and provided with separate inlet and exhaust ports in the head of each cylinder, cylindrical casings for inlet and exhaust valves integral with the cylinders of each pair, and arranged with the inlet valve casings in alinement with each other and with the exhaust valve casings in alinement with each other, hollow intermediate sections joining said alined inlet valve casings and said alined exhaust valve casings and detachable therefrom, means for securing said sections to the valve casings with which they coöperate, hollow rotary valves located in said casings and provided with ports coöperating with the ports in said cylinders, means between said ports to prevent the escape of gas between the rotary valves and their casings, and means for rotating said valves, substantially as described.

3. In a motor of the character described, in combination, a plurality of cylinders arranged side by side but separate from each other and each provided with a port in its head, a cylindrical valve casing on each cylinder communicating therewith, a section of a valve casing located between said cylinders and detachably secured to the valve casings on said cylinders, a hollow rotary valve extended through said intermediate section into the valve casings on said cylinders, and provided with a port which connects the intermediate section with the interior of the hollow valve and with additional ports to establish communication between the interior of said valve and said cylinders, substantially as described.

1,142,313. EYE-PROTECTOR. GEORGE H. DAY, Southbridge, Mass., assignor to American Optical Company, Southbridge, Mass., a Voluntary Association of Massachusetts. Filed Dec. 28, 1914. Serial No. 879,304. (Cl. 2—149.)



1. A frame for an eye protector, comprising a strip of material interiorly grooved to receive a lens, said strip having ears at the termini thereof offset inwardly of the said termini, whereby when the ears are secured to hold the termini in tight engagement a space is provided in which to pivot a temple, substantially as described.

2. In a device of the character described, the combination with a main frame, of a metal channel member secured thereto, said channel member having a flexible shield member disposed within the groove thereof, the material of the channel being indented to bite into the flexible shield and securely retain the same in position.

3. The combination with a lens frame having a plurality of apertures formed therein, of a shield member pivoted to the frame, and having a plurality of indentations formed in the outer face thereof to produce bosses on the inner surface, whereby when the shield is swung into open position the bosses may be snapped into the apertures in the frame to lock the shield in adjusted position, substantially as described.

4. In an eye protector, the combination with a lens retaining frame, of a pair of flexible shield members secured to the frame and having their adjacent portions overlapped, whereby the shield as an entirety may accommodate itself to varying facial configurations while preserving its unity as a protecting medium.

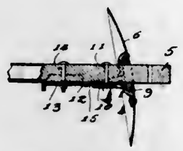
5. In an eye protector, the combination with a lens retaining frame, of flexible shield members secured to the frame in over-lapped relation, a temple carried by the frame and connections between the temple and the shield members whereby the relative position of the shield members is varied by movement of the temple into operative position, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,142,314. MARKER MECHANISM FOR PLANTERS. CLARENCE H. DOOLEY, Rock Island, Ill., assignor to Deere & Mansur Co., Moline, Ill., a Corporation of Illinois. Filed Aug. 6, 1913. Serial No. 783,424. (Cl. 111—24.)

1. In a corn planter marking device, the combination of a non-rotatable pole straight from end to end, a non-rotatable disk holder having an inward projecting bracket open on one side and extending along the pole, a concavo-convex disk rotatably mounted on the holder and held therby when in operation in fixed angular relation to the ground, a fastening device positively holding the bracket

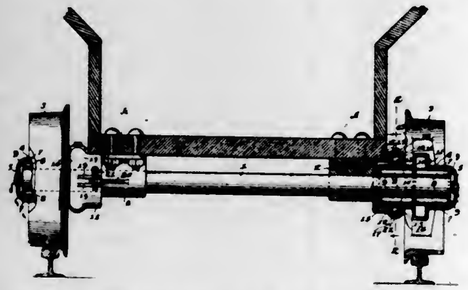
and disk in fixed relation to the pole axially and angularly, and means interposed between the bracket and the pole for varying the angle with respect to the pole at which the bracket and disk are held by the said fastening device.



2. In a corn planter marking device, the combination of a non-rotatable pole straight from end to end, a non-rotatable disk holder having an inward projecting bracket open on one side and extending along the pole, a concavo-convex disk rotatably mounted on the holder and held thereby when in operation in fixed angular relation to the ground, a fastening device holding the bracket and disk in fixed relation to the pole axially and angularly, and a wedge interposed between the bracket and the pole and adjustable along the pole for varying the angle with respect to the pole at which the bracket and disk are held by the said fastening device.

3. In a corn planting marking device, the combination of a non-rotatable pole straight from end to end and having three or more equally spaced transverse bolt holes therethrough near the outer end, a non-rotatable disk holder having an inward projecting bracket open on one side and extending along the pole, a concavo-convex disk rotatably mounted on the holder and held thereby when in operation in fixed angular relation to the ground, a bolt adapted to extend through any of the aforesaid holes to positively hold the bracket and disk in fixed relation to the pole axially and angularly in any of several positions of longitudinal adjustment, a slotted wedge adapted to be interposed between the bracket and the pole at any one of the said positions for varying the angle with respect to the pole at which the bracket and disk are held by the said bolt, and a second bolt adapted to extend through the slot in the wedge and the hole in the pole immediately adjacent thet one containing the first said bolt for holding the wedge in adjustable position.

1,142,315. CAR-WHEEL CONSTRUCTION. WALTER A. DORSEY, Columbus, Ohio, assignor to The Bonney-Floyd Company, Columbus, Ohio, a Corporation of Ohio. Filed Oct. 21, 1914. Serial No. 867,862. (Cl. 105—67.)



1. The combination of the body, the axle, the bearing for the axle, the wheel having a hub extending inward toward the bearing, the sleeve or ring surrounding the hub and detachably connected to the bearing and the body, the series of balls outside of the hub and within said sleeve or ring and arranged to lock them together, substantially as set forth.

2. The combination of the body, the axle, the bearing, the wheel having a hub extending in toward the bearing, the sleeve or ring surrounding the wheel hub and detachably connected to the bearing and to the body, and the series of balls outside of the wheel hub and inside of the sleeve or ring, and detachable, while in operative position, with the wheel, from the bearing and from the axle.

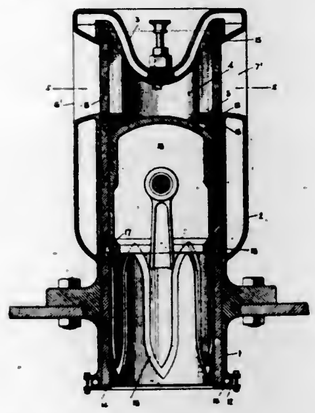
3. The combination of the body, the axle, the bearing, the wheel, the hub extending inward from the wheel toward the axle, the series of balls engaging axially with the hub, and the sleeve or ring outside of the balls and engaging axially therewith, said hub, balls and sleeve being detachable while in working positions, relatively to each other, from the bearing and the body.

4. The combination of the body, the bearing, the axle, the wheel having an inwardly projecting hub provided with outwardly extended ball race flanges, the sleeve or ring surrounding the balls and provided with inward extended ball race flanges, the series of balls in the race arranged to lock together the sleeve and the hub, and holding devices for the sleeve adapted to hold it stationary relatively to the body or at option to permit its separation therefrom independently of the bearing.

5. The combination of the body, the bearing, the axle, the wheel having a hub extending inward toward the bearing, the series of balls engaging axially with the hub, the sleeve or ring extending integrally around the hub and around said balls and engaging axially therewith, and means for holding said sleeve stationary relatively to the body or, at option, permitting it to be operated from the wheel independently of the bearing.

[Claim 6 not printed in the Gazette.]

1,142,316. ENGINE-VALVE. DAVID DUFFY, New York, N. Y., assignor to John P. Carlson, Brooklyn, N. Y. Filed Aug. 7, 1912. Serial No. 713,731. (Cl. 123—80.)



1. In an engine of the class described, a cylinder formed with an intake and an exhaust port, a sleeve positioned in said cylinder and coextensive with and slidingly fitting the bore thereof, said sleeve or drum being formed with a plurality of ports, a piston arranged to reciprocate within said sleeve, the entire piston being housed in the sleeve and means projecting from said piston engaging the sleeve for rotating the same in a predetermined ratio so as to cause the ports in the sleeve and in the cylinder to register at different times, whereby a proper intake and exhaust is provided.

2. In an explosive engine of the class described, a cylinder formed with an intake port and an outlet port, a rotating sleeve arranged in and coextensive with said cylinder formed with a plurality of ports adapted to be successively brought into register with the ports in said cylinder, said sleeve being also formed in its inner face with a plurality of grooves or ways merging into each other at their extreme ends, a piston, and projections on the piston fitting into said ways and acting against the walls thereof during the reciprocation of the piston for causing a rotary movement of the sleeve.

3. In an explosive engine of the character described, a cylinder formed with an inlet port and an outlet port, a

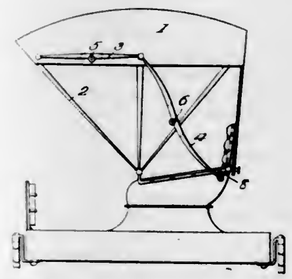
reciprocating piston, a pin radiating from said piston, and a rotating sleeve or drum arranged between said piston and said cylinder, said sleeve or drum being formed with a plurality of ports arranged at approximately one hundred and twenty degrees apart and of a width approximately of fifteen degrees, said sleeve being also formed with a plurality of ways extending substantially longitudinally of the sleeve and curved in opposite directions at each end, the ends of said ways merging with the next succeeding way, each of said ways being formed so as to co-act with said pin whereby the pin upon each stroke of the piston will advance the sleeve thirty degrees, the ports in said cylinder being set at such an angle apart as to co-act with the ports in the sleeve for providing a proper intake and exhaust.

4. In an explosive engine of the character described, a cylinder formed with an inlet port and an outlet port, said ports being set at approximately one hundred and forty degrees apart, a reciprocating piston, a rotating sleeve arranged in said cylinder and exteriorly of said piston, and means connected with said piston and acting on said sleeve for causing a rotary movement of the sleeve, said sleeve being formed with a plurality of ports set at approximately one hundred and twenty degrees apart.

5. In an explosive engine of the character described, a cylinder provided with an intake and an outlet port, a reciprocating piston, a rotating sleeve arranged in said piston and formed with a plurality of ports designed to at different times register with said intake and outlet ports, and means projecting from said piston engaging said sleeve and acting on said sleeve for giving the sleeve a rotary movement as the piston reciprocates, said sleeve being formed with means co-acting with the means projecting from the piston which will cause the rotation of the sleeve to be intermittent, some of the stationary periods of the sleeve being during the time the ports in the sleeve register with the ports in the cylinder.

[Claims 6 to 11 not printed in the Gazette.]

1,142,317. ATTACHMENT FOR VEHICLE-TOPS. CHARLES S. FAIL, Chariton, Iowa. Filed July 21, 1913. Serial No. 780,257. (Cl. 21—62.)



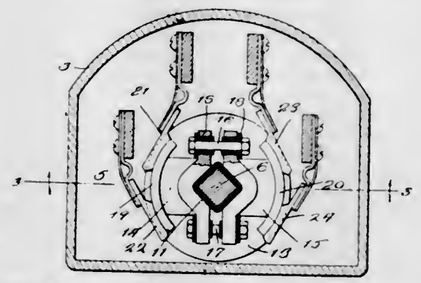
1. In a vehicle top, a supporting member, a top bracing member, an arm pivoted at one end on the supporting member and having a pivotal connection at its opposite end with the top bracing member and adjustable about said pivotal connection, and means for securing the arm in its adjusted position relative to the top bracing member.

2. In a vehicle top, a supporting member, a top bracing member having an eye at its lower end, an arm provided at one end with a stud engaging said eye and pivotally connected at its opposite end to the supporting member, and a nut threaded upon the stud and bearing against the bracing member for holding the same at angular adjustment with respect to the arm.

3. In a vehicle top, a supporting member, a top bracing member having a tapered opening at its lower end, an arm having a conical lateral stud at one end fitting in and extending through said opening and having an eye at its opposite end pivotally fitting on the end of the supporting member, and a nut threaded upon the stud and bearing against the bracing member whereby to hold the same at angular adjustment with respect to the arm.

4. In a vehicle top, a supporting member having a reduced end, an arm having an eye pivotally fitting on said end, means for retaining said arm in engagement with said end, a conical lateral stud at the opposite end of said arm, the arm being provided with an annular shoulder around the base of said stud, a top bracing member provided at its lower end with a tapered opening fitting on said conical stud whereby said member may be adjusted relative to the arm, and a nut threaded upon the extremity of said stud and bearing against the said bracing arm whereby to hold the same against said annular shoulder in a set angular relation to the arm.

1,142,318. ELECTRIC SWITCH. DUDLEY T. FISHER, Columbus, Ohio, assignor to The Jeffrey Manufacturing Company, a Corporation of Ohio. Filed Nov. 10, 1909. Serial No. 527,299. (Cl. 175—282.)



1. In an electric switch, the combination of a casing, a division slab in said casing forming a flame-proof chamber in one part thereof, an operating spindle extending through the slab, a contact making and breaking device connected to the spindle and located within the flame-proof chamber, terminals in the casing outside of the flame-proof chamber and connected to the contact device, conductor plugs adapted to engage the terminals through suitable apertures in the casing, a shutter adapted to engage the plugs when in one position and to disengage them when in another, a rack on the shutter, and a pinion on the spindle engaging the rack whereby the shutter is moved into its plug-engaging or its plug-disengaging position in accordance with whether the contact device is in its contact making or its contact breaking position, substantially as set forth.

2. In an electric switch, the combination of a casing, an operating shaft rotatable in the casing, one part of the said shaft being square, an insulating sleeve on the square part of the shaft, two contact segments each adapted to engage a corner of the bushing, clamping bolts between the two contacting segments, insulating sleeves surrounding the said bolts, and contact brushes adapted to engage the segments, substantially as set forth.

3. In an electric switch the combination of a casing provided with a wall dividing the casing into two chambers, one of which is flame proof, a spindle extending through the said dividing wall and adapted to oscillate about its axis, contact devices connected with the said spindle in the said flame proof chamber and adapted to make and break electrical connection, a conductor terminal in the other chamber, a conductor plug adapted to engage the said terminal, and means controlled by the movement of the said spindle and connected therewith outside of the said flame proof chamber for locking the said plug in engagement with the said terminal when electrical connection is established through the said contact devices, substantially as set forth.

1,142,319. GATE-CONTROLLING MECHANISM FOR RAILROADS. JOSEPH AMEDEE GASSE, Brockton, Mass. Filed Sept. 12, 1911. Serial No. 648,939. (Cl. 39—38.)

1. In combination a railway gate, a shaft for operating the gate, a gear wheel loosely mounted upon the shaft, means for engaging the shaft and gear wheel after a

partial rotation of the gear wheel, means for holding the shaft from rotation in one direction, and means operated by a partial rotation of the gear wheel for releasing said holding means and permitting the gate to operate.



2. In combination a shaft, a gate arm operable by the shaft, a gear wheel loosely mounted upon the shaft, the gear wheel being formed with a recess having opposed shoulders and the shaft having a stud projecting into said recess and engageable with one or the other of said shoulders to positively connect the gear wheel with the shaft, a ratchet wheel on the shaft, a pawl engaging the ratchet wheel for preventing a return movement of the shaft, and means mounted on the gear wheel for lifting said pawl upon a partial rotation of the gear wheel.

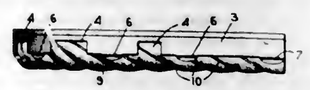
3. In a railway gate, the combination of a shaft, a gate arm operable by the shaft, a gear wheel mounted on the shaft and having a recess provided with oppositely disposed shoulders, a stud projecting from the shaft and engaging in said recess, a ratchet wheel mounted on the shaft, a pawl engaging the ratchet wheel, means on the gear wheel for raising the pawl upon a partial rotation of the gear wheel, a motor geared to said gear wheel, a source of energy connected in a normally open circuit with the motor, means operated by a train for closing said circuit and energizing the motor to operate the gate arm, and means for breaking said circuit as the gate nears its terminal position.

4. In a railway gate, a motor operatively connected to the gate to raise and lower the same, a source of energy, a normally open circuit including the motor and the source of energy, a switch movable in one direction to close said circuit and energize the motor, train operated means for shifting said switch to close the circuit, an electro-magnet acting to hold the switch in its closed position after it is shifted, a normally closed circuit connecting the electro-magnet to the source of energy, and a circuit breaking device located in said last named circuit and operated in connection with the gate and comprising a plurality of spaced contact strips connected in the magnet circuit, pivotally mounted contact members electrically connecting said strips, means movable with the gate for shifting said contact members to temporarily break the circuit as the gate nears either of its terminal positions.

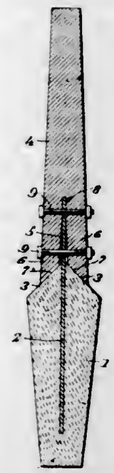
5. The combination with a gate arm, a motor for actuating the gate arm, a source of energy connected in circuit with the motor, and a circuit breaking device mounted in said circuit, of a magnet for holding said circuit breaking device in position to close said circuit, parallel spaced arcuate contact strips, said strips being connected in circuit with the magnet and the source of energy, oppositely disposed members pivoted to said strips and normally electrically connecting the same in closed circuit with the magnet and the source of energy, a link freely pivoted to the gate arm and depending therefrom and having a stud at its lower end extending between said strips, said link being shiftable with the gate arm to temporarily shift the pivoted contact members to break the circuit through the source of energy and the magnet as the gate arm reaches either one of its terminal positions.

1,142,320. HORSESHOE. JOHN GILLOOLY, Norwood, Mass. Filed Jan. 15, 1915. Serial No. 2,465. (Cl. 168—13.)

A cushioned horse shoe comprising a channel bar having a base provided with nail holes, a continuous inner wall and a substantially parallel outer wall, the heel ends of both the outer and inner walls being drawn out to form oppositely disposed cushion retaining clips, the outer wall being also provided with like clips disposed at intervals, a cushion in said channel consisting of a rope having a plurality of strands, and binding wires embedded between and parallel to the adjacent strands whereby the cushioning member is strengthened and securely retained in said channel and the soft tread of the shoe preserved.

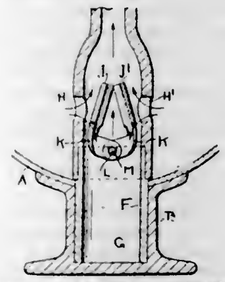


1,142,321. FENCE-POST. FREDERICK GRANDJEAN, Alexander, Ill. Filed May 8, 1914. Serial No. 837,242. (Cl. 72—83.)



A post comprising a base, having its upper end provided with upwardly converging oppositely inclined surfaces, an attaching member extending up from the center of the base, and an upper post member having a vertical central downwardly widened kerf in its lower end forming jaws on opposite sides of the kerf, said jaws having their lower ends oppositely inclined and converging upwardly and adapted to bear on the inclined upper surfaces of the base, the said attaching member being inserted in the lower end of said upper member, the width of the lower portion of the kerf being greater than the thickness of the attaching member, and said upper member being also provided with clamping bolts to bind the said jaws against opposite sides of the attaching member and also to bind the inclined lower ends of said jaws on the inclined upper surfaces of the base.

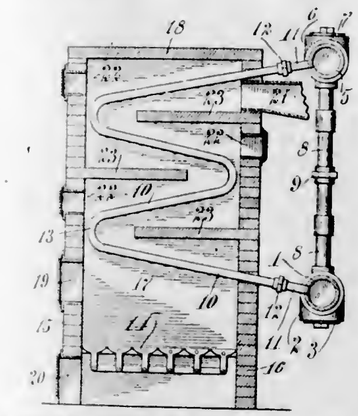
1,142,322. PERCOLATOR-PUMP. JOHN B. GRIFFIN, Detroit, Mich. Filed Mar. 13, 1914. Serial No. 824,351. (Cl. 53—3.)



1. In a percolator pump, the combination of a vertical tube provided with an orifice in its side and valve comprising the part of a tube adapted to fit the inside of said tube and having a depending leg or stem projecting angularly from the tubular part, and means near the center of the tube for pivotally supporting the free end of the leg or stem, the center of gravity in the entire valve being so located that the valve normally rests against the inside of the tube and closes the orifice, substantially as described.

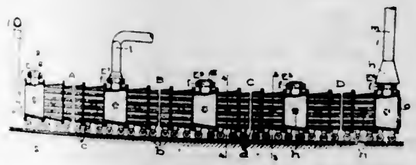
2. In a percolator pump, the combination of a vertical tube provided with oppositely disposed orifices, a pin running crosswise of the tube near its axis, said pin being located below the said orifices, and a pair of part tubular valves, each provided with an angularly extending and depending leg or stem pivotably mounted on said pin, the center of gravity of the valves being so arranged as to normally cause the valves to hold against the inside of the tube and close the orifices.

1,142,323. HEATING-BOILER. PEARL L. GUNCKEL, Dayton, Ohio. Filed Jan. 17, 1914. Serial No. 812,631. (Cl. 122—359.)



In a circulating boiler, the combination with a furnace casing, of upper and lower headers exterior thereto, exterior pipes connecting said headers, continuous circulating pipes on the interior of the furnace casing, said pipes being extended upwardly within said casing on inclinations and thence out of the upper portion of the furnace casing where they communicate with the upper header, a series of oppositely extended baffle plates arranged between the inclined portions of said pipes, said baffle plates together with the pipes forming a series of combustion chambers extending the height of the furnace, and an outlet pipe for the products of combustion extending through the rear wall of the furnace and communicating with the uppermost one of said combustion chambers above the uppermost baffle plate, substantially as specified.

1,142,324. TREATMENT OF SUBDIVIDED ORES FOR AGGLOMERATING OR REDUCING THEM AND APPARATUS THEREFOR. GUSTAF GRÖNDAL, Djursholm, and HERMAN NILSSON, Nyhammar, Sweden. Filed May 23, 1914. Serial No. 840,549. (Cl. 75—73.)



1. A method of treating subdivided or pulverulent ore consisting in packing the ore, in a moistened state into an iron receptacle open at both ends, providing longitudinal channels in the ore, arranging a number of such filled receptacles in series adding thereto a suitable fire-place, passing the combustion products through the said channels until the ore in the receptacle lying next to the fire-place is brought to the desired state, afterward removing this receptacle containing the ore and placing it on the other side of the fire-place to be traversed by the air for combustion moving the series of remaining receptacles toward the fire-place and placing another receptacle filled with fresh ore at the other end of the series, and so on, substantially as described.

2. A method of treating subdivided or pulverulent ore consisting in packing the ore, in a moistened state and mixed with a reducing agent, into an iron receptacle open at both ends, providing longitudinal channels in the ore, arranging a number of such filled receptacles in series adding thereto a suitable fire-place, passing the combustion products through the said channels until the ore in the receptacle lying next to the fire-place is brought to the desired state, afterward removing this receptacle containing the ore and placing it on the other side of the fire-place to be traversed by the air for combustion moving the series of remaining receptacles toward the fire-place and placing another receptacle filled with fresh ore at the other end of the series, and so on, substantially as described.

3. A method of treating subdivided or pulverulent ore consisting in packing the ore, in a moistened state, into an iron receptacle open at both ends, providing longitudinal channels in the ore, arranging a number of such filled receptacles in a horizontal series adding thereto a suitable fire-place, passing the combustion products through the said channels until the ore in the receptacle lying next to the fire-place is brought to the desired state, afterward removing this receptacle containing the ore and placing it on the other side of the fire-place to be traversed by the air for combustion moving the series of remaining receptacles toward the fire-place and placing another receptacle filled with fresh ore at the other end of the series, and so on, substantially as described.

4. A furnace for treating subdivided or pulverulent ore comprising a series of movable iron receptacles adapted to receive a perforated packed mass of ore and abutting against each other, fire-place receptacles having openings inserted at suitable places in the series, removable lids for normally closing said openings, a pipe for suitable fuel adapted to be connected with one of the fire-place receptacles through its opening, a pipe for air under pressure provided at the delivery end of the furnace, and a chimney at the other end of the furnace, for carrying off the products of combustion and means for displacing the receptacles during the process, substantially as described.

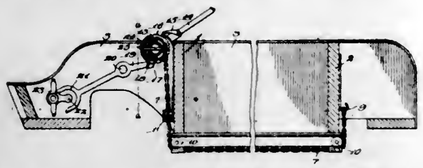
5. A furnace for treating subdivided or pulverulent ore comprising a horizontal series of movable iron receptacles adapted to receive a perforated packed mass of ore and abutting against each other, fire-place receptacles having openings inserted at suitable places in the series, removable lids for normally closing said openings, a pipe for combustible gas adapted to be connected with one of the fire-place receptacles through its opening, a pipe for air under pressure provided at the delivery end of the furnace, and a chimney at the other end of the furnace, for carrying off the products of combustion and wheels under the receptacles for displacing them during the process, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

1,142,325. DUMPING-WAGON. JOHN HEBERLING, Rochester, N. Y. Filed Dec. 11, 1911. Serial No. 664,995. (Cl. 21—20.)

1. A dumping wagon of the type having doors, flexible connectors for controlling the doors and a winding shaft for the flexible connectors combined with a take-up device for the slack of the connectors, said take-up device being arranged on the winding shaft so as not to be engaged by the connectors during the first part of the winding movement but to engage at least one of the connectors during the latter part of the winding movement so as to take up slack therein.

2. In a dumping wagon, a body having at least two doors, a pair of flexible connectors, one for each door, a winding means engaging both of said connectors, and a device on the winding means lying out of engagement with said connectors when the doors are fully opened and engaged by one of said connectors as the doors approach closed position to take up slack in said connector.



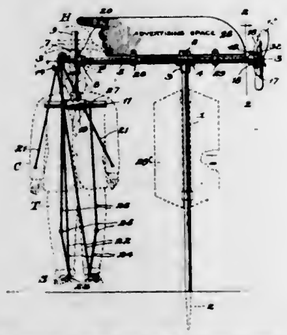
3. In a dumping wagon, a body having at least two doors, a pair of flexible connectors, one for each door, a winding shaft for said connectors having a spirally formed groove, and a slack take-up independent of said groove arranged on the winding shaft at one end of the groove and having one of the connectors carried by said groove to said slack take-up after the door controlled by the other connector has closed.

4. In a dumping wagon, a body having at least two doors, a pair of flexible connectors for controlling said doors, and a pivoted equalizer for said connectors disengaged by the connectors on the opening of the doors and engaged on opposite sides of the pivot by said connectors as the doors approach closed position.

5. In a dumping wagon, a body having at least two doors, a pair of flexible connectors, one for each door, winding means engaging both of said connectors, and an equalizer arranged out of the path of the connectors when the doors are opened but engaged by both of said connectors as the doors near closed position.

[Claims 6 to 11 not printed in the Gazette.]

1,142,326. COMBINED SCARECROW AND ADVERTISING DEVICE. SAMUEL HUNTER, Syracuse, N. Y. Filed Sept. 3, 1914. Serial No. 860,072. (Cl. 46—40.)



1. A scare crow comprising a horizontal bar pivoted upon an upright axis, a vane thereon whereby the bar will be turned around its pivot by the wind, and a garment hanger carried by said bar.

2. A scare crow comprising a horizontal bar pivoted upon an upright axis, means on said bar for turning the same around its pivot when the wind blows, a garment hanger carried by said bar, and a wind operated sound producing instrument on said bar.

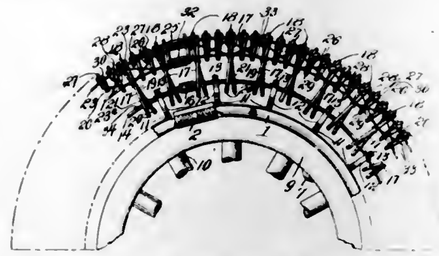
3. A scare crow comprising a horizontal bar pivoted upon an upright axis, an upright guide carried by said bar, an upright shank slidable in said guide, means for locking said shank against movement, a garment hanger carried by said shank, and means on the bar for turning the same around its pivot when the wind blows.

4. A scare crow comprising a garment hanger, a plurality of vibrating links depending therefrom, and means for vibrating said links, the latter being designed for attachment to garments hung upon the hanger.

5. A device for the purpose set forth comprising a horizontal bar pivoted on an upright axis, a garment hanger carried by said bar, a driven element likewise carried by said bar, a wind wheel for driving said element, and operating connections depending from said element and adapted to be attached to a number of garments to be suspended upon said hanger whereby said garments may be vibrated as the wind wheel is rotated.

[Claims 6 to 10 not printed in the Gazette.]

1,142,327. SPRING-TIRE. EDGAR P. HUTCHINS, Brookville, Pa. Filed Sept. 3, 1913. Serial No. 787,963. (Cl. 152—8.)



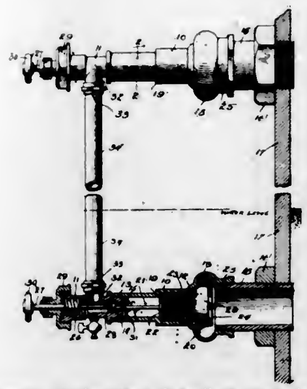
1. A tire comprising an annular member, spring yoke members carried by the annular member and arranged in spaced relation, the branches of each yoke member extending upwardly and terminating in eyes, a plurality of substantially circular spring units interposed between the adjacent yoke members and each having an upper and lower pair of eyes formed thereon, the eyes on one unit being in line with the corresponding eyes on the adjacent units, and the lowermost pair of eyes on each unit being in line with the eyes on the branches of the yoke members, adjustable ring members extending through the lower pair of eyes on the units and through the eyes on the branches of the yoke members, substantially semi-circular units interposed between the circular units and each having formed thereon an upper and lower pair of eyes, the upper pair of eyes of each of the semi-circular pairs of units being in line with the upper pair of eyes on the circular units, rings extending through the upper pairs of eyes of the circular and semi-circular units and rings extending through the lower pairs of eyes of the semi-circular units, as and for the purpose specified.

2. A tire comprising an annular member, spring yoke members carried by the annular member and arranged in spaced relation, the branches of each yoke member extending upwardly and terminating in eyes, a plurality of substantially circular spring units interposed between the adjacent yoke members and each having an upper and lower pair of eyes formed thereon, the eyes of one unit being in line with the corresponding eyes on the adjacent units, and the lowestmost pair of eyes on each unit being in line with the eyes on the branches of the yoke members, adjustable ring members extending through the eyes on the branches of the yoke members, substantially semi-circular units interposed between the circular units and each having formed thereon an upper and lower pair of eyes, the upper pair of eyes of each of the semi-circular units being in line with the upper pair of eyes of the circular units, rings extending through the upper pairs of eyes of the circular and semi-circular units, rings extending through the lower pair of eyes of the semi-circular units, and means associated with the first and second mentioned units for holding the respective units in spaced relation

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1,142,328. AUTOMATIC WATER-GAGE. JESSE A. JANES, Metropolis, Ill. Filed Mar. 31, 1914. Serial No. 828,596. (Cl. 73—54.)

1. A device of the class described comprising a casing having valve seats spaced apart and with an internal annular shoulder intermediate the valve seats, said casing being formed with a guideway between the shoulder and one of said seats and enlarged between the shoulder and the other seat, a combined guide and stop device bearing upon said shoulder and having steam passages, a valve engaging one of said seats and having a stem formed with a plurality of lateral wings and movable through said guide device and engaging the guideway portion of the casing, and a spring bearing at one end against the combined guide and stop device and at the other end against the valve.



2. A device of the class described comprising a casing having a valve seat and an internal annular shoulder, said casing being enlarged between the shoulder and the seat and with a guideway at the opposite side of the shoulder, a combined guide and stop device bearing upon said shoulder and having steam passages, a valve engaging said seat and having a stem formed with a plurality of lateral wings and movable through said guide device and engaging the guideway portion of the casing, and a spring bearing at one end against the combined guide and stop device and at the other end against the valve.

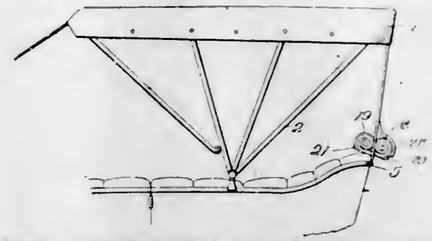
3. In a device of the class described, a casing having an internal shoulder with a lateral chamber at one end, said casing being enlarged between the shoulder and the chamber and having a valve seat at the juncture of the casing enlargements and the chamber and with a guideway at the opposite side of the shoulder, a combined guide and stop device bearing upon said shoulder, a valve engaging said seat and having a stem formed with a plurality of lateral wings and movable through said guide device and engaging the guideway portion of the casing, and a spring bearing at one end against the combined guide and stop device and at the other end against the valve.

4. A device of the class described, comprising a casing having an internal guideway at one end an enlarged into a chamber at the other end and with an enlargement between the chamber and the guideway, said casing having a stop shoulder between the guideway and the enlargement and another shoulder at the outer end of the chamber and a valve seat between the enlargement and the chamber, a valve adapted to engage the seat and with a stem at one side formed with radial wings engaging the guideway of the casing and a plurality of radiating wings at the other side for engaging the last named shoulder of the chamber to prevent the body of the valve from engaging the same, and a spring between the said stop shoulder and the valve.

1,142,329. COVER FOR AUTOMOBILE-TOPS. JAMES A. JONES, Jackson, Tenn. Filed Aug. 5, 1913. Serial No. 783,170. (Cl. 21—62.)

1. In a cover for vehicle tops, flexible foldable cover sections attached at their adjacent edges and arranged to receive between them in folded condition the top to be protected, and means separably connecting the sections at their marginal portions, and means for holding the sections in folded condition.

2. The combination with a vehicle top, of a cover therefor including flexible foldable sections connected at the lower portion of the back of the top and lying one in front and the other in rear of the said back of the top, the said sections being provided with overlapping side portions separably connected, and means for holding the sections in folded condition.



3. The combination with a vehicle top, of a cover therefor including flexible foldable sections connected at the lower portion of the back of the top and lying one in front and the other in rear of the said back of the top, the said sections being provided with overlapping side portions separably connected, and the side portions of one of the sections at their inner ends being provided with closure flaps adapted to lie within the cover when the cover is closed, and means for holding the sections in folded condition.

4. The combination with a vehicle top, of a cover therefor including sections connected at the lower portion of the back of the top and lying one in front and the other in rear of the said back of the top, the said sections being provided with overlapping side portions separably connected, and the side portions of one of the sections at their inner ends being provided with closure flaps adapted to lie within the cover when the cover is closed, and the said section at its connected marginal portion being provided with other closure flaps adapted to be separably connected to the body portion of the other section.

5. The combination with a vehicle top, of a cover for the top comprising sections connected at the lower side of the back of the top and having side portions to inclose the sides of the top when folded, the sections being adapted to be rolled and stored one at the front and the other at the rear of the said back of the top, and straps connected at their ends at the attached edges of the sections and adapted to be secured around the sections when the sections are folded.

1,142,330. TABLE-MAT. EUGENE A. LAHIÈRE, Washington, D. C. Filed Mar. 12, 1914. Serial No. 824,233. (Cl. 65—53.)

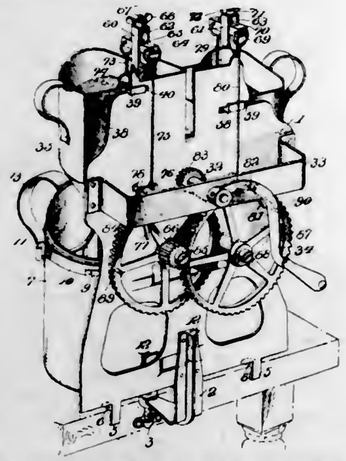


1. In a mat of the class described, a flat sided open border member, a sheet of heat insulating material fitted within the border member, a sheet of fabric having a nap side disposed within the border member against the inner face of the sheet of heat insulating material, and a facing sheet disposed against each face of the mat and secured at its edge portion to the corresponding face of the border member, the said facing sheets constituting the sole means for retaining the heat insulating material and the sheet of fabric within the border member.

2. A mat of the class described having plane faces, and a friction pad of smaller diameter than the mat located substantially centrally of each face.

3. In a mat of the class described, a flat sided open border member, a sheet of heat insulating material fitting within the border member, and a facing sheet disposed against each face of the sheet of heat insulating material, the said facing sheets being secured at their edge portions to the flat faces of the border member and constituting the sole means for retaining the sheet of heat insulating material within the border member.

1,142,331. MIXING-MACHINE. EUGENE A. LAHIÈRE, Washington, D. C. Filed May 13, 1914. Serial No. 838,326. (Cl. 107—36.)



1. In a mixing machine, a mixing receptacle, mixing means operating within the receptacle, and means operable to automatically discharge ingredients into the receptacle at relatively variable predetermined intervals and in predetermined relative quantities during the mixing operation.

2. In a mixing machine, a mixing receptacle, mixing means operating within the receptacle, means operable to automatically discharge ingredients into the receptacle in predetermined quantities during the mixing operation and at predetermined intervals, and means whereby the frequency of operation of said means may be varied.

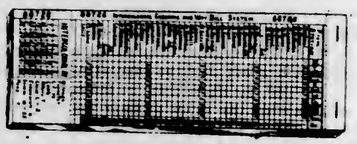
3. In a mixing machine, a mixing receptacle, mixing means operating within the receptacle, ingredient containers arranged to discharge into the receptacle, a valve in each container controlling the discharge therefrom, and means operable to automatically intermittently open the valves at relatively variable predetermined intervals during the mixing operation.

4. In a mixing machine, a mixing receptacle, mixing means operating within the receptacle, ingredient containers arranged to discharge into the receptacle, a valve arranged within each container for controlling the discharge therefrom, means operable to automatically open the valves at predetermined relative intervals during the mixing operation, and means whereby the relative frequency of operation of the operating means for the valves may be varied.

5. In a mixing machine, a mixing receptacle, mixing means operating within the receptacle, ingredient containers arranged to discharge into the mixing receptacle, a valve within each of said containers for controlling the discharge therefrom, means operable to automatically open the valves at relatively variable predetermined intervals during the mixing operation, and means for varying the extent to which the valves are opened.

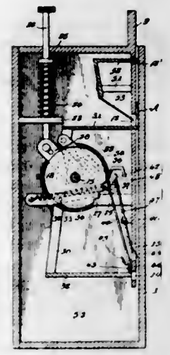
[Claims 6 to 25 not printed in the Gazette.]

1,142,332. RECEIPT. RUBEN C. LAURIER and FRANCIS MONETTE, Montreal, Quebec, Canada. Filed Sept. 5, 1911. Serial No. 647,720. (Cl. 11—15.)



An elongated receipt form in two divisible parts only, the lower end of which form constitutes a passenger's receipt, all the remainder of said form constituting a conductor's receipt; these two receipts being readily separable, each of them being ruled in crossing columns and provided with corresponding series of station numbers and corresponding series of words designating the several kinds of fares, the conductors receipt being also provided with a column of station names arranged with respect to the column of fare designations so that a single punching action will indicate both the starting point of the passenger's journey and the kind of fare and another punching action will indicate the end of said journey, the passenger's slip being punched at one point to indicate the kind of fare and at another to indicate the end of the journey.

1,142,333. PAY-STATION INSTRUMENT. DANIEL O. LAWRENCE, Sixteen, Mont., assignor of one-third to C. J. Garlow, Columbus, Nebr., and one-third to T. J. Cottingham, Los Angeles, Cal. Filed June 13, 1913. Serial No. 773,495. (Cl. 194—16.)



1. In a slot machine, a casing, a shaft journaled therethrough, a disk element fixed upon the shaft, notches in the periphery of said disk, a spring-member, a struck out portion on said spring member adapted to normally engage the periphery of said disk and to fall into the notches thereof as the disk may be turned, a second spring member adapted to be contacted by said first spring member whereby an electrical circuit is closed, a coin slot adapted to have a coin inserted thereinto, a stop in said slot positioned to hald the progress of the coins therethrough and adapted to be manually moved from the operative relation to permit further movement of the coin within the slot, said second spring member having a portion thereof extended into said slot, and a second stop positioned to become operative upon movement of said first stop to the inoperative position to hold the coin at a point within the slot in engagement with said second spring member whereby the electrical circuit is closed.

2. A slot machine comprising a casing having a slot therein, a shaft journaled in said casing, a disk fixed upon said shaft to be capable of revoluible movement therewith, said disk having a notch in the periphery thereof, a spring mounted within said casing and having a projection normally bearing against the periphery of said disk and adapted to enter said notch, a second spring mounted within the casing to be normally held from contact with said first spring and having a portion thereof projected into said coin slot, means to prevent normal free movement of a coin through the slot and to be capable of manual operation to allow movement of the coin to a position to contact with said second spring member, and all of said parts so arranged that the contact of the coin with said second spring member causes movement of this member to a point to be contacted by said first spring member as the projection thereof enters the notch of said disk and to thereby establish an electrical circuit, and means for rotating said disk to cause movement of the projection into and from said notch.

3. A slot machine comprising a casing having a slot therein, a shaft journaled in said casing, a disk fixed on said shaft, said disk having a notch in the periphery thereof, a spring having a projection adapted to enter said notch, a second spring adapted to be contacted by a coin in said slot, said springs adapted to meet when said projection enters the notch in said disk and when said coin contacts the second mentioned spring whereby an electric circuit may be closed, and means for rotating said disk.

4. A slot machine comprising a casing having a number of coin slots placed at proper points therein, a shaft journaled in said casing, a plurality of disks mounted on said shaft and provided with notches therein, the number of notches in the several disks being varied, spring members normally bearing against the notched peripheries of said disks, a second set of springs pivoted to the casing and adapted to be moved into contact with said first-mentioned spring, said second set of springs located to project within the coin slots and to be swung to a position closely adjacent said first spring upon the insertion of a coin into said slot, and means for rotating said shaft and said disks to cause contact between the spring members of said first and second sets.

5. In a slot machine, a casing, a coin slot provided at a suitable point in said casing, a shaft revolubly mounted in said casing, a disk on said shaft having notches in the periphery thereof, a spring member, a struck-out portion intermediate the end of said spring member adapted to normally engage the notched periphery of said disk, said spring member having an angularly bent overhanging end, a contact point near said end, a second pivoted spring member carrying a contact point at one end adapted to be engaged by contact of said first spring member and having an end thereof projecting into the coin slot to be engaged by the coin inserted into the slot and thus be swung to a position closely adjacent the contact of said first spring member, and means to cause movement of said disk to permit movement of the struck-up portion of said first spring member into the notches thereof and to thus allow engagement of the contact point of said two spring members.

[Claims 6 to 8 not printed in the Gazette.]

1,142,334. VEHICLE-WHEEL. HEBRON B. LAYMAN, New York, N. Y., assignor of one-half to Frank E. Lonas, New York, N. Y. Filed Apr. 25, 1913, Serial No. 763,483. Renewed Sept. 26, 1914. Serial No. 863,755. (Cl. 21—142.)



1. In a wheel and axle construction, an axle provided with an upright end spindle which extends above and below the same and the top part of which above the axle is provided with a transverse opening, a central box-member mounted on the top and bottom of said spindle and adapted to oscillate in a horizontal plane, an annular rotary member inclosing the central box member and provided with a wheel spindle which passes inwardly through the aperture in the axle spindle, and a rim member connected with the annular rotary member, the wheel spindle being above and in the plane of the axle, and being approximately parallel therewith.

2. In a wheel and axle construction, an axle provided with a vertically arranged end spindle which extends above and below the same, and is provided above the axle with a transverse aperture, a central box member mounted on the top and bottom of said spindle and inclosing the same and adapted to oscillate in a horizontal plane, an annular rotary member inclosing the central box member and provided on its outer side with a wheel spindle which passes through the aperture in the axle spindle and has end bearings in the central box member, said rotary member being adapted to serve as a brake drum, brake shoes connected with the central box member and adapted to operate in connection with said brake drum, and a rim connected with the annular rotary member, the wheel spindle being above and in the plane of the axle, and being approximately parallel therewith.

3. In a wheel and axle construction, an axle provided with a vertically arranged end spindle which extends above and below the same and the top portion of which is provided with a transverse aperture, a central box member mounted on the top and bottom of said spindle and inclosing the same and adapted to oscillate horizontally thereon, and provided with brake shoes, an annular rotary member inclosing the central box member and adapted to serve as a brake drum and the outer side of which is inclosed by a plate provided with a central wheel spindle which passes through the aperture in the axle spindle and through the central box member and is provided with end bearings therein, a rim connected with the annular rotary member, and means for oscillating the central box member, the annular rotary member and the rim in a horizontal plane on the spindle of the axle, the said axle spindle and the central box member being in a plane different from that of the annular rotary member and the rim, the wheel spindle being above and in the plane of the axle, and being approximately parallel therewith.

4. In a wheel and axle construction, an axle provided with an upright end spindle which extends above and below said axle, a central box member mounted on the top and bottom of said spindle and adapted to oscillate in a horizontal plane thereon, said axle spindle extending vertically through said box member and being provided at the top and bottom thereof with bearings, an annular rotary member inclosing the central box member and provided on the outer side thereof with a plate having a central wheel spindle which passes inwardly through the central box member and transversely of the axle spindle and is provided with bearings in said box member, and a rim connected with the annular rotary member, the wheel spindle being above and in the plane of the axle, and being approximately parallel therewith.

5. In a wheel and axle construction, an axle provided with a vertical upwardly directed end spindle, a spindle box mounted thereon and adapted to oscillate in a horizontal plane, said spindle box being provided with a central horizontal wheel spindle casing and a vertical axle spindle casing, and through which the spindle of the axle passes, and a wheel member mounted on and rotatable on the spindle box and adapted to oscillate horizontally therewith and provided centrally of its outer side with a spindle head which incloses the outer end of the spindle box and which is provided with a wheel spindle which passes inwardly and horizontally through the wheel spindle casing therein.

[Claim 6 not printed in the Gazette.]

1,142,335. FRONT WHEEL FOR AUTOMOBILES. HEBRON B. LAYMAN, New York, N. Y., assignor of one-half to Frank E. Lonas, New York, N. Y. Filed Oct. 6, 1913. Serial No. 793,546. (Cl. 21—142.)

1. In a wheel and axle construction, an axle provided at its end with an upwardly directed spindle, a spindle box mounted on said spindle, and adapted to oscillate in a horizontal plane, a wheel member mounted on said spindle box and inclosing the same and provided centrally of its outer side with a spindle head having a spindle which passes inwardly through said box and a flexible

shaft connected with the inner end of said spindle for operating a speedometer.



2. In a wheel and axle construction, an axle provided with a vertical upwardly directed end spindle, a spindle box mounted thereon above the axle and adapted to oscillate in a horizontal plane, said spindle box being provided with a central horizontal wheel spindle casing and a vertical axle spindle casing in front thereof and through which the spindle of the axle passes, and a wheel member mounted on and rotatable on the spindle box and adapted to oscillate horizontally therewith and provided with a spindle which passes inwardly horizontally through the wheel spindle casing of the spindle box, said wheel member comprising a central annular drum portion and a rim portion connected therewith, the drum portion being closed on its outer side by a plate centrally of which is secured a spindle head which incloses the outer end of the spindle box and rotates thereon and with which the wheel spindle is connected and being closed on its inner side by a detachable plate composed of separate parts.

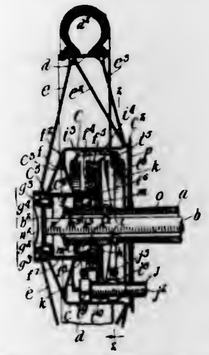
3. In a wheel and axle construction, an axle provided with a vertical upwardly directed end spindle, a spindle box mounted thereon above the axle and adapted to oscillate in a horizontal plane, said spindle box being provided with a central horizontal wheel spindle casing and a vertical axle spindle casing in front thereof and through which the spindle of the axle passes, and a wheel member mounted on and rotatable on the spindle box and adapted to oscillate horizontally therewith and provided with a spindle which passes inwardly horizontally through the wheel spindle casing of the spindle box, said wheel member comprising a central annular drum portion and a rim portion connected therewith, the drum portion being closed on its outer side by a plate with which the wheel spindle is connected and being closed on its inner side by a detachable plate composed of separate parts and through which the inner end of the wheel spindle casing of the spindle box passes.

4. In a wheel and axle construction, an axle provided with a vertical upwardly directed end spindle, a spindle box mounted thereon above the axle and adapted to oscillate in a horizontal plane, said spindle box being provided with a central horizontal wheel spindle casing and a vertical axle spindle casing in front thereof and through which the spindle of the axle passes, and a wheel member mounted on and rotatable on the spindle box and adapted to oscillate horizontally therewith and provided with a spindle which passes inwardly horizontally through the wheel spindle casing of the spindle box, said wheel member comprising a central annular drum portion and a rim portion connected therewith, the drum portion being closed on its outer side by a plate with which the wheel spindle is connected and being closed on its inner side by a detachable plate composed of separate parts and through which the inner end of the wheel spindle casing of the spindle box passes, the inner end of the wheel spindle casing being also closed by a detachable cap and a flexible shaft which passes through said cap and is connected with the inner end of the wheel spindle.

5. In a wheel and axle construction of the class described, an axle provided with a wheel spindle support adapted to oscillate horizontally, a wheel member mounted thereon and provided on its outer side with a wheel spindle which passes centrally and inwardly through said support, the inner side of said wheel member being provided with a detachable plate composed of separate parts and provided centrally with an opening in line with said spindle, a flexible shaft connected with the inner end of said spindle for operating a speedometer and passing through said opening and other openings through which the axle and steering arm pass.

[Claims 6 to 8 not printed in the Gazette.]

1,142,336. REAR WHEEL AND AXLE CONSTRUCTION FOR AUTOMOBILES. HEBRON B. LAYMAN, New York, N. Y., assignor of one-half to Frank E. Lonas, New York, N. Y. Filed Oct. 18, 1913. Serial No. 795,820. (Cl. 21—90.)



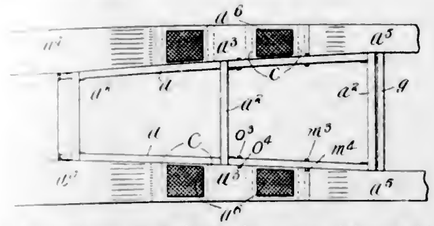
1. In a rear wheel and axle shaft construction for power driven vehicles, a tubular axle, an axle shaft passing therethrough and provided at its outer end with a head, a wheel rotatably mounted on said axle and comprising a rim member, a brake drum member and a hub member into which the tubular axle extends and to which the head of the axle shaft is secured, the inner end of the brake drum member being extended inwardly of the rim member, and the outer end of the hub member being projected outwardly of the rim member, spokes connecting the rim member with the inner end of the brake drum member and with the outer end of the hub member, and bearings placed between the end portion of the tubular axle and the hub and in the central plane of the rim member.

2. In a rear wheel and axle shaft construction for power driven vehicles, a tubular axle, an axle shaft passing therethrough and provided at its outer end with a head, a wheel rotatably mounted on said axle and comprising a rim member, a brake drum member and a hub member into which the tubular axle extends and to which the head of the axle shaft is secured, the inner end of the brake drum member being extended inwardly of the rim member and the outer end of the hub member being projected outwardly of the rim member, spokes connecting the rim member with the inner end of the brake drum member and with the outer end of the hub member, bearings placed between the end portion of the tubular axle and the hub and in the central plane of the rim member, and brake devices arranged within the brake drum member and on the opposite sides of said bearings and said central plane and adapted to operate in connection with said brake drum member.

1,142,337. AUTOMOBILE. HEBRON B. LAYMAN, New York, N. Y., assignor of one-half to Frank E. Lonas, New York, N. Y. Filed Oct. 20, 1913. Serial No. 796,137. (Cl. 21—90.)

1. A chassis or truck frame for power driven vehicles having U-shaped side bars or rails, the open sides of

which are directed downwardly, the central portion of said side bars or rails being closed at the bottom thereof, and said side bars or rails forming housings for the rear side springs which are mounted therein and connected with the rear axle.



2. A chassis or truck frame for power driven vehicles having U-shaped side bars or rails, the open sides of which are directed downwardly, the central portion of said side bars or rails being closed at the bottom thereof, and said side bars or rails forming housings for the rear side springs which are mounted thereon and connected with the rear axle, the front springs being also secured in the bottom portions of said bars or rails and being connected with the front axle.

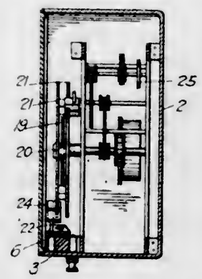
3. A chassis or truck frame for power driven vehicles provided with hollow bars or rails which form housings for the rear side springs which are mounted therein and which have a universal joint connection with the rear axle, the front side springs being also supported in the front bottom portions of said bars or rails and having a universal joint connection with the front axle.

4. A chassis or truck frame for power driven vehicles having side bars or rails which are formed hollow, and in which the rear side springs are mounted, said springs having a central rotary pivotal support and the rear ends thereof having universal joint connections with the rear axle, and the front end portions thereof being passed between roller bearings.

5. A chassis or truck frame for power driven vehicles having side bars or rails which are formed hollow, and in which the rear side springs are mounted, said springs having a central rotary pivotal support and the rear ends thereof having universal joint connections with the rear axle, and the front end portions thereof being passed between roller bearings, the central pivotal supports of said springs and the roller bearings for the front end portions thereof being provided with means whereby they may be lubricated.

[Claims 6 to 20 not printed in the Gazette.]

1,142,338. TIME-SWITCH. ARNOLD W. LINDELL, Denver, Colo. Filed Dec. 17, 1913. Serial No. 807,286. (Cl. 161—27.)

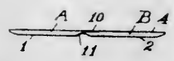


1. In a time switch, a time-controlled rotary wheel having at different points of its periphery, cogs of different forms, arranged in sets, and a plurality of circuit-controlling devices adapted to be operated by the engagement of the cogs during rotation of the wheel, to alternately open and close the circuits in which they are connected, the said devices being positioned with relation to the wheel so that each device will be acted upon by a different set of cogs, independent of the others.

2. In a time switch, a time-controlled rotary wheel comprising a hub, two coaxial circular rails fixed thereon and spaced laterally from each other, and cogs having means for their adjustable connection with either one of said rails and an element disposed to be shifted by engagement with said cogs alternately from a point in the path of a cog on one of said rails to a point in the path of a cog on the other rail.

3. In a time-switch, a time-controlled rotary wheel comprising a hub, and coaxial, circular rails fixed thereon and spaced laterally from each other, cogs attached to said rails, whereby to move in different paths during rotation of the wheel, and an element disposed to be shifted by engagement with said cogs alternately from a point in the path of a cog on one of said rails to a point in the path of a cog on the other rail.

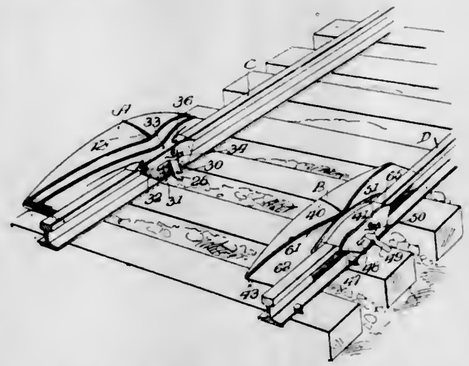
1,142,339. ENVELOP. JAMES LOGAN, Worcester, Mass., assignor to United States Envelope Company, Springfield, Mass., a Corporation of Maine. Filed Dec. 8, 1910. Serial No. 596,258. (Cl. 229—72.)



1. A single envelop provided with two separate pockets, said envelop being formed from a blank having a rectangular body portion, two end flaps of substantially the same width as said body portion, and of a length to extend beyond the center of said body portion and to overlap each other when folded in succession upon said body portion, with the free end of one of said end flaps attached to the body portion and with the free end of the other end flap attached to the first folded end flap, a back flap extending the entire length of the envelop and folded upon and attached to said end flaps, and a gummed seal flap extending the entire length of the envelop.

2. A two pocket envelop, formed from a blank having a rectangular body portion, two end flaps of substantially the same width as the body portion and folded thereon in succession, with the free end of the first folded end flap attached to the body portion beyond the center line thereof, and with the free end of the other end flap attached to the outer side of the first folded end flap, on the other side of the center of the body portion, a back flap extending the entire length of the body portion and folded over and attached to the outer side of both of said end flaps, and a gummed seal flap extending the entire length of said body portion and common to the two pockets formed by the two end flaps and the back flap.

1,142,340. CAR-REPLACER. LEVI MCENTYRE, Cayuga, Ind. Filed Aug. 19, 1914. Serial No. 857,555. (Cl. 104—163.)



1. A replacer of the character described including a body portion carrying a hook member, and a cam lever pivoted in the hook member and movable into engagement with the body of a rail, said lever being adapted to be reversed as regards the relation of its cam portion to the web of the rail, whereby impact of a wheel moving in

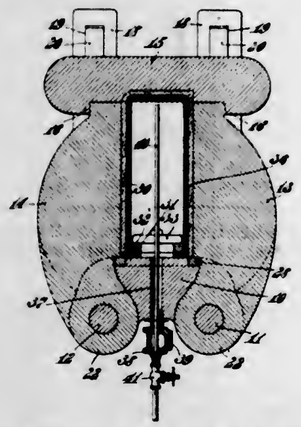
either direction upon the rail will tend to move the rail into more severe engagement with the rail web.

2. A replacer of the character described including a body portion having a hook member integrally formed thereon, a reversible cam lever pivoted in the hook member, the lever being adapted to engage a rail web, an anchor pivoted in the body portion and adapted for movement to engage a rail supporting sleeper, and a ratchet button pivoted to the body portion and engageable with the anchor for holding the anchor in operative position.

3. A replacer of the character described including a body portion carrying a hook member, and a cam lever carried by the hook member and adapted to engage a rail, the said lever being adapted to be reversed end for end.

4. A replacer of the character described including a body portion provided with a bridge wall having spaced vertical walls formed thereon, a hook member including a lateral wall and a vertical wall, a cam lever reversible end for end in the hook member, an upstanding stop shoulder formed on the inner edge of the lateral wall of the hook member, and spaced upstanding tongues formed on the said lateral wall at its juncture with the body portion, the innermost of said first mentioned vertical walls inclining in opposite directions away from the said tongues from a point substantially midway between the tongues, there being grooves provided between the said tongues and the said innermost vertical wall, said hook member being adapted to engage a rail with the lateral wall thereof arranged laterally of the inner edge of the rail with the said cam lever disposed for engagement with the web of the rail and with the said first mentioned vertical walls inclining toward the rail.

1,142,341. APPARATUS FOR MOLDING CLAY OR SIMILAR MATERIAL. DANIEL W. MCNEIL, East Norwood, Ohio, assignor to The John Douglas Company, a Corporation of Ohio. Filed Feb. 9, 1910. Serial No. 542,826. (Cl. 25—27.)



1. Means for receiving and pressing powdered or loose clay or similar material, in the production of hollow ware receptacles having a side or sides and a covered end, comprising a mold, a somewhat expansible self supporting chum within the mold normally of corresponding and almost the same but lesser contour, whereby a space is provided between chum and mold for the introduction of the powdered material and means for expanding the chum.

2. Means for receiving and pressing powdered or loose clay or similar material, in the production of hollow ware receptacles having a side or sides and a covered end, comprising a mold, a self supporting expansible chum within the mold normally of corresponding and almost the same but lesser contour, whereby a space is provided between chum and mold for the introduction of the powdered material, and means for expanding the chum and compacting the powdered material.

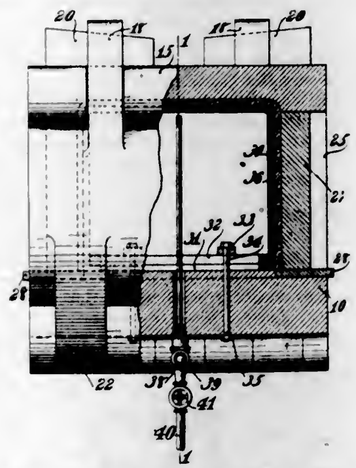
3. Means for receiving and pressing powdered or loose clay or similar material in the production of hollow ware receptacles having a side or sides and a covered end, comprising a mold, an elastic nearly rigid chum within the mold, normally of corresponding and almost the same contour to the inside of the object but of lesser dimensions, and means for expanding the chum.

4. Means for receiving and pressing powdered or loose clay or similar material in the production of hollow ware receptacles having a side or sides and a closed end, comprising a mold having separable elements and means for locking the same into operative relationship, an elastic self supporting chum within the mold, normally of corresponding and almost the same contour to the inside of the object but of lesser dimensions, and means for expanding the chum.

5. Means for receiving and pressing powdered or loose clay or similar material in the production of hollow ware receptacles having a side or sides and a closed end, comprising a mold having a base and relatively movable side elements adapted to be locked into coöperative relationship, an elastic self supporting chum within the mold, normally of corresponding and almost the same contour but of lesser dimensions, and means for expanding the chum and thereby compacting the powdered material against the sides of the outer mold.

[Claims 6 and 7 not printed in the Gazette.]

1,142,342. METHOD FOR MOLDING CLAY OR SIMILAR MATERIAL. DANIEL W. MCNEIL, Norwood, Ohio, assignor to The John Douglas Company, a Corporation of Ohio. Original application filed Feb. 9, 1910. Serial No. 542,826. Divided and this application filed Sept. 13, 1910. Serial No. 581,842. (Cl. 25—1.)



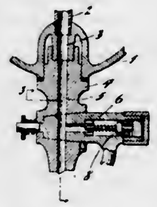
1. The method, which consists in filling the space between a mold for an object having a side or sides and an inclosed end meeting at a relatively sharp angle, and an inclosed elastic core, of normally corresponding and nearly the same contour, but of lesser dimensions, with a nearly dry powdered clay, and then expanding the core by fluid pressure.

2. The method of making hollow ware having a side or sides and an inclosed end meeting at a relatively sharp angle, of clay or similar material, which consists in confining the material in a nearly dry powdered state in approximately the shape and nearly the same dimensions of the article to be formed, and then subjecting the same to fluid pressure from within.

3. The art of making hollow ware having a side or sides and an inclosed end of clay or similar material, which consists in confining the material in a nearly dry powdered state in approximately the form and of nearly the same dimensions as the article to be produced and then subjecting the same to pressure in the several directions of the thickness of its walls.

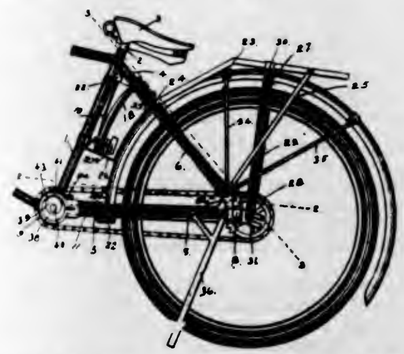
4. The art of making hollow ware having a side or sides and an inclosed end of clay or similar material, which consists in confining the material in a nearly dry powdered state, in approximately the form and of nearly the same dimensions as the article to be produced, then subjecting it to fluid pressure from within to compact the nearly dry clay and burning the product.

1,142,343. VALVE. PETER G. MACGREGOR, New York, N. Y., assignor to Pyrene Manufacturing Company, a Corporation of Delaware. Filed Oct. 15, 1913. Serial No. 795,254. (Cl. 137—26.)



In a valve for fire extinguishers a body provided with a longitudinal opening forming an outlet for the fluid and a plug provided with two transverse openings and a longitudinal opening, and an air inlet valve positioned in said longitudinal opening in said plug.

1,142,344. SPRING-FRAME FOR MOTOR-CYCLES. FRANK MACKEY, Newark, Ohio. Filed Apr. 25, 1912. Serial No. 693,239. (Cl. 208—94.)



1. A spring frame for motorcycles comprising a main frame, a rigid fork carried by said frame, a V-shaped floating fork member, one pair of legs of said member being pivotally supported by said main frame, a resilient resistance element carried by said main frame and bearing on the ends of the other pair of legs of said V-shaped floating member, and guiding means carried by said forks for preventing lateral movement of the wheel carrying end of said floating fork independent of its pivotal connection.

2. A spring frame for motorcycles comprising a main frame, a rigid V-shaped fork carried by said frame, a V-shaped floating fork member, one pair of legs of said member being pivotally supported by said main frame, a resilient resistance element carried by said main frame and bearing on the ends of the other pair of legs of said V-shaped floating forked member, and guiding means carried by said forks for preventing lateral movement of the wheel carrying end of said floating fork independent of its pivotal connection.

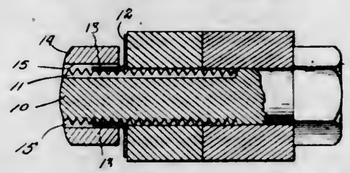
3. A spring frame for motorcycles comprising a main frame, a rigid fork forming a portion thereof, a floating fork pivoted to said main frame, a resilient resistance element operatively connected between said forks, U-shaped channel guide elements carried by one of said forks, and slide members slidably fitting between the legs of said guide elements and carried by the other of said forks, said guide elements and slide members being located at the opposite ends of said forks from the pivotal mounting of said floating fork to maintain a predetermined path of movement of said floating fork independent of its pivotal connection.

4. A spring frame for motorcycles comprising a main frame, a resiliently supported rear wheel, a luggage carrier attached to said main frame over said rear wheel, and a supplemental resistance element for use with said carrier and operatively connected between said main frame and said wheel.

5. A spring frame for motorcycles comprising a main frame, a resiliently supported rear wheel, a luggage carrier attached to said main frame over said rear wheel, and a supplemental detachable resistance element for use with said carrier and operatively connected between said main frame and said wheel.

[Claims 6 to 12 not printed in the Gazette.]

1,142,345. NUT-LOCK. JOHN K. MAJOR, Paducah, Ky. Filed Nov. 25, 1913. Serial No. 802,997. (Cl. 151—13.)



In a nut lock, the combination with a bolt having a pair of longitudinal ratchet grooves formed in the shank thereof, and a nut having a pair of grooves formed therein and communicating with the bore of the nut, of a washer plate having a pair of resilient fingers projecting therefrom at points adjacent the opening of the washer, one of said fingers being adapted to engage with one of the grooves in the shank of the bolt, and the other of said fingers being adapted to frictionally engage with the threads of the bolt when the bolt, washer and nut are assembled.

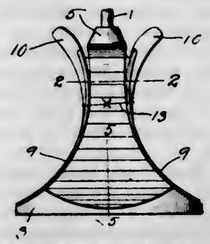
1,142,346. FOOD PRODUCT. GEORGE P. MARINER, Philadelphia, Pa. Filed Oct. 23, 1914. Serial No. 868,214. (Cl. 99—11.)

1. The food product comprising the combination of disintegrated and intimately mixed roasted peanuts, roasted cocoa and sugar.

2. The food product comprising the combination of disintegrated and intimately mixed roasted peanuts in the proportion of six parts, roasted cocoa one part, and powdered sugar one part.

3. The food product comprising a paste composed of disintegrated and intimately mixed roasted peanuts, roasted cocoa and powdered sugar.

1,142,347. GROUND-ANCHOR. CLAUDE L. MATTHEWS, St. Louis, Mo., assignor to W. N. Matthews and Brother, a Copartnership comprising himself and Wm. N. Matthews, St. Louis, Mo. Filed Oct. 31, 1912. Serial No. 728,966. (Cl. 189—92.)



1. In a ground anchor, a base having a pair of oppositely disposed curved faces in each of which is formed a

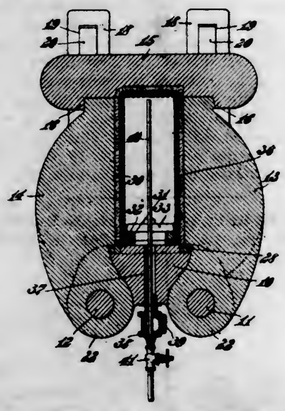
either direction upon the rail will tend to move the rail into more severe engagement with the rail web.

2. A replacer of the character described including a body portion having a hook member integrally formed thereon, a reversible cam lever pivoted in the hook member, the lever being adapted to engage a rail web, an anchor pivoted in the body portion and adapted for movement to engage a rail supporting sleeper, and a ratchet button pivoted to the body portion and engageable with the anchor for holding the anchor in operative position.

3. A replacer of the character described including a body portion carrying a hook member, and a cam lever carried by the hook member and adapted to engage a rail, the said lever being adapted to be reversed end for end.

4. A replacer of the character described including a body portion provided with a bridge wall having spaced vertical walls formed thereon, a hook member including a lateral wall and a vertical wall, a cam lever reversible end for end in the hook member, an upstanding stop shoulder formed on the inner edge of the lateral wall of the hook member, and spaced upstanding tongues formed on the said lateral wall at its juncture with the body portion, the innermost of said first mentioned vertical walls inclining in opposite directions away from the said tongues from a point substantially midway between the tongues, there being grooves provided between the said tongues and the said innermost vertical wall, said hook member being adapted to engage a rail with the lateral wall thereof arranged laterally of the inner edge of the rail with the said cam lever disposed for engagement with the web of the rail and with the said first mentioned vertical walls inclining toward the rail.

1,142,341. APPARATUS FOR MOLDING CLAY OR SIMILAR MATERIAL. DANIEL W. MCNEIL, East Norwood, Ohio, assignor to The John Douglas Company, a Corporation of Ohio. Filed Feb. 9, 1910. Serial No. 542,826. (Cl. 25—27.)



1. Means for receiving and pressing powdered or loose clay or similar material, in the production of hollow ware receptacles having a side or sides and a covered end, comprising a mold, a somewhat expansible self supporting chum within the mold normally of corresponding and almost the same but lesser contour, whereby a space is provided between chum and mold for the introduction of the powdered material and means for expanding the chum.

2. Means for receiving and pressing powdered or loose clay or similar material, in the production of hollow ware receptacles having a side or sides and a covered end, comprising a mold, a self supporting expansible chum within the mold normally of corresponding and almost the same but lesser contour, whereby a space is provided between chum and mold for the introduction of the powdered material, and means for expanding the chum and compacting the powdered material.

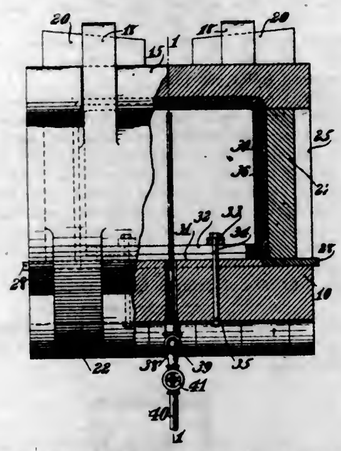
3. Means for receiving and pressing powdered or loose clay or similar material in the production of hollow ware receptacles having a side or sides and a covered end, comprising a mold, an elastic nearly rigid chum within the mold, normally of corresponding and almost the same contour to the inside of the object but of lesser dimensions, and means for expanding the chum.

4. Means for receiving and pressing powdered or loose clay or similar material in the production of hollow ware receptacles having a side or sides and a closed end, comprising a mold having separable elements and means for locking the same into operative relationship, an elastic self supporting chum within the mold, normally of corresponding and almost the same contour to the inside of the object but of lesser dimensions, and means for expanding the chum.

5. Means for receiving and pressing powdered or loose clay or similar material in the production of hollow ware receptacles having a side or sides and a closed end, comprising a mold having a base and relatively movable side elements adapted to be locked into coöperative relationship, an elastic self supporting chum within the mold, normally of corresponding and almost the same contour but of lesser dimensions, and means for expanding the chum and thereby compacting the powdered material against the sides of the outer mold.

[Claims 6 and 7 not printed in the Gazette.]

1,142,342. METHOD FOR MOLDING CLAY OR SIMILAR MATERIAL. DANIEL W. MCNEIL, Norwood, Ohio, assignor to The John Douglas Company, a Corporation of Ohio. Original application filed Feb. 9, 1910. Serial No. 542,826. Divided and this application filed Sept. 13, 1910. Serial No. 581,842. (Cl. 25—1.)



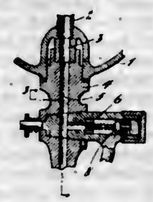
1. The method, which consists in filling the space between a mold for an object having a side or sides and an inclosed end meeting at a relatively sharp angle, and an inclosed elastic core, of normally corresponding and nearly the same contour, but of lesser dimensions, with a nearly dry powdered clay, and then expanding the core by fluid pressure.

2. The method of making hollow ware having a side or sides and an inclosed end meeting at a relatively sharp angle, of clay or similar material, which consists in confining the material in a nearly dry powdered state in approximately the shape and nearly the same dimensions of the article to be formed, and then subjecting the same to fluid pressure from within.

3. The art of making hollow ware having a side or sides and an inclosed end of clay or similar material, which consists in confining the material in a nearly dry powdered state in approximately the form and of nearly the same dimensions as the article to be produced and then subjecting the same to pressure in the several directions of the thickness of its walls.

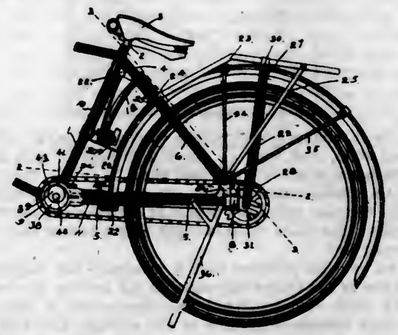
4. The art of making hollow ware having a side or sides and an inclosed end of clay or similar material, which consists in confining the material in a nearly dry powdered state, in approximately the form and of nearly the same dimensions as the article to be produced, then subjecting it to fluid pressure from within to compact the nearly dry clay and burning the product.

1,142,343. VALVE. PETER G. MACGREGOR, New York, N. Y., assignor to Pyrene Manufacturing Company, a Corporation of Delaware. Filed Oct. 15, 1913. Serial No. 795,254. (Cl. 137—26.)



In a valve for fire extinguishers a body provided with a longitudinal opening forming an outlet for the fluid and a plug provided with two transverse openings and a longitudinal opening, and an air inlet valve positioned in said longitudinal opening in said plug.

1,142,344. SPRING-FRAME FOR MOTOR-CYCLES. FRANK MACKEY, Newark, Ohio. Filed Apr. 25, 1912. Serial No. 693,239. (Cl. 208—94.)



1. A spring frame for motorcycles comprising a main frame, a rigid fork carried by said frame, a V-shaped floating fork member, one pair of legs of said member being pivotally supported by said main frame, a resilient resistance element carried by said main frame and bearing on the ends of the other pair of legs of said V-shaped floating member, and guiding means carried by said forks for preventing lateral movement of the wheel carrying end of said floating fork independent of its pivotal connection.

2. A spring frame for motorcycles comprising a main frame, a rigid V-shaped fork carried by said frame, a V-shaped floating fork member, one pair of legs of said member being pivotally supported by said main frame, a resilient resistance element carried by said main frame and bearing on the ends of the other pair of legs of said V-shaped floating forked member, and guiding means carried by said forks for preventing lateral movement of the wheel carrying end of said floating fork independent of its pivotal connection.

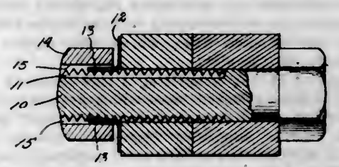
3. A spring frame for motorcycles comprising a main frame, a rigid fork forming a portion thereof, a floating fork pivoted to said main frame, a resilient resistance element operatively connected between said forks, U-shaped channel guide elements carried by one of said forks, and slide members slidably fitting between the legs of said guide elements and carried by the other of said forks, said guide elements and slide members being located at the opposite ends of said forks from the pivotal mounting of said floating fork to maintain a predetermined path of movement of said floating fork independent of its pivotal connection.

4. A spring frame for motorcycles comprising a main frame, a resiliently supported rear wheel, a luggage carrier attached to said main frame over said rear wheel, and a supplemental resistance element for use with said carrier and operatively connected between said main frame and said wheel.

5. A spring frame for motorcycles comprising a main frame, a resiliently supported rear wheel, a luggage carrier attached to said main frame over said rear wheel, and a supplemental detachable resistance element for use with said carrier and operatively connected between said main frame and said wheel.

[Claims 6 to 12 not printed in the Gazette.]

1,142,345. NUT-LOCK. JOHN K. MAJOR, Paducah, Ky. Filed Nov. 25, 1913. Serial No. 802,997. (Cl. 151—13.)



In a nut lock, the combination with a bolt having a pair of longitudinal ratchet grooves formed in the shank thereof, and a nut having a pair of grooves formed therein and communicating with the bore of the nut, of a washer plate having a pair of resilient fingers projecting therefrom at points adjacent the opening of the washer, one of said fingers being adapted to engage with one of the grooves in the shank of the bolt, and the other of said fingers being adapted to frictionally engage with the threads of the bolt when the bolt, washer and nut are assembled.

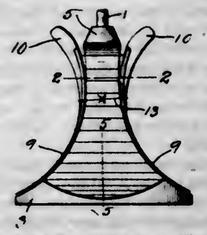
1,142,346. FOOD PRODUCT. GEORGE P. MARINER, Philadelphia, Pa. Filed Oct. 23, 1914. Serial No. 868,214. (Cl. 99—11.)

1. The food product comprising the combination of disintegrated and intimately mixed roasted peanuts, roasted cocoa and sugar.

2. The food product comprising the combination of disintegrated and intimately mixed roasted peanuts in the proportion of six parts, roasted cocoa one part, and powdered sugar one part.

3. The food product comprising a paste composed of disintegrated and intimately mixed roasted peanuts, roasted cocoa and powdered sugar.

1,142,347. GROUND-ANCHOR. CLAUDE L. MATTHEWS, St. Louis, Mo., assignor to W. N. Matthews and Brother, a Copartnership comprising himself and Wm. N. Matthews, St. Louis, Mo. Filed Oct. 31, 1912. Serial No. 728,966. (Cl. 189—92.)



1. In a ground anchor, a base having a pair of oppositely disposed curved faces in each of which is formed a

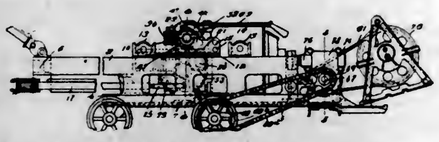
vertically disposed dove-tailed slot, curved plate flukes arranged for sliding movement on said curved faces, and a dove-tailed lug on the rear face of each fluke, which lug is arranged for sliding movement in the corresponding dove-tailed groove, said base being provided with a pair of oppositely disposed curved faces between the first mentioned pair of curved faces, and the second mentioned pair of curved faces being provided with horizontally disposed shoulders.

2. A ground anchor comprising a base having a pair of oppositely disposed curved faces in each of which is formed a vertically disposed slot and a groove and a pair of flukes arranged for sliding movement on said curved faces, each fluke being provided on its rear side with ribs which engage the corresponding slot and groove.

3. A ground anchor comprising a base having a pair of oppositely disposed curved faces which are provided with horizontally disposed ribs or corrugations, said base also having a pair of oppositely disposed vertically curved faces, each of which is provided with a centrally arranged dove-tailed slot and a pair of adjacent grooves, a curved fluke arranged for sliding movement upon each curved face, a dove-tailed lug projecting rearwardly upon each fluke through the corresponding slot, and ribs formed on the rear side of each fluke, which ribs engage in the grooves adjacent the slot.

4. A ground anchor comprising a base having a pair of oppositely disposed curved faces which are provided with horizontally disposed ribs or corrugations, said base also having a pair of oppositely disposed vertically curved faces, each of which is provided with a centrally arranged dove-tailed slot and a pair of adjacent grooves, a curved fluke arranged for sliding movement upon each curved face, a dove-tailed lug projecting rearwardly from each fluke through the corresponding slot, ribs formed on the rear side of each fluke, which ribs engage in the grooves adjacent the slot, and hammering heads integral with the upper ends of said flukes.

1,142,348. MINING MACHINE AND TRUCK. EDWIN R. MERRILL, Columbus, Ohio, assignor to The Jeffrey Manufacturing Company, Columbus, Ohio, a Corporation of Ohio. Filed Sept. 12, 1910, Serial No. 581,489. Renewed Sept. 18, 1913. Serial No. 790,564. (Cl. 105—218.)



1. In a mining machine and truck therefor, the combination of a wheeled truck, a mining machine mounted on the truck but adapted to be readily removed therefrom, and a train of power transmitting elements between the motor of the mining machine and the truck wheels comprising two elements adapted to be connected or disconnected by the bodily movement of the machine as a whole on the truck and a manually operable clutch supplemental to the said two elements.

2. In a mining machine and truck therefor, the combination of a wheeled truck, a mining machine mounted on the truck but adapted to be readily removed therefrom, and a power transmitting mechanism between the motor of the mining machine and the truck wheels comprising two independently movable frictionally engaging elements and two other elements adapted to be connected or disconnected by the bodily movement of the machine as a whole on the truck.

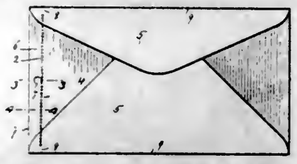
3. In a mining machine and truck therefor, the combination of a wheeled truck, a mining machine mounted on the truck but adapted to be readily removed therefrom, and means for transmitting power from the motor of the mining machine to the truck wheels when the said motor is energized and for automatically applying a frictional resistance to the rotation of the wheels when the motor is not energized.

4. In a mining machine and truck therefor, the combination of a wheeled truck, a mining machine mounted on the truck but adapted to be readily removed therefrom, and a separable power transmitting mechanism between the motor of the mining machine and the wheels of the truck comprising a worm connected with the motor, a worm wheel meshing with the worm and a friction clutch between the worm wheel and the truck wheels, the worm serving when the motor is idle to lock one of the elements of the friction clutch against rotation when the said element is not driven by the motor.

5. In a mining machine and truck therefor, the combination of a wheeled truck, a mining machine mounted on the truck but adapted to be readily removed therefrom, a separable power transmitting mechanism between the motor of the mining machine and the wheels of the truck comprising a worm connected with the motor, a worm wheel meshing with the worm and a friction clutch between the worm wheel and the truck wheels, the worm serving when the motor is idle to lock one of the elements of the friction clutch against rotation when the said element is not driven by the motor, and manually operable means for adjusting the pressure between the elements of the friction clutch.

[Claims 6 to 18 not printed in the Gazette.]

1,142,349. ENVELOP. RAYMOND A. MERRILL, New York, N. Y. Filed Mar. 20, 1915. Serial No. 15,681. (Cl. 229—85.)

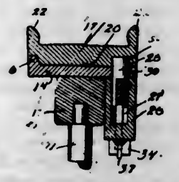


1. An envelop provided with a weakened line, to form a tearing strip, and with an opening formed in said strip and merging into the weakened line.

2. An envelop provided with a weakened line, to form a doubled tearing strip, and a pair of alined sight openings formed in the folds of said strip and merging into the weakened line.

3. An envelop provided with a weakened line extending along one of the transverse edges of the envelop to form a tearing strip, said weakened line terminating a distance from both longitudinal edges of the envelop, and with an opening in said tearing strip that merges into the weakened line.

1,142,350. VEHICLE-WHEEL WITH DEMOUNTABLE RIM. BOYD FISHER MERTZ, Northumberland, Pa. Filed June 16, 1914. Serial No. 845,459. (Cl. 152—21.)

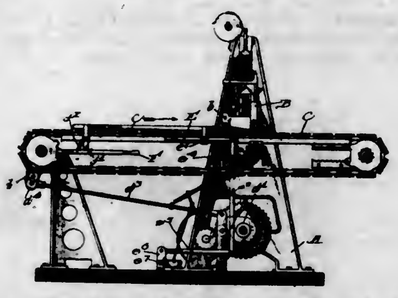


1. A vehicle wheel comprising a hub, spokes radiating therefrom, a stationary rim carried by said spokes, a removable rim slidable laterally onto said stationary rim and provided with openings alinging with openings in said stationary rim, a channeled annular ring secured upon said stationary rim and provided with enlarged sockets, bolts slidable radially within said sockets and a locking ring disposed within said channeled ring and provided with cam surfaces engaging said bolts, whereby rotation of said locking ring will force said bolts outwardly through the alined holes in said stationary rim and said removable rim.

2. A vehicle wheel comprising a hub, spokes radiating therefrom, a felly carried by said spokes, a felly band surrounding said felly, said felly band being provided with a plurality of holes, wedge-shaped socket members on the outer periphery of said felly band at said holes, a removable tire receiving rim slidable laterally onto said felly band and provided upon its inner periphery with wedge shaped projections engaging within said socket members, an annular ring channeled in cross section secured upon the inner periphery of said felly band and provided with slots, said channeled ring being further provided with enlarged sockets, bolts slidable radially within said sockets and bifurcated at their inner ends, a locking ring revoluble within said channeled ring and disposed within the furcations of said bolts, pins extending across the bifurcations of said bolts and engaging the inner periphery of said locking ring, said locking ring being provided with cam surfaces engaging said bolts and said pins, and operating handles secured on said locking ring and extending inwardly through the slots in said channeled ring, whereby said locking ring may be moved circumferentially within said channeled ring for forcing said bolts through the openings in said felly band and into recesses in said wedge shaped projections.

3. A vehicle wheel comprising a hub, spokes radiating therefrom, a stationary rim carried by said spokes, a removable rim on said stationary rim, both of said rims being provided with alined holes, a channeled ring secured on said stationary rim, a plurality of bolts slidable radially through said channeled ring, a locking ring slidable circumferentially through said channeled ring and provided with cam surfaces engaging said bolts for moving them radially, handles secured on said locking ring and extending through slots in said channeled ring, and means for holding said handles against movement retracting said bolts, said means comprising arms pivoted upon said channeled ring and provided with recesses receiving the ends of said handles, and catches preventing swinging of said arms.

1,142,351. BOX-BLANK MACHINE. JULIUS J. MILLER, St. Joseph, Mich., assignor, by mesne assignments, to Wirebounds Patents Company, Kittery, Me., a Corporation of Maine. Filed Oct. 30, 1907. Serial No. 399,821. (Cl. 1—14.)



1. A machine for making wirebound box blanks by fastening sheets to cleats, and by successively wiring together the previously unconnected sections of each blank, comprising staplers for securing the binding wires to the sheets and cleats, an endless traveling conveyer for presenting the sheets and cleats to said staplers in superimposed and spaced relation, a ratchet feed mechanism for actuating said conveyer, and instrumentalities including means on said conveyer to automatically control the operation of said mechanism.

2. A machine for making wirebound box blanks by fastening sheets to cleats, and by successively wiring together the previously unconnected sections of each blank, comprising staplers for securing the binding wires to the sheets and cleats, an endless traveling conveyer for presenting the sheets and cleats to said staplers in superimposed and spaced relation, a ratchet feed mechanism for actuating said conveyer, and instrumentalities including means on said conveyer to automatically govern the operation thereof.

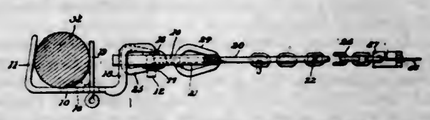
3. A machine for making wirebound box blanks by fastening sheets to cleats, and by successively wiring together the previously unconnected sections of each blank, comprising staplers for securing the binding wires to the sheets and cleats, an endless traveling conveyer for presenting the sheets and cleats to said staplers in superimposed and spaced relation, a ratchet feed mechanism for actuating said conveyer, and instrumentalities including means on said conveyer to automatically control the operation of said staplers.

4. A machine for making wirebound box blanks by fastening sheets to cleats, and by successively wiring together the previously unconnected sections of each blank, comprising staplers for securing the binding wires to the sheets and cleats, an endless traveling conveyer for presenting the sheets and cleats to said staplers in superimposed and spaced relation, a ratchet feed mechanism for actuating said conveyer, and instrumentalities including means on said conveyer to automatically render said staplers inoperative.

5. A machine for making wirebound box blanks by fastening sheets to cleats, and by successively wiring together the previously unconnected sections of each blank, comprising staplers for securing the binding wires to the sheets and cleats, an endless traveling conveyer for presenting the sheets and cleats to said staplers in superimposed and spaced relation, a ratchet feed mechanism for actuating said conveyer, and instrumentalities including means on said conveyer to automatically control the operation of said mechanism, said conveyer comprising a link belt for engaging the cleats, said instrumentalities including a movable element disposed adjacent the side of said belt, and said means projecting laterally from the belt to engage said element.

[Claims 6 to 16 not printed in the Gazette.]

1,142,352. WIRE-STRETCHER. EMERSON T. MORRIS, Constitution, Ohio. Filed Jan. 23, 1914. Serial No. 813,960. (Cl. 254—75.)

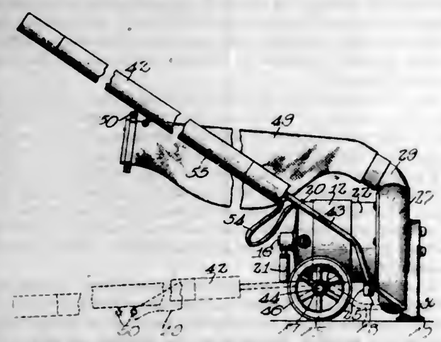


In a device of the class described, terminal transverse members and an intermediate transverse member, one of said terminal transverse members having a bearing and connected at one end by a longitudinal member to said intermediate transverse member, and the other transverse member adapted to engage a stationary support at one side and connected at one end by a longitudinal member to the other end of the intermediate transverse member, a straining lever pivoted upon said bearing, and a holding member adjustably connected to the last mentioned longitudinal member and adapted to bear against the opposite side of the stationary support.

1,142,353. ELECTRIC VACUUM-CLEANER. RICHARD H. MORROW and JAMES MORROW, Waukegan, Ill. Filed Feb. 10, 1912. Serial No. 676,899. (Cl. 15—60.)

1. The combination with a motor comprising a shaft, a casing which forms bearings for the motor shaft, a fan mounted on the shaft outside of the motor casing, a fan casing removably secured to the motor casing and provided with a peripheral outlet opening, and an integral inlet chamber of which the fan casing forms one of the walls communicating with the fan chamber adjacent the axis of the fan and extending below and laterally of the

fan chamber, the lower edge of the inlet chamber being provided with an inlet slot.



2. In a vacuum cleaner, the combination with a motor having a casing, of a fan casing secured to the casing at the front end of the motor and having a depending inlet portion, a shaft mounted below the motor at the other end, wheels mounted on the shaft, the ends of the shaft projecting beyond the wheels, and a handle member pivotally mounted in the said depending portion and adapted to engage the said projecting ends of the shaft when the rear end of the cleaner is upturned.

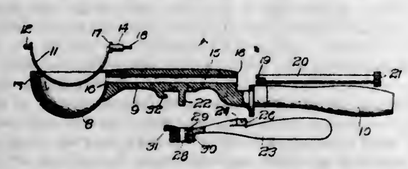
3. In a vacuum cleaner, the combination with a motor casing, of a fan case secured to the casing at one end, having a depending inlet portion, a shaft mounted below the motor, wheels mounted thereon and providing bearing members for the adjacent end, the ends of the shaft projecting beyond the wheels, and a handle pivotally mounted in the said depending portion and adapted to engage the said projecting ends of the shafts, or the fan case, to limit the movement of the cleaner with respect to the handle when it tends to upset in either direction.

4. In a vacuum cleaner, the combination with a motor casing, of a fan case secured to the casing at one end, having a depending inlet portion, a shaft mounted below the motor at the other end, wheels mounted thereon and providing bearing members for the adjacent end of the cleaner, the ends of the shaft projecting beyond the wheels, and a handle having a forked end portion pivoted in the depending portion and adapted to engage the projecting ends of the shaft.

5. In a vacuum cleaner, the combination with a motor casing, of a fan case secured to the casing at one end, having a depending inlet portion, a shaft mounted below the motor, wheels mounted thereon and providing bearing members for the adjacent end, the ends of the shaft projecting beyond the wheels, and a handle having a forked end portion pivoted in the depending portion and adapted to engage the projecting ends of the shaft, the forked end portion being offset to permit the handle to extend adjacent a plane surface when the cleaner is disposed thereon.

[Claims 6 and 7 not printed in the Gazette.]

1,142,354. ICE-CREAM SPOON. DOSIER H. MOSTELLER, Chicago, Ill., assignor, by direct and mesne assignments, of one-half to Robert Malcom, Chicago, Ill., and one-half to G. C. Buquo, Asheville, N. C. Filed Mar. 11, 1914. Serial No. 823,961. (Cl. 107—48.)



1. In an ice cream spoon, the combination with a bowl and a shank, of a scraper removably positioned within the bowl, a spindle positioned within the shank for operating the scraper and removable from the shank independently of the scraper, and an operating handle removably secured to the shank, arranged both to oscillate the spindle and prevent displacement of the same, substantially as described.

2. In an ice cream spoon, the combination with a bowl and a shank, of a scraper removably positioned within the bowl, a spindle positioned within the shank for operating the scraper and removable from the shank independently of the scraper, and a single means for locking said spindle in operative position and for oscillating the same, substantially as described.

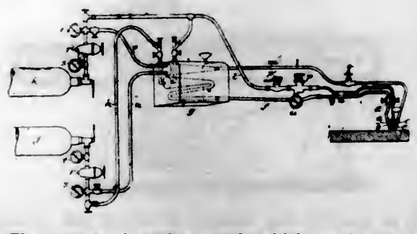
3. In an ice cream spoon, the combination with a bowl and a shank, of a member arranged upon the shank and removable therefrom only when not in operative position, a spindle removably positioned within the shank but normally locked therein by said member, and a scraper removably positioned within the bowl and operatively connected with said spindle, substantially as described.

4. The combination with an ice cream spoon embodying a bowl, a scraper removably positioned therein, a shank, and a spindle positioned within the shank for operating the scraper and removable from the shank independently of the scraper, of a pinion arranged externally of the shank upon the spindle, a rack in engagement with the pinion, means integral with the rack for preventing disengagement of the pinion therefrom, except when certain relative positions occur, and operating means for reciprocating the rack to impart oscillatory movement to the spindle and scraper, substantially as described.

5. The combination with an ice cream spoon embodying a bowl, a scraper removably positioned therein, a shank, and a spindle positioned within the shank for operating the scraper and removable from the shank independently of the scraper, of a pinion arranged externally of the shank upon the spindle, a rack in engagement with the pinion, means integral with the rack for preventing disengagement of the pinion therefrom, except when certain relative positions occur, and operating means removably secured to the shank for reciprocating the rack to impart oscillatory movement to the spindle and scraper, said operating means being maintained in locked relation with the shank, except when the spindle is withdrawn therefrom, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

1,142,355. PROCESS OF CUTTING METALS. RUDOLPH J. J. MUELLER, Milwaukee, Wis., assignor, by mesne assignments, to Oxweld Acetylene Company, Chicago, Ill., a Corporation of West Virginia. Filed May 23, 1910. Serial No. 562,835. (Cl. 75—90.)



1. The process of cutting metals which consists in projecting upon the metal to be cut a jet of oxygen following a heating jet and immediately followed by another heating jet composed of constituents necessary to maintain combustion without depriving the preceding jet of oxygen.

2. The process of cutting metals which consists in projecting upon the metal to be cut a jet of oxygen following a heating jet and immediately followed by a jet composed of a mixture of a combustible gas and an oxidizing gas to maintain the heat and fluidity of the oxid produced by the second jet and expedite its removal from the cut.

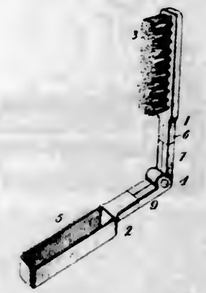
3. The process of cutting metals which consists in heating the metal to be cut to a temperature at which it will burn in oxygen, then projecting against it along the desired line of the cut a jet of oxygen followed by a jet composed of a mixture of oxygen with an inflammable gas.

4. The process of cutting metals which consists in heating the metal to be cut to an oxidizing temperature, directing a jet of oxygen against the metal along the line of section immediately followed by a heating jet composed of constituents necessary to maintain combustion without depriving the preceding jet of oxygen.

5. The process of cutting metals which consists in projecting upon the metal to be cut a jet of oxygen following a heating jet and immediately followed by another heating jet, the third jet being regulable independently of the first jet.

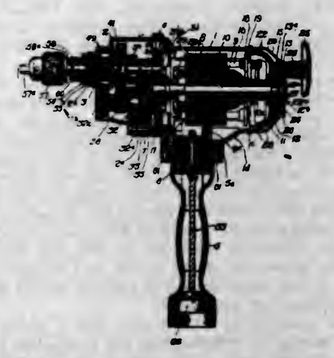
[Claims 6 and 7 not printed in the Gazette.]

1,142,356. TOOTH-BRUSH. CHARLES V. NELLANY, New York, N. Y. Filed Sept. 5, 1913. Serial No. 788,352. (Cl. 15—39.)



As an article of manufacture a two-part tooth brush comprising a brush proper and a handle, each of said parts having a sleeve on the shank thereof, one of said sleeves having ears at its end and formed with a pair of lugs, and the other sleeve having two oppositely disposed pairs of notches to receive said lugs, a hinge pin forming the fulcrum for said shanks, and a spring coiled on said pin and tending to hold said lugs in said notches.

1,142,357. TRANSMISSION-GEARING. REINHOLD A. NORLING, Aurora, Ill., assignor to Aurora Automatic Machinery Company, Aurora, Ill., a Corporation of Illinois. Filed Sept. 18, 1913. Serial No. 790,578. (Cl. 74—7.)



1. The combination of a driving member, a driven member provided with a gear wheel, a rotative gear spindle parallel with said driven member and in operative connection with said driving member, said gear spindle being provided at one end with an annular depression, a pinion mounted on said gear spindle intermediate of said depression and the other end of said gear spindle, said pinion meshing with the gear wheel of the driven member, a fixed cylindric bearing guide projecting into said depression, and an anti-friction bearing retained in said depression and supported by said bearing guide.

2. The combination of a driving member provided with a pinion, a rotative driven member, a gear spindle in parallel and offset relation to the axis of said driving member, said driven member and gear spindle being provided with intermeshing gear wheels and at their adjacent ends with cylindric shaped depressions, fixed cylindric bearing guides in axial alinement with said driven member and gear spindle and projecting into said depressions, anti-friction bearings mounted in said depressions and supported by said bearing guides, and a gear member upon said gear spindle located outwardly beyond the depression thereof and meshing with the pinion of said driving member.

3. The combination of a driving member provided with a pinion, a rotative driven member, a gear spindle in a parallel offset relation to the axis of the driving member, intermeshing gear wheels upon said driven member and gear spindle, the same being provided with annular depressions at their adjacent ends, fixed bearing guides in axial alinement with said driven member and gear spindles and projecting into said depressions, anti-friction bearing members mounted in said depressions and supported by said bearing guides, and an internal gear wheel upon the marginal portion of the recess of said gear spindle and located outwardly beyond the adjacent bearing member, said internal gear wheel meshing with the pinion of said driving member.

4. The combination of a driving member provided with a pinion, a rotative driven member provided with a gear wheel, a rotative gear spindle comprising an endwise opening cup-shaped portion at one end thereof, a stub shaft integral therewith, an internal gear secured to the marginal portion of said cup-shaped portion and meshing with said driving pinion, a central depression formed in said cup-shaped portion immediately inward from said internal gear wheel, a fixed cylindric bearing guide projecting into said depression, an anti-friction bearing in said depression and supported upon said bearing guide, an anti-friction bearing at the end of said stub shaft, and a pinion removably mounted upon said stub shaft meshing with the said gear wheel of the driven member.

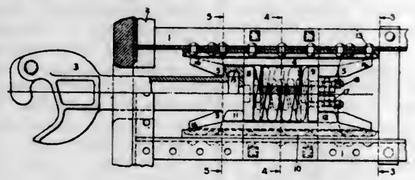
5. The combination of a driving member provided with a pinion, a rotative driven member, a gear wheel removably secured to said driven member, a rotative gear spindle parallel with said driven member, the same comprising an endwise opening cup-shaped portion and a stub shaft integral therewith, an internal gear mounted upon the marginal portion of said cup-shaped portion, an anti-friction bearing retained in the inner portion of said cup-shaped portion, a pinion removably mounted on said stub shaft and meshing with said gear wheel of the driven member, and a fixed cylindric bearing guide projecting into said cup-shaped portion and supporting said anti-friction bearing.

1,142,358. DRAFT-RIGGING FOR RAILWAY-CARS. JOHN F. O'CONNOR, Chicago, Ill., assignor to William H. Miner, Chicago, Ill. Filed May 6, 1910. Serial No. 559,785. (Cl. 213—42.)

1. In a draft rigging, the combination with center sills, stop members secured thereto furnished with central, longitudinal channels, a draw-bar, followers and cushioning means, of a horizontally disposed draw-bar and follower connection, composed of two independent like parts separably movable, fitting in said central, longitudinal channels of the stop members and having shoulders for operating the rear follower, substantially as specified.

2. In a draft rigging, the combination with a draw-bar, followers, cushioning means and stop members, of

horizontally disposed connection members removably connecting the draw-bar and followers fitting one on each side of the draw-bar and between the same and the stop members, the draw-bar and said connection members being adapted to be longitudinally moved out of normal position and separable from each other when thus out of normal position, substantially as specified.



3. In a draft rigging, the combination with a draw-bar, followers, cushioning means and stop members, of horizontally disposed connection members removably connecting the draw-bar and followers fitting one on each side of the draw-bar and between the same and the stop members, the draw-bar and said connection members being separable from each other when slipped longitudinally out of normal position, and removable means for permitting such slipping into separable position, substantially as specified.

4. In a draft rigging, the combination with a draw-bar, followers, cushioning means and stop members, of horizontally disposed connection members fitting one on each side of the draw-bar and between the same and the stop members, said connection members having shoulders at one end for operating one of the followers, and movable filler blocks interposed between said shoulders and follower to permit the draw-bar and connection members to be moved forward into separable position, substantially as specified.

5. The combination with draft lug members having central, longitudinal channels to receive draw-bar connection members, of a pair of separate draw-bar connection members and independently movable fitting in said channels, interengaging shoulders on said connection members and the draw-bar, means on said connection members adapted to operate the rear follower, a rear follower and movable dogs interposed between said rear follower and said means on said connection members for operating the rear follower, substantially as specified.

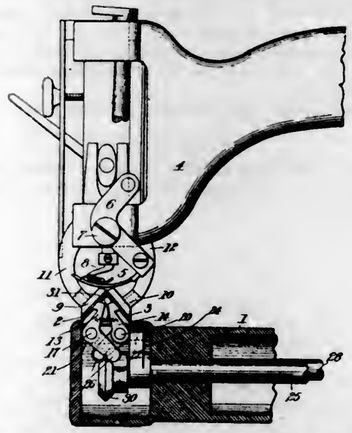
[Claims 6 to 9 not printed in the Gazette.]

1,142,359. FEEDING MECHANISM FOR SEWING-MACHINES. LANSING ONDERDONK, New York, N. Y., assignor to Union Special Machine Company, Chicago, Ill., a Corporation of Illinois. Filed Jan. 4, 1908. Serial No. 409,287. (Cl. 112—8.)

1. The combination with a work support having oppositely inclined work supporting surfaces forming a crimping ridge, presser members coöperating therewith, of feeding mechanism including feed dogs, operating through each of said work supporting surfaces, means for moving said feed dogs to feed the material and means for giving each of said feed dogs a fabric engaging movement in a direction at an angle to a central plane passing through said ridge, and in a direction substantially at right angles to the work supporting surface, through which said feed dogs operate.

2. The combination with a work support having oppositely inclined work supporting surfaces forming a crimping ridge, presser members coöperating therewith, of a feeding mechanism including feed dogs located beneath said inclined work supporting surfaces and having work engaging movements in a direction at an angle to a central plane passing through said ridge and in a direction substantially at right angles to the supporting surfaces through which said feed dogs operate, and means for simultaneously moving said feed dogs to feed the fabric.

3. The combination with a work support having oppositely inclined work supporting surfaces, feed dogs pivoted beneath said work support, means for swinging said feed dogs about their pivotal supports to give thereto a fabric engaging movement, means for moving said feed dogs to feed the fabric, said pivotal supports of said feed dogs being so disposed relative to the work supporting surfaces, that said feed dogs will move substantially in a direction at right angles to the supporting surfaces through which said feed dogs operate and in a direction at right angles to the feed of the fabric.



4. The combination with a work support having inclined work supporting surfaces of feeding mechanism including a feed dog pivoted beneath said work support, means for swinging said feed dog about its pivotal center to give thereto a fabric engaging movement, means for moving said feed dog to feed the fabric, said pivotal center of said feed dog being so disposed relative to the work support that said feed dog moves in a direction substantially at right angles to the work supporting surface through which it passes, when brought into engagement with the fabric.

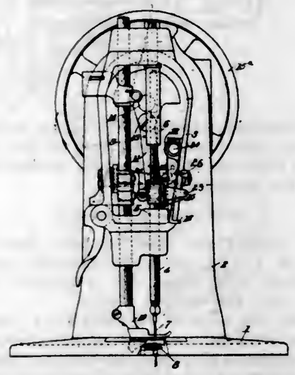
5. The combination with a work support, of a feeding mechanism including pivotally supported feed dogs, members on which said feed dogs are pivoted, means for oscillating said feed dogs on said members in opposite directions and means for moving said members longitudinally to give said feed dogs a work feeding movement.

[Claims 6 to 22 not printed in the Gazette.]

1,142,360. THREAD-CONTROLLER FOR SEWING-MACHINES. LANSING ONDERDONK, New York, N. Y., assignor to Union Special Machine Company, Chicago, Ill., a Corporation of Illinois. Filed Nov. 18, 1908. Serial No. 463,256. (Cl. 112—26.)

1. The combination of a needle bar, a needle, means for reciprocating the needle bar, a thread-carrying looper movable into and out of the needle thread loop for locking a loop of looper thread with the needle thread loop, a take-up for setting the stitch and a slack thread-controlling mechanism including a thread arm, thread guides coöperating with said thread arm, and means for moving said thread arm away from and toward the thread guides during the downward movement of the needle bar, whereby the needle thread is taken up on the first part of the downward movement of the needle, and whereby slack is given up to the needle thread on the last part of the downward movement of the needle.

2. The combination of a needle bar, a needle carried thereby, means for reciprocating the needle bar, a thread-carrying looper, means for moving the thread-carrying looper into and out of the needle loop, so that a loop of looper thread is locked with the needle loop, a take-up for setting the stitch and a slack-thread-controlling mechanism including a thread arm, thread guides coöperating with said thread arm, means for moving said thread arm away from and toward the thread guides on the upward movement of the needle, whereby the needle thread is taken up as the needle begins its upward movement and the needle loop thrown out by the needle for the entrance of the looper reduced, and whereby slack is given up to the needle on the last part of its upward movement, and means for taking up the slack given up by the thread arm and setting the stitch as the needle bar reaches the upper end of its stroke.



3. In combination with a needle bar, a needle carried thereby, means for reciprocating said needle bar, a thread-carrying looper, means for moving said thread-carrying looper into and out of the needle loop, so that a loop of looper thread is locked with the needle loop, a thread-guiding eye carried by the upper end of the needle bar, a thread guide coöperating therewith and so disposed that the thread eye in the needle bar moves above said thread guide to take up the thread and set the stitch, and a slack thread controlling mechanism including a thread arm, thread guides coöperating with said thread arm, and means for moving said thread arm away from and toward the thread guides on the downward movement of the needle bar, and away from and toward said thread guides a second time on the upward movement of the needle bar.

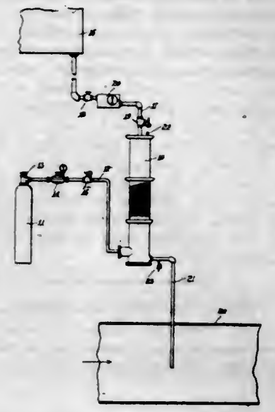
4. The combination of a needle bar, a needle, means for reciprocating the needle bar, a thread-carrying looper movable into and out of the needle loop for locking a loop of looper thread with the needle loop, a take-up device for setting the stitch and a slack-thread-controlling mechanism including a thread arm disposed substantially parallel with the needle bar, thread-guides coöperating with said thread arm, a link connecting said thread arm with said needle bar and operating to reciprocate the thread arm twice for one reciprocation of the needle bar, and means whereby the fulcrum of the thread arm may be adjusted in a direction substantially parallel with the movement of the needle bar.

1,142,361. PROCESS OF ANTISEPTICIZING WATER. GEORG ORNSTEIN, New York, N. Y., assignor to Electro Bleaching Gas Company, a Corporation of New York. Filed Feb. 14, 1913. Serial No. 748,284. (Cl. 210—1.)

1. In the sterilization of flowing water, the process which comprises establishing a separate minor flow of water, such flow being filmwise in one portion of its path, contacting chlorin gas with such flow in such portion of its path, and thereafter uniting such minor flow of water with the main body of flowing water to be sterilized.

2. In the sterilization of flowing water, the process which comprises establishing a separate minor flow of water, such flow being filmwise in one portion of its path, contacting a predetermined amount of chlorin gas with such flow in such portion of its path, and thereafter uniting such minor flow of water with the main body of flowing water to be sterilized.

3. In the sterilization of flowing water, the process which comprises establishing a separate minor flow of water, causing such minor flow to spread out in one portion of its path to present an extended surface, contacting chlorin gas with such flow in such portion of its path, and thereafter uniting such minor flow of water with the main body of flowing water to be sterilized.

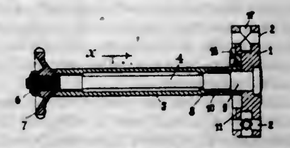


4. In the sterilization of flowing water, the process which comprises establishing a separate minor flow of water, causing such minor flow to spread out in one portion of its path to present an extended surface, contacting chlorin gas with such flow in such portion of its path, and thereafter uniting such minor flow of water with the main body of flowing water to be sterilized, and controlling the quantity of chlorin supplied to the main body of flowing water by controlling the rate of supply of chlorin gas to the minor flow of water.

5. In the sterilization of flowing water, the process which comprises establishing a separate minor flow of water, causing such minor flow to spread out in one portion of its path to present an extended surface, contacting a measured flow of chlorin gas with such flow of water in such portion of its path, and thereafter uniting such minor flow of water with the main body of flowing water to be sterilized.

[Claims 6 to 12 not printed in the Gazette.]

1,142,362. APPARATUS FOR ADJUSTING MULTIPLE-CUTTER HOLDERS OF TURNING-LATHES. HENRIK PETZ, Budapest, Austria-Hungary. Filed Dec. 20, 1913. Serial No. 807,948. (Cl. 29—49.)



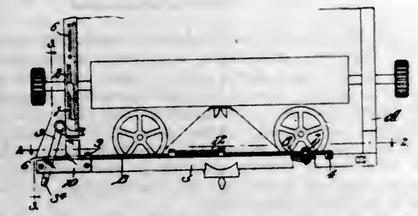
1. A device of the kind described, comprising in combination, a spindle, a gripping head on one end, a stationary sleeve surrounding said spindle, means for moving the head and spindle longitudinally of the sleeve in either direction, and also for rotating the spindle and head, and a coupling member between the head and the sleeve which is adapted to become coupled with, or uncoupled from, the sleeve according to the direction in which the head and sleeve are longitudinally moved.

2. A device of the kind described, comprising in combination, a spindle screw threaded at one end, an enlargement at the other end, a handwheel on the spindle and engaging the screw threaded part thereof, a cutter gripping head at one end of the spindle, a stationary sleeve surrounding the spindle, an internal shoulder with-

in the sleeve, a spring surrounding the spindle and arranged between the enlargement thereon and the internal shoulder, a fixed abutment at the screw threaded end of the spindle, and a coupling member between the head and the sleeve which is adapted to become coupled with or uncoupled from the sleeve, according to the direction in which the head and sleeve are longitudinally moved.

3. A device of the kind described, comprising in combination, a spindle, a cutter gripping head on one end of the spindle, a stationary sleeve surrounding the spindle, an internal shoulder within the sleeve, a spring surrounding the spindle and arranged between the enlargement thereon and the internal shoulder, a fixed abutment at the screw threaded end of the spindle, recesses in the adjacent surfaces of the sleeve and head, and a spring pressed engaging member mounted on the recess in the sleeve and extending normally into a recess in the head, the arrangement being such that the engaging member is adapted to first snap into one of the recesses in the head to a slight depth and afterward enters so far into the recess that the gripping head is securely fixed in the working position.

1,142,363. TYPE-WRITING MACHINE. WILLIAM W. PHILLIPS, St. Louis, Mo., assignor to Buffum Tool Company, Louisiana, Mo., a Corporation of Missouri. Filed Sept. 21, 1914. Serial No. 862,739. (Cl. 197—115.)



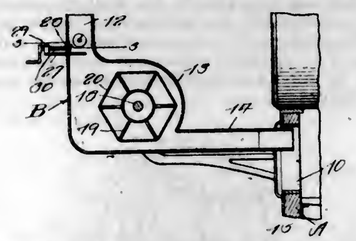
1. In a typewriting machine provided with a line-spacing mechanism and a lever for operating the same arranged adjacent one end of the carriage of the machine, a shiftable bar extending across the front portion of said carriage, one end of said bar being supported adjacent said lever by means of the end frame of the carriage and provided with a projection that lies behind said lever, the opposite end of said bar being provided with a handle or finger piece and supported on the front portion of said carriage by means of a slot and pin connection.

2. In a typewriting machine, a line-spacing mechanism and a lever for actuating the same arranged at one end of the carriage, a shiftable bar having one end slidably mounted on the end frame of the carriage adjacent said line-spacing mechanism, a guide on said carriage for preventing lateral displacement of said bar, a projection on one end of said bar that is adapted to engage said lever, a finger piece on the opposite end of said bar, and a slot and pin connection between said bar and said carriage adjacent said finger piece.

3. An attachment for an Underwood typewriting machine, consisting of a bar that is adapted to be reciprocatingly mounted on the front cross member of the carriage of the machine for operating the lever on said carriage that is used for actuating the line-spacing mechanism, and removable devices that are adapted to be connected to the carriage for supporting and guiding said bar, said bar being provided at one end with a finger piece and at its opposite end with a portion for engaging said lever when the bar is shifted in one direction.

1,142,364. FUEL-FEEDING APPARATUS. JOHN H. PORTER, Atlanta, Ga. Filed Mar. 20, 1913. Serial No. 755,699. (Cl. 110—104.)

In a pulverulent feeding apparatus, a fuel supply, a casing communicating with said fuel supply, a discharge chute connected with and leading from the casing, corresponding extensions on each side of the casing having their outer ends closed and their longitudinal walls provided with openings respectively, doors slidably adjustable on the extensions for varying the size of said openings, a

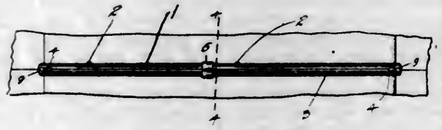


shaft journaled transversely of the casing and extending through said extensions, a fan fixed on said shaft for forcing fuel delivered from the supply through the chute, and means for rotating said fan.

1,142,365. PRINTING-INK. GUSTAV ERNST POSSE, Newark, N. J., assignor to The Jaenecke Printing Ink Co., Newark, N. J. Filed Dec. 17, 1913. Serial No. 807,357. (Cl. 134—35.)

A printing ink adapted for intaglio or photogravure processes on cylinder or rotary presses consisting of a mixture of a vehicle of casein, alkali salts, sulfonated oils with lake colors, carbon black, mineral dye stuffs and ethereal oils and water used in substantially the proportions described.

1,142,366. STAIR-ROD. CHARLES B. POST, New London, Ohio. Filed Apr. 21, 1914. Serial No. 833,544. (Cl. 16—141.)



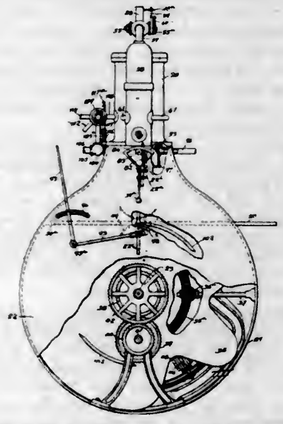
In a stair rod including a pair of L-shaped members slidable with relation to each other, keyhole slots arranged adjacent to the outer end of and at the juncture where the L-shaped members are abruptly turned, a clip of substantially L-shaped configuration having its ends bent back and adapted to frictionally grip the L-shaped members, and means extending through the keyhole slots to hold the device in a secured position.

1,142,367. INTERNAL-COMBUSTION ENGINE. HERMANN REICHE, Bellemead, N. J. Filed Apr. 29, 1907. Serial No. 370,742. (Cl. 123—76.)

1. In an internal combustion engine, a cylinder, a piston dividing it into two chambers, an outlet port from the combustion chamber and an inlet port to the other chamber, a connection between said ports, a pressure receptacle connected with said outlet port, a valve for connecting said outlet port with the pressure receptacle, the inlet port, or the outer air, and means controlled by the engine, for operating said valve.

2. In an internal combustion engine, a base, a cylinder thereon, a stuffing box at each end thereof, a power piston in said cylinder provided with a passage and a stuffing box, means comprising a valved auxiliary piston also in said cylinder and mechanism for reciprocating the same for the purpose of inhaling and expelling a charge of air, inhaling and exploding a charge of explosive vapor and expelling the burnt gases, a hollow rod fixed in the auxiliary piston in communication with the interior thereof and extending outwardly through the cylinder-head and inwardly through the passage in the

power piston into the base, and means comprising air pumps actuated by the auxiliary piston adapted to draw air through the hollow rod into the base and lead it tangentially into a fuel supply chamber and thence into an explosive vapor reservoir.



3. In an internal combustion engine, a cylinder, a power piston and an auxiliary piston therein, a rotary member driven by the power piston, another rotary member operatively connected with the auxiliary piston to reciprocate the same, and a speed-increasing connection between the two rotary members.

4. In an internal combustion engine, a cylinder, a power piston and an auxiliary piston therein, two operatively connected rotary members each provided with an undulating guide, and operative connections from each piston, engaging the respective rotary members at the guides thereof, the rotary member which works in conjunction with the auxiliary piston, rotating at a rate of speed which is a multiple of that of the other rotary member.

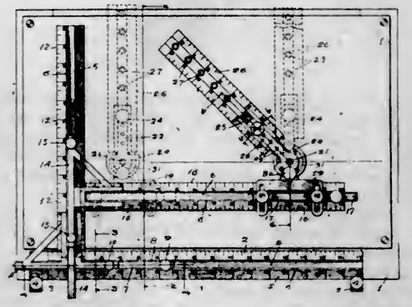
5. In an internal combustion engine, a cylinder, a power piston and an auxiliary piston therein, two operatively connected rotary members each provided with an undulating guide, and operative connections from each piston, engaging the respective rotary members at the guides thereof, the undulations of the said members being so arranged that immediately after the working stroke of the power piston the latter will remain stationary, while the auxiliary piston reciprocates, whereupon both pistons will move together and then the power piston has its power stroke while the auxiliary piston is stationary.

[Claims 6 to 24 not printed in the Gazette.]

1,142,368. DRAFTING INSTRUMENT. CHARLES G. ROW, San Francisco, Cal. Filed Sept. 21, 1914. Serial No. 863,987. (Cl. 33—79.)

1. A drafting instrument comprising a stationary blade adapted to be secured to a drafting board or pad; a second blade slidably mounted upon the first mentioned blade and arranged transversely thereto; a third blade slidably mounted upon the second mentioned blade and arranged to lie parallel with the first mentioned blade; a runner slidably mounted upon the third mentioned blade; means adapted to prevent the movement of the runner on the third mentioned blade; a pivotal member secured to the runner; and a fourth blade having a series of apertures arranged at regular intervals therein and slidably secured to the pivotal member.

2. A drafting instrument comprising a stationary blade having graduations thereon and a longitudinal groove therein; a second blade having graduations and a longitudinal groove therein and a runner rigidly secured thereto, said runner being adapted to be slidably mounted within the groove of the first mentioned blade; a third blade having graduations thereon and a longitudinal groove therein and a runner rigidly secured thereto and adapted to slidably engage the groove in the first and second mentioned blades; means adapted to prevent the movement of the last mentioned runner within the groove; a plate adapted to be secured to the last mentioned runner; a pivotal member pivotally secured to the plate and apertured on its pivotal center and having an extension thereon; and a fourth blade slidably secured to the pivotal member and having graduations thereon and a series of apertures arranged at regular intervals therein.



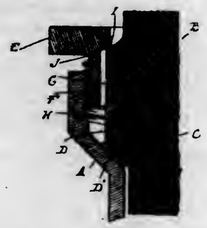
3. A drafting instrument comprising a stationary blade having graduations thereon and a longitudinal groove therein, said groove having an overhanging lip throughout the length of one side thereof; means adapted to secure the said blade to a drafting board or pad; a second blade having graduations thereon and a longitudinal groove therein similar to the first mentioned groove; a runner secured transversely to the second blade and having a lip on each side of the lower edge thereof, said runner being arranged to engage the groove in the first mentioned blade; a third blade similar to the other blades; a runner similar to the other runner and secured transversely to the third mentioned blade and adapted to slidably engage the groove in the first and second mentioned blades; means secured to each runner and adapted to secure the said runner against movement in the groove; a third runner similar to the other runners and adapted to slidably engage the groove in any one of the other blades; a plate detachably secured to the last mentioned runner; a pivotal member detachably secured to the plate and having an extension thereto; and a fourth blade having graduations thereon and apertures arranged at regular intervals therein, said blade being slidably connected to the extension of the pivotal member.

4. A drafting instrument comprising a stationary blade having graduations thereon and a longitudinal groove therein; means adapted to secure the blade to a drafting board or pad; two other blades having graduations on the edges thereof and longitudinal grooves therein; a runner secured transversely to each blade, either of said runners being adapted to slidably engage either of the grooves in any other blade; a third runner adapted to slidably engage any one of the grooves; means secured to each runner and adapted to prevent the movement of the said runners in the grooves; a plate detachably and slidably secured to the third runner; and a fourth blade having graduations thereon and apertures arranged at regular intervals therein, said fourth mentioned blade being slidably and pivotally attached to the plate secured to the third mentioned runner; and means adapted to secure the last mentioned blade at various angles to the third mentioned blade.

1,142,369. SPARK-PLUG. ALBERT SCHMIDT, Flint, Mich., assignor to Champion Ignition Company, Flint, Mich., a Corporation of Michigan. Filed Dec. 20, 1913. Serial No. 807,869. (Cl. 123—169.)

1. The combination with a metallic case, of a member seated within said case formed of a material having a

different coefficient of expansion, clamping means for securing said member to its seat, and means for compensating for the differential in the coefficient of expansion to maintain substantially constant clamping pressure.



2. In a spark plug, the combination with a case and the insulator therein, of clamping means for said insulator including means for compensating for the differential in the coefficiency of expansion of the insulator and case to maintain substantially constant pressure under varying temperature conditions.

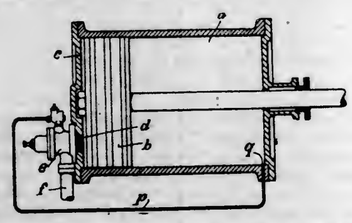
3. In a spark plug, the combination with the case and the insulator seated therein, of clamping means for said insulator in said case, and means intermediate said clamping means and insulator for compensating for the differential in the coefficiency of expansion, to maintain substantially constant pressure under varying temperature conditions.

4. In a spark plug, the combination with the case of an insulator having oppositely-facing shoulders, one of which is seated on said case, clamping means for said insulator, and a member intermediate said clamping means and the oppositely-facing shoulder on said insulator for compensating for the differential in the coefficiency of expansion.

5. In a spark plug, the combination with the case, of an insulator having oppositely-facing annular shoulders, one of which is seated upon the case, a clamping bushing engaging said case, and a sleeve surrounding said insulator intermediate said clamping bushing and oppositely-facing shoulder on the porcelain, the differential in the coefficiency of expansion of said sleeve and case being proportionate to compensate for the differential in expansion of said insulator and case between the oppositely-facing shoulders of the former.

[Claim 6 not printed in the Gazette.]

1,142,370. ARRANGEMENT IN STEAM-ENGINES FOR TAKING WORKING STEAM FROM THE ENGINE-CYLINDERS. WILHELM SCHMIDT, Wilhelmshöhe, near Cassel, Germany, assignor to Schmidt'sche Heissdampf Gesellschaft M. B. H., Cassel-Wilhelmshöhe, Germany. Filed Apr. 5, 1912. Serial No. 688,645. (Cl. 121—45.)



1. Arrangement in steam engines for taking working steam from the engine cylinders comprising a power pipe connecting with the cylinder interior, means for automatically controlling communication between the cylinder interior and the power pipe, and means for automatically controlling the passage of steam through said power pipe.

2. Arrangement in steam engines for taking working steam from the engine cylinders comprising a power pipe connecting with the cylinder interior, a valve adapted to establish and cut off communication between the cylinder interior and the power pipe, both said actions of the valve being dependent upon the pressure in the cylinder interior, and means for actuating said valve to open the power pipe into the cylinder.

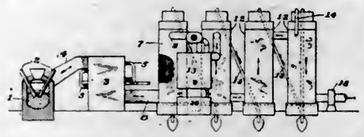
3. Arrangement in steam engines for taking working steam from the engine cylinders comprising a power pipe connecting with the cylinder interior, a valve adapted to establish and cut off communication between the cylinder interior and the power pipe, both said actions being dependent upon the pressure in the cylinder interior, means for actuating said valve to open the power pipe into the cylinder and means for automatically controlling the passage through said power pipe.

4. Arrangement in steam engines for taking working steam from the engine cylinders comprising a power pipe connecting with the cylinder interior, a valve adapted to establish and cut off communication between the cylinder interior and the power pipe, and means for controlling the passage through said power pipe adapted to keep the passage closed during a part of the period of communication established by the valve between the power pipe and the cylinder interior.

5. Arrangement in steam engines for taking working steam from the engine cylinders, comprising a power pipe connecting with the cylinder interior, a valve adapted to establish and cut off communication between the cylinder interior and the power pipe, means for actuating said valve to open the power pipe into the cylinder when the expansion pressure in the cylinder has reached a predetermined value, means for closing the valve when the expansion pressure in the cylinder has undergone a predetermined change and means for controlling the passage through said power pipe.

[Claims 6 to 20 not printed in the Gazette.]

1,142,371. PROCESS OF MANUFACTURING PHOSPHORIC ACID. FRANK C. SCHMITZ, New York, N. Y. Filed Feb. 4, 1914. Serial No. 816,595. (Cl. 23—1.)



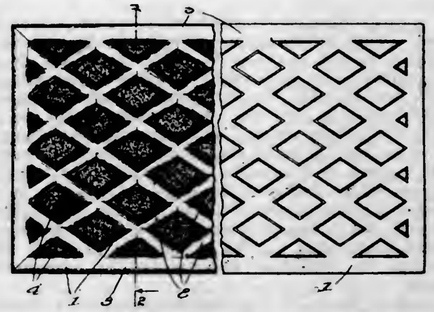
1. The process herein described of manufacturing phosphoric acid which consists in rendering a mixture consisting of phosphatic material, a flux and a reducing agent, fluid by subjecting the mixture to a high heat to form gases containing phosphorus, passing the gases through the passages of absorption towers to collect the acid in aqueous form, and causing the gases to pass through a body of liquid before reaching said passages to collect the solid impurities therefrom and thus prevent the formation of obstructing deposits in the said passages in the towers.

2. The process herein described of manufacturing phosphoric acid, which consists in rendering a mixture of phosphatic material, an acid flux and a reducing agent, fluid by subjecting the mixture to high heat to form gases or vapors containing phosphorus, then passing such gases or vapors through a chamber and mixing oxygen therewith to break up and oxidize the gases or vapors to form phosphorus pentoxid, passing the pentoxid through passages in a checker-work absorption tower operating on the counter-current principle, and causing the pentoxid after leaving the oxidizing chamber to enter and bubble up through a body of liquid before entering the tower to collect the impurities therefrom and thus prevent choking of the passages in the tower by the accumulation therein of impurity deposits.

3. The process herein described of manufacturing phosphoric acid which consists in rendering a mixture consisting of phosphatic material, a flux and a reducing agent, fluid by subjecting the mixture to a high heat to form gases containing phosphorus, oxidizing such gases to form phosphorus pentoxid, passing the pentoxid gases through the passages of absorption towers to collect the acid in aqueous form and causing the phosphorus pentoxid to pass through a body of liquid before reaching said passages to collect the solid impurities therefrom and thus prevent the formation of obstructing deposits of the said passages in the towers.

4. The process herein described of manufacturing phosphoric acid which consists in rendering a mixture consisting of phosphatic material, a flux and a reducing agent, fluid by subjecting the mixture to a high heat to form gases containing phosphorus, mixing air with the gases to form phosphorus pentoxid, then spraying such pentoxid with a weak solution of phosphoric acid, then passing the phosphorus through the passages of absorption towers to collect the acid in aqueous form and causing the gases to pass through a body of liquid before reaching said passages to collect the solid impurities therefrom and thus prevent the formation of obstructing deposits in the said passages in the towers.

1,142,372. DETACHABLE STAIR-TREAD. JOHN WILLIAM SCOTT, New York, N. Y., and THOMAS H. GREER, South Orange, N. J. Filed Feb. 15, 1915. Serial No. 8,223. (Cl. 20—79.)

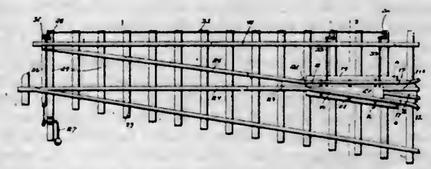


1. A tread surface comprising a thin metallic inverted tray-shaped plate supported by an inclosed plastic under filling and perforated to expose said filling which fills the perforations flush with the top surface of the plate.

2. A tread surface comprising a thin metallic inverted tray-shaped plate supported by an inclosed asphaltum under filling and perforated to expose said filling which fills the perforations flush with the top surface of the plate and makes a water-tight union with the metal.

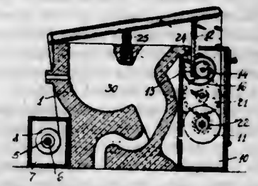
3. A tread surface comprising a thin metallic inverted tray-shaped plate supported by an inclosed plastic under filling and perforated to expose said filling which fills the perforations flush with the top surface of the plate and the metal between said perforations being channeled to present metal on edge as the bearing surface.

1,142,373. RAILWAY-FROG. JOHN N. SIDES, North Birmingham, Ala. Filed Feb. 24, 1912. Serial No. 679,545. (Cl. 104—119.)



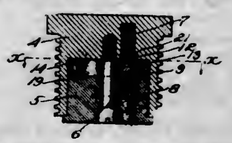
In a railway frog structure, the combination of a base plate converging guard rails supported by the base plate and extending the entire length of said plate, converging track rails having their ends disposed upon the base plate between the guard rails, a deflector block disposed between the guard rails and having one end in abutting relation to the terminals of the track rails, lateral extensions on the deflector block slidably engaged through the guard rails, and means for moving the deflector block into engagement with either guard rail.

1,142,374. HYGIENIC TOILET-SEAT. JOHN SIVAK, ALEXANDER NAGY, and LADISLAUS BANDURAY, New York, N. Y. Filed July 7, 1914. Serial No. 849,401. (Cl. 4—18.)



The combination with a toilet seat comprising two seat sections connected at their front ends by a horizontal tie member and normally kept above the toilet vase by means of springs mounted on the rim thereof,—of a vertical rack secured to the bottom part of said tie-member, a box placed in front of said toilet vase, a horizontal shaft journaled in the sides of said box, a pinion rigidly mounted on said shaft in engagement with said vertical rack, spiral springs attached with their inner ends to said shaft and with their outer ends to said box, adapted to be wound up on said shaft and thereby put under tension, by means of said rack and pinion, when said seat sections are pressed down, gears loosely mounted on said shaft, one at either end thereof, ratchets carried by said shaft adapted to engage said gears when said shaft is rotated by said springs and out of engagement with same while the springs are put under tension by the rack pinion, another shaft journaled in the sides of said box below said first mentioned shaft, parallel thereto, carrying gears at either end in engagement with said first mentioned gears and adapted to be rotated thereby,—and a pair of drums rigidly mounted on said second mentioned shaft in vertical alinement with said seat sections, adapted to wind up thereon individual strips of paper drawn over said seat sections from rolls placed therebehind, whenever said seat sections are raised from the toilet vase by means of said springs mounted on the rims thereof, substantially as and for the purpose set forth.

1,142,375. EXPLODING DEVICE FOR PROJECTILES. WILLIAM J. SMITH, New Haven, Conn., assignor to Henry N. Sweet, trustee, Boston, Mass. Filed Nov. 24, 1914. Serial No. 873,820. (Cl. 102—36.)



1. An exploding device for projectiles, comprising a spring-actuated hammer, a detonator adapted to be exploded thereby, a disk-like locking member mounted to rotate on a central axis and normally obstructing the movement of the hammer, a spring constantly tending to rotate said locking member, and a detent normally preventing movement of the locking member, said detent being longitudinally movable in the body portion independently of the hammer.

2. An exploding device for projectiles, comprising a spring-actuated hammer, a detonator adapted to be exploded thereby, a spring-actuated rotary locking member for holding the hammer in inoperative position and having a projection movable in a liquid-filled annular space, adjustable means for regulating the escape of the liquid

from said space, and a detent normally preventing movement of said locking member.

3. An exploding device for projectiles, comprising a body portion having a cavity extending inward from its under side, a plug secured therein, a spring-actuated hammer located within the body portion above said plug, a detonator carried by the plug in position to be exploded by the hammer, a rotary locking member located between the inner end of the plug and the adjacent body portion and normally interposed between the hammer and the detonator, a spring constantly tending to rotate the locking member, and a detent longitudinally movable within the body portion independently of the hammer and normally preventing movement of said locking member.

4. An exploding device for projectiles, comprising a body portion having a cavity extending inward from its under side, a plug secured in said cavity by a central longitudinal bolt, a locking member located between the inner end of the plug and the adjacent body portion and rotatably mounted on said bolt, a spring constantly tending to rotate the locking member, a spring-actuated hammer located within the body portion above said plug at one side of the bolt, a detonator carried by the plug in position to be exploded by the hammer, and a detent normally preventing movement of said locking member.

5. An exploding device for projectiles, comprising a body portion, a spring-actuated hammer carried thereby, a locking member located within the body portion beneath the hammer and mounted to rotate on a longitudinal axis, said body portion being provided at one point with a perforation adapted to receive said hammer, a compression spring constantly tending to rotate said locking member, a detent normally preventing movement of the latter, and a detonator located below the locking member in line with the hammer.

[Claims 6 to 10 not printed in the Gazette.]

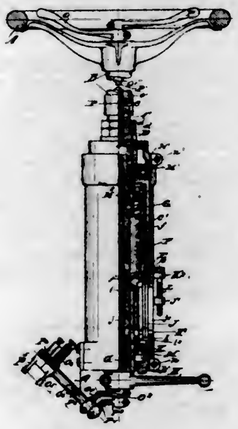
1,142,376. TACK-FASTENED BUTTON. FREDERICK E. STANLEY, Waterbury, Conn., assignor to Scovill Manufacturing Company, Waterbury, Conn., a Corporation of Connecticut. Filed Apr. 28, 1913. Serial No. 764,223. (Cl. 24—95.)



1. A combined anvil and filler for a tack-fastened button, for clenching and anchoring the tack used to secure the button to an article, same consisting of a unitary structure drawn to shape and having a flat head portion and a whole-walled tapering hollow extension beyond which the flat head portion extends laterally all around, the tapering portion having a substantially tubular unbroken cylindrical end portion through which the tack point is introduced into the interior of the hollow extension to be clenched therein, the flat head only of the hollow extension receiving the impact of the tack in the act of setting and the unbroken cylindrical end portion resisting the longitudinal strain and overcoming the tendency to spread.

2. A tack-fastened button, having a tack clenching and anchoring member for securing the button to an article, said member made of a single piece cup drawn to shape and including a flat head portion and a whole-walled tapering hollow extension beyond which the flat head portion extends laterally all around, the tapering portion having a substantially tubular unbroken cylindrical end portion through which the tack point is introduced into the interior of the hollow extension and therein clenched, combined with a hubbed back and a face closed down over the back, the said tack clenching and anchoring member located between the back and face and resting upon the back and opposed by the face, its hollow extension entering the hub and its terminal portion inclosed by said hub and out of contact with the article to which the button is applied, and also out of supporting contact with the hub.

1,142,377. STEERING-GEAR. THEODORE D. STANLEY, Detroit, Mich. Filed Oct. 10, 1913. Serial No. 794,379. (Cl. 74—79.)



1. In a device of the character described, a steering shaft, a reciprocating sleeve means for operating the shaft, a fitting secured to the shaft adapted to actuate the reciprocating sleeve, the reciprocating sleeve being provided with internal spiral shoulders forming cams, a longitudinally adjustable rotatable sleeve extending into the reciprocating sleeve having a spiral cam-shaped end adapted to co-act with the spiral cams of the reciprocating sleeve, and a crank shaft provided with a crank arm which is sleeved within the rotatable sleeve—and having a spiral shaped shoulder or cam co-acting with one of the spiral cams of the reciprocating sleeve, the rotatable sleeve and crank shaft being adapted to rotate as a single unit through the rectilinear movement of the reciprocating sleeve.

2. In a device of the character described, a steering shaft, a fitting secured to the shaft having an internal threaded portion, an outer sleeve having a screw-threaded engagement with the fitting, a reciprocating sleeve provided with internal spiral shoulders or cams and externally threaded to co-act with the internally threaded portion of the fitting, a crank shaft fitted with a crank arm lodged within the reciprocating sleeve provided with a spiral shoulder or cam adapted to co-act with the spiral shoulder of the reciprocating sleeve, a sleeve mounted upon the crank shaft having a spiral cam co-acting with the spiral shoulder of the crank shaft and with the spiral shoulders of the reciprocating sleeve, said sleeve and crank shaft being adapted to rotate as a single unit through the operation of the reciprocating sleeve, a stationary inclosing sleeve, and a key projecting into a slot provided for its reception in the reciprocating sleeve and engaged by the stationary sleeve, whereby the reciprocating sleeve is held against rotation.

3. In a device of the character described, a steering shaft, a fitting secured to the shaft having an internal threaded portion, an outer sleeve having a screw-threaded engagement with the fitting, an annular adjustable ring engaging the outer sleeve below the fitting, a reciprocating sleeve provided with internal spiral shoulders and externally threaded to co-act with the internally threaded portion of the fitting, a crank shaft fitted with a crank arm lodged within the reciprocating sleeve provided with a spiral shoulder adapted to co-act with the spiral shoulder of the reciprocating sleeve, a sleeve mounted upon the crank shaft having a spiral cam co-acting with the spiral shoulder of the crank shaft and with the spiral shoulders of the reciprocating sleeve, said crank shaft and sleeve being adapted to rotate as a single unit and to be adjusted longitudinally with respect to each other, a stationary inclosing sleeve, and a key projecting into a slot provided for its reception in the reciprocating sleeve and engaged by the stationary inclosing sleeve, whereby the reciprocating sleeve is held against rotation.

4. In a device of the character described, a steering shaft, a fitting secured to the shaft having an internal threaded portion, an outer sleeve having a screw-threaded engagement with the fitting, an annular ring carried by the outer sleeve below the fitting internally threaded to correspond with the internal threaded portion of the fitting, a reciprocating sleeve provided with internal spiral shoulders and externally threaded to co-act with the internally threaded portion of the fitting and the annular ring, a crank shaft fitted with a crank arm lodged within the reciprocating sleeve provided with a spiral shoulder adapted to co-act with the spiral shoulder of the reciprocating sleeve, a sleeve mounted upon the crank shaft having a spiral cam co-acting with the spiral shoulder of the crank shaft and with the spiral shoulders of the reciprocating sleeve, the crank shaft and last named sleeve each having abutting shoulders whereby they may be rotated as a single unit through the rectilinear movement of the reciprocating sleeve, a stationary inclosing sleeve, and a key projecting into a slot provided for its reception in the reciprocating sleeve and engaged by the stationary inclosing sleeve, whereby the reciprocating sleeve is held against rotation.

5. In a device of the character described, a steering shaft, a fitting secured to the shaft having an internal threaded portion, an outer sleeve adjustably engaged to the fitting, an annular ring engaged to the sleeve, internally threaded to correspond with the internal threaded portion of the fitting, a reciprocating sleeve externally threaded to co-act with the fitting and annular ring and having internal spiral shoulders, a crank shaft fitted with a crank arm having a spiral shoulder co-acting with the spiral shoulder of the sleeve and provided with a longitudinal shoulder, a sleeve mounted upon the crank shaft having a projecting semi-circular portion forming a longitudinal shoulder adapted to abut with the longitudinal shoulder of the sleeve whereby the sleeve and crank shaft may be rotated as a single unit, said sleeve also provided with a cam co-acting with the spiral shoulder of the reciprocating sleeve, a stationary inclosing sleeve, an adjustable key supported by the stationary sleeve extending into a keyway provided for its reception in the reciprocating sleeve, and means for regulating the degree of adjustment given to the key.

[Claims 6 to 15 not printed in the Gazette.]

1,142,378. CATENARY HANGER. WILLIAM CARLETON STARKEY, Mansfield, Ohio, assignor to The Ohio Brass Company, Mansfield, Ohio, a Corporation of New Jersey. Filed Apr. 6, 1912. Serial No. 688,937. (Cl. 191—41.)



1. In a catenary hanger of the class described, a suspension member, having means for attachment to a trolley-wire and having its upper end doubled back upon itself to form an elongated loop for the messenger-wire, said

end being so disposed with relation to said suspension member as to form an entrance for said loop where through the messenger-wire may be passed while said hanger is attached and in the same angular relation to the trolley-wire in which it normally hangs, and means for locking said entrance to prevent the escape of the messenger-wire.

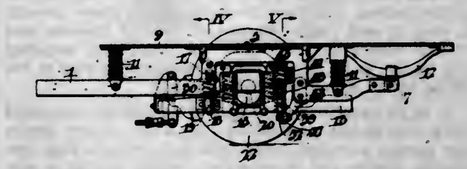
2. The improvements herein described comprising a trolley-wire and a messenger-wire disposed one below the other in substantially the same plane, in combination with a catenary hanger holding said trolley-wire in spaced relation to said messenger-wire and comprising a single piece of strap metal, having means at its lower end attached to the trolley-wire and having an elongated loop at its upper end through which the messenger-wire may be passed and which permits relative movement of the hanger and messenger wire, said loop being formed by turning back the end portion of said strap in a double bend and bringing the end close to said strap in substantially parallel relation to the plane wherein said messenger-wire and trolley-wire are disposed.

3. The improvements herein described comprising a trolley-wire and a messenger-wire disposed one below the other in substantially the same plane, in combination with a catenary hanger holding said trolley wire in spaced relation to said messenger-wire and comprising a piece of strap metal, having means at its lower end attached to the trolley-wire and having an elongated loop at its upper end through which the messenger-wire may be passed while the hanger is in a substantially vertical position, said loop being formed by turning back the end portion of said strap in a double bend and bringing the extreme end portion close to said strap in substantially parallel relation to the plane wherein said messenger-wire and trolley-wire are disposed, and means engaging said end portion of said strap to prevent it from being sprung out of its normal position by the strains to which said hanger is subjected.

4. The improved suspension member for catenary hangers, comprising a single piece of strap metal having one end portion doubled back upon, and substantially parallel to, but spaced from itself, forming an elongated loop for the messenger-wire, the extreme end portion being turned upwardly and brought close to said strap, to form a substantially closed entrance to the loop whereby it must be sprung or forced away therefrom to permit the messenger-wire to be entered into the loop.

5. In a catenary hanger for trolley-wire suspension, a member adapted for attachment to the trolley-wire, in combination with an upstanding suspension strap having an elongated loop at its upper end formed by bending the upper end of the strap back upon itself and bringing a portion of the bent-back portion close to the body of the strap whereby the entrance to the loop is normally maintained closed to the passage of the messenger wire therethrough by the resiliency of the metal, the main portion of said strap below said loop being twisted into a plane substantially at right angles to the axis of the trolley wire.

1,142,379. CAR-TRUCK. WILLIAM H. STEVENSON, Philadelphia, Pa., assignor to Philadelphia Holding Company, Philadelphia, Pa., a Corporation of Delaware. Filed Apr. 7, 1915. Serial No. 19,694. (Cl. 105—137.)



1. In an oppositely-pivoted and diagonally-correlated car truck system, the combination, with a car, of a single-axle truck; a supporting connection between the car and said truck adapted to permit rotative movement about a definite vertical axis, located at a substantial distance

laterally from the median plane of the wheels, the said vertical axis being also located at a substantial distance in a fore and aft direction, from the axle of said truck; means for freely supporting the car at the side where said vertical axis is situated, said means being located on the side of the axle which in a fore and aft direction is opposite to the location of the vertical axis; a second single-axle truck provided with a supporting connection for the car, adapted to permit rotative movement about a definite vertical axis located at a substantial distance laterally from the median plane of the wheels and on the side thereof opposite to the location of the vertical axis of the first-mentioned truck; means upon each truck for freely supporting the car at that side of the median plane which is opposite to the location of the vertical axis; and means for correlating the rotative movements of said trucks.

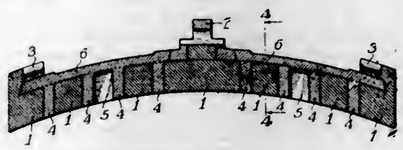
2. In an oppositely-pivoted and diagonally-correlated truck system, the combination, with a car, of two trucks, each truck carrying a single axle and pair of wheels; a vertical pivot and surrounding bearings intervening between each truck and the car, said pivot being located at a substantial distance laterally from the median plane of the car wheels, and being also located at a substantial distance, in a fore and aft direction, from the axle; means for freely supporting the car at that side of the median plane which is opposite to the location of said pivot; and means for freely supporting the car at the side of the median plane where the pivot is situated, said last mentioned means being located at the side of the axle opposite to the pivot in a fore and aft direction; and means connecting the non-pivotal sides of the respective trucks for correlating the rotative movements of said trucks.

3. In an oppositely-pivoted and diagonally-correlated truck system, the combination, with a car, of two trucks, each truck carrying a single axle and pair of wheels; a connection and support between the car and each truck comprising a vertical pivot having vertical play, a pair of oppositely shouldered brackets surrounding said pivot, and a spring intervening between the shoulders of said brackets, said pivot being located a substantial distance from the median plane of the wheels, and being also at a substantial distance from the axle in a fore and aft direction; means for freely supporting the car at a plurality of points on the sides of the median plane, opposite to said pivot; means for freely supporting the car upon the side of the median plane at which the pivot is situated, but at a point upon the opposite side of the axle, in a fore and aft direction, from said pivot; and means connecting the non-pivoted sides of the respective trucks, for correlating the rotative movements thereof.

4. In an oppositely-pivoted and diagonally-correlated truck system, the combination, with a rectangular housing arched at the regions of the trucks; of a pair of single-axle trucks, each of said trucks being provided with a vertical pivot, and surrounding bearing shoulder; a bearing for said pivot and a surrounding shoulder carried by the housing at one upright of its arched portion, each of said trucks being also provided with a bracket arranged within the opening of said arched portion; a link freely carried by said bracket; a bracket arm carried by the housing and pivotally engaging the lower end of said link, said pivot and link being arranged on opposite sides of the axle in a fore and aft direction; a pair of segmental tracks carried by the housing upon the side of the median plane opposite to that of said pivotal support; a pair of brackets and friction rollers mounted upon the truck, and engaging said tracks; and a diagonal link pivotally connected to the trucks at the non-pivoted sides thereof.

5. In an oppositely-pivoted and diagonally-correlated truck system, the combination with a car, of two single-axle trucks; a vertical pivot upon each truck, having telescoping sleeves and surrounding bearing shoulders provided with an interposed spring, the pivots of said trucks being located respectively on opposite sides of the median plane of the wheels and at a substantial distance from said plane, and being also located at a substantial distance from the respective axles in a fore and aft direction; means on each truck for freely supporting the car at a plurality of points, on the side of the median plane, opposite to said pivot; means upon each truck, for freely supporting the car upon the side of the median plane at which the pivot is situated, but at a point upon the opposite side of the axle in a fore and aft direction from said pivot; and a link connecting the non-pivoted sides of the respective trucks; said link comprising a longitudinally telescoping portion provided with a spring adapted to resist telescoping movement in each direction.

1,142,380. BRAKE-SHOE. ALFRED L. STREETER, Chicago, Ill. Filed Feb. 18, 1915. Serial No. 8,986. (Cl. 188—27.)



1. A brake shoe comprising a body portion of granular material and inserts of soft, tough metal secured in the face or friction surface thereof, said brake shoe being provided in its face or friction surfaces with a closed recess or recesses, substantially as described.

2. A brake shoe comprising a body portion of granular material and inserts of soft, tough metal secured in the face or friction surface thereof, said brake shoe being provided in its face or friction surface with a closed recess or recesses, said inserts and recess or recesses extending transversely of said brake shoe and to within a short distance of the lateral edges thereof, substantially as described.

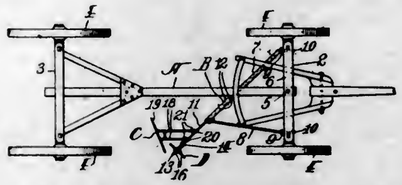
3. A brake shoe comprising a body portion of granular material and inserts of soft, tough metal secured in the face or friction surface thereof, and comprising an insert or inserts provided with a closed recess in its face or friction surface.

4. A brake shoe comprising a body portion of soft, granular metal and inserts of soft, tough metal secured in toe face or friction surface thereof, said brake shoe being provided in its face or friction surface with a closed recess or recesses, substantially as described.

5. A brake shoe comprising a body portion of soft, granular metal, and inserts of soft, tough metal secured therein and comprising an insert or inserts provided with a closed recess in its face or friction surface, substantially as described.

[Claim 6 not printed in the Gazette.]

1,142,381. ROAD-GRADER. HUGH G. TAYLOR, Buhl, Idaho. Filed Aug. 29, 1912, Serial No. 717,712. Renewed July 14, 1913. Serial No. 779,005. (Cl. 37—7.)



1. In combination with the running gear of a vehicle having an axle, a frame hinged to said axle to swing up and down, said frame having a tube in which a rod is adapted to telescope to lengthen or shorten said frame, means for fixing said rod in different positions in said tube, a rotatable cutter freely journaled upon said rod and adapted to follow in the path of one of the wheels of the running gear and to revolve in a plane at an angle across the line of travel of said wheel, and a scraper

blade supported by said frame and movable up and down freely back of said cutter and at a rearwardly inclined angle to collect the trimmings cut by said cutter.

2. In combination with a vehicle having a running gear, a frame hinged to a part of said vehicle and adapted to swing up and down, an extensible arm secured to said frame and extending back of one of the wheels on one side of the running gear, an earth working device journaled freely upon the outer end of said arm and a scraper hinged to said arm and extending inwardly and following said earth working device, said scraper being adapted to swing up and down.

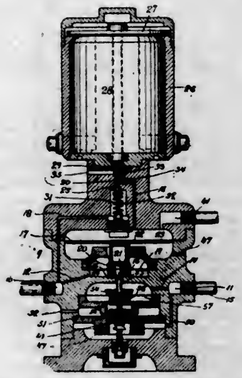
3. In combination with the running gear of a vehicle, a frame detachably secured to a part of said vehicle, an arm extensibly secured to said frame and projecting back of one of the wheels on one side of said running gear, an earth working device mounted on the outer end of said arm and a scraper hinged to said arm and extending inwardly and following said earth working device, said scraper being adapted to swing up and down freely.

4. In combination with a vehicle having a frame hinged to a part of said vehicle and extending rearwardly, an arm extensibly secured to said frame and projecting back of one of the wheels on one side of said running gear, a rotary cutter secured to the outer end of said arm and a scraper hinged to said arm and extending inwardly and rearwardly and following said cutter, said scraper being adapted to swing up and down freely, means for raising said scraper and means for raising said frame with the rotary cutter which it carries.

5. In combination with the running gear of a vehicle, a frame hinged to an axle thereof and extending rearwardly, an arm extensibly secured to said frame and projecting back of one of the wheels on one side of said running gear, a shaft pivotally secured to the end of said arm and adapted to swing in a substantially horizontal plane, means for holding said shaft in fixed position as regards its pivot, an earth working device mounted upon said shaft, a rearwardly extending frame hinged to swing up and down on said arm and carrying a scraper blade on its rearward end following said earth working device.

[Claims 6 and 7 not printed in the Gazette.]

1,142,382. MAGNET-VALVE. GUY P. THURBER, Pittsburgh, Pa., assignor, by mesne assignments, to Automatic Train Control & Signal Company, Pittsburgh, Pa., a Corporation of Delaware. Continuation in part of application Serial No. 389,887, dated Aug. 23, 1907. This application filed June 8, 1911. Serial No. 632,052. (Cl. 188—4.)



1. In combination, a diaphragm, means for conveying fluid under pressure to the upper side of said diaphragm, a valve located beneath the diaphragm having a part engaged by the diaphragm to hold the valve closed when pressure is present on top of the diaphragm, a valve controlling flow of fluid to the upper side of the diaphragm, and a normally energized electric magnet adapted when energized to hold said last-mentioned valve open to permit flow of fluid to the upper side of the diaphragm.

2. In combination, a diaphragm, means for conveying fluid under pressure to said diaphragm, a valve for controlling flow of fluid to the diaphragm, a normally energized electric magnet adapted when energized to hold said valve open, and a valve actuated by the diaphragm and held closed thereby so long as pressure is maintained on said diaphragm.

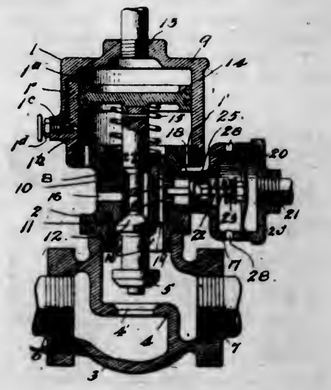
3. In combination, a fluid actuated device, and controlling means therefor, comprising, a fluid passage leading to the device to be actuated, a valve in said passage, a diaphragm controlling said valve to normally hold it closed, means for conveying fluid under pressure to the diaphragm, a valve controlling flow of fluid to the diaphragm, and an electromagnet normally energized adapted when so energized to hold said controlling valve open.

4. In combination, a pair of diaphragms, means for conducting fluid under pressure to said diaphragms, a valve actuated by the diaphragms, one of the diaphragms being of greater surface area than the other so as to normally overcome the pressure on the smaller diaphragm to normally hold the valve closed, and electrically controlled means for releasing the pressure on the larger diaphragm to permit the pressure on the smaller diaphragm to become effective to open the valve.

5. In combination with a fluid-actuated device, a passage for the impelling fluid connected with said device, a valve in said passage, a pair of diaphragms controlling said valve, means for conducting fluid under pressure to said diaphragms, one of the said diaphragms being of greater surface area than the other so as to normally overcome the pressure on the smaller diaphragm to normally hold the valve closed, and electrically controlled means for releasing the pressure on the larger diaphragm to permit pressure on the smaller diaphragm to become effective to open the valve.

[Claims 6 to 33 not printed in the Gazette.]

1,142,383. AUTOMATIC BRAKE-VALVE. GUY P. THURBER, Pittsburgh, Pa., assignor, by mesne assignments, to Automatic Train Control & Signal Company, Pittsburgh, Pa., a Corporation of Delaware. Filed June 22, 1911. Serial No. 634,742. (Cl. 188—1.)



1. An automatic brake valve comprising a valve casing having a main passage therein, a valve controlling said passage, an exhaust passage leading from one end of the main passage, an exhaust valve controlling the exhaust passage, fluid-pressure-operated means controlling operation of said main and exhaust valves, a supplemental exhaust passage communicating with the same end of the main passage as the first exhaust passage, a supplemental exhaust valve in said supplemental exhaust passage, and a pressure-actuated device controlling operation of said supplemental exhaust valve.

2. An automatic brake valve comprising a valve casing having a main passage therein, an exhaust passage communicating with one end of the main passage, a valve stem, a valve on said stem controlling the main passage, an exhaust valve arranged on said stem to close the exhaust passage when the main passage is open, fluid-pressure-actuated means connected with the valve stem for operating the same, a supplemental exhaust valve in communication with the exhaust side of the main passage, and a fluid-pressure-operated device controlling operation of said supplemental exhaust valve.

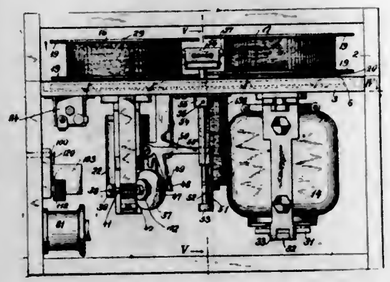
3. In combination, a valve casing having a main passage therein, a valve controlling said passage, an exhaust passage communicating with one end of the main passage, an exhaust valve controlling the exhaust passage and arranged to be closed when the main valve is open, means for operating said valves, a supplemental exhaust passage communicating with the exhaust side of the main passage, a supplemental exhaust valve controlling said supplemental exhaust passage, and means for operating said supplemental exhaust valve.

4. In combination, a valve casing having a main passage therein, a valve controlling said passage, an exhaust passage communicating with one end of the main passage, an exhaust valve controlling the exhaust passage, means for operating said valves whereby when the one valve has been opened the other will be closed, a supplemental exhaust passage extending from the same end of the main passage as the first exhaust passage, a supplemental exhaust valve controlling said supplemental exhaust passage, and a fluid-actuated device controlling operation of said supplemental exhaust valve.

5. In combination, a valve casing having a main passage therein, a valve controlling said passage, an exhaust passage extending from one side of the main passage, an exhaust valve controlling said exhaust passage, said valves arranged so that when one is open the other will be closed, a fluid-pressure-actuated device connected with the valves for operating the same, a supplemental exhaust passage extending from the exhaust side of the main passage, a supplemental exhaust valve in said supplemental exhaust passage, and means for operating said supplemental exhaust valve.

[Claims 6 to 25 not printed in the Gazette.]

1,142,384. TELEGRAPHONE. GEORGE S. TIFFANY, Summit, N. J., assignor, by mesne assignments, to American Telegraphone Company, a Corporation of the District of Columbia. Filed Mar. 17, 1909. Serial No. 483,879. (Cl. 181—1.)



1. The combination of a recording body, two reels from and on which said body is arranged to be unwound and wound, means for driving one of said reels, friction means on the other reel and rotating friction means for engaging said first mentioned friction means to brake said other reel.

2. The combination of a recording body, two reels from and on which said body is arranged to be unwound and wound, means for driving one of said reels, means for braking the other reel and for causing said braking action to vary as the speed of the reels.

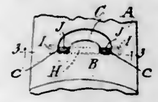
3. The combination of a recording body, two reels from and on which said body is arranged to be unwound and wound, means for driving one of said reels and rotating means for braking the other reel, so arranged that the braking action varies as the speed of the reels.

4. The combination of two rotatable members, two reels arranged to frictionally engage said members when said members are at rest and means for substantially removing one of said reels from frictional engagement with its member when either of said members is rotated, so that the other member will drive the other reel.

5. The combination of two rotatable members, two reels, a recording body arranged to be wound upon said reels, said reels being arranged to be driven by said members by frictional contact, and means for partially eliminating the frictional contact between one of said reels and its member so that the other member will drive its reel.

[Claims 6 to 40 not printed in the Gazette.]

1,142,385. ARTIFICIAL TOOTH. FRANK T. VAN WOERT, New York, N. Y. Filed Apr. 16, 1913. Serial No. 761,520. (Cl. 32—9.)



1. An artificial tooth having an elongated seat E formed with extensions F F, an opening C leading to said seat, and said tooth having over-hanging portions D and G G, in combination with a pin member having a body portion H and extensions I I, said body portion and extensions being adapted when the pin member is temporarily distorted to pass through said opening C and when restored to normal conditions to lie within said seat, the body of said pin member lying beneath said overhanging portion and said extensions I I lying beneath said overhanging portions G G.

2. As an article of manufacture a tooth having within it a fastener seat and being provided with a slot having a portion disposed in the plane of the seat and opening into the same at one side and at the other side being curved outwardly, and another portion disposed transversely of the seat and curved to register with the curved side of the first-mentioned portion.

3. The combination with a tooth having a chamber and a curved slot leading thereto equal in length to the length of the chamber and having its ends located in front of the chamber, of a yieldable bar capable of traversing the slot when flexed and of occupying the seat when in normal position, and pins carried by such bar inwardly of its ends and located in position to occupy the ends of the slot when the bar is seated.

4. The combination with a fastener comprising a flexible bar and a pair of pins carried by the bar inwardly of its ends, and a tooth having an undercut seat for such bar, the bar being located in the seat and unflexed.

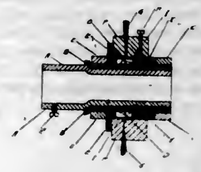
5. The combination with a tooth having within it a fastener seat and being provided with a slot having a portion disposed in the plane of the seat and opening into the same at one side, and another portion being curved and disposed transversely of the seat of the first-mentioned portion, of a yieldable bar capable of traversing the slot when flexed and of occupying the seat when in normal position, and pins carried by such bar and located in the slot when the bar is seated.

[Claim 6 not printed in the Gazette.]

1,142,386. STERILIZED BRUSH. FRANCIS JOHN WILD, Jr., and ANDREW JOSEPH GETTINGER, St. Louis, Mo. Filed Aug. 11, 1914. Serial No. 856,307. (Cl. 219—19.)

1. A rotatable brush provided with a metallic cleaning element, and means for enabling said cleaning element to be heated from a source of electrical energy.

2. A rotatable brush provided with a hub that is adapted to be connected to an operating shaft, metal bristles, and an electric heating device for heating said bristles.



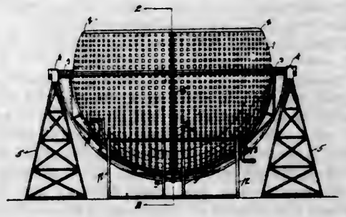
3. A brush provided with a hub that is adapted to be connected to an operating shaft, a bristle holder provided with metal bristles, an electric heating device for heating said bristles, and means for insulating said heating device from said hub.

4. A brush provided with a hub that is adapted to be connected to an operating shaft, a bristle holder provided with metal bristles mounted on said hub, insulating means arranged between said bristle holder and hub, and an electric heating device for heating said bristles.

5. A rotatable brush provided with metal bristles, an electric heating device for heating said bristles, and means for supplying electric current to said heating device when the brush is in operation.

[Claims 6 to 9 not printed in the Gazette.]

1,142,387. AMUSEMENT DEVICE. OSCAR E. ADKINS, Columbus, Ohio, assignor to John W. Wolfe, Monongah, W. Va., and John Kelly, Columbus, Ohio. Filed Feb. 13, 1915. Serial No. 8,085. (Cl. 104—14.)



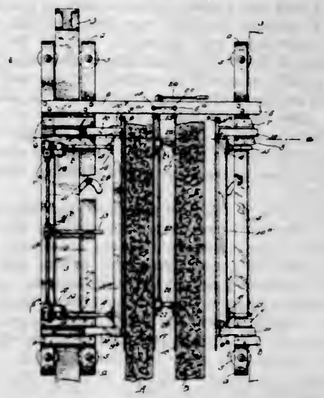
1. An amusement device comprising a semi-spherical track member, supporting standards, and means for pivotally mounting said track member at directly opposite points to said standards, said pivotal mounting being immovable as regards up and down movement.

2. An amusement device comprising a semi-spherical track member, supporting standards, means for pivotally mounting said track member at directly opposite points to said standards at an elevation to clear the floor in all positions, said pivotal mounting being immovable as regards up and down movement, and means whereby said track member may be moved through approximately ninety degrees.

3. An amusement device comprising a semi-spherical track member, supporting standards, means for pivotally mounting said track member at directly opposite points to said supporting standards, and means whereby said track member may be rotated about its pivotal mounting through an arc of ninety degrees.

4. An amusement device comprising a semi-spherical track member, supporting standards, means for pivotally mounting said track member at directly opposite points to said supporting standards, said pivotal mounting being immovable as regards up and down movement, an arcuate rack attached to said member midway between its pivot supports, and a suitable gearing arranged to coöperate with said rack whereby the track member may be rotated about its pivotal mounting through an arc of ninety degrees.

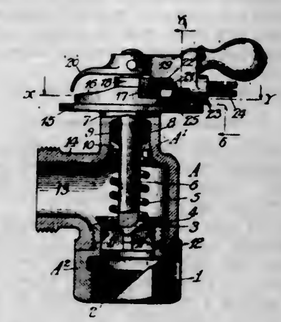
1,142,388. CONCRETE-WALL MOLD. JESSE W. ALEXANDER, Birmingham, Ala. Filed Apr. 27, 1914. Serial No. 834,560. (Cl. 25—131.)



1. In an apparatus of the class described, a vertically adjustable supporting frame, outer face mold-plates carried thereby, means adjustably connecting said plates with said frame comprising an angular frame, a rock-shaft rotatably mounted on said supporting frame and parallel hinge connections between said rod and said angular frame, substantially parallel core-plates adjustably carried by said frame, a vertical rock-shaft disposed between said core-plates and journaled on one of said core-plates, and links operatively connecting said vertical rock-shaft to the other of said core-plates.

2. In an apparatus of the class described, a vertically adjustable supporting frame, outer face mold-plates, means adjustably connecting said plates with said frame, said means comprising an angular frame upon which said plates are detachably hung, a rod rotatably mounted on said supporting frame, and parallel links pivotally connected with said rod and angular frame, in combination with core-plates arranged parallel with said outer face mold-plates, and connected with said supporting frame, and means for adjusting said core-plates, said means comprising a rod rotatably connected with one of said plates and links on said rod having pivotal and slidable connections with the opposite core plate.

1,142,389. RADIATOR-CONTROL VALVE. CHARLES D. ALLAN, Chicago, Ill. Filed Dec. 14, 1914. Serial No. 877,160. (Cl. 137—4.)



1. In a valve of the type described, coacting means attached to the stem and casing for varying the free area of opening of the valve, said means consisting of a cam

surface rigidly attached throughout to one and a rigidly supported member adjustably attached to the other, which member rides on said cam surface as the valve stem is turned axially and means for holding said member in contact with said cam surface, substantially as described.

2. In a valve of the type described, coacting means attached to the stem and casing for varying the free area of opening of the valve, said means consisting of a cam surface rigidly attached throughout to one and a rigidly supported member adjustably attached to the other, which member rides on said cam surface as the valve stem is turned axially, means for holding said member in contact with said cam surface and means for tightly securing said valve to its seat when in a closed position, substantially as described.

3. In a valve of the type described, coacting means attached to the stem and casing for varying the free area of opening of the valve, said means consisting of a cam surface rigidly attached throughout to one and a rigidly supported member adjustably attached to the other, which member rides on said cam surface as the valve stem is turned axially, means for holding said member in contact with said cam surface and means for tightly securing said valve to its seat when in closed position, comprising interlocking projections attached to said valve stem and casing, substantially as described.

4. In a valve of the type described, coacting means attached to the stem and casing for varying the free area of opening of the valve, said means consisting of a cam surface rigidly attached throughout to one and a rigidly supported member adjustably attached to the other, which member rides on said cam surface as the valve stem is turned axially, its point of contact traveling in a circular path concentric with the longitudinal axis of the stem, means for adjusting the distance of said point of contact from the longitudinal axis of the stem, the contour of said cam surface being such that the rate of variation of free area of opening of the valve per unit arc of axial turning of the stem changes when the distance of said point of contact from the longitudinal axis of said stem is changed and means for holding said member in contact with said cam surface, substantially as described.

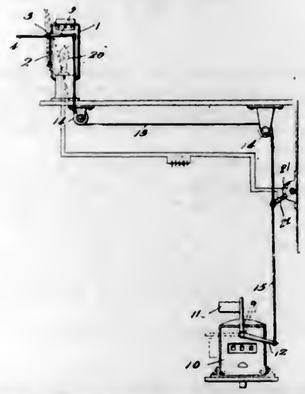
5. In a valve of the type described, coacting means attached to the stem and casing for varying the free area of opening of the valve, said means consisting of a cam surface rigidly attached throughout to one and a rigidly supported member adjustably attached to the other, which member rides on said cam surface as the valve stem is turned axially, its point of contact traveling in a circular path concentric with the longitudinal axis of the stem, means for adjusting the distance of said point of contact from the longitudinal axis of the stem, the contour of said cam surface being such, that the rate of variation of free area of opening of the valve per unit arc of axial turning of the stem, changes when the distance of said point of contact from the longitudinal axis of said stem is changed, means for holding said member in contact with said cam surface and means for tightly securing said valve to its seat when in a closed position comprising interlocking projections attached to said stem and casing, substantially as described.

[Claims 6 to 9 not printed in the Gazette.]

1,142,390. INDICATOR FOR TAXICABS. HENRY PHILIP ALLIN, Cambridge, England. Filed June 15, 1912, Serial No. 703,864. Renewed Apr. 14, 1915. Serial No. 21,460. (Cl. 235—30.)

1. A signal for cabs and the like, comprising in combination a taximeter including a lever for rendering the meter operative and inoperative, a lamp body placed on an exposed part of a vehicle, a lamp therein, a transparent slide bearing a legend and located at one side of the lamp body for illumination by the lamp, a shutter movably carried by the lamp body for obscuring and disclosing the slide, and a connection between the shutter and the taximeter.

2. A signal for cabs and the like, comprising in combination a taximeter including a lever for rendering the meter operative and inoperative, a lamp body placed on an exposed part of a vehicle, a lamp therein, a transparent slide bearing a legend and located at one side of the lamp body for illumination by the lamp, a shutter movably carried by the lamp body for obscuring and disclosing the slide, a connection between the shutter and the taximeter, and means by which movement of the taximeter lever causes said lamp to be lighted when the shutter is raised to disclose the slide and extinguished when the shutter is lowered to conceal the slide.



3. A signal for cabs and the like comprising in combination a taximeter having an operating lever, a lamp body, a transparent slide therein bearing a legend, a pivoted shutter adapted to disclose or conceal the slide, an arm carried by the shutter, a cord or the like connecting said arm with said taximeter lever, and an incandescent lamp within the lamp body for illuminating the slide.

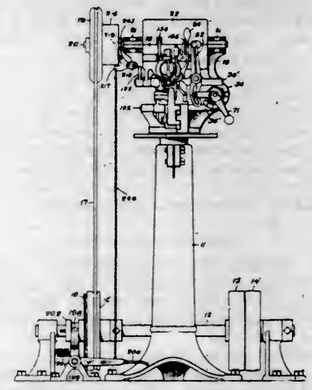
4. A signal for cabs and the like comprising in combination a taximeter having an operating lever, a lamp body, a transparent slide therein bearing a legend, a pivoted shutter adapted to disclose or conceal the slide, an arm carried by the shutter, a cord or the like connecting said arm with said taximeter lever, an incandescent lamp within the lamp body for illuminating the slide, an electric switch in circuit with the lamp and a connection between said switch and said cord whereby the lamp is lighted when the shutter is raised and extinguished when the shutter is lowered.

1,142,391. LOCK-STITCH SHOE-SEWING MACHINE. HARRIE A. BALLARD, Boston, Mass., assignor to The Boylston Manufacturing Company, South Boston, Mass., a Corporation of New Jersey. Filed June 16, 1909. Serial No. 502,493. (Cl. 112—20.)

1. In a lock stitch sewing machine, a segmental shuttle race having a gap to admit a loop of thread to the shuttle, a rotary shuttle having a segmental flange in coactive relation with said race and having a nose between the ends of said flange to enter the loop of thread, a shuttle-supporting member movable to and from engagement with the shuttle, said shuttle having a shoulder arranged to be engaged by and disengaged from said supporting member, and means for causing said supporting member to operatively engage the shuttle while the nose of the shuttle is passing across the gap of the race.

2. In a lock stitch sewing machine, a rotary shuttle and a shuttle race arranged so that their axes are substantially horizontal, said race having a gap at its lower side to admit a loop of thread, and said shuttle having a segmental race-engaging flange and a gap between the ends thereof, a shuttle-supporting member movable to and from engagement with the shuttle, the shuttle having a shoulder adapted to coact with said supporting member, and means for causing said supporting member to operatively engage the shuttle while the space between the ends of the shuttle flange registers with the gap in the race.

3. In a lock stitch sewing machine, a rotary shuttle having a segmental external flange and a concentric cylindric surface of relatively small diameter, a segmental shuttle race for supporting the shuttle by the flange thereof, said race having a gap to admit a loop of thread to the shuttle, and a member movable to and from engagement with the shuttle for holding the shuttle in concentric relation while the gap between the ends of said flange is in registering relation with the gap of the race, said movable member being adapted to coact with said concentric surface of the shuttle.



4. In a machine of the character described, a revoluble shuttle formed with a peripheral gap and a shoulder within the marginal portion, a shuttle race formed with a gap, a continuously revolving driver for the shuttle, and a member pivotally connected to and supported by the driver for engaging said shoulder to confine the shuttle centrally within the race, said member being retractible to permit the passing of a loop of thread between it and the shuttle.

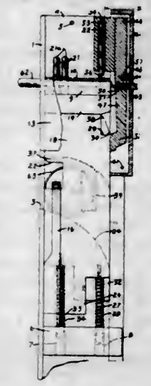
5. In a machine of the character described, a revoluble shuttle having an end wall formed with an aperture, a segmental shuttle race supporting the shuttle by its periphery, the shuttle having a recess in its periphery, a rotary driver for the shuttle, a member pivotally mounted upon and movable with the driver for engaging the wall of said aperture, and means for moving said member into and out of said aperture.

[Claims 6 to 9 not printed in the Gazette.]

1,142,392. COIN AND CHECK OPERATIVE LOCK. EDWARD O. BENNETT, San Jose, Cal., assignor of one-fourth to Harry A. Munroe, Gilroy, Cal., and one-eighth to Charles A. Preston, San Francisco, Cal. Filed Oct. 3, 1914. Serial No. 864,822. (Cl. 194—78.)

1. In a lock of the character described, the combination of a case having a coin slot and a check slot formed in the face thereof, a perforated top having a check channel formed in the upper surface thereof coinciding with said check slot, and a perforated check adapted to operate in said check slot and said check channel, the perforations therein coinciding with the perforations in said top when said check is in position in said lock and latch bar operative mechanism for releasing said check, said last mentioned mechanism including a coin as an essential element thereof, substantially as shown and described.

2. In a lock of the character described, the combination of a case having a coin slot and a check slot formed in the face thereof, and having a perforated top channeled to coincide with said check slot, a base, a perforated check adapted to operate in said check slot and said check channel, a check locking member and a check unlocking member slidably mounted in said case, the inner sides of said members being in alinement with said coin slot and forming a coin chute therebetween, a downwardly curving ledge on said check locking member forming the bottom of said chute and a downwardly curving ledge on said check unlocking member forming the top of said chute, substantially as shown and described.



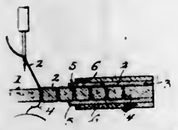
3. In a lock of the character described, the combination of a case having a coin slot and a check slot formed in the face thereof and having a perforated top channeled to coincide with said check slot, a base, a perforated check adapted to operate in said check slot and said check channel, a check locking member and a check unlocking member slidably mounted in said case, the inner sides of said members being in alinement with said coin slot and forming a coin chute therebetween, a downwardly curving ledge on said check locking member forming the bottom of said chute and a downwardly curving ledge on said check unlocking member forming the top of said chute, a detent adapted to permit the entrance of a coin into said chute and to hold said coin in position in said chute, said check unlocking member having a recess formed in the outer side thereof, manually operated mechanism attached to a door in such a manner as to be capable of engaging said recess and retracting said check unlocking member, said coin, and said check locking member, and mechanism for holding said members in said retracted position, substantially as shown and described.

4. In a lock of the character described, the combination of a case having a coin slot and a check slot formed in the face thereof and having a perforated top channeled to coincide with said check slot, a base, a perforated check adapted to operate in said check slot and said channel, a check locking member and a check unlocking member slidably mounted in said case and provided with notches, the inner sides of said members being in alinement with said coin slot and forming a coin chute therebetween, a downwardly curving ledge on said check locking member forming the bottom of said chute and a downwardly curved ledge on said check unlocking member forming the top of said chute, a detent adapted to permit the entrance of a coin into said chute and to hold said coin in position in said chute, said check unlocking member having a recess formed in the outer side thereof, manually operated mechanism attached to a door in such a manner as to be capable of engaging said recess and retracting said check unlocking member, said coin, and said check locking member, and mechanism for holding said members in said retracted position, said last mentioned mechanism comprising a trip bar container secured to said case, a spring operated trip bar pivotally mounted in said container having its lower end so formed as to engage said notches in said check locking member and said check unlocking member when in their retracted positions, and means positioned in said trip bar to determine the moment of its action, substantially as shown and described.

5. In a lock of the character described, the combination of a case having a coin slot and a check slot formed in the face thereof, and having a perforated top channeled to coincide with said check slot and having a transverse slot formed in the upper surface thereof adapted to en-

gage a baffle-bar, and a spring actuated baffle-bar normally positioned in said transverse slot, a base, a perforated check adapted to operate in said check slot and said check channel, a check locking member and a check unlocking member slidably mounted in said case, the inner sides of said members being in alinement with said coin slot and forming a coin chute therebetween, a downwardly curving ledge on said check locking member forming the bottom of said chute and a downwardly curving ledge on said check unlocking member forming the top of said chute, substantially as shown and described.

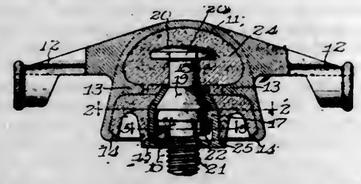
1,142,393. ELECTRIC HEATING-PAD. HARVEY E. BLOOMER, Milwaukee, Wis., assignor to P. & B. Mfg. Co., Milwaukee, Wis. Filed Sept. 8, 1914. Serial No. 860,656. (Cl. 219—46.)



1. An electric heating-pad comprising a flexible body sheet of non-conducting material, a wire resistance conductor constituting a sewing element in itself in stitched union with the body sheet, waterproof jacket sheets affixed over the opposite faces of the body sheet to conceal and protect the resistance conductor, the said waterproof jacket sheets being stitched together through the edges of the body sheet, and terminal wires connecting the ends of the wire resistance conductor, the same being extended beyond the jacket.

2. An electric heating-pad comprising a flexible body sheet of non-conducting material, a resistance conductor wire constituting a sewing element in itself in stitched union with the body sheet having end terminals projecting therefrom, a jacket of waterproof material fitted over the body sheet, feed wires connected to the end terminals of the resistance conductor, and means for securing folds of of the pad over the coupling connections between the resistance conductor and feed wires.

1,142,394. LOCK-HANGER FOR TROLLEY-WIRES. GLENN HENRY BOLUS, Mansfield, Ohio, assignor to The Ohio Brass Company, Mansfield, Ohio, a Corporation of New Jersey. Filed July 22, 1911. Serial No. 639,880. (Cl. 173—366.)



1. In a hanger for trolley wires, the combination with fixed means within the hanger shell having a stop portion, a stud with its head adapted to engage the stop portion of said fixed means to prevent rotation of the stud, and resilient means interposed between the stud and the said fixed means and beneath the head of the stud to press the latter inwardly in the hanger.

2. In a hanger for trolley wires, the combination with a fixed member insulated from the hanger shell and formed with a projecting portion, a stud having its head formed with a lateral flattened portion to engage the said projecting portion to prevent the stud from rotating with respect thereto, and a spring bearing against the under side of the said head and the fixed member operative to press the stud yieldingly within the hanger.

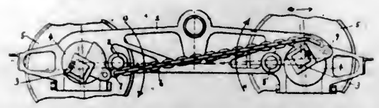
3. In a hanger for trolley wires, the combination with a cup member fixed in the hanger shell and having an inner lateral flattened projection, a stud having a flattened surface on its head adapted to engage the said projection and to stop any rotative movement of the stud with respect thereto, the threaded end of the stud extending outwardly through the end of the cup member, and a spring bearing against the under side of the said head and the outer end of said cup member to press the stud yieldingly within the hanger.

4. In a hanger for trolley wires, the combination with a fixed cup member, of means to secure the member in the hanger shell, a stud movable longitudinally in the said member, and yielding means interposed between the cup member and the under side of the stud head to press the stud inwardly, the cup member being provided with means to limit the inward movement of the stud.

5. In a hanger of the class described, the combination with a cup member, of a second member fixed in the hanger shell and secured to the cup member having a lateral stop portion, a stud positioned in the cup against the stop portion to prevent rotation therein, and yielding means to permit the longitudinal movement of the stud in the cup member.

[Claims 6 to 13 not printed in the Gazette.]

1,142,395. SPRINGLESS SUSPENSION FOR VEHICLES. GIUSEPPE BRAVI, Lansdale, Pa., assignor of one-half to Sante T. Alleva, Norristown, Pa. Filed June 4, 1914. Serial No. 842,872. (Cl. 105—243.)



1. A springless suspension for vehicles consisting of a hinged truck frame, oscillating journal boxes fitted in said frame, two pair of wheels, each pair having a common axle, the journals of said wheels projecting into said journal boxes off the center of the oscillation of said boxes, stops carried by the truck frame for limiting the oscillation of the journal boxes and means for connecting the journal boxes in pairs for causing said journal boxes to oscillate in unison.

2. A springless suspension for vehicles comprising two pair of journal boxes in which the wheel journals are eccentrically set and means for oscillating the pairs of journal boxes in unison reversely.

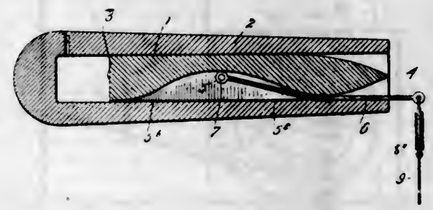
3. A springless suspension for vehicles comprising two pair of journal boxes in which the wheel journals are eccentrically set, and means for oscillating the pairs of journal boxes in unison, whereby one pair of said journal boxes is lowered, while the other pair is raised for absorbing shocks.

4. A springless suspension for vehicles consisting of a truck frame, two pair of journal boxes fitted in said truck frame, so as to oscillate therein, axles eccentrically journaled in said boxes, wheels mounted on said axles, means connecting each pair of journal boxes on the same side of the truck for oscillating the pairs of journal boxes in unison.

5. A springless suspension for vehicles consisting of a truck frame, two pair of journal boxes fitted in said truck frame, so as to oscillate therein, axles eccentrically journaled in said boxes, wheels mounted on said axles, means connecting each pair of journal boxes on the same side of the truck for oscillating the pairs of journal boxes in unison, and means for limiting the oscillation of the journal boxes.

1,142,396. LIFE-LINE PROJECTILE. HARRY W. BROADY, Bayside, N. Y., assignor to Welin Marine Equipment Company, a Corporation of New York. Filed Sept. 26, 1913. Serial No. 791,898. (Cl. 102—84.)

1. A lifeline projectile embodying an elongated cylindrical body substantially uniform in diameter having a pointed forward end, a line attaching pin extending transversely across the longitudinal axis of the device adjacent to the center of gravity of the projectile, a longitudinally-disposed radial slot formed in said body and communicating between the outer periphery thereof and said pin and a lifline movable within said slot from the front to the rear of the projectile.



2. A lifeline projectile embodying an elongated cylindrical body substantially uniform in diameter, having a pointed forward end, a line-attaching pin extending transversely across the longitudinal axis of the device adjacent to and at the rear of the center of gravity of the projectile, a longitudinally-disposed radial slot formed in said cylindrical body and having flat sides and diverging front and rear ends extending from the transverse center of said pin outwardly to the periphery of the projectile, and a lifeline connected to the transverse center of said pin within said slot.

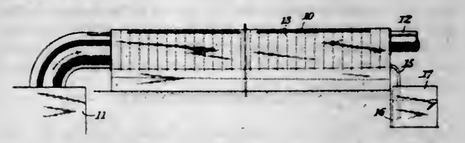
3. A lifeline projectile embodying an elongated cylindrical body substantially uniform in diameter, having a pointed forward end, a line-attaching pin extending transversely across the longitudinal axis of the device adjacent to and at the rear of the center of gravity of the projectile, a longitudinally-disposed radial slot formed in said cylindrical body and having flat sides and diverging front and rear ends extending from the transverse center of said pin outwardly to the periphery of the projectile and a rod pivoted to the center of said pin within said slot and adapted to project outwardly beyond the bore of the discharging gun and to swing vertically in said slot from the front to the rear thereof after its discharge.

4. A lifeline projectile embodying an elongated cylindrical body substantially uniform in diameter, having a pointed forward end, a line-attaching pin extending transversely across the longitudinal axis of the device adjacent to and at the rear of the center of gravity of the projectile, a longitudinally-disposed radial slot formed in said cylindrical body and having flat sides and diverging front and rear ends extending from the transverse center of said pin outwardly to the periphery of the projectile and a flexible rod formed of wire rope pivoted to the center of said pin within said slot and adapted to project outwardly beyond the bore of the discharging gun and to swing vertically in said slot from the front to the rear thereof after its discharge.

5. A lifeline projectile embodying an elongated cylindrical body substantially uniform in diameter, having a pointed forward end, a line-attaching pin extending transversely across the longitudinal axis of the device adjacent to and at the rear of the center of gravity of the projectile, a longitudinally-disposed radial slot formed in said cylindrical body and having flat sides and diverging front and rear ends extending from the transverse center of said pin outwardly to the periphery of the projectile, a rod pivoted to the center of said pin within said slot and adapted to project outwardly beyond the bore of the discharging gun and to swing vertically in said slot from the front to the rear thereof after its discharge, a lifeline and a shock-absorbing spring interposed between said rod and the lifeline.

1,142,397. PROCESS FOR MAKING PHOSPHORIC ACID. JAMES W. BURROUGHS, Irvington, N. Y. Filed Mar. 18, 1914. Serial No. 825,492. (Cl. 23—1.)

1. The process which consists in fusing phosphatic material and a flux in a furnace to form a gas containing phosphorus, treating the gas passing from the furnace with a substance adapted to decompose the gas, and maintaining the temperature of the gas above a predetermined point until substantially all the gas has been decomposed by said substance.



2. The process which consists in fusing phosphatic material and a flux in a furnace to form a gas containing phosphorus, treating the gas passing from the furnace with a substance which is adapted to decompose the gas, locally cooling the molecules of the gas and maintaining the gas above its critical temperature.

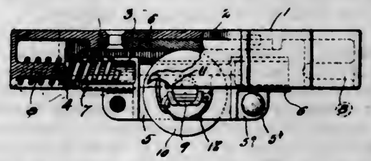
3. The process which consists in fusing phosphatic material and a flux in a furnace to form a gas containing phosphorus, treating the gas passing from the furnace with a substance adapted to decompose the gas, locally cooling the molecules of the gas at a plurality of points and maintaining the temperature of the gas above the condensing point of said gas.

4. The process which consists in fusing phosphatic material and a flux in a furnace to form a gas containing phosphorus, treating the gas passing from the furnace with a substance adapted to decompose the gas, locally cooling the molecules of the gas at a plurality of points, and maintaining the temperature of the gas above the critical point of said gas, and causing a movement of the molecules of the gas to bring them into contact with the locally cooled points and facilitate their decomposition.

5. The process which consists in causing a volume of phosphoric gas to come in contact with water to decompose the gas, and maintaining the temperature of the said gas above a predetermined point until substantially all the gas has been decomposed.

[Claims 6 to 10 not printed in the Gazette.]

1,142,398. ROLLER SIDE BEARING FOR RAILWAY-CARS. EDWIN G. BUSSE and ERNEST A. LE BEAU, Chicago, Ill., assignors to Chicago Railway Equipment Company, Chicago, Ill., a Corporation of Illinois. Filed May 16, 1914. Serial No. 839,016. (Cl. 64—64.)

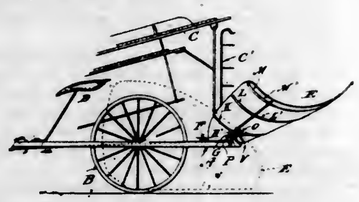


1. A side bearing for railway cars comprising a casing having vertically disposed side walls, a carriage sustained for movement between said walls, and longitudinally of the casing, a removable axle having bearing at its ends in said carriage, a roller mounted on said axle, the carriage being provided in one wall with an opening through which the axle is moved longitudinally to and from position and the adjacent wall of the casing having a recess disposed within the plane of the line of movement of the carriage and to register with said opening, the opening and recess being in nonalinement when the carriage is in normally centered position, and springs for centering said carriage.

2. A side bearing for railway cars comprising a housing and a two-part carriage mounted to slide in said housing, said carriage comprising two substantially duplicate parts whose inner bearing faces are cut away to permit the parts of the carriage to be collapsed for purposes of insertion and removal, and means for securing the parts of the carriage together in their operative position.

3. A side bearing for railway cars comprising a housing having longitudinal guide ways, a two part carriage mounted to slide in said housing and provided with flanges to seat within the guide ways, said carriage comprising two substantially duplicate parts whose inner bearing faces are oppositely cut away at an angle to permit the parts of the carriage to be collapsed for engaging or disengaging the flanges with the guide ways, and means for securing the parts of the carriage together in their operative position.

1,142,399. BUNDLE-CARRIER. HENRY J. CASE, Owasco, N. Y., assignor to Acme Harvesting Machine Co., Peoria, Ill., a Corporation of Illinois. Filed Dec. 29, 1913. Serial No. 809,328. (Cl. 56—37.)



1. In a corn-harvester including an upright binding mechanism, in combination, the harvester frame, a support mounted pivotally on the stubbleward side of the machine and having its axis of movement inclined at an angle, upward, stubbleward, and forward, and adapted to swing, a bundle carrier fixed relative to said support and adapted in its movement with said support to change from its receiving position at the rear of the harvester to an inclined substantially upright position for delivery at the side of the harvester, and controlling means for sustaining the bundle carrier in its normal receiving position and for releasing the same.

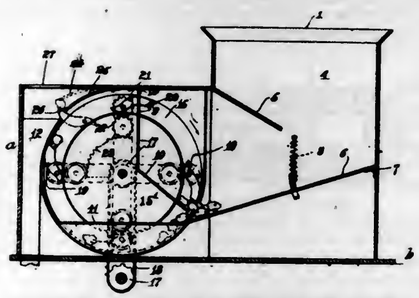
2. In a corn harvester including an upright binding mechanism, in combination, the harvester frame, a swinging support pivotally mounted on the stubbleward side of the harvester, and having its axis of movement inclined at an angle upward, stubbleward and forward, a bundle carrier fixed near one of its edges rigidly to said support, said carrier in its swinging movement describing a segment of the surface of a cone, and mechanism to maintain the carrier in its receiving position and to release the same for the discharging operation.

3. In a corn-harvester including an upright binding mechanism, in combination, the harvester frame, a support pivotally mounted on the stubbleward side of the harvester and having its axis of movement inclined at an angle upward, stubbleward and forward and including an arm adapted in its swinging movement to describe a segment of the surface of a cone, a bundle carrier mounted rigidly on the arm, and controlling means for sustaining the bundle carrier in its receiving position and for releasing the same.

4. In a corn-harvester including an upright binding mechanism, in combination, the harvester frame, a bundle carrier having a pivoting portion beneath and rigid relative to said carrier, and pivotally supported on the stubbleward side of the said harvester frame, said portion depending from the carrier, its axis being inclined at an angle downward, rearward and inward toward the harvester, and controlling means to maintain the carrier in its receiving position and to release the same.

5. In a corn-harvester including binding mechanism, in combination, the harvester frame, a bundle carrier having a stem beneath and rigid relative to it, its axis extending downward at an angle toward the rear of and inward toward the harvester, the weight of the carrier in its receiving position lying rearward of the stem, and controlling means to move the carrier from its discharging position to and maintain it in its receiving position.

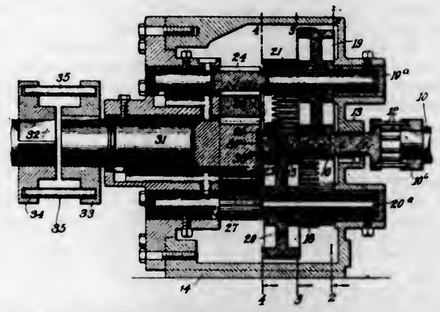
1,142,400. PLANTER. JAMES D. CHANTLER, Freeport, N. Y. Filed Dec. 30, 1914. Serial No. 879,680. (Cl. 111—27.)



1. A planter comprising a hopper, a wheel adjacent to said hopper, fingers on said wheel, prongs on the fingers adapted to engage the seed, a stationary disk filling said wheel, means for revolving the wheel, means for rotating the fingers at a predetermined point and means for removing the seed from the fingers.

2. A planter comprising a hopper, a yieldable bottom therein, a partition having a yieldable section adjacent to the bottom, a chamber having an A-shaped bottom, rotating members located to rotate in the bottom of the chamber, fingers on said rotating members adapted to engage the seed, means for rotating said members, means for rotating said fingers at a predetermined point, a swinging flap adapted to engage the seed to remove it from said fingers and a chute located adjacent thereto adapted to receive the seed and deliver it to the furrow.

1,142,401. REDUCTION-GEARING. CHARLES H. CLARK, New York, N. Y. Filed Mar. 5, 1912. Serial No. 681,792. (Cl. 74—7.)



1. In a reduction gearing, in combination, a driving pinion; a plurality of shafts spaced around the driving pinion; gears on said shafts, meshing with the driving pinion and driven thereby; a driven shaft in axial alinement with the driving pinion; a gear on the driven shaft; and pinions on said plurality of shafts, meshing with the last-named gear to drive the same and the driven shaft, the driving pinion being removable axially without displacement of the gears meshing therewith.

2. In a reduction gearing, in combination, a driving pinion; a plurality of gears meshing with the pinion and rotatable on axes spaced around the pinion; a plurality of gears meshing with said pinion, arranged alongside the first-named gears and rotatable on axes arranged between the first-named axes; pinions driven by said gears; and a gear meshing with said driven pinions and arranged in axial alinement with the driving pinion.

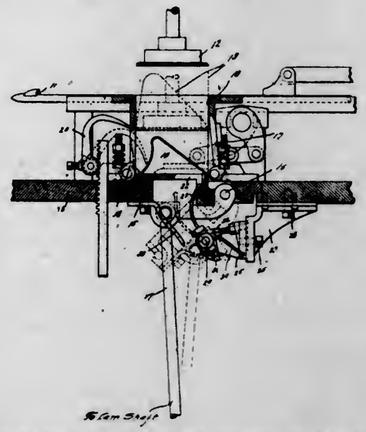
3. In a reduction gearing, in combination, a driving shaft a pinion thereon; a plurality of gears spaced around the driving shaft, having a portion of their peripheries in mesh with the pinion and a portion in rolling contact with the shaft on one side of the pinion; similar gears similarly arranged having a portion of their peripheries in mesh with the pinion and in rolling contact with the driving shaft on the other side of the pinion; a driven shaft; and mechanism connecting the driven shaft with said gears to drive the former.

4. In a reduction gearing, in combination, a driving shaft a pinion thereon; a driven shaft in axial alinement with the driving shaft; a plurality of gears arranged around the driving shaft and meshing with the pinion; gearing connecting the said gears with the driven shaft to drive the latter; and means between the driven shaft and the gears to prevent axial movement of the driving shaft away from the driven shaft.

5. In a reduction gearing, in combination, a driving shaft a pinion thereon; a driven shaft alined with and contiguous to the driving shaft; a plurality of gears arranged around the driving shaft and meshing with the pinion thereon; a collar loosely encircling the driving shaft between said gears and the driven shaft, and removable means carried by the driving shaft and engaging the collar to prevent axial movement of the driving shaft away from the driven shaft.

[Claims 6 to 8 not printed in the Gazette.]

1,142,402. ENVELOP-MACHINE. WILLIAM H. COOK, Indianapolis, Ind. Filed Feb. 6, 1914. Serial No. 816,891. (Cl. 93—67.)



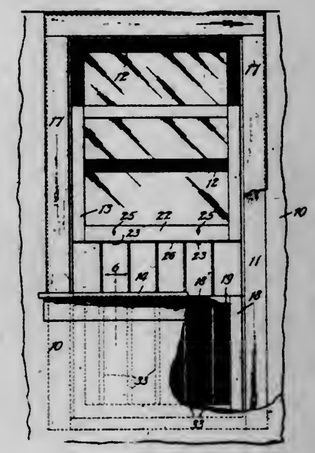
1. In an envelop machine, the combination with envelop-forming mechanism comprising a movable forming table having a transverse slot formed through its working face near its rear edge, of a swinging ejector finger arranged to coöperate with said work table through the slot thereof, a cam carried by said ejector finger, a cam operating finger carried by the work table and coöperating with said finger cam to drive said finger through its ejecting motion when the work table is moved through its envelop-delivering movement, and draw-off means coördinated with the work table and ejector finger for engaging the envelop upon the table when the table moves in discharging direction to advance said envelop to uncover the rear end of the work table slot prior to the projection of the ejector finger above the working face of the work table.

2. In an envelop machine, the combination of a forming table and folding flaps coöperating with the edges thereof, said table having a slot formed therethrough for an ejector finger but stopping short of the adjacent folding flap so as to leave a continuous table edge immediately beneath the said flap, an ejector finger, means for operating said finger into and along the slot, and draw-off means coördinated with the work table and ejector finger for engaging the envelop upon the table when the table moves in discharging direction to advance said envelop to uncover the rear end of the work table slot prior to the projection of the ejector finger above the working face of the work table.

3. In an envelop machine, the combination with coördinated folding members for folding the envelop, of a swinging work table with which said folding members are coördinated for the folding operation, said swinging table having a fixed pivot and a slot through its working face falling short of the edges of the table, an ejector finger arranged below the table in position to be projected through and along said slot by the swinging action of the work table away from the folding members, and draw-off means coördinated with the work table and ejector finger for engaging the envelop upon the table when the table moves in discharging direction to advance said envelop to uncover the rear end of the work table slot prior to the projection of the ejector finger above the working face of the work table.

4. In an envelop machine, the combination with coördinated folding members for folding the envelop, of a swinging work table with which said folding members are coördinated for the folding operation, said swinging table having a fixed axis and a slot through its working face, a rock shaft arranged below the table substantially parallel with the axis thereof, an ejector finger carried by said rock shaft in alinement with the plane of movement of the work table slot and normally lying beneath the work table surface, interengaging members carried by said work table and said ejector finger whereby the final swinging movement of the work table will produce movement of the ejector finger lengthwise of the work table slot subsequent to the projection of the end of said ejector finger above the work table surface, and draw-off means coördinated with the work table and ejector finger for engaging the envelop upon the table when the tables moves in discharging direction to advance said envelop to uncover the rear end of the work table slot prior to the projection of the ejector finger above the working face of the work table.

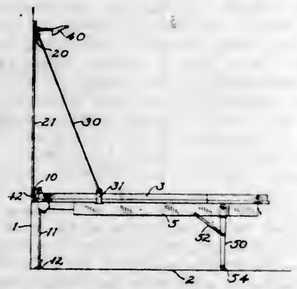
1,142,403. BURGLAR-PROOF WINDOW. WILLIAM W. DAVIS, Chicago, Ill. Filed Aug. 26, 1914. Serial No. 858,763. (Cl. 20—71.)



1. In window constructions, the combination with a frame, of a sash member slidable therein, bars secured to an end face of said sash member and projecting therefrom in the direction of movement of the sash, a second sash member slidable in said frame in the plane of said first sash member, tubular sockets mounted in said second sash member to receive the projecting ends of said bars, and means for detachably locking said sash members together for simultaneous movement thereof.

2. In window constructions, the combination with a wall having a window aperture therein, of a frame defining said aperture and extending beyond the same at one end thereof, a sash member slidable in said frame across said aperture, bars secured to an end face of said sash member, a second sash member slidable in said frame in the plane of said first member and adapted to move out of the aperture and into the extending end of the frame, sockets carried by said second sash member to receive the projecting ends of said bars, and means for detachably locking said sash members together for simultaneous movement thereof.

1,142,404. FOLDING WALL ATTACHMENT FOR ARTICLES OF FURNITURE. WILLIAM L. DEMING, Salem, Ohio. Filed June 4, 1912. Serial No. 701,520. (Cl 45—51.)



1. The combination, with an article to be folded, a vertical guide for the rear end thereof adapted to be secured to a wall, a support adapted to be secured to the wall above said guide, a tension device carried by said support and pivotally connected with the article to be folded, one or more legs pivotally connected with the article near its forward end to support it when down, and adjustable automatic latches to support the table at its rear end when down.

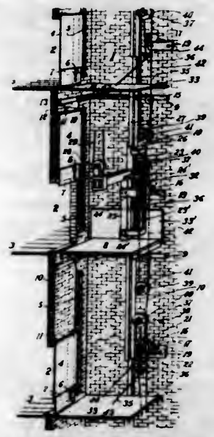
2. The combination, with an article to be folded, a vertical guide for the rear end thereof adapted to be secured to a wall and pivotally connected with the article, a support adapted to be removably secured to the wall above said guide, a tension device in the form of a bail carried by said support and having each leg pivotally and adjustably connected with the article to be folded, one or more legs pivotally connected with the table near its forward end to support it when down, means for adjusting the effective length of the legs, latches to support the table at its rear end when down, and means for adjusting such rear support.

3. The combination, with a table, of a pair of upright rods, brackets engaging the upper ends thereof and adapted to be secured to a wall for holding the rods upright, a cross-bar slidably embracing said rods, a pair of latches carried by the respective brackets and adapted to engage the cross-bar when elevated, a table, and brackets mounted thereon and swiveled to the cross-bar.

4. A support for a table adapted to be folded against a wall comprising a pair of upright guide members attached to the wall, a member pivotally mounted on the rear end of the table and slidably mounted on said guide members, a latch adapted to engage and support said member when the table is in a horizontal position, a bail removably pivoted at each side of the table at points intermediate the ends of the table so placed that the bail carries a majority of the weight of the table during transposition, said bail being adjustable in length when disconnected from the table, and a folding leg at the front end of the table adapted to carry a portion of the weight of the table when horizontal.

5. A support for a table adapted to be folded against a wall, comprising a bail pivotally mounted on the wall at a point above the table and pivoted at each side of the table at points intermediate the ends of the table and adapted to carry a portion of the weight of the table during transposition, means for adjusting the length of the bail, a pair of upright guides supported on the floor and the wall, a member pivotally connected to the rear end of the table and slidably mounted on said guides, a latch adapted to support said member when the table is horizontal, means on said latch for adjusting the elevation of this end of the table, a folding leg at the front end of the table, and means on the leg for adjusting the elevation of this end of the table.

1,142,405. DOOR-OPERATING MECHANISM. GEORGE M. DERRY, Danvers, Mass. Filed Aug. 25, 1913. Serial No. 786,573. (Cl. 187—58.)



1. In combination an elevator shaft, suspended side and trap doors for said shaft, independent suspension means for said doors, a car in said shaft, a winding and unwinding mechanism for the suspension means of the side doors and an independent winding and unwinding mechanism for the suspension means of the trap doors, a single set of engaging elements carried by said car and disposed to successively and independently actuate the respective winding and unwinding mechanisms of the side and trap doors by imparting opposite rotative motion thereto, to successively open and close the doors in either direction of travel of the elevator.

2. In combination, an elevator shaft, an elevator in said shaft, suspended side and trap doors, independent suspension means for said doors, a winding and unwinding mechanism for the suspension means of the side doors, an independent winding and unwinding mechanism for the suspension means of the trap doors, and a single operating mechanism for said sets of suspension means including oppositely disposed engaging devices associated with the elevator and effective to successively and independently actuate the respective winding and unwinding mechanism of the side and trap doors by imparting opposite rotative motion thereto to successively open and close the doors.

3. In combination, an elevator shaft, an elevator in said shaft, elevator doors of the suspended type, suspension means for said doors, a winding mechanism for said suspension means including a slotted pinion, actuating elements associated with said elevator and effectively disposed to impart intermittent opposite rotation to said pinion to open and close the doors, and a locking device associated with said actuating elements and having a locking engagement with the slot of said pinion when the elevator is at a stand still for locking the doors in open position.

4. In combination, a moving body, a suspended closure, suspension means for said closure, an actuating mechanism associated with said moving body, a winding and unwinding mechanism for said closure including a slotted pinion effectively disposed for actuation in either direction by the actuating mechanism and means coöperating with said slot in the pinion for locking said pinion against rotation when the moving body is at a standstill.

5. In combination with suspension means for a door, an elevator movable past said door, a winding mechanism for the suspension means and effectively disposed in the path of said elevator, actuating means carried by said elevator for actuating said winding mechanism to open and close the door, and a slidable bottom section on said door for insuring that the suspension means of said closure will always be under tension.

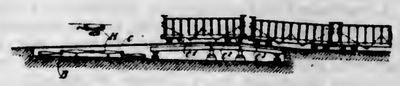
[Claims 6 to 18 not printed in the Gazette.]

1,142,406. FENCE-POST. JOHN M. DILLON, Sterling, Ill. Filed May 1, 1913, Serial No. 764,903. Renewed Dec. 10, 1914. Serial No. 876,575. (Cl. 256—58.)



As an article of manufacture the herein described metallic fence post composed of sheet metal cut and swaged outwardly at intervals along its length, said swaged portions being centrally cut to form tongues which are adapted for overlapping engagement when forced inwardly toward the post, the opposite longitudinal edges of the metal of the post of which the tongues originally formed an integral part being arched outwardly forming oppositely disposed depressions or grooves within which the fence wires are bindingly engaged when said tongues are brought into engagement with the wires and the ends thereof in an overlapping position.

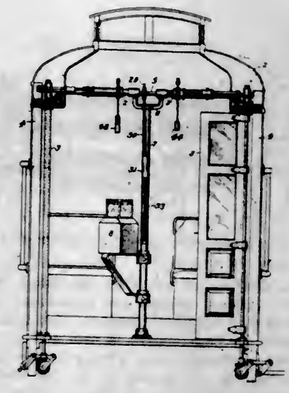
1,142,407. CAR-WEIGHING APPARATUS. ALONZO W. EPRIGHT, Altoona, Pa. Filed Apr. 27, 1915. Serial No. 24,223. (Cl. 104—62.)



1. Car weighing apparatus comprising a track scale, a track leading thereto, and comprising an adjustable hump formed of an intermediate section, a downwardly inclined section leading toward the scale from one end of said intermediate section, and another downwardly inclined section extending away from the opposite end of said intermediate section, and means for vertically adjusting said intermediate section and the adjacent ends of said inclined sections.

2. Car weighing apparatus comprising a track scale, a track leading thereto, and comprising an adjustable hump formed of an intermediate and substantially horizontal section, a downwardly inclined section leading toward the scale from one end of said intermediate section, and another downwardly inclined section extending away from the opposite end of said intermediate section, and means for simultaneously effecting a vertical adjustment of each end of said intermediate section and the adjacent end of the adjacent inclined sections.

1,142,408. DOOR-OPERATING MECHANISM FOR CARS AND THE LIKE. WALTER E. ERWIN, JOSEPH N. LLOYD, MATTHEW D. MANN, Jr., and RAYMOND L. WINCHELL, Santa Barbara, Cal. Filed Sept. 29, 1914. Serial No. 864,044. (Cl. 39—93.)



1. The combination of a car, doors on opposite sides of said car, operating means adapted to open the doors on both sides of said car simultaneously and selective means adapted to lock the door on one side of the car and leave the door on the opposite side of the car free to be opened by said operating means.

2. The combination of a car, doors on opposite sides of said car, levers attached to said doors, operating means adapted to move the said levers to open the said doors on both sides of the car simultaneously, and selective means whereby the door on one side of the car may be locked while the door on the opposite side of the car is being opened by said operating means.

3. The combination of a car, doors on opposite sides of said car, a control handle at all times connected with said doors, and selective means whereby the door on one side of the car may be opened by said control handle without opening the door opposite.

4. The combination of a car, doors on opposite sides of said car, operating mechanism connected with said doors, a control handle connected with said operating mechanism whereby the doors on both sides of the car may be opened simultaneously, and selective means adapted to lock the door on one side of the car and divert all of the movement of said operating mechanism to the door opposite.

5. The combination of a car, doors on opposite sides of said car, a shaft between the said doors, a right hand threaded portion at one end of the said shaft, a left hand threaded portion at the other end of said shaft, threaded blocks adapted to co-act with the said threaded portions of the said shaft, levers connecting said doors and said blocks and means for rotating the said shaft.

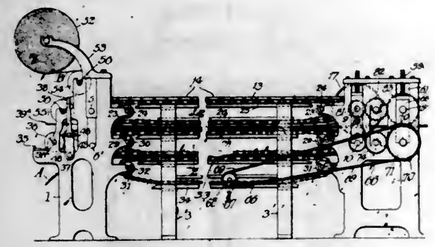
[Claim 6 not printed in the Gazette.]

1,142,409. MACHINE FOR MAKING CORRUGATED PAPER-BOARD. JEFFREY T. FERRES, Los Angeles, Cal. Filed Nov. 19, 1912. Serial No. 732,288. (Cl. 154—32.)

1. In a machine of the class described, the combination of two endless carriers, forming, by means of two adjoining reaches, platforms or beds between which the paper board is held and carried through the machine,

said carriers being provided with tracks on one side, and endless roller chains coöperating with said tracks to support the carriers.

2. In a machine of the class described, the combination of two endless carriers and transverse lags forming, by means of two adjoining reaches, platforms or beds between which the paper board is held and carried through the machine, and endless chains arranged between the upper and lower reaches of the lags of the two endless carriers and coöperating therewith to support them.



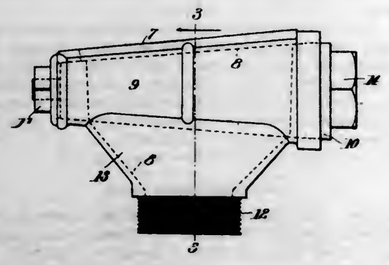
3. In a machine of the class described, the combination of two endless carriers and transverse lags forming, by means of two adjoining reaches, platforms or beds between which the paper board is held and carried through the machine, endless chains arranged between the upper and lower reaches of the lags of the two endless carriers and coöperating therewith to support them, and a third endless roller chain arranged below and coöperating with the lower reach of the lowermost endless carrier.

4. In a machine of the class described, the combination of two endless carriers and transverse lags forming, by means of two adjoining reaches, platforms or beds between which the paper board is held and carried through the machine, and endless roller chains coöperating directly with said lags to support said platforms, said chains being arranged in pairs.

5. In a machine of the class described, the combination of two endless carriers and transverse lags forming, by means of two adjoining reaches, platforms or beds between which the paper board is held and carried through the machine, and endless chains coöperating directly with said lags to support said platforms, said chains being arranged in pairs and being driven by contact with the platforms.

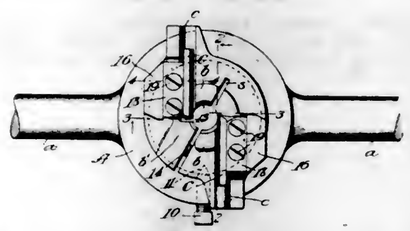
[Claims 6 to 25 not printed in the Gazette.]

1,142,410. SPRAYING HEAD OR NOZZLE. JAMES D. FILBIN, Cleveland, Ohio, assignor to The Lake City Manufacturing and Supply Company, Cleveland, Ohio, a Corporation. Filed Nov. 4, 1914. Serial No. 870,214. (Cl. 137—85.)



A spraying head comprising an elongated casing having a discharge slot extending lengthwise on one side thereof, and a water inlet neck flattened and broadened laterally and extending lengthwise along the opposite side of the casing, and a turning plug in the casing, having a cross passage the walls of which converge in a plane transverse to the axis of the plug, the passage being substantially the same length as the broadest part of the neck and substantially the same width along its inlet side as the width of the adjacent neck opening.

1,142,411. HAND-OPERATED THREADING-DIE. HENRY L. FISHER, Waynesboro, Pa., assignor to Landis Machine Company, Waynesboro, Pa., a Corporation. Filed Aug. 20, 1912. Serial No. 716,093. (Cl. 10—121.)



1. A cutter-head comprising a frame having handles extending outwardly therefrom, a die body mounted in said frame formed with arms extending outwardly from its face to a point beyond the cutters and tapered at their outer ends to center on the work, said arms being formed with threads or grooves in their faces to serve as means for leading the work into the die, and tangential cutters mounted on the face of said body with their cutting ends adjacent to the grooves in said arms, substantially as set forth.

2. A hand-operated threading die comprising a frame with operating handles, a die body secured therein, cutters carried on the face of said die body extending tangentially to the work, arms projecting from the face of said die body with concave faces having grooves corresponding to the grooves of said cutters and leading into said body, substantially as set forth.

3. A hand-operated threading die comprising a frame having operating handles, a die body mounted in said frame and formed with a diametrical slot, means for contracting or expanding said slot, cutters mounted on the face of said body extending tangentially to the work, arms projecting from the face of said body to beyond the outer edges of said cutters and formed with concave faces grooved to correspond with the grooves in said cutters, and means for clamping and adjusting said cutters in position, substantially as set forth.

4. A hand-operated threading die comprising a frame, a body secured in said frame, tangential cutters mounted on said body, projecting arms on the face of said body formed with threads for leading the work into said body, said threads continuing for a distance within said body, substantially as set forth.

5. A hand operated threading die comprising a frame, a die body therein formed with a central screw-threaded aperture and with members projecting forward from the outer face of said body with their inner edges in line with said aperture, and with threads in said edges which are a continuation of the threads in said aperture, and cutters secured tangentially to the work on said body between the adjacent edges of said projecting members, whereby the work is received, guided, and supported by said members during the operation of threading, substantially as set forth.

1,142,412. WINDOW-FASTENER. MICHAEL FITZGERALD, Medina, N. Y. Filed July 1, 1913. Serial No. 776,873. (Cl. 16—118.)

A fastener comprising a clip member having an intermediate bowed portion provided with slots, a rod passing through the slots, a pin loosely mounted in the bowed portion and having at its side a notch which receives a side portion of the rod, and means for moving the pin transversely with relation to the clip member.



1,142,413. HAT-HANGER. VICTOR J. FRICKER, Providence, R. I. Filed May 27, 1914. Serial No. 841,365. (Cl. 2—186.)



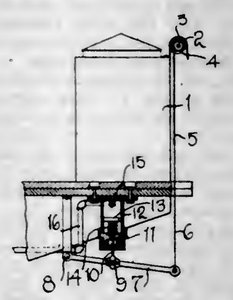
1. A hat hanger comprising a plate adapted to fit between the sweat band and the hat crown, a joint member secured to said plate, a wire loop having a bridge portion and having its ends pivoted in said joint member, the wire at the outer corners of said loop being bent outwardly and around laterally and back to form eye portions extending beyond said bridge portion of the loop, and a second loop member having its ends passed through said eyes and bent around the bridge thereof, whereby the back of the legs of the second loop will engage the outer walls of the eyes of the first loop to form a stop and limit the backward motion of the former.

2. A hat hanger comprising a plate adapted to fit between the sweat band and the hat crown, a joint member secured to said plate, a wire loop having a bridge portion and having its ends tightly gripped but adapted to swing in said joint member, the wire at the outer corners of said loop being bent outwardly and around laterally and back to form eye portions extending beyond said bridge portion of the loop, and a second loop member having its ends passed through said eyes and bent around the bridge portion thereof whereby the back of the legs of the second loop will engage the outer walls of the eyes of the first loop to form a stop and limit the backward motion of the former, and laterally extending protubrances formed in the yieldable legs of one of the loops over which the legs of the other loop must spring in passing to and from folded position to hold the second yoke either closed or open as desired.

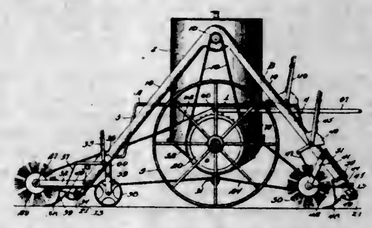
1,142,414. HEADLIGHT-BLIND. CHARLES H. FRYE, Salt Lake City, Utah. Filed Sept. 28, 1914. Serial No. 863,945. (Cl. 240—47.)

1. A headlight blind for locomotives including a movable shade mounted upon the upper end of the headlight casing, a lever fulcrumed at its rear end below the headlight, a flexible element connecting the forward end of said lever to one end of the shade, and fluid actuated means also mounted below the headlight and directly connected to the lever intermediate of its ends to actuate the same and pull the shade downwardly over the headlight lens.

2. A headlight blind for locomotives including a movable shade mounted upon the headlight and vertically movable with respect thereto, a lever fulcrumed at its rear end below the headlight, a flexible element connecting the forward end of said lever to the lower edge of the shade, a cylinder mounted beneath the headlight, and a fluid actuated spring held piston arranged in said cylinder and connected to said lever intermediate of its ends to actuate the latter whereby the shade is pulled downwardly over the headlight lens.



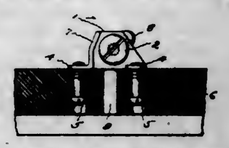
1,142,415. STREET-SWEEPER. CHARLIE J. GARDNER, International Falls, Minn. Filed May 1, 1914. Serial No. 835,661. (Cl. 15—17.)



1. In a street sweeper, the combination of a main frame, a dirt receptacle, carrying wheels, front and rear rotary sweeping brushes, a conveyer trough embodying horizontal receiving runs and side runs extending from opposite ends of said horizontal runs upwardly where they communicate with the upper part of the dirt receptacle, and an endless conveyer moving lengthwise of said horizontal runs and in opposite directions in said side runs of the conveyer trough, said conveyer being actuated by one of the carrying wheels.

2. In a street sweeper, the combination of a main frame, a dirt receptacle, carrying wheels, front and rear rotary sweeping brushes, a conveyer trough embodying horizontal receiving runs and side runs extending from opposite ends of said horizontal runs upwardly where they communicate with the upper part of the dirt receptacle at opposite sides of the latter, and an endless conveyer moving lengthwise of said horizontal runs and in opposite directions in said side runs of the conveyer trough, said conveyer being actuated by one of the carrying wheels.

1,142,416. BINDING-POST. GEORGE A. GAUTHIER, Hartford, Conn., assignor to The Arrow Electric Company, Hartford, Conn., a Corporation of Connecticut. Filed Oct. 28, 1914. Serial No. 868,953. (Cl. 173—259.)



1. A binding post for a snap switch having a back wall, a binding screw turning in a threaded opening in the back wall, ears with perforated openings for securing the binding post in place, a wall projecting forwardly from the back wall and in conjunction with the binding screw form-

ing a channel adapted to facilitate the location of the end of a circuit wire and aid in securing the wire in place, and a lug projecting forwardly from the back wall of the post on the other side of the screw from the side wall and in conjunction with the screw forming an additional means for holding the end of the circuit wire securely in place when the binding screw is turned in.

2. A binding post for a snap switch having a back wall with a threaded opening, a binding screw turning in said threaded opening in the back wall, a contact plate extending backwardly from the back wall, attachment ears extending outward from the sides of the back wall, a side wall extending forward from the back wall on one side of the screw and a lug extending forward from the back wall on the other side of the screw.

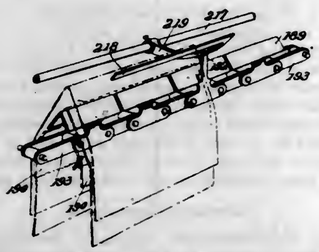
3. A binding post for a snap switch having a back wall, a binding screw turning in said back wall, attachment ears extending from the sides of the back wall, a side wall extending forwardly from the back wall and obliquely with relation to the plane of the bottom of the binding post, and a lug extending forwardly from the back wall on the other side of the binding screw from the side wall.

4. The combination with the base of a snap switch having an opening for the passage of a circuit wire, of a binding post having a back wall that is back of said opening, a side wall that is at one side of said opening, a binding screw turning in the back wall and having its shank in line with the other side of said opening, and a lug projecting forward from the back wall of the binding post on the side of the screw opposite from the side wall.

5. A binding post for a snap switch having a back wall with a threaded opening, a binding screw turning in said opening in the back wall, perforated attachment ears extending outward on the sides at the bottom, a side wall extending forward from the back wall on one side of the screw, and a lug extending forward from the back wall on the other side of the screw.

[Claim 6 not printed in the Gazette.]

1,142,417. SIGNATURE-HANDLING MECHANISM. CHARLES GITZENDANNER, New York, N. Y., assignor to Kast Inserting & Gathering Machine Company, New York, N. Y., a Corporation of Delaware. Original application filed Sept. 25, 1911, Serial No. 651,048. Divided and this application filed Apr. 9, 1914. Serial No. 830,641. (Cl. 193—8.)



1. In combination, a support or saddle along which groups of signatures are conveyed, a conveyer movable along said saddle, supporting elements carried by said conveyer and projecting above said saddle, and signature-engaging means carried by said conveyer.

2. In combination, a support or saddle along which groups of signatures are conveyed, a conveyer movable along said saddle, a plurality of projections carried by said conveyer and projecting above said saddle, and signature-engaging means carried by said conveyer.

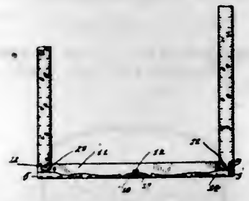
3. In combination, a support along which groups of signatures are conveyed, a conveyer movable along said support, supporting means carried by said conveyer and engaging the signatures above said support, and signature-engaging means carried by said conveyer.

4. In combination, a support along which groups of signatures are conveyed, a conveyer movable along said support, supporting means movable with said conveyer and engaging the signatures above said support, and signature-engaging means carried by said conveyer.

5. In combination, a support on which signatures are held in open position, a member arranged above and longitudinally of said support on which signatures are held in open position, and a traveling device which engages the open signatures on said member and removes them endwise therefrom onto said support.

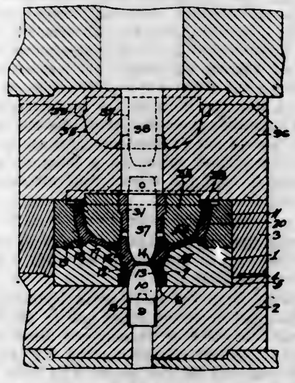
[Claims 6 to 24 not printed in the Gazette.]

1,142,418. COMBINATION-TOOL. MATTI HAMALAINEN, Ludlow, Vt. Filed July 27, 1914. Serial No. 853,417. (Cl. 33—105.)



A tool of the class described comprising a body consisting of spaced side plates, longitudinal bars interposed between the side plates, bolts engaged through the side plates and bars inwardly of the ends of said bars whereby inward movement of the central portions of said bars will produce outward movement of their ends, arms pivoted between the plates at each end of the latter, said arms having notches formed in their inner ends, and studs on opposite ends of said bars engageable in the notches of respective arms to hold the latter in different adjusted relation to the body.

1,142,419. APPARATUS FOR MANUFACTURE OF CAR AND SIMILAR WHEELS. JOHN M. HANSEN, Pittsburgh, Pa., assignor to Forged Steel Wheel Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Original application filed Oct. 7, 1911, Serial No. 653,434. Divided and this application filed Mar. 11, 1912. Serial No. 683,149. (Cl. 78—80.)



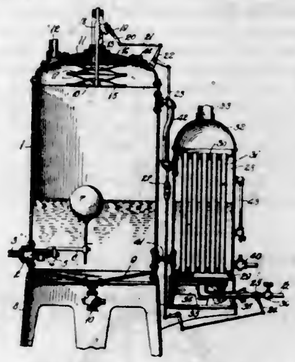
1. In wheel forging apparatus, the combination of a bed, a bed ring supported and centered thereby, and series of dies supported on said bed and within said bed ring and forming the stationary die face, the same including a bottom die and a hub forming die held in place between the bottom die and bed.

2. In wheel forging apparatus, the combination of a bed, a bed ring supported and centered thereby, and a series of dies supported on said bed and within said bed ring and forming the stationary die face, the same including a bottom die and a hub forming die held in place between the bottom die and bed, and a plunger vertically movable within said hub die.

3. In wheel forging apparatus, the combination of top and bottom dies, the top die having a hub die provided with a central bore and a die carrier above the same having a receiving space in line with and above said bore, and a bottom plunger carrying a loose piercing head and adapted to force said head upwardly entirely through the wheel hub and deliver the same into the bore of said hub die and into said receiving space.

4. In wheel forging apparatus, the combination of top and bottom dies, the top die having a hub die provided with a central bore, and a die carrier above the same having a space in line with said bore, a bottom plunger carrying a loose piercing head and adapted to force said head upwardly through the wheel hub and into the bore of said hub die, said die carrier having side openings above the hub die through which the heads can be laterally ejected.

1,142,420. STEAM-GENERATOR. ELMER HARRISON, Detroit, Mich. Filed May 1, 1913. Serial No. 764,740. (Cl. 236—6.)



1. The combination of a tank, a heater in communication with said tank and adapted to supply steam thereto generated from water supplied to said heater from said tank, a burner in said heater, a gas supply pipe connected to said burner, and pressure actuated means within said tank for controlling the supply of gas to said burner, said means including a rod extending out of said tank, a rack on said rod, a sector engaging said rack, and a valve indirectly operated by a movement of said sector.

2. The combination of a tank having a water connection, a heater in communication with said tank and adapted to supply steam thereto generated from water received from said tank, means within said tank for maintaining a constant level of water within said tank and said heater, a burner below said heater, a bellows located in the upper part of said tank and adapted to be actuated by internal steam pressure within the tank, and a rack actuated by said bellows for controlling the operation of said burner.

3. The combination of a tank, a heater, a water connection between the lower end of the tank and the lower end of the heater, a steam connection between the upper end of the heater and the upper end of the tank, means for maintaining a water level in the tank and heater, a gas burner for the heater, a gas supply pipe for the burner, a regulating valve in the gas supply pipe, a bellows in the upper end of the tank, a tubular nipple on the bellows extending upward through the end of the tank, a rod secured to the inner end of the bellows and extending outward through the nipple, a rack on the rod, a sector engaging the rack, and means for transmitting motion from the sector to the controlling valve in the gas supply pipe for actuating said valve.

4. The combination of a tank, a heater outside the tank and adjacent thereto adapted to contain water, means for maintaining a common water level in the tank and heater with a steam space in the upper end of said tank and heater above the water level, a water connection between the tank and heater below the water level, a steam connection between the tank and heater above the water level to conduct steam generated in the heater into the steam space above the water in the tank to pre-heat the water therein, means for heating the heater, and means within the steam space in the tank for controlling the heating means.

5. The combination of a tank, a heater arranged in a vertical position at one side of and adjacent to the tank, said heater being adapted to contain water, means for maintaining a common water level in the tank and heater below the upper end of the heater to provide a steam space above the water in said tank and heater, a water connection between the tank and heater near the lower end of the heater, a sleeve connection between the tank and heater near the upper end of the heater above the water level, a burner for the heater, a fuel supply for the burner, and means within the steam space of the tank operated by steam pressure therein for regulating the supply of fuel to the burner.

1,142,421. ACETYLENE-GAS LAMP. LOUIS HARTMANN, Mount Vernon, N. Y., assignor to Henry Iden, New York, N. Y.; Henry Amrhein executor of said Iden, deceased. Filed Mar. 20, 1912. Serial No. 685,077. (Cl. 48—53.3.)

1. In carbid-feed mechanisms, comprising a carbid holder and a generating chamber in communication by a feed passage and a plunger governing the feed of carbid to water and having at said passage a valve member provided with a projecting edge constituting a feed orifice within which said plunger fits and reciprocates by action of means responsive to pressure of the generated gas, a feed plunger having its feed portion constituted by a one-sided recess extending in the line of the movement of the plunger and formed in the side thereof, the width of the feed-orifice edge of said valve member being a relatively small percentage of the longitudinal extent of said recess, substantially as and for the purpose set forth.

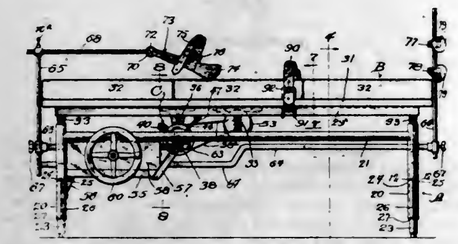
2. In carbid-feed mechanisms comprising a carbid holder and a generating chamber in communication by a feed passage and a plunger governing the feed of carbid to water and having at said passage a valve member provided with a projecting edge constituting a feed orifice within which said plunger fits and reciprocates by action of means responsive to pressure of the generated gas, a feed plunger having its feed portion constituted by a recess formed in the side of the plunger and gradually increasing in width and depth from its lowermost point, the width of the feed-orifice edge of said valve member being a relatively small percentage of the longitudinal extent of said recess, whereby the feed opening between the base wall of said recess and the orifice edge of said valve

member gradually increases and diminishes in both width and depth under the reciprocal action of the plunger.

3. In carbid-feed mechanisms comprising a carbid holder and a generating chamber in communication by a feed passage and a cylindrical feed plunger governing the feed of carbid to water and having at said passage a valve member provided with a projecting edge constituting a circular feed orifice within which said plunger fits and reciprocates by action of means responsive to pressure of the generated gas, a cylindrical feed plunger having its feed portion constituted by a recess extending in the line of movement of the plunger and formed in the side thereof and entirely open at both its sides and at its front and having its base wall segmentally curved, the width of the feed-orifice edge of said valve member being a relatively small percentage of the longitudinal extent of said recess, whereby the feed opening between the segmental base wall of said recess and the orifice edge of said valve member gradually increases and diminishes in both width and depth under the reciprocal action of the plunger.

4. In the carbid-feed mechanisms comprising a carbid holder and a generating chamber in communication by a feed passage and a plunger governing the feed of carbid to water and having at said passage a valve member provided with a projecting edge constituting a feed orifice within which said plunger fits and reciprocates, a feed plunger having at its feed portion a reduced circumference so related to the orifice edge of said valve member that the opening between said reduced circumference and said orifice edge gradually increases and decreases in both width and depth under the reciprocal movement of the plunger to bring the variable width and depth of the reduced portion of its circumference in relation to said orifice edge, whereby the carbid will be fed in variable quantities for the continuous generation of only sufficient gas to meet the rate of consumption and maintain the normal degree of pressure.

1,142,422. APPARATUS FOR ADMINISTERING MEDICAL TREATMENT. FREDERICK A. HAWLEY, Hammond, Ind. Filed May 13, 1914. Serial No. 838,210. (Cl. 128—16.)



1. In an apparatus of the character described, the combination with a yieldingly supported vibratory table, and means carried by said table for vibrating the same, of non-vibratory stretching means associated therewith for stretching a member of a person's anatomy supported and vibrated by said support, said table vibrating means and stretching means being controllable by the person operated on.

2. In an apparatus of the character described, the combination with a vibratory table, a rigid, stationary support therefor, and means for vibrating said table, of independently operable, non-vibratory stretching means mounted on said support, and having means for attachment to members of the anatomy of a person resting on said table, said vibratory means and stretching means being controllable by the person operated on.

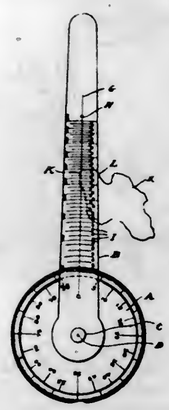
3. In an apparatus of the character described, the combination with a vibratory table, a rigid, stationary supporting frame therefor, spring supports between said frame and table, and vibrating means carried by said table for vibrating the same, of independently operable, non-vibratory stretching means mounted on said frame and having portions extending above the table, arranged for attachment to portions of a person's anatomy.

4. In an apparatus of the character described, the combination with a vibratory table, a supporting frame therefor, spring supports between said table and frame and a motor driven vibrator carried by said table, of independently operable, non-vibratory stretching means mounted on said frame, and having head harness and foot holders located above the table.

5. In an apparatus of the character described, the combination with a vibratory table, a supporting frame therefor, coil springs interposed between said frame and table for yieldingly supporting said table, and a motor driven vibrator carried by said table, of independently operable, non-vibratory stretching means having two oppositely moving rack bars, a manually operated gear pinion for moving said rack bars, head harness carried by one of said rack bars, and foot holders carried by the other rack bar.

[Claims 6 to 9 not printed in the Gazette.]

1,142,423. MEASURING INSTRUMENT. LOUIS A. HAWTHORNE, Newark, N. J. Filed Apr. 16, 1914. Serial No. 832,257. (Cl. 33—121.)



1. A planimeter comprising a graduated disk and a graduated arm pivoted on the disk, the graduations on the arm being spaced to correspond to the difference of the radii of annuli of equal area.

2. A planimeter comprising a graduated disk and a graduated arm pivoted on the disk, the graduations on the arm being spaced to correspond to the difference of the radii of annuli of equal area and having an opening through the axial center of the disk and arm.

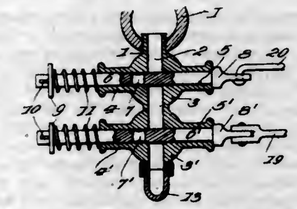
3. A planimeter comprising a graduated disk and a graduated arm formed of transparent material, said arm being pivoted on the disk and the graduations being spaced thereon to correspond to the difference of the radii of annuli of equal area.

4. A planimeter comprising a graduated disk formed of transparent material, and a transparent arm pivoted on the disk, said arm having graduations thereon spaced to correspond to the difference of the radii of annuli of equal area.

5. A planimeter comprising a disk having a series of radial lines thereon forming a series of graduations, and an arm pivotally secured to the disk, said arm having a medial line and a series of intersecting lines thereon, said intersecting lines being spaced on the arm to correspond to the difference of the radii of annuli of equal area.

[Claim 6 not printed in the Gazette.]

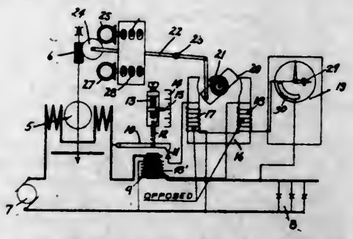
1,142,424. AUXILIARY AIR-INTAKE VALVE. JABEZ HEDGES and WILLIAM HAMMACK, Lancaster, Ohio. Filed Sept. 8, 1914. Serial No. 860,745. (Cl. 137—26.)



1. A valve comprising a tube, a number of bosses formed on said tube and having bores intersecting the bore thereof, cylindrical valves slidable through the bores of said bosses and across the bore of said tube, said valves having openings adapted to register with said bore of the tube, and each of said valves having one of its ends projecting beyond the adjacent bosses, stops on said projecting ends, coil springs located between said stops and said adjacent bosses, and independent means whereby said valves may be dependent means whereby said valves may be operated.

2. A valve comprising a tube having its opposite ends threaded, two pairs of bosses formed on opposite sides of said tube and having bores registered with and intersecting the bore thereof, cylindrical slide valves in the bores of said bosses and having openings adapted to be moved into register with the bore of the tube, heads on one end of said slide valves, the opposite ends thereof projecting beyond the adjacent bosses, stops on said projecting ends, and coil springs encircling the latter between the stops and the adjacent bosses, combined with independent means whereby the two slide valves may be operated.

1,142,425. SYSTEM OF ELECTRIC METERING. ERNST HEILBORN, Charlottenburg, Germany, assignor to General Electric Company, a Corporation of New York. Filed July 25, 1912. Serial No. 711,410. (Cl. 171—268.)



1. The method of metering electrical energy which consists in registering upon one register during certain periods of time only the total consumption of energy when the demand is less than a predetermined quantity and during other periods of time only the consumption of energy when the demand is in excess of a predetermined quantity, and effecting such registration of energy by the magnitude of the demand.

2. The method of metering electrical energy which consists in registering upon one register during certain periods of time only the total energy consumed when the demand is in excess of a predetermined quantity and during other periods of time only the total energy consumed when the demand is less than a second predetermined quantity, registering upon a second register the remaining energy consumed during any period of time, and effecting such registration of energy upon the appropriate register by the magniture of the demand.

3. The method of metering electrical energy supplied by a central generating station to electric translating devices which consists in registering upon one register during the period of peak load on the station only the total energy supplied when the demand is less than a predetermined quantity and upon a second register only the totol energy supplied when the demand is in excess of said predetermined quantity, registering at other periods of time upon the first mentioned register only the total energy supplied when the demand is in excess of a second predetermined quantity and upon said second register only the total energy supplied when the demand is less than said second predetermined quantity, and effecting such registration of energy upon the appropriate register by the magniture of the demand.

4. A system of metering electrical energy comprising a meter, a plurality of registers for registering the energy metered, an electric supply circuit, means responsive to the electrical condition of said circuit for determining the register upon which the energy metered is registered, and means for reversing the effect of said means at predetermined times.

5. A system of metering electrical energy comprising a meter, a plurality of registers for registering the energy metered, an electric supply circuit, means responsive to a predetermined change in the electrical condition of said circuit for determining the register upon which the energy metered is registered, and means for varying at predetermined times the predetermined change to which said means is responsive.

[Claims 6 to 15 not printed in the Gazette.]

1,142,426. WRENCH. ALTON B. HEIMBACH, Duluth, Minn. Filed May 15, 1914. Serial No. 838,660. (Cl. 81—141.)

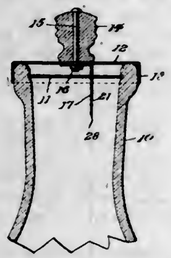


A wrench comprising a shank toothed on its front edge and formed with a central elongated slot, a fixed jaw on said shank, a movable jaw complementally toothed on its inner edge, an arm projecting centrally from the toothed edge of said movable jaw and extending through said slot to a point beyond the rear edge of said shank, a lever pivoted to said arm adapted to normally lie contiguous with the rear edge of said shank to lock the two toothed portions together, the portion of said lever above the pivot point being formed with a flat incline of less distance from said pivot than from the contiguous side, said lever being formed with a socket, a pin snugly fitting in said socket, and a spring between said pin and the base of said socket and adapted to press the pin into frictional engagement with said arm to steady said movable jaw when the same is unlocked.

1,142,427. COMBINED JAR-CLOSURE AND CAP-EXTRACTOR. WILLIAM C. HELCHER, Galion, Ohio. Filed Apr. 24, 1914. Serial No. 834,199. (Cl. 215—53.)

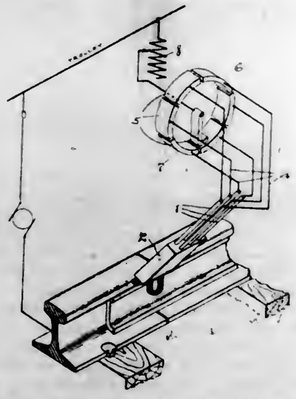
1. A device of the character described including a closure, a handle carried by the closure, a cap engaging member carried thereby, and a bolt extending through the handle, the closure, and the cap engaging members, said bolt connecting the handle and the cap engaging member to the closure, said cap engaging member being formed from suitable sheet metal and including a body portion

bent adjacent one extremity at substantially right angles to form a depending portion terminating in a substantially triangular shaped head arranged upon one side of the vertical axis of the closure and having reversely beveled sides forming cutting edges.



2. A device of the character described including a closure, a handle extending vertically upon one side of the closure, a cap engaging member arranged upon the opposite side of the closure, said cap engaging member being formed from a strip of suitable sheet metal bent intermediate its ends to provide a substantially flat body portion seating against the closure and a vertically arranged head provided with a piercing point and having transversely arranged shoulders formed thereon, and a bolt extending through the handle, the closure and the body portion of the cap engaging member, said bolt detachably connecting the handle and the cap engaging member with the closure.

1,142,428. METHOD OF MAKING A HOMOGENEOUS MECHANICAL JUNCTURE. ALBERT B. HERRICK, New York, N. Y., assignor to The Electric Railway Improvement Company, Cleveland, Ohio, a Corporation of Ohio. Filed Nov. 29, 1912. Serial No. 733,975. (Cl. 219—10.)



1. The method of homogeneously uniting metal bodies, which consists in holding said bodies in contact at the desired point of union; and directly heating one of said bodies by pressing against the same an electrode composed of a plurality of electrically separated resistance elements, and thereupon passing an electric current in rapid succession through said resistance elements and bodies, whereby said first body and the contacting face of the second body are brought to a welding temperature.

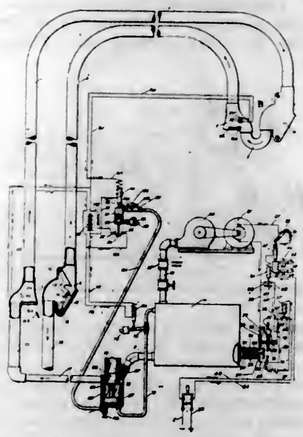
2. The method of homogeneously uniting metal bodies having unlike characteristics as to fusibility, the more readily fusible body having also the greater heat conductivity, which consists in holding said bodies in contact at the desired point of union; and directly heating the first or more readily fusible body by pressing against the same an electrode composed of a plurality of electrically separated resistance elements, and thereupon passing an electric current in rapid succession through said resistance elements and bodies, whereby said first body and the contacting face of the second body are brought to a welding temperature.

3. The method of homogeneously uniting metal bodies of unlike masses and different temperatures of fusion, the smaller body having both the lower temperature of fusion and greater heat conductivity, which consists in holding said bodies in contact at the desired point of union; and directly heating one of said bodies by pressing against the same an electrode composed of a plurality of electrically separated resistance elements, and thereupon passing an electric current in rapid succession through said resistance elements and bodies, whereby said first body and the contacting face of the second body are brought to a welding temperature.

4. The method of homogeneously uniting a bond to a rail, which consists in holding the bond in contact with the rail at the desired point of union; directly heating said bond by pressing against the same an electrode composed of a plurality of electrically separated resistance elements, and thereupon passing an electric current in rapid succession through said resistance elements, bond and rail, whereby said bond and the contacting face of the rail are brought to a welding temperature.

5. The method of electrically heating a body, which consists in holding in contact therewith a plurality of electrically separated resistance elements, and then passing an electric current through said resistance elements in rapid succession, such current being also passed through an inductive resistance, the period of current flow through any one element of said electrode being insufficient to produce any harmful arcing effect.

1,142,429. DESPATCH SYSTEM. CHARLES P. HIDDEN, Winchester, Mass., assignor to The Lamson Company, Boston, Mass., a Corporation of New Jersey. Filed Feb. 21, 1913. Serial No. 749,841. (Cl. 243—14.)



1. In a pneumatic despatch system, the combination of a receptacle adapted to contain air at a pressure different from that of the surrounding atmosphere, means for creating this difference in pressure, means for controlling the last mentioned means whereby to insure said difference in pressure being maintained adequate for carrier transmission purposes, a tube for transmitting carriers, and means, co-acting with said tube for rendering said difference in pressure effective for carrier transmission purposes, for a normally limited interval of time, said last mentioned means including a time element mechanism for automatically limiting the carrier transmitting flow of air after the lapse of a variable period of time sufficient to transmit a carrier effectively through said tube under the pressure conditions present at such time in the system, said time element mechanism provided with means for varying said time period substantially in accordance with the operating pressure in said system.

2. In a pneumatic despatch system, the combination of a receptacle adapted to contain air at a pressure different from that of the surrounding atmosphere, means for creating this difference in pressure, means for controlling the last mentioned means whereby to insure said difference in pressure being maintained adequate for carrier transmission purposes, a tube for transmitting carriers, and means, co-acting with said tube for rendering said difference in pressure effective for carrier transmission purposes, for a normally limited interval of time, said last mentioned means including a time element mechanism for automatically limiting the carrier transmitting flow of air after the lapse of a variable period of time sufficient to transmit a carrier effectively through said tube under the pressure conditions present at such time in the system, said time element mechanism provided with means for varying said time period substantially in accordance with the speed of flow of air through said tube.

3. In a pneumatic despatch system, the combination of a receptacle adapted to contain air at a pressure different from that of the surrounding atmosphere, means for creating this difference in pressure, means for controlling the last mentioned means whereby to insure said difference in pressure being maintained adequate for carrier transmission purposes, a tube for transmitting carriers, and means, coacting with said tube for rendering said difference in pressure effective for carrier transmission purposes, for a normally limited interval of time, said last mentioned means including a mechanism for automatically limiting the carrier transmitting flow of air after the elapse of a variable period of time sufficient to transmit a carrier effectively through said tube under the pressure conditions present at such time in the system, said time element mechanism provided with means for varying said time period substantially in accordance with both the operating pressure in said system and the speed of flow of air through said tube.

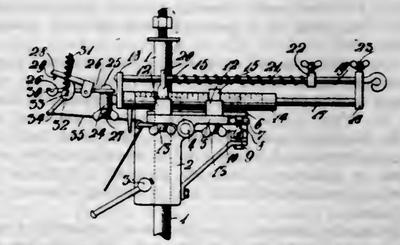
4. In a pneumatic despatch system, the combination of a transmission tube, a station having means for permitting the introduction of carriers into said tube, a compressed air supply, a valve for controlling the flow of air from said supply through said tube, means for opening and for controlling the subsequent closure of said valve, said last mentioned means including a timing means controlling said valve closure and operating dependently of the rate of movement of the air moving through said tube, and means, operable from said station, for rendering operative the valve opening and timing means.

5. In a pneumatic despatch system, the combination of a transmission tube, a station having means for permitting the introduction of carriers into said tube, an air supply, comprising a reservoir and means for automatically charging said reservoir with compressed air from time to time in accordance with the demands of said system, and means for conserving air from said supply comprising a valve for controlling the flow of said air through said tube, means for opening and for controlling the subsequent closure of said vave, said last mentioned means including variably acting timing means controlling said valve closure and having provisions to cause said timing means to operate dependently of the pressure of the air moving through said tube, and means, operable from said station, for rendering operative said valve opening and timing means.

[Claims 6 to 36 not printed in the Gazette.]

1,142,430. HAT-PRESS. ARNOLD HOFF, New York, N. Y. Filed Apr. 18, 1914. Serial No. 832,784. (Cl. 223—31.)

1. The combination with hat shaping blocks, of resiliently mounted frames adjustable at different angular positions to said block, adapted to hold between them the hat material, and automatically to stretch it in divergent directions while a single operator stretches the same in a different direction, substantially as and for the purpose set forth.

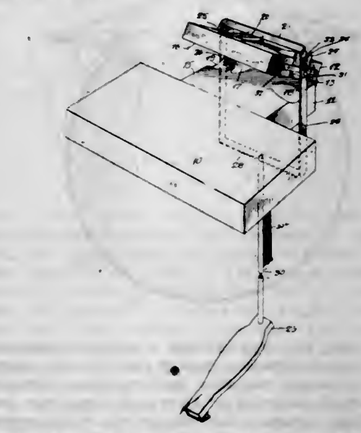


2. The combination with hat shaping blocks of reciprocating frames adjustable in different angular positions on a table mounted in front of said blocks, holders pivotally mounted on the fore-ends of said frames adapted to grip a hat material, and to stretch it in diverging directions while the operator stretches same in another direction, substantially as and for the purpose set forth.

3. The combination with hat shaping blocks of a device for stretching the hat material, comprising a vertical post, a slit and tapped block adjustable at different heights on said vertical post, a pair of tables hingedly mounted on a shaft carried by said block and adapted to be fixed in different oblique positions on same, sleeves mounted one on each of said tables adjustably in different angular positions thereon, a frame composed of parallel rods and cross pieces carried by each of said sleeves, adapted to reciprocate in respect thereto, adjustable resilient means carried by said frames to actuate them in one direction and gripping means pivotally mounted on said frames, adapted to engage one corner each of a hat material, substantially as and for the purpose set forth.

4. In a device of the character described, in combination, grippers for hat material comprising a lower plate pivotally mounted on reciprocating members, said plates having each a groove near its front edge, upper plates hingedly mounted on said lower plates, having tongues or teeth registering with said grooves in the lower plate, resilient means for keeping said lower and upper plates in a position of closed jaws, cam levers for opening said jaws, and treadle controlled means connected to said cam levers for closing said jaws, substantially as and for the purpose set forth.

1,142,431. GARMENT-SHAPER. MORRIS J. HOFFMAN, Chicago, Ill. Filed Aug. 24, 1914. Serial No. 858,251. (Cl. 223—17.)



1. A garment shaper, comprising two companion forms for clamping between them a part of a garment, one movable toward and away from the other, the working face

of one form having a recessed portion, and the working face of the other form having an opening therein, and a stretching member movably mounted in said opening and adapted to enter said recessed portion and therewith stretch that part of a garment overlying said recessed portion.

2. A garment shaper, comprising two companion forms having opposing working faces between which a part of a garment is clamped, one form movable toward and away from the other, one of said forms having a recessed portion in its working face, and the other form having a stretching member fulcrumed in an opening therein, and adapted to enter said recessed portion, and means for actuating the movable form and stretching member carried thereby.

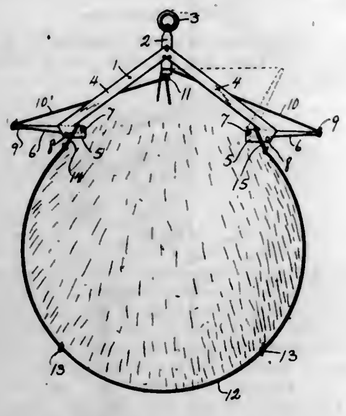
3. A garment shaper, comprising two companion forms, having opposing working faces, and one pivoted upon the other, one form having one or more recessed portions in its working face, and the other form having a corresponding number of stretching members movably mounted theron, and adapted to enter said recessed portions and means for bringing one form down upon the other, and for depressing the stretching members into the recessed portions and therewith stretching that part of a garment overlying the recessed portions.

4. A garment shaper, comprising two forms, one being stationary and having a recessed portion in its upper face, and the other pivoted thereto along an edge and arranged to be swung down thereupon, said movable form having a stretching block pivotally secured in an opening therein opposite the recessed portion of the stationary form, and arranged to be depressed into said recessed portion.

5. A garment shaper, comprising a stationary form, and a movable form hinged thereto along one edge, one of said forms having a recessed portion in its working face and the other form having a stretching block pivotally secured in an opening therein, and arranged to be depressed into said recessed portion of the other form, and means for actuating said movable form and stretching block.

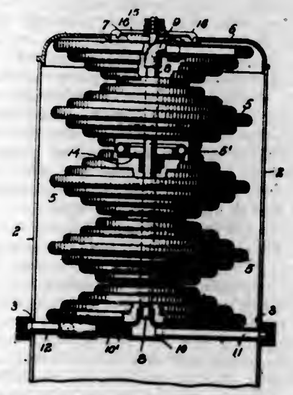
[Claims 6 to 15 not printed in the Gazette.]

1,142,432. HAY-SLING. OTIS L. HULSTEDT, Oneida, Ill. Filed Dec. 28, 1914. Serial No. 879,361. (Cl. 57—11.)



A hay sling including inverted V-shaped members arranged in spaced relation, spaced arms formed integral with the V-shaped members and extending inwardly, levers pivotally connected to the inwardly extending arms adjacent their terminals and arranged to move between the V-shaped members, means adapted to limit the downward movement of the levers, a sling member having its ends mounted upon the inwardly extending arms, flexible means connected to the outer ends of the levers to actuate either of the levers independent of the other to release either end of the sling.

1,142,433. WATER-HEATER. HERBERT S. HUMPHREY, Kalamazoo, Mich., assignor to Ruud Manufacturing Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed Oct. 30, 1914. Serial No. 869,411. (Cl. 122—250.)



1. In a water heater, the combination of an upright circulation coil, a tubular support extending across the coil with the opposite ends of the support projecting beyond opposite sides of the coil, and a pipe extending upwardly through the coil and connected at its lower end to the support and at its upper end to the upper portion of the coil.

2. In a water heater, the combination of an upright circulation coil, a support of tubular form for sustaining the coil and for providing an inlet therefor, the support extending across the coil and projecting from opposite sides thereof, and an inlet pipe extending upwardly from the support and at its lower end in communication therewith and at its upper end in communication with the upper portion of the coil.

3. In a water heater, the combination of an upright circulation coil, a suport disposed transversely of the coil and having non-communicating tubular portions, and communicating connections between the respective tubular parts of the support and the upper and lower portions of the coil.

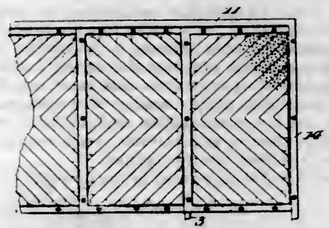
4. In a water heater, the combination of an upright circulation coil, a transverse support having tubular non-communicating end portions extending laterally from the coil, and communicating connections between the respective tubular end portions of the support and the upper and lower extremities of the coil.

5. In a water heater, the combination of an upright circulation coil, a transverse support beneath the coil and having non-communicating end portions extending laterally therefrom, a pipe extending upwardly through the coil and at its lower end connected to one of the tubular portions of the support and at its upper end connected to the upper portion of the coil, and a communicating connection between the lower portion of the coil and the other tubular portion of the support.

[Claims 6 to 12 not printed in the Gazette.]

1,142,434. SHAKER-PLATE FOR ORE AND COAL WASHERS. MOSES JAMES, Lansford, Pa. Filed May 28, 1914. Serial No. 841,586. (Cl. 83—88.)

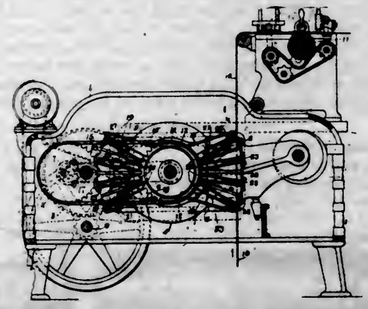
1. In a device of the class described, a frame, a plurality of shaker plates arranged within the frame, each plate being provided at each side of its median line with a series of riffles, the riffles of the two series upon each plate meeting at the median line of the plate and the riffles of one series extending at an angle with respect to the riffles of the other series, the plates being arranged within the frame with the riffles of the two series alternately diverging in the direction of the opposite ends of the frame.



2. A shaker plate of the class described having flat marginal portions and formed within the bounds of the said portions with a raised riffle dressing, certain of the marginal portions being constructed to overlap similar portions of the other ones of the plates when a number of the plates are assembled in a series, and being further constructed to permit of the said portions being secured together in their overlapped relation and adapted with a mating plate to form distributing channels between said plates.

3. A shaker plate of the class described having flat marginal portions and formed within the bounds of the said marginal portions with diagonally extending raised corrugations arranged in series at opposite sides of the longitudinal median line of the plate, the corrugations of the two series converging toward and meeting at the said line and each terminating at one end at the marginal portion at one side of the plate, the front and rear marginal portions of the plate being connected to overlap and be secured to similar portions of other similarly constructed plates when a number of the plates are arranged in a series and adapted with a mating plate to form distributing channels between said plates.

1,142,435. ROLLER-CARRIAGE. EMERSON P. JENNINGS, Jr., Lehighton, Pa. Filed May 4, 1914. Serial No. 838,086. (Cl. 101—79.)



1. The combination, with a combined inking drum and form-bed, said structure having a circumferential portion constituting a track, of a carriage mounted to revolve about said inking drum and form-bed and having a radial guideway, a bearing block slidably mounted in said guideway and comprising a body portion and a bracket spaced away from said body portion and provided with an open bearing, a roller having a trunnion journaled in said bearing, a wheel mounted on said trunnion between said body portion and said bracket and adapted to travel over said track, and means carried by said bearing block to retain said trunnion in said open bearing.

2. The combination, with a combined inking drum and form-bed, said structure having a circumferential portion constituting a track, of a carriage mounted to revolve about said inking drum and form-bed and having a radial guideway, a bearing block slidably mounted in said guideway and comprising a body portion and a bracket spaced away from said body portion and provided with an open bearing, a roller having a trunnion journaled in said bearing, a wheel mounted on said trunnion between said body portion and said bracket and adapted to travel over said track, and a hook-shaped catch mounted on said bracket to engage said trunnion and retain the same in said open bearing.

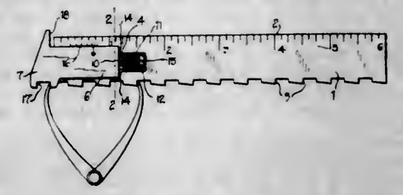
3. The combination, with a combined inking drum and form-bed, said structure having a circumferential portion constituting a track, of a carriage mounted to revolve about said inking drum and form-bed and having a radial guideway, a bearing block slidably mounted in said guideway and having a bearing, an ink roller comprising a core having a trunnion journaled in said bearing, and a wheel secured to said roller and adapted to travel over said track, said bearing block, core and wheel being formed of light weight metal with hard metal bearing surfaces, whereby the outward thrust on said parts due to centrifugal force is reduced.

4. The combination, with a combined inking drum and form-bed, said structure having a circumferential portion constituting a track, of a carriage mounted to revolve about said track, a series of bearing blocks slidably mounted on said carriage, each bearing block comprising a hollow body portion of light weight material, said hollow body portion being adapted to receive a spring, a bracket carried by said body portion and having a bearing, an inking roller comprising a hollow core of light weight material, and a trunnion of hard metal secured to the end of said hollow core and journaled in said bracket, and a wheel of light weight metal having a hard metal tread secured to said trunnion and adapted to travel over said track.

5. The combination, with an inking drum and form bed, said structure having a portion constituting a track, of a carriage mounted to revolve about this track, a series of bearing blocks slidably mounted on said carriage, each bearing block comprising a hollow body portion of light material, said hollow body portion being adapted to receive a spring, said bearing block having a bearing, an ink roller having a trunnion journaled in said bearing, and a wheel mounted on said trunnion and adapted to travel over said track.

[Claims 6 to 10 not printed in the Gazette.]

1,142,436. MEASURING INSTRUMENT. NORBERT JOHA, Milwaukee, Wis. Filed June 22, 1914. Serial No. 846,629. (Cl. 33—164.)



1. A device of the character described comprising an elongated member provided with equidistantly spaced lugs along one longitudinal edge, the spaces between the lugs being equal to the length of the lugs, a head slidably mounted upon one extremity of the elongated member, said head being provided in one end with a recess of a length equal to the length of a lug of the member, and means for imparting movement to the head.

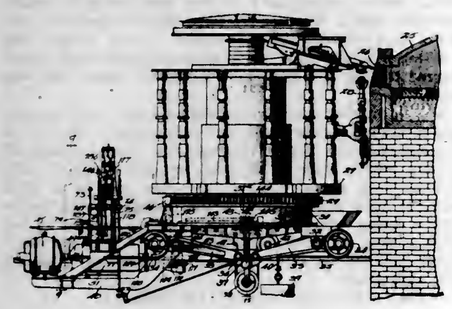
2. A device of the character described comprising an elongated member provided with equidistantly spaced lugs along one longitudinal edge, the spaces between the lugs being equal to the length of the lugs, a head slidably mounted upon one extremity of the elongated member, said head projecting beyond the opposite longitudinal edges of the elongated member, one end of the head being pro-

vided with a recess of a length equal to the length of a lug of the member.

3. A device of the character described comprising an elongated member provided with equidistantly spaced lugs along one longitudinal edge, the spaces between the lugs being equal to the length of the lugs, a head slidably mounted upon one extremity of the elongated member, said head projecting beyond the opposite longitudinal edges of the elongated member, one end of the head being provided with a recess of a length equal to the length of a lug of the member, and means for imparting movement to the head, the longitudinal marginal portion of the member opposite to the lugs being provided with a linear scale.

4. A device of the character described comprising an elongated body provided with an open-ended slot in one extremity, the inner end portion of said slot being enlarged, a head provided with a shank, said shank being adapted to be accommodated within the slot and provided with an axial socket, and a micrometer screw, the head whereof is adapted to be positioned within the enlarged portion of the slot, while the shank of the screw is in threaded engagement with the socket of the shank of the first-named head whereby said head may be adjusted relatively to the adjacent extremity of the elongated body.

1,142,437. TRANSMISSION APPARATUS. AUGUST KADOW, Toledo, Ohio, assignor to The Westlake Machine Company, Toledo, Ohio, a Corporation of Ohio. Filed Oct. 17, 1912. Serial No. 726,250. (Cl. 74—59.)



1. The combination with a track, of a truck thereon, a base member which is supported on the truck so as to be capable of vertical movement, a rotatable element on the base, driving trains for propelling the truck on the track, rotating said rotatable element and raising and lowering said base, respectively, a motor, a transmission mechanism interposed between said motor and said driving trains comprising means for driving each of said trains forwardly or backwardly independently of the others and work-performing apparatus carried by said rotatable element and adapted to be affected in its action by said driving trains.

2. The combination with a track, of a truck thereon, a rack rail adjacent said track, a base member supported on the truck so as to be capable of vertical movement, a rotatable element on the base, a driving train engaging said rack rail for propelling the truck on the track, driving trains for rotating said rotatable element and raising and lowering said base respectively, a motor supported on said base, transmission mechanism interposed between said motor and said three driving trains comprising means for driving each of the same forwardly or backwardly independently of the others and work-performing apparatus carried by said rotatable element and adapted to be affected in its action by said driving trains.

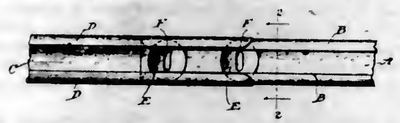
3. In power transmission mechanism, the combination with a driving shaft, of a clutch member fixed thereto, a clutch member slidable thereon, a gear wheel having a feathered connection with said last named clutch member, and means for moving said last named clutch member into and out of engagement with the other clutch member.

4. In power transmission mechanism, the combination with a driving shaft, of a clutch member fixed thereto, a clutch member slidable thereon and provided with a hub, a gear wheel feathered to the hub, and means for moving said last named clutch member through the gear wheel into engagement with the fixed clutch member.

5. In power transmission mechanism, the combination with a driving shaft, of a clutch member fixed thereto, a clutch member slidable thereon, a gear wheel having a feathered connection with said last named clutch member, a second gear wheel running on said shaft, and means for moving the sliding clutch member into engagement with the fixed clutch member and for coupling said second mentioned gear wheel to said movable clutch member so that these two elements revolve together.

[Claims 6 to 28 not printed in the Gazette.]

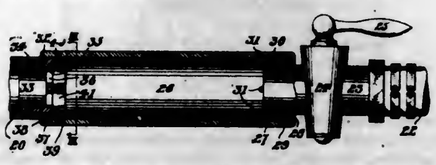
1,142,438. CURTAIN-ROD LOCK. CHARLES W. KIRSCH, Sturgis, Mich., assignor to Kirsch Manufacturing Co., Sturgis, Mich., a Corporation of Michigan. Field Sept. 23, 1912. Serial No. 721,834. (Cl. 156—19.)



1. A curtain rod including a pair of channel-shaped members each equipped with opposed overhanging flanges bordering a slot longitudinal of the member carrying said flanges, the first of said members made of resilient material and presenting a portion slidably disposed within a part of the second member; and means housed by the said portion of the first member and operable through the slot of both members for expanding the said portion of the first member into engagement with the adjacent part of the second member, the resiliency of the portion thus expanded returning the said portion of the first member to its normal size upon a release of the said expanding means.

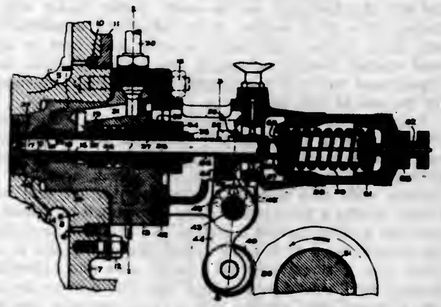
2. A curtain rod including a pair of channel-shaped members each equipped with opposed overhanging flanges bordering a slot longitudinal of the member carrying said flanges, the first of said members made of resilient material and presenting a portion disposed with a part of the second member, the said portion being normally contracted by its own resiliency to loosely fit the adjacent part of the second member; a cam disposed within the said portion of one of said members, and means operable through both said slots for rotating said cam to cause the latter to expand the said portion of the first member into interlocking engagement with the adjacent part of the second member.

1,142,439. FOUNTAIN-BRUSH HANDLE. STANISLAW KOSINSKI, Amsterdam, N. Y. Filed Sept. 24, 1914. Serial No. 863,297. (Cl. 137—30.)



A tubular handle for fountain brushes having an interrupted portion forming spaced-apart ends, a bushing projecting from one of said ends, a head having valve openings therethrough and provided upon the opposite end of said bushing, and projecting therefrom forming an annular flange, a sleeve revolubly mounted upon the said head and upon the other handle portion end and having an inturned flange positioned behind the said head flange, a valve disk secured within said sleeve in engagement with the said bushing head and having valve openings therethrough similar to and adapted for registry with the valve opening of said head, a fluid supply pipe having a terminal annular flange received in the outer end of said last named handle portion, a retaining collar within the end of said handle, and transverse pins carried by said handle engaging said flange whereby the same is held from longitudinal movement relative to the supply pipe.

1,142,440. FUEL-PULVERIZER FOR INTERNAL-COMBUSTION ENGINES. BERNHARD KRÄMER, Charlottenburg, Germany, assignor to General Electric Company, a Corporation of New York. Filed Aug. 15, 1912. Serial No. 715,220. (Cl. 123—32.)



1. In an engine of the character described, the combination of a cylinder having an outwardly extending recessed projection, a jacket for the cylinder having an opening through which the projection extends, said opening being of greater diameter than the projection whereby said projection and jacket are capable of independent movements, a pulverizer means located in said recess for discharging fuel into the cylinder, a conduit for supplying fuel to said means, a conduit for supplying a blast of air to said means at a pressure greater than the compression pressure in the combustion space of the cylinder, and means for securing the pulverizer means in said projection.

2. In an engine of the character described, the combination of a cylinder having an outwardly extending recessed projection, a cooling jacket for the cylinder having an opening through which the projection extends, said opening being of greater diameter than the projection whereby said projection is free to move with respect to the cooling jacket under temperature changes, a packing for the joint between said projection and the jacket, and a pulverizer means for injecting fuel into the combustion space of the cylinder which is located in the recess and is supported solely by the projection.

3. In an engine of the character described, the combination of a cylinder, a water jacket surrounding it and having an opening, a recessed projection supported solely by the cylinder and projecting through said opening, said opening being of greater diameter than said projection so as to permit relative independent movements of the jacket and projection under expansion, a casing located in said recess and supported solely by said projection, a pulverizer located in said casing, conduits conveying fuel and air under high pressure thereto, a needle valve in the pulverizer controlling the admission of fuel to the combustion space of the cylinder, a frame also carried by the projection, a lever supported by the frame for opening the valve, and a cam for actuating the lever.

4. In an engine of the character described, the combination of a cylinder having an exterior projection on one side containing an opening communicating with the cylinder, a water jacket surrounding the cylinder having an opening of greater cross-sectional area than that of the projection and through which the projection extends, a casing, means for attaching the casing to the projection so that it may move therewith, a pulverizer in the casing under the influence of temperature changes, a needle valve that extends through the pulverizer for controlling the admission of fuel to the combustion space of the cylinder, a guide for the valve, a lever for actuating the valve, a spring for closing the valve, and a frame that carries the guide, spring and lever and is itself supported by the projection.

5. In an engine of the character described, the combination of a casing having a conical ended bore, a pulverizer mounted therein which fits said bore, said pulverizer having a flange within the bore, a retaining nut that is seated pressure tight on the casing, a coiled compression spring located between the nut and the flange for holding the pulverizer against its seat, and a valve for controlling the passage of fuel from the pulverizer.

[Claims 6 and 7 not printed in the Gazette.]

1,142,441. AUTOGRAPHIC REGISTER. ALBERT KRAUTH, Hamilton, Ohio. Filed July 1, 1912. Serial No. 706,973. (Cl. 211—33.)



1. In an autographic register, paper feeding mechanism, rotative propelling mechanism therefor, a spindle for webbing a length of paper advanced by said feeding mechanism, a series of gears in train connecting said spindle and propelling mechanism, two of said series of gears in parallelism and coaxially journaled, each having annular opposing grooves, friction rings inserted in each of said grooves to frictionally contact with each other, and tension means for yieldingly urging one of said gears toward the second.

2. In an autographic register, a frame, paper feeding mechanism, rotative propelling mechanism therefor, a spindle removably journaled in said frame for webbing a length of paper advanced by said feeding mechanism, a series of gears in train connecting said spindle and paper feeding mechanism with the gear of the train connected with the spindle confined within the frame coaxially with the spindle and removably engaged therewith.

3. In an autographic register, a frame, paper feeding mechanism, rotative propelling mechanism therefor, a spindle removably journaled in said frame for webbing a length of paper advanced by said feeding mechanism, a series of gears in train connecting said spindle and paper feeding mechanism with the gear of the train connected with the spindle confined within the frame coaxially therewith, and two of the gears of the series in parallelism and coaxially journaled and frictionally engaged and yieldingly separable to relieve the spindle of rotative movement under abnormal webbing strains.

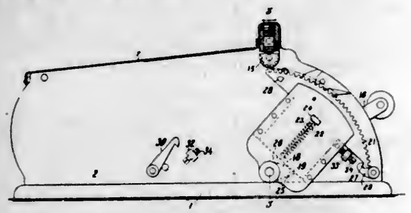
4. In an autographic register, a pair of coacting feed rolls, one of said rolls being of a circumference equal to an interval length of paper to be fed upon each rotation of said roll, a pair of intermeshing gears rotatively connecting said rolls, each gear of a fixed diameter equal to the diameter of the roll, to which it is respectively connected, a spindle removably journaled in said frame for webbing a length of paper advanced by the feeding mechanism, a series of gears in train connecting said spindle with one of said feed roll gears, with one gear of the train connected with the spindle confined within the frame coaxially with the spindle and removably engaged therewith, and two of the gears of the series in parallelism and coaxially journaled and frictionally engaged and yieldingly separable to relieve the spindle of rotative movement under abnormal webbing strains.

5. In an autographic register, a casing, a door thereto, a spindle mounted in the casing and adapted for endwise withdrawal from the casing, and a blade swingly mounted engaging into an annular groove in the spindle and preventing its endwise withdrawal, the free end of said blade divided, one portion thereof engaging through an

orifice in the casing to limit the movement of the blade and the second portion engaged by the closed door to hold the blade in active position.

[Claim 6 not printed in the Gazette.]

1,142,442. MANIFOLDING-MACHINE. ALBERT KRAUTH, Hamilton, Ohio. Filed May 31, 1913. Serial No. 770,956. (Cl. 211—33.)



1. A device of the nature disclosed combining a pair of coacting paper feeding rolls, gears for rotatively connecting the rolls, a gear segment diametrically movable into and out of intermesh with one of said roll gears, engaging therewith in an advancing movement of the gear segment and disengaged therefrom in its normalizin movement.

2. A device of the nature disclosed combining a pair of coacting paper feeding rolls, gears for rotatively connecting the rolls, a swinging toothed member movable radially from its axis for changing its radius travel for alternate engagement and disengagement with one of the gears of said rolls for operating the feed roll for a definite paper advance.

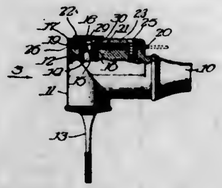
3. A device of the nature disclosed combining rotative coacting paper feeding elements, and an oscillating member movable radially from its axis to operatively connect with said paper feeding elements in an advancing stroke and releasable therefrom in a normalizing stroke for successively feeding invariable constant lengths of paper.

4. A device of the nature disclosed combining a swinging power transmitting member adapted to be reciprocated radially from its axis in different planes in its advancng and normalizing movement, and a member capable of being engaged with said power transmitting element and rotated thereby in an advancing plane of movement of said transmitting member.

5. A device of the nature disclosed combining a member adapted to be oscillated, a power transmitting member having a circumferential contour and movable radially upon said first member to alter its radii planes, said members oscillating unitarily, and a member located relatively to the contour of said power transmitting member to be engaged therewith in one stroke for functioning said last-named member.

[Claims 6 to 19 not printed in the Gazette.]

1,142,443. LATCH FOR DRILL-HEADS OF HAND-PIECES OF DENTAL ENGINES. RICHARD C. KREBS, Chicago, Ill. Filed Oct. 23, 1914. Serial No. 868,178. (Cl. 32—11.)



1. In combination with the hand piece of a dental engine and having a transversely extending slot in its head which is covered by the top of the head, and a chuck therebelow for the reception of a tool shank having a reduced neck at its upper end, arranged to register with said slot, of a latch member for said tool shank, having a main member slidably secured in said slot, and being slotted for the reception of the neck of the shank, and a thumb piece lying outside of the head and connected to said main member, said latch member being held on said head against lateral movement with respect thereto.

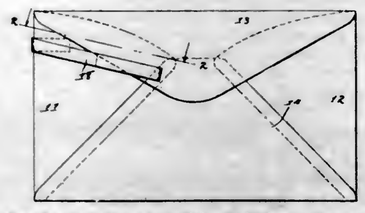
2. In combination with the hand piece of a dental engine and having a transversely extending slot in its head which is covered by the top of the head, and a chuck therebelow for the reception of a tool shank having a reduced neck at its upper end, arranged to register with said slot, of a latch member for said tool shank, having a main member slidably secured in said slot, and being slotted for the reception of the neck of the shank, and a thumb piece lying outside of the head and connected to said main member, said latch member being held on said head against lateral movement with respect thereto, said thumb piece having a downwardly depressed portion engaging the end of said shank.

3. In combination with the hand piece of a dental engine and having a transversely extending slot in its head, and a chuck therebelow for the reception of a tool shank having a reduced neck at its upper end, arranged to register with said slot, of a latch member for said tool shank, having a flat member slidably mounted in said slot, said flat member having a slotted end arranged to receive the reduced neck of the tool shank, and also a slot at its other end, a screw secured in said head and extending through said second named slot, said flat portion having also a thumb piece portion bent up from one edge thereof, and overlying said head, the free edge of said thumb piece portion having a downwardly bent tongue for engaging the side of the head.

4. A latch for hand pieces of dental engines, comprising a flat portion, formed with two lengthwise extending openings, one edge of said portion having a narrow part bent up and terminating in a thumb piece lying approximately parallel with said flat portion, said thumb piece having a downwardly bent tongue opposite said narrow edge portion.

5. A latch for hand pieces of dental engines, comprising a flat portion, formed with two lengthwise extending openings, one edge of said portion having a narrow part bent up and terminating in a thumb piece lying approximately parallel with said flat portion, said thumb piece having a downwardly bent tongue opposite said narrow edge portion, and having also a central, downwardly extending dented portion.

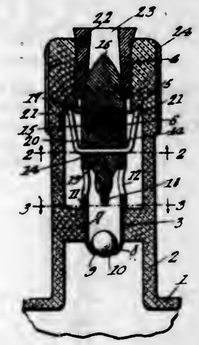
1,142,444. SAFETY-ENVELOP. FRED R. LARSON, New Sweden, Me. Filed June 12, 1914. Serial No. 844,718. (Cl. 229—79.)



1. A safety envelop comprising a body portion, end flaps carried by said body portion, upper and lower side flaps carried by said body portion, said end flaps being folded upon said body portion and said lower side flaps being folded upon said end flaps and secured thereto and being provided with an opening registering with an opening formed in one of said end flaps, a sealing strip secured to the inner face of the perforated end flap and passing through the registering openings, said upper side flaps being secured upon said end flaps and lower side flaps and provided with an opening through which said sealing strip passes, said sealing strip being extended across said upper side flap and perforated end flap and having its end portion carried around and secured to the front face of said body portion.

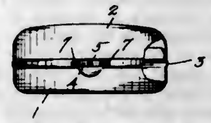
2. A safety envelop comprising a body portion, a wall consisting of a plurality of sections positioned in overlapping relation and provided with registering openings, a sealing strip secured to the inner face of said wall and passing through the registering openings thereof, a closure flap provided with an opening through which said sealing strip passes when said closure flap is in a closed position, said sealing strip being extended across said envelop to the edge thereof and having its end portion carried around and secured to the front face of said body portion.

1,142,445. NON-REFILLABLE BOTTLE. JOSEPH LEMBERG, Charlestown, Mass. Filed Aug. 6, 1914. Serial No. 855,475. (Cl. 215—65.)



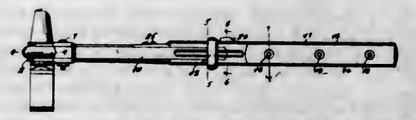
In a non-refillable bottle, a receptacle provided with a primary rib, and with a secondary rib adjacent its mouth; a valve casing extended into the primary rib and provided with a shoulder engaging the primary rib, the casing having a lateral opening and being provided with an opening at its inner end, the casing between spaced peripherally from the secondary rib and being provided at its outer end with a pointed terminal; a ball valve located in the casing and coöperating with the opening at the inner end of the casing; a locking element extended through the casing and terminated in spring pawls engaged beneath the secondary rib; and a stopper having an opening receiving the pointed terminal of the casing.

1,142,446. COVER-OPENER. FRANK J. LEONARD, Olivia, Minn. Filed July 10, 1914. Serial No. 850,139. (Cl. 220—6.)



The combination with a receptacle having a cover telescoped thereon, of a cover eponer comprising a turn button pivotally secured to the receptacle for engagement with the edge of the cover, said turn button having a concave surface fitting a spherical surface on the receptacle.

1,142,447. BLACKSMITH'S TOOL SET. ARTHUR LEE LIGON, Pecos, Tex. Filed Oct. 3, 1914. Serial No. 864,886. (Cl. 145—79.)

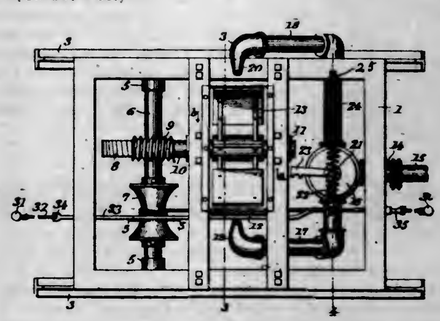


1. A device of the class described comprising a shank, a jaw pivotally mounted thereon, tool gripping means carried by said jaw and shank, said jaw provided with a rearwardly extending arm having an inwardly bent portion, said arm adapted to be swung within said shank, said shank provided with a plurality of longitudinally extending grooves, a clamping band slidably mounted upon said shank and provided with a plurality of longitudinally extending lugs fitting within said grooves for limiting the sliding movement of said band upon said shank, said shank provided with a binding lug adapted to travel upon said inwardly bent portion of said arm and firmly clamp said jaw in a locked position upon said shank.

2. A device of the class described comprising a shank, a jaw pivotaly mounted thereon, tool gripping means carried by said jaw and shank, said jaw provided with a rearwardly extending arm having an inwardly bent portion, said arm adapted to be swung within said shank, said shank provided with a plurality of longitudinally extending grooves, a clamping band slidably mounted upon said shank and provided with a plurality of longitudinally extending lugs fitting within said grooves for limiting the sliding movement of said band upon said shank, said shank provided with a binding lug adapted to travel upon said inwardly bent portion of said arm and firmly clamp said jaw in a locked position upon said shank, a stop lug secured to said shank and projecting through one of said grooves for limiting the sliding movement of said clamping band in one direction upon said shank.

3. A device of the class described comprising a shank, a jaw pivotally mounted thereon, tool gripping means carried by said jaw and shank, said jaw provided with a rearwardly extending arm having an inwardly bent portion, said arm adapted to be swung within said shank, said shank provided with a plurality of longitudinally extending grooves, a clamping band slidably mounted upon said shank and provided with a plurality of longitudinally extending lugs fitting within said grooves for limiting the sliding movement of said band upon said shank, said shank provided with a binding lug adapted to travel upon said inwardly bent portion of said arm and firmly clamp said jaw in a locked position upon said shank, a stop lug provided with an elongated spring body secured to the inner face of said shank, said stop lug provided with an outwardly extending end, one of said grooves provided with an aperture, said outwardly extending end of said stop lug passing through said aperture, and said stop lug adapted to be forced inwardly to permit said clamping band to be moved longitudinally within said groove for permitting said arm of said jaw to be swung outwardly.

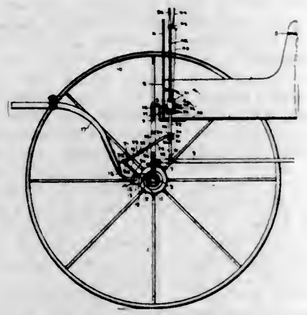
1,142,448. LAWN-SPRINKLER. HENRY L. LORD, Kanopolis, Kans. Filed Feb. 10, 1914. Serial No. 817,902. (Cl. 137—63.)



In a lawn sprinkler, a staked cable, a frame, a drum rotatably mounted in the frame and coacting with the cable to drive the frame in either direction, a spraying wheel operatively connected to drive the drum, a source of water supply connected to the frame, means for directing the water against one side of the wheel, means automatically actuated when the frame reaches one terminal

of the cable for causing a reversal of the direction of flow of the water whereby it impinges against the opposite side of the wheel, and means for cutting off the water to the wheel when the frame reaches the opposite terminal of the cable.

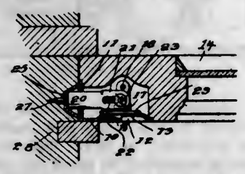
1,142,449. SAFETY ATTACHMENT FOR VEHICLES. HARRY H. MCCORMICK, Grayrocks, Wyo. Filed Apr. 7, 1914. Serial No. 830,212. (Cl. 21—75.)



1. In a device of the character described, the combination with the body, front axle, reach rod and draft appliance of a vehicle, of thill couplings upon said axle, draft releasing means having a rocking arm centrally projecting therefrom mounted in said thill couplings adapted to release said draft appliance, an operating lever pivotally mounted upon said reach rod, a plurality of pivotally mounted link members adjustably connecting said rocking arm to said operating lever to actuate the same through the medium of said operating lever and means mounted in said body adapted to support said operating lever and to allow compensation for the vibration of said operating lever received from said reach rod.

2. In a device of the character described, the combination with a vehicle having a body, a reach rod, a front axle with thill couplings secured thereto, and draft appliances, of draft appliance releasing means mounted in said thill couplings adapted to release said draft appliances, an operating lever pivotally mounted upon said reach rod, pivotally mounted link members adjustably connecting said operating lever to said draft appliance releasing means adapted to be operated thereby, a rack-bar having a plurality of rack members connected to said body, said operating lever operating between said rack members, means slidingly mounted upon said rack members adapted to vertically support said operating lever in such manner as to allow for compensation of vibration received from said reach rod, locking means slidingly mounted in said supporting means adapted to lock said supporting means upon said rack bar, and devices mounted upon said operating lever and connected to said locking means to actuate said locking means.

1,142,450. WINDOW-SASH LOCK. FREDERICK R. MERRELL, Galveston, Tex. Filed Feb. 15, 1915. Serial No. 8,317. (Cl. 16—119.)



1. In a device of the class described, a support including a guide and a base and adapted to be embedded in a sash, said base having a sunken portion with a slot therethrough, a standard extending from the base, an arm pivoted to the standard and extending through the slot with its terminal constantly within the sunken portion of the base, and a holding bolt operating through the guide and pivoted at one end to the arm whereby the bolt is operative by manipulating the portion of the arm which extends through the slot.

2. In a device of the class described, a support including a guide and a base and adapted to be embedded in a sash, said base having a sunken portion with a slot therethrough, a standard extending from the base, an arm pivoted to the standard and extending through the slot with its terminal constantly within the sunken portion of the base, a holding bolt operating through the guide and having a longitudinal slot, a pivot extending from the arm and through the slot of the bolt, and a spring operating to maintain the bolt yieldably in projected position.

1,142,451. GARMENT AND HAT HANGER. CLINTON D. MORRIS, Binghamton, N. Y. Filed Jan. 23, 1913. Serial No. 743,722. (Cl. 211—13.)



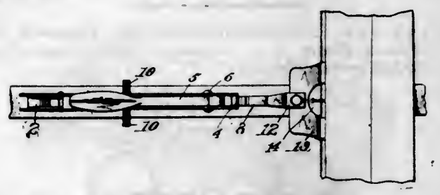
1. In a device of the class described, a supporting bar, a hanger for the supporting bar rotatably mounted in the latter at one end and having a hook at its free end, a hat hook pivotally secured at one end to the rear side of the supporting bar and adapted to be swung over and rest upon the supporting bar, said hat hook being formed with an opening to permit the hat hook to be swung over and embrace the supporting hanger when the latter has been turned so that its hook is disposed in the same direction as the opening in the hat hook.

2. In a device of the class described, comprising a supporting bar a hanger for the supporting bar rotatably mounted in the latter at one end and having a hook at its other end normally disposed in the same direction as the supporting bar, a hat hook formed of spaced parallel members pivotally secured at one end to the rear side of the supporting bar and adapted to be swung over and rest upon the supporting bar, the hook of the hanger having been turned at right angles to the supporting bar to permit the parallel members of the hat hook to pass upon opposite sides of the hanger.

1,142,452. FRICTIONAL PAWL. ARTHUR A. OLIVER, Calera, Ala. Filed Oct. 1, 1912. Serial No. 723,397. (Cl. 74—16.)

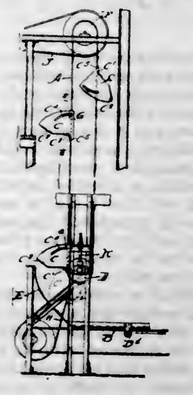
In a device of the class described, a support and bar slidably mounted upon the support and having a V-shaped groove in its upper surface, a dog pivoted to the support, the body of the dog being elongated and pivoted near its forward end, the upper edge being parallel to the bar when the dog is in engagement therewith, the lower edge inclining downwardly and being rounded at its forward

end to form a cam surface being shaped and adapted to fit in the groove in the bar, a spring engaging the lower side of the dog at the rear end thereof to normally hold the dog in engagement with the bar, laterally extending arms car-



ried by the dog at the rear end thereof, said arms extending through slots in the support to allow the dog to be thrown out of engagement with the bar, and means for operating the bar over the support.

1,142,453. STORE-SERVICE CONVEYER SYSTEM. SAMUEL OLSON, Chicago, Ill. Filed Mar. 2, 1914. Serial No. 821,862. (Cl. 193—6.)



1. In combination, a downwardly traveling belt, guiding means at the lower limit of its travel about which the belt passes horizontally, load-supporting means extending from said belt transversely of the direction of travel both during the downward movement and also during the horizontal travel, whereby the load is gravitationally discharged, and a horizontally traveling conveyer disposed below said guiding means in position to receive the load discharged.

2. In combination, a conveyer comprising a downwardly traveling belt, a foot wheel around which said belt passes, a load support connected to the belt at two places separated longitudinally of the latter, whereby said support is caused to extend transversely from said belt both during its downward travel and while rounding the said foot wheel, and a horizontally traveling conveyer disposed under the foot wheel.

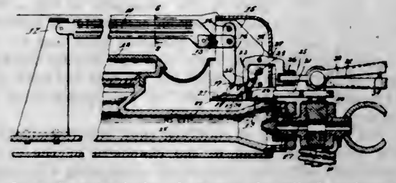
3. In combination, a conveyer comprising a downwardly traveling belt, load-supporting means extending therefrom transversely of the direction of travel, guiding means at the lower limit of such travel about which the belt passes horizontally for discharging its load, a horizontally traveling conveyer disposed below said guiding means in position to receive the load thus discharged, and a fixed guard which extends proximate to the path of said load-supporting means as the belt passes the said guiding means at its lower limit of travel, said guard serving to prevent premature discharge of the load.

4. In combination, a conveyer comprising a downwardly traveling belt, load-supporting means extending therefrom transversely of the direction of travel, guiding means at the lower limit of such travel about which the belt passes horizontally for discharging its load, a horizontally traveling conveyer disposed below said guiding means in position to receive the load thus discharged, and a fixed guard which extends proximate to the path of said load-supporting means as the belt passes the said guiding means at its lower limit of travel, said guard serving to prevent premature discharge of the load and terminating in a sloping portion directed toward the horizontal conveyer.

5. In combination, a conveyer comprising a head wheel, a foot wheel, a continuous belt carried thereon, a horizontally traveling conveyer disposed below the foot wheel, a load support extending transversely from the said belt at its descending ply for conveying a load downwardly and discharging it onto said horizontal conveyer, said load support being hinged to the belt and thus adapted to yield by folding of its supporting surface toward said belt to diminish its extent transversely therefrom.

[Claims 6 to 10 not printed in the Gazette.]

1,142,454. GAS-BURNER AND VALVE-ACTUATING MECHANISM. ANTHONY PAPINI, South Bethlehem, Pa., assignor of forty one-hundredths to Edmund Liedke, Allentown, Pa. Filed May 15, 1914. Serial No. 838,849. (Cl. 67—117.)



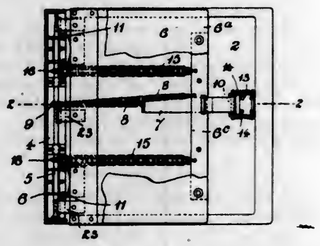
1. In a device of the character described, a burner, a valve for said burner, a valve stem for said valve having its upper end portion provided with a handle, a rack plate carried by said valve stem, resilient means normally holding said valve stem in a closed position, a lever pivotally connected with said valve stem and having its inner end portion provided with a finger, a pivotally mounted U-shaped lever having one arm provided with a slotted head, said finger extending into the slot of said head to permit said U-shaped lever to be moved by said first mentioned lever, a slidably mounted pawl yieldably held in engagement with said rack plate, a rack plate pivotally connected with said pawl and having its free end portion formed into a spring for yieldably holding said second rack plate in a normal position, a cam engaging said second rack plate, a pivotally mounted pawl having its free end portion engaging said second rack plate, and an expansion and contraction plate extending across said burner and connected with said pivotally mounted pawl.

2. In a device of the character described, a burner, a valve, a stem for said valve yieldably held in a closed position, a rack carried by said valve stem, a pawl yieldably held in a position to engage said rack and releasably hold said stem in an open position, a slidably and pivotally mounted rack carried by said pawl, manually operated means for engaging said second rack to move said pawl to a position to release said first mentioned rack, a pawl engaging said second rack, and means effected by heat and cold for operating said second pawl to move said second rack to a position to move said first mentioned pawl to release said first mentioned rack.

3. In a device of the character described a burner, a valve for said burner, a stem for said valve yieldably held in a closed position and having one end portion provided with a handle, a rack carried by said valve stem, an actuating lever pivotally connected with said valve stem and having one end portion provided with a finger, a pivotally mounted U-shaped lever having one arm provided with a slotted head to receive said finger and permit said U-shaped lever to be moved by said first mentioned lever, a slidably mounted pawl yieldably held in engagement with said rack plate, and a rack pivotally connected with

said pawl and constituting a spring element and positioned for engagement by said U-shaped lever when said U-shaped lever is moved out of its normal position by said first mentioned lever.

1,142,455. TEMPORARY BINDER OR LOOSE-SHEET HOLDER. JOHN PAXTON PETTY, Reading, England. Filed Feb. 26, 1914. Serial No. 821,188. (Cl. 129—41.)



1. The combination of clamping bars, chambered covers, a back strip telescoping in the chambers of the covers, clamping bar actuating mechanism comprising a revolving rod running parallel with the clamping bars, and an endless band attached to the back strip and having operative connection with said revolving rod whereby the back strip is adjusted simultaneously and in accordance with the adjustment of the clamping bars.

2. The combination of clamping bars, chambered covers, a back strip telescoping in the chambers of the covers, clamping bar actuating mechanism comprising a revolving rod running parallel with the clamping bars, a sprocket wheel on said revolving rod, a binding chain coöperating with said sprocket wheel arranged through said clamping bars and connected at one end to said back strip, and an endless band attached to the back strip and having operative connection with said revolving rod whereby the back strip is adjusted simultaneously and in accordance with the adjustment of the clamping bars, and the binding chain is prevented from jamming or fouling the clamping bar actuating mechanism.

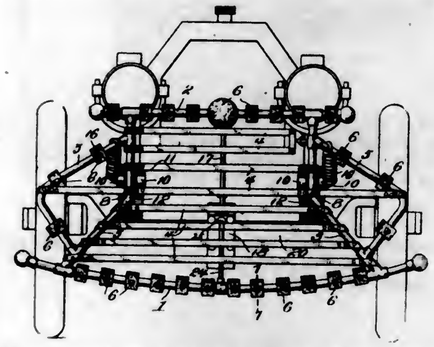
3. The combination of clamping bars, chambered covers, a back strip telescoping in the chambers of the covers, clamping bar actuating mechanism comprising a revolving rod running parallel with the clamping bars, a sprocket wheel on said revolving rod, an endless band attached to the back strip and arranged to co-act with said sprocket wheel to be operated thereby, and a resiliently mounted guide for said band, whereby the back strip is adjusted simultaneously and in accordance with the adjustment of the clamping bars and the endless band is maintained at all times in a taut state.

4. The combination of clamping bars, chambered covers, a back strip telescoping in the chambers of the covers, clamping bar actuating mechanism comprising a revolving rod running parallel with the clamping bars, an endless band attached to the back strip and having operative connection with said revolving rod whereby the back strip is adjusted simultaneously and in accordance with the adjustment of the clamping bars, and yielding means acting on said endless band to maintain the back strip wrapped closely around the clamping bars.

5. The combination of clamping bars, chambered covers pivoted thereto, a back strip telescoping in the chambers of the covers, clamping bar actuating mechanism comprising a revolving rod running parallel with the clamping bars, a sprocket wheel on said revolving rod, a binding chain coöperating with said sprocket wheel arranged through said clamping bars and connected at one end to said back strip, and an endless band attached to the back strip and having operative connection with said revolving rod whereby the back strip is adjusted simultaneously and in accordance with the adjustment of the clamping bars, and the binding chain is prevented from jamming or fouling the clamping bar actuating mechanism, and a resiliently mounted guide for said band.

[Claims 6 to 14 not printed in the Gazette.]

1,142,456. AUTOMOBILE-FENDER. FREDERICK G. POTHIER, Elmira, N. Y. Filed Apr. 7, 1914. Serial No. 830,238. (Cl. 105—127.)



1. In combination, a pivotally mounted fender normally arranged to occupy an upright position, spring means for moving the fender from a normal position when released, restraining means for the fender including a guide having a stop and a rod, and a trip actuated by impact of the fender with an object to release the rod from the said stop, whereby the spring means are adapted to come into play.

2. In combination, a pivotally mounted fender, spring means actuating such fender, a guide having a stop, a rod connected with the fender and adapted to engage such stop to normally hold the fender in given position against the action of the spring means and a trip effecting release of the rod from the stop.

3. In combination, a pivotally mounted fender, spring means actuating such fender, a guide having a stop, a rod connected with the fender and adapted to engage such stop and a trip rod connected with the fender and adapted to effect release of the first mentioned rod from the stop.

4. In combination, brackets, a fender pivotally connected to such brackets, spring means coöperating with the fender, a guide having a stop, a rod connected with the fender and adapted to engage such stop and a trip rod connected with the fender and adapted to effect the release of the first mentioned rod from the stop.

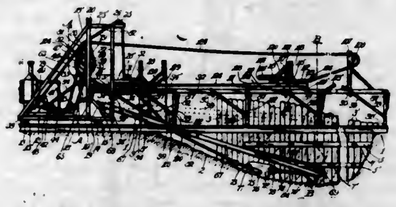
5. In combination, a pivotally mounted fender, spring means actuating such fender, a guide having a stop, a rod connected with the fender and adapted to engage such stop to normally hold the fender in given position against the action of the spring means, means for retaining the rod in contact with said stop, and a trip effecting release of the rod from the stop.

[Claims 6 to 9 not printed in the Gazette.]

1,142,457. EXCAVATING AND CONVEYING APPARATUS. JOSEPH L. POTTER, Indianapolis, Ind. Filed Feb. 3, 1913. Serial No. 745,888. (Cl. 37—19.)

1. Excavating apparatus including a movable structure, a guide sheave mounted on a relatively high portion of the structure, a head sheave provided with a relatively low adjustable support, an excavating bucket, and a hoisting cable connected to the bucket and extending over the guide sheave and under the head sheave and enabling the bucket when hoisted to adjust the head sheave.

2. Excavating apparatus including a movable structure, a guide sheave mounted on a relatively high portion of the structure, a reach-arm hinged to the structure and extending thereunder for sliding support, a tail sheave mounted on the reach-arm, an excavating bucket to operate under the reach-arm, a hoisting cable extending over the guide sheave and connected to the bucket for hoisting the bucket from under the reach-arm, and a return cable extending about the tail sheave and connected also with the bucket for drawing the bucket back under the reach-arm.



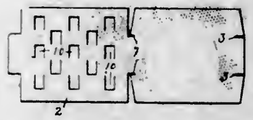
3. Excavating apparatus including a movable structure comprising supporting legs, a guide sheave supported on the structure, a reach-arm having pivotal connection with and extending under the structure to move up or down between the legs or to a depth below the plane of the foot of the legs, the end portion of the reach-arm being constructed as a runner to slide on the ground, a tail sheave mounted on the reach-arm, a bucket, a hoisting cable extending over the guide sheave and connected to the bucket, and a cable connected to the bucket and extending about the tail sheave.

4. Excavating and conveying apparatus including a winding engine, a trestle, an excavating bucket, cables connected with the engine and the bucket, a tail sheave movably supported under the trestle to be raised or automatically lowered and guiding one of the cables for returning the bucket under the trestle, the remaining cable acting to draw the bucket from beneath the trestle, and an adjustable guide sheave for the remaining cable controlled by the bucket.

5. Excavating apparatus including a movable structure comprising an openwork supporting portion, and also an upwardly extending frame having a head sheave frame movably mounted thereon, the supporting portion having a tail sheave mounted therein to move downward below and also with the supporting portion, a guide sheave mounted upon the frame, a head sheave mounted on the head sheave frame, a cable extending over the guide sheave and under the head sheave, a bucket connected to the cable, the bucket controlling the head sheave frame, and a cable extending about the tail sheave and connected to the bucket.

[Claims 6 to 35 not printed in the Gazette.]

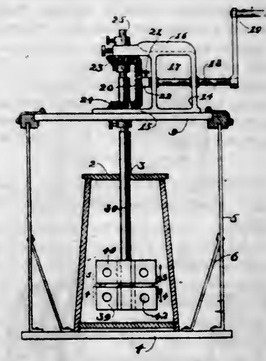
1,142,458. CHALK-HOLDER. IRVIN L. PRITCHARD, Baltimore, Md. Filed Apr. 14, 1914. Serial No. 831,872. (Cl. 120—13.)



1. A chalk holder having a top and a bottom connected at one end, the said top inclining downwardly on opposite sides from where the top joins the upwardly extending edge of the bottom and provided with a number of projections cut from the top and extending downwardly on an incline into the holder.

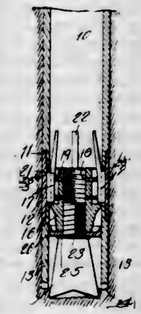
2. A chalk holder having a top and a bottom formed of a single piece of metal joined at one end, the bottom being provided with upwardly-extending opposite ends the upper edges of which are cut on an incline, and the top having a flat central portion and the opposite sides extending downwardly from said flat portion on a line with said inclined edges at the opposite ends of the bottom, said top being provided with projections cut therefrom and extending into the holder on an incline.

1,142,459. CHURN. JOHN T. REESE, Shipman, Va. Filed July 27, 1914. Serial No. 853,513. (Cl. 31—43.)



A churn including a shaft, a squared block secured upon the lower extremity of said shaft, dasher blades secured to the sides of said squared block at right angles to one another and extended in corresponding directions with the inner vertical edge of each blade resting against the inner face of an adjacent blade, a sleeve rotatably mounted upon said shaft and adapted to rotate upon the upper end of said squared block, and dasher blades on opposite sides of said sleeve adjacent the lower end thereof and extending at right angles to one another, the last mentioned blades being extended in opposite directions from the directions in which the first mentioned blades are extended, the inner vertical edge of each of the second mentioned blades being engaged against the inner face of one of the adjacent second mentioned blades and is secured to the same.

1,142,460. DRILL-BIT CLUTCH. JOHN W. ROBY, Hammon, Okla. Filed Apr. 22, 1914. Serial No. 833,760. (Cl. 255—61.)

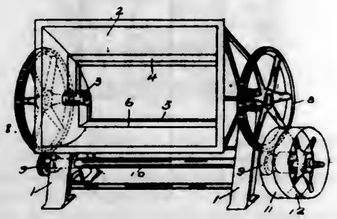


1. In a device of the kind described, the combination with a well casing, of a coupling on the lower end of said well casing, an extension screwed into said coupling, said coupling being provided with longitudinally extending grooves, and a bit carrying member slidable through said casing and provided with pawls adapted to engage the grooves in said coupling.

2. In a device of the kind described, the combination with a coupling member provided with longitudinally extending grooves, of a bit carrying member provided with longitudinally extending grooves corresponding in number to the grooves of said coupling, strips mounted for radial movement in said grooves, springs normally urging said strips outward, and resilient extensions on the upper ends of said strips, said extensions being inclined inwardly.

3. In a device of the kind described, a coupling member provided with longitudinally extending grooves intermediate the ends, a bit carrying member provided with longitudinally extending grooves having radial pin receiving openings extending inwardly therefrom, strips constituting pawls and provided with pins entering said openings, said pawls being received in said grooves, springs surrounding said pins and normally urging said pawls outwardly, and inwardly inclined spring extensions at the upper ends of said strip, said extensions extending above the upper end of said bit carrying member.

1,142,461. DOUGH-MIXING MACHINE. ANTON ROTH, Newport, Ky. Filed Oct. 4, 1909. Serial No. 520,797. (Cl. 107—40.)



1. In a dough mixing machine, the combination with a receptacle, of an agitator therefor, with means for rotating same, said agitator comprising a pair of rectangular frames projecting on opposite sides of the axis of rotation, each frame comprising two side arms and a single longitudinal bar at the ends of the side arms, one frame of a size to closely hug the sides and ends of the receptacle, and the other frame of smaller dimensions to traverse a path through the receptacle within the pathway of the larger frame, and each agitating frame having flat unbroken surfaces on all of its faces with the upper and lower surfaces of each member of the rectangular frame meeting flush with the corresponding surface of its contiguous member.

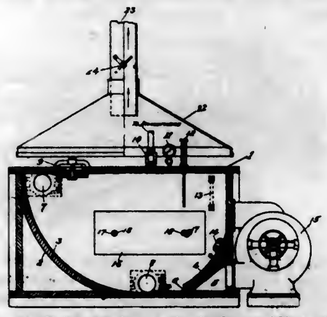
2. In a dough mixing machine, the combination with a receptacle, of an agitator therefor, with means for rotating same, said agitator comprising a pair of rectangular frames projecting on opposite sides of the axis of rotation, each frame comprising two side arms and a single longitudinal bar at the ends of the side arms, one frame of a size to closely hug the sides and ends of the receptacle, and the other frame of smaller dimensions to traverse a path through the receptacle within the pathway of the larger frame, and each agitating frame having flat unbroken surfaces on all of its faces, with the front faces of the longitudinal portions of the frames beveled to form cutting edges with the upper and lower surfaces of each member of the rectangular frame meeting flush with the corresponding surface of its contiguous member.

1,142,462. ORE-DISINTEGRATOR. LEON ST. D. ROYLANCE, San Francisco, Cal. Filed Dec. 27, 1912. Serial No. 738,830. (Cl. 83—65.)

1. In an ore disintegrator, a tank for holding the solution containing the ore, an abrading surface within said tank, electrodes positioned within said tank and means for causing the contents of said tank to circulate to impinge upon said abrading surface and pass between said electrodes.

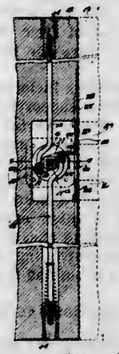
2. In an ore disintegrator, a tank for holding the solution containing the ore, an abrading surface within said tank, electrodes positioned within said tank, a compartment provided with an elongated opening to said tank positioned opposite said abrading surface, and means for drawing solution from the tank and returning the same to the tank by discharging into said compartment.

3. In an ore disintegrator, a tank for holding the solution containing the ore, an abrading surface within said tank, means for producing chemically active zones within said tank and mechanism for circulating the solution and ore to impinge upon said abrading surface and pass through said zones.



4. In an ore disintegrator, a tank for holding the solution containing the ore, an abrading surface within said tank, electrodes positioned within said tank, means for causing the contents of said tank to circulate to impinge upon said abrading surface and pass between said electrodes and automatic means for changing the polarity of said electrodes.

1,142,463. FASTENING MECHANISM FOR DOUBLE DOORS. ARTHUR F. SHEPHERD, Columbus, Ohio. Filed Nov. 16, 1914. Serial No. 872,308. (Cl. 16—61.)



1. An attachment for one of a pair of doors, comprising a manually operated end-bolt-throwing member mounted on said door, a baffle movable on the edge portion of the same door and apertured to receive a lock bolt on the companion door, means being provided for confining and guiding sid baffle, and connections between said bolt throwing member and baffle, whereby a movement of said member to its end bolt retracting position locates said baffle in the path of the said lock bolt to prevent the interlocking of the two doors, said baffle being formed to receive the said lock bolt and permit the interlocking of the doors when the said member is in its end bolt projecting position.

2. An attachment for one of a pair of doors, comprising a manually operated spindle journaled in bearings on the door and oppositely projecting arms on said spindle connected with end bolts at the upper and lower ends of the door, one of said arms being provided with a tappet, and a baffle movable on the edge portion of the same door and apertured to receive a lock bolt on the companion door, said baffle having ears engaged with said tappet and being movable by the latter into and out of the path of said lock bolt, means being provided for confining and guiding said baffle.

3. An attachment for one of a pair of doors, comprising a manually operated end-bolt-throwing member mounted on the end-bolt-carrying door, a baffle movable on the edge portion of the same door and apertured to receive a lock bolt on the companion door, a striker plate attached to the end-bolt-carrying door, and apertured to receive said lock bolt, said plate constituting a means for confining and guiding said baffle, and operating connections between said bolt throwing member and baffle, said baffle being formed to alternately cover and uncover the apertures in the striker plate.

4. An attachment for one of a pair of doors, comprising a manually operated end-bolt-throwing member mounted on the end-bolt-carrying door, a baffle movable on the edge portion of the same door and apertured to receive a lock bolt and a latch bolt on the companion door, means being provided for confining and guiding said baffle, and operating connections between the said member and baffle, whereby the baffle may be held alternately in the paths of said lock and latch bolts to prevent the interlocking of the doors, and out of said paths, the baffle being formed to receive the lock and latch bolts and permit the interlocking of the doors.

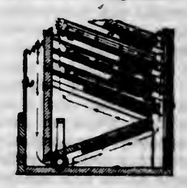
5. An attachment for one of a pair of doors, comprising a pair of bearings attached to said door, a manually movable spindle journaled in said bearings, oppositely projecting arms on said spindle, end bolts at the upper and lower ends of the door, rods connecting said bolts with the spindle arms, a baffle movable on the edge portion of the door and apertured to receive a locking bolt and a latch bolt on the companion door, operating connections between said baffle and one of the spindle arms, and a fixed striker plate also apertured to receive said locking bolt and latch bolt, said baffle being formed to alternately cover and uncover the apertures in the striker plate.

1,142,464. NUT-LOCK. OSCAR C. SPARKS, Elwood, Ind. Filed July 30, 1913. Serial No. 782,033. (Cl. 151—19.)

A nut lock including, in combination with a bolt, an auxiliary nut threaded on the bolt and having a portion of its wall removed to provide a split nut adapted for contraction under pressure, the outer periphery of said nut being smooth and tapering and having one of its ends enlarged to provide an annular flange, one of the ends of said flange being extended and having a spherical enlargement formed on the free terminal of said extended portion, and a main nut threaded on said bolt having its inner face tapering inwardly toward the bore of the nut and provided with recesses in said tapering portion, the latter facilitating the entrance of the auxiliary nut for contracting the latter to snugly engage the bolt, the finger of the extended portion of said auxiliary nut engaging any of said recesses to prevent movement of the main nut in a counter direction.

1,142,465. FRUIT-DRIER. JAMES H. SPRAGUE, Clarkston, Wash. Filed May 13, 1914. Serial No. 838,342. (Cl. 34—3.)

1. A drying cabinet comprising a receptacle, a metallic hood connected to the top and rear walls thereof and extending thereabove, a partition extending centrally of the hood, a second partition abutting the first mentioned partition and dividing the said receptacle into communicating drying, dehydrating, and heating chambers, heating coils disposed within the said drying and heating chambers, and automatic thermal controlled means for admitting fresh air to the receptacle.



2. A drying cabinet comprising a receptacle including communicating drying, dehydrating, and heating chambers, said dehydrating chamber being defined by a metallic hood, means for conducting away the moisture precipitated upon said hood, heating coils disposed within the said drying and heating chambers, means for supporting trays above the said heating coils within the drying chamber, and automatic means for introducing and controlling the introduction of fresh air within the said receptacle.

3. A drying cabinet comprising a receptacle including communicating drying, dehydrating, and heating chambers, said dehydrating chamber being defined by a metallic hood, means for conducting away the moisture precipitated upon said hood, heating coils disposed within the said drying and heating chambers, means for supporting trays above the said heating coils within the drying chamber, and automatic means for introducing and controlling the introduction of fresh air within the drying chamber.

4. A fruit drier comprising a cabinet, said cabinet including bottom and side walls, a top of relatively less width than the bottom, a metallic hood U-shaped in cross section connected to the top and bottom walls, a heat insulating partition extending vertically through the said hood, a second partition inclined at an angle to the horizontal, abutting the first mentioned partition and defining therewith communicating heating, drying and dehydrating chambers, a fresh air inlet pipe located in the niche at the lower extremity of the drying chamber, a thermostatic valve controlling the admission of air through said air inlet pipe, heating coils disposed within the heating and drying chambers, a moisture collecting receptacle adjacent the lower extremity of the dehydrating hood collecting the moisture precipitated thereon, and means within the drying chamber for supporting fruit and allied material above said heating coils.

5. A drying cabinet comprising a receptacle, a metallic plate forming one wall thereof, a partition having a relatively low coefficient of thermal conductivity extending parallel to said metallic wall and dividing said receptacle into communicating drying and dehydrating chambers, heating coils disposed within said drying chamber, means disposed within the dehydrating chamber adapted to conduct away the moisture precipitated upon the said metallic plate, and automatic thermally controlled means for admitting fresh air to said receptacle.

[Claims 6 and 7 not printed in the Gazette.]

1,142,466. TRUSS-PAD. FRANCIS J. STUART, St. Louis, Mo. Filed Feb. 17, 1914. Serial No. 819,257. (Cl. 128—26.)

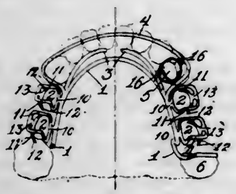


1. A truss pad comprising a substantially flat base plate having a flat inner face and a central projection from its outer face, said projection consisting of a hollow

boss of approximately frusto-conical form, said base plate having a circular opening therethrough communicating with the cavity of the boss, and said boss being provided with an opening in the apex thereof, said boss extending throughout its area beyond the outer face of the base plate, and a flat circular disk peripherally secured within the circular opening in the base plate so as to lie wholly within said opening and having a flat outer face lying flush with the rear face of said base plate.

2. A truss pad comprising a substantially flat base plate having a flat inner face and a central projection from its outer face, said projection consisting of a hollow boss of approximately frusto-conical form, said base plate having a circular opening therethruogh communicating with the cavity of the boss and formed with screw threads therein, the said boss being provided with an opening in the apex thereof and extending throughout its area beyond the outer face of the base plate, and a flat circular disk having peripheral threads engaging the threads of the circular opening in the base plate, whereby said disk is secured wholly within the opening, the disk being provided with a flat outer face lying flush with the rear face of said base plate.

1,142,467. ORTHODONTIA APPLIANCE. WILLIAM ERNEST WALKER, New Orleans, La.; J. Mort Walker administrator of said William Ernest Walker, deceased. Filed Dec. 30, 1912. Serial No. 739,382. (Cl. 32—19.)



1. In orthodontia appliances, an anchoring member having a lingual bulge embracing part, connecting parts in position to overlie the inter-cuspal notches, and gripping parts comprising claws adapted to enter the embrasures beneath the approximal bulge on the buccal or labial half of the tooth.

2. In orthodontia appliances, an anchoring member having a lingual bulge embracing part, connecting parts in position to overlie the inter-cuspal notches, and gripping parts comprising claws adapted to enter the embrasures beneath the approximal bulge on the buccal or labial half of the tooth; said lingual bulge embracing part comprising a closed loop deflected gingivally from the connecting parts.

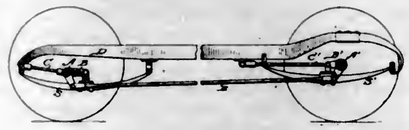
3. In orthodontia appliances, an anchoring member having a lingual bulge embracing part, connecting parts in position to overlie the inter-cuspal notches, and gripping parts comprising claws adapted to enter the embrasures beneath the approximal bulge on the buccal or labial half of the tooth; said lingual bulge embracing part comprising a closed loop deflected gingivally from the connecting parts; and there being a carrying member connected with said anchoring member through the medium of said closed loop.

4. An orthodontia appliance comprising a carrying member, and posterior and anterior anchorages for said carrying member; each of said anchorages comprising a lingual bulge embracing part, connecting parts overlying the inter-cuspal notches, and gripping claws entering the embrasures beneath the approximal bulges on the buccal or labial halves of the teeth.

5. An orthodontia appliance comprising a carrying member, and posterior and anterior anchorages for said carrying member; each of said anchorages comprising a lingual bulge embracing part, connecting parts overlying the inter-cuspal notches, and gripping claws entering the embrasures beneath the approximal bulges on the buccal or labial halves of the teeth; the posterior anchorage members having closed loops on the outer sides with which said gripping claws are connected, and the anterior anchorage members having their claws connected directly with the connecting parts.

[Claims 6 to 25 not printed in the Gazette.]

1,142,468. VEHICLE SUSPENSION. ERNEST E. WEMP, Pontiac, Mich. Filed Mar. 7, 1914. Serial No. 823,075. (Cl. 21—105.)



1. In a vehicle, a load carrying platform, a front and a rear axle, front and rear springs connected to the platform, rotatable means having connection with each axle and the corresponding spring, a connection between said rotatable means, and a connection between each axle and the platform.

2. In a vehicle, the frame, a front and rear axle, bell cranks respectively pivoted to the front and rear axles, drag-links connecting one arm of the front bell crank with an arm of the rear bell crank, and front and rear springs connected with the respective bell cranks and to the frame.

3. In a vehicle, the frame, a front and rear axle, bell cranks respectively pivoted to the front and rear axles, drag-links connecting one arm of the front bell crank with an arm of the rear bell crank, front and rear springs connected with the respective bell cranks and to the frame, and radius rods attached from the front and rear axles to the frame.

4. In a vehicle, the frame a front and rear axle, bell cranks respectively pivoted to the front and rear axles, transversely disposed springs respectively connected with an arm of each front bell crank and with the frame,—and with an arm of each rear bell crank and with the frame, and drag links respectively connecting an arm of each front bell crank with an arm of each rear bell crank.

5. In a vehicle, a load carrying platform, front and rear axles, springs at each end of the platform, bell crank levers at each end of the vehicle having connection with the platform and operable to provide variable unbalanced opposing forces, and means coöperating with the bell crank levers and the platform whereby the opposing forces counteract each other and produce equilibrium.

1,142,469. TRAP FOR DRAIN-PIPES. JOHN L. WERRBACH, Chicago, Ill. Filed Mar. 31, 1913. Serial No. 757,851. (Cl. 182—12.)

1. A trap having the usual inflow and discharge passages and interposed liquid seal chamber, in combination with a by-pass connection between the lower part of the liquid seal chamber of the trap and the discharge passage thereof, a valve above the trap controlling the inflow passage, a valve controlling the by-pass connection, and operative connections between said valves whereby they are made to move together, the one opening as the other closes, and vice versa.

2. A trap having the usual inflow and discharge passages and interposed liquid seal chamber, in combination with a by-pass connection between the lower part of the liquid seal chamber of the trap and the discharge passage thereof, a rotary valve above the trap controlling the inflow pipe, a rotary valve controlling said by-pass and having its port arranged at right angles to the port of the first named valve, a handle operatively connected with one of said valves, and operative connections between said handle and the other valves, whereby both valves are compelled to move together.

3. In a trap for drain-pipes, the combination with the inflow pipe, the outflow pipe, the liquid seal-chamber, and the siphon connection between said chamber and the outflow pipe, of a rotary valve controlling the inflow pipe, a by-pass pipe connected with the lower part of the seal-chamber and leading thence to the outflow pipe, a rotary valve controlling said by-pass pipe, a hand lever connected with one of said valves, an angularly-extending arm connected with the other valve, and a link connecting said hand lever and arm, substantially as described.



4. The combination with a fluid receiving member of an inlet conduit therefor, a valve in said inlet conduit, an outlet conduit, a bypass interposed between said member and outlet conduit, a valve member in said bypass having its port arranged at right angles to that of the first named valve and operative connections between said valves to move the same in unison, whereby the one valve is opened when the other is closed.

5. A drain pipe consisting of upper and lower sections and a connecting trap, an angular bypass comprising one member leading downward from the lower part of the trap and closed by a removable cap and a member connecting said first named member with the lower section of the pipe, a rotary valve controlling the upper section of the pipe, a rotary valve controlling the bypass and having its port at right angles to the first named valve, a handle for operating one of said valves, and means connecting said valves to move them in unison.

[Claim 6 not printed in the Gazette.]

1,142,470. TRACTION-WHEEL FOR MOTOR-PROPELLED VEHICLES. EDWIN M. WHEELOCK, Winona, Minn. Filed July 23, 1913. Serial No. 780,688. (Cl. 152—9.)



A traction wheel comprising a circular rim, a series of holding members secured to the rim and severally spaced one from the other, and a series of wooden blocks having the grain running radially with respect to the wheel removably secured to said rim by said holding members and projecting outwardly beyond the limits thereof so that when the blocks are broomed out from the use of the wheel the broomed-out heads of the blocks will fill said spaces and adjacent heads will contact to form a continuous bearing surface for the wheel.

1,142,471. PIN FOR CHILDREN'S BUILDING-BLOCKS. HARRIE C. WHITE, North Bennington, Vt. Filed Apr. 14, 1915. Serial No. 21,195. (Cl. 46—35.)

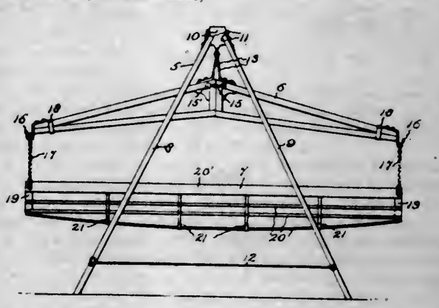
1. A pin for removably joining children's building blocks together, made of relatively thin spring metal formed in the shape of a cylinder, and provided with a longitudinal slot, and inwardly turned lugs on said pin for pointing the end thereof.



2. A pin for removably joining children's building blocks together, made of relatively thin spring metal formed in the shape of a cylinder, and provided with a longitudinal slot throughout its entire length, and inwardly turned lugs made integral with said pin for pointing the end thereof.

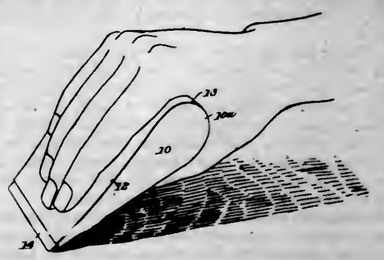
3. A pin for removably joining children's building blocks together, made of relatively thin spring metal formed in the shape of a cylinder, and provided with a longitudinal slot throughout its entire length and inwardly turned lugs made integral with said pin for pointing the end thereof and a hole in said pin directly opposite said longitudinal slot.

1,142,472. SHIP'S BERTH. PRINCE EDWARD WHITE, Perth Amboy, N. J. Filed May 9, 1914. Serial No. 837,483. (Cl. 114—192.)



A foldable berth support comprising a cross piece, frames hingedly connected with the opposite sides thereof, hinge members pivotally connected with the intermediate part thereof and having angularly disposed end portions, beams fixed to the free end portions of the hinge members and adapted to abut against each other at their inner ends, and berth supports carried at the outer ends of the beams.

1,142,473. TOOL. EDWIN C. WORNS, Rutherford, N. J. Filed May 2, 1913. Serial No. 765,033. (Cl. 145—47.)



1. A tool of the kind described, consisting of a sheet metal body thickened vertically at its rear end, and decreasing in thickness to the front end, the body at the back being broad to extend substantially the full width of the hand of the user, and of decreasing width toward the front, the rear end being rounded vertically and merg-

ing in curved lines with the top and bottom, the said top and bottom presenting broad surfaces extending from the front to the back end and the top being concaved longitudinally and inclining toward the bottom from rear to front, the concaved top presenting a gradual curve extending from the rounded back to near the front end; there being a rigid blade ranging across the front end of the body at the juncture of the top and bottom and directly secured to the body between the sheet metal top and bottom.

2. A tool of the kind described, consisting of a body thickened vertically at its rear end and decreasing in thickness at the front end, the body at the back being broad to extend substantially the full width of the hand of the user, the rear end of the body being rounded vertically and adapted to bear against the palm of the hand, the top and bottom presenting broad surfaces extending from the front to the back end, and the top being concaved longitudinally and inclining from the rear to the front, the concavity of the said top terminating at the rear end adjacent to the rounded back and terminating forwardly adjacent to the front end of the body: there being a rigid blade ranging across the front end of the body at the juncture of the top and bottom.

1,142,474. STORE-SERVICE APPARATUS AND THE LIKE. WALTER C. WRIGHT, Atlanta, Ga., assignor to The Lamson Company, Boston, Mass., a Corporation of New Jersey. Filed Jan. 26, 1914. Serial No. 814,264. (Cl. 186—22.)



1. Conveying apparatus comprising a way, two stations along said way, a traveler to move guidedly along said way, said traveler having provisions for supporting an article to be conveyed from one to the other of said stations, means to propel said traveler, and pivoted means to automatically kick said article out of said traveler at either of said stations, according to which it is traveling toward.

2. Conveying apparatus comprising a way, two stations along said way, a traveler to move guidedly along said way, said traveler having provisions for supporting an article to be conveyed from the first to the second of said stations, means to propel said traveler, and kicking means, a portion of which is mounted for movement at an angle to the line of travel of said traveler at said second station, for automatically abruptly tossing said article out and clear of said traveler at said second station.

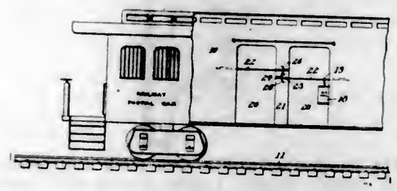
3. Conveying apparatus comprising a way, two stations along said way, a traveler to move guidedly along said way, said traveler having provisions for supporting an article to be conveyed from the first to the second of said stations, means to propel said traveler, and kicking means for forcibly sliding said article out of said traveler sideways with respect to the direction of said way and abruptly casting said article clear of said traveler, at said second station.

4. Store service apparatus comprising a way, a traveler to travel thereon, said traveler having resilient means to retain an article in position thereon, means to propel said traveler along said way, and means to automatically eject said article from said resilient means when said traveler reaches a determined point in its travel along said way.

5. Store service apparatus comprising a way, a traveler to travel thereon, said traveler having resilient means to retain an article in position thereon, means to propel said traveler along said way, and means to automatically eject said article from said resilient means when said traveler reaches a determined point in its travel along said way, said ejecting means including a kick-off device and substantially stationary means at said determined point for actuating said device.

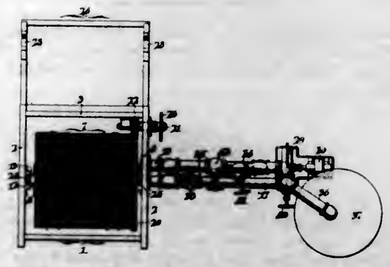
[Claims 6 to 11 not printed in the Gazette.]

1,142,475. MAIL-DELIVERY APPARATUS. JOHN ZOLA, Trenton, N. J. Filed July 7, 1914. Serial No. 849,503. (Cl. 258—17.)



A device of the class described comprising a support, curved rods pivoted in different vertical planes to one side of said support to afford space for the operating means therefor and extending outwardly therefrom in opposite directions, handle extensions upon said rods, toothed racks upon said support, and spring pressed adjusting pawls carried by said handles for engaging the desired tooth of said rack when said arms are in their adjusted positions.

1,142,476. CIRCULATING DYEING-MACHINE. THOMAS ALLSOP and WALTER W. SIBSON, Philadelphia, Pa., assignors to The Philadelphia Drying Machinery Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Apr. 25, 1914. Serial No. 834,297. (Cl. 8—18.)



1. A dyeing machine including in combination, a receptacle for the dye liquor, a rotatable perforated drum for said receptacle in which the material to be dyed is placed, radial partitions in said drum for dividing the same into separate compartments, means located outside of said receptacle and connected to the center part of the drum and to the receptacle outside of said drum for circulating the liquor through the compartments in the drum.

2. A dyeing machine including in combination, a receptacle for the dye liquor, a rotatable perforated drum for said receptacle in which the material to be dyed is placed, radial partitions in said drum for dividing the same into separate compartments, means located outside of said receptacle and connected to the center part of the drum and to the receptacle outside of said drum for circulating the liquor through the compartments in the drum, and means whereby the direction of circulation of the dye liquor may be reversed.

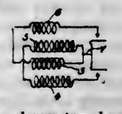
3. A dyeing machine, including in combination a receptacle for the dye liquor, means located outside of said receptacle and connected thereto for circulating the dye liquor in said receptacle, a rotatable perforated drum located in said receptacle for the material to be dyed, said rotatable drum including perforated end walls, a perforated cylindrical central section, and a perforated outer cylindrical section.

4. A dyeing machine, including in combination a receptacle for the dye liquor, means located outside of said receptacle and connected thereto for circulating the dye liquor in said receptacle, a rotatable perforated drum located in said receptacle for the material to be dyed, said rotatable drum including perforated end walls, a perforated cylindrical central section, a perforated outer cylindrical section, the compartment formed between said cylindrical section being divided by radial partitions into separate compartments, and said outer cylindrical section having doors whereby access may be had to each compartment.

5. A dyeing machine, including in combination a receptacle for the dye liquor, means located outside of said receptacle and connected thereto for circulating the dye liquor in said receptacle, a rotatable perforated drum located in said receptacle for the material to be dyed, said drum consisting of a central cylindrical perforated section and an outer cylindrical perforated section spaced therefrom, radial partitions extending from said central cylindrical perforated section to said outer perforated section and forming separate compartments, said circulating means including a pipe connected with said receptacle and having a passage leading to the interior of said inner perforated cylindrical section, and a pipe connected with the lower part of said receptacle.

[Claims 6 to 10 not printed in the Gazette.]

1,142,477. ANNUNCIATOR-DROP. CHARLES AUTH, New York, N. Y., assignor to Emma Louise Auth, Brooklyn, N. Y. Filed Dec. 29, 1908. Serial No. 469,900. (Cl. 177—329.)



1. In a device of the character described, the combination of an armature for operating a signal, separate electro-magnetic devices for operating upon different portions of the armature, each said device having a plurality of windings repellent and attractive to the armature severally, and means for establishing a circuit simultaneously through a repellent winding of one electromagnetic device and an attractive winding of the other.

2. In a device of the character described, an electromagnetic device for operating a signal, said device being provided with opposite windings capable of reversing the polarity of the said device to operate the signal in different directions and means for throwing into a circuit the windings running in one direction only at a given time.

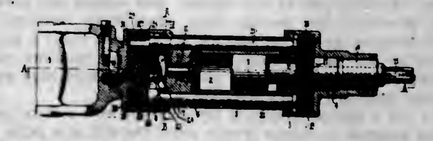
3. In a device of the character described, an armature for operating a signal, separate electro-magnetic devices for operating upon different portions of the armature, each said electro-magnetic device having a plurality of windings repellent and attractive to the armature severally, the repellent windings having fewer turns than the attractive windings, and means for establishing a circuit simultaneously through a repellent winding of one said device and an attractive winding of the other.

4. In a device of the character described, an armature, a repellent electro-magnetic device for operating upon one portion thereof, an attractive electro-magnetic device for operating upon another portion thereof, said devices having cores, and another magnetic device for operating upon the armature connected to the cores of the electromagnetic devices, said repellent electromagnetic device having a smaller magnetic force than the attractive electromagnetic device.

5. In a device of the character described, an armature, a repellent electro-magnetic device for operating upon one portion thereof, an attractive electro-magnetic device for operating upon another portion thereof, said devices having cores, and a permanent magnet for operating upon the armature connected to the cores of the electro-magnetic devices, said repellent electro-magnetic device having a smaller magnetic force than the attractive electromagnetic device.

[Claims 6 to 9 not printed in the Gazette.]

1,142,478. PERCUSSIVE TOOL. LEWIS C. BAYLES, Easton, Pa., assignor to Ingersoll-Rand Company, New York, N. Y., a Corporation of New Jersey. Filed Feb. 3, 1912. Serial No. 675,290. (Cl. 121—20.)



1. In a percussive tool, a chuck and means for rotating it comprising two shafts connected to the chuck and a piston arranged to be alternately clutched to and released from the shafts.

2. In a percussive tool, a chuck and means for rotating it comprising two shafts connected to the chuck and a fluid pressure operated piston arranged to be alternately clutched to and released from the shafts.

3. In a percussive tool, a chuck and means for rotating it comprising two shafts, gears connecting the shafts and chuck, a piston and clutch connections between the piston and shafts arranged to be alternately operated.

4. In a percussive tool, a chuck and means for rotating it comprising two shafts, gears connecting the shafts and chuck, a fluid pressure operated piston and clutch connections between the piston and shafts arranged to be alternately operated.

5. In a percussive tool, a chuck and means for rotating it comprising two shafts extending longitudinally from front to rear of the tool, driving connections between the chuck and the front ends of the shafts, a piston and driving connections between the piston and the rear ends of the shafts arranged to be alternately operated.

[Claims 6 to 16 not printed in the Gazette.]

1,142,479. FASTENING-CLIP. CHARLES W. BECK, Detroit, Mich., assignor to The Beck-Frost Corporation, a Corporation of Michigan. Filed July 21, 1913. Serial No. 780,107. (Cl. 173—269.)



1. In combination with a tubular body portion adapted to engage about an insulated wire end, a tongue member extending from one edge thereof transversely of the axis of the body portion, and of the wire with which it is adapted to be connected, a pair of resilient branches rising over the end of said tongue member to a plane nearer the extended central axis of said tubular body portion, with their outer portions extending in parallel relation to the extended axis of said tubular body portion, the oppositely

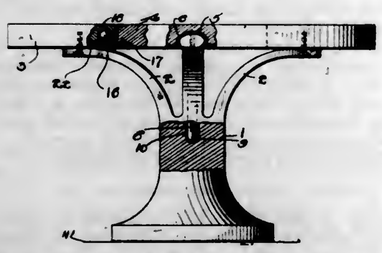
located edges of said resilient branches being adapted to engage about an interposed stem to a degree sufficient to resist unintended disconnection therefrom.

2. A fastening clip, comprising a body portion adapted to engage about the end of an insulated wire, a tongue portion extending from one side of said body portion transversely of the axis thereof, to which the exposed wire end is adapted to be connected, and a pair of resilient jaw members rising over the end portion of said tongue member toward the axis of the wire, their outer portions extending in a direction parallel with the axis of the wire and having their oppositely disposed end portions angularly inclined toward one another for resilient engagement about an interposed stem.

3. In a fastening clip, the combination, with a tubular base portion adapted to engage about the end of a cable, of a tongue member extending from one side thereof across the end of the cable, with whose wire it is adapted to be connected, a pair of resilient branches rising over the end of said tongue member and extending outwardly in a plane nearer than the extreme end of said tongue member to the extending axis of said tubular base portion and parallel therewith, the oposing outer edges being inclined to one another, and being adapted to be forced about a stem member for resilient engagement thereof by opposing portions of said branches just within said inclined edge portions, substantially as described.

4. In a fastening clip, in combination with a body portion adapted to engage closely about the end of a cable, a tongue member projecting therefrom across the end of the cable, with which the wire within the cable is adapted to be connected, and a pair of resilient branch members rising over the end of said tongue member toward the extended axis of said body portion, and extending thence in a plane parallel therewith, the opposed outer edges of said branch members being adapted to be forced against and about an interposed stem to effect resilient engagement therewith when the stem has been forced to the limit of its possible travel therebetween.

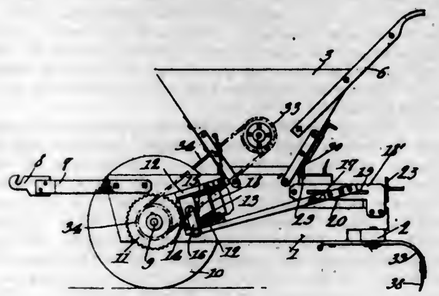
1,142,480. SELF-SERVING TABLE. JOSEPH M. BELL, Mount Gilead, Ohio. Filed Jan. 12, 1914. Serial No. 811,690. (Cl. 45—26.)



A table of the class described comprising a base, a plurality of diverging arms formed upon the upper end of said base, an annular top carried thereby and provided with a rotating central portion, said top provided with a rabbet around the inner edge upon the under face thereof, a race plate carried within said rabbet, a metallic race plate provided with an inwardly extending flange secured to the under face of said rotating central portion, bearings interposed between said race plates, said central pocket having a central pocket formed in the under face thereof, a metallic lining thereupon, and a supporting knob fitting within said central pocket.

1,142,481. PLANTER. LUTHER L. BEVIS, Franklin, Ga. Filed Aug. 14, 1914. Serial No. 856,791. (Cl. 111—7.)

1. A planter including a hopper having an outlet, a supporting wheel, a gear revoluble with the supporting wheel, a frame adjustable toward and from the gear, a gear revoluble within the frame and movable into and out of mesh with the first named gear, a seed receiving trough adjustably mounted under the hopper for receiving seeds from the outlet, a member mounted for reciprocation within the trough, and means operated by the gear on the frame for reciprocating said member.



2. The combination with a hopper having a seed outlet, of a trough slidably mounted under the outlet and supported by the hopper, means depending from the hopper and adjacent the front end of the trough for limiting the forward movement of the seeds within the trough, a seed conveying member slidably mounted within the trough, a supporting wheel, and means operated by the supporting wheel for reciprocating said member.

3. In a planter, the combination with a hopper having an outlet, of a trough adjustably connected to the bottom of the hopper and extending under the outlet, means for holding said trough against longitudinal movement, means depending from the front portion of the hopper and into the path of the seeds within the trough, a member slidably mounted in the trough for shifting the seeds longitudinally thereof, a guard secured within the trough and fitting snugly upon said member, a supporting wheel, means actuated thereby for reciprocating the member.

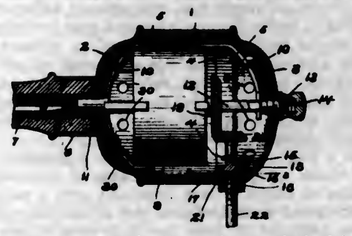
4. A planter including a hopper having an outlet, agitating means within the hopper, a supporting wheel, means operated thereby for actuating said agitating means, a trough supported by and extending under the hopper, said trough being adjustable longitudinally, means upon the hopper and trough for holding said trough against movement relative to the hopper, an ejecting member slidably mounted within the trough, means operated by the supporting wheel for reciprocating said member, and means connected to the front portion of the hopper for engaging seeds projected forwardly by said member.

5. In a planter the combination with a hopper having an outlet in the bottom thereof, of a trough adjustably connected to and supported by the hopper, means upon the hopper for engaging the trough to hold it against longitudinal movement, there being outlet openings in the rear portion of the bottom of the trough, a plunger slidably mounted within the trough, a deflecting apron depending from the hopper and adjacent the front end of the trough, a supporting wheel, and means operated by said wheel for reciprocating the plunger.

1,142,482. PORTABLE ELECTRIC MOTOR. FLOYD BISCH, Philadelphia, Pa. Filed Mar. 9, 1914. Serial No. 823,551. (Cl. 172—36.)

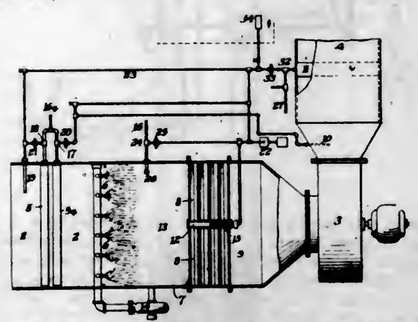
1. A device of the character described, comprising a casing, ends removably secured to the casing, a handle secured to one end of the casing, said casing and one end thereof having half bearings formed therein, a driven shaft having an enlargement thereon, said enlargement located in the bearing and having flanges at opposite ends of the bearing, a motor in the casing, a shaft driven by the motor, said motor shaft and first-mentioned shaft connected by miter gears, and means for connecting a tool to said enlargement, substantially as described.

2. A device of the character described, comprising a casing, ends removably secured to the casing, a handle secured to one end of the casing, said casing and one end thereof having half bearings formed therein, a driven shaft having an enlargement thereon, said enlargement located in the bearing and having flanges at opposite ends



of the bearing, a motor in the casing, a shaft driven by the motor, said motor shaft and first-mentioned shaft connected by miter gears, said enlargement having a threaded tool-receiving socket therein, substantially as described.

1,142,483. METHOD OF HUMIDIFYING AIR. WILLIAM G. R. BRAEMER and SAMUEL C. BLOOM, Camden, N. J., assignors to Warren Webster & Company, a Corporation of New Jersey. Original application filed May 14, 1914, Serial No. 838,415. Divided and this application filed Dec. 19, 1914. Serial No. 878,160. (Cl. 98—43.)



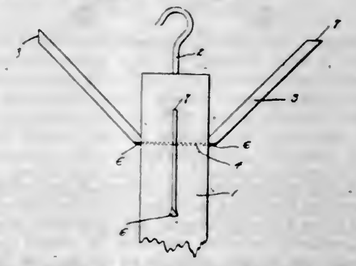
1. The herein described method of humidifying air which consists in heating the fresh air and supplying it with aqueous vapor whereby the air becomes humidified, mechanically removing the suspended water from the humidified air, collecting the separated water from different portions of the humidified air, energizing a thermostat by the collected water thus separated before it becomes materially changed in temperature, and regulating under the control of the thermostat the temperature of the aqueous vapor supplied to the air.

2. The herein described method of humidifying air, which consists in supplying the air with aqueous vapor whereby the air becomes humidified, mechanically removing the suspended water from the humidified air, collecting the separated water from different portions of the humidified air, energizing a thermostat by the collected water thus separated and before it becomes materially changed in temperature, regulating under the control of the thermostat the temperature of the aqueous vapor supplied to the air, controlling the temperature of the inflowing fresh air to be humidified by the temperature of the humidified air, and finally reheating the humidified air to lower its relative humidity.

3. The herein described method of humidifying air, which consists in passing the air through a conduit and over a body of water, heating said water by steam, circulating the said water in the form of aqueous vapor to humidify the air, removing the suspended water from the humidified air and collecting said water on its way to the body of water, causing the said collected water on its way to the body of water to energize a thermostat, and controlling the supply of steam to the body of water under the control of the thermostat, whereby the temperature of the aqueous vapor is regulated under the control of the temperature of the separated water immediately after it is separated from the humidified air.

4. The herein described method of humidifying air, which consists in raising the temperature of the fresh air and treating it with an aqueous vapor to humidify it, separating the suspended water from the humidified air and collecting said separated water, energizing a thermostat by the collected separated water immediately after its separation and before it has had time to materially change its temperature, and regulating the temperature of the aqueous vapor supplied to the air under the control of the thermostat.

1,142,484. SEED-CORN HANGER OR DRYING-RACK. EDMUND E. BROWN, Persia, Iowa. Filed Aug. 15, 1913. Serial No. 784,891. (Cl. 34—26.)



1. In a device of the character described, in combination, a hanger of wood, and ear-corn-sustaining means for said hanger, said sustaining means comprising a flat-steel-bar forced through said hanger and twisted adjacent the opposite faces thereof from which points the opposite ends of the bar diverge upwardly.

2. In a device of the character described, in combination, a hanger of wood, means attached to the upper end of the hanger for supporting the hanger, and ear-corn-sustaining means for said hanger, said sustaining means comprising a flat steel bar forced through said hanger with a flat face thereof upper-most in said hanger, and said bar adjacent the opposite faces of the hanger being twisted by a turn of substantially 90° from which points the opposite ends of the bar are bent upwardly.

3. In a device of the character described, in combination, a support, ear-corn-sustaining means for said support, comprising a flat-steel-bar, said bar being twisted at points 6 to stiffen the impaling portions of said bars, the ends of said impaling portions of the bar being pointed.

4. Ear-corn-sustaining means for a corn hanger, comprising the bar 3 cut from a length of steel bar in a manner so as to produce the opposite angular impaling edges 7 and 8, said bar being twisted approximately 90° at points 6, producing the central flat and securing portion 5.

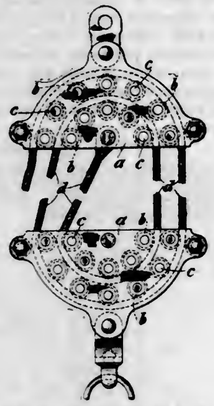
1,142,485. PULLEY-BLOCK. ROBERT BROWN, Craigton, Glasgow, Scotland. Filed Mar. 25, 1914. Serial No. 827,029. (Cl. 254—188.)

1. In a device of the character stated, a pair of blocks, one a standing block, and the other a running block, a plurality of rows of rollers arranged one above the other in each block, each roller being mounted on a separate and independent axis, and a rope attached at its one end to one block and passing over the rows of rollers of both blocks.

2. In a device of the character stated, a pair of blocks, one a standing block and the other a running block, a plurality of rows of rollers arranged one above the other in each block and forming sheaves of different diameters, each roller being mounted on a separate and independent axis, and a rope attached at its one end to one block and passing over the rows of rollers of both blocks.

3. In a device of the character stated, a pair of blocks, one a standing block and the other a running block, a

plurality of rows of rollers arranged one above the other in each block, each roller being of the same diameter and mounted on a separate and independent axis the rows of rollers forming sheaves of different diameters, and a rope attached at its one end to one block and passing over the rows of rollers of both blocks.

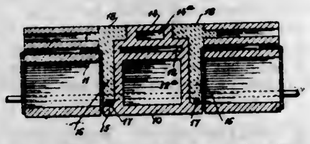


4. In a device of the character stated, a pair of blocks, one a standing block and the other a running block, a plurality of rows of independently and separately mounted rollers arranged one above the other in curved rows in each block, and a rope attached at its one end to one block and passing over the rows of rollers of both blocks.

5. In a device of the character stated, a pair of blocks, one a standing block and the other a running block, a plurality of rows of independently and separately mounted rollers arranged one above the other in curved rows in each block, each roller being of the same diameter and the rows of rollers forming sheaves of different diameters, and a rope attached at its one end to one block and passing over the rows of rollers of both blocks.

[Claims 6 to 9 not printed in the Gazette.]

1,142,486. FLOOR AND CEILING CONSTRUCTION. FERDINAND BURCHARTZ, New York, N. Y., assignor to Burchartz Fireproofing Company, Inc., New York, N. Y., a Corporation of New York. Original application filed Oct. 12, 1910, Serial No. 586,608. Divided and this application filed Mar. 11, 1912. Serial No. 682,872. (Cl. 72—66.)



1. In a floor or ceiling construction, a plurality of open ended blocks spaced from each other to form intersecting channels, and arranged with the axes of adjacent blocks extending at an angle to each other, a coalescent material in said channels and means for preventing said coalescent material from entering the interior of each block.

2. In a floor or ceiling construction, a plurality of open ended blocks spaced apart to form intersecting channels, and arranged with the axes of adjacent blocks extending at an angle to each other, closures for closing the open ends of the blocks, and adapted together with the side walls of the blocks to form the walls of said channels and a coalescent material in said channels.

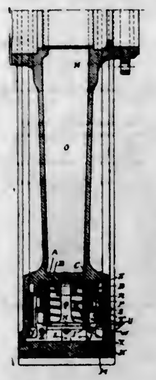
3. In a floor or ceiling construction, a plurality of open ended blocks spaced apart to form intersecting channels, and arranged with the axes of adjacent blocks extending at an angle to each other, closures for closing the open ends of the blocks, and adapted together with the side walls of the blocks to form the walls of said channels, reinforcing rods in said channels and a coalescent material in said channels covering said reinforcing rods.

4. In a floor or ceiling construction, a plurality of open ended blocks arranged with the axes of adjacent blocks extending at angles to each other and with a side wall of a block spaced from the open end of an adjacent block, closures arranged to close the open ends of said blocks and adapted together with said side walls to form the walls of channels, means for spacing said blocks apart and arranged to form the bottoms of said channels and a coalescent material in said channels.

5. In a floor or ceiling construction, a plurality of open ended blocks arranged with the axes of adjacent blocks extending at angles to each other and with a side wall of a block spaced from the open end of an adjacent block, closures arranged to close the open ends of said blocks and adapted together with said side walls to form the walls of channels, flanges extending along said blocks for spacing them apart and for forming the bottoms of said channels and a coalescent material in said channels.

[Claim 6 not printed in the Gazette.]

1,142,487. WHEEL FOR VEHICLES. JOSEPH J. BUTCHER, South Framingham, Mass. Filed Jan. 17. 1913. Serial No. 742,596. (Cl. 152—37.)



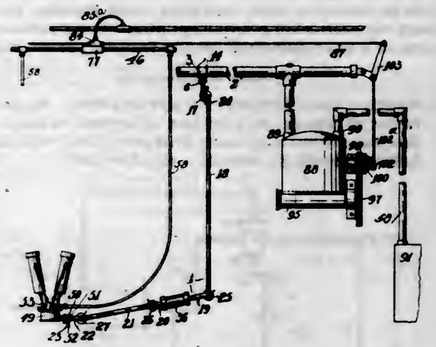
1. A wheel, the tire of which is supported at a distance from the hub member and felly by spiral springs; studs attached to the felly carrying caps against which the outer ends of the springs moving outwardly make contact; shoes with flanges entering circumferential grooves retaining them adjacent to the tire, and having shoulders forming seats for the outer ends of the springs; extensions, integral with the outer shoes, telescoping with extensions integral with the inner shoes, and stops or flanges upon these extensions interlocking with each other, so as to limit the distance to which the inner and outer shoes can move away from each other; flanges upon the inner shoes forming seats for the springs at their inner ends, substantially as described.

2. A wheel, the tire of which is supported at a distance from the hub member and felly by spiral springs; stops secured to the felly and partially overlapping the outer ends of the springs so as to limit their outward movement, combined with shoes retained in working contact with the tire, having shoulders upon them also making contact with the outer ends of the springs, and retaining them at a fixed distance from the tire at those parts where the cap and the felly approach it, substantially as described.

3. A wheel, the tire of which is supported at a distance from the hub member and felly by spiral springs; springs one end of each of which is partially overlapped by a shoulder attached to the hub member, and partially overlapped by a shoulder attached to the tire member, the outer ends of the springs sometimes taking their seats upon the one shoulder and sometimes upon the other, substantially as described.

4. A wheel, the tire of which is supported at a distance from the hub member and felly by spiral springs, shoes riding radially upon guide studs attached to the felly, and acting as seats for the inner ends of the springs between them and the felly; walls or projections upon these shoes telescoping with walls or projections upon the outer shoes shouldered for the outer ends of the springs, and interlocking flanges arresting the outward telescopic travel when the tire is concentric with the hub, substantially as described.

1,142,488. MILKING-MACHINE. EDWARD CAMERON, St. Kilda, Victoria, Australia. Filed Oct. 2, 1911. Serial No. 652,248. (Cl. 31—101.)



1. A mechanical milker, comprising a teat manipulating mechanism, a main milk tube, an arm of metallic tubing extending from the main milk tube to the teat manipulating mechanism, a swivel joint in the same adapted to enable the teat manipulating mechanism to adapt itself to the physical irregularity of the different cows, a number of swivel joints adapted to enable the metallic tube arm to be adjusted up and down and sidewise, an air tube connected with the teat manipulating mechanism, a pulsator connected with the air tube, a receiver connected with the main milk tube, a discharge device for the receiver, means for operating the pulsator from the discharge device and a vacuum receptacle connected with the receiver.

2. In a mechanical milker, the combination with the milk tube and the claw, of a clasp engaging the milk tube, and an arm having one end secured to the claw and the other end adjustably secured to the clasp, said arm comprising metallic tubing having swiveled joints.

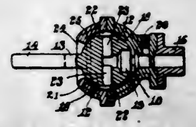
3. In a mechanical milker, an arm adapted to extend from the main milk tube to the claw of the machine and formed of metallic tubing having one or more swiveled joints, each comprising two pierced disks mounted to turn rotatively one to the other and a spring clip for holding the disks together, as and for the purpose set forth.

4. In a mechanical milker, an arm formed of metallic tubing, extending from the main milk tube to the claw of the machine, and comprising a swiveled joint in the arm and having parts connected with each other by a threaded engagement so as to allow the claw to adjust itself as required to the physical irregularity of different cows.

5. In a mechanical milker, a milk tube, an arm formed of metallic tubing extending from the milk tube to the claw of the machine and having suitable joints adapted to enable the said claw to be moved to right and left and up and down, in combination with a claw comprising an air chamber and a milk chamber into which the air and the milk respectively are led, as and for the purpose set forth.

[Claims 6 to 16 not printed in the Gazette.]

1,142,489. UNIVERSAL JOINT. COURTLAND G. CAPWELL, Roslindale, Mass. Filed Oct. 11, 1913. Serial No. 794,751. (Cl. 74—19.)



1. In a device of the class described, the combination of a revoluble casing member provided with a spherical chamber having two grooves in its wall in the same plane with the axis of said casing member and having an axial lubricant receiving chamber; a revoluble ball fitted to said chamber having a diametral cylindrical opening therethrough communicating with a lubricant receiving cavity therein said cavity communicating with said lubricant receiving chamber; a packing ring interposed between said wall and revoluble ball, and a pin in each end of said opening having a flat-sided head positioned in one of said grooves.

2. In a device of the class described, the combination of a revoluble casing member provided with a lubricant receiving chamber and with a spherical chamber having two grooves in its wall; a revoluble member having a ball fitted to said chamber provided with two flattened diametrically opposed surfaces between which is positioned a diametral cylindrical opening perpendicular to the axis of said stem, said opening communicating with an open-ended lubricant receiving cavity therein, the open end of which communicates with said lubricant receiving chamber; pins in opposite ends of said opening having flat parallel sided heads provided with flat bearing surfaces abutting said flat surfaces on said ball; and a packing ring interposed between the inner wall of said casing member and revoluble member.

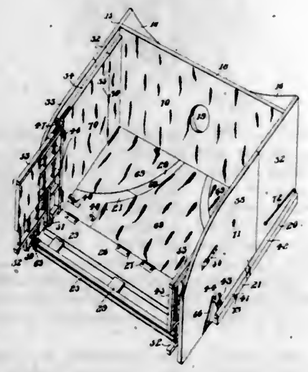
3. In a device of the class described, the combination of a revoluble casing member provided with a spherical chamber having four grooves in its wall parallel with the axis thereof, said casing member having a lubricant receiving chamber with which all of said grooves communicate; a revoluble member having a ball fitted to said chamber, said ball being provided with a lubricant receiving cavity communicating with said lubricant receiving chamber and having two diametrical cylindrical openings perpendicular to the axis of said ball and to each other, the outer ends of said openings communicating with said grooves; and pins in the opposite end of one of said openings, each pin having a flat-sided head integral therewith positioned in one of said grooves.

1,142,490. FOLDABLE VEHICLE-FENDER. PAUL CHOVANECZ, Johnstown, Pa. Filed Apr. 21, 1915. Serial No. 22,857. (Cl. 105—268.)

1. A vehicle fender comprising a mounting frame, hingedly connected inner walls and doors hinged to the said frame, hingedly connected bottom sections attached to the said frame, a shiftable fender bar forwardly carried by the said bottom and inwardly swinging side panels hinged to the said frame.

2. A fender comprising a frame having a rear wall, opposite sides and a bottom section, inner walls hingedly connected to the said side walls, and resiliently and hingedly connected inwardly swinging doors carried by the said walls.

3. A fender comprising a frame having a rear wall, opposite sides and a bottom section, inner walls hingedly connected to the said side walls, resiliently and hingedly connected inwardly swinging doors carried by the said walls, a forward bottom section hinged to the said frame bottom, adjustable locking cleats slidably positioned between the said bottom sections, opposite resiliently mounted hooks carried by the forward bottom section positioned inwardly of the normal unfolded position of the said walls, and resilient stops for the said doors carried adjacent the front edge of the said forward bottom section.

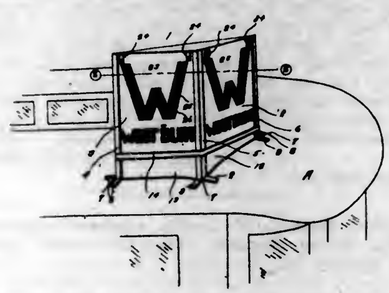


4. A fender comprising a frame having a rear wall, opposite sides and a bottom section, inner walls hingedly connected to the said side walls, resiliently and hingedly connected inwardly swinging doors carried by the said walls, a forward bottom section hinged to the said frame bottom, adjustable locking cleats slidably positioned between the said bottom sections, opposite resiliently mounted hooks carried by the forward bottom section positioned inwardly of the normal unfolded position of the said walls, resilient stops for the said doors carried adjacent the front edge of the said forward bottom section, a forward leaf hinged to said forward bottom section, resilient positioning means between the said leaf and forward section, a forwardly arranged fender bar slidably connected to the said leaf, engaging rollers carried by the bottoms of the said doors, and automatic tripping connecting means between the said doors and fender bar.

5. A fender comprising a frame having a rear wall, opposite sides and a bottom section, inner walls hingedly connected to the said side walls, resiliently and hingedly connected inwardly swinging doors carried by the said walls, a forward bottom section hinged to the said frame bottom, adjustable locking cleats slidably positioned between the said bottom sections, opposite resiliently mounted hooks carried by the forward bottom section positioned inwardly of the normal unfolded position of the said walls, resilient stops for the said doors carried adjacent the front edge of the said forward bottom section, a forward leaf hinged to said forward bottom section, resilient positioning means between the said leaf and forward section, a forwardly arranged fender bar slidably connected to the said leaf, engaging rollers carried by the bottoms of the said doors, inwardly swinging panels hinged to the said frame sides, resiliently mounted catch members for said fender bar arranged upon the said panels, engaging cam frames at the ends of the said fender bar, spring retaining catches for the said doors carried by the said panels, and catches having releasing arms in engagement with the said door hooks mounted upon the said panels and being operatively arranged in the path of travel of the said bar cam frames.

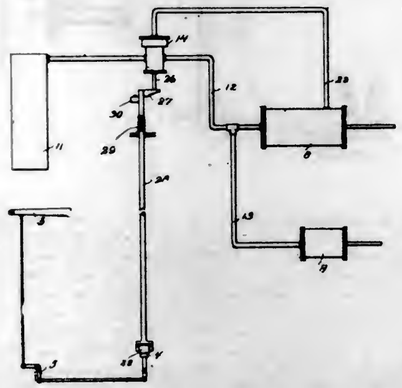
[Claims 6 to 8 not printed in the Gazette.]

1,142,491. ROUTE-SIGN FOR STREET-CARS. H EUGENE CHUBBUCK, Peoria, Ill. Filed Mar. 6, 1913. Serial No. 752,283. (Cl. 40—133.)



A route sign for street cars, including a member, said member having a route indicating name thereon, and a character representing an abbreviation of the name and being of a size considerably greater than that of the name.

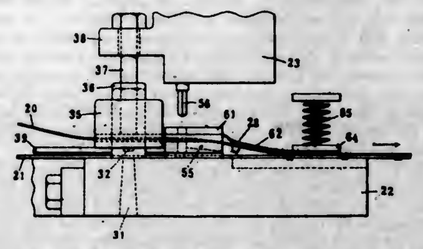
1,142,492. TRAIN-STOPPING APPARATUS. CLARK E. CLAPP, St. Joseph, Mo., assignor of one-half to Ralph L. Green and William I. Green, St. Joseph, Mo. Filed July 7, 1914. Serial No. 849,451. (Cl. 246—59.)



1. In automatic train stopping apparatus, the combination with a fluid motor including a cylinder, a piston therein and a source of supply for said motor, a connection between said source of supply and motor, of a valve comprising a cylinder casing having a small diameter and a relatively large diameter, the wall of the small diameter being formed with ports at diametrically opposite points establishing communication between said connection and casing, a valve in the small end of said cylinder and capable of sliding movement therein and normally covering said ports, a piston in the relatively large end of said casing, a connection between said piston and valve, a connection between the cylinder in said motor and the large end of said casing controlled by the piston in said cylinder whereby communication between the fluid end of the motor cylinder and the large end of said casing will be established succeeding the movement of the piston under the action of the fluid, and means for moving said valve to open position whereby communication will be established between said source and motor and communication established between the fluid end of said cylinder and the large end of said casing succeeding the movement of the piston so that the fluid will flow from the cylinder into the large end of said casing to actuate the piston therein to restore the valve to normal position.

2. In automatic train stopping apparatus, the combination with a fluid motor including a cylinder, a piston therein and a source of supply for said motor, a connection between said source of supply and motor, of a valve comprising a cylinder casing having a small diameter and a relatively large diameter, the wall of the small diameter being formed with ports at diametrically opposite points establishing communication between said connection and casing, a valve in the small end of said cylinder and capable of sliding movement therein and normally covering said ports, a piston in the relatively large end of said casing, a connection between said piston and valve, a connection between the cylinder in said motor and the large end of said casing controlled by the piston in said cylinder whereby communication between the fluid end of the motor cylinder and the large end of said casing will be established succeeding the movement of the piston under the action of the fluid, means for moving said valve to open position whereby communication will be established between said source and motor and communication established between the fluid end of said cylinder and the large end of said casing succeeding the movement of the piston so that the fluid will flow from the cylinder into the large end of said casing to actuate the piston therein to restore the valve to normal position, a stem connected to said valve and projecting through one end wall of said casing, a vertical actuating rod capable of sliding movement, a lug on said rod adapted to engage said stem to actuate the valve, means for swinging said rod to move said lug out of engagement with said stem, and a spring surrounding said rod for restoring the latter to normal position succeeding the release of said last-named means.

1,142,493. MACHINE FOR MAKING CORNER-BEAD BLANKS. NORRIS ELMORE CLARK, Plainville, Conn. Filed Sept. 29, 1914. Serial No. 864,041. (Cl. 113—1.)



1. In a machine for making corner bead blanks, a support for a sheet metal body strip, edge-engaging and smoothing rolls at the sides thereof having grooves with inclined walls affording converging edge-engaging surfaces substantially in the plane of the edges of the strip for smoothing the edges without bending the strip, means for directing a relatively narrow protecting strip midway between the edges of the body strip and means for joining the edges of said protecting strip to portions of the body strip on opposite sides of the center line thereof between the edges of the body strip.

2. In a machine for making metallic corner beads, guides for the stock, punches for forming small perforations in the stock, means for supplying a thin protecting strip, cutters for forming tangs at the edges of the strip, means for inserting the tangs in the perforations, and means for bending the tangs.

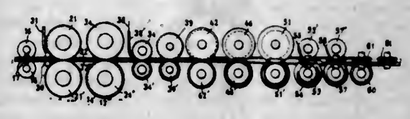
3. In a machine for making metallic corner beads, guides for the stock, punches for forming small perforations in the stock, means for supplying a thin protecting strip, cutters for forming tangs at the edges of the strip and means for deflecting the strip toward the stock.

4. In a machine for making corner bead blanks, means for forming openings in a strip of body stock at intervals along its length on opposite sides of its center line, means for supplying a relatively thin and narrow protecting strip, means for inserting portions of the opposite edges of said protecting strip into the openings in said body stock on opposite sides of the center line and means for clenching said portions.

5. In a corner bead machine, means for inserting the tangs of a protecting strip in the holes of the stock, stationary inclined shoulders and means for drawing the stock and strip along so as to force said tangs against said shoulders.

[Claims 6 to 23 not printed in the Gazette.]

1,142,494. CORNER-BEAD MANUFACTURE. NORRIS ELMORE CLARK, Plainville, Conn. Filed Dec. 12, 1914. Serial No. 876,773. (Cl. 113—1.)



1. The process of forming corner bead, which consists in slitting a sheet metal strip at opposite sides of the median line thereof, opening the said slits and turning the metal at some of the edges of the openings at an angle to the general plane of the strip to thereby reinforce the strip and then folding the slitted and reinforced strip substantially along the median line into a nose or head portion leaving the sides diverging therefrom substantially as described.

2. A continuous process for the manufacture of corner bead, which comprises first slitting a sheet metal strip at opposite sides of the median line thereof, then opening the slits so formed and turning the metal at some of the edges of the openings at an angle to the general plane of the strip, then ribbing the strip longitudinally between the openings therein and finally folding the strip substantially along the median line thereof into a nose or head portion and sides diverging therefrom.

3. The process of forming corner bead, which consists in forming openings in a sheet metal strip along opposite sides of the median line thereof, applying a narrow covering ribbon to the central portion of the corner bead strip, forcing the edges of the narrow covering ribbon down into the openings and bending such edges in under the corner bead strip and then folding the corner bead strip and attached covering ribbon substantially along the median line into a covered nose or head portion with sides diverging therefrom.

4. The process of forming corner bead, which consists in forming openings in a sheet metal strip along opposite sides of the median line thereof, applying a narrow covering ribbon to the central portion of the corner bead strip, rolling the edges of the narrow covering ribbon down through said openings and in beneath the corner bead strip and then folding the corner bead strip and attached covering ribbon substantially along the median line into a covered nose portion and sides diverging therefrom.

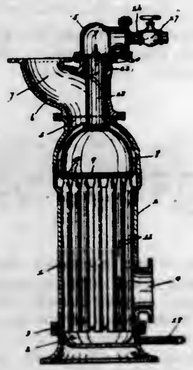
5. The process of making corner beads, which comprises loosely securing the edges of a non-corrosive strip to a metallic stock and then folding the stock along its central portion and drawing the strip smooth and tight around the folded edge.

[Claims 6 to 21 not printed in the Gazette.]

1,142,495. WATER-HEATER. ROBERT E. CLISDELL, Schenectady, N. Y. Filed July 8, 1914. Serial No. 849,848. (Cl. 257—225.)

1. In a water-heater, and in combination, a casing provided with a water-inlet and a water-outlet, and having a bottom provided with apertures, and a head provided with an aperture; a steam-dome mounted with freedom for vertical movement within the upper part of the casing, said dome having a bottom provided with apertures; dome-supporting steam-pipes mounted at their lower ends in the respective apertures in the bottom of the casing,

and at their upper ends in the respective apertures in the bottom of the dome; a steam-inlet pipe extending from the dome upward within said aperture in the head of the casing, said pipe closely fitting said aperture with freedom for longitudinal movement; and a steam-inlet-cap covering said aperture in the head independently of said steam-inlet-pipe.



2. In a water-heater, and in combination, a casing provided with a water-inlet and a water-outlet, and having a bottom provided with apertures, and a head provided with an aperture; a steam-dome mounted with freedom for vertical movement within the upper part of the casing, said dome having a bottom provided with apertures; dome-supporting steam-pipes mounted at their lower ends in the respective apertures in the bottom of the casing, and at their upper ends in the respective apertures in the bottom of the dome; a steam-inlet pipe extending from the dome upward through said aperture in the head of the casing; a stuffing-box for the upper end of said steam-inlet pipe; and a steam-inlet elbow bolted upon said head inclosing said stuffing-box and the outer end of said steam-inlet pipe.

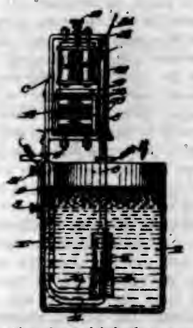
3. In a water-heater, and in combination, a casing provided near its lower end with a water-inlet and at its upper end near one side with a water-outlet; a steam-dome mounted eccentrically within the upper part of said casing nearer the outlet side thereof; means for supplying steam to said dome; and steam-pipes extending downward from said dome within the casing.

4. In a water-heater, and in combination, a casing provided near its lower end with a water-inlet, and at its upper end near one side with a water-outlet, and with an aperture in its head; a steam-dome mounted eccentrically within the upper part of said casing and spaced away from the head of the casing; a steam-inlet pipe extending from said dome through said aperture in the head of the casing; and steam-pipes extending downward from said dome within the casing.

5. In a water-heater, and in combination, a casing provided near its lower end with a water-inlet, and at its upper end near one side with a water-outlet, and having a bottom provided with apertures, and a head provided with an aperture; a steam-dome eccentrically mounted with freedom for vertical movement within the upper part of said casing nearer the outlet side thereof, said dome having a bottom provided with apertures; dome-supporting steam-pipes mounted at their lower end in the respective apertures in the bottom of the casing and at their upper end in the respective apertures in the bottom of the dome; and a steam-inlet pipe extending from the dome upward through said aperture in the head of the casing, said pipe closely fitting said aperture with freedom for longitudinal movement.

[Claim 6 not printed in the Gazette.]

1,142,496. MAGNETIC LIFT FOR ELECTRODES IN ELECTRIC OSCILLATORS. ALFRED H. COHEN, Fruitvale, Cal. Filed Apr. 29, 1913. Serial No. 764,357. (Cl. 250—36.)



1. The combination in a high frequency oscillator, of a plurality of stationary electrodes, a plurality of electrodes mounted to move in relation to the stationary electrodes, rods to which the movable electrodes are secured, supporting frames in which the rods are slidably mounted, lifting frames slidably mounted within said frames, clutching magnets adapted to engage the rods mounted in said lifting frames, armature plates secured to the lifting frames, lifting magnets mounted with relation to said armature plates, means for energizing the several magnets in unison, and means for adjusting the position of the lifting magnets with the supporting frames.

2. In combination with a movable and stationary electrode, means to grip the movable electrode, means to raise the gripping means, and means which when moved to one position simultaneously renders the gripping means operative and raises the same to thereby separate the electrodes and to maintain same stationary regardless of the space between the electrodes and which in another position releases the gripping and raising means to enable the movable electrode to instantaneously contact with the stationary electrode to thus allow automatic readjustment of the predetermined space between the electrodes upon shortening of the movable electrode.

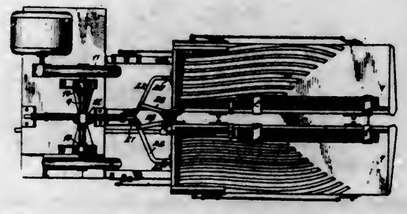
3. In an oscillator having a pair of spaced electrodes, releasable means to grip one of the electrodes and to move same away from the other electrode, said means acting automatically to grip the movable electrode at any position of the latter when rendered operative and to maintain same stationary regardless of the space between the electrodes and when released to allow the movable electrode to instantaneously engage the other electrode to thus allow automatic readjustment of the predetermined space between the electrodes upon shortening of one of same.

4. In an oscillator having a movable and a stationary electrode, energizable means operating independently of the space between the electrodes included in a circuit to engage and raise the movable electrode at any position of the latter whereby upon opening of the circuit said means releases the movable electrode and allows same to instantaneously engage the stationary electrode and upon closing of the circuit again engages and lifts the movable electrode whereby the predetermined extent of separation of the electrodes may be automatically maintained by mere manual opening and closing of the circuit at will.

5. In an oscillator having a movable and a stationary electrode, means operating independently of the space between the electrodes to releasably engage and raise the movable electrode and means manually operable at will to enable upon shortening of the movable electrode release and reëngagement of the movable electrode to allow the latter upon release to instantaneously engage with the stationary electrode.

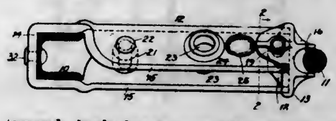
[Claims 6 to 10 not printed in the Gazette.]

1,142,497. ORE-TREATING APPARATUS. RUBIN COLVIN, Park City, Utah. Filed Apr. 28, 1914. Serial No. 835,036. (Cl. 83—88.)



In a machine of the character described, a pair of approximately horizontal longitudinally reciprocatory tables disposed side by side and laterally spaced; a reciprocatory operating device arranged near corresponding ends of the tables in end to end relation thereto and in substantial axial alinement with the space between the inner sides of the tables; main connecting members detachably secured to the inner end of the reciprocatory operating device and attached to the adjacent ends of the tables at points spaced substantially equal distances from the longitudinal sides of the tables; and auxiliary connecting members secured to the main connecting members near their inner ends and to the adjacent ends of the tables at the inner longitudinal sides thereof.

1,142,498. BRAKE-BEAM. SETH A. CRONE, East Orange, N. J. Filed Mar. 8, 1915. Serial No. 12,868. (Cl. 188—22.)



1. A trussed brake-beam comprising a compression member, a tension member and a strut intermediate said members for the brake-lever, said strut being a forged metal folded bar having at its fold a box-loop encompassing said compression member whence the members of the bar are deflected forming angularly disposed parallel sides extending to the outer end of the strut, and a cap-socket on the outer ends of said sides having a bearing for the tension member, sockets for the ends of said sides and means to receive a rivet for securing the cap-socket to said sides.

2. A trussed brake-beam comprising a compression member, a tension member and a strut intermediate said members for the brake-lever, said strut being a forged metal folded bar having at its fold a box-loop encompassing said compression member whence the members of the bar are deflected forming angularly disposed parallel sides extending to the outer end of the strut, and a cap-socket on the outer ends of said sides having a bearing for the tension member, sockets for the ends of said sides and means to receive a rivet for securing the cap-socket to said sides, said sides in their outer end portions being longitudinally corrugated.

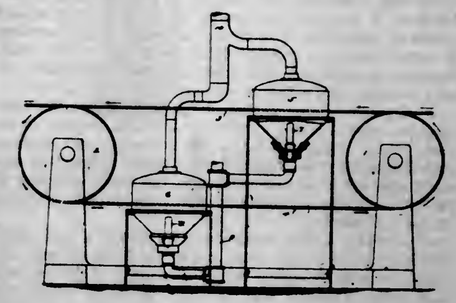
3. A trussed brake-beam comprising a compression member, a tension member and a strut intermediate said members for the brake-lever, said strut being a forged metal folded bar having at its fold a box-loop encompassing said compression member whence the members of the bar are deflected forming angularly disposed parallel sides to the outer end of the strut, and a cap-socket on the outer ends of said sides having a bearing for the tension member, sockets for the ends of said sides, a spacing portion fitting between said ends and means for securing the cap-socket to said sides.

4. A trussed brake-beam comprising a compression member, a tension member and a strut intermediate said members for the brake-lever, said strut being a forged metal folded bar having at its fold a box-loop encompassing said compression member whence the members of the bar are deflected forming angularly disposed parallel sides extending to the outer end of the strut, and a cap-socket on the outer ends of said sides having a bearing for the tension member, a flange encompassing the outer ends of and connecting said sides, a spacing portion fitting between said ends, and means to receive a rivet for securing the cap-socket to said sides.

5. A trussed brake-beam comprising a compression member, a tension member and a strut intermediate said members for the brake-lever, said strut being a forged metal folded bar having at its fold a box loop encompassing said compression member whence the members of the bar are deflected forming angularly disposed parallel sides extending to the outer end of the strut, and a cap-socket on the outer ends of said sides having a bearing for the tension member and sockets for the separated ends of and secured to said sides, said compression member being a channel beam and said box-loop being secured thereto by a rivet extending through the outer vertical member of said loop and the adjacent portion of said beam.

[Claim 6 not printed in the Gazette.]

1,142,499. METHOD OF CLEANING ROD. SOLOMON M. CUTTER, Wethersfield, Conn., assignor to The Capewell Horse Nail Company, Hartford, Conn., a Corporation of Connecticut. Filed Feb. 26, 1914. Serial No. 821,142. (Cl. 51—12.)



1. The method of cleaning rod which consists in passing a single length back and forth so as to cause a plural number of sections of the same rod to travel parallel with each other and subjecting the several sections of the same rod which travel parallel with each other to a blast containing granular material whereby every particle of the rod is subjected to the blast as many times as there are sections traveling parallel with each other.

2. The method of cleaning a continuous length of rod which consists in passing the rod back and forth so as to cause a number of different sections of the same rod to travel parallel with each other, and subjecting one side and one edge of the parallel rod sections to a blast containing granular material and then subjecting the other side and other edge of the parallel rod sections to a blast containing granular material.

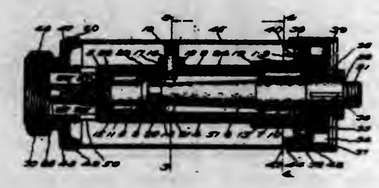
3. The method of cleaning rod which consists in passing the rod back and forth so as to cause several sections of the same rod to travel parallel with each other and directing a blast diagonally toward the sections of rod, whereby one surface and one edge of each section of the rod are abraded by the blast a number of times equal to the number of sections which are traveling parallel with each other.

4. The method of cleaning rod which consists in passing the rod back and forth and directing a blast containing abrading material diagonally at several sections of the rod whereby at the same time one side and one edge of each section are subjected to the action of the blast.

5. The method of cleaning rod which consists in passing a continuous length of rod back and forth about reels and subjecting the under surface and one edge at one plane to a blast containing abrasive material, and subjecting the under surface and the other edge in another plane to a blast containing abrasive material whereby all the surfaces of the rod are subjected to the action of the blast the same number of times that the rod is passed back and forth about the reels.

[Claim 6 not printed in the Gazette.]

1,142,500. ROTARY MOTOR. PHILIP J. DARLINGTON, Hartford, Conn. Filed Oct. 20, 1914. Serial No. 867,626. (Cl. 121—57.)



1. A rotary motor having a frame with a cylindrical chamber that is closed at the rear end and is open at the front end, a bearing bush located at the rear end of said chamber, a bearing bush located at the front end of said chamber, said latter bush having an interior diameter that is larger than the exterior diameter of the former bush, bearings arranged in said bushes, a shaft supported by said bearings and a rotary element fixed to said shaft.

2. A rotary motor having a frame with a cylindrical chamber that is closed at the rear end and is open at the front end, a rotary element, a shaft carrying said element, and bushings in the chamber in the frame supporting said shaft near its front and rear ends, the inside diameter of the front bushing being larger than the outside diameter of the rear bushing.

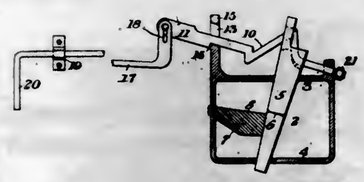
3. A rotary motor having a frame with a cylindrical chamber closed at the rear end by an integral wall and open at the front end, a rotary element, a shaft carrying said rotary element, and bushings rotatably supporting said shaft near its front and rear ends, the inside diameter of the front bushing being larger than the outside diameter of the rear bushing.

4. A rotary motor having a frame with a cylindrical chamber closed at the rear end and open at the front end, a rotary element, a shaft carrying said rotary element, a rear bushing supporting the rear end of said shaft, and a front bushing supporting the front end of said shaft, said front bushing having an interior diameter that is larger than the exterior diameter of the rear bushing, whereby the rear bushing may be withdrawn from the frame through the front end without disturbing the front bushing.

5. A rotary motor having a frame with a chamber that is larger in diameter at the front end than at the rear end, a bushing fitting the larger opening at the front end, a bushing fitting the smaller opening at the rear end, the exterior diameter of the latter bushing being smaller than the interior diameter of the former bushing, bearings held in said bushings, a shaft mounted in said bearings, and a rotary element fixed to said shaft.

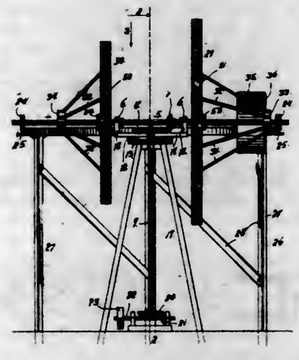
1,142,501. CAR-COUPLING. CHARLES DIETZ, Chicago, Ill., assignor to The National Malleable Castings Company, Cleveland, Ohio, a Corporation of Ohio. Filed Aug. 27, 1908. Serial No. 450,454. (Cl. 213—59.)

In a car coupler, a vertically movable locking device having an eye portion at its upper end projecting through the top wall of the coupler-head, and an actuating member movable transversely of the head and having a cam engaging said eye portion, the actuating member having a



recessed portion adapted to engage the coupler-head for lock-setting the lock; substantially as described.

1,142,502. WINDMILL. JOHN J. DONNELLY, Denver, Colo. Filed Nov. 5, 1913. Serial No. 799,254. (Cl. 170—81.)

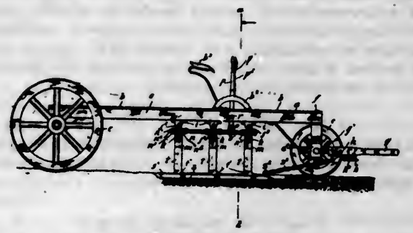


1. The combination with a shaft, of a centrally located turn-table forming a support for the shaft and in which the latter is journaled, the axis of the shaft being perpendicular to that of the turn-table, a circular track surrounding the turn-table, and annularly arranged with reference thereto, the shaft being of a length to span the track diametrically and being connected therewith at opposite points to travel thereon to permit the shaft to change direction freely, a wind wheel mounted on the shaft between its bearing points on the track, and a vane carried by the shaft and rotating therewith.

2. The combination with a shaft, of a centrally located turn-table forming a support for the shaft and in which the latter is journaled, the axis of the shaft being perpendicular to that of the turn-table, a circular track surrounding the turn-table, and annularly arranged with reference thereto, the shaft being of a length to span the track diametrically and being connected therewith at opposite points to travel thereon to permit the shaft to change direction freely, a wind wheel mounted on the shaft between its bearing points on the track, and a vane carried by the shaft and rotating therewith, said vane being drum-shaped open at both ends, and annularly arranged.

3. The combination with a shaft, of a centrally located turn table pivotally mounted upon a central support and forming a support for the shaft in which the latter is journaled, the axis of the shaft being perpendicular to that of the turn table, a circular track surrounding the support of the turn table and annularly arranged with reference thereto, the shaft being of such a length to span the track diametrically and being connected therewith at opposite points to travel thereon to permit the shaft and turn table to change position freely, a wind wheel mounted on the shaft and a vane carried by the shaft and rotating therewith.

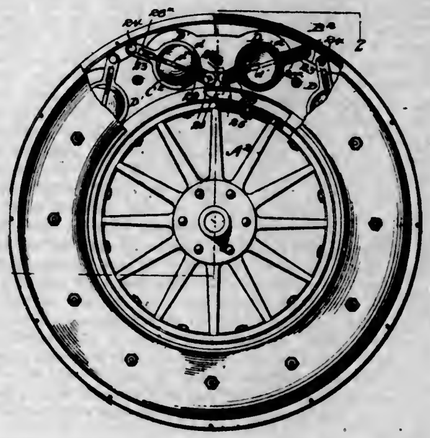
1,142,503. WEED-CUTTING IMPLEMENT. CHARLES E. DOUGLAS, Turner, Oreg. Filed Mar. 4, 1914. Serial No. 822,540. (Cl. 55—60.)



1. In an implement of the character described, the combination of a plurality of crank shafts having crank elements at their extremities and intermediate the latter, supporting elements pendent from the extremities of the crank shafts, a bar connecting the intermediate crank elements of said crank shafts, a V-shaped cutter blade fastened to the lower ends of the supporting elements, and means for moving said bar longitudinally.

2. In an implement of the character described the combination of a plurality of crank shafts having crank elements at their extremities and intermediate the latter, supporting elements pendent from the extremities of the crank shafts, the lower ends of said supporting elements bent horizontally, transverse bracing elements connecting the supporting elements in pairs, a bar connecting the intermediate crank elements of said crank shafts, a V-shaped cutter blade fastened to the lower ends of the supporting elements, the back of the cutter blade being turned up, and a lever attached to said bar, a notched quadrant and locking means engaging therewith carried by the lever.

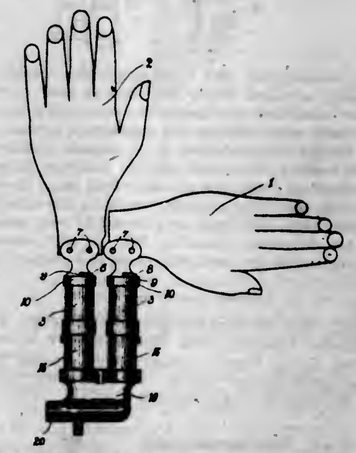
1,142,504. RESILIENT WHEEL. BENJAMIN JAMES DRYER, New York, N. Y. Filed Feb. 11, 1914. Serial No. 818,036. (Cl. 152—35.)



1. A wheel comprising an inner section, an outer non-deformable tread section, and cushioning means distributed around and connected with the sections for permitting relative eccentric movement in different directions, each device comprising a pair of yokes disposed in planes at an angle to each other and forming a cage, one yoke being connected with one section of the wheel and the other yoke with the other section, and a cushioning element occupying and disposed within the cage formed by the yoke, said yokes being slidably connected, whereby the cushioning element is compressed by every relative movement of the yokes.

2. A wheel comprising an inner section and an outer non-deformable tread section, a plurality of cushioning devices distributed around and located between the sections, each device comprising two slidably connected yokes arranged at right-angles to each other to form a cage, one yoke being pivotally connected with one section of the wheel and the other yoke pivotally connected with the other section, and a pneumatic ball disposed within the cage formed by the yokes and compressible by every relative movement of the yokes.

1,142,505. DIRECTION-INDICATOR FOR MOTOR AND OTHER VEHICLES. JOSEPH DUNN, Birmingham, England. Filed Mar. 1, 1915. Serial No. 11,403 (Cl. 116—31.)



1. In an indicating device for motor and other vehicles the combination of a hollow base member; a hollow vertical casing fixed to said base member and provided with a vertical slot; a nut adapted to slide in said vertical casing; a screw rotatably mounted in said vertical casing and coacting with said nut; a pin attached to said nut and working in the slot in said vertical casing; a hand operatively connected to said screw and adapted to rotate therewith; a wire attached to said nut passing through said hollow base member and adapted to draw the same down within the said vertical casing; and a spring adapted to raise the said nut into its normal position.

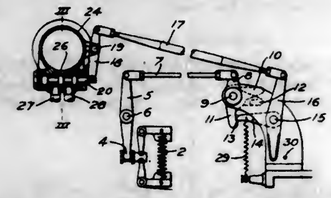
2. In an indicating device for vehicles, the combination of a support, a hollow casing fixed to said support and provided with a longitudinal slot, a nut adapted to slide in said casing, an interior flange carried by the casing and through which said nut projects, a member secured to the end of said nut where it projects through said flange, a screw secured to said member and projecting through the slot in the casing, means adapted to move said nut in one direction longitudinally of the casing, and a spring arranged to press against said flange and adapted to return the said nut into its normal position.

1,142,506. TURBINE. WILLIAM ECCLES, Chorlton-cum-Hardy, England. Filed Mar. 16, 1915. Serial No. 14,827. (Cl. 121—118.)

1. In combination with a quick opening overload valve for turbines, a motor for actuating said valve, and governor controlled mechanism for controlling the operation of said motor, comprising a governor actuated member, a trip mechanism controlled by said member, and means released by said trip mechanism for controlling said motor to open said valve.

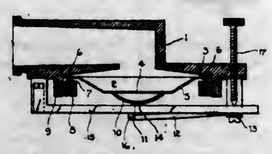
2. In combination with a quick opening turbine valve, a motor for actuating said valve, and a governor controlled mechanism for controlling the operation of

said motor, comprising a governor actuated member, a trigger member actuated by said governor actuated member when the governor actuated member is moved to a determined position, and a member held in an inoperative position by said trigger member, and disengaged therefrom when said trigger member is actuated by said governor actuated member, and means actuated by said last mentioned member for causing said motor to open said valve.



3. In combination with a quick opening turbine valve, a pressure actuated motor for opening said valve, and governor controlled mechanism for controlling the operation of said motor, comprising a governor actuated member, a trigger lever adapted to be engaged and actuated by said member when said member is moved to a determined position, a trip arm normally held in an inoperative position by said lever and adapted to be disengaged from said lever when said lever is actuated by said member, a valve for delivering actuating fluid to said motor, and means actuated by said trip lever for actuating said valve.

1,142,507. SOUND-RECORDING APPARATUS. THOMAS A. EDISON, Llewellyn Park, West Orange, N. J., assignor to New Jersey Patent Company, West Orange, N. J., a Corporation of New Jersey. Filed Oct. 20, 1910. Serial No. 588,138. (Cl. 181—10.)



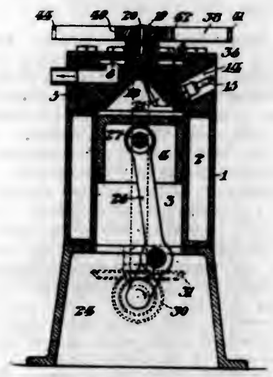
1. In sound recording apparatus, the combination of a flexible circular diaphragm having a single flat annular edge portion and a central circular portion located in parallel planes and directly connected by an annular portion inclined at an angle to said planes, means supporting said edge portion, a rigid member secured to said central portion adjacent the periphery thereof, a recording stylus rigidly connected to said rigid member, and means for applying an elastic pressure on the stylus and thereby imposing an initial stress on the diaphragm, substantially as described.

2. In sound recording apparatus, the combination of a flexible circular diaphragm having a single flat annular edge portion and a central circular portion located in parallel planes and directly connected by an annular portion inclined at an angle to said planes, a knife edge, means clamping said edge portion against said knife edge, a rigid member secured to said central portion adjacent the periphery thereof and a recording stylus rigidly connected to said rigid member, substantially as described.

3. In sound recording apparatus, the combination of a flexible circular diaphragm having a single flat annular edge portion and a central circular portion located in parallel planes and directly connected by an annular portion inclined at an angle to said planes, a knife edge adapted to contact one surface of said edge portion adjacent the periphery thereof, a washer of small cross sectional area adapted to contact the opposite surface of said edge portion in alinement with said knife edge, means for clamping said parts together in the positions indicated, a rigid member secured to said central portion adjacent the periphery thereof, and a stylus rigidly connected to said rigid member, substantially as described.

4. As a new article of manufacture, a diaphragm of acetyl cellulose having a single flat annular edge portion and a circular central portion located in parallel planes and directly connected by an annular portion inclined at an angle to said planes, and a nonflexible circular member secured to said central portion adjacent the periphery thereof, substantially as described.

1,142,508. INTERNAL COMBUSTION ENGINE. JOHN K. EDWARDS, Philadelphia, Pa. Filed Oct. 11, 1913. Serial No. 794,579. (Cl. 123—80.)



1. In an internal combustion engine, the combination with a cylinder including a water chamber surrounding a combustion chamber provided with a piston; of a head having a water chamber in communication with the water chamber in said cylinder and a conical valve seat at the end of said cylinder with two diametrically opposed fuel inlet ports, and two diametrically opposed exhaust ports, opening therethrough, equidistantly spaced in the circumference of said seat; a spark plug extending in an ignition recess in said valve seat; a hollow conical valve fitted to rotate in said valve seat and having a stem extending through said head; a removable cap on said head, covering the water chamber therein and having a shaft bearing; a crank shaft; a pitman operatively connecting said crank shaft with said piston; a bevel gear on said crank shaft; a counter shaft extending parallel with the axis of said cylinder, in the bearing on said cap; a bevel gear on said counter shaft engaging the gear on said crank shaft; an intermittent gear on said counter shaft extending above said head, having four teeth on one half of its periphery with cylindrical sectors of uniform radius between them; a Geneva stop wheel on said valve stem having eight gear teeth recesses in its periphery fitted to the teeth on said intermittent gear, and having sectors between said recesses curved to fit the sectors on said intermittent gear; whereby said valve is positively intermittently turned to open and close said inlet and exhaust ports and said ignition recess in proper time with the movements of said piston and is prevented from turning otherwise, and is maintained tight by the pressure in said cylinder.

2. In an internal combustion engine, the combination with a cylinder including a combustion chamber provided with a piston; of a head having a conical valve seat at the end of said cylinder with two diametrically opposed fuel inlet ports and two diametrically opposed exhaust ports opening therethrough, equidistantly spaced in the circumference of said seat; a spark plug extending in an ignition recess in said valve seat; a hollow conical valve fitted to rotate in said valve seat and having a stem extending through said head; a crank shaft; a pitman operatively connecting said crank shaft with said piston; a bevel gear on said crank shaft; a counter shaft extending

parallel with the axis of said cylinder; a bevel gear on said counter shaft engaging the gear on said crank shaft; an intermittent gear on said counter shaft extending above said head, having four teeth on one half of its periphery with cylindrical sectors of uniform radius between them; a Geneva stop wheel on said valve stem having eight gear teeth recesses in its periphery fitted to the teeth on said intermittent gear, and having sectors between said recesses curved to fit the sectors on said intermittent gear; whereby said valve is positively intermittently turned to open and close said inlet and exhaust ports and said ignition recess in proper time with the movements of said piston and is prevented from turning otherwise, and is maintained tight by the pressure in said cylinder.

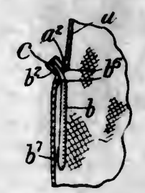
3. In an internal combustion engine, the combination with a cylinder including a combustion chamber provided with a piston; of a head having a conical valve seat at the end of said cylinder with two diametrically opposed fuel inlet ports and two diametrically opposed exhaust ports opening therethrough, equidistantly spaced in the circumference of said seat; a hollow conical valve fitted to rotate in said valve seat and having a stem extending through said head; a crank shaft; a pitman operatively connecting said crank shaft with said piston; a bevel gear on said crank shaft; a counter shaft extending parallel with the axis of said cylinder; a bevel gear on said counter shaft engaging the gear on said crank shaft; an intermittent gear on said counter shaft extending above said head, having four teeth on one half of its periphery with cylindrical sectors of uniform radius between them; a Geneva stop wheel on said valve stem having eight gear teeth recesses in its periphery fitted to the teeth on said intermittent gear, and having sectors between said recesses curved to fit the sectors on said intermittent gear; whereby said valve is positively intermittently turned to open and close said inlet and exhaust ports in proper time with the movements of said piston and is prevented from turning otherwise, and is maintained tight by the pressure in said cylinder.

4. In an internal combustion engine, the combination with a cylinder including a combustion chamber provided with a piston, and having a conical valve seat at the end of said cylinder with a fuel inlet port and an exhaust port opening therethrough; a hollow conical valve fitted to rotate in said valve seat and having a stem; a crank shaft; a pitman operatively connecting said crank shaft with said piston; a bevel gear on said crank shaft; a counter shaft extending parallel with the axis of said cylinder; a bevel gear on said counter shaft engaging the gear on said crank shaft; an intermittent gear on said counter shaft extending above said head, having four teeth on one half of its periphery with cylindrical sectors of uniform radius between them; a Geneva stop wheel on said valve stem having eight gear teeth recesses in its periphery fitted to the teeth on said intermittent gear, and having sectors between said recesses curved to fit the sectors on said intermittent gear; whereby said valve is positively intermittently turned to open and close said inlet and exhaust ports in proper time with the movements of said piston and is prevented from turning otherwise, and is maintained tight by the pressure in said cylinder.

5. In an internal combustion engine, the combination with a cylinder including a combustion chamber provided with a piston, and having a conical valve seat at the end of said cylinder with a fuel inlet port and an exhaust port opening therethrough; a hollow conical valve fitted to rotate in said valve seat and having a stem; a crank shaft; a pitman operatively connecting said crank shaft with said piston; a bevel gear on said crank shaft; a counter shaft extending parallel with the axis of said cylinder; a bevel gear on said counter shaft engaging the gear on said crank shaft; an intermittent gear on said counter shaft extending above said head, having teeth with cylindrical sectors of uniform radius between them; a Geneva stop wheel on said valve stem having teeth recesses in its periphery fitted to the teeth on said intermittent gear, and having sectors between said recesses curved to fit the sectors on said intermittent gear; whereby said valve is positively intermittently turned to open and close said inlet and exhaust ports and said ignition recess in proper time with the movements of said piston and is prevented from turning otherwise, and is maintained tight by the pressure in said cylinder.

[Claims 6 and 7 not printed in the Gazette.]

1,142,509. BATHING-SUIT POCKET. ABRAHAM ELLMAN and SAMUEL PAULL, New York, N. Y., assignors of one-third to Sol Gitelman, New York, N. Y. Filed July 6, 1914. Serial No. 849,021. (Cl. 2—15.)



1. A waterproof pocket for bathing suits, said pocket being open at one end and provided with two jaws having waterproof cushions on their inner sides and which are adapted to open outwardly, each of said jaws consisting of separate parts hinged together and the hinge of one jaw being in a different transverse line from the hinge of the other jaw.

2. A bathing garment provided with a waterproof pocket having a head portion passing outwardly through the garment, said pocket being secured to the garment and said head portion consisting of jaws which are adapted to open outwardly and which are made waterproof when closed.

3. The combination with a bathing garment of a waterproof pocket having a head portion which passes outwardly through a part of said garment, said pocket being secured to said garment and said head portion consisting of hinged jaws which are adapted to open outwardly and which are provided on their inner sides with waterproof cushions, and means for securing said jaws together.

1,142,510. FASTENING DEVICE. LILLIAN K. ENGLE, Philadelphia, Pa. Filed Nov. 4, 1914. Serial No. 870,174. (Cl. 24—87.)

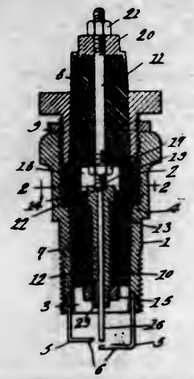


A fastening device, comprising a rigid body portion having a pair of integral prongs extending from each end thereof and longitudinally of the body portion and substantially in the same plane, the ends of the pairs of prongs pointing toward each other, said prongs being separated from the body portion with their inner edges substantially parallel with the edges of the body to form narrow slits in which the material is seated and gripped.

1,142,511. SPARK-PLUG. WILLIAM H. FARRELL, South Bethlehem, Pa. Filed Jan. 25, 1915. Serial No. 4,359. (Cl. 123—169.)

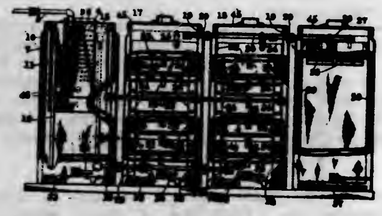
1. A spark plug embodying a shell, a core comprising a pair of sections secured therein, a central conductor comprising a pair of sections engaged through the core sections, one end of one conductor section having a head bearing against the end of the respective core section, nuts threaded upon the end portions of the other conductor section and bearing against the respective core section to hold the second mentioned conductor section at its adjusted position, one end portion of the second mentioned conductor section projecting from the respective nut, the said head having a rounded socket receiving the said end portion of the second mentioned conductor

section, and a nut threaded upon the other end portion of the first mentioned conductor section and bearing against the respective core section.



2. A spark plug embodying a shell, an insulating core therein, a tubular conductor extending through the core, and an electrode pin extending through the tubular conductor, the tubular conductor having an auxiliary bore extending from one end adjacent the said pin, and the pin projecting beyond the said end of the conductor.

1,142,512. APPARATUS FOR PURIFYING OIL. AUGUST H. FRANKE, St. Louis, Mo. Filed Aug. 1, 1912. Serial No. 712,759. (Cl. 210—10.)

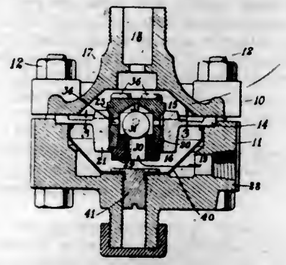


In an oil purifier, the combination with a vessel adapted to contain oil, of means for heating said vessel, and a plurality of removable pans, the bottoms of which form precipitating surfaces, each of said pans being supported from the next lower pan, said pans being provided with centrally located, downwardly projecting drain pipes and with alternately arranged openings for the passage of the oil, said openings being provided with upwardly projecting flanges, said pans being provided with depending flanges forming slip joints.

1,142,513. CHECK-VALVE. GEORGE A. GASE, Cleveland, Ohio, assignor, by mesne assignments, to The Iceless Machine Company, Cleveland, Ohio, a Corporation of Ohio. Filed June 22, 1914. Serial No. 846,563. (Cl. 137—32.)

1. In a check valve, the combination with a body, of a member having a cylindrical bore forming a passage and having a seat, a main closure having a hollow stem extending into said bore and slidably engaging the same and having an enlarged portion fitting said seat, an opening leading from the interior of the stem under said enlarged portion, a contracted portion within the stem forming the seat, and a ball closing said seat.

2. In a check valve, the combination with a chambered casing, of an intermediate member dividing the chamber and having a cylindrically bored boss, a valve seat at one end of the bore, a closure for said bore having a portion fitting said seat and having a hollow portion fitting into said bore, a groove on the exterior of the hollow portion contiguous to the bore, a member secured to said hollow portion and having an opening therethrough, and a ball closing said opening.



3. In a check valve, the combination with a pair of chambered members, of a disk-like member clamped between them and having a centrally disposed boss and a bore forming a passage through the boss, a plug slidable in said bore and having an enlarged portion closing the end thereof, a passage through said plug opening beneath the enlarged portion, a member threaded into said plug and having an opening therethrough communicating with said last named passage, and a ball closing said opening.

4. The combination of a casing, a partition across the casing, a tubular guide carried thereby, a hollow plug slidable in said guide and having an annular shoulder adapted to engage a seat formed on the guide, a member secured to the plug and providing a second seat, and a ball retained within the plug and adapted to seat on the second seat.

5. The combination of a casing, a member carried thereby and having a tubular guide, a plug slidable within the guide and co-acting with it to form a valve, said plug having a recess, a sleeve carried by the plug and providing a seat, and a movable valve member confined by the sleeve within the plug.

1,142,514. PULSATOR-DRIVEN PERCUSSIVE TOOL. ARTHUR H. GIBSON, Easton, Pa., assignor to Ingersoll-Rand Company, New York, N. Y., a Corporation of New Jersey. Filed June 17, 1911. Serial No. 633,805. (Cl. 255—45.)



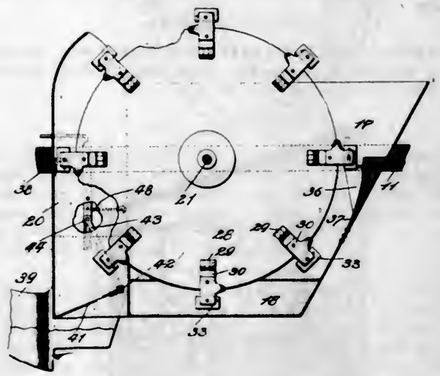
1. A percussive tool, its cylinder and piston, a pulsator connected to reciprocate the piston, an air feed for the tool, a passage located in position to alternately open the air feed to the opposite sides of the pulsator system and means for automatically preventing the return of air from the air feed to the system.

2. A percussive tool, its cylinder and piston, a pulsator connected to reciprocate the piston, an air feed for the tool, a pasaage connecting the air feed and cylinder and having its cylinder end located in position to alternately open the air feed to the opposite sides of the piston and a check valve for said passage.

3. A percussive tool, its cylinder and piston, a pulsator connected to reciprocate the piston, an air feed for the tool, a passage located in position to alternately open the air feed to the opposite sides of the pulsator system, means for automatically preventing the return of air from the air feed to the system and means for opening the air feed to external atmosphere.

4. A percussive tool, its cylinder and piston, a pulsator connected to reciprocate the piston, an air feed for the tool, a passage connecting the air feed with the cylinder and having its cylinder end located in position to alternately open the air feed to the opposite sides of the piston, a check valve for said passage and means for opening the air feed to external atmosphere.

1,142,515. POTATO-PLANTER. THOMAS L. GOOD, Edwardsville, Ill., assignor of one-half to May A. S. P. Good, Edwardsville, Ill. Filed May 8, 1914. Serial No. 837,110. (Cl. 111—27.)



1. In a potato planter, the combination with a rotating carrier and a picker comprising a pair of resiliently mounted jaws of a stationary element mounted in the path of a potato held by said jaws.

2. In a potato planter, the combination with a rotating carrier, a picker comprising a pair of jaws mounted on said carrier and a spring arranged to normally draw said jaws together, of a potato ejector fixedly secured in a position where said jaws will straddle said ejector in their movement.

3. In a potato planter, a hopper, a tractor driven rotatable element in said hopper, uniformly spaced pairs of jaws carried by the rotatable element, and a fixed element lying between the paths of the jaws of each pair to eject the potatoes from said jaws without engaging the jaws.

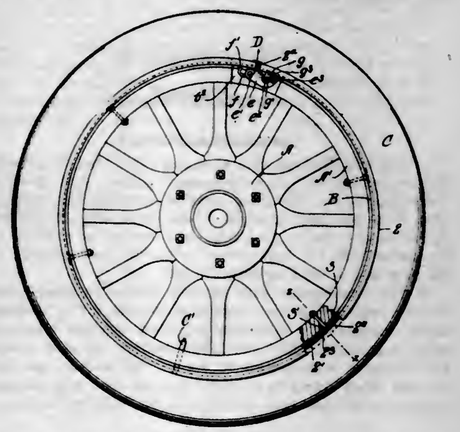
4. In a planter of the class described, a tractor driven element having uniformly spaced pickers, each comprising a pair of jaws, which are normally spring held together, a hopper through which said pickers travel, a yielding mounted device mounted in the path of potatoes carried by the pickers for fully seating the potatoes between the jaws of the pickers and a rigid device in the path of the potatoes carried by said pickers to expel the potatoes from the pickers.

1,142,516. PNEUMATIC-TIRE MOUNTING. CHARLES GILBERT HAWLEY and ERLE KING BAKER, Chicago, Ill., assignors to Universal Rim Company, Chicago, Ill., a Corporation of Illinois. Continuation in part of application Serial No. 426,494, filed Apr. 11, 1908. This application filed Feb. 13, 1909. Serial No. 477,732. (Cl. 152—21.)

1. A demountable wheel rim comprising a split ring, in combination with a link having a pin and slot connection to one end of the ring, and a lug on the other end of the ring, the free end of the link being interlocked with said lug in two positions, substantially as described.

2. In a vehicle wheel rim, in combination, a fixed member, a split detachable rim member carrying tire retaining means, a latch connected to one end of the split member and movable with relation thereto in the plane of the wheel, and means for holding said latch in engagement with the other end of the split member.

3. In a vehicle wheel rim in combination, a fixed member, a split detachable rim member, carrying tire retaining means, a latch pivoted to one end of said split member by means of a pivot whose axis is substantially parallel to that of the wheel, a lug on the other end of said split



member adapted to be engaged by said latch, and means for holding said latch in engagement with said lug.

1,142,517. COMBINED BOTTLE AND DROPPING DEVICE. FRANK S. HERETH, New York, N. Y., assignor to E. R. Squibb & Sons, a Corporation of New York. Filed July 21, 1913. Serial No. 780,105. (Cl. 128—28.)



1. A receptacle having a closed mouth and containing a smooth solid rod fitting loosely in the mouth of the receptacle, said rod being of slightly less cross sectional area than said mouth and extending into the body of the receptacle, said rod being adapted to slide through the mouth of the receptacle for the purpose set forth.

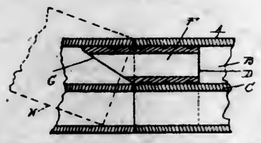
2. The combination with a receptacle having a contracted mouth, of a solid rod within said receptacle extending through said mouth, said rod being of slightly less cross-sectional area than the area of the mouth.

3. The combination with a bottle having a sealed neck and a weakened portion whereby the end of the neck may be broken off to form a mouth, a rod within said bottle extending into said neck, said rod extending beyond said weakened portion and being of slightly less cross-sectional area than the cross-sectional area of the neck at the weakened portion.

1,142,518. BUILDING-BLOCK FOR BUILDING-WALL CONSTRUCTION. JAMES J. HINDE, Sandusky, Ohio. Filed Feb. 19, 1912. Serial No. 678,626. Renewed Nov. 11, 1914. Serial No. 871,633. (Cl. 72—41.)

1. The combination with adjacent building blocks having registering core openings therein, of a bonding block comprising a rectangular hollow member telescopically en-

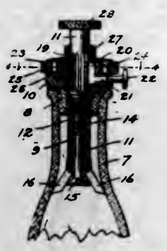
gageable with said core openings and having a bevel or pointed end for engagement with the last laid of the adjacent building blocks.



2. The combination with adjacent hollow building blocks having registering core openings therein, of a bonding block having a rectangular portion telescopically engageable with the core openings of the first laid of said adjacent blocks, and a projecting end beveled or pointed on its under side for engagement with the core opening of the last laid of said adjacent blocks.

3. The combination with adjacent hollow building blocks having registering core openings therein, of a bonding block comprising a rectangular hollow member telescopically engageable with the core openings in said blocks and indented transversely to receive the mortar, one end of said block being beveled or pointed for easy engagement with the last laid of said adjacent building blocks.

1,142,519. BOTTLE-STOPPER LOCK. GEORGE M. HISKEY, Los Angeles, Cal., assignor of one-half to E. L. Potter, Los Angeles, Cal. Filed Mar. 3, 1914. Serial No. 822,184. (Cl. 215—33.)



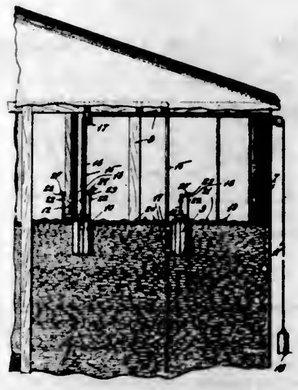
1. A bottle stopper lock comprising a stem provided with a head, a shaft reciprocatingly mounted in said stem, a nut secured to the lower end of said shaft, pawls hinged to the lower end of said stem, means to reciprocate said shaft, a locking bolt adapted to engage said shaft and lock it against movement, and a plurality of notched disks adapted to engage said locking bolt and lock said stopper.

2. A bottle stopper lock, comprising a threaded stem, a head secured to said stem, a sleeve of resilient material mounted on said stem and engaging said head, a flanged sleeve secured to said stem, a plurality of notched disks secured on said stem intermediate said sleeve and head, a sliding bolt mounted in said stem and said head, a threaded shaft reciprocatingly and revolubly mounted in said stem, a nut on the end of said shaft, pawls pivoted to the end of said stem adjacent the nut, and means to revolve said shaft to reciprocate said nut to engage said pawls to engage the wall of a container to lock said stopper therein.

3. In a bottle stopper lock, the combination with a tubular cork within a bottle neck, of a tubular threaded stem, a head secured to said stem, a flanged sleeve secured to said stem above said head, slotted disks revolubly mounted on said stem between said sleeve and said head, a movable bolt mounted in said head and stem, a shaft reciprocatingly mounted in said stem, a plurality of pawls pivotally mounted on said stem, means on said shaft to engage said pawls, means to reciprocate said shaft to engage said pawls, and means to engage said bolt with said shaft to prevent movement thereof when said disks are turned with their notches out of register.

4. In a bottle stopper lock, in combination with a centrally apertured cork within a bottle neck, of a stem adapted to pass through said cork, said stem having an external threaded portion and a threaded concentric bore, a threaded head adapted to engage the threaded periphery of said stem, a movable bolt mounted within said head, bottle engaging means secured to said stem, a revoluble shaft mounted in said stem, means on said shaft to engage said bottle engaging means, means to move said shaft, and a plurality of notched disks mounted on said stem and embracing said movable bolt and adapted to lock or release said bolt in locking engagement with said shaft.

1,142,520. FIRE APPARATUS FOR OIL-TANKS. OSCAR J. HOLMES, St. Louis, Mo. Filed Sept. 2, 1913. Serial No. 787,795. (Cl. 169—11.)



1. In a fire apparatus for oil tanks, a plurality of buoyant fire extinguishers, a thermally controlled discharge for the contents of each extinguisher, and a counterbalance for certain of the extinguishers, whereby certain of the extinguishers will discharge their contents, when thermally released, into the vicinity of the oil surface, and other extinguishers will be elevated by the counterbalances as their contents are discharged.

2. In a fire apparatus for oil tanks, a buoyant cover for the oil for the purpose of minimizing the gasifying of the oil, a buoyant fire extinguisher, arranged to rise and fall as the level of the oil varies, a thermally controlled discharge for the contents of the extinguisher, arranged in the immediate vicinity of and above said cover, and a second like constructed extinguisher having a counterbalance arranged to cause the extinguisher to rise in the tank as its contents are discharged.

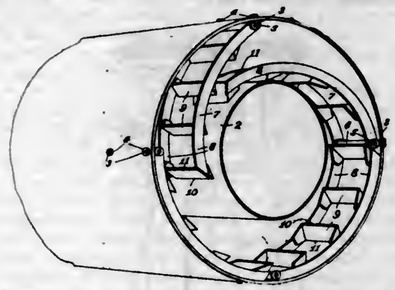
1,142,521. ROTARY APPARATUS FOR TREATING MATERIALS. JOHN W. HORNSBY, Summit, N. J., assignor to General Reduction Gas and By-Products Company, a Corporation of Delaware. Filed July 15, 1910, Serial No. 572,132. Renewed Nov. 10, 1914. Serial No. 871,399. (Cl. 34—8.)

1. In apparatus for treating materials, a rotating chamber, shelves rotating with said chamber and adapted to lift and drop the material under treatment, supports for said shelves, and means for causing such shelves to move with relation to said cylinder and means for abruptly stopping such motion.

2. In apparatus for treating materials, a rotating chamber having therein a series of pivotally mounted cradles and means for arresting the movement of said cradles during the rotation of the cylinder.

3. In apparatus for treating materials, a rotating chamber, a series of cradles pivotally mounted therein and a series of coacting stirrups secured to said vessel in which said cradles are mounted, and acting as stops.

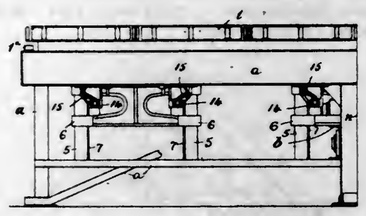
4. In apparatus for treating materials, a rotating vessel containing a plurality of buckets for elevating and distributing the material, said buckets being movable with relation to the vessel.



5. In apparatus for treating sticky materials, a rotary vessel containing a plurality of buckets for elevating and distributing the material, said buckets being adapted to shake loose the sticky material during the rotation of the vessel.

[Claim 6 not printed in the Gazette.]

1,142,522. MACHINE FOR MANUFACTURING CONCRETE ARTICLES. ARTER BURD JAGGER, London, England, assignor to The Improved Construction Company Limited, London, England. Original application filed Feb. 20, 1907, Serial No. 358,418. Divided and this application filed Sept. 13, 1907. Serial No. 392,742. (Cl. 25—41.)



1. A machine for purposes such as herein referred to, comprising a table, a horizontal pivot therefor, means for oscillating the table about such pivot, means for simultaneously reciprocating the table in the direction of the axis of such pivot, and means for arresting the oscillations of the table abruptly independently of the means producing the oscillations aforesaid.

2. A machine for purposes such as herein referred to, comprising a table, a horizontal pivot therefor, means for oscillating the table about such pivot, means for simultaneously reciprocating the table in the direction of the axis of such pivot, and means for arresting the reciprocations of the table in the direction of the axis of the oscillating pivot abruptly independently of the means producing the reciprocations aforesaid.

3. A machine for manufacturing concrete slabs, beams, pipes, tiles and other concrete articles, comprising a table, a supporting frame, forked levers pivoted to the supporting frame, trunnion blocks carried by such forked levers, a pivot shaft carried by the trunnion blocks and means attaching the table to the pivot shaft, the pivots of the forked levers being arranged to permit of movement of the levers in the plane containing the axis of the table pivot shaft aforesaid, a driving shaft, eccentric means driven by such shaft and adapted to impart movement to the forked levers so as to reciprocate the pivot shaft in the direction of its axis and other eccentric means connected to the table and adapted to oscillate the same about the axis of the pivot shaft when the latter is being reciprocated.

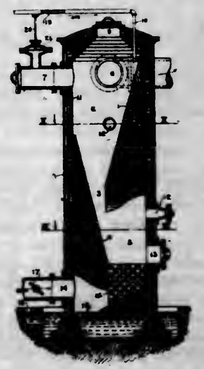
4. A machine for manufacturing concrete slabs, beams, pipes and other concrete articles, comprising a supporting table, a horizontal pivot therefor located intermediate of the ends of said table whereby said table may be oscillated about a horizontal axis, a rotary member, an eccentric member mounted on the rotary member and combined with said table for so oscillating the latter about the said axis, a second eccentric member mounted on the said rotary member and combined with said table for simultaneously imparting to the latter a substantially horizontal reciprocating movement in the direction of the axis of such pivot and stops against which the said table strikes as it is oscillated for imparting vertical shocks to said table substantially as described.

1,142,523. BUCKLE. WALDEMAR KOPS, New York, N. Y., and HARVEY GILES, Boundbrook, N. J., assignors to Kops Bros., New York, N. Y., a Firm. Filed Apr. 23, 1913. Serial No. 762,974. (Cl. 24—194.)



A buckle comprising a body member having transverse parallel slots therein and overturned parts at the sides to form slide-ways with the adjacent portions thereof, a U-shaped gripping member separable from the body member and adapted at its ends to fit and move within the said slide-ways, a series of teeth stamped from the reverse side of the said gripping member and lying in substantially the same plane as the obverse side thereof, and a strip of material secured at one end between the parts of the U-shaped gripping member folded over the edge of the reverse side thereof and threaded through one of the slots in the body member from the rear thereof and through the other slot in the body member from the front thereof so that the gripping member lies between and is maintained in position in the body member by those portions of the said strip of material which are threaded through the slots of the body member.

1,142,524. GAS-PRODUCER. NISBET LATTA, Milwaukee, Wis., assignor, by mesne assignments, to Allis-Chalmers Manufacturing Company, a Corporation of Delaware. Filed May 16, 1910. Serial No. 561,655. (Cl. 48—74.)

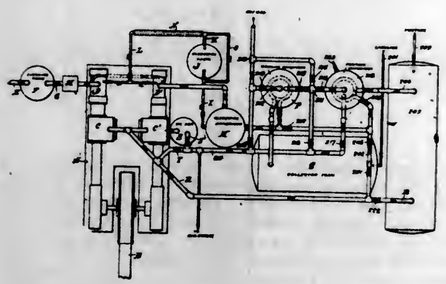


1. In a gas producer, an elongated shell, a plurality of inclined vaporizing walls within said shell, a liquid fuel inlet above one of said inclined walls, an air inlet

below another of said inclined walls, said inlets being adapted to feed fuel and air respectively continuously toward the interior of said shell and said inclined walls gravitating material from the one to the other, a gas outlet adjacent said fuel inlet, and pressure actuated means for controlling the fuel to assist in maintaining proportionality between the amounts of fuel and air admitted through said inlets.

2. In a gas producer, a shell, a plurality of vertically spaced vaporizing walls within and inclined relatively to said shell, a liquid fuel inlet adjacent the upper end of one of said walls, said inlet constituting the sole ingress for fuel to said shell, an air inlet below the lower of said walls, positive means for preventing columning of the air admitted, and a gas outlet at the upper end of said shell.

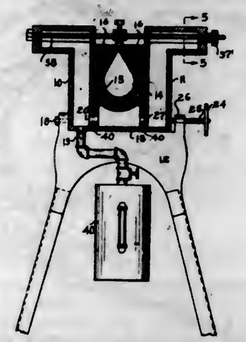
1,142,525. APPARATUS FOR OBTAINING LIQUID HYDROCARBONS. GUSTAV C. MAAG, New York, N. Y., assignor to Continental Gas Compressing Corporation, a Corporation of New York. Filed June 11, 1914. Serial No. 844,427. (Cl. 196—25.)



1. The combination of a compressor for compressing natural gas mixtures containing gasolene, pentane and methane, an injecting nozzle communicating with the interior of said compressor adapted for the injection of a finely divided liquid, a collector to receive liquid constituents of the compressed gases as they leave the compressor, a condenser within which the gasolene is liquefied, a second condenser within which the pentane is liquefied while in the form of a separated gas, means for conducting the compressed gases from the collector through the gasolene condenser, a connection for withdrawing uncondensed gases from the gasolene condenser into the pentane condenser, means for causing the gases uncondensed in the pentane condenser to expand and a conduit containing the cold expanded gases leading first into the vicinity of the pentane in the pentane condenser and subsequently into the vicinity of the gasolene in the gasolene condenser.

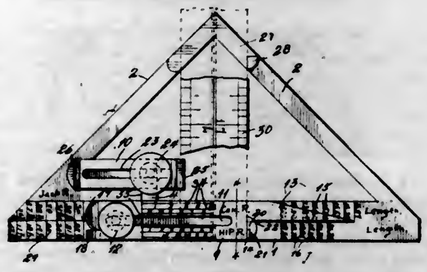
2. The combination of a compressor for compressing natural gas mixtures containing gasolene, pentane and methane, an injecting nozzle communicating with the interior of said compressor adapted for the injection of a finely divided liquid, a collector to receive liquid constituents of the compressed gases as they leave the compressor, a condenser within which the gasolene is liquefied, a second condenser within which the pentane is liquefied while in the form of a separated gas, means for conducting the compressed gases from the collector through the gasolene condenser, a connection for withdrawing uncondensed gases from the gasolene condenser into the pentane condenser, means for causing the gases uncondensed in the pentane condenser to expand and a conduit containing the cold expanded gases leading first into the vicinity of the pentane in the pentane condenser and subsequently into the vicinity of the gasolene in the gasolene condenser and regulating means for controlling the temperature of the cold expanded gases in the said two condensers.

1,142,526. VULCANIZING APPARATUS. CHARLES E. MILLER, Anderson, Ind. Filed Oct. 26, 1911. Serial No. 656,963. (Cl. 18—18.)



Vulcanizing apparatus including a pair of oppositely located heating chambers, a hollow tread shoe located between said heating chambers, a pair of bead shoes between said heating chambers and above said tread shoe and placed side by side, and a downwardly acting wedge-shaped means for engaging said bead shoes at their adjacent edges and simultaneously forcing them downward and laterally against the heating chambers.

1,142,527. COMBINATION FRAMING-TOOL. NELS OLSON, Minden, Nebr. Filed June 3, 1914. Serial No. 842,732. (Cl. 33—89.)



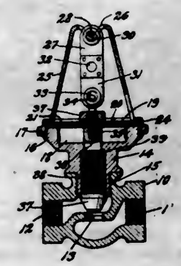
1. A device of the class described comprising a frame, an indicating slide adjustably mounted upon said frame, a clamping slide adjustably mounted upon said frame, an abutment carried by said frame, a rule carried by said indicating slide and said clamping slide for holding the same upon said frame and against said abutment, whereby the device will facilitate the finding of bevels and angles as desired.

2. A device of the class described comprising a frame, an indicating slide adjustably carried upon said frame, an auxiliary clamping slide adjustably carried upon said frame, a lug fixedly carried upon said frame at a spaced distance from said slides, a folding rule carried by said slides and lug, said lug adapted to form an abutment for said rule whereby said rule may be swung slightly by said indicating slide and be held in engagement with said indicating slide and said lug by means of said clamping slide for determining a bevel or angle.

3. A device of the class described comprising a triangular frame the base portion of said frame being provided with a plurality of graduations, an indicating slide adjustably carried upon the base of said frame, said indicating slide provided with a tapering indicating finger, an ear formed integral upon said slide, a clamping slide adjustably supported upon said frame, said clamping slide provided with an overhanging portion, a lug fixedly secured upon the upper portion of said triangular frame at a spaced distance from said slides, said indicating slide adapted to be moved to allow said finger to be moved to the desired graduation, a rule abutting against said ear on said slide and said lug, said clamping slide being adapted to hold the rule in the position whereby the rule will extend diagonally across said frame so as to project beyond the side portion of said frame whereby an angle or bevel may be easily obtained.

4. A device of the class described comprising a triangular frame, said frame comprising a base having a reduced longitudinally extending rib formed integral thereon, a reduced shoulder formed integral upon said rib, an indicating slide adjustably carried upon said base, said base provided with a plurality of graduations, a tapering finger formed integral upon said slide, said slide being adapted to be moved so as to allow the finger to indicate the desired graduation, a clamping slide adjustably secured to said shoulder, said slides normally extending in parallel spaced relation to each other, a lug fixedly spaced upon said frame at a spaced distance from said slides, a rule positioned upon said frame, said clamping slide being adapted to hold the rule in engagement with said lug and said indicating slide whereby a desired bevel or angle may be easily obtained.

1,142,528. THERMALLY-CONTROLLED VALVE. WILLIAM HOWARD PAINE, Providence, R. I., assignor to Fire Prevention Company, a Corporation of Rhode Island. Filed Jan. 22, 1914. Serial No. 813,816. (Cl. 137—92.)



1. A thermally controlled valve comprising a valve casing, a cap removably secured to said casing, a diaphragm forming a closure for said cap, a reinforcing plate mounted upon said diaphragm, a yoke supported by said plate above said diaphragm, a locking ring for securing said diaphragm, reinforcing ring and yoke rigidly to said cap, a valve in said casing, said valve having a stem passing through said cap and said diaphragm, means for rigidly securing said diaphragm to said valve stem, means for closing said valve, and a fusible link secured to said yoke and said valve stem for normally holding said valve in open position.

2. A thermally controlled valve comprising a valve casing, a cap removably secured to said casing, a diaphragm closing said cap, a reinforcing plate disposed upon said diaphragm, said plate being provided with slots at its opposite edges, a yoke supported by said plate and having its ends disposed in said slots, a locking ring for securing said plate, yoke and diaphragm rigidly to said cap, a valve in said casing, said valve having a stem extending through said cap and said diaphragm, means for securing said diaphragm rigidly to said stem, means for closing said valve, and a fusible link connecting said yoke and said stem for holding said valve normally in open position.

3. A thermally controlled valve comprising a valve casing, a cap removably secured to said casing, a diaphragm closing said cap, a yoke supported by said cap, a locking ring for detachably connecting said yoke and diaphragm to said cap, a valve disposed in said casing and having a stem extending through said cap and diaphragm, means for securing said diaphragm rigidly to said stem, a hook removably secured to the inner end of said stem, means for closing said valve, and a fusible link connected at one end to said yoke and its opposite end to said hook for holding said valve normally in open position.

4. A thermally controlled valve comprising a valve casing, a cap removably secured to said casing, a diaphragm closing said cap, a yoke supported by said cap, a locking ring for removably securing said yoke and diaphragm to said cap, the upper end of said yoke being slotted, a valve in said casing having a stem extending through said cap and said diaphragm, means for rigidly securing said diaphragm to said stem, means for closing said valve, a hook removably secured to the inner end of said stem, and a fusible link having one end secured to the slotted end of said yoke and the opposite end secured to said hook to hold said valve normally in open position.

1,142,529. IGNITING CIGARETTE OR CIGAR. CARLOS EDUARDO RODRIGUEZ, Brooklyn, N. Y. Filed July 29, 1914. Serial No. 853,880. (Cl. 131—52.)



1. The igniting cigarette, comprising a safety igniter of igniting material adapted to coöperate with a phosphoric igniting surface and having a flat igniter body adapted to directly engage the ignition end of the filler, a coöperating protecting securing cap of thin sheet metal having an attaching flange crimped into engagement with the wrapper and having a venting hole in its end, a projecting tip on said igniter extending through said hole and a paper washer interposed between said cap and igniter and secured to said igniter outside of said tip.

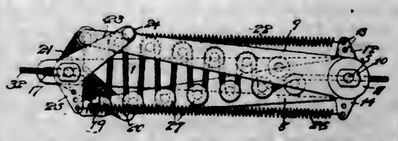
2. The igniting cigarette or cigar, comprising an igniter having a flattened body and adapted to directly engage the ignition end of the filler, a coöperating protecting securing cap having an attaching flange in engagement with the wrapper and having a venting hole in its end and a projecting tip on said igniter extending through said hole.

1,142,530. SCREW-PROPELLER. WILLIAM ROWTHORNE, Southampton, England. Filed Mar. 15, 1915. Serial No. 14,583. (Cl. 170—173.)



A screw-propeller comprising blades, each having an annular, apertured hub-portion, of reduced thickness, and each blade having lateral shoulders at the hub-end thereof, but not contained in the reduced portion; said hub-portions being superposed to make a laminated hub for the propeller; and said shoulders of one blade abutting shoulders of adjacent blades.

1,142,531. TENSION DEVICE. VERNON ROYLE, Paterson, N. J. Filed Aug. 22, 1914. Serial No. 858,109. (Cl. 242—153.)



1. A tension and take-up device comprising a pair of arms pivoted to swing toward and away from each other

and provided with guides for passing a thread or yarn back and forth from one arm to the other, springs tending to open the arms, and levers connecting the swinging ends of the arms and springs whereby the arms are caused to float intermediate of their extreme outward and inward positions.

2. A tension and take-up device comprising arms pivoted to swing toward and away from each other, sheaves provided on the arms for guiding a thread or yarn back and forth from one arm to the other, springs tending to hold the arms swung apart, and levers connecting the free ends of the arms with the springs for holding the arms in a floating position intermediate of their extreme open and closed positions.

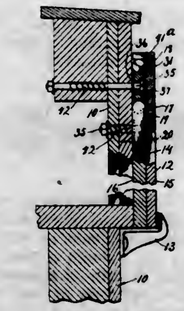
3. A tension and take-up device comprising arms pivoted to swing toward and away from each other, the arms being provided with thread guides for passing a thread or yarn back and forth from one arm to the other, bell crank levers each having one arm connected with one of the sheave carrying arms and springs connecting the other arms of each of the bell crank levers with the sheave carrying arms at their pivoted ends.

4. A tension and take-up device comprising arms mounted to swing toward and away from each other, the said arms being each provided with a series of sheaves for receiving a thread or yarn, the sheaves on one of the arms being arranged in staggered relation to the sheaves on the other arm, bell crank levers each having an arm connected with one of the sheave carrying arms and springs connecting other arms of the bell crank levers with the sheave carrying arms.

5. A tension and take-up device comprising a pair of arms mounted to swing toward and away from each other, each arm being provided with a laterally projecting ear and with a series of yarn or thread guides, bell crank levers each having an arm connected with the thread guide carrying arm, and springs connecting other arms of the bell crank levers with said ears on the thread guide carrying arms.

[Claims 6 to 10 not printed in the Gazette.]

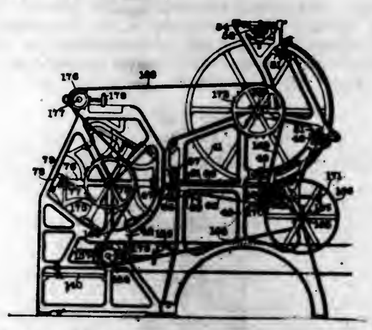
1,142,532. CAR-DOOR HANGER. CHARLES C. RUSSELL, Chicago, Ill. Filed Apr. 26, 1915. Serial No. 24,037. (Cl. 16—7.)



1. In combination, a car wall having a door opening therein, a door movable edgewise over the opening, two sets of peripherally grooved rollers mounted on the car wall, the rollers of each set being in horizontal alinement and the rollers of one set being located above and extending over the door opening, the rollers of the other set being located at a lower level and at one side of the door opening, and a continuous track of round cross section secured against the inside face of the door and folded to provide three rail lengths at different levels, the lower rail being engageable with the peripheral grooves of the rollers of the lower set from below, the upper rail being engageable with the peripheral grooves of the rollers of the upper set from above, and the intermediate rail being engageable with the peripheral grooves of the rollers of both sets.

2. In combination, a car wall having a door opening therein, two sets of peripherally grooved rollers mounted on the car wall, the rollers of each set being in horizontal alinement and the rollers of one set being located above and extending over the door opening, the rollers of the other set being located at a lower level and at one side of the door opening, a door movable edgewise over the door opening and being rabbeted upon the inside along its upper edge, the depth of the rabbet being substantially equal to the thickness of the said rollers, and a continuous track secured against the bottom of the rabbeted portion of the door and folded to provide three rail lengths at different levels, the lower rail being engageable with the peripheral grooves of the rollers of the lower set from below, the upper rail being engageable with the peripheral grooves of the rollers of the upper set from above, and the intermediate rail being engageable with the peripheral grooves of the rollers of both sets.

1,142,533. PRETZEL-MAKING MACHINE. GEORGE H. SCHAETZEL, St. Louis, Mo., assignor to Pfenninger Pretzel & Baking Company, St. Louis, Mo., a Corporation of Missouri. Filed June 6, 1910. Serial No. 565,310. (Cl. 107—8.)



1. In a machine for making pretzels, the combination with a traveling holder adapted to engage and hold the body of a loop of dough, of a twisting device traveling with said holder and adapted to twist together the two ends of a loop of dough carried by said holder.

2. In a machine for making pretzels, the combination with a plurality of rotating holders, each adapted to engage and hold the body of a loop of dough, of a plurality of twisting devices rotating with said holders and adapted to twist the ends of the loop carried thereby.

3. In a machine for making pretzels, the combination with a plurality of traveling holders, each adapted to engage and hold the body of a loop of dough, of a plurality of twisting devices traveling with said holders and adapted to twist the ends of the loops of dough carried by said holders and fold the same over the body of the loop.

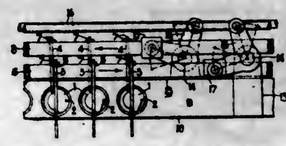
4. In a machine for making pretzels, the combination with a plurality of rotary holders, each adapted to engage and hold the body of a loop of dough, of a plurality of twisting devices rotating with said holders and adapted to twist the ends of the loops of dough carried by said holders and fold the same over the bodies of the loops.

5. In a machine for making pretzels, the combination with a holder adapted to hold a loop of dough, of means for twisting the ends of the loop together and folding the ends of the loop over the body, and means for severing the ends of the loop.

[Claims 6 to 34 not printed in the Gazette.]

1,142,534. CIRCULAR-SHUTTLE EMBROIDERY-MACHINE. MORRIS SCHOENFELD, Rorschach, Switzerland. Filed Apr. 29, 1913. Serial No. 764,340. (Cl. 112—7.)

1. In shuttle embroidery machines, a plurality of circularly movable shuttles, coupling means on their periphery, a longitudinally and transversely movable driver bar carrying a plurality of finger-like drivers fixed thereon for directly engaging with said coupling means of the shuttles, and driving means for moving said driver bar at the same time longitudinally and transversely parallel to itself so as to impart a circular motion to said drivers for directly rotating the shuttles.



2. In shuttle embroidery machines, a plurality of circularly movable shuttles, several parallel driver bars carrying a plurality of drivers for engaging in such a manner that each shuttle is engaged by a driver of each driver bar and driving means for moving said driver bars at the same time longitudinally and parallel to themselves for rotating the shuttles.

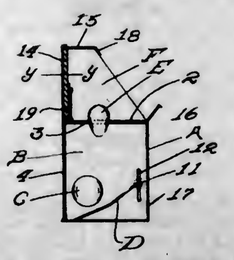
3. In shuttle embroidery machines, circularly movable shuttles, movable driver bars, drivers for engaging with said shuttles, movably mounted on said driver bars so as to be capable of being discharged from the corresponding shuttles, and driving means for imparting to said driver bars an oscillatory to-and-fro movement for rotating the shuttles.

4. In shuttle embroidery machines, circularly movable shuttles, movable driver bars, drivers for engaging with said shuttles, mounted by means of a spring acted hinge on said driver bars so as to be capable of being disengaged from the corresponding shuttles, and driving means for imparting to said driver bars an oscillatory to-and-fro movement for rotating the shuttles.

5. In shuttle embroidery machines, circularly movable shuttles, movable driver bars carrying drivers for engaging with said shuttles, oscillating bent levers connected to said driver bars for swinging them to-and-fro, means for actuating said bent levers and means for longitudinally displacing the driver bars so as to correct their swinging movement for obtaining a correct oscillatory to-and-fro movement on said shuttles.

[Claims 6 and 7 not printed in the Gazette.]

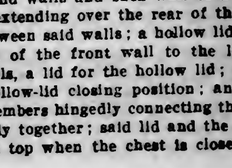
1,142,535. EGG-CANDLING APPARATUS. BENJAMIN J. SHIMOTA, Vesell, and GORDON B. CARAWAY, St. Paul, Minn. Filed June 8, 1914. Serial No. 843,835. (Cl. 99—6.)



1. An egg tester, comprising, in combination, a casing having a receptacle and a hood above said receptacle, said receptacle and hood being separated by an apertured partition in the apertures of which the eggs to be tested may be placed, a back closing said receptacle and movable thereon to admit sunlight into said receptacle when moved into open position and a reflector having its lower end resting on the floor in said receptacle and its upper end vertically adjustable on the sides of said receptacle, said hood partly enveloping the eggs held in said apertures to obscure light originating from above said eggs.

2. An egg tester, comprising, in combination, a casing forming two compartments separated in elevation by an apertured partition, in the apertures of which eggs to be tested are adapted to be placed, one of said compartments below said partition forming a lamp receptacle and the other of said compartments forming a hood adapted to shield the eggs held by said apertured partition from outside light, a reflector in said receptacle adapted to concentrate light upwardly upon the eggs held in said apertures, and said hood being formed with overhanging shades surrounding an opening and adapted to assist in shielding light from above the eggs and a mirror back of the eggs held in said apertures adapted to disclose a portion of the eggs to view.

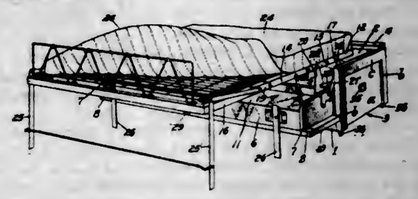
1,142,536. RADIATOR. MYER SIGMUN, Toledo, Ohio, assignor of one-half to Sumer Spitzer, Toledo, Ohio. Filed Aug. 17, 1914. Serial No. 857,229. (Cl. 257—130.)



1. In a radiator, a strip having spaced corrugations and slotted centrally across the corrugations and near one edge of the strip and folded centrally and having one edge turned over the opposite edge along the slots, forming vertical and transverse water chambers.

2. In a radiator, a strip having spaced corrugations and slotted centrally across the corrugations and near one edge of the strip and folded centrally and having one edge turned over the opposite edge along the slots, forming vertical and transverse water chambers, a corrugated strip located between the first-named strips and spaced by the corrugations of the first-named strip and having openings arranged along the corrugations of the last-named strip and staggered in their arrangement across the corrugations of the last-named strip.

1,142,537. CEDAR-CHEST BED. HARRY SISKIN, Los Angeles, Cal. Filed June 4, 1914. Serial No. 842,855. (Cl. 190—2.)

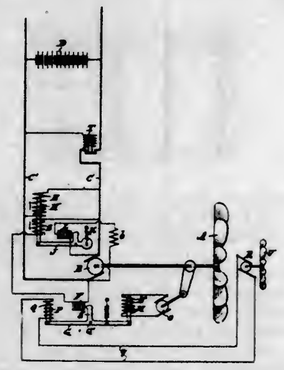


1. A double lidded chest, one of the lids of which is hollow and is hinged to the body of the chest to form a supplemental compartment over the main compartment of the chest when such lid is closed, and the other lid forming a closure for the compartment in the hollow lid and also forming a top of the chest when the chest is closed and a foldable bed and members hingedly connecting the hollow lid and the chest body together, said bed folding into and housed within the space below the bottom of the hollow lid when the chest is closed.

2. A chest body having a front wall of a determined height, and end walls and back wall of a greater height; a top board extending over the rear of the end walls and the space between said walls; a hollow lid extending from the top level of the front wall to the level of the end and back walls, a lid for the hollow lid; means to fasten the lid in hollow-lid closing position; and a folding bed frame and members hingedly connecting the hollow lid and the chest body together; said lid and the top board forming the chest top when the chest is closed.

3. A chest bed comprising an open frame having a front wall of a definite height and a back wall and two end walls of a greater height, said frame being open at top and bottom, a hollow lid in hinged relation to said frame to form a closure for the top of the frame, a foldable bed frame and members hingedly connecting the hollow frame and the hollow lid together.

1,142,538. WIND-WHEEL-LOAD REGULATOR. JOHN A. SNEE, Jr., West Elizabeth, and THOMAS H. KERR, Pittsburgh, Pa., assignors to said Snee and William Snee, West Elizabeth, Pa. Filed Oct. 29, 1913, Serial No. 797,994. Renewed Oct. 29, 1914. Serial No. 869,346. (Cl. 171—226.)



1. The combination of a wind wheel, a dynamo electric generator actuated by the wheel, the generator having an electro-magnetic field, and wind actuated means operated independently of said wheel for varying the current flow through the generator field.

2. The combination of a wind wheel, a dynamo electric generator actuated by the wheel, the generator having an electro-magnetic field, a variable resistance in series with the generator field, and a wind actuated device operated independently of said wheel for varying said resistance.

3. The combination of a wind wheel, a dynamo electric generator actuated by said wheel, the generator having an electro-magnetic field, a variable resistance in series with the generator field, and wind-actuated means operated independently of the wheel for decreasing said resistance with increasing wind velocity.

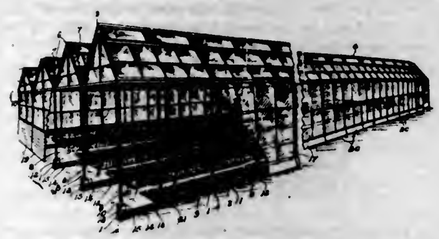
4. The combination of a wind wheel, a dynamo electric generator actuated by said wheel, the generator having an electro-magnetic field, opposed controlling means for varying the current flow through the generator field, actuating means for one of the controlling means operatively connected to the wind wheel, and wind actuated means operated independently of the wind wheel for actuating the other controlling means.

5. The combination of a wind wheel, a dynamo electric generator actuated by said wheel, the generator having an electro-magnetic field, a supplemental wind wheel, and means actuated by the supplemental wheel for varying the current flow through the generator field.

[Claims 6 to 16 not printed in the Gazette.]

1,142,539. GREENHOUSE. ALBERT J. STAHELIN, Redford, Mich. Filed Oct. 26, 1911. Serial No. 656,816. (Cl. 47—27.)

1. The combination of a series of parallel track rails extending across and adjacent to the surface of a plat of ground, and a house structure comprising sills extending the length of the structure with one sill above and adjacent to each track rail and each sill formed with a drop to provide a transverse passage across the structure, and runners carried by the sills and engaging the rails.

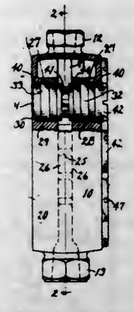


2. The combination of a series of parallel track rails extending across and adjacent to the surface of a plat of ground, and a house structure comprising parallel sills extending the length of the structure with a sill above each track rail, a series of wheels carried by each sill to engage the track rails, and a drop in each sill comprising plates secured to the sides of the sill and bars connecting the lower ends of the plates and lying at each side of the track rails, said sill being cut away opposite said bars.

3. The combination of a series of parallel track rails extending across and adjacent to the surface of a plat of ground, a greenhouse structure comprising sills extending the length of the house with one sill parallel to and above each track rail, wheels carried by the sills and engaging the track rails to support the house structure thereon, and tie yokes embracing the sills and track rails to anchor the structure to said rails.

4. In a shiftable greenhouse structure, spaced sunken supports having the upper ends thereof flush with the ground, parallel rails detachably mounted upon said support, a greenhouse structure movable above said rails and having sills in proximity thereto, and means carried by said sills for anchoring said structures relatively to said rails.

1,142,540. GAGE-GLASS. JOHN G. TALMAGE, Cleveland, Ohio. Filed Oct. 15, 1913. Serial No. 795,269. (Cl. 73—54.)



1. In a gage glass device, the combination with a pair of transparent members, of a casing having an internal space for liquid and spaces on opposite sides of the liquid space for the transparent members, the latter spaces being uninterrupted intermediately and one of them uninterrupted externally whereby both transparent members may be put in place from one side without disturbing the casing, and means for clamping said member in place from one side.

2. The combination of a casing having an internal space for liquid and having a series of individual alined openings through the opposite walls of the casing, transparent members in the openings, means for clamping them in place, and space bars within the intermediate space bracing the walls and preventing the transparent members being dropped into such space while such members are being removed.

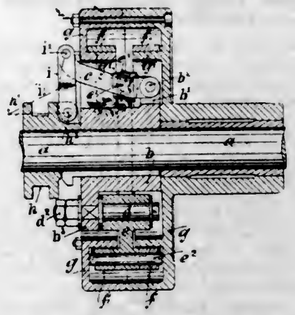
3. In a gage glass construction, the combination of a casing having an internal space for liquid and alined openings through the opposite walls of the casing, said openings being uninterrupted intermediately and one of them uninterrupted externally, transparent members in the openings, gaskets therefor, and devices acting on the gaskets and adapted to compress the gaskets in both walls from the same side of the casing.

4. In a gage glass construction, the combination of a casing having an internal space for liquid, alined openings through the walls of the casing, an internal annular flange adjacent to the outside of one of the openings, a thimble screwing into the outer portion of the opposite opening, roundels on opposite sides of the liquid space between said flange and thimble, and distance pieces between the opposed roundels.

5. In a gage glass construction, the combination of a casing having an internal space for liquid, alined openings through the walls of the casing, and an internal annular flange adjacent to the outside of one of the openings, a thimble screwing into the outer portion of the opposite opening, roundels on opposite sides of the liquid space between said flange and thimble, and a distance member between the two roundels.

[Claims 6 to 15 not printed in the Gazette.]

1,142,541. FRICTION CLUTCH AND COUPLING. LEONARD TAYLOR, Slattocks, Castleton, England. Filed Feb. 7, 1914. Serial No. 817,129. (Cl. 192—14.)



1. A clutch or coupling comprising, a boss to fit a shaft, a movable actuating lever pivotally supported from said boss, a wedge on the lever, pivoted levers supported by the boss and adapted to be actuated by the wedge of said actuating lever, a casing surrounding said boss and pivoted levers, flanges in said casing, and flexible bands connected to said pivoted levers and adapted to be contracted around said flanges by the pivoted levers when the actuating lever is moved, and sliding means to operate said actuating lever.

2. A clutch or coupling comprising, an inclosing casing, turned inner peripheries inside said casing, an inclosed flexible metal band adapted to be contracted upon the turned inner periphery, a boss within the casing, pivoted levers on said boss, pivotal connecting means between the said levers and the flexible band, a movable actuating lever pivoted to the boss, a wedge on the actuating lever and adapted to engage said pivoted levers for operating the latter, and slidable actuating gear consisting of a sleeve and link for operating the actuating lever whereby said pivoted levers are actuated to operate the flexible band, as described.

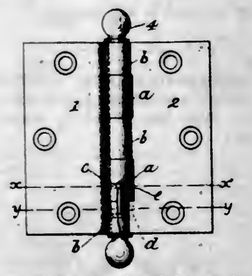
3. A clutch or coupling having a boss, pivoted levers carried by said boss, a clutch casing made in halves and inclosing said boss, turned inner peripheries on said halves, flexible bands connected with said levers and adapted to engage with said peripheries, said levers and bands being completely housed within said casing, a movable actuating lever fulcrumed on the boss, said actuating lever being formed with a wedge portion adapted to operate said pivoted levers and a sliding sleeve connected with said actuating lever for operating the latter, as described.

4. A clutch or coupling comprising, a boss, a clutch casing entirely surrounding the boss, inner peripheries in the casing, flexible bands, pivoted levers to which said bands are connected, pivots for said levers located on the inside of the clutch casing, means to resist separation of the pivots for said levers, and a movable actuating lever pivoted to the boss and having a wedge which operates said pivoted levers, as described.

5. A clutch or coupling device comprising, a shaft, a boss to fit said shaft, a clutch casing surrounding the boss, inner peripheries in said casing, a flexible band, pivoted levers on said boss for operating said band and to which said band is connected and center studs therefor, means to resist separation of such studs, consisting of a slotted plate, an inclined face to such plate, and a single movable actuating lever having a wedge shaped portion and operated by sliding gear on the shaft to work the pivoted levers, as described.

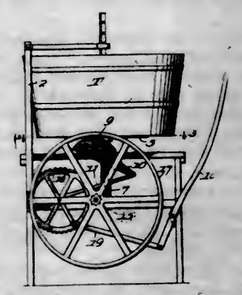
[Claim 6 not printed in the Gazette.]

1,142,542. HINGE. CHARLES WILLIAM TRINKAUS, Catonsville, Md. Filed Feb. 10, 1915. Serial No. 7,255. (Cl. 16—107.)



A hinge comprising a pair of leaves having engaging knuckles, two of the opposing knuckles, having pins which project into the pintle cavity and are brought into vertical alinement when the leaves are partially closed, and a pintle having a circumferential groove adapted to engage with and receive one of the pins, and a vertical groove which extends from the said circumferential groove to the end of the pintle.

1,142,543. OPERATING MEANS FOR WASHING-MACHINES. THOMAS EDWIN UNKS, Sandusky, Ohio. Filed Sept. 19, 1913. Serial No. 790,682. (Cl. 74—50.)



1. In combination with a support adapted to have vertical and rotatable movement, a shaft having a pair of oppositely disposed cranks thereon, a second shaft, oppositely disposed cams each secured on the second shaft having comparatively long depending shanks, said cams alternately engaging the under face of the support to impart vertical reciprocatory and alternating rotary motion to the support, links directly connected to the respective

cranks and shanks, and means to effect rotation of the first mentioned shaft.

2. In combination with a vertically movable support, a pair of oppositely disposed cams having depending shanks, said cams alternately rotating the support by engaging the under face of the support, and means connected to the shanks of the cams to oscillate the latter in opposite directions.

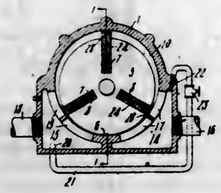
3. In combination with a vertically movable support, a pair of oppositely disposed cams for alternately rotating the support by engagement with the under face of the support, means pivotally connected to each cam for operating same, and a crank shaft to which each of said means is pivoted.

4. In combination with a vertical movable and rotatable support, a pair of rocking cams which engage with the under face of the support, and means to impart oscillatory movement to the cams in opposite directions to impart vertical reciprocatory and alternating rotary motion to the support.

5. In combination with a vertically movable support, a rotatable member, means to impart continuous rotary movement to said member, means to impart alternating rotary and vertical reciprocatory movement to said support, and means connecting the rotatable member with said first named means whereby the latter is given oscillatory movement.

[Claim 6 not printed in the Gazette.]

1,142,544. COMPRESSION AND SUCTION DEVICE. JAMES B. VERNON, Pittsburgh, and MARTIN J. SIEFFERT, Wireton, Pa. Filed Dec. 29, 1913. Serial No. 809,412. (Cl. 230—30.)

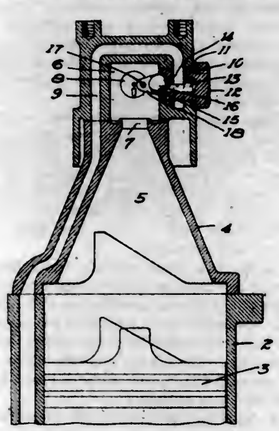


1. A machine of the character described, comprising a casing provided with a chamber, a rotor eccentrically located in said chamber, and provided with a longitudinal slot beveled at its edge to form an oil pocket, a blade movably mounted in said slot, and a pocket in the side face of said blade arranged to pass said oil pocket during each rotation of the rotor and carry oil down into the rotor slot.

2. A machine of the character described, comprising a casing provided with a chamber, a rotor eccentrically located in said chamber and provided with a longitudinal slot beveled at its edge to form an oil pocket, a blade movably mounted in said slot and provided with a longitudinal groove arranged to pass said oil pocket during each rotation of said rotor and carry oil down into said slot.

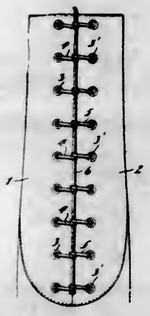
1,142,545. INTERNAL-COMBUSTION ENGINE. FRANK E. WADE, Fairmont, Minn. Filed Jan. 5, 1915. Serial No. 623. (Cl. 123—191.)

An internal combustion engine comprising a cylinder having a main combustion chamber and an auxiliary combustion chamber at one end thereof and a port leading from said auxiliary chamber to said main chamber, said cylinder having a by-pass for the passage of gas, a plug tapped into the wall of said auxiliary combustion chamber and having a longitudinal duct therein, and an opening in the wall of said duct to communicate with said by-pass when said plug is fitted into the wall of said chamber, said plug having a seat at the inner end of said duct, a ball valve for said seat adapted to drop inwardly by gravity and allow the passage of gas from said by-pass to



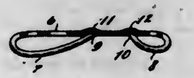
said auxiliary chamber and means for limiting the inward movement of said valve.

1,142,546. BOOT AND SHOE FASTENING. STUART WEATHERLEY, London, England. Filed Jan. 19, 1914. Serial No. 812,890. (Cl. 24—145.)



A detachable shoe fastening device comprising a plurality of fastening members arranged in pairs, each of said members having an enlarged solid outer end and a reduced inner end bent at substantially right angles to the remainder of said member, said inner end being split for a portion of its length only, reduced end being adapted to extend through said eyelet from one side and clench thereon, and openings formed in the enlarged ends of said members, adapted to anne when the shoe top is closed.

1,142,547. PIN. STUART WEATHERLEY, London, England. Filed Jan. 21, 1914. Serial No. 813,401. (Cl. 24—87.)



1. A pin or fastening device of the class described comprising a body portion provided with recesses, pointed ends extending from said body portion into said recesses.

2. A pin or fastening device of the class described, comprising a body portion of spring material provided with pointed end portions formed integral therewith and extending inwardly and upwardly from the opposite ends of said body portion with the pointed ends thereof positioned adjacent the center of said body portion, said pointed end portions being normally in said position independently of any engagement with said body portion, and point projecting means on said body portion adjacent said pointed ends.

1,142,548. ELECTRIC LAMP. JOHN BERG, Chicago, Ill., assignor to Metal Specialties Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Nov. 21, 1914. Serial No. 873,285. (Cl. 240—8.5.)



1. In a device of the character set forth, the combination of a battery, a forked standard mounted centrally on the upper end thereof and having connections with one electrode of the battery, a reflector-body pivotally mounted between the forks of said standard and having its back portion fitted with an incandescent lamp-bulb, and electric connections between the central terminal of the lamp-bulb and the other electrode of the battery.

2. In a device of the character set forth, the combination with a dry-cell having a central binding-post and an outer binding-post, of a standard secured to said central binding-post and affording an electric conductor, a reflector-body pivotally mounted on said standard and serving as an electric conductor, said reflector-body equipped at its rear portion with a socket affording an electric conductor, a lamp-bulb having its external terminal secured in and contacting with said socket, a conductor connected with the outer binding-post and equipped with a terminal adapted to contact with the central terminal of the lamp-bulb, and a sleeve having threaded connection with said socket and having swivel connection with the terminal of said conductor.

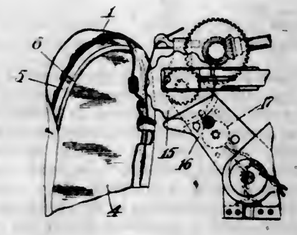
3. In a device of the character set forth, the combination with a dry-cell having central binding-post and an outer binding-post, of a fixed standard mounted on said dry-cell and secured to said central binding-post, a reflector-body having its intermediate portion pivotally mounted on said standard and having its back portion equipped with a lamp-bulb, said standard and pivotally mounted reflector-body affording electrical connections between the central binding-post and the outer terminal of the lamp-bulb, external flexible electric connections between the central terminal of said lamp-bulb and the outer binding-post, and a handle connected with said standard.

4. In a device of the character set forth, the combination with a dry-cell having a central binding-post and an outer binding-post, of a standard mounted on the upper end of said dry-cell and secured to said central binding-post, a reflector-body having its sides pivotally mounted on said standard and having its rearwardly projecting portion equipped with a lamp-bulb, electric connections between said lamp-bulb and the outer binding-post, and a bail having the lower ends of its arms pivotally connected with the arms of said standard.

5. In a device of the character set forth, the combination with a dry-cell having a central binding-post and an outer binding-post, of a standard mounted on said dry-cell and secured to said central binding-post, a reflector-body mounted on said standard and equipped at its rear portion with an open socket, a lamp-bulb secured in said socket, an external conductor connected with the outer binding-post and equipped with a terminal adapted to contact with the central terminal of the bulb, and a sleeve having threaded connection with said socket and having insulated swivel connection with the terminal of said conductor.

[Claims 6 to 11 not printed in the Gazette.]

1,142,549. METHOD OF LASTING SHOES. MATTHIAS BROCK, Boston, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Sept. 19, 1914. Serial No. 862,554. (Cl. 12—145.)



1. That improvement in the art of making shoes which consists in seizing the margin of an upper and stretching the upper and carrying its marginal portion under tension inwardly over the margin of a sole having a feather and upstanding shoulder, ironing the upper under tension by the use of rubbing pressure and heat against and into conformity with the angular formation presented by the said feather and shoulder, and binding the upper against the shoulder into the position and in the condition in which it has been ironed.

2. That improvement in the art of making shoes which consists in stretching an upper progressively over a last by repeated operations applied to successive portions of the upper, progressively ironing the upper by forcing each stretched portion successively into position over the feather and against the shoulder of a welt shoe innersole or a turn shoe sole with the aid of a heated ironing tool, and progressively binding the successively stretched and ironed portions of the upper against said shoulder.

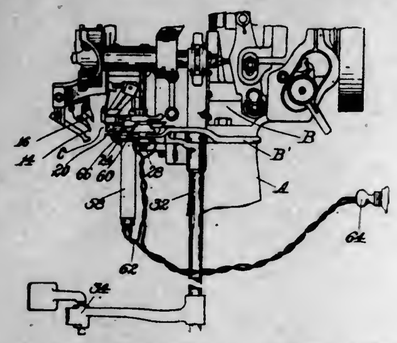
3. That improvement in the art of making shoes which consists in stretching an upper progressively over a last by repeated operations applied to successive portions of the upper, progressively ironing the upper by forcing each stretched portion successively into position over the feather and against the shoulder of a welt shoe innersole or a turn shoe sole with the aid of a heated ironing tool as the lasting progresses, and maintaining the ironing pressure on each portion while another portion is being stretched into place.

4. That improvement in the art of making shoes which consists in progressively lasting the upper around the toe portion of a shoe, progressively ironing the upper around the toe and progressively securing the upper around the toe, the lasting, ironing and securing being carried on simultaneously upon adjacent portions of the upper as the operations proceed around the toe.

5. That improvement in the art of making shoes which consists in progressively shaping and securing the upper of a shoe over a welt shoe innersole or a turn shoe sole by stretching the upper, ironing the stretched portion of upper into the angle between the feather and the shoulder of the innersole or sole and binding the upper, the operations being repeated in the succession named on adjacent portions of the upper along the edge of the shoe.

[Claim 6 not printed in the Gazette.]

1,142,550. LASTING-MACHINE. MATTHIAS BROCK, Boston, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed May 8, 1911. Serial No. 625,670. (Cl. 12—2.)



1. A machine for working an upper over a last and forming it into the angle between the feather and the shoulder of a welt innersole having, in combination, upper stretching grippers, means for operating said grippers to last the shoe step by step by repeated applications of the grippers to adjacent portions of the upper, and means for applying heat locally to a portion of the upper which is upon the shoe bottom adjacent to the stretching grippers for softening the stock to facilitate the lasting operation.

2. A machine for working an upper over a last and forming it into the angle between the feather and the shoulder of a welt innersole having, in combination, upper stretching means, a rotatable wiper for crowding the upper into said angle, means for continuously and uninterruptedly rotating the wiper in operative engagement with the upper, and means for heating the wiper for applying heat locally to a given portion of the upper in the angle and on the feather in advance of the action of the upper stretching means upon that portion of the upper to soften the upper and to cause it to form more readily into the angle.

3. In a machine for progressively lasting welt and turn shoes, in combination, upper over-working means, a reciprocating wiper, ironing means shaped and arranged with relation to the reciprocating wiper to iron the upper into the angle between the feather and the shoulder of a welt shoe innersole or a turn shoe sole and against the shoulder thereof, and means to keep the ironing means hot.

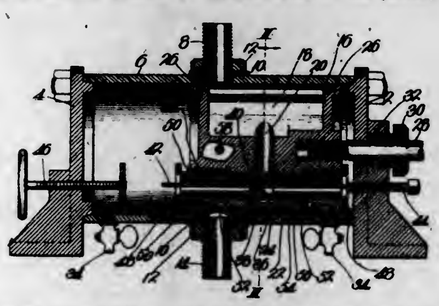
4. In a machine for progressively lasting welt and turn shoes, in combination, upper stretching grippers, a reciprocating wiper operating to lay the stretched upper over the shoe bottom, an ironing device maintaining during successive lasting operations uninterrupted operative engagement with the shoe bottom and progressively advancing around the shoe as the lasting proceeds to iron each stretched and overlayed portion of upper down upon the feather of a welt shoe innersole or turn shoe sole, and means to keep the ironing device hot.

5. In a lasting machine, in combination, upper stretching grippers, means for operating the grippers to progressively last a shoe, means for progressively ironing the upper down upon a bottom face of the shoe innersole, means acting directly upon the ironing means to keep it hot, and means for progressively fastening the upper where it has been ironed down in lasted position.

[Claims 6 to 19 not printed in the Gazette.]

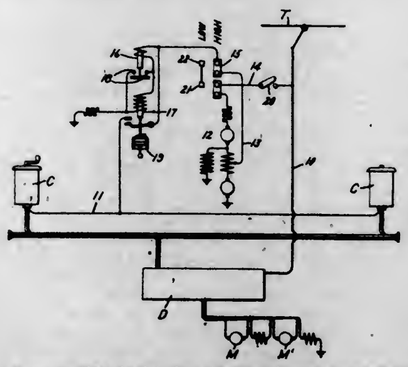
1,142,551. FLUID-PRESSURE MOTOR. GEORGE W. BURNHART, Denver, Colo. Filed Apr. 21, 1913. Serial No. 762,450. (Cl. 138—2.)

A fluid pressure cylinder having inlet and exhaust openings at opposite sides, an X-shaped piston within the cylinder having a receiving pocket between its upper arms, in communication with the inlet opening, a passage extending downwardly from said pocket, a circular chamber at the lower end of the passage, an exhaust pocket below the said circular chamber, in communication with the exhaust opening, a pair of end ports and a pair of exhaust openings connecting said end ports with the exhaust pocket, a piston rod connected to the piston and extending through one of the heads or ends of the cylinder, and a guiding means to prevent rotation of the piston, a valve tube extending slidingly through the piston and projecting beyond the ends thereof and also extending centrally through said circular chamber and said end ports and provided centrally with one or more perforations always in communication with the said circular chamber, external rings mounted on the extremities of the tube for alternately closing communication between the said end ports and the cylinder at opposite ends of the piston, a



pair of short tubes secured to and within the perforated tube and terminating in planes at opposite sides of the perforated portion of said first-named tube, a valve fitting in the perforated tube between the short tubes and adapted to slide from one side of the perforation or perforations to the other, and a stem secured to said valve and adapted through encountering resistance alternately offered by the heads of the cylinder under travel of the piston, to slide said valve from one side of said perforation or perforations to the other and cause said valve by alternately pressing on the inner ends of said short tubes to slide the first-named tube in opposite directions alternately until its rings alternately engage the ends of the piston to close the adjacent end ports.

1,142,552. PROTECTIVE DEVICE. EUGENE R. CARICHOFF, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Jan. 15, 1914. Serial No. 812,194. (Cl. 191—3.)

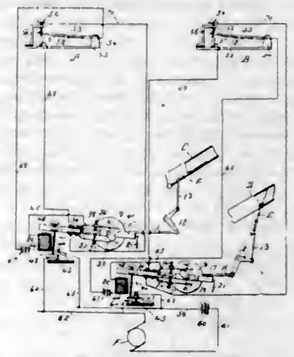


1. A protective device for electric circuits operating on a plurality of voltages comprising two switches having their windings in series one of which responds to a lower current value than the other, and means whereby the switch which responds to the higher current, in operating, renders the other switch inactive.

2. A protective device for electric circuits operating upon a plurality of voltages comprising two switches having their windings in series one of which responds to a lower current value than the other, the switch which responds to the higher current short circuiting the winding of the other switch when operated.

3. A protective device for electric circuits operating upon a plurality of voltages comprising two switches having their windings in series one of which responds to a lower current value than the other, the switch which responds to the higher current short circuiting the winding of the other switch when operated, and means whereby the closure of the switch responding to the lower current value is prevented on high current before its winding is short circuited.

1,142,553. DAMPER-CONTROLLING MECHANISM. JOSEPH A. COLIN, Merriam, Kans. Filed Mar. 17, 1913. Serial No. 754,841. (Cl. 236—4.)



1. In a damper controlling mechanism, a damper, mechanism for operating said damper, a motor, driving means actuated by the motor, a thermostat, means controlled by said thermostat for operatively engaging the damper operating mechanism with and for disengaging it from said driving means, means for operating the motor, and means controlled by said thermostatically controlled means for controlling the motor operating means.

2. In a damper controlling mechanism, a damper, mechanism for operating the damper, an electric circuit including a motor, circuit controlling means, and a generator, driving means actuated by said motor, a thermostat, means controlled by the thermostat for operatively engaging the damper operating mechanism with and for disengaging it from said driving means, and means actuated by said thermostatically controlled means for operating said circuit controlling means.

3. In a damper controlling mechanism, a damper, mechanism for operating the damper, a motor, motor operating means, driving means actuated by the motor, electromagnetic mechanism including a thermostat for operatively engaging the damper operating mechanism with and for disengaging it from said driving means, and means controlled by said electromagnetic mechanism for controlling the motor operating means.

4. In a damper controlling mechanism, a damper, mechanism for operating the damper, an electric circuit including a motor, circuit controlling means and a generator, driving means actuated by said motor, electromagnetic mechanism, including a thermostat, for operatively engaging the damper operating mechanism with and for disengaging it from said driving means, and means controlled by said electromagnetic mechanism for operating said circuit controlling means.

5. In a damper controlling mechanism, a damper, mechanism for operating said damper, a motor, a driving shaft, means actuated by the motor for rotating the driving shaft, means for operating the motor, a thermostat, means controlled by the thermostat for bringing the driving shaft into and out of operative engagement with said damper operating mechanism, and means controlled by said thermostatically controlled means for controlling the motor operating means.

[Claims 6 and 7 not printed in the Gazette.]

1,142,554. BRACELET-WATCH. ISIDORE DITESHEIM, Chaux-de-Fonds, Switzerland, assignor to the Firm of Fabrique Movado L. A. J. Ditesheim & Frère. Filed May 6, 1913. Serial No. 765,807. (Cl. 58—88.)



1. In a bracelet-watch having a case of elongated shape with a lower surface curved to correspond with the curvature of a human arm, a pillar plate of elongated shape, bent angularly according to the form of several adjacent plane faces of an obtuse angled prism and extending across the whole of the available interior space of the said case, and a watch movement mounted upon and distributed over all the faces of the said pillar plate, across the whole of the said elongated case, in order that a better use of the interior space of the case may be obtained for containing the movement, substantially as described.

2. In a bracelet-watch having a case of elongated shape with a lower surface curved to correspond with the curvature of a human arm, a pillar plate twice bent angularly according to the form of three adjacent plane faces of an obtuse angled prism and extending across the whole of the available interior space of the said case, a watch movement mounted upon and distributed over all three faces of the said pillar plate, across the whole of the said elongated case and having its balance wheel supported on one end part of the said pillar plate, its winding stem on the other end portion of the said pillar plate and its escapement wheel on the middle portion of the said pillar plate, and an escapement fork bent angularly in order to compensate the angular difference of the planes of the escapement wheel and of the balance wheel, substantially as described.

1,142,555. WIRE FASTENER AND STRETCHER. FLOYD S. DUNHAM, Peculiar, Mo. Filed Aug. 18, 1913. Serial No. 785,237. (Cl. 256—52.)



1. The combination with a post, of a block embedded within said post, one end of said block comprising an open end barrel, having an interior seat, and the other end comprising recess forming wings, the body of said block having an aperture connecting the inner end of said barrel with the recess formed by said wings, a hook adapted for travel in said aperture and having a threaded shank projected into said barrel, and a nut on said shank adapted for bearing against said seat.

2. The combination with a fence post, of fastener blocks arranged transversely within the post and each comprising a recessed head and a chambered part, having a seat and having an aperture extending from said seat to the recessed portion of the block, a hook slidably mounted in the aperture in each of said blocks and having a threaded portion projected into the chambered part of the block, a nut on said threaded portion adapter to bear against said seat, and a single rod projected through all of said hooks within the recessed portions of said blocks, substantially as set forth.

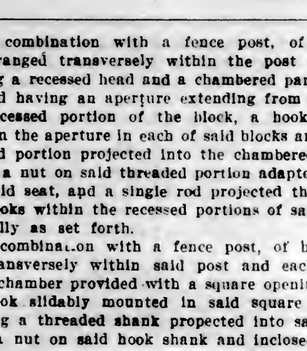
3. The combination with a fence post, of blocks arranged transversely within said post and each having a central chamber provided with a square opening at one end, a hook slidably mounted in said square aperture and having a threaded shank propected into said chamber, and a nut on said hook shank and inclosed in said chamber.

4. The combination with a fence post, of blocks arranged transversely within said post, and each having a grooved end, a chambered barrel and a square aperture communicating with said grooved end and chambered barrel, a wire fastening device comprising a rod having a threaded shank projecting into said chambered barrel, an offset, hooked portion having parallel sides slidably mounted in said square aperture, and a nut on said threaded shank and inclosed in said chamber.

5. The combination with a fence post having a longitudinal groove therein, of a plurality of blocks embedded in said post and extending transversely therethrough; each block comprising a recessed head registering with the longitudinal groove in the post, and a chambered shank opening from the opposite side of said post, and having a seat and an aperture extending from said seat to the recessed head, a wire fastening device comprising a rod having a threaded shank projecting into said chambered barrel, an offset hooked portion having parallel sides slidably mounted in said aperture, and a nut on said threaded shank and inclosed in said chamber.

[Claims 6 to 10 not printed in the Gazette.]

1,142,556. METHOD OF MAKING SHOES. KARL ENGEL, Revere, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Apr. 24, 1908. Serial No. 429,013. (Cl. 12—145.)



1. The improvement in the art of making a shoe having a flange projecting outwardly from the upper at the edge of the shoe bottom, which comprises connecting a sole to the upper by fastening means extending along the forepart and shank and terminating at points remote from the rear end of the shoe and mounting the shoe on a last, engaging the shoe stock in the crease between the side of the upper and the flange at and near the rear of said fastening means and forcing the stock inwardly to tighten it over the last at the front end of the heel seat relatively to portions located forwardly thereof, and then securing the upper to maintain it in said tightened condition.

2. That improvement in the art of making a shoe having a flange projecting outwardly from the upper at the edge of the shoe bottom and a crease between said flange and the side of the upper, which comprises connecting a sole to the upper by fastening means extending along the forepart and shank and terminating at points remote from the rear end of the shoe, engaging the shoe stock in said crease at or adjacent to the end of the heel stiffener and pressing the upper inwardly at the point of engagement relatively to the portion of the upper in advance of said point to conform the front ends of the heel stiffener to the last, and then securing the stock to maintain it in said conformed relation.

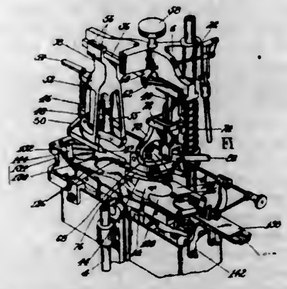
3. That improvement in the art of making shoes which comprises assembling upon a last shoe materials comprising an upper and an innersole and connecting the upper to the innersole by a seam extending from a point at or near the front end of the heel seat on one side around the forepart to a similar point on the other side, then engaging the upper at or adjacent to an end of said seam and by lateral pressure directed inwardly tightening the upper at the point of engagement relatively to portions of the upper located forwardly of said point to conform the materials to the last, and then securing the upper adjacent to said point of engagement while the materials are held in said tightened condition.

4. That improvement in the art of making shoes which comprises assembling upon a last shoe materials comprising an upper and an innersole and connecting the upper and an innersole by a seam extending from a point at or near the front end of the heel seat on one side around the forepart to a similar point on the other side, then engaging the shoe materials at or adjacent to the ends of said seam on both sides of the shoe simultaneously and pressing the upper inwardly at the points of engagement relatively to portions of the upper located forwardly of said points, and then securing the upper adjacent to said points of engagement before the pressure is released.

5. That improvement in the art of making a shoe having a flange projecting outwardly from the edge of the upper and a crease between the upper and the flange, which comprises securing the upper at the forepart and shank to an innersole, while leaving a rear portion of the upper relatively loose, and mounting the shoe on a last, engaging the shoe stock in said crease at opposite sides of the shoe rearwardly from points at or near the ends of the heel stiffener and pressing the stock inwardly to tighten the loose upper against the sides of the last, and securing the upper adjacent to said points of engagement while said pressure is maintained to conform the front ends of the heel stiffener snugly to the last.

[Claims 6 to 16 not printed in the Gazette.]

1,142,557. MACHINE FOR USE IN THE MANUFACTURE OF BOOTS AND SHOES. KARL ENGEL, Revere, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Apr. 20, 1908. Serial No. 428,123. (Cl. 12—33.)



1. In a machine of the class described, the combination with sole laying means, of means for supporting the sole attaching flange of a shoe against the pressure of the sole during the sole laying operation constructed to adapt itself automatically to shoes of varying width.

2. In a machine of the class described, the combination with sole laying means for supporting the sole attaching flange of a shoe during the sole laying operation adjustable to shoes of varying sole pitch.

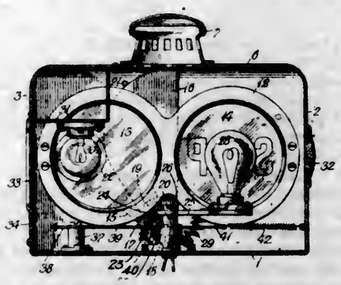
3. In a machine of the class described, the combination with a sole laying means, of means adjustable to shoes of different sizes for supporting the sole attaching flange of a shoe against the pressure of the sole during the sole laying operation, said means constituting also means for carrying the shoe right side up during the relative movements of said supporting means and said sole laying means.

4. In a machine of the class described, the combination with sole laying means, of means comprising a pair of toe clamping jaws and a pair of heel clamping jaws for supporting the sole attaching flange of a shoe against the pressure of the sole during the sole laying operation, said pairs of jaws being relatively adjustable toward and away from each other in order to operate upon shoes of different lengths.

5. In a machine of the class described, the combination with sole laying means, of means for supporting the sole attaching flange of a shoe against the pressure of the sole during the sole laying operation, comprising jaws mounted to turn about a center lying in the inner edge of said jaws whereby the continuity of said edge is uninterrupted for various adjustments of said jaws.

[Claims 6 to 45 not printed in the Gazette.]

1,142,558. TAIL-LIGHT. OSCAR A. ERDMANN, Detroit, Mich. Filed May 2, 1914. Serial No. 835,836. (Cl. 240—22.)



1. In an automobile signal, illuminated plates, and shutters normally covering one of said plates and adapted to be shifted to expose one of said plates and a portion of another, and means for moving said shutters.

2. In an automobile signal, illuminated plates, and shutters normally covering one of said plates and adapted to be shifted to expose one of said plates and a portion of another, said shutters having a connection whereby one shutter is carried a prescribed distance from the other, and means for moving said shutters.

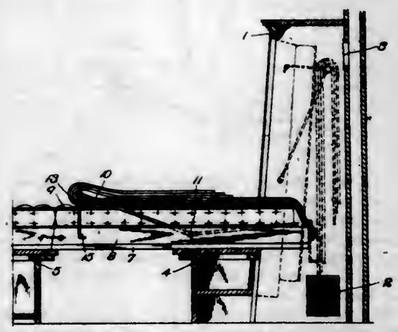
3. In a tail lamp, a casing, translucent plates carried thereby, illuminating means within said casing, shutters at said plates and normally covering one of said plates and adapted to be shifted to cover a portion of the other plate, and means actuated by a movement of said shutters to shift said illuminating means from one plate to the other.

4. In a tail lamp, a casing, translucent plates carried thereby, illuminating means within said casing, movable shutters at said plates and normally covering one of said plates, said shutters being arranged to move whereby one of said shutters moves in advance of the other and thereby exposes a portion of the other of said plates, and means actuated by a movement of said shutters to shift said illuminating means from one plate to the other.

5. In a tail lamp, a casing, translucent plates carried thereby, shutters movable at said plates and adapted to be shifted to expose one plate and a portion of another, and a lamp shiftable from one plate to the other.

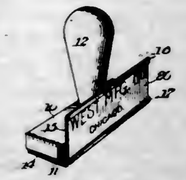
[Claims 6 to 10 not printed in the Gazette.]

1,142,559. BEDCLOTHES-CLAMP. WALDO R. FILLMORE and ELMER BOILLOT, Kansas City, Mo. Original application filed June 14, 1913, Serial No. 773,744. Divided and this application filed Dec. 6, 1913. Serial No. 805,009. (Cl. 5—22.)



The combination with an up-ending bed frame section having side rails and a mattress carried thereby and adapted for supporting bedclothes, a clamp having its free ends pivotally mounted near the center of said side rails and adapted for movement in either direction, so that the closed end of said clamp overlies the approximate center of the bedclothes in one position, and the lower ends thereof in the other position, and means for locking said clamp in position.

1,142,560. HAND-STAMP. HARRY S. FOLGER, Chicago, Ill. Filed Nov. 3, 1913. Serial No. 798,835. (Cl. 101—58.)



1. In a hand stamp, a stamp holder formed of two plates each of which engages a different portion of the stamp, one of said plates having a holding portion thereof bent to form the lower groove of a card holding channel, and the other of said plates having an upwardly extending flange furnishing the upper groove of the card holding channel.

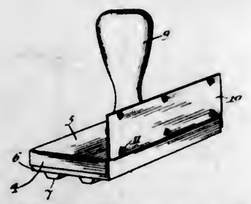
2. In a hand stamp, a handle, a metal plate bent to form three sides of a stamp box and part of a card holder, a second plate bent to form the remainder of the box and the holder, and a screw for securing the two metal plates to the handle.

3. In a hand stamp, a metal plate bent to form the top, one side and two ends of a cushion holding box and having a portion at the opposite side bent upward to form part of a card holder, a second metal plate located within the first plate and having a portion bent to close the open side of the first plate and also to furnish the remaining part of the card holder, a screw passing through the two plates, and a nut in the form of a stamp handle; the screw and the nut serving to secure the two plates together.

4. In a hand stamp, a plate bent to form three sides and the top of a cushion holding box and having the portion adjacent to the fourth side bent to form one-half of a card holder, a second plate furnishing the fourth side

of the box and bent to form the other half of the card holder, a handle, and a screw serving to secure the plates together and to the handle.

1,142,561. HAND-STAMP. HARRY S. FOLGER, Chicago, Ill. Filed Mar. 2, 1914. Serial No. 822,081. (Cl. 101—58.)

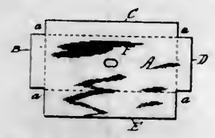


1. In a hand stamp, a sheet metal plate having one portion bent at an angle to the other portion, one of said portions serving as a stamp mount and being provided with means for the attachment of a handle, and the other of said portions having teeth punched therefrom and formed into a card holding channel located at the side of and above the stamp.

2. In a hand stamp, a metal plate having a horizontal portion serving as a stamp mount and a vertical portion serving as a card holder, the horizontal portion being provided with means for the attachment of a handle and the vertical portion having parts thereof cut and bent from the remaining parts to form a card holding channel.

3. In a hand stamp, the combination with a stamp body and a handle, of a combined stamp and card holder formed of a single plate having one edge bent to form the card holder and the other edges bent to form a stamp box.

1,142,562. REVERSIBLE BLANK FOR STAMP-MOUNTS. HARRY S. FOLGER, Chicago, Ill. Filed Oct. 10, 1914. Serial No. 865,994. (Cl. 101—58.)



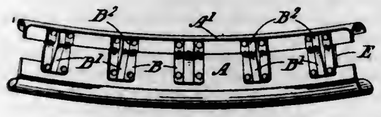
1. In a blank for a stamp mount consisting of a rectangular piece of sheet metal having integral lips or flanges extending from the edges thereof, three of said flanges being of the same width and the fourth flange being of greater width than the other flanges.

2. A flange for a stamp mount consisting of a rectangular piece of sheet metal having corners *a* removed therefrom to produce projecting lips which may be bent into flanges perpendicular to the main body of the blank, one of said projecting lips being of a different width from the other three lips.

3. A blank for a stamp mount consisting of a rectangular piece of sheet metal having lips which may be bent up to form the four sides of a box, one of said lips being of a different width from the other lips and the back or bottom of the box being provided with a center hole F for the reception of a handle-holding screw.

1,142,563. DETACHABLE RIM FOR RESILIENT TIRES. JOHN WILLIAM HALL and CYRIL BAYNES, London, England. Filed Apr. 2, 1912. Serial No. 687,975. (Cl. 152—21.)

1. In a detachable rim for a vehicle wheel, the combination of a plurality of independent separable rim-segments which are adapted to hold a tire and whose effective perimeter measured, when the parts are assembled, in a plane normal to the wheel-axis is less than the external perimeter of the rim seating portion of the wheel in that plane, cooperating wedging surfaces on the rim-segments and on the wheel, said coöperating surfaces having relative inclination in a direction transverse to the plane of the wheel.



2. In a detachable rim, the combination with a vehicle wheel, of a resilient tire, a plurality of independent separable rim-segments for holding the tire, a seating surface on each of said segments resting on a seat on the wheel, there being an inclined portion for expanding the rim-segments when applying the segments and the tire to the wheel, and radial bolts for securing the segments in position on the wheel.

3. In a detachable rim for vehicle wheels, the combination of a resilient tire, a plurality of independent separable rim-segments for holding the tire, a plurality of feet on each rim-segment, said feet having seating portions parallel with the surface on the wheel on which they are arranged to rest, angular portions extending from said seating portions adapted to spread the tire and segments when placing the tire in position on the wheel, a wheel and an annular flange extending beyond the periphery thereof arranged to form a stop for the segments and a support for one edge of the latter.

4. In a detachable rim, the combination of a plurality of independent separable rim-segments which are adapted to hold a tire and whose effective internal perimeter measured, when the parts are assembled, in a plane normal to the wheel-axis is less than the external perimeter of the rim seating portion of the wheel in that plane, cooperating wedging surfaces on the rim-segments and the wheel, said coöperative surfaces having relative inclination in a direction transverse to the plane of the wheel, and a radial projection extending outwardly from one side of the rim seating portion to support one edge of the detachable rim.

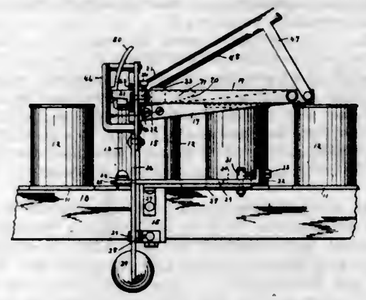
5. In a detachable rim, the combination of a plurality of independent separable rim-segments which are adapted to hold the tire and whose effective internal perimeter measured, when the parts are assembled in a plane normal to the wheel-axis is less than the external perimeter of the rim seating portion of the wheel in that plane, a wheel, a bonding band for the wheel-felly, an outwardly extending radial flange around one side of the bonding band, and coöperating wedging surfaces on the rim-segments and on the bonding band, said coöperating surfaces being relatively inclined in a direction transverse to the plane of the wheel.

[Claims 6 to 16 not printed in the Gazette.]

1,142,564. CAN-CAPPING MACHINE. EDWARD S. HUGUNINE, Rome, N. Y. Filed Apr. 29, 1912. Serial No. 693,791. (Cl. 113—114.)

1. A can capping machine comprising a can-advancing passage, a receiver for a stack of caps terminating directly over the cap-receiving position of said cans, means radially reciprocating relative to the cap-receiver and yieldingly tensioned to project into operative position and support the lower cap, means radially reciprocating relative to the cap receiver, substantially parallel to the lower cap-supporting means and yieldingly tensioned to be inoperative but adapted to be extended and support the caps above the lower one and means actuated by a passing can to successively bring the upper cap supporting means into operative position, to move the lower cap-supporting means to inoperative position and allow the lower cap to fall upon the can thereunder and to return said lower cap-supporting means to operative position

and then said upper cap-supporting means to inoperative position and allow said stack of caps to fall to said lower supporting means.



2. A can capping machine comprising a can advancing passage, a receiver for a stack of caps terminating directly over the cap-receiving position of said cans, means radially reciprocating relative to the cap receiver yieldingly tensioned to project into operative position and support the lower cap, means radially reciprocating relative to the cap receiver, yieldingly tensioned to be inoperative but adapted to be extended and support the caps above the lower one by contact with their edges, and means actuated by a passing can to successively bring the upper cap-supporting means into operative position, to move the lower cap-supporting means to inoperative position and allow the lower cap to fall upon the can thereunder and to return said lower cap-supporting means to operative position and then said upper cap-supporting means to inoperative position and allow said stack of caps to fall to said lower-supporting means.

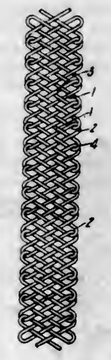
3. A can capping machine comprising a can advancing passage, a receiver for a stack of caps terminating directly over the cap-receiving position of said cans, means radially reciprocating relative to the cap receiver yieldingly tensioned to project into operative position and support the lower cap, means radially reciprocating relative to the cap receiver and yieldingly tensioned to be inoperative but adapted to be extended and support the caps above the lower one by pressure-exerting contact with their edges, and means actuated by a passing can to successively bring the upper cap-supporting means into operative position, to move the lower cap-supporting means to inoperative position and allow the lower cap to fall upon the can thereunder and to return said lower cap-supporting means to operative position and then said upper cap-supporting means to inoperative position and allow said stack of caps to fall to said lower-supporting means.

4. A can capping machine comprising a can advancing passage, a receiver for a stack of caps terminating directly over the cap-receiving position of said cans, means radially reciprocating relative to the cap receiver, yieldingly tensioned to project into operative position and support the lower cap, means radially reciprocating relative to the cap receiver substantially parallel to the lower cap-supporting means and yieldingly tensioned to be inoperative but adapted to be extended and support the caps above the lower one, and operative means to successively bring the upper cap-supporting means into operative position, to move the lower cap-supporting means to inoperative position and allow the lower cap to fall upon the can thereunder and to return said lower cap-supporting means to operative position and then said upper cap-supporting means to inoperative position and allow said stack of caps to fall to said lower-supporting means, said operative means including a single moving member and separate operative connections therefrom to said upper cap-supporting means and to said lower cap-supporting means.

5. A can-capping machine comprising a can advancing passage, a receiver for a stack of caps over said passage, an escapement device supporting the caps in said receiver and adapted to drop them one at a time therefrom, means for operating said escapement device and a member carrying said escapement device and said cap receiver and being pivotally mounted with an axis extending transversely of the direction of the movement of the cans in said can-advancing passage and spaced from said escapement device whereby said member is adapted to move upwardly on pressure from a passing can.

[Claims 6 to 12 not printed in the Gazette.]

1,142,565. GARMENT-STAY. ELBERT L. HYDE, Pittsburgh, Pa., assignor to The Spirella Company, Meadville, Pa., a Corporation of Pennsylvania. Filed July 6, 1914. Serial No. 849,303. (Cl. 2—76.)



1. A garment stay, comprising a plurality of wires bent back and forth in opposite directions to form a series of transversely extending crossing portions, the crossing portions of the wire being inclined to a true transverse line, all of the crossing portions in each wire being substantially parallel from edge to edge of the stay.

2. A garment stay, comprising a plurality of wires bent back and forth in opposite directions to form a series of transversely extending crossing portions, the wires being interlaced or interwoven with each other, the crossing portions of the wire being inclined to a true transverse line, all of the crossing portions in each wire being substantially parallel from edge to edge of the stay.

3. A garment stay, comprising a plurality of wires bent back and forth in opposite directions to form a series of transversely extending crossing portions which are inclined to a true transverse line, all of the crossing portions in each wire being substantially parallel from edge to edge of the stay, the crossing portions of different wires being inclined in different directions.

4. A garment stay, comprising a plurality of wires bent back and forth in opposite directions to form a series of transversely extending crossing portions which are interlaced or interwoven with each other, the crossing portions of each wire being inclined to a true transverse line and substantially parallel to each other, the crossing portions of different wires being inclined in different directions.

5. A garment stay, comprising two wires bent back and forth in sinuous form from edge to edge of the stay to form a series of alternately disposed loops or eyes lying along the edges of the stay and a series of transversely extending crossing portions, the two wires being interlaced or interwoven with each other, the crossing portions in each wire being inclined to a true transverse line and substantially parallel to each other.

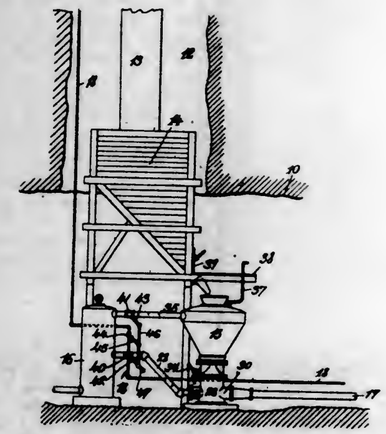
[Claim 6 not printed in the Gazette.]

1,142,566. TOOTH-BRUSH. CARL A. JACKSON, Kansas City, Mo. Filed June 27, 1914. Serial No. 847,655. (Cl. 15—39.)



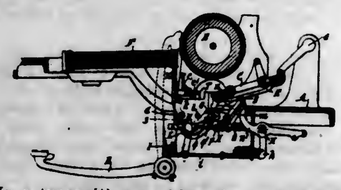
In a tooth brush having a hollow head provided with an exteriorly threaded tube and a plurality of apertures, a handle comprising a rigid, channeled body having an end duct threaded onto said tube, and a relatively soft membrane seamed to the edges of said channeled body, for the purpose set forth.

1,142,567. APPARATUS FOR CONVEYING AND PLACING CONCRETE. ALEXANDER V. JENSEN, Elizabeth, N. J. Filed Aug. 18, 1913. Serial No. 785,445. (Cl. 83—73.)



The combination of a receiver adapted to receive dry mixed material and having a discharge opening, a casing forming an air chamber below said opening, a first air supply pipe for admitting air under pressure to the said container at the top thereof, a discharge pipe connected to said air chamber at the bottom thereof, a second air supply pipe in substantial alinement with said discharge pipe for supplying air under pressure to said air chamber to convey the material from the latter through said discharge pipe which is provided with a discharge opening, a water distributer connected to said discharge pipe near the said discharge opening, a water supply pipe connected to said water distributer, a valve in said water supply pipe, a valve in each of the said two air supply pipes and means for simultaneously operating said valves.

1,142,568. TYPE-WRITING MACHINE. OSCAR C. KAYLE, Syracuse, N. Y., assignor to Harvey A. Moyer, Syracuse, N. Y. Filed Nov. 13, 1909. Serial No. 527,827. (Cl. 197—157.)



1. In a typewriting machine, the combination of a ribbon vibrator, a lever which vibrates at the type strokes and which is adapted to actuate said vibrator, means accessible for operation at will to connect said vibrator with and disconnect it from said lever, and a stop which is movable to a position to coöperate with said lever to prevent the movement thereof and lock the machine from operation, substantially as set forth.

2. In a typewriting machine, the combination of a ribbon vibrator, a lever which vibrates at the type strokes and which is adapted to actuate said vibrator, means for connecting said vibrator with and disconnecting it from said lever, and a stop which is moved by the carriage when it approaches the end of its travel to a position to coöperate with said lever to prevent movement thereof and lock the machine from operation, substantially as set forth.

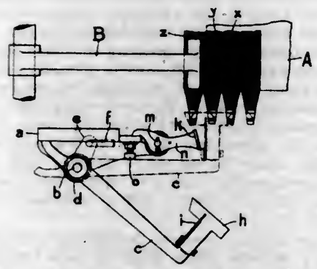
3. In a typewriting machine, the combination of a universal bar, a ribbon vibrator, a lever which vibrates at all times with said universal bar and which is adapted to actuate said vibrator, means for connecting said vibrator with and disconnecting it from said lever, and means which coöperate with said lever for locking the machine, substantially as set forth.

4. In a typewriting machine, the combination of two levers which vibrate at the type strokes and have different throws, and a ribbon vibrator lever, said three levers being arranged side by side, and means for connecting the vibrator lever to either of said other levers to be actuated thereby, substantially as set forth.

5. In a typewriting machine, the combination of two levers which vibrate at the type strokes and have different throws, and a ribbon vibrator lever, said three levers being arranged side by side, and means for connecting the vibrator lever to either of said other levers to be actuated thereby or disconnecting it from both of said levers, substantially as set forth.

[Claims 6 to 19 not printed in the Gazette.]

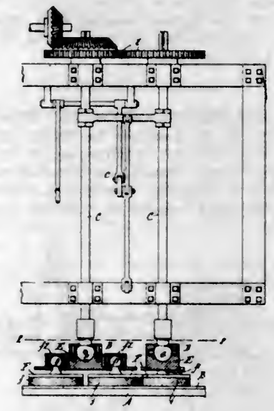
1,142,569. WEFT-BOBBIN-EXCHANGE DEVICE FOR LOOMS. ALBERT GEORG KOECHLIN, Basel, Switzerland, assignor to Spinnerei & Weberei Steinen Actien-Gesellschaft, Steinen, Germany. Filed June 27, 1914. Serial No. 847,610. (Cl. 139—85.)



1. In weft bobbin exchange devices for looms of the kind described, a guide-way for feeding the bobbins, a transferrer for inserting the bobbins one by one into the shuttle, a movable thread end drawing-off gripper having operative jaws relatively movable to one another, means for moving said gripper onto the bobbin points, means for opening and closing the gripper jaws so as to allow them to take over the thread end wound on the bobbin points and to grip it, and means for returning the gripper to its position of rest, the gripper jaws having such a form as to simultaneously grip the thread ends of several bobbins, substantially as and for the purpose described.

2. In weft bobbin exchange devices for looms of the kind described, a guide-way for feeding the bobbins, a transferrer for inserting the bobbins one by one into the shuttle, a movable thread end drawing-off gripper having operative jaws relatively movable to one another, means for moving said gripper onto the bobbin points, a yieldingly supported sloping piece for opening and closing the gripper jaws so as to allow them to take over the thread end wound on the bobbin points and to grip it, and means for returning the gripper to its position of rest, the gripper jaws having such a form as to simultaneously grip the thread ends of several bobbins, substantially as and for the purpose described.

1,142,570. POLISHING-MACHINE. WILLIAM LA HODNY, Buffalo, N. Y. Filed June 18, 1912. Serial No. 704,359. (Cl. 51—11.)



1. In a device of the character described, the combination of a support for the work, a positively driven rotary carrier which is mounted to tilt relative to said work support, and polishing heads mounted on said carrier to rotate freely thereon about axes eccentric to the axis of rotation of said carrier and to tilt relative to said carrier.

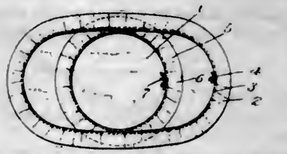
2. In a device of the character described, the combination of a positively driven rotary member, a carrier connected to said member by a joint which causes the carrier to rotate with said member and allows the carrier to tilt relative to the work, and polishing heads which are rotatably mounted eccentrically on said carrier and are free to be rotated thereon by frictional contact with the work.

3. In a device of the character described, the combination of a positively driven rotary carrier, a polishing head mounted on said carrier and comprising an upper disk journaled to rotate freely on said carrier about an axis eccentric to the axis of rotation of the carrier, and a lower disk which is connected to said upper disk to rotate therewith and tilt relative thereto, and an antifriction thrust bearing between said upper disk and said carrier.

4. In a device of the character described, the combination of oppositely rotating positively driven carriers, and heads mounted on each of said carriers so as to rotate freely about axes eccentric to the axis of the carrier and tilt relative thereto, said carriers being arranged so that in the rotation thereof the heads on one carrier enter the spaces between the heads on the adjacent carrier.

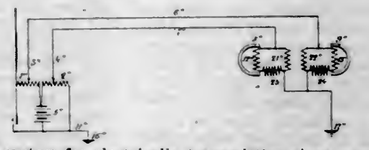
5. In a device of the character described, the combination of a work support, oppositely rotating positively driven carriers, heads which are rotatably mounted on each of said carriers and are free to be rotated thereon about axes eccentric to the axis of the carrier by frictional contact with the work, said heads being also free to tilt relative to the work support, and said carriers being arranged so that in the rotation thereof the heads on one carrier enter the spaces between the heads on the adjacent carrier, substantially as set forth.

1,142,571. TABLE-COVER. SAMUEL M. HOFFBERG, New York, N. Y. Filed July 2, 1914. Serial No. 848,658. (Cl. 65—53.)



A table top cover comprising a relatively thick layer of material, a plurality of flanges connected to the same at different distances from the geometrical center thereof, means for drawing the edges of the said flanges toward each other, retaining strips secured at their edge portions to the edges of the said layer of relatively thick material said retaining strips being secured together at the end portions of their inner edges and disconnected from each other at the intermediate portions of the inner edges thereby providing an opening and a strip of water proof material insertible through said opening and adapted to lie between the said layer of relatively thick material and the said retaining strips.

1,142,572. SYSTEM OF ELECTRICALLY TRANSMITTING SIGNS. HERMANN HOFFMANN, Bremen, Germany, assignor to the Firm of Telepantograph-Gesellschaft mit beschränkter Haftung, Bremen, Germany. Filed Oct. 21, 1914. Serial No. 867,843. (Cl. 177—352.)



1. A system for electrically transmitting signs, comprising a sender adapted to send two current impulses, and a receiver comprising two electromagnetic coils electrically connected with the sender for receiving each one of the impulses and through the earth as a return conductor, and compensating coils one for each of said electromagnetic coils arranged to compensate the effect of the earth currents passing through the electromagnetic coils.

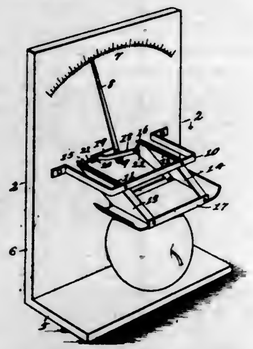
2. A system for electrically transmitting signs comprising a sender adapted to send two current impulses and a receiver comprising two electro-magnetic coils electrically connected with the sender for receiving each one of the impulses and through the earth as a return conductor, and bridging conductors connected in shunt relation with said electro-magnetic coils, the electrical resistance of the bridging conducters being so small as compared to the resistance of the electro-magnetic coils and associated part of the circuit that the part of the earth current which flows through the electro-magnetic coils has practically no effect on the receiver.

3. A system for electrically transmitting signs, comprising a sender adapted to send two impulses, and a receiver comprising two electromagnetic coils electrically connected with the sender for receiving each one of the impulses and through the earth as return conductor, and bridging conductors one for each of the electromagnetic coils and connected in shunt therewith, the electric resistances of the bridging conductors being so small as compared to the resistances of the electromagnetic coils and associated parts of the circuit that the parts of the earth current which flow through the electromagnetic coils have practically no effect on the receiver.

4. A system for electrically transmitting signs, comprising a sender, and receiver comprising at least one electromagnetic coil, and an additional resistance in series therewith said sender and receiver being included at least in one circuit comprising as a return circuit the earth,

and a bridging conductor connected in shunt to the electromagnetic coil and resistance, the electrical resistance of the bridging conductor being so small as compared to the resistance of the electromagnetic coil and resistance that the part of the earth current which flows through the electromagnetic coil has practically no effect on the receiver.

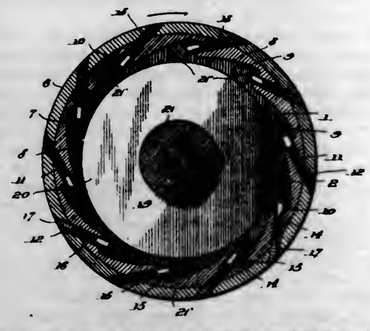
1,142,573. APPLE-GAGE. HENRY M. HOIT, Lower Naches Valley, Wash. Filed July 8, 1914. Serial No. 849,705. (Cl. 33—147.)



1. A device of the class described, comprising a base, a vertical plate supported thereon and provided with a horizontally disposed slot, a pointer pivoted on said plate, a bar pivoted to said pointer and guided in said slot, two rods on said plate in perpendicular relationship therewith and equidistant from said base, a strip dependent from each rod and pivotally connected therewith, means for operatively connecting one of said strips with said bar, and a swinging plate in pivotal connection with said strips, at the lower ends thereof, and arranged parallel to said base.

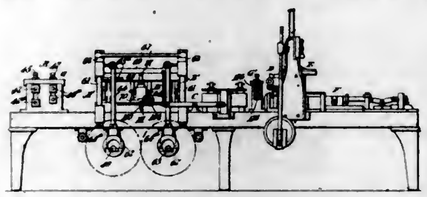
2. A device of the class described, comprising a base, a vertical plate supported thereon and provided with a horizontally disposed slot, a pointer pivoted on said plate, a bar pivoted to said pointer and guided in said slot, two rods on said plate in perpendicular relationship therewith and equidistant from said base, a strip dependent from each rod and pivotally connected therewith, a link connecting said bar with one of said strips, and a swinging plate in pivotal connection with said strips, at the lower ends thereof, and arranged parallel to said base.

1,142,574. RATCHET MECHANISM. JOHN T. HUCK, San Francisco, Cal., assignor of one-half to Warren J. Flick, San Francisco, Cal. Filed Feb. 4, 1914. Serial No. 816,492. (Cl. 192—22.)



In a ratchet mechanism, a driving member embodying a disk, an annular flange formed on the periphery of said disk and provided with a series of apertures spaced apart about the annulus and arranged at an angle thereto, an annulus within said flange and having the inner face thereof formed with a series of pockets having inclined lower walls terminating in abrupt shoulders, said annulus being formed with bores alining with the apertures in said flange respectively and communicating with said pockets, angularly disposed shoes within said bores having the inner ends thereof concaved, plugs within said apertures, springs interposed between the confronting ends of said plugs and shoes and acting to force the latter into the pockets, a driven member comprising a circular plate disposed within said annulus, and rollers within said pockets seated against the concave extremities of the respective shoes whereby the rollers are forced into frictional engagement with the shallow ends of said pockets and the periphery of said circular plate when the driven member is rotated in one direction.

1,142,575. BOX-MAKING MACHINE. HARRY A. INMAN, Amsterdam, N. Y., assignor to Inman Manufacturing Company, Incorporated, Amsterdam, N. Y., a Corporation of New York. Original application filed June 24, 1910, Serial No. 568,740. Divided and this application filed June 13, 1913. Serial No. 773,477. (Cl. 164—49.)



1. In a box machine, the combination with means for feeding the material, of slitting mechanism including a base, a pair of slides mounted on said base, each slide having a die and an overhanging arm, a guide in each arm, a knife in each guide for coöperating with one of said dies, an actuator for operating said knives, means for adjusting said slides toward and from each other, a slidable connection between said knives and actuator, and means for adjusting said connection so as to adjust the length of the slits.

2. In a box machine, the combination with means for feeding the material, of slitting mechanism including a base, a pair of slides mounted on said base, each slide having a die and an overhanging arm, a guide in each arm, a knife in each guide for coöperating with one of said dies, an actuator including a bar for operating said knives, means for adjusting said slides toward and from each other, means for adjusting said bar so as to adjust the length of the slits, and a slidable connection between said knives and bar.

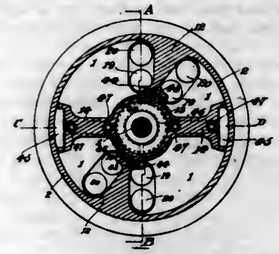
3. In a box machine, the combination with means for feeding the material, of slitting mechanism including a base, a pair of slides mounted on said base, each slide having a die and a knife guide, a knife in each guide each coöperating with one of said dies, an actuator for said knives, and a right and left hand screw for adjusting said slides toward and from each other.

4. In a box machine, the combination with means for feeding the material, of slitting mechanism including a base, a pair of dies and knife guides mounted on said base, a knife in each guide each coöperating with one of said dies, an actuator for said knives, and means for adjusting said actuator so as to adjust the length of the slits.

5. In a box machine, the combination with means for feeding the material, of slitting mechanism including a base, a pair of dies and knife guides mounted on said base, a knife in each guide for coöperating with one of said dies, an actuator for said knives, said actuator including an eccentric bar, and means for rotating said bar so as to adjust the length of the slits.

[Claims 6 to 54 not printed in the Gazette.]

1,142,576. ROTARY INTERNAL-COMBUSTION ENGINE. GEORGE RICHARD INSHAW, Uddingston, Scotland. Filed Dec. 29, 1911. Serial No. 668,576. (Cl. 123—11.)



1. A rotary internal combustion engine having an annular chamber with sets of inlet and exhaust ports and ignition means, and two sets of constantly rotating vanes with two vanes in each set, in combination with two concentric rotatable members operating in conjunction with said vanes, one of which members is the annular chamber, a shaft and means for transmitting the motions of the sets of vanes to said shaft.

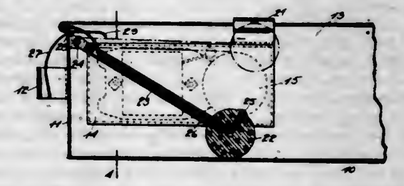
2. In a rotary internal combustion engine of the type referred to, the combination of an annular chamber with sets of inlet and exhaust ports and ignition means, two sets of vanes with two vanes in each set, the annular chamber carrying one set, a shaft upon which the annular chamber rotates and which carries the other set of vanes, and means whereby the said chamber and shaft with their vanes are caused to rotate in the same direction at varying speeds, and each vane is caused to act alternately as a piston vane and as an abutment vane, and the conjoint varying motions of the said chamber and shaft are transmitted to impart uniform motion to a driven rotatable body.

3. A rotary internal combustion engine of the type referred to, having an annular chamber with sets of inlet and exhaust ports and ignition means, a shaft on which the annular chamber rotates, the said shaft and chamber each carrying two vanes, a toothed wheel at the exterior of the annular chamber and a toothed wheel on the shaft upon which said chamber rotates, a driven shaft, gearing connecting the same to said toothed wheels, the gearing being such as described, whereby the proper relative and varying speeds of the rotary members and their sets of vanes will be such that at each explosion in one space between the vanes explosive mixture is drawn into another space, compressed in another space, and exhausted from another space, simultaneously and also transmit uniform motion to the driven shaft, substantially as hereinbefore explained.

4. In a rotary internal combustion engine of the type referred to, the combination of an annular chamber provided with two vanes and valve-controlled inlet and outlet ports, and ignition means, a shaft upon which the annular chamber rotates concentrically, two vanes carried by said shaft, an eccentrically mounted toothed wheel on the exterior of the annular chamber, and an eccentrically mounted toothed wheel on the shaft upon which the said annular chamber rotates, a driven shaft, two eccentrically mounted toothed wheels geared respectively to the toothed wheels of said first mentioned shaft and chamber, substantially as and for the purposes described.

5. A rotary internal combustion engine comprising a rotary annular chamber and internal vanes rotating therewith, an independent rotor within said chamber and cooperating vanes thereon, said chamber and rotor rotating constantly during the operation of the engine at constantly varying speeds, means for admitting an explosive mixture between adjacent vanes at one point in their revolution, means for exploding said mixture at another point and means for exhausting the exploded gases at another point, for the purpose described.

1,142,577. DRIP-PAN ALARM. MONUS JACOBSON, New York, N. Y. Filed Sept. 17, 1914. Serial No. 862,167. (Cl. 200—34.)

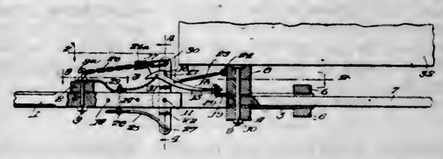


1. In a float operated circuit closer for drip pans, a float, connections between the float and the pan to close a circuit when the float is lifted, and means made operative coincidentally with the grasping of the pan to remove it to break the circuit.

2. In a float operated circuit closer for drip pans, a pan, a float within the pan, means carried by the float to complete a circuit in connection with that part of the circuit included in the pan, and a member carried by the pan and movably related to the float whereby when the pan is withdrawn the circuit will be broken.

3. In a float operated circuit closer for drip pans, a float, means carried by the float to close a circuit when the float is lifted, and a bell crank lever pivoted adjacent the top of the pan, one arm of the bell crank coöperating with the float and the other arm of the bell crank extending downwardly on the outside of the pan adjacent the handle thereof whereby when the handle is grasped the bell crank will be swung on its pivot causing the float to move downwardly breaking the circuit.

1,142,578. TONGUE-SUPPORTER. HARRY ALMET JOHNSON and VICTOR JERHARD PEARSON, Piper City, Ill. Filed Feb. 2, 1915. Serial No. 5,663. (Cl. 21—63.)



1. A wagon tongue supporter, comprising in combination with the running gear and the tongue connected therewith, plates arranged on opposite sides of the tongue at its pivotal connection with the running gear, means in connection with the plates and the tongue for holding the said plates at right angles to the tongue, a latch connected at one end to the king bolt of the wagon and extending forwardly between the plates above the tongue, a pin connecting the plates above the latch, said latch having at its front end a cam surface for engaging the pin to depress the latch when the pin is moved rearwardly with respect to the latch, the latch having a catch at the rear of the cam surface for engaging the pin, a flexible connection between the tongue and the latch for depressing the latch when the tongue is depressed below a certain predetermined point with respect to the running gear, and a yielding connection between the latch and the running gear for normally holding the latch in parallel position.

2. A wagon tongue supporter, comprising in combination with the running gear and the tongue connected therewith, plates arranged on opposite sides of the tongue at its pivotal connection with the running gear, means in connection with the plates and the tongue for holding the said plates at right angles to the tongue, a latch connected at one end to the king bolt of the wagon and extending forwardly between the plates above the tongue, a pin connecting the plates above the latch, said latch having at its front end a cam surface for engaging the pin to depress the latch when the pin is moved rearwardly with respect to the latch, the latch having a catch at the rear of the cam surface for engaging the pin, and

a flexible connection between the tongue and the latch for depressing the latch when the tongue is depressed below a certain predetermined point with respect to the running gear.

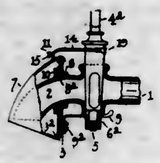
3. A wagon tongue supported, comprising in combination with the running gear and the tongue connected therewith, a pair of plates arranged on opposite sides of the tongue at the pivotal connection, means for normally holding the plates at a right angle to the tongue, said means being mounted to yield, a latch connected to the king bolt and extending forwardly between the plates above the tongue, a pin connecting the plates above the latch, said latch having a cam surface at its front ends for engaging the pin to depress the free end of the latch, and having a catch at the rear of the cam surface for engaging the pin to hold the tongue elevated, a connection between the latch and the tongue for depressing the free end thereof when the free end of the tongue is lowered beyond a predetermined point.

4. A wagon tongue supporter, comprising in combination with the running gear and the tongue connected therewith, a pair of plates arranged on opposite sides of the tongue at the pivotal connection, means for normally holding the plates at a right angle to the tongue, a latch connected to the king bolt and extending forwardly between the plates above the tongue, a pin connecting the plates above the latch, said latch having a cam surface at its front ends for engaging the pin to depress the free end of the latch, and having a catch at the rear of the cam surface for engaging the pin to hold the tongue elevated.

5. A wagon tongue supporter, comprising in combination with the running gear and the tongue pivoted thereto, a resilient latch connected to the running gear of the wagon and turning with the front axle, a pin connected to the tongue for engagement by the latch to hold the tongue in horizontal position, resilient means for holding the latch in engagement with the pin, a connection between the latch and the tongue for releasing the latch when the free end of the tongue is lowered below a predetermined point, the latch having a cam surface for engagement by the pin when the tongue is lifted to depress the latch and to guide the latch into engagement with the pin.

[Claim 6 not printed in the Gazette.]

1,142,579. FAUCET ATTACHMENT. FREDERICK AUGUSTUS JONES, Wagga Wagga, New South Wales, Australia. Filed Aug. 27, 1914. Serial No. 858,925. (Cl. 137—4.)



1. The combination with a faucet provided with a valve plug and a nozzle, of a plate carried by said nozzle clear of its orifice and between said orifice and said plug, a box member hinged to said plate and adapted to form therewith a closed vessel inclosing the open end of said nozzle, and means operated by the turning of said plug for swinging said box member from the position in which it incloses said end of the nozzle, substantially as described.

2. The combination with a faucet provided with a valve plug and a nozzle, of a plate carried by said nozzle clear of its orifice and between said orifice and said plug, a box member hinged to said plate and adapted to form therewith a closed vessel inclosing the open end of said nozzle, a spring adapted to normally hold said box member in the position for inclosing said end of the nozzle, and means operated by the turning of said plug to move said box member from said position against the action of said spring, substantially as described.

3. The combination with a faucet provided with a valve plug and a nozzle, of a plate carried by said nozzle clear of its orifice and between said orifice and said plug, a gasket carried by said plate, a box member hinged to said plate and adapted to engage said gasket and to form therewith a closed vessel inclosing the open end of said nozzle, and means operated by the turning of said plug for swinging said box member from the position in which it incloses said end of the nozzle, substantially as described.

4. The combination with a faucet provided with a valve plug and a nozzle, of a plate carried by said nozzle clear of its orifice and between said orifice and said plug, a gasket carried by said plate, a box member hinged to said plate and adapted to engage said gasket and to form therewith a closed vessel inclosing the open end of said nozzle, a spring adapted to normally hold said box member in the position for inclosing said end of the nozzle, and means operated by the turning of said plug to move said box member from said position against the action of said spring, substantially as described.

5. The combination with a faucet provided with a valve plug and a nozzle, of a plate carried by said nozzle clear of its orifice and between said orifice and said plug, a gasket carried by said plate, a box member hinged to said plate and adapted to engage said gasket and to form therewith a closed vessel inclosing the open end of said nozzle, and a cam arrangement operated by the turning of said plug for swinging said box member from the position in which it incloses said end of the nozzle, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

1,142,580. COMBINATION-SUIT. WILLIAM KETCHUM JONES, Wichita, Kans. Original application filed May 5, 1914, Serial No. 836,458. Divided and this application filed Jan. 19, 1915. Serial No. 3,088. (Cl. 2—144.)

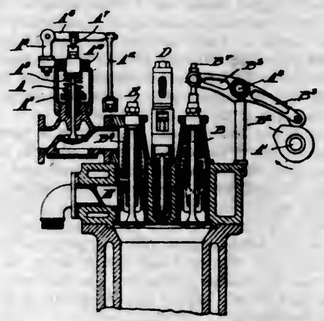


The improved suit comprising a body portion and trousers integrally connected at the front and provided respectively with back skirt and drop flap, the skirt extending down and overlapping said drop flap to the side of the garment, and buttons located one at the waist-band and the other near the bottom of the side slit of the garment, said buttons effectively closing the slits, as described.

1,142,581. INTERNAL-COMBUSTION ENGINE. TRICAMDAS KALIANJEE and ANANT BABURAO PARANJAPE, Bombay, India. Filed Nov. 1, 1913. Serial No. 798,726. (Cl. 123—1.)

1. In an internal combustion engine, a cylinder, a piston therein, a fuel inlet valve and an exhaust valve and a main air inlet valve in the cylinder, an automatic non-return valve adjacent the main air inlet valve and in series therewith, an auxiliary air inlet valve also in series with the main air inlet valve, a source of compressed air connected to the cylinder through the last mentioned two valves in series, and means for opening the main and auxiliary air valves and for closing said valves together at a desired instant after the non-return valve has closed itself.

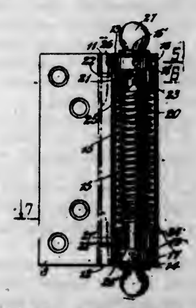
2. In an internal combustion engine, a cylinder, a piston therein, a fuel inlet valve and an exhaust valve and a main air inlet valve in the cylinder, an automatic non-return valve adjacent the main air inlet valve and in series therewith, an auxiliary air inlet valve also in series with the main air inlet valve, a source of compressed air connected to the cylinder through the last mentioned two valves in series, and means for opening the main and auxiliary air valves and for closing said valves together during the compression stroke, to augument the charge.



3. In an internal combustion engine, a cylinder, a piston therein, a fuel inlet valve and an exhaust valve and a main air inlet valve in the cylinder, an automatic non-return valve adjacent the main air inlet valve and in series therewith, an auxiliary air inlet valve also in series with the main air inlet valve, a source of compressed air connected to the cylinder through the last mentioned two valves in series, means for opening the main and auxiliary air valves and for closing said valves together during the compression stroke, to agument the charge, and means for opening and closing the auxiliary air inlet and main inlet air valves together near the end of the exhaust stroke to effect scavenging.

4. In an internal combustion engine, a cylinder, a piston therein, a cylinder cover, a fuel inlet valve and an exhaust valve mounted in the cylinder cover, a main air inlet valve arranged in a casing in the cylinder cover, a non-return valve in series with the main air inlet valve and arranged in the cylinder cover, an auxiliary air inlet valve also in series with the main air inlet valve, a casing for the auxiliary air inlet valve said casing being secured to a part of the main air inlet valve casing, and means for opening and closing the main and auxiliary air inlet valves together at desired instants.

1,142,582. SINGLE-ACTING LAVATORY-HINGE. OSCAR KATZENBERGER, Chicago, Ill. Filed July 18, 1914. Serial No. 851,746. (Cl. 16—25.)

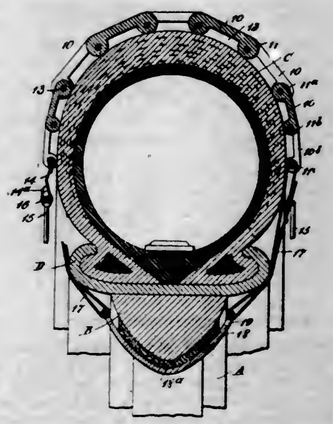


1. In a spring hinge, a pair of leaves, one of said leaves being formed with turned over ears and the other of said leaves being formed with a barrel, an adjusting ring arranged at each end of said barrel, a pintle for connecting the various parts together, a spring arranged in said barrel connected with said adjusting rings, a pin for connecting either of said adjusting rings with one of said leaves, and automatically acting means for connecting said adjusting rings with either of said leaves, said automatically acting means acting in opposition to said pin, whereby said leaves when moved will act against said spring, said spring acting to open the leaves when the pin is in one of said rings and close the leaves when in the other of said rings.

2. In a spring hinge, a pair of leaves, one of said leaves being formed with turned over ears and the other of said leaves being formed with a barrel, said barrel being arranged between said ears, a rotating adjusting ring arranged at each end of said barrel, said rings being arranged between the ends of said barrels and said turned over ears, means for transmitting strain from said rings to said barrel, a single pin adapted to be positioned in either the top or bottom adjusting rings at will for transmitting strain from said adjusting rings to the leaf having turned over ears, said pin transmitting the strain in different directions according to the particular ring with which it is associated, and a spring connecting said adjusting rings.

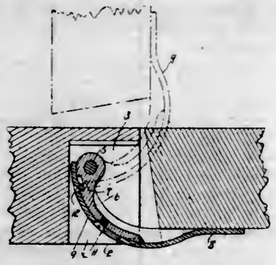
3. In a spring hinge of the character described, a pair of leaves, one of said leaves being formed with a barrel having a pair of apertures therein and the other of said leaves being formed with a pair of turned over ears adapted to be arranged adjacent the ends of said barrel, an adjusting ring arranged adjacent each of said ears provided with a plurality of apertures, a spring arranged in said barrel and connected with said adjusting rings, a pintle extending through said ears and barrel and also through said adjusting rings, a bearing member at each end of said barrel, said bearing member being provided with a pin extending into the apertures in said barrel, a pin carried by each of said rings arranged to engage the pins in said bearing members at different times, and a tension pin adapted to be inserted into any of the apertures in either of said adjusting rings according to the direction in which said spring is to act, said tension pin being designed to engage the leaf carrying said ears.

1,142,583. ANTISKIDDING DEVICE. DAVID V. KAUFMAN, New York, N. Y. Filed Jan. 14, 1914. Serial No. 812,007. (Cl. 152—16.)



An anti-skidding device comprising blocks, and means for connecting the blocks together in staggered relation, said blocks presenting ribs at the under sides thereof, said ribs running peripherally and forming air circulating spaces open front and back, the ribs being of reduced size from the tread radially inward at the sides, and the said blocks having the reduced ribs being successively of reduced length radially inward from the tread.

1,142,584. HINGE FOR VEHICLE-DOORS. ALEXIS KRAH, New Haven, Conn., assignor to The English & Mersick Co., New Haven, Conn., a Corporation. Filed Feb. 15, 1915. Serial No. 8,268. (Cl. 16—5.)

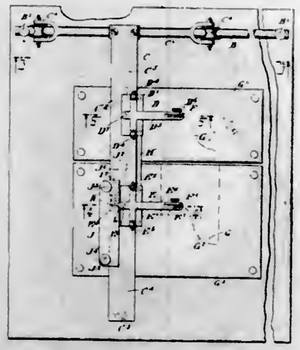


1. A hinge for vehicle doors comprising a casing plate formed with outwardly projecting housings, pintle arms pivotally mounted in the said housings, and a door plate formed with arms detachably connected with said pintle arms.

2. A hinge for vehicle doors comprising a casing plate formed with an outwardly projecting pintle housing, a pintle arm pivotally mounted in said housing, a door plate formed with an integral hinge arm, and means for detachably connecting said hinge arm with the said pintle arm.

3. A hinge for vehicle doors comprising a casing plate formed near opposite ends with U-shaped bends forming housings, pintles mounted in said housings, bowed pintle arms mounted on said pintles, said arms formed with notches, a door plate formed with arms in line with said pintle arms and adapted to be attached thereto, said door plate arms also formed with projections adapted to enter the notches in the said pintle arms.

1,142,585. PROJECTING INSTRUMENT. FREDERICK WALTER LANE, Chico, Cal. Filed July 8, 1914. Serial No. 849,699. (Cl. 33—26.)



1. A drafting instrument, comprising a T-square having a blade, holders carrying marking tools slidably mounted on the said blade, a guide adjustably secured to the said blade and provided with a scale, a pointer on one of the said holders indicating on the said scale, and a connection between the said guide and the said holders to move one at a given ratio relative to the other.

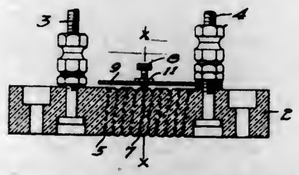
2. A drafting instrument, comprising a T-square having a blade, holders carrying marking tools slidably mounted on the said blade, a guide adjustably secured to the said blade and provided with a scale, a pointer on one of the said holders indicating on the said scale, a bell crank lever fulcrumed on one of the said holders and engaging the said guide, and a link connecting the said bell crank lever with the other holder.

3. A drafting instrument, comprising a T-square having a head and blade, a track for the head of the T-square to travel on, holders carrying marking tools slidably mounted on the blade of the T-square, a bell crank lever fulcrumed on one holder, a link pivotally connecting the said bell crank lever with the other holder, and a guide on the said blade and engaged by the said bell crank lever.

4. A drafting instrument, comprising a fixed track, a T-square having a blade and a head slidable on the said track, holders carrying marking tools mounted to slide on the said blade, a guide adjustably secured to the said blade and provided with an arm having a curved slot, a bell crank lever fulcrumed on one of the said holders and engaging the said slot, and a link connecting the said bell crank lever with the other holder.

5. A drafting instrument, comprising a fixed track, a T-square having a blade and a head slidable on the said track, holders carrying marking tools mounted to slide on the said blade, a guide having a scale, said guide being adjustably secured to the said blade and provided with an arm having a curved slot, a bell crank lever fulcrumed on one of the said holders and engaging the said slot, a link connecting the said bell crank lever to the other holder, and a pointer indicating on the said scale and forming part of the holder on which the said bell crank lever is fulcrumed.

1,142,586. VARIABLE-RESISTANCE UNIT. STANLEY W. LAW, St. Paul, Minn. Filed Feb. 26, 1914. Serial No. 821,303. (Cl. 219—48.)



1. A resistance unit comprising a block, terminals mounted thereon, a resistance wire connected to said terminals and coiled on said block, said block having wells or depressions therein bridged by the respective coils of said wire, a filler of conducting material for said wells in which filler portions of said coils are embedded, a conductor plate in circuit with one of said terminals and overhanging said coils and wells, and a contact screw carried by said plate to contact with the filler in said wells.

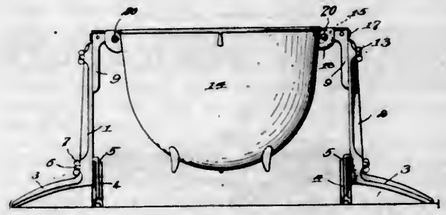
2. A resistance unit comprising an insulating block and terminals mounted thereon, said block having a spirally formed groove between said terminals, a resistance wire in circuit with said terminals and coiled in said groove around said block the respective coils of said wire having conducting surfaces formed thereon, a contact plate in circuit with one of said terminals and having a series of holes therein to register with the surfaces of said coils, and a contact screw fitting said holes and having a point to engage the surfaces of said coils.

3. A resistance unit comprising an insulating block and terminals mounted thereon, a resistance wire in circuit with said terminals and coiled around said block, a contact plate in circuit with one of said terminals and overhanging the coils of said wire and having a series of holes therein to register with the convolutions of said wire, and a contact screw fitting said holes and engaging said convolutions.

4. A resistance unit comprising a block having terminals thereon, a resistance wire in circuit with said terminals and coiled on said block between said terminals, said coils having contacting surfaces, a conductor plate connected with one of said terminals and overhanging said coils and provided with holes therein at intervals in staggered relation to one another, and a contact screw fitting said holes to contact with the surfaces of said coils.

5. A resistance unit comprising a block having terminals mounted thereon, a resistance wire in circuit with said terminals and coiled on said block between said terminals and provided with contact surfaces, a conductor plate mounted on said block in circuit with one of said terminals and overhanging said coils and spaced therefrom, said plate having rows of holes therein, and a contact screw mounted for adjustment in one end of said holes to engage a contact surface of the coil beneath and vary the degree of resistance through the coil.

1,142,587. KETTLE-SUPPORT. WILEY C. LEDBETTER, Newbern, Tenn. Filed Oct. 17, 1914. Serial No. 867,241. (Cl. 126—30.)



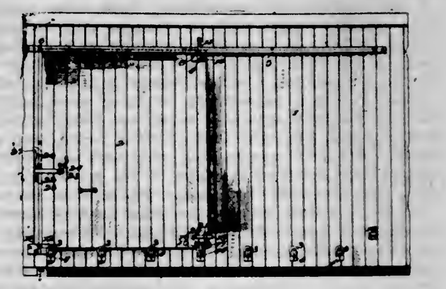
1. The combination with a kettle provided with ears, of a support therefor comprising a pair of uprights, carrier members adjustably mounted upon said uprights, brackets journaled upon the carrier members and adapted for engagement with the ears for movement in an arc of 180° to support the kettle in a normal or inverted position, and means for locking the brackets in such supporting position.

2. The combination with a kettle having ears, of supporting means therefor comprising a pair of uprights, legs adjustably supporting the respective uprights, carrier bars adjustably mounted at the upper ends of the uprights, brackets pivotally mounted upon the carrier bars and having bifurcated portions to receive and engage the kettle ears, means carried by the bifurcated portions of the brackets to hold the brackets in engagement with the ears, and means for locking the brackets at angles of 180° from each other, whereby the kettle may be supported in normal or inverted position.

3. The combination with a kettle provided with ears, of a supporting means therefor comprising spaced standards, adjustable supporting legs for the standards, vertically adjustable carrier bars upon the upper ends of the standards, brackets journaled upon said bars and having bifurcated portions to receive and engage the ears of the kettle, whereby the kettle may be supported in normal and inverted positions, locking pins carried by the bifurcated portions of the brackets to engage the ears and hold said ears in engagement with said brackets, and a locking pin for engagement with each carrier bar and bracket to lock the bracket in the said supporting positions.

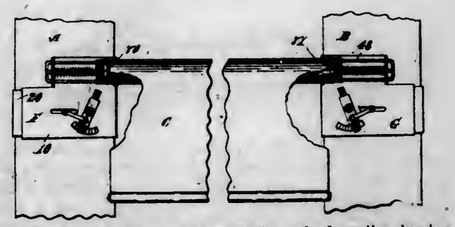
1,142,588. CAR-DOOR. ELMER LEWIS LEE and EUGENE T. DE WITT, Denver, Colo. Filed July 2, 1914. Serial No. 848,616. (Cl. 20—25.)

The combination with a car body, of a door having the forward edge beveled on its exterior surface and the rear edge beveled on the interior surface, rollers on which the door travels, brackets for supporting the rollers on the car body, a guard-track and guard having inclines for forcing one edge of the car door inwardly against the wall of the car body, the opposite edge of the door carrying wedges at each corner, means on the guard-track engaging one of the wedges for forcing the door inwardly, an extension on one of the roller brackets engaging the other wedge for forcing the door inwardly, and a wedge connected to the car body engaged by the beveled surface on the rear edge



of the door for causing the door to be forced outwardly when the door is being opened.

1,142,589. SHADE-ROLLER SUPPORT. GEORGE LEFEVRE, Lawrence, Mass. Filed Aug. 17, 1914. Serial No. 857,151. (Cl. 156—24.)



1. The combination with a window shade roller having at one end a rectangular bearing pin and at the other end a cylindrical bearing pin, of a pair of supports each of which is provided with clamping jaws for detachably attaching it to either side of a window casing, and each of which has a lateral extension with outwardly bent arms the distance between which is more than one half the maximum distance between the clamping jaws and each of which is pierced with three holes, a set of three connected bearing rods which extend through said holes in each support, a split ring removably attached to one of the bearing rods of each set, and a compression spring which encircles one of the rods of each set between the arms, together with shade roller brackets interchangeably slidable on the bearing rods of either support and in engagement with the compression spring thereon, one having a rectangular opening to receive the rectangular pivot pin and the other having a round opening to receive the cylindrical pivot pin of the shade roller.

2. A window shade roller support which has clamping jaws and means for operating said jaws in such manner that the support may be detachably attached to a window casing, and a lateral extension with outwardly bent arms the distance between which is more than one half the maximum distance between the clamping jaws and each of which is pierced with three holes, three connected bearing rods which extend through said holes, a split ring removably attached to one of the bearing rods, and a compression spring which encircles one of the rods between the arms, together with a shade roller bracket slidable on the bearing rods and in engagement with the compression spring thereon.

3. The combination in a window shade roller support of means for detachably attaching it to a window casing, with outwardly bent arms each of which is pierced with a plurality of holes, connected bearing rods which extend through said holes, and a shade roller bracket slidable on the bearing rods, together with a compression spring between the bracket and an arm as described.

4. In a window shade roller support the combination of a spring actuated shade roller bracket, with means for detachably clamping said support to a window casing.

5. The combination in a window shade roller support of an outside member having a clamping jaw, an inside member slidable in the outside member and having a clamping jaw, with a headed pivot pin fixed to the outside member, a compression spring thereon, a handle pivoted to said pin and in engagement with said spring, a link pivotally connected with said handle and with the inside member, notches in the outside member and a tang depending from the handle in engagement with said notches, together with a lateral extension of the outside member which has outwardly bent arms the distance between which is more than half the maximum distance between the clamping jaws and each of which is pierced with a plurality of holes, a plurality of connected bearing rods which extend through said holes, a split ring removably attached to one of the bearing rods, a shade roller bracket slidable on the bearing rods, and a compression spring between said brackets and an arm as described.

[Claims 6 to 8 not printed in the Gazette.]

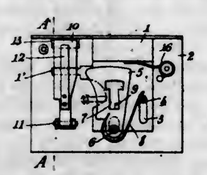
1,142,590. BODY FOR MOTOR ROAD-VEHICLES. ALBERT LEGRAND, Paris, France. Filed Nov. 20, 1913. Serial No. 802,065. (Cl. 21—7.)



1. In a motor road vehicle, the combination with a chassis, of a projecting metal band, stays connecting said band with the longitudinal members of the chassis, a body resting upon said band and being curved, and a lower curved gear case forming a continuation of the curve of the body.

2. In a motor road vehicle, the combination with a chassis, the longitudinal members of which at the rear are joined by a curved portion, of a projecting metal band, stays connecting said band with the longitudinal members of the chassis, a body resting upon said band and being curved at the rear to correspond with the curvature of the said curved portion joining the longitudinal chassis members, and also being curved at the sides, and a lower curved gear case forming a continuation of the curve of the sides of the body.

1,142,591. AUTOMATICALLY-LOCKING LOCK. ALOIS LEISTLER, Hollenstein, Ybbs, Austria-Hungary. Filed Mar. 9, 1914. Serial No. 823,612. (Cl. 70—64.)



1. A safety lock comprising in combination a casing, a key-operated locking-bolt, a spring tending to hold said locking-bolt in its locking position, tumblers coöperating with said locking bolt, an auxiliary member arranged within the casing and adapted to retain the bolt in its unlocked position, said casing being provided with an aperture, and a trip adapted to enter said aperture upon closing to cause said member to release said bolt from its unlocked position.

2. A safety-lock comprising in combination a casing, a key-operated locking bolt, a spring tending to hold said bolt in its locking position, tumblers holding the locking-bolt in its unlocked position, an auxiliary member arranged within the casing, said casing being provided with an aperture, a trip adapted to enter said aperture upon closing to move said auxiliary member, and a slanting face on the auxiliary member adapted on movement of the latter to release said tumblers.

3. An automatically locking lock for drawers, doors, or the like, comprising a casing, a locking-bolt, means within said casing to maintain said bolt in its retracted position, said casing having an aperture therein in proximity to said means, and a tripping-device for causing said means to release said bolt, when said drawer is closed, comprising a pivoted arm adapted to enter the aperture of the casing of said lock to disengage said means from said bolt, a pocket in the casing of said drawer in which said arm is pivoted and into which the arm may swing when not in the aperture of the casing of the lock, and means for yieldingly maintaining the free end of said arm in its operative position outside said pocket.

1,142,592. LIFE-SAVING DEVICE. WALTER LINDEMANN, Detroit, Mich. Filed Feb. 15, 1915. Serial No. 8,142. (Cl. 9—11.)

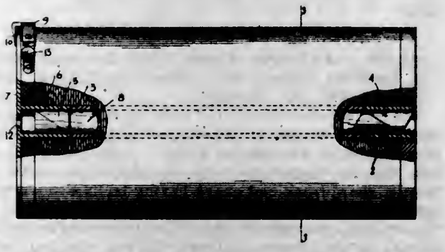


1. A life saving device comprising a casing adapted to form part of a berth mattress, said casing having compartments formed therein, body and limb closures carried by said casing and adapted to inclose the greater portion of the body seated upon said casing, a cover adapted to retain the body closure in said casing when not in use, a pivoted cleat adapted to retain the limb closure in said casing when not in use, a reservoir forming part of said casing and having a drinking tube extending into one of said closures, and a sectional mast carried by said casing.

2. A life saving device comprising a casing, said casing having compartments formed therein, a well centrally of said casing and having walls thereof provided with openings in communication with the casing compartments, flexible body and limb closures at the upper and lower ends of said well and adapted to inclose the greater part of a body seated upon said casing, and flexible ladders at the sides of said casing.

3. A life saving device comprising a water proof casing, said casing having compartments formed therein, a shell centrally of said casing providing a well, a flexible body closure at the upper end of said well, a flexible limb closure at the lower end of the well of said casing and foldable therein, said flexible limb closure having a flat bottom provided with containers, and means for maintaining said closures within the well of said casing when the life saving device is not in use.

1,142,593. ELECTRIC MEASURING INSTRUMENT. LLOYD LOGAN, Boston, Mass. Filed Mar. 5, 1913. Serial No. 752,068. (Cl. 171—95.)



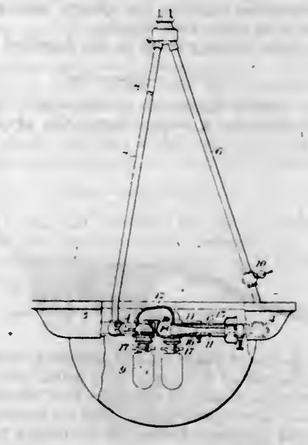
1. An electric measuring device, comprising a casing, a solenoid in the casing and having a hollow core terminating short of one end thereof, a polarizing prism in the end of the core extending to the end of the solenoid, a transparent body in the core of the solenoid, an apertured and graduated plate mounted to turn on one end of the casing and having a tubular extension extending into the solenoid in line with the core thereof, an analyzing prism in the tubular extension, and a pointer secured to the casing and extending above the graduated plate.

2. An electric measuring device comprising a casing, a solenoid in the casing and having a hollow core, a polarizing prism in one end of the core, a graduated and apertured plate mounted to turn on the casing, a transparent body in the core of the solenoid, an analyzing prism carried by the plate within the solenoid, and a pointer secured to the casing and extending above the graduated plate.

3. In an electric measuring device, a light polarizing prism, a light analyzer arranged in line with said prism, a single solenoid having a hollow core in which the said prism and said analyzer are mounted, a rotatable plate connected with said analyzer and adapted to rotate said analyzer, said plate being formed with an opening for viewing the analyzer, and a stationary pointer projecting over part of said plate for indicating the amount of rotation of the plate.

4. In an electric measuring instrument, a polarizing prism, an analyzer arranged opposite said polarizing prism, a transparent core member separating said polarizing prism and said analyzer, a solenoid having a hollow core in which the analyzer, transparent member, and the prisms are mounted, said solenoid being adapted to have current passed therethrough whereby the plane of polarization of the light passing through said polarizing prism will be rotated, a rotatable plate for supporting said analyzer and adapted to rotate the analyzer when rotated, and a fixed or stationary indicator arranged adjacent said plate for indicating the amount of movement necessary to be made by said plate to extinguish the light passing through said analyzer after the light has been rotated whereby the current strength will be indicated.

1,142,594. BURNER FOR INVERTED INCANDESCENT GAS-LAMPS. HOWARD LYON, Gloucester City, N. J., assignor to Welsbach Light Company, Gloucester City, N. J., a Corporation of New Jersey. Filed July 23, 1914. Serial No. 852,618. (Cl. 67—94.)

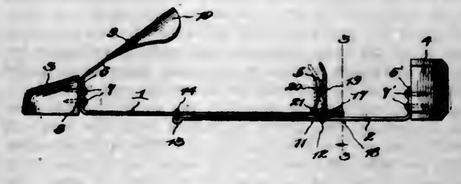


1. An inverted incandescent gas lamp burner, comprising a manifold having a distributing chamber, downwardly directed burner passages leading from the bottom of said chamber, and a dawnwardly directed extension located between the burner passages, together with a gas and air supply connection opening into said extension, said extension having an interior wall for directing the gas and air toward the central portion of the distributing chamber, substantially as described.

2. An inverted incandescent gas lamp burner, comprising a manifold having a distributing chamber, and a plurality of downwardly directed burner passages leading from the bottom of said chamber, the manifold also having a central downward extension, and a horizontal gas and air mixing tube leading into said extension through one side thereof, the opposite inner wall of said extension being inclined upwardly and forwardly to direct the mixture of gas and air to the central portion of said distributing chamber, substantially as described.

3. A burner for inverted incandescent gas lamps, comprising an upwardly arched manifold shell having at least three depending burner tips and a central downward extension opening upwardly into the bottom of the manifold chamber centrally of the passages leading to the tips, said extension having means for connection with a gas and air supply pipe, substantially as described.

1,142,595. SHOE-TREE. WILLIAM FORD MCCLELLAN, Brooklyn, N. Y. Filed Aug. 6, 1914. Serial No. 855,451. (Cl. 12—128.)



1. A shoe tree comprising a pair of overlapped slidably engaged strips, a plurality of longitudinally spaced stops on one strip, and a pivotally mounted spring pressed detent on the other strip and adapted to engage said stops.

2. A shoe tree comprising a pair of overlapped slidably engaged strips, a plurality of stops on one strip, a transverse bearing on the other strip, a transverse rock shaft in said bearing, a detent projecting rigidly from one end of said rock shaft and adapted to engage said stops, an operating lever rigidly connected to the other end of the shaft and a spring for normally engaging said detent with one of said stops.

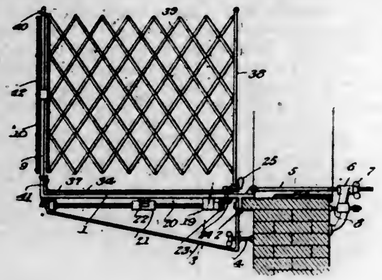
3. A shoe tree comprising a pair of overlapped slidably engaged strips, a plurality of stops on one strip, a bearing on the other strip, a transverse rock shaft in said bearing, a detent projecting rigidly from one end of said shaft and adapted to engage said stops, an operating lever rising from the other end of the shaft and a spring attached to the lever and bearing against one of said strips whereby to normally force said detent into engagement with one of said stops.

4. A shoe tree comprising a pair of overlapped slidably engaged strips, a plurality of stops on one strip, a bearing on the other strip, a transverse shaft in said bearing, a detent projecting rigidly from one end of said shaft and adapted to engage said stops, an operating lever rising from the other end of the shaft and a substantially upright spring formed integrally with the upper end of the lever and bearing at its lower end against one of said strips.

5. In a shoe tree, the combination with a pair of slidably engaged overlapped strips, a bearing on the inner end of one strip and a plurality of stops on the adjacent portion of the other strip, of a locking device comprising a transverse shaft mounted in said bearing, an inwardly extending arm on one end of said shaft and having a depending nose adapted to engage said stops, a lever formed integrally with and rising from the other end of said shaft, and a substantially upright spring arm formed integrally with the lever and having a foot contacting with one of said strips.

[Claims 6 to 8 not printed in the Gazette.]

1,142,596. FOLDING BALCONY. EDWARD MANGISCH, New York, N. Y. Filed Aug. 26, 1914. Serial No. 858,673. (Cl. 20—87.)



1. A folding balcony comprising a frame consisting of end members, means for securing said members to a window opening, said frame also including an intermediate member, means for securing said intermediate member to the window opening, standards pivotally mounted at the outer ends of all of said members, a collapsible wall member carried by said standards, an extensible floor structure carried by the rods, collapsible end walls or gates located at the outermost floor sections, means mounted upon the innermost rod for drawing the outermost rods toward the innermost rod and for spreading the outermost rod from the innermost rod, means connected with the said rod moving means for moving the standards simultaneously with the rods, said rod drawing means being operatively connected with the intermediate standard to swing the same vertically during the lateral movement of the rods and standards.

2. A folding balcony comprising a frame consisting of outermost rods, means for securing said rods in the opening of a window, an innermost rod, means for securing said innermost rod to the sill of a window, standards pivoted at the ends of said rods, a shaft journaled upon the innermost rods, a sleeve screw threaded upon the shaft, links pivotally connecting the sleeve with the outermost rods, a collar slidably mounted upon the innermost standard, links pivotally connecting said collar with the outermost standard, means for turning the shaft and means operatively connecting the sleeve with the collar and other means operatively connecting the sleeve with the intermediate standard.

3. A folding balcony comprising a frame consisting of outermost rods, means for securing said rods in the opening of a window, an innermost rod, means for securing the innermost rod in said opening, standards pivotally mounted at the outer end of said rods, a shaft journaled upon the innermost rods, means for turning the shaft, a sleeve screw threaded upon the shaft, links pivotally connecting said sleeve with the outermost rods, a collar slidably mounted upon the intermediate standard, links pivotally connecting the outermost standard with said collar, means operatively connecting said sleeve with the intermediate standard to permit the intermediate standard to swing as the sleeve moves along the shaft, and cables connected at one end with the sleeves and trained around intervening pulleys and connected at their other ends with the collar and adapted to move the collar along the intermediate standard as the sleeve is moved along the shaft.

1,142,597. SECTIONAL SUPPORT FOR PENDENT LIGHT-FIXTURES. ALBERT H. MANWARING, Philadelphia, Pa. Filed Nov. 1, 1913. Serial No. 798,702. (Cl. 240—78.)

1. The combination, in supporting means for lighting fixtures, of a plurality of independent links arranged to carry conducting wires, and connections for said links comprising clamping members having arms embracing the links and arms embracing the conducting wires.

2. The combination, in supporting means for lighting fixtures, of a plurality of independent links grooved to receive conducting wires, and independent connectors for said links having arms for engagement with the links and arms to retain the wires to the links.



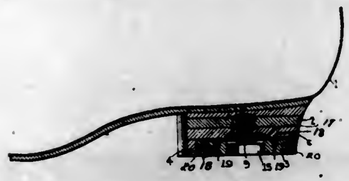
3. The combination, in supporting means for lighting fixtures, of a plurality of independent links externally grooved to receive conducting wires, and connections for said links comprising independent members having a plurality of arms disposed at right angles to each other, one set of arms engaging adjacent links and the other set of arms embracing the connecting wires and holding them within the margin or boundary of the links.

4. The combination, in supporting means for lighting fixtures, of a plurality of supports comprising separable links having means for the concealment of conducting wires, connecting means for said links or sections, and a sectional shade support made up of a plurality of interconnecting interchangeable flanged sections connected together.

5. The combination, in supporting means for lighting fixtures, of a plurality of supports comprising separable links, means carried by said links or sections for concealing conducting wires, detachable connecting means for said links to form chains, a sectional shade support made up of a plurality of interconnecting interchangeable links hingedly connected together, and electric lamp supporting means carried by said shade holder.

[Claims 6 to 12 not printed in the Gazette.]

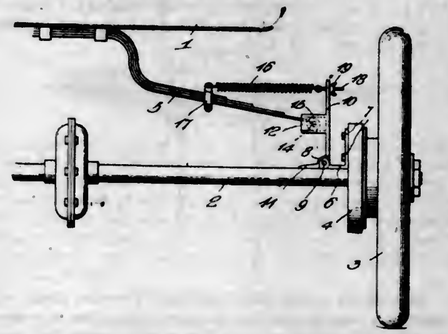
1,142,598. HEEL. SANTO E. P. MATACOTTA, New York, N. Y. Filed Jan. 9, 1913. Serial No. 740,981. (Cl. 36—39.)



1. In a device of the character described, the combination with the heel of a shoe, of a threaded socket member arranged therein, a notched filling member connected with said heel, and a rotatable disk shaped wearing member fitting into said notched member for completing the bottom surface of said heel, said rotating wearing member being formed with a clamping plate having a plurality of turned up fingers, and a wearing body held to said plate by said fingers, and a clamping screw engaging said plate and said socket member for clamping the plate rigidly against the socket member.

2. A device of the character described, comprising a rotating wearing member adapted to be arranged on the bottom of the heel of a shoe, said wearing member being formed with a clamping plate having a plurality of bent-over ears arranged at the periphery, and a plurality of clamping ears arranged between the periphery and the center, a flexible wearing member clamped in place by the ears arranged between the periphery and the center, and a resilient body surrounding said wearing member and the ears extending from the periphery of the plate, said plate being provided with an aperture for receiving a clamping member.

1,142,599. SHOCK-ABSORBER AND SUPPLEMENTARY SPRING. JOHN A. MAUCK, Princeton, Ind. Filed Aug. 18, 1914. Serial No. 857,339. (Cl. 21—101.)



1. In a shock absorber, the combination with an axle and a carrying spring above the same, of a lever fulcrumed at its lower end on the axle and having an inwardly projecting housing formed intermediate the ends thereof, means for limiting the inward swinging movement of the lever on the casing, a roller carried on the outer end of said spring and rotatably received within the aforesaid housing, and a tension spring connecting an intermediate portion of said spring with the upper end of said lever.

2. The combination with a transverse vehicle axle, and a transverse spring above the same, of an L-shaped bracket hinged at its angle to said axle to swing outwardly toward the outer end thereof, the horizontal arm of said bracket resting on the axle and extending inwardly from the hinge, and the upright arm thereof rising above the outer end of the spring and having an opening, a housing projecting inwardly from the intermediate portion of said upright arm and receiving the end of the spring, an eye bolt passing through said opening and having an adjusting nut, and a substantially horizontal coiled shock absorbing spring secured at its inner end to the other spring and at its outer end to said eye bolt.

1,142,600. SHIELD OR GUARD FOR TELEPHONES. RUSSELL HOWARD MAXWELL, Trenton, N. J. Filed July 1, 1914. Serial No. 848,425. (Cl. 179—185.)



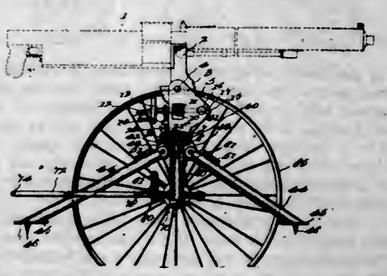
A shield of the class described comprising a circular disk having an opening formed therein, a curved flange formed on said disk at the marginal edge thereof, a curved strip secured to the outer surface of said flange, and fingers formed on one edge of said strip and extending over the outer end of said flange toward the central portion of the disk.

1,142,601. CAN ATTACHMENT. HARRY C. MERKEL, Seattle, Wash. Filed Mar. 17, 1914. Serial No. 825,336. (Cl. 221—23.)



A can attachment comprising a plate to bear on the end of a can and having a nozzle provided with a pointed portion below the plate, and also having brace arms extending from the plate to opposite sides of the nozzle, a pair of U-shaped gripping jaws to engage opposite sides of the can and arranged on said plate, the arms of one of said jaws extending through the spaces between the nozzle and the braces, and a lever having spaced arms to bear on the plate and a crank portion connecting said arms, the said gripping jaws having their arms pivotally connected to the crank portion of the lever.

1,142,602. GUN-MOUNT. ALEXANDER MICLAUS, Jr., Alliance, Ohio. Filed Apr. 5, 1915. Serial No. 19,212. (Cl. 89—40.)



1. The combination with the gun and a supporting member rigidly attached thereto, and provided with worm teeth, of a yoke hinged to said supporting member and provided with a worm adapted to engage said worm teeth and to be thrown out of engagement therewith if desired, and means for supporting said yoke, substantially as described.

2. The combination with the gun and a supporting member rigidly attached thereto, and provided with worm teeth, of a yoke hinged to said supporting member and provided with a worm adapted to engage said worm teeth and to be thrown out of engagement therewith if desired, a pivot bolt projecting downwardly from said yoke, and means for supporting said pivot bolt, substantially as described.

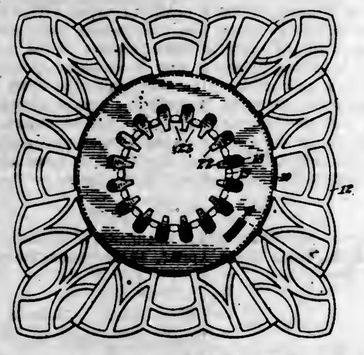
3. The combination with the gun, of a downwardly-projecting supporting member carried by said gun and provided with a segmental rack having worm teeth, a yoke pivoted to said segmental rack, and provided with a downwardly-projecting pivot bolt, means for supporting said pivot bolt, and a worm journaled in said yoke and adapted to engage said worm teeth, with means for throwing said worm into and out of engagement with said worm teeth, when desired, substantially as described.

4. The combination with the gun and a supporting member rigidly attached thereto, and provided with worm teeth, of a yoke hinged to said supporting member and provided with a worm adapted to engage said worm teeth and to be thrown out of engagement therewith if desired, a pivot bolt projecting downwardly from said yoke, and a socket piece for supporting said pivot bolt, substantially as described.

5. The combination with the gun, of a downwardly-projecting supporting member carried by said gun and provided with a segmental rack having worm teeth, a yoke pivoted to said segmental rack, and provided with a downwardly-projecting pivot bolt, a socket piece for supporting said pivot bolt, and a worm journaled in said yoke and adapted to engage said worm teeth, with means for throwing said worm into and out of engagement with said worm teeth when desired, substantially as described.

[Claims 6 to 16 not printed in the Gazette.]

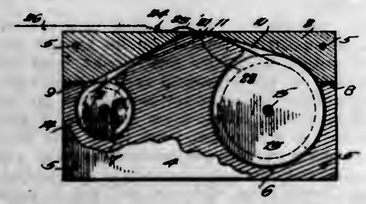
1,142,603. GAS-STOVE ATTACHMENT. PHILIPP MOELLENDICK, New York, N. Y. Filed Dec. 23, 1914. Serial No. 878,642. (Cl. 126—214.)



1. A gas stove attachment comprising a conical body member, secured to and depending from the top of the gas stove and extending between the same and a gas burner therein, a lid supported upon the top of the gas stove in a position immediately above but spaced apart from the outer end of the said body member, and a deflector within the said body member with the walls thereof inclined in the opposite direction.

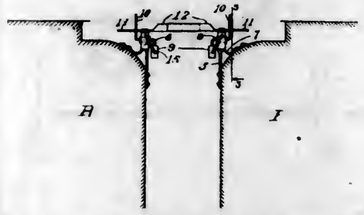
2. A gas stove attachment comprising a conical body member secured at its outer end to the top of a gas stove and extending between the same and a gas burner thereof, a central apertured lid having a series of radially placed lugs and intervening recesses set in the top of the gas stove immediately above and in a position spaced apart from the outer end of the said conical body member, and a deflector having in its outer end a series of radially placed lugs with intervening recesses placed within the said conical body member in such a position that the lugs and recesses thereof are in a staggered relationship to the lugs and recesses in the lid.

1,142,604. CLOCK ATTACHMENT. JOHN R. MOORE, Winona, Tex. Filed Jan. 11, 1915. Serial No. 1,544. (Cl. 161—3.)



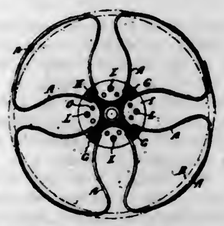
An attachment for clocks, comprising a casing consisting of a block having transverse approximately cylindrical recesses spaced apart from each other, and connected by a passage, said passage being tangential to the recesses at its ends and opening at the top of the casing intermediate its ends, a reel in each recess, a paper strip adapted to wind on the reels at its ends and to move through the passage from one reel to the other, covering plates detachably secured to the opposite sides of the block, a plate of conducting material arranged transversely of the casing in the bottom of the passage at the opening and insulated from the block, and resilient contact fingers connected with the block at the opening and adapted to engage the plate at their free ends, the fingers being arranged alongside each other in approximately parallel relation and spaced apart from each other, the paper strip having slots or perforations at predetermined intervals for permitting the free ends of the contact fingers to pass through the said slots or perforations and to engage the plate.

1,142,605. AUTOMATIC CAR-SIGNAL. JOHN T. MOYER, Philadelphia, Pa. Filed Feb. 7, 1914. Serial No. 817,291. (Cl. 177—10.)



In a device of the class described, a circuit closer comprising a vane pivoted for horizontal swinging movement, a weighted rocker pivoted for vertical swinging movement and engaging one end portion of the vane, and a spring contact located in the path of movement of the rocker.

1,142,606. WHEEL OF MOTOR-CYCLES AND OTHER VEHICLES. ESTHER MURRAY, Bayswater, London, England. Filed Mar. 15, 1915. Serial No. 14,596. (Cl. 152—50.)

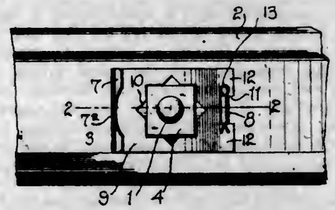


1. A resilient wheel for vehicles comprising in combination a rim, a hub structure formed with crosses and having side plates, and bolts connecting said side plates and two or more resilient sections intermediate said rim and said hub structure, the bases of the sections covering a relatively large proportion of the inner circumference of the rim, and the loose end of each of the resilient sections resting against the crosses of the hub structure and the movement thereof being controlled by said bolts.

2. A resilient wheel for vehicles comprising in combination a rim, a hub structure formed with crosses and having two plates arranged one on each side of said crosses, and two or more resilient sections intermediate said rim and said hub structure, the bases of the sections covering a relatively large proportion of the inner circumference of the rim, and the loose ends of each of the sections resting against the crosses of the hub.

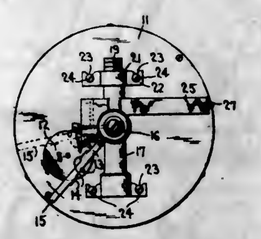
1,142,607. NUT-LOCK. CHARLES O. MYERS and HOWARD T. MARING, Gettysburg, Pa. Filed Jan. 18, 1915. Serial No. 2,880. (Cl. 151—50.)

The combination with a nut and bolt, of a nut lock including a base plate formed with an opening to receive the bolt, an upstanding flange formed at one terminal of the plate, a rolled ear formed at the other terminal of the plate, a bowed holding plate having a polygonal opening adapted to receive a nut, one terminal of the bowed plate being provided with an opening, said opening defining a pair of transversely spaced lugs which extends longitudinally from the plate, the lugs being adapted to embrace and bear against opposite terminals of the rolled ear when the bowed plate is applied to the base plate, that end of



the bowed plate remote from the lugs being adapted to be inserted behind and embraced by said flange, and a fastening device inserted in the rolled ear and projecting exteriorly thereof at each terminal for engagement with the lugs, whereby the lugs are held against lateral movement from the base plate, said ear serving to hold the bowed plate against transverse movement in either direction on the base plate.

1,142,608. MECHANISM FOR LIGHTING AND EXTINGUISHING STREET-LAMPS. EUGENE S. NEWBOLD, Baltimore, Md. Filed Oct. 13, 1914. Serial No. 866,448. (Cl. 161—9.)



In a device of the character described, in combination, a burner formed with laterally extending arms, each provided with upwardly opening slots, a clock mechanism, a suitable casing therefor having pins adapted to enter the slots in the burner arms, whereby the burner and clock mechanism are detachably connected, a rotary element actuated by the clock mechanism and extending outside of the casing, said element being provided with an operating projection, a valve in the burner having an arm having ears on its opposite edges and out of alinement with each other, so that the projection on the rotatable element will not interfere with the ready removal or attachment of the clock mechanism, said ears being adapted to be engaged by the projection on the rotary element to open and close the valve.

1,142,609. WINDOW-CLEANER. FRANCIS S. NEYDHART, West Hoboken, N. J. Filed Aug. 1, 1914. Serial No. 854,505. (Cl. 15—59.)

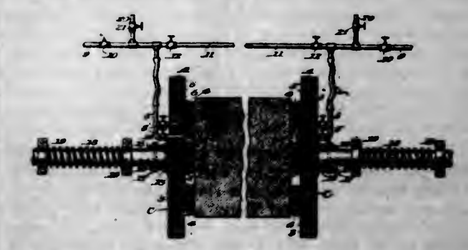
1. The herein described window cleaning device comprising, in combination with a pair of frame members movably related to each other, a flat faced block connected to each of said frame members, a bundle of cloths attached together along one edge by metal fasteners providing open loops, a pair of hooks having open ends secured adjacent one edge of the block and with which said loops are engaged, the free portions of the cloths being passed over the flat face of the block and looped over the edge thereof remote from said hooks, and a spring pressed yoke gripping said free edges of the cloths.

2. In a window cleaner, an open frame adapted to span the window sash, said frame comprising a pair of rigid members pivoted together at one point for free movement toward each other but having their main portions spaced from each other, one of said members including a lever member rigidly connected to the main portion thereof and extending thence substantially parallel to said main portion, the other of said frame members extending from the pivot along the lever member and constituting in connection therewith a lever of the third class and including a pair of bars between which the rigidly connected lever is disposed, the lever members being adapted to be grasped by one hand of the operator for manipulating the frame and simultaneously varying the pressure upon the window pane, and a pair of cleansing members connected to the ends of the frame members remote from the pivot.



3. The herein described window cleaning device comprising, in combination with a pair of frame members movably related to each other, a flat faced block connected to each of said frame members, a bundle of cloths attached together along one edge by metal fasteners providing open loops, a pair of hooks having open ends secured adjacent one edge of the block and with which said loops are engaged, the free portions of the cloths being passed over the flat face of the block and looped over the edge thereof remote from said hooks, a spring pressed yoke gripping said free edges of the cloths, and a temporary holding member adjacent the block for holding the soiled cloths in succession.

1,142,610. PROCESS OF TREATING WOOD. WILLIAM W. NORMAN, Hunterville, Mo. Filed Mar. 29, 1913. Serial No. 757,669. (Cl. 99—12.)

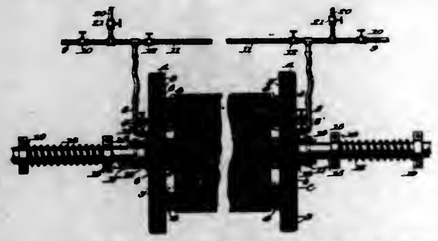


1. The herein-described process of treating wood, consisting in first closing the heart zone of the log to prevent the ingress of fluid thereto and introducing an agent under pressure into the sap portion of the log for the removal of the sap, and injecting a fluid into the sap pores upon the removal of the sap.

2. The herein-described process of treating wood, consisting in first closing the heart zone of the log to prevent the ingress of fluid thereto, and introducing an agent under pressure into the sap portion of a log for removing the sap and injecting a fluid under low pressure into the sap pores upon the removal of the sap.

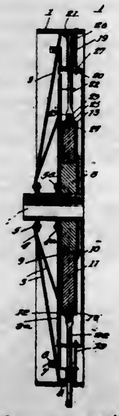
3. The herein-described process of treating wood, consisting in first closing the heart zone of the log to prevent the ingress of fluid thereto, and introducing air under pressure into the sap portion of a log from first one end of the log and then the other end, and injecting a fluid into the sap portions of the log upon the removal of the sap first at one end and then at the other end of the log.

1,142,611. APPARATUS FOR TREATING WOOD. WILLIAM W. NORMAN, Hunterville, Mo. Filed Mar. 29, 1913. Serial No. 757,670. (Cl. 99—12.)



An apparatus for treating wood, comprising a gripping head, a guide block connected thereto, and flanges on the head engaging the log, said guide block limiting the depth the flanges enter the log for forming a chamber between the flanges, and means for introducing a fluid between the flanges for treating the log confined between the flanges.

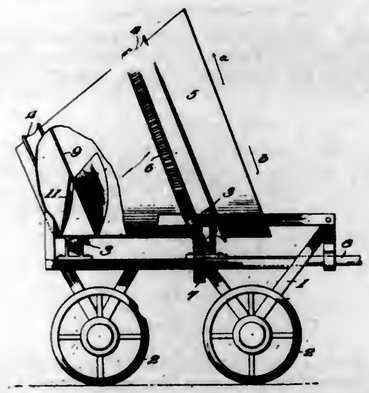
1,142,612. ATTACHMENT FOR ENGINES. FRANK RUDOLPH NYBERG, Lamar, Colo., assignor of one-half to George J. Garvin, Lamar, Colo. Filed Aug. 11, 1914. Serial No. 856,232. (Cl. 21—210.)



1. A device of the character specified, in combination with the wheel having a hub and a rim, and spokes connecting the hub and rim, of a ring fitting one end of the hub and having a radial flange at its inner face, an eccentric journaled on the said ring and having a radial flange at its inner face, a ring fitting the outer face of the eccentric and extending beyond the periphery thereof, a disk fitting the hub against the outer face of the ring and extending beyond the periphery thereof to hold the eccentric and the ring in place, a ring arranged between the wheel rim and the eccentric, and having notches for receiving the spokes, said ring and the rim of the wheel having registering radial openings, a dog moving in each pair of registering openings and having at its inner end a roller bearing against the periphery of the eccentric, rods connecting the ring to the rim, each rod being adjacent to a dog, stops extending transversely of the dogs and having eyes engaging the adjacent rods, springs encircling the dogs between the stops and the rim, and normally forcing the dogs inwardly, and means connected with the eccentric for shifting the same angularly with respect to the wheel.

2. The combination with a wheel having a rim and a hub and having spokes connecting the rim and the hub, of a disk mounted on the hub, an eccentric mounted on the disk, a ring connected with the wheel within the rim, said ring and rim having registering openings, and dogs arranged radially of the rim and ring and engaging the registering openings, springs normally forcing the dogs inward, the inner ends of the dogs engaging the periphery of the eccentric, and the said eccentric continuously moving the dogs outward when the wheel is moving, and means for shifting the eccentric angularly on the disk and for holding the eccentric from movement with the wheel to cause the said eccentric to extend the dogs at one part of the wheel.

1,142,613. CONCRETE-MIXER. GEORGE F. NYE, Kearney, Nebr. Filed Apr. 13, 1914. Serial No. 831,662. (Cl. 83—73.)



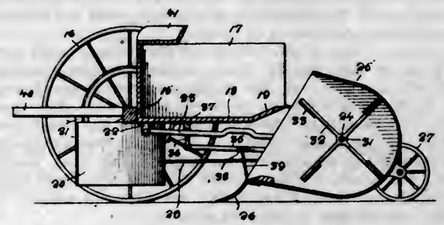
1. A concrete mixer comprising a rotary open-ended conical mixing drum having its lower side substantially horizontal, the larger end of the drum being the receiving end and the smaller end the discharge end, a partition within said drum near the discharge end of the same, the interior of the drum from the receiving end to the said partition being unobstructed and said partition having an opening therethrough at its edge, and deflectors upon opposite sides of the partition and extending in opposite directions therefrom at the sides of the opening therethrough whereby material in the drum will be prevented from escaping when the drum is rotated in one direction and will be discharged when the drum is rotated in the opposite direction.

2. A concrete mixer comprising a rotary open-ended conical mixing drum, a partition therein near and forming a closure for the discharge end thereof and provided with a peripheral opening having intersecting sides extending from the point of intersection to the edge of the partition, a guard on one face of said partition extending from one side of said opening toward the receiving end of the drum, the free edge of said guard being at the rear in the direction of travel in the mixing operation and a guard on the opposite face of said partition extending from the intersecting side of said opening toward the discharge end of the drum with its free edge at the front in the direction of travel in the mixing operation whereby material in the drum will be prevented from escaping when the drum is rotated in one direction and will be discharged when the drum is rotated in the opposite direction.

3. A concrete mixer consisting of a conical rotary drum having its lower side substantially horizontal and open throughout the area of both its ends, a partition forming a closure for the discharge end of the drum and having an opening whose sides intersect and extend from the point of intersection to the periphery of the partition, the partition being otherwise imperforate and diagonally disposed extensions of the intersecting sides of said openings forming a passage communiating with the drum on the opposite sides of the partition whereby rotation of the drum in one direction will retain the material therein and rotation in the opposite direction will discharge the material.

4. A concrete mixer consisting of a rotary drum, the discharge end of which is closed by a partition containing a diagonally disposed walled outlet and the interior of which from its receiving end to said outlet is unobstructed, said walled outlet being disposed at the edge of the partition and the partition being otherwise imperforate.

1,142,614. DEVICE FOR CATCHING INSECTS. CARL OLSEN and WILLIAM C. STAUTZENBERGER, Beeville, Tex. Filed Feb. 4, 1914. Serial No. 816,494. (Cl. 43—1.)



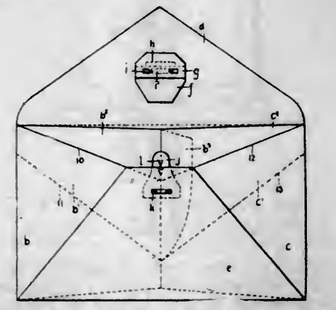
1. In a machine of the class described, a wheel supported receptacle open at its rear end, said receptacle being supported at a proper elevation to enable it to pass over a row of cotton plants, rearwardly converging spaced agitating members depending from said receptacle, casings trailing in rear of the receptacle, said casings being open at the front and spaced apart to admit a row of plants therebetween, gathering means associated with the casings, and means for transmitting material gathered in the casings to the receptacle.

2. In a machine of the class described, a wheel supported receptacle open at its rear end, said receptacle being supported at a proper elevation to pass above a row of cotton plants, plant agitating means depending from the receptacle, casings trailing in rear of the receptacle, said casings being spaced apart to admit a row of plants therebetween, and said casings having open and unobstructed front ends which are spaced from the open rear end of the receptacle, ground engaging rakes associated with the casing at the lower front edges thereof, and means for transmitting material gathered in the casings to the receptacle.

3. In a machine of the class described, a wheel supported receptacle open at its rear end and supported at a suitable elevation to pass over a row of plants, plant agitating means connected with and depending from the receptacle, a pair of casings trailing in rear of the receptacle, said casings having open front ends and said casings being spaced apart to admit a row of plants therebetween, shafts extending through the casings, fans on said shafts within the casings whereby the material gathered therein may be forcibly thrown into the receptacle through the open rear end thereof, lugs depending from the bottom of the receptacle, and links connecting said lugs with the fan carrying shafts enabling the casings to move vertically independently of the receptacle.

4. In a machine of the class described, a wheel supported receptacle open at its rear end and having a bottom provided with an upturned rear portion, plant agitating means connected with the receptacle, casings trailing in rear of the receptacle and having open front ends, said casings being substantially semi-oval form, ground engaging rakes associated with the casings, driven shafts in the casings, fans on said shafts within the casings, cranks at the ends of the shafts, links depending from the bottom of the receptacle, bars connecting said links with the cranks, and cross bars connecting said bars in pairs and having depending rake teeth.

1,142,615. SAFETY AND SANITARY ENVELOP. HERMAN H. PALMER, Charleston, S. C., assignor of one-half to Walter F. Livingston, Charleston, S. C. Filed Feb. 19, 1915. Serial No. 9,295. (Cl. 229—87.)



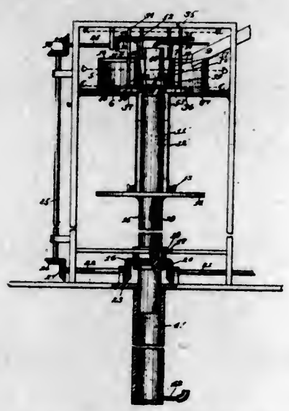
An envelop having a fastener element on the body of the envelop at the upper edge of the back and projecting beyond the said upper edge, the envelop having end flaps provided with folds forming with the back of the envelop a V-shaped pocket, the upper projecting end of the said fastener element having locking tongues in vertical series at the inner side thereof disposed in a downward direction, and a co-acting fastener element on the closing flap of the envelop at the inner side thereof, the second fastener element having overlapping inner and outer layers of stiff sheet material, the said layers being fastened together and to the closing flap and said closing flap having a slot adjacent to the edge of the inner layer, the said two overlapping layers of sheet material affording a passage therebetween to permit the projecting end of the first fastener element to pass beneath the inner layer and project beyond the upper edge of the outer layer when the flap is in the closed position, the said upper edge of the outer layer forming a catch to engage a tongue in the first fastener element.

1,142,616. MACHINE FOR MAKING TILE OR PIPE. PITMAN W. PARKER, San Diego, Cal. Filed July 19, 1912. Serial No. 710,344. (Cl. 25—30.)

1. In a device of the character described, the combination with a vertically reciprocatory and rotative plunger, of a table carried by said plunger, a cylindrical mold body having an open upper end, means for securing said mold body upon said table in a vertical position, a cement receptacle disposed above said table and having an opening formed in its bottom in alinement with said mold body, a fixed core depending centrally from the under side of said receptacle and extending downwardly through said opening into said mold and lying in spaced relation to the sides of said mold and means carried by the receptacle for supporting said core.

2. In a device of the character described, the combination with a vertically reciprocatory and rotative plunger, of a table carried by said plunger, a cylindrical mold body having an open upper end, means for securing said mold body upon said table in a vertical position, a cement receptacle disposed above said table and having an opening formed in its bottom in alinement with said mold body, a fixed core extending through said opening

into said mold and lying in spaced relation to the sides of said mold, means for feeding cement through said opening from said receptacle and around said core, means carried by the receptacle for supporting said core and a fixed cylindrical member depending from the underside of said receptacle and arranged to aline with the mold body when said mold body is elevated.



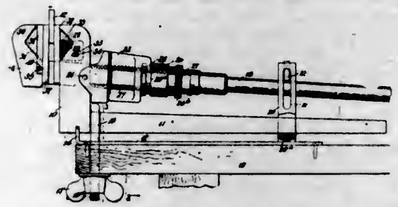
3. In a device of the character described, the combination with a vertically reciprocatory and rotative plunger, of a table carried by said plunger, a cylindrical mold body open at the top and bottom, means carried by the table for clamping said mold body thereon in a vertical position, a cement receptacle disposed directly above said table and comprising a bottom wall having an opening formed centrally therein in alinement with said mold body, said receptacle having a horizontal wall spaced from the bottom wall and overlying said opening, a fixed core of smaller diameter than said opening depending from said horizontal wall in concentric relation to said mold body, means for feeding cement through said opening from said receptacle and around said core, and a fixed cylindrical member depending from the bottom wall of the receptacle in alinement with and of a diameter equal to said cylindrical mold body.

4. In a device of the character described, the combination with a cement receptacle comprising a bottom wall having an opening formed centrally therein, a horizontal wall overlying said opening in spaced relation to the bottom wall of the receptacle, a fixed core of smaller diameter than said opening depending from said horizontal wall through said opening and means for feeding cement from said receptacle through said opening and around said core.

5. In a device of the character described, the combination with a cement receptacle comprising a bottom wall having an opening formed centrally therein, a horizontal wall overlying said opening in spaced relation to the bottom wall of the receptacle, a fixed core of smaller diameter than said opening depending from said horizontal wall through said opening, means for feeding cement from said receptacle through said opening and around said core, a vertically movable mold supporting element disposed beneath said receptacle and in alinement with said core.

1,142,617. TOOL. JOHN JAMES PATTERSON, Coeur d'Alene, Idaho. Filed Apr. 4, 1914. Serial No. 829,507. (Cl. 81—17.)

1. In a tool of the character described, a base having means whereby to secure it to a bench or the like, and having an upturned end formed with a depression constituting a seat, upstanding spaced elements on the base distant from the seat, a clamp jaw fitting the seat of the base and having a rigid handle extending from its lower end between the upstanding members, a hook bolt engaging the said handles adjacent to the said seat and extending downwardly through the base, a clamp nut on said shank, a second jaw having a rigid handle pivotally connected with the fixed jaw to rock toward and from the first handle, and movable longitudinally relatively to the first jaw and its handle, the said handle of the second jaw extending between the upstanding members, and means associated with the said upstanding members to hold the respective handles of the jaws in adjusted relation.



2. In a tool of the character described, a fixed jaw having a rigid handle, a movable jaw having a handle pivotally mounted to be rocked toward and from the first handle, clamp means to secure the first handle to a bench or like support, upstanding members separate from said clamp means and independently securable to a bench or other support for receiving said handle, and means associated with the upstanding members to hold the handles in adjusted relation to each other.

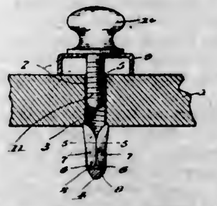
3. In a tool of the character described, a fixed jaw having a rigid handle, clamp means to secure the first handle to a bench or like support, a movable jaw having a handle and mounted to be rocked toward and from the first handle, and to have longitudinal movement relatively to said first handle, a U-shaped member having spaced sides adapted to receive both the fixed handle and the handle of the movable jaw, the said sides being slotted, and tapered key fitting the slots and adapted to hold the handles in adjusted relation.

4. In a tool of the character described, a pair of handled jaws connected for relative rocking and sliding movement, means for securing one of the handles to a bench, or like support, and means adapted to be secured to the support and to hold the other of said handles in adjusted relation to the first handle and to the support.

5. In a tool of the character described, a base, a pair of handled jaws rockable and slidable relatively to each other, means to secure one handled jaw to the base, and means on the base to engage both handles and hold the same in adjusted relation to each other.

[Claim 6 not printed in the Gazette.]

1,142,618. BOLT. HENRY F. PAULEY, Sacramento, Cal. Filed May 15, 1914. Serial No. 838,827. (Cl. 85—3.)



In combination with an article having an opening, an interiorly threaded socket inserted within the opening, said socket having opposite elongated slots, the outer end walls of which being inclined, fingers pivoted within the socket and having sharpened ends, said fingers contacting with each other and with the beveled end walls of the slots to project the sharpened ends of the fingers beyond the opposite sides of the socket, a flanged escutcheon, a screw working through the escutcheon engaging with the threaded bore of the socket to force the socket toward the escutheon and the sharpened projecting ends of the fingers in biting engagement with the opposite walls provided by the opening in the article.

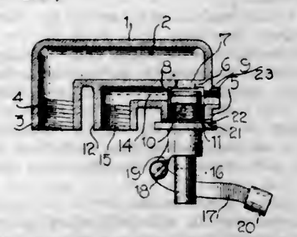
1,142,619. PROCESS OF MANUFACTURING ARTIFICIAL SPONGE. GUSTAV PUM, Gratz, and ARTHUR GLAESSNER, Vienna, Austria-Hungary, assignors to Philipp Röder-Bruno Raabe A. G., Vienna, Austria-Hungary, a Joint-Stock Company. Filed Oct. 16, 1913. Serial No. 795,550. (Cl. 18—48.)

1. A process for manufacturing artificial sponge from viscose with an admixture of fibers consisting in mixing the viscose with a granular liquefiable solid substance whereby a paste is obtained, and then liquefying said substance and removing it from the mass and hardening the viscose.

2. A process for manufacturing artificial sponge from viscose with a granular soluble solid substance whereby a paste is obtained, then shaping the paste into pieces of desired form, then immersing the shaped pieces of the mass into a solvent for said soluble substance, whereby said substance is dissolved and removed from the mass, and hardening the viscose.

3. A process for manufacturing artificial sponge from viscose with an admixture of fibers consisting in mixing said viscose with a granular soluble solid substance, a solution of which subetance will harden the viscose, whereby a paste is obtained, then shaping the paste into pieces of the desired form, and then immersing the shaped pieces of the mass in a solvent for said soluble substance whereby said substance is dissolved and removed from the mass and the viscose is hardened.

1,142,620. BALL-COCK. THOMAS H. RADCLIFFE, Brooklyn, N. Y. Filed Dec. 6, 1913. Serial No. 805,133. (Cl. 137—104.)



In a device of the class described, a casting comprising a chamber and three integral depending nipples communicating with the chamber and adjacent to one another, the first nipple adapted for connection with a supply pipe, the second nipple adapted for connection with a discharge pipe and communicating with the chamber through a by-pass, an integral valve seat between the chamber and by-pass, and valve mechanism in the third nipple and coöperating with the seat for controlling the passage of fluid from the chamber to the by-pass.

1,142,621. DRIVING MECHANISM FOR MOTOR-CARS. LOUIS RAVEL, Besançon, France. Filed Feb. 4, 1911. Serial No. 606,592. (Cl. 21—90.)

1. In a motor vehicle, the combination with the housing for the rear driving gears, the change speed gear casing, a propeller shaft, the speed gear drive shaft, a Cardan joint between the rear end of said drive shaft and the front end of the propeller shaft, a supporting bearing for the rear end of the said drive shaft, said bearing being arranged between the speed gear casing and the said drive shaft on which the latter is rotatably mounted, and an end thrust bearing for the said drive shaft arranged between the rear end of the latter and the change speed gear casing and in rear of the said supporting bearing, of an end thrust bearing interposed between the rear end of the propeller shaft and the housing for the rear driving gears, a supporting bearing arranged between the rear end of the propeller shaft and the said housing in rear of the last-mentioned end thrust bearing upon which last-mentioned supporting bearing the said rear end of the propeller shaft is rotatably mounted, and a tube carried by the housing for the rear driving gears within which tube the propeller shaft is arranged and upon which tube said propeller shaft has a bearing, all arranged as and for the purpose specified.



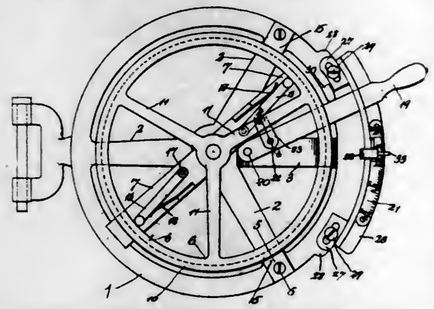
2. In a motor vehicle, the combination with a propeller shaft, the change speed gear casing, the housing for the rear driving gears, the speed gear drive shaft, and a Cardan joint between the front end of the propeller shaft and the rear end of said speed gear drive shaft, of a supporting bearing for the rear end of the speed gear drive shaft, said bearing being arranged between the speed gear casing and the said drive shaft, an end thrust bearing interposed between the speed gear drive shaft and the change speed gear casing in rear of the said supporting bearing and comprising two rings surrounding the said drive shaft with their opposing faces lying in planes transverse of said drive shaft, balls between said rings, flanged sleeves forming cages between which said rings and balls are loosely mounted, said sleeves being secured respectively to the speed gear drive shaft and the change speed gear casing, a supporting bearing arranged between the rear end of the propeller shaft and the housing for the rear driving gears, and an end thrust bearing lying in front of the last-mentioned supporting bearing between the rear end of the propeller shaft and the housing for the rear driving gears, the last-mentioned end thrust bearing comprising two rings surrounding the rear end of the said drive shaft, balls between said rings, and flanged sleeves forming cages between which said rings and balls are loosely mounted, said sleeves being secured respectively to the propeller shaft and the said housing, all arranged substantially as and for the purpose specified.

1,142,622. CHEESE-CUTTER. ALFRED L. REED and THOMAS S. GETTLE, Anderson, Ind.; said Gettle assignor to said Reed. Filed Jan. 4, 1909. Serial No. 470,643. (Cl. 31—68.)

1. In a cheese cutter, the combination of a base, a table carrier rotative on the base, clutch devices mounted on the base to engage the carrier, an operating lever pivotally mounted on the base and coöperating with the clutch devices to rotate the carrier, a graduated scale bar on the base provided with means for indicating the extent of movement of the lever in one direction, and a stop device on the scale bar to stop the lever at an indicated position, with means enabling the indicating means to be variably supported relatively to the base and permitting re-adjustment of the stop device relative to the base, a stop on the base to limit the movement of the lever in the opposite direction, and a knife mounted on the base.

2. In a cheese cutter, the combination of a base, a stop fixed on the base, a table carrier rotatively mounted on the base, a clutch-carrying lever pivotally connected with the base, a friction-clutch device mounted on the

clutch-carrying lever in contact with the carrier, a graduated scale bar having two portions thereof adjustably secured to the base and permitting the bar to be shifted longitudinally relatively to the fixed stop, a stop device adjustably secured relatively to said scale bar, and an operating and setting lever pivotally connected with the base and extending movably between the fixed stop and the stop device, with means operatively connecting the operating and setting lever with the clutch-carrying lever, and a knife mounted on the base.



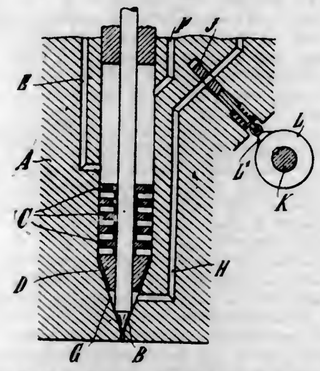
3. In a cheese cutter, the combination with a base having a central boss, a knife mounted on the base, and an operating and setting lever pivoted on the base, of a clutch-carrying lever supported on the central boss and connected with the operating and setting lever, a table carrier supported on the clutch carrying lever and having an axial shaft thereon extending through the lever and into the central boss rotatively, a friction-brake mounted on the base and in contact with the carrier, friction-clutch devices mounted on the clutch-carrying lever in contact with the carrier, and a graduated scale bar and also a stop device mounted on the base and one of which is adjustable on the base relative to the other to compensate for distortion of the connections between the operating and setting lever and the clutch-devices, said scale bar being beneath and said stop device being opposite one side of said operating and setting lever, and a stop device adjustably secured on said scale bar opposite the opposite side of said operating and setting lever.

4. In a cheese cutter, the combination with a base comprising an annular rim, a knife mounted on the base, a stop fixed on the rim, two securing screws connected to the rim, one screw being in proximity to said stop and the other remote therefrom, a table carrier and a clutch-carrying lever rotatable on the base, an operating and setting lever pivoted on the base and connected with said clutch-carrying lever, and clutch devices mounted on the clutch-carrying lever in contact with said table carrier, of a graduated scale bar provided with lugs seated adjustably on said rim and having each a longitudinally-extending slot therein receiving one of said screws, said screws adjustably securing said lugs to said rim with said scale bar adjacent said setting lever, and a stop adjustably secured to said scale bar.

5. In a cheese cutter, the combination with a base, a table carrier and a clutch-carrying lever rotative on the base, an operating and setting lever pivoted on the base and connected with the clutch-carrying lever, friction-clutch devices mounted on the clutch-carrying lever in contact with said carrier, and a stop fixed on said base opposite one side of said setting lever, of a scale bar secured to said base beneath said setting lever and having a guide bar thereon extending above said setting lever, and a scale plate secured to said scale bar and having progressively varying graduations marked thereon and provided with different numbers representing the weights of different sizes of cheeses and also numbers indicating the number of slices or portions into which cheeses of different sizes may be divided, a stop device adjustably secured to said guide bar opposite the opposite side of said operating and setting lever, and means enabling said scale bar and stop device adjustably mounted thereon to be moved from their normal position.

[Claims 6 to 8 not printed in the Gazette.]

1,142,623. FUEL-INJECTOR. CONRAD REGENBOGEN, Kiel, Germany, assignor to Fried. Krupp Aktiengesellschaft Germaniawerft. Filed June 10, 1912. Serial No. 702,840. (Cl. 23—23.)



1. In a valved fuel-injecting device for internal combustion engines operating with fuels of low combustibility and having a needle valve, and a housing therefor with a chamber immediately behind the point of said needle valve; means through which said chamber can be brought momentarily into communication with a space having less pressure at that moment, previous to opening the needle valve.

2. In a valved fuel-injecting device for internal combustion engines operating with fuels of low combustibility; and having a needle valve, and a housing therefor with a chamber immediately behind the point of said needle valve; means through which said chamber can be brought into communication with a space of less pressure, previous to opening the needle valve, said means comprising a channel leading from said valve chamber to atmosphere and means for opening and closing said channel.

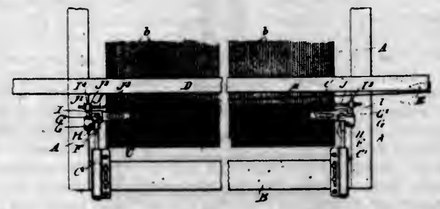
3. In a valved fuel-injecting device for internal combustion engines operating with fuels of low combustibility; and having a needle valve, and a housing therefor with a chamber immediately behind the point of said needle valve; means through which said chamber can be brought into communication with a space of less pressure, previous to opening the needle valve, said means comprising a channel leading from said valve chamber to atmosphere and means for opening and closing said channel, said opening and closing means being automatically regulated to commence opening only after the load upon the engine falls below a predetermined measure.

4. In a valved fuel-injecting device for internal combustion engines operating with fuels of low combustibility; and having a needle valve, and a housing therefor with a chamber immediately behind the point of said needle valve; means through which said chamber can be brought into communication with a space of less pressure, previous to opening the needle valve, said means comprising a channel leading from said valve chamber to atmosphere, means for opening and closing said channel and means for timing and graduating the action of said opening and closing means.

5. In a valved fuel-injecting device for internal combustion engines operating with fuels of low combustibility; and having a needle valve, and a housing therefor with a chamber immediately behind the point of said needle valve; means through which said chamber can be brought into communication with a space of less pressure, previous to opening the needle valve, said means comprising a

channel leading from said valve chamber to atmosphere, means for opening and closing said channel and means for timing and graduating the action of said opening and closing means, said timing and graduating means being regulated to vary the area of the opening capacity of the channel closure, inversely as the load imposed upon the engine.

1,142,624. LOOM ATTACHMENT. PETER REILLY, Passaic, N. J., assignor to Joseph P. Schmitt, Hoboken, N. J. Filed Jan. 20, 1914. Serial No. 813,173. (Cl. 139—36.)



1. In a loom, the combination with a lay having a lay hand rail, a temple, an arm mounted to swing on the temple and extending into the path of the lay hand rail, and a looper held on the said arm and adapted to engage the weft to hold the latter during the return movement of the shuttle, the said arm being swung by the lay hand rail to move the looper out of engagement with the weft loop during the beating up movement of the lay, the said arm having means for engaging the temple to limit the return movement of the arm.

2. In a loom, the combination of a lay having a lay hand rail, a temple, a spring-pressed arm mounted at its lower end to swing on the temple in the direction of the length of the loom, the said arm having an upward offset extension arranged in the path of the said lay hand rail, and a looper held on the said arm and having a downwardly-extending point adapted to engage the weft during the return movement of the shuttle, the bottom of the arm extension abutting against the top of the temple to limit the return movement of the arm.

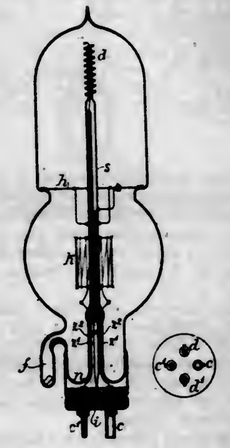
3. In a loom, the combination of a lay having a lay hand rail, a temple, a spring-pressed arm mounted to swing at its lower end on the temple in the direction of the length of the loom, the upper end of the said arm being in the path of the said lay hand rail, a longitudinally extending rod adjustably held at its forward end on the said arm and extending rearwardly, and a looper having a shank and a point, the said shank extending transversely and being adjustably secured in the rear end of the said rod and the said point extending downwardly to engage the weft.

4. In a loom, the combination of a lay having a lay hand rail, a temple, provided with a transverse stud, an arm mounted to swing at its lower end on the said stud, the arm having an upward extension arranged in the path of the lay hand rail, whereby a forward swinging movement is imparted to the arm when the lay moves forward, a spring coiled around the said stud and bearing with one end on the said arm and having its other end attached to the temple, the said spring giving a return swinging motion to the arm when the lay returns, a longitudinally extending rod adjustably secured at its forward end on the said arm, the rear end of said rod being provided with an eye, and a transversely extending looper having a shank adjustably secured in the said eye, the looper having at its inner end a downwardly extending point adapted to engage the weft on the return movement of the said arm, the arm extension being offset from the body of the arm and forming a shoulder engaging the top of the temple to limit the return movement of the arm.

5. In a loom, the combination with a lay having a lay hand rail, and the loom temples having studs projecting therefrom, of arms pivoted on the said studs to swing in the direction of the length of the loom, the said arms extending in the path of the lay hand rail, and loopers carried by the said arms.

[Claim 6 not printed in the Gazette.]

1,142,625. DISCHARGE-TUBE. EUGEN REISZ, Berlin-Treptow, Germany. Filed Oct. 10, 1913. Serial No. 794,467. (Cl. 250—27.)



1. A discharge tube comprising an anode, an incandescent metallic oxid cathode, supply wires for the same, a vapor developing substance stored in a bulb of the tube and a support arranged in the middle axis of the tube containing all the supply wires and fused into the tube at a place near the metallic oxid cathode.

2. A discharge tube comprising an anode, an incandescent metallic oxid cathode, supply wires for the same, an auxiliary electrode between the cathode and the anode, holding means and a supply wire for said auxiliary electrode, a vapor developing substance stored in a bulb of the tube and a support arranged in the middle axis of the tube containing all the supply wires and carrying holding means for the auxiliary electrode, said support being fused into the tube at a place near the metallic oxid cathode.

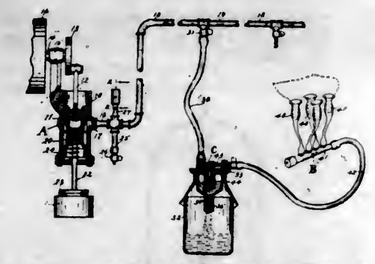
3. A discharge tube having the form of a body of revolution comprising an anode, an incandescent metallic oxid cathode, supply wires for the same, an auxiliary electrode between the cathode and the anode, holding means and a supply wire for said auxiliary electrode, a vapor developing substance stored in a bulb of the tube, a support arranged in the middle axis of the tube containing all the supply wires and carrying the holding means for the auxiliary electrode, said support being fused into the tube at a place near the metallic oxid cathode, an insulating block in fixed connection with the tube, and contact pieces in connection with the supply wires, arranged on said block, adapted to distinguish the supply wires from each other.

1,142,626. MILKING-MACHINE. BENJAMIN PERRY REMY and FRANK IRWIN REMY, Anderson, Ind. Filed Feb. 14, 1908, Serial No. 415,952. Renewed Apr. 29, 1915. Serial No. 24,794. (Cl. 31—98.)

1. A milking machine including a milker, a pump provided with a cylinder in constantly closed communication with the milker, a closed piston in said cylinder, and yielding means which tends to resist the suction action of said piston.

2. A milking machine including a milker, a pump provided with a cylinder in constantly closed communication with the milker and a closed piston in said cylinder, and a yielding follower in said cylinder that tends to resist the suction action of the piston.

3. A milking machine including a milker, a pump provided with a cylinder in constantly closed communication with the milker and a closed piston in said cylinder, and a gravity controlled follower in the cylinder.

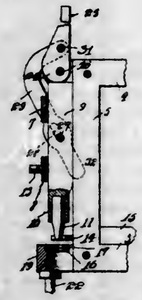


4. A milking machine including a milker, a piston suction pump, a communication between the pump and milker constantly closed against incoming air, means for closing said communication from the pump during its return stroke, and means in the milker for admitting air and limiting the maximum rarefaction thereof in the milker.

5. A milking machine including a milker, a pump in communication with the milker, a milk receiver in said communcation, a check valve in said communication between the milker and milk receiver adapted to close by an increase of air pressure in the milk receiver, and a valve in the milker for admitting air when the rerefaction of air therein becomes excessive.

[Claims 6 to 13 not printed in the Gazette.]

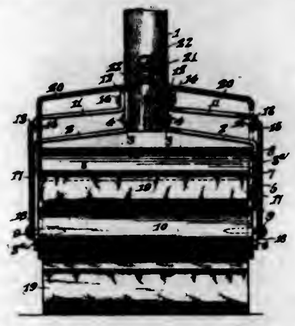
1,142,627. HAND-OPERATED COLD-PUNCH. FRED W. ROBINSON, Towanda, Pa. Filed July 3, 1914. Serial No. 848,974. (Cl. 164—96.)



A device of the character described comprising a support including a guide bar and a guide loop, an adjustable guide member carried by the loop, a follower movable through the loop and in contact with the guide bar, said follower being adjustable by said adjustable guide member to maintain it in contact with the guide member, a punch carried by said follower, an anvil on the support, a lever fulcrumed to the support above and in line with the follower and having a cam end to bear thereon, said lever being movable in a fore-and-aft direction, lateral projecting studs upon the follower, and links having curved ends pivoted to the lever above and beyond the fulcrum thereof and having straight and slotted ends engaging said studs, substantially as set forth.

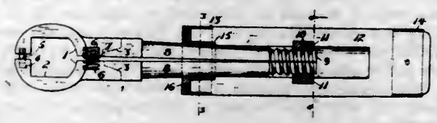
1,142,628. COMBINED MOP AND WRINGER. ROY A. RODGERS, Seneca, Kans., assignor of one-third to Jacob H. Harrison, Falls City, Nebr. Filed Sept. 19, 1914. Serial No. 862,591. (Cl. 15—43.)

1. A mop structure comprising a handle, angle arms fast to and projecting from opposite sides of one end of the handle, said arms being provided at the ends remote from the handle with an entering slot and a perforation spaced from the inner end of said slot, a roller journaled in the perforations, another roller having pintles entering the slots and projecting therefrom, leaf springs fast to the handle and projecting over the angle arms, and links carried at one end by the outer end of a respective leaf spring, and each formed at the other end into a loop receiving the pintle at the respective end of the second-named roller, said links being arranged on the outside of and alongside the arms and adapted to hold the said roller with its working face extended beyond the horizontal plane of the outer ends of said arms, whereby only the roller contacts with the mop cloth.



2. A mop structure comprising a handle, supporting arms carried thereby, a pair of rollers mounted in said arms in superimposed relation, a mop cloth extending between the rollers, wire bails at the opposite ends of the mop cloth, each bail comprising a loop having one portion thereof traversing the respective end of the mop cloth, and the opposite portion formed intermediately into a short bend with the sides approximately parallel, headed fastening means mounted on the handle and adapted to receive the said bend of the bail, each bail being of a length to reach from the handle to a point opposite the first roller and having an inward spring tendency to hold the mop cloth against said roller.

1,142,629. AIR-BRAKE HANDLE. SQUIER ROUSH and CHARLES H. KENYON, San Francisco, Cal. Filed Dec. 28, 1914. Serial No. 879,313. (Cl. 74—33.)



1. In a device of the character described, a pair of jaws formed with a hole to fit on an air brake valve stem or the like, and having integral therewith stem sections which when placed together form a threaded stem, a hollow handle for receiving said stem, the cavity in said stem having an enlargement in a mediate portion thereof, and a nut to receive said threaded stem held in said enlargement to prevent rotary and longitudinal movement in either direction.

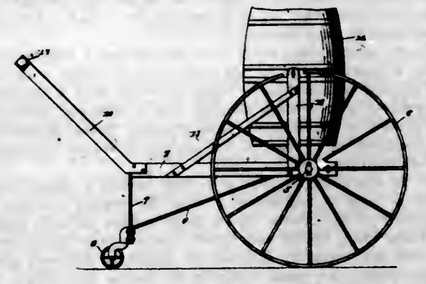
2. In a device of the character described, a pair of jaws formed with a hole to fit on an air brake valve stem or the like, and having integral therewith stem sections, said sections when placed together forming a threaded stem, a nut on said threaded stem and a handle made in sections and having a recess to receive said stem and having an angular enlargement to receive the nut to prevent longitudinal movement thereof relatively to the handle.

3. In a device of the character described, a pair of jaws formed with a hole to fit on an air brake valve stem or the like, a spring for normally separating said jaws, said jaws having formed integral therewith stem sections, said sections when placed together forming a round stem, said stem being threaded, a nut on said threaded portion of the stem, and a handle having a recess in which said stem is received, and having also means for preventing the nut moving longitudinally with reference to the handle.

4. In a device of the character described, a pair of jaws formed with a hole to fit on an air brake valve stem or the like, a spring for normally separating said jaws, said jaws having formed integral therewith stem sections, said sections when placed together forming a round stem, said stem being threaded, a nut on said threaded portion of the stem, and a handle made in sections, said handle having a recess to receive said stem, said sections having angular recesses to receive the nut and prevent longitudinal movement thereof relatively to the handle.

5. In a device of the character described, a pair of jaws formed with a hole to fit on an air brake valve stem or the like, a spring for normally separating said jaws, said jaws having formed integral therewith stem sections, said sections when placed together forming a round stem, said stem being threaded, a nut on said threaded portion of the stem, a handle made in sections, said handle having a recess to receive said stem, said sections having angular recesses to receive the nut and prevent longitudinal movement thereof relatively to the handle and a metal sleeve of the same taper as the stem and secured to the handle at the entrance to said recess.

1,142,630. BARREL-CART. DAVID RYDELL, Foreston, Minn. Filed May 19, 1914. Serial No. 839,548. (Cl. 21—119.)

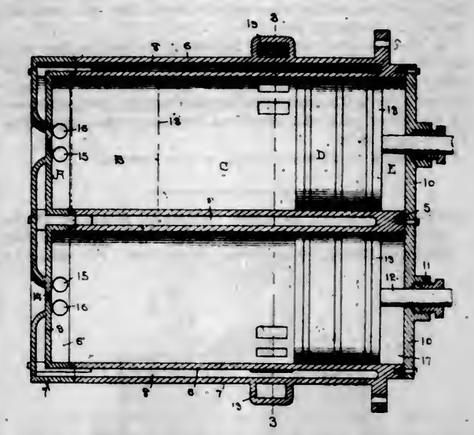


1. In combination, a U-shaped frame, a rod passing through openings formed near the ends of the side bars of such frame, pairs of nuts mounted upon the end portions of the rod and clamping the side bars of the frame between them, an axle supported in the side bars of the frame and receiving wheels, a standard pendant from the cross bar of the frame and provided at its lower end with a caster wheel, and a brace between the lower end of such pendant and the axle and gripping the latter.

2. In combination, a U-shaped frame, a rod passing through openings near the ends of the side bars of such frame, pairs of nuts mounted upon the rod and clamping the side bars of the frame between them, standards extending upwardly from the frame, braces between the upper ends of such standards and frame, bars attached at their rear ends to the frame and extending forwardly, a handlebar connecting the front ends of such bars, an axle supported in the rear ends of the side bars of the frame and receiving wheels upon the projecting ends, a standard pendant from the cros bar of the main frame and provided at its lower end with a caster wheel, a brace between the lower end of such pendant and the axle and a receptacle pivotally supported between the upper ends of the before mentioned standards.

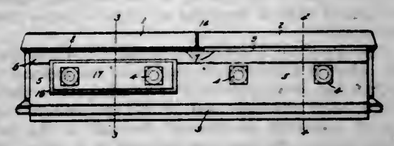
1,142,631. ENGINE-CYLINDER. ANTON I. SANDBO, Lansford, N. D. Filed Aug. 31, 1912. Serial No. 718,027. (Cl. 123—193.)

1. A device of the character described comprising a pair of spaced cylinders, an outer casing formed integral with said cylinders at one end thereof and surrounding the same, said cylinders and outer casing being spaced apart throughout the remainder of their length, heads for the cylinders, a downwardly extending annular flange projecting from each of said heads and formed with a groove on the inner peripheral edge thereof, an outer casing surrounding said heads and having portions thereof extended inwardly and integrally joined thereto near the central portions thereof, an annular flange extended downwardly from said outer casing, an upstanding annular tongue extended from the inner peripheral edge of the upper end of each of the cylinders and adapted to extend into said annular groove of its respective head, the flange of said casing of the heads being adapted to rest upon the peripheral edge of the casing of the cylinders, and means projecting from the cylinders through the casing of the heads whereby the heads are held tightly upon the cylinders.



2. A device of the character described comprising a pair of spaced cylinders, an outer casing formed integral with said cylinders at one end thereof, and surrounding the same, said cylinders and outer casing being spaced apart throughout the remainder of their lengths, a head for each of the cylinders, a downwardly extending annular flange projecting from each of said heads and formed with a groove on the inner peripheral edge thereof, an upstanding annular tongue extended from the inner peripheral edge of the upper end of each of the cylinders and adapted to interfit with said annular groove of its respective head, an outer casing surrounding said heads and having portions thereof indented inwardly and integrally joined to the respective heads near the central portions thereof, an annular flange extended downwardly from said outer casing, the flange of said casing of the heads being adapted to rest upon the peripheral edge of the casing of the cylinders, and securing straps arranged upon the exterior walls of the cylinders and projecting through the casing of the heads for securing the heads upon the cylinders.

1,142,632. INSULATED RAIL-JOINT. EDWARDS F. SCHERMERHORN, Brooklyn, N. Y., assignor to The Rail Joint Company, New York, N. Y., a Corporation of New York. Filed Jan. 25, 1915. Serial No. 4,298. (Cl. 239—5.)



1. An insulated rail joint including, in combination with the rails, a joint bar of uniform section throughout in

electrical communication with the head of one rail and having an air-gap insulation from the head of the other rail.

2. An insulated rail joint including, in combination with the rails, a joint bar of uniform height throughout in electrical communication with the head of one rail and having an air-gap insulation from the head of the other rail.

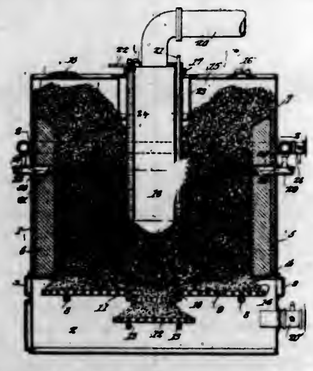
3. An insulated rail joint including, in combination with the rails, a joint bar of uniform height throughout in electrical communication with the head of one rail and having an air-gap insulation beneath the head of the other rail, and insulating material between the bar and a rail.

4. An insulated rail joint including, in combination with the rails, a joint bar of uniform height throughout in electrical communication with the head of one rail and having an air gap insulation beneath the head of the other rail, and insulating material between the bar and the flange of the latter rail.

5. An insulated rail joint including, in combination with the rails, a joint bar of uniform height throughout in electrical communication with the head of one rail and having an electrically insulating air-gap spacing from the head of the other rail, and electrical base insulation extending along both rails.

[Claims 6 to 21 not printed in the Gazette.]

1,142,633. GAS-PRODUCER. PETER G. SCHMIDT, Olympia, Wash. Filed Feb. 17, 1913, Serial No. 749,039. Renewed May 6, 1915. Serial No. 26,425. (Cl. 48—82.)



1. A gas producer, including a casing, an axially disposed depending gas collector supported from and having its outlet through the top of the casing, means for supplying air to the casing from below the inlet end of the gas collector, and means for supplying air radially into the casing in a plane above, around and toward the inlet end of the gas collector and below the top surface of the fuel body.

2. A gas producer, including a casing, a top therefor, an axially disposed gas collector carried by and depending from the top into the casing, the lower end being the inlet end and being disposed to be projected within the body of the fuel, means for supplying air to the casing at a plane below the inlet end of the gas collector, and a second air supplying means disposed in the wall of the casing about the gas collector and in a plane above the inlet end of the gas collector and below the top of the fuel body, whereby air is directed radially from the wall of the casing toward the collector.

3. A gas producer, including a casing, a top therefor, an axially disposed gas collector carried by the top and projected into the casing, means for supplying air to the casing from below the inlet end of the gas collector, and means for supplying air through the wall of the casing at points around the gas collector and in a plane above the inlet end of the gas collector and below the top surface of the fuel body, said latter means including an air directing recess formed in the wall of the casing, and a plurality of radially disposed air directing nozzles mounted in spaced relation and within said recess and opening toward the collector.

4. A gas producer, including a casing, a top therefor, an axially disposed gas collector carried by the top and projected into the casing, means for supplying air to the casing from below the inlet end of the gas collector, and means for supplying air through the wall of the casing at points around the gas collector and in a plane above the inlet end of the gas collector and below the top surface of the fuel body, said latter air directing means including an annular air conducting member exteriorly of the casing, and a plurality of nozzles mounted in the wall of the casing and all outletting toward the gas collector, said nozzles being in communication with the annular conducting member.

1,142,634. FLOWER-BOX. ISAAC N. SHANE, Winfield, Kans. Filed Sept. 9, 1914. Serial No. 860,891. (Cl. 47—21.)

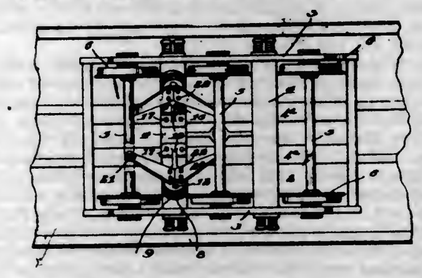


1. In combination with a trough having a supply conduit therein, a basin on the trough and having grooves in the sides thereof, the conduit connecting said basin with the supply conduit, and a reservoir adjustably mounted in the grooves of the basin to control the supply of water therefrom to said basin.

2. In combination with a trough having a supply conduit, a basin on the trough and communicating with the supply conduit, said basin being provided with a plurality of grooves in the sides thereof, and a reservoir movably supported in the grooves, said reservoir being adjustable in the grooves to control the supply of water therefrom to the said basin.

3. In combination with a trough having a supply conduit, a basin communicating with the supply conduit, a reservoir on said basin, and a flared mouth for said reservoir and lying within said basin, said reservoir being movable on said basin to dispose the mouth in different positions within the basin whereby to control the supply of fluid from the reservoir to the basin.

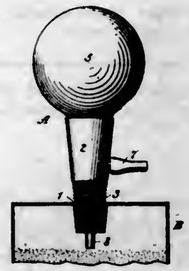
1,142,635. SAFETY DEVICE FOR RAILWAY-CARS. SIMEON V. SHERWOOD, Minneapolis, Minn. Filed Feb. 19, 1915. Serial No. 9,422. (Cl. 105—215.)



1. A truck for railway cars or the like and comprising side members, cross beams, and intermediate longitudinal beams and also provided with axles and with flanged wheels to bear on the rails of a track, the truck being further provided with inclined guard wheels arranged to bear on the heads and inner sides of the railway tracks and with supports in which said guard wheels are mounted, said supports being secured to one of said cross beams and braces for said supports extending therefrom and secured to the intermediate longitudinal beams.

2. A safety device of a class described comprising an inclined pedestal having its lower portion bifurcated and provided at its upper end with a head adapted to be bolted to the under side of a cross beam of a truck and a guard wheel mounted in the bifurcated portion of the pedestal and extending downwardly therefrom, said guard wheel having an axle mounted in bearings in the arms formed by the bifurcation of the pedestal and having peripheral grooves whereby said guard wheel is formed with an upper flange to bear above a track rail and with a lower flange to bear against the inner side of said head of the rail and braces bolted to said pedestal and adapted to be secured to a member of the truck.

1,142,636. POWDER-BLOWER. AARON SINGER, New York, N. Y. Filed May 25, 1914. Serial No. 840,829. (Cl. 43—1.)



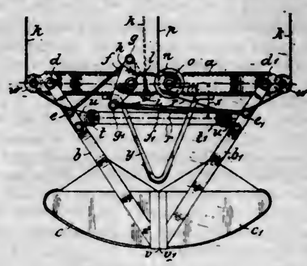
1. A powder blower comprising a body having a bore extending therethrough and having a seat at one end and attaching means at the opposite end, a bulb having an opening, an air tube extending into the opening of the bulb and having a head disposed therein, means for fastening the tube and body together to clamp the bulb between the said seat and head, a discharge nozzle connected with the said body, and a passage in the said body communicating with the nozzle and through which powder discharges when air is forced from the bulb through the said tube.

2. A powder blower comprising a body having a bore extending therethrough, an internal thread in the outer end of said bore, a seat on the outer end of the bore, an air tube extending through the bore of the body and longer than the latter, a thread adjacent the outer end of the tube for screwing into the body, a head on the outer end of the tube, a bulb having an opening to accommodate the head and clamped between the latter and said seat, said tube being of less diameter than the bore of the body to form an annular powder discharging passage, and a nozzle connected with the body and communicating with the said passage.

3. A powder blower comprising a body having a bore, an air tube screw threaded in the bore and having a portion of less diameter than the bore to form a powder discharging passage, a nozzle on the body communicating with the said passage, a head on the tube, and air discharging means communicating with the air tube and clamped by the head of the latter against the said body.

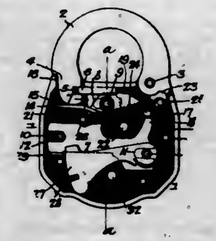
1,142,637. GRAB FOR TRANSPORTERS, EXCAVATORS, AND THE LIKE. FRIEDRICH SOCHOR, Vienna, Austria-Hungary. Filed July 22, 1911. Serial No. 639,913. (Cl. 37—30.)

In a grab, the combination of a horizontal supporting bar having pulleys at its outer ends, arms pivoted at their inner ends near the said outer ends of such bar and having rigidly secured to their outer ends bucket halves, cranks, revolubly mounted on the said bar adjacent its center, connecting rods, connecting such cranks with the said arms and engaging the latter intermediate the ends thereof, and means for separating the bucket halves including ropes connected to said cranks and other ropes extending



downwardly around the said bar pulleys and connected to the arms intermediate the ends of the latter.

1,142,638. PADLOCK. FRANK SOLEY, Philadelphia, Pa., assignor to Miller Lock Co., Philadelphia, Pa., a Corporation of Pennsylvania. Filed Jan. 8, 1915. Serial No. 1,150. (Cl. 70—106.)



1. The combination in a padlock, of a casing; a shackle pivotally mounted in the casing; a bolt arranged to engage the nose of the shackle; a pivoted lever having one arm located in the path of the nose of the shackle and of a shape to close the opening for the shackle, when the shackle is raised, to prevent dust entering the interior of the lock, said lever having another arm arranged to engage the bolt when the bolt is withdrawn.

2. The combination in a padlock, of a casing; a shackle pivotally mounted in the casing; a bolt arranged to engage the nose of the shackle; a pivoted lever having one arm located in the path of the nose of the shackle and arranged to close the opening for the shackle when the shackle is raised and having another arm arranged to engage the bolt when the bolt is withdrawn, said shackle having a heel with which the said lever engages when the nose of the shackle enters the casing and when the bolt is projected.

3. The combination in a casing, of a pivoted shackle having a notched nose; a sliding bolt arranged to enter the notch in the nose of the shackle; a pivoted lever having one arm located in the path of the nose of the shackle and arranged so as to close the opening in the casing for the nose and having a rearwardly extending arm, the bolt having a projecting portion arranged to be engaged by the lever when the bolt is withdrawn, the shackle having a heel arranged to be engaged by the lever when the shackle is closed; and a spring having one arm engaging the lever and the other arm engaging the bolt.

4. The combination of a casing; a shackle pivotally mounted in the casing and having a heel; a spring tending to raise the shackle; a sliding bolt having a portion engaging the nose of the shackle and slotted; a pin projecting from the casing and through the slot; a lever mounted on the pin and having a flat arm arranged to be engaged by the nose of the shackle and shaped to close the opening in the casing for the nose when the shackle is raised, the lever having a rearwardly extending arm arranged to engage the heel of the shackle when the shackle is closed and to engage a projection on the bolt

when the shackle is open; and a spring having one arm bearing against the lever and the other arm bearing against the bolt.

5. The combination in a padlock, of a casing; a shackle pivotally mounted in the casing and having a nose arranged to enter the opening in the casing; a sliding bolt arranged to engage the nose; means for engaging the bolt, said bolt having a projecting portion; a pivot pin on the casing; a lever mounted on the pivot pin and having two arms, one arm being flat and arranged in the path of the nose of the shackle and also arranged to close the opening in the casing for the nose when the shackle is raised, the other arm being bent at the end and arranged to engage the projection on the bolt and also arranged to engage the heel of the shackle when the shackle is in the closed position.

[Claim 6 not printed in the Gazette.]

1,142,639. AUTOMOBILE THEFT-INDICATOR. JOSEPH A. STEINMETZ, Philadelphia, Pa. Filed June 25, 1914. Serial No. 847,354. (Cl. 40—61.)



1. As a new article of manufacture, an automobile theft-preventing device in the form of a license plate cover, said device comprising a plate having a hook at one edge and disposed at the rear for hooking over the edge of the license plate, and a lock at the opposite edge to engage the license plate and cooperate with the said hook to hold the device in covering position on the license plate.

2. The combination of an automobile license bearing element, with a cover adapted to conceal the serial number of the license, and detachable means connecting and locking the cover on the said element.

3. The combination of an automobile license plate, with a detachable cover therefor having a hook at one edge to engage over an edge of the plate, and means for locking the license plate and cover together.

4. The combination of a license plate and a supporting bracket therefor, with a detachable cover adapted to conceal the license plate, and means for locking the cover and license plate and bracket together.

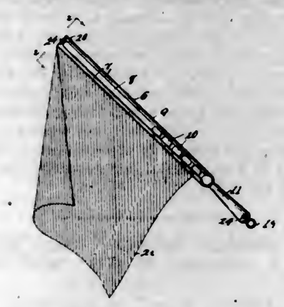
5. The combination of a license plate and a supporting bracket therefor, with a license cover comprising a plate having one edge bent into a hook-shaped flange to engage an edge of the license plate, and a locking means for securing the cover and license plate and bracket together.

[Claim 6 not printed in the Gazette.]

1,142,640. TORPEDO-HOLDER. WILMER JAMES STROHM, Moline, Kans. Filed July 22, 1914. Serial No. 852,393. (Cl. 206—16.)

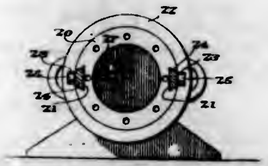
1. A device of the class described, comprising a casing closed at one side and end and open at the other side and the other end, and a handle for said casing having a movable element normally closing said open end.

2. A device of the class described, comprising a sheet of metal having the edges thereof longitudinally turned to form a casing open at one side, said edges being compressed at one end to confine the contents, the solid side of said casing being longitudinally corrugated, to form an inwardly directed ridge, and a handle for said casing having a movable element normally closing the open end



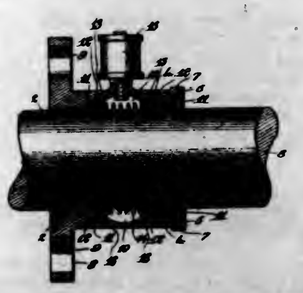
thereof, and having a groove therein adapted to receive said ridge to lock said element.

1,142,641. MOTION-CONVERTING DEVICE. FLOYD L. TEMPLE, Terre Haute, Ind. Filed July 3, 1914. Serial 848,980. (Cl. 74—1.)



In a device of the class described, an inner hollow cylindrical drum, an outer hollow cylindrical drum surrounding the first-mentioned drum, one of said drums being formed, at diametrically opposite points, with longitudinally extending slots dovetailed in cross section, the remaining drum having a sinuous groove formed therein and extending about the same, one of said drums being rotatable relatively to the other, blocks slidably mounted within said longitudinally extending slots and of a cross sectional configuration corresponding to that of the slots and having the outer faces thereof equipped with rollers engaging the adjacent portions of said sinuous groove, and means for sliding said blocks back and forth in said longitudinal groove whereby one of said drums will be rotated relatively to the other.

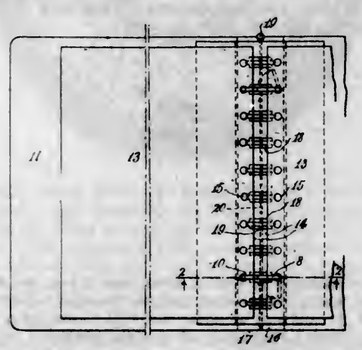
1,142,642. LUBRICATING DEVICE FOR PISTON-RODS. CHARLES HENRY VAN MAANEN, Central City, Ky. Filed May 14, 1913. Serial No. 767,638. (Cl. 137—117.)



A lubricating device for piston rods comprising a casing having a longitudinal bore adapted to loosely receive said piston rod, a pair of spaced flexible packing rings mounted on the piston rod and having outer ball faces adapted

to fit in correspondingly shaped grooves in said casing and inner flat faces, spaced follower rings rectangular in cross section contacting with the entire inner faces of the said packing rings and having their peripheral edges contacting with the walls of the groove, a coil spring interposed between said follower rings, an oil cup threaded into said casing and communicating with the space between said follower rings, and a tubular cap threaded into one end of said casing for allowing the insertion of said rings and coil spring.

1,142,643. FILING MEANS FOR RECORDS, LETTERS, AND OTHER DOCUMENTS. AUGUST VESTERLING, Battersea Park, London, England. Filed Mar. 23, 1914. Serial No. 826,808. (Cl. 129—1.)



1. A loose-leaf book, file or the like provided with one or more removable rings, prongs or the like leaf-retaining devices each of said devices being made with two or more sections one of which is formed at one of its ends with a reduced portion adapted to be sprung into and to fit in a lateral slot formed in one side of the corresponding end of the other or another section and against the side of which latter end it is stopped.

2. A loose leaf book, file, or the like having a plurality of removable leaf retaining devices and a strip or member provided with transverse slots for the reception of the said devices, said strip or member having a greater number of slots than the number of devices, and means for securing the said devices in the slots.

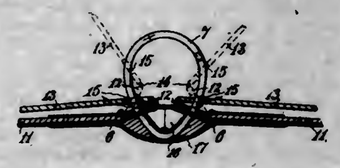
3. A loose leaf book, file, or the like including covers and a connecting back provided between the covers with a member or strip having a plurality of transverse slots, a plurality of leaf retaining rings removably fitted in the transverse slots, and a wire or rod carried by the member or strip and detachably securing the leaf retaining rings in the said slots and permitting one or more of the former to be used.

4. A loose leaf book, file, or the like including covers and a connecting back provided with a member or strip located between the covers and having a plurality of transverse slots, a plurality of leaf retaining rings removably fitted in the said slots, and a wire or rod carried by the said member or strip and threaded through the rings at the said slots and retaining the said rings therein.

5. A loose leaf book, file or the like having a strip or member provided with a plurality of transverse slots, leaf retaining rings arranged in the said slots and provided with a crotch or bend, and a wire or rod extending through the rings and engaging the same in the said crotches or bends.

1,142,644. FILING OF RECORDS, LETTERS, AND OTHER DOCUMENTS. AUGUST VESTERLING, Battersea Park, London, England. Filed Mar. 23, 1914. Serial No. 826,809. (Cl. 129—1.)

1. In a loose leaf book, file or the like having rings, prongs, or other leaf retaining devices upon which the leaves or papers are filed, one or more leaf lifting devices mounted on two or more of said leaf retaining devices, each leaf lifting device formed of members hinged together and adapted to lift and push the leaves or papers on said leaf retaining devices when the book, file or the like is closed.

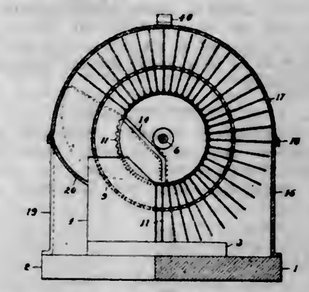


2. In a loose leaf book, file or the like having one or more rings, prongs, or other leaf retaining devices upon which the leaves or papers are filed, one or more leaf lifting devices comprising an inner perforated member and an outer perforated member hinged to the inner member, said leaf lifting devices being adapted to be mounted on one or more of said leaf retaining devices and adapted to lift and push the leaves or papers on said leaf retaining devices when the book, file or the like is closed.

3. In a loose leaf book, file or the like having one or more rings, prongs, or other leaf retaining devices upon which the leaves or papers are filed, one or more leaf lifting devices comprising an inner perforated member hingedly connected to the book, file or the like, and an outer perforated member hinged to the inner member, said leaf lifting devices being adapted to be mounted on one or more of said leaf retaining devices and adapted to lift and push the leaves or papers on said leaf retaining devices when the book, file or the like is closed.

4. In a loose leaf book, file or the like having one or more rings, prongs, or other leaf retaining devices upon which the leaves or papers are filed, one or more leaf lifting devices comprising an inner perforated member and an outer perforated member hinged to the inner member, said leaf lifting devices being adapted to be mounted on one or more of said leaf retaining devices and adapted to lift and push the leaves or papers on said leaf retaining devices when the book, file or the like is closed, and one or more wires passed through the loops, rings or the like formed on said members and through the said leaf retaining devices to retain the leaf lifting devices on said rings, prongs, or other leaf retaining devices.

1,142,645. INDICATING DEVICE. JOHN WALTER, Philadelphia, Pa., assignor of one-half to Ferdinand Hotter, Philadelphia, Pa. Filed Sept. 5, 1914. Serial No. 860,499. (Cl. 40—60.)



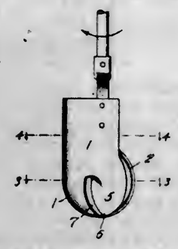
1. A station indicator comprising a horizontal shaft, circular plates disposed concentrically of said shaft and spaced apart thereon, annular disks fast to said shaft at the outer sides of said plates and formed with inwardly extending peripheral flanges disposed concentrically of said plates and spaced apart therefrom, the confronting edges of said flanges being formed with alining notches, an annular plate encircling each of said first plates and having the peripheral edge thereof secured to the flange on the adjacent disk and the inner edge formed with

notches alining with those in the other plate, name plates arranged parallel with said shaft and each having outwardly projecting lugs formed on the opposite end edges thereof adjacent to the inner side edge and fitting within said alining notches in the flanges of said disks, pins projecting outwardly from the lugs and fitting within said alining notches in the inner edges of said second plates, said first plates having the inner faces thereof formed with a pair of alining grooves opening onto the periphery thereof above and below the horizontal center line of the plates to receive the pins in the notches in said second plates as such notches aline with the grooves whereby the lugs will be relieved of the influence of the first notches and the plates swing to an active position, and means for rotating said shaft.

2. A station indicator comprising a horizontal shaft, circular plates disposed concentrically of said shaft and spaced apart thereon, annular disks fast to said shaft at the outer sides of said plates and formed with inwardly extending peripheral flanges disposed concentrically of said plates and spaced apart therefrom, the confronting edges of said flanges being formed with alining notches, name plates arranged radially of said shaft and having the inner edges thereof parallel with the shaft and each having outwardly projecting lugs formed on the opposite end edges thereof adjacent to the inner side edge and fitting within the said alining notches in the flanges of said disks, pins projecting outwardly from the lugs and resting upon the peripheries of said circular plates, said plates having the inner faces thereof formed with a pair of alining grooves opening onto the periphery thereof above and below the horizontal center line of the plates to receive the pins as the latter aline with the grooves so that the lugs will be relieved of the influence of said first notches and the plates swing to an active position, and means for rotating said shaft.

3. A station indicator comprising a horizontal shaft, circular plates disposed concentrically of said shaft and spaced apart thereon, annular disks fast to said shaft at the outer sides of said plates and formed with inwardly extending peripheral flanges disposed concentrically of said plates and spaced apart therefrom, the confronting edges of said flanges being formed with alining notches, name plates arranged radially about said shaft and having the inner longitudinal edges thereof parallel with the shaft and each having outwardly projecting lugs formed on the opposite end edges thereof adjacent to the inner longitudinal edge, said lugs fitting within said alining notches in the flanges of said disks, projections extending outwardly from said lugs and engaging the peripheries of said circular plates, said plates having the inner faces thereof formed with a pair of alining grooves opening onto the periphery thereof above and below the horizontal center line of the shaft to receive said projections as the latter aline with the upper ends of the grooves so that the lugs will be relieved of the influence of said notches and the plates swing to an active position, and means for rotating said shaft.

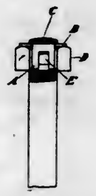
1,142,646. POST-HOLE AUGER. BENJAMIN G. WATKINS, Nehawka, Nebr., and WALTER PHILIP WATKINS and TAYLOR WATKINS, Elizabethtown, Ky. Filed Jan. 27, 1915. Serial No. 4,629. (Cl. 255—66.)



1. A post-hole auger comprising a body of more than half a cylinder, having one edge extended and convexed to form the main cutter, and its opposite side provided with a slot and having a smaller cutter whose beveled edge forms the outer side of the said slot, the bottom portion intervening the slot and main cutter being solid or entire and constituting a broad, smooth, earth-supporting and lifting surface, as described.

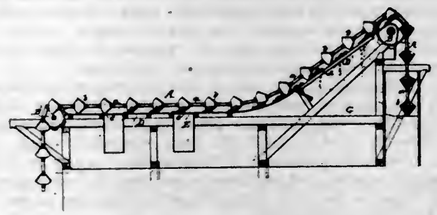
2. A post-hole auger comprising a body of more than half a cylinder having one edge constructed as a cutter and its opposite side provided with a slot and a smaller cutter, both cutters having angular points which are approximate, the point of the main cutter being extended across the center of the closed bottom, as described.

1,142,647. NUT-LOCKING APPLIANCE. GEORGE WILFER WATTS, Hot Springs, Ark. Filed Dec. 15, 1914. Serial No. 877,368. (Cl. 151—24.)



The combination, with a screw-bolt and a nut applied thereto, and a clamp-screw passing through a bore in the side of the nut and engaging the bolt-thread, of a screw-locking device consisting of a plate having a threaded opening which adapts it to be screwed on the bolt, and also a lateral projection provided with a rectangular slot, and bent inward to embrace the head of the clamp-screw, as described.

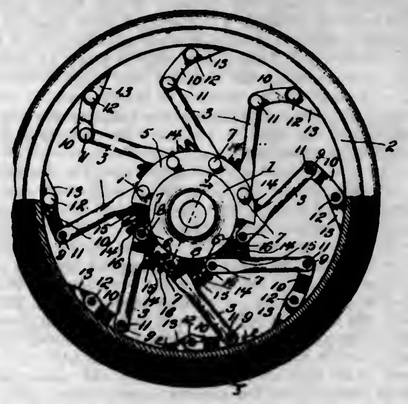
1,142,648. SCREENING-CONVEYER. THOMAS F. WEBSTER, Sewickley, Pa., assignor to Link-Belt Company, Chicago, Ill., a Corporation of Illinois. Filed Jan. 27, 1912. Serial No. 673,708. (Cl. 83—56.)



1. The combination, in means for screening coal and like granular material, of a screen arranged on an incline greater than the angle of repose of the material being screened, and a continuously moving bucket conveyer arranged to convey the material to the top of the inclined screen and to travel downwardly over the screen whereby the material may be wholly discharged from each bucket at the upper end of the screen and flow downwardly over the screen in advance of the moving buckets which lifted same.

2. The combination, in means for screening coal and like granular material, of a trough having a screen portion arranged on an incline greater than the angle of repose of the material being screened, and a lower portion at a lesser angle, and a continuously moving bucket conveyer arranged to convey the material to the top of the screen and to travel downwardly over the screen whereby the material may be wholly discharged from each bucket at the upper end of the screen and flow over the screen in advance of the moving buckets which lifted the same; the lower portion of the screen structure serving to retard the flow of the material to allow the buckets to again take up the screened material and carry it to a discharge point.

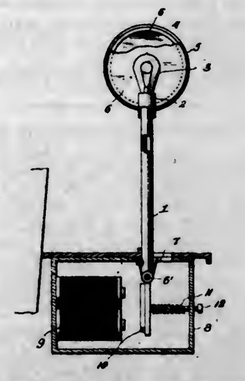
1,142,649. SPRING-WHEEL. JAMES E. WHITT, Champaign, Ill. Filed Dec. 18, 1914. Serial No. 877,983. (Cl. 152—28.)



1. In a spring wheel, the combination of a hub having shoulders, a rim, spokes having a jointed connection with the hub, extending at an angle to the radius of the wheel, pivoted links connecting the outer extremities of said spokes with the rim, and expansion springs interposed between said spokes and the shoulders of the hub, the free ends of said links being movable into and out of contact with the rim.

2. In a spring wheel, the combination of a hub having shoulders, a rim, spokes having a jointed connection with the hub, extending at an angle to the radius of the wheel, pivoted links connecting the outer extremities of said spokes with the rim, and expansion springs interposed between said spokes and the shoulders of the hub, said links extending longitudinally of and being adapted to rest against the inner face of the rim.

1,142,650. SIGNAL APPARATUS FOR MOTOR-VEHICLES. JACOB A. WILHELM, Detroit, Mich. Filed May 22, 1914. Serial No. 840,280. (Cl. 177—329.)

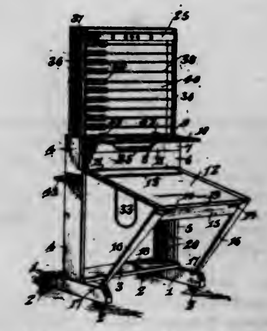


1. In motor vehicle signal apparatus, the combination with the fender of the vehicle having a transverse slot therein, of a box secured to the under surface of said fender and having a slot formed in the top wall thereof registering with the first slot, a signal arm pivoted within said slots and projecting upwardly through the slots and having the lower end thereof disposed within said box, an electromagnet in said box, and an armature secured to the lower end of said arm within said box and disposed within the influence of said magnet whereby the arm will be swung upon the energization of the magnet.

2. In motor vehicle signal apparatus, the combination with the fender of the vehicle having a transverse slot therein, of a box secured to the under surface of said fender and having a slot formed in the top wall thereof registering with the first slot, a signal arm pivoted within said slots and projecting upwardly through the slots and having the lower end thereof disposed within said box, an electromagnet in said box, an armature secured to the lower end of said arm within said box and disposed within the influence of said magnet whereby the arm will be swung upon the energization of the magnet, and a spring having one end connected to said armature and the opposite end connected to said box and acting to restore the arm to normal position succeeding the deënergization of the magnet.

3. In motor vehicle signal apparatus, the combination with the fender of the vehicle having a transverse slot therein, of a box secured to the under surface of said fender and having a slot formed in the top wall thereof registering with the first slot, a signal arm pivoted within said slots and projecting upwardly through the slots and having the lower end thereof disposed within said box, an electromagnet in said box, an armature secured to the lower end of said arm within said box and disposed within the influence of said magnet whereby the arm will be swung upon the energization of the magnet, a spring having one end connected to said armature and the opposite end connected to said box and acting to restore the arm to normal position succeeding the deënergization of the magnet, an electric circuit including said magnet, and means in said circuit for alternately opening and closing the latter whereby said arm will be vibrated under the action of the magnet and the spring.

1,142,651. EDUCATIONAL APPLIANCE. TADEUS WINIECKI, Raymond, Wash. Filed Oct. 10, 1913. Serial No. 794,484. (Cl. 45—69.)



1. An educational appliance comprising a stand or casing, an upright telescoping slide mounted therein, and a plurality of educational devices carried by and telescoping in the slide and movable independently of each other up out of and down into the slide in the same progressive direction as the movements of the slide out of and into the stand.

2. An educational appliance comprising an upright support or casing, a slide mounted in the casing and movable upwardly through the top thereof, and a front to rear series of educational devices of substantially the same width and height mounted in the slide for movement therewith and each also movable independently of the other upwardly through the top of the slide to a greater elevation than said slide.

3. An educational appliance comprising a support or casing, a telescoping slide mounted therein, telescoping educational devices mounted in and movable with the slide and also independently thereof and of each other in the same progressive direction as the slide, slide elevating and lowering means connected to both the slide and casing and accessible exterior to the casing, and means for locking the slide in the elevated position.

4. An educational appliance comprising a stand or casing having upright ends, a telescoping slide mounted in the casing and having end members in guided relation to the upright ends of the stand, and a front to rear series of frames carried by the slide in guided relation thereto and each carrying educational means, each frame being movable independently of the others in telescoping relation to the slide through the top of the latter and said slide being movable in telescoping relation to the casing.

5. An educational appliance comprising a casing with telescoping educational devices mounted therein and below the top of the casing when in the retracted position, said educational devices being movable through the top of the casing into elevated observable position, a desk structure carried by the casing and normally flat thereagainst in side covering relation to the retracted educational devices and movable with relation to the casing into extended useful position, and a top member for the casing mounted for movement either into overlying relation to the retracted educational device or into laterally projecting relation to the casing on the desk side thereof to then serve as a shelf overlying the desk in elevated spaced relation thereto when said desk is extended.

[Claims 6 to 8 not printed in the Gazette.]

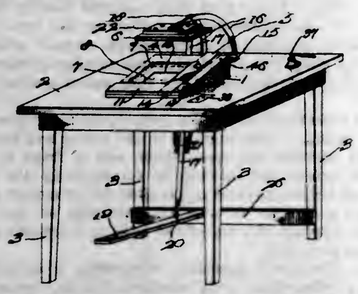
1,142,652. SWIMMING APPARATUS. ALFRED WIRSIG, Hoboken, N. J. Filed Sept. 9, 1914. Serial No. 860,919. (Cl. 9—21.)



1. A swimming device comprising a web, shoes attached to the ends thereof, and means mounted upon the web between the shoes for connecting the intermediate portion of the web to the leg of a wearer.

2. A swimming device comprising a web, shoes attached to the ends thereof, and elastic means mounted upon the web between the shoes for connecting the intermediate portion of the web to the leg of a wearer.

1,142,653. PHOTOGRAPHIC-PRINTING MACHINE. ELMER E. WOOD, New Orleans, La. Filed Dec. 3, 1914. Serial No. 875,314. (Cl. 95—73.)



1. In a photographic printing machine, the combination of a frame, a lamp box mounted in said frame and provided with an opening therein, a translucent plate fitted in the opening in said lamp box, a guide block secured upon one longitudinal edge of the opening in said lamp box, and a clamp block removably secured along one side edge of said opening and provided with a recess providing a channel for the passage of the film, substantially as described.

2. In a photographic printing machine, the combination of a frame, a lamp box mounted in said frame and provided with an opening, a translucent plate fitted in said opening, a guide block secured along one edge of said opening, a removable clamp block secured along an adjacent edge of said opening and provided with a recess constituting a channel for the passage of the film, and a clip associated with said clamp block for engaging the film and maintaining the same in position after adjustment, substantially as described.

3. In a photographic printing machine, the combination of a frame, a lamp box mounted in said frame and provided with an opening therein, a translucent plate fitted in said opening, an opaque plate associated with said translucent plate and having an opening disposed with its edges adjacent the edges of said opaque plate, a guide block secured along one edge of the openings in said lamp box and opaque plate, a removable guide block secured along the adjacent edges of said openings and provided with a cut-away portion constituting a channel for the passage of the film, and a spring clip associated with said clamp block and arranged to engage and maintain the film in position over the opening in said opaque plate, substantially as described.

4. In a photographic printing machine, the combination of a frame, a lamp box mounted in said frame and provided with a forwardly inclining top having an opening therein, a translucent plate fitted in said opening, an opaque plate associated with said translucent plate and formed with an eccentric opening having adjacent edges thereof disposed in proximity to the corresponding edges of said translucent plate, a guide block secured along the lower longitudinal edges of the openings in said lamp box and opaque plate, a clamp block hinged to said lamp box and removably secured along the adjacent edges of said openings, said clamp block being provided with a cut-away portion for the passage of the film, a spring clip mounted on said clamp block for engaging and maintaining the film in position over the opening in said opaque plate, substantially as described.

5. In a photographic printing machine, the combination of a frame, a lamp box mounted in said frame and constructed at one side thereof with a plurality of spaced walls projecting alternately from the opposite longitudinal walls for providing a tight-light tortuous passage for ventilation, said lamp box being provided with a top having an opening therein, a translucent plate fitted in said opening, and a platen coöperating with said opening and plate, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

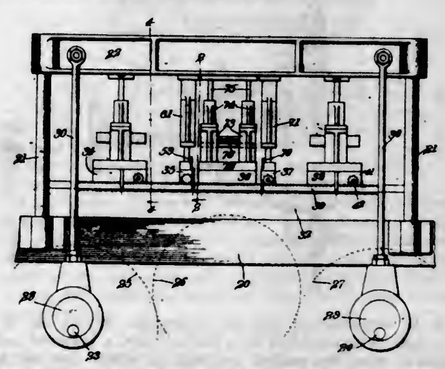
1,142,654. DIEING MECHANISM FOR BOX-MAKING MACHINES. RALPH A. WOOD, Amsterdam, N. Y., assignor to Inman Manufacturing Company, Inc., Amsterdam, N. Y., a Corporation of New York. Filed Oct. 31, 1914. Serial No. 869,667. (Cl. 93—58.)

1. In a machine of the class described, the combination of longitudinal-creasing means, cross-creasing means, a cutter, and diagonal-creasing means extending from said cutter, said cutter and said cross-creasing means being adjustable and the cutter and diagonal-creasing means being adjustable, as a unit.

2. In a machine of the class described, the combination of longitudinal-creasing means, cross-creasing means, a plurality of cutters, and diagonal-creasing means extending from said cutters, said cross-creasing means being relatively adjustable and each of said cutters being adjustable with a diagonal-creasing means, as a unit.

3. In a machine of the class described, the combination of longitudinal-creasing means, cross-creasing means, a plurality of cutters alined longitudinally of the machine and coöperating to make a continuous opening in the material, and diagonal-creasing means extending from each of said cutters, said cross-creasing means being relatively adjustable and each of said cutters being adjustable with the adjoining diagonal-creasing means, as a unit.
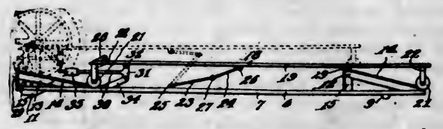
4. In a machine of the class described, the combination of longitudinal-creasing means, cross-creasing means, a plurality of cutters alined longitudinally of the machine, and diagonal-creasing means extending from one end of each of said cutters, said cross-creasing means being relatively adjustable and said cutters and the adjoining diagonal-creasing means being adjustable.



5. In a machine of the class described, the combination of longitudinal-creasing means, cross-creasing means, a plurality of cutters alined longitudinally of the machine, and diagonal-creasing means extending from one end of each of said cutters, said cross-creasing means being relatively adjustable and said cutters with the adjoining diagonal-creasing means being relatively adjustable as units.

[Claims 6 to 12 not printed in the Gazette.]

1,142,655. AUTOMOBILE-JACK. ARBANMAS S. ALBRIGHT, Gainesville, Fla. Filed Apr. 13, 1914. Serial No. 831,606. (Cl. 57—15.)



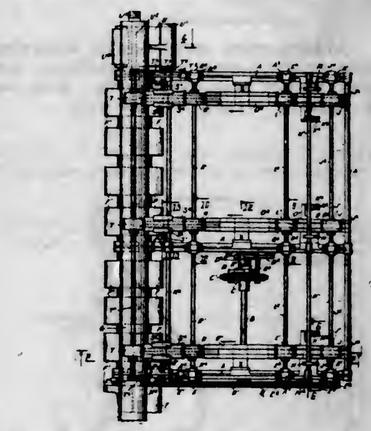
1. In an apparatus of the character described, an incline, a carriage having a wheel mounted upon the said incline, a lever pivoted to the carriage, a brake shoe pivoted to the lever and arranged to wedge between the said wheel and incline, the said lever being arranged to be swung so as to release the brake shoe and then swung against the said wheel.

2. In an apparatus of the character described, an incline, a carriage having a wheel mounted upon the incline, a lever having a T-head having its upper end pivoted to the carriage, and a brake shoe pivoted to the lower end of the T-head and arranged to wedge between the wheel and incline for holding the carriage against downward movement.

3. In an apparatus of the character described, an incline, a carriage having a wheel mounted upon the incline, a lever having a T-head having its upper end pivoted to the carriage, and a brake shoe pivoted to the lower end of the T-head and arranged to wedge between the wheel and incline for holding the carriage against downward movement, the said lever projecting in such a direction, as to bear upon the said wheel when the lever is swung to release the brake shoe.

1,142,656. BANDING-MACHINE. MILLARD F. ANDERSON, New York, N. Y. Filed Apr. 6, 1914. Serial No. 830,054. (Cl. 216—30.)

1. A banding machine, comprising means for supporting and revolving a roll to be banded, feeding means for feeding a gummed band to the peripheral face of the said roll, a presser roller for pressing the band into contact with the peripheral face of the said roll, moistening means for moistening the end of the gummed band prior to the band reaching the roll, cutting means for cutting the band to proper length prior to the band reaching the said moistening means and means for actuating the cutting means when the pressure roll is withdrawn from the banded roll at the finish of an operation.



2. A banding machine, comprising means for supporting and revolving a roll to be banded, feeding means for feeding a gummed band to the peripheral face of the said roll, a presser roller for pressing the band into contact with the peripheral face of the said roll, moistening means for moistening the ends of the gummed band prior to the band reaching the roll, cutting means for cutting the band to proper length prior to the band reaching the said moistening means, and means connected with the said presser roller and the said cutting means for simultaneously moving the said presser roller into active position and the said cutting means into inactive position.

3. A banding machine, comprising means for supporting and revolving a roll to be banded, feeding means for feeding a gummed band to the peripheral face of the said roll, a presser roller for pressing the band into contact with the peripheral face of the said roll and movable to and from operative position in engagement with the roll, moistening means for moistening the ends of the gummed band prior to the band reaching the roll, cutting means controlled by movement of the pressure roll for cutting the band to proper length prior to the band reaching the said moistening means, and feeding means for feeding the band from a roll to and past the said cutting mechanism at the time the latter is in inactive position.

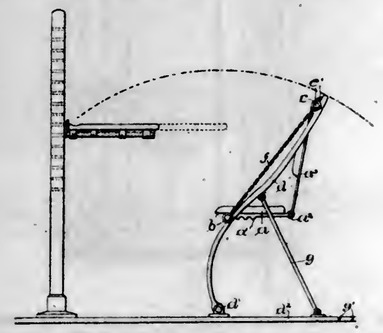
4. A banding machine, comprising pairs of driven rollers adapted to support and rotate a roll to be banded, a presser roller for pressing the band into contact with the peripheral face of the roll, a feeding and moistening device for feeding the band under the presser roller and onto the peripheral face of the roll, the said feeding and moistening device having means for moistening the ends of the band, two spaced sets of feed rollers for intermittently feeding the band from a roll forward to the said feeding and moistening device, and a cutting device intermediate the said sets of feed rollers for cutting the band to proper length when said feeding means are inactive.

5. A banding machine, comprising pairs of driven rollers adapted to support and rotate a roll to be banded, a presser roller for pressing the band into contact with the peripheral face of the roll, a feeding and moistening device for feeding the band under the presser roller and onto the peripheral face of the roll, and said feeding and moistening device having a moistening cylinder provided on its peripheral face with diametrically opposite moistening pads for moistening the ends of the said band,

two sets of feed rollers for feeding the band to the peripheral face of the said moistening cylinder, and intermittent driving means for driving the said moistening cylinder and the said sets of feed rollers in unison to cause one moistening pad to moisten one end of the band and the other moistening pad to moisten the other end of the band.

[Claims 6 to 9 not printed in the Gazette.]

1,142,657. COMBINATION ADJUSTABLE HYGIENIC DESK AND SEAT. ANDREW CECIL ARMSTRONG, Sawyer's Valley, Western Australia, Australia. Filed June 17, 1913. Serial No. 774,263. (Cl. 155—30.)



1. An adjustable chair comprising, in combination, a swinging frame, means for supporting said frame in adjusted position, an upper cross-bar adjustably connected to the side of said frame, a lower cross-bar suspended from the upper bar and resting against said frame sides, and a seat body connected with said bars.

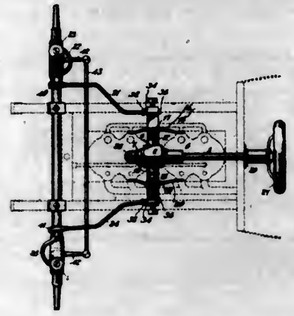
2. An adjustable chair comprising, in combination, a swinging frame having vertical side members formed with longitudinal series of openings, means for supporting said frame in adjusted position, an upper cross-bar disposed against said frame and provided with supporting devices interchangeably engaged in said openings, a lower cross-bar suspended from the upper bar and resting against said members, and a seat body connected with said bars.

3. An adjustable chair comprising, in combination, a swinging frame having vertical side members, means for supporting said frame in adjusted position, an upper cross-bar adjustably connected with said side members, a lower cross-bar suspended from the upper bar and resting against said members, depending back rods pivoted at their upper ends to said upper bar, and a seat supported adjacent to its front edge by said lower cross bar and connected adjacent to its rear edge to said depending rods.

1,142,658. STEERING MECHANISM FOR VEHICLES. JOHN HOUSTON AYRE, Tilton, N. H. Filed Apr. 22, 1914. Serial No. 833,666. (Cl. 21—199.)

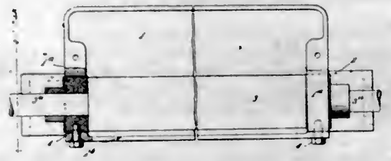
1. A combination with an automobile having a frame, an engine and axles pivoted on vertical axes, a threaded rod disposed over the engine, bearings in which the rod is journaled, a lever disposed at each side of the engine, a nut meshing with the thread on the rod, and articulated to the levers, two standards secured to the frame and one extending upwardly adjacent each of the levers one of the levers being pivoted to the adjacent standard above the horizontal plane of the nut and the other lever being pivoted to the other standard below the horizontal plane of the nut, an arm on each axle and links connecting the lower ends of the levers with the arms.

2. In combination with an automobile having a frame and axles pivoted on vertical axles, a threaded rod disposed over the engine, bearings in which the rod is journaled, a lever disposed at each side of the engine, a nut meshing with the thread on the rod, means connecting the nut with the levers for operating the latter, one of the levers being fulcrumed above and the other lever being fulcrumed below the horizontal plane of the nut, and means connecting the levers with the axles for operating the latter.



3. In combination with an automobile having an engine and an axle pivoted on a vertical axis, a threaded rod disposed over the engine, bearings in which the rod is journaled, a lever disposed at one side of the engine, a nut meshing with the thread on the rod, means connecting the nut with the lever for operating the latter, and means connecting the lever with the axle for operating the latter.

1,142,659. INK-FOUNTAIN FOR PRINTING-PRESSES. HENRY F. BECHMAN, Battle Creek, Mich., assignor to Duplex Printing Press Company, Battle Creek, Mich., a Corporation of Michigan. Filed Oct. 12, 1911. Serial No. 654,289. (Cl. 101—74.)



1. In combination with an ink fountain having axially alined openings in its end walls slightly larger in diameter than the fountain roll; a fountain roll adapted to be inserted through said openings into the fountain; journal bearings for the roll adapted to be slipped endwise over the journals of the roll and forced endwise into the said openings; and setting bolts passed through holes in the end-walls and screwed into threaded sockets in the adjacent bearings to secure the latter in position.

2. In combination with an ink fountain having axially alined pockets in its end-walls of greater diameter than the roll, a fountain roll, and journal bearings for the roll of larger diameter than the roll and corresponding to the pockets and adapted to be slipped endwise over the journals of the roll and fitted into the said pockets; and setting bolts passed through holes in the end-walls and screwed into threaded sockets in the adjacent bearings to secure the latter in position.

3. In an ink fountain the combination of a fountain body having axially alined circular openings in its end-walls of larger diameter than the fountain roll; a fountain roll adapted to be inserted endwise through either opening; removable journal bearings for the roll having parts corresponding in external contour to the internal contour of the said openings and adapted to be slipped endwise over the journals of the roll and forced endwise into the said openings to close the same and position the roll in the body, and means for fastening said bearings in said openings.

1,142,660. FEED-FINGER FOR AUTOMATIC SCREW-MACHINES. ALBERT G. BELLAIRE, Detroit, Mich. Filed Mar. 31, 1914. Serial No. 828,508. (Cl. 29—62.)



1. A feeder for screw machines including a sleeve having closed end slots formed longitudinally therein, the end walls of the slots being inwardly convergent, and dogs having correspondingly inclined ends and slidably fitted in the slots, and means for yieldingly holding the dogs inward of the sleeve.

2. A feeder for screw machines including a sleeve having closed ends slots formed longitudinally therein, the end walls of the slots being inwardly convergent, and dogs having correspondingly inclined ends and slidably fitted in the slots, the ends of the sleeve being outwardly flaring, and means for yieldingly holding the dogs inward of the sleeve.

1,142,661. GEAR-WHEEL. VALENTINE BIELA, Cestohowa, Tex. Filed Mar. 10, 1914. Serial No. 823,778. (Cl. 74—28.)



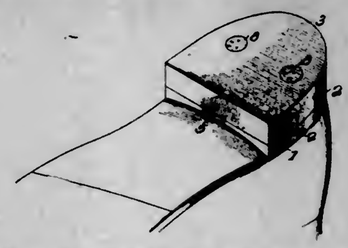
1. The combination, in a gear wheel, of a wheel proper having a felly provided with a transverse recess or mortise in the periphery thereof, a split gear rim surrounding said felly and having end portions disposed in line with said mortise, coupling plates fixed to the ends of the gear rim and seated in said mortise and projecting beyond the sides of the rim, said plates being provided with terminal eyes, and coupling bolts passing through the eyes of the coupling plates at opposite sides of the wheel and uniting the ends of the gear rim, the coupling plates serving also by the engagement with the walls in the mortise to hold the rim from creeping upon the felly.

2. The combination, in a gear wheel, of a wheel proper having a felly provided with a recess or mortise in the periphery thereof, a split gear rim surrounding said felly and having end portions disposed in line with said mortise, coupling plates extending transversely on the inner side of the ends of the rim and projecting beyond the sides of the rim and provided with terminal eyes, rivets passing through said plates and the body portion and adjacent teeth of the wheel rim and fastening said plates to the wheel rim, and coupling bolts passing through the eyes of the coupling plates at opposite sides of the wheel and uniting the ends of the gear rim.

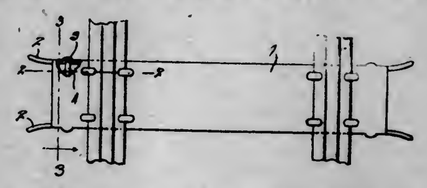
1,142,662. HEEL. WILLIAM BLANEY, Marblehead, Mass., assignor of one-half to Arthur S. Adams, Marblehead, Mass. Filed Nov. 18, 1914. Serial No. 872,826. (Cl. 36—36.)

1. A shoe-heel having a fixed lift and a removable lift, said lifts having interengaging slidably connected portions extending transversely of the heel, and studs projecting at right angles from one of the lifts, the other lift having sockets to accommodate said studs, said studs and sockets being constructed and arranged to prevent separation of the lifts in a direction normal to their faces.

2. A shoe-heel having a fixed lift and a removable lift, said lifts having interengaging slidably connected portions extending transversely of the heel, studs projecting at right angles from one of the lifts, the other lift having sockets to accommodate said studs, said studs and sockets being constructed and arranged to prevent separation of the lifts in a direction normal to their faces, and securing means extending from the breast of the heel and longitudinally of the latter and transversely through said interengaging portions for locking them together.

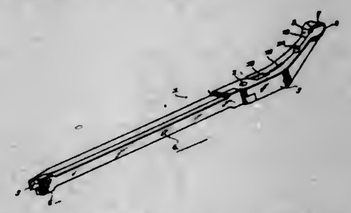


1,142,663. RAIL-TIE. VERN BLOMSTROM, Detroit, Mich. Filed Oct. 6, 1914. Serial No. 865,365. (Cl. 238—5.)



A rail tie consisting of a rectangular hollow metallic body portion having its ends open, the side walls of said body portion being extended beyond the top and bottom walls to form tongues, said tongues being diverged toward their ends relative to one another and having their opposed faces provided with vertical notches, and removable end walls to be forced between the tongues and have their edges positioned within the notches in said tongues.

1,142,664. COMBINATION TACK-PULLER. WILLIAM G. BUNTEN, Coal Creek, Colo., assignor of one-half to Michele Fabrisio, Coal Creek, Colo. Filed Aug. 1, 1913. Serial No. 782,474. (Cl. 145—37.)

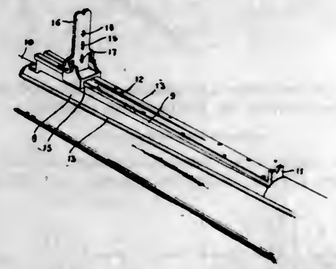


A tool comprising members pivotally connected together said members having handle portions and jaw portions provided with humps located at one side, the jaw portions being provided at their forward ends and at their inner portions and at their sides opposite the said humps with inwardly and forwardly beveled surfaces terminating in edges at the ends and inner portions of the said jaws.

1,142,665. RIFLE-SIGHT. WILLIAM BURTON BURTON, Annandale, New South Wales, Australia. Filed Feb. 21, 1913. Serial No. 749,808. (Cl. 33—35.)

1. A rifle sight, comprising, a graduated plane arranged longitudinally of the rifle barrel and inclined in relation thereto, and a member slidably mounted on said inclined plane and having a sighting aperture therein, said plane being so inclined and graduated as to effect the proper elevation of the rifle barrel at the distance of the target when the area of vision as seen through the sighting aperture is maintained uniform.

2. A rifle sight, comprising, a graduated plane arranged longitudinally of the rifle barrel and inclined in relation thereto, a member slidably mounted on said inclined plane, a member having a sighting aperture supported on said sliding member and adapted to be adjusted laterally thereon, said plane being so inclined and graduated as to effect the proper elevation of the rifle barrel at the distance of the target when the area of vision as seen through the sighting aperture is maintained uniform and to effect a proportionate change of lateral inclination of the rifle barrel for windage on a change of elevation.



3. In a rifle sight, an inclined guide way of T-shape in cross section having range graduations thereon, a carriage slidably mounted on the top of said guide way and having inturned edge flanges embracing the head thereof, and a leaf member mounted on said carriage and having a sighting aperture therein.

4. Improvements in rifle sights comprising in combination an inclined plane on the rifle having a longitudinal groove or depression therein, an element slidable longitudinally on the said plane carrying a member in which the rear sighting aperture or apertures is or are formed, and a fixed rear sight arranged in alinement with said longitudinal groove.

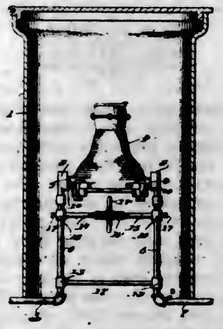
1,142,666. NON-REFILLABLE BOTTLE. GEORGE HEWITTE BUTLER, Vancouver, British Columbia, Canada, assignor, by direct and mesne assignments, of three-eighths to Guy Allan Couldery, Vancouver, British Columbia, Canada, and one-eighth to Robert Kidd, South Vancouver, British Columbia, Canada. Filed Apr. 2, 1914. Serial No. 829,102. (Cl. 215—62.)



1. The combination with a bottle neck, of a valve seat permanently secured into the neck at the lower end thereof, a non-return valve co-acting with said seat and having a cavity in its upper end, the body of said valve being substantially cone-shaped, and its upper end being enlarged to approximately fit the said neck, a substantially cone-shaped locking member the lower end of which is normally engaged in the cavity of the said valve and having a bell mouthed inwardly extending bore in its upper end, a stopper of substantially disk formation provided with an exit opening and adapted to be permanently secured in the upper end of the neck and having a stem extending centrally therefrom and inwardly to a point in close proximity to the upper end of the said locking member, and segmental disks formed in the said stem and oppositely set thereon at different levels and having their opposite ends on one side of the stem joined by an intervening portion, the said disks and said intervening portion being adapted to fit the taper of the said neck, as and for the purpose specified.

2. The combination with a bottle neck, of a valve seat permanently secured in said neck, and a non-return valve co-acting with said seat, of means for locking and unlocking the said valve when in the upright and tilted positions respectively, said means consisting of a stopper provided with an exit opening permanently secured in the neck and a locking member adapted to extend between the said stopper and said valve when the neck is in the upright or horizontal positions and to slip over the inner end of the said stopper when the neck is tilted for pouring, and means for preventing the lifting of said valve by exteriorly operated means, said means comprising segmental disks formed on the said stopper and oppositely set thereon at different levels and having their opposite ends on one side of the stopper joined by an intervening portion, said disks and said intervening portion fitting the taper of the neck, as and for the purpose specified.

1,142,667. WATER-METER SETTING OR CONNECTION. JOHN W. CALHOUN, Huntington, W. Va. Filed May 20, 1914. Serial No. 839,847. (Cl. 73—167.)



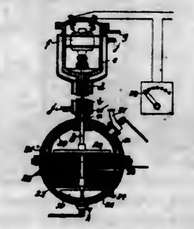
1. In combination, a meter box, a service pipe having branches extending upwardly into the meter box, a meter, interfitting connections between the pipe branches and meter for coupling the meter to said branches, and means connecting said pipe branches for relatively adjusting said pipe branches inwardly and outwardly with relation to each other for coupling engagement with and disengagement from the meter.

2. In combination, a meter box, a pipe having branches extending upwardly into the meter box, a meter having inlet and exit portions, connections upon the pipe branches to engage said inlet and exit portions of the meter, means connecting said pipe branches for drawing the pipe branches together to bring said connections into coupling and sealing engagement and for spreading the branches to disengage said connections, and means for staying and limiting the spreading motion of the pipe branches.

3. In combination, a meter box, a pipe having branches extending upwardly into the meter box in substantially parallel relation, a meter having inlet and exit portions, coupling devices upon the pipe branches for coupling and sealing engagement with said inlet and exit portions of the meter, a connection between the pipe branches operable to draw the same together to bring said coupling connections into engagement to effect a spreading action of the pipe branches to disengage said connections and release the meter, and a second connection between the pipe branches to limit their spreading motion.

4. In combination, a meter box, a pipe having branches extending upwardly into the meter box in substantially parallel relation, a meter having inlet and exit spuds, unions upon the pipe branches provided with sockets to receive said spuds, said sockets having gaskets therein to effect an automatic sealing connection when the unions are drawn into engagement with the spuds, and means connecting the respective pipe branches and unions with each other, and whereby said pipe branches and unions may be relatively adjusted toward and from each other.

1,142,668. PROCESS FOR THE HYDROGENIZATION OF OILS. GEORGE CALVERT, London, England. Filed Aug. 26, 1914. Serial No. 858,705. (Cl. 87—12.)



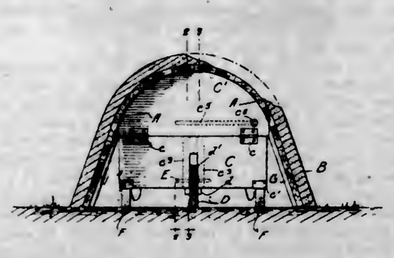
1. The method of hydrogenising oils which consists in subjecting a mixture of oil and catalyst to the action of heat and pressure in a vessel in the presence of hydrogen and imparting graduated mechanical impacts to said hydrogen, oil and catalyst within said vessel.

2. The method of hydrogenising oils which consists in subjecting a mixture of oil and catalyst to the action of heat and pressure in a vessel in the presence of hydrogen, imparting graduated mechanical impacts to said hydrogen, oil and catalyst within said vessel, and circulating said oil and catalyst to repeat the mechanical impacting frequently in rapid succession.

3. The method of hydrogenising oils which consists in subjecting a mixture of oil, hydrogen and a catalyst to the action of heat and pressure at and above 250 lbs. per square inch in a closed vessel and imparting graduated mechanical impacts in rapid succession to said oil, hydrogen and catalyst.

4. The method of hydrogenising oils which consists in subjecting a mixture of oil and catalyst to the action of heat and pressure in a vessel in the presence of hydrogen, imparting graduated mechanical impacts to said hydrogen, oil and catalyst within said vessel, and comminuting the oil and catalyst during said impacting.

1,142,669. COLLAPSIBLE CORE FOR CONCRETE CULVERTS. ARTHUR E. CAMBLIN, Stella, Nebr. Filed Aug. 16, 1912. Serial No. 715,322. (Cl. 25—118.)



1. A collapsible culvert core, embodying a runner, and a plurality of arches supported on the runner and adapted to receive mold-boards, each of said arches comprising upper and lower sections which are hingedly connected to one another, and a supplemental section carried by the said upper section and laterally adjustable with respect thereto, and coöperating means for vertically adjustably connecting the lower arch section to the said runner.

2. A collapsible culvert core, embodying a runner having vertical series of openings at spaced points, and a plurality of arches supported on the runner and adapted to receive molding boards, each of said arches comprising an upper section and a lower section hinged to the upper section and provided wth a slot adapted to receive the runner, cleats arranged alongside the said slot and provided with transverse openings, and a member for engagement through said cleat openings and through a selected opening of one of the runner series of openings whereby to secure the arch in selected vertical adjustment with respect to the runner.

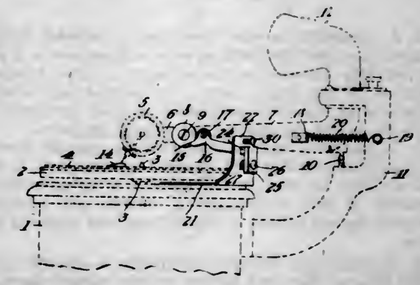
3. A collapsible culvert core, embodying a runner, and a plurality of arches supported on the runner and adapted to receive mold-boards, each of said arches comprising upper and lower sections hingedly connected along their contiguous edges, and a supplemental section which is carried by the said upper section and laterally adjustable with respect thereto.

4. A collapsible culvert core, embodying a runner, and a plurality of arches supported on the runner and adapted to receive mold-boards, each of said arches comprising upper and lower sections hingedly connected along their contiguous edges, and a supplemental section of substantially similar size and shape to said upper section, said supplemental section being provided with an elongated horizontal slot, and a clamping bolt extending from the said upper section and through said slot of the supplemental section whereby to secure the latter in selected lateral adjustment with respect to the former.

5. A collapsible culvert core, embodying a plurality of collapsible arches adapted to receive and support mold boards, a runner extending beneath the entire series of arches and supporting the same, and adjustable detachable connections between said arches and said runner, said runner being formed in longitudinally alined sections having detachable connections at their meeting ends.

[Claim 6 not printed in the Gazette.]

1,142,670. REPEATING GRAPHOPHONE. COLIN CAMERON, Jr., Tucson, Ariz. Filed Nov. 25, 1913. Serial No. 802,960. (Cl. 181—3.)



1. In a graphophone, the combination with a sound arm movable about a vertical pivot, a sound box on said arm, a needle in the sound box, and a rotatable record engaged by and coöperating with the needle to swing said arm on its pivot, of means to lift the needle and thereby the sound box from the record at the end of the reproduction, means on the sound arm to maintain the sound box lifted, means to return the sound arm and sound box to initial position, and means to release the sound box.

2. In a graphophone, the combination with a sound arm movable about a vertical pivot, a sound box on said arm, a needle in the sound box, and a rotatable record engaged by and coöperating with the needle to swing said arm on its pivot, of means moving with and at a speed equal to the speed of the record to lift the needle and thereby the sound box from the record at the end of the reproduction, means on the sound arm to maintain the box lifted, means to automatically swing the sound arm and sound box to initial position, and means to automatically

release the sound box to cause the needle to again engage the record.

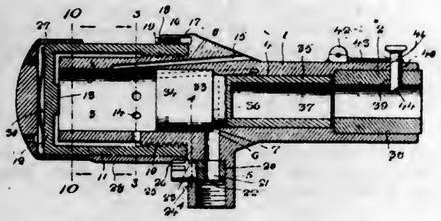
3. In a graphophone, the combination with the sound arm, the sound box journaled thereon and the record supporting table; of means movable with the table to trip the sound box, means on the sound arm to hold the sound box tripped, means to automatically swing the arm across the record, means in the path of the sound box holding means to release the holding means and means to adjust the time when said holding means is released.

4. In a graphophone, the combination with the sound arm thereof, the sound box journaled thereon and the record support; of means movable with the record support to trip the sound box, means on the sound arm to hold the sound box tripped, a spring to automatically swing the arm across the record and a cam to trip the holding means.

5. In a graphophone, the combination with the sound arm, the sound box journaled thereon; its needle and the disk supporting means; of a disk on the latter having a projection onto which the phonic line of the disk is continued, by which the sound box is raised when its needle rides over the same, a pawl to hold the sound box in its raised position, a spring to return the sound arm to initial position and an adjustable cam in the path of the pawl for releasing it.

[Claims 6 to 9 not printed in the Gazette.]

1,142,671. PNEUMATIC TOOL. BENJAMIN M. CARMINA, New York, N. Y. Filed Mar. 31, 1914. Serial No. 828,509. (Cl. 136—11.)



1. A pneumatic hammer comprising a cylinder having a nipple and provided with suitable exhaust ports, a piston movably mounted in the cylinder, a valve turnably mounted in the nipple, means for limiting the turning movement of the valve and means turnably mounted beyond the end of the cylinder for turning the valve.

2. A pneumatic hammer comprising a cylinder having a nipple and provided with suitable exhaust ports, a piston movably mounted in the cylinder, a valve turnably mounted in the nipple, and a counter cap turnably mounted beyond the end of the cylinder and engaging the valve.

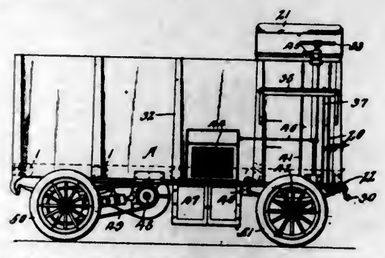
3. A pneumatic hammer comprising a cylinder provided with a nipple and having suitable exhaust ports, a valve turnably mounted in the nipple and provided with teeth, a cap mounted upon the cylinder, a counter cap mounted upon the first mentioned cap and having an arm provided with teeth which mesh with the teeth of the valve.

4. A pneumatic hammer comprising a cylinder having a nipple and provided with suitable exhaust ports, a piston movably mounted in the cylinder, a valve turnably mounted in the nipple and having teeth, a cap mounted upon the cylinder, a counter cap turnably mounted on the first mentioned cap and having an arm provided with teeth which mesh with the teeth of the valve, there being lug and slot connection between the two caps and a spring interposed between the ends of the two caps.

5. A pneumatic hammer comprising a cylinder having a nipple and provided with suitable exhaust ports, a piston slidably mounted in the cylinder, a valve turnably mounted in the nipple, and having spaced grooves of different lengths, a pin detachably mounted in the nipple and adapted to enter one or the other of the grooves, and means mounted upon the cylinder for turning the valve when the pin is in the longer groove thereof.

[Claim 6 not printed in the Gazette.]

1,142,672. SELF LOADING AND UNLOADING MOTOR-TRUCK. FRED CLAYTON, Fullerton, La. Filed July 10, 1914. Serial No. 850,208. (Cl. 21—90.)



1. In a motor truck, a body open at both ends adapting the same to be loaded and unloaded at either end, loading and unloading rollers forming supporting means for the load, a motor located beneath the plane of said rollers and geared thereto for driving the same, an elevated operator's seat supported above the loading space, and manually operable controls, substantially as described, adjacent to said seat and located at one side of the body and loading space.

2. In a motor truck, a body open at both ends adapting the same to be loaded and unloaded at either end, loading and unloading spiked rollers forming supporting means for the load, a motor located beneath the plane of said rollers and geared thereto for driving the same, an elevated operator's seat supported above the loading space, and manually operable controls, substantially as described, adjacent to said seat and located at one side of the body and loading space.

3. In a motor truck, a body open at both ends adapting the same to be loaded and unloaded at either end, a propelling motor and a load handling motor both located under the truck floor, an operator's seat arranged above the loading space, and manually operable controls for both motors located at one side of the body and outside of the lines of the body and adjacent to the operator's seat.

4. In a motor truck, a body open at both ends adapting the same to be loaded and unloaded at either end, loading and unloading rollers forming supporting means for the load, a motor located beneath the plane of said rollers and geared thereto for driving the same, clutch mechanism for throwing said rollers into and out of gear, an elevated operator's seat supported above the loading space, and manually operable controls, substantially as described, adjacent to said seat and located at one side of the body and loading space.

5. In a motor truck, a body open at both ends adapting the same to be loaded and unloaded at either end, loading and unloading rollers forming supporting means for the load, a winding drum and cable, a motor located beneath the plane of said rollers and geared thereto and to said drum for driving the same, clutch mechanism for throwing said rollers and drum either or both at a time into gear with said motor, an elevated operator's seat supported above the loading space, and manually operable controls, substantially as described, adjacent to said seat and located at one side of the body and loading space.

[Claims 6 and 7 not printed in the Gazette.]

1,142,673. COLLAPSIBLE FOLDING TABLE WITH ADJUSTABLE DRAWING-BOARD AND ARTIST'S EASEL. LOUIS S. COZZENS, Freeport, N. Y. Filed Apr. 1, 1914. Serial No. 828,783. (Cl. 45—74.)

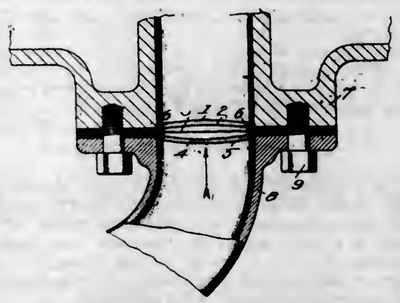
1. In a folding table, the combination of a table frame provided with side pieces, pairs of pivoted legs of which one of each pair is pivotally connected with the side pieces and the other is slidably connected with the side pieces, a drawing board frame hinged to the front of the said table frame and adapted to overlie the same, a shelf slidable sidewise underneath the said table frame, and fixed guideways on one pair of the said legs and adapted to be engaged by the said shelf at the time the shelf is moved outward to lock the legs against closing and to locate the shelf to one side of the said table frame and in a plane lower than that of the drawing board frame.



2. In a folding table, the combination of a table frame, a drawing board mounted thereon, pairs of pivoted legs pivotally connected with the said table frame, a shelf slidable sidewise underneath the said table frame, and fixed guideways on a pair of the said legs and adapted to be engaged by the said shelf at the time the shelf is moved outward to lock the legs against closing and to locate the shelf to one side of the said table frame and in plane lower than that of the drawing board frame.

3. In a folding table, the combination of a table frame provided with slotted side pieces, pairs of pivoted legs, of which one of each pair is pivotally connected with the said table frame, a rod connecting the upper ends of the other legs of the said pairs of legs with each other, the rod extending through the said slots, a shelf underneath the said table frame and having a sliding connection with the said rod, and bearings on one pair of legs and adapted to be engaged by the said shelf on sliding the latter outward in a sidewise direction to lock the legs against closing and to locate the shelf to one side of the table frame.

1,142,674. FUEL-ATOMIZER FOR INTERNAL-COMBUSTION ENGINES. THOMAS C. CROUCH, Saskatoon, Saskatchewan, Canada, assignor of two-thirds to William A. Gilchrist, Saskatoon, Saskatchewan, Canada. Filed Feb. 27, 1915. Serial No. 10,926. (Cl. 48—180.)



1. A combined atomizer and gasket comprising a plurality of sheets of wire gauze, the outer portions of adjacent sheets being in contact with one another and all of said outer portions being secured together and the inner portions of the sheets being spaced apart from one another, and means for holding the parts in spaced relation.

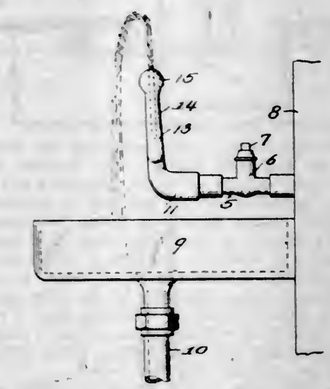
2. A combined atomizer and gasket comprising a plurality of sheets of wire gauze, the outer portions of sheets being in contact with one another and all of said outer portions being secured together and the inner portions of the sheets spaced apart from one another, and means for holding the parts in spaced relation, said last named means also serving as an auxiliary means for preventing the entrance of air past the gasket portion.

3. A combined gasket and atomizer for internal combustion engines comprising a plurality of wire gauze sheets, the outer portions of the sheets being soldered together to form an integral gasket portion, the inner portion of the sheets being bowed out so as to space the sheets from one another, and a spacing ring of heat resisting material disposed between adjacent sheets for maintaning said sheets in their spaced relation.

4. As an article of manufacture, a combined gasket and atomizer for internal combustion engines comprising a plurality of wire gauze sheets, the outer portions of adjacent sheets being in contact with one another, and said outer portions being soldered together to form an integral gasket portion, the inner portions of the sheets being bowed out so as to space the sheets from one another, and a spacing ring of heat-resisting material disposed between adjacent sheets for maintaining said sheets in their spaced relation.

5. As an article of manufacture, a combined gasket and atomizer for internal combustion engines comprising a plurality of wire gauze sheets, the outer portions of adjacent sheets being in contact with one another, the inner sheet being flat and the sheets on either side bowed out and spaced apart from one another at their inner portions, the outer portions of the sheets being soldered together to form an integral gasket portion, and a spacing ring of heat resisting material disposed between adjacent sheets near their soldered portions for maintaining said sheets in their spaced relation.

1,142,675. DRINKING-FOUNTAIN ATTACHMENT. JAMES L. CUNNINGHAM, Wilmington, Del. Filed Sept. 5, 1914. Serial No. 860,421. (Cl. 137—110.)



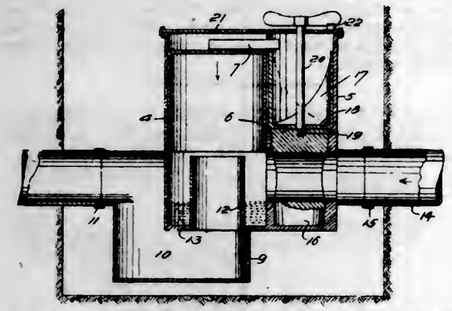
1. A drinking fountain attachment, comprising an outlet nozzle having means for attachment to a water connection, and independent diverging guard arms attached, respectively, at their lower extremities to diametrically opposite portions of the nozzle and having their upper extremities projecting above the nozzle, the upper extremities of said arms adapted to engage the cheeks of the user and remaining during the drinking act at substantially the same distance from the supply connection and the outlet of the nozzle to obviate contact of any other part of the face of the user with the attachment and all contact with the nozzle.

2. A drinking fountain attachment comprising an outlet nozzle having means for attachment to a supply connection and provided with a passage for the constant flow of water therethrough and upwardly therefrom and guard arms attached to opposite portions of said nozzle and extending equally outwardly and upwardly therefrom and having unconnected extremities for engagement with the cheeks of the user, said guard arms remaining constantly at the same elevation above the supply connection.

3. A drinking fountain attachment comprising an outlet nozzle having means for attachment to a supply pipe and a passage for the constant flow of water therethrough, and guard arms secured to said nozzle and extending laterally and upwardly therefrom for engagement with the cheeks only of the user to obviate contact of any other part of the face of the user with the attachment and all contact with the nozzle, the free ends of said arms remaining during the drinking act at the same distance above the supply connection.

4. A drinking fountain attachment comprising a outlet nozzle forming part of a connection for engagement with a water supply pipe, guard arms integrally formed with opposite portions of the nozzle and extending outwardly from the latter and having free unconnected extremities for engagement with the cheeks of the user at such a distance from the nozzle as to obviate contact of any other part of the face of the user with the attachment and all contact with the nozzle.

1,142,676. POSITIVE AUTOMATIC GAS SAFETY-VALVE AND CONTROL. WILLIAM A. DAVENPORT, Scranton, Pa., assignor of one-half to Chester S. Davies, Scranton, Pa. Filed Sept. 15, 1914. Serial No. 861,766. (Cl. 67—115.)

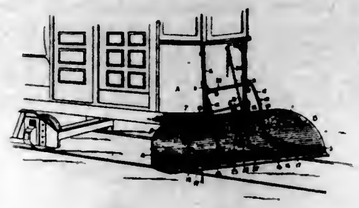


1. In a check valve, a body comprising two cylindrical sections, the said body having a slot between the two sections, a float valve in one of the casings, an arm on the float valve extending through the slot, an upwardly extending pipe in the cylindrical casing containing the check valve, said check valve being adapted to guard the end of said pipe, a seat at the bottom of the last mentioned cylindrical section containing liquid, a port extending from a point externally of the body and communicating with the upwardly extending pipe, a valve in the other cylindrical section for controlling a passage to the first mentioned cylindrical section, and a cam on the said valve for operating the float valve.

2. In a check valve, a body having cylindrical sections separated by a slotted wall, said wall having a port establishing communication between said sections, an upstanding pipe in one of the cylindrical sections, a port leading from the upstanding pipe to the exterior of the said cylindrical section, a bell shape float in the cylindrical section above the pipe, an arm on the float and extending through the slot, a valve in the other cylindrical section for controlling passage of gas from the exterior of said body to the cylindrical section containing the float, and an arm operating means carried by the valve for lifting the float.

3. In a check valve, a body having cylindrical sections separated by a slotted wall, said wall having a port establishing communication between said sections, an upstanding pipe in one of the cylindrical sections, a port leading from the upstanding pipe to the exterior of the said cylindrical section, a bell shaped float in the cylindrical section above the pipe, an arm on the float and extending through the slot, a valve in the other cylindrical section for controlling the passage of gas from the exterior of said body to the cylindrical section containing the float, and a double cam on the valve operative to elevate the float when the valve is open.

1,142,677. PORTABLE SNOW-SCRAPER FOR TROLLEY-CARS. NOAH DABOIS, New York, N. Y. Filed Dec. 23, 1914. Serial No. 878,746. (Cl. 104—51.)



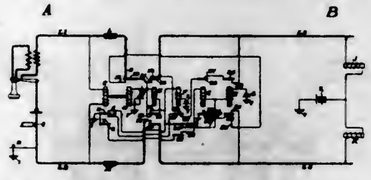
1. The combination of a car including a platform, a pair of brackets above the platform, a pair of brackets below the platform, and a draw bar on the platform, with a snow scraper extending entirely across the car front, a bracing element attached to the rear of the scraper and removably engaged with the upper brackets, a bracing element connected with the rear of the scraper and detachably engaged with the lower brackets, and means for detachably securing the scraper to the draw bar.

2. The combination with a car having a plurality of fender supports, of a snow scraper extending across the front of the car, and a plurality of bracing elements permanently attached to the scraper and detachably engaged with the said devices of the car, whereby the snow scraper can be substituted for the fender.

3. The combination with a car having a draw-bar and fender supports, of a snow scraper disposed in front of the car, a plurality of braces connecting the scraper with the said devices, and means for fastening the scraper to the said draw-bar.

4. The combination of a car, a plurality of upper and lower brackets mounted thereon and having hooks, with a snow scraper, U-shaped brackets hingedly connected to the rear of the scraper and engaging in the hooks of the brackets, and a device rigidly secured to the rear of the scraper and detachably connected with the platform of the car.

1,142,678. TELEPHONE-EXCHANGE SYSTEM. GERALD DEAKIN, Berkeley, Cal. Filed Mar. 8, 1912. Serial No. 682,390. (Cl. 179—18.)



1. In a telephone exchange system, a line circuit, a repeater circuit, means for operating the repeater circuit, a trunk circuit terminating in an automatic switch for connecting to a called substation, condensers, and means for connecting the line and trunk circuits through the condensers to establish a talking circuit after the completion of the connection with the called substation.

2. In a telephone exchange system, a line circuit, a repeater circuit, means for operating the repeater circuit, a trunk circuit terminating in an automatic switch, condensers, and means operated upon the grounding of one side of the line at the subscriber's station for connecting the line and trunk circuits through the condensers to establish a talking circuit, the last means being operable by the operating means of the repeater circuit.

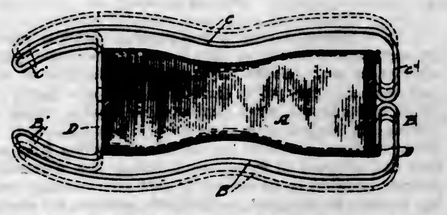
3. In a telephone exchange system, a line circuit, a repeater circuit, a trunk circuit terminating in an automatic switch, means for operating the repeater circuit comprising a calling device and ringing device, condensers, and means operable by the ringing device aforesaid to connect the line and trunk circuits through the condensers to establish the talking circuit.

4. In a telephone exchange system, a line circuit, a repeater circuit, a trunk circuit terminating in an automatic switch, means for operating the repeater circuit comprising a calling device and ringing device, and a relay adapted to be energized by the ringing device to connect the line and trunk circuits to establish a talking circuit.

5. In a telephone exchange system, a line circuit, a repeater circuit, a trunk circuit terminating in an automatic switch, means for operating the repeater circuit comprising a calling device and ringing device, condensers, and a relay adapted to be energized by the ringing device to connect the line and trunk circuits through the condensers to establish a talking circuit.

[Claims 6 to 21 not printed in the Gazette.]

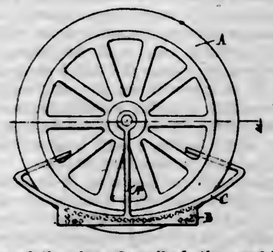
1,142,679. SHOE-POLISHING DEVICE. FRANK DE BARBADILLO, Baltimore, Md., assignor to Edward J. Reilly, Baltimore, Md. Filed Dec. 2, 1914. Serial No. 875,094. (Cl. 15—58.)



1. In a shoe polishing device of the class described, the combination of a shoe support or plate formed with transverse grooves at its end edges, and a cloth guiding member at each side of the support having its terminals recurved for forming toe and heel guide elements and for seating in the grooves aforesaid, said guide members being movable laterally in the grooves with respect to each other and the shoe support adapted to abut with each other to limit movement in one direction.

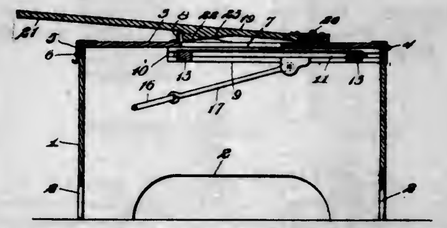
2. As a new article of manufacture, a shoe polishing device of the class described comprising a plate having its extremities transversely grooved and a cloth guiding member slidably disposed at each side of the support and comprising a length of metal or wire bent at its rear extremity to form a heel loop and having said rear extremity bent laterally for sitting longitudinally in the groove at the rear end of the shoe support, said metal being bent also at its forward end portion into a toe loop projecting forwardly of the shoe support, the forward extremity of said metal being bent laterally from said loop for sitting longitudinally in the groove at the forward end of said shoe support.

1,142,680. SPLASH-PREVENTER FOR ROAD-VEHICLES. ABEL DECHY, Paris, France. Filed Aug. 5, 1913. Serial No. 783,210. (Cl. 21—23.)



In a device of the class described, the combination with a vehicle wheel and axle therefor, of a casing disposed at one side of the wheel adjacent the supporting surface for said wheel, said casing having a series of openings formed laterally thereof directed toward the wheel and arranged to conform to the curvature of the same, a conduit for supplying said casing with air under pressure whereby to project the thin stream of air in a path opposite to the path of travel of mud splashed laterally by the wheel aforesaid, and a vertically disposed arm connected centrally of the casing and suspending said casing from the axle of the wheel at the position aforesaid.

1,142,681. FRUIT OR VEGETABLE CUTTER. JOHN G. DENIS, New Orleans, La. Filed Dec. 21, 1914. Serial No. 878,388. (Cl. 146—7.)



A device of the character described including a frame or casing having an opening in the top thereof, a feed opening therein, a carrier plate disposed beneath the feed opening, said plate having a discharge slot and having cut away portions forming engaging ends and corner shoulders, and a die adapted to rest upon said plate and having depending gripping flanges to engage said abutment ends of the carrier plate and to lie between said shoulders.

1,142,682. SYRINGE. FAIRLEIGH S. DICKINSON, Rutherford, N. J. Filed Oct. 27, 1914. Serial No. 868,811. (Cl. 128—25.)



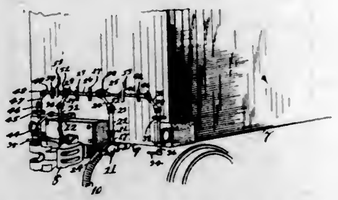
1. A syringe attachment, comprising a ring adapted to engage the barrel of a syringe at the rear end and provided with a member extending lengthwise of the barrel, and a spring arm extending from the extremity of said member and ranging lengthwise of the syringe, the arm extending back to and beyond the ring and the free end of the arm being adapted to bear against the outside of the syringe plunger to hold the latter against accidental movement in the barrel.

2. A syringe attachment, comprising a ring provided with finger pieces and adapted to encircle the barrel, the ring being adapted to abut against the collar on the rear end of the barrel, a clip member extending from the said ring lengthwise of the barrel and bearing on the exterior of the barrel, and a spring arm integral at one end with the extremity of said clip member and extending back to

and beyond the ring, the free end of the said arm extending inwardly and being adapted to bear against the outside of the syringe plunger.

3. A syringe attachment, comprising a ring provided with finger pieces and adapted to encircle the barrel, the ring being adapted to abut against the collar on the rear end of the barrel, a clip member extending from the said ring lengthwise of the barrel and bearing on the exterior of the barrel, and a spring arm integral at one end with the said clip member and extending back to and beyond the ring, the said ring and one of the said finger pieces being provided with a guideway for the said arm, the free end of the arm extending back to and beyond the ring and being bent inward to bear exteriorly on the syringe plunger.

1,142,683. AIR-COCK OPERATOR. JOHN BARRETTE DOYLE, Hamburg, Miss. Filed Sept. 1, 1914. Serial No. 859,587. (Cl. 188—8.)



1. In combination with a railway car provided with an air-brake system having an air-cock arranged at the end of said car; a socketed sleeve engaging said cock, a vertical rod, a universal joint connecting said sleeve and vertical rod, an inclined rod, a universal joint connecting said vertical and inclined rods, a horizontal rod carried by said car, a universal joint connecting said inclined and horizontal rods, and means for rotating said horizontal rod and thereby said air-cock.

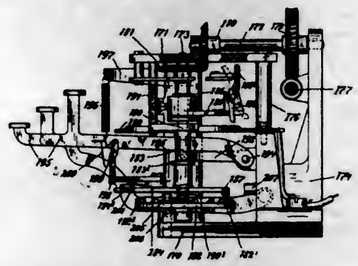
2. In combination with a railway car provided with an air-brake system having an air-cock arranged at the end of said car; a socketed sleeve engaging said cock, a vertical rod, a universal joint connecting said sleeve and vertical rod, an inclined rod, a universal joint connecting said vertical and inclined rods, a horizontal rod carried by said car, a universal joint connecting said inclined and horizontal rods, an inclined rod on said car, a vertical rod on said car, universal joints connecting said vertical and inclined rods and said inclined and horizontal rods, and a handle on said last named vertical rod to actuate said air-cock.

3. In combination with a railway car provided with an air-brake system having an air-cock arranged at the end of said car; a socketed sleeve engaging said cock, a vertical rod, an inclined rod, a horizontal rod carried by the car, universal joints between said vertical and inclined rods and between said inclined and horizontal rods, a handle connected with said horizontal rod to rotate the same to actuate said cock, and means for locking said horizontal rod in desired position.

4. In combination with a railway car provided with an air-brake system having an air-cock arranged at the end of said car; a socketed sleeve engaging said cock, a vertical rod, an inclined rod, a horizontal rod carried by said car, universal joints connecting said vertical and inclined rods and said inclined and horizontal rods, a handle connected with said horizontal rod, a supplemental horizontal rod carried by said car, a bridge spanning the joint between said inclined and first named horizontal rods and connecting said horizontal rods together, and a handle on said supplemental horizontal rod.

5. In combination with a railway car provided with an air-brake system having an air-cock arranged at the end of said car; a socketed sleeve engaging said cock, a vertical rod, an inclined rod, a horizontal rod carried by said car, universal joints connecting said vertical and inclined rods and said inclined and horizontal rods, a handle at each side of said car connected with said horizontal rod to actuate said cock, and means for locking said horizontal rod in desired position.

1,142,684. TRANSMITTER FOR SYSTEMS OF ELECTRICALLY RECORDING SIGNS. PAUL ETIENNE, St. Imier, Switzerland. Original application filed Aug. 19, 1911, Serial No. 644,955. Divided and this application filed Nov. 7, 1912. Serial No. 730,047. (Cl. 177—380.)



1. In a transmitter for a system of electrically recording signs the combination with a source of electric energy adapted to send current impulses, of a plurality of keys each corresponding to a certain number of current impulses and adapted when depressed to close a circuit including said source of electric energy, a continuously rotating member, a locking bar, latches depending from said keys and adapted to engage said locking bar, a releasing member adapted to be moved by said continuously rotating member from initial position into position for engagement with the locked latch of a depressed key and to throw said latch into unlocked position, and means for returning said keys into normal position, adapted to be controlled by said continuously rotating member, substantially as described.

2. In a transmitter for a system of electrically recording signs, the combination with a source of electric energy adapted to send current impulses, of a plurality of keys each corresponding to a certain number of current impulses, a continuously rotating shaft, a disk secured thereto, a releasing member and a contact member loosely mounted on said shaft, said contact member being adapted when moved by a key to close a circuit including said source of electric energy, and said releasing member being adapted when shifted by a key to be coupled to said disk and to be rotated thereby, means adapted to be operated upon depression of said keys to shift said contact member and releasing member, and means for returning said keys into the normal position, adapted to be controlled by said continuously rotating member, substantially as described.

3. In a transmitter for a system of electrically recording signs the combination with a source of electric energy adapted to send current impulses, of a plurality of keys each corresponding to a certain number of current impulses and adapted when depressed to close a circuit including said source of electric energy, means to lock said keys in depressed position, a continuously rotating member, releasing means for said keys adapted to be moved by said continuously rotating member from initial position into position for engagement with the locking means of a depressed key and to release the said key, means operated by said keys to temporarily connect said releasing means to said continuously rotating member, means tending to return said keys into normal position and means tending to disconnect said releasing means from said continuously rotating member and to break the circuit.

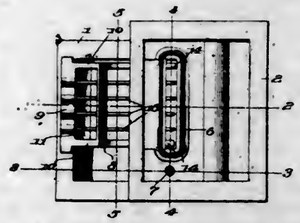
4. In a transmitter for a system of electrically recording signs the combination with a source of electric energy adapted to send current impulses, of a plurality of keys each corresponding to a certain number of current impulses and adapted when depressed to close a circuit including said source of electric energy, a continuously rotating

member a locking bar, latches depending from said keys and adapted to engage said locking bar a releasing member adapted to be moved by said continuously rotating member from initial position into position for engagement with the locked latch of a depressed key and to throw said latch into unlocked position, means tending to return said keys into normal position, and means tending to break the circuit closed by the key and to return said releasing means into normal position.

5. In a transmitter for a system of electrically recording signs, the combination with a source of electric energy adapted to send current impulses, of a plurality of keys each corresponding to a certain number of current impulses, a continuously rotating shaft, a disk secured thereto, a releasing member and a contact member loosely mounted on said shaft, said contact member being adapted when moved by a key to close a circuit including said source of electric energy, and said releasing member being adapted when shifted by a key to be coupled to said disk and to be rotated thereby, means adapted to be operated upon depression of said keys to shift said contact member and releasing member, means tending to return said contact member and releasing member into inoperative position, means to lock said keys in depressed position and adapted to be released by said releasing member, and means tending to return said keys into normal position.

[Claims 6 to 10 not printed in the Gazette.]

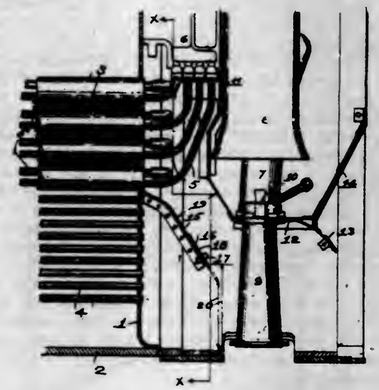
1,142,685. COATING-POT. PERRY W. EVERHART, Elwood, Ind., assignor of one-half to Walter L. Siders, Elwood, Ind. Filed May 6, 1913. Serial No. 765,888. (Cl. 91—12.5.)



1. A coating pot comprising a melting chamber and an oil chamber formed in a single casting, said chambers being arranged in stepped relation, with the lower front portion of the oil chamber integral with and arranged to overhang the upper rear portion of the melting chamber, whereby said chambers may be seated upon separate but juxtaposed heating furnaces, the connecting wall between said chambers being formed with a passage extending on a curved line from the rear portion of the base of the melting chamber upward through the bottom of the oil chamber, the latter having a raised portion or curb extending upwardly thereinto around the margin of the passage and through which said passage extends, the said chambers being also connected by a constricted relief passage, and a flux box disposed within the melting chamber and having curved guides extending upwardly through said passage.

2. A coating pot comprising melting and oil chambers disposed one in advance of and below the level of the other, said chambers being connected by a passage leading through the rear wall of the melting chamber on a curved line upwardly into and through the botton wall of the oil chamber, coating rolls within the oil chamber, and a flux box disposed within the melting chamber, said box comprising an oblong rectangular body having its rear wall provided with a flange to rest upon the rim of the oil chamber and having its front wall depending to a greater degree than said rear wall, curved guide fingers extending from the rear wall downwardly and forwardly and through said passage between the chambers, and guards extending from the end walls of the flux box beyond the end fingers of the series and also extending into said passage.

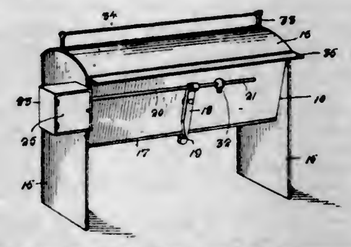
1,142,686. DRAFT-REGULATING DEVICE IN LOCOMOTIVE FRONT ENDS. THAYER B. FARRINGTON, Columbus, Ohio. Filed Aug. 31, 1914. Serial No. 859,370. (Cl. 110—163.)



1. In a locomotive boiler comprising a set of upper flues containing superheating coils and a lower set of flues with unimpeded passages with both sets of flues communicating with a common smoke box, a smoke arch in the smoke box extending over the openings of both sets of flues into the smoke box, and a baffle plate secured in the smoke box under the smoke arch between the two sets of flues and extending downwardly over the openings into the smoke box of the lower set of flues to form with the smoke arch a free and unobstructed passage, except for the superheater coils, from the upper set of flues into the smoke box, said baffle plate operating to restrict the draft through the lower set of unimpeded flues and to increase the draft through the upper set of flues containing the superheating coils.

2. In a locomotive boiler comprising a set of upper flues containing superheating coils and a lower set of flues with unimpeded passages with both sets of flues communicating with a common smoke box, a smoke arch in the smoke box extending over the openings of both sets of flues into the smoke box, a baffle plate secured in the smoke box under the smoke arch between the two sets of flues and extending downwardly over the openings into the smoke box of the lower set of flues to form with the smoke arch a free and unobstructed passage, except for the superheater coils, from the upper set of flues into the smoke box, said baffle plate operating to restrict the draft through the lower set of unimpeded flues and to increase the draft through the upper set of flues containing the superheating coils, and an apron adjustable on the lower edge of the baffle plate to regulate proportionately the draft through the two sets of flues.

1,142,687. POULTRY-FEEDING DEVICE. FRANK FEUERSTEIN, Williamsville, N. Y. Filed Feb. 13, 1914. Serial No. 818,546. (Cl. 161—10.)

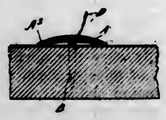


1. In a device of the class described, a hopper-shaped casing including a hinged bottom member, the latter hav-

ing a pin projecting at the free edge thereof, a lever pivoted on a side member of the casing and having a hook engaging the pin, a trigger rod connected with the lever substantially at right angles thereto and having long and short arms, a weight adjustable on the short arm and tending to maintain the hook of the catch lever in engagement with the pin of the bottom member, and an alarm clock supported in proximity to the casing and having an alarm post carrying a disk provided with a wrist pin projecting in the path of the long arm of the trigger rod.

2. In a device of the class described, a hopper-shaped casing having a hinged bottom member, the latter having a pin extending from the free edge thereof, a box mounted on one end of the casing and having a slot in one side thereof, an alarm clock contained in said box and having a projecting alarm post carrying a disk having a wrist pin, a catch lever pivoted on one side of the casing and having a hook engaging the pin extending from the bottom member, a trigger rod connected with the catch lever at right angles thereto and having a long and a short arm, the long arm being guided through the slot in the side of the box beneath the wrist pin, and a weight adjustable on the short arm of the trigger rod and serving to maintain the catch lever in engagement with the pin of the bottom member.

1,142,688 THUMB-TACK. PHILIP A. FISCHER, New York, N. Y. Filed Oct. 22, 1914. Serial No. 868,037. (Cl. 85—16.)



1. A thumb tack, comprising a head, a point depending centrally from the under side of the said head, a handle of approximately U-shape, and pivots integral on the said head and arranged diametrically on opposite sides of the center of the head and a distance within the margin of the head, the ends of the said handle engaging the said pivots to allow of swinging the handle into upright position or into a folded position on the top of the head and within the margin thereof.

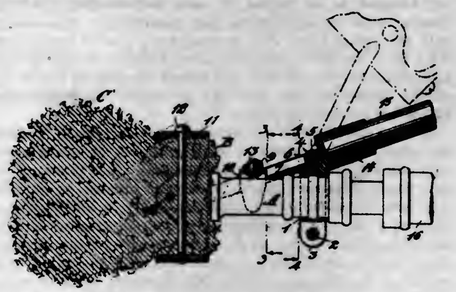
2. A thumb tack, comprising a head having an approximately semicircular recess in the upper face, the ends of the recess leading into apertures formed in the head at diametrically opposite points, pivots integral with the said head and extending diametrically across the said apertures, and an approximately U-shaped handle provided at its ends with eyes engaging the said pivots, the said handle being adapted to fold into the said recess.

3. A thumb tack, comprising a head having an approximately semicircular recess in the upper face, the ends of the recess leading into apertures formed in the head at diametrically opposite points, the middle of the said recess having an outward extension, pivots integral with the said head and extending diametrically across the said apertures, and an approximately U-shaped handle provided at its ends with eyes engaging the said pivots, the said handle being adapted to fold into the said recess.

1,142,689. WASHING DEVICE FOR AUTOMOBILES AND OTHER VEHICLES. HOWETH TOWNSEND FORD, Central Valley, N. Y. Filed July 8, 1914. Serial No. 849,710. (Cl. 15—53.)

1. A washing device of the class described comprising a sponge-holding ring, a pair of members rigidly connected with the ring, a cross-bar connected with the members, a spring nozzle-engaging clip carried by the cross-bar, and means connected with the members for attaching the device to a hose nozzle.

2. A washing device of the class described comprising a sponge-holding ring, a pair of members rigidly connected with the ring, a cross-bar connected with the members, a spring nozzle-engaging clip carried by the cross-bar, a nozzle-embracing clamping clip having a bar-like member disposed between the first-mentioned members, means



for pivotally connecting the first-mentioned members with the said member of the clamping clip, and a handle connected with the clamping clip.

1,142,690. TURBINE-WHEEL. WILLIAM J. FRANCKE, Highland Park, N. J. Filed Sept. 29, 1914. Serial No. 864,051. (Cl. 121—57.)



1. A turbine wheel, comprising a plurality of plates, buckets and shanks, the plates being superimposed and the shanks extending radially outward from the peripheries of the plates, and the buckets extending radially outward from the outer ends of the shanks, the buckets and shanks of one plate being arranged alternately relative to the buckets and shanks of the other plate.

2. A turbine wheel, comprising a plurality of plates, buckets and shanks, the plates being superimposed and the shanks extending radially outward from the peripheries of the plates and the buckets extending radially outward from the outer ends of the shanks, the buckets and shanks of one plate being arranged alternately relative to the buckets and shanks of the other plate, the shank of one plate extending into the space between the shanks of the other plate.

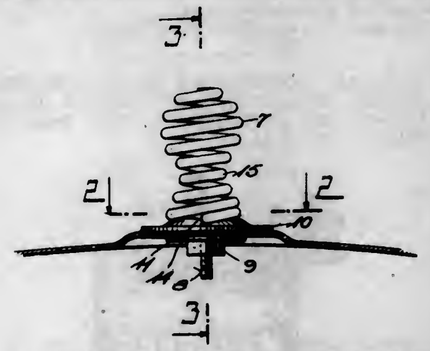
3. A turbine wheel, comprising a plurality of plates, buckets and shanks, the plates being superimposed and the shanks extending radially outward from the peripheries of the plates, and the buckets extending radially outward from the outer ends of the shanks, the buckets and shanks of one plate being arranged alternately relative to the buckets and shanks of the other plate, the faces of the buckets extending approximately at a right angle to the faces of the plates.

4. A turbine wheel, comprising a plurality of plates, buckets and shanks, the plates being superimposed and the shanks extending radially outward from the peripheries of the plates and the buckets extending radially outward from the outer ends of the shanks, the buckets and shanks of one plate being arranged alternately relative to the buckets and shanks of the other plate, and the side edges of the buckets projecting beyond the outer faces of the plates.

5. A turbine wheel, comprising superimposed plates provided with integral buckets arranged alternately and disposed radially one in front of the other, each bucket having a twisted shank to dispose the face of the bucket at an angle to the faces of the plates.

[Claims 6 to 9 not printed in the Gazette.]

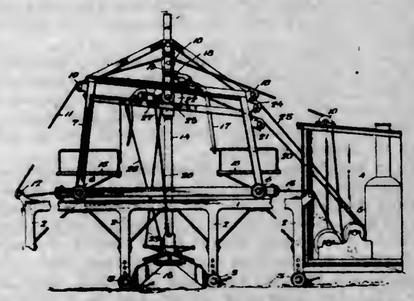
1,142,691. UTENSIL-KNOB. ENOS CORNELIUS FRISK and EDWARD CHRISTIAN ANDERSON, Somerset, Wis. Filed Oct. 2, 1914. Serial No. 864,674. (Cl. 16—172.)



1. A device of the class described comprising a knob body formed from a spirally disposed elongated member having one end thereof threaded and disposed coaxial with the body, a concave washer adapted to engage the threaded end and having on its convex surface a depression to conform to the portion of the coil adjacent the threaded end, said threaded end being adapted to engage a utensil wall with the washer between the wall and the body, and a nut engaging the threaded end whereby the knob with the washer is secured to the utensil wall.

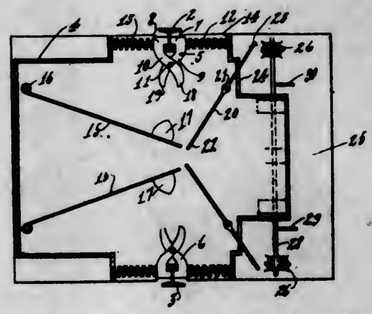
2. A device of the class described comprising a knob body formed from a spirally disposed elongated member having one end thereof threaded and disposed axially with the body, the threaded end being adapted to engage a utensil wall, a dished washer, the convex surface of which forms a seat for said knob body on the utensil wall, and a nut for the threaded end whereby the knob body and washer are secured to the utensil wall.

1,142,692. EXCAVATING AND FILLING APPARATUS. THOMAS F. GANNON, Rochester, N. Y. Filed Nov. 29, 1913. Serial No. 803,810. (Cl. 37—14.)



An apparatus of the character indicated comprising wheel mounted track rails, an engine fixed with relation to the track rails, a wheel supported car mounted upon the track rails, a vertically disposed beam movably mounted upon the car, means for elevating the beam from the engine, a bucket carried at the lower end of the beam, means operated by the engine for closing the bucket, a spring pressed pawl pivotally mounted upon the car and engageable with the beam to positively hold the same in an elevated position, a lever operated friction means mounted upon the car and engageable with the beam to frictionally hold the same in an elevated position, cages carried by the car, the said means for holding the beams in an elevated position being adapted to be operated by operatives occupying the cages.

1,142,693. SAFETY ELEVATOR DEVICE. HERBERT W. GANSWINDT, Los Angeles, Cal. Filed Feb. 9, 1914. Serial No. 817,603. (Cl. 187—91.)



1. The combination with an elevator car of a safety stop device therefor comprising a casing secured upon the under face of said car, rails mounted vertically within the elevator shaft and upon opposite sides of said car, pivoted gripping jaws arranged for gripping engagement with the rails, means for holding said jaws out of gripping engagement with the rails, spring means for forcing said jaws into gripping engagement with the rails upon the release of said holding means, means automatically operated by the force of air thereagainst when the car descends too rapidly comprising a plate pivoted exteriorly of said casing, projections on said plate normally in coöperation with said holding means and adapted to be moved out of coöperative relation thereto upon the upward movement of said plate, and means operable interiorly of the elevator car for moving said projections out of engagement with the holding means to permit gripping of the jaws with said rails.

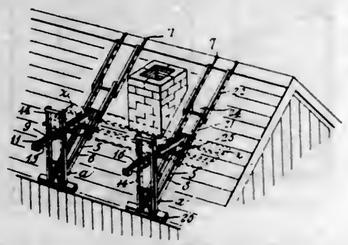
2. The combination with an elevator car and a pair of vertical rails arranged upon opposite sides thereof of a safety device carried upon said car and comprising a casing secured upon the under face of said car, pivoted gripping jaws mounted within the casing and arranged for gripping engagement with the rails, spring means for forcing the gripping jaws into engagement with the rails, bars swingingly mounted within said casing, projections carried upon said bars engaging said gripping jaws to hold said jaws in open position, a second set of bars pivoted within said casing and arranged to hold said projections in operative engagement with the gripping jaws, a plate hingedly secured exteriorly of said casing and arranged to swing upwardly and downwardly, projections carried upon said plate and engaging said last named bars to hold said projections in coöperation with the gripping jaws, said plate arranged to swing upwardly by the force of air when the elevator makes a rapid descent, and emergency means operable interiorly of the elevator car to move the projections out of engagement with the last named bars.

3. The combination with an elevator car and vertical rails upon opposite sides of the car, of gripping jaws pivoted upon the under face of the elevator car, spring means for forcing said gripping jaws into engagement with the rails, bars pivotally mounted upon the elevator car, and projections on said bars, said jaws having crossed shanks, said projections to extend between the shanks to hold said jaws normally apart.

4. The combination with an elevator and a pair of vertical rails arranged upon opposite sides thereof, of grip-

ping jaws having shanks crossed and pivoted beneath said car and being arranged in pairs on opposite sides of said car and to coöperate with said rails, rods pivotally mounted beneath said car, projections on said rods and engaging between the shanks on said jaws to hold said jaws normally apart, bars swingingly mounted intermediate their ends upon said elevator car and normally holding said projections between the crossed shanks of the jaws, spring means to force said jaws into gripping coöperation with the rails upon release of said holding means, and means to hold said last named bars in operative position.

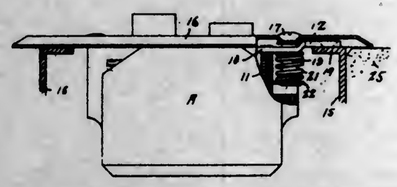
1,142,694. ADJUSTABLE BRACKET. WILLIAM O. GILBERT, Arrowsmith, Ill. Filed May 9, 1912. Serial No. 696,266. (Cl. 20—86.)



1. An adjustable bracket comprising parallel base members, upright members pivoted to said base members, a weight carrying member pivotally mounted for free movement between said base members, a plurality of parallel extension arms, one pair of which are pivotally secured to said base members by a bolt which serves as a pivot for said weight-carrying member, and removable angular hooks secured to the free ends of said parallel extension arms, for the purposes specified.

2. An adjustable bracket comprising spaced base members having a stop plate on the lower face thereof, a weight carrying member pivotally mounted at one end and between said base members, spaced upright members mounted externally of the base members and pivotally connected to the latter at one end thereof, said upright members being trussed and braced on one face thereof and opposite to the stop plates of the base members, a removable bolt to pivotally connect one end of the weight carrying member to the base members, whereby the parts may be moved and retained in their weight supporting position, or folded into compact form, and when so folded the unconfined end of the weight carrying member will be positioned between the trussed section of the upright members and the stop plate of the base members, and means to lock the various members in a compact form.

1,142,695. FLUSH RECEPTACLE. GILBERT W. GOODRIDGE, Bridgeport, Conn., assignor to The Perkins Electric Switch Manufacturing Company, Bridgeport, Conn., a Corporation of Connecticut. Filed May 5, 1914. Serial No. 836,472. (Cl. 247—6.)



1. In a flush receptacle, a member rigid with the receptacle, and a screw socket yieldably carried thereby and adapted to receive a securing screw.

2. In a flush receptacle, a yoke piece rigid with the receptacle and a screw socket spring-supported thereon to receive the securing screw for a face plate.

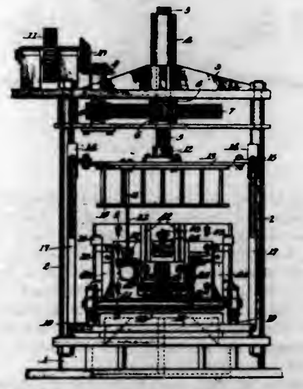
3. In a flush receptacle, a cover plate therefor and spring means for yieldably supporting the same in position over the receptacle.

4. In flush receptacles, a cover plate, a securing screw socket carried with a lost motion connection by the receptacle and having limited freedom of motion in the direction of the cover plate.

5. In flush receptacles, a cover plate, a securing screw socket carried by the receptacle and having limited freedom of motion in the direction of the cover plate, together with spring means tending to hold said socket against movement in the direction stated.

[Claims 6 to 11 not printed in the Gazette.]

1,142,696. MACHINE FOR MAKING CONCRETE BLOCKS. WILLIAM GRAF and CHARLES F. NICKEL, Baltimore, Md. Filed June 13, 1914. Serial No. 844,928. (Cl. 25—45.)



1. An apparatus of the nature described comprising a movable mold, a base for supporting the mold when in lowered position, a plunger for compressing the material in such mold, and frame-work carried by the plunger for lowering said mold on to said supporting base when the plunger is lowered and for raising the same from said base when the plunger is raised.

2. An apparatus of the nature described comprising a movable mold, a track for supporting said mold, a base for supporting the mold when in lowered position, a plunger for compressing the material in such mold, and means connecting said plunger and track arranged to lower the track and mold on to said base when the plunger is lowered and to raise the track and mold when the plunger is raised.

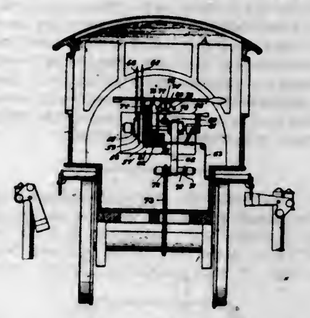
3. An apparatus of the nature described comprising a mold, cores in said mold vertically movable therein, means for locking said cores in raised position, a plunger for compressing the material in said mold, and means operated by said plunger for releasing said locking means when the plunger is lowered.

4. An apparatus of the nature described comprising a movable mold, a base for supporting the mold when in lowered position, a plunger for compressing the material in said mold, cores in said mold vertically movable therein, means for holding said cores in raised position, and means for lowering said mold on to said supporting base and for automatically releasing said cores from their raised position when the plunger is lowered and for raising said mold from said base when the plunger is raised.

5. An apparatus of the nature described comprising a movable mold, a track for supporting said mold, a base for supporting the mold when in lowered position, a plunger for compressing the material in said mold, cores in said mold vertically movable therein, means for holding said cores in raised position, and means carried by said plunger for lowering said track and mold on to said base and for releasing said cores from their raised positions when the plunger is lowered and for raising said track and mold from said base when the plunger is raised.

[Claims 6 to 10 not printed in the Gazette.]

1,142,697. TRAIN-STOPPING APPARATUS. JAMES A. GRAY, New York, N. Y. Filed Oct. 3, 1914. Serial No. 864,887. (Cl. 246—59.)



1. In train stopping apparatus, the combination with a shaft adapted for rotary movement, connections between said shaft and the throttle valve and engineer's brake valve whereby the throttle valve will be closed and the brake valve actuated to effect an application of the brakes when the shaft is rotated, fast and loose pulleys on said shaft, a belt trained over said pulleys, a shipper rod for shifting the belt from the loose pulley to the fast pulley to rotate the shaft, and speed controlled means holding said shipper rod against movement while the train is traveling below a predetermined speed.

2. In train stopping apparatus, the combination with a shaft adapted for rotary movement, connections between said shaft and the throttle valve and engineer's brake valve whereby the throttle valve will be closed and the brake valve actuated to effect an application of the brakes when the shaft is rotated, fast and loose pulleys on said shaft, a belt trained over said pulleys, a shipper rod for shifting the belt from the loose pulley to the fast pulley to rotate the shaft, a lug on said shipper rod, an arm normally engaging said lug and holding the shipper rod against movement, and speed controlled means for relieving said lug of the influence of said arm when the train is traveling above a prescribed speed.

3. In train stopping apparatus, the combination with a shaft adapted for rotary movement, connections between said shaft and the throttle valve and engineer's brake valve whereby the throttle valve will be closed, and the brake valve actuated to effect an application of the brakes when the shaft is rotated, fast and loose pulleys on said shaft, a belt trained over said pulleys, a shipper rod for shifting the belt from the loose pulley to the fast pulley to rotate the shaft, a lug on said shipper rod, an arm normally engaging said lug and holding the shipper rod against movement, and means responsive to the action of centrifugal force to relieve said lug of the influence of said arm when the train is traveling above a predetermined speed.

4. In train stopping apparatus, the combination with a shaft adapted for rotary movement, connections between said shaft and a controlling element of the motor car, fast and loose pulleys on said shaft, a belt trained over said pulleys, a shipper rod for shifting the rod from the loose pulley to the fast pulley to rotate the shaft, and speed controlled means holding said shipper rod against movement while the train is traveling below a predetermined speed.

1,142,698. COMBINATION-BRUSH. EDWIN W. GROVE and GEORGE P. CRUMBAUGH, St. Louis, Mo. Filed Apr. 9, 1914. Serial No. 830,722. (Cl. 15—29.)

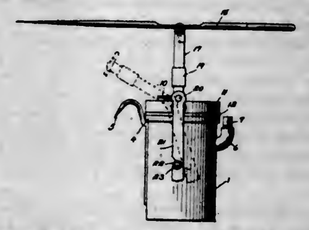


1. A brush having a back of rigid material which is formed with rows of transverse openings; a flexible rubber cup seated in each opening; and a rigid tooth embedded at its inner end in the outer end of each cup and adapted to move with said cup end during the flexion of the latter.

2. A brush having a back of rigid material which is formed with rows of transverse openings; a flexible rubber cup seated in each opening and projecting beyond the same at its outer end; and a rigid tooth having a headed inner end embedded in the projecting end of each cup and adapted to move with said cup end during the flexion of the latter.

3. A brush having a back of rigid material which is formed with rows of transverse openings, the alternate openings in each row having flexible rubber cups seated therein; a rigid tooth embedded at its inner end in the outer end of each cup and adapted to move with said cup end during its flexion; and bristle tufts secured in the remaining openings in said rows.

1,142,699. MINER'S ACETYLENE-GAS LAMP. JUSTUS A. GUSTAFSON, Idaho Springs, Colo. Filed Aug. 29, 1914. Serial No. 859,259. (Cl. 220—22.)



1. In means for the purpose described, the combination with a tank, of a cover removably arranged on the tank, an upright fixed to the cover, a bail pivoted to the cover, an adjustable sleeve movable on the bail and on and off said upright, and coöperating means on the tank and the bail for locking the cover on the tank when the bail is secured by the sleeve to the upright.

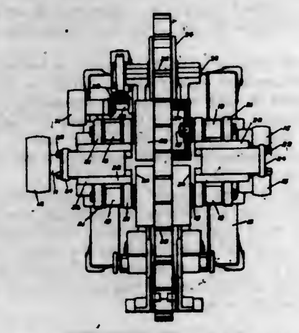
2. In means for the purpose described, the combination of a tank having lateral projections, a cover removably arranged on the tank and having an upright, a bail pivotally connected to the cover, a sleeve adjustable on the bail and on and off the upright, and links pivotally connected to the bail and notched for engagement with the projections of the tank.

1,142,700. MACHINE FOR GRINDING COILED SPRINGS. FREDERICK H. HALSTEAD, Worcester, Mass., assignor, by mesne assignments, to Halstead Machine Company, a Corporation of Massachusetts. Filed May 11, 1914. Serial No. 837,688. (Cl. 51—12.)

1. In a machine for grinding coiled springs, the combination with means for feeding the springs, of means for compressing said springs to bring their lengths to a uniform dimension and grinding means in position to grind the ends of said springs while they are under compression.

2. In a machine for grinding coiled springs, the combination of means for compressing the springs longitudinally to bring their lengths to a uniform dimension and a pair of grinding wheels located opposite each other in position to grind the ends of said springs while they are under compression.

3. In a machine for grinding coiled springs, the combination with means for feeding a series of said springs forward laterally, a guide located at the sides of said feeding means, said guide having surfaces in a position to engage the ends of said springs as they are fed forward, said surfaces gradually converging, whereby said springs are compressed to a uniform length, means for gripping said springs while in said compressed condition, and holding them in that condition while being fed forward, and a pair of grinding devices at a predetermined distance apart in position to grind the opposite ends of said springs while held by said jaws in compressed condition.

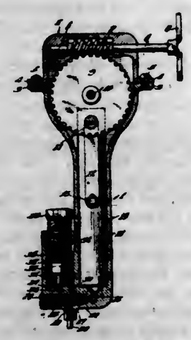


4. In a machine for grinding coiled springs, the combination with means for feeding said springs forward laterally, means located at the sides of said feeding means for compressing said springs to a uniform length, said feeding means having jaws constructed and arranged to grip said springs while in said compressed condition, hold them in that condition, and feed them forward, a pair of grinding wheels at a predetermined distance apart in position to grind the opposite ends of said springs while held by said jaws in compressed condition, said feeding means being arranged to feed the springs forward constantly during the grinding operation, and means whereby said springs are released by the jaws and allowed to resume their normal lengths and are then carried forward by the jaws and delivered.

5. In a machine for grinding coiled springs, the combination of a hopper for receiving the springs, a feeding device for receiving the springs from the hopper and carrying them forward, means at opposite sides of said feeding device for compressing said springs longitudinally as they are fed along, and means whereby said springs are held under such compression while being ground.

[Claims 6 to 20 not printed in the Gazette.]

1,142,701. TIRE-PUMP. HARRY C. HANSON, South Pasadena, Cal. Filed Oct. 13, 1913. Serial No. 795,028. (Cl. 152—11.)

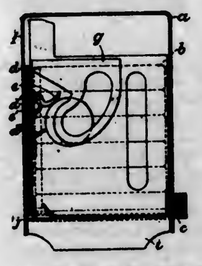


1. A pump for a pneumatic tire comprising a body member, a piston sliding in an opening in said body member, a gear in said body member, a crank pin on said gear, a connecting rod between said crank pin and said piston, a worm for actuating said gear, and means operated by the rotation of the wheel on which the tire is fixed for actuating said worm.

2. A pump for a pneumatic tire comprising a body member provided with points for attachment to a wheel, a piston sliding in an opening in said body member, a gear in said body member, a crank pin on said gear, a connecting rod pivoted on said crank pin and on said piston, a worm engaging said gear and supported in said body member, and a star wheel rigidly secured to said worm and so placed that it engages a stationary pin as the wheel turns.

3. A pump for a pneumatic tire comprising a body, means for attaching the body to the wheel on which the tire is mounted, air compressing means in said body, operating mechanism for said air compressing means, a star wheel, means for causing said star wheel to actuate said operating mechanism, and turning means for engaging and turning said star wheel, said turning means being secured to the vehicle which employs the wheel.

1,142,702. AUTOMATIC VENDING-MACHINE. HANS HARTMAN, London, England, assignor to Duplex Vending Machine Company, Inc., New York, N. Y., a Corporation of New York. Filed Dec. 13, 1913, Serial No. 806,476. Renewed May 1, 1915. Serial No. 25,336. (Cl. 194—37.)



1. In a coin controlled vending machine the combination of a containing receptacle, a rotatable delivery tray, a movable locking bar resting thereon, a locking member engaging into such locking bar, a chute having a curved or inclined portion which in connection with a projecting part of the locking bar forms a coin-rest for a coin of predetermined size whereby the coin disengages the locking member from the locking bar.

2. In a coin controlled vending machine the combination of a containing receptacle, a rotatable delivery tray, a vertically movable locking bar resting thereon in such a manner that it is raised when the tray is turned manually by a knob or lever, a locking member engaging into such locking bar, a chute having a curved or inclined portion which in connection with a projecting part of the locking bar forms a coin-rest for a coin whereby the coin disengages the locking member from the locking bar by lifting such locking member out of a slit provided in the locking bar.

3. In a coin controlled vending machine, the combination of a rotatable delivery tray with a vertically movable locking bar resting thereon in such manner that it is raised when the delivery tray is rotated and closes the coin inlet until the rotated delivery tray returns to its initial position and a spring which is normally retained in a retracted position by the weight and pressure of the packages in the containing receptacle and adapted to support the raised locking bar in an elevated position thus preventing the insertion of further coins when the last package has been delivered.

4. In a coin controlled vending machine, the combination of a rotatable delivery tray with a vertically movable locking bar resting thereon in such a manner that it is raised when the delivery tray is rotated, a coin chute, a locking member engaging a slit in said locking bar so as to prevent its movement until a coin of predetermined size is inserted into this coin chute, said coin chute having a curved or inclined portion which, in connection with a projecting part of the locking bar, forms a coin-rest, and lifts said locking member out of its initial position and a second slit in the said locking bar, underneath the first slit, with the object of securing the return of the locking member to a locked position with the locking bar, before said bar returns to its initial position.

5. In a coin controlled vending machine the combination of a rotatable delivery tray with a movable locking bar resting thereon, a locking member engaging said locking bar, a coin chute having a curved or inclined portion which, in connection with an arm projecting from the locking bar, forms a coin-rest for a coin of predetermined size and supports said coin in such a manner that the coin lifts the locking member sufficiently to disengage it from the locking bar and whereby when the locking bar is raised, by rotating the delivery tray, the coin supporting arm passes above the coin, which, losing its supports, falls into the money receptacle.

[Claim 6 not printed in the Gazette.]

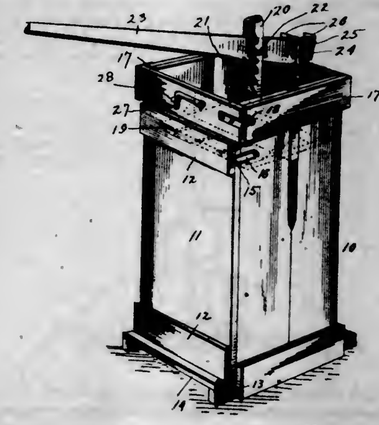
1,142,703. WHIP-HOLDER. WILLIAM ROY HARMON, Oak Hill, Fla. Filed Sept. 29, 1914. Serial No. 864,111. (Cl. 21—130.)

1. A whip holder including a casing, a band secured therein, springs depending from the band and projected toward each other to provide a restricted passage, a releasing member including a sleeve operative at one end through the band and adapted for downward movement to engage and spread the springs, the upper end of the sleeve being projected with a head disposed wholly above the upper end of the casing, and springs interposed between the head and casing, whereby on moving the head downward the springs are moved from coöperation with the whip and the whip grasped for removal in a single movement.

2. A whip holder including a casing, a band secured therein, springs depending from the band and projected toward each other to provide a restricted passage, a releasing member including a sleeve operative at one end through the band and adapted for downward movement to engage and spread the springs, the upper end of the sleeve being projected with a head disposed wholly above the upper end of the casing, and springs interposed between the head and casing, said sleeve being formed with an opening and a locking plug operative through the casing to engage the opening to lock the sleeve.

1,142,704. BALING-PRESS. JAMES G. HAUGH, Bascom, Ohio. Filed Apr. 7, 1915. Serial No. 19,802. (Cl. 100—4.)

1. A baling press comprising a box forming the baling chamber having a removable side wall, said wall at one end having a lip that enters a groove in the box bottom having devices detachably connecting it with the box, a frame surrounding the upper end of the box and having an openable front side, a plunger, and means for moving the plunger toward the box bottom.



2. A baling press comprising a box forming the baling chamber having a removable side wall, said wall at one end having a lip that enters a groove in the box bottom having devices detachably connecting it with the box, a frame surrounding the upper end of the box and having an openable front side, a plunger, and an operating lever for the plunger engaging a loop secured to the back wall of said frame.

3. A baling press comprising a box forming the baling chamber having a removable side wall, said wall at one end having a lip that enters a groove in the box bottom having devices detachably connecting it with the box, a frame surrounding the upper end of the box and having an openable front side, a plunger, an operating lever for the plunger engaging a loop secured to a part of the press stationary relative to the lever, and a lever latch mounted on the front wall of said frame adapted to engage the lever and hold it in a depressed position.

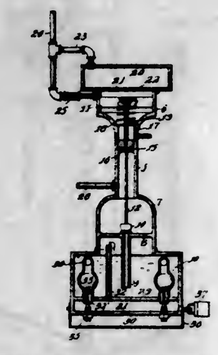
4. A baling press comprising a rectangular box forming the baling chamber, the front wall of said box being removable, a rectangular frame around the open top of said box, a loop secured to a part of the press stationary relative to the lever, a plunger having a vertically extending rack bar composed of two parallel members, and a lever for coöperating with said rack bar passing between said members and engaging said loop.

5. A baling press comprising a rectangular box forming the baling chamber, the front wall of said box being removable, a rectangular frame around the open top of said box, a loop secured to a part of the press stationary relative to the lever, a plunger having a vertically extending rack bar composed of two parallel members, a lever for coöperating with said rack bar passing between said members and engaging said loop, said lever having a loop-engaging wear plate with stop lips on opposite sides of the latter, and a lever latch pivoted to the opposite side of said frame.

1,142,705. AUTOMATIC LUBRICATOR. JAMES J. HENNESSY, St. Louis, Mo. Filed Feb. 2, 1914. Serial No. 815,870. (Cl. 184—50.)

1. In a condensation displacement lubricator, comprising a lubricant receptacle, a condenser mounted above same, a piston chamber mounted above the condenser, a plurality of pistons mounted on a piston rod operated in said piston chamber a piston rod extending into the con-

denser and forming a valve stem; a passage way connecting the lubricant receptacle and condenser, a valve located in said passage way and mounted on the valve stem for controlling the flow of the water from the condenser, a steam connection to the condenser and piston chamber, and an outlet from the lubricator, substantially as specified.



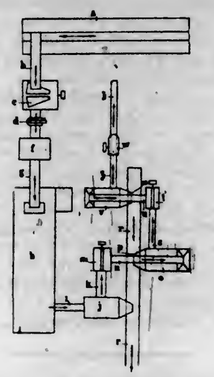
2. In a condensation displacement lubricator, the combination of a lubricant receptacle, a condenser, a steam connection to the condenser, a valve controlled passage way connecting the lubricant receptacle and condenser; a double piston chamber mounted above the condenser, pistons mounted within the piston chamber, a piston rod connecting the pistons and extending into the condenser; a valve located on the lower end of said piston rod and seated in the passage connecting the lubricant receptacle and condenser; means for supplying steam to the piston chamber when the source of steam is open, said steam operating one of said pistons, and opening the valve between the lubricant receptacle and condenser, and a means for admitting steam to the other piston when the first named source of supply is cut-off for effecting the shut-off of the condenser valve, substantially as specified.

3. In a condensation displacement lubricator, the combination of a lubricant receptacle, a condenser, an outlet tube leading from the bottom of the condenser to a point near the bottom of the lubricant receptacle, lubricant outlet means connected with the receptacle, a tubular member having a flaring upper end connected to the condenser and provided with large and small piston chambers, a receptacle connected to the flared end of the tubular member and closing the upper piston chamber, the receptacle being provided with a port communicating with upper piston chamber, a piston in the upper piston chamber, a spring beneath said piston, a piston in the lower piston chamber, a valve in the upper portion of the condenser outlet tube, a rod connected to the valve and secured to the two pistons, a steam pipe communicating with the tubular member beneath the lower piston and adapted to be connected with a source of steam pressure, a steam pipe communicating with the upper piston chamber above the piston therein and with the chamber thereabove, the latter steam pipe being adapted to be connected with a source of controllable steam pressure.

1,142,706. METHOD OF EXTRACTING OR SORTING COMBUSTIBLE MATTER FROM REFUSE. GEORGES HIDOUX, Paris, France. Filed Mar. 19, 1914. Serial No. 825,870. (Cl. 83—54.)

1. A method of separating refuse consisting in hand sorting the refuse, eliminating material exceeding a predetermined size, subjecting the remainder to magnetic separation, and then so grinding the non-magnetizable material as to disintegrate the same and flatten the particles of combustible matter and then screening the ground mixture.

2. A method of separating refuse consisting in so grinding the material as to disintegrate the same then flatten-



ing the particles of combustible matter then drying and re-grinding the same and finally screening the ground mixture, as herein set forth.

1,142,707. MILK-BOTTLE-TOP EXTRACTOR. ALBERT L. HIGGINS, Bar Harbor, Me. Filed May 1, 1914. Serial No. 835,647. (Cl. 215—53.)

1. A device of the class described comprising a body portion of a length and shape to extend across a milk bottle and rest upon the bottle cap, said body portion having a clip projecting from its underside, said clip being open at one side and adapted to slip over and engage the inner side of the bottle cap and detachably hold the cap to the body portion.

2. A device of the class described comprising a body portion of a length and shape to extend across a milk bottle and fit down within the neck, said body portion having a spring clip projecting from its underside, said clip being open at one side and adapted to slip over and detachably engage with the bottle cap, and means provided on the body portion to engage over the upper edge of the bottle neck and support the device in position.

3. A device of the class described comprising a body portion of a length and shape to extend across a milk bottle and fit down within the neck, said body portion having a clip to engage the bottle cap, and an angular arm provided on the body portion and engaging over the upper edge of the bottle neck, said arm being pointed.

4. A device of the class described, comprising a body portion of a length and shape to extend across a bottle and fit down within the neck, said body portion having a clip to engage the bottle cap or top, and angular arms provided at diametrically opposite points of the body portion, said arms being adapted to engage over the upper edge of the bottle neck and support the device in position, one of said arms constituting a handle for the device, the other arm being pointed.

5. A bottle stopper extractor and replacer, comprising a body portion adapted to fit crosswise within the neck of a bottle, upwardly and outwardly extending arms adapted to rest on the upper edge of the neck of the bottle and suspend the said body portion therein, and a spring clip provided on the under side thereof and adapted to clamp the bottle cap or top and suport the same within the neck of the bottle.

1,142,708. ATTACHMENT FOR ELECTRIC FANS. WILLIAM B. HILL, Terre Haute, Ind. Filed Oct. 3, 1914. Serial No. 864,746. (Cl. 40—139.)



1. An advertising attachment for electric fans including a supporting bracket adapted to be attached to the electric fan, and a streamer connected to the bracket member and formed of a series of hingedly connected advertising cards.

2. An advertising attachment for electric fans including a bracket member adapted to be attached to the electric fan, a series of advertising cards, end bars detachably applied to the ends of the advertising cards, and coöperating hinge pintles and hinge eyes upon the bars and bracket members so that the several advertising cards can be hingedly connected to form a streamer and the base of the streamer hingedly connected to the bracket member.

3. An advertising attachment for electric fans including a bracket member adapted to be attached to the fan, a series of advertising cards, end bars applied to the edges of the cards at the ends thereof, means for hingedly connecting the end bars together to assemble the series of advertising cards in a streamer, means for hingedly connecting the streamer to the bracket member, a swinging arm loosely connected to the end bar at the extremity of the streamer, and a fan member journaled upon the swinging arm.

4. An advertising attachment for electric fans including a block, diverging arms projecting from opposite ends of the block, clamp members at the extremities of the diverging arms for detachably engaging the wire cage of the electric fan, a hinge member carried by the block, an advertising streamer, and a complemental hinge member at the base of the advertising streamer for detachably engaging the hinge member of the block.

5. An advertising attachment for electric fans including a block having an opening therethrough, a pair of rods extending through the opening and having the intermediate portions thereof secured within the opening, opposite ends of the rods providing diverging arms, clamp members at the extremities of the diverging arms adapted to detachably engage the wire cage of the electric fan, hinge members projecting from the block, an advertising streamer, and complemental hinge members at the base of the advertising streamer for detachably engaging the before mentioned hinge members of the block.

1,142,709. COMBINED CABLE CLAMP AND BUSHING. CHARLES HORN, Millbourne, Pa., assignor, by mesne assignments, to Harvey Hubbell, Inc., Bridgeport, Conn., a Corporation of Connecticut. Filed Apr. 3, 1914, Serial No. 829,179. Renewed May 1, 1915. Serial No. 25,309. (Cl. 247—1.)

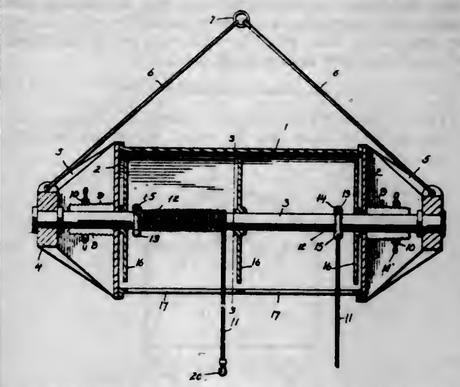


1. In a device of the character described, a clamp and bushing comprising a pair of open bodies adapted for holding cables and webs connecting the terminals of said bodies, one of said webs being provided with a slot extending into said bodies.

2. In a device of the character described, a clamp and bushing comprising open segmental body portions provided with closed end rings and webs connecting said body portions, one of said webs containing a slot.

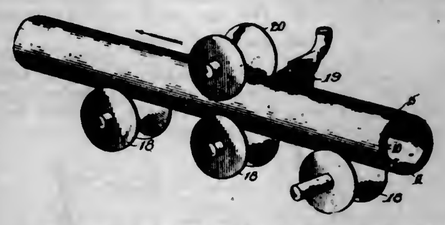
3. In a device of the character described, a clamp and bushing comprising a pair of segmental bodies, webs connecting the extremities of said bodies, said bodies and one of said webs being provided with a slot, and means coöperating with said slot for facilitating the flexing of sections of said bodies.

1,142,710. AUTOMATIC FIRE-ESCAPE. LLOYD T. HUNTER, Dorchester, Mass., assignor of one-half to F. S. Johnson, Campello, Mass. Filed May 1, 1914. Serial No. 835,773. (Cl. 254—154.)



A fire escape including a casing, heads for said casing, arms extending downwardly and laterally from said head, longitudinally split sleeves extending outwardly from said head, a shaft extending through said casing and through the head and split sleeves, means for tightening the split sleeves upon said shaft, and suspending means connected with said arms.

1,142,711. FINISHING METAL JOINTS. JOEL L. ISAACS, New York, N. Y., assignor to Simmons Manufacturing Company, Kenosha, Wis., a Corporation of Wisconsin. Filed June 12, 1909. Serial No. 501,715. (Cl. 113—12.)



1. The herein described method which consists in simultaneously interlocking the edges of sheet metal and an interposed filler strip to form a joint at one side of the structure and a depression at the opposite side of the structure with one edge portion of the filler strip projecting outwardly through the depression, and causing the projecting portion of said filler strip to fill the depression flush with the adjacent side of the structure, substantially as described.

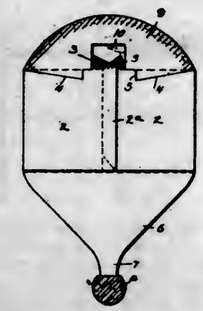
2. The herein described method which consists in simultaneously interlocking the edges of sheet metal and an interposed filler strip to form a joint at one side of the structure and a depression at the opposite side of the structure with one edge portion of the filler strip projecting outwardly through the depression, heating the

projecting portion of said filler strip to soften it and rolling the same while heated to fill the depression flush with the outer surface of the structure, substantially as described.

3. The herein described method which consists in forming a joint of bent edges at one side and a depression at the other side, including a filler strip in the joint and projecting outwardly through the depression, and causing the projecting portion of said strip to fill the depression flush with the adjacent side, substantially as described.

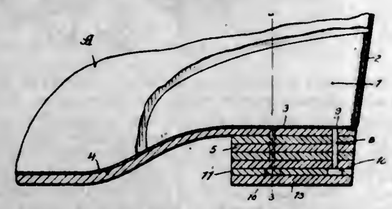
4. The herein described method which consists in interposing a filler strip between the edges of sheet metal, and simultaneously interfolding said edges and the interposed filler strip and locating the interfolded portions at one side of the structure and forming a depression at the opposite side of the structure with one edge portion of the filler strip projecting outwardly through the depression, and causing the projecting portion of said filler strip to fill the depression flush with the adjacent side of the structure, substantially as described.

1,142,712. SAFETY-ENVELOP. FRANK W. JACQUES, Los Angeles, Cal. Filed Oct. 31, 1914. Serial No. 869,619. (Cl. 229—82.)



A safety envelop comprising a body portion, side flaps folded inwardly, said side flaps having upwardly projecting gummed tongues, a lower flap provided with a neck and an enlarged head, and a sealing flap provided with an aperture through which said head is adapted to extend said tongues being sealed to the neck of the lower flap, and said head being gummed and sealed upon the front side of the body of the envelop, and said sealing flap being gummed and connected to the back portion of the side flaps and to the lower flap.

1,142,713. INSTEP AND ANKLE SUPPORT FOR SHOES. SAMUEL EDWARD JOHNSTON, Delta, Colo. Filed Apr. 4, 1913, Serial No. 758,873. Renewed Nov. 3, 1914. Serial No. 870,169. (Cl. 36—68.)



The herein described combined counter and arch support for boots and shoes made from a single piece of sheet metal and comprising a counter portion having an integral sole portion adapted to cover the entire heel of the shoe on the inside thereof, said sole portion being curved to conform to the upper surface of the arch of the shoe, said counter portion extending around the heel and forwardly at the sides to a point some distance beyond the breast of the heel over the arch of the shoe, and an integral tongue terminating at a point substantially coincident with the forward end of the arch of the shoe.

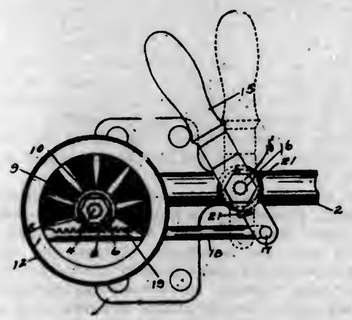
1,142,714. [WITHDRAWN.]

1,142,715. VETERINARY INSTRUMENT. CHARLES J. KORINEK, Medford, Oreg., assignor to Korinek Veterinary Remedy Company, Medford, Oreg. Filed Feb. 4, 1914, Serial No. 816,606. Renewed Jan. 20, 1915. Serial No. 3,376. (Cl. 128—7.)



The improved veterinary instrument comprising a bored handle, a tubular medicine holder applied to said handle, and a plunger formed of a disk head adapted to slide in the medicine holder, and a rod having at one end a flat integral coil to which said head is secured, and at the other end an integral handle loop, as described.

1,142,716. GLASS-CLEANER. JOSEPH KUGEL, Cincinnati, Ohio. Filed July 6, 1914. Serial No. 849,328. (Cl. 141—3.)



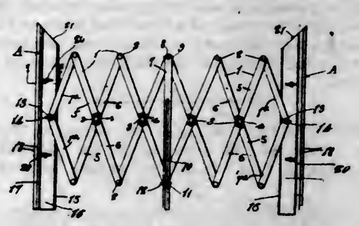
1. In a device for cleaning glasses of the character described, a water pipe, a brush, said brush surrounding said water pipe, a valve in the water pipe and a handle thereon, and actuating connections from the handle to the brush, whereby the turning of the handle operates to open and close the valve and revolve and stop the brush simultaneously to clean the glass.

2. In a device for cleaning glasses of the character described, a water pipe, a brush, a hood, said water pipe and brush extending into said hood, said brush surrounding said water pipe, a valve in the water pipe and a handle thereon, and actuating connections from the handle to the brush whereby the turning of the handle operates to open and close the valve and revolve and stop the brush simultaneously to clean the glass.

3. In a device for cleaning glasses of the character described, a water pipe, said water pipe having an extension at approximately right angles thereto, a sleeve, said sleeve covering said extension, a brush attached to said sleeve, a valve in said water pipe, having a handle and means connecting said handle and sleeve, for opening and closing the valve and revolving and stopping the brush so as to clean the glass.

1,142,717. GAGE AND MEASURE FOR WOODWORKERS. PERCY B. LEATHERS, Oak Lawn, R. I. Filed July 6, 1914. Serial No. 849,320. (Cl. 33—179.)

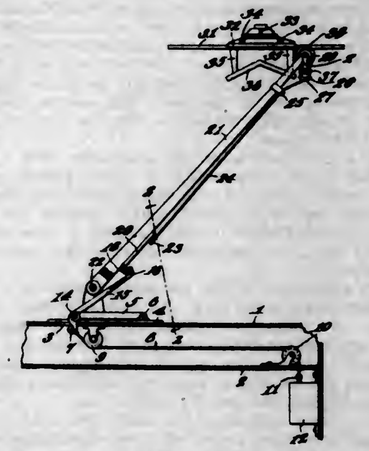
1. A combined gage and measure comprising an extensible frame made up of a series of bars pivotally connected together centrally and at their ends, gage members pivotally connected to the ends of said frame, said gage members being provided with clamping jaws at their outer edges to clamp contour guides, said gage members having beveled ends, and means for holding the extensible frame in adjusted position.



2. A combined gage and measure of the character described comprising an extensible frame, means for holding said frame in adjusted positions, and end gages pivotally connected to said frame, means for holding said gages in various inclined positions relatively to the extensible frame, and jaw members on said gages for holding cardboard or strips of wood cut out to conform to the various contours of side supports.

3. A combined gage and measure comprising an extensible frame, a bar connected centrally to said frame and provided with a slot and adjusting screw for holding the frame in adjusted positions, combined gages and clamps pivotally connected to the ends of said adjusting frame, said clamps, each comprising a single piece of sheet metal bent upon itself and provided with jaw members and beveled ends.

1,142,718. STREET-INDICATOR. FREDRICK C. LUETHY, Stoughton, Wis. Filed June 17, 1914. Serial No. 845,680. (Cl. 246—14.)



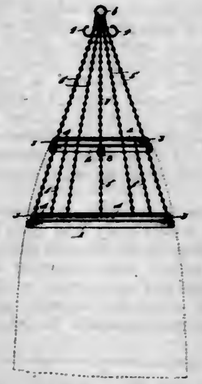
1. In a device of the class described, a supporting structure; a lever fulcrumed at one end upon the supporting structure; an indicator; means for operatively connecting the indicator with the other end of the lever; an arm pivoted to said other end of the lever; a trolley pole mounted on the supporting structure; slidable means on the trolley pole coöperating with the arm; and mechanism for actuating the slidable means.

2. In a device of the class described, a car; direction changing idlers mounted on the car; an indicator on the car; a flexible element engaging adjacent edges of the idlers and operatively connected with the indicator; a lever fulcrumed at one end upon the car and at its other end connected with the flexible element; an arm pivoted to said other end of the lever; a trolley pole mounted on the car; slidable means on the trolley pole and engaged with the arm; and mechanism for actuating the slidable means.

3. In a device of the class described, a supporting structure; a lever fulcrumed at one end upon the supporting structure; an indicator; means for operatively connecting the indicator with the other end of the lever; an arm pivoted to said other end of the lever and provided at its upper end with bifurcations; a connection between the bifurcations; a trolley pole carried by the supporting structure; a slide mounted to reciprocate in the trolley pole and engaged with the connection; and means for actuating the slide.

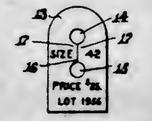
4. In a device of the class described, a car; an indicator thereon; a trolley pole on the car; a relatively fixed auxiliary track arched upwardly intermediate its ends; a yoke pivotally supported by the trolley pole; means for operatively connecting the yoke with the indicator; and means carried by the yoke for engaging the upper edge of the auxiliary track, thereby to effect a tilting of the yoke and to support the upper end of the pole against downward movement.

1,142,719. SKIRT-HANGER. LUCY LYNCH, Chicago, Ill. Filed Aug. 23, 1913. Serial No. 786,250. (Cl. 211—13.)



A skirt hanger comprising two supporting rings, the upper portion of each ring being inwardly offset and provided with an inwardly extending flange; main supporting chains secured to the flange of one ring and extended upwardly therefrom and connected to the flange of the other ring; and supplemental supporting chains secured to the flanges of both rings between said main chains and extended above the upper ring.

1,142,720. SIZE-TAG FOR CLOTHING. WILLIAM J. MCAULEY, Revere, Mass. Filed Jan. 27, 1913. Serial No. 744,575. (Cl. 40—26.)

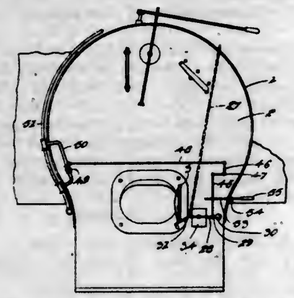


As a new article of manufacture, a tag for clothes hangers, having two openings to receive the hook of the hanger and a pair of resilient wings between said openings formed from the tag material, having their free ends abutting on a line drawn through the centers of said openings, said wings being constructed to engage the hook between the openings.

1,142,721. DRAFT-REGULATOR AND SMOKE-PURIFIER. JOHN A. MCFERRAN and MILTON L. MCFERRAN, Louisville, Ky. Filed Oct. 30, 1914. Serial No. 869,463. (Cl. 110—55.)

1. A draft regulator and smoke eliminator comprising a series of intake pipes, valves in said pipes, said pipes lead-

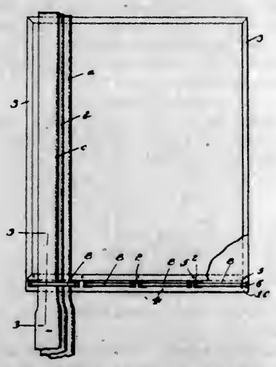
ing into the smoke box and from thence through into the fire-box, and means for discharging the heated air and oxygen over the fire grate, a fire door, and connections between said fire-door and the intake valves to open the latter when the fire-door is opened and a regulator to prevent the valves from being closed immediately when the fire-door is closed.



2. A draft regulator and smoke purifier comprising air inlet pipes, valves in said pipes, a spring actuated rod for controlling said valves, said intake pipes leading through a smoke box, a brick bridge in the fire-box, said pipes discharging through said brick bridge, a fire-door, connections between said fire-door and said spring actuated rod for opening the valves when the door of the fire-box is open, a regulator comprising a clock movement for preventing the intake valves from closing suddenly and a force draft blower for increasing the draft through the smoke stack.

3. A draft regulator and smoke purifier comprising air inlet pipes, valves in said pipes, said pipes leading though a smoke box, a bridge in the fire-box, said pipes discharging through said bridge, a fire-door, and connections between said fire-door and said valves, a clock movement for preventing the valves from closing suddenly, and a force draft blower for increasing the draft through the smoke stack.

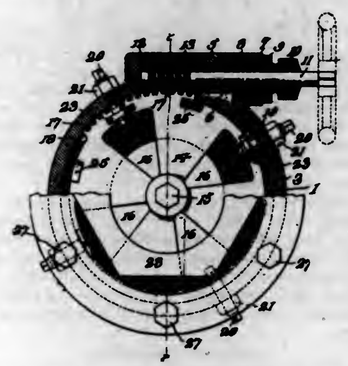
1,142,722. COMBINED NECKTIE HOLDER AND STRETCHER. MINNIE MAY MAY, Evansville, Ind. Filed May 8, 1914. Serial No. 837,280. (Cl. 223—19.)



1. A holder and stretcher for neckties and scarfs comprising a rectangular frame having plane sides, one edge of said frame having a metal binding strip connected thereto, and a plurality of clasps connected to said strip, said clasps each comprising a spring strip of metal extending through an aperture in said binding strip and doubled upon itself, to provide two members one upon each side of the frame to hold the ties in stretched condition, said clasps each having a retaining head designed to engage the terminal end of the companion member, when the head is pressed through an aperture in the strip.

2. A holder and stretcher for scarfs and neckties comprising a flat frame over which the scarfs are stretched, and a series of clasps, each comprising a strip of resilient metal, each strip bent upon itself and passed through an opening in said frame near one end thereof, said clasp being provided with a resilient catch to hold the two members together and to clasp the ties between them, said catch being detachable to permit the ties to be placed in position.

1,142,723. VALVE. WILLIAM E. MERRITT, Portland, Oreg. Filed Oct. 23, 1913, Serial No. 796,048. Renewed Apr. 6, 1915. Serial No. 19,556. (Cl. 137—7.)



1. In a valve mechanism the combination with a valve case and ported valve seat, of a ported rotary valve, means for rotating said valve to bring said ports into register, and rollers interposed between the valve case and valve adapted to hold the latter in close contact with its seat.

2. In a valve mechanism the combination with a valve case and ported valve seat, of a ported rotary valve, means for rotating said valve to bring said ports into register, and rollers carried by the valve case bearing upon the surface of said valve adapted to hold the latter in close contact with its seat.

3. In a valve mechanism the combination with a valve case and ported valve seat, of a correspondingly ported rotary valve, means for rotating said valve to bring said ports into register, rollers interposed between the valve case and valve adapted to hold the latter in close contact with its seat, and means for adjusting the pressure of said rollers.

4. In a valve mechanism the combination with a valve case and ported valve seat, of a correspondingly ported rotary valve, means for rotating said valve to bring said ports into register, rollers interposed between said valve case and valve adapted to hold the latter in close contact with its seat, and an arbor for each roller projecting radially through the sides of the valve case.

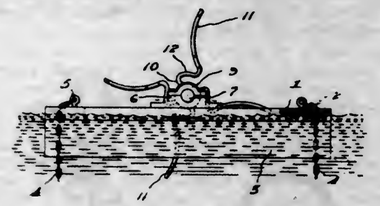
5. In a valve mechanism the combination with a valve case and ported valve seat, of a correspondingly ported valve, means for rotating said valve to bring said ports into register, arbors projecting radially into said valve case, and rollers mounted eccentrically upon said arbors adapted to hold the valve in close contact with its seat.

[Claims 6 and 7 not printed in the Gazette.]

1,142,724. TIDE-MOTOR. HENRY MONROE, Sabetha, Kans. Filed Sept. 12, 1914. Serial No. 861,424. (Cl. 170—102.)

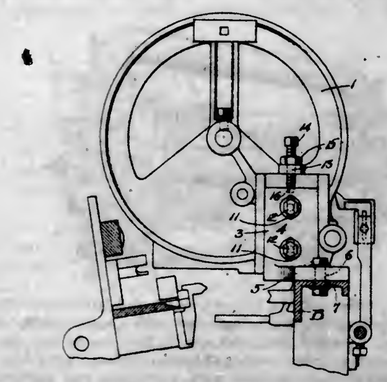
1. A device of the character described comprising a float frame, bearings upon said float frame, a shaft mounted in said bearings and extending transversely of the float frame, a wheel hub mounted on the shaft between said bearings, and blades having their inner ends turned at right angles to the outer ends thereof and reversely curved and secured to the hub.

2. A motor of the class described including a float frame, means for anchoring the float frame in a stream, a shaft mounted upon said float frame, a hub carried by said shaft within said frame, one end of the shaft being extended beyond the frame, a pulley mounted upon the extended end of the shaft, and blades having their inner ends reversely curved and secured to said hub, the outer ends of the blades being spoon shape.



3. A tide motor of the class described including a float frame comprising longitudinal and transverse frame members, a shaft extended transversely of the frame, means for mounting the shaft upon said frame, a hub secured upon said shaft within the frame, and means for anchoring said frame in a stream, said blades extending radially from said hub, the inner ends of said blades being turned and reversely curved and secured by their inner extremities to said hub, the portions of the blades adjacent the secured inner ends thereof being at substantial right angles to the outer working ends of said blades, the working ends of said blades being concavo-convex in cross section.

1,142,725. AUTOMATIC WEFT-REPLENISHING LOOM. JONAS NORTHROP, Hopedale, Mass., assignor to Hopedale Manufacturing Company, Hopedale, Mass., a Corporation of Massachusetts. Filed Oct. 9, 1914. Serial No. 865,850. (Cl. 139—85.)

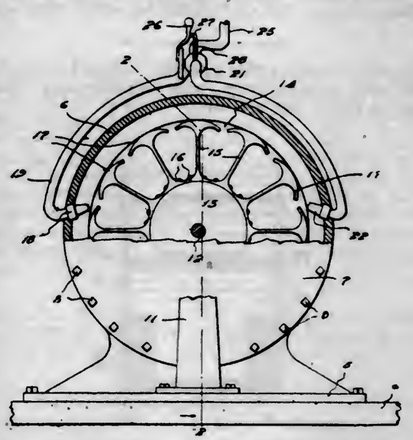


1. A weft replenishing attachment for looms having, in combination, a frame for the attachment having provision for supporting the operative parts of the mechanism and a bracket or foot separate from the attachment frame constructed and arranged for attachment to the frame of a loom said attachment frame and foot having coöperating portions fitting each other and contributing to correct positioning of the parts to each other.

2. A weft replenishing attachment for looms having, in combination, a frame for the attachment having provision for supporting the operative parts of the mechanism, and a bracket or foot separate from the attachment frame constructed and arranged for attachment to the frame of a loom, said attachment frame and bracket having provision by virtue of which the weft replenishing mechanism may be adjusted in position with relation to the operative parts of the loom.

3. A weft replenishing attachment for looms having, in combination, a frame for the attachment having provision for supporting the operative parts of the mechanism, and a bracket or foot constructed and arranged for attachment to the frame of a loom having provision for vertical adjustment of the weft replenishing mechanism on the bracket or foot by which the attachment is supported on the loom.

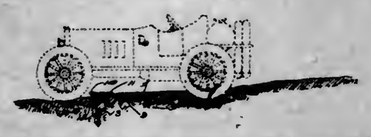
1,142,726. REVERSIBLE ROTARY STEAM-ENGINE. ANDREW PHILLIPS, Conemaugh, Pa. Filed Dec. 8, 1914. Serial No. 876,121. (Cl. 121—56.)



1. A rotary reversible steam engine comprising a casing or cylinder, a shaft rotatably mounted in said cylinder, a rotor secured on said shaft within said cylinder including two sets of radially disposed blades, a partition separating the sets of blades, concavo-convex heads carried by the outer extremities of the blades, pairs of substantially diametrically opposed nozzles secured to the wall of said cylinder and disposed at an angle to a radial plane of said rotor, steam feed pipes connected with said pairs of nozzles, and means for alternately admitting steam to said feed pipes.

2. A rotary reversible steam engine comprising a casing or cylinder, a shaft rotatably mounted in said cylinder, a rotor secured on said shaft within said cylinder including two sets of radially disposed blades, a partition separating the sets of blades, concavo-convex heads carried by the outer extremities of said blades, pairs of substantially diametrically opposed nozzles secured in the wall of said cylinder and disposed at an angle to a radial plane of said rotor, U-shaped pipes connecting the nozzles of the pairs, a pipe connecting the U-shaped pipes intermediate their ends, a three-way valve arranged in the second mentioned pipe, and a steam feed pipe communicating with said three-way valve.

1,142,727. TRACTION DEVICE FOR AUTOMOBILES. PHILIP N. POTTSGROVE, Altoona, Pa. Filed Oct. 9, 1914. Serial No. 865,920. (Cl. 21—114.)

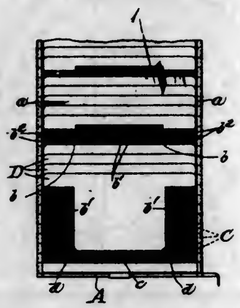


1. A device of the character described comprising a webbing, a hem formed in one end of the web, a chain extending through the hem, said chain being arranged to be attached to a wheel of an automobile, reinforcing members extending throughout the entire length of the web, metal binding strips on the end of the web opposite the

hem, and chains secured to the metal binding strips and arranged to be secured to a stationary object, whereby when the wheel is revolved the device will be wound upon the tire and thereby cause the vehicle to be moved.

2. A device for removing vehicles from ruts including a web, means to secure one end of the web to a vehicle wheel, reinforcing elements extending throughout the entire length of the web, binding strips at the end of the web opposite the securing means, said binding strips being riveted in place and the reinforcing elements passing around the rivets, and means connected to the binding strips to secure the web and hold the same stationary so that when power is applied to the wheel the web will be wound thereupon and thus remove the vehicle from a rut.

1,142,728. CARD-INDEX SYSTEM. JAMES H. RAND, Jr., North Tonawanda, N. Y. Filed June 17, 1914. Serial No. 845,731. (Cl. 129—16.)



1. A card system, comprising a series of upstanding card-holders supported at their lower edges and free at their upper edges, and a series of cards removably held by said card-holders, one in front of another with their upper edges exposed, whereby the absence of any card from its card-holder will be visually indicated by the absence of its upper edge from the series of exposed upper card edges.

2. A card system, comprising a series of upstanding card-holders supported at their lower edges to overlap each other, and with their upper edges free and exposed, and a series of cards removably held by said card-holders, one in front of another with their upper edges exposed, each card-holder being provided near its top with a signal normally concealed behind the exposed edge of its card, whereby the absence of any card from its card-holder will expose its underlying signal.

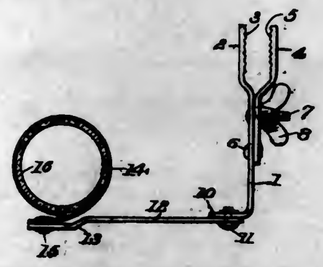
3. A card system comprising a series of upstanding card-holders, supported at their lower edges to overlap each other and with their upper edges free and exposed, and a series of cards removably held by said card-holders one in front of another with their upper edges exposed, whereby the absence of any card from its card-holder will be visually indicated by the absence of its upper edge from the series of exposed upper card edges.

4. A card system, comprising a frame having inwardly facing guide channels, and a series of card-holders each including means to support a removable card in upstanding position, said supporting means being provided with a pair of rigid, laterally extending projections, adjustably mounted in said guide channels, said projections being relatively broad and flat to prevent their turning in said guide channels, whereby said card supporting means and the cards held thereby will be rigidly supported in the frame by said projections in upstanding position.

5. A card system, comprising a frame having inwardly facing guide channels, and a series of card-holders each including means to support a removable card in upstanding position, a bar having relatively broad and flat ends projecting beyond each side of said card supporting means, to which bar said card supporting means is rigidly connected, said flat projecting ends of the bar being adjustably mounted in said guide channels and being adapted to prevent the bar from turning in said guide channels, whereby said card supporting means and the cards held thereby will be rigidly supported in the frame in upstanding position.

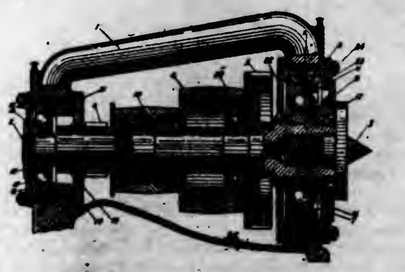
[Claims 6 to 10 not printed in the Gazette.]

1,142,729. NURSING-BOTTLE HOLDER. WILLIAM L. RATHJEN, Portland, Oreg. Filed Aug. 11, 1914. Serial No. 856,264. (Cl. 248—20.)



A nursing bottle holder comprising a clamp for securing the holder upon a suitable support, one of the jaws of said clamp having an extended arm, said arm having an angular portion, a supporting arm pivoted to said angular portion, a split ring clasp pivoted to the free end of said supporting arm, the free end of said clasp extending to a point beyond the pivot thereby securing a nursing bottle in a firm position.

1,142,730. MACHINE-TOOL. ALBERT F. ROCKWELL, Bristol, Conn., assignor to The New Departure Manufacturing Company, Bristol, Conn., a Corporation of Connecticut. Filed Oct. 31, 1912. Serial No. 728,798. (Cl. 82—30.)



1. In a lathe and the like having an anti-friction mounting for its spindle, the combination with a spindle adapted to receive a radial load and antifriction means for supporting said spindle; such antifriction means comprising race members each provided with a raceway and antifriction members between said race members and traveling upon said raceways; of means positioned and arranged with respect to and operatively connected with said race members and said antifriction members for holding the antifriction members, including those members away from which said spindle tends to shift under said load, under pressure upon and in constant contact with said raceways during all times of application of said load, whereby said spindle is antifrictionally mounted and also at all times positively held from shifting under said load; substantially as described.

2. In a lathe and the like, a spindle adapted to receive a radial load, antifriction means supporting said spindle and comprising inner and outer race members and antifriction members therebetween, each race member having its raceway extending in a line generally oblique to the line of said spindle and matching raceways being generally parallel, and means for forcing certain of said race members toward a matching race member to at all times hold all of said antifriction members under pressure between said races; substantially as described.

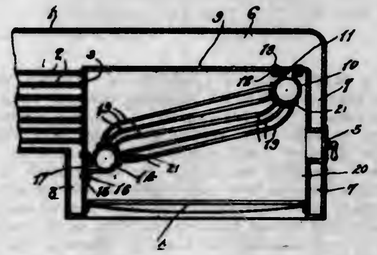
3. In a lathe and the like, a spindle adapted to receive a radial load, a plurality of antifriction bearings supporting said spindle and surrounding the same, two of said bearings comprising each an inner and an outer race member with antifriction members therebetween, the inner members being fixed against sliding along the spindle and having each an oblique raceway extending away from the line of said spindle and away from the other inner member, each outer race member having an oblique raceway extending generally parallel to that of its matching inner race member and one of said outer race members being fixed against sliding along the line of the spindle and the other race member being slidable along said line, means forcing said slidable race member toward its coöperating antifriction members and away from the fixed outer race member for at all times holding all of said antifriction members in intimate contact with respective raceways; substantially as described.

4. In a device of the character indicated, an antifriction bearing comprising an inner and an outer race member with antifriction members therebetween, and a support for the outer race member, there being means between said support and said outer race member for causing the antifriction members to bear equally upon said race members; substantially as described.

5. In a device of the character indicated, an antifriction bearing comprising an inner and an outer race member and antifriction members therebetween, and a support for the outer race member and providing a seat therefor, said outer race member and said seat being formed to insure the equal bearing of said antifriction members upon said race members; substantially as described.

[Claims 6 to 10 not printed in the Gazette.]

1,142,731. BOILER ATTACHMENT FOR LOCOMOTIVE FIRE-BOXES. EMIL C. RUDOLPH, Springville, N. Y. Filed Aug. 13, 1914. Serial No. 856,665. (Cl. 122—68.)



A locomotive boiler having a fire-box, a water jacket surrounding the top, back and front portions of the fire-box, a hollow cylinder connected to the upper wall of the fire-box and communicating with the water jacket above said wall, a hollow cylinder connected to the rear wall of the fire-box and communicating with the water jacket at that point, and a series of tubes extending from one cylinder to the other and communicating therewith, said pipe being inclined from one cylinder to the other.

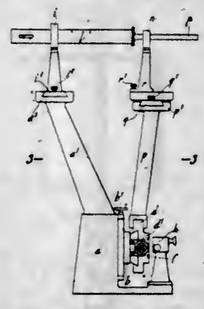
1,142,732. LOCKING DEVICE FOR CIRCUIT-CONTROLLING MEANS. REINHOLD SCHOELL, Stamford, Conn., assignor to The Yale & Towne Manufacturing Company, Stamford, Conn. Filed Aug. 15, 1914. Serial No. 856,954. (Cl. 175—282.)

1. In a device of the character described, the combination of a support, a barrel, a lock mounted therein, clamping means for electric wires secured to said barrel, a contact device in said clamping means, a cam on a movable part of the lock for moving said contact device, a nut on the free end of said barrel for securing the device to the support, means for locking said nut against removal, and means on a movable part of the lock for protecting the locking means for the nut when the contact device has been operated to electrically connect said wires.



2. In a device of the character described, the combination of a support, a barrel, clamping means for electric wires secured to said barrel, a contact device for said wires mounted in the clamping means, a lock located in the barrel, a cam carried by a moving part of the lock for actuating said contact device to connect said electric wires, an annular nut on the barrel for securing the device to the support, a locking pin for said nut mounted in the barrel, a screw in the head of the barrel for moving said locking pin, and a finger on a moving part of the lock for covering said screw when the contact device connects said electric wires.

1,142,733. APPARATUS FOR PLASTICALLY REPRODUCING AN OBJECT. WILLY SELKE, Berlin, Germany. Filed Sept. 28, 1914. Serial No. 863,975. (Cl. 88—1.)

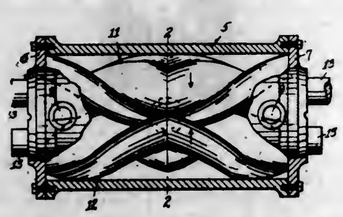


1. In an apparatus for plastically reproducing an object with the aid of two stereoscopic photograms of the said object, lying in one and the same plane, an optical system for observing the said photograms, means adapted to move the said photograms and the said system relatively to one another, for directing the said system on corresponding points of the said photograms, two marks, two objectives adapted each to form an image of one such mark, illuminating means adapted to present each of the said marks to its objective and other means adapted to cause the relative movement of the photograms and the optical system to change the direction of the lines connecting the optical centers of the objectives with their respective marks.

2. In an apparatus for plastically reproducing an object with the aid of two stereoscopic photograms of the said object, lying in one and the same plane, an optical system for observing the said photograms, means adapted to move the said photograms and the said system relatively to one another, for directing the said system on corresponding points of the said photograms, two marks, two objectives adapted each to form an image of one such mark, two carriers, which are rotatable about two relatively adjustable points and are each adapted to carry one such objective and its mark, each objective and its mark being fitted to the corresponding carrier in such a manner that the connecting line between the optical center of the objective and its mark contains the center of rotation of the carrier at all positions of the latter, illuminating

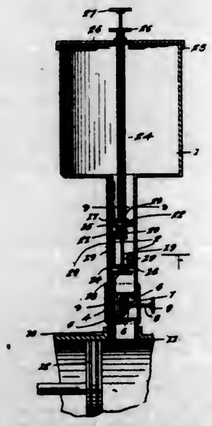
means adapted to present each of the said marks to its objective and other means adapted to cause the relative movement of the photograms and the optical system to change the direction of the said connecting lines.

1,142,734. PUMP. CHARLES W. SIDWELL, Delta, Pa. Filed Apr. 30, 1913. Serial No. 764,616. (Cl. 103—44.)



A pump including a pair of intermeshing pistons, each of which comprises a relatively thin body, said body being extended in the line of a compound curve for one-half of its length in one direction, and for the remainder of its length in the opposite direction to form a pair of opposite spiral ribs, and curved edges formed on the ribs to facilitate the intermeshing of the pistons, the line of curve at the terminal of each rib being parallel with the axis of the body and in the same diametrical plane.

1,142,735. AUTOMATIC LUBRICATOR. CLYDE C. SILLS, Dardanelle, Ark. Filed July 17, 1914. Serial No. 851,591. (Cl. 184—76.)

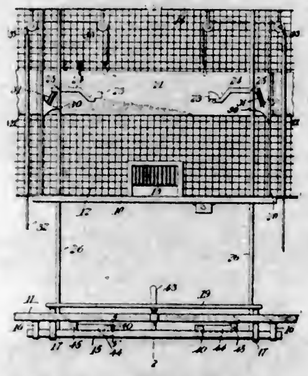


1. A device of the class described comprising an oil reservoir, a feed pipe leading from said reservoir to a member to be lubricated, a pair of transverse partitions positioned in said feed pipe, a stem reciprocally mounted through said oil reservoir and feed pipe, a tube around said stem, a valve on the lower end of said stem and adapted to be engaged with the lower partition, a second valve adjustably mounted on said stem and adapted for engagement with the upper partition upon disengagement of the lower valve from the lower partition, and a jam nut carried by said tube and engaged with said stem.

2. A device of the class described comprising the combination with a compression cylinder and an oil reservoir; of a feed pipe, said feed pipe having an oil chamber formed therein by a pair of spaced transverse partitions, said feed pipe being formed in sections connected intermediate the ends of the oil chamber, a stem slidably and rotatably mounted in said feed pipe and oil reservoir, a tube around said stem, a jam nut carried by the lower end of said tube, said transverse partitions having valve openings formed therein, a pair of valves mounted upon said stem, the lower valve being adapted to be forced against the lower transverse partition to close the valve opening thereof, and means secured to the upper transverse partition and the valve for seating said upper valve and forcing the lower valve away from the lower partition.

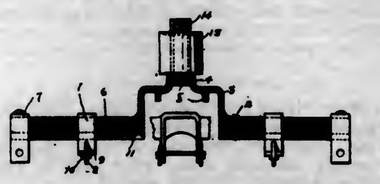
3. A device of the class described comprising an oil reservoir, a compression cylinder, a feed pipe leading from said oil reservoir, a cover for said oil reservoir, a coupling, means for connecting the coupling to the compression cylinder, said oil feed pipe being connected with said coupling, a pair of spaced partitions in said feed pipe, a tube extended through the cover for said oil reservoir and depending into the feed pipe, a stem rotatably mounted in said tube, a pair of valves mounted upon said stem beneath the lower end of the tube and adapted for engagement with the partitions to control the passage of oil through said partitions, the lower valve being adapted to be seated by the pressure from the compression cylinder, a valve mounted in the coupling to cut off communication between the cylinder and the feed pipe, and a jam nut carried by the tube and engaged with the upper valve carried by said stem.

1,142,736. BANK-PROTECTING APPARATUS. FRANK C. SMAKAL, Midas, Nev. Filed June 30, 1914. Serial No. 848,250. (Cl. 39—140.)



In a bank protecting apparatus, a vertically slidable guard plate, a rock shaft rotatably mounted under said guard plate, a tread bar carried by said rock shaft, arms carried by said shaft, vertically disposed bars pivotally secured at their lower extremities to said arms, latch members pivotally secured to the upper ends of said vertically disposed bars, lugs secured to the inner face of said guard plate engaging the adjacent ends of said latch members, and springs connected with the outer extremities of said latch members for normally retaining the latter in horizontal position to support said guard plate in elevated position.

1,142,737. AUTOMOBILE-WHEEL-PULLEY ATTACHMENT. THOMAS M. TORSON, Kansas City, Kans. Filed Feb. 25, 1914. Serial No. 820,918. (Cl. 64—17.)

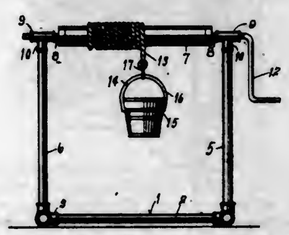


1. A device of the class described including an automobile wheel attachment comprising a cup-shape body portion arranged to fit about the outer hub plate of a wheel, an internal circular flange providing a snug and

secure fitting of the body upon the hub portion of the wheel, an internally screw threaded nipple, a tubular externally screw threaded shaft adapted to be screwed into said nipple, a pulley fixed upon said shaft and operatively arranged to tighten said shaft in said screw threaded nipple upon turning of the wheel.

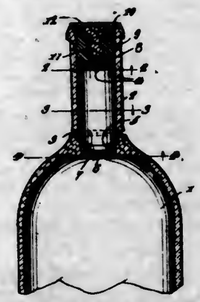
2. An automobile wheel attachment comprising a cup-shape body portion, a screw threaded nipple, an externally screw threaded shaft, a plurality of radial arms formed integral with said body portion, a plurality of clamping members carried by said arms, said arms having their spoke engaging faces concaved and tapering from the cup-shape portion to the outermost clamping member so as to lend rigidity and strength to said arms.

1,142,738. WINDLASS. THOMAS M. TORSON, Kansas City, Kans. Filed Feb. 25, 1914. Serial No. 820,919. (Cl. 254—145.)



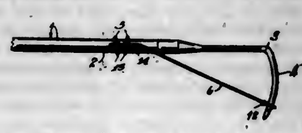
A windlass comprising a supporting base having a pair of spaced tubular uprights thereon, a drum carrying shaft located at the upper end of the uprights, bearings for receiving the opposite ends of the shaft, rods extending from the bearings and adapted to be received by the tubular uprights and having shoulders formed thereon to engage the upper ends of the uprights so as to limit the downward movement of the rods within the uprights, said rods being adapted to provide handholds for the drum carrying shaft when the latter is removed from the uprights . .

1,142,739. NON-REFILLABLE BOTTLE. VELDA E. TOWNSEND, Livingston Manor, N. Y. Filed Sept. 21, 1914. Serial No. 862,759. (Cl. 215—110.)



A bottle including a neck portion, said neck having a weakened portion adjacent its connection therewith, a flange formed on said bottle and projecting into said neck, the upper face of said flange being spaced below said weakened portion, a movable disk arranged in said neck portion, and operating adjacent the inner face of said flange, means extending transversely of said flange for supporting said disk, lugs carried by said flange for limiting the movement of said disk, other lugs carried by said neck above said weakened portion, a second disk seated on said second mentioned lugs, said second mentioned disk engaging the inner face of said neck, a stopper arranged in said neck and seated on said second mentioned disk, a fastening member mounted within said stopper, and a cap carried by said stopper and overlying the upper end of said neck for the purpose specified.

1,142,740. RAKE-CLEANER. CLARENCE C. WARDEN, Reno, Nev. Filed June 27, 1914. Serial No. 847,777. (Cl. 55—146.)



In a rake cleaner, the combination with a rake consisting of a head, teeth on said head and a handle for said head of a pair of resilient arms, a semicircular loop extending at right angles to the arms and joined integral with certain ends thereof, said loop partially surrounding the handle, means to clamp the arms to the rake handle, each of the arms being provided with a right angular extension at its outer end, said right angular extensions forming stripping bars arranged on opposite sides of the teeth, said stripping bars being normally disposed adjacent the free ends of the teeth.

1,142,741. METHOD OF MAKING TURN-SHOES. PEARL J. WENTWORTH, Hyde Park, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Sept. 8, 1914. Serial No. 860,704. (Cl. 12—142.)



1. A method of making turned shoes which comprises lasting the shoe wrong side out upon a last, removing the shoe from the last and turning the shoe with the sole in temper, molding the sole of the shoe to the finished shape, while the sole is in temper, and finally re-lasting the shoe.

2. A method of making turned shoes which comprises making the shoe wrong side out upon a last, removing the shoe from the last and turning the shoe with the sole in temper, inserting a stiffening member and molding the sole to the final shape while the sole is in temper, and finally re-lasting the shoe.

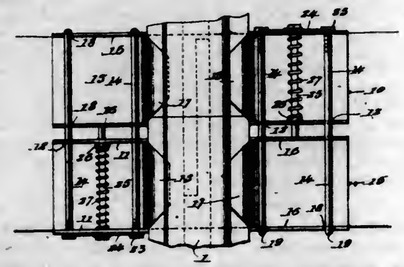
3. A method of making turned shoes which comprises lasting the shoe, turning the shoe while off the last and with the sole in temper, applying pressure to the sole in a manner to stretch it transversely and impart the final curvature while the sole is in temper, and finally re-lasting the shoe.

4. A method of making turned shoes which comprises lasting and sewing the shoe wrong side out upon a last, turning the shoe while off the last and with the sole in temper, molding the sole while still in temper to the desired curvature by a direct pressure applied between the lines of inseam stitches, and finally re-lasting the shoe.

1,142,742. RAIL-FASTENING DEVICE. JOHN J. WINN, Kimball, S. D. Filed Dec. 17, 1913. Serial No. 807,304. (Cl. 238—4.)

1. In a rail fastening device, the combination with the cross tie, of locking plates arranged upon each side of the rail, each plate being notched, the notches in the plates on each side of the rail being alined, lock means maintaining the plates immovable relatively to the tie, said lock means fitting the notches aforesaid, and means forming a part of the several plates and engaging the base flange of the rail to serve as a fastening means.

2. In a rail fastening device, the combination with a cross tie, of a plurality of locking plates arranged upon the tie, said plates being disposed in pairs, one pair of plates upon each side of the rail, the plates of the respective pairs being notched, the notches of the several plates being alined, lock means maintaining each plate immovable relatively to the tie, said lock means fitting the notches aforesaid, and means forming a part of the several plates and engaging the base flange of the rail, as and for the purpose set forth.



3. In a rail fastening device, the combination with a cross tie, of a plurality of adjustable locking plates arranged in pairs upon said tie, one pair of said plates being disposed upon each side of the rail, means formed integrally with each plate adapted for engagement with the said rail, and means including a plurality of locking bolts extending transversely of each pair of plates for locking the same in adjusted position upon the tie, as and for the purpose set forth.

4. In a rail fastening device, the combination with a cross tie, a plurality of longitudinally adjustable locking plates arranged upon the said tie, the said plates being disposed in pairs, one pair upon each side of the rail, locking tongues formed integrally with each plate, said tongues being disposed to overlap the base of the rail, an extension formed integrally with each plate, said extensions adapted to depend upon the sides of the tie, and means including a plurality of locking bolts extending transversely of each pair of locking plates to maintain the said plates in adjusted position and the said plate extensions in engagement with the sides of the tie, as and for the purpose set forth.

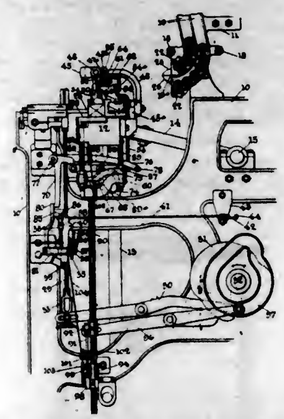
5. In a rail fastening device, the combination with a cross tie, of a plurality of locking plates adjustable longitudinally upon the said tie, the said plates being arranged in pairs, one pair being disposed upon each side of the rail, a locking tongue formed integrally with each locking plate, said tongues being disposed to overlap the base of the rail to fasten the same immovable with respect to the tie, extensions formed integrally with each locking plate, the said extensions being disposed to depend upon the sides of the tie, flanges formed integrally with each locking plate, certain of the said flanges having notches formed therein, and a plurality of locking bolts, the said bolts being disposed to extend transversely of each pair of locking plates, and to fit the said notches to lock the said plates immovable with respect to the tie.

[Claim 6 not printed in the Gazette.]

1,142,743. WEFT-REPLENISHING LOOM. HORACE WYMAN, Worcester, Mass., assignor to Crompton & Knowles Loom Works, Worcester, Mass., a Corporation of Massachusetts. Filed Feb. 5, 1914. Serial No. 816,813. (Cl. 139—85.)

1. A weft replenishing loom having, in combination, a frame, a bobbin magazine mounted on said frame, a lay, a normally empty gripping device mounted on said lay, a weft detector effective to indicate the condition of the weft in the active shuttle and means controlled by said detector for first moving said gripping device into position to remove a bobbin from the magazine and for causing said bobbin to be inserted in the shuttle immediately thereafter.

2. A weft replenishing loom having, in combination, a lay, a gripping device bodily movable with said lay, a magazine mounted on the loom at the rear of the lay, and means to actuate said gripping device to seize a bobbin in said magazine on the rearward movement of the lay and to remove the same from the magazine as the lay moves forward.



3. A weft replenishing loom having, in combination, a frame, a lay, a bobbin magazine mounted on said frame at the rear of the lay, gripping devices mounted on said lay, a weft detector, and means controlled by the weft detector to actuate the gripping devices to seize a bobbin in the magazine on the backward stroke of the lay and to insert said bobbin in the shuttle before the lay again returns to its rearward position.

4. A weft replenishing loom having, in combination, a frame, a bobbin magazine mounted on said frame, a lay, a normally empty gripping device mounted on said lay, a weft detector effective to detect the partial or complete exhaustion of the weft in the shuttle, and mechanism controlled by said weft detector to thereafter actuate said gripping device to remove a bobbin from the magazine and to cause said bobbin to be immediately thereafter inserted in the shuttle.

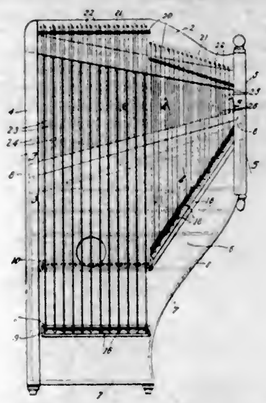
5. A weft replenishing loom having, in combination, a frame, a bobbin magazine mounted on said frame, a lay, a normally empty gripping device mounted on said lay, a weft detector effective to detect the partial or complete exhaustion of the weft while the shuttle is in the magazine end of the loom, mechanism controlled by the weft detector to start the actuation of the gripping device to remove a bobbin from the magazine while the shuttle is at the opposite end of the loom and to cause said bobbin to be inserted in the shuttle when the shuttle returns to the magazine end of the loom.

[Claims 6 to 26 not printed in the Gazette.]

1,142,744. MUSICAL INSTRUMENT. FRANK X. AUDET, Boston, Mass. Filed Apr. 29, 1907. Serial No. 370,754. Renewed Aug. 2, 1912. Serial No. 713,006. (Cl. 84—14.)

1. A musical instrument, having, in combination, a back post, a front post, a bottom piece and a string-supporting head or bar connecting the front and back posts, a sounding box extending upwardly from the bottom piece and terminating below the string supporting head so as to leave a space between the head and the upper end of the box, a brace-bar connecting the front and back posts at the upper edge of the sounding box and strings arranged on opposite sides of the sounding box and crossing in the space between the sounding box and the string supporting head.

2. A musical instrument, having, in combination, a sounding box, a string-supporting-bar separated therefrom by an open space, strings on opposite sides of the sounding box which cross in said open space, means for securing the upper ends of the strings to the string-supporting-bar and means for securing the lower ends of the strings to the opposite walls of the sounding box.



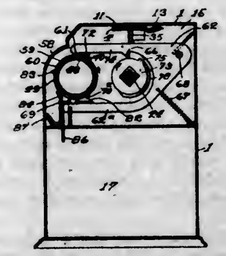
3. A musical instrument, having, in combination, a sounding box, a string-supporting-bar separated therefrom by an open space, strings on opposite sides of the sounding box which cross in said open space, means for supporting the upper ends of the strings on the string-supporting bar, bridges secured to the walls of the sounding box over which the lower ends of the strings pass and means for securing the lower ends of the strings to opposite walls of the sounding box adjacent the bridges.

4. A musical instrument having in combination strings of varying length, a sounding box, a rabbeted brace bar having recesses within which the walls of the sounding box fit, the bottoms of the recesses being cut away to an increasing extent at the part of the box where the shortening of the strings occurs.

5. A musical instrument having, in combination, strings of varying length, a sounding box comprising two oppositely disposed sounding walls, and a brace bar supporting the walls at one end, the brace bar having decreasing supporting surfaces at the portions of the walls where the shortening of the strings occurs, substantially as described.

[Claim 6 not printed in the Gazette.]

1,142,745. COIN-CONTROLLED MECHANISM. GEORGE B. BEALE, Maywood, Ill. Filed Nov. 11, 1912. Serial No. 730,794. (Cl. 235—100.)



1. In a register, the combination of a revoluble part having a power transmitting friction surface, a registering ring revoluble independently of said part, having a friction surface engaging the friction surface aforesaid whereby movement is transmitted from the former to the latter, a detent for normally engaging the registering ring and preventing it from revolving while permitting said revoluble part to revolve relatively to said ring and means for tripping said detent, thereby freeing the registering ring and permitting it to be revolved by movement derived from said revoluble part, said tripping means having means whereby it is controlled by coins of different denominations.

2. In a register, the combination of a revoluble part having a power transmitting friction surface, a registering ring revoluble independently of said part, having a friction surface engaging the friction surface aforesaid whereby movement is transmitted from the former to the latter, a detent for normally engaging the registering ring and preventing it from revolving while permitting said revoluble part to revolve relatively to said ring, and means for tripping said detent, thereby freeing the registering ring and permitting it to be revolved by movement derived from said revoluble part, said tripping means having means whereby its operation is controlled by and made dependent upon the different characteristics of different coins.

3. In a register, the combination of a revoluble part having a power transmitting friction surface, a registering ring surrounding said part and revoluble independently thereof, having a friction surface engaging the friction surface aforesaid whereby movement is transmitted from the former to the latter, a detent normally engaging said registering ring and preventing it from revolving while permitting said part to revolve relatively to the ring, and means for tripping said detent, thereby freeing the registering ring and permitting it to be revolved by the movement derived from said revoluble part.

4. In a register, the combination of a revoluble shaft having a power transmitting friction surface, a registering ring surrounding said shaft and revoluble independently thereof, having a friction surface engaging the friction surface aforesaid whereby movement is transmitted from the shaft to the ring, a detent for normally engaging the registering ring and preventing it from revolving while permitting said shaft to revolve relatively to said ring, and coin controlled means for tripping said detent, thereby freeing the registering ring and permitting it to be revolved by movement derived from said shaft.

5. In a register, the combination of a revoluble shaft, a registering ring surrounding said shaft and having such frictional contact with the peripheral surface thereof that it may partake of the movement of said shaft or be held against movement with said shaft, a detent for normally engaging the ring and preventing it from partaking of the movement of the shaft, means for tripping said detent, thereby freeing the registering ring and permitting it to partake of the movement of the shaft, and means for causing the detent to again engage the registering ring and hold it against movement with the shaft, after the registering ring has advanced through a predetermined interval of its revolution.

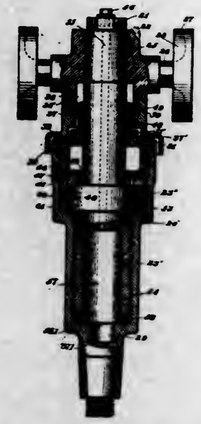
[Claims 6 to 21 not printed in the Gazette.]

1,142,746. LUBRICATING SYSTEM FOR PULVERIZERS. MORRIS BENJAMIN, Atlanta, Ga., assignor to Benjamin Pulverizer Co., New York, N. Y., a Corporation of New York. Filed Feb. 11, 1914. Serial No. 818,144. (Cl. 64—56.)

1. In a machine of the class described, the combination of two coaxial members, one of said members being rotatable about another axis eccentric to its own axis, a swivel bearing connection between said members, one of said members having a cavity therein constituting a lubricant reservoir, said cavity having means connecting the same with the bearing surfaces so as to permit the circulation of the lubricant to and from said bearing connection in a closed circuit through the cavity.

2. In a machine of the class described, the combination of two coaxial members rotatable about another axis eccentric with their own axis, the first of said members telescopically fitting within the second, said first member having a cavity within the end thereof fitting in said second member, bearing surfaces between said members, said cavity constituting a lubricant reservoir, means connecting said cavity and bearings to conduct lubricant to and from said bearing surfaces in a closed circuit through the cavity.

3. In a machine of the class described, the combination of a rotatable cross-head, a rotatable member, means for supporting the rotatable member from the cross-head comprising a two-part shaft having a swivel bearing connection therebetween, one of the parts of the shaft having a cavity therein serving as a lubricant reservoir, and means providing an inlet and an outlet for said lubricant in said cavity to permit the circulation of said lubricant in a closed circuit through said swivel bearing connection.



4. In a machine of the class described, the combination of a pendent member having a cavity near one end and a collar intermediate its ends, said pendent member being rotatable about another axis eccentric to its own axis, a second member telescopically fitting the pendent member, means for rotatively supporting the second member on the first comprising a sleeve having an interior diameter less than the diameter of said collar, anti-friction bearing means between the sleeve and collar, bearing sleeves between the two members, said cavity constituting a lubricant reservoir, said cavity having an outlet and an inlet adapted to establish communication between the cavity, bearing sleeves and anti-friction bearing, and arranged to provide a circulation of the lubricant between the bearing surfaces.

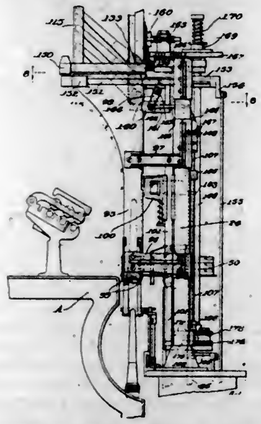
5. The combination with a shaft of a bearing in which said shaft fits, the said shaft and bearing having relative rotary movement and being bodily rotatable about another axis eccentric to their own axes, means for feeding a lubricant through the interior of said shaft to said bearing at one end whereby it will work by centrifugal force along said bearing to the other end and means at said other end to return said lubricant to the interior of said shaft whereby there will be a circulation.

[Claims 6 to 11 not printed in the Gazette.]

1,142,747. DOFFING-MACHINE FOR SPINNING-FRAMES. ARTHUR GEORGE BOOZER, Jr., Greenville, and GEORGE HILL, Tucapau, S. C., assignors to Howard D. Colman, Luther L. Miller, and Harry A. Severson, Copartners trading as Barber-Colman Company, Rockford, Ill. Filed May 31, 1913. Serial No. 770,848. (Cl. 118—13.)

1. The combination with a spinning frame, of doffing mechanism comprising a body portion mounted on said frame to travel and having thereon a bobbin guide along which the bobbins descend by gravity, a bobbin-magazine mounted on the spinning frame independently of said body portion and adapted to contain a plurality of vertical tiers of bobbins with their butts lowermost, means for controlling the discharge of bobbins from one of said tiers into said bobbin guide, and means for moving the magazine with relation to said body portion to position a new tier of bobbins in operative relation to said guide.

2. The combination with a spinning frame, of doffing mechanism comprising a body portion mounted on the spinning frame to travel, and having a guide to direct empty bobbins onto the spindles, a bobbin-magazine mounted on the spinning frame independently of said body portion and also to have a traveling movement with relation to said body portion, said magazine having a plurality of compartments each arranged to contain a vertical tier of bobbins resting sidewise on each other, means permitting the discharge of the bobbins singly and successively into said guide, and mechanism for moving the magazine with relation to said body portion when the last bobbin of a tier has been discharged to position a new tier of bobbins in operative relation to said guide.



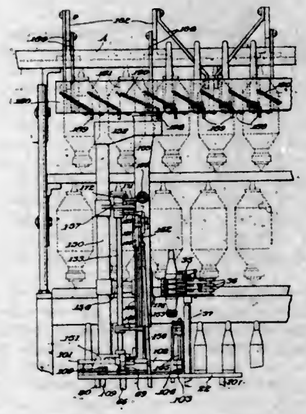
3. The combination with a spinning frame, of doffing mechanism comprising a framework mounted on said frame to travel, a vertical donning tube carried by said framework, a bobbin-magazine mounted on the spinning frame independently of said framework and having a plurality of vertical channels in two opposite sides to receive the opposite ends of bobbins and hold the bobbins sidewise in vertical tiers with one bobbin resting on the other, the upper end of said donning tube being positioned beneath one of said tiers of bobbins, means for controlling the passage of the bobbins from the magazine, and means for bodily moving the magazine with relation to said framework to successively position the tiers above said donning tube.

4. A doffing machine comprising a body having a bobbin guide mounted thereon, a pair of stops arranged to be alternately projected into said guide for controlling the passage of bobbins along the guide, a bobbin-magazine having a plurality of bobbin compartments each containing a tier of bobbins resting one on the other, movable stop means for each compartment normally preventing the escape of the bobbins from the magazine, means mounted on said body portion for moving the magazine with relation to the body portion, whereby to place successive bobbin compartments in the magazine in position to discharge bobbins into said bobbin guide, and means mounted on said body portion for successively operating said stop means to permit a tier of bobbins as a whole to descend in the magazine and into said bobbin guide and rest on said pair of stops.

5. A doffing machine comprising a body portion having a donning tube with an elliptical upper end, a magazine having therein a plurality of vertical bobbin compartments, the length of which is slightly less than the length of the bobbins therein, whereby the bobbins are held in tiers resting one on the other in an inclined position, and means for intermittently moving the magazine with relation to the body portion to successively position single bobbin compartments longitudinally above said elliptical upper end of the donning tube.

[Claims 6 to 32 not printed in the Gazette.]

1,142,748. DOFFING-MACHINE. ARTHUR GEORGE BOOZER, Jr., Greenville, and GEORGE HILL, Tucapau, S. C., assignors to Howard D. Colman, Luther L. Miller, and Harry A. Severson, doing business at Rockford, Ill., as Barber-Colman Company. Filed June 20, 1913. Serial No. 774,742. (Cl. 118—13.)



1. In a doffing machine, the combination of a framework, a drive shaft mounted therein, a main actuating shaft disposed vertically in said framework and operatively connected to said drive shaft, a cam fixed on said actuating shaft, a lever pivoted in said framework and carrying a roller stud engaging said cam, and vertically reciprocating doffing means attached to said lever.

2. In a doffing machine, the combination of a framework, an electric motor mounted therein, a main shaft vertically disposed in said framework and operatively connected to said motor, a cam fixed on said shaft and having a peripheral cam groove, doffing means mounted in said framework for vertical reciprocation, and a lever pivoted at one end in said framework and attached at its other end to said doffing means, said lever having a roller stud running in the groove in said cam.

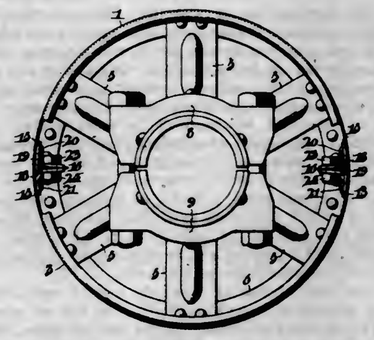
3. In a doffing machine, in combination, a framework mounted to travel, a main actuating shaft vertically disposed in said framework, doffing means and framework-propelling means mounted in the framework and driven from said shaft, a short horizontal driving shaft mounted in the framework near the lower end of said actuating shaft, intermeshing bevel gears on said shafts, a hand wheel loose on the outer end of said horizontal shaft, and rigid with the bevel gear on said shaft, and a hand operable clutch mounted on said horizontal shaft whereby the latter bevel gear may be connected to and disconnected from said horizontal shaft, said hand wheel serving to operate the mechanism of the machine when said clutch is disconnected.

4. In a doffing machine, the combination of a framework mounted to travel, a main actuating shaft vertically disposed in said framework, doffing means and framework-propelling means mounted in the framework and driven from said shaft, a short horizontal driving shaft mounted in said framework near the lower end of said actuating shaft, intermeshing bevel gears on said shafts, a hand wheel fixed to the gear on said horizontal shaft for rotating the parts, and a clutch arranged to connect said horizontal shaft to the gear thereon.

5. The combination with a spinning frame, of bobbin-placing mechanism arranged to travel horizontally along said frame, a magazine for empty bobbins mounted above and independently of said bobbin-placing mechanism, said magazine extending substantially along the entire length of the spinning frame and having a series of independent vertical pockets each adapted to receive a bobbin, and means for successively effecting the withdrawal of bobbins from the magazine for presentation to said bobbin-placing mechanism.

[Claims 6 to 31 not printed in the Gazette.]

1,142,749. RIM-CLAMP FOR PULLEYS. RUSSELL H. BOWEN, Philadelphia, Pa., assignor to The American Pulley Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Feb. 21, 1914. Serial No. 820,138. (Cl. 64—18.)



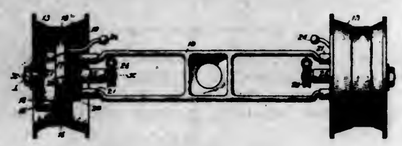
1. The combination with a split pulley, of a rim-clamp, comprising two similar parts, each of which contains a base plate adapted to be secured to the pulley rim; an upright extending inwardly from said base plate; lateral projections arranged at the respective sides of said upright and extended circumferentially across the line of meeting edges of the pulley halves, one of said projections lying in the general plane of the base plate, the other of said projections lying in a general plane substantially parallel thereto, but raised inwardly to an extent substantially equal to the thickness of the opposite projection.

2. The combination with a split pulley, of a rim-clamp comprising two similar parts, each of which contains a base plate adapted to be secured to the pulley rim, an upright extending inwardly from the base plate, said uprights being adapted to be placed face to face, and clamping means for securing said uprights together, each base plate having lateral projections arranged at the respective sides of said upright and extending circumferentially across the line of the meeting edges of the pulley halves, one of said projections lying in the general plane of the base plate and adapted to extend under the opposed projection on the other base plate, said opposed projection being raised inwardly to an extent substantially equal to the thickness of the opposite projection, the other projection on said first named base plate being raised inwardly to an extent substantially equal to the thickness of the opposite projection and projecting over the same, said opposite projection lying in the general plane of the base plate, whereby said parts of the rim clamp are interchangeable securing the halves of the pulley together and preventing radial displacement of one rim section relative to the other.

1,142,750. UNIVERSAL SHAFT-COUPLING. MONS C. CHRISTENSEN, Chicago, Ill. Filed Mar. 30, 1914. Serial No. 828,327. (Cl. 21—90.)

1. The combination of a vehicle axle, a vertically arranged cylindrical casing secured on an end of said axle and having top and bottom heads and an open vertical wall, a driving shaft journaled in said casing and carrying one member of a universal coupling, a wheel hub having a central cavity receiving the vertical casing aforesaid, an outer end web carrying the other member of the universal coupling and an annular chamber mid-length of the hub, an annular ring having bearing in said annular chamber, a series of radial trunnions extending inwardly from said annular ring and having bearing in the cylin-

drical casing aforesaid, and a steering arm fixedly secured to one of said trunnions, substantially as set forth.



2. The combination of a vehicle axle, a vertically arranged cylindrical casing secured on an end of said axle and having top and bottom heads and an open vertical wall, a driving shaft journaled in said casing and carrying one member of a universal coupling, a wheel hub having a central cavity receiving the vertical casing aforesaid, an outer end web carrying the other member of the universal coupling and an annular chamber mid-length of the hub, an annular ring disposed in said annular chamber, the opposed faces of the ring and the chamber being formed with ball races, a series of balls in said races, a series of radial trunnions extending inwardly from said annular ring and having bearing in the cylindrical casing aforesaid, and a steering arm fixedly secured to one of said trunnions, substantially as set forth.

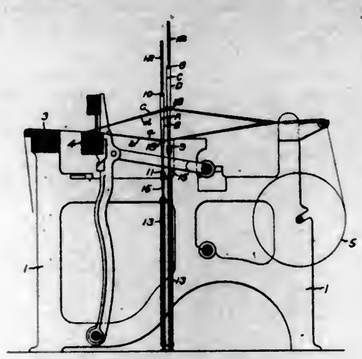
3. The combination of a vehicle axle, a vertically arranged cylindrical casing secured on an end of said axle and having top and bottom heads and an open vertical wall, a driving shaft journaled in said casing and carrying one member of a universal coupling, a wheel hub having a central cavity receiving the vertical casing aforesaid, an outer end web carrying the other member of the universal coupling and an annular chamber mid-length of the hub, an annular ring having bearing in said annular chamber, a semi-cylindrical casing fitting the exterior of said cylindrical casing and attached to the wheel hub, a series of radial trunnions extending inwardly from the aforesaid annular ring through the semi-cylindrical casing and having bearings in the cylindrical casing, and a steering arm fixedly secured to one of said trunnions, substantially as set forth.

4. The combination of a vehicle axle, a vertically arranged cylindrical casing secured on an end of said axle and having top and bottom heads and an open vertical wall, a driving shaft journaled in said casing and carrying one member of a universal coupling, a wheel hub having a central cavity receiving the vertical casing aforesaid, an outer end web carrying the other member of the universal coupling and an annular chamber mid-length of the hub, an annular ring disposed in said annular chamber, the opposite faces of the ring and the chamber being formed with ball-races, a series of balls in said races, a semi-cylindrical casing fitting the exterior of said cylindrical casing and attached to the wheel hub, a series of radial trunnions extending inwardly from the aforesaid annular ring through the semi-cylindrical casing and having bearings in the cylindrical casing, and a steering arm fixedly secured to one of said trunnions, substantially as set forth.

1,142,751. STOPPING MECHANISM FOR TEXTILE APPARATUS. RANDOLPH CROMPTON, Worcester, Mass. Filed July 19, 1913. Serial No. 779,972. (Cl. 139—91.)

1. Loom stopping mechanism comprising in combination, a heddle frame having upper and lower cross members, a series of double heddle devices of loop form supported upon said cross members for movement thereabout, a member exterior to said frame and adapted to be moved by that one of said heddle devices pertaining to a faulty warp end, shipper mechanism and connections from said member thereto.

2. Loom stopping mechanism comprising in combination, a heddle frame having upper and lower cross members, a series of double heddle devices of loop form supported upon said cross members for movement thereabout, a member exterior to said frame and normally at rest during the operation of the loom, but adapted to be moved by that one of said heddle devices pertaining to a faulty warp end, shipper mechanism and connections from said member thereto.



3. Loom stopping mechanism comprising in combination, a heddle frame having upper and lower cross members, a series of double heddle devices of loop form supported upon said cross members for movement thereabout, a transverse bar, extensions from said heddle devices to embrace said bar, thereby to move the latter in the event of thread fault, an electric circuit closed by the moving of said bar, and shipper mechanism operatively actuated by the closing of said circuit.

4. Loom stopping mechanism comprising in combination a heddle frame having upper and lower cross members, a series of double heddle devices of loop form supported upon said cross members for movement thereabout, a stop device, extensions from said heddle devices to said stop device, thereby to move the latter in the event of thread fault, shipper mechanism and connections from said shipper mechanism to said stop device.

5. Loom stopping mechanism comprising in combination, a heddle frame having upper and lower cross members, a series of double heddle devices of loop form supported upon said cross members for movement thereabout, a stop member, extensions from each of said devices to engage said stop member, and to displace the same in the event of warp fault, and shipper mechanism operatively connected to said member.

[Claims 6 to 83 not printed in the Gazette.]

1,142,752. STOPPING INSTRUMENTALITY AND MECHANISM FOR TEXTILE APPARATUS. RANDOLPH CROMPTON, Chatham, Mass. Filed Oct. 20, 1913. Serial No. 796,157. (Cl. 139—91.)



1. In a loom stopping instrumentality, a duplex heddle device of a single piece of material having two warp end receiving eyes or formations, two substantially equal length loops extending upward therefrom, a loop extending downward therefrom, a stopping instrumentality and a flexible connection from one at least of said eyes and attached to said stopping instrumentality.

2. In a loom stopping instrumentality, a duplex heddle device of a single piece of material having two warp end receiving eyes or formations, a loop extending upwardly therefrom, a loop extending downwardly therefrom, a stopping instrumentality, and a flexible connection from one at least of said eyes and attached to said stopping instrumentality.

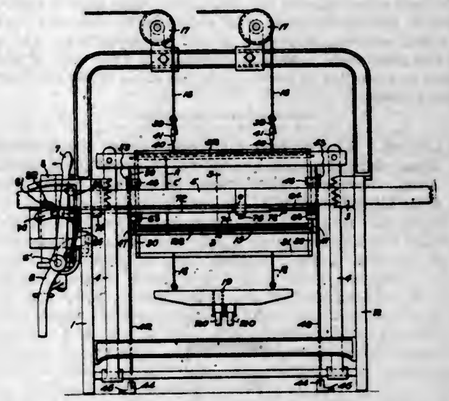
3. In a loom stopping instrumentality, a duplex heddle device of a single piece of material having two warp end receiving eyes or formations, two substantially equal length loops extending upwardly therefrom and two unequal length loops extending downwardly therefrom.

4. In a loom stopping instrumentality, a duplex heddle device of a single piece of material having two warp end receiving eyes or formations, said eyes being connected by four loops, two of which extend upwardly and are of substantially equal length and the other two of which extend downwardly and are of unequal length.

5. In a loom stopping instrumentality, a duplex heddle device having two warp end receiving eyes or formations, two substantially equal length loops extending upwardly therefrom and two unequal length loops extending downwardly therefrom.

[Claims 6 to 25 not printed in the Gazette.]

1,142,753. STOPPING MECHANISM FOR TEXTILE APPARATUS. RANDOLPH CROMPTON, Chatham, Mass. Filed Nov. 29, 1913. Serial No. 803,678. (Cl. 139—92.)



1. Loom stopping mechanism comprising in combination, a heddle frame having duplex heddles with connected eyes for the reception of warp threads, means to limit and depress said heddle frame, a shipper mechanism, and means solely mechanical between said shipper mechanism and said heddles to stop the loom upon the shifting in position of said heddle eyes, caused by breakage of a warp end.

2. Loom stopping mechanism comprising in combination, a heddle frame having duplex heddles with connected eyes for the reception of warp ends, means to lift and depress said frame, a shipper mechanism, and means solely mechanical between said shipper mechanism and said heddles to stop the loom upon the shifting in position of said heddle eyes caused by breakage of a warp end.

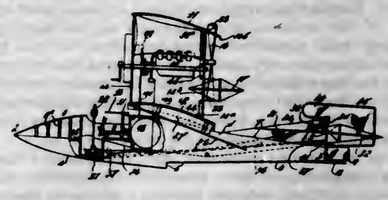
3. Loom stopping mechanism comprising in combination, a heddle frame, a series of heddles having openings for the reception of warp ends and arranged in pairs, the members of each pair being operatively connected for conjoint movement in stopping the loom, a shipper mechanism and stop motion connections solely mechanical between said heddles and said shipper mechanism, thereby to operate the latter upon the shifting of any of said pairs of heddles when the frame is in its operative position.

4. Loom stopping mechanism comprising in combination, a heddle frame having a series of heddles provided with eyes for the reception of warp ends, said heddles being arranged in sets, and the members of each set being operatively connected for conjoint movement in stopping the loom, a balanced stop device, shipper mechanism, and connections between said stop device and shipper mechanism to operate the latter upon displacement of said balanced stop device owing to warp fault.

5. Loom stopping mechanism comprising in combination, a heddle frame having a series of heddles provided with warp end receiving eyes, a balanced stop device supported by said heddles, shipper mechanism and mechanical connections between said stop device and shipper mechanism to operate the latter upon the occurrence of warp fault.

[Claims 6 to 61 not printed in the Gazette.]

1,142,754. FLYING-BOAT. GLENN H. CURTISS, Hammondsport, N. Y. Original application filed Sept. 6, 1912, Serial No. 718,840. Divided and this application filed June 4, 1913. Serial No. 771,646. (Cl. 244—2.)



1. In a hydro-aero machine, the combination of one or more air plane supporting surfaces extending transversely of the machine in lifting relation thereto, rigid floating means for supporting the machine on the water including a forward buoyant portion having a hydroplane surface commencing at a point well in advance of the center of gravity of the machine and extending downwardly and rearwardly terminating in a rearwardly facing step in the vicinity of a vertical line through the center of gravity of the machine, and a rear buoyant portion extending well to the rear of the center of gravity of the machine and constituting a tail portion decidedly lighter per unit of length and of a decidedly less displacement per unit of length when the machine is at rest on the water, than the forward buoyant portion, said rear portion having a bottom surface commencing at the rear of the step and higher than the bottom of said forward hydroplaning surface, whereby the machine may rock about the step and plane on the water at speed with its tail portion decidedly raised above its normal displacement to readily break from the water, the machine when at rest being supported on both bottom surfaces of said forward and rear buoyant portions to give longitudinal stability, and means for driving the machine at such speed as to cause it to rise from the water.

2. In a hydro-aero-machine, the combination of a main air plane supporting surface extending transversely of the machine in lifting relation thereto, floating means for supporting the machine on the water including a forward buoyant portion having a bottom surface commencing at a point well in advance of the center of gravity of the machine and inclining downwardly and rearwardly and thence rearwardly and more horizontally and in the form of an effective hydroplane surface terminating in a rearwardly facing step intermediate the forward and rear edges of said main air plane surface, and a rear buoyant portion extending well aft of the rear edge of said main air plane surface to increase longitudinal stability on the water, and having a bottom surface higher than the bottom of the buoyant portion in advance thereof and free of head resistant surfaces extending down to said hydro-

plane surface as would prevent the rocking of the machine about said step to facilitate breaking from the water, and means for driving the machine at such speed as to cause it to rise from the water.

3. In a hydro-aero-machine, the combination of one or more air plane supporting surfaces extending transversely of the machine in lifting relation thereto, floating means for supporting the machine on the water including a forward buoyant portion having a hydroplane surface commencing at a point well in advance of the center of gravity of the machine and extending downwardly and rearwardly terminating in a rearward facing step in the vicinity of a vertical line through the center of gravity of the machine, and a rear buoyant portion extending well to the rear of the center of gravity of the machine and constituting a tail portion decidedly lighter per unit of length and when the machine is at rest on the water, of decidedly less displacement per unit of length than the forward buoyant portion, said rear portion having a bottom surface commencing at the rear of the step and higher than the bottom of said forward hydroplaning surface, and free of surfaces that would prevent the machine rocking substantially about the step, the machine when at rest being supported on both bottom surfaces of said forward and rear buoyant portions to give longitudinal stability, the bow of the buoyant forward portion being free from aerial balancing and aerial propelling means, longitudinal aerial stabilizing means located at the rear of the machine, means for driving the machine including aerial propelling means carried to the rear of the main supporting air plane, and aviator's control mechanism for the stabilizing and propelling means located forward of the aerial propeller, whereby said stabilizing and propelling means are protected and the forward view of the aviator unobstructed by the same.

4. In a hydro-aero-machine, the combination of an air plane supporting surface extending transversely of the machine in lifting relation thereto, a relatively long rigid centrally floating body boat for supporting the machine on the water including forward and rear buoyant portions normally floating the machine on the water to increase longitudinal stability, the bottom of the forward portion being fairly broad and inclining downwardly and rearwardly at a relatively sharp angle to provide a gliding bottom at the bow giving substantial resistance to the boat's diving, and thence extending rearwardly more horizontally in the form of an effective hydroplane surface. said boat bottom having a rearwardly facing step approximately beneath the center of gravity of the machine, and the rear buoyant portion having its bottom surface commencing at the rear of said step and higher than the edge of the step and inclining upwardly and rearwardly so that the machine is adapted to more readily rise from the water, aerial stabilizing and steering means and means including an aerial propeller for driving a machine at such speed as to cause it to rise from the water.

5. In a hydro-aero-machine, the combination of an air plane supporting surface extending transversely of the machine in lifting relation thereto, a relatively long rigid centrally floating body boat for supporting the machine on the water including forward and rear buoyant portions normally floating the machine on the water to increase longitudinal stability, said forward portion having a fairly broad bottom extending downwardly and rearwardly beneath the bow to provide a gliding surface providing substantial resistance to the boat's diving and thence extending rearwardly more horizontally said bottom being in the form of an effective hydroplane with a rearwardly facing step in the vicinity of a vertical line passing through the center of gravity of the machine, the rear buoyant portion of the boat having its bottom surface commencing at the step and higher than the edge of the step and having no substantial length of surface as low as the forward hydroplane surface whereby the machine may readily rise from the water, aerial balancing and steering means and means including an aerial propeller for driving the machine at such speed as to cause it to rise from the water.

[Claims 6 to 28 not printed in the Gazette.]

1,142,755. SEPARATING-PRISM SYSTEM. OTTO EPPENSTEIN, Jena, Germany, assignor to the Firm of Carl Zeiss, Jena, Germany. Filed May 22, 1913. Serial No. 769,277. (Cl. 88—1.)

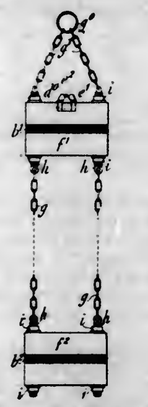


1. In a separating prism system two glass bodies, one of which is a thin layer, which bodies are in contact with one another with corresponding surfaces without being cemented together, one of the said bodies being recessed on its contact-surface, which recessing is adapted to cause total reflection in the other body at the corresponding part of its contact-surface, and a third glass body, which is attached to that side of the thin layer, which is remote from the other of the said two glass bodies.

2. In a separating prism system two glass bodies, one of which is a thin layer, which bodies are in contact with one another with corresponding surfaces without being cemented together, the said thin layer being recessed on its contact-surface, which recessing is adapted to cause total reflection in the other body at the corresponding part of its contact-surface, and a third glass body, which is attached to that side of the thin layer, which is remote from the other of the said two glass bodies.

3. In a separating prism system two glass bodies, one of which is a thin layer, which bodies are in contact with one another with corresponding surfaces without being cemented together, the said thin plate being recessed on its contact-surface, which recessing is carried right through the said plate, thereby dividing it into more than one part, and is adapted to cause total reflection in the other body at the corresponding part of its contact-surface, and a third glass body, which is attached to that side of the thin layer, which is remote from the other of the said two glass bodies.

1,142,756. ADJUSTING DEVICE. OTTO EPPENSTEIN, Jena, Germany, assignor to the Firm of Carl Zeiss, Jena, Germany. Filed Nov. 25, 1913. Serial No. 802,944. (Cl. 88—1.)



1. Adjusting device comprising two marks, a carrier for each of the said marks, connecting means between the said carriers and suspending means for the adjusting device, fitted near one of the marks.

2. Adjusting device comprising two marks, a carrier for each of the said marks, non-frigid connecting means between the said carriers and suspending means for the adjusting device, fitted near one of the marks.

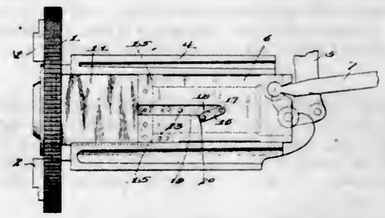
3. Adjusting device comprising two marks, a carrier for each of the said marks, means capable of resisting tension only, connecting the said carriers and suspending means for the adjusting device, fitted near one of the marks.

4. Adjusting device comprising two marks, a carrier for each of the said marks, means capable of resisting tension only consisting of a plurality of members connecting the said carriers and suspending means for the adjusting device, fitted near one of the marks.

5. Adjusting device comprising two marks, a carrier for each of the said marks, connecting means between the said carriers, adapted to alter the distance apart of the said carriers and suspending means for the adjusting device, fitted near one of the marks.

[Claim 6 not printed in the Gazette.]

1,142,757. EJECTOR MECHANISM FOR LINE-CASTING MACHINES. THOMAS S. HOMANS, Hempstead, N. Y., assignor to International Typesetting Machine Company, New York, N. Y., a Corporation of New York. Filed Dec. 26, 1912. Serial No. 738,681. (Cl. 199—13.)



1. In a line casting machine, the combination of a mold, an ejector slide, and a holder for ejector blades slidably mounted in the ejector slide and detachably connected thereto.

2. In a line casting machine, the combination of a mold, and slug-ejecting mechanism therefor embodying an ejector slide movable toward and from the mold, an ejector blade holder, and means detachably connecting said holder to the ejector slide and for shifting the holder at will relatively to the slide.

3. In a line casting machine, the combination of a mold, an ejector blade corresponding in size to that of the mold cavity, a power-operated slide, and an ejector blade holder detachably fastened to and movably mounted in said slide and to which the ejector blade is fastened.

4. In a line casting machine, the combination of a single blade for ejecting slugs from the mold and corresponding in size to that of the mold cavity, a power operated ejector slide, and an intermediate holder to connect the blade to the slide, said holder being movable longitudinally in relation to the slide at will.

5. In a line casting machine, the combination of a mold, and slug-ejecting means therefor embodying an ejector slide, a holder having means for connecting and disconnecting it at will relatively to said slide, an ejector blade capable of being connected and disconnected relatively to said holder when the latter is disconnected from the slide, and means for maintaining the blade and holder in connected relation when the holder is connected to the slide.

[Claims 6 to 9 not printed in the Gazette.]

1,142,758. MATRIX-MAGAZINE FOR TYPOGRAPHICAL MACHINES. THOMAS S. HOMANS, Hempstead, N. Y., assignor to International Typesetting Machine Company, New York, N. Y., a Corporation of New York. Filed Feb. 19, 1914. Serial No. 819,754. (Cl. 199—7.)

1. A matrix magazine composed of opposite plates having normally continuous matrix-guiding channels, the entrance ends of which plates are relatively movable to break the continuity thereof and thereby prevent the escape of matrices.

2. A matrix magazine composed of opposite plates having portions provided with matrix-guiding channels, said plates having relatively movable parts provided with channel entrances continuous with said channels when in one position, said parts being movable into positions to break the continuity of said channels and thereby prevent escape of matrices from the magazine when the latter is partially or completely inverted.

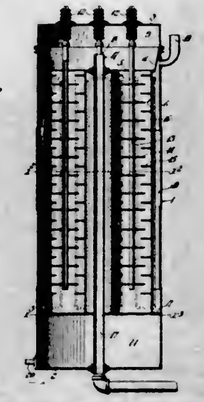


3. A matrix magazine having a pair of opposed plates formed with straight matrix-guiding grooves, and one or more relatively movable plates formed with flared or widened grooves and adapted to form continuations of or interruptions to said straight grooves.

4. A matrix magazine having relatively fixed plates formed with straight matrix-guiding grooves and having a pair of pivoted plates formed with flared entrances for said grooves and movable toward and from one another to form continuations of or interruptions to said grooves.

5. A matrix magazine having opposite grooves for guiding the projecting lugs or ears of the martices, the upper or entrance ends of said grooves being tapered outwardly and formed in separate portions movably mounted on said magazine.

1,142,759. TREATER FOR PETROLEUM EMULSIONS. ROBERT E. LAIRD and JOSEPH H. RANEY, Taft, Cal., assignors, by direct and mesne assignments, to Raney-Laird Petroleum Dehydrating Company, Los Angeles, Cal., a Corporation of California. Filed July 22, 1914. Serial No. 852,482. (Cl. 204—24.)



1. A treater for emulsions of petroleum oil and water comprising a shell, a pan dividing the shell into two compartments, hollow outer electrodes fixed in said pan providing an open communication between the compartments, and an inner electrode in each outer electrode.

2. A treater for emulsions of petroleum oil and water comprising a shell, a pan dividing the shell into two compartments, hollow outer electrodes fixed in said pan providing an open communication between the compartments, a series of projections projecting inwardly from

plane surface as would prevent the rocking of the machine about said step to facilitate breaking from the water, and means for driving the machine at such speed as to cause it to rise from the water.

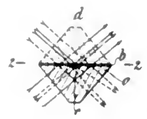
3. In a hydro-aero-machine, the combination of one or more air plane supporting surfaces extending transversely of the machine in lifting relation thereto, floating means for supporting the machine on the water including a forward buoyant portion having a hydroplane surface commencing at a point well in advance of the center of gravity of the machine and extending downwardly and rearwardly terminating in a rearward facing step in the vicinity of a vertical line through the center of gravity of the machine, and a rear buoyant portion extending well to the rear of the center of gravity of the machine and constituting a tail portion decidedly lighter per unit of length and when the machine is at rest on the water, of decidedly less displacement per unit of length than the forward buoyant portion, said rear portion having a bottom surface commencing at the rear of the step and higher than the bottom of said forward hydroplaning surface, and free of surfaces that would prevent the machine rocking substantially about the step, the machine when at rest being supported on both bottom surfaces of said forward and rear buoyant portions to give longitudinal stability, the bow of the buoyant forward portion being free from aerial balancing and aerial propelling means, longitudinal aerial stabilizing means located at the rear of the machine, means for driving the machine including aerial propelling means carried to the rear of the main supporting air plane, and aviator's control mechanism for the stabilizing and propelling means located forward of the aerial propeller, whereby said stabilizing and propelling means are protected and the forward view of the aviator unobstructed by the same.

4. In a hydro-aero-machine, the combination of an air plane supporting surface extending transversely of the machine in lifting relation thereto, a relatively long rigid centrally floating body boat for supporting the machine on the water including forward and rear buoyant portions normally floating the machine on the water to increase longitudinal stability, the bottom of the forward portion being fairly broad and inclining downwardly and rearwardly at a relatively sharp angle to provide a gliding bottom at the bow giving substantial resistance to the boat's diving, and thence extending rearwardly more horizontally in the form of an effective hydroplane surface. said boat bottom having a rearwardly facing step approximately beneath the center of gravity of the machine, and the rear buoyant portion having its bottom surface commencing at the rear of said step and higher than the edge of the step and inclining upwardly and rearwardly so that the machine is adapted to more readily rise from the water, aerial stabilizing and steering means and means including an aerial propeller for driving a machine at such speed as to cause it to rise from the water.

5. In a hydro-aero-machine, the combination of an air plane supporting surface extending transversely of the machine in lifting relation thereto, a relatively long rigid centrally floating body boat for supporting the machine on the water including forward and rear buoyant portions normally floating the machine on the water to increase longitudinal stability, said forward portion having a fairly broad bottom extending downwardly and rearwardly beneath the bow to provide a gliding surface providing substantial resistance to the boat's diving and thence extending rearwardly more horizontally said bottom being in the form of an effective hydroplane with a rearwardly facing step in the vicinity of a vertical line passing through the center of gravity of the machine, the rear buoyant portion of the boat having its bottom surface commencing at the step and higher than the edge of the step and having no substantial length of surface as low as the forward hydroplane surface whereby the machine may readily rise from the water, aerial balancing and steering means and means including an aerial propeller for driving the machine at such speed as to cause it to rise from the water.

[Claims 6 to 28 not printed in the Gazette.]

1,142,755. SEPARATING-PRISM SYSTEM. OTTO EPPENSTEIN, Jena, Germany, assignor to the Firm of Carl Zeiss, Jena, Germany. Filed May 22, 1913. Serial No. 769,277. (Cl. 88—1.)

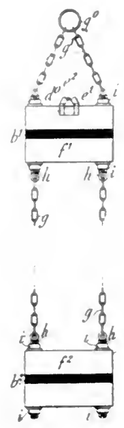


1. In a separating prism system two glass bodies, one of which is a thin layer, which bodies are in contact with one another with corresponding surfaces without being cemented together, one of the said bodies being recessed on its contact-surface, which recessing is adapted to cause total reflection in the other body at the corresponding part of its contact-surface, and a third glass body, which is attached to that side of the thin layer, which is remote from the other of the said two glass bodies.

2. In a separating prism system two glass bodies, one of which is a thin layer, which bodies are in contact with one another with corresponding surfaces without being cemented together, the said thin layer being recessed on its contact-surface, which recessing is adapted to cause total reflection in the other body at the corresponding part of its contact-surface, and a third glass body, which is attached to that side of the thin layer, which is remote from the other of the said two glass bodies.

3. In a separating prism system two glass bodies, one of which is a thin layer, which bodies are in contact with one another with corresponding surfaces without being cemented together, the said thin plate being recessed on its contact-surface, which recessing is carried right through the said plate, thereby dividing it into more than one part, and is adapted to cause total reflection in the other body at the corresponding part of its contact-surface, and a third glass body, which is attached to that side of the thin layer, which is remote from the other of the said two glass bodies.

1,142,756. ADJUSTING DEVICE. OTTO EPPENSTEIN, Jena, Germany, assignor to the Firm of Carl Zeiss, Jena, Germany. Filed Nov. 25, 1913. Serial No. 802,944. (Cl. 88—1.)



1. Adjusting device comprising two marks, a carrier for each of the said marks, connecting means between the said carriers and suspending means for the adjusting device, fitted near one of the marks.

2. Adjusting device comprising two marks, a carrier for each of the said marks, non-frigid connecting means between the said carriers and suspending means for the adjusting device, fitted near one of the marks.

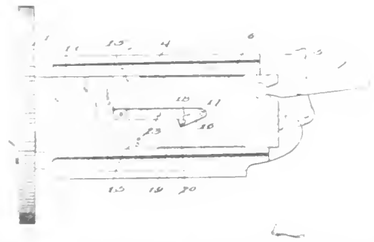
3. Adjusting device comprising two marks, a carrier for each of the said marks, means capable of resisting ...ing the said carriers and suspending means ...sting device, fitted near one of the marks.

...sting device comprising two marks, a carrier ... the said marks, means capable of resisting ...consisting of a plurality of members connect... carriers and suspending means for the adjust... near one of the marks.

...sting device comprising two marks, a carrier ... the said marks, connecting means between the ... adapted to alter the distance apart of the ... and suspending means for the adjusting de... near one of the marks.

[Claims not printed in the Gazette.]

...ECTOR MECHANISM FOR LINE-CAST... MACHINES. THOMAS S. HOMANS, Hempstead, N. Y., assignor to International Typesetting Machine ... New York, N. Y., a Corporation of New ... Filed Dec. 26, 1912. Serial No. 738,681. (Cl. ...)



...In a line casting machine, the combination of a ... ejector slide, and a holder for ejector blades ... mounted in the ejector slide and detachably con... thereto.

...In a line casting machine, the combination of a ... and slug-ejecting mechanism therefor embodying ...ector slide movable toward and from the mold, an ... blade holder, and means detachably connecting ...older to the ejector slide and for shifting the holder ... relatively to the slide.

...In a line casting machine, the combination of a ... an ejector blade corresponding in size to that of the ...cavity, a power-operated slide, and an ejector blade ...detachably fastened to and movably mounted in ...side and to which the ejector blade is fastened.

...In a line casting machine, the combination of a ...blade for ejecting slugs from the mold and cor...ding in size to that of the mold cavity, a power ...ated ejector slide, and an intermediate holder to con... the blade to the slide, said holder being movable ...dinally in relation to the slide at will.

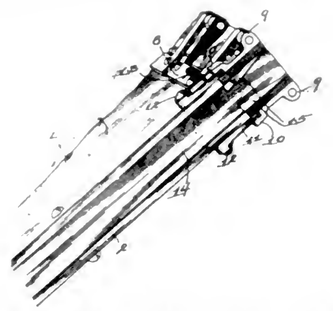
...In a line casting machine, the combination of a ... and slug-ejecting means therefor embodying an ...ector slide, a holder having means for connecting and ...necting it at will relatively to said slide, an ejector ...capable of being connected and disconnected rela... to said holder when the latter is disconnected from ...side, and means for maintaining the blade and holder ...nected relation when the holder is connected to the ...de.

[Claims 6 to 9 not printed in the Gazette.]

...MATRIX-MAGAZINE FOR TYPOGRAPHI... MACHINES. THOMAS S. HOMANS, Hempstead, N. Y., assignor to International Typesetting Machine ...ny, New York, N. Y., a Corporation of New York. ... Feb. 19, 1914. Serial No. 819,754. (Cl. 199—7.)

...matrix magazine composed of opposite plates hav... ...ally continuous matrix-guiding channels, the en... ...nds of which plates are relatively movable to ...e continuity thereof and thereby prevent the ... matrices.

2. A matrix magazine composed of opposite plates having portions provided with matrix-guiding channels, said plates having relatively movable parts provided with channel entrances continuous with said channels when in one position, said parts being movable into positions to break the continuity of said channels and thereby prevent escape of matrices from the magazine when the latter is partially or completely inverted.

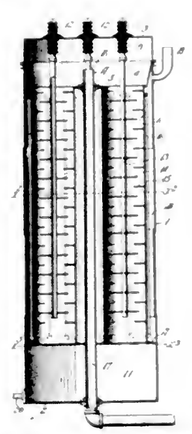


3. A matrix magazine having a pair of opposed plates formed with straight matrix-guiding grooves, and one or more relatively movable plates formed with flared or widened grooves and adapted to form continuations of or interruptions to said straight grooves.

4. A matrix magazine having relatively fixed plates formed with straight matrix-guiding grooves and having a pair of pivoted plates formed with flared entrances for said grooves and movable toward and from one another to form continuations of or interruptions to said grooves.

5. A matrix magazine having opposite grooves for guiding the projecting lugs or ears of the matrices, the upper or entrance ends of said grooves being tapered outwardly and formed in separate portions movably mounted on said magazine.

1,142,759. TREATER FOR PETROLEUM EMULSIONS. ROBERT E. LAIRD and JOSEPH H. RANEY, Taft, Cal., assignors, by direct and mesne assignments, to Raney-Laird Petroleum Dehydrating Company, Los Angeles, Cal., a Corporation of California. Filed July 22, 1914. Serial No. 852,482. (Cl. 204—24.)



1. A treater for emulsions of petroleum oil and water comprising a shell, a pan dividing the shell into two compartments, hollow outer electrodes fixed in said pan providing an open communication between the compartments, and an inner electrode in each outer electrode.

2. A treater for emulsions of petroleum oil and water comprising a shell, a pan dividing the shell into two compartments, hollow outer electrodes fixed in said pan providing an open communication between the compartments, a series of projections projecting inwardly from

the inner wall of said outer electrodes, and an inner electrode in each outer electrode, said inner electrodes having a series of projections on their outer surfaces.

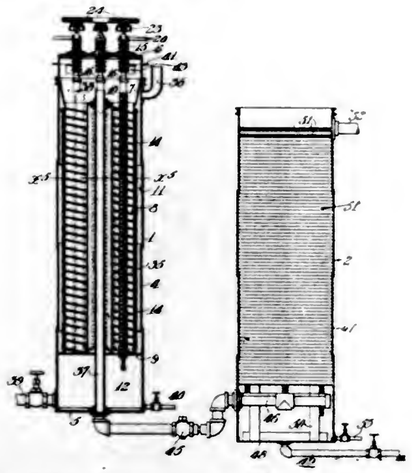
3. A treater for emulsions of petroleum oil and water comprising a shell, a pan forming a tight closure with said shell and dividing the shell into upper and lower compartments, a series of hollow outer electrodes making a tight closure with said pan and providing an open communication between said compartments, an inner electrode in each of said outer electrodes suitably insulated therefrom, means for supplying emulsion to the lower compartment, means for removing cleaned oil from the upper compartment, means for removing free water from the lower compartment, and means for impressing an electromotive force between said electrodes.

4. A treater for emulsions of petroleum oil and water comprising a cylindrical shell, a pan forming a tight joint with said shell near the top thereof and dividing said shell into an upper and a lower compartment, a series of hollow outer electrodes forming a tight joint with said pan and extending downwardly in said lower compartment, an inner electrode in each of said outer electrodes suitably insulated therefrom, means for supplying an emulsion below said pan, and means for drawing liquid out of the upper compartment.

5. A treater for emulsions of petroleum oil and water comprising an outer cylindrical shell, a bottom forming a tight closure with said shell, a pan located near the top of and forming a tight closure with said shell, a top for said shell, a series of hollow cylindrical outer electrodes making a tight closure with said pan and extending downwardly therefrom, a series of inner electrodes supported by said top and insulated therefrom and each projecting downwardly into an outer electrode, means for admitting an emulsion below said pan, and means for removing fluids from above said pan.

[Claims 6 to 21 not printed in the Gazette.]

1,142,760. APPARATUS FOR TREATING EMULSIONS. ROBERT E. LAIRD and JOSEPH H. RANEY, Taft, Cal., assignors, by direct and mesne assignments, to Rainey-Laird Petroleum Dehydrating Company, Los Angeles, Cal., a Corporation of California. Filed July 22, 1914. Serial No. 852,483. (Cl. 204—24.)



1. A treater for emulsion of petroleum and water comprising a tank, a plurality of cylindrical outer electrodes in said tank through which the emulsion may be passed, an inner electrode in each of said outer electrodes, and means for varying the effective diameter of the said inner electrode.

2. In a treater for emulsions of petroleum oil and water, an inner electrode comprising a tube, a spring surrounding said tube, and means for expanding said spring to increase the effective diameter of said electrode.

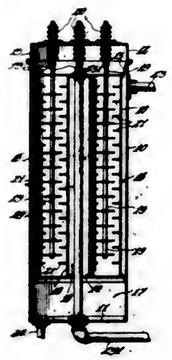
3. In a treater for emulsions of petroleum oil and water, an electrode comprising a slotted pipe, a spring surrounding said pipe, a series of blades projecting through the slots in said pipe and engaging the inner side of said spring, and means for expanding said blades to distend the spring and increase the effective diameter of said electrode.

4. In a treater for emulsions of petroleum oil and water an electrode comprising a slotted pipe, a spring surrounding said pipe, a series of blades projecting through the slots in said pipe and engaging the inner side of said spring, a rod passing through the center of said pipe inside said blades, a series of cones on said rod adapted to expand said blades, and means for actuating said rod to expand said blades and increase the effective diameter of said electrode.

5. A treating apparatus comprising a treater, means for admitting an emulsion of oil and water to said treater means for withdrawing the oil and water from said treater, a plurality of electrodes in said treater, means for producing a high alternating potential, and means for impressing this potential successively on said electrodes so as to cause a disruptive discharge to pass therebetween.

[Claims 6 to 11 not printed in the Gazette.]

1,142,761. APPARATUS FOR DEHYDRATING PETROLEUM-OIL. ROBERT E. LAIRD and JOSEPH H. RANEY, Taft, Cal., assignors to Raney-Laird Petroleum Dehydrating Company, Los Angeles, Cal., a Corporation of California. Filed Oct. 26, 1914. Serial No. 868,774. (Cl. 204—24.)



1. Apparatus for treating petroleum emulsions comprising a treater equipped with suitable electrodes, means for introducing an emulsion of petroleum oil and water to said treater, means for withdrawing oil and water from said treater, a source of alternating electromotive force, a distributer for connecting and disconnecting said source to said electrodes, and means for driving said distributer in such a manner that the same relative portion of each alternation of the electromotive force is impressed on the electrodes.

2. Apparatus for treating petroluem emulsions comprising a treater equipped with suitable electrodes, means for introducing an emulsion of petroleum oil and water to said treater, means for withdrawing oil and water from said treater, a source of alternating electromotive force, a distributer for connecting and disconnecting said source to said electrodes, and means for driving said distributer in synchronism with said alternating electromotive force.

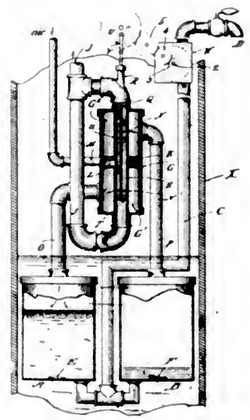
3. Apparatus for treating petroleum emulsions comprising a treater equipped with suitable electrodes, means for introducing an emulsion of petroleum oil and water to said treater, means for withdrawing oil and water from said treater, a source of alternating electromotive force, a distributer for connecting and disconnecting said source to said electrodes, and a synchronous motor for driving said distributer in such a manner that the same relative portion of each alternation of the electromotive force is impressed on the electrodes.

4. Apparatus for treating petroleum emulsions comprising a treater equipped with suitable electrodes, means for introducing an emulsion of petroleum oil and water to said treater, means for withdrawing oil and water from said treater, a source of alternating electromotive force, a distributer for connecting and disconnecting said source to said electrodes, a synchronous motor connected to said source and driving said distributer in synchronism with said source, and means for adjusting said distributer in such a manner as to utilize a certain portion of each alternation.

5. Apparatus for treating petroleum emulsions comprising a treater equipped with suitable electrodes, means for introducing an emulsion of petroleum oil and water to said treater, means for withdrawing oil and water from said treater, a source of alternating electromotive force, a distributer for connecting and disconnecting said source to said electrodes, a synchronous motor connected to said source and driving said distributer in synchronism with said source, and means for adjusting said distributer in such a manner that the top of each alternating electromotive force wave is impressed on the electrodes.

[Claims 6 and 7 not printed in the Gazette.]

1,142,762. DEVICE FOR ELEVATING FLUIDS. WILLIAM J. MCGUIRE, Kewanee, Ill., assignor to Wray's Fresh Water System, Kewanee, Ill., a Corporation of Illinois. Filed July 7, 1913. Serial No. 777,766. (Cl. 103—8.)



1. In a fluid elevating device, in combination, a pair of receptacles for the fluid to be elevated, a single conduit connected with both receptacles for the discharge therethrough of the fluid from either, a motor included with said conduit operated by said fluid discharged through it, a compartment for air connected with one of the receptacles, a second compartment for air connected with the other receptacle, a conduit for introducing air pressure to both of the said air compartments, said conduit constituting a means for communication of both the compartments with the outer air and including two apertures each opening into one of said compartments, and a valve to control the apertures, the same being adapted to place that part of the conduit for air pressure in communication with one of the compartments through one of said apertures and to place the other compartment in communication with the outer air through the other part of said conduit.

2. In a water elevating device, in combination, a pair of receptacles for water, each including a check valve, a conduit for the discharge of water from both the said receptacles, a motor connected with the conduit, a separate compartment for air under pressure connected with each receptacle, a conduit adapted for supplying air to both of the compartments and including an opening into each, a valve in control of both openings and operatively connected with the motor and adapted to direct air pressure alternately into the said compartments, and to alternately release air therefrom.

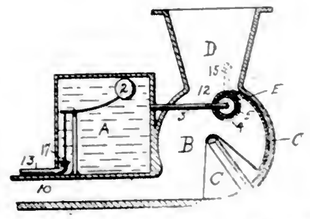
3. In a device for elevating water, in combination, a pair of receptacles for water each including a check valve, a conduit connected with and for discharging water from the receptacles, a motor included in the path of the water of said pipe, a pair of compartments for air under pressure, each connected with one of the receptacles, a conduit adapted for supplying air under pressure to the compartments, there being an opening for the discharge of air from each of the latter, and a valve controlled by and operatively connected with the motor and adapted to direct the air into one of the compartments and release the air contained in the other compartment.

4. In a water elevating device, in combination, a pair of receptacles for water, a vessel for receiving air under pressure, including two compartments, a conduit connecting each of the compartments with one of the receptacles, a conduit extending through both compartments and having communication with each of them, each said compartment having an escape outlet for air, and a valve to open the outlet of one of the compartments and close communication between the other compartments and the said conduit.

5. In an apparatus of the class described, in combination, a pair of receptacles for water, a conduit common to and for conducting water away from both of said receptacles, a motor in the path of the water in said conduit, a conduit for receiving and holding air under pressure and provided at two places with an outlet, a separate receptacle for receiving air from said conduit through one of the outlets, each said receptacle communicating with one of the receptacles for water, a valve controlling both outlets from said air conduit to the respective compartments and operated by and operatively connected with the said motor.

[Claims 6 and 7 not printed in the Gazette.]

1,142,763. CARBURETER. FRANK PERRY, Fresno, Cal. Filed Aug. 31, 1914. Serial No. 859,415. (Cl. 48—155.1.)



1. In a carbureter, the combination of a float chamber constructed to hold liquid fuel, an inlet to such float chamber, a mixing chamber having an outlet opening, a throttle chamber having an opening into such mixing chamber, a shutter within such throttle chamber constructed to regulate the size of the opening between the throttle chamber and the mixing chamber by hand means, and an atomizer consisting of an inner tube having a lateral slot therein and closed at each end, and rigidly attached to the walls of the throttle chamber adjacent to the opening between the throttle chamber and the mixing chamber, with the slot therein opening toward such mixing chamber, a lead from the float chamber to such inner tube constructed to carry liquid fuel from such float chamber to such inner tube, and an outer tube constructed to fit over such inner tube, and having a plurality of holes therein, hand means for turning such outer tube to bring a series of holes to register with the slot in the inner tube, said atomizer being placed in such relation to the shutter that in partially closing the opening between the throttle chamber and the mixing chamber a portion of such holes is covered with the shutter, and an opening into such

throttle chamber to admit air therein, all substantially as described.

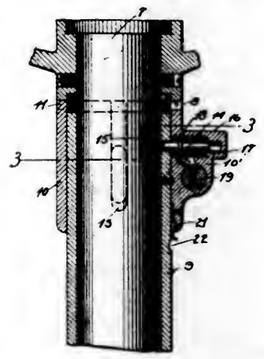
2. In a carbureter, the combination of a float chamber, an inlet to such float chamber, a throttle chamber, an inlet to such throttle chamber constructed to admit air into such throttle chamber, a mixing chamber, an opening between such throttle chamber and mixing chamber, a shutter within such throttle chamber constructed to regulate the size of the opening between the throttle chamber and the mixing chamber, hand means for regulating such shutter, an atomizer consisting of an inner tube having the ends thereof closed and a slot therein located within such throttle chamber within the opening between the throttle chamber and the mixing chamber and just under the path of such shutter, and with the slot opening toward such mixing chamber, an outer tube constructed to fit over such inner tube and to be rotated by hand means, having a series of triangular holes in a lateral row through the wall of such outer tube, and adapted to register a portion of such triangular holes with the slot in such inner tube, a lead from such float chamber to such inner tube, and an outlet from such mixing chamber, all substantially as described.

3. In a carbureter, the combination of a float chamber, an inlet to such float chamber, a throttle chamber constructed tubular in form and having the ends thereof closed, an air inlet to such throttle chamber, a mixing chamber, an opening between such throttle chamber and mixing chamber, a shutter within such throttle chamber consisting of a lateral section of a tube adapted to fit snugly within such throttle chamber, having one edge thereof cut obliquely to the end of such shutter, and having a member to sustain an axle, and an axle attached thereto, bearings in the end walls of such throttle chamber constructed to carry such axle and permit the shutter to turn within such throttle chamber, hand means for turning such shuttle, an atomizer having openings toward such mixing chamber and located within the path of such shutter and directly under it so in shutting off the opening between the throttle chamber and the mixing chamber a portion of such openings in such atomizer are closed, a lend from such float chamber to such atomizer, all substantially as described.

4. In a carbureter, the combination of a float chamber, an inlet to such float chamber, a mixing chamber having an outlet opening, a throttle chamber tubular in form and having an opening therein for taking air, and a connection opening into such mixing chamber, a rotary shutter within such throttle chamber constructed to regulate the size of the opening between the throttle chamber and the mixing chamber, an atomizer within such throttle chamber just under the path of such rotary shutter and within line of the opening between the throttle chamber and the mixing chamber, such atomizer consisting of an inner tube closed at both ends and having a lateral slot therein opening toward such opening between the throttle chamber and the mixing chamber, and an outer tube constructed to fit over such inner tube, and having a plurality of lateral rows of holes through the wall of such outer tube, all of the holes in each row being approximately uniform in size, and the size of the holes of each row being of a different size, decreasing with each successive row, such rows of holes being far enough apart so but one row can register with the slot in such inner tube at one time, and means for rotating such outer tube to bring either of such rows of holes to register with the slot in such inner tube, all substantially as described.

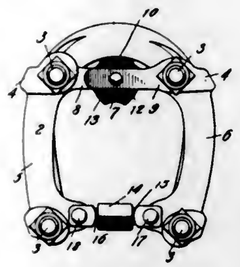
1,142,764. STEERING-WHEEL LOCK. NEWTON SMITH, East Orange, N. J. Filed Aug. 20, 1914. Serial No. 857,693. (Cl. 70—90.)

In a steering mechanism, a steering wheel, a steering column, a sleeve slidably mounted on the column and prevented from turning thereon, said sleeve having a laterally projecting housing, a bolt slidably mounted in said housing transversely of the axis of the sleeve, a coil spring forcing the bolt toward the axis of the sleeve, said sleeve and steering wheel having toothed surfaces adapted to mesh, said column having an aperture adapted to register with the bolt when said toothed surface of the wheel meshes with the toothed surface of the steering wheel, whereby the steering wheel is locked to the steering column, key-operable means in said housing and associated



with said bolt, whereby said bolt may be retracted from the aperture in the column, and a flat spring carried by the sleeve, said column having a notch adapted to be engaged by said spring whereby said sleeve is locked to the column when said sleeve is disengaged from the steering wheel.

1,142,765. OVERSHOE FOR HORSES. RICHARD WHITAKER, Bradley Beach, N. J., assignor, by mesne assignments, to The Neverslip Manufacturing Company, a Corporation of New Jersey. Filed Apr. 1, 1913. Serial No. 758,097. (Cl. 168—30.)



1. A horse overshoe comprising an articulated tread portion having cleats on its forward part adapted to bear against the outside of the forward part of a horseshoe, and a thrust member adapted to bear against the inside of the forward part of the shoe, and means for drawing together the rear ends of said tread portion and thereby forcing said thrust member and said cleats in opposite directions so that they grip the horseshoe.

2. A horse overshoe comprising an articulated tread portion having cleats adapted to bear against the outside of a horseshoe and a thrust device adapted to bear against the inside of the horseshoe in a lower plane than the bearing plane of said cleats, and means for forcing said thrust member and said cleats in opposite directions and thereby drawing the shoe and overshoe together.

3. A horse overshoe comprising an articulated tread portion having cleats adapted to bear against the outside of a horseshoe, and a thrust member adapted to bear against the inside of the shoe in a lower plane than the bearing plane of said cleats and in advance of said cleats, and means for forcing said thrust member and said cleats in opposite directions and thereby drawing the shoe and overshoe together.

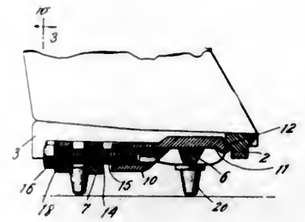
4. A horse overshoe comprising a tread portion consisting of two pivotally connected members and having cleats adapted to engage the outside of a horseshoe and a thrust member adapted to engage the inside of the shoe

in a lower plane than the bearing plane of said cleats, and means for relatively moving said pivotally connected members.

5. An overshoe for horses comprising a tread portion having means to engage the outside of the horseshoe, a plurality of inwardly extending sections rigid with said tread portion and pivoted together, a thrust device associated with said members and arranged to bear against the inside of the horseshoe, and means connected to the tread portion adapted to advance the thrust device, whereby the overshoe may be secured to the horseshoe.

[Claims 6 to 12 not printed in the Gazette.]

1,142,766. OVERSHOE FOR HORSES. RICHARD WHITAKER, Bradley Beach, N. J., assignor, by mesne assignments, to The Neverslip Manufacturing Company, a Corporation of New Jersey. Filed Sept. 19, 1913. Serial No. 790,631. (Cl. 168—30.)



1. The combination with a horse overshoe having means for bearing against the outside of a horseshoe, of an attaching device arranged to bear against the body of the horseshoe in a lower plane than the bearing plane of said first named means, and means bearing on the overshoe and on the said attaching device for forcing said first means and the attaching device in different directions and for drawing the shoe and overshoe together.

2. The combination with a horse overshoe having means for bearing against the outside of a horseshoe, of an attaching device arranged to bear against the inside of the horseshoe in a lower plane than the bearing plane of said means, and means bearing on the overshoe and said attaching device for forcing them in different directions and for drawing the shoe and overshoe together.

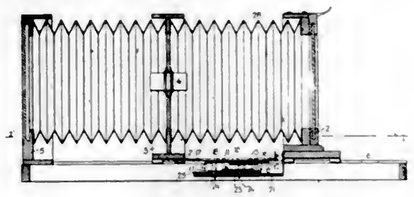
3. A horse overshoe comprising cleats for bearing against the outside of a horseshoe at points above the bottom thereof, a portion extending rearwardly from said cleats, an attaching device arranged to bear against the body of the horseshoe at a point below the bearing points of said cleats, and means for forcing said cleats and said attaching device in different directions and thereby pressing said rearwardly extending portion against the horseshoe.

4. An overshoe for horses comprising means for bearing against the outside of a horseshoe, a portion extending rearwardly from said means, a seat for an attaching device, an attaching device arranged to bear at one end against the body of the horseshoe in a lower plane than said first means, and means bearing on said seat and on said attaching device for forcing said first means and said attaching device in different directions and thereby pressing said rearwardly extending portion against the horseshoe.

5. An overshoe for horses comprising means for bearing against the outside of a horseshoe, portions extending rearwardly from said means, a transverse bar connecting said rearwardly extending portions, an attaching device arranged to bear against the body of the horseshoe in a lower plane than said first named means, and means bearing on said transverse bar and on the attaching device for forcing the first means and the attaching device in different directions, thereby pressing said rearwardly extending portion against the horseshoe.

[Claims 6 to 13 not printed in the Gazette.]

1,142,767. AUTOMATIC FOCUSING DEVICE. LOUIS W. BUTLER, New York, N. Y. Filed Jan. 25, 1913. Serial No. 744,146. (Cl. 88—24.)



1. The combination of a screen, a lens holder and an object holder, guides on which the lens holder and the object holder can be mounted so as to be movable toward and from the screen, a fixed rack, a rack connected to the object holder, and means carried by the lens holder and engaging said racks to control the movements of the lens holder and object holder to keep the screen always in focusing relation.

2. The combination of a screen, a lens holder and an object holder, means for mounting the object holder and the lens holder so that the same can be moved toward and from the screen, a fixed rack, a rack connected to the object holder, a pinion, and a cam actuated thereby to transmit relative movement to the rack connected to the object holder, said cam and said pinion being carried by the lens holder, said pinion meshing with said fixed rack, said cam being shaped to cause the lens holder and the object holder to be moved to such an extent with respect to each other as to keep the screen always in focusing relation.

3. The combination of a screen, a lens holder, an object holder, means for mounting the lens holder and object holder to be moved toward and from the screen, a fixed rack, a pinion and a cam actuated thereby, said pinion and said cam being carried by the lens holder, said pinion being actuated by said fixed rack, a rack carried by the object holder, and a multiplying device between said cam and said second-named rack, said cam being shaped so as to cause the movement of the object holder with respect to the movement of the lens holder when the latter is moved to keep the screen always in focusing relation.

4. The combination of a screen, a lens holder, an object holder, means for mounting said object holder and lens holder in position to be moved toward and from the screen, a fixed rack, a rack connected to the object holder, a pinion, means actuated by said fixed rack for rotating said pinion, a gear wheel actuated by said pinion and a slotted cam actuated by said gear wheel, said pinion, gear and cam being carried by the lens holder, a spindle actuated by the cam, a pinion on said spindle, said spindle and said pinion thereon also being carried by the lens holder, a rack meshing with said last mentioned pinion carried by said lens holder for causing a rotation of said pinion when the lens holder is moved, the first-named pinion engaging and receiving movement from the fixed rack for rotating said gear wheel, the said slotted cam being shaped to cause the object holder to be so moved with respect to the lens holder when the lens holder is moved, as to keep the screen always in focusing relation.

1,142,768. ATTACHMENT FOR SUBMARINE BOATS. JOSEPH BARRAJA-FRAUENFELDER, Bridgeport, Conn., assignor to The Lake Torpedo Boat Company of Maine, Bridgeport, Conn., a Corporation of Maine. Filed Aug. 29, 1914. Serial No. 859,206. (Cl. 114—16.5.)

1. The combination with a submarine boat provided with a well, of a receptacle arranged in said well rigidly connected to the hull of the boat, said receptacle having an annular recess and a centrally disposed socket, a shoulder formed on the wall of said socket, a marker-buoy having a sleeve adapted to fit said annular recess and a central section adapted to fit within said socket, a messenger-line connected to said marker-buoy, said messenger-line being housed in the lower end of said recess and said socket when the marker-buoy is in position upon said re-

throttle chamber to admit air therein, all substantially as described.

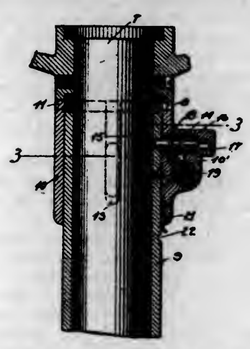
2. In a carbureter, the combination of a float chamber, an inlet to such float chamber, a throttle chamber, an inlet to such throttle chamber constructed to admit air into such throttle chamber, a mixing chamber, an opening between such throttle chamber and mixing chamber, a shutter within such throttle chamber constructed to regulate the size of the opening between the throttle chamber and the mixing chamber, hand means for regulating such shutter, an atomizer consisting of an inner tube having the ends thereof closed and a slot therein located within such throttle chamber within the opening between the throttle chamber and the mixing chamber and just under the path of such shutter, and with the slot opening toward such mixing chamber, an outer tube constructed to fit over such inner tube and to be rotated by hand means, having a series of triangular holes in a lateral row through the wall of such outer tube, and adapted to register a portion of such triangular holes with the slot in such inner tube, a lead from such float chamber to such inner tube, and an outlet from such mixing chamber, all substantially as described.

3. In a carbureter, the combination of a float chamber, an inlet to such float chamber, a throttle chamber constructed tubular in form and having the ends thereof closed, an air inlet to such throttle chamber, a mixing chamber, an opening between such throttle chamber and mixing chamber, a shutter within such throttle chamber consisting of a lateral section of a tube adapted to fit snugly within such throttle chamber, having one edge thereof cut obliquely to the end of such shutter, and having a member to sustain an axle, and an axle attached thereto, bearings in the end walls of such throttle chamber constructed to carry such axle and permit the shutter to turn within such throttle chamber, hand means for turning such shuttle, an atomizer having openings toward such mixing chamber and located within the path of such shutter and directly under it so in shutting off the opening between the throttle chamber and the mixing chamber a portion of such openings in such atomizer are closed, a lead from such float chamber to such atomizer, all substantially as described.

4. In a carbureter, the combination of a float chamber, an inlet to such float chamber, a mixing chamber having an outlet opening, a throttle chamber tubular in form and having an opening therein for taking air, and a connection opening into such mixing chamber, a rotary shutter within such throttle chamber constructed to regulate the size of the opening between the throttle chamber and the mixing chamber, an atomizer within such throttle chamber just under the path of such rotary shutter and within line of the opening between the throttle chamber and the mixing chamber, such atomizer consisting of an inner tube closed at both ends and having a lateral slot therein opening toward such opening between the throttle chamber and the mixing chamber, and an outer tube constructed to fit over such inner tube, and having a plurality of lateral rows of holes through the wall of such outer tube, all of the holes in each row being approximately uniform in size, and the size of the holes of each row being of a different size, decreasing with each successive row, such rows of holes being far enough apart so but one row can register with the slot in such inner tube at one time, and means for rotating such outer tube to bring either of such rows of holes to register with the slot in such inner tube, all substantially as described.

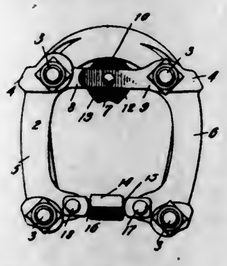
1,142,764. STEERING-WHEEL LOCK. NEWTON SMITH, East Orange, N. J. Filed Aug. 20, 1914. Serial No. 857,693. (Cl. 70—90.)

In a steering mechanism, a steering wheel, a steering column, a sleeve slidably mounted on the column and prevented from turning thereon, said sleeve having a laterally projecting housing, a bolt slidably mounted in said housing transversely of the axis of the sleeve, a coil spring forcing the bolt toward the axis of the sleeve, said sleeve and steering wheel having toothed surfaces adapted to mesh, said column having an aperture adapted to register with the bolt when said toothed surface of the wheel meshes with the toothed surface of the steering wheel, whereby the steering wheel is locked to the steering column, key-operable means in said housing and associated



with said bolt, whereby said bolt may be retracted from the aperture in the column, and a flat spring carried by the sleeve, said column having a notch adapted to be engaged by said spring whereby said sleeve is locked to the column when said sleeve is disengaged from the steering wheel.

1,142,765. OVERSHOE FOR HORSES. RICHARD WHITAKER, Bradley Beach, N. J., assignor, by mesne assignments, to The Neverslip Manufacturing Company, a Corporation of New Jersey. Filed Apr. 1, 1913. Serial No. 758,097. (Cl. 168—30.)



1. A horse overshoe comprising an articulated tread portion having cleats on its forward part adapted to bear against the outside of the forward part of a horseshoe, and a thrust member adapted to bear against the inside of the forward part of the shoe, and means for drawing together the rear ends of said tread portion and thereby forcing said thrust member and said cleats in opposite directions so that they grip the horseshoe.

2. A horse overshoe comprising an articulated tread portion having cleats adapted to bear against the outside of a horseshoe and a thrust device adapted to bear against the inside of the horseshoe in a lower plane than the bearing plane of said cleats, and means for forcing said thrust member and said cleats in opposite directions and thereby drawing the shoe and overshoe together.

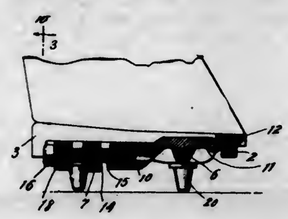
3. A horse overshoe comprising an articulated tread portion having cleats adapted to bear against the outside of a horseshoe, and a thrust member adapted to bear against the inside of the shoe in a lower plane than the bearing plane of said cleats and in advance of said cleats, and means for forcing said thrust member and said cleats in opposite directions and thereby drawing the shoe and overshoe together.

4. A horse overshoe comprising a tread portion consisting of two pivotally connected members and having cleats adapted to engage the outside of a horseshoe and a thrust member adapted to engage the inside of the shoe in a lower plane than the bearing plane of said cleats, and means for relatively moving said pivotally connected members.

5. An overshoe for horses comprising a tread portion having means to engage the outside of the horseshoe, a plurality of inwardly extending sections rigid with said tread portion and pivoted together, a thrust device associated with said members and arranged to bear against the inside of the horseshoe, and means connected to the tread portion adapted to advance the thrust device, whereby the overshoe may be secured to the horseshoe.

[Claims 6 to 12 not printed in the Gazette.]

1,142,766. OVERSHOE FOR HORSES. RICHARD WHITAKER, Bradley Beach, N. J., assignor, by mesne assignments, to The Neverslip Manufacturing Company, a Corporation of New Jersey. Filed Sept. 19, 1913. Serial No. 790,631. (Cl. 168—30.)



1. The combination with a horse overshoe having means for bearing against the outside of a horseshoe, of an attaching device arranged to bear against the body of the horseshoe in a lower plane than the bearing plane of said first named means, and means bearing on the overshoe and on the said attaching device for forcing said first means and the attaching device in different directions and for drawing the shoe and overshoe together.

2. The combination with a horse overshoe having means for bearing against the outside of a horseshoe, of an attaching device arranged to bear against the inside of the horseshoe in a lower plane than the bearing plane of said means, and means bearing on the overshoe and said attaching device for forcing them in different directions and for drawing the shoe and overshoe together.

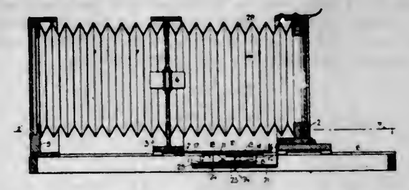
3. A horse overshoe comprising cleats for bearing against the outside of a horseshoe at points above the bottom thereof, a portion extending rearwardly from said cleats, an attaching device arranged to bear against the body of the horseshoe at a point below the bearing points of said cleats, and means for forcing said cleats and said attaching device in different directions and thereby pressing said rearwardly extending portion against the horseshoe.

4. An overshoe for horses comprising means for bearing against the outside of a horseshoe, a portion extending rearwardly from said means, a seat for an attaching device, an attaching device arranged to bear at one end against the body of the horseshoe in a lower plane than said first means, and means bearing on said seat and on said attaching device for forcing said first means and said attaching device in different directions and thereby pressing said rearwardly extending portion against the horseshoe.

5. An overshoe for horses comprising means for bearing against the outside of a horseshoe, portions extending rearwardly from said means, a transverse bar connecting said rearwardly extending portions, an attaching device arranged to bear against the body of the horseshoe in a lower plane than said first named means, and means bearing on said transverse bar and on the attaching device for forcing the first means and the attaching device in different directions, thereby pressing said rearwardly extending portion against the horseshoe.

[Claims 6 to 13 not printed in the Gazette.]

1,142,767. AUTOMATIC FOCUSING DEVICE. LOUIS W. BUTLER, New York, N. Y. Filed Jan. 25, 1913. Serial No. 744,146. (Cl. 88—24.)



1. The combination of a screen, a lens holder and an object holder, guides on which the lens holder and the object holder can be mounted so as to be movable toward and from the screen, a fixed rack, a rack connected to the object holder, and means carried by the lens holder and engaging said racks to control the movements of the lens holder and object holder to keep the screen always in focusing relation.

2. The combination of a screen, a lens holder and an object holder, means for mounting the object holder and the lens holder so that the same can be moved toward and from the screen, a fixed rack, a rack connected to the object holder, a pinion, and a cam actuated thereby to transmit relative movement to the rack connected to the object holder, said cam and said pinion being carried by the lens holder, said pinion meshing with said fixed rack, said cam being shaped to cause the lens holder and the object holder to be moved to such an extent with respect to each other as to keep the screen always in focusing relation.

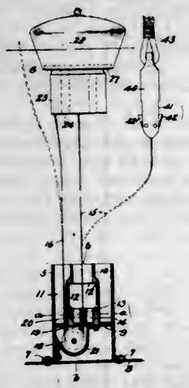
3. The combination of a screen, a lens holder, an object holder, means for mounting the lens holder and object holder to be moved toward and from the screen, a fixed rack, a pinion and a cam actuated thereby, said pinion and said cam being carried by the lens holder, said pinion being actuated by said fixed rack, a rack carried by the object holder, and a multiplying device between said cam and said second-named rack, said cam being shaped so as to cause the movement of the object holder with respect to the movement of the lens holder when the latter is moved to keep the screen always in focusing relation.

4. The combination of a screen, a lens holder, an object holder, means for mounting said object holder and lens holder in position to be moved toward and from the screen, a fixed rack, a rack connected to the object holder, a pinion, means actuated by said fixed rack for rotating said pinion, a gear wheel actuated by said pinion and a slotted cam actuated by said gear wheel, said pinion, gear and cam being carried by the lens holder, a spindle actuated by the cam, a pinion on said spindle, said spindle and said pinion thereon also being carried by the lens holder, a rack meshing with said last mentioned pinion carried by said lens holder for causing a rotation of said pinion when the lens holder is moved, the first-named pinion engaging and receiving movement from the fixed rack for rotating said gear wheel, the said slotted cam being shaped to cause the object holder to be so moved with respect to the lens holder when the lens holder is moved, as to keep the screen always in focusing relation.

1,142,768. ATTACHMENT FOR SUBMARINE BOATS. JOSEPH BARRAJA-FRAUENFELDER, Bridgeport, Conn., assignor to The Lake Torpedo Boat Company of Maine, Bridgeport, Conn., a Corporation of Maine. Filed Aug. 29, 1914. Serial No. 859,206. (Cl. 114—16.5.)

1. The combination with a submarine boat provided with a well, of a receptacle arranged in said well rigidly connected to the hull of the boat, said receptacle having an annular recess and a centrally disposed socket, a shoulder formed on the wall of said socket, a marker-buoy having a sleeve adapted to fit said annular recess and a central section adapted to fit within said socket, a messenger-line connected to said marker-buoy, said messenger-line being housed in the lower end of said recess and said socket when the marker-buoy is in position upon said re-

ceptacle, a sheave around which said line operates, means for locking said marker-buoy upon said receptacle, a hoisting-cable having an anchor-bolt adapted to fit said socket when the marker-buoy is detached from said receptacle, and spring actuated pawls carried by said anchor-bolt adapted to engage said shoulder, said anchor-bolt being drawn into said socket by said messenger-line.



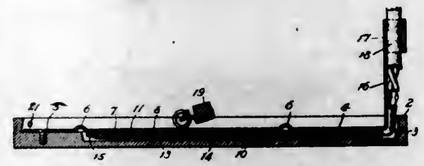
2. The combination with a submarine boat having a superstructure provided with a well, of a receptacle arranged in said well rigidly connected to the hull of the boat, said receptacle having an annular recess and a centrally disposed socket, a shoulder formed on the wall of said socket, a marker-buoy having a sleeve adapted to fit said annular recess and a central section adapted to fit within said socket, a messenger-line connected to said marker-buoy, said messenger-line being housed in the lower end of said annular recess and said socket when the marker-buoy is in position upon said receptacle, a sheave around which said line operates, means for locking said marker-buoy upon said receptacle, a hoisting-cable having an anchor-bolt adapted to fit said socket when the marker-buoy is detached from said receptacle, and spring actuated pawls carried by said anchor-bolt adapted to engage said shoulder, said anchor-bolt being drawn into said socket by said messenger-line, substantially as and for the purpose specified.

3. An attachment for submarine boats, comprising a cylindrical receptacle rigidly connected to the hull of the boat, a horizontal partition arranged in the receptacle, a centrally disposed tubular sleeve extending upwardly from said partition providing an annular recess and a central socket within said receptacle, a shoulder formed upon the wall of said sleeve, a marker-buoy having a sleeve adapted to fit said annular recess and a central section adapted to fit within the sleeve of the said receptacle, packing rings carried by said market-buoy adapted to engage the top of the wall of said receptacle and the top of the sleeve thereof to provide water-tight joints, a messenger-line carried by said marker-buoy and adapted to be housed within said receptacle, a sheave journaled within the receptacle around which said messenger-line operates, and means for locking said marker-buoy upon said receptacle, said means being operable from within the boat for releasing said marker-buoy.

4. An attachment for submarine boats, comprising a receptacle connected to the hull of the boat, said receptacle having an annular recess and a centrally disposed socket, a shoulder formed on the wall of said socket, a marker-buoy having a sleeve adapted to fit said annular recess and a central section adapted to fit within said socket, a messenger-line connected to said marker-buoy, said messenger-line being housed in the lower end of said annular recess and said socket when the marker-buoy is in position upon said receptacle, a sheave around which said line operates, means for locking said marker-buoy upon said receptacle, a hoisting cable having an anchor-bolt adapted to fit said socket when the marker-buoy is detached from said receptacle, and spring actuated pawls carried by said anchor-bolt adapted to engage said shoulder, said anchor-bolt being drawn into said socket by said messenger-line.

5. An attachment for submarine boats, comprising a cylindrical receptacle connected to the hull of the boat, a partition arranged in said receptacle, a centrally disposed tubular sleeve extending upwardly from said partition providing an annular recess and a central socket within said receptacle, a marker-buoy having a sleeve adapted to fit said annular recess and a central section adapted to fit within the sleeve of said receptacle, a messenger-line having its opposite ends attached to said buoy at different points and adapted to be coiled in said recess and in said socket and held therein by the sleeve and central section of the marker-buoy respectively against displacement when said buoy is in position upon said receptacle, a sheave journaled in said receptacle around which said messenger-line operates, and means for locking said marker-buoy upon said receptacle.

1,142,769. ELECTRICALLY-HEATED APPLIANCE. ALBERT J. BLOCK, Chicago, Ill., assignor to El Dorado Jones, Chicago, Ill. Filed Aug. 22, 1912. Serial No. 716,404. (Cl. 219—25.)



1. In an electrically heated appliance, the combination of a base member formed with an upwardly extending marginal flange, an electrical heating element disposed in the lower portion of the cavity formed by said flange, an engaging means carried by said base member, and a manipulating handle adapted for detachable engagement with the aforesaid engaging means of the base member, substantially as set forth.

2. An electrically heated appliance, comprising a flat shoe having an upturned marginal flange forming an open top cavity, an electrical heating unit detachably secured in said cavity, and an elastic bail secured to said shoe midway the length thereof and adapted for holding engagement with the body portion of a sad-iron, substantially as set forth.

3. An electrically heated appliance, comprising a flat shoe having an upturned marginal flange forming an open top cavity, and an electrical heating unit detachably secured in said cavity and having a flat top member formed with a plurality of protuberances on its upper surface, substantially as set forth.

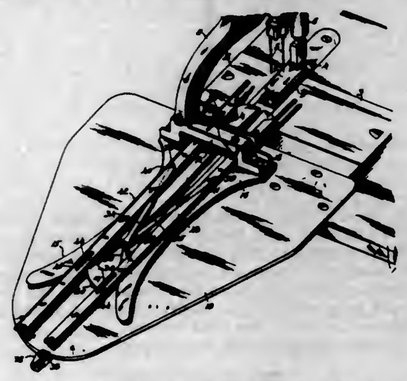
4. An electrically heated appliance, comprising a flat shoe having an upturned marginal flange forming an open top cavity, and an electrical heating unit detachably secured in said cavity and having an integrally formed and angularly disposed bracket at one end, substantially as set forth.

5. An electrically heated appliance, comprising a flat shoe having an upturned marginal flange forming an open top cavity, and an electrical heating unit detachably secured in said cavity, the same comprising an upper carrying plate of metal, a lower protecting plate of metal, a series of intermediate sheets of insulating material, and an electrical heating element disposed between said sheets, substantially as set forth.

[Claims 6 to 8 not printed in the Gazette.]

1,142,770. PLAIT-FOLDER FOR SEWING-MACHINES. ALBERT H. DE VOE, Elizabeth, N. J., assignor to The Singer Manufacturing Company, a Corporation of New Jersey. Filed Jan. 11, 1909. Serial No. 471,590. (Cl. 112—12.)

1. In a box plait folder for sewing machines, a base-plate, folding and guiding fingers mounted thereon, swinging connections for holding said fingers against movement in the direction of their length, adjusting plates mounted upon said base-plate and operatively connected with said fingers for determining the extent of adjustment of said fingers in directions toward and from one another, and a bracket provided with oppositely arranged folding blades suspended above the bed-plate of the sewing machine.



2. In a box plait folder for sewing machines, a base-plate, complemental folding and guiding fingers mounted thereon and operatively connected with each other through swinging connections and oscillating adjusting plates, said connections acting to secure said guiding fingers against movement in the direction of their length, and said oscillating plates acting to effect the adjustment of said fingers at an angle to the line of seam formation, and a bracket provided with adjustably secured folding blades suspended above the bed-plate of the sewing machine, in combination with means, including an adjusting lever for simultaneously oscillating said adjusting plates.

3. In a box plait folder for sewing machines, a base-plate provided with an index, complemental folding and guiding fingers mounted thereon, a pivoted lever coöperating with said index and suitable connections between said lever and folding and guiding fingers for gaging the width of the plait, and a bracket provided with oppositely arranged folding blades suspended above the bed-plate of the sewing machine, in combination with means for adjusting said folding and guiding fingers toward and from one another, and means acting to hold said fingers against accidental movement when positioned to effect the desired width of plait.

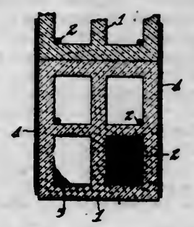
4. In a box-plait folder for sewing machines, a base-plate, complemental guiding and folding fingers mounted thereon, a bracket provided with oppositely arranged folding blades suspended above said base-plate, in combination with adjusting means including oscillating adjusting plates for simultaneously adjusting said guiding and folding fingers with respect to said folding blades.

5. In a box plait folder for sewing machines, a base-plate provided with an index, complemental folding and guiding fingers mounted thereon, a pivoted lever coöperating with said index and suitable connections between said lever and folding and guiding fingers for gaging the width of the plait, and a bracket provided with oppositely arranged folding blades suspended above the bed-plate of the sewing machine, in combination with means for simultaneously adjusting said folding and guiding fingers toward and from one another, and means acting to hold said fingers against accidental movement when positioned to effect the desired width of plait.

[Claims 6 to 8 not printed in the Gazette.]

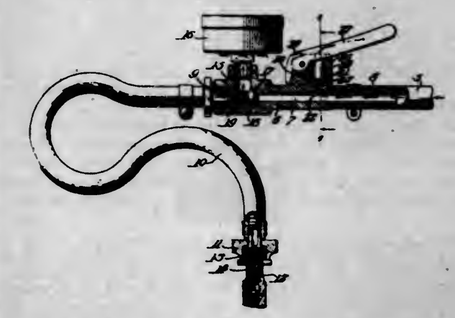
1,142,771. ELECTRIC HEATING SYSTEM. WILLIAM S. HADAWAY, Jr., New York, N. Y. Filed Sept. 7, 1911. Serial No. 648,060. (Cl. 219—20.)

1. An electric heating means for buildings comprising a wall of heat absorptive hollow tile construction having a plurality of openings therein, electric heating conductors disposed in said openings adjacent the walls thereof and acting as heating mediums to dissipate heat in said openings and to said tiles whereby said wall acts as a low temperature heat reservoir for distributing heat slowly and evenly by radiation.



2. The method of heating buildings of hollow heat absorptive tile construction which consists in passing electric heating conductors through openings in the tiles and supplying current to said conductors, said conductors acting as a heating means for the tiles and the latter acting as a low temperature heat reservoir for distributing the heat to the building.

1,142,772. AIR-GAGE APPLIANCE. CARL E. L. LIPMAN, Beloit, Wis., assignor to Lipman Air Appliance Company, Beloit, Wis., a Corporation of Wisconsin. Filed June 8, 1914. Serial No. 843,734. (Cl. 137—28.)

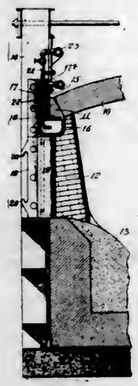


1. A device of the character described, comprising a flexible conduit adapted to be connected at one end with an air pressure pump, a coupling carried by the other end of said conduit for attaching the conduit to a tire-nipple, said coupling being provided with means for retaining the nipple-valve in open position when attached to a nipple, a valve-casing disposed in said conduit intermediate the ends thereof, a check-valve arranged in said casing so as to permit flow of air through said conduit toward the tire only, a pressure gage connected with said casing in proximity to said valve but between said valve and the tire connection and normally disposed in a horizontal position so that the tire pressure may at all times be ascertained from said gage, an upwardly disposed socket formed in said casing adjacent to said gage between said check-valve and the source of air supply and provided with a port communicating with the interior of said casing, a valve slidably positioned in said socket in position to close said port, said valve being normally unseated by the pressure within the casing so as to release the pressure in the supply end of the conduit, and a manually operable handle pivoted adjacent said gage and extending over said valve in position to force said valve against its seat when the handle is depressed thereby causing the air under pressure to flow past said check-valve into the tire, said handle being provided with means for preventing displacement of said valve from its socket.

2. A device of the character described, comprising a flexible conduit adapted to be connected at one end with an air pressure pump, a coupling carried by the other end

of said conduit for attaching the conduit to a tire-nipple, a casing disposed in said conduit intermediate the ends thereof, a check valve arranged in said casing so as to permit flow of air through said conduit toward the tire only, a pressure gage connected to said casing in proximity to said valve but between said valve and the tire connection, an upwardly disposed socket formed in said casing adjacent to said gage between said check valve and the source of air supply and provided with a port communicating with the interior of said casing, a valve disposed in said socket and substantially inclosed to preclude the entrance of dirt into the casing, said valve being adapted to close said port and being normally unseated by pressure within the casing, and a manually operable handle pivoted to said casing in position to close said valve when the handle is depressed to thereby cause the air under pressure to flow past said check valve into the tire.

1,142,773. FURNACE-DOOR FRAME. SAMUEL NAISMITH, Chicago, Ill. Filed Sept. 8, 1913. Serial No. 788,582. (Cl. 122—449.)



1. The combination with a furnace provided with a door opening, the vertical walls of said opening being rabbeted at the outer corner portions thereof, of a water-cooled frame having hollow vertical members which engage the rabbeted portions of said walls, substantially as described.

2. The combination with a furnace provided with a door opening and with vertical frame members at each side of said opening, of a water-cooled frame having hollow leg and lintel portions surrounding three sides of said opening, and said portions having outwardly projecting flanges which are removably secured to said frame members, substantially as described.

3. A furnace door frame having a lintel portion open at its top and formed with interior partition walls, said walls having openings therein, substantially as described.

1,142,774. STOCKING. JOHN P. NISSEN, Stapleton, N. Y., assignor to Oneida Knitting Company, Inc., Philadelphia, Pa., a Corporation of Massachusetts. Filed Sept. 30, 1914. Serial No. 864,245. (Cl. 66—4.)

1. In an article of the character set forth, a knitted body having a knitted reinforced portion and a welt secured to the reinforcement.

2. In an article of the character set forth, a knitted body having a reinforcement knitted thereinto, and a welt comprising a margin of the body doubled upon itself and having its edge secured to the reinforcement.

3. In an article of the character set forth, a tubular knitted body, a tubular reinforcement knitted thereinto, and a welt comprising a margin of the body doubled upon itself and having its edge secured to the upper portion of the reinforcement.

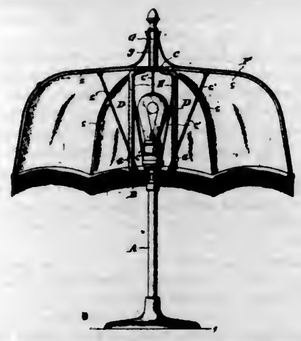
4. In an article of the character set forth, a knitted body, an extra thread knitted into a portion of the same, forming a reinforcement, and a welt comprising a margin of the body doubled upon itself and secured to the reinforcement.



5. In an article of the character set forth, a tubular knitted body, an extra thread knitted into a portion of the same at a distance from its edge, forming a tubular reinforcement in the body, and a tubular welt comprising the portion of the body between the reinforcement, and the end of said body doubled upon itself and secured to the upper marginal portion of the reinforcement.

[Claim 6 not printed in the Gazette.

1,142,775. LAMP-SHADE. DAVID ROSE, Lancaster, Pa., assignor of one-half to James Rose, Lancaster, Pa. Filed Jan. 23, 1915. Serial No. 3,977. (Cl. 240—109.)



1. A collaspible lamp shade comprising two members, one fixed and the other movable toward and from said fixed member, a series of elastic ribs projecting from said movable member, a corresponding series of stretchers each hinged at one end to said fixed member and at the other end to one of said ribs at an intermediate point of the latter, means for securing said movable member in a fixed position relatively to said fixed member with the shade open, and a suitable cover secured to said ribs in such manner that said ribs tend to separate said members and will cause the shade to collapse when said movable member is released to permit the shade to close.

2. A lamp shade comprising a fixed base ring having upstanding rods thereon, a vertically movable top ring, tubular members on the latter ring having a telescopic connection with the rods on said base ring, a series of ribs radiating from said movable ring, a corresponding series of stretchers connecting said base ring with said ribs at an intermediate point of the latter, means carried by said telescopically connected members for locking said ribs in a fixed position for holding the shade open, and a cover of flexible material overlying said ribs.

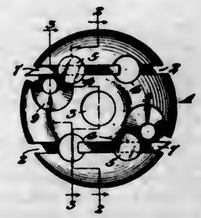
3. A collapsible lamp shade comprising relatively fixed and movable rings having a telescopic connection therebetween, said movable ring being uppermost, and said fixed ring adapted for attachment to a standard at the base of a lamp projecting above the lower ring, a series of radially projecting ribs hinged at their inner ends to said movable ring, a series of stretchers hinged at one end to said base ring and at the other end thereof to said ribs at an intermediate point of the latter, and a cover overlying said ribs.

4. A collapsible lamp shade comprising a base plate, a vertically movable plate arranged above said base plate, a plurality of rods rising from said base plate, a corresponding plurality of rods depending from said movable plate, means slidably connecting said rods, one upon the other, means carried by said rods for locking them together at a fixed point, a series of elastic ribs projecting from said movable plate, a series of stretchers pivoted at one end to said fixed plate and at the other end to said ribs at an intermediate point of the latter, and a cover for said ribs.

5. A lamp shade comprising two telescopically connected members, one arranged above the other, the lower member being fixed and the other movable toward and from said fixed members, a series of ribs projecting from said movable member, a corresponding series of stretchers each hinged at one end to said fixed member and at the other end to one of said ribs at an intermediate point of the latter, and a suitable cover secured to said ribs, together with means for locking said movable member in a fixed position with respect to said fixed member when the shade is open.

[Claims 6 to 10 not printed in the Gazette.]

1,142,776. CUTTER-HEAD. ELMER S. SHIMER, Milton, Pa., assignor to Samuel J. Shimer & Sons, Milton, Pa., a Corporation of Pennsylvania. Filed Aug. 25, 1914. Serial No. 858,500. (Cl. 144—230.)

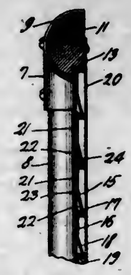


1. In a cutter head, the combination with a block provided with slots extending through the side, of bits received in the slots, means for fastening the bits in the slots and to the head so that said bits and fastening means will be below the top of the head providing an unobstructed surface, said head having the peripheral edge thereof projecting over an area practically as wide as the distance between the cutting edges of the bits to protect the hands of the operator.

2. In a cutter head, the combination with a block provided with slots formed in the top thereof and extending through the side, of bits received in the slots, said block provided with holes intersecting the slots, mortised bolts received in the holes, said bits received in the mortises of the bolts, means for fastening the bolts to the block for causing the bolts and bits to be drawn below the top of the block and produce an obstructed surface at the top of the block, said head provided with tapering holes within the peripheral edge thereof and adjacent the slots for receiving and discharging the chips from the block, and the periphery of the block projecting over an area practically as wide as the distance between the cutting edges of the bits to protect the hands of the operator.

1,142,777. CHANGEABLE SIGN. GEORGE STAR, Davenport, Iowa, assignor of one-third to Martin Silberstein and one-third to Phillip Wagner, Davenport, Iowa. Filed July 11, 1914. Serial No. 850,393. (Cl. 40—140.)

1. A device of the class described, comprising a frame, a plurality of superposed horizontally extending slats depending one from the other and engaged at their extremities by said frame, said slats having their lower portions depressed forming longitudinal recesses, and character bearing members having flanges adapted to project into said recesses.



2. A changeable sign comprising a frame, channel shaped members supported at the sides thereof, a plurality of superposed slats with their extremities disposed within the said channel shaped members, said slats provided with lower rearwardly and downwardly extending portions defining recesses with the subjacent slats, and a plurality of character bearing members adapted to removably enter said recesses and to extend downwardly therefrom.

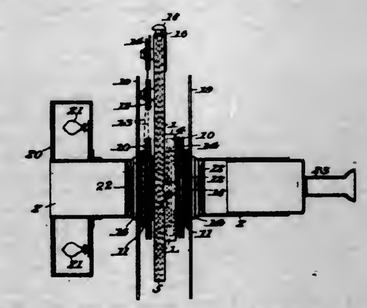
3. A support for sign characters, comprising spaced channel-shaped stiles, a plurality of interengaging superposed horizontally extending slats with their extremities disposed within the said stiles to hold the slats in fixed relation, each slat including a rearwardly and downwardly extending upper flange, a substantially vertical body portion, a rearwardly and downwardly extending flange, and a forwardly projecting shelf carried at the lower extremity of the latter, said shelf interlocking with and supporting the flange of the subjacent slat.

4. A slat for signs, comprising a plane body portion, the upper extremity of said body portion being bent rearwardly and downwardly and forming a supporting member, the lower edge of the body portion being bent rearwardly and downwardly and forming a flange, the lower edge of said flange being bent forwardly and defining a shelf.

5. In combination, a sign board comprising a series of interengaging slats depending one from the other and provided with interlocking flanges extending from the top and bottom edges thereof, and character bearing members adapted to detachably hang from the top flanges of said slats.

[Claims 6 and 7 not printed in the Gazette.]

1,142,778. OPHTHALMOMETER AND CERATOMETER. JOHN HAMER SUTCLIFFE, London, England, assignor to George Culver Ltd., London, England. Filed June 21, 1913. Serial No. 775,032. (Cl. 88—20.)



1. In an ophthalmometer, a mire adapted to produce a corneal image, a telescope comprising an objective, guides connected with said telescope, a carrier adapted to be inserted into or withdrawn from said guides, and an auxiliary lens system carried by said carrier.

2. In an ophthalmometer, a mire adapted to produce a corneal image, a telescope comprising an objective, guides connected with said telescope, a carrier adapted to be inserted into or withdrawn from said guides, and an auxiliary lens system carried by said carrier, a slide movably mounted in said carrier, said auxiliary system comprising two mutually adjustable lens portions, one of which is mounted on said carrier while the other is mounted on said slide, and means for mutually adjusting said lens portions.

3. In an opthalmometer, a mire adapted to produce a corneal image, a telescope comprising an objective, guides connected with said telescope, a carrier adapted to be inserted into or withdrawn from said guides, an auxiliary lens system carried by said carrier, a slide movably mounted in said carrier, said auxiliary system comprising two mutually adjustable lens portions, one of which is mounted on said carrier while the other is mounted on said slide, and means for mutually adjusting said lens portions comprising a pulley having concentric portions of different diameters, a pulley rotatably mounted on said slide, and a flexible member that is passed around said pulley on said slide, and the ends of which are secured to the peripheries of the two concentric portions of first-mentioned pulley.

4. In an ophthalmometer, a mire adapted to produce a corneal image, a telescope comprising an objective, guides connected with said telescope, a carrier adapted to be inserted into or withdrawn from said guides, an auxiliary lens system carried by said carrier, a slide movably mounted in said carrier, said auxiliary system comprising two mutually adjustable lens portions, one of which is mounted on said carrier while the other is mounted on said slide, and means for mutually adjusting said lens portions comprising a pulley having concentric portions of different diameters, a pulley rotatably mounted on said slide, guide pulleys mounted on said guides, a flexible member that is secured at its ends to the peripheries of the two concentric portions of first-mentioned pulley, and that is passed around said guide pulleys and around said pulley on the slide, and spring connections between said slide and said carrier.

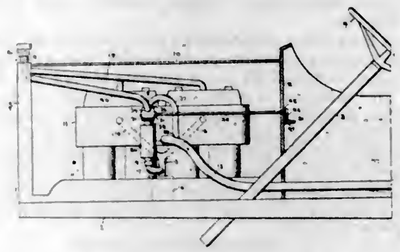
5. In an ophthalmometer, a mire adapted to produce a corneal image, a telescope comprising an objective, guides connected with said telescope, a carrier adapted to be inserted into or withdrawn from said guides, an auxiliary lens system carried by said carrier, a slide movably mounted in said carrier, said auxiliary system comprising two mutually adjustable lens portions, one of which is mounted on said carrier while the other is mounted on said slide, and means for mutually adjusting said lens portions comprising a pulley mounted coaxially on said telescope and having concentric portions of different diameters, a handwheel connected to said pulley to rotate the same, a pulley rotatably mounted on said slide and a flexible member that is passed around said pulley on said slide, and the ends of which are secured to the peripheries of the two concentric portions of first-mentioned pulley.

[Claims 6 to 13 not printed in the Gazette.]

1,142,779. GAS-SAVING APPLIANCE. ALBERT ROSS UMBARGER, Walton, Ind., assignor of one-half to Arthur A. Tritt, Walton, Ind. Filed Jan. 15, 1914. Serial No. 812,246. (Cl. 123—119.)

1. A device of the class described, in combination with a combustion engine, the radiator, the exhaust pipe, and the fuel intake pipe for said engine, of a housing connected to said fuel intake pipe, a valve casing associated with said housing, a vapor pipe connecting said valve casing with the radiator of the engine, a hot air pipe connecting said valve casing with the exhaust pipe of the engine, and a manually controlled three-way valve within said valve casing for establishing communication between the respective vapor and hot air pipes and said housing for regulating the degree of humidity of the fuel charge.

2. A device of the class described, in combination with a combustion engine, the radiator, the exhaust pipe, and the fuel intake pipe for said engine, of a housing connected to said fuel intake pipe, a valve casing associated with said housing, a vapor pipe connecting said valve casing with the radiator of the engine, a hot air pipe connecting said valve casing with the exhaust pipe of the engine, a manually controlled three-way valve within said valve casing for establishing communication between the respective vapor and hot air pipes and said housing for regulating the degree of humidity of the fuel charge, and an automatic valve within said housing actuated by the suction of the engine for supplying the regulating medium to the fuel charge.



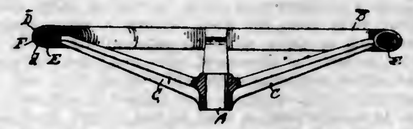
3. A device of the class described, in combination with a combustion engine, the radiator, the exhaust pipe, and the fuel intake pipe for said engine, of a housing connected to said fuel intake pipe, a check valve within said housing, a valve casing formed with said housing, a vapor pipe connecting said valve casing with the radiator of the engine, a hot air pipe connecting said valve casing with the exhaust pipe of the engine, a rotary valve within said valve casing for establishing communication between the respective vapor and hot air pipes and said housing for regulating the degree of humidity of the fuel charge, and a rod secured to said rotary valve along its horizontal axis for operating said valve.

4. A device of the class described, in combination with a combustion engine, the radiator, the exhaust pipe, and the fuel intake pipe for said engine, of a housing connected to said fuel intake pipe, a check valve within said housing, a valve casing formed integrally with said housing, a vapor pipe connecting said valve casing with the radiator of the engine, a hot air pipe connecting said valve casing with the exhaust pipe of the engine, a rotary valve within said valve casing for establishing communication between the respective vapor and hot air pipes and said housing for regulating the degree of humidity of the fuel charge, a rod for adjusting said rotary valve, and means for locking said rod against movement for retaining said rotary valve in its relative adjusted position.

5. A device of the class described, in combination with a combustion engine, the radiator, the exhaust pipe, and the fuel intake pipe for said engine, of a housing connected to said fuel intake pipe, a check valve within said housing, a valve casing formed integrally with said housing, a vapor pipe connecting said valve casing with the radiator of the engine, a hot air pipe connecting said valve casing with the exhaust pipe of the engine, a rotary valve within said valve casing for establishing communication between the respective vapor and hot air pipes and said housing for regulating the degree of humidity of the fuel charge, a rod for adjusting said rotary valve, and means for locking said rod against movement for retaining said rotary valve in its relative adjusted position, said locking means also for indicating the position of said rotary valve.

1,142,780. HAND OR STEERING WHEEL. JOHN YOUNGER, Buffalo, N. Y., assignor to The Pierce-Arrow Motor Car Company, Buffalo, N. Y. Filed Feb. 8, 1915. Serial No. 6,723. (Cl. 74—33.)

1. A hand wheel comprising a rigid channeled rim which is open circumferentially at one side, and a wrapping covering said channeled rim, said wrapping being adapted to yield under pressure between the edges of said channeled rim.



2. A hand wheel comprising a channeled rim which is open circumferentially at one side, a yielding core in said rim, and a wrapping covering said channeled rim and said core.

3. A hand wheel comprising a rigid channeled rim which is open circumferentially at one side, a rope core in said rim, and a cord wrapping covering said channeled rim and rope core.

4. A hand wheel comprising a hollow rim of substantially elliptical cross-section open circumferentially at its underside, a yielding core in said rim, and a covering wound around said hollow rim and core.

5. A hand wheel comprising a metal spider provided with a metal channeled rim open circumferentially at its underside, and a cord wrapping covering said rim and being adapted to yield between the edges thereof.

[Claim 6 not printed in the Gazette.]

1,142,781. ANIMAL-TRAP. JOSEPH A. CAMERON, Indianapolis, Ind., assignor to George W. Infield, Marion county, Ind. Filed Aug. 22, 1912. Serial No. 716,378. (Cl. 43—24.)



1. An animal trap appliance including a front plate having a doorway therein and also a ledge adjacent to the doorway having two perforations, the plate having also an offset portion extending from the ledge, and two bars extending through the perforations respectively and at one side of the offset portion and also across the doorway, the two bars having two head portions respectively that are rotatably supported upon the ledge, the head portions being connected together.

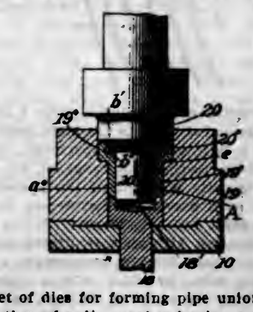
2. An animal trap appliance including a front plate having a doorway in its normal lower portion and also two perforations above the doorway, and a trap-door comprising two bars extending through the two perforations respectively and having two head portions respectively that extend horisontally each toward the other and in contact with the front plate, the two bars normally extending across the doorway and opposite one side of the plate, and a handle connected to the head portions and extending adjacent to the opposite sides of the plate.

3. An animal trap comprising a cylindrical receptacle having a neck, a front plate connected to the neck and having a doorway therein and also two perforations above the doorway, and a trap-door comprising two bars extending through the two perforations respectively and having two head portions respectively that are supported by the front plate and normally extend downward on the inner side of the plate across the doorway, the bars having two extensions respectively that extend from their lower ends and downwardly at an inclination to the inner side of the neck, and a handle connected to the head portions and extending beyond the outer side of the front plate.

4. An animal trap appliance including a front plate having a doorway therein, the plate having a ledge adjacent to the doorway provided with two perforations, the plate having also an offset portion extending from the ledge, and two bars extending through the two perforations respectively and at one side of the offset portion and across the doorway, the two bars having respectively two head portions that are supported upon the ledge, and a handle connected to the head portions.

5. An animal trap appliance including a circular front plate having a cylindrical flange and having also a doorway and lateral guards at opposite sides of the doorway, the flange having screw-threads adapted for engagement with a threaded receptacle, a door swingingly supported on the plate above the doorway, and an annular spring-clasp embracing the flange between the screw-threads and having two crooks normally positioned below the plane of the bottom of the doorway, the crooks having each an arm thereon, the arms respectively extending back and outwardly in opposite directions.

1,142,782. SET OF DIES. HJALMAR G. CARLSON, Worcester, Mass., assignor to Rockwood Sprinkler Company of Massachusetts, a Corporation of Massachusetts. Filed Dec. 3, 1914. Serial No. 875,357. (Cl. 78—60.)



1. In a set of dies for forming pipe unions and the like, the combination of a die member having a passage therein reduced inwardly from one side, a second member on the outer side of the first named die member having a passage of substantially the same diameter as the diameter of the open end of the passage in the first member, a plunger having an external portion fitting the passage in the second member, and a longer but smaller concentric plunger member adapted to extend into the first member.

2. In a set of dies for forming pipe unions and the like, the combination of a die member having a passage therein reduced inwardly from one side, a second member on the outer side of the first named die member having a passage, and a plunger having an external portion fitting the passage in the second member, and a longer but smaller concentric plunger member adapted to extend into the first member, and means for compressing longitudinally the part of the blank shaped in said second member.

3. In a set of dies for forming pipe unions and the like, the combination of a die member having a passage therein, a second member having a larger passage, and a plunger having an external portion fitting the passage in the second member, and a longer but smaller concentric plunger member adapted to extend into the first member, means for compressing longitudinally the part of the blank shaped in said second member, and means for concaving and compressing the same part of the blank.

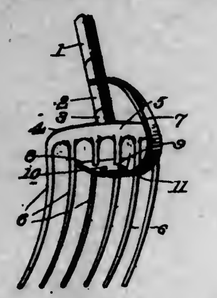
4. In a set of dies for forming pipe unions and the like, the combination of means for doubling over the edge of a cup-shaped blank having a perforation in its end, of a die member having a passage therein of two sizes, and a plunger adapted to enter said passage, and having a large portion fitting the larger sized passage, a plunger smaller than the smaller sized passages, the surface between the large portion of the plunger and the smaller plunger having a convex form, and a member adapted to move axially toward said plunger, and having a cavity in its end of concave form and complementary in shape to the said surface on the plunger.

5. In a set of dies for forming pipe unions and the like, the combination of a die member having a passage therethrough reduced inwardly from one side, a plunger adapted to enter the smallest portion of said passage, and of a

sine to form a space between it and the plunger for receiving the metal to be operated upon, and means for bending over inwardly and forcing longitudinally a blank in said first die member while the plunger is within the same.

[Claim 6 not printed in the Gazette.]

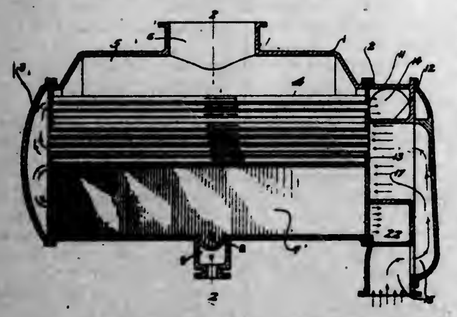
1,142,783. ATTACHMENT FOR AGRICULTURAL FORKS. WILLIAM H. EAGAN, Grand Rapids, Mich. Filed Aug. 28, 1914. Serial No. 859,075. (Cl. 55—79.)



1. A fork attachment including a plate, a U-shaped fulcrum having one end secured to the plate, said plate being provided with a pair of spaced apertures, the apertures being arranged to receive the tangs of an agricultural fork and the opposite terminal of the U-shaped fulcrum being provided with a semi-circular recess to receive the handle of the fork.

2. The combination with an agricultural fork, of a fulcrum attachment, said fulcrum attachment comprising a plate, the plate being provided with a pair of spaced apertures receiving the tangs of the fork and a U-shaped fulcrum member secured to the plate, said fulcrum member having a semi-circular recess in the end opposite the plate, the walls of the recess being arranged to engage the handle of the fork and transmit the pressure from the fulcrum member to the fork handle.

1,142,784. CONDENSER. RAYMOND N. EHRHART, Edgewood, Pa., assignor to The Westinghouse Machine Company, a Corporation of Pennsylvania. Filed July 2, 1913. Serial No. 776,966. (Cl. 257—43.)



1. In a condenser, a cylindrical shell, a substantially cylindrical nest of tubes located eccentrically within the shell and forming a steam delivery space substantially surrounding the nest of tubes and in direct communication with the steam inlet port of the condenser, an air offtake having its inlet well within the nest of tubes and extending longitudinally with relation to the tubes of the nest, and means for directing a flow of cooling liquid through the tubes so that the coldest liquid traverses the tubes located adjacent to the inlet of the air offtake.

2. In a condenser, a nest of tubes located within the condenser shell and substantially surrounded by a fluid delivery space which communicates with the fluid inlet of the shell, said nest having converging fluid passages which communicate with said space, and a non-condensable-fluid offtake having its inlet well within said nest and at the point of convergence of said passages.

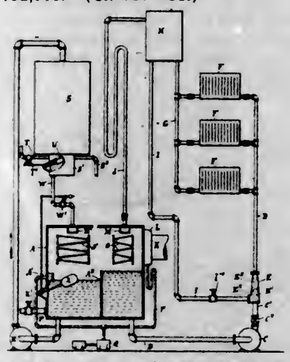
3. In a condenser, a shell, a nest of tubes therein spaced away from the shell to form a steam space so that steam or vapor can enter substantially any portion of the perimeter of the nest of tubes, and a non-condensable fluid offtake extending into said nest of tubes and communicating with an offtake port formed in said shell.

4. In a condenser, a shell having a fluid inlet and a condensate outlet port, a nest of tubes located within the shell and spaced therefrom so that the condensate dropping from the tubes and passing to said outlet port is surrounded by uncondensed fluid, and a noncondensable fluid offtake having an inlet located well within the nest of tubes.

5. In a condenser, a shell, a nest of tubes therein, a non-condensable vapor offtake located well within said nest of tubes in combination with means for directing the flow of water through the tubes so that the inner portion of the nest of tubes surrounding the offtake will be supplied with the coldest water and the outer portions of the nest of tubes will be supplied with water that has already traversed the inner portion.

[Claims 6 to 14 not printed in the Gazette.]

1,142,785. HOT-WATER HEATING SYSTEM. GEORGE H. GIBSON, Montclair, N. J. Filed Sept. 22, 1913. Serial No. 791,003. (Cl. 237—58.)



1. In combination, an open water heater comprising a heating chamber, a steam supply connection to said chamber, a hot water circulating, heat radiating system connected to and receiving hot water from and returning cold water to said chamber, a cooling tower, and means independent of said circulating system for passing water from said chamber into said cooling tower and returning it to said chamber whereby the temperature of the water delivered by the heater to the heating system and the steam condensing capacity of the heater may be varied by varying the rate at which water is passed to the cooling tower and returned to said chamber.

2. In combination, an open water heater comprising a heating chamber, a steam supply connection to said chamber, a hot water circulating, heat radiating system including a circulating pump connected to and receiving hot water from and returning cold water to said chamber, a vacuum pump connected to said chamber, a cooling tower, and an independent pump for passing water from said chamber into said cooling tower and returning it to said chamber whereby the temperature of the water delivered by the heater to the heating system and the steam condensing capacity of the heater may be varied by varying the rate at which water is passed to the cooling tower and returned to said chamber.

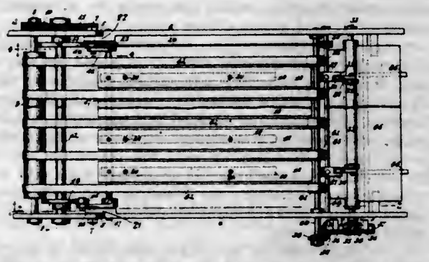
3. In combination, an open water heater comprising a heating chamber, a steam supply connection to said chamber, a hot water circulating, heat radiating system connected to and receiving hot water from, and returning cold water to said chamber, a cooling tower located above said heating chamber, means for passing water from said chamber into said cooling tower, a return connection from said tower to said chamber and means responsive to the height of water level in said chamber for controlling the flow through said return connection.

4. In combination, an open water heater comprising a heating chamber, a steam supply connection to said chamber, a hot water circulating, heat radiating system connected to and receiving hot water from, and returning cold water to said chamber, a cooling tower located above said heating chamber, means for passing water from said chamber into said cooling tower, a return connection from said tower to said chamber, means including an overflow connection and a float controlled make up water supply connection for maintaining a substantially constant accumulation of water in said tower, and means responsive to the height of water level in said chamber for controlling the flow through said return connection.

5. In combination, an open water heater comprising a heating chamber, a partition dividing the lower portion of said chamber into two water compartments each open to the common steam space in the upper portion of said chamber, a set of splash trays above each compartment, a hot water circulating, heat radiating system receiving hot water from one of said compartments and returning cold water to the splash trays above the same, means for maintaining a water level in the other compartment below the level at which water will flow into the latter over said partition and for controlling the water heating and steam condensing capacity of said heater including a cooling tower and means for withdrawing water from the last mentioned compartment and returning it to the splash trays above the same after passing through said cooling tower, and a steam supply connection to said chamber.

[Claim 6 not printed in the Gazette.]

1,142,786. FEED MECHANISM FOR PRINTING-PRESSES. CHARLES M. KNEPPLER, New York, N. Y. Filed Apr. 1, 1914. Serial No. 828,703. (Cl. 101—36.)



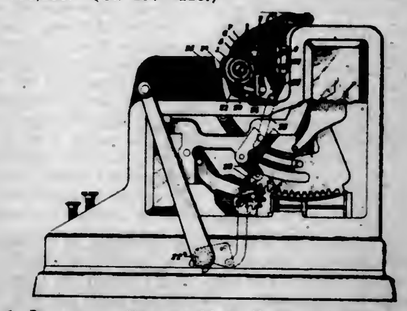
1. In a feeding mechanism for printing presses, the combination of a number of endless tapes for conveying a sheet to be printed, a rocking shaft disposed below said tapes, a plurality of slats interspersed alternatively between said tapes and rigidly connected with said rocking shaft, said slats extending lengthwise and disposed intermediate the ends of said tapes, and means for automatically rocking said shaft in order to move the free ends and adjacent portions of said slats into frictional engagement with the sheet which is disposed upon said tapes, in order to check the speed thereof, and movable and stationary feed rollers for automatically moving said movable feed roller away from the stationary roller as said slats are lowered below the upper surfaces of said tapes.

2. In a feed mechanism for printing presses, the combination of a number of endless tapes for conveying a sheet to be printed, a rocking shaft disposed adjacent said tapes, a plurality of slats controllable by movements of said shaft and provided with portions disposed adjacent the path of travel of said sheet but normally a little out of said path, an arm mounted rigidly upon said rocking shaft in order to actuate the same so as to bring the ends of said slats into frictional engagement with said sheet and thus check the speed thereof, a cam for actuating said arm, a cam shaft carrying said cam, a second cam carried by said cam shaft, an arm controllable by movements of said second cam, a rod connected with said last mentioned arm, and feed wheels controllable by said rod and adapted to engage and disengage said sheet.

3. In a feed mechanism for printing presses, the combination of a plurality of movable tapes for carrying a sheet to be printed, a feed roller disposed adjacent said tapes and extending in a direction crossing the length thereof, said feed roller having a speed of rotation slow as compared with the speed of travel of said tapes, a rocking shaft disposed adjacent said feed wheel, a plurality of arms mounted rigidly upon said rocking shaft, feed wheels carried by said arms, another rocking shaft disposed adjacent said tapes, a plurality of slats carried by said last mentioned rocking shaft and together constituting a rack, said slats being normally out of the path of travel of said sheet, and mechanism common to said last mentioned rocking shaft and said feed wheels for shifting said slats relatively to said tapes and for shifting said feed wheels relatively to said feed roller.

4. In a feeding mechanism for printing presses, the combination of a number of traveling members for conveying a sheet to be printed, a rocking shaft disposed adjacent said traveling members, a composite rack secured rigidly to said rocking shaft so that when said shaft is rocked the portion of said rack farthest away from said shaft moves through a longer arc than portions disposed adjacent said shaft, means for rocking said shaft in order to bring said first mentioned portion of said rack into frictional engagement with said sheet so as to check the speed of travel of said sheet, a feed roller disposed adjacent the path of travel of said sheet, and feed wheels connected in positive working relation to said shaft and movable bodily in relation to said feed roller.

1,142,787. RECORDING-MACHINE. HARRY LANDSIEDEL, Poplar Bluff, Mo., assignor, by mesne assignments, to The Dalton Adding Machine Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Sept. 5, 1913. Serial No. 788,233. (Cl. 197—123.)



1. In a recording machine, the combination with a platen, and a platen shaft, of a line spacing wheel mounted on said platen shaft, a toothed clutch member interlocked with and movable with respect to said wheel, a toothed differential clutch member arranged to engage said first-named clutch member in any one of various positions, a device for rotating the platen, and means controlled by said device for disengaging said clutch members.

2. In a recording machine, a platen arranged to hold paper, a shaft supporting said platen, a line space wheel loosely mounted on said shaft, a clutch member movable with said line space wheel, an annular series of teeth on said clutch member; a second clutch member, an annular series of teeth on said second-named clutch member to engage with said first-named clutch member in any one of various adjustments, means for rotating the platen, means controlled by said rotating means for disengaging said clutch members, and a detent device controlled by the disengagement of said clutch members to hold said line space wheel.

3. The combination with a platen arranged to hold paper, and a shaft holding said platen, of a line space wheel on said shaft, a detent device acting upon said line space wheel, a differential clutch device adjustable to hold said platen in any one of various selected adjustments with respect to said line space wheel, means for disengaging said clutch device and rotating said platen inde-

pendently of said line space wheel, and means operated by said disengaging means to hold said detent device positively in engagement with said line space wheel.

4. The combination with a platen, a shaft for rotating said platen, a ratchet wheel loosely mounted on said shaft, and a detent device operating on said wheel, of a differential clutch member movable toward and away from said wheel, means preventing said wheel and said clutch member from rotating with respect to each other, a coöperating clutch member rigid with said shaft, a spring between said wheel and said first-named clutch member actuating said clutch member into engagement with said coöperating clutch member, and means operable to disengage said first-named clutch member from said second-named clutch member and to rotate said platen and said shaft, substantially as described.

5. The combination with a platen, a shaft for rotating said platen, a ratchet wheel loosely mounted on said shaft and a detent device operating on said wheel, of a differential clutch operable to hold said platen in any one of various positions with respect to said ratchet wheel, means for rotating said platen and shaft and releasing said ratchet wheel from said clutch, and means controlled by said releasing device for pressing said detent device positively in engagement with said ratchet wheel, substantially as specified.

[Claims 6 to 24 not printed in the Gazette.]

REISSUES.

13,922. LAUNDRY-WASHING MACHINE. JOHN W. BERCAW, Hamilton, Ohio, assignor to The American Laundry Machinery Company, Norwood, Ohio, a Corporation of Ohio. Filed Mar. 23, 1915. Serial No. 16,480. Original No. 1,111,126, dated Sept. 22, 1914, Serial No. 768,501. (Cl. 68—18.)



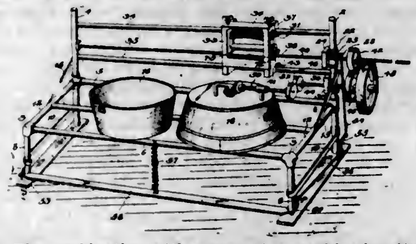
1. The combination with a rotary container, of a clothes manipulating and washing member projecting inwardly from its inner surface and comprising a hollow rib forming a chamber having orifices in its opposite walls and a movable valve functioning member coöperating alternately with the opposite walls of the chamber and forming a water holding compartment.

2. The combination with a rotary container, of a clothes manipulating and washing member projecting inwardly from its inner surface and comprising a hollow rib forming a chamber having orifices in its opposite walls and a valve functioning member pivotally mounted for swinging movement and coöperating alternately with the walls of the chamber and forming a water holding compartment.

3. The combination with a rotary container, of a clothes manipulating and washing member projecting inwardly from its inner surface and comprising a base, a hollow rib thereon forming a chamber having orifices in its opposite walls and a valve functioning member pivoted to the base to swing from one side of the chamber to the other and coöperating alternately with the walls of the chamber and forming a water holding compartment.

13,923. COMBINED POWER WASHING AND WRINGING MACHINE. TERENCE G. BRADY, Calmar, Iowa. Filed Feb. 16, 1912. Serial No. 678,130. Original No. 1,004,355, dated Sept. 26, 1911, Serial No. 341,706. (Cl. 68—15.)

1. In a device of the character described, the combination with a support, a machine longitudinally adjustable upon said support and means for operating the machine by power in any adjusted position thereof, said means including a shaft connected to said machine and a pulley, said shaft and said machine having a sliding relation to each other, said pulley being relatively fixed upon the support, and a second pulley adapted to be thrown into and out of engagement with said first named pulley.



2. The combination with a support, a machine longitudinally movable thereon, a shaft adapted to engage said machine in any of its longitudinally adjusted positions, a pulley on said shaft, relatively longitudinally non-movable, a drive pulley and means for throwing the pulley on the shaft and the drive pulley into or out of engagement as desired.

3. An apparatus of the character described, including in combination, a supporting means, a machine mounted thereon, a second machine slidable at will with relation to said machine, means for actuating said second machine in any of its adjusted positions, means for operating the first named machine, power driven means for operating the actuating means of the second named machine and the first named machine, means whereby the actuating means of the second named machine is normally held out of connection with said power driven means, and means to enable said second machine actuating means to be operatively connected to said power driven means.

4. In combination with a support, a machine mounted thereon, a second machine slidably mounted on said support, means for actuating said second machine in any of its adjusted positions, means for operating the first named machine, power driven means for operating actuating means of both of said machines, vertically slidable spring-pressed means to normally hold the actuating means of the second named machine out of contact with said power driven means, and means for operating said spring-pressed means to bring said actuating means into contact with said power driven means.

5. An apparatus of the class described, including in combination, a supporting means, a washing mechanism and a wringer mechanism mounted on said supporting means, one of said mechanisms being movable relatively to the other, mechanism to operate said washing mechanism and also adapted to operate said wringer mechanism in any position.

6. An apparatus of the character described, including in combination, a support adapted to sustain a washing machine and one or more receptacles, a wringer mechanism mounted on said support and movable opposite the position for said washing machine or said receptacles, and means to drive the wringer mechanisms in any of said positions.

7. An apparatus of the character described, including in combination, a common support for a washing machine, rinsing receptacles and a wringer; a washing machine mounted on said support and operating means therefor, a drive shaft, means thereon for placing said drive shaft in operative connection with power, and driving connection between said drive shaft and said washing machine operating means, a wringer mounted on said support and adapted to be moved so as to be brought opposite to either said washing machine or other receptacles on said support, driving means for said wringer, said driving means being normally in inoperative relation with said drive shaft, and means for establishing an operative connection between said wringer driving means and said drive shaft, whereby the wringer may be operated at various positions on said support.

8. An apparatus of the character described, including in combination, a supporting means, a washing machine mounted on said supporting means, a driving mechanism, and driving connections between said washing machine and said driving mechanism, a wringer mechanism movable relatively to said washing machine, wringer actuating means being normally in inoperative relation with said driving mechanism, and means for establishing an operative relation between said wringer actuating means and said driving mechanism.

9. An apparatus of the character described, including in combination, a supporting means, adapted to sustain a washing machine, a wringer mechanism mounted thereon and adapted to be moved to different positions relatively to said washing machine, means for locking or fixing said wringer mechanism in its different positions, a power driven element, driving connections between said power driven element and said wringer mechanism, and means for controlling said driving connections to actuate said wringer mechanism as desired, in its different positions.

10. An apparatus of the character described, including in combination, a washing machine and a wringer mechanism associated therewith, said wringer mechanism being so mounted that it may be moved to various positions with respect to said washing machine, whereby to progressively operate upon the same work during different stages of its treatment, a driving means, driving connections for operating said washing machine from said driving means, driving connections between said driving means and said wringer mechanism, including a part normally out of operative relation with the said driving means, but adapted to be moved into operative relation therewith, and means for controlling said driving connections whereby said washing machine and said wringer mechanism may be operated one at a time or simultaneously, regardless of the position of said wringer mechanism.

11. A washing machine having in combination a support for a plurality of receptacles, a driving means, a train of mechanism extending from said driving means to a part of the machine, a second train of mechanism extending from said driving means to another part of the machine, a wringer connected to said second train of mechanism, and means admitting of the adjustment of the wringer at will to different positions relative to said receptacles while maintaining the driving relation with said driving means.

13,924. METHOD OF PREPARING BARIUM OXID. LEWIS E. SAUNDERS, Niagara Falls, N. Y. Filed Apr. 28, 1915. Serial No. 24,622. Original No. 1,112,721, dated Oct. 6, 1914, Serial No. 675,675. (Cl. 204—64.)

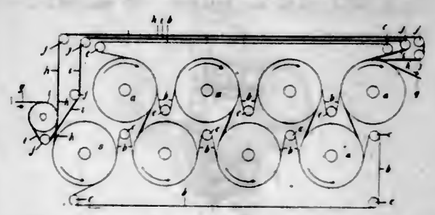


1. The method of preparing barium oxid, which consists in heating barium sulfate to its temperature of decomposition under non-reducing conditions.

2. The method of preparing barium oxid, which consists in electrically heating barium sulfate to its temperature of decomposition under non-reducing conditions.

3. The method of preparing barium oxid, which consists in decomposing barium sulfate under non-reducing conditions by the heat of an electric arc maintained out of contact therewith.

13,925. DRIER-ROLLS FOR PAPER-MACHINES. WILLIAM SHEAHAN, Oregon City, Oreg. Filed Nov. 7, 1914. Serial No. 870,917. Original No. 1,104,759, dated July 21, 1914, Serial No. 777,600. (Cl. 34—48.)



1. In a paper making machine, the combination of drier rolls made with ends having peripheral surfaces sunken below the peripheral surface of the body of the roll, and endless carriers bearing in such sunken peripheral surfaces side by side, the latter being below the peripheral surface of the body of the rolls by the thickness of the carriers so as to cause the outer surfaces of the carriers to travel approximately at the same speed as the drier rolls while traveling on the latter.

2. In a paper making machine, the combination of drier rolls made with ends having peripheral surfaces sunken below the peripheral surface of the body of the roll, and a flange on the outer extremities of such sunken surfaces, and endless carriers bearing in such sunken peripheral surfaces side by side, the latter being below the peripheral surface of the body of the rolls by the thickness of the carriers so as to cause the outer surfaces of the carriers to travel approximately at the same speed as the drier rolls while traveling on the latter.

3. In a paper making machine, the combination with the drier rolls, of pieces affixed to the ends of the rolls, which pieces are made with peripheral surfaces sunken below those of the body of the roll, and endless carriers bearing in such sunken surfaces side by side, the latter being below the peripheral surface of the body of the rolls by the thickness of the carriers so as to cause the outer surfaces of the carriers to travel approximately at the same speed as the drier rolls while traveling on the latter.

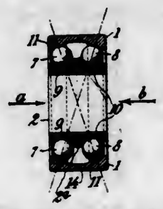
4. In a paper making machine, the combination with the drier rolls, of pieces affixed to the ends of the rolls, which pieces are made with peripheral surfaces sunken below those of the body of the roll, and a flange on the outer extremities of such sunken surfaces, and endless carriers bearing in such sunken surfaces side by side, the latter being below the peripheral surface of the body of the rolls by the thickness of the carriers, so as to cause the outer surfaces of the carriers to travel at the same speed as the drier rolls while traveling on the latter.

5. In a machine of the character described, in combination with the drier rolls, endless carriers, and supporting means adapted to bring the carrying surfaces of the carriers in the same plane as that of the periphery of the drier rolls, so as to cause said carriers to travel approximately at the same speed as the latter, said carriers and said supporting means being adapted to cause the former to travel side by side.

6. In a machine of the character described, in combination with the drier rolls, endless carriers of circular cross-section and supporting means adapted to bring the carrying surfaces of the carriers in the same plane as that of the periphery of the drier rolls, so as to cause said carriers to travel approximately at the same speed as the latter, said carriers and said supporting means being adapted to cause the former to travel side by side.

7. In a paper making machine, the combination of drier rolls made with ends having peripheral surfaces sunken below the peripheral surface of the body of the roll, and endless carriers of circular cross-section bearing in such sunken peripheral surfaces side by side, the carrying surfaces of the latter being located in a plane determined by the thickness of the carriers, so as to cause the carriers to travel approximately at the same speed as the drier rolls while traveling on the latter.

13,926. BALL-BEARING. SVEN GUSTAF WINGQUIST, Gottenborg, Sweden, assignor to Aktiebolaget Svenska Kullagerfabriken, Gottenborg, Sweden. Filed Oct. 2, 1913. Serial No. 793,072. Original No. 1,028,844, dated June 4, 1912, Serial No. 390,416. (Cl. 64—36.)



1. The herein described improved ball bearing having inner and outer members each integrally formed from a single piece of metal, the inner member having a plurality of peripheral tracks extended around it affording oppositely arranged shoulders, and a plurality of ball sets arranged in said tracks of the inner member, the outer member having a concave spherical inner surface struck from a center point positioned at the rotative axis of the inner member and midway between the respective ball sets, and affording concentric tracks having spherical bearing surfaces reversely inclined to the rotative axis of the inner member and opposite to the shoulders afforded by the respective tracks of the inner member, the respective ball sets being interposed between said shoulders of the inner member and the respective reversely inclined bearing surfaces of the outer member to transmit end thrust imposed upon said inner member, and said inner member being capable of universal turning movement around said center point to facilitate the introduction and withdrawal of the ball sets within and from said outer member.

2. The herein described improved ball bearing having inner and outer members each integrally formed from a single piece of metal, the inner member having a plurality of peripheral tracks extended around it affording oppositely arranged shoulders, and a plurality of ball sets arranged in said tracks of the inner member, the outer member having a concave spherical inner surface struck from a center point positioned at the rotative axis of the inner member and between the respective ball sets, and affording concentric tracks having spherical bearing surfaces reversely inclined to the rotative axis of the inner member and opopsite to the shoulders afforded by the respective tracks of the inner member, the respective ball sets being interposed between said shoulders of the inner member and the respective reversely inclined bearing surfaces of the outer member to transmit end thrust imposed upon said inner member, and said inner member being capable of universal turning movement around said center point to facilitate the introduction and withdrawal of the ball sets within and from said outer member.

3. In a ball bearing, the combination with an integral outer ring having an inner spherical face, of an integral inner ring having a pair of concave ball tracks, and a ball set disposed in each said track, said inner ring being capable of universal turning movement around the center of the spherical face to bring the balls outside the outer member.

4. A combined radial and thrust bearing comprising an inner and an outer bearing member, the inner bearing member having two concave, unbroken, permanently related, track faces, a ball set mounted on each said track face, and the outer bearing member having hollow spherical, unbroken, permanently related, track faces for the said balls struck from a common center point positioned within the bearing on the axis of rotation of the bearing, the said inner member and the ball sets being capable of a tilting movement around the said center point to bring the balls outside the outer member.

5. A combined radial and thrust bearing comprising an inner and an outer bearing member, the inner bearing member having two concave, unbroken, permanently related, track faces of equal radius from the axis of rotation of the bearing, a ball set mounted on each said track face, and the outer bearing member having hollow spherical, unbroken, permanently related, track faces for the said balls struck from a common center point positioned within the bearing on the said axis of rotation, the said inner member and the ball sets being capable of a tilting movement around the said center point to bring the balls outside the outer member.

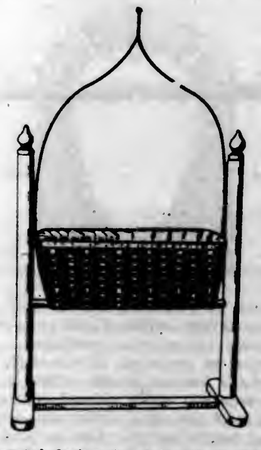
6. A combined radial and thrust bearing comprising an inner and an outer bearing member, the inner bearing member having two concave, unbroken, permanently related, track faces, a ball set mounted on each said track face, and the outer bearing member having hollow spherical, unbroken, permanently related, track faces for the said balls struck from a commou center point positioned within the bearing on the axis of rotation of the bearing, the said inner member and the ball sets being capable of a tilting movement around the said center point to bring the balls outside the outer member, each ball making a two-point contact, the points of contact being substantially on the radius of the spherical track face.

7. A combined radial and thrust bearing comprising an inner and an outer bearing member, the inner bearing member having unbroken, permanently related track faces, a ball set mounted on each said track face, and the outer bearing member having hollow, spherical, unbroken, permanently related track faces for the said balls struck from a common center point positioned on the axis of rotation of the bearing between the ball sets, the said inner member and the ball sets being capable of a tilting movement around the said center point to bring the balls outside the outer member.

8. A combined radial and thrust bearing comprising an inner and an outer bearing member, the inner bearing member having unbroken, permanently related track faces, a ball set mounted on each said track face, and the outer bearing member having hollow, spherical, unbroken, permanently related track faces for the said balls struck from a common center point positioned on the axis of rotation of the bearing between the ball sets, the said inner member and the ball sets being capable of a tilting movement around the said center point to bring the balls outside the outer member, each ball making a two-point contact, the points of contact being substantially on the radius of the spherical track face.

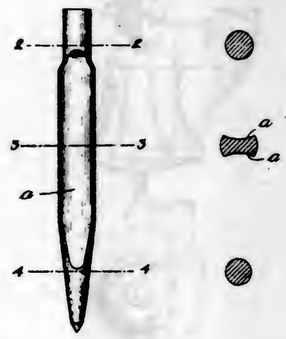
DESIGNS.

47,415. BASSINET. HAROLD BARKER, Ann Arbor, Mich. Filed Feb. 18, 1915. Serial No. 9,192. Term of patent 14 years.



The ornamental design for a bassinet, substantially as shown.

47,416. TOOL-HANDLE. EMORY E. ELLIS, Orange, Mass., assignor to Union Caliper Company, Orange, Mass. Filed Feb. 2, 1914. Serial No. 816,108. Term of patent 7 years.



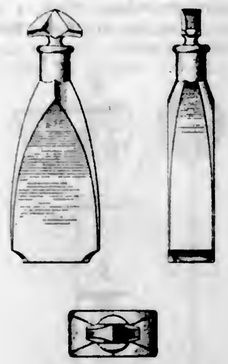
The ornamental design for a tool handle, as shown and described.

47,417. RING. JOHN F. FABER, Brooklyn, N. Y. Filed Mar. 11, 1915. Serial No. 13,757. Term of patent 7 years.



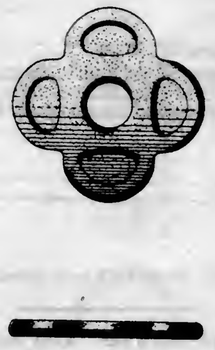
The ornamental design for a ring, as shown.

47,418. BOTTLE. ARTHUR O. FREEDMAN, New Haven, Conn., assignor to The Arthur Chemical Company, New Haven, Conn., a Corporation of Connecticut. Filed Apr. 2, 1915. Serial No. 18,882. Term of patent 3½ years.



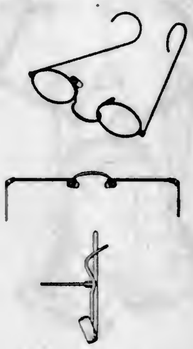
The ornamental design for a bottle, substantially as shown.

47,419. TEETHING APPARATUS. JACK R. GOLDEN, Cleveland, Ohio. Filed Mar. 15, 1915. Serial No. 14,612. Term of patent 14 years.



The ornamental design for a teething apparatus, as shown.

47,420. SPECTACLE-FRAME. ANDREW JAMES HARRISON, Birmingham, England. Filed Aug. 24, 1914. Serial No. 858,329. Term of patent 7 years.



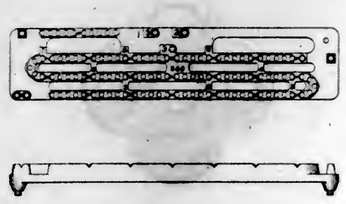
The ornamental design for a spectacle frame as shown.

47,421. TOY OR TOY BANK. JOHN H. HARTMAN, Lancaster, Pa. Filed Mar. 4, 1915. Serial No. 12,166. Term of patent 3½ years.



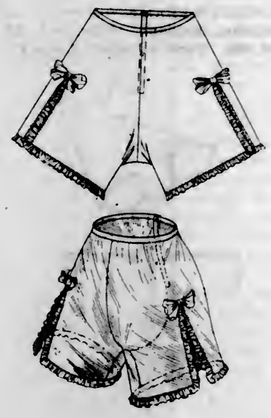
The ornamental design for a toy or toy bank, as shown.

47,422. SCORE-BOARD. WILLARD H. READ, Troy, N. Y. Filed Mar. 3, 1915. Serial No. 11,868. Term of patent 14 years.



The ornamental design for a score board, as shown.

47,423. CLOSED DRAWERS. ANNA HEUSER, Paterson, N. J. Filed Sept. 10, 1914. Serial No. 861,154. Term of patent 14 years.



The ornamental design for closed drawers, as shown.

47,424. PNEUMATIC TIRE. HIBBERT R. HOLMES, Toronto, Ontario, Canada. Filed Apr. 9, 1914. Serial No. 830,816. Term of patent 3½ years.



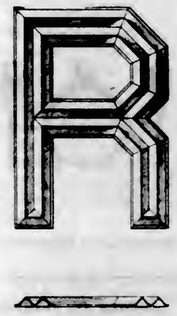
The ornamental design for a pneumatic tire as shown.

47,425. SIGNAL DEVICE. HOMER L. HULLIWORE, Cleveland, Ohio. Filed Feb. 12, 1915. Serial No. 7,899. Term of patent 14 years.



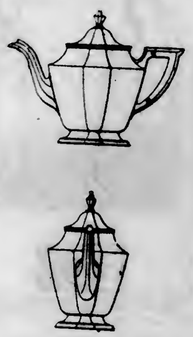
The ornamental design for a signal device as shown.

47,426. SIGN-LETTER. HENRY H. JACOBOWITZ, Brooklyn, N. Y. Filed Feb. 26, 1915. Serial No. 10,870. Term of patent 14 years.



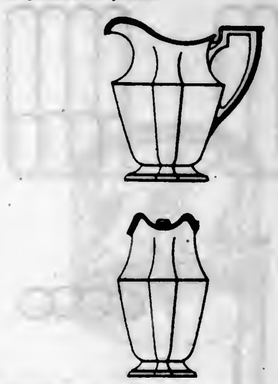
The ornamental design for a sign letter, as shown.

47,427. TEAPOT OR SIMILAR ARTICLE. BARTON P. JENKS, Providence, R. I., assignor to Gorham Manufacturing Company, Providence, R. I., a Corporation of Rhode Island. Filed Apr. 21, 1915. Serial No. 22,961. Term of patent 14 years.



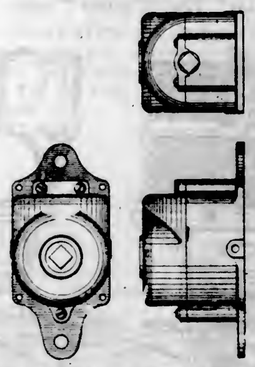
The ornamental design for a tea pot or similar article, as shown.

47,428. PITCHER OR SIMILAR ARTICLE. BARTON P. JENKS, Providence, R. I., assignor to Gorham Manufacturing Company, Providence, R. I., a Corporation of Rhode Island. Filed Apr. 21, 1915. Serial No. 22,962. Term of patent 14 years.



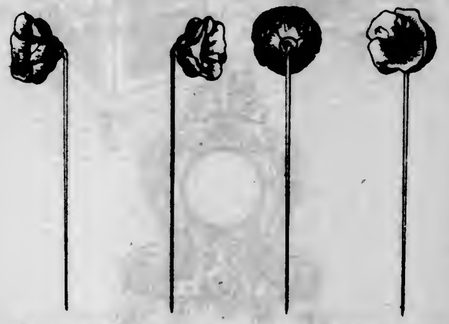
The ornamental design for a pitcher or similar article, as shown.

47,429. GEAR-CASE. CHARLES F. KARBERG, Cleveland, Ohio, assignor to The Cleveland-Akron Bag Company, Cleveland, Ohio, a Corporation of Ohio. Filed Feb. 8, 1915. Serial No. 6,860. Term of patent 14 years.



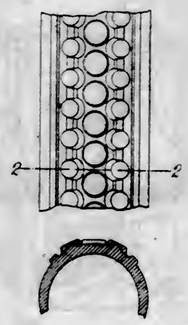
The ornamental design for a gear case, as shown.

47,430. STICK-PIN OR SIMILAR ARTICLE OF JEWELRY. LILLUS A. KELLEY, Calistoga, Cal. Filed Apr. 17, 1915. Serial No. 22,189. Term of patent 3½ years.



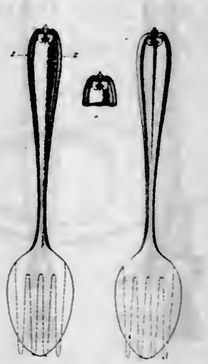
The ornamental design for a stick pin or similar article of jewelry, as shown.

47,431. AUTOMOBILE-TIRE. HERBERT JACOB LEAR, Chicopee Falls, Mass., assignor to Fisk Rubber Company, Chicopee Falls, Mass., a Corporation of Massachusetts. Filed July 30, 1914. Serial No. 854,196. Term of patent 14 years.



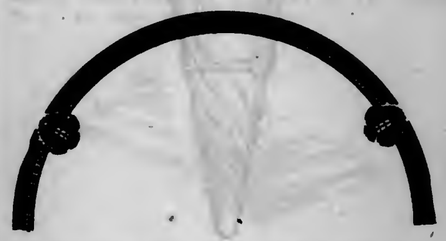
The ornamental design for an automobile tire, as shown.

47,432. HANDLE FOR SPOONS, FORKS, OR SIMILAR ARTICLES. MARGARET MASSON, Attleboro, Mass., assignor to The Watson Company, Attleboro, Mass. Filed Feb. 23, 1915. Serial No. 10,152. Term of patent 3½ years.



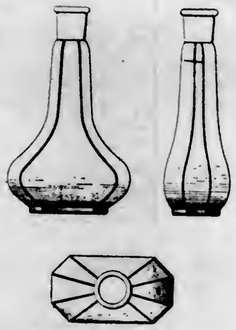
The ornamental design for a handle for spoons, forks or similar articles, as shown.

47,433. ARTICLE OF MANUFACTURE. GUERNSEY MOORE, Swarthmore, Pa., assignor to Hotel Traymore Company, Atlantic City, N. J. Filed Apr. 5, 1915. Serial No. 19,384. Term of patent 7 years.



The ornamental design for an article of manufacture as shown.

47,434. PERFUME-BOTTLE. WILLIAM OREM, Baltimore, Md., assignor to R. A. Carmichael & Co., Detroit, Mich. Filed Jan. 18, 1915. Serial No. 2,987. Term of patent 14 years.



The ornamental design for a perfume bottle, as shown.

47,435. WRENCH. HANS P. PETERSEN, South Tacoma, Wash. Filed Aug. 29, 1914. Serial No. 859,250. Term of patent 14 years.



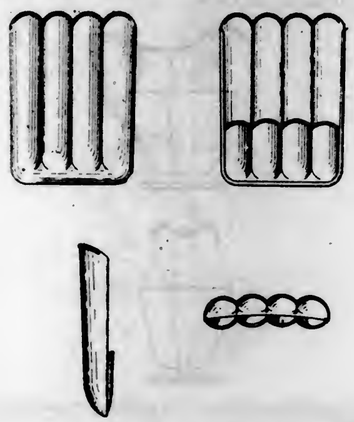
The ornamental design for a wrench as shown.

47,436. ICE-CREAM CONE. PARK D. ROBERTS, St. Joseph, Mo., assignor to Roberts Cone Manufacturing Co., St. Joseph, Mo., a Corporation of Missouri. Filed Mar. 13, 1915. Serial No. 14,254. Term of patent 14 years.



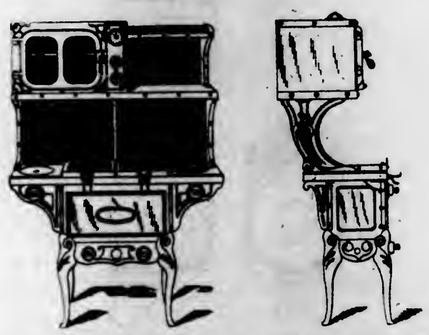
The ornamental design for an ice cream cone, as shown.

47,437. CIGAR-HOLDER. WILLIAM H. SAART, Attleboro, Mass., assignor to The W. H. Saart Company, a Corporation of Massachusetts. Filed Jan. 15, 1915. Serial No. 2,485. Term of 3½ years.



The ornamental design for a cigar holder, as shown.

47,438. STOVE. LUTHER D. SMITH, Toledo, Ohio, assignor to The Standard Electric Stove Company, Toledo, Ohio, a Corporation of Ohio. Filed Dec. 4, 1914. Serial No. 875,541. Term of patent 7 years.



The ornamental design for a stove, substantially as shown.

47,439. CLOCK-FRAME. JOSEPH E. STEINMEIER, New York, N. Y., assignor to Western Clock Company, La Salle, Ill., a Corporation of Illinois. Filed Mar. 30, 1915. Serial No. 18,197. Term of patent 7 years.



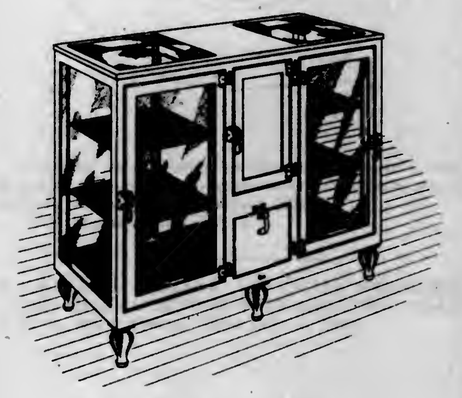
The ornamental design for a clock frame as shown.

47,440. BOX. PHILLIP J. SWEARINGEN, Los Angeles, Cal. Filed Feb. 15, 1915. Serial No. 8,385. Term of patent 14 years.



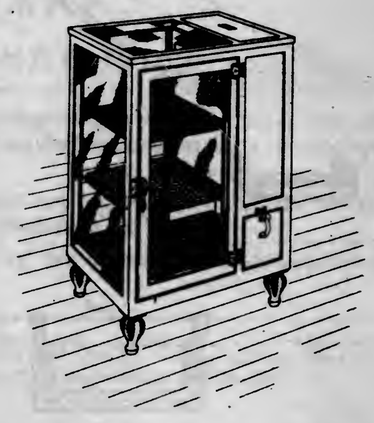
The ornamental design for a box as shown.

47,441. CANDY-REFRIGERATOR. CHARLES OSCAR ULLIN, Kendallville, Ind., assignor to McCray Refrigerator Company, Kendallville, Ind., a Corporation of Indiana. Filed Feb. 18, 1915. Serial No. 9,190. Term of patent 7 years.



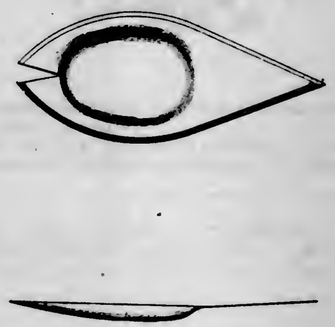
The ornamental design for a candy refrigerator as shown.

47,442. CANDY-REFRIGERATOR. CHARLES OSCAR ULLIN, Kendallville, Ind., assignor to McCray Refrigerator Company, Kendallville, Ind., a Corporation of Indiana. Filed Feb. 18, 1915. Serial No. 9,191. Term of patent 7 years.



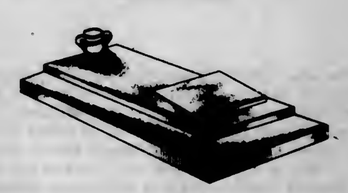
The ornamental design for a candy refrigerator as shown.

47,443. COMBINATION KNIFE, FORK, SPOON, AND TOOTHPICK. VICTOR M. VILLEMAIN, New York, N. Y. Filed Nov. 4, 1914. Serial No. 870,309. Term of patent 14 years.



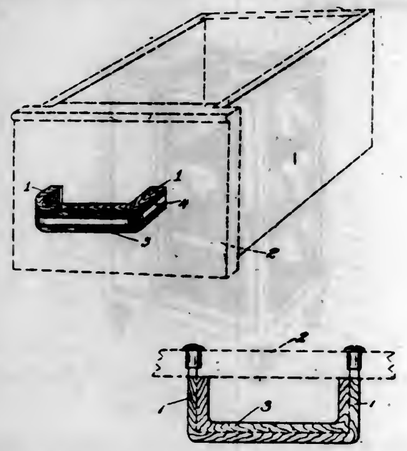
The ornamental design for a combination knife fork, spoon and toothpick, as shown.

47,444. GRAVE-PROTECTING MONUMENT. HENRY B. WEIPER, Lower Lake, Cal. Filed Mar. 29, 1915. Serial No. 17,949. Term of patent 7 years.



The ornamental design for a grave protecting monument, as shown.

47,445. DRAWER-PULL. OTTO H. L. WERNICKE, Grand Rapids, Mich. Filed June 29, 1914. Serial No. 848,068. Term of patent 14 years.



The ornamental design for a drawer pull, substantially as shown and described.

47,446. WATCH-CHAIN SAFETY-CLASP. PERRY B. WHITE, Rochester, N. Y. Filed Mar. 25, 1915. Serial No. 17,070. Term of patent 3½ years.



The ornamental design for a watch chain safety clasp, as shown.

TRADE-MARKS

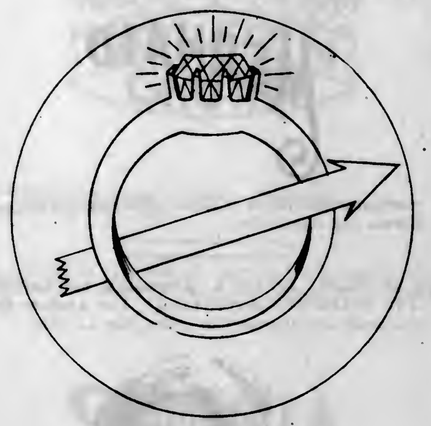
PUBLISHED JUNE 8, 1915.

The following trade-marks are published in compliance with section 6 of the act of February 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of this date.

Marks applied for "under the ten-year proviso" are registrable under the provision in clause (b) of section 5 of said act as amended February 18, 1911.

As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.

Ser. No. 69,062. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CHESTER C. SPEARING, Cincinnati, Ohio. Filed Mar. 15, 1913.



Particular description of goods.—An Antiseptic; Compound for Headache, Nervousness, and Neuralgia and a Remedy for Urethral and Kidney Diseases.
Claims use since Mar. 19, 1910.

Ser. No. 72,345. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) COMAR & CIE., Paris, France. Filed Aug. 15, 1913.

ELECTRARGOL

Particular description of goods.—An Antiseptic Compound for General Use.
Claims use since Dec. 14, 1906.

Ser. No. 75,286. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) GUNNS LIMITED, West Toronto, Ontario, Canada. Filed Jan. 19, 1914.



Particular description of goods.—Cooking-Oil, Ham, Bacon, Lard.
Claims use as to hams since 1874 and as to lard and bacon since 1875, and as to cooking-oil since 1908.

Ser. No. 76,027. (CLASS 39. CLOTHING.) DEAVER-KENNEDY COMPANY, Knoxville, Tenn. Filed Feb. 19, 1914.



An oblong ring green in color, stitched into cloth, and through the center of said ring is printed in yellow the words "Gold Bond." These have generally been arranged as shown in the accompanying facsimile, in which the words "Gold Bond" stand out prominently printed through the center of said ring in yellow letters.
Particular description of goods.—Men's Flannel Shirts, Men's Laundered Shirts, Men's Work-Shirts, Boys' Work-Shirts, and Boys' Laundered Shirts.
Claims use since about Sept. 1, 1913.

Ser. No. 77,475. (CLASS 29. BROOMS, BRUSHES, AND DUSTERS.) A. G. JACOBUS' SONS, INCORPORATED, Verona, N. J. Filed Apr. 14, 1914.

"SUNSHINE"
DUST-DUSTO

Particular description of goods.—Mops, Brooms, and Floor-Brushes.
Claims use since about Oct. 15, 1912.

Ser. No. 79,246. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) RENFREW M'F'G CO., Adams, Mass. Filed June 20, 1914.



The designs and lettering being shown in gilt upon a black band label with gilt border. Applicant herewith disclaims the right to the exclusive use of the words "Yarn Dyed Fabrics, Guaranteed. M'f'g Co., Treas."
Particular description of goods.—Cotton Piece Goods.
Claims use since May, 1911.

Ser. No. 79,591. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) DURLACQUE MANUFACTURING COMPANY, St. Louis, Mo. Filed July 6, 1914.

DURLACQUE

Particular description of goods.—Preparation for Stiffening Box-Toes of Shoes and Preparation for Resisting Etching-Acids.
Claims use since some time prior to Jan. 1, 1914.

Ser. No. 79,947. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE NEW WOOSTER PRESERVING CO., Wooster, Ohio. Filed July 20, 1914.

Buckeye

Particular description of goods.—Tomato Catsup, Jell, Jam, Apple-Butter, Syrup, Prepared Mustard, Pickles, Relish, Canned Fruits and Vegetables.
Claims use since 1897.

Ser. No. 80,434. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) HABICHT, BRAUN & CO., New York, N. Y. Filed Aug. 10, 1914.



PARROT

Particular description of goods.—Nut-Meats, Raisins, Currants, Figs, Cocoanut, Citron, Orange-Peel, Lemon-Peel, Peanut-Butter, Honey, Egg-Albumen, Caraway-Seed, Poppy-Seed, Evaporated Apples, Gelatin, and Dried Peas and Beans.
Claims use since July 24, 1914.

Ser. No. 80,502. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) LOS ANGELES SOAP COMPANY, Los Angeles, Cal. Filed Aug. 12, 1914.

MERMAID

Particular description of goods.—Washing-Powder.
Claims use since 1896.

Ser. No. 80,505. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) LOS ANGELES SOAP COMPANY, Los Angeles, Cal. Filed Aug. 12, 1914.



Comprising a fanciful representation of a woman appearing within a floral background.
Particular description of goods.—Soap.
Claims use since 1896.

Ser. No. 81,223. (CLASS 29. BROOMS, BRUSHES, AND DUSTERS.) THE KLEANOL COMPANY, Springfield, Mass. Filed Sept. 12, 1914.

KLEANOL

Particular description of goods.—Dustless Mops, Dustless Dusters, and Sanitary Household Brushes.
Claims use since on or about Mar. 7, 1906.

Ser. No. 81,351. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) CHAS. A. SCHIEREN COMPANY, New York, N. Y. Filed Sept. 19, 1914.

DUXBAK

Particular description of goods.—A Dressing for Fabrics—Such, for Example, as Leather, Canvas, and Belting Generally—for the Purpose of Waterproofing the Same.
Claims use since about the year 1907.

Ser. No. 81,735. (CLASS 10. FERTILIZERS.) THE ROBERT A. WOOLDRIDGE COMPANY, Baltimore, Md. Filed Oct. 7, 1914.

GOLDEN GROWN

Particular description of goods.—Fertilizers.
Claims use since 1896.

Ser. No. 81,761. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) HAROLD H. FRIES, New York, N. Y. Filed Oct. 9, 1914.

GRAPE-O-LA

Particular description of goods.—A Grape Beverage.
Claims use since Aug. 1, 1910.

Ser. No. 81,899. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THEODORE P. GRANT, Norwood, N. Y. Filed Oct. 15, 1914.

VILLAGE

Particular description of goods.—Butter.
Claims use since about 1880.

Ser. No. 81,986. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WILLIAM L. JERKINS, Moultrie, Ga. Filed Oct. 19, 1914.

JERKINS'
EYE WATER

W. L. J.

No claim to the exclusive use of the words "Jerkins' Eye Water" being made.
Particular description of goods.—Eye-Water.
Claims use since June, 1907.

Ser. No. 82,339. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) BARTLETT-TUELL CO., Tacoma, Wash. Filed Nov. 2, 1914.



We hereby disclaim the words "Bartlett Tuell," occurring on the drawing, as forming any part of our trade-mark offered for registration.
Particular description of goods.—Calf-Meal.
Claims use since Sept. 20, 1914.

Ser. No. 82,421. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) KAFFEE HAG CORPORATION, New York, N. Y. Filed Nov. 5, 1914.



The representation of the life-buoy being in red, no claim being made to the word "Kaffee" apart from the mark as shown.
Particular description of goods.—A Coffee Partially Freed from Caffein.
Claims use since the year 1906.

Ser. No. 82,736. (CLASS 43. THREAD AND YARN.) HARDING, TILTON & COMPANY, Boston, Mass. Filed Nov. 21, 1914.

FLOSSIANA

Particular description of goods.—Mercerized and Otherwise Processed Cotton Yarns.
Claims use since May 2, 1914.

Ser. No. 83,110. (CLASS 17. TOBACCO PRODUCTS.) FALK TOBACCO CO., New York, N. Y. Filed Dec. 7, 1914.

MODERN CUT

Particular description of goods.—Smoking-Tobacco and Cigarettes.
Claims use since Feb. 2, 1914.

Ser. No. 83,302. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) NITH CHEMICAL CO., Lawrence, Kans. Filed Dec. 15, 1914.

NITH

Particular description of goods.—A Liquid Antiseptic Deodorizer and an External Application for Relief of Inflammations such as Accompanying Catarrh, Sore Throat, Headache, Colds, Hay-Fever, Cold-Sores, Stopped Nostrils, Croup, Rheumatism, Skin Eruptions, Bruises, Chapped Hands, and Insect-Bites.
Claims use since July 3, 1914.

Ser. No. 83,523. (CLASS 39. CLOTHING.) AMERICAN RUBBER COMPANY OF CHICAGO, Chicago, Ill. Filed Dec. 26, 1914.

BKL

No claim being made to the word "Brand" apart from the mark shown in the drawing.
Particular description of goods.—Rain-Coats.
Claims use since Oct. 28, 1913.

Ser. No. 83,700. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) ALMA C. RICHARDS, Sherman, Tex. Filed Jan. 6, 1915.

MAGIC WASHING STICK

No claim to the exclusive use of the words "Washing Stick" being made.
Particular description of goods.—A Substance to be Used with Soap for Washing Purposes.
Claims use since July 1, 1914.

Ser. No. 83,809. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) AMERICAN BRAKE SHOE & FOUNDRY COMPANY, Mahwah, N. J., and New York, N. Y. Filed Jan. 13, 1915.

P

Which comprises a diamond-shaped figure within which is inclosed the letter "P."
Particular description of goods.—Brake-Shoes.
Claims use since about Dec. 1, 1914.

Ser. No. 83,874. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HOG-JOY SYSTEM, Springfield, Ill. Filed Jan. 15, 1915.

HOG-JOY

Particular description of goods.—Tonics for Animals.
Claims use since Nov. 5, 1914.

Ser. No. 83,875. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HOG-JOY SYSTEM, Springfield, Ill. Filed Jan. 15, 1915.

GRO-FAST

Particular description of goods.—Tonics for Animals.
Claims use since Nov. 5, 1914.

Ser. No. 84,042. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE STAG CO., Chicago, Ill. Filed Jan. 22, 1915.

STAG

Particular description of goods.—Safety-Razor-Sharpening Machines.
Claims use since Nov. 17, 1914.

Ser. No. 84,128. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE BROMO REMEDY CO., Chicago, Ill. Filed Jan. 27, 1915.



Particular description of goods.—Foot-Bath Tablets, Medical Preparations, and Internal Remedies—to wit, Remedies for the Feet and Internal Remedies for Colds.
Claims use since the first day of November, 1914.

Ser. No. 84,461. (CLASS 39. CLOTHING.) ONEIDA KNITTING COMPANY, Philadelphia, Pa. Filed Feb. 11, 1915.

OK CO

Particular description of goods.—Hosiery.
Claims use since about Sept. 1, 1914.

Ser. No. 84,658. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) HOLMAN SOAP CO., Chicago, Ill. Filed Feb. 20, 1915.

UNCLE SAM'S



Comprising the words "Uncle Sam's" and the representation of Uncle Sam, no claim being made to the representation of a globe.
Particular description of goods.—Scouring Soaps and Powders.
Claims use since the year 1905.

Ser. No. 84,667. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) THE RAMBY COMPANY, Chillicothe, Ohio. Filed Feb. 20, 1915.

SIMPLEX

Particular description of goods.—Electric Vacuum Cleaners and Sweepers.
Claims use since about Aug. 1, 1913.

Ser. No. 84,708. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) SHINSAKU NAGANO, Chicago, Ill. Filed Feb. 23, 1915.



No claim is made to the exclusive use of the words "Trade Mark."
Particular description of goods.—Sauces for Seasoning Foods.
Claims use since October, 1911.

Ser. No. 84,721. (CLASS 31. FILTERS AND REFRIGERATORS.) UNITED DRUG COMPANY, Boston, Mass. Filed Feb. 23, 1915.

The Rexall Store

"The" and "Store" are disclaimed.
Particular description of goods.—Water-Filters for Household-Faucets and Candy-Show-Case Refrigerators.
Claims use since prior to July, 1913, on the water-filters and since prior to January, 1914, on candy-show-case refrigerators.

Ser. No. 84,791. (CLASS 39. CLOTHING.) E. W. BURT & COMPANY INCORPORATED, Boston, Mass. Filed Feb. 26, 1915.

ROTOR HEEL

No claim being made to the word "Heel."
Particular description of goods.—Leather Heels, Rubber Heels, and Rubber Inserts for Leather Heels for Boots and Shoes.
Claims use since on or about the first day of February, 1915.

Ser. No. 84,840. (CLASS 12. CONSTRUCTION MATERIALS.) THE EXOLON COMPANY, Cambridge, Mass. Filed Mar. 1, 1915.

FIREFRAX

Particular description of goods.—A By-Product Obtained in Producing Silicon Carbid Used for Refractory Purposes.
Claims use since Feb. 15, 1915.

Ser. No. 85,055. (CLASS 39. CLOTHING.) SIMONS FUR CO., New York, N. Y. Filed Mar. 9, 1915.

Lynxura

Comprising the word "Lynxura."

Particular description of goods.—Furs,—Viz., Muffs and Scarfs.

Claims use since Mar. 2, 1915.

Ser. No. 85,176. (CLASS 38. PRINTS AND PUBLICATIONS.) A. L. BURT COMPANY, New York, N. Y. Filed Mar. 16, 1915.

THE BOY ALLIES

Particular description of goods.—A Series of Books.

Claims use since Jan. 15, 1915.

Ser. No. 85,244. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) SOUTH HOLLAND MILK CORPORATION, New York, N. Y. Filed Mar. 18, 1915.

VAN TROMP

Particular description of goods.—Condensed Milk.

Claims use since the 11th day of July, 1914.

Ser. No. 85,338. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) ORONA MFG. CO., Boston, Mass. Filed Mar. 23, 1915.

O.M.C.

Particular description of goods.—Metal-Polishes.

Claims use since Jan. 12, 1915.

Ser. No. 85,339. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) ORONA MFG. CO., Boston, Mass. Filed Mar. 23, 1915.

ALUMISHINE

Particular description of goods.—Metal-polishes.

Claims use since Jan. 12, 1915.

Ser. No. 85,352. (CLASS 7. CORDAGE.) GEORGE UNDERWOOD, Jr., Auburn, N. Y. Filed Mar. 23, 1915.

108

Particular description of goods.—Cotton and Linen Twines, Finished and Unfinished, Put Up in Balls, Tubes, Cones, Reels, and Coils.

Claims use since the 1st day of April, 1913.

Ser. No. 85,361. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) GUS. G. BUSE, Buffalo, N. Y. Filed Mar. 24, 1915.



The trade-mark consists of a solid ring of blue, within and next to which is another ring of equal width of pure white. Within the white ring is a solid body of red, upon which, toward the outer edge, is a wreath representing the heads of wheat. Upon the body of the red field and within the wreath above mentioned appear the letters "K. and B." in large capitals, printed in blue and yellow.

Particular description of goods.—Wheat-Flour.

Claims use since July, 1911.

Ser. No. 85,388. (CLASS 39. CLOTHING.) WALTER E. BEDELL, New York, N. Y. Filed Mar. 25, 1915.

"EVERYWOMANS"

"Everywomans."

Particular description of goods.—Outer Suits, Cloaks, Gowns, Outer Waists, Outer Skirts, and Petticoats.

Claims use since Nov. 10, 1914.

Ser. No. 85,403. (CLASS 17. TOBACCO PRODUCTS.) PETER D. HORASAN, New York, N. Y. Filed Mar. 25, 1915.



Particular description of goods.—Cigarettes.

Claims use since Feb. 15, 1915.

Ser. No. 85,432. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) THE CUDAHY PACKING COMPANY, Chicago, Ill. Filed Mar. 26, 1915.



Particular description of goods.—Toilet Soap.

Claims use since Mar. 10, 1915.

Ser. No. 85,435. (CLASS 39. CLOTHING.) FRANK M. FARGO, Chicago, Ill. Filed Mar. 26, 1915.



No claim being made to the representation of a shoe.

Particular description of goods.—Children's Shoes of Leather and of Combination Leather and Rubber and Leather and Canvas.

Claims use since Jan. 15, 1915.

Ser. No. 85,466. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) A. P. BABCOCK CO., New York, N. Y. Filed Mar. 27, 1915.

CUT ROSES

Comprising the words "Cut Roses."

Particular description of goods.—Talcum Powder, Face-Powders and Satchet-Powder, Toilet Waters, and Perfumes.

Claims use since June, 1894.

Ser. No. 85,472. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) WILLIAM COLVILLE, Santa Barbara, Cal. Filed Mar. 27, 1915.



Particular description of goods.—A Silver and Nickel Polish.

Claims use since Feb. 10, 1915.

Ser. No. 85,486. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) MONTANA FLOUR MILLS COMPANY, Lewistown, Mont. Filed Mar. 27, 1915.

DAKOTANA

Particular description of goods.—Wheat-Flour.

Claims use since Feb. 1, 1915.

Ser. No. 85,492. (CLASS 38. PRINTS AND PUBLICATIONS.) THE PREMIER VACUUM CLEANER COMPANY, Cleveland, Ohio. Filed Mar. 27, 1915.

Pay Dirt

Particular description of goods.—A Periodical Publication.

Claims use since on or about the 1st day of September, 1914.

Ser. No. 85,495. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE SHEBOYGAN EVAPORATED MILK CO., Sheboygan and Jefferson, Wis. Filed Mar. 27, 1915.

HEBE



Particular description of goods.—A Milk Product Evaporated.

Claims use since Feb. 9, 1915.

Ser. No. 85,502. (CLASS 12. CONSTRUCTION MATERIALS.) WHEELING CORRUGATING COMPANY, Wheeling, W. Va. Filed Mar. 27, 1915.

GORGO

Particular description of goods.—Metal Panels, Plates, Moldings, Fillers, Nosings, Entablatures, Friezes, Coves, Cornices, Corner-Miters and Centers, Being Structural and Decorative Elements of Construction.

Claims use since Feb. 2, 1915.

Ser. No. 85,505. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) LEO M. BAUGHMAN, Los Angeles, Cal. Filed Mar. 29, 1915.

PYO-SOL

Particular description of goods.—Antiseptic Mouth-Wash.
Claims use since Dec. 14, 1914.

Ser. No. 85,506. (CLASS 39. CLOTHING.) GERTRUDE S. BASSETT, Philadelphia, Pa. Filed Mar. 29, 1915.

THE SPORTS CLOTHES SHOP

Particular description of goods.—Suits, Coats, Skirts, Shirts, Sweaters, Hats, and Riding-Habits.
Claims use since on or about the 15th day of October, 1914.

Ser. No. 85,513. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) LOVELAND & SONS, Wichita, Kans. Filed Mar. 29, 1915.

"DOC" LOVELAND'S P-C

Particular description of goods.—A Chick Feed.
Claims use since Jan. 1, 1915.

Ser. No. 85,535. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) SHELTON MILLS, Chattanooga, Tenn. Filed Mar. 29, 1915.

STONEWALL

Particular description of goods.—Wheat-Flour.
Claims use since 1886.

Ser. No. 85,543. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NORTHERN LIGHT MILLING CO., Owatonna, Minn. Filed Mar. 30, 1915.

MILK MAID

Particular description of goods.—Pancake-Flour.
Claims use since the 18th day of March, 1915.

Ser. No. 85,572. (CLASS 39. CLOTHING.) MARK M. KONSKI, New York, N. Y. Filed Mar. 31, 1915.

SKY BRAND

The exclusive use of the word "Brand" not being claimed.
Particular description of goods.—Men's and Boys' Shirts, Undershirts, Pajamas, and Night-Robes, Men's and Boys' Trousers, and Boys' Rompers and Blouses.
Claims use since about 1910.

Ser. No. 85,578. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y. Filed Mar. 31, 1915.

COMETS

Particular description of goods.—Biscuit.
Claims use since Sept. 15, 1886.

Ser. No. 85,579. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y. Filed Mar. 31, 1915.

OVATIONS

Particular description of goods.—Biscuit.
Claims use since at least Jan. 27, 1909.

Ser. No. 85,580. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y. Filed Mar. 31, 1915.

GLEAMS

Particular description of goods.—Biscuit.
Claims use since at least Mar. 5, 1915.

Ser. No. 85,581. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y. Filed Mar. 31, 1915.

PUFFINS

Particular description of goods.—Biscuit.
Claims use since at least Mar. 12, 1915.

Ser. No. 85,582. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y. Filed Mar. 31, 1915.

FROLIC

Particular description of goods.—Biscuit.
Claims use since at least Feb. 19, 1883.

Ser. No. 85,583. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y. Filed Mar. 31, 1915.

SONNETS

Particular description of goods.—Biscuit.
Claims use since at least Feb. 9, 1915.

Ser. No. 85,584. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y. Filed Mar. 31, 1915.

SENTINELS

Particular description of goods.—Biscuit.
Claims use since at least Feb. 9, 1915.

Ser. No. 85,595. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) WELSBACH COMPANY, Gloucester City, N. J. Filed Mar. 31, 1915.

"C.E-Z"

Particular description of goods.—Incandescent Gas-Lamps, Including Burners and other Metal Lamp Parts, and Incandescent Mantles.
Claims use since Aug. 10, 1914.

Ser. No. 85,606. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CHARLES W. EBELING, Elm Grove, W. Va. Filed Apr. 1, 1915.

CHI-LAX

Particular description of goods.—Chewing-Gum.
Claims use since Jan. 1, 1915.

Ser. No. 85,610. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) E. GREENFIELD'S SONS, New York, N. Y. Filed Apr. 1, 1915.

Plainette

Particular description of goods.—Chocolates.
Claims use since Sept. 22, 1913.

Ser. No. 85,614. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) KEHLOR FLOUR MILLS CO., St. Louis, Mo. Filed Apr. 1, 1915.

RED ROOSTER PATENT

SELF RISING FLOUR
KEHLOR FLOUR MILLS CO.
ST. LOUIS

The trade-mark consists of the words "Red Rooster" above the representation of a rooster printed in red. The words "Self-Rising Flour, Kehlor Flour Mills Co., St. Louis," and the word "Patent," appearing in the trade-mark are disclaimed.
Particular description of goods.—Prepared Self-Rising Wheat-Flour.
Claims use since April, 1913.

Ser. No. 85,619. (CLASS 12. CONSTRUCTION MATERIALS.) NEW YORK CLAY PRODUCTS CO., Van Deventers, N. J., and New York, N. Y. Filed Apr. 1, 1915.

NCOY

Particular description of goods.—Hollow-Tile Building-Blocks.
Claims use since Jan. 14, 1915.

Ser. No. 85,622. (CLASS 39. CLOTHING.) JOHN SPICER, INC., New York, N. Y. Filed Apr. 1, 1915.

ODIVA

Particular description of goods.—Swimming-Suits.
Claims use since 1912.

Ser. No. 85,635. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) HABICHT, BRAUN & Co., New York, N. Y. Filed Apr. 2, 1915.



BULL DOG

Particular description of goods.—Nuts, Shelled Nuts, Fruit-Peels, Dried Fruits, Seeds for Food, Crystallized Ginger, Egg-Albumen, Gelatin, Maple-Sugar, Glacé Fruit, Peanut-Butter, Dried Vegetables, Evaporated Apples, Prune Jam, Dried Cocoanut, Figs, and Honey.
Claims use since March, 1915.

Ser. No. 85,644. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THOMAS J. MULCAHY, Winthrop, Mass. Filed Apr. 2, 1915.

ENCORE

Particular description of goods.—Chewing-Gum.
Claims use since Feb. 10, 1915.

Ser. No. 85,660. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) BORDEN'S CONDENSED MILK COMPANY, New York, N. Y. Filed Apr. 3, 1915.

PEARL



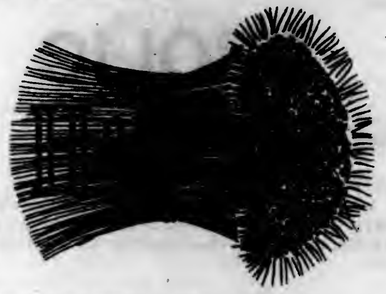
Particular description of goods.—Condensed Milk.
Claims use since June 7, 1895.

Ser. No. 85,661. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) BORDEN'S CONDENSED MILK COMPANY, New York, N. Y. Filed Apr. 3, 1915.

MODEL

Particular description of goods.—Condensed Milk.
Claims use since June 28, 1899.

Ser. No. 85,708. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) LOUIS L. DOWNING, New York, N. Y. Filed Apr. 5, 1915.



Particular description of goods.—Bread.
Claims use since Dec. 15, 1914.

Ser. No. 85,709. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) DREW ELECTRIC AND MANUFACTURING COMPANY, Indianapolis, Ind. Filed Apr. 5, 1915.

IBC

Particular description of goods.—Clench-Ears, Strain-Ears, Feed-in Ears, Screw-Clamp Trolley-Ears, Feed-in Screw-Clamp Trolley-Ears, Strain Screw-Clamp Trolley-Ears, Trolley-Splicing Ears, Trolley-Splicers, Line Suspensions, Trolley-Hangers, Feed-in Hangers, Strain-Plates, Strain-Yokes, Trolley-Frogs, Drawbridge-Frogs, Trolley-Switches, Tunnel-Approaches, Channel-Frogs, Trolley-Crossings, Section-Insulators, Pole-Sleeves.
Claims use since December, 1906.

Ser. No. 85,711. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) GESTRING WAGON CO., St. Louis, Mo. Filed Apr. 5, 1915.

HIAWATHA

Particular description of goods.—Farm-Wagons and Delivery-Wagons.
Claims use since 1878.

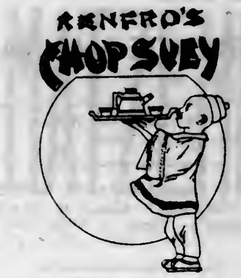
Ser. No. 85,714. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) J. F. HILLERICH & SON CO., INC., Louisville, Ky. Filed Apr. 5, 1915.



Harry Gowdy

Particular description of goods.—Base-Ball Bats.
Claims use as to the signature since Feb. 15, 1915, and the signature in association with the portrait of the individual since Mar. 26, 1915.

Ser. No. 85,720. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) RENFRO BROS. CO., Chicago, Ill. Filed Apr. 5, 1915.



Particular description of goods.—Tea.
Claims use since November, 1914.

Ser. No. 85,736. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) A. L. REID & Co., New York, N. Y. Filed Apr. 6, 1915.



The exclusive use of the words "Nagasaki Nainsook" not being claimed apart from the drawing, as shown.
Particular description of goods.—Cotton Piece Goods.
Claims use since Dec. 16, 1914.

Ser. No. 85,766. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) P. C. TOMSON & Co., Philadelphia, Pa. Filed Apr. 7, 1915. Under ten-year proviso.

TOMSON'S

Particular description of goods.—Lye.
Claims use since June, 1884.

Ser. No. 85,783. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) OMAHA COLD STORAGE COMPANY, Omaha, Nebr. Filed Apr. 8, 1915.

Golden Harvest

Particular description of goods.—Butter.
Claims use since Apr. 2, 1915.

Ser. No. 85,784. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) PACIFIC COAST BISCUIT CO., Seattle, Wash. Filed Apr. 8, 1915.

SOLDIER BOY

Particular description of goods.—Ginger-Snaps.
Claims use since Mar. 31, 1915.

Ser. No. 85,798. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ROBERT J. BRYANT, Binghamton, N. Y. Filed Apr. 9, 1915.

PUROBROUN

Particular description of goods.—Bread.
Claims use since Mar. 1, 1915.

Ser. No. 85,800. (CLASS 12. CONSTRUCTION MATERIALS.) BARRETT MANUFACTURING COMPANY, New York, N. Y. Filed Apr. 9, 1915.

LION



Particular description of goods.—Prepared Roofings, Tarred Felts, and Non-Metallic Sheathings.
Claims use since on or about Jan. 1, 1896.

Ser. No. 85,815. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CHAS. A. KRAUSE MILLING CO., Greenfield, Wis. Filed Apr. 9, 1915.

Badger

Particular description of goods.—Pearl-Meal, Corn-Cones, Corn-Flour, Mixed Feed, Cream Flakes, Dairy Feed, Pearl-Hominy, Stock Feed, Pearl-Cones, Cream-Meal, Horse Feed, Hominy Feed, Pearl-Grits, Fancy Middlings, and Evergreen Feed.
Claims use since about Sept. 20, 1907.

Ser. No. 85,827. (CLASS 39. CLOTHING.) WHEELER & MOTTER MERCANTILE COMPANY, St. Joseph, Mo. Filed Apr. 9, 1915.

SULTAN

Particular description of goods.—Men's, Women's, Children's, and Infants' Hose.
Claims use since January, 1900.

Ser. No. 85,843. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) FREEMAN-SUMMER CO., New York, N. Y. Filed Apr. 10, 1915.

VICTOR

Particular description of goods.—Press-Cloth for Oil-Mills.
Claims use since Feb. 23, 1915.

Ser. No. 85,851. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) LOVELL & COVEL COMPANY, Boston, Mass. Filed Apr. 10, 1915.

SMILES

Particular description of goods.—Candies.
Claims use since June 1, 1914.

Ser. No. 85,868. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) PACKAGE CONFECTIONERY CO., Boston, Mass. Filed Apr. 10, 1915.

SURPRISE

Particular description of goods.—Candy.
Claims use since Mar. 20, 1914.

Ser. No. 85,890. (CLASS 3. BAGGAGE, HORSE EQUIPMENTS, PORTFOLIOS, AND POCKET-BOOKS.) CHALLONER CO., Oshkosh, Wis. Filed Apr. 12, 1915.

GB

Particular description of goods.—Horseshoe-calks.
Claims use since Mar. 8, 1915.

Ser. No. 85,900. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WILLIAM W. KNIGHT, Denver, Colo. Filed Apr. 12, 1915. Under ten-year proviso.

ORANGE MANNA

Particular description of goods.—A Medicinal Food Preparation for the Stomach and Bowels.
Claims use since January, 1884.

Ser. No. 85,901. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) HARRY H. KLEIN, New York, N. Y. Filed Apr. 12, 1915.

"Premier"

Particular description of goods.—Collar-Supports, Weighted Tapes, Dress-Weights, Belting for Personal Wear, Collar-Flares, Dressmakers' Wire, and Collar-Wire.
Claims use since Nov. 4, 1914.

Ser. No. 85,907. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) OAKES CANDY CO., St. Louis, Mo. Filed Apr. 12, 1915. Under ten-year proviso.

Oakes

Particular description of goods.—Candy, Ice-Cream and Ices, Salted Nuts, Bread, and Cakes.
Claims use since the year 1872.

Ser. No. 85,936. (CLASS 50. MERCHANDISE NOT OTHERWISE CLASSIFIED.) ANNIN & CO., New York, N. Y. Filed Apr. 14, 1915.

RELIANCE

Particular description of goods.—Manufactured Flags.
Claims use since 1898.

Ser. No. 85,976. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE CASTOR PRODUCTS COMPANY, Cleveland, Ohio. Filed Apr. 16, 1915.

CASTOR-JELL



The portrait therein being a portrait of Jay Ward of Cleveland, Ohio.
Particular description of goods.—Cathartic Preparations.
Claims use since about the 15th day of February, 1915.

Ser. No. 85,993. (CLASS 38. PRINTS AND PUBLICATIONS.) MATZENE CO., Chicago, Ill. Filed Apr. 16, 1915.

MATZENE

Particular description of goods.—Photographs.
Claims use since about May 3, 1902.

Ser. No. 86,030. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) BAY STATE SAW & TOOL MFG. CO., Boston, Mass. Filed Apr. 19, 1915.



Particular description of goods.—Hacksaws.
Claims use since on or about Apr. 10, 1915.

Ser. No. 86,094. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) SANGAMO ELECTRIC COMPANY, Springfield, Ill. Filed Apr. 21, 1915.

SANGAMO

Particular description of goods.—Electricity-Meters, Electric Indicators, Electric Testing Apparatus, and Electric Recording Instruments.
Claims use since about the 1st day of April, 1901.

Ser. No. 86,101. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) BARTHELS MANUFACTURING CO., New York and Brooklyn, N. Y. Filed Apr. 22, 1915.

DIAMOND

Consisting of the word "Diamond."
Particular description of goods.—Shoe-Lacings.
Claims use since Aug. 13, 1901.

Ser. No. 86,102. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) BARTHELS MANUFACTURING CO., New York and Brooklyn, N. Y. Filed Apr. 22, 1915.



Particular description of goods.—Shoe-Lacings.
Claims use since Aug. 13, 1901.

Ser. No. 86,104. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CORN PRODUCTS REFINING CO., New York, N. Y. Filed Apr. 22, 1915.

EXCELLO

Particular description of goods.—Starch for Laundry and Manufacturing Purposes.
Claims use since Mar. 31, 1915.

Ser. No. 86,111. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MARY GIANELLA, New York, N. Y. Filed Apr. 22, 1915.

Aunt Mary's Great

Comprising the words "Aunt Mary's Great."
Particular description of goods.—Insecticides.
Claims use since Mar. 29, 1915.

Ser. No. 86,115. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) THE JUSTRITE MFG. CO., INC., Buffalo, N. Y. Filed Apr. 22, 1915.

Justrite

Particular description of goods.—Tea-Percolators and Coffee-Percolators.
Claims use since February, 1914.

Ser. No. 86,116. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) E. MCKITTRICK & CO., INC., New York, N. Y. Filed Apr. 22, 1915.

MESSIDOR

Particular description of goods.—Voile.
Claims use since July 13, 1908.

Ser. No. 86,188. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) JOHN SIMMONS CO., New York, N. Y. Filed Apr. 24, 1915.



Particular description of goods.—Acetylene-Lamps.
Claims use since June 1, 1914.

Ser. No. 86,190. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) TORPEDO CHEMICAL CO., Chicago, Ill. Filed Apr. 24, 1915.

TORPEDO

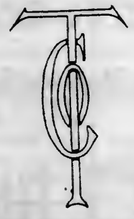
Particular description of goods.—Corn Remedy.
Claims use since the 1st day of November, 1914.

Ser. No. 86,213. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) THE J. M. MCCULLOUGH'S SONS COMPANY, Cincinnati, Ohio. Filed Apr. 26, 1915. Under ten-year proviso.

McCULLOUGH'S SEEDS.

Particular description of goods.—Seeds.
Claims use since 1838.

Ser. No. 86,238. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) THANHOUSER FILM CORPORATION, New Rochelle, N. Y. Filed Apr. 27, 1915.



Particular description of goods.—Motion-Picture Films.
Claims use since Mar. 15, 1910.

Ser. No. 86,242. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) BONNEY VISE & TOOL WORKS INC., Philadelphia and Allentown, Pa., and New York, N. Y. Filed Apr. 28, 1915.

Crocodile

Particular description of goods.—Wrenches.
Claims use since about May 8, 1909.

Ser. No. 86,246. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) PETRA FOLKMAN, New York, N. Y. Filed Apr. 28, 1915.

VIKING



Particular description of goods.—A Cream Preparation Recommended for External Use for Maintaining and Promoting Healthy Skin and Beautifying the Complexion.
Claims use since Aug. 1, 1914.

Ser. No. 86,252. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) PRINCE LAUTEN CO., New York, N. Y. Filed Apr. 28, 1915.

DUSTORAIN

The trade-mark consisting of the word "Dustorain."
Particular description of goods.—Cotton, Linen, Silk, and Woolen Piece Goods.
Claims use since Dec. 10, 1914.

Ser. No. 86,253. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) PILOT MOTOR CAR CO., Richmond, Ind. Filed Apr. 28, 1915.

Pilot

Trade-mark consisting of the word "Pilot."
Particular description of goods.—Automobiles.
Claims use since about May 1, 1910.

Ser. No. 86,271. (CLASS 39. CLOTHING.) DANIEL B. HILL, Eugene, Oreg. Filed Apr. 29, 1915.

DMC
PACKAGE OUTFIT

The words "Package Outfit" shown in the drawing are hereby disclaimed.
Particular description of goods.—Boudoir-Caps, Corset-Covers, Baby-Dresses, Waists, Aprons, Nightgowns, and Bibs.
Claims use since Apr. 22, 1915.

Ser. No. 86,282. (CLASS 3. BAGGAGE, HORSE EQUIPMENTS, PORTFOLIOS, AND POCKET-BOOKS.) U. S. HAME COMPANY, Buffalo, N. Y. Filed Apr. 29, 1915.

ALL-IN-ONE

Particular description of goods.—Hames and Parts Thereof.
Claims use since Apr. 13, 1915.

Ser. No. 86,284. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) AMERICAN MODEL & INSTRUMENT COMPANY, Worcester, Mass. Filed Apr. 30, 1915.

AMICO

Particular description of goods.—Electrical Calling Systems, Fire-Alarm Systems, Signaling Systems, Sign-Flashes, and Fusible Thermo-Switches.
Claims use since March, 1914.

Ser. No. 86,291. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) F. A. HARDY & CO., Chicago, Ill. Filed Apr. 30, 1915.

NoL

Particular description of goods.—Ophthalmic Lenses.
Claims use since Jan. 9, 1915.

Ser. No. 86,317. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ALBERT GAUTHIER and DOMINIQUE ST. PIERRE, Lawrence, Mass. Filed May 1, 1915.

HAPPY LIFE

Particular description of goods.—A Medical Compound Used as a Remedy for Rheumatism.
Claims use since on or about Feb. 1, 1915.

Ser. No. 86,321. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE ANDREW JERGENS CO., Cincinnati, Ohio. Filed May 1, 1915.

DORIS

Particular description of goods.—Perfumery, Face-Powder, and Talcum Powder.
Claims use since September, 1903.

Ser. No. 86,345. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) GOLDEN GRAIN JUICE COMPANY, INC., Minneapolis, Minn. Filed May 3, 1915.

GOLDEN

Particular description of goods.—A Non-Alcoholic Carbonated Beverage.
Claims use since the 1st day of March, 1915.

Ser. No. 86,348. (CLASS 50. MERCHANDISE NOT OTHERWISE CLASSIFIED.) INGRAM-RICHARDSON MANUFACTURING COMPANY, Beaver Falls, Pa. Filed May 3, 1915.

PORCELIRON

Particular description of goods.—Enameled Metal Signs.
Claims use since Feb. 2, 1915.

Ser. No. 86,352. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ALEX LUNESCHLOSS, New York, N. Y. Filed May 3, 1915.

SUPEROL

Particular description of goods.—A Medicinal Preparation Composed of Olive-Oil, Wine, and Iron.
Claims use since Apr. 26, 1915.

Ser. No. 86,378. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) LORETTA A. BORLAND, Rochester, N. Y. Filed May 5, 1915.

Loretta

Particular description of goods.—Face-Cream.
Claims use since Jan. 30, 1915.

Ser. No. 86,388. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) GREAN SHOULDER FORM & PAD COMPANY, New York, N. Y. Filed May 5, 1915.

HAIRBONE

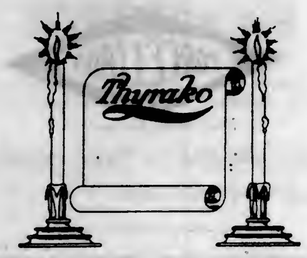
Particular description of goods.—Stiffening-Cord for Clothing.
Claims use since Mar. 10, 1915.

Ser. No. 86,479. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) FARBWERKE VORM. MEISTER LUCIUS & BRÜNING, Höchst-on-the-Main, Germany. Filed May 8, 1915.

TOPHOSALIT

Particular description of goods.—A Remedy for Gouty and Rheumatic Diseases and Neuralgic Affections.
Claims use since Jan. 15, 1915.

Ser. No. 86,483. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MADELEINE S. C. VACY LYLE, San Francisco, Cal. Filed May 8, 1915.



Particular description of goods.—A Flesh-Reducer.
Claims use since Apr. 3, 1915.

Ser. No. 86,488. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE ROESSLER & HASSLACHER CHEMICAL CO., New York, N. Y. Filed May 8, 1915.



Particular description of goods.—Cyanids.
Claims use since May 4, 1915.

Ser. No. 86,494. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) LEOPOLD SCHWARTZ, Yonkers, N. Y. Filed May 8, 1915.



The words "Anti-Rheumatic" are not claimed for the exclusive use of this applicant.
Particular description of goods.—A Chemical Preparation for Rheumatical Pains or Aches.
Claims use since Jan. 1, 1915.

Ser. No. 86,516. (CLASS 39. CLOTHING.) GOLDENBERGS, Washington, D. C. Filed May 10, 1915.



Particular description of goods.—Hats and Caps.
Claims use since Apr. 20, 1915.

Ser. No. 86,535. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) ANKYRA MANUFACTURING COMPANY, Philadelphia, Pa. Filed May 11, 1915.



Particular description of goods.—Expansion-Bolts, Anchor-Bolts, and Toggle-Bolts.
Claims use since April, 1913.

Ser. No. 86,558. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) ALL COMEDY FILMS, INC., New York, N. Y. Filed May 12, 1915.

PUNCHINELLO

Particular description of goods.—Motion-Picture Films.
Claims use since Jan. 14, 1915.

Ser. No. 86,559. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) ALL COMEDY FILMS, INC., New York, N. Y. Filed May 12, 1915.

TRUMP

Particular description of goods.—Motion-Picture Films.
Claims use since Jan. 14, 1915.

Ser. No. 86,561. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) BURTON BROS. & CO., New York, N. Y. Filed May 12, 1915.

FIFTH AVENUE

Comprising the words "Fifth Avenue."
Particular description of goods.—Silk, Satin, and Cotton Piece Goods and Mixed Silk and Cotton Piece Goods.
Claims use since September, 1907.

Ser. No. 86,564. (CLASS 43. THREAD AND YARN.) CARSON, PIRIE, SCOTT & CO., Chicago, Ill. Filed May 12, 1915.



Particular description of goods.—Crochet-Cotton.
Claims use since about Mar. 10, 1915.

Ser. No. 86,565. (CLASS 43. THREAD AND YARN.) CARSON, PIRIE, SCOTT & CO., Chicago, Ill. Filed May 12, 1915.



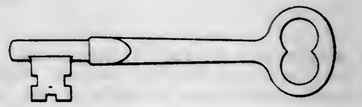
Particular description of goods.—Crochet-Cotton.
Claims use since about Dec. 15, 1914.

Ser. No. 86,566. (CLASS 43. THREAD AND YARN.) CARSON, PIRIE, SCOTT & CO., Chicago, Ill. Filed May 12, 1915.



Particular description of goods.—Crochet-Cotton.
Claims use since about Feb. 1, 1915.

Ser. No. 86,617. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) NATIONAL TUBE COMPANY, Pittsburgh, Pa. Filed May 14, 1915.



Particular description of goods.—Metal Unions and Pipe-Fittings.
Claims use since Apr. 19, 1915.

Ser. No. 86,673. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JOHN HENRY MORGAN, Fresno, Cal. Filed May 17, 1915.



Particular description of goods.—Cough-Syrups.
Claims use since November, 1914.

TRADE-MARK REGISTRATIONS GRANTED

JUNE 8, 1915.

104,584. CANDIES. M. E. ABEL ESTATE, Easton, Pa. Filed December 24, 1914. Serial No. 83,513. PUBLISHED MARCH 30, 1915.

104,585. COFFEE-GRINDERS. THE ADROIT MANUFACTURING CO., Detroit, Mich. Filed January 4, 1915. Serial No. 83,651. PUBLISHED MARCH 23, 1915.

104,586. SYRUP FOR MAKING CARBONATED NON-ALCOHOLIC BEVERAGES. ALFALFA FOODS AND MEDICINE COMPANY, Minneapolis, Minn. Filed July 11, 1913. Serial No. 71,647. PUBLISHED MARCH 23, 1915.

104,587. SALAD-OIL PRESSED FROM COTTON-SEED. ASPEGREN & CO., New York, N. Y. Filed February 4, 1914. Serial No. 75,695. PUBLISHED MARCH 30, 1915.

104,588. CHOCOLATES, BONBONS, CARAMELS, AND MINT, NUT, AND OTHER CANDIES. EUGENE M. ATTRIDGE, Binghamton, N. Y. Filed January 12, 1915. Serial No. 83,792. PUBLISHED MARCH 23, 1915.

104,589. BUTTER, CHEESE, EGGS, MILK, AND MILK-PRODUCING CATTLE. AYER & MCKINNEY, Philadelphia, Pa. Filed May 20, 1914. Serial No. 78,411. PUBLISHED MARCH 30, 1915.

104,590. COFFEE AND TEA. BERT JOSEPH BEAN, Wichita Falls, Tex. Filed January 19, 1915. Serial No. 83,952. PUBLISHED MARCH 30, 1915.

104,591. MAPLE FLOORING. BLISS & VAN AUKEN LUMBER CO., Saginaw, Mich. Filed January 12, 1914. Serial No. 75,111. PUBLISHED MARCH 30, 1915.

104,592. SCREW-WRENCHES AND VISES. BONNEY VISE & TOOL WORKS INC., Philadelphia and Allentown, Pa., and New York, N. Y. Filed May 13, 1914. Serial No. 78,230. PUBLISHED NOVEMBER 17, 1914.

104,593. TRACTION-ENGINES. BULL TRACTOR CO., Minneapolis, Minn. Filed September 29, 1913. Serial No. 73,097. PUBLISHED MARCH 23, 1915.

104,594. TABLES, CHAIRS, SETTEES, STANDS, AND CEDAR CHESTS. THE E. T. BURROWES COMPANY, Portland, Me. Filed April 2, 1913. Serial No. 69,523. PUBLISHED MARCH 30, 1915.

104,595. FRESH TABLE-GRAPES. CASH BUYERS UNION, INC., Coachella, Cal. Filed October 17, 1913. Serial No. 73,441. PUBLISHED MARCH 30, 1915.

104,596. CERTAIN PHARMACEUTICAL PREPARATIONS AND REMEDIES FOR CERTAIN NAMED DISEASES. CO-OPERATIVE DRUG MANUFACTURING COMPANY, now by change of name American Drug Mfg. Co., Jackson, Tenn. Filed June 7, 1913. Serial No. 70,928. PUBLISHED MARCH 23, 1915.

104,597. FLAVORING EXTRACTS FOR FOODS, AND SPICES. CO-OPERATIVE DRUG MANUFACTURING COMPANY, now by change of name American Drug Mfg. Co., Jackson, Tenn. Filed June 7, 1913. Serial No. 70,930. PUBLISHED MARCH 16, 1915.

104,598. FLAVORING EXTRACTS FOR FOODS, AND SPICES. CO-OPERATIVE DRUG MANUFACTURING COMPANY, now by change of name American Drug Mfg. Co., Jackson, Tenn. Filed June 7, 1913. Serial No. 70,934. PUBLISHED MARCH 16, 1915.

104,599. LAMP AND LANTERN LENSES FOR ILLUMINATING AND SIGNALING. CORNING GLASS WORKS, Corning, N. Y. Filed June 29, 1914. Serial No. 79,449. PUBLISHED MARCH 23, 1915.

104,600. FELT SHOES AND SLIPPERS. DANIEL GREEN FELT SHOE COMPANY, Boston, Mass., and Dolgeville, N. Y. Filed February 18, 1915. Serial No. 84,607. PUBLISHED MARCH 30, 1915.

104,601. CRANBERRIES. GEORGE W. DAVIS, Manorville, N. Y. Filed February 10, 1913. Serial No. 68,424. PUBLISHED MARCH 9, 1915.

104,602. COFFEE. DENISON & COMPANY, Chicago, Ill. Filed December 19, 1914. Serial No. 83,408. PUBLISHED MARCH 30, 1915.

104,603. LUBRICATING-OILS AND LUBRICANTS. BERTRAND G. DESMOND, Muncie, Ind. Filed November 7, 1914. Serial No. 82,459. PUBLISHED MARCH 30, 1915.

104,604. REFINED PETROLEUM. DILSIZIAN BROS., New York, N. Y. Filed February 2, 1915. Serial No. 84,261. PUBLISHED MARCH 23, 1915.

104,605. REFINED PETROLEUM. DILSIZIAN BROS., New York, N. Y. Filed February 8, 1915. Serial No. 84,355. PUBLISHED MARCH 30, 1915.

104,606. DRY OR EVAPORATED MILK. A/S EGRON, Christiania and Kløften, near Christiania, Norway. Filed September 19, 1914. Serial No. 81,330. PUBLISHED MARCH 23, 1915.

104,607. CERTAIN NAMED DRY GROCERIES. ALBERT EHLERS, New York, N. Y. Filed December 18, 1914. Serial No. 83,375. PUBLISHED MARCH 23, 1915.

104,608. HANGERS AND FASTENERS FOR WINDOW-SCREEN AND STORM-SASH. E. J. FELLMAN, Milwaukee, Wis. Filed February 16, 1915. Serial No. 84,551. PUBLISHED MARCH 30, 1915.

104,609. PEANUTS AND PEANUT-BUTTER. FLETCHER & WILSON COFFEE CO., Nashville, Tenn. Filed January 14, 1915. Serial No. 83,851. PUBLISHED MARCH 30, 1915.

104,610. LAGER-BEER. THE GOTTLIEB BAUERNSCHMIDT STRAUS BREWING COMPANY, Baltimore, Md. Filed March 9, 1915. Serial No. 85,036. PUBLISHED MARCH 30, 1915.

104,611. ALUMINIUM WARE AND WIRE SCREENS. HARDWARE BUYERS ASSOCIATION, Chicago, Ill. Filed January 14, 1915. Serial No. 83,855. PUBLISHED MARCH 23, 1915.

104,612. EYE-SHADES AND EYE-SHIELDS. F. A. HARDY & CO., Chicago, Ill. Filed January 22, 1915. Serial No. 84,027. PUBLISHED MARCH 30, 1915.

104,613. BOOTS AND SHOES MADE IN WHOLE OR IN PART OF LEATHER, TEXTILE FABRIC, OR RUBBER. HEALY SHOE COMPANY, INC., New York, N. Y.
Filed February 12, 1915. Serial No. 84,484. PUBLISHED MARCH 30, 1915.

104,614. CERTAIN NAMED CUTLERY, MACHINERY, AND TOOLS. HIBBARD, SPENCER, BARTLETT & CO., Chicago, Ill.
Filed April 28, 1914. Serial No. 77,829. PUBLISHED MARCH 30, 1915.

104,615. INTRAVENOUS TREATMENT OF SYPHILIS, PELLAGRA, AND MALARIA. THE INTRAVENOUS PRODUCTS COMPANY, Denver, Colo.
Filed January 22, 1915. Serial No. 84,030. PUBLISHED MARCH 23, 1915.

104,616. INTRAVENOUS TREATMENT OF ANEMIA. THE INTRAVENOUS PRODUCTS COMPANY, Denver, Colo.
Filed January 22, 1915. Serial No. 84,031. PUBLISHED MARCH 23, 1915.

104,617. INTRAVENOUS TREATMENT OF MALARIA. THE INTRAVENOUS PRODUCTS COMPANY, Denver, Colo.
Filed January 22, 1915. Serial No. 84,032. PUBLISHED MARCH 23, 1915.

104,618. ELECTRICAL-CONDUIT FITTINGS. KILLARK ELECTRIC MANUFACTURING CO., St. Louis, Mo.
Filed January 9, 1915. Serial No. 83,762. PUBLISHED MARCH 23, 1915.

104,619. CAKES COMMONLY CALLED SNAPS. LOOSE-WILES BISCUIT COMPANY, New York, N. Y.
Filed December 5, 1914. Serial No. 83,092. PUBLISHED MARCH 16, 1915.

104,620. CAKES AND CRACKERS. LOOSE-WILES BISCUIT COMPANY, Chicago, Ill.
Filed January 4, 1915. Serial No. 83,658. PUBLISHED MARCH 16, 1915.

104,621. BISCUIT. LOOSE-WILES BISCUIT CO., Boston, Mass.
Filed January 6, 1915. Serial No. 83,698. PUBLISHED MARCH 16, 1915.

104,622. METAL TRUCKS. THE MARKET FORGE COMPANY, Chelsea, Mass.
Filed August 11, 1914. Serial No. 80,461. PUBLISHED MARCH 30, 1915.

104,623. CANNED FRUITS, VEGETABLES, AND OYSTERS. H. J. MCGRATH COMPANY, Baltimore, Md.
Filed July 13, 1914. Serial No. 79,761. PUBLISHED MARCH 16, 1915.

104,624. CLOTH AND FABRIC MEASURING MACHINES AND PARTS THEREOF. THE MEASUREGRAPH COMPANY, St. Louis, Mo.
Filed January 27, 1915. Serial No. 84,138. PUBLISHED MARCH 23, 1915.

104,625. LEATHER SHOES. FRANK MELVILLE, Jr., New York, N. Y.
Filed June 20, 1914. Serial No. 79,243. PUBLISHED MARCH 30, 1915.

104,626. BORING AND DRILLING MACHINES. MOLINE TOOL COMPANY, Moline, Ill.
Filed July 29, 1914. Serial No. 80,156. PUBLISHED MARCH 30, 1915.

104,627. CANNED EVAPORATED MILK. MT. VERNON CREAM CO., Mount Vernon and Seattle, Wash.
Filed December 9, 1914. Serial No. 83,183. PUBLISHED MARCH 23, 1915.

104,628. FRESH OYSTERS. C. B. MUENCH CO., Milwaukee, Wis.
Filed November 9, 1911. Serial No. 59,623. PUBLISHED MARCH 9, 1915.

104,629. LINOLEUMS. THE NAIRN LINOLEUM CO., Kearny, N. J.
Filed March 6, 1915. Serial No. 84,983. PUBLISHED MARCH 30, 1915.

104,630. BISCUIT. NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y.
Filed January 16, 1915. Serial No. 83,904. PUBLISHED MARCH 30, 1915.

104,631. BISCUIT. NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y.
Filed January 16, 1915. Serial No. 83,905. PUBLISHED MARCH 30, 1915.

104,632. BISCUIT. NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y.
Filed January 16, 1915. Serial No. 83,906. PUBLISHED MARCH 30, 1915.

104,633. BISCUIT. NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y.
Filed January 16, 1915. Serial No. 83,907. PUBLISHED MARCH 30, 1915.

104,634. BISCUIT. NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y.
Filed January 16, 1915. Serial No. 83,908. PUBLISHED MARCH 30, 1915.

104,635. BISCUIT. NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y.
Filed January 16, 1915. Serial No. 83,911. PUBLISHED MARCH 30, 1915.

104,636. BISCUIT. NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y.
Filed January 16, 1915. Serial No. 83,912. PUBLISHED MARCH 30, 1915.

104,637. BISCUIT. NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y.
Filed January 16, 1915. Serial No. 83,913. PUBLISHED MARCH 30, 1915.

104,638. BISCUIT. NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y.
Filed January 25, 1915. Serial No. 84,091. PUBLISHED MARCH 30, 1915.

104,639. BISCUIT. NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y.
Filed January 25, 1915. Serial No. 84,092. PUBLISHED MARCH 30, 1915.

104,640. BISCUIT. NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y.
Filed January 25, 1915. Serial No. 84,093. PUBLISHED MARCH 30, 1915.

104,641. APPLE-CIDER VINEGAR. NATIONAL FRUIT PRODUCT COMPANY, INC., Alexandria, Va.
Filed January 21, 1915. Serial No. 84,008. PUBLISHED MARCH 30, 1915.

104,642. EXPANDED-METAL LATHING. NORTHWESTERN EXPANDED METAL COMPANY, Chicago, Ill.
Filed February 10, 1915. Serial No. 84,433. PUBLISHED MARCH 30, 1915.

104,643. EXPANDED-METAL LATHING. NORTHWESTERN EXPANDED METAL COMPANY, Chicago, Ill.
Filed February 10, 1915. Serial No. 84,434. PUBLISHED MARCH 30, 1915.

104,644. CERTAIN NAMED FOODS. J. H. ORR CO., Nashville, Tenn.
Filed December 15, 1914. Serial No. 83,303. PUBLISHED MARCH 30, 1915.

104,645. CANDY. PIERATT & COLLINS CO., Minneapolis, Minn.
Filed December 31, 1914. Serial No. 83,607. PUBLISHED MARCH 9, 1915.

104,646. WHEAT-FLOUR. PILLSBURY FLOUR MILLS COMPANY, Minneapolis, Minn.
Filed October 31, 1914. Serial No. 82,306. PUBLISHED MARCH 16, 1915.

104,647. SCOTCH WHISKY. CHARLES S. PROCTOR, Detroit, Mich.
Filed February 9, 1915. Serial No. 84,411. PUBLISHED MARCH 16, 1915.

104,648. BREAD. RUSSELL-MILLER MILLING COMPANY, Minneapolis, Minn.
Filed November 23, 1911. Serial No. 59,874. PUBLISHED MARCH 9, 1915.

104,649. CERTAIN NAMED MEASURING AND SCIENTIFIC APPLIANCES. SARGENT & COMPANY, New Haven, Conn.
Filed August 5, 1914. Serial No. 80,340. PUBLISHED MARCH 23, 1915.

104,650. CERTAIN NAMED CUTLERY AND TOOLS. SARGENT & COMPANY, New Haven, Conn.
Filed August 5, 1914. Serial No. 80,341. PUBLISHED MARCH 23, 1915.

104,651. LOCKS, LATCHES, KEYS, PADLOCKS, STRIKE-PLATES, LOCK-ESCUTCHEONS, LOCK-CASES, AND LOCK-FRONTS. SARGENT & COMPANY, New Haven, Conn.
Filed August 5, 1914. Serial No. 80,342. PUBLISHED MARCH 30, 1915.

104,652. ALIMENTARY PASTE PRODUCTS AND CEREAL BREAKFAST FOOD. SKINNER MFG. CO., Omaha, Nebr.
Filed October 16, 1914. Serial No. 81,946. PUBLISHED MARCH 23, 1915.

104,653. MINERAL OIL USED AS A MEDICINE AND AS AN ESSENTIAL INGREDIENT OF MEDICINAL PREPARATIONS. L. SONNEBORN SONS, INC., New York, N. Y.
Filed October 24, 1913. Serial No. 73,591. PUBLISHED MARCH 23, 1915.

104,654. REMEDY FOR RHEUMATISM, LUMBAGO, AND KIDNEY TROUBLE. AMOS STEWART, Los Angeles, Cal.
Filed February 23, 1915. Serial No. 84,714. PUBLISHED MARCH 23, 1915.

104,655. WHEAT-FLOUR. GEORGE TERRYBERRY, Cleveland, Ohio.
Filed December 12, 1914. Serial No. 83,263. PUBLISHED MARCH 9, 1915.

104,656. PREPARATION TO SEAL PUNCTURES IN TIRES. TIRE SEAL CO. INC., New York, N. Y.
Filed November 5, 1914. Serial No. 82,433. PUBLISHED MARCH 30, 1915.

104,657. CERTAIN NAMED GAMES, TOYS, AND SPORTING GOODS. UNITED DRUG COMPANY, Boston, Mass.
Filed December 28, 1914. Serial No. 83,563. PUBLISHED MARCH 30, 1915.

104,658. FLY-KILLERS OR HAND DEVICES FOR KILLING FLIES AND OTHER INSECTS. UNITED STATES WIRE MAT COMPANY, Decatur, Ill.
Filed December 31, 1914. Serial No. 83,616. PUBLISHED MARCH 23, 1915.

104,659. CIGARS. WERTHEIMER BROS., Baltimore, Md.
Filed January 16, 1915. Serial No. 83,917. PUBLISHED MARCH 23, 1915.

104,660. CIGARS. JOHN H. WETZLER, Milwaukee, Wis.
Filed February 11, 1915. Serial No. 84,470. PUBLISHED MARCH 23, 1915.

104,661. FERTILIZER. W. E. WHANN COMPANY, Philadelphia, Pa.
Filed October 24, 1914. Serial No. 82,159. PUBLISHED MARCH 30, 1915.

104,662. VARIETIES OF SEEDS—NAMELY, ALFALFA, CLOVER, TIMOTHY, BLUE-GRASS, RED-TOP, ORCHARD-GRASS, AND MILLET. WOOD-BEAZLEY SEED CO., Springfield, Mo.
Filed February 11, 1915. Serial No. 84,472. PUBLISHED MARCH 23, 1915.

104,663. FERTILIZERS. R. A. WOOLDRIDGE COMPANY, Baltimore, Md.
Filed February 7, 1914. Serial No. 75,774. PUBLISHED JULY 28, 1914.

104,664. CERTAIN NAMED MEASURING AND SCIENTIFIC APPLIANCES. AMERICAN OPTICAL COMPANY, Southbridge, Mass.
Filed January 27, 1915. Serial No. 84,127. PUBLISHED MARCH 30, 1915.

104,665. CERTAIN NAMED CROCKERY AND EARTHENWARE. THE BRUSH-MCCOY POTTERY COMPANY, Zanesville, Ohio.
Filed November 28, 1914. Serial No. 82,949. PUBLISHED MARCH 23, 1915.

104,666. CANNED VEGETABLES AND CANNED FRUITS. CANASTOTA CANNING COMPANY, Canastota, N. Y.
Filed October 16, 1914. Serial No. 81,935. PUBLISHED MARCH 16, 1915.

104,667. CANNED VEGETABLES AND CANNED FRUITS. CANASTOTA CANNING COMPANY, Canastota, N. Y.
Filed October 16, 1914. Serial No. 81,937. PUBLISHED MARCH 16, 1915.

104,668. LADIES' COLLARS MADE OF FANCY AND PLAIN NETS, LACES, CHIFFONS, SILKS, EMBROIDERIES, LAWNS, ORGANDIES, LINENS. TIMOTHY F. CROWLEY, INCORPORATED, New York, N. Y.
Filed February 24, 1915. Serial No. 84,732. PUBLISHED MARCH 30, 1915.

104,669. COMMON STOCK-SALT. D. G. CUTLER COMPANY, Duluth, Minn.
Filed August 24, 1914. Serial No. 80,753. PUBLISHED MARCH 16, 1915.

104,670. TABLE-SALT AND SALT FOR DAIRY PURPOSES. D. G. CUTLER COMPANY, Duluth, Minn.
Filed August 24, 1914. Serial No. 80,754. PUBLISHED MARCH 16, 1915.

104,671. GRANULATED SALT. D. G. CUTLER COMPANY, Duluth, Minn.
Filed August 24, 1914. Serial No. 80,756. PUBLISHED MARCH 16, 1915.

104,672. MEDIUM SALT. D. G. CUTLER COMPANY, Duluth, Minn.
Filed August 24, 1914. Serial No. 80,767. PUBLISHED MARCH 23, 1915.

104,673. COMPOUND TO BE ADDED TO CLOTHES-STARCH TO PERFUME SAME AND PREVENT IRON FROM STICKING. FRANK W. DREFFEIN, Chicago, Ill.
Filed March 3, 1915. Serial No. 84,901. PUBLISHED APRIL 6, 1915.

104,674. ALCOHOL-MEASURING APPARATUS AND CONDENSER WATER-METERS. GEBRUDER SIEMENS & COMPANY, Berlin-Lichtenberg, Germany.
Filed February 15, 1915. Serial No. 84,539. PUBLISHED MARCH 23, 1915.

104,675. BOYS' BLOUSES. RELIANCE MANUFACTURING COMPANY, Chicago, Ill.
Filed February 5, 1915. Serial No. 84,318. PUBLISHED APRIL 6, 1915.

104,676. OLIVE-OIL. ROCCO FERRETTA & CO., Utica, N. Y.
Filed August 24, 1914. Serial No. 80,757. PUBLISHED MARCH 16, 1915.

104,677. WOMEN'S, CHILDREN'S, AND INFANTS' COATS, CLOAKS, WRAPS AND CAPES, AND HATS. THE SALT'S TEXTILE MANUFACTURING COMPANY, Bridgeport, Conn., and New York, N. Y.
Filed March 9, 1915. Serial No. 85,050. PUBLISHED APRIL 6, 1915.

104,678. WOMEN'S, CHILDREN'S, AND INFANTS' COATS, CLOAKS, WRAPS, AND CAPES. THE SALT'S TEXTILE MANUFACTURING COMPANY, Bridgeport, Conn., and New York, N. Y.
Filed March 9, 1915. Serial No. 85,053. PUBLISHED APRIL 6, 1915.

104,679. PREPARED HAM AND BACON. A. SILZ, INC., New York, N. Y.
Filed January 20, 1912. Serial No. 60,934. PUBLISHED MARCH 9, 1915.

104,680. PETROLATUM-OIL. STANDARD OIL COMPANY, Whiting, Ind., and Chicago, Ill.
Filed December 11, 1914. Serial No. 83,231. PUBLISHED APRIL 6, 1915.

104,681. MAGNETOS. SUMTER ELECTRICAL COMPANY, Sumter, S. C.
Filed February 25, 1915. Serial No. 84,776. PUBLISHED MARCH 23, 1915.

104,682. MAGNETOS. SUMTER ELECTRICAL COMPANY, Sumter, S. C.
Filed March 1, 1915. Serial No. 84,870. PUBLISHED MARCH 23, 1915.

104,683. TEA. THE WOOLSON SPICE COMPANY, Toledo, Ohio.
Filed January 27, 1915. Serial No. 84,151. PUBLISHED MARCH 30, 1915.

104,684. CERTAIN NAMED FOODS. THE J. K. ARMSBY Co., San Francisco, Cal.
Filed December 10, 1914. Serial No. 83,192. PUBLISHED MARCH 23, 1915.

104,685. CERTAIN NAMED CLOTHING FOR MEN AND WOMEN. BENJAMIN L. HERMAN, Hackensack, N. J.
Filed February 20, 1915. Serial No. 84,657. PUBLISHED APRIL 6, 1915.

104,686. LADIES' HATS. ALBERT L. HORWITZ & CO., New York, N. Y.
Filed January 8, 1915. Serial No. 83,729. PUBLISHED APRIL 6, 1915.

104,687. DRESS, NEGLIGÉE, WORK SHIRTS, SHIRTWAISTS, AND BLOUSES. GEORGE H. NICHOLAS, New York, N. Y.
Filed February 26, 1915. Serial No. 84,803. PUBLISHED APRIL 6, 1915.

104,688. BEER. INDEPENDENT BREWING ASS'N, Chicago, Ill.
Filed March 1, 1915. Serial No. 84,847. PUBLISHED MARCH 30, 1915.

104,689. REMEDY FOR RHEUMATISM. TEMPLETONS RHEUMATIC CAPSULE CORPORATION LIMITED, Toronto, Ontario, Canada.
Filed December 11, 1914. Serial No. 83,236. PUBLISHED MARCH 30, 1915.

104,690. CRACKERS. WALKER & TRACY, Canandaigua, N. Y.
Filed January 14, 1915. Serial No. 83,866. PUBLISHED MARCH 30, 1915.

TRADE-MARK REGISTRATIONS RENEWED.

12,306. PRINTING-INK. FRED'K H. LEVEY & Co., New York, N. Y.
Registered June 9, 1885. Renewed June 9, 1915.

12,311. COOK-STOVES. CULTER & PROCTOR STOVE COMPANY, Peoria, Ill.
Registered June 16, 1885. Renewed June 16, 1915.

LABELS

REGISTERED JUNE 8, 1915.

18,506.—*Title:* "COLLIS' FAMOUS COMBINATION ANKLE SUPPORTER." (For Ankle-Supporters.) HENRY JAMES COLLIS, Taunton, Mass. Filed May 7, 1915.

18,507.—*Title:* "STRICTLY PURE COFFEE." (For Coffee.) DWINELL-WRIGHT CO., Boston, Mass. Filed May 13, 1915.

18,508.—*Title:* "THE TOAST OF OUR GRANDPARENTS." (For Coffee.) DWINELL-WRIGHT CO., Boston, Mass. Filed May 13, 1915.

18,509.—*Title:* "COTTON BOLL." (For Seeds.) ALFRED JOUANNET, Mount Pleasant, S. C. Filed April 19, 1915.

18,510.—*Title:* "ST. MARTIN." (For Medicinal Wine.) JOHN B. LAMBERT, Woonsocket, R. I. Filed January 23, 1915.

18,511.—*Title:* "ZISKA." (For a Hair-Solvent.) MURREY & POWERS, San Francisco, Cal. Filed February 5, 1915.

18,512.—*Title:* "LUSTERALL." (For Furniture-Polish or Varnish-Remover.) H. M. SINGLETON, Los Angeles, Cal. Filed March 22, 1915.

18,513.—*Title:* "EYE BATH." (For Lotion for the Eyes.) DAVID ANGUS SMITH, Wonder, Nev. Filed May 12, 1915.

18,514.—*Title:* "VOGT'S PHILADELPHIA SCRAPPLE." (For Scrapple.) F. G. VOGT & SONS, INCORPORATED, Philadelphia, Pa. Filed March 15, 1915.

PRINTS

REGISTERED JUNE 8, 1915.

3,934.—*Title:* "YOU RASCAL, IT'S B. V. D. THAT KEEPS YOU COOL!". (For Athletic Underwear.) THE B. V. D. COMPANY, New York, N. Y. Filed May 13, 1915.

3,935.—*Title:* "YOU CAN'T BE TOO CAREFUL, SIR—HERE'S THE B. V. D. LABEL." (For Athletic Underwear.) THE B. V. D. COMPANY, New York, N. Y. Filed May 13, 1915.

3,936.—*Title:* "THAT'S YOUR FRIEND, THE B. V. D. LABEL, BOYS!" (For Athletic Underwear.) THE B. V. D. COMPANY, New York, N. Y. Filed May 13, 1915.

3,937.—*Title:* "PLAY THE GAME OF 'BEAT-THE-HEAT' IN B. V. D., AND YOU'LL WIN." (For Athletic Underwear.) THE B. V. D. COMPANY, New York, N. Y. Filed May 13, 1915.

3,938.—*Title:* "WELCOME TO CAMP B. V. D." (For Athletic Underwear.) THE B. V. D. COMPANY, New York, N. Y. Filed May 13, 1915.

3,939.—*Title:* "MRS. COFFEE'S TOAST." (For Coffee.) WM. T. BROWN, Dubuque, Iowa. Filed March 1, 1915.

3,940.—*Title:* "CARTER'S KNIT UNDERWEAR PLEASE." (For Knit Underwear.) THE WILLIAM CARTER CO., Needham Heights, Mass. Filed May 11, 1915.

3,941.—*Title:* "AN AMERICAN BEAUTY." (For Cold-Cream.) COLGATE & CO., Jersey City, N. J., and New York, N. Y. Filed March 26, 1915.

3,942.—*Title:* "'B. & G.' OLIVE OIL." (For Olive-Oil.) E. LA MONTAGNE'S SONS, New York, N. Y. Filed May 18, 1915.

3,943.—*Title:* "GORDON LONDON DRY GIN." (For Gordon London Dry Gin.) E. LA MONTAGNE'S SONS, New York, N. Y. Filed May 18, 1915.

3,944.—*Title:* "MARATHON ANGLE TREAD TIRES 'INSPIRE CONFIDENCE.'" (For Automobile-Tires.) THE MARATHON TIRE & RUBBER CO., Cuyahoga Falls, Ohio. Filed April 23, 1915.

DECISIONS

OF THE

COMMISSIONER OF PATENTS

AND OF

UNITED STATES COURTS IN PATENT CASES.

DECISIONS OF THE U. S. COURTS.

Court of Appeals of the District of Columbia.

BARTHELS MANUFACTURING COMPANY *v.* UNITED LACE AND BRAID MANUFACTURING COMPANY.

Decided February 1, 1915.

TRADE-MARKS—CANCELATION—SIMILARITY OF THE MARKS "BEADED" AND "NU-B-DED."

Where the applicant in a cancelation proceeding manufactured lacings having a novel construction of metal tip and sold them under the mark "Beaded" and later the registrant manufactured lacings having a slightly different form of metal tip and sold them under the marks "Nubeaded" and "Nu-B-Ded," *Held* that if the mark "Beaded" is descriptive "Nu-B-Ded" is equally so, and if "Beaded" is merely suggestive the mark "Nu-B-Ded" is similar and would be likely to cause confusion in trade when applied to goods of the same descriptive properties.

Mr. Arthur v. Briesen for the appellant.

Mr. Ellis Spear, Jr., for the appellee.

ROBB, *J.:*

Appeal from a decision of the Commissioner of Patents canceling appellant's registration of the word "Nubded" on the petition of the appellee.

On March 17, 1903, there was issued Patent No. 722,902 covering a novel construction of metal tips for the ends of shoe and other laces—

whereby a portion of the sheet metal of the tip is forced inward from the opposite sides to lock the same to the lace at points offset to one side and not opposite to each other.

In the specification and claims the ridges of these tips are called "crimps." Since 1905 the appellee has manufactured laces under this patent which it has extensively advertised and sold under the mark "Beaded," and the evidence shows that these laces have become known to the trade as "Beaded Tip" laces.

On March 7, 1912, there was filed an application for Letters Patent on a slightly different form of metal tips for lacings and on June 9, 1914, Patent No. 1099479 was issued thereon. In the specification and claims of this patent the ridges of the tips are said to be formed by "corrugating" or "crimping" the metal. In 1912 appellant manufactured lacings under this patent which it sold under the mark "Nubeaded." On July 20th of that year it filed an application for registration of "Nubded" and the use of the prior mark was then discontinued. As soon as "Nubded" was registered appellant applied it to its laces in a hyphenated form; in other words, as "Nu-B-Ded," and has since used the mark in that form.

Whether, as contended by appellant, the word "Beaded" as used is descriptive and hence not susceptible of exclusive appropriation by the appellee, or whether, as contended by appellee, it is merely suggestive and therefore subject to such appropriation, we need not stop to inquire, for if it is descriptive New Beaded, or as the appellant spells it "Nu-B-Ded," is equally so and hence not registrable. If "Beaded" is merely suggestive appellant is not entitled to registration, since "Beaded" and "Nu-B-Ded" are sufficiently similar as to be likely to cause confusion in trade when applied to goods of the same descriptive properties. Inasmuch as appellee would be damaged in either event it is entitled to be heard in this proceeding.

Decision affirmed.

Affirmed.

Court of Appeals of the District of Columbia.

BLACKSTONE *v.* WILD, JR.

Decided March 29, 1915.

INTERFERENCE—PRIORITY—PROOF REQUIRED TO OVERCOME A PREVIOUSLY-ISSUED PATENT.

The evidence reviewed and *Held* that the proof of reduction to practice by B. is not of the convincing character required to overcome a previously-issued patent, and priority is properly awarded to W.

Mr. L. S. Bacon, Mr. J. H. Milans, and *Mr. C. T. Milans* for the appellant.

Mr. Geo. H. Howard for the appellee.

SHEPARD, *C. J.:*

This is an interference proceeding having the following issue in a single count:

In a labeling machine, appliances to produce a pasted surface of limited width entirely around a can at the junction of the flange of the lid with the body, combined with devices to apply and affix a label to the can, and cause the same to adhere to the said pasted surface whereby a practically air-tight joint is formed.

The appellant, Blackstone, alleged conception in May, 1906, drawings in September, and reduction to practice March 1, 1907. Wild alleged conception February 26, 1897, disclosure December 26, 1897, and reduction to practice in 1898. The application of Blackstone was filed May 24, 1910. Wild filed July 9, 1909, and obtained a patent on March 8, 1910.

The Examiner of Interferences awarded priority to Blackstone, finding that he had reduced the invention to practice prior to the filing date of Wild. Wild's claim of reduction to practice through a machine sold and shipped to one Anthony in 1900 was denied. On appeal in turn to the Examiners-in-Chief and the Commissioner, that decision was reversed and priority awarded to Wild. Blackstone undertook to prove the making and testing of a machine in May, 1907, and the making and shipping of another to P. C. Thompson & Co. in July, 1909. The proof regarding the making and testing of the first machine was held insufficient by the Examiner of Interferences, but he found that the machine shipped to Thompson & Co. was successfully reduced to practice. He held insufficient the evidence of Wild to show reduction to practice of a machine built for Anthony in 1900 and awarded priority to Blackstone.

The Examiners-in-Chief and the Commissioner, without deciding the question, held Wild to the filing date of his application but denied the sufficiency of the proof of Blackstone's reduction to practice through the Thompson machine and awarded priority to Wild.

Accepting the decision confining Wild to his filing date for constructive reduction to practice, the question turns on the sufficiency of Blackstone's proof of reduction to practice through the Thompson machine.

It is well settled that one who undertakes to overcome a previously-issued patent to another must prove his case beyond a reasonable doubt. Considering this burden of proof, we are not satisfied that Blackstone has maintained it.

No one representing the Thompson Company was called to testify nor does it appear by the required proof that it was successfully tested by Blackstone with the sample cans furnished by Thompson & Co. The evidence shows that the Thompson cans contained condensed lye and were of tin and sealed with a crimp top. The cans had a loose slip-cover which varied to some extent in the closeness of its fit to the can. This looseness prevented the application of the paste entirely around the cover. The object of the pasting could be obtained by putting the labels on over the cap in the regular way without pasting them entirely around the can-cover. Thompson & Co. ordered a second machine of the regular type and returned the other to have it rebuilt to correspond with the second machine.

We agree with the Examiners-in-Chief and the Commissioner that this evidence of reduction to practice unsupported by any evidence from Thompson & Co. as to the successful operation of the machine is not of that convincing character required to overcome a previously-issued patent. It is true that the Commissioner made an erroneous statement in his decision to the effect that the draftsman who made the drawings for the Thompson machine was not called as a witness, when the truth is that Blackstone testified to making the drawings himself.

This was not necessary to the decision of the case which must rest upon the sufficiency of the evidence to show a reduction to practice of the Thompson machine. The decision is right and will be affirmed.

The clerk will certify this decision to the Commissioner of Patents as required by law.

Affirmed.

Court of Appeals of the District of Columbia.

GOLDBERG *v.* DAYTON.

Decided March 29, 1915.

INTERFERENCE—PRIORITY.

Evidence reviewed and *Held* that the reduction to practice by D. of the invention defined in count 1 antedated the conception and reduction to practice by G., and priority was properly awarded to D.

Mr. Chas. A. Brown for the appellant.

Mr. C. L. Sturtevant and *Mr. E. G. Mason* for the appellee.

SHEPARD, *C. J.*:

This is an interference proceeding having the following issue in three counts:

1. A carbureter including in combination, a fuel nozzle, a main air inlet, an auxiliary air inlet, a valve for controlling said auxiliary air inlet, manually operated devices for holding said auxiliary air inlet valve closed against movement under the suction stroke of the engine, and means for locking said manually operated devices with said valve in closed position.

2. A carbureter including in combination, a fuel nozzle, a main air inlet, an auxiliary air inlet, a spring controlled valve for controlling said auxiliary air inlet, an arm and manually controlled means for moving said arm against said valve for holding the same from movement under the suction stroke of the engine, and yielding means operating to hold said arm in contact with the valve.

3. A carbureter including, in combination, a fuel nozzle, a main air inlet, an auxiliary air inlet, a valve for controlling said auxiliary air inlet, and manually operated means for locking itself in position, when operated, to hold said auxiliary air inlet valve closed against movement under the suction stroke of the engine and manually operable to release the auxiliary valve.

Dayton filed his application December 1st, 1910, claiming conception, disclosure and reduction to practice February 1st, 1909. Goldberg filed March 9, 1911, claiming conception, disclosure and reduction to practice April 1st, 1908.

The Examiner of Interferences found that Dayton had conceived the invention of count 1 in the summer of 1909 but had not shown reduction to practice. He awarded priority to Goldberg on all three counts.

On an appeal to the Examiners-in-Chief they reversed the Examiner of Interferences as to count 1, awarding priority to Dayton as to that count and affirming the award of 2 and 3 to Goldberg.

The Commissioner of Patents affirmed this decision on appeal.

Dayton has taken no appeal from the Commissioner and counts 2 and 3 are finally determined. Goldberg appeals from the award of count 1 to Dayton.

The Commissioner held that Goldberg's construction of 1908 does not read on count 1 because it has no separate means for locking the valve when closed. The invention is specific and narrow. The count originated with Dayton and follows his disclosure. We concur in the reasoning of the Commissioner on this point.

Goldberg did not conceive a device answering all of the counts until June 10, which was reduced to practice about April 15, 1910. Dayton testified to work done on a Breese carbureter early in 1909 including the features of the auxiliary valve, but the proof of this is not of a character to establish it. He, however, made another device in the summer of 1909 which was operated successfully on a motor-car during that summer and until replaced by an improved carbureter in the spring of 1910. Weston's testimony shows that this carbureter had all the requisites of count No. 1. He described it as follows:

In the regular air opening is a pin which carries a lever bent in such form to come in contact with the plunger on the spring case when operated by a wire which extended through to the front of radiator on the automobile, and while this lever was held in contact with the plunger it held the auxiliary valve closed. There was also a spring attached which released said lever when the wire was unhooked from the front of the radiator. There was a bent piece of wire bent in such form as to hook over the front of the radiator and hold the air valve closed with a spring interposed between the carbureter and the radiator to allow this lever to come in contact with the plunger, and at the same time the wire would be always taut.

His testimony shows that the carbureter worked satisfactorily all of this time on Weston's car. This reduction to practice of the invention of the count antedated the conception and reduction to practice by Goldberg in 1910 and entitles Dayton to the award.

We find no error in the final decision and it is affirmed.

The clerk will certify this decision to the Commissioner of Patents as required by law.

Affirmed.

Court of Appeals of the District of Columbia.

LA FLEUR *v.* HARRIS.

Decided March 29, 1915.

PRIORITY—ORIGINALITY.

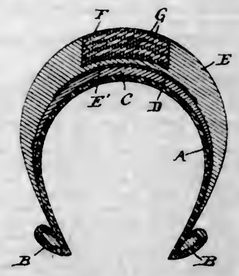
Evidence reviewed and *Held* to establish that La F. originally gained his information regarding the invention from H., and priority was properly awarded to H.

Mr. R. M. Barr for the appellant.

Mr. C. H. Howson for the appellee.

VAN ORSDEL, *J.*:

This appeal is from the decision of the Commissioner of Patents in an interference proceeding awarding priority of invention to appellee Harris. The issue is as follows:



As an article of manufacture an automobile tire casing consisting of an annular shoe made U-shaped in cross section and having gradually increased thickness from the sides of the tread and comprising a fabric case or carcass A, and padding layer C of yielding rubber, a breaker strip D of fabric upon the padding layer, a cover E extending over the padding layer and breaker strip and of gradually increasing thickness as the tread portion is approached from each side and the side portions of the cover separated at their thickest portions to form a wide and very deep annular groove almost the full thickness of the cover, combined with a tread portion secured in said annular groove and composed of layers of woven textile material embedded in rubber and having small elasticity and in which the ends of the fibers of the textile layers are brought to the surface of the tread to receive the wear.

It appears that the application of appellant La Fleur was filed September 13, 1907, upon which a patent was issued August 24, 1909. Harris's application in interference was filed November 15, 1909. Harris, however, relies upon an earlier application of October 2, 1907, of which he claims the later application is a proper division. This claim has been approved by the Board of Examiners-in-Chief and the Commissioner of Patents. Our investigation satisfies us that the finding is amply supported by the record.

On the question of the right of Harris to make the claim and of continuity between the two applications, there was a division of opinion in the tribunals of the Patent Office. The Examiner of Interferences alone held that the later Harris application was not divisional of the first. In reaching this conclusion, the Examiner seems to have overlooked the following claim in the earlier application:

11. A tire having a wearing surface composed of substantially parallel strips of fabric lying substantially perpendicular to the wearing surface of the tire, a body of fabric extending through the tire, with a body of rubber lying between said body of fabric and the inner edges of the parallel strips.

This, we think, constitutes a broad claim of the invention in issue. Therefore, Harris, having filed this application before patent was issued to La Fleur, has only the burden upon him of establishing his case by a preponderance of the evidence.

The real issue in the case is a question of originality rather than of priority. It appears that in the fall of 1906, Harris employed La Fleur, who followed the business of repairing tires, to make a tire for him. La Fleur made two tires, and also a sample tire which was cut in sections. These tires embodied the issue of the invention. They were delivered to Harris in January, 1907, and paid for by him. Other tires were subsequently made for Harris and also paid for by him. The dispute is, whether the tires were made according to the disclosure of Harris or La Fleur? Each claims to have disclosed the invention to the other.

The tires made in January, 1907, constitute a reduction to practice of the invention; and, since the applications of the respective parties were not filed until some months later, the whole case turns upon whose invention was reduced to practice. No one was present at the first and second meetings of the parties. La Fleur, however, testified that these meetings occurred prior to October 30, 1906. The following letter was written by La Fleur to Harris on October 31, 1906, after the date La Fleur fixes for the two meetings between him and Harris:

PHILADELPHIA, *October 31st, 1906.*

Mr. W. D. Harris, 508 Lippincott Bldg., City.

DEAR SIR: Following up the conversation we had yesterday relating to recovering two casings with an experimental tread, we will undertake to do this work at a price

equal to about $5.00 over and above our regular price for recovering casings. We do not however assume any responsibility for the wear and stability of the work as it is entirely experimental.

Respectfully,

U. S. MOTOR TIRE CO.,
C. E. LA FLEUR, *Mgr.*

Harris testified that early in 1905 he conceived the idea of using strips of duck impregnated with rubber for the tread of automobile-tires, and that the strips were cut on the bias and placed side by side to build up the tread. In June, 1905, he had a model illustrating this construction made by the Quaker City Rubber Company, of Philadelphia. This model (Harris Exhibit No. 1) was identified by the witness Daniel, of the Quaker City Rubber Company, and shown by the records of the company to have been made in 1905. Harris is also corroborated by other witnesses to whom he made disclosures prior to meeting La Fleur.

While the evidence of Harris is involved in some uncertainty, it is stronger and more convincing than that of La Fleur. La Fleur's conduct in connection with the making and delivery of the tires to Harris in the early part of 1907, as shown by the testimony and especially by the letter above quoted, leads to the irresistible inference that he was a mere employee of Harris to do the mechanical work of construction, and that he did not at that time believe he had any right to the invention. On the other hand, Harris, by promptly organizing a company for the manufacture of the tires, and by his diligence and activity in connection with the enterprise, exhibited at all times such evidence of proprietorship over the invention as to compel the inference that he owned it.

Concluding, as we must, that La Fleur originally gained his information regarding the invention from Harris, it can profit him nothing that he was the first to file in the Patent Office. The decision of the Commissioner of Patents awarding priority of invention to Harris is affirmed, and the clerk is directed to certify these proceedings as by law required.

Affirmed.

Adverse Decisions in Interference.

PATENT NO. 940,037.

On May 4, 1915, a decision was rendered that Marquis Hartwell Lockwood was not the first inventor of the subject-matter covered by claims 2, 17, 115, and 118 of his Patent No. 940,037, subject, "Writing and adding machines," and no appeal having been taken within the time allowed such decision has become final.

PATENT NO. 1,107,519.

On April 30, 1915, a decision was rendered that Frank O. Hoagland was not the first inventor of the subject-matter covered by claims 1 and 2 of his Patent No. 1,107,519, subject, "Rim-fire cartridge," and no appeal having been taken within the time allowed such decision has become final.

Interference Notices.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., June 3, 1915.

John Kean, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of The Autipainola Company, South Railroad street, Willacoochie, Ga., for registration of a trade-mark and trade-mark registered March 17, 1903, No. 39,945, to John Kean, No. 155 South Clark street, Chicago, Ill., and a notice of such declaration sent by registered mail to said John Kean at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said John Kean, his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

J. T. NEWTON, *First Assistant Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., May 19, 1915.

The Borated Specialty Company, its assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Henry W. Holly, No. 27 Fleet street, New York, N. Y., for registration of a trade-mark and trade-mark registered April 3, 1906, No. 50,831, to The Borated Specialty Company, No. 63 Clymer street, Brooklyn, N. Y., and a notice of such declaration sent by registered mail to said The Borated Specialty Company at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said The Borated Specialty Company, its assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

J. T. NEWTON, *First Assistant Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., May 24, 1915.

Domingo Mendia & Co., their assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Maclin-Zimmer-McGill Tobacco Co., Incorporated, Market and Tabb streets, Petersburg, Va., for registration of a trade-mark and trade-mark registered October 6, 1891, No. 20,202, to Domingo Mendia & Co., 110 Laltad street, Habana, Cuba, and a notice of such declaration sent by registered mail to said Domingo Mendia & Co. at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Domingo Mendia & Co., their assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

J. T. NEWTON, *First Assistant Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., May 21, 1915.

Morgan & Brehaut, their assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of E. Carré Company, 6–10 North Franklin street, Mobile, Ala., for registration of a trade-mark and trade-mark registered September 29, 1903, No. 41,186, to Morgan & Brehaut, Cottage Grove, Oreg., and the registry return receipt for the notice of such declaration sent to Morgan & Brehaut having been returned signed by Harry C. Hart, administrator Brehaut Estate, and said Hart having failed to file evidence of his right to intervene on behalf of Morgan & Brehaut, notice is hereby given that unless said Morgan & Brehaut, their assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

J. T. NEWTON, *First Assistant Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., May 17, 1915.

William H. Fosmer, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of The Ohio Butterine Co., of Nos. 46–50 Walnut street, Cincinnati, Ohio, for registration of a trade-mark and trade-mark registered June 30, 1896, No. 28,480, to William H. Fosmer, of No. 110 La Salle street, Chicago, Ill., and a notice of such declaration sent by registered mail to said William H. Fosmer at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said William H. Fosmer, his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

J. T. NEWTON, *First Assistant Commissioner.*

THE
OFFICIAL GAZETTE
OF THE
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ISSUE OF JUNE 15, 1915.

Patents	815	No. 1,142,788 to No. 1,143,602	inclusive.
Designs	33	No. 47,447 to No. 47,479	inclusive.
Trade-Marks	133	No. 104,501 to No. 104,633	inclusive.
Labels	29	No. 18,515 to No. 18,543	inclusive.
Prints	6	No. 3,945 to No. 3,950	inclusive.
Reissues	6	No. 13,927 to No. 13,932	inclusive.
Total	1022		

The patents of this issue were pending an average of 23.5 months.

TO RESIDENTS OF THE UNITED STATES.

States.	Patents and Designs.	Trade-Marks, Labels, and Prints.	States.	Patents and Designs.	Trade-Marks, Labels, and Prints.
Alabama	2	.....	North Carolina	8	.....
Arizona	.....	.....	North Dakota	1	.....
Arkansas	.....	1	Ohio	54	11
California	32	5	Oklahoma	9	1
Colorado	6	.....	Oregon	2	1
Connecticut	13	5	Pennsylvania	81	12
Delaware	1	.....	Rhode Island	3	2
Florida	2	.....	South Carolina	5	.....
Georgia	8	.....	South Dakota	2	.....
Idaho	2	.....	Tennessee	9	.....
Illinois	90	16	Texas	12	2
Indiana	23	2	Utah	2	.....
Iowa	13	.....	Vermont	1	.....
Kansas	11	2	Virginia	7	1
Kentucky	4	1	Washington	14	.....
Louisiana	1	.....	West Virginia	12	.....
Maine	6	.....	Wisconsin	30	6
Maryland	11	3	Wyoming	1	.....
Massachusetts	41	7			
Michigan	30	8	Alaska, District of	.....	.....
Minnesota	11	2	Canal Zone	1	.....
Mississippi	4	.....	District of Columbia	7	1
Missouri	32	7	Hawaii Territory	.....	.....
Montana	3	1	Philippine Islands	1	.....
Nebraska	6	.....	Porto Rico	.....	.....
Nevada	1	.....	U. S. Army	.....	.....
New Hampshire	4	1	U. S. Navy	.....	.....
New Jersey	35	8			
New Mexico	1	.....	Total to residents of the United States	774	150
New York	119	53			

TO RESIDENTS OF FOREIGN COUNTRIES.

Countries.	Patents and Designs.	Trade-Marks.	Countries.	Patents and Designs.	Trade-Marks.
Argentina	1	.....	Netherlands	.....	.....
Austria-Hungary	2	.....	New South Wales	.....	1
Belgium	.....	.....	New Zealand	.....	.....
British India	.....	.....	Norway	.....	.....
British West Indies	.....	.....	Portugal	.....	.....
Canada	9	.....	Queensland	.....	.....
Cape Colony	.....	.....	Roumania	.....	.....
Chile	.....	.....	Russia	1	.....
Costa Rica	.....	.....	Scotland	5	.....
Cuba	2	.....	South Australia	.....	.....
Denmark	.....	.....	Spain	.....	.....
England	19	2	Sweden	2	.....
France	7	.....	Switzerland	1	.....
French Indo-China	.....	.....	Transvaal, South Africa	.....	.....
Germany	18	5	Victoria	1	.....
Guatemala	.....	.....	Wales	.....	.....
India	.....	.....	Western Australia	.....	.....
Ireland	2	.....			
Italy	2	.....			
Japan	1	1	Total to residents of foreign countries	73	9
Mexico	.....	.....			

NOTICE—OFFICIAL GAZETTE.

Department of the Interior,
United States Patent Office,
Washington, D. C., June 10, 1915.

On account of the unusually large number of patents issued during the current fiscal year the regular appropriation of $440,000 for printing specifications and the Official Gazette and a supplemental appropriation of $125,000 have been nearly exhausted. It will not be possible to issue the Gazette for June 15, 22, and 29 on these dates. These issues will be sent out as early in July as the publication thereof can be brought about. Owing to the resulting congestion there probably will be some delay in the issues of the Gazette for July until conditions in the office of the Public Printer again become normal. There will be no delay in the issuance of patents, designs, or trade-marks.

THOMAS EWING,
Commissioner of Patents.

Delivery of Patent.

RULE 169. The patent will be delivered or mailed on the day of its date to the attorney of record, if there be one; if not, to the patentee; or, if the attorney so request, to the patentee or assignee of an interest therein.

APPLICATIONS UNDER EXAMINATION.

Condition at Close of Business June 12, 1915.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action.		No. of applications awaiting action.
		New.	Amended	
314	1. Fences; Fences, Gates; Harrows and Diggers; Plows; Seeders and Planters; Trees, Plants, and Flowers.	Mar. 16	Mar. 11	473
128	2. Bee Culture; Curtains, Shades, and Screens; Dairy; Label Pasting and Paper Hanging; Paper Files and Binders; Medicines; Pneumatics; Presses; Tents, Canopies, Umbrellas, and Canes; Tobacco.	Jan. 11	Mar. 9	772
175	3. Annealing and Tempering; Electric Heating and Rheostats; Electrochemistry; Metal-Founding; Metallurgy; Plastic Metal Working.	June 5	June 4	86
232	4. Conveyers; Elevators; Excavating; Hoisting; Loading and Unloading; Pneumatic Despatch; Railway Mail Delivery; Traversing Hoists.	Dec. 21	May 25	624
167	5. Bookbinding; Harvesters; Jewelry; Music.	Mar. 2	May 15	311
318	6. Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Liquid Coating Compositions; Plastic Compositions; Preserving; Sugar and Salt; Substance Preparation.	Dec. 12	May 6	516
312	7. Educational Appliances; Clutches; Games and Toys; Motors; Optics; Velocipedes.	Apr. 8	May 15	437
131	8. Beds; Chairs; Furniture; Kitchen and Table Articles; Store Furniture; Supports.	Jan. 25	May 24	1155
142	9. Air and Gas Pumps; Fluid-Pressure Regulators; Hydraulic Motors; Motors, Fluid; Motors, Fluid-Current; Pumps.	Oct. 29	May 29	710
235	10. Carriages and Wagons	Feb. 20	May 15	630
164	11. Boot and Shoe Making; Boots, Shoes, and Leggings; Button, Eyelet, and Rivet Setting; Harness; Leather Manufactures; Nailing and Stapling; Whips and Whip Apparatus.	May 8	June 2	104
222	12. Journal-Boxes, Pulleys, and Shafting; Lubrication; Machine Elements.	Apr. 10	May 26	596
329	13. Arms, Projectiles, and Explosive Charges, Making; Bolt, Nail, Nut, Rivet, and Screw Making; Boring and Drilling; Button Making; Chain, Staple, and Horseshoe Making; Driven, Headed, and Screw Threaded Fastenings; Gear Cutting, Milling, and Planing; Metal Drawing; Metal Forging and Welding; Metal Rolling; Metal Tools and Implements, Making; Metal Working; Needle and Pin Making; Nut and Bolt Locks; Turning.	May 4	May 12	381
307	14. Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal-Bending; Metal-Ornamenting; Sheet-Metal Ware, Making; Tools; Wire Fabrics and Structure; Wire-Working.	Jan. 22	May 15	279
306	15. Bread, Pastry, and Confection Making; Cooling; Fuel; Glass; Laminated Fabrics and Analogous Manufactures; Paper-Making and Fiber Liberation; Plastic Block and Earthenware Apparatus; Plastics.	Feb. 8	May 20	620
109	16. Electric Signaling; Radiant Energy; Telegraphy; Telephony.	Feb. 24	Apr. 1	447
308	17. Matrix-Making; Paper Manufactures; Printing; Type-Bar Making.	Apr. 2	May 29	152
227	18. Injectors and Ejectors; Liquid Heaters and Vaporizers; Miscellaneous Heat-Engine Plants; Steam and Vacuum Pumps; Steam-Engines; Steam-Engine Valves.	May 14	May 12	308
236	19. Dampers, Automatic; Furnaces; Heating Systems; Stoves and Furnaces.	Apr. 7	May 3	221
179	20. Artificial Limbs; Builders' Hardware; Cutlery; Dentistry; Locks and Latches; Safes; Undertaking.	May 12	May 12	181

Applications Under Examination—Continued.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action.		No. of applications awaiting action.
		New.	Amended	
112	21. Brakes and Gins; Carding; Cloth-Finishing; Cordage; Felt and Fur; Knitting and Netting; Silk; Spinning; Weaving; Winding and Reeling.	Mar. 3	May 10	363
249	22. Aeronautics; Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Boats and Buoys; Firearms; Marine Propulsion; Ordnance; Ships.	May 1	May 15	234
379	23. Acoustics; Coin-Handling; Horology; Recorders; Registers; Time-Controlling Mechanism.	Feb. 6	Feb. 18	469
144	24. Apparel; Apparel Apparatus; Sewing-Machines.	Feb. 4	May 11	461
315	25. Butchering; Mills; Threshing; Vegetable Cutters and Crushers.	May 8	May 22	128
106	26. Electricity, Generation; Motive Power.	Jan. 2	Apr. 6	469
372	27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus.	Apr. 27	May 17	261
65	28. Internal-Combustion Engines	May 3	Apr. 21	400
147	29. Coopering; Fire-Escapes; Ladders; Roofs; Wheelwright-Machines; Wooden Buildings; Wood-Sawing; Wood-Turning; Wood-working; Woodworking-Tools.	Mar. 29	Apr. 20	301
152	30. Illuminating-Burners; Illumination; Liquid and Gaseous Fuel Burners; Type-Writing Machines.	Mar. 6	May 24	296
172	31. Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Glue.	Mar. 29	Apr. 30	255
278	32. Agitating; Carbonating Beverages; Dispensing Beverages; Dispensing; Domestic Cooking Vessels; Gas and Liquid Contact Apparatus; Heat Exchange; Ornamentation; Packaging Liquids; Refrigeration.	Jan. 12	May 15	668
71	33. Bridges; Hydraulic Engineering; Masonry and Concrete Structures; Metallic Building Structures; Paving.	Mar. 22	Apr. 29	364
304	34. Railways; Railway-Brakes; Railway Rails and Joints; Railway Rolling-Stock; Railway Ties and Fasteners.	May 12	May 3	207
57	35. Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Garment-Supporters; Toilet.	Mar. 16	June 3	504
264	36. Driers; Geometrical Instruments; Measuring Instruments; Photography.	Mar. 31	May 24	652
107	37. Electric Lamps; Electricity, Conductors; Electricity, Conduits; Electricity, General Applications.	Dec. 17	Mar. 22	688
378	38. Animal Husbandry; Earth Boring; Fishing and Trapping; Stationery; Stone-Working; Wells.	Jan. 25	May 14	477
321	39. Water Distribution	Mar. 27	Apr. 17	455
280	40. Baggage; Bottles and Jars; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Shipping and Storing Vessels; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles.	Jan. 13	Apr. 22	1050
125	41. Railway Draft Appliances; Resilient Tires and Wheels.	Mar. 24	May 11	269
279	42. Railway Signaling; Signals; Electricity-Transmission to Vehicles.	Jan. 16	Mar. 4	711
382	43. Baths and Closets; Electricity, Medical and Surgical; Fire-Extinguishers; Sewerage; Surgery; Water Purification.	May 14	Apr. 22	264

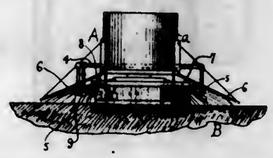
Oldest new case, Oct. 20; oldest amended, Feb. 18.
Total number of applications awaiting action..... 18,929

161	TRADE-MARKS, DESIGNS, LABELS AND PRINTS:			
	Trade-Marks	Apr. 23	May 21	796
	Designs	Mar. 16	May 4	582
	Labels and Prints	May 15	June 3	56

PATENTS

GRANTEED JUNE 15, 1915.

1,142,788. METHOD OF TREATING ROADWAYS. EUGENE E. ALLEN, Los Angeles, Cal. Filed Aug. 7, 1912. Serial No. 713,800. (Cl. 104—58.)

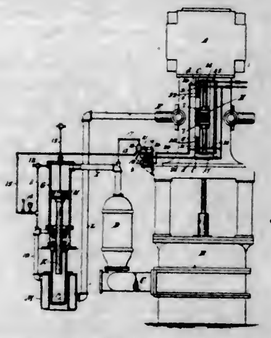


1. An improved method of treating roadways, comprising first burning the plant growth thereon, and thereupon subjecting the roadway with the plant growth so destroyed to a bath of oil as a preservative.

2. An improved method of treating roadways, comprising first burning the plant growth thereon, and thereupon subjecting the roadway to a bath of preservative oil heated during the plant-burning operation.

3. An improved method of treating roadways, comprising first burning plant growth thereon and heating the roadway, second-heating preservative oil with heat generated in the plant-burning operation, and third subjecting the heated roadway to a bath of the heated oil, in uninterrupted sequence.

1,142,789. STROKE-ADJUSTER FOR DIRECT-ACTING ENGINES. ROBERT W. ALLERTON, South Orange, N. J., assignor to Henry R. Worthington, a Corporation of New Jersey. Filed Aug. 15, 1911. Serial No. 644,169. (Cl. 121—3.)



1. The combination with a direct acting engine, of a stroke adjuster including valve mechanism acting to admit and exhaust fluid to vary the effective pressure on the engine piston or pistons, and means for controlling said valve mechanism by the length of the engine stroke.

2. The combination with a direct acting engine, of a stroke adjuster including valve mechanism acting to admit and exhaust fluid to vary the effective pressure on the engine piston or pistons, a fluid controlled plunger for moving said valve, and means for controlling said plunger by the length of the engine stroke.

3. The combination with a direct acting engine, of a stroke adjuster including valve mechanism acting to admit and exhaust fluid to vary the effective pressure on the engine piston or pistons, a fluid controlled plunger for moving said valve, fluid pumping devices controlling said plunger, and means for actuating the pumping devices by the engine in accordance with the length of the engine stroke.

4. The combination with a direct acting engine having one or more compensating cylinders and pistons acting in opposition to the engine piston during the first part of the stroke and in conjunction therewith during the latter part of the stroke, of a stroke adjuster including valve mechanism acting to admit and exhaust fluid to vary the compensating cylinder pressure, and means controlled by the length of the engine stroke for adjusting said valve mechanism.

5. The combination with a direct acting engine having one or more compensating cylinders and pistons acting in opposition to the engine piston during the first part of the stroke and in conjunction therewith during the latter part of the stroke, and means for applying pressure fluid in opposition to the working pressure for adjusting the compensating cylinder pressure, of a stroke adjuster including valve mechanism acting to admit and exhaust fluid to increase or decrease said opposing pressure, and means controlled by the length of the engine stroke for adjusting said valve mechanism.

[Claim 6 not printed in the Gazette.]

1,142,790. ORTHODONTIA APPLIANCE. EDWARD H. ANGLE, New London, Conn. Filed Aug. 22, 1913. Serial No. 786,056. (Cl. 32—19.)



1. An orthodontia appliance, comprising a tooth-band having a projection provided with an open sided slot having an abutment surface in opposition to the plane of said band, and an arch-bow detachably fitted in the slot in said projection and having means comprising the longitudinal walls of the bar forming the bow coöperative with the walls of the slot, to prevent its rotation in said slot and arranged to engage said abutment surface to force said band radially outward.

2. An orthodontia appliance, comprising a tooth-band having a slotted projection, an arch-bow detachably fitted in the slot in said projection and having means to prevent its rotation in said slot, and a locking-bolt extending transversely with respect to said arch-bow and within the arch, for preventing the accidental displacement of the latter.

3. An orthodontia appliance, comprising means for engaging selected teeth of the dental arch, and having a slot forming an open sided recess therein and an aperture extending transversely with respect to said slot, a flattened arch-bow laterally inserted and snugly fitted in said slot and having means comprising its longitudinal surfaces to prevent its relative rotation, and a locking-bolt fitted in said aperture, arranged to prevent the accidental displacement of said arch-bow and having means to prevent its relative rotation to said bow.

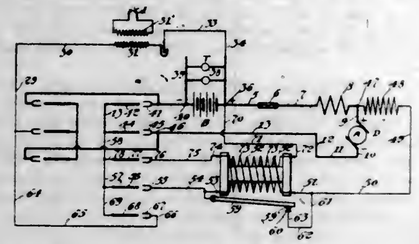
4. An orthodontia appliance, comprising a tooth-band formed of a strip of sheet material arranged to be wrapped

around selected teeth of the dental arch and having a projection provided with an open ended slot extending across one wall thereof, for the reception of an arch-bow laterally, and having an aperture extending transversely with respect to said slot, and a retaining bolt extending through said aperture and having a portion overhanging said slot to prevent the lateral displacement of said arch-bow.

5. An orthodontia appliance, comprising a tooth-band having a slotted projection, a laterally adjustable arch-bow formed of a polygonal flexible bar snugly fitted in the slot in said projection, and means independent of said arch-bow to prevent the accidental displacement of said bar from said slot.

[Claim 6 not printed in the Gazette.]

1,142,791. ELECTRICAL EQUIPMENT FOR INTERNAL-COMBUSTION ENGINES. VINCENT G. APPLE, Dayton, Ohio, assignor to The Apple Electric Company, Dayton, Ohio, a Corporation of Ohio. Filed Sept. 9, 1912. Serial No. 719,359. (Cl. 171—314.)

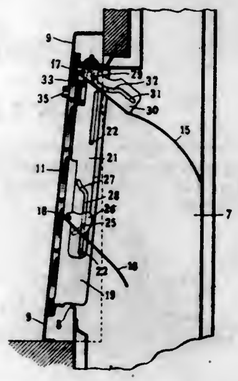


1. An electrical equipment for an internal combustion engine comprising a dynamo electric machine having a series field winding and a shunt field winding in combination with, a manual double throw switch; circuit connections through said switch to connect the armature of the dynamo, field series winding and battery in series relation so that current from said battery will rotate the armature in the same direction as when said armature is driven as a generator when said switch is thrown in one direction; an automatic switch having an operating coil connected across the terminals of said battery when said manual switch is thrown in the opposite direction; a resistance normally out of circuit and connectible by said automatic switch in series with the shunt field windings when the potential of the battery rises to a predetermined value.

2. An electrical equipment for an internal combustion engine comprising a dynamo electric machine having a series field winding and a shunt field winding in combination with a manual double throw switch; circuit connections through said switch to connect the armature of the dynamo, field series windings and battery in series relation when said switch is thrown in one direction; an automatic switch having an operating coil connected across the terminals of said battery when said manual switch is thrown in the opposite direction; a resistance coil adapted to assist the magnetic field created by the first mentioned coil and normally out of circuit and connectible by said automatic switch in series with the shunt field windings when the potential of the battery rises to a predetermined value.

3. An electrical system comprising a dynamo adapted to operate either as a motor or generator, and having a series field winding and a shunt field winding, a battery adapted to be charged thereby and to supply current for the same when operated as a motor, circuit connections therefor, an automatic switch having a high resistance operating coil connected across the terminals of the battery when the latter is being charged by the dynamo, and a resistance normally out of circuit and connectible by said automatic switch in series with the shunt field winding when the potential of the battery rises to a predetermined value.

1,142,792. REGISTER. JAMES H. BAILEY, New York, N. Y. Filed June 1, 1914. Serial No. 842,072. (Cl. 98—40.)



1. A register provided with a discharge outlet, a plurality of vanes for controlling flow through said outlet, a single operating member and connections from said operating member for opening said vanes successively one after the other.

2. In a register, a frame providing an outlet, a vane mounted in said frame and controlling the lower portion of the outlet, a vane mounted in the frame and controlling the upper portion of the outlet, and a movable operating member arranged in its movement in one direction to open one vane to the full extent and by the further movement thereof to open the other vane to a controllable extent.

3. A vane construction for registers comprising, a supporting frame, upper and lower vanes pivoted therein, an operating slide mounted in the frame, connections between the slide and the lower vane for swinging said vane to open position during the first part of the movement of the slide in one direction and connections between the slide and upper vane for swinging the upper vane open in the continued movement of the slide in the same direction.

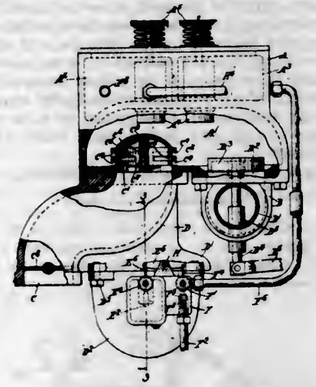
4. In a register, a plurality of pivotally supported vanes, an operating slide for said vanes, connections between the slide and one of the vanes embodying a pin on the vane and a receiving slot on the slide having an inclined portion engaging the pin in the first part of the movement of the slide to lift the vane to open position and a straight longitudinal portion to hold the vane open in the further movement of the slide and connections between the slide and a second vane embodying a pin on the slide and a receiving slot on the vane having a relatively straight longitudinal portion receiving the pin during the first part of the movement of the slide and a relatively inclined portion engaging with the pin for lifting said second vane during the further movement of the slide.

5. In a register, a pivotally supported vane, an operating slide and connections between said slide and the vane embodying an operating pin on one of said members and coöperating shoulders on the other member provided by a slot receiving said pin and having a relatively straight idle portion and a relatively inclined working portion terminating in a reversely inclined locking portion.

1,142,793. CARBURETER. BYRON G. BAKER, Laporte, Ind., assignor to M. Rumely Company, Laporte, Ind., a Corporation of Indiana. Filed Sept. 8, 1913. Serial No. 788,518. (Cl. 48—155.1.)

1. In a carbureter for heavy fuels means for supplying a fixed amount of priming fluid and means responsive to the consumption of the priming fluid for turning on the heavy fuel.

2. In a carbureter for heavy fuels means for supplying a fixed amount of priming fluid and means responsive to the gradual consumption of the priming fluid for gradually turning on the heavier fuel.



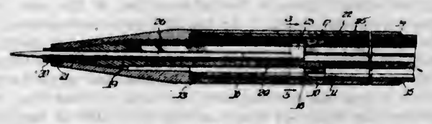
3. In a carbureter for heavy fuels and water means for supplying a fixed amount of priming fluid and means responsive to the consumption of the priming fluid for turning on the heavier fuel and the water.

4. In a carbureter for heavy fuels and water means for supplying a fixed amount of priming fluid and means responsive to the gradual consumption of the priming fluid for gradually turning on the heavy fuel and the water.

5. In a carbureter having a plurality of fuel reservoirs means responsive to the lowering of the level in one of them for supplying fuel to the other.

[Claims 6 to 13 not printed in the Gazette.]

1,142,794. LEAD-PENCIL. GEORGE B. BERGEN, Springfield, Ohio. Filed Mar. 19, 1914. Serial No. 825,737. (Cl. 120—18.)



1. In a pencil, the combination of a pair of relatively rotatable casing members, a tubular, threaded lead containing member rigidly held by one of said casing members, and means operable by the other casing member and slidable relative thereto for advancing a lead held within said tubular member, substantially as described.

2. In a pencil, the combination of interfitting casing members, means for securing said members against longitudinal separation but permitting relative rotation, a tubular, exteriorly threaded lead container permanently secured to one of said casing members, and a nut engaging said lead container and adapted to advance a lead within said container, substantially as described.

3. In a pencil, the combination of interfitting casing members, means for securing said members against longitudinal separation but permitting relative rotation, a tubular, slotted, exteriorly threaded lead container permanently secured to one of said casing members and a nut slidably engaging one of said casing members and adapted to be rotated by said casing member, said nut being adapted to cause the advance of a lead within said container, substantially as described.

4. In a pencil, the combination of interfitting casing members, means for securing said members against longitudinal separation but permitting relative rotation, a tubular, slotted, exteriorly threaded lead container permanently secured to one of said casing members, a nut slidably engaging one of said casing members and adapted to be rotated thereby, and a plunger operating within said lead container and adapted to be engaged by said nut whereby a lead in said container is adapted to be advanced, substantially as described.

5. In a pencil, the combination of a pair of telescoped casing members, means for securing said members against longitudinal separation but permitting relative rotation, a slotted lead container extending from end to end of said telescoped casing members, said container being externally threaded, a nut engaging the threads of said container, and means associated with said nut for advancing a lead within said container, substantially as described.

1,142,795. PRODUCTION OF ZINC SULFATE. RAMÓN BONASTRE LLOPART, Cordoba, Argentina. Filed Apr. 2, 1915. Serial No. 18,818. (Cl. 23—13.)

1. The method of producing zinc sulfate, which consists in mixing a blende comprising zinc sulfid and sulfid of iron with substances containing zinc and oxygen, heating them to 400° to 500° C. in air free from strong currents.

2. The method of producing zinc sulfate which consists in heating a mixture of a zinc carbonate with a blende containing zinc sulfid and a sulfid of iron to a temperature of 400° to 500° in an oxidizing atmosphere.

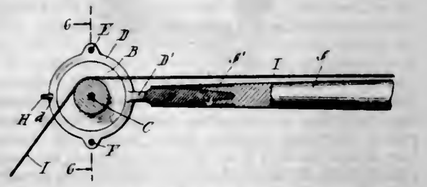
3. The method of producing zinc sulfate which consists in mixing zinc sulfid and zinc oxid with sulfur and heating the mixture to 400° to 500° C. in an oxidizing atmosphere.

4. The method of producing zinc sulfate, which consists in mixing a blende comprising zinc sulfid and sulfid of iron with calamin or zinc carbonate, and heating to 400° to 500° C. in air free from strong currents.

5. The method of producing zinc sulfate, which consists in heating a mixture of zinc sulfid, sulfid of iron and zinc oxid in an oxidizing atmosphere at a temperature below low red heat.

[Claim 6 not printed in the Gazette.]

1,142,796. FISHING-TIP. FRANK E. BRUGMAN, New York, N. Y. Filed Sept. 9, 1914. Serial No. 860,829. (Cl. 43—16.)



1. In a fishing rod tip, a sheave, cheeks lying on each side of said sheave and resilient arms carrying said cheeks and having portions to engage in the socket piece of the rod, and a loop sleeved on the ends of the axis of the sheave with its ends bearing against said cheeks, said loop being curved.

2. In a fishing rod tip, a sheave, cheeks in which the axis of said sheave is mounted, said cheeks having notches, and a loop mounted on said axis and having bends seated in said notches.

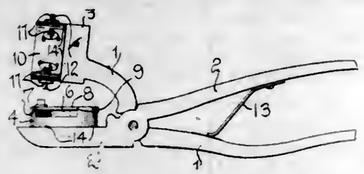
3. In a fishing rod tip, a sheave, cheeks in which the axis of said sheave is mounted, and a loop mounted on said axis and having bends seated in said notches, said loop being curved at its center.

4. In a fishing rod tip, resilient arms, cheeks carried by said arms, a sheave having its axis extended loosely therethrough and mounted in said cheeks, and a loop having eyes receiving the ends of said axis, said loop being curved between said cheeks.

1,142,797. DEVICE FOR CLENCHING EYELETS AND HOOKS. RALPH BURRELL, Pomerania, N. J. Filed Oct. 8, 1914. Serial No. 865,702. (Cl. 218—26.)

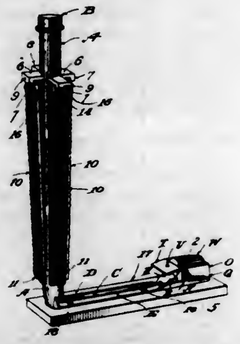
A device of the character described comprising a pair of crossed pivotally connected levers, a supporting block rotatably connected to the outer end of one of the levers, said block having a substantially semi-circular series of

recesses formed in its inner face, the inner face of said block also having a slot formed therein, the ends of the slot being terminated adjacent the ends of the series of recesses, said slot extending inwardly from the periphery of said block, a retaining plate pivotally connected to the



block, a spring connected to the block and overlying the outer edge of the retaining plate to normally hold the retaining plate in a position over said slot, a die block carried by the outer end of the other lever, and a plurality of dies carried by said die block.

1,142,798. HOG-GREASER. OLIVER H. CLOYD, Peoria, Ill. Filed July 15, 1912. Serial No. 709,522. (Cl. 119—157.)



1. In a rubbing post the combination of a receptacle for fluid including a depending tubular extension provided with a discharge opening facing toward the receptacle from which the fluid flows, a rubbing-member for receiving a fluid from the opening and arranged to overlie and normally close said opening and adapted to be moved by pressure of an animal applied thereto for exposing said opening to permit the discharge of a fluid from said opening upon the surface that closes said opening.

2. In a rubbing post, the combination of a support including a holding portion for fluid and a communicating hollow extension having an opening facing toward the support, an elastically held rubbing member lying between the extension and the support, its outer surface upon which the animal rubs normally lying upon and closing the opening and adapted to expose the same by pressure of an animal thereon to permit the flow of fluid upon its said outer surface, or that upon which the animal rubs, said member being limited in its movement by the said extension and said support.

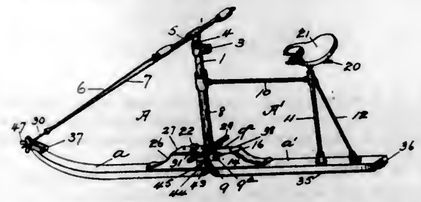
3. A rubbing post comprising a receptacle for a fluid, a conduit projecting from said receptacle and formed with an elbow having a discharge opening spaced from said receptacle, a rubbing member including a closure to control the opening, said rubbing member being arranged with respect to said opening whereby the fluid is deposited upon the surface thereof against which the animal rubs.

4. A rubbing post consisting of an elevated receptacle including a communicating tubular extension provided with a discharge opening spaced from the receptacle, and an elastically held member covering the opening and lying between said opening and said receptacle and adapted by pressure of an animal against it to expose the opening.

5. In a hog greaser, the combination of an elevated receptacle having an extended portion including a discharge opening facing the main portion thereof, a single rigid upright bar supported pivotally at one end and carrying a valve to overlie and normally close the opening, means to elastically hold the bar outward upon the said opening for closing the same, said bar adapted to be moved away from the opening by pressure of an animal thereon to expose said opening, the latter being arranged with respect to the bar whereby fluid from it is deposited upon the outer surface of the bar or that surface upon which the animal places pressure.

[Claims 6 to 24 not printed in the Gazette.]

1,142,799. COASTING-SLEIGH. THOMAS W. CONWAY, North Bergen, N. J., assignor of one-half to Roy S. Pollock. Filed June 19, 1914. Serial No. 846,120. (Cl. 21—94.)



1. A single runner sled comprising two pivotally connected frames, the bases whereof constitute the single runner, the forward member of the rearward frame forming a tubular bearing, and the rear upright member of the forward frame the pivot journaled therein, and thus connecting the frames; means for holding the frames in alinement, and for angularly deflecting the forward frame, mounted on the pivot, and a support for the rider, mounted on the rear frame; substantially as herein shown and described.

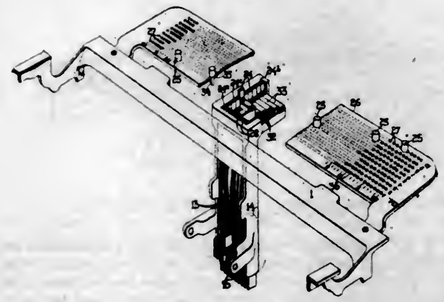
2. A single runner sled comprising a front and a rear section, a block secured to the front end of the rear section; a tubular upright, having its lower end secured to the block at the front end of the rear section, a steering post set therein and having its lower end secured to the rear end of the front section, a handle bar, fitted to the upper end of the steering post, and means connecting the handle bar with the front end of the forward section; substantially as herein shown and described.

3. A single runner folding sled comprising pivotally connected front and rear runner sections, a steering post tube, and a seat post, mounted upon the rear runner section, a brace between the upper ends of the steering post tube and the seat post, and a brace between the seat post and the rear runner section; a steering post set in the steering post tube, and connected at its lower end with the rear end of the front runner section; a handle bar on the upper end of the steering post, means connecting the ends of the handle bar with the forward end of the front runner section, a seat mounted upon the seat post tube, and foot supports on the rear part of the front runner section; substantially as herein shown and described.

4. A single runner sled, comprising two pivotally connected sections, the front runner section having its forward end upwardly curved, a loop pivotally connected thereto and an extension at the rear end of the rear runner section, adapted to engage with the loop when the runner sections are turned to overlie each other; substantially as herein shown and described.

1,142,800. TYPE-WRITING MACHINE. HARRY CRUTCHLEY, Jersey City, N. J., assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Filed June 11, 1910. Serial No. 566,282. (Cl. 197—177.)

1. In a typewriting machine having a power-driven carriage, a tabulating mechanism comprising means to release the carriage to enable the carriage to jump from column to column, and means to control the jump of the carriage when so released, said controlling means comprising a compound rack attached to the carriage, and having a number of rows of seats arranged about parallel to the line of movement of the carriage, column stops removably mounted in said seats according to the positions in the printing line at which the carriage is to be arrested, and selective key-operated stops, one for each row on the rack to project into the path of the stops of its particular row to arrest the rack and carriage; the key-operated stops having movement in a line substantially perpendicular to the rack and having offsets transverse to the rack and of different lengths so that each stop lies opposite its respective row.



2. In a typewriting machine having a power-driven carriage, a tabulating mechanism comprising means to release the carriage to enable the carriage to jump from column to column, means to control the jump of the carriage when so released, said controlling means comprising a compound rack attached to the carriage, and having several rows of seats arranged about parallel to the line of movement of the carriage, column stops removably mounted in said seats, and selective key-operated rods, one for each of the rows on the compound rack, stops on the rods to project into the path of the column stops of its particular row to arrest the carriage; the stops having movement in a line substantially perpendicular to the rack and having offsets transverse to the rack and of different lengths to bring each stop opposite its respective row, and having other offsets of different lengths to bring the stop-engaging faces into alinement transversely of the rack.

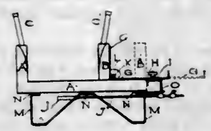
3. In a typewriting machine, the combination with a frame and a power-driven carriage, of a tabulating mechanism comprising a series of key-controlled stops on the frame, a rack having several rows of seats extending about parallel with the direction of movement of the carriage, and a column stop holder in which are fixedly mounted several column stops in predetermined relation, said holder with its stops removably mounted on the rack to engage the key-controlled stops to arrest the carriage at any one of several printing points in a single column.

4. The combination with a carriage, of a tabulating mechanism comprising a set of keys and removable holders having stops, a set of counter-stops corresponding to said stops, whereby each stop can coöperate only with its associated counter-stop, keys to operate said counter-stops, and carriage releasing mechanism operable by said keys.

5. The combination of a carriage, a tabulating mechanism comprising a rack, stops adjustable thereon, a set of keys, counter-stops controlled by said keys; said rack having rows of seats for said stops, all of the seats in each row being at letter-space intervals, there being a key for each row and a sufficient number of rows to permit said keys to be employed for either column-skipping or decimal tabulating, at will, and removable holders having stops to coöperate with the respective counter-stops.

[Claims 6 to 17 not printed in the Gazette.]

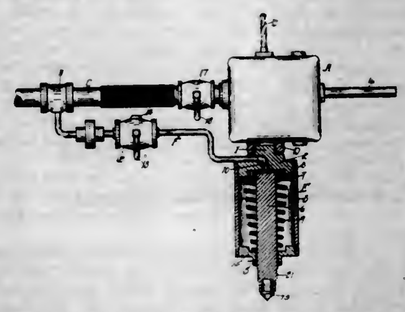
1,142,801. SEALING-MACHINE OF THE HOT-WATER TYPE. ISAAC LUTHER DELANEY and JOSEPH W. PATTERSON, Waynesburg, Pa. Filed Feb. 6, 1915. Serial No. 6,642. (Cl. 93—2.)



1. In a device of the kind described, in combination, a water container L-shaped in cross section, an adjustable water container substantially oblong in cross section vertically mounted upon the longer arm of said L-shaped water container, a heating device mounted beneath said water containers, a perforated plate mounted adjacent one end of the longer arm of said L-shaped water container and coextensive in width therewith, an upstanding flange formed upon one side of said perforated plate adjacent the shorter arm of said L-shaped water container, an adjustable perforated plate vertically disposed upon said first named plate opposite said perforated flange, means secured to said oblong water container adapted to move the same forwardly or backwardly, and a plurality of supports mounted beneath said L-shaped water container and said first named plate.

2. In a hot-water sealing machine, in combination, a horizontally disposed water container formed with an upstanding side, an upstanding movable water container adapted to seat upon said horizontally disposed water container, means secured to said upstanding movable water container adapted to secure the same in a predetermined position upon said longitudinally disposed water container, a heat dispensing device disposed adjacent the outer face of said upstanding movable water container, a heat dispensing device mounted beneath said horizontally disposed water container, a perforated plate member formed with a perforated flange on one side thereof mounted adjacent one end of said horizontally disposed water container, an upstanding perforated plate movably mounted upon said first mentioned plate, adjustment means secured to said movable plate adapted to fix the same in a predetermined position, and a plurality of supports mounted beneath said horizontally disposed water container and said first mentioned plate.

1,142,802. DRILLING AND BORING MACHINE. JOSEPH L. DIDIER, Salisbury, N. C. Filed July 18, 1913. Serial No. 779,762. (Cl. 77—32.)

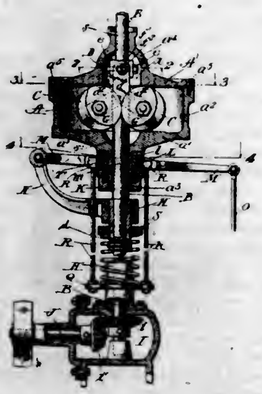


1. In a machine of the nature described, the combination of a rotatable cutting tool, a forward portion comprising a motor for supporting and rotating said tool, a handle joined to said forward portion for holding said machine, means on said handle adjacent said forward portion for manually controlling said motor, a rear portion adapted to bear against an abutment, a fluid-actuated expansion chamber for pressing said forward portion for-

ward, a supply pipe adjacent said handle and leading to said expansion chamber, a manual cut-off valve located on said supply pipe adjacent said handle and having an exhaust port, whereby said cutoff chamber and the means for controlling said motor may be conveniently reached by the hand which holds said handle, substantially as described.

2. In a machine of the nature described, the combination of a rear portion adapted to bear against an abutment, a rotatable cutting tool, a forward portion supporting said tool, a fluid-actuated expansion chamber for pressing said forward portion forward, a fluid motor for rotating said cutting tool, a supply pipe leading to said motor and constituting a handle for holding the machine and a branch pipe leading from said supply pipe to said expansion chamber, said supply pipe and said branch pipe being provided with cut-off valves adjacent each other and adjacent said forward portion, substantially as described.

1,142,803. SPEED-GOVERNOR. VICTOR J. DIEFFENDERFER, South Bethlehem, Pa., assignor to Victor Engineering Company, Limited, Allentown, Pa. Filed Sept. 14, 1914. Serial No. 861,572. (Cl. 121—112.)



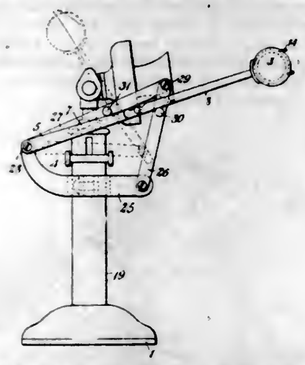
1. A speed governor, comprising a vertical driven shaft, a casing mounted to move vertically thereon and to revolve therewith, governor weights confined within the casing on opposite sides of the shaft and engaging the inner surface of the top wall of said casing, and swinging arms pivotally connected with the weights and pivotally connected with the shaft in a plane above the inner surface of the top wall of the casing engaged by the weights.

2. A speed governor, comprising a vertical driven shaft, a casing mounted to move vertically thereon and to revolve therewith and the top of which is dome-shaped and provided with a chamber, governor weights confined within the casing on opposite sides of the shafts and engaging at all times the inner surface of the top wall of the casing, and swinging arms pivotally connected with the shaft in said chamber above the inner surface of the top wall of the casing, and also pivoted to said weights for the purpose specified.

3. A speed governor, comprising a vertical driven shaft, a casing mounted to move vertically thereon and to revolve therewith, governor weights within the casing on opposite sides of the shaft and engaging the inner surface of the top wall thereof, and swinging arms pivotally connected with the shaft above said inner surface, said arms having inner portions connected with the shaft and outer portions connected with the weights arranged at an angle to said inner portions.

4. A speed governor, comprising a vertical driven shaft, a casing mounted to move vertically thereon and to revolve therewith, governor weights made in sections within the casing on opposite sides of the shaft and engaging the top wall of said casing, and swinging arms pivotally connected with the shaft and secured between the sections of the weights.

1,142,804. TELEPHONE-RECEIVER SUPPORT. ALBERT HEWITT DRAKE, Waterloo, Iowa. Filed Jan. 28, 1914. Serial No. 814,945. (Cl. 179—149.)



1. In a telephone receiver support, the combination with a telephone, of a bracket secured to said telephone, a pair of links pivotally connected with said bracket, means for connecting the outer ends of said links together, a stop arranged on each of said links, an arm pivotally mounted on said bracket adjacent the pivotal mounting of one of said links on said bracket, said arm extending between said stops, means arranged on the outer end of said arm for supporting a telephone receiver, said arm being formed in sections, means for pivotally connecting said sections at a point between said stops whereby when the outer section of said arm rests on one of said stops, said arm will be out of contact with the hook of said telephone, and when said outer section rests against the other of said stops the inner section of said arm will rest against said telephone hook and depress the same, substantially all of the weight of said outer arm and said telephone receiver bearing on said inner arm when said outer arm is resting against said second mentioned stop.

2. In a telephone receiver support, the combination with a telephone, of a bracket secured to said telephone, a pair of links connected with said bracket formed with stops, and a pivotally mounted arm arranged on said bracket and extending between said stops, said arm being provided with means for receiving a telephone receiver, and with a pivotal joint intermediate the length, whereby part of the arm may be folded over the remaining part, said bracket and said arm being so arranged as to cause part of said arm to depress the telephone hook of said telephone when the parts of the arm are folded.

3. In a telephone receiver support, the combination with a telephone, of a bracket secured to said telephone, an arm pivotally mounted on said bracket and arranged to extend above and past the hook of said telephone, said arm being formed into an inner and outer section, means for pivotally connecting said sections together, a stop arranged on each side of said pivotal connection and in the same horizontal plane, said stops acting as a rest for said outer section, and means arranged on the outer section for supporting a receiver, the arrangement of said stops and pivotal connection being such that the weight on the outer section will hold the inner section against the lower side of one of said stops, while the outer section rests on the top of the other stop when the telephone is in use, and said outer section will rest against said first mentioned stop when said telephone is not in use and said inner section will rest on said hook.

4. In a telephone receiver support, the combination with a telephone, of a bracket secured to said telephone, a pair of stops associated with said bracket, and arm pivotally mounted on said bracket, said arm extending over the hook of said telephone, said arm being formed with a joint, said joint being arranged between said stops so that when the arm is extended the inner end of the outer section rests on one of said stops and the outer end of the inner section rests against the other of said stops, and means for holding a receiver on the end of said arm.

1,142,805. FORM FOR CONCRETE CONSTRUCTION. JULIAN O. ELLINGER, New York, N. Y., assignor, by mesne assignments, of one-half to Universal Electric Welding Company, New York, N. Y., a Corporation of New York. Filed June 25, 1910. Serial No. 568,779. (Cl. 72—60.)



1. A knockdown form for a concrete beam or girder, comprising a frame which remains as a part of the beam or girder and is composed of two sides each having spaced longitudinal members and transverse members connecting the longitudinal members with each other, links pivotally connecting a longitudinal member of one side of the frame with the corresponding member of the other side of the frame, the latter longitudinal members being of angle-bar formation and arranged to protect corners of the concrete, each side member of the frame having a wall separable therefrom, and a wall extending from one side member to the other and separable therefrom.

2. A knockdown form for concrete girders or beams, having side members, pivoted connections between said members whereby they are relatively movable, each of said members comprising a skeleton frame formed of spaced longitudinal and transverse members and a wall separable from the frame, means for holding the side members in a spaced relation when they are in position for use, and a bottom wall extending from one side member to the other and supported thereby when the form is assembled, the latter wall being separable from said members.

3. A form for concrete construction comprising side frames each of which has spaced longitudinal members and transverse members connecting the longitudinal members with each other, separately formed walls between the same, said transverse members being offset from the longitudinal members between their places of securement thereto to accommodate said walls, the adjacent faces of the walls and transverse members being in contact with each other, and a bottom wall extending from one side frame to the other.

4. A form for concrete construction comprising a skeleton frame and walls formed separately from the frame and supported thereby, said frame comprising intersecting longitudinal and transverse members which are electrically welded together at their places of intersection, the transverse members being offset inward between the intersecting points with the longitudinal members to provide a pocket for the walls between the longitudinal and transverse members, the transverse members being in contact with the said walls.

5. A form for concrete construction, comprising a skeleton frame composed of longitudinal members and transverse members connecting the longitudinal members together, said members being relatively formed to provide offsets forming pockets, side walls in said pockets, the lower longitudinal members being approximately of L-form, and a bottom wall supported thereby, the transverse members extending above said side walls, whereby the form has laterally open spaces above its side walls.

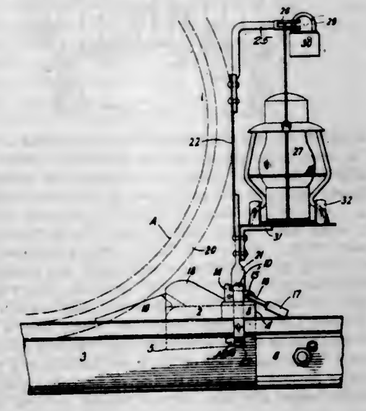
[Claims 6 to 14 not printed in the Gazette.]

1,142,806. LADDER. ERNEST V. FENTON, Des Moines, Iowa. Filed Dec. 26, 1913. Serial No. 808,663. (Cl. 228—26.)



A house ladder of the type described, including a ladder, mounted for movement in a direction parallel with respect to the house and equipped with a seat-forming structure or frame arranged to be positioned laterally of the ladder, said ladder having its upper end provided with a bearing arranged for rotation in accordance with the indicated movement of the ladder, said seat-forming structure or frame being provided with ladder-attaching members arranged to engage rounds of the ladder, whereby said seat structure is caused to face in the direction of the propping of the ladder, said seat structure also having an outstanding bearing member arranged to have a corresponding rotating movement with the rotation of the bearing of the ladder.

1,142,807. PORTABLE SAFETY-STOP FOR RAILWAYS. GEORGE M. FERGUSON, Elyria, Ohio. Filed Sept. 26, 1912. Serial No. 722,482. (Cl. 104—127.)



1. The combination with a derailer having a rail head engaging flange on one side, a slotted lug on the other side, a securing member passing through the lug and adapted to engage beneath a rail head opposite the flange, and a lock for holding the securing member in position.

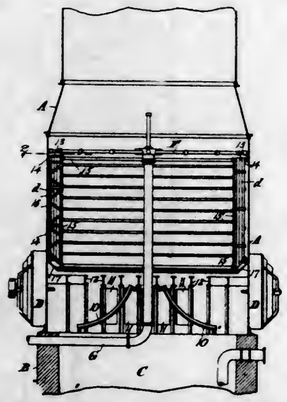
2. The combination with a derailer having a rail head engaging flange on one side, a slotted lug on the other side, a securing member having a transverse slot passing through the lug and adapted to engage beneath a rail head opposite the flange, and a locking device comprising a wedge adapted to pass through the transverse slot and having a padlock shackle receiving opening in its smaller end for holding the securing member in position.

1,142,808. HORSESHOE. IDA DUNLAP FERGUSON, Dubuque, Iowa. Filed May 16, 1912. Serial No. 697,613. (Cl. 168—42.)



A removable calk for horseshoes, comprising in combination, an open-ended box having an opening formed centrally in its bottom, a core-plate mounted in said box and consisting of a vertical web extending upwardly from the bottom of said box and parallel to its sides, a shank extending downwardly from said core plate and projecting through said opening in the box bottom, and horizontally disposed lugs extending from the ends of said web and beyond the ends of said box, and a resilient tread molded in said box and around said core-plate, said lugs and shank providing means to attach the calk to a shoe.

1,142,809. COOLING-TOWER. JOHN F. GRACE, New York, N. Y., assignor to Henry R. Worthington, a Corporation of New Jersey. Filed Mar. 7, 1913. Serial No. 752,604. (Cl. 261—3.)



1. A tower of the class described, comprising a tower shell, a fixed inner filling and a removable outer filling surrounding the inner filling and arranged to provide by its removal access to the inner side of the tower shell.

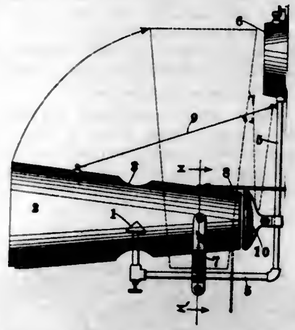
2. A tower of the class described, comprising a tower shell, a fixed inner filling and an outer filling surrounding the inner filling, said outer filling being suspended from the top of the filling portion of the tower and arranged to be withdrawn upward for removal from the tower to provide space for access to the inner side of the tower shell.

3. A tower of the class described, comprising a tower shell, a fixed inner filling with space surrounding said filling for access to the inner side of the tower shell, and a removable filling in said space consisting of boards *d* suspended separately from the top of the filling portion of the tower.

4. A tower of the class described having a filling composed of boards arranged in series edgewise one upon and crosswise of the other and locking boards extending diagonally through the spaces between crossing boards for holding them in place.

1,142,810. APPARATUS FOR KILLING INSECTS. EMORY A. GRANT, Cleveland, Ohio. Filed May 16, 1914. Serial No. 838,955. (Cl. 43—22.)

1. In a device of the character described, the combination of a funnel shaped member open at one end and provided with a longitudinal opening extending substantially throughout its length, the edges of said member being overlapped at said opening, and a burner within the funnel and beneath the ventilating opening.



2. In a device of the character described, the combination of a funnel shaped member open at one end and provided with a longitudinal opening in the lower portion and a ventilating opening, a burner within the funnel and beneath the ventilating opening, a supply pipe for the burner, a bracket supported on the supply pipe and supporting the funnel, and a reflector for directing the light from the burner.

3. In a device of the character described, the combination of a funnel shaped hood open at one end and provided with a longitudinal opening in the lower portion, a burner within the hood and above the opening in the lower portion thereof, means for pivotally supporting the hood, and means for holding the hood in fixed position on its pivots.

4. In a device of the character described, the combination of a flame burner, and an opaque member surrounding said burner and extending a substantial distance in one direction therefrom, said member being provided with an unobstructed light discharging opening and a longitudinal opening extending substantially throughout its length.

5. In a device of the character described, the combination of a flame burner, a supply pipe therefor, a bracket on the supply pipe, an opaque member surrounding said burner and extending a substantial distance in one direction therefrom, said member being pivotally supported from the supply pipe and provided with a light discharging opening and an opening beneath the burner.

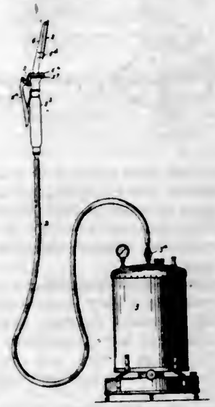
[Claims 6 and 7 not printed in the Gazette.]

1,142,811. DEVICE FOR STRIPPING WALL-PAPER. LOUIS FRED GAISWOLD, Cleveland, Ohio. Filed May 28, 1914. Serial No. 841,554. (Cl. 216—8.)

1. In a device for stripping wall paper, the combination of a source of steam supply; an applicator having a chamber therein; steam connection between the source of steam supply and said chamber; means for controlling the supply of steam from the steam source to the chamber in the applicator; a metallic stripping blade adjustably attached to the applicator; and openings from the applicator chamber in juxtaposition to the stripping edge of the blade, the said stripping blade being adapted to co-act with these openings to control the supply of steam therefrom.

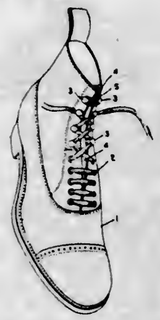
2. In a device for stripping wall paper, the combination of a source of steam supply, and a moistening and stripping member, said member consisting of a hand piece having a chamber therein, said chamber being connected with the steam supply; a head member attached to the hand piece; a chamber in said head member; a port between the chamber in the head member and the chamber in the hand piece; means for opening and closing said port; a metallic stripping blade attached to the head member; and openings from the chamber in the head member in juxtaposition to the stripping edge of the blade.

3. In a device for stripping wall paper, the combination of a source of steam supply, and a moistening and stripping member, said member consisting of a hand piece having a chamber therein, said chamber being connected with the steam supply; a head member attached to the hand piece; a flaring chamber in said head member; a



port between the chambers in the head member and the hand piece; means for opening and closing said port; a metallic stripping blade attached to the head member; and openings from the chamber in the head member in its flared edge in juxtaposition to the stripping edge of the blade.

1,142,812. FASTENING DEVICE FOR SHOES. THOMAS F. HORRIGAN, Brighton, Mass. Filed Jan. 6, 1915. Serial No. 865. (Cl. 36—54.)



1. A tongue support and closure for shoes comprising a resilient member adapted to be attached to the tongue of the shoe and adapted to engage lacing studs upon the opposite sides of the upper.

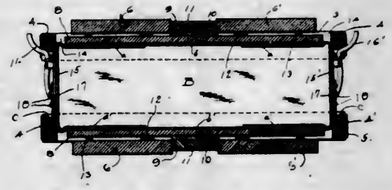
2. A tongue support and closure for shoes comprising a plate having fastening prongs, and a resilient loop having its ends attached to said plate substantially as described.

3. A tongue support and closure for shoes comprising a metallic plate, means for fastening the plate to the tongue of the shoe, and a resilient member fastened to said plate and adapted to be stretched to engage oppositely disposed lacing studs.

4. A tongue support and closure for shoes comprising a metallic plate having a boss, and a resilient member consisting of a wire helix having its ends secured to said boss and adapted to be stretched over opposite lacing studs upon a shoe substantially as described.

5. A tongue support and closure for shoes comprising a metallic plate, having prongs to fasten the same to the tongue of the shoe, a centrol boss and a resilient member consisting of a wire helix having a woven covering, having its ends secured to said boss, and adapted to be stretched over opposite lacing studs upon a shoe substantially as described.

1,142,813. MEANS FOR USE IN SEALING FIBER BOXES, CARTONS, AND THE LIKE. JOHN C. JOHNSON, St. Louis, Mo. Filed Aug. 24, 1914. Serial No. 858,227. (Cl. 93—2.)



1. In a device of the kind described, a pair of coöperating tray-like members adapted to fit a box on opposite sides thereof and when engaging a box being oppositely disposed relatively to each other, each of said members including a frame, an outer fixed bottom section on said frame, and an inner yieldable bottom section within said frame, and releasable means for detachably fastening said members together in operative position with a box therebetween; substantially as described.

2. In a device of the kind described, a pair of coöperating tray-like members adapted to fit a box on opposite sides thereof and when engaging a box being oppositely disposed relatively to each other, each of said members including a frame, an outer fixed bottom section on said frame, an inner bottom section within said frame, said inner bottom section being flatwise yieldable relative to said outer bottom section, and means for holding said inner bottom section in operative relation to said outer bottom section, and releasable means for detachably fastening said members together in operative position with a box therebetween; substantially as described.

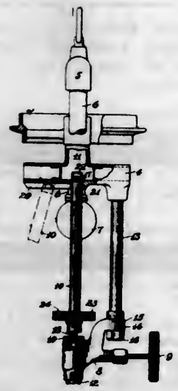
3. In a device of the kind described, a pair of coöperating tray-like members adapted to fit a box on opposite sides thereof and when engaging a box being oppositely disposed relatively to each other, each of said members including a frame, an outer fixed bottom section on said frame, an inner bottom section within said frame flatwise disposed relatively to said fixed outer bottom section, means for holding said inner bottom section in operative relation to said outer bottom section, and yielding members interposed between said outer and inner bottom sections, and releasable means for detachably fastening said tray-like members together in operative position with a box therebetween; substantially as described.

4. In a device of the kind described, a pair of coöperating tray-like members adapted to fit a box on opposite sides thereof and when engaging a box being oppositely disposed relatively to each other, each of said members including a frame, spaced-apart outer bottom sections fixed on said frame, an inner bottom section within said frame, a cross-piece on said inner bottom section loosely fitting between said outer fixed bottom section, a fixed strap on said cross-piece normally engaging at its ends with said frame, and springs interposed between said fixed outer bottom sections and said inner bottom section, and releasable means for detachably fastenening said members together in operative position with a box therebetween; substantially as described.

5. In a device of the kind described, a pair of coöperating tray-like members adapted to fit a box on opposite sides thereof and when engaging a box being oppositely disposed relatively to each other, each of said members comprising a frame having a fixed outer bottom and a yieldable inner bottom, and co-acting clamping members on said frames adapted to detachably fasten said tray-like members together in operative position with a box therebetween; substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

1,142,814. HYDROCARBON-LAMP. ADOLPH G. KAUFMAN, New York, N. Y. Filed June 1, 1914. Serial No. 842,162. (Cl. 67—50.)



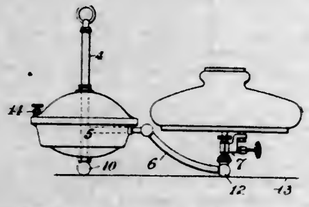
1. A hydrocarbon lamp having a plurality of mantles, and a vaporizer mounted intermediately of said mantles, said lamp having a guide extending in a lateral direction from without the zone of said mantles to the normal position of said vaporizer whereby the movement of said vaporizer is guided from contact with any of said mantles during the renewal of the vaporizer.

2. The combination with a hydrocarbon lamp of an air-intake piece having a standard connected with one end thereof, said air-intake being perforated to receive the nozzle of the vaporizer, and having a channel formed in the under side thereof from said orifice to the free end, for the purpose set forth.

3. The combination with a hydrocarbon lamp of an air-intake piece having a standard connected with one end thereof, said air-intake piece being perforated substantially centrally thereof to receive the nozzle of the vaporizer, and having a channel formed in the under side thereof from said perforation to the free end, and having a shoulder on the side of said perforation opposite said channel, for the purpose set forth.

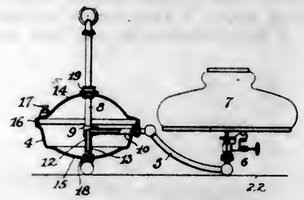
4. A hydrocarbon lamp having a plurality of mantles, and a vaporizer mounted intermediately of said mantles, said lamp having a guide adapted to direct the movement of said vaporizer during the renewal of the same, and said vaporizer having a knurled cup fixed thereon without the zone of said mantles whereby the vaporizer may be secured in position with the hand of the operator alone.

1,142,815. HYDROCARBON-LAMP SUPPORT. ADOLPH G. KAUFMAN, New York, N. Y. Filed June 10, 1914. Serial No. 844,217. (Cl. 240—53.)



A hydrocarbon lamp having a reservoir, a suspending device passing through said reservoir, a bracket, and a lamp proper, a support comprising two legs each having one end secured to said suspending device and a knob mounted on the other end, and said bracket having a knob, the knobs on said legs and bracket being in the same horizontal plane, for the purpose set forth.

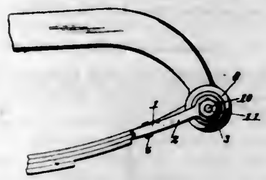
1,142,816. SELF-CONTAINED HYDROCARBON-LAMP. ADOLPH G. KAUFMAN, New York, N. Y. Filed June 10, 1914. Serial No. 844,218. (Cl. 67—81.)



1. A hydrocarbon lamp comprising a lamp proper and a distortable reservoir, a stay passing through said reservoir whereby the same is held against distortion, and a feed tube connected with said stay at substantially right angles, said lamp being in communication with said reservoir through said stay.

2. A hydrocarbon lamp comprising a lamp proper, and a distortable reservoir, a stay passing through said reservoir and binding the parts together, and a feed tube connected with said stay at substantially right angles, a part of said stay being a tube, and said feed tube being in communication therewith and with said lamp.

1,142,817. SPRING TAKE-UP. HENRY C. KIRK, Jr., Roland Park, Md. Filed July 7, 1914. Serial No. 849,377. (Cl. 21—104.)



1. A take-up clip for a vehicle spring suspension consisting of a bent spring having an eye to receive a suspension pin at one end and jaws at the other end to engage the edge of the vehicle spring.

2. A take-up clip for vehicle spring suspension consisting of a bent spring having means on one end for engaging the chassis and means on the other end for engaging the vehicle spring.

3. A take-up clip for vehicle spring suspension consisting of a U-shaped spring having one leg longer than the other, an eye for a bolt at the end of the elongated leg and jaws at the end of the short leg.

4. A take-up clip for vehicle spring suspension consisting of a bent spring having an eye for a bolt at one end, leg and jaws at the other end, the eye being split and the separated portions offset to form a nut locking device.

5. In a vehicle spring suspension, spaced ears on the chassis to receive the end of the vehicle springs, a suspension pin, the ears being apertured to receive the pin, a spring having its end between the ears, the end of the spring having an eye to receive the pin and a take-up clip in the form of a bent spring having an eye at one end taking over the end of the pin outside one ear, a nut to hold the eye in place and jaws on the other end of the spring to engage the edge of the vehicle spring.

[Claims 6 and 7 not printed in the Gazette.]

1,142,818. CAP FOR LAMP-SHELLS, SWITCH-RECEPTACLES, AND ANALOGOUS DEVICES. CHARLES J. KLEIN, Milwaukee, Wis., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed Apr. 8, 1912. Serial No. 689,291. (Cl. 173—36.)

1. In combination, a casing cap having struck-out portions and cut-metal edges beneath said portions, and a fibrous insulating lining having yieldable tongues resting upon said edges for retaining said lining in said cap.



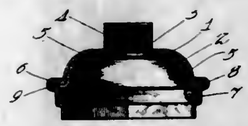
2. A casing cap having struck-out portions providing cut metal edges opposed to said portions, and an insulating lining having tongues adapted to snap over said edges and be housed in said struck-out portions.

3. A casing cap having a plurality of transverse slits in its wall, the metal at one side of said slits being struck out and an insulating lining having tongues adapted to be received in said struck-out portions and to rest upon the metal at the opposite side of said slits to hold said lining against accidental rotation within and against removal from said cap.

4. A casing cap having interior recesses and adjacent transverse and vertical cut metal edges and an insulating lining having tongues supported by said transverse edges and held against rotation by said vertical edges when in position in said cap.

5. A casing cap having a plurality of L-shaped slits in its wall, the metal at one side of said slits being struck out, and an insulating lining within said cap and having struck-out portions rotatable into or out of locking engagement with the cut metal edges of said cap at one side of said slits.

1,142,819. CAP FOR LAMP-SOCKETS AND THE LIKE. CHARLES J. KLEIN, Milwaukee, Wis., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed Apr. 8, 1912. Serial No. 689,292. (Cl. 173—362.)



1. A cap for lamp sockets and the like having a separate rigid metallic lining clamped therein between portions of the wall of said cap, said lining having a glazed or enameled insulating surface.

2. A cap for lamp sockets and the like formed in sections and an insulating lining for the dome member thereof having portions clamped between the sections of the cap.

3. A cap for lamp sockets and the like comprising a dome member, an insulating lining, a shell engaging member and a common means for securing all of said parts together.

4. A cap for lamp sockets and the like comprising a dome member, a shell engaging member and an insulating lining, said lining and one of said cap members having annular flanges and the other cap member having a portion spun or headed over said flanges to secure all of said members together.

1,142,820. METHOD OF FORMING PROJECTIONS. GEORGE C. KNAUFF, Chicago, Ill. Filed Aug. 17, 1912. Serial No. 715,607. (Cl. 18—59.)

1. The method of forming an immovable projection of pre-determined height upon a member composed of an amorphous, normally unyielding and non-moisture-absorptive material without the use of an adhesive, which consists in perforating the member where the projection is to be formed; subjecting the member to a heating and softening influence until the wall of the perforation is sufficiently softened to render the same plastic; inserting into the perforation while the wall thereof is in the said plastic condition a member equipped with raised portions, thereby causing the said raised portions to compress the plastic wall of the perforation and to embed themselves in the said wall while being inserted; the said inserted member being of a material normally unyielding and unaffected by the said softening influence and having an excess of length by which it may be manipulated for insertion; allowing the softened and compressed portion of the perforated member to harden and anchor the inserted member by pressure upon the latter; and cutting off the exposed surplus length of the said inserted member.

2. The method of forming oppositely disposed immovable projections of predetermined heights upon a member composed of a normally unyielding material, which consists in perforating the member along the common axis upon which the desired projections are to be located; subjecting the member to a heating and softening influence until the wall of the perforation is sufficiently softened to render the same yielding; inserting into the perforation while its wall is in the said yielding state a member composed of a material which is normally unyielding and which is unaffected by the said softening influence, the said inserted member having raised portions adapted to compress the softened wall of the perforation while being inserted; the said inserted member being greater in length than the distance between the tips of the desired projections, the excess in length enabling it to be manipulated for insertion; allowing the softened and compressed wall of the perforation to harden; and cutting off the exposed surplus length of the inserted material.

3. The method of forming oppositely disposed immovable projections of predetermined heights upon a member composed of a normally unyielding material, which consists in perforating the member along the common axis upon which the desired projections are to be located; subjecting the member to a heating and softening influence until the wall of the perforation is sufficiently softened to render the same yielding; screwing into the perforation (while its wall is in the said yielding state) a member composed of a material unaffected by the said softening influence, the said latter member having upon a portion of its length raised threads adapted to compress the softened wall of the perforation while being inserted; the said inserted member being greater in length than the distance between the tips of the desired projections, the excess in length enabling it to be manipulated for insertion; allowing the softened and compressed wall of the perforation to harden; and cutting off the exposed surplus length of the inserted material.

1,142,821. SEPARATION OF MIXED-SULFID ORES. HENRY LAVERS, Surrey Hills, Victoria, Australia, assignor to Minerals Separation American Syndicate (1913) Limited, London, England. Filed May 28, 1914. Serial No. 841,477. (Cl. 83—85.)

1. The hereindescribed process of concentrating metallic sulfid ores which consists in subjecting the ore to the action of a chromium salt in a slightly alkaline solution and to a flotation separation whereby a flotation product relatively high in certain sulfids and a residue relatively high in other sulfids are obtained.

2. The hereindescribed process of concentrating metallic sulfid ores which consists in subjecting the ore to the action of a chromium salt in a slightly alkaline solution and to a flotation separation in a heated circuit whereby a flotation product relatively high in certain sulfids and a residue relatively high in other sulfids are obtained.

3. The hereindescribed process of concentrating metallic sulfid ores which consists in first crushing the ore to a suitable degree of fineness, then subjecting the crushed ore to a flotation separation in the presence of a solution of a salt of chromium and in a hot slightly alkaline circuit, whereby a flotation product relatively high in certain sulfids and a residue relatively high in other sulfids are obtained.

4. The hereindescribed process of concentrating metallic sulfid ores which consists in first crushing the ore to a suitable degree of fineness, then subjecting it to an agitation froth process of ore concentration in a slightly alkaline circuit for the formation of a froth containing the

bulk of the metallic sulfids and thereafter subjecting the concentrate to a flotation separation treatment in the presence of a solution of a salt of chromium and in a slightly alkaline circuit whereby a flotation product relatively high in certain sulfids and a residue relatively high in other sulfids are obtained.

5. The hereindescribed process of concentrating ores containing zinc and lead sulfids consisting in first crushing the ore to a suitable degree of fineness, then subjecting the said ore to a flotation separation treatment in the presence of a solution of a chromium salt and in a slightly alkaline circuit whereby there is obtained a flotation product relatively high in zinc and low in lead and a residue relatively high in lead and low in zinc.

[Claims 6 to 8 not printed in the Gazette.]

1,142,822. ORE CONCENTRATION. JOHN W. LITTLEFORD, San Francisco, Cal., assignor to Minerals Separation, Limited, London, England. Filed Dec. 15, 1913. Serial No. 806,770. (Cl. 83—84.)

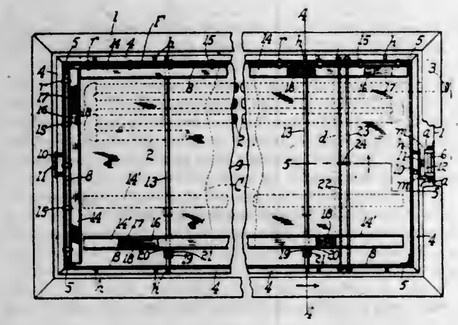
1. The hereindescribed process for separating the valuable metalliferous constituents from the gangue slimes contained in ore pulp which consists in coagulating the said gangue slimes by adding to the ore pulp an emulsion of a soap and pine oil, and separating the coagulated gangue from the metalliferous constituents of the pulp.

2. The hereindescribed process for separating the valuable metalliferous constituents from the gangue slimes contained in ore pulp which consists in adding to the ore pulp an emulsion of soap and pine oil in approximately the proportions by weight of 32 parts pine oil, 9 parts anhydrous soap, and 59 parts water, and thereafter separating the coagulated gangue from the metalliferous constituents of the ore pulp.

3. The hereindescribed process for separating the valuable metalliferous constituents from the colloidal silica slimes contained in ore pulp which consists in coagulating the said colloidal gangue slimes by adding to the ore pulp an emulsion of a soap and pine oil, and separating the coagulated gangue from the metalliferous constituents of the pulp.

4. The hereindescribed process for separating the valuable metalliferous constituents from the colloidal silica slimes contained in ore pulp which consists in coagulating the slimes by adding to the ore pulp an emulsion of soap and pine oil in approximately the proportions by weight of 32 parts pine oil, 9 parts anhydrous soap and 59 parts water and thereafter separating the valuable metalliferous constituents from the coagulated silica slimes.

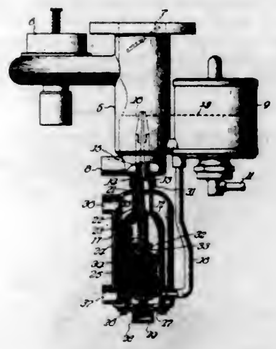
1,142,823. CURTAIN-STRETCHER. LYNNEAUS I. LOCKWOOD, St. Louis, Mo. Filed Mar. 12, 1914. Serial No. 824,282. (Cl. 45—24.)



1. In a curtain-stretcher, an anchoring member for the curtain comprising a channel, a member in the channel having an outer surface inclined to the base of the channel and depressed below the free edges of the channel flanges, a card-strip secured to said inclined surface and provided with teeth collectively forming a rough surface for engaging the curtain to be stretched, said surface conforming substantially to the inclination of the surface of the member supporting the card-strip and disposed at an incline to the general plane of disposition of the curtain supported on the stretcher.

2. In a curtain-stretcher, an anchoring member for the curtain comprising a channel, a strip deposited on the bottom of the channel and having an outer convexed face depressed below the free edges of the channel flanges and inclined to the bottom or web of the channel, a strip of carding cloth secured to said strip and having teeth bent toward the channel-flange toward which the convexed face of the strip aforesaid inclines, the points of the teeth of said carding cloth being disposed along a surface conforming to the curvature of the convex face of the strip, whereby the teeth on one side of the resulting brush are depressed below the free edge of the flanges of the channel, the free edge of the opposite channel-flange being substantially even with the teeth adjacent thereto.

1,142,824. CARBURETER ATTACHMENT. JAMES B. LUND, Chicago, Ill. Filed Aug. 13, 1913. Serial No. 784,504. (Cl. 48—148.)



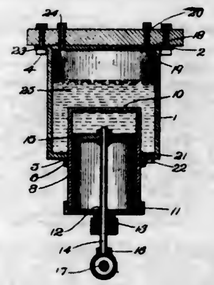
1. A carbureter attachment comprising a casing adapted to be interposed between the vaporizing chamber and the float chamber of the carbureter, a jet nozzle carried by said casing and protruding into the vaporizing chamber, a vertically disposed needle-valve, a spring normally holding said valve in open position, and means adapted to be actuated by variations in temperature and pressure of the liquid in said passage disposed beneath the needle-valve in position to move the same toward closed position against the force of said spring.

2. A carbureter attachment comprising a casing connected with the vaporizing chamber of the carbureter and constructed to form a supply passage to said chamber, a needle valve disposed in said passage, a temperature and pressure actuated device disposed beneath said valve, adjustable means for normally urging said valve into open position, means for adjusting the position of said device with respect to said valve, and a jacket surrounding said passage whereby the temperature of said device may be regulated.

1,142,825. SHOCK-ABSORBER. WILLIAM F. LYONS, Kansas City, Mo. Filed Jan. 9, 1914. Serial No. 811,185. (Cl. 21—50.)

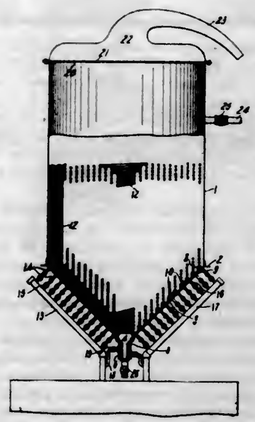
1. A shock absorber comprising a cylinder having a closed end and provided with a valved port, a second cylinder having an apertured head projected into the first cylinder and having permanent sealed connection therewith, a piston operable in the second cylinder beneath said apertured head, and means for attaching the first named cylinder and said piston to the body and axle of a vehicle respectively.

2. A shock absorber comprising a cylinder closed at one end and containing an air and liquid cushion, a second cylinder projected into the first and having an apertured inner end located below the level of the liquid cushion, a cap closing the outer end of the second cylinder and provided



with a stuffing box, a piston in said last named cylinder having a rod projected through said stuffing box, and means on the first named cylinder and on the piston for attaching the same to the body and axle of a vehicle respectively.

1,142,826. APPARATUS FOR REFINING OIL. WILLIAM C. MCELHENY, Pittsburgh, Pa. Filed Nov. 25, 1912. Serial No. 733,395. (Cl. 257—205.)



1. Apparatus for refining oil, comprising a tank having a bottom outlet, a plurality of helical pipe coils therein concentrically disposed about a common axis, two manifolds lying beneath said tank, and connections from said manifolds to the upper and lower ends of the several coils.

2. Apparatus for refining oil, comprising a tank having a bottom outlet, a plurality of helical pipe coils therein concentrically disposed about a common axis, two manifolds lying beneath said tank, and connections from said manifolds to the upper and lower ends of the several coils, all of said connections passing through the tank bottom.

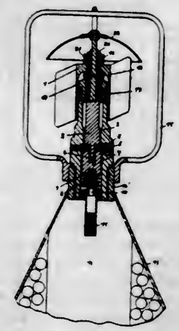
3. Apparatus for refining oil, comprising a tank having a bottom outlet, a plurality of helical pipe coils therein concentrically disposed about a common axis, two manifolds lying beneath said tank, and connections from said manifolds to the upper and lower ends of the several coils, all of said connections passing through the tank bottom, and each connection being provided with a separate regulating valve.

4. Apparatus for refining oil, comprising a cylindrical tank having an inverted conical bottom provided with a central outlet, a plurality of helical pipe coils therein concentrically disposed about a common axis, the upper ends of said coils lying at substantially the same level and the lower ends of said coils lying closely adjacent to the tank bottom, two manifolds lying beneath the tank bottom, and connections from said manifolds to the upper and lower ends of the several coils.

5. Apparatus for refining oil, comprising a cylindrical tank having an inverted conical bottom provided with a central outlet, a plurality of helical pipe coils therein concentrically disposed about a common axis, the upper ends of said coils lying at substantially the same level and the lower ends of said coils lying closely adjacent to the tank bottom, two manifolds lying beneath the tank bottom, and connections from said manifolds to the upper and lower ends of the several coils, all of said connections passing directly through the tank bottom, and each being provided with a separate regulating valve.

[Claim 6 not printed in the Gazette.]

1,142,827. PROJECTILE FOR AIR VESSELS. RICHARD MACHENBACH, Schlebusch, near Cologne, Germany. Filed Apr. 16, 1913. Serial No. 761,575. (Cl. 102—2.)



1. Projectile for air vessels, comprising a casing, a fan, a fuse comprising a plunger, a peg for holding the plunger in position, a spring bearing on the peg and tending to throw it out, a spindle carrying the fan and provided with screw thread, a pin at the end of the spindle engaging the peg and adapted to release the peg when the fan is rotated and unscrews the spindle.

2. Projectile for air vessels comprising a casing, a fuse, a fan adapted to set the fuse at firing position, a cap adapted to be raised by the resistance of the air, means to lock the fan against rotation and adapted to be released when the cap is raised, the fan being allowed to freely rotate when said locking means are released.

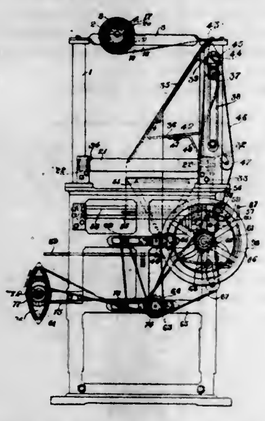
3. Projectile for air vessels, comprising a casing, a fuse, a rotatable fan adapted to set the fuse at firing position and to guide the projectile in vertical direction when falling, a cap adapted to be raised by the resistance of the air, means to lock the fan against rotation and adapted to be released when the cap is raised, said fan being allowed to freely rotate when the locking means are released.

4. Projectile for air vessels, comprising a casing, a fuse, a rotatable fan adapted to set the fuse at firing position and to guide the projectile in vertical direction when falling, a cap adapted to be raised by the resistance of the air, a locking pin normally adapted to lock the fan and adapted to be released when the cap is raised to allow the fan to freely rotate when the projectile has fallen for a certain distance.

5. Projectile for air vessels, comprising a casing, a fuse, a fan adapted to set the fuse at firing position, a spindle carrying the fan, a cap constructed to be raised by the air catching underneath when the projectile is falling and a second spindle carrying the cap and rotatably journaled within a longitudinal bore of the first named spindle, a spring tending to hold the spindle of the cap in lowest position with regard to the first named spindle, a pin

attached to the spindle of the cap and projecting out through a slot in the first named spindle, a notch in a fixed part of the projectile engaged by the said pin to hold the fan against rotation until the cap is raised in act of the projectile falling.

1,142,828. FOLDING-MACHINE. AXEL MALM, Dayton, Ohio, assignor to The Egry Register Company, Dayton, Ohio, a Corporation of Ohio. Filed Dec. 2, 1912. Serial No. 734,486. (Cl. 101—44.)



1. A machine of the character described comprising a frame, means for supporting a roll of paper on said frame and for adjusting the same axially of said support, a triangular folding plate having its base adjacent to said roll of paper and substantially parallel with the axis thereof, a pair of folding rollers arranged near the apex of said triangular plate, extending transversely to the axis of said roll of paper and adjustable in a direction parallel with the axis of said roll of paper and transversely to the apex of said triangular plate, said folding plate being arranged at an inclination to said folding rollers, and means for positively feeding the paper from said roll, over said plate and through said folding rollers.

2. A machine of the character described comprising a frame, means for supporting a roll of paper on said frame and for adjusting the same axially of said support, a triangular folding plate having its base adjacent to said roll of paper and substantially parallel with the axis thereof, a pair of folding rollers arranged near the apex of said triangular plate, extending transversely to the axis of said roll of paper and adjustable in a direction parallel with the axis of said roll of paper and transversely to the apex of said triangular plate, said folding plate being arranged at an inclination to said folding rollers, means to adjust the inclination of said folding plate and to maintain the apex thereof in proper relation to said folding rollers when adjusted to different angles, and means to feed the paper from said roll over said folding plate between said folding rollers.

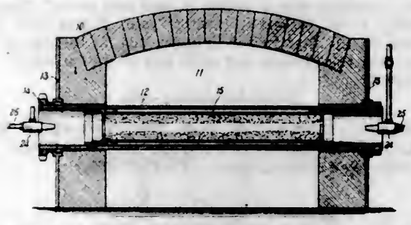
3. A machine of the character described comprising a frame, a support for a web of paper carried by said frame, a pair of folding rollers arranged adjacent to said support, an inclined tapered folding plate interposed between said support and said folding rollers and having its apex close to the adjacent surfaces of said folding rollers, means to adjust the angle of inclination of said folding plate and maintain the same in proper relation to said folding rollers when adjusted to different angles, a feeding device arranged beyond said folding rollers, and a rewinding device arranged beyond said feeding device.

4. A machine of the character described comprising a frame, means to support a web of paper in adjusted positions on said frame, a folding plate having two of its edges converging away from said support for said web of paper, a pair of folding rollers adjustably mounted adjacent to said plate and arranged to receive the web of paper from said folding plate, said folding plate being arranged at an inclination to said rollers, a bar mounted on said frame for adjustment toward and away from said rollers, and a connection between said folding plate and said bar.

5. A machine of the character described comprising an upright frame, a support for a web of paper mounted on said frame near the upper end thereof, a pair of folding rollers arranged on said frame below said support, an inclined tapered folding plate interposed between said support and said folding rollers and having its apex arranged close to the adjacent surfaces of said rollers, a bar mounted for vertical adjustment on said frame, and a connection between said bar and said folding plate.

[Claims 6 to 12 not printed in the Gazette.]

1,142,829. PROCESS OF MAKING HEAT-INSULATING MATERIAL. FREDERICK J. MAYWALD, Brooklyn, N. Y. Filed July 30, 1910. Serial No. 574,592. (Cl. 18—55.)



1. The herein described process of making a heat insulating structure which consists in introducing a material comprising in the main a liquid silicate into a forming mold, rotating the mold at a relatively high speed to uniformly distribute the liquid therein by centrifugal action, and in applying heat thereto to bake, expand and harden the material and to prevent the formation of large bubbles, whereby a fine grained uniform cellular structure is produced.

2. The herein described process of making a heat insulating structure which consists in introducing a material comprising in the main a liquid silicate into a mold a little at a time, and in applying heat thereto to bake, expand and harden the same while it is being so applied, whereby a homogeneous cellular structure of the desired size and thickness is built up gradually.

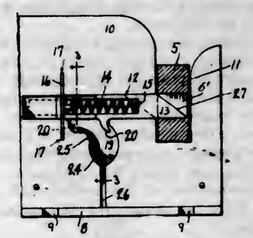
3. The herein described process of making a heat insulating structure which consists in atomizing a material comprising in the main a soluble silicate in liquid form, and in introducing the material in atomized form into a mold while heat is being applied thereto, whereby a homogeneous cellular structure of the desired size and thickness is built up gradually.

4. The herein described process of making a heat insulating structure which consists in gradually introducing a material comprising in the main a liquid silicate, into a mold while heat is being applied thereto, and in rotating the mold at the same time whereby a homogeneous cellular structure of the desired size and thickness is built up gradually.

5. The herein described process of making a heat insulating structure which consists in atomizing a material comprising in the main a liquid silicate and in introducing the material in atomized form into a mold while heat is being applied thereto and in rotating the mold at the same time, whereby a homogeneous cellular structure of the desired size and thickness is built up gradually.

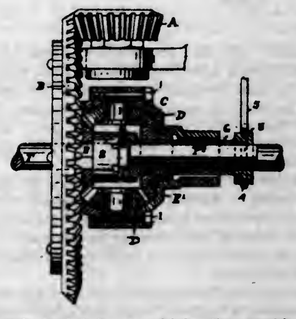
1,142,830. LOCK FOR SWITCH-ARMS. WARREN M. MEANS and NICOLA C. CELMO, Putneyville, Pa. Filed June 24, 1914. Serial No. 846,997. (Cl. 104—25.)

In a locking device for switch arms, a block having a notch formed therein, a locking bolt movable at right angles to said notch, said bolt operating in a groove provided in said block, a shoulder provided on said locking bolt, a pin extending transversely of the groove, a spring engaging said pin and shoulder, said block having a recess formed therein in communication with the groove, a finger formed on said locking bolt and extending into the



groove, an operating member removably located in said recess and rotatable in the path of said finger, a lug formed on said operating member, and said block having a recess therein to receive the lug of the operating member upon longitudinal movement of the latter whereby the locking bolt will be retained in inoperative position.

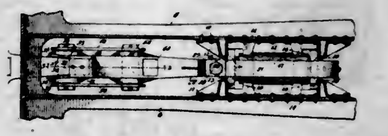
1,142,831. DIFFERENTIAL LOCK. GEORGE W. MILLER, Tarentum borough, Pa. Filed June 27, 1914. Serial No. 847,565. (Cl. 74—34.)



1. In a differential for a vehicle, the combination of a power-driven rotary casing, a pair of opposing beveled gears in said casing spaced a fixed distance apart, beveled driving pinions mounted radially in said casing and interposed between said gears to constantly mesh with both of the latter, a pair of floating shafts having their inner ends inserted into the bores of said beveled gears and rotating in unison therewith, a fixed clutch member mounted on the inner end of one of said shafts, a sliding clutch member, movable longitudinally independent of its shaft and the corresponding beveled gear, mounted on the inner end of the other shaft, and means without said casing for moving said sliding clutch member into engagement with said fixed clutch member whereby said shafts are locked together, for the purpose described.

2. In a differential for a vehicle, the combination of a power-driven rotary casing, a pair of opposing beveled gears in said casing, beveled driving pinions mounted radially in said casing and interposed between said gears to constantly mesh with both of the latter, a driven shaft having its inner end inserted in the bore of one of said gears and rotating therewith, a clutch member rigidly mounted on the inner end of said shaft, a clutch member inserted in the bore of the other gear to slide therein and rotate therewith, a second driven shaft having its inner end inserted in said second clutch member and rotating therewith, and means without said casing for moving said second clutch member at will into engagement with said first clutch member whereby said shafts may be locked together to rotate in unison, for the purposes described.

1,142,832. BUFFING MECHANISM FOR RAILROAD-CARS. WILLIAM H. MINER, Chazy, N. Y. Filed June 12, 1914. Serial No. 844,613. (Cl. 213—42.)



1. In a draft rigging for railway cars, in combination, a draft yoke, a draw-bar, a draw-bar extension connected to the draft yoke, and slidably connected to the draw-bar, springs and keys, one of said keys slidably connecting the draw-bar to the draw-bar extension, one of the springs being mounted between the draw-bar and the draw-bar extension, the other of said springs being mounted between the draw-bar extension and the other key, the last mentioned key being slidably connected to the first mentioned key.

2. In a railway draft rigging, in combination, a draft yoke, a draw-bar, a draw-bar extension, keys, springs and links, the draw-bar extension being forwardly provided with jaws to receive the draw-bar, a key slidably connecting the draw-bar to said jaws, one of said springs being seated between the draw-bar and the draw-bar extension, another spring being seated between the draw-bar extension and a key, the links slidably connecting the keys.

3. In a draft rigging for railway cars, in combination, a draw-bar, a draft yoke, a draw-bar extension connected to the draft yoke, front and rear keys, front and rear draw-bar extension springs, and links, the draw-bar extension being provided with lateral slots for each key, the front key passing through the draw-bar and slidably connecting it to the draw-bar extension, the front spring being mounted between the draw-bar and means provided in the draw-bar extension, the rear spring being seated between the rear key and the draw-bar extension, the links slidably connecting the two keys, each of said keys having a sliding engagement with the draw-bar extension.

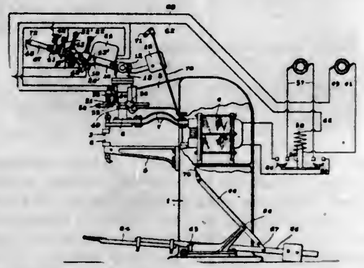
4. In a railway draft rigging, the combination with a draw bar and a draft yoke, of a draw bar extension interposed between said draw bar and yoke, means for connecting the draw bar extension with the yoke, and means for yieldingly connecting the draw bar extension with the draw bar, said last named means comprising transversely extending keys through the draw bar extension, links extending between the keys, one of said keys passing through a slot in the draw bar, and springs located within said draw bar extension.

5. In a draft rigging for railway cars, the combination with a draw bar and a draft yoke, of a draw bar extension interposed between said draw bar and yoke, means for connecting the yoke with the rear end of the draw bar extension, and means for connecting the front end of the draw bar extension to the draw bar, said last named means comprising a pair of keys mounted in elongated slots in the draw bar extension and adapted to have movement therein, one of said keys passing through a slot in the draw bar, links extending between said keys and slotted to receive the same, the slots in said links for one of said keys being elongated, an integral wall formed on the interior of said draw bar extension intermediate said keys, a spring interposed between said wall and the rear end of the draw bar, and a second spring interposed between said wall and the rear key.

1,142,833. ELECTRIC WELDING. JAMES A. MUIR, Cincinnati, Ohio, assignor to The Toledo Electric Welder Company, a Corporation of Ohio. Filed Apr. 6, 1914. Serial No. 829,780. (Cl. 219—4.)

1. In an electric welding machine, an automatic switch for controlling the supply of welding current, an operating lever for the machine, automatic means functionally related to said lever for controlling the closure of said

switch, and means for rendering said automatic means ineffective.



2. In an electric welding machine, the combination of an operating lever, automatic controlling means controlled by the operation of said lever for supplying welding current, means for rendering the automatic control ineffective, and additional means for controlling the supply of welding current at the will of the operator.

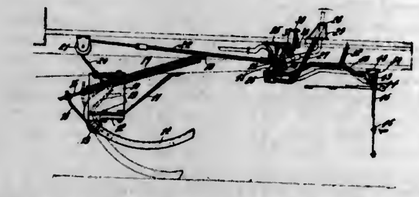
3. In an electric welding machine, the combination of an automatic switch for controlling the welding current, an operating hand lever for the machine, means for controlling the closure of said automatic switch when said lever is operated by hand, means for operating the machine by foot, and additional means for controlling the closure of said automatic switch when the machine is operated by foot.

4. In an electric welding machine, the combination of an operating lever, means controlled by the movement of said lever for automatically controlling the welding current, means for rendering said control ineffective, and additional means for controlling the welding current at the will of the operator.

5. In an electric welding machine, a main switch for supplying the welding current, electromagnetic means for operating said switch, means for applying pressure upon the work between the electrodes, and automatic controlling means controlling said electromagnetic means and controlled by said means for applying pressure for insuring the interruption of the welding current at said main switch upon release of said pressure.

[Claims 6 to 19 not printed in the Gazette.]

1,142,834. CAR-FENDER. HOWARD A. MULLETT, Milwaukee, Wis., assignor to The Milwaukee Electric Railway & Light Company, Milwaukee, Wis., a Corporation of Wisconsin. Filed Dec. 19, 1913. Serial No. 807,601. (Cl. 105—130.)

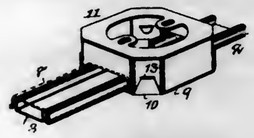


1. In a car fender, a guard comprising a guard member, brackets in which the guard and guard member are pivotally mounted, said brackets being provided with T-shaped upper ends, sockets having T-shaped guideways to receive the T-shaped upper ends of the brackets, gravity dogs pivotally mounted on the brackets and engaging notches in the sockets for preventing accidental removal of the brackets from the sockets, and means on the guard for connection with a fender member.

2. In a car fender, a guard member, brackets in which the guard member is pivotally mounted, said brackets being provided with T-shaped upper ends, sockets having T-shaped guideways to receive the T-shaped upper ends of the brackets, gravity dogs pivotally mounted on the brackets and engaging notches in the sockets for preventing accidental removal of the brackets from the sockets, an arm on the guard, a link detachably connected with the arm, a suitably mounted fender setting and releasing shaft, an arm thereon connected with the link, and a fender member having connection with the fender releasing and setting shaft.

3. A car fender, comprising a suitably mounted fender member, a suitably journaled shaft, an arm fixed thereon and in the normal position of the shaft extending forwardly, a hook-shaped rod pivotally connected with the arm, a chain connecting the hook-shaped rod with the fender member after passing around a pulley to the rear of the fender member, a spring for forcing the fender member downwardly, and means for turning the shaft to carry the pivotal connection of the hook-shaped rod above the level of the shaft for permitting the spring to lower the fender member.

1,142,835. OUTLET-BOX FOR PROTECTIVE CASINGS FOR LINE CONDUCTORS. THOMAS E. MURRAY, New York, N. Y. Filed Mar. 10, 1913. Serial No. 753,359. (Cl. 247—4.)

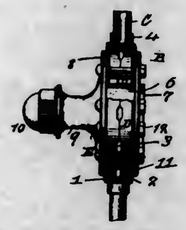


1. An outlet box for protective casings for line conductors, comprising a bottom plate interposed between and connected to said casings, an inverted box-shaped cover receiving the ends of said casings in recesses in its side walls, and means for connecting said cover to said bottom plate; the said cover having an outlet opening for said line conductors in its top wall.

2. An outlet box for protective casings for line conductors, comprising a bottom plate interposed between and connected to said casings, an inverted box-shaped cover receiving the ends of said casings in recesses in its side walls, and an outlet duct for said line conductors on the top wall of said cover.

3. An outlet box for protective casings for line conductors, comprising a bottom plate interposed between and connected to said casings, an inverted box-shaped cover receiving the ends of said casings in recesses in its side walls, and tongues on said bottom plate engaging openings in said cover: the said cover having an outlet opening for said line conductors in its top wall.

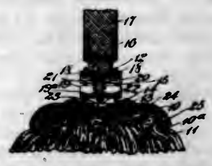
1,142,836. VEHICLE-WHEEL. THOMAS E. MURRAY, New York, N. Y. Filed Oct. 2, 1914. Serial No. 864,559. (Cl. 21—69.)



1. A vehicle wheel, comprising a hub formed of a hollow annular member made in two parts homogeneously united circumferentially and having openings intersected by the circumferential joint, tubular spoke-receiving sockets on the circumferential periphery of said member respectively covering said openings, a tubular axle-receiving member entering the central opening in said annular member, and means for securing together said annular member and said axle-receiving member.

2. A vehicle wheel, comprising a hub formed of a hollow annular member made in two parts homogeneously united circumferentially, tubular spoke-receiving sockets on the circumferential periphery of said member, spacing rods within said hollow annular member and secured at their ends to the parts thereof, a tubular axle-receiving member entering the central opening in said annular member, and means for securing together said annular member and said axle-receiving member.

1,142,837. HANDLE CONNECTION. EDWIN NAHR, Long Beach, Cal. Filed Apr. 10, 1914. Serial No. 830,888. (Cl. 15—24.)



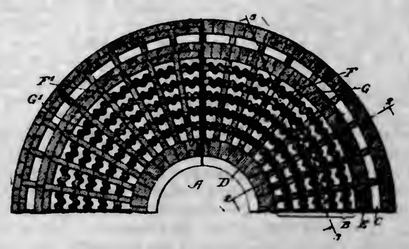
1. In a device of the character described, a head having a bearing with its axis substantially parallel to the surface to be acted upon, and a handle member having a transverse expansible bearing thereon received in the bearing of the head and rockable in the latter bearing.

2. In a device of the character described, a head having a bearing with its axis substantially parallel to the surface to be acted upon, a handle member having a transverse extensible bearing thereon formed of separable members received in the bearing of the head and rockable in the latter bearing.

3. In a device of the character described, a head having a bearing, a rockable handle member having opposed expansible bearing elements received in the bearing of the head, and an interposed spring between said expansive elements and serving to press the same into holding frictional engagement with the bearing of the head.

4. In a device of the character described, a head, having a bearing presenting spaced socket members, a handle member having a bearing conforming to said socket members and composed of a rounded member fixed to the handle and an opposed movable rounded member, a pin projecting from the fixed member through the movable member, and a spring coiled about said pin and abutting against said fixed and movable members.

1,142,838. HOT-BLAST STOVE. MARVIN A. NEILAND, Montclair, N. J. Filed Oct. 19, 1912. Serial No. 726,766. (Cl. 75—52.)

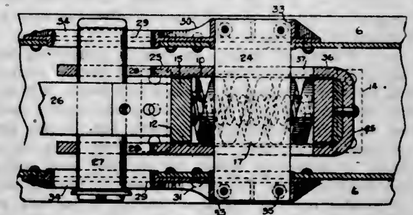


1. A hot blast stove, the regenerative chamber of which is provided with a brick checker-work with vertical passages for the heating gases and the air, opposite faces of the brick-work forming said passages being correspondingly corrugated, so that a projection on one face is in line with the depression on the opposite face, for the purpose of providing an extended radiating surface in proportion to the volume of brickwork.

2. A hot blast stove the regenerative chamber of which is provided with brick checker-work with vertical passages for the heating gases and the air, said bricks being solid and having corrugated faces forming said passages the projections on one face of a brick being in line with the recesses on its opposite face so as to provide bricks of approximately uniform thickness from end to end and to provide an extended radiating surface in proportion to the volume of brickwork.

3. A hot blast stove, the regenerative chamber of which is provided with a brick checker work, the bricks being arranged in horizontal courses with continuous vertical passages therethrough, the bricks in the successive courses having corrugated faces, with the corrugations vertical the corrugations in the successive courses being in line with each other so as to constitute continuous vertical corrugations.

1,142,839. DRAFT-RIGGING FOR RAILWAY-CARS. JOHN F. O'CONNOR, Chicago, Ill., assignor to William H. Miner, Chicago, Ill. Filed Apr. 11, 1914. Serial No. 831,289. (Cl. 213—42.)



1. In a draft rigging for railway cars, the combination with draft members, a draw-bar and draft yoke connected to the draw-bar, of followers, a compression resisting member mounted between the followers, a key secured at its ends in the draft members and passing between the followers, and cover plates, the cover plates being provided with openings to receive the followers and compression resisting members, the portions of the cover plates defining the front and rear ends of the said openings constituting stop-shoulders for the followers, said key supporting the compression resisting member.

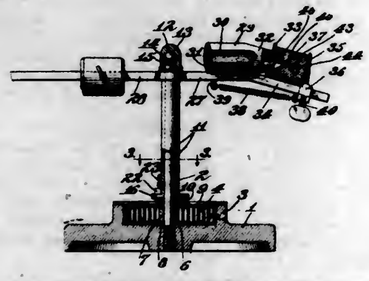
2. In a draft rigging for railway cars, the combination with draft members, of upper and lower flat plates secured to the tops and bottoms of said draft members, said plates being provided with vertically alined openings, said openings being narrower than the distance between the draft members and the front and rear edges of said plate defining said openings constituting front and rear stop shoulders, reinforcing members secured to said plates and located flush with the front and rear edges of said openings, said reinforcing members being shorter than the distance between the draft members, followers mounted within said openings, a stationary key passing between the followers and shock absorbing means located between said followers, said key acting as a limiting stop for said followers.

1,142,840. CENTRIFUGAL CASTING-MACHINE. PETER J. PANKRATZ, Stafford, Kans. Filed Mar. 5, 1914. Serial No. 822,617. (Cl. 22—65.)

1. In a centrifugal casting machine, a carrier rotatable in a horizontal plane, a container on said carrier for a fluent casting material, said container extending to one side of the axis of said carrier and having an open outward outlet, and means on said carrier for supporting a mold with its sprue in coöperative relation to said container and with its cavity in a zone below the sprue.

2. In a centrifugal casting machine, a vertical rotatory column, a motor for rotating said column, a lateral arm on said column, a container on said arm for a fluent casting material, said container having an open outward outlet, and means on said arm for supporting a mold in co-

operative relation to, and at a downward inclination from, said container.



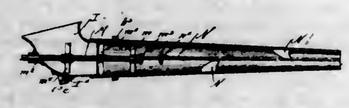
3. In a centrifugal casting machine, a vertical rotatory column, a motor for rotating said column, a lateral arm on said column, a container on said arm for a fluent casting material, said container having an open outward outlet, means on said arm for supporting a mold in coöperative relation to, and at a downward inclination from, said container, and means for counterbalancing said arm with the parts mounted thereon.

4. In a centrifugal casting machine, a supporting base, an upstanding spindle thereon, a motor sleeve rotatable on said spindle, a spring for rotating said sleeve, a tubular column rotatable on said spindle above said motor sleeve, ratchet means for engaging said sleeve and column member so that the one may be driven by the other in one direction, a releasable device for holding said column member from rotation, a lateral arm on said column member, a tubular crucible disposed lengthwise on said arm and having a longitudinal opening in its forward side with respect to the direction of rotation and a discharge opening in its outer end, and means on said arm for detachably supporting a mold in coöperative relation to the outer end of said crucible.

5. In a centrifugal casting machine, a carrier rotatable in a horizontal plane, a tangentially-disposed tubular crucible mounted on said carrier to one side of the axis thereof and having a longitudinal opening in its forward side with respect to the direction of rotation and a discharge opening at its outer end, and means on said carrier for detachably supporting a mold in coöperative relation to the outer end of said crucible.

[Claims 6 to 8 not printed in the Gazette.]

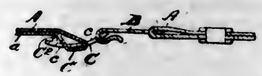
1,142,841. MIXER AND SPREADER FOR CONCRETE AND OTHER PLASTIC MATERIALS. FREDERICK E. RALEIGH, Strong City, Kans. Filed Feb. 21, 1908. Serial No. 417,011. (Cl. 83—73.)



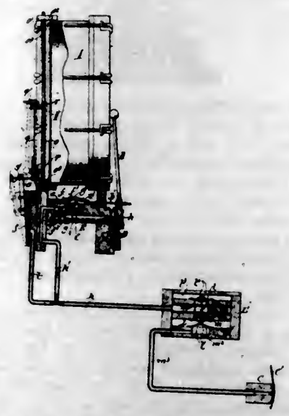
In a device of the class described a mixing hopper, a mixing cylinder connected therewith to receive material therefrom, mixing blades within said cylinder, a tubular shaft extending through said mixing hopper and into said cylinder, a sprayhead on the end of said shaft acting to distribute a liquid toward said blades and upon the material in said cylinder, a rigid connection between said cylinder and said shaft whereby the same is rotated by said cylinder, and mixing blades secured to said shaft on the portion within said hopper to mix the material within said hopper prior to its introduction into the cylinder.

1,142,842. BUCKLE. FREDERICK C. REHM, Detroit, Mich. Filed Dec. 6, 1912. Serial No. 735,181. (Cl. 24—77.)

A strap-securing device for a garter, including an arcuate or quadrant frame-member having a central transverse bar, end transverse bars and openings intermediate its central and end transverse bars, one end bar having a lip at right angles thereto, said lip extending from said end bar within the radius of said quadrant frame-member, with its free end about in alinement with the distant or opposite end bar of said frame-member, whereby the central portion of said frame-member will at all times be held out of contact with the leg or object.



1,142,843. SNARE-DRUM. ALFRED A. ROSE, Bellevue, Ky., assignor to The Rudolph Wurlitzer Manufacturing Company, North Tonawanda, N. Y., a Corporation of New York. Filed July 26, 1911. Serial No. 640,575. (Cl. 84—198.)



1. The combination of a drum, a support movable toward and from the drum-head, snares mounted on said support, and automatic means for moving said support to press the snares against the drum-head when the drum is played and to withdraw the snares from the drum-head when the drum is silent.

2. The combination of a drum, a support movable toward and from the drum-head, snares mounted on said support, and pneumatic means for actuating said support.

3. The combination of the body of a drum, a carrier extending across the head of the drum and pivoted at one end to the body to swing toward and from the drum-head, snares mounted on the inner side of said carrier, and means for swinging the carrier toward the drum-head.

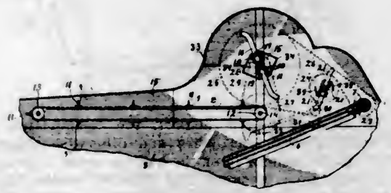
4. The combination of the body of a drum supported in an inclined position, a carrier extending across the head of the drum and pivoted at its upper end to the body to swing toward and from the drum-head, snares mounted on the inner side of said carrier, and means for swinging the carrier toward the drum-head.

5. The combination of the body of a drum, a carrier extending across the head of the drum and pivoted at one end to the body to swing toward and from the drum-head, snares mounted on the inner side of said carrier, and a pneumatic arranged to act on the free end of the carrier to press the snares against the drum-head.

[Claims 6 to 10 not printed in the Gazette.]

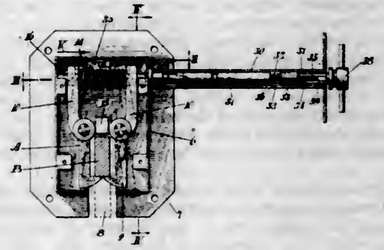
1,142,844. SELF-FEEDER FOR CORN HUSKING AND SHREDDING MACHINES. AUGUST ROSENTHAL, West Allis, Wis. Filed Apr. 27, 1910. Serial No. 558,078. (Cl. 130—33.)

1. In combination with a corn husking machine provided with husking rolls and driving mechanism therefor, of means for feeding material to said rolls, comprising an endless feed belt, a rotary cutter adjacent the feed belt, a rotary beater positioned above the husking rolls, and means connected to said driving mechanism for simultaneously driving said cutter and beater in opposite directions.



2. In combination with a corn husking machine provided with husking rolls and driving mechanism therefor, of means for feeding material to said rolls, comprising an endless feed belt, a rotary cutter adjacent the feed belt, a rotary beater positioned above the husking rolls, means connected to said driving mechanism for simultaneously driving said cutter and beater in opposite directions, and means connecting said cutter and feed belt to drive said feed belt in a direction opposite to that of the cutter during the operation of the feeding mechanism.

1,142,845. AUTOMATIC SAFETY BRAKE-LOCK FOR AUTOMOBILES AND OTHER VEHICLES. GEORGE E. R. ROTHENBUCHER, New York, N. Y., assignor of one-half to Isidor Kahn, New York, N. Y. Filed Aug. 28, 1914. Serial No. 859,020. (Cl. 70—90.)



1. An automatic safety brake lock comprising a brake lever locking means, means adapted to be connected to a clutch lever to release said brake lever locking means when the clutch lever is moved to its fully released position.

2. An automatic safety brake lock comprising a brake lever locking means, means for holding the locking means in its unlocked position, a trip device to release said holding means and means adapted to connect said trip device with a clutch lever to operate said trip device when the clutch lever is moved to its fully released position.

3. An automatic brake lock comprising a brake lever locking means, a spring for moving said locking means to its locked position, rotatable means for holding the locking means open and the spring under tension, a trip device for releasing said spring and means adapted to connect said trip device to a clutch lever whereby said trip device will be operated to release the locking means when the clutch lever is moved to its fully released position.

4. An automatic safety brake lock comprising a brake lever locking means, means for holding the locking means in its unlocked position, a trip device to release said holding means, means adapted to connect said trip device with a clutch lever to operate said trip device when the clutch lever is moved to its fully released position and a key device for releasing the locking means and resetting the trip device.

5. An automatic brake lock comprising a pair of locking jaws, a spring to hold said jaws in their locked position, a rotatable cam shaft adapted to place said spring under compression and to hold the jaws open, a trip device adapted to rotate said cam shaft to release the jaws, means adapted to connect said trip device to a clutch lever to operate the trip device when the clutch lever is moved to its fully released position and a key device adapted to rotate the cam shaft to release the jaws and set the trip device for the next operation.

[Claims 6 to 8 not printed in the Gazette.]

1,142,846. TROLLEY-WHEEL MOUNT. THOMAS SANDERS, Kingman, Ind. Filed Feb. 6, 1915. Serial No. 6,581. (Cl. 64—70.)



1. The combination with a rotatable trolley-head and trolley-wheel axle or shaft, with a head-stock, adapted to movably support said trolley-head, a journal-pin fixed centrally on the body of said head-stock and adapted to confine said trolley-head in movable connection with said head-stock, a pair of oppositely disposed springs attached to said head-stock, and adapted to bear upon opposite sides of said trolley-head, all substantially as described and for the purpose set forth.

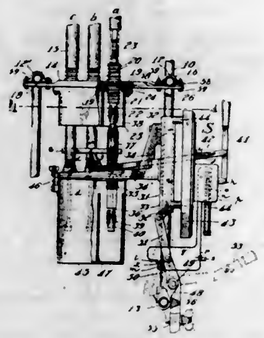
2. In a trolley-wheel mount, the combination of a rotatable trolley-head, said trolley-head consisting of a base and two bearing-arms; and journal-bearing in said bearing-arms, adapted to receive a trolley-wheel axle, or shaft, with a head-stock adapted to support said trolley-head upon its upper face, a journal-pin threaded centrally into and projecting upwardly from the upper face of said head-stock, and adapted to confine said trolley-head in movable connection with the head-stock, two opposing springs, mounted upon opposite sides of said head-stock and projecting upwardly, and adapted to press against opposite sides of said trolley-head, and means of attaching said head-stock upon the extreme end of a trolley-pole, all substantially as described and shown, and for the purposes set forth.

3. In a trolley-wheel mount, consisting of a rotatable trolley-head, and a fixed head-stock, in movable connection with each other, means of attaching said members together, a pair of opposing springs, fixed upon the respective sides of said head-stock and adapted to bear against the corresponding sides of said trolley-head, a hollow, lower portion of said head-stock adapted to receive the end of a trolley-pole, means of attaching said head stock to a trolley-pole, and a trolley-wheel shaft journaled in, and supported by, said trolley-head, all substantially as described and shown, and for the purposes set forth.

1,142,847. CIRCUIT-CONTROLLING MECHANISM. EDWARD SCHILDHAUER, Culebra, Canal Zone. Filed June 8, 1912. Serial No. 702,411. (Cl. 175—282.)

1. In circuit controlling mechanism, the combination of a circuit terminal structure, a unitary switch structure

comprising switch contacts and contact connecting members, actuating means for effecting bodily displacement of one of said structures with reference to the other whereby to connect said contact connecting members with the terminal structure or to disconnect said members from said terminal structure, locking means for locking said contact connecting members in connecting engagement with said switch contacts, electro-magnetic means for controlling said locking means, and an electrical circuit for said electro-magnetic means controlled by said actuating means.



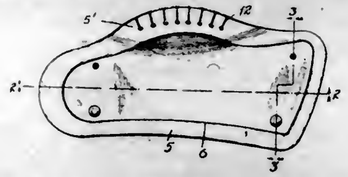
2. In circuit controlling mechanism, the combination of a circuit terminal structure, a unitary switch structure comprising switch contacts and switch bars, actuating means for effecting bodily displacement of one of said structures with reference to the other to electrically disconnect said structures, locking means tending to hold said switch bars in electrical engagement with the switch contacts, electro-magnetic means for controlling said locking means, and contacts for the electrical circuit of the electro-magnetic means controlled during primary movement of said actuating means to effect operation of the electro-magnetic means to unlock the locking means before said switch structure is disconnected from the terminal structure during further operation of the actuating means.

3. In circuit controlling mechanism, the combination of a spporting frame, a terminal structure vertically adjustable on said frame and supporting a plurality of contact terminals adapted for connection with circuit conductors, a unitary switch structure mounted on and vertically reciprocable on said frame toward and away from said terminal structure and having switch contacts and movable switch members for connecting said contacts, means on said switch structure for controlling said movable switch members, and actuating mechanism for controlling the vertical reciprocation of said switch structure to bring the switch contacts and terminal contacts into electrical engagement or to separate such contacts.

4. In circuit controlling mechanism, the combination of a supporting frame, a terminal structure adjustable on said frame and supporting a plurality of contact terminals adapted for connection with circuit conductors, a unitary switch structure mounted on said frame and reciprocable thereon toward and away from said terminal structure and having switch contacts and movable switch members for connecting said contacts, means on said switch structure for controlling said movable switch members, and actuating mechanism for controlling the reciprocation of said switch structure to bring the switch contacts and terminal contacts into electrical engagement or to separate such contacts.

5. In circuit controlling mechanism, the combination of a circuit terminal structure, a unitary switch structure comprising switch contacts and switch bars, means for effecting bodily displacement of said entire switch structure with reference to the circuit terminal structure to electrically disconnect said structures, and means for automatically effecting separation of the switch contacts and switch bars before such relative displacement.

1,142,848. INSTEP-ARCH SUPPORT. WILLIAM M. SCHOLL, Chicago, Ill. Filed Jan. 22, 1912. Serial No. 672,597. (Cl. 36—71.)



1. In an instep arch support, the combination of a main plate arched lengthwise and otherwise shaped to conform to the underside of the human instep arch and to find bearing upon a supporting shoe at points adjacent the heel and ball of the foot, said plate having formed therein a longitudinal depressed recess or pocket crossing the center of the lengthwise arch, and a reinforcing plate, substantially coextensive with said pocket, fitted therein, the exposed portions of said two plates lying substantially flush and mutually conforming to the under surface of the instep.

2. In an instep arch support, the combination of a main plate arched lengthwise and otherwise shaped to conform to the underside of the human instep arch and to find bearing upon a supporting shoe at points adjacent the heel and ball of the foot, said plate having therein a recess or pocket extending lengthwise from a bearing point at the front end to one at the back end of said plate, and a reinforcing plate seated in said pocket.

3. In an instep arch support, the combination of a main plate arched lengthwise and otherwise shaped to conform to the underside of the human instep arch and to find bearing upon a support shoe at points adjacent the heel and ball of the foot, said plate having formed therein a longitudinal depressed recess or pocket crossing the center of the lengthwise arch, and of uniform depth throughout substantially its length, and a reinforcing plate substantially coextensive with the bottom of said pocket, fitted therein and contacting with the bottom substantially throughout its extent and secured to the main plate adjacent the ends of the reinforcing plate, the upper surfaces of said two plates lying substantially flush and mutually conforming to the lengthwise curve of the instep.

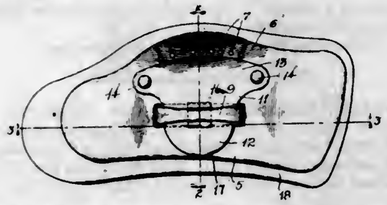
4. In an instep arch support, a main plate arched lengthwise and curved crosswise for substantial conformity with the instep arch of the human foot and having an upcurved wing extension at its inner side, said main plate having within its borders a pocket of substantially uniform depth extending lengthwise across the highest arch-portion and cross wise up the side-wing of said plate, and a reinforcing plate of substantially uniform thickness approximating the depth of said pocket, shaped for substantial conformity with the outlines of said pocket and secured therein, the said two plates conforming jointly to the under-surface of the foot.

5. As an article of manufacture an instep arch support comprising a main plate of relatively stiff but brittle metal, shaped to conform to the underside of the human instep arch, and to find bearing upon a supporting shoe at points adjacent the heel and the ball of the foot, and a reinforcing plate of relatively soft or less brittle metal secured to and conforming with that portion of the main plate which underlies the central part of the arch, said reinforcing plate extending longitudinally throughout substantially the entire extent of the main plate which arches upward between the bearing points adjacent the heel and ball of the foot.

[Claim 6 not printed in the Gazette.]

1,142,849. INSTEP-ARCH SUPPORTER. WILLIAM M. SCHOLL, Chicago, Ill. Filed Jan. 22, 1912. Serial No. 672,601. (Cl. 36—71.)

1. In a device of the character described, the combination of a main plate, a truss member integral with the main plate, formed by depressing a portion thereof below the general level of the main plate, and an auxiliary plate extending between said main plate and the truss member, spanning the opening in the main plate and bearing against said main plate laterally beyond the edges of the opening and at one side longitudinally beyond the ends of the truss member.



2. In a device of the character described, the combination of a leather cover piece, a main plate shaped to conform to the under side of the human foot and having a lateral extension provided with suitable slits to weaken said portion of the plate for increased resiliency, a truss below the central portion of the plate extending lengthwise thereof and at its center spaced apart below the general level of the under side of the plate, and a transverse reinforcing plate secured to the main plate having a portion extending between the truss and the body of the plate and a longitudinally extending portion, laterally terminating between the center line and slitted portion of the main plate and longitudinally extending beyond the slitted portion of the main plate.

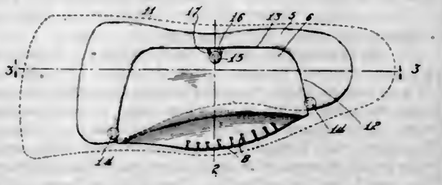
3. In a device of the character described, a main plate having a slitted side extension, a relatively narrow truss member located adjacent the transverse center of said plate, extending, below the level of the under surface of the plate, lengthwise of the plate over substantially the same longitudinal distance as the slits in the side extension, and an auxiliary plate extending between said main plate and the truss member, and having its side edge terminating between the truss and the slitted extension part of the main plate.

4. In a device of the character described, the combination of a main plate having a slitted side extension and a truss member extending lengthwise of the plate near the middle thereof over substantially the same longitudinal distance as the slitted portion of the extension, and an auxiliary plate secured to the main plate at points longitudinally beyond the slitted portion of the main plate.

5. In a device of the character described, the combination of a main plate having a slitted side extension and a truss member extending lengthwise near the middle of the plate over substantially the same longitudinal distance as the slitted portion of the extension, and an auxiliary plate secured to the main plate at points longitudinally beyond the slitted portion, said auxiliary plate extending between the truss member and the plate.

[Claim 6 not printed in the Gazette.]

1,142,850. INSTEP-ARCH SUPPORT. WILLIAM M. SCHOLL, Chicago, Ill. Filed Jan. 29, 1912. Serial No. 674,058. (Cl. 36—71.)



1. In an instep arch support, the combination of a main plate arranged to bear at its ends on the sole of a shoe, said main plate having a portion of its upper surface recessed intermediate its ends, said recess extending through the inner side of the main plate only, and an auxiliary plate having a portion shaped to fit within said recess and having a wing extension beyond the inner edge of the main plate, the inner edge portion of the main plate meeting said auxiliary plate at an angle thereto.

2. In an instep arch support, the combination of a main plate arranged to bear at its ends on the sole of a shoe, said main plate having a portion of its upper surface recessed intermediate its ends, said recess opening to the inner side only of the main plate, an auxiliary plate having one portion shaped to conform to the recessed portion of the main plate and having a wing extension beyond the inner edge of the main plate and means carried by the main plate and positioned at the ends of the recessed portion to coöperate with the edges of the auxiliary plate to prevent vertical movement thereof.

3. In an instep arch support, the combination of a main plate arranged to bear at its ends on the sole of a shoe, said main plate having a portion of its upper surface recessed intermediate its ends, said recess opening to the inner side only of the main plate, and an auxiliary plate having one portion shaped to conform to the outlines of the recessed portion of the main plate and having a wing extension beyond the inner edge of said main plate, the main plate being sharply upturned transversely at its inner edge, and provided with a longitudinal groove at the base of the upturned portion, and the auxiliary plate having a transverse curvature less than that of the upturned portion of the main plate.

4. In an instep arch support, a main plate arranged to bear at its ends on the sole of a shoe, said main plate having a portion of its upper surface recessed intermediate its ends, said recess opening to the innerside only of the main plate, a cover piece overlying said main plate and attached thereto near the ends of said recessed portion of the main plate, and an auxiliary plate having one portion shaped to conform to the recessed portion of the main plate, and having a wing extension beyond the inner edge of the main plate.

5. In an arch support, the combination of a main plate arranged to bear at its ends on the sole of a shoe, said main plate having a portion of its upper surface recessed intermediate its ends, said recess extending through the inner side of the main plate only, a cover piece overlying said main plate and attached thereto near the ends of the recessed portion forming therewith a pocket, and an auxiliary plate having one portion shaped to fit the said pocket, the inner edge of the main plate having an up-turned portion and the auxiliary plate having a wing extension beyond the inner edge of the main plate, said auxiliary plate bearing on the upturned edge of the inner plate and means detachably securing the inner edge of the auxiliary plate to the main plate.

1,142,851. INTERNAL-COMBUSTION ENGINE. JAMES SHAW, Lodi, Cal. Filed Apr. 15, 1914. Serial No. 831,891. (Cl. 123—51.)



1. An internal combustion engine of the four cycle type comprising, a central combustion chamber, a pair of longitudinally alined cylinders having closed outer ends and open inner ends communicating with said combustion chamber, the said cylinders having individual longitudinal passages, the outer ends of the passages opening into the piston chambers of the cylinders near the outer ends thereof, and the inner ends of said passages opening into said piston

chambers at points which will be uncovered by the engine pistons when the same reach their outward position, means for admitting supplies of air into the outer ends of the piston chambers, pistons arranged in the cylinders aforesaid, a centrally arranged crank-shaft, operative connections between said crank shaft and the pistons, an exhaust valve associated with the combustion chamber, means actuated by the crank shaft for opening and closing said exhaust valve, and means for introducing a supply of fuel into the combustion chamber, substantially as set forth.

2. An internal combustion engine of the four cycle type comprising, a central combustion chamber, a pair of longitudinally alined cylinders having closed outer ends and open inner ends communicating with said combustion chamber, the said cylinders having individual longitudinal passages, the outer ends of the passages opening into the piston chambers of the cylinder near the outer ends thereof, and the inner ends of said passages opening into said piston chambers at points which will be uncovered by the engine pistons when the same reach their outward position, inwardly opening check valves arranged at the outer ends of said cylinders, pistons arranged in the cylinders aforesaid, a centrally arranged crank shaft, operative connections between said crank shaft and the pistons, an exhaust valve associated with the combustion chamber, means actuated by the crank shaft for opening and closing said exhaust valve, and means for introducing a supply of fuel into the combustion chamber, substantially as set forth.

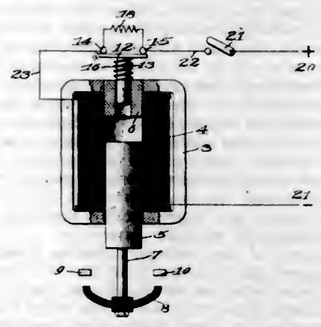
3. An internal combustion engine of the four cycle type comprising, a central combustion chamber, a pair of longitudinally alined cylinders having closed outer ends and open inner ends communicating with said combustion chamber, the said cylinders having individual longitudinal passages, the outer ends of the passages opening into the piston chambers of the cylinders near the outer ends thereof, and the inner ends of said passages opening into said piston chambers at points which will be uncovered by the engine pistons when the same reach their outward position, means for admitting supplies of air into the outer ends of the piston chambers, pistons arranged in the cylinders aforesaid, a centrally arranged crank shaft, operative connections between said crank shaft and the pistons, an exhaust valve associated with the combustion chamber, means actuated by the crank shaft for opening and closing said exhaust valve, a fuel inlet valve associated with the combustion chamber, and means actuated by the crank shaft for opening and closing said valve, substantially as set forth.

4. An internal combustion engine of the four cycle type comprising, a central combustion chamber, a pair of longitudinally alined cylinders having closed outer ends and open inner ends communicating with said combustion chamber, the said cylinders having individual longitudinal passages, the outer ends of the passages opening into the piston chambers of the cylinders near the outer ends thereof, and the inner ends of said passages opening into said piston chambers at points which will be uncovered by the engine pistons when the same reach their outward position, inwardly opening check valves arranged at the outer ends of the cylinders, pistons arranged in the cylinders aforesaid, a centrally arranged crank shaft, operative connections between the crank shaft and the pistons, an exhaust valve associated with the combustion chamber, means actuated by the crank shaft for opening and closing said exhaust valve, a fuel inlet valve associated with the combustion chamber, and means actuated by the crank shaft for opening and closing said valve, substantially as set forth.

5. An internal combustion engine of the four cycle type comprising a central combustion chamber provided with a transverse annular wall, a pair of longitudinally alined cylinders having closed outer ends and open inner ends communicating with the combustion chamber, said cylinders having individual longitudinal passages the outer ends of the passages opening into the piston chambers of the cylinders near the outer ends thereof, and the inner ends of said passages opening into said piston chambers at points which will be uncovered by the engine pistons when the same reach their outward position, means for admitting supplies of air into the outer ends of the piston chambers, pistons arranged in the cylinders aforesaid, a crank shaft associated with the annular wall in the combustion chamber, operative connections between said crank shaft and the pistons, an exhaust valve associated with the combustion chamber, means actuated by the crank shaft for opening and closing said exhaust valve, and means for introducing a supply of fuel into the combustion chamber, substantially as set forth.

[Claims 6 to 12 not printed in the Gazette.]

1,142,852. ELECTROMAGNET AND SOLENOID. ARTHUR SIMON, Milwaukee, Wis., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed June 6, 1910, Serial No. 565,211. Renewed Oct. 10, 1913. Serial No. 794,517. (Cl. 175—21.)



1. A solenoid having a main plunger and an auxiliary plunger, the latter being attracted only after a predetermined movement of the former and controlling means for said solenoid actuated by said auxiliary plunger.

2. The combination with an electromagnet having a stationary pole piece and a movable magnetically attracted part adapted to seal with said pole piece, of a switch having a magnetic portion projecting into said pole piece and arranged to be electromagnetically moved to operate said switch to reduce the flow of current through said electromagnet, and means for preventing operation of said auxiliary switch until said movable magnetically attracted part has sealed with said pole piece.

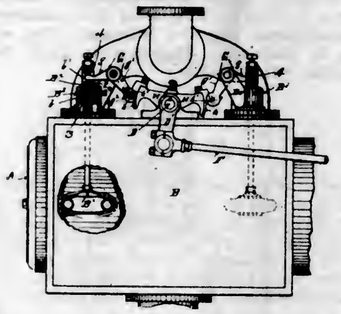
3. The combination with a solenoid having a stationary core and a movable plunger arranged to seal with said core, of an auxiliary switch having a magnetic portion projecting into said core and forming an auxiliary plunger for said solenoid, said auxiliary plunger being adapted to be attracted after said first mentioned plunger has sealed with said stationary core to operate said switch to reduce the flow of current through the solenoid winding.

4. The combination with a solenoid having a stationary core and movable plunger arranged to seal with said core, of a switch having a magnetic portion projecting into said core and forming an auxiliary plunger for said solenoid, said switch being adapted when operated to reduce the flow of current through the solenoid winding, and means for preventing the attraction of said switch until said plunger has sealed with said stationary core.

5. The combination with a solenoid having a stationary core and movable plunger arranged to seal with said core, of a switch having a magnetic portion projecting into said core and forming an auxiliary plunger for said solenoid, said switch being adapted when operated to reduce the flow of current through the solenoid winding, and a spring interposed between said switch and said stationary core for preventing the attraction thereof by said solenoid until said plunger has sealed with said stationary core.

[Claims 6 and 7 not printed in the Gazette.]

1,142,853. STEAM-ENGINE VALVE-GEAR. LE GRAND SKINNER and EDWIN F. WILLIAMS, Erie, Pa., assignors to Skinner Engine Company, Erie, Pa., a Corporation of Pennsylvania. Filed Sept. 30, 1911. Serial No. 652,087. (Cl. 121—103.)



1. The combination in an engine valve-gear, of a valve, a valve-stem extending upward therefrom, a sleeve rigidly secured upon the upper end of said valve-stem, a radial flange on said sleeve, a cylindrical housing inclosing said sleeve and flange, a spring on said sleeve between said radial flange and said cylindrical housing, a yoke on the upper end of said sleeve, arms on the side of said cylindrical housing, a lever pivoted upon said arms, one end of which extends into said yoke, and cam mechanism actuated by some moving part of the engine to operate said lever to control the opening and closing of said valve, substantially as set forth.

2. The combination in an engine valve-gear, of a valve, a valve-stem extending upward therefrom, a sleeve rigidly secured upon the upper end of said valve-stem, a radial flange on said sleeve, a cylindrical housing inclosing said sleeve and flange, a spring on said sleeve between said radial flange and said cylindrical housing, a yoke integral with said sleeve and an adjusting screw in said yoke, arms on the side of said cylindrical housing, a lever pivoted on said arms one end of which extends into and engages the lower end of said adjusting screw, and cam mechanism actuated by some moving part of the engine to operate said lever to control the opening and closing of said valve, substantially as set forth.

3. The combination of an engine cylinder, a valve-stem housing thereon, a valve, a stem thereon, a spring within said housing operating to cause said valve-stem to seat said valve, and an operating device operating to cause said valve-stem to lift said valve, substantially as set forth.

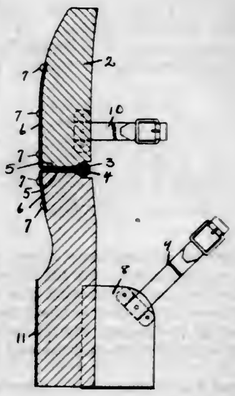
4. The combination of an engine cylinder, a valve-stem housing thereon, a valve-provided with a stem which extends through said housing, a sleeve secured on the upper end of said valve-stem, a collar around said sleeve, a spring within said housing operating on said collar to seat said valve, an operating lever outside of said housing adapted to lift said valve, substantially as set forth.

5. The combination of an engine cylinder, a valve-stem housing thereon, a valve-stem within the housing, a yoke secured to the upper end of the valve-stem, means engaging said yoke for operating it in one direction and spring mechanism within the housing for operating the stem in the opposite direction, substantially as set forth.

1,142,854. SANDAL. CHARLES BEURGAN SLOCUM, Quincy, Ill. Filed Aug. 27, 1914. Serial No. 858,979. (Cl. 36—73.)

1. A sandal comprising a fore part, a rear part, and a hinge joining said parts, the axis of the hinge being near the top of the sandal and the leaves of the hinge extending downwardly between the parts, the forward leaf extending forwardly forming a wearing surface for the bottom of the fore part of the sandal.

2. A sandal comprising a fore part, a rear part, a hinge joining said parts, the axis of the hinge being near the top of the sandal and the leaves of the hinge extending downwardly between the parts, the forward leaf extending forwardly forming a wearing surface for the bottom of the fore part of the sandal, and fastening devices for securing the forwardly extending part of the leaf to the fore part, said fastening devices extending downwardly from the surface of the leaf.



3. A sandal comprising a fore part, a rear part, and a hinge joining said parts, the axis of the hinge being near the top of the sandal and the leaves extending downwardly between the parts, the forward leaf extending forwardly along the bottom surface of the fore part and the rear leaf extending rearwardly along the bottom of the rear part forming a wearing surface for the bottom of the sandal adjacent to the joint.

1,142,855. DISMOUNTABLE AND ADJUSTABLE SKATE. JOSEPH SOTY, New York, N. Y. Filed Jan. 27, 1915. Serial No. 4,665. (Cl. 46—50.)



1. Skates with interchangeable runners comprising, in combination, shoe-supporting members adapted to be removably attached to the sole and heel of a shoe, runners of different types adapted to serve the purposes of various modes of skating and means carried by said shoe-supporting members for interchangeably attaching thereto either one of said runners.

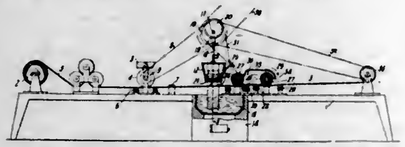
2. Skates comprising, in combination, a sole and heel plate adapted to be attached to the respective portions of a shoe, stays depending from said sole and heel plates, gripping means formed on said stays, and blades adapted to be removably inserted into and be engaged by said gripping means.

3. Skates with interchangeable runners comprising, in combination, separate heel and sole plates attachable to the respective portions of a shoe, vertical stays depending from said heel and sole plates, longitudinal portions carried by the lower end of said stays, a cylindrical bore provided throughout the length of each of said longitudinal portions, a spiral spring inserted in the bore corresponding to the sole plate, a rod slidable in the bore corresponding to the heel plate connected to said spring with one end, having means at its other end preventing it from slipping out of the bore, gripping means formed in said longitudinal portions below said bores and interchangeable runners adapted to be inserted into and engaged by said gripping means.

4. Skate runners of different longitudinal and cross sectional shape adapted for the purposes of various modes

of skating, means on said runners for alternately attaching them to or detaching them from the body-portions of skates, and means provided on said body-portions for removably attaching thereto either one of said runners, substantially as and for the purpose set forth.

1,142,856. APPARATUS FOR COATING SHEET, PLATE, AND ROLLED METAL. LEWIS S. STODDARD and BERTHOLD GOLDSMITH, Lisbon, Ohio. Filed July 21, 1914. Serial No. 852,277. (Cl. 91—12.1.)



1. Apparatus for coating plate, sheet or rolled metal, comprising a melting pot or tank for the coating metal or alloy, a depositing and distributing pot or tank located above the course of the sheet or plate to be coated, and means for lifting the molten coating material from the melting pot or tank to the depositing and distributing pot or tank.

2. Apparatus for coating plate, sheet or rolled metal, comprising a melting pot or tank for the coating metal or alloy, a depositing and distributing pot or tank located above the course of the sheet or plate to be coated, and vertical reciprocating plunger lifts for lifting the coating material from the melting pot or tank to the depositing and distributing pot or tank.

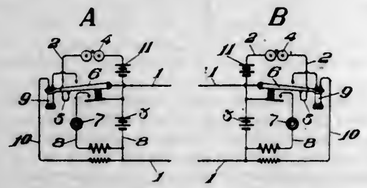
3. Apparatus for coating plate, sheet or rolled metal, comprising a melting pot or tank for the coating metal or alloy, a depositing and distributing pot or tank located above the course of the sheet or plate to be coated, a pair of reciprocating plunger lifts for transferring the coated material from the melting pot or tank to the depositing pot or tank, and means for actuating said reciprocating lifts alternately.

4. Apparatus for coating plate, sheet or rolled metal or alloys, comprising a distributing or depositing pot or tank provided in its bottom with a valve controlled discharge orifice, means for drawing the metal to be coated underneath said pot or tank, in combination with fluxing means and wiping means.

5. Apparatus for coating plate, sheet or rolled metal or alloys, comprising a sealed distributing or depositing tank provided in its bottom with a discharge opening, means for supplying molten coating material to said pot or tank, means for drawing the metal to be coated underneath said pot or tank, in combination with fluxing means in advance of said pot or tank, and wiping means in the rear of said pot or tank.

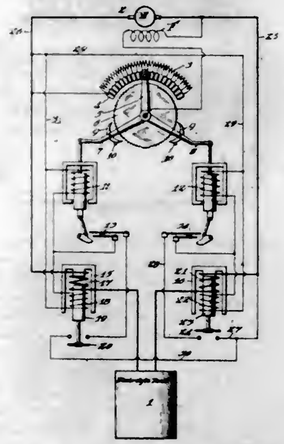
[Claims 6 and 7 not printed in the Gazette.]

1,142,857. AUTOMATIC TELEPHONE SIGNALING SYSTEM. MICHISUYE SUWA, Tokyo, Japan. Filed Oct. 7, 1913. Serial No. 793,972. (Cl. 179—1.)



A telephone system comprising an electrical circuit wherein the batteries of the telephones are included in independent transmitter circuits, each connected to the main line through a transformer when the receivers are removed, but included in the main line circuit and rendered inoperative by the potential balance of the batteries when the receivers are on their hooks.

1,142,858. ELECTRORESPONSIVE REGULATOR. LEWIS L. TATUM, Milwaukee, Wis., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed Nov. 6, 1911. Serial No. 658,873. (Cl. 171—229.)



1. In a regulator, in combination, an electro-responsive device operating automatically under certain electrical conditions, and means associated with said device and acting upon the aforesaid operation thereof to first tend to effect continued movement of the same and then tend to effect return movement thereof.

2. In a regulator, in combination, an electro-responsive device operating automatically under certain electrical conditions, and normally inert electro-responsive means associated therewith and acting upon the aforesaid operation thereof to first tend to effect continued operation in the same direction and then tend to effect return movement thereof.

3. In a regulator, in combination, an electro-responsive relay, and means associated with said relay to asist in effecting movement thereof away from and toward normal position progressively, said means being effective for only a temporary period whereby the sensitiveness of said relay is rendered independent thereof.

4. In a regulator, in combination, an electro-responsive relay, and normally inert electro-responsive means associated therewith to assist and oppose its winding in a predetermined cycle of operation of said relay.

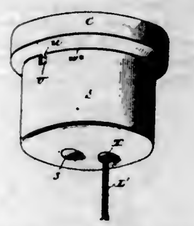
5. In a regulator, in combination, an electro-responsive relay, and normally inert electro-responsive means associated therewith to assist and oppose its winding in a predetermined cycle of operation of said relay, and acting only for a temporary period within such cycle.

[Claims 6 to 19 not printed in the Gazette.]

1,142,859. ELECTRIC SWITCH. ALLEN A. TIRRILL, Schenectady, N. Y. Filed Oct. 28, 1909. Serial No. 525,226. (Cl. 175—290.)

1. In a switch of the character described, a shaft having a squared portion, a metal switch blade having a central opening therein larger than the squared portion of the shaft, an insulating member filling the opening in the central portion of said blade and fitting upon the squared portion of the shaft, insulating plates overlying said first mentioned insulating member and the opposite faces of the metal switch blade, and clamping means passing through said insulating plates and the interposed insulating member, said clamping means being positioned within

the opening in the central portion of the metallic switch blade.



2. An electrical switch comprising a shaft, a stationary ratchet having teeth and adjacent recesses, a pawl carried by the shaft, a cam that moves the pawl into and out of engagement with the teeth of the ratchet and also into and out of the recesses therein, to permit of the shaft being advanced and stopped and to positively lock it in stationary position, and means for actuating the cam and the shaft.

3. An electrical switch comprising a shaft, a stationary ratchet having teeth and adjacent recesses, a pawl carried by the shaft having an extension, a member loosely mounted on the shaft having a cam slot to receive the pawl extension, the said member serving to move the pawl into and out of engagement with the teeth of the ratchet and also into and out of the recesses therein, to permit of the shaft being advanced and stopped and to positively lock it in stationary position, means for actuating the cam, and resilient means for actuating the shaft.

4. In a switch of the character described, a base, a plurality of laterally spaced contacts supported by said base, a shaft supported by said base and positioned in a plane parallel to the plane of the base, said shaft being provided at separated points with squared portions, and a pair of switch blades loosely mounted on the squared portions of said shaft, so as to rotate with said shaft to cooperate with said contacts, the squared portions of the shaft being of a length to permit each of said blades to move independently of the other longitudinally of the shaft.

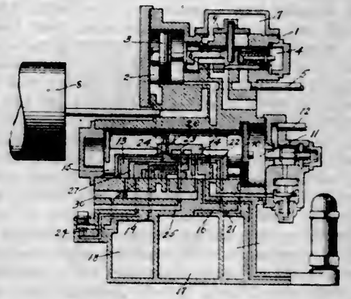
5. In a rotary switch of the character described, a base, a plurality of contact devices carried thereby, the contact surfaces of said contacts being perpendicular to the plane of the base, a transversely disposed shaft carried by said base, switch blades carried by said shaft and positioned in planes at right angles to the longitudinal axis thereof, said switch blades being adapted to coöperate with the contact devices carried by the base upon rotation of the shaft, and means for imparting a step by step rotation to said shaft, said means including a sheave mounted thereon and a pull cord depending from said sheave.

[Claims 6 to 13 not printed in the Gazette.]

1,142,860. FLUID-PRESSURE BRAKE. WALTER V. TUANER, Edgewood, Pa., assignor to The Westinghouse Air Brake Company, Wilmerding, Pa., a Corporation of Pennsylvania. Filed Jan. 13, 1914. Serial No. 811,829. (Cl. 188—15.)

1. In a fluid pressure brake, the combination with a brake pipe, of a piston subject to the opposing pressures of the brake pipe and a chamber, a main valve and a graduating valve operated by said piston for controlling the brakes, a reduction reservoir, and means operated upon the preliminary movement of the graduating valve toward application position for venting fluid from said chamber to said reservoir.

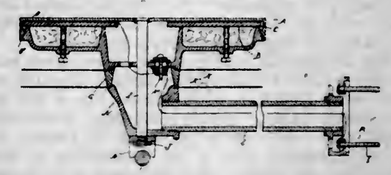
2. In a fluid pressure brake, the combination with a brake pipe, an application chamber, and an application valve mechanism operated by the pressure in the application chamber for effecting an application of the brakes, of an equalizing valve device subject to the opposing pressures of the brake pipe and a valve chamber for controlling the pressure in said application chamber, a reduction reservoir, and means operated upon the initial movement of the equalizing valve device to the position for supplying fluid to the application chamber for venting fluid from said valve chamber to the reduction reservoir.



3. In a fluid pressure brake, the combination with a brake pipe, of an application chamber, means controlled by the pressure in said chamber for controlling the brakes, an equalizing valve device subject to the opposing pressures of the brake pipe and a valve chamber for controlling the pressure in the application chamber, a reduction reservoir normally at atmospheric pressure, and means operating upon the initial movement of said equalizing valve device from release position for venting fluid from said valve chamber to said reduction reservoir and for connecting the reduction reservoir with the application chamber in application position.

4. In a fluid pressure brake, the combination with a brake pipe, an application chamber, and an equalizing valve device subject to the opposing pressures of the brake pipe and a valve chamber for controlling the pressure in the application chamber, of a reduction reservoir normally at atmospheric pressure and adapted to be connected to said valve chamber upon the initial movement of said valve device and to the application chamber upon movement to application position.

1,142,861. ELECTRICAL HEATING UNIT. EDWIN G. VAN WIE and RANSOM W. DAVENPORT, Detroit, Mich., assignors to Detroit Stove Works, Detroit, Mich., a Corporation of Michigan. Filed Nov. 25, 1912. Serial No. 733,511. (Cl. 219—37.)



1. An electrical heating unit comprising a circular hollow casing, heat insulating material therein, an electrical heating element adjacent to the flat top of said casing, a cover plate having a depending marginal flange, and coöperating locking members on said flange and casing having a rotative wedging engagement with each other.

2. An electrical heating unit including a casing arranged below the heating element, the casing including an annular chamber and a central tubular shank the sides of which project above the base of the chamber to a point adjacent the heating element, heat insulation in said annular chamber and electrical connections passing through the central tubular shank.

3. An electrical heating unit comprising an electrical heating element, a casing beneath said disk, having a central tubular shank extending downward and laterally therefrom, connecting conductors for said element passing through said tubular shank, and insulated terminal contacts at the end of said tubular shank connected to

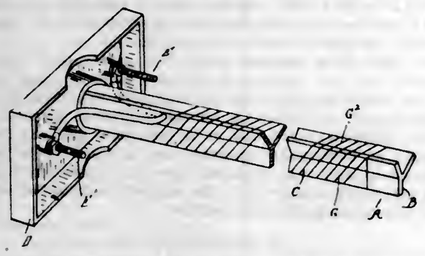
said conductors and adapted for detachable engagement with the external circuits.

4. An electrical heating unit comprising a heating element, a hollow casing beneath said element having an annular chamber and a central tubular shank extending downward and laterally, non-conducting heat insulation in said annular chamber, a heat-reflecting plate beneath said heat insulation and secured to said shank, connecting conductors extending from said unit through said tubular shank and insulated terminal contacts at the end of said shank connected with said conductors.

5. An electrical heating unit comprising a disk electrical heating element, a hollow casing beneath said disk, tubular sections beneath said hollow casing and communicating therewith, the lower section having a laterally-extending tubular arm, a cap having a marginal flange engaging said hollow casing with interlocking engagement, a central tie-bolt engaging said cap and passing through said registering sections, and a clamping nut at the lower end of said bolt for securing said sections together and holding down the center of said cap.

[Claims 6 to 13 not printed in the Gazette.]

1,142,862. ELECTRICAL HEATING UNIT. EDWIN G. VAN WIE and RANSOM W. DAVENPORT, Detroit, Mich., assignors to Detroit Stove Works, Detroit, Mich., a Corporation of Michigan. Filed Nov. 25, 1912. Serial No. 733,512. (Cl. 219—63.)



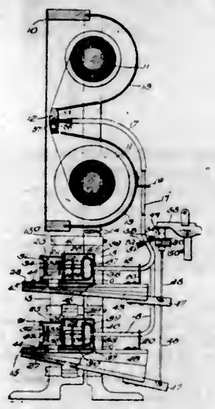
1. An electrically heating unit comprising a supporting frame formed with an opening and a boss surrounding the opening which projects beyond the frame, a member received within said boss said member being formed with radially extending longitudinally disposed ribs, and a coil constituting a resistor wound about the member and contacting with the edges of the ribs, the contact of the resistor with the ribs bending the wire of which the resistor is formed to produce triangular windings.

2. The combination with a casing having a top bottom and sides of an electrical heating element insertible within the casing immediately beneath the top of the same, said element having radially extending longitudinally disposed ribs, one of said ribs being of greater width than the remaining ribs, a coil constituting a resistor wound about the member and contacting with the edges of the ribs, the member being so supported that in end elevation the longer rib is disposed vertically, the windings thus producing a short horizontal heating surface and converging obliquely disposed heating surfaces of greater length than said horizontal heating surfaces whereby heat will radiate directly from the resistor on two sides and without shielding from the member, the heat radiating from the third side being reflected downwardly by the top of the casing.

1,142,863. SINGLE-VALVE PLAYER MECHANISM. WILLIAM A. WATSON, Malden, Mass. Filed Sept. 5, 1913. Serial No. 788,297. (Cl. 84—178.)

1. In an instrument of the character described, a suction chamber, a plurality of power pneumatics, and a plurality of pneumatics for controlling said power pneumatics located within said suction chamber and bodily removable therefrom as independent units.

2. In an instrument of the character described, a suction chamber having a plurality of independently removable units connected therewith, each of said units including a valve and a pneumatic for actuating said valve, said pneumatic being located within the suction chamber, each unit being independently removable from the suction chamber without disturbing the relationship of its parts.



3. In an instrument of the character described, a suction chamber having an opening, a valve carrier removably mounted in said opening and having a valve-actuating pneumatic located within the suction chamber and removable therefrom with the carrier, a power pneumatic, and valve mechanism supported by said carrier for controlling the power pneumatic.

4. In an instrument of the character described, a suction chamber, a valve actuating mechanism located therein, valves actuated by said mechanism, and a controlling duct for said mechanism, said actuating mechanism being removable from said chamber as a unit with its valves.

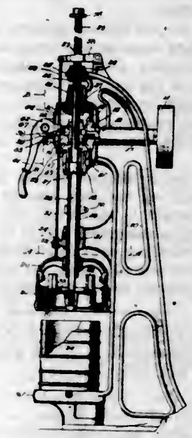
5. In an instrument of the character described, an elongated seamless suction chamber having a plurality of valve-actuating mechanisms removably located therein, valves actuated by said mechanisms, said actuating mechanisms being removable from said chamber as individual units with their valves, and an independent controlling duct for each of said mechanisms.

[Claims 6 and 7 not printed in the Gazette.]

1,142,864. MACHINE FOR MAKING CEMENT DRAIN-TILES, &c. GEORGE WEISS, Chicago, Ill. Filed Sept. 23, 1911. Serial No. 650,971. (Cl. 25—36.)

1. In a device of the class described, the combination with a framework adapted to support a casing at a fixed point thereon, of a packer spindle journaled in said framework, means for simultaneously rotating said packer spindle and moving it axially to and from the casing, said means acting at different points on the spindle as it is moved axially, a bearing collar carried by the spindle at a fixed point thereon, and an elongated fixed bearing-sleeve within which the collar rotates and moves in all positions of the spindle, thereby furnishing a bearing support for the spindle at the same distance from its free end in all positions thereof.

2. In a device of the class described, the combination with a frame work adapted to support a casing at a fixed point thereon, of a packer spindle journaled in said frame work, means for simultaneously rotating said packer spindle and moving it to and from the casing, a bearing collar carried by the spindle, an elongated bearing sleeve within which the collar rotates in all positions of the spindle, thereby furnishing a bearing support for the spindle at the same distance from its free end in all positions thereof, a hopper carried by the lower end of the sleeve and adapted to fit on the top of the casing, and a shoulder in the sleeve adapted to be engaged by the collar toward the end of the upward movement of the spindle to lift the hopper off of the casing.

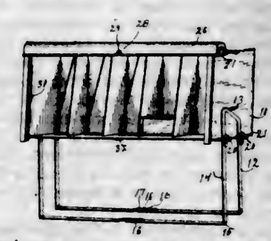


3. In a device of the class described, the combination with a frame work having a casing support thereon provided with an elongated bearing collar at the lower end thereof, of a screw threaded packer spindle journaled in said frame work, a packer having an annular surface adapted to coöperate with and extend below the top of the annular bearing surface, an elongated bearing sleeve surrounding the spindle and having a hopper secured on the lower end thereof, vertically disposed bearings in which said sleeve can slide, a stationary nut with which the threaded packer spindle coöperates, oppositely disposed beveled gears having hollow hubs through which the packer spindle extends, clutch mechanism mounted to slide on the packer spindle and coöperating with the beveled gear wheels, means for rotating the beveled gear wheels, and automatic stop mechanism for shifting the clutch mechanism toward the end of the upward and downward movement of the packer spindle.

4. In a device of the class described, the combination with a frame work having a casing support thereon provided with an elongated bearing collar at the lower end thereof, of a screw threaded packer spindle journaled in said frame work, a packer having an annular surface adapted to coöperate with and extend below the top of the annular bearing surface, an elongated bearing sleeve surrounding the spindle and having a hopper secured on the lower end thereof, vertically disposed bearings in which said sleeve can slide, a stationary nut with which the threaded packer spindle coöperates, oppositely disposed beveled gears having hollow hubs through which the packer spindle extends, clutch mechanism mounted to slide on the packer spindle and coöperating with the beveled gear wheels, means for rotating the beveled gear wheels, and lost motion connections between the packer spindle and the bearing sleeve serving to lift the sleeve automatically toward the end of the upward movement of the packer shaft.

5. In a device of the class described, the combination with a framework adapted to support a casing at a fixed point thereon, of a packer spindle journaled in said framework, a drive shaft, gearing between the drive shaft and packer spindle for rotating the latter from the former in one relative direction at a fixed relative speed and simultaneously moving it toward the casing, a second gearing between the drive shaft and packer spindle for rotating the latter from the former in the other relative direction at a slower relative speed and simultaneously moving it away from the casing, automatic means for disengaging the operative gearing at the end of the longitudinal movement of the spindle in either direction, and hand-operated means for engaging the other gearing after either gearing has been automatically disengaged.

1,142,865. MAIL-CABINET. HERMAN JULIUS WESTFIELD, Princeton, Wis. Filed June 13, 1914. Serial No. 844,892. (Cl. 211—36.)



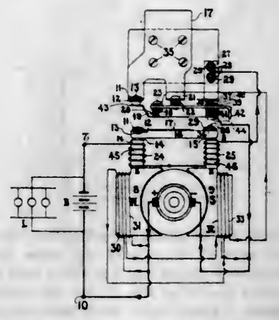
1. A mail cabinet, comprising a support, an open-ended box for receiving mail mounted on said support, and an extensible cover for closing the open end of said box, said support comprising a pair of adjustable U-shaped supporting members, and a pair of adjustable rods mounted in said members.

2. A mail cabinet comprising a support, an open-ended box for receiving mail mounted on said support, and an extensible cover for closing the open end of said box, said support comprising a plurality of adjustable standards and a plurality of adjustable rods mounted in said standards.

3. A mail cabinet comprising an open-ended box, a spring roller mounted above said box, a cover for said roller detachably secured to said box, an extensible cover mounted on said roller for closing the open end of said box, and means for locking said extensible cover to the box.

4. A mail cabinet, comprising an open-ended box, a spring roller mounted on said box, an extensible cover mounted on said roller for closing the open end of said box, and means comprising a projection on the cover at the lower edge thereof for locking it to the bottom edge of the box.

1,142,866. ELECTRIC-CURRENT GENERATOR. JAMES M. WILSON, Newark, N. J., assignor to Splitdorf Electrical Company, Newark, N. J. Filed Dec. 4, 1912. Serial No. 734,958. (Cl. 171—313.)



1. In an electric generator, the combination of a box type field frame and a removable cover therefor, an armature rotatable within said frame and a working circuit for said armature, pole pieces attached to said frame, and having polar projections extending to the top of said frame, energizing coils carried on both the pole pieces and polar projections, and a keeper in correlation with said polar projections to control the current in the working circuit, substantially as described.

2. In an electric generator, the combination of a magnetic field frame, an armature and a working circuit therefor, pole pieces attached to said magnetic field, projections on said pole pieces extending substantially parallel to the walls of the housing and terminating in the same plane as said walls, windings around the pole pieces and in shunt

to said working circuit, windings on said polar projections and included in the working circuit, a keeper in conjunction with the polar projections and controlling the working circuit, substantially as described.

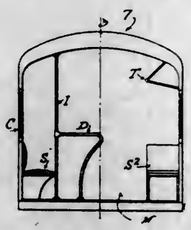
3. In an electric generator, the combination of a magnetic field frame, an armature and a working circuit therefor, an exciting circuit for said field frame, a keeper mounted on said field frame controlling working and exciting circuits, said keeper having three positions, a normal position, in which the working circuit is open and the exciting circuit is closed, a second position in which the working and exciting circuits are closed, a third position in which the working circuit is closed and a portion of the exciting circuit is opened, substantially as and for the purpose described.

4. In an electric generator, the combination of a magnetic field frame, an armature and a working circuit therefor, a keeper and contacts controlled thereby, an exciting circuit for said field frame and in shunt to said working circuit, a second exciting circuit, including the working circuit, said keeper being operated by the conjoint action of said exciting circuits whereby the current in the working circuit is controlled to a substantially predetermined value, as described.

5. In an electric generator, the combination of a field frame, an armature and a working circuit therefor, pole pieces attached to the field frame and having polar extensions, said pole pieces carrying a plurality of exciting windings connected in shunt to said working circuit, and said polar extensions having exciting windings connected in series in the working circuit, a keeper for said polar extensions and adapted to be partially operated by the influence of the shunt windings, whereby the working circuit is closed and further adapted to be completely operated by the conjoint influence of the said shunt and series windings, whereby the working circuit is maintained, but a portion of the shunt winding is removed from circuit, substantially as and for the purpose described.

[Claims 6 to 12 not printed in the Gazette.]

1,142,867. STREET-CAR AND SIMILAR VEHICLE. GEORGE C. WING and LOUIS P. LIPPS, Cleveland, Ohio, assignors to said Wing, trustee. Filed Dec. 21, 1914. Serial No. 878,374. (Cl. 105—205.)



1. In a street car, or similar vehicle, the combination of a longitudinal seat at one side of the same, an off-center aisle, or passageway, along and adjoining said seat, a longitudinal seat at the other side of the car opposite to the seat first above named, and horizontal hand-rests for standing passengers, at intervals, above and across the floor space between said aisle, or passageway, and the longitudinal seat, last above named, on the other side of the car, substantially as shown and described.

2. In a street car, or similar vehicle having oppositely located longitudinal seats at the sides thereof, the combination of an off-center aisle, or passageway, along and adjoining such seat on one side of the car, and horizontal handrests for standing passengers, at intervals, above and transversely of the floor space between said aisle or passageway, and the seat on the other side of the car opposite to the first seat hereinbefore specified, substantially as shown and described.

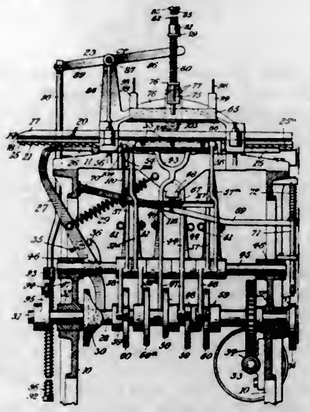
3. In a street car, or similar vehicle, the combination of oppositely arranged longitudinal seats at the sides thereof, and a series of parallel handrests for standing passengers, extending transversely through the space between one of said seats and the middle of the car, substantially as shown and described.

4. In a street car, or similar vehicle, having oppositely located longitudinal seats at the sides thereof, the combination of an off-center aisle, or passageway along such seat on one side of the car, and horizontal handrests for standing passengers, at intervals, above and transversely of the floor space between said aisle and the seat on the opposite side of the car, substantially as shown and described.

5. In a street car, or similar vehicle, the combination of a longitudinal seat at the side thereof, a stanchion, in front of and adjacent to the same, and, a bar, or handgrasp for standing passengers, affixed at one end to said stanchion, and extending outwardly therefrom to the middle of the car, substantially as shown and described.

[Claim 6 not printed in the Gazette.]

1,142,868. FEATHER-CURLING MACHINE. ARTHUR E. ZUMPE, Englewood, N. J. Filed Aug. 1, 1913. Serial No. 782,413. (Cl. 223—52.)



1. A feather curling machine comprising a holder, adapted to engage a feather-quill, a blade arranged sidewise of said holder and adapted to edgewise engage the feather-flues, a presser bar adapted to hold said flues against the blade, and means for oscillating said blade and bar.

2. A feather curling machine comprising a holder adapted to engage a feather-quill, a pair of blades arranged at opposite sides thereof and having outer longitudinal curling edges, presser bars adapted to engage the blades, and means for oscillating said blades and bars.

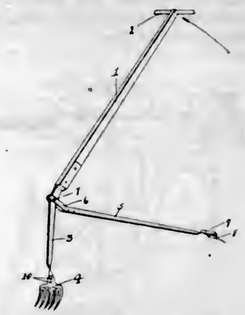
3. A feather curling machine comprising a holder adapted to engage a feather-quill, a pair of blades arranged at opposite sides thereof and having outer longitudinal curling edges, means for heating said blades, resilient presser bars adapted to engage the blades, and means for oscillating said blades and bars.

4. A feather curling machine comprising a holder adapted to engage a feather-quill, a blade arranged sidewise of said holder and adapted to edgewise engage the feather-flues, a resilient presser bar adapted to engage the blade, means for regulating the pressure between the blade and presser bar, and means for oscillating said blade and bar.

5. A feather curling machine comprising a holder adapted to engage a feather-quill, a blade having a longitudinal curling edge and adapted to oscillate toward and away from said holder, means for raising the feather-flues while said blade is swung toward the holder and underneath said flues, means for subsequently lowering the flues over the blade-edge, a presser bar adapted to press the lowered flues against the blade, and means for swinging said presser bar away from the holder in unison with the blade.

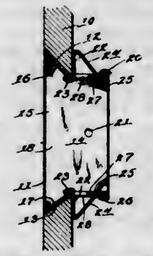
[Claims 6 to 22 not printed in the Gazette.]

1,142,869. HAND-WEEDER. SALVADOR ALUNAN, Jaro, Philippine Islands. Filed Feb. 19, 1914. Serial No. 819,855. (Cl. 55—79.)



In a hand weeder, in combination, an anchor rod, an earth-engaging prong member secured upon the lower end of said rod, a block mounted transversely on said rod adjacent the upper portion of said earth-engaging prong member, a bifurcation formed upon the other end of said rod, a bearing interposed between said bifurcation, a shank pivotally mounted upon said bearing, a forked member mounted upon one end of said shank, and a lever handle mounted upon the other end of said shank and disposed at an angle thereto.

1,142,870. SECURING MEANS FOR A REMOVABLE PULLEY-HOUSING. EDWARD ANDERSON, St. Paul, Minn., assignor of one-half to A. Herman Hausson, St. Paul, Minn. Filed Jan. 31, 1914, Serial No. 815,844. Renewed Apr. 23, 1915. Serial No. 23,519. (Cl. 16—17.)



1. A frame including a stile provided with an opening having inwardly converging upper and lower ends, a pulley housing extending through the opening of said stile and provided with an enlarged outer end portion forming a head provided with diverging upper and lower ends constituting an abutment shoulder for engaging the upper and lower ends of said opening, and resilient means carried by said housing and engaging the inner face of said stile for releasably holding said pulley housing in place.

2. A device of the character described comprising a support provided with an opening, a pulley housing extending through said opening and provided with an enlarged outer end portion limiting its inward movement, the upper and lower end portions of said housing being provided with openings, and resilient securing means engaging the inner face of said stile and provided with a hooked-shape brace extending through the openings of said pulley housing whereby said clip will be releasably connected with said pulley housing and releasably hold said pulley housing in the opening of said stile.

3. A pulley housing provided with openings in its upper and lower ends, securing clips for releasably holding said pulley housing in an opening formed in a support, each of said clips being formed from a strip of resilient metal bent adjacent one end to form a hook, the intermediate portion of said strip forming a second arm extending at an incline from said first mentioned arm, and the opposite end portion of said strip being bent back upon itself to form a curved bight and being then bent to form a curved lip extending from the inner end of the bight, the bight extending through one of the openings in one end of said pulley housing with the lip engaging the outer face thereof, and the first-mentioned arm extending through the second opening in the end of said housing with its hook engaging the inner face of the housing to releasably hold said clip in engagement with the housing.

4. A pulley housing provided with openings in its upper and lower ends, and resilient clips for holding said pulley housing in place, each of said clips including a pair of arms extending in diverging relation, one of said arms extending through one of the openings in one end of said housing and bent to form a hook engaging the inner face of the housing and the other of said arms having its free end portion bent back upon itself to form a bight extending through a second opening formed in the end of the housing and being then bent to form a lip extending from the bight and engaging the outer face of said housing.

5. A support provided with an opening, a pulley housing extending through the opening of said support and having the upper and lower ends of its inner end portions provided with openings, and resilient securing clips carried by said housing for releasably holding said housing in place, each of said clips including a pair of arms, one of said arms extending in contacting relation to the inner face of said support and passing through one of the openings in one end of said housing with its inner end portion formed into a hook engaging the inner face of said housing and the other of said arms extending from said first-mentioned arm at an incline thereto to brace the same and having its free end portion bent to form a bight extending through a second opening formed in the end of said housing and being then bent to form a lip engaging the outer face of said housing.

[Claims 6 and 7 not printed in the Gazette.]

1,142,871. HOT-AIR-SUPPLY MEANS FOR INTERNAL-COMBUSTION ENGINES. WILLIAM J. BRACKEN, Zion City, Ill. Filed Aug. 7, 1914. Serial No. 855,679. (Cl. 137—26.)



1. In apparatus of the character described, a longitudinally extensible shell, a valve engaging a portion of the shell to control the inlet of air into the same, yielding means to oppose the movement of the valve in one direction, yielding means to automatically contract the longitudinally extensible shell upon a portion thereof being released, and means to extend the shell.

2. In apparatus of the character described, a longitudinally extensible shell provided at one end with an inlet opening, a valve arranged within the shell to engage the same adjacent the opening to close the opening, a spring to urge the valve toward its closed position, yielding means to automatically contract the longitudinally extensible shell upon a portion thereof being released and being

stronger than the spring, and means to extend the longitudinally extensible shell.

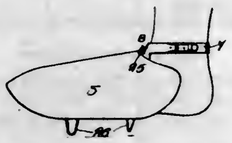
3. In apparatus of the character described, a plurality of freely relatively reciprocatory telescoping shell-members, a valve arranged within one shell-member to engage the end thereof to control the passage of air into the same, a spring to move the valve into engagement with the end of the shell-member, and means to reciprocate one shell-member with relation to the other without turning the same upon its longitudinal axis.

4. In apparatus of the character described, a plurality of telescoping shell-members, a movable valve arranged within one shell-member to control the passage of air into the same, a spring engaging the valve to oppose its movement in one direction, a retractile coil spring extending longitudinally of the telescoping shell members and connecting the same to automatically move one shell member inwardly upon the same being released, and means to move such shell member outwardly in opposition to the spring.

5. In apparatus of the character described, a shell, a member movable longitudinally with relation to the shell and serving to close one end thereof and having an inlet opening, a valve adapted to engage the member and close the inlet opening, a spring to move the valve into engagement with the member, a spring to automatically move the member longitudinally in one direction upon the same being released, and separate means to move the member longitudinally in an opposite direction in opposition to the second named spring.

[Claims 6 and 7 not printed in the Gazette.]

1,142,872. SWIMMING APPLIANCE. HENRY BRUENING, Chicago, Ill. Filed Mar. 27, 1915. Serial No. 17,413. (Cl. 9—21.)



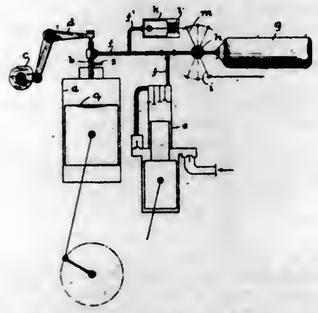
1. A swimming appliance comprising an ankle strap having attaching means in front of the ankle, a plate fastened beneath the foot, a stem and a yoke carried by the plate, the stem projecting between the toes and the yoke straddling the foot to the rear of the toes, said stem and yoke having attaching means at the top above the foot, and pivoted wings connected to the aforesaid attaching means.

2. A swimming appliance comprising an ankle strap having attaching means in front of the ankle, a plate fastened beneath the foot, a stem and a yoke carried by the plate, the stem projecting between the toes and the yoke straddling the foot to the rear of the toes, said stem and yoke having ataching means at the top above the foot, pivoted wings connected to the aforesaid attaching means, a second plate beneath the foot, means carried by the ankle strap for securing said plate, and a strap connecting said plate to the first-mentioned plate.

1,142,873. COMBUSTION-ENGINE. ALFRED BÜCHI, Winterthur, Switzerland, assignor to Busch-Sulzer Bros.-Diesel Engine Company, St. Louis, Mo., a Corporation of Missouri. Filed June 1, 1912. Serial No. 700,922. (Cl. 123—33.)

1. In a combustion engine, the combination with a cylinder having fuel injection means, a fuel supply line, a fuel injection air line and a reservoir connected with the latter line, of a control device for shutting the reservoir off from the air line during change in the load on the engine.

2. In a combustion engine, the combination with a cylinder having a fuel injection valve and a fuel line connected therewith, of an air compressor, a fuel injection air line connecting the same to the fuel valve of the engine and an air reservoir, in combination with a compound valve mechanism controlling the communication between the reservoir and the air line, and means for controlling said valve mechanism according to the pressure in the air line and the speed of the engine.

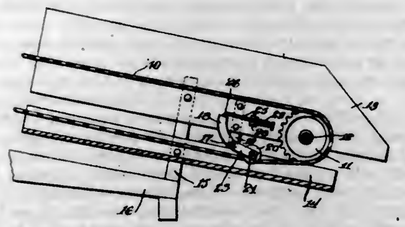


3. In a combustion engine, the combination with a cylinder having fuel injection means, a fuel injection air line leading thereto, an air compressor for supplying said air line, and a reservoir having a branch connection with the air line, of a control device for shutting off the branch communication of the reservoir from the air line during change in load on the engine.

4. In a combustion engine, the combination with a cylinder having fuel injection means, a fuel injection air line leading thereto, an air compressor for supplying said air line, and a reservoir having a branch connection with the air line, of a control device comprising two independently movable valve members jointly controlling the branch communication of the reservoir with the air line, means acted upon by the pressure in said air line for operating one of the valve members, and separate means for operating the other valve member.

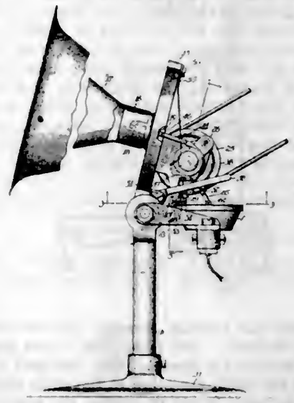
5. In a combustion engine, the combination with a cylinder having fuel injection means, a fuel injection air line leading thereto, an air compressor for supplying said air line, and a reservoir having a branch connection with the air line, of a control device comprising two independently movable valve members jointly controlling the branch communication of the reservoir with the air line, a governor and connections for operating one of said valve members, and a fluid pressure device in communication with the air line near the cylinder and connected with the other valve member.

1,142,874. BELT-TIGHTENER. MARTIN L. CANNON, Portis, Kans. Filed Jan. 16, 1914. Serial No. 812,503. (Cl. 64—5.)



A belt tightener comprising a bearing rod, a cross bar extending parallel to said bearing rod, a yoke formed from a U-shaped blank of sheet material bent to provide a bridge having curved arms extending therefrom, the bridge being provided with an opening and the arms being provided with openings through which said bearing rod passes to pivotally mount said yoke and having their free end portions provided with openings, a roller having its pivot pin passing through the openings in the end portions of said arms, a rod slidably mounted in said cross bar and having one end portion bent at an angle and secured in the opening formed in the bridge of said yoke, an abutment carried by last mentioned rod, and a spring mounted upon said last mentioned rod between said cross bar and abutment to yieldably hold said last mentioned rod in a position to retain said yoke in a normal position.

1,142,875. ELECTROMEGAPHONE-RECEIVER, &c. CHARLES K. CREGIER, Chicago, Ill. Filed Nov. 13, 1911. Serial No. 659,881. (Cl. 179—108.)



1. In a loud speaking telephone, the combination with a diaphragm to be vibrated; of a constantly-rotatable laterally-movable, friction-producing member; a coöperating friction-producing member in engagement with the first named member and connected to said diaphragm for tensioning said diaphragm; a spring for yieldingly moving said rotatable member laterally toward its coöperating member to maintain substantially normal uniform engagement of said members and means to vary the frictional engagement of said friction-producing members to vibrate said diaphragm.

2. In a loud speaking telephone, the combination with a diaphragm to be vibrated; of a constantly-rotatable, laterally-movable, friction-producing member; a coöperating friction-producing member in engagement with the first named member and connected to said diaphragm for tensioning said diaphragm; a spring for yieldingly moving said rotatable member laterally toward its coöperating member to maintain substantially normal uniform engagement of said members; a telephone receiver and a connection between the diaphragm thereof and one of said friction-producing members to vary the frictional engagement of said friction-producing members to vibrate the first named diaphragm.

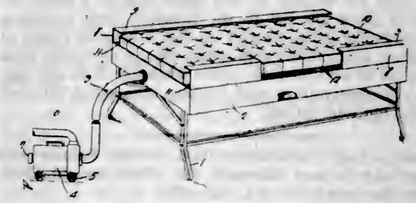
3. In a loud speaking telephone, the combination with a diaphragm to be vibrated; of a constantly-rotatable, laterally-movable, friction-producing member; a coöperating friction-producing member in engagement with the first named member and connected to said diaphragm for tensioning said diaphragm; a spring for yieldingly moving said rotatable member laterally toward its coöperating member to maintain substantially normal uniform engagement of said members; another spring tending to move said coöperating friction producing member toward said rotatable member; and means to vary the frictional engagement of said friction-producing members to vibrate said diaphragm.

4. In a device of the character described, the combination of a diaphragm, a rotatable friction wheel bodily movable with respect to the diaphragm support, a shaft upon which said wheel is mounted, having a flexible rubberlike link, a movable bearing at the wheel end of said shaft to permit lateral movement thereof, a spring adapted and arranged to press said bearing in a direction away from said diaphragm, a friction girth overlying said wheel and connected to said diaphragm to resist lateral movement of said wheel, and means connected to said girth to vary its resisting influence.

5. In a device of the character described the combination of a diaphragm, a rotatable friction wheel having a V-shaped groove in its peripheral surface, a flexible girth having its confronting surface tapered to fit in said groove, and overlying said wheel, means for rotating said wheel yielding means for maintaining normal contact relation of said girth and wheel and means for varying said relation.

[Claim 6 not printed in the Gazette.]

1,142,876. BED. WILLIAM A. DAVIS and ALBERT GREENWOOD, Knoxville, Tenn. Filed July 25, 1914. Serial No. 853,083. (Cl. 5—1.)



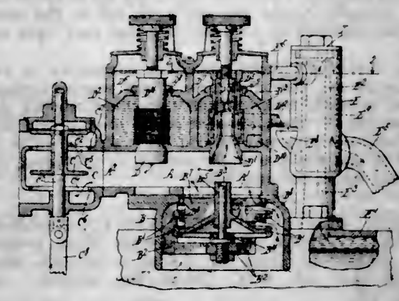
1. In a device of the class described, a mattress; perforated conduits disposed along the edges of the mattress; deflectors overhanging the perforations; and means for sucking air through the perforations of all of the conduits at once.

2. In a device of the class described, a casing having sets of perforations; a mattress resting on the casing between the sets of perforations; deflectors located outwardly of the perforations; and means for forcing air through the perforations to ventilate the surface of the mattress.

3. In a device of the class described, a casing having sets of perforations; deflectors secured to the casing and overhanging the perforations; a mattress on the casing and extended beneath the deflectors; and means for forcing air through the perforations of the casing.

4. In a device of the class described, a box-like casing provided along its edges with upright deflectors and adapted to receive a mattress between the deflectors, the casing being perforated adjacent the deflectors; a suction pump; and a connection between the pump and the casing.

1,142,877. CARBURETER WATER-SUPPLY. HERMAN W. FALK and WILLIAM K. ANDREW, Milwaukee, Wis., assignors to M. Rumely Company, Laporte, Ind., a Corporation of Indiana. Filed Nov. 3, 1911. Serial No. 658,312. (Cl. 137—21.)



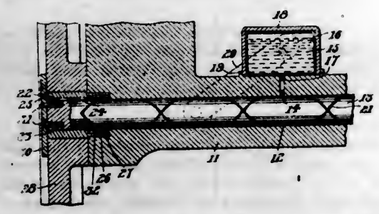
1. A constant level liquid supply means comprising a stand-pipe open at the top, a cylindrical housing mounted

on and surrounding the upper end of the pipe, an outflow pipe discharging from the lower portion of said housing, a return funnel in the wall of said housing below the top of the stand-pipe.

2. The combination with a constant level reservoir of means for feeding liquid thereto and withdrawing it therefrom, said means comprising a stand pipe open at both ends, a housing surrounding the upper end of said stand pipe, said housing being closed at its lower end, a discharge from the bottom of said housing, a cup in the wall of said housing adjacent its lower end, a pipe communicating with the interior of the stand pipe adjacent its upper end and passing through the space between the stand pipe and the wall of the housing and discharging to the constant level reservoir, and a pipe leading from the constant level reservoir and terminating above the cup in the wall of said housing.

3. Means for supplying a liquid to a constant level reservoir comprising a stand pipe, means for conducting water from the interior of said stand pipe at a point immediately below its top to the constant level reservoir, said stand pipe being open at its top, a housing closed at the bottom surrounding said stand pipe, a discharge from the bottom of said housing, and a discharge from the constant level reservoir to said housing at a point intermediate its top and bottom.

1,142,878. CAR CONSTRUCTION. ANDRO GALDYN and STANISLAW LUBLIN, Kewanee, Ill. Filed Dec. 30, 1914. Serial No. 879,672. (Cl. 105—67.)



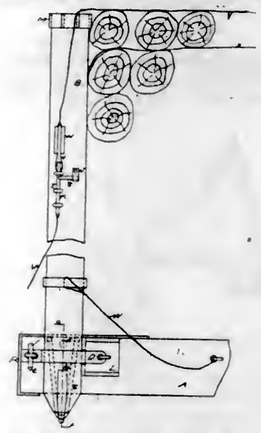
1. A device of the class described comprising in combination with a housing beam having a central longitudinal bore therethrough and having an annular pocket and a concentric annular socket at the open end of the bore, an axle journaled in said bore and having a projecting end, a cubical block having a central bore closely mounted upon the said end, a longitudinal locking key between the said axle end and block, an inwardly projecting sleeve upon said block rotarily mounted within the said housing socket, a wheel having the hub thereof provided with a square opening therethrough and closely receiving the said block therein and a retaining plate secured to the axle end and flatly engaging the said end and the adjacent outer faces of the said block and wheel hub.

2. A device of the class described, comprising an axle housing, an axle journaled therein and projecting beyond the ends of the housing, a block angular in cross-section mounted on each end of the axle and keyed thereto, a wheel mounted on said axle and block, and an end securing plate fastened to said axle engaging said block and wheel.

3. A device of the class deacribed, comprising an axle housing, an axle journaled therein, said housing having a circular recess in each end wall thereof surrounding said axle, an angular block mounted on the ends of said axle, a circular sleeve carried by said block adapted to be received in said recess, a wheel mounted on said block, and retaining means for said wheel.

1,142,879. DISAPPEARING CAR AND LOGGING-SLED STAKE. AUGUSTE GENDREAU, Bemidji, Minn., assignor of one-half to Elmer E. McDonald, Bemidji, Minn. Filed Mar. 16, 1914. Serial No. 825,144. (Cl. 105—173.)

1. A stake for vehicles carrying logs or timber, permanently attached at the lower end to the bunk of the vehicle by means of a knuckle, one part of which is attached to the bunk, the other to the stake with means for holding the stake in upright position while being loaded or while carrying the load with means for releasing the stake from its upright position permitting it to fall forward or backward out of the way of the load while being removed.



2. A stake for vehicles carrying logs or timber, permanently attached at the lower end to the bunk of the vehicle by means of a knuckle joint, one part of which is attached to the bunk, the other to the stake with a clamp affixed to the bunk to aid in holding the stake in an upright position with means for holding the stake in an upright position while being loaded or while carrying the load with means for releasing the stake from its upright position permitting it to fall forward or backward out of the way of the load while being removed.

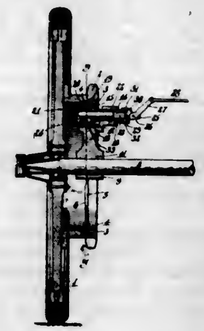
3. A stake for vehicles carrying logs or timber, permanently attached at the lower end to the bunk of the vehicle by means of a knuckle joint, one part of which is attached to the bunk, the other to the stake with a clamp affixed to the bunk to aid in holding the stake in an upright position with an angle iron attached to side of bunk with face of one angle at inside of stake with means for holding the stake in an upright position while being loaded or while carrying the load with means for releasing the stake from its upright position permitting it to fall forward or backward out of the way of the load while being removed.

4. A stake for vehicles carrying logs or timber, permanently attached at the lower end to the bunk of the vehicle by means of a knuckle joint, one part of which is attached to the bunk, the other to the stake with a clamp affixed to the bunk to aid in holding the stake in an upright position with an angle iron attached to side of bunk with face of one angle at inside of stake with a chain secured to the front or rear face of the bunk, as the case may be, at one end and adjustably secured to the stake, at its inner side, at the other end to hold the stake in the position of being horizontal or lateral to the load while the stake is down and holding the stake out of the way of the logs or timber while being removed from the load, with means for holding the stake in an upright position while being loaded or while carrying the load with means for releasing the stake from its upright position permitting it to fall forward out of the way of the load while being removed.

5. A stake for vehicles carrying logs or timber, permanently attached at the lower end to the bunk of the vehicle by means of a knuckle joint, one part of which is attached to the bunk, the other to the stake with a clamp affixed to the bunk to aid in holding the stake in an upright position with an angle iron attached to side of bunk with face of one angle at inside of stake with a chain secured to the front or rear face of the bunk, as the case may be, at one end and adjustably secured to the stake, at its inner side, at the other end to hold the stake in the position of being horizontal or lateral to the load while the stake is down and holding the stake out of the way of the logs or timber while being removed from the load, with a binder chain, one end attached to a band around the top end of the opposite stake passing over the top of the entire load through a band or ring at the top of the stake in question, then down along the front or the rear of the stake, as the case may be, to a trip hook with a ring in the end of the chain passing over and held by the trip hook, which trip hook is operated or released by means of a sliding bolt with chain attached to lower end to be held in hand of the operator and used by exerting a pull upon the chain for releasing this binding chain permitting the stake to fall forward or backward or laterally to the load and pass into a position out of the way while the load is being discharged from the vehicle, the load being held in position and preventing from binding the stake by means of another binding chain, with means for holding the stake in an upright position while being loaded or while carrying the load with means for releasing the stake from its upright position permitting it to fall forward out of the way of the load while being removed.

[Claims 6 and 7 not printed in the Gazette.]

1,142,880. VEHICLE-BRAKE. JOHN HARTMAN, Buffalo, N. Y. Filed June 3, 1913. Serial No. 771,374. (Cl. 21—8.)



1. In a vehicle brake, the combination of a driving sprocket provided with recesses or seats, a brake band having peripheral ears to fit in said seats to retain the band in place, and braking mechanism adapted to simultaneously engage both faces of said brake band.

2. In a vehicle brake, the combination of a driving sprocket provided with recesses or seats, a brake band having ears to fit in said seats to retain the band in place, and braking mechanism adapted to simultaneously engage both faces of said band, said band having a flat face and a face formed with raised portions.

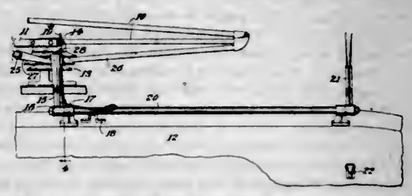
3. In a vehicle brake, the combination with an axle, a wheel and a driving sprocket, of a brake band mounted in said sprocket, a bracket supported upon said axle, and brake mechanism mounted in said bracket and adapted to engage both faces of said brake band.

4. In a vehicle brake, the combination with an axle, a wheel rotatable on said axle, a sprocket secured to said wheel and a brake band secured to said sprocket, of a bracket mounted upon said axle, a shoe carried by said bracket and having sliding movement, a bolt having a sliding movement in the shoe, and means for moving said shoe and bolt toward each other to engage each face of said brake band.

5. In a vehicle brake, the combination of an axle, a wheel mounted thereon, a sprocket secured to said wheel and a brake band secured to said sprocket, of mechanism supported upon the axle and constructed to bear upon each face of said brake band to form a brake.

[Claims 6 and 7 not printed in the Gazette.]

1,142,881. PANTOGRAPH-GROUNDING CIRCUITS FOR ELECTRIC RAILWAY-VEHICLES. ERNEST ROWLAND HILL, East Orange, N. J. Filed Apr. 8, 1915. Serial No. 19,025. (Cl. 191—65.)



1. In an electric railway vehicle, the combination of a support for a trolley-contact, a grounding circuit connected with said support, a normally open circuit-closer in said circuit, and means for actuating the circuit closer.

2. In an electric railway vehicle, the combination of a depressible support for a trolley-contact, a normally open grounding circuit for the said support, and means for closing the grounding circuit when the said support is depressed.

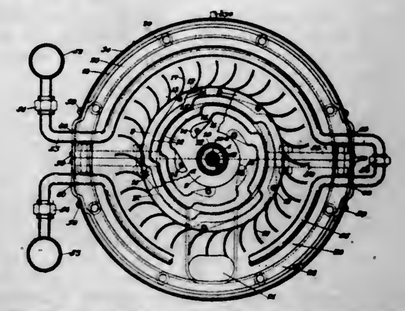
3. In an electric railway vehicle, a combination of a depressible support for a trolley contact, a grounding circuit for the said support, a movable member in said circuit to open and close the same, and means connected with the said support and coöperating with the movable member to lock the former in depressed position when the grounding circuit is closed.

4. In an electric railway vehicle, the combination of a support for a trolley-contact, a grounding circuit for said support, a movable switch-arm in said circuit to open and close the same, and manual means to actuate the switch arm.

5. In an electric railway vehicle, the combination of a support for a trolley contact, a grounding circuit connected with said support, a pivoted switch-arm in said circuit to open and close the same, a rock-shaft connected with the switch-arm to actuate the same, and manual means to rock said shaft.

[Claims 6 to 8 not printed in the Gazette.]

1,142,882. TURBINE. MARK W. JOHNSON, Jr., Atlanta, Ga. Filed Dec. 19, 1912. Serial No. 737,748. (Cl. 230—11.)



1. In a turbine, a stator comprising an outer circumferential high pressure chamber and an inner circumferential low pressure chamber, a rotor, a compartment in the stator inclosing the rotor and communicating with said chambers, said rotor having fluid passages which lead in a spiral direction from its center to its periphery the expansion of the spiral being continuously in the direction of its rotation, and guide vanes in the high pressure chamber of the stator forming curved passages which at their inner ends are inclined substantially in line with the passages of the rotor to change the direction of the flow of the fluid from radial to tangential or vice versa.

2. In a turbine, a stator comprising an outer circumferential high pressure chamber and an inner circumferen-

tial low pressure chamber, a rotor, a compartment in the stator inclosing the rotor and communicating with said chambers, said rotor having fluid passages which communicate with said chambers and which lead in a spiral direction from its center to its periphery the expansion of the spiral being continuously in the direction of its rotation, guide vanes in the high pressure chamber of the stator which are curved to change the direction of the flow of the fluid from radial to tangential, or vice versa, and curved guide vanes for the low pressure chamber to cause flow of the fluid entering or leaving it to be in the form of a helix.

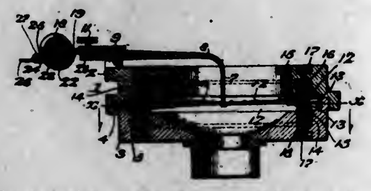
3. In a turbine, a rotor having a hollow circular body portion and fluid ports near its center and periphery, and long spiral guide vanes in the rotor leading from its central to its peripheral ports and forming gradually contracting fluid passages which are disposed in a spiral about the axis of rotation of the rotor, the expansion of the spiral being continuously in the direction of its rotation, in combination with a stator having fluid passages communicating with the central and peripheral ends of said fluid passages.

4. In a turbine, a rotor provided with a series of laterally disposed spaced vanes which pass in a spiral direction for approximately a half turn about its axis of rotation, the advance of the spiral being in the same direction as the direction of rotation, in combination with means to confine the fluid growing between said vanes to provide spiral fluid passages, and curved guide vanes having their inner ends disposed tangentially to the periphery of the rotor and inclined in the direction in which the fluid leaves the rotor's periphery, substantially as described.

5. In a turbine, a stator comprising an annular chamber for the low pressure fluid and a wheel chamber into which said low pressure chamber opens, a rotor in said wheel chamber, curved vanes on the stator to direct the fluid in a helical form as it flows axially to or from said low pressure chamber, long spiral vanes on the rotor advancing in the same direction as the direction of rotation, a circumferential high pressure chamber communicating with the periphery of the wheel chamber, and curved guide vanes in the passage between the wheel chamber and high pressure chamber which are curved to change the direction of the flow of the fluid from radial to tangential, or vice versa, as it flows between the wheel chamber and high pressure chamber, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,142,883. SOUND-BOX FOR TALKING-MACHINES. ALVA D. JONES, Philadelphia, Pa. Filed Apr. 14, 1913, Serial No. 761,001. Renewed Nov. 6, 1914. Serial No. 870,696. (Cl. 181—11.)



1. In a device of the character stated, a sound-box having a diaphragm chamber and annular grooves in the opposed faces of said chamber and near the edges of the same, yielding rings in said grooves and having convex opposed sides, a floating diaphragm interposed between said rings, annular followers in said grooves, and cushioning devices interposed at intervals between said rings and followers.

2. In a device of the character stated, a sound-box having a diaphragm chamber and annular grooves in the opposed faces of said chamber and near the edges of the same, yielding rings in said grooves and having convex opposed sides, a diaphragm interposed between said rings, annular followers in said grooves, cushioning devices interposed at intervals between said rings and followers, and adjusting devices located to bear at intervals against said followers.

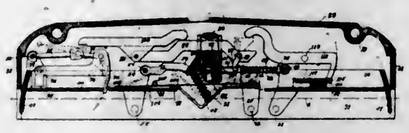
3. In a device of the character stated, a sound box comprising a pair of members detachably secured together and having a diaphragm chamber therein, said members having annular grooves therein, resilient annular rings located in said grooves and having convex juxtaposed faces, a diaphragm located in said chamber and secured in position between said convex faces, an annular follower plate seated in the base of each of said grooves, cushioning devices intermediate said plates and said diaphragm supporting rings, and adjusting devices for said follower plates.

4. In a device of the character stated, a sound-box having a diaphragm chamber and annular grooves in the opposed faces of said chamber and near the edges of the same, yielding rings in said grooves and having convex opposed sides, a diaphragm interposed between said rings, annual followers in said grooves, cushioning devices interposed at intervals between said rings and followers, and adjusting devices located to bear at intervals against said followers and accessible from the exterior of said box.

5. In a device of the character stated, a stylus support comprising a convoluted resilient member having an offset portion projecting from an inner convolution thereof, and means carried thereby for supporting a stylus.

[Claims 6 to 8 not printed in the Gazette.]

1,142,884. AUTOMATIC TRAIN-STOP. ELMER M. JONES, Atlanta, Ga., assignor to Jones Signal System Company, Atlanta, Ga., a Corporation of Georgia. Filed Oct. 2, 1911. Serial No. 652,260. (Cl. 246—59.)



1. The combination, with a ramp of variable effective length, of means on a vehicle for initiating and counteracting an indication, one of said means being adapted to coact with the ramp irrespective of its length and the other to coact with the ramp or not, according to its length.

2. The combination, of means on a moving vehicle for initiating an indication and means on the vehicle for counteracting such indication, the initiating and counteracting means being located one behind the other with reference to the direction in which the vehicle normally moves, and means along the trackway for controlling the initiating and counteracting means.

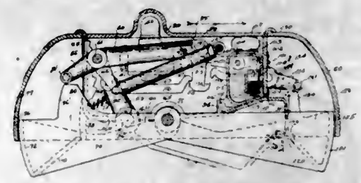
3. The combination, with means on a moving vehicle for initiating an indication and means on the vehicle for counteracting such indication, the initiating and counteracting means being located one behind the other with reference to the direction in which the vehicle normally moves, of means along the trackway for actuating the initiating means, and means longitudinally alined with said last named means with reference to the direction of the movement of the vehicle for controlling the counteracting means.

4. The combination of a track device including stationary and movable ramps and coöperating indication initiating and counteracting devices located one behind the other on a vehicle, the initiating device being adapted to be controlled by the stationary ramp, and the counteracting device by the movable ramp.

5. The combination of a track device including stationary and movable ramps in longitudinal alinement with each other, and coöperating indication initiating and counteracting devices on a movable vehicle, the initiating device being adapted to be actuated by the stationary ramp, and the counteracting device controlled by the movable ramp.

[Claims 6 to 32 not printed in the Gazette.]

1,142,885. AUTOMATIC STOPPING DEVICE FOR VEHICLES. ELMER M. JONES, Atlanta, Ga., assignor to Jones Signal System Company, Atlanta, Ga., a Corporation of Georgia. Filed Sept. 18, 1913. Serial No. 790,392. (Cl. 246—59.)



1. In a device of the character described, the combination of a valve, a bar for holding it, a pivoted tripping lever connected with said bar, a latch arm connectible with said bar, and a resetting arm connected with the latch arm, and adapted to be engaged by means along the trackway.

2. The combination of a valve, a tripping lever, a bar pivoted to the lever, at one side of the valve stem, a valve stem bearing against the bar intermediately, a latch lever adapted to engage the bar on the other side of the valve stem, and an automatic resetting arm connected with the latch arm, and adapted to be operated by means along the trackway.

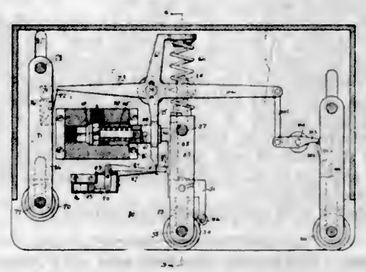
3. The combination of a tripping lever, a bar pivoted thereto, a pivoted resetting arm, a latch arm carried by the free end of the resetting arm and having a hook adapted to engage the bar, a valve, the stem of which bears against the bar intermediately, and means adapted to be engaged and operated by a track device for moving the resetting arm to move the valve.

4. The combination of a casing, an intermediately pivoted lever mounted therein, a bar pivoted at one end to the lever, a resetting lever pivoted within the casing, a latch arm pivoted at the free end of the resetting lever and adapted to engage the other end of the bar, and a valve adapted to be held seated by the bar, and an operating device adapted to engage a projection on the trackway and operate said resetting lever.

5. The combination, with a valve, of a bar for holding it seated, a pivoted lever, a hook on the end of the lever adapted to catch and engage the bar, a spring acting on the lever to hold the valve seated, and means adapted to be engaged and operated by a projection on the trackway for moving the lever in the opposite direction.

[Claims 6 to 36 not printed in the Gazette.]

1,142,886. AUTOMATIC STOP OR CAB SIGNAL DEVICE. ELMER M. JONES, Atlanta, Ga., assignor to Jones Signal System Company, Atlanta, Ga., a Corporation of Georgia. Filed Apr. 8, 1912, Serial No. 689,211. Renewed Nov. 13, 1914. Serial No. 872,052. (Cl. 246—59.)



1. The combination with vehicle mechanism for initiating a danger indication and mechanism for counteracting such indication before it becomes effective, of a device for normally acting on the initiating mechanism and clearing the counter-acting mechanism, said device being movable into position where it acts on both mechanisms.

2. The combination with a vehicle device adapted to initiate the application of a danger indication, and a vehicle device to prevent such application being effective, of a normally stationary ramp, adapted to normally engage the initiating mechanism and clear the preventing mechanism, and means for moving said ramp into position where it engages both mechanisms.

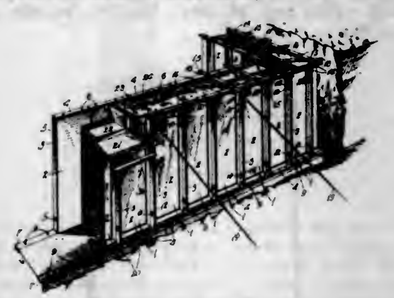
3. The combination with an air valve on a moving vehicle of a movable member that will open the same, a movable member adapted to close the same, a ramp normally acting on the opening mechanism and clearing the closing mechanism, and means for moving said ramp into position where it acts on both mechanisms.

4. The combination with applying and counter-acting means on a vehicle of a ramp composed of a pair of bars hinged together, means holding said ramp normally stationary and in the path of the applying means, and means for swinging one of the bars to change the peak of the ramp and bring it into the path of the counteracting means.

5. The combination with initiating and counteracting means on a vehicle of a ramp for operating the same, said ramp being normally stationary and clearing the counteracting means but engaging the applying means, means for moving the ramp into a position to engage both means, and means for enabling the ramp to be displaced by an obstruction on the vehicle, and to automatically return to position thereafter.

[Claims 6 to 29 not printed in the Gazette.]

1,142,887. MOLD FOR CONCRETE BASEMENT-WALLS. JAMES W. KEENAN, Detroit, Mich. Filed July 11, 1913. Serial No. 778,433. (Cl. 25—131.)



1. In a mold for concrete basement walls, the combination of parallel mold walls each comprising a series of rectangular mold sections, placed edge to edge in a vertical position and having the meeting edges thereof connected, one of said walls having a plurality of short sections, means for detachably securing the several short sections to the mold sections, means for holding the walls spaced apart at their upper end, a footing having means for holding the walls spaced apart at their lower ends, a window frame opposite the short sections, curved strips connecting said frame and the adjacent section at each side of the short sections, and filler plates suspended from the upper edge of the outer mold wall and adapted to form a continuous ledge throughout the length of the molded wall.

2. In a mold for concrete basement walls, the combination of parallel mold walls each comprising a series of rectangular mold sections placed edge to edge in a vertical position, and having the meeting edges thereof connected, one of said walls having a plurality of short sections, means for detachably securing the several short sections to the mold sections, means for holding the walls spaced apart at their upper ends, a footing having means for holding the walls spaced apart at their lower ends, a window frame opposite the short sections, and curved strips connecting said frame and the adjacent sections at each side of the short sections.

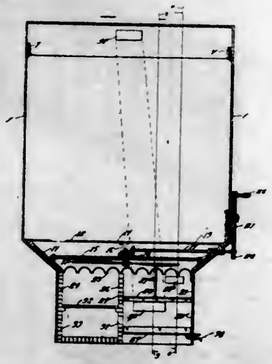
3. In a mold for concrete basement walls the combination of parallel mold walls each comprising a series of rectangular sections set upon end with their sides in contact, means for detachably securing the adjacent edges of the sections together, means for spacing the upper ends of the walls apart, a footing, means on the footing for engaging and spacing the lower ends of the walls apart, a filler plate opposite the upper end of each section forming one of the mold walls and spaced from the inner face of said wall to form a continuous offset throughout the length of the concrete wall for an exterior finishing structure for the wall, means for detachably securing the filler plates in place.

4. In a mold for concrete basement walls, the combination of spaced parallel mold walls each comprising a series of rectangular sections set on end, means for detachably securing the edges of the sections together, means for spacing the upper ends of the walls apart, means for holding the lower ends of the walls in spaced relation, a series of filler plates opposite the upper ends of the several sections forming one mold wall and adapted to form a continuous offset throughout the length of a molded wall, each plate being bent at its lower end to form a flange to engage the inner side of the adjacent mold wall and space said plate therefrom, and means for detachably securing the upper ends of the plates to the sections.

5. In a mold for concrete walls, a plurality of articulated panel sections, and a series of filler plates having the upper edges thereof flanged and suspended from the upper edges of said sections and against the inner walls thereof to form a continuous ledge throughout the length of a molded wall.

[Claims 6 and 7 not printed in the Gazette.]

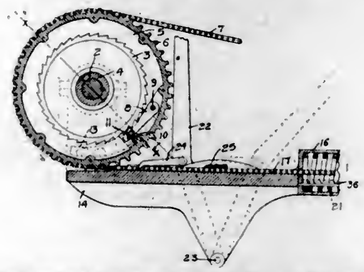
1,142,888. CLOTHES-DRIER. AUGUST KINZELT, Lind, Wash. Filed Sept. 28, 1914. Serial No. 863,898. (Cl. 34—19.)



1. In a clothes drier, a dry room provided with a screen floor, clothes supporting means within said dry room, a fan disposed below said screen floor, a fire box below said fan, a smoke chamber adjacent to and communicating with said fire box, a radiator extending along the top of said fire box and smoke chamber, a condensation chamber partitioned off from said smoke chamber, a passageway connecting said dry room and said condensation chamber, a passageway connecting said condensation chamber and fire box and a chimney in said smoke room.

2. In a clothes drier, a dry room provided with a screen floor, movable clothes supporting means within said dry room, a fire box, a smoke chamber adjacent thereto and connected therewith, a radiator extending along the top of said fire box and smoke chamber, a condensation chamber partitioned off from said smoke chamber, a drip pan, provided with a faucet, disposed in said condensation chamber, a passageway connecting said dry room and condensation chamber, a passageway connecting said condensation chamber and fire box, a chimney in said smoke chamber and manually operable means disposed between said fire box and screen floor for forcing the gases within said dry room out through the passageway communicating therewith.

1,142,889. STARTING DEVICE FOR GAS-ENGINES. ROLAND WELTON KNAPP, Minneapolis, Minn. Filed Mar. 31, 1910. Serial No. 552,658. (Cl. 185—39.)



1. The combination, with an explosion engine shaft, of a plunger having a driving connection with said shaft, a spring arranged to be put under tension by the movement of said plunger in one direction, a step by step mechanism for operating said plunger, means for locking said plunger at each successive step, and means for tripping said locking means.

2. The combination, with an explosion engine shaft, of a plunger having a driving connection with said shaft, a spring arranged to be put under tension by the movement of said plunger in one direction, means for moving said plunger to set said spring, means for locking said plunger at any point in its movement, and means for tripping said locking means.

3. The combination, with an explosion engine shaft, of a plunger having a driving connection with said shaft, a spring arranged to be put under tension by the movement of said plunger in one direction, means for moving said plunger to set said spring, means for locking said plunger at any point in its stroke, said locking means comprising a rack bar, a spring pressed tilting frame, a spring pressed dog carried by said frame and adapted to engage the teeth of said rack bar, and means preventing the premature disengagement of said dog from said teeth.

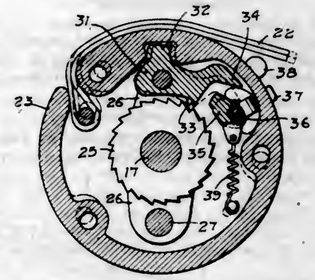
4. The combination, with an explosion engine shaft, of a plunger having a clutch connection with said shaft, a spring arranged to be put under tension by the movement of said plunger in one direction, means for moving said plunger to set said spring, a locking mechanism for holding said plunger at any point in its stroke, said locking mechanism including a tilting frame, a rack bar, a dog carried by said frame and adapted to engage the teeth of said rack bar, and means slidably mounted on said frame and adapted to hold said dog in engagement with the teeth of said bar or allow said frame to tilt and permit the disengagement of said dog from said bar.

5. The combination, with an explosion engine shaft, of a plunger having a driving connection with said shaft, a cylinder for said plunger, a spring arranged to be put under compression by the movement of said plunger in one direction, a rack bar mounted in said cylinder, means for moving said plunger to compress said spring, a locking mechanism carried by said plunger and having a dog to engage the teeth of said rack bar and lock said plunger at any point in its stroke, and means for tripping said dog to release said plunger.

[Claims 6 to 13 not printed in the Gazette.]

1,142,890. STARTING DEVICE FOR GAS-ENGINES. ROLAND W. KNAPP, Minneapolis, Minn. Filed Nov. 11, 1911, Serial No. 659,749. Renewed Oct. 4, 1913. Serial No. 793,483. (Cl. 185—41.)

1. The combination, with an explosion engine shaft and a ratchet secured thereon, of a drum loosely mounted on said shaft, a starting mechanism, flexible means connecting said starting mechanism with said drum, a dog carried by said drum and adapted to engage the teeth of said ratchet wheel, a gear mechanism, including a clutch, operatively connecting said drum with said shaft and becoming operative after a predetermined number of revolutions of said shaft to re-wind said flexible means on said drum and re-set said starting mechanism, and means within control of the operator for timing the setting of said clutch and the operation of said gear mechanism.



2. The combination, with an explosion engine shaft, of a loosely mounted drum having a ratchet connection with said shaft, a starting mechanism having a flexible connection with said drum, said starting mechanism including a releasing device and an operating lever therefor, a gear mechanism, including a clutch, connecting said drum with said shaft and becoming operative after a predetermined number of revolutions of said shaft to re-wind said flexible connections on said drum and re-set said starting mechanism, and means connected with said releasing lever for timing the setting of said clutch and the operation of said gear mechanism.

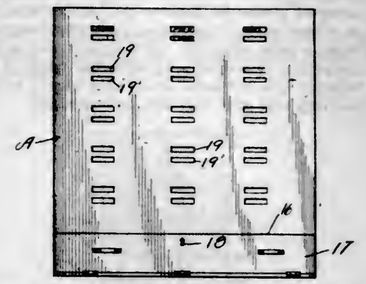
3. The combination, with an explosion engine shaft, of a loosely mounted drum having a ratchet connection with said shaft, a starting mechanism, flexible means connecting said starting mechanism with said drum, locking means for said starting mechanism, a lever connected with said locking means, a gear mechanism, including a clutch, connecting said drum with said shaft, said gear mechanism normally becoming operative after a predetermined number of revolutions of said shaft to re-wind said flexible connection on said drum, and re-set said starting mechanism, and means connected with said releasing lever for delaying the setting of said clutch and the operation of said gear mechanism, said delaying means becoming operative when said lever is set to release said starting mechanism and allowing said clutch to become set when said lever is returned to its normal locking position.

4. The combination, with an explosion engine shaft, of a drum having a ratchet connection with said shaft, a starting mechanism, flexible means connecting said starting mechanism with said drum, a gear mechanism connecting said drum and shaft and having a clutch, means actuated by the revolution of said drum for positively disengaging said clutch or allowing it to become set to drive said drum from said shaft, said means including a loosely mounted disk having a curved slot therein and a peripheral lug, pins mounted in said drum and projecting into said slot and means in the path of said lug and connected with one of said clutch members to set or release said clutch at predetermined intervals.

5. The combination, with an explosion engine shaft, of a starting mechanism, a drum loosely mounted on said shaft and having a clutch connection with said shaft, and a flexible connection with said starting mechanism, said clutch connection becoming operative after a predetermined number of revolutions of said shaft to rewind said flexible connection on said drum and reset said starting mechanism, and means within control of the operator for timing the operation of said clutch.

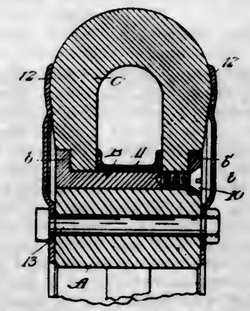
[Claims 6 to 8 not printed in the Gazette.]

1,142,891. COLLECTION DEVICE. FRANK W. LANCASTER, Jacksonville, Fla. Filed Nov. 16, 1914. Serial No. 872,471. (Cl. 194—1.)



A device of the class described comprising a casing having its front wall provided with a plurality of pairs of slots, a plate pivoted adjacent the slots of each pair and normally held in covering relation to one slot, and means operable by the insertion of a coin in the other slot to release the plate for movement to covering relation with respect to both slots.

1,142,892. RESILIENT TIRE. ABRAHAM B. LANDIS, Enfield, Pa. Filed Sept. 7, 1911. Serial No. 648,236. (Cl. 152—1.)



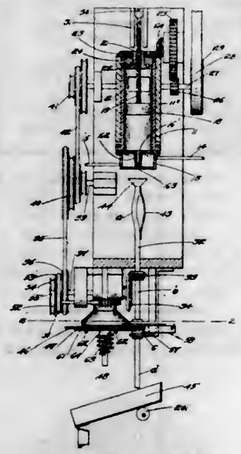
1. A resilient tire comprising a flexible shoe of an inverted U-shaped in cross-section, means for clamping the edges of the two sides of said shoe securely to the rim of the wheel at points adjacent to the respective edges thereof, and means for supporting said shoe consisting of a pair of steel rings secured respectively to the sides of the rim of the wheel and extending outwardly with their ends shaped to fit against the sides of said shoe at a point intermediate between its connection with the rim and the tread thereof, substantially as set forth.

2. A resilient tire for wheels comprising a flexible shoe U-shaped in cross section adapted to be secured to the rim of the wheel with its edges in line with the outer edges of said rim, and means for supporting said tire comprising a pair of steel rings secured to the sides of said rim below the secured edges of said tire and projecting outwardly and bearing against the respective sides of said tire at a point on each side intermediate its inner secured edges and its tread, substantially as set forth.

1,142,893. CANDY-MAKING MACHINE. WILLIAM B. LASKEY, Marblehead, Mass. Filed Apr. 5, 1912. Serial No. 688,610. (Cl. 107—14.)

1. In a candy-forming machine, the combination with a candy-receiving cylinder provided with a discharge nozzle, and means for heating said nozzle so that the candy will be heated only at or near its point of discharge, of a screw-operated piston for forcing the candy through said nozzle, a rotary nut for imparting a feeding movement to said piston, a gear wheel for rotating said nut, and a driving shaft operatively connected with said gear wheel.

2. In a candy-forming machine, the combination with a candy-receiving cylinder provided with a discharge nozzle, and means for heating said nozzle so that the candy will be heated only at or near its point of discharge, of a screw-operated piston for forcing the candy through said nozzle, a rotary nut for imparting a feeding movement to said piston, a gear wheel for rotating said nut, a driving shaft operatively connected with said gear wheel, a rotary offset twisting tube arranged below said nozzle, and gearing connecting said tube with said driving shaft.



3. In a candy-forming machine, the combination with a candy-receiving cylinder provided with a discharge nozzle, and means for heating said nozzle so that the candy will be heated only at or near its point of discharge, of a screw-operated piston for forcing the candy through said nozzle, a rotary nut for imparting a feeding movement to said piston, a gear wheel for rotating said nut, a driving shaft operatively connected with said gear wheel, a rotary offset twisting tube arranged below said nozzle, gearing connecting said tube with said driving shaft, and means for varying the speed of rotation of said twisting tube with relation to the speed of rotation of said driving shaft and consequently with relation to the speed of travel of said piston.

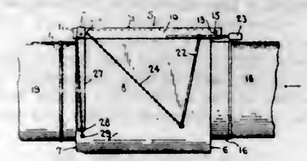
4. In a candy forming machine, the combination with a candy-receiving cylinder, of a heating jacket closing the discharge end of said cylinder and against which the candy in the said discharge end will come in contact, a forming nozzle surrounded throughout its length by said jacket, so that the candy will be heated at the discharge end only of said cylinder, and means for forcing the candy from the chamber of said cylinder through said nozzle.

5. In a candy forming machine, the combination with a candy-receiving cylinder, of a heating jacket closing the discharge end of said cylinder and against which the candy in the said discharge end will come in contact, a forming nozzle surrounded throughout its length by said jacket, so that the candy will be heated at the discharge end only of said cylinder, means for forcing the candy from the chamber of said cylinder through said nozzle, and means for twisting the candy after it emerges from said nozzle.

[Claims 6 to 8 not printed in the Gazette.]

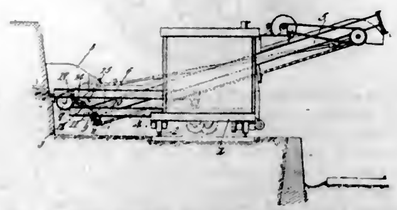
1,142,894. DAMPER. FRANK D. LEIGHTON and FRANK H. DRAKE, Manchester, N. H. Filed June 24, 1914. Serial No. 846,952. (Cl. 126—285.)

A device of the type described, including a container arranged to be sandwiched between the sections of a heater smoke-pipe, a damper suspended at one edge within said container, for controlling the products of combustion receiving end of said container, suspending means for said damper bearing laterally in said container, said damper suspending means being equipped with an end-weighted bell-crank, a flexible member connected to said bell-crank oppositely its weighted end, a claw-like member, and a rotary guiding member, said flexible member being passed



over said rotary guiding member and engaged by said claw-like member, said damper, suspending means and bell-crank all having fixed relation for simultaneous movement.

1,142,895. COKE-CONVEYER. DANIEL F. LEPLEY, Connellsville, Pa. Filed Sept. 18, 1914. Serial No. 862,392. (Cl. 83—56.)



1. In a coke conveying apparatus, the combination with a conveying mechanism, of a carriage movable relative to said mechanism, a delivering element upon the carriage, and a screen formed of hingedly connected sections for directing coke by gravity from the delivering element to the conveying mechanism, said screen being adapted to adjust itself to varying distances between the delivering element and the conveying mechanism.

2. A coke conveyer including conveying mechanism, a delivering element shiftable bodily relative to said mechanism, and a screen formed of hingedly connected sections interposed between and automatically adjustable to varying distances between said element and mechanism for directing coke by gravity from the delivering element to the conveying mechanism.

3. A coke conveyer including conveying mechanism, a supporting structure extending therebeyond, a carriage movable on said structure, a delivering element shiftable relative to the conveying mechanism and with the carriage, and a foldable screen interposed between said delivering element and the conveying mechanism and constituting means for directing coke from said element to the conveying mechanism, said screen being adapted to buckle when the carriage is advanced toward the conveying mechanism.

4. A coke conveyer including conveying mechanism, a delivering element shiftable bodily relative to said conveying mechanism, a screen including hingedly connected upper and lower sections interposed between said delivering element and the conveying mechanism, the upper section of the screen being hingedly mounted at its upper end, and means for movably supporting the lower end of the lower section of the screen adjacent the conveying mechanism.

5. A coke conveyer including conveying mechanism, a carriage shiftable relative thereto, a delivering element mounted on the carriage, a screen consisting of hingedly connected upper and lower sections interposed between the delivering element and the conveying mechanism, a hinge connection between the upper section of the screen and the carriage, the lower section of the screen being movably mounted adjacent the conveying mechanism, said carriage, when shifted relative to the conveying mechanism, constituting means for folding and for unfolding the screen.

[Claims 6 to 9 not printed in the Gazette.]

1,142,896. AUTOMATIC FIREARM. ISAAC N. LEWIS, New York, N. Y., assignor to The Automatic Arms Company, Buffalo, N. Y., a Corporation of New York. Filed Apr. 16, 1912. Serial No. 691,135. (Cl. 42—3.)



1. In a gas operated gun, the combination of the gun barrel, a cylinder paralleling it, a rotary reciprocating breech bolt, a gas-driven piston in said cylinder whose rod carries the firing pin the post of which operatively engages the breech bolt, and a single spring mounted at the rear of the gas cylinder and gun barrel and connected to the piston rod for driving the entire mechanism.

2. In a gas operated gun, the combination of a rotary reciprocating breech bolt, a gas-driven piston whose rod carries the firing pin the post of which operatively engages the breech bolt, and a convolute spring operatively connected to said piston for driving all said parts and located in a readily removable manner at the rear of the gun barrel for the purpose set forth.

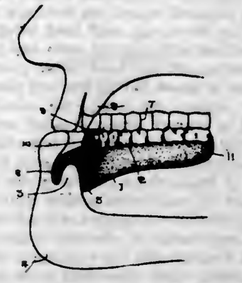
3. In a gas-operated gun, the combination of a receiver and a gas-driven piston, a cylinder for said piston paralleling the gun barrel, a readily detachable convolute spring mounted on said receiver, an operating connection between the piston and spring whereby the spring may be put under tension, a casing located at the rear of said cylinder and barrel out of the zone of damaging heat and containing said spring and detachably connected to the receiver for ready removal, and feeding and firing mechanism driven by said spring.

4. In a gas-operated gun, the combination of the receiver and the gas-driven piston, a cylinder for said piston paralleling the gun barrel, a convolute spring detachably connected to said piston, a casing containing said spring and detachably connected to the exterior of the receiver at the rear of said cylinder and barrel whereby the spring may be out of the zone of damaging heat and whereby a new spring may be readily substituted for a defective one, and firing mechanism driven by said spring.

5. In a gas-operated gun, the combination with the receiver and gas-operated piston, of a removable spring casing, a spring-containing drum within said casing for operating the firing mechanism, and an interengaging driving connection between said drum and piston said interengagement automatically effected in the act of attaching the said casing to the receiver.

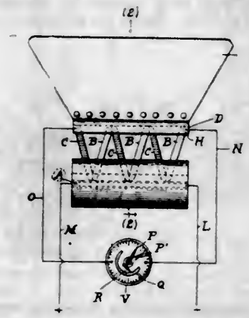
[Claims 6 to 15 not printed in the Gazette.]

1,142,897. ARTIFICIAL TEETH. ALBERT F. LIBBEY, Old Orchard, Me. Filed June 17, 1914. Serial No. 845,677. (Cl. 32—4.)



The combination of a plate having an inner and outer depending flange, and a plurality of teeth mounted in said plate, the front teeth of which being directly disposed vertically above the said inner flange and offset and to the rear of the front teeth in the upper jaw, adapted, when in engagement with the said upper jaw teeth, to transfer the pressure to said inner flange.

1,142,898. THERMO-ELECTRIC AMMETER. PAUL M. LINCOLN, Pittsburgh, Pa. Filed Feb. 12, 1913. Serial No. 748,035. (Cl. 171—95.)



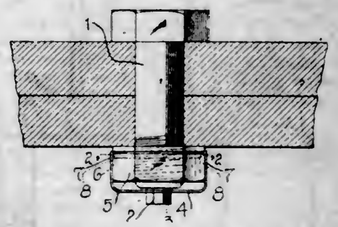
1. An electric current meter comprising an element heated by the current to be measured, a heat absorber a radiator connected thereto, a thermo-couple with terminals in thermal contact respectively with said heating element and radiator, and an indicator of voltage in circuit with said thermo-couple.

2. An ammeter comprising a heating conductor, a large heat reservoir surrounding the conductor, a thermo-battery with its hot ends embraced by said conductor, a heat radiator attached to the cold ends of the thermo-battery, and a volt meter operated by said thermo-battery, substantially as described.

3. In an ammeter, the combination with a voltmeter, of a thermo couple of a heating element for exciting said thermo-couple, and a heat reservoir surrounding said heating element, and insulated therefrom.

4. The combination with a thermo-electric generator operated by heat produced by a current to be measured, of a heat absorber thereon adapted to suppress effect of temporary variations of current, and a connected voltmeter having a device to indicate the maximum reading of the thermo battery, substantially as described.

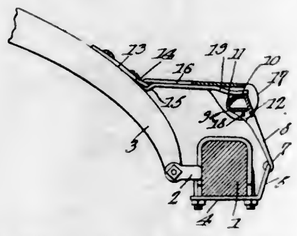
1,142,899. NUT-LOCK. LEWIS A. LINES, Perry, N. Y. Filed June 27, 1914. Serial No. 847,711. (Cl. 151—29.)



In combination with a bolt having a reduced angular extension at its outer end, and a nut having an inwardly and rearwardly extending groove formed in its outer periphery adjacent its forward edge and at an acute angle to said outer periphery, of a spring metal locking plate having an angular central opening therein to receive the extension of the bolt therethrough, said plate having forwardly extending arms at its opposite ends for engagement against opposite faces of the nut, the extremities of said arms having inwardly and rearwardly extending acutely angled flanges formed thereon for engagement in the groove in the nut, and said arms being of a greater length than the thickness of the nut, whereby the arms

may be forced forwardly of the nut to thereby cause the inner face of the groove to exert an outward wedging action on said angled flanges whereby to remove the flanges from engagement with said groove.

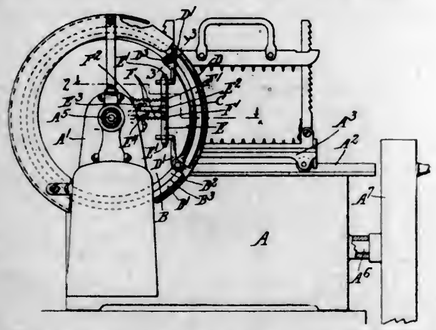
1,142,900. THILL-SUPPORT. ALFRED H. LOFLAND and CHARLES H. DAVIDSON, Milton, Del.; Mary E. Davidson administratrix of said Charles H. Davidson, deceased. Filed June 24, 1914. Serial No. 847,095. (Cl. 21—108.)



1. A thill support including pivotally connected upper and lower members, said lower member having an angular head, a spring carried by the upper member and bearing against the angular head for holding the members in either of two angular positions, means for pivotally connecting the lower member to the axle, and means for pivotally connecting the upper member to the thill.

2. A thill support including a lower member having an angular head at one end, means for pivotally connecting the other end of the member to the axle of a vehicle, said member having longitudinal flanges along the sides thereof and lapping the head, an upper member consisting of an elongated strip folded upon itself to form an eye, flanges at one end of the strip and lapping and pivotally connected to the flanges of the other strip, the other end of the said folded strip forming a spring constantly bearing against the head to hold the members in either of two angular positions, and means engaging the eye of the folded strip for securing it to a thill.

1,142,901. MEAT-SLICER. JOHN I. MCCORMICK, Chicago, Ill., assignor to American Slicing Machine Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 24, 1911. Serial No. 616,586. (Cl. 17—24.)



1. A meat slicer comprising a rotary cutting knife and an adjustable normally fixed blade in contact therewith, located adjacent and substantially concentric with the cutting edge and interposed between it and the center of the knife.

2. A meat slicer comprising a rotary recessed cutting knife and an adjustable normally fixed blade in contact with said knife and in engagement with the recess therein.

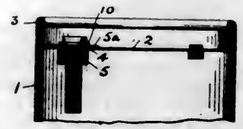
3. A deflector for meat slicing machines, comprising a bracket, an arm pivotally mounted thereon, a spacing rod carried by said arm, arms adjustably mounted upon said rod and a deflecting blade adjustably mounted upon said arms in contact with the knife.

4. A deflector for meat slicing machines, comprising a bracket, an arm pivotally mounted thereon, a spacing rod carried by said arm, arms adjustably mounted upon said rod and a deflecting blade adjustably mounted upon said arms in opposition to the knife, elastic means for holding said blade in contact with said knife.

5. A deflector for meat slicing machines comprising a bracket, an arm pivotally mounted thereon, a spacing rod carried by said arm, arms adjustably mounted upon said rod and a deflecting blade adjustably mounted upon said arms in opposition to the knife, elastic means for holding said blade in contact with said knife, and means for limiting the excursion of said blade.

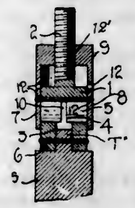
[Claims 6 to 18 not printed in the Gazette.]

1,142,902. SAFETY-BUNG. WILLIAM H. MCNUTT, New York, N. Y., assignor to Carrie Emma Owen, Franklin, N. Y. Filed Aug. 8, 1913. Serial No. 783,668. (Cl. 220—121.)



In a safety closure for containers, a bushing, a sleeve of fusible material forming a lining for the bushing, a valve seated directly on the sleeve and having a stem extending through the bore of the sleeve, and a spring having one end connected with the valve stem and the other end confined by the said sleeve whereby the melting of the sleeve will release the spring and valve to be expelled by the internal pressure in the container.

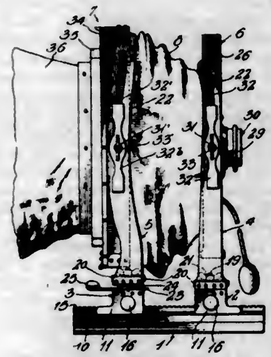
1,142,903. FELLY-TIGHTENER. EARNEST MILLER, Kokomo, Ind. Filed Apr. 1, 1914. Serial No. 828,845. (Cl. 21—173.)



1. A felly tightener comprising a head provided with a longitudinally disposed socket and having a screw-threaded shank projecting therefrom, said head being also provided with alined orifices adjacent the open end thereof, the intermediate portion of the head being provided with intersecting slots, a sleeve having one end closed adapted to telescopically engage the head, the closed end of the sleeve having a central screw-threaded opening adapted to be adjustably mounted upon the screw-threaded shank, said sleeve having alined orifices adapted to register with the slots in the head, and a pin insertible through a slot of the head and the registering orifices in the sleeve.

2. A felly tightener comprising a head provided in one end with a longitudinally disposed socket, intersecting slots disposed through the head adjacent the base of the socket, a threaded shank projecting from the head, a nut in threaded engagement with the shank and having arms, overlying the head, said arms being provided with alined orifices, and locking means adapted to be inserted through the orifices in the arms and a slot of the head.

1,142,904. CAMERA. ISAAC V. MORRELL, Elgin, Ill., assignor of one-fourth to J. Otty Morrell, Montreal, Quebec, Canada. Filed Aug. 31, 1914. Serial No. 859,482. (Cl. 95—50.)



1. In a camera, a base, a lens support mounted on said base, a plate support likewise mounted thereon, said supports being mounted for vertical adjustment and to swing on vertical and horizontal axes, and a bellows connected to said supports.

2. In a camera, a base, a lens support mounted on said base, a plate support likewise mounted thereon, the two supports being independently adjustable transversely whereby the same may be moved out of alinement, and a bellows connected to said supports.

3. In a camera, a base, a longitudinally and transversely adjustable lens support mounted on said base, a longitudinally and transversely adjustable plate support likewise mounted thereon, and a bellows connected to said supports.

4. In a camera, a base, a longitudinally and transversely adjustable lens support mounted on said base to swing upon vertical and horizontal axes, a longitudinally and transversely adjustable plate support likewise mounted on said base to swing upon vertical and horizontal axes, and a bellows connected to said supports.

5. In a camera, a base, a vertically, longitudinally and transversely adjustable lens support mounted on said base to swing in vertical and horizontal planes, a vertically longitudinally and transversely adjustable plate support likewise mounted on said base to swing in vertical and horizontal planes, and a bellows connected to said supports.

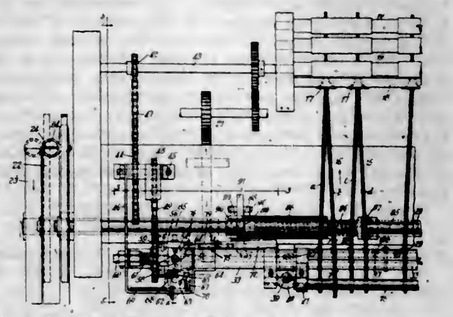
[Claims 6 to 9 not printed in the Gazette.]

1,142,905. TIRE-CASING. WILLIS G. MORRIS, Morrill, Nebr. Filed July 12, 1913. Serial No. 778,681. (Cl. 152—17.)



A tire casing comprising; a plurality of sections, U-shaped in cross section, and curved longitudinally to form a portion of a circle, a chamber formed in one end of each section having side walls, a tongue formed in the opposite end having side edges parallel with, but offset from the side edges of the section, said tongue adapted to snugly seat in the chamber of a neighboring section for longitudinal movement, the side edges of the tongue engaging the side walls of the chamber to prevent lateral displacement of the tongue during longitudinal movement, and resilient means connecting the sections adjacent the corners thereof.

1,142,906. STOP MECHANISM. JEREMIAH ALTON PAIGE, Boston, Mass., assignor to Alfred A. Ziegler, trustee, Boston, Mass. Filed July 25, 1912. Serial No. 711,380. (Cl. 118—17.)



1. A device of the class described having, in combination, mechanism adapted to feed a strand, a rotatable feeler bar having varying outside dimensions in the same transverse plane, a relatively stationary member, a detector normally sustained by said strand and adapted, upon the breaking thereof, to drop in a tangential path relatively to said rotatable feeler bar between said stationary member and the smaller portion of said rotatable feeler bar and engaging said feeler bar, to stop the rotation of said bar, and normally inactive means rendered active by the stopping of said rotatable feeler bar adapted to discontinue the movement of said strand feeding mechanism.

2. A device of the class described having, in combination, a rotatable feeler bar provided with a flat face disposed substantially at right angles to a radial line extending from the axis of said feeler bar to the nearest point in said face to said axis, means adapted to impart a rotary motion to said bar, a stationary member, a detector normally sustained by a strand, adapted, upon being released by said strand, to drop between said flat face and said stationary member and stop the rotation of said bar, with said flat face substantially parallel with said stationary member, and normally inactive means rendered active by a continued movement of said rotating means relatively to said bar.

3. A device of the class described having, in combination, a tubular support, a feeler bar journaled to rotate in said support, said feeler bar being provided with a flat face, a plurality of detectors mounted to slide on said support transversely of the medium axial line of said bar, and normally sustained by strands, said detectors adapted, upon the breaking of said strands, to drop between and engage said flat face and a portion of said support to stop the rotation of said feeler bar, means adapted to rotate said feeler bar and normally inactive actuating means on said bar adapted to be operated by the movement of said feeler bar rotating means relatively to said feeler bar.

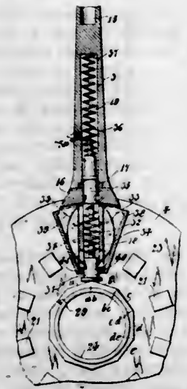
4. A device of the class described having, in combination, a stationary support, a feeler bar rotatably mounted on said support, and provided with an irregular periphery, said feeler bar being adapted, upon the rotation thereof, to increase and diminish the direct radial distance between said periphery and one wall of said support, a detector adapted to be moved vertically between said wall and said bar, and substantially equal in width at one portion thereof to the greatest space obtainable between said wall and the adjacent portion of the periphery of said bar, said detector being normally sustained by a strand and adapted, upon the breaking of said strand, to drop into position to occupy said greatest space to stop the rotation of said bar, means adapted to impart a rotary motion to said feeler bar, and normally inactive means on said bar rendered operable by the continued movement of said rotating means while said bar remains inactive.

5. A device of the class described having, in combination, mechanism adapted to feed strands, a tubular sup-

port, a shaft journaled to rotate in said support, and provided with a plurality of flat faces, means to rotate said shaft through frictional contact therewith, a plurality of detectors carried by said support provided with guides for said strands, said detectors also comprising inclined surfaces adapted to engage said support and to sustain said detectors during the feeding of said strands through said guides, said inclined surfaces adapted, upon the breakage of said strands, to permit said detectors to engage said support and one of the faces on said shaft and to stop the rotation of said shaft, and means on said shaft adapted to be operated by the continued movement of said frictional driving means relatively to said shaft, to discontinue the movement of said strand feeding mechanism.

[Claims 6 to 18 not printed in the Gazette.]

1,142,907. RESILIENT WHEEL. GUST P. PAPPADAKES, New York, N. Y. Filed Nov. 16, 1914. Serial No. 872,351. (Cl. 152—28.)



1. A wheel of the class described having a felly, spokes connected thereto, a floating hub, and means between said hub and spokes to permit a relative movement between the hub and the felly of the wheel, said means comprising a resistance plug seated on the hub and a sliding plug cooperating with said resistance plug, said sliding plug being located in an opening in a spoke, there being located between each sliding plug and its coöperating resistance plug a coil spring and two bow-shaped springs that are located on opposite sides of the coil spring, the ends of all of said springs being in engagement with the plugs between which they are located.

2. A wheel of the class described having a felly, spokes connected thereto, a floating hub, and means between each of said spokes and said hub, whereby the relative movement can take place between the hub and the felly, said means comprising a plug that engages a portion of the hub, a coil spring and two bow-shaped springs that engage said plug, and which springs also engage a plug slidably mounted in a spoke, and a second coil spring coacting with said slidable plug.

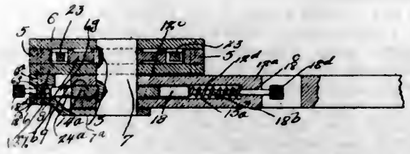
3. A wheel of the class described having a felly, a spoke construction connected thereto, a floating hub, and means between said spokes and said hub whereby a relative movement can take place between the hub and the felly, said means comprising a resistance plug that engages a portion of the hub, a coil spring, and two bow-shaped springs that engage said plug, and which springs also engage a plug slidably mounted, a compression spring engaging said last-mentioned plug, the outer end of said spring being seated within a spoke; there being also provided two wing members which are engaged by the bow-shaped springs whereby, when the bow of the said springs is increased as due to the load being carried by the wheel, the force received by the said wing members from said springs will in turn be transmitted to other similar adjacent wing members and springs.

4. A wheel of the class described having a felly, spokes connected thereto, a hub having flanges between which the spokes are slidably connected, each of said spokes being provided with a compression spring that is bodily movable, a slidable plug engaged by said compression spring and another compression spring which operates in conjunction with said slidable plug, there also being comprised within the wheel and coöperating with said slidable plug, bow-shaped springs which press against yielding wing members, whereby the force received by said wing members from said bow-shaped springs will be transmitted at least partially around the hub of the wheel.

5. A wheel having a felly, spoke construction connected thereto, a hub yieldably connected to the spoke construction so that the hub, spokes and felly will rotate together; movable resistance plugs resting on the hub, slidable plugs mounted in the spoke construction, bow-shaped springs engaging said plugs, and spring means mounted in the spoke construction and arranged to coöperate with the slidable plugs, the construction and arrangement of the parts being such that any thrust imparted to the slidable plugs in the spoke construction will be transmitted, in part at least, for a distance about the hub of the wheel by at least a part of said bow-shaped springs.

[Claims 6 and 7 not printed in the Gazette.]

1,142,908. WIRE-STRETCHING MACHINE. EUGENE PREATOR, Burlington, Wyo. Filed Aug. 8, 1914. Serial No. 855,778. (Cl. 254—161.)



1. In a device as set forth, a frame comprising a bar having a hook at one end, and curved forks at the other end, a connection between the hook including a clamp and a wire to be stretched, a pair of plates fixed upon opposite faces of the curved forks, a sprocket wheel mounted between said plates, a shaft mounted in the plates and on which shaft the sprocket wheel is keyed, a cranking member on one end of the shaft, a toothed wheel keyed to the other end of the shaft, means to coöperate with the toothed wheel so that it may be rotated in one direction or the other and prevented from rotation in an opposite direction and vice versa, and connections between the sprocket wheel and an anchoring member.

2. In a device as set forth, a frame comprising a bar having an eye at one end, and curved forks at the other end, a connection between the eye including a clamp and the wire to be stretched, a pair of plates fixed upon opposite faces of said forks, a sprocket wheel mounted between said plates, a shaft mounted in the plates and on which shaft the sprocket wheel is keyed, an L-shaped plate mounted upon one face of one of the plates, and having a bearing in which one end of said shaft is mounted, a lever loosely mounted upon the shaft between the L-shaped plate and the adjacent plate, said lever having a forked end which is loosely mounted on the shaft, a toothed wheel on the shaft between the forks, reversible means carried by the lever to engage the toothed wheel, whereby an intermittent motion may be imparted to the toothed wheel and shaft in one direction or the other, and reversible means carried by the L-shaped plate to prevent retrogression of the toothed wheel, and connections between the sprocket wheel and an anchoring member.

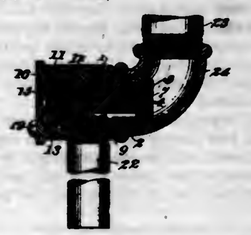
1,142,909. ANTISKIDDING DEVICE. ALEXANDER PURDIE, Wyandotte, Mich. Filed May 8, 1913. Serial No. 766,256. (Cl. 152—14.)

In an anti-skidding device, a series of tread sections, each formed of rectangular links having rectangular openings, each link having a tongue at one end thereof with the upper side of said tongue provided with a transverse groove adjacent the end wall of the link to receive the opposite end wall of a companion link, spuds at the juncture of the tongues and end walls of the links and having



compound curved crest and walls gradually merging into the tongues and body portion of the links, and the spuds of some links being disposed at an inclination reverse to that of other links.

1,142,910. FLOAT-OPERATED VALVE. GEORGE E. PUTNAM, New York, N. Y. Filed Dec. 21, 1914. Serial No. 878,875. (Cl. 137—104.)



1. A rotary or oscillating disk valve, comprising a casing having an exterior ported valve seat, a complementally ported valve disk applied to said seat on the outside and normally seated by fluid pressure and having a stem extending inwardly through the casing, a collar fitted to turn in the opposite end of the casing, means to connect the collar and said stem so that they will turn together, said collar serving to close that end of the casing in which it is applied, and means applied to the collar and adapted to turn it, said casing provided with means for connecting it with a fluid supply whereby the valve disk is constantly exposed both in its closed and its open position to the pressure of the fluid supply.

2. A rotary or oscillating disk valve, comprising a casing having one end provided with a ported valve seat, a rotary or oscillating collar fitted in the opposite end of the casing and serving to close it, a valve disk applied to the valve seat externally thereof and seated thereon by fluid pressure and complementally ported and having a valve stem extending into the collar at the other end of the casing, means to connect the collar and stem so as to cause them to turn together, a float arm having a head adjustably applied to said collar, and means partly on the casing and partly on the collar for limiting movement of the collar.

3. A rotary or oscillating disk valve, comprising a casing having one end provided with a ported valve seat, a rotary or oscillating collar fitted in the opposite end of the casing and serving to close it, a valve disk applied to the valve seat externally thereof and complemetally ported and normally held to said seat by fluid pressure and having a valve stem extending into the collar at the other end of the casing, means to connect the collar and stem so as to cause them to turn together, a float arm having a head reversibly applied to said collar so as to permit the valve to be used in either a right-hand or a left-hand installation, and means partly on the casing and partly on the collar for limiting the movement of the collar.

4. A rotary or oscillating disk valve, comprising a casing having one end provided with a ported valve seat, a rotary or oscillating collar fitted in the opposite end of the casing and serving to close it, a valve disk applied to the valve seat externally thereof and complemetally ported and having a valve stem extending into the collar at the other end of the casing, means to connect the collar and stem so as to cause them to turn together, a float arm having a head adjustably and reversibly applied to said collar, and means partly on the casing and partly on the collar for limiting the movement of the collar, the reversibility of the float arm head admitting of the use of the valve in either a right-hand or a left-hand installation.

5. A float-operated valve, having a casing provided with a discharge opening and having one end provided with a ported valve seat, and means for connecting the casing with a source of fluid supply, a hubbed collar fitted in the opposite end of the casing and adapted to turn therein, a lug on the casing and a socket in the collar to receive said lug whereby the turning movement of the collar with relation to the casing is limited, a ported valve disk applied to the valve seat and having a stem extending through the casing and entering the collar, means to connect the collar and stem to cause them to turn together, and a float arm applied to the collar.
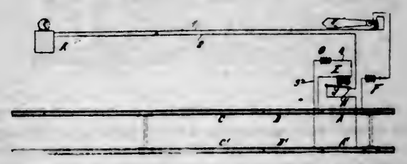
[Claim 6 not printed in the Gazette.]

1,142,911. FOUNTAIN-BRUSH. GEORGE RIDDIFORD, Chicago, Ill. Filed Apr. 7, 1914. Serial No. 830,117. (Cl. 15—51.)



A brush comprising a head having bristles extending therefrom, said head being hollow and provided with water outlet openings, a short length of tubing of flexible and elastic material permanently secured to and communicating with the head at one end and having its other end adapted for connection with a water supply conductor, said tubing being of a length and thickness to be readily grasped in the hand and having just sufficient flexibility and elasticity to readily yield and bend to pressure of the hand in order that the brush may be worked with greater comfort and to readily yield when the bristles are applied to a surface to be cleaned in order to prevent injury to such surface.

1,142,912. ELECTRIC SIGNAL. CHARLES M. SAMGER, Allentown, Pa. Filed Feb. 15, 1915. Serial No. 8,251. (Cl. 246—21.)



1. The combination with a railway block signal system; of a track section at the entrance of the block having its rails insulated from the main block rails, an electric circuit having conductors connected respectively to the rails of said track section, a recording apparatus operatively

connected to the circuit, and a switch in said circuit governed by the condition of the signal device of the block, the circuit being closed at said switch when the signal device indicates "stop."

2. The combination with a railway block signal system; of a track section at the entrance of the block having its rails insulated from the main block rails, an electric circuit having conductors connected respectively to the rails of said track section, a recording apparatus operatively connected to the circuit, and a switch in said circuit governed by the condition of the signal device of the block, the circuit being closed at said switch when the signal device indicates "stop," and means for opening the circuit after a train passes onto the main block rails with a portion of said train remaining on the rails of the aforesaid track section.

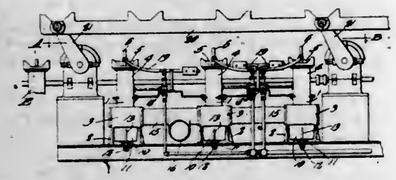
3. The combination with a railway block signal system; of separate track sections at the entrance of the block having their rails insulated from each other and from the main block rails, a main electric circuit having conductors connected respectively to the rails of one of said track sections, a recording apparatus operatively connected to the main circuit, a switch in said circuit governed by the condition of the signal device of the block, the switch being closed when the signal device indicates "stop," and an electrically-operated circuit making and breaking device for the main circuit, said circuit including a current source and conductors connected to the rails of the other track section, said rails being in advance of the rails of the first mentioned track section.

4. The combination with a railway block signal system; of separate track sections at the entrance of the block having their rails insulated from each other and from the main block rails, a main electric circuit having conductors connected respectively to the rails of one of said track sections, a recording apparatus operatively connected to the main circuit, a switch in said circuit governed by the condition of the signal device of the block, the switch being closed when the signal device indicates "stop," and an auxiliary electric circuit including a current source, a relay and conductors connected to the rails of the other track section, said rails being in advance of the rails of the first mentioned track section, said relay controlling the main circuit.

5. The combination with a railway block signal system; of an electric circuit, a recording apparatus operatively connected to the circuit, a switch in said circuit governed by the condition of the signal device of the block, the switch being closed when the signal device indicates "stop," and train-controlled circuit closing means in said circuit at the entrance of the block.

[Claims 6 to 8 not printed in the Gazette.]

1,142,913. APPARATUS FOR INTERIORLY CLEANSING RECEPTACLES. PETER G. SCHMIDT, Olympia, Wash. Filed Mar. 5, 1913, Serial No. 752,202. Renewed May 6, 1915. Serial No. 26,394. (Cl. 34—18.)



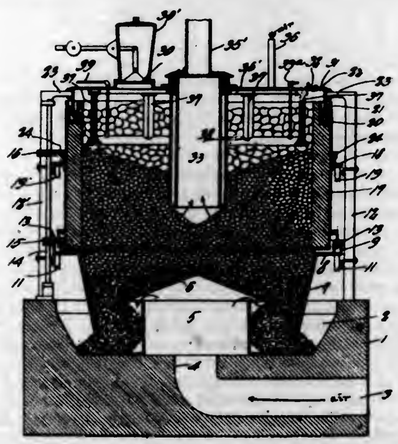
1. Cleaning apparatus including a hollow pedestal open at its lower end and having a drain opening at its upper end, there being means at the upper end of the pedestal for engaging a receptacle to be cleaned, a removable receptacle sealing the lower end of the pedestal and directly under the drain opening to receive heavy substances gravitating through said opening from the engaged receptacle, and means for directing the cleansing fluid from the pedestal at a point above the receptacle.

2. Cleaning apparatus including a hollow pedestal open at its lower end and having a drain opening at its upper end, there being means at the upper end of the pedestal for engaging a receptacle to be cleaned, means for directing a cleansing agent into the engaged receptacle, a receptacle removably mounted at the lower end of the pedestal and directly under the drain opening for receiving heavy substances gravitating through the drain opening from the engaged receptacle, means for exhausting the cleansing agent from the pedestal at a point above the removable receptacle, and means for elevating the removable receptacle against and binding it upon the pedestal while in receiving position to seat the bottom of the pedestal.

3. Cleaning apparatus including a hollow pedestal open at the bottom and having a drain opening at the top thereof, there being means at the upper end of the pedestal for engaging a receptacle to be cleaned, means for directing a cleansing agent into the engaged receptacle, a vertically adjustable receptacle under the pedestal for receiving heavy substances gravitating through the drain opening from the engaged receptacle, means depending from the pedestal for projecting into the upper portion of the adjustable receptacle when in elevated position, and means for binding the adjustable receptacle upon the open bottom of the pedestal to seal said bottom.

4. Cleaning apparatus including a hollow pedestal open at the bottom and having an inlet at the top, a receptacle under the pedestal, and means for clamping the receptacle upon the bottom of the pedestal to seal said bottom, said receptacle being removable from under the pedestal.

1,142,914. GAS-PRODUCER. PETER G. SCHMIDT, Olympia, Wash. Filed Mar. 29, 1913, Serial No. 757,671. Renewed May 6, 1915. Serial No. 26,426. (Cl. 48—85.1.)



1. A gas producer, one portion of which is revoluble, means for revolving said portion, said producer having a lower air inlet, a centrally depending gas collector, and means for supplying auxiliary air into the producer adjacent the periphery thereof below the top surface of the fuel body and above the lower end of the gas collector, such means including a plurality of downwardly depending angular shaped conduits, the longitudinal length of each of which is in a circumferential alinement with the wall of the producer to reduce the frictional resistance of the contacting fuel.

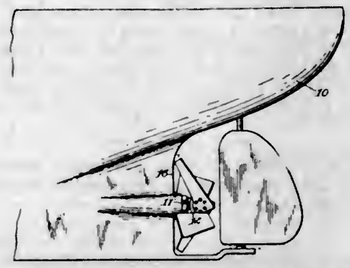
2. A gas producer, having a lower air inlet, a stationary top, a revoluble section, means for revolving said section, a centrally depending gas collector, and means for supplying auxiliary air into the producer adjacent the periphery thereof below the top surface of the fuel body and above the lower end of the gas collector, such means including a plurality of downwardly depending angular shaped conduits carried by the top and projecting into the fuel body, the longitudinal length of each conduit being in a circumferential alinement with the wall of the producer to reduce the resistance of the moving fuel body, due to the revolving of the section.

3. A gas producer, having a lower air inlet, a centrally depending gas collector, means for supplying auxiliary air into the producer adjacent the periphery thereof below the top surface of the fuel charge and above the lower end of the gas collector, said means including a plurality of downwardly depending conduits projected into the fuel charge, and means disposed upon the lower end of said conduits for holding the conduits relatively to each other and for bracing them against flexing due to the engagement thereof with the fuel.

4. A gas producer, having a lower air inlet, a centrally depending gas collector, means for supplying auxiliary air into the producer adjacent the periphery thereof below the top surface of the fuel charge and above the lower end of the gas collector, said means including a plurality of downwardly depending conduits projecting into the fuel charge, and an annular retaining ring connected to the lower ends of said conduits and forming a spacing means for said lower ends.

5. A gas producer, having a lower air inlet, a centrally depending gas collector carried by the charging floor and projecting within the upper section, means for supplying auxiliary air into the producer at a point adjacent the periphery thereof and above the lower end of the gas collector, said means including a plurality of downwardly depending angular shaped conduits, the longitudinal length of which is in a circumferential path with the movement of the fuel during the rotation of the upper section, and a water jacketed annular member connected to the lower ends of said depending pipes for spacing the same and providing a void in the fuel body at a point below the same.

1,142,915. PROPELLER. JOHN L. SCOTT, Vermilion, Ohio. Filed Jan. 30, 1914. Serial No. 815,446. (Cl. 170—159.)



1. A propeller comprising a hub, and a plurality of blades which extend tangentially therefrom, the working surface of each blade being convexed.

2. A propeller comprising a hub, and a plurality of blades which extend tangentially therefrom, the blades being inclined outwardly and forwardly from the hub, each blade having a portion which projects beyond the rear end of the hub.

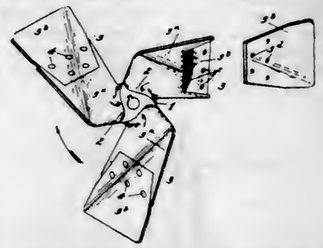
3. A propeller comprising a hub, and a plurality of blades which extend tangentially therefrom, the blades being inclined outwardly and forwardly from the hub, each blade having a portion which projects beyond the rear end of the hub, the working surface of each blade being convexed.

4. A propeller comprising a hub, and a plurality of blades which extend tangentially therefrom, the blades being disposed at an acute angle with respect to the rotating axis of the hub said angle gradually increasing from the inner to the outer end of the blades, the blades being inclined outwardly and forwardly from the hub, each blade having a portion which projects beyond the rear end of the hub.

5. A propeller comprising a hub and a plurality of blades carried thereby, each blade having a portion adjacent its inner end which extends beyond the rear end of the hub, the blade projecting forwardly and outwardly from such portion.

[Claims 6 to 9 not printed in the Gazette.]

1,142,916. PROPELLER. JOHN L. SCOTT, Vermilion, Ohio. Filed June 2, 1914. Serial No. 842,434. (Cl. 170—173.)



1. A propeller comprising a hub, and a plurality of composite blades, each blade consisting of two sections one of which is more frangible than the other, the less frangible section being located adjacent the hub.

2. A propeller comprising a hub, and a plurality of composite blades, each blade consisting of two sections that are detachably connected and one of which is more frangible than the other, the less frangible section being located adjacent the hub.

3. A propeller comprising a hub, and a plurality of composite blades, each blade consisting of two sections one of which is more frangible than the other, one of said sections having a recess, and the other having a portion that is arranged to occupy said recess, the less frangible section of each blade being located adjacent the hub.

4. A propeller comprising a hub, and a plurality of composite blades, each blade consisting of two sections one of which is more frangible than the other, one of said sections having a recess and the other having a portion that is arranged to occupy said recess, the less frangible section of each blade being located adjacent the hub, and means for detachably securing the sections together.

5. A propeller comprising a hub having a plurality of blade sections formed integral therewith, and a section that is detachably secured to each of the aforesaid sections and is more frangible than said sections.

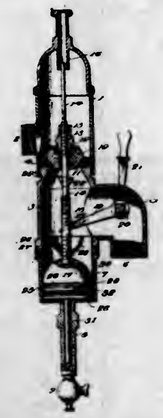
[Claims 6 to 16 not printed in the Gazette.]

1,142,917. FLUSHING APPARATUS. LEO SIMMONS, Washington, D. C. Filed Aug. 15, 1912. Serial No. 715,244. (Cl. 137—93.)

1. In a flushing apparatus, in combination, a vertically disposed casing having an inlet and an outlet and an intermediate internal valve seat, the lower portion of said casing having an open top dash-pot cylinder, a main lift valve normally resting on said seat, and having a relief passage, a relief lift valve normally closing said passage, a vertically movable piston in said cylinder, a lift rod secured at its lower end to said piston and passing loosely through said passage and carrying said relief valve and provided with a radial projection a distance below said main valve to engage the same at one side of said passage to lift and tilt said main valve, said lift rod comprising a lower section having an external screw thread and an upper section carrying said relief valve and said projection, said sections being united by screw threads, a transversely arranged element on said lower rod section above said piston, said lower rod section having an abutment, and an operating shaft having a radial lifting arm loosely engaging said abutment to lift said rod, substantially as described.

2. In flushing apparatus, a vertically disposed casing having an inlet and an outlet and an intermediate internal valve seat, a vertical open top dash pot cylinder secured

to said casing in downward continuation thereof, a main lift valve to rest on said seat and having a relief passage, a relief lift valve normally closing said passage, a vertically movable dash pot piston in said cylinder, a lift rod threaded at its lower end and screwing into said piston and passing upwardly loosely through said passage and carrying said relief valve and provided with a radial projection below said main valve to engage the same at one side of said passage and lift and tilt said valve, said lift rod comprising upper and lower sections united by screw threads, said lower section being longitudinally slotted and provided with an abutment, and a rock shaft mounted in the casing and having an exterior handle and an interior radial lifting arm projecting loosely into said slot to engage said abutment.

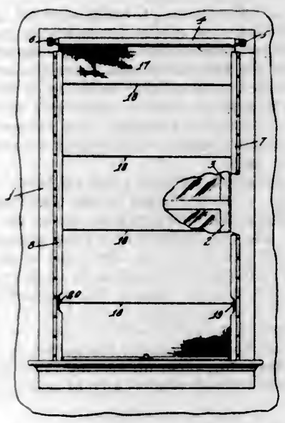


3. In flushing apparatus, in combination, a vertically disposed casing having an inlet and an outlet and an intermediate internal valve seat, a vertical open-top dash pot cylinder forming a rigid downward continuation of said casing, a main lift valve normally resting on said seat and having a relief passage, a relief lift valve normally closing said passage, a vertically movable dash pot piston in said cylinder, a main-valve-lift rod threaded at its lower end and screwed into said piston and passing upwardly loosely through said passage and carrying said relief valve, said rod comprising upper and lower sections united by screw threads, the lower section being longitudinally slotted and provided with an abutment, a transversely arranged element located on said lower section below the slot therein and above said piston to receive the impact of the downward flow of water in said casing, and a rock shaft mounted in the casing and having a lifting arm extending into said slot to engage said abutment.

4. In a flushing apparatus, in combination, a vertically disposed casing having an inlet and an outlet and an intermediate internal valve seat, a vertical open-top dash pot cylinder forming a rigid downward continuation of said casing, a main lift valve normally resting on said seat and having a relief passage, a relief lift valve normally closing said passage, a vertically movable dash pot piston in said cylinder, a main-valve-lift rod threaded at its lower end and screwed into said piston and passing upwardly loosely through said passage and carrying said relief valve, a transversely arranged element on said threaded lower end of the rod and arranged to receive the impact of the downward flow of water through the casing, and operating means adapted to lift said rod, substantially as described.

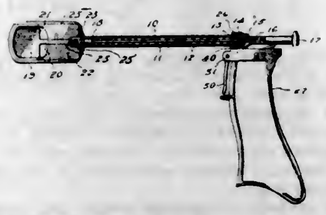
5. In flushing apparatus, in combination, a vertically disposed casing having an inlet and an outlet and an intermediate internal valve seat, a vertical open-top dash pot cylinder forming a rigid downward continuation of said casing, a main lift valve normally resting on said seat and having a relief passage, a relief lift valve normally closing said passage, a vertically movable dash pot piston in said cylinder, a vertical lift rod at its lower end fixed to said piston and passing upwardly loosely through said passage and carrying said relief valve and provided with a radial projection below said main valve to engage the same at one side of said passage to tilt and lift said main valve, and operating means for lifting said rod, substantially as described.

1,142,918. MOLDING FOR SCREENS. EDMUND L. SMITH, San Francisco, Cal., assignor of one-half to Harry Lewinson, San Francisco, Cal. Filed Feb. 17, 1914. Serial No. 819,196. (Cl. 156—39.)



A roller screen comprising a screen roller, a screen thereon, a plurality of stiffening rods extending transversely across the screen, each rod having a knob at each end thereof, and a metal guide molding at each side of the window frame for holding the screen, said molding comprising a sheet of metal having its edges inturned and adapted to bear upon the screen and having one portion thereof bent into contact with another portion thereof, while a further portion is spaced from the back of the molding a sufficient distance to permit the screen knobs to pass through.

1,142,919. TONSILLOTOME. STEPHEN G. SMITH, Hannibal, Mo. Filed Aug. 8, 1914. Serial No. 855,853. (Cl. 128—28.)



1. A device of the class described comprising a spring, a plunger rod positioned within said spring, a cutting element positioned on one end of said plunger rod, a retracting member positioned on the other end of said plunger rod, and in alinement therewith, and trigger mechanism coöperating with the retracting member of said plunger rod thereby locking said cutting element in position against the tension of said spring.

2. In a device of the class described, a spring actuated plunger rod housed within a barrel or casing, a cutting element mounted on one end of said plunger rod, a retracting member mounted on the other end of said plunger rod, a handle detachably mounted on said barrel or casing, the upper portion of said handle lying in juxtaposition to said retracting member and substantially parallel thereto, and means carried by said upper portion of the handle adapted to engage said retracting member thereby locking the cutting element in a strained position.

3. In a device of the class described, a handle, a spring actuated cutting element, and means coöperating therewith for locking and releasing said cutting element, said means comprising a retaining lug, an operating member and a spring adapted to hold said retaining lug in operative position, said retaining lug and operating member being separately pivoted to said handle, and pivoted to each other.

4. In a device of the class described, a handle, a spring actuated cutting element, and trigger mechanism mounted on said handle and adapted to control the action of said cutting element, said trigger mechanism comprising an operating member and a retaining lug separately pivoted to said handle, and pivoted to each other.

5. In a device of the class described, a spring actuated plunger rod mounted within a barrel or casing, a guide member, a cutting element housed within said guide member, a plurality of bosses on said guide member, said barrel or casing being bifurcated at one end thereof and adapted to engage the bosses of said guide member, thereby retaining the same against displacement.

[Claims 6 and 7 not printed in the Gazette.]

1,142,920. IGNITION SYSTEM FOR INTERNAL-COMBUSTION ENGINES. HARRY RANDOLPH VAN DEVENTER, Sumter, S. C. Filed Dec. 24, 1914. Serial No. 878,934. (Cl. 123—149.)



1. In combination with an internal combustion engine, an alternating current generator, an igniter, and means for driving said generator from said engine whereby both polarities of the alternating current are alternately utilized at the igniter in timed relation to the firing moment of said engine.

2. In combination with an internal combustion engine, an alternating current generator, an igniter, and means for driving said generator from said engine whereby currents of opposite polarity are generated at predetermined alternate intervals of time in timed relation to the firing moment of said engine.

3. In combination with an internal combustion engine, an alternating current generator, an igniter, and means for driving said generator from said engine whereby the speed of said generator is the speed of the engine crank shaft or a multiple thereof, plus one-fourth the crank shaft speed, for the purpose set forth.

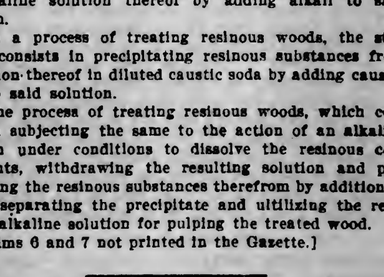
4. In combination with an internal combustion engine, an alternating current generator, an igniter, and means for driving said generator from said engine whereby the speed of said generator is the speed of the engine crank shaft or a multiple thereof, less one-fourth crank shaft speed, for the purpose set forth.

5. In combination with an internal combustion engine, an alternating current generator having an H type shuttle-wound armature, and driving means for said generator whereby currents of alternate opposite polarities are generated in predetermined cyclic relation to the engine revolution.

[Claims 6 to 13 not printed in the Gazette.]

1,142,921. HANGER FOR SHAKING-SCREENS. PAUL ABRAHAM VAN SICKLE, Brantford, Ontario, Canada, assignor to Massey-Harris Company, Limited, Toronto, Ontario, Canada. Filed Oct. 12, 1912. Serial No. 866,268. (Cl. 130—15.)

1. The combination with a vibratory screen and a suitable supporting framework of an adjustable support for the screen comprising a flexible strap secured at each end to the screen to form a pair of flexible hangers, a roller journaled on the frame and provided with a slot through which said strap passes so that by rotating the roller it may be wrapped thereon in opposite directions, a hand lever connected to said roller, a slotted quadrant on the frame, the said hand lever projecting through said slot, and a hand nut screwed on the hand lever adapted to clamp the lever to said quadrant.



2. The combination with a vibratory screen and a suitable supporting framework of an adjustable support for the screen comprising a flexible strap secured at each end to the screen to form a pair of flexible hangers, a roller journaled on the frame and provided with a slot through which said strap passes so that by rotating the roller it may be wrapped thereon in opposite directions, a hand lever connected to said roller, a quadrant on the frame and means for locking the lever to the quadrant.

1,142,922. PROCESS OF TREATING RESINOUS WOODS. MILTON C. WHITAKER, New York, N. Y., and JOHN S. BATES, Boston, Mass., assignors of one-half to Arthur D. Little, Incorporated, Boston, Mass., a Corporation of Massachusetts. Filed Oct. 29, 1913. Serial No. 798,030. (Cl. 92—2.)

1. The process of treating resinous woods, which consists in subjecting the same to the action of an alkaline solution under conditions to dissolve the resinous constituents, and precipitating the resinous substances from the resulting solution by adding alkali thereto.

2. The process of treating resinous woods, which consists in subjecting the same to the action of an alkaline solution under conditions to dissolve the resinous constituents and the humus, and thereafter effecting a separation between the resinous substances and the humus by adding alkali to the solution.

3. In a process of treating resinous woods, the step which consists in precipitating resinous substances from an alkaline solution thereof by adding alkali to said solution.

4. In a process of treating resinous woods, the step which consists in precipitating resinous substances from a solution thereof in diluted caustic soda by adding caustic soda to said solution.

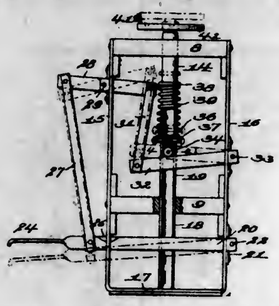
5. The process of treating resinous woods, which consists in subjecting the same to the action of an alkaline solution under conditions to dissolve the resinous constitutents, withdrawing the resulting solution and precipitating the resinous substances therefrom by addition of alkali, separating the precipitate and utilizing the reinforced alkaline solution for pulping the treated wood.

[Claims 6 and 7 not printed in the Gazette.]

1,142,923. COMBINED WORK-SUPPORT AND CO-OPERATING TOOL MECHANISM. CLARENCE B. WILLIAMS, Pence, and IRA H. WILLIAMS, Maple Creek, Saskatchewan, Canada. Filed June 12, 1913. Serial No. 773,372. (Cl. 10—129.)

1. In a device of the class specified, the combination of a work support embodying a post having vertical movement, the post being longitudinally slotted, a lifting lever extending through the longitudinally slotted portions of the post, a rocking lever, having one end connected to the lifting lever, a treadle means connected to the op-

posite end of the rocking lever, a spring engaging the post, to permit the latter to have yielding movement when elevated, and a mechanism arranged over the work support to operate on the work held by the latter.



2. In a device of the class specified, the combination of a work support embodying a post having vertical movement, a lifting lever loosely extending through the post, a rocking lever having one end connected to the lifting lever, a tradle means connected to the opposite end of the rocking lever, a spring engaging the post above the lifting lever to permit the post to have yielding movement when held elevated, and mechanism disposed over the work support to operate on work held on said support.

3. In a device of the class specified, the combination of a work support embodying a tubular post and a table adjustably mounted in the upper end of the post, the post having a vertical slot therein, a lifting lever loosely extending through the post, devices for actuating the lifting lever to raise and lower the post, a spring engaging the post for permitting the latter to have a yielding movement when raised, and meachanism disposed over the work support and comprising means for operating on the work on the support.

4. In a device of the class specified, the combination of a work support embodying a post and a table, a lifting lever loosely extending through the post, means connected to the lifting lever for operating the latter to raise and lower the post, an antifrictional device movably mounted in the post and including a plug with a bolt extending therethrough, a spring on the post engaging the bolt at its lower extremity, the post having a stop means for the upper extremity of the spring, the antifrictional device being engaged by the said lifting lever, and mechanism disposed over the work support and comprising means for operating on the work held by the support.

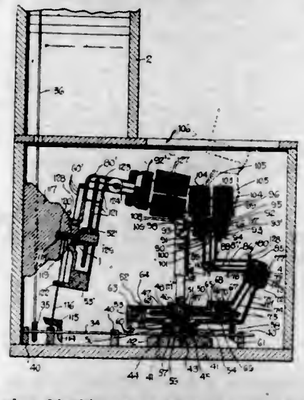
5. In a device of the class specified, the combination of a work support embodying a tubular post and a table with an opening therethrough, the work support and tubular post adapted to have the work passed downwardly through and thereinto, the post having slots in opposite portions thereof, spring-actuated clamping dogs carried by the post and movable into the latter, means for projecting the dogs into the post to engage the work held by the support as an entirety, means for raising the post and work support, and mechanism disposed over the work support to operate on the work held on the support.

[Claims 6 and 7 not printed in the Gazette.]

1,142,924. SHOE-SHINING MACHINE. SAMUEL F. WOODSMALL, Twin Falls, Idaho. Filed Aug. 30, 1913. Serial No. 787,503. (Cl. 15—61.)

1. A device of the class described including a casing, a base member therein, a rotatable casing upon the base, an angularly disposed arm formed integral therewith, an angular sleeve rotatably mounted upon said arm, rotary brush members carried by the upper end of said sleeve, a second base arranged within the casing and disposed at one side thereof, a rotatable casing mounted thereon, a sectional sleeve formed thereon, and rotary brush members carried by the outer ends of the sectional sleeve, as and for the purpose set forth.

2. A device of the class described including a casing, a base member mounted thereon, a rotatable casing upon the base, a gear mounted for rotation within the casing, an angularly disposed arm formed integral with the base, an angular sleeve rotatably mounted upon said arm, rotary brush members mounted upon the upper end of the sleeve, means connecting the gear with the rotary brush members whereby to impart movement to the brush members, a second base arranged within the casing and disposed at one side thereof, a rotatable casing carried thereby, a gear within the casing, a sectional sleeve formed on the casing, rotary brush members carried by the sectional sleeve, and means connecting said gear with the brush members, whereby to impart rotary movement to the brush members, as and for the purpose set forth.



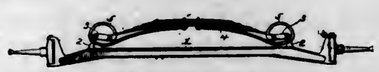
3. In a shoe blacking apparatus, a vertically disposed brush movable in a circular horizontal closed path whereby to engage the side faces of the shoe, and a plurality of brushes movable in a circular vertical path whereby to engage and pass over the upper face of the shoe.

4. In a shoe blacking apparatus, a vertically disposed brush movable in a horizontal closed path, means for supporting a shoe within said path, means for forcing said brush against the shoe so supported to conform to the outline thereof, and a brush movable in a circular path in a vertical plane and around the toe portion of said shoe support.

5. In a shoe blacking apparatus, a shoe support, a base rotatable relative to said shoe support, said base having a laterally projecting arm, a rotatable head mounted upon the arm, a plurality of brushes each rotatable upon and with relation to the head, means for rotating the base, the head and said brushes, whereby to carry the brushes around and in contact with a shoe mounted upon the support and to independently rotate the head and independently rotate the brushes with relation thereto.

[Claims 6 to 8 not printed in the Gazette.]

1,142,925. SHOCK-ABSORBER. ALFRED H. WORREST, Lancaster, Pa. Filed Sept. 4, 1914. Serial No. 860,248. (Cl. 21—50.)

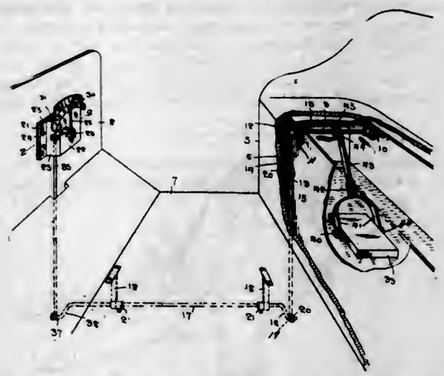


1. In a shock absorber, the combination of a link pivoted at one end to a part of the vehicle underframe and provided with an integral extension at its other end, the said extension having connection with the vehicle body so as to move with the same, and a spring connected with said link at the end having the extension.

2. In a shock absorber, the combination of an axle, links pivoted thereto, a spring pivotally supported at its ends on said links, a car body and extensions integral with the links and connected with the car body whereby the links are caused to move with the latter.

3. In a shock absorber, the combination of an axle, links pivoted thereto, a spring pivotally supported at its ends on said links, a car body and yielding extensions integral with the links and connected with said body whereby the links are caused to move with the latter.

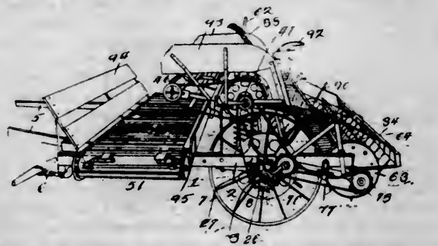
1,142,926. AUTOMATIC REGISTER FOR TANKS. CHESTER L. WRIGHT, MASON L. SMART, CALVIN M. HOPPER, and GEORGE W. THOMPSON, Sumner, Mo. Filed Nov. 13, 1913. Serial No. 800,845. Cl. 73—82.)



1. In a device of the class described, the combination with a tank arranged under the seat of a vehicle, of a transverse shaft journaled in one end of said tank and having one of its ends projecting through the forward wall thereof, an arm formed upon the projecting end of said shaft, brackets arranged upon the under side of the vehicle body, a horizontal rock shaft journaled in said brackets, an arm arranged upon the rear end of said rock shaft, a link connecting said first mentioned arm with said rear arm of said rock shaft, a forward arm arranged upon said rock shaft, a casing arranged upon the dash board of the vehicle, a stub shaft journaled in said casing and having one of its ends projecting through the rear wall of said casing, a scale bar arranged upon said casing, a pointer arranged upon the projecting end of said stub shaft and coacting with said scale bar, a rocker arm arranged upon said stub shaft within said casing, a second link connecting said rocker arm with the forward arm of the rock shaft, a rod secured to said shaft within said tank, a yoke consisting of oppositely curved arms secured to the free end of said rod, and a float pivotally mounted within the free ends of said yoke and centrally of said tank, whereby said pointer is actuated to accurately register the quantity of liquid by the rise and fall of the float within said tank.

2. In a device of the class described, the combination with an elongated rectangular tank positioned within the body of the vehicle, of oppositely disposed journals arranged in the upper edges of the forward and rear walls of said tank and adjacent one end thereof, a transversely disposed shaft mounted in said journals but having one of its ends projecting through the forward wall of said tank, an arm formed upon the projecting end of said shaft, brackets arranged upon the under side of the vehicle body, a horizontally disposed rock shaft journaled in said bracket, forward and rearward arms formed upon the respective ends of said rock shaft, said arms being in the same plane, a link connecting said first mentioned arm with the rear arm of said rock shaft, a casing arranged upon the dash board of the vehicle, a stub shaft journaled in the walls of said casing, and having one of its ends projecting through the rear wall of said casing, a scale bar arranged upon the rear wall of said casing, a pointer arranged upon the projecting end of the said shaft and coacting with said scale bar, a rocker arm adjustably secured to said stub shaft within said casing, a second link connecting said rocker arm with the forward arm of said rock shaft, a rod adjustably secured to said shaft within said tank, and positioned at a point intermediate of the ends thereof, a yoke arranged upon the free end of said rod, and a float pivotally mounted within said yoke, said float being centrally positioned within said tank, whereby said pointer is actuated by the rise and fall of the float for accurately registering the quantity of liquid within said tank irrespective of the inclinations of the tank.

1,142,927. MACHINE FOR GATHERING AND HANDLING HAY. MARSHALL BECK, Moline, Ill., assignor of one-third to David K. Hill, Chicago, Ill., and one-third to Julia T. Skinkle, Kenosha, Wis. Filed June 1, 1909. Serial No. 499,363. (Cl. 56—61.)



1. In a machine for handling hay, a rotating cylinder provided with hay impaling fingers and with a finger supporting and controlling mechanism within the said cylinder, comprising a support for the said fingers positioned eccentrically to normally cause them to protrude from the cylinder at one part of the revolution and to be retracted at another part of the revolution, and means for yieldably holding the said finger support in normal position, the said means serving to permit the fingers to yield inward when in protruded position, substantially as set forth.

2. In a machine for handling hay, a rotating cylinder having hay impaling fingers, and finger controlling mechanism within the cylinder, comprising a finger support positioned eccentrically to normally cause the fingers to protrude from the cylinder at one part of the revolution and to be retracted at another part of the revolution, the said finger support being positively connected with all of the fingers, thereby holding each of them against angular movement relative to the cylinder independently of the others, and a means for yieldably holding the finger support in normal position, the said means serving to permit the fingers to yield inward when in protruded position, substantially as set forth.

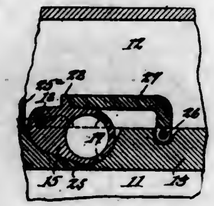
3. In a machine for handling hay, a rotating cylinder having hay impaling fingers, and a mechanism within the cylinder comprising an eccentrically positioned support with which the inner ends of all of the fingers are positively connected, and a yieldable means for holding the support in its normal position, the said mechanism serving to cause the finger to protrude at one part of the revolution and to be retracted at another part of the revolution and to permit them to yield inward when in protruded position, and the said mechanism also serving to hold the fingers against angular movement relative to the cylinder except as they move inward or outward, substantially as set forth.

4. In a machine for handling hay, a rotating cylinder having hay impaling fingers, an eccentrically positioned support within the cylinder connected with all of the fingers to normally cause them to protrude from the cylinder at the lower part of the revolution and to be retracted at the upper part of the revolution, and yieldable means for holding the said support in normal position, the said means serving to permit the fingers to move inward when in the lower part of the revolution, substantially as set forth.

5. In a machine for handling hay, a rotating cylinder having hay impaling fingers, an eccentrically positioned finger supporting device within the cylinder and positively connected with all of the fingers to normally cause them to protrude from the cylinder at the lower part of the revolution and to be retracted at the upper part of the revolution, the said supporting device also serving to hold the fingers against angular movement relative to the cylinder except as they move inward or outward, and means for yieldingly supporting the finger holding device in its normal position, the said means serving to permit inward yielding of the fingers when in the lower part of the revolution, substantially as set forth.

[Claims 6 to 55 not printed in the Gazette.]

1,142,928. COMBINED GAS AND COAL RANGE. JESSE L. BRIGHT, Chicago, Ill. Filed July 20, 1914. Serial No. 851,972. (Cl. 126—36.)



1. In a solid fuel range, a gas burner pivotally mounted beneath the top thereof to swing to operative and inoperative positions, said burner being longitudinally slidable and open at one end, a gas supply pipe entering the open end of the burner, a wall in the range adjacent to the burner having a pocket in which the burner is adapted to be swung when not in use, the burner entering the pocket at the limit of its longitudinal movement in one direction, and a hinged shield adjacent to the pocket and covering the flame apertures of the burner when it is seated in the pocket.

2. In a solid fuel range, a gas burner pivotally mounted beneath the top thereof to swing to operative and inoperative positions, a wall in the range adjacent to the burner having a pocket in which the burner is adapted to be swung when not in use, a combined shield and prop for the burner hinged adjacent to the pocket on one side of the burner and covering the flame apertures of the burner when it is seated in the pocket, said shield and prop engaging one side of the burner when the same is out of the pocket in operative position, the other side of the burner having an outstanding abutment, and pins extending from the aforesaid wall, on which pins the abutment seats when the burner is in the last-mentioned position.

3. In a solid fuel range, a gas burner pivotally mounted beneath the top thereof to swing to operative and inoperative positions, said burner being longitudinally slidable and open at one end, a gas supply pipe entering the open end of the burner, a wall in the range adjacent to the burner having a pocket in which the burner is adapted to be swung when not in use, the burner entering the pocket at the limit of its longitudinal movement in one direction, resilient means opposing said longitudinal movement of the burner, and a hinged shield adjacent to the pocket and covering the flame apertures of the burner when it is seated in the pocket.

4. In a solid fuel range having a draft flue located beneath the top of the range, a gas burner extending across said flue from the front to the rear, the ends of the burner having axially alined journals for pivotally supporting the burner, bearings for said journals, the bottom wall of the aforesaid flue having a pocket extending adjacent to the burner and parallel thereto, in which pocket the burner is adapted to be swung when not in use, and a hinged shield mounted adjacent to the pocket and adapted to be swung across the burner to cover the flame apertures thereof when said burner is seated in the pocket.

5. In a solid fuel range, a gas burner pivotally mounted beneath the top thereof to swing parallel to its longitudinal axis, said burner having flame apertures in its side and being longitudinally slidable, one end of the burner being open to take a gas supply pipe, a wall in the range adjacent to the burner having a pocket in which the burner is adapted to be swung when not in use, the burner entering the pocket at the limit of its longitudinal movement in one direction, and a hinged shield adjacent to the pocket and covering the flame apertures of the burner when it is seated in the pocket.

1,142,929. WRENCH. JOSEF FERDINAND BRONOSKY, Minden, W. Va. Filed Sept. 24, 1914. Serial No. 863,416. (Cl. 81—87.)



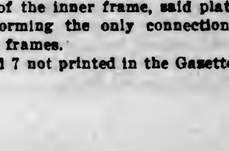
1. A wrench, including a shank having a fixed handle and a fixed jaw, a slidable jaw mounted for movement to and from the fixed jaw, said slidable jaw being provided with a shank having teeth upon one edge thereof, a locking block mounted in the handle and stationary jaw member and having a plurality of teeth for coöperation with the teeth of the slidable jaw, a spring for holding the block with the teeth out of engagement with the teeth of the slidable jaw, a pivoted handle connected to the fixed handle and provided with a reduced end, and a wedge slidably mounted in the fixed handle member and connected with said reduced end for coöperation with the toothed block to move the toothed block toward and in engagement with the teeth of the slidable jaw.

2. A wrench including a body portion, a stationary jaw, a handle, a movable jaw carried by said wrench body portion and coöperating with said stationary jaw, resilient means engaging said jaws for normally holding the same in closed position, locking mechanism engaging said movable jaw, carried by said wrench body portion, and including a locking lever, a wedge-shaped member actuated thereby, and a pawl contacting with and actuated by said wedge-shaped member, resilient means holding said pawl in position for contact with said wedge-shaped member, and resilient means engaging said locking lever holding said locking mechanism in a normally unlocked condition.

3. A wrench comprising a body formed of separable plates, each plate uniting to form a stationary jaw, a body portion, and a handle, said body portion provided with a slot extending therein, a locking lever pivotally mounted within said slot and resiliently limited in its movements therein, said wrench body provided with a second wedge-shaped slot, with a third slot communicating with said wedge-shaped slot, with a fourth slot extending beneath the stationary jaw and communicating with said third mentioned slot, a movable jaw including a shank slidably mounted within said fourth mentioned slot, a wedge-shaped member mounted within said second mentioned slot, a pawl mounted within said third mentioned slot and extending substantially normal to and contacting with the surface of said wedge-shaped member, said wedge-shaped member coöperating with and actuated by the said locking lever, said pawl interengaging with the said movable jaw shank and holding the same against extension.

4. A wrench comprising a body formed of separable plates, each plate uniting to form a stationary jaw, a body portion, and a handle, said body portion provided with a slot extending therein, a locking lever pivotally mounted within said slot and resiliently limited in its movements therein, said wrench body provided with a second wedge-shaped slot, with a third slot communicating with said wedge-shaped slot, with a fourth slot extending beneath the stationary jaw and communicating with said third mentioned slot, a movable jaw including a shank slidably mounted within said fourth mentioned slot, a wedge-shaped member mounted within said second mentioned slot, a pawl mounted within said third mentioned slot and extending substantially normal to and contacting with the surface of said wedge-shaped member, said wedge-shaped member coöperating with and actuated by the said locking lever, said pawl interengaging with the said movable jaw shank and holding the same against extension, and resilient means engaging said movable and stationary jaws, resiliently closing the same.

1,142,930. SWIVEL-CASTER. JOHN LOUCIEN CHESNUTT, Kansas City, Mo. Filed Aug. 7, 1914. Serial No. 855,937. (Cl. 16—73.)



1. A swivel caster, comprising an outer or load-bearing frame, an inner frame mounted within said outer frame, a wheel journaled for rotation in said inner frame and extending to the top thereof, and bearing balls between said inner and outer frames, said wheel also extending above the plane of sa... bearing balls.

2. A swivel caster, comprising an outer frame formed with a removable top plate, an inner frame therein, a wheel journaled for rotation in said inner frame, and vertically spaced rows of bearing balls between said inner and outer frames, one row of said balls adapted to receive vertical friction only and the other row of said balls adapted normally to receive lateral friction only, said balls and their races forming the only connection between said inner and outer frames.

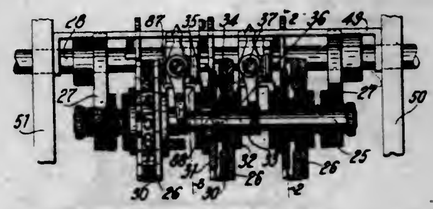
3. A swivel caster, comprising an outer frame formed with an inwardly projecting annular flange at its base, an inner frame within said outer frame and formed with an outwardly projecting annular flange above the flange of the outer frame, a wheel journaled in said inner frame, a removable plate on the top of said outer frame, and bearing balls between said plate and the flange of the inner frame.

4. A swivel caster, comprising an outer frame formed with an inwardly projecting flange at its base, an inner frame therein and formed with an outwardly projecting flange above the flange of the outer frame, a wheel journaled in said inner frame, a removable plate on the top of said outer frame, bearing balls between said plate and the flange of the inner frame, and bearing balls between the flanges of the two frames.

5. A swivel caster, comprising an outer frame formed with an inwardly projecting flange at its base, an inner frame therein and formed with an outwardly projecting flange above the flange of the outer frame, a wheel journaled in said inner frame, a removable plate on the top of said outer frame, and bearing balls between said plate and the flange of the inner frame, said plate, flanges and bearing balls forming the only connection between the inner and outer frames.

[Claims 6 and 7 not printed in the Gazette.]

1,142,931. ADDING AND SUBTRACTING MACHINE. EDMUND S. CHURCH, Dayton, Ohio, assignor to The National Cash Register Company, Dayton, Ohio, a Corporation of Ohio, (incorporated in 1906.) Filed Sept. 20, 1909. Serial No. 518,665. (Cl. 235—133.)



1. In a machine of the class described, the combination with totalizer elements of higher and lower orders each comprising a driving pinion and a drum having a projecting lug and an angular slot, of means for differentially actuating said pinions, sleeves carrying said pinions and having pins riding in said angular slots, and elements connected to said sleeves and constructed to be engaged and operated by said projecting lugs.

2. In a machine of the class described, the combination with totalizer elements of higher and lower orders each comprising a driving pinion and a drum having a projecting lug and an angular slot, of means for differentially actuating said pinions, sleeves carrying said pinions and having pins riding in said angular slots, and levers having arms connected to said sleeves and other arms constructed to be engaged and operated by said projecting lugs.

3. In a machine of the class described, the combination with totalizer elements of higher and lower orders each comprising two parts and connections therebetween for causing one unit relative movements between the two parts, of devices for differentially actuating a first one of the parts of each totalizer element, and means controlled by the second of the parts of each totalizer element of lower order for actuating the said connections of the totalizer elements of next higher order and thus producing said one unit relative movements in said latter totalizer elements.

4. In a machine of the class described, the combination with totalizer elements of lower and higher orders each comprising two parts and connections therebetween for causing one unit relative movements between said two parts, of devices for differentially actuating a first one of the parts of each totalizer element, and levers operated by the second of the parts of each totalizer element of lower order, said levers being joined to and serving to shift said connections of totalizer elements of next higher orders and thus producing said one unit relative movements in said latter totalizer elements.

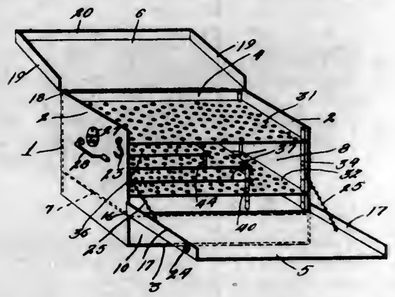
5. In a machine of the class described, the combination with totalizer elements of higher and lower orders, each comprising a pinion and a drum and connections therebetween for causing one unit relative movements between each pinion and drum; of devices for differentially actuating each of said pinions, and means operated by each drum of lower order for actuating said connections of the elements of next higher order and thus producing said one unit relative movements in said higher order drums.

[Claims 6 to 22 not printed in the Gazette.]

1,142,932. LUNCH-BOX. RUTH A. CLARK, Trenton, Mo. Filed Aug. 20, 1914. Serial No. 857,641. (Cl. 220—50.)

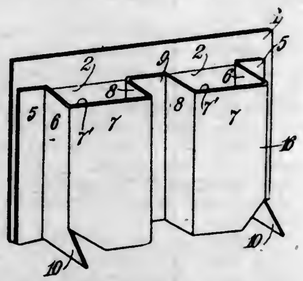
1. In a lunch carrier, a casing, top and bottom perforated shelves to correspond with and fit the casing, intermediate shelves of different lengths between the top and bottom shelves, said intermediate shelves being adjustable and spaced apart, and forming spaces of different heights and lengths at one end of the casing.

2. In a lunch carrier, a casing, top and bottom perforated shelves to correspond with and fit in the casing, intermediate shelves of different lengths between the top and bottom shelves, said intermediate shelves being adjustable and spaced apart, and forming spaces of different



heights and lengths at one end of the casing, and a series of super-imposed sleeves for holding the several perforated shelves spaced apart from each other, rods telescoping the sleeves and passing through the shelves, and means upon the rods to hold them in place.

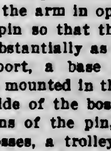
1,142,933. DISPLAY-STAND. GEORGE T. F. CLARKE, Springfield, Mass., assignor to Brooks Bank Note Company, Springfield, Mass., a Corporation of Massachusetts. Filed Oct. 2, 1914. Serial No. 864,598. (Cl. 211—24.)



1. A display device comprising a vertically arranged member on which advertisements may appear, an opening formed therein by cutting a rectangular portion of said face member on all but the lower edge thereof, a supporting member fastened to the rear of said face member folded to form a vertically disposed channel at the rear of said opening, said channel extending from the bottom of said face member to a position above said opening, means on said supporting member foldable rearwardly therefrom to further support said device, said supporting member adapted to be folded flat against said face member and also adapted to be held in channel forming position by folding said rectangular portions along the uncut edge thereof, rearwardly into said opening, whereby a bottom closure for said channel is formed, and thereafter folding said portion upwardly against the rear wall of said channel, said supporting member and rectangular portion adapted to form a pocket for the reception and display of merchandise.

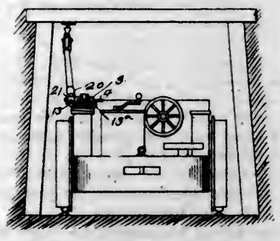
2. A display device, comprising a vertically arranged face member, an opening formed therein by cutting a rectangular portion of said face member on all but the lower edge thereof, a supporting member fastened to the rear of said face member folded to form a vertically disposed channel of rectangular cross section at the rear of said opening, said channel extending from the bottom of said face member to a position above said opening, said supporting member arranged to be folded flat against said face member for shipping purposes and also arranged to be held in channel forming position by folding said rectangular portion along the uncut edge thereof rearwardly into said opening normal to the walls of said channel, whereby a bottom closure for the channel is formed, and thereafter folding said portion upwardly against the rear wall of said channel, said supporting member and rectangular portion adapted to form a pocket for the reception and display of merchandise.

1,142,934. FIREARM. LYMAN H. COBB, Fitchburg, Mass., assignor to Mary Elizabeth Johnson, trustee, Fitchburg, Mass. Filed Nov. 3, 1909. Serial No. 526,006. (Cl. 42—76.)



In a firearm, a cylindrical gun barrel, a gun frame having a concave barrel seat of a diameter greater than the diameter of said barrel, said frame provided with a recess opening downwardly from the central portion of said seat, and a member secured to the gun barrel and projecting into said recess, said member having lateral extensions embracing the lower half of the cylindrical surface of said gun barrel, and curved on their under surfaces to fit the portions of said concave seat on opposite sides of the recess therein.

1,142,935. SUPPORT FOR ELECTRIC TROLLEY MECHANISM. FREDERICK C. COSEO, Columbus, Ohio, assignor to The Jeffrey Manufacturing Company, a Corporation of Ohio. Filed May 28, 1909. Serial No. 498,897. (Cl. 191—70.)



1. In a trolley support, a base adapted to be rotatably mounted on a locomotive, a pin rotatably mounted on the base, and extending laterally beyond its point of support, a trolley arm, means for securing the arm to the laterally extending portion of the pin, the said securing means being arranged to permit removal of the arm from the pin without removal of the pin from the base, means for moving the pin to hold the arm in operative position, and means for locking the pin so that the arm will be in its inoperative position, substantially as set forth.

2. In a trolley support, a base having two bearing bosses, a horizontal pin mounted in the bosses and extending laterally on each side of the bosses, keys on the laterally extending portions of the pin, an arm secured to the pin between the bosses, a trolley pole adapted to fit over one end of the pin and be engaged by one of the keys, means for holding the pole in position on the pin, and means for depressing the arm to throw the pole into operative position, substantially as set forth.

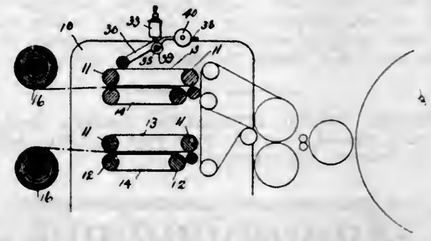
3. In a trolley support, the combination of a pivotally mounted carrying device, a trolley arm, means whereby the trolley arm may be detachably secured to the carrying device in any one of a plurality of positions arranged transversely with respect to the arm, and means tending to move the carrying device to hold the arm in operative position, substantially as set forth.

4. In a trolley support, the combination of a base, a horizontal pin rotatably mounted on the base and extending laterally on each side of its point of support, a trolley pole adapted to be rigidly secured to either laterally extending end of the pin, and means for rotating the pin to throw the pole into operative position, substantially as set forth.

5. In a trolley support, the combination of a base, a horizontal pin rotatably mounted on the base and extending laterally at each side of its point of support, a trolley pole adapted to be rigidly secured to the pin on either of its laterally extending ends, means for moving the pin to throw the pole into operative position, and means for locking the pin in position with the pole depressed, substantially as set forth.

[Claim 6 not printed in the Gazette.]

1,142,936. APRON-OILER FOR CONDENSERS. HARRY L. CROCKER, Esmond, R. I. Filed Feb. 27, 1914. Serial No. 821,524. (Cl. 19—11.)



1. In a condenser, means for oiling the roving, comprising sliver rubbing aprons, means for automatically distributing oil upon said aprons, and means for feeding sliver between said aprons.

2. In a condenser, means for oiling the roving, comprising sliver rubbing aprons, means for feeding sliver between said aprons, and means for automatically and continuously applying oil to one of said aprons.

3. In a condenser, means for oiling the roving, comprising sliver rubbing aprons, means for feding sliver between said aprons, means for automatically and continuously applying oil to one of said aprons, and means for regulating the quantity of oil fed thereto.

4. In a condenser, means for oiling the sliver, comprising roving rubbing aprons, means for feeding sliver between said aprons, an oil distributing member, means for supplying oil to said member, and means for causing said member to distribute oil over the face of one of said aprons.

5. In a condenser, means for oiling the sliver, comprising roving rubbing aprons, means for feeding sliver between said aprons, an oil distributing member, means for supplying oil to said member, means for causing said member to distribute oil over the face of one of said aprons, and means for regulating the quantity of oil fed to said distributing member.

[Claims 6 to 11 not printed in the Gazette.]

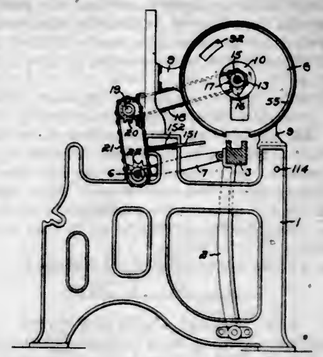
1,142,937. WEFT-REPLENISHING LOOM. RANDOLPH CROMPTON, Chatham, Mass. Filed Jan. 2, 1915. Serial No. 189. (Cl. 139—85.)

1. In an automatic loom, a lay having a shuttle box, a hopper adapted to contain a series of filling carriers, a series of magazines to receive said carriers, means to shift one of said magazines from its normal position into a shuttle in said box, combined with means to restrain the tip of said filling carrier from movement after positioning in said shuttle.

2. In a loom, a lay, a shuttle carried by the lay, a hopper having a plurality of magazines, and means to lower one of said magazines directly into said shuttle.

3. In a loom, a lay, a shuttle carried by the lay, a hopper having a plurality of magazines, and means to move one of said magazines directly into the shuttle.

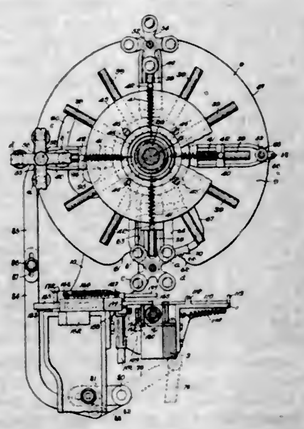
4. In an automatic loom, a hopper containing a plurality of magazines, and means to move said magazines separately from and conjointly with said hopper to cause a change of filling carriers.



5. In a loom, a lay adapted to carry a shuttle, a magazine adjacent to said lay and adapted to hold a series of filling carriers by the butts and tips, and constructed and arranged to be moved into actual contact with the shuttle, said magazine by said contact causing a filling carrier to be changed therefrom into said shuttle.

[Claims 6 to 76 not printed in the Gazette.]

1,142,938. WEFT-REPLENISHING COLOR-LOOM. RANDOLPH CROMPTON, Chatham, Mass. Filed Jan. 30, 1915. Serial No. 5,187. (Cl. 139—85.)



1. In a loom, a lay, shifting means for a series of shuttle boxes, a hopper having a plurality of magazines, means to lower one of said magazines directly into said shuttle, and means controlled by said shifting shuttle box means to cause the presentation of a filling carrier of such magazine, corresponding to that in the running shuttle.

2. In a loom, a movable hopper having a series of magazines relatively movable in operation to effect a change of filling, means to move said hopper, shifting means for a series of shuttle boxes, and means controlled thereby to cause the presentation of a filling carrier of such magazine, corresponding to the filling carrier in the running shuttle.

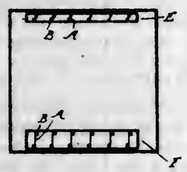
3. In an automatic loom, a hopper containing a plurality of magazines, means to move said magazines separately from and conjointly with said hopper to cause a change of filling carriers, shifting means for a series of shuttle boxes, and means controlled thereby to cause the presentation of a filling carrier corresponding to that in the running shuttle.

4. In a loom, a lay, a magazine adjacent thereto and adapted to hold a series of filling carriers by the butts and tips and constructed and arranged to be moved positively into actual contact with the shuttle, to cause a filling carrier to be changed therefrom into said shuttle, shifting means for a series of shuttle boxes, and means controlled thereby to cause the presentation for replenishment of a filling carrier corresponding to that in the running shuttle.

5. In a loom, a lay, a magazine adjacent thereto and arranged to hold a series of filling carriers by the butts and tips and constructed and arranged to be positively lowered into actual contact with the shuttle, to cause a filling carrier to be changed therefrom into the shuttle, shifting means for a series of shuttle boxes and means controlled thereby to cause the presentation for replenishment of a filling carrier corresponding to that in the running shuttle.

[Claims 6 to 54 not printed in the Gazette.]

1,142,939. ELECTRICALLY-HEATED OVEN. RANSOM W. DAVENPORT, Detroit, Mich., assignor to Detroit Stove Works, Detroit, Mich., a Corporation of Michigan. Filed Oct. 10, 1914. Serial No. 866,076. (Cl. 219—35.)



1. The combination with an oven or chamber to be heated, of a heating element therefor, comprising a resistor and a strip in heat-conducting contact therewith, the edge of said strip being exposed for direct radiation into said chamber and the side dissipating heat to be distributed by convection.

2. The combination with an oven or chamber to be heated, of heating elements arranged at the top and bottom of said chamber, said elements being adapted to distribute substantially equal quantities of heat by direct radiation into the chamber, and the lower element distributing an excess of heat by convection.

3. The combination with an oven or chamber to be heated, of a heating element therefor, comprising a metallic strip having a folded edge with an insulated resistor clamped in the fold, said strip being return-bent to expose the edge portion thereof for direct radiation into said chamber, with the sides distributing their heat by convective air currents.

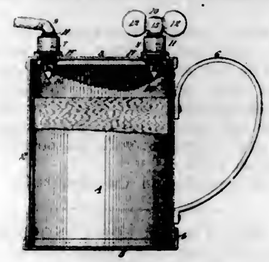
4. The combination with an oven or chamber to be heated, of electrical heating units arranged at the top and bottom of said chamber, each comprising a metallic strip having a folded edge with an insulated resistor clamped in the fold, the strips being bent into zigzag form and having their edge portions exposed for direct radiation into the chamber, the sides of said strips being exposed to convective air currents, and the strip of the lower heater being of greater width than that of the upper one.

5. An electrical heating element, comprising a metallic strip having a comparatively narrow folded edge, and a resistor clamped wholly within said fold.

[Claim 6 not printed in the Gazette.]

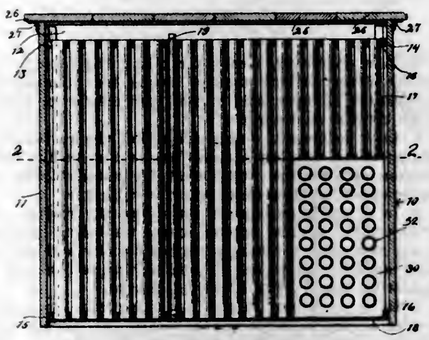
1,142,940. MILK-CAN CONTAINER AND SERVER. THOMAS DAVIS and AUGUST REININGER, San Francisco, Cal. Filed May 20, 1914. Serial No. 839,742. (Cl. 221—23.)

In combination with a container, a pair of interiorly threaded sleeves connected to its top and projecting above said top to produce comparatively long bearings, a pouring spout and an air-vent member each having a longitudinal passage and a cone pointed lower end with a lateral passage intersecting the longitudinal passage, said members being each exteriorly threaded and engaged in the respective sleeves forming the bearings, each of said members having a groove above the lateral passage and at the lower ends of the threads of said members, and a washer forced



into each groove and extending beyond the periphery of the lower end of each member for seating engagement on top of a can inserted in the container, said washers being movable with the members, and when contracted being adapted to pass through the bearings.

1,142,941. FILING APPARATUS. ERASTUS CHARLES DEAL, Greensboro, N. C. Filed June 12, 1914. Serial No. 844,759. (Cl. 45—2.)



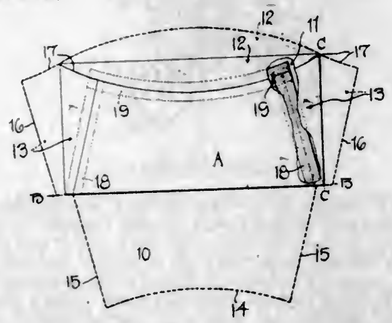
1. In filing apparatus of the character described, the combination with an outer casing, of a plurality of tubes held therein and having reference characters designating them arranged near their open ends, and portable tubes removably mounted within the stationary tubes for receiving the papers or the like to be filed and projecting outwardly beyond the first named tubes for a substantial distance whereby the ends of the portable tube are exposed and having reference characters applied to their exposed ends corresponding to the reference characters of the tubes containing them, substantially as described.

2. In filing apparatus of the character described, an outer casing, a plurality of tubes held stationary therein and having reference characters designating the same disposed near their open ends, portable tubes movably mounted within the stationary tubes with their open ends extending outwardly beyond the stationary tubes for a substantial distance, and removable caps arranged upon the outer ends of the portable tubes and disposed wholly outwardly of the stationary tubes and having reference characters thereon corresponding to the reference characters of the stationary tubes, substantially as described.

3. A filing apparatus of the character described, comprising a substantially vertical outer casing having its upper end open, substantially vertical tubes held stationary within the outer casing with their upper ends open, removable tubes mounted within the stationary tubes for containing papers or the like, end cover-sections, arranged transversely of the upper ends of the outer casing and

hinged thereto to be swung to a substantially vertical position for wholly uncovering the adjacent portions of the outer casing, and a plurality of intermediate cover-sections disposed transversely of the upper ends of the outer casing between the end cover-sections and having no connection therewith and provided with transverse guide means fitting within the top of the outer casing whereby the intermediate cover-sections may be moved longitudinally of the casing without moving transversely with relation thereto.

1,142,942. ENVELOP. LOYAL M. DODDRIDGE, Stanton, Mich. Filed Mar. 29, 1915. Serial No. 17,901. (Cl. 229—80.)



1. An envelop including a rectangular front piece, an irregular back piece of less length than the front piece, terminal extensions formed on the front piece, said extensions being disposed to mate with the back piece to form in connection therewith the back wall of the envelop, a sealing strip connecting the back piece and extensions, a flap formed on the front piece, and a sealing strip carried by the back piece and on the inner face thereof for sealing the flap, said sealing strip being longitudinally curved and having its outer edge portion lying beyond the adjacent edge of the back piece, whereby the edge of the flap may mate therewith.

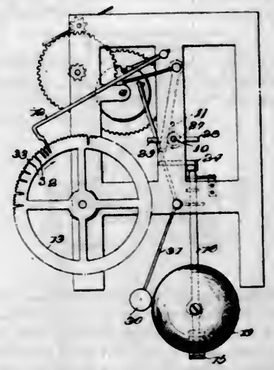
2. An envelop including a rectangular front piece, an irregular back piece of less length than the front piece, terminal extensions formed on the front piece, said extensions being disposed to mate with the back piece to form in connection therewith the back wall of the envelop, the adjacent edges of the back piece and extensions being disposed to abut, sealing strips disposed within the envelop to connect the back piece and extensions, and a closure flap formed on the front piece.

1,142,943. CLOCK STRIKING MECHANISM. HARRY J. DOOLITTLE and OLIVER W. JOHNSON, Cleveland, Ohio; said Johnson assignor to said Doolittle. Filed July 21, 1913. Serial No. 780,298. (Cl. 58—8.)

1. A clock striking mechanism including a striking hammer, means for actuating the hammer to strike the hours and fractional parts thereof, a vertically disposed shaft carrying a plurality of bells, and means for partially rotating the shaft to bring the bells successively in the path of the hammer, said means including actuating arms extending radially from an hour shaft, and a cam member mounted upon the bell shaft and having arms adapted for engagement by the arms of the hour shaft.

2. A clock striking mechanism including a striking hammer, means for actuating the hammer to strike the hours and fractional parts thereof, a vertically disposed shaft carrying a plurality of bells, and means for partially rotating the shaft to bring the bells successively in the path of the hammer, said means including actuating arms extending radially from an hour shaft, a cam member mounted upon the bell shaft and having arms adapted for engagement by the arms of the hour shaft, and means for holding the shaft with the bells in proper position.

3. A clock striking mechanism including a striking hammer, means for actuating the hammer to strike the hours and fractional parts thereof, a vertically disposed shaft carrying a plurality of bells, and means for partially rotating the shaft to bring the bells successively in the path of the hammer, said means including actuating arms extending radially from an hour shaft, a cam member mounted upon the bell shaft and having arms adapted for engagement by the arms of the hour shaft, means for holding the shaft, with the bells in proper position, said means including a pin extending radially from the shaft, and a spring arm bearing against the pin and having depressed portions in which the pin seats.



4. In a clock striking mechanism, a shaft, differently toned sounding elements mounted upon the shaft, cam elements carried by the shaft, one for each sounding element, means actuated by the time movement for operating the cam elements to successively bring the sounding elements in predetermined position, means for retaining the sounding elements in the adjusted position, a hammer, and actuating means for actuating the hammer a like number of times on the hours and at given intervals between the hours.

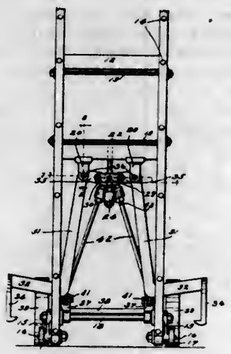
5. In a clock striking mechanism, a shaft, differently toned sounding elements mounted upon the shaft, cam elements carried by the shaft, one for each sounding element, means mounted upon the hour shaft for operating the cam elements to successively bring the sounding elements in predetermined position, means for holding the sounding elements in the adjusted position, a hammer, hammer actuating means for operating the hammer a like number of times on the hours and at given intervals between the hours, and means mounted upon the hour shaft for tripping the hammer actuating means.

1,142,944. TRUCK. WILLIAM L. DUSTMAN, North Yakima, Wash., assignor to Richard Wachsmith. Filed Aug. 5, 1913. Serial No. 783,068. (Cl. 21—65.)

1. The combination with a truck frame having longitudinally-slotted side members, a pair of arms pivotally supported on said frame, an axle carried by said arms, wheels mounted on said axle and adapted to be shifted in a direction lengthwise of said frame, plates secured to opposite sides of said frame, a rod extending transversely of the frame and extending through said plates, wheels mounted on said plates, a shaft slidably-mounted lengthwise of said frame, a pair of gripping arms pivotally connected at their upper ends to said frame, and having their lower ends extending through the slots of the side members thereof, strut-rods connecting said axle-carrying arms to said shaft, and links connecting said gripping arms to said shaft.

2. The combination with a truck frame comprising longitudinally-slotted side members, and a cross-bar formed with a central guide-opening, of a pair of gripping arms pivotally connected to said cross-bar at their upper ends

and having their lower ends extending through said side members, a longitudinally-movable shaft extending through said guide-opening, links connecting said shaft and gripping arms, a pair of arms pivotally supported upon opposite sides of said frame, an axle carried by said arms, wheels mounted on said axle, and a pair of strut-rods connecting said arms with said shaft.



3. The combination with a truck frame, of a pair of gripping arms pivotally-secured to said frame, arms pivotally secured to opposite sides of the frame, an axle carried by said arms, wheels on said axle, means for operating said gripping arms by the movement of the truck-frame, a rod extending transversely of the frame, plates at opposite sides of the frame through which said rod extends, shafts projecting from said plates, and wheels mounted thereon.

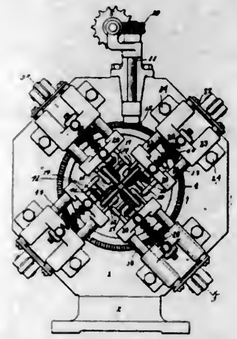
4. The combination with a truck frame, comprising side members and a cross-bar formed with a central guide-opening, a pair of gripping arms pivotally connected to said cross-bar, a longitudinally-movable shaft extending through said guide-opening, links connecting said shaft to said gripping arms, a triple-eyed coupling on the forward end of said shaft, a pair of arms pivotally secured to opposite sides of the frame, an axle carried by said arms, wheels on said axle, a pair of strut-rods connecting said axle-carrying arms with said coupling, a rod extending through the side members of the frame, plates mounted on said rod and a pair of supplemental wheels mounted on said plates.

1,142,945. BALLOON-STRIPPING MACHINE. BRUCE V. EDWARDS, Newark, N. J., assignor to Edwards Engineering & Manufacturing Company, Newark, N. J., a Corporation of New Jersey. Filed Apr. 18, 1913. Serial No. 762,015. (Cl. 18—1.)

1. In a device of the class described, the combination of a plurality of rotatable friction members mounted for radial movement toward and away from a common center, means for moving said members radially toward and away from the common center while out of contact with one another, and means for imparting rotation thereto simultaneously with the to and fro movement thereof, for the purposes set forth.

2. In a deviceof the class described, the combination of a plurality of peripherally grooved rotatable friction members mounted for radial movement toward and away from a common center, means for moving the said members to and away fro the common center while out of contact with one another, and means for imparting rotative movement thereto as said members are moved to and away from the common center, for the purposes set forth.

3. In a device of the class described, the combination of a plurality of rotatable friction members mounted for radial movement toward and away from a common center while out of contact with one another, means for moving said members to and away from the common center, and means common to said friction members for imparting rotation thereto during the to and fro movement thereof, and causing the sides thereof next to the common center to be rotated in the same direction, for the purposes set forth.

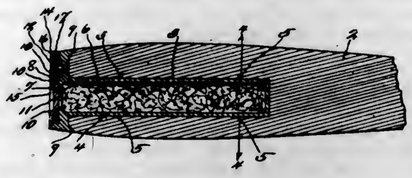


4. In a device of the class described, the combination of a plurality of peripherally grooved rotatable friction members mounted for radial movement toward and away from a common center while out of contact with one another, means for moving said friction members toward and away from the common center, and means common to said friction members for imparting rotation thereto, and causing the sides thereof next to the common center to be rotated in the same direction during the to and fro movement of said members, for the purposes set forth.

5. In a device of the class described, the combination of a plurality of rotatable wheels provided with friction surfaces and mounted for radial movement toward and away from a common center while out of contact with one another, means for moving said wheels toward and away from the common center, and means for imparting rotation thereto during said radial movement, for the purposes set forth.

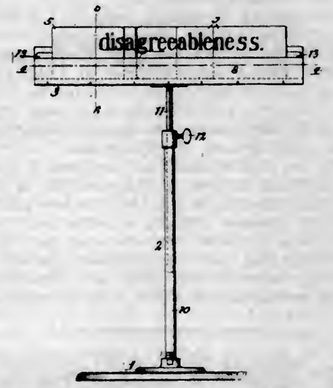
[Claims 6 to 55 not printed in the Gazette.]

1,142,946. HAMMER-HANDLE ATTACHMENT. ELMER E. ELLIS, Pomona, Cal. Filed Oct. 1, 1913. Serial No. 792,805. (Cl. 145—62.)



A combination handle end and lubricant container for a tool handle comprising a disk and a tube projecting from one face of the disk and fitted within the tool handle, the disk fitting closely to the end of the handle, said tube and disk being constructed as a casting, said tube adjacent the disk having an open end provided with an inwardly extending annular flange provided with a recess, the outer face of the disk adjacent one edge being provided with a laterally extending flange extending over half the periphery of the disk, said laterally extending flange of the disk being provided with a curved wall, a closure pivoted flat against the disk adjacent one end of the lateral flange and fitting the curved wall of the lateral flange when closed, said closure having a recess in its peripheral edge and corresponding to and coöperating with the first recess to receive a nail and acting to remove an excessive lubricant from the nail, and a spring fixed to said lateral flange to hold the closure against said flange.

1,142,947. EDUCATIONAL DEVICE. JANE L. ELLIS, Buffalo, N. Y. Filed Jan. 6, 1914. Serial No. 810,584. (Cl. 35—9.)



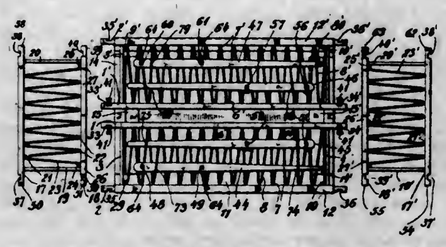
1. An educational device comprising receptacles arranged lengthwise side by side and adapted to receive character bearing cards and separated by a transverse gage which is adapted to be engaged on its opposite sides by the vertical edges of cards in said receptacles.

2. An educational device, comprising a front wall adapted to be engaged on its rear side by cards bearing characters, and a pressing device comprising a plate engaging with the rear sides of the cards and provided with marginal flanges which project rearwardly, and springs engaging with the rear side of said plate within said flanges.

3. An educational device for use with character bearing cards, comprising a longitudinal front wall, a gage arranged transversely in rear of the front wall, and pressing devices arranged on opposite sides of said gage and adapted to hold the cards against the rear side of said front wall.

4. An educational device for use with character cards, comprising an exhibiting space having a front wall and means for holding said cards in engagement with the rear side of said wall comprising a presser plate arranged in rear of said wall and extending above the latter.

1,142,948. KNOCKDOWN CRIB. OTTO GRANT ESTERBROOK, New York, N. Y. Filed Sept. 26, 1912. Serial No. 722,483. (Cl. 5—58.)

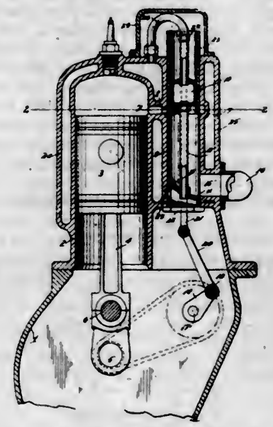


1. A baby's crib provided with detachable end and side sections, a bottom of flexible material having its side edges attached to the lower edges of said side sections and the latter being adapted to fold over upon said bottom toward each other and then folded over upon each other, the said end sections being adapted to lie against said folded side sections when said parts are packed together, substantially as described.

2. A baby's crib provided with detachable end and side sections, a bottom of flexible material having its side edges attached to the lower edges of said side sections and the latter being adapted to fold over upon said bottom toward each other and then folded over upon each other, the said end sections being adapted to lie against said folded side sections when said parts are packed together, and a set of detachable legs adapted to lie against said folded side sections when packed together, substantially as described.

3. A baby's crib provided with detachable end and side sections, a bottom of flexible material having its side edges attached to the lower edges of said side sections and the latter being adapted to fold over upon said bottom toward each other and then folded over upon each other, the said end sections being adapted to lie against said folded side sections when said parts are packed together, the said side sections having the centers thereof provided with laced flexible cable or cord, and a set of detachable legs adapted to be inserted in said laced cord of the side sections, substantially as described.

1,142,949. INTERNAL-COMBUSTION ENGINE. THOMAS J. FAY, Brooklyn, N. Y., assignor to The Goby Engine Company, a Corporation of Ohio. Filed Aug. 2, 1913. Serial No. 782,584. (Cl. 123—177.)



1. In an internal combustion engine, the combination, with a cylinder, of a valve casing adjacent to said cylinder and provided with a port intermediate its ends communicating therewith, an abutment between said port and the head end of the cylinder and within said valve casing and spaced from the valve casing to provide an annular seat, a sliding sleeve valve mounted in the head end portion of the casing and movable in said seat, a second abutment within the crank end portion of the valve casing, said valve casing being provided with a port between said abutments, the sleeve valve being removable at the head end of the casing without removal of the abutments, and means connected with the valve sleeve for reciprocating the same.

2. In an internal combustion engine, the combination, with a cylinder, of a valve casing having a port intermediate of its ends communicating therewith and a port beneath the first mentioned port, an abutment mounted in the lower portion of the valve casing beneath the second port and having an upwardly inclined face extending away from said port, a second abutment carried by the first abutment and mounted within the valve casing above the first mentioned port and spaced from the casing to provide an annular seat, a sliding sleeve valve mounted in the upper end of the valve casing and movable within said seat, and means connected with the upper end of the valve sleeve for reciprocating the same.

3. In an internal combustion engine, the combination, with a cylinder, of a valve casing having a port intermediate of its ends communicating therewith and having in its lower portion a second port, a hollow abutment in the lower end of the valve casing below the second port, a second hollow abutment within the valve casing above the first mentioned port and spaced from the casing to provide an annular seat, a tube connecting the second abutment

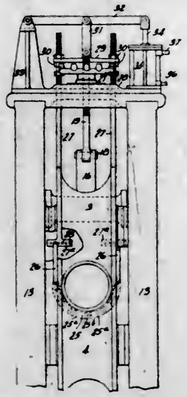
with the first abutment, a sliding sleeve valve mounted in the annular seat in the upper portion of the valve casing, means connected with the upper portion of said valve for reciprocating the same, a water jacket for the cylinder, and means connecting said abutments with said water jacket.

4. In an internal combustion engine, the combination, with a cylinder, of a valve casing having a port intermediate of its ends communicating therewith and having in its lower portion a second port, a hollow abutment secured to the lower end of the valve casing, below the second port, a second hollow abutment within the valve casing above the first mentioned port and spaced from the casing to provide an annular seat, a tube connecting the second abutment with the first abutment, a sliding sleeve valve mounted in the annular seat in the upper portion of the valve casing, means connected with the said valve for reciprocating the same, a water jacket for the cylinder, and means connecting one of said abutments with said water jacket.

5. In an internal combustion engine, the combination, with a cylinder, of a valve casing having a port intermediate of its ends communicating therewith and having a second port in the lower portion thereof, an abutment in said casing beneath the second port, a second abutment in the casing above the first mentioned port and spaced from the casing to provide an annular seat therewith, a sliding sleeve valve in the upper portion of the valve casing and reciprocably mounted in said seat, a lay shaft for the said valve, and means connecting the upper portion of the valve to said lay shaft.

[Claims 6 and 7 not printed in the Gazette.]

1,142,950. APPARATUS FOR SCRAPING PIPE-SKELP. CHARLES FELL, Elyria, Ohio, assignor to National Tube Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed Nov. 25, 1914. Serial No. 874,059. (Cl. 29—81.)



1. In apparatus for making pipes or tubes, the combination with welding rolls, of an articulated scraper on the entering side of said rolls, said scraper being movable into scraping engagement with skelp passing through the welding rolls, and means for moving the scraper into engagement with the skelp.

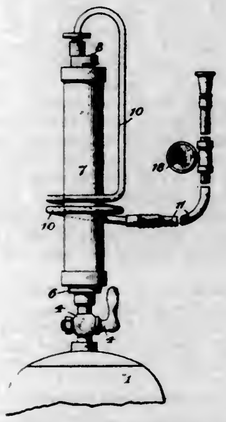
2. In apparatus for making pipes or tubes, the combination with welding rolls, of an articulated scraper on the entering side of said rolls, said scraper being movable into scraping engagement with skelp passing through the welding rolls, means for moving the scraper into engagement with the skelp, and means actuated by the skelp for operating said scraper moving means to move the scraper into and out of skelp scraping position.

3. Skelp scraping mechanism comprising a link chain forming a flexible scraper, means connected to the ends of said chain to suspend the chain in the path of the skelp, and a fluid pressure cylinder to which the chain suspending means is operatively connected for lifting the scraper into scraping position.

4. Skelp scraping mechanism comprising a link chain forming a flexible scraper, means connected to the ends of said chain to suspend the chain in the path of the skelp, and a fluid pressure cylinder to which the chain suspending means is operatively connected for lifting the chain into scraping position, said chain being adjustably secured on the chain suspending means to adapt the chain for use in scraping skelp of varying sizes.

5. Skelp scraping mechanism comprising a link chain forming a flexible scraper, means connected to the ends of said chain to suspend the chain in the path of the skelp, a fluid pressure cylinder to which the chain suspending means is operatively connected for lifting the chain into scraping position, and means operated by the skelp being scraped for controlling the operation of said cylinder in moving the chain into scraping position.

1,142,951. ATTACHMENT FOR HYDROCARBON-ENGINES. FREDERICK G. FOLBERTH, Cleveland, Ohio. Filed July 14, 1911. Serial No. 638,536. (Cl. 230—27.)

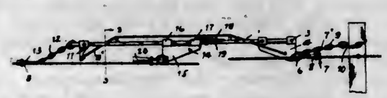


1. The combination with the cylinder of a motor vehicle engine, of a relief cock secured in the head of the cylinder, a portable pump, comprising a cylinder provided with inlet and outlet ports and means detachably engaging the relief cock, and a piston, the stem of which extends through the cock into the interior of the engine cylinder, and means for holding the stem of the pump piston in contact with the engine piston.

2. The herein described attachment for motor vehicle engines comprising an air pump having a cylinder provided with suitable inlet and outlet ports and means for detachably engaging the outer end of a relief cock on an engine cylinder, a piston, the stem of which projects at all times beyond one end of the cylinder and is adapted to extend through the passage in said relief cock into contact with the engine piston, and means acting to project said piston stem from the pump cylinder to its maximum extent.

3. The combination with the cylinder of a motor vehicle engine, of a relief cock secured in the head of the cylinder and provided at its outer end with an internally threaded seat, a portable pump, comprising a cylinder provided with inlet and outlet ports and having at one end a tubular threaded portion adapted to be secured in said seat at the outer end of the relief cock, a piston within said cylinder and having its stem extending through the relief cock into the engine cylinder, and means for holding the stem of the pump piston in contact with the engine piston.

1,142,952. WIRE-STRETCHER. HOWARD G. FURMAN, Jr., Marsland, Nebr. Filed May 11, 1914. Serial No. 837,843. (Cl. 254—72.)



In a device of the class described, a body portion of flat sheet metal, a web secured to one end thereof and extending downwardly at right angles thereto, a lug secured to the other end thereof and extending downwardly therefrom, said body portion having apertures adjacent its ends, a rod attached to the said lug and extending upwardly through one of the apertures and along the upper face of the body portion spaced from and parallel thereto and downwardly through the other aperture and attached to the lowermost point of the web member, a chain having a hook on the end thereof attached to said web member, a wire gripping member pivotally attached thereto, a wire stretching member slidably mounted on the body portion comprising a downwardly extending web, a wire gripping member attached thereto, a lever pivotally supported by said member and having pawls thereon for engagement with the body portion, a chain having a wire gripping member on the end thereof attached to the lug on the end of the body member, as and for the purpose described.

1,142,953. WATERPROOF LEATHER-BOARD AND PROCESS OF PREPARING THE SAME. FRANK B. GALLIVAN, Newton, Mass., assignor to The Newton Company, Newton, Mass., a Corporation of Maine. Filed Apr. 3, 1911. Serial No. 618,517. (Cl. 92—21.)

1. The herein described process of producing waterproof leatherboard, which consists in thoroughly mixing with a pulp containing fibers of tanned leather a suitable quantity of a basic compound of a third-group metal, and then forming the pulp thus treated into the desired product.

2. The herein described process of producing waterproof leatherboard, which consists in thoroughly mixing with a pulp containing fibers of tanned leather a suitable quantity of a basic compound of aluminum and then forming the pulp thus treated into the desired product.

3. The herein described process of producing waterproof leatherboard, which consists in thoroughly mixing with a pulp containing fibers of tanned leather a suitable quantity of a gelatinous basic compound of a third-group metal, and then forming the pulp thus treated into the desired product.

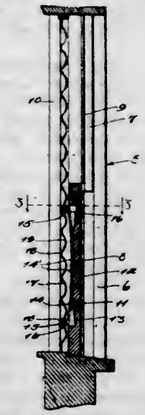
4. The herein described process of producing waterproof leatherboard, which consists in thoroughly mixing with a pulp containing fibers of tanned leather a gelatinous aluminum compound of basic character, and then forming the pulp thus treated into the desired product.

5. As a new article of manufacture, leatherboard comprising previously disintegrated fibers of tanned leather and rendered waterproof by the combination with said fibers of a basic compound of one or more third-group metals.

[Claims 6 to 9 not printed in the Gazette.]

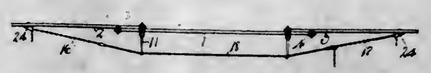
1,142,954. SASH-FRAME-HOLDING MEANS. ELIJAH T. GASKILL, Newbern, N. C., assignor of one-half to James A. Bryan, Newbern, N. C. Filed July 2, 1913. Serial No. 777,064. (Cl. 16—54.)

In combination; a window frame provided with spaced guide strips; a vertically movable sash frame disposed for movement between the guide strips and provided upon one side thereof with a longitudinal recess terminating near and spaced from the opposite ends of the sash frame and having a longitudinally curved bottom wall increasing in depth toward the opposite ends thereof; a serpentine track secured to the inner side of one guide strip and having alternate large and small equidistantly spaced turns, all of the small turns having substantially the same radii; a normally longitudinally curved leaf spring arranged upon one side of the sash frame within the longitudinal recess and terminating near and spaced from the opposite ends of the sash frame with its ends extending away from the sash frame; means rigidly attaching



the central portion of the curved leaf spring to the intermediate portion of the curved bottom wall of the longitudinal recess; and rollers attached to the opposite ends of the leaf spring and adapted to simultaneously engage within two of the small turns, said rollers having substantially the same radii as the small turns.

1,142,955. PAINTER'S PLATFORM. WILLIAM C. GAW, Cleveland, Ohio. Filed Jan. 21, 1911, Serial No. 604,002. Renewed Mar. 25, 1915. Serial No. 17,053. (Cl. 20—81.)



1. A painter's platform comprising, in combination, a pair of overlapping sections, an arm secured to the inner end of each of said sections and extending downwardly below the same, the lower end of each of said arms being formed to receive a tension member, and said arms being spaced from each other upon the same side of said platform when the same is extended, a tension member traversing the lower ends of said arms and secured to the outer ends of the terminal sections, means for shifting said sections over each other to vary the total length of said platform and for securing said sections together when so shifted, and means for varying the length of said tension member.

2. A painter's platform comprising a plurality of overlapping sections, a fitting secured to the inner end of the upper section and having a depending ear at each side embracing said lower section, an arm pivoted between said ears and having a cam on its inner end and a tension-member-receiving-device at its outer end, said cam being adapted to draw said sections together when said arm is extended at substantially right angles, a tension member passing through said device and secured near the ends of the platform, means for varying the length of said tension member, and means coöperating with said cam in holding said members against relative displacement.

3. A painter's platform comprising, in combination, a main section and a terminal section at each end thereof and overlapping the end of the main section, a fitting secured to the inner end of each of the upper sections and having a depending ear at each side embracing said main sections, an arm pivoted between each pair of ears and having a cam on its inner end, and having its outer end

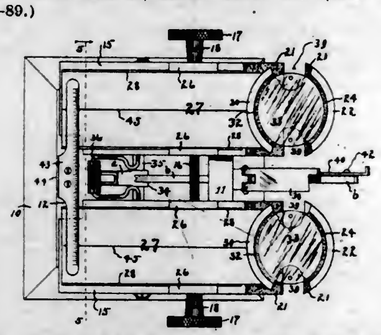
formed to engage a tension member, said cams being adapted to draw said sections together when said arms are in extended position and to permit said arms to be folded toward the ends of the platform, coöperating pins and sockets carried by said sections and assisting said cams in locking the same against relative displacement, and a tension member engaging said arms and secured to the outer ends of said terminal sections for bracing said platform, said tension member being of adjustable length.

4. A painter's platform comprising, in combination, a plurality of relatively adjustable supporting sections, bracing members hinged to said sections and arranged when moved to a position transverse thereto to secure said sections together against accidental relative displacement, said bracing members being formed at their outer ends for the reception of a tension member, a tension member secured to the outer end of the terminal section of said platform and traversing said bracing members, and means for securing said tension member to said terminal section, in a plurality of adjusted positions whereby the length of the same is determined.

5. A painter's platform consisting of overlapping extensible sections, clamping members for securing together the ends of said sections, a rigid arm carried by each of said clamping members and extending downwardly below the platform, the end of each of said arms being spaced from each other upon the same side of said platform when the same is extended, a tension member traversing the lower ends of said arms and secured to the outer ends of the terminal sections, and means for varying the length of said tension member.

[Claims 6 and 7 not printed in the Gazette.]

1,142,956. ASSEMBLER FOR RIMLESS LENSES. NATHAN H. GREENBERG and JOSEPH F. CLUTTER, Omaha, Nebr. Filed Feb. 11, 1915. Serial No. 7,684. (Cl. 29—89.)



1. An apparatus for assembling rimless lenses, comprising a base, a pair of elongated detent plates each having a curved part for resisting edgewise stresses of a lens when deposited thereon, means for moving said detent plates transversely while disposed on said base, a pair of elongated compression-plates disposed upon and coincidently movable longitudinally of the detent plates, each being provided with a curved part for directing stresses edgewise of a lens on a detent plate, when moving in one direction.

2. An apparatus for assembling rimless lenses, comprising a base, a pair of elongated detent plates upon and extending forwardly of the base, each having a curved part for resisting edgewise stresses of a lens when deposited thereon and provided with recesses opening on its upper and lower sides adjacent to said curved part, means for moving said detent plates transversely while disposed on said base, a pair of elongated compression-plates disposed upon and coincidently movable longitudinally of the detent plates, means to maintain the compression-plates parallel with the detent plates, each of said compression-plates being provided with a curved part for directing stresses edgewise of a lens on a detent plate while moving in one direction.

3. An apparatus for assembling rimless lenses, comprising a base, a pair of elongated detent plates disposed on the base, each having a curved part for resisting edgewise stresses of a lens when deposited thereon, a double threaded screw rotatable for moving said detent plates transversely, a pair of elongated compression-plates each being disposed upon and movable with a detent plate, means for maintaining the compression-plates parallel with the detent plates, means for coincidently moving the compression-plates longitudinally of the detent plates, each of said compression-plates being provided with a curved part for directing stresses edgewise of the lens on a detent plate when moving in one direction, and a stationary plate bearing indices for determining the transverse movements of said plates.

4. An apparatus for assembling rimless lenses, comprising a base, a pair of elongated detent plates each having a depressed part provided with a cushion for a seating thereon of a lens and having a curved part provided with a cushion for resisting edgewise stresses of a lens, means for moving said detent plates transversely while disposed upon said base, a pair of elongated compression-plates disposed upon and coincidently movable longitudinally of the detent plates, each being provided with a curved part for directing stresses edgewise of a lens on a detent plate when moving in one direction, the curved part of each compression-plate being provided with a cushion for engaging one of the edges of a lens.

5. In an apparatus for assembling rimless lenses, a base, a pair of elongated supporting-plates disposed side by side thereon, each being provided at one of its terminals with a curved flange for resisting stresses to a lens when deposited on a supporting-plate, a rotatable screw-member for coincidently moving the supporting-plates toward or in directions opposed to each other, an elongated compression-plate carried by each supporting-plate and provided at one of its terminals with a curved flange for directing stresses to a lens on a supporting-plate, a spring connected with a compression-plate, a rock lever engaging the spring and adapted to be actuated for moving the compression-plates longitudinally of the supporting plates subjected to the resistance of the spring.

[Claims 6 and 7 not printed in the Gazette.]

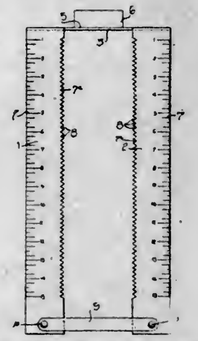
1,142,957. CLASP FOR SUSPENDERS. ABRAHAM HARRIS, New York, N. Y. Filed May 28, 1914. Serial No. 841,595. (Cl. 24—248.)



1. A fastener of the class described comprising a U-shaped body, one arm of which is provided with an opening tapering toward its free end, and an angular clasp pivoted on the other arm thereof, one member of said clasp being positioned for projection through said tapered opening and having curved notches in the side edges thereof whereby, when said clasp is closed, the notched member thereof will be forced through said tapered opening in the arm of the body and downward into locking engagement with the converging walls of said opening, the outer ends of said curved notches serving to retain a material disposed between the arms of the body in engagement with said clasp.

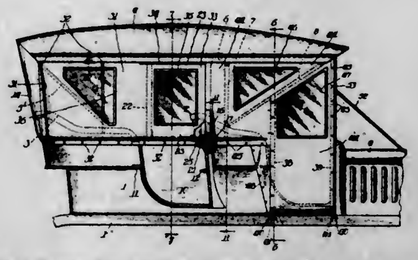
2. A fastener of the class described comprising a U-shaped body, one arm of which is provided with a slot and the other with a triangular shaped opening having the apex thereof extending toward the free end of said arm, and an angular clasp fulcrumed adjacent the junction of its members on the arm of said body having the slot therein to permit the members of the clasp to project respectively into the slot and through the triangular opening of the arms of the body, the member of said clasp projecting through the triangular opening in one arm of the body having inwardly curved notches on the side edges thereof and adapted to be forced into binding engagement with the tapered walls of said triangular opening and secure material disposed between said body arms.

1,142,958. MEASURING INSTRUMENT. HOWARD HENRY, Kirksville, Mo. Filed Aug. 6, 1913. Serial No. 783,372. (Cl. 33—42.)



A device of the class described including a pair of parallel side members having their outer edges provided with graduations, a transverse outstanding piece integrally connecting the side members at one end, said transverse member extending the entire width of the side members, an outstanding flange formed integral with the transverse member, and a bar having its ends secured to the opposite ends of the side members.

1,142,959. INCLOSURE FOR VEHICLES. OLLIE L. HERRON, Chicago, Ill. Filed Jan. 18, 1911. Serial No. 603,315. (Cl. 21—62.)

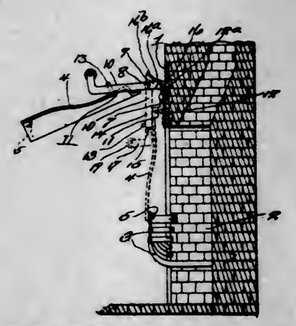


In a closure for vehicles, comprising the combination of suitable top and body, an auxiliary door frame comprising upright bars and a top cross piece connecting said bars, said upright bars provided with squared pins at their lower ends, a supporting brace between and secured to said bars, said brace carrying locking pins to lock the auxiliary frame in position, auxiliary uprights detachably connected at one end to the top and at their opposite end to the body of the vehicle, flexible side walls engaging said uprights.

1,142,960. BLOWER-HOOD AND FASTENING THEREFOR. CHARLIE EDGAR HITT, Lookout, W. Va. Filed Mar. 4, 1915. Serial No. 12,209. (Cl. 126—135.)

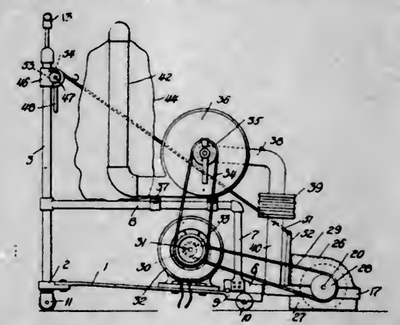
1. The combination with a fire place, of a blower having an opening in its upper edge, and an outwardly projecting loop located adjacent to said opening, and a pivotally suspended latch member mounted above the opening of the fire place and coöperating with the loop to hold the blower in place.

2. The combination with a fire place frame of a blower having an opening in its upper edge and an outwardly projecting loop located adjacent to said opening, and a latch member pivotally suspended from the top of the



fire place frame through said loop and opposite said opening and having a handle, and shoulders engaging said loop, and a spring on the fire place frame in yielding engagement with said latch to lock said latch and blower in elevated or lowered position.

1,142,961. FLOOR-SURFACING MACHINE. OTTO H. HOLDERER, Detroit, Mich. Filed Sept. 16, 1914. Serial No. 861,957. (Cl. 51—13.)



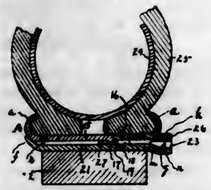
1. A machine of the type described comprising a portable base plate, uprights carried thereby, a tiltable roll bearing at the forward end of said base plate, a driven sand papering roll carried by said bearing, a crank shaft supported by said uprights, means connected to said roll bearing and to said crank shaft whereby said roll bearing can be adjusted, and suction means connected to said roll bearing and adapted to remove dust from the rear side of said sand papering roll.

2. A machine of the type described comprising a portable base plate, uprights at the rear end thereof, supports above said base plate and connected to said uprights, a roll bearing pivotally connected to the forward end of said said base plate, a sand papering roll revolubly supported by said bearing, means supported by said uprights for adjusting said roll bearing, suction means upon said support and connected to said roll bearing, and adapted to remove dust from the rear side of said roll, and means upon said base plate for simultaneously operating said suction means and said sand papering roll.

1,142,962. DEMOUNTABLE RIM FOR VEHICLE-TIRES. JOSEPH D. HOOKER, Carson, Iowa, assignor of one-fourth to Theodore G. Northwall and one-fourth to Frank Reed, Omaha, Nebr. Filed Jan. 31, 1914. Serial No. 815,681. (Cl. 152—21.)

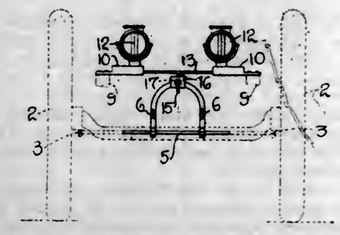
1. In devices for the purpose described, a bearing rim provided at longitudinal intervals with lugs and inter-

mediate of said lugs with recesses, a tire-supporting rim consisting of a plurality of connected longitudinal sections adapted to be moved transversely of the bearing rim for mounting thereon or removal therefrom, a locking ring provided at longitudinal intervals with lugs and intermediate of said lugs with recesses, said locking ring being adapted to have a movement longitudinally of the bearing rim for mounting thereon adjacent to the tire-supporting rim with its lugs disposed inwardly of the lugs of said bearing rim, a keeper adapted to traverse the bearing rim and locking ring for preventing relative longitudinal movements thereof, and means operative when the sections are in engagement with the tire for disconnecting said sections to permit lateral expansion of said tire-supporting rim for causing a pressure thereof against the locking ring, the operation being that the pressure against said locking ring of the tire-supporting rim may cause the lugs of the locking ring to be pressed against the lugs of said bearing rim.



2. In devices for the purpose described, a bearing rim, a tire-supporting rim consisting of a plurality of connected longitudinal sections adapted to be moved transversely of the bearing rim for mounting thereon or removal therefrom, a locking ring provided with an annular dust guard and adapted to be moved longitudinally for mounting on the bearing rim adjacent to the tire-supporting rim, a keeper adapted to traverse the bearing rim and locking ring for preventing a longitudinal movement of the locking ring relative to the bearing rim, and means operative when the sections are in engagement with the tire for disconnecting said sections to permit lateral expansion of said tire-supporting rim.

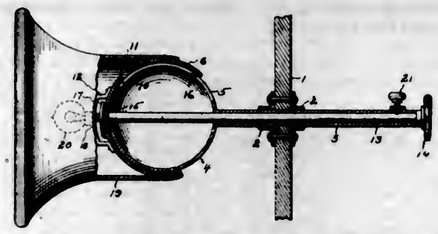
1,142,963. HEADLIGHT FOR VEHICLES. BERT ALFORD HOPPER, Big Rapids, Mich., assignor of one-half to Roland Miller Frantz, Big Rapids, Mich. Filed Nov. 21, 1914. Serial No. 873,357. (Cl. 240—62.)



A device of the class described including a steering rod, a yoke mounted thereon, a block supported at the upper end of the yoke, having a central bore therein, lamp supports arranged in spaced relation upon opposite sides of the yoke, gears carried by the supports, a bar having teeth upon each end adapted to engage with the gears, a cross head, means forming a movable connection between the cross head and the bar, a pin carried by the cross head and adapted to be inserted within the bore of the block whereby the lamp supports will be rotated upon the actuation of the steering rod.

1,142,964. ADJUSTABLE LAMP. FRED C. HOWE, New Haven, Conn. Filed Aug. 7, 1914. Serial No. 855,537. (Cl. 240—61.)

1. The combination with a globular member; of a cup member with an irregularly shaped opening therethrough partly surrounding said globular member and having a movable engagement therewith; a toothed plate within said opening; means for securing the same so that there is an open space around the entire edge thereof and inside the edge of the opening in said cup member, and means for moving said cup about said globular member, comprising a rotary shaft having a member thereon operatively engaging said toothed plate.



2. The combination with a globular member; of a cup member with an irregularly shaped opening therethrough partly surrounding said globular member and having a movable engagement therewith; a plate within said opening having teeth around the entire edge thereof; means for securing said plate to said cup member, and means for moving said cup about said globular member, comprising a rotary shaft having a member thereon operatively engaging said plate.

3. The combination with a globular member; of a cup member with an irregularly shaped opening therethrough partly surrounding said globular member and having a movable engagement therewith; a toothed plate within said opening; means for securing said plate to said globular member so as to have an opening entirely surrounding said plate and of substantially uniform width; means for moving said cup about said globular member, comprising a rotary shaft having a member thereon operatively engaging said toothed plate.

4. The combination with a globular member; of a cup member with an irregularly shaped opening therethrough partly surrounding said globular member and having a movable engagement therewith; a plate within said opening having teeth in the edge thereof; means for moving said cup about said globular member, comprising a rotary shaft having a member thereon operatively engaging said plate; and means, as a member adjacent to said pinion, for holding the same against endwise and lateral movement.

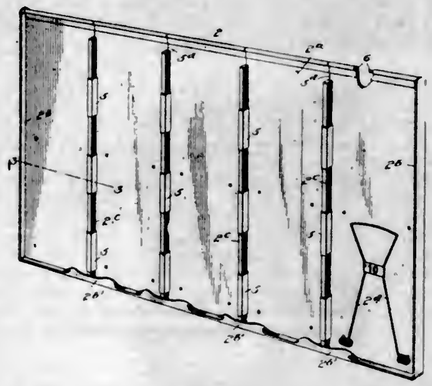
5. The combination with a globular member; of a cup member with an irregularly shaped opening therethrough and a shoulder parallel therewith partly surrounding said globular member and having a movable engagement therewith; a toothed plate within said opening; means for moving said cap about said globular member, comprising a rotary shaft having a member thereon operatively engaging said toothed plate; and means for holding said pinion in engagement with the teeth in said plate, said member having contact with said shoulder.

[Claims 6 to 8 not printed in the Gazette.]

1,142,965. FILING APPLIANCE. GEORGE JACOBS, Cleveland, Ohio, assignor, by mesne assignments, to The McCaskey Register Company, (incorporated in 1914,) Alliance, Ohio, a Corporation of Ohio. Filed June 27, 1911. Serial No. 635,543. (Cl. 129—34.)

1. A holder or frame for a filing appliance, comprising a back formed from sheet metal and provided with flanges along its opposite side edges each flange being divided into sections which project laterally in opposite directions alternately from the adjacent edge of the said back, and an end wall for each of said flanged edges formed from a strip of sheet metal which is bent or doubled on itself over and upon said flange sections along its opposite longitudinal edges.

2. A holder or frame for a filing appliance, comprising a back formed from sheet metal, a series of ribs mounted on one face of said back and a plurality of loop members for each rib projecting laterally from the adjacent face of the back and extending around the adjacent rib for securing it to the back, the said loop members being formed integrally with said back, and the remaining portion of the back in line with the loop members being cut away and the edges thus formed being abutted together.



3. A holder or frame for a filing appliance comprising a back, a series of strips forming ribs for the opposite faces of said back, and a plurality of loop members for each strip integrally connected with the back and surrounding the walls of the adjacent strip, each loop member extending laterally from one face of the back in a direction opposite to that of the adjacent loop members.

4. A holder for a filing appliance comprising a back formed from sheet metal and slitted on parallel lines, and certain of the sections or portions of the metal between the slits being pressed or projected laterally to form a series of alined loop members integral with said back, and pocket forming ribs extending through the loop members and secured to the back thereby, the remaining portions of the back in line with the loop members being cut away and the edges thus formed being abutted together.

5. A holder for a filing appliance comprising a back formed from sheet metal and slitted on parallel lines, the adjoining sections of the metal between the slits being pressed outwardly in opposite directions to form loop members, and a strip extending through the loop members and projecting from opposite faces of the back to form spacing or pocket forming ribs thereon.

[Claims 6 to 10 not printed in the Gazette.]

1,142,966. AUTOMOBILE-WASHER. HARRY M. JENNINGS, Utica, N. Y. Filed June 21, 1913. Serial No. 774,993. (Cl. 15—51.)



1. In an automobile washer, a tube, a hose connected to one end of said tube, a brush connected to the opposite end of said tube, means for holding soap subject to the action of water as same passes through said tube, and means for regulating the quantity of soap in said water.

2. In an automobile washer, the combination of a tube, means having apertures in said tube for holding a cake of soap, means for opening or closing said apertures in said means for holding said soap, and a brush, substantially as described.

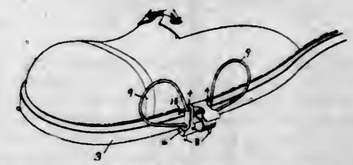
3. In an automobile washer, a tube, a hose connected to one end of said tube, a brush detachably connected to the opposite end of said tube, an apertured soap container for holding a cake of soap within said tube, and means for adjusting the degree of opening of said apertures.

4. In an automobile washer, a tube, a hose connected to one end of said tube, a brush detachably connected to the opposite end of said tube, members for holding a cake of soap within said tube, and means for adjusting said members with reference to each other.

5. In an automobile washer, the combination of a tube, having an enlarged portion, a second enlarged portion of said tube, said second portion adapted to sleeve said first named enlarged portion, an apertured soap container supported within said enlarged portions, apertures in said soap container, and means for regulating the degree of opening of said apertures.

[Claim 6 not printed in the Gazette.]

1,142,967. DEVICE TO PREVENT SLIPPING. ADAM KASZUBSKI, Detroit, Mich. Filed Aug. 7, 1914. Serial No. 855,592. (Cl. 36—62.)



1. In a device for preventing pedestrians from slipping, the combination of a plate adapted to extend below the sole of a shoe, upwardly extending posts at its outer end, which posts have transverse holes at their upper ends and lugs at the outer sides of their lower ends provided with vertical holes, a wire rod extending through said transverse holes and having its ends extending down through the vertical holes, its intermediate portions constituting resilient loops, a flat spring secured at one end to said plate and extending out between the posts and then bent back between the posts with its end serrated and bent downwardly, and a lever mounted on the rod between the posts and having a shoulder adapted to engage the bent back portion of the spring to force the serrated end into engagement with the sole.

2. In a device for preventing pedestrians from slipping, the combination of a plate adapted to extend below the sole of a shoe, upwardly extending posts at its outer end which posts have transverse holes, a rod extending through said holes, spikes extending downwardly from said posts, a flat spring secured at one end to said plate and extending out between the posts and then back between the posts with its end serrated and bent downwardly, and a lever mounted on the rod between the posts to force the serrated end of the spring into engagement with the sole.

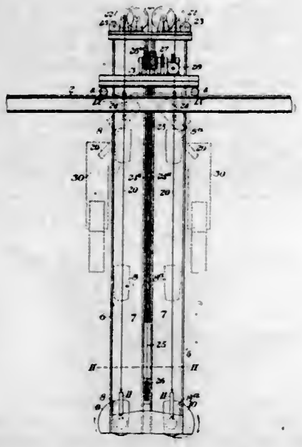
3. In a device for preventing pedestrians from slipping, the combination of a plate adapted to extend below the sole of a shoe, upwardly extending posts at its outer end, which posts have transverse holes at their upper ends and lugs at the outer sides of their lower ends provided with vertical holes, a wire rod extending through said transverse holes and having its ends extending down through the vertical holes in the lugs, its intermediate portions constituting resilient loops, and means to secure the plate to the sole.

4. In a device for preventing pedestrians from slipping, the combination of a plate adapted to extend below the sole of the shoe and projections thereon, a flat spring secured at one end to said plate between the projections, said plate being bent back upon itself and then downwardly and being serrated at its end, and means for forcing the serrated end into the upper surface of the sole.

1,142,968. APPARATUS FOR HANDLING MATERIALS. FREDERICK H. KINDL, Pittsburgh, Pa.; F. H. Kindl, Jr., administrator of said Frederick H. Kindl, deceased. Filed June 21, 1913. Serial No. 774,998. (Cl. 214—12.)

1. In apparatus of the character described, a vertically movable leg having two vertical bucket runways, a

bucket holder rotatably mounted at the lower portion of each runway, a bucket mounted in each runway and movable into and out of its holder, means for simultaneously rotating the bucket holders in opposite directions, and hoisting means for said buckets; substantially as described.



2. Apparatus of the character described, comprising a vertical leg mounted for vertical and also for horizontal movement and having two vertical bucket runways, a bucket holder rotatably mounted at the lower portion of each runway, means for rotating the bucket holders in opposite directions mounted on the leg, a bucket movable in its runway into and out of each bucket holder, and hoisting means for each bucket; substantially as described.

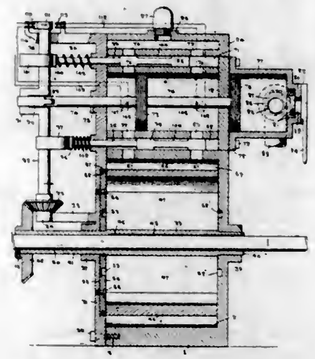
3. In apparatus of the character described, a vertically movable bucket having two parallel vertical bucket runways, a rotary bucket holder rotatably mounted at the lower portion of each runway, a separate motor and gearing for rotating each bucket holder, the motors and gearings being arranged to turn the holders in opposite directions, a bucket mounted to travel in each runway into and out of engagement with its bucket holder, and separate motors and actuating connections for raising and lowering the buckets, together with motive means for effecting a bodily raising and lowering movement of the leg; substantially as described.

4. In apparatus of the character described, a leg having a vertical bucket runway, a bucket mounted for travel in said runway, hoisting means for the bucket, and a discharge trough slidably mounted on the leg, said bucket and trough having coöperating means for sliding the trough and tipping the bucket; substantially as described.

5. In apparatus of the character described, a vertical leg having a vertical bucket runway therein, a bucket mounted to travel up and down said runway, hoisting means attached to the bucket, an inclined trough slidably supported on the leg and having projections extending into the runway, and means on the bucket for engaging said projections to thereby pull the trough upwardly and inwardly into the runway and simultaneously therewith tip the bucket into dumping position with relation to the trough; substantially as described.

1,142,969. ROTARY ENGINE. JOHN DEAM KNEEDLER, Sioux City, Iowa, assignor of one-half to Buel Couch, Sioux City, Iowa. Filed May 2, 1914. Serial No. 835,974. (Cl. 123—16.)

1. A rotary motor, comprising a bed, a rotor casing upon said bed, a rotor within said casing, a shaft extending through said rotor, an exhaust port for said casing, a base formed upon said casing, a housing arranged upon said base, a hood arranged upon said housing, a fuel chamber within said hood, fuel connections with said fuel chamber, a cylinder arranged within said housing, a piston operated in said cylinder, a compression chamber at each side of said piston, a valve chamber formed between said compression chambers and said rotor casing, ports establishing communication between said compression chambers and said rotor casing, and a valve within said valve chamber for controlling the admission of the fuel charge into said rotor casing.



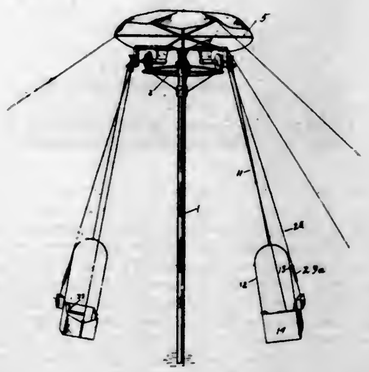
2. A rotary motor, comprising a bed, a rotor casing upon said bed, a rotor within said casing, a shaft extending through said rotor, an exhaust port for said casing, a base formed upon said casing, a housing arranged upon said base, a hood arranged upon said housing, a fuel chamber within said hood, fuel connections with said fuel chamber, a cylinder arranged within said housing, a piston operated in said cylinder, a compression chamber at each side of said piston, a lower valve chamber formed between said compression chambers and said rotor casing, ports establishing communication between said compression chambers and said rotor casing, a valve within said valve chamber for controlling the admission of the fuel charge into said rotor casing, an upper valve chamber formed between said fuel chamber and said compression chambers, ports for connecting said fuel chambers with said compression chambers, and a valve within said upper valve chamber for controlling the admission of fuel from said fuel chamber into said compression chambers.

3. A rotary motor, comprising a bed, a rotor casing upon said bed, a rotor within said casing, a shaft extending through said rotor, an exhaust port for said casing, a base formed upon said casing, a housing arranged upon said base, a hood arranged upon said housing, a fuel chamber within said hood, fuel connections with said fuel chamber, a cylinder arranged within said housing, a piston operated in said cylinder, a compression chamber at each side of said piston, a lower valve chamber formed between said compression chambers and said rotor casing, a valve within said valve chamber for controlling the admission to the fuel charge into said rotor casing, an upper valve chamber formed between said fuel chamber and said compression chambers, ports for connecting said fuel chambers with said compression chambers, a valve within said upper valve chamber for controlling the admission of fuel from said fuel chambers into said compression chambers, and means for operating said pistons and said valves.

4. A rotary motor, comprising a bed, a rotor casing upon said bed, a rotor within said casing, a shaft extending through said rotor, an exhaust port for said casing, a base formed upon said casing, a housing arranged upon said base, a hood arranged upon said housing, a fuel chamber within said hood, fuel connections with said fuel chamber, a cylinder arranged within said housing, a piston operated in said cylinder, a compression chamber at each side of said piston, a lower valve chamber formed between said compression chambers and said rotor casing, a valve within said valve chamber for controlling the admission of the fuel charge into said rotor casing, an upper valve chamber formed between said fuel chamber and said compression chambers, ports for connecting said fuel chambers with said compression chambers, a valve within said upper valve chamber for controlling the admission of fuel from said fuel chamber into said compression chambers, means for operating said pistons and said valves, and means for alternately exploding the fuel charge in the respective compression chambers at predetermined periods.

5. A rotary motor, comprising a bed, a rotor casing arranged upon said bed, a rotor within said casing, a shaft extending through said rotor and said casing, an exhaust port for said casing, fuel inlet ports for said casing, a housing arranged upon said casing, a cylinder within said housing, a lower valve chamber arranged between said cylinder and said rotor casing, a valve chamber arranged between said cylinder and a fuel chamber, a piston operating within said cylinder, compression chambers within said cylinder, a timing shaft arranged upon said motor, gearing connections between the driving shaft and said timing shaft, valves operated within said valve chambers, and connections between said timing shaft and said piston and said valves for operating the same.

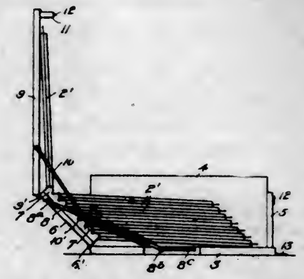
1,142,970. CIRCLE-SWING. JAMES A. KOEHLER, Saginaw, Mich. Filed Oct. 9, 1914. Serial No. 865,818. (Cl. 46—27.)



1. In a circle swing, the combination of a standard, a stationary circular track supported by the upper part of said standard, radially disposed arms revolubly mounted on said standard above said track, traction wheels carried by said arms and adapted to roll on said track, a car suspended from each arm, an extensible drive shaft, a flexible joint in said shaft near its upper end, driving means carried by the car and operatively connected to the lower part of said drive shaft, and power transmitting means operatively connecting said flexible joint and said traction wheel, said transmitting means adapted to propel said wheel in one direction only.

2. In a circle swing, the combination of a standard, a stationary circular track near the upper part of said standard, radial arms revolubly mounted on said standard above said track, traction wheels carried by said arms and adapted to roll on said track, cars suspended from said arms, an extensible drive shaft, a flexible joint carried by said shaft near its upper end, driving means carried by the car and operatively connected to the drive shaft, and a pair of bevel gears carried by said arms, one of said gears operatively connected to said flexible joint, a pawl carried by said traction wheel, and a circular ratchet operatively connected to the second bevel gear of said pair, for the purposes set forth.

1,142,971. FILING APPLIANCE. STEWART S. KURTZ, Canton, Ohio, assignor, by mesne assignments, to The McCaskey Register Company, (incorporated in 1914. Alliance, Ohio, a Corporation of Ohio. Filed June 9, 1909. Serial No. 501,123. (Cl. 45—2.)



1. In an accounting appliance the combination of a casing having a swinging back, a series of bill-holding leaves pivotally mounted on said back, a combined cover and support hinged to said back, means for supporting the back in an inclined position, and means coöperating with the back-supporting means for supporting the cover.

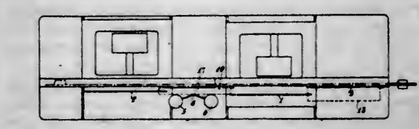
2. In an accounting appliance, the combination of a casing, a back swingably connected to the casing, a series of leaves pivotally mounted on the hinged back, means for supporting the back in an inclined position, a cover hingedly connected to the back, and connecting means between the cover and the back supporting means for positioning the said cover.

3. In an accounting appliance, the combination of a casing, a back swingably connected to the casing, a series of leaves pivotally mounted on the hinged back, means for supporting the back in an inclined position, a cover hingedly connected to the back, and connecting means comprising a link pivoted to the cover and slidably pivoted to the back supporting means for holding the cover in elevated position.

4. In an accounting appliance the combination of a casing including a bottom, a back swingably connected with the bottom, a series of bill-holding leaves pivotally mounted on said back, a cover hinged to the back and adapted to support the leaves when in upright position, and coöperating means for supporting said back and cover in inclined and upright position respectively.

5. In a filing appliance, the combination of a base, a back hinged to said base, a series of bill-holding leaves pivotally connected to said back, a cover pivoted to said back, a rod having pivotal connection at one end and a pivotal slidable connection at its opposite end with said base and back for supporting the latter in an inclined position, and a separate rod pivotally connected at one end and slidably and pivotally connected at its opposite end to said cover and first mentioned rod for supporting the cover in upright position.

1,142,972. RESAWING-MACHINE AND THE LIKE. JOHAN AUGUST LARSSON and KARL ERIK RUDOLF ÖSTERBERG, Stockholm, Sweden, assignors to J. & C. G. Bolinders Mekaniska Verkstads Aktiebolag, Stockholm, Sweden, a Corporation of Sweden. Filed June 22, 1914. Serial No. 846,414. (Cl. 143—4.)



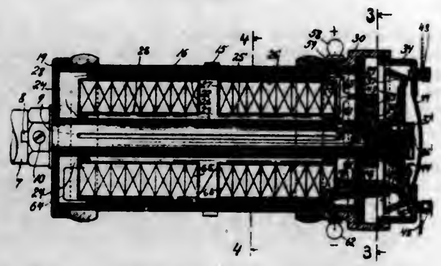
1. In a re-sawing machine of the character described, the combination of a number of saws and a guide adjacent to said saws, the front face of the guide opposite each

saw being recessed to provide a clearance for the material cut by the saw, substantially as described.

2. In a re-sawing machine, the combination of a guide provided in its front face with a number of clearance recesses, and saws opposite said recesses at decreasing distances from the guide, substantially as and for the purpose set forth.

3. In a re-sawing machine, the combination of a guide provided in its front face with a number of clearance recesses, saws opposite said recesses at decreasing distances from the guide, and means for effecting a resilient pressure on the material fed into the machine opposite the parts of the guide between the recesses, substantially as and for the purpose set forth.

1,142,973. ELECTRICAL APPARATUS. JOSEPH H. LEHMAN, New York, N. Y. Filed Dec. 6, 1912. Serial No. 735,207. (Cl. 128—168.)



1. In combination with an induction coil, a core movable independently of the coils thereof and a circuit breaking attachment, said attachment having a movable part adapted to be operated by said core.

2. In combination with an induction coil, a rotatable core therefor and a circuit breaking attachment, said attachment having a revolving contacting member mounted upon said core.

3. In combination with an induction coil, a core movable independently of the coils thereof comprising soft iron wires within a metallic tube having a longitudinal cut away portion, and a timer at one end of said coil having its rotatable member mounted upon said core.

4. In combination with an induction coil, a rotatable core therefor comprising soft iron wires within a metallic tube having a longitudinal cut away portion, and a timer at one end of said coil having its rotatable member mounted upon said core, said coil having a central longitudinal bearing for said core.

5. In combination with a stationary induction coil, a rotatable core therefor comprising soft iron wires within a metallic tube having a longitudinal cut away portion, a timer at one end of said stationary coil having its rotatable member mounted upon said core, and a condenser concentrically mounted outside of the secondary windings of said coil.

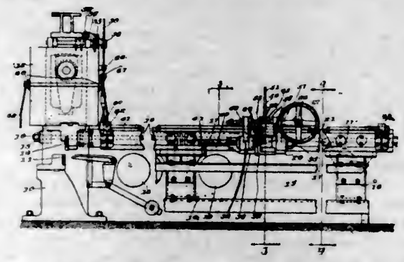
[Claims 6 to 8 not printed in the Gazette.]

1,142,974. SHEARING-MACHINE. ARA U. LEONHAUSER, Chicago, Ill., assignor to International Harvester Company of New Jersey, a Corporation of New Jersey. Filed Aug. 19, 1914. Serial No. 857,569. (Cl. 164—49.)

1. In a shearing machine, a movable shear member, a stop member, and an operative connection between said shear and stop members whereby said stop member is collapsed.

2. In a shearing machine, the combination of a movable shear member, a movable stop member, and means whereby raising movement of said stop member is controlled by raising movement of said shear member.

3. In a shearing machine, the combination of a movable shear member, a movable stop member, movement in one direction of said stop member being controlled by said shear member, and trip means for controlling movement of said stop member in another direction.

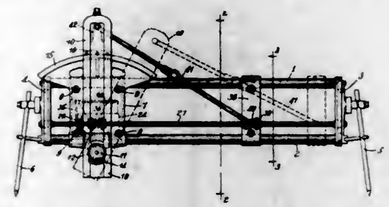


4. In a shearing machine, the combination of a movable shear member, a stop member, and a releasable trip connection between said shear and stop members.

5. In a shearing machine, the combination of a movable shear member, a stop member, and means whereby said stop member may be raised by said shear member as it rises.

[Claims 6 to 19 not printed in the Gazette.]

1,142,975. STONEWORKING-MACHINE. HENRY H. MERCER, Claremont, N. H., assignor, by mesne assignments, to Sullivan Machinery Company, Boston, Mass., a Corporation of Massachusetts. Filed June 20, 1911. Serial No. 634,291. (Cl. 125—2.)



1. In a channeling machine, the combination with a guiding or supporting frame comprising one or more guide bars, end members and supporting legs therefor, of a tool carriage comprising a frame adapted to be supported and guided by said guide bars, a standard pivotally mounted on said carriage, means to hold the standard fixed or free the same for movement about its pivotal support, a percussive cutting tool and engine connected to actuate the tool, a sliding frame on which the tool and engine are carried, said frame being adjustable on the standard toward or from the work, feeding means to advance and retract the same, means for propelling the carriage comprising a motor carried thereby, a threaded shaft extending the length of the frame a traveling nut upon said carriage engaging the shaft, connections for driving said shaft from the motor, a tool swinging member movable independently of the carriage and mounted to move lengthwise the guide bars, means reciprocatively to move said member from the motor comprising a nut thereon engaging said threaded shaft and a connection between said member and the standard to swing the same during percussive movement of the tool.

2. In a channeling machine the combination with a guiding and supporting frame having guide bars and supporting legs, of a tool carriage thereon, a standard pivotally mounted on said carriage, means to hold the standard fixed or free the same for movement about its pivotal support, a percussive cutting tool with tool actuating means on said standard, a motor on the carriage for propelling the same, a tool swinging member movable independently of the carrier on the frame, connections for causing movement of said member by said motor and a connection between the member and the standard to swing the latter during percussive cutting action of the tool.

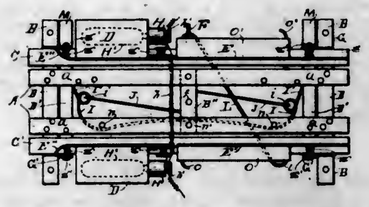
3. In a channeling machine the combination with a guiding and supporting frame, a tool carriage thereon, a tool support movably mounted on said carriage, a percussive cutting tool with tool actuating means on said support, means for propelling the carriage, a member movable independently of the carriage on said frame, a connection between said member and said tool support, and means for causing relative movement between said carriage and said member to move the tool support.

4. In a bar channeler the combination with a guiding and supporting frame comprising one or more guide bars, end members and supporting legs, of a carriage, a channeling tool mounted to swing on the carriage, a part on the frame between which and the tool there is a relative movement, and connections between said tool and said part independent of the carriage.

5. In a channeling machine the combination with a tool carrier, of a reciprocatory channeling tool mounted for swinging movement upon the carrier, a tool swinging member extraneous to the carrier, a connection between the tool swinging member and the tool, and means reciprocatively to move said tool swinging member to swing the tool while the latter is percussively cutting the stone.

[Claims 6 to 24 not printed in the Gazette.]

1,142,976. MACHINE FOR SEALING WRAPPERS UPON LOAVES OF BREAD. WILLIAM E. MILLER, Allegan, Mich. Filed Apr. 21, 1913. Serial No. 762,705. (Cl. 93—2.)



1. In combination with a supporting frame in a machine for sealing paper wrappers on oblong loaves, permanent standards extending upward from one side of the frame, laterally adjustable standards projecting upward from the other side of said frame, sealing plates secured parallel with said standards at one end of the machine, and cooling plates at the other end of the machine, means for allowing of slight temporary lateral automatic adjustment to said plates independent of the standards, and means for heating one end of each of said sealing plates sufficiently to melt wax as it comes in contact with them.

2. In combination with the supporting frame of a machine for sealing wrappers on oblong loaves, permanent standards projecting upward from one side of the the frame, laterally adjustable standards projecting upward from the other side of the frame, sealing plates placed parallel with the standards and secured thereto in such a manner as to be laterally adjustable automatically to the form of the loaf, independent of the standards, heating appliances connected with one end of each sealing plate, and a cooling appliance connected with the other end of the machine.

3. In combination with the supporting frame of a machine for sealing wrappers upon oblong loaves, permanent standards extending upward from one side of the frame, sliding cleats secured under the frame so that the width of the machine may be varied, standards extending upward from the outer ends of said cleats, a vertically disposed sealing plate secured to the standards at each side of the machine, teeth formed on the inner edges of the sliding cleats, spring actuated pawls arranged to engage said teeth to hold the sliding cleats temporarily in the desired positions, a heating appliance connected with each of the sealing plates, and a cooling appliance attached to the machine back of each sealing plate and arranged for a continuous circulation of cold water therethrough.

4. In combination with the supporting frame of a machine for sealing wrappers on oblong loaves, permanent standards extending upward from one side of the machine, laterally adjustable standards extending upward from the other side of the machine, sealing plates adjustably connected with said standards and having one end of each curved outward, slides integral and at right angles with the adjustable standards and arranged to slide under the surface of the frame for lateral adjustment, means for temporarily securing the slides to the frame and for temporarily releasing them when desired, heaters connected with the plates at one end of the machine, and cooling appliances connected at the other end of the machine.

5. In combination with the supporting frame of a machine for sealing wrappers on oblong loaves, permanent standards secured to, and extending upward from one side of the machine, standards at the other side of the machine secured to slides and arranged for laterally adjusting the width of the machine, a sealing plate at each side of the machine, bolts passed through the standards and secured to the plates to hold them in vertical position, springs upon said bolts between the standards and the sealing plates for slight lateral adjustment of said plates at the upper edge, the lower edge, either end or bodily as required, and means for heating and cooling the wax as the loaves are passed through the machine, substantially as shown and described, and for the purpose set forth.

1,142,977. PLATEN MECHANISM. EDMUND OCUMPAUGH, Rochester, N. Y. Filed Sept. 18, 1914. Serial No. 862,329. (Cl. 101—57.)



1. The combination of a platen and a holder therefor, said platen and said holder having coinciding perforations, a support for said platen, said support comprising a rigid member having a plurality of dowel-pins for piercing said platen and holder, and a detachable member engaging said dowel-pins and clamping the platen against said rigid member.

2. In combination, a platen, a holder tightly gripping said platen said parts being movable as one, said platen and said holder having concentric perforations, a split support, said support comprising a rigid member having dowel-pins received by the perforations in said platen and holder, and a removable member engaged by said dowel-pins and coöperating with the rigid member for clamping and holding said platen in place.

3. In a platen mechanism, the combination with a sheathed platen, of a split support comprising a rigid member and a removable member, said members having cut-away portions facing each other to provide a groove to receive the platen, means carried by one of said members for engaging and holding said platen in true alinement, and means engaging both of said members for clamping the same tightly against the opposite sides of said platen.

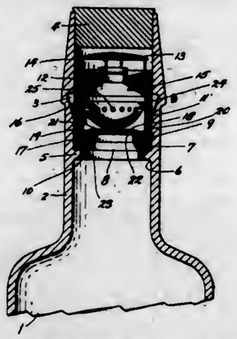
4. In a platen mechanism, the combination with a sheathed platen, of a split support comprising a rigid member and a member movable laterally toward and away from said rigid member, said support having a longitudinal groove formed by coinciding angles into which said platen is inserted, and means carried by one of said members for pressing and holding said members against said platen.

5. In combination, a platen, a holder partially enveloping and tightly gripping said platen, said platen and said holder having a plurality of concentric perforations, a split support, said support, comprising a rigid member having dowel-pins received by said perforations, a removable member having sockets to receive the ends of said dowel-pins, and a pair of latches carried by the rigid

member adapted to engage and draw said removable member against the rigid member for adjustably holding said platen in the operative position.

[Claims 6 to 11 not printed in the Gazette.]

1,142,978. NON-REFILLABLE BOTTLE AND LIKE VESSEL. GOODLET M. PALMER and LEWIS M. PALMER, Philadelphia, Pa., assignors of thirteen-twentieths to Goodlet M. Palmer and seven-twentieths to Lewis M. Palmer. Filed June 30, 1914. Serial No. 848,317. (Cl. 215—62.)



1. In a non-refillable bottle having an annular rim in the neck thereof, a cage having a port therethrough seated upon said rim, a guard fitted within the bottle neck for engaging and holding said cage in place upon said rim, an inverted dished disk-valve provided with peripheral pouring spaces, loosely seated upon the cage top and a semispherical dished member having continuous side walls provided with liquid pouring ports in its side walls immediately adjacent its top and extended entirely therethrough tiltably mounted upon said disk-valve.

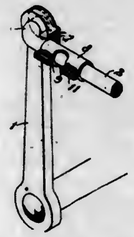
2. In a non-refillable bottle having an annular rim in the neck thereof, a cage having a port therethrough seated upon said rim, a guard fitted within the bottle neck for engaging and holding said cage in place upon said rim, an inverted dished disk-valve of a diameter substantially equaling the inner diameter of the guard, loosely seated upon the cage top and provided peripherally with a multiplicity of spaced pouring spaces, and a semi-spherical dished member having continuous side walls the bottom wall of which exceeds in thickness its side walls, tiltably mounted upon said disk-valve the side walls of which member are provided with spaced liquid pouring ports immediately adjacent its top and extended entirely therethrough.

3. In a non-refillable bottle, a cage constituting a valve-seat secured in the neck of a bottle, an inverted dished valvular member loosely seated upon said cage, a semi-spherical dished member having continuous side walls provided with liquid ports in its side walls immediately adjacent its top and extended entirely therethrough, tiltably mounted upon the valvular member and a guard fitted within said bottle for engaging and holding the cage to place and retaining said valvular member and semi-spherical member in operative position.

1,142,979. CLEVIS LINK CONNECTION. CLYDE S. PELTON, Cleveland, Ohio. Filed Jan. 5, 1915. Serial No. 657. (Cl. 74—17.)

1. In a device of the character described, the combination, with a rod having a lateral stud, of a securing member clamped upon said rod at a distance from said stud and having a portion overlapping said stud, the portion of said stud between said rod and clip being adapted to receive a coupled member.

2. In a device of the character described, the combination, with a rod having a laterally bent end, of a securing member clamped upon said rod at a distance from said end and having an apertured retaining head surrounding said bent end at a distance from the body of the rod.



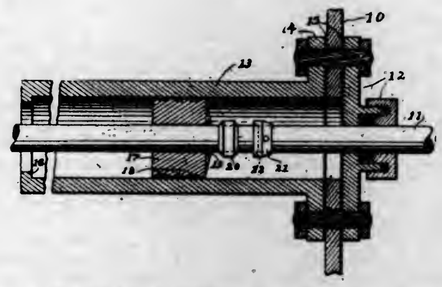
3. In a device of the character described, the combination, with a rod having a lateral stud, of a securing member clamped upon said rod at a distance from said stud and having an apertured head receiving said stud, the portion of said stud between said rod and head being adapted to receive a coupled member.

4. In a device of the character described, the combination, with a rod having a laterally bent portion, of a securing member formed of ductile sheet metal having flexible arms adapted to be clamped upon said rod at a distance from said stud and having an apertured head adapted to receive said bent portion so as to secure a coupled member thereon.

5. In a device of the character described, the combination, with a rod having a lateral stud, of an apertured member surrounding said stud, and flexible means integral with said member and rigidly secured to said rod at a distance from said stud, said apertured member being spaced from said rod so as to permit the reception of a coupled member.

[Claims 6 to 13 not printed in the Gazette.]

1,142,980. ROD-PACKING. GEORGE L. PHILLIPS, Rochester, N. Y. Filed Apr. 9, 1913. Serial No. 760,011. (Cl. 137—115.)



1. A packing box, a cylinder connected thereto, a stem slidable through each, a seat element fixed on the stem adjacent the packing box, a piston slidable in the cylinder in steam-tight engagement therewith and loosely engaged around the stem, means to make a steam-tight junction between the piston and seat element when they are pressed toward each other, means to balance the pressure on opposite sides of the piston normally, and means to relieve pressure on one side at times.

2. A device of the class described comprising a packing box, a stem movably engaged therethrough, a cylinder concentric with the stem extending inwardly from the box, a slidable piston in steam-tight engagement within the cylinder and loosely engaged around the stem, an annular seat element on the stem between the piston and box, means for making a steam-tight closure of the passage through the piston when the latter is forced toward the said seat element, means for forming communication between the space on each side of the piston, and means for relieving pressure at the side of the piston toward the box.
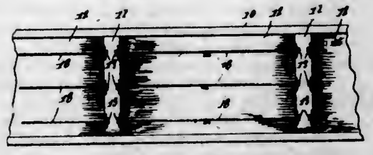
3. In combination with a rod and its packing, an auxiliary packing member, means for producing equal fluid pressure on opposite faces of said member to cause said member to lie normally out of packing relation with the rod, and means for producing a preponderant fluid pressure on one face of said packing member to cause the latter to enter into packing relation with the rod.

4. A device of the class described comprising a packing device, a chambered member at its inner side, a movable member engaged through the packing device and chamber, an auxiliary packing device in the chamber operative under unbalanced fluid pressure thereon, means normally causing balanced pressure on the auxiliary packing device, and means to cause unbalanced pressure on the auxiliary packing device at will.

5. In combination with the rod and its packing, an auxiliary packing for use during the renewal of the main packing comprising a piston through which the rod may move, said piston being normally out of packing relation to the rod, a chamber in which the piston is movable, said chamber having provision on opposite sides of the piston for admitting fluid thereto to balance the pressure on the piston, and means for cutting off the fluid supply on one side of the piston so that preponderant pressure will be created on the other side to cause the piston to establish packing relation with the rod.

[Claims 6 to 8 not printed in the Gazette.]

1,142,981. HEAD-BLOCK. CHARLES H. POWELL, Dalkena, Wash. Filed Oct. 27, 1913. Serial No. 797,560. (Cl. 100—24.)



1. A head block provided with a groove having an enlarged mouth, a closure strip positioned within the enlarged mouth of said groove, and resilient strips yieldably holding said closure strip within the mouth of said groove.

2. A head block provided with a groove having an enlarged mouth, a closure strip positioned in the enlarged mouth of said grooves and terminating short of one edge, and means for yieldably holding the said closure strip within the mouth of said groove.

3. A head block provided with a groove, a closure strip fitting within said groove, and means for yieldably holding said closure strip within said groove.

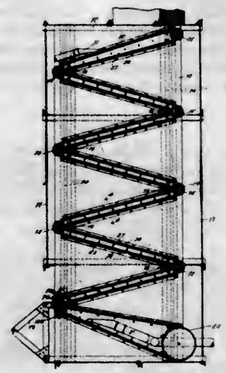
4. A head block provided with a groove, a closure strip fitting within said groove, and resilient strips connecting said closure strip with said head block wherein the free end of said closure strip may be moved away from said block.

5. A head block provided with a groove, and resilient means for closing the entrance to said groove normally fitting within the groove and moving away from said groove to permit a wire to be withdrawn from the groove.

[Claims 6 to 8 not printed in the Gazette.]

1,142,982. MEANS FOR CLEANING AIR. HARVEY J. RICHARDSON, Chicago, Ill. Filed Dec. 2, 1912. Serial No. 734,510. (Cl. 83—48.)

1. Apparatus for cleaning air comprising a framework, a plurality of rollers supported by said framework, a yieldingly mounted roller bodily shiftable in its bearings, a cloth screen carried by said rollers, mechanism for driving one or more of said rollers, a pneumatic cleaning tool adapted to clean said screen, and a member normally tending to shift said shiftable roller to keep said screen under tension.



2. In an apparatus for cleaning air, a framework, a plurality of rollers rotatably mounted in said framework, each of said rollers having a plurality of annular grooves in the periphery thereof, an endless screen passing over each of said rollers, said screen comprising a web of soft fibrous cloth of low tensile strength and a plurality of belts of high tensile strength attached to said web, said belts being disposed in said grooves and dividing said screen into a plurality of widths and a vacuum cleaning tool engaging each width of the screen.

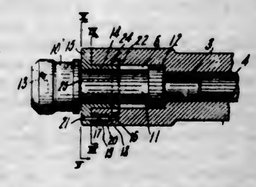
3. In an air cleaning apparatus, a framework, rollers arranged in staggered relation in said framework, an endless belt screen passing over said rollers and having both sides of said belt arranged in zigzag fashion, said screen comprising a cloth web of a soft fibrous texture, means to pass dust laden air through both folds of said web for filtering the same, a vacuum cleaning tool disposed adjacent said web and independent connections between said rollers for advancing said belt.

4. In an air cleaning apparatus, a framework, rollers arranged in said framework, a screen having two folds passing over said rollers in zigzag fashion, said rollers comprising a plurality of pairs of rollers, and single end rollers arranged in said framework in staggered order, each pair comprising a small roller and a larger roller, said folds being disposed in substantially parallel planes.

5. In an air cleaning apparatus, a frame, a plurality of pairs of rollers and end rollers disposed in staggered order in said frame, an endless belt screen disposed over said rollers interposing two folds to the passage of air therethrough, a groove for the edges of said belt to maintain a tight joint between said belt and the frame, one of said pair of rollers having a bodily movable roller to tension said screen, a pair of guide rollers for retaining said screen in said groove at all times regardless of the bodily movement of said one roller.

[Claims 6 to 11 not printed in the Gazette.]

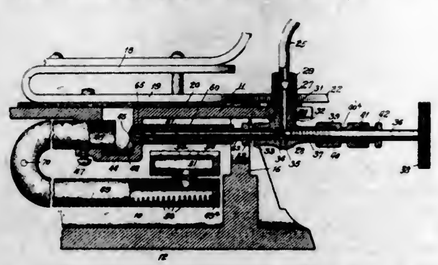
1,142,983. SAFETY TOOL-RETAINER. SAMUEL S. ROBERTS, Pittsburgh, Pa. Filed June 3, 1914. Serial No. 842,716. (Cl. 78—44.5.)



The combination with a hollow body having internal longitudinal slots extending from one end and terminating

in an internal annular groove, of a tool holder including segmental portions forming a cylindrical body when assembled, each of said portions having a projection thereon adapted to move along one of the slots and be turned into the groove, and a tool having a shank embraced by the holder and provided with a lateral enlargement for engagement with the inner end of the tool holder to prevent displacement of the tool.

1,142,984. SAD-IRON. GEORGE T. ROSENGREN, Chicago, Ill., assignor to Enterprise Tool and Metal Works, Chicago, Ill., a Corporation of Illinois. Filed Feb. 20, 1915. Serial No. 9,483. (Cl. 158—23.2.)



1. In a sad iron, the combination of a body, a handle, a reservoir for liquid fuel, a burner for heating said body, and a generator tube connected to said reservoir and provided with a surrounding jacket of high heat conductivity.

2. In a sad iron, the combination of a body, a handle, a reservoir for liquid fuel, a burner for heating said body, and a generator tube connected to said reservoir and provided with a surrounding jacket of high heat conductivity, and a burner for heating said jacket.

3. In a sad iron, the combination of a body, a handle, a reservoir for liquid fuel, a burner and a valve and casing connected to said reservoir, a generator-tube having one of its ends secured in said casing, said tube being provided with a reduced portion for lessening heat-conduction between its end which is connected to said casing and the remaining portion thereof.

4. In a sad iron, the combination of a body, a handle, a reservoir for liquid fuel, a burner pipe, and a generator tube connected to said reservoir and provided with a jacket of high heat conductivity, said tube being provided with a reduced portion exteriorly of said jacket for lessening heat-conduction between the different portions of said tube.

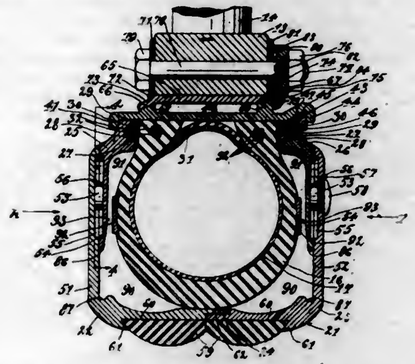
5. In a sad iron, the combination of a body, a handle, a reservoir for liquid fuel, a burner for heating the body, a generator tube connected to said reservoir and a burner for heating said generator connected to the burner and having a longitudinal slit and holes therein for the escape of fuel toward said tube.

[Claims 6 to 8 not printed in the Gazette.]

1,142,985. VEHICLE-WHEEL. JOHN SCHIES, Anderson, Ind. Filed Apr. 17, 1913. Serial No. 761,694. (Cl. 152—35.)

1. In a vehicle wheel, the combination of a body member, a pneumatic tire-member around the same, said body-member provided with annularly arranged shoulders, and a pluri-part protective casing received about said tire-member and comprising an inner member and an outer member, said inner member normally having lateral movement with relation to said shoulders parallel to the axis of rotation of said wheel and locked in place against said shoulders solely by the expansive action of said pneumatic tire-member, the outer and inner parts of said pluri-part protective casing having vertical guiding movement between them.

2. A protective casing for a vehicle wheel comprising a pair of side-flanges, means for limiting separating movement between said side-flanges, said side-flanges normally having guided movement between them parallel to the axis of rotation of said vehicle wheel relative to said limiting means, and an inflatable cushion causing separation between said side-flanges in directions substantially parallel to the axis of rotation of said vehicle wheel into coaction with said limiting means.



3. In a vehicle wheel, the combination of a supporting member, an inflatable tire-structure thereabout, side-flanges, said supporting member provided with an abutment for one of said side-flanges for limiting outward lateral movement thereof, said last-named side-flange normally having lateral movement toward and from said abutment, said side-flanges arranged for being separated for exerting pressure toward said abutment by inflation of said tire-structure, and a tread-member guided by said side-flanges in the separated relation of said side-flanges.

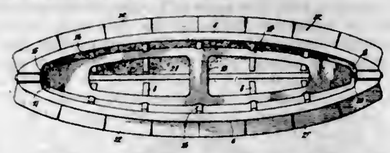
4. In a vehicle wheel, the combination of a supporting member, an inflatable tire-structure, side-flanges, said supporting member provided with abutting means for limiting separation of said side-flanges, said side-flanges normally having movemgent between them on said supporting member, said side-flanges arranged for being separated for exerting pressure toward said abutting means by inflation of said tire-structure, a tread-member guided by said side-flanges, and limiting means between said tread-member and a side-flange for limiting relative rotation between the same.

5. In a vehicle wheel, the combination of a supporting member, an inflatable tire-structure, side-flanges, said supporting member provided with abutting means for limiting separation of said side-flanges, said side-flanges normally having movement between them on said supporting member, said side-flanges arranged for being separated for exerting pressure toward said abutting means by inflation of said tire-structure, a tread-member guided by said side-flanges, an annularly arranged limiting means between said tread-member and said side-flanges for limiting approach of said tread-member toward said supporting member and thereby forming an annular cavity in which said inflatable tire-structure is located and protected from total collapse.

[Claims 6 to 10 not printed in the Gazette.]

1,142,986. COLLAPSIBLE LIFE-BOAT. GEORGE G. SCHWABEK, Baltimore, Md., assignor of one-third to William H. Zeigler, New Freedom, Pa. Filed Feb. 19, 1915. Serial No. 9,373. (Cl. 9—2.)

1. A collapsible boat embodying a keel, fore and aft stems having a hinged connection with the keel, flexible sides extending upwardly from the keel and connected to said stems, and a boat-shaped spreader arranged between the sides and stems and pivotally connected with the stems on a longitudinal axis adapting said spreader to be turned from a substantially horizontal to a substantially vertical position, and vice versa.



2. A collapsible boat embodying a keel, fore and aft stems having a hinged connection with the keel, flexible sides extending upwardly from the keel and connected to said stems, and a boat-shaped spreader arranged between the sides and stems and pivotally connected with the stems on a longitudinal axis adapting said spreader to be turned from a substantially horizontal to a substantially vertical position, and vice versa, and springs interposed between the front and rear extremities of said spreader and said stems for permitting the relative movement of the stems toward and away from each other as the boat is expanded and collapsed.

3. A collapsible boat embodying a keel, fore and aft stems having a hinged connection with the keel, flexible sides extending upwardly from the keel and connected to said stems, and a boat-shaped spreader arranged between the sides and stems and pivotally connected with the stems on a longitudinal axis adapting said spreader to be turned from a substantially horizontal to a substantially vertical position, and vice versa, and means operable exteriorly of the boat for turning said spreader.

4. A collapsible boat embodying a keel, fore and aft stems having a hinged connection with the keel, flexible sides extending upwardly from the keel and connected to said stems, and a boat-shaped spreader arranged between the sides and stems and pivotally connected with the stems on a longitudinal axis adapting said spreader to be turned from a substantially horizontal to a substantially vertical position, and vice versa, and a shaft connected fixedly to one end of said spreader and extending through one of said stems and projecting outside of the same, said shaft having a non-circular portion adapting it to be turned by a wrench or the like.

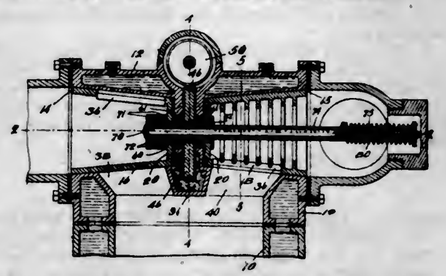
5. A collapsible boat embodying a keel, fore and aft stems having a hinged connection with the keel, flexible sides extending upwardly from the keel and connected to said stems, and a boat-shaped spreader arranged between the sides and stems and pivotally connected with the stems on a longitudinal axis adapting said spreader to be turned from a substantially horizontal to a substantially vertical position, and vice versa, said spreader being provided with notches along its opposite longitudinal edges, and the sides of the boat being internally provided with ribs which are received in said notches.

[Claim 6 not printed in the Gazette.]

1,142,987. VALVE MECHANISM FOR INTERNAL-COMBUSTION ENGINES. ALBERT J. SEAMAN, Boston, Mass., assignor to Seaman Engine Company, Boston, Mass., a Corporation of Massachusetts. Filed Oct. 15, 1914. Serial No. 866,739. (Cl. 123—190.)

1. A valve-mechanism for internal combustion engines comprising a casing having a pair of alined frusto-conical valve-seats arranged with their ends adjacent each other and separated by a bridge-wall and having inlet and outlet ports, a pair of hollow frusto-conical valve-bodies arranged in alinement in engagement with said seats, said valve-bodies having inlet and outlet ports, a rotatable shaft upon which both said bodies are mounted for rotation with the shaft and for axial movement on said shaft, and means to rotate said shaft, substantially as described.

2. A valve-mechanism for internal combustion engines comprising a casing having a pair of alined frusto-conical valve-seats arranged with their ends adjacent each other and separated by a bridge-wall and having inlet and outlet ports, a pair of hollow frusto-conical valve-bodies arranged in alinement in engagement with said seats, said valve-bodies having inlet and outlet ports, a polygonal shaft having cylindrical bearing-portions arranged for rotation in said bridge-wall, upon the end-portions of which said bodies are mounted for rotation with the shaft and for axial movement with respect to the shaft, and gearing for rotating said shaft, substantially as described.



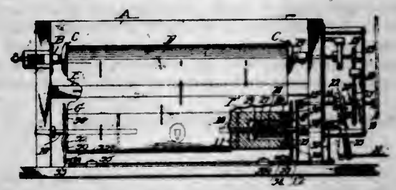
3. A valve-mechanism for internal combustion engines comprising a casing having a pair of alined frusto-conical valve-seats, a pair of hollow frusto-conical valve-bodies engaging said seats, means to connect said valve-bodies together whereby they are rotatable in unison, said means including a thermal compensating-device by which the connecting means is lengthened and shortened upon changes in the temperature, substantially as described.

4. A valve-mechanism for internal combustion engines comprising a casing having a pair of alined frusto-conical valve-seats, a pair of hollow frusto-conical valve-bodies engaging said seats, and a center-bolt connecting said valve-bodies together having thereon a set of washers composed of materials of different ratios of expansion, said washers being arranged for movement with respect to each other upon changes in temperature thereby to vary their aggregate thickness, substantially as described.

5. A valve-mechanism for internal combustion engines comprising a casing having a pair of alined frusto-conical valve-seats, a pair of hollow frusto-conical valve-bodies engaging said seats, a center-bolt connecting said valve-bodies together having arranged thereon between its head and one of the valve-bodies a set of washers composed of materials of different ratios of expansion, said washers being arranged for movement with respect to each other upon changes in temperature, thereby to vary their aggregate thickness, substantially as described.

[Claims 6 to 12 not printed in the Gazette.]

1,142,988. PAPER-WINDING MECHANISM. LOUIS W. SOUTHGATE, Worcester, Mass., assignor to Auto Pneumatic Action Company, a Corporation of New York. Filed June 28, 1912. Serial No. 706,383. (Cl. 84—161.)



1. In a paper winding mechanism, a winding or take-up spool, means movable axially thereof for adjusting or determining the position of the web as it is wound, and an automatically operating cam mechanism for operating said means.

2. In a paper winding mechanism, a winding or take-up spool, means movable axially thereof for adjusting the position of the web as it is wound, and an automatically operating cam for causing said means to act for each revolution of the winding or take-up spool.

3. In a paper winding mechanism, a winding or take-up spool, a flange movable axially thereof for adjusting or determining the position of the web as it is wound, and an automatically cam-operating mechanism for operating said flange.

4. In a paper winding mechanism, a winding or take-up spool, a flange on said spool and axially movable thereof for adjusting or determining the position of the web as it is wound, a cam formed in said flange, and an abutment engaging said cam.

5. In a paper winding mechanism, a winding or take-up spool, a flange on said spool and axially movable thereof for adjusting or determining the position of the web as it is wound, a spring for forcing the flange in one direction, a cam on said flange, and an abutment engaging said cam.

[Claims 6 to 12 not printed in the Gazette.]

1,142,989. PLASTER COMPOSITION AND PROCESS OF MAKING THE SAME. HENRY S. SPACKMAN, Ardmore, Pa., and ELLIS W. LAZELL, Portland, Oreg.; said Lazell assignor to said Spackman. Filed May 22, 1912. Serial No. 698,906. (Cl. 106—27.)

1. The process of making hydrated lime plastic compositions which consists in crushing together about 85 parts of hydrated high calcium lime containing 5% or so of quicklime, 10 to 15 parts of fused low lime, slow setting calcium aluminate and a few per cent. of sodium acid sulfate to intimately incorporate the components and materially densify the composition and increase its plasticity and reliability.

2. The process of making hydrated lime plaster compositions which consists in crushing together hydrated high calcium lime, fused slow setting, low lime calcium aluminate and sodium acid sulfate to intimately incorporate the components and densify the composition and reduce its volume to less than 90% of its original volume and increase its plasticity and reliability under service conditions.

3. The process of making hydrated lime plaster compositions which consists in crushing together hydrated high calcium lime and strength accelerating material comprising calcium aluminate to intimately incorporate the components and densify the composition and reduce its volume to less than 85% of its original volume and increase its plasticity and reliability under service conditions.

4. The process of making plaster compositions which consists in intimately incorporating hydrated high calcium lime and coöperating strength accelerating material and in materially densifying the composition to effect intimate physical union between the components of the composition and increase its plasticity and reliability under service conditions.

5. The process of making plaster compositions which consists in crushing together hydrated lime containing 5% or so of quicklime, a small proportion of fused calcium aluminate and coöperating strength accelerating material to intimately incorporate the components and densify the composition and increase its plasticity, reliability and quickness of drying and hardening under service conditions.

[Claims 6 to 20 not printed in the Gazette.]

1,142,990. RESPIRATOR. FREDERICK STERN, New Rochelle, N. Y. Filed Feb. 4, 1915. Serial No. 6,005. (Cl. 128—13.)

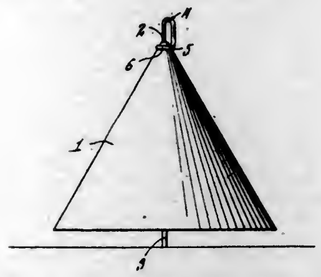
1. A body for a respirator formed of a single piece of pliable material having in plan the general form of a horseshoe and indented along the edge opposite the branches of the U to conform to the nose of the wearer, the single piece of material having its straight edges united to form a substantially conical body.

2. A respirator comprising, in combination, a body of substantially conical shape formed of relatively light material and having yielding edges to engage the face, a nose covering carried by the body, a stiff but pliable frame secured to the body along the nose covering, whereby the nose covering can be shaped to fit snugly the face of the wearer, a separator formed of an oval shaped piece of wire cloth faced with similarly shaped pieces of silk bolting cloth, said cloth being formed of a very fine but



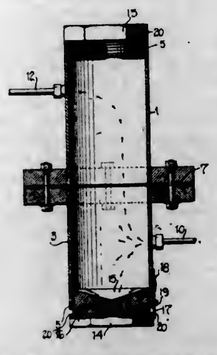
regular and uniform mesh, a saturating pad of a shape similar to the shape of the separator and lying thereover and having embodied therein material of absorbent properties, coöperating spring fasteners carried respectively by the body and by the pad, and adjustable head straps secured to the body.

1,142,991. PLANT-SHIELD. LOUISE F. SUDDICK, De Soto, Mo. Filed June 17, 1914. Serial No. 845,648. (Cl. 47—22.)



In a plant protective shield structure, a substantially cone shaped shield having a supporting stem extending vertically through the same, said stem having its upper end bent sinuously for encompassing engagement with the apex on said shield for securing the shield to said stem.

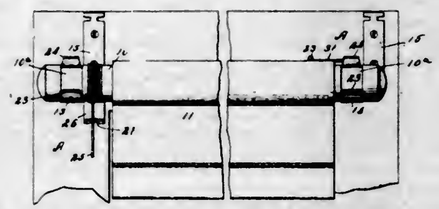
1,142,992. CONTROLLING-PLUG FOR GASOLENE-FILTERS. FORREST A. SUTHERLAND, Springfield, Me. Filed Apr. 25, 1914. Serial No. 834,401. (Cl. 137—21.)



A device of the class described comprising a chambered member, said member being interiorly threaded at one end,

a cap threadably engaged with the interior threads of said member to close one end of the same, said cap having an angular head projecting from the member, the cap also having an elongated opening formed therein extending from the inner face of the cap to the periphery thereof adjacent the outer end of the threaded portion, the cap being normally turned within the member so that the outer end of the opening is closed by the wall of the member, a locking plate rotatably connected to the member and adapted to project at one end beyond the threaded end of the member for engagement against one of the angular faces of the head of the cap, whereby accidental turning of the cap is prevented.

1,142,993. WINDOW-SHADE FIXTURE. JAMES WILLIAM TATUM, Coats, N. C. Filed July 8, 1914. Serial No. 849,790. (Cl. 156—28.)



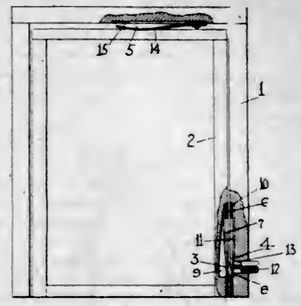
1. In a window shade fixture, a shade roller, a bracket supporting each end of said roller, a pin projecting radially from said roller adjacent the point of attachment of the shade thereto and adapted to be covered by the shade as the latter is wound on the roller, and a gravity-operated plate adapted to rest upon the turns of the shade about the roller above the pin and engage said pin to stop rotation of the roller when the shade is unwound to a sufficient extent to expose the pin.

2. In a window shade fixture, a shade roller, brackets supporting the ends of said roller, a shade fastened to said roller and adapted to be wound thereon, a pin projecting radially a short distance from the roller adjacent the attachment of the shade thereto and adapted to be covered by the shade when the latter is wound upon the roller, and a plate bearing on said shade and roller above said pin and guided by the adjacent bracket, said plate arranged to engage said pin and prevent rotation of the roller when the shade has been unwound sufficiently to expose said pin.

3. In a window shade fixture, a shade roller, brackets supporting the ends of said roller, a shade fastened to said roller and adapted to be wound thereon, a pin projecting a short distance from the roller adjacent the attachment of said shade thereto, and adapted to be covered by the shade when the latter is wound upon the roller, a substantially horizontal plate having a depending leg slidable vertically in one of said brackets, said plate adapted to project over the roller and the shade above the line of rotation of said pin, said plate following the shade as it is wound upon and unwound from the roller and arranged to engage said pin to stop rotation of the roller when said pin has become exposed through the unwinding of the shade.

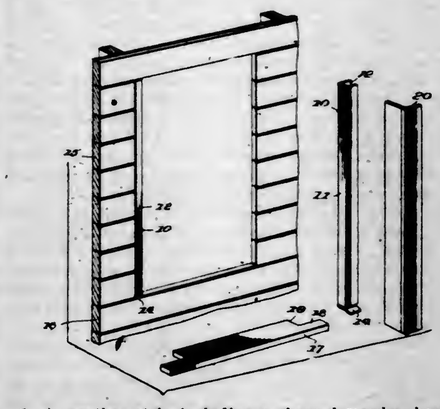
1,142,994. FASTENER FOR DRAWERS, &c. ROBERT L. TELFORD, Lewisburg, W. Va. Filed Nov. 11, 1912, Serial No. 730,642. Renewed Apr. 19, 1915. Serial No. 22,485. (Cl. 16—18.)

In a device of the character described, the combination with a sliding member and a stationary portion, of a longitudinally slotted plate secured to the sliding member, a spring carrying a wedge-shaped detent at its free end and having its other end secured to the said slotted plate, the normal position of the said spring and detent serving to lock the sliding member; and a releasing means for the detent secured to the stationary portion comprising a longitudinally slotted plate and a spring carried thereby provided with a push member secured at its free end, the slots in the slotted plates being adapted to receive the springs carried by their respective plates to allow for the



release of the detent upon pressure of the said push member.

1,142,995. WEATHER-STRIP. WILLIAM M. THOMPSON, New Philadelphia, Ohio. Filed Oct. 8, 1914. Serial No. 865,730. (Cl. 20—69.)



1. A weather strip including a channel member having resilient side walls and having a transversely extending tongue formed on one extremity of one of said walls, the said tongue substantially closing the adjacent end of the member.

2. A weather strip including a channel member having substantially parallel side walls and having a transversely extending tongue formed on one extremity of one of said walls, the said tongue extending in spaced relation to the adjacent end edge of the opposite side wall of the member and being free at its outer extremity.

3. A weather strip including a body portion having side walls, there being a tongue formed on one of said walls at one extremity thereof, the said tongue extending in spaced relation beneath the adjacent extremity of the opposite side wall and being provided with an obliquely directed terminal.

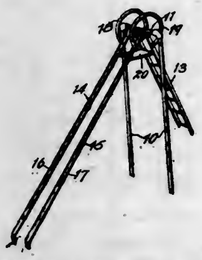
4. A weather strip including a body portion having side walls, there being a resilient tongue formed on one of said walls at one extremity thereof, the said tongue substantially closing the adjacent extremity of the body portion and being provided with an outwardly and downwardly sloping terminal at its outer end.

5. A weather strip including a channel member having resilient side walls disposed to frictionally embrace the adjacent ends of members abutting a window opening upon one side thereof, there being a transversely extending tongue formed on one of said walls at one extremity thereof, the said tongue being disposed to engage between the meeting edges of the said members at the bottom of the window opening to project laterally upon one side and ex-

teriorly of the said members, the said laterally directed portion of the tongue being obliquely directed to engage beneath the adjacent extremity of a window-sill arranged within the said window opening.

[Claim 6 not printed in the Gazette.]

1,142,996. AMUSEMENT DEVICE. WILLIAM S. TOTHILL, Chicago, Ill. Filed Nov. 29, 1912. Serial No. 734,093. (Cl. 46—69.)



1. In an amusement device, the combination of a standard, a pair of oppositely disposed slide-bars supported in an inclined position by said standard, and a seat supported between said slide-bars near their upper ends upon which the user of the device can sit preparatory to sliding down said bars.

2. In an amusement device, the combination of a standard, a pair of oppositely-disposed slide-bars supported in an inclined position by said standard, a guard adapted to be grasped by the user of the device, and a seat supported between said slide-bars near their upper ends extending in advance of said guard, upon which seat the user can sit preparatory to sliding down said bars.

3. In an amusement device, the combination of a standard, a pair of oppositely-disposed slide-bars supported in an inclined position by said standard, a ladder leading to the upper ends of said slide-bars, and a seat extending from said ladder to said slide-bars near their upper ends upon which seat the user of the device can sit preparatory to sliding down said bars.

4. In an amusement device, the combination of a standard, a ladder supported at its upper end by said standard, a slide bar also supported at its upper end by said standard, and a seat extending from said standard to said ladder near their upper ends contiguous to said slide bar.

1,142,997. GOLF-TEE. HARRY U. TRUE, Brighton, Mass. Filed Mar. 19, 1915. Serial No. 15,584. (Cl. 46—4.)



1. A golf tee comprising a flexible vertically corrugated wall and open at top and bottom.

2. A golf tee comprising a flexible vertically corrugated wall and open at top and bottom and an uncorrugated rim inturned about the opening at the top.

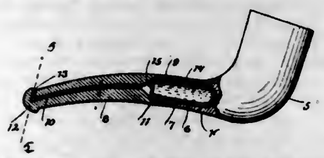
3. A golf tee comprising a supporting wall having an internal ball seat depressible under the weight of a ball to prevent the ball rolling off its seat.

4. A golf tee comprising a supporting wall having an internal continuous rim at its top providing a ball seat, said rim depressible to a plane slightly below the top under the weight of a ball and providing a cradle like seat effective to prevent the ball rolling off the rim.

5. A golf tee comprising an integral supporting wall having an expansible base permissive of the vertical adjustment of the height of the tee.

[Claims 6 and 7 not printed in the Gazette.]

1,142,998. PIPE, CIGAR OR CIGARETTE HOLDER. CHARLES A. TURNER, Statesville, N. C. Filed Apr. 25, 1914. Serial No. 834,411. (Cl. 131—12.)



1. A device of the character described, comprising a receptacle adapted to hold tobacco and provided with a tubular stem, a tubular mouthpiece connected with the tubular stem, a closed cooling shell extending into the tubular stem and a heat absorbing liquid arranged within the closed shell.

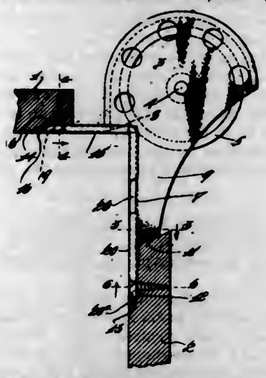
2. A device of the character described, comprising a receptacle adapted to hold tobacco, a tubular stem connected with the receptacle, and a closed shell for containing a heat absorbing fluid arranged within the tubular stem.

3. A device of the character described, comprising a receptacle adapted to hold tobacco, a tubular stem connected with the receptacle, and a closed shell for containing a heat absorbing fluid arranged within the tubular stem and provided with exterior longitudinally extending passages having no communication with the interior of the closed shell.

4. A device of the character described, comprising a receptacle adapted to hold tobacco, a tubular stem connected therewith, and a closed shell for containing a heat absorbing fluid arranged within the stem and having longitudinal smoke receiving passages formed therethrough and having no communication with the interior thereof.

5. A device of the character described, comprising a receptacle to hold tobacco and having a tubular stem provided with an axial bore of substantial diameter, a mouthpiece having one end reduced to fit within the bore of the tubular stem and having its axial opening counter-bored adjacent the reduced extension, and a closed shell for containing a heat absorbing fluid having a portion thereof arranged within and held by the counter-bored portion of the mouthpiece and extending into the bore of the tubular stem and spaced from the inner wall thereof for providing a smoke holding and cooling chamber, said shell being provided with exterior longitudinal grooves.

1,142,999. FRAME FOR SASH-PULLEYS. CHARLES TUTEUR, New York, N. Y., assignor to Stork-Tuteur Company, New York, N. Y., a Corporation of New York. Filed July 22, 1913. Serial No. 780,531. (Cl. 16—17.)



1. A pulley frame, comprising a pulley-housing, a downward extension from said housing having below the said housing an inclined end portion which slants inwardly toward the pulley bearing, and a further prolongation from said end portion.

2. A pulley frame, comprising a pulley-housing, an extension from said housing having an inclined end portion which slants inwardly toward the pulley bearing, and a further prolongation from said end portion provided with a beveled edge inclined inwardly toward said housing from that face of said prolongation which is away from the pulley bearing.

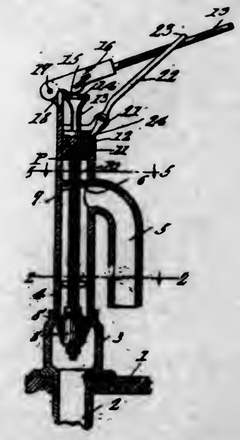
3. A pulley frame, comprising a pulley-housing, an angle bracket supporting it, an extension from said housing extending along the inner side of the lower arm of said bracket and having an inclined end portion which slants inwardly from said inner side of said bracket toward the pulley bearing.

4. A pulley frame, comprising a pulley-housing, an angle bracket supporting it, an extension from said housing extending along the inner side of the lower arm of said bracket and having an inclined end portion which slants inwardly toward the pulley bearing, the arms of said bracket projecting beyond said housing and extension.

5. A pulley frame, comprising a pulley-housing, an angle bracket supporting it, an extension from said housing extending along the inner side of one arm of said bracket and having an inclined end portion which slants inwardly toward the pulley bearing, the arms of said bracket projecting beyond said housing and extension, and having beveled extremities inclined toward said housing.

[Claims 6 to 18 not printed in the Gazette.]

1,143,000. SUPPLY-VALVE. GEORGE F. VOIGT, Charlestown, Ind. Filed Nov. 20, 1914. Serial No. 873,197. (Cl. 137—104.)

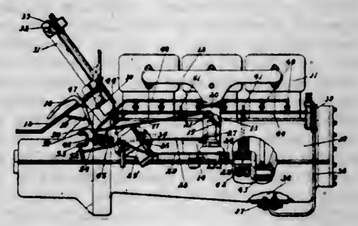


1. A flushing valve, including a casing, a vertically movable valve mounted therein, a float actuated rod connected to the upper end of the casing and disposed to engage the upper end of the valve stem, and a lever pivoted to the upper end of the casing and acting as a lock for locking the valve stem and valve in lowermost and open position, the opposite end of said lever engaging at all times the float actuated rod whereby upon the lowering of the float rod and the opening of the valve, the valve is locked in such position until the float has been raised a predetermined distance at which time the valve is released.

2. A flushing valve, including a valve casing, a stand pipe having a downwardly disposed outlet pipe connected to and in communication with the valve casing, a valve stem mounted for sliding movement within the stand pipe, a valve carried upon the lower end thereof, a cylindrical member carried upon the upper end of the stem at a point above the junction of the outlet pipe therewith, the upper end thereof being accessible through the upper end of the stand pipe, a float actuated rod pivoted to the upper end of the stand pipe and provided with means for engaging the upper end of the cylindrical member of the valve stem for depressing the same and opening the valve upon the lowering of the float, a lever pivoted intermediate of its ends to the upper end of the casing and at the side remote from the pivotal point of the float actuated rod, one end thereof being projected in the path of the cylindrical member to engage the same when the float rod is lowered to lock the valve in open position, and a hook upon the opposite end of the lever to engage the float actuated rod, whereby as the float ascends the cylindrical member and valve are released.

3. A flushing valve, including a valve casing, a stand pipe having a downwardly disposed outlet pipe connected to and in communication with the valve casing, a valve stem mounted for sliding movement within the stand pipe, a valve carried upon the lower end thereof, a cylindrical member carried upon the upper end of the stem at a point above the junction of the outlet pipe therewith, the upper end thereof being accessible through the upper end of the stand pipe, a float actuated rod pivoted to the upper end of the stand pipe and provided with means for engaging the upper end of the cylindrical member of the valve stem for depressing the same and opening the valve upon the lowering of the float, a lever pivoted to the upper end of the stand pipe at the opposite side to the float actuated rod and having one end in slidable engagement with the float actuated rod, and a trigger upon the opposite end thereof disposed in a path to engage the cylindrical portion of the valve stem to lock the valve stem in open position as the float actuated rod has lowered, and to be released when the float actuated rod is in full elevated positon.

1,143,001. HYDROCARBON-MOTOR. SIDNEY D. WALDON, Detroit, Mich., assignor to Packard Motor Car Company, Detroit, Mich., a Corporation of Michigan. Filed July 5, 1913. Serial No. 777,479. (Cl. 123—196.)



1. In a hydrocarbon motor, the combination with means for feeding oil to the motor cylinders, and the carbureter air valve control mechanism, of connections between said means and said mechanism whereby the supply of oil to the motor cylinders is cut off when the carbureter air valve is opened.

2. In a hydrocarbon motor, the combination with the oiling system including main and auxiliary oil supplies, and the carbureter air valve control mechanism, of connections between said oiling system and said mechanism whereby the auxiliary oil supply is cut off as the carbureter air valve is opened.

3. In a hydrocarbon motor, the combination with the oiling system thereof and the means for controlling the richness of the mixture passing to the motor, of means connecting said system and said first mentioned means whereby the supply of oil to the motor is increased as the richness of the mixture is increased and vice versa.

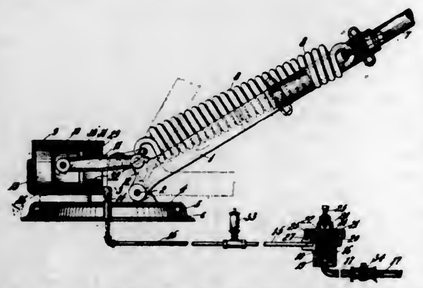
4. In a hydrocarbon motor, the combination with the oiling system thereof and the means for controlling the richness of the mixture passing to the motor, of means connecting said system and said first mentioned means whereby the supply of oil to the motor is varied as the mixture is varied.

5. In a hydrocarbon motor, the combination with the oiling system thereof and the means for controlling the

richness of the mixture passing to the motor, of a second means for controlling both said system and said first means simultaneously.

[Claims 6 to 14 not printed in the Gazette.]

1,143,002. TROLLEY-RETRIEVER. FRANK A. WASSON, Milwaukee, Wis. Filed Nov. 21, 1912. Serial No. 732,658. (Cl. 191—90.)



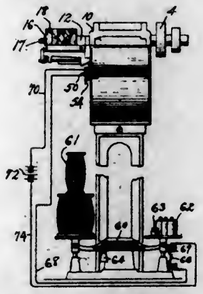
1. In a trolley retriever, an automatic valve comprising a casing containing a valve seat, a spring pressed valve member seated therein and provided with separate pressure areas on opposite sides of the valve seat but on the same side of the valve member, a compresed air supply means having communication with one pressure area of the valve member, and a trolley swinging motor having communication with the other pressure area of the valve member.

2. In a trolley retriever, an automatic valve for controlling the supply of pressure fluid to a trolley swinging motor, comprising a casing forming a valve chamber with a valve seat between its upper portion and its lower portion, a valve member contained within the valve chamber and fitting the upper portion thereof and adapted to be seated on the valve seat, a fluid pressure supply means connected with the casing beneath the valve seat, a pipe connection for the trolley swinging motor connecting with the casing between the valve seat and the upper end of the valve, and a spring holding the valve member on its seat with sufficient pressure to withstand the pressure from the pressure fluid supply means acting on the area of the valve within the valve seat but capable of being overcome by such pressure when augmented by pressure beneath the upper end of the valve member from the trolley swinging motor when the trolley leaves the trolley wire.

3. In a trolley retriever, an automatic valve for controlling the supply of pressure fluid to a trolley swinging motor, comprising a casing forming a valve chamber with a valve seat between its upper portion and its lower portion, a valve member contained within the valve chamber and fitting the upper portion thereof and adapted to be seated on the valve seat, a fluid pressure supply means connected with the casing beneath the valve seat, a pipe connection for the trolley swinging motor connecting with the casing between the valve seat and the upper end of the valve, a spring holding the valve member on its seat with sufficient pressure to withstand the pressure from the pressure fluid supply, means acting on the area of the valve within the valve seat but capable of being overcome by such pressure when augmented by pressure beneath the upper end of the valve member from the trolley swinging motor when the trolley leaves the trolley wire, there being a vent passageway around the portion of the valve member which fits the valve casing and through the upper part of the valve casing above the valve member, a flange on the valve member, and a gasket in the valve casing engaged by the flange for closing the vent passageway when the valve is in its open position.

4. In a trolley retriever, an automatic valve for controlling the supply of pressure fluid to a trolley swinging motor, comprising a casing forming a valve chamber with its upper portion of larger diameter than its lower portion, a bushing fitting within the lower portion of the valve chamber and forming at its lower end a tapering valve seat, a bushing within the upper portion of the valve casing, a hollow valve member having its lower portion of smaller diameter than its upper portion and loosely fitting within the valve seat bushing and its upper portion fitting within the other bushing and provided with a tapering intermediate portion adapted to be seated on the valve seat, a fluid pressure supply means connected with the casing beneath the valve seat, a pipe connection for the trolley swinging motor connecting with the casing between the valve seat and the upper end of the valve, a spring within the valve, a set screw in the top of the valve casing engaging the spring and adapted to adjust the pressure thereof, said spring holding the valve member on its seat with sufficient pressure to withstand the pressure from the pressure fluid supply means acting on the area of the valve within the valve seat but capable of being overcome by less pressure when augmented by pressure beneath the upper end of the valve member from the trolley swinging motor when the trolley leaves the trolley wire, there being a groove in the bushing at the upper end of the valve casing forming a vent passageway around the portion of the valve member fitting within said bushing and a vent opening in the top of the valve casing, a flange on the upepr end of the valve member, and a gasket on the valve casing engaged by the flange for closing communication between the groove and the vent opening when the valve is in its open position.

1,143,003. CONTROLLING DEVICE FOR WINDING-MACHINES. JOHN W. WEST, East Braintree, Mass. Filed June 29, 1912. Serial No. 706,623. (Cl. 73—3.)



1. A winding machine having means for winding thread upon a holder and a stop motion device for controlling the winding operation, said stop motion device including an electric actuator therefor and a movable element controlled by the weight of the thread for governing the circuit of said actuator.

2. A winding machine having means for winding thread upon a holder, a stop motion device for controlling the winding operation, an electric actuator for said stop motion device, a circuit therefor and means controlled by the weight of the thread adapted under a predetermined weight to maintain said circuit in open condition and to close the circuit upon an adjustment gained through the loss of said predetermined weight.

3. A winding machine having means for winding thread upon a holder, a stop motion device for controlling the winding operation, electro-magnetic means including a circuit for actuating the stop motion device upon energization of said electro-magnet, the circuit for the electro-magnet including a movable and fixed contact and an element controlled by the weight of the thread operating the movable contact whereby under a predetermined excess weight the contacts are maintained in open relation and upon the loss of said weight the contacts are brought into engagement to close the electro-magnetic circuit.

4. A winding machine having means for winding thread upon a holder, a stop motion device to control the winding means, a thread cutter arranged for coöperation with the thread, and electro-magnetic means controlled by the weight of the thread for simultaneously operating the stop motion device and thread cutting device.

5. In combination with a thread winding means, a stop motion device to stop said winding means, a thread-cutting device movable to cut the thread as it leads to said winding means, and a device controlled by thread-weight and movable to operate said stop motion device and said thread cutting device when a predetermined weight of thread has been wound on said winding means, substantially as described.

[Claims 6 to 10 not printed in the Gazette.]

1,143,004. PROCESS FOR MAKING TILES, CONDUIT-PIPES, BRICKS, AND LIKE PRODUCTS. CHRIST WESTERGARD, Everett, Wash., assignor of one-half to George McKenzie, Everett, Wash. Filed Feb. 24, 1914. Serial No. 820,702. (Cl. 106—24.)

1. The process of making and curing artificial stone consisting in mixing sand, cement and pulverized sulfur with soapy water, and molding the mass into desired shapes, then placing the articles to set for a pre-determined period during which time the same are suitably moistened, then inclosing the articles in a steam-tight kiln and admitting steam at about 108° F., for a predetermined period, and then increasing the steam temperature to a point above 212° F., for a pre-determined period.

2. The process of making and curing artificial stone consisting in mixing sand, cement, sulfur and soapy water, and molding the mass into articles of desired shapes, then placing the molded articles in a kiln for a period of about twelve hours during which time the same are sprayed with a fluid to prevent abrupt induration, then making the kiln steam-tight and admitting steam at a temperature of about 108° F., for a period of about three hours, and then increasing the temperature of the steam to about 212° F., for a period of about one hour.

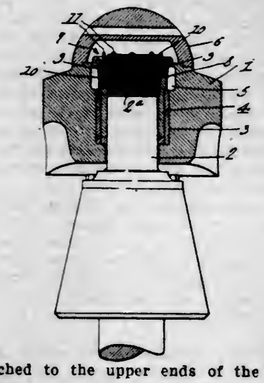
3. The process of making and curing artificial stone consisting in mixing sand, cement, a binder and water, and then molding the mass into desired shapes or forms, then placing the molded articles to set for a period of time, then moistening the articles at desired intervals, then subjecting the articles to steam heat at low temperature to permit the same to be gradually and uniformly heated throughout and then increasing the steam temperature for a desired period to complete induration.

4. The process of making and curing artificial stone consisting in mixing sand, cement, a binder and soapy water, and molding the same into articles of desired shapes, then placing the molded articles to dry at atmospheric temperature for a period of twelve hours, then spraying liquid at desired intervals on the articles during the initial drying step, then subjecting the articles to steam heat at 108° F., and then increasing the steam heat above 212° F., for a period of one hour.

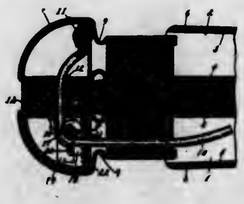
1,143,005. CRUSHER-SHAFT NUT. WILLIAM S. WESTON, Columbia, S. C. Filed Nov. 19, 1914. Serial No. 873,015. (Cl. 64—25.)

1. In a device of the character described, an annulus having a downwardly tapered bore, and a number of wedge-shaped arcuate segments disposed within the annulus, the outer faces of the segments being curved and tapered to fit snugly within the said bore, and the inner faces of the segments being provided with threads, the segments having elements at their upper ends for handling them.

2. In a device of the character described, an annulus having a downwardly tapered bore, a number of wedge-shaped arcuate segments disposed within the annulus, the outer faces of the segments being curved and tapered to fit snugly within the said bore, and the inner faces of the segments being provided with threads, and eye elements attached to the upper ends of the segments for handling them.



1,143,006. TEMPORARY BINDER OR LOOSE-SHEET HOLDER. GEORGE P. WIGGINTON, Kalamazoo, Mich. Filed Aug. 27, 1914. Serial No. 858,969. (Cl. 129—41.)



1. In a temporary binder, the combination of the covers, clamping bars carried by said covers, binding strips arranged transversely through said clamping members extending into one of the covers, a cross bar to which said binding strips are connected arranged within a chamber in one of said covers, said chamber having an inner wall provided with a longitudinal slot, a finger piece for said cross bar disposed through said slot, an adjustable member with which said binding strips are adjustably associated disposed in one of said clamping bars, means for securing said binding strips to said adjustable member comprising a clamping cam carried by said adjustable member, a pinion on said cam, and a rack with which said pinion coacts whereby the binding strips are clamped and the adjustable member adjusted by the turning of the cam.

2. In a temporary binder, the combination of the covers, clamping bars carried by said covers, binding strips arranged transversely through said clamping members extending into one of the covers, a cross bar to which said binding strips are connected arranged within a chamber in one of said covers, said chamber having an inner wall provided with a longitudinal slot, a finger piece for said cross bar disposed through said slot, an adjustable member with which said binding strips are adjustably associated disposed in one of said clamping bars, and means for securing said binding strips to said adjustable member and adjusting said adjustable member for applying stress to said binding strips.

3. In a temporary binder, the combination with the covers, clamping bars carried thereby, binding strips connected to one of the covers and extending transversely through said clamping bars into the other cover, a cross bar for said binding strips arranged within such cover, an adjustable member with which said binding strips are associated for longitudinal adjustment arranged within one of said clamping bars, means for securing said bind-

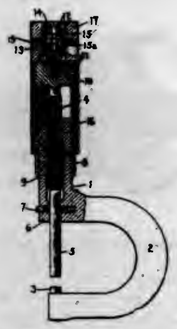
ing strips to said adjustable member carried by said adjustable member, and means for adjusting said member to apply stress to said binding strips.

4. In a temporary binder, the combination of the covers, clamping bars carried by the covers, binding strips extending between the clamping bars and into one of the covers, a cross bar for said binding strips arranged within said cover, an adjustable member with which said binding strips are adjustably mounted on one of said clamping bars, and means for adjustably securing said binding strips to said adjustable member, said binding strips being free for adjustment by said cross bar when said securing means is released.

5. In a temporary binder, the combination of the covers, clamping bars carried by the covers, binding strips extending between the clamping bars and into one of the covers, a cross bar for said binding strips arranged within said cover, and binding strip securing means carried by one of said clamping bars, said binding strips being free for adjustment by said cross bar when said securing means is released.

[Claims 6 to 16 not printed in the Gazette.]

1,143,007. RATCHET EXTENSION AND PROTECTOR FOR MICROMETER-CALIPERS. FLOYD WILCOX, Dayton, Ohio. Filed Jan. 14, 1914. Serial No. 812,101. (Cl. 33—164.)

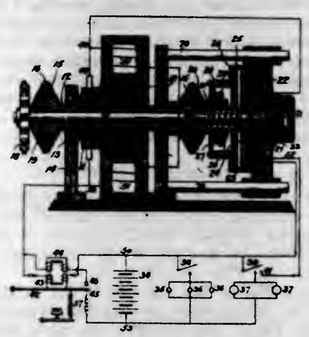


1. In a micrometer caliper, a barrel, an anvil-supporting arm secured thereto, a sleeve on said barrel, a measuring spindle attached to said sleeve, a ratchet stop attached to the top of said sleeve, an operating thimble, and a thickened head on said thimble containing a bore adapted to readily receive said ratchet stop, said thimble being removably secured to said sleeve without change in the thimble, sleeve or stop and extending over said sleeve to a point within convenient access of the fingers of the hand that grasps the anvil-supporting arm, substantially as described.

2. In a micrometer caliper, a barrel, an anvil-supporting arm secured thereto, a sleeve on said barrel, a measuring spindle attached to said sleeve, a cylindrical ratchet stop connected to the top of said sleeve and projecting above the latter, a separate operating thimble, and a cylindrical head on said operating thimble containing a cylindrical bore through which said ratchet stop is adapted to extend without structural alteration in the operating thimble or ratchet stop, said operating thimble extending over said sleeve to a point within convenient access of the fingers of the hand which grasps the anvil-supporting arm, substantially as described.

1,143,008. AUTOMOBILE OR TRAIN LIGHTING SYSTEM. CHARLES E. WILLEY, Louisville, Ky., assignor to Jas. Clark, Jr., Electric Co., Louisville, Ky., a Corporation of Kentucky. Filed Mar. 28, 1913. Serial No. 757,425. (Cl. 171—231.)

1. In combination, an electric generator, a tubular shaft on which the rotor of said generator is mounted, a variable speed drive shaft within said tubular shaft, coacting clutch members carried by said tubular shaft and said drive shaft at both ends of the tubular shaft, a spring normally holding said clutch members in engagement, an electromagnet acting in opposition to the spring, and electric circuit connections from said generator to said electromagnet.



2. In combination, an electric generator, a tubular shaft on which the rotor of said generator is mounted, transverse friction clutch members fixed in the ends of said shaft, a variable speed drive shaft within said tubular shaft, transverse friction clutch members carried by said drive shaft and adapted to co-act respectively with those carried by said tubular shaft, a spring normally holding said clutch members in engagement, an electromagnet acting against the spring, and electric circuit connections from said generator to said electromagnet.

3. In combination, an electric generator, a variable speed shaft in alinement with the rotor axis, clutch members carried respectively by the rotor and by the said shaft, a compression spring around said axis acting to thrust said clutch members together, an annular electromagnet also around said axis and adapted to act against said spring, and circuit connections from said generator to said electromagnet.

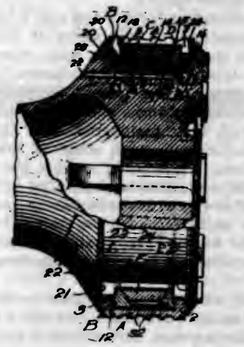
4. In combination, a tubular shaft mounted to rotate in suitable bearings and having clutch disks at its ends, an electric generator having its rotor carried by said shaft, a variable speed drive shaft within said tubular shaft having two clutch disks mounted thereon so as to rotate therewith, said clutch disks being relatively movable longitudinally of the shaft, a helical spring around the shaft tending to push the clutch disks into engagement, an electromagnet, an armature therefor engaging one of the clutch disks carried by the drive shaft, and electric circuit connections from said generator to said electromagnet.

1,143,009. PISTON-VALVE AND PACKING FOR THE SAME. JOHN T. WILSON, Jersey Shore, Pa. Filed Mar. 2, 1914. Serial No. 822,010. (Cl. 121—108.)

1. The combination with a valve body having a groove, of a packing comprising a wide expansible packing ring with a flange, and a plurality of circular wedge rings one of which is expansible, an opening being provided for admitting motive fluid beneath the packing to expand the ring with a flange against the valve chamber surface and then operating the wedges to lock said ring in its expanded position.

2. The combination with a piston valve having a packing ring which is wider than the chamber port to the cylinder and provided with an inwardly extending flange, of a system of circular wedges and means to admit motive fluid beneath said ring and wedges, whereby the degree of frictional contact of the packing ring against the chamber is automatically controlled by the pressure of the motive fluid.

3. The combination with a valve chamber having a port opening to a cylinder, of a piston valve provided with a packing, said packing having a ring wider than the port and said ring also being provided with a rigid flange, and circular wedges combined with said ring; means being provided for admitting operating fluid under pressure beneath said packing; whereby the frictional contact of the packing with the surface of the valve chamber is automatically controlled.

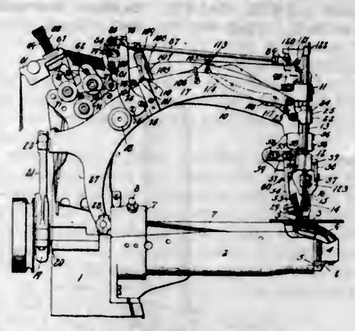


4. A piston valve having a packing provided with a wide packing ring with a flange, and means for automatically controlling the frictional contact of the packing with the valve chamber surface.

5. The combination of an expansible wide packing ring with a flange, a non-expansible wall ring, and an expansible wedge ring.

[Claims 6 to 15 not printed in the Gazette.]

1,143,010. THREAD-CONTROLLING MECHANISM FOR SEWING-MACHINES. RUSSEL G. WOODWARD, Waukegan, Ill., assignor to Union Special Machine Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 28, 1907. Serial No. 364,993. (Cl. 112—26.)



1. A sewing machine including in combination, an eye-pointed needle, a loop-taker coöperating therewith, means for pulling thread from the supply, and separate positively actuated means for controlling the needle loop beneath the material, said means including devices for varying the amount of thread given to the needle for forming the needle loop beneath the material according to the thickness of the material.

2. A sewing machine including in combination, an eye-pointed needle, a loop-taker coöperating therewith, means for automatically pulling varying amounts of thread from the supply corresponding to varying thicknesses of material operated upon, and separate means for controlling the needle loop beneath the material, said last named means including positively actuated devices for automatically varying the amount of thread given to the needle for forming the needle loop beneath the material according to the thickness of the material.

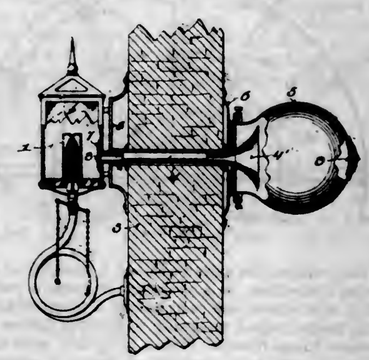
3. A sewing machine including in combination, an eye-pointed needle, a loop-taker coöperating therewith, means for pulling thread from the supply, and separate means for controlling the needle loop beneath the material, said last named means including positively actuated devices for varying the amount of thread given to the needle for forming the needle loop beneath the material according to the thickness of the material, and an auxiliary means for pulling the thread from the supply.

4. A sewing machine, including in combination a needle, a loop taker coöperating therewith, automatic means for pulling thread from the supply for varying thicknesses of material, means for controlling the needle thread loop beneath the material, and auxiliary means for pulling thread from the supply during the downward movement of the needle; substantially as described.

5. A sewing machine including in combination, an eye-pointed needle, a loop-taker coöperating therewith, means for automatically pulling varying amounts of thread from the supply corresponding to varying thicknesses of material operated upon, means for controlling the needle loop beneath the material, said means including devices for automatically varying the amount of thread given to the needle for forming the needle loop beneath the material according to the thickness of the material, and a thread clamp for clamping the thread substantially while the needle eye is beneath the matrial.

[Claims 6 to 67 not printed in the Gazette.]

1,143,011. LIGHTING. ROBERT YOUNG, Sheboygan, Wis. Filed Apr. 21, 1914. Serial No. 833,414. (Cl. 240—1.)



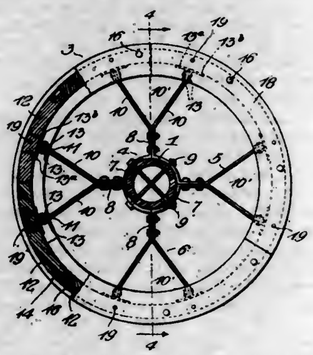
1. The combination of a wall, a lamp on one side of the wall, a tube extending from the lamp through said wall and having its interior adapted for intensifying light, the free end of the tube being a funnel-shaped reflector; a more or less transparent globe inclosing the funnel end of said tube, and a reflector in the globe opposite the one aforesaid.

2. The combination of a wall, a lamp on one side of the wall, a tube extending from the lamp through said wall and having its interior adapted for intensifying light, the free end of the tube being a funnel-shaped reflector, and a reflector arranged opposite the one aforesaid.

1,143,012. BULL-WHEEL. VALENTINE O. ZAHNISER, Washington, Pa. Filed June 4, 1914. Serial No. 842,993. (Cl. 64—18.)

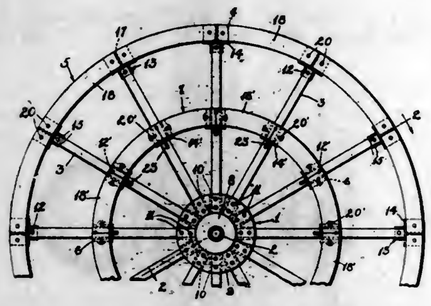
A pulley wheel for well rigs comprising a rim, a plurality of substantially U-shaped sections with rim engaging means at the outer ends of their arms, each arm projecting radially inward from the rim a short distance and then obliquely outward from the radius, but in the same plane therewith until contacting with the arm of its adjacent section, and from which point of contact radially in-

ward and parallel with the said contacting arm to a plurality of arcuate hub engaging members forming the base



of said U-shaped sections, and means for securing the adjacent parallel arms together.

1,143,013. BAND-WHEEL. VALENTINE O. ZAHNISER, Washington, Pa. Filed July 13, 1914. Serial No. 850,797. (Cl. 64—17.)



1. The combination with a hub and a plurality of spokes radiating therefrom, of a plurality of arcuate plates secured to said spokes and each having a longitudinally extending flange formed integrally with its periphery and a transverse flange likewise formed integrally with said periphery and with said longitudinal flange, a plurality of arcuate rim sections having their inner curved surfaces in contact with the peripheries of said plates, the end portions of said sections abutting said transverse and longitudinal flanges, and means for securing said sections in position.

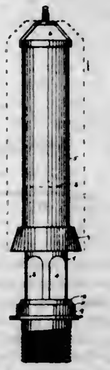
2. The combination with a hub and a plurality of spokes radiating therefrom, of a plurality of circumferentially spaced arcuate plates each having an attaching lug extending radially inward from its inner curved surface, fasteners passing through the free ends of said spokes and through said lugs, the plates also having longitudinal flanges formed integrally with their peripheries at substantially their central portions, and transverse flanges likewise formed integrally with their peripheries and with the longitudinal flanges at substantially their central portions, a plurality of arcuate rim sections contacting on their inner curved surfaces with said arcuate plates, said sections having their ends and their inner side portions contacting respectively with said transverse and longitudinal flanges, and fastening means for securing said rim sections in position.

3. In a device of the character described, a plurality of spaced arcuate plates each having a longitudinal and a transverse flange formed integrally with its periphery, said flanges intersecting each other at the center of the plate, a number of arcuate rim sections having their end portions contacting with said flanges and said plates, means for securing said sections in position, each of the plates also having a pair of lugs projecting radially inward from their inner curved surfaces, the lugs having radial ribs on their opposite edges, spokes interposed between said ribs and contacting with the lugs, fasteners passing through the latter and through the spokes, and a hub from which said spokes radiate.

4. The combination with a hub and a number of spokes radiating therefrom, of two series of arcuate plates secured to said spokes, one series being secured to the outer ends of the latter and the other series being secured to the intermediate portions thereof, the plates of both series having longitudinal flanges and transverse flanges formed integrally with their peripheries, said flanges being also integrally united with each other at substantially their central portions, a number of arcuate rim sections having their opposite end portions contacting with the plates of the outer series and with the flanges thereof, other arcuate rim sections contacting with the plates of the other series and with the flanges thereof, and independent means for securing the two sets of arcuate rim sections in effective position.

5. A wheel of the class described comprising a hub, a plurality of spokes radiating therefrom, a plurality of rectangular arcuate plates, each having a pair of lugs formed integrally with its inner curved surface, said lugs having parallel ribs formed integrally with their opposite edges, the outer ends of the spokes being located between said ribs and in contact with said lugs, bolts passing through said lugs and through said spokes, the arcuate plates also having longitudinal outwardly extending flanges and rectangular transverse outwardly extending flanges formed integrally with their peripheries and likewise formed integrally with each other, each plate having one longitudinal flange and one transverse flange whereby to provide each of said plates with four angular seats, arcuate rim sections whose opposite ends rest within said seats, and bolts passing through said ends of the rim sections and through said longitudinal flanges.

1,143,014. TANK-VALVE. NATHAN ZIMTBAUM, New York, N. Y. Filed Oct. 28, 1914. Serial No. 868,959. (Cl. 4—5.)



1. A valve having a compressible member provided with a plurality of upwardly extending flanges and an angularly disposed member operable therewith, as and for the purpose set forth.

2. A valve having a compressible member provided with angularly arranged lips and a tapered compressing member operable therewith as herein specified.

3. A valve of the character described having a ring formed of elastic material, upwardly projecting and angular lips formed thereon, and a non-elastic and tapered member adapted to engage said lips as and for the purpose set forth.

4. A valve having a duplex seat formed of a plurality of tapered and resilient flanges and a tapered non-resilient member adapted to engage either or both of said flanges as and for the purpose set forth.

1,143,015. HAMELESS HORSE-COLLAR. JULIUS D. AARON, Mount Olive, N. C. Filed Aug. 13, 1914. Serial No. 856,609. (Cl. 54—18.)



1. In a horse collar, a body including a pad, a stiffening member and a covering therefor securing the same to said pad, a lateral flap removably secured to said stiffening member, and an engaging loop disposed through said covering and also engaged with said stiffening member.

2. In a horse collar, a body including a pad, a stiffening member and a covering therefor securing the same to said pad, a lateral flap, and means for removably securing said flaps to said stiffening member, and an engaging loop disposed through said covering and removably secured to said stiffening member by the same means which secures said flap thereto, said loop projecting on the outer face of said flap and adapted to be engaged by a trace.

3. In a horse collar, a body including a pad, a stiffening member applied thereto, a covering for said stiffening member securing the same to said pad, said covering having a slit therein, a lateral flap applied to said stiffening member and projecting beyond the covering therefor, an engaging loop having its ends disposed through the slit in said covering, and means extending transversely through the cover flap and loop and engaging said stiffening member for removably securing said flap and loop to the body.

4. In a horse collar, a body including a pad, a stiffening member therefor and covering for the same securing the stiffening member to said pad, said covering having a slit therein, a flap applied to the stiffening member and projecting laterally beyond the covering thereon, a loop having its ends designed Y-shape and disposed through the slit in said covering, and means extending transversely through the cover flap and loop and engaging said stiffening member to removably secure said loop and flap in place on the body.

5. In a horse collar, a body including a pad, a stiffening member, flexible strips inclosing said stiffening member and secured to said pad, the outer flexible strip being provided with a slit at a predetermined point therein, laterally extending alining ears formed on said flexible strips, a flap disposed between the ears and projecting laterally therebeyond, a loop having its ends disposed through the slit in the one flexible strip, and means for removably securing said loop and flap to the body.

[Claims 6 and 7 not printed in the Gazette.]

1,143,016. INSOLE-REINFORCING MACHINE. ALEXANDER M. ALEXANDER, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Oct. 21, 1914. Serial No. 867,761. (Cl. 12—20.)



1. An insole machine of the character described, having, in combination, means for supporting and feeding the insole and for operating on the reinforcing fabric at its marginal position, a plate extending beneath the fabric and slightly over the margin of the feather, and a knife above the fabric constructed to coöperate with the end portion of said plate to sever the fabric along a line spaced from the edge of the insole.

2. An insole machine of the character described, having, in combination, reinforcing fabric applying tools, a trimming knife above the fabric and slightly within the edge of the insole, and means beneath the fabric constructed and arranged to hold the fabric clear from the feather while it is being trimmed by the knife.

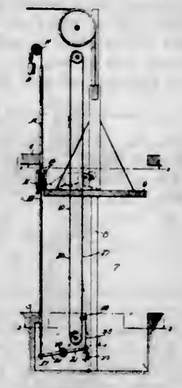
3. An insole machine of the character described, having, in combination, means for supporting and feeding the insole and for operating on the reinforcing fabric at its marginal portion, a vertically arranged rotary disk knife above the feather and slightly within the edge of the insole whereby the fabric is severed along a line spaced from the edge of the insole, and means beneath the fabric and coöperating with said disk knife to prevent slitting the feather as the fabric is trimmed.

4. An insole machine of the character described, having, in combination, means for supporting and feeding the insole and for operating on the reinforcing fabric at its marginal portion, a tool engaging the insole lip to guide the insole and determine its position relative to said operating means, a horizontal rotary shaft, a disk fabric-trimming knife on said shaft above the feather and fabric, and spaced from the operative end of said tool a distance less than the width of the feather at the shank of the insole, and a plate below said knife and beneath the fabric to hold the fabric away from the surface of the feather while the fabric is being trimmed by the knife.

5. A machine for applying reinforcing fabric to lipped insoles, having, in combination, means for forming a bead or crimp on the reinforcing fabric and securing it to the lip of the insole and the feather, a plate extending beneath the fabric provided with a slot located above the feather, and a rotary disk knife constructed and arranged to operate within said slot and coöperate with the plate to sever the fabric.

[Claims 6 to 8 not printed in the Gazette.]

1,143,017. ELEVATOR SAFETY-STOP. CHARLES ANDREWS, Jr., Rockford, Ill., assignor to Andrews Wire & Iron Works, Rockford, Ill., a Corporation of Illinois. Filed Feb. 2, 1914. Serial No. 815,969. (Cl. 187—40.)



1. In an elevator safety-stop, the combination with an elevator and a control cable for controlling the travel thereof in both directions, of a bar extending horizontally across an entrance side of the elevator pit, a vertical cable attached to the bar, the upper end of the cable having a weight attached for counter-balancing the weight of the cable and parts connected thereto, a pivoted rock-lever, the lower end of the bar-cable being attached to the rock-lever, and a connection between the rock-lever and controlling cable operative by the rock-lever in but one direction, whereby the controlling cable may operate in opposite directions without affecting the bar-cable, but is itself

operated by said one-direction operation of the rock-lever when the same is rocked by its cable.

2. In an elevator safety device, the combination with an elevator and means for controlling the travel thereof, of vertically movable rigid means located above an entrance to the elevator-pit and in proximity to the same, mechanism connecting the elevator controlling means and said rigid means for stopping travel of the elevator by upward movement of said rigid means, said mechanism comprising cable means extending from said rigid means to the bottom portion of the elevator-pit, a lever pivoted in said bottom portion of the elevator-pit, having connections between said cable means and controlling means for operating the latter by the former, and means for counterbalancing the weight of said rigid means and parts connected therewith.

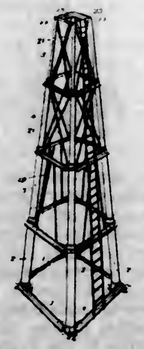
3. In an elevator safety-stop, the combination with an elevator and a control cable for controlling travel thereof, of a bar extending horizontally across an entrance side of the elevator pit and in proximity to an elevator, a vertical cable at each end of the bar, each being attached thereto, the cables having one end depending from the bar, a rock-shaft parallel with said bar and located in the bottom of the elevator pit, an arm thereon for each of said depending cables and to which each is attached, and an arm on said rock-shaft having an operable connection with the control cable, whereby said control cable will be operated by upward movement of the bar.

1,143,018. COFFIN. PRICE ARNOLD, Fort Worth, Tex. Filed Feb. 5, 1912. Serial No. 675,558. (Cl. 27—8.)



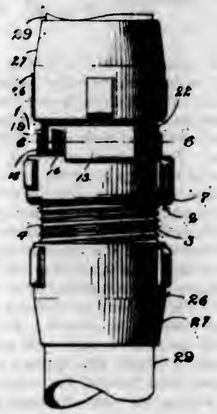
A coffin made of burned clay and consisting of a receptacle having an enlarged rim and a groove in said rim and cavities formed in said rim at the bottom of said groove wider than said groove, a lid having a rib projecting downwardly from the rim thereof into said groove and being narrower than said groove, cement binding said rib in said groove, said rib being cut away adjacent to said cavities, bolts having heads in said cavities and projecting through said ribs in said cut outs, means fixing said heads in said cavities, and nuts for said bolts.

1,143,019. DERRICK. HENRY ACCHU, Emporium, Pa. Original application filed June 29, 1914, Serial No. 847,896. Divided and this application filed Mar. 9, 1915. Serial No. 13,181. (Cl. 189—21.)



In a knock-down derrick, the combination with uprights, the upper ones of which have hollow ends, of a cap frame consisting of independent angle iron side members and angular corner connectors having flanges, said connectors fitting the walls of the angle iron side members and fastened to the ends thereof and constituting a means for securing the side members together, said connectors having gudgeons received in the hollow ends aforesaid, and fastening means directly and detachably connecting the gudgeons to said uprights.

1,143,020. HOSE-COUPLING. DE WITT C. BAILEY, Nichols, Fla. Filed Apr. 27, 1912. Serial No. 693,678. (Cl. 137—28.)



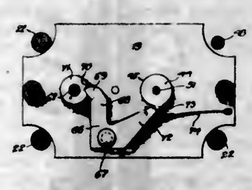
1. The combination with a hose coupling comprising interlocked members constructed for correlative rotation into and out of interlocking engagement, one of said members having a circumscribing ratchet, of a segmental plate carried by the other member and adapted to overlie a portion of the ratchet when the members are assembled ready for said correlative rotation, and a latch not susceptible to pressure in the direction of the coupling and consisting of a curved spring finger, carried by the plate and lying wholly between it and the ratchet and partly circumscribing the ratchet, said finger having a free end portion directed away from its arc of curvature and having also a tooth struck therefrom into position to successively engage the teeth of the ratchet when said members are given their interlocking correlative rotation, the free longitudinal edge portion of the plate having a latch-protecting flange depending beyond the corresponding longitudinal edge of the finger.

2. The combination with a hose coupling comprising interlocked members constructed for correlative rotation into and out of locking engagement, one of said members having a circumscribing ratchet, of a segmental housing projecting from the other member and adapted to overlie a portion of the ratchet when the members are assembled ready for said correlative rotation, and a curved spring finger fastened at one end to the housing and completely concealed thereby when the coupling members are assembled, the free end of said finger having an inwardly projecting tooth adapted to successively engage the teeth of the ratchet when the members are given their interlocking correlative rotation.

1,143,021. COUNTER. EDWARD P. BAIRD, Evanston, Ill., assignor to William T. Baird, New York, N. Y. Filed Aug. 14, 1912. Serial No. 714,955. (Cl. 235—144.)

1. In a counter, the combination with indicators for different denominations, mechanism for operating the same, and carrying mechanism between said indicators, of resetting mechanism, a stop lever mounted to arrest the indicator for the lower denomination at zero, and means for rendering the stop lever operative when the indicator for the other denomination reaches zero.

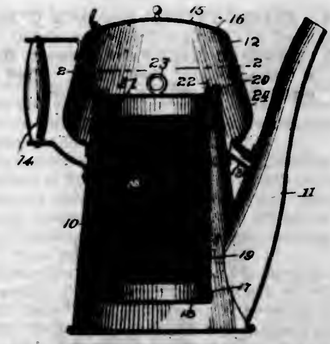
2. In a counter, the combination of rotatable indicators for different denominations, gear mechanism for operating the indicators, a lever for operating the gear mechanism step by step, resetting mechanism, a stop rotating with the indicator for the lower denominations, a stop lever mounted to arrest the indicator for the lower denomination at zero, and a disk for rendering the stop lever operative when the indicator for the other denomination reaches zero.



3. In a counter, the combination of rotatable indicators for different denominations, gear mechanism for operating the indicators, a lever for operating the gear mechanism step by step, resetting mechanism, a disk secured to rotate with the indicator for the lower denomination and having a one-way stop thereon, a stop lever having an arm mounted to engage said stop when the indicator for the lower denomination is at zero, and means for rendering the stop lever operative when the indicator for the higher denomination is at zero.

4. In a counter, the combination with rotatable indicators for different denominations, mechanism for operating the same, and carrying gears between the indicators, of resetting mechanism, a disk secured to rotate with the indicator for the lower denomination and having a one-way stop thereon, a lever mounted to engage said stop when the indicator for the lower denomination is at zero, and a notched disk for rendering the lever operative when the indicator for the other denomination reaches zero.

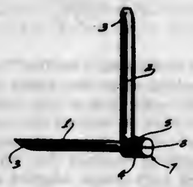
1,143,022. COFFEE-PERCOLATOR. LOUIS BARABÁS and JOSEPH HADA, Cleveland, Ohio. Filed Mar. 30, 1914. Serial No. 828,284. (Cl. 53—3.)



The combination with a coffee pot and its spout, of an overflow chamber secured to the pot, and a by-pass communicating with the extreme lower end of the chamber and with the spout, the two ends of the by-pass being unobstructed whereby to insure return to the pot of any coffee escaping to the chamber, without danger of clogging.

1,143,023. METHOD OF MAKING HINGES FOR STOVE-DOORS OR THE LIKE. BERRY A. BAXTER, Mansfield, Ohio, assignor to New Method Stove Company, Mansfield, Ohio, a Partnership composed of Henry H. Sanford, Bernhard R. Ahrendt, Edwin D. Baxter, and Berry A. Baxter. Filed June 6, 1914. Serial No. 843,432. (Cl. 29—11.)

1. The herein described method of making stove door hinges for wrought-iron stove doors which consists in cutting two pieces of half-round stock of wrought iron, then off-setting an end of one piece and in bending an end of the other piece at right angles, then in assembling and electrically welding said offset and bent ends to form a hinge trunnion of complete circular cross-section extending from the half-round surface, the flat surface of the hinge being adapted to closely fit the corner of the wrought iron door and then being fused thereto by an electric current.

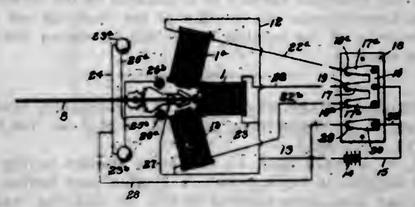


2. The herein described method of making stove door hinges for wrought iron stove doors which consists in cutting two pieces from half-round wrought iron stock and then in assembling and electrically welding said pieces whereby the same conjointly form an angular hinge having a pintle extending from the half-round surface, the flat surface of the hinge being made to conform to the corner of the wrought-iron door and then electrically welding the hinge to the door.

3. The herein described method of making stove door hinges for wrought-iron doors which consists in uniting the adjacent ends of two pieces of half-round wrought-iron stock whereby said ends conjointly form a hinge pintle and have angular relationship and a flat surface to fit snugly the corner of the wrought-iron door and then electrically welding the hinge to the door as described and set forth.

4. The herein described method of making a wrought-iron stove door hinge for use in combination with a wrought-iron stove door which consists in taking half-round stock of wrought-iron and cutting and bending two pieces thereof and electrically welding them together in angular relation to each other and thereby forming a pintle and then electrically welding the hinge to a corner of said wrought iron door, as described and set forth.

1,143,024. ELECTRICAL SIGNALING APPARATUS. DON E. BEATLEY and PETER MAX FELTWELL, Sewickley, Pa. Filed Nov. 13, 1914. Serial No. 871,856. (Cl. 177—337.)



In a signaling apparatus, the combination of three radially arranged electromagnets, an electric switch in circuit therewith and adapted to make and break an electric circuit through one or another of said magnets, a horizontally-disposed pivotally-mounted arm having one end thereof in the field of magnetization of each of said magnets, the other end of said arm being provided with ratchet teeth, a vertically disposed rod provided with a pinion meshing with said teeth and having an indicating arm secured to its outer end, a pair of signal lamps, means for placing said lamps in circuit with said magnets, a contactor in circuit with each of said lamps, each contactor being adapted to be engaged by said arm and when thus engaged to close a circuit through a lamp, and a catch for holding said arm in contact with one or the other of said contactors after the circuit through a magnet has been broken.

1,143,025. TOOL-CLAMP. CHARLES W. BECK, Rockville Center, N. Y., assignor, by mesne assignments, to The Beck-Frost Corporation, Detroit, Mich., a Corporation of Michigan. Filed Aug. 3, 1910. Serial No. 575,263. (Cl. 7—15.)



1. A tool clamp comprising a holding frame formed with a socket and provided with side arms, one of said arms being offset at the outer end of the socket and both of said arms being apertured beyond the socket, an exterior cam formed on one of the arms adjacent the perforation, a clamp rod extending through the perforations in the arms and provided with means adapted to interlock with both of said arms and to engage said cam to draw the two arms together.

2. A tool clamp comprising a holding frame bent to form a rectangular socket to receive a series of tools, the side arms of the frame extending beyond said socket and one of the arms being offset near the outer end of the socket, and both of said arms being apertured, an exterior cam formed on one of said arms, the opposite arm being provided with radial slots extending outwardly from the aperture therein, a clamp rod adapted to be passed through the apertures and provided with interlocking pins at its end adapted to pass through the said radial slots, and a cam engaging part secured to the other end of the clamp rod and adapted to engage the exterior cam to draw the two arms together.

3. A tool clamp comprising a holding frame formed with a socket and provided with side arms extending outwardly beyond the socket, one of said arms being laterally offset at the outer or open end of the socket, both of said arms being apertured beyond the offset portion of one of said side arms, a clamp rod extending through the perforations in the arms and provided with means adapted to engage both of said arms to draw them toward each other, the end of said clamp rod being adapted to lie in the laterally offset portion of one of the side arms, when said rod is disconnected from said arms and the socket is opened.

4. A tool holder comprising a holding frame having two arms forming a socket, a clamping rod extending across between said side arms and connecting them together, means at both ends of said clamping rod to engage the side arms and a cam surface formed on one of the side arms and adapted to be engaged by the clamping rod, whereby upon the rotation of the clamping rod the side arms of the holding frame will be drawn toward each other.

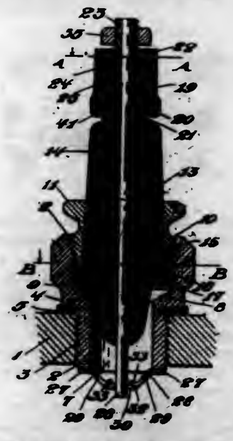
1,143,026. SPARK-PLUG. HENRY J. BERTHOLD, Irvington, N. J. Filed June 18, 1912. Serial No. 704,283. (Cl. 123—169.)

1. In a spark plug, an insulating member having an end angular in cross section, a binding post having an angular base plate adapted to seat on said end, and a correspondingly angular cap adapted to inclose said plate and end of the insulating member.

2. In a spark plug, an insulating member having a central passage and provided with an end angular in cross section, an electrode in said passage, a binding post having an angular base plate, said binding post being bored to receive said electrode, and a correspondingly angular cap adapted to be slipped over said angular base plate and over said angular end of the insulating member securing said binding post nonrotatively with respect to the insulating member.

3. In a spark plug, an insulating member having an end angular in cross-section, a binding post having an angular base plate adapted to seat on said end, a correspondingly angular cap inclosing said base plate and end of the insulating member, and means for retaining said cap against removal.

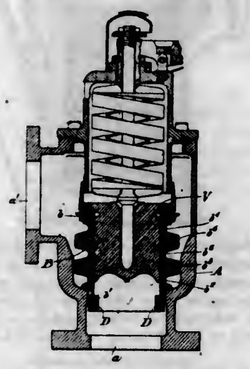
4. In a spark plug, an insulating member having an end angular in cross section and provided with a peripheral shoulder adjacent said angular end, a binding post having an angular base plate adapted to abut against said end of the insulting member, and a correspondingly angular cap inclosing said base plate and end and having its edges bent over said shoulder.



5. In a spark plug, a shell adapted to be mounted in the wall of a cylinder, a central electrode for said shell projecting from the inner open end thereof, and a bridge at the end of said shell having a middle portion surrounding said electrode and arms projecting from said middle portion and secured to the shell, said bridge having radial slots extending from its central opening through said middle portion into the said arms, whereby the parts of the middle portion between said slots may be bent toward and away from each other.

[Claims 6 and 7 not printed in the Gazette.]

1,143,027. SAFETY-VALVE. FREDERICK C. BLANCHARD and ERNEST B. CROCKER, Bridgeport, Conn., assignors to The Consolidated Safety Valve Company, Bridgeport, Conn., a Corporation of Connecticut. Filed Aug. 20, 1914. Serial No. 857,762. (Cl. 137—53.)



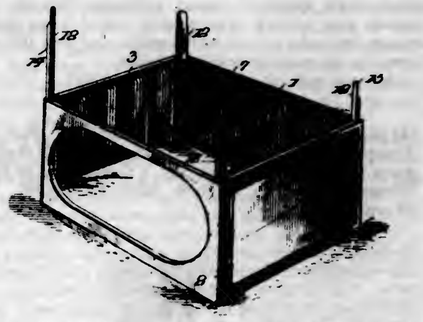
1. In a safety pop valve, a valve body, a valve seat and a valve seat bushing between said seat and said body carrying the valve seat at one end, said valve seat bushing being unyielding to valve spring pressure and having relatively yielding and unyielding or reinforced sections adapted to prevent distortions of the valve body from being transmitted to the valve seat.

2. In a safety pop valve, a valve body, a valve seat, and a tubular connection carrying the valve seat at one end and connected to the valve body at the other end, said tubular connection being unyielding to valve spring pressure and comprising relatively yielding and unyielding or reinforced sections adapted to prevent distortions of the valve body from being transmitted to the valve seat.

3. In a safety pop valve, a valve body, a valve seat, and a valve seat bushing between said seat and said body carrying the valve seat at one end, said valve seat bushing being unyielding to valve spring pressure and having a relatively unyielding or reinforced section and relatively yielding sections on each side thereof, said sections adapted to prevent distortions of the valve body from being transmitted to the valve seat.

4. In a safety pop valve, a valve body, a valve seat and a valve seat bushing between said seat and said body carrying the valve seat at one end, said valve seat bushing being interiorly cylindrical and having circumferential sections of relatively greater and smaller cross sectional area, said sections adapted to prevent distortions of the valve body from being transmitted to the valve seat.

1,143,028. KNOCKDOWN OVEN. EDWARD BOEKENKAMP, St. Louis, Mo., assignor to American Stove Company, St. Louis, Mo., a Corporation of New Jersey. Filed Feb. 23, 1915. Serial No. 10,105. (Cl. 126—275.)



1. A knock-down oven comprising a plurality of sections adapted to fit together, some of the said sections provided with flanges at their abutting corners, strips each one fitting over the flanges carried by the sections, said strips provided with extending tongues, the other sections provided with openings in the corners thereof to receive the tongues of the strips, the parts arranged as and for the purpose described.

2. A knock-down oven comprising a plurality of sections adapted to fit together, some of the said sections having flanges on their corners, locking strips engaging the said flanges, means carried by the said strips for holding the other sections of the oven to the sections having flanges at their corners.

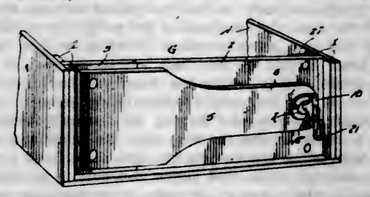
3. A knock-down oven comprising six sections adapted to fit together, four of the said sections provided with flanges at their abutting corners, four strips each one fitting over the flanges carried by the sections, said strips provided with extending tongues, two sections provided with openings in the corners thereof to receive the tongues of the strips, the parts arranged as and for the purpose described.

4. A knock-down oven comprising a plurality of sections adapted to fit together, two edges of some of the said sections provided with outwardly extending portions, said outwardly extending portions bent back upon themselves to form an acute angle, the said edges of each section arranged to meet each other at right angles, a locking strip comprising a body portion having two members integral therewith and arranged converging thereto, said strip engaging the doubled portions of the extending edges of the sections, said strips provided with tongues at their upper and lower ends, the other sections of the oven provided with openings in their body portions to receive the extending tongues of the said strips.

5. A knock-down oven comprising six sections adapted to fit together, two edges of four of the said sections provided with outwardly extending flanges of triangular shape, the said triangular flanges of the sections arranged adjacent each other, locking strips of a shape to fit over the triangular flanges of the said sections, said strips provided with tongues at their ends, the other two members provided with openings in their corners to receive the tongues of the locking strips, said tongues bent back upon the body portion of the two last-mentioned sections.

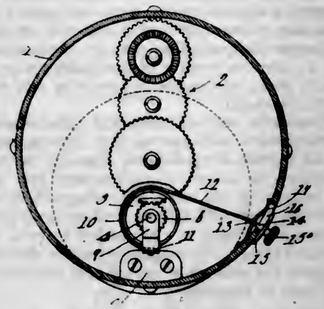
[Claims 6 to 10 not printed in the Gazette.]

1,143,029. LOCKING DEVICE. MATHIAS F. BOHR, Stickney, S. D. Filed Mar. 18, 1914. Serial No. 825,667. (Cl. 70—49.)



The combination with a wall and a member to be locked thereto, of a locking device carried by the wall comprising a rotatable post having a locking head adapted to fasten the member to be locked, a spindle extending through said post, said spindle having means for engaging with the head of the post to rotate the latter, a locking block carried at the inner end of the spindle, a keeper for the locking block, means normally forcing the locking block of the spindle into locking engagement with the keeper, and means for withdrawing the locking block from the keeper and turning said locking block to release the locked member from the wall.

1,143,030. SPRING-MOTOR BRAKE. GUY L. BONHAM, West Hartford, Conn. Original application filed Apr. 16, 1914, Serial No. 839,849. Divided and this application filed Jan. 18, 1915. Serial No. 2,937. (Cl. 74—37.)



1. In a device of the character described, a case, a shaft carried thereby, a brake drum carried by the shaft, a brake band having one end anchored to the case and partially surrounding the drum, and a slidable member carried by the case, the other end of the brake band being attached to the slidable member.

2. In a device of the character described, a case, a shaft carried thereby, a brake drum carried by the shaft, a brake band having one end anchored to the case and partially surrounding the drum, the case having a slot, and a button slidable along the case and having a shank projecting through the said slot, the other end of the brake band being attached to the said shank.

3. In a device of the character described, a case, a shaft carried thereby, a brake drum carried by the shaft, a brake band having one end anchored to the case and

partially surrounding the drum, the case having a slot, a button slidable along the case and having a shank projecting through the said slot, the other end of the brake band being attached to the said shank, and a spring carried by the said shank and bearing against the case.

4. In a device of the character described, a case having a slot in its periphery, a shaft journaled through one portion of the case, that portion of the periphery of the case having the slot being eccentric relative to the case, a brake drum carried by the shaft within the case, a brake band partially surrounding the drum and having one end anchored within the case, and a button slidable upon the periphery of the case and having a portion projecting within the said slot, the other end of the brake band being attached to the button.

5. In a device of the character described, a case having a slot in its periphery, a shaft journaled through one portion of the case, that portion of the periphery of the case having the slot being eccentric relative to the case, a brake drum carried by the shaft within the case, a brake band partially surrounding the drum and having one end anchored within the case, a button slidable upon the periphery of the case and having an inwardly projecting shank working within the said slot, the other end of the brake band being attached to the said shank, and a bowed spring secured to the said shank and having its terminal portions bearing against the interior of the case to hold the button in place.

1,143,031. DETACHABLE RIM FOR PNEUMATIC TIRES. BENAIAH BRADFORD, Norristown, Pa., assignor to Lee Tire & Rubber Co., Conshohocken, Pa., a Corporation of Pennsylvania. Filed May 26, 1910. Serial No. 563,481. (Cl. 152—21.)



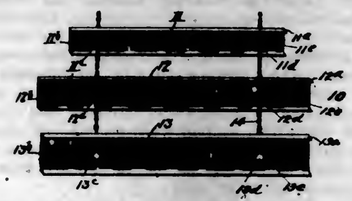
1. A detachable rim for pneumatic tires consisting of an integral annular flat portion having flanges for engaging and holding the tire, said portion and flanges being split obliquely whereby one end of the split portion may be moved laterally relative to the other, said ends having interlocking lugs thereon projecting laterally of the plane of the rim whereby said lugs may be engaged or disengaged by a lateral movement of the ends of the rim relative to each other, and means for securing said interlocking lugs in alinement.

2. A detachable rim for pneumatic tires, consisting of an integral annular body portion split substantially at an angle of 30 degrees with the side edges of the body portion, whereby one end of the split portion may be moved laterally relative to the other end, staggered interlocking lugs projecting from said split ends of the body portion, in a direction substantially at right angles thereto, said projecting lugs having perforations extending therethrough, and a locking pin adapted to engage said perforations and hold said lugs in alinement.

1,143,032. ROAD-MACHINE. JAMES M. BREESE, Mattoon, Ill. Filed Oct. 25, 1913. Serial No. 797,333. (Cl. 55—22.)

1. In a device of the class described, a plurality of scraper members spaced apart, and a continuous link chain securing said members together, said members having apertures therethrough adapted to be detachably engaged by the desired links of said chain whereby said members may be spaced apart as desired.

2. In a device of the class described, a plurality of spaced apart scraper members, and flexible connecting members extending between and secured to said scraper members, said connecting members being arranged to pass over the following edges of said scraper members and beneath the leading edges of said scraper members and to tilt said members with respect to the surface being operated upon when said device is in operation.



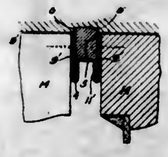
3. In a device of the class described, a plurality of scraper members spaced apart, and flexible means securing said scraper members together to follow each other successively in the same path of travel, the scraper members toward the rear portion of said device being of greater weight per unit of length than the members toward the forward portion thereof.

4. In a device of the class described, a plurality of spaced apart channel beams having their channels upturned, flexible connections extending between and secured to said channel beams, said connections being arranged to tilt said beams when in operation.

5. In a device of the class described, a plurality of spaced apart members, chains extending between said members and secured thereto, said chains being passed through the underside of each member and over the back thereof to the next succeeding member.

[Claims 6 to 8 not printed in the Gazette.]

1,143,033. WEATHER-STRIP. SAMUEL P. BRICKER, Pittsburgh, Pa., assignor to National Metal Weather Strip Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Feb. 15, 1909. Serial No. 478,067. (Cl. 20—69.)



1. The combination with the parting bead of a window frame, of a sheet metal strip formed to embrace the bead and having a rib extending directly from one of the bead-embracing portions, a co-acting sash, and a sash member strip secured thereto and embracing the parting bead rib, substantially as set forth.

2. The combination with the parting bead of the runway of a window frame extending outwardly from the face of the runway, of a sheet metal weather strip having a side and front permanently rigidly embracing the parting bead, the metal of one of said bead-embracing parts being doubled upon itself and providing a sealing rib extending directly from one of the bead-embracing portions in a plane parallel with one of the faces of the parting bead, and a co-acting sash having a portion embracing said rib, substantially as set forth.

1,143,034. POSITIONING MECHANISM. WILLIAM SHERMAN BROWN, Knoxville, Tenn. Filed Sept. 26, 1914. Serial No. 863,743. (Cl. 121—98.)

1. In a mechanism of the nature described, a cylinder having a middle exhaust port and two outer ports, a piston head in said cylinder, a piston stem connected with said head and extending through one end of the cylinder, a member to be positioned, said member being in operative relation with said piston stem, a valve chest on said cylinder, two valve members within said chest and having ports and being slidable endwise independently of each other, a stem on each valve member independent of the other, a hand lever operatively connected with one of said stems, and means connected with the piston stem and with the other valve stem for imparting a relatively slow movement from the piston stem to said valve stem, substantially as described.

2. In a mechanism of the nature described, a cylinder having a middle exhaust port and two outer ports, a piston head in said cylinder, a piston stem connected with said head and extending through one end of the cylinder, a member to be positioned, said member being in operative relation with said piston stem, a valve chest on said cylinder, two valve members within said chest and having ports and being slidable endwise independently of each other, a stem on each valve member independent of and extending in the direction opposite the direction of the other, a hand lever operatively connected with one of said stems, and means connected with the piston stem and with the other valve stem for imparting a relatively slow movement from the piston stem to said valve stem, substantially as described.

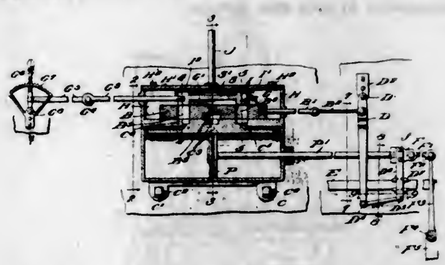
3. In a mechanism of the nature described, a cylinder having a middle exhaust port and two outer ports, a piston head on said cylinder, a piston stem connected with said head and extending through one end of the cylinder, a member to be positioned, said member being in operative relation with said piston stem, a valve chest on said cylinder, a saddle plate within said chest, two valve members within said chest and having ports and being slidable endwise independently of each other, a stem on each valve member independent of the other, a hand lever operatively connected with one of said stems, and means connected with the piston stem and with the other valve stem for imparting a relatively slow movement from the piston stem to said valve stem, substantially as described.

4. In a mechanism of the nature described, a cylinder having a middle exhaust port and two outer ports, a piston head in said cylinder, a piston stem connected with said head and extending through one end of the cylinder, a member to be positioned, said member being in operative relation with said piston stem, a valve chest on said cylinder, a channeled saddle plate within said chest, two valve members within said chest and having ports and being slidable endwise independently of each other, a stem on each valve member independent of the other, a hand lever operatively connected with one of said stems and means connected with the piston stem and with the other valve stem for imparting a relatively slow movement from the piston stem to said valve stem, substantially as described.

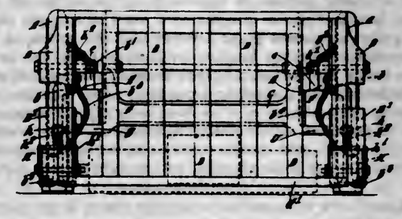
5. In a mechanism of the nature described, a cylinder having a middle exhaust port and two outer ports, a piston head in said cylinder, a piston stem connected with said head and extending through one end of the cylinder, a member to be positioned, said member being in operative relation with said piston stem, a valve chest on said cylinder, a saddle plate and a spring within said chest, two valve members within said chest and having ports and being slidable endwise independently of each other, a stem on each valve member independent of the other, a hand lever operatively connected with one of said stems, and means connected with the piston stem and with the other valve stem for imparting a relatively slow movement from the piston stem to said valve stem, substantially as described.

6. In a mechanism of the nature described, a cylinder having a middle exhaust port and two outer ports, a piston head on said cylinder, a piston stem connected with said head and extending through one end of the cylinder, a member to be positioned, said member being in operative relation with said piston stem, a valve chest on said cylinder, a saddle plate within said chest, two valve members within said chest and having ports and being slidable endwise independently of each other, a stem on each valve member independent of the other, a hand lever operatively connected with one of said stems, and means connected with the piston stem and with the other valve stem for imparting a relatively slow movement from the piston stem to said valve stem, substantially as described.

[Claim 6 not printed in the Gazette.]



1,143,035. VEHICLE WHEEL-GUARD. EDWARD JOHN BUCKINGHAM, Brixton Oval, London, England. Filed June 29, 1914. Serial No. 848,034. (Cl. 105—131.)



1. A safety guard for vehicle wheels, comprising a pivoted guard placed in front of the wheel and provided with a forwardly extending bottom platform, a bracket on the back of the said guard, a safety roller mounted so as to move vertically in the said bracket and to meet the vehicle wheel on rearward movement of the guard and a spring controlling the said roller.

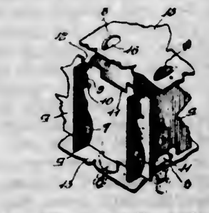
2. A safety guard for vehicle wheels, comprising a guard composed of an upper and a lower member, a supporting arm to which the upper member is pivoted, an approximately horizontal hinge connecting the lower to the upper member and adapted to allow the lower member to yield transversely of the vehicle, a spring holding the lower member in normal position and a spring maintaining the guard resiliently in forward position on its supporting arm.

3. A safety guard for vehicle wheels, comprising a guard composed of two hinged members, a supporting arm made in two pivoted parts to one of which the upper member is pivoted and springs at each pivot so arranged that the guard can yield resiliently sidewise, rearwardly and upwardly.

4. A safety guard for vehicle wheels, comprising a pivoted and spring supported guard composed of two members hinged together under spring control, the lower member yielding sidewise against the pressure of the spring, and a small roller at the lower outer corner of the lower guard member.

5. A safety guard for vehicle wheels, comprising a fixed arm, an extension pivoted to the said arm so as to turn upwardly, a stop limiting downward movement of the extension, a spiral spring and rod connection between the arm and extension, a guard pivoted on the front end of the arm extension and a spring connecting the upper end of the guard to the fixed arm.

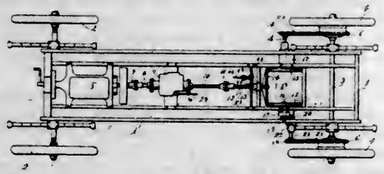
1,143,036. FILLER FOR EGG-CASES. JAMES H. CARTER, Chicago, Ill., assignor of one-half to Frederick C. Maegly, Chicago, Ill. Filed Dec. 24, 1913. Serial No. 808,557. (Cl. 217—18.)



1. An egg-case filler consisting of cell-sections composed of two series of parallel strips that intersect each other at substantially right angles having interengaging portions at their points of intersection, the strips of one series having tongues projecting from their upper edges above the horizontal plane thereof and the strips of the other series having tongues projecting from their lower edges below the horizontal plane thereof, in combination with flats each having slots disposed at substantially right angles to each other through which said tongues are inserted.

2. An egg-case filler consisting of cell-sections composed of two series of parallel strips that intersect each other at substantially right angles having interengaging portions at their points of intersection, the strips of one series having tongues projecting from their upper edges above the horizontal plane thereof and the strips of the other section having tongues projecting from the lower edges below the horizontal plane thereof, and each of said strips having legs projecting from their edges opposite said tongues, in combination with flats each having elongated slots disposed at substantially right-angles to each other through which said tongues are inserted and unslotted portions adapted to be engaged by the ends of said legs.

1,143,037. TRANSMISSION MECHANISM FOR AUTOMOBILES. ROBERT E. CARSWELL, Minneapolis, Minn. Filed Apr. 13, 1914. Serial No. 831,358. (Cl. 21—90.)



1. The combination with a motor and traction wheels, of a motor propelled vehicle, a variable speed toothed gear drive driven from said motor, and a frictional gear mechanism having three coöperating friction wheels, one of which is driven from said toothed gear drive, and the other two of which are connected, one to each of the traction wheels.

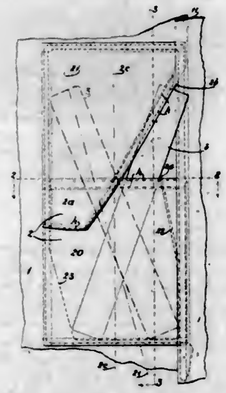
2. The combination with a motor and traction wheels, of a motor propelled vehicle, a variable speed toothed gear drive driven from said motor, a frictional gear mechanism having three coöperating friction wheels, one of which is driven from said toothed gear drive and the other two of which are connected, one to each of the traction wheels, and means for moving the first noted of said friction wheels into and out of engagement with the other two friction wheels, whereby they are caused to operate as a combined frictional transmission and clutch.

3. The combination with three coöperating permanently located friction wheels, two thereof being driven from the third friction wheel and each of said two driven wheels being connected to a corresponding traction wheel, a reversible variable speed toothed gear drive, a shaft connecting said motor to one of the elements of said toothed gear drive, and a counter shaft connecting another of the elements of said toothed gear drive to the third or driving member of said friction wheels.

4. The combination with the motor, the traction wheels and the variable speed toothed gear drive of a motor propelled vehicle, of three coöperating friction wheels, the first being driven from said toothed gear drive, and the other two being connected to the respective traction wheels, the said three friction wheels being permanently located, but the said first friction wheel having a slight movement to throw the same into and out of frictional driving action on the said coöperating friction wheels, whereby the said three friction wheels serve as a combined friction clutch and frictional driving gear mechanism.

1,143,038. POCKET. GEORGE W. CARVER, East Orange, N. J. Filed Mar. 10, 1914, Serial No. 823,639. Renewed Apr. 26, 1915. Serial No. 24,156. (Cl. 2—15.)

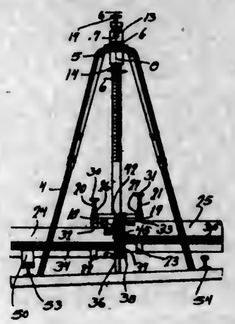
1. Dual rule and tool pockets for and joined to working garments, comprising a main, lower open-topped pocket, and lapped thereupon a supplemental upper and outer pocket, a portion of the cloth of said garment forming one of the walls of said pockets which wall is common to both pockets, said main lower open-topped pocket having for its outer wall a strip of cloth secured to said portion of said garment at its bottom and sides but free along its top and said supplemental upper and outer pocket having for its outer wall a second strip of cloth extending partially over the top of said first mentioned strip of cloth, and secured to said portion of said garment along its top, the full length along one of its sides, and only partway along the other of its sides to thereby leave an entranceway to such dual pockets.



2. Dual rule and tool pockets for and joined to working garments, comprising a main, lower, open-topped pocket, and lapped thereupon a supplemental upper and outer pocket, a portion of the cloth of said garment forming one of the walls of said pockets which wall is common to both pockets; said main lower open-topped pocket having for its outer wall a strip of cloth secured to said portion of said garment at its bottom and sides but free along its top and said supplemental upper and outer pocket having for its outer wall a second strip of cloth having an upper side to form the top of the pocket, a long lateral side and a short lateral side both substantially at right angles to said upper side and continuing therefrom, a short lower side substantially parallel to the upper side and extending only partway from said long lateral side, and an inclined side disposed between and connecting the short lower side and the short lateral side; said second strip of cloth being positioned on said portion of said garment so that its upper side is substantially parallel with the lower side of said first mentioned strip, and partially overlapping said first mentioned strip so that its lower short side will be disposed a considerable distance below the top of said first mentioned strip; and said second strip of cloth being secured along its upper side and along its short lateral side to said portion of said garment, and along its long lateral side to said portion of said garment and to said first mentioned strip and said portion of said garment against which it rests.

3. Dual rule and tool pockets for and joined to working garments having a seam formed between adjacent sections and comprising a main, lower open-topped pocket, and lapped thereupon a supplemental upper and outer pocket; a portion of the cloth of said garment forming one of the walls of said pockets which wall is common to both pockets, said main lower open-topped pocket having for its outer wall a strip of cloth secured to said portion of said garment at its bottom, and along one of its lateral sides, its other side being secured between said adjacent sections at said seam and said supplemental upper and outer pocket having for its outer wall a second strip of cloth extending partially over the top of said first mentioned strip of cloth and secured along its upper side to said portion of said garment the full length along one of its lateral sides to said portion of said garment and said first mentioned strip of cloth against which it rests, and only partway along the top of its other lateral side which extends between said adjacent sections at said seam, said seam forming an offset edge between the top of said lower pocket and the secured portion of the lateral side of said upper pocket which is only partway secured between said adjacent section.

1,143,039. TRACK-LEVELING DEVICE. ANDREW H. CHINAKAS, Spokane, Wash. Filed Aug. 17, 1914. Serial No. 857,187. (Cl. 33—60.)



1. In a track leveling device, a tripod provided with a head and a level, a graduated bar adjustable in said head and forked with the forked portions graduated, board carriers adjustable on said forked portions, a spot board supported by each carrier, and means connected with the spot boards for adjusting the same, substantially as described.

2. In a track leveling device, a tripod provided with a head and a level, a graduated bar adjustable in said head and forked with the forked portions graduated, board carriers adjustable on said forked portions, a spot board supported by each carrier, and rotatable adjusting means for displacing said spot boards with respect to each other in predetermined paths of movement, substantially as described.

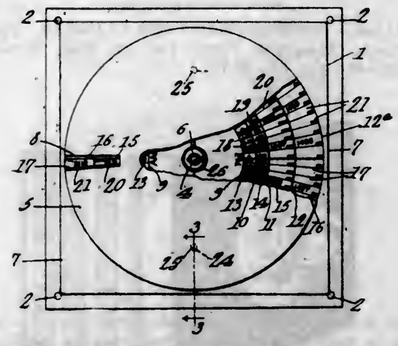
3. In a track leveling device, a tripod provided with a head and a level, a bar carried by said head, spot boards carried by said bar, and means adjustably connecting said boards for displacing the same with respect to each other relatively to the tracks, substantially as described.

4. In a track leveling device, spot board supporting means, spot boards carried by said means, and mechanism connected with said boards for displacing the same into alined or offset relation with respect to each other relatively to the tracks, substantially as described.

5. In a track leveling device, spot board supporting means, spot boards, and mechanism for adjusting said spot boards on said supporting means relatively to the tracks, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

1,143,040. TIME-RECORDER. AUBURN S. CUNNINGHAM, Marion, Ohio. Filed June 1, 1914. Serial No. 842,190. (Cl. 234—49.)

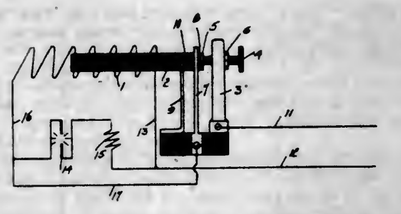


1. In a recording device, a supporting plate, a time card supported upon one side of the plate, a cover mounted movably over the time card, and a clock operatively connected to the cover for moving the same, the time card having a series of time divisions thereon, and inscribable divisions associated with the time divisions, and the cover having an opening arranged to expose in sequence, the inscribable divisions of the time card.

2. In a recording device, a supporting plate, a time card supported upon one side thereof, a rotary cover mounted over the time card, a clock operatively connected to the cover to rotate the same, the time card having arcuate series of time divisions and arcuate series of inscribable divisions associated with the time divisions, and the cover having a radial slot arranged to expose in sequence, the inscribable divisions of the time card.

3. In a recording device, a supporting plate, a time card supported upon one side thereof, a clockwork carried by the other side of the plate and having an arbor projecting through the plate to the first mentioned side thereof, and a cover for the time card secured upon the said arbor, the time card having arcuate series of time divisions and arcuate inscribable divisions associated with the time divisions, and the cover having an opening arranged to expose in sequence, the inscribable divisions of the time card.

1,143,041. CURRENT-CORRECTOR. NORMAN C. DARBY, East Orange, N. J., assignor of one-half to Rudolph Miehling, New York, N. Y. Filed July 31, 1913. Serial No. 782,212. (Cl. 171—253.)



1. In combination with a source of alternating current, a coil, a core movable longitudinally of said coil under the influence of the current passing therethrough, a translating device, the said device and coil being in shunt with each other and in circuit with the said supply, and means controlled by the movement of the said core for periodically opening the said supply circuit.

2. In combination with a source of alternating current, a coil, a core movable longitudinally of said coil under the influence of the current passing therethrough, a translating device, the said device and coil being adapted to be actuated by current from the said source, and means controlled by the movement of the said core for periodically opening the circuit of the said source, the device and coil being connected at all times in shunt relation.

3. In combination with a source of alternating current, relatively movable contacts, a coil, a core movable longitudinally of said coil under the influence of the current passing therethrough, a translating device connected in shunt with the said coil, the device and coil being actuated by the said supply, the said contacts being positioned between the said supply and the device and coil, and means coöperating with the said core for periodically moving the said contacts relatively to each other whereby the circuit to the coil and device is periodically made and broken.

4. In combination with a source of alternating current, a coil, a core movable longitudinally of said coil under the influence of the current passing therethrough, a translating device, the said device and coil being connected in shunt and being in circuit with the said supply, and adjustable means controlled by the movement of the said core for periodically opening and closing the circuit to the said device and coil.

5. A current rectifier, such as described, comprising a coil, a core movable longitudinally of said coil under the influence of the current passing therethrough, contact pieces for engagement with each other, and means coöperating with the said core for bringing the core into engagement with one of the said pieces whereby they are

maintained in engagement, the movement of the core under the influence of the current flowing in the coil causing the said contact pieces to separate.

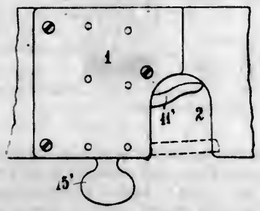
[Claims 6 and 7 not printed in the Gazette.]

1,143,042. PLAYING-CARDS. JOHN C. DAVIS, Port Huron, Mich. Filed Feb. 9, 1914. Serial No. 817,619. (Cl. 46—25.)



Playing cards consisting of a deck made up of a suite of cards having numerals thereon designating different money values, another suite having illustrations of different articles of merchandise together with numerals indicating the money values of the respective articles, and a third suite containing advertisements of merchants from whom the designated articles can be purchased.

1,143,043. LOCK FOR UMBRELLAS OR THE LIKE. GIUSEPPE FILIPPI, Turin, Italy. Filed May 4, 1914. Serial No. 836,299. (Cl. 70—14.)



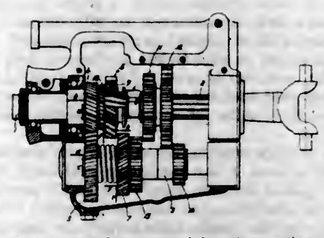
1. In a safety device for locking umbrellas, bicycles, or the like, the combination with a casing having a recess in which a part of the article to be locked can be inserted and means controlled by a key for closing said recess, of a lock bolt pivoted in said casing, a spring for holding said lock bolt in closed position, a projection on said lock bolt extending into the path of the key, a barrel for the key, a key slidable in said barrel and adapted to act on the projection of the lock bolt, means adapted to engage the key directly, said means being controlled by the article being inserted in the recess of the box, and means actuated by the key for carrying a stop into engagement with the lock bolt when this latter is in closed position.

2. In a safety device for locking umbrellas, bicycles, or the like, the combination with a casing having a recess in which a part of the article to be locked can be inserted, of a lock bolt pivoted in said casing, a spring for holding said lock bolt in closed position, a projection on said lock bolt extending into the path of the key, a barrel for the key, a key having a notch on one edge and slidable in said barrel in such manner as to shift the projection of the lock bolt, a lever one end of which normally engages the notch in the key while the other end is shifted by an article being inserted in the recess of the casing, and means actuated by the key for carrying a stop into engagement with the lock bolt when the latter is in closed position.

3. In a safety device for locking umbrellas, bicycles, or the like, the combination with a casing having a recess in which a part of the article to be locked can be inserted, of a lock bolt pivoted in said casing, a spring for holding said lock bolt in closed position, a projection on the lock bolt extending into the path of the key, a barrel for the key, a key toothed on one of its edges and slidable in said barrel, means adapted to engage the key directly, said means being controlled by the article being inserted in the recess of the casing, a pinion meshing with the teeth of the key, and a stop on said pinion engaging the lock bolt when this latter is in closed position.

4. In a safety device for locking umbrellas, bicycles, or the like, the combination with a casing having a recess in which a part of the article to be locked can be inserted, a lock bolt pivoted on said casing, a spring for holding said lock bolt in closed position, a projection on the lock bolt extending into the path of the key, a barrel for the key, a key toothed on one of its edges and slidable in said barrel, means for engaging said key controlled by the article being inserted into the recess of the box, a pinion meshing with the teeth of the key, a stop provided with a recess and mounted on said pinion and adapted to engage the lock bolt when in closed position, a flat spring on the barrel for the key, said spring having a recess corresponding with the stop when this latter is in locking position, and a projection on said spring extending into the path of the key so that when the key is removed from its barrel the spring engages the stop which in turn engages the lock.

1,143,044. CHANGE-SPEED GEARING. ERNEST FUCHS, Billancourt, France, assignor to Louis Renault, Billancourt, France. Filed Dec. 8, 1914. Serial No. 876,055. (Cl. 74—58.)

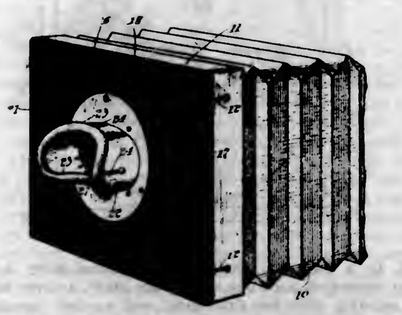


1. Transmission gearing comprising two rotary shafts, meshing gears carried by said shafts having helical teeth, and a helical sliding connection between one of said gears and its shaft, for the purpose described.

2. Transmission gearing comprising two rotary shafts, meshing gears carried by said shafts having helical teeth, a sliding connection between at least one of the gears and its shaft capable of compensating for the end thrusts of the sliding gear caused by said helical teeth.

3. Change speed gearing comprising a driving shaft, an intermediate shaft and a driven shaft, a sliding gear on one of said shafts, a gear mounted on an adjacent shaft, said gears having meshing helical teeth and said sliding gear having a helical sliding connection with its shaft, for the purpose described.

1,143,045. FOCUSING-HOOD FOR CAMERAS. JOSEPH FREUD, Chicago, Ill. Filed June 22, 1914. Serial No. 846,449. (Cl. 95—47.)



1. In a camera focusing hood, the combination of a frame, a flexible hood secured at its outer edges to the frame and terminating at its center in an aperture, an eye piece secured within the aperture and resilient means to permit lateral universal movement and to automatically return said eye piece to the center of the hood comprising opposed springs unaffected when the eye piece is moved in a vertical plane and other opposed springs unaffected when the eye piece is moved in a horizontal plane.

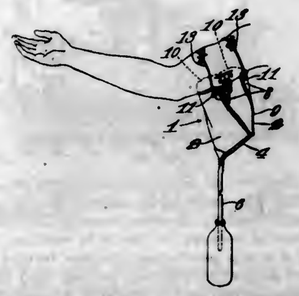
2. In a camera focusing hood, the combination of a frame, a flexible hood secured at its outer edges to the frame and terminating at its center in an aperture, an eye piece secured within the aperture and resilient means carried by the frame and secured to the eye piece for yieldingly holding said eye piece at the center of the hood, said resilient means comprising opposed springs operable when the eye piece is moved in a vertical plane and other opposed springs operable when the eye piece is moved in a horizontal plane, all of said springs being operable when said eye piece is moved in any other transverse plane.

3. In a camera focusing hood, the combination of a frame, a flexible hood secured at its outer edges to the frame and terminating at its center in an aperture, an eye piece secured within the aperture and resilient means comprising pairs of opposing vertical springs and pairs of opposing horizontal springs for normally holding said eye piece at the center of the hood.

4. In a camera focusing hood, the combination of a frame, a flexible hood secured at its outer edges to the frame and terminating at its center in an aperture, an eye piece secured within the aperture and resilient means comprising four curved leaf springs secured to the frame and extending radially inward to the eye piece normally holding said eye piece at the center of the frame and distending said hood.

5. In a camera focusing hood, the combination of a rectangular frame, a flexible hood, secured at its outer edges to the frame and terminating at its center in an aperture, an eye piece secured within the aperture, horizontal tubes connected to said frame, a pair of opposing coil springs within each tube, a pair of tubes slidable over the first and having legs projecting through slots in the first mentioned tubes and positioned between the opposing springs, a pair of vertical tubes secured to the ends of the second mentioned tubes, a pair of opposing coil springs within each of the vertical tubes, tubes slidable over the vertical tubes and having lugs projecting through slots in the vertical tubes and positioned between the opposing coil springs, and means for connecting the last mentioned tubes to the eye piece.

1,143,046. DRAINING DEVICE FOR EMBALMING PURPOSES. WILLIAM E. GILMORE, Holmesville, Ohio. Filed May 6, 1914. Serial No. 836,734. (Cl. 27—18.)



In a draining device for embalming purposes, a funnel comprising opposite flexible sides and having a lower hose-attaching nipple, the sides of the funnel having upstanding triangular flexible flaps at the mouth of the funnel, and flexible elements attached to the apical portions of the flaps, one pair of edges of the said flaps being so formed and arranged as to rest and fit snugly against one side and bottom of a limb whereby the said flexible elements are adapted to be passed over and around the limb and tied so that the funnel will be held erect and will have a tendency to swing against the limb.

1,143,047. PORTABLE BUILDING. CHARLES I. GREER, Washington, D. C., assignor of one-half to William M. Dougal, Washington, D. C. Filed Oct. 21, 1913. Serial No. 796,394. (Cl. 20—2.)



1. In a portable building in combination, side walls and end walls having wall plates at their upper edges, a gable member constructed to be secured upon an end portion, said gable member comprising a triangular frame, a plate forming the lower part of said gable, a T-shaped brace in substantially the vertical middle part of the gable member, the upper part of the side members of the gable being spaced apart to form a notch to receive the ridge boards of the end roof sections.

2. In a portable building the combination of roof sections and a gable end, said gable end being provided with a notch at its upper end to receive ridge boards of the end roof sections, the roof sections including rafters, ridge boards secured to and carried by the rafters at their upper ends, said ridge boards carrying blocks at their outer ends, said blocks being spaced from the end rafters sufficient to provide a notch to receive the framing of said gable end, the construction of parts being such that when said gable end and said end roof sections are assembled the end rafters lie adjacent the framing of the gable end with the ridge boards within the notch in the gable end and retained against longitudinal movement therein by means of the blocks attached to the ridge boards.

3. A portable building comprising sections having marginally exposed cleats on one face in combination with U-shaped clamps, certain of said cleats being cut away to form recesses in their face adjacent to the body of said section and opening parallel with the section, and adapted to receive one arm of said U-shaped clamps in order that two sections may be joined thereby at right angles to each other, as at the corner of a building.

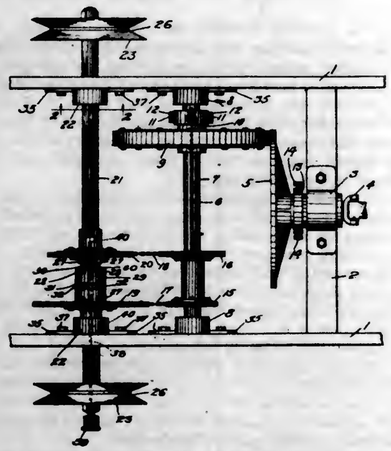
4. A portable house, comprising wall sections having horizontal marginal cleats exposed on one face and constituting a wall plate, and roof sections comprising rafters and eaves cleats constituting roof plates similarly exposed and adapted to rest upon said wall plates in combination with clamps adapted to embrace and clamp said wall plates and roof plates together.

5. A portable house comprising in combination, wall sections having horizontal marginal cleats exposed on one surface and constituting a wall plate, and roof sections comprising rafters and eaves cleats constituting roof plates similarly exposed and adapted to rest upon said wall plate, said roof plates being wider than said wall plate and adapted to project thereover and form a soffit, and clamps adapted to embrace and clamp said wall plate and said roof plates together.

1,143,048. CHANGEABLE-SPEED GEARING. WILLIAM F. HUNT, San Francisco, Cal. Filed June 3, 1914. Serial No. 842,610. (Cl. 74—26.)

1. The combination with a supporting frame comprising oppositely disposed side bars and a transversely dis-

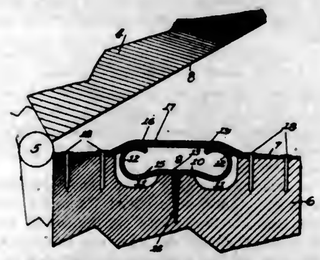
posed supporting member between said side bars, of changeable speed gearing comprising a friction drive disk rotatably mounted in the transverse supporting member, a driven friction wheel engaging said driving disk, a pair of parallel shafts rotatably mounted between the side bars of the frame and disposed approximately parallel to the supporting cross member, an adjustable spline connection between the driven wheel and one of said shafts, means for shifting the driven wheel with reference to the driving disk, a pair of gears fixed to rotate with the shaft on which the driven wheel is mounted, a pair of alined gear wheels loosely mounted on the other shaft and operatively connected with said first mentioned pair of gears by chains, a clutch interposed between the loose gears and positively connected to the shaft on which it is sleeved, means for shifting the clutch to interlock one of the loose gears to its shaft, bodily movable bearings carrying the last mentioned shaft provided with adjusting instrumentalities to fasten the bearings in various positions to determine the degree of separation of the parallel shafts and correspondingly effect the chain connections, and similar bearings and adjustment for the other shaft to determine the position of the friction driven wheel with reference to the friction driving disk.



2. The combination with a supporting frame comprising oppositely disposed side bars and a transversely disposed supporting member between said side bars, of changeable speed gearing comprising a friction drive disk rotatably mounted in the transverse supporting member, a driven friction wheel engaging said driving disk, a pair of parallel shafts rotatably mounted between the side bars of the frame and disposed approximately parallel to the supporting cross member, an adjustable spline connection between the driven wheel and one of said shafts, means for shifting the driven wheel with reference to the driving disk, a pair of gears fixed to rotate with the shaft on which the driven wheel is mounted, a pair of alined gear wheels loosely mounted on the other shaft and operatively connected with said first mentioned pair of gears by chains, a clutch interposed between the loose gears and positively connected to the shaft on which it is sleeved, means for shifting the clutch to interlock one of the loose gears to its shaft, bodily movable bearings carrying the last mentioned shaft provided with adjusting instrumentalities to fasten the bearings in various positions to determine the degree of separation of the parallel shafts and correspondingly effect the chain connections, and shiftable adjustable bearings for the other shaft enabling the one to be adjusted with its driven wheel with reference to the driving disk and the other to be adjusted in keeping with said adjustment of the disk wheel carrying shaft.

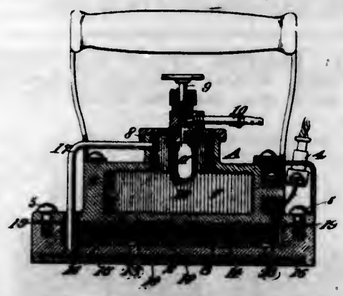
3. The combination with a supporting frame, of changeable speed gearing comprising a driving member mounted on said frame, a driven member in engagement with the driving member, a pair of spaced parallel shafts mounted on the supporting frame, means for maintaining the driven member on one of said shafts, a driving connection between said parallel shafts, adjusting instrumentalities for maintaining the shaft of the driven member in different positions of adjustment with respect to the driving member and adjusting instrumentalities for maintaining the other shaft in various positions of adjustment to determine the degree of separation of the parallel shafts.

1,143,049. PACKING FOR REFRIGERATOR-DOORS. GEORGE A. JOHNSON, Chicago, Ill., assignor to W. H. Miner, Chicago, Ill. Filed Aug. 13, 1913. Serial No. 784,512. (Cl. 20—69.)



In a door packing of the character described, the combination with a door and an adjacent member having meeting edges when the door is in closed position, one of said edges being provided with a longitudinally extending groove, of a strip of flexible material bridging said groove, and means for pressing said material outwardly to thereby form a seal, said means comprising an elongated strip of spring material secured in said groove, said strip of metal having curled edges extending along the entire edges thereof and in engagement with the flexible material, said groove having a longitudinally extending, central rib to which said spring strip is secured.

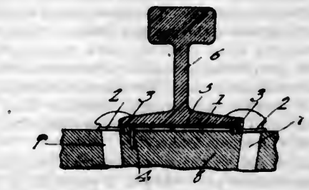
1,143,050. FLAT-IRON. SHINTARO KAKO, San Francisco, Cal. Filed Apr. 26, 1915. Serial No. 23,804. (Cl. 219—25.)



1. In a flat-iron of the character described, the combination with the main body section having an electrically operated heating element mounted interiorly thereof, of a housing secured to the body section, said housing having a steam generating chamber formed therein, a facing plate secured to the body section, said facing plate having a longitudinal and a plurality of connected transverse steam discharging passages formed on its inner side and a plurality of perforations formed in its face communicating with the transverse grooves, means for admitting water to the steam generating chamber, and means for conveying the steam to the longitudinal and connected transverse steam discharging passages in the face plate.

2. In a flat-iron of the character described, the combination with the main body section having an electrically operated heating element mounted interiorly thereof, of a housing secured to the body section, said housing having a steam generating chamber formed therein, a facing plate secured to the body section, said facing plate having a longitudinal and a plurality of connected transverse steam discharging passages formed on its inner side and a plurality of perforations formed on its face communicating with the transverse grooves, a needle valve mounted on the housing, a spray nozzle connected with the needle valve and projecting into the steam generating chamber, and a pipe forming communication between the steam chamber and the longitudinal and connected transverse steam discharging passages.

1,143,051. SPIKE-HOLDER. WILLIAM D. KELLY, Jefferson, Tex. Filed Oct. 15, 1914. Serial No. 866,840. (Cl. 238—4.)



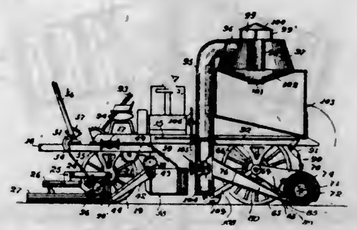
1. A spike holder made from a single strand of wire and bent to provide two spike receiving loops, one at each end thereof, and a tie entering prong to each loop.

2. A spike holder made from a single strand of wire and bent to provide two spike receiving loops, one at each end thereof, a tie entering prong to each loop, and two coils one adjacent each loop disposed upon the body of the strand of wire for interposition upon the tie and against the base of the rail to hold the base of the rail from engagement with the intervening portion of the strand of wire.

3. A spike holder made from a single strand of wire, and having each terminal thereof bent to form a loop, terminating in a coil upon the body of the strand of wire.

4. A spike holder made from a single strand of wire, and having each terminal thereof bent to form a loop, terminating in a coil upon the body of the strand of wire, the extreme end of such coil being bent downwardly and sharpened to constitute a tie entering prong.

1,143,052. STREET-SWEEPER. THOMAS R. KERR, Norfolk, Va. Filed Oct. 29, 1909. Serial No. 525,274. (Cl. 15—17.)



1. In a street sweeper, the combination with a frame, of a pair of angularly disposed brushes pivotally mounted on said frame for movement toward and from each other, and means to yieldingly swing said brushes about their pivots comprising toggle links pivotally connected to said frame and brushes, and springs tending to straighten said links.

2. In a street sweeper, the combination with a frame, of a pair of angularly disposed brushes pivotally mounted on said frame for movement toward and from each other, and means to yieldingly swing said brushes about their pivots comprising toggle links pivotally connected to said frame and brushes, springs connecting said frame and said links and tending to straighten said links, and anti-friction rollers at the ends of said brushes.

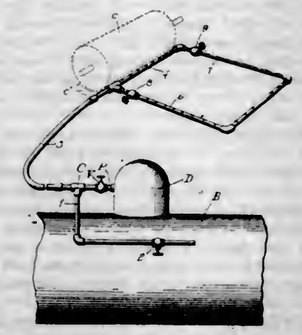
3. In a street sweeper, the combination with a frame, of a brush frame, a pair of angularly disposed brushes mounted on said brush frame for movement toward and from each other, means yieldingly forcing said brushes apart, and a horizontal pivot on said frame about which said brush frame is freely movable so that the brushes may adjust themselves to the street surface.

4. In a street sweeper, the combination with a frame, of a brush frame mounted on a transverse axis on said first frame, a pair of angularly disposed brushes on said brush frame, a second brush frame mounted to swing about a transverse axis on said first frame, a rotary brush thereon positioned near the intersection of said angularly disposed brushes, and lever actuated means for raising said brush frames.

5. In a street sweeper, the combination with a frame, of a brush frame mounted on a transverse axis on said first frame, a pair of angularly disposed brushes on said brush frame, a second brush frame mounted to swing about a transverse axis on said first frame, an elevator pivoted on said first frame and connected to move with said second brush frame, a rotary brush on the second brush frame arranged to receive the dirt from the angularly disposed brushes and deliver it to the elevator, and lever actuated means for raising said brush frames and elevator.

[Claims 6 to 9 not printed in the Gazette.]

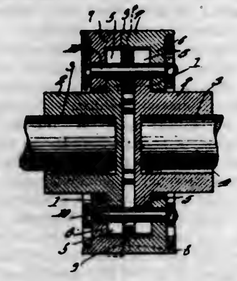
1,143,053. FIRE-EXTINGUISHING SYSTEM. GEORGE HARRISON LAWRENCE, Colfax, Wash. Filed Sept. 21, 1914. Serial No. 862,755. (Cl. 169—20.)



1. A protecting system for grain separators and the like comprising a perforated combined vapor and water discharge pipe, perforated water discharge pipes connected with said first mentioned pipe and having valves for controlling the supply of water thereto, a main supply pipe, vapor and water supply pipes connected with said main supply pipe and having valves for the control of the fluid passing therethrough whereby either the vapor or the water may be cut off when desired, and a hose connecting said main supply pipe with said first mentioned discharge pipe.

2. A protecting system for grain separators and the like comprising a perforated combined vapor and water discharge pipe, and a substantially U-shaped pipe perforated on all sides and having the free ends of its legs connected with said first mentioned pipe, cut off valves in the legs of said U-shaped pipe adjacent said main pipe, a valved vapor supply pipe, a three way coupling mounted on said pipe in advance of the valve thereof, a water supply pipe connected with said coupling, and a hose connecting said coupling carrying pipe in advance of the coupling with the main supply pipe.

1,143,054. FLEXIBLE COUPLING. ERNEST MORRIS LLOYD, New York, N. Y. Filed July 10, 1914. Serial No. 850,190. (Cl. 64—13.)



1. A flexible coupling for shafts including a driving disk for attachment to the end of one shaft, a casing revoluble with the other shaft and housing the disk, said casing being made of opposed sections, and means extending loosely through the disk for coupling the disk to the casing and for securing the parts of the casing together, said disk being slidably and tiltably mounted on said means and relative to the casing.

2. A flexible coupling for shafts, including driving disks for attachment to the ends of the respective shafts, a casing loosely housing the disks, said casing being made of opposed sections, and means extending loosely through the disks for coupling said disks to the casing and for securing the parts of the casing together, said disks being tiltable and slidable relative to each other and to said means.

3. A flexible coupling for shafts, including opposed disks for attachment to the shafts, each of said disks having a central shaft receiving hub, a ring loosely mounted on each hub and adapted to bear against the outer face of the adjacent disk, flanges extending inwardly from the rings, and means connecting the rings for binding the flanges together to form a casing, said means extending loosely through the disks, said disks being normally spaced apart, said disks being tiltable and slidable relative to each other and to the rings.

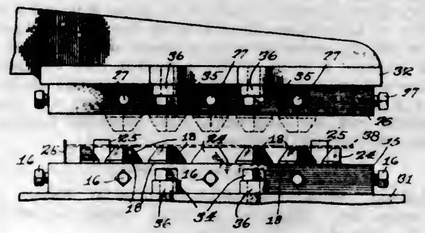
4. A flexible coupling for shafts, including opposed disks for attachment to the shafts, each of said disks having a central shaft receiving hub, a ring loosely mounted on each hub and adapted to bear against the outer face of the adjacent disk, flanges extending inwardly from the rings and interfitting, and means connecting the rings for binding the flanges together to form a casing, said means extending loosely through the disks, said disks being normally spaced apart and tiltable and slidable relative to each other and to said means.

5. A flexible coupling for shafts, including disks having shaft receiving hubs, a casing made up of opposed sections loosely mounted on the hubs and provided with interfitting annular flanges, said disks being normally spaced apart within the casing, and bolts extending transversely through the casing and disks for holding the parts of the casing together and for coupling the disks to the casing, said disks being mounted for relative sliding and tilting movement upon said bolts.

1,143,055. APPARATUS FOR PREPARING FLATS FOR USE IN EGG-CASE FILLERS. PAUL MANDEVILLE, Lake Bluff, Ill. Filed Mar. 16, 1914. Serial No. 825,051. (Cl. 93—37.)

1. In apparatus of the type described, comprising a frame having a plurality of symmetrically-disposed members projecting above the surface thereof, the end portions of said projecting members being of uniform cross-sectional area and the extremities of the same being tapered, and a frame having a plurality of recesses into which said projecting members are adapted to fit.

2. An apparatus of the type described, comprising a frame having a plurality of symmetrically-disposed members projecting above the surface thereof, the end portions of said members being of uniform cross-sectional area and the extremities of the same being tapered, means for removably securing said members in position, and a frame having a plurality of recesses into which said projecting members are adapted to fit.

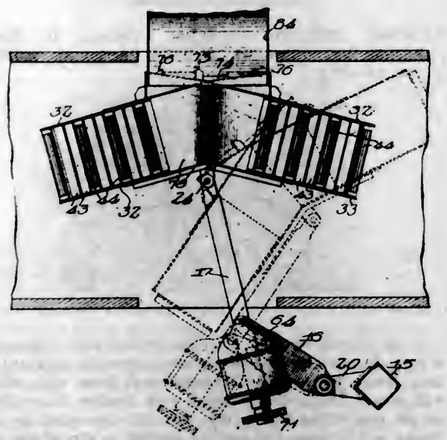


3. An apparatus of the type described, comprising a frame having a plurality of symmetrically-disposed members projecting above the surface thereof, the end portions of said members being tapered, and a coacting frame having similar projecting members in offset relation to the projecting members in said first-mentioned frame, whereby when said frames are brought together the projecting members of one frame lie in spaces between the projecting members of the other frame.

4. An apparatus of the type described comprising a pair of coacting frames each having a plurality of symmetrically disposed members projecting above the surface of the frame in offset relation to the members of the opposite frame, and having spaces between the members extending within the surface of the frame adapted to receive the members of the opposite frame when the frames are brought together.

5. An apparatus of the type described comprising a frame having a plurality of symmetrically disposed members projecting above the surface thereof, and a coacting frame having similar projecting members in offset relation to the projecting members in said first-mentioned frame, said frames each having spaces within the surfaces and between the members thereof whereby when said members are brought together the projecting members of one frame lie in the spaces in the surface of the other frame.

1,143,056. LOADING APPARATUS. GEORGE MANIERRE, Milwaukee, Wis. Filed Mar. 29, 1912. Serial No. 687,047. (Cl. 193—19.)



1. In an apparatus of the class described, the combination of a support, a plurality of endless conveyers having adjacent ends pivotally mounted on said support and disposed to operate in opposite directions, means for operating the conveyers for simultaneously projecting material in opposite ends of a car, means entirely below the tops of said conveyers for swinging them vertically about their pivots and means whereby the conveyers may be projected bodily into and withdrawn from the car.

2. In an apparatus of the class described, the combination of a support, conveyer means pivoted on the support and adapted to be bodily projected into and withdrawn from the car and to be bodily swung horizontally, said conveyer means being also pivoted to swing about horizontal axes disposed at an oblique angle to one another and a motor also carried by the support and adapted to operate the conveyer for simultaneously discharging material into the car in opposite directions.

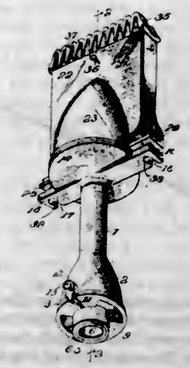
3. In an apparatus of the class described, the combination of a support, a plurality of conveyers adapted to be projected into a car and positioned on said support at different horizontal angles to the longitudinal axis of the car in which they operate, said conveyers being disposed to travel in opposite directions and pivoted to swing in vertical planes, a source of power, and operative connections between the source of power and the respective conveyers.

4. In an apparatus of the class described, the combination of a support, a plurality of conveyers pivotally connected to the support for bodily movement about and upright axes and individually pivoted for vertical movement about horizontal axes, and adapted to be projected into a car, said conveyers being disposed to travel in opposite directions and at different horizontal angles with respect to the longitudinal axis of the car in which they operate, a source of supply of power supported by the support and operative connections between the source of power and the respective conveyers.

5. In an apparatus of the class described, the combination of a support, a plurality of conveyers pivotally connected to the support for movement about an upright axis within the car and adapted to be projected into a car, said conveyers being disposed with respect to each other to operate in opposite directions, a source of supply of power supported by the support and operative connections between the source of power and the respective conveyers, said support comprising sections pivotally connected for movement about an upright axis outside of the car.

[Claims 6 to 27 not printed in the Gazette.]

1,143,057. BURNER FOR WATER-HEATERS. BENJAMIN EDWARD MEACHAM, Lorain, Ohio, assignor to American Stove Company, St. Louis, Mo., a Corporation of New Jersey. Filed Jan. 21, 1915. Serial No. 3,553. (Cl. 158—112.)



1. A burner of the character described, comprising a burner head having an open upper end, a distributer head removably secured in the open upper end of the burner head, the lower end of the burner head having a dome-shaped portion, a base having a circular portion closing the lower end of the dome-shaped portion of the burner head and having a combined air and gas supply tube, a perforated cone carried by the circular base portion and extending within the dome-shaped portion of the burner head, and means for fastening the base and burner head together.

2. A burner comprising a burner head having an open upper end, a distributer head removably secured in the open end of the burner head, the lower end of the burner head having a dome-shaped portion in communication therewith, a base having a circular portion closing the dome-shaped portion of the burner head, a perforated cone carried by the base and extending into the dome-shaped portion of the burner head, oppositely arranged ears carried by the burner head and the base, bolts securing the ears together, and a combined air and gas supply tube carried by the base and adapted to supply the open lower end of the perforated cone with air and gas, substantially as shown and described.

3. A burner comprising a rectangular burner head, having an open upper end, a distributer head within the open upper end of the burner head, the lower end of the burner head having a dome-shaped portion in communication therewith, a base having a circular portion closing the lower end of the dome-shaped portion of the burner head and having a central depressed portion, a perforated cone carried by the depressed portion of the base and extending within the dome-shaped portion of the burner head and spaced therefrom, means for securing the base and the burner head together, and a combined air and gas supply for the base adapted to supply the lower end of the perforated cone with gas and air.

4. A burner comprising a rectangular burner head, having an open upper end and from which the gas is adapted to burn, a dome-shaped portion formed integral with the lower end of the burner head and in communication therewith, a base having a circular portion closing the lower end of the dome-shaped portion and having a central depressed portion, a perforated cone within the depressed portion and extending upwardly within the dome-shaped portion of the burner head and engaging the upper end thereof, means for securing the burner head and the base together, and a combined air and gas supply tube carried by the base and communicating with the open lower end of the perforated cone.

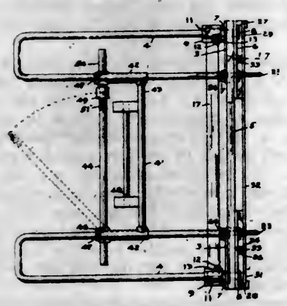
5. A burner comprising a rectangular burner head having an open upper end from which the gas is adapted to burn, said burner head having a dome-shaped central portion in communication therewith and having an open lower end, a base comprising a circular portion and adapted to close the lower end of the dome-shaped portion of the burner head and having a central depressed portion, a perforated cone carried by the depressed portion of the base and having its apex engaging the upper end of the dome-shaped portion of the burner head and spaced from the walls thereof, outwardly extending ears carried by the base and the burner head, bolts passing through the said ears for clamping the base to the burner head and holding the perforated cone in its proper position therein, and a combined air and gas supply for the base for supplying air and gas to the lower open end of the perforated cone.

[Claim 6 not printed in the Gazette.]

1,143,058. PAINTER'S LADDER-SUPPORT. JOHN W. NARRON, Oakland, Cal., assignor to Mechanic's Stationary Stage Company, Richmond, Cal., a Corporation of California. Filed Oct. 19, 1912, Serial No. 726,688. Renewed Nov. 10, 1914. Serial No. 871,401. (Cl. 20—61.)

1. In combination with the eaves trough of a house, a supporting device removably secured to the eaves trough, means for supporting, against lateral displacement from such device, a ladder on the ground, and means for securing said supporting means on said supporting device at different points thereon.

2. In combination with the eaves trough of a house, a support removably secured to said eaves trough, and a ladder supporting frame secured to, and wholly supported by, said support, and adjustable, independently of said support, to and from said eaves trough.



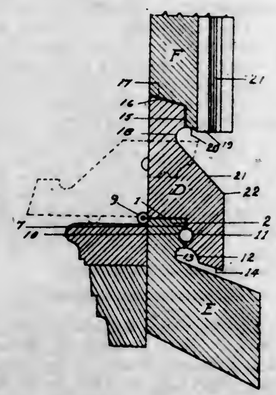
3. In combination with the eaves trough of a house, a support having parts adapted to engage the inner surface of the eaves trough, means for separating said parts from each other to cause them to engage said surface at different points, and a ladder-supporting frame movably secured to said support.

4. In combination with the eaves trough of a house, a support comprising two yokes, devices supported upon the outer members of said yoke and adapted to engage the eaves trough to secure the support thereon, and a ladder-supporting frame movably secured to the inner members of said yokes.

5. In combination with the eaves trough of a house, a support containing two tubular yokes, devices supported upon the outer members of said yokes and adapted to engage the eaves trough to secure the support thereon, a ladder-supporting frame movably secured to the inner members of said yokes, and rods secured in the ends of said yokes and having sharpened ends adapted to engage the roof of the house.

[Claims 6 to 9 not printed in the Gazette.]

1,143,059. CASEMENT-WINDOW. ROBERT FLEETWOOD NICHOLS, Oakland, Cal. Filed Jan. 8, 1913, Serial No. 740,870. Renewed Aug. 24, 1914. Serial No. 858,342. (Cl. 20—53.)



1. The combination with a casement window frame and casements therefor, as described; a movable closing bar to connect said casements with the casement frame; said closing bar having in its inner and lower edge, a longitudinal rabbet, adapted to connect with the inner and upper edge of the lip of the window-sill; a longitudinal lip in its outer and lower edge, a groove in the inner front of the lip, said lip adapted to overlap the outer front of the lip in the window-sill and make a closure with the casement frame; a longitudinal lip in its inner and upper edge, a longitudinal groove in the outer and lower front of the lip; said lip adapted to connect with the longitudinal rabbet and lips in the lower edges of the casements, making a closure with the casements and the window-sill, at an acute angle in its outer front, the closing bar being sloped downward from the lower outer front of the lip, in its inner and upper edge; to permit of its being automatically turned to a horizontal position when the casements are drawn inward; means for connecting the closing bar with the window-sill and means for securing it to the casements, all substantially as shown and described.

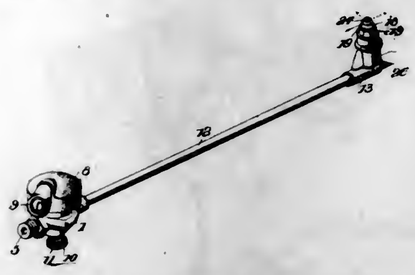
2. In combination with a casement sill and casement, a strip hingedly mounted on a horizontally axis between said casement and casement sill and engaging with a rabbet groove in the rear edge of the lower rail of the casement so that the casement overhangs and laps the upper part of said strip, the rear lower corner of the strip being recessed to receive, overhang and lap an upwardly projecting rear portion of the sill.

3. In combination with a casement sill and casement therefor, said casement sill formed at its rear edge with an upwardly projecting portion extending for the full length thereof, said casement formed with a rabbet in the rear edge of the lower rail thereof and a strip mounted to pivot on a horizontal axis between said casement and casement sill and adapted for engagement at one edge with said rabbet groove and at another edge for overhanging and lapping the forward edge of said upwardly projecting portion on said casement sill.

4. In combination with a casement sill and casement, a strip hinged to said sill and engaging with a rabbet groove in the rear edge of the lower rail of the casement so that the casement overhangs and laps the upper part of said strip, the rear lower corner of the strip being recessed to receive, overhang and lap an upwardly projecting rear portion of the sill.

5. In combination with a casement sill and casement, a strip hinged to said sill and engaging with a rabbet groove in the rear edge of the lower rail of the casement so that the casement overhangs and laps the upper part of said strip, the rear lower corner of the strip being recessed to receive, overhang and lap an upwardly projecting rear portion of the sill, the relative vertical and horizontal dimensions being such, and the hinge axis being so located, that the swinging of the casement inwardly will automatically tilt said strip inwardly.

1,143,060. LIGHTER FOR GAS-STOVES. FREDERIC G. NICOLAUS, Cleveland, Ohio, assignor to American Stove Company, St. Louis, Mo., a Corporation of New Jersey. Filed Dec. 21, 1914. Serial No. 878,367. (Cl. 158—115.)



1. A lighter of the character described comprising a vertically disposed burner having horizontally arranged openings at its upper end, a gas supply for the burner, and a pilot light within the upper end of the burner and having a gas supply extending down through the burner.

2. A lighter of the character described comprising a vertically disposed burner having horizontally arranged openings at its upper end, a supply for the said burner, a pilot light within the upper end of the burner, a gas supply for the pilot light extending downwardly through the burner and through the gas supply for the main burner.

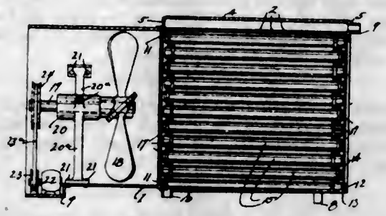
3. A lighter of the character described comprising a vertically disposed burner having gas opening adjacent its upper end, a gas supply pipe for the said burner, a pilot light within the upper end of the burner, a gas supply for the said pilot light and extending downwardly through the burner and through the main gas supply pipe, a valve controlling the supply of gas to the main burner, and a needle valve for regulating the gas pressure in the pilot light supply.

4. A lighter of the character described comprising a vertically disposed burner having horizontally arranged gas discharge openings adjacent its upper end, a gas supply pipe for the burner, a pilot burner within the upper end of the main burner, a gas supply for the said pilot burner extending downwardly through the main burner and through the gas supply pipe of the main burner, a valve within the supply pipe of the main burner, and said valve constructed and arranged to supply the pilot light supply with a constant flow of gas.

5. A lighter of the character described comprising a casting having an opening in its upper end, a vertically disposed burner within the said opening and having horizontally arranged discharge openings adjacent its upper end, a gas supply connected to the casting and having a passage communicating with the lower end of the gas burner, a pilot burner within the upper end of the main burner, a supply pipe for the said pilot burner and extending downwardly through the main burner and communicating with a passage in the casting, a supply pipe communicating with said passage and extending outwardly through the main gas supply pipe, a valve within the main supply pipe and adapted to control the gas to the main burner, and said valve constructed and arranged to supply the pilot light supply with a constant flow of gas.

[Claims 6 to 15 not printed in the Gazette.]

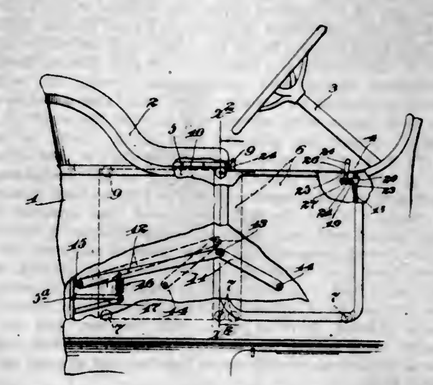
1,143,061. DEHUMIDIZER. GLEN O'BRIEN, Manhattan, Kans. Filed Mar. 7, 1914. Serial No. 823,135. (Cl. 98—42.)



In a device of the class described, the combination with a cylindrical container having inlet and outlet tubes and a chamber at its upper surface which communicates with the inlet tube, of apertures in the said container which communicate with the said chamber, a plurality of pipes within the said container, a bead upon each of the pipes for holding the pipes in spaced relation to each other, a screen within one end of the container and a fan at the opposite end thereof.

1,143,062. SLIDING DOOR FOR AUTOMOBILE-BODIES. HALVOR OLAFSON, Bowdon, N. D. Filed Jan. 13, 1913. Serial No. 741,721. (Cl. 21—125.)

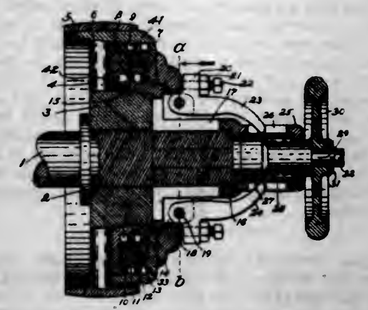
1. The combination with a vehicle body, having a door opening, of a sliding door for closing said door opening, and a toggle lever, the arms of said toggle being pivotally secured, one to the vehicle body and the other to the sliding door, said toggle arranged to close said sliding door under a straightening movement thereof, and to open said door under a buckling movement thereof, the entire movement of the joint of said toggle being imparted by the buckling and straightening of said toggle, the movement of said joint being sufficient to permit the toggle arm, which is pivotally secured to said door, to move from one side to the other of a vertical position, and yielding means tending to hold said toggle in either of its extreme positions.



2. The combination with a vehicle body, having a door opening, of a sliding door for closing said door opening, a toggle lever, the arms of said toggle being pivotally secured, one to the vehicle body and the other to the sliding door, said toggle arranged to close said sliding door under a straightening movement thereof, and to open said door under a buckling movement thereof, the entire movement of the joint of said toggle being imparted by the buckling and straightening of said toggle, the movement of said joint being sufficient to permit the toggle arm, which is pivotally secured to said door, to move from one side to the other of a vertical position, and a spring, tending to hold said toggle in either of its extreme positions.

3. The combination with a vehicle body having a door opening and a pocket formed between the inner and outer walls of said body at one side of said door opening, of a hollow sliding door mounted in said pocket for closing said door opening, a toggle lever comprising a long arm and a short arm, secured, respectively, to the vehicle body and the sliding door, working in said pocket and hollow door, and arranged to hold said sliding door in either its closed or open positions, said long arm being of a length greater than the sliding movement of said door and said short arm being of a length less than the sliding movement of said door, but more than one-half thereof, and a spring tending to hold said toggle lever in either of its extreme positions.

1,143,063. FRICTION-CLUTCH. EDWARD B. PARKHURST and LOUIS W. WITRY, Waterloo, Iowa, assignors to The Waterloo Gasoline Engine Company, Waterloo, Iowa. Filed Nov. 14, 1912. Serial No. 731,316. (Cl. 192—10.)



1. In combination, a driven-shaft, a driving-pulley loosely mounted thereon, a sleeve mounted on said shaft non-rotatably and having one end extending beyond the end

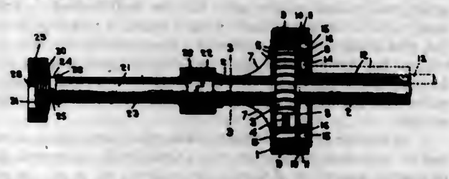
of the shaft and provided at its outer end with an inwardly-extending flange, the projected part of said sleeve having like longitudinal slots on its opposite sides, a plunger seated in the hollow of said projected part, the inner end of the plunger fitting the interior of the sleeve slidably and diminished slopingly and then formed cylindrically to fit slidably in the axial hollow of the contracted end of said sleeve, the outer part of said plunger being diminished beyond said sleeve, arms having like ends pivotally mounted on opposite sides of said sleeve and having their outer ends curved over toward the shaft and passed through the adjacent slots in the sleeve to lie in the path of movement of the coned part of said plunger, a hand-wheel rotatably mounted on the diminished outer part of said plunger, an annular friction-head mounted coaxially about the said sleeve, said arms adapted to bear against said head when the coned plunger is moved in one direction against the curved ends of the arms, said sleeve having a radial flange, friction-means carried on said sleeve and a member carried slidably by said pulley and adapted to be engaged by said friction-head, friction means carried movably upon said member, and said member being adapted to frictionally engage said first- and second-mentioned friction-means together and against said radial flange.

2. In combination, a driven-shaft having a fixed annular flange thereon, a driving-pulley rotatably mounted on said shaft near its end and abutting upon the said annular flange, a sleeve mounted non-rotatably on said shaft to project for a distance therebeyond with its outer end contracted to leave a terminal axial orifice of diminished diameter, a plunger mounted in the hollow of said projected part with a diminished end extended through the end orifice of the sleeve, a hand-wheel rotatably mounted on and secured on the diminished part of said plunger, said sleeve having like longitudinal slots on opposite sides, arms pivoted to said sleeve and having their outer ends bent over to pass through said slots, said plunger being adapted when moved in one direction to engage said arms slidingly and push them outwardly, the other end of said sleeve being formed with an outer annular radial flange, friction-rings seated side by side with said flange coaxially, a friction-plate located to abut upon the outermost of said rings and attached removably to said driving-pulley, and a friction-head mounted movably about said sleeve to abut upon said friction-plate, said arms having integral lugs on their outer edges, and set screws seated in said lugs and adapted to have their ends in contact with the last-mentioned friction-ring, to press the latter into engagement with said friction-plate when the arms are pushed outwardly in the sliding action of said plunger, said friction-rings being movably connected in alternation with said sleeve and with said pulley respectively, and being adapted to be compressed upon said radial flange by pressure transmitted from said friction-head.

3. In combination, a driven-shaft, a driving-pulley loosely mounted thereon, a sleeve non-rotatably mounted on said shaft near said pulley and having an offset part provided with an integral outwardly-directed radial flange, the sleeve having longitudinal like openings on opposite sides whose ends extend to said offset part and are placed in communication by a continuing opening in the said part passing half around it, a plurality of contacting friction-plates movably carried on the offset part of said sleeve and abutting upon its flange, and means movably mounted on said sleeve and contacting the outermost of said friction-plates and adapted to be actuated to engage said plates with each other and said flange, one of said friction-plates being slidably non-rotatably connected to said pulley.

1,143,064. PNEUMATIC TURBINE-GRINDER. CHARLES PERKINS, Bridgewater, Mass. Filed Nov. 20, 1914. Serial No. 873,124. (Cl. 121—37.)

1. A portable tool comprising a rotor, a rotor shaft, a housing for said rotor, a cover for said housing, an annular conduit in said cover, a plurality of ports in said cover for directing an elastic fluid to said rotor, a plurality of exhausts in said rotor housing, an extension to said cover, comprising a casing for said rotor shaft and a duct for directing an elastic fluid to said annular conduit and means for supplying an elastic fluid under pressure to said duct.



2. A portable tool comprising a rotor, a rotor shaft, a housing for said rotor, a cover for said housing, an annular conduit in said cover, a plurality of ports in said conduit adjacent the periphery of said rotor for directing tangentially to its vanes an elastic fluid, a plurality of complementary exhaust orifices in said housing, said orifices being offset with respect to said ports whereby an elastic fluid is given an effective working distance along the periphery of said rotor, a duct in said cover for directing an elastic fluid to said conduit and means in said cover for affording a plurality of passages for an elastic fluid from said duct to said conduit and means for supplying an elastic fluid under compression to said duct.

3. A portable power tool comprising a rotor, a rotor shaft, a housing for said rotor, a cover for said housing, said cover containing an annular conduit, a pipe having a plurality of passages thereto, a duct for directing a supply of an elastic fluid under compression to said pipe and flexible means secured to said duct whereby a supply of an elastic fluid may be afforded to said portable power tool.

4. A power hand tool comprising a rotor, a rotor shaft, a casing for said rotor, a cover for said casing containing an intake pipe for an elastic fluid, a two-way duct leading from said intake, an annular channel in which said duct terminates, a ring plate secured to said cover forming with said channel an annular conduit, nozzles in said conduit for directing the elastic fluid against the rotor whereby said rotor is actuated, segmental orifices in said housing adjacent the side of the rotor opposite said cover for exhausting the fluid and means for supplying an elastic fluid under compression to said intake.

1,143,065. CAN-BODY-MAKING MACHINE. EUGENE L. PERRY, New York, N. Y., assignor to American Stopper Company, a Corporation of New Jersey. Filed Oct. 22, 1909. Serial No. 524,085. (Cl. 113—11.)

1. In a machine of the class described, means for guiding a blank, a blank conveyer, a die for shaping one edge of a blank into a double reverse fold hook, said die comprising fixed and movable parts, one of said movable parts adapted to form two parallel walls spaced apart and connected by a curved portion bent inwardly between these parallel walls.

2. In a machine of the class described, a double or reverse fold hook former comprising a fixed folder 53, a clamp 76, a fixed folder 52 with a convex lower edge, a folder 72 with a concave upper edge and a slide 43 and means for guiding said slide, means for guiding said folder 72, and means for actuating said clamp 76 and means for conveying a body blank thereto.

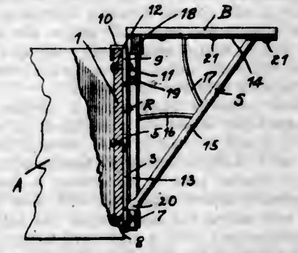
3. In a machine of the class described, fixed folders 53 and 52, a movable clamp 76, a movable folder 72 adapted to coact with a curved surface of the fixed folder 52, means for actuating said clamp 76 so that it will clamp a blank loosely while the folder is active, and tight when the said folder 72 is not active, means for advancing and withdrawing said folder 72, a folder 43 and means for causing the same to move transversely of the direction of movement of the folder 72 and after the folder 72 is withdrawn whereby a blank is folded so as to form a dovetailed groove at one edge.

4. In a machine of the class described, a fixed folder 53, a fixed folder 52 with a convex lower surface, a clamp 76 adapted to coöperate with said fixed folder 53 and means for moving said clamp 76 so that it will hold a blank, a folder 72 with a concave surface adapted to coact with the convex lower surface of the fixed folder 52 and means for moving the folder 72, a folder 43 and means for moving the same after the folder 72 has come to rest, a folder 5 and means for actuating the same after the folder 72 has come to rest so as not to interfere with the movement of a blank while being acted upon by said folder 72.

5. In a machine of the class described, means for supporting a blank, means for bending one edge of said blank so that two portions of the same will be parallel to each other and spaced apart and connected by a curved portion and means for straightening said curved portion and folding toward each other said parallel portions to converge and form a dove-tail when taken with the connecting portion.

[Claims 6 to 86 not printed in the Gazette.]

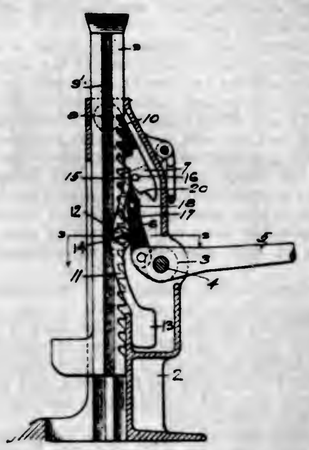
1,143,066. ATTACHMENT FOR BOXES. ARTHUR G. PLANTE, Anoka, Minn. Filed Aug. 22, 1913. Serial No. 786,169. (Cl. 248—18.)



The combination with a supporting wall, of a retaining bracket member fastened to said wall and comprising a flat plate-like body having its lower end provided with a retaining strap and its upper end widened and bent laterally and thence downwardly to provide an enlarged head terminating in a substantially inverted U-shaped end portion adapted to overlie the top edge of the wall and bear against the inner face of the wall, oppositely disposed clips extending from the outer face of the head, a second bracket member having an enlarged lower end portion adapted to lie beneath the retaining strap of the retaining bracket member, oppositely disposed beveled wings formed on the second bracket member above the enlarged lower end portion thereof and adapted to lie beneath the clips of the retaining bracket member and a board carried by the second member and located above the wings thereof.

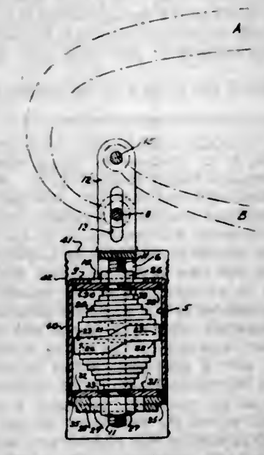
1,143,067. LIFTING-JACK. ANDREW T. RICHARDSON, Verona, Pa., assignor to Verona Tool Works, Verona, Pa., a Corporation of Pennsylvania. Filed Apr. 15, 1914. Serial No. 832,014. (Cl. 254—108.)

1. In a lifting jack, the combination with a suitable frame, of a toothed lifting bar, an operating lever, a lower pawl pivotally mounted on said operating lever, an upper pawl suspended from said frame, a pendulum mounted in the frame having a weighted portion at the lower end, a finger at the upper end, and a cam portion intermediate said weighted portion and said finger, projections on the upper and lower pawls adapted to engage said finger and cam portion respectively, means for throwing said pendulum in position for engagement by said projections.



2. In a lifting jack, the combination with a suitable frame, of a toothed lifting bar, a hand-lever, a lower pawl pivotally mounted on said hand-lever, an upper pawl suspended from said frame, a cam, a pendulum pivotally mounted on said cam having a weight at its lower end and a finger at its upper end, and a cam portion above said cam intermediate said weight and said finger, and projections on said upper and lower pawls adapted to engage the said finger and said cam portion respectively.

1,143,068. SHOCK-ABSORBER. JOHN GRAW ROCK, New Rochelle, N. Y., assignor to Frederick W. Clark, Mount Vernon, N. Y. Filed Dec. 19, 1912, Serial No. 737,665. Renewed June 24, 1914. Serial No. 847,141. (Cl. 21—50.)



1. A shock-absorber, comprising a casing formed with a head at one end constituting an upper abutment, a pair of arms secured closely to the sides of said casing, said arms being offset inwardly over the casing head and extended upward to constitute an attachment to one part of a vehicle, an annular plug entering the other end of said

casing constituting a lower abutment, washers bearing respectively against said upper and said lower abutments, a spring interposed between said washers, a threaded stem passing through said washers and said spring, nuts on said stem adjusted to bear each upon one of said washers, a fork at one end of said stem adapted for attachment to another part of the vehicle and slidable between the offset portions of the arms of said casing and means for connecting said arms and said fork to their respective vehicle parts.

2. A shock-absorber comprising a casing, a rod passing therethrough, a compression spring in the casing, washers at opposite ends of said spring, said washers being provided with exterior and interior grooves, packing rings set in said grooves to make a tight sliding fit with said casing and said rod, said casing having abutments at opposite ends to bear upon said washers, one of the abutments being in the nature of an annular plug adjustable relatively to the opposite abutment, and said rod having also abutments to bear upon opposite sides of the washers the latter abutments being in the nature of nuts adjustable relatively to each other and to the abutments on the casing.

3. A shock-absorber, comprising a compression spring, a casing therefor having abutments to bear upon opposite ends of the spring, one of them being in the nature of a screw plug, a member passing through the casing and also having abutments to bear upon opposite ends of the spring, a filling plug for the casing, and means coöperating both with said abutment plug and said filling plug to keep them from turning.

4. A shock-absorber comprising a compression spring, a casing therefor constituting a grease container and having abutments adjustable one relatively to the other to bear upon opposite ends of the spring, an attachment to one part of the vehicle extending from said casing, a second attachment for another part of the vehicle passing through said casing and movable relatively thereto and having also adjustable abutments to bear upon opposite ends of said spring, a two part outer shell or drip holder inclosing said casing, one part of said holder being supported on said second attachment while permitting relative movement of said first attachment thereto, and means for detachably connecting the parts of said drip holder.

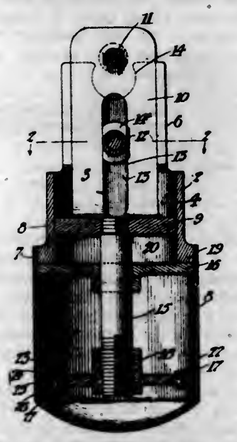
5. A shock absorber comprising a casing having arms for attachment to one part of a vehicle, a rod having an integral forked-connection for attachment to another part of the vehicle, said rod and fork being adapted to enter said casing reversibly from either end thereof, a compression spring in the casing through which the rod passes, and interrelatively adjustable abutments on both the casing and the rod adapted to bear upon each end of the same spring.

[Claims 6 and 7 not printed in the Gazette.]

1,143,069. SHOCK-ABSORBER. JOHN GRAW ROCK, New Rochelle, N. Y., assignor to Volute Spring Shock Absorber Company, Mount Vernon, N. Y. Filed Sept. 16, 1914. Serial No. 862,034. (Cl. 21—50.)

1. A shock absorber comprising a member having a piston chamber and means for attachment to one part of a vehicle, a piston carried by said member and reciprocating in said chamber and also having means at the same end for attachment to another part of the vehicle, a casing carried by said member in line with said attaching means, and means connected with said piston and located in said casing and operative in the casing against liquid simultaneously with a pneumatic action effected by the reciprocation of the piston in the piston chamber.

2. A shock absorber comprising a member having a piston chamber and means for attachment to one part of a vehicle, a piston carried by said member and reciprocating in said chamber and also having means at the same end for attachment to another part of the vehicle, a casing carried by said member in line with said attaching means, means connected with said piston and located in said casing and operative in the casing against liquid simultaneously with a pneumatic action effected by the reciprocation of the piston in the piston chamber, and a spring within said casing and coöperating with said piston for obtaining a spring action.



3. A shock absorber comprising a member having a piston chamber and means for attachment to one part of a vehicle, a piston carried by said member and reciprocating in said chamber and also having means for attachment to another part of the vehicle, a casing carried by said member, means connected with said piston and located in said casing and operative in the casing against liquid simultaneously with a pneumatic action effected by the reciprocation of the piston in the piston chamber, and a spring located in line with said last means and coöperating with said piston.

4. A shock absorber comprising a member having means for attachment to one part of a vehicle, a piston carried by said member and also having means for attachment to another part of the vehicle, a casing carried by said member, means coöperating with said piston for obtaining a pneumatic action, means coöperating with said casing for obtaining a hydraulic action, and a spring located in line with and between said last two means.

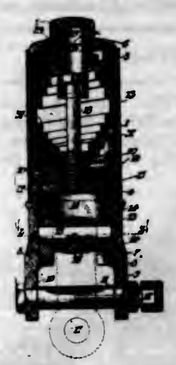
5. A shock absorber comprising a member having a piston chamber and means for attachment to one part of a vehicle, a piston carried by said member and reciprocating in said chamber and also having means for attachment to another part of the vehicle, a casing carried by said member, means connected with said piston and located in said casing and operative in the casing against liquid simultaneously with a pneumatic action effected by the reciprocation of the piston in the piston chamber, a spring located in line with said last means and coöperating with said piston, said spring comprising a double acting volute pyramidal spring, and the organization being such that vertical stresses in either direction will compress said spring.

[Claims 6 to 24 not printed in the Gazette.]

1,143,070. SHOCK-ABSORBER. JOHN GRAW ROCK, Mount Vernon, N. Y., assignor to Volute Spring Shock Absorber Company, Mount Vernon, N. Y. Filed Sept. 29, 1914. Serial No. 864,147. (Cl. 21—50.)

1. A shock absorber comprising a cylindrical casing having a piston chamber and a pair of spaced arms for attachment to one part of a vehicle, a piston fitting and sliding within said chamber and also having spaced arms for attachment to another part of a vehicle and also provided with a piston rod, and a spring located on said rod between said piston and the end of said casing.

2. An upright shock absorber comprising a cylindrical casing having a piston chamber and at its lower end a pair of spaced arms for attachment to one part of a vehicle, a piston fitting and sliding within said chamber and also having at its lower end spaced arms for attachment to another part of a vehicle and also provided with a piston rod, and a spring located on said rod between said piston and the upper end of said casing.



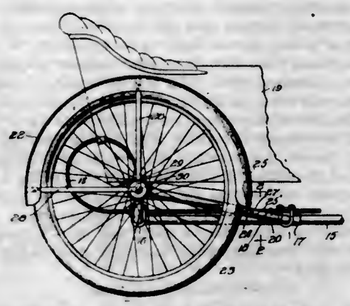
3. An upright shock absorber comprising a cylindrical casing having a piston chamber and at its lower end a pair of spaced arms for attachment to one part of a vehicle, a piston fitting and sliding within said chamber and also having at its lower end spaced arms for attachment to another part of a vehicle and also provided with a piston rod, and a double pyramidal volute spring located on said rod between said piston and the upper end of said casing, whereby the vertical stress in either direction will compress the spring.

4. A shock absorber comprising a cylindrical casing having a piston chamber and a pair of spaced arms for attachment to one part of a vehicle, a piston fitting and sliding within said chamber and also having spaced arms for attachment to another part of a vehicle and also provided with a piston rod, and a double pyramidal volute spring located on said rod between said block and the end of said casing, whereby the vertical stress in either direction will compress the spring.

5. A shock absorber comprising a cylindrical casing having a piston chamber and a pair of spaced arms for attachment to one part of a vehicle, a piston fitting and sliding within said chamber and also having spaced arms for attachment to another part of a vehicle and also provided with a piston rod, a loosely mounted disk carried by said piston, and a double pyramidal volute spring located on said rod between said disk and the end of said casing.

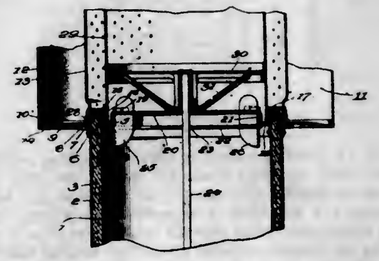
[Claims 6 to 16 not printed in the Gazette.]

1,143,071. WHEEL-FENDER. RALPH F. ROGERS, Chicago, Ill. Filed Jan. 13, 1913. Serial No. 741,801. (Cl. 21—23.)



In combination with a supporting frame of a vehicle, an axle and a wheel journaled thereon, said axle being provided with a groove at one end thereof, a fender part way surrounding said wheel, supporting arms extending radially from said fender and adapted to be detachably secured to the projecting ends of said axle, a tongue carried by one of said supporting arms and adapted to enter said groove and a hinge connection between said fender and the vehicle supporting frame.

1,143,072. BLUE-FLAME WICK-BURNER. HENRY RUPPEL, Cleveland, Ohio, assignor to American Stove Company, St. Louis, Mo., a Corporation of New Jersey. Filed Dec. 3, 1914. Serial No. 875,322. (Cl. 158—88.)



1. A burner of the character described comprising inner and outer wick tubes, and a combined combustion section supporting means and wick stop carried by said tubes and adapted to support the combustion sections on the inside and outside of the wick tubes.

2. A burner of the character described comprising inner and outer wick tubes, a central diaphragm, a ring on the outside of the outer wick tube, and wick stops connecting the ring and the diaphragm, substantially as shown and described.

3. A burner of the character described comprising an inner wick tube, an outer wick tube, a diaphragm within the inner wick tube, a ring on the outside of the outer wick tube and wick stops connecting the diaphragm and the ring, and means carried by the inner and outer wick tubes for supporting the diaphragm and the ring.

4. A burner of the character described comprising inner and outer wick tubes, a diaphragm within the inner wick tube, a ring on the outside of the outer wick tube, wick stops formed integral with the diaphragm and ring and extending across the space between the inner and outer wick tubes, and means carried by the inner and outer wick tubes for supporting the diaphragm and the ring.

5. A burner of the character described comprising inner and outer wick tubes, a diaphragm removably secured to the inner wick tube, a ring on the outside of the outer wick tube and wick stops extending across the space between the wick tubes and connecting the diaphragm and the ring, and adapted to limit the upward movement of the wick.

[Claims 6 to 13 not printed in the Gazette.]

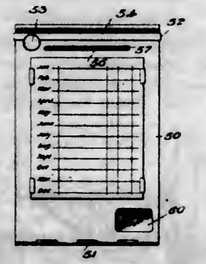
1,143,073. ACCOUNT-REGISTER. ALFRED G. RYLEY, Canton, Ohio, assignor, by mesne assignments, to The McCaskey Register Company, (incorporated in 1914,) Canton, Ohio, a Corporation of Ohio. Original application filed Sept. 24, 1908, Serial No. 454,552. Divided and this application filed Dec. 28, 1912. Serial No. 739,022. (Cl. 291—1.)

1. In an account register, a tray for holding individual account slips having a cover for closing the tray, and arranged to be sealed to the tray by a sealing device when the cover is closed, the tray having an entrance slit through which the slips may be passed when the cover is sealed.

2. In an account register, a tray for holding individual account slips having a cover for closing the tray, and a bail adapted to engage with the free end of the cover for holding it closed, the tray having an entrance slit through which the slips may be passed when the cover is closed.

3. In an account register, a tray for holding individual account slips, having a cover for closing the tray, and a spring within the tray for confining the slips, the spring

extending through an opening in the tray and being operable from the outside when the tray is closed, and the tray being provided with an entrance slit.

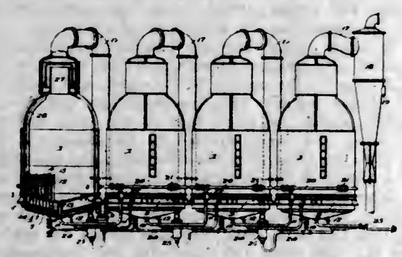


4. In an account register a tray for holding individual account slips, having a cover for closing the tray, a ball adapted to engage with the end of the cover for holding it closed, and arranged to be sealed by a sealing device, and a spring within the tray for holding the slips in place.

5. In an account register, a tray for holding individual account slips, a cover for closing the tray, means for holding the tray cover closed, the said tray being formed with an entrance slip through which the slips may be passed when the cover is closed, and a spring carried by the cover for confining the slips in the tray.

[Claims 6 and 7 not printed in the Gazette.]

1,143,074. EVAPORATING PROCESS. THORNTON F. SANBORN, New York, N. Y., assignor to Sanborn Evaporator Company, New York, N. Y., a Corporation of Delaware. Original application filed Dec. 28, 1910, Serial No. 599,773. Divided and this application filed Jan. 16, 1912. Serial No. 671,501. (Cl. 127—18.)



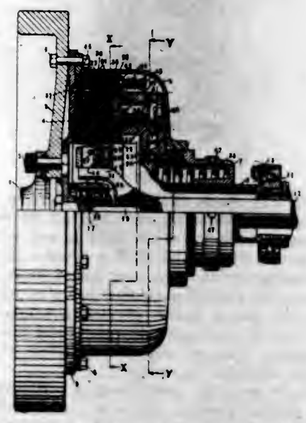
1. In an evaporating process, heating the material to be evaproated in a cell by introducing a heating medium into pipes or tubes which are in contact with the material in the cell but out of fluid communication therewith, and substantially separately withdrawing the non-condensable gases from within said heating pipes or tubes by inner tubes which are out of communication with the material in the cell.

2. In an evaporating process, heating the material to be evaporated in a cell by introducing a heating medium into pipes or tubes in contact with the material in the cell, withdrawing the non-condensable gases from within said heating pipes or tubes separately from the withdrawal of the heating medium therefrom, and conducting the withdrawn non-condensable gases to the heating pipes or tubes of a succeeding cell for the utilization of the heat thereof.

3. In a vacuum evaporating process, heating the material to be evaporated in a plurality of cells by introducing steam into pipes or tubes in contact but out of communication with the material in each cell, withdrawing by the vacuum applied to a succeeding cell the non-condensable gases from the heating pipes or tubes of a preceding cell and by vacuum introducing such withdrawn non-condensable gases to the said heating pipes or tubes of a succeeding cell for the utilization of the heat thereof, separating the steam from the water of condensation flowing from the pipes or tubes aforesaid and conveying such separated steam from one cell to the said heating pipes or tubes of another cell for the utilization of the heat thereof.

1,143,075. [WITHDRAWN.]

1,143,076. CLUTCH. GILBERT J. SCOFIELD, Elmira, N. Y., assignor to The Hilliard Clutch & Machinery Co., Elmira, N. Y., a Corporation of New York. Filed Apr. 5, 1913. Serial No. 759,033. (Cl. 192—10.)



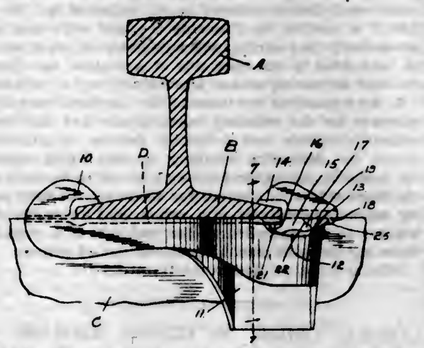
1. In a clutch mechanism, in combination, a driving shaft, a wheel fixed thereto, a stud secured to said wheel in axial alinement with said driving shaft, a casing secured to said wheel, friction plates carried by said casing, a member mounted on said stud adapted to have relative angular movement therewith and having friction plates secured thereto for rotation therewith and longitudinal movement thereon, and a driven shaft loosely connected to said member at a point substantially between said friction plates and said stud, said connection comprising means whereby rotary movement of said member is transmitted to said driven shaft while different relative angular movements between the two are permitted.

2. In a clutch mechanism, in combination, a driving shaft, a wheel fixed thereto, a stud secured to said wheel in axial alinement with said driving shaft, a casing secured to said wheel, friction plates carried by said casing, a member mounted on said stud adapted to have relative angular movement therewith and having friction plates secured thereto for rotation therewith and longitudinal movement thereon, and a driven shaft comprising a forked end adapted to straddle the said stud and a portion of said member and means providing a substantially universal connection between said shaft and said member.

3. In a clutch mechanism, in combination, a driving shaft, a wheel fixed thereto, a stud secured to said wheel in axial alinement with said driving shaft, a casing secured to said wheel, friction plates carried by said casing, a member mounted on said stud adapted to have relative angular movement therewith and having friction plates secured thereto for rotation therewith and longitudinal movement thereon, and a driven shaft comprising a forked end adapted to straddle the said stud and a portion of said member and means providing a substantially universal connection between said shaft and said member, said driven shaft also comprising a second stud seated in the first said stud.

1,143,077. RAIL-ANCHOR. JOHN M. SCOTT, Racine, Wis., assignor to Otto R. Barnett, Chicago, Ill. Filed Nov. 26, 1913. Serial No. 803,191. (Cl. 238—4.)

1. A rail anchor comprising two relatively movable elements which are provided with rail engaging members adapted to engage the base flange of a rail on opposite sides thereof, one of which is provided with a tie abutting portion; said elements being formed each with a slot and with a tongue adapted to fit into the slot of the other element and with a wedge surface adapted to engage a wedge surface on the other element.



2. A rail anchor comprising two relatively movable elements which are provided with rail engaging members adapted to engage the base flange of a rail on opposite sides thereof, one of which is provided with a tie abutting portion; said elements being formed each with a slot and with a tongue adapted to fit into the slot of the other element, and with a plurality of wedge faces adapted to engage wedge faces on the other element.

3. A rail anchor comprising two relatively movable elements which are provided with rail engaging members adapted to engage the base flange of a rail on opposite sides thereof, one of which is provided with a tie abutting portion; said elements being formed each with a slot and with a tongue adapted to fit into the slot of the other element, said tongues and slots being formed so as to provide mutually overlapping parts.

4. A rail anchor comprising two relatively movable elements which are provided with rail engaging members adapted to engage the base flange of a rail on opposite sides thereof, one of which is provided with a tie abutting member; one of said elements being formed with a slot extending therethrough and with a dovetailed rib, and the other with a tongue extending through said slot and engaging the under side of the first named element and with a dovetailed groove adapted to receive the dovetailed rib of said first named element.

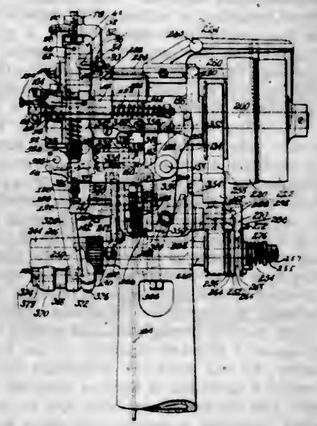
5. A rail anchor comprising two relatively movable elements which are provided with rail engaging members adapted to engage the base flange of a rail on opposite sides thereof, one of which is provided with a tie abutting member; one of said elements being formed with a slot extending therethrough and with a dovetailed rib, and the other with a tongue extending through said slot and engaging the under side of the first named element and with a dovetailed groove adapted to receive the dovetailed rib of said first named element, said elements being formed with a plurality of pairs of co-acting wedge faces disposed so that when one of said elements is moved with respect to the other in one direction one of said rail engaging members is drawn down upon the rail brace and toward the other rail engaging member.

[Claims 6 to 15 not printed in the Gazette.]

1,143,078. MACHINE FOR PREPARING WELTS. THOMAS HERBERT SEELY, Boston, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Sept. 27, 1912. Serial No. 722,570. (Cl. 12—67.)

1. A machine for preparing welts having, in combination, means for supporting and guiding a welt strip, and forwardly and rearwardly directed grooving knives for grooving the welt strip when it is passed either forwardly or backwardly through the machine.

2. A machine for preparing welts having, in combination, means for supporting and guiding a welt strip, two oppositely directed grooving knives, and means for supporting the knives having provision for bringing either knife into operative position to groove the welt and for removing the other knife from operative position.



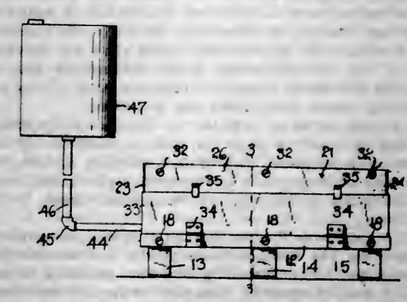
3. A machine for preparing welts having, in combination, means for supporting and guiding a welt strip, two oppositely directed grooving knives, and means for supporting the grooving knives having provision for alternately bringing each knife into operative position to groove the welt strip and at the same time withdrawing the other knife from operative position.

4. A machine for preparing welts having, in combination, means for supporting and guiding a welt strip, two oppositely directed grooving knives, a carrier for supporting the knives, and means for rocking the carrier to alternately present each knife in position to groove the welt strip, so that the welt strip may be grooved when it is passed either forwardly or backwardly through the machine.

5. A machine for preparing welts having, in combination, a work table for supporting a welt strip, a presser foot above the work table and having two work engaging surfaces inclined at an obtuse angle to each other, two oppositely directed grooving knives located respectively adjacent to the two work engaging surfaces of the presser foot, a carrier for the knives and the presser foot, and means for rocking the carrier to present either surface of the presser foot together with the adjacent knife to the welt.

[Claims 6 to 38 not printed in the Gazette.]

1,143,079. STOVE. RUFUS B. SELLARS, Obion county, Tenn. Filed Mar. 17, 1915. Serial No. 14,995. (Cl. 126—44.)



1. A stove including a bottom wall, depending flanges formed on the longitudinal edges thereof, a plurality of

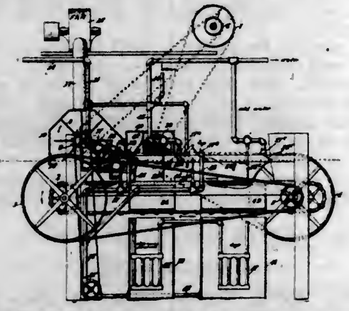
U-shaped supporting legs secured to the bottom wall, the vertical portions of the legs being secured to the flanges, a casing rising from the bottom wall, said casing consisting of independent side and end walls, and a frame detachably connecting the upper edges thereof, a plurality of burners arranged within the casing, and means for supplying fuel to the burners.

2. A stove including a bottom wall, depending flanges formed on the longitudinal edges thereof, a plurality of U-shaped supporting legs secured to the bottom wall, the vertical portions of the legs being secured to the flanges, a casing rising from the bottom wall, said casing consisting of independent side and end walls, and a frame detachably connecting the upper edges thereof, a door inserted in each side wall and extending the entire length thereof, a plurality of burners arranged within the casing, and means for supplying fuel to the burners.

3. A stove of the character described including a bottom wall, supporting legs detachably secured thereto, a plurality of braces detachably secured to and rising from the bottom wall, a pair of side walls detachably secured to the braces, a pair of end walls, frame members detachably secured to the upper edges of the side walls, said frame members having their terminals right-angularly directed, bolts passing through the end walls and through the right-angularly directed terminals of the frame members, whereby the end walls are detachably connected to the side walls, a plurality of burners mounted above the bottom wall, and means for supplying fuel to the burners.

4. A stove including a casing comprising independent side and end walls, a sectional frame detachably connecting the upper edges thereof, a door inserted in one of the walls, a plurality of burners arranged within the casing, and means for supplying fuel to the burners.

1,143,080. APPARATUS FOR TREATING CAR-CUSHIONS OR THE LIKE. WILLIAM F. SERVICE, Jersey City, N. J., assignor to Imperial Car Cleaner Company, Newark, N. J., a Corporation of New Jersey. Filed Aug. 6, 1910, Serial No. 575,881. Renewed Dec. 15, 1914. Serial No. 877,449. (Cl. 15—8.)



1. An apparatus for treating car cushions comprising a conveyer arranged to move the cushions in a rectilinear path through the said apparatus, a plurality of means for delivering cleaning or renovating agents to the cushions, means adapted to be positively acted upon for throwing each of the said delivering means successively into action, and automatic means for throwing each of the said delivering means successively out of action.

2. An apparatus for treating car cushions comprising a conveyer arranged to move the cushion, mechanically and continuously actuated beating and brushing devices, and a plurality of temporarily and successively actuated means for delivering a cleaning or renovating agent to the cushions.

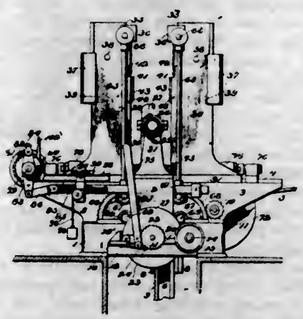
3. An apparatus for treating car cushions comprising a conveyer for the cushion, mechanically and continuously actuated beating and brushing devices, a plurality of temporarily and successively actuated means for delivering a cleaning or renovating agent to the cushions, means adapted to be positively acted upon by the advancing movement of a cushion for throwing the said delivering means into action, and automatic means for throwing the said delivering means out of action.

4. An apparatus for treating car cushions comprising a conveyer for the cushions, a plurality of means for delivering cleaning or renovating agents to the cushions, mechanical means adapted to be operated by the front side of a cushion for throwing the said delivering means successively into action, and automatic means adapted to be controlled by the rear side of a cushion for throwing the said delivering means successively out of action.

5. An apparatus for treating car cushions comprising a conveyer for the cushions, mechanically and continuously actuated beating and brushing devices, a plurality of means for delivering cleaning or renovating agents to the cushions, mechanical means adapted to be operated by the front side of a cushion for throwing the said delivering means successively into action, and automatic means adapted to be controlled by the rear side of a cushion for throwing the said delivering means out of action.

[Claim 6 not printed in the Gazette.]

1,143,081. VENEER OR SLICING MACHINE. JOHN SHELLENBERGER, Rome, Ga. Filed June 24, 1912. Serial No. 705,483. (Cl. 144—162.)



1. In a veneer machine, or the like, guideways, a reciprocating knife head movable in said guideways, means for reciprocating said knife head, a knife carried by and arranged longitudinally of said head, and wedging means arranged between said head and walls of said guideways to press said knife head laterally on its operative stroke only.

2. In a veneer machine, or the like, means providing guideways, a reciprocating knife head movable longitudinally of said guideways on its operative and return stroke and provided with a cutting knife arranged longitudinally thereof, means for reciprocating said cross head, and wedges carried by said cross head and having wedging faces transversely arranged with respect thereto and bearing against corresponding faces of the cross head to press said cross head laterally in said guideways when the cross head is moving on its operative stroke and to relieve the cross head of said pressure when it is moving on its return stroke, coöperating means being provided to engage said wedges and permit limited independent movement of the cross head with respect to the wedges.

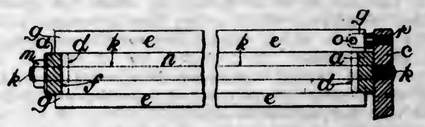
3. In combination, in a veneer machine, or the like, uprights providing vertically disposed slideways, a horizontally disposed vertically reciprocating knife head fitting and reciprocating in said slideways, means for vertically reciprocating said knife head, means for pressing said knife head toward the work as it moves on its cutting stroke and for relieving said lateral pressure as it moves on its return stroke, means for maintaining said cross head in its horizontal position and for imparting an edge wise movement thereto as it reciprocates vertically, a knife arranged longitudinally of said cross head and provided with a depending longitudinal cutting edge, and a presser bar carried by said cross head and arranged longitudinally thereof and having a presser edge parallel with said cutting edge and arranged closely adjacent thereto and below the same to exert pressure on the work at the point where the cutting edge is severing the work.

4. In a veneer machine, or the like, in combination, uprights, a horizontally arranged cross head at its ends confined to said uprights to reciprocate longitudinally thereof, means applied to the ends of said cross head to reciprocate the same vertically, a knife bar carried by and arranged below said cross head and confined to said uprights to reciprocate with said cross head and provided with a longitudinal cutting knife, counterbalancing weights slidable vertically on said uprights, a cross shaft mounted in said uprights and provided with pinions, and vertical racks carried by said counter weights and said cross head and meshing with said pinions.

5. An apparatus for simultaneously slicing veneer from opposite sides of a bolt, comprising a pair of opposite feed carriages, mechanisms for simultaneously feeding said carriages with uniform step by step movements toward each other, veneer cutting means carried by said carriages, respectively, for cutting transversely through the bolt in planes at right angles to the axis of the bolt, and means for maintaining a bolt between said carriages.

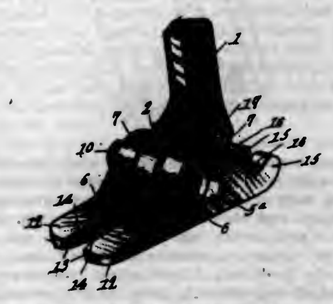
[Claims 6 to 26 not printed in the Gazette.]

1,143,082. FAN OR AIR-PROPELLER. THOMAS SHEPHERD, Chorlton-on-Medlock, Manchester, and JOSEPH STANLEY HAYES, Moss Side, Manchester, England. Filed June 16, 1913. Serial No. 773,889. (Cl. 230—11.)



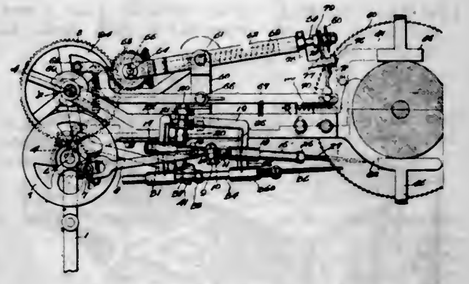
In a fan or propeller, the combination, with a driving shaft, of two rings arranged concentric with the driving shaft and parallel to each other and having substantially radial slots in their opposed faces, a support secured to one of the rings and the driving shaft, blades having the middle parts of their ends inserted in the said slots, said blades projecting beyond the inner and outer peripheries of the rings and forming an annular series of blades, and clamping bolts extending between the two rings and securing them and the blades to the said support.

1,143,083. IMPLEMENT FOR PULLING NAILS, FENCE-WIRES, &c. JAY B. SMITH, Girard, Ala., assignor of one-half to John L. Betts, Muscogee county, Ga. Filed May 18, 1914. Serial No. 839,386. (Cl. 145—42.)



An implement comprising a pair of shoes having flat treads, coöperating relatively thin gripping toes at their front ends, upstanding ears intermediate their ends, and upwardly curved heel portions at their rear ends; a pivot member engaged through the said ears, and a handle having a wedge extending angularly forward from its lower end and fulcrumed upon the said pivot member between and bearing against the said ears, the lever having a pair of side lugs above the said ears to seat against the heel portions when the lever is swung rearwardly, and the wedge having a curved edge projecting between the treads of the shoes and forming a fulcrum arranged to ride upon the surface against which the treads of the shoes rest, when the lever is swung to bring the said lugs into engagement with the heel portions of the shoes.

1,143,084. SAW-SHARPENING DEVICE. JOHN R. SMITH, McDonough, Ga., assignor of forty one-hundredths to Horatio H. Newman, Sandersville, Ga. Filed Jan. 11, 1913. Serial No. 741,554. (Cl. 76—32.)



1. In a saw sharpening device, the combination of a pair of crossed files adapted to cut opposite sides of teeth on the same saw; reciprocating holders for said files; a power shaft; pivoted supports for said holders; connections between said holders and said power shaft for reciprocating said holders and files; a pawl for moving said teeth in a circular path while said files are acting upon the same; and connections comprising a lever and cam between said pawl and said power shaft adapted to cause said pawl to suddenly engage a new tooth to exert a force in the direction of the pitch line of said tooth, and to gradually feed said first mentioned teeth past said files, substantially as described.

2. In a saw sharpening device, the combination of a pair of crossed files adapted to cut opposite sides of teeth on the same saw; reciprocating holders for said files; a power shaft; pivoted supports for said holders; connections between said holders and said power shaft for reciprocating said holders and files; a pawl engaging a throat between two teeth for moving said first mentioned teeth in a circular path while said files are acting upon the same; and connections comprising a lever and a cam between said pawl and said shaft, said pawl being pivoted to said lever and adapted to exert a pull on said saw in a direction of the pitch line between said second mentioned teeth, substantially as described.

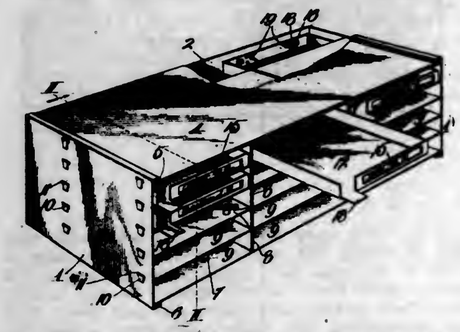
3. In a saw sharpening device, the combination of a pair of crossed files adapted to act upon the opposite side of teeth on the same saw; a circular file adapted to act upon a throat between two teeth of the said saw while said crossed files are operating; and a pawl adapted to pull in the direction of the pitch line between two teeth to move the said first mentioned teeth in a circular path while said crossed files and circular file are operating thereon, substantially as described.

4. In a saw sharpening device, the combinatiom of a pair of crossed files adapted to act upon the opposite sides of teeth on the same saw; a power shaft; connections comprising reciprocating members between said shaft and said files; a circular file adapted to act upon a throat between two teeth of said saw while said crossed files are operating; connections comprising a shaft and gears between said circular file and said power shaft; and a pawl adapted to pull on said saw in the direction of the pitch line between two teeth and provided with connections to said power shaft adapted to move all of said teeth in a circular path while said crossed files and circular file are operating thereon, substantially as described.

5. In a saw sharpening device, the combiantion of a pair of reciprocating members carrying files adapted to act on opposite sides of the teeth of a saw; a spring for pressing said files against said teeth; a circular file adapted to cut between a pair of teeth of the said saw simultaneously with the operation of said first mentioned files; means for cushioning the action of said circular file in two directions at right angles to each other; a pawl adapted to turn said teeth in a circular path while all of said files are acting thereon; and means for actuating said files and pawl, substantially as described.

[Claims 6 to 12 not printed in the Gazette.]

1,143,085. CREDIT-ACCOUNT DEVICE. JOHN J. SNYDER, Kansas City, Mo. Filed Nov. 9, 1912. Serial No. 730,392. (Cl. 45—2.)



A device of the character described comprising a sheet metal cabinet closed at all sides except the front and a series of horizontal sheet metal partitions dividing the cabinet into a plurality of compartments, the uppermost partition being in contact with the top wall of the cabinet, each partition having an integral folded portion forming a vertical partition and providing a channel in the horizontal partition in the plane of the vertical partition, the free edge of the lowermost vertical partition resting against the inner surface of the bottom wall of the cabinet and the free edge of each of the other vertical partitions being fitted in the channel of the next adjacent horizontal partition, said partitions terminating a distance away from the rear wall of the cabinet, and means carried by each partition co-acting with the end walls of the cabinet for maintaining said partitions against movement independently of the cabinet.

1,143,086. NECKTIE. JOHN A. SODERSTROM, Chicago, Ill. Filed Mar. 27, 1907. Serial No. 364,874. (Cl. 2—83.)



A necktie comprising a strip of flexible material folded first transversely of its length to form a double thickness and being folded afterward along a line of fold extending longitudinally of said transversely folded strip and having a knot formed integrally therein, said knot comprising a loop formed intermediate the extremities of the material near the end adjacent the transverse fold and having a portion of the strip beyond the loop adjacent the transversely folded end folded upon itself upon a line of fold at an angle to the lateral edges of the strip and inserted within the loop, both extremities of the material extending below the knot and being suitably arranged after tying the knot to form two depending aprons.

1,143,087. FOOD PRODUCT AND PROCESS OF PREPARING THE SAME. HENRY L. STAFFORD, Long Beach, Cal. Filed Aug. 19, 1914. Serial No. 857,526. (Cl. 99—11.)

1. A food product comprising edible waste portions exclusive of the bones of the fish which have been ground and combined with fish oil and juice expressed from other similar waste portions of the fish with suitable seasoning.

2. The process of producing potted tuna, which consists of steaming the fish, then grinding the dark meat and fat parts, also subjecting other dark meat and fat parts to pressure to extract the fish oil and juice therefrom, then adding this fish oil and juice to the ground parts and adding suitable seasoning.

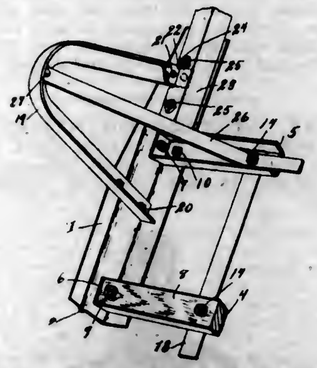
3. The process of producing an edible fish product, which consists of steaming or cooking the fish, grinding a portion of the fish meat, subjecting other fish parts to pressure to extract the fish oil and juice therefrom, then adding the fish oil and juice to the first ground parts and adding suitable seasoning.

4. The process of producing an edible fish product, which consists of steaming the fish, grinding the fish meat and then adding fish oil and suitable seasoning to the ground parts.

5. A food product comprising edible waste portions of fish which have been ground and combined with fish oil and juice and suitable seasoning.

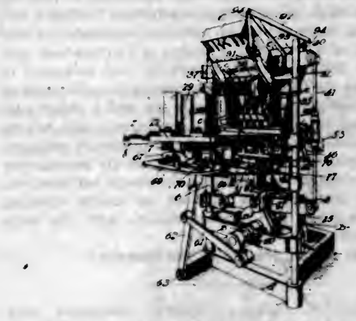
[Claim 6 not printed in the Gazette.]

1,143,088. ALL-STEEL TRUCK. ARTHUR C. STEBBINS, Lansing, Mich. Filed Mar. 27, 1911. Serial No. 617,202. (Cl. 21—65.)



In a hand truck, the combination of angle iron side bars arranged with their angles facing inwardly, cross pieces connecting said side bars, U-shaped angle iron leg members arranged with their angles facing inwardly and with their upper ends in the angles of said side bars and secured to the vertical members thereof, the upper ends of the inwardly projecting flanges of the rear arms of the said U-shaped leg members being folded forwardly, leg braces arranged with their lower ends in the angles of the lower ends of the leg members and secured to the vertical flanges thereof, the upper ends of the braces being secured to one of the cross pieces, and handles arranged in the angles of said side bars secured to the horizontal members thereof, said handles being notched to receive the portions of said leg members having the folded flanges.

1,143,089. BOX-MAKING MACHINE. WILLIAM X. STEVENS, Washington, D. C., assignor to Ella L. Barton, Jacksonville, Fla. Filed Sept. 12, 1911. Serial No. 648,911. (Cl. 1—14.)



1. A box assembling and nailing machine comprising a multiple-sided carrier table mounted for intermittent rotary motion in a horizontal plane, chairs with floors on two levels fitted to receive box-seats first on the lower level and then at right angles thereto on the higher level and mounted on the table at each side, and operating mechanism for the said carrier table, substantially as set forht.

2. A box making machine comprising a multiple-sided rotary box-part carrier table, provided with chairs having floors both for the side pieces and for the end pieces, the floors for the one being on a level above those for the other and fitted to receive box parts and mounted for tangential adjustment on the table, and operating mechanism for the said carrier table, substantially as set forth.

3. A box assembling and nailing machine comprising a multiple-sided rotary table mounted on a vertical pivot, and a box frame carrying-chairs mounted on the several sides of said table and formed to receive the side and end pieces at right angles to each other, and with their interlocking corner formation in register, the bottoms of said chairs being formed with two levels to support the side pieces and end pieces on different planes, one above the other, substantially as set forth.

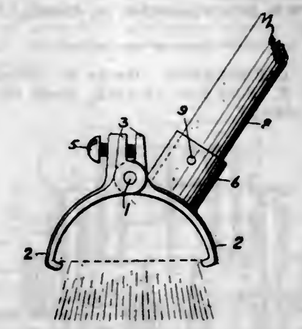
4. A machine for making box frames comprising a table mounted to rotate in a horizontal plane and having its sides arranged as a regular polygon and equi-distant from the axis of rotation, the center of which is the axis of the table, means for rotating said table step by step, frame carrying chairs mounted on the several sides of said table and arranged to receive the frame pieces in position for assembling, an assembling head located at the stopping point of said table beyond the last frame piece receiving point, means for operating said assembling head to force said frame pieces together, nailing mechanism located at the next successive stopping point of said table, means for operating said nailing mechanism, discharging mechanism located at the next successive stop of said table, and means for operating said discharging mechanism, substantially as set forth.

5. A box machine comprising a horizontal table, means for imparting intermittent rotary motion thereto, chairs secured to the sides of said table and formed with a bottom on two levels adapted to receive the sides and ends of a box frame, one above the other in position for assembling, and means operable for pressing said respective frame pieces into the same plane to engage the interlocking parts thereof, substantially as set forth.

[Claims 6 to 11 not printed in the Gazette.]

1,143,090. BRUSH-HOLDER. FRANK C. STIMPEL, Philadelphia, Pa., assignor to The Curtis Publishing Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Jan. 2, 1915. Serial No. 12. (Cl. 15—54.)

A brush holder comprising the combination of a pair of duplicate clamp members pivoted together intermediate of their lengths and providing opposed curved jaws and confronting straight shanks, a set-screw penetrating one



of the shanks and bearing at its end upon the other shanks, and a handle-socket on one of the clamp members, substantially as described.

1,143,091. WASHER. EDWIN BALL STIMPSON, Brooklyn, N. Y., assignor to Edwin B. Stimpson Company, Brooklyn, N. Y. Filed Aug. 29, 1913. Serial No. 787,333. Renewed Nov. 5, 1914. Serial No. 870,534. (Cl. 85—50.)



1. A washer for the purpose described made of thin stock and having its edge portion provided with conformations each providing on one side of the washer a projection and on the other side a corresponding depressed part, each projection and depressed part having portions whereby when the projections of one washer are brought into registry with the depressed parts of a similar washer the washers will be held out of face-to-face contact, so that nesting of one such washer within a similar washer is rendered impossible.

2. A washer for the purpose described made of thin stock and having its edge portion defined by conformations each providing on one side of the washer a projection and on the other side a corresponding depressed part, each projection and depressed part having portions whereby when the projections of one washer are brought into registry with the depressed parts of a similar washer the washers will be held out of face-to-face contact, so that nesting of one such washer with a similar washer is rendered impossible.

3. A reversible washer for the purpose described made of thin stock and having its edge portion provided on one side with a series of alternate projections and depressed parts, each such projection having its counterpart depressed part on the other side of the washer, each projection and depressed part having portions whereby when the projections of one washer are brought into registry with the depressed parts of a similar washer the washers will be held out of face-to-face contact, whereby nesting of one such washer with a similar washer is rendered impossible.

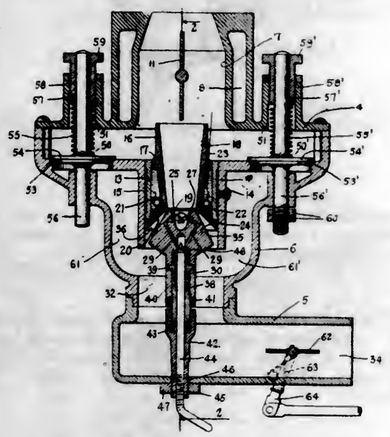
4. A washer constructed of substantially inelastic and non-resilient material, having in its edge portion a plurality of corrugations, each of such corrugations being provided with a side wall substantially perpendicular to the general plane of the washer.

5. A washer having in its edge portion a plurality of radially arranged corrugations, each of such corrugations being provided with a side wall substantially perpendicu-

lar to the general plane of the washer and the depth of each corrugation decreasing gradually as it approaches the center of the washer.

[Claims 6 to 10 not printed in the Gazette.]

1,143,092. CARBURETER. HENRY W. UNCKLES, New York, N. Y. Filed June 16, 1914. Serial No. 845,348. (Cl. 48—150.2.)



1. In a carbureter, the combination of a passageway for fuel mixture, a plurality of restricted passageways communicating with said first passageway and having openings adapted to discharge jets of air into said first passageway one against the other, a hydrocarbon supply pipe, and a plurality of nozzles communicating with said pipe and in close proximity to the air discharge openings adapted to discharge jets of hydrocarbon against the air jets, whereby the jets of hydrocarbon and air are caused to impinge upon and intermingle with each other.

2. In a carbureter, the combination of a passageway for fuel mixture having a lower extension of reduced cross-sectional area, a restricted passageway having a discharge opening within said extension for discharging a jet of air into the same, a shunt passageway also communicating with said extension above the discharge opening of the restricted passageway for conveying air to the extension, a source of hydrocarbon supply, and a nozzle communicating with the same and located in close proximity to the restricted air opening and adapted to discharge a jet of hydrocarbon against the air jet.

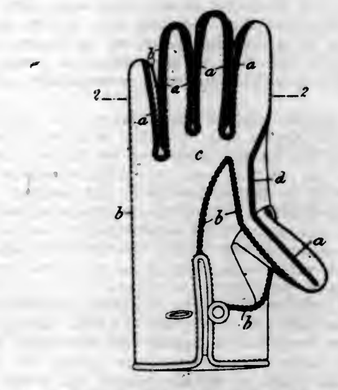
3. In a carbureter, the combination of a passageway for fuel mixture, a restricted passageway communicating with the same for discharging a jet of air therein, a shunt passageway also communicating with said first passageway above the opening of the restricted passageway for conveying air around the same to the first passageway, a source of hydrocarbon supply, a nozzle communicating with the same and located in close proximity to the restricted air opening and adapted to discharge a jet of hydrocarbon against the air jet, and means for adjusting the size of the shunt passageway to regulate the amount of air to be shunted around the air jet opening.

4. In a carbureter, the combination of a main passageway for fuel mixture having a lower extension of reduced cross-sectional area, a plurality of restricted passageways having discharge openings into said extension and arranged in close proximity one to the other for discharging jets of air one against the other into the extension, a passageway below said restricted air openings and communicating therewith and having an air intake opening, a port communicating with the main passageway above the said air discharge openings and provided with a spring-controlled valve for admitting auxiliary air, a source of hydrocarbon supply and one or more nozzles communicating therewith and arranged in close proximity to the discharge openings of the restricted passageways so as to discharge one or more jets of hydrocarbon against the air jets.

5. In a carbureter, the combination of a main passageway for fuel mixture having a lower extension of reduced cross-sectional area, a restricted passageway having a discharge opening communicating with the extension for discharging a jet of air therein, a source of hydrocarbon supply, a nozzle communicating therewith and arranged in close proximity to the discharge opening for discharging a jet of hydrocarbon against the air jet, and a shunt passageway around the restricted air passageway and having a discharge opening above that of the restricted passageway for supplying air to the extension, an air passageway below said restricted and shunt passageways communicating therewith and provided with an air intake opening, and an auxiliary air port communicating with the main passageway above the nozzle.

[Claims 6 to 19 not printed in the Gazette.]

1,143,093. GLOVE. HENRY UREWICK, Worcester, England. Filed May 29, 1912. Serial No. 700,360. (Cl. 2—9.)



1. As an improved article of manufacture, a driving glove having on its palm side one or more out-turned seams each consisting of two out-turned raw edges of the glove material and a folded or doubled strip laid between said out-turned seam edges, and stitches joining the seam material at lines ranging inside or clear of the exposed edges of the seam, substantially as described, whereby the outer edges of the seams coact to assure a non-slipping rein grip and the seam securing stitches are not exposed to wear by the reins, as herein set forth.

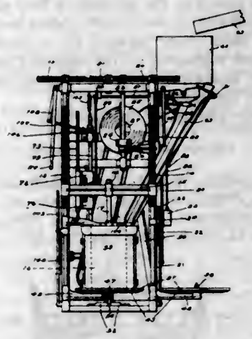
2. As an improved article of manufacture, a driving glove having on its palm side one or more out-turned seams each consisting of two out-turned raw edges of the glove material and a folded or double strip laid between said out-turned seam edges with the raw edges of said strip at the inner face of the glove and the rounded strip fold at the outer face of the glove, and stitches joining the seam material at lines ranging inside or clear of the exposed edges of the seam, substantially as described, whereby both raw and folded outer edges of the seams coact to assure non-slipping rein grip and the seam securing stitches are not exposed to wear by the reins, and the seam forming material does not project far enough within the glove to injure the driver's hand, as herein set forth.

3. As an improved article of manufacture, a driving glove having on its palm side out-turned gripping seams, one of said seams extending from the other side of the forefinger to and along the front of the thumb.

4. As an improved article of manufacture, a driving glove having on its palm side out-turned gripping seams, one of said seams extending from the outer side of the forefinger inside the thumb of the glove, one or more of said seams consisting of raw edges and a folded strip inserted between said edges.

5. As an improved article of manufacture, a driving glove having on its palm side out-turned gripping seams, one of said seams extending from the outer side of the forefinger along the front of the thumb of the glove, one or more of said seams consisting of raw edges and a folded strip inserted between said edges, the insert projecting slightly beyond said edges.

1,143,094. MACHINE FOR MOLDING PIPE. CHRIST WESTERGARD, Everett, Wash., assignor of one-half to George McKenzie, Everett, Wash. Filed June 7, 1913. Serial No. 772,249. (Cl. 25—37.)



1. In a pipe-molding machine, the combination with a frame, of a plurality of horizontally swinging brackets each adapted to be swung to a position within said frame, and to a lateral position with relation to the frame, revoluble disks centrally mounted upon said brackets and each provided on its under side with gear teeth, a driving pinion adapted to mesh with said gear teeth, and means for locking said brackets in either of their positions.

2. In a pipe-molding machine, the combination with a frame, of a plurality of horizontally swinging brackets each adapted to be swung to a position within said frame, and to a lateral position with relation to the frame, revoluble disks centrally mounted upon said brackets and each provided on its under side with gear teeth, a driving pinion adapted to mesh with said gear teeth, and means for locking said brackets in either of their positions, comprising a spring-controlled arm pivoted to the frame at one end and provided with a hook at its opposite end.

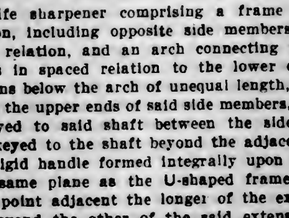
3. In a pipe-molding machine, the combination with a frame, of a plurality of horizontally-swinging brackets each adapted to be swung to a position within said frame, and to a lateral position with relation to the frame, revoluble disks centrally mounted upon said brackets, means for locking said brackets in either of their positions, a mold concentrically disposed on each of said disks, means for filling said molds, and means for revolving each of said disks when it is in position to present its mold to said filling means.

1,143,095. LOCOMOTIVE BAFFLE-WALL. ALFRED H. WILLETT, West New York, N. J., assignor, by mesne assignments, to American Arch Company, New York, N. Y., a Corporation of Delaware. Filed Aug. 24, 1914. Serial No. 858,167. (Cl. 110—87.)

1. A locomotive arch brick having a corrugated support-engaging end, whereby when a plurality of the bricks are assembled in an arch structure the bricks accommodate themselves to varying distances between points of support.

2. A locomotive arch comprising in combination a plurality of independently supported arch bricks, and supports therefor, said bricks having interfitting means extending in substantially the same horizontal plane whereby said bricks accommodate themselves to varying distances between points of support.

3. A locomotive arch comprising in combination a plurality of independently supported arch bricks, and supports therefor, said bricks having protuberant portions at an extremity adapted to extend past each other in substantially the same horizontal plane whereby the bricks accommodate themselves to varying distances between points of support.

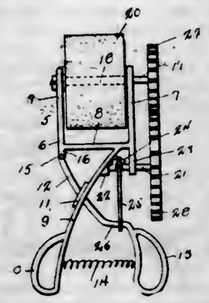


4. A locomotive arch brick having a tube-engaging end provided with an offset protuberant portion, so formed and arranged that when a plurality of the bricks are assembled the said portions are adapted to extend past each other in substantially the same horizontal plane and adapt the bricks to supports spaced apart varying distances.

5. A locomotive arch brick having a serrated end, whereby, when a plurality of the bricks are assembled the serrated ends are adapted to extend past each other and adapt the bricks to fit varying distances between points of support.

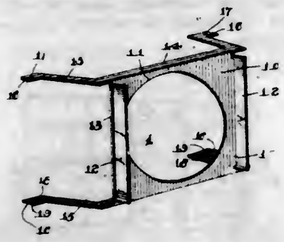
[Claims 6 and 7 not printed in the Gazette.]

1,143,096. KNIFE-SHARPENER. ROMAN ZAWERACZ, Bentleyville, Pa. Filed Jan. 27, 1915. Serial No. 4,783. (Cl. 51—7.)



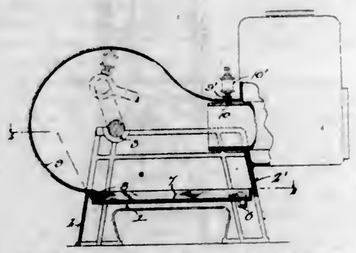
A knife sharpener comprising a frame of U-shaped formation, including opposite side members arranged in parallel relation, and an arch connecting the said side members in spaced relation to the lower ends, forming extensions below the arch of unequal length, a shaft journaled in the upper ends of said side members, a sharpening disk keyed to said shaft between the side members, a pinion keyed to the shaft beyond the adjacent side member, a rigid handle formed integrally upon the arch and in the same plane as the U-shaped frame and curving from a point adjacent the longer of the extensions to a point beyond the other of the said extensions, a guide secured to the rigid handle, a movable handle pivoted to the shorter of the extensions and disposed within the guide, said movable handle having a straightened portion disposed substantially parallel to the arch, alining bearings provided at the terminal of the longer of said extensions and upon the stationary handle, a crank shaft journaled in said bearings and having its crank disposed between the adjacent sides of the longer extension and stationary handle, a link connecting the crank and the straight portion of the movable handle, and a pinion keyed to the crank shaft and meshing with the first mentioned pinion.

1,143,097. MEDICATED MOUTHPIECE-CONNECTOR. CHARLES M. ANDRES, Albany, N. Y., assignor of one-half to Abraham Soloman, Albany, N. Y. Filed Nov. 8, 1913. Serial No. 799,935. (Cl. 179—185.)



As a new article of manufacture a mouth-piece connection comprising a body having a central opening formed therein, for receiving a mouth-piece of a telephone, right angularly extending flanges formed near each end of said body, said flanges provided with longitudinally extending slots adjacent the front face of said body, longitudinally extending flanges formed upon said body and extending at right angles to said first mentioned flanges, and terminating in diverging spring arms, said arms extending to the rear of said body, said longitudinally extending flanges extending rearwardly of said body and adapted to rest upon the edge of the mouth-piece of a telephone whereby said body will be supported, paper carrying rollers carried by said rearwardly extending arms, and a disinfecting sheet carried by said rollers and passing over said opening in said body for assisting in holding said body upon a mouth-piece of a telephone.

1,143,098. CRANK-CASING. HARRY W. BOLENS, Port Washington, Wis. Filed Apr. 18, 1914. Serial No. 832,878. (Cl. 121—105.)



1. An engine crank-casing comprising a circular plate portion adapted to be looped about the engine crank having a flared securing end, and a removable vertical tray portion constituting a tangential extension of the other end of the looped portion.

2. A crank-casing for engines comprising a circular plate portion having a flared securing end and a removable vertical tray portion having upturned side and end walls, one of which end walls is secured to the other terminal of the looped plate.

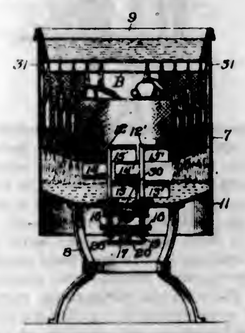
3. In an engine having a hollow bed provided with crank-shaft journal boxes, and a cylinder supported by the engine bed; the combination of a two-part crank-shaft shield comprising a circular plate portion arranged about the crank-shaft axis, one end of which is flared toward the engine cylinder, means for securing said flared end to the engine cylinder, a tray portion secured to the other end of the circular shield portion, and means carried by the bed for supporting the tray.

4. In an engine having a hollow bed provided with crank-shaft journal boxes, a cylinder supported by the engine-bed, a web extending across one end of said engine bed, and tray-supporting means carried by the opposite end of said engine bed; the combination of a two part removable circular shield disposed about the crank-shaft journal-boxes of the engine bed having a flared end extending toward the engine cylinder, means for securing said flared end to the engine cylinder, the opposite end of the shield being engageable with the engine bed cross-web, a flange extending from the last mentioned end of the circular shield, a tray portion secured to said flange having its opposite end in engagement with the tray-supporting means.

5. In an engine bed having a cylinder, a supporting base therefor provided with an end cross-web and a transverse apron, and lugs extending from the opposite walls of the bed; the combination of a two part removable crank-shaft shield comprising a circular portion arranged about the axis of the crank-shaft having a flared end secured adjacent to the mouth of the cylinder, a tray portion secured to the opposite end of the circular plate portion, the said tray portion being fitted between the cross-web and apron having one end supported by the lugs and its opposite end supported by engagement of the circular plate with the upper face of the cross-web.

[Claim 6 not printed in the Gazette.]

1,143,099. DISH-WASHING APPARATUS. AUGUST BOUCHERY, New York, N. Y., assignor, by mesne assignments, to Clarence K. McCornick, New York, N. Y. Filed July 13, 1914. Serial No. 850,623. (Cl. 141—9.)



1. A dish washing apparatus comprising in combination a receptacle to contain water and the dishes; a pair of shafts in said receptacle rotatable on vertical axes; and a series of superposed blades on each shaft to extend from one side of the shaft and inclined to the axis of the shaft with the lower blade of each shaft contiguous to the bottom of the receptacle, said blades so arranged that adjacent blades will extend in diametrically opposite directions from the shaft and inclined in a reverse direction relative to each other, and the blades on one shaft being at heights corresponding to the height of every blade on the other shaft, substantially as and for the purpose specified.

2. A dish washing apparatus comprising in combination a receptacle to contain water and the dishes; a pair of shafts in said receptacle rotatable on vertical axes: blades on each shaft, the blades being so arranged that the orbit of movement of the blades on one shaft will intersect the orbit of movement of the blades on the other shaft; and ducts having openings adjacent the sides of the receptacle and an opening common to all the ducts in the bottom of the receptacle at a point between the two shafts and in the orbit of movement of the blades on both shafts, substantially as and for the purpose specified.

3. A dish washing apparatus comprising in combination a receptacle to contain water and the dishes, the bottom of the receptacle inclining downward from the sides toward the center; a pair of shafts in said receptacle rotatable on vertical axes; a series of superposed blades on each shaft, each blade to extend laterally from one side of the shaft only and inclined to the axis of the shaft, and the blades being staggered so that succeding blades will extend from the shaft in a direction diametrically opposite to the next adjacent blade and be inclined in a reverse direction, so that each shaft has blades at heights corresponding to the height of every blade on the other shaft, and the shafts so arranged that the orbit of movement of the blades on one shaft will intersect the orbit of movement of the blades on the other shaft and the blades on one shaft will pass the blades of the other shaft, substantially as and for the purpose specified.

4. A dish washing apparatus comprising in combination a receptacle to contain water and carry the dishes; and a pair of shafts in said receptacle rotatable on vertical axes, each shaft having a blade at the same height adjacent the bottom of the receptacle extending laterally from one side of the shaft only and inclined to the axis of the shaft, a second blade on each shaft at the same height above the first blade and extending from one side of the shaft only and diametrically opposite to the first blade and inclined in a direction reverse to the inclination of the first blade, and a third blade on each shaft at the same height above the second blade extending from one side of the shaft only and diametrically opposite to the second blade and in line with the first blade and inclined reverse to the inclination of the second blade, substantially as and for the purpose specified.

5. In a dish washing apparatus, the combination with a receptacle to contain water and carry the dishes, of a pair of rotatable shafts in the receptacle; superposed blades on said shafts, the blades on one shaft being at heights corresponding to the height of every blade on the other shaft, and the blades of one shaft intersecting the orbit of movement of the blades on the other shaft; and a duct having openings in the receptacle adjacent the sides and an opening in the bottom of the receptacle midway between the shafts, substantially as and for the purpose specified.

1,143,100. DRAPERY-HOOK. HENRY S. BREWINGTON, Baltimore, Md. Filed June 1, 1914. Serial No. 842,000. (Cl. 24—86.)

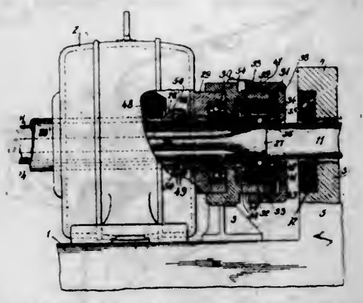


A pin of the character described made of a single strand of material and bent to form a double strand stem with a supporting hook at its upper end and a horizontal elongated body-portion of single strands projecting in opposite directions from said stem and provided at its ends with rings forming holding means for the material and having pins projecting upwardly from said rings and above said body-portion, said stem, rings and pins lying substantially in the same plane.

1,143,101. METAL-DRAWING MACHINE. LOUIS H. BRINKMAN, Glen Ridge, N. J., assignor to Baltimore Tube Company, Baltimore, Md., a Corporation of Maryland. Filed July 24, 1912. Serial No. 711,208. (Cl. 80—12.)

1. In a ball die for drawing metal tubes, the combination of relatively adjustable bearings for supporting die balls, a rotatable frame in which said bearings are mounted, means for rotating said frame, a series of die balls mounted on said bearings, a fixed mandrel extending within the die against which the tube is pressed by the balls, means for drawing the tube between the mandrel and the die balls, and means operatively related to said relatively adjustable bearings for adjusting the same one with respect to the other to vary the diameter of the die.

2. In a ball die for drawing metal tubes, the combination of two ball die supporting bearings adjustable one relative to the other longitudinally of the axis of the die and having adjacent surfaces forming a raceway for die balls, die balls mounted in said raceway and adapted to engage the outer surface of tubes to be drawn, a fixed mandrel extending within the die, means for producing relative rotation between the mandrel and the ball die bearings, means for drawing the tube between the mandrel and the die balls, and means operatively related to said ball die bearings for adjusting the same one with respect to the other to vary the diameter of the die.



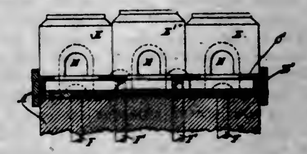
3. In a ball die for drawing metal tubes, the combination of a pair of ball die supporting bearings having annular bearing surfaces for the balls convergin: from the axis of the die to form a raceway for die balls, said bearings being relatively adjustable axially of the die, die balls mounted in said raceway adapted to engage the outer surfaces of tubes to be drawn, means for rotating the ball die bearings, means for drawing the tubes through the ball die, and means operatively related to said ball die bearings for adjusting the same one with respect to the other to vary the diameter of the die.

4. In a ball die for drawing metal, the combination of adjustable ball-supporting means, a series of balls mounted therein, means for rotating said adjustable ball-supporting means, a non-rotatable frame, and means adjustably mounted on the frame and operatively related to the ball-supporting means to vary the diameter of the die.

5. In a ball die for drawing metal, the combination of two ball-supporting parts relatively adjustable axially of the die, the adjacent faces of said parts forming a raceway therebetween, a series of balls in the raceway, means for rotating said ball-supporting parts, a non-rotatable frame, and a normally stationary adjusting device mounted on the frame and operatively related to one of said relatively adjustable ball-supporting parts to force said part toward the other ball-supporting part to vary the diameter of the die.

[Claims 6 to 27 not printed in the Gazette.]

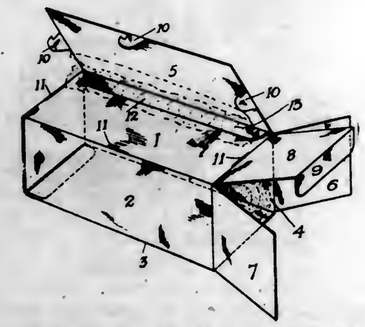
1,143,102. TIRE FOR VEHICLE-WHEELS. JOHN CAIRNS, Willenhall, South Staffs, England. Filed May 23, 1910. Serial No. 562,889. (Cl. 152—9.)



In combination with a wheel having peripheral side flanges forming an annular peripheral recess, an inwardly flanged inverted band in said recess between said side flanges and provided with a plurality of stud receiving openings, and hollow resilient studs open at their bases and having body portions engaging said side flanges and seated on the outer faces of said band, said studs having recessed portions engaging the inner edges of the openings

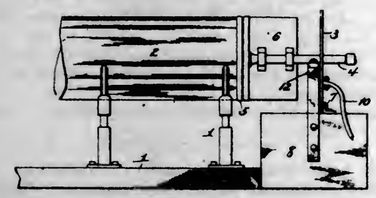
in said band and reduced base portions engaging the inner face of said band and seated on the wall of said recess with the lower open portions of the bases closed by said recess wall, whereby compression of the stud serves to close the same against discharge of air to resist deformation.

1,143,103. ASEPTIC BOX OR CARTON FOR PACKING MEDICAL SUPPLIES. ROBERT THOMAS CAMERON, Chattanooga, Tenn. Filed Mar. 17, 1913. Serial No. 755,052. (Cl. 229—16.)



A carton formed from a blank of paper board consisting of four rectangular portions joined together in parallel relation, a locking-member integral with the end one of said portions, a fifth rectangular portion integral with the other end one of said portions and having the material thereof cut away along the side thereof which is distant from said four rectangular portions to form a slot communicating with the interior of the carton formed by folding the said blank, which slot is adapted to be covered by the rectangular portion having the said locking-member thereon and uncovered by turning movement of that member relatively to the member adjoining it, and end pieces integral with certain of said rectangular portions and adapted to close the ends of the carton when the blank is folded, substantially as set forth.

1,143,104. APPARATUS FOR DRAWING GLASS. WILLIAM R. CAMPBELL, Lancaster, Ohio. Filed June 18, 1914. Serial No. 845,904. (Cl. 49—14.)



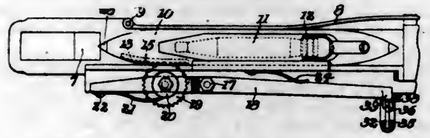
1. The herein described apparatus for electrically reheating a glass drawing bait after the latter and an attached glass cylinder have been removed from a glass drawing apparatus consisting of a bait adapted to be heated electrically, conductor leads in communication with said bait, a horse for the glass cylinder, and two separated contacts located adjacent one end of the horse and each connected with conductor, the said contacts adapted to make connection with the conductor leads on the bait as the cylinder is deposited on the horse, whereby the circuit will be automatically closed and the bait and the attached end of the glass cylinder heated.

2. The combination of a horse, two yielding contacts, at the front end of the latter, an electric conductor for each contact, and a glass drawing bait having conductor leads adapted to automatically contact with the yielding contacts as the glass cylinder and its attached bait are deposited on the horse.

3. The combination with means for supporting a glass cylinder in a horizontal position, two contacts adjacent one end of said supporting means, means also adjacent said end of the cylinder supporting means for supporting the bait, an electric conductor for each contact and a glass drawing bait having conductor leads adapted to make contact with said contacts as the glass cylinder and its attached bait are deposited on the cylinder and bait supporting means.

4. The combination of a horse, bait supporting means at one end of the latter, contacts also located adjacent said end of the horse and a bait having a part to rest on said bait supporting means and two leads which engage the contacts when the bait is deposited on its support.

1,143,105. SHUTTLE-POSITIONING MEANS. RANDOLPH CROMPTON, Chatham, Mass. Filed Apr. 14, 1915. Serial No. 21,411. (Cl. 139—85.)



1. In a loom, a lay, a shuttle box therefor, a shuttle having a series of holding projections, co-acting holding means held in position to engage said holding means in the entering or boxing movement of the shuttle, and being constructed and arranged to permit said holding projections to pass freely in one direction only, and means to permit picking of the shuttle from said box.

2. In a loom, a lay, a shuttle box therefor, a shuttle, said shuttle box and shuttle having shuttle positioning means in constant alining relation with each other in the path of the shuttle throughout the boxing action of the shuttle in said box and means to hold said positioning means upon the shuttle box in position to prevent displacement of the shuttle upon boxing.

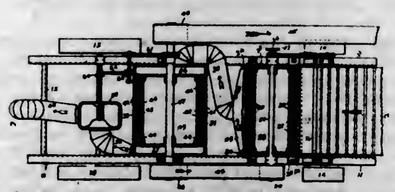
3. In a loom, a lay, a shuttle box therefor and a shuttle, said shuttle box and shuttle being provided with shuttle positioning means having a rolling interengagement with each other and means to hold said positioning means upon the shuttle box in position to prevent displacement of the shuttle upon boxing.

4. In a loom, a lay, a shuttle box therefor and a shuttle, said shuttle box and shuttle being provided with shuttle positioning means having a rolling relation with each other and means to hold said positioning means upon the shuttle box in position to prevent displacement of the shuttle upon boxing.

5. In a loom, a lay, a shuttle box therefor and a shuttle, said shuttle box and shuttle being provided with shuttle positioning means having a toothed engagement with each other.

[Claims 6 to 10 not printed in the Gazette.]

1,143,106. ALFALFA-MILL. ADRIAN D. DAVIES and LOUIS H. BEMEN, Pueblo, Colo., assignors of one-third to William H. Tyler, Pueblo, Colo., and two-thirds to said Davies. Filed Mar. 18, 1913. Serial No. 755,180. (Cl. 146—19.)



1. In a device of the class described, a grinding cylinder comprising a shell, cutting teeth projecting inwardly from the surface of the shell, a closed drum within the shell, cutting teeth projecting outwardly from the drum, fan teeth upon the drum, and means for feeding the material to be ground longitudinally of the cylinder.

2. In a device of the class described, a grinding cylinder comprising a shell composed of two sections, each section having an opening therein disposed at one side of the axis of the cylinder but symmetrically with respect to the opening in the remaining section, a closed drum in said cylinder, cutting devices between the shell and the drum, and means for feeding the material to be ground longitudinally of the cylinder.

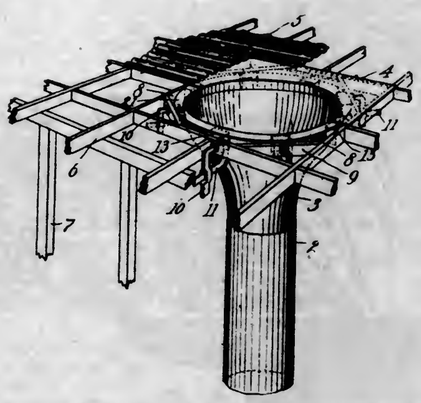
3. In a device of the class described, a grinding cylinder comprising a shell composed of two sections, each section having an opening therein disposed at one side of the axis of the cylinder but symmetrically with respect to the opening in the remaining section, cutting teeth projecting inwardly from the surface of the shell, a closed drum within the shell, teeth projecting outwardly from the drum and intermeshing with said first mentioned teeth, and means for feeding the material to be ground longitudinally of the cylinder.

4. In a device of the class described, a grinding cylinder comprising a shell, said shell having feeding and discharge openings in opposite ends thereof, a closed drum within the shell, coöperating cutting devices on the drum and the shell, fan teeth upon the drum, a pipe connected with the discharge opening, a suction fan in said pipe, and means for varying the speed of the fan.

5. In a device of the class described, a cutting cylinder comprising a casing open on two sides, a rotating member within the casing, teeth projecting from the casing, teeth on the rotating member in position to coöperate with the teeth on the casing, and bars arranged in the discharge opening of the casing and disposed in a tangential direction with respect to the casing.

[Claims 6 to 10 not printed in the Gazette.]

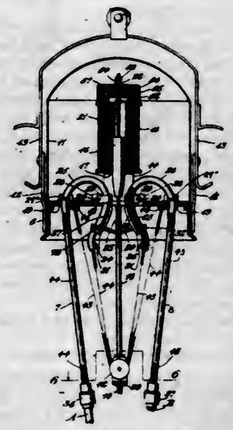
1,143,107. COLUMN-MOLD. PHILIPPE A. DESLAURIERS and LOUIS P. DESLAURIERS, St. Paul, Minn., assignors, by mesne assignments, to Philippe A. Deslauriers and Louis P. Deslauriers, Copartners doing business under the firm-name of Deslauriers Column Mold Company, St. Paul, Minn. Filed July 29, 1909. Serial No. 510,306. (Cl. 25—131.5.)



1. Means for forming a unitary column and ceiling comprising movable ceiling molding means formed with an opening, a supporting framework therefor formed with an opening alining with said ceiling mold opening, a mold for the top of the column arranged within said framework opening, an outwardly bent flange carried by the upper edge of said column top mold, and blocks removably carried by said ceiling mold supporting framework inside said framework opening in position to extend underneath and form a support for said flange.

2. Means for forming a concrete ceiling and connected column comprising in combination a sheet metal mold for forming the top of the column, an outwardly projecting flange carried by the upper edge of said mold, a sheet metal mold plate for said ceiling, a supporting frame work for said mold plate, blocks fitting underneath said flange to support said column top mold, and clamps removably supporting said blocks from said frame work.

1,143,108. ARC-LAMP. JOHN L. DINSMOOR, New York, N. Y. Filed Oct. 6, 1911. Serial No. 653,116. (Cl. 176—68.)



1. In an arc lamp, the combination with a plurality of carbon holders limited to movement in inclined paths, a plurality of tubular directing members each pivoted intermediate its ends for movement on a horizontal axis, said tubular members being slotted, a plurality of flexible members each having sliding frictional contact with the tubular member and being attached to one of said carbon holders, a plurality of clutches carried by the tubular members and positioned for operation in the slots thereof so as to have gripping engagement with said flexible members, and current operated means coöperating with said clutches and with said tubular directing members for actuating said clutches simultaneously and for imparting conjoint movement to the tubular directing members, the clutches and the flexible members.

2. In an arc lamp, the combination with a plurality of carbon holders limited to movement in inclined paths, of a plurality of tubular slotted directing members each pivoted intermediate the ends thereof, a plurality of flexible members each having sliding frictional contact with one of said tubular members and attached to one of said carbon holders, a plurality of clutches each carried by one of the tubular directing members and positioned in the slots of said members for directing gripping engagement with one of said flexible members, said clutches being movable with the tubular directing members and being pivoted for movement independently of said tubular directing members, and a current operated member cooperating directly with said clutches for imparting movement simultaneously to the clutches and for actuating said tubular directing members so as to oscillate the latter subsequently to the gripping engagement of the clutches with said flexible members.

3. Means for regulating the electrodes of an arc lamp embodying flexible members having means for supporting the electrodes, a plurality of tubular directing members through which said flexible members are adapted to slide, said directing members being pivoted for movement in directions to raise or lower said electrodes, means for gripping and releasing said flexible members so that the latter are held fast to the directing members or are free

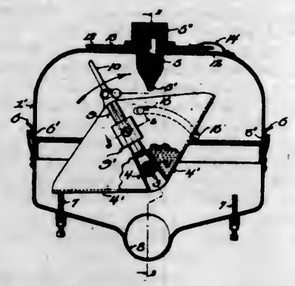
to slide therethrough under the weight of the electrodes, and an actuator for the gripping and releasing means and for the tubular directing members.

4. Means for regulating the electrodes of an arc lamp embodying flexible members having means for supporting the electrodes, a plurality of tubular directing members within which the flexible members are free to slide, a plurality of clutches each pivoted to one directing member and positioned for gripping engagement with the flexible member therein, and an electrically-operated member movable into contact with said clutches for gripping the latter upon the flexible members, said electrically operated member operating to impart movement simultaneously to the tubular directing members for raising or lowering the electrodes.

5. In an arc lamp, the combination with a plurality of electrode carriers, of a plurality of tubular slotted directing members each pivoted intermediate the ends thereof, a plurality of flexible members attached to said electrode carriers, each flexible member being provided with a loop having sliding frictional contact with one of said tubular directing members, means for taking up slack in said flexible members, a plurality of clutches each carried by one of said tubular directing members and positioned for movement in the slot thereof so as to have gripping engagement with a flexible member, and a current operated actuator positioned for direct contact with said clutches so as to actuate the clutches simultaneously in gripping and releasing the flexible members, said current operated actuator acting to also impart movement simultaneously to the tubular directing members.

[Claims 6 to 10 not printed in the Gazette.]

1,143,109. MEASURING DEVICE. RICHARD F. DOWNEY, Milwaukee, Wis., assignor of one-half to Hugo Loewenbach, Milwaukee, Wis. Filed Jan. 22, 1914. Serial No. 813,699. (Cl. 73—178.)



In a measuring device having a delivery nozzle, a receiving cup pivoted thereunder, the pivot being contiguous to the bottom of the receiving cup and in alinement with the discharge nozzle, a central partition in the receiving cup arranged to vibrate across the line of discharge of the nozzle; the combination of a parallel edged dovetailed fin projecting from one wall of the cup and cast integral therewith, the fin being extended from the pivot point of said cup to its upper edge and paralleling the central partition thereof, a weight having a dovetailed groove in one face thereof for slidable engagement with the dovetailed fin, and a screw in threaded union with the weight adapted to frictionally engage the face of said fin whereby the weight is held in adjusted position.

1,143,110. PAINT AND VARNISH REMOVER. CARLETON ELLIS, Larchmont, N. Y., assignor to Chadeloid Chemical Company, New York, N. Y., a Corporation of West Virginia. Original application filed Feb. 26, 1907, Serial No. 359,509. Divided and this application filed Aug. 6, 1907. Serial No. 387,272. (Cl. 87—5.)

1. The finish remover comprising approximately denatured alcohol, forty parts, methyl ethyl ketone twenty-five parts, propionic acid, six parts, and ceresin wax one-quarter part.

2. The finish remover comprising approximately alcoholic finish solvent material forty parts, methyl ethyl ketone twenty-five parts, propionic acid six parts and waxy thickening material.

3. The finish remover comprising approximately alcoholic finish solvent material forty parts, ketonic solvent material twenty-five parts, propionic acid six parts and incorporated thickening material.

4. The finish remover comprising approximately alcoholic finish solvent material forty parts, ketonic solvent material twenty-five parts, several parts of propionic acid and incorporated thickening material.

5. The finish remover comprising large proportions of composite volatile finish softening material, a few per cent. of propionic acid and incorporated thickening material.

[Claim 6 not printed in the Gazette.]

1,143,111. PAINT AND VARNISH REMOVER. CARLETON ELLIS, Larchmont, N. Y., assignor to Chadeloid Chemical Company, New York, N. Y., a Corporation of West Virginia. Original application filed Feb. 26, 1907, Serial No. 359,509. Divided and this application filed Aug. 6, 1907. Serial No. 387,273. (Cl. 87—5.)

1. The finish remover consisting substantially of remover comprising approximately methyl acetone thirty parts, benzol twenty-five parts, butyric acid four parts and ceresin wax one part.

2. The finish remover comprising approximately ketonic and alcoholic solventa thirty parts, aromatic hydrocarbon solvent twenty-five parts, butyric acid four parts, and stiffening material.

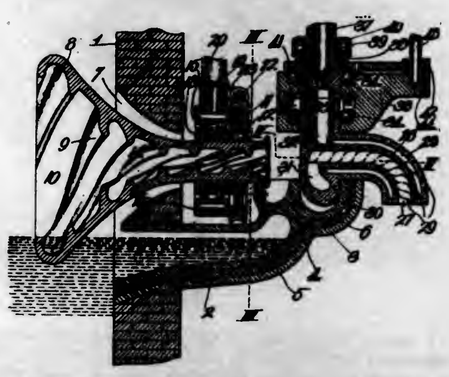
3. The finish remover comprising ketonic finish solvent material, alcoholic finish solvent material, butyric acid and incorporated stiffening material.

4. The finish remover comprising methyl acetone, aromatic finish solvent material, butyric acid and waxy stiffening material.

5. The finish remover comprising methyl acetone, butyric acid and stiffening material.

[Claims 6 and 7 not printed in the Gazette.]

1,143,112. GLASS-FURNACE. ENOCH T. FERNGREN, Kansas City, Mo., assignor of one-fourth to F. E. Wear, Kansas City, Mo. Filed July 25, 1911, Serial No. 640,958. Renewed Sept. 5, 1913. Serial No. 788,323. (Cl. 49—55.)



1. The combination with a glass furnace provided with an opening and a trough communicating with the furnace below the plane of the opening, the trough being provided with a bowl at its outer end having an inclined bottom adapted to discharge at its lower end into the trough, of a suitably supported rotatable conveyer extending through the opening of the furnace and adapted to receive glass from the furnace at its inner end and discharge such glass into the bowl, an oscillatory spout above the bowl provided with a scoop depending into the bowl and communicating with the rear end of the spout and adapted as the spout turns in one direction to scoop up glass from the bowl and elevate it into the rear end of the spout, and means for supplying air under pressure to the spout in a forward direction and tangentially of its bore or passage.

2. The combination with a glass furnace provided with an opening and a trough communicating with the furnace below the plane of the opening, the trough being provided with a bowl at its outer end having an inclined bottom adapted to discharge at its lower end into the trough, of a suitably supported rotatable conveyer extending through the opening of the furnace and adapted to receive glass from the furnace at its inner end and discharge such glass into the bowl, an oscillatory spout above the bowl provided with a scoop depending into the bowl and communicating with the rear end of the spout and adapted as the spout turns in one direction to scoop up glass from the bowl and elevate it into the rear end of the spout, and valve-controlled means for supplying air to the spout as the scoop is raising the glass into the spout and for cutting off such supply of air after the return movement of the oscillatory spout begins.

3. The combination with a furnace having an opening and a trough communicating with the furnace in a plane below the opening, the trough being provided at its outer end with a bowl having an inclined bottom and adapted to discharge glass from its lower end back into the trough, of a rotatable conveyer extending through said opening of the furnace and partly submerged at one end in the glass of the furnace, and adapted to discharge at the opposite end into the bowl at the elevated end of its bottom, said conveyer being open from end to end and provided internally with a helical rib.

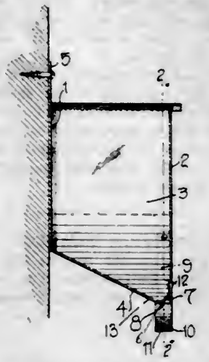
4. The combination with a glass furnace having an opening and a trough communicating with the furnace below the plane of said opening, the trough being provided at its outer end with a communicating bowl so that glass may flow from the bowl down into the trough, of a rotatable conveyer extending through said opening of the furnace and partly submerged at one end in glass therein and adapted to discharge at its opposite end into the bowl, said conveyer being open from end to end and provided internally with a helical rib, and a tiltable support for the rotatable conveyer whereby the inner end of the latter may be submerged more or less within the furnace.

5. The combination with a furnace having an opening and a trough communicating with the furnace in a plane below said opening, the trough being provided at its outer end with a bowl having an inclined bottom and adapted to discharge glass from its lower end back into the trough, of a rotatable conveyer extending through said opening of the furnace and partly submerged at one end in the glass of the furnace, and adapted to discharge at the opposite end into the bowl at the elevated end of its bottom, said conveyer being open from end to end and provided internally with a helical rib, and a bearing ring forming a journal for the rotatable conveyer and pivoted for tilting movement in a vertical plane to raise or depress the inner end of the conveyer.

[Claims 6 to 9 not printed in the Gazette.]

1,143,113. MATCH-BOX. LEWIS C. FRAVER and IRVIN E. WILLIAMS, Dayton, Ohio. Filed June 22, 1914. Serial No. 846,634. (Cl. 206—28.)

A match box having a front wall, side walls and an inclined bottom wall, the forward edge of the bottom wall being spaced from the front wall to provide an exit of substantially the same width as the diameter of a match, and having a length equal to that of a match, the front wall being cut away at its middle, and the bottom wall being correspondingly cut away, springs secured each at one end of the front wall adjacent its lower edge, said springs extending downward and rearward, and across said exit opening, the springs being disposed one at each side of the cut away portion of the front wall, and resilient igniting members extending downward from the sides of the box and being bent inward and downward, the space



between the lower ends of the springs being approximately equal to that of the cut away portion of the box.

1,143,114. FORMALDEHYDE SOLUTION. GEORGE PRESCOTT FULLER, Niagara Falls, N. Y., assignor to National Electrolytic Company, Niagara Falls, N. Y., a Corporation of New York. Filed June 1, 1914. Serial No. 842,025. (Cl. 23—13.)

1. The process of making a formaldehyde solution, which consists in reacting on a polymerization product of formaldehyde with a less-than-molecular proportion of a base, in the presence of water.

2. The process of making a formaldehyde solution, which consists in subjecting a polymerization product of formaldehyde, in the presence of water, to the action of a less-than-molecular proportion of a salt having a basic reaction.

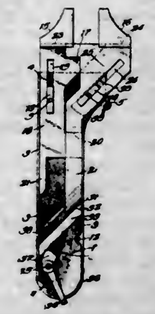
3. The process of making a formaldehyde solution, which consists in subjecting a polymerization product of formaldehyde, in the presence of water, to the action of a less-than-molecular proportion of an alkali metal salt having a basic reaction.

4. The process of making a formaldehyde solution, which consists in subjecting a polymerization product of formaldehyde, in the presence of water, to the action of a less-than-molecular proportion of a salt which on solution in water will hydrolyze to set free a base.

5. The process of making a formaldehyde solution, which consists in subjecting a polymerization product of formaldehyde, in the presence of water, to the action of a less-than-molecular proportion of an alkali metal sulfite.

[Claim 6 not printed in the Gazette.]

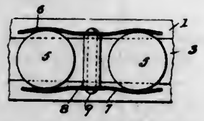
1,143,115. WRENCH. KARL AUGUST GESTGIFVAR, Bitumen, Pa. Filed July 27, 1914. Serial No. 853,281. (Cl. 81—143.)



The combination of the casing consisting of sections 2 and 6, the section 2 having the flange 3, with the jaws 15

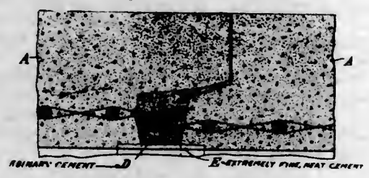
and 16 projecting beyond the forward end of the handle, said jaws having the webs 17, 22 and 25 and the recesses 23 and 24 engaging said webs to prevent relative displacement of said jaws, said jaw webs having shank extensions 18 and 27 which project a substantial distance into the handle, the lug 28 having the groove 29 and the casing rib 30 engaging said groove, the toothed bar 33 adapted to engage a toothed rear end of the shank 27, the lever 34, and the connections between said lever and said bar 33, whereby said bar is movable by said lever, said lever having a cam portion 37 which assists in the operation of said bar and having a portion thereof projecting out of the rear end of said handle.

1,143,116. ANTIFRICTION-BEARING. HENRY HESS, Philadelphia, Pa., assignor to The Hess-Bright Manufacturing Company, Philadelphia, Pa., a Corporation of Delaware. Filed May 25, 1906. Serial No. 318,777. (Cl. 64—59.)



The combination of bearing rings provided with races, a series of balls running in the races between the rings, separator rings of flexible material, one on each side of the ball series, the rings being provided with elongated recesses at the points where they touch the balls, and means intermediate the balls serving to hold the separator rings closer together at these points than at the points where they engage the balls.

1,143,117. WATER-TIGHT JOINT FOR CONCRETE WATER-PIPES. ALLAN M. HIRSH and COLEMAN MERIWETHER, Montclair, and JOHN C. MITCHELL, East Orange, N. J., assignors to Lock Joint Pipe Company, New York, N. Y., a Corporation of New Jersey. Filed Jan. 26, 1914. Serial No. 814,340. (Cl. 72—51.)



1. A water tight joint for concrete water pipes and the like, formed by the combination of two abutting concrete sections having an interior groove or recess at the line of union, a primary filler of cement, or cement mortar, for the groove, and a secondary seal of fine cementitious material.

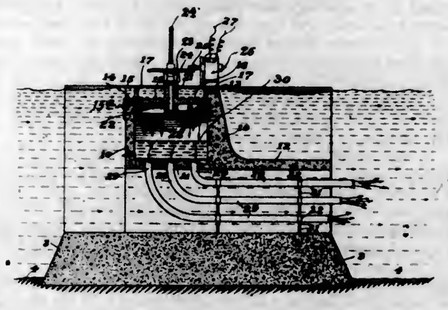
2. A water tight joint for concrete water pipes and the like, formed by the combination of two abutting concrete sections having an interior groove or recess at the line of union, a primary filler of cement, or cement mortar for the groove, and a secondary seal of finely sifted cement applied over the same.

3. A water tight joint for concrete water pipes and the like, formed by the combination of two abutting sections of pipe having an interior main and secondary recess or groove at the line of union, a primary filler of cement or cement mortar for the main groove, and a secondary filler of finely divided neat cement for the other.

4. A water tight joint for concrete water pipes and the like, formed by the combination of two abutting pipe sections having a bell and spigot union, the bell being longer than the spigot to form an interior annular groove at the line of union, a filler of cement, or cement mortar for such groove, and a secondary seal of finely sifted neat cement applied over the same.

5. A water tight joint for concrete water pipes and the like, formed by the combination of two abutting pipe sections having a bell and spigot union, the bell being longer than the spigot to form an interior annular groove at the line of union, and the ends of the pipe sections being shaped to form a recess over the groove, a primary filler of cement, or cement mortar for the main groove, and a secondary seal or filler of finely sifted neat cement for the recess over the same.

1,143,118. WATER-POWER APPARATUS. JOSEPH HOFFMAN, Schenectady, N. Y. Filed May 26, 1914. Serial No. 840,983. (Cl. 138—7.)



1. A water power apparatus embodying a closed casing located in a current or tideway, a perforated plate within the casing below the water level, a turbine below the plate adapted to receive upon its buckets the water that passes through the perforations in the plate, a closed chamber below the turbine, and means adapted to conduct the water away from the chamber located within an inclosed sluiceway below the chamber.

2. A water power apparatus embodying a closed casing located in a current or tideway, a perforated plate within the casing below the water level, a turbine below the plate adapted to receive upon its buckets the water which passes through the perforations in the plate, a closed chamber below the turbine and open ended devices adapted to conduct the water away from the chamber, the open ends thereof having different rearward projection.

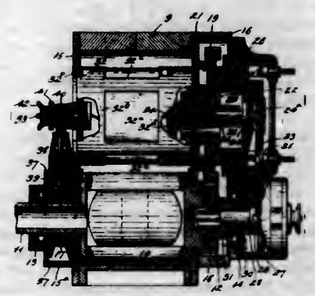
3. A water power apparatus embodying a closed casing located in a current or tideway, a perforated plate below the water level having an open sided annular flange or curved surface adapted to direct the water in a circular manner at the upper end of the casing, a turbine below the plate adapted to receive upon its buckets the water that passes through the perforations in the plate, a closed chamber below the turbine and means adapted to conduct the water away from the chamber.

4. A water power apparatus embodying a closed casing located in a current or tideway, a plate within the casing below the water level having an open sided annular flange or curved surface and inclined perforations, a turbine below the plate adapted to receive upon its buckets the water that passes through said inclined perforations, a closed chamber below the turbine and means adapted to conduct the water away from the chamber.

5. A water power apparatus embodying a closed casing located in a current or tideway, a perforated plate within the casing below the water level, a turbine below the plate adapted to receive upon its buckets the water that passes through the perforations in the plate, a closed chamber below the turbine, means adapted to conduct the water away from the chamber located in a contracted sluiceway and water deflecting wings adapted to direct the current through the sluiceway.

[Claims 6 to 14 not printed in the Gazette.]

1,143,119. MAGNETO. DOW B. HUGHES, New York, N. Y., assignor to The Citizens Savings and Trust Company, Cleveland, Ohio, a Corporation of Ohio, trustee. Filed May 10, 1912. Serial No. 696,337. (Cl. 123—149.)



1. A magneto comprising horse-shoe magnets, an armature having shaft extensions, a distributer, a pair of gears for driving the distributer including a gear on one of the shaft extensions, and a second gear meshing therewith, a tubular bearing for said second gear, said distributer comprising a rotating part movable with said second gear and provided in line with the axis of said tubular bearing with a contact member, a transformer casing mounted within the upper part of the magnets above the armature, said casing having at its inner end an arm projecting outwardly through said tubular bearing, and provided at its end with a brush engaging the contact member of the rotating part of the distributer.

2. A magneto comprising a magnet, an armature, a transformer supported in the magnet adjacent the armature and provided with an outwardly projecting terminal, a member electrically connected to the armature and adapted to be connected to said terminal, and a support for said member which permits the latter to be turned toward and from the terminal.

3. A magneto comprising a field magnet, an armature, a transformer supported in the magnet adjacent the armature and having an outwardly projecting terminal, an arm adapted to be connected at one end to said terminal, a support for said arm which permits the latter to be turned toward and away from the terminal, and current collecting means comprising a ring and a brush, one movable with the armature and the other carried by said arm.

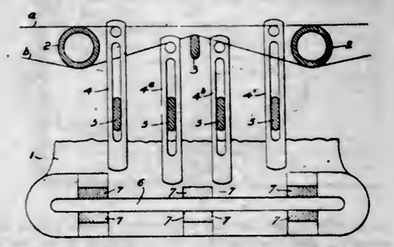
4. A magneto comprising a horse-shoe field magnet, an armature with supporting shaft extensions, a collector ring on one of said shaft extensions, a transformer casing supported in the magnet above the armature and having an outwardly projecting terminal, and a combined brush holder and connector extending between the collector ring and said terminal.

5. A magneto comprising a horse-shoe field magnet, an armature with supporting shaft extensions, a collector ring on one of said shaft extensions, a transformer casing supported in the magnet above the armature and having an outwardly projecting terminal, and a rigid arm adapted to be connected at its upper end to said terminal and at its inner end having a brush engaging the collector ring.

[Claims 6 to 9 not printed in the Gazette.]

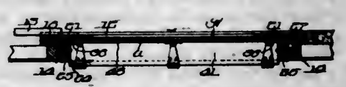
1,143,120. WARP STOP-MOTION FOR LOOMS. SIMEON S. JACKSON, Boston, Mass., assignor to The Stafford Company, Boston, Mass., a Corporation of New Jersey. Filed Aug. 27, 1914. Serial No. 858,879. (Cl. 139—92.)

In a warp-stop-motion for looms, in combination, opposite warp-dividing rods which divide the warp-threads in a loom into upper and lower sheets, a warp-supporting bar for the lower sheet of warp-threads located between the said warp-dividing rods, and four banks of drop-wires having the drop-wires of the first and fourth banks hung upon warp-threads of the upper sheet close to the respective warp-dividing rods and the drop-wires of the second and third banks hung upon warp-threads of the lower



sheet closely adjacent the opposite sides of the warp-supporting bar, and with the latter drop-wires entirely below and out of contact with the warp-threads of the upper sheet.

1,143,121. CAR-DOOR. FRANK JAGER, Chicago, Ill. Filed Aug. 16, 1912. Serial No. 715,344. (Cl. 20—27.)



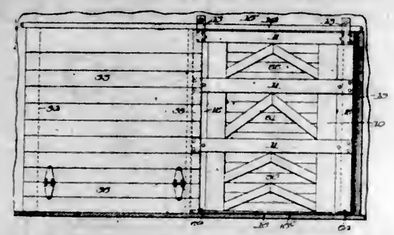
1. In a freight car having a doorway, of a car door within the car and adapted to close the entire doorway, a pair of movable posts on each side of the doorway pivotally mounted on a suitable support adjacent the door, and a locking device removably positioned in the doorway and extending between the said movable posts to engage with them when closed against the door.

2. In a railway car having a doorway opening and a door post at either side of the opening, the combination of a door for the opening comprising a slidable frame and an outwardly swinging door of a lesser width than the said opening, said slidable frame including a projecting side member adapted to rest up against the door post when the door is in closed position, a lever carried by said swinging door and adapted to operatively engage the said projecting side frame member of the door, and a movable closure member hingedly mounted on the door post to have inward movement to engage the door and lock the lever in its operative position.

3. In a railway freight car having a pair of door posts on each side of the door-opening, the combination of an inside door having its side uprights relatively thicker than its cross-pieces, said door being slidably mounted within the car to move across the said opening to close it and provided with a door-inclosed port therein, and locking means for both doors comprising a pair of movable posts hingedly connected to the said door post and adapted to swing inwardly into the doorway to take against the uprights of the first mentioned door, and a plate extending between the posts to lock them when in this position, its intermediate portion being in locking engagement with the second mentioned door.

4. In a railway freight car having a door opening and door posts at each side of the opening, the combination of a relief door having a side frame member up against the door posts and projecting outwardly to a plane beyond the outside of the door body, and means to prevent leakage of water or grain past meeting faces of the door and door post comprising a post of substantial cross section pivotally mounted exteriorly of the door to vertically aline with the outer angle at either side of the doorway when moved inwardly to bear with its inner faces against the doorbody and door post, said post having an intermediate cut-away portion to receive a projecting edge of the side frame member, all so arranged to present a series of broken joints as and for the purpose set forth.

1,143,122. CAR-DOOR. FRANK JAGER, Chicago, Ill. Filed Nov. 11, 1912. Serial No. 730,632. (Cl. 20—31.)



1. In a railway car having a doorway frame and a doorway opening, the combination of a sliding door for said opening having a port, an outwardly opening closure member for said port hingedly mounted on said door and of a lesser width than the doorway opening, and an inwardly swinging holding member for holding said closure member in closed position, said holding member being pivotally supported on the frame at a point appreciably removed from the face of the closure member and adapted when swung inwardly to line between the closure member and the point of pivotal support and laterally thereof to engage the door and closure member whereby to hold the former against sliding and the latter from swinging outwardly when subjected to pressure.

2. In a railway car having a door post at each side of the doorway opening, a door mounted to close the opening and comprising a slidable frame and an outwardly swinging relief door of lesser width than the doorway opening, the door when in closed position having its frame resting up against the inner faces of the door posts, and means adapted to engage the swinging door to hold the same from swinging and the frame from sliding, said means consisting of a hinged jamb member mounted on either of the door posts to have movement on an arc in the doorway to occupy a lateral position with reference to the plane of the door, said jamb member being constructed to extend beyond the slidable frame and having a flanged or angular conformation substantially throughout its length and substantially coinciding with the angle formed by the door and door post; substantially as described.

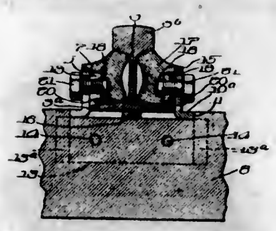
3. In a box car having a door post at each side of the door opening, of means for closing the opening comprising a slidable frame and an outwardly swinging relief door of lesser width than the door opening, said slidable frame including side members between which the door is hung and which are adapted to rest up against the door posts, a guiding means positioned across the door opening in guiding relation with the frame and constituting a seat for the lower edge of the door, and a lock and closure means pivotally mounted on either of the door posts for swinging inward movement to overlap the meeting faces of door post and its adjacent side frame member and engage the edges of the relief door to hold the same against its seat, substantially as described.

4. In a freight car having a door opening and a door to close the opening, of a track or rail mounted on the threshold of the car to guide the door, having a raised portion and a depressed portion throughout its length, a flanged member on the lower end of the door fitting over the raised portion and slidably received in the said depressed portion of the track, said track being further provided with an integral longitudinal inner portion inclining upwardly from the threshold to the raised portion but spaced away therefrom by the said depressed portion.

5. In a railway car, the combination of a doorway frame and its opening, a door for the opening having a plurality of ports and closures therefor, a jamb member pivotally hung on the doorway frame and provided with a locking portion adapted to engage the said closures and maintain the same against their seats, and a sealing device for engaging the said locking portion whereby the closures are locked and sealed; substantially as described.

[Claims 6 to 12 not printed in the Gazette.]

1,143,123. METALLIC TRACK-FASTENING. FRANK JAGER, Chicago, Ill. Filed Aug. 2, 1913. Serial No. 782,739. (Cl. 238—2.)



1. A fastening for flanged rails comprising a rail retaining lug disposed to one side of the rail base and extending upwardly therefrom, and a wedging brace disposed between the rail head and rail base, and provided with an inner face normally spaced away from the side of the rail and having a slot formed in its outer face, means to force the brace inwardly toward the rail consisting of a nut received in said slot and a bolt adapted to pass through the lug and the nut, substantially as described.

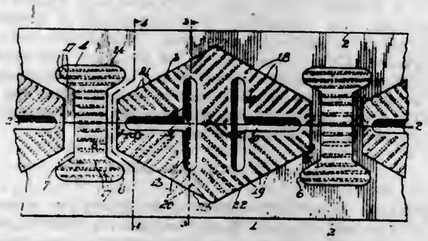
2. The combination with a rail, of a rail seat member having an abutment adjacent thereto, a recessed brace member interposed between the abutment and the rail and adapted to engage the rail, a nut in the recess in the brace, and a bolt passing through the abutment and nut to engage the brace.

3. The combination of a rail, a rail seat member having an abutment adjacent thereto, a recessed brace member between the abutment and the rail, a nut non-rotatably held in the recess in the brace, and a bolt passing through the abutment and nut and engaging the brace.

4. In combination, a railway tie metallic chair having a body portion adapted to seat on the upper face of the tie and formed with side flanges depending from said body portion in a substantially parallel relation with the sides of the tie, one of said side flanges being spaced away from the tie, and a filler block interposed and secured between the said side flange and the side of the tie, removal of which permits the endwise withdrawal of the tie out of contact with the said side flanges.

5. In combination, a railway tie metallic chair having a rail-seating body portion formed with side flanges depending therefrom in a substantially parallel relation with the sides of the tie, one of said side flanges being spaced away from the side of the tie, a filler block interposed between the said side flanges and the tie, and a transverse bolt passing through the flanges, filler block and tie, substantially as described and for the purpose set forth.

1,143,124. TIRE-TREAD. AUSTIN KANZEE, San Francisco, Cal. Filed Apr. 17, 1912. Serial No. 691,279. (Cl. 152—14.)

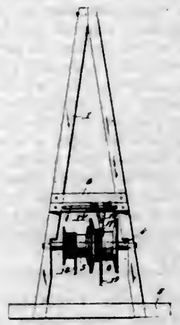


1. A tire having a tread portion provided with a series of radially elevated tractive projections, and strips of fabric molded into said projections and disposed radially edgewise with respect to the tire, the strips in some of said projections being parallel with the line of drive and the strips of other projections being angular with respect to the line of drive, substantially as described.

2. A tire having disposed on its surface portion a series of raised tractive projections disposed in spaced relation with respect to each other and with one extreme portion of one projection extending beyond the extremity of the next adjacent projection, thereby forming a continuous overlapping series, and fabric strips molded in said projections, said strips being disposed radially edgewise with respect to the tire, the strips in alternate projections being disposed in a circumferential direction with respect to the tire and those in the intermediate projections being disposed at an angle with respect to the circumferential direction.

3. A tire having disposed on its surface portion a series of raised tractive projections disposed in spaced relation with respect to each other and with one extreme portion of one projection extending beyond the extremity of the next adjacent projection, thereby forming a continuous overlapping series, and fabric strips molded in said projections, said strips being disposed radially edgewise with respect to the tire, the strips in alternate projections being disposed in a circumferential direction with respect to the tire and those in the intermediate projections being disposed at rght angles to each other.

1,143,125. GUIDE. ROBERT C. LAWHEAD, Alluwe, Okla. Filed Jan. 31, 1914. Serial No. 815,747. (Cl. 242—157.)

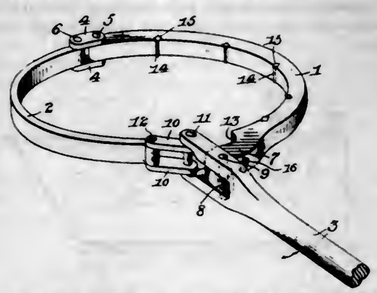


1. In combination, axially alined drums, each drum having a flexible element wound thereon, supporting means for the drums, a bracket mounted on said supporting means, the bracket extending parallel with the axes of the drums, a pair of relatively adjustable stop devices mounted on said bracket, and a single guide device hung to depend from the bracket and to removably engage one or the other of said flexible elements, said guide device being limited in its movement by the stop means aforesaid, as and for the purpose set forth.

2. In combination with a plurality of drums arranged in axial alinement, each durm having a flexible element wound thereupon, a bracket, substantially U-shaped, of a length sufficient to extend beyond the remote terminals of the alined drum, a guide device hung to loosely depend from the said bracket, said device being movable longitudinally thereof, collars adjustable upon the bracket to restrict longitudinal movement of said guide device to the length of any one of said drums, and a double coil forming a part of the said guide device, said coil being directly engageable with the element acted upon, said coiled portion of the guide being movable vertically and longitudinally relatively to the drum during a winding and unwinding operation, as and for the purpose set forth.

1,143,126. PIPE-WRENCH. GEORGE C. MARTIN, Los Angeles, Cal., assignor to S. A. Guiberson, Jr., San Francisco, Cal. Filed Jan. 27, 1913. Serial No. 744,497. (Cl. 81—67.)

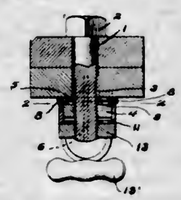
1. A pipe wrench having a jaw, a lever fulcrumed on said jaw, a complementary jaw, a link pivotally connecting the said jaws, a link pivotally connecting the lever with the said complementary jaw and a stop projecting from the first mentioned jaw into the path of said lever for preventing the jaws from opening too wide when taking a new hold upon the article to be turned.



2. A pipe wrench having an integral non-yielding jaw and an integral yielding jaw, articulating means interposed between said jaws and a lever for drawing the jaws toward each other.

3. A pipe wrench having a single piece non-yielding jaw, a single piece yielding jaw, a member connecting said jaws and pivotally connected with each, a lever fulcrumed upon one end of the non-yielding jaw and a link member pivoted at one end to the lever and at the other end to the yielding jaw whereby the said lever may positively open or close the said jaws.

1,143,127. NUT AND BOLT LOCKING AND RELEASING DEVICE. OLIVER A. MENTZER, Lancaster, Pa., assignor of one-fourth to Henry E. Ransing and one-fourth to Charles L. Marshall, Lancaster, Pa., and one-fourth to Frederic C. Sweeton, Haddonfield, N. J. Filed Nov. 9, 1914. Serial No. 871,019. (Cl. 151—13.)



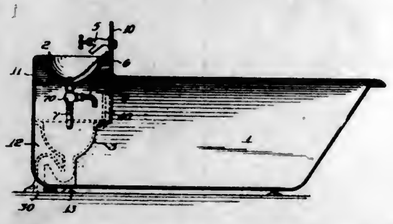
In a nut locking and releasing device, the combination with a bolt, of a washer non-rotatably carried thereon, having a spring pawl or pawls thereon each of which is provided with a radial wing, a ratchet faced nut adapted to engage the pawl or pawls on the washer to prevent movement except in a locking direction, a cap or collar adapted to fit over said nut having a greater depth than the thickness of the nut and being non-rotatable thereon, said cap or collar being adapted to bear upon the radial wings of the washer pawls, and an outer nut corresponding in size and shape to said cap or collar adapted to press same inwardly to disengage the pawl or pawls from the ratchet teeth to permit the removal of the locked nut from the bolt, substantially as described.

1,143,128. COMBINATION BATH-ROOM FIXTURE. ROLLA O. MILLS, Redondo, Wash. Filed July 29, 1912, Serial No. 712,203. Renewed Nov. 7, 1914. Serial No. 870,983. (Cl. 4—24.)

1. A toilet or bath room fixture comprising a bath tub having the upper portion of its walls at each side of and adjacent one corner recessed inward to form a seat recess extending substantially half way across the tub end, and a closet bowl within the outlines of and beneath said recess having its inner walls combined with the walls of the tub.

2. A toilet or bath room fixture comprising a bath tub having the upper portion of its walls at each side of and

adjacent one corner recessed inward to form a seat recess extending substantially half way across the tub end, a closet bowl beneath said recess and having its inner walls combined with the walls of the tub and a wash bowl located above the tub and extending over the recess between said seat recess and the opposite side wall of the tub.



3. A toilet or bath room fixture comprising a bath tub having the upper part of its walls at each side of and adjacent one corner recessed inward to form a seat recess extending substantially half way across the tub end, a closet bowl beneath said recess and having its walls combined with those of the tub, a wash bowl located over and extending across the space between said closet bowl and the opposite side wall of the tub a water supply connection adapted to discharge into the wash bowl, and means for discharging the water from the wash bowl optionally into either the closet bowl or into the bath tub.

4. A toilet or bath room fixture comprising a bath tub having the upper portion of its walls at each side of and adjacent one corner recessed inward to form a seat recess extending substantially half way across the tub end, a closet bowl formed integrally with the tub and occupying the space beneath said recess, a wash bowl located at an elevation above that of the closet bowl and extending across the space between said closet bowl and the opposite side of the tub, means for discharging water into said wash bowl, and means for discharging water from said wash bowl optionally into either the closet bowl or into the bath tub.

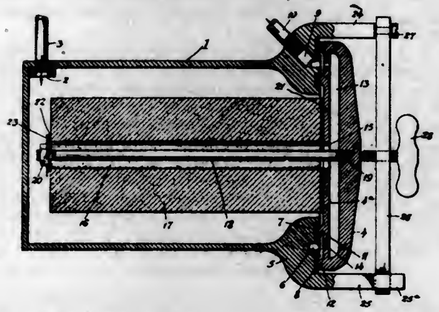
5. A toilet or bath room fixture comprising a bath tub having the upper portion of its walls at each side of and adjacent one corner recessed inward to form a seat recess, extending substantially half way across the tub end, a closet bowl within the space beneath said recess, said closet bowl being combined with the walls of the bath tub to form a continuous wall for the latter, a wash bowl located above the bath tub and extending across the space between the closet bowl and the opposite side wall of the bath tub, means for discharging the water from the wash bowl into the closet bowl, and a back or partition between said bowls and the tub and extending to a higher level than the wash bowl.

[Claim 6 not printed in the Gazette.]

1,143,129. WATER-FILTER. THEODORE H. MULCH and BALTHASER H. THEODORE MULCH, New York, N. Y. Filed May 29, 1913. Serial No. 770,603. (Cl. 210—11.)

1. In a water filter, the combination of an open ended casing provided with inlet and outlet openings, the open end of said casing being provided with an annular channel communicating with said outlet opening, annular gaskets on each side of said annular channel, a head for closing the open end of said casing provided with annular ribs adapted to coöperate with said gaskets to complete said annular channel said head being provided with an interior channel communicating with said annular channel, a hollow filter stone having communication with the channel in said head, means for securing the filter stone to said head and means for removably securing said head to said casing.

2. In a water filter, the combination of an open ended casing having a thickened edge at the open end provided with an annular channel, an inlet pipe connected near the bottom of the casing, an outlet pipe connected with the upper thickened edge and adapted to communicate with said annular channel, annular gaskets on each side of said channel, a cover for said casing provided with annular ribs adapted to coöperate with said gaskets said cover being provided with a cavity communicating with the channel between said annular ribs and a filter stone provided with a central opening communicating with the cavity in said cover whereby the interior of said stone is in communication with said outlet pipe.



3. In a water filter, the combination of an open ended casing having a thickened edge at the open end provided with an annular channel, an inlet pipe connected near the bottom of the casing, an outlet pipe connected with the upper thickened edge and adapted to communicate with said annular channel, annular gaskets on each side of said channel, a cover for said casing provided with annular ribs adapted to coöperate with said gaskets said cover being provided with a cavity communicating with the channel between said annular ribs, a filter stone provided with a central opening communicating with the cavity in said cover whereby the interior of said stone is in communication with said outlet pipe, means for securing the stone to said cover and means for securing the cover to said casing.

1,143,130. PAINT AND VARNISH REMOVER. AUGUST E. NIENSTADT, Bensonhurst, N. Y., assignor to Specification Soap & Oil Co., Inc., New York, N. Y., a Corporation of New York. Filed Sept. 25, 1914. Serial No. 863,462. (Cl. 87—5.)

1. A paint and varnish remover constituent ingredients of which are absolute methyl alcohol, acetone, benzene, some weak aqueous ammonium solution, some castor-oil, and a thickening vehicle adapted to produce a semi-liquid, creamy composition.

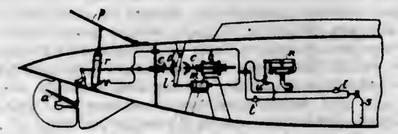
2. A paint and varnish remover constituent ingredients of which are absolute methyl alcohol, acetone, benzene, some weak aqueous ammonium solution, and some castor-oil, naphthalene and ammonium stearate as a thickening vehicle for the active solvents.

3. A paint and varnish remover constituent ingredients of which are about 7½ parts of absolute methyl alcohol, about 7½ parts of acetone, about 15 parts of benzene, about 2 parts of castor oil, about 2 parts of aqueous ammonium of 26° B., about 4 parts of naphthalene, and 8 parts of ammonium stearate.

1,143,131. SAFETY DEVICE FOR SUBMARINE OR SUBMERSIBLE BOATS. EDWARD LASIUS PEACOCK, Wallsend-upon-Tyne, England. Filed Mar. 20, 1915. Serial No. 15,837. (Cl. 114—16.)

1. In a submarine or submersible boat dynamical means for controlling the depth of submergence in combination with means for operating said dynamical means and means for disconnecting the said operating means from the depth controlling means.

2. In a submarine or submersible boat a plurality of dynamical means for controlling the depth of submergence, in combination with means for opening said dynamical means and means for disconnecting one of the said operating means from one of the depth controlling means simultaneously operating another of the means for controlling the depth of submergence.

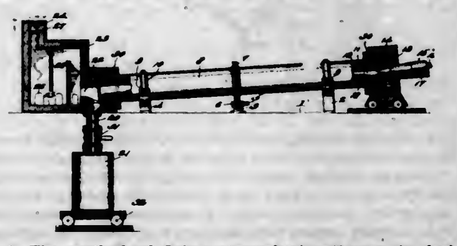


3. In a submarine or submersible boat a plane pivotally connected to the boat, controlling means for altering the inclination of said plane said controlling means comprising a shaft and means for operating said shaft said shaft disposed between the said inclined plane and the operating means, a coupling in said shaft, means for uncoupling said coupling, means for operating that portion of the shaft between the coupling and the plane after the coupling has been uncoupled.

4. In a submarine or submersible boat a plane pivotally connected to the boat, controlling means for altering the inclination of said plane said controlling means comprising a shaft and means for operating said shaft, said shaft disposed between the said inclined plane and the operating means, a coupling in said shaft, means for uncoupling said coupling, means for operating that portion of the shaft between the coupling and the plane after the coupling has been uncoupled, a plane above the boat to cause the boat to lessen its depth of submergence and means for altering the inclination of said plane.

5. In a submarine or submersible boat a plane pivotally connected to the boat, controlling means for altering the inclination of said plane, said controlling means comprising a shaft and means for operating said shaft said shaft disposed between the said inclined plane and the operating means, a coupling in said shaft, means for uncoupling said coupling, means for operating that portion of the shaft between the coupling and the plane after the coupling has been uncoupled, a second plane carried by the boat to cause the boat to rise and automatic means for altering the inclination of said second plane when a predetermined depth has been attained.

1,143,132. PROCESS OF FIXING ATMOSPHERIC NITROGEN. SAMUEL PEACOCK, Chicago, Ill., assignor, by mesne assignments, to Agricultural Research Corporation, New York, N. Y., a Corporation of New York. Filed Nov. 5, 1912. Serial No. 729,605. (Cl. 23—13.)

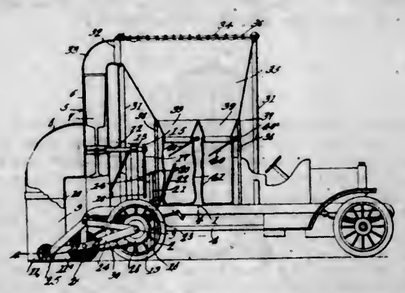


1. The method of fixing atmospheric nitrogen in fuel fed furnaces, which consists in providing a suitable furnace charge of carbon and an oxid, the carbon being in such excess as to preclude the formation of carbon dioxid during the process; and feeding free nitrogen, air and fuel to said furnace and thereby subjecting said charge to a temperature sufficient to fix the said free nitrogen, as well as some of the nitrogen left in said air after the oxygen has been consumed, substantially as described.

2. A process for the fixation of nitrogen which consists in forming a mixture of a compound of one of the nitrogen fixing metals and carbon; causing the same to travel through a closed chamber; simultaneously burning in said chamber a carbonaceous fuel injected with air; and leading the products of combustion to their exit in the same direction of travel as and in contact with the said mixture.

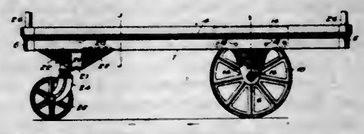
3. A process for the fixation of nitrogen which consists in forming a mixture of a compound on one of the nitrogen fixing metals and carbon; feeding the same into one end of a rotary furnace through which it is caused to travel; injecting and burning in the same end of the furnace air and a carbonaceous fuel; and leading the products of combustion to the exit end of the furnace in contact with the said mixture.

1,143,133. STREET-CLEANER. WILLIAM R. PERRY, Hazleton, Pa. Filed Feb. 4, 1915. Serial No. 6,142. (Cl. 15—17.)



In a street cleaner, a vehicle including a driving axle, and wheels secured thereto, a blower carried by the vehicle and having a depending intake pipe, dirt collecting means carried by the vehicle and connected to the outlet of the blower, a nozzle telescopically engaged to the lower end of the said intake pipe, supporting wheels journaled to the nozzle, links engaged to the said axle and supporting wheels, a rotary brush having a shaft journaled to the said links, and means operatively connecting the brush shaft and said axle.

1,143,134. PLATFORM-TRUCK. EDWIN L. PETERSON, Pittsburgh, Pa., assignor to Pressed Steel Truck Company, Pittsburgh, Pa., a Corporation of West Virginia. Filed Jan. 29, 1915. Serial No. 4,974. (Cl. 21—65.)



1. In a wheeled truck the combination with side and end sills uniformly recessed upon their inner edges and bearing upon their outer edges a projecting guard rib, of means for joining the ends of said sills to form a truck-frame, and a platform crossing said frame and secured in the recesses aforesaid.

2. In a wheeled truck the combination with tubular side and end sills, of hollow corner couplings inserted in the ends of said sills to form a truck frame, tubular rivet-ways bisecting said couplings, rivets in said rivet-ways for securing the sills and couplings in fixed relation, and a platform supported by said sills.

3. In a wheeled truck the combination with hollow side and end sills constituting a truck-frame, of a platform supported by said sills, wheel lugs depending from and secured between the walls of each side sill, an axle mounted in said lugs, and wheels journaled upon said axle.

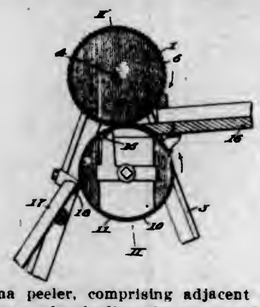
4. In a wheeled truck the combination with hollow side and end sills constituting a truck frame, of a platform supported by said sills, oppositely disposed bifurcated wheel lugs depending from and secured between the walls of each side sill, an axle mounted in said wheel lugs, and

a wheel journaled upon said axle between each pair of said bifurcated wheel lugs.

5. In a wheeled truck the combination with hollow side and end sills connected to form a rectangular truck-frame, of a platform supported by said sills, oppositely disposed dual wheel lugs depending from and secured between the walls of each side sill, a primary truck wheel mounted in each of said dual lugs, a hollow bolster crossing the frame transversely, and secondary wheels mounted upon said bolster.

[Claims 6 to 8 not printed in the Gazette.]

1,143,135. BANANA-PEELER AND METHOD OF PEELING BANANAS. WILLIAM L. RATHBUN, New York, N. Y., assignor to Panama Banana Food Company, New York, N. Y., a Corporation of New York. Filed Oct. 6, 1913. Serial No. 793,667. (Cl. 146—14.)

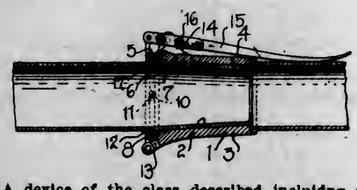


1. A banana peeler, comprising adjacent movable elements and means for feeding the cut or sliced fruit between said elements, one of said elements having an area presenting apertures separated only by cutting edges, the other of said elements constructed and arranged to force the flesh of the fruit against and past said cutting edges, in combination with means located on the opposite side of said apertured area for removing the flesh therefrom.

2. A banana peeler, comprising adjacent drums, means for rotating said drums, and for feeding the cut or sliced fruit between them, one of said drums having an area presenting apertures separated only by cutting edges, the other of said drums constructed and arranged to force the flesh of the fruit against and past said cutting edges, in combination with means located on the opposite side of said apertured area for removing the flesh therefrom.

3. A method of peeling bananas, consisting in slicing the fruit to expose the flesh, forcing the flesh while still attached to the skin against and past cutting edges from one side thereof, and removing the said flesh from the skin from the other side of said cutting edges.

1,143,136. HOSE-COUPLING. ALBERT RELITZ, Retah, Mont. Filed June 24, 1914. Serial No. 847,089. (Cl. 137—28.)



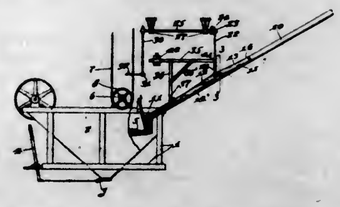
1. A device of the class described including a female section having a funnel-shaped mouth portion provided at its outer end with opposed recesses, a male member having a cone-shaped end adapted to be inserted within the funnel-shaped mouth, opposed lugs formed on said male member adapted to be arranged within said recesses, and movable means carried by the female section adapted for engagement with the lugs to retain the sections in their locked positions.

2. A device of the class described including a female member having a funnel-shaped mouth, an annular shoulder formed therein, said mouth being further provided with a recess contiguous with the shoulder, said mouth having opposed recesses formed in the outer end thereof, a male member, opposed lugs formed on said male member and adapted to be disposed within said recesses, an oval-shaped retaining member pivotally mounted upon the outer end of the female member adapted for engagement with said lugs to retain the sections in their effective position, and means whereby to actuate said retaining member to secure the same in its locked position.

3. A device of the class described including a female member having a funnel-shaped mouth portion and provided with opposed recesses at its outer end, an annular shoulder formed within said mouth portion, a retaining rib formed at the outer end of the mouth portion and providing a recess between the shoulder and rib, a male member adapted for insertion within the funnel-shaped mouth portion, an annular flange, a washer mounted upon the end of the male member and adapted to be arranged within the recess, opposed lugs carried by the male member and adapted for insertion within the recess to prevent turning movement of the sections, an oval-shaped retaining member having one end pivotally connected to the funnel-shaped mouth portion, an actuating lever pivotally connected to the opposite side of the funnel-shaped mouth portion, and link members pivotally connecting the outer end of the retaining member with the lever, whereby said retaining member will be manually forced against the lugs to retain the same within the recesses and prevent rotary or longitudinal movement of the coupling sections.

4. A device of the class described including a female section having a mouth portion provided at its outer end with recesses, a male member adapted to be inserted within the mouth, lugs formed on said male member adapted to be arranged within said recesses, and movable means carried by the female section adapted for engagement with the lugs to retain the sections in their locked position.

1,143,137. AUTOMATIC MEANS FOR CONTROLLING THE OPERATION OF JIGS. WILLIAM A. REUTELHUBER, Wilkes-Barre, Pa. Filed Oct. 6, 1914. Serial No. 865,240. (Cl. 83—58.)



1. In a jig having a chute for delivering material thereto the combination of a tripping means situated in said chute and pivoted thereto and adapted to be actuated by material in said chute as it travels to said jig, driving means for operating said jig, and means intermediate said tripping means and said driving means for shifting the latter into and out of operative position.

2. In a jig having a chute for delivering material thereto an articulated member situated in said chute and having pivotal connection at its upper end to said chute and its lower end having movable relation to the said chute, driving means for operating the said jig and automatically operating means having connection with the intermediate portion of said articulated means for throwing the said driving means into and out of operation.

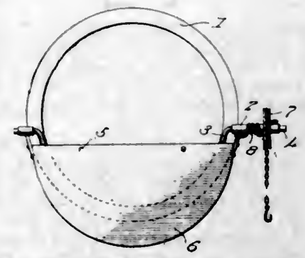
3. In a jig for separating materials of different specific gravities having a chute for delivering the material thereto, driving means for operating the said jig, means for holding the said driving means normally out of operation and means adapted to be actuated by the weight of material as it travels down the said chute to the said jig for operating the second-named means to throw the said driving means into operative position.

4. In a jig for separating materials of different specific gravities having a chute for delivering material thereto, the combination of driving means for operating the said jig, means including a weight for holding the said driving means normally inoperative position, and means actuated by the weight of the material in the said chute for shifting the second-named means into position to move the said driving means into operative position.

5. In a jig for separating materials of different specific gravities having a chute for delivering material thereto, the combination of driving means for operating the said jig, means for normally holding the said driving means in inoperative position, plates situated in the said chute and having adjacent ends pivoted to each other, the lower end of the upper plate overlapping the upper end of the lower plate and the upper end of the upper plate being pivoted to the said chute while the lower end of the lower late rests slidably upon the bottom of the said chute, and means for connecting the second-named means with the said plates whereby the weight of material traveling down the said chute to the said jig causes the said second means to operate to move the said driving means into operative position.

[Claims 6 to 11 not printed in the Gazette.]

1,143,138. AUTO LAMP-SHADE. WILLIAM O. REUTER, Peru, Ind. Filed Dec. 9, 1914. Serial No. 876,334. (Cl. 240—45.)



1. In combination with a lamp, of a rod pivoted thereon, a shutter rigidly carried on said rod and adapted to mask either the upper or lower portion of said lamp, means to move said shutter to its uppermost position whereby approximately half of the entire face of the lamp is covered, and when the same is reversed, more than half of the entire face of the lamp is covered, and when the same is reversed, more than half of the entire face of the lamp will be exposed as and for the purpose set forth and described.

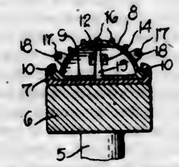
2. In combination with a lamp, of a rod pivoted thereto and extending transversely thereof, said rod being substantially U-shaped, a shutter fixed on said rod, and means for rocking said U-shaped rod whereby said shutter may be used to mask either the upper or lower portion of said lamp as and for the purpose set forth and described.

3. In combination with a lamp, of a rod pivoted thereto and extending transversely thereof, said rod being substantially U-shaped, a semi-circular shutter fixed on said rod and normally covering the portion of the lower face of said lamp, and means for rocking said rod whereby said shutter may be used to mask the upper portion of the face of said lamp substantially as described.

4. In combination with a lamp, of a rod pivoted thereto and extending transversely thereof, said rod being bent intermediate its extremities, a shutter fixed upon the bent portion of said rod and normally covering the lower portion of the face of said lamp, and means for rocking said rod whereby said shutter may be used to mask the upper portion of the face of said lamp substantially as described.

5. In combination with a lamp, brackets carried on said lamp, a rod supported by said brackets and extending transversely of said lamp, said rod being bent intermediate its extremities to form a portion off-set from the plane of alinement of said brackets, a shutter rigidly secured to said off-set portion of said rod, cushion means fastened to the inner face of said shutter and spaced from the edges thereof for normally engaging said lamp, and means to rock said rod to move said shutter to a position whereby it will cover the upper portion of said lamp independent of the lower portion thereof.

1,143,139. WHEEL-TIRE. ISAAC H. RILEY, Osceola, Iowa. Filed Feb. 24, 1915. Serial No. 10,260. (Cl. 21—155.)

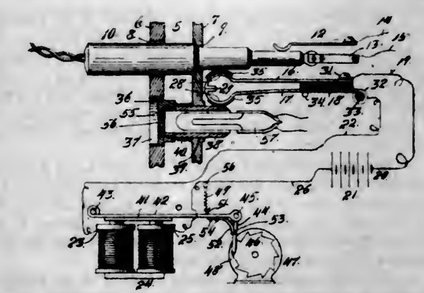


1. A wheel tire including two hollow sheet metal sections each having a longitudinally split base wall and split end walls, whereby the opposite sides of the tire section may be compressed and fitted upon the rim of a wheel, and means for connecting the tire sections at their opposed ends and positively holding the same against relative movement.

2. A wheel tire including two hollow metallic sections each having a body wall and a base wall, and end walls integrally connecting the body wall and base walls at their opposite ends, said base wall and the end walls being longitudinally split whereby the opposite sides of the tire sections may be compressed and the same fitted upon a wheel rim, each of said tire sections being provided upon its split end walls with a mortise and tenon, respectively, and adapted for fitting engagement with the mortise and the tenon on the opposed ends of the other tire section.

3. A wheel tire including two hollow metallic sections each having a body wall and a base wall, end walls integrally connecting the body wall and base walls at their opposite ends, said base wall and the end walls being longitudinally split whereby the opposite sides of the tire sections may be compressed and the same fitted upon a wheel rim, each of said tire sections being provided upon its split end walls with a mortise and tenon, respectively, and adapted for fitting engagement with the mortise and the tenon on the opposed ends of the other tire section, and means for positively connecting said tire sections at their opposed ends and holding the same in assembled relation upon the wheel rim.

1,143,140. TELEPHONE-CALL REGISTER. JAY A. ROBINSON, Denver, Colo., assignor of one-fourth to Alfred J. O'Brien and one-fourth to Solon J. Boughton, Denver, Colo. Filed May 26, 1913. Serial No. 769,784. (Cl. 179—12.)



1. In combination, a capless call signal lamp, a counter register, means for actuating the latter, including a push-button arranged in the place of the cap of the signal lamp, and performing the function of the said cap.

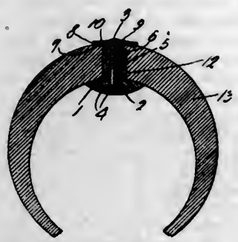
2. In combination, a signal lamp, a telephone call counting register, and means for actuating the same including a signal lamp cap movably mounted and equipped with a sleeve arranged to surround said lamp.

3. In telephone apparatus, a signal lamp, a call counting register, means for actuating the register including a signal lamp cap movably mounted, and equipped with a sleeve surrounding the lamp, and a socket plug, said means being operable only when the plug is set in its socket.

4. In telephone apparatus, a switch-board having a push-button and a plug socket arranged in close proximity to each other, a plug for said socket, a call counting register and means for actuating said register including an element arranged to be operated by the insertion of the plug and a second element arranged to be operated by the pressing of the button, both of said elements adapted to engage each other during said operation and this operation being necessary to the actuation of the register.

5. In telephone apparatus, a switch-board having a push button and a plug socket arranged in close proximity to each other, a plug for said socket, a call counting register, means for actuating said register including an element arranged to be operated by the insertion of the plug and a second element arranged to be operated by the pressing of the button, both of said elements adapted to engage each other during said operation and this operation being necessary to the actuation of the register and means upon said second element for retaining the push button in its actuated position until the plug has been removed.

1,143,141. TIRE-PLUG. LLOYD V. ROOD, Marietta, Ohio. Filed June 17, 1914. Serial No. 845,668. (Cl. 152—26.)



1. A tire plug including a closer adapted to fit against the inside of a tire and having a stem to pass through an opening in the tire, and a compressible gasket of smaller cross sectional area than the closer adapted to be slipped onto the said stem and held against the closer to fit within the said opening.

2. A tire plug including a closer adapted to fit against the inside of a tire and having a stem to pass through an opening in the tire, a compressible gasket of smaller cross sectional area than the closer adapted to be slipped onto the said stem to fit within the said opening, and means carried by the stem for holding the gasket against the closer.

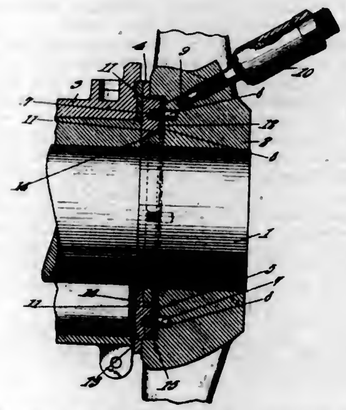
3. A tire plug including a closer adapted to fit against the inside of a tire and having a stem to pass through an opening in the tire, a tubular compressible gasket adapted to be slipped onto the stem, the gasket being of a cross sectional area smaller than that of the closer, and means carried by the stem for bearing against the outer end of the gasket to hold the gasket in compressed condition against the closer.

4. A tire plug including a closer adapted to fit against the inside of a tire and having a stem to pass through an opening in the tire, and a compressible gasket adapted to be slipped onto the said stem into the said opening to be held against the closer and having a flange to overlap and seat against the outside of the tire.

5. A tire plug including a closer adapted to fit against the inside of a tire and having a stem to pass through an opening in the tire, a compressible gasket adapted to be slipped onto the said stem into the said opening and having a flange to overlap and seat against the outside of the tire, and means carried by the said stem and coöperable with the gasket for holding the gasket in place upon the stem.

[Claim 6 not printed in the Gazette.]

1,143,142. PACKING DEVICE FOR HUB-PLATES. ALBERT J. SAMS, Fort Scott, Kans., assignor to Smith Locomotive Adjustable Hub Plate Company, Pittsburg, Kans. Filed Nov. 13, 1914. Serial No. 871,962. (Cl. 105—146.)



1. In a device of the character described, a hub having an annular recess, an annular hub plate fitting within the said recess, an annular gasket disposed in the recess between the bottom thereof and the hub plate, and a packing ring disposed between the gasket and hub plate to contact with one wall of the recess.

2. In a device of the character described, a hub having an annular recess, an annular hub plate fitting within the said recess, an annular gasket disposed in the recess between the bottom thereof and the hub plate, and packing rings disposed between the gasket and hub plate and contacting with the circular walls of the said recess.

3. In a device of the character described, a hub having an annular recess, an annular hub plate fitting within the said recess, an annular gasket disposed in the recess between the bottom thereof and the hub plate, and a resilient packing ring disposed between the gasket and hub plate and contacting with one wall of the recess, one of the second and third mentioned parts being provided with means for forcing the packing ring against the said wall of the recess when the gasket is pressed toward the hub plate.

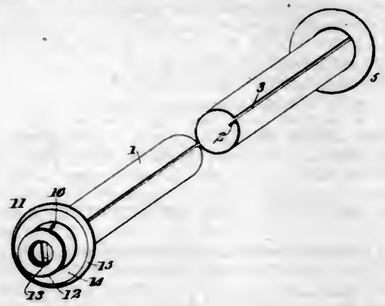
4. In a device of the character described, a hub having an annular recess, an annular hub plate fitting within the said recess, an annular gasket disposed in the recess between the bottom thereof and the hub plate, a resilient packing ring disposed between the gasket and hub plate and contacting with one wall of the recess, and one of the second and third mentioned parts having a beveled portion for the contact of the packing ring when the gasket is pressed toward the hub plate and thus to force the packing ring against the said wall of the recess.

5. In a device of the character described, a hub having an annular recess, an annular hub plate fitting within the said recess and having beveled portions, an annular gasket fitted within the said recess, and resilient packing rings arranged between the said beveled portions and the gasket to contact with the circular walls of the recess when the gasket is pressed toward the hub plate.

1,143,143. SPOOL FOR MUSIC-ROLLS. CHARLES T. SCHOEN, Media, Pa. Filed Nov. 14, 1914. Serial No. 872,136. (Cl. 242—69.)

1. A spool for music rolls, comprising a continuous single piece resilient barrel, and heads applied to opposite

ends thereof to turn with it, and means to permit movement of one of the heads on the barrel in the direction of the length of the barrel, the resiliency of the barrel admitting of the ready application of the heads thereto without additional fitting.



2. A spool for music rolls, comprising a sheet metal barrel having one side open from end to end, a hubbed head fixed to one end of the barrel, and a hubbed head movably connected with the other end of said barrel, the barrel yielding transversely to engage the hubs and thereby compensating for any variation in diameter between the hubs and barrel.

3. A spool for music rolls, comprising a sheet metal barrel having one side open from end to end, a hubbed head fixed to one end of the barrel, said barrel having longitudinal slots in its opposite end, and a hubbed head applied to the slotted end of the barrel and engaging the slots therein, the barrel yielding transversely to engage the hubs and thereby compensating for any variation in diameter between the hubs and barrel.

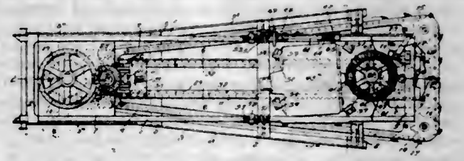
4. A spool for music rolls, comprising a sheet metal barrel of tubular form, provided with an interior stiffening flange extending throughout its length, having one side open so as to render the barrel more or less springy, and one end slotted, a hubbed head having one end of the barrel extending within its hub and the two rigidly connected by interlocking the hub and barrel, and a second and similar hubbed head having the other end of the barrel connected therewith in a manner permitting the movement of the head in the direction of the length of the barrel, and compelling rotation therewith, the springiness of the barrel compensating for any inequalities in the fit of the hubbed heads on the barrel.

5. A spool for music rolls, comprising a sheet metal barrel of tubular form, provided with an interior stiffening flange extending throughout its length, having one side open so as to render the barrel more or less springy, and one end slotted, a pressed steel fixed head having a hub interlocked with the barrel, and a similar pressed steel head having a hub engaged with the barrel to turn with it and to move thereon in the direction of its length, the springiness of the barrel admitting of the ready application of the heads therto without additional fitting.

1,143,144. MINING-MACHINE. FRANK L. SESSIONS, Columbus, Ohio, assignor to The Jeffrey Manufacturing Company, a Corporation of Ohio. Filed Feb. 16, 1909. Serial No. 478,201. (Cl. 125—14.)

1. In a mining machine, the combination of a bed frame, a carriage movable forward and back thereon, cutters mounted on the said carriage, a motor, and a train of power transmitting elements connecting said motor to the cutters, one of said train of elements being mounted on the bed frame, another on the carriage and one of said elements being arranged both to transmit power to the said cutters and to move the carriage along the bed frame.

2. In a mining machine, the combination of a bed frame, a carriage movable forward and back thereon, a power actuated driving member mounted on one of said parts, an endless chain operatively mounted on the other of said parts and arranged to operate both as a carriage feeding element and as a cutter actuating element, and cutters actuated by said chain.



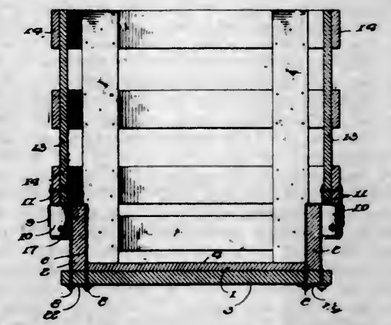
3. In a mining machine, the combination of a bed frame, a carriage movable forward and back thereon, a cutting apparatus mounted on said carriage, a motor, an endless chain mounted on said carriage and arranged to operate both as a carriage feeding element and as a power transmitting element, power transmitting devices interposed between said endless chain and said motor, and power transmitting devices interposed between said endless chain and said cutting apparatus.

4. In a mining machine, the combination of the bed-frame, the endless chain carrying cutters, the endless chain for advancing the cutters bodily along the bed, and means connecting the two chains for transmitting the power from the latter to the former, substantially as set forth.

5. In a mining machine, the combination of the bed-frame, the carriage, the cutting apparatus on the carriage, a power wheel on the bed frame, a carriage moving mechanism on the carriage, actuated by the said power wheel, and means connecting the cutting apparatus to the carriage-moving mechanism, substantially as set forth.

[Claims 6 to 35 not printed in the Gazette.]

1,143,145. FIXTURE FOR COMBINATION HAY AND HOG RACKS. RAY W. SHELDON, White City, Kans. Filed Mar. 26, 1912. Serial No. 686,339. (Cl. 21—74.)

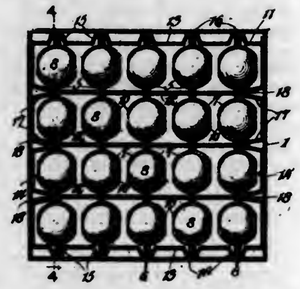


A securing device for connecting a rack to the body of a vehicle comprising a socket member provided with a plurality of depending bolt portions, nuts threaded upon the lower ends of said bolt portions for connecting said socket member to said body, said socket member provided with a pair of substantially semi-circular jaws abutting at their adjacent ends and being formed of sheet metal, a finger adapted to fit in said socket, said finger comprising a pair of oppositely disposed parallel upwardly extending ears, a pair of oppositely disposed ears extending laterally of said finger and adapted to engage the under face of a rack, the upwardly extending ears of said finger adapted to engage the sides of the rack, and said ears adapted to receive securing means for facilitating the attaching of said finger to said rack.

1,143,146. EGG-CASE. JOHN M. SHELTON, Oklahoma, Okla., assignor to The Jno. M. Shelton Egg Carrier Company, a Corporation of Oklahoma. Filed Sept. 20, 1912, Serial No. 721,461. Renewed Feb. 27, 1915. Serial No. 11,027. (Cl. 217—27.)

1. A device of the class described including vertical egg carriers or holders, each composed of two sheets of thin

material fitted flat against each other and provided with coinciding cavities fitting together and forming egg cells conforming to the configuration of an egg and arranged to support the eggs in a vertical position with their points at the bottom, and means for supporting the egg holders in a vertical position upon their lower edges, said means including a receptacle provided at opposite sides with spaced vertical guides arranged at intervals and receiving the vertical edges of the egg holders, and removable means separate from the egg holders for spacing the latter between the guides, said removable means being held in position by the egg cells.



2. A device of the class described comprising vertical egg carriers or holders, each composed of two sheets of thin material fitted flat against each other and provided with coinciding cavities fitting together and forming egg cells conforming to the configuration of an egg and arranged to support the eggs in a vertical position with their points at the bottom, and means for supporting the egg holders in a vertical position upon their lower edges, said means including a receptacle, a lining of thin material arranged within the receptacle and creased or bent to form opposite vertical guides, which receive the vertical side edges of the egg holders, and means located at intervals between the guides and held in position by the egg cells for spacing the egg holders or carriers.

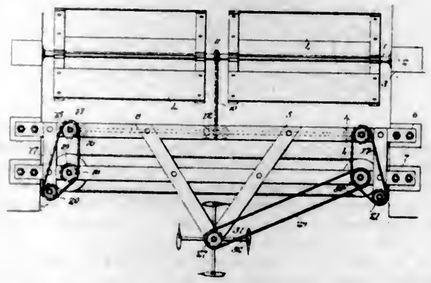
3. A device of the class described comprising vertical egg carriers or holders, each composed of two sheets of thin material fitted flat against each other and provided with coinciding cavities fitting together and forming egg cells conforming to the configuration of an egg and arranged to support the eggs in a vertical position with their points at the bottom, and means for supporting the egg holders in a vertical position upon their lower edges, said means including a receptacle provided with a lining of thin material having opposite guide grooves formed by outwardly extending crimps or bends and receiving slidably the vertical side edges of the said egg holders.

4. A device of the class described including egg holders composed of two sheets of thin material fitted flat against each other and provided with coinciding cavities fitting together and forming egg cells conforming to the configuration of an egg and arranged to support the eggs in a vertical position with their points at the bottom, said egg cells being arranged in spaced vertical rows, and means for supporting the egg holders in a vertical position upon their lower edges, said means comprising a receptacle having a lining of thin material bent or creased to form inwardly extending bracing ribs arranged at intervals at opposite sides of the receptacle and fitting against the adjacent egg holders between the vertical rows of the egg cells, said lining being also provided at the other sides of the receptacle with grooves receiving the vertical side edges of the egg holders.

5. A device of the class described including egg holders composed of two sheets of thin material fitted flat against each other and provided with coinciding cavities fitting together and forming egg cells conforming to the configuration of an egg and arranged to support the eggs in a vertical position with their points at the bottom, said egg cells being arranged in spaced vertical rows, and means for supporting the egg holders in a vertical position upon their lower edges, said means comprising a receptacle having a lining of thin material bent or creased to form inwardly extending bracing ribs arranged at intervals at opposite sides of the receptacle and fitting against the adjacent egg holders between the vertical rows of the egg cells, and vertical spacing strips arranged in the plane of the said ribs and interposed between the egg holders and slidably fitted between the vertical rows of egg cells and retained in place by the latter.

[Claim 6 not printed in the Gazette.]

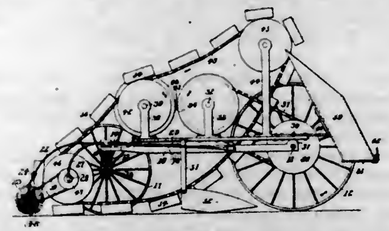
1,143,147. FISH-SCREEN. RILEY A. SHERWOOD, Billings, Mont. Filed Apr. 21, 1914. Serial No. 833,509. (Cl. 61—5.)



1. In a fish screen, a revolving screen member operating transversely of the water-way within which the screen is arranged, a rotary brush member operating against one face of the screen, a driven element, a single element engaging the driven element, said single element operating to rotate the screen and the rotary brush in opposite directions, and a rotary device operating in advance of the screen to scare approaching fish away, said device being operable by said driven element, as and for the purpose set forth.

2. In a fish screen, a frame, a pair of shafts journaled within said frame, one shaft being disposed adjacent each of the respective banks of said stream, a drum upon each shaft, an endless screen member operating over said drums to form a barrier across the said screen, revolving brush members operating to clean said screen, a rotary member disposed forwardly of the said screen and beneath the water line of the stream, a water wheel, and means connecting said water wheel with the drums, the brush members and the rotary member for rotating the latter according to the rotation of said wheel.

1,143,148. STREET-SWEEPER. DANIEL SILLO, Aurora, Ill., assignor of one-half to Jacob Salamon, Aurora, Ill. Filed Oct. 1, 1914. Serial No. 864,445. (Cl. 15—17.)



1. A street sweeper comprising a main frame, a receptacle on said frame, traction wheels upon which said frame is mounted, forwardly projecting curved spring brackets secured to said frame, converging brushes rotatably mounted at the lower ends of said brackets, supporting rods carried by said frame, a shaft journaled in the forward free ends of said rods, pulleys and a sprocket wheel upon said shaft, operative connections between said pulleys and brushes, a platform connected at one end to said frame, pulleys mounted upon said platform, a crossed belt between said last named pulleys, operating means between one of said last named pulleys and one of said traction wheels, and a sprocket chain conveyer operatively connected to the other of said pulleys and running over said sprocket wheel and extending from the brushes to the receptacle.

2. A sweeper comprising a main frame, rear traction wheels for said frame, forwardly positioned brushes carried by said frame, a shaft carried by said frame, operating means between said shaft and brushes, a platform spaced above said frame and secured thereto at its rear end, operatively connected pulleys upon said platform, operative connections between the rear one of said pulleys and said traction wheels, and operative connections between the forward one of said pulleys and the said shaft.

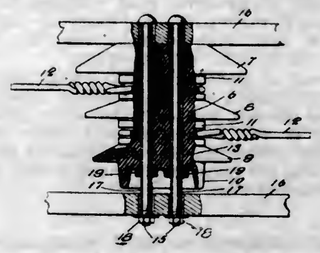
3. A sweeper comprising a main frame, a rear axle journaled through said frame, a platform pinned to said frame at the rear end thereof and above the said axle, journaled brushes hingedly carried by said frame and positioned forwardly thereof, shafts journaled upon said platform, direction reversing operative connections between the said shafts, operative connections between one of said shafts and said axle, and operative connections between the other one of said shafts and the said brushes.

4. A device of the class described, comprising forward and rearward axles, a frame upon the rear end of which said rear axle is journaled and having its forward end pivoted to said forward axle, a platform spaced above said frame and having longitudinal grooves on its under surface, connecting means between the rear ends of said frame and platform, a bar arranged above said forward axle and engaging the forward end of said frame, resilient brush mounting brackets projecting forwardly of said forward axle and secured to the said bar and adapted to be received in said grooves to provide a support for the platform, rotary brushes carried by said brackets, supporting rods secured to the frame and bar, with the forward ends projecting beyond the bar and positioned outwardly of said brackets, an operating shaft carried by said supporting rods, and operative connections between the operating shaft and brushes.

5. In combination with a frame, brackets secured thereto, supports having pivotal connection at one end thereof with the lower ends of said brackets, brushes journaled in said supports, and jointed connecting strips pivotally attached between the said supports and brackets.

[Claims 6 and 7 not printed in the Gazette.]

1,143,149. INSULATOR. LOUIS STEINBERGER, Brooklyn, N. Y. Original application filed Feb. 10, 1912, Serial No. 676,879. Divided and this application filed Jan. 3, 1913. Serial No. 739,987. (Cl. 173—318.)



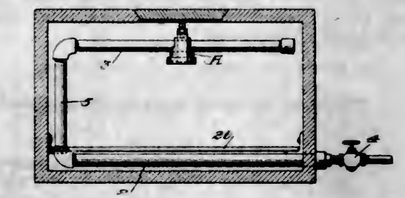
1. An insulator comprising a body of insulating material having means for attaching a member thereto, said member being adapted for exerting a strain transverse to the length of the body, said body having a plurality of apertures extending longitudinally therethrough spaced apart in the line of strain from said member, attaching members extending through said apertures, said attaching members being loose in said apertures so that said body is free to move along said attaching members, means at the ends of said attaching members for connecting said attaching members to a support, and adjustable means on said attaching members intermediate their length engaging an outer surface portion of the insulating body for retaining said insulator in one position on said attaching members.

2. An insulator comprising a body of insulating material having an aperture extending therethrough, an attaching member extending through said aperture, said attaching member being fixed to a support at both its ends, and being loose in said aperture so that said body is free to move along the length of said attaching member, and adjustable means for retaining the body in one position along the length of the attaching member.

3. In an insulating means, the combination with a pair of supports spaced apart, and an insulator disposed therebetween, of attaching means for attaching the insulator to said pair of spaced supports, said attaching means comprising a rod extending between and engaging said supports, a sleeve mounted upon said rod, said insulator having means engaging said sleeve to support said insulator upon said sleeve, said means permitting free movement of said insulator longitudinally of said sleeve, and a part adjustable upon the sleeve engaging the insulator to retain the insulator in one position upon the sleeve.

4. In an insulating means, the combination with a pair of supports spaced apart, and an insulator disposed therebetween, of attaching means for attaching the insulator to said pair of spaced supports, said attaching means comprising a sleeve extending between and engaging said supports, said insulator having an aperture through which the sleeve extends to support the insulator, said sleeve being loose in said aperture so that said insulator is free to move along said sleeve, the sleeve being threaded, a nut rotatably engaging the threads of said sleeve and engaging the insulator to retain the insulator in one position along the sleeve, and a rod extending through said sleeve having heads at its opposite ends beyond the ends of the sleeve engaging the supports to retain the sleeve in engaging relation with the supports.

1,143,150. HYDROCARBON-BURNER. BRADFORD A. THOMAS, San Francisco, Cal., assignor of one-half to James Brown, San Francisco, Cal. Filed Feb. 23, 1915. Serial No. 9,861. (Cl. 158—63.)



1. A hydrocarbon burner comprising a horizontal generating tube, a concentric inner tube of smaller diameter forming with the outer tube an annular generating chamber, said inner tube having equally spaced openings through which a regulated flow is distributed from end to end of the inner tube, a burner nozzle including a vertical casing through which the generating tubes pass, said casing having a chamber below the generating tube, a passage from said tube to the casing chamber, a cap turnably mounted on the bottom of said nozzle chamber having a plurality of graduated discharge openings, and means to turn said cap to control said openings and regulate the discharge.

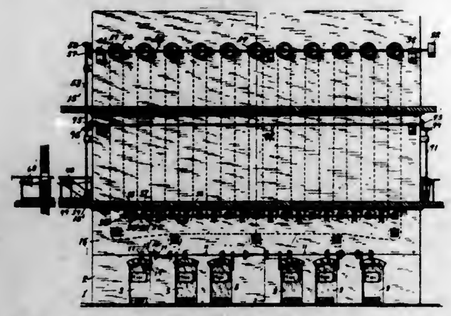
2. A hydrocarbon burner comprising a generating tube, a nozzle casing through which said tube extends, said casing having a chamber formed therein and a discharge opening, and said generating tube having an opening formed therein communicating with the chamber and discharge opening in the nozzle casing, a cap having a plurality of graduated openings formed therein mounted on the nozzle casing, a bail secured to the cap and extending

over the nozzle casing, a pivot screw extending through the bail and engaging with the nozzle casing to secure the cap on the nozzle, said screw also forming a means for turning the bail and cap to bring any one of the graduated openings in the cap into register with the discharge opening in the nozzle casing, and means for admitting oil to the generating tube.

3. A hydrocarbon burner comprising a generating tube, a nozzle casing through which said tube extends, said casing having a chamber formed therein and a discharge opening, and said generating tube having an opening formed therein communicating with the chamber and discharge opening in the nozzle casing, a cap having a plurality of graduated openings formed therein mounted on the nozzle casing, a bail secured to the cap and extending over the nozzle casing, a pivot screw extending through the bail and engaging with the nozzle casing to secure the cap on the nozzle, said screw also forming a means for turning the bail and cap to bring any one of the graduated openings in the cap into register with the discharge opening in the nozzle casing, a perforated tube interiorly of the generating tube and spaced therefrom to form an annular generating chamber, and means for admitting and regulating a flow of oil to said tube.

4. A hydrocarbon burner comprising a generating tube, a nozzle casing through which said tube extends, said casing having a chamber formed therein and a discharge opening, and said generating tube having an opening formed therein communicating with the chamber and discharge opening in the nozzle casing, a cap having a plurality of graduated openings formed therein mounted on the nozzle casing, a bail secured to the cap and extending over the nozzle casing, a pivot screw extending through the bail and engaging with the nozzle casing to secure the cap on the nozzle, said screw also forming a means for turning the bail and cap to bring any one of the graduated openings in the cap into register with the discharge opening in the nozzle casing, a perforated tube interiorly of the generating tube and spaced therefrom to form an annular generating chamber, a second generating tube mounted below the first named generating tube and connected with said tube and the perforated tube interiorly thereof, and means for admitting and regulating a flow of oil to the second generating tube.

1,143,151. OVEN. RALPH E. VALENTINE, Battle Creek, Mich., assignor to Kellogg Toasted Corn Flake Company, Battle Creek, Mich. Filed Jan. 24, 1912. Serial No. 673,215. (Cl. 107—57.)



1. In an oven apparatus, the combination of a suitable oven; a suitable endless conveyer disposed within the said oven and moving upward at the intake side and downward at the discharge side; suspended carriers thereon, the ends of each of which are connected by a suitable rod and which are provided with depending engaging portions to engage and convey a pan; a divided support with suitable rollers disposed at the intake side of said oven in the ascending path of said conveyer, one portion disposed without the said conveyer and the other portion disposed and supported within the said conveyer; feed conveyer means for delivering bake pans to the said support timed to coöperate therewith whereby said pans will be picked up by the rising carriers; and discharge devices for the said oven disposed at the discharge side in the descending part of said conveyer comprising a divided support, one portion of which is disposed without the said conveyer and the other portion of which is disposed within the same, the said parts being inclined outwardly to automatically discharge the bake pans from the descending conveyer, all coacting substantially as described and for the purpose specified.

2. In an oven apparatus, the combination of a suitable oven; a suitable endless conveyer disposed within the said oven and moving upward at the intake side and downward at the discharge side; suspended carriers thereon, the ends of each of which are connected by a suitable rod and which are provided with depending engaging portions to engage and convey a pan; and discharge devices for said oven provided with suitable pan engaging rollers, all coacting substantially as described and for the purpose specified.

3. In an oven apparatus, the combination of a suitable oven; a suitable endless conveyer disposed within the said oven and moving upward at the intake side and downward at the discharge side; suspended carriers thereon, the ends of each of which are connected by a suitable rod and which are provided with depending engaging portions to engage and convey a pan.

4. The combination with an oven of an endless conveyer made up of sprocket chains with carriers secured thereto; rods connecting said carriers driving sprocket wheels in the upper part of said oven for conveying the same, over which the endless conveyer is looped; idle sprocket wheels carried on shafts extending transversely of said oven, levers pivoted to the walls of said oven in which said shafts are journaled, and suitable weights disposed on the ends of said levers whereby the slack from said conveyer is taken up; suitable guides for the said conveyer chains disposed at each side of the oven at the intake and discharge side thereof, with suitable feed and discharge devices associated therewith, all coacting substantially as described and for the purpose specified.

5. In an oven apparatus, the combination of suitable conveyer chains, pan engaging supports carried by said chains, rods connecting opposite pan engaging supports; suitable guides therefor; supports projecting within the oven for supporting pans to be engaged by the said carriers; and endless conveyers for delivering pans to the said support to be taken up successively by the said conveyers so that the same can be fed one at a time automatically; and suitable spacing devices for distributing the pans in such position whereby they will be taken up by the said conveyer one at a time.

[Claims 6 to 8 not printed in the Gazette.]

1,143,152. METHOD OF PRODUCING A PUNCTURE-CLOSING COMPOUND FOR PNEUMATIC TIRES. RANDALL T. VAN VALKENBURG, Rushville, Ind., assignor to J. N. Neal, Manistee, Mich. Filed Nov. 24, 1913. Serial No. 802,766. (Cl. 134—17.5.)

A method of producing a leak closing compound for tires which consists in mixing asbestos, alabastine, salt, pulverized charcoal, iron oxid, and water; then subjecting them to 235° Fahrenheit and cooking them until thick, then adding flour and corn meal to the mixture while boiling and thoroughly agitating it until it becomes an agglutinating mass.

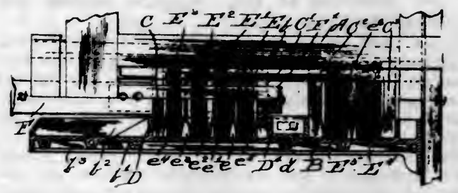
1,143,153. ASBESTOS PACKING. ALEXANDER WARRELL, St. John, New Brunswick, Canada, assignor to Continental Asbestos Corporation, Worcester, Mass., a Corporation of Massachusetts. Filed Apr. 26, 1909 Serial No. 492,146. (Cl. 64—46.)

1. As a means for lubricating axle journals, a compound of putty-like consistency, consisting of a mass of soapstone asbestos tailings intimately impregnated with sufficient mineral lubricating oil to provide the consistency desired.

2. As a means for lubricating axle journals, a compound consisting of 24 parts soapstone tailings, intimately impregnated with one part mineral lubricating oil to form a mass of putty-like consistency.

3. As a means for lubricating axle journals, an inorganic compound consisting of 24 parts soapstone asbestos tailings intimately impregnated with one part mineral lubricating oil to form a mass of putty like consistency.

1,143,154. DRAFT-GEAR. JAMES MILTON WAUGH, Chicago, Ill. Filed Apr. 26, 1909. Serial No. 492,302. (Cl. 213—64.)



1. The combination with a main draft and buffing gear, front and rear stops therefor, said front stop being connected to the side sills, of an auxiliary buffing gear located to the rear of said main gear and comprising flat spring friction plates arranged face to face in groups, and spacing members bearing alternately at the ends and at the middle of said groups, said rear stops constituting sliding spacing means between said main and auxiliary gears adapted to transmit excessive buffing strains from said main gear to said auxiliary gear.

2. The combination with a main draft and buffing gear including the followers, of a coacting auxiliary buffing gear in alinement therewith and embracing spring friction plates arranged face to face in a plurality of groups, bearings therefor alternate at the middle and at the ends of the groups, and sliding spacing means interposed between the two gears acting to communicate excessive stress from the rear follower of the main gear to the auxiliary gear.

3. In a device of the class described the draft arms, the main draft and buffing gear therein and the followers therefor, an auxiliary buffing gear in said draft arms at the rear of and in alinement with the main gear, and comprising duplicate flat spring friction plates arranged face to face in groups, spacing members bearing alternately at the ends and at the middles of the groups, and slidable followers interposed between the main and auxiliary gear acting to communicate excessive stresses from the rear follower of the main gear to the auxiliary gear.

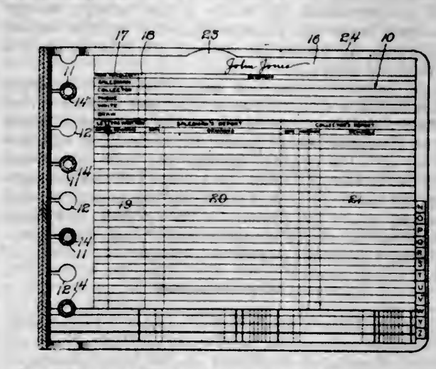
4. The combination with a main draft and buffing gear, the yoke and followers therefor, of an independent auxiliary spring friction gear positioned to compress in a direct line with the main draft gear, and slidable followers, one on each side of the yoke and bearing against the rear follower of the main draft and buffing gear and the front of the auxiliary buffing gear.

5. The combination with a main draft gear, of movable abutment blocks slidably supported on the under frame and against which the rear follower block of the main draft gear bears, and an auxiliary resilient and frictional buffing gear inserted at the rear of the movable abutment blocks comprising transversely extending spring plates arranged in groups and against one group of which said movable abutment blocks bear to deliver thereto buffing stresses beyond the normal capacity of the main draft gear.

[Claims 6 to 8 not printed in the Gazette.]

1,143,155. LEAF FOR LOOSE-LEAF LEDGERS. RALPH JORDAN WILSON, Chicago, Ill. Filed Nov. 19, 1914. Serial No. 872,900. (Cl. 129—1.)

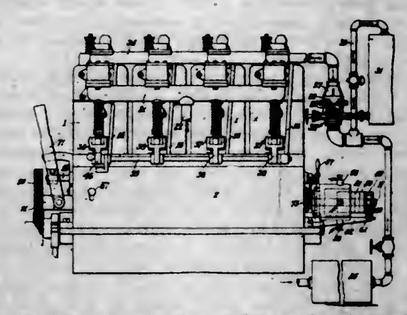
1. A loose leaf ledger provided with leaf attaching posts and with main leaves having perforations to engage over said posts, combined with a supplemental leaf provided with two sets of perforations for separate engagement with said posts and provided at one margin with a projecting tab.



2. A ledger leaf for the purpose set forth provided at its attaching margin with two sets of perforations adapted to separately engage over the ledger leaf attaching posts, and provided at one margin with a projecting tab.

3. A supplemental ledger sheet for the purpose set forth provided at its attached margin with two sets of fastening means adapted to separately engage the ledger leaf anchoring means and provided at one margin with a projecting tab, said leaf being further provided near one margin with a space to receive the name of the ledger account to which the leaf is appropriated, with other spaces to severally receive indicia relative to the manner of collecting the account, and with other record spaces severally appropriated to the indicia data to receive from time to time historical data relative to the collection of the account.

1,143,156. SELF-STARTING ENGINE. ERASTUS E. WINKLEY, Lynn, Mass. Filed Sept. 29, 1906. Serial No. 336,662. (Cl. 123—180.)



1. An internal combustion engine, having, in combination, a piston, a cylinder, and means operating automaticaly to impart a plurality of impulses indeterminate in number to the piston during a single outstroke thereof to start the motor in operation, substantially as described.

2. An internal combustion engine, having, in combination, a piston, a cylinder, and means for imparting to the piston a plurality of impulses during a single outstroke and at indeterminate positions thereof to start the motor in operation, substantially as described.

3. An internal combustion engine, having, in combination, a piston, a cylinder, means operating automatically for forcing successive charges of explosive mixture into the cylinder during a single working stroke of the piston and at indeterminate positions thereof, and means for igniting such charges successively, substantially as described.

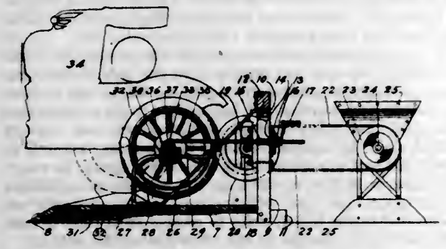
4. An internal-combustion engine having, in combination a piston, a cylinder provided with an inlet, means for

automatically forcing a plurality of successive charges of explosive mixture into the cylinder during a single outstroke of the piston, means for igniting such charges successively, and an automatic pressure-actuated check valve for preventing the return of gas through the cylinder inlet while the pressure following ignition exceeds the pressure at which the charges are introduced, substantially as described.

5. An internal combustion motor, having, in combination, a piston, a cylinder having inlet and exhaust valves, means for actuating the valves during the normal operation of the motor, means for forcing a charge of explosive mixture into the cylinder through the inlet valve when the motor is at rest, means for opening the exhaust valve when the motor is at rest to permit the escape of inlet gases and relieve the pressure in the cylinder, and means for igniting the charge in the cylinder to start the motor.

[Claims 6 to 22 not printed in the Gazette.]

1,143,157. AUTOMOBILE POWER-TRANSMITTING APPARATUS. CHARLES D. WRIGHT, Adrian, Mich., assignor of one-half to Robert D. Braden, Chicago, Ill. Filed June 1, 1914. Serial No. 842,037. (Cl. 21—90.)



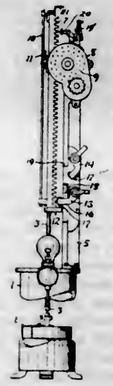
1. In a power transmitting apparatus, the combination with a supporting frame having a base and upright portion, of a shaft horizontally journaled on said upright part, a pulley on said shaft, means on said shaft for transmitting power therefrom, a pair of rearwardly extended axle supporting elbow brackets mounted on the base, adjustable means to hold the axle of a vehicle in a given position on said brackets.

2. In a power transmitting apparatus, the combination with a supporting frame having a base and an upright portion, of a shaft horizontally journaled on said upright part, a pulley on said shaft, means on said shaft for transmitting power therefrom, a pair of axle supporting brackets mounted on the base and each having a rearward extension, a block slidably mounted on each of said extensions, and adjustable means to engage the axle of a vehicle and to hold it in a given position on said brackets.

3. In a power transmitting apparatus, the combination with a supporting frame having a base and upright portion, of a shaft horizontally journaled on said upright part, a pulley on said shaft, means on said shaft for transmitting power therefrom, a pair of rearwardly extending axle supporting elbow brackets mounted on the base, an elevating block mounted on the base near each of said brackets and having its upper surface downwardly inclined toward each of its ends, and a hooked rod loosely and adjustably mounted for longitudinal movement on the upright portion of the supporting frame near each side thereof.

4. In a power transmitting apparatus, the combination with a supporting frame having a base and an upright portion, of a shaft horizontally journaled on said upright part, a pulley on said shaft, means on the shaft for transmitting power therefrom, a pair of rearwardly extended axle supporting elbow shaped brackets mounted on the base in front of the upright part of the frame and extended toward said upright part, a block slidably mounted on each of the rearwardly extended portions of said bracket, an elevating block mounted on the base near each of said brackets and having its upper surface downwardly inclined toward each of its ends, the thickest or highest portion of each of said blocks being located substantially in a line drawn from the upright portion of one of said brackets to a similar part of the other bracket, an internally screw threaded and handled sleeve rotatably and adjustably mounted on the upright part of the supporting frame near each end of said part, and a screw threaded rod located in each of said sleeves and each having its front end formed with a hook to engage the axle of a vehicle.

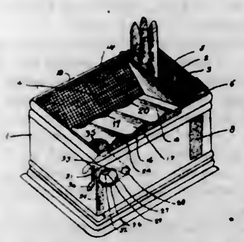
1,143,158. MEASURING-PUMP. FLAVIUS J. YOUNG, Fort Wayne, Ind., assignor to Walter G. Burns, Fort Wayne, Ind. Filed Nov. 14, 1910. Serial No. 592,360. (Cl. 221—103.)



1. In apparatus of the class described, a pump having a reciprocating pump-rod; a lug in fixed relation with the pump-rod; a standard mounted in connection with the pump proper: and an adjustable stop pivoted upon the standard; a shoulder on the standard to block the turning movement of the stop when the latter is in position for engaging said lug; and means for actuating the pump.

2. In apparatus of the class described, a pump having a reciprocating pump-rod; a lug in fixed relation with the pump-rod; a mechanism for actuating the pump-rod; a standard for supporting the mechanism and having thereon one or more projecting shoulders; and one or more stops adjustably mounted on the standard, said stops being adapted to be blocked by the corresponding shoulders, said lug being adapted to engage any of the stops when blocked to arrest the movement of the pump-rod in its upward stroke.

1,143,159. SMOKING SET. JOHN M. ZWICKLE, Roanoke, Va. Filed Oct. 15, 1914. Serial No. 866,802. (Cl. 131—51.)



1. In a smoking set a box having an ash compartment therein, a cigar tray and an ash remover disposed over said ash compartment, said cigar tray being inwardly declined from the front and top of said box and abutting at its inner end said ash remover near the center of said ash compartment, said ash remover extending from adjacent the inner end of the said cigar tray to the rear and top of said box, the plane of said ash remover being disposed at substantially 90° from the plane of said cigar tray.

2. In a smoking set a box having an ash compartment therein, a cigar tray and an ash remover disposed over said ash compartment and being loosely attached thereto, said cigar tray being inwardly declined from the front and top of said box and abutting at its inner end said ash remover near the center of said ash compartment, said ash remover extending from adjacent the inner end of the said cigar tray to the rear and top of said box, the plane of said ash remover being disposed at substantially 90° from the plane of said cigar tray.

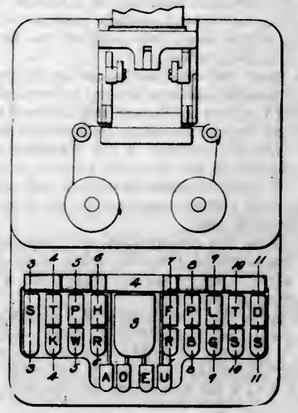
3. In a smoking set, an inwardly declining cigar tray and an inclined ash remover adjacent the inner end of said cigar tray, the inner end of said cigar tray abutting the said ash remover near its lower extremity, a portion of the material of the said cigar tray being cut away near its inner end to form an opening for the passage of ashes.

4. In a smoking set, a box having an ash compartment therein, an ash remover having openings therein disposed over the said ash compartment, and a depending flap hinged under the said ash remover, said flap being adapted to hang normally in an open position with respect to the openings through the said ash remover and being adapted further to fall against the under side of said ash remover and close the openings through the same when the said box is overturned.

5. In a smoking set, a box having an ash compartment therein, said ash compartment having a clean-out opening in the bottom thereof, and said opening being adapted to be normally closed by a spring controlled door, all in combination with a cigar tray and an ash remover disposed over said ash compartment, said ash tray being inwardly declined from the front and top of said box and abutting at its inner end said ash remover near the center of said ash compartment, said ash remover extending from adjacent the inner end of the said cigar tray to the rear and top of said box, the plane of said ash remover being disposed at substantially 90° from the plane of said cigar tray.

[Claim 6 not printed in the Gazette.]

1,143,160. STENOTYPE-KEYBOARD. ALICE M. ANDERSON, St. Louis, Mo. Filed June 17, 1914. Serial No. 845,585. (Cl. 197—100.)



1. In a machine of the class described, a plurality of type-actuating keys disposed in juxtaposed series; different keys in the same series having their striking surfaces arranged in different horizontal planes, and juxtaposed keys in the different series having portions of their striking surfaces sloped toward each other to the same horizontal plane and other portions thereof in different horizontal planes.

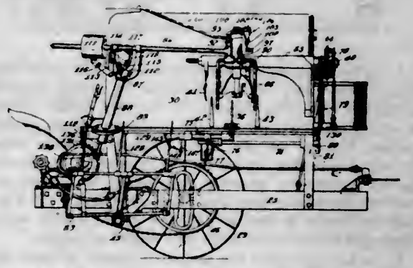
2. In a machine of the class described, a plurality of type-actuating keys arranged in different series, keys in the different series being juxtaposed for simultaneous operation; respective keys of a series having their striking surfaces disposed in different horizontal planes, and juxtaposed keys in different series having portions of their striking surfaces sloped toward each other to the same horizontal plane.

3. In a machine of the class described, juxtaposed keys adapted to be operated by the same finger of the operator, said keys being arranged with their striking surfaces converged to form a striking point for the finger in simultaneous operation of said keys, and with other portions of their striking surfaces arranged at different relative elevations for individual manipulation.

4. In a machine of the class described, a keyboard having juxtaposed transverse series of keys, keys in the rear series being arranged with their striking surfaces at a greater elevation than the striking surfaces of keys in the front series, and sloping downwardly to the level of the adjacent striking surfaces of keys in the front series and keys in the front series having their striking surfaces sloped rearwardly, to provide a striking point whereat keys in both series may be simultaneously and uniformly operated by a single finger of the operator.

5. In a machine of the class described, a keyboard containing juxtaposed transverse series of keys, keys in the respective series being arranged with their striking surfaces synclined toward each other for the purpose of forming a striking point to facilitate the uniform operation of keys in both series simultaneously by a single finger of the operator.

1,143,161. HARVESTING-MACHINE. LOUIS ANDERSON, Chicago, Ill. Filed July 5, 1912. Serial No. 707,812. (Cl. 56—121.)



1. In a harvesting machine in combination, a yielding abutment, feed mechanism for moving loose grain against said abutment, bundle tying mechanism, a drive shaft, connection between the drive shaft and the said feed mechanism including a clutch, means for driving the bundle tying mechanism including a wheel loose on the said drive shaft a pawl carried by the said wheel and a ratchet fixed on the said drive shaft for coöperating with the pawl to turn the said wheel, a pawl lifter, means operated by the said yielding abutment and acting to open the said clutch and withdraw the said pawl lifter and a cam turned by the said bundle tying mechanism for closing the said clutch and resetting the said pawl lifter.

2. In a harvesting machine in combination, a yielding abutment, feed mechanism for moving loose grain against said abutment, bundle forming mechanism operable upon the yielding of said abutment, an oscillating bundle transfer movable toward and away from the said bundle forming mechanism, and means operated by the movement of the bundle transfer away from the said bundle forming mechanism for restoring the said abutment.

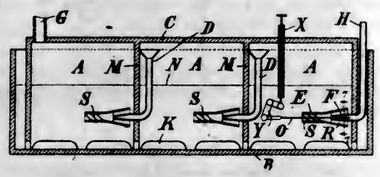
3. In a harvesting machine in combination, a yielding abutment, feed mechanism for moving loose grain against said abutment, bundle tying mechanism, means operable upon the yielding of the said abutment for actuating the bundle tying mechanism and arresting the action of the said feed mechanism, means actuated by the

bundle tying mechanism for arresting the actuation of such mechanism and renewing the operation of the said feed mechanism, an oscillating bundle transfer movable toward and away from the bundle tying mechanism, and means operated by the movement of the bundle transfer away from the bundle tying mechanism for restoring the said abutment.

4. In a harvesting machine in combination, intermittently operable bundle tying mechanism having a definite cycle of movement, means for driving the said bundle tying mechanism including a continuously rotating ratchet, a wheel and a pawl carried by the wheel for engaging the ratchet, a pawl lifter engageable with the pawl at a fixed point in the revolution of the said wheel, means for rendering the pawl lifter inoperative and means actuated by the bundle tying mechanism before completing its said cycle of movement for resetting the said pawl lifter.

5. In a harvesting machine in combination, intermittently operable bundle tying mechanism having a definite cycle of movement, feed mechanism, means for simultaneously arresting the action of the feed mechanism and actuating the bundle tying mechanism, and means actuated by the bundle tying mechanism before completing its said cycle of movement for renewing the actuation of the feed mechanism.

1,143,162. APPARATUS FOR WASHING GASES. JOHN ARMSTRONG, London, England. Filed Jan. 8, 1913. Serial No. 740,840. (Cl. 48—130.)



1. In an apparatus for removing liquid or solid matters from air or gases, the combination of a tank adapted to contain a cleansing liquid; an injector nozzle immersed to a considerable depth in said cleansing liquid; means for forcing the air or gas to be cleaned at some pressure through the nozzle; and a tube surrounding the nozzle and spaced therefrom, whereby an opening is formed in the rear of the nozzle into and through which a strong current of liquid is drawn, and the entire power used for cleaning the air or gas is its own initial pressure.

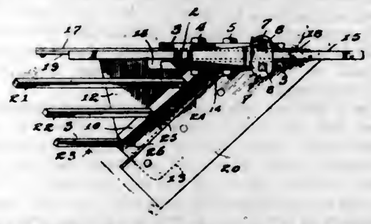
2. In an apparatus for removing liquid or solid matter from air or gases, the combination of a tank adapted to contain a cleansing liquid; a horizontally-disposed nozzle placed at a considerable distance below the level of the cleansing liquid and through which the air or gas is designed to be forced under pressure; and a tube surrounding the nozzle, the interior of said tube being rifled at the forward end thereof, whereby a combined jet of the cleansing liquid and the air or gas to be cleaned is forced forwardly through the liquid in the tank with a rotary motion.

3. In an apparatus for removing liquid or solid matter from air or gases, the combination of a closed tank having partitions therein, forming a plurality of compartments, and adapted to contain a cleansing liquid; a series of nozzles located in one of said compartments and placed at a considerable distance below the level of the liquid therein; an injector tube placed about each nozzle in spaced relation thereto, the interior discharge end of said tube being rifled; and means for removing air or gas from the upper portion of each compartment and delivering the same to a similar series of nozzles arranged in the next compartment.

4. In an apparatus for removing liquid or solid matter from air or gases, the combination of a tank open at its top; and an inverted tank a little less in area than the other located within the first tank and subdivided into a series of compartments by cross-partitions or diaphragms, the lower portion of the walls of said inverted tank and said diaphragms being provided with openings, whereby the various compartments are placed in intercommunication.

5. In an apparatus for removing liquid or solid matter from air or gases, the combination of a main tank open at the top; an inverted tank located in the main tank and provided with a series of cross diaphragms subdividing the inverted tank into a series of compartments; a series of pipes extending from the upper part of each compartment downwardly and thence through a diaphragm and terminating in the lower portion of the next adjacent compartment; a nozzle formed at the lower end of each of said pipes; and an injector tube surrounding each of said nozzles, whereby the air or gas will be forced through the cleansing liquid in each of the compartments at substantially the same initial pressure throughout the apparatus.

1,143,163. PLOW. JOHN B. BARTHOLOMEW, Peoria, Ill., assignor to Avery Company, Peoria, Ill., a Corporation of Illinois. Filed Apr. 24, 1913. Serial No. 763,321. (Cl. 97—21.)



1. In a plow, the combination of an integrally cast combined standard and frog having a surface adapted to serve as a mold-board section, a beam to which the standard is connected, a land-side connected to the frog, a share connected to the frog, with its upper surface flush with the mold-board surface thereof supplemental mold-board elements connected to the frog, and a point connected to the frog.

2. In a plow, the combination of a standard, a frog, a forward and downward inclined digger bar connected to the frog in planes parallel to the line of draft, a land-side secured to the frog in a vertical plane parallel to the line of draft, the forward edge of the land-side being sharp and located in an exposed position close to the side of the digger bar, and a share connected to the frog and provided with a sharp edge.

3. In a plow, the combination of an integrally formed combined standard and frog having a forward and downward inclined groove in its land-side surface, a digger bar positioned in the groove with its land-side surface flush with the land-side surface of the standard and frog, a land-side secured to the land-side surface of the standard and frog, the said land-side having an exposed sharp forward edge, and a share connected to the frog and having a sharp forward edge.

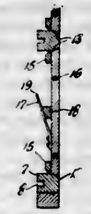
4. In a plow, the combination of a standard, a frog, a land-side connected to the frog, and a share connected to the frog with its upper surface flush with a part of the upper surface of the frog.

5. In a plow, the combination of a standard, a frog, a land-side connected to the frog, a share connected to the frog, and a plurality of mold-board bars set into suitably shaped and positioned apertures in the frog.

[Claims 6 to 8 not printed in the Gazette.]

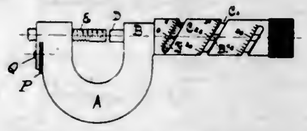
1,143,164. SILO. JOHN BAUERLE, Cincinnati, Ohio, assignor to The Hauser-Stander Tank Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Jan. 9, 1915. Serial No. 1,346. (Cl. 20—1.4.)

1. In a silo having inwardly beveled door frames, doors beveled to fit said frames, angularly extending handles on the doors, horizontal top bars for the handles to serve as a ladder for the silo, and cross bars to span the frames and adapted to fit between the handles and the doors.



2. In a silo having inwardly beveled door frames, doors beveled to fit said frames, angularly and upwardly extending handles on the doors, horizontal top bars for the handles to serve as a ladder for the silo, and cross bars to span the frames secured to the silo and adapted to fit between the handles and the doors.

1,143,165. INSTRUMENT FOR MINUTE MEASURINGS. FRANZ BEGUSCH, Liesling, near Pottschach, Austria-Hungary. Filed June 24, 1914. Serial No. 846,956. (Cl. 33—166.)



1. A micrometer having a measuring spindle D, a rotary sleeve C having a spiral groove provided with a scale, a sliding index F projecting into and movable in said groove, and means for producing longitudinal movement of the index parallel to the spindle D, when the sleeve is turned.

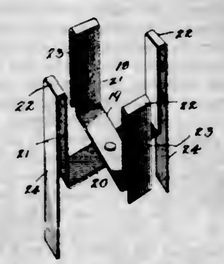
2. A micrometer having a measuring screw spindle, a fixed casing surrounding same and provided with a longitudinal guide, an index movable lengthwise in said guide, and a rotary sleeve on the casing, connected to the spindle to screw the same in or out, and having a spiral groove with scale divisions, in which the index travels when the sleeve is turned.

3. A micrometer comprising a yoke, an internally threaded tubular casing fixed thereto and having an external longitudinal guide groove, a measuring spindle screwed into said casing, a sleeve rotatable on said casing and connected to the spindle to turn the latter, said sleeve having a spiral groove and provided with scale marks beside said groove, and an index member slidable in said guide groove and projecting into and movable in said spiral groove and provided with a vernier scale coöperating with said scale.

1,143,166. BOTTLE-CRATE AND ADAPTER THEREFOR. GROVER F. BEHRINGER, Defiance, Ohio, assignor to The Defiance Pressed Steel Company, Defiance, Ohio, a Corporation of Ohio. Filed Dec. 5, 1912. Serial No. 735,154. (Cl. 220—111.)

1. An adapter for a bottle crate having all of its parts firmly connected together and provided with outer walls arranged to engage with the vertical walls of a bottle cell at a plurality of points substantially separated vertically and with inner walls arranged to engage with the vertical walls of a bottle at a plurality of points substantially separated vertically, the said inner walls being substantially separated from the said outer walls whereby the adapter can hold a bottle smaller than that for which the cell is primarily adapted.

2. An adapter for a bottle crate comprising two metallic strips connected to each other at right angles and each bent upward on each side of the point of connection to form an inner vertical bottle-engaging wall and bent outward and downward to form a cell-engaging wall substantially separated horizontally from the inner vertical wall.



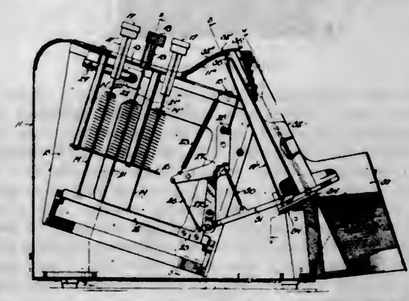
3. An adapter for a bottle crate having all of its parts firmly connected together and provided with outer walls arranged to engage with the vertical walls of a bottle cell at a pluralty of points substantially separated vertically, with inner walls substantially separated from the said outer walls and arranged to engage with the vertical walls of a bottle smaller than that for which the cell is primarily adapted at a plurality of points substantially separated vertically and with a bottom wall arranged to engage the bottom of a bottle and support it at a level above that of the bottom of the cell.

4. An adapter for a bottle crate compriaing two metallic strips connected to each other at right angles and each bent upward on each side of the point of connection to form an inner bottle-engaging wall and bent outward and downward to form a wall for engaging a bottle cell, the downward bent parts of one of the strips extending to a plane below that of the point of connection between the two strips.

5. In combination, a bottle crate having cells with vertical walls, and removable resilient adapters having vertical outer walls arranged to have surface contact with and to be pressed outward against the vertical walls of the cells and inner walls arranged to have surface contact with and to support the vertical walls of bottles smaller than those for which the cells are primarily intended.

[Claims 6 to 11 not printed in the Gazette.]

1,143,167. AUTOMATIC CASHIER. EDWARD J. BRANDT, Watertown, Wis., assignor to Brandt Cashier Company, Chicago, Ill. Filed Sept. 20, 1913. Serial No. 790,915. (Cl. 133—4.)



1. In an automatic cashier, the combination of rockers and their actuating keys, pivotally supported hangers, a link pivoted at one end to a rocker, and at its opposite end to a hanger, a coin pusher pivotally connected to each hanger, a spring connected at one end to the hanger and at its opposite end to the pusher, intermediate its ends, and a spring connected to each hanger, said last mentioned spring acting to retain said hanger as well as the connected rocker in normal position.

2. In an automatic cashier, the combination of rocker bars having offset terminals loosely mounted for rotary

movement in suitable supports, hanger arms pivotally supported adjacent their upper ends at a point overlying the rocker bars, pusher bars pivotally connected to said hanger arms, and upwardly extending rearwardly inclined links interposed between the hanger arms and rockers, said links being pivotally connected at the upper end to the hanger arms intermediate their ends and the lower end to said rocker bars adjacent one terminal thereof.

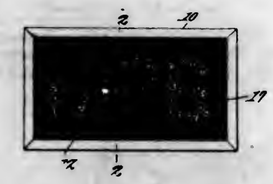
3. In a device of the character described, the combination of rocker bars, having offset loosely mounted terminals, hangers, one for each rocker bar, said hangers being pivotally supported at their upper ends, pusher arms connected with the bangers, a link connected between the hangers and rocker bars, key actuated means for rocking the rocker bars in one direction to impart movement to the connected hangers and pusher arms, and springs connected to the hangers for returning both the hangers and rocker bars to normal position.

4. In an automatic cashier, the combination of rocker bars having offset terminals loosely mounted for rotary movement in suitable supports, hanger arms pivotally supported adjacent their upper ends, pusher bars pivotally connected to said hanger arms, links interposed between the hanger arms and rockers, said links being pivotally connected to the hanger arms intermediate their ends and to said rocker bars adjacent one terminal thereof, spiral springs projecting between the hanger arms and pusher bars and connected to each intermediate their ends, said hanger arms having a laterally projecting part intermediate their ends, and an upwardly projecting spring connected at one end to said laterally projecting part and at its upper end to a fixed support.

5. In an automatic cashier, the combination of a rocker, a pair of key-plates having vertically alined offset feet opposing the rocker, a push-bar common to and connected with shanks of said plates convenient to the operator of the machine for simultaneously operating said feet, and coin-pusher mechanism in connection with the rocker, said pusher bar extending substantially from side to side of the key board.

[Claims 6 to 34 not printed in the Gazette.]

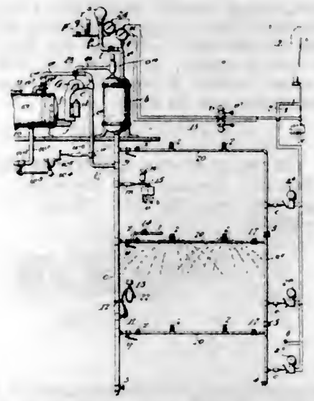
1,143,168. SIGN. CHARLES F. BROADBENT, Baltimore, Md. Filed Aug. 28, 1914. Serial No. 859,010. (Cl. 40—135.)



A sign, comprising a frame provided with a rabbet in its rear edge, a front-plate having opaque portions and transparent portions forming patterns fitted in said rabbet, and a rigid back-plate also provided with a rabbeted edge forming an inner portion which projects into the rabbet of the frame in close relation to said front-plate and an outer portion which covers the rear side of the frame which surrounds the rabbet, and a coating of finely divided material forming a brilliant reflecting surface fixed to and over the entire area of the inner face of said inner portion of the back-plate and in intimate engagement with said front plate.

1,143,169. FIRE-EXTINGUISHING APPARATUS. EDWARD R. BRODTON, Washington, D. C., assignor, by direct and mesne assignments, to Automatic Chemical Fire Extinguisher and Alarm Company, Washington, D. C., a Corporation of Delaware. Filed July 16, 1913. Serial No. 779,407. (Cl. 169—24.)

1. A fire extinguishing system comprising in combination a source of supply of an extinguishing fluid, a discharge pipe leading therefrom that has an outlet, the contents of said pipe being kept under a pressure tending to cause the efflux thereof from the pipe, means that normally hold the pipe outlet closed against such efflux, holders or receptacles for separately holding chemicals which when brought together generate a pressure-producing gas, a connection between one of said receptacles and the source of supply of extinguishing fluid for transmitting the gas pressure to the latter, a device for controlling the commingling of the chemical contents of the receptacles, and means establishing communication between said discharge pipe and said device to cause the operation of said device to cause the commingling of the chemical contents of the receptacles, when the pressure in the discharge pipe is reduced by the opening of its outlet.



2. A fire extinguishing system comprising in combination a source of supply of an extinguishing fluid, a discharge pipe leading therefrom that has an outlet, the contents of said pipe being kept under a pressure tending to cause the efflux thereof from the pipe, means that normally hold the pipe outlet closed against such efflux, a pair of tanks for separately holding chemicals which when brought together generate a pressure-producing gas, means for establishing communication between said tanks, a pipe connecting one of said tanks and the source of supply of extinguishing fluid for transmitting the gas pressure to the latter, a device controlling the communication between the pair of tanks, and means establishing communication between said discharge pipe and said device to cause the operation of said device to open communication between the pair of tanks when the pressure in the discharge pipe is reduced by the opening of its outlet.

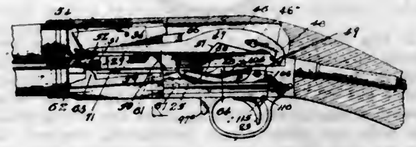
3. A fire extinguishing system comprising in combination a holder for a fire extinguishing fluid, a discharge pipe leading therefrom that has an outlet, the contents of said pipe being kept under a pressure tending to cause the efflux thereof from the pipe, means that normally hold the pipe outlet closed against such efflux, a pair of tanks for separately holding chemicals which when brought together generate a pressure-producing gas, a pipe leading from one of said tanks and branching to connect with said holder and with said discharge pipe respectively, means for establishing communication between said pair of tanks, a device controlling such communication and itself exposed to the pressure within the discharge pipe and acting upon reduction of such pressure to open the communication between the two tanks.

4. A fire extinguishing system comprising in combination a source of supply of an extinguishing fluid, a discharge pipe leading therefrom that has an outlet, the contents of said pipe being kept under a pressure tending to cause the efflux thereof from the pipe, means that normally hold the pipe outlet closed against such efflux, a pressure tank, a pipe connecting the same and the source of supply of fire extinguishing fluid, means for causing the production of pressure in said tank, including a normally closed pipe that runs to said tank, and means to open said normally closed pipe acting upon reduction of such pressure in the discharge pipe.

5. A fire extinguishing system comprising in combination a source of supply of an extinguishing fluid, a discharge pipe leading therefrom that has an outlet, the contents of said pipe being kept under a pressure tending to cause the efflux thereof from the pipe, means that normally hold the pipe outlet closed against such efflux, a pressure tank, a pipe connecting the same and the source of supply of fire extinguishing fluid, means for causing the production of pressure in said tank, including a normally closed pipe that runs to said tank, and means to open said normally closed pipe including a device exposed to the pressure within the discharge pipe, and acting upon reduction of such pressure in the discharge pipe.

[Claims 6 to 11 not printed in the Gazette.]

1,143,170. FIREARM. JOHN M. BROWNING, Ogden, Utah. Filed Nov. 26, 1913. Serial No. 803,192. (Cl. 42—17.)



1. In a firearm, the combination of a receiver having a socket provided with interrupted threads, a magazine rigidly secured to the receiver, a barrel having interrupted threads to engage the receiver socket by rotative movement, a nut screwed upon the forward end of the magazine and provided with a stud, and a lug secured to the barrel and having a slot to admit the stud and limit rotative movement of the barrel, and a socket to receive the stud and firmly lock the barrel to the magazine and receiver.

2. In a firearm, the combination of a receiver, a barrel detachably engaging the receiver, a lug on the barrel, a tubular magazine rigidly fixed to the receiver, a spring within the magazine and a nut screwed upon the front end of the magazine to engage said lug and lock the barrel, said nut also serving as an abutment for said spring.

3. In a firearm, the combination of a receiver, a reciprocating slide therein, a breech-block supported thereon, a carrier having arms, one located at each side of the breech-block, and means carried by the breech-block and slide for actuating the carrier.

4. In a firearm, the combination of a receiver, a reciprocating slide therein, a breech-block supported on the slide and having wide lateral slide-engaging faces, a carrier movably mounted within the receiver and having arms between which the breech-block is adapted to pass, means carried by the breech-block and slide for raising and lowering the carrier, and means to permit the block to pass between the carrier arms in its forward movement.

5. In a firearm, the combination of a receiver, a barrel, and a magazine communicating with the receiver, a slide, a breech-block supported upon the slide and movable in relation thereto, a carrier pivoted in the receiver and having arms at the sides of the receiver, and means carried by the slide and breech-block for operating the carrier.

[Claims 6 to 23 not printed in the Gazette.]

1,143,171. FOLDING HAND-BAG. NATHAN BUSHWICK. Maspeth, N. Y. Filed Apr. 6, 1914. Serial No. 830,052. (Cl. 190—43.)

1. A folding and extensible handbag comprising a bottom member, side members, and intermediate members disposed between and flexibly connected with said side and bottom members, foldable end members connecting said side members and means for detachably connecting said end and bottom members.

2. A folding and extensible handbag comprising a bottom member, side members, and intermediate members disposed between and flexibly connected with said side and bottom members, foldable end members connecting said side members, said bottom members being detachably connected with one of the intermediate members and foldable into the bag when collapsed.

3. A folding and extensible handbag comprising a bottom member, side members, and intermediate members disposed between and flexibly connected with said side and bottom members, foldable end members connecting said side members, said bottom member having wings flexibly connected with its opposite ends, means on said intermediate members for detachably engaging said wings when the bag is extended, and means for detachably connecting said end members and wings.

4. A folding and extensible handbag comprising a bottom member, side members, and intermediate members disposed between and flexibly connected with said side and bottom members, foldable end members connecting said side members, and means for detachably connecting said end and bottom members, said bottom members being detachably connected with one of the intermediate members and foldable into the bag when collapsed.

5. A folding and extensible handbag comprising a bottom member, side members, and intermediate members disposed between and flexibly connected with said side and bottom members, said bottom member having wings flexibly connected with the opposite ends thereof, flaps flexibly connected with the opposite ends of said intermediate members, fastening elements for connecting said flaps with the ends of said wings when the bag is extended and flaps for closing the upper ends of said bag when in either extended or collapsed position.

[Claims 6 to 13 not printed in the Gazette.]

1,143,172. VACUUM-BOTTLE SUPPORT. FREDERICK E. CARLSON, New Britain, Conn., assignor to Landers, Frary & Clark, New Britain, Conn., a Corporation of Connecticut. Filed Sept. 16, 1913. Serial No. 790,098. (Cl. 215—118.)

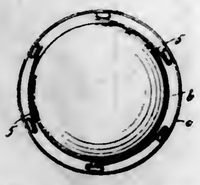


1. A support for the walls of a vacuum insulated vessel comprising a metallic clip formed by bending a strip of metal upon itself, and a sheet of heat-non-conducting material wound about said clip with an end secured therein.

2. A support for the walls of a vacuum insulated vessel comprising a pair of clips connected by a resilient bar and a strip of heat-non-conducting material, secured in each clip and adapted to be wound thereabout.

3. A support for the walls of a vacuum insulated vessel comprising a resilient bar and a strip of heat-non-conducting material secured at each end of said bar and adapted to be wound thereabout to a greater or less extent.

1,143,173. VACUUM-BOTTLE SUPPORT. FREDERICK E. CARLSON, New Britain, Conn., assignor to Landers, Frary & Clark, New Britain, Conn., a Corporation of Connecticut. Filed Jan. 14, 1915. Serial No. 2,156. (Cl. 215—118.)



1. The combination with a double-walled vacuum insulated vessel of fragile material, of means for spacing and supporting the walls from one another, said means comprising a resilient strip of metal arranged circumferentially between the walls, said strip curved from end to end in the general direction of the curvature of the walls but on a larger radius, bearing at its central portion against the inner wall and at its end portions against the outer wall, and heat insulating material interposed between one wall and the part of the support bearing thereagainst.

2. The combination with a double-walled vacuum insulated vessel of fragile material, of means for spacing and supporting the walls from one another, said means comprising a resilient strip of metal arranged circumferentially between the walls of the vessel, the curvature of said strip being on a larger radius but in the same general direction as the curvature of said walls, the ends of said strip being bent backwardly upon itself opposite to the direction of curvature, the central portion of said strip bearing against the inner wall, the ends of said strip bearing against the outer wall, and heat insulating material wound about the bent-back end portions of the strip and interposed between it and the outer wall.

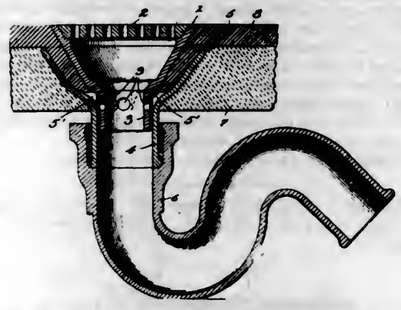
3. The combination with a double-walled vacuum insulated vessel of fragile material, of means for spacing and supporting the walls from one another, said means comprising a resilient strip of metal arranged circumferentially between the walls and contacting at its central part with the inner wall, the portions of said strip at either side of its central contacting point bent inwardly slightly, the ends of said strip terminating adjacent the outer wall, and heat non-conducting material attached to the ends of said strips and contacting with the outer wall at spaced points.

4. The combination with a double-walled vacuum insulated vessel of fragile material, of means for spacing and supporting said walls from one another, said means comprising heat non-conducting material engaging the outer wall at spaced points, and a resilient inwardly bent strip having its ends connected to said non-conducting material and its central portion bearing upon the inner wall only.

5. The combination with a double-walled vacuum insulated bottle made of fragile material, of means for spacing and supporting said walls from one another, said means comprising a strip of resilient material arranged transversely in the space between said walls and contacting at its central portion with said inner wall, and at its ends with said outer wall, the end portions of said strip at either side of its center being arranged at not more than a right angle with respect to the radial line at its center.

1,143,174. FLOOR-DRAIN. CORRY B. COMSTOCK, New York, N. Y. Filed Feb. 25, 1913. Serial No. 750,656. (Cl. 182—13.)

1. The combination of two concentric bowls having closely adjacent but separated imperforate walls sharply downward and inward inclined throughout, the outer of which has an unobstructed inner surface and extends upward a considerable distance above the bottom plane of the inner and terminates a considerable distance below the top plane of the inner, and means for receiving and discharging liquid from the interiors of both bowls.



2. The combination of two concentric bowls having closely adjacent but separated imperforate walls sharply downward and inward inclined throughout, the outer of which has an unobstructed inner surface and extends upward a considerable distance above the bottom plane of the inner and terminates a considerable distance below the top plane of the inner, a discharge duct with which the inner bowl communicates, and connecting means between the inner and the outer bowls having apertures the lower surfaces of which are inclined and in register with the inclined inner surface of the outer bowl.

3. The combination of two concentric bowls, a discharge duct with which the inner bowl communicates, and connecting means between the inner and the outer bowls having apertures, the said bowls having closely adjacent but separated imperforate walls sharply downward and inward inclined throughout, the outer of which has an unobstructed inner surface and extends upward a considerable distance above the bottom plane of the inner and terminates a considerable distance below the top plane of the inner, the adjacent parts of the said walls converging near the said apertures.

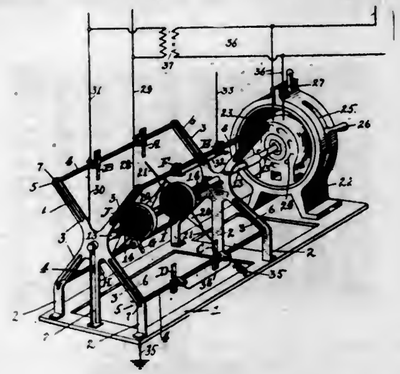
4. The combination of two separable concentric bowls having closely adjacent but separated imperforate walls sharply downward and inward inclined throughout, the outer of which has an unobstructed inner surface and extends upward a considerable distance above the bottom plane of the inner and terminates a considerable distance below the top plane of the inner, means for supporting one of the bowls on the other in definite predetermined relation thereto, and means for receiving and discharging liquid from the interiors of both bowls.

5. The combination of two separable concentric bowls having closely adjacent but separated imperforate walls sharply downward and inward inclined throughout, the outer of which has an unobstructed inner surface and extends upward a considerable distance above the bottom plane of the inner and terminates a considerable distance below the top plane of the inner, means comprising a series of spaced lugs for supporting the inner bowl on the outer, and a duct for receiving and discharging liquid from the interior of the outer bowl and positioned to also receive and discharge liquid from the interior of the inner bowl.

[Claims 6 to 10 not printed in the Gazette.]

1,143,175. SYNCHRONOUS ELECTRICAL CONTACT-MAKER. FREDERICK GARDNER COTTRELL, Berkeley, and HERBERT ALEXANDER BURNS, Oakland, Cal., assignors to International Precipitation Company, San Francisco, Cal., a Corporation of California. Filed Sept. 9, 1909. Serial No. 516,950. (Cl. 171—253.)

1. An apparatus for maintaining a system of conductors at a high difference of electrical potential by intermittent connection with a source of alternating current at intervals synchronized with the period of the current, comprising a system of eight brushes in two separated annular series, each series having four equidistant brushes, and each brush of one series being alined with a corresponding brush of the other series in a line parallel with the axis of the system, two adjacent brushes of one annular series being connected to one side of the alternating circuit, and two adjacent brushes of the other annular series being connected to the other side of the alternating current circuit and the other two brushes of each annular series being connected respectively to opposite sides of the system of conductors to be charged to high potential; and a rotating series of four conductors driven in synchronism with the alternating current, said conductors being in separated pairs, the conductors of each pair being diametrically opposite, and those of one pair being set quartering to those of the other pair, one pair of said conductors being adapted to contact with the brushes of one of the annular series of brushes and the other pair of said conductors being adapted to contact with the brushes of the other annular series of brushes, whereby said conductors by their rotation alternately become connecting links between pairs of said brushes and are separated entirely therefrom, thus opening the circuit simultaneously at four points in series.



2. An apparatus for maintaining a system of conductors at a high difference of electrical potential by intermittent connection with a source of alternating current at intervals synchronized with the period of the current, comprising a shaft driven in synchronism with the alternating current; a system of eight brushes in two separated annular series, each series having four equidistant brushes, and each brush of one series being alined with a corresponding brush of the other series in a line parallel with the axis of the system, two adjacent brushes of one annular series being connected to one side of the alternating circuit, and two adjacent brushes of the other annular series being connected to the other side of the alternating current circuit and the other two brushes of each annular series being connected respectively to opposite sides of the system of conductors to be charged to high potential; and a series of conducting elements including four projecting conductors carried by said shaft, said conductors being in separated pairs, insulated from each other, the conductors of each pair being diametrically opposite, and those of one pair being set quartering to those of the other pair, one pair of said conductors being adapted to contact with the brushes of one of the annular series of brushes and the other pair of said conductors being adapted to contact with the brushes of the other annular series of brushes, whereby said conductors by the rotation of the shaft, alternately become connecting links between pairs of said brushes and are separated therefrom, thus opening the circuit simultaneously at four points in series.

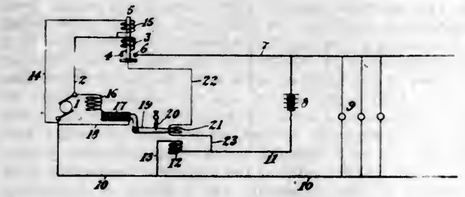
3. An apparatus for maintaining a system of conductors at a high difference of electrical potential by intermittent connection with a source of alternating current at intervals synchronized with the period of the current, comprising a synchronous motor; a shaft driven by and in unison with the motor shaft; a system of eight brushes in two separated annular series, each series having four equidistant brushes, and each brush of one series being alined with a corresponding brush of the other series in a line parallel with the axis of the system, two adjacent brushes of one annular series being connected to one side of the alternating circuit, and two adjacent brushes of the other annular series being connected to the other side of the alternating current circuit and the other two brushes of each annular series being connected respectively to opposite sides of the system of conductors to be charged to high potential; and a series of conducting elements including four projecting conductors carried by said driven shaft, said conductors being in separated pairs, insulated from each other, the conductors of each pair being diametrically opposite, and those of one pair being set quartering to those of the other pair, one pair of said conductors being adapted to contact with the brushes of one of the annular series of brushes and the other pair of said conductors being adapted to contact with the brushes of the other annular series of brushes, whereby said conductors by the rotation of the shaft, alternately become connecting links between pairs of said brushes and are separated therefrom, thus opening the circuit simultaneously at four points in series.

4. An apparatus for maintaining a system of conductors at a high difference of electrical potential by intermittent connection with a source of alternating current at intervals synchronized with the period of the current, comprising a synchronous motor having a shaft; a cradle-ring in which said motor is secured; a cradle-stand in which the cradle-ring is concentrically mounted and in which it is adapted to be angularly adjusted with respect thereto, whereby said motor is capable of a rotary adjustment about the axis of its own shaft; a shaft driven by and in unison with the motor shaft; a system of eight brushes in two separated annular series, each series having four equidistant brushes, and each brush of one series being alined with a corresponding brush of the other series in a line parallel with the axis of the system, said brushes being connected respectively to the alternating current circuit and to the system of conductors to be charged to high potential; and a series of conducting elements including four projecting conductors carried by said driven shaft, said conductors being in separated pairs insulated from each other, the conductors of each pair being diametrically opposite, and those of one pair being set quartering to those of the other pair, one pair of said conductors being adapted to contact with the brushes of one of the annular series of brushes and the other pair of said conductors being adapted to contact with the brushes of the other annular series of brushes, whereby said conductors by the rotation of the shaft, alternately become connecting links between pairs of said brushes and are separated therefrom, thus opening the circuit simultaneously at four points in series.

5. A rectifying apparatus comprising supply and delivery conductors arranged in circular series, a stepup transformer provided with alternating current supply connections and having its secondary connected to said supply conductors to impress alternating electromotive force waves thereon, a rotary member having conducting means coöperating with said conductors to intermittently establish connection between the supply and delivery conductors, a rotary electromagnetic machine having its rotor electrically connected to the primary of said transformer and mechanically connected to said rotary member, to rotate the latter in synchronism with the alternating supply current, and the stator of said machine being shiftable around the axis of rotation of the rotor, to select the part of the wave at which connection is established, and thereby variably control the electromotive force impressed on the delivery connections.

[Claims 6 to 11 not printed in the Gazette.]

1,143,176. ELECTRIC SYSTEM. JOHN L. CREVELING, New York, N. Y., assignor to Safety Car Heating and Lighting Company, a Corporation of New Jersey. Filed Sept. 30, 1909. Serial No. 520,273. (Cl. 171—313.)



1. The combination with a generator, a regulating element therefor, a storage battery and a work circuit, of means for controlling said element comprising devices for attracting and repelling each other, whereby current flowing into the battery from the generator tends to cause the generator output to be decreased, and current flowing from the battery to the work circuit tends to cause the generator output to be increased.

2. The combination with a generator, a regulating element therefor, a storage battery and a work circuit, of means for controlling said element comprising devices movably mounted with relation to each other and adapted to act conjointly or differentially, whereby current flowing into the battery from the generator tends to cause the generator output to be decreased, and current flowing from the battery to the work circuit tends to cause the generator output to be increased.

3. The combination with a generator, a regulating element therefor, a storage battery and a work circuit, of means for controlling said element comprising devices connected to attract each other to cause the generator output to be decreased when current flows into the battery from the generator, and to repel each other to cause the generator output to be increased when current flows from the battery to the work circuit.

4. The combination with a generator, a regulating element therefor, a storage battery and a work circuit, of means for controlling said element comprising relatively movable devices adapted to act conjointly to cause the generator output to be decreased when current flows into the battery from the generator, and to act differentially to cause the generator output to be increased when current flows from the battery to the work circuit.

5. The combination with a generator, a regulating element therefor, a storage battery and a work circuit, of means for controlling said element comprising a pair of coils connected to attract and repel each other, whereby current flowing into the battery from the generator tends to cause the generator output to be decreased, and current flowing from the battery to the work circuit tends to cause the generator output to be increased.

[Claims 6 to 12 not printed in the Gazette.]

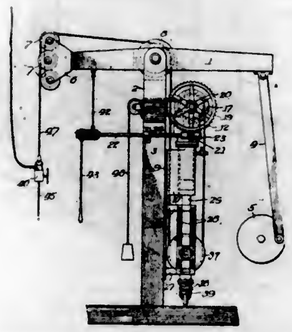
1,143,177. PIANO-PEDAL. THOMAS H. DE PEW, Canton, Ohio, assignor of one-half to John E. De Pew, Cambridge, Ohio. Filed Feb. 1, 1915. Serial No. 5,857. (Cl. 84—24.)



1. In combination, a piano pedal shank having a reduced extension at its outer end provided with an undercut notch on its under surface, a piano foot pedal provided with a rearward extending plate and a socket, the rearward end of said plate provided with a notch, a headed shank secured to the pedal shank, a leaf spring secured at one end in the hollowed-out portion adjacent the outer end of the foot pedal, its opposite end provided with a curved hook to receive the under-cut notch.

2. In combination, a piano pedal shank having a reduced extension at its outer end provided with an undercut notch on its under surface, said shank having a headed stud on its under surface spaced inwardly from the notch, a foot pedal being hollowed out from its under face, and having a receiving socket for the reception of the extension, and a leaf spring secured at one end in the hollowed out portion adjacent the outer end of the foot pedal, its other end being provided with a curved hook to engage the under-cut notch, said foot pedal being formed with an integral solid plate, disposed forwardly of the receiving socket to engage under the pedal shank to steady the foot pedal vertically, the solid extension at its forward extremity, being formed with an open ended recess, to receive the headed stud, to not only steady the foot pedal vertically, but to prevent lateral movement of the foot pedal.

1,143,178. DRILLING-MACHINE. JOSEPH E. EVANS, Bedford, Ind. Filed Mar. 9, 1914. Serial No. 823,439. (Cl. 255—16.)



1. In a drilling machine, a reciprocating beam, a feed line having its working end suspended from said beam, and its opposite end anchored at a fixed part of the machine, a cylinder having at its inner end a pneumatic cushioning chamber, and a piston in said cylinder, said feed line having a bight intermediate its anchored end and its point of suspension bearing against said piston, whereby said feed line is cushioned.

2. In a drilling machine, a reciprocating beam, a feed line having its working end suspended from said beam, and its opposite end anchored at a fixed part of the machine, a cylinder having at its inner end a pneumatic cushioning chamber, a piston in said cylinder, said piston having a piston rod equipped with a pulley and said feed line having a bight intermediate its anchored end and its point of suspension engaging said pulley, whereby said feed line is cushioned.

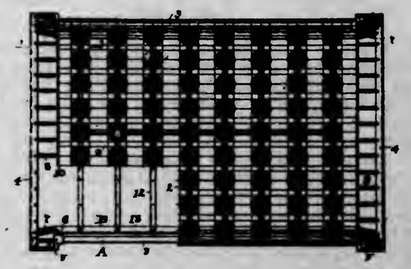
3. In a drilling machine, a reciprocable beam, a vertical cylinder having at its upper and inner end a pneumatic cushioning chamber, a piston in said cylinder, the lower part of said cylinder being filled with a liquid, and a feed line having its working end suspended from said beam and its opposite end anchored at a fixed part of the machine, said line having a bight intermediate its anchored end and its point of suspension bearing against said piston, whereby said feed line is cushioned.

4. In a drilling machine, a reciprocating beam, a vertical cylinder having its lower end closed by a piston and its lower part filled with oil and having a pneumatic cushioning chamber at its upper end, a valve seat and a valve opening upwardly adjacent the oil level, openings being provided to afford restricted communication between the cylinder proper and the cushioning chamber, and a feed line having its working end suspended from said beam and its opposite end anchored at a fixed part on the machine, said line having a bight intermediate its anchored end and its point of suspension bearing against said piston, whereby said feed line is cushioned.

5. In a drilling machine, a reciprocating beam, a cylinder having a pneumatic cushioning chamber, a piston in said cylinder and a piston rod connected with said piston, guide ways parallel with the path of travel of said piston rod, guide blocks in said ways connected with said piston rod, a pulley pivotally mounted upon said piston rod, and a feed line having its working end suspended from said beam and its opposite end anchored at a fixed point on the machine, said line having a bight intermediate its anchored end and its point of suspension engaging said pulley, whereby said feed line is cushioned.

[Claims 6 to 18 not printed in the Gazette.]

1,143,179. BED-SPRING. ERNEST L. FARROW and CHARLES R. BARKER, Cleveland, Ohio, assignors to The Cleveland Wire Spring Company, Cleveland, Ohio, a Corporation. Filed Apr. 27, 1914. Serial No. 834,765. (Cl. 5—40.)



1. In a bed spring, an outer skeleton frame having ends supported on a plane above the sides thereof by means of rigid arms, a spring bottom and a carrying frame therefor within said outer frame and suspensory springs connecting the corners of said carrying frame with said ends.

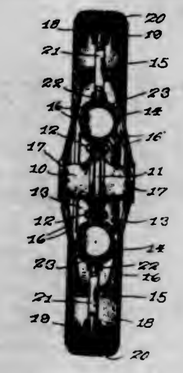
2. A skeleton main frame having raised ends, an inner frame suspended by springs at its four corners from the corners of said skeleton frame, and a spring mattress mounted on said inner frame having a wire woven top connected at intervals by means of springs with the ends of said outer frame.

3. In a bed spring, a rigid outer frame comprising ends raised in respect to the sides thereof and outward therefrom and outwardly projecting arms at an inclination supporting said ends from the sides of the frame, in combination with a spring bed bottom within said outer frame and springs at the corners thereof suspending the same from the said raised ends.

4. In a bed spring, a main frame having ends raised and projected beyond the sides thereof on a plane above said sides and inclined arms supporting said ends, in combination with a bed bottom comprising a rigid frame within said main frame, and a spring at each corner thereof suspending said frame from the ends of said main frame.

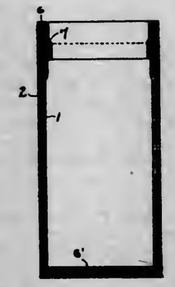
1,143,180. RESILIENT WHEEL. JOSEPH L. FIRM, Berwyn, Ill. Filed July 29, 1914. Serial No. 853,819. (Cl. 152—29.)

In a resilient wheel; a hub; a pneumatic tire carried on the hub; a guiding band spaced about the tire; spokes securing the guiding band to the hub and arranged at the opposite sides of the tire and out of contact therewith; a plurality of pins mounted on the guiding band independent of and between the spokes and engaging at their inner



ends with said pneumatic tire; and an outer rim supported upon the outer ends of said pins.

1,143,181. DRY CELL. MARCUS A. FOOS, Fremont, Ohio, assignor to National Carbon Company, Cleveland, Ohio, a Corporation of New Jersey. Filed Dec. 2, 1912. Serial No. 734,477. (Cl. 204—38.)



1. In a dry cell, a container adapted to receive a mix, a bibulous lining therein and an adherent guard applied to the container and extending over the end of the lining to prevent the mix from reaching the container, while it is being placed therein.

2. In a dry cell, a container adapted to receive a mix, a bibulous lining therein and a guard closely fitting the end of the lining to prevent the mix from reaching the container while it is being placed in the cell.

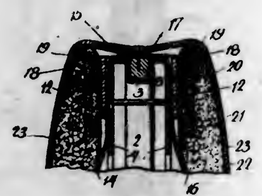
3. In a dry cell, a container closed at one end adapted to receive a mix, an insulating coating on the inside of the container at the open end, a bibulous lining overlapping the coating and a second coating overlapping the lining.

4. In a dry cell, a container closed at one end adapted to receive a mix, a coating of pitch on the inside of the container at the open end, a bibulous lining overlapping the coating and a second coating of pitch overlapping the lining.

5. The steps in the process of making dry cells which consist in placing the bibulous lining in the container, applying an adherent insulating coating on the inside of one end of the container and lining, and filling the mix therein.

[Claims 6 and 7 not printed in the Gazette.]

1,143,182. CUSHION. BENJAMIN F. FORTINER and JAMES G. MAIN, Philadelphia, Pa., assignors to The Hale and Kilburn Manufacturing Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Apr. 4, 1908. Serial No. 425,129. (Cl. 155—25.)



1. In a cushion, a frame formed of sheet-metal frame-members secured together at their ends and having the lateral edges thereof turned inwardly of the frame to form flanges extending at substantially a right angle to the body-portions of the members, tacking strips disposed in the plane of the frame, lying flat against the outer sides of said inwardly-turned flanges and secured to the flanges, springs supported on the frame, upholstery material secured to said tacking strips and a covering extending over the frame, yieldingly sustained by said springs and having its edges secured to the frame, substantially as set forth.

2. In a cushion, a frame formed of sheet-metal frame members secured together at their ends and each pressed to provide flanges at its lateral edges, extending inwardly of the frame, wide, thin tacking strips secured to the outer sides of said flanges on both sides of the frame, springs supported by said frame, upholstery material overlying said springs and yieldingly supported thereby on both sides of the frame, and means for securing said material to said strips, substantially as described.

3. In a cushion, a frame formed of sheet-metal frame-members secured together at their ends, said members having grooves in the outer sides thereof and integral flanges extending inwardly of the frame at the edges of the members, tacking strips in said grooves, tacking strips disposed in the plane of the frame, lying flat against said flanges and secured to the outer sides of the flanges, springs supported on said frame, upholstery material secured to the tacking strips on said flanges and a covering for the cushion yieldingly sustained by said springs and having its edges secured to the tacking strips in said grooves, substantially as set forth.

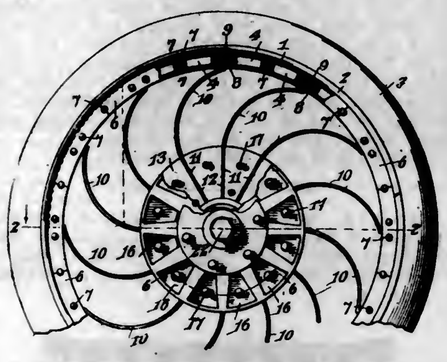
4. In a cushion, a frame formed of sheet-metal frame members secured together at their ends and pressed to provide flanges extending inwardly of the frame, tacking strips disposed in the plane of the frame, lying against said flanges and secured to the flanges, springs supported on said frame, upholstery material extending over said springs and yieldingly sustained thereby, and tacks securing said material to said strips, said tacks extending through said strips and having their ends turned by said flanges, substantially as described.

5. In a cushion, a frame formed of sheet-metal frame members secured together at their ends and pressed to provide flanges extending inwardly of the frame, tacking strips disposed in the plane of the frame, lying against said flanges and secured to the flanges, springs supported on said frame, strips of upholstery secured to said tacking strips, upholstery overlying said springs, a covering extending over said upholstery and means for securing the edges of the covering to the frame, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

1,143,183. SPRING-WHEEL, WILLIAM GEBHARDT, San Antonio, Tex. Filed Aug. 6, 1912. Serial No. 713,692. (Cl. 152—50.)

1. A spring wheel comprising a felly, a hub, and leaf-spring spokes, the felly having substantially radial recesses, and the hub being provided with substantially radial seats, and each spoke having its outer end formed with a straight portion which is radial to the wheel to fit in the recesses of the felly, and at the other end formed into a straight portion also radial to the wheel to fit in the seats of the hub, the spoke between the two straight portions outside the hub and felly being formed into a curve which is equal to a quadrant and extends from the felly to the hub and is substantially tangential to the felly where it joins with the straight portion seated in the felly, all the spokes curving in the same direction throughout the wheel.



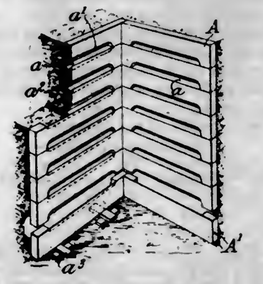
2. A spring wheel comprising a felly having openings separated by transverse webs, said web being provided with radially-disposed recesses which lead from the inner periphery of the felly and terminate in angle extensions, said recesses and their extensions being cut transversely through the felly so as to be open at each side thereof, a ring applied to one side of the felly over said openings and recesses, segmental plates applied to the other side of the felly and closing said openings and recesses, bolts traversing the webs and connecting the plates, leaf-spring spokes having their outer ends entering the recesses and formed with bent extremities to engage the angle extensions of the recesses, a hub, and means for connecting the inner ends of the spokes to the hub.

3. A spring wheel comprising a felly, a hub, and leaf-spring spokes, said hub being formed of two plates each with radial grooves matching those of the other, said grooves being adapted to receive the straight inner portions of the spokes, said hub plates having external spaced recesses forming pockets, the grooves on the inner sides of the plates coinciding with the spaces between the external recesses, bolts connecting the plates at the recesses, and a separate ring forming an abutment for the inner ends of the spokes, said ring being seated in circular recesses provided on the inner sides of the hub plates and joining with the inner ends of the radial grooves.

4. A spring wheel comprising a felly, a hub, and leaf-spring spokes, said hub being formed of two plates each with grooves matching those of the other, said grooves being adapted to receive the inner portions of the spokes, bolts connecting the plates at the spaces between the grooves, said hub plates having alined central openings through which is removably passed the metal hub of an automatic wheel, the flanges on said metal hub being of less diameter than the hub plates and bearing against the outer faces of the same, and separate bolts connecting the flanges of the metal hub and passing through the hub plates so as to clamp the latter between the flanges of the hub, said last-mentioned bolts traversing the hub plates nearer the center thereof than the first-mentioned bolts.

1,143,184. METHOD OF LINING EXCAVATIONS AND HORIZONTAL SHEETING. JOHN B. GOLDSBOROUGH, Croton, N. Y. Filed Feb. 19, 1913. Serial No. 749,381. (Cl. 61—16.)

1. The method of lining excavations which consists in inserting successive sections of horizontal sheeting in place as the excavation proceeds, the successive sections being spaced vertically with relation to one another, whereby openings between adjoining sections throughout a substantial part of the length of the sheeting are provided and whereby the earth may be examined to detect settlement, said openings being inclined downwardly from front to rear whereby the flow of earth outwardly therefrom is prevented and earth inserted therein from the face is retained, and in inserting material into the earth through such openings.



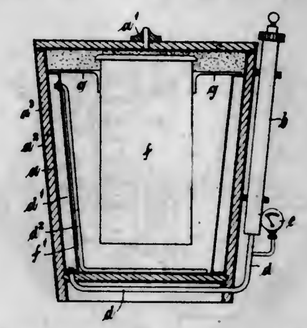
2. The method of lining excavations which consists in excavating, in lining the exposed sides of said excavation by inserting sections of sheeting laid horizontally, in continuing the excavation and in inserting additional sections of sheeting below those already inserted, until the desired depth is reached, each successive section supporting those previously laid overhead, the successive sections being spaced vertically with relation to one another whereby openings between adjoining sections are provided throughout a substantial part of the length of the sheeting through which the earth may be examined to detect settlement, said openings being inclined downwardly from front to rear whereby the flow of earth outwardly therefrom is prevented and earth inserted therein from the face is retained.

3. The method of lining excavations which consists in excavating, in lining the exposed sides of said excavation by inserting horizontal sections of sheeting laid on edge, in continuing the excavation and in inserting additional sections of sheeting below those already inserted, until the desired depth is reached, each successive section supporting those previously laid overhead, the successive sections being spaced vertically with relation to one another whereby openings between adjoining sections are provided throughout a substantial part of the length of the sheeting, through which the earth may be examined to detect settlement, said openings being inclined downwardly from front to rear whereby the flow of earth outwardly therefrom is prevented and earth inserted therein from the face is retained, and in forcing a wedge or the like beneath the base of said sheet lining thereby forcing the same together and providing space beneath said sheet piling at the bottom of the excavation for the detection of setlement.

4. A sheet lining for excavations constructed in sections laid horizontally, vertically disunited from one another, so spaced that openings are provided between the successive units, said openings being inclined downwardly as they extend from front to rear, and extending throughout a substantial part of the length of said sheet lining and adapted to prevent the free passage of earth therethrough, and through which openings the earth behind said sheet lining may be inspected and material inserted.

5. A sheet lining for excavations constructed in sections laid horizontally, and vertically disunited from one another, adjacent sections contacting with one another at the ends, the upper and lower walls of said sections being beveled between the ends thereof forming spaces between adjacent sections the walls of which incline downwardly from front to rear thereof, for inspection and reception of material.

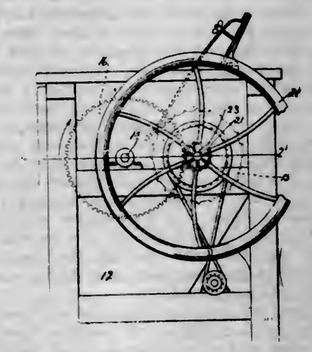
1,143,185. MACHINE FOR MAKING ICE. CHARLES DE VERE GRANT, London, England. Filed Mar. 29, 1915. Serial No. 17,886. (Cl. 62—105.)



1. In an ice making machine in combination, a tub, bucket or vat, a chamber disposed within said tub, bucket or vat adapted to contain the freezing mixture, an air reservoir formed between the said tub, bucket or vat and said chamber, a cylindrical mold or molds adapted to be disposed within said freezing mixture, an air pump connected to said air reservoir adapted to supply air thereto, and a perforated pipe or the like connected to the said air reservoir and adapted to receive air therefrom and distribute the same within the freezing mixture so that the said freezing mixture may be agitated by the said air.

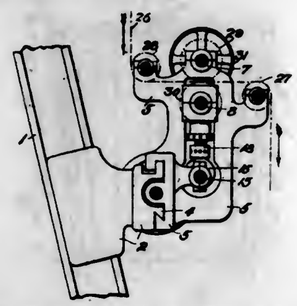
2. In an ice making machine in combination, a tub, bucket or vat, a chamber disposed within said tub, bucket or vat adapted to contain the freezing mixture, an air reservoir formed between the said tub, bucket or vat and said chamber, a cylindrical mold or molds adapted to be disposed within said freezing mixture, a source of compressed air, connected to said air reservoir adapted to supply air thereto, and a perforated pipe or the like connected to the said air reservoir and adapted to receive air therefrom and distribute the same within the freezing mixture so that the said freezing mixture may be agitated by the said air.

1,143,186. CORN-SHELLER. CLARK GRAVES, Sandwich, Ill., assignor to Sandwich Manufacturing Co., Sandwich, Ill., a Corporation of Illinois. Filed Mar. 8, 1915. Serial No. 12,927. (Cl. 130—7.)



In a corn sheller, in combination, an internally roughened tapering cup having its walls extended from the smaller end of the cup into the form of a tubular hub, and a spindle extending through the bore of the hub into the cup chamber and onto which the hub is adjustably held for rotating the cup and forming an adjustable stop limiting the endwise entrance of an ear of corn into the cup.

1,148,187. MACHINE FOR FACILITATING THE TRIMMING OF WALL-PAPER. CHARLES GREEN, Jr., Kings Cross, London, England. Filed Apr. 19, 1913. Serial No. 762,281. (Cl. 164—60.)



1. Apparatus for grooving wall-paper as it enters the printing machine to facilitate the trimming thereof; comprising two pairs of grooving rollers between which the paper passes, two parallel shafts carrying said rollers, standards in which bearings for the opposite ends of said shafts are provided, brackets on the frame of said printing machine to support said standards, traversing means operative on one of said standards to adjust it nearer to or farther from the other and stationary standard, means to prevent endwise movement of said shafts in the bearings in said adjustable standard, means to allow of endwise movement of said shafts in the bearings in the stationary standard and driving mechanism to rotate said shafts and grooving rollers.

2. Apparatus for grooving wall-paper as it enters the printing machine to facilitate the trimming thereof; comprising two parallel shafts, two grooving rollers on each shaft and rotatable therewith, the grooving rollers on one shaft coacting with the grooving rollers on the other shaft, standards at opposite ends of said shafts, brackets on the frame of said printing machine to carry said standards, stationary bearings in said standards for one of said shafts, adjustable bearings in said standards for the other of said shafts, means operative independently upon each of said adjustable bearings to adjust the same toward and away from said stationary bearings to regulate the distance between the grooving rollers and driving mechanism to rotate said shafts.
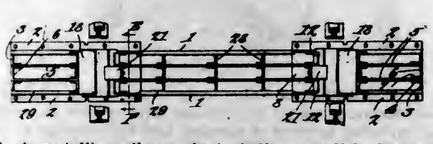
3. Apparatus for grooving wall-paper as it enters the printing machine to facilitate the trimming thereof; comprising an upper and a lower parallel shaft, standards at opposite ends of said shafts, brackets on said printing machine to carry said standards, stationary bearings in said standards for said upper shaft, vertically adjustable bearings in said standards for said lower shaft, means for adjusting either of said bearings independent of the other, a grooving roller fixed to each of said shafts and opposite each other, a second grooving roller on each of said shafts, said latter rollers being located opposite each other and capable only of longitudinal movement on said shafts, means in connection with one of said shafts to effect the longitudinal movement of said grooving roller, means for simultaneously moving the corresponding grooving roller on the other shaft, and driving mechanism for rotating said parallel shafts.

4. Apparatus for grooving wall-paper as it enters the printing machine to facilitate the trimming thereof; comprising an upper and a lower parallel shaft, two grooving rollers on each shaft and rotatable therewith the grooving rollers on one shaft coacting with the grooving rollers on the other shaft, standards at opposite ends of said shafts, brackets on the frame of said printing machine to carry said standards, stationary bearings in said standards for the upper shaft, vertically movable bearings in said standards for said lower shaft, reciprocatory means carried by said standards and operative simultaneously upon said movable bearings to effect the movement of said lower shaft in a direction perpendicular to the axis of said upper shaft, and driving mechanism to rotate said upper and lower shafts.

5. Apparatus for grooving wall-paper as it enters the printing machine to facilitate the trimming thereof; comprising two pairs of grooving rollers between which the paper passes, two parallel shafts carrying said rollers, standards in which bearings for the opposite ends of said shafts are provided, brackets on the frame of said printing machine to support said standards, traversing means operative on one of said standards to adjust it nearer to or farther from the other and stationary standard, means to prevent endwise movement of said shafts in the bearings in said adjustable standard, rotatable guiding rollers carried in bearings in said standards to guide the paper to and from said grooving rollers, means to prevent longitudinal movement of said guiding rollers in said stationary standard and driving mechanism to rotate said shafts and grooving rollers.

[Claim 6 not printed in the Gazette.]

1,143,188. RAILROAD-TIE. FURNEY F. GREEN, Coalgate, Okla. Filed Oct. 12, 1914. Serial No. 866,343. (Cl. 238—5.)



1. A metallic railway tie including parallel side and partition strips having laterally extended flanged terminals secured together, and channeled transversely disposed strips interposed between and secured to the side and partition strips and constituting connections therebetween.

2. A metallic railway tie including parallel side and partition strips having laterally extended flanged terminals secured together, and channeled transversely disposed strips interposed between and secured to the side and partition strips and forming a cellular chair support.

3. A metallic railway tie including parallel side and partition strips having laterally extended flanged terminals secured together, and channeled transversely disposed strips interposed between and secured to the side and partition strips and forming a cellular support, and a rail chair bearing downwardly on the support, said chair having intersecting grooves for the reception of the upper edge portions of the said transverse channel strips and the longitudinal partition strips.

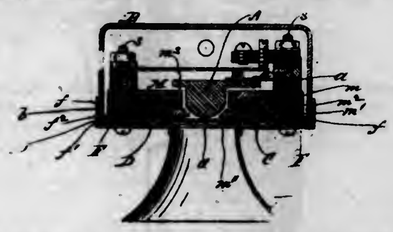
4. A metallic railway tie including parallel side and partition strips having laterally extended flanged terminals secured together, channeled transversely disposed strips interposed between and secured to the side and partition strips and forming a cellular support, a rail chair bearing downwardly on the support, said chair having intersecting grooves for the reception of the upper edge portions of the said transverse channel strips and the longitudinal partition strips, and bendable means integral with certain of the channel strips for engaging the chair to hold the same in engagement with its cellular support.

5. A metallic railway tie including spaced longitudinal side and partition strips having offset terminals connected together and constituting spacing means, there being outstanding flanges upon the side strips, spaced plates secured to said outstanding flanges, and channeled strips interposed between said longitudinal side and partition strips and extending transversely of the tie, said channel strips secured to and constituting transverse braces for the longitudinal strips.

[Claims 6 to 8 not printed in the Gazette.]

1,143,189. ELECTROMAGNETIC SOUND-PRODUCER. LEO GRUBMAN, New York, N. Y., assignor to Electric Spark Appliance Co., Inc., New York, N. Y., a Corporation of New York. Filed May 23, 1914. Serial No. 840,431. (Cl. 177—7.)

1. In electro-magnetic sound producers of the character designated, in combination, an electric coil, a casing of magnetic material inclosing said coil, said casing being formed wth a central opening substantially in axial coincidence with the central opening in said coil, a retractile armature of magnetic material positioned mainly in said central space between said coil and casing, and an elastic resilient diaphragm, the armature having its end positioned to directly strike said diaphragm, for the purpose described.



2. In electro-magnetic sound producers of the character designated, in combination, an elastic resilient diaphragm, a retractile hammer-armature of magnetic material having its end positioned to directly strike said diaphragm, and an electro-magnet one pole of which is in close proximity to the portion of the hammer-armature which contacts directly and intermittently with said diaphragm.

3. In electro-magnetic sound producers of the character designated, in combination, an electro-magnet consisting essentially of two parallel disks formed with central openings, an annular spacing block between them, an electric coil positioned between them with its central opening in axial coincidence with the openings in the magnet plates, a retractile hammer-armature of magnetic material positioned mainly within said central space between the magnetic plates and coil, and an elastic resilient diaphragm, the armature having its end positioned to directly strike said diaphragm, for the purpose described.

4. In electro-magnetic sound producers of the character designated, an elastic resilient diaphragm, a retractile hammer-armature of magnetic material having its end positioned to directly strike said armature and formed with a convergent striking face, and an electro-magnet, a portion of which protrudes between said diaphragm and said convergent striking face, said convergent face positioned within a central opening in said magnet.

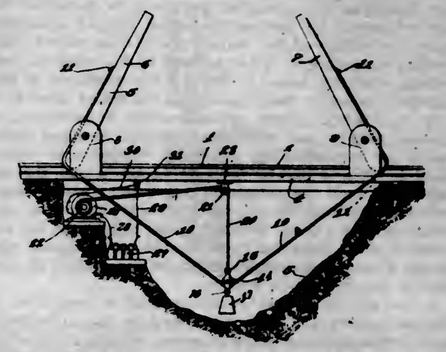
5. In electro-magnetic sound producers of the character designated, an elastic resilient diaphragm, an electro-magnet having an electric coil centralized in said magnet, a retractile hammer-armature of magnetic material having its end positioned to directly strike said diaphragm, said end being movable through said magnet and coil.

[Claims 6 to 9 not printed in the Gazette.]

1,143,190. AUTOMATIC CROSSING-GATE. CHARLES I. HALL, Mount Vernon, Wash. Filed May 24, 1913. Serial No. 769,678. (Cl. 39—38.)

1. In a railway crossing gate the combination, of gate-bars pivotally mounted upon standards, a rope connected to said gate-bars, said rope passing about a pulley, a pulley guard about said pulley, a weight secured to said pulley-guard, said weight adapted to normally hold said gate-bars in an upright position, and train controlled means connected to the upper portion of said pulley-guard for raising said weight to permit said gate-bars to lower, and assume a horizontal position when a train or the like is passing.

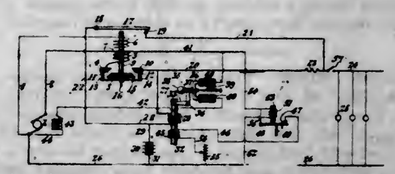
2. In a railway crossing gate the combination of a platform, standards carried by said platform, gate-bars pivotally connected with said standards, a cable having its end portions secured to said gate-bars and passing beneath said platform, a pulley guard straddling said cable beneath said platform and provided with a pulley wheel resting upon said cable, a weight carried by said pulley guard, a guide carried by said platform above said pulley guard, a drum, a line wound upon said drum and passing through said guide and connected with said pulley guard, and train controlled electrically operated means for rotating said drum to wind the line thereon and raise said weight to permit said gate-bars to move to a lowered position.



3. In a railway crossing gate the combination, of gate-bars pivotally mounted upon standards, a rope connected to said gate-bars, said rope passing about a pulley, a pulley-guard about said pulley, a weight secured to said pulley-guard, said weight adapted to normally hold said gate-bars in an upright position, and train controlled electrically operated means connected to the upper portion of said pulley-guard for raising said weight and permitting said gate-bars to lower or assume a horisontal position when a train or the like is passing.

4. In a railway crossing gate the combination, of gate-bars pivotally mounted upon standards, a rope connected to said gate-bars, said rope passing about a pulley, a pulley-guard about said pulley, a weight secured to said pulley-guard said weight adapted to normally hold said gate-bars in an upright position, said weight and said rope mounted within a pit beneath said gate-bars, a plurality of electrical batteries within said pit, electrical conductors connecting one of the poles of said batteries to the rails of the railways, electrical conductors connecting the other pole of said batteries to an electrical motor, means carried by said electrical motor and connected to said pulley-guard for causing the said gate-bars to assume a horizontal position when the circuit is closed between the two poles of the series of batteries.

1,143,191. ELECTRICAL SYSTEM. GEORGE W. HALLOCK, New York, N. Y., assignor to The Safety Car Heating & Lighting Company, a Corporation of New Jersey. Filed Dec. 7, 1909. Serial No. 531,759. (Cl. 171—313.)



1. An electric system comprehending a generator, a storage battery, lamps or translating devices, a regulator for the generator responsive to current fluctuations, means coöperating therewith in the regulation of the generator responsive to voltage fluctuations and an automatic switch controlling the generator circuit including a resistance determined by the above named regulating means in the regulation of the generator.

2. An electric system comprehending a generator, a storage battery, and translating devices, combined with means for regulating the generator responsive to variations in current; means for varying the action thereof; means for controlling the latter means dependent upon the voltage of the battery, and a main switch operated

upon variations of the generator and variably controlling the generator current.

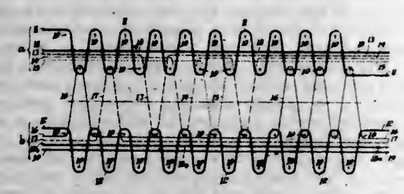
3. An electric system comprehending a generator, a storage battery and translating devices combined with means for regulating the generator responsive to variations in current, means for varying the action thereof dependent upon the voltage of the battery and a main switch controlling the generator circuit affected by the action of said voltage operative means to increase the resistance of the generator circuit a finite amount by the action thereof.

4. An electric system comprehending a generator, a storage battery and translating devices combined with means for regulating the generator responsive to variations in current, means for varying the action thereof dependent upon the voltage of the battery and a main switch controlling the generator circuit affected by the action of said voltage operated means to increase the resistance of the generator circuit by the action thereof and means whereby said switch assists in the control of current in the translation devices.

5. An electric system comprehending a generator, a storage battery and translation devices, an electromagnetic switch controlling the generator circuit, a regulator for the generator, means for affecting said regulator upon rises in voltage in such manner as to operate the main switch and means whereby said operation increases the resistance in the generator circuit a finite amount.

[Claims 6 to 13 not printed in the Gazette.]

1,143,192. WOVEN PILE FABRIC. FRITZ HAMMER, Philadelphia, Pa. Filed Feb. 13, 1914. Serial No. 818,454. (Cl. 139—9.)



A double woven pile fabric, consisting of two weft-planes in which the weft-threads are bound by binder warp-threads and face weft-threads by pile-threads, the odd number thereof being arranged in one weft-plane and the even number in the other weft-plane, said pile-threads binding not only the face weft-threads of said planes but providing also the pile faces for the fabrics and forming the pattern or design alike in color effects thereof and a suitable number of stuffer-threads apportioned in said weft-planes so that any deficiency in weight in the one fabric due to the smaller number of pile-threads being compensated for by a suitable increase in the number of the stuffer-threads, substantially as shown and described.

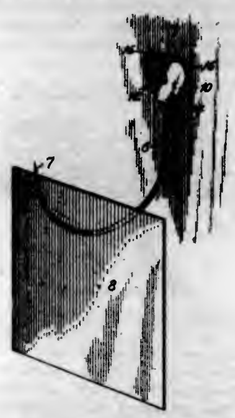
1,143,193. HOOK. TIMOTHY B. HANNON, Chicago, Ill. Filed Nov. 30, 1914. Serial No. 874,663. (Cl. 129—21.)

1. The combination with a hook, formed with an eye at its upper end, of a plate adapted to overlie the eye and provided with back-turned prongs adapted to enter a wall and a back-turned eye, the hook being extended through said back-turned eye.

2. The combination with a hook formed with an eye at its upper end, of a plate adapted to overlie the eye and provided with a back-turned prong having an opening therein, the hook having its shank extended through said opening and held in said prong.

3. The combination of a hook formed of wire bent to form an eye and a hook proper pending from said eye and having a pointed end, of a plate having back-turned prongs adapted to enter a wall and disposed to hold the eye against rotative movement relatively to the plate.

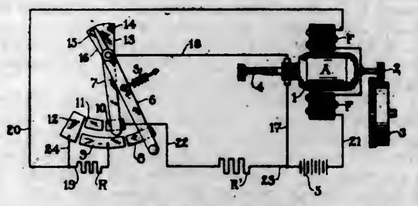
4. The combination of a hook formed of wire bent to form an eye and a hook proper pending from said eye and having a pointed end, of a plate having back-turned prongs adapted to enter a wall and disposed to hold the eye against rotative movement relatively to the plate, one of said prongs having an opening therein through which the hook is extended.



5. The combination with a hook formed of wire bent to form a hook proper and a polygonal eye, of a plate adapted to overlie said eye and having a central screw-hole therein and formed with back-turned prongs adapted to enter a wall and disposed at the corners of the polygonal eye.

[Claim 6 not printed in the Gazette.]

1,143,194. MOTOR-CONTROLLER. CLARK T. HENDERSON, Milwaukee, Wis., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed July 29, 1913. Serial No. 781,726. (Cl. 172—239.)



1. In combination, a series motor, and controlling means therefor operable in one direction to successively connect the same in circuit and reduce the field strength thereof and in an opposite direction to stop the motor without increasing its field strength.

2. The combination with a series motor, of controlling means therefor adapted in off position to establish connections for insuring a strong field in starting, said means being operable to successively connect the motor in circuit and interrupt said connections and also operable to successively disconnect the motor from circuit and reëstablishing said connections.

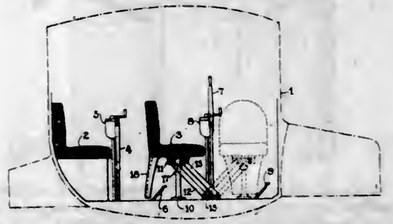
3. The combination with an electric motor, of controlling means therefor operable to start said motor with a strong field, then reduce its field strength and thereafter increase the potential of the armature circuit and also operable to decrease the potential of the armature circuit and disconnect said motor from circuit without increasing the field strength thereof.

4. The combination with an electric motor, of controlling means therefor operable to start said motor with a strong field, then reduce its field strength and thereafter increase the potential of the armature circuit and also operable to decrease the potential of the armature circuit and disconnect said motor from circuit without increasing the field strength thereof, said means being controllable by a single operating member movable in opposite directions to start and stop said motor.

5. The combination with a series motor, of controlling means therefor adapted in off position to establish a shunt around the armature of said motor, said means being operable to successively connect said motor in circuit and interrupt said armature shunt and upon return to off position successively disconnecting the motor from circuit and reëstablishing said armature shunt.

[Claims 6 to 14 not printed in the Gazette.]

1,143,195. VEHICLE. CLARK T. HENDERSON, Milwaukee, Wis., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed Mar. 9, 1914. Serial No. 823,525. (Cl. 21—43.)



1. A vehicle provided with two driving seats and duplex control means, one of said seats being adjustable between the units of said control means to give clearance for operation of either with an economy of space.

2. In a motor vehicle in combination, a fixed seat, an adjustable seat and duplex control means having a plurality of foot levers, one for operation from each of said seats said adjustable seat, when in position for use, restricting the floor space of said fixed seat and being movable away from said fixed seat to increase the floor space therefor.

3. A vehicle provided with duplex control elements and a seat adjustable with respect thereto, and in one position functioning as a guard against operation of one of said elements.

4. A vehicle having control elements providing duplex control units and an adjustable driving seat adapted when in one position to function as a guard against operation of an element of one unit and when in another position to function as a guard against operation of an element of the other unit.

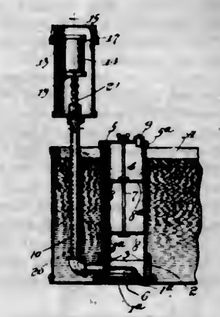
5. In a vehicle, in combination, duplex control elements and an adjustable seat for use in connection with one of said elements, said seat having a guard for the other of said elements and said guard being moved into and out of effective position by adjustment of said seat.

[Claim 6 not printed in the Gazette.]

1,143,196. WATER-TANK HEATER. CHARLES S. HUBER, Davenport, Iowa, assignor to Positive Supply Company, Davenport, Iowa, a Corporation of Iowa. Filed Dec. 20, 1913. Serial No. 807,839. (Cl. 126—360.)

1. In a water tank heater, a water tight casing, a cover adapted to fit upon said casing, a vertical rod depending from said cover and rigidly secured thereto, a series of perforated horizontal partitions unattached to the sides of said casing and dividing said casing into several communicating compartments, said partitions being rigidly attached to the vertical rod and being adapted to be fitted in or withdrawn from the casing as the cover is fitted upon or removed from said casing, a burner in the lowermost compartment, an air inlet pipe for said casing, and a fuel supply pipe within said inlet pipe connected at its lower end to said burner.

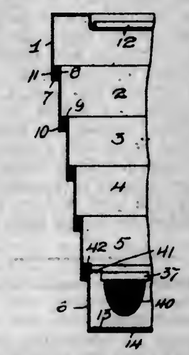
2. In a water tank heater, a water tight casing, an air inlet pipe therefor, a burner in the lower portion of said casing, a fuel supply pipe within said air inlet pipe connected to said fuel supply pipe, a removable cover for said casing, a vertical rod rigidly secured to and depending from said cover, and horizontal partitions rigidly mounted in separated position on said rod.



3. In a water tank heater, a water tight casing, an air inlet pipe therefor, a burner in the lower portion of said casing, a fuel supply pipe within said air inlet pipe having connection to said fuel supply pipe, a removable cover for said casing, a vertical rod rigidly secured to and depending from said cover, and horizontal partitions rigidly mounted in separated position on said rod; said cover, rod and partitions forming a rigid structure which is adapted to be moved in a straight longitudinal direction as a unit into and out of position relatively to the casing.

4. In a water tank heater, a water tight casing, an air inlet pipe therefrom a burner in the lower portion of said casing, a fuel supply pipe within said air inlet pipe connected to said fuel supply pipe, a removable cover for said casing, a vertical rod rigidly secured to and depending from said cover, and horizontal partitions rigidly mounted in separated position on said rod; said partitions being perforated, and said cover, rod and partitions forming a rigid structure which is adapted to be fitted in position relatively to the casing with the cover upon the mouth of said casing and the rod and partitions depending within said casing, and all parts of which are adapted to be withdrawn simultaneously from the casing by movement in a straight longitudinal direction.

1,143,197. COLLAPSIBLE EGG-CRATE. FRED HUBBARD, Pittsburgh, Pa. Filed July 17, 1913. Serial No. 779,527. (Cl. 220—17.)

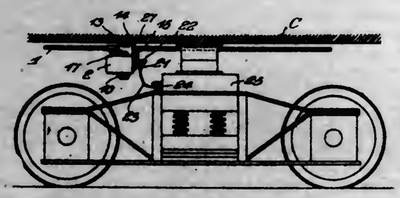


1. An egg crate consisting of a plurality of telescopic sections capable of engaging each other when extended, a bottom plate secured to the lowermost section and extending from the sides thereof, pairs of pivoted link members pivotally connected to the uppermost section and to said bottom plate and maintaining said sections extended when the links are shifted to an upright position, and means carried by a link member of a pair and ca-

pable of engaging the other link member of the pair for maintaining the link members of the pair in an upright position to prevent collapsing of said sections when extended, and trays formed with integral inverted coupling hooks detachably connected to said sections.

2. An egg crate consisting of a plurality of telescopic sections capable of engaging each other when extended, a bottom plate secured to the lowermost section and extending from the sides thereof, pairs of pivoted link members pivotally connected to the uppermost section and to said bottom plate and maintaining said sections extended when the links are shifted to an upright position, means carried by a link member of a pair and capable of engaging the other link member of the pair for maintaining the link members of the pair in an upright position to prevent collapsing of said sections when extended, and the upper of said sections provided with means for supporting an egg holding tray, and trays formed with integral inverted coupling hooks detachably connected to said sections.

1,143,198. AUTOMATIC SAFETY AIR-BRAKE APPLIANCE. WESLEY PAMPLIN HUNTLEY, Ashland, Ky., and ROBERT M. BERKELEY, Richmond, Va. Filed Oct. 22, 1914. Serial No. 868,060. (Cl. 188—2.)



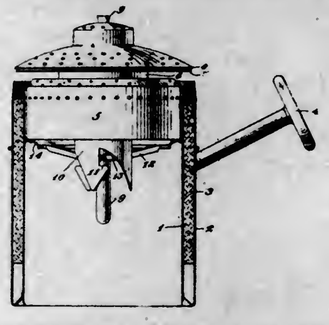
1. The combination with a train line pipe, of a safety air brake appliance comprising a valve casing communicating with said pipe, a discharge opening in said casing, a spring-pressed valve normally closing said opening, a lever fulcrumed at one end adjacent said opening in the casing, an element carried by said lever and normally engaging said valve, a hook at the free end of said lever, means for closing said hook, a lever actuating element detachably engaged with said hook and operable to force said lever toward said valve to open the valve, a pawl for locking said lever in its valve opening position and a stop for limiting the locking movement of said pawl.

2. The combination with a train line pipe, of a safety air brake appliance comprising a valve casing communicating with said pipe and having a discharge opening therein, a valve seat surrounding said opening, a valve mounted in said casing for closing said opening and having a tubular stem extending into the casing, a stud mounted in said casing and inserted in said stem, a spring encircling said stem and exerting its tension to force said valve into normally closed position, an L-shaped lever fulcrumed adjacent said casing with a member engaging said valve, a flexible element detachably connected with the free end of said lever and adapted to be connected with a truck, means for locking said lever in valve opening position, and means for limiting the locking movement of said lever locking means.

1,143,199. OIL-BURNER. WILLIAM R. JEAVONS and ARNOLD R. WHITTAKER, Cleveland, Ohio. Filed July 10, 1912. Serial No. 708,599. (Cl. 158—94.)

1. In an oil burner, the combination, with a cylindrical metal tube adapted to form the internal support for a circular wick, of a supporting member located within said tube and engaging the walls thereof, said tube being provided with an upper and a lower series of circularly spaced projections extending inwardly from the inner wall thereof above and below the outer edge of said supporting member.

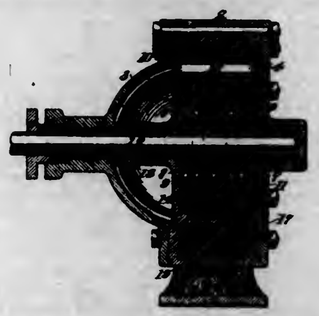
2. In an oil burner, the combination, with a cylindrical metal tube adapted to form the internal support for a wick, of a supporting member located within said tube and having its outer edge abutting against the interior of the tube wall, said tube having an upper and a lower series of circularly spaced projections located above and below the outer edge of said supporting member, said projections being formed by pressing inwardly the metal of the tube wall and the projections in one series being staggered with respect to those in the other series.



3. In an oil burner, the combination, with a cylindrical thin metal tube adapted to form the internal support for a wick, of a supporting member located within said tube and having its outer edge abutting against the interior wall of said tube, said tube having an upper and a lower series of circularly spaced internal projections formed by embossing the metal of the tube and receiving between them the outer edge of said supporting member, the distance between adjacent projections of each series being greater than the width of a projection, and the projections of one series being staggered with respect to those of the other series.

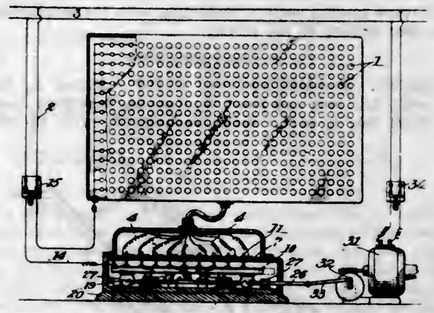
4. In an oil burner, the combination, with a cylindrical metal tube adapted to form an inner wick tube, of a supporting member or spanner of substantially the same external diameter as the internal diameter of said tube and adapted to engage said tube with its outer edge, said tube being provided with an upper and a lower series of circularly spaced projections extending inwardly from the inner wall thereof above and below the outer edge of said supporting member or spanner, the distance between adjacent projections of each series being greater than the width of a projection.

1,143,200. ROTARY PUMP. ISRAEL J. JOHNSON and HARRY MCCLELLAND, Redding, Cal. Filed Oct. 6, 1913. Serial No. 793,649. (Cl. 103—44.)



A rotary pump including a pump cylinder, a removable head therefor having a tubular inwardly projecting hub, a solid shaft extending eccentrically through the tubular hub and supported in the removable head, a rotor fixed to the shaft and having an annular flange, said flange having roller bearing chambers closed at their inner ends only, a roller bearing in each chamber adapted to be dislodged through the outer end only of the chamber, the removable head abutting the annular flange of the rotor and normally closing the opened ends of the roller bearing chambers to retain the roller bearings from dislodgment, impeller blades supported on the tubular hub of the head for rotation and projecting through the roller bearings, induction and eduction ports in the pump cylinder, and means for securing the removable head and rotor in place.

1,143,201. ELECTRIC TALKING-SIGN. LENORA H. JONES, Wichita, Kans. Filed Apr. 14, 1914. Serial No. 831,850. (Cl. 177—348.)



1. The combination with a bank of electric lamps, of switching apparatus for lighting groups of lamps at will, comprising sets of contacts, the contacts of each set connected in series and in circuit with its own lamp, a single contact coöperating with those in a set, and means for effecting relative movement of each set and its single contact, whereby all said single contacts will coöperate in succession with the contacts in the several sets.

2. The combination with a bank of electric lamps, of switching apparatus for lighting groups of lamps at will, comprising a set of contacts for each lamp, the contacts of each set connected in series, a single contact moving relatively to those in said set, and means for bringing any one or more of the set into or out of the path of movement of said single contact.

3. The combination with a bank of electric lamps, of switching apparatus for lighting groups of lamps at will, comprising sets of contacts, the contacts of each set connected in series with each other and with a lamp and arranged in a loop, a single movable contact in each loop, and means for moving said single contacts from one contact to the next in succession in their several sets.

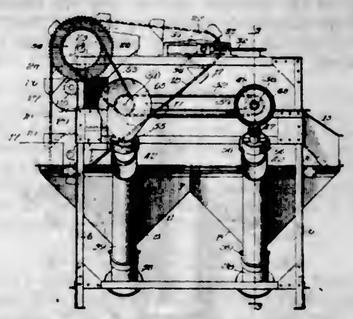
4. The combination with a bank of electric lamps, of switching apparatus for lighting groups of lamps at will, comprising sets of contacts, the contacts of each set connected in series with each other and with a lamp and arranged in a loop, a single movable contact in each loop, means for moving it from one contact to the next in succession, and means for removing any one or more of the contacts of each set from the path of the moving contact.

5. The combination with a bank of electric lamps, of switching apparatus for lighting groups of lamps at will, comprising sets of contacts, the contacts of each set connected in series with each other and with a lamp and arranged in a loop, a single movable contact inside of each loop, a board on which said single contacts are mounted, and means for giving said board a movement of revolution without rotation.

[Claims 6 to 10 not printed in the Gazette.]

1,143,202. PEA-SEPARATOR. FREMONT O. KEENE, Freeport, Ill.; Florence Little Keene, Stephenson county, Ill., administratrix of said Fremont O. Keene, deceased. Filed June 27, 1914. Serial No. 847,614. (Cl. 130—32.)

1. In a pea separator, the combination of a tank adapted to contain brine or the like and shaped to provide a plurality of settling compartments having inclined side walls, said tank being adapted to receive a supply of peas at one end thereof, means for inducing a slight current in the surface only of the liquid and for gathering the peas floating at the opposite end of said tank, and means for delivering the peas, which are collected in said settling compartments, outside the machine.



2. In a pea separator, the combination of a tank provided with a plurality of settling compartments, shaped to contain brine or the like and maintain the brine in a quiescent condition, means operating adjacent one end of the tank for inducing a slight surface current only in the tank and adapted to gather the peas floating on the brine, chambers adapted to receive the peas from each settling compartment, and means for delivering the peas from said chambers.

3. In a pea separator, the combination of a tank, adapted to contain brine or the like and shaped to provide a substantially funnel-shaped settling compartment extending upwardly in proximity to the surface of the liquid, a chamber communicating with the bottom of said compartment, a conveyer operating in said chamber to deliver the peas therefrom, said conveyer being positioned laterally of the opening between the chamber and the settling compartment so that the operation of the conveyer will not agitate the liquid in said settling compartment, and means for gathering and removing from the tank the peas which float past said settling compartment.

4. In a pea separator, the combination of a tank adapted to contain brine or the like, said tank being formed to provide a plurality of funnel shaped settling compartments extending upwardly nearly to the surface of the liquid, a chamber communicating with the bottom of each of said settling compartments to receive the peas which settle in said compartments, screw conveyers disposed in said chambers, means for actuating said conveyers to deliver the peas from the chambers, said conveyers being so positioned as not to agitate the liquid in the settling compartments, and means for attracting and removing from the tank the peas which float past said settling compartments.

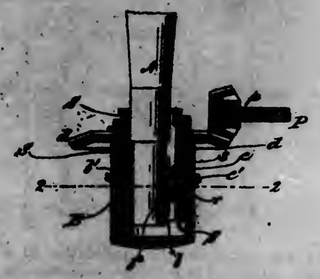
5. In a pea separator, the combination of a tank adapted to contain brine or the like, and shaped to provide a plurality of downwardly tapering settling compartments, means for inducing a surface current only in the liquid above the compartments, a chamber communicating with the lower end of each of said compartments, and continuously operating means disposed in said chambers for delivering the peas from the chambers without agitating the liquid in said settling compartments.

[Claims 6 to 17 not printed in the Gazette.]

1,143,203. CRUSHING AND PULVERIZING MACHINE. JOSEPH E. KENNEDY, New York, N. Y. Filed Feb. 2, 1914. Serial No. 815,920. (Cl. 83—10.)

1. In crushing mechanism of the character designated, the combination of a gyratory shaft, means for supporting the same, an eccentric bearing for the lower portion of said shaft rotative about said shaft to cause its gyratory movement, said eccentric bearing having a convex peripheral surface, a rotatable sleeve formed with a concavity in which the eccentric bearing is seated, said sleeve

being also formed with a longitudinal recess in said concave seat, a coupling pin fitting in a socket formed for its reception in said eccentric bearing, said pin being formed with a loose head protruding into the longitudinal recess in the sleeve and having an extensive bearing surface contacting with a side thereof, whereby the positive rotation of the eccentric bearing with the sleeve is insured while permitting the bearing to adapt itself axially to the inclination of the shaft, and means for rotating said sleeve.



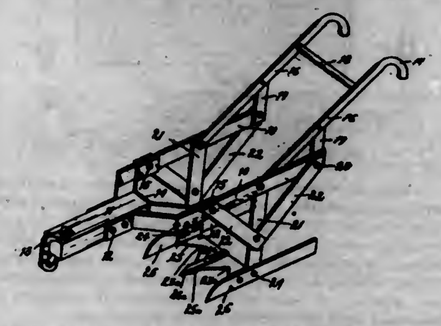
2. In crushing mechanism of the character designated, the combination of a gyratory shaft, means for supporting the same, an eccentric bearing for the lower portion of said shaft rotative about said shaft to cause its gyratory movement, said eccentric bearing having a convex peripheral surface, a rotatable sleeve formed with a concavity in which the eccentric bearing is seated and also formed with a longitudinal recess in said concave seat, said recess having an elongate flat surface parallel to the longitudinal axis of the eccentric bearing, a coupling pin fitting in a socket formed for its reception in said eccentric bearing, said pin being formed with a loose head protruding into said longitudinal recess in the sleeve and having an extensive flat bearing surface for contacting with the bearing surface of the longitudinal recess in the sleeve, whereby the eccentric bearing is permitted to adapt itself axially to the inclination of the shaft while rotating positively with the sleeve, and means for rotating said sleeve.

3. In crushing mechanism of the character designated, the combination of a gyratory shaft, means for supporting the same, an eccentric bearing for the lower portion of said shaft rotative about said shaft to cause its gyratory movement, said eccentric bearing having a convex peripheral surface, a rotatable sleeve formed with a concavity in which the eccentric bearing is seated, and means for coupling said eccentric bearing and said sleeve together in such manner that they will rotate together while admitting the eccentric bearing to adapt itself to the axial inclination of the gyratory shaft, said means consisting of a coupling pin mounted on one part and formed with a loose head protruding into a longitudinal recess in the other part and having an extensive bearing surface contacting with the longitudinal bearing surface of the recess.

4. In crushing mechanism of the character designated the combination of a gyratory shaft, means for supporting the same, an eccentric bearing for the lower portion of said shaft rotative about said shaft to cause its gyratory movement, said eccentric bearing consisting of a plurality of members, one member having a convex peripheral surface, another of said members being a rotatable eccentric sleeve formed with a concavity in which said first named member is seated, and also formed with a longitudinal recess in said concave seat, a coupling pin in a socket formed for its reception in said first named member, said pin being formed with a loose head protruding into the longitudinal recess in the sleeve, said loose head having a bearing surface contacting with the side thereof whereby the positive rotation of the first named member with the sleeve is insured while permitting the bearing to adapt itself axially to the inclination of the shaft, and means for rotating said sleeve.

5. In crushing mechanism of the character designated, the combination of a gyratory shaft, means for supporting the same, an eccentric bearing for the lower portion of said shaft rotative about said shaft to cause its gyratory movement and in which said shaft is movable longitudinally, said eccentric bearing consisting of a plurality of members one member having a convex peripheral surface, another of said members being a rotatable eccentric sleeve formed with a concavity in which said first named member is seated, and means for coupling said first named member and said sleeve together in such manner that they will rotate together while admitting the first named member to adapt itself to the axial inclination of the gyratory shaft, said means consisting of a coupling pin mounted on one member and formed with a loose head protruding into a longitudinal recess in the other member and having an extensive bearing surface contacting with the longitudinal bearing surface of the recess.

1,143,204. PALMETTO-ROOT PLOW. ELMER A. KILGORE, Lorimor, and JOHN W. KELLER, East Peru, Iowa. Filed July 6, 1914. Serial No. 849,289. (Cl. 55—60.)



1. In a palmetto root plow, the combination of a main frame, a tongue, handles on said frame, a downwardly extending arm on each side of said frame, and a horizontal, transverse cutting blade between the lower ends of said arms, said cutting blade having rearwardly extending notches in its edge on each side of its median longitudinal line.

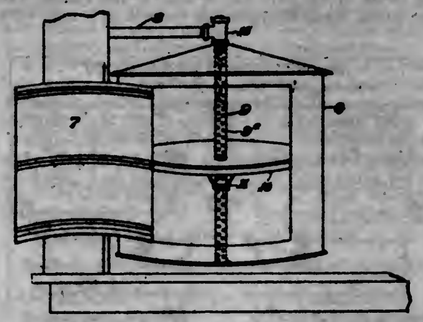
2. In a palmetto root plow, the combination of a main frame, a tongue, handles on said frame, a downwardly extending arm on each side of said frame, braces between said downwardly extending arms and said frame, a horizontal, transverse cutting blade between the lower ends of said arms, guide blades at the side edges of said cutting blade having at their forward ends downwardly and forwardly extending cutting edges.

3. In a palmetto plow, the combination of a main frame, a tongue, handles on said frame, a downwardly extending arm on each side of said frame, braces between said downwardly extending arms and said frame, a horizontal, transverse cutting blade between the lower ends of said arms, said cutting blade being provided with notches on each side of its longitudinal center, longitudinal braces above and below the center of said blade, extending forwardly from it and united at their forward ends to form a strong, sharp point, a guide blade formed at each side of the cutting blade, said guide blades being arranged longitudinally with said tongue.

4. In a device of the class described, the combination of a main frame, having a tongue and rearwardly extending handles, a downwardly projecting arm on each side of said frame, a transverse cutting bar detachably secured between the lower ends of said downwardly projecting arms, guide blades secured to the sides of said cutting bar, arranged parallel with each other and with said tongue, said guide blades being provided with a point formed with a downwardly and forwardly extending edge.

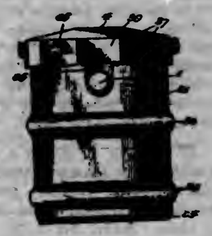
5. In a device of the class described, a frame having rearwardly extending handles, and a forwardly extending tongue, a downwardly extending arm for each side of said frame, a transverse cutter bar detachably connected between the lower ends of said arms, and a guide blade at each end of said cutter bar and provided with pointed forward ends.

1,143,205. WINDOW-REFRIGERATOR. WILLIAM M. KINGSBURY, Cleveland, Ohio. Filed Mar. 27, 1914. Serial No. 827,553. (Cl. 45—104.)



A refrigerator comprising a supporting arm, a tubular shaft depending therefrom, a casing mounted on the shaft, and removable from the lower end thereof, the shaft having openings in the sides thereof into the interior of the casing, and being open at the top and bottom, outside of the casing, a shelf mounted on the shaft, within the casing, and removable from the lower end of the shaft, and pins in said openings, supporting the casing and the shelf.

1,143,206. ELECTRIC SWITCH DEVICE AND RECEPTACLE. CHARLES J. KLEIN, Milwaukee, Wis., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis., a Corporation of Wisconsin. Original application filed Apr. 28, 1911, Serial No. 623,903. Divided and this application filed Oct. 5, 1911. Serial No. 653,036. (Cl. 173—362.)



1. In a lamp socket, in combination, a switch mechanism having a rigidly protruding operating member, a supporting base for said switch mechanism having a laterally extending projection above said operating member, a two-part inclosing casing for said base having an open-ended slot to receive said operating member and said projection and having transverse walls engaging said projection to support said base.

2. In a lamp socket, in combination, a base for the current carrying parts provided with laterally extending supporting lugs and a two-part casing for said base having open-ended slots in one part thereof to receive said projections of said base, said projections engaging with bottom walls of said slots to support said base within said casing and engaging with side walls of said slots to prevent rotation of said base relative to said casing.

3. In a lamp socket, in combination, a switch base having laterally extending portions providing transverse and longitudinal shoulders, and a two-part inclosing casing for said base having open-ended slots to receive said projections, the side and bottom walls of said slots being inturned to engage the transverse and longitudinal shoulders of said base to support the same and to prevent rotation thereof relative to said casing.

4. In combination, a switch mechanism having oppositely disposed push-buttons, a supporting base therefor, said base being provided contiguous to said push-buttons with lateral projections and an inclosing casing for said switch and said base comprising two telescoping sections, one having slots on opposite sides to receive said projections of said base and having communicating slots to receive said push-buttons, said projections of said base engaging the walls of said first mentioned slot to support said base and prevent rotation thereof relative to said casing.

5. In combination, a switch having a push-button operating member, a supporting base therefor having a shoulder and a two-part inclosing casing for said switch and base, one part of said casing having an open-ended slot at one end thereof to receive said push-button and having a shoulder to engage said base shoulder for supporting said base in position with said pushbutton out of contact with the walls of said slot.

1,143,207. PUSH-BUTTON. CHARLES J. KLEIN, Milwaukee, Wis., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed Aug. 3, 1912. Serial No. 713,049. (Cl. 240—128.)



1. In combination, a push button, a cylindrical extension cap having a longitudinally slotted end inclosing the end of said push button, said cap having interior projections abutting against a shoulder on said button, and a sliding ring carried by said cap for compressing the slotted end thereof upon the end of said button.

2. In combination, a push button having an annular groove therein, a cylindrical extension cap having a longitudinal slotted end inclosing the end of said push button, said cap having interior projections fitting in said groove, and a sliding ring carried by said cap for compressing the slotted end thereof upon the end of said button.

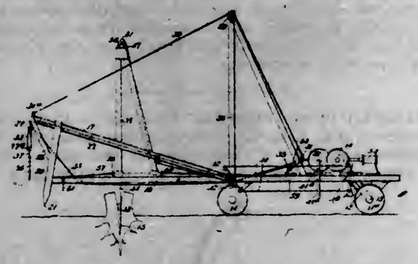
1,143,208. BEARING-BOX. THOMAS KNIGHT and JOHN G. BENNETTS, Ahmeek, Mich. Filed May 19, 1914. Serial No. 839,585. (Cl. 64—24.)



A device of the class described comprising a base having spaced arms extending upwardly at acute angles therefrom and provided with transversely alined apertures, said

base between the arms being formed with a concaved upper face and shoulders at each side of said concavity, a tubular bearing mounted in said concavity and having wings engaging said shoulders, a clamping member between the arms shaped to embrace the bearing member and engage said wings, said clamping member being further formed on its upper portion with spaced projections providing therebetween a groove, and a locking bar inserted through the apertures in the arms and lying within the groove to maintain the clamping member in its operative position.

1,143,209. STUMP-PULLER. PETER S. LAWTON, New Orleans, La. Filed Apr. 2, 1914. Serial No. 829,026. (Cl. 254—145.)



1. In a stump puller, a main frame, a track carried thereby and extending longitudinally of the main frame, a guide frame movably mounted on the track, a cutter for reciprocating vertically in the guide frame for severing the stump, and means operable at the main frame for pulling the severed parts of the stump.

2. In a stump puller, an open cutter frame having a cutter at its bottom, and a top member spaced therefrom, and a hammer movably disposed in the cutter frame for striking the bottom of the cutter frame and for lifting the cutter frame by engagement with the said top member.

3. In a stump puller, a main frame having a vertically extending portion, a boom pivoted to the main frame, an anchor on the boom for engaging the ground, a tackle on the boom for pulling a stump and extending to the main frame, a cable secured to the boom disposed over a member of the vertically extending portion and extending to the body of the main frame.

4. In a stump puller, a main frame, a boom pivoted to the main frame, a rail pivoted to the main frame coaxially with the boom, an anchor depending from the boom and secured to the rail, a frame having a cutter for moving from the main frame on the rail, a tackle on the boom, and means for raising the boom and rails.

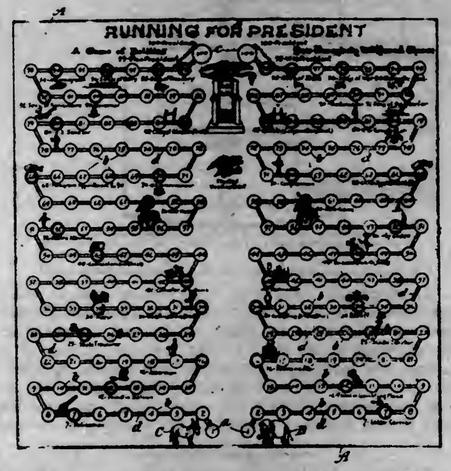
5. In a stump puller, a main frame, rails pivoted to the main frame, a tackle, means connecting the tackle with the rails to be moved therewith, and a cutting device for moving from the main frame on to the rails.

[Claims 6 to 13 not printed in the Gazette.]

1,143,210. GAME APPARATUS. GUSTAVE A. M. LILJENCRANTZ, Chicago, Ill. Filed Sept. 26, 1914. Serial No. 863,606. (Cl. 46—63.)

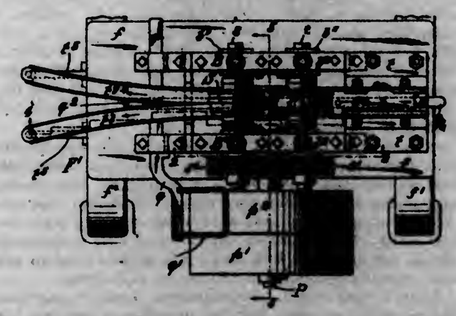
1. In a game apparatus, a suitably mounted diagram representing several series of circles arranged in longitudinal groups, and the circles of each group being arranged in transverse rows and connected successively by suitable straight lines and numbered in numerical order, from one end to the other thereof, and the end circles of each transverse row being connected by suitable straight lines to the end circles of the preceding and succeeding rows, and certain selected circles including the last being suitably designated by the title of a civic office, and certain other selected intermediate circles of each of said series of circles being designated by a statement of some wrong or crime.

2. A game apparatus comprising a suitably mounted diagram representing several independent series of circles arranged in longitudinal groups, the circles of each group being arranged in horizontal rows, one above the other, and being successively connected by suitable lines and numbered in numerical order of their succession, certain of the circles of each series including the last being designated by the titles of civic offices, and certain other circles by the names of crimes, and single circles located above the longitudinal groups and each being connected to the inner circle of the top row of one of the groups, said single circles being designated by the title of a high office.



3. In a game apparatus, a suitably mounted diagram having a plurality of horizontal groups each being designated by the name of a political party and each consisting of corresponding parallel rows of circles arranged one above the other, and each series designated by the proper party emblem, and the circles of each series being arranged in succession and connected by a line and numbered numerically in the order of their succession; certain of the circles of each series including the last being designated by the titles of certain civic offices, and one of said circles being designated as a "dark horse," and a picture of a chair designated by the words "elected President," being located between the groups and constituting the winning point of the game.

1,143,211. MACHINE FOR MAKING METALLIC HOOPS FOR BARRELS. MAX E. LOBLEY, New York, N. Y., assignor to Brooklyn Cooperage Co., Brooklyn, N. Y. Filed Jan. 12, 1915. Serial No. 1,759. (Cl. 113—1.)



1. In a machine of the character designated, the combination of crimping rolls constructed and arranged to crimp the edges only of a strip, and shearing rolls arranged in close proximity thereto to sever the strip between the corrugations and to produce a flare in the severed strips.

2. In a machine of the character designated, the combination of crimping rolls and shearing rolls arranged to act in conjunction therewith and to sever the uncrimped portion of the strip immediately after the edges thereof are crimped by the crimping rolls.

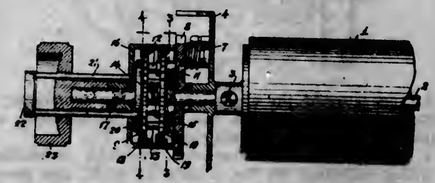
3. In a machine of the character designated, the combination of crimping rolls and shearing rolls arranged to act in conjunction therewith and to sever the uncrimped portion of the strip immediately after the edges thereof are crimped by the crimping rolls and a discharge runway for receiving and separating the severed strips.

4. In a machine of the character designated, a crimping roll, and a shearing roll arranged to act in conjunction therewith and to immediately follow the action of crimping whereby a flare is produced in the sheared strip.

5. In a machine of the character designated, a pair of rolls adapted to crimp the edges only of a sheet metal blank and a set of rolls immediately succeeding the crimping rolls and adapted to shear the blank between the crimps thereof.

[Claims 6 to 12 not printed in the Gazette.]

1,143,212. TYPE-WRITING MACHINE. MARQUIS H. LOCKWOOD, New York, N. Y., assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Filed Aug. 7, 1912. Serial No. 713,782. (Cl. 197—123.)



1. In a platen release for typewriting machines, the combination with a platen and a line-space wheel means to connect said platen to said line-space wheel, said connecting means including a plurality of axially alined members, provided with radially extending teeth, a corresponding plurality of wedge-shaped members adapted to enter between the teeth of the first-named members transversely of the plane of the said members, one of said plurality of members being movable and adapted to be engaged with, or disengaged from the other members, the wedging engagement varying with the relative rotated position of said members, whereby the platen and line-space wheel may be connected at any relative rotated position to move in unison, or disconnected for relative independent movement, and means for actuating said movable members.

2. In a platen release for typewriting machines, the combination with a platen and line-space wheel of means to connect said platen to said line space wheel, said connecting means including a set of axially alined toothed members, a corresponding set of coöperating wedge-shaped members, one set of members being movable and adapted to be engaged with or disengaged from the other set, the wedging engagement varying with the relative rotative position of said sets of members, whereby the platen and line-space wheel may be connected at any relative rotative position to move in unison or disconnected to move independently of each other and means for actuating said movable set of members.

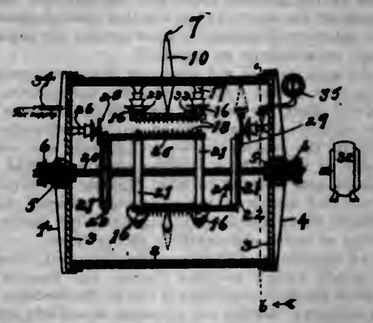
3. In a platen release for typewriting machines the combination with a platen and line-space wheel of means to connect said platen to said line-space wheel, said connecting means including a set of members comprising a plurality of toothed disks, a coöperating set of members comprising elongated wedge-shaped teeth, one of said sets of members being movable and adapted to be engaged with or disengaged from the other set whereby the platen and line-space wheel may be connected to move in unison or disconnected to move independently of each other and means for actuating said movable set of members.

4. In a platen release for typewriting machines, the combination with a platen and line-space wheel of means to connect said platen to said line-space wheel, said connecting means including a set of axially alined toothed members, a corresponding set of coöperating wedge-shaped members, one of said sets of members being movable and adapted to be engaged with or disengaged from the other set whereby the platen and line-space wheel may be connected at any relative rotative position to move in unison or disconnected for relative independent movement, resilient means for independently actuating the respective members of said movable set of members into engagement with the corresponding members of the other set and manually operated means for disengaging said sets of members for rotating the platen independently of said line-space wheel.

5. In a platen release for typewriting machines the combination with a platen and line-space wheel of means to connect said platen to said line-space wheel, said connecting means including a set of members comprising a plurality of toothed disks, a set of coöperating members comprising elongated wedge-shaped teeth, one of said sets of members being movable and adapted to be engaged with or disengaged from the other set whereby the platen and line-space wheel may be connected to move in unison or disconnected for independent relative movement, springs for actuating each member of said set of movable members to bring about engagement thereof with the respective cooperating members of the other set and means for simultaneously disengaging the members of one set from the the members of the other set for rotating the platen independently of said line-space wheel.

[Claims 6 to 10 not printed in the Gazette.]

1,143,213. METHOD AND APPARATUS FOR CONVERTING ALTERNATING OR PULSATING ELECTRIC CURRENTS INTO UNIDIRECTIONAL CURRENTS. RALPH W. LOHMAN, Oakland, Cal. Filed May 22, 1909. Serial No. 497,634. (Cl. 171—253.)



1. A method of converting electrical pressure waves from one form into another form, which consists in maintaining a moving conducting electrostatic field or corona, subjecting electrical conductors to the influence of said field or corona, and withdrawing current from each of said conductors, substantially as described.

2. A method of converting electrical pressure waves from one form into another form, which comprises maintaining a moving conducting electrostatic field or corona, moving electrical conductors within the influence of said field, and withdrawing current from said conductors, substantially as set forth.

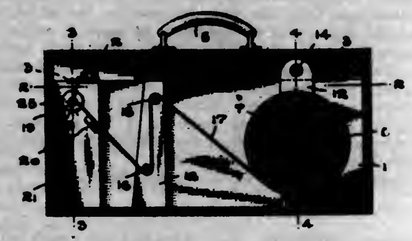
3. A method of converting electrical pressure waves from one form into another form, and controlling the character of the discharge, which consists in maintaining a rotating electrostatic field or corona, subjecting an electrical conductor to the influence of said field, suppressing undesirable arcing by controlling the pressure on the fluid in which said corona is formed, and withdrawing current from said conductors, substantially as described.

4. A method of converting electrical pressure waves from one form into another form, and controlling the character of the discharge, which consists in maintaining a rotating conducting electrostatic field or corona by means of such waves, suppressing undesirable arcing by controlling the pressure on the fluid in which said corona is formed, subjecting electrical conductors to the influence of said field or corona, and withdrawing current from said conductors, substantially as set forth.

5. A method of converting electrical pressure waves from one form into another form, which consists in maintaining a rotating conducting electrostatic field or corona by means of alternating electrical pressure waves moving electrical conductors within said field or corona, and withdrawing current from each conductor, substantially as set forth.

[Claims 6 to 18 not printed in the Gazette.]

1,143,214. PAPER-ROLL-MAKING APPARATUS. EMANUEL LOVE, Trenton, N. J. Filed Dec. 15, 1914. Serial No. 877,290. (Cl. 242—55.)



1. An apparatus of the character described, comprising a receptacle having bearings therein, and grooves in its side walls above the bearings, a roll in the bearings adapted to support a supply roll of paper, removable slides located in the grooves above the bearings and engaging the ends of the shaft, and a winding shaft supported in the receptacle and adapted to wind thereon the paper from the roll, substantially as described.

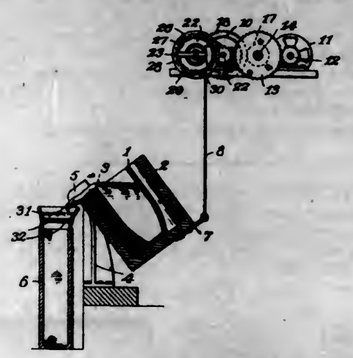
2. An apparatus of the character described, comprising a receptacle having bearings therein, and grooves in its side walls above the bearings, a roll in the bearings adapted to support a supply roll of paper, removable slides located in the grooves above the bearings and engaging the ends of the shaft, a winding shaft supported in the receptacle and adapted to wind thereon the paper from the roll, and means in the receptacle between the first-mentioned shaft and the winding shaft for holding taut the strip of paper, substantially as described.

3. An apparatus of the character described, comprising a receptacle having bearings therein, and grooves in its side walls above the bearings, a roll in the bearings adapted to support a supply roll of paper, removable slides located in the grooves above the bearings and engaging the ends of the shaft, a winding shaft supported in the receptacle and adapted to wind thereon the paper from the roll, means in the receptacle between the first-mentioned shaft and the winding shaft for holding taut the strip of paper, and means for bellying said strip downwardly, substantially as described.

4. An apparatus of the character described, comprising a receptacle having bearings therein, and grooves in its side walls above the bearings, a roll in the bearings adapted to support a supply roll of paper, removable slides located in the grooves above the bearings, and engaging the ends of the shaft, a winding shaft supported in the receptacle and comprising two removable sections adapted to receive the end of the paper strip between them, devices in the receptacle supporting the paper strip before its engagement with the winding roll and compelling the strip to belly downwardly, means for frictionally engaging the strip between the supply roll and the winding shaft, and means for turning the winding shaft, substantially as described.

5. An apparatus of the character described, comprising a receptacle, a supply roll in the receptacle, a winding shaft in the receptacle, a cutting blade on one end of the receptacle, a hinged section adapted to cover the blade when in closed position, a hinged cover on the receptacle, and means for securing the blade covering hinged section to the cover when the latter is in closed position, substantially as described.

1,143,215. APPARATUS FOR CASTING METAL INGOTS. CHARLES W. LUMMIS, Worcester, Mass. Filed Sept. 16, 1914. Serial No. 862,096. (Cl. 22—82.)



1. Apparatus of the character described, comprising a tilting container for fluids, and means for delivering an initial slop of fluid from said container.

2. Apparatus of the character described, comprising a tilting container for the pouring of fluids, and means for imparting a relatively rapid tilting motion to said container at the beginning of the pouring operation.

3. Apparatus of the character described, comprising a mold, a tilting container for the pouring of molten metal into said mold, and means for effecting an initial slop of molten metal from said container into said mold.

4. Apparatus of the character described, comprising a mold, a tilting container for molten metal, a "strainer" adapted to receive molten metal from said container and to deliver the same to said mold, and means for causing an initial flow of metal from said container into said "strainer" at a rate greater than the rate of flow from said "strainer" into said mold.

5. Apparatus of the character described, comprising an ingot mold, a container for molten metal adapted to be tilted to pour its contents into said mold, and means for causing an initial tilting of said container at a rate greater than the rate of tilting required to pour the major portion of the ingot.

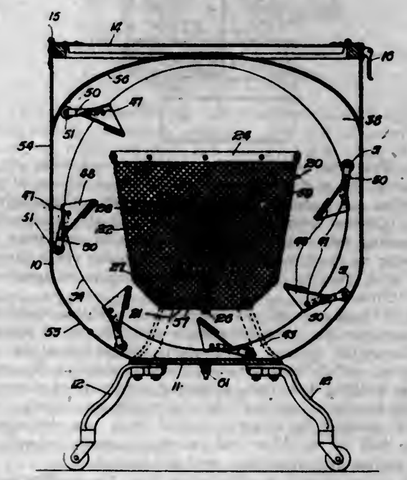
[Claims 6 to 8 not printed in the Gazette.]

1,143,216. DISH-WASHING MACHINE. JOHN THOMAS MCGRATH, Bloomington, Ill. Filed June 19, 1914. Serial No. 846,084. (Cl. 141—9.)

1. In a dish washing machine, the combination with a receptacle, a dish basket therein, a circular series of tiltable buckets rotatable about the basket to carry the wash water to the basket, and means to control the tilting of the buckets comprising a fixed guide on the receptacle and projections on the buckets which travel on said guide.

2. A dish washing machine comprising a receptacle for the wash water, a dish basket therein, a circular series of buckets, a rotative support for said buckets to carry them around the basket, and controlling means for said buckets constructed to tilt the buckets relatively to said rotative support to dump the wash water therefrom into the basket near the upper part of the arc of movement of the buckets.

3. A dish washing machine comprising a receptacle for the wash water, an open-topped dish basket therein, a circular series of buckets mounted in the casing to rotate through the wash water to carry the wash water to and discharge it into the open-topped basket, pivots upon which the buckets are tiltingly mounted, means whereby said series of buckets are rotated and means at the upper arc of the rising side of the path of the buckets embracing fixed parts on the receptacle and coacting parts on the buckets to control the tilting movement of said buckets constructed to permit them to tilt to dump the contents thereof into the open top of the basket.



4. A dish washing machine comprising a casing for the wash water, a dish receptacle therein, an annular series of tiltingly supported buckets mounted in the casing to rotate around the basket to carry the wash water to and discharge it into the basket, means to rotate said series and means on the buckets coöperating with guiding surfaces on the casing to hold the buckets upright as they rise through the wash water and constructed to permit the buckets to dump their contents into the basket when passing through the upper arc of their travel.

5. A dish washing machine comprising a casing for wash water, a dish receptacle therein, an annular series of tiltingly supported buckets mounted in the casing to rotate around the basket to carry wash water to and discharge it into the basket, means to rotate said series of buckets, said casing having a straight upper side wall and a curved lower wall, and rollers carried by the buckets and traveling along said walls to control filling positions and tilting movements of said buckets.

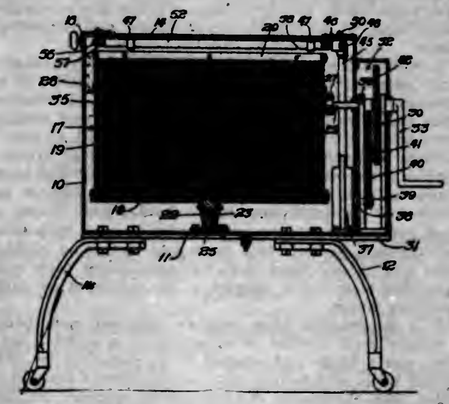
[Claims 6 to 14 not printed in the Gazette.]

1,143,217. DISH-WASHING MACHINE. JOHN THOMAS MCGRATH, Bloomington, Ill. Filed June 19, 1914. Serial No. 846,086. (Cl. 141—9.)

1. In a dish washing machine, a casing for the wash water, a dish basket therein, a central anti-friction bearing between the bottom of the basket and the casing, a rail surrounding the basket at the upper end thereof and supporting and driving means engaging the lower side of said rail.

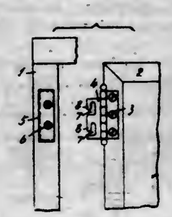
2. In a dish washing machine, a casing for the wash water, a dish basket therein, a bearing stud depending from the bottom wall of the basket, a fixed socket to receive said stud, an annular member surrounding said basket at its upper side, and a rotative driving and supporting roller engaging the lower side of said annular member.

3. In a dish washing machine, a casing for the wash water, a dish basket therein, an anti-friction bearing between the bottom of the basket and the casing, a rail surrounding the upper end of the basket, a rotative driving and supporting roller frictionally engaging the lower surface of said rail to rotate said basket, a plurality of idle supporting rollers also engaging the lower surface of said rail, and a rotative shaft to which said driving roller is attached, with means whereby it may be rotated.



4. In a dish washing machine, a casing for the wash water, a dish basket therein, a central anti-friction bearing between the bottom of the basket and the casing, a rail surrounding the basket, a rotative driving and supporting roller to engage said rail to rotate said basket, and idle supporting rollers also engaging said rail to steady and support the basket.

1,143,218. DETACHABLE CONNECTOR. ALEXANDER MCLANE, Lansford, and JOHN CHURNSIDE, Hudson, Pa. Filed July 17, 1914. Serial No. 851,479. (Cl. 16—106.)



1. A connector such as described, comprising a hanger plate adapted to be secured to a suitable support and a connector plate adapted to be supported by said hanger plate and in turn itself to act as a support, said hanger plate having an intermediate supporting lug and a front plate extending to both sides of said lug, and said connector plate having a supporting hook and complementary slot adapted to engage said lug behind said plate, whereby the lug, hook and slot are hidden from view by said front plate.

2. A connector such as described, comprising a hanger plate adapted to be secured to a suitable support and a connector plate adapted to be supported by said hanger plate and in turn itself to act as a support, said hanger plate having front and side plates and a plurality of intermediate supporting lugs, and said connector plate having a plurality of corresponding supporting hooks and complementary slots adapted to engage said lugs, said lugs, hooks, and slots being hidden from view by said front and side plates.

3. A connector such as described, comprising a hanger plate adapted to be secured to a suitable support and a connector plate adapted to be supported by said hanger

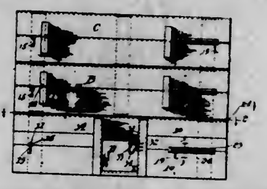
plate and in turn itself to act as a support, said hanger plate having a front plate provided with an intermediate opening for the passage of an attaching means and with means for spacing said front plate from the hanger plate support to provide a recess behind said plate, and said connector plate being provided with a hook and complementary slot, adapted to aline with said intermediate opening, said hook and slot being hidden from view by said front plate, and said hanger plate and connector plate being adapted to be supported by said attaching means.

4. A connector such as described, comprising a hanger plate adapted to be secured to a suitable support and a connector plate adapted to be supported by said hanger plate and in turn itself to act as a support, said hanger plate having a front and back plate provided with an intermediate transverse opening for the passage of an attaching means and with means for spacing said front and back plates apart to form an intermediate recess adapted to receive the connector plate, said connector plate having a hook and complementary slot adapted to aline with said intermediate opening, said hook and slot being hidden from view by said front plate, and said hanger plate and connector plate being adapted to be supported by said attaching means.

5. A demountable hinge such as described, comprising a hanger plate adapted to be secured to a suitable support, and a hinge leaf adapted to be supported by said hanger plate, said hanger plate having a front plate provided with a plurality of intermediate openings for the passage of supporting means and with means for spacing said front plate from the hanger plate support to provide a recess behind said plate, and said hinge leaf being provided with a plurality of corresponding hooks and complementary slots adapted to aline with said intermediate openings, said hooks and slots being hidden from view by said front plate, and said hanger plate and hinge leaf being adapted to be supported by said attaching means.

[Claim 6 not printed in the Gazette.]

1,143,219. NAILLESS GRAIN-DOOR FOR RAILWAY-CARS. JAMES A. MCNULTY, Kansas City, Mo. Filed Oct. 10, 1914. Serial No. 865,988. (Cl. 20—30.)

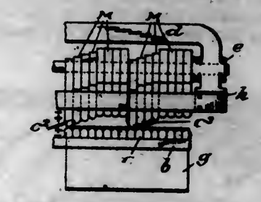


1. A grain car door closure including door sections or panels, having their longitudinal edges resting one upon the other and adapted to extend beyond the door casing, hooks arranged on opposite ends of the sections, those on one end being adjustable longitudinally of the panel, said hooks being adapted to be driven into said casings.

2. A grain car door closure including door sections or panels, having their longitudinal edges resting one upon the other and adapted to extend beyond the door casing, hooks arranged on opposite ends of the sections, those on one end being adjustable longitudinally of the panel, said hooks being adapted to directly engage said casings, and means for clamping the hooks at one end in adjusted position.

3. A grain car door closure including door sections or panels having their longitudinal edges resting one upon the other and adapted to extend beyond the door casing, and tension hooks for securing the sections or panels in place and for forcing said sections or panels laterally into contact with said casing, said hook having ends extending at an angle to their shanks, the inner faces of said ends being inclined outwardly, whereby the sections or panels will be forced laterally into contact with the casing when said hooks are driven into the casing.

1,143,220. ELECTRIC WELDING. RICHARD MACK, Berlin, Germany, assignor to Thomson Electric Welding Company, Lynn, Mass., a Corporation of Massachusetts. Filed Feb. 29, 1912. Serial No. 680,731. (Cl. 219—4.)



1. The process of electric welding consisting in arranging the work between a plurality of groups of spot welding electrodes, each group comprising a multiplicity of electrodes arranged in side contact with each other, actuating said electrodes of each group in succession and passing an electric current from one to the other through the work whereby an approximately continuous seam weld is attained.

2. The process of continuous seam welding consisting in locating the work between a multiplicity of pairs of permanently located point electrodes arranged in side contact, maintaining the work stationary during the entire seam welding operation, actuating each pair of electrodes in succession to successively engage different parts of the work, passing an electric current from one electrode of each pair to the other and applying pressure whereby an approximately continuous weld is attained.

3. In an electric welding apparatus, the combination of a plurality of pairs of spot welding electrodes arranged in side contact with each other, means for actuating said electrodes in succession to grip the work between them and means for passing an electric current from one to the other of each pair of electrodes whereby an approximately continuous seam weld is attained.

4. In an electric seam welding apparatus, the combination of a transformer having a terminal for engaging one side of the work to be welded, a plurality of electrodes arranged in side contact and adapted to engage the opposite side of the work and means for actuating said electrodes in succession to effect a continuous seam weld.

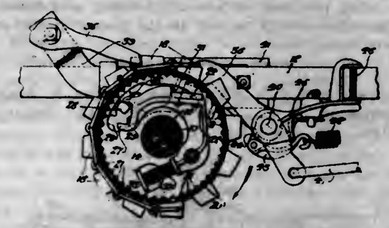
5. In an electric seam welding apparatus, the combination of a transformer, bars secured to the terminals of said transformer, one of said bars provided with contacting surfaces for engaging one side of the work to be welded, a plurality of separate movable electrodes arranged in side contact with each other and connected to the other of said bars and means for actuating said electrodes in succession and in predetermined order.

[Claims 6 and 7 not printed in the Gazette.]

1,143,221. CLUTCH MECHANISM. CLEMENT W. MICHAEL, Racine, Wis., assignor to J. I. Case Plow Works, Racine, Wis., a Corporation. Original application filed Sept. 13, 1911, Serial No. 649,118. Divided and this application filed Oct. 5, 1912. Serial No. 724,156. (Cl. 192—6.)

1. In a clutch mechanism, the combination with rotary driving and driven clutch members, of a clutch dog for connecting said members, a spring for throwing said dog into engaged position, a trip for initially disengaging said dog, and a second but weaker spring connected to said dog for further shifting the same from engaged position, substantially as described.

2. In a clutch mechanism, the combination with rotary driving and driven clutch members, of a clutch dog for connecting said members, a rotary clutch controlling member for shifting said dog, a spring for throwing said dog to engaged position, a trip coöperating with said controlling clutch member for initially disengaging said dog, and a second but weaker spring for further shifting said dog to its disengaged position, substantially as described.



3. In a clutch mechanism, the combination with rotary driving and driven clutch members, of a dog mounted on said driven clutch member and shiftable into and out of engagement with said driving member, a rotary clutch controlling member having a lost motion connection with said dog, a spring connecting said controlling member and said driven clutch member for throwing said dog into engaged position, a trip coöperating with said controlling clutch member to initially disengage said dog and a second but weaker spring for further shifting said dog to its disengaged position, substantially as described.

4. In a clutch mechanism, the combination with rotary driving and driven clutch members, of a dog for connecting said clutch members, a clutch controlling member operatively connected to said dog and having a series of stop arms, a trip for engaging said stop arms to initially shift said dog from engaged position, and a spring for completing the shift of said dog to its disengaged position, substantially as described.

5. In a clutch mechanism, the combination with rotary driving and driven clutch members, of a spring for throwing said clutch members into engagement, a trip for initially disengaging said clutch members, a second but weaker spring for completing the disengagement of said clutch members, and a retaining pawl for preventing the backward movement of said driven clutch member, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,143,222. COMBINED REINFORCE AND SPOT FOR BILLIARD AND POOL TABLES. ISAAC NATHAN, Oakland, Cal. Filed Nov. 7, 1914. Serial No. 870,794. (Cl. 46—12.)

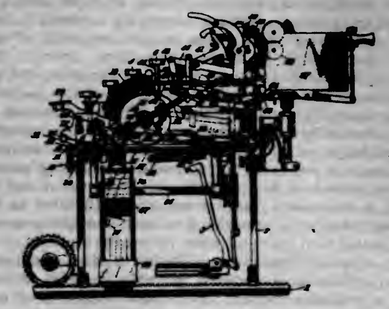


1. The combination with the felt surface of a pool or billiard table, of a protector for covering the usual "spotting" position of the felt, said protector having a polychrome upper surface, one of the colors of which forms a center for closely indicating the median line of the table.

2. A protector for the felt surface of a billiard or pool table, consisting of a disk with an adhesive side, and a "spot" indicator on the opposite side of different color from the remainder of the disk.

1,143,223. TABULATING, BACK-SPACING, KEY-CONNECTING, AND COLOR-SELECTING MECHANISM. ELMAKAR PARMLY, Jr., Washington, D. C., assignor to Elliott-Fisher Company, Harrisburg, Pa., a Corporation of Delaware. Filed Apr. 10, 1909. Serial No. 489,193. (Cl. 235—59.)

1. The combination with a recording mechanism including keys and type characters, of an inking ribbon, ribbon shifting means, adding mechanism, key connecting means operative to connect the keys and adding mechanism, and a connection between the key connecting means and the ribbon shifting means.



2. The combination with adding mechanism, a carriage, keys and printing mechanism, of a multicolor inking ribbon, tabulating mechanism for arresting the carriage, and mechanism whereby the operation of the tabulating mechanism will place the adding mechanism under the control of the keys and shift a predetermined color stripe of the ribbon to the printing point.

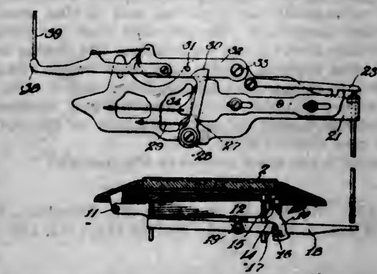
3. The combination with a carriage, keys and printing mechanism, of a multicolor inking ribbon, adding mechanism, key connecting mechanism, operative to connect the keys and adding mechanism, ribbon shifting mechanism, and means whereby the key connecting and ribbon shifting mechanisms will be operated from the tabulating mechanism.

4. The combination with a carriage, keys and printing mechanism, of a multicolor inking ribbon, adding mechanism, key connecting mechanism movable to establish an operative relation between the adding mechanism and the keys, ribbon shifting mechanism, and controlling means common to the key connecting and ribbon shifting mechanisms.

5. The combination with a carriage, keys and printing mechanism, of a multicolor inking ribbon, an adding mechanism, key connecting mechanism between the adding mechanism and the keys, a stop mechanism for arresting the carriage, and controlling means common to the key connecting, ribbon shifting and stop mechanisms.

[Claims 6 to 13 not printed in the Gazette.]

1,143,224. WEIGHING MECHANISM. JOSEPH PAUPA and GUSTAV F. HOCHRIEM, Chicago, Ill. Filed Aug. 6, 1914. Serial No. 855,264. (Cl. 194—1.)



1. A weighing machine comprising a frame having a vertical extension, a platform movably mounted in said frame, a weighing beam in the vertical extension of said frame above said platform, a vertical actuating rod entirely disconnected from all moving parts of the machine, locking means for the weighing beam, means for releasing said locking means, means for retaining said locking means in releasing position, a lever adapted to engage and move said rod to release said retaining means, a catch pivoted to the platform and constructed and arranged to

momentarily engage and move said lever as the platform raises upon removal of its load, and means for elevating said platform when its load is removed.

2. A weighing machine comprising a frame having a vertical extension, a platform immovably mounted in said frame, a weighing beam in the vertical extension of said frame above said platform, connections between the weighing beam and platform, a vertical actuating rod entirely disconnected from all moving parts of the machine, locking means for said weighing beam, coin-controlled releasing means for said locking means, means for retaining said locking means in releasing position, a lever adapted to engage and move said rod to free said retaining means, a catch pivoted to the platform and constructed and arranged to momentarily engage and move said lever as the platform raises upon removal of its load, and spring means for elevating said platform when its load is removed.

3. A weighing machine comprising a frame having a vertical extension, a platform movably mounted in said frame, a weighing beam in the vertical extension of said frame above said platform, connections between the weighing beam and platform, a vertical actuating rod entirely disconnected from all moving parts of the machine, locking mechanism for the weighing beam, coin-controlled means for releasing said locking mechanism, means for retaining said locking mechanism in releasing position, a lever adapted to engage and operate said rod to release said retaining means, a catch pivotally depending from the platform and constructed and arranged to momentarily engage and move said lever as the platform rises upon removal of its load, and means for elevating said platform when its load is removed.

4. A weighing machine comprising a frame having a vertical extension, a platform movably mounted in said frame, spring means for pressing said platform upwardly, a weighing beam in the vertical extension of said frame above said platform, connections between the weighing beam and platform, a vertical actuating rod entirely disconnected from all moving parts of the machine, locking mechanism for the weighing beam, a coin-controlled slide for releasing said locking means, a dog for retaining said locking means in releasing position, a lever adapted to engage and move said rod to release said retaining dog, and a catch pivoted to the platform and constructed and arranged to momentarily engage and move said lever as the platform raises upon removal of its load.

5. A weighing machine comprising a frame having a vertical extension, a platform movably mounted in said frame, spring means for pressing said platform upwardly, a weighing beam in the vertical extension of said frame above said platform, connections between the weighing beam and platform, a vertical actuating rod entirely disconnected from all moving parts of the machine, locking mechanism for the weighing beam, spring means for normally maintaining and returning said locking means to its locked position, a coin-controlled slide for releasing said locking means, a dog for retaining said locking means in releasing position, a lever adapted to engage and move said rod to release said retaining dog, and a catch pivoted to the platform and constructed and arranged to momentarily engage and move said lever as the platform raises upon removal of its load.

[Claims 6 and 7 not printed in the Gazette.]

1,143,225. VALVE. LEWIS A. PLATT, Waterbury, Conn. Filed Apr. 1, 1913. Serial No. 758,152. (Cl. 103—66.)



1. A valve formed from rolled zinc.

2. A valve formed from rolled alloyed zinc.

3. A valve formed of zinc with the grain or fiber of the metal rolled into planes extending parallel to the wearing faces of the valve.

4. A valve including wearing faces, said valve formed of a metallic substance including zinc with the fibers or grain thereof lying in planes substantially parallel to the wearing faces of said valve.

5. A valve formed from a blank of rolled zinc, with the fibers or grain thereof extending in parallel planes, said valve being provided with wearing faces, said faces extending substantially parallel to the planes of the grain or fibers of the zinc.

1,143,226. BAG-JAW FASTENER. LOUIS B. PRAHAR, Massapequa, N. Y. Filed Mar. 8, 1915. Serial No. 12,789. (Cl. 70—116.)



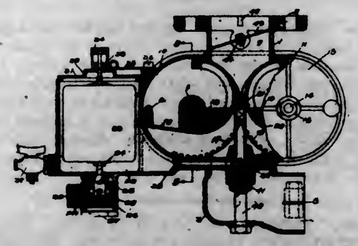
1. The combination with a pair of jaws, one of which has a slot therein, of a fastening device carried by said last mentioned jaw and including a cup-shaped member having interlocking engagement with the other jaw, a loop rigid with said member and projecting through said slot, one terminal of said loop being disposed within said cup-shaped member and rigidly secured to the bottom thereof and the other terminal being rigid with the side wall of said member, and a torsion spring within said first mentioned jaw and extending through said loop.

2. The combination with a pair of jaws, of a fastening device carried by one jaw and including a sheet metal member having interlocking engagement with the other jaw, a loop projecting into said first mentioned jaw, one terminal of said loop being riveted to said member and the other terminal being integral with said member, and a spring within said first mentioned jaw and extending through said loop.

3. The combination with a pair of frame members and a fastener, said fastener including a knob and a sheet metal loop, the loop being resiliently connected to one frame member and having both ends of the metal forming the loop superposed and riveted to the knob.

4. The combination with a pair of frame members, of a fastener including a sheet metal loop having both ends of the metal forming the loop superposed and riveted together, a torsion spring extended through said loop below the rivet thereof and resiliently connecting said loop to said member, and a knob for swinging said loop to permit separation of said frame members.

1,143,227. CARBURETER. SYDNEY I. PRESCOTT, Brooklyn, N. Y. Continuation of application Serial No. 870,746, filed Nov. 7, 1914. This application filed Dec. 1, 1914. Serial No. 874,972. (Cl. 48—155.1.)



1. In a carbureter, an air intake having co-acting rocking members provided with coöperating circumferential progressively expanding grooves semi-circular in cross section said members being operative by suction established therebetween and acting thereupon to vary the amplitude of the passage between the members in accordance with suction variations.

2. In a carbureter, an air intake having intergeared co-acting rocking members provided with coöperating circumferential progressively expanding grooves semi-circular in cross section said members being operative by suction established therebetween and acting thereupon to vary the amplitude of the passage between the members in accordance with suction variations.

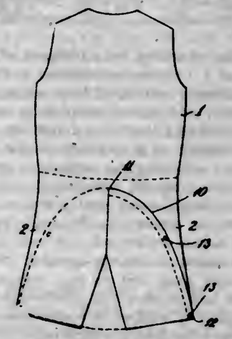
3. In a carbureter, an air intake having co-acting rocking members provided with intermeshing geared teeth upon their peripheries and with coöperating circumferential progressively expanding grooves semi-circular in cross section and sunk in said geared teeth said members being operative by suction established therebetween and acting thereupon to vary the amplitude of the passage between the members in accordance with suction variations.

4. In a carbureter, the combination with an air intake having co-acting rocking members provided with coöperating circumferential progressively expanding grooves semi-circular in cross section said members being operative by suction established therebetween and acting thereupon to vary the amplitude of the passage between the members in accordance with suction variations, of a source of fuel supply located between said members.

5. In a carbureter, the combination with an air intake having co-acting rocking members provided with coöperating circumferential progressively expanding grooves semi-circular in cross section said members being operative by suction established therebetween and acting thereupon to vary the amplitude of the passage between the members in accordance with suction variations, of a fuel nozzle located between said members and concentric with the grooves thereof.

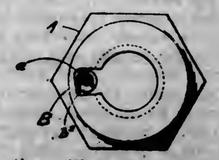
[Claims 6 and 7 not printed in the Gazette.]

1,143,228. COMBINATION-GARMENT. EDWARD J. QUIGLEY, Newark, N. J. Filed Aug. 13, 1913. Serial No. 784,560. (Cl. 2—144.)



A combination garment comprising in a one piece suit, shirt and drawers, the back of said drawers comprising the seat being cut on a diagonal line from the waist line to the outer side of one of the drawer legs.

1,143,229. LOCK-NUT. BENJAMIN D. RADCLIFFE, Chicago, Ill., assignor to American Lock Nut Company, a Corporation of New York. Filed Sept. 22, 1913. Serial No. 791,242. (Cl. 151—25.)



1. The combination with a lock nut having a recess therein, of a key having locking collars thereon loosely supported in said recess, and a sheet metal device resiliently supported within said recess and having a clip thereon loosely surrounding the key to retain the same within said recess and to permit its movement into locked and unlocked positions relatively to the thread on the bolt, the said device also having a spring thereon engaging said key to lift the same into contact with the threads on the bolt.

2. The combination with a lock nut having a recess therein, of a key having spaced locking collars thereon loosely supported in said recess, and a key retaining device formed of resilient sheet metal sprung into said recess and held therein by the engagement of its opposite edges with the opposite side walls of said recess, said device having a clip cut therefrom and bent loosely around said key to retain the same within said recess and to permit movement thereof into locked and unlocked positions relatively to the bolt.

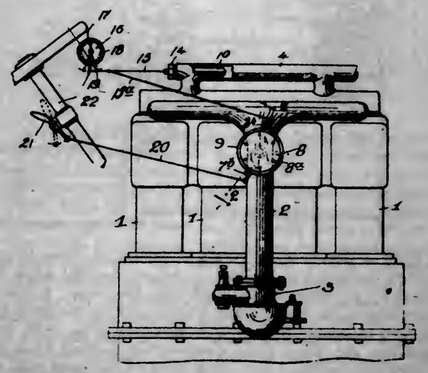
3. The combination with a lock nut having a recess therein, of a movable key having spaced locking collars thereon loosely supported in said recess, and a sheet metal device resiliently supported within said recess and having clips thereon loosely surrounding the key intermediate of said spaced collars to retain the key within said recess and to permit its movement into locked and unlocked positions relatively to the thread of the bolt.

4. The combination with a lock nut having a recess therein, of a key having spaced locking collars thereon loosely supported in said recess, and a sheet metal device resiliently supported within said recess and having clips thereon loosely surrounding the key intermediate of said collars to retain the key within said recess and to permit its movement into locked and unlocked positions relatively to the thread on the bolt, the said device also having a spring thereupon engaging said key intermediate of said collars to lift the same into contact with the threads on the bolt.

5. The combination with a lock nut having a recess therein, of a key having spaced locking collars thereon loosely supported in said recess, and a key-retaining device formed of resilient sheet metal sprung into said recess and held therein by the engagement of its opposite edges with the opposite side walls of said recess, said device having clips cut therefrom and bent loosely around said key to retain the same within said recess and to permit the movement thereof into locked and unlocked positions relatively to the bolt, the said device also having a resilient tongue cut therefrom and engaging said key to lift the same into contact with the bolt.

[Claims 6 and 7 not printed in the Gazette.]

1,143,230. AIR-CONTROLLED DEVICE FOR GAS-ENGINES. WILLIAM A. ROOT, Bennington, Vt. Filed Apr. 4, 1914. Serial No. 829,575. (Cl. 123—124.)



1. The combination of an engine having a cooling water passage, a carbureter, and a passage for mixture therefrom to the engine, with means to admit air to said passage independent of the carbureter, and means in thermal rela-

tion to the cooling water to automatically operate the first named means in accordance with the temperature of said water.

2. The combination of an engine having a cooling water passage, a carbureter, and a passage for mixture therefrom to the engine, with means to admit air to said passage independent of the carbureter, a thermostatic device in thermal relation to said water, and means operatively connecting said device with the first named means for automatically operating the latter in accordance with the temperature of said water.

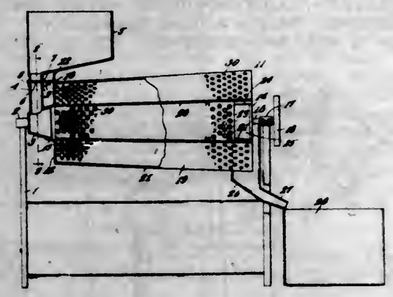
3. The combination of an engine having a cooling water passage, a carbureter, and a passage for mixture therefrom to the engine, with a casing connected with said passage, an apertured disk or plate carried by said casing, a second apertured disk or plate movably carried by the casing, whereby said apertures may register more or less, a thermostatic device in thermal relation to said cooling water, and means connecting said device with one of said disks or plates for operating the latter in accordance with the temperature of the water.

4. The combination of an engine having a cooling water passage, a carbureter, and a passage for mixture therefrom to the engine, with a casing connected with said passage, an apertured disk or plate carried by said casing, a second apertured disk or plate movably carried by the casing, whereby said apertures may register more or less, a thermostatic device in thermal relation to said cooling water, means connecting said device with one of said disks or plates for operating the latter in accordance with the temperature of the water, a third apertured disk or plate, and means to at will control the latter to at will vary the flow of air through the first named disks or plates as controlled by the thermostatic device.

5. The combination of an engine having a cooling water passage, a carbureter, and a passage for mixture therefrom to the engine, with means to admit air to said passage independent of the carbureter, and means in thermal relation to the cooling water to automatically operate the first named means in accordance with the temperature of said water, and an indicator connected with said thermostatic device to indicate the temperature of said cooling water.

[Claims 6 to 8 not printed in the Gazette.]

1,143,231. CROWN-CLEANING MACHINE. EDWARD H. SCHAEFER, Stapleton, N. Y. Filed Sept. 15, 1913, Serial No. 789,931. Renewed Apr. 14, 1915. Serial No. 21,450. (Cl. 83—56.)

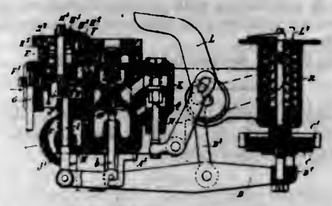


1. In a device of the class described, a drum having sorting perforations; means for supporting the drum for rotation; a hopper discharging into the drum; a cut off operating in the hopper; and a projection on the drum and adapted to engage the cut off to move the same to an open position; the drum being downwardly inclined from the hopper and having a transverse wall at its lower end, the drum having a discharge opening in its side wall and adjacent its lower end, the discharge opening being located above a line tangent to the bottom of the drum when the projection is engaged with the cut off, thereby to prevent crowding of unsorted material along the inclined drum and out of the opening when an increment of unsorted material is deposited in the drum by the operation of the cut off.

2. In a machine for sorting bottle caps, a drum comprising a plurality of peripheral plates, the longitudinal edges of pairs of adjacent plates being spaced to define outlet openings, the plates defining the angles of a polygon and the longitudinal edges of the plates of each pair being in circumferential alinement, the plates having outlet perforations of greater diameter than the width of the openings between the plates; means for supporting the drum for rotation; and means for discharging caps into the drum.

3. In a device of the class described, a rotary, automatically discharging container provided adjacent one end with an outlet opening which moves in an orbit when the container is rotated; a source of supply communicating with the container adjacent the other end thereof; a gate controlling said source; and a means on the container for opening the gate when the container is rotated; the opening being disposed above the lowermost point in its orbit when the gate operating means and the gate are in coacting relation.

1,143,232. AUTOMOBILE TORPEDO. EUGÈNE SCHNEIDER, Le Creuzot, France. Filed July 30, 1914. Serial No. 854,032. (Cl. 60—3.)



1. A device for retarding the admission of working fluid to the engine of a torpedo, comprising a fluid admission valve, means normally restrained from acting on said valve to open the same, and means adapted to be operated by the engine for releasing the valve actuating means after a predetermined number of revolutions of the engine.

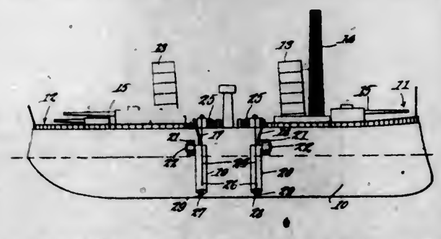
2. A device for retarding the admission of working fluid to the engine of a torpedo, comprising a fluid admission valve, a push rod for opening said valve, and a clutch device one member of which has driving connections with the engine and means connected with said rod and in the path of the companion clutch member for restraining movement of said push rod during engagement of said clutch members and released by said companion member after a predetermined number of revolutions of the engine.

3. A device for retarding the admission of working fluid to the engine of a torpedo, comprising a fluid admission valve, a push rod for opening said valve, a clutch device having two clutch members, one of which has driving connections with the engine, and the other provided with a recess, a spring-pressed rod connected with said push rod and in the path of the said other clutch member to restrain movement of said push rod during engagement of said clutch members, and released for opening said valve when a predetermined number of revolutions of the engine brings said opening opposite the end of said spring-pressed rod to release the clutch.

4. A device for retarding the admission of working fluid to the engine of a torpedo, comprising a fluid admission valve, a push rod for opening said valve, a clutch device having two clutch members one of which has driving connections with the engine and the other provided with an opening and means for angularly displacing said member to set said device, a spring-pressed rod connecting with said push rod and in the path of said other clutch member to restrain movement of said push rod during engagement of said clutch members, and released for opening said valve when a predetermined number of revolutions of the engine brings said opening opposite the end of said spring-pressed rod to release the clutch.

5. In a fluid admission device for automobile torpedo engines, the combination of a low speed fuel admission valve and a high speed fuel admission valve adapted to operate in succession, normally restrained operating means for the last-named valve, and engine driven means adapted to release said valve operating means after a predetermined number of revolutions of the engine shaft.

1,143,233. DEVICE FOR ATTRACTING SUBMARINES AND THE LIKE. LOUIS SCHRAMM, Jr., Armiger, Md. Filed Dec. 30, 1914. Serial No. 879,661. (Cl. 114—0.5.)



1. In combination with a ship, powerful electromagnets, means for energizing them, means for securing them to the ship to project from the sides thereof, an electric circuit on the ship, and contacts in said circuit in advance of the magnets.

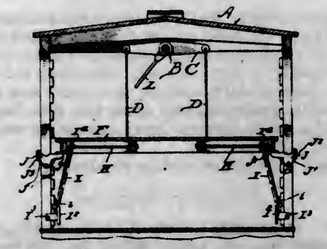
2. In combination with a ship, powerful electromagnets, means for energizing them, means for securing them to the ship to project from the sides thereof, an electric circuit on the ship, and contacts in said circuit in advance of the magnets, said contacts being protected by glass caps.

3. In combination with a ship, powerful electromagnets, means for energizing them, means for securing them to the ship to project from the sides thereof, an electric circuit on the ship, contacts in said circuit in advance of the magnets, and a bell in said circuit.

4. In combination with a ship, powerful electromagnets, means for energizing them, means for securing them to the ship to project from the sides thereof, an electric circuit on the ship, and contacts in said circuit in advance of the magnets, and a lamp in said circuit.

5. A ship provided with brackets on its sides, electromagnets pivoted in said brackets, means for energizing the magnets and means for handling the magnets on their pivots.

1,143,234. FREIGHT AND STOCK CAR. JOHN BELL SHELTON, Tacoma, Wash., assignor of one-half to Peter David, Tacoma, Wash. Filed Sept. 26, 1914. Serial No. 863,691. (Cl. 105—15.)



1. In a car, a relatively short rotatable shaft suitably journaled and centrally located within the car having right and left hand screw threaded portions, an arm fitted to each screw threaded portion of the shaft adapted to be moved either toward or away from each other upon the rotation of the shaft, a movable stock supporting platform designed to rest upon the floor of the car when not in use, cables suitably guided and supported connecting the arms with the movable platform, and manually actuated means located within the car and carried by the shaft adapted to rotate the latter in either direction, whereby the platform may be raised or lowered.

2. In a car of the character described, a body having a door opening therein, a vertically movable platform within the car body, means for supporting, raising and lowering the platform, rods carried by the platform adapted to support stock doors, and means adapted to slidably hinge the stock doors to the rods carried by the platform, whereby the doors may be folded under the platform upon lowering the latter to the floor of the car body.

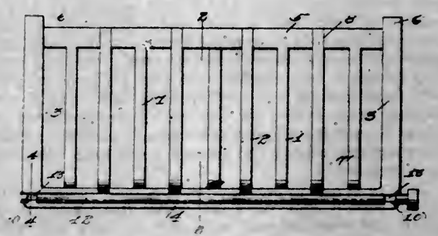
3. In a car of the character described, a winding shaft, a platform connected with said shaft, means for rotating the shaft to raise or lower the platform, and a plurality of U-shaped brackets hinged to vertical members of the car body and adapted to be rocked into position to receive and support the platform when raised, or out of the path of said platform, whereby the platform may be lowered to the floor of the car.

4. In a car of the character described, a rotatable shaft, a platform connected with the shaft, means for rotating the shaft to raise or lower the platform, a plurality of U-shaped brackets hinged to vertical members on opposite sides of the car body, the brackets for each side being connected together to operate as a unit, whereby they may be collectively rocked into a position to support the platform when raised and shifted out of the path of the platform that it may be lowered.

5. In a car of the character described, a rotatable shaft, a platform frame connected with the shaft, means for rotating the shaft to raise or lower the platform frame, a plurality of U-shaped brackets hinged to and partially surrounding members of the car frame and adapted to support the platform frame when raised, said brackets being adapted to engage the platform frame, whereby the platform and walls of the car are linked together to provide against spreading of the car walls due to the load carried by the car.

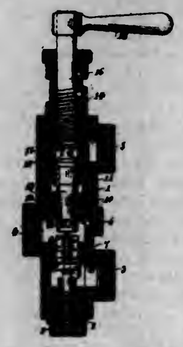
[Claims 6 and 7 not printed in the Gazette.]

1,143,235. GRATE. JACOB A. SHUPING, Morganton, N. C. Filed Feb. 12, 1915. Serial No. 7,815. (Cl. 126—164.)



A grate comprising a stationary frame having a substantially U-shaped upper bar structure, members depending from the rear ends of said bar structure, a lower rear bar supported by said members, stationary grate bars connected with the intermediate portion of said upper bar structure and said lower rear bar, said lower rear bar provided with alternating recesses, the intermediate portion of said upper bar structure provided with a longitudinal channel extending approximately the entire length thereof, lugs on said upper bar structure overhanging said channel, said upper bar structure provided with a series of cut-outs, said cut-outs communicating with said channel, a rod arranged in said channel and projecting beyond the ends thereof, an operating element on said rod, said rod provided with cut-outs in alinement with said lugs, a series of grate bars fixed to said rod and operating in said recesses and said first mentioned cut-outs for the purpose specified.

1,143,236. HIGH-PRESSURE VALVE. HARVEY SLATER, Chicago, Ill., assignor to Charles F. Elmes Engineering Works, Chicago, Ill., a Corporation of Illinois. Filed Aug. 11, 1913. Serial No. 784,074. (Cl. 138—16.)



1. In a valve mechanism, the combination with a casing having a machine supply port, an inlet and an exhaust, and a normally closed valve for said inlet, of a floating piston between said port and exhaust, means adapted to be moved in one direction to move said piston from an inoperative position into engagement wtih said inlet valve to open the same, an exhaust controlling valve operatively connected to said means, said means in one position adapted to form a stop for said floating piston in its movement out of engagement with said inlet valve and adapted to be moved into another position to permit unseating of said exhaust controlling valve.

2. In a valve mechanism, the combination with an inlet valve, of a piston adapted to engage with and move said valve in one direction to unseat the same, said piston having a movement away from said inlet valve, and having a passageway therethrough, a second valve controlling said passageway, means for holding said second valve in closed position and a port adapted to admit back pressure to said mechanism, said pressure being operable on the release of said holding means for moving said piston out of engagement with said inlet valve.

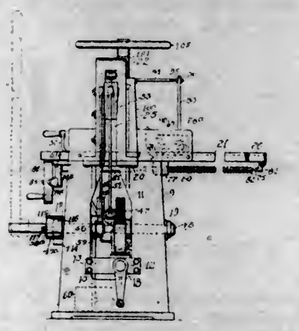
3. In a valve, a casing having a machine supply port, a pressure exhaust, and an inlet to said supply port, a valve controlling said inlet, a valve controlling said exhaust, and a floating piston disposed between said valves independently movable relative to said inlet controlling valve and having a bore placing said port in communication with said exhaust and controlled by said exhaust controlling valve, a stop for limiting the movement of the piston toward the exhaust, and manually controlled means for positively moving the exhaust controlling valve into open position.

4. A valve casing having a pressure inlet and a machine supply port, a main valve for closing communication between said inlet and port, said valve having a pilot valve for equalizing pressures on opposite sides of said main valve, said pilot valve having alined stems projecting beyond opposite sides of the main valve, means for guiding said stems, a housed spring acting on one of said guided stems to seat the pilot valve, and a plunger having a movement adapted to act on the other guided stem longitudinally thereof and on the main valve to unseat both of said valves in succession.

5. In a valve mechanism, the combination with a casing having a machine supply port, an inlet to said port, a normally closed main valve controlling said inlet, a normally closed pilot valve for equalizing pressures between said port and said inlet, an exhaust from said supply port, and a valve controlling said exhaust, of a screw rod having movement in the direction of movement of said exhaust valve to positively close said exhaust valve, and to open successively said pilot-valve and said inlet valve, said means having a material movement between the closing of the exhaust valve and the opening engagement with the pilot valve whereby there will be provided a space in the movement of the said means during which all valves are closed.

[Claims 6 to 12 not printed in the Gazette.]

1,143,237. PAPER-CUTTING MACHINE. JOHN H. STONEMETZ, Grand Haven, Mich., assignor to The Challenge Machinery Company, Grand Haven, Mich., a Corporation of Illinois. Filed Mar. 19, 1910. Serial No. 550,344. (Cl. 164—53.)



1. A paper cutting machine comprising in combination a cutting knife, a drive shaft therefor, a worm gear, a crank arm, and a lever pivotally connected with the cutting knife and adapted to be shifted from the crank arm to the gear whereby the cutting knife may be operated by hand or by power as may be, substantially as described.

2. A paper cutting machine comprising in combination a swinging cutting knife, means for suspending said knife in its operative position, a drive shaft therefor, a counterbalance weight on said shaft, a lever pivotally connecting said weight and cutting knife, a crank arm on said shaft, and a lever pivotally connecting said crank arm with and actuating said cutting knife, substantially as described.

3. A paper cutting machine comprising in combination a cutting knife, a drive shaft, a crank arm and gear on said shaft, a lever pivotally connected at one end to the cutting knife and adapted to be shifted from the crank arm to the gear, and means for actuating the gear when so shifted, substantially as described.

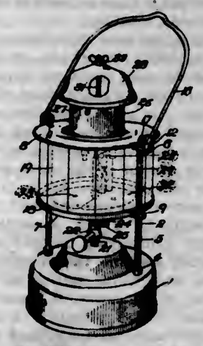
4. A paper cutting machine comprising in combination a base, a cutting knife pivotally suspended above said base, a drive shaft, a counterbalance weight suspended from said shaft inside the base, a lever pivotally connecting said weight and cutting knife, a crank arm upon the drive shaft, and a lever pivotally connecting said crank arm and the cutting knife, substantially as described.

5. A paper cutting machine comprising in combination a swinging cutting knife, means pivotally suspending said knife, a drive shaft, a counterbalance weight suspended from said shaft, a lever pivotally connecting said weight with the cutting knife, a crank arm upon said shaft, a lever pivotally connecting said crank arm with the cutting knife, and a hand operated lever secured to said shaft, substantially as described.

[Claims 6 to 23 not printed in the Gazette.]

1,143,238. LANTERN. JOHN R. SUTTER, Kansas City, Mo. Filed May 11, 1914. Serial No. 837,781. (Cl. 240—11.)

1. A lantern comprising a base, standards rising from the base, a burner closure comprising a globe and spaced base and top members mounted on the standards and adapted to support the globe, a supply tube rising from the base burner members mounted on said supply tube within the globe, and regulating members for the supply tube and burner located between the lantern and globe bases.



2. A lantern comprising a base tank, rods fixed on and rising above the base tank, upper and lower sleeves mounted on said rods, a globe base having apertured portions slidably mounted on the rods and supported on said lower sleeves, ears mounted on the upper sleeves, a globe top slidable on the rods and supported on said ears, a handle pivotally mounted on said ears, a globe mounted between the globe top and base members, a supply tube mounted on the tank, and a burner mounted on the supply tube within the globe.

3. A lantern comprising a base, standards rising from the base, a burner closure comprising spaced base and top members mounted on the standards, and a globe supported between said base and top members, a supply tube rising from the base, burner members mounted on said supply tube within the globe, a rod on said supply tube extending through the top of the globe, and a nut on said rod for clamping the globe in position.

4. A lantern comprising a base tank, standards rising from said tank, a handle on said standards, a burner closure supported on said standards and comprising top and base members and a globe supported between said base members, a fuel supply pipe rising from said tank and projecting into said burner closure, a burner on said pipe and a damper on said base member surrounding said fuel supply pipe.

5. A lantern comprising a base tank, standards rising from said tank, a handle on said standards, a burner closure mounted on said standards and comprising top and base members, a fuel supply pipe rising from the tank and projecting into said closure, a burner on said pipe, a regulating valve on said burner projecting from the lower part of said closure, an air supply pipe for said burner opening through said base member, and an adjustable damper on said base member adapted to close around said fuel supply pipe and regulating valve.

1,143,239. COFFEE-POT. ROBERT H. TALBUTT, Baltimore, Md., and BENJAMIN O. HUTCHISON, Spartanburg, S. C. Filed Feb. 16, 1914. Serial No. 819,072. (Cl. 53—3.)

1. In a coffee pot, the combination with the body forming a receptacle for the coffee having a pouring spout at one side thereof and an upward extension on said body with an inwardly extending annular projection at the junction of the body and extension, of a ground coffee receptacle fitting within said extension and embodying a circular inclosing wall open at top and bottom, a removable bottom seating on the lower portion of the holder and having an outwardly turned flange for coöperation with the annular projection at the junction of the body and extension whereby the weight of the coffee and its holder is entirely supported by the removable bottom and the bottom will be prevented from becoming separated from the holder, said bottom having a downwardly dished body portion with a relatively small liquid escape opening at the center thereof, and a fabric diaphragm clamped between the bottom and lower edge of the holder and forming a support for the ground coffee, substantially as described.



2. In a coffee pot, the combination with the body portion forming a receptacle for the coffee and having a spout and handle, as described, an upward extension on said body portion, with an inwardly extending bead at the junction between said body portion and extension, of a downwardly tapering ground coffee holder open at top and bottom, a removable bottom for said holder having its bottom portion dished downwardly and provided with a central escape opening and radiating grooves, and a flange portion into which the holder fits and whereby the bottom and holder are clamped together with a wedging action, said flanged portion having its upper edge flared outwardly and of greater diameter than the internal diameter of the bead at the junction of the body and extension, whereby said bead and outwardly flared portion of the bottom flange will coöperate in supporting the ground coffee holder in place, a fabric diaphragm clamped across the lower end of the said holder by the removable bottom and forming a support for the ground coffee, and a cover for the extension extending over and inclosing the upper end of the extension and ground coffee holder.

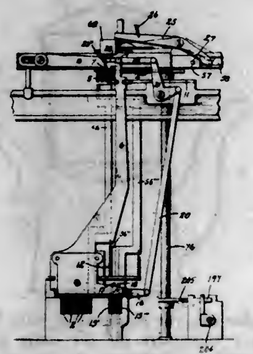
3. In a coffee pot, the combination with the body forming a receptacle for the coffee and having a spout and handle, as described, an upwardly flaring extension on said body and an inwardly projecting bead at the junction of the body and extension, of a downwardly tapering ground coffee holder open at top and bottom and having an inwardly extending flange at the upper end, a removable bottom for said ground coffee holder, having an inclosing flange flaring outwardly at the upper edge to coöperate with the inwardly extending bead and support the holder in position, openings for permitting of the passage of air past the bead and flange, the body portion of said bottom being dished and provided with a relatively small escape opening with channels radiating therefrom, a fabric diaphragm clamped across the lower end of the holder by the removable bottom and forming a support for the ground coffee, and a cover for the body extension arranged over the ground coffee holder, substantially as described.

1,143,240. MULTIPLE-ZERO ESCAPEMENT MECHANISM. OTTO THIEME, St. Louis, Mo., assignor to Moon-Hopkins Billing Machine Company, St. Louis, Mo., a Corporation of Missouri. Filed July 11, 1912. Serial No. 708,859. (Cl. 235—60.)

1. In a machine of the character described, the combination with digit keys and multiple zero keys, setting up pins under control of said keys, and means for setting up a plurality of pins by operation of a single multiple zero key, said means including a differentially movable element and means for controlling the variable throw of said element.

2. The combination with a traveling carriage and its setting up pins, an escapement mechanism for said carriage including fixed and movable pallets, and means for

setting up a plurality of pins in the carriage, said means also varying the relation of one set of pallets to the escapement mechanism whereby the carriage may be differentially advanced.



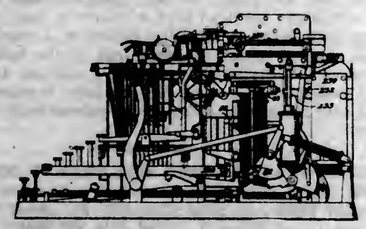
3. The combination with a traveling carriage and its setting up pins, means for advancing the carriage a distance greater than one denomination, said means including an element having a differential throw, and means for simultaneously positioning a number of setting up pins in the carriage corresponding to the differential throw of said advancing means.

4. The combination of a traveling carriage containing setting up pins in longitudinal and transverse series, and key operated means for selectively and simultaneously positioning two or more setting up pins, and escapement mechanism operated by said keys for arresting the advance movement of the carriage proportionate to the number of pins positioned.

5. The combination of a traveling carriage containing setting up pins, multiple zero keys for positioning a selected number of pins, an escapement mechanism for controlling the advance movement of said carriage, and means controlled by said multiple zero keys for displacing a pallet of said escapement mechanism whereby the carriage is permitted to advance a number of spaces corresponding to the number of pins positioned.

[Claim 6 not printed in the Gazette.]

1,143,241. CALCULATING-MACHINE. OTTO THIEME, St. Louis, Mo., assignor to Moon-Hopkins Billing Machine Company, St. Louis, Mo., a Corporation of Missouri. Filed Dec. 17, 1912. Serial No. 737,185. (Cl. 235—60.)



1. In a calculating machine, the combination of variably positionable parts 235 which constitute setting up devices, a totaliser, a key board, means under control of the operator for setting up a number in the said devices and simultaneously introducing said number into said totaliser, and a key and its connections whereby a number may be set up in said devices independently of any operation of said totaliser.

2. In a calculating machine, the combination of variably positionable parts 235 which constitute setting up devices, a totaliser, means for positioning said parts to represent a number at the time that said number is introduced into said totalizer, and means under the control of the operator for returning said parts to zero position independently of any operation of said totaliser.

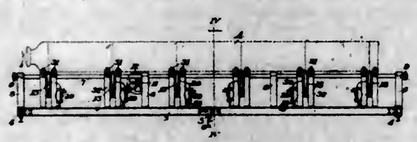
3. In a calculating machine, the combination of variably positionable parts which constitute setting up devices, means for positioning said parts to represent a number, two totalizers, a key and its connections whereby the number introduced into one of said totalizers will be simultaneously represented in said setting up devices, and another key and its connections whereby said setting up devices are placed in control of the other totalizer, and another key and its connections whereby the number represented in said last mentioned totaliser may be cleared therefrom independently of any operation of said first mentioned totalizer and setting up devices.

4. In a calculating machine, the combination of variably positionable parts constituting setting up devices for representing a number in the nature of a multiplicand or subtrahend, a totalizer, and a plurality of keys for placing said setting up devices in control of said totalizer for different arithmetical computations, such as multiplication and subtraction.

5. In a computing machine, the combination of variably positionable parts constituting setting up devices, a key board in control of said parts for positioning them to represent different numbers, a totaliser which is placed under control of said setting up devices for different arithmetical computations, a plurality of keys for determining such control and character of arithmetical computations, and another totalizer, and means in control of said last mentioned totalizer for placing the same under or out of control of the first mentioned totaliser whereby the results of the different arithmetical computations may be accumulated in said second totaliser at the will of the operator.

[Claims 6 to 10 not printed in the Gazette.]

1,143,242. CAPPING-OFF APPARATUS FOR GLASS CYLINDERS. ENNIS H. THOMPSON and JOSEPH E. KAJUT, Arnold, Pa., assignors to Window Glass Machine Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed June 26, 1912. Serial No. 705,968. (Cl. 49—50.)



1. Capping-off apparatus, comprising a plurality of arms arranged in pairs and the pairs in longitudinal alinement, said arms being of curved form and pivotally supported at their lower ends, actuating means for said arms whereby those of each pair may be swung laterally toward and away from each other, together with cracking-off means carried by said arms and arranged to be brought into and out of contact with a glass cylinder embraced by said arms, substantially as described.

2. In apparatus of the character described, a plurality of pivoted arms arranged in pairs and carrying each a cracking-off wire, connections arranged to simultaneously move all of the arms to wrap the wires around the cylinder to be capped-off, and means for passing electric currents through the wires; substantially as described.

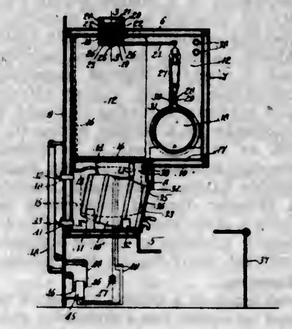
3. In apparatus of the character described, a supporting frame having supports for the cylinder to be operated upon, a plurality of pivoted arms arranged in pairs, each of the pairs carrying a cracking-off wire, means for simultaneously operating all of the arms to wrap the wires around the cylinder, and separate means for controlling the current in each of said wires; substantially as described.

4. In apparatus of the character described, a supporting frame for the cylinder to be operated upon, a plurality of pivoted arms arranged in pairs, a cracking-off wire carried by each pair of said arms, shafts to which the arms are connected, and means for actuating said shafts to thereby simultaneously move all the arms to wrap the wires around the cylinders; substantially as described.

5. In apparatus of the character described, a frame having supports for the cylinder to be operated upon, a plurality of movable arms having cracking-off means, and connections arranged to move the arms to bring the cracking-off means into operative relation with the cylinder, said arms also having means for engaging the cylinder to lift it from the supporting means on the frame and support it while so lifted; substantially as described.

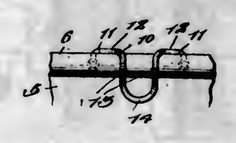
[Claim 6 not printed in the Gazette.]

1,143,243. REFRIGERATOR. LEOPOLD H. VOGEL and JOHN BURROWS, Boston, Mass. Filed Jan. 20, 1910. Serial No. 539,152. (Cl. 62—32.)



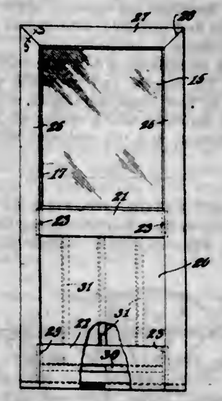
A refrigerator having a serving chamber subdivided into a plurality of compartments, each compartment adapted to hold a cask or the like, there being an aperture in one of the walls of each of said compartments adapted to be closed by the end of a cask, said refrigerator also having a storage chamber located above said serving chamber and extending longitudinally of said chamber, a floor to said storage chamber, trap doors in said floor between each of said compartments and said storage chamber, a portion of said floor at one side of said trap doors adapted to hold a plurality of casks or the like, and hoisting means adapted to select a cask from said plurality of casks and deposit the same into one of said compartments.

1,143,244. FASTENER. JENNIE WILSON, Earl Grey, Saskatchewan, Canada. Filed Aug. 12, 1912. Serial No. 714,658. (Cl. 24—261.)



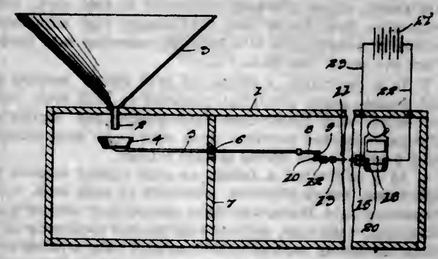
The combination with an object and an element to be supported thereby, of a retaining clip produced from a single strand of resilient wire and having its terminal portions parallel with the extremities thereof flattened, such flattened portions being perforated, anchoring means extending through the perforations to secure the clip to the element, said wire having connected bowed portions to form an intermediate expansible loop and adapted to bridge an end portion of the object, the connection between such bowed portions being reversely bent to constitute a finger piece, said wire immediately above the element being inclined downwardly in opposite directions toward the parallel terminal portions and being capable of flexure relatively thereto.

1,143,245. METAL DOOR. ARTHUR L. ABRAHAMS, Philadelphia, Pa. Filed Jan. 23, 1914. Serial No. 813,965. (Cl. 189—46.)



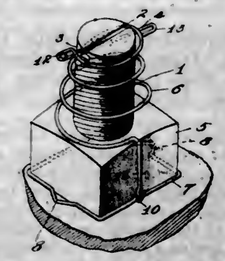
A door comprising a sheet of metal, a portion of which is distorted to form a depressed panel, a stile integral with the panel and a cross rail integral with the panel, the sheet being severed adjacent the point of union between the stile and the cross rail to prevent a buckling of the sheet when the sheet is distorted; and means for uniting the cross rail with the stile.

1,143,246. RAIN-SIGNAL. JOSEPH J. BARRASH, Chicago, Ill. Filed Apr. 22, 1914. Serial No. 833,745. (Cl. 200—27.)



A rain signal comprising a casing, a funnel mounted in the casing, a balancing rod carrying a tray or cup at one end in line with the discharge portion of the funnel, said balancing rod being pivoted in the casing, a trigger connected to said balancing rod, a hook provided with a flexible connection engaged with said trigger, and a spring contact connected to said flexible connection.

1,143,247. NUT-LOCK. EDWARD T. BATES, Washington, D. C. Filed May 9, 1912, Serial No. 696,127. Renewed Nov. 11, 1914. Serial No. 871,632. (Cl. 151—27.)

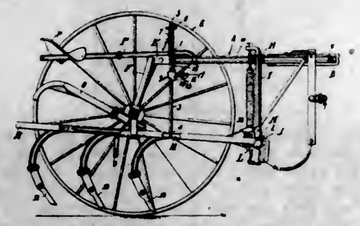


1. A nut-lock comprising a bolt having an undercut transverse slot in its outer end forming opposite overhang-

ing retaining members, a nut, and a helically coiled member engaging the sides of the nut and having a transverse bar at the outer end adapted to enter said slot and engage said retaining members on opposite sides of the slot at the ends thereof and provided with means for putting the helices under tension.

2. A nut-lock comprising a bolt externally screw-threaded throughout its length, and provided with transverse undercut slots at both ends, adjustable nuts at both ends thereof, and a helically coiled spring engaging each nut on the sides thereof, and the undercut walls of the slots in the bolt.

1,143,248. CULTIVATOR. WILLIAM L. BEALL, Albion, Mich., assignor to Gale Manufacturing Company, Albion, Mich. Filed June 24, 1914. Serial No. 847,039. (Cl. 97—35.)



1. In combination with a cultivator having a frame and gangs pivoted for vertical movement, of rods connecting said frame and said gangs, and adjustable latches provided upon said rods and adapted to automatically engage the frame when the gangs are raised.

2. In a cultivator, a frame, an arch rigidly secured to said frame, gangs pivotally connected to said arch, rods connecting said frame and said gangs, and adjustable latches provided upon said rods for engaging said frame when the gangs are lifted.

3. In a cultivator, a frame, an arch rigidly secured to said frame, gangs pivotally connected to said arch, rods connecting said frame and said gangs, and vertically adjustable latches provided upon said rods, said latches being provided with spring pressed catches.

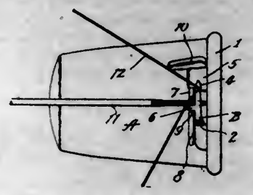
4. In a cultivator, a frame, an arch rigidly secured to said frame, gangs pivotally connected to said arch, rods connecting said frame and said gangs, and latches provided upon said rods, each of said latches consisting of a collar adjustably secured to each of said rods, a catch provided upon said collar, a set screw securing said collar and said catch to said rod, and a spring interposed between said catch and the outer end of said screw.

5. A latch for holding a gang of a cultivator in raised position, comprising a collar, a catch mounted on said collar, a set screw for securing said catch to said collar, a spring interposed between said catch and the outer end of said set screw, and a nut provided on said screw for adjusting the tension of said spring, said set screw being also adapted to secure the collar at any desired point on a supporting part of the cultivator.

1,143,249. COMBINATION THIMBLE AND NEEDLE-THREADER. JAMES H. BOYE, Chicago, Ill., assignor to The Boye Needle Company, Chicago, Ill., a Corporation of Illinois. Filed Aug. 7, 1914. Serial No. 855,637. (Cl. 223—36.)

1. The combination of a thimble having its open end provided with an external bead adapted to serve as a guide for the head of a needle, a projecting external guide-lug extending substantially at right angles to the bead, and a circumferentially extending needle-threader having a shank secured at its base-end to the thimble adjacent to said bead and having a hook with its extremity spaced a short distance from said guide-lug.

2. The combination of a thimble having its open end provided with an external bead adapted to serve as a guide for the head of a needle, a projecting external guide-lug extending substantially at right angles to the bead, a circumferentially extending needle-threader having a shank secured at its base-end to the thimble adjacent to said bead and having a hook with its extremity spaced a short distance from said guide-lug, and a guard-lug disposed beneath said threader.



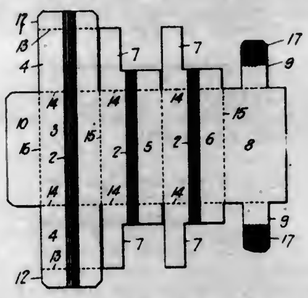
3. The combination of a thimble having its open end provided with an external bead, a projecting external guide-lug extending substantially at right angles to said bead, the thimble having a depression adjacent to said guide-lug, and a threader disposed immediately below said bead and having a shank securely attached to the thimble and an extremity extending over said depression.

4. The combination of a thimble having its open end provided with an external bead, a projecting external guide-lug extending substantially at right angles to said bead, the thimble having a depression adjacent to said guide-lug, a threader disposed immediately below said bead and having a shank securely attached to the thimble and an extremity extending over said depression, and a projecting external guard-lug on the thimble disposed below said threader.

5. The combination of a thimble having its upper edge-portion curved outwardly and downwardly and affording a bead, a circumferentially extending needle-threader disposed beneath said bead and so spaced with relation thereto that said bead will serve as a guide for the head of the needle and as a guard for the threader, and projecting external guards on the thimble protecting the extremity and lower edge of the threader.

[Claims 6 to 9 not printed in the Gazette.]

1,143,250. CARTON. CHARLES H. BUTLER, Denver, Colo. Filed June 6, 1914. Serial No. 843,582. (Cl. 229—16.)



1. A carton formed of a single blank cut and scored to form the sides, bottom, ends and lid of a rectangular box when folded, the said end-pieces being formed integrally at the ends of one of the side pieces, the bottom, side and end-pieces having longitudinally extending series of plaits to permit of the expansion of said box in two directions when the parts of the box are in the folded position, and the blank having tabs adapted to secure the lid to said end pieces.

2. A carton formed of a single blank cut and scored to form the sides, bottom, ends and lid of a rectangular box, when folded, one of the side pieces having along one of its edges a flap to fold inwardly beneath the portion of the lid opposite to its edge at which it connects with the opposite side piece, the end-pieces being formed integral at the ends of the last-mentioned side piece, and the side, end, and bottom pieces having longitudinally extending series of plaits to permit of the expansion of the box in two directions when the parts of the box are in the folded position.

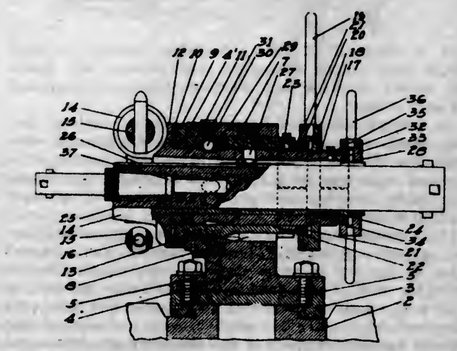
3. A carton comprising a box formed by folding a single blank along determinate score lines to provide a rectangular body having an open top covered by a lid which at one of its edges connects with a side of the said body, the box having in its ends and its sides, a series of plaits for the expansion of the body in one direction and in its bottom, a series of plaits for the expansion of the body in another direction, and means capable of fastening the lid in its closing position to part of the said body whereby to maintain the different parts of which the body is composed in their relative positions.

4. A carton comprising a box formed by folding a single blank along determinate score lines to provide a rectangular body having an open top covered by a lid which at one of its edges connects with a side of the said body, the box having in its ends and its sides, a series of plaits for the expansion of the body in one direction and in its bottom, a series of plaits for the expansion of the body in another direction, and means capable of fastening the lid in its closing position to the ends of the body whereby to maintain the different parts of which the body is composed in their relative positions.

5. A carton comprising a box formed by folding a single blank along determinate score lines to provide a rectangular body having an open top covered by a lid which at one of its edges connects with a side of the said body, the box having in its ends and its sides, a series of plaits for the expansion of the body in one direction and in its bottom, a series of plaits for the expansion of the body in another direction, and means capable of sealing the lid in its closing position by adherence to a part of the body whereby to secure the different parts of which the body is composed in their relative positions.

[Claims 6 to 10 not printed in the Gazette.]

1,143,251. TURRET-POST. CONRAD M. CONRADSON, Madison, Wis. Filed Apr. 25, 1914. Serial No. 834,475. (Cl. 29—48.)



1. A tool post comprising a member mounted to revolve on an axis parallel substantially with the axis of the work, and a tool holder mounted in said member concentric with the axis of the work and an indexing means for said member and tool holder.

2. A turret tool post comprising two concentric members, one having tool holders mounted to revolve in a plane at right angles substantially to the axis of the work and supporting the other member and also having tool holders and movable lengthwise toward and from the work and an indexing means for said member.

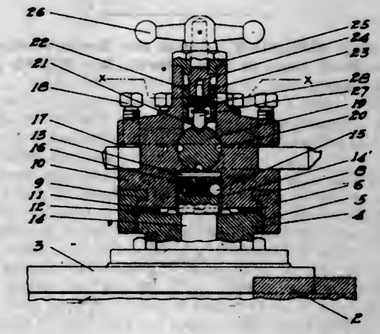
3. A turret tool post comprising two concentric members, one within the other and each having tool holders, and a single indexing means for said members.

4. A turret tool post comprising two concentric members, one stationary and the other movable, having means for interlocking with one another, said movable member having tool holders mounted thereon, a ring mounted for rotation on one of said members, a cone-shaped collar having a threaded connection with said ring, the other member having a tapered surface to engage the corresponding surface of said collar for locking said members together, said collar being held against rotation, the revolution of said ring clamping said members together or releasing them.

5. A turret tool post comprising an outer member, a sleeve therein having means for interlocking with said member, means for separating them or for clamping them together, a collet sleeve mounted within said first named sleeve to move lengthwise independently thereof but revolve simultaneously therewith, a tool holder splined on said collet sleeve, and means for clamping said sleeves together.

[Claims 6 to 13 not printed in the Gazette.]

1,143,252. TURRET TOOL-POST. CONRAD M. CONRADSON, Madison, Wis. Filed Apr. 25, 1914. Serial No. 834,476. (Cl. 29—48.)



1. A turret tool post comprising two members, one adapted to index in a plane parallel to the axis of the work, the other member having its axis at right angles substantially to the axis of the first named member and carried thereby.

2. A turret tool post comprising a revolving tool carrier and a tool holder mounted for rotation in a direction at right angles to the plane of rotation of the carrier and an indexing means for said tool holder.

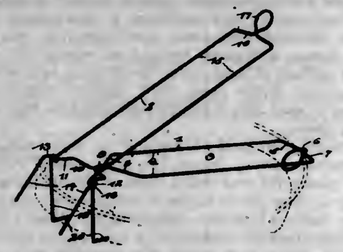
3. A tool post comprising a polygonal turret having a plurality of tool holders, and a tool holder mounted in said turret and an indexing means for said tool holder.

4. The combination, with a standard having a plurality of teeth formed in its upper surface, and a centrally arranged stud projecting above said surface, of a tool post having a centrally arranged socket to receive said stud and recesses in its under surface to receive said teeth, the engagement of said teeth with said recesses locking said post against rotary movement, an indexing means for said post, a finder device coöperating with said stud and the wall of said socket, means for raising and lowering said post to disengage or engage said teeth with said recesses, and a plurality of tool holders mounted in said post.

5. A turret tool post comprising a member having a plurality of tool holders and mounted for rotation on a vertical axis, and a second member carried by said first named member and slidable therein transversely with respect to the axis of said first named member, said second named member having a plurality of tool holders and an indexing means for said second member.

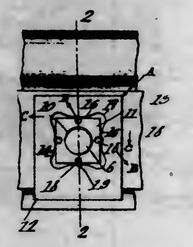
[Claims 6 to 12 not printed in the Gazette.]

1,143,253. POT AND PAN LIFTER. NICOLAE CONSTANTINE, Indiana Harbor, Ind. Filed May 24, 1913. Serial No. 769,648. (Cl. 65—32.)



The herein described combined pot and pan lifter and lid lifter comprising a pair of members pivotally connected together and having gripping arms at their pivotal ends, one of said members having an outwardly extending projection at its outer end and the other having an inwardly extending projection at its outer end, the gripping arms of the first named member having terminal portions at their outer ends extending toward the inturned projection of the other member.

1,143,254. NUT-LOCK. JAMES MAT DAVIS, Wytheville, Va. Filed Dec. 8, 1914. Serial No. 876,114. (Cl. 151—55.)



1. In a nut lock, a bolt and nut structure comprising a rotatable element; and a locking member having an opening in which the rotatable element is received, the outer end face of the rotatable element being distorted to form in the edge of the rotatable element a boss which is engaged with the locking member.

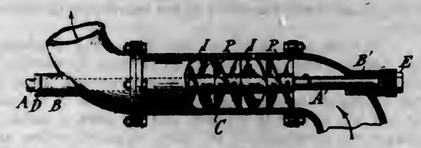
2. In a nut lock, a bolt and nut structure comprising a rotatable element; and a locking member having an opening in which the rotatable element is received, the outer end face of the rotatable element being provided close to its edge with a recess defining in the edge of the rotatable element a boss which is engaged with the locking member.

3. In a nut lock, a bolt and nut structure comprising a rotatable element; and a locking member having an opening in which the rotatable element is received, the opening being of sinuous peripheral outline to define shoulders adjacent the edges of the rotatable element and to define openings adjacent the corners of the rotatable element; the rotatable element being provided in its edge with bosses which are engaged with the shoulders.

1,143,255. PUMP. RAYMOND A. DORNES, New York, N. Y. Filed Aug. 7, 1912. Serial No. 713,775. (Cl. 103—43.)

1. A pump comprising a shaft, a propeller blade section mounted fixedly thereon, and an idler blade section mounted loosely thereon, the pitch of said propeller and idler blades having the same direction.

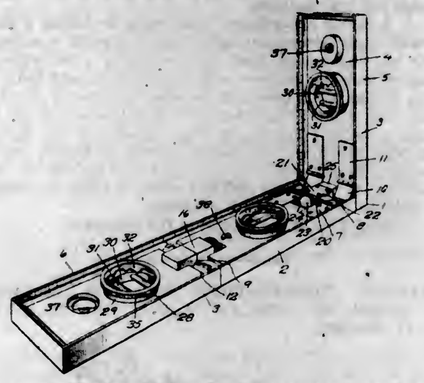
2. A pump comprising a shaft, a propeller blade section mounted fixedly thereon and an idler blade section mounted loosely thereon and on the delivery side of such propeller blade section, the pitch of said propeller and idler blades having the same direction.



3. A pump comprising a shaft, a plurality of propeller blade sections mounted fixedly thereon and a plurality of idler blade sections mounted loosely thereon, the pitch of said propeller and idler blades having the same direction.

4. A pump comprising a casing, a shaft, a propeller blade section mounted fixedly thereon, and an idler blade section mounted loosely thereon, the pitch of said propeller and idler blades having the same direction, and being of different value.

1,143,256. FOLDING LEVEL AND PLUMB-RULE. GEORGE P. DEWEES, Kansas City, Mo. Filed Mar. 20, 1913. Serial No. 755,794. (Cl. 33—75.)



1. A combination tool, comprising separate sections, triple joint hinges connecting said sections, and means for rigidly securing said sections together independent of said hinges.

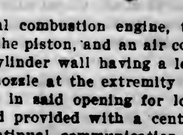
2. A combination tool comprising separate sections having dowel and socket members respectively, and compensating hinges connecting said sections whereby the doweled ends may be brought into abutment, and means for rigidly securing said parts in alinement or at right angles to each other.

3. A combination tool comprising separate sections having a web and laterally directed flanges, an apertured boss on the end of one section having one face in line with the ends of said flanges, a screw loosely mounted in said boss, a boss on the end of the other section having its side and end faces in line with the sides and ends of said flanges and having side and end apertures adapted for receiving said screw.

1,143,257. COMBINED ROTARY DRILLING NUT AND SLIPS. EDWARD DOUBLE, Los Angeles, Cal. Filed June 8, 1914. Serial No. 843,707. (Cl. 255—23.)

1. In combination with a rotary string, a rotary table, a plurality of members rotated by the table, each of said members being provided with means on one surface for holding the string against longitudinal movement, and with means on another surface for imparting rotation to the string when the table is rotated.

2. In combination with a rotating table and string, a plurality of members rotated by the table, each of said members having a series of teeth on one face adapted to grip the string and hold the same from longitudinal movement, and having another face formed with a flat surface to engage the flat face of the stem of the string and impart rotation thereto.



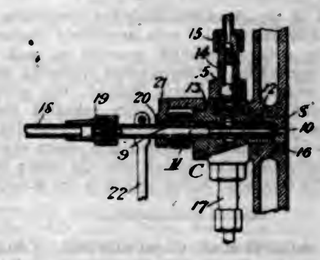
3. In combination with a rotary table and string, a plurality of members reversibly mounted with respect to the table, each of said members being provided with means for gripping the string to suspend the string, and with means to rotate the string.

4. In combination with a rotating table and string, a plurality of wedge shaped members, each of said members being provided with means for supporting the string against longitudinal movement, and with means for rotating the string, said table having inclined supporting means for supporting said wedge shaped members.

5. In combination with a rotating table and string, members reversibly mounted on the table, and each provided with a face having a series of teeth for gripping the string to suspend the string and provided with another face having a flat surface for engaging the flattened surface of the stem of the string for rotating the string.

[Claims 6 to 11 not printed in the Gazette.]

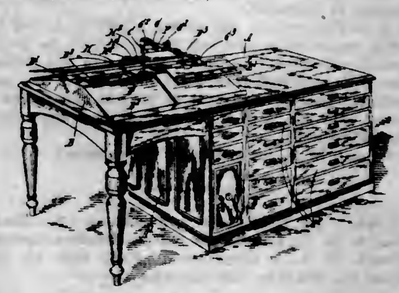
1,143,258. INSPIRATOR FOR INTERNAL-COMBUSTION ENGINES. HERMON E. DUNHAM, Seattle, Wash. Original application filed Dec. 17, 1913, Serial No. 807,229. Divided and this application filed June 11, 1914. Serial No. 844,562. (Cl. 123—33.)



1. In an internal combustion engine, the combination with the cylinder, the piston, and an air compressor, of an inspirator in the cylinder wall having a longitudinal bore or opening and a nozzle at the extremity of said opening, a plunger mounted in said opening for longitudinal sliding movements and provided with a central longitudinal air passage in continual communication with the opening of said nozzle whereby the flow of air through said passage to the cylinder is controlled by the piston, longitudinal fuel and water passages parallel with the air passage and communicating therewith at the end of the plunger, the inspirator having a portion adjacent the nozzle with which the extremity of the plunger is adapted to coöperate to control communication between the air and fuel passage and between the air and water passage, means to admit air from the compressor to the air passage to force the fuel and water through said nozzle, and means to actuate said longitudinally slidable plunger.

2. In an internal combustion engine, the combination with the cylinder, the piston, and fluid compressing means, of an inspirator in the cylinder wall having a longitudinal bore or opening and a nozzle at the extremity of said opening, a plunger mounted in said opening for longitudinal sliding movements and provided with a central fluid passage in continual communication with the opening of said nozzle whereby the flow of fluid through said passage to the cylinder is controlled by the piston, independent passages adapted to discharge adjacent the nozzle into the fluid passing through said central passage, the inspirator having a portion adjacent the nozzle with which the extremity of the plunger is adapted to coöperate to control communication between the central passage and each of said independent passages, and means to actuate said plunger.

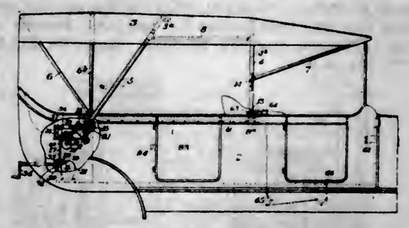
1,143,259. OFFICE-DESK AND THE LIKE. JAMES DUNNE, London, England. Filed Jan. 19, 1912. Serial No. 672,080. (Cl. 45—81.)



1. A rotatable book rest having a plurality of inclined surfaces, each of said surfaces being arranged to support a book, a shield adjustable relative to said books, said shield being arranged to cover either of said books, and a spindle on which said book rest is rotatably mounted, the book rest being adapted to be rotated with relation to the shield; substantially as described.

2. A book rest having a plurality of sloping surfaces, each of which is arranged to receive a book, a spindle on which the book rest is rotatably mounted, a shield adjustably connected to said spindle and arranged to cover one of said books, and a second shield adjustably connected to said spindle and arranged to cover a portion of one of said books, the second shield having a slot therethrough, said book rest being arranged to be rotated relative to both of said shields; substantially as described.

1,143,260. TOP-OPERATING MECHANISM FOR AUTOMOBILES. SAMUEL F. DUPREE, Jr., GEORGE RITTER, and AUGUST HECKMAN, Wilkinsburg, Pa. Filed Nov. 26, 1913. Serial No. 803,169. (Cl. 21—62.)



1. A folding vehicle top having pivoted rear frame members and forwardly and backwardly sliding foldable front frame members, adjustable braces between the two members, gearing connected to the rear members to move the same on their pivots, other gearing connected to the bracing members, and motive means for actuating said gearings, substantially as described.

2. The combination with a vehicle body having side guides or tracks, of a foldable top having frame members mounted to run in said guides or tracks, gearing for moving said members, and a motor for actuating said gearing, portions of said tracks being carried by the vehicle doors and said doors having contacts which in part control the circuit of said motor, substantially as described.

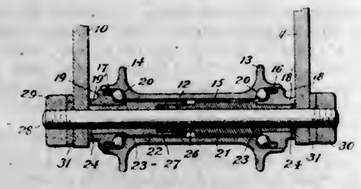
3. A foldable vehicle top having hollow, slotted, pivoted, rear bows, and front frame members, gearing connected to said bows to move the same on their pivots, threaded rods extending through said bows and nuts arranged to travel on said rods, gearing for rotating the rods, and bracing members extending from the nuts to the front frame members of said top, substantially as described.

4. A foldable vehicle top having a foldable frame member, gearing for moving said frame member on its pivot to raise and lower the same, said top also having a brace member connected thereto, and other gearing for moving the brace member into and out of bracing position, substantially as described.

5. A foldable vehicle top having a hollow, slotted bow, gearing connected to said bow to move it on its pivot, a threaded rod extending through the bow, a nut arranged to travel on said rod, gearing for rotating the rod, and a top-bracing member connected to the nut and to the top together with means for operating said gearing, substantially as described.

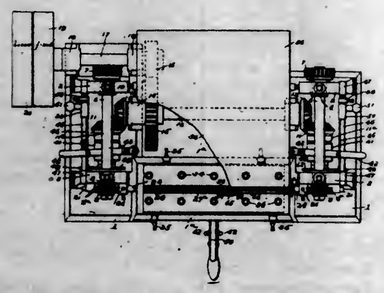
[Claims 6 to 11 not printed in the Gazette.]

1,143,261. BICYCLE-HUB. FREDERICK S. ELLETT, Elmira, N. Y., assignor to Eclipse Machine Company, Elmira, N. Y., a Corporation. Filed Mar. 22, 1912. Serial No. 685,510. (Cl. 21—31.)



A hub comprising a barrel, tubular members having their inner ends in screw-threaded engagement and adapted to rotatably support said barrel, supports for the hub arranged at the outer ends of said tubular members, and a bolt extending through said tubular members and said supports and on which said tubular members may be turned, said bolt being removable without disturbing said supports and adapted to clamp said supports against the outer ends of said tubular members.

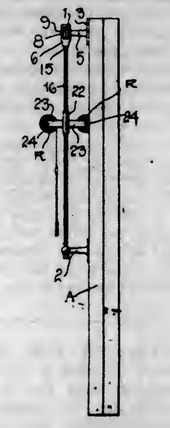
1,143,262. METHOD OF MAKING CHAIN MESH. WILLIAM H. EYNON, Cleveland, Ohio. Original application filed Dec. 27, 1909, Serial No. 535,196. Divided and this application filed Jan. 30, 1914. Serial No. 815,578. (Cl. 140—3.)



1. The method of making chain-mesh, consisting in (1) cutting the coils of a helix, (2) moving the several ends into closed links, (3) simultaneously forming rotating and projecting a helix whereby the convolutions thereof enter through said closed links, and (4) repeating the cutting and forming operation as in (1) and (2).

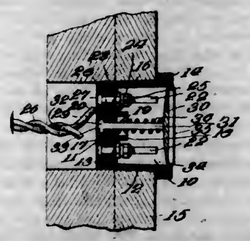
2. The method of making chain-mesh, consisting in (1) forming and projecting a wire helix in a common plane, (2) cutting the coils of said helix and bringing the cut ends into registry to form links, and (3) moving and holding said formed links in a common plane to receive the convolutions of the next helix.

1,143,263. SHADE-HANGER. EDWARD W. FISHBURNE, Richmond, Va., assignor of three-sixths to August Meyer, two-sixths to Thomas B. Leonard, and one-sixth to John Askin, Richmond, Va. Filed July 25, 1914. Serial No. 853,135. (Cl. 156—27.)



A device of the character described comprising vertically spaced brackets, guide rods operatively supported by the brackets, a barrel slidably mounted on each of the rods, arms carried by the barrels and projecting laterally therefrom midway the length thereof, the extremities whereof being provided with roller engaging means, a perforate ear carried by each barrel and projecting therefrom in the same general direction, and means engageable with the perforate ears coacting with the upper brackets for imparting movement to the barrels in one direction.

1,143,264. ELECTRICAL PUSH-BUTTON. CHARLES A. FRANCK, Yonkers, N. Y. Filed Feb. 3, 1914. Serial No. 816,249. (Cl. 177—10.)

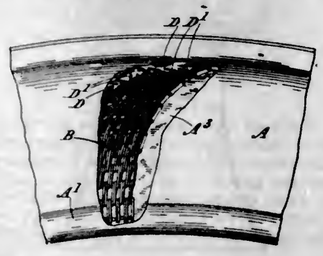


1. A push-button including a base of insulating material, a tubular housing of insulating material closed at one end by the base, binding posts extending through the base with their ends adjacent the end of the housing, the base being formed with central opening slots extending radially from the opening, a metallic button movable in the housing, with a shank extending through the opening of the base, said shank having shoulders which pass through the slots of the base and engage the outer face of the base upon partial rotation of the push-button to hold the same against outward displacement, and a spring normally holding the button, with the shoulders of its shank, in engagement with the outer face of the base.

2. A push button including a housing, binding posts carried by the housing, the housing being provided with an opening and with slots extending radially from the opening, a button mounted in the housing and movable into and out of engagement with the contacts, a shank carrying the button and movable through the opening, shoulders formed upon the shank and movable through the slots in one position of the shank, and a spring bearing between the button and housing.

3. A push button including a housing, contacts in the housing, the housing being provided with an opening and with slots extending radially from the opening, a button mounted in the housing and movable into and out of engagement with the contacts, means normally holding the button out of engagement with the contacts, a member carrying the button and movable through the opening, and shoulders formed upon the member and movable through the slots in one position of the member.

1,143,265. ARMORING PNEUMATIC TIRES. CLAUDE MARIE GAUTIER, Putney, London, England. Filed June 27, 1914. Serial No. 847,721. (Cl. 152—18.)

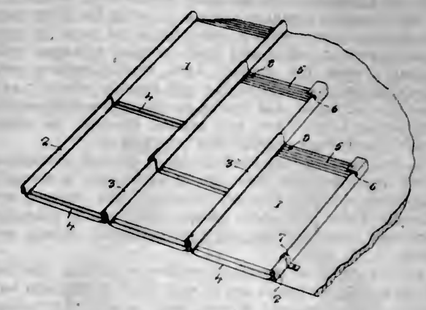


1. A protective cover for pneumatic tires, comprising a plurality of chains placed side by side within the cover, and a layer of textile material within the cover below the chains, said chains extending transversely to the tread of the tire at an oblique angle to the circumferential line of the tire, said angle increasing in acuteness from the sides toward the center and being of maximum acuteness at the center, each chain being twisted about its longitudinal axis as the chain approaches the center of the tread and twisted back as it recedes from the center on the other side of the tire, so that the chain lies close to the textile material, substantially as described.

2. A protective cover for pneumatic tires, comprising a plurality of chains placed side by side within the cover, a layer of textile material within the cover below the chains, said chains extending transversely to the tread of the tire at an oblique angle to the circumferential line of the tire, said angle increasing in acuteness from the sides toward the center and being of maximum acuteness at the center, each chain being twisted about its longitudinal axis as the chain approaches the center of the tread and twisted back as it recedes from the center on the other side of the tire, so that the chain lies close to the textile material, a layer of textile material between the chains and the tread, and means for securing the chains to the last mentioned layer of textile material, substantially as described.

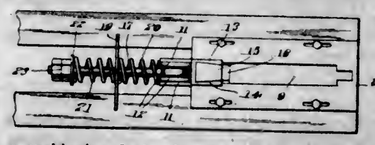
1,143,266. METALLIC SHINGLE. JAMES T. HAMILTON, Davenport, Okla. Filed June 17, 1913. Serial No. 774,179. (Cl. 108—17.)

A shingle formed from a metallic sheet which is approximately rectangular in plan and having at one side edge an upstanding flange consisting of a double fold of material the inner one of which is provided in the vicinity of the end of the shingle with a transverse incision which extends from the edge of the flange to the line of connection between the folds of the flange, the shingle



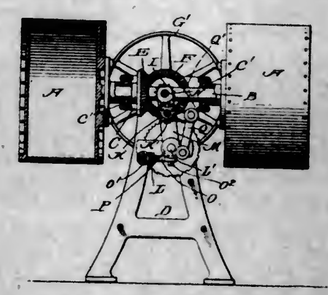
being provided at its opposite edge with a flange consisting of a triple fold of the material.

1,143,267. CUSHION DEVICE FOR NIGGER-BARS. WILLIAM A. HARROLD, Wausau, Wis. Filed July 24, 1914. Serial No. 852,909. (Cl. 143—97.)



In a cushioning device for nigger bars, a plate capable of sliding movement and having a longitudinal slot formed therein to receive the nigger bar, a flange depending from said plate contiguous the side and end walls of the slot therein, ears projecting rearwardly from said plate, tension means connected with said ears, webs uprising from said ears, a substantially U-shaped yoke connected with the forward end edges of said webs and having the limbs thereof disposed at the opposite sides of the slot in said plate, the inner faces of the limbs of said yoke, the contiguous portions of the side walls of said slot and adjacent portions of the side walls of said flange diverging rearwardly to form a dove tailed way, and an abutment block within said way designed to receive the impact of the nigger bar in the aft movement thereof.

1,143,268. TUMBLING-BARREL. JOHN HENDERSON, Waterbury, Conn. Filed Apr. 12, 1912. Serial No. 690,379. (Cl. 51—14.)



1. In a machine of the kind described a support, a frame pivotally mounted thereon, a shaft passing through said frame, a tumbling barrel mounted upon each end of the shaft projecting beyond the frame, gearing arranged within said frame for rotating said shaft, together with means connecting said frame and gearing, whereby said frame is oscillated simultaneously with the

rotation of the shaft; the barrels at the ends of shaft counter-balancing each other.

2. In a machine of the kind described, a support, a frame pivotally mounted therein, a rotatable shaft passing through said frame, a tumbling barrel mounted upon each projecting end of said shaft, gearing arranged within said frame for rotating said shaft, together with means connecting said frame and gearing whereby said frame is oscillated, and means for adjusting said connection between the frame and gearing whereby the amplitude of oscillation of frame can be regulated.

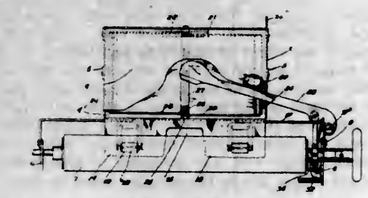
3. In a device of the kind described, a shaft, a tumbling barrel mounted upon each end of said shaft, a pivotally supported frame arranged between said barrels and through which the shaft passes, and means connected with said frame for rotating said shaft and rocking said frame.

4. In a device of the kind described a shaft, a tumbling barrel arranged at each end of said shaft, a pivotally supported frame arranged between said barrels and through which said shaft passes, gears arranged within the frame for rotating said shaft and means operated from said gears for rocking said frame; the tumbling barrels counter-balancing each other.

5. In a device of the kind described, a shaft, a tumbling barrel mounted upon each end of said shaft, a pivotally supported frame in which the shaft is journaled, said frame being located between the barrels, gears arranged within the frame for rotating said shaft, a link for rocking said frame, and operative means connecting said link and gears.

[Claims 6 to 8 not printed in the Gazette.]

1,143,269. ENVELOP AND CARD FEED DEVICE FOR TYPE-WRITING MACHINES. EDWARD B. HESS, New York, N. Y., assignor, by mesne assignments, to Royal Typewriter Company, Inc., New York, N. Y., a Corporation of New York. Filed Aug. 16, 1911. Serial No. 644,386. (Cl. 197—130.)



1. An envelop reservoir for typewriting machines adapted to have envelops fed therefrom one by one to the paper-feed devices of a typewriter machine and horizontally arranged supporting brackets adjustably connected with the bottom of the reservoir and extending laterally therefrom and having devices at their outer ends for securing them to the side plates of a typewriter carriage.

2. An envelop reservoir for a typewriting machine provided with spring pressure devices pivotally connected to move toward and from each other about a vertical axis and adapted to press forward the contained envelops.

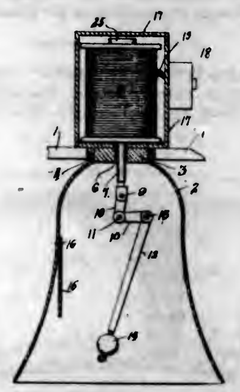
3. An envelop reservoir for a typewriting machine provided with spring-pressure devices pivotally connected within the reservoir to move about a vertical axis toward and from each other and adapted to press forward the contained envelops.

4. An envelop reservoir adapted to be mounted upon the carriage of a typewriting machine and provided with an ordinary rotatable platen, spring means arranged at the rear of the reservoir to force the contained envelops to the front thereof, a feed lever pivoted at one end to move about an axis transverse to the axis of the platen, a vertically movable arm operatively connected with the lever between its free end and its pivot and adjacent the latter, and means turning with the platen and operating upon the vertically disposed arm to vibrate the lever to feed an envelop once in each revolution of the platen.

5. An envelop reservoir adapted to be mounted upon the carriage of a typewriting machine having an ordinary rotatable platen, spring means arranged at the rear of the reservoir to force the contained envelop to the front thereof, a feed-lever pivoted at one end, a vertically movable arm operatively connected with the lever between its free end and pivot and adjacent the latter, means turning with the platen and operating upon the vertically disposed arm to vibrate the lever to feed an envelop once in each revolution of the platen, and a projection from the front of the reservoir extending downwardly in rear of the platen and supplementary feed rolls carried thereby and coöperating with the platen.

[Claims 6 to 16 not printed in the Gazette.]

1,143,270. AUTOMATIC SHIP'S BELL. JOEL E. HUDSON, Batavia, N. Y. Filed Feb. 16, 1912. Serial No. 677,909. (Cl. 177—7.)



1. A device as specified, including a bell open at one end, a pivoted clapper for said bell, an electro solenoid magnet mounted above and concentric with the longitudinal axis of the bell, a core therefor, means connecting said core with the clapper, shock absorbing means carried by the magnet and engageable with the core at times, and means carried by the bell to assist in returning of the clapper to normal position.

2. In an air bell device, a supporting structure having an opening formed therein for the reception of a packing ring, a bell open at one end depending from said support having an enlarged portion formed at its upper end, said enlarged portion entering said packing ring, a housing mounted on said supporting structure, an electro solenoid magnet disposed in said housing, a plate secured to the upper portion of said magnet, said plate having a head portion connected thereto, a coiled spring engaging said head portion, the core of said magnet adapted to operate at bottom of the magnet and through said enlarged portion, a clapper mounted in said bell, a bell crank lever pivoted to the bell pivotally connecting said clapper and said core, and a leaf spring connected to one side of said bell adapted to be engaged by said clapper during swinging movement thereof to assist its retraction to prevent prolonged ringing periods and permit quick successive operations of the bell.

3. In an air bell device, a bell having an open end, means to support the bell, an electro-magnet, the core of said magnet, a bell crank lever in said bell having a clapper thereon, means operatively connecting said bell and clapper, and a yieldable device against which one end of said core strikes to prevent undue shock.

4. In an air bell device, a supporting structure, a bell open at one end depending from said structure, a housing mounted on said structure, an electro-magnet within said housing having its core in said bell, a bell crank lever operatively connected to said core rotated in said bell.

a clapper on said lever, a drum in which said core slides having the electro-magnet wound thereon, a yieldable device supported by said drum and mounted in the path of movement of said core to be struck by one end of said core to prevent undue shock, a sheathing for said magnet, means fastening said sheathing around said magnet, a terminal box connected to said housing, the terminals from said box extending through said sheathing to said magnet.

5. In an air bell device, a body of said bell having an aperture in the upper end thereof, a clapper pivoted in said bell, an electro solenoid magnet concentrically mounted over said aperture, a core for said electro solenoid magnet extending through said aperture and relatively connected to said clapper, a spring retarded plunger carried by said electro magnet and engageable at times by the core of said magnet to assist the clapper in returning to normal position after each impulse, as and for the purpose set forth.

1,143,271. CUTTER FOR ROTARY BORING-DRILLS. HOWARD R. HUGHES, Houston, Tex., assignor to Sharp-Hughes Tool Company, Houston, Tex., a Corporation of Texas. Filed Feb. 24, 1914. Serial No. 820,676. (Cl. 255—71.)



1. A cutter for rotary boring drills having a substantially frusto-conical-shaped cutting surface whose base portion consists of a continuous spiral tooth and whose apex portion is provided with a cutting surface whose cutting portions extend at approximately right angles to said spiral tooth so that they will obtain a firm hold on the material lying inside of the zone on which said spiral tooth acts.

2. A substantially frusto-conical-shaped cutter for rotary boring drills provided at its base end with a continuous spiral tooth that extends a number of times around the cutter, and provided on its apex portion with a cutting surface that comprises cutting portions which form substantially radially disposed cuts in the material at the bottom of the hole lying inside of the zone on which said spiral tooth acts.

3. A rotatable cutter for rotary boring drills provided with a substantially frusto-conical-shaped portion that has projections on the apex portion of same arranged in radially-disposed rows, and a spiral cutting edge on the base portion of same.

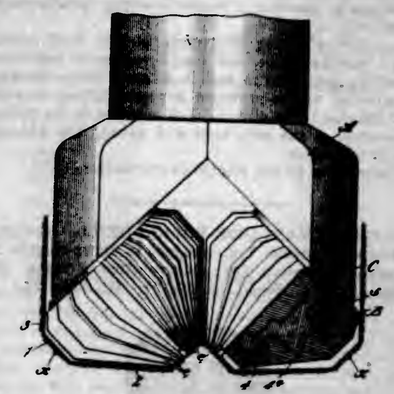
4. A rotatable cutter for rotary boring drills provided with a substantially frusto-conical-shaped portion that has chisel-teeth on the apex portion of same, and a spiral cutting edge on the base portion of same, said cutter also having an oppositely tapered cutting portion that acts on the side wall of the hole being formed.

5. A substantially frusto-conical-shaped cutter for rotary boring drills provided at its base end with a cutting surface for acting on the side wall of the hole, a spiral cutting edge on said cutter which acts on the outer portion of the bottom of the hole, and a cutting surface of a different character on the apex portion of the cutter which acts on the material lying inside of the zone on the bottom of the hole on which said spiral cutting edge acts.

[Claims 6 to 16 not printed in the Gazette.]

1,148,272. ROTARY BORING-DRILL. HOWARD R. HUGHES, Houston, Tex., assignor to Sharp-Hughes Tool Company, Houston, Tex., a Corporation of Texas. Filed Feb. 24, 1914. Serial No. 820,677. (Cl. 255—71.)

1. A rotary boring drill provided with a rotatable cutter whose axis of rotation is inclined downwardly and inwardly toward the vertical center of the drill head, said cutter having a substantially frusto-conical-shaped portion that acts on the bottom of the hole, and a cylindrical-shaped portion arranged at the base of said frusto-conical-shaped portion for forming an upwardly inclined surface adjacent the outer edge of the bottom of the hole whose lower edge lies in the vertical plane of the drill head, the cutting surface on said approximately frusto-conical-shaped portion being made up of sets of radially-disposed chisel-teeth of different pitch.



2. A rotatable cutter for rotary boring drills provided with a substantially frusto-conical-shaped cutting portion that acts on the bottom of the hole, an oppositely tapered portion that acts on the side wall of the hole, and a cylindrical-shaped cutting portion arranged intermediate said oppositely tapered portions for forming an upwardly inclined surface adjacent the outer edge of the bottom of the hole, the cutting surface on said frusto-conical-shaped portion being composed of sets of radially-disposed chisel-teeth of different pitch.

1,143,273. ROTARY DRILL. HOWARD R. HUGHES, Houston, Tex., assignor to Sharp-Hughes Tool Company, Houston, Tex., a Corporation of Texas. Filed Feb. 24, 1914. Serial No. 820,679. (Cl. 255—71.)



1. A rotary boring drill having a head or shank provided with a water-course or passageway which is so disposed that the stream of water which emerges therefrom will be projected outwardly from the head and also downwardly at such a slight angle that when it strikes the bottom of the hole it tends to swirl upwardly around the head in a circular path opposite to the direction in which the head of the drill is rotating.

2. A rotary boring drill having a head or shank provided with a water-course or passageway which is so formed that a jet of water will be discharged from the lower end face of the head toward the side wall of the hole and downwardly against the material on the bottom of the hole at such a slight inclination to a horizontal plane that it will be deflected upwardly around the drill head in a circular path opposite to the direction of rotation of the head.

3. A rotary boring drill provided with a cutting device, and having a passage for discharging a jet of water toward the advancing edge of said cutting device and downwardly against the material on the bottom of the hole, the lower

portion of said passage being inclined at such a slight angle to a horizontal plane that the water and disintegrated material will be discharged upwardly around the head of the drill in a circular path opposite to the direction of the rotation of the head.

4. A rotary boring drill provided with a rotatable cutting device and having means for projecting a jet of water downwardly onto the material lying in advance of the path of the cutting device and at such an angle that the disintegrated material is flushed laterally toward the side of the hole.

5. A rotary boring drill comprising a head provided with a cutting device, and a water-course or passageway formed in said head in such a manner that a stream or jet of water will be projected downwardly and outwardly from said head in a circular path opposite to the direction of rotation of the drill head and toward the advancing edge of the cutter.

[Claims 6 to 15 not printed in the Gazette.]

1,143,274. ROTARY-DISK BORING-DRILL. HOWARD R. HUGHES, Houston, Tex., assignor to Sharp-Hughes Tool Company, Houston, Tex., a Corporation of Texas. Filed Mar. 19, 1914. Serial No. 825,797. (Cl. 255—71.)



1. In a rotary boring drill, a head, a plurality of spindles screwed into said head and provided with rotatable cutters, and a single locking device on the head that is adapted to be forced against the inner ends of said spindles so as to bind the spindles tightly in the head and thus prevents them from working loose.

2. A rotary boring drill provided with a head, a cutter-supporting spindle screwed into the head, and an adjustable locking device carried by the head and arranged adjacent the inner end of the spindle at an angle to the direction the spindle extends, said locking device being adapted to be forced tightly against the inner end of the spindle so as to securely bind the spindle in the head and prevent it from working loose.

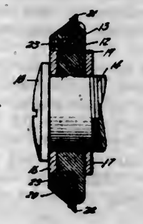
3. A rotary boring drill provided with a head, a cutter-supporting spindle screwed into said head, and an adjustable locking device arranged in the head at approximately right angles to the spindle and adapted to be pressed tightly against the inner end of the spindle so as to cause the coöperating screw threads on the spindle and head to bind and thus prevent the spindle from working loose.

4. A rotary boring drill comprising a head, a cutter-supporting spindle screwed into said head, and an adjustable locking wedge carried by said head that bears against the inner end of said spindle and thus binds it securely and prevents it from working loose.

5. A rotary boring drill comprising a head, a cutter-supporting spindle screwed into said head, a wedge carried by the head and arranged at an angle to said spindle so that it will bear against the inner end of said spindle, and means for forcing said wedge tightly against the spindle.

[Claims 6 to 31 not printed in the Gazette.]

1,143,275. DEMOUNTABLE CUTTING EDGE FOR DRILLING-TOOLS. HOWARD R. HUGHES, Houston, Tex., assignor to Sharp-Hughes Tool Company, Houston, Tex., a Corporation of Texas. Filed May 2, 1914. Serial No. 835,850. (Cl. 255—71.)



1. A drill, comprising a head that is adapted to be connected to a drill stem, a revoluble member on the head, an annular blade carried on said member, and means for detachably connecting said blade to the revoluble member, including a frustoconical member having a roughened portion on its tapered periphery that coöperates with the blade to disintegrate the material in which the hole is being formed.

2. A rotary cutter for boring drills consisting of a hub provided with an annular flange, an annular blade surrounding the hub, and means for detachably clamping said blade against said flange, said means consisting of a grinding member provided on its exterior with a roughened surface that coöperates with the blade to disintegrate the material in which the hole is being formed.

3. In a drilling tool, the combination with a head, a trunnion thereon, a cutter member revolubly mounted on said trunnion, an annular blade supported on said cutter member, and means for detachably connecting said blade to the cutter member, comprising an annular member formed with a serrated periphery which constitutes a crushing surface that disintegrates the material on the bottom of the hole.

4. In a drilling tool, the combination with a head, of a trunnion detachably mounted thereon, a rotary cutting member on said trunnion having a hub portion with an annular flange formed thereon, a blade encompassing the hub, a member for crowding the blade against the flange, and means for locking the member and blade against displacement, said member having a tapered periphefy formed with grinding serrations.

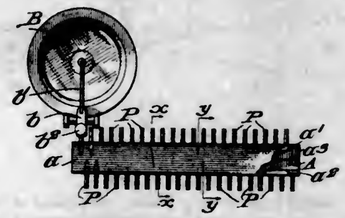
5. In a drilling tool, the combination with a head, of a trunnion detachably mounted thereon, a rotary cutting member on said trunnion having a hub portion with an annular flange formed thereon, a blade encompassing the hub, a member for crowding the blade against the flange, and means for locking the member and blade against displacement, said member and flange formed with serrations on their peripheral edges.

[Claims 6 to 24 not printed in the Gazette.]

1,143,276. HOLDER FOR THE STYLUS-NEEDLES OF TALKING-MACHINES. JAMES W. HUGHES, Philadelphia, Pa., assignor to Hughes-Lippincott Company, Camden, N. J., a Corporation of New Jersey. Filed July 6, 1914. Serial No. 849,189. (Cl. 206—66.)

1. A package for stylus needles of a talking machine comprising a strip of permeable material forming the sole means of support for the needles and a series of stylus needles inserted in an edge of the material with their points pocketed and retained within the material and with their engaging ends extending from the edge and so spaced apart as to permit of the insertion of the extending end of a needle into the stylus holder of a talking machine.

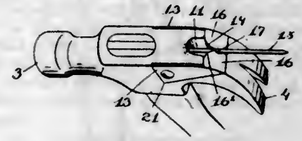
2. A package for stylus needles of a talking machine comprising a strip and a series of stylus needles projecting from each edge of the strip with the needles of one series in staggered relation to the needles of the other series, with their points pocketed and retained within the strip and with their engaging ends extending from the edges and so spaced apart as to permit of the insertion of the extending end of a needle into the stylus holder of a talking machine.



3. A package for stylus needles of a talking machine comprising a container having lines of stitching and a plurality of stylus needles seated between the loops of the stitching with their points pocketed and retained in the container and with their engaging ends extending from the container and so spaced apart as to permit of the insertion of the free end of a stylus needle into a stylus holder of a talking machine.

4. A package for stylus needles of a talking machine comprising a strip having a reinforcement adjacent its edge and a series of stylus needles inserted in the edge of the strip and between the reinforce with their points pocketed and retained within the strip and with their engaging ends extending from the edge and so spaced apart as to permit of the insertion of the extending end of a needle into the stylus holder of a talking machine.

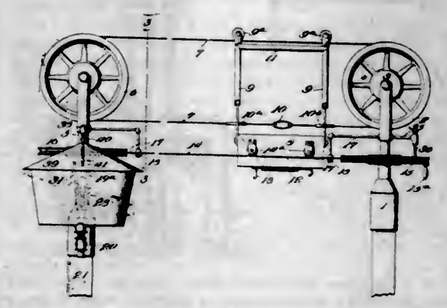
1,143,277. NAIL-SET HAMMER. EDWARD C. HULSE, Springfield, Mo. Filed Aug. 3, 1914. Serial No. 854,702. (Cl. 145—30.)



1. A nail placer, comprising a hammer head having a claw end provided with a curved top surface, an end recess provided with bottom and inner walls, and a top recess leading into said end recess and having a bearing shoulder in rear of its top opening, spring plates secured to the sides of said claw end and having at the outer ends thereof toothed nail-gripping jaws projecting toward each other across the open end of said end recess, said jaws bearing against the bottom and inner walls of said end recess, and said spring plates and said jaws having top surfaces conforming to and in continuation of the curve of the top surface of the hammer.

2. A nail placer, comprising a hammer head having a claw end provided with a curved top surface, lateral recesses, an end recess provided with bottom and inner walls, and a top recess leading into said end recess and having a bearing shoulder in rear of its top opening, spring plates located within said lateral recesses and secured to the sides of said claw end and having at their outer ends substantially triangular prismatic toothed nail-gripping jaws projecting toward each other across the open end of said end recess, said jaws bearing against the bottom and inner walls of said end recess, to take the strain from said spring plates and said spring plates and said jaws having top surfaces conforming to and in continuation of the curve of the top surface of the hammer.

1,143,278. APPARATUS FOR HANDLING ASHES, GARBAGE, AND OTHER REFUSE. SAMUEL EDWARD JENKINS, Richmond, Va. Filed Feb. 10, 1914. Serial No. 817,951. (Cl. 214—17.)



1. In combination, means for supporting an elevated storage can and for moving the same to and from receiving position and storage position and to and from storage position and discharging position, and an elevated carriage movable to and fro between a remote point and said receiving position, said carriage arranged to discharge its contents into said can when in said receiving position, and provided with supporting and operating means.

2. In combination, means for supporting an elevated storage can and for moving the same to and from receiving position and storage position and to and from storage position and discharging position, and an elevated carriage movable to and fro between a remote point and said receiving position, said carriage arranged to discharge its contents into said can when in said receiving position, mechanism operative from said remote point for propelling said carriage, and devices operative from said remote point for actuating said means supporting said storage can.

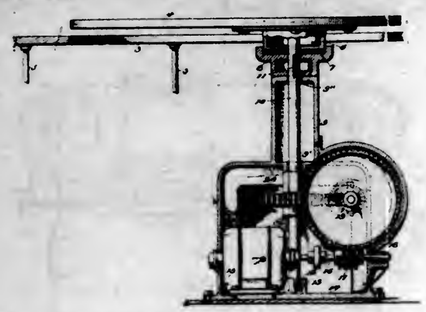
3. In combination, means for supporting a storage can in elevated position, a carriage having a sliding bottom, said carriage adapted to move over said can and to discharge its contents thereinto, said bottom adapted to be moved to open position by engagement with said can, means for propelling said carriage to and fro between a remote point and a discharge station at which station said carriage dumps its contents into said can, and devices for actuating said can supporting means to move the can back and forth between storage position and receiving position.

4. In combination, a carriage movable back and forth between refuse receiving station and refuse discharging station, means operative approximately from said receiving station for propelling said carriage, a storage can, means for supporting said can and for moving the same to and from between storage position and receiving position, said can receiving position being arranged under said carriage discharge station, and devices for controlling the position of said can supporting means, said devices being operative approximately from said carriage receiving station.

5. In combination, a support provided with a vertical rotatable pulley, another support at a remote point provided with a vertical rotatable actuating pulley, an endless traveling connection between and carried by said pulleys and propelled by said actuating pulley, a carriage propelled by said connection to and fro between said supports, a storage can supported in an elevated position by means comprising mechanism for moving said can to and from receiving, storing and dumping positions, said means carried by said first mentioned support, and devices whereby said carriage automatically discharges its contents into said can.

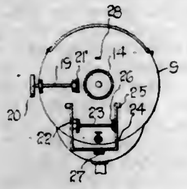
[Claims 6 to 17 not printed in the Gazette.]

1,143,279. TABLE. WILLIAM C. JOHNSON, Cincinnati, Ohio. Filed Mar. 6, 1912. Serial No. 681,970. (Cl. 45—26.)



In a table, a stationary outer rim, an inner rotary disk, a driving shaft, a bearing member secured to said shaft and having a recess therein, a friction pad mounted in said recess for imparting rotation to said rotary disk, and a projection carried by said disk and extending into said recess for contacting with said pad.

1,143,280. GEARING. GEORGE JOOS, Fountain City, Wis. Filed Jan. 28, 1914. Serial No. 815,022. (Cl. 74—7.)



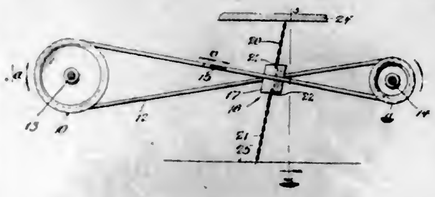
1. In combination with a body, a shaft rotatably supported thereby, a gear carried by the shaft, a transverse shaft carried by one end of the body, a gear upon the inner end thereof, a U-shaped bracket pivotally mounted upon the end of the body, a shaft carried thereby, a bevel gear upon one end of the shaft adapted to mesh with the gear on the first named shaft, and a second gear adapted to mesh with the gear on the transverse shaft to removably connect the transverse shaft and the first named shaft, and means for rotating the transverse shaft.

2. In combination with a body, a shaft rotatably supported thereby, a bevel gear carried by the shaft, a transverse shaft carried by the end of the body, a gear upon the inner end of said transverse shaft, a pivoted U-shaped frame supported beneath the aforesaid gears, a shaft carried thereby, a bevel gear upon one end of the shaft adapted to mesh with the bevel gear upon the first named shaft, a second gear upon the other end of the shaft and adapted to mesh with the gear on the transverse shaft, a handle formed on the U-shaped frame whereby to swing the same to an operative position and engage the aforesaid gears and means for rotating the transverse shafts.

1,143,281. TWISTED-BELT-SAVING DEVICE. JACOB KAPLAN, Chicago, Ill. Filed Feb. 19, 1915. Serial No. 9,287. (Cl. 74—51.)

1. A twisted belt saving device comprising a smooth-surface block, the faces of which taper toward the side edges, and located between the two bights of a twisted belt at its crossing point, and flexible connecting members secured to said block above and below the crossing point of said twisted belt and fastened to stationary objects above and below said belt, whereby said belt may run across the smooth faces of said block, and said block may accommodate itself to the play of the belt.

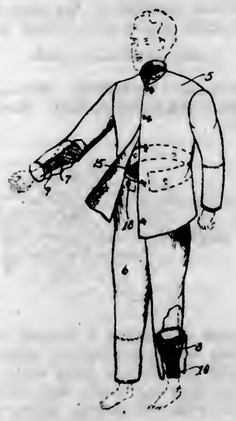
2. A twisted belt saving device comprising a smooth-surface block, having curved faces, and located between the bights of a twisted belt at the crossing point, and a flexible support for said block.



3. A twisted belt saving device comprising a smooth-faced block composed of hard material having a smooth, polished surface, and a flexible support therefor.

4. A twisted belt saving device comprising a block of hard material having a smooth polished surface and convex on two sides, said block being arranged to lie between the two bights of a twisted belt at its crossing point, and upper and lower flexible connections connected to the top and bottom of said block, and to upper and lower supports, substantially as and for the purpose specified.

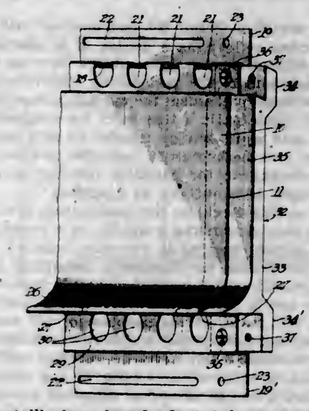
1,143,282. SLEEPING-GARMENT. EDWARD P. KING, Painesville, Ohio. Filed May 3, 1913. Serial No. 765,217. (Cl. 2—144.)



1. In a sleeping garment comprising a coat and trousers, the combination of a belt member extending around the inside of the coat and having its upper edge sewed to the coat, buttons for securing the belt to the trousers, elastic cuffs adapted to embrace the lower portions of the lower limbs of the wearer, and funnel-shaped knit fabric members secured to the upper portion of said cuffs and to the inside of the lower portion of the trouser legs, whereby any downward strains on said cuffs and trouser legs due to movements of the wearer, will be received by the shoulders.

2. In a sleeping garment comprising a coat and trousers, the combination of a belt sewed to the inside of the coat at its upper edge and with its lower edge depending, buttons on the outside of said belt, located above the lower edge of the coat, on which the trousers may be supported and whereby they may be vertically adjusted, elastic cuffs adapted to embrace the lower portions of the lower limbs of the wearer, and funnel-shaped knit fabric members secured to the upper ends of said cuffs and to the inside of the lower portions of the trouser legs.

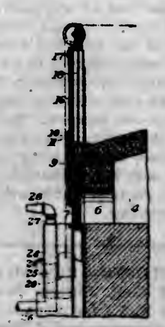
1,143,283. METAL BASE-BOARD. GEORGE S. KNAPP, La Grange, Ill. Filed Feb. 19, 1914. Serial No. 819,718. (Cl. 189—85.)



1. A metallic base board adapted for use with a plastered wall, comprising a strip of sheet metal, a vertical face portion formed from said strip and adapted to lie in the plane of the plastered surface, longitudinal attaching portions formed from each longitudinal edge of the strip and lying in a plane parallel, and at the rear of, the plane in which the face portion lies, and intermediate, longitudinal ledges formed from said strip intermediate the face portion and the attaching portions, said ledges having perforations at intervals substantially as and for the purpose set forth.

2. A metallic base board adapted for use with a plastered wall, comprising a strip of sheet metal, a vertical face portion formed from said strip and adapted to lie in the plane of the plastered surface, longitudinal attaching portions formed from each longitudinal edge of the strip and lying in a plane parallel with, and at the rear of, the plane in which the face portion lies, and intermediate longitudinal ledges formed from said strip intermediate the face portion and the attaching portions, and having their major parts disposed in a plane parallel with the plane containing the face portion and between the plane of the face portion and that containing the attaching portions, said ledges having perforations substantially as set forth.

1,143,284. FURNACE PROTECTION. LUTHER L. KNOX, Avalon, Pa., assignor to Knox Pressed & Welded Steel Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed July 6, 1914. Serial No. 849,165. (Cl. 122—498.)



1. The combination with a furnace having a door opening, and a vertically movable door for said opening, of a water cooled shield supported across the upper portion of said opening in front of the door; substantially as described.

2. The combination with a furnace having a door opening and a vertical movable door for said opening, of a hollow shield supported across the upper portion of said opening in front of the door, and means for maintaining a water circulation through said shield; substantially as described.

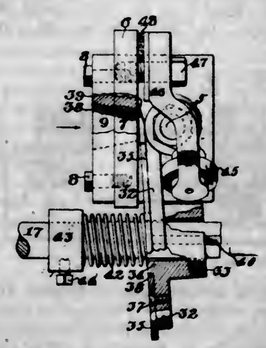
3. The combination with a furnace having a door opening and a vertically movable door for said opening, of a hollow shield supported across the upper portion of said opening in front of the door, and means for maintaining a water circulation through said shield, said shield being separated from the end of the furnace to provide a space behind it for the upward passage of hot air and products of combustion escaping from the furnace door; substantially as described.

4. The combination with a furnace having adjacent door openings and vertically movable doors for said openings, of water cooled shields supported one across the upper portion of each opening in front of said doors, a water supply connection for one of said shields, an outlet connection for the other shield, and a circulating connection between the two shields; substantially as described.

5. The combination with a furnace having movable parts, and counterweights for said parts arranged at the end of the furnace, or aprons inclosing said counterweights and forming safety pockets therefor; substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,143,285. CUTTING MECHANISM. ERNEST KOELLA, Knoxville, Tenn. Filed Nov. 29, 1911, Serial No. 663,088. Renewed Apr. 16, 1915. Serial No. 21,848. (Cl. 164—60.)



1. In a cutting mechanism, the combination of two cutting members each having a face over-lapping such face of the other cutting member and a portion of the edge of each such face being a cutting edge adapted to work in opposition to the cutting edge of the other member, yielding means for relatively bodily moving said cutting members from each other, in a course approximately perpendicular to said faces, and tilting one of said cutting members to make its cutting edge bear against the adjacent face of the other cutting member, substantially as described.

2. In a cutting mechanism, the combination of two cutting members each having a face over-lapping such face of the other cutting member and a portion of the edge of each such face being a cutting edge adapted to work in opposition to the cutting edge of the other member, means for yieldingly bodily moving one of said cutting members from the other cutting member, in a course approximately perpendicular to said faces, and tilting said cutting member toward the other cutting member to make its cutting edge bear against the adjacent face of the other cutting member, substantially as described.

3. In a cutting mechanism, the combination of two cutting members each having a face over-lapping such face of the other cutting member and a portion of the edge of each such face being a cutting edge adapted to

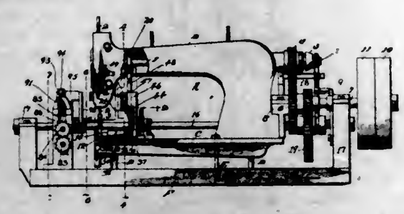
work in opposition to the cutting edge of the oher member, a spring and other means for relatively bodily moving said cutting members from each other, in a course approximately perpendicular to said faces, and tilting one of said cutting members to make its cutting edge bear against the adjacent face of the other cutting member, substantially as described.

4. In a cutting mechanism, the combination of two cutting members one of which is rotary and each of which has a face overlapping such face of the other cutting member and a portion of the edge of each such face being a cutting edge adapted to work in opposition to the cutting edge of the other member, yielding means, in part yielding, for relatively bodily moving said cutting members from each other, in a course approximately perpendicular to said faces, and tilting the rotary cutting member to make its cutting edge bear against the adjacent face of the other cutting member, substantially as described.

5. In a cutting mechanism, the combination of two cutting members one of which is rotary and each of which has a face overlapping such face of the other cutting member and a portion of the edge of each such face being a cutting edge adapted to work in opposition to the cutting edge of the other member, means for yieldingly bodily moving said rotary cutting member from the other cutting member, in a course approximately perpendicular to said faces, and tilting said rotary cutting member toward the other cutting member to make its cutting edge bear against the adjacent face of the other cutting member, substantially as described.

[Claims 6 to 17 not printed in the Gazette.]

1,143,286. SEWING-MACHINE. ERNEST KOELLA, Knoxville, Tenn. Filed Dec. 22, 1911, Serial No. 667,312. Renewed Apr. 16, 1915. Serial No. 21,849. (Cl. 112—24.)



1. In a sewing machine, the combination with a stitching mechanism comprising a needle, of a constantly-moving main driving member in operative relation with the stitching mechanism for perodically imparting motion to said mechanism, mechanism for moving a rope lengthwise across the needle path, means for transmitting motion from said main driving member to said rope-moving mechanism, and mechanism in operative relation with the stitching mechanism for partially rotating said rope between stitches, substantially as described.

2. In a sewing machine, the combination with a stitching mechanism comprising a needle and a needle bar and a rotary needle bar shaft, of a constantly-moving main driving member in operative relation with said needle bar shaft for periodically imparting motion to said shaft, mechanism for moving a rope lengthwise across the needle path, means for transmitting motion from said main driving member to said rope-moving member, and mechanism in operative relation with said needle bar shaft for partially rotating said rope between stitches, substantially as described.

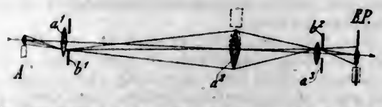
3. In a sewing machine, the combination with a stitching mechanism comprising a needle and a needle bar and a rotary needle bar shaft, of a constantly-moving main driving member in operative relation with said needle bar shaft for periodically imparting motion to said shaft, mechanism for moving a rope lengthwise across the needle path, means for transmitting motion from said main driving member to said rope moving member, and mechanism in operative relation with said needle bar shaft for partially rotating said rope between stitches, such rotation being in one direction during one period and in the other direction during another period, substantially as described.

4. In a sewing machine, the combination with a stitching mechanism comprising a needle, of a constantly-moving main driving member in operative relation with said stitching mechanism for periodically imparting motion to said mechanism, mechanism for moving a rope lengthwise across the needle path, a line shaft for transmitting motion from said main driving member to said rope moving mechanism, and mechanism in operative relation with the stitching mechanism for partially rotating said rope between stitches, substantially as described.

5. In a sewing machine, the combination with a stitching mechanism comprising a needle, of a constantly-moving main driving member in operative relation with said stitching mechansm for perodcally imparting motion to said mechanism, mechanism for moving a rope lengthwise across the needle path, a line shaft for transmitting motion from said main driving member to said rope moving mechanism, and mechanism in operative relation with the stitching mechanism for partially rotating said rope between stitches, such rotation being in one direction during one period and in the other direction during another period, substantially as described.

[Claims 6 to 26 not printed in the Gazette.]

1,143,287. LIGHTING SYSTEM FOR CINEMATOGRAPHS. AUGUST KÖHLER, Jena, Germany, assignor to the Firm of Carl Zeiss, Jena, Germany. Filed July 23, 1913. Serial No. 780,742. (Cl. 88—24.)

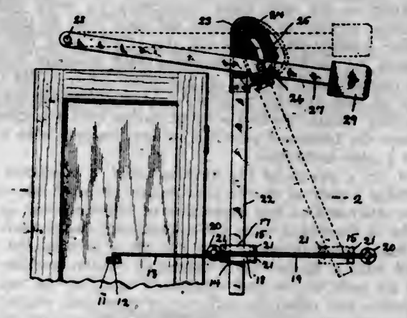


1. In a lighting system for cinematographs a source of light, a condenser system, a collective system behind the said condenser system and approximately at the locus of the image of the source of light formed by the said condenser system, a film-window and an auxiliary condenser system located behind the said collective lens system and immediately adjacent to the said film-window, the said collective lens system being adapted to image the exit pupil of the condenser system approximately in the plane of the said film-window and the said auxiliary condenser system being adapted to form a real image of the image of the source of light, formed by the said condenser system.

2. In a lighting system for cinematographs a source of light, a condenser system, a collective system behind the said condenser system and approximately at the locus of the image of the source of light formed by the said condenser system, a film-window and an auxiliary condenser system located behind the said collective lens system and immediately adjacent to the said film-window, the said collective lens system being adapted to image the exit pupil of the condenser system approximately in the plane of the said film-window, the said auxiliary condenser system being adapted to form a real image of the image of the source of light, formed by the said condenser system, and the exit pupil of the condenser system being similar to the said film-window and of such a size that the image of the said pupil, formed in the plane of the film-window, corresponds in size to the film-window.

1,143,288. DOOR-CLOSER. RICHARD F. LE BROCQ, New York, N. Y., and KARL JOHANN JULIUS SCHMUTZLER, New Dorp Manor, N. Y., assignors to Lebrocq Company, Brooklyn, N. Y., a Corporation of New York. Filed Oct. 19, 1914. Serial No. 867,303. (Cl. 16—47.)

1. A door closer comprising a sliding carriage arranged adjacent to a door, an operative connection between the carriage and the door whereby the two will move in unison, a support to guide the carriage, a swinging vertically arranged leg engaging the carriage, and a pivoted weighted arm crossing the leg and having a cam connection therewith.



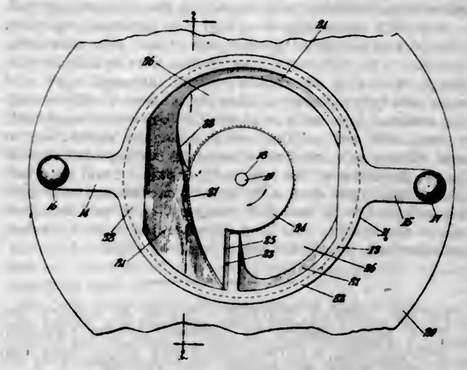
2. A structure of the kind described comprising a sliding carriage, an operative connection between the carriage and the door, a horizontally arranged guiding device for the carriage, a swinging leg connected with the carriage, and a weighted arm pivoted at one end and having a cam slot and pin connection with the swinging leg.

3. A structure of the kind described comprising a horisontally arranged guide rod adjacent to the door, a carriage sliding on the rod, an operative connection between the carriage and door, a vertically arranged leg pivoted at the top and provided with a curved cam slot, and a weighted arm pivoted at one end and crossing the leg, said arm having a pin entering the aforesaid cam slot.

4. A door closer comprising a horizontally arranged guide rod adjacent to a door, a carriage having a saddle on one side to ride on the rod, a connection between the saddle and the door, a swinging vertically arranged leg having a free connection with the carriage, said leg having a curved cam slot therein, and a weighted arm pivoted at one end and crossing the leg, said arm having a pin which enters the aforesaid cam slot.

5. A door closer comprising a horisontal guide rod arranged adjacent to a door, a carriage sliding on the rod and having a door connection, said carriage comprising plates spaced apart, with rollers spaced apart between the plates, a vertically arranged swinging leg entering the carriage between opposed rollers, said leg having a cam slot therein, and a weighted swinging arm crossing the leg and having a pin to enter the aforesaid slot.

1,143,289. REPEATING DEVICE FOR TALKING-MACHINES. FRANK S. LEISENRING, Flushing, N. Y. Filed Feb. 15, 1915. Serial No. 8,198. (Cl. 181—3.)



1. A repeating device for talking machines, comprising a disk member adapted to rest upon the record of the talking machine and rotatable therewith, said disk member being provided with an inwardly directed slot to receive the reproducing needle, said disk being adapted to be restrained from rotation by the engagement of said needle in said slot, and the slot communicating with a cut-out portion of the disk, and means acting with said disk member to afford sufficient angular momentum thereof to return the needle to the said slot after its release therefrom.

2. A repeating device for talking machines, comprising a disk member adapted to rest upon the record of the talking machine and rotatable therewith, said disk member being provided with an inwardly directed slot to receive the reproducing needle, said disk being adapted to be restrained from rotation by the engagement of said needle in said slot, and the slot communicating with a cut-out portion of the disk, and weighted arms extending from said disk member.

3. A repeating device for talking machines, comprising a disk member adapted to rest upon the record of the talking machine and rotatable therewith, said disk member being provided with an inwardly directed slot to receive the reproducing needle, said disk being adapted to be restrained from rotation by the engagement of said needle in said slot, and the slot communicating with a cut-out portion of the disk, and diametrically opposed weighted arms extending from said disk member.

4. A repeating device for talking machines, comprising a circular disk member provided with a central opening to fit upon the record spindle of the talking machine, said disk member being adapted to rotate with the record and provided with an inwardly directed slot to receive the reproducing needle, said disk being adapted to be restrained from rotation by the engagement of said needle in said slot, and the slot communicating with a cut-out portion of the disk, and means acting with said disk member to afford sufficient angular momentum thereof to return the needle to the said slot after its release therefrom.

5. A repeating device for talking machines, comprising a circular disk member provided with an annular outer barrier portion and a central partly circular barrier portion, the latter being provided with a central opening to fit upon the record spindle of the talking machine, said disk being adapted to rotate with the record and provided with an inwardly directed slot to receive the reproducing needle, said disk being adapted to be restrained from rotation by the engagement of said needle in said slot, and the slot communicating with a cut-out portion of the disk, which portion extends substantially to the end of the inner circular barrier portion which latter then continues at a suitable curvature to the outer end of the said slot, and two diametrically opposed weighted arms extending outwardly from the circumference of the disk member.

1,143,290. ILLUMINATOR FOR CASH-REGISTERS. NORMAN R. LIPPINCOTT, Pittsburgh, Pa. Filed Feb. 21, 1914. Serial No. 820,289. (Cl. 235—23.)

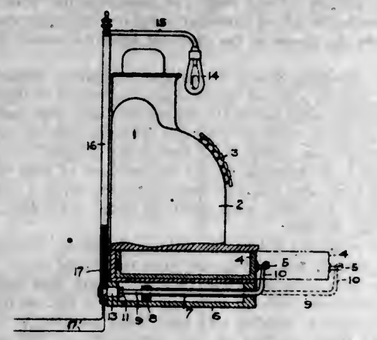
1. An illuminator-attachment for cash-registers or like devices having drawers, comprising a base-piece upon which the register is adapted to rest, an electric-lamp supported from said base, a switch, and switch operating mechanism in said base piece operated by the movement of the drawer.

2. An illuminator-attachment for cash-registers or like devices having drawers, comprising a base on which the cash-register is adapted to rest, an electric-lamp carried by said base, a switch in said base, a movable switch operating rod in said base, and connections between said rod and the drawer of the register.

3. An illuminator-attachment for cash-registers having drawers comprising a base on which the register is adapted to rest, a post supported by said base, an arm carried by said post, an electric-lamp carried by said arm, a switch in said base, and switch operating mechanism in said base operated by the movement of the drawer of the register.

4. An illuminator-attachment for cash-registers or like devices having drawers comprising a base on which the

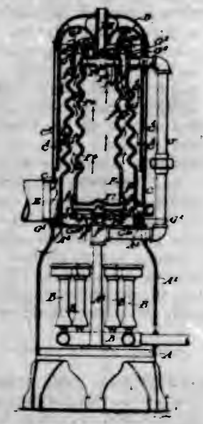
register is adapted to rest, an electric-lamp carried by said base, a switch, and a movable switch operating rod in said base, said rod having an extension engaging the handle of the register-drawer.



5. An illuminator-attachment for cash-registers and like devices having drawers comprising a suitable base on which the register is adapted to rest, an electric-lamp carried by said base, a switch, a tubular guide in said base, a switch operating rod movable in said guide, and connections between said rod and the drawer of the register.

[Claim 6 not printed in the Gazette.]

1,143,291. WATER-HEATER. LUTHER D. LOVEKIN, Philadelphia, Pa. Filed Nov. 15, 1909. Serial No. 527,996. (Cl. 122—161.)



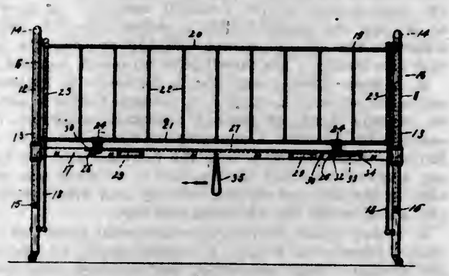
1. In a water heater, a casing, a water container in the form of a hollow body having a water space in its wall, said container dividing the space in said casing into two chambers connected at their upper ends, a gas burner or burners located adjacent the lower end of said chambers, an outlet for used gases leading from the lower end of the other of said chambers, and a head normally closing the upper end of said casing but movable to open the upper end of the casing upon a predetermined rise of pressure within the casing whereby said head serves as a safety valve to relieve the pressure within the casing in case of gas explosions.

2. In a water heater, a casing, a water container located therein, a gas burner or burners located at the lower end of said casing, a vertical pipe connection to said container extending above the casing, and a head for the upper end of the casing slidingly mounted on said vertical pipe connection and normally engaging and closing the upper end of the casing whereby said head serves as a safety valve to relieve the pressure within the casing when the pressure rises unduly.

3. In a device of the kind specified, the combination of a container comprising a body portion formed of a pair of spaced apart tubes arranged one within the other, an end connection for said tubes comprising an outer annular member secured to the end of the outer tube, an inner annular member secured to the end of the inner tube, and means for detachably connecting said members together to thereby close the end of the space between the tubes, one of said annular members having a diametrically extending tubular portion communicating with the space between the tubes and provided between its ends with a port for a pipe connection.

4. In a device of the kind specified, a container comprising a pair of spaced apart tubes arranged one within the other and an end connection to which one end of each tube is connected, said end connection being formed with a space communicating with the space between the tubes and with a diametrically extending tubular portion open at its ends to the first mentioned space in the end connection and having a port for an axial pipe extension, a pipe connection secured in said port, a support for the container to which the other end of the pipe connection is secured, and a lateral pipe connection to the first mentioned pipe connection.

1,143,292. CRIB. MORRIS LOWY, New York, N. Y., assignor to Lowy Patent Furniture Co. Inc., New York, N. Y., a Corporation of New York. Filed Nov. 2, 1914. Serial No. 869,856. (Cl. 5—58.)

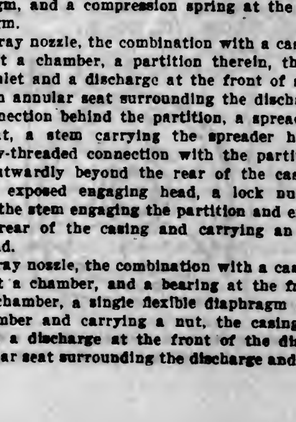


1. A crib comprising head and foot sections, angle-iron side rails connecting the same, one of said side rails being provided with horizontally extending slots in the vertical flange thereof, a side guard slidably disposed upon said head and foot sections, a plurality of downwardly extending notched lugs upon said side guard, guides upon said slotted side rail, a rigid strip upon the inner face of said slotted side rail held thereon by said guides slidable in the direction of the longitudinal axis of said side rail, and projections upon said strip protruding through said slots and adapted to be seated in the notches of said lugs, substantially as and for the purpose specified.

2. A crib comprising head and foot sections, angle-iron side rails connecting the same, one of said side rails being provided with horizontally extending slots in the vertical flange thereof, a side guard slidably disposed upon said head and foot sections, a plurality of downwardly extending notched lugs upon said side guard, guides upon said slotted side rail, a rigid strip upon the inner face of said slotted side rail held thereon by said guides slidable in the direction of the longitudinal axis of said side rail, projections upon said strip protruding through said slots and adapted to be seated in the notches of said lugs, and means for keeping said projections seated in said notches, substantially as and for the purpose specified.

1,143,293. SPRAY-NOZZLE. DANIEL M. LUEHRS, Detroit, Mich., assignor to American Blower Company, Detroit, Mich., a Corporation of New York. Filed Aug. 9, 1913. Serial No. 783,992. (Cl. 137—58.)

1. In a spray nozzle, the combination with a casing having within it a chamber, a partition therein, the casing having an inlet and a discharge at the front of said partition and an annular seat surrounding the discharge and a water connection behind the partition, a spreader head for said seat, a stem carrying the spreader head and having screw-threaded connection with the partition and extending outwardly beyond the rear of the casing and carrying an exposed engaging head, the casing carrying an abutment for positively limiting the rearward position of the partition, a compression spring for holding the partition against its said abutment, a lock nut screw-threaded on the stem engaging the diaphragm and extending beyond the rear of the casing and carrying an exposed engaging head.



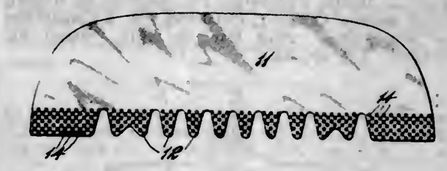
2. In a spray nozzle the combination with a casing having within it a chamber, a flexible diaphragm secured therein, the casing having an inlet and a discharge at the front of the diaphragm and an annular seat surrounding the discharge and a water connection behind the diaphragm, a spreader head for said seat, a stem carrying the spreader head and having screw-threaded connection with the diaphragm and extending outwardly beyond the rear of the casing and carrying an exposed engaging head, a sleeve surrounding said stem at the rear of the diaphragm and having screw-threaded connection therewith and adapted to abut the diaphragm and serve as a lock nut for the stem, said sleeve extending outwardly beyond the rear of the casing and carrying an exposed engaging head.

3. In a spray nozzle the combination with a casing provided with a chamber, a diaphragm disposed therein, said casing having a discharge and being formed with a spreader head seat, a spreader head for seating thereon, a stem carrying said spreader head and having screw-threaded connection with the diaphragm, said stem extending outwardly beyond the rear of the casing and carrying an exposed engaging head, the casing being provided with an abutment for limiting the backward movement of the diaphragm, and a compression spring at the front of the diaphragm.

4. In a spray nozzle, the combination with a casing having within it a chamber, a partition therein, the casing having an inlet and a discharge at the front of said partition and an annular seat surrounding the discharge and a water connection behind the partition, a spreader head for said seat, a stem carrying the spreader head and having screw-threaded connection with the partition and extending outwardly beyond the rear of the casing and carrying an exposed engaging head, a lock nut screw-threaded on the stem engaging the partition and extending beyond the rear of the casing and carrying an exposed engaging head.

5. In a spray nozzle, the combination with a casing having within it a chamber, and a bearing at the front and rear of the chamber, a single flexible diaphragm mounted in such chamber and carrying a nut, the casing having an inlet and a discharge at the front of the diaphragm and an annular seat surrounding the discharge and a water connection behind the diaphragm, a spreader head for said seat, a stem carrying the spreader head and disposed in the said bearing at the front of the chamber, and having screw-threaded connection with the said nut and extending outwardly beyond the rear of the casing and carrying an exposed engaging head, a sleeve surrounding said stem at the rear of the diaphragm and having screw-threaded connection therewith and adapted to abut the said nut and serve as a lock nut for the stem, said sleeve being disposed in the said bearing at the rear of the chamber and extending outwardly beyond the rear of the casing and carrying an exposed engaging head.

1,143,294. METALLIC COUNTER FOR SHOES. BENJAMIN F. MCCOY, St. Louis, Mo. Filed June 20, 1914. Serial No. 846,221. (Cl. 36—68.)



1. A flexible metallic counter for machine made welt shoes, said counter having its ends provided with inturned portions adapted to lap the ends of the welt, the entire surface of said inturned portions being formed with closely spaced depressions whereby a sewing machine needle will be prevented from glancing off said surface.

2. A flexible metallic shoe counter having inturned projections closely spaced around its lower edge, said projections being perforated throughout their extent by closely spaced holes, the outer surface of said projections sloping in toward said holes whereby said counter can be lasted by machine and the lasting tacks will be deflected through said holes.

3. A counter for machine-made shoes, said counter consisting of a single piece of sheet metal formed into counter shape, said counter having a flexible heel portion conformable to lasts of different sizes and of different heel contours, said contours also having a series of projecting tongues along its lower edge provided throughout their areas with closely spaced perforations, said tongues being spaced close together near the back part of the heel, and inturned portions near the ends of said counter provided with similar perforations and constituting sewing flanges, whereby said counter may be machine-lasted and said sewing flanges may be machine sewed in a shoe.

4. A counter for machine-made welt shoes, said counter consisting of a single piece of sheet metal formed into counter shape, said counter having a flexible heel portion conformable to lasts of different sizes and of different heel contours, said counter also having a series of projecting tongues along its lower edge provided throughout their areas with closely spaced perforations, said tongues being spaced close together near the back part of the heel, and inturned portions near the ends of said counter provided with similar perforations and constituting sewing flanges adapted to lap the ends of the welt along the line of stitching, whereby said counter may be machine-lasted and said sewing flanges may be machine sewed in a shoe.

5. A metallic shoe counter consisting of flexible side walls and a flexible heel portion arranged to be bent and fitted to lasts of different contours, said counter being provided along its lower edge with narrow inturned projections spaced around the heel portion, the arrangement and relative spacing of said projections being such that the counter may be machine-lasted in a shoe, the side walls of said counter having perforated inturned flanges adjacent to their ends adapted to be machine-sewed to a shoe.

[Claim 6 not printed in the Gazette.]

1,143,295. HEAT-PRODUCING COMPOUND. WILLIAM F. MCNABB, Pittsburgh, Pa. Filed Oct. 23, 1914. Serial No. 868,291. (Cl. 44—1.)

1. A heat producing compound or mixture, containing a solid hydrate, a persulfate, and oxalic acid.

2. A heat producing compound or mixture, containing sodium hydrate, a persulfate, and oxalic acid.

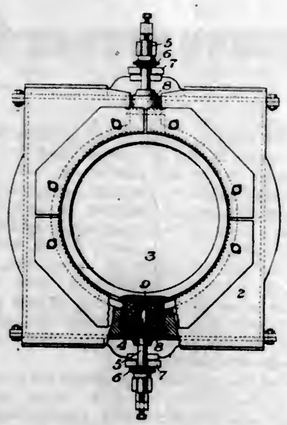
3. A heat producing compound or mixture, containing sodium hydrate, potassium persulfate, and oxalic acid.

4. A heat producing compound or mixture, containing substantially three parts sodium hydrate and one part each of potassium persulfate and oxalic acid.

5. A heat producing compound or mixture, containing a solid hydrate, a persulfate, oxalic acid, and aluminum.

[Claims 6 to 20 not printed in the Gazette.]

1,143,296. GLASS-DRAWING-POT TRUNNION. WILLIAM L. MONRO, Pittsburgh, Pa., assignor to Window Glass Machine Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed Mar. 20, 1911. Serial No. 615,582. (Cl. 49—53.)



1. A glass drawing pot having a non-metallic refractory trunnion, and a trunnion shaft having both interior and exterior actuating connection with the trunnion; substantially as described.

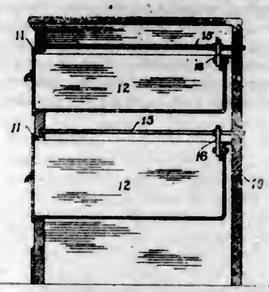
2. A glass drawing pot having a non-metallic refractory trunnion, and a trunnion shaft having both interior and exterior actuating connection with the trunnion, the interior actuating connection being formed by an inward, angular projection of the trunnion shaft, and the exterior connection being formed by engaging angular portions of the shaft and trunnion; substantially as described.

3. A glass drawing pot of non-metallic refractory material, an integral trunnion formed with an axial opening extending into its outer end, said opening being non-circular in cross section, and a trunnion shaft having a flange embracing the outer end portion of the trunnion, and also having an angular projection fitting said opening and forming a driving connection between the shaft and the trunnion; substantially as described.

4. The combination with a glass drawing pot having a trunnion of non-metallic refractory material, of a trunnion shaft having a relatively shallow flange fitting over the outer end of the trunnion and having angular driving engagement therewith, and said shaft having an axial extension within the trunnion and having an angular driving engagement therewith, said extension being of greater length than the said flange; substantially as described.

5. A trunnion shaft for glass drawing pots, comprising a shaft member formed with an enlarged flange having a polygonal internal peripheral wall, and an axial extension of angular cross section and of greater length than the flange; substantially as described.

1,143,297. CABINET-DRAWER CONSTRUCTION. JESSE C. MOORE, WILLIAM A. MOORE, and FOY WADE, Indianapolis, Ind., assignors to Columbia School Supply Co., Indianapolis, Ind., a Corporation. Filed May 1, 1913. Serial No. 764,877. (Cl. 45—77.)

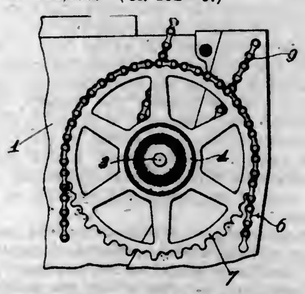


1. A cabinet with a drawer opening therein, a drawer, a rod secured in the cabinet substantially midway of the width of the drawer and parallel with its direction of movement, a vertical plate slidable on said rod and having a vertical slot in it, and a clamping bolt extending through said slot and screwed into the rear end of said drawer, said bolt being of less diameter than the width of the slot in said plate, so that said plate can be adjusted laterally and vertically in relation to the rear end of the drawer and be clamped in adjusted position by said bolt.

2. A cabinet with a drawer opening in one wall thereof, a drawer, a rod secured in the cabinet substantially midway of the width of the drawer and parallel with the drawer and its direction of movement, a plate with a hole through which said rod loosely extends and said plate having a vertical slot therein, a bolt extending through said slot for clamping said plate to the drawer, the diameter of said bolt being appreciably less than the width of the slot, and a washer on said bolt having a diameter greater than the width of the slot, whereby the drawer can be both vertically and horizontally adjusted.

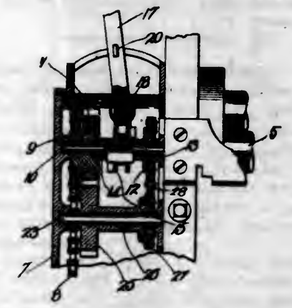
3. A cabinet with a drawer opening in one wall thereof, a drawer, a rod secured in the cabinet substantially midway of the width of the drawer and parallel with the drawer and its direction of movement, a plate with a hole through which said rod loosely extends and said plate having a vertical slot therein, horizontal corrugations on one side of said plate, another plate secured to the drawer with horizontal corrugations for meshing with the corrugations on said slotted plate, a bolt extending through the slot in said slotted plate and screwing into the plate secured to the drawer and with a diameter less than the width of the slot, and a washer for said bolt with a diameter greater than the width of the slot.

1,143,298. CLUTCH. GEORGE W. MOORE, Tulsa, Okla., assignor to Imperial Manufacturing Company, Tulsa, Okla., a Corporation of Kansas. Filed Mar. 8, 1913. Serial No. 753,055. (Cl. 192—9.)



In a clutching device, a journaled shaft, a driven wheel journaled on said shaft and provided with one or more radial ribs formed on one end of the hub of the driven wheel, a clutch member keyed slidingly on the shaft outward of the said ribs and provided on its inner face with one or more radially extending ribs V-shape in cross section, a threaded extension for the shaft, and a nut mounted on the threaded extension and adapted when screwed inwardly thereon to force the clutch member toward the hub of the wheel until the said ribs occupy the same rotary path and when unscrewed to permit the ribs of such wheel by pressure on the ribs of said clutch member to force the latter outwardly until its ribs are entirely withdrawn from the path of the ribs of said wheel.

1,143,299. GEARING FOR CLOTHES-WRINGERS. GEORGE W. MOORE, Tulsa, Okla., assignor to Imperial Manufacturing Company, Sand Springs, Okla., a Corporation of Kansas. Filed Mar. 8, 1913. Serial No. 753,056. (Cl. 74—59.)



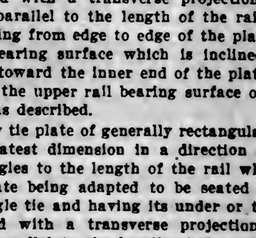
1. In operating mechanism for wringers, a wringer shaft, a continuously driven gear wheel loosely mounted thereon, a sprocket wheel loosely mounted on said shaft, a counter shaft adjacent the wringer shaft, a combination gear and sprocket wheel mounted on said countershaft, the gear wheel meshing with the first-named gear wheel, a sprocket chain connecting the sprocket wheel element of said combination wheel with the first-named sprocket wheel and adapted to rotate the latter reversely to the direction of rotation of the first-named gear wheel, means to drive the said first-named gear wheel, and means to clutch said wringer shaft for rotation with said first-named gear wheel and said first-named sprocket at different times.

2. In operating mechanism for wringers, a continuously driven counter-shaft, a wringer shaft, a gear and a sprocket wheel loosely mounted thereon, a second counter shaft mounted beneath said wringer shaft, a combination gear and sprocket thereon connected operatively with said first-named gear and sprocket respectively, means for driving said first-named gear from said continuously driven counter-shaft, and a clutch mounted on said wringer shaft between said first-named gear and sprocket wheel and adapted to clutch said wringer shaft for rotation with either said first-named gear or said first-named sprocket wheel.

1,143,300. RACKET. ROBERT MOORE, Tuxedo Park, N. Y. Filed Dec. 4, 1914. Serial No. 875,419. (Cl. 46—24.)

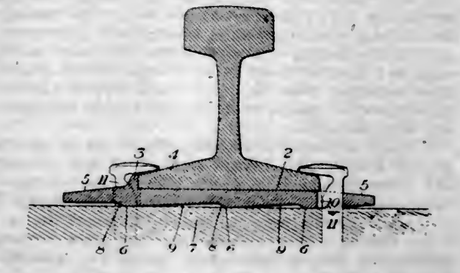
1. A racket consisting of a plurality of parts, a head having a stock provided with a socket, a handle provided with a tapered end for insertion into said socket, and a wedge on each side of the tapered end, and located in said socket to lock said handle in position.

2. A racket consisting of a plurality of parts, a head consisting of a rim and a stock integral therewith, said stock being provided with a socket having diverging end walls, a handle provided with a tapered end for insertion into said socket and a wedge on each side of said tapered end and located within said socket to lock said handle in position.



3. A racket consisting of a plurality of parts, a head consisting of a rim and a stock integral therewith, said stock being provided with a socket having diverging end walls, a handle provided with a tapered end for insertion into said socket, and a plurality of wedges engaging the diverging walls of said socket and the tapered end of said handle.

1,143,301. TIE-PLATE. ANDREW MORRISON, Pittsburgh, Pa., assignor to Dilworth, Porter & Company, Limited, Pittsburgh, Pa. Filed Mar. 5, 1915. Serial No. 12,258. (Cl. 238—2.)



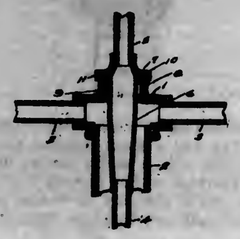
1. A railway tie plate of generally rectangular form and having its greatest dimension in a direction at substantially right angles to the length of the rail which it supports, said plate being adapted to be seated on and secured to a single tie and having its under or tie-engaging surface formed with a transverse projection extending substantially parallel to the length of the rail, said projection extending from edge to edge of the plate and having a plane bearing surface which is inclined upwardly and inwardly toward the inner end of the plate at an oblique angle to the upper rail bearing surface of the plate, substantially as described.

2. A railway tie plate of generally rectangular form and having its greatest dimension in a direction at substantially right angles to the length of the rail which it supports, said plate being adapted to be seated on and secured to a single tie and having its under or tie-engaging surface formed with a transverse projection extending substantially parallel to the length of the rail, said projection extending from edge to edge of the plate and having a plane bearing surface which is inclined upwardly and inwardly toward the inner end of the plate at an oblique angle to the upper rail bearing surface of the plate, said projection being of rounded or convex form at its highest point, substantially as described.

3. A railway tie plate of generally rectangular form adapted to be seated and secured upon a single tie and having its greatest dimension at substantially right angles to the length of the rail which it seats, the under surface of said plate having thereon a plurality of projections extending substantially parallel with the rail from edge to edge of the plate, each of said projections having a plane bearing surface which is inclined upwardly and inwardly toward the inner end of the plate

at an oblique angle to the upper rail bearing surface of the plate and at least one of said projections being located under the rail-seating surface of the plate, substantially as described.

1,143,302. HEAD FOR OIL-WELLS. FRED JOSEPH MOSER, Kane, Pa. Filed June 15, 1914. Serial No. 845,104. (Cl. 166—14.)



1. The combination of a casing head having an opening through its top and a raised seat around said opening; and a tubing support extending through said opening having a flange forming a joint with said seat, said support having a screw threaded opening in its top and bottom for connection with the tubing.

2. The combination of a casing head having an opening through the top and a raised seat around said opening; and a tubing support extending through said opening having a flange forming a joint with said seat, said opening being of a diameter larger than a tubing coupling adapted to be suspended from the support, said support having a screw threaded opening in its top and bottom for connection with the tubing.

3. The combination of a casing head having an opening through the top and a raised seat around said opening; and a tubing support extending through the opening a distance to make the joint with a tubing at the bottom of the support remote from the seat, said support having a flange forming a joint with said seat and screw threaded openings in the top and bottom thereof for connection with the tubing.

4. The combination of a casing head having an opening through the top; a raised seat around said opening; a tubing support extending through said opening having a flange forming a joint with said seat; said support having a screw threaded opening in its top and bottom for connection with the tubing, and a gasket between the surfaces of the joint.

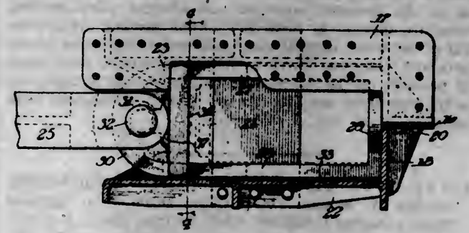
5. The combination of a casing head having an opening through the top; a raised seat around said opening; a tubing support extending through said opening and having a grooved flange forming a joint with said seat; said support having a screw threaded opening in its top and bottom for connection with the tubing, and a gasket arranged in said groove.

1,143,303. DRAFT-RIGGING. CHARLES J. NASH, Chicago, Ill., assignor to Universal Draft Gear Attachment Co., Chicago, Ill., a Corporation of Illinois. Filed Sept. 23, 1914. Serial No. 863,064. (Cl. 213—42.)

1. In a draft rigging, in combination, a coupler having its rear end horisontally slotted, a pin set vertically through the coupler and crossing the slot therein, and a coupler extension in the form of a continuous loop for inclosing shock-absorbing element, the forward end of the loop entering the slot of the coupler and inclosing the pin.

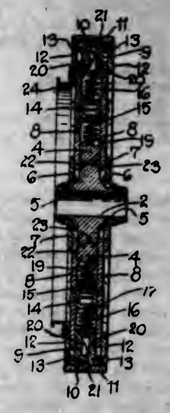
2. In a draft rigging, in combination, a coupler having its rear end horisontally slotted, a pin set vertically through the coupler and crossing the slot therein, a coupler extension in the form of a continuous loop for inclosing shock-absorbing elements, the forward end of the loop entering the slot of the coupler and being provided with a longitudinal slot through which the pin passes.

3. In a draft rigging, in combination, a coupler having its rear end horizontally slotted, a pin set vertically through the coupler and crossing the slot therein, a coupler extension in the form of a continuous loop for inclos-



ing shock-absorbing elements, the forward end of the loop entering the slot of the coupler and having a longitudinal slot opening through its inner face and within which the chain is located.

1,143,304. CUSHION-WHEEL. JOHN F. NETTLE, Butte, Mont., assignor of one-half to Savin Lisa, Butte, Mont. Filed Nov. 18, 1914. Serial No. 872,773. (Cl. 152—28.)

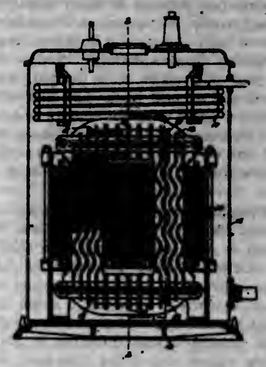


A wheel of the character described including a hub, a felly arranged in spaced relation with the hub and including a substantially wide tread portion and an inwardly disposed portion, the inwardly disposed portion being of lesser width than the tread portion, annular flanges arranged upon the opposite faces of the hub and tread portion of the felly, annular plates arranged for vertical movement between the flanges and the outer faces of the hub and the inwardly disposed portion of the felly, the hub and tread portion of the felly constituting stops to limit the vertical movement of the plate in either direction, and cushioning means engaging the hub and felly.

1,143,305. TRANSFORMER. LOUIS C. NICHOLS, Milwaukee, Wis., assignor, by mesne assignments, to Allis-Chalmers Manufacturing Company, a Corporation of Delaware. Filed Apr. 8, 1911. Serial No. 619,669. (Cl. 171—124.)

1. In electrical apparatus, a plurality of sections of winding, and means for spacing said winding sections apart comprising spacing elements extending in the general direction of the adjacent individual turns of one of said spaced sections and spaced apart and bent in a plane parallel to the adjacent side of said latter winding section, each of said elements forming a bearing for a plurality of adjacent individual turns of said latter winding section at a plurality of spaced points.

2. In a transformer, a core provided with an opening, a winding extending through such opening, said winding being formed of spaced sections, and strips crooked in a plane parallel to an adjacent side of one of said sections for holding said sections apart, each strip overlapping and forming a bearing for adjacent turns of a section at spaced points thereof.



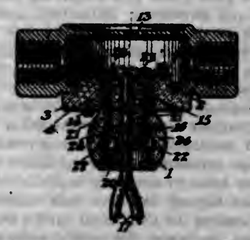
3. In a transformer, a core, a plurality of separately formed sections of winding thereon, and a spacing element between adjacent winding sections, said element extending in the general direction of the adjacent turns of the spaced winding sections and being sig-zag or undulate in cross-section in a plane parallel to the adjacent sides of the spaced sections.

4. In a transformer, a core, a winding thereon in a plurality of sections, and spacing strips between adjacent sections, said strips being laid in the same general direction as the adjacent portions of the individual turns of said spaced sections and being of such cross-sectional shape in a plane parallel to the adjacent sides of the spaced sections as to bear against a number of adjacent individual turns whose width is greater than the width of said strips at any point thereof.

5. In a transformer, a core, a plurality of separately formed winding sections thereon, the adjacent sides of adjacent winding sections being approximately parallel, and spaced elements between adjacent winding sections and extending in the same general direction as the adjacent portions of the individual turns of the winding sections and forming a bearing for all the individual turns of the adjacent layers of said winding sections at spaced points.

[Claims 6 to 10 not printed in the Gazette.]

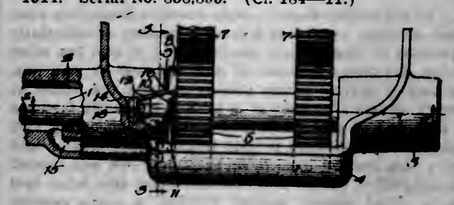
1,143,306. COMBINED ATTACHMENT-PLUG AND BASE. MORTIMER NORDEN, New York, N. Y., assignor to Joseph Norden, New York, N. Y. Filed Apr. 24, 1914. Serial No. 834,064. (Cl. 173—338.)



1. A plug of insulating material having a central opening extending entirely through it for the reception of conductor wires, a longitudinal bore extending entirely through the plug on opposite sides of said central opening, contact plates upon the upper end of said plug on opposite sides of the central opening extending at right angles thereto and projecting a predetermined distance beyond the plug, each contact plate having an opening registering with said bores, headed bolts having screw threaded lower ends passing through said openings and through said bores, nuts into which the screw threaded ends of the bolts are screwed, branch wires clamped between the heads of said bolt and said contact plates, in combination with a base of insulating material having openings for the passage of said plug and right angled contact plates, metallic plates secured to said base for connection with an electric main, metallic spring clips in contact with said plates and secured to the base and positioned to overlie and contact with the projecting ends of said right angled contact plates on a partial rotation of the plug and secure said projections between the clips and base.

2. A plug of insulating material having a recessed bottom, a central opening extending entirely through the plug for the reception of conductor wires, recesses in the top surface of the plug at opposite sides of said opening and extending to the outer surface of the plug, a longitudinal bore extending entirely through the plug on opposite sides of said central opening, the lower part of each bore being square, contact plates seated in said recesses upon the upper end of the plug and extending at right angles thereto and projecting a predetermined distance beyond the plug, each contact plate having an opening registering with said bores, headed bolts having screw threaded lower ends passing through said openings and through said bores, nuts within said square portions of said bores into which the screw threaded ends of the bolts are screwed, branch wires clamped between the heads of said bolts and said contact plates, in combination with a base of insulating material having openings for the passage of said plug and right angled contact plates, metallic plates secured to said base for connection with an electric main, metallic spring clips in contact with said plates and secured to the base and positioned to overlie and contact with the projecting ends of said right angled contact plates on a partial rotation of the plug and secure said projections between the clips and base.

1,143,307. LUBRICATING MECHANISM. LA VERNE NOYES, Chicago, Ill., assignor to Aermotor Company, Chicago, Ill., a Corporation of Illinois. Filed Aug. 27, 1914. Serial No. 858,895. (Cl. 184—11.)



1. Lubricating mechanism including a basin for containing lubricant; a disk taking part in transferring lubricant from the basin; a washer bearing against a face of the disk and co-axial with the disk; a bearing to which lubricant is to be conveyed; and a trough carried by the washer and in scraping engagement therewith at one end of the trough, the other end of the trough being positioned to discharge lubricant into the bearing.

2. Lubricating mechanism including a basin for containing lubricant; a disk taking part in transferring lubricant from the basin; a washer bearing against a face of the disk and co-axial with the disk; a bearing to which lubricant is to be conveyed; a trough carried by the washer and in scraping engagement therewith at one end of the trough, the other end of the trough being positioned to discharge lubricant into the bearing; and a spring for pressing the washer against the disk.

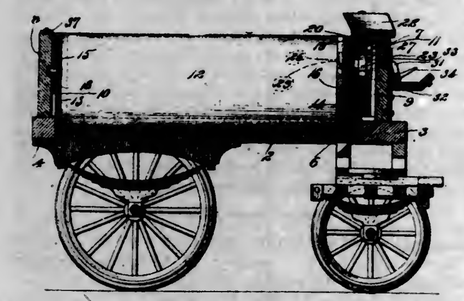
3. Lubricating mechanism including a basin for containing lubricant; a disk taking part in transferring lubricant from the basin; a washer bearing against a face of the disk and co-axial with the disk; a bearing to which

lubricant is to be conveyed; a trough carried by the washer and in scraping engagement therewith at one end of the trough, the other end of the trough being positioned to discharge lubricant into the bearing; and a spring for pressing the washer against the disk, the washer having an enlargement projecting beyond a portion of the area of the disk which is scraped by the trough, through which enlargement pressure of the spring is exerted.

4. Lubricating mechanism including a basin for containing lubricant; a pair of meshed gear wheels one of which dips within the lubricant in the basin; a bearing to which lubricant is to be conveyed; and a trough in scraping engagement with a face of the other gear wheel and oppositely facing the direction of rotation of the wheel that it scrapes, this trough being positioned to convey lubricant to said bearing.

5. Lubricating mechanism including a basin for containing lubricant; a pair of meshed spur gear wheels one of which dips within the lubricant in the basin; a bearing to which lubricant is to be conveyed; and a trough in scraping engagement with a face of the other gear wheel and oppositely facing the direction of rotation of the wheel that it scrapes, this trough being positioned to convey lubricant to said bearing and being in scraping engagement with the sides of the teeth of the wheel it faces.

1,143,308. DUMPING-WAGON. JAMES F. O'CONNOR, St. Louis, Mo. Filed Feb. 9, 1914. Serial No. 817,445. (Cl. 21—20.)



1. In a dumping wagon, a body frame, a wagon box composed of sheet metal and having a contour substantially segmental in cross-section, the front end of said box being convex, trunnions fastened to each end face of said box, the axes of said trunnions passing through the center of gravity of said box when it is loaded, standards fastened to each end of said frame and pivotally supporting said trunnions, a stop fixed to said frame at one side of said box, a stop member fixed to said box near one side thereof and adapted to engage said first mentioned stop when said box is in its normal upright position, a catch member mounted at the other side of said box and adapted to hold said box in its normal upright position, and means for inverting said box about its pivot axis to dump a load therein.

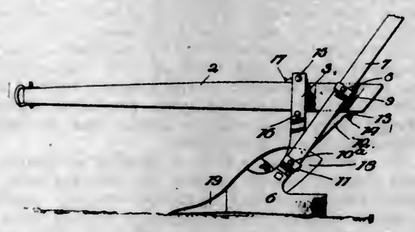
2. In a dumping wagon, a body frame, a wagon box formed of sheet metal and having a contour substantially segmental in cross-section, trunnions fastened to each end of said box, the axes of said trunnions passing approximately through the center of gravity of said box when it is loaded, a stop for preventing the rotation of said box on said trunnions from its normal upright position in one direction, a catch for preventing rotation of said box from its normal upright position in the other direction, means for releasing said catch, a lever pivoted to said frame, and a link pivotally connected near one end of said lever and near the other end to said box at one side of the axes of said trunnions, the other end of said lever extending to a place adjacent to the driver's seat, said link and said lever being operable to invert said box.

3. In a dumping wagon, a body frame, a wagon box formed of sheet metal and having a contour substantially segmental in cross-section, means for pivotally mounting said box on its longitudinal axis in said frame, said frame having boards extending longitudinally thereof which slope outwardly and downwardly and have their upper longitudinal edges close to the longitudinal edges of said box, when said box is in its normal upright position.

4. In a dumping wagon, an open rectangular body frame, a wagon box formed of sheet metal and having a contour substantially segmental in cross-section, a trunnion secured to each end face of said box, the axes of said trunnions passing approximately through the center of gravity of said box when it is loaded, standards supported at each end of said frame and pivotally supporting said trunnions, a hand lever pivoted to one of said standards above the corresponding trunnion, a link pivotally connected at one end to said lever, and at the other end to said box below and at one side of the axes of said trunnions.

5. In a dumping wagon, a body frame, a wagon box pivoted in said frame, a stop member fixed to said frame, a stop secured to said box and engaging said stop member to prevent rotation of said box from its normal upright position in one direction, a bracket secured to said frame, a second stop fastened to said box, a catch in said bracket engaging said second stop and preventing rotation of said box from its normal upright position in the other direction, said first-named stop being arranged to engage said bracket automatically in the dumping position of said box, means for releasing said catch and means for swinging said box on its pivot axis.

1,143,309. PLOW. ALEXANDER PANKEY, Meridian, Miss. Filed July 8, 1913. Serial No. 777,932. (Cl. 97—26.)



1. In combination, an approximately straight beam, a stock attached to the beam a short distance from the rear end thereof, a shovel at the lower end of the stock, and handles extending on opposite sides of the rear end of the beam and pivotally connected thereto and having their lower ends projecting below the beam and along opposite sides of the stock and pivotally connected to such stock adjacent the plow shovel.

2. In combination, an approximately straight beam, a plow stock having adjustable connections at its upper end with the beam, handles pivotally connected to the beam in the rear of the plow stock and extending below the beam at a forward and downward inclination and overlapping the plow stock at their lower ends, a brace connected at its upper end to the beam, and means pivotally connecting the lower ends of the members and handles to each other and to the plow stock.

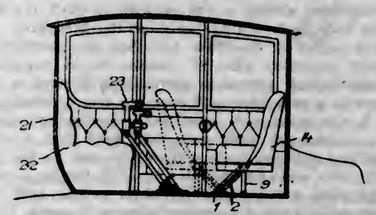
3. In combination, an approximately straight beam, a plow stock adjustably connected to the beam and comprising companion members, handle bars pivotally connected to the beam and extending downward below the same and along the outer sides of the plow stock, a brace attached to the beam and having its lower ends extending between the members forming the plow stock, and a pivot fastening passing through the brace, the handle bars, and the plow stock.

4. In combination, an approximately straight beam, a stock having adjustable connection at its upper end with the beam, a shovel attached to the lower end of the plow stock, handles extending along opposite sides of the beam and below the same with their lower ends overlapping the plow stock, a brace attached to the beam and having its lower ends overlapping the plow stock and handles, and a fastening pivotally connecting the brace, plow stock and handles and disposed adjacent the connection between the shovel and the plow stock.

5. In a plow, upwardly extending spaced companion bars forming a plow stock, an approximately straight beam extending between said companion bars and projecting rearward beyond the companion bars, a foot brace connected to the rear end of the beam and extending downward and forward to and between the companion bars, handles disposed one on each side of the rear end of the beam and extending downward and forward and disposed on each side of the companion bars, a pivot bolt passing through the companion bars and through said foot brace, a bolt passing through the handles and through the rear end of the beam, a rack carried upon the upper face of the beam, a bolt passing through the companion bars immediately below the beam, and a bolt passing through the upper ends of the companion bars and engaging with any one of the notches in the rack.

[Claims 6 to 9 not printed in the Gazette.]

1,143,310. VEHICLE-SEAT. ALBERT W. PATTISON, Detroit, Mich., assignor to Grinnell Electric Car Co., Detroit, Mich., a Corporation of Michigan. Filed Oct. 13, 1913. Serial No. 794,821. (Cl. 21—43.)



1. A vehicle seat comprising a base, holding means swinging on the base, a chair body rotatably mounted on the holding means, and adjustable means depending from the body for supporting it in operative position when at either end of the limit of motion of the holding means.

2. A vehicle seat comprising a base, holding means swinging on the base, a chair body rotatably mounted on the holding means, means depending from the body for supporting the latter in operative position when at either end of the limit of motion of the holding means, and locking means on the holding means for engaging the chair body when the latter is at one end of its limit of motion.

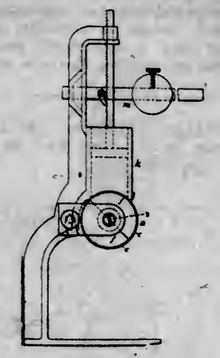
3. A vehicle seat comprising a base, holding means swinging on the base in an upright plane, a chair body rotatably mounted on the holding means, and arranged to maintain an operative position in all positions, supporting means depending from the chair body for carrying the latter when at either end of the limit of motion of the holding means, and means for automatically engaging and locking the chair body from turning when the holding means are at one end of the limit of motion thereof.

4. A vehicle seat comprising a base, a pair of links oscillatable thereon in an upright plane, a base plate carried on the upper ends of the links, a chair seat rotatably mounted on the base plate, and arranged to maintain an operative position, supports depending from the base plate for carrying the latter when the links are at either end of their limit of motion, and locking means on one of the links adapted to yieldingly engage the chair seat when the links are at one end of their limit of motion.

5. The combination in a vehicle body, of a rotatable seat mounted on the floor of the vehicle to swing backward and forward in an upright plane always in operative position and provided with supports bearing on the floor of the vehicle when the seat is at either end of its limit of motion.

[Claims 6 to 11 not printed in the Gazette.]

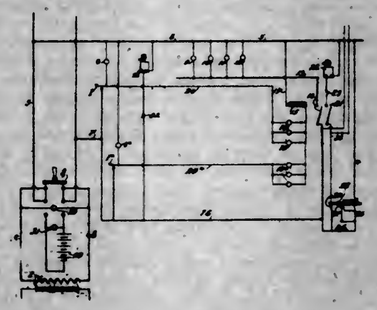
1,143,311. MEANS FOR REDUCING CEREAL PRODUCTS TO FORM. HENRY D. PERKY, Glencoe, Md.; Liban Sparks, administrator of said Perky, deceased, assignor, by mesne assignments, to The Shredded Wheat Company, Niagara Falls, N. Y. Filed Mar. 13, 1906. Serial No. 305,898. (Cl. 107—14.)



1. Means for making a filamentous roll, comprising separable sheet metal cylindri-form sections having each a plurality of perforations, and sectional journals, means for connecting said sections together to form a closed cylindrical receptacle, a movable bearing for the journal, and means for rotating the receptacle.

2. Means for making a filamentous roll, comprising separable sheet metal cylindri-form sections having each a plurality of perforations, means for connecting said sections together to form a closed cylindrical receptacle, axial journals at the ends of the receptacle, and an endwise-removable axial skewer pin within said receptacle and engaging said journals.

1,143,312. SIGNALING-CIRCUIT. WILLIAM MAYRANT PERRY and ALBERT EARLE BOOZER, Columbia, S. C. Filed Mar. 25, 1912. Serial No. 685,978. (Cl. 177—339.)



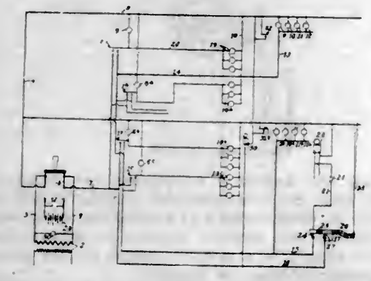
1. In a signaling system, a source of current, a circuit, a local lamp and circuit closing device in series in said circuit, a relay and a lamp in series with each other and in multiple with said local lamp and controlled by said circuit closing device, a lamp controlled by said relay and in multiple with said circuit closing device and local lamp, a constantly operated intermittent circuit closing device, and an audible signal controlled by said circuit closing device and said relay.

2. In a signaling system, a source of current, a main circuit, a plurality of lamps and circuit closing devices arranged in multiple-series with said main circuit, a relay controlled by said circuit closing devices, a plurality of lamps arranged in multiple, said lamps being connected in series with the winding of said relay, a plurality of wires from said lamps to the lamp side of said circuit

closing devices, a plurality of lamps controlled by said relay, and an intermittent audible signal controlled by said relay.

3. In a signaling system, a source of current, a main circuit, a plurality of local lamps and circuit closing devices in multiple-series with the main circuit, a relay adapted to be operated when any local lamp is displayed, a plurality of lamps individual to each circuit closing device and operated thereby, a plurality of pilot lamps operated by said relay, a bell circuit operated by said relay, and a circuit interrupting device in said bell circuit.

1,143,313. SIGNALING SYSTEM. WILLIAM MAYRANT PERRY, Columbia, S. C. Filed Mar. 29, 1912. Serial No. 687,082. (Cl. 177—339.)



1. In a signaling system, a source of current supply, a circuit therefrom, a plurality of manually operated circuit closing devices in said circuit, signals individual to each circuit closing device, signals common to all circuit closing devices, and an intermittently operated signal common to said individual signals and controlled by any of said manually operated circuit closing devices, substantially as described.

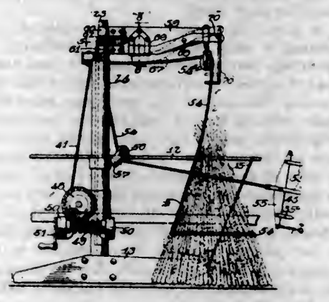
2. In a signaling system, a source of current supply, a circuit therefrom, a plurality of manually operated circuit closing devices in said circuit, signals individual to each circuit closing device, visible and audible signals common to all circuit closing devices, said audible signals being included serially in circuit with a constantly operated intermittent circuit closer, substantially as described.

3. In a signaling system, a source of current supply, a main circuit therefrom, a group of signals consisting of a plurality of local lamps, circuit closing devices in series with said lamps and in multiple with the main circuit, a pilot circuit common to said group of signals and operated when any one of them is displayed, a plurality of annunciator lamps individual to each circuit closing device and operated thereby, a bell circuit common to all circuit closing devices, a circuit interrupting device in said bell circuit, and means for operating said interrupting device.

4. In a signaling system, a main circuit, a plurality of manually operated circuit closing devices connected therewith said circuit closing devices having three contacts each, a plurality of lamps all connected on one side to one leg of the main circuit, a circuit between one contact in each circuit closing device and the remaining side of one of the aforesaid lamps, an annunciator signal, a circuit from the beforementioned contact to said annunciator signal, a circuit from a separate contact in said circuit closing device to the remaining leg of the main circuit, a plurality of lamps, a circuit from the remaining contact in said circuit closing device to said last mentioned lamps, a bell circuit operated by said last mentioned contact, and a circuit interrupting device in said bell circuit.

5. In a signaling system, a source of current supply, a main circuit, circuit closing devices in said circuit, signals individual to each circuit closing device, visual signals common to all circuit closing devices, and an automatically controlled intermittent signal common to all circuit closing devices.

1,143,314. DERRICK. DARIUS T. PHILLIPS, Chicago, Ill. Filed June 13, 1912. Serial No. 703,384. (Cl. 212—51.)



1. In a loader of the class described, the combination of a mast relatively fixed in relation to its supporting means, and having a laterally extending arm fixed in relation thereto, a laterally extending arm pivotally connected to the mast and normally occupying an angular position with relation to said fixed arm, means for swinging the movable load carrying arm toward the fixed arm on the mast for the purpose of shifting the load, and means for automatically restoring said load carrying arm to normal position, comprising elastic means adapted to shift the movable arm radially in a direction from the fixed arm.

2. In a loader of the class described, the combination of a mast relatively fixed in relation to its supporting means and having a laterally extending arm fixed in relation thereto, a swingable load carrying arm pivotally connected to the mast and normally occupying an angular relative position in relation to said fixed arm, a single load shifting cable extending from the load to the fixed and swingable arms and adapted to raise the load, means for supporting the cable in relation to the said fixed and swingable arms comprising sheaves secured to the said fixed laterally extending arm, and a sheave on the movable arm, and locking mechanism for holding the swingable arm in normal relation to the fixed arm and the mast until the load reaches a certain elevation.

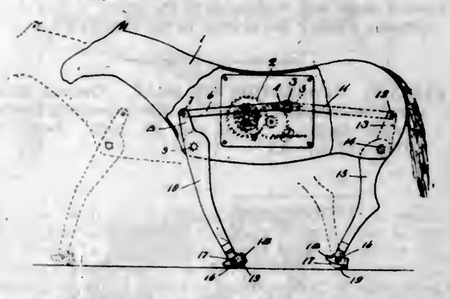
3. In a loader of the class described, the combination of a mast relatively fixed in relation to its supporting means and having a laterally extending arm fixed in relation thereto, a movable load carrying arm pivotally connected to the mast, a load shifting cable, means for supporting the cable in relation to the mast and the said fixed and movable arms, comprising sheaves secured to the mast and to the said fixed laterally extending arm, and a sheave on the movable arm, and locking mechanism for controlling the relation of the movable load carrying arm to the fixed arm on the mast for the purpose of shifting the load, said mechanism comprising means for positively controlling the relation between the movable arm and the fixed arm, and means operable upon the release of said locking mechanism for automatically swinging said movable arm in relation to the fixed arm.

4. In a loader of the class described, the combination of a mast relatively fixed in relation to its supporting means and having a laterally extending arm fixed in relation thereto, a movable load carrying arm pivotally connected to the mast and normally positioned at an angle to said fixed arm, sheaves on said fixed and movable arms, a single load cable extending from the load and over said sheaves, locking mechanism normally holding said arms in their relative angular position, means controlled by the height of the load for releasing said locking mechanism and permitting said movable arm to swing the load toward said fixed arm, and means for automatically returning said movable arm to normal position.

5. In a loader of the class described, the combination of a mast relatively fixed in relation to its supporting means and having a laterally extending arm fixed in relation thereto, a movable load carrying arm pivotally connected to the mast, elastic means adapted to shift the movable arm radially in a direction away from the fixed arm, locking means for normally preventing the movement of said movable arm, means for supporting the load comprising a flexible cable operatively connected with the fixed and movable arms, sheaves on each of said arms for supporting said cable, and means for releasing said locking means, comprising a member connected to the locking means and extending into the path of the load and being adapted to be operated by contact with the load as it is shifted by the cable.

[Claims 6 to 13 not printed in the Gazette.]

1,143,315. MECHANICAL TOY. EDWARD F. POLAND, Boston, Mass. Filed Jan. 25, 1915. Serial No. 4,132. (Cl. 46—45.)



1. Apparatus of the kind described, comprising a toy figure having a pair of fore legs and a pair of hind legs, and operating mechanism having connections for moving both fore legs together in the same direction and at the same time moving both hind legs in the opposite direction and trigging-means borne by said legs.

2. Apparatus of the kind described, comprising a toy figure having a pair of fore legs and a pair of hind legs mounted for swinging movement, operating mechanism connected to swing said pairs of legs together, with the fore legs moving in the opposite direction to the hind legs, said legs being mounted on rollers, and means for trigging the rollers upon the backward swing of the legs.

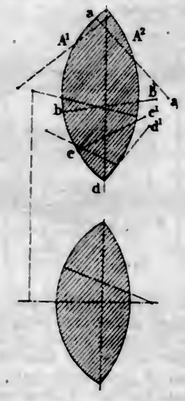
3. Apparatus of the kind described, comprising a toy figure having a pair of fore legs and a pair of hind legs mounted for swinging movement, operating mechanism connected to swing said pairs of legs together, with the fore legs moving in the opposite direction to the hind legs, said legs being mounted on rollers, and a gravity acting device coöperative with each roller and arranged to trig it upon the backward swing of its leg.

4. Apparatus of the kind described, comprising a toy figure having front and hind legs pivoted thereto, operating means having crank arm and link connections to said legs arranged to move them toward each other and away from each other alternately, and rollers at the lower extremities of said legs having trig plates swingingly mounted to coöperate therewith, arranged to permit said rollers to be operative in one direction of leg movement, and to trig the same upon a tendency to movement in the opposite direction.

1,143,316. OPTICAL LENS. AUGUSTIN GEORGES POULLAIN and DARIUS HENRI JULIEN CORNET, Paris, France. Filed July 18, 1911. Serial No. 639,091. (Cl. 88—54.)

1. A spectacle glass with multiple foci, presenting, on one of its faces, a surface determined: on the one hand by a directrix curve situated in the principal section of this glass, in the direction of its height and such that the radii of curvature of its different points vary progressively in a continuous manner,—and on the other hand by generatrix curves cutting this curve and constituted by circumferential arcs situated in planes perpendicular to the principal section of the glass and normal to the said curve.

2. A spectacle glass with multiple foci, presenting on its two faces, a surface determined: on the one hand by a directrix curve situated in the principal section of this glass, in the direction of its height and such that the radii of curvature of its different points vary progressively in a continuous manner,—and on the other hand by generatrix curves cutting this curve and constituted by circumferential arcs situated in planes perpendicular to the principal section of the glass and normal to the said curve.



3. A spectacle glass with multiple foci, presenting on one of its faces a surface determined,—on the one hand by a directrix curve situated in the principal section of this glass in the direction of its height, and composed of parts such that the radii of curvature at the different points of the said parts vary progressively in a continuous manner and of other parts of constant radius of curvature, and on the other hand by generatrix curves cutting the directrix curve and constituted by circumferential arcs, situated in planes perpendicular to the principal section of the glass and normal to the said curve.

4. A spectacle glass with multiple foci, presenting, on one of its faces, a surface determined: on the one hand by a directrix curve situated in the principal section of this glass, in the direction of its height and such that the radii of curvature of its different points vary progressively in a continuous manner,—and on the other hand by generatrix curves cutting this curve and constituted by circumferential arcs situated in planes perpendicular to the principal section of the glass and normal to the said curve, these generatrix curves having radii of curvature respectively equal to the radii of curvature of the directrix curve at its points of intersection with said generatrix curves.

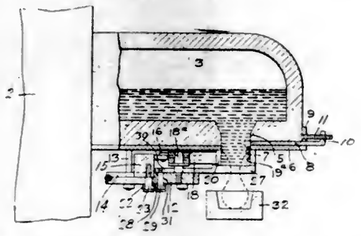
5. A spectacle glass with multiple foci, presenting, on one of its faces, a surface determined: on the one hand by a directrix curve situated in the principal section of this glass, in the direction of its height and such that the radii of curvature of its different points vary progressively in a continuous manner,—and on the other hand by generatrix curves cutting this curve and constituted by circumferential arcs situated in planes perpendicular to the principal section of the glass and normal to the said curve, these generatrix curves having equal radii of curvature.

[Claim 6 not printed in the Gazette.]

1,143,317. METHOD OF DELIVERING MOLTEN GLASS TO MOLDS. LUIS W. PROEGER, Pittsburgh, Pa. Filed June 17, 1914. Serial No. 845,564. (Cl. 49—77.)

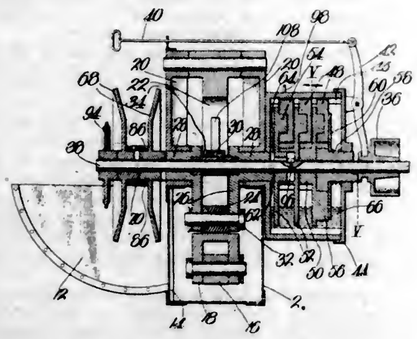
1. The method of discharging and cutting off molten glass from a glass delivering receptacle having an upper outlet and a lower outlet connected by a closed passage, consisting in collecting a mass of glass in said passage between said outlets, and discharging said mass of glass, elongating the glass from the upper outlet to a portion narrower than the size of said lower outlet, and cutting off the glass at the lower outlet at such elongated portion.

2. The method of discharging and cutting off molten glass from a glass delivering receptacle having an upper outlet and a lower outlet connected by a closed passage, consisting in collecting a mass of glass in said passage between said outlets, discharging said mass by freeing it from the walls of said passage, elongating the glass from the upper outlet to a portion smaller than the size of said lower outlet, and cutting off the glass at the lower outlet at said elongated portion.



3. The method of discharging and cutting off molten glass from a glass delivering receptacle, consisting in drawing off from the main supply of molten glass a portion less than that required to form the article and confining said portion of glass while still united to the main supply, freeing said portion of glass on all sides, thereby dropping said portion of glass together with an added portion from the main supply, elongating the added portion, and cutting off the glass at such elongated portion.

1,143,318. BALING-PRESS. GEORGE E. RIDER, Kansas City, Mo. Filed July 7, 1913. Serial No. 777,642. (Cl. 100—25.)



1. In a baling press, a baling chamber provided with a door opening, a plunger mounted to reciprocate within said chamber past said opening, a door for controlling said opening, means for intermittently opening and closing said door, and means acting automatically to lock the door when the same is closed, said locking means being adapted to be tripped by the plunger in its advance stroke to unlock said door.

2. In a baling press, a baling chamber provided with a door opening, a plunger mounted to reciprocate within said chamber past said door opening, means for driving said plunger, a door for controlling said opening, a shaft provided with a pinion for operating said door, and mutilated gearing connected with said driving means and adapted to coöperate with said pinion for intermittently closing and opening said door in timed relation with the plunger.

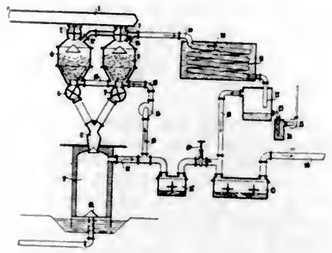
3. In a baling press, a baling chamber provided with a door opening, a plunger mounted to reciprocate within said chamber past said opening, means for driving said plunger, a door for controlling said opening, a pair of mutilated gear wheels connected with said driving means, and a shaft provided with a pinion and shroud located in coöperative relation with said gear wheels, said pinion being adapted to be intermittently driven by said wheels for opening and closing the door, and said shroud coöperating with the gear wheels to lock said shaft and door during the intervals of rest of said pinion.

4. In a baling press, the combination of a plunger, a crank for driving the plunger, a driving member rotatable about the same axis as said crank, and means interposed between said member and crank for transmitting power from the former to the latter at a reduced speed.

5. In a baling press, the combination of a plunger, a crank for operating said plunger, a pulley, and speed reducing gearing for transmitting power from said pulley to said crank, said crank, pulley and gearing all operating about a single axis transverse to the press.

[Claims 6 and 7 not printed in the Gazette.]

1,143,319. UTILIZATION OF PEAT. THOMAS RIGBY, Dumfries, Scotland, assignor to Wetcarbonizing Limited, London, England. Filed Jan. 23, 1915. Serial No. 4,071. (Cl. 44—3.)



1. A method of gasifying peat in which the distillation part of the process is carried out separately from that of decarbonization and the gases of distillation are treated for the recovery of by-products formed during distillation, while the gases of decarbonization are separately treated for the recovery of further by-products.

2. The method of treating peat by gasification involving distillation followed by decarbonization in which the distillation is carried out separately from the decarbonization and the gases of the former treated for the recovery of by-products formed during distillation while the gases of decarbonization are separately treated for the recovery of ammonia compounds.

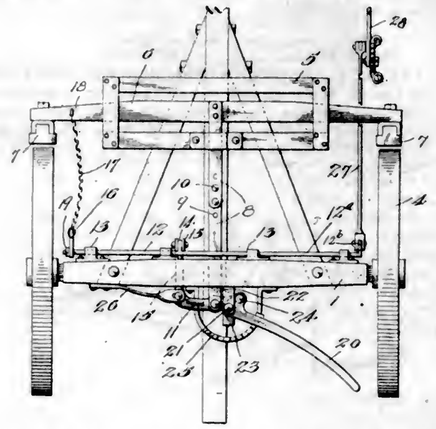
3. A method of recovering wax and other by-products from peat consisting in subjecting the peat to distillation, treating the resulting gases for the recovery of substances such as wax rendered available during distillation, subjecting the solid residue of distillation to decarbonization and treating the resulting gas for the recovery of by-products.

4. A method of recovering wax and other by-products from peat consisting in subjecting the peat to heat treatment adapted to render its contained water more freely expressible, distilling the resulting material, treating the gases of distillation for the recovery of wax and other bodies rendered available by distillation, subjecting the solid residue of distillation to decarbonization and treating the resulting gas for the recovery of ammonia and other compounds.

5. A method of recovering wax and other by-products from peat consisting in subjecting the peat to distillation, treating the resulting gases for the recovery of substances such as wax rendered available during distillation, subjecting the solid residue of distillation to decarbonization, treating the resulting gas for the recovery of by-products and utilizing such gas for effecting the distillation and removal of the gases thereof.

[Claim 6 not printed in the Gazette.]

1,143,320. VEHICLE-BRAKE. WILLIAM E. ROBERSON, Dickerson, Md. Filed July 23, 1914. Serial No. 852,747. (Cl. 21—S.)



1. In a brake mechanism, the combination of a wagon running gear comprising a bolster, a bracket fixed to the rear thereof, a rock-shaft mounted at the front of the bolster, an arm thereon, a link pivoted to said arm, an operating lever fulcrumed in said bracket, a connecting lever connected at one end with said operating lever and at the other end with said link, another operating lever connected with said rock-shaft to rotate same, a brake beam and a connection between said beam and said connecting lever.

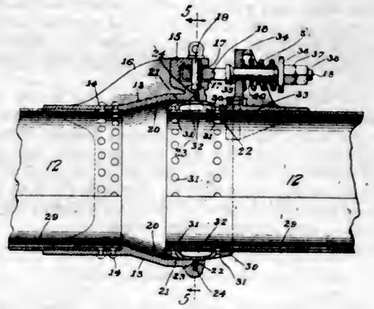
2. In brake mechanism, the combination of a wagon running gear comprising a bolster, a bracket fixed to the rear thereof, a rock-shaft mounted at the front of the bolster, an arm thereon, a link pivoted to said arm, an operating lever fulcrumed in said bracket, a connecting lever connected at one end with said operating lever and at the other end with said link, a member of said bracket being arranged to guide the adjacent end of said connecting lever, another operating lever connected with said rock shaft to rotate same, a brake beam and a connection between said beam and said connecting lever.

3. In brake mechanism, the combination of a wagon running gear comprising a bolster, a bracket fixed to the rear thereof, a rock-shaft mounted at the front of the bolster, an arm thereon, a link pivoted to said arm, an operating lever fulcrumed in said bracket, a connecting lever connected at one end with said operating lever and at the other end with said link, another operating lever carried by said rock-shaft to rotate same, a brake beam and a connection between said beam and said connecting lever.

1,143,321. FLOATING DISCHARGE-PIPE FOR HYDRAULIC DREDGES. ARTHUR WELLS ROBINSON, Montreal, Quebec, Canada. Original application filed July 12, 1913, Serial No. 778,644. Divided and this application filed June 23, 1914. Serial No. 846,739. (Cl. 137—88.)

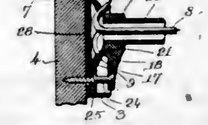
1. In a floating discharge pipe for dredges, a ball and socket joint in the discharge pipe, a link and pin connection superposed upon the upper side of the adjoining ends of the discharge pipe sections, the pin being substantially in the same vertical plane as the center of the ball, and a packing for the ball and socket joint comprising an annular recess in the socket, an annular packing therein, a compression band outside of the packing, a split metallic ring interposed between the packing and the compression band, and means to tighten the band.

2. In a floating discharge pipe for dredges, a ball and socket joint in the discharge pipe, the ball being a segment of a sphere and the outer part of the socket cylindrical, a packing interposed between the ball and the socket comprising an annular recess in the socket, an annular packing therein, a compression band outside of the packing, a split metallic ring between the packing and the compression band, and means to tighten the band, and a



link and pin connection between the adjoining ends of the discharge pipe, the pin being substantially in the same vertical plane as the center of the ball, and spring cushioning devices which permit longitudinal movement of the link.

1,143,322. OUTLET-BOX. MINER ROBINSON, Newton, Mass. Filed Apr. 8, 1908. Serial No. 425,843. (Cl. 247—5.)



1. The combination with an outlet box having a bottom and side walls and also having an aperture in its bottom for the reception of a wire-carrying conduit, of a conduit clamping member situated within said box and of a size and shape to engage the walls thereof at a sufficient number of points to be centered and held in position by said walls, said conduit-clamping member having a conduit-clamping edge adapted to engage a conduit occupying the aperture, said edge being spaced from the opposite edge of the aperture a distance in a radial direction slightly less than the normal diameter of the conduit whereby the conduit is clamped in place by the mere act of placing the clamping member in position.

2. The combination with an outlet box having an aperture in its bottom for the reception of a wire-carrying conduit, of a conduit-clamping member situated within said box and of a size and shape to fit and engage the interior walls of the box at a sufficient number of points to be centered and held in position by said walls, said member having a recess in its periphery to receive the conduit, the edge of said recess forming a conduit-clamping edge which is situated at a greater radial distance from the center of the box than the inner edge of the aperture whereby the act of placing the clamping member in the box forces the conduit outwardly in a radial direction and clamps it firmly against the outer wall of the aperture.

3. The combination with an outlet box having a plurality of apertures in its bottom for the reception of wire-carrying conduits, of a clamping member situated within and fitting the walls of the box, said clamping member being held in position by its engagement with said walls and having recesses to receive the conduits and engage the inner sides thereof, the walls of the recesses which engage the conduits being at a greater radial

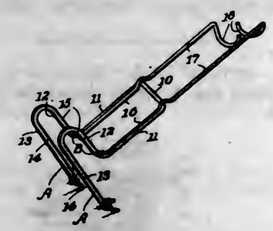
distance from the center of the box than the inner sides of the apertures whereby the mere act of placing the clamping member in the box will bring the walls of said recesses into clamping engagement with the conduits occupying the apertures in the box.

4. The combination with an outlet box having a symmetrical shape and provided with symmetrically-arranged apertures in its bottom, of a clamping member fitting the interior walls of the box and provided with sealing portions adapted to cover the apertures in the bottom of the box.

5. The combination with an outlet box having a symmetrical shape and provided with symmetrically-arranged apertures in its bottom, of a clamping member fitting the interior walls of the box and provided with sealing portions adapted to cover the apertures in the bottom of the box, said sealing portions being united to the body of the clamping member by lines of weakness whereby any sealing portion may be removed by a blow.

[Claims 6 to 12 not printed in the Gazette.]

1,143,323. SUPPORT AND TIE FOR CONCRETE-REINFORCING BARS. GEORGE R. SCHOENTHALER, Chicago, Ill. Filed Mar. 25, 1914. Serial No. 827,118. (Cl. 72—122.)



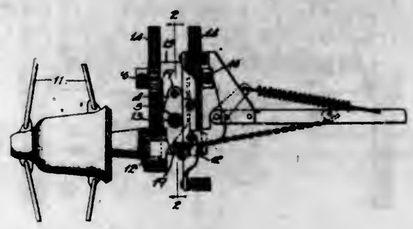
1. A device of the class described comprising a pair of parallel resilieft arms, hooks on the outer ends thereof, a transversely disposed support arranged beneath the central portions of said arms, and resilient supporting legs at the lower ends of said parallel arms.

2. A device of the class described constructed of a single piece of wire, the central portion of which is bent into substantially inverted U-shape for engagement over a reinforcing rod, the section of wire being bent from the ends of the legs of said U-shaped portion to form substantially upright supporting legs which are spaced a sufficient distance apart to receive a reinforcing bar, the end portions of the section of wire being extended from said upright legs to form resilient rod engaging arms which overlie the transverse member of the inverted U-shaped portion of the device, rod engaging hooks on the ends of said resilient arms, and a pair of substantially U-shaped seats formed between the upright legs and the rod engaging arms, which seats are adapted to receive a reinforcing rod.

3. A device of the class described formed of a single piece of wire bent to form a pair of upright supporting legs which are spaced apart a sufficient distance to receive a reinforcing bar, a transversely disposed section adapted to rest on top of the reinforcing bar which is positioned between said legs, the wire between said legs and the transversely disposed section being bent into substantially U-shape to form a pair of seats for a reinforcing bar which is positioned beneath and at right angles to the reinforcing bar which is positioned between the legs, and a pair of resilient arms extending across and beyond the transversely disposed member, which arms terminate in hooks which are adapted to engage beneath the reinforcing bar which is positioned between the legs.

4. A device of the class described formed of a single piece of wire bent to form a pair of substantially upright resilient supporting legs spaced apart a sufficient distance to receive a reinforcing rod, a pair of parallel resilient arms projecting laterally from the supporting legs, rod engaging hooks on the ends of said resilient arms, and a transversely disposed member forming a part of the device and positioned beneath the resilient arms to form a fulcrum therefor.

1,143,324. POWER-TRANSMISSION MECHANISM. DANIEL R. SCHOLES, Chicago, Ill., assignor to Aermotor Company, Chicago, Ill., a Corporation of Illinois. Original application filed Apr. 9, 1914, Serial No. 830,580. Divided and this application filed Oct. 7, 1914. Serial No. 865,484. (Cl. 74—14.)



1. Power transmission mechanism including a motor driven shaft; a reciprocating upright load rod; a pair of gears driven by the motor driven shaft; a second pair of gears which drive the load rod and which are driven by and are in mesh with the first; and pitmen that establish power transmitting connection between the gears of the second pair and the load rod, the gears of the second pair having shafts one of which enters the other and which shafts are in relatively rotatable relation.

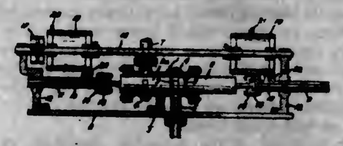
2. Power transmission mechanism including a motor driven shaft; a reciprocating upright load rod; a pair of gears driven by the motor driven shaft; a second pair of gears driven by and in mesh with the first; and pitmen that establish power transmitting connection between the gears of the second pair and the load rod, the gears of the second pair having shafts one of which enters the other and which shafts are in relatively rotatable relation, the gears of the second pair having formations for maintaining the spacing between these gears and adapted for interengagement, upon relative rotation of these gears, then to maintain such spacing, the remaining gears serving by meshing with the others to maintain the space preserving interengagement of said formations.

3. Power transmission mechanism including a motor driven shaft; a reciprocating upright load rod; a pair of gears driven by the motor driven shaft; a second pair of gears driven by and in mesh with the first; and pitmen that establish power transmitting connection between the gears of the second pair and the load rod, the gears of the second pair having formations for maintaining the spacing between these gears and adapted for interengagement, upon relative rotation of these gears, then to maintain such spacing, the remaining gears serving by meshing with the others to maintain the space preserving interengagement of said formations.

4. Power transmission mechanism including a motor driven shaft; a pair of gears driven by the motor driven shaft; and a second pair of gears which drive the load and which are driven by and are in mesh with the first pair of gears, the gears of the second pair having shafts that are in telescoping and relatively rotatable relation.

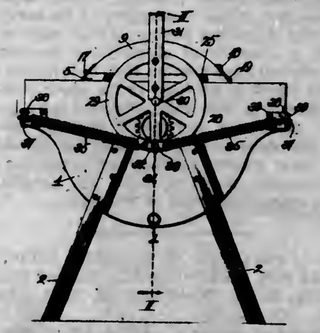
5. Power transmission mechanism including a motor driven shaft; a pair of gears driven by the motor driven shaft; a second pair of gears which drive the load and which are driven by and are in mesh with the first pair of gears, the gears of the second pair having formations for maintaining spacing between these gears and adapted for interengagement, upon relative rotation of these gears, then to maintain such spacing, the remaining gears serving by meshing with the others to maintain the space preserving interengagement of said formations.

1,143,325. PUMP. JAMES M. SHERMAN, Dallas, Tex. Filed Nov. 21, 1913. Serial No. 802,184. (Cl. 103—77.)



A pump, comprising a barrel, having inlet and outlet ports adjacent to its extremities, two pistons mounted to reciprocate independently in said barrel, alined rods oppositely projecting from each piston, sleeves within which said rods are free to rotate, means for causing a simultaneous sliding movement of the rods and sleeves, means slidably supporting said sleeves and restricting the same against rotation, and cams, respectively engaging said sleeves, for causing a reciprocating motion of the two pistons such that one moves forward while the other remains stationary, the other then moving forward while the first one remains stationary, the two undergoing their return stroke in unison.

1,143,326. GEARING FOR WASHING-MACHINES AND THE LIKE. CALVIN A. SHIVE, Payson, Okla., assignor, by mesne assignments, to J. S. Hout, Tulsa, Okla. Filed June 7, 1909. Serial No. 500,659. (Cl. 74—50.)



A gearing for washing machines and the like, comprising a suitable support, a rotatable object journaled on said support connected axially thereto a gear, an internally-toothed gear wheel disposed eccentrically of and inclosing and meshing with said gear, a handle secured to and projecting from said gear wheel whereby to oscillate the same, a link pivoted on said gear wheel at a point in line with said handle, and a pair of retractile springs connected at their opposite ends to said link and said support respectively and adapted to maintain said wheel with its handle normally in vertical position.

1,143,327. VACUUM REGULATION. HOMER CLYDE SNOOK, Cynwyd, and EDWIN W. KELLY, Philadelphia, Pa. Filed July 3, 1914. Serial No. 848,708. (Cl. 250—35.)

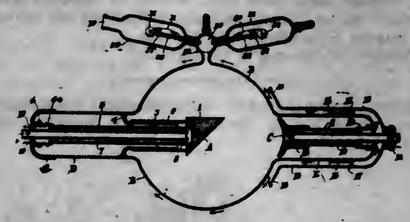
1. The method of regulating the vacuum of a vacuum tube, which consists in simultaneously introducing gas into and extracting gas from the vacuum.

2. The method of regulating the vacuum of a vacuum tube, which consists in simultaneously introducing into and extracting gas from the vacuum at different rates.

3. The method of lowering the vacuum of a vacuum tube, which consists in extracting gas from the vacuum, and simultaneously introducing gas into the vacuum at a greater rate than gas is extracted therefrom.

4. The method of raising the vacuum of a vacuum tube, which consists in introducing gas into the vacuum, and simultaneously extracting gas from the vacuum at a greater rate than gas is introduced into the vacuum.

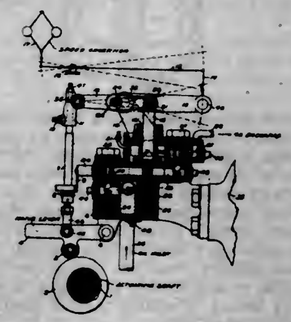
5. The method of operating a vacuum tube, which consists in impressing electrical energy thereon, and during



the impression of energy thereon introducing gas into and extracting gas from the vacuum.

[Claims 6 to 82 not printed in the Gazette.]

1,143,328. REGULATOR FOR COMBUSTION-ENGINES. CARL G. SPRADO, Milwaukee, Wis., assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis., a Corporation of Delaware. Filed Oct. 5, 1914. Serial No. 865,606. (Cl. 123—140.)



1. In combination, a casing forming a chamber, a valve for admitting fluid to said chamber, a valve for permitting discharge of fluid from said chamber, a relief port leading from said chamber, a displacement plunger operating within said chamber and directly controlling the discharge of fluid through said relief port, means for normally automatically operating said plunger, means for automatically varying the limits of stroke of said plunger, and means for permitting manual actuation of said plunger.

2. In a regulator for combustion engines, a casing forming a chamber, means for admitting fluid to said chamber, means for permitting discharge of fluid from said chamber, a relief port connecting said chamber with the inlet side of said admission means, and a displacement device operating within said chamber and directly controlling the discharge of fluid through said relief port.

3. In combination, a casing forming a chamber, a valve for admitting fluid to said chamber, a valve for permitting discharge of fluid from said chamber, a relief port leading from said chamber, a displacement plunger reciprocating within said chamber and directly controlling the discharge of fluid through said relief port, means for reciprocating said plunger, and means for varying the position of the limits of stroke of said plunger.

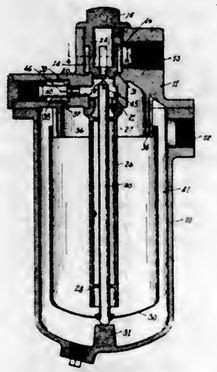
4. In combination, a casing forming a chamber, a valve for admitting fluid to said chamber, a valve for permitting discharge of fluid from said chamber, a relief port leading from said chamber, a displacement plunger reciprocating within said chamber and directly controlling the discharge of fluid through said relief port, means for operating said plunger, and a speed governor for varying the limits of stroke of said plunger.

5. In combination, a casing forming a chamber, a valve for admitting fluid to said chamber, a valve for permitting discharge of fluid from said chamber, a relief port leading

from said chamber, a displacement plunger operating within said chamber and directly controlling the discharge of fluid through said relief port, means for normally automatically operating said plunger, and means for permitting manual actuation of said plunger.

[Claim 6 not printed in the Gazette.]

1,143,329. STEAM-TRAP. COLE STICKLE, Indianapolis, Ind. Filed Oct. 6, 1913. Serial No. 793,683. (Cl. 137—113.)



A vacuum valve mechanism for steam heaters and the like including a condensation chamber, an open top bucket float therein, a conduit extending from the lower part of ing a port at its upper end, a main valve connected with said float and through the top of said chamber and havthe float for controlling the outlet from the port in the said conduit having a groove in it so it can not absolutely close the outlet port from the said conduit, there being a passageway leading from the top of said condensation chamber and to said conduit at a point below said main valve, and having a reduced portion smaller than the groove in said main valve.

1,143,330. EXPLOSIVE. CHARLES MILTON STINE, Chester, Pa., assignor to E. I. du Pont de Nemours Powder Company, Wilmington, Del., a Corporation of New Jersey. Filed Dec. 13, 1913. Serial No. 806,417. (Cl. 52—3.)

1. An explosive containing nitro-glycerin and nitrated ivory nut.

2. A dynamite containing nitrated ivory nut.

3. An explosive containing nitro-glycerin, nitro-cotton and nitrated ivory nut.

4. An explosive containing nitro-glycerin, nitro-cotton, an organic nitro compound and nitrated ivory nut.

5. An explosive containing nitro-glycerin, nitrated ivory nut, nitro-cotton, an organic nitro compound, a combustible absorbent and an inorganic oxidizing agent.

[Claims 6 to 8 not printed in the Gazette.]

1,143,331. AIR-HEATING DEVICE FOR INTERNAL-COMBUSTION ENGINES. EDWARD D. STRANGE, East St. Louis, Ill., and MARTIN M. HEFFREAN, St. Louis, Mo. Filed Jan. 12, 1914. Serial No. 811,638. (Cl. 257—241.)



1. A device of the character described comprising a hollow member that is divided horizontally into two sections, the upper section being provided with a plurality of perforations and the lower section being provided with an extension for conveying the heated air.

2. An air heating device for internal combustion engines comprising an upper and a lower semi-circular housing that are U-shaped in cross section and which are adapted to be clamped to the exhaust pipe so as to form an annular chamber therearound, means on the upper housing for admitting fresh air to said chamber, and conveying means on said lower housing.

3. In a device of the character described, an exhaust pipe, and an air-collecting chamber that surrounds said pipe and which comprises an annular U-shaped housing that is divided on a horizontal line so as to form two semi-circular portions, the upper one of said portions being provided with a plurality of perforations, and the lower one of said portions being provided with a flexible conduit.

4. An air-heating device comprising a ring-shaped casing that is approximately U-shaped in cross section and which provides a chamber that is adapted to completely surround the exhaust pipe of an internal combustion engine, the outer wall of said exhaust pipe forming the inner wall of said chamber, said casing being split horizontally so as to form a plurality of sections, the upper one of said sections having means for admitting fresh air to said chamber, and the lower one of said sections having means for transmitting said air.

5. An air-heating device for internal combustion engines comprising a semi-circular member that is U-shaped in cross section and which is provided at its lower portion with laterally extending perforated lugs and in its side walls with a plurality of air-receiving openings, a co-operating semi-circular member that is U-shaped in cross section and which is provided at its upper portion with laterally extending lugs that coöperate with said first-mentioned lugs, said last-named member having imperforate side walls and an air-conveying conduit leading from the lower portion thereof, and means for securing said lugs together so as to clamp the complete device around the exhaust manifold of the engine.

1,143,332. CATALYZER CONTAINING SILICON AND PROCESS FOR MAKING SAME. NATHAN SULZBERGER, New York, N. Y. Filed Feb. 25, 1914. Serial No. 820,874. (Cl. 23—28.)

1. A process of making a catalyst, which comprises reducing a silicate of a catalytic metal with a reducing agent free from anticatalytic material.

2. A process of making a catalyst, which comprises reducing a silicate of catalytic metals with a reducing agent free from anticatalytic material.

3. A process of making a catalyst, which comprises reducing nickel silicate with a reducing agent free from anticatalytic material.

4. Process of making a catalyst, consisting in reducing a silicate of a catalytic metal by means of hydrogen.

5. Process of making a catalyst, consisting in reducing a silicate of catalytic metals by means of hydrogen.

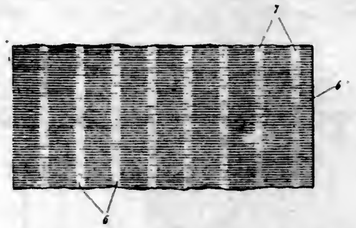
[Claims 6 to 9 not printed in the Gazette.]

1,143,333. CRIMPED PAPER. JOHN D. TOMPKINS, Valatie, and FREDERICK H. FULLER, Potsdam, N. Y., assignors to Tompkins-Hawley-Fuller Company, Valatie, N. Y., a Corporation of Oregon. Filed May 2, 1913. Serial No. 764,995. (Cl. 92—69.)

1. A sheet of paper crimped and having glazing on a portion only of one surface, the folds of the crimping being retained in the original elevated position in the glazed portion.

2. A sheet of paper crimped as a whole and having portions thereof of greater density than the remainder thereof, the folds of the crimping being retained in the original elevated position in the more dense portions.

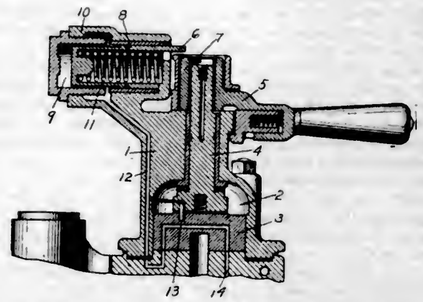
3. A sheet of paper crimped as a whole, having glazing on one surface, and having portions thereof of greater density than the remainder thereof, the folds of the crimping being retained in the original elevated position in the glazed and more dense portions.



4. A sheet of paper crimped as a whole and having continuous portions thereof of greater density than the remainder thereof, the folds of the crimping being retained in the original elevated position in the more dense portions.

5. A sheet of paper crimped, having glazing on one surface, and having continuous portions thereof of greater density than the remainder thereof, the folds of the crimping being retained in the original elevated position in the glazed and more dense portions.

1,143,334. BRAKE-VALVE DEVICE. WALTER V. TURNER, Edgewood, Pa., assignor to The Westinghouse Air Brake Company, Wilmerding, Pa., a Corporation of Pennsylvania. Filed Oct. 6, 1914. Serial No. 865,255. (Cl. 188—7.)



1. In a brake valve device, the combination with a brake valve handle, of means for preventing the removal of the handle unless the brakes have been applied.

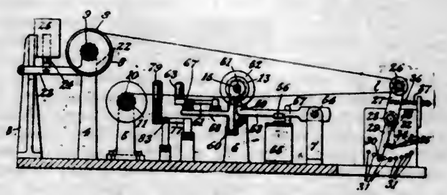
2. In a brake valve device, the combination with a removable brake valve handle, of a device for locking the brake valve handle against removal and operated upon a predetermined reduction in brake pipe pressure for releasing the handle to permit removal thereof.

3. In a brake valve device, the combination with a removable brake valve handle, of a device for preventing removal of the brake valve handle and subject in the removal position on one side to brake pipe pressure and a spring for holding said device retracted at a predetermined reduction in brake pipe pressure to thereby permit removal of the handle.

4. In a brake valve device, the combination with a valve and a handle for operating said valve and removable in one position, of a finger adapted to prevent removal of the handle, a piston subject on one side to the pressure of a spring for operating said finger and means for admitting fluid from the brake pipe to the opposite side of said piston in the removal position of the valve.

5. In a brake valve device, the combination with a valve having an off position and a handle removable in off position for operating said valve, of an extension for preventing removal of the handle, a piston open on one side to brake pipe pressure in the off position of the valve for operating said extension, and a spring for retracting said piston and thereby said extension from the locking position when the brake pipe pressure is less than a predetermined degree.

1,143,335. WINDING-MACHINE. CHARLES R. UNDERHILL, New Haven, Conn., assignor to The Acme Wire Company, New Haven, Conn., a Corporation of Connecticut. Filed Nov. 15, 1913. Serial No. 801,153. (Cl. 242—25.)



1. In a winding machine, the combination with a winding mandrel, of a motor for turning said mandrel, means controlled by the tension of the strand being wound for varying the rate of travel of the turning mandrel, and means controlled by the strand for laying a coil on said mandrel.

2. In a winding machine, the combination with a winding mandrel, of a motor for turning said mandrel, means controlled by the tension of the strand being wound for varying the rate of travel of said strand, and intermittently movable means controlled by the strand for laying a coil on said mandrel.

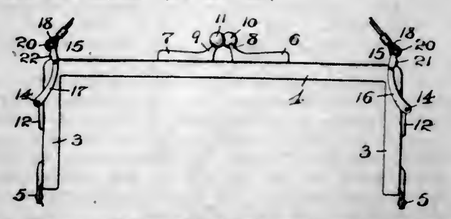
3. In a winding machine, the combination with a winding mandrel, of a motor for turning said mandrel, means controlled by the tension of the strand being wound for varying the rate of travel of said strand, and automatic means controlled by the winding and including a source of power other than the strand being wound for positively locating the winding point of the strand and laying each coil of the tension strand on the mandrel in close contact with the last preceding coil from end to end of a helix.

4. In a winding machine, the combination with a winding mandrel, of a motor for turning said mandrel, means controlled by the tension of the strand being wound for varying the rate of travel of said strand, and automatic means controlled by the lag of the tensioned strand being wound for laying a coil on the mandrel in close contact with the last preceding coil.

5. In a winding machine, the combination with a winding mandrel, of a motor for turning said mandrel, means controlled by the tension of the strand being wound for varying the rate of travel of said strand, and automatically operated traversing means having a positive power action controlled by the strand for laying a coil on the mandrel.

[Claims 6 to 30 not printed in the Gazette.]

1,143,336. SAFETY-CATCH FOR BAG-FRAMES. BENNO VOM EIGEN, Newark, N. J., assignor to Aug. Goertz & Co., a Corporation of New Jersey. Filed Nov. 16, 1912. Serial No. 731,658. (Cl. 190—55.)



1. The combination with a bag-frame and its closing catch, said bag-frame comprising a pair of hinged frame-sections, each frame-section being formed with leg-members, and a handle, of a holding means pivotally connected

at its lower end upon each leg-member of one of the said frame-sections, said holding means being adapted to embrace the corners of both of the frame-sections when in their closed relation so as to be brought into separable holding engagement with the corner-portions of the two closed frame-sections, and means at the other end of said holding means for the attachment of the ends of the handle of the bag to said holding means for bringing said holding means into its holding engagement with said corner-portions of the closed frame-sections.

2. The combination with a bag-frame and its closing catch, said bag-frame comprising a pair of hinged frame-sections, each frame-section being formed with leg-members, and a handle, of a holding means pivotally connected at its lower end upon each leg-member of one of said frame-sections, said holding means being adapted to embrace the corners of both of the frame-sections when in their closed relation so as to be brought into separable holding engagement with the corner-portions of the two closed frame-sections, means at the other end of said holding means for the attachment of the ends of the handle of the bag to said holding means for bringing said holding means into its holding engagement with said corner-portions of the closed frame-sections, and stops connected with the said holding means adapted to be brought into engagement with the leg-members of the closed frame-sections so as to limit the pivotal movement of said holding means.

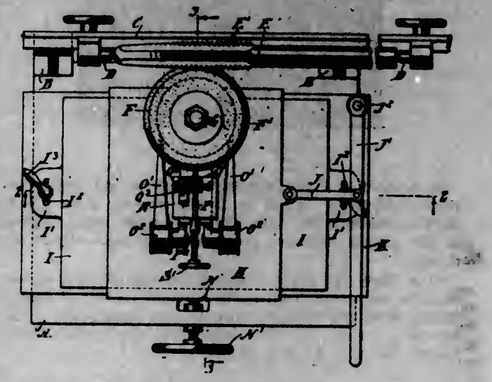
3. The combination with a bag-frame and its closing catch, said bag-frame comprising a pair of hinged frame-sections, each frame-section being formed with leg-members, and a handle, of a bearing-member secured to each leg-member of one of said frame-sections, a bearing-portion connected with each bearing-member, a pintle in each bearing portion, and a holding means mounted at its lower end upon each pintle, each holding means consisting of a pair of arms adapted to embrace the corners of both of the frame-sections when in their closed relation so as to bring said holding means into separable holding engagement with the corner-portions of the two closed frame-sections, and a connecting member, at the upper ends of each pair of arms for the attachment of the ends of the handle of the bag.

4. The combination with a bag-frame and its closing catch, said bag-frame comprising a pair of hinged frame-sections, each frame-section being formed with leg-members, and a handle, of a bearing-member secured to each leg-member of one of said frame-sections, a bearing-portion connected with each bearing-member, a pintle in each bearing-portion, and a holding means mounted at its lower end upon each pintle, each holding means consisting of a pair of arms adapted to embrace the corners of both of the frame-sections when in their closed relation so as to bring said holding means into separable holding engagement with the corner-portions of the two closed frame-sections, and a connecting member, at the upper ends of each pair of arms for the attachment of the ends of the handle of the bag, and inwardly projecting lugs connected with said arms adapted to be brought into engagement with the closed frame-sections so as to limit the pivotal movement of said holding means.

1,143,337. GRINDING-MACHINE. CLYDE E. WALLING, South Whitley, Ind. Filed Oct. 1, 1913, Serial No. 792,759. Renewed May 12, 1915. Serial No. 27,667. (Cl. 51—7.)

1. A tool grinding machine, comprising means for supporting a tool, and a revoluble grinding wheel having a concave peripheral face adapted to engage the cutting teeth of the tool to slope the backs of the teeth rearwardly and inwardly from the front edges to the back edges thereof, the said tool and the said grinding wheel having bodily movement one relative to the other and in the direction of the length of the tool.

2. A tool grinding machine, comprising a tool support for axially supporting a tool to be ground, a revoluble grinding wheel having a curved peripheral face adapted to engage and grind a row of cutting teeth on the tool, a grinding wheel support mounted to slide in the direction of the axis of the tool, a table on which the said support is mounted to slide, and a carriage mounted to travel transversely and on which the said table is mounted to turn.



3. A tool grinding machine, comprising a tool support for axially supporting a tool to be ground, a revoluble grinding wheel having a curved peripheral face adapted to engage and grind a row of cutting teeth on the tool, a grinding wheel support on which the said grinding wheel is journaled, a table on which the said support is mounted to slide longitudinally, a carriage mounted to slide transversely, and a pivot connecting the said table with the said carriage, the pivot being spaced from and parallel to the axis of the grinding wheel.

4. A tool grinding machine, comprising a tool support for axially supporting a tool to be ground, a revoluble grinding wheel having a curved peripheral face adapted to engage and grind a row of cutting teeth on the tool, a grinding wheel support on which the said grinding wheel is journaled, a table on which the said support is mounted to slide longitudinally, a carriage mounted to travel transversely, a pivot connecting the said table with the said carriage, the pivot being spaced from and parallel to the axis of the grinding wheel, and means for securing the said table to the said carriage after the table is adjusted.

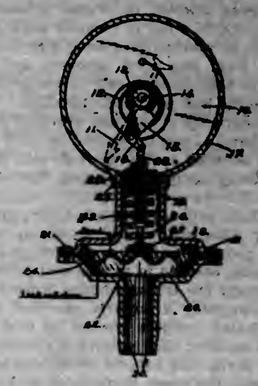
5. A tool grinding machine, comprising a tool support for axially supporting a tool to be ground, a revoluble grinding wheel having a curved peripheral face adapted to engage and grind a row of cutting teeth on the tool, a grinding wheel support on which the said grinding wheel is journaled, a table on which the said support is mounted to slide longitudinally, manually-controlled means for imparting sliding movement to the said support, and a carriage mounted to travel transversely and on which the said table is mounted to turn.

[Claim 6 not printed in the Gazette.]

1,143,338. PRESSURE-GAGE. JOHN A. WESSNER, Chicago, Ill. Original application filed Mar. 6, 1913, Serial No. 752,400. Divided and this application filed May 2, 1914. Serial No. 835,722. (Cl. 73—110.)

1. In a pressure gage, the combination with indicating mechanism, of a diaphragm casing, a flexible pressure operated actuating diaphragm for said indicating mechanism which extends across said casing, and a protective diaphragm of non-corrosible material in intimate contact with said flexible diaphragm on the pressure side of the same and having the contour thereof.

2. In a pressure gage the combination with indicating mechanism, of a diaphragm provided with a spring abutment, a flexible pressure operated actuating diaphragm for said indicating mechanism which extends across said casing, a protective diaphragm of non-corrosible material in intimate contact with said flexible diaphragm on the pressure side thereof, and a spring interposed between the other side of said flexible diaphragm and said spring abutment.



3. In a pressure gage, the combination with indicating mechanism, of a diaphragm casing, a flexible pressure operated actuating diaphragm for said indicating mechanism which extends across said casing, a protective diaphragm of non-corrosible material in intimate contact with said flexible diaphragm on the pressure side thereof, an adjustable spring abutment, and a spring interposed between said abutment and the flexible diaphragm on the side of the same opposite the protective diaphragm.

4. In a pressure gage, the combination with indicating mechanism, of a diaphragm casing, a concentrically corrugated steel diaphragm extending across said casing, an abutment disk having a concentrically corrugated surface bearing upon said steel diaphragm, a connecting rod pivoted to said abutment disk and engaged with said indicating mechanism, a spring abutment having a threaded engagement with the diaphragm casing, and a perforation through which said operating rod passes, a spiral spring bearing at one end against said abutment and at the other against said disk, and a protective diaphragm of non-corrosible material in intimate contact with the steel diaphragm on the pressure side of the same and having the contour thereof.

5. A pressure gage comprising a diaphragm having its margin restrained and its central portion free to move under the influence of fluid pressure acting against one side thereof, a spring normally maintaining a tension upon the other side of the diaphragm, a device for indicating variations of pressure, an actuating member operatively connected to said indicating device and having one end loosely engaging said diaphragm upon the side of the tension member, and means for adjusting the tension of said spring independently of said actuating member.

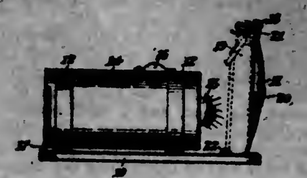
[Claim 6 not printed in the Gazette.]

1,143,339. MANUFACTURE OF CATALYZERS. DAVID WESSON, Montclair, N. J., assignor to The Southern Cotton Oil Company, New York, N. Y., a Corporation of New Jersey. Filed July 6, 1912. Serial No. 708,069. (Cl. 23—23.)

1. A method of preparing a catalyzer which consists in treating a solution of a nickel salt with ammonium hydrate, applying such precipitate to an inert carrier and reducing the same in hydrogen and in the presence of heat.

2. The process of producing a catalyzer which consists in treating a solution of soluble nickel compound with an ammonium compound which will form a nickel precipitate and volatilizable compounds in the solution, applying the precipitate to an inert carrier, heating the mass to drive off the volatilizable compounds and reducing the nickel with drydrogen in the presence of heat.

1,143,340. WATCH-STAND. EDWIN L. WIGGIN, New York, N. Y., assignor to J. H. White Manufacturing Company, Brooklyn, N. Y., a Corporation of New York. Filed Jan. 26, 1915. Serial No. 4,162. (Cl. 248—6.4.)



1. A watch stand comprising a base, a standard secured to the base at one end thereof, a hanger secured to the standard with its upper portion bent over the edge of the standard in a shape to support the watch, and spaced vertical spring clips connected to the top of the base in line with each other and with the standard.

2. A watch stand comprising a base, a standard connected to the base at one end thereof, a hanger secured to the standard and adjustable from a vertical to a horizontal position, the upper portion of each hanger being bent over the edge of the standard in a shape to support a watch, and spaced vertical spring clips connected to the top of the base in line with each other and with the standard.

3. A watch stand comprising an elongated base, a disk-shaped standard connected to the base at one end thereof, a bifurcated hanger pivotally secured to the standard, its upper ends bent over above the top of the standard in a shape to engage the stem of a watch, branches extending from either side of the hanger and bent over the edge of the standard and engaging the same, spaced vertical spring clips connected to the top of the base in line with each other and with the standard, and a transverse rib upon the top of the base spaced a predetermined distance from said standard.

4. A watch stand comprising a base, a standard connected to the base at one end thereof, a hanger secured at one end to the center of the standard and adjustable from a vertical to a horizontal position, the upper portion of such hanger being bent over the edge of the standard in a shape to support a watch, branches extending from said hanger and bent over the edge of the standard and engaging the same, forming guides when the hanger is moved from one position to the other, and spaced vertical spring clips connected to the top of the base in line with each other and with the standard.

5. A watch stand comprising a base, a standard hinged to the top of the base at one end thereof, a hanger secured to the standard with its upper portion bent over the edge of the standard in a shape to support a watch, and spaced vertical clips hinged to the top of the base in line with each other and with the standard.

[Claims 6 to 8 not printed in the Gazette.]

1,143,341. PROTECTING DEVICE FOR THE HAIR. ELSA E. WHITTAKER, Milwaukee, Wis. Filed Jan. 29, 1910, Serial No. 540,829. Renewed Nov. 27, 1914. Serial No. 874,357. (Cl. 2—106.)



1. A protecting device for the hair, comprising a piece of absorbent material shaped to fit within an ordinary bathing cap and to be placed around the head of the

wearer and between the head and an ordinary bathing cap, and means connected to the piece of material and adapted and constructed to be placed outside of and entirely around the lower edge of the bathing cap to form a water tight closure between the head and the piece of material and the lower edge of the bathing cap.

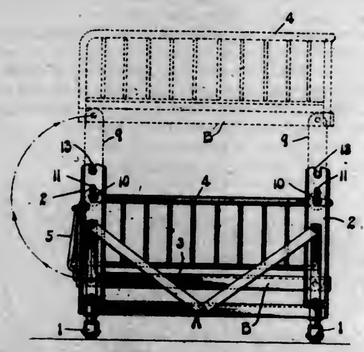
2. A protecting device for the hair, comprising a piece of absorbent fabric shaped to be placed over the head of the wearer and beneath an ordinary bathing cap and having tie strings for binding the lower edge of the fabric tightly around the head, and a band connected to the fabric and adapted and constructed to be placed outside of and entirely around the lower edge of the bathing caup to bind the lower edge of the bathing cap between the inner and outer portions of the device to form a water tight closure between the head and the fabric and the lower edge of the bathing cap.

3. A protecting device for the hair, comprising an ordinary bathing cap, a piece of absorbent fabric shaped to be placed over the head of the wearer beneath the ordinary bathing cap and having tie strings extending from the lower portion thereof, and an elastic band connected to the fabric and extending over and binding the lower edge of the bathing cap tightly around the lower edge of the fabric and the fabric to the head of the wearer to absorb any moisture which may enter between the ordinary bathing cap and the head of the wearer.

4. A protecting device for the hair, comprising a body piece of absorbent fabric substantially triangular in shape and having a lower folded edge and tie strings extending from the lower corners of the body piece, a strip of tape sewed to the body portion and extending to the strings, and a binding band connected to the lower edge of the body piece and having means for connecting its ends together.

5. In combination with a bathing cap, of a protecting device to be used within and in connection therewith and comprising a piece of absorbent material shaped to fit within the cap and to cover the head of the wearer and to be placed around the head of the wearer and between the head and the bathing cap and having a portion which extends outside of the cap and entirely around the lower edge portion of the cap to form substantially a water tight closure between the head and the lower edge of the bathing cap.

1,143,342. BED. RICHARD J. WHITTAKER, St. Louis, Mo. Filed Aug. 7, 1914. Serial No. 855,545. (Cl. 5—58.)



1. A bed comprising a support, a bed frame, hangers secured to said bed frame, pivot members connecting said hangers to said support, said hangers being adapted to extend downwardly from said pivot members to serve as rockable supports for said bed frame, and the said hangers being also adapted to extend upwardly from said pivot members, and means for interlocking said hangers with said support when the hangers occupy the last mentioned position.

2. A bed comprising a support provided with corner posts, a bed frame, hangers secured to said bed frame, pivot members securing said hangers to said corner posts, said hangers being adapted to extend downwardly from said pivot members to serve as rockable supports for said bed frame, and the said hangers being also adapted to extend upwardly from said pivot members, and means for interlocking said hangers with said corner posts when the hangers occupy the last mentioned position.

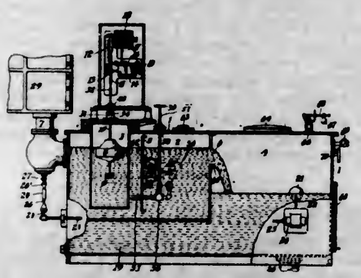
3. A bed comprising a support provided with corner posts, a bed frame, hangers secured to said bed frame, pivot members securing said hangers to said corner posts, said hangers being adapted to extend downwardly from said pivot members to serve as rockable supports for said bed frame, and the said hangers being also adapted to extend upwardly from said pivot members, one of said hangers being provided with a projection and one of the corner posts being notched to receive said projection when the hangers occupy the last mentioned postion.

4. A bed comprising a support provided with corner posts, a bed frame, hangers secured to said bed frame, pivot members securing said hangers to the upper portions of said corner posts, said hangers being adapted to extend downwardly from the upper portions of said corner posts to serve as rockable supports for said bed frame, and the said hangers being adapted to extend upwardly from the upper ends of said corner posts to constitute rigid supporting arms for said bed frame, and means for locking said hangers in the last named position.

1,143,343. PREPARING NICKEL HYDROXID. JOHN C. WOODRUFF, Bayonne, N. J., assignor to The Southern Cotton Oil Company, New York, N. Y., a Corporation of New Jersey. Filed Jan. 29, 1913. Serial No. 744,887. (Cl. 23—13.)

The method of precipitating nickel hydroxid, which consists in treating a solution of a nickel salt approximately 1% in strength at a temperature above 90° C. with the theoretical amount of ammonium hydroxid necessary to precipitate the nickel present.

1,143,344. AUTOMATIC METER CONTROL. DAVID ROBERT YARNALL, Philadelphia, Pa., assignor to Yarnall-Waring Company, Philadelphia, Pa., a Corporation of Pennsylvania. Original application filed Apr. 1, 1912, Serial No. 687,630. Divided and this application filed Nov. 8, 1912. Serial No. 730,124. (Cl. 73—167.)



1. A recording meter float having that part of its upper surface which is variantly submerged shaped to compensate for changes in fluid density due to temperature changes.

2. A recording meter float having the part which is variantly submerged at different temperatures of progressively reduced cross section toward the top to compensate for changes of density of fluid gaged at different temperatures by the variation in the displacement of fluid by the float.

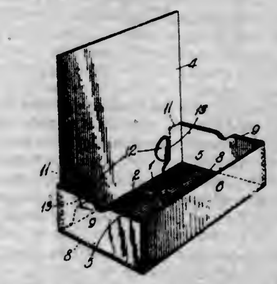
3. A recording meter float having that part of its upper surface which is variantly submerged at different temperatures concaved to compensate for changes of density of fluid gaged at different temperatures by the variation in the displacement by the float.

4. A recording meter float having the upper part which is variantly submerged at different temperatures of concaved conoidal surfaces to compensate for changes of density of fluid gaged by variation in the displacement of the fluid.

5. A recording meter float having that part of its upper surface which is variantly submerged, of concaved conoidal shape and means for normally immersing the float to a point upon said conoidal surface.

[Claims 6 to 9 not printed in the Gazette.]

1,143,345. MATCH-BOX HOLDER. EDWARD V. ALLEN, Pontiac, Mich. Filed Apr. 18, 1913. Serial No. 761,879. (Cl. 206—31.)

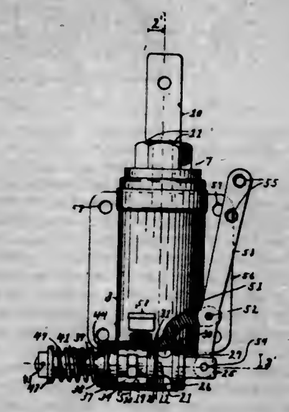


As an article of manufacture, a foldable blank for match holders capable of being folded with all the parts thereof confined within and between the top and bottom of said holder, comprising a central portion to form the bottom of the holder, a rigid back portion of greater area than the bottom of the holder extending from one side of the bottom portion with a folding line at the meeting of the back and bottom portion, said back portion being formed with angle slits adjacent to said folding line and at the side edges of said back portion, wing portions extending from the ends of the bottom portion and adapted to be folded upon said central portion, a front strip extending from the side of the bottom portion and divided from the wing portions by slits, a folding line being formed connecting the ends of said slits and extending along the meeting line of said front strip and the bottom portion and in parallelism with the folding line of the back portion, and folding lines being provided along the meeting lines of the wing portions and the bottom portion with said folding lines extending across the front strip, and said front strip being formed at its ends with hooks and transverse folding lines adjacent to said hooks, the end ends of said front strip adapted to be folded upon said front strip and said back portion folded into parallel registration with said central portion, whereby the edges of said back portion and said front strip can be connected together to maintain folded parts between the top and bottom of the holder.

1,143,346. PNEUMATIC TRIP. ARCHIE M. BAIRD and HARVEY D. PALMER, Topeka, Kans. Filed Mar. 28, 1914. Serial No. 827,950. (Cl. 121—45.)

1. In a pneumatic trip, the combination of a casing integrally formed with a working cylinder, a valve chamber, a port connecting the cylinder and the chamber, inlet and exhaust ports for the valve chamber, a plate for attachment to a machine frame, and a pivot arm, said valve chamber being located at one end of the working cylinder and at one side thereof; a piston and a piston rod in the working cylinder, said rod being formed for connection with clutch-tripping mechanism, a spring for forcing the piston toward the end of the working cylinder at which the valve chamber is located, a valve in the valve chamber, and a lever pivoted to said pivot arm and a spring for operating said valve in opposite directions.

2. In a pneumatic trip, the combination of a casing formed with a working cylinder, a valve chamber, means for attachment to a machine frame, a pivot arm, and suitable ports; a piston in the working cylinder adapted to be moved in one direction by the motive fluid, a spring adapted to move the piston in the opposite direction, a piston rod secured to said piston and formed for attachment to clutch-tripping mechanism, a valve in said valve chamber for controlling the flow of the motive fluid, and a lever pivoted to said pivot arm and a spring for operating the valve in opposite directions.



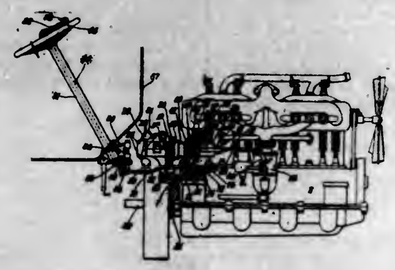
3. In a pneumatic trip, the combination of a casing formed with a working cylinder, a valve chamber, means for attachment to a machine frame, a pivot arm, and suitable ports; a piston and piston rod in the working cylinder, the piston rod being formed for connection with clutch-tripping mechanism, and the piston being adapted to be moved in one direction by the pressure fluid, means for moving the piston in the other direction, a three-way valve in said valve chamber for controlling the flow of the motive fluid to and from the working cylinder, said valve normally opening said working cylinder to the exhaust, a lever secured to the valve and pivoted to said pivot arm for operating said valve to direct the fluid under pressure into said working cylinder and cut off the exhaust, and means for restoring said valve to normal position.

4. In a pneumatic trip, the combination of a casing formed with a working cylinder, a valve chamber, means for attachment to a machine frame, a pivot arm, and suitable ports; a piston and piston rod in the working cylinder formed for connection with clutch-tripping mechanism, normally in non-tripping position, and operable to tripping position by the motive fluid, a three-way valve in said valve chamber for controlling the flow of the motive fluid to and from said working cylinder, said valve normally opening said cylinder to the exhaust, a lever secured to the valve and pivoted to the pivot arm for operating said valve to direct the fluid under pressure to the working cylinder and cut off the exhaust, and springs for restoring the said movable parts to normal positions.

1,143,347. GOVERNOR FOR AUTOMOBILE-ENGINES AND THE LIKE. MYRON T. BAIRD, St. Louis, Mo. Filed June 25, 1913. Serial No. 775,672. (Cl. 121—112.)

1. The combination with an automobile engine or the like, of a governor therefor including a fly-weight member driven from the engine shaft, a reciprocatory member associated with the weights and having a connection with the throttle-valve, and means for retarding the movement of said reciprocatory member comprising a rock-shaft, levers borne by said rock-shaft and having a connection with said reciprocatory member, a spring having a connection with one of said levers, and means for ad-

justing said spring from the driver's seat to enable movement of said lever and thereby the rock shaft clockwise or counter clockwise.



2. The combination with an auotmobile engine or the like, of a governor therefor including a fly-weight member driven from the engine shaft, a reciprocatory member associated with the weights and having a connection with the throttle-valve, and means for retarding the movement of said reciprocatory member comprising a rock-shaft, levers borne by said rock-shaft and having a connection with said reciprocatory member, there being a slot in one of said levers, an antifriction member adjustably supported in the slot in the slotted lever, and a spring connected with said antifriction member, the slot in the slotted lever being arranged to extend across said rock-shaft so that, when said antifriction member stands on one side of said rockshaft, said spring will retard the movement of said reciprocatory member, and, when said antifriction member stands on the other side of said rockshaft, said spring will effect the positive movement of said reciprocatory member.

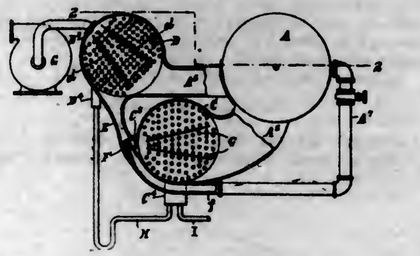
3. The combination with an automobile engine or the like, of a governor therefor including a fly-weight member driven from the engine shaft, a reciprocatory member associated with the weights and having a connection with the throttle-valve, and means for retarding the movement of said reciprocatory member comprising a rock-shaft, levers borne by said rock-shaft and having a connection with said reciprocatory member, one of said levers having a slot, which extends across said rock-shaft, an antifriction member adjustably supported in the slot in the slotted lever, a spring connected with said antifriction member, means for adjusting the position of said antifriction member from the driver's seat, and means normally limiting the movement of said adjusting means to retain said antifriction member on one side of said rock-shaft, thereby to permit said spring to retard the movement of said reciprocatory member, and being yieldable to permit said adjusting means to move said antifriction member to the other side of said rock-shaft, thereby to permit said spring to effect the positive movement of said reciprocatory member.

4. The combination with an automobile engine or the like, of a governor therefor including a fly-weight member driven from the engine shaft, a reciprocatory member associated with the weights and having a connection with the throttle-valve, and means for retarding the movement of said reciprocatory member comprising a spring having a connection with said reciprocatory member and means whereby the spring may be set so as to tension said member to move same in a forward or rearward direction.

5. The combination with an automobile engine or the like, of a governor therefor including a fly-weight member driven from the engine shaft, a reciprocatory member associated with the weights and having a connection with the throttle-valve, and means for retarding the movement of said reciprocatory member comprising an adjustable spring having a connection with said reciprocatory member, and a counterbalance for said spring adapted to facilitate the adjustment of same.

[Claims 6 to 26 not printed in the Gazette.]

1,143,348. METHOD OF AND APPARATUS FOR UTILIZING THE ENERGY OF STEAM. PAUL A. BANCEL, New York, N. Y., assignor to himself, and George H. Gibson, Upper Montclair, N. J. Filed Nov. 29, 1912. Serial No. 734,050. (Cl. 121—58.)



1. The method of utilizing and condensing low pressure steam which consists in abstracting and utilizing for power purposes unequal proportions of the energy in different fractional parts of the steam and mixing steam retaining a larger proportion of its energy with and thereby imparting a portion of its energy to steam retaining a smaller proportion of its energy and utilizing the energy available in both portions of the steam to effect the desired circulation and distribution of the steam in a condensing space or spaces.

2. The method of utilizing and condensing low pressure steam which consists in abstracting and utilizing for power purposes unequal proportions of the energy in different fractional parts of the steam, passing steam retaining a smaller proportion of its energy into one condensing space, withdrawing the uncondensed residue from said space and admixing with it steam retaining a larger proportion of its energy and utilizing the combined energy of the mixture to effect its flow into and distribution in a second space.

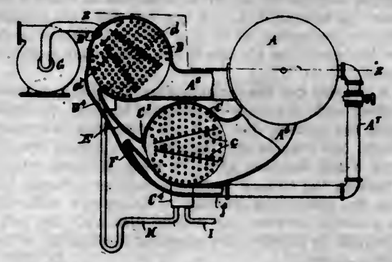
3. The method of utilizing and condensing low pressure steam which consists in abstracting and utilizing for power purposes unequal proportions of the energy in different fractional parts of the steam, passing steam retaining a smaller proportion of its energy into one condensing space in which one vacuum is maintained, passing steam retaining a larger proportion of its energy into another condensing space in which a lower vacuum is maintained, and utilizing a portion of the energy of the last mentioned steam to force the uncondensed residue from the higher vacuum condensing space into the lower vacuum condensing space.

4. The method of utilizing and condensing low pressure steam which consists in abstracting and utilizing for power purposes unequal proportions of the energy in different fractional parts of the steam, passing steam retaining a smaller proportion of its energy into one condensing space in which one vacuum is maintained, passing steam retaining a larger proportion of its energy into another condensing space in which a lower vacuum is maintained, and passing steam retaining a still larger proportion of its energy into the same condensing space and utilizing the energy of the last mentioned steam to force the uncondensed residue from the higher vacuum condensing space into the lower vacuum condensing space.

5. The method of utilizing and condensing low pressure steam which consists in abstracting and utilizing for power purposes unequal proportions of the energy in different fractional parts of the steam, passing steam retaining successively larger proportions of energy into condensing spaces in which successively lower vacuums are maintained, and utilizing portions of the energy of the steam to force the uncondensed residue from a high vacuum condensing space into a lower vacuum condensing space.

[Claims 6 to 12 not printed in the Gazette.]

1,143,349. MULTISTAGE STEAM-CONDENSING. PAUL A. BANCEL, New York, N. Y. Filed Sept. 12, 1913. Serial No. 789,422. (Cl. 121—58.)



1. The method of utilizing and condensing low pressure steam which consists in abstracting and utilizing for power purposes unequal proportions of the energy in different fractional parts of the steam, passing parts of the steam retaining successively larger proportions of energy into condensing spaces in which successively lower vacuums are maintained and passing the uncondensed fluid residue from said condensing spaces into a common auxiliary condensing and vacuum producing apparatus, after first compressing the residue from the high vacuum condensing space or spaces to a pressure equal to or above that maintained in a condensing space operating at a lower vacuum.

2. The method of utilizing and condensing low pressure steam which consists in abstracting and utilizing for power purposes unequal proportions of the energy in different fractional parts of the steam, passing parts of said steam retaining successively larger proportions of energy into condensing spaces in which successively lower vacuums are maintained, and separately passing the uncondensed fluid residue from said condensing spaces into a common auxiliary condensing and vacuum producing apparatus, after first compressing the residue from the high vacuum condensing space or spaces to a pressure equal to or above that maintained in a condensing space operating at a lower vacuum.

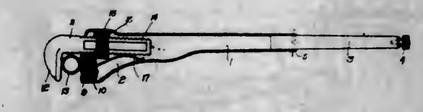
3. The method of condensing steam supplied from two sources at different pressures each of which is below that of the atmosphere which consists in providing a separate main condensing space for the steam from each source, maintaining correspondingly different vacuums in the different condensing spaces, passing the uncondensed residue fluid from each of said condensing spaces into auxiliary condensing and vacuum producing apparatus, and compressing the non-condensable fluid issuing from the high vacuum condensing space to a pressure equal to or above the pressure in the lower vacuum condensing space before delivering it to said auxiliary apparatus.

4. The method of condensing steam supplied from two sources at different pressures each of which is below that of the atmosphere which consists in providing a separate main condensing space for the steam from each source, maintaining correspondingly different vacuums in the different condensing spaces, passing the uncondensed residue fluid from each of said condensing spaces into auxiliary condensing and vacuum producing apparatus, compressing the non-condensable fluid issuing from the high vacuum condensing space to a pressure equal to or above the pressure in the lower vacuum condensing space before delivering it to said auxiliary apparatus, and passing the water of condensation forming in the high vacuum condensing space into the low vacuum condensing space.

5. The method of condensing steam supplied from two sources at different pressures each of which is below that of the atmosphere which consists in providing a separate main condensing space for the steam from each source, maintaining correspondingly different vacuums in the different spaces, separately passing the uncondensed residue fluid from each of said condensing spaces into auxiliary condensing and vacuum producing apparatus, and compressing the non-condensable fluid issuing from the high vacuum condensing space or spaces to a pressure equal to or above the pressure in the lower vacuum condensing space before delivering it to said auxiliary apparatus.

[Claims 6 to 19 not printed in the Gazette.]

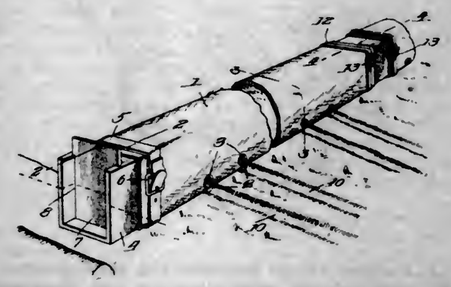
1,143,350. PIPE-WRENCH. LAURANCE D. BENEDICT, Chicago, Ill. Filed Dec. 18, 1913. Serial No. 807,378. (Cl. 81—101.)



1. A pipe wrench comprising a hollow handle enlarged at one end so as to provide a chambered head, a toothed insert fixed in the open outer end of the head and extending partially across the same, an L-shaped member having its short arm arranged over said insert and its long arm extending loosely into said head immediately adjacent to one end of said insert so as to be movable a considerable distance from and toward said end of the insert, said head having an opening therethrough just behind and overlapping said insert, and a nut arranged in said opening and surrounding the long arm of said L-shaped member, said nut positively and directly engaging with said insert.

2. A pipe wrench comprising a hollow handle enlarged at one end so as to provide a chambered head, a toothed insert fixed in the open outer end of the head and extending partially across the same, an L-shaped member having its short arm arranged over said insert and its long arm extending loosely into said head immediately adjacent to one end of said insert so as to be movable a considerable distance from and toward said end of the insert, said head having an opening therethrough just behind and overlapping said insert, a nut arranged in said opening and surrounding the long arm of said L-shaped member, said nut engaging with said insert, and a leaf spring secured to the inner side of said insert and engaging with the long arm of said L-shaped member at a point behind the nut.

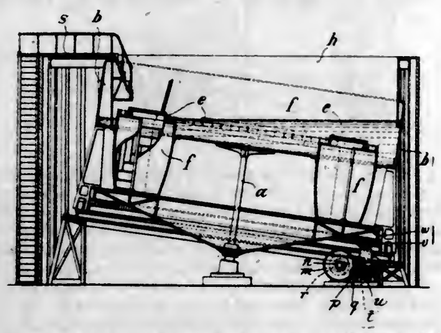
1,143,351. IRRIGATING DEVICE. IRA COLUMBUS BENSON, Silver City, Idaho. Filed Dec. 22, 1914. Serial No. 878,525. (Cl. 137—65.)



A device of the character specified, comprising a conductor composed of a series of tubular sections of flexible material, each of the said sections being tapering in form and the large end of each section being of approximately the same size as the small end of the succeeding section, each section having a longitudinally extending series of openings, each opening being reinforced a tubular connector for the adjacent ends of successive sections, each connector comprising a casing of rectangular form over which the meeting ends of the sections are fitted, and an inlet casing of tubular form and rectangular cross section over which the inlet end of the conductor is fitted,

said casing having guides, and a head gate fitting in the guides, and straps of flexible material encircling the ends of the sections at the connectors and at the inlet casing.

1,143,352. MERRY-GO-ROUND. FRIEDRICH BOECKER, Hohenlimburg, Wilhelmshöhe, Germany. Filed Feb. 5, 1915. Serial No. 6,396. (Cl. 46—27.)

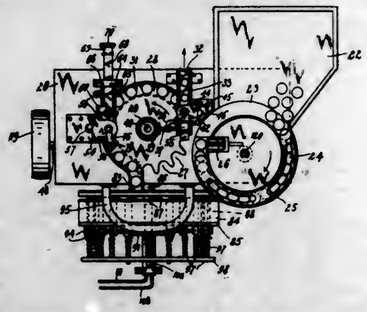


1. A merry-go-round with cabins for passengers, said cabins being dived under water, characterized by the fact, that these cabins are fixed within a basin, turning around an inclined axis, said basin being filled with water so far that the upper parts of the aforesaid cabins will be now under water, now above water, without being moved in a basin containing water.

2. A merry-go-round comprising a water basin rotatable on an inclined axis, and of a cabin mounted within the basin and adapted to be rotated therewith.

3. A merry-go-round comprising a water basin rotatable on an inclined axis, a cabin mounted within the basin, and a hood projecting over the rim of the basin.

1,143,353. PROCESS OF MANUFACTURING BOTTLE-CLOSURES. ALEXANDER BOGDÁNFFY, New York, N. Y., assignor to International Cork Company, Brooklyn, N. Y., a Corporation of New York. Filed May 31, 1913. Serial No. 771,055. (Cl. 113—80.)



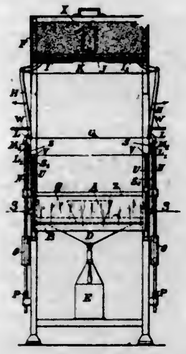
1. A process for the manufacture of bottle closures of the crown cork type, which consists in, first, interposing between the sealing disk and the coincident surfaces of the metal cap coöperating therewith a suitable cementing medium which becomes adhesive when softened, second, placing the closure under appropriate pressure, and, third, heating the closure to a degree which softens the cementing medium to an extent sufficient to cause a union between the sealing disk and the cap, but not high enough to liquefy the cementing medium or to create vapors and gases.

2. A process for the manufacture of bottle closures of the crown cork type, which consists in, first, interposing between the sealing disk and the coincident surfaces of the metal cap coöperating therewith a suitable cementing medium which becomes adhesive when softened, and, second, heating the closure to a degree which softens the cementing medium to an extent sufficient to cause a union between the sealing disk and cap, but not high enough to liquefy the cementing medium or to create vapors or gases and in the meantime placing the closure under appropriate pressure.

3. A process for the manufacture of bottle closures of the crown cork type, which consists in, first, interposing between the sealing disk and the coincident surfaces of the metal cap coöperating therewith a suitable cementing medium which becomes adhesive when softened, and, second, heating the closure under pressure to a degree which softens the cementing medium to an extent sufficient to cause a union between the sealing disk and cap, but not high enough to liquefy the cementing medium or to create vapors or gases.

4. A process for the manufacture of bottle closures of the crown cork type, which consists in, first, interposing between the sealing disk and the coincident surfaces of the metal cap coöperating therewith a suitable cementing medium which becomes adhesive when softened, second, heating the closure to a degree which softens the cementing medium to an extent sufficient to cause a union between the sealing disk and cap, but not high enough to liquefy the cementing medium or to create vapors or gases, and, third, subjecting the closure to an appropriate pressure at some period in the heating action.

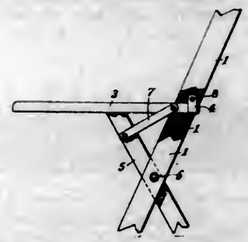
1,143,354. BENZIN-WASHSTAND. ROBERT BOSCH, Stuttgart, Germany. Filed Sept. 28, 1910. Serial No. 584,219. (Cl. 169—13.)



In combination with a washstand for washing with an inflammable liquid, a compartment above said washstand with a folding bottom, levers for normally holding said bottom in closed position, an easily ignitible material for normally holding said levers, a screen, a weight for closing said screen and a catch normally holding said screen in open position against the action of said weight, the said levers being arranged to release said catch and said weight when said ignitible material burns; substantially as described.

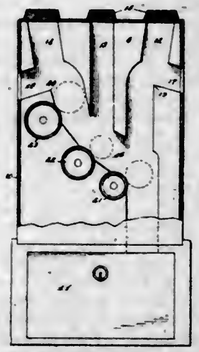
1,143,355. FOLDING CHAIR. ALVAH W. BROWN and GEORGE W. SINCLAIR, Grand Rapids, Mich., assignors to Durfee Embalming Fluid Co., Grand Rapids, Mich., a Corporation of Michigan. Filed Apr. 8, 1912. Serial No. 689,112. (Cl. 155—8.)

In a folding chair, a pair of side members, a seat disposed between said side members, legs pivoted to the side members and engaging said seat, hinges attached to the seat and said side members, and passing over the edges of the seat beyond the opposite sides of said edges, connecting rods pivoted to the sides of the seat adjacent the hinges and to the legs, said connecting rods being disposed with their inner sides spaced inwardly of the outer sides of the hinges, for frictional engagement therewith, whereby



said seat will be retained in its folded position against displacement.

1,143,356. SIGNAL DEVICE FOR TOLL-COLLECTING APPARATUS. GEORGE T. BUCHANAN, Highland Park, Mich. Filed Oct. 22, 1914. Serial No. 868,079. (Cl. 194—96.)



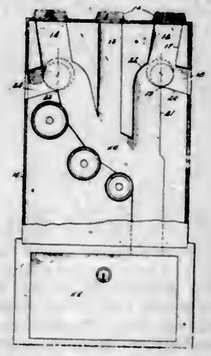
1. In a signal device for toll-collecting apparatus, a plurality of runways of different widths to receive coins or tokens of different values, a cross channel leading to a place of storage for said coins into which said runways deliver at different points in length thereof, and a plurality of independent signals in said cross channel, said coins operating successively such signals in the channels as lie between the point of delivery of the coin into the channel and the point of delivery of the channel into the place of storage.

2. In a signal device for toll-collecting apparatus, a plurality of runways of different widths to receive coins or tokens of different values, a cross-channel leading to a place of storage into which said runways deliver at different points in the length thereof, and a plurality of independent signals at the bottom of said cross-channel each in line with one of said runways to be operated by the coins passing therethrough, said coins also operating successively such other signals in the channel which they may pass as they travel to the place of storage.

3. In a signal device for toll collecting apparatus, a plurality of runways of different widths to receive coins or tokens of different values, an inclined cross-channel leading to a place of storage into which said runways deliver at different points in the length thereof, a plurality of independent signals in the bottom of said cross-channel each being located in line with a runway in position to be sounded by a coin entering the cross-channel, and also by such coins as contact therewith in their passage through the cross-channel.

4. In a signal device for toll-collecting apparatus, a plurality of runways of different widths to receive coins or tokens of different values, a downwardly inclined cross-channel leading to a place of storage into which said runways deliver at different points in its length, a separating device in one or more of said runways to separate coins of less size from those of proper size and prevent them entering said cross-channel, and a plurality of independent signals situated in the bottom of the cross-channel each below and in line with one of the runways and adapted to be operated by coins of proper size passing therethrough, said signals being so disposed that the coins after sounding their own signal will sound in succession each of the other signals it passes on its way through the cross-channel.

1,143,357. COIN-SEPARATOR FOR TOLL-COLLECTING APPARATUS. GEORGE T. BUCHANAN, Highland Park, Mich. Filed Oct. 22, 1914. Serial No. 868,080. (Cl. 133—3.)



1. In a coin separating device, a plurality of runways of different widths to receive coins or tokens, a cross-channel leading to a place of storage into which all the runways deliver, a branch channel leading from each of said runways to the outside of the device, and a separator in one or more of said runways at its junction with the branch channel to automatically separate coins or tokens of less size than those of proper size deposited in said runway by causing their centers of gravity to fall on opposite sides of said separator and direct the coins respectively into the branch channel or onward through the runway into the place of storage.

2. In a coin separating device, an inclined runway to receive coins or tokens, a separator in said runway against which all coins inserted into said runway strike, said separator being so placed that the center of gravity of coins of a predetermined size or larger positively fall to one side of a line perpendicular to said separator, and the center of gravity of coins of less size will fall positively to the other side of said line.

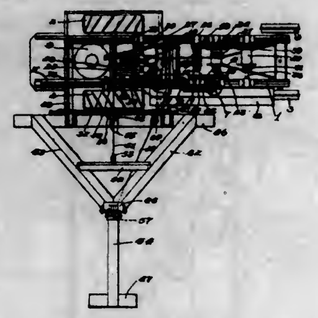
3. In a coin separating device, an inclined runway down which coins or tokens are adapted to pass, and a separator in said runway against which the coins strike, said separator being out of and below the line of the center of the runway to automatically and positively separate coins or tokens of certain size from those of less size by causing the center of gravity of the coins of different sizes to fall on opposite sides of said separator.

4. In a coin separating device, an inclined runway to receive coins or tokens, a branch channel leading from said runway, and a separator formed by the junction of said runway with said branch and against which coins inserted into said runway will strike, coins of proper size being automatically separated from those of less size by causing the center of gravity of coins of one size to fall to one side of the separator, whereby the same is directed into the branch, and coins of the other size to fall to the other side of said separator and be directed onward into said runway.

5. In a coin separating device, a runway having a side thereof down which the coins are adapted to roll inclined, and a separator against which the coins inserted into said runway strike, said separator being so spaced from the end of said inclined side of the runway that coins of a certain size strike said separator with their centers

of gravity falling to one side of said separator, and coins of greater size strike said separator with their centers of gravity falling to the other side of said separator, whereby coins of different sizes are directed to opposite sides of said separator.

1,143,358. STUMP-PULLER. CLYDE F. BURNS, Chicago, Ill. Filed Apr. 14, 1913. Serial No. 760,889. (Cl. 254—145.)



1. In a device of the class described, a frame, a power plant thereon, a tripod mounted at one side of said frame, tackle adapted to be driven by said power plane to elevate said tripod into a position out of use, booms connected to the lower end at one side of said tripod and at their other ends to said frame to swingingly support the tripod on the frame with the aid of said tackle, block and tackle mounted in said tripod, a sheave at the lower end of the tripod, and a windlass on the frame adapted to receive the end of said last mentioned tackle permitting a stump to be withdrawn from the ground in such manner that the reaction of pull and the tension on the tackle is transmitted through the tripod to the ground relieving the frame of stress.

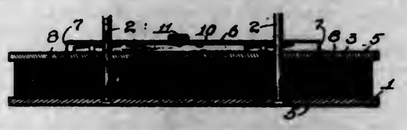
2. In a device of the class described, a frame, a power plant thereon, a plurality of windlass mechanisms mounted on said frame, gearing adapted to entrain said windlass mechanisms with said power plant simultaneously and independently of one another, a tripod mounted at one side of said frame, booms connected to said tripod, the ends of said booms swingingly supported on said frame, an elevating mechanism for said tripod comprising levers pivoted on the frame, links connected thereto and to said tripod and tackle connected to said levers and trained about one of said windlasses, and a stump pulling block and tackle on said tripod with the tackle thereof trained about one of the windlasses on said frame.

3. In a device of the class described, a frame, a power plant thereon, a plurality of windlasses mounted on said frame, means entraining said windlasses with said power plant to drive the windlasses thereby, a tripod mounted at one side of said frame, links connected to the lower end thereof, levers pivoted on said frame and connected to said links, and means connected to said levers and to one of said windlasses to elevate the tripod.

4. In a device of the class described, a frame, a power plant thereon, a tripod adjustably connected to said frame, levers pivoted on the frame and adapted to elevate said tripod, means driven by the power plant and connected with said levers whereby said levers may be actuated from the power plant, block and tackle lifting means mounted in said tripod, and mechanism on the frame for actuating said means to lift a stump.

5. In a device of the class described, a vehicle frame, a source of power thereon, a stump pulling tripod frame adjustably connected thereto, levers pivoted on said vehicle frame and linked to said tripod frame to elevate the same upon said vehicle frame, and mechanism on said tripod frame and vehicle frame co-acting with one another to transmit power from said source of power to said levers to actuate the latter to lift said tripod frame upon the vehicle frame.

1,143,359. LOCKING MEANS FOR LOOSE-LEAF BINDERS. EDWARD V. BURNS, Chicago, Ill., assignor to Chicago Shipping & Receipt Book Company, a Corporation of Illinois. Filed Feb. 24, 1913. Serial No. 750,133. (Cl. 129—12.)



1. In a device of the class described pivotally mounted locking members having recesses therein to engage a binding post, a spring plate adapted to actuate the same, and an extension on said spring plate adapted to close across the recesses in said locking members.

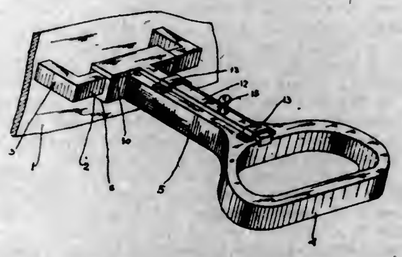
2. The combination with the impaling posts of a binder, of spring actuated pivoted locking members having recesses therein adapted to frictionally engage said binding posts, and means adapted to close across the recesses in said locking members to prevent transverse movement relative said impaling posts.

3. The combination with the impaling posts of a binder, of pivoted locking members having recesses therein to permit said binding posts to extend therethrough, and resilient sliding means adapted to bear on opposite sides of the center of said locking members to actuate the same into locking and unlocking position respectively.

4. In a device of the class described the combination with the impaling posts of a binder, of pivotally supported recessed locking members, bearing plates affording support therefor, and a resilient sliding actuating member adapted to bear on said rocking members on the opposite sides of said pivoted support therefor to actuate the same into locking and unlocking position respectively.

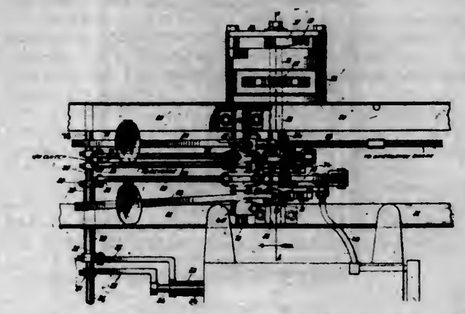
5. In a device of the class described the combination with the impaling posts of a binder, of a clamping plate having apertures therein, rocking members having recesses to receive the impaling posts therethrough, downwardly extending tongues on said members engaging within the apertures of said clamping plate, a bearing plate lying between the tongues of each of said rocking members to afford a support for said rocking members, and an actuating plate, adapted to close across the recesses in said rocking members.

1,143,360. HANDLE ATTACHMENT FOR DOORS. PAUL CHORVATH and JOSEPH CHORVATH, Tarentum, Pa. Filed Apr. 3, 1915. Serial No. 18,944. (Cl. 16—10.)



A handle attachment comprising a coupling member, a chambered shank formed integral therewith, a grip carried by the shank, a spring controlled retaining member normally positioned upon the top of the coupling member for maintaining a handle bar within said coupling member, an arm integral with said retaining member and provided with a lug extending into the chamber of said shank, an extensible member arranged within the chamber of the shank and bearing against said lug, and means for slidably connecting the arm to the shank.

1,143,361. CONTROLLING MECHANISM FOR MOTOR-VEHICLES. EDWIN K. CONOVER, Paterson, N. J., assignor to Conover Motor Car Company, Paterson, N. J., a Corporation of New Jersey. Filed June 18, 1908. Serial No. 439,264. (Cl. 74—39.)



1. The combination with a pair of shafts, one within the other, an arm fast on each of said shafts, an operating lever loosely supported by said shafts between said arms, and a bolt for connecting said lever with one or the other of said arms and normally in engagement with both of said arms, said operating lever having at its handle end a bearing, a finger lever pivoted to said bearing and extending above and below the same, a transverse arm carried by said finger lever, and a member connected to said arm and in operative engagement with said bolt, substantially as specified.

2. The combination with a hollow operating lever provided with a hollow handle open at one side and carrying arms adjacent to said opening, a lever pivoted to said arms and extending above and below the same in a hand grasp, and having an inner arm, and a rod disposed within said operating lever connected to said inwardly extending arm, substantially as specified.

3. The combination with a hand lever provided at its handle end with a bearing, of a finger lever pivoted to said bearing and extending above and below the same, a transverse arm carried by said finger lever, and a member connected to said transverse arm, substantially as specified.

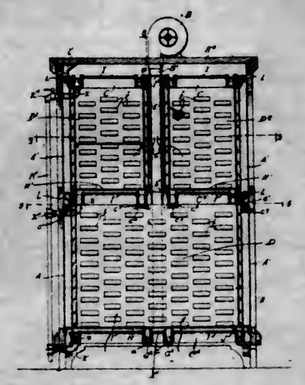
4. In a hand controlled device the combination with an operating lever provided with a handle having bearings disposed in a medial position, a finger lever pivoted to said bearing and extending above and below the same, a transverse arm carried by said finger lever, and operative means connected to said transverse arm, substantially as specified.

5. The combination with a pair of shafts one within the other, the end of the inner shaft extending beyond the end of the outer shaft, an arm fast on the end of each shaft, an operating lever supported on one of said shafts between said arms for movement in a fixed plane, and means for connecting said lever with one or the other of said arms, of power transmitting arms mounted upon the other ends of said shafts, notched sectors carried by said arms, and means for engaging the notches of said sectors for locking the shafts together, substantially as specified.

[Claims 6 to 10 not printed in the Gazette.]

1,143,362. REFRIGERATOR. GEORGE E. COXE, Santa Rita, N. Mex. Filed Feb. 13, 1914. Serial No. 818,550. (Cl. 45—133.)

1. In a refrigerator of the character described, the combination of a body or frame open at its sides and base, and divided into a plurality of food compartments, apertured inner walls surrounding each of the food compartments and forming air spaces between the same and the walls of the body or casing, capillary curtains also surrounding the said food compartments and the forward curtains of which compartments are in sections, liquid holding pans into which portions of all of the curtains are extended, and doors leading into the fronts of the several compartments, each door carrying a section of the front curtain of its respective compartment, and each door carried curtain section having projecting reinforced edges contacting with the compartment carried sections of the same curtain when the respective door is closed.



2. In a refrigerator of the character described, the combination of a body or frame open at its sides and base and divided into a plurality of food compartments, capillary curtains disposed to entirely surround each of the said food compartments and to cover the top and bottom thereof, liquid holding pans mounted above and below each of the said compartments and into which portions of the said capillary curtains are extended, and means for forcing circulation through the several compartments all for the purpose described.

3. A refrigerator comprising a body open at its sides and base, a plurality of inner walls forming food compartments spaced from one another, liquid holding pans disposed above and below each of the food compartments, capillary curtains extending around each of the food compartments upon the exterior of said inner walls with their upper and lower edges extending into the said liquid holding pans, said inner walls having portions of the material up set therefrom to form apertures and outwardly projecting lips engaging the said capillary curtains, all substantially as and for the purpose set forth.

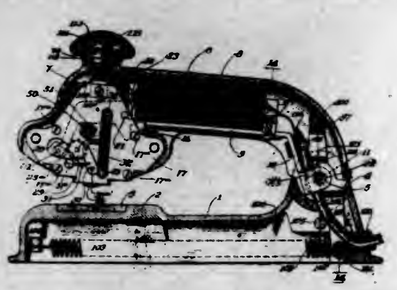
4. A refrigerator comprising a body open at its sides and base, a plurality of inner walls removably held therein and forming food compartments spaced from one another, liquid holding pans removably disposed above and below each of the food compartments, capillary curtains extending around each of the food compartments upon the exterior of said inner walls with their upper and lower edges extending into the said liquid holding pans, said inner walls having portions of their material upset therefrom to form apertures and outwardly projecting lips engaging the said capillary curtains, and means for causing a forced circulation through the several food compartments, all substantially as and for the purpose set forth.

5. In a refrigerator of the character described, the combination of a body open at its sides and base, liquid holding pans disposed horizontally within the body and each having apertures and liquid holding troughs surrounding the said apertures, inner walls extending between the said pans and spaced from the walls of the body, said inner walls forming food compartments therein, capillary curtains extending over the openings of the pans at the upper and lower portions of the compartments, other capillary curtains extending vertically along the inner walls of each of the food compartments, the edges of all of said curtains being extended into the liquid holding troughs of the pans, and said inner walls having apertures and outwardly and downwardly in-

clined projections extending into contact with the capillary curtains mounted vertically around the food compartments all for the purpose described.

[Claim 6 not printed in the Gazette.]

1,143,363. TIME-RECORDING DEVICE. CHARLES M. CROOK, Chicago, Ill., assignor, by mesne assignments, to Stromberg Electric Company, a Corporation of Maine. Filed Dec. 8, 1908. Serial No. 466,486. (Cl. 234—56.)



1. In a time stamp, the combination with a type wheel, of a ratchet, an alining detachable connection between said wheel and said ratchet, and a dog for intermittently operating said ratchet and arranged to lock the same against movement.

2. In a time stamp having an interlocking train of printing wheels, the combination with a ratchet, of an alining detachable clutch between said ratchet and the first printing wheel of the train, and a dog for intermittently operating said ratchet and arranged to lock the same against movement.

3. In a time stamp, a series of printing wheels geared to be driven in train and each arranged to be normally locked by the preceding wheel in the train and periodically unlocked and advanced, means for driving the first printing wheel of said train and locking the same between driving periods, an impositive lock between the last printing wheel in said train and the preceding printing wheel, a counter-shaft and a pinion thereon meshing with said last printing wheel, said counter-shaft being squared for the reception of a setting key whereby said last printing wheel may be manually turned independently of the other wheels in the train.

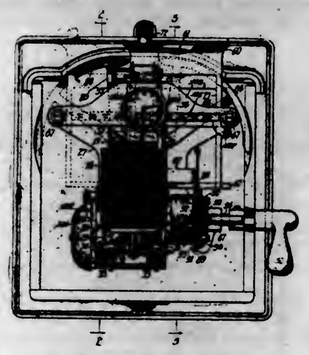
4. In a time stamp, a plurality of printing wheels arranged to be driven in train and locked in train, a recessed disk driven in train with said printing wheels and normally locked, another printing wheel carrying a resilient arm arranged to turn therewith and normally to engage said recessed disk, and means for manually turning said last named wheel independently of said disk and the other printing wheels.

5. In a time stamp having an interlocking train of printing wheels, the combination with a clock face, of clock hands geared to one of train of printing wheels, locking and driving means for the first of the train of printing wheels, and an alining clutch between said wheel and the locking and driving means, said clutch being arranged to be uncoupled by the insertion of a setting instrument whereby the wheels of the train and said hands may be manually moved together to change the reading thereof at will.

[Claims 6 to 18 not printed in the Gazette.]

1,143,364. TIME-RECORDER. CHARLES MADISON CROOK, Chicago, Ill., assignor to Stromberg Electric Company, Chicago, Ill., a Corporation of Maine. Filed May 13, 1910. Serial No. 561,152. (Cl. 234—43.)

1. In a time recorder, the combination with a casing adapted to be secured against a wall, of a laterally movable card-holder arranged in said casing and having a portion thereof adapted to extend through said casing, and arc-shaped follower members arranged on each side of the said card-holder immediately beneath the opening in the casing, for closing that portion of the opening not occupied by the card-holder.



2. In a time-recorder, the combination with a casing, of a laterally movable card-holder arranged therein and adapted to have a portion thereof extend through said casing, arc-shaped closure members for closing that portion of the opening in the casing not occupied by the card-holder, and means for holding said followers in engagement with the card-holder, causing them to move synchronously with said card-holder.

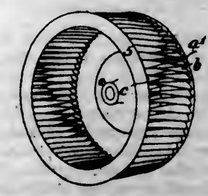
3. In a time recorder, the combination with a casing, of a card holder arranged in said casing, impression mechanism coöperating with said card holder also arranged in said casing, means for moving said card holder laterally, comprising a rotatable stem arranged exteriorly of the casing, a stop normally engaging said stem to prevent its rotation, said stem being vertically movable to permit it to be disengaged from said stop, and key-controlled means for locking the stem against vertical movement.

4. In a time recorder, the combination with a casing, of a card holder arranged therein, time impression mechanism coöperating with said card holder and also arranged within the casing, means for shifting the card holder laterally, a rotatable member arranged on the exterior of said casing for operating said means, a stop on said casing, a shoulder on said rotatable member, said rotatable member being vertically shiftable to be disengaged from said stop, and key-controlled means for locking the rotatable member against vertical movement.

5. In a time recorder, the combination with impression mechanism, of a hammer associated with said impression mechanism and means for operating said hammer, comprising a rotatable cam, a ratchet wheel connected with said cam and adapted to be rotated a definite distance to cause the cams to operate the hammer, a pawl for rotating said ratchet wheel a part of the said distance and a second pawl for rotating the pawl the balance of the distance.

[Claims 6 to 25 not printed in the Gazette.]

1,143,365. CENTRIFUGAL FAN AND PUMP. SAMUEL CLELAND DAVIDSON, Belfast, Ireland, assignor, by mesne assignments, to American Blower Company, Green Island, N. Y., a Corporation of New York. Filed Dec. 16, 1907. Serial No. 406,653. (Cl. 230—11.)



1. A centrifugal fan wheel of the multi-blade drum type, comprising twisted blades the outer edges of which extend forwardly in a helical curve from the inlet end to the opposite end.

2. A centrifugal fan wheel of the multi-blade drum type, comprising blades which at the disk end have their outer edges in advance of their inner edges, and twisted so that in approaching the inlet end such advance progressively diminishes.

3. A centrifugal fan wheel of the multi-blade drum type, comprising blades curved in cross section with their concave sides in advance, and their outer edges leading at the disk end, and twisted to progressively diminish such lead toward the intake end.

4. A centrifugal fan wheel of the multi-blade drum type, comprising twisted blades the outer portions of which at the intake end are approximately radial, and at the disk end approximately tangential and project forwardly.

5. A centrifugal fan wheel of the multi-blade drum type, comprising twisted blades curved in cross-section the outer portions of which at the intake end are approximately radial, and at the disk end are approximately tangential and project forwardly.

[Claims 6 to 15 not printed in the Gazette.]

1,143,366. CATALYST FOR THE PRODUCTION OF AMMONIA AND PROCESS OF MAKING THE SAME. FREDRIK W. DE JAHN, New York, N. Y., assignor to General Chemical Company, New York, N. Y., a Corporation of New York. Original application filed Aug. 2, 1913, Serial No. 782,696. Divided and this application filed June 30, 1914. Serial No. 848,167. (Cl. 23—28.)

1. As a new article of manufacture a substance containing nickel, sodium and nitrogen and which can cause nitrogen and hydrogen to combine to produce ammonia.

2. As a new article of manufacture a substance obtainable from metallic nickel, metallic sodium and ammonia and containing nickel, sodium and nitrogen and which can cause nitrogen and hydrogen to combine to produce ammonia.

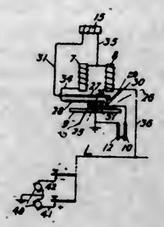
3. The herein described process of making a catalytic agent suitable for producing ammonia, which comprises treating nickel oxid with hydrogen, adding thereto metallic sodium and treating the product thus formed with ammonia.

4. The herein described process of making a catalytic agent suitable for producing ammonia from a mixture of nitrogen and hydrogen, which comprises treating nickel oxid with hydrogen, adding thereto metallic sodium and treating the product thus formed with ammonia.

5. The process of making a catalytic agent suitable for producing ammonia, which comprises forming a mixture of nickel and sodium and treating the mixture with ammonia.

[Claims 6 to 8 not printed in the Gazette.]

1,143,367. CALL-REGISTERING MECHANISM. AMOS F. DIXON, Newark, N. J., assignor to Western Electric Company, New York, N. Y., a Corporation of Illinois. Filed Dec. 14, 1912. Serial No. 736,873. (Cl. 194—9.)



1. In a registering mechanism, a movable coin distributer, a polarized electromagnet comprising two coils for moving said distributer, a circuit for said polarized magnet, a register, an actuating coil therefor, and switching means controlled by the operation of said distributer for including said register actuating coil in a portion of the circuit over which said polarized magnet is energized.

2. In a registering mechanism, a movable coin distributer, a polarized electromagnet comprising two coils for operating said distributer, a circuit for said polarized magnet, a register, an actuating coil therefor, and switching means controlled by the operation of said distributer for connecting said register actuating coil in said circuit in substitution for one coil of said polarized magnet.

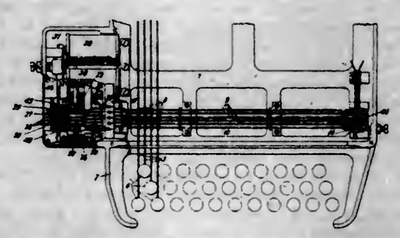
3. In a registering mechanism, a movable coin distributer, a polarized electromagnet comprising two coils for moving said distributer, a circuit for said polarized magnet, a register, an actuating coil therefor, and switching means controlled by the operation of said distributer for opening the circuit through one coil of said polarized electromagnet and including the register actuating coil in series with the other coil of said polarized magnet.

4. In a registering mechanism, a movable coin distributer, a polarized electromagnet comprising two coils adapted to move said distributer in one direction to refund and in the opposite direction to collect, a circuit for said polarized magnet, a register, an actuating coil therefor, and switching means controlled by the operation of said distributer in collecting to include said actuating coil in a portion of said circuit in substitution for one of said polarized magnets.

5. In a combined coin collector and service meter, a coin distributer movable in two directions, an electromagnet controlling said distributer, a circuit therefor, a register, an actuating coil therefor, a branch circuit including said register actuating coil, and switching means controlled by the movement of said distributer in one direction for substituting said branch circuit for a portion of the circuit through said distributer operating magnet.

[Claim 6 not printed in the Gazette.]

1,143,368. SWITCH-SELECTOR. AMOS F. DIXON, Newark, N. J., assignor to Western Electric Company, New York, N. Y., a Corporation of Illinois. Filed Dec. 12, 1914. Serial No. 876,843. (Cl. 177—380.)



1. A switch selector comprising a plurality of switches, means for holding said switches in a normal position, tripping members, means for selectively bringing said members into operative position, and actuating means for locking said selected members in their selected position, and causing said selected members to release said holding means.

2. A switch selector comprising a plurality of switches, means for holding said switches in a normal position, tripping members, means for selectively bringing said members into opertive position, and actuating means for locking said selected members in their selected position, moving the unselected tripping members into a non-operative position, and causing said selected members to release said holding means.

3. A switch selector comprising a plurality of switches, means for holding said switches in a normal position, tripping members, means for selectively bringing said members into operative position, actuating means for causing said selected members to release said holding means, and a guard for preventing the accidental release of said holding means.

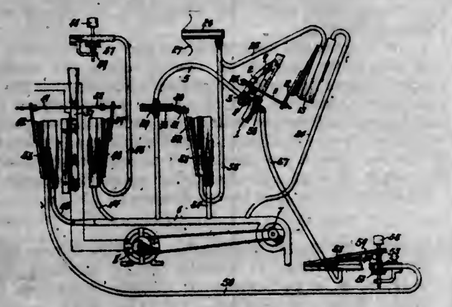
4. A switch selector comprising a plurality of switches, means for holding said switches in a normal position, tripping members, means for selectively bringing said members into operative position, actuating means for locking said selected members in their said operative posi-

tion, moving the unselected tripping members into a non-operative position and causing said selected members to release said holding means, and a guard for preventing the accidental release of said holding means.

5. A switch selector comprising a plurality of switches, means for holding said switches in a normal position, tripping members, means for selectively bringing said members into operative position, locking said selected members in their selected positions, moving the unselected tripping members in a non-operative position and causing said selected members to release said holding means, an electromagnet for operating said actuating means, and circuit-closing means for energizing said electromagnet upon the selection of said tripping means.

[Claims 6 to 8 not printed in the Gazette.]

1,143,369. STOP MEANS FOR SHEET-HANDLING APPARATUS. PHILLIP JACOB DREHER, Toledo, Ohio. Filed Oct. 16, 1914. Serial No. 866,944. (Cl. 197—130.)



1. In combination, an actuating means, a sheet holding table having an opening adapted to be covered by a pile of sheets carried thereby, a sheet picking up mechanism having a hollow mouth piece through which suction takes place, said mouth piece adapted to close over said table opening after the last sheet of a pile has been removed from the table, and means pneumatically operable to stop said actuating means when a suction is created in said table opening from within said mouth piece.

2. In combination, an actuating means, a suction device, a sheet holding table having an opening adapted to be covered by a pile of sheets carried thereby, a sheet picking up mechanism having a suction mouth piece in valve controlled communication with said suction device and movable into position to set closely over said opening when the last sheet of a pile has been removed from the table, and means pneumatically operable to stop said actuating means when a suction is created in said table opening from within said mouth piece.

3. In combination, an electric motor, a control switch for said motor, penumatically operating means for opening said switch, a sheet holding table having an opening, means interposed between said opening and said operating means and operable by a suction action in said opening to effect a switch opening operation of said operating means, a suction device, and a sheet picking up mechanism having a suction mouth piece in communicatin with said suction device and adapted to close over and create a suction through said table opening after the last sheet of a pile has been removed from the table.

4. In combination, an actuating mechanism, means pneumatically operable to stop said mechanism upon the opening of an interior part thereof to atmospheric pressure, a valve controlling the opening of said part, a sheet holding table having an opening therein which is covered by a pile of sheets on the table, means pneumatically operable by suction action in said opening to effect an opening of said valve, and means automatically operable after the removal of the last sheet of a pile from said table to create a suction within said table opening.

5. In combination, an electric motor, a switch for said motor, means pneumatically operable to move said switch to open position to stop the motor when an interior part of said means is opened to atmospheric pressure, a valve normally closing said interior part to the atmosphere, a sheet holding table having an opening therein adapted to be covered by a pile of sheets on the table, means pneumatically operable to open said valve when suction occurs in said table opening, and sheet delivering means having a suction pick up member which closes over and creates a suction in said opening when the last sheet of a pile has been removed from said table.

[Claims 6 to 11 not printed in the Gazette.]

1,143,370. MATRIX-SETTING AND TYPE-LINE-CASTING MACHINE. ARTUR EICHLER, Rossen, Germany, assignor, by mesne assignments, to Mergenthaler Linotype Company, a Corporation of New York. Filed Sept. 7, 1910. Serial No. 580,911. (Cl. 199—18.)



1. A casting mold for matrix setting and type line casting machines consisting of a mold box having an upper part and a bottom part, of two intermediate parts, one of the intermediate parts being fixed and the other adjustably arranged, and a reversible key connecting the adjustable part with the mold body and engaging with notches of the said parts, the width of the key portion engaging with the intermediate part being different from the width of the key portion engaging with the mold body.

2. A casting mold for matrix setting and type line casting machines consisting of a mold box having an upper part and a bottom part, of two intermediate parts, one of the intermediate parts being fixed and the other adjustably arranged, and a reversible key connecting the adjustable part with the mold body and engaging with notches of the said parts, the width of the key portion engaging with the one mold part being a given fraction of the width of that portion engaging with the other part, substantially as described.

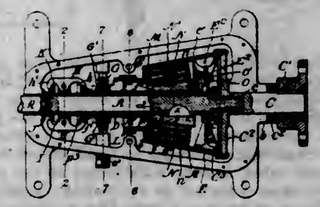
3. A casting mold for matrix setting and type line casting machines consisting of a mold box having an upper part and a bottom part, of two intermediate parts, one of the intermediate parts being fixed and the other adjustably arranged, and a reversible key connecting the adjustable part with the mold body and engaging with notches of the said parts, the width of the key portion engaging with the one part corresponding to a typographic measuring unit and being a given multiple of the width of that portion engaging with the other part, substantially as described.

4. A casting mold for matrix setting and type line casting machines consisting of a mold box having an upper part and a bottom part, of two intermediate parts, one of the intermediate parts being fixed and the other adjustably arranged, and a reversible key connecting the adjustable part with the mold body and engaging with notches of the said parts, the width of the key portion engaging with the one part corresponding to a fraction of a typographic measuring unit and being a given fraction of the width of that portion engaging with the other part, substantially as described.

5. A casting mold for matrix setting and type line casting machines consisting of a mold box having an upper part and a bottom part, of two intermediate parts, one of the intermediate parts being fixed and the other adjustably arranged, and a reversible key connecting the adjustable part with the mold body and engaging with notches of the said parts, the width of the key portion engaging with the one mold part being a given fraction of the width of that portion engaging with the other part, the two key portions being arranged unsymmetrically relatively to each other, substantially as described.

[Claims 6 to 25 not printed in the Gazette.]

1,143,371. DRIVING-CLUTCH. HARVEY ELLIOTT, Detroit, Mich., assignor to Arthur M. Parker, Detroit, Mich. Original application filed Feb. 3, 1913, Serial No. 745,783. Divided and this application filed June 1, 1914. Serial No. 841,984. (Cl. 192—4.)



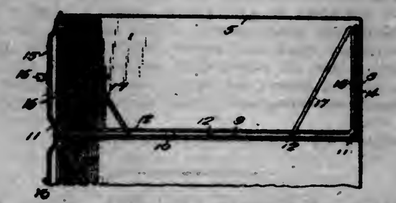
1. In a device of the character described, a supporting frame, a driving shaft journaled therein, a driven shaft, an annular cone carried by the driven shaft having a slot adapted to receive a movable key, an annular shaft sleeved on the driving shaft keyed to rotate therewith and free to slide thereon, a cone wheel carried by the annular shaft adapted to engage the annular cone whereby the latter may be rotated in the same direction as the driving shaft, a movable key carried by said cone wheel, and means for forcing said key into the slot formed in the annular cone to secure a locking driving engagement between the cone wheel and the annular cone.

2. In a device of the character described, a supporting frame, a driving shaft journaled therein, a driven shaft, an annular cone carried by the driven shaft having a slot adapted to receive a movable key, an annular shaft sleeved on the driving shaft keyed to rotate therewith and free to slide thereon, means for longitudinally shifting said annular shaft, a cone wheel carried by the annular shaft adapted to engage the annular cone whereby the latter may be rotated in the same direction as the driving shaft, a movable key carried by said cone wheel, a spring for forcing said key into the slot formed in the annular cone to secure a locking driving engagement between the cone wheel and the annular cone, and means for shifting said annular shaft.

3. In a device of the character described, a supporting frame, a driving shaft journaled therein, a driven shaft, an annular cone carried by the driven shaft having a slot adapted to receive a movable key, an annular shaft sleeved on the driving shaft keyed to rotate therewith and free to slide thereon, means for longitudinally shifting said annular shaft, a cone wheel carried by the annular shaft adapted to engage the annular cone whereby the latter may be rotated in the same direction as the driving shaft, a movable key carried by said cone wheel, a longitudinally slidable element sleeved upon the annular shaft, means for manually actuating the slidable element, and means carried by the slidable element adapted to force the key into the slot in the annular cone and to withdraw it therefrom.

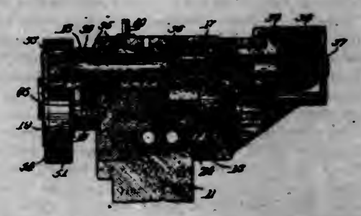
4. In a device of the character described, a supporting frame, a driving shaft journaled therein, a driven shaft, an annular cone carried by the driven shaft having a slot adapted to receive a movable key, an annular shaft sleeved on the driving shaft keyed to rotate therewith and free to slide thereon, means for longitudinally shifting said annular shaft, a cone wheel carried by the annular shaft adapted to engage the annular cone whereby the latter may be rotated in the same direction as the driving shaft, a movable key carried by said cone wheel, a longitudinally slidable element sleeved upon the annular shaft, means for manually actuating the slidable element, an inclined slotted element carried by the slidable element, and a spring connected with the key for actuating the latter and also engaged by said slotted element, whereby its tension may be regulated and the key forced into the slot in the annular cone or withdrawn therefrom upon actuating said slidable element.

1,143,372. OVEN. JOSEPH ANTLEY FAIRCHILD, Forest, Miss., assignor to Viola Virginia Antley, Forest, Miss. Filed July 3, 1914. Serial No. 848,772. (Cl. 126—339.)



The combination with an oven having an open front, of a plurality of drawers slidably disposed therein and being each formed of an open framework whereby to provide for uninterrupted circulation of heat throughout the oven, and a plurality of front walls provided one for each drawer and adapted when the drawers are in closed position to form of themselves a closure for the oven, the ends of the front walls overhanging and abutting gainst edges of the oven at its ends, and the upper edge of the topmost front wall and thei ower edge of the lowermost front wall overhanging and engaging against the edges of the oven at the top and bottom of the latter.

1,143,373. MILLING-MACHINE SPINDLE-SADDLE. ERNST FELDMANN, Rockford, Ill., assignor to The Ingersoll Milling Machine Co., Rockford, Ill., a Corporation of Illinois. Filed June 8, 1914. Serial No. 843,876. (Cl. 90—16.)



1. In a milling machine the combination of a saddle, a plurality of sleeves mounted axially movable therein with their corresponding ends projecting beyond the end of the saddle, a spindle and a pinion shaft journaled respectively in said sleeves, a driving connection between said spindle and shaft, and means for rigidly connecting the projecting ends of said sleeves.

2. In a milling machine the combination of a saddle, a plurality of sleeves mounted therein and projecting beyond the end of the saddle, a spindle journaled in one of said sleeves, a pinion shaft journaled in the other sleeve, a driving connection between said spindle and shaft, means rigidly connecting the projecting ends of said sleeves, and means for adjusting said sleeves longitudinally in the saddle.

3. In a milling machine the combination of a saddle, a pair of sleeves longitudinally adjustable in said saddle, one end of each sleeve projecting beyond the end of the saddle, a pinion shaft and a spindle journaled respectively in said sleeves, means whereby the projecting ends of said sleeves are rigidly connected together, and intermeshing gears carried by the outer ends of said pinion shaft and said spindle whereby the spindle is driven from said shaft.

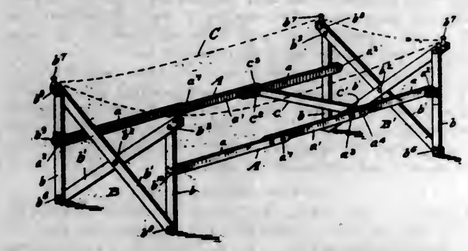
4. In a milling machine, the combination of a saddle, a pair of longitudinally adjustable sleeves mounted in said saddle, a pinion shaft journaled in one of said sleeves and provided at its outer extremity with a pinion, a spindle

journaled in the other sleeve and provided at its outer extremity with a gear-wheel meshing with said pinion, and a housing disposed over said pinion and said gear, said housing being fixedly secured to each of said sleeves whereby the sleeves are rigidly connected together.

5. In a milling machine, the combination of a saddle, a spindle sleeve carried thereby with one end projecting outside the saddle, a pinion sleeve also carried by the saddle and having one end projecting outside the saddle, a pinion shaft journaled in said pinion sleeve, a spindle journaled in said spindle sleeve, driving means at the outer ends of said spindle and pinion shaft whereby the spindle is driven from the pinion shaft, means whereby the outer ends of said sleeves are rigidly connected together, and means for adjusting said sleeves together longitudinally in the saddle.

[Claims 6 to 9 not printed in the Gazette.]

1,143,374. PORTABLE CAMP-BED. HENRY LÉON FISHER, Chazy, N. Y. Filed Dec. 24, 1910. Serial No. 599,136. (Cl. 5—5.)

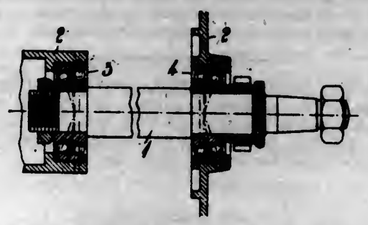


In a portable, collapsible camp cot, the combination of a pair of end frame members each comprising a pair of uprights and a pair of diagonal braces, said braces being pivoted together at their crossing point and each having an end pivoted to the upper end of one of said uprights and formed at their other end for detachable connection with the lower end of the other upright, said detachable connection consisting of a pin and slot engagement adapted to tighten when weight is sustained by the cot, connections between said end frames, said connections comprising a plurality of longitudinally disposed sections connected at their ends the end sections being pivotally connected to appropriate uprights, said sections having a detachable connection at a point on each side of the cot which detachable connection consists of a plurality of slot and pin engagements adapted to tighten under weight sustained by the cot, a cross brace between the connections, said cross brace comprising a member pivoted to one of said connections and detachably engaging the other section, which detachable engagement consists of a pin and slot connection arranged to tighten under weight sustained by the cot, and a canvas connected to said end frames.

1,143,375. BALL-BEARING. BENGT WIKTOR FJELLMAN, Gottenborg, Sweden. Filed Feb. 3, 1915. Serial No. 5,892. (Cl. 64—36.)

1. A ball bearing adapted to sustain axial and radial loads and having bearing rings, one of which is provided with a cylindrical ball track for some of the balls and with a ball track for other balls, said latter track being formed according to a rotary surface, the generatrix of which surface is inclined to the axis of the bearing, said bearing rings being movable in axial direction in relation to each other, substantially as and for the purpose set forth.

2. A ball bearing adapted to sustain axial and radial loads and having bearing rings, one of which is provided with a cylindrical ball track for some of the balls and with a spherical ball track for other balls, the generatrix of which sphere is inclined to the axis of the bearing, said bearing rings being movable in axial direction in relation to each other, substantially as and for the purpose set forth.



3. A ball bearing adapted to sustain axial and radial loads and having bearing rings, one of which is provided with a cylindrical ball track for some of the balls and with a spherical ball track for other balls, the generatrix of which sphere is inclined to the axis of the bearing, said bearing rings being movable in axial direction in relation to each other, and the balls rolling on the cylindrical ball track being situated, in the normal position of the bearing rings, on the great circle of the spherical surface, substantially as and for the purpose set forth.

1,143,376. HOCKEY-STICK. NEWELL T. FOGG, Sanford, Me. Filed Feb. 5, 1915. Serial No. 6,343. (Cl. 46—4.)



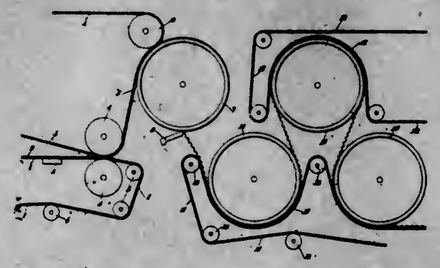
1. The combination of a hockey stick, a line helically wound thereon, one line end being retentively secured to said stick and the other line end being detachably secured to said stick whereby when the latter end is held the stick may be projected to effect a rescue.

2. The combination of a hockey stick, a shaft and a driving blade, a reduced portion on said shaft, a line helically wound in close, compact spirals on said portion, a grip formed by said helically wound line, means for retentively securing one line end to said stick, means for removably securing the other line end to said stick, whereby said stick may be used as a hockey stick and as a life saving means.

3. The combination of a hockey stick, a shaft and a driving blade, a reduced portion on said shaft, a line helically wound on said portion, the top section of said shaft having an aperture therethrough, grooves connecting the ends of said aperture to said reduced portion whereby a countersunk retentive holding of one line end is effected and means for detachably securing the other line end adjacent the driving blade whereby said stick may be used as a hockey stick and as a life-saving means.

4. The combination of a hockey stick, a shaft and a driving blade, a reduced portion on said shaft, a line helically wound on said portion, one end of said line being retentively affixed to said shaft and a groove leading from said reduced portion to one end of an aperture in said shaft and a staple on said shaft adjacent the other end of said aperture adapted detachably to hold the other end of said line whereby said stick may be used as a hockey stick and as a life saving means.

1,143,377. PROCESS OF AND APPARATUS FOR CRAPING PAPER. FREDERICK H. FULLER, St. Lawrence, N. Y., assignor to Tompkins-Hawley-Fuller Company, Valatie, N. Y., a Corporation of Oregon. Filed Feb. 11, 1913. Serial No. 747,594. (Cl. 92—69.)



1. The process which comprises pressing a moist web of paper against a heated traveling carrier to cause the web of paper to adhere to said heated carrier, conveying the web of paper immediately after the pressing operation on the upper side of the heated carrier and then crimping said paper while on the under surface of said carrier.

2. The process which comprises pressing a moist web of paper against a heated roll to cause the web of paper to adhere to said heated roll, conveying the web of paper immediately after the pressing operation on the upper side of the heated roll and then crimping said paper while on the under surface of said roll.

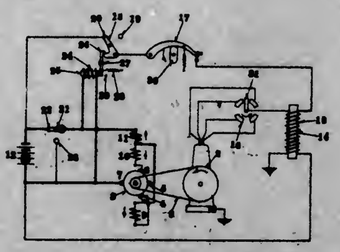
3. The process which comprises pressing a moist web of paper into contact with a heated traveling carrier to cause the web of paper to adhere thereto, conveying the web of paper upon the carrier after the pressing operation and then crimping the web of paper while on the under surface of the heated carrier.

4. The process which comprises pressing a moist web of paper into contact with a heated roll to cause the web of paper to adhere thereto, conveying the web of paper upon the roll after the pressing operation and then crimping the web of paper while on the under surface of the heated roll.

5. The process which comprises pressing a moist web of paper against the upper side of a heated traveling carrier and then crimping the paper on the underside of the carrier.

[Claims 6 to 9 not printed in the Gazette.]

1,143,378. STARTER AND IGNITION CONTROL. VALÈRE A. FYNN, St. Louis, Mo., assignor to Wagner Electric Manufacturing Company, St. Louis, Mo., a Corporation of Missouri. Filed June 1, 1914. Serial No. 842,027. (Cl. 123—179.)



1. In apparatus of the class described, the combination of a combustion engine, an ignition circuit, a battery, a dynamo electric machine for starting the engine, means for connecting the dynamo electric machine to the battery, a switch controlling the ignition circuit, and electromagnetically operated means for preventing the removal of said switch from its position in which the ignition circuit is operative while the battery is connected to the dynamo electric machine.

2. In apparatus of the class described, the combination of a combustion engine, an ignition circuit, a battery, a dynamo electric machine for starting the engine, a switch in the ignition circuit, means for connecting the battery to the dynamo electric machine, and means controlled by the battery for preventing the opening of the ignition switch when the battery is connected to the dynamo electric machine.

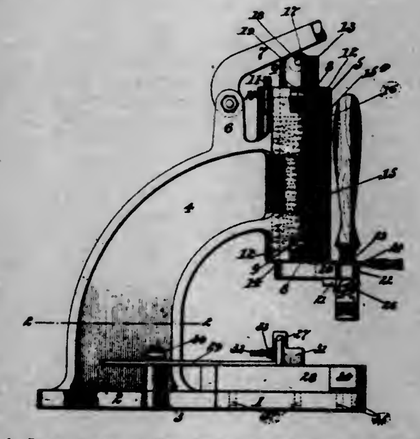
3. In apparatus of the class described, the combination of a combustion engine, an ignition circuit, a battery, a dynamo electric machine for starting the engine, a switch in the ignition circuit, a trigger adapted to lock said switch in a selected position, and an electromagnet controlling said trigger.

4. In apparatus of the class described, the combination of a combustion engine, an ignition circuit, a battery, a dynamo electric machine for starting the engine, a switch in the ignition circuit, a trigger adapted to lock said switch in a selected position, and an electromagnet controlling said trigger, said magnet being connected to the terminals of the dynamo electric machine.

5. In apparatus of the class described, the combination of a combustion engine, an ignition circuit, a dynamo electric machine for starting the engine, a supply circuit for said machine, a switch controlling the ignition circuit, and means controlled from the supply circuit of the dynamo electric machine for preventing removal of the ignition controlling switch from a selected position.

[Claim 6 not printed in the Gazette.]

1,143,379. EMBOSSING-MACHINE. PRINCE A. GARDNER, St. Louis, Mo. Filed Oct. 28, 1914. Serial No. 869,076. (Cl. 101—83.)



1. In a press of the character described, a casing, a plunger slidable vertically in said casing and protruding above and below the latter through oppositely disposed openings therein, means borne by the lower portion of said plunger adapted to limit the upward movement of the latter, a spring borne by said plunger adapted normally to hold the plunger in position against upward movement, a lever adapted to exert power against the tension of said spring, a forwardly protruding nose borne by the lower portion of said plunger outside of said casing, a die-support mounted on said nose, and a wedge associated with said die-support and nose and movable in a direction at right angles to said plunger.

2. In a press of the character described, a casing, a plunger slidable vertically in said casing, said plunger protruding above and below said casing through oppositely disposed openings therein, means borne by the lower portion of said plunger adapted to limit the upward movement of said plunger, a spring borne by said plunger, said

spring being adapted normally to hold said plunger in position against downward movement, a lever adapted to exert power against the upwardly protruding end of said plunger to move said plunger downwardly against the tension of said spring, and a forwardly protruding nose borne by the lower portion of said plunger outside of said casing, said nose having a flat base and arched sides converging to a flat ridge, a type carrier supported on said nose, and a wedge positioned on the flat ridge engaging the type carrier.

3. In a press of the character described, a casing, a plunger slidable vertically in said casing, said plunger protruding above and below said casing through oppositely disposed openings therein, means borne by the lower portion of said plunger adapted to limit the upward movement of said plunger, a spring borne by said plunger, said spring being adapted normally to hold said plunger in position against downward movement, a lever adapted to exert power against the upwardly protruding end of said plunger to move said plunger downwardly against the tension of said spring, a forwardly protruding nose borne by the lower portion of said plunger outside of said casing, and a holder for dies and the like, said holder having an opening adapted to admit said nose therethrough removably to support said holder and an axially movable wedge associated therewith adapted to hold the nose and die holder relatively immovable.

4. In a press of the character described, a casing, a plunger slidable vertically in said casing, said plunger protruding above and below said casing through oppositely-disposed openings therein, means borne by the lower portion of said plunger adapted to limit the upward movement of said plunger, a spring borne by said plunger, said spring being adapted normally to hold said plunger in position against downward movement, a lever adapted to exert power against the upwardly protruding end of said plunger to move said plunger downwardly against the tension of said spring, and a forwardly protruding nose borne by the lower portion of said plunger outside of said casing, said nose having a flat base and arched sides converging to a flat ridge, a holder for dies and the like, said holder having an opening adapted to admit said nose therethrough to support said holder, and a wedge adapted to enter a space in said opening between the flat ridge of said nose and an adjacent portion of said holder removably to hold said holder firmly in place on said nose.

5. In a press of the character described, the combination with a base-plate adapted to support the article to be marked, of a rearward extension of said base-plate, a pair of lugs borne by said extension, a movable straight-edge borne by said base-plate extending beyond the side edges of the same and a pair of rearwardly extending arms borne by said straight-edge formed integral therewith having an elongated guide-opening therein, each arm being slidably supported by a corresponding one of said pair of lugs, each lug bearing a screw-threaded member protruding through the guide-opening of an adjacent arm and being adapted slidably to engage said opening to permit said straight-edge to be moved forward and backward upon said base-plate, said screw-threaded member being, also, adapted to lock said straight-edge in a set position.

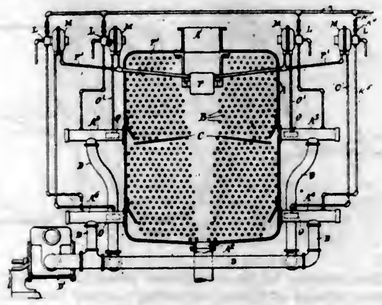
[Claims 6 to 18 not printed in the Gazette.]

1,143,380. CONDENSER. GEORGE HERBERT GIBSON, Montclair, N. J., assignor to himself, and Paul A. Bancel, New York, N. Y. Filed Dec. 14, 1911. Serial No. 665,706. (Cl. 257—2.)

1. The combination with a condenser having a plurality of air outlets, of means automatically responsive to the temperature of the fluid discharged through each outlet for regulating the rate of discharge through such outlet.

2. The combination with a condenser having an air outlet, of means automatically responsive to the difference between the temperatures prevailing respectively in a high temperature portion of said condenser and in said outlet for regulating the rate of discharge through said outlet.

3. The combination with a condenser having a plurality of air outlets, of separate means for regulating the rate of discharge through each of said outlets, the regulating means for each outlet being automatically responsive to the difference between the temperatures prevailing respectively in a high temperature portion of said condenser and in said outlet.

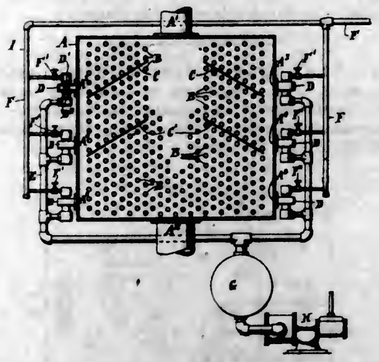


4. The combination with a condenser having an air outlet, of a damper controlling the flow through said air outlet, a receptacle containing a volatile fluid located in a high temperature portion of the condenser, a second receptacle also containing a volatile fluid located in said air outlet, and means automatically responsive to the difference in the fluid pressure in the two receptacles for opening and closing said damper as the difference in pressure varies.

5. The combination with a condenser having an air outlet, of a damper controlling the flow through said air outlet, fluid pressure operating means therefor, a valve controlling said means, a receptacle containing a volatile fluid located in a high temperature portion of the condenser, a second receptacle also containing a volatile fluid located in said air outlet, and means automatically responsive to the difference in the fluid pressures in the two receptacles for opening and closing said valve as the difference in pressure varies.

[Claims 6 and 7 not printed in the Gazette.]

1,143,381. CONDENSING APPARATUS. GEORGE H. GIBSON, Montclair, N. J., assignor to himself, and Paul A. Bancel, New York, N. Y. Filed Feb. 19, 1913. Serial No. 749,314. (Cl. 257—24.)



1. In combination, a condenser having the usual outlet for water of condensation and having in addition thereto a plurality of air outlets, and means for exerting a suction on each air outlet which is independent of the volume of flow through any other of said air outlets.

2. In combination, a condenser having the usual outlet for water of condensation and having in addition thereto a plurality of air outlets and separate air moving means for and connected to each of said air outlets.

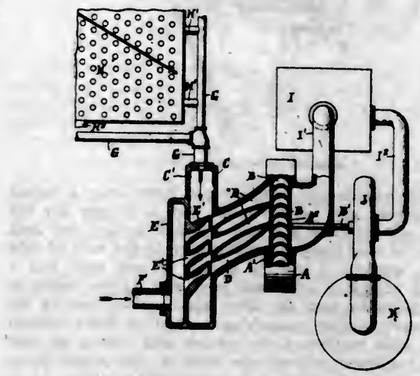
3. In combination, a surface condenser having the usual outlet for water of condensation and having in addition thereto a plurality of condensing spaces receiving steam from a common steam inlet and a plurality of independent air outlets, and means for exerting a suction on each air outlet which is independent of the volume of flow through any other of said air outlets.

4. In combination, a condenser having the usual outlet for water of condensation and having in addition thereto a plurality of air outlets, and a separate jet ejector device connected to each of said air outlets.

5. In combination, a main condenser having the usual outlet for water of condensation and having in addition thereto a plurality of air outlets, auxiliary condensing and vacuum producing means to which said air outlets are connected, and a steam ejector located at each outlet and adapted to such air out of the main condenser through said air outlet and deliver it at a higher pressure to said apparatus.

[Claims 6 to 8 not printed in the Gazette.]

1,143,382. STEAM-CONDENSING APPARATUS. GEORGE H. GIBSON, Montclair, N. J., and PAUL A. BANCEL, New York, N. Y. Filed Nov. 29, 1912. Serial No. 733,941. (Cl. 257—24.)



1. In a condensing plant, the combination of a main condenser, auxiliary condensing and vacuum producing apparatus, an auxiliary turbine wheel, a connection supplying steam for driving said wheel, means for expanding said steam to a pressure not exceeding that which it is desired to maintain in said condenser, and means for utilizing a portion of the kinetic energy of the expanded steam to draw air out of said condenser and mix it with the steam and to recompress said mixture and deliver it to said apparatus at a pressure exceeding that maintained in said condenser.

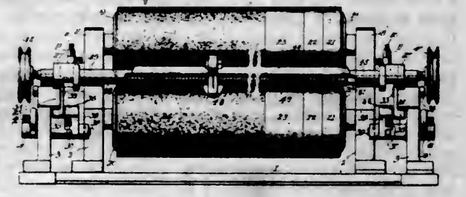
2. In a condensing plant comprising a main condenser, and an auxiliary condensing and vacuum producing apparatus, the combination of a steam ejector adapted to withdraw air from said main condenser and means for compressing the mixture of air and steam issuing from the ejector, and delivering it to said apparatus at a pressure above that maintained in the main condenser, and a turbine wheel acted upon by and receiving energy from the mixture of air and steam.

3. In a condensing plant, the combination of a main condenser, having separate air and water outlets, auxiliary condensing and vacuum producing apparatus, an auxiliary steam turbine comprising a wheel chamber and a wheel working therein, means for supplying steam of low pressure and at high velocity to said chamber, an outlet connection leading from said chamber to said apparatus said connection being adapted to recompress the fluid passing through it, and a connection between said wheel chamber and the air outlet or outlets of said main condenser.

4. In a condensing plant, the combination of a main condenser, having separate air and water outlets, a rotary jet condenser comprising an impeller chamber and a rotary impeller working therein, a turbine wheel chamber and a wheel working therein and connected to and driving said impeller, a hurling water supply connection for said impeller, a steam supply connection opening to said wheel chamber through one or more expanding nozzles, a connection between said wheel chamber and the air outlet or outlets of said main condenser, and an outlet connecton from said wheel chamber to said impeller chamber, including one or more compression nozzles, whereby a pressure may be maintained in said wheel chamber corresponding to the vacuum desired in the main condenser, and the air and steam passing through said wheel chamber is delivered to said impeller at a pressure above that existing in said main condenser.

5. The combination with a chamber to be exhausted of means for withdrawing air therefrom comprising auxiliary condensing and vacuum producing apparatus, an auxiliary turbine wheel, a connection supplying steam for driving said wheel, means for expanding said steam to a pressure not exceeding that which it is desired to maintain in said chamber, and means for utilizing a portion of the kinetic energy of the expanded steam to draw air out of said chamber and mix it with the steam and to recompress said mixture and deliver it to said apparatus at a pressure exceeding that maintained in said chamber.

1,143,383. SHARPENING-MACHINE. RAPHAEL S. GREEN, Chicago, Ill. Filed Aug. 21, 1914. Serial No. 857,892. (Cl. 51—16.)



1. A machine of the class described, comprising in combination two rollers having parallel axes, said rollers having a succession of zones corresponding in relative position respectively formed from material for grinding and honing an article to be sharpened, means for rotating said rollers on opposite directions, a feed-screw arranged parallel to the axes of said rollers, a work-holder pivotally mounted thereon for holding an article to be sharpened, an eccentric shaft arranged parallel to said feed-screw, the eccentric portion of said shaft corresponding substantially in length to the threaded portion of said feed-screw, and in operative connection with said work-holder, to cause the vibration of the latter and means for simultaneously rotating said feed-screw and eccentric shaft.

2. A sharpening machine comprising in combination two parallel rollers said rollers having peripheral surfaces of abrading and honing material arranged in successive order thereon, means for rotating said rollers in opposite directions, a feed-screw arranged parallel to the axes of said rollers and in a plane midway between them and at right angles to the plane of the axes of said roller a work-holder threaded upon said feed-screw, said screw forming a pivot therefor, an eccentric shaft arranged parallel to said feed-screw the axis of said shaft being in the same plane with the axis of said feed-screw and in vibratory connection with said work-holder and means for rotating said feed screw and eccentric shaft.

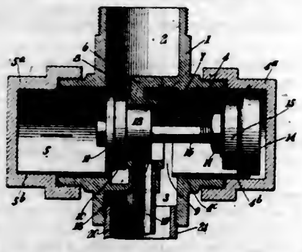
3. A sharpening machine comprising in combination two parallel rollers, having peripheral surfaces for honing and stropping purposes, means for rotating said rollers in opposite directions, a feed-screw arranged parallel to the axes of said rollers, an eccentric shaft arranged parallel to the axis of said feed-screw, means for rotating

said feed-screw and eccentric shaft respectively, a work-holder threaded upon said feed-screw, said holder being in operative connection with said eccentric shaft and adjustable means for bringing the axes of said feed-screw and eccentric shaft in a common plane midway between the axes of said rollers and at right angles to the plane of said axes.

4. A sharpening-machine, comprising, in combination, two parallel sharpening rollers having honing and stropping surfaces, means for rotating said rollers in opposite directions, a feed-screw arranged parallel to the axes of said rollers and in a plane midway between them, the threaded portion of said screw exceeding in length that of said rollers, and extending beyond one end thereof to permit a work-holder to be threaded thereon without bringing the work into contact with said rollers at the outset, a work-holder threaded upon said feed-screw, said screw forming a pivot therefor, an eccentric shaft arranged parallel to said feed-screw, the axis of said shaft being in the same plane with that of said feed-screw and in vibratory connection with said work-holder, and means for rotating said feed-screw and shaft.

5. A sharpening-machine, comprising, in combination, two parallel rollers having honing and stropping surfaces, means for rotating said rollers in opposite directions, a feed-screw arranged parallel to the axes of said rollers, an eccentric-shaft arranged parallel to the axis of said feed-screw, the length of the eccentric portion thereof being less than that of said feed-screw, to permit a work-holder to be placed thereon and removed therefrom while the machine is in operation without causing a vibration of said holder until the latter is in place, means for rotating said feed-screw and eccentric-shaft respectively, and a work-holder threaded upon said feed-screw, said holder being in operative connection with said threaded shaft.

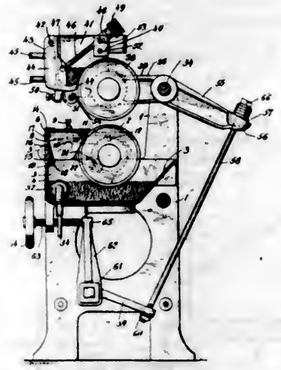
1,143,384. FLUSHING-VALVE. PHILIP HAAS, Dayton, Ohio. Original application filed July 19, 1912, Serial No. 710,507. Divided and this application filed July 18, 1914. Serial No. 851,695. (Cl. 137—93.)



1. In a flushing valve, the combination with the valve casing provided with a partition having a tubular passage extending therethrough, and a valve seat at each end of said passage, said casing being provided with an inlet on one side of said partition, and an auxiliary outlet aperture in the wall of said tubular passage between said valve seats, of a normally closed inlet valve for engaging the valve seat at the inlet end of said passage, a normally open valve for engaging the valve seat at the other end of said passage, and means for simultaneously moving said valves, whereby when the inlet valve is closed no water will pass through the valve casing, when the inlet and outlet valves are open water will pass through the main and auxiliary outlets, and when the outlet valve is closed the discharge from the main outlet will be cut off, while the discharge from the auxiliary outlet will continue.

2. In a flushing valve, the combination with the valve casing provided with a partition having a tubular passage therethrough and a valve seat at each end of said passage, said casing having an inlet on one side of said partition and a main outlet on the other side, and said passage being provided with an auxiliary outlet independent of said main outlet, and communicating with said passage between the ends thereof, of a normally closed inlet valve for engaging the valve seat at the inlet end of the said passage, a normally open valve for engaging the valve seat at the other end of said passage, and means for effecting the simultaneous movement of said valves.

1,143,385. GLUE-SPREADING MACHINE. JOHN B. HABERLE, South Bend, Ind., and JULIUS B. B. STRYKER, Lansdale, Pa., assignors to Perkins Glue Company, a Corporation of Pennsylvania. Filed Nov. 7, 1911. Serial No. 659,070. (Cl. 91—51.)



1. The combination of upper and lower rolls, a trough for applying glue to the lower roll, a scraper for the lower roll pivotally mounted on said trough, the back portion of said scraper forming part of the wall of said trough, whereby a joint is formed in said wall, and a member extending over said joint and on the inside of said trough to keep the glue from working out at the joint, said member comprising a sheet of metal secured to the back portion of the scraper and having an edge which resiliently engages the wall of the trough below the joint when the scraper is in operative position.

2. The combination of upper and lower rolls, a glue trough for applying glue to one of said rolls, one upright wall of said trough being divided into two parts, one movably mounted with respect to the other, whereby a joint is formed in said wall, and resilient means extending over said joint on the inside of the trough to keep the glue from working into or out at the joint.

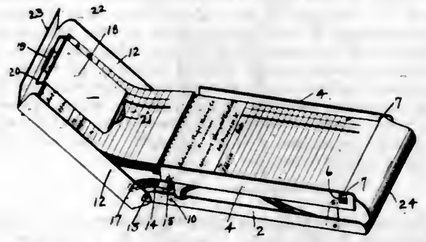
3. The combination of upper and lower rolls, a glue trough for applying glue to one of said rolls, one upright wall of said trough being divided into two parts, one pivotally mounted with respect to the other, whereby a joint is formed in said wall, and means extending over said joint to keep the glue from working into or out at the joint, said means comprising a sheet of metal secured to one of the parts and having an edge for resiliently engaging the other of said parts.

4. The combination of upper and lower rolls, a glue trough for applying glue to one of said rolls, one upright said trough being divided into two parts, one pivotally mounted with respect to the other, whereby a joint is formed in said wall, and means extending over said joint on the inside of the trough to keep the glue from working out at the joint, said means comprising a sheet of metal rigidly secured to the upper of said parts, and bent so as to have an edge which resiliently engages the other of said parts below the joint, when the parts are in normal position.

5. The combination of upper and lower rolls, a trough for applying glue to the lower roll, a scraper for the lower roll movably mounted on said trough, the back portion of said scraper forming part of the wall of said trough, whereby a joint is formed in said wall, and a member extending over said joint and on the inside of said trough to keep the glue from working out at the joint, said member comprising a sheet of metal secured to the back portion of the scraper and having an edge which resiliently engages the wall of the trough below the joint when the scraper is in operative position, and scrapers for scraping the ends of the lower roll.

[Claims 6 to 10 not printed in the Gazette.]

1,143,386. AUTOGRAPHIC REGISTER. WHITFIELD J. HAINER, Providence, R. I., assignor to Hainer Bookkeeping Machine Company, Providence, R. I., a Corporation of Rhode Island. Filed Mar. 23, 1912. Serial No. 685,878. (Cl. 11—36.)



1. An autographic register comprising a body portion forming a magazine for memorandum strips, a writing plate connected with said body portion, a hinged cover for said body, and means operated by said cover for raising and lowering said writing plate.

2. An autographic register comprising a body portion forming a magazine for memorandum strips, a writing plate connected with said body portion, a hinged cover for said body, means operated by said cover for raising and lowering said writing plate, and means carried by said cover for retaining the writing sheets.

3. An autographic register comprising a body portion forming a magazine for memorandum strips, a writing plate movable with respect to said body portion, and means for moving said writing plate toward and from said magazine, and means for maintaining said writing plate in parallel relation with the bottom of said magazine during movement of the plate.

4. An autographic register comprising a body portion forming a magazine for memorandum strips, a writing plate movable with respect to said body portion, a cover for the magazine and writing plate, and means operated by the cover for effecting a relative movement between the body portion and the writing plate.

5. An autographic register comprising a body portion, a cover pivotally connected thereto, a magazine in the body portion for containing memorandum strips, a writing plate movable with respect to said body portion, means operated by the cover for effecting a movement of said plate relative to said body, and means for rendering said moving means inoperative during a portion of the pivotal movement of said cover in either direction.

[Claims 6 to 9 not printed in the Gazette.]

1,143,387. FINISH-REMOVER. LOUIS HAMBROCK, Jr., Newark, N. J. Filed July 2, 1914. Serial No. 848,542. (Cl. 87—3.)

1. A retarder for finish removers comprising copal, wax, polymerized oil and copal oils, said retarder being soluble in finish solvents.

2. A finish remover containing a finish solvent or solvents, and an evaporation retarder comprising copal, wax, polymerized tung oil and copal oils soluble in the finish solvent or solvents.

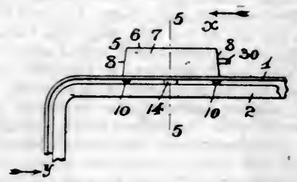
3. A composition of matter comprising copal, a waxy body, polymerized tung oil and copal oils and soluble in benzol and like solvents.

4. The process of polymerizing tung oil by application of heat and rendering same soluble by the addition of copal oils thereto so that same may be dissolved in benzol and like solvents.

5. The process of polymerizing tung oil by heat in the presence of a solvent fusible at the heat of polymerization, and adding copal oils thereto and thereby obtaining a material containing polymerized tung oil soluble in benzol and like solvents.

[Claim 6 not printed in the Gazette.]

1,143,388. BAG-FASTENER. JULIUS HAMMESFAHR, Newark, N. J., assignor to The R. Neumann Hardware Co., a Corporation of New Jersey. Filed Apr. 9, 1915. Serial No. 20,148. (Cl. 70—116.)



1. A bag-frame fastener comprising a chambered shell, provided in its top with an opening, a vertically movable bolt-member within said shell and a push-piece connected with said bolt-member, said push-piece being movably disposed within said opening so as to be adapted to be projected above the top of said shell, a closing plate within said shell, a spring in engagement with an located between the lower surface of said push-piece and the upper surface of said closing plate, and means coöperating with said bolt-member for retaining said bolt-member in its depressed locking relation.

2. A bag-frame fastener comprising a chambered shell, provided in its top with an opening, a vertically movable bolt-member within said shell and a push-piece connected with said bolt-member, said push-piece being movably disposed within said opening so as to be adapted to be projected above the top of said shell, a closing plate within said shell, said closing plate being provided with a depressed portion forming a receiving pocket, a coiled spring having an end-portion resting within said pocket and having its other end-portion in contact with the lower surface of said push-piece, and means coöperating with said bolt-member for retaining said bolt-member in its depressed locking relation.

3. A bag-frame fastener comprising a chambered shell provided in its top with an opening and in one of its ends with an opening, a vertically movable bolt-member within said shell and a push-piece connected with said bolt-member, said push-piece being movably disposed within the opening in said top so as to be adapted to be projected above the top of said shell, a stop-lug extending from a marginal edge of said bolt-member, a closing plate within said shell, a spring in engagement with and located between the lower surface of said push-piece and the upper surface of said closing plate, a spring-controlled keeper-plate provided with a push-piece extending into and through the opening in the end of said shell, said keeper-plate having an open portion into and through which said bolt-member and said spring extend, said keeper-plate having a portion coöperating with said stop-lug for retaining said bolt-member in its depressed locking relation.

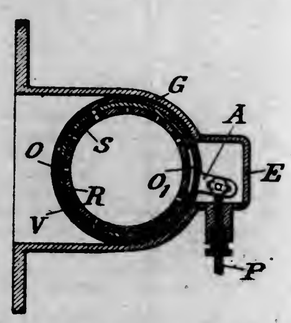
4. A bag-frame fastener comprising a chambered shell provided in its top with an opening and in one of its ends with an opening, a vertically movable bolt-member within said shell and a push-piece connected with said bolt-member, said push-piece being movably disposed within the opening in said top so as to be adapted to be projected above the top of said shell, a stop-lug extending from a marginal edge of said bolt-member, a closing plate within said shell, said closing plate being provided with a depressed portion forming a receiving pocket, a coiled spring having an end portion in contact with the lower surface of said push-piece, a spring-controlled keeper-plate provided with a push-piece extending into and through the opening in the end of said shell, said keeper-plate having an open portion into and through which said bolt-member and said spring extend, said keeper-plate having

a portion coöperating with said stop-lug for retaining said bolt-member in its depressed locking relation.

5. A bag-frame fastener comprising a chambered shell provided in its top with an opening and in one of its ends with an opening, a vertically movable bolt-member within said shell and a push-piece connected with said bolt-member, said push-piece being movably disposed within the opening in said top so as to be adapted to be projected above the top of said shell, a stop-lug extending from a marginal edge of said bolt-member, a closing plate within said shell, a spring in engagement with and located between the lower surface of said push-piece and the upper surface of said closing plate, a keeper-plate provided at one end with a push-piece extending into and through the opening in the end of the said shell, lugs extending from the other end of said keeper-plate, coiled springs supported upon said lugs and in engagement with the inner surface of the other end of said shell, a downwardly extending supporting member and upwardly projecting guide-members connected with said keeper-plate, said keeper-plate having an open portion into and through which said bolt-member and said spring extend, said keeper-plate having a portion coöperating with said stop-lug for retaining said bolt-member in its depressed locking relation.

[Claim 6 not printed in the Gazette.]

1,143,389. SIREN. HEINRICH HECHT, Kiel, Germany. Filed July 25, 1911. Serial No. 640,467. (Cl. 116—18.)



1. A siren adapted to employ a liquid as the sound-producing medium, having a partition with sound orifices, a cut-off slide movable on said partition to cover and uncover the orifices, the said siren having liquid passages through which the pressure of the liquid in the siren is applied to the slide to press it toward the partition when the slide covers the orifices.

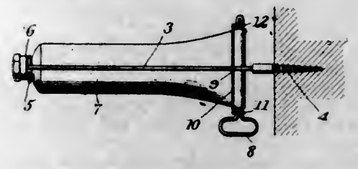
2. A siren adapted to employ a liquid as the sound-producing medium, having a rotor and a stator provided with sound orifices, a cut-off slide movable on said stator to cover and uncover the orifices therein, the said siren having a liquid passage through which the pressure of the liquid in the siren is applied to the slide to press it toward the stator when the slide covers the orifices.

3. A siren adapted to employ a liquid as the sound-producing medium, having a cylindrical rotor apertured to permit the flow of liquid therethrough, and a cylindrical stator correspondingly apertured at one side of its periphery and having a pressure aperture on the other side of its periphery, and a cylindrical cut-off slide surrounding the stator and having apertures adapted to register with the rotor and stator apertures whereby the pressure of the liquid in the siren acts through the pressure aperture of the stator against the slide in a direction tending to press the slide against the apertures at the opposite side of the periphery of the stator.

4. A siren adapted to employ a liquid as the sound-producing medium, having a cylindrical rotor apertured to permit the flow of liquid therethrough, and a cylindrical stator correspondingly apertured on one side of its periphery and having a pressure aperture on the other side of its periphery, a cylindrical cut-off slide surrounding the stator and having apertures adapted to register with the rotor and stator apertures, and means for shifting the slide to interrupt or permit the flow of sounding liquid, whereby the pressure of the liquid in the siren acts through the pressure aperture in the slide in a direction tending to press the slide against the apertures at the opposite side of the periphery of the stator.

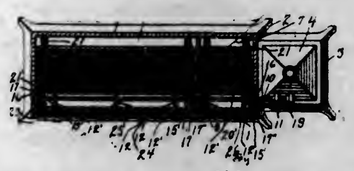
5. A siren adapted to employ a liquid as the sound-producing medium comprising a hollow cylinder or drum having perforations in its circumference and adapted to be rotated, in combination with a stationary cylinder surrounding the said rotor and being provided with sound apertures on one side of its circumference, and a pressure aperture on the opposite side, and a third cylinder surrounding the said stator and likewise provided with apertures on one side of its circumference said apertures corresponding in size and position to the said sound apertures in the stator, said cylinder being adapted to be shifted circumferentially from a position in which its apertures register with the said sound apertures in the said stationary cylinder to a position in which the said apertures register with full portions of the stator walls, and vice versa, and means for shifting the said slide cylinder circumferentially.

1,143,390. ATTACHMENT FOR COLLAPSIBLE TUBES. WERNER B. HEIDELOFF, Plainfield, N. J., assignor of one-half to Amos Andrews, Plainfield, N. J. Filed Sept. 19, 1914. Serial No. 862,431. (Cl. 221—60.)



In a supporting and expelling device for collapsible tubes, the combination, with a guide arm having a screw on one end and at the other end a fastener for the neck of the collapsible tube, of a hanger having a medial eye riding lengthwise on the guide arm and end bearings in which the respective ends of the collapsing key rotate.

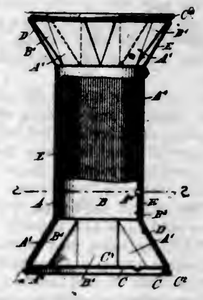
1,143,391. CABINET FOR HOLDING STATIONERY. RALPH M. HENDERSON, Toledo, Ohio. Filed Apr. 22, 1914. Serial No. 833,698. (Cl. 211—29.)



1. A stationery dispensing cabinet comprising a rectangular casing, a dividing wall in said casing, a vertically extending wall on each side of said dividing wall and having a plurality of slots therein, means for maintaining sheets of paper in contact with said vertical wall, a shaft rotatably mounted to one side of said vertical wall, a plurality of resilient wheels on said shaft, means to rotate the said wheels and simultaneously project the same through the aforementioned slots to engage the adjacent sheet of paper, and means to automatically retract said wheels.

2. In a stationery dispensing cabinet, a plurality of compartments, a vertical wall in each of said compartments, said wall having a plurality of spaced slots therein, the said compartments being adapted to contain paper, means to cause the paper to engage the said vertical walls, a shaft located in each of said compartments and having a plurality of wheels thereon adapted to project through the said slots to engage the adjacent sheet of paper, a cam at each end of each of said slots, pins adapted to coöperate with said cam to cause the same to move into said slots upon the rotation of the shaft, and resilient means for retracting the said wheels.

1,143,392. METALLIC SPOOL. GUY A. HERSEY, Bangor, Me. Filed June 18, 1913. Serial No. 774,361. (Cl. 242—123.)



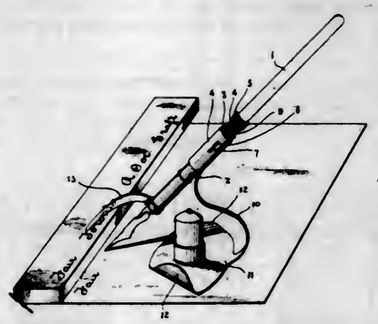
1. A metallic spool, comprising an outer metallic shell and an inner metallic shell forming a reinforcing lining for the outer shell, each shell having a cylindrical body and rectangular tongues flaring outward from each end thereof, the tongues of the shells being in staggered relation to each other and having shoulders on opposite sides adjacent to their ends, forming reduced crimping flanges, the flange of one shell extending between two adjacent flanges of the other shell, and a cap for each end of the spool, and provided with crimping flanges interlocking with the flanges of the said tongues.

2. A metallic spool, comprising an outer metallic shell and an inner metallic shell forming a reinforcing lining for the outer shell, each shell having a cylindrical body, rectangular tongues flaring outwardly and extending integrally from each end of a body to form a conical spool flange, the adjacent edges of the shells breaking joints with each other and the tongues at the end of one shell being arranged in staggered relation to the tongues at the corresponding end of the other shell and overlying one another throughout their length, the said tongues at each end of the spool being reduced at their free ends to form crimping flanges lying adjacent to each other and arranged in a circle, and a cap for each end of the spool and provided with an annular outwardly extending flaring flange fitting against the inner faces of the tongues, the flange terminating in a crimping flange interlocking with the crimping flanges of the tongues.

3. A metallic spool, comprising an outer metallic shell and an inner metallic shell forming a reinforcing lining for the outer shell, each shell having a cylindrical body, tongues flaring outwardly and extending integrally from each end of a body to form a conical spool flange, the tongues at the end of one shell being arranged in staggered relation to the tongues at the corresponding end of the other shell, each shell being formed from a sheet metal blank bent until the edges of the body abut, the abutting edges of the shell bodies breaking joint, and struck-up lugs on the outer shell body and extending inwardly between the abutting edges of the inner shell body to hold the shell bodies in joint-breaking relation with each other.

4. A metallic spool, comprising two metallic cylindrical shells, each shell being provided with outwardly flaring rectangular tongues having adjacent to their ends shoulders forming reduced crimping flanges, the shells being arranged one within the other with their adjacent edges breaking joints and the tongues being in staggered relation to each other, means for securing the bodies of the shells together, and a cap provided with a crimping flange interlocking with the crimping flanges of the said tongues.

1,143,393. WRITING DEVICE. CHARLES E. HIGBEE, Grand Prairie, Alberta, Canada. Filed Apr. 10, 1914. Serial No. 830,923. (Cl. 35—8.)



1. A writing device, comprising, a sliding foot adapted to rest upon the writing surface having an arm extending upwardly from the rear side thereof, an inclined slideway arranged at the upper end of said arm, and means for carrying the writing instrument slidably arranged in said slideway.

2. A writing device, comprising, a sliding foot adapted to rest upon the writing surface, and having an upwardly extending arm, an inclined sleeve arranged on the upper end of said arm, and means for adjustably and slidably holding the writing instrument within said inclined sleeve.

3. In a writing device, the combination with the writing instrument, of a sleeve adjustably secured upon said writing instrument, a sleeve slidably encircling the aforesaid sleeve, a curved stem secured to the outer sleeve and extending downwardly therefrom, a sliding foot secured to the bottom end of said stem having a flat bottom surface adapted to rest upon the writing surface, and spring means for holding the point of the writing instrument raised from the writing surface.

4. In a writing device, the combination with the writing instrument, of a sleeve encircling the writing instrument and having a split threaded upper end, a binding nut threaded upon said sleeve adapted to bind it securely upon the writing instrument, a sleeve slidably and non-rotatably encircling the aforesaid sleeve, a light spiral spring encircling the inner sleeve between the upper end of the outer sleeve and said nut, a curved stem extending downwardly from said outer sleeve, and a foot member secured to the lower end of said stem and adapted to slide freely over the writing surface.

5. A writing device, comprising, a broad flat plate having the end edges rolled upwardly and inwardly in a converging arrangement, a curved stem extending upwardly from the rear of said foot and having a sleeve at its upper end adapted to support the writing instrument.

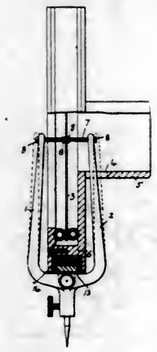
[Claims 6 and 7 not printed in the Gazette.]

1,143,394. SOUND-BOX. JOSE HOFFAY, London, England. Filed Mar. 13, 1914. Serial No. 824,443. (Cl. 181—11.)

1. In a sound box or the like for a gramophone, phonograph, or the like machine, in combination, a diaphragm, a pivotally mounted forked stylus lever straddling the diaphragm and having its bifurcations under stress and tending to change their distance from each other, and relatively rigid means kept under continuous stress by the bifurcations and connecting the bifurcations to the diaphragm and to each other.

2. In a sound box or the like for a gramophone, phonograph, or the like machine, in combination, a diaphragm, a pivotally mounted forked stylus lever straddling the diaphragm and having its bifurcations under stress and tending to separate from each other, and relatively rigid means kept under continuous tension by the bifurcations

and connecting the bifurcations to the diaphragm and to each other.



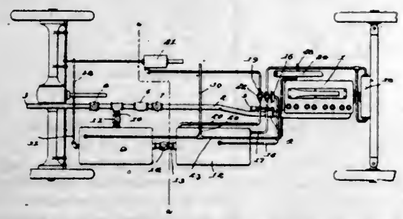
3. In a sound box or the like for a gramophone, phonograph, or the like machine, in combination, a diaphragm, a pivotally mounted forked stylus lever straddling the diaphragm and having its bifurcations under stress and tending to change their distance from each other, and relatively rigid means kept under continuous stress by the bifurcations and connecting the free ends of the bifurcations to the diaphragm and to each other without contacting said ends with the diaphragm.

4. In a sound box or the like for a gramophone, phonograph, or the like machine, in combination, a diaphragm, a pivotally mounted forked stylus lever straddling the diaphragm and having its bifurcations under stress and tending to change their distance from each other, and relatively rigid means kept under continuous stress by the bifurcations and passing through the diaphragm and connecting the bifurcations to the diaphragm and to each other.

5. In a sound box or the like for a gramophone, phonograph, or the like machine, in combination, a diaphragm, a pivotally mounted forked stylus lever straddling the diaphragm and having its bifurcations under stress and tending to change their distance from each other, and relatively rigid means comprising a bolt and nuts on the bolt bearing against the diaphragm and the bifurcations, said means being kept under continuous stress by the bifurcations and connecting the bifurcations to the diaphragm and to each other.

[Claims 6 to 10 not printed in the Gazette.]

1,143,395. EXHAUST-UTILIZING SYSTEM FOR AUTOMOBILES. CHARLES C. HOLE, Fremont, Nebr. Filed July 7, 1914. Serial No. 849,487. (Cl. 123—6.)

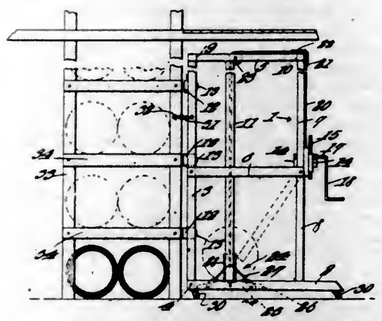


1. In an exhaust utilizing system for automobiles, the combination of an exhaust pipe leading off from the engine, an accumulating chamber located between the ends of said pipe of larger internal diameter than said pipe, a primary definite pressure operated check valve between the motor and said chamber, an excess pressure valve nearer the discharge end of said pipe, a storage tank, a connection between said tank and exhaust pipe communicating with the latter between said accumulating chamber and excess pressure valve, and a relatively small service pipe leading off from said tank to the point of use.

2. In an exhaust utilizing system for automobiles, the combination of an exhaust pipe leading off from the engine, an accumulating chamber located between the ends of said pipe of larger internal diameter than said pipe, a primary definite pressure operated check valve between the motor and said chamber, an excess pressure valve nearer the discharge end of said pipe, a storage tank, a connection between said tank and exhaust pipe communicating with the latter between said accumulating chamber and excess pressure valve, a relatively small service pipe leading off from said tank to the point of use, a secondary storage tank, a connection between both of said tanks, a check valve in the last named connection, and another service pipe leading off from said second tank to the point of use.

3. In an exhaust utilizing system for automobiles, the combination of an exhaust pipe leading off from the engine, an accumulating chamber located between the ends of said pipe of larger internal diameter than said pipe, a primary definite pressure operated check valve between the motor and said chamber, an excess pressure valve nearer the discharge end of said pipe, a storage tank, a connection between said tank and exhaust pipe communicating with the latter between said accumulating chamber and excess pressure valve, a secondary storage tank, a connection between both of said tanks, a check valve in the last named connection, a radiator fed by a service pipe from the first named tank, and another service pipe leading off from the second tank to deliver fluid under pressure to a given point for power application.

1,143,396. BARREL-HOIST. WILLIAM WARREN HOLSCLAW and FRANK KOMP, Louisville, Ky. Filed Apr. 15, 1914. Serial No. 832,015. (Cl. 187—11.)

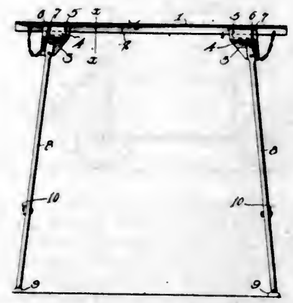


1. In a hoisting apparatus, a portable frame including front legs pivotally connected at their upper ends and having a lower entrance opening therebetween, the frame having rear ejecting openings, a carriage movable vertically between the sides of the frame, and actuating means for the carriage.

2. In a hoisting apparatus, a frame including side base members and front legs pivotally supported at their upper ends and having their lower ends engageable with the base members, there being an entrance opening between the legs and the base members, the frame having a rear vertical series of ejecting openings, a carriage movable vertically between the sides of the frame, and actuating means for the carriage.

3. In a hoisting apparatus, a portable frame including front supports, and a pair of cross bars connecting them, the frame having a lower entrance opening between the front supports and having a rear vertical series of discharge openings, pulleys carried by the upper portion of the frame, a cradle disposed for vertical movements within the frame and having its ends arranged adjacent the sides of the frame, cables trained over the said pulleys and extending downwardly from the pulleys within the sides of the frame and connected to the ends of the cradle, and a winch including a pair of gear wheels journaled between the said cross bars and having drums with which the cables are connected, and a shaft journaled to the said cross bars between the gear wheels and having a pinion intermeshing with the gear wheels, the shaft having a hand crank at its forward end.

1,143,397. FOLDING TRESTLE. WILLIAM W. HORN, Chicago, Ill. Filed Sept. 28, 1914. Serial No. 863,804. (Cl. 20—83.)

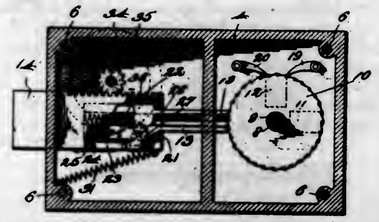


1. A trestle comprising, a longitudinal rail having a depending longitudinal web, a pair of hinge plates secured in spaced relation by an intermediate spacing block and hinged at one end to the longitudinal web aforesaid, the lower portions of said hinge plates being bent outwardly, and trestle legs attached fixedly to said lower portions of the hinge plates, substantially as set forth.

2. A trestle comprising, a longitudinal rail having a depending longitudinal web, a pair of hinge plates secured in spaced relation by an intermediate spacing block and hinged at one end to the longitudinal web aforesaid, the other ends of the plates and the web having alined orifices, a locking pin adapted to engage said alined orifices, and trestle legs attached fixedly to said hinge plates, substantially as set forth.

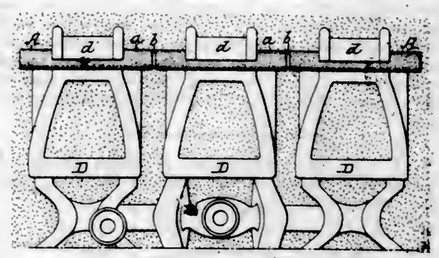
3. A trestle comprising, a longitudinal rail having a depending longitudinal web, a pair of hinge plates secured in spaced relation by an intermediate spacing block and hinged at one end to the longitudinal web aforesaid, the lower portions of said hinge plates being bent outwardly, trestle legs attached fixedly to said lower portions of the hinge plates, and transverse braces attached to the trestle legs intermediate their height, one of said braces being detachably connected, substantially as set forth.

1,143,398. PERMUTATION-LOCK. JOHN HOSCHEK, New York, N. Y. Filed Sept. 2, 1914. Serial No. 859,882. (Cl. 70—53.)



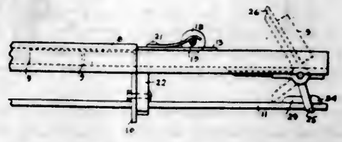
A permutation lock comprising a casing, a lock bolt mounted in said casing and provided with a recess, a shank mounted to slide in said recess and adapted to fit into grooves of a set of permutation ratchet wheels, a spring for holding said shank in an extended position, said shank provided with a shoulder, a dog secured to said bolt to engage said shoulder, a cam for lifting the dog out of engagement with said shoulder, means for operating the cam, a knob spindle, ratchet teeth on the bolt, a pinion on the knob spindle to engage said bolt, whereby the bolt can be slid over the shank when the dog is lifted from engagement with the shoulder.

1,143,399. CORE FOR MOLDING. LOUIS C. HOWE, Indianapolis, Ind., assignor to Link-Belt Company, Chicago, Ill., a Corporation of Illinois. Filed Apr. 24, 1913. Serial No. 763,315. (Cl. 22—165.)



A core for a mold having a series of pattern prints, said core being adapted to extend over two or more of the prints and having a reduced portion adapted to be located in the mold between the prints so that, if the core has a tendency to warp, it will warp at the reduced portion.

1,143,400. CIGARETTE-BOX-GROUPING MACHINE. JOSÉ IBARRA, Habana, Cuba. Filed Apr. 28, 1914. Serial No. 834,951. (Cl. 214—11.)



1. A cigarette box grouping machine, comprising a delivery floor; a partition dividing the same lengthwise; an elevator having a plurality of wing-like members disposed normally flush with said floor; means pivoting said elevator at the outer end thereof; an actuating arm for said elevator extending below said floor; a reciprocating plunger; a latch head mounted on said plunger; means for rigidly holding said latch head in the path of said arm to engage the same when traveling in one direction only, and yielding means for moving said latch to normally engage said rigid means.

2. A cigarette box grouping machine, comprising a delivery floor; a partition dividing the same lengthwise; an elevator having a plurality of wing-like members disposed normally flush with said floor; means pivoting said elevator at the outer end thereof; an actuating arm for said elevator extending below said floor; a reciprocating plunger; a latch head mounted on said plunger; means holding said latch head in the path of said arm to engage the same when traveling in one direction only; and automatic means for returning said elevator to its normal position when not engaged by said latch head.

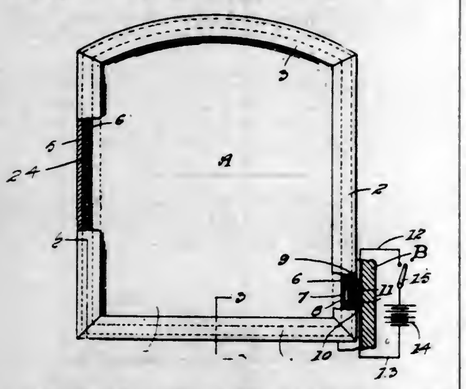
1,143,401. PROCESS FOR THE PRODUCTION OF PAPER-PULP OR CELLULOSE FROM BAMBOO AND THE LIKE. JAMES LOCKHART JARDINE, Penicuik, Scotland. Filed Aug. 6, 1914. Serial No. 855,473. (Cl. 92—11.)

1. A process of producing easily bleachable paper pulp from bamboo and the like, which comprises cooking said

material, in a crushed condition, under pressure, with a solution of a water-soluble sulfite containing, at the commencement of the cook, an excess of available SO_2 over the amount necessary to form normal sulfite, and maintaining said liquor, during the latter part of the cook, substantially free from uncombined SO_2, by relieving the gas pressure at such a rate that substantially all the liberated SO_2 is drawn off, and thereby prevented from accumulating in the liquor.

2. A process of producing easily bleachable paper pulp from bamboo and the like, which comprises cooking said material, in a crushed condition, under pressure, with a solution of magnesium bisulfite containing, at the commencement of the cook, an excess of available SO_2 over the amount necessary to form normal sulfite, and maintaining said liquor, during the latter part of the cook, substantially free from uncombined SO_2 by relieving the gas pressure at such a rate that substantially all the liberated SO_2 is drawn off, and thereby prevented from accumulating in the liquor.

1,143,402. ANTIFROSTING WINDOW. WALTER N. JOHNSON, Williamsport, Pa. Filed Jan. 15, 1915. Serial No. 2,393. (Cl. 20—40.5.)



1. The combination with a sash frame including side bars, and top and bottom bars, of a glass pane mounted within said bars and heating elements mounted within the bars and interposed between the pane and said bars.

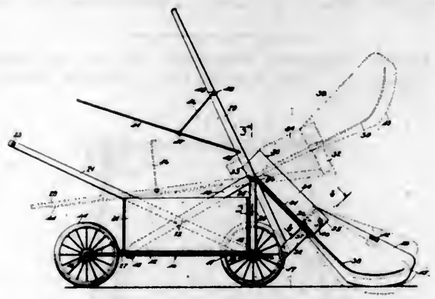
2. The combination with a window including a frame consisting of a number of channel shaped bars, of a glass pane mounted within said bars, and a heating element mounted within and extending the length of said bars, said heating element engaging the outer edges of the glass pane.

3. The combination with a window including a frame consisting of a number of channel shaped bars of a glass pane mounted within said bars, a heating element mounted within and extending the length of said bars, said heating element engaging the outer edges of the glass pane, and non-heat conducting elements mounted within said bars and receiving the glass pane and the heating element.

1,143,403. CRANBERRY-HARVESTER. GEORGE F. KEENE, Whitman, Mass., assignor of one-half to Alfred O. Pardey, Whitman, Mass. Filed Oct. 7, 1914. Serial No. 865,407. (Cl. 56—99.)

1. A cranberry harvester, comprising a wheeled frame, means for advancing the same, a handle pivoted between the sides of the frame at the upper forward portion of the frame, and a scoop having a discharge chute and secured to the lower end of the handle, the chute projecting at its upper end over the pivot of the handle, the scoop and its chute being tilted by said handle to discharge the berries into a suitable receptacle carried upon the frame.

2. A cranberry harvester, comprising a frame, transporting wheels arranged outside of the frame, means for advancing the frame, and a scoop pivoted to the frame and designed to gather the berries and to be tilted to discharge the same into a suitable receptacle, the scoop being of greater width than the width of the frame and having its sides disposed outwardly of the transporting wheels, whereby the unpicked berries will not be injured or crushed.



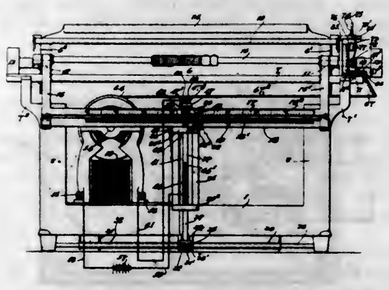
3. A cranberry harvester, comprising a carrying frame, a collecting receptacle supported thereon, a toothed scoop having a discharge chute tapering toward its discharge end and a handle pivotally supported and rigidly carrying said scoop to raise and lower the scoop over the receptacle for collecting the berries and discharging the same into the receptacle.

4. A cranberry harvester, comprising a carrying frame, a collecting receptacle supported thereon, a toothed scoop, said scoop having means to adjust the teeth thereof at varying distances from the ground and means to move the scoop to an operative position for collecting the berries when the machine is advanced across the ground and adapted to permit the movement of the scoop to an inoperative position for discharging the berries and collecting the same.

5. The combination with a wheeled frame adapted to support a receptacle, a handle for the frame to permit the manual advancement thereof, a handle pivoted to the frame, a scoop carried by the pivoted handle for pivotal movement therewith to forwardly and rearwardly inclined positions to collect the berries and empty the same therefrom respectively, said scoop being adapted to move up and down with the pivoted handle to compensate for the unevenness in the ground surface when pushed over a bog and foldable means carried by the handle for pulling rearwardly thereon to raise the scoop.

[Claims 6 to 9 not printed in the Gazette.]

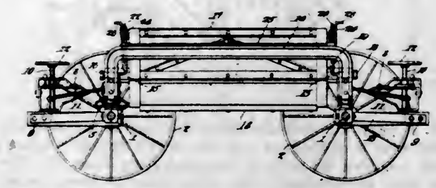
1,143,404. TYPE-WRITER. EARL EMERSON KENNEDY, Neepawa, Manitoba, Canada. Filed Aug. 30, 1913. Serial No. 787,513. (Cl. 197—66.)



1. In a typewriter the combination with the machine frame, a carriage mounted on the frame and laterally movable and having a predetermined initial position and a platen rotatably mounted in the carriage, of a motor adjoining the machine, a main bracket secured to the machine and providing an upper and a lower guide, a second bracket extending from the main bracket, a contact tip carried by the second bracket, a spring-pressed rod slidably mounted in the guides, a contact tip carried by the upper end of the rod but insulated therefrom, said contact tip being alined with the former tip, a head located at the lower end of the rod, a pivoted key bar slidably engaging with the head, a key for actuating the bar and shifting the rod to engage the contact tips, means for automatically locking the rod in the raised position with the contact tips engaged, a suitable electric circuit containing the motor and the contact tips, said circuit being closed when the tips are engaged, means actuated by the motor in rotating to primarily rotate the platen and subsequently return the carriage to the initial position, as and for the purpose specified.

2. In a typewriter the combination with the machine frame, a carriage mounted on the frame and laterally movable, a platen rotatably mounted in the carriage and a ratchet wheel carried by and rotatable with the platen, of an electrical motor, a pair of normally disengaged contact tips connected in a suitable electric circuit with the motor, means for engaging the tips to close the circuit and rotate the motor, a pivotally mounted spring-controlled bell crank carried by the carriage and adjoining the ratchet wheel, said bell crank having a jointed arm engageable with the ratchet wheel, means limiting the turning movement of the bell crank in one direction, a pulley rotatable with the motor, a cable connecting the bell crank with the pulley and winding on the pulley and means for locking the carriage against movement simultaneously with the closing of the circuit, as and for the purpose specified.

1,143,405. DUMP-WAGON. CARLOS C. KING, Indianapolis, Ind. Filed Mar. 23, 1914. Serial No. 826,691. (Cl. 21—20.)

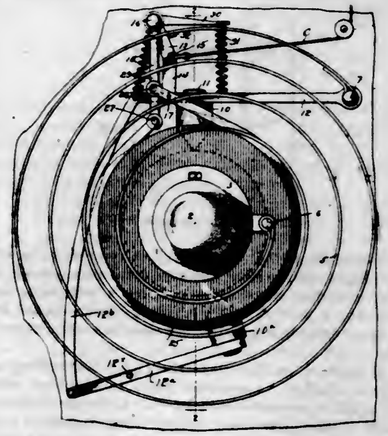


1. The combination with connected bolsters and segments disposed in pairs upon the respective bolsters, of a body supported by and between the bolsters and mounted for rotation about a longitudinal axis, opposed dogs movably mounted between the segments, means outstanding from the ends of the body for engagement with the dogs to hold the body against rotation, and separate means for actuating the dogs to release the body for rotation in either direction out of normal position.

2. A dump wagon including bolsters, side beams connecting the bolsters, a revoluble body having trunnions at its ends journaled upon the bolsters, segments disposed in pairs, the said pairs being connected to the respective bolsters and being concentric with the trunnions, opposed dogs pivotally mounted between the segments of each pair, outstanding projections upon the body and adapted to project between the dogs to hold the body against rotation, a shaft journaled on each side beam, means for rotating the shaft, and flexible connections between each shaft and the adjacent dogs for shifting the dogs out of holding positions when the shaft is rotated.

1,143,406. ENGINE-STARTER. ARTHUR H. KLAHN, San Francisco, Cal. Filed July 23, 1913. Serial No. 780,671. (Cl. 185—41.)

1. In an engine starter, the combination of an engine shaft, an element adapted to be clutched to the shaft for turning the same, a spring for actuating the element, a driving connection between the shaft and element for winding the spring, a movable member carrying said connection, a spring tending to move the member for disengaging said driving connection from the shaft and element, a toggle device for holding the member against movement by the last-mentioned spring, and means carried by and movable with the first mentioned spring for breaking the connection by collapsing the toggle device when the spring is fully wound.



2. In an engine starter, the combination of an engine shaft, an element for turning the same, a starting spring for actuating the element, means for connecting the element with the shaft for actuating the element to tension the spring, a member for moving the said means into and out of coöperative relation to the shaft and element, a brake for holding the element fast when the spring is tensioned and released while the element is tensioning the spring, an actuator for the brake, and a spring through which the said member operates to move the actuator for setting the brake when the starting spring is tensioned and the said means is moved out of coöperative relation to the shaft and element.

3. In an engine starter, the combination of an engine shaft, an element for turning the same, a starting spring for actuating the element, means for connecting the element with the shaft for actuating the element to tension the spring, a member for moving the said means into and out of coöperative relation to the shaft and element, a brake for holding the element fast when the spring is tensioned and released while the element is tensioning the spring, a lever connected with the brake for setting and releasing the same, and a brake-setting spring interposed between the lever and said member and adapted to be placed under a brake-setting tension by the movement of the latter in disconnecting the said means from the shaft and element when the starting spring is tensioned.

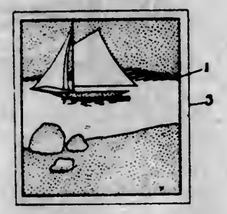
4. In an engine starter, the combination of an engine shaft, a rotatable element thereon, a clutch for connecting the element to the shaft, a friction cone on the element, a friction cone on the shaft, an idler cone for engaging both cones simultaneously, a toggle device for maintaining the idler cone in driving relation to the other cones, and means carried by and movable with the spring to collapse the toggle device when the spring is fully wound.

5. In an engine starter, the combination of an engine shaft, an element for turning the shaft, a spring for actuating the element, means for connecting the shaft with the element for winding the spring, a member carrying said means, a toggle device operating through the member to hold the means in driving position, means for collapsing the toggle device when the spring is fully wound, a brake band for holding the element against movement when the spring is fully wound, a device connected with the brake band for operating the same, and a

spring interposed between the device and member, whereby the member sets the brake when the spring is fully wound.

[Claims 6 to 8 not printed in the Gazette.]

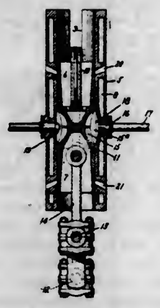
1,143,407. METHOD OF PRODUCING SHADED EFFECTS IN DESIGNS. FREDERICK KNOWLES, Hartford, Conn. Filed Aug. 25, 1913. Serial No. 786,561. (Cl. 95—5.)



1. A method of the class described comprising positioning a shaded, transparent sheet in front of a second sheet having a design thereon, to produce a composite sheet, obliterating a portion of the shading of the shaded sheet, and then photographically reproducing the composite sheet.

2. A method of the class described, comprising positioning a shaded, transparent sheet in front of and directly upon a second sheet having a design thereon to produce a composite sheet, obliterating a portion of the shading of the shaded sheet, and then photographically reproducing the composite sheet from the transparent sheet side of said composite sheet.

1,143,408. INTERNAL-COMBUSTION ENGINE. BERNHARD KRÄMER, Charlottenburg, Germany, assignor to General Electric Company, a Corporation of New York. Filed Jan. 18, 1913. Serial No. 742,827. (Cl. 123—51.)



1. In an internal combustion engine, the combination of a cylinder, a piston located therein which is cut-away at its inner end to form a plurality of recesses that open into the cylinder space and coöperate with the wall thereof to form combustion chambers, and separate means for introducing fuel into each of said recesses.

2. In an internal combustion engine, the combination of a cylinder, a piston located therein having parts of its inner end and side cut away at a plurality of spaced points to form recesses, which recesses coöperate with the wall of the cylinder to form combustion chambers, and a fuel injector associated with each chamber.

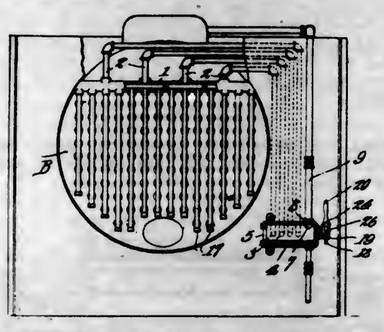
3. In an internal combustion engine, the combination of a cylinder, oppositely moving pistons located therein, each of said pistons having a part of its inner end and side cut-away to form a recess, the recesses in the two pistons registering and combining with the cylinder wall to form a combustion chamber when the pistons are at the inner ends of their strokes, and an injector for introducing fuel into the chamber, which is located centrally thereof.

4. In an internal combustion engine, the combination of a cylinder, oppositely moving pistons located therein, each of said pistons having a part of its inner end and side cut-away to form a plurality of recesses, the recesses in the two pistons registering and combining with the cylinder wall to form combustion chambers when the pistons are at the inner ends of their strokes, an injector for introducing fuel into each chamber which is located centrally thereof, and a flame plate located at the discharge end of the injectors for distributing the fuel uniformly in said combustion chambers.

5. In an internal combustion engine, the combination of a cylinder, a piston located therein which has a part of its inner end and side cut-away to form a recess, the surface of which is curved, said recess coöperating with the cylinder wall to form a combustion space, means for injecting fuel into the recess, and a port formed in the cylinder wall that is tangentially arranged with respect to the curved surface of the recess to facilitate the passage of gases.

[Claims 6 and 7 not printed in the Gazette.]

1,143,409. BOILER-FLUE-CLEANING APPARATUS. GEORGE S. KYLE, Chambersburg, Pa. Filed Sept. 30, 1914. Serial No. 864,301. (Cl. 122—391.)



1. A boiler flue cleaning apparatus having a casing provided with a cylindrical chamber, and a rotatory tubular valve mounted in and in communication from its interior with the chamber, said valve being of lesser length than the chamber, said casing being provided with a series of outlet ports and one steam inlet port, the steam inlet port being beyond one end of the valve and said valve being provided with one port for each outlet port of the casing, said ports being disposed in staggered relation to each other, and with a plurality of alined ports for registration simultaneously with the outlet port, and means for selectively rotating the valve.

2. A boiler flue cleaning apparatus having a casing, and a rotatory tubular valve disposed therein and in communication with the casing upon the interior thereof, said casing being provided with a series of outlet ports and one steam inlet port, and said valve being provided with one port for each outlet port of the casing, said ports being disposed in staggered relation to each other, and with a plurality of alined ports for registration simultaneously with the outlet ports, and means for imparting intermittent rotatory movement to the tubular valve to dispose the staggered ports one at a time in registration with the respective outlet ports and for placing the alined ports in registration simultaneously with all of the outlet ports.

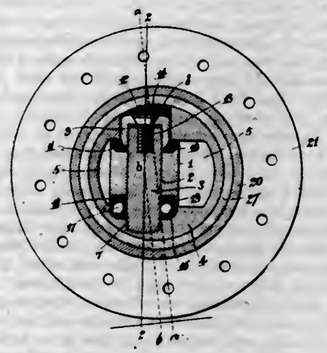
3. A boiler flue cleaning apparatus, having a casing, and a rotatory tubular valve disposed therein and in communication with the casing upon the interior thereof, said casing being provided with a series of outlet ports and one steam inlet port, and said valve being provided with one port for each outlet port of the casing, said ports being disposed in staggered relation to each other, and with a plurality of alined ports for registration simultaneously with the outlet ports, means for imparting intermittent rotatory movement to the tubular valve to dispose the staggered ports one at a time in registration with the respective outlet ports and for placing the alined ports in registration simultaneously with all of the outlet ports, and indicating means to indicate upon the exterior of the casing, the position of the relative ports of the valve.

4. A boiler flue cleaning apparatus including a cylindrical casing having a single steam inlet port and a plurality of alined outlet ports, an open ended tubular valve disposed for rotation within the casing and having the interior thereof at all times in communication with the steam inlet port of the casing, said tubular valve being provided with a plurality of staggered ports for registration one at a time with the outlet ports of the casing and with a longitudinal series of alined ports for registration simultaneously with the outlet ports of the casing.

5. A boiler flue cleaning apparatus including a cylindrical casing having a single steam inlet port and a plurality of alined ports, an open ended tubular valve disposed for rotation within the casing and having the interior thereof at all times in communication with the steam inlet port of the casing, said tubular valve being provided with a plurality of staggered ports for registration one at a time with the outlet ports of the casing and with a longitudinal series of alined ports for registration simultaneously with the outlet ports of the casing, and means for imparting intermittent rotatory movement to the valve to selectively cause the registration of the respective ports thereof with the outlet ports of the casing.

[Claim 6 not printed in the Gazette.]

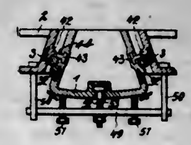
1,143,410. STEERING MECHANISM FOR AUTOMOBILES. CARL LAGERGREN, Osterville, Mass. Filed May 17, 1913. Serial No. 768,331. (Cl. 21—142.)



In steering mechanism of the class specified, an axle formed with a pivot pin hole extending transversely therethrough at an angle to a vertical line, a steering wheel, a bearing for said wheel having threaded sockets of different diameters above and beneath the axle and in line with said pivot pin hole, the longitudinal axes of said hole and sockets being in a line located in advance of and at an inclination to a vertical line passing through the center of the wheel, a pivot pin passing through said hole in the axle and having its lower end threaded into the lower socket of said bearing, a cup shaped plug screwed into the upper socket of said bearing and embracing the upper extremity of said pivot pin, and a locking screw inserted through the upper wall of said plug into said pivot pin.

1,143,411. CLOSURE FOR DISTILLATION-FURNACES AND PARTICULARLY COKE-OVENS. HERMANN JOSEPH LIMBERG, Gelsenkirchen, Germany. Filed Oct. 11, 1913. Serial No. 794,606. (Cl. 202—6.)

1. In distillation furnaces, a metal door frame combined with a closing door, a packing ring, a beading provided on the door, readily removable retaining means arranged in the door so as to guide said packing ring between them and said door beading, and another beading arranged on the door frame so as to bear on the former beading in the form of a valve seat.

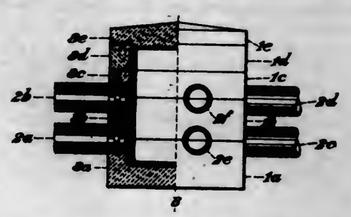


2. In distillation furnaces, a metal door frame combined with a closing door, means for straightly inserting the door, a packing ring, a beading provided on the door, and readily removable pins arranged so as to guide the packing ring between them.

3. In distillation furnaces, a metal door frame combined with a closing door, means for straightly inserting the door, a packing ring, a beading provided on the door, and readily removable pins arranged so as to guide the packing ring between them and another beading arranged on the door frame so as to bear on the former beading in the form of a valve seat.

4. In distillation furnaces, a metal door frame combined with closing doors, means for straightly inserting the doors, a packing ring, a beading provided on the door, and readily removable pins arranged so as to guide the packing rope between them, the pins being provided with T-shaped reinforcements and corresponding slots in the door for inserting the pins therein.

1,143,412. UNDERGROUND-CONDUIT CONSTRUCTION. MATTHEW HARKNESS LOUGHRIDGE, New York, N. Y. Filed June 5, 1912. Serial No. 701,831. (Cl. 247—14.)

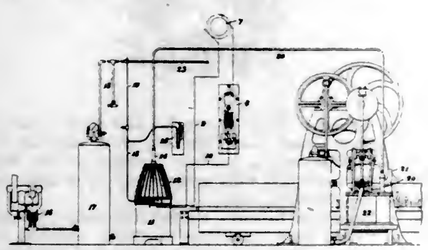


1. A conduit construction having a plurality of waterproof conduits disposed in superposed groups; junction boxes comprising a plurality of continuous, superposed, separable ring members forming the side wall for each of said junction boxes, said ring members being provided with semi-circular, transverse edge recesses for receiving said conduits, and with semi-circular, annular, sealing grooves opening into said recesses, said grooves being in the plane of the wall in which they are formed, said members having open-ended passages connecting said grooves to form a feeding channel for sealing material, and said members having annular edge grooves communicating with said sealing grooves, for receiving the sealing material delivered thereto by said passages; and a flowing, sealing cement adapted to set, said cement filling said passages and grooves to seal the passage around said conduits and the sides of said recesses.

2. A conduit construction having a plurality of waterproof conduits and junction boxes therefor, said boxes comprising a plurality of superposed, separable ring members forming the side wall of said boxes, said ring members having formed in the meeting edges thereof registering, semi-circular, annular grooves and transverse registering, semi-circular recesses for receiving said conduits, the superposed members being further provided with a pouring passage extending through the walls thereof to form an exposed, receiving opening; and a flowing, setting

cement disposed in said grooves, recesses and pouring passage, for forming an unbroken, sealing member resting between said ring members and said conduits.

1,143,413. TREATMENT OF DOUGH. GEORGE LUNT, Formby, near Liverpool, England. Filed Mar. 13, 1913. Serial No. 754,014. (Cl. 99—10.)

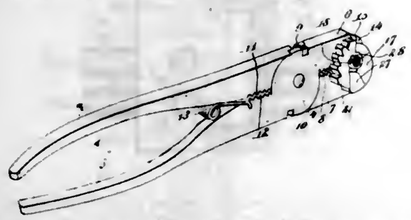


1. The process for treating dough which comprises passing abundant quantities of air containing minute quantities of nitrogen peroxid through said dough so as to permeate it thoroughly.

2. The process for treating dough which comprises passing abundant quantities of air containing minute quantities of nitrogen peroxid through said dough so as to permeate it thoroughly after the expiration of part of the usual time of fermentation.

3. The process for treating dough which comprises passing abundant quantities of air containing minute quantities of nitrogen peroxid through said dough so as to permeate it thoroughly, after the expiration of ¾ of the usual time of fermentation.

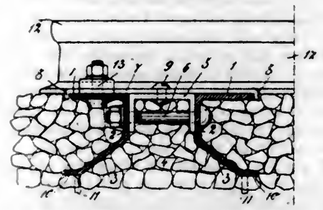
1,143,414. WIRE-FENCE TOOL. JAMES C. MAHAN, Lincoln, Nebr. Filed June 18, 1912. Serial No. 704,345. (Cl. 140—121.)



1. In a device for the purpose set forth, a pair of members pivotally connected together and including handles and jaws, a spring between the handles for normally holding the jaws close to each other, the said jaws being provided with lugs, an independent head member arranged between the jaws, said head member comprising a pair of sections, one of a greater cross-sectional area than the other section, spring means for connecting the sections, both of the sections being provided with a wire-receiving bore, one of the sections having angularly arranged wire passages, the face of the head being provided with teeth, and the said teeth adapted to co-act with the lugs provided on the jaws of the first-named member.

2. In a device for the purpose set forth, a tool having its jaws provided with lugs, an independent and removable head between the jaws, said head embodying a pair of sections which when matched form a tubular member, one section being of a greater cross-sectional area than the other, the meeting faces of both of the sections being inclined, both of the sections provided with rounded bores, one of the sections having its bore formed adjacent its inclined faces formed with depressions communicating with its bore, the second section being provided with ribs which are adapted to be received within the said depressions, one of the sections being provided with a spring latch, the second section being provided with a depression adapted to receive the latch, one of the sections having an angularly arranged wire passage communicating with its bore, the head having its faces provided with teeth, and the said teeth adapted to co-act with the lugs upon the jaws of the tool, substantially as and for the purpose set forth.

1,143,415. BUILT-UP IRON RAILWAY-SLEEPER. MAX MATTHAEI, Frankfort-on-the-Main, Germany. Filed Nov. 29, 1913. Serial No. 803,765. (Cl. 238—5.)



1. A saddle-shaped built-up iron railway sleeper comprising two supporting members of substantially channel section spaced apart and having their flanges oppositely disposed to one another, said members being of such shape as to form a space between them of greater width at its lower part than at its upper part, and distance pieces connecting said members at such a distance from each other that ballast can be filled in from above into the said space.

2. A saddle-shaped built-up iron railway sleeper comprising two channeled-shaped supporting members each having an upper horizontal frame, a substantially vertical web and a lower outwardly and downwardly directed flange, the flanges of the one member being oppositely disposed to the flanges of the other member and distance pieces connecting the said members at such a distance from each other that ballast can be filled in from above into the said space.

3. A saddle-shaped built-up iron railway sleeper comprising two channel-shaped supporting members each having an upper horizontal flange, a substantially vertical web and a lower outwardly and downwardly directed flange terminating in a horizontal portion, the flanges of the one member being oppositely disposed to the flanges of the other member and distance pieces connecting the said members at such a distance from each other that ballast can be filled in from above into the said space.

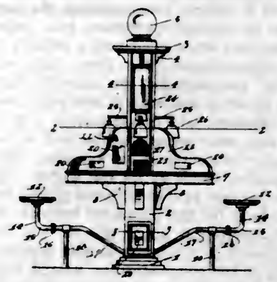
4. A built-up iron railway-sleeper comprising two supporting members of substantially channel section having their webs disposed inwardly and facing each other, channel-shaped distance pieces intermediate said members and bolts passing through the webs of said members and through the flanges of said distance pieces to secure the same together.

5. In combination with a track-rail, a sleeper comprising two channel-shaped supporting members, each having an upper horizontal flange, a lower inclined flange and an intermediate web, the webs being disposed inwardly and facing each other, distance pieces between said members, and bolts passing transversely through and rotatable in the webs of said members, each of said bolts having an enlarged head provided with a chamfer adapted to engage one of the inclined flanges.

[Claim 6 not printed in the Gazette.]

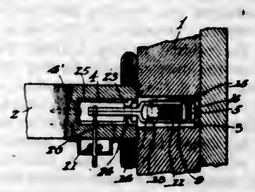
1,143,416. WRITING-DESK. ALONZO B. MATTHEWS, Durham, N. C. Filed Apr. 29, 1914. Serial No. 835,282. (Cl. 45—6.)

In a writing desk structure, a desk top, a vertical supporting post secured to and extending through the center of said desk top and projecting above the upper surface of said desk top, said vertical supporting post being hollow and provided with openings in the portion thereof which extends above said desk top, a drawer removably mounted in the lower portion of said hollow vertical supporting



post for receiving refuse when inserted within said post through said openings.

1,143,417. WINDOW-FASTENER. WILLIAM H. MCALLISTER, Newberry, Pa. Filed Apr. 19, 1915. Serial No. 22,535. (Cl. 16—118.)



1. A window sash lock comprising, in combination with the frame and sash, bars mounted upon the frame and spaced apart, a yoke carried by the sash and plates carried by said yoke for frictionally engaging said bars, a roller pivotally journaled upon the yoke and engaging the edge of an adjacent bar, means upon the sash against which the yoke is adapted to fulcrum, and means upon the sash for tilting the yoke to throw said plates out of engagement with said bars.

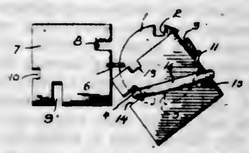
2. A sash lock comprising, in combination with a recessed window frame and sash, bars mounted within the recess of the frame and spaced apart, a yoke extending about said bars, an anti-friction wheel carried by the yoke and engaging the outer edge of one of said bars, said bars being spaced apart, friction plates carried by the yoke, one positioned in the space intermediate the bars and the other bearing against the outer face of the inner bar, means upon the sash upon which the yoke is fulcrumed, and a lever carried by the sash and adapted to tilt the yoke.

3. A sash lock comprising, in combination with a recessed window frame and sash, bars mounted within the recess of the frame and spaced apart, a yoke extending about said bars, an anti-friction wheel carried by the yoke and engaging the outer edge of one of said bars, said bars being spaced apart, friction plates carried by the yoke, one positioned in the space intermediate the bars and the other bearing against the outer face of the inner bar, said sash being recessed, a casing mounted therein and having laterally projecting fulcrum points for said yoke, and a lever for tilting the yoke.

4. A sash lock comprising, in combination with a recessed window frame and sash, bars mounted within the recess of the frame and spaced apart, a yoke extending about said bars, an anti-friction wheel carried by the yoke and engaging the outer edge of one of said bars, friction plates carried by the yoke, one positioned in the space intermediate the bars and the other bearing against the outer face of the inner bar, said sash being recessed, a casing mounted therein and having laterally projecting fulcrum points for said yoke, the shank portion of the yoke being apertured, a lever pivotally mounted upon the sash and having an arm projecting through an aperture in the yoke, and means for guiding the sash as it is raised and lowered.

5. A sash lock comprising, in combination with a recessed window frame and sash, a resilient bar having portions thereof bent upon themselves and angled ends fastened to the recess of the wall of the frame, the bent portions of the bar having openings, a second bar having projecting ends engaging said openings and spacing the bars apart, a yoke having a portion surrounding said bars, a friction roller journaled in the yoke and engaging the edge of one of said bars, plates supported by the yoke and positioned one in the space intermediate the bars and the other intermediate the end of the yoke and the adjacent face of said resilient bar, the adjacent edge of the sash being recessed and into which said yoke extends, fulcrum means within the recess of the sash, and a lever for tilting the yoke to relieve the friction roller and plates from frictional contact with the bars and yoke.

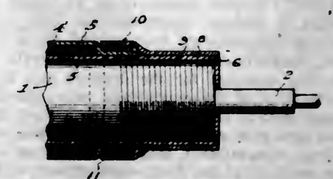
1,143,418. PUZZLE. EDWARD J. MCFALL, Tarentum, Pa. Filed Oct. 15, 1914. Serial No. 866,849. (Cl. 46—41.)



1. A puzzle comprising a disk having a plurality of notches therein and two rectangular plates connected to said disk by rings or links at the opposite sides thereof, said plates having a plurality of marginal notches therein, and an elliptical ring normally connected to the puzzle in between the disk and one of the plates.

2. In a puzzle comprising a centrally disposed disk having a plurality of notches in the periphery thereof, a rectangular plate connected by links or rings to each of the opposite sides of said disk, said plates having a plurality of marginal notches therein and an elliptical ring mounted between the disk and one of the plates, either of said plates adapted to be folded on the disk to bring into coincidence a notch on one side thereof with a notch on the disk, said ring adapted to be disposed in said notches and to be swung within the notches over the corner of the plate and pushed down into a notch on the plate for removal.

1,143,419. SLIP-ON INKING-ROLLER. DANIEL A. MCKENNA, Brooklyn, N. Y. Filed Aug. 31, 1914. Serial No. 859,442. (Cl. 101—76.)

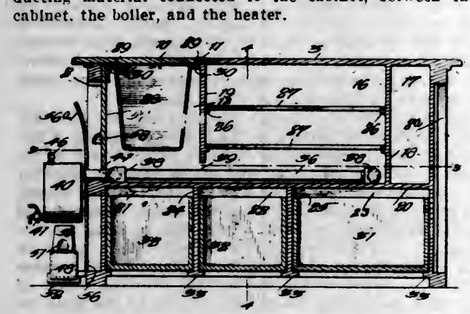


An inking roller of the solid type comprising a roller stock, a metal sleeve adapted to be slipped on a roller stock, a yieldable cover arranged on the metal sleeve, and fastening means for securing the yieldable cover on the metal sleeve and for securing the metal sleeve on the roller stock against rotary and longitudinal movement.

1,143,420. COOKING-CABINET. JOHN F. P. MCMULLEN, Wakefield, Kans. Filed Feb. 20, 1915. Serial No. 9,571. (Cl. 126—282.)

1. A cabinet of the character specified, comprising a casing having paneled ends and a paneled rear wall, said

cabinet being divided into upper and lower sections by a transverse horizontal partition, and the upper section being divided by vertical partitions into front and rear compartments and a central compartment, the lower section being divided by vertical partitions into three compartments for receiving drawers, drawers slidable in the said last-named compartments, the front side wall of the cabinet having openings for the drawers and having a drop door in front of the central and rear compartments of the upper section, said casing having a fixed top over the central and rear compartments, and a hinged cover over the front compartment, said cabinet having an opening in the end wall at the front compartment and a vertically slidable door normally closing the said compartment, a kneading pan of metal having a marginal flange at its top within the said compartment, the cabinet having rabbeted guides for receiving the flanges to hold the pan separated from the walls of the compartment, horizontal guide ribs on the vertical partitions in the central compartment and registering at the opposite ends of the compartments, shelves seated on the ribs and movable into and out of the cabinet, and means on the upper face of the horizontal partition and within the front and central compartments for heating permitting the circulation of a heating fluid to heat the cabinet, said means comprising a tubular substantially rectangular frame comprising connected side and end members, and pipes connected with the respective end members and extending through the end of the cabinet at the front compartment, a boiler connected with the said pipes, and an oil heater for heating the boiler arranged below the boiler, said heater and boiler being connected to the cabinet, and a shield of non-heat conducting material connected to the cabinet, between the cabinet, the boiler, and the heater.



2. A cabinet of the character specified, comprising a casing having paneled ends and a paneled rear wall, said cabinet being divided into upper and lower sections by a transverse horizontal partition, and the upper section being divided by vertical partitions into front and rear compartments and a central compartment, the lower section being divided by vertical partitions into three compartments for receiving drawers, drawers slidable in the said last-named compartments, the front side wall of the cabinet having openings for the drawers and having a drop door in front of the central and rear compartments of the upper section, said casing having a fixed top over the central and rear compartments, and a hinged cover over the front compartment, said cabinet having an opening in the end wall at the front compartment and a vertically slidable door normally closing the said compartment, a kneading pan of metal having a marginal flange at its top within the said compartment, the cabinet having rabbeted guides for receiving the flanges to hold the pan separated from the walls of the compartment, horizontal guide ribs on the vertical partitions in the central compartment and registering at the opposite ends of the compartments, grated shelves seated on the ribs and movable into and out of the cabinet, and means on the upper face of the horizontal partition and within the front and central compartments for permitting the circulation of a heating fluid to heat the cabinet.

3. A cabinet of the character specified, comprising a casing having paneled ends and a paneled rear wall, said cabinet being divided into upper and lower sections by a transverse horizontal partition, and the upper section being divided by vertical partitions into front and rear compartments and a central compartment, the lower section being divided by vertical partitions into three compartments for receiving drawers, drawers slidable in the said last-named compartments, the front side wall of the cabinet having openings for the drawers and having a drop door in front of the central and rear compartments of the upper section, said casing having a fixed top over the central and rear compartments, and a hinged cover over the front compartment, a kneading pan of metal having a marginal flange at its top within the said compartment, the cabinet having rabbeted guides for receiving the flanges to hold the pan separated from the walls of the compartment, horizontal guide ribs on the vertical partitions in the central compartment and registering at the opposite ends of the compartments, grated shelves seated on the ribs and movable into and out of the cabinet, and means on the upper face of the horizontal partition and within the front and central compartments for permitting the circulation of a heating fluid to heat the cabinet.

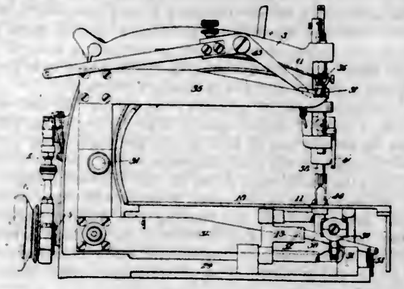
4. A kitchen baking cabinet, comprising a casing having a rear wall and end walls, a horizontal partition dividing the cabinet into upper and lower sections, vertical partitions dividing the upper section into a front, a rear, and a central compartment, and dividing the lower section into drawer compartments, drawers in the said last-named compartments, the cabinet having a front wall provided with openings for the drawers, and having a hinged drop door at the central and rear compartments, said cabinet having a fixed cover over the central and rear compartments and a hinged cover over the front compartment, a kneading pan supported in the front compartment and out of contact with the walls thereof, shelving supported in the central compartment, and removable therefrom, and a heating system arranged on the horizontal partition in the central and front compartments, said system comprising a substantially rectangular tubular frame consisting of connected side and end members and connecting pipes extending from the end members from the end wall adjacent to the front compartment, a boiler connected with the said connecting pipes, and means supported by the cabinet for heating the boiler.

5. A kitchen baking cabinet, comprising a casing having a resr wall and end walls, a horizontal partition dividing the cabinet into upper and lower sections, vertical partitions dividing the upper section into a front, a rear and a central compartment, and dividing the lower section into drawer compartments, drawers in the said last-named compartments, the cabinet having a front wall provided with openings for the drawers, and having a hinged drop door at the central and rear compartments, said cabinet having a fixed cover over the central and rear compartments and a hinged cover over the front compartment, a kneading pan supported in the front compartment and out of contact with the walls thereof, shelving supported in the central compartment, and removable therefrom, and a heating system arranged on the horizontal partition in the central and front compartments.

1,143,421. CUTTING MECHANISM. CHESTER MCNEIL, Chicago, Ill., assignor to Union Special Machine Company, Chicago, Ill., a Corporation of Illinois. Filed Nov. 15, 1907. Serial No. 402,292. (Cl. 112—6.)

1. The combination of a work support, a presser foot, a feeding mechanism and a cutting mechanism, said cutting mechanism including a cutter having a penetrating point and a cutting edge, said penetrating point entering between the layers to be cut, and means independent of the cutter for automatically positioning said penetrating point relative to the work support for varying thicknesses of material.

2. The combination of a work support, a presser foot, a feeding mechanism and a cutting mechanism, said cutting mechanism including a cutter having a penetrating point and a cutting edge, said penetrating point entering between the layers to be cut, and means independent of the cutter contacting with the upper surface of the material for automatically shifting the position of said penetrating point relative to the work support for varying thicknesses of material.



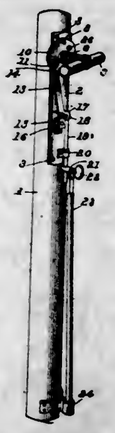
3. The combination with a work support, a presser foot and feeding mechanism, of a cutter having a penetrating point adapted to enter between the layers of fabric to be cut, means for actuating the cutter, and means controlled by the presser foot for shifting the position of the cutter relative to the work support for positioning the penetrating point relative to the work support for varying thicknesses of fabric.

4. The combination of a work support, and a feeding mechanism, of cutting mechanism located beneath the work support and including a cutter extending above the work support, and means for automatically positioning said cutter relative to the work support for varying thicknesses of material.

5. The combination with a work support and a feeding mechanism, of cutting mechanism located beneath the work support and including a cutter extending above the work support, and means contacting with the upper-surface of the material for automatically shifting the position of said cutter.

[Claims 6 to 43 not printed in the Gazette.]

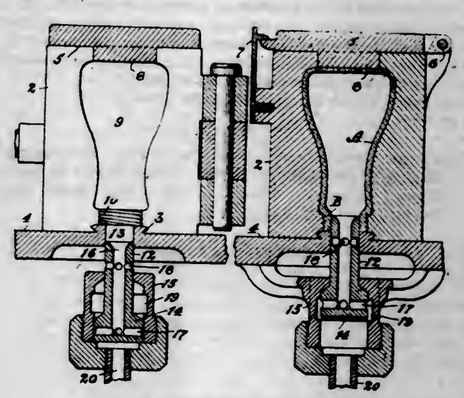
1,143,422. AUTOMATIC STOVE-DAMPER. TANDY MEADOR, Westmoreland, Tenn. Filed Feb. 17, 1915. Serial No. 8,809. (Cl. 236—5.)



1. An automatic damper comprising a long pipe, a damper mounted in said pipe and provided with a handle, a spring mounted on the operating rod of the damper outside the pipe, a rib on said operating rod extending through a key hole slot in the pipe, a plate provided with a key hole slot through which said rib extends, and a dial or disk mounted on the operating rod and also provided with a key hole slot for said rib, a spring mounted on the operating rod and bearing against the handle at one end and against the disk at the other end, whereby said damper may be used independently of the attachment, a lever provided with a pin extending through a slot in said dial, means for adjusting said dial to required temperature, and means operated by the expansion and contraction of the pipe for setting the damper at the desired position to give the required temperature.

2. An automatic damper comprising a long pipe, a damper mounted in said pipe and provided with a handle, a spring mounted on the operating rod of the damper outside the pipe, a rib on said operating rod extending through a key hole slot in the pipe, a plate provided with a key hole slot through which said rib extends, and a dial or disk mounted on the operating rod and also provided with a key hole slot for said rib, a spring mounted on the operating rod and bearing against the handle at one end and against the disk at the other end, whereby said damper can be used independently of the attachment, a lever provided with a pin extending through a radial slot in said disk, a bearing secured to the plate, the lower portion of the lever being pivoted to the bearing, an offset on the lower portion of the lever, a rod pivotally connected to said offset, a guide and a bearing for said rod, said rod slidably mounted in said bearing, a set screw in said bearing, whereby said rod can be adjusted to various positions, a collar secured to the lower part of the pipe, a non-heat conducting operating handle, said handle connected at the upper portion to the rod bearing and at its lower portion secured to said collar, whereby said damper will be operated to the desired position by the expansion and contraction of the pipe.

1,143,423. GLASS-MOLDING APPARATUS. FRED C. MESSNER and JOHN WILLIAM LAMPARTER, Moundsville, W. Va. Filed May 12, 1914. Serial No. 838,045. (Cl. 49—12.)



1. The combination of a mold having a portion thereof adapted to coöperate with a plunger in shaping a part of the glass article by pressing, the mold also having a portion in which another part of the article is shaped by blowing, a plunger adapted to enter the mold and coöperate with the portion thereof in which the pressed part of the article is shaped, the plunger formed with an air passage which at one end is open through the mold-entering portion of the plunger and with another part of the passage open to admit compressed air when the plunger is in position for such admission, and a part having an air supply passage with which the plunger passage is adapted to register during the mold-entering movement of the plunger.

2. The combination of a glass mold having a portion thereof shaped to form the exterior of an article neck and another portion shaped to form part of the article by blowing, a tubular plunger adapted to be entered in the mold and coöperate with the neck-shaping portion of the latter,

a plunger-actuating piston and cylinder, the piston and cylinder being ported with the piston port communicating with the plunger bore, the piston and cylinder ports adapted to be placed in register by the mold-entering movement of the plunger for admitting compressed air through the latter and into the mold while the plunger is in pressing position.

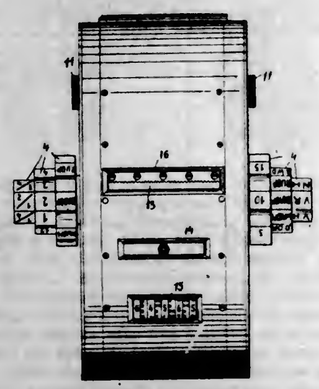
3. The combination of a glass mold, a tubular plunger adapted to enter the mold and coöperate with the latter in forming a portion of an article, the mold having a part in which another portion of the article is formed by blowing, the plunger formed with exhaust ports adapted to be closed and opened, respectively, by the mold-entering and withdrawing movements of the plunger, and means operative while the plunger is entered in the mold for admitting compressed air to the latter through the plunger.

4. The combination of a mold having a portion thereof shaped to coöperate with a plunger in shaping a portion of a glass article by pressing, the mold also having a part in which another portion of the article is shaped by blowing, a plunger adapted to be entered in the mold, the plunger ported longitudinally through its pressing extremity with said port open laterally, and a part through which the plunger moves having an air admission port positioned to register with the lateral port of the plunger for admitting compressed air through the plunger to the mold when the plunger is in pressing position.

5. The combination of a mold having a portion thereof shaped to coöperate with a plunger in shaping a portion of a glass article by pressing, the mold also having a part in which another portion of the article is shaped by blowing, a plunger adapted to be entered in the mold, the plunger ported longitudinally through its pressing extremity with the longitudinal port having a lateral branch for admitting air and also having a lateral outlet located intermediate said air-admitting branch and the pressing extremity of the plunger, means for closing the lateral outlet when the plunger is entered in the mold and for opening the same when the plunger is withdrawn, and a part through which the plunger moves having a port positioned to register with the lateral inlet branch of the plunger port when the plunger is in pressing position for admitting compressed air through the plunger and into the mold.

[Claims 6 to 9 not printed in the Gazette.]

1,143,424. APPARATUS FOR PRINTING, REGISTERING, AND ISSUING TICKETS. PETER MEYER, Cologne-Nippes, Germany. Filed Jan. 3, 1912. Serial No. 669,265. (Cl. 235—31.)



1. In apparatus for printing, registering and delivering tickets, a pair of drums geared together, printing mechanisms carried by one of said drums and registering mechanisms carried by the other, together with a series of cams moving with the former drum for actuating the registering mechanisms said series including a cam plate with a series of different sized cams thereon, a geared pawl subject to the action thereof, and an actuating gear of one of the registering heads, lying in the plane of said geared pawl but normally out of engagement therewith.

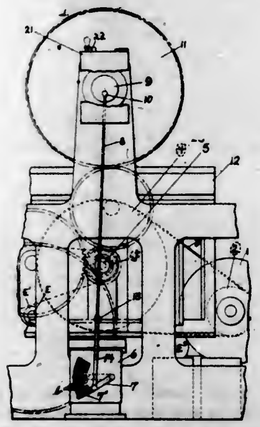
2. In apparatus for printing, registering and delivering tickets, a pair of drums geared together, printing mechanisms carried by one of said drums and registering mechanisms carried by the other, together with a series of cams moving with the former drum on the rotation thereof certain of said cams being rotarily adjustable with relation to the printing drum for varying the register according to the ticket issued, and operative connections arranged between said cams and registering mechanisms whereby the latter are actuated by said cams upon the rotation of the printing drum.

4. In apparatus for printing, registering and delivering tickets, a pair of drums geared together, printing mechanism carried by one of said drums, registering mechanism carried by the other, cams rotatably mounted on the axis of said printing drum, gearing operatively controlled by said cams to actuate said registering mechanisms and means to lock the printing wheels in their adjusted positions on the rotation of said drums.

5. In apparatus for printing, registering and delivering tickets, a pair of drums geared together, printing mechanism carried by one of said drums, registering mechanism carried by the other, said registering mechanism comprising a series of registering heads each representing a different value and adapted to be advanced but a single unit on one complete revolution of the drums, a cam rotatably mounted on the axis of the printing drum and operatively controlling the actuation of one or the other of said series of registering heads according to adjustment, and means to lock the printing wheels in their adjusted positions during the rotation of the drums.

[Claims 6 to 10 not printed in the Gazette.]

1,143,425. APPLICATION OF POWER TO RECIPROCATING-BED PRINTING-PRESSES. ROBERT MIEHLE, Chicago, Ill., assignor to Continental & Commercial Trust & Savings Bank, trustee, Chicago, Ill. Filed Sept. 5, 1911. Serial No. 647,584. (Cl. 172—240.)



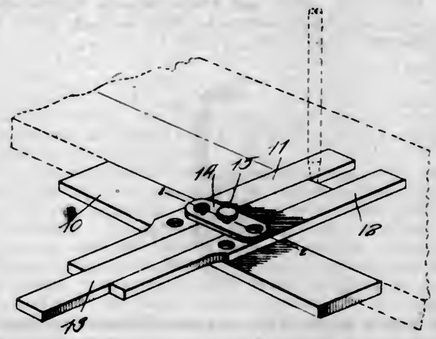
1. In a printing-press, the combination of a reciprocatory bed, means adapted to reciprocate said bed at a substantially uniform speed during the major portions of its strokes, such speed being substantially the same in both directions of movement of the bed and reversing its movements at the ends of its strokes with gradual speed retardation and gradual speed acceleration in the opposite direction, and an electric motor to actuate said bed-driving means and operating at an increasing speed from substantially the beginning of a bed stroke and at a decreasing speed upon the cessation of the increasing speed to substantially the end of the bed stroke, substantially as described.

2. In a printing-press, the combination of a reciprocatory bed, means adapted to reciprocate said bed at a substantially uniform speed during the major portions of its strokes, such speed being substantially the same in both directions of movement of the bed and reversing its movements at the ends of its strokes with gradual speed retardation and gradual speed acceleration in the opposite direction, an electric motor to actuate said bed-driving means, and means operated by the movement of a part of the printing-press to increase the speed of the motor from substantially the beginning of a bed stroke and decreasing its speed upon the cessation of the increasing speed to substantially the end of the bed stroke, substantially as described.

3. In a printing-press, the combination of a revoluble impression cylinder, means to revolve said cylinder, a reciprocatory bed, means adapted to reciprocate said bed at a substantially uniform speed during the major portions of its strokes, such speed being substantially the same in both directions of movement of the bed and reversing its movements at the ends of its strokes with gradual speed retardation and gradual speed acceleration in the opposite direction, and an electric motor to actuate said cylinder-revolving means and said bed-driving means and operating at an increasing speed from substantially the beginning of a bed stroke and at a decreasing speed upon the cessation of the increasing speed to substantially the end of the bed stroke, substantially as described.

4. In a printing-press, the combination of a revoluble impression cylinder, means to revolve said cylinder, a reciprocatory bed, means adapted to reciprocate said bed at a substantially uniform speed during the major portions of its strokes, such speed being substantially the same in both directions of movement of the bed and reversing its movements at the ends of its strokes with gradual speed retardation and gradual speed acceleration in the opposite direction, an electric motor for actuating said cylinder-revolving and bed-driving means, and means operated by a movement of a part of the press-mechanism to gradually increase the speed of the motor from substantially the beginning of the bed-stroke, and to gradually decrease the motor speed upon the cessation of the increasing speed to substantially the end of the bed stroke, substantially as described.

1,143,426. CARPENTER'S TOOL. BENJAMIN A. MILLER, West Hazleton, Pa. Filed Jan. 15, 1913. Serial No. 742,166. (Cl. 33—173.)



A carpenter's tool comprising a rectangular body portion, spaced strips secured to one side of the body transversely thereof and at right angles thereto, the terminal

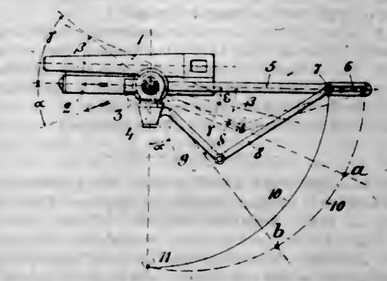
portions of said strips extending beyond respective longitudinal edges of the body, a gage bar slidable between said strips and having one end disposed inwardly of the corresponding ends of the strips when operatively adjusted, and means for locking said gage bar in different adjustments.

1,143,427. SINGLE-SPOKE-CUSHION WHEEL. ARCH MOON, Fallon, Nev. Filed Sept. 3, 1913. Serial No. 787,956. (Cl. 152—47.)



In a resilient wheel, in combination, a felly, a hub, two rings spaced apart upon said hub, a circumferentially extending series of pivots secured in said felly, annular secured portions formed integrally upon said rings, two circumferentially extending series of sleeves, one series of sleeves being disposed eccentrically with respect to said rings and the other series being similarly disposed thereto and having their planes disposed at right angles with respect to said first named series of spokes whereby to intersect with the latter, braces secured at one end upon the outer face of said reduced portions, of said rings, an offset portion formed integrally upon each of said braces, upper and lower spoke sections telescoping in said sleeve, the upper spoke sections being arranged in pairs in secured position upon said pivot at opposite ends thereof and the lower spoke sections being secured to the inner faces of said reduced portions of said rings, means for yieldably mounting said sections in said sleeve, parallel lugs formed integrally upon each of said sleeves between which said offset portions are disposed and secured, each of said sleeves projecting between one of said sleeves and one of said braces.

1,143,428. ARRANGEMENT FOR AUTOMATICALLY VARYING THE ELEVATION OF A GUN FOR A GIVEN RANGE ACCORDING TO THE HEIGHT OF THE TARGET. EMIL MÜLLER, Dusseldorf, Germany, assignor to Rheinische Metallwaaren- und Maschinenfabrik, Dusseldorf-Derendorf, Germany, a Corporation of Germany. Filed Feb. 16, 1911. Serial No. 608,915. (Cl. 33—48.)



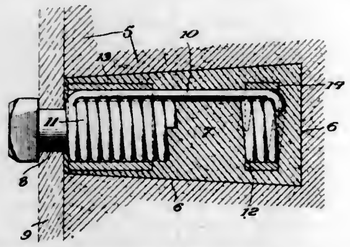
1. In combination with a pivotally-mounted gun-barrel, and a sighting-device, means forming a sliding connection between the gun-barrel and the sighting-device, a curved member pivoted at one end and to which said

sliding connection is slidably connected, and means for moving said member on its pivot whereby as the barrel is raised the angle between the axis of the barrel and the line of sight is altered.

2. In combination with a pivotally-mounted gun-barrel, and a sighting-device, means forming a sliding connection between the gun-barrel and the sighting-device, a curved guiding member pivoted to the gun-carriage at a point vertically below the barrel pivot, at which point all the curves intersect, and means for moving said member to adjust the angle between the axis of the barrel and the line of sight for every elevation of a target at any given range.

3. In combination with a pivotally-mounted gun-barrel, and a sighting-device, a slotted member carried by the gun-carriage, an arm projecting from the sighting-device, a link connected to said arm and adjustably held to said slotted member, and a curved member capable of being moved in a plane parallel to the plane of movement of the gun-barrel and to which said link and slotted member are slidably secured.

1,143,429. CONCRETE-CONSTRUCTION APPARATUS. GURDON S. MUMFORD, New York, N. Y. Filed Apr. 6, 1915. Serial No. 19,611. (Cl. 25—131.)



1. A device of the character described comprising an elongated body portion having anchorage means at one end, and a helical coil at the other end, said body member extending along the side of the helix and connected therewith at the outer end thereof.

2. A device of the character described comprising an elongated body portion, and a helix at one end thereof substantially parallel with said body portion and having an interlocking engagement throughout its length with said body portion.

3. A device of the character described comprising an elongated body portion having a helix at each end substantially coaxial with each other and connected at their outer extremities with said body portion.

4. A device of the character described comprising an elongated body portion having a helix at each end connected at their outer extremities with said body portion, said helices being wound in opposite directions when viewed from one end whereby either end may receive an ordinary right-hand threaded member.

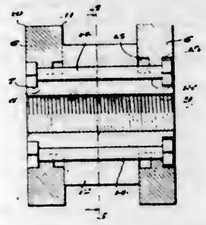
5. A device of the character described comprising an elongated body portion having an anchor device and a helical coil integrally formed with the body portion at one end, said coil being bent back into a position substantially parallel with said body portion.

[Claims 6 to 19 not printed in the Gazette.]

1,143,430. GRIPPING DEVICE FOR WELL-BORING APPARATUS. GEORGE S. MYERS, Electra, Tex. Filed Apr. 24, 1914. Serial No. 834,189. (Cl. 255—23.)

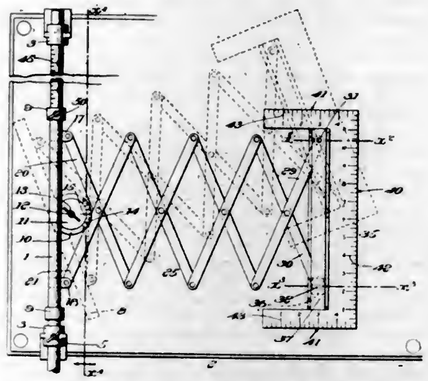
1. A gripper for pipe-rotaries, comprising a supporting sleeve, gripping rings reversibly mounted upon the ends of the sleeve, means for holding said rings in spaced relation, and fastening means for connecting the rings with the sleeve in either of their operative positions.

2. A gripper for pipe-rotaries, comprising a supporting sleeve, gripping rings reversibly mounted upon the ends of the sleeve, a spacing member integral with the sleeve, said member being of less diameter than the rings



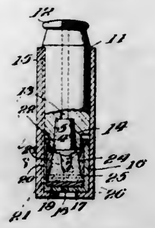
to hold the same in spaced relation, and fastening means for interchangeably holding the gripping rings in either of their working positions.

1,143,431. DRAFTING INSTRUMENT. PERRY OLMSTED, Los Angeles, Cal. Filed Jan. 24, 1914. Serial No. 814,091. (Cl. 33—79.)



A drafting instrument comprising a support adapted to be attached to a drawing board, a frame comprising two members, one member being mounted upon said support, the other member being swiveled to said first member, a measuring element, and lazy tongs connecting said second frame member to said measuring element.

1,143,432. APPARATUS FOR MAKING DENTAL CROWNS AND MOLAR PROJECTIONS. BERTHOLD PROSKAUER, Berlin, and ADOLF IRRGANG, Baumschulenweg, near Berlin, Germany. Filed Apr. 16, 1913. Serial No. 761,567. (Cl. 113—39.)



1. In a device of the character described, the combination with a casing adapted to contain a matrix at one end thereof, of a plunger adapted to reciprocate in the casing and having therein a conically hollowed annular projection for uniformly compressing the matrix on all

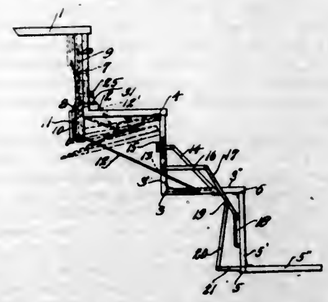
sides when the plunger is driven into the casing, the end of the plunger in the casing having a recess for receiving a counter-die.

2. In a device of the character described, the combination with a casing adapted to contain a matrix at one end thereof, of a plunger adapted to reciprocate in the casing and having therein a conical hollowed annular projection for uniformly compressing the matrix on all sides when the plunger is driven into the casing, the end of the plunger in the casing having a longitudinally grooved recess for receiving a counter-die.

3. In a device of the character described, the combination of an outer casing, a matrix casing normally at one end thereof, a plunger adapted to reciprocate in the outer casing, an internally conical member mounted on the plunger and adapted to enter into the matrix casing, whereby when the plunger is pressed inward, said member will compress a matrix in the matrix casing.

4. In a device of the character described, the combination of an outer casing, a matrix casing normally at one end thereof, a plunger adapted to reciprocate in the outer casing, an internally conical member mounted on the plunger and adapted to enter into the matrix casing, the outer casing having two transverse holes in the wall thereof at such a distance from the other end that said member can be held projecting out of the outer casing by a pin inserted into said holes, for the purpose specified.

1,143,433. EXTENSION CAR-STEPS. GEORGE E. QUIGGLE, Fruitdale, Ala. Filed Mar. 13, 1915. Serial No. 14,232. (Cl. 105—86.)



1. An extension car step construction comprising folding step sections adapted to be extended from a car, means for retracting the sections into folded position comprising a lifting lever, actuating means intermediate the step sections and the lever, and guiding means including a movable part operatively connected to the lever and to the actuating means for maintaining operative relation between these parts when actuated.

2. An extension car step construction comprising folding step sections adapted to be extended from a car, means for retracting the sections into folded position comprising a lifting lever, actuating means intermediate the step sections and the lever, and guide means slidably connected to the lever and also having connection with the actuating means, said guide means being movable in a vertical plane by the lifting lever.

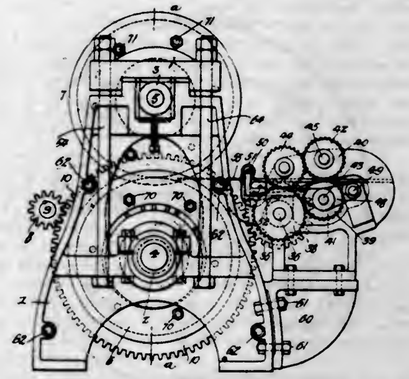
3. An extension car step construction comprising folding step sections adapted to be extended from a car, means for retracting the sections into folded position comprising a lifting lever, actuating means intermediate the step sections and the lever, and guiding means establishing operative connection between the lever and the actuating means, said guide means including a block shiftable on the lever during movement of the latter whereby to impart lifting action in a vertical plane to the actuating means.

4. An extension car step construction comprising a pair of step sections, each consisting of a tread and back elements, a lifting lever carried by the car, an actuating member connected with one of the sections aforesaid, guide means to which the guiding member is connected slidable on the lever and having sliding connection with the car, and actuating means intermediate the elements of each section for folding and unfolding of the elements upon actuation of the steps by the lifting lever aforesaid.

5. An extension car step construction comprising in combination with a support, a lifting lever pivoted on the support, a block through which the lever extends shiftable therealong, guide means for the block on the support whereby the block is adapted to move in a vertical plane, foldable step sections connected to the support for extension and retraction, and a plurality of actuating connections intermediate the block and the step sections.

[Claims 6 to 10 not printed in the Gazette.]

1,143,434. PUNCHING AND SHEARING MACHINE. JEREMIAH P. REARDON, Coatesville, Pa. Filed Dec. 23, 1911. Serial No. 667,474. (Cl. 164—99.)



1. In a punching and cutting machine, the combination of a pair of rotating elements, means for driving the same in unison, fixed radially disposed punches carried by one of said elements, fixed radially disposed dies carried by the other element, the latter having an annular recess, coacting stripping members movably mounted within said dies, an annular member eccentrically mounted within the recess of said rotating member and adapted to move said stripping members through the dies during movement of said rotating elements, and means for driving said annular member on its eccentric axis with one of said rotating elements.

2. In a punching and cutting machine, the combination of a rotating member having teeth and a hub, an annularly grooved plate adapted to said hub, a punch plate radially grooved also adapted to said hub, a series of punches adapted to the registering grooves of the respective plates and having lips in engagement with the annular groove of the first-named plate, said punches having their inactive ends in engagement with the hub whereby the latter forms a backing or anvil to take the thrust of the punches, means for locking said plates to said rotating member, a second rotating member mounted below the first, fixed radially disposed dies carried by said member, coacting stripping members slidably mounted within said dies, an eccentrically mounted rotating member for moving said stripping members through the dies during movement of said rotating elements, and means for driving said rotating elements and the eccentrically mounted member simultaneously therewith.

3. In a punching and cutting machine, the combination of a feeding device comprising a table, a plurality of feed rolls, means for driving said feed rolls, a positioning roll, a pivoted support for the same, and means for moving said support to raise said roll at intervals.

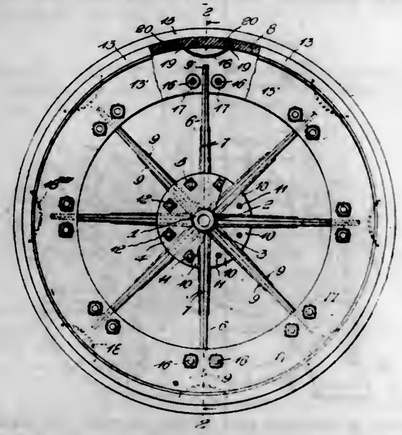
4. In a punching and cutting machine, the combination of a feeding device comprising a table, a plurality of feed

rolls, shafts upon which said feed rolls are mounted, means for driving said shafts, a positioning roll, a pivoted support for the same, and a cam carried by one of said roll shafts and turning therewith for moving said support to raise said roll at intervals.

5. In a punching and cutting machine, the combination of a feeding device comprising a table, a plurality of feed rolls mounted above and below the plane of said table, means for driving said feed rolls, shafts upon which said rolls are mounted, a positioning roll, and a pivoted support for the latter having its roll carrying end vertically movable with respect to the work, said pivoted support being operated from one of the feed rolls.

[Claims 6 and 7 not printed in the Gazette.]

1,143,435. SPRING-WHEEL. — OLIVER C. REISTE, Mount Pleasant, Iowa. Filed July 30, 1914. Serial No. 854,072. (Cl. 152—28.)



A wheel of the character specified comprising a hub, a plurality of spokes projecting radially therefrom comprising inner and outer resilient plates, the former having a gradual taper from the inner to the outer extremities thereof, the latter having their outer extremities terminating at a point on said inner plates spaced from the outer extremities thereof whereby to augment the resiliency of said spokes, a rim, flanges secured in spaced relation to the inner surface of said rim and projecting inwardly therefrom whereby to envelop the outer portion of said spokes, a pair of anti-friction rollers transversely disposed between said flanges opposite the free ends of each of said spokes, said rollers being spaced circumferentially to receive the tapered portion of the latter whereby to permit longitudinal movement on the part of the same, and means disposed on the under surface of said rim contiguous to the outer extremity of said spokes whereby to counteract the movement of the latter substantially as and for the purpose set forth.

1,143,436. ANTISEPTIC INSTRUMENT-CASE. GEORGE H. RENTZ, Minneapolis, Minn. Filed Dec. 15, 1913. Serial No. 806,668. (Cl. 78—52.)

1. A thermometer case comprising a tubular casing provided with a thickened portion intermediate its ends having a central bore and forming an enlarged chamber for liquid in its lower end, a tube of the same diameter as said bore slidably mounted in said casing and through the bore with the walls of the tube in contact with the bore, said tube being adapted to receive the end of the thermometer and having a closed inner end provided with side openings adjacent thereto, and a spring normally holding the tube so as to bring said openings within the bore and in engagement with the walls thereof so as to close communication between the slidable tube and the interior of the casing.



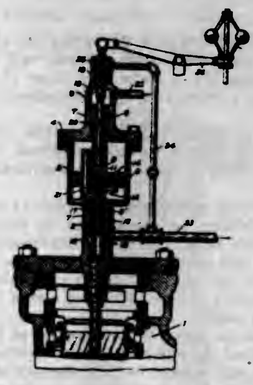
2. A thermometer case comprising a tubular casing provided with a thickened portion intermediate its ends having a central bore, and forming an enlarged chamber for liquid in its lower end, a tube of the same diameter as said bore slidably mounted in said casing and through the bore with the walls of the tube in contact with the bore, said tube being adapted to receive the end of the thermometer and having a closed inner end provided with side openings adjacent thereto, said tube having a shouldered head about its upper end fitted to the walls of the casing, and a spring surrounding the tube between said shouldered head and the thickened portion for normally holding the tube so as to bring said openings within the bore and in engagement with the walls thereof so as to close communication between the slidable tube and the interior of the casing.

3. A thermometer case comprising a tubular casing provided with a thickened portion intermediate its ends having a central bore, a tube of the same diameter as said bore slidably mounted in said casing and through the bore with the walls of the tube in contact with the bore, said tube being adapted to receive the end of the thermometer and having a closed inner end provided with side openings adjacent thereto, a spring normally holding the tube so as to bring said openings within the bore and in engagement with the walls thereof so as to close communication between the slidable tube and the interior of the casing, and means within the tube for engaging the thermometer at a point removed from the end thereof and holding the same out of contact with the closed end of the tube.

4. A thermometer case comprising a tubular casing provided with a thickened portion intermediate its ends having a central bore, and forming an enlarged chamber for liquid in its lower end, a tube of the same diameter as said bore slidably mounted in said casing and through the bore with the walls of the tube in contact with the bore, said tube being adapted to receive the end of the thermometer and having a closed inner end provided with side openings adjacent thereto, a spring normally holding the tube so as to bring said openings within the bore and in engagement with the walls thereof so as to close communication between the slidable tube and the interior of the casing, and a plurality of pins within the tube for engaging the thermometer at a point removed from the end thereof and holding the same out of contact with the end of the tube.

1,143,437. HYDRAULIC VALVE-GEAR. RICHARD H. RICE, Lynn, Mass., assignor to General Electric Company, a Corporation of New York. Filed Dec. 29, 1914. Serial No. 879,573. (Cl. 121—112.)

1. In a fluid motor, the combination of a cylinder, a piston, a hollow stem projecting on opposite sides of the piston and provided with openings through its wall above and below the piston, a second stem projecting into the hollow stem and having spaced valve bodies thereon which normally cover said openings, said second stem having a bore which connects with the space between said valve bodies, passages connecting the spaces on the outer sides of said valve bodies to each other, and admission and discharge pipes connected to said passages and bore.



2. In a fluid motor, the combination of a cylinder, a piston, a hollow stem projecting on opposite sides of the piston and having openings through its wall which communicate with the cylinder on opposite sides of the piston, a second stem projecting into the hollow stem and having spaced valve bodies thereon which normally cover said openings, and an axial bore connected with the space between the valve bodies, portions of said second stem above and below the valve bodies being of lesser diameter than the bore of said hollow stem so as to form annular chambers between them, means forming a passage which connects said annular chambers to each other, and fluid pressure conduits communicating with the chambers and the axial bore in the second stem.

3. In multiple hearth furnaces for roasting or drying crushed ores or the like having two or more vertical shafts carrying arms which rabble the ore and cause it to traverse successive hearths in opposite directions, means whereby one part of the furnace can be put out of action without interfering with the working of the other part, comprising hearths constructed with steps or drops on the transverse plane dividing the furnace into the sections capable of being put out of operation and auxiliary closable discharge holes at or near the same transverse plane in the hearths above the lowest, substantially as hereinbefore described.

4. A furnace for roasting or drying crushed ore or the like having a plurality of separable rabbling zones arranged in the same plane and means for effecting progression of the ore from one rabbling zone to the next, substantially as hereinbefore described.

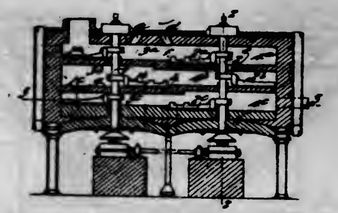
5. A furnace for roasting or drying crushed ore or the like having a plurality of separate rabbling zones arranged in the same plane, and a rabbie arm in each zone having rabbles thereon adapted to spread the ore in its zone and feed it forward to the next one, substantially as hereinbefore described.

[Claims 6 and 7 not printed in the Gazette.]

1,143,438. ORE ROASTING OR DRYING FURNACE. HARRY MACKENZIE RIDGE, London, England. Filed Oct. 6, 1913. Serial No. 793,666. (Cl. 75—143.)

1. In multiple hearth furnaces for roasting or drying crushed ores or the like, having two or more vertical shafts carrying arms which rabble the ore and cause it to traverse successive hearths in opposite directions, means whereby superimposed portions of said successive hearths and the relative rabble shaft or shafts and rabble arms can be put out of action without interfering with the working of the other part.

2. In multiple hearth furnaces for roasting or drying crushed ores or the like having two or more vertical shafts carrying arms which rabble the ore and cause it to traverse successive hearths in opposite directions, means whereby superimposed portions of said successive hearths can be put out of action without interfering with the working of the other part comprising auxiliary closable discharge holes in the hearths above the lowest at or near the transverse plane or planes dividing the separately operable portions substantially as hereinbefore described.



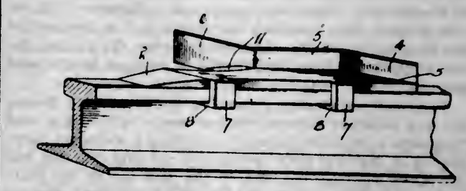
3. In multiple hearth furnaces for roasting or drying crushed ores or the like having two or more vertical shafts carrying arms which rabble the ore and cause it to traverse successive hearths in opposite directions, means whereby one part of the furnace can be put out of action without interfering with the working of the other part, comprising hearths constructed with steps or drops on the transverse plane dividing the furnace into the sections capable of being put out of operation and auxiliary closable discharge holes at or near the same transverse plane in the hearths above the lowest, substantially as hereinbefore described.

4. A furnace for roasting or drying crushed ore or the like having a plurality of separable rabbling zones arranged in the same plane and means for effecting progression of the ore from one rabbling zone to the next, substantially as hereinbefore described.

5. A furnace for roasting or drying crushed ore or the like having a plurality of separate rabbling zones arranged in the same plane, and a rabbie arm in each zone having rabbles thereon adapted to spread the ore in its zone and feed it forward to the next one, substantially as hereinbefore described.

[Claims 6 and 7 not printed in the Gazette.]

1,143,439. DERAILING DEVICE. EDWARD ROCK, Laurel, Miss. Filed July 24, 1913. Serial No. 781,011. (Cl. 104—127.)

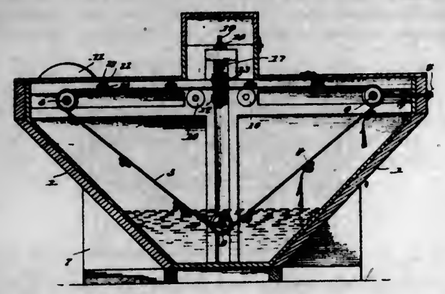


A derailing device comprising a base having an upwardly extending vertical flange formed upon one of its side edges, a flange extending diagonally across the end of the base, a flange extending outwardly from and inclined with respect to the base member between its ends, an inclined surface formed between the base and wing for engagement by the flange of the wheel to guide the same upon the base for contact with the diagonally disposed flange, and plates carried by the base for preventing the lateral displacement of the device from the rail.

1,143,440. GLOVE-CLEANING MACHINE. DAVID B. RODKEY, Wilkinsburg, Pa. Filed May 9, 1914. Serial No. 837,488. (Cl. 68—23.)
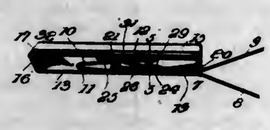
In a cleaning machine, a tank, a roller journaled therein adjacent the bottom thereof, spaced pairs of rollers journaled in the upper ends of the tank at opposite sides of the first mentioned roller, spaced endless carriers passing around said rollers, work holders comprising upper and lower hingedly connected parallel members disposed

transversely of the tank and connecting said endless carriers, a set screw for locking said members together, and



cleaning mechanism comprising complemental members between which said endless carriers pass.

1,143,441. SEAL FOR RAILWAY-CAR DOORS. JAY W. ROSS, Forsyth, Ga. Filed Feb. 6, 1915. Serial No. 6,497. (Cl. 70—99.)



1. A seal comprising a chamber and a shackle having one end attached thereto, locking means in said chamber, said means comprising a V-shaped plate, oppositely extending and overlying tongues on one of the legs of the said plate, the other leg of thes aid V-shaped plate having an opening to receive one of the said tongues, the free end of the shackle having an opening therein to coöperate with the said tongues upon insertion thereunder.

2. A seal comprising a chamber and a shackle, locking means in said chamber adapted to hold said shackle, said locking means comprising a V-shaped plate, two tongues carried by one leg of the said plate, both tongues on the inside of the said leg, one of the said tongues longer than the other and overlying the shorter tongue, one end of the shackle having an opening to coöperate with the said tongues upon insertion thereunder and means carried by the other leg of the said V-shaped plate for guiding the end of the shackle so that it will be engaged by the said tongues.

3. A seal comprising a chamber and a shackle having one end attached thereto, locking means within the said chambers, said locking means comprising a V-shaped plate, one leg of the said plate fastened to the said chamber and the other leg free, one end of the free leg of the plate bent back inside upon itself to form a tongue, the said leg having a central struck-out portion on the inside thereof, forming a second tongue, the said struck-out portion being on the same side of the free leg as the first-mentioned tongue and lying beneath it, projections on the other leg of the V-shaped plate forming guides, the said leg having a central opening between the guides to receive the innermost tongue, the free end of the shackle bent back upon itself and having an opening in the bent portion thereof, the opening in the free end of the shackle cooperating with one of the tongues carried by the locking means, the end of the said shackle coöperating with the other tongue, the said guides directing the bent end of the shackle so that it will be engaged by the tongues.

1,143,442. RAILWAY-TIE. GIOVANNI SAFEGNO, Genoa, Italy. Filed Apr. 8, 1913. Serial No. 759,715. (Cl. 238—3.)

1. A railway tie embodying a lattice beam of reinforced concrete provided with rail-supporting surfaces and with a connecting portion therebetween, said beam having a uniform cross-sectional resistance throughout.



2. A reinforced concrete tie having its ends enlarged and formed with transverse recesses, said recesses extending through the opposite side faces of the tie, the recesses being permanently open throughout their entire extent.

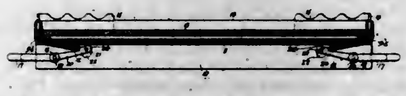
3. A railway tie embodying a lattice beam of reinforced concrete having enlarged, resilient end portions, said beam having a uniform cross-sectional resistance throughout.

4. A reinforced concrete tie provided at its ends with integral, projecting horizontal lugs to form supporting surfaces for the rails, said tie having transverse recesses beneath said lugs which extend through the opposite side faces of the tie and are permanently open throughout their entire extent, said recesses affording access to the fastening bolts and nuts.

5. A reinforced concrete tie provided at its ends with integral, vertical posts having integral horizontal brackets on the upper ends thereof to form supporting surfaces for the rails, said tie having transverse recesses beneath said brackets which extend through the opposite side faces of the tie and are permanently open throughout their entire extent, said recesses affording access to the fastening bolts and nuts.

[Claims 6 and 7 not printed in the Gazette.]

1,143,443. INSTRUMENT-TABLE. ADOLPH W. SCHRAMM, Philadelphia, Pa., assignor to Electro Dental Manufacturing Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Mar. 30, 1911. Serial No. 617,897. (Cl. 45—94.)



1. The combination of a table with a drawer therefor; supporting means for the drawer permitting it to be projected on opposite sides of the table; with means for limiting the amount of projection of said drawer on either side of the table, said means including a device for automatically locking the drawer in its closed position.

2. The combination of a table with a drawer therefor; supporting means for the drawer permitting it to be projected on opposite sides of the table, said supporting means having stops with independent devices for limiting the amount of projection of said drawer on either side of the table, each of said devices including a member placed to coöperate with one of the stops to lock the drawer in its closed position.

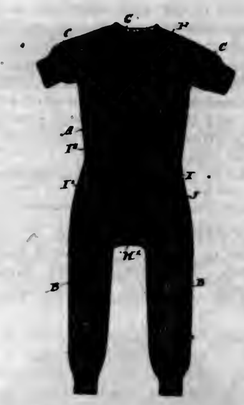
3. The combination of a table with a drawer therefor; supporting means for the drawer permitting it to be projected on opposite sides of the table; means for locking said drawer under the table including independent devices for limiting the amount of projection of said drawer on either side of the table.

4. The combination of a table having drawer supporting means; a drawer mounted on said means and capable of being projected on either of two sides of the table; means for limiting the amount of said projection in either direction, the same including two automatic devices for stopping and locking the drawer in its closed position when it has been moved thereto from either of its open positions.

5. The combination of a table; a drawer mounted thereon; and means for holding the drawer in its closed position, the same consisting of fixed stops on the table and pivotally mounted handles on opposite ends of the drawer, each formed and mounted to engage one of said stops to automatically lock said drawer in its closed position and to engage the other stop to limit the outward movement of the drawer.

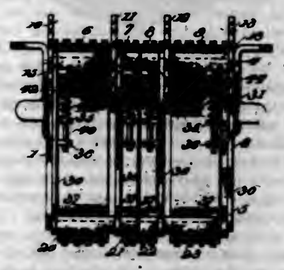
[Claims 6 to 9 not printed in the Gazette.]

1,143,444. UNDERGARMENT. WILLIAM R. SCHREMP, New York, N. Y., assignor to Union Mills, Inc., Hudson, N. Y. Filed Jan. 30, 1914. Serial No. 815,407. (Cl. 2—144.)



A knitted garment, comprising a body provided with vertical wales and having an inserted single piece, seamless yoke, provided with a neck-band and with wales which extend horizontally.

1,143,445. HAND-STAMP. LOUIS K. SCOTFORD, Chicago, Ill., assignor to Hill-Independent Mfg. Co., Philadelphia, Pa., a Corporation of Illinois. Filed Oct. 6, 1913. Serial No. 793,694. (Cl. 101—160.)



1. In a hand stamp, a movable type band, a rotatable type base having a plurality of sides adopted to hold the type bands in proper alinement, a side frame having lugs projecting therefrom, and a spring pressed plunger carried by said lugs and co-acting with the sides of said rotatable type base to hold the same in position.

2. In a hand stamp, a movable type band, a rotatable type base having a plurality of sides adapted to hold the type bands in proper alinement, a side frame having an opening to receive said type base, and a spring co-acting to press said type base in said opening.

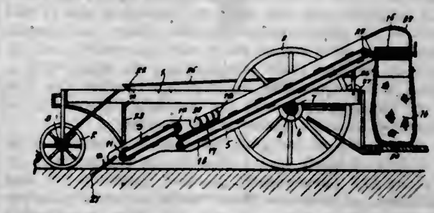
3. In a hand stamp, a movable type band, a rotatable type base having a plurality of sides adapted to hold the type bands in proper alinement, a side frame having lugs projecting therefrom, and a recess or opening for receiving the said type base, a spring pressed plunger carried by said lugs and coacting with said type base to force the same in said recess.

4. In a hand stamp, a movable type band, a rotatable support at each end of said band, each support having a plurality of sides adapted to hold the type on said band in proper alinement, a frame co-acting with said rotatable supports, and a spring pressed plunger carried by said frame and coacting with the flat sides of said rotary supports for normally holding said supports in adjusted positions.

5. In a hand stamp, a movable type band, a rotatable support at each end of said band, each support having a plurality of sides adapted to hold the type on said band in proper alinement, a side frame co-acting with said rotatable supports and having lugs projecting therefrom, and a spring pressed plunger carried by said lugs coacting to hold said rotatable supports in position.

[Claims 6 to 8 not printed in the Gazette.]

1,143,446. POTATO-DIGGER. KNUTE J. SEVERSON, Barnesville, Minn. Filed Aug. 24, 1914. Serial No. 858,275. (Cl. 55—51.)

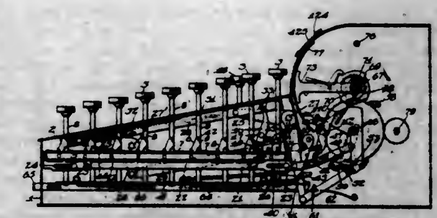


1. In a potato digger, a digging knife, a conveyer for elevating the potatoes from the digging knife, and a plurality of weeding fingers having their upper ends curved upwardly for engaging the potatoes upon elevation by said conveyer and separating the plants and weeds from the potatoes.

2. In a potato digger, a digging knife, a conveyer for elevating the potatoes from the digging knife, and a plurality of weeding fingers having their upper ends curved upwardly for engaging the potatoes upon elevation by said conveyer and separating the plants and weeds from the potatoes, said weeding fingers being of different length and having their curved ends disposed in a line obliquely of the width of the conveyer.

3. In a potato digger, a digging knife, a conveyer for elevating the potatoes from the digging knife, and a plurality of weeding fingers having their upper ends curved upwardly for engaging the potatoes upon elevation by said conveyer and separating the plants and weeds from said potatoes, said weeding fingers being pivotally carried by said potato digger for independent oscillatory movement.

1,143,447. COMPUTING-MACHINE. DANIEL W. SHIEK, Indianapolis, Ind., assignor to Walter L. Milliken, Barnstable, Mass. Filed Nov. 13, 1907. Serial No. 402,010. (Cl. 235—82.)



1. In a device of the kind described, a plurality of series of keys, a shaft, and a plurality of substantially independent oscillating indicators for each series, mounted on said shaft, in combination with intermediate mechanism between the keys and the indicators, whereby the movement of the keys is transmitted to and actuates the indicators.

2. In a device of the kind described, a plurality of series of keys, a plurality of substantially independent and coincidently operated indicators for each series a rock arm support for the indicators and adapted to swing or oscillate the indicators, in combination with intermediate mechanism between the keys and the rock arm supports, whereby the movement of the keys is transmitted to and actuates the indicators.

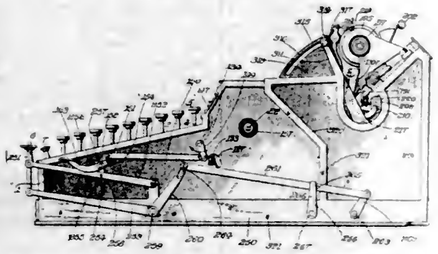
3. In a device of the kind described, a plurality of series of keys, a shaft, a plurality of substantially independent segmental shaped oscillating indicators for each series, mounted on said shaft, and means for operating one of said indicators for each series as an item indicator, and another as another indicator, in combination with intermediate mechanism between the keys and the indicators, whereby the movement of the keys is transmitted to and actuates the indicators.

4. In a device of the kind described, a plurality of series of keys, a shaft, a plurality of substantially independent indications for each series mounted upon said shaft, means mounted upon the shaft for operating one of said indicators, a substantially parallel shaft, and means mounted upon said second shaft and connected to an indicator on the first shaft for operating the same, in combination with intermediate mechanism between the keys and the indicators, whereby the movement of the keys is transmitted to and actuates the indicators.

5. In a device of the kind described, a plurality of series of keys, a shaft, and a plurality of substantially independent and independently operated indicators for each series mounted upon said shaft, means mounted upon the shaft for operating one of said indicators, an adjacent shaft, and means mounted upon said adjacent shaft and connected to an indicator on said first mentioned shaft for operating the same, in combination with intermediate mechanism between the keys and the indicators, whereby the movement of the keys is transmitted to and actuates the indicators.

[Claims 6 to 42 not printed in the Gazette.]

1,143,448. CALCULATING AND LISTING MACHINE. DANIEL W. SHIEK, Indianapolis, Ind., assignor to Walter L. Milliken, Barnstable, Mass. Filed Aug. 5, 1908. Serial No. 447,129. (Cl. 235—59.)



1. In a device of the kind described, a series of keys, an item indicator and a total indicator for said keys, and means intermediate said indicators and keys for controlling the movements of said indicators by the operations of said keys, means for clearing said indicators, in combination with signal mechanism, and means for automatically operating said signal mechanism upon operating the keys to indicate whether the indicators have been cleared.

2. In a device of the kind described, indicating mechanism and registering mechanism, and a plurality of keys for operating said mechanisms, means for canceling or clearing said indicators, in combination with signaling means, and means acting automatically on each subsequent registering operation to operate said signal to indicate if the indicators have been cleared or canceled.

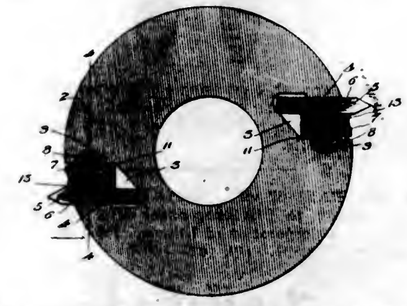
3. In a device of the kind described, computing, indicating and recording mechanism, and a plurality of keys for operating said mechanisms, means for canceling the indicators, in combination with a signal, intermediate mechanism between the signal and the keys, and means for automatically operating said signal to indicate whether the indicators have been canceled when the operator commences a computation.

4. In a device of the kind described, a plurality of series of indicators, mechanism for exposing a portion of each indicator of any series, and means for adjusting said mechanism to expose any series desired, in combination with a signal, and mechanism controlled by said adjusting means for operating said signal at the next movement of any of said indicators after a particular series has been exposed.

5. In a device of the kind described, a plurality of series of keys, a plurality of indicators for each series, mechanism for exposing a portion of a single indicator for each series, and means for adjusting said mechanism to expose any indicator desired, in combination with a signal, and mechanism controlled by said adjusting means for operating said signal at the next movement of any of said indicators after a particular indicator of the several series has been exposed.

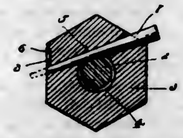
[Claims 6 to 38 not printed in the Gazette.]

1,143,449. CUTTER-HEAD. ELMER S. SHIMER, Milton, Pa., assignor to Samuel J. Shimer & Sons, Milton, Pa., a Corporation. Filed Oct. 18, 1911, Serial No. 655,329. Renewed May 7, 1915. Serial No. 26,656. (Cl. 144—230.)



The combination with a cutter-head flange having a bit-seat cut in its periphery, one side of which is constructed and adapted to receive a bit, and the opposite side having a tapering groove, of a knife or bit engaging said first-mentioned side, a clamping-block fashioned to engage the knife or bit on one side and having a tapering groove on the opposite side in position to register with the groove of the bit-seat, and provided on the outer edge with a chip-breaker, and a bolt having a tapering portion which enters the tapering groove of the bit-seat and clamping-block, means to prevent the bolt from turning, and means for drawing the bolt endwise to force the clamping block rigidly against the knife or bit whereby to hold the latter securely between it and the opposite wall of the bit-seat.

1,143,450. NUT-LOCK. ROY C. SHOWALTER, Altoona, Pa. Filed Dec. 2, 1911. Serial No. 663,517. (Cl. 151—26.)



In a nut lock, a threaded bolt having an adjustable nut thereon provided with a tangential tapering passage which communicates intermediate of its ends with the bolt opening in said nut and which terminates at one end in a recess that lies at an angle thereto, a shoulder being formed at the juncture of he recess with the passage, and a tapering key adapted to be driven into said passage in the nut and to have its small end bent over said shoulder so as to be in said recess, the walls of the recess being so arranged as to prevent turning of said key when the small end is bent into said recess.

1,143,451. SHAVING-BRUSH. ARTHUR WM. SKOWBO, Armstrong, Iowa. Filed Jan. 9, 1915. Serial No. 1,388. (Cl. 15—50.)



1. A fountain shaving brush of the character described including a casing, a soap container slidable in the casing, the soap container being provided with a filling opening at one end and an outlet opening at the opposite end, a valve slidably mounted in the outlet opening, said valve being provided with a chamber and having lateral openings communicating with the chamber, a bristle holder threaded in the end of the casing and being provided with apertures communicating with the chamber, and a spring to normally hold the container away from the bristle holder.

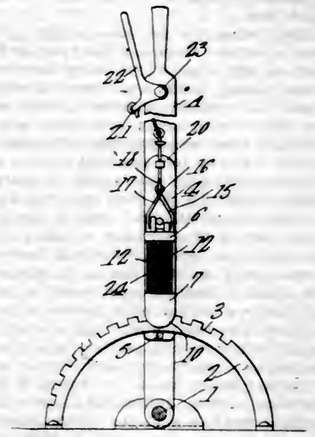
2. A fountain brush of the character described including a casing, a soap container slidable in the casing, a bristle holder threaded into one end of the casing, bristles carried by the bristle holder, a valve carried by the bristle holder and extending into the casing, said valve being provided with a chamber communicating with the bristle holder, said bristle holder being provided with apertures communicating with the bristles, the valve extending into the casing and being provided with a pair of transverse apertures communicating with the chamber, the casing being designed to slide downwardly over the valve and cover the opening to permit the contents of the container to flow into the chamber, and a spring to return the chamber to its normal closed position.

3. A fountain shaving brush of the character described including a casing having a flange formed at one end, threads formed at the opposite end of the casing, a container slidable in the casing, said container being provided with a filling opening at the flanged end of the casing, the container being arranged to abut the flange, a plug for closing the filling opening, an inturned flange at the end of the container opposite the filling end, a bristle holder arranged to be threaded into the casing, bristles carried by the bristle holder, the bristle holder being provided with apertures communicating with the bristles of the brush to admit soap thereto, the bristle holder being recessed, a valve seated in the recess, said valve being provided with a chamber communicating with the apertures in the bristle holder, the valve also being provided with lateral openings communicating with the chamber, flanges at each end of the valve, one of said flanges limiting the outward movement of the container, the said container being arranged to slide downwardly on the valve to permit the contents thereof to pass into the chamber through the lateral openings, and a spring to return the chamber to its normal closed position.

1,143,452. LEVER-LATCH. ASA E. SMITH, Hillsboro, Tex. Filed Apr. 17, 1911. Serial No. 621,549. (Cl. 74—39.)

1. An attachment for segment levers comprising an elongated plate having longitudinally spaced guides, a pair of individually movable latches slidable in one guide and having stems slidable through the other guide, coiled wire expansion springs surrounding the stems and seating against the latches and last mentioned guide, the stems having elongated slots at that side of the last mentioned guide remote from the springs, and a loop shaped member engaged through the said slots.

2. An attachment for segment levers comprising a plate having a guide, a pair of spring pressed latches having stems slidable through the said guide, the latch stems having elongated longitudinal slots, and a loop-shaped member engaged through the slots and having crossed



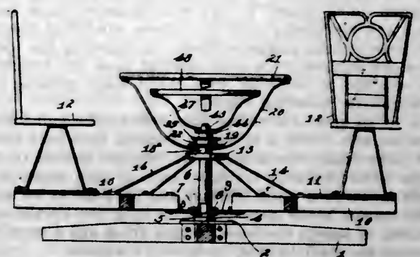
arms, one arm terminating in a hook for engaging an actuating member, and the other arm projecting toward the bill of the hook to serve as a retaining element for holding the hook in engagement with the actuating member.

1,143,453. COLLAR-SUPPORT. GILMAN B. SMITH, Montclair, N. J. Filed Aug. 11, 1913. Serial No. 784,223. (Cl. 2—91.)



A support or stiffener for collars and the like, comprising a stiffening member of comparatively rigid but resilient material, and a fabric member having the end portions thereof folded over so as to form a double layer of material, and having the double layered portions of the fabric again folded over at a line between the middle line of said double-layered portion and the line of said first fold, so as to form a four-layered portion, said second fold being made on the same side of said fabric member as said first fold, the edges of said folds being stitched together to form pockets.

1,143,454. LAWN-SWING. NEWTON H. SMITH, Hamilton, Ill. Filed Dec. 31, 1913. Serial No. 809,728. (Cl. 46—27.)



1. In a swing, the combination with a shaft, a passenger platform freely mounted on said shaft, a table and a hand rail mounted on said shaft, of a clutch operated by said table to clutch the hand rail to said shaft, whereby

the passenger may revolve the platform by pulling on the hand rail.

2. In a lawn swing, the combination with a shaft, a platform freely mounted on said shaft, of a hand rail mounted on said shaft, a clutch member mounted on the shaft, and connected with said hand rail, and means to operate said clutch.

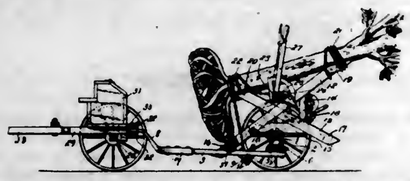
3. In a lawn swing, the combination with a shaft, a platform freely mounted thereon, a hand rail, and a table also mounted on said shaft, of a locking sleeve keyed to said shaft and locking means coöperating therewith and connected with the hand rail, a clutch member revolubly mounted on said shaft, means connecting said clutch member with the table whereby upon a turning of the table the clutch is thrown into clutching relation with the shaft and means carried by said clutch to operate said locking means to unclutch the hand rail from the shaft.

4. In a clutch the combination with a shaft, and a clutch member carried by said shaft, a hub, clutch jaws mounted on said hub, rollers interposed between said jaws and said clutch member, means to normally hold the jaws in clutched position, and means to move the jaws out of clutching relation with the clutch member.

5. In a clutch the combination with a shaft, and a clutch member carried by said shaft, a hub, clutch jaws mounted on said hub, rollers interposed between said jaws and said clutch member, means to normally hold the jaws in clutching position, and means to move the jaws out of clutching relation with the clutch member, and still other means to move said jaws to clutching position.

[Claims 6 and 7 not printed in the Gazette.]

1,143,455. STUMP-PULLER AND TREE-CARRIER. JAMES W. SNODGRASS, Youngstown, Ohio. Filed July 25, 1914. Serial No. 853,073. (Cl. 55—120.)



1. In an appliance of the character specified, the combination of front and rear trucks, a reach pivotally connected at its forward end to the front truck, means detachably connecting the reach with the rear truck, a shaft mounted upon such reach, an arm projecting from the shaft and a crank at one end of the shaft.

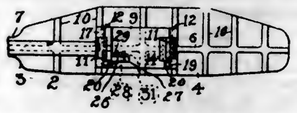
2. In an appliance of the character set forth the combination of a truck, crossed members mounted upon such truck, saddles at the upper ends of the members for receiving the load, means for securing the load upon the saddles of the structure and a crab mounted upon the structure.

3. In an appliance of the character set forth the combination of a truck, a structure mounted upon such truck and comprising crossed members, saddles at the upper ends of such members, means for securing the loads upon the saddles and a crab mounted upon the structure and adapted to coöperate with tackle when utilizing the structure for receiving the load.

4. In an appliance of the character specified, the combination of a truck, a structure mounted upon such truck and comprising crossed members, bearings located in the angle formed between the upper ends of such members, a shaft mounted in such bearings and provided at its ends with cranks, brake shoes mounted upon the cranks and adapted to engage the wheels of the truck and a lever for turning the shaft to apply or release the brake.

5. In an appliance of the character described the combination of a truck, crossed members, stay pieces in the angles formed between the lower and rear ends of such members, a crab mounted upon a set of the stay pieces, saddles at the upper ends of the members and coöperating with such members for retaining the load in place thereon.

1,143,456. CAST-METAL RAILROAD CROSS-TIE. GEORGE W. SNYDER, Pittsburgh, Pa., assignor to Harry E. Sheldon, Pittsburgh, Pa. Filed Oct. 5, 1912. Serial No. 724,097. (Cl. 238—5.)



1. A metal rail-tie having a base, and a rail-seat supported by the base and above the same, the base having greater width at one side of the seat.

2. A metal rail-tie having a base, and a rail-seat supported by the base and above the same, the base extending from the seat a greater distance in the direction of traffic on the rails supported by the tie than in the other direction.

1,143,457. SHANK-BUTTON. CHARLES J. SPILL, Springfield, Mass. Filed June 24, 1912. Serial No. 705,571. (Cl. 24—90.)



1. As a new article of manufacture, a shank button comprising a button blank having a hole extending therethrough from the face to the back of said blank, said hole being tapered toward the back of the blank, and a looped double-ended pin provided with a wedge-shaped portion extending through the hole aforesaid to engage with the tapered walls thereof, a laterally extending cap formed on one end for engaging with the face of the button blank, said loop being expanded on the back of the button blank to draw said wedge portion and cap into engagement with the blank and thereby firmly hold the pin in the hole and to form a shank.

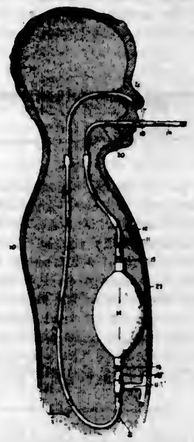
2. As a new article of manufacture, a shank button comprising a button blank having a hole extending through from the face to the back of said blank, and a looped double-ended pin having both ends extending into the hole in the blank, a laterally extending cap formed on one of said ends to engage with the face of the button blank to cover said hole therein, said loop being expanded on the back of the button blank to hold the cap against the face of the button blank and to form a button shank on the back.

3. As a new article of manufacture, a shank button comprising a button blank having a hole extending through from the face to the back of said blank, said hole being tapered toward the back of the blank, and a looped double-ended pin having each of said ends formed with wedge-shaped portions adapted to engage with the tapered walls of the hole aforesaid, and a capping means on one end for engaging with the face of the button, said loop being expanded on the back of the button blank to hold the pin in the hole and to form a shank.

4. As a new article of manufacture, a shank button comprising a button blank having a hole extending through from the face to the back of said blank, and a looped double-ended pin adapted to extend through said hole, means formed on the ends of said pin to lie within said hole to prevent the same from being drawn through the back of said blank, a cap on one end offset laterally to extend over the free end of the pin and covering said hole, said loop being expanded on the back of the button blank to hold the pin rigidly in the hole and to form a shank.

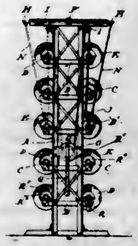
1,143,458. SMOKING-DOLL. SAMUEL W. STERN, New York, N. Y. Filed December 23, 1914. Serial No. 878,773. (Cl. 46—40.)

A doll having a flexible wall, a bulb within the doll and provided with an inlet and an outlet, a valve at the inlet and a valve at the outlet, the bulb disposed adjacent the flexible wall of the doll so that it may be operated from



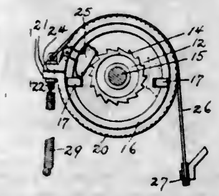
without the doll, a tube extending from the mouth of the doll to the inlet of the bulb, and a tube extending from the outlet of the bulb to an opening in the doll's head.

1,143,459. LINOLEUM-RACK. CLARENCE J. STONER, Gloversville, N. Y. Filed Jan. 14, 1915. Serial No. 2,165. (Cl. 254—144.)



A linoleum rack comprising an upright frame with crosspieces at the upper portions projecting beyond the sides of the frame, bars pivoted to said crosspieces intermediate the sides of the frame and adapted to swing in horizontal planes with their free ends projecting beyond the ends of the crosspieces, pulleys carried by said pivotal bars, a reel engaging pulley, cables fastened to the bar and passing about said pulleys, and a drum about which the cable winds.

1,143,460. ENGINE-STARTER. ROY H. STULL, Sunbury, Pa. Filed Oct. 9, 1914. Serial No. 865,874. (Cl. 74—54.)



1. An engine starter comprising a supporting collar, an engine starting member, an actuating ring, means for imparting a partial rotation to said actuating ring, a gravity controlled member carried by said actuating ring to engage said starting member when rotation of the ring is initiated, and means for normally retaining said ring in a predetermined starting position, said gravity controlled member being normally disengaged from said starting member when said ring is in said predetermined position.

2. An engine starter comprising a supporting collar, an actuating ring rotatably supported by said collar, an engine-starting ratchet mounted independently of said collar and said ring and inclosed by the latter, a pawl carried by said ring to engage said ratchet, and means for oscillating said ring, said pawl being provided with gravity means for automatically disengaging the same from said ratchet, when the pawl and ratchet have been moved a predetermined distance in the direction to start the engine.

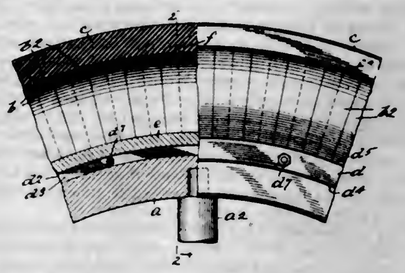
3. An engine starter comprising a supporting collar, an actuating ring rotatably supported by said collar, an engine-starting ratchet mounted independently of said collar and said ring and inclosed by the latter, a pawl carried by said ring to engage said ratchet, and means for oscillating said ring, said pawl being provided with an overweighted ratchet engaging end, for automatically disengaging the pawl when the pawl and ratchet have moved a predetermined distance in a direction to start the engine.

4. An engine starter comprising a supporting collar, an actuating ring rotatably supported by said collar, an engine-starting ratchet mounted independently of said collar and said ring and inclosed by the latter, a pawl carried by said ring to engage said ratchet, and mean for oscillating said ring, said collar having a portion of reduced width to permit uninterrupted travel of said pawl around said ratchet when the ring is actuated.

5. An engine starter comprising a supporting collar, an actuating ring rotatably supported by said collar, an engine-starting ratchet mounted independently of said collar and said ring and inclosed by the latter, a pawl carried by said ring to engage said ratchet, and means for oscillating said ring, said collar having a portion of reduced width to permit uninterrupted travel of said pawl around said ratchet when the ring is actuated, said pawl being provided with gravity means for automatically disengaging the pawl from the ratchet after moving a predetermined distance in a direction to start the engine.

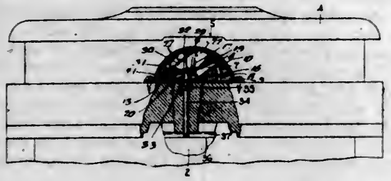
[Claim 6 not printed in the Gazette.]

1,143,461. TIRE. ROBERT E. STURMAN, Franklin township, Wright county, Minn. Filed June 15, 1914. Serial No. 845,239. (Cl. 152—8.)



The combination with a vehicle wheel, of a tire comprising an inner series of transversely arranged, yoke-shaped, resilient, sections, an outer series of similar sections, the joints of each series being staggered with respect to the joints of the other series, the sections of each series being recessed in the outer surfaces thereof and the recessed portions of the outer sections being nested in the recesses of the inner sections, a tread in the peripheral groove formed by the recesses of said outer sections, and means for maintaining said sections in relative positions, comprising a pointed projection on each of a plurality of inner sections outwardly directed between the corresponding outer sections, and projecting into said tread.

1,143,462. AUTOMATIC INDICATOR FOR PLATE-HOLDERS. CHARLES R. TRIOE, Yonkers, and ALFRED L. HART, New York, N. Y. Filed Dec. 17, 1914. Serial No. 877,716. (Cl. 95—71.)



1. In an indicator for photographic plate holders, a movable member provided with legends describing the condition of the plate in the holder, a lever provided with an operating member adapted to engage and move said movable member for bringing to view the various legends thereon, and a projecting arm formed with an extension arranged in the path of movement of the slide forming part of said holder, whereby whenever the slide is operated said movable member will be advanced, and means for automatically returning said movable member back to its original position when the plate in the holder is removed.

2. In an indicator for plate holders of the character described, a pin operable by a plate arranged in said holder, a pivotally mounted lever displaced by said pin, said lever being formed with a projection, a pivotally mounted segment engaged by the projection on said lever so as to be moved thereby, and a stop for preventing a reverse movement, said segment being provided with indicating legends disclosing the condition of the interior of the holder.

3. An indicator for photographic plate holders comprising a casing formed with an opening, a pivotally mounted segment having legends arranged thereon adapted to be brought opposite said opening, a lever for actuating said segment, said lever having an extension arranged with a projection extending into the path of movement of the slide of the plate holder, and a stop for preventing a reverse movement of the segment.

4. In an indicator for photographic plate holders, a reciprocating pin adapted to be moved by a plate when positioned in the holder, a spring raised by said pin, a pivotally mounted lever arranged on said spring and raised thereby when said spring is raised, said lever being formed with an operating extension and a projecting arm, said extension being designed to be engaged by a slide on said holder and said lever operated thereby when the slide is closed, a pivotally mounted segment having a plurality of stops arranged thereon, said stops being adapted to be engaged successively by said arm, whereby said segment is moved forwardly upon the opening and closing of said slide, a stop for preventing a reverse movement of said segmental member, said segmental member being formed with indications on the face thereof, and a casing formed with an opening for disclosing to view said indications as said segmental member is moved.

5. In an indicator for photographic plate holders, a pin adapted to be raised by a plate, when being positioned in said holder, a pivotally mounted arm and a stop raised by said pin, means extending from said arm operated by a slide on said holder for moving said arm in one direction, a spring for moving said arm in the opposite direction when released, and a pivotally mounted segment moved by said arm in one direction and prevented a reverse movement by said stop, said segment having legends thereon for disclosing the condition of a plate in the holder.

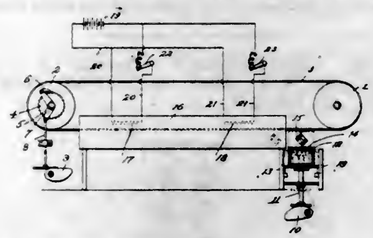
1,143,463. CIGAR-HOLDER. THOMAS M. TERWILLIGER, Jr., Walden, N. Y. Filed Apr. 11, 1913. Serial No. 760,407. (Cl. 206—41.)

1. A device of the character described including a plurality of correspondingly slidable sections, a substantially cone-shaped sleeve slidably mounted in one end of one of said sections having one of the marginal edges thereof turned at right angles to the body for engagement with one end of the section in which it is mounted for limiting the movement of the same in said section.



2. A device as set forth including a pair of corresponding telescopic sections, a sleeve slidably and detachably mounted in one of said sections and tapered toward one end to conform substantially to the shape of a cigar for holding the latter in spaced relation to the sections, said sleeve provided with openings in its body to emit ashes therethrough upon insertion of the lighted end of the cigar in the sleeve, the tapering of said sleeve permitting the ashes to pass into one of said sections, and positively preventing its entrance into the opposite section, and a flange formed on the sleeve for limiting its movement in the sections.

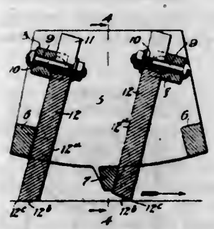
1,143,464. PROCESS OF PRODUCING TRANSPARENT COATINGS. EDMUND N. TODD, Millburn, N. J. Filed Nov. 14, 1914. Serial No. 872,269. (Cl. 34—24.)



1. The method of producing transparent coatings from hygroscopic lacquers which comprises applying to the article a hygroscopic lacquer and drying the same while maintaining it above the dew point of the environment.

2. The method of producing transparent coatings from hygroscopic lacquers which comprises applying hygroscopic lacquer to the article and introducing the freshly lacquered article into a local atmosphere maintained at a temperature above its dew point, and discharging the article therefrom after the solvent has been thus removed from the lacquer.

1,143,465. SCRAPER. HENRY AUGUSTUS TUCKETT and VICTOR A. HELLSTROM, Salt Lake City, Utah. Filed Aug. 26, 1914. Serial No. 858,633. (Cl. 145—47.)



1. In a scraper, a frame having two openings disposed side by side and two scraper blades, one extending through each of the openings and pivoted to the frame for engaging the frame at opposite sides of the openings.

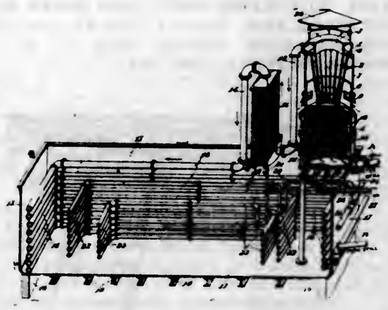
2. In a scraper, a frame having two openings disposed side by side, two scraper blades pivoted on axles extending longitudinally of the openings, the blades extending through the openings with their outer terminals forming obtuse angles at their inner sides.

3. In a scraper, a frame having two openings disposed side by side, and two scraper blades, one extending through each of the openings and pivoted to the frame on axes extending longitudinally of the openings for engaging the frame at opposite sides of the openings.

4. In a scraper, a frame having three substantially parallel bars, two scraper blades pivoted to the frame on axes substantially parallel with the bars, the blades being separated by one of the bars and being each disposed between two of the bars, the outer end of each of the blades forming with its inner side an obtuse angle.

5. In a scraper, a frame having an opening, a scraper blade having a terminal projecting through the opening, the scraper blade being pivoted for striking the frame at opposite sides of the opening, the outer edge of the terminal forming with the side of the scraper an obtuse angle, the apex of which is substantially parallel with the axis of the scraper.

1,143,466. PROCESS OF AND APPARATUS FOR DISTILLING PETROLEUM. JOHN W. VAN DYKE and WILLIAM M. IRISH, Philadelphia, Pa., assignors to The Atlantic Refining Company, Philadelphia, Pa., a Corporation of Pennsylvania. Original application filed Oct. 4, 1909, Serial No. 520,937. Divided and this application filed May 6, 1914. Serial No. 836,696. (Cl. 196—25.)



1. The improvement in distilling petroleum, consisting in heating the petroleum to be distilled, primarily petroleum in a form which consists at least largely of hydrocarbons with boiling points of about or above 600° F., to the temperature necessary to evaporate the component hydrocarbons thereof, conductively cooling the so evolved vapors sufficiently to condense a large part of said vapors, not less than about twenty five per cent. thereof, and not sufficiently to reduce the temperature of said vapors as low as the boiling points of lighter components of said vapors, not so low as 212° F., carrying off uncondensed vapors, bringing the condensate into intimate contact with vapors whose temperature is higher than that of said condensate for interchange of hydrocarbons between them, effecting part at least of said interchange while said condensate and said vapors are less exposed to indirect cooling than were the vapors from which the condensate had previously been formed, and withdrawing the condensate, substantially as described.

2. The improvement in distilling petroleum, consisting in heating the petroleum to be distilled, primarily petroleum in a form which consists at least largely of hydrocarbons with boiling points of about or above 600° F., to the temperatures necessary to evaporate the component hydrocarbons thereof, dividing the body of evolved vapors into numerous streams separated from each other by heat conducting walls, cooling said vapors by laterally confined current of aeriform fluid flowing over said walls and between said streams sufficiently to condense a large part of said vapors, not less than about twenty five per cent. thereof, and not sufficiently to reduce the temperature of said vapors as low as the boiling points of lighter components of said vapors, not so low as 212° F., and withdrawing the condensate, substantially as described.

3. The improvement in distilling petroleum, consisting in heating the petroleum to be distilled, primarily petroleum in a form which consists at least largely of hydrocarbons with boiling points of about or above 600° F., to the temperatures necessary to evaporate the component hydrocarbons thereof, dividing the body of evolved vapors into numerous streams separated from each other by heating conducting walls, causing said streams to flow in ascending directions in order that they may pass in opposite directions in contact with retrograding condensate for interchange of hydrocarbons between them, cooling said vapors by laterally confined currents of aeriform fluid flowing over said walls and between said streams sufficiently to condense a large part of said vapors, not less than about twenty five per cent. thereof, and not sufficiently to reduce the temperature of said vapors as low as the boiling points of lighter components of said vapors, not so low as 212° F., and withdrawing the condensate, substantially as described.

4. The improvement in distilling petroleum, consisting in heating the petroleum to be distilled, primarily petroleum in a form which consists at least largely of hydrocarbons with boiling points of about or above 600° F., to the temperatures necessary to evaporate the component hydrocarbons thereof, dividing the body of evolved vapors into numerous streams separated from each other by heat conducting walls, checking said streams in their flow in order to equalize the effects of cooling thereon, cooling said vapors by laterally confined current of aeriform fluid flowing over said walls and between said streams sufficiently to condense a large part of said vapors, not less than about twenty five per cent. thereof, and not sufficiently to reduce the temperature of said vapors as low as the boiling points of lighter components of said vapors, not so low as 212° F., and withdrawing the condensate, substantially as described.

5. The improvement in distilling petroleum, consisting in heating the petroleum to be distilled, primarily petroleum in a form which consists at least largely of hydrocarbons with boiling points of about or above 600° F., to the temperatures necessary to evaporate the component hydrocarbons thereof, dividing the body of evolved vapors into numerous streams separated from each other by heat conducting walls, stricturing said streams at their respective outlets in order thus to check them in their flow and so to equalize the effects of cooling thereon, cooling said vapors by laterally confined currents of aeriform fluid flowing over said walls and between said streams sufficiently to condense a large part of said vapors, not less than about twenty five per cent. thereof, and not sufficiently to reduce the temperature of said vapors as low as the boiling points of lighter components of said vapors, not so low as 212° F., and withdrawing the condensate, substantially as described.

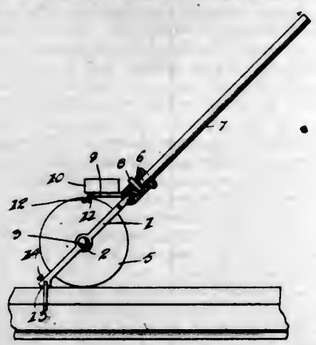
[Claims 6 to 14 not printed in the Gazette.]

1,143,467. PORTABLE TRACK-MEASURER. VICTOR S. VEAZEY, Mount Hope, W. Va. Filed Aug. 20, 1914. Serial No. 857,747. (Cl. 33—141.)

1. A track measurer consisting of a frame, a wheel rotatably journaled within said frame and to be moved along one of the rails of the track, a handle carried by the frame, said frame extending forwardly beyond the wheel, a distance registering instrument carried by the frame, and operatively associated with the wheel and laterally adjustable guide means carried by the frame to slidably engage upon opposite sides of the rail.

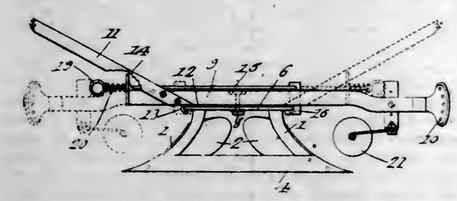
2. A track measurer comprising a frame, a wheel rotatably journaled in the frame, a distance registering instrument carried by the frame and operatively associated with the wheel, L-shaped guide members adjustably secured to the lower end of the frame and to engage upon opposite sides of the rail of a track, and means to hold the guide members in adjusted position.

3. A track measurer comprising a rectangular frame, a measuring wheel rotatably journaled in the side bars of the frame, a socket carried at the upper end of the frame, a handle mounted within the socket, a supporting plate carried by the lower end of the socket and extending forwardly and to be disposed in a horizontal plane normally, a distance registering instrument mounted upon said supporting plate and operatively associated with the



wheel, the lower end portion of said frame having openings in the opposite side thereof, L-shaped guide members having the horizontal arms thereof slidably mounted in said openings and the vertical arms thereof disposed for engagement upon opposite sides of a rail and set screws carried by said lower end portion of the frame and to engage the horizontal portions of the L-shaped guide members to hold said guide members in adjusted position.

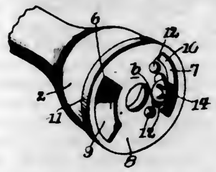
1,143,468. PLOW. DUGLAS C. WEATHERHEAD, Salisbury, Md., assignor of one-third to Morris Ames Walton, Salisbury, Md. Filed Nov. 2, 1914. Serial No. 869,915. (Cl. 97—27.)



The combination with opposed standards and opposed right and left hand plows connected thereto, of a flat elongated head secured to the upper ends of the standards and having notches extending toward each other from the ends thereof, a beam above the head and pivotally connected to the center thereof, the ends of the head being rounded, a wear strip secured to the bottom of the beam and normally extending longitudinally above the head, said strip having a hook at one end adapted to engage the rear end of the head thus to thrust longitudinally against the head, the other end of the strip terminating short of the front end of the head, a latch extending through the beam and adapted to be seated in the notch in the front end of the head, and to extend under said front end of the head, thus to hold the head and beam against relative swinging movement and to support the front end of the head, a rod pivotally connected to the upper end of the latch, and yieldable means engaging the rod for holding the latch normally in engagement with the head.

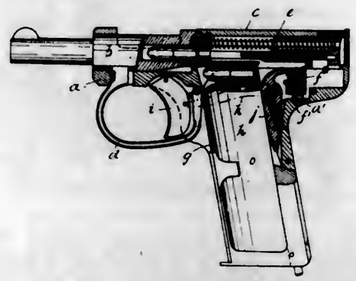
1,143,469. SHUTTER-SUPPORT FOR GAS-BURNERS. HARRY C. WEISKITTEL, Baltimore, Md. Filed Apr. 21, 1915. Serial No. 22,949. (Cl. 158—118.)

1. A gas burner having a gas inlet shank provided with an air inlet opening, an adjustable shutter for regulating the size of said air inlet opening, said shutter having a series of openings therein, scaid burner shank having a series of recesses formed therein, and means adapted to register with one of said openings and one of said recesses for locking said shutter in adjusted position, said recesses and openings having a differential arrangement relative to each other.



2. A gas burner having a gas inlet shank provided with an air inlet opening, an adjustable shutter for regulating the size of said air inlet opening, said shutter having spaced separated openings, said shank having spaced threaded recesses, a bolt adapted to register with an opening in the shutter and to engage one of said threaded recesses, said threaded recesses in the shank of the burner and said openings in the shutter having a differential arrangement relative to each other, whereby said shutter may be adjusted distances less than the distance between the center of adjacent openings.

1,143,470. AUTOMATIC PISTOL AND OTHER MAGAZINE SMALL-ARM. WILLIAM JOHN WHITING, Handsworth, Birmingham, England. Filed July 20, 1914. Serial No. 851,995. (Cl. 42—70.)

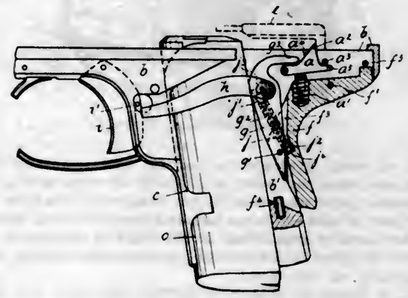


1. In a magazine small arm, in combination, a frame, a magazine removably fitted therein, a sear in the rear of said magazine, a sear-actuating member also located in the rear of said magazine, a spring pressing said member against the rear face of the magazine and adapted to move said member partly into the space normally occupied by the magazine when the latter is withdrawn, and an operative connection between said member and the trigger arranged to assume an inoperative position when said member is moved by its spring consequent to the withdrawal of the magazine.

2. In an automatic pistol, in combination, a frame having a magazine chamber and a recess in the rear of said chamber, a sear arranged in the rear of said chamber, a trigger arranged in front of said chamber, a sear operating lever pivotally mounted in said recess, a bar pivoted to said lever and forming an operative connection between the same and said trigger, and spring means acting upon said lever and bar and holding said lever against the magazine, the latter normally holding said lever in operative position, the spring means acting when the magazine is withdrawn to move the lever to a position wherein said bar is inoperative as a connection between the same and said trigger.

3. In a magazine small arm, in combination, a frame, a magazine removably fitted therein, a slidably mounted sear, a spring acting on said sear, a stop to limit the movement of said sear in either direction, a spring-influenced member arranged to operate the sear, the latter being movable independently of said member, a trigger, and an operative connection between said member and the trigger, the said member being held by its spring against the magazine and being movable when the magazine is withdrawn to a position wherein the said connection is inoperative, the magazine normally holding said member in operative position.

1,143,471. MAGAZINE SMALL-ARM. WILLIAM JOHN WHITING, Handsworth, Birmingham, England. Filed July 20, 1914. Serial No. 851,996. (Cl. 42—70.)



1. In a dual automatic safety system for magazine small arms, a hand-controlled safety element consisting of a spring-influenced grip-lever and a spring-influenced and magazine controlled limb associated with said grip-lever and constituting part of the lock mechanism, for transmitting motion from the trigger to the sear of the lock, said limb upon the magazine being removed, or hand-pressure on the grip lever being relieved, automatically assuming a position that renders the lock inoperative.

2. In a magazine pistol: the combination with a spring-influenced grip-lever safety which is arranged behind or adjacent to the magazine chamber, of a spring-influenced limb which forms part of, or is connected with, the lock mechanism of the pistol and is pivotally mounted on the said grip-lever; the said limb being so arranged that it partly lies within or extends into the said magazine chamber to permit of the same being controlled by the magazine, substantially in the manner and for the purpose herein set forth.

3. In a dual automatic safety system for magazine small arms embodying a sear and a trigger, in combination, a hand-controlled safety element consisting of a spring-influenced grip-lever, a spring-influenced and magazine-controlled limb associated with said grip-lever and constituting part of the lock mechanism, a spring held bar forming an operative connection between said trigger and limb for transmitting motion from the former to the latter, the said limb acting upon the sear when operated by said trigger and upon the removal of the magazine or the release of hand pressure on the grip-lever automatically assuming a position in which said bar is inoperative as a connection between the same and said trigger.

4. In a dual automatic safety system for magazine small arms embodying a sear and a trigger, in combination, a hand-controlled safety element consisting of a spring-influenced grip-lever, a spring-influenced and magazine-controlled limb associated with said grip-lever and constituting part of the lock mechanism, a spring held bar pivotally connected to said limb and forming an operative connection between said trigger and limb for transmitting motion from the former to the latter, the said limb acting upon the sear when operated by said trigger and upon the removal of the magazine or the release of hand pressure on the grip-lever automatically assuming a position in which said bar is inoperative as a connection between the same and said trigger.

1,143,472. HAMMERLESS AUTOMATIC SMALL-ARM. WILLIAM JOHN WHITING, Handsworth, Birmingham, England. Filed July 20, 1914. Serial No. 851,997. (Cl. 42—3.)



1. A hammerless automatic pistol or small arm comprising, in combination, a frame, a breech sleeve mounted thereon, an abutment piece fixed within the front portion of the sleeve, a loose abutment piece slidably connected to the sleeve, the frame having a stop against which the loose abutment piece slidably connected to the sleeve, the frame having a stop against which the loose abutment piece bears, a recoil-absorbing return-spring interposed between said abutment pieces and extering a thrust against the loose abutment piece to hold the latter against said stop, a striker slidably connected to said sleeve and a spring interposed between said striker and said loose abutment piece, the sleeve being arranged to be slid on or off the frame for the purpose of assembling or disassembling.

2. A hammerless automatic pistol or small arm comprising, in combination, a frame, a breech sleeve mounted thereon, an abutment piece fixed within the front portion of the sleeve, a loose abutment piece slidably connected to the sleeve, the frame having a stop against which the loose abutment piece bears, a recoil-absorbing return-spring interposed between said abutment pieces and exerting a thrust against the loose abutment piece to hold the latter against said stop, a striker slidably connected to said sleeve, a spring interposed between said striker and said loose abutment piece, and a removable closure means for the rear end of the sleeve, the sleeve being arranged to be slid on or off the frame for the purpose of assembling or disassembling and the closure means serving to retain the striker, the springs, and the loose abutment piece within the sleeve when the latter is removed from the frame.

3. A hammerless automatic pistol or small arm comprising, in combination, a frame, a breech sleeve mounted thereon, an abutment piece fixed within the front portion of the sleeve, a loose abutment piece slidably connected to the sleeve, the frame having a stop against which the loose abutment piece bears, a recoil-absorbing return-spring interposed between said abutment pieces and exerting a thrust against the loose abutment piece to hold the latter against said stop, a striker slidably connected to said sleeve, a spring interposed between said striker and said loose abutment piece, the sleeve being arranged to be slid on or off the frame for the purpose of assembling or disassembling and the striker being removable bodily with said sleeve, and a sear carried by said frame for cocking engagement with said striker.

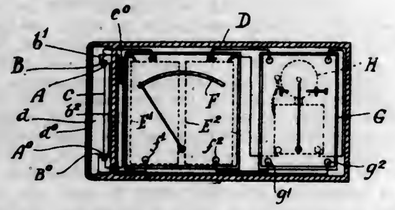
4. A hammerless automatic pistol or small arm comprising, in combination, a frame, a breech sleeve mounted thereon, an abutment piece fixed within the front portion of the sleeve, a loose abutment piece slidably connected to the sleeve, the frame having a stop against which the loose abutment piece bears, a recoil-absorbing return-spring interposed between said abutment piece and exerting a thrust against the loose abutment piece to hold the latter against said stop, a striker slidably connected to said sleeve, a spring interposed between said striker and said loose abutment piece, the fixed abutment piece being constructed to co-act with the striker in ejecting an empty cartridge, and a rearward extension pro-

vided on said fixed abutment piece for imparting cocking movement to said striker after the latter has participated in the ejection of the empty cartridge.

5. A breech-sleeve unit for hammerless automatic-pistols containing a sliding striker, a recoil-absorbing sleeve-return spring, a recoil-absorbing striker-spring, a front-abutment member which is fixed within the sleeve, a rear-abutment member which is slidably connected to the said sleeve and is normally anchored to the frame of the arm, and a rear stop or closure-plate located at the back of the rear abutment; the whole of the said parts being arranged in the manner herein described so that they may be removed bodily with the breech sleeve when the latter is detached from the said frame and so also that the springs, the striker and the abutment members may be dis-assembled from the said sleeve when the rear stop or closure plate is withdrawn.

[Claims 6 and 7 not printed in the Gazette.]

1,143,473. CONTRIVANCE FOR AUTOMATICALLY DETECTING THE PRESENCE OF CERTAIN GASES AND VAPORS. ALFRED WILLIAMS and LEO DAFT WILLIAMS, London, England. Filed Mar. 16, 1915. Serial No. 14,754. (Cl. 73—51.)



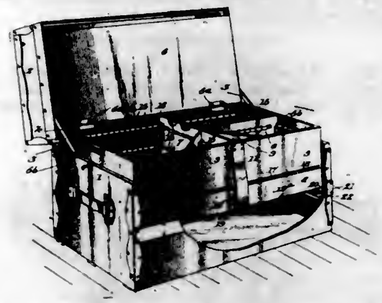
1. An apparatus for detecting, by electrical manifestations, the presence of combustible gases in the atmosphere, comprising a casing having an open and a sealed compartment, a pair of thermo-electric elements in the open compartment, a catalytic element in one of said thermo-electric elements, and a circuit for said thermo-electric elements, a voltmeter and a relay inserted in said circuit and situated in the sealed compartment, and means for maintaining said thermo-electric elements at an even heat.

2. An apparatus for detecting by electrical manifestations, the presence of combustible gases in the atmosphere, comprising a casing having an open and a sealed compartment, a pair of thermo-electric elements in the open compartment, a catalytic element in one of said thermo-electric elements, and a circuit for said thermo-electric elements, a voltmeter and a relay inserted in said circuit and situated in the sealed compartment, and means including a platinum wire connecting said thermo-electric elements, a circuit for the wire with a resistance coil, and a battery for maintaining said buttons at an even heat.

3. An apparatus for detecting by electrical manifestations, the presence of combustible gases in the atmosphere, comprising a casing having an open and a sealed compartment, a pair of thermo-electric elements in the open compartment, a catalytic element in one of said thermo-electric elements, and a circuit for said thermo-electric elements, a voltmeter and a relay inserted in said circuit and situated in the sealed compartment, and means including a platinum wire connecting said thermo-eteicric elements, a circuit for the wire with a resistance coil, and a battery for maintaining said thermo-electric elements at an even heat; a third circuit including an electric bell and a battery, said third circuit being closed by said relay when in operation.

1,143,474. TRUNK OR RECEPTACLE. MARGARET ELIZABETH BEEDLE WILLIAMS, Westernport, Md. Filed Dec. 5, 1910. Serial No. 595,743. (Cl. 190—35.)

1. A trunk or receptacle having removable tray supports, combined with a plurality of trays adapted to rest upon said supports, and a slidably removable bottom for each of said trays, the construction being such that, upon the removal of the tray supports and the bottoms of the trays, the entire tray system may be stored at the bottom of the trunk, thus affording a practically unobstructed interior, substantially as set forth.



2. A trunk or receptacle provided with removable tray supports, combined with a plurality of trays having removable parts, the construction being such that, on the removal of said supports and said parts and the storing of the same at the bottom of the trunk or receptacle, the latter is given a practically unobstructed interior, substantially as set forth.

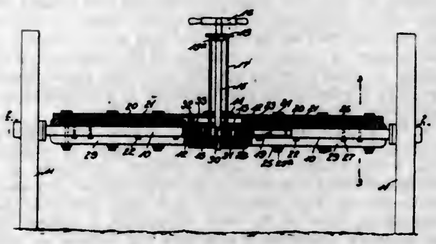
3. A trunk or receptacle having removable tray supports, combined with a plurality of trays adapted to rest upon said supports, a slidably removable bottom for each of said trays, and a removable top for the upper one of said plurality, the construction being such that, upon the removal of the tray supports, the bottoms of the trays and the top of the upper tray, the entire tray system may be stored at the bottom of the trunk, thus affording a pracically unobstructed interior, substantially as set forth.

4. The combination in a trunk or receptacle of a lower and an upper tray, a removable bottom for said upper tray, and a partition for said upper tray having a hinged lower section adapted to deepen said partition, whereby it may occupy the height of both trays, substantially as set forth.

5. A trunk or receptacle, having removable tray supports, combined with a plurality of trays, a slidably removable bottom for each of said trays, and means for detachably connecting the trays of said plurality, substantially as set forth.

[Claim 6 not printed in the Gazette.]

1,143,475. AXLE. WILLIAM ELLIS WISE, Williamsport, Pa. Filed Oct. 29, 1914. Serial No. 869,225. (Cl. 21—5.)



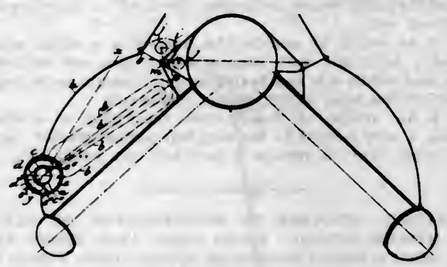
1. An axle comprising two sections each adapted to receive a wheel at the onter end, racks on the sections at the inner ends, a pinion meshing with the racks to slide the same and extend or contract the axle, a shaft on which the pinion is mounted, means on the shaft to turn the same, and means for locking the pinion, the said locking means consisting of pins ranging alongside the shaft, and a head carrying said pins slidably mounted on the shaft adjacent the upper end thereof, the said pinion having a series of holes to receive said pins.

2. An axle comprising two sections adapted to receive wheels, racks rigid with the sections at the inner ends, a pinion meshing with the racks to adjust the sections, means to turn the pinion, and spring means in frictional engagement with the racks to yieldingly resist movement thereof.

3. An axle comprising two sections adapted to receive wheels, racks rigid with the sections at the inner ends, a pinion meshing with the racks, means to turn the pinion, a filler body extending along the sides of both axle sections, said body being longitudinally slotted at its ends, a metallic casing over the sides and top of said body, means uniting the sides of the casing at the underside of the axle, strips secured to the upper sides of the axle sections to move therewith, wear plates over the said strips and secured thereto between the same and the casing, and vertical bolts securing the said strips and wear plates, the bolts having nuts accommodated in the slots of the body.

4. An axle comprising tow sections adapted to receive wheels, racks rigid with the sections at the inner ends, a pinion meshing with the racks, a shaft on which the pinion is mounted, a filler body embracing the racks and having slots at the underside at each end, a casing surrounding the body, the casing having a plate at the center above the pinion and the said casing, and a plate below the filler body and forming a bearing for the lower end of the shaft.

1,143,476. SUPERHEATER FOR WATER-TUBE BOILERS. HAROLD EDGAR YARROW, Scotstoun, Glasgow, Scotland. Filed Jan. 29, 1914. Serial No. 815,250. (Cl. 122—476.)



1. A superheater for water tube boilers having a single steam drum, wherein the drum is fitted with an inner tube and transverse and longitudinal baffles dividing the drum into sections, substantially as described.

2. A steam superheater having a single steam drum and an inner tube and transverse and longitudinal baffles dividing the drum into sections, said inner tube and baffles being removable upon removing an end or cover plate, substantially as described.

3. A steam superheater having a single steam drum and an inner tube and transverse and longitudinal baffles dividing the drum into sections, said inner tube and baffle being removable in one piece upon removing an end or cover plate, substantially as described.

4. A superheater for water tube boilers of the kind in which superheater tubes, of substantially U-shape are expanded into a single steam drum with the tubes projecting upwardly, wherein the drum is adapted to be rotated about its longitudinal axis either with or without removal of the side casing of the furnace so as to project the tubes for ward or outward to render them accessible for the purpose of removal or replacement, substantially as described.

5. A steam superheater having a plurality of bent or U-shaped elements expanded into a single steam drum or header, the legs of adjacent elements being throughout their whole length out of parallel so that the gas passage space between them increases in the direction toward the drum or header.

[Claims 6 and 7 not printed in the Gazette.]

1,143,477. AXLE CONSTRUCTION. GEORGE W. YATES, Griffinsburg, Va. Filed Apr. 8, 1915. Serial No. 20,087. (Cl. 105—66.)



1. The combination, with a divided axle, of coupling means therefor comprising a sectional sleeve surrounding the same, clamping members on said sleeve, and connecting means connecting said clamping members together and adapted to impart clamping action to the sleeve sections.

2. The combination, with a divided axle, of a divided sleeve surrounding the same, clamping members slidably mounted on said sleeve, and connecting means connecting said clamping members for moving the same longitudinally of the sleeve to impart clamping action to the sleeve sections.

3. The combination, with a divided axle, of a sectional sleeve surrounding the same, clamping collars movably mounted on said sleeve, and connecting means connecting the collars together, comprising draw rods adapted to impart movement to the collars for drawing the sections together.

4. The combination, with a divided axle, of a sectional sleeve surrounding the same and formed with opposite inclinations, clamping members mounted on said sleeve adjacent to the end portions of the inclinations, intermediate clamping members, and actuating means connecting the respective clamping members together for drawing the same up the inclinations to impart equalizing clamping action to the sleeve sections.

5. The combination, with a divided axle, of a sectional sleeve surrounding the same and formed with opposite inclinations, clamping members mounted on said sleeves adjacent to the end portions, intermediate clamping members, actuating means connecting the end clamping members together, and other actuating members connecting the intermediate clamping members together, the first mentioned actuating means coöperating with the intermediate clamping members to hold all of said clamping members in alined position.

1,143,478. MEASURING-STICK. MARTIN I. ZOFNASS, Bartlesville, Okla. Filed Nov. 24, 1914. Serial No. 873,757. (Cl. 33—11.)

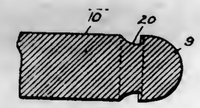


1. In a device of the class described, an upright; an arm disposed transversely of the upright; a guide on the arm and receiving the upright; and a movable member pivoted on the arm, the movable member having a head which enters within the contour of the guide and engages one edge of the upright.

2. In a device of the class described, an upright having teeth in one edge; an arm disposed transversely of the

upright; a guide on the arm, the guide comprising an end wall which coöperates with the teeth carrying edge of the upright to dispose the arm at right angles to the upright, said wall having a lip adapted to coact with the teeth, the upright being movable in the guide longitudinally of the arm to disengage the lip from the teeth.

1,143,479. BEARING-ROLLERS. LAWRENCE A. ABBOTT, Jr., Newark, N. J., assignor of one-third to Harry Browne and one-third to Frank Wiegand, Newark, N. J. Filed Nov. 6, 1914. Serial No. 870,670. (Cl. 64—39.)



1. In a bearing structure, bearing rollers being provided with annular lubricant ducts adjacent to their ends, said ducts terminating toward the ends of the rollers in abrupt shoulders and enlarging inwardly toward the center of the rollers in a gradual incline for throwing lubricant inwardly toward the centers of the rollers upon rotation thereof.

2. A bearing roller having tapered ends, and heads formed upon and overlying the smaller portions of said tapered ends.

3. In a bearing structure, the combination with a protective casing, of a plurality of bearing rollers rotatably mounted within said casing, said rollers being provided with annular oil ducts formed therein a short distance inwardly from their terminal ends, said oil ducts terminating toward the ends of said bearing rollers in substantially semicircular portions and extending inwardly from said substantially semi-circular portions toward the center of said rollers in an arcuate curve of increased radius with respect to said substantially semi-circular portions for feeding lubricant toward the center of said bearing upon rotation of the same.

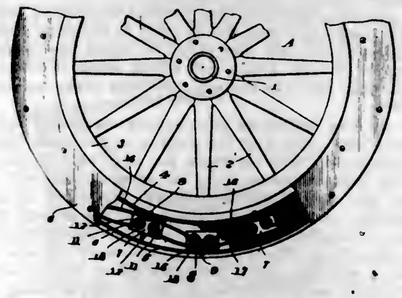
4. A bearing roller having tapered ends, semi-spherical heads formed upon the outer smaller ends of said tapered ends and overlying them for forming lubricant receiving ducts, said heads forming abrupt shoulders at the outer terminus of said tapered ends for throwing lubricant inwardly over the tapered ends toward the centers of the rollers upon rotation thereof.

5. In a bearing atructure, the combination with a casing, of a plurality of bearing rollers positioned within said casing, said bearing rollers having their terminal ends rounded and forming substantially semi-spheres, said casing being provided with arcuate channels for receiving said rounded roller ends, said rollers being provided with lubricant ducts formed therein at the inner terminals of said semi-spherical portions, said lubricant ducts extending into the inner ends of said semi-spherical portions and being substantially semi-circular in shape, said ducts extending inwardly toward the center of said roller from said semi-circular portion in arcuate inclines of increased radius over the substantially semi-circular portions thereof for feeding lubricant inwardly toward the center of said rollers upon rotation of the same, and a plurality of pin rollers spaced within said casing and engaging said bearing rollers for holding them in spaced relation with each other.

[Claim 6 not printed in the Gazette.]

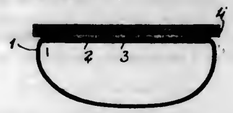
1,143,480. VEHICLE-WHEEL. WILLIAM R. ALLEN and ALOYSIUS MCNALLY, Blaine, Wash. Filed Sept. 5, 1914. Serial No. 860,424. (Cl. 152—37.)

A vehicle wheel comprising a fixed rim, an outside tire-carrying rim in spaced relation to said fixed rim, saddles fastened alternately to said rims, rollers journaled in said saddles, eccentric journal pins carried by said rollers, and bowed springs reversely arranged and fastened alternately



to said rims and provided with terminal eyes which receive said journal pins.

1,143,481. BOOT AND SHOE. WILLIAM B. ARNOLD, North Abington, Mass. Filed July 20, 1914. Serial No. 851,989. (Cl. 36—17.)



1. A boot or shoe comprising an upper and in-sole, a middle sole, a welt arranged upon the middle sole and projecting beyond the margin thereof, fastening means connecting said middle sole, welt and in-sole, an out-sole, and fastening means connecting the latter to the margin of said welt.

2. An article of manufacture comprising a middle sole and a welt, said welt being arranged upon and secured to said middle sole and having its outer margin projecting beyond the outer margin of said middle sole.

3. An article of manufacture comprising a middle sole, a welt secured to the marginal portion thereof, and a fabric reinforce secured to said welt and middle sole.

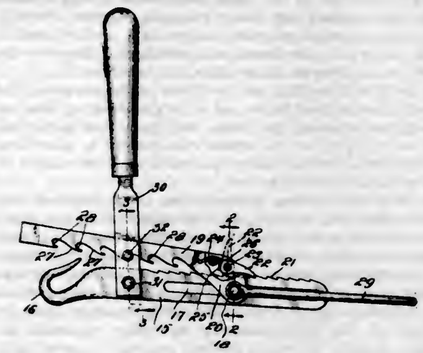
1,143,482. PROCESS OF MANUFACTURE OF ALUMINIUM NITRID. ADRIEN BADIN, Paris, France, assignor to Société Generale des Nitrures, Paris, France, a Corporation of France. Filed Feb. 2, 1915. Serial No. 5,793. (Cl. 23—13.)

1. A process of manufacture of aluminium nitrid, characterized by this that an aluminous material, mixed with carbon, is sent into a flame produced by the combustion of coal dust, the quantity of air for burning being chosen in such a way that the combustion gives almost exclusively carbon monoxid.

2. A process of manufacture of aluminium nitrid, characterized by this that bauxite mixed with carbon, is sent into a flame produced by the combustion of coal dust, the quantity of air for burning being chosen in such a way that the combination gives almost exclusively carbon monoxid.

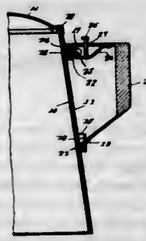
1,143,483. CABLE-TIGHTENER. ANSLEY BARNES, Waterville, Me. Filed Sept. 9, 1914. Serial No. 860,922. (Cl. 254—66.)

1. In a device of the class described, a body member having a hook at one end, a longitudinal slot at the other end, and a toothed upper edge, a member slidably engaging the slot, a bar pivotally engaging the slidable member, a spring actuated pawl pivoted on the bar and engaging the toothed edge of the body member, and a lever fulcrumed on the body member intermediate the hooked end and the slot and having means engaging the bar to impart a step by step movement thereto.



2. In a device of the class described, a body member having a hook at one end and a longitudinal slot at the other end, a bolt slidable in the longitudinal slot, a bar having a bifurcated end straddling the body member and forming ears that are pivoted on the bolt, a spring actuated pawl pivoted between the ears and engaging the toothed edge of the body member, a bifurcated lever fulcrumed on the body member between the hook and the longitudinal slot, and a pin connecting the limbs of said lever, the pivoted bar being provided with teeth and with recesses intermediate said teeth to be engaged by said pin.

1,143,484. DETACHABLE HANDLE FOR RECEPTACLES. CHARLES BEACH, Muscatine, Iowa. Filed Feb. 27, 1914, Serial No. 821,522. Renewed Jan. 12, 1915. Serial No. 1,883. (Cl. 53—3.)

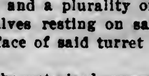


1. In combination with a receptacle, upper and lower brackets secured to the receptacle, a plurality of slotted hooks projecting from the upper bracket, a flange projecting from the lower bracket to provide a slot therein, a handle body, a lip formed on the lower end of the handle body to extend into the slot of the lower bracket, an apertured plate formed on the upper end of the handle body and adapted to have the said hooks extend through the apertures thereof, and a spring-like locking member carried by the handle body and adapted to normally extend into the slots of the said hooks to hold the handle body in engagement with the said brackets.

2. In combination with a receptacle, upper and lower brackets secured to the receptacle, a plurality of slotted hooks projecting from the upper bracket, a flange projecting from the lower bracket to provide a slot therein, a handle body, a lip formed on the lower end of the handle body to extend into the slot of the lower bracket, an apertured plate formed on the upper end of the handle body and adapted to have the said hooks extend through the apertures thereof, a spring-like locking member carried by the handle body and adapted to normally extend into the slots of the said hooks to hold the handle body in engagement with the said brackets, and a releasing member having sliding engagement with the handle body and coöperating with the said locking member for moving the same out of locking engagement with the said hooks.

3. In combination with a receptacle, upper and lower brackets on the receptacle, a handle body having its lower end for connection with the lower bracket, slotted members projecting from the upper bracket to engage the upper end of the handle body, a spring-like locking member carried by the handle body to extend into the slots of the said members and lock the handle body thereto, and means for moving the locking member out of locked position relatively to the said slotted members.

1,143,485. BATTERY CONNECTION. CHARLES H. BECK, Altoona, Pa. Filed Aug. 31, 1914. Serial No. 859,519. (Cl. 173—269.)



1. In an electrical terminal connection the combination with a terminal element having oppositely projecting locking pins, of a terminal clip member comprising a pair of oppositely arranged spring jaws having a keyhole slot adapted to receive the end of the terminal element, and be locked therewith.

2. In an electrical terminal connection the combination with a terminal element having oppositely projecting radially disposed locking pins, of a terminal clip member comprising oppositely arranged spring jaws having a keyhole slot adapted to receive the end of the terminal element, and also having radially disposed keeper grooves for receiving the locking pins of the terminal element.

3. In an electrical terminal connection the combination with a terminal element of a clip member comprising oppositely arranged resilient jaws having registering keyhole slots for receiving the terminal element, said clip adapted to be held in locking engagement with the terminal element by rotation in a quarter circle.

4. In an electrical terminal connection the combination with a terminal element of a clip member comprising oppositely arranged resilient jaws having their flat faces arranged substantially parallel, said jaws provided with registering keyhole slots and radially disposed keeper grooves on their outer faces.

5. In an electrical terminal connection the combination with a terminal element having locking pins, of a clip member comprising oppositely arranged compressible jaws having registering keyhole slots, and also having keeper grooves arranged at right angles to the longitudinal center of said slot adapted to engage with said locking pins of the terminal element.

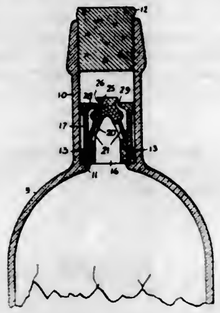
[Claims 6 to 8 not printed in the Gazette.]

1,143,486. NON-REFILLABLE BOTTLE. JACOB BELASCO, New York, N. Y. Filed Apr. 7, 1914. Serial No. 830,171. (Cl. 215—68.)

1. A bottle as characterized, comprising a neck portion having a delivery passage; a hollow turret extending access said passage, the side walls of said turret being approximately perpendicular to the base thereof and having openings therethrough, said openings having recessed edges below the outer surface of said turret to form valve seats; and a plurality of thin, resilient, outwardly-opening valves resting on said recessed edges below the outer surface of said turret and normally closing said openings.

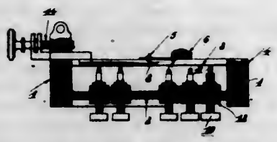
2. A bottle as characterized, comprising a neck portion having a delivery passage; a hollow turret extending across said passage, the side walls of said turret being approximately perpendicular to the base thereof and having openings therethrough, said openings having recessed edges below the outer surface of said turret to

form valve seats; a plurality of thin, resilient, outwardly-opening valves resting on said recessed edges below the outer surface of said turret and normally closing said openings; and means adjacent said openings projecting from the sides of said turret above said openings, for protecting said valves.



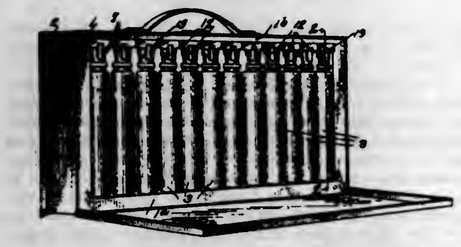
3. A bottle as characterized, comprising a hollow closure turret, said turret having pouring openings in the sides thereof, said openings having edges recessed below the outer surface of said turret; a plurality of thin, resilient closure members for said openings, said members being adapted to rest on the recessed edges thereof and to normally close the same; and means rigidly connected with said turret for holding said closure members in closed relation.

1,143,487. MICROPHONE AND LIKE INSTRUMENT. EDOUARD BELIN, Paris, France. Filed July 31, 1913. Serial No. 782,346. (Cl. 178—11.)



In a combined rheostat and microphone, adjustable contact pieces, resistances connecting said contact pieces, and a flexible leaf adapted to be deflected to come successively into contact with said contact pieces for bridging across the resistances without abrupt or sharp short circuiting.

1,143,488. BOTTLE-HOLDING RACK. EDWARD M. BELL, Greeneville, Tenn. Filed Oct. 8, 1914. Serial No. 865,704. (Cl. 206—12.)



1. In bottle holding means of the class described, the combination with a frame, of bottle engaging means mounted in said frame for bodily movement, said frame having guiding means for causing said bottle engaging means to exert pressure against the bottle interlocking the latter in the frame.

2. In bottle holding means of the class described, the combination with a frame, of a bottle engaging member slidably mounted on the frame, the frame having guiding means for guiding the bottle engaging member whereby to cause movement of said member into contact with a bottle carried in the frame and locking the latter in the frame under pressure longitudinally of said bottle.

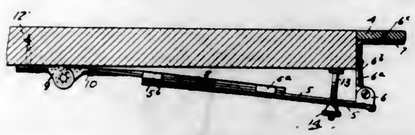
3. In bottle holding means of the class described, the combination with a frame, of a bottle engaging member slidably mounted on the frame, the frame having guiding grooves arranged at an incline with respect to the frame whereby to cause a clamping action upon movement of said member in one direction.

4. In bottle holding means of the class described, the combination with a bottle, of a frame including side members between which the bottle is interposed, a slidable member mounted on one of the side members of the frame in a position to engage one end of said bottle, the side member last mentioned having inclined grooves in which the slidable member is movable bodily whereby upon insertion of the bottle between the frame members the slidable member is caused to exert pressure longitudinally on the bottle tending to move the bottle cork into and locking said cork from displacement from the bottle.

5. In bottle holding means of the class described, the combination with a frame, of bottle engaging means mounted in said frame for bodily movement, said frame having guiding means for causing said bottle engaging means to exert pressure against the bottle interlocking the latter in the frame, and a locking member intermediate the bottle engaging means and the frame holding the engaging means in position in said frame.

[Claims 6 to 10 not printed in the Gazette.]

1,143,489. YARDSTICK-SUPPORT. JOHN ALBERT BERCHTOLD, Sigel, Ill. Filed Apr. 1, 1914. Serial No. 828,715. (Cl. 211—12.)



1. In a support of the class described, the combination with a table and a yard stick support designed to be arranged along one edge thereof and flush with the top, and also arranged beneath the counter, of a spring pressed support, a sliding member connected with said spring pressed support, an upstanding member arranged on said sliding member for spacing said yard stick above said support, and a stop for limiting the upward swinging movement of said swinging member so as to stop the upward movement of said yard stick when moved to a position flush with the top of the counter.

2. In a yard stick support, the combination with a counter or other supporting member, of a spring pressed swinging arm, a sliding arm arranged on said swinging arm and adapted to move longitudinally thereof so that the end of the sliding arm may be arranged beneath said counter or project therebeyond, a stop for limiting the swinging movement of said swinging arm and sliding member toward the counter, and a hinged spring pressed stick support arranged adjacent the end of said sliding member so as to press said yard stick against the edge of said counter when the end of said sliding member has been moved to a position beyond said counter.

3. In a supporting device for yard sticks, the combination with a counter of a spring pressed swinging arm connected at one end with said counter on the lower side, and designed to have the free end yield in a direction substantially at right angles to the counter, a sliding member arranged on said arm and designed to move transversely of the counter so that the outer end thereof will move toward and from the edge of the counter, and means for connecting a yard stick with the outer end of said

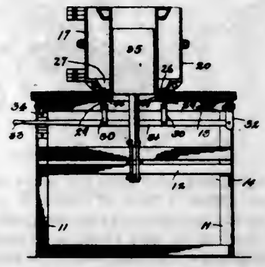
sliding support, said means being spring pressed so as to hold said stick against said counter when moved flush therewith by said swinging arm.

4. In a support for yard sticks, the combination with a counter, of a plurality of supports, each of said supports comprising a swinging arm connected to one side of the counter and free to swing at the outer end, a sliding member arranged on each arm and formed with means for guiding the same in a back and forth movement on said swinging arm, and a yard stick connected with the outer ends of said sliding members.

5. In a yard stick support of the class described, a spring pressed swinging arm formed with shoulders intermediate its length, a sliding strip arranged on said arm and formed wth substantially encircling ears designed to engage said shoulders for limiting the sliding movement of said sliding member in one direction, means for limiting the swinging movement of said resilient member in one direction, and means for pivotally connecting the yard stick with said swinging arm.

[Claim 6 not printed in the Gazette.]

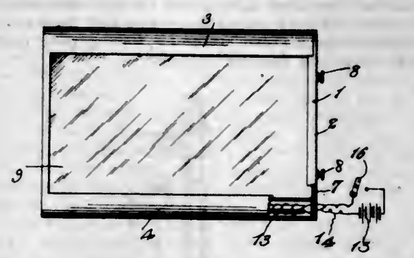
1,143,490. CEMENT-BLOCK MACHINE. JOHN F. BERRY and WILLIAM E. BURRILL, Bangor, Me. Filed July 15, 1912. Serial No. 709,455. (Cl. 25—41.)



1. In a cement block machine, the combination with a frame, having a removable platform, of a mold mounted on said frame, said mold being divided along its diagonal vertical plane into two halves having hinged connection to permit the swinging of said halves to remove the block, levers pivoted to said frame and connected to said mold, and locking means for clamping the mold firmly on the platform, a solid core within said mold having a depending stem, a lever pivotally mounted to the frame and pivotally connected to said stem to control the position of the solid core relative to the mold, said platform being provided with an opening, a liner for said opening, a removable sleeve around said core, said sleeve being seated in said liner.

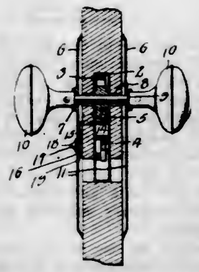
2. In a cement block machine for forming hollow blocks, the combination with a frame having a platform provided with an opening, of a mold formed in sections and having hinges permitting relative swinging of the sections for removing the block, said mold being provided with an inwardly tapering lower end with an opening in its bottom wall commensurate with the opening in the platform, links depending from said mold bottom, and levers journaled on said frame and connected to said links, and locking means for the levers whereby the mold is clamped to the platform, a detachable sheet metal core in said mold provided with an overhang at its upper end corresponding in shape to said tapering end, the lower end of the core extending through the opening in the bottom of the mold and through the opening in the platform and registering therewith, a solid movable core extending through the openings in said mold and platform and into the sheet metal core, a stem depending from said solid core, a link depending from and pivotally connected to said stem and a lever journaled on the frame and pivotally connected to and supporting said solid core, whereby the relative positions of the sheet metal core and the solid core may be changed.

1,143,491. WIND-SHIELD. EDWARD P. BIDWELL, Monrovia, Cal. Filed June 17, 1914. Serial No. 845,647. (Cl. 219—19.)



A wind shield comprising a frame including opposed bars, pane supporting bars carried by the opposed bars, panes carried by the supporting bars and spaced from one another and a heating element carried by the lower of the bars and disposed below the lower edges of the panes.

1,143,492. COMBINED LOCK AND LATCH. DELOSS BORLAND, Charleston, Miss. Filed Nov. 13, 1914. Serial No. 871,953. (Cl. 70—42.)



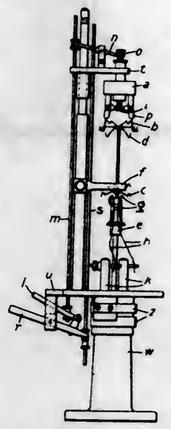
In combination, a combined lock and latch adapted to fit in the mortise in a door and escutcheon plates secured to the opposite sides of the door, one side wall of the casing of said lock having a slot formed therein, a pin extending through said slot and working therein and capable of movement to a position to hold the latching bolt against inward movement, an arm connected to one end of said pin and disposed immediately adjacent to and in parallelism with the escutcheon plate at the inner side of the door, said last-named plate having a vertical slot formed therein, a pin extending through said last slot and connected with the adjacent end of said arm, a thumb piece on the outer end of said pin whereby said arm may be actuated to operate said first-named pin, and a leaf spring interposed between said arm and the adjacent face of the escutcheon plate to hold the arm in operated position.

1,143,493. APPARATUS FOR MOUNTING FILAMENTS. LEO DORZYCHOWSKI, Berlin, Germany, assignor to General Electric Company, a Corporation of New York. Filed June 3, 1912. Serial No. 701,409. (Cl. 176—3.)

1. In an apparatus for mounting filaments, the combination of means for positioning a filament support, a holder head, auxiliary filament supports hinged on said head to move into and out of position to receive the strain of winding the filament on its support, means for at will moving said auxiliary supports about their pivots while said head is stationary and means for causing a bodily movement of said holder head and said auxiliary supports with respect to said positioning means.

2. In an apparatus for mounting filaments upon yielding supports, for combination of a holder head, means for positioning yielding filament supports, auxiliary fila-

ment supports movably mounted on said head to move into and out of position to relieve the yielding supports from the strains produced by winding the filament over said supports, means for moving said auxiliary supports relatively to said head, means for locking said head and said auxiliary supports, and means for moving them together away from said filament supports.



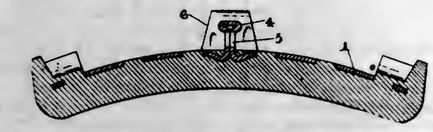
3. In a machine for use in the manufacture of incandescent lamps, the combination of a base, a frame rotatably mounted on said base, means on said frame for positioning filament supports, a holder head slidably mounted on said frame, auxiliary filament supports movably mounted on said head in position to receive the strain produced by winding the filament over said filament supports, means for moving said auxiliary supports out of said position independently of said head, and means for sliding said head to move said auxiliary supports bodily away from said filament supports.

4. In an apparatus for use in the manufacture of incandescent lamps, the combination of means for holding in position yielding supports for carrying the filament, temporary holding means for receiving the filament while being mounted, and means for disengaging the temporary means from the filament after mounting to transfer the filament to said yielding supports.

5. In an apparatus for mounting filaments upon yielding supports, a combination of means for supporting and positioning a frame containing said supports, a holder head adjacent said yielding supports, auxiliary filament supports movably mounted on said head in position to receive said filament, and means for at will moving said auxiliary supports in and out of substantial proximity with the yielding supports.

[Claims 6 to 10 not printed in the Gazette.]

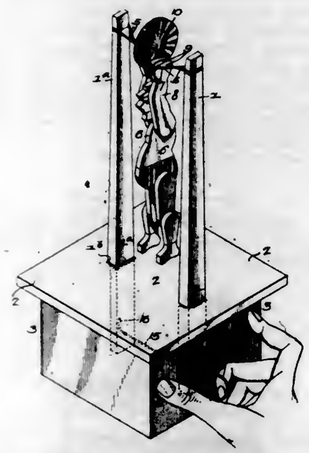
1,143,494. BRAKE-SHOE. ARCHIBALD BRAKE, Toronto, Ontario, Canada. Filed Dec. 28, 1914. Serial No. 879,382. (Cl. 188—22.)



1. A back plate for brake shoes comprising a metal strip doubled at the center and bent to form an upstanding lug of two thicknesses of the strip, the top of the lug at the bend being upset to give the lug a greater thickness at that point, and a hole for a key being formed through the lug below the upset top portion.

2. A back plate for brake shoes comprising a metal strip doubled at the center and bent to form an upstanding lug of two thicknesses of the strip, the top of the lug at the bend being upset to give the lug a greater thickness at that point, and a hole for a key being formed through the lug below the upset top portion, in combination with a shoe body cast on the back and formed with a lug at each side embracing the ends of the lug of the back.

1,143,495. ACROBATIC TOY. JOHN D. BRAUGHT, Carlisle, Pa. Filed Dec. 9, 1914. Serial No. 876,253. (Cl. 46—40.)



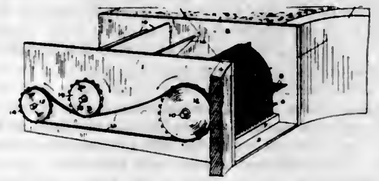
1. In a jumping-jack or similar toy figure, the combination with said figure, a pair of sticks or standards, a looped cord carried by said sticks or standards to support the figure, a support for said sticks or standards, one of which is fixed and the other movable with respect to said support, of a movable connection carried by the movable stick and horizontally disposed and extending directly therefrom through a wall of said support at a point below the top of the same, said connection having an operative element outside of the support below the top of the same for engagement by the finger.

2. In a jumping-jack or similar toy figure, the combination with said figure, a pair of sticks or standards, a looped cord carried by said sticks or standards to support the figure, a box-like support for said sticks or standards, one of which is fixed and the other movable with respect to said support, of a movable rod carried by said support for effecting the movement of the movable stick with respect to the fixed stick, said rod passing through both sticks and a wall of the support below the top of the same and being operatively connected to the movable stick and an operative element carried by said rod outside the box-like support and below the top of the same, for engagement by the finger.

3. In a jumping-jack or similar toy figure, the combination of supporting sticks or standards, a mount for the same, one of said sticks being movable with respect to the other, means for operating said movable stick with respect to the fixed stick, a cord having double runs carried by said sticks, a jointed figure carried by the runs of said cord, said figure having portions apertured for the passage of said cord, and a disk-like member also carried by said cord and interposed between the portions of the figure carried by said cord and disposed above the same.

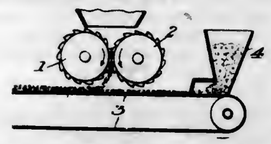
1,143,496. AUTOMATIC CLEANER FOR FISH-SCREENS. LARKIN BEILES, Lake City, Cal. Filed Aug. 4, 1914. Serial No. 854,962. (Cl. 61—5.)

A fish guard, comprising a sluiceway, a screen closing the mouth of said sluiceway, said screen composed of upright tines having straight portions at their lower ends and backwardly curved portions at their upper ends, a rotating rake mounted eccentrically of said curved portion of said screen and in proximity to the straight portion thereof, and having prongs of such length and so positioned that they project between the tines of the screen under debris lodged thereagainst and pass from between said tines before reaching the ends thereof, whereby such



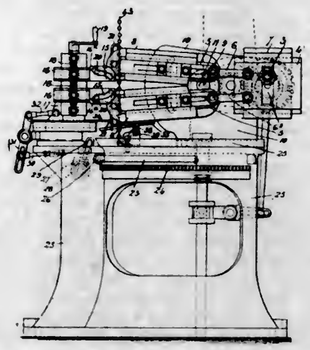
debris is raised and thrown over the screen and the prongs of the rake stripped thereby, and a paddle wheel adapted to be rotated by the current flowing into said sluiceway, and gearing connecting said paddle wheel and said rake, and adapted to rotate the rake oppositely to the paddle wheel.

1,143,497. PROCESS OF DRYING RAW PEAT AND THE LIKE. HEINRICH BRUNE and HEINRICH HORST, Dortmund, Germany, assignors to Nasspress-Gesellschaft mit Beschränkter Haftung, Wiesbaden, Germany, a Corporation. Filed Apr. 8, 1915. Serial No. 20,041. (Cl. 44—3.)



The process of drying raw peat and similar wet materials, which consists in cutting the wet material into small particles while preserving its fibers in an uncrushed condition, adding to the cut wet material a dry comminuted admixture, maintaining the wet material and admixture in a loosely mixed condition, and then pressing the wet material and admixture; for the purpose described.

1,143,498. MACHINE FOR CUTTING MITER AND BEVEL GEAR-WHEELS. JOHN BUCK, Lincoln, England. Filed Feb. 6, 1914. Serial No. 817,030. (Cl. 90—10.)



1. In a machine for cutting gear-teeth, the combination of a pair of pivotally-connected backing plates, each provided with a cutter slide; a support for said plates; a movable member connected to one end of each plate and provided with a tracer; a bracket adjustable toward and from said plates; and a pair of blocks carried by said bracket and provided, each, with a former having therein a slot for the reception of the adjacent tracer, said slots conforming to the size and shape of the teeth to be cut.

2. In a machine for cutting gear teeth, the combination of a pair of pivotally-connected backing plates, each provided with a cutter slide; a support for said plates; a movable member connected to one end of each plate and provided with a tracer; a bracket adjustable toward and from said plates; a rotatably-mounted vertical rod carried by said bracket and provided with oppositely-threaded portions; a pair of superposed blocks engaged with the threaded portions of said rod; and a former carried by each block and provided with a slot for the reception of the adjacent tracer, said slots conforming to the size and shape of the teeth to be cut.

3. In a machine for cutting gear teeth, the combination, with a pair of backing plates, and a supoprt to which the same are hinged at their front ends; of a pair of cutter slides mounted in said plates; an actuating disk arranged in front of said slides and provided with a crank pin; a reciprocatory block having a vertical slot wherein said pin is engaged; a link connection between said block and the front end of each slide; a tracer carried by each plate at its rear end; a bracket provided with a pair of superposed blocks; and a former carried by each second-named block and having a slot therein for the reception of the adjacent tracer, said slots conforming to the size and shape of the teeth to be cut.

4. In a machine for cutting gear teeth, the combination, with a pair of backing plates, and a support to which the same are hinged at their front ends; of a pair of cutter slides mounted in said plates; an actuating disk arranged in front of said slides and provided with a crank pin; a reciprocatory block having a vertical slot wherein said pin is engaged; a link connection between said block and the front end of each slide; a member movably mounted on the rear end of each plate and provided with a tracer; a bracket slidable toward and from said plates and provided with a pair of superposed blocks; and a former carried by each second-named block and having a slot therein for the reception of the adjacent tracer, said slots conforming to the size and shape of the teeth to be cut.

5. In a machine for cutting gear teeth, the combination, with a cutter-carrying element, a pivotally mounted frame, and operating means for said frame; of a former-carrying frame; tracers carried by said element and engaged with the formers of the second-named frame; a rod clamped to the first-named frame; and connections between said rod and the second-named frame, for actuating the latter from said element.

[Claims 6 to 11 not printed in the Gazette.]

1,143,499. MANUFACTURE OF EMULSIONS AND SUBSTANCES FOR USE THEREIN. CARL BÜCKEL, Frankfort-on-the-Main, Germany. Filed May 26, 1914. Serial No. 841,147. (Cl. 87—5.)

1. As a new process the manufacture of emulsions, which consists in incorporating with the body to be emulsified an acidyl-aryl-sulfonimid of the general formula

$$Ar.SO_2.NM.Ac$$

wherein Ar stands for aryl, M for H, NH_4, a metal, and Ac for an aliphatic acidyl.

2. As a new process, the manufacture of an emulsion, which consists in incorporating an acidyl-aryl-sulfonimid-metal with a mixture of soap, water, and olein.

3. As a new process, the manufacture of an emulsion, which consists in incorporating palmityl-para-toluene-sulfonimid-sodium with a mixture of soap, water, and olein.

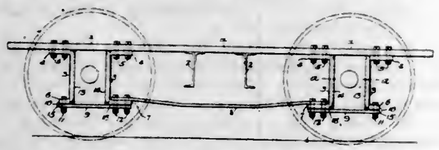
4. As new products, the emulsions obtained by incorporating with bodies to be emulsified, an acidyl-aryl-sulfonimid of the general formula

$$Ar.SO_2.NM.Ac$$

showing, on the one hand, the properties of the emulsified bodies, on the other hand, those of an acidyl-aryl-sulfonimid.

5. As a new product the emulsion obtained by incorporating palmityl-para-toluenesulfonimid-sodium with a mixture of soap, water and olein, being a white, mucilaginous mixture, showing, on the one hand the properties of soap, water and olein, and on the other hand, those of the palmityl-para-toluenesulfonimid-sodium.

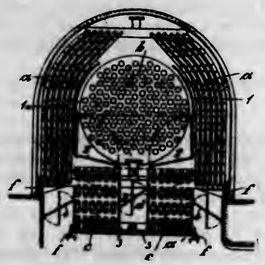
1,143,500. TRUCK. SAMUEL A. BULLOCK, Philadelphia, Pa., assignor to The Baldwin Locomotive Works, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Jan. 21, 1915. Serial No. 3,565. (Cl. 105—243.)



1. The combination in a truck, of two pedestals having right angled extensions, the extension of the inner pedestal being of a greater length than the extension of the outer pedestal; flanged gibs mounted on each pedestal and having portions located under the extensions of the pedestals; a cap plate having a flange at one end bearing against the end of the extension of the outer pedestal; and bolts securing the cap plate to the pedestals and securing the gibs in position.

2. The combination in a truck, of pedestals having right angled extensions, the extensions of the inner pedestals being of greater length than those of the outer pedestals; gibs having angular portions extending under the pedestals; a cap plate for each pair of pedestals, the outer end of each cap plate being turned up to bear against the end of the extension of the outer pedestal; a tie bar connecting the two pedestals; and two bolts securing the tie bar, inner pedestal, gib, and cap plate together.

1,143,501. SUPERHEATER AND ECONOMIZER FOR HORIZONTAL SMOKE-TUBE BOILERS. FRANZ BÜRGER, Mannheim, Germany, assignor to the Firm of Heinrich Lanz, Mannheim, Germany. Filed Feb. 27, 1914. Serial No. 821,595. (Cl. 122—477.)



1. The combination with the smoke box of a horizontal smoke-tube boiler, of a system of superheater tubes, and a system of economizer tubes, both of which are arranged in a single transverse zone within said smoke box.

2. In combination with the smoke box of a horizontal smoke-tube boiler, smoke flues therein, the upper parts of said flues being concentric with the boiler axis and extending vertically downward at their lower parts, superheater tubes in the upper part of said flues and economizer tubes in the lower part of said flues.

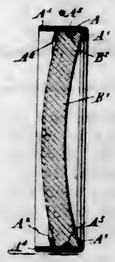
3. In combination with the smoke box of a horizontal smoke-tube boiler, smoke flues therein concentric at their upper parts with the boiler axis and open to the boiler end space, said smoke flues extending downwardly below the plane of the boiler axis, superheater tubes arranged in said smoke flues, economizer flues disposed intermediate the lower ends of said smoke flues, economizer tubes in said economizer flues, valves controlling communication between said smoke flues and the furnace gas draw-off space beneath the same, and valves controlling communication between said economizer flues and boiler end space.

4. In combination with the smoke box of a horizontal smoke-tube boiler, smoke flues therein concentric at their upper parts with the boiler axis and open to the boiler end space, said smoke flues extending downwardly below the plane of the boiler axis, superheater tubes arranged in said smoke flues, economizer flues disposed intermediate the lower ends of said smoke flues and having a space between them communicating with said boiler end space, economizer tubes in said economizer flues, valves controlling communication between said smoke flues and the furnace gas draw-off space beneath the same, valves controlling communication between said economizer flues and boiler end space, and a valve in the space between said economizer flues.

5. In combination with a horizontal smoke-tube boiler, a smoke box into the central part of which the smoke tubes open, an inner shell within the smoke box open above to form two side flues, a plurality of sinuous superheater tubes in the upper part of said flues and connected to the boiler and a plurality of sinuous feed water tubes in the lower part of said flues, said sinuous tubes winding from front to back of the smoke box.

[Claim 6 not printed in the Gazette.]

1,143,502. EYEGLASS-PROTECTOR. IRWIN G. BURTON, Asbury Park, N. J. Filed Dec. 30, 1913. Serial No. 809,471. (Cl. 88—47.)



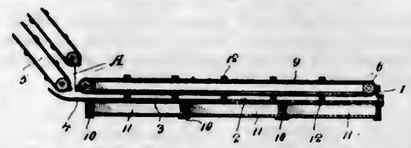
1. A protector for the lenses of eyeglasses, comprising a ring of an elastic material, less in size than the rim of a lens and having a smooth unobstructed peripheral surface, the ring being adapted to encircle the rim and to be held in stretched condition thereon, the said ring projecting at the sides beyond the edges of the lens and having integral flanges extending inwardly on the ring and engaging the faces of the lens adjacent the rim, the said ring being provided with an aperture located between the flanges for the passage of the post of the eyeglass frame, the said ring also overlying the ears held on the post.

2. The combination with a pair of eyeglasses having lenses and a frame, of a protecting ring for the rim of each of the said lenses, the said ring being of an elastic material less in size than the said rim to hold the ring in stretched coudition on the said rim of the lens, the said ring overlying the ears of the lens frame, the said ring having integral inwardly-extending flanges overlying the faces of the lens adjacent the rim, the said ring projecting at its sides beyond the edges of the lens and the said ring having an aperture for the passage of the post of the lens frame, the lens having an annular recess at its rim, and the ring having an integral bead engaging the said recess.

3. The combination with an eyeglass lens having an annular recess at its rim, of a protecting ring for the rim of said lens, the ring being of an elastic material adapted to encircle the rim and having inwardly extending flanges overlying the faces of the lens adjacent the rim, and an annular bead on said ring engaging the said annular recess.

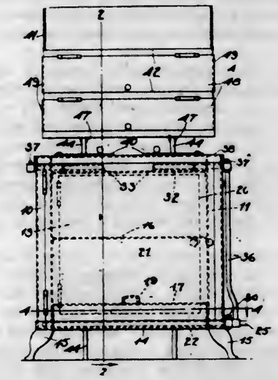
4. The combination with a pair of eyeglasses having lenses and a frame, of a protecting ring for the rim of each of the said lenses, the said ring being of an elastic material adapted to encircle the rim and projecting at the sides beyond the edges of the lens, the said ring having integral inwardly extending flanges overlying the faces of the lens adjacent the rim, the said lens having an annular recess at its rim, and the said ring having an integral bead engaging the said annular recess.

1,143,503. GRAIN-SAVING DEVICE. FRITZ BUSE, Terra Nova, Lulu Island, British Columbia, Canada. Filed Jan. 3, 1913. Serial No. 740,019. (Cl. 56—89.)



A grain saving device for grain binders comprising, in combination with an elevator conveyer, a platform frame, an apertured floor on said frame having an imperforate arcuate portion extending at one side beneath and overhung by the elevating carrier, upstanding flanges at the other three sides of the frame, an endless carrier supported above the floor and having slats contacting with the apertured floor, cleats beneath the apertured floor, and grain receiving drawers slidably supported on the cleats and capable of being removed for emptying the contents.

1,143,504. COMBINED HEATING AND COOKING STOVE. DOMENICO CARJULO, New York, N. Y. Filed Sept. 5, 1914. Serial No. 860,422. (Cl. 126—39.)

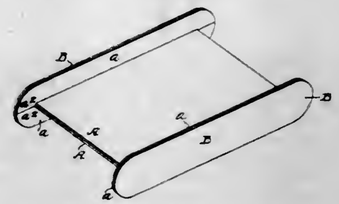


1. A combined cooking and heating stove comprising an inner and an outer casing of uniform height, top and bottom portions for said casing fitting the top and bottom thereof, said casing providing a surrounding heating space between the two, and an open space within the inner casing, vertical partitions at the sides of the casing dividing the heating space into two compartments, shelves in the oven space, burners at the bottom of said oven space and in each compartment of the heating space, a fuel supply pipe having independent means of connection and control with said burners, the bottom shelf in the oven space being provided with curved front and rear edges depending therefrom to adapt it to be elevated for igniting the burners therein, burners in the space between the upper shelf and the top of the stove having valve communication with said supply pipe at each side of the stove, and the top of the stove having openings therein over said burners, and closures for said openings.

2. A combined cooking and heating stove comprising an inner and an outer casing spaced from one another, top and bottom portions engaging the top and bottom edges of said outer and inner casing, vertical partitions between the inner and outer casing engaging the top and bottom portions, said partitions dividing the space between the inner and outer casing into two compartments, a burner in each compartment at the bottom portion, a burner within the inner casing at the bottom thereof, and a fuel supply pipe to said burners.

3. A combined cooking and heating stove comprising an inner and an outer casing, top and bottom portions engaging the top and bottom edges of said casing, vertical partitions between the outer and inner casing engaging said top and bottom portions whereby the space between the inned and outer casing is divided into two compartments, a burner in the inner casing at the bottom portion thereof, a burner in each of the compartments at the bottom thereof, means for supplying said burners with fuel, said inner and outer casing having openings to permit the circulation of air, burners in the inner casing in proximity to the top portion, said top portion having openings over said burner, and covers for said openings.

1,143,505. SPOOL OR REEL FOR RIBBONS, &c. EUGENE CARRAINE, Philadelphia, Pa. Filed June 14, 1911. Serial No. 633,110. (Cl. 206—5.)



1. The combination in a reel, of two cardboard sections, each section having a body portion and having a flange at each side, the flanges being of greater length than the body portions, the two sections being secured back to back with the flanges projecting at right angles to the body portion in opposite directions and the protruding edges of the flanges abutting each other.

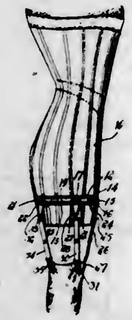
2. The combination in a reel, of two sections of cardboard, each section having a body portion and a flange at each side turned at right angles to the body portion, each flange extending beyond each end of the body portion, the extensions of the flanges being notched where they join the body portion so that when the flanges are turned at right angles and the body portions of the sections are placed back to back, a continuous flange is formed with the edges abutting at points beyond the body portion.

3. The combination in a reel, of two sections, each section consisting of a body portion and a flange at each side thereof, the flanges being greater in length than the body portion and bent at right angles thereto and the protruding edges of the flanges abutting each other; means for securing the body portions of the two sections back to back; and a reinforcing head section of the same contour as the combined flanges and secured to the flanges at each side of the reel.

1,143,506. HOSE-SUPPORTER. GEORGE H. CHANDLEE, Washington, D. C. Filed Dec. 27, 1911. Serial No. 668,080. (Cl. 241—1.)

1. A hose supporter comprising a body member having at each side a hose engaging member located to lie in front of the hip of the wearer, a hose engaging member located to lie to the rear of the hip of the wearer, and means connected with the hose engaging members and with the body member for causing either of said hose-engaging members to move upwardly under the influence of downward movement of the other hose-engaging member.

2. A hose supporter comprising a body member provided at each side with a guide connected with the front of the body member, a guide connected with the rearward portion of the body member at each side, said guides being located respectively in front of and to the rear of the hips of the wearer, a cord passed loosely through the guides at each side of the body member, a hose engaging member connected with the cord forwardly of the guides at each side of the body member and a hose engaging member connected with the cord rearwardly of the guides at each side of the body member whereby the downward movement of one hose engaging member at each side will produce upward movement of the other hose engaging member at the same side.



3. The combination with a body member, of a guide at the forward portion of a side of the body member, a second guide at the rear portion of such side of the body member, said guides being located respectively to lie in front of and to the rear of the hip of the wearer, a flexible member reeved through the guides and sliding therethrough and having depending portion, and hose engaging means connected with the depending portions.

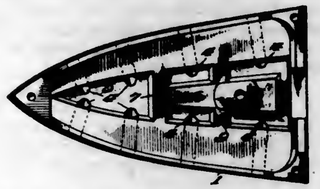
4. The combination with a body member, of a cord extending along one side of the body member and connected at its ends with the front and rear side portions of the body member, a plurality of cord guides attached to the body member and through which the cord loosely passes said guides being located respectively to lie in front of and to the rear of the hip of the wearer, said cord running alongside of the body member between the guides, and depending relative to the body member forwardly and rearwardly of the guides, and hose engaging means carried by the depending portions of the cord.

5. The combination with a body member, of a cord extending along one side of the body member and connected at its front and rear end portions with the front and rear side portions of the body member, guides connected with the body member adjacent the ends of the cord and through which the cord runs whereby front and rear loops are formed in the cord, said guides being located respectively to lie in front of and to the rear of the hip of the wearer, an intermediate guide connected with the body member adjacent the front guide and through which intermediate guide the cord is looped, and hose supporting devices carried by all of the loops in the cord.

1,143,507. SAD-IRON. GUY B. CHILD and CHARLES MUNZNER, Chicago, Ill., assignors to American Stove Company, St. Louis, Mo., a Corporation of New Jersey. Filed July 27, 1914. Serial No. 853,371. (Cl. 158—23.1.)

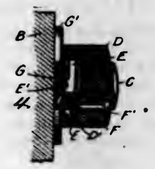
1. A sad iron comprising a hollow body portion, the bottom of the body having a centrally disposed recess at its forward end and lateral recesses in rear thereof, independent passages in the iron bottom leading from the outside of the iron to each recess, and a burner secured above the iron bottom and having openings on its lower side above the recesses, the portions of the iron bottom between said recesses forming partitions preventing surging back and forth of the air.

2. A sad iron comprising a hollow body portion, the bottom of the body having a tapering centrally disposed recess at its forward end, recesses in the rear of said first recess and disposed at each side of the median line of



the bottom, an air supply passage in the iron bottom for each recess, and a burner secured to the iron bottom above the recesses and having openings in its lower side directed toward the side walls of said recesses.

1,143,508. LOCK-NUT. WILLIAM FREDERICK CONROY, Nanuet, N. Y. Filed Aug. 5, 1913. Serial No. 783,045. (Cl. 151—11.)



1. A lock nut, comprising a retaining member held against turning and provided with ratchet teeth arranged in a circle, a nut provided at its under side with a recess, a spring arranged in the said recess and provided with a tooth engaging the ratchet teeth of the retaining member, and means for detachably securing the spring to the nut, said means being operable from the outer face of the nut.

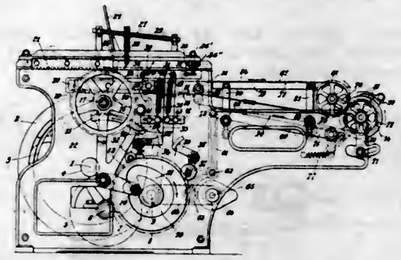
2. A lock nut, comprising a retaining member held against turning and provided with ratchet teeth arranged in a circle, a nut provided at its under side with a recess, a spring arranged in the said recess and secured at one end to the nut, the free end of the said spring being provided with a tooth engaging the ratchet teeth of the retaining member, and a screw extending through the nut to the outer face thereof and screwing in the said spring to detachably fasten the latter in position in the recess of the nut.

3. In combination with a bolt, having a lengthwise extending groove, a retaining member slidable on the said bolt and provided with a key fitting into the said groove to hold the said retaining member against turning on the bolt, the said retaining member being provided with ratchet teeth arranged in a circle, a nut screwing on the said bolt and having its under side provided with a recess, a flat segmental spring arranged within the said recess and provided at its free end with a tooth in engagement with the said ratchet teeth, and a screw extending through the nut to the outer face thereof and screwing into the other end of the said spring to removably fasten the latter to the nut, the head of the screw being countersunk in the outer face of the nut.

1,143,509. VERMICELLI-FOLDING MACHINE. BENJAMIN FERDINAND AUGUSTE COURTINE, Maisons-Alfort, France. Filed Sept. 12, 1912. Serial No. 720,014. (Cl. 107—7.)

1. In a vermicelli cutting and folding machine, two stationary cutting blades, two blades movable in a straight line and arranged to coöperate with the latter and having their cutting edges formed with corrugations beveled at the lower part, whereby said edges will ride on the cutting edges of the stationary blades.

2. In a vermicelli cutting and folding machine, two normally stationary cutting blades in different horizontal planes, two movable blades arranged to coperate with the stationary blades, means to adjust the upper stationary blade toward and from the coöperating movable blade, said movable blades having their cutting edges formed with corrugations equal in number to the bundles of threads and with a bevel at the lower part, whereby said edges will ride on the cutting edges of the stationary blades.



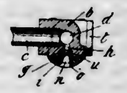
3. In a vermicelli folding machine, parallel folding boards pivoted at one edge and arranged in the same horizontal plane, means to change the distance between the pivots of said boards, means to swing the boards on their pivots, and means to regulate the swinging means, whereby the required angular movement of the boards is maintained when the distance between their pivots is changed.

4. In a vermicelli folding machine, parallel folding boards pivoted at one edge and arranged in the same horizontal plane, means to change the distance between the pivots of said boards, means to swing the boards on their pivots, means to regulate the swinging, means to impart a transverse movement to said boards, and means to regulate the extent of the transverse movement.

5. In a vermicelli cutting and folding machine, two pairs of stationary and movable cutting blades, means to adjust the upper stationary blade toward and from the upper movable blade, two folding boards arranged in the same horizontal plane, spindles on which said boards are pivoted, means to adjust the spindles laterally, means to swing the boards on the spindles, and means to regulate said swinging means to maintain the angular movement of the boards where the spindles are adjusted.

[Claims 6 to 8 not printed in the Gazette.]

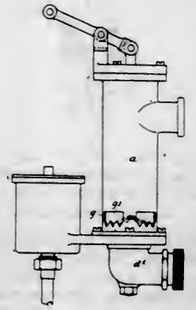
1,143,510. DIE FOR FORMING PLASTIC MATERIAL INTO THREADS OR RIBBONS. BENJAMIN FERDINAND AUGUSTE COURTINE, Maisons-Alfort, France. Filed Sept. 12, 1912. Serial No. 720,015. (Cl. 107—14.)



In a die for forming plastic materials into threads or ribbons, a pressure reservoir for the material, a tube having an upper and a lower longitudinal passage formed therein, conduits connecting the upper passage with the reservoir, vertical channels connecting the upper and lower passages, a cylindrical member rotatably mounted in the lower passage and having a transverse passage adapted to connect the vertical channels with a longitudinal opening in the bottom of the lower passage, and a perforated die plate adapted to pass through said opening and removably mounted on shoulders formed in the cylindrical member, below the periphery of the latter thereby forming sharp edges on said member above the die plate.

1,143,511. CARBURETER. ARTHUR COX, Olton, near Birmingham, England. Filed Sept. 19, 1912. Serial No. 721,283. (Cl. 48—155.1.)

1. A carbureter for internal combustion engines, comprising a casing and a positively operated adjustable regulating sleeve which is combined with a choke tube and a fuel regulating needle, the said casing being provided with a system of intakes through which air is admitted under the control of said sleeve which are so formed that, during the starting lift of the sleeve, they restrict the admission of air, whereas when the lift is continued beyond the starting position, the said ports provide for an unrestricted air admission, substantially as and for the purpose described.



2. A carbureter comprising a casing with secondary intake ports and a mixture outlet, and a positively-operated adjustable regulating sleeve controlling said intake ports and carrying a choke-tube and a fuel-regulating needle, in combination with a jet having an annular air passage which communicates with other air-intakes and has an outlet closely surrounding the fuel orifice of the said jet, substantially as and for the purpose described.

3. A carbureter comprising a casing with secondary air-intake ports and a mixture outlet, and a positively-operated adjustable regulating sleeve controlling said intake ports and carrying a choke-tube and a fuel-regulating needle, in combination with a jet having an annular air passage whose outlet closely surrounds the fuel orifice of the said jet, and which is supplied with air from a sleeve that surrounds the said jet and communicates with other air-intakes in the carbureter casing, substantially as and for the purpose described.

4. A carbureter comprising a casing having secondary air-intake ports and a mixture outlet, a positively-operated regulating-sleeve, controlling said intake ports, the casing having other air-intake ports which are constantly open to the interior of the said sleeve, in combination with a by-pass leading from the upper part of the regulating-sleeve and adapted to establish communication (when the said regulating sleeve is fully closed) between the last named air-intake ports and the outlet in the casing, substantially as and for the purpose herein described.

5. A carbureter for internal combustion engines, comprising a casing provided with a system of air intakes, a positively operated regulating sleeve adapted to vary the areas of the said air intakes, in combination with a venturi-type choke-tube which is adjusted in its relation to the fuel orifice of the jet by the said regulating sleeve, a fuel regulating needle which is also adjusted by the said sleeve and engages with the said fuel orifice, the sleeve, the choke tube, and the needle being movable as a unit, and means for positively moving the sleeve lengthwise of the casing to effect the adjustment aforesaid, said air intakes being so formed that, during the starting lift of the sleeve, they restrict the admission of air, whereas when the lift is continued beyond the starting position, said parts provide for an unrestricted air admission, substantially as and for the purpose described.

[Claims 6 to 10 not printed in the Gazette.]

1,143,512. FRUIT-GATHERER. ROBERT G. CRUSON, Fillmore, Cal. Filed Sept. 24, 1913. Serial No. 791,612. (Cl. 56—99.)

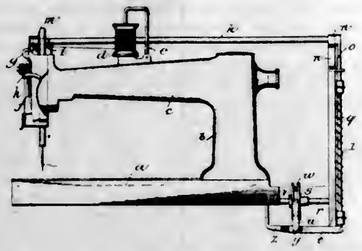
In a fruit gatherer a chute and a relatively rigid ring located around the receiving end of the chute and having

at one side a lug disposed approximately at a right angle to the plane in which the body portion of the said ring lies



and a loop mounted on the chute at the side of the ring and adjacent the lug and adapted to receive a hand.

1,143,513. THREAD-CONTROLLING MECHANISM FOR BUTTON-SEWING MACHINES. JOHN W. DARLEY, Jr., Baltimore, Md. Original application filed May 25, 1914, Serial No. 209,728. Divided and this application filed Feb. 5, 1906, Serial No. 299,593. Renewed Apr. 22, 1915. Serial No. 23,216. (Cl. 112—26.)



1. In a button sewing machine, the combination of sewing mechanism, stop mechanism, a take-up, and additional means for pulling the loop of the sewing thread tight on the last stitch.

2. In a button sewing machine, the combination of sewing mechanism, stop mechanism, a take-up, and additional means for pulling the loop of the sewing thread tight on the stopping of said sewing mechanism.

3. In a button sewing machine, the combination of sewing mechanism, stop mechanism, a take-up, and additional means for pulling the loop of the sewing thread tight on the last stitch, said additional means also slackening said sewing thread before the next sewing operation is begun.

4. In a button sewing machine, the combination of sewing mechanism, a tension device therefor, an automatic stop mechanism for said sewing mechanism, and means operated by said stop mechanism for pulling up the last loop of the sewing thread independent of said tension device, substantially as described.

5. In a button sewing machine, the combination of sewing mechanism, tension devices and means for pulling tight the last loop made by the sewing mechanism, said means including a vibrating arm, through one end of which the thread passes, a shaft on which said arm is mounted, a second arm secured to said shaft at its other end, and a movable device for striking the end of said second arm, to pull the thread tight with a jerk at the end of the sewing operation.

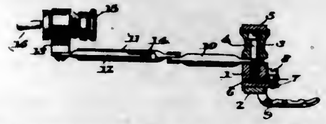
[Claim 6 not printed in the Gazette.]

1,143,514. HAND-BAG FASTENER. HENRY DIFFANY, Newark, N. J. Filed Dec. 18, 1913. Serial No. 807,431. (Cl. 70—116.)

In combination, a plurality of side frames having a lock provided with two upstanding spring-yielding members adapted to pass and engage each other; a plurality of projecting members extending from the sides of said frames; and a top covered cap adapted to infold said upstanding members, said cap having pendant relatively contracted sides adapted to pass over and engage said projecting members.



1,143,515. JAW-PROP. WILLIAM F. DUNLOP, New York, N. Y. Filed Oct. 13, 1914. Serial No. 866,493. (Cl. 32—16.)



1. A jaw prop comprising blocks, a bracket pivotally mounted with relations to and between the blocks and frictionally held by the same and an illuminator carried by the bracket.

2. A jaw prop comprising blocks, a rubber dam clamp carried by one of the blocks, a bracket pivotally mounted with relation to and between the blocks and frictionally held by the same, and an illuminator carried by the bracket.

3. A jaw prop comprising blocks, an arm pivoted to the blocks, a second arm pivoted to the first mentioned arm, a member slidably mounted in the last mentioned arm and frictionally engaging the same, a socket member mounted on the last mentioned member and an illuminator carried by the socket member.

1,143,516. METHOD OF MAKING A WHOLE-MILK PRODUCT. BURT E. DUNN, Muncie, Ind., assignor to Dunn's Whole Milk Buttermilk Company, Inc., Muncie, Ind., a Corporation of Indiana. Filed Aug. 11, 1914. Serial No. 856,238. (Cl. 99—11.)

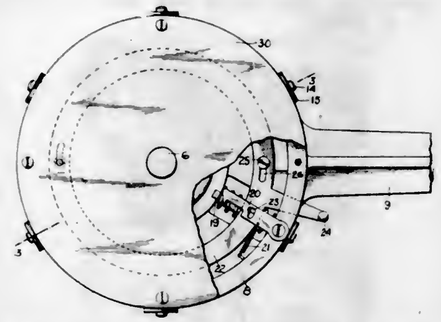
1. A process of producing a nutritive milk beverage, said process comprising, maintaining untreated whole milk at a temperature of about 90° F., for ten to twelve hours, cooling said milk before separation of the butter fat occurs, to a temperature of about 45° F., and thoroughly agitating the same, while at said temperature.

2. A process of producing a milk beverage, which comprises maintaining untreated whole milk at a temperature of about 90° F., until an acidity equal to about .6% of lactic acid has been secured, at once cooling the product to about 45° F., and thoroughly agitating, while at said temperature, in order to produce a homogeneous mixture containing all the fat of the whole milk.

1,143,517. CRANKING DEVICE. JULIUS DUNNER, New York, N. Y. Filed Nov. 28, 1914. Serial No. 874,497. (Cl. 74—33.)

1. In a cranking device of the character described, a bearing member connected with the shaft of an engine, a body rotatably mounted on said bearing member, a plurality of spring pressed members arranged in said body and engaging said bearing member, a lock for each of said spring pressed members for holding said spring pressed members out of engagement with said body when moved therefrom and a single manually actuated member for disengaging said locks from said spring pressed members.

2. In a cranking device for engines, the combination with the engine shaft, of a bearing member connected therewith, said bearing member having a plurality of notches, a rotatable body arranged on said bearing member, a plurality of reciprocating members having rounded ends fitting into said notches, said reciprocating members being arranged to move in said body with the end projecting into said notches, a spring for each of said reciprocating means for resiliently pressing the reciprocating means into engagement with said bearing member, a plurality of pivotally mounted hooks, and means extending from each of said reciprocating members for engaging said hooks for locking the reciprocating members out of engagement with said bearing member when moved therefrom.



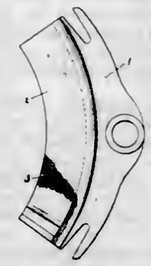
3. In a cranking device of the character described, a bearing member adapted to be connected with the shaft of an engine, said bearing member being formed with a pair of flange members and with a plurality of sockets, a manually operated body loosely mounted on said bearing member with parts projecting into the space between said flanges whereby said body is loosely held in place on said bearing member, a plurality of reciprocating pins arranged in said body, each of said pins having rounded heads adapted to be inserted into said notches, a spring pressing against each of said heads for normally pressing the same into said notches, means for varying the tension of said spring, a stop or lug projecting from each of said heads, and a locking member adapted to engage said pin or projection when moved radially until said heads have moved out of said notches, whereby said body is disconnected from said bearing member.

4. In a device of the character described, a bearing member provided with a plurality of notches in the periphery thereof, a manually operated body journaled in said bearing member, a plurality of spring pressed reciprocating pins arranged in said body, each of said pins having a rounded head, there being one pin for each of said notches, whereby said heads are adapted to fit into said notches, a threaded sleeve surrounding part of each of said pins, said threaded sleeve being adjustable and bearing against the springs acting on said pins, whereby the tension of said springs may be varied, a lug projecting from each of said heads, a hook for each of said lugs adapted to engage said lugs and hold the heads out of engagement with said bearing member, and manually operated means for disconnecting said hooks from said lugs.

5. In a cranking device of the character described, a bearing member adapted to be connected with the shaft of an engine, said bearing member having a plurality of rounded notches therein, a manually operated body arranged on said bearing member, a crank member for actuating said body, a plurality of reciprocating spring pressed pins arranged on said body, and adapted to project into said notches, the ends of said pins extending into said notches being grounded, whereby a pressure greater than the tension of the springs will cause the pins to move radially out of said notches, a hook co-acting with each of said pins for locking the same in a position out of engagement with said bearing member, a manually operated ring, and a pin extending from said ring and engaging each of said hooks for unlocking the hooks from said pins.

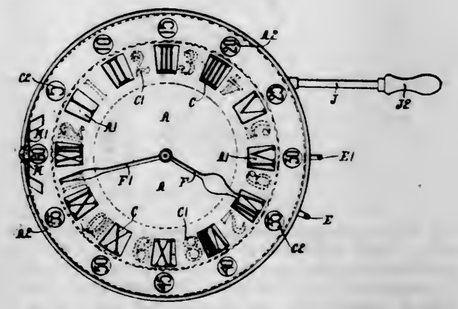
[Claim 6 not printed in the Gazette.]

1,143,518. BRAKE-SHOE. WILLIBALD DUSCHNITZ, Vienna, Austria-Hungary. Filed Nov. 29, 1913. Serial No. 803,730. (Cl. 188—29.)



A brake-shoe of the character described, comprising in combination, a holder having side flanges, ribs connecting said flanges for forming cells with the same, a facing of highly compressed felt in each of said cells constituting the brake face of the shoe, and a plurality of ridges alternately arranged at the lateral faces of said ribs for holding the felt in said cells.

1,143,519. SCHOLASTIC APPLIANCE FOR TEACHING THE READING OF CLOCK-DIALS AND THE DISTINGUISHING OF COLORS. JOHN EDMISTON, Glasgow, Scotland. Filed Oct. 10, 1914. Serial No. 866,072. (Cl. 35—12.)



1. In a scholastic appliance for the purpose described; a fixed dial, two hands traversing the dial and geared together in usual horological manner, apertures in the dial, and two adjustable symbol-bearing disks, one of lesser diameter than the other, arranged concentrically at the back of the dial so that the symbols may be brought behind the apertures.

2. In a scholastic appliance for the purpose described; a fixed dial, two hands traversing the dial and geared together in usual horological manner, apertures in the dial, and two adjustable symbol-bearing disks, one of lesser diameter than the other, arranged concentrically at the back of the dial so that the symbols may be brought behind the apertures, a spindle axial to said dials, a pair of hands mounted on said spindle and traversing the faces of said dials, together with means at the front of said spindle for making quickly detachable connection with an independent member.

3. In a scholastic appliance for the purpose described; a fixed dial, two hands traversing the dial and geared together in usual horological manner, apertures in the dial, and two adjustable symbol-bearing disks, one of lesser diameter than the other, arranged concentrically at the back of the dial, slots in the disks, upstanding pins on the back of the dial engaging the slots, and handles on the disks by means of which the position of the disks may be adjusted.

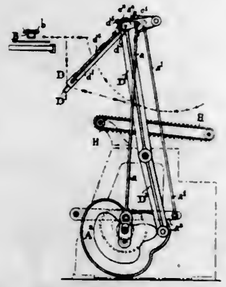
4. In a scholastic appliance for the purpose described; a fixed dial, two hands traversing the dial, and geared to-

gether in usual horological manner, apertures in the dial, and two adjustable symbol-bearing disks, one of lesser diameter than the other, arranged concentrically at the back of the dial, slots in the disks, upstanding pins on the back of the dial engaging the slots, and handles on the disks by means of which the position of the disks may be adjusted, an additional disk bearing differently colored segments, and means for detachably securing this disk to the minute spindle.

5. In a scholastic appliance for the purpose described; a fixed dial, two hands traversing the dial and geared together in usual horological manner, apertures in the dial, and two adjustable symbol-bearing disks, one of lesser diameter than the other arranged concentrically at the back of the dial so that the symbols may be brought behind the apertures, in combination with an independent, variously-colored supplemental disk, means for detachably mounting the same coaxially with the hands and a pivoted pointer adapted to coact with said supplemental disk in mounted position.

[Claims 6 to 9 not printed in the Gazette.]

1,143,520. APPARATUS FOR HACKLING AND SPREADING FLAX AND OTHER LONG-STAPLE FIBERS. JOSHUA VALENTINE EVES, Belfast, Ireland. Filed Aug. 25, 1913. Serial No. 786,598. (Cl. 13—2.)



1. In an automatic flax transferrer or spreading apparatus, a pair of grippers by which the flax is drawn from the holders comprising a pair of gripping bars, one capable of movement toward the other, pendulum arms mounted upon a common axis and carrying said bars, means for causing a rocking movement of said pendulum arms, and means for relatively moving the bars toward one another or into gripping relation at the inception of the rocking movement of said arms in one direction, and for moving said bars away from one another or into releasing relation at the inception of the return movement of said arms.

2. In automatic flax transfer or spreading apparatus a pair of grippers by which the flax is drawn from the holders comprising a gripper bar carried on pendulum arms on a stud or shaft journaled to the framing a movable jaw mounted thereon with a space between them when at rest, and means for operating the movable bar and a quadrant for imparting a rotary movement to the bars simultaneously substantially as described.

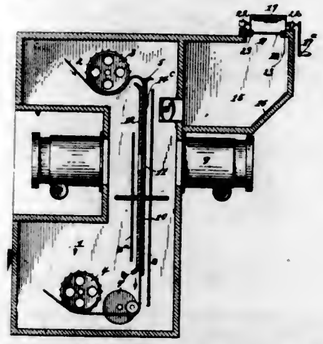
3. In automatic flax transfer or spreading apparatus a pair of grippers by which the flax is drawn from the holders comprising a gripping bar D carried on a pendulum arm d a bar D' carried on a pendulum arm d' with a space between them when at rest, links c by which the bar and its arm d are supported and a stud d^3 on which the bar D' and its arm are supported, and means for operating the bars substantially as described.

4. In automatic flax transfer or spreading apparatus having grippers to seize the flax the combination of a pendulum arm carrying one gripper bar, a second pendulum arm attached to the first carrying the second gripper bar, means for swinging the arms to and fro, a spring acting in connection with the movement of the arms in one direction to cause the gripper bars to close and a lever and cam surface acting in connection with the return movement of the arms to cause the gripper bars to open.

5. In an automatic flax transferrer or spreading apparatus comprising a pair of co-acting grippers and pendulous, oscillatory supporting means therefor, an apron depending from one of said grippers to guide or direct the flax.

[Claim 6 not printed in the Gazette.]

1,143,521. METHOD OF AND APPARATUS FOR MAKING MOTION-PICTURE FILMS. FRANK M. FABER, Canton, Ohio. Filed Sept. 15, 1913. Serial No. 789,778. (Cl. 88—16.6.)



1. The method of making motion picture films consisting in exposing successive picture fields thereof in rapid succession through a plurality of separate lenses acting on opposite sides of the film, to a plurality of separate changing scenes.

2. The method of making photographic films for the exhibition of objects in motion, consisting in passing a sensitized film across a principal lens at a high rate of speed and with an intermittent motion, and exposing successive picture fields of the film during periods of rest to a scene of action, and exposing the same picture fields to a moving title through a supplementary lens.

3. The method of making motion picture films consisting in imposing on the sensitized film by means of a principal lens, a series of principal images of a principal scene, and imposing on the films by means of a supplementary lens, a series of supplementary images of a separate scene, the supplementary images being superposed on the principal images and said separate scene being outside the field of view of the principal lens.

4. The method of making motion picture films consisting in simultaneously exposing the film through a lens to a scene of action, and through a supplementary lens to a moving title descriptive of the scene of action, said title changing simultaneously and in correspondence with the changes in the scene of action.

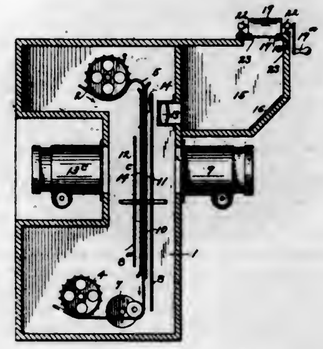
5. The method of making motion picture films consisting in imposing the image of a scene of action on the sensitized film by a lens, and simultaneously imposing the image of a moving title on the film by a supplementary lens, said title being descriptive of and changing simultaneously and in correspondence with the changes in the scene of action.

[Claims 6 to 15 not printed in the Gazette.]

1,143,522. METHOD OF AND APPARATUS FOR MAKING MOTION-PICTURE FILMS. FRANK M. FABER, Canton, Ohio. Original application filed Sept. 15, 1913, Serial No. 789,778. Divided and this application filed Oct. 31, 1914. Serial No. 869,584. (Cl. 88—16.6.)

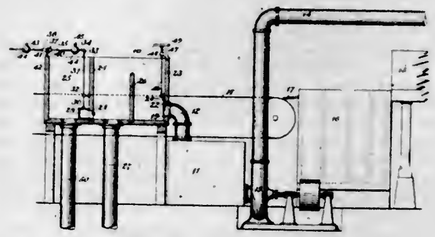
1. The method of making motion picture films consisting in exposing successive picture fields thereof in rapid succession through a plurality of separate lenses to a plurality of separate changing scenes, the exposure of a given picture field through one lens being differentiated in time from its exposure through another lens.

2. The method of making photographic films for the exhibition of objects in motion, consisting in passing a sensitized film across a principal lens at a high rate of speed and with an intermittent motion, and exposing successive fields of projection of the film during periods of rest to a scene of action, and exposing the same picture fields to a different scene through a supplementary lens, one of the lenses acting on a portion of the film one or more increments of movement in advance of the portion of the film exposed to the other lens.



3. In a photographic apparatus, means for intermittently moving a sensitized film, a principal camera obscura arranged to focus the image of a scene upon one picture field of the film during a period of rest, a supplementary camera obscura arranged to focus the image of a different scene on another picture field of the film during the same period of rest, the movement of the film between periods of rest being such that the image focused by one camera obscura upon each picture field is superposed upon the image focused by the other camera obscura, whereby one camera obscura will act upon a given picture field of the film one or more increments of its movement in advance of the other camera obscura.

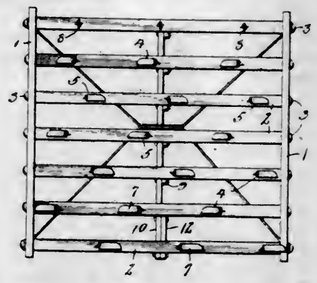
1,143,523. AUTOMATIC STUFF-BOX FOR PAPER-MAKING MACHINES. WILLIAM P. FEENEY, Hudson Falls, N. Y. Filed May 23, 1914. Serial No. 840,477. (Cl. 92—46.)



1. In a device of the character described, a mixing box, a stuff box having an outlet to the mixing box and an inlet, a second outlet for the stuff box with its outer end extending upwardly, and a relief valve at the outer end of the second mentioned outlet.

2. In a device of the class described, a mixing box, a stuff box having a partition and an inlet for the stuff box at one side of the partition, an outlet for the box at the other side of the partition and leading to the mixing box, an outlet conduit at the first mentioned side of the partition and extending upwardly, a relief valve at the outer end of the outlet conduit, a pivoted lever, a link connecting an arm of the lever with the relief valve, and means for adjusting the balance of the lever.

1,143,524. CULTIVATOR. ISAAC T. FERGUSON, Tiptonville, Tenn. Filed Sept. 5, 1914. Serial No. 860,498. (Cl. 55—105.)



1. In a cultivator, a plurality of supporting bars spaced apart in parallelism, teeth secured to said bars and depending therefrom and arranged in sets, each embodying two rows of teeth, the teeth of one row being secured to alternate bars and the teeth of the other row secured to the remaining bars, the teeth of each row diverging outwardly from the teeth of the remaining row, and a head tooth at the forward end of each set between the rows thereof.

2. In a cultivator, a plurality of supporting bars spaced apart in parallelism, teeth secured to said bars and depending therefrom and arranged in sets, each embodying two rows of teeth, the teeth of one row beign secured to alternate bars and the teeth of the other row secured to the remaining bars, the teeth of each row diverging outwardly from the teeth of the remaining row, and a head tooth at the forward end of each set between the rows thereof, each of said first teeth being curved longitudinally and having the outer end thereof diverging outwardly from the companion tooth in the adjacent row.

3. In a cultivator, a plurality of supporting bars spaced apart in parallelism, teeth secured to said bars and depending therefrom and arranged in seas, each embodying two rows of teeth, the teeth of one row being secured to alternate bars and the teeth of the other row secured to the remaining bars, the teeth of each row diverging outwardly from the teeth of the remaining row, a head tooth at the forward end of each set between the rows thereof, each of said first teeth being curved longitudinally and having the outer end thereof diverging outwardly from the companion tooth in the adjacent row, and means for swinging said supporting bars whereby the angular positions of said teeth with respect to the ground may be changed.

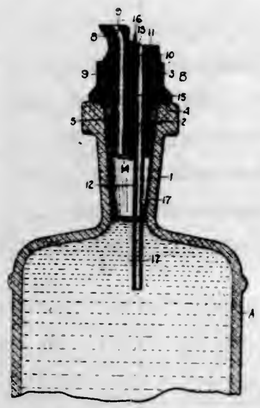
1,143,525. DISPENSING-STOPPER FOR INK-BOTTLES. WILLIAM I. FERRIS, Westfield, N. J. Filed Feb. 9, 1914. Serial No. 817,526. (Cl. 215—55.)

1. A dispensing stopper having separate air and liquid passages, separate means respectively closing the inner end of one passage and the outer end of the other, and an element connecting the said means for simultaneous movement and for fastening the said means to the stopper.

2. A dispensing stopper comprising a body having a spout-like extension at its top and a flat surface adjacent said extension, a liquid passage extending through the stopper and through the said extension, an air passage extending through the stopper and having its outer end terminating in the said flat surface, a swinging valve member bearing on said flat surface for opening and closing the outer end of the air passage, a valve member at the inner end of the stopper for closing the liquid passage, and means connecting the valve members together for simultaneous opening or closing movement.

3. A dispensing stopper comprising a body having an air passage extending from the top to the bottom, a spout extension on the top of the body, a liquid passage extending through the body and spout extension, a valve member at the inner end of the liquid passage, a valve member

at the outer end of the air passage, and a connecting element extending through the body of the stopper and rigidly uniting the valve members and permitting the



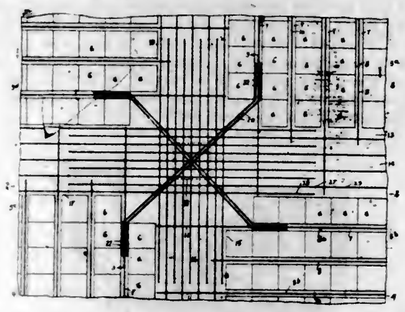
valve members to be turned in either direction from closed position, said outer member being arranged to engage the spout extension when moving from closed to open position.

1,143,526. EXPLOSIVE-ENGINE. THOMAS J. FLANAGAN, Neodesha, Kans., assignor of one-half to Nicholas S. Sibert, Neodesha, Kans. Filed Oct. 18, 1911, Serial No. 655,299. Renewed Mar. 19, 1915. Serial No. 15,546. (Cl. 123—74.)



In an internal combustion engine the combination of a cylinder, an inclined shoulder formed upon said cylinder, a reduced cylinder integrally connected with said shoulder, a tubular piston moving snugly in said reduced cylinder, an inclined shoulder formed on said tubular piston, a head on the end of said piston snugly fitting said first named cylinder a water jacket surrounding said first named cylinder and said first named shoulder, said first named cylinder being formed at a point spaced immediately above said first named shoulder with two series of horizontally alining ports, the distance between said ports equaling the width of said cylinder head, said water jacket having a channel of a length to communicate with said ports, a right angular extension formed upon said jacket in line with said channel, a valve seat arranged parallel to said cylinders in said extension, a valve arranged to seat in said valve seat, a rod on said valve, a chamber in which said rod is movable, oppositely disposed passage ways opening into said chamber, a laterally extending passage way opening into the outer end of said first named cylinder, a valve seat formed in said lateral passage way, a valve engaging said seat, and a rod arranged to operate said valve, said chamber communicating with said channel when said first named valve is opened.

1,143,527. CONCRETE CONSTRUCTION. WILLIAM PINCKNEY FRANCIS, Atlanta, Ga. Filed Nov. 9, 1912. Serial No. 730,383. (Cl. 72—66.)



1. In a concrete floor construction a plurality of beam members having sides and extending from a central point at angles to each other, a plurality of panel members each constructed of alternate rows of tile and concrete joists extending from end to end, the adjacent panel members being placed at right angles to each other and separated by the beam members and with the side of a panel member at one side of each beam member and with an end of a panel member supported by the other side of each beam member.

2. In a concrete floor construction, a plurality of beam members extending from a central point at angles to each other, a plurality of panel members having opposite ends, the adjacent panel members being placed at right angles to each other and separated by the beam members, and with the side of a panel member at one side of each beam member and with an end of a panel member supported by the other side of each beam member.

3. In a concrete floor construction four beam members extending from a central point at angles to each other, four panel members separated by the beam members, each panel member being constructed of rows of tile and concrete joists extending from end to end, adjacent panel members being placed at right angles to each other and with the side of a panel member at one side of each beam member, and with an end of a panel member supported by another side of each beam member.

4. In a concrete floor construction, four beam members extending from a central point at angles to each other, four panel members disposed between the beam members, each beam member supporting one end of one of the panel members, and tie members disposed obliquely relatively to the beams, and having terminals bent in substantially parallel planes and embedded in diagonally opposite panels.

5. In a concrete floor construction, four beam members extending from a central point at angles to each other, four panel members disposed between the beam members, and each constructed of alternate rows of tile and concrete joints, extending from end to end of the panels, each beam supporting one end of one of the panel members, and tie members disposed obliquely relatively to the beam and having bent terminals embedded in diagonally opposite panels.

[Claims 6 to 8 not printed in the Gazette.]

1,143,528. DUST-MOP. GIDEON ALVIN FRY, New Kensington, Pa. Filed Feb. 14, 1914. Serial No. 818,740. (Cl. 15—13.)

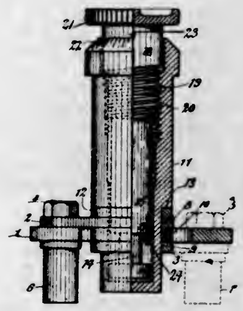
1. In combination with endless mop material, a frame for receiving the material therearound and of heart formation, said frame having a channel therein opening into the large end thereof and adapted to receive a portion of the mop material, and means operable within the channel for holding the inserted material therein and for stretching the mop material around the frame.

2. In combination with endless mop material, a frame for receiving the material therearound and of heart formation, the said frame having a channel therein opening into the large end thereof and adapted to receive a portion of the mop material, and means operable within the channel for holding the inserted material therein and for stretching the mop material around the frame and having a portion extending through the smaller end of the frame for engaging the mop.



3. In combination with endless mop material, a frame for receiving the material therearound and of heart formation, said frame having a channel therein opening into the large end thereof and adapted to receive a portion of the mop material, means operable within the channel for holding the inserted material therein and for stretching the mop material around the frame, and means on the frame for preventing the upward creeping of the mop material when positioned upon the frame.

1,143,529. MAGNETOMETER. EUGENE GARRETSON, Buffalo, N. Y. Filed Feb. 11, 1914. Serial No. 818,043. (Cl. 175—21.)



1. A device of the character described, comprising a permanent magnet of substantially horseshoe form, pole pieces having their outer ends connected respectively with the opposite poles of said magnet while their inner ends overlap, and a movable shunt member adapted to bridge the inner ends of said pole pieces more or less.

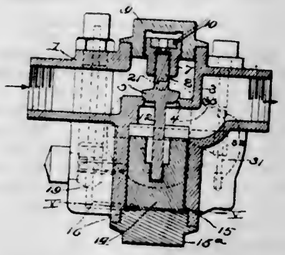
2. A device of the character described, comprising a permanent magnet of substantially horseshoe form, pole pieces having their outer ends connected respectively with the opposite poles of said magnet while their inner ends are provided with openings which are arranged axially in line, and a shunt member movable through said openings for bridging the pole pieces more or less.

3. A device of the character described, comprising a permanent magnet of substantially horseshoe form, pole pieces having their outer ends connected respectively with the opposite poles of said magnet while their inner ends are provided with openings which are arranged axially in line, a nonmagnetic tube arranged within said openings, and a shunt member of magnetic material movable axially in said tube for bridging said pole pieces more or less.

4. A device of the character described, comprising a permanent magnet of substantially horseshoe form, pole pieces having their outer ends connected respectively with the opposite poles of said magnet while their inner ends are provided with openings which are arranged axially in line, a nonmagnetic tube arranged within said openings, a shunt member of magnetic material movable axially in said tube for bridging said pole pieces more or less, and means for adjusting said shunt member comprising a rotatable spindle carrying said shunt member and having a screw connection with said tube.

5. A device of the character described, comprising a permanent magnet of substantially horseshoe form, pole pieces having their outer ends connected respectively with the opposite poles of said magnet while their inner ends are provided with openings which are arranged axially in line, a nonmagnetic tube arranged within said openings, a shunt member of magnetic material movable axially in said tube for bridging said pole pieces more or less, means for adjusting said shunt member comprising a rotatable spindle carrying said shunt member and having a screw connection with said tube, and means for limiting the axial movement of said shunt member in said tube, comprising two annular shoulders formed by opposite walls of a circumferential groove in the periphery of said shunt member, and a pin mounted transversely in said tube in position to be engaged by either of said shoulders.

1,143,530. ELECTRICALLY-CONTROLLED VALVE. HARRY G. GEISSINGER, New York, N. Y., assignor to Geissinger Regulator Company, New York, N. Y., a Corporation of New York. Filed July 12, 1912. Serial No. 709,056. (Cl. 137—4.)



1. Valve apparatus comprising a casing having inlet and outlet chambhers connected by a port, a main valve controlling said port, a cylinder having a piston reciprocable therein and operatively connected to said valve, a channel connecting said cylinder and said casing and having an enlarged chamber, the outer wall of said chamber comprising a non-magnetic plate, a pilot-valve controlling said channel, an operating lever connected to said pilot-valve and having an armature located in said chamber and positioned adjacent said non-magnetic plate, and an electro-magnet inclosed in a magnetic shell or housing and secured to the outside of said plate and exerting its magnetic influence therethrough upon said armature.

2. Valve apparatus comprising a casing having inlet and outlet chambers connected by a port, a main valve controlling said port, a cylinder having a piston reciprocable therein and operatively connected to said valve, a channel connecting said cylinder and said casing and having an enlarged chamber, the outer wall of said chamber comprising a non-magnetic plate, a pilot valve controlling said channel, a bell-crank lever having one arm adjustably connected to said pilot-valve, an armature connected to the other end of said lever and located in said chamber adjacent said non-magnetic plate, and an electro-magnet inclosed in a magnetic shell or housing, and secured to the outside of said plate so that the magnetic flux passing through said shell when the magnet is energized will exert an attractive force upon the armature.

3. Valve apparatus comprising a casing having inlet and outlet chambers connected by a port, a cylinder in

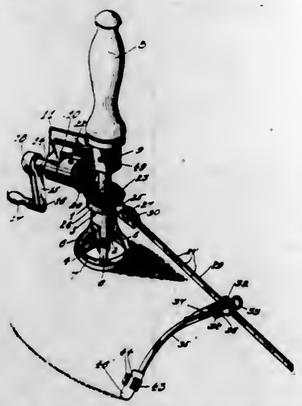
open communication with said casing, a piston reciprocable in said cylinder and having a central guiding hole, the bore of said cylinder being of a size to permit leakage around the piston, a main valve controlling said port and having a stem extending within said recess, the diameter of said hole being of a size to permit a slight lateral movement of said stem, a passage connecting said cylinder and said casing, a pilot-valve controlling said passage, a chamber connected with said passage, a lever pivotally mounted in said chamber and adjustably connected to said pilot-valve, and an electro-magnetic device operatively connected to said lever.

4. Valve apparatus comprising a casing having inlet and outlet chambers connected by a port, a cylinder in open communication with said casing, a piston reciprocable in said cylinder and having a central recess, a main valve controlling said port and having a stem extending loosely within said recess, a passage connecting said cylinder and said casing, a pilot-vale controlling said passage, a chamber connected with said passage, a lever pivotally mounted in said chamber and adjustably connected to said pilot-valve, an electro-magnetic device operatively connected to said lever, and a relief valve carried by said piston having a stem extending above the piston.

5. Valve apparatus comprising a casing having inlet and outlet chambers connected by a port, a cylinder in open communication with said casing, a piston reciprocable in said cylinder and having a central recess, a main valve controlling said port and having a stem extending loosely within said recess, a passage connecting said cylinder and said casing, a pilot-valve controlling said passage, a relief valve carried by said piston having a stem extending beyond the piston, and means for normally holding the relief valve in closed position.

[Claims 6 and 7 not printed in the Gazette.]

1,143,531. MEASURING DEVICE. WILLY GIESE, Round Top, Tex. Filed Oct. 31, 1914. Serial No. 869,639. (Cl. 33—27.)



1. A device of the class described comprising a rod, a beveled gear carried upon said rod, an arm secured to said beveled gear, a supporting means carried by said rod, a beveled gear supported by said supporting means and meshing with said first-mentioned bevel gear, means for rotating said last-mentioned beveled gear whereby rotary motion will be imparted to said first-mentioned beveled gear for swinging said arm in a circle.

2. A device of the class described comprising a supporting post, a beveled gear carried by said post, an arm supporting member secured to said beveled gear, an arm secured to said arm supporting member, a chalk carrying member mounted upon said arm, a supporting frame held in a set engagement with said post, a beveled gear supported by said supporting frame, said last-mentioned beveled gear meshing with said first-mentioned beveled gear, means for rotating said last mentioned beveled gear whereby rotary motion will be imparted to said first-mentioned beveled gear for rotating said arm thereby causing said chalk carrying member to be swung in a circle.

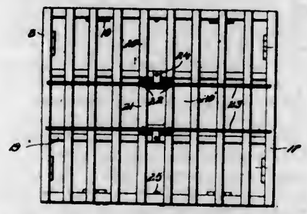
3. A device of the class described comprising a post, a beveled gear carried by said post, an arm supporting member carried by said beveled gear, an arm secured to said arm supporting member, a chalk supporting member carried by said arm, a frame secured to said post and provided with an integral L-shaped portion terminating in an integral bearing, a shaft passing through said bearing, a beveled gear secured to the inner end of said shaft, said last-mentioned beveled gear meshing with said first-mentioned beveled gear, means for rotating said shaft whereby rotary motion will be imparted to said gears for swinging said arm and causing said chalk supporting member to be swung in a circle.

4. A device of the class described comprising a supporting post, a beveled gear carried by said post, an arm-supporting member secured to said beveled gear, an arm pivotally secured to said arm-supporting member, a chalk-carrying member slidably mounted upon said arm and being adapted to be retained in an adjusted set position, a supporting frame carried by said post, a beveled gear carried by said supporting frame, said last-mentioned beveled gear meshing with said first-mentioned beveled gear, means for rotating said last-mentioned beveled gear, whereby rotary motion will be imparted to said first-mentioned beveled gear for swinging said arm in a circle, thereby allowing the chalk-carrying member to hold a piece of chalk in engagement with a support for drawing various sized circles.

5. A device of the class described comprising a supporting post, a beveled gear carried by said post, an arm-supporting member secured to said beveled gear, an arm pivotally secured to said arm-supporting member, a chalk-carrying member carried upon said arm, said chalk-carrying member comprising a sleeve, a set screw passing through said sleeve and engaging said arm, whereby the chalk-carrying member may be held in an adjusted set position upon said arm, a finger pivotally secured to said sleeve, a spring fixedly secured to said sleeve and bearing upon said finger for urging said finger in one direction with sufficient force to support said arm, a chalk-supporting member carried by the free end of said finger, a supporting frame carried by said post, a beveled gear carried by said supporting frame, said last-mentioned beveled gear meshing with said first-mentioned beveled gear, means for rotating said last-mentioned beveled gear, whereby rotary motion will be imparted to said first-mentioned beveled gear for swinging said arm in a circle, thereby allowing the chalk-carrying member to hold a piece of chalk in engagement with a support for drawing various sized circles.

[Claim 6 not printed in the Gazette.]

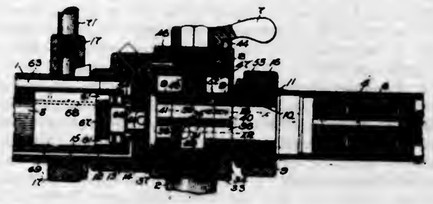
1,143,532. FOLDING CRATE. WILLIAM GILLINGHAM, Littleton, W. Va. Filed May 16, 1911. Serial No. 627,460. (Cl. 217—62.)



A detachable top for crates including longitudinal and transverse slats secured together, a pair of rods passing over and secured to certain of said transverse slats, said top having an opening therein for allowing passage of live stock into the crate, a door having slidable engagement with said rods and positioned in the opening, and keeper members pivoted to said top for holding said door in position, said door having a width approximately one-third

the width of the said opening so that when the door is moved to either side of its normal central position a space will be exposed of an area great enough to allow the passage of live stock into the crate.

1,143,533. PRESSURE-ACTUATED TOOL. GEORGE H. GILMAN, Claremont, N. H., assignor, by mesne assignments, to Sullivan Machinery Company, Boston, Mass., a Corporation of Massachusetts. Filed Nov. 13, 1908. Serial No. 462,402. (Cl. 121—10.)



1. In a tool feeding device, the combination with a pressure-actuated tool, of a pressure-actuated feeding device therefor, a throttle valve and means permitting said valve to be placed in one position to open the feeding device to the motive fluid while cutting off motive fluid from the tool, and in another postion to open the tool to the motive fluid while cutting off motive fluid from the feeding device and means to enforce the occurrence of the enumerated operations in the order named and in reverse order.

2. In a tool feeding device, the combination with a pressure-actuated tool, of a pressure-actuated feeding device therefor, a throttle valve and means permitting the latter to be placed in one position to connect both the tool and the feeding device with the pressure fluid, and in another position to cut off the pressure fluid from the feeding device while trapping a portion thereof therein, and, at the same time, leaving the tool open to the pressure fluid and means to enforce the occurrence of the enumerated operations in the order named and in reverse order.

3. In a tool feeding device, the combination with a pressure-actuated tool, of a pressure-actuated feeding device, a throttle valve, and means permitting said valve to be placed in one position to open the feeding device to the pressure fluid and in another position to trap a portion of the motive fluid therein while admitting motive fluid to the tool to cause the operation thereof, said valve also being adapted for movement to exhaust more or less of the motive fluid thus trapped in the feeding device.

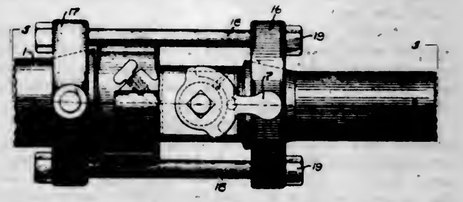
4. In a tool feeding device, the combination with a pressure-actuated tool, of a pressure-actuated feeding device, and means for initiating the operation of said tool and feeding device and subsequently causing the operation of the feeding device on pressure fluid stored therein, while continuing the pressure-actuated operation of the tool.

5. In a tool feeding device, the combination with a pressure-actuated tool, of a pressure-actuated feeding device, means for causing the operation of the feeding device on pressure fluid stored therein, while continuing the pressure-actuated operation of the tool, and means for adjustably exhausting more or less of the pressure fluid stored in the feeding device to vary the feeding effort thereof.

[Claims 6 to 14 not printed in the Gazette.]

1,143,534. PRESSURE-ACTUATED TOOL. GEORGE H. GILMAN, Claremont, N. H., assignor, by mesne assignments, to Sullivan Machinery Company, Boston, Mass., a Corporation of Massachusetts. Original application filed Nov. 13, 1908, Serial No. 462,402. Divided and this application filed Oct. 24, 1910. Serial No. 588,618. (Cl. 121—10.)

1. In a pressure-fed tool, the combination with a feed cylinder and tool cylinder, an intermediate connecting member, and clamping means directly attached to the feed cylinder and tool cylinder and acting to draw both against the intermediate member.



2. In a pressure-fed tool, the combination with a feeding member, a tool member, said members having connection by means of slip joints, clamping collars encircling said feeding member and tool member respectively and means connecting said collars to each other for clamping the said members together.

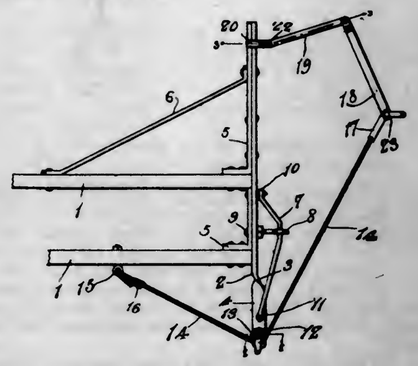
3. In a pressure fed tool, the combination with a feeding member provided with a tapered end, a tool member also having a tapered end, tapered means adapted to seat on said ends and connect the one member to the other, an intermediate connecting section and means for clamping said members to their tapered seats.

4. In a pressure fed tool, the combination with a feeding member provided with an abutment, a tool cylinder provided with an abutment, a connecting piece to which said member and cylinder are both connected by means of slip joints, and clamping means including collars engaging said abutments, respectively, for clamping said cylinder and feed member to said connecting piece.

5. In a pressure-actuated tool, the combination with a hammer tool having a cylinder, a tool feeding apparatus including a cylinder member and a coöperating piston member, an intermediate connecting member having a slip joint connection both with said feed cylinder and said tool cylinder, a throttle valve seated in said connecting member the latter being provided with pressure fluid passages leading both to said feed cylinder and said tool cylinder, both said feed cylinder and said tool cylinder being provided with circumferential projections having longitudinally tapered surfaces, a clamping collar seated against the tapered projection on the tool cylinder, a second clamping collar seated against the tapered projection on the feed cylinder, and tie bolts connecting said clamping collars and serving to unite the feed cylinder, connecting member and tool cylinder.

[Claims 6 to 10 not printed in the Gazette.]

1,143,535. DRAFT APPLIANCE. LLOYD LESTER GOLLER, Hanston, Kans. Filed May 28, 1914. Serial No. 841,493. (Cl. 97—4.)



1. A device of the class described comprising the combination with plow beams; of a draft bar connected with

said plow beams, means for bracing said draft bar, an arm projecting forwardly from said draft bar, connections between one of said plow beams and said forwardly projecting arm, and a clevis carried by said connections adjacent said arm.

2. A device of the class described comprising the combination with plow beams and a clevis; of a draft bar connected with said plow beams, and means mounted upon said draft bar to form flexible connections between the plow beams and said clevis.

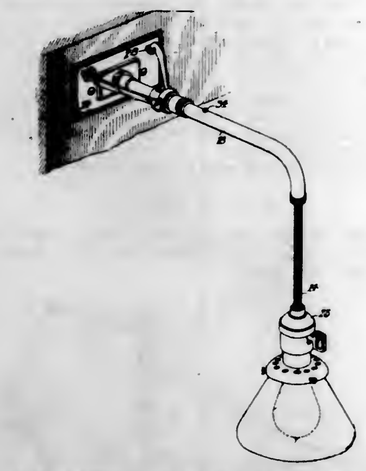
3. A device of the class described comprising the combination with an agricultural implement; of a rigid member projecting forwardly from one corner of said implement, flexible connections between said rigid member and the opposite corner of said implement, and a clevis carried by said flexible connections.

4. A device of the class described comprising the combination of a transverse draft bar, an arm projecting forwardly from said draft bar and adapted for adjustment longitudinally of the latter, a flexible member connected with said implement, said flexible member mounted upon said draft bar, connections between said flexible member and said arm, and a clevis carried by said connections.

5. A device of the class described comprising the combination with longitudinal beams; of a draft bar connected with said beams, a flexible member connected with the beams to the right side of the implement, a guide member mounted upon the adjacent end of the draft bar for said flexible member, an arm mounted upon the opposite end of said draft bar and adapted for longitudinal adjustment upon the same, connections between said arm and said flexible member, and a draft bar carrying member mounted upon said connections.

[Claims 6 to 8 not printed in the Gazette.]

1,143,536. ATTACHMENT-PLUG FITTING. GILBERT W. GOODRIDGE, Bridgeport, Conn., assignor to The Bryant Electric Company, Bridgeport, Conn., a Corporation of Connecticut. Filed Dec. 23, 1914. Serial No. 878,794. (Cl. 240—73.)



1. An attachment plug fitting comprising an attachment plug, a guide arm rigid with the outer end of the plug and serving to support the leading-in wires for the latter, and a bracket device on said guide arm, said bracket device comprising a pivoted arm having at its free end means to engage a supporting element at the plug receptacle, together with draw-up means for said bracket device operative after said engagement has been effected.

2. An attachment plug fitting comprising an attachment plug, a guide arm rigid with the outer end of the plug and serving to support the leading-in wires for the latter, and a bracket device on said guide arm, said bracket device comprising a sleeve slidably mounted on said guide arm and an arm pivoted on said sleeve and adapted at its free end to engage a supporting element at the plug receptacle, together with a draw-up device for displacing said sleeve after said engagement has been effected.

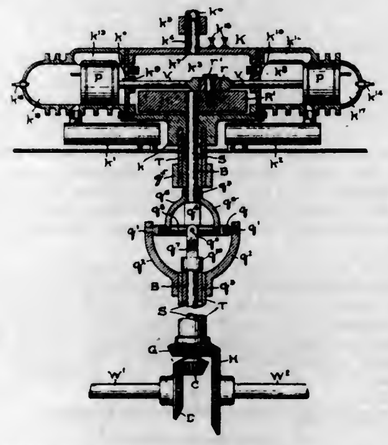
3. An attachment plug fitting comprising an attachment plug, a guide arm rigid with the outer end of the plug and serving to support the leading-in wires for the latter, and a bracket device on said guide arm, said bracket device comprising a threaded sleeve slidably mounted on said guide arm, means on said sleeve to engage a rigid support at the plug receptacle and a draw-up nut on the guide arm adapted to engage the threaded portion of the bracket sleeve and displace the same, for the purpose specified.

4. An attachment plug fitting comprising an attachment plug, a guide arm rigid with the outer end of the plug and serving to support the leading-in wires for the latter, and a bracket device on said guide arm, said bracket device comprising a threaded sleeve slidably mounted on said guide arm, means on said sleeve to engage a rigid support at the plug receptacle and a draw-up nut on the guide arm adapted to engage the threaded portion of the bracket sleeve and displace the same, together with means to prevent the rotation of said sleeve during the operation of the draw-up nut.

5. A fitting of the type described comprising an attachment plug internally recessed to afford a chamber of non-circular contour at least in part and adapted to receive strain relief means, in combination with a rigid tubular wire guide arm having a threaded end opening into said chamber and extending outwardly from the outer end of the plug, in combination with a nut seated in the non-circular portion of said chamber and held against rotation by the walls thereof, said nut engaging the threaded end of the guide arm to hold the same against withdrawal.

[Claims 6 and 7 not printed in the Gazette.]

1,143,537. DIFFERENTIAL DRIVING MECHANISM. HAROLD V. GREEN, Chicago, Ill., assignor to General Electric Company, a Corporation of New York. Filed Sept. 23, 1913. Serial No. 791,408. (Cl. 74—7.)



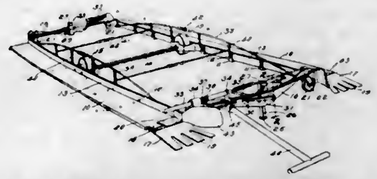
1. Means for generating and transmitting power comprising a motor having two mutually reactive elements adapted to rotate in opposite directions, a duplex shaft comprising a core shaft connected to one motor element, a tubular shaft connected to the other element and journaled concentrically around the core shaft, concentric pinions fixed on the two shafts, a pair of gears engaging said pinions for unidirectional rotation, and a duplex universal joint in the shaft, with one element connecting the core shaft and the other element connecting the surrounding tubular shaft, both elements of said universal joint being concentric and adapted to maintain the relations of all the parts constant in all positions.

2. Means for generating and transmitting power comprising a motor having a plurality of moving elements, a duplex shaft for transmitting power from said motor to the driven parts, and a concentric duplex universal joint in said shaft.

3. A differential motor driving mechanism for vehicles comprising a motor having two mutually reactive elements adapted to rotate in opposite directions, a duplex shaft having a core shaft connected to one element of the motor and a concentric tube journaled on the core and connected to the other element of the motor, a pair of beveled gears fixed concentrically on the core and tube respectively, a pair of associated driving shafts journaled with their axis alined and perpendicular to the axis of the duplex tranamission shaft, and a pair of beveled gears fixed on said driving shafts, engaging the respective gears of the duplex shaft on opposite sides, whereby power will be communicated to said driving shafts unidirectionally but with differential effect.

1,143,538. TURN-TABLE. BENJAMIN K. HALL, Boston, Mass., assignor to William H. Mitchell, Newton, Mass. Filed Jan. 31, 1914. Serial No. 815,593. (Cl. 104—212.)

1. A turn-table for automobiles having supporting wheels, means for frictionally engaging the floor, and means for moving the floor engaging means to exert a lifting power on the table.



2. A turn-table for automobiles having a pair of wheels to support the table midway of its length, a floor engaging foot at each end of the table, and means for imparting a relative movement between the foot and the table whereby the foot is pressed upon the floor.

3. A turn-table for automobiles having a pair of wheels to support the table midway of its length, a floor engaging foot at each end of the table, means for imparting a relative movement between the foot and the table whereby the foot is pressed upon the floor, means for locking the foot in projcted position, and a spring to return the foot to inoperative position.

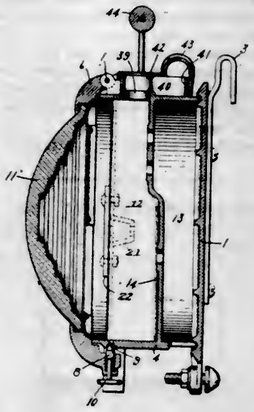
4. A turn-table for automobiles comprising means for holding the table immovable upon the floor, a stop to limit the movement of the automobile on the table, and means for rendering the holding means and the stop inoperative.

5. A turn-table for automobiles comprising supporting wheels, means for frictionally engaging the floor, a stop to position the automobile on the table, and a single means for rendering the floor engaging means and the stop operative.

[Claims 6 to 12 not printed in the Gazette.]

1,143,539. HEADLIGHT. CROMWELL A. B. HALVORSON, Jr., Saugus, and LLOYD O. INGALLS, Lynn, Mass., assignors to General Electric Company, a Corporation of New York. Filed Nov. 25, 1911. Serial No. 662,451. (Cl. 176—52.)

1. In an arc headlight, a partition integral with the casing dividing the headlight into front and rear chambers, electrodes located in the front chamber, removable means for closing the ends of said chambers, operating mechanism located in the rear chamber, connections between the operating mechanism and the electrodes, and means for evacuating the fumes evolved from the arc from the front chamber.



2. In an arc headlight, a partition dividing the headlight into front and rear chambers, the electrodes being located in one chamber and the operating mechanism therefor in the other, a plate for closing the rear chamber and provided with means for supporting the headlight, and a door comprising a lens for closing the front chamber.

3. In an arc headlight, a partition dividing the headlight into front and rear chambers the electrodes being located in the front chamber and the operating mechanism therefor in the rear chamber, a back plate provided with means for securing the same to the vehicle, means for pivotally attaching the headlight to the back plate, and a front chamber comprising a lens for closing the front chamber.

1,143,540. HAND-STAMP. ANDREW J. HELLINGS, Philadelphia, Pa., assignor to Hill-Independent Mfg. Co., Philadelphia, Pa., a Corporation of Illinois. Filed Aug. 22, 1914. Serial No. 858,050. (Cl. 101—160.)



1. In a band stamp and in combination with a casing having side bars, printing bands and thumb wheels supported between said side bars, and a dust shield or guard covering said bands between said side bars and having members, as 24 and 26, entering the spaces between said thumb wheels.

2. In a band stamp and in combination with a casing having side bars, printing bands and thumb wheels supported between said side bars, and a dust shield or guard covering said bands between said side bars and having members, as 24 and 26, entering the spaces between said thumb wheels, and having side arms located substantially parallel to the side bars of the casing.

3. In a band stamp and in combination with a casing having a cross member, as 3, and side bars projecting therefrom, printing bands and thumb wheels supported in said casing between said side bars, and a dust shield or guard covering said bands and having members, as 24 and 26, entering the spaces between said thumb wheels and having their ends extending under the edges of said cross member, substantially as described.

said plow beams, means for bracing said draft bar, an arm projecting forwardly from said draft bar, connections between one of said plow beams and said forwardly projecting arm, and a clevis carried by said connections adjacent said arm.

2. A device of the class described comprising the combination with plow beams and a clevis; of a draft bar connected with said plow beams, and means mounted upon said draft bar to form flexible connections between the plow beams and said clevis.

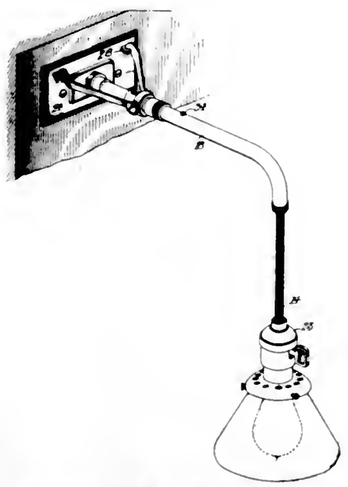
3. A device of the class described comprising the combination with an agricultural implement; of a rigid member projecting forwardly from one corner of said implement, flexible connections between said rigid member and the opposite corner of said implement, and a clevis carried by said flexible connections.

4. A device of the class described comprising the combination of a transverse draft bar, an arm projecting forwardly from said draft bar and adapted for adjustment longitudinally of the latter, a flexible member connected with said implement, said flexible member mounted upon said draft bar, connections between said flexible member and said arm, and a clevis carried by said connections.

5. A device of the class described comprising the combination with longitudinal beams; of a draft bar connected with said beams, a flexible member connected with the beams to the right side of the implement, a guide member mounted upon the adjacent end of the draft bar for said flexible member, an arm mounted upon the opposite end of said draft bar and adapted for longitudinal adjustment upon the same, connections between said arm and said flexible member, and a draft bar carrying member mounted upon said connections.

[Claims 6 to 8 not printed in the Gazette.]

1,143,536. ATTACHMENT-PLUG FITTING. GILBERT W. GOODRIDGE, Bridgeport, Conn., assignor to The Bryant Electric Company, Bridgeport, Conn., a Corporation of Connecticut. Filed Dec. 23, 1914. Serial No. 878,794. (Cl. 240—73.)



1. An attachment plug fitting comprising an attachment plug, a guide arm rigid with the outer end of the plug and serving to support the leading-in wires for the latter, and a bracket device on said guide arm, said bracket device comprising a pivoted arm having at its free end means to engage a supporting element at the plug receptacle, together with draw-up means for said bracket device operative after said engagement has been effected.

2. An attachment plug fitting comprising an attachment plug, a guide arm rigid with the outer end of the plug and serving to support the leading-in wires for the latter, and a bracket device on said guide arm, said bracket device comprising a sleeve slidably mounted on said guide arm and an arm pivoted on said sleeve and adapted at its free end to engage a supporting element at the plug receptacle, together with a draw-up device for displacing said sleeve after said engagement has been effected.

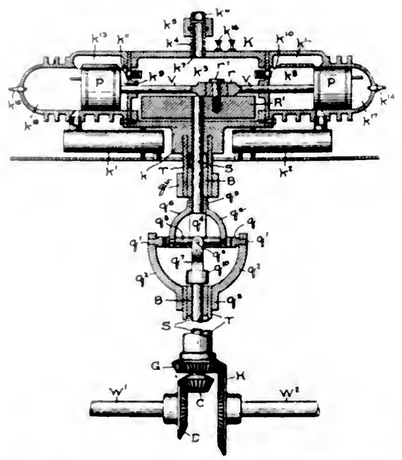
3. An attachment plug fitting comprising an attachment plug, a guide arm rigid with the outer end of the plug and serving to support the leading-in wires for the latter, and a bracket device on said guide arm, said bracket device comprising a threaded sleeve slidably mounted on said guide arm, means on said sleeve to engage a rigid support at the plug receptacle and a draw-up nut on the guide arm adapted to engage the threaded portion of the bracket sleeve and displace the same, for the purpose specified.

4. An attachment plug fitting comprising an attachment plug, a guide arm rigid with the outer end of the plug and serving to support the leading-in wires for the latter, and a bracket device on said guide arm, said bracket device comprising a threaded sleeve slidably mounted on said guide arm, means on said sleeve to engage a rigid support at the plug receptacle and a draw-up nut on the guide arm adapted to engage the threaded portion of the bracket sleeve and displace the same, together with means to prevent the rotation of said sleeve during the operation of the draw-up nut.

5. A fitting of the type described comprising an attachment plug internally recessed to afford a chamber of non-circular contour at least in part and adapted to receive strain relief means, in combination with a rigid tubular wire guide arm having a threaded end opening into said chamber and extending outwardly from the outer end of the plug, in combination with a nut seated in the non-circular portion of said chamber and held against rotation by the walls thereof, said nut engaging the threaded end of the guide arm to hold the same against withdrawal.

[Claims 6 and 7 not printed in the Gazette.]

1,143,537. DIFFERENTIAL DRIVING MECHANISM. HAROLD V. GREEN, Chicago, Ill., assignor to General Electric Company, a Corporation of New York. Filed Sept. 23, 1913. Serial No. 791,408. (Cl. 74—7.)



1. Means for generating and transmitting power comprising a motor having two mutually reactive elements adapted to rotate in opposite directions, a duplex shaft comprising a core shaft connected to one motor element, a tubular shaft connected to the other element and journaled concentrically around the core shaft, concentric pinions fixed on the two shafts, a pair of gears engaging said pinions for unidirectional rotation, and a duplex universal joint in the shaft, with one element connecting

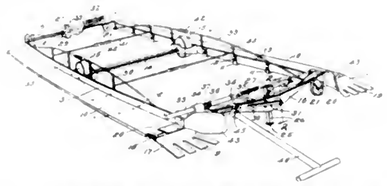
the core shaft and the other element connecting the surrounding tubular shaft, both elements of said universal joint being concentric and adapted to maintain the relations of all the parts constant in all positions.

2. Means for generating and transmitting power comprising a motor having a plurality of moving elements, a duplex shaft for transmitting power from said motor to the driven parts, and a concentric duplex universal joint in said shaft.

3. A differential motor driving mechanism for vehicles comprising a motor having two mutually reactive elements adapted to rotate in opposite directions, a duplex shaft having a core shaft connected to one element of the motor and a concentric tube journaled on the core and connected to the other element of the motor, a pair of beveled gears fixed concentrically on the core and tube respectively, a pair of associated driving shafts journaled with their axis alined and perpendicular to the axis of the duplex transmission shaft, and a pair of beveled gears fixed on said driving shafts, engaging the respective gears of the duplex shaft on opposite sides, whereby power will be communicated to said driving shafts unidirectionally but with differential effect.

1,143,538. TURN-TABLE. BENJAMIN K. HALL, Boston, Mass., assignor to William H. Mitchell, Newton, Mass. Filed Jan. 31, 1914. Serial No. 815,593. (Cl. 104—212.)

1. A turn-table for automobiles having supporting wheels, means for frictionally engaging the floor, and means for moving the floor engaging means to exert a lifting power on the table.



2. A turn-table for automobiles having a pair of wheels to support the table midway of its length, a floor engaging foot at each end of the table, and means for imparting a relative movement between the foot and the table whereby the foot is pressed upon the floor.

3. A turn-table for automobiles having a pair of wheels to support the table midway of its length, a floor engaging foot at each end of the table, means for imparting a relative movement between the foot and the table whereby the foot is pressed upon the floor, means for locking the foot in projected position, and a spring to return the foot to inoperative position.

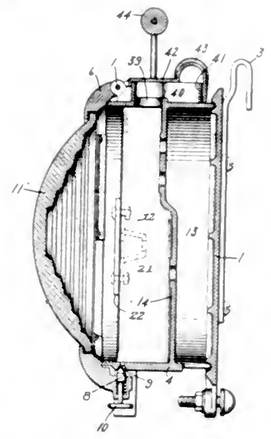
4. A turn-table for automobiles comprising means for holding the table immovable upon the floor, a stop to limit the movement of the automobile on the table, and means for rendering the holding means and the stop inoperative.

5. A turn-table for automobiles comprising supporting wheels, means for frictionally engaging the floor, a stop to position the automobile on the table, and a single means for rendering the floor engaging means and the stop operative.

[Claims 6 to 12 not printed in the Gazette.]

1,143,539. HEADLIGHT. CROMWELL A. B. HALVORSON, Jr., Saugus, and LLOYD O. INGALLS, Lynn, Mass., assignors to General Electric Company, a Corporation of New York. Filed Nov. 25, 1911. Serial No. 662,451. (Cl. 176—52.)

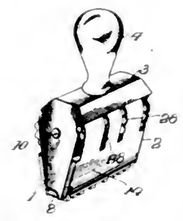
1. In an arc headlight, a partition integral with the casing dividing the headlight into front and rear chambers, electrodes located in the front chamber, removable means for closing the ends of said chambers, operating mechanism located in the rear chamber, connections between the operating mechanism and the electrodes, and means for evacuating the fumes evolved from the arc from the front chamber.



2. In an arc headlight, a partition dividing the headlight into front and rear chambers, the electrodes being located in one chamber and the operating mechanism therefor in the other, a plate for closing the rear chamber and provided with means for supporting the headlight, and a door comprising a lens for closing the front chamber.

3. In an arc headlight, a partition dividing the headlight into front and rear chambers the electrodes being located in the front chamber and the operating mechanism therefor in the rear chamber, a back plate provided with means for securing the same to the vehicle, means for pivotally attaching the headlight to the back plate, and a front chamber comprising a lens for closing the front chamber.

1,143,540. HAND-STAMP. ANDREW J. HELLINGS, Philadelphia, Pa., assignor to Hill-Independent Mfg. Co., Philadelphia, Pa., a Corporation of Illinois. Filed Aug. 22, 1914. Serial No. 858,050. (Cl. 101—160.)



1. In a hand stamp and in combination with a casing having side bars, printing bands and thumb wheels supported between said side bars, and a dust shield or guard covering said bands between said side bars and having members, as 24 and 26, entering the spaces between said thumb wheels.

2. In a hand stamp and in combination with a casing having side bars, printing bands and thumb wheels supported between said side bars, and a dust shield or guard covering said bands between said side bars and having members, as 24 and 26, entering the spaces between said thumb wheels, and having side arms located substantially parallel to the side bars of the casing.

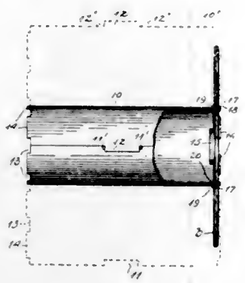
3. In a hand stamp and in combination with a casing having a cross member, as 3, and side bars projecting therefrom, printing bands and thumb wheels supported in said casing between said side bars, and a dust shield or guard covering said bands and having members, as 24 and 26, entering the spaces between said thumb wheels and having their ends extending under the edges of said cross member, substantially as described.

4. In a hand stamp and in combination with the frame thereof, a type base or bridge, an axle pin, type bands supported in said frame, and dust guards supported by said type base and axle pin, substantially as described.

5. In a hand stamp and in combination with the frame thereof, a type base or bridge, an axle pin, type bands supported by said frame, and dust guards protecting said type bands having said axle pin passing through the same and also having members co-acting with said type base, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

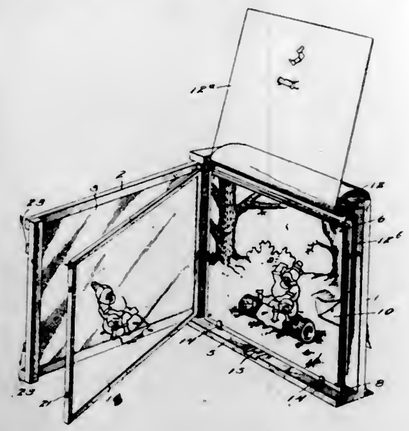
1,143,541. SHEET-METAL SPOOL. EBER J. HUBBARD, Berwyn, Ill. Filed Apr. 26, 1913. Serial No. 763,804. (Cl. 242—123.)



1. A spool or reel comprising a hub and disks secured to the hub ends, the hub being bent into cylindrical form from a sheet metal blank, one meeting edge of the hub blank having a tongue and the opposite edge having a groove for interlockingly receiving the tongue to prevent separation of the edges and relative longitudinal displacement thereof.

2. A spool or reel comprising a hub and end disks secured thereto, said hub being bent into cylindrical form from a sheet metal blank having at its one end a dove-tailed tongue and in its other end a dove-tailed slot, said tongue and slot interlockingly engaging when the edges are brought together to form a hub and preventing relative displacement of the edges.

1,143,542. PROCESS OF AND APPARATUS FOR PRODUCING MOVING PICTURES. EARL HURD, Kansas City, Mo. Filed Dec. 19, 1914. Serial No. 878,091. (Cl. 88—16.)



1. The process of producing moving pictures, which includes the producing on a sheet of suitable material a background containing the parts of a scene which remain stationary during the entire series of pictures embodying the scene, producing on separate sheets of transparent material the movable objects in the successive positions or poses, and photographing said pictures in succession on a kniematograph film, each picture of the series being formed by a separate sheet of said transparent material placed in front of said background sheet, and the background which is visible through said transparent material.

2. The process of producing moving pictures, which includes the producing on a sheet of suitable material a background containing the parts of a scene which remain stationary during the entire series of pictures embodying the scene, producing on separate sheets of transparent material those portions of the movable objects which occupy different positions in successive pictures, producing upon an independent transparent medium those portions of the movable objects which remain stationary during a number of successive pictures, and superposing said medium in the same position upon the background simultaneously with the successive sheets of transparent material, the parts on the latter uniting with those on said medium to form with the visible background the complete pictures in each position or pose.

3. The process of producing moving pictures, which includes the producing on a sheet of suitable material the background of a scene, producing upon separate sheets of transparent material the movable objects in successive positions, arranging said sheets in a group fixed in definite relation to the background and separately placing the sheets successively in front of the fixed background, whereby they will be held in the same position with respect thereto.

4. The process of producing moving pictures, which includes the producing upon a transparent medium that portion of the movable object which remains in the same position during successive pictures or poses, producing upon separate sheets of transparent material the remaining portions of the movable object in successive positions, and superposing said transparent medium successively upon said sheets so that the corresponding parts shall be in registry to form the complete object.

5. The step in the method of producing moving pictures, which includes producing upon a transparent medium to be used in conjunction with a background only those parts of the movable objects of the picture which remain in unchanged position during a series of successive positions or poses.

[Claims 6 to 8 not printed in the Gazette.]

1,143,543. PROCESS OF PREPARING TEXTILE MATERIALS FOR BLEACHING. JAMES LOCKHART JARDINE, Penicuik, Scotland. Filed Feb. 3, 1915. Serial No. 5,922. (Cl. 92—12.)

1. A process of preparing textile materials for bleaching in a single operation, which comprises treating said textile materials with a solution of an acid sulfite of a metal of which the sulfite is water-soluble, at a temperature above the boiling point of water, but below that at which the fibers of said materials would be tendered, or the physical structure of the textile materials would be destroyed, or the textile materials reduced to a pulp, said treatment being effected under pressure, and while constantly removing substantially all the liberated sulfur dioxid during the entire process, said treatment being continued sufficiently long to remove the incrusting constituents, but not sufficiently long to reduce said textile materials to the condition of pulp.

2. A process of preparing textile materials for bleaching in a single operation, which comprises treating the same with a solution of magnesium bisulfite, under pressure, at a temperature above the boiling point of water, but below that and for a period of time less than that at which the structural formation of the textile material would be destroyed, or the textile material reduced to a pulp or the fibers materially weakened, and removing substantially all the liberated sulfur dioxid during the treating step, whereby at first the acid salts in the liquor

act upon the lignin, in said textile material and thereafter the base in the liquor acts upon the pectic principles of the textile material, but the physical structure of the material is not injured.

3. In the process of treating raw textile materials, to prepare the same for bleaching, the step of subjecting the same to the action of a solution of magnesium bisulfite of such a strength and at such a temperature, above the boiling point of water, as to avoid the formation of material amounts of hydrocelliulose, and continuing said treatment for about 20 hours, while substantially continuously allowing the escape of sulfur dioxid, sufficiently to avoid the development of a pressure materially exceeding the steam pressure equivalent to the temperature employed, and discontinuing said treatment before the physical structure of the textile material is materially altered.

4. A process of preparing jute and similar textile materials for bleaching, consisting in treating the textile material, in a digester with a solution from a magnesium base containing:

Total SO_2	3.5%
Available or free SO_2	2.1%
Combined SO_2	1.4%

one gallon of this liquor being used for each 1½ lbs. of the textile material, and maintaining a temperature of about 280° F. for about twenty hours, while allowing the escape of sufficient SO_2 to prevent development of pressure in excess of the steam pressure equivalent to said temperature, and adding water during the operation, in amount sufficient to make up for the loss produced by steam escaping with the gases, as described.

1,143,544. BREECH-LOADING AIR-GUN. ARTHUR A. KARCHER, Chicago, Ill., assignor to American Tool Works, St. Joseph, Mich., a Corporation of Michigan. Filed July 31, 1913. Serial No. 782,166. (Cl. 124—10.)



1. An air gun comprising an outer barrel, an inner barrel, the outer barrel having an opening, and means for displacing the inner barrel through said opening, to permit loading at the rear end of said inner barrel.

2. An air gun comprising an outer barrel, an inner barrel, the outer barrel having an opening, and means for displacing the inner barrel through said opening, to permit loading at the rear end of said inner barrel, said means comprising a lever pivoted on the outer barrel and adapted to close said opening when the inner barrel is in operative position.

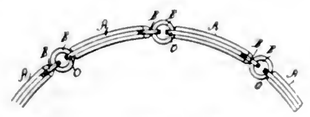
3. An air gun comprising an outer barrel, an inner barrel, the outer barrel having an opening, and means for displacing the inner barrel through said opening, to permit loading at the rear end of said inner barrel, said means comprising a movable element for closing said opening when the inner barrel is in operative position.

4. An air gun comprising an outer barrel, an inner barrel, the outer barrel having an opening, and means for displacing the inner barrel through said opening, to permit loading at the rear end of said inner barrel, said means comprising a movable element having an opening for permitting access to the rear end of said inner barrel.

5. An air gun comprising an outer barrel, an inner barrel, the outer barrel having an opening, and means for displacing the inner barrel through said opening, to permit loading at the rear end of said inner barrel, said outer barrel having a compression chamber from which the rear end of said inner barrel is disconnected by the operation of said means.

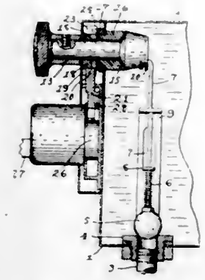
[Claims 6 to 24 not printed in the Gazette.]

1,143,545. EXTENSIBLE BRACELET-CHAIN RUFUS KING, Plainville, Mass., assignor to Bugbee & Niles Co., Providence, R. I., a Corporation of Rhode Island. Filed Feb. 27, 1914. Serial No. 821,508. (Cl. 74—74.)



In a link, an outer member having open sides and a closed end, a pair of inwardly extending projections at the opposite end thereof closing said opposite end, a sliding inner member having a pair of inwardly extending projections which latter are disposed adjacent the opposite end of the outer member, and a spring insertible bodily and lengthwise through either side of the outer member while the ends of the latter are closed, the ends of said spring embracing the respective projections of the inner and outer members.

1,143,546. SAFETY TANK-LOCK. JOHN LEES, Indianapolis, Ind. Filed Oct. 6, 1913. Serial No. 793,613. (Cl. 137—27.)



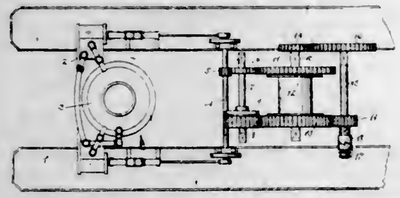
1. In combination with a liquid containing tank having an exit opening, a valve within the tank for closing such opening, a spring which acts to force said valve to its seat, said valve having a reciprocable stem, a rotatable shaft having one end outside of the tank, a knob mounted on the outer end of the shaft, a lever arm carried by said shaft and having a slot at the outer end thereof adapted to receive the end of said valve stem and means for locking said shaft when turned to either the valve closing position or valve releasing position, substantially as described.

2. In combination with a liquid containing tank having an exit opening, a valve for closing such opening, a reciprocable valve stem connected to said valve, a spring acting to press said valve to its seat, a rotatable shaft having a slotted arm for engaging the end of said stem, said valve spring and slotted arm being within the tank, said shaft being mounted in the wall of the tank, said shaft being provided with a pair of peripheral locking slots, a knob on the outer end of said shaft and a key-controlled lock mounted on the outside of the tank and having a bolt adapted to be projected into either one of said slots, substantially as described.

1,143,547. VARIABLE-SPEED-TRANSMISSION MECHANISM. JOHN R. MCGIFFERT, Duluth, Minn., assignor to Clyde Iron Works, Duluth, Minn., a Corporation of Maine. Original application filed Jan. 31, 1912, Serial No. 674,538. Divided and this application filed Jan. 2, 1913. Serial No. 739,692. (Cl. 74—59.)

1. In mechanism of the character described, the combination of a rotatable driving member; a gear operated thereby; a second gear operated by said first-named gear; a driven member; a third gear attached to said driven member; low speed driving means operatively connecting said second gear and said gear on said driven member;

and high speed driving means operatively connecting said second gear and said gear on said driven member, said low speed means including a one-way connection adapted to disengage upon the operation of said driven member by said high speed means.



2. In mechanism of the class described, the combination of a rotatable driven member; a rotatable driving member; a gear attached to said driven member; a second gear engaging said first-named gear; one-way clutch means detachably connecting said second gear and said driving member, said gears constituting low speed driving means for said driven member; a third gear also engaging said first-named gear, said third gear constituting a high speed driving means for said driven member; and clutch means operatively connecting said third gear to said driving member, said one-way clutch means being adapted to disengage when said driven member is operated at high speed.

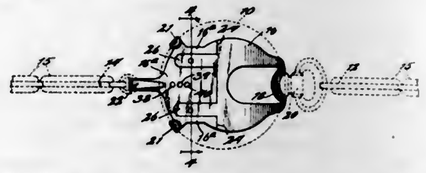
3. In mechanism of the class described, the combination of a rotatable driving shaft; a rotatable driven member; two shafts connected to be driven by said driving shaft; a gear attached to said driven member; a second gear rotatably mounted on one of said shafts and engaging said first-named gear; a one-way spiral jaw clutch adapted to connect said second gear to the shaft to be driven thereby; a third gear rotatably mounted on said other shaft and engaging said first-named gear; and a manually operative clutch adapted to connect said third gear to said other shaft to be driven thereby, said second gear being smaller than said third gear whereby said second gear is disengaged from said one-way clutch means upon the rotation of said driven member by said third gear.

4. In mechanism of the class described, the combination of a rotatable driving shaft; a rotatable driven member; two spaced shafts disposed parallel with and adjacent to said driving shaft and said driven member and connected to be driven by said driving shaft; a gear fixedly attached to said driven member; a second gear rotatably mounted on one of said shafts; one-way spiral jaw clutch means adapted to operatively connect said second gear to be driven by said shaft; a third gear rotatably mounted on said other shaft and engaging said gear on said driven member; and friction clutch means adapted to connect said third gear to said shaft to be driven thereby; said drive through said other shaft being adapted to rotate said driven member at high speed, thereby causing said spiral jaw clutch to disengage in such other or low speed drive.

5. In mechanism of the class described, the combination of a rotatable driven member; a rotatable driving member; a gear attached to said driven member; a second gear engaging said first-named gear; and means including a one-way clutch detachably connecting said second gear and said driving member, said gears constituting low speed driving means for said driven member; a third gear meshed with said gear on said driven member, but normally inoperative to drive the latter, said third gear being adapted, when operated, to drive said driven member at high speed; and clutch means adapted to render said third gear operative to drive said driven member at such high speed.

1,143,548. ADJUSTABLE HOLDER FOR WRIST-WATCHES. CLAUDE W. MORRIS and HAROLD R. MORRIS, Chicago, Ill. Filed Jan. 13, 1915. Serial No. 2,061. (Cl. 224—4.)

1. In a device of the class described, two interfitting parts locatable along the back of a watch movable with reference to each other, to, in all positions, present substantially continuous smooth faces, one to the watch, the other to the hand of the user, means for detachably securing said parts in selected positions with reference to each other, and means carried by each of said parts for retaining a watch in contact with them.



2. In a device of the class described, two interfitting parts locatable along the back of a watch movable in straight lines with reference to each other to, in all positions, present substantially continuous smooth faces, one to the watch, the other to the hand of the user, means for detachably securing said parts in selected positions with reference to each other, and means carried by said parts for retaining a watch in contact with them.

3. A gripping device for a watch comprising a substantially parallel surfaced plate provided with suitably spaced means extending from its edges for gripping a watch, and means for having a wrist bracelet or chain attached thereto, said plate being made in two separable parts adjustable lengthwise with reference to each other arranged to, in all positions, present substantially continuous smooth faces, one to the watch, the other to the hand of the user, and arranged to accommodate watches of different sizes between said gripping means in combination with means for detachably securing the parts of the plate in selected adjusted positions corresponding to the sizes of the respective sizes of the watches to which the device is applied.

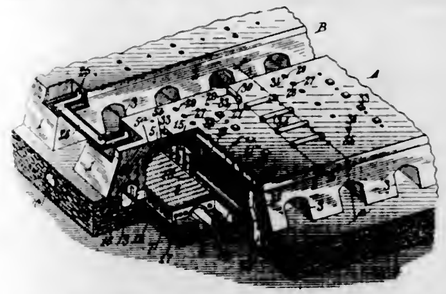
4. A gripping device for a watch comprising a substantially parallel surfaced plate carrying suitably spaced means on its edges for holding a watch and for having a wrist bracelet attached thereto, said plate being divided in two parts, one of which carries a plurality of fingers extending along the other part and connected thereto by a pin and slot connection permitting longitudinal adjustment of the two parts with reference to each other, and means for securing said parts of the plates in desired positions, the plate parts and connections being constructed and arranged to, in all positions, present substantially continuous smooth faces, one to the watch, the other to the hand of the user.

5. A gripping device for a watch comprising a substantially parallel surfaced plate carrying suitably spaced means on its edges for holding a watch and for having a wrist bracelet attached thereto, said plate being divided into two separable parts, a plurality of fingers extending from one of said parts of the plate entering and traveling in recesses formed in the faces of the other part of the plate so as to permit movement of the parts of the plate with reference to each other without substantially destroying the parallelism of the faces of the plate, and means operating in connection with said fingers for detachably securing the parts of the plate in selected adjusted positions with reference to each other.

[Claims 6 to 10 not printed in the Gazette.]

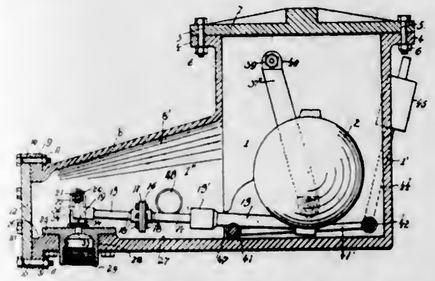
1,143,549. SECTIONAL KILN. GEORGE R. MUMMA, Dayton, Ohio, assignor to The C. W. Raymond Company, Dayton, Ohio, a Corporation. Filed June 29, 1914. Serial No. 847,799. (Cl. 25—134.)

1. A sectional kiln and the individual compartment gas flues thereof, said kiln being provided with ports above the compartments, said kiln being also provided with a continuous water-smoking flue, said gas flues and said water-smoking flue being provided with ports, breaching adapted to connect said gas and water-smoking flues through the last named ports, said gas flues being also provided with a second set of ports, and second breaching adapted to connect the gas flues and the compartments through the ports in the top of the kiln and the second named ports in the gas flues.



2. In a sectional kiln, the top, and the end side and division walls thereof, said divisional walls being provided with individual compartment gas flues, said sides being provided with a continuous water-smoking flue at their top, means for connecting said gas flues with said water-smoking flues, one of said sides being provided with a gas tunnel at the bottom thereof and uptakes which connect said tunnel with said gas flues, and a valve mounted at the upper end of each uptake.

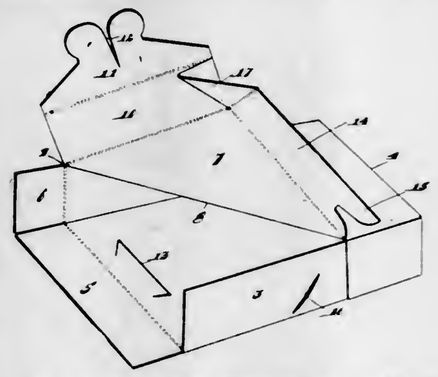
1,143,550. STEAM-TRAP. CRESCENCIO ALFONSO NUNEZ, Cruces, Cuba. Filed Apr. 13, 1914, Serial No. 831,525. Renewed May 12, 1915. Serial No. 27,665. (Cl. 137—103.)



1. In a steam trap, the combination of a closed chamber adapted to receive condensate and having a discharge port, a valve normally closing said port and movable to open the same, a float within the chamber adapted to move in an arc of a circle under the influence of the condensate, connections between the valve and the float whereby the movements of the float control those of the valve, said connections between the float and the valve including a stem, and counterbalancing means for the float including a shaft journaled in the walls of the chamber transversely thereof adjacent the float, a bail shaped member secured to the shaft, antifriction means between the portion of the bail shaped member remote from the shaft and said float stem, and a weighted crank secured to the shaft on the outside of the chamber.

2. In a steam trap, the combination of a closed chamber having an inlet for condensate and a discharge port, a valve movable over said port and guarding the same, a float within the chamber movable in an arc of a circle under the influence of the condensate, connections between the float and the valve whereby the position of the valve is determined by that of the float, said connections between the valve and the float including a stem rigidly connected to the float, and counterbalancing means for the float comprising a shaft journaled transversely of and in the chamber below the float and on the opposite side thereof from the valve, a bail comprising two arms on opposite sides of the float connected to the shaft, an antifriction roller carried by the bail remote from the shaft and bearing against the underside of said stem, and a weighted lever secured to the shaft on the outside of the chamber and on the opposite side of the vertical plane of the shaft from said bail.

1,143,551. BOX. EDWARD E. PINKERTON, Chicago, Ill. Filed Mar. 23, 1914. Serial No. 826,659. (Cl. 229—38.)



1. A box comprising a rectangular body and a triangular shaped cover therefor joined to the top of the box by a crease extending inwardly and transversely of the box from one corner thereof; a flap on said cover adapted to extend over the corresponding end of said box; and a tongue on said flap, there being a slit in the bottom of said box to receive said tongue, substantially as described.

2. A box comprising a rectangular body and a triangular shaped cover therefor; a flap on said cover adapted to extend over the corresponding end of said box; a tongue on said flap, there being a slit in the bottom of said box to receive said tongue; a flap on said cover adapted to extend over the corresponding side of said box; and a tongue on said last mentioned flap, there being a slit in the corresponding side of said box to receive said tongue, substantially as described.

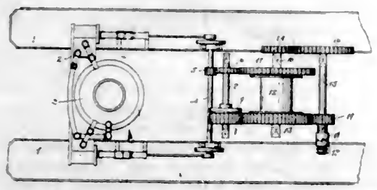
3. A box comprising a body and a triangular shaped cover therefor joined to the top of the box by a crease extending inwardly and transversely of the box from one corner thereof; a flap on said cover adapted to extend over the corresponding end of said box; a tongue on said flap, there being a slit in the bottom of said box to receive said tongue; a flap on said cover adapted to extend over the corresponding side of said box; and a tongue on said last mentioned flap, there being a slit in the corresponding side of said box to receive said tongue, substantially as described.

4. A box comprising a rectangular body; a triangular shaped cover therefor, said cover being hinged at one side but free on the other two sides; securing flaps on each of the other sides of said cover; and a securing tongue on each of said flaps, there being corresponding interlocking slits in the box adapted to receive said tongues, substantially as described.

1,143,552. KNITTING-MACHINE. EDISON E. RANDALL, Kankakee, Ill., assignor to Paramount Knitting Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 28, 1912. Serial No. 686,762. (Cl. 66—9.)

1. In a circular knitting machine, the combination with operating means for the needles, of pattern mechanism for controlling the operation of said needles to produce either ribbed, plain circular or reciprocating work as desired, a take-up for the fabric being knit adapted to slide over the web when moved upwardly and to clamp the web when moved downwardly, and pattern controlled means for elevating the take-up and releasing it to clamp the web.

and high speed driving means operatively connecting said second gear and said gear on said driven member, said low speed means including a one-way connection adapted to disengage upon the operation of said driven member by said high speed means.



2. In mechanism of the class described, the combination of a rotatable driven member; a rotatable driving member; a gear attached to said driven member; a second gear engaging said first-named gear; one-way clutch means detachably connecting said second gear and said driving member, said gears constituting low speed driving means for said driven member; a third gear also engaging said first-named gear, said third gear constituting a high speed driving means for said driven member; and clutch means operatively connecting said third gear to said driving member, said one-way clutch means being adapted to disengage when said driven member is operated at high speed.

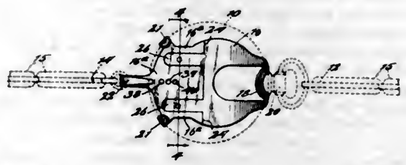
3. In mechanism of the class described, the combination of a rotatable driving shaft; a rotatable driven member; two shafts connected to be driven by said driving shaft; a gear attached to said driven member; a second gear rotatably mounted on one of said shafts and engaging said first-named gear; a one-way spiral jaw clutch adapted to connect said second gear to the shaft to be driven thereby; a third gear rotatably mounted on said other shaft and engaging said first-named gear; and a manually operative clutch adapted to connect said third gear to said other shaft to be driven thereby, said second gear being smaller than said third gear whereby said second gear is disengaged from said one-way clutch means upon the rotation of said driven member by said third gear.

4. In mechanism of the class described, the combination of a rotatable driving shaft; a rotatable driven member; two spaced shafts disposed parallel with and adjacent to said driving shaft and said driven member and connected to be driven by said driving shaft; a gear fixedly attached to said driven member; a second gear rotatably mounted on one of said shafts; one-way spiral jaw clutch means adapted to operatively connect said second gear to be driven by said shaft; a third gear rotatably mounted on said other shaft and engaging said gear on said driven member; and friction clutch means adapted to connect said third gear to said shaft to be driven thereby; said drive through said other shaft being adapted to rotate said driven member at high speed, thereby causing said spiral jaw clutch to disengage in such other or low speed drive.

5. In mechanism of the class described, the combination of a rotatable driven member; a rotatable driving member; a gear attached to said driven member; a second gear engaging said first-named gear; and means including a one-way clutch detachably connecting said second gear and said driving member, said gears constituting low speed driving means for said driven member; a third gear meshed with said gear on said driven member, but normally inoperative to drive the latter, said third gear being adapted, when operated, to drive said driven member at high speed; and clutch means adapted to render said third gear operative to drive said driven member at such high speed.

1,143,548. ADJUSTABLE HOLDER FOR WRIST-WATCHES. CLAUDE W. MORRIS and HAROLD R. MORRIS, Chicago, Ill. Filed Jan. 13, 1915. Serial No. 2,061. (Cl. 224—4.)

1. In a device of the class described, two interfitting parts locatable along the back of a watch movable with reference to each other, to, in all positions, present substantially continuous smooth faces, one to the watch, the other to the hand of the user, means for detachably securing said parts in selected positions with reference to each other, and means carried by each of said parts for retaining a watch in contact with them.



2. In a device of the class described, two interfitting parts locatable along the back of a watch movable in straight lines with reference to each other to, in all positions, present substantially continuous smooth faces, one to the watch, the other to the hand of the user, means for detachably securing said parts in selected positions with reference to each other, and means carried by said parts for retaining a watch in contact with them.

3. A gripping device for a watch comprising a substantially parallel surfaced plate provided with suitably spaced means extending from its edges for gripping a watch, and means for having a wrist bracelet or chain attached thereto, said plate being made in two separable parts adjustable lengthwise with reference to each other arranged to, in all positions, present substantially continuous smooth faces, one to the watch, the other to the hand of the user, and arranged to accommodate watches of different sizes between said gripping means in combination with means for detachably securing the parts of the plate in selected adjusted positions corresponding to the sizes of the respective sizes of the watches to which the device is applied.

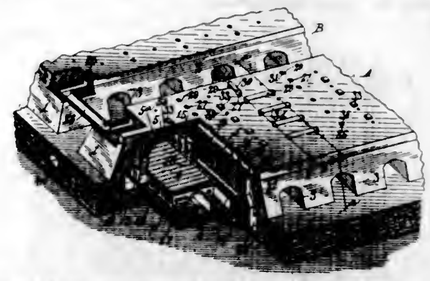
4. A gripping device for a watch comprising a substantially parallel surfaced plate carrying suitably spaced means on its edges for holding a watch and for having a wrist bracelet attached thereto, said plate being divided in two parts, one of which carries a plurality of fingers extending along the other part and connected thereto by a pin and slot connection permitting longitudinal adjustment of the two parts with reference to each other, and means for securing said parts of the plates in desired positions, the plate parts and connections being constructed and arranged to, in all positions, present substantially continuous smooth faces, one to the watch, the other to the hand of the user.

5. A gripping device for a watch comprising a substantially parallel surfaced plate carrying suitably spaced means on its edges for holding a watch and for having a wrist bracelet attached thereto, said plate being divided into two separable parts, a plurality of fingers extending from one of said parts of the plate entering and traveling in recesses formed in the faces of the other part of the plate so as to permit movement of the parts of the plate with reference to each other without substantially destroying the parallelism of the faces of the plate, and means operating in connection with said fingers for detachably securing the parts of the plate in selected adjusted positions with reference to each other.

[Claims 6 to 10 not printed in the Gazette.]

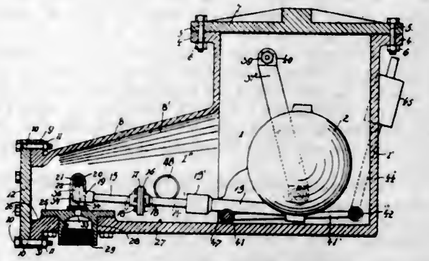
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1. A sectional kiln and the individual compartment gas flues thereof, said kiln being provided with ports above the compartments, said kiln being also provided with a continuous water-smoking flue, said gas flues and said water-smoking flue being provided with ports, breaching adapted to connect said gas and water-smoking flues through the last named ports, said gas flues being also provided with a second set of ports, and second breaching adapted to connect the gas flues and the compartments through the ports in the top of the kiln and the second named ports in the gas flues.



2. In a sectional kiln, the top, and the end side and division walls thereof, said divisional walls being provided with individual compartment gas flues, said sides being provided with a continuous water-smoking flue at their top, means for connecting said gas flues with said water-smoking flues, one of said sides being provided with a gas tunnel at the bottom thereof and uptakes which connect said tunnel with said gas flues, and a valve mounted at the upper end of each uptake.

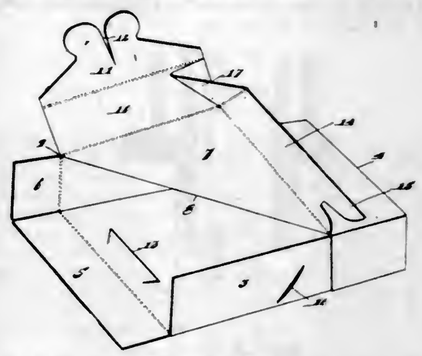
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1. In a steam trap, the combination of a closed chamber adapted to receive condensate and having a discharge port, a valve normally closing said port and movable to open the same, a float within the chamber adapted to move in an arc of a circle under the influence of the condensate, connections between the valve and the float whereby the movements of the float control those of the valve, said connections between the float and the valve including a stem, and counterbalancing means for the float including a shaft journaled in the walls of the chamber transversely thereof adjacent the float, a bail shaped member secured to the shaft, antifriction means between the portion of the bail shaped member remote from the shaft and said float stem, and a weighted crank secured to the shaft on the outside of the chamber.

2. In a steam trap, the combination of a closed chamber having an inlet for condensate and a discharge port, a valve movable over said port and guarding the same, a float within the chamber movable in an arc of a circle under the influence of the condensate, connections between the float and the valve whereby the position of the valve is determined by that of the float, said connections between the valve and the float including a stem rigidly connected to the float, and counterbalancing means for the float comprising a shaft journaled transversely of and in the chamber below the float and on the opposite side thereof from the valve, a bail comprising two arms on opposite sides of the float connected to the shaft, an antifriction roller carried by the bail remote from the shaft and bearing against the underside of said stem, and a weighted lever secured to the shaft on the outside of the chamber and on the opposite side of the vertical plane of the shaft from said bail.

1,143,551. BOX. EDWARD E. PINKERTON, Chicago, Ill. Filed Mar. 23, 1914. Serial No. 826,659. (Cl. 229—38.)



1. A box comprising a rectangular body and a triangular shaped cover therefor joined to the top of the box by a crease extending inwardly and transversely of the box from one corner thereof; a flap on said cover adapted to extend over the corresponding end of said box; and a tongue on said flap, there being a slit in the bottom of said box to receive said tongue, substantially as described.

2. A box comprising a rectangular body and a triangular shaped cover therefor; a flap on said cover adapted to extend over the corresponding end of said box; a tongue on said flap, there being a slit in the bottom of said box to receive said tongue; a flap on said cover adapted to extend over the corresponding side of said box; and a tongue on said last mentioned flap, there being a slit in the corresponding side of said box to receive said tongue, substantially as described.

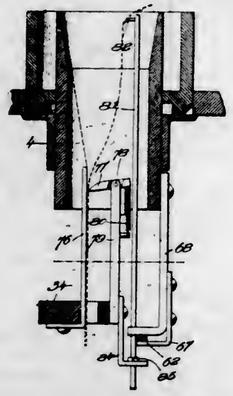
3. A box comprising a body and a triangular shaped cover therefor joined to the top of the box by a crease extending inwardly and transversely of the box from one corner thereof; a flap on said cover adapted to extend over the corresponding end of said box; a tongue on said flap, there being a slit in the bottom of said box to receive said tongue; a flap on said cover adapted to extend over the corresponding side of said box; and a tongue on said last mentioned flap, there being a slit in the corresponding side of said box to receive said tongue, substantially as described.

4. A box comprising a rectangular body; a triangular shaped cover therefor, said cover being hinged at one side but free on the other two sides; securing flaps on each of the other sides of said cover; and a securing tongue on each of said flaps, there being corresponding interlocking slits in the box adapted to receive said tongues, substantially as described.

1,143,552. KNITTING-MACHINE. EDISON E. RANDALL, Kankakee, Ill., assignor to Paramount Knitting Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 28, 1912. Serial No. 686,762. (Cl. 66—9.)

1. In a circular knitting machine, the combination with operating means for the needles, of pattern mechanism for controlling the operation of said needles to produce either ribbed, plain circular or reciprocating work as desired, a take-up for the fabric being knit adapted to slide over the web when moved upwardly and to clamp the web when moved downwardly, and pattern controlled means for elevating the take-up and releasing it to clamp the web.

2. In a circular knitting machine, the combination with operating means for the needles, of pattern mechanism for controlling the operation of said needles to produce either ribbed, plain circular or reciprocating work as desired, a take-up for the fabric being knit adapted to slide over the web when moved upwardly and to clamp the web when moved downwardly, pattern controlled means for elevating the take-up and releasing it to clamp the web, and means connected to said take-up and acting therethrough to place tension on the web during the downward movement of the take-up.



3. In a circular knitting machine, the combination with operating means for the needles, of pattern mechanism for controlling the operation of said needles to produce either ribbed, plain circular or reciprocating work as desired, a take-up for the fabric being knit adapted to slide over the web when moved upwardly and to clamp the web when moved downwardly, pattern controlled means for elevating the take-up and releasing it to clamp the web, and an auxiliary take-up device mounted to slide at one side of the web and to catch in one side of the web upon its said downward movement.

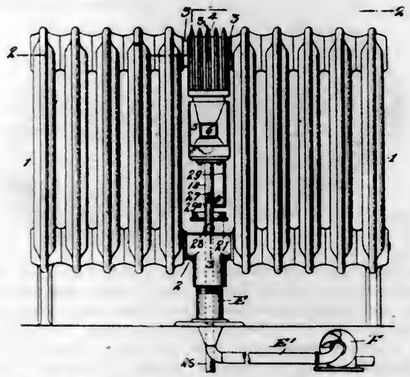
4. In a circular knitting machine, the combination with operating means for the needles, of pattern mechanism for controlling the operation of said needles to produce either ribbed, plain circular or reciprocating work as desired, a take-up for the fabric being knit adapted to slide over the web when moved upwardly and to clamp the web when moved downwardly, pattern controlled means for elevating the take-up and releasing it to clamp the web, an auxiliary take-up device mounted to slide at one side of the web and to catch in one side of the web upon its said downward movement, and yielding means for causing the downward movement of the auxiliary take-up device and means for securing its upward movement from the take-up.

5. In a circular knitting machine, the combination with operating means for the needles, of pattern mechanism for controlling the operation of said needles to produce either ribbed, plain circular or reciprocating work as desired, a take-up for the fabric being knit adapted to slide over the web when moved upwardly and to clamp the web when moved downwardly, elevating means for said take-up, pattern controlled means to effect the engagement of the take-up and the elevating means and secure the elevation of the take-up and to release the take-up from the elevating means at a predetermined time allowing the take-up to clamp and hang upon the web.

[Claims 6 to 13 not printed in the Gazette.]

1,143,553. HEATING APPARATUS. ALCORN RECTOR, New York, N. Y., assignor to Rector Gas Lamp Company, New York, N. Y., a Corporation of New York. Filed Nov. 23, 1912. Serial No. 733,176. (Cl. 126—84.)

1. In combination a combustion chamber, a burner therefor, means for supplying fuel to the burner, an exhaust conduit communicating with the combustion chamber, artificial means of exhaust operable to forcibly move the products of combustion from the combustion chamber through the exhaust conduit and also to control the said means for supplying the fuel.



2. In combination a combustion chamber, a burner therefor, means for supplying the fuel to the burner, means for lighting the fuel, an exhaust conduit communicating with the combustion chamber, artificial means of exhaust operable to forcibly move the products of combustion from the chamber through the conduit and also to control the said means for supplying fuel and the said means for lighting the fuel.

3. A heating apparatus, comprising a combustion chamber, a burner therefor, means for supplying fuel to the burner, means for lighting the fuel, an exhaust conduit communicating with the combustion chamber, artificial means of exhaust operable to forcibly move the products of combustion from the chamber through the conduit and to control the said means for supplying fuel and the said means for lighting the fuel and a thermostatic mechanism and coöperating devices operable to control the fuel supply when the said artificial means of exhaust is in operation.

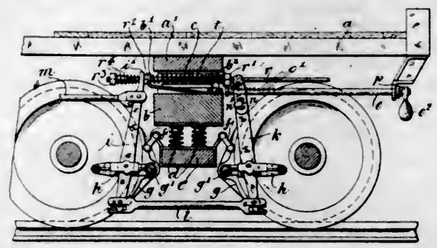
4. An aparatus comprising a radiator; a combustion chamber structure; a burner therefor; a valve controlling the fuel supply for the burner; an exhaust conduit in communication with the combustion structure through the radiator; artificial means operable to forcibly move the products of combustion from the combustion structure through the radiator, and means to effect the seating of the valve upon the stopping the said artificial means.

5. An apparatus comprising a radiator; a combuation chamber structure; a burner therefor; a valve controlling the fuel supply for the burner; an exhaust conduit in communication with the combustion structure through the radiator; artificial means operable to forcibly move the products of combustion from the combustion structure through the radiator, and means to effect the seating the valve upon the stopping of the said artificial means, and the unseating of the valve upon the starting of the said means, and the lighting of the gas upon the unseating of the valve.

[Claims 6 to 18 not printed in the Gazette.]

1,143,554. SLACK-ADJUSTER FOR RAILWAY-BRAKES, WILLIAM H. SAUVAGE, New York, N. Y., assignor to Sauvage Appliance Company, Inc., New York, N. Y., a Corporation of New York. Filed May 15, 1914. Serial No. 838,683. (Cl. 188—50.)

1. In an automatic slack adjuster for railway brakes, the combination of the wheel truck and brake system therefor, comprising a live lever and a dead lever, a bottom rod connection therefor, a take-up rod operatively interposed between the upper ends of the live lever and the dead lever, means carried by the take-up rod and coöperating with the upper end of the live lever to bring about movement of the take-up rod upon travel of the live lever, a spring coöperating with the take-up rod to restore the same to its normal position upon release of the brakes and a clutch to connect the take-up rod with the dead lever during travel of the take-up rod to the normal position.



2. In an automatic slack adjuster for railway brakes, the combination of the wheel truck and brake system therefor, comprising a live lever and a dead lever, a rack bar mounted at one end in a fixed anchorage to the car sills, opposed holding members secured to the upper end of the dead lever and constituting a support for the other end of the rack bar, a holding dog pivotally mounted in said holding members and engaging the teeth on the rack bar, said rack bar being rotatable to disengage the teeth from the holding dog to release the brake system, means coöperating with the rack bar to restore the same to its normal operating positions upon release of the rack bar, and means to move the dead lever with respect to the rack bar to shift the fulcrum of the dead lever.

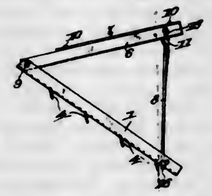
3. In an automatic slack adjuster for railway brakes, the combination of the wheel truck and brake system therefor, comprising a live lever and a dead lever, a bottom rod connection therefor, opposed holding members carried on the upper end of the dead lever, a take-up rod operatively interposed between the upper ends of the live lever and the dead lever, said take-up rod passing between said holding members, and a spring actuated frictional clutch mounted in said holding members and engaging the take-up rod, whereby movement of the take-up rod tends to move the dead lever.

4. In an automatic slack adjuster for railway brakes, the combination of the wheel truck and brake system therefor, comprising a live lever and a dead lever, a bottom rod connection therefor, a holding member partially supported by the dead lever and movable freely therewith, a take-up rod operatively interposed between the upper ends of the live lever and the dead lever and freely movable therewith, a spring coöperating with the take-up rod to restore the same to its normal position after excess travel of the upper end of the live lever, and an abutment for said spring carried on the truck bolster and freely movable with respect to the truck bolster and to the take-up rod.

5. In an automatic slack adjuster for railway brakes, the combination of the wheel truck and brake system therefor, comprising a live lever and a dead lever, an automatic take-up device mounted on the brake rigging and including a holding member, said member being supported in fixed position with respect to the dead lever, a take-up rod operatively interposed between the upper ends of the live lever and the dead lever, a spring cooperating with the take-up rod to restore the same to its normal position after excess travel of the upper end of the live lever and an abutment for said spring freely movable with respect to the truck bolster.

1,143,555. ROOF-SHINGLING SEAT. JOHN SCHIMMELPFENNIG, Cedar Rapids, Iowa. Filed May 3, 1913. Serial No. 765,211. (Cl. 20—86.)

1. In a device of the class described, a stay section having a metal rail provided with integral, downwardly extending roof-piercing prongs, a plurality of slots necessarily being provided by the formation of the prongs, a seat device in operative relation with the seat section and a support member for said seat device engageable with said slots to position the seat at different angles.



2. In a device of the class described a stay section, a seat section in operative relation with the stay section and support means for and connected to the seat section comprising a plurality of legs, each having a substantially horizontal portion by means of which the legs are pivoted to the seat section and each leg having downwardly and outwardly extending portions, said legs being joined at said portions, said stay section being provided with slots, said legs each having a toe to enter said slots and each being provided with a foot to rest on the stay section to limit downward movement of the legs.

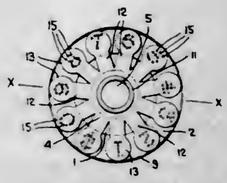
1,143,556. CHECK-PROTECTOR. HARRY R. SINCLAIR, Worcester, Mass. Filed Feb. 27, 1915. Serial No. 10,944. (Cl. 101—57.)



1. In a check protector, the combination with a bottom plate, of an inking pad sustained thereon, a protective plate overlying the inking pad and formed of a plurality of apertures representing characters, a perforating plate secured to the protective plate and provided with a plurality of resilient arms, each carrying puncturing points representing a character, said latter plates having a central aperture and the bottom plate having a yielding boss to enter said aperture and detachably engaging the periphery thereof whereby said bottom plate is detachably connected to the other plates.

2. In a check protector, the combination with a plate provided with perforations representing characters, of a perforating plate presenting a plurality of resilient arms, a puncturing cap applied to the end of each arm and having a bottom portion that underlies the bottom face of the arm and is provided with puncturing points, and side walls that embrace the edge of the arm and overlie the periphery thereof thereby forming a finger-guiding bead.

1,143,557. CHECK-PROTECTOR. HARRY R. SINCLAIR, Worcester, Mass. Filed Feb. 27, 1915. Serial No. 10,943. (Cl. 101—57.)



1. In a check protector, the combination with a base plate having a central aperture and having the material

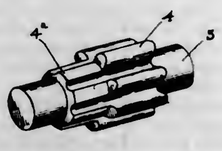
circumjacent the aperture upset to form a central boss, of an annular perforating member overlying the periphery of said base plate and secured thereto, said perforating member having on its upper face puncturing points to form a series of characters, and a cap-plate resting on and secured to said boss and presenting a plurality of radial resilient arms each having a series of openings therein to correspond with the puncturing points of one character.

2. In a check protector, the combination with a base plate having a central aperture and having the material circumjacent said aperture upset to form a central boss and a plate-supporting flange at the upper end of the boss, of an annular perforating member overlying the periphery of said base plate and secured thereto, said perforating member having on its upper face puncturing points to form a series of characters, and a cap-plate resting on said plate-supporting flange and having a central aperture, the material of the base plate surrounding the aperture therein being bent over the edge of the cap-plate to hold the latter in position and said cap-plate having a plurality of resilient arms, each having perforations in line with the puncturing points constituting one character.

3. In a check protector, the combination with a base plate, of a ring-shaped perforating member overlying the peripheral portion of said plate and secured thereto, said perforating member having on its upper face self-stripping puncturing points to form a series of characters, and a cap-plate secured directly to the base plate and provided with a plurality of resilient arms, each having apertures corresponding to the puncturing points constituting one character.

4. In a check protector, the combination with a base plate having a central aperture and having the material circumjacent the aperture upset to form a central boss, said base plate having associated therewith a perforating member provided with puncturing points to form a series of characters, and a cap plate resting on and secured to said boss and presenting a plurality of radial resilient arms, each having a series of openings therein to correspond with the puncturing points of one character.

1,143,558. GEARING. WALTER B. TEMPLETON, Chicago, Ill. Filed Oct. 11, 1909. Serial No. 522,061. (Cl. 74—41.)

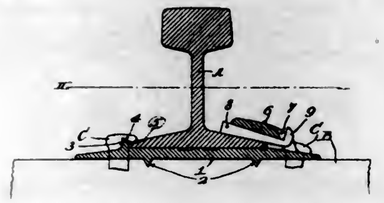


1. A driving connection between mechanical parts comprising a main shaft and a gear concentric and rigid therewith, a bearing or seat member integral with said gear, arranged upon said shaft at one end of the gear, of generally cylindric form, of a maximum diameter approximately equal to the pitch line diameter of the gear and provided with a series of key grooves formed as continuations of, and in conformity with, the inner portions of the channels between the gear-teeth, and another element apertured, fitted upon, and accurately conforming to, said grooved seat member.

2. A driving connection between mechanical parts comprising a main shaft and a gear concentric and rigid therewith, a bearing or seat member integral with the gear and provided with a series of key grooves formed as continuations of and in conformity with the radial inner portions of the channels between the gear teeth, and another element apertured, fitted upon, and accurately conforming to said groove seat.

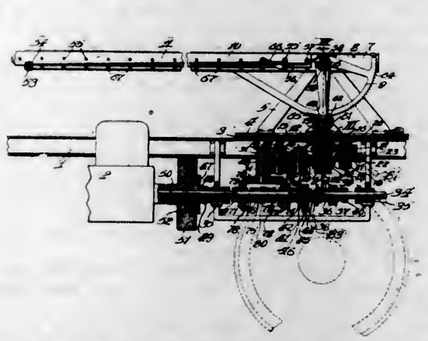
3. A driving connection between mechanical parts, comprising a spur gear, a seat member integral with the gear and provided with a series of key grooves formed as continuations of and in conformity with the radial inner portions of the channels between the gear teeth, another element suitably apertured, fitted upon, and conforming to said grooved seat member, and means for rotatably supporting said gear.

1,143,559. RAILWAY-TIE PLATE. JOHN W. THOMAS, Kansas City, Kans., assignor of one-half to John R. Hamill, Kansas City, Mo. Filed Dec. 17, 1913. Serial No. 807,230. (Cl. 238—2.)



In combination, a tie-plate, a lip on said tie-plate having an opening therein and adapted to overlap one side of a rail base, oppositely disposed guard members adjacent the opening in the lip, and a tapered locking member extending through the opening in the lip and adapted to engage the rail base.

1,143,560. AERIAL-LADDER TRUCK. RICHARD J. VOELKER, St. Louis, Mo. Filed June 30, 1913. Serial No. 776,568. (Cl. 228—28.)



1. In an aerial ladder truck, a main ladder having a segmental gear secured to one end, a pinion mounted on a horizontal shaft meshing with said segmental gear, a hollow shaft arranged at right angles to said horizontal shaft, gears operatably connecting said shafts to each other, a fly ladder carried by said main ladder, a revolubly mounted drum located adjacent one end of said hollow shaft, and a cable secured to said drum and said fly ladder, said cable passing through said hollow shaft.

2. In an aerial ladder truck, a drum shaft, a main ladder mounted on said truck having a segmental gear secured to one end thereof, a pinion mounted on a horizontal shaft meshing with said segmental gear, a hollow shaft arranged at right angles to said horizontal shaft, gearing from said drum shaft to said hollow shaft and from said hollow shaft to said horizontal shaft, a fly ladder carried by said main ladder, a drum loosely mounted on said drum shaft, a cable secured to said drum, and said fly ladder, said cable passing through said hollow shaft, and means for releasably securing said drum to said drum shaft.

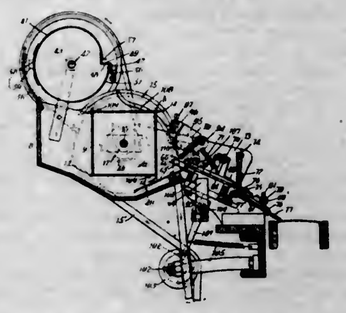
3. In an aerial ladder truck, a turntable, a vertically arranged hollow shaft adapted to serve as a pivot to said turntable, a main ladder mounted on said turntable, having a segmental gear secured to one end thereof, a fly ladder carried by said main ladder, a revolubly mounted drum shaft located adjacent one end of said hollow shaft, gearing from said drum shaft to said hollow shaft, and gearing from said hollow shaft to said segmental gear, a drum mounted on said drum shaft, and a cable passing through said hollow shaft secured to said drum and said fly ladder.

4. In an aerial ladder truck, a turntable, a frame mounted on said table, a horizontally arranged shaft, mounted on said frame, a main ladder having one end mounted on said shaft, a segmental gear secured to said shaft and said ladder, a pinion having two sets of teeth meshing with said segmental gear, a shaft for said pinion, a fly ladder carried by said main ladder, a hollow shaft located adjacent said pinion, gearing from said hollow shaft to said pinion shaft, a drum shaft having a drum loosely mounted thereon, a cable secured to said drum and said fly ladder adapted to pass between the sets of teeth of said pinion and through said hollow shaft, and means for intermittently securing said drum to said drum shaft.

5. In an aerial ladder truck, a main ladder and a fly ladder, a pair of segments for actuating said ladders, a pinion having two sets of teeth meshing with said segments, and a cable for elevating said fly ladder passing between the sets of teeth of said pinion and said pair of segments.

[Claims 6 and 7 not printed in the Gazette.]

1,143,561. DEVICE FOR FEEDING TACKS, NAILS, AND THE LIKE. BRADFORD B. WATERMAN, East Bridgewater, Mass., assignor to The American Shoe Finding Company, a Corporation of Maine. Filed Oct. 27, 1913. Serial No. 797,402. (Cl. 1—6.)



1. A device of the class described having, in combination, a hopper adapted to contain tacks, a raceway, a rectangular rotary member arranged in said hopper, fins on said member adapted to collect tacks from said hopper during the rotation of said member, and deposit said tacks on said raceway, and means to rotate said rotary member.

2. A device of the class described having, in combination, a hopper adapted to contain tacks, a plurality of raceways, a rectangular rotary member arranged in said hopper, fins on said member formed by projecting each of the side walls thereof beyond the outer face of one of the adjacent walls constituting said rectangular member, said fins being adapted to collect a plurality of tacks from said hopper during the rotation of said member and to deposit said tacks on said raceways, and means to rotate said rotary member.

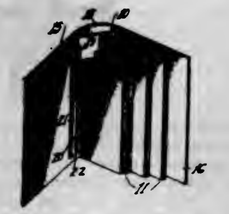
3. A device of the class described having, in combination, a hopper, and a drum rotatably arranged above said hopper and constructed to automatically deposit in said hopper a predetermined quantity of tacks at predetermined intervals.

4. A device of the class described having, in combination, a rotary drum having a radial extension arranged to contain tacks, said drum being provided with an opening located in said radial extension, a gate arranged to normally close said opening, means to rotate said drum, and means arranged to open said gate at a predetermined time in the rotation of said drum to precipitate tacks from said drum.

5. A device of the class described having, in combination, a rotary drum having a radial extension and arranged to contain tacks, said drum being provided with an opening located in said radial extension, a gate arranged to normally close said opening and pivotally mounted to move substantially radially with relation to the axis of said drum, means to rotate said drum, and means arranged to open said gate at a predetermined time during the rotation of said drum to precipitate tacks from said drum.

[Claims 6 to 20 not printed in the Gazette.]

1,143,562. BOOKBINDING MEANS FOR PAMPHLETS AND SIGNATURES. JOHN B. WEST, Balboa, Cal., assignor to Lillian B. West, Balboa, Cal. Filed Apr. 15, 1914. Serial No. 832,043. (Cl. 129—1.)



1. A binder, comprising a back member, hinged side members thereon, a semi-rigid plate, means for attaching a plurality of pamphlets to said plate independently of each other, and means for pivotally and demountably connecting the side members to the plate at their hinged connection with the back member.

2. A book binder, comprising a cover having a flexible back member and hinged side members thereon, plates secured to the side members with their inner edges extending along the hinged connections between the side members and the back member approximately the length thereof, a semi-rigid plate adapted to form a back for a series of pamphlets, and means for hingedly and detachably connecting the edges of said semi-rigid plate to the inner edges of the plates on the cover side members, whereby said side members will have a pivoted connection with the edges of the semi-rigid pamphlet carrying plate.

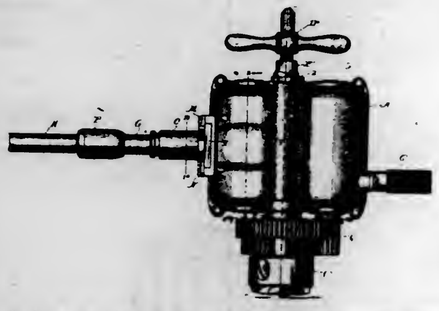
3. A book binder, comprising a cover having a flexible back member and hinged side members thereon, plates secured to the side members with their inner edges extending along the hinged connections between the side members and the back member approximately the length thereof, a semi-rigid plate adapted to form a back for a series of pamphlets, and interlocking curved flanges on the contiguous edges of the plates for hingedly and detachably connecting the edges of said semi-rigid plate to the inner edges of the plates on the cover side members, whereby said side members will have a pivoted connection with the edges of the semi-rigid pamphlet carrying plate.

4. A binder, comprising a back member, hinged side members thereon, plates on the side members having their vertical edges alined with the hinged connections between the side members and the back member, curved flanges on the inner edges of said plates, a demountable pamphlet carrying plate, and curved flanges on said demountable plate adapted to be interlocked with the curved flanges on the before-mentioned plates, whereby a pivotal connection between the pamphlet carrying plate and the side members will be effected at the hinged connection between the side members and the back member.

1,143,563. ENGINE. JAMES WHITELAW, St. Louis, Mo., assignor, by mesne assignments, to Chicago Pneumatic Tool Company, Chicago, Ill., a Corporation of New Jersey. Filed Dec. 27, 1898. Serial No. 700,432. (Cl. 121—42.)

1. In a machine of the character described, the combination of a casing, a double crank shaft journaled therein, a pair of oscillating engines also mounted therein so as to

oscillate on axes parallel with the crank shaft, and having their piston rods connected to the cranks of said shaft, a tool shaft mounted parallel with and out of alinement with said crank shaft, and variable speed gearing connecting the crank shaft and the tool shaft, substantially as described.



2. In a machine of the character described, the combination of a casing, a double crank shaft journaled therein, a pair of oscillating engines also mounted therein and having their piston rods connected to the cranks of said shaft, a tool shaft mounted parallel with and out of alinement with said crank shaft, said tool shaft being movable toward and from the crank shaft, and gears intermediate the two shafts, substantially as described.

3. In a machine of the character described, the combination of a casing, a shaft journaled in said casing and provided with a plurality of cranks, a plurality of oscillating engines also mounted in the casing and arranged side by side with their pistons connected to said cranks, a pinion at the outer end of the shaft, a gear mounted upon a stub shaft at the side of said pinion, a second pinion secured to said gear, a tool shaft mounted lateral of and parallel with the crank shaft, a gear on said tool shaft, and means for engaging the pinion on the crank shaft with the gear on the stub shaft or with that on the tool shaft, whereby the speed of the tool shaft may be varied.

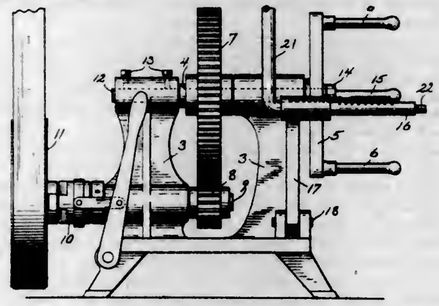
4. In a machine of the character described, the combination of a casing, a double crank shaft journaled therein, a pair of oscillating engines also mounted therein, side by side with their axes of oscillation parallel to said crank shaft and having therein piston rods connected to the cranks of said shaft, a tool shaft mounted parallel with and out of alinement with the crank shaft, a train of gears intermediate the two shafts, and means for shifting the relative positions of the gears for the purpose of gearing the tool shaft more or less directly to the crank shaft, and thereby increasing or decreasing its speed relatively to that of the crank shaft, substantially as described.

5. In a machine of the character described, the combination of a casing, a double crank shaft journaled and inclosed therein, a pair of oscillating engines also mounted and inclosed therein and having their piston rods connected to the cranks of said shaft and having angular adjustment in respect thereto, a tool shaft mounted parallel with the crank shaft, a train of gears intermediate the two shafts, and means for shifting the relative positions of the gears for the purpose of gearing the tool shaft more or less directly to the crank shaft, and thereby increasing or decreasing its speed relatively to that of the crank shaft, substantially as described.

[Claims 6 to 50 not printed in the Gazette.]

1,143,564. HONEYCOMB-CANDY MACHINE. FRANK H. WOOLF, Chicago, Ill., assignor to Herbert Lewis Hildreth, Boston, Mass. Filed June 22, 1910. Serial No. 569,252. (Cl. 107—30.)

1. In a candy pulling machine, the combination of a plurality of candy supporting arms, arranged to move in predetermined paths, means for moving said arms in said predetermined paths, a hollow non operated candy supporting arm provided with perforations and parallel to and located adjacent the paths of said movable arms, and means for forcing air through the perforations of said supporting arm.



2. In a candy pulling machine, the combination of a plurality of movable candy supporting arms, a hollow non operated candy supporting arm having perforations therein, means for moving said movable arms toward and away from said supporting arm and means for forcing air through said supporting arm.

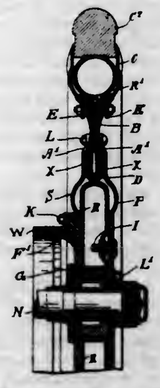
3. In a device of the class described, a plurality of rods mounted to move about a center in a vertical plane, means to move said rods, a stationary rod close to the path of said first named rods and in the same vertical plane therewith and a second rod close to the path of said first named rods and in the same vertical plane therewith mounted to yield under pressure in a direction away from said first named stationary rod.

4. In a device of the class described, a hollow supporting means provided with perforations retained in a horizontal plane, means for forcing air through the perforations, a second supporting means retained in position parallel to said first named supporting means, a plurality of pulling means and means for moving the pulling means past the supporting means and above and below the same.

5. In a device of the class described, a plurality of pulling rods arranged to travel laterally about a center in a vertical plane, a hollow horizontally disposed supporting rod provided with perforations located outside the path of the first named rods, means for forcing air through said perforations, a horizontally disposed supporting rod located within the circular path of the first named rod and means for moving the pulling rods past the supporting rods.

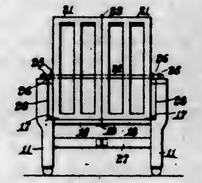
[Claims 6 and 7 not printed in the Gazette.]

1,143,565. PNEUMATIC WHEEL. WLADIMIR ALEXANDROWSKY and ANANIUS SLOBINSKI, St. Petersburg, Russia. Filed Dec. 16, 1911. Serial No. 666,157. (Cl. 152—42.)



In a pneumatic wheel, the combination with the hub, of two spaced parallel disks secured to the hub, an air cushion supported between said disks and by said hub, a movable rim guided by said disks, a movable solid tire mounted on said rim and forming the tread, metallic guards secured to said rim for guiding said solid tire, and a second air cushion between said rim and said solid tire and supported by said rim.

1,143,566. CHAIR. JOHN W. R. ANDREWS, Leominster, Mass. Filed Mar. 24, 1914. Serial No. 827,242. (Cl. 155—30.)



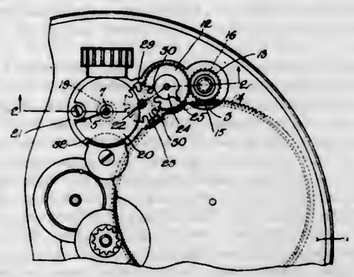
1. In a device of the class described, the combination of two side members, a centrally divided seat portion hinged together and at opposite edges to said side members; two separate back members independently hinged at their lower ends to the rear edge of said seat portion; and means for normally retaining said back members at an angle to said seat portion.

2. In a device of the class described, the combination of two side members; a centrally divided seat portion hinged together and at opposite edges to said side members; two separate back members independently hinged at their lower ends to the rear edge of said seat portion; means for locking said back members together; and means for normally retaining said back members at an angle to said seat portion.

3. In a device of the class described, the combination of two side members; a centrally divided seat portion hinged together and at opposite edges to said side members; two separate back members independently hinged at their lower ends to the rear edge of said seat portion and provided with oppositely disposed slots; a removable locking member adapted to be inserted in said slots; and means for normally retaining said back members at an angle to said seat portion.

4. In a device of the class described, the combination of two side members having recesses on the inner sides; a centrally divided seat portion hinged together and at opposite edges to said side members; two separate back members independently hinged at their lower ends to the rear edge of said seat portion and adapted to fold over thereon and be folded therewith into said recesses; and means for normally retaining said back members at an angle to said seat portion.

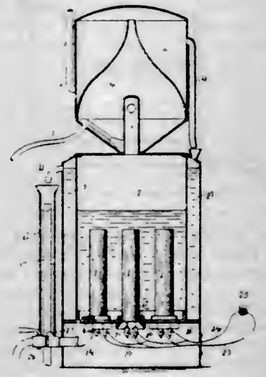
1,143,567. WINDING-INDICATOR. ANDERS AUNE, Waltham, Mass., assignor to Waltham Watch Company, a Corporation of Massachusetts. Filed July 13, 1911. Serial No. 638,372. (Cl. 58—85.)



1. In time piece the combination with a toothed winding wheel for the main spring and a movement wheel driven by the main spring, a rotatably mounted stud, a pinion frictionally engaged with said stud and in mesh with said movement wheel, a second pinion secured to said stud, a yoke pivoted coaxially with said stud, a pinion carried by said yoke, and meshing with the second named pinion, means for moving the third named pinion into mesh with the winding wheel when the main spring is being wound, and out of mesh with said winding wheel at all other times, a disk or wheel frictionally connected with said stud, a train of gearing including a segment driven by said disk and having stop shoulders at each end of its line of teeth, whereby its movement in either direction is positively limited, and an indicator connected with and operated by said segment.

2. In a winding indicator for time pieces a rotatably mounted stud, a pinion frictionally engaged with said stud adapted to drive the same and to slip relatively thereto when resistance to rotation of the stud becomes excessive, a second pinion positively secured to the stud, a toothed disk having a shank or stem contained coaxially in said stud and being split to form spring jaws forming a frictional connection with the stud, the first named pinion being driven by a movement wheel of the time piece, and a second named pinion being driven in the opposite direction by the winding wheel of the time piece when the main spring is being wound, and a train of gearing carrying an indicator arranged to be driven by said toothed disk.

1,143,568. ELECTRIC WATER-HEATER. ROBERT P. BARNSTEAD, Boston, Mass. Filed Jan. 27, 1913. Serial No. 744,331. (Cl. 219—38.)



The combination with a liquid container having a bottom formed with a threaded hole, of an electric heater unit having terminals at one end, and an annular socket receiving and supporting the end of said heater unit, said socket being formed with a shoulder of considerably greater diameter than the remaining portions thereof, said remaining portions being externally threaded to screw into said threaded hole, said shoulder being peripherally polygonal and internally conical, whereby said shoulder serves both as a means for forcibly screwing the socket into said hole, and as a wall to protect said terminals.

1,143,569. PRODUCTION OF ARTICLES OR MATERIALS FROM VISCOSE. BENNO BORZYKOWSKI, Charlottenburg-Berlin, Germany. Filed May 17, 1913. Serial No. 768,282. (Cl. 18—54.)

1. A process of producing articles from viscose, which comprises subjecting a viscose solution to the action of a setting bath, said bath containing an organic nitroso base.

2. A process of producing articles from viscose which comprises subjecting viscose solution to a setting bath containing an organic nitroso base, and thereafter imme-

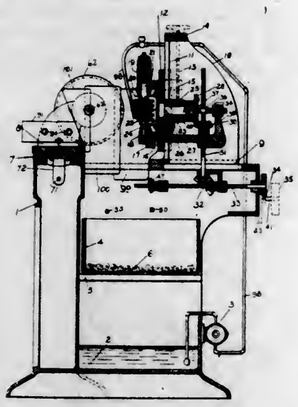
dilately treating the precipitated viscose with a weak alkaline solution.

3. A process of producing articles from viscose which comprises subjecting said viscose in solution to the action of a setting bath containing a p-nitroso-anilin derivative.

4. A process of producing articles from viscose, which comprises subjecting said viscose in solution to the action of a setting bath containing an organic nitroso base, then subjecting the precipitated viscose to the action of a weak alkaline solution, and thereafter subjecting said viscose to the action of a weak acid.

5. A process of setting viscose which comprises subjecting said viscose in solution to the action of a bath containing 100 parts of water, 15 parts of sodium chlorid, 10 parts of ammonium sulfate, and 5 parts of p-nitrosodimethyl-anilin.

1,143,570. GEAR-CUTTING MACHINE. FRANK BURGESS, Norfolk Downs, Mass. Filed Apr. 2, 1913. Serial No. 758,387. (Cl. 90—4.)



1. A gear cutting machine, comprising a supporting frame work having spaced apart slide ways with an intermediate lubricant and chip receiving well beneath constituting a lubricant container at its bottom and with an intermediate receptacle for cuttings, a work carrier mounted for movement on one of said slide ways and a cutter carrier mounted for movement on the other slide way directly over said well said work carrier and cutter carrier being formed to hold the work and cutter projecting toward each other with the operative area substantially over said well.

2. A gear cutting machine, comprising a frame work having a cutter slide way and a work slide way at right angles to each other with an intermediate lubricant and chip receiving well beneath, there being a lubricant container at the bottom of said well and a receptacle for cuttings removably held thereabove, a cutter slide, and a work slide mounted for movement on their respective slide ways, said slides being formed and equipped to hold a cutter and a blank respectively with their operative areas over said well.

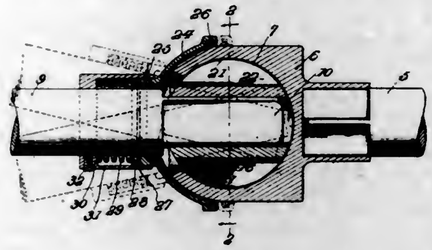
3. A gear cutting machine, comprising a frame work having slide ways on its top at right angles to each other, a work carriage slide on one of said ways, a cutter support slide on the other of said ways, said frame work having an open chip and lubricant receiving well beneath said ways in chip receiving position, and a hob carrier mounted directly over said well, whereby clearance for chips and lubricant is provided.

4. A gear cutting machine, comprising a work carrier, a hob carrier, driving connections for imparting operative movements to said carriers for rotating the hob and work in timed relation, and a mounting for the hob carrier formed to swing in a vertical plane about an axis transversely central of the hob, there being a rigid column upstanding from the machine frame work affording a direct rigid backing for said hob mounting in all positions of its angular adjustment, and said driving connection to the hob carrier being a direct train from a prime driver in part concentric with the swinging axis of said mounting for the hob carrier.

5. A gear cutting machine, comprising a supporting frame work having slide ways at right angles to each other at its top, a work carrier slide fitted to one of said slide ways, an upright column fitted to the other slide way, a cutter slide vertically adjustable on said column, a hob carrier mounted for angular adjustment on said slide about an axis transversely central of the hob, said hob carrier and said cutter slide being formed and relatively arranged for the hob to have a relatively close, direct, and rigid backing on said column with a minimum of overhang, whereby vibration is minimized, and means for driving the hob carrier formed as a relatively direct train from a prime driver having a part concentric with the axis of angular adjustment of the hob carrier.

[Claims 6 to 13 not printed in the Gazette.]

1,143,571. UNIVERSAL JOINT. HERBERT COOPER, Brooklyn, N. Y. Filed Jan. 14, 1914. Serial No. 811,984. (Cl. 74—19.)

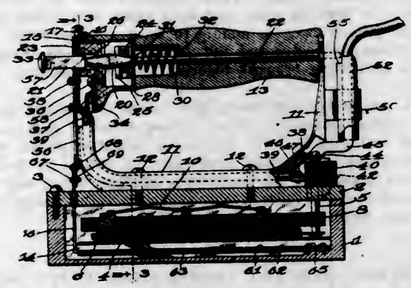


1. In a universal joint the combination with a casing having a substantially spherical interior, of a plurality of spaced ribs extending inwardly from the interior of the casing, a plurality of driving blocks mounted between the ribs and movable therein, said blocks having a curved outer surface for contact with the interior of the casing, and a plane inner surface, and a shaft having a polygonal end adapted to extend between the blocks and contact with the plane surfaces thereof.

2. In a universal joint the combination with a casing having a substantially spherical interior, of a plurality of spaced ribs extending inwardly from the interior of the same, the side walls of said ribs being beveled whereby the adjacent walls of adjacent ribs are substantially parallel to each other, a plurality of driving blocks mounted between the ribs and movable therein, each bearing block having parallel side walls, a curved outer surface in contact with the interior of the casing, and a plane inner surface, a shaft having a polygonal end adapted to extend between the blocks and contact with the plane surfaces thereof.

3. In a universal joint the combination with a casing having a substantially spherical interior, of a plurality of spaced ribs extending inwardly from the interior of the casing, each of said ribs being beveled from a substantially central point to form front and rear bearing surfaces, the side walls of said ribs being also beveled, the angle of the side walls being such that adjacent walls of adjacent ribs are substantially parallel to each other, a plurality of driving blocks mounted between the ribs and movable therein, said blocks having substantially parallel side walls, a curved outer surface in contact with the interior of the casing, and a plane inner surface, and a shaft having a polygonal end adapted to extend between the blocks and contact with the plane surfaces thereof.

1,143,572. ELECTRIC HEATER. HARRY W. DENHARD, Milwaukee, Wis., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed Aug. 31, 1910. Serial No. 579,845. (Cl. 219—25.)



1. The combination with an electrically heated device having a handle, of a control switch for said device biased in a direction to disconnect the same from circuit, said switch having means for retaining the same in circuit-closing position and having an operating member and a tripping member adjacent to said handle.

2. In combination, an electric iron, a quick acting control switch arranged within the handle thereof and operable at will and thermostatic means having its temperature responsive portion in proximity to the working face of the iron for controlling said switch.

3. In combination, an electrically heated iron provided with connection terminals, a quick acting control switch therefor mechanically independent of said connection terminals and a thermostatic device arranged within said iron and responsive to the thermic conditions of the working face thereof, said thermostatic device controlling said switch to automatically disconnect said iron from circuit under predetermined thermic conditions.

4. In combination, an electric iron, a thermostatic device arranged within said iron in close proximity to the working face thereof, and an inherently quick make and break switch controlled by said thermostatic device to disconnect the iron from circuit under predetermined thermic conditions, said thermostatic device comprising an elongated member formed of strips of different materials secured together at a plurality of points, said member extending substantially the entire length of the working face of the iron.

5. In combination, an electrically heated iron, a detachable connection plug carried thereby, a quick acting control switch operable at will to make and break the circuit of said iron, and means necessitating operation of said switch to disconnect said iron from circuit prior to the removal of said connection plug.

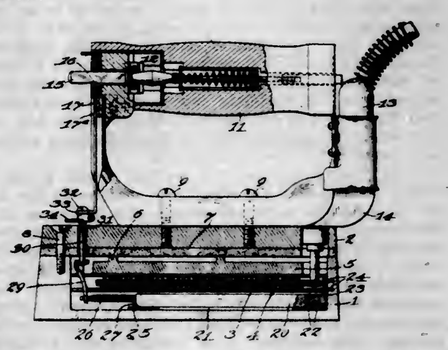
[Claims 6 to 10 not printed in the Gazette.]

1,143,573. AUTOMATIC CUT-OFF FOR ELECTRICALLY-HEATED DEVICES. HARRY W. DENHARD, Milwaukee, Wis., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed Jan. 30, 1911, Serial No. 605,343. Renewed Dec. 4, 1912. Serial No. 734,984. (Cl. 219—25.)

1. In combination, an electrically heated device, a quick make and break control switch therefor biased to disconnect the same from circuit, a member for retaining said switch in circuit closing position and a temperature responsive device comprising rigid parts for moving said retaining member to release said switch.

2. In combination, an electrically heated device, a circuit controlling device therefor biased to disconnect the same from circuit, a member for retaining said device in circuit closing position, and a temperature responsive device entirely comprising rigid parts, said temperature responsive device inherently tending to hold said member in retaining position and being adapted under predetermined temperature conditions to move said member out of retaining position.

3. In combination, an electrically heated device having a circuit controlling switch tending to stand in a predetermined position, a longitudinally movable member for retaining said switch in another position, and a temperature responsive device operatively connected to said retaining member, said temperature responsive device comprising rigid parts adapted under predetermined temperature conditions to impart a longitudinal movement to said member.



4. In combination, an electrically heated device having a circuit controlling switch tending to stand in a predetermined position, a longitudinally movable member for retaining said switch in another position, and a temperature responsive device operatively connected to said retaining member, said temperature responsive device comprising a plurality of rigid parts adapted under predetermined temperature conditions to hold said retaining member against movement and under other temperature conditions to positively move said retaining member.

5. In combination, an electrically heated device, a circuit controlling device therefor tending to move from one position and having a sliding retaining member, a temperature responsive device operatively connected to said retaining member and angularly disposed thereto, said temperature responsive device having a plurality of rigid parts adapted under predetermined temperature conditions to coöperate to move the retaining member.

[Claims 6 to 18 not printed in the Gazette.]

1,143,574. ELECTRIC RESISTANCE ELEMENT. HARRY W. DENHARD, San Francisco, Cal., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed Oct. 31, 1911. Serial No. 657,802. (Cl. 219—25.)



1. An electric resistance unit formed of a pair of strips of slotted resistance ribbon each bent back on itself to form parallel portions, said portions being of similar

shape and conforming to the outline of the object to be heated, the lower portion having slots throughout its length and the upper portion having slots for a portion of its length whereby the maximum quantity of heat is developed at one end of the unit, the other end of said unit being adapted to be connected to the electric terminals.

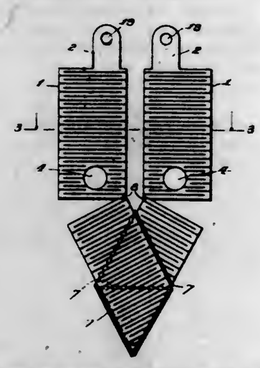
2. An electric heating unit for irons having two strips of slotted resistance ribbon each bent back on itself to form parallel portions, insulating means between the portions, said portions being of similar shape and of an area substantially equal to half the area of the base of the iron, the lower portions of each strip being connected together electrically at their free ends and slotted throughout their length, the upper portions of each strip being slotted near the bent-over end whereby the maximum quantity of heat is generated at one end of the unit, the free end of the upper portions of the strips being adapted to be connected to electric terminals.

3. An electric heating unit having a pair strips of slotted resistance ribbon adapted to conform to the outline of the object to be heated and each having an area substantially equal to the area of one-half of the base of said object, each of said strips having a terminal portion which is bent back on the strip and insulated therefrom, said terminal portions being slotted adjacent their bent-over ends whereby the unit has a maximum heat developing capacity near one end, the free ends of said terminal portions being adapted to be connected to an electric circuit.

4. An electric resistance unit formed of a single length of slotted resistance ribbon having a body portion and a partially slotted terminal portion bent over upon one surface of the body portion and insulated therefrom, whereby the unit has a maximum heat developing capacity near one end, the outline of said terminal portion being shaped to coincide with the outline of said body portion and both conforming to the shape of the surface to be heated.

5. An electric resistance unit formed of a single length of slotted resistance ribbon having one edge of the same tapered toward the center of the strip, said strip being folded substantially at its middle line to form two layers, the end of one of said layers being left unslotted.

1,143,575. ELECTRIC RESISTANCE ELEMENT. HARRY W. DENHARD, San Francisco, Cal., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed Oct. 31, 1911. Serial No. 657,803. (Cl. 219—25.)



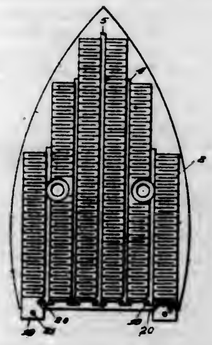
1. An electric resistance unit formed of a single length of resistance ribbon folded substantially at its middle to form a substantially triangular shaped tip of a plurality of thicknesses of said ribbon and having its remaining portions arranged adjacent to and substantially parallel to each other.

2. A resistance unit for electric irons comprising a resistance ribbon folded intermediate of its ends on lines intersecting at one edge of said ribbon to form a point of three overlapping layers of said ribbon, and means for insulating said overlapping layers of ribbon from one another.

3. An electric resistance unit formed of a single length of resistance ribbon having terminal lugs at its ends and cuts near its ends, said unit being bent along intersecting lines near its middle to form a tip of high heat developing capacity and the portions of its sides beyond said cuts being brought together until substantially parallel.

4. An electric resistance unit formed of a single length of slotted resistance ribbon having terminal lugs on its ends and cuts near its ends, said resistance ribbon being bent along intersecting lines near its middle to form a tip of a plurality of thicknesses of said ribbon and the portions of its ends beyond said cuts being brought together until substantially parallel.

1,143,576. ELECTRIC RESISTANCE UNIT. HARRY W. DENHARD, San Francisco, Cal., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed Oct. 31, 1911. Serial No. 657,804. (Cl. 219—25.)



1. A resistance unit comprising a base and a continuous uniform strip of slotted resistance ribbon formed into a series of parallel convolutions each extending completely around a portion of said base and each having its sections on opposite sides of said base in the same vertical plane.

2. A resistance unit comprising a base and a continuous uniform strip of slotted resistance ribbon formed into a series of parallel convolutions each extending completely around a portion of said base and each having its sections on opposite sides of said base in the same vertical plane, said base having portions for maintaining adjacent convolutions of said resistance ribbon in a spaced relation.

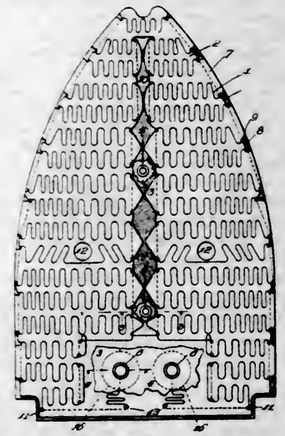
3. A resistance unit comprising a base and a continuous uniform strip of slotted resistance ribbon formed into a series of parallel convolutions each extending completely around a portion of said base and each having its sections on opposite sides of said base in the same vertical plane, said base having portions of different lengths for receiving adjacent convolutions of said resistance ribbon and having portions for maintaining adjacent convolutions of said ribbon in a spaced relation.

4. In an electric resistance unit, a stepped insulating base having projections formed thereon, and a single uniform strip of slotted resistance ribbon wound upon said base so that the turns of the same on one side of said base lie directly opposite the turns on the opposite side and in a parallel plane.

5. In an electric resistance unit, a stepped base, strips of slotted ribbon resistance material positioned on said steps and insulated from each other, and means connecting the ends of said strips for permitting the strips on one side of said base to occupy positions directly opposite the strips on the other side.

[Claims 6 and 7 not printed in the Gazette.]

1,143,577. ELECTRIC RESISTANCE UNIT. HARRY W. DENHARD, San Francisco, Cal., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed Oct. 31, 1911. Serial No. 657,805. (Cl. 219—25.)



1. In an electric resistance unit, a plurality of sheets of insulation, an insulating base, a reflexed resistance material wound upon said base and engaging portions thereof, means for connecting said sheets of insulation and compressing the same upon said base to form a unitary structure, and terminal receptacles carried by said unit.

2. In an electric resistance unit, a plurality of sheets of insulation, an insulating base, a reflexed resistance wire wound in convolutions on said base and engaging portions thereof, rivets connecting said sheets of insulation and compressing the same upon said base and resistance wire, and flanged terminal plugs having their flanged ends resting upon said base and their plug ends extending through perforations in one of said sheets of insulating material.

3. A complete electric resistance units comprising an insulating base having a resistance material carried thereby and terminal plugs mounted thereon, said base having a central longitudinal opening whereby it is divided substantially into two equal parts, said resistance material being wound back and forth on each of said parts and being connected to said terminal plugs, and sheets of insulating material secured to each other through said central opening.

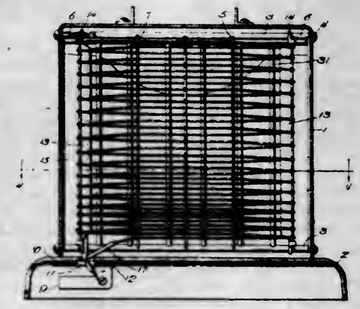
4. A resistance unit having an insulating base provided with notches on its outer edges, a central longitudinal opening in said base having notches in its edges, and a resistance material wound back and forth on one side of said base from the notches in the edges of the base to the notches in the edges of the opening.

5. In an electric resistance unit, a plurality of sheets of insulating material, an insulating base having ears formed thereon, a reflexed resistance material wound in convolutions upon said base and engaging said ears, and means extending through said sheets of insulation for compressing the same upon the opposite sides of said base to form a unitary structure.

[Claim 6 not printed in the Gazette.]

1,143,578. ELECTRIC HEATER. HARRY W. DENHARD, San Francisco, Cal., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed Oct. 31, 1911. Serial No. 657,808. (Cl. 219—19.)

1. An electric resistance unit having a frame provided with end members and a plurality of cross members, a resistance wire wound back and forth across said cross members from one end of the frame to the other, one of said cross members being hollow to form a conduit for the return of the resistance wire whereby the terminals of said wire are adjacent each other.



2. In an electric resistance unit, a plurality of supporting members, a plurality of connecting members, one of said members being hollow and an electric resistance material wound spirally on certain of said members in such a manner that the convolutions are closer together at the bottom of the unit, a portion of said resistance material extending through said hollow member and being insulated therefrom.

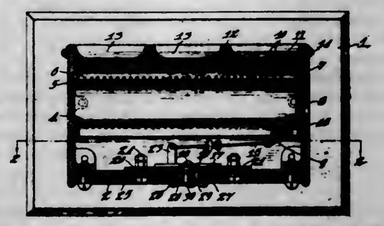
3. In an electric resistance unit, a plurality of supporting members, a resistance material carried thereby, a hollow member extending between said supporting members and having flattened ends attached thereto and means for attaching said hollow member to one of said insulating strips.

4. In an electric resistance unit, a plurality of supporting members, an electric resistance material wound thereon, and a hollow member extending between said supporting members and having its ends attached thereto, said hollow member being provided with extensions bent over one of said insulating strips.

5. In combination, a support, a plurality of spaced supporting members carried thereby, a plurality of insulating strips carried between said supporting members, an electric resistance material wound thereon and a hollow member serving as a conduit for a portion of said resistance material, having one of its ends attached to said supporting members and one of said insulating strips.

[Claims 6 to 12 not printed in the Gazette.]

1,143,579. ELECTRIC HEATER. HARRY W. DENHARD, San Francisco, Cal., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed Oct. 31, 1911. Serial No. 657,813. (Cl. 219—23.)



1. In an electric heating device, a plurality of heating coils adapted to heat a plurality of objects and means actuated by the placement of an object to be heated within the heating zone for changing the current flow in said coils.

2. In an electric heating device, a frame having a heating chamber formed therein, a door for said chamber, a plurality of heating coils adjacent said chamber adapted to heat a plurality of objects, and means actuated upon movement of said door for changing the circuit connections of said coils.

3. In an electric heating device, a frame having a heating chamber formed therein, a heating coil for said cham-

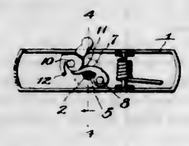
ber, a second heating coil carried in said frame, a door for said heating chamber, and means actuated upon movement of said door for cutting in the said first mentioned coil and cutting out the said second mentioned heating coil.

4. In an electric heating device, a casing having a heating chamber formed therein, a heating coil for said chamber, a second heating coil carried by said casing and means actuated by the insertion of an object to be heated in said heating chamber for cutting in the heating coil for said chamber and cutting out the other heating coil.

5. In an electric heating device, a casing having a heating chamber formed therein, a heating coil surrounding said chamber, means for supporting an object to be heated upon said casing, a heating coil heated beneath said means and means actuated upon the insertion of an object to be heated in said chamber for supplying current to the heating coil for said chamber and changing the circuit connections of the other coil.

[Claims 6 to 19 not printed in the Gazette.]

1,143,580. NECKTIE-FASTENER. JAMES A. FULLER, Providence, R. I., assignor to Hamilton & Hamilton, Jr., Providence, R. I. Filed Nov. 3, 1914. Serial No. 870,147. (Cl. 24—211.)



1. In combination with a member having an open-ended socket with a transverse slot therein, a pin having a groove formed in its shank for registry with the slot of the socket, a locking member pivoted to said member and engageable in the slot and in the groove to lock the pin, and a cam member pivoted to said member for actuating the locking member, said cam member having a cam edge to force the locking member to locking position, and having a finger to engage the locking member to move the latter to unlocked position.

2. In combination wth a socketed element and a pin receivable in the socket thereof, said pin having a groove, a pivoted locking member on the element receivable in tne groove, and a pivoted cam member for moving the first member to locking position, said cam member having means to move the first member out of locking position when the cam member is moved in one direction.

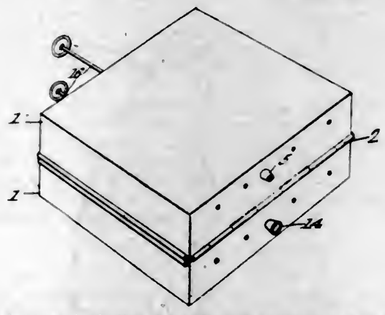
3. In combination with a supporting element and a pin engageable therewith, a pivoted member engageable with the pin to lock the latter to the element, and pivoted means inter-engaged with said member in all movements of the latter for moving the member into and out of engagement with the pin.

4. In combination with a supporting element and a pin engageable therewith, a pivoted member engageable with the pin to lock the latter to the element, and pivoted means having a cam to engage the member to move the latter into locking engagement with the pin when said means is moved in one direction and having a finger engageable with the member to move the latter out of locking position when said means is moved in the opposite direction.

5. In combination with a supporting element and a pin engageable therewith, means to lock the pin to the element, and pivoted means interengaged with the locking means in all movements of the latter to actuate the locking means into and out of locking positions.

1,143,581. STOVE. FRANK M. GATES, Lents, Oreg., assignor to himself, and William J. Baker, Newport, Ky. Filed Dec. 16, 1914. Serial No. 877,550. (Cl. 126—38.)

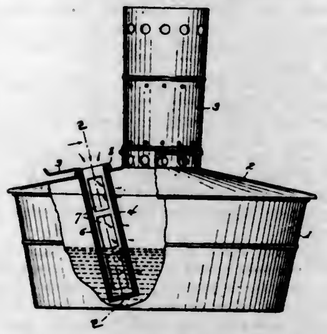
1. A stove including hingedly connected trays adapted to fold together, a burner within each tray, a fuel pipe extending to each burner, means for automatically coupling together said pipes when the trays are swung apart, a fuel tank, and a pipe extending from said tank to the pipe of one of the burners.



2. A stove including hingedly connected trays adapted to fold together, a burner within each tray, a fuel pipe extending to each burner, means for automatically coupling together said pipes when the trays are swung apart, a fuel tank, a pipe extending from said tank to the pipe of one of the burners, and a valve in said burner pipe between the fuel conducting pipe and the coupling.

3. A stove including hingedly connected trays adapted to fold together, a burner within each tray, a fuel pipe extending to each burner, said pipes being movable toward each other to form a fuel passage from one tray to the other when the trays are swung apart, a fuel tank, and a pipe extending from said tank to the pipe of one of the burners.

1,143,582. ORCHARD-HEATER. JAMES L. HAMILTON, Grand Junction, Colo.; Martha C. Hamilton administratrix of said James L. Hamilton, deceased. Filed Aug. 25, 1914. Serial No. 858,544. (Cl. 158—91.)



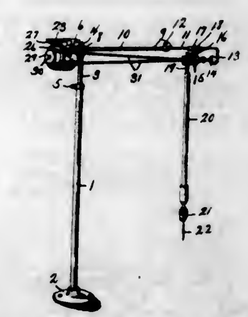
1. A draft appliance for orchard heaters, comprising, in combination with an oil container and a stack mounted over said container, a stationary tube located laterally with respect to the stack and depending within said container to a point near the bottom of the latter, and a tube rotatable within said stationary tube, said tubes having corresponding apertures therein which are adapted to be moved into and out of registration by rotation of said rotatable tube.

2. The combination with the container and the cover of an orchard heater, said cover having a stack mounted thereon, of means for introducing air to the surface of the fuel in said container, said means comprising a tube projected downward through said cover and depending within said container to a point adjacent to the bottom of the latter, said tube being located laterally with respect to the stack and having apertures therein, and a second tube fitted and rotatable within the first-mentioned tube, said second tube having apertures therein substantially corresponding with those in the first tube and adapted to be moved into and out of register with the latter with rotation of said second tube.

3. The combination with the container and the cover of an orchard heater, of a tube projected downward through said cover and depending within said container to a point adjacent to the bottom of the latter, said tube having apertures therein, and a second tube fitted and rotatable within the first-mentioned tube, said second tube having apertures therein substantially corresponding with those in the first tube and adapted to be moved into and out of register with the latter with rotation of said second tube, said tubes, when their apertures are out of register and their lower ends are uncovered, constituting means for introducing a continuous and uninterrupted blast of air upon the oil in the bottom of said container.

4. In combination with a vessel for containing a body of oil, means for introducing air to the surface of said oil, comprising a stationary tube suspended in a position wherein it is partially submerged when said vessel is filled, and a tube rotatable within said stationary tube, said tubes having corresponding apertures therein which are adapted to be moved into and out of register by rotation of said rotatable tube.

1,143,583. BELT-GEARING. CLARENCE F. HOTCHKISS, Binghamton, N. Y., assignor to Stow Manufacturing Company, Binghamton, N. Y., a Corporation of New York. Filed Aug. 11, 1913. Serial No. 784,282. (Cl. 74—21.)



1. In a device of the class described, a support, an arm pivotally mounted thereon, a flexible shaft mounted upon one end of said arm, a motor mounted upon the other end of said arm and adjustable to balance the arm and flexible shaft, and a belt for transmitting power from the motor to the flexible shaft, said arm comprising longitudinally adjustable sections relatively movable to adjust the flexible shaft to properly tension said belt in any adjustment of the motor.

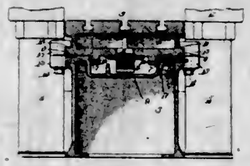
2. In a device of the class described, a support, an arm pivotally mounted thereon, a motor mounted on one end of said arm and adjustable along the arm, a flexible shaft mounted on the other end of said arm, means for transmitting the power from the motor to the flexible shaft, and means for adjusting the flexible shaft toward and from the pivot of the arm to tension the transmitting means.

3. In a device of the class described, a support, an arm pivotally mounted on said support, a flexible shaft mounted upon one end of the arm, a driving motor mounted upon the opposite end of the arm and adjustable along said arm to balance the arm and the flexible shaft, and means for transmitting motion from the motor to the flexible shaft.

4. In a device of the class described, a pivotally mounted arm, a shaft supported by said arm, a motor mounted on said arm and adjustable to balance itself and the shaft, and means for transmitting motion from the motor to the shaft.

5. In a supporting means for a flexible shaft, an arm having an end portion bent at an angle to the main portion, a pulley case, a pulley mounted therein, an eye in connection with said case and engaged with the bent end portion of said arm, a member loosely mounted on said arm and engaged with said pulley case to support the same, and a flexible shaft driven by said pulley.

1,143,584. MILLING-MACHINE. JOHN R. JOHNSON, Rockford, Ill., assignor to The Ingersoll Milling Machine Company, Rockford, Ill., a Corporation of Illinois. Filed Sept. 9, 1913. Serial No. 788,799. (Cl. 90—34.)



1. The combination with side housings and a bed disposed intermediate the same, of a table slidably mounted upon longitudinal ways on the bed, and of clamping members carried by the sides of the bed at one side of the housings and in coöperation with said table.

2. The combination with a longitudinal bed and side housings disposed at opposite sides thereof, of a table movable longitudinally on the bed, tool holding means carried above said table by the side housings, and a clamping member carried by the bed directly below said tool holding means and in operable engagement with said table.

3. In a machine of the character described, the combination of a bed, side housings, a table slidably mounted on horizontal ways at each side of the bed to move longitudinally thereon between the side housings, guideways intermediate the said horizontal ways for guiding the table from lateral movement, and guide means for holding the table from being raised from the bed, said guide means being stationary so as not to travel with the table in its lengthwise movement.

4. In a machine of the character described, the combination of a bed, side housings at opposite sides thereof, a table slidably mounted on the bed to pass between the side housings, and relatively stationary clamping means located at the outer sides of the bed at one side of the side housings and coöperating with the table to hold the same from being raised from the bed, said clamping means being adjustable to lock the table fixedly in connection with the bed.

5. The combination of a bed, upright side housings at opposite sides thereof, a table slidably mounted on horizontal bearing faces or ways on the bed to move longitudinally thereon between said side housings, and stationary guide means located at the outer sides of the bed at one side of said side housings for holding the table from being raised from the bed, the table being devoid of overhanging side guides adapted to engage the bed, whereby the distance between the outer edges of the horizontal ways is substantially equal to the distance between the outer edges of the working face of the table.

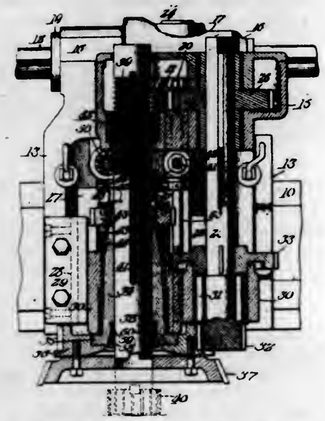
[Claims 6 to 16 not printed in the Gazette.]

1,143,585. MILLING-MACHINE SPINDLE-HEAD. JOHN R. JOHNSON, Rockford, Ill., assignor to The Ingersoll Milling Machine Company, Rockford, Ill., a Corporation of Illinois. Filed Sept. 9, 1913. Serial No. 788,801. (Cl. 90—11.)

1. In apparatus of the character set forth, the combination with a movable carriage, of two rotatable cutter spindles carried thereby, one of the spindles being reciprocable within the other to various operative positions, means for locking the reciprocable spindle with said other spindle at any one of its operative positions, and means for rotating the spindles.

2. In apparatus of the character set forth, the combination with a rotatable cutter spindle, of a cutter spindle mounted movable lengthwise within said spindle, a drive

member adapted to be continuously driven, and a driving connection between said drive member and inner spindle for moving said inner spindle lengthwise.



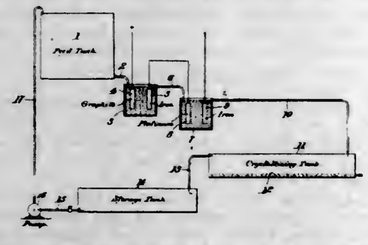
3. In apparatus of the character set forth, the combination with a rotatable cutter spindle, of a cutter spindle mounted movable lengthwise within said spindle, a drive member adapted to be continuously driven, a driving connection between said drive member and inner spindle for moving said inner spindle lengthwise, and a control included in said driving connection for intermittently moving said spindle lengthwise.

4. In apparatus of the character set forth, the combination with a rotatable cutter spindle and a spindle mounted movable lengthwise within said spindle, of a drive member, a driving connection between said drive member and inner spindle for moving said inner spindle lengthwise in one direction, and means for retracting the said inner spindle.

5. In apparatus of the character set forth, the combination with a carriage having a feed or adjustment movement, of a rotatable spindle journaled thereon, a spindle mounted reciprocable within said carriage spindle, means for rotating the carriage spindle, a driving connection between the two spindles, a driving member, and a driving connection between the driving member and the inner spindle for reciprocating the inner spindle independent of the said movement of the carriage.

[Claims 6 to 22 not printed in the Gazette.]

1,143,586. PROCESS OF PRODUCING CHLORATES OF ALKALIS AND ALKALINE EARTHS. WALTER LAIB, Rittman, Ohio, assignor to The Ohio Salt Company, Wadsworth, Ohio, a Corporation of Ohio. Filed Sept. 12, 1914. Serial No. 861,395. (Cl. 204—60.)



1. The process of producing chlorates of alkalis or alkaline earths, which consists in subjecting an aqueous solution of the chlorid of the base whose chlorate is to be formed, to electrolysis in a cell having a graphite anode, at a relatively low temperature, and subsequently further electrolyzing the thus electrolyzed solution in a cell having a platinum anode, at a higher temperature.

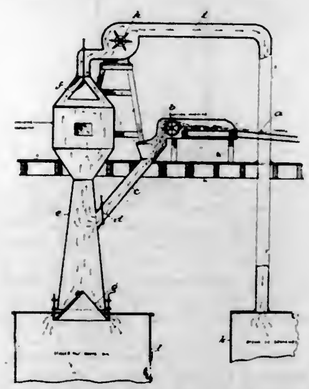
2. The process of producing chlorates of alkalis or alkaline earths, which consists in subjecting an aqueous solution of the chlorid of a base whose chlorate is to be formed, to electrolysis in a cell having a graphite anode, at a relatively low temperature, and subsequently further electrolyzing the thus electrolyzed solution in a cell having a platinum anode, at a higher temperature, the higher temperature being produced by the electric current flowing through the cell with the platinum anode.

3. The process of producing chlorates of alkalis or alkaline earths, which consists in subjecting an aqueous solution of the chlorid of a base whose chlorate is to be produced, to a primary electrolysis in a cell having a graphite anode, in the presence of a relatively low temperature, then further electrolyzing the thus electrolyzed solution in a cell having a platinum anode and in which a relatively high heat is maintained, then removing the liquor and crystallizing it.

4. The process of producing potassium chlorate, which consists in primarily electrolyzing an aqueous solution of potassium chlorid in the presence of a graphite anode and at a relatively low temperature, and subsequently further electrolyzing the thus electrolyzed solution in the presence of a platinum anode at a relatively high temperature.

5. The process of producing potassium chlorate, consisting in subjecting an aqueous solution of potassium chlorid and a potassium derivative of chromic acid to electrolysis in the presence of a graphite anode and low temperature, and thereafter further electrolyzing it in the presence of a platinum anode and higher temperature generated in the cell.

1,143,587. METHOD OF UTILIZING WASTE SUBSTANCES OF THE COTTON-PLANT AND PRODUCT THEREOF. MARK W. MARSDEN, Philadelphia, Pa., assignor to Economic Power & Products Company, Philadelphia, Pa., a Corporation of Delaware. Filed Feb. 28, 1914. Serial No. 821,711. (Cl. 92—1.)



1. That improvement in the process of treating waste parts of the cotton plant for rendering paper-pulp, which consists in comminuting and crushing the stock, subjecting the stock to suction and gravitation to separate the light from the heavy fiber, factors at a period prior to digesting or other subsequent treatment, separately digesting and otherwise treating the factors for the recovery of valuable extractive matter and of fiber, and combining the fiber products of the separate digester treatments.

2. The process of obtaining a maximum yield of bast or long fibers and short wood fibers, which consists in comminuting the stalks, stems, and roots of the cotton-plant, mechanically separating the light and heavy factors of the stock, subjecting them separately to suitable treatment to extract sugar, tannin, natural coloring-matter, and other extractive matter, and to start an initial separation, and thereafter subjecting them to chemical treatment and high pressure to eliminate the cementing or incrusting matter and to complete the separation, substantially as specified.

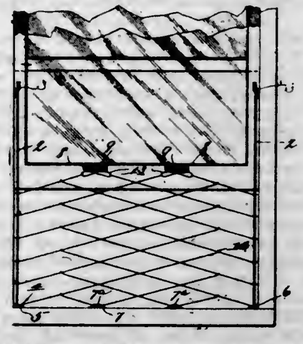
3. The process of obtaining a maximum yield of bast or long fibers and short wood fibers, which consists in comminuting the stalks, stems, and roots of the cotton-plant, mechanically separating the light and heavy factors, washing them in clear water, separately subjecting them in a substantially closed digester to treatment with heat, moisture and pressure to dissolve all extractive matter and to start an initial separation, drawing off the extractive matter, and thereafter subjecting the stock in separated factors as above to a suitable alkali treatment at a higher pressure to eliminate the cementing or incrusting matter and to complete the separation, substantially as specified.

4. The process of obtaining a maximum yield of bast or long fibers and short wood fibers, which consists in mechanically reducing the stalks, stems, and roots of the cotton-plane, mechanically separating the light and heavy factors, washing them in clear water, separately subjecting them to treatment involving the combined action of heat, moisture, and pressure to dissolve the pectin present in admixture with the cellulose and to convert the starchy matter and invertible carbohydrates of the bark into sugars, and to start an initial separation, drawing off the extractive matter and recovering it, and thereafter subjecting the stock in separated factors to suitable chemical treatment and pressure to eliminate the cementing or incrusting matter and to complete the separation, substantially as specified.

5. A cotton paper of great strength and uniformity composed of agglomerated fiber products of an original stock of stalks, stems, and roots of the cotton plant, which stock has been subjected in a divisional state of light and heavy fiber factors to the action of reducing agents of different strength or density.

[Claim 6 not printed in the Gazette.]

1,143,588. WINDOW-GUARD. HERMANN LE QUORNICK, New York, N. Y. Filed May 11, 1914. Serial No. 837,837. (Cl. 20—71.)

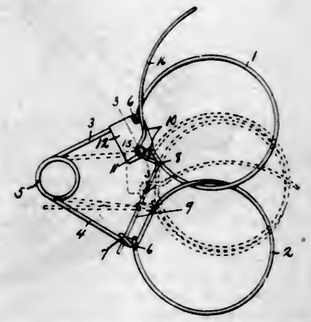


1. A guard for windows comprising vertically arranged bars arranged parallel to the sides of the window casings, guard members slidably connected to said bars and slidably connected to each other, guard members slidably connected to said bars and loosely connected to a window sash, and guard members pivotally connected to a window sill and slidably connected to other guard members.

2. A collapsible guard for windows consisting of a plurality of freely movable members, means for slidably connecting a portion of said members to the sides of a window casing, the uppermost of said members being also loosely connected to a window sash and the remainder of said members being slidable upon each other, and means for connecting a portion of the lowermast members of the guard to a window sill, said lowermost bars being slidably connected to a portion of the first mentioned members.

3. In a guard for windows, upright bars, guard members having loops adapted to slide upon said bars, means for preventing vertical movement along the bars of the lowest guard member upon each side, means for connecting the two uppermost of said guard members at the inner ends to a window sash, the remaining guard members having their inner ends slidably connected to the guard members carried by the other bar, and lower guard members loosely connected respectively to the window sill and to guard members connected to said bars.

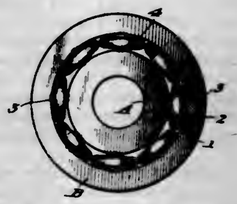
1,143,589. ANIMAL-TRAP. FRANK S. RICKER, Oneida Castle, N. Y., assignor to Oneida Community, Limited, Oneida, N. Y., a Corporation of New York. Filed Dec. 21, 1914. Serial No. 878,307. (Cl. 43—27.)



1. An animal trap comprising co-acting jaws, a trigger, a detent engaged with one of said jaws, said detent provided with an extension adapted to engage the opposite jaws and forming a lever for compressing the jaws and bringing the detent into interlocking engagement with said opposite jaw.

2. An animal trap comprising co-acting jaws, a trigger, a detent engaged with one of said jaws, said detent provided with an extension, the opposite jaw provided with an eye, said extension of the detent adapted to be normally seated in said eye and form a lever for compressing the jaws.

1,143,590. BALL-BEARING. ELMER S. SHIMER, Milton, Pa., assignor to Samuel J. Shimer & Sons, Milton, Pa. Filed Sept. 15, 1914. Serial No. 861,824. (Cl. 64—59.)



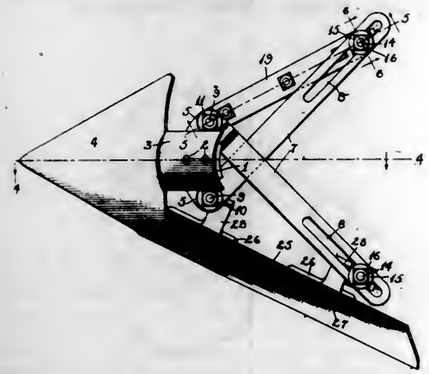
1. A ball bearing comprising two members having endless grooves, the walls of which are uninterrupted, balls having a portion thereof extending into each of said grooves, and separate means independently fashioned around each ball for maintaining the balls in proper relation.

2. A ball bearing comprising two grooved members, the walls of the grooves of said members being uninterrupted, balls inserted in the grooves, and separate means independently surrounding each ball which when applied thereto, preclude the dismemberment of the parts constituting the bearing.

3. A ball-bearing comprising inner and outer grooved ball-race members, balls received in the grooves, and spacing means fashioned around each ball for maintaining the balls in proper relation, said spacing means being tangentially to the periphery of the innermost member.

4. A ball-bearing comprising two grooved ball-race members, balls received in the grooves, and spacing means fashioned around each ball for maintaining the balls in proper relation, said spacing means being of less thickness than the apace between the members and of a length to afford contact at two points with one of the members and at one point with the other member.

1,143,591. ATTACHMENT FOR CULTIVATORS. CARL BERGSTROM, Lawton, Okla. Filed Oct. 19, 1914. Serial No. 867,372. (Cl. 97—10.)



1. A device of the character described, comprising an upright attaching plate having laterally projecting ears on its lower end, rearwardly extending implements pivotally united at their forward ends to said ears, and crossed adjusting links likewise pivoted to said ears and having their rear ends adjustably secured to the rear ends of said implements.

2. A device of the character described, comprising a substantially upright attaching plate having laterally projecting ears on its lower end, rearwardly extending implements pivotally connected to said ears, and crossed adjusting links pivotally connected with said ears upon the pivots of said implements, the rear ends of said links being adjustably connected to the rear ends of said implements.

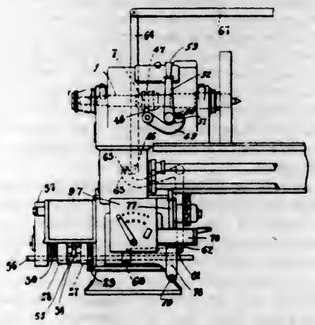
3. A device of the character described, comprising a substantially upright attaching plate having laterally projecting ears on its lower end, a pair of rearwardly extending implements, having their forward ends underlying said ears, a pair of crossed links having their forward ends overlying said ears, pivot bolts rising from said implements through the ears and the free ends of said links, nuts on the ends of said bolts and adjusting connections between the rear ends of said links and the rear ends of the implements.

4. A device of the character described, comprising a substantially upright attaching plate having a pair of laterally projecting ears on its lower end, a pair of rearwardly diverging implements having their forward ends underlying said ears, a pair of crossed adjusting links having their forward ends overlying said ears, pivot bolts rising from the front ends of the implements through the ears and through the front ends of said links, the rear ends of the latter being slotted longitudinally, other bolts rising from the rear ends of the implements through the slots in said links, and nuts on said bolts whereby to secure said links against movement.

5. A device of the character described, comprising a substantially upright attaching plate having lateraly projecting ears on its lower end, an earth working tool carried by said plate and projecting in advance thereof, rearwardly diverging implements pivoted to said ears, and means whereby said implements may be adjusted around their pivots.

[Claims 6 to 8 not printed in the Gazette.]

1,143,592. LATHE. EDWARD W. BLUM, Cincinnati, Ohio, assignor to the Bradford Machine Tool Company, Cincinnati, Ohio, a Corporation of Ohio. Filed June 21, 1913. Serial No. 774,979. (Cl. 82—29.)



1. In a lathe, a spindle, a head carrying the spindle, a base for the head, change speed mechanism carried in the base and comprising the initial driving element of the lathe, operative connection between the change speed mechanism in the base and the spindle in the head, driving means for the spindle in said base, separate elements in the base reversely driven by the driving means, and a clutch in the base to connect either of said elements with the initial driving means.

2. In a lathe, a spindle, a head carrying the spindle, a base for the head, change speed mechanism carried in the base and comprising the initial driving shaft and an intermediate shaft, gears on the initial driving shaft and gears on the intermediate shaft, means for meshing the respective gears on the two shafts, operative connection from the intermediate shaft in the base to the spindle in the head, driving means for the spindle, operative connection from the driving means to the initial driving shaft and means for engaging and disengaging said operative connection.

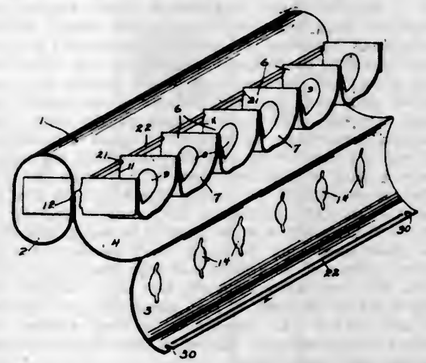
3. In a lathe, a spindle, gears fixed together and turning loosely on the spindle, another gear turning loosely on the spindle and a shiftable clutch member on the spindle to turn therewith, a friction clutch carried by the two gears fixed together, said clutch member having a surface to engage and actuate said friction clutch, positive clutching means carried by the other gear, and positive clutching means on said clutch member to engage with the means on said other gear, a back gear member, a back gear turning with said member and meshing with one of the gears fixed together on the spindle, a back gear pinion on said member meshing with said gear on the spindle having the positive clutching means, a head in which said spindle and said back gear member are mounted, a gear and a wheel fixed together, and mounted in said head, the gear meshing with the other one of the gears fixed together on the spindle, a base for said head, change speed mechanism carried in the base and comprising an initial driving shaft and an intermediate shaft, a wheel turning with the intermediate shaft, flexible connecting means from the wheel on the intermediate shaft in said base to the wheel fixed together with said gear in the head, gears fixed on the intermediate shaft, each two adjacent ones of said gears being spaced apart, gears slidable on the initial driving shaft to turn therewith, each two adjacent ones of these gears being fixed together and adapted to come between the spaced-apart gears on the intermediate shaft to be out of mesh therewith, but to slide into mesh with one or the other of them respectively, and means for driving said initial driving shaft.

4. In a lathe, a spindle, a head carrying the spindle, a base for said head, driving means for the spindle, change speed mechanism carried in said base comprising the initial driving element of the spindle, and a single flexible operative connection between the change speed mechanism in the base and the driving mechanism of the spindle in the head, for the purposes set forth.

5. In a lathe, a spindle, a head carrying the spindle, a base for said head, geared driving means for the spindle, geared change speed mechanism carried in said base and comprising the initial driving element of the spindle, and flexible connection between said change speed mechanism in the base and said driving mechanism of the spindle in the head, for the purposes set forth.

[Claim 6 not printed in the Gazette.]

1,143,593. CARRIER FOR EGGS, FRUITS, AND THE LIKE. LOUIS A. DEGGINGER, Covington, Ky., assignor to The No-Break Egg Carrier Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Feb. 13, 1915. Serial No. 8,088. (Cl. 229—34.)



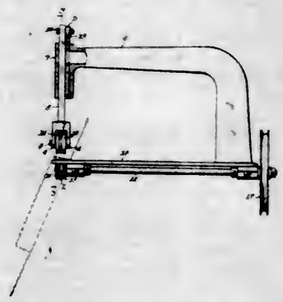
1. In a carrier of the class described, a body portion made of a series of elongated half sections joined together, and capable of being folded together, a carrying tray, said carrying tray provided with a series of central slots, said slots at each end being narrowed into an elongated recess, which slots and recesses fit over, when the tray is folded, the meeting edges of the two middle halves enabling the tray to be suspended and supported in the body portion, the elongated recesses locking said two middle halves against displacement.

2. In a carrier of the class described, a body portion formed of a series of elongated half sections, a carrying tray, said carrying tray provided with central slots, said central slots at their ends carrying elongated recesses, said carrying tray suspended in said body portion, the slots and elongated recesses straddling the meeting edges of the inner halves, said elongated recesses locking the inner halves against displacement, the carrying tray when folded forming egg pockets, the end walls of said egg pockets provided with elongated slots enabling said pockets to accommodate eggs of varying sizes.

1,143,594. DEVICE FOR CUTTING FABRICS. HENRY FUHRY, Milwaukee, Wis., assignor of one-half to Blumenfeld, Locher Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed Oct. 12, 1914. Serial No. 866,244. (Cl. 223—24.)

1. In a device of the described class, the combination of two circular cutting blades, a driven shaft supporting one of said cutting blades, a stationary shaft supporting the other cutting blade, a vertically moving bar for supporting said last named shaft, said last named blade being adapted to be revolved by the movement of the fabric which is being cut by said blades, means for revolving said revoluble shaft, and means for raising and lowering said vertically moving bar.

2. In a device of the described class, the combination of two circular cutting blades, a driven shaft supporting one of said cutting blades, a stationary shaft supporting the other cutting blade, a vertically moving bar for supporting said last named shaft, said last named blade being adapted to be revolved by the movement of the fabric which is being cut by said blades, a band wheel rigidly connected to one end of said revoluble shaft, and means for raising and lowering said vertically moving bar.



3. In a device of the described class, the combination of two circular cutting blades, a driven shaft supporting one of said cutting blades, a stationary shaft supporting the other cutting blade, a vertically moving bar for supporting said last named shaft, said last named blade being adapted to be revolved by the movement of the fabric which is being cut, two feed rollers one supported upon the respective sides of each of said cutting blades, means for revolving said revoluble shaft, means for raising and lowering said vertically moving bar, a long arm adapted to support one of said cutting blades above and at a distance from the opposite edge of the platform of the machine.

4. In a device of the described class, the combination of two circular cutting blades, a driven shaft supporting one of said cutting blades, a shaft supporting the other cutting blade, a vertically moving bar for supporting said shaft, said last named blade being adapted to be revolved by the movement of the fabric which is being cut, two feed roolers one supported upon the respective sides of each of said cutting blades, means for revolving said revoluble shaft, means for raising and lowering said vertically moving bar, and a pair of springs connected with said vertically moving bar and adapted to hold the upper feed rolls and cutting blade in yielding contact with the lower feed rolls and cutting blade, a long arm adapted to support one of said cutting blades above and at a distance from the opposite edges of the platform of the machine, all substantially as and for the purpose specified.

1,143,595. PLAYING-CARDS. FREDERICK H. BEHRING, St. Louis, Mo. Filed June 18, 1914. Serial No. 845,962. (Cl. 46—25.)

1. A deck of cards, comprising a plurality of groups of cards, each of which group represents a different kind of golf club, said cards being provided with means that gives the cards different valuations.

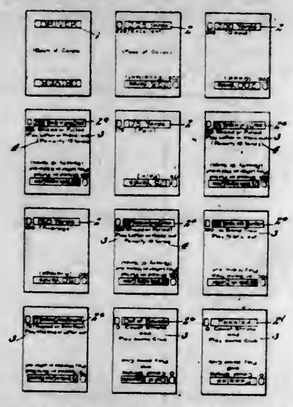
2. A deck of cards, comprising a plurality of groups of cards, each of which group represents a different kind of golf club, the cards of the various groups having indicia thereon that designates strokes that can be made with golf clubs.

3. A deck of cards, comprising a number of separate and distinct groups of cards that represent different kinds of golf clubs, the cards of each group having indicia thereon that designates good strokes and unskilful strokes that can be made with a golf club of the kind that the card represents.

4. A deck of cards divided into a plurality of separate and distinct groups, each of which relates to a different kind of golf club, certain of the cards of each group having indicia thereon which restricts the player of the card to the use or play of a certain card on his succeeding turn.

5. A deck of cards, comprising a plurality of groups of cards, each group of which is provided with means for in-

dicating that the cards in said group represent a certain kind of golf club, and means on the cards of the various



groups for designating strokes that can be made with golf clubs.

[Claims 6 to 12 not printed in the Gazette.]

1,143,596. UNIVERSAL JOINT. WILLIAM F. BOCKHOFF, Richmond, Ind., assignor to National Automatic Tool Company, Richmond, Ind., a Corporation of Indiana. Filed June 1, 1914. Serial No. 842,075. (Cl. 74—19.)

1. A universal joint, comprising a central member, two bifurcated shaft members spanning said central member and pivoted thereto on perpendicular intersecting axes, the arms formed by the bifurcation of each of said shaft members having end surfaces lying in the surface of a cone coaxial with such bifurcated member, which conical surfaces coöperate with plane surfaces on the other shaft members respectively to limit the angular displacement between the axes of the two shaft members, the conical surfaces being of sufficient extent so that when the shaft members are rotated about their axes with such axes displaced by such maximum angle the conical surface on any arm of either shaft member remains in engagement with the plane surface on the other shaft member until the conical surface on an arm on said other shaft member engages the plane surface on the first shaft member.

2. A universal joint, comprising a central member, two bifurcated shaft members spanning said central member and pivoted thereto on perpendicular intersecting axes, the arms formed by the bifurcation of each of said shaft members having end surfaces which coöperate with surfaces on the other shaft members respectively to limit to a definite angle the angular displacement between the axes of the two shaft members, the surface on each arm being of sufficient extent so that when the shaft members are rotated about their axes with such axes displaced at such maximum angle the surface on any arm of either member remains in engagement with the coöperating surface on the other shaft member until the surface on an arm on said other shaft member engages the coöperating surface on the first shaft member.

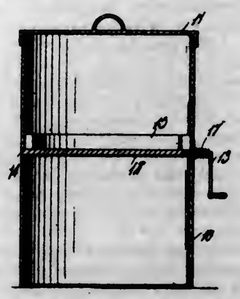
3. A universal joint, comprising a central member, two bifurcated shaft members spanning said central member and pivoted thereto on perpendicular intersecting axes, the arms formed by the bifurcation of each of said shaft members having end surfaces lying in the surface of a cone coaxial with such bifurcated member, which conical surfaces coöperate with plane surfaces on the other members respectively to limit the angular displacement between the axes of the two shaft members, the cone in which lies the conical surfaces of the two arms of each member becoming tangent with the plane surface on the other member when the axes of the two members are displaced at said maximum angle and the conical surfaces on each arm being of sufficient extent so that during the rotation of the shaft members at such maximum angular displacement one of said conical surfaces is always in engagement with one of said planes.

4. A universal joint, comprising a central member, two bifurcated shaft members spanning said central member and pivoted thereto on perpendicular intersecting axes, the arms formed by the bifurcation of each of said shaft members having end surfaces lying in the surface of a cone coaxial with such bifurcated member, which conical surfaces coöperate with plane surfaces on the other shaft members respectively to limit the angular displacement between the axes of the two shaft members, the conical surfaces being of sufficient extent so that when the shaft members are rotated about their axes with such axes displaced by such maximum angle the conical surface on any arm of either shaft member remains in engagement with the plane surface on the other shaft member until the conical surface on an arm on said other shaft member engages the plane surface on the first shaft member, and such parts of the arms of each member as pass between the arms of the other member as the shaft members are rotated being sufficiently narrow so that they do not bind on said last-named arms.

5. A universal joint, comprising a central member, two bifurcated shaft members spanning said central member and pivoted thereto on perpendicular intersecting axes, the arms formed by the bifurcation of each of said shaft members having end surfaces which coöperate with surfaces on the other shaft members respectively to limit to a definite angle the angular displacement between the axes of the two shaft members, the surface on each arm being of sufficient extent so that when the shaft members are rotated about their axes with such axes displaced at such maximum angle the surface on any arm of either member remains in engagement with the coöperating surface on the other shaft member until the surface on an arm on said other shaft member engages the coöperating surface on the first shaft member, and such parts of the arms of each member as pass between the arms of the other member as the shaft members are rotated being sufficiently narrow so that they do not bind on said last-named arms.

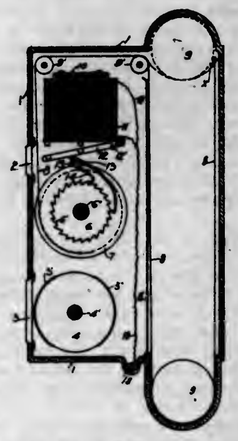
[Claim 6 not printed in the Gazette.]

1,143,597. SANITARY GARBAGE-CAN. PAUL CLEMENT, Volga, S. D. Filed July 2, 1913. Serial No. 777,043. (Cl. 220—115.)



In a garbage can provided with a removable cover, a removable false bottom pivotally mounted midway of the can, oppositely disposed half-ring stops mounted on the inner wall of the can in different planes, one of said rings being engaged by the upper face of one side of the false bottom and the other being engaged by the upper face of the other side of the said bottom, to limit the rotation of said bottom to a half revolution, a spring carried by the false bottom at its pivotal mounting to yieldably hold said bottom in contact with said stops, a crank handle to revolve said bottom out of engagement with the stops.

1,143,598. PASSENGER-EXIT REGISTER. CREED C. FRUM, Clarksburg, W. Va., assignor of one-fourth to John W. Agnew, Clarksburg, W. Va. Filed Oct. 2, 1914. Serial No. 864,561. (Cl. 235—35.)



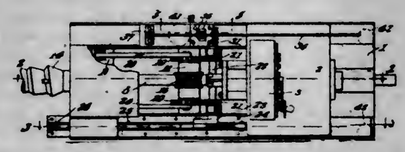
1. A passenger register of the character described, comprising a case divided into vertical sections and provided with two front openings spaced apart, a reversible cylindrical station indicator journaled within said case and in view at the lower opening thereof, flexible movable tapes having numerals spaced from each other on the exposed side of said tapes with the numerals appearing in view at the upper opening of said case, roller weights 9 resting within and weighing down the loops of said tapes, and means for winding and unwinding the tapes, all substantially as set forth.

2. A passenger register of the character described including a case, reversible station indicator, flexible movable tapes, having numerals exposed to view at the upper opening of the said case. The said tapes being attached to ratchet tape spools 7 for winding, tension tape weight rollers 9 resting bodily within the tape folds and movable upward and downward therewith, ratchet locks 14 which engage the notches on the side of said ratchet spools, and means for winding and rotating ratchet wheel spools, substantially as described.

3. A passenger register of the character described, including a case, reversible station indicator, flexible movable tapes having numerals exposed to view at the upper opening of the said case, the combination with electro magnets 11, pivoted levers 12 and ratchet powls 13 pivotally connected to the lower end of the said magnets and engaging the notches of the ratchet wheels, an oscillating rod 15 carrying ratchet locks 14 by means of which the ratchet pawls engage and release the said ratchet wheels and spools, wires connected to each end of said magnets and means for supplying electric current to the magnets for operating the ratchet devices, substantially as shown and for the purposes specified.

1,143,599. MINING-MACHINE. LOUIS F. HESS, Ansted, W. Va., assignor to Hess Dustless Mining Machine Company, Ansted, W. Va. Filed Mar. 26, 1912. Serial No. 686,287. (Cl. 125—14.)

1. In a mining machine, a supporting structure; a cutter shaft mounted to rotate and to slide longitudinally in the supporting structure; a primary countershaft operatively connected with the cutter shaft to be rotated when the cutter shaft is rotated; auxiliary means for connecting the primary counter shaft with the cutter shaft to secure a reciprocation of the cutter shaft; a secondary countershaft operatively connected with the primary counter shaft; means operatively connected with the secondary countershaft independently of said auxiliary means, for moving the supporting structure and the cutter shaft; and means separate from the secondary counter shaft for imparting rotation directly to the cutter shaft.



2. In a mining machine, a supporting structure; a shaft carried thereby; a drum loose upon the shaft; a wheel loose upon the shaft; cutting mechanism; means for operatively connecting the cutting mechanism with the wheel to rotate the latter continuously; means for binding the drum and the wheel together with a varying pressure; a flexible element connected with the drum; and means for anchoring the flexible element.

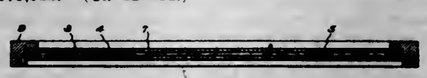
1,143,600. ADJUSTABLE WRENCH. HERMAN P. LUTZ, Johnstown, Nebr. Filed Dec. 12, 1912. Serial No. 736,362. (Cl. 81—112.)



1. A wrench comprising a handle portion having a slotted shank extending therefrom and a jaw at the end of said shank, one wall of the slotted portion having teeth and said shank being laterally reduced between said handle portion and said jaw, a movable jaw having a shank fitting the laterally reduced shank of said handle portion and pivoted to the handle shank adjacent the handle, and a sleeve embracing the handle and jaw shanks and slidable toward the jaws to close the same, said jaw shank having an inclined portion for engagement by said sleeve to shift the movable jaw toward the fixed jaw, and said sleeve having a pawl for engagement with ratchet teeth to hold said sleeve in an adjusted position, substantially as described.

2. A wrench comprising a handle portion having a shank extending therefrom and provided with a jaw, a second shank pivoted to said first shank, said second shank being provided with inclined surfaces on its front edge, and means for engagement with said inclined surfaces for adjusting the second shank with respect to said first shank.

1,143,601. ORNAMENTAL PLAQUE. ROSE W. SMITH, Lexington, Mass. Filed Dec. 4, 1914. Serial No. 875,523. (Cl. 41—21.)

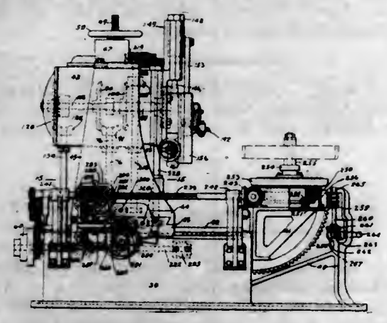


1. In a decorative panel having a transparent face, a translucent layer of substantially parallel fibers, in close lateral relation to prevent the free passage of light, and of such depth and character as to exclude light in a marked degree when presented thereto, said layer being in close contact with the underside of said transparent face, and the fibers thereof partially and readily reflecting light, but with a softened, broken effect of blended light

and shade, and superposed, decorative elements overlying said translucent layer, and depressed therein by the overlying transparent face, thereby to cause shade-producing depressions following the outlines of said decorative elements.

2. In a decorative panel having a transparent face, a translucent layer of spun silk top fibers substantially parallel throughout but having in mass separated areas presenting a marked wavy appearance, said fibers being in close lateral relation to prevent the free passage of light, and the layer being of such depth and character as to exclude light in a marked degree when presented thereto, said layer being in close contact with the underside of said transparent face, and the said fibers partially reflecting light, but with a softened, broken effect of blended light and shape from the different portions of the surface of the layer, and superposed, decorative elements overlying said translucent layer and depressed therein by the overlying transparent face, thereby to cause shade-producing depressions following the outlines of said decorative elements.

1,143,602. GEAR-CUTTING MACHINE. JOHAN ALFRED SVENSSON, Rochester, N. Y. Filed Sept. 8, 1909. Serial No. 516,708. (Cl. 90—9.)



1. A gear cutting machine comprising a tool carrying head, a reciprocating tool mounted thereon, a gear blank support, means for adjusting said support to hold the blank so that a plane passing through the center thereof will be either parallel to the line of tool travel or inclined thereto at option, means for initially positioning the tool laterally of the blank, to begin the cutting operation, periodically actuated mechanism for indexing the gear blank, mechanism adapted to translate the tool conjointly with the tool-head in a straight line transversely of the face of the blank in consecutive operative positions constituting the loci of the teeth of a rack, mechanism adapted to translate the tool independently of the tool-head circularly across the face of the blank in consecutive operative positions constituting the loci of the teeth of a crown gear, differential mechanism connected with said indexing mechanism and connectible with either of said translating mechanisms, an operative connection between said indexing mechanism and said translating mechanism, selected in accordance with the characteristics of the gear to be cut whereby a relative ratio is maintained between all of said mechanisms, and operative means capable of setting either of said translating mechanisms in motion, thereby evolving either a spur or a bevel gear.

2. In a machine of the character described the combination of a tool carrying head, an oscillatable member at one end of said head, a pair of cutting tools pivoted centrally on the said oscillatable member and operating on an intermittently indexed bevel gear blank in the machine, means to vertically adjust the tool carrying head to locate the pivotal center of the cutting tools in operative position relatively to the apex of the gear blank, means to longitudinally adjust the said carrying head to locate the said tool in operative position relatively to the diameter and depth of the teeth of the gear blank, means to adjust the gear blank to locate the bottom of the teeth of the gear blank in line with the cutting tools, and means to rotate the oscillatable member in consecutive angular positions to enable the cutting tools to assume positions constituting the loci of the teeth of a crown gear when cutting bevel gears.

3. In a machine of the character described the combination of a tool carrying head, a pair of guides on the head, tool slides in the guides, an adjustable tool carrying member for each of the tool slides, a pair of rack-tooth-shaped cutting tools one in each adjustable member, means to vary the distance between the said adjustable members to control the thickness of the teeth of an intermittently indexed gear blank mounted in the machine, a pair of uprights engaging the opposite sides of the said tool carrying head to guide the latter vertically, means to raise and lower the said head between the said uprights to locate the cutting tools suitable to the width of the face of the gear blank, a plate for the lower ends of the uprights slidably mounted on a supporting plate, means to locate the cutting tools in consecutive positions constituting the loci of the teeth of a rack or crown gear, a pair of V guides in the machine engaging the said supporting plate, and means to translate the said supporting plate thereon to properly locate the cutting tools suitably for the diameter and the correct depth of the teeth of the gear blank.

4. In a machine of the character described the combination of a tool carrying head, an oscillatable member at one end thereof, a pair of lower guides extending radially from the axial center of the said oscillatable member and adjustably attached to one side thereof, an upper guide secured to the other side of the said oscillatable member, a sliding block for each of the said lower guides, a tool slide operated in the path of the sliding block in each of the said lower guides, a swinging arm pivoted to each of the said tool slides, a pair of tool carrying members adjustably mounted on the said arms, links connecting the said sliding blocks with the said swinging arms to swing the said cutting tools attached to the latter in and out of cutting engagement with an intermittently indexed gear blank mounted in the machine, a head slidably mounted in the said upper guide, links adjustably connecting the said sliding head with the said sliding blocks to impart motion to the latter, a shaft journaled in a bearing formed with one end of the said tool carrying head, means connected up with one end of the said shaft to transmit a rotatable movement thereto, a crank disk for the other end of the said shaft, a crank pin in the said crank disk, a rod connecting the said crank pin with the said sliding head, and means to adjust the radius arm of the said crank pin to control the movement of the said sliding head and the therewith connected elements suitable to the width of face of the said gear blank.

5. In a machine of the character described the combination of a tool carrying head with a pair of cutting tools on the head, a shaft journaled at one end of the said head and connected up with the said pair of tools, means to transmit rotation to the said tool actuating shaft to operate the said pair of tools, a pinion having its axis synchronously revolving with the said tool actuating shaft, a pair of oppositely rotatable gears mounted in axial alinement with the said tool actuating shaft, feed mechanism connected up in the machine, means to transmit predetermined rotation from said feed mechanism in the machine to one of the gears of the said pair of oppositely rotatable gears to control through the said synchronously revolving pinion the other gear of the said pair of gears, a shaft journaled at the other end of the said head, a second pinion having its axis revoluble with the said latter shaft, means to impart to the axis of the said pinion a periodical movement of motion and rest, a second pair of oppositely rotatable gears mounted in axial alinement with the said latter shaft, a gear blank indexing shaft connected up in the machine, and means to transmit predetermined rotation to one of the gears of the second pair of oppositely rotatable gears to control through the said second periodically revoluble pinion the other gear of the said second pair of gears to periodically rotate said gear blank indexing shaft at a predetermined rate of speed depending upon the number of teeth cut on a gear blank mounted on the machine.

[Claims 6 to 60 not printed in the Gazette.]

REISSUES.

3,927. CAR-DOOR HANGER. JOSEPH F. COMEE, Chicago, Ill., assignor to Camel Company, Chicago, Ill., a Corporation of Maine. Filed May 17, 1915. Serial No. 28,791. Original No. 1,126,403, dated Jan. 26, 1915, Serial No. 838,797. (Cl. 16—7.)



1. In mechanism of the character described, the combination with a sliding door and with a track supported beneath said door, of a Z-bar attached to the lower edge of the car door, both said Z-bar and said car door having recesses formed therein, a plurality of casings arranged within said recesses of the car door and Z-bar, and a plurality of rollers within said casings and adapted to travel upon said track.

2. In mechanism of the character described, the combination with a sliding door and with a track supported beneath said door, of a Z-bar attached to the lower edge of the car door, said Z-bar and said car door having recesses formed therein, a plurality of casings arranged within said recesses of the car door and Z-bar, said casings being provided at their front with flanges, bolts passing through said flanges and through the car door and Z-bar, and a plurality of rollers within said casings and adapted to travel upon said track.

3. In mechanism of the character described, the combination with a sliding door and with a track bar supported beneath said door, of a Z-shaped bar attached to the lower edge of the car door, the inner vertical member of said Z-bar depending inside said track, said car door having recesses formed therein at its lower edge, a plurality of casings arranged within said recesses of the car door, and a plurality of rollers within said casings and adapted to travel upon said track.

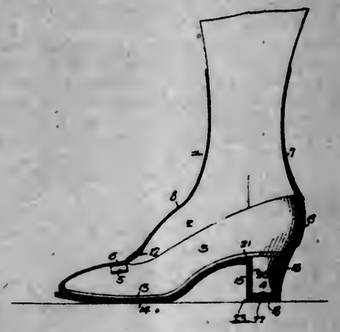
4. The combination with a car body having a door opening and a sliding door for said opening, of a track bar located beneath and in proximity to the bottom edge of said door and secured to and spaced from the side wall of the car, a Z-shaped member having a horizontal portion at the lower edge of the door, an inner vertical flange depending from said horizontal portion into the space behind said track bar and an outer vertical flange overlapping and bolted to the outer face of the door, and a plurality of rollers arranged in recesses in the lower edge of the door and extending downwardly below the horizontal portion of said Z-shaped member into engagement with said track bar.

5. The combination with a car body having a door opening, a floor portion projecting through said door opening beyond the side of the car and a sliding door the lower edge of which overlaps said projecting floor portion, of a track bar located beneath said door and secured to and spaced from the side of the car, a retaining member secured to the lower edge of the door and having a horizontal portion extending inwardly therefrom beneath said projecting floor portion and having an inner vertical flange depending into the space behind said track bar, said door having recesses in its lower edge, and casings provided with rollers mounted in said recesses, said rollers projecting downwardly below the horizontal portion of said retaining member into engagement with said track bar.

6. The combination with a car body having a door opening and a sliding door for said opening, of a track bar located beneath said door and secured to and spaced from the side of the car, a Z-shaped retaining member secured to the lower edge of the door and having an inner vertical flange depending behind said track bar, a plurality of casings having flanges overlapping and bolted to the outer face of the door, the chambered portions of said casings being arranged within recesses in the lower edge of the door above the horizontal portion of said Z-shaped retaining member, and rollers mounted in said chambered portions and engaging said track bar.

7. The combination with a car body having a door opening, a floor portion projecting through said door opening beyond the side of the car and a sliding door the lower edge of which overlaps said projecting floor portion, of a track bar beneath said door secured to and spaced from the side of the car, a Z-shaped retaining member secured to the lower edge of the door and having a horizontal portion extending inwardly beneath said projecting floor portion and provided with an inner flange depending into the space behind said track bar, casings having flanged portions overlapping and bolted to the outer face of the door and chambered portions arranged in recesses in the lower edge of the door above the horizontal portion of said retaining member, and rollers mounted in said chambered portions and extending downwardly below the horizontal portion of said retaining member into engagement with said track bar.

13,928. FLEXIBLE DRESS-OVERSHOE. CLARA L. K. FERGUSON, Philadelphia, Pa. Filed Jan. 25, 1915. Serial No. 4,396. Original No. 1,066,884, dated May 5, 1914, Serial No. 802,271. (Cl. 36—5.)



1. The combination in a dress overshoe, of a sole; an insole; an elastic vamp and counter; an upper; an elastic heel comprising a body of yielding material having a turned in portion; a leather strip forming a portion of the front of the heel and extending between the sole and the insole and also extending over the turned in portion of the flexible body of the heel; and an outside heel piece, the several sections being secured together to form an extended flexible heel.

2. A dress overshoe having a rubber sole extending to the heel; an insole also extending to the heel; a flexible piece forming the body of the heel and having an inturned edge; a leather piece forming a part of the front of the heel and having a lip extending between the rubber sole and the insole and having an extension forming the inner base of the heel; a rubber base piece forming the bottom of the heel, the inner base and rubber base being secured together with the inturned edge of the

body portion between them; a flexible vamp and counter; and an upper secured to the counter and having a yielding section at the front.

3. The combination in a dress overshoe, of a heavy sole of rubber; an insole; a collapsible heel; a yielding vamp and counter formed of fabric with rubber inclosed therein; an upper having a flap; means for securing the flap to the body of the upper, said flap extending directly above the bow or buckle of a slipper located within the shoe; and an uninterrupted lining of elastic fabric extending from the bottom of the heel to the top of the upper.

4. A flexible dress overshoe consisting of a rubber outer sole; an insole; an upper; a section forming the vamp and counter made of fabric with strands of rubber woven therein; a flexible heel having a body portion formed of a single piece of material united at the front and having an inturned lower flange; a leather section forming the stiffening for the front of the heel having a beveled section extending between the soles; a base section extending over the inturned flange of the body portion of the heel; a rubber heel piece secured to the outside of the heel; and a cover strip extending over the front of the heel and having a portion projecting between the rubber heel piece and the inturned flange of the body portion of the heel.

5. The combination in a dress overshoe, of a sole; a heel; a yielding upper and a yielding fabric section extending from the upper to the sole and extending around the shoe and including the vamp and the counter so that the shoe can be worn over a slipper, the yielding portions accommodating themselves to and snugly fitting the slipper, the heel receiving the high heel of the slipper.

6. The combination in a dress overshoe, of a sole; a heel; an upper having a flap; means for fastening the flap to the body of the upper, said flap having an elastic section extending the full length of the upper; and a yielding fabric section having rubber inclosed therein and extending entirely around the shoe between the upper and the sole and heel and forming the vamp and counter of the shoe so that, when the shoe is worn over a slipper, it will snugly fit and will accommodate itself thereto, having all the appearance of an ordinary dress shoe.

7. The combination in a dress overshoe, of a heavy sole of rubber; an insole; a heel; a yielding vamp and counter formed of fabric with rubber inclosed therein; an upper having a flap; means for securing the flap to the body of the upper, said flap extending directly above the bow or buckle of a slipper located within the shoe; and an uninterrupted lining of elastic fabric extending from the bottom of the heel to the top of the upper.

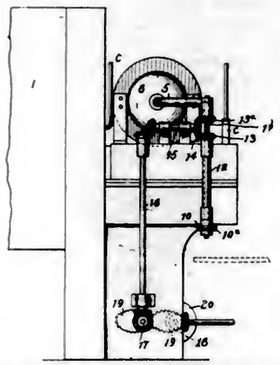
8. The combination in a dress overshoe, of a flexible sole; an upper and a combined vamp and counter made of an elastic fabric consisting of a series of strands of rubber covered and woven with a series of threads, the strands of rubber extending transversely at the vamp and vertically at the heel so as to allow the body portion of the shoe to accommodate itself to the slipper and foot of the wearer; and a hollow heel arranged to receive the heel of a dress slipper.

13,929. MECHANISM FOR FEEDING GLASS. HALBERT K. HITCHCOCK, Tarentum, Pa., assignor of one-half to Hitchcock Experiment Company, a Corporation of New Jersey. Filed Oct. 1, 1913. Serial No. 792,876. Original No. 805,067, dated Nov. 21, 1905, Serial No. 212,353. (Cl. 49—55.)

1. A glass-feeding mechanism having in combination, a chamber or receptacle having an outlet for the gravity flow of the glass, and means for reducing the pressure below atmospheric pressure on some portion of the glass prior to its escape from the outlet, thereby varying the gravity flow or feed, substantially as set forth.

2. A glass-feeding mechanism having in combination, a chamber or receptacle having an outlet, means for alternately decreasing and increasing the pressure on the glass at some point in its flow to the outlet, and mechanism operatively connected to the pressure controlling means for interrupting the continuity of the stream of glass exuding from the outlet, substantially as set forth.

3. A glass-feeding mechanism having in combination, a chamber or receptacle having an outlet for the gravity flow of glass, means for severing the glass after its passage from the outlet and means for reversing the movement of the glass above the plane of severance, substantially as set forth.



4. A glass-feeding mechanism having in combination, a glass-containing or supply chamber having an outlet for the gravity flow of glass, means for severing the glass below the outlet and means for causing the glass above the plane of severance to flow back through the orifice, substantially as set forth.

5. A glass-feeding mechanism having in combination, a furnace for producing molten glass, a displacement chamber, a passageway offering equal resistance to the flow of glass in either direction directly connecting said furnace and said displacement chamber, a discharge orifice in the lower part of said displacement chamber, and means for varying the fluid pressure in said displacement chamber.

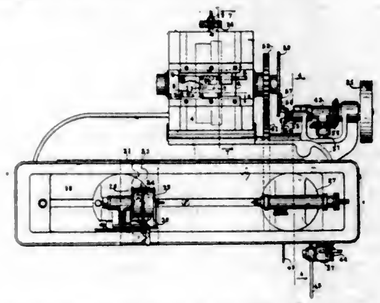
6. A glass-feeding mechanism having in combination, a receptacle for molten glass, a displacement chamber, an open passageway connecting said receptacle and said displacement chamber, a discharge orifice below the top of said displacement chamber, and means for creating a vacuum in said displacement chamber above the discharge orifice.

7. A glass-feeding mechanism having in combination, a furnace for producing molten glass, a displacement chamber connected thereto by a passageway capable of allowing the glass to flow therethrough in either direction, a discharge orifice leading from the displacement chamber below its top, and a means of varying the volume of glass in the displacement chamber above the discharge orifice without cutting off the connection between the furnace and displacement chamber.

8. A glass-feeding mechanism having in combination, a furnace for producing molten glass, a displacement chamber connected thereto by a passageway capable of allowing the glass to flow therethrough in either direction, a discharge orifice leading from the displacement chamber below the level of the glass in the furnace, and a means of varying the fluid pressure above the level of the glass in the displacement chamber.

9. A glass-feeding mechanism having in combination, a furnace for producing molten glass having a discharge passageway leading therefrom capable of allowing the glass to flow in either direction therethrough at all times, a displacement chamber located in the normal line of flow of the glass through said passage, and a means of alternately expelling the glass from the passage beyond the displacement chamber and reversing its movement thereby varying the volume of glass in the displacement chamber.

13,930. GRINDING-MACHINE. FRIEDERICH MÜLLER, Hartford, Conn., assignor to Pratt & Whitney Company, Hartford, Conn., a Corporation of New Jersey. Filed June 17, 1913. Serial No. 774,268. Original No. 1,055,286, dated Mar. 4, 1913, Serial No. 627,078. (Cl. 51—4.)



1. In a grinding machine, a grinding wheel, and means for rotating it; supports for the work, and means for rotating it; in combination with means for bringing together the wheel and the work to take a roughing cut; and means for maintaning the two in fixed relative position in at least one plane for a determined period to take a dimensioning cut, thereby compensating for spring in the machine or the work.

2. Apparatus of the character described, comprising, in combination, a rotatable grinding element, means for supporting and rotating the work, automatic means for causing a relative feeding movement between said element and the work while said element and the work are in contact, automatic means for holding said element at a fixed distance with relation to the axis of rotation of the work for a predetermined period upon the completion of the feeding movement, and automatic means for causing a vibrating movement between said element and the work.

3. Apparatus of the character described, comprising, in combination, a rotatable grinding element, means for supporting and rotating the work, automatic means for causing a relative feeding movement between said element and the work, automatic means for holding said element at a fixed distance with relation to the axis of rotation of the work for a predetermined period upon the completion of the feeding movement, and automatic means for separating said element and the work at a definite period after the feeding movement has ceased.

4. Apparatus of the character described, comprising, in combination, a rotatable grinding element, means for supporting and rotating the work, automatic means for causing a relative feeding movement between said element and the work, automatic means for holding said element at a fixed distance with relation to the axis of rotation of the work for a predetermined period upon the completion of the feeding movement, automatic means for causing a vibrating movement between said element and the work, and automatic means for separating said element and the work at a definite period after the feeding movement has ceased.

5. Apparatus of the character described, comprising, in combination, a rotatable grinding element, means for supporting the work, automatic means for causing a relative positioning movement between said element and the work, automatic means for causing a relative feeding movement between said element and the work, automatic means for limiting such feeding movement, automatic means for causing a vibrating movement between said element and the work, and automatic means for separating said element and the work, said separating means being constructed and arranged to operate at a definite period after the feeding movement has been limited.

6. Apparatus of the character described, comprising, in combination, a rotatable grinding element, means for supporting the work, automatic means for causing a positive and predetermined relative approaching movement between said element and the work, automatic means for causing a relative vibrating movement between said element and the work, and automatic means for separating said element and the work.

7. Apparatus of the character described, comprising, in combination, a rotatable grinding element means for supporting the work, automobile means for causing a relative positioning movement between said element and the work, automatic means for causing a relative feeding movement between said element and the work, automatic means for causing a relative vibrating movement between said element and the work, and automatic means for separating said element and the work, at a definite period after the feeding movement has ceased.

8. Apparatus of the character described, comprising, in combination, a rotatable grinding element, means for supporting the work, automatic means for causing a relative approaching movement between said element and the work, means for positively limiting the approaching movement, automatic means for causing a relative advancing movement between said element and the work, automatic means for causing a relative vibrating movement between said element and the work, and automatic means for separating said element and the work, said separating means being constructed and arranged to operate at a definite period after the approaching movement has been limited.

9. Apparatus of the character described, comprising, in combination, a rotatable grinding element, means for supporting and rotating the work, automatic means for causing a positive and predetermined relative approaching movement between said element and the work, automatic means for causing a vibrating movement between said element and the work, and automatic means for separating said element and the work.

10. Apparatus of the character described, comprising, in combination, a rotatable grinding element, means for supporting and rotating the work, automatic means for causing a relative approaching movement between said element and the work, automatic means for causing a vibrating movement between said element and the work, and automatic means for separating said element and the work, said separating means being constructed and arranged to operate at a definite period after said approaching movement has ceased.

11. Apparatus of the character described, comprising, in combination, a rotatable grinding element, means for supporting and rotating the work, automatic means for causing a relative approaching movement between said element and the work, means for limiting the approaching movement, automatic means for causing a vibrating movement between said element and the work, and automatic means for separating said element and the work.

12. Apparatus of the character described, comprising, in combination, a rotatable grinding element, means for supporting and rotating the work, automatic means for causing a relative approaching movement between said element and the work, means for positively limiting the approaching movement, automatic means for causing a vibrating movement between said element and the work, and automatic means for separating said element and the work, said separating means being constructed and arranged to operate at a definite period after the approaching movement has been limited.

13. Apparatus of the character described, comprising, in combination, a support for a rotatable grinding element, a work support, one of said supports being mounted upon a sliding carriage, a movable cam member constructed and arranged to control the movement of the said carriage, said cam member being pivotally mounted, and means for adjustably positioning the said pivoted cam member.

14. Apparatus of the character described, comprising, in combination, a support for a rotatable grinding element, a work support, one of said supports being mounted upon a sliding carriage, a movable cam member constructed and arranged to control the movement of the said carriage,

said cam member being pivotally mounted, and a screw-threaded member for adjustably positioning the said pivoted cam member.

15. Apparatus of the character described, comprising, in combination, a support for a rotatable grinding element, a work support, one of said supports being mounted upon a sliding carriage, a second carriage sliding transversely to the path of the first carriage, connections between the said carriages whereby the movement of the second carriage affects the movement of the first, and means for adjusting the connections between the said carriages so as to vary the movement of the first carriage for a given movement of the second.

16. Apparatus of the character described, comprising, in combination, a support for a rotatable grinding element, a work support, one of said supports being mounted upon a sliding carriage, a second carriage sliding transversely to the path of the first carriage, a cam member upon one of the said carriages constructed and arranged to engage the other carriage, and screw-threaded means for adjusting the position of said cam member so as to vary the movement of one carriage relatively to the other.

17. Apparatus of the character described, comprising, in combination, a support for a rotatable grinding element, a work support, one of said supports being mounted upon a sliding carriage, a second carriage sliding transversely to the path of the first carriage, cam members between the two carriages for controlling the movement in both directions of the first carriage by the movement of the second carriage, and a rotary cam member for giving the second a definite length of stroke.

18. Apparatus of the character described, comprising, in combination, a rotatable grinding element, means for supporting the work, means for causing a relative approaching movement between said element and the work, means for separating said element and the work, driving means for said approaching means and separating means, and automatic means for throwing off the said driving means upon the completion of said separating movement.

19. Apparatus of the character described, comprising, in combination, a support for a rotatable grinding element, a work support, automatic means for causing said supports to approach each other with a relatively rapid positioning movement and then with a relatively slow feeding movement, and means for separating said supports.

20. Apparatus of the character described, comprising, in combination, a support for a rotatable grinding element, a work support, automatic means for causing said supports to approach each other with a relatively rapid positioning movement and then with a relatively slow feeding movement, and automatic means for separating said supports.

21. Apparatus of the character described, comprising, in combination, a support for a rotatable grinding element, a work support, automatic means for causing said supports to approach each other with a relatively rapid positioning movement and then with a relatively slow feeding movement, automatic means for holding said element at a fixed distance with relation to the work to complete the abrasion, and means for separating said supports.

22. Apparatus of the character described, comprising, in combination, a support for a rotatable grinding element, a work support, automatic means for causing said supports to approach each other with a relatively rapid positioning movement and then with a relatively slow feeding movement, means for positively limiting said approaching movement, means for causing a vibrating movement between said element and the work, and automatic means for separating said supports a definite period after said approaching movement has been limited.

23. Apparatus of the character described, comprising, in combination, a support for a rotatable grinding element, a work support, automatic means for causing said supports to approach each other with a relatively rapid positioning movement and then with a relatively slow feeding movement, means for varying the amount of said relatively slow movement, and adjustable means for positively limiting said approaching movement.

24. Apparatus of the character described, comprising, in combination, a support for a rotatable grinding element, a work support, automatic means for causing said supports to approach each other with a relatively rapid movement and then with a relatively slow movement, means for varying the amount of said relatively slow movement, means for adjustably and positively limiting said approaching movement, and means for separating said supports a definite period after said approaching movement has been limited.

25. Apparatus of the character described, comprising, in combination, a rotatable grinding element, means for rotating the grinding element, a sliding carriage upon which the grinding element is mounted, means for adjusting the position of the grinding element relatively to its carriage, a second carriage sliding transversely to the path of the said first carriage, connections between the said carriages such that the movement of the second carriage causes first a rapid and then a slow movement of the first carriage, means for driving said second carriage, means for supporting the work, means for rotating the work, and means for giving the work a vibrating movement relatively to said element.

26. Apparatus of the character described comprising, in combination, a wheel and means for rotating it, a sliding carriage supporting the wheel, means for adjusting the position of the wheel with respect to its carriage, a second carriage sliding transversely to the first one, connections between the carriages such that the second carriage moves the first, adjustments for said connections for varying the relative movements of the carriages, adjustable means for positively limiting the movement of the first carriage, a rotating cam for driving the second carriage, means for supporting the work, means for rotating the work, and means for giving the work a vibrating movement relative to the wheel.

27. Apparatus of the character described, comprising, in combination, a rotatable grinding element, a work support, automatic means for causing a positive and predetermined relative approaching movement between said element and the work, automatic means for causing a relative advancing movement between said element and the work, automatic means for causing a vibrating movement between said element and the work, and automatic means for causing a cessation of the grinding action on the work.

28. Apparatus of the character described, comprising, in combination, a support for a rotatable grinding element, a work support, means for effecting a predetermined relative positioning movement between said supports, and means for effecting a predetermined relative feeding movement between said supports.

29. Apparatus of the character described, comprising, in combination, a support for a rotatable grinding element, a work support, means for effecting a predetermined relative feeding movement between said supports, and means for separating said supports at a predetermined period after the feeding movement has ceased.

30. Apparatus of the character described, comprising, in combination, a support for a rotatable grinding element, a work support, means for effecting a predetermined relative positioning movement between said supports, means for effecting a predetermined relative feeding movement between said supports, and means for separating said supports at a predetermined period after the feeding movement has ceased.

31. Apparatus of the character described, comprising, in combination, a rotatable grinding element, means for supporting the work, automatic means for causing a relative positioning movement between said element and the work, automatic means for causing a positive and predetermined relative feeding movement between said element and the work, and automatic means for separating said element and the work.

32. Apparatus of the character described, comprising, in combination, a rotatable grinding element, a work support, and automatic means for bringing said element toward and into the work to grind the work to a predetermined dimension, for holding said element then at a fixed distance with relation to the work to complete the abrasion and for separating said element and the work when the abrasion has been completed.

33. Apparatus of the character described, comprising, in combination, a rotatable grinding element, a work support, and automatic means for bringing said element toward and into the work to grind the work to a predetermined dimension, for holding said element then at a fixed distance with relation to the work to complete the abrasion, for separating said element and the work when the abrasion has been completed, and for throwing off the driving means when said element and the work have been separated.

34. Apparatus of the character described, comprising, in combination, a wheel, means for supporting and rotating the work, means for effecting a positive and predetermined relative approaching movement between said wheel and the work, and means for effecting a relative vibrating movement between them, said vibrating movement being of such small amplitude that the grinding element remains continuously in contact with the work from the beginning to the end of the grinding operation.

35. Apparatus of the character described, comprising, in combination, a rotatable grinding element, means for supporting and rotating the work, means for effecting a relative approaching movement between said element and the work, and means for effecting a relative vibrating movement between said element and the work, said vibrating movement being of an amplitude predetermined independently of the dimensions of the work to be ground.

36. Apparatus of the character described, comprising, in combination, a rotatable grinding element, means for supporting and rotating the work, means for effecting a positive and predetermined relative approaching movement between said element and the work, and means for effecting a relative vibrating movement between said element and the work, said vibrating movement being of an amplitude predetermined independently of the dimensions of the work to be ground.

37. Apparatus of the character described, comprising, in combination, a rotatable grinding element, means for supporting and rotating the work, automatic means for effecting a relative approaching movement between said element and the work, means for positively limiting the approaching movement, and automatic means for effecting a vibrating movement between said element and the work, said vibrating movement being of an amplitude predetermined independently of the dimensions of the work to be ground.

38. Apparatus of the character described, comprising, in combination, a rotatable grinding element, means for supporting and rotating the work, automatic means for effecting a relative approaching movement between said element and the work, means for effecting a relative vibrating movement between said element and the work, said vibrating movement being of an amplitude predetermined independently of the dimensions of the work, and automatic means for separating said element and the work at a definite period after the approaching movement has ceased.

39. Apparatus of the character described, comprising, in combination, a rotatable grinding element, means for supporting the work, automatic means for causing a relative positioning movement between said element and the work, automatic means for causing a relative feeding movement between said element and the work while said element and the work are in contact, automatic means for causing a vibrating movement between said element and the work, and automatic means for separating said element and the work.

40. Apparatus of the character described, comprising, in combination, a rotatable grinding element, means for supporting the work, automatic means for causing a relative positioning movement between said element and the work, and automatic means for causing a positive and predetermined relative feeding movement between said element and the work while said element and the work are in contact.

41. Apparatus of the character described, comprising, in combination, a rotatable grinding element, means for supporting the work, automatic means for causing a relative positioning movement between said element and the work, automatic means for causing a positive and predetermined relative feeding movement between said element and the work while said element and the work are in contact, and automatic means for separating said element and the work.

42. In a grinding machine, a grinding wheel, and means for rotating it; supports for the work, and means for rotating at least one of them so as to rotate the work; in combination with means for bringing together the wheel and the work to take a roughing cut; means for maintaining the two in fixed relative position for a determinate period to take a dimensioning cut, thereby compensating for spring in the machine or the work; and means for vibrating the work and the wheel relative to one another while the grinding is taking place.

43. Apparatus of the character described, comprising, in combination, a rotatable grinding element, a work support, automatic means for effecting a relative approaching movement between said element and the work, means for preventing the relative approaching movement beyond a predetermined relative position, automatic means for holding said element and said work at said predetermined relative position for a predetermined period upon the completion of the approaching movement, and automatic means for causing a vibrating movement between said element and the work.

44. An apparatus of the character described, comprising, in combination, a rotatable grinding element, means for supporting and rotating the work, automatic means for causing a continuous relative feeding movement between said element and the work, said means comprising a slidable carriage for one of said elements, a second carriage movable transversely to the first carriage and controlling the movement of the first carriage, automatic means for holding said element and said work at a fixed distance with relation to each other for a predetermined period on the completion of the feeding movement, and automatic means for causing a vibrating movement between said element and the work.

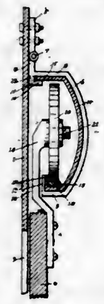
45. In a grinding machine, a grinding wheel, means for rotating it; supports for the work, and means for rotating the latter; in combination with means for bringing together the wheel and the work to take a roughing cut; means for then maintaining the two in fixed relative position for a determinate period to take a dimensioning cut, thereby compensating for spring; means for vibrating the work and wheel relative to one another during the grinding; and means for separating the wheel and the work when the dimensioning cut is complete.

13,931. DOOR-HANGER. LUTHER TRABUE, Girard, Ill., assignor to The Ney Manufacturing Company, Canton, Ohio, a Corporation of Ohio. Filed May 7, 1914. Serial No. 837,080. Original No. 1,064,875, dated June 17, 1913, Serial No. 758,390. (Cl. 16—7.)

1. In a door hanger, the combination, with a hanger bracket provided at its upper part with means for securing it against a building and having also a horizontal channel, said hanger bracket having also a vertical tongue at its lower part; of a cover plate supported by the said bracket and having a horizontal top portion which engages with the said channel, said cover plate having also a horizontal track portion at its lower part and a flange arranged in line with the said tongue; and an arm for supporting the door, said arm having a wheel which runs in the said track portion.

2. In a door hanger, the combination, with a stationary hinge plate and means for securing said plate against the side of a building, and a hanger bracket pivoted to the hinge plate and provided at its upper part with a horizontal channel and an abutment portion adapted to bear against the side of said building to space the track away from the same, said hanger bracket having also a vertical tongue at its lower part; of a cover plate supported by

the said bracket and having a horizontal top portion which engages with the said channel, said cover plate having also a horizontal track portion at its lower part and a flange arranged in line with the said tongue, and an arm for supporting the door, said arm having a wheel which runs in the said track portion.



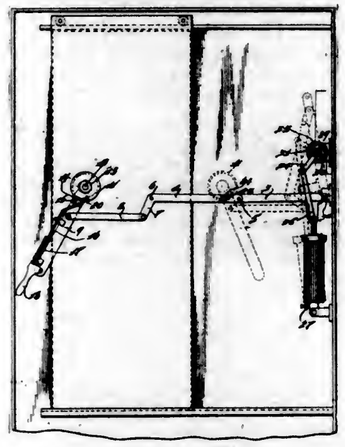
3. In a door hanger, in combination, a cover plate formed of a plurality of end-abutting sheet metal sections, each section formed with a top portion adapted to bear against the side of a building, and a lower, horizontal, track portion provided at its inner margin with a vertically disposed flange, said top portion and track portion being formed integrally with an intermediate supporting portion curved outwardly, downwardly and thence inwardly from said top portion to said track portion; a bracket provided at its upper part with means for securing it against the side of a building, a bottom portion extending under and supporting the track portion of the cover plate and a flange at the inner end of said bottom portion arranged parallel with the flange portion of said cover plate, and an integral supporting portion extending over the supporting portion of the cover plate and conforming to the shape thereof and connecting said top portion and bottom portion of said bracket, said bracket adapted to extend over and support and aline the abutting ends of said cover plate sections; and an arm for supporting the door, said arm having a wheel which runs in the said track portion.

13,932. DOOR-CONTROLLING DEVICE. EDWARD WYLDE, New York, N. Y., and CHARLES SCHENCK, Chicago, Ill., assignors to Elevator Supply & Repair Company, Chicago, Ill., a Corporation of Illinois. Filed Apr. 21, 1913. Serial No. 762,752. Original No. 1,044,115, dated Nov. 12, 1912, Serial No. 697,921. (Cl. 39—94.)

1. In a door-controlling mechanism, a movable door, a locking device preventing the opening movement of said door when the same has been partially closed and comprising two parts bodily moved by the door when it is moved and also freely movable past each other during the closing movement but adapted to engage immediately on a reverse movement of the closing door from any one of a plurality of positions, and automatic means for closing said door and moving one of said two parts independently of said door.

2. In a door-controlling device, means for opening a door, means for closing a door, said closing means being arranged to permit the free movement of the door in either direction when opened beyond a predetermined point and adapted to prevent a movement of said door in a direction to reopen the same when said door is reaching its closed position.

3. In a door-controlling device, a door, mechanism for opening and closing said door and comprising a toggle one member of which is attached to the door and the other to a relatively stationary part, and a movable member mounted on the door and adapted to break the toggle and open the door, and means comprising two parts freely moved past each other but adapted to engage on a reverse movement of the door from any one of a plurality of points during the latter part of the closing movement of the door for positively checking an opening movement of the door when the door passes a predetermined point in its closing movement, said mechanism being arranged to permit the free movement of said door in each direction when open beyond said predetermined point.



4. In combination a door, mechanism for closing the door comprising a toggle, one member of which is attached to the door and the other to a relatively stationary part, and means comprising two parts freely moved past each other but adapted to engage and stop the door on a reverse movement of the door from any one of a plurality of points during the latter part of the closing movement of the door, a manually-operated member movably mounted on the door and arranged to break the toggle, and then by a pressure on said member in the door-opening direction to open the door and toggle.

5. In combination a door, a check device comprising two parts both mounted on the door and freely moved past each other by the closing movement of the door but adapted to engage and prevent an opening movement from any one of a plurality of points during the latter portion only of its closing travel.

6. In combination a door, a check device comprising two parts both mounted on the door and freely moved past each other by the closing movement of the door but adapted to engage and prevent an opening movement from any one of a plurality of points during the latter portion only of its closing travel, and a movable handle carried by the door and connected to one of said parts so as to unlock said parts at any time when they are engaged.

7. In combination, a sliding door, a toggle connected to a stationary part and also to the door, a toggle-lock comprising two engaging parts freely movable past each other during the closing movement but adapted to engage on a reverse movement of the door from any one of a plurality of points near its closed position, and a part carried by the door and adapted when moved in one direction to separate said engaging parts when in engageable position and then break said toggle to open the door.

8. In combination, a sliding door, a toggle connected to a stationary part and also to the door, a toggle-lock comprising two engaging parts freely movable past each other during the closing movement but adapted to engage on a reverse movement of the door from any one of a plurality of points near its closed position, one of said engaging parts comprising an extended surface and the other a pawl adapted to travel over the same and arrange to lock the door when in its completely-shut position, and a part carried by the door and adapted when moved in one direction to separate said engaging parts when in engageable position and then break said toggle to open the door.

9. In combination, a door, coöperating checking members carried by the door and movable by the movements of the door into and out of coöperative relation, said checking members being arranged to coöperate at any one of a plurality of points in the latter portion of the closing movement of the door to prevent opening movement of said door.

10. In combination, a door, relatively movable cooperating checking members carried by the door and movable by the closing and opening movements of said door into and out of coöperative relation, said members being arranged to coöperate at any point in the latter part of the closing movement of said door to prevent an opening movement of the door.

11. In combination, a door, relatively movable cooperating checking members carried by said door and arranged to be brought by the closing and opening movements of said door into and out of coöperative checking relation to each other, said members being constructed to coöperate during the latter portion only of the closing movement of the door to prevent opening movement of said door from any point in said portion of its closing movement.

DESIGNS.

47,447. DOLL. GEORGENE AVERILL, Los Angeles, Cal. Filed Feb. 18, 1915. Serial No. 9,189. Term of patent 7 years.



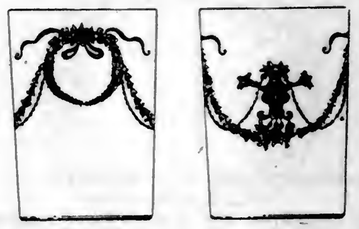
The ornamental design for a doll, as shown.

47,448. PRINTER'S MAKE-READY TABLE. FRANK M. BASHELIER, Jenkintown, Pa. Filed Sept. 8, 1910. Serial No. 581,101. Term of patent 14 years.



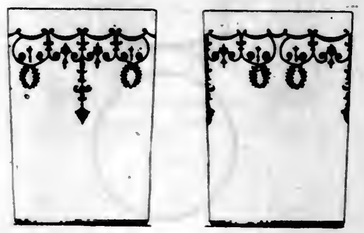
The ornamental design for a table as herein shown.

47,449. GLASS VESSEL OR SIMILAR ARTICLE. EDGAR MOTT BOTTOME, Moundsville, W. Va., assignor to Fostoria Glass Company, Moundsville, W. Va., a Corporation of West Virginia. Filed Jan. 4, 1915. Serial No. 523. Term of patent 14 years.



The ornamental design applied to a glass vessel or similar article, substantially as shown.

47,450. GLASS VESSEL OR SIMILAR ARTICLE. EDGAR MOTT BOTTOME, Moundsville, W. Va., assignor to Fostoria Glass Company, Moundsville, W. Va., a Corporation of West Virginia. Filed Jan. 4, 1915. Serial No. 524. Term of patent 3½ years.



The ornamental design applied to a glass vessel or similar article, substantially as shown.

47,451. GLASS VESSEL OR SIMILAR ARTICLE. EDGAR MOTT BOTTOME, Moundsville, W. Va., assignor to Fostoria Glass Company, Moundsville, W. Va., a Corporation of West Virginia. Filed Jan. 4, 1915. Serial No. 525. Term of patent 14 years.



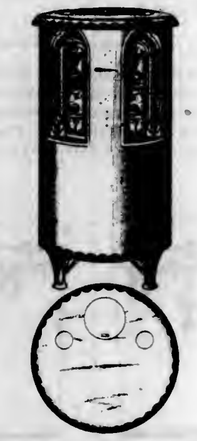
The ornamental design applied to a glass vessel or similar article, substantially as shown.

47,452. PIN. ENRIQUETA CHACON, New York, N. Y. Filed May 3, 1912. Serial No. 694,966. Term of patent 7 years.



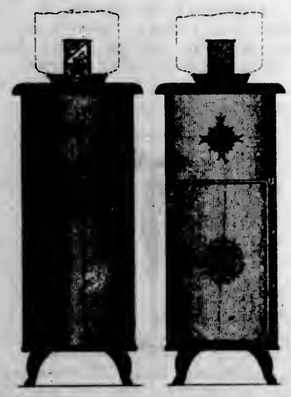
The ornamental design for a pin as shown.

47,453. HOUSING FOR A BEVERAGE-DISPENSING APPARATUS. CHARLES DOERING, Jr., and HENRY H. DOERING, Oak Park, Ill. Filed Feb. 23, 1915. Serial No. 10,149. Term of patent 7 years.



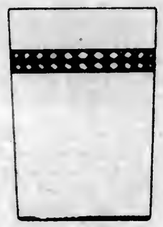
The ornamental design for a housing for a beverage dispensing apparatus as shown.

47,454. WATER OR LIQUID COOLER. HENRY DOERING, CHARLES DOERING, Jr., and MAX DOERING, Chicago, Ill. Filed Apr. 5, 1915. Serial No. 19,383. Term of patent 7 years.



The ornamental design for a water or liquid cooler as shown.

47,455. GLASS VESSEL OR SIMILAR ARTICLE. PHILLIP EBELING, Moundsville, W. Va., assignor to Fostoria Glass Company, Moundsville, W. Va., a Corporation of West Virginia. Filed Jan. 4, 1915. Serial No. 526. Term of patent 14 years.



The ornamental design applied to a glass vessel or similar article, substantially as shown.

47,456. DOILY. ROBERT GAIR, New York, N. Y., assignor to Robert Gair Company, Brooklyn, N. Y. Filed Apr. 15, 1915. Serial No. 21,610. Term of patent 7 years.



The ornamental design for a doily, as shown.

47,457. DOILY. ROBERT GAIR, New York, N. Y., assignor to Robert Gair Company, Brooklyn, N. Y. Filed Apr. 15, 1915. Serial No. 21,611. Term of patent 7 years.



The ornamental design for a doily, as shown.

47,458. DOILY. ROBERT GAIR, New York, N. Y., assignor to Robert Gair Company, Brooklyn, N. Y. Filed Apr. 15, 1915. Serial No. 21,612. Term of patent 7 years.



The ornamental design for a doily as shown.

47,459. DOILY. ROBERT GAIR, New York, N. Y., assignor to Robert Gair Company, Brooklyn, N. Y. Filed Apr. 15, 1915. Serial No. 21,613. Term of patent 7 years.



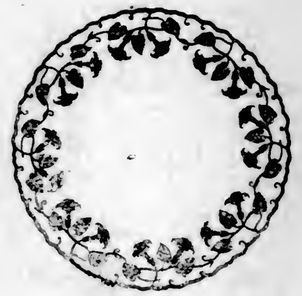
The ornamental design for a doily, as shown.

47,460. DOILY. ROBERT GAIR, New York, N. Y., assignor to Robert Gair Company, Brooklyn, N. Y. Filed Apr. 15, 1915. Serial No. 21,614. Term of patent 7 years.



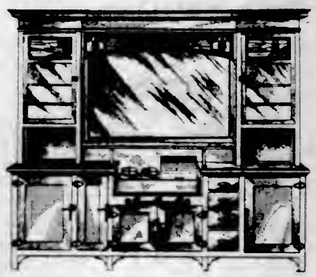
The ornamental design for a doily, as shown.

47,461. DOILY. ROBERT GAIR, New York, N. Y., assignor to Robert Gair Company, Brooklyn, N. Y. Filed Apr. 15, 1915. Serial No. 21,615. Term of patent 7 years.



The ornamental design for a doily, as shown.

47,462. LUNCHEONETTE-BUFFET. LEONARD G. GRAY and ARTHUR J. BLYTH, Decatur, Ill., assignors to Walrus Manufacturing Company, Decatur, Ill., a Corporation of Illinois. Filed Apr. 16, 1915. Serial No. 21,930. Term of patent 3½ years.



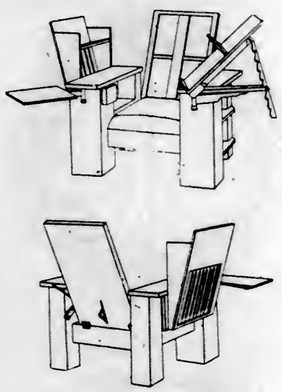
The ornamental design for a luncheonette buffet, as shown.

47,463. STOVE-SHELF. RUDOLPH HOFFMAN, Chicago Heights, Ill. Filed Mar. 22, 1915. Serial No. 16,294. Term of patent 14 years.



The ornamental design for a stove shelf, as shown.

47,464. COMBINATION STUDY-CHAIR. EDWIN O. KLEMM, Saginaw, Mich., and EDWIN W. SCHREIBER, Yuma, Ariz. Filed Mar. 21, 1914. Serial No. 826,419. Term of patent 14 years.



The ornamental design for a combination study chair as shown.

47,465. ELECTRIC PERCOLATOR. FRANK KUHN and FRANK E. SHAILOR, Detroit, Mich.; said Shailor assignor to said Kuhn. Filed Apr. 1, 1915. Serial No. 18,605. Term of patent 14 years.



The ornamental design for an electric percolator, substantially as shown.

47,466. BEEHIVE-BUTTON. ALEXANDER S. LEVY, Philadelphia, Pa. Filed Jan. 2, 1915. Serial No. 311. Term of patent 3½ years.



The ornamental design for a "bee-hive button," as shown.

47,467. TIRE-TREAD. WILLIAM D. MCNAULL, Toledo, Ohio. Filed Mar. 6, 1915. Serial No. 12,634. Term of patent 3½ years.



The ornamental design for a tire-tread as shown.

47,468. HAND-HOLE PLATE. EDWARD C. MEIER, Phoenixville, Pa. Filed Mar. 16, 1915. Serial No. 14,819. Term of patent 14 years.



The ornamental design for a hand-hole plate, as shown.

47,469. BED-TRIMMING. JOHN J. NASH, Waterbury, Conn., assignor to The American Pin Company, Waterbury, Conn., a Corporation of Connecticut. Filed Apr. 24, 1915. Serial No. 23,758. Term of patent 7 years.



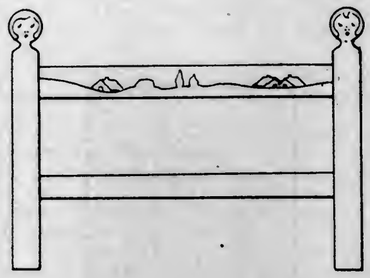
The ornamental design for bed trimming, substantially as shown.

47,470. SPOON, FORK, AND SIMILAR ARTICLE. GEORGE H. PINNEY, South Manchester, Conn., assignor to The Williams Brothers Manufacturing Company, Glastonbury, Conn., a Corporation of Connecticut. Filed Feb. 18, 1915. Serial No. 9,188. Term of patent 3½ years.



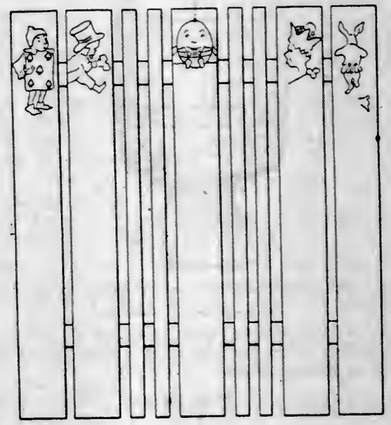
The ornamental design for a spoon, fork or similar article, as shown.

47,471. PANEL FOR CHILDREN'S FURNITURE, BEDSTEADS, FENCES, AND SIMILAR TOYS. GRACE MARY QUACKENBUSH, New York, N. Y. Filed Apr. 7, 1915. Serial No. 19,812. Term of patent 14 years.



The ornamental design for a panel for children's furniture, bedsteads, fences and similar toys, as shown.

47,472. GATE FOR CHILDREN'S FENCES. GRACE MARY QUACKENBUSH, New York, N. Y. Filed Apr. 7, 1915. Serial No. 19,814. Term of patent 14 years.



The ornamental design for a gate for children's fences, as shown.

47,473. PENCIL. CHARLES W. REITLER, Denver, Colo. Filed Mar. 9, 1915. Serial No. 13,215. Term of patent 14 years.



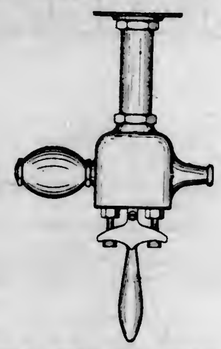
The ornamental design for a pencil, as shown.

47,474. WATER-COOLER. GEORGE D. SAILER, Jeannette, Pa., assignor to McKee Glass Company, Jeannette, Pa., a Corporation of Pennsylvania. Filed Apr. 17, 1915. Serial No. 22,183. Term of patent 14 years.



The ornamental design for water cooler, as shown.

47,475. FOUNTAIN-FAUCET. COLLETT L. SCOTT, Denver, Colo. Filed Oct. 20, 1914. Serial No. 867,662. Term of patent 7 years.



The ornamental design for a fountain faucet as shown.

47,476. BOWL FOR TOBACCO-PIPES. EMERICH THEEN, Boston, Mass. Filed Jan. 18, 1915. Serial No. 2,990. Term of patent 3½ years.



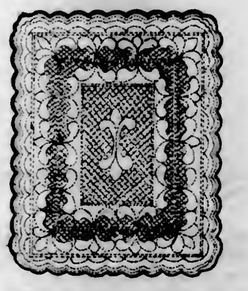
The ornamental design for the bowl of a tobacco pipe as shown.

47,477. BEDQUILT. IONA WILKINSON, Ligonier, Ind., assignor to Wilkinson Quilt Company, Ligonier, Ind., a Corporation of Indiana. Filed Apr. 10, 1915. Serial No. 20,579. Term of patent 7 years.



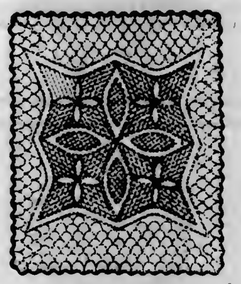
The ornamental design for a bed quilt as shown.

47,478. BEDQUILT. IONA WILKINSON, Ligonier, Ind., assignor to Wilkinson Quilt Company, Ligonier, Ind., a Corporation of Indiana. Filed Apr. 10, 1915. Serial No. 20,580. Term of patent 7 years.



The ornamental design for a bed quilt as shown.

47,479. BEDQUILT. IONA WILKINSON, Ligonier, Ind., assignor to Wilkinson Quilt Company, Ligonier, Ind., a Corporation of Indiana. Filed Apr. 10, 1915. Serial No. 20,581. Term of patent 7 years.



The ornamental design for a bed quilt as shown.

TRADE-MARK REGISTRATIONS GRANTED

JUNE 15, 1915.

104,691. PRESERVED FIGS. ADAM BROS. & SELLERS FIG CO., Alvin, Tex.
Filed October 27, 1914. Serial No. 82,199. PUBLISHED MARCH 16, 1915.

104,692. PRESERVED FIGS. ADAM BROS. & SELLERS FIG CO., Alvin, Tex.
Filed October 27, 1914. Serial No. 82,200. PUBLISHED MARCH 16, 1915.

104,693. CHILDREN'S CLOTHING-SUPPORTING WAISTS. AMAZON PRODUCTS CO., Muskegon, Mich.
Filed February 17, 1915. Serial No. 84,563. PUBLISHED APRIL 6, 1915.

104,694. CERTAIN NAMED ACCESSORIES AND SUPPLIES FOR MOTOR-CYCLES AND BICYCLES. ANGSTEN-KOCH COMPANY, Chicago, Ill.
Filed May 1, 1914. Serial No. 77,907. PUBLISHED APRIL 6, 1915.

104,695. INSECTICIDES AND FUNGICIDES. ANSBACHER INSECTICIDE CO., INC., New York, N. Y.
Filed February 1, 1915. Serial No. 84,282. PUBLISHED MARCH 30, 1915.

104,696. LAXATIVE MINERAL WATER. AQUAMARINE COMPANY, Oakland, Cal.
Filed January 12, 1915. Serial No. 83,791. PUBLISHED MARCH 30, 1915.

104,697. RUBBER ELASTIC BANDS. ARKAY RUBBER CO., New York, N. Y.
Filed January 14, 1914. Serial No. 75,162. PUBLISHED MARCH 30, 1915.

104,698. NECKTIES, NECKSCARFS, AND JABOTS. LOUIS AUERBACH, INC., New York, N. Y.
Filed December 30, 1914. Serial No. 83,574. PUBLISHED MARCH 30, 1915.

104,699. SOAP FOR TOILET, SHAVING, AND LAUNDRY PURPOSES, WASHING-POWDERS, AND WASHING COMPOUNDS. EUGENE M. ATTRIDGE, Binghamton, N. Y.
Filed January 7, 1915. Serial No. 83,706. PUBLISHED MARCH 30, 1915.

104,700. LIVER-PILLS. LIZZIE S. BARRON, Baltimore, Md.
Filed January 12, 1915. Serial No. 83,793. PUBLISHED MARCH 30, 1915.

104,701. CORN REMEDY. CARL F. W. BECKER, Dresden, Germany.
Filed December 16, 1913. Serial No. 74,628. PUBLISHED MAY 26, 1914.

104,702. ELECTRICAL APPARATUS FOR VEHICLE LIGHTING AND STARTING. BIJUR MOTOR LIGHTING COMPANY, Hoboken, N. J.
Filed February 23, 1915. Serial No. 84,679. PUBLISHED APRIL 6, 1915.

104,703. CANDY LAXATIVES. ERWIN BOLGAR, Cleveland, Ohio.
Filed February 16, 1914. Serial No. 75,923. PUBLISHED MARCH 2, 1915.

104,704. CERTAIN ARTICLES MADE OF CERTAIN NAMED MATERIALS, (NOT PRECIOUS METAL.) GEO. BORGFELDT & CO., New York, N. Y.
Filed June 2, 1914. Serial No. 78,730. PUBLISHED APRIL 6, 1915.

104,705. CANDY. BRANDLE & SMITH CO., Philadelphia, Pa.
Filed April 6, 1914. Serial No. 77,230. PUBLISHED AUGUST 11, 1914.

104,706. DIGESTANTS AND MEDICINAL PREPARATIONS ADAPTED FOR THE TREATMENT OF DYSPEPSIA, INDIGESTION, OR SIMILAR DISEASES. BRISTOL-MYERS COMPANY, New York, N. Y.
Filed February 24, 1915. Serial No. 84,731. PUBLISHED APRIL 6, 1915.

104,707. REMEDY FOR NERVES, BLADDER, AND KIDNEYS. BU KOLA TABLET CO., Portland, Oreg.
Filed February 9, 1915. Serial No. 84,397. PUBLISHED MARCH 23, 1915.

104,708. COTTON PIECE GOODS. THE CARL CO., Schenectady, N. Y.
Filed February 27, 1915. Serial No. 84,809. PUBLISHED APRIL 6, 1915.

104,709. SPECIAL GRADE OF STEEL. COLUMBIA TOOL STEEL COMPANY, Chicago Heights, Ill.
Filed March 17, 1915. Serial No. 85,205. PUBLISHED APRIL 6, 1915.

104,710. CERTAIN NAMED PAPER AND STATIONERY SUPPLIES. DENNISON MANUFACTURING COMPANY, Boston, Mass.
Filed October 27, 1914. Serial No. 82,205. PUBLISHED MARCH 23, 1915.

104,711. MOPS. P. DE ROO SONS, Cincinnati, Ohio.
Filed February 10, 1915. Serial No. 84,424. PUBLISHED APRIL 6, 1915.

104,712. TOILET-PAPER AND WRITING, PRINTING, MANIFOLD, TISSUE, AND COVER PAPER. C. H. DEXTER & SONS, INCORPORATED, Windsor Locks, Conn.
Filed January 27, 1915. Serial No. 84,129. PUBLISHED MARCH 23, 1915.

104,713. CERTAIN NAMED PHARMACEUTICAL PREPARATIONS. EISNER-MENDELSON CO., New York, N. Y.
Filed March 12, 1915. Serial No. 85,112. PUBLISHED APRIL 6, 1915.

104,714. CERTAIN NAMED ELECTRICAL APPARATUS AND SUPPLIES. THE ELECTRIC CONTROLLER AND MANUFACTURING COMPANY, Cleveland, Ohio.
Filed January 12, 1915. Serial No. 83,796. PUBLISHED APRIL 6, 1915.

104,715. CAKE. EMERY & COMPANY, INCORPORATED, Boston, Mass.
Filed November 23, 1914. Serial No. 82,783. PUBLISHED MARCH 30, 1915.

104,716. HAIR-COLORINGS AND HAIR-DYES. THE EMPIRE REGENERATOR COMPANY, New York, N. Y.
Filed March 5, 1915. Serial No. 84,957. PUBLISHED MARCH 30, 1915.

104,717. REMEDY FOR THE TREATMENT OF CERTAIN NAMED AFFECTIONS. STEPHEN FARGO, Cleveland, Ohio.
Filed January 13, 1915. Serial No. 83,812. PUBLISHED MARCH 23, 1915.

104,718. LINIMENT. STEPHEN FARGO, Cleveland, Ohio.
Filed March 4, 1915. Serial No. 84,925. PUBLISHED MARCH 30, 1915.

104,719. OINTMENT. JOSIE FAY, Detroit, Mich.
Filed February 15, 1915. Serial No. 84,528. PUBLISHED MARCH 30, 1915.

104,720. GLOVES. F. FITZ GIBBON & CO., New York, N. Y.
Filed March 3, 1915. Serial No. 84,900. PUBLISHED APRIL 6, 1915.

104,721. FOOT-POWDER. FULLY & LEWIS, Los Angeles, Cal.
Filed February 6, 1915. Serial No. 84,337. PUBLISHED MARCH 30, 1915.

104,722. COMBINATION OUTER AND UNDER GARMENTS. JOSEPH GOLDBERG, Philadelphia, Pa.
Filed November 23, 1914. Serial No. 82,784. PUBLISHED MARCH 23, 1915.

104,723. CATHARTIC AND LAXATIVE. THOMAS M. GRIFFITHS, St. Louis, Mo.
Filed June 6, 1913. Serial No. 70,896. PUBLISHED MARCH 30, 1915.

104,724. DENTAL TECHNICONS, ARTICULATORS, AND ARTICULATOR-HOLDERS. JAMES PATTERSON HARPER, St. Louis, Mo.
Filed February 11, 1915. Serial No. 84,456. PUBLISHED MARCH 30, 1915.

104,725. WHEAT-FLOUR, GRAHAM FLOUR, PANCAKE-FLOUR, AND CORNMEAL. EDWARD O. HARRIS, Mount Pleasant, Mich.
Filed November 13, 1914. Serial No. 82,559. PUBLISHED MARCH 23, 1915.

104,726. ANTISEPTIC. HELLO-BOY MANUFACTURING COMPANY, Farrell, Pa.
Filed March 4, 1915. Serial No. 84,930. PUBLISHED MARCH 30, 1915.

104,727. CHILLI SAUCE AND MARMALADE. HOME MAID PRODUCTS CO., New York, N. Y.
Filed December 16, 1914. Serial No. 83,323. PUBLISHED MARCH 30, 1915.

104,728. CERTAIN NAMED PHARMACEUTICAL PREPARATIONS FOR TOILET PURPOSES. RICHARD HUDNUT, New York, N. Y.
Filed January 29, 1915. Serial No. 84,195. PUBLISHED MARCH 30, 1915.

104,729. KNIT AND WOVEN UNION SUITS. THE IMPERIAL UNDERWEAR COMPANY, Piqua, Ohio.
Filed July 20, 1914. Serial No. 79,952. PUBLISHED DECEMBER 1, 1914.

104,730. TANNING MATERIALS AND EXTRACTS. INDUSTRIAL CHEMICAL COMPANY, New York, N. Y.
Filed February 20, 1915. Serial No. 84,661. PUBLISHED MARCH 30, 1915.

104,731. RAZOR-STROPS. JAMES & MORGAN MANUFACTURING COMPANY, New York, N. Y.
Filed April 10, 1914. Serial No. 77,376. PUBLISHED MARCH 30, 1915.

104,732. SCALP AND DANDRUFF PREPARATION. GUSTANTINOS Y. JIANELLIS, Detroit, Mich.
Filed February 1, 1915. Serial No. 84,241. PUBLISHED MARCH 30, 1915.

104,733. INSECTICIDE. SUSANNA KIDD, Minneapolis, Minn.
Filed February 19, 1915. Serial No. 84,628. PUBLISHED APRIL 6, 1915.

104,734. DENTIFRICES. ALBERT W. KNOX, Asbury Park, N. J.
Filed February 9, 1915. Serial No. 84,420. PUBLISHED APRIL 6, 1915.

104,735. CEREAL COFFEE OR SUBSTITUTE FOR COFFEE. KONO CEREAL CO., Chicago, Ill.
Filed July 22, 1914. Serial No. 79,987. PUBLISHED MARCH 23, 1915.

104,736. INSECTICIDE. E. LEECH, Mosman, near Sydney, New South Wales, Australia, and Stevensville, Ravalli county, Mont.
Filed February 4, 1915. Serial No. 84,299. PUBLISHED APRIL 6, 1915.

104,737. SALVES, MEDICINAL TONICS, LAXATIVES, REMEDIES FOR COUGHS, EPILEPSY, PILES, AND FEVERS. LEBELIA REMEDIES COMPANY, Louisville, Ky.
Filed October 30, 1914. Serial No. 82,277. PUBLISHED APRIL 6, 1915.

104,738. AUTOMATIC PIANOS. LESTER PIANO COMPANY, Philadelphia, Pa.
Filed January 30, 1915. Serial No. 84,222. PUBLISHED MARCH 30, 1915.

104,739. STEEL OF EVERY DESCRIPTION. JOHN C. MCGUIRE, Detroit, Mich.
Filed February 4, 1915. Serial No. 84,300. PUBLISHED MARCH 16, 1915.

104,740. PREPARATIONS FOR THE PREVENTION OF VENEREAL DISEASES. SOL MEYER, Indianapolis, Ind.
Filed January 7, 1915. Serial No. 83,712. PUBLISHED MARCH 23, 1915.

104,741. LAXATIVE PILLS. FIELD C. MORGAN, Claremont, N. H.
Filed March 5, 1915. Serial No. 84,966. PUBLISHED MARCH 30, 1915.

104,742. REMEDY FOR CHILLS AND FEVER. WILLIAM J. MURRAY, Sausalito, Cal.
Filed March 8, 1915. Serial No. 85,015. PUBLISHED APRIL 6, 1915.

104,743. WHISKY. MICHAEL O'BRIEN, Detroit, Mich.
Filed January 29, 1907. Serial No. 24,995. PUBLISHED APRIL 16, 1907.

104,744. CHINA TABLEWARE AND ORNAMENTAL CHINAWARE. ONONDAGA POTTERY COMPANY, Syracuse, N. Y.
Filed December 7, 1914. Serial No. 83,125. PUBLISHED APRIL 6, 1915.

104,745. CHINA TABLEWARE AND ORNAMENTAL CHINAWARE. ONONDAGA POTTERY COMPANY, Syracuse, N. Y.
Filed December 7, 1914. Serial No. 83,126. PUBLISHED APRIL 6, 1915.

104,746. WOOD-PRESERVING OIL. PAGE & HILL CO., Minneapolis, Minn.
Filed January 25, 1915. Serial No. 84,096. PUBLISHED APRIL 6, 1915.

104,747. LUBRICATING OILS AND GREASES, ALSO FUEL-OILS. PENN OIL AND SUPPLY CO., Pasadena, Cal.
Filed November 4, 1914. Serial No. 82,407. PUBLISHED MARCH 23, 1915.

104,748. CHEESE. PHENIX CHEESE CO., New York, N. Y.
Filed January 22, 1915. Serial No. 84,039. PUBLISHED MARCH 30, 1915.

104,749. PREPARATION FOR CANCERS AND TUMORS. G. P. RAMSEY, Ada, Okla.
Filed November 13, 1914. Serial No. 82,571. PUBLISHED APRIL 6, 1915.

104,750. BLUING. RECKITTS (U. S. A.), LTD., New York, N. Y., and New Brunswick, N. J.
Filed February 21, 1913. Serial No. 68,663. PUBLISHED MAY 27, 1913.

104,751. IMPREGNATING LIQUIDS FOR RENDERING MATERIAL INSULATING SUBSTANCE AND PROTECTING SAME AGAINST WEATHER AND CHEMICAL ACTIONS. REDMANOL CHEMICAL PRODUCTS CO., Chicago, Ill.
Filed February 23, 1915. Serial No. 84,706. PUBLISHED MARCH 30, 1915.

104,752. FACE-POWDER. WILLIAM L. SCHULTZ, Brooklyn, N. Y., and Paris, France.
Filed March 5, 1915. Serial No. 84,942. PUBLISHED MARCH 30, 1915.

104,753. REMEDY FOR CERTAIN NAMED AILMENTS AND DISEASES. GEORGE F. SMITH, Washington, Pa.
Filed February 9, 1915. Serial No. 84,414. PUBLISHED MARCH 23, 1915.

104,754. BAKING-POWDER. R. C. STAPLES CHEMICAL COMPANY, Fort Smith, Ark.
Filed January 23, 1915. Serial No. 84,066. PUBLISHED APRIL 6, 1915.

104,755. LINIMENT FOR THE TREATMENT OF CERTAIN NAMED DISEASES AND AFFECTIONS. MICHAEL L. STEFANSKI, Baltimore, Md.
Filed March 9, 1915. Serial No. 85,048. PUBLISHED APRIL 6, 1915.

104,756. VACUUM-CLEANERS. UNITED DISTRIBUTING COMPANIES, Chicago, Ill.
Filed February 5, 1915. Serial No. 84,330. PUBLISHED MARCH 23, 1915.

104,757. HATS, CAPS. VASSAR CAP CO., Chicago, Ill.
Filed October 24, 1914. Serial No. 82,157. PUBLISHED MARCH 2, 1915.

104,758. PERFUMES, TOILET WATERS, SACHET-POWDERS, AND TALCUM POWDERS. THE C. B. WOODWORTH SONS CO., Rochester, N. Y.
Filed January 19, 1915. Serial No. 83,965. PUBLISHED APRIL 6, 1915.

104,759. PRINTING-PRESSES. THE AMERICAN PAPER GOODS COMPANY, Montclair, N. J., and Berlin, Conn.
Filed December 14, 1914. Serial No. 83,265. PUBLISHED APRIL 6, 1915.

104,760. STENCILS. BAUMGARTEN & CO., Baltimore, Md.
Filed February 4, 1915. Serial No. 84,293. PUBLISHED MARCH 30, 1915.

104,761. LAXATIVE. WILLIAM HENRY BLACK, New York, N. Y.
Filed March 8, 1915. Serial No. 85,017. PUBLISHED APRIL 6, 1915.

104,762. LUBRICATING-OIL WHICH IS PARTICULARLY ADAPTED FOR AUTOMOBILES. BLAKE OIL CO., Liberal, Kans.
Filed February 13, 1915. Serial No. 84,506. PUBLISHED APRIL 6, 1915.

104,763. BILGE-PUMP. THADDEUS S. BULMER, Greenport, N. Y.
Filed February 24, 1915. Serial No. 84,730. PUBLISHED APRIL 6, 1915.

104,764. MONTHLY MAGAZINE. ARTHUR J. FISCHER, Boston, Mass.
Filed February 8, 1915. Serial No. 84,363. PUBLISHED APRIL 6, 1915.

104,765. BED-SPRINGS. FORT PITT BEDDING CO., Pittsburgh, Pa.
Filed January 30, 1915. Serial No. 84,218. PUBLISHED APRIL 6, 1915.

104,766. STOCK FOOD. FREDERICK H. FRAYSER, Richmond, Va.
Filed January 26, 1915. Serial No. 84,114. PUBLISHED APRIL 6, 1915.

104,767. BAKING-POWDER. GROCERS CHEMICAL WORKS, Evansville, Ind.
Filed November 2, 1914. Serial No. 82,347. PUBLISHED MARCH 30, 1915.

104,768. CERTAIN NAMED FOODS. HABICHT, BRAUN & CO., New York, N. Y.
Filed August 10, 1914. Serial No. 80,437. PUBLISHED NOVEMBER 24, 1914.

104,769. CIGARS, CHEWING AND SMOKING TOBACCO, CIGARETTES, AND CHEROOTS. KANSAS CITY WHOLESALE GROCERY CO., Kansas City, Mo.
Filed January 27, 1915. Serial No. 84,135. PUBLISHED MARCH 30, 1915.

104,770. CREAM-SEPARATORS. HEINRICH LANZ, Mannheim, Germany.
Filed August 25, 1914. Serial No. 80,797. PUBLISHED APRIL 6, 1915.

104,771. CERTAIN NAMED CUTLERY, MACHINERY, AND APPLIANCES FOR MAKING AND WORKING BUTTER. HEINRICH LANZ, Mannheim, Germany.
Filed August 25, 1914. Serial No. 80,798. PUBLISHED APRIL 6, 1915.

104,772. PHARMACEUTICAL PREPARATION FOR DESTROYING VERMIN, &c. W. H. METZGER MANUFACTURING COMPANY, Quincy, Ill.
Filed February 9, 1915. Serial No. 84,407. PUBLISHED MARCH 23, 1915.

104,773. PIANOS. MILLER ORGAN & PIANO CO., Lebanon, Pa.
Filed March 11, 1915. Serial No. 85,083. PUBLISHED APRIL 6, 1915.

104,774. COFFEE-CLARIFIER. MORLEY & CO., Butte, Mont.
Filed September 12, 1913. Serial No. 72,821. PUBLISHED JANUARY 12, 1915.

104,775. CERTAIN NAMED PAINTS AND PAINTERS' SUPPLIES. EUGENE E. NICE, Philadelphia, Pa.
Filed December 30, 1914. Serial No. 83,591. PUBLISHED APRIL 6, 1915.

104,776. LEATHER BELTING. CHOJIRO NITTA, Nanba, Minami-Ku, Osaka, Japan.
Filed January 22, 1915. Serial No. 84,037. PUBLISHED MARCH 23, 1915.

104,777. PRECIOUS-METAL CUFF-BUTTONS. PARKS BROS. & ROGERS, Providence, R. I.
Filed January 21, 1915. Serial No. 84,010. PUBLISHED APRIL 6, 1915.

104,778. WRITING-PAPER. HARRIET A. SABLE, New York, N. Y.
Filed February 6, 1915. Serial No. 84,348. PUBLISHED MARCH 30, 1915.

104,779. TOILET-PAPER. SAUQUOIT TOILET PAPER CO., INC., New Hartford, N. Y.
Filed February 11, 1915. Serial No. 84,463. PUBLISHED APRIL 6, 1915.

104,780. TOILET-PAPER. SAUQUOIT TOILET PAPER CO., INC., New Hartford, N. Y.
Filed February 11, 1915. Serial No. 84,464. PUBLISHED APRIL 6, 1915.

104,781. TOILET-PAPER. SAUQUOIT TOILET PAPER CO., INC., New Hartford, N. Y.
Filed February 11, 1915. Serial No. 84,465. PUBLISHED APRIL 6, 1915.

104,782. TOILET-PAPER. SAUQUOIT TOILET PAPER CO., INC., New Hartford, N. Y.
Filed February 11, 1915. Serial No. 84,466. PUBLISHED APRIL 6, 1915.

104,783. TOILET-PAPER. SAUQUOIT TOILET PAPER CO., INC., New Hartford, N. Y.
Filed February 12, 1915. Serial No. 84,495. PUBLISHED APRIL 6, 1915.

104,784. TEA. WILLIAM SCHOTTEN COFFEE COMPANY, St. Louis, Mo., assignor to Western Grocer Company, Marshalltown, Iowa, a Corporation of Iowa.
Filed January 31, 1914. Serial No. 75,593. PUBLISHED JUNE 30, 1914.

104,785. CREAM-SEPARATORS. SWEDISH SEPARATOR CO., Chicago, Ill.
Filed February 26, 1915. Serial No. 84,790. PUBLISHED APRIL 6, 1915.

104,786. MECHANICAL MUSIC-PLAYING INSTRUMENTS AND MUSIC-ROLLS THEREFOR. THE WILCOX & WHITE COMPANY, Meriden, Conn.
Filed February 20, 1915. Serial No. 84,672. PUBLISHED APRIL 6, 1915.

104,787. RETAINERS FOR BALL-BEARINGS. THE BEARINGS COMPANY OF AMERICA, Jersey City, N. J.
Filed December 2, 1914. Serial No. 83,011. PUBLISHED APRIL 6, 1915.

104,788. RETAINERS FOR BALL-BEARINGS. THE BEARINGS COMPANY OF AMERICA, Jersey City, N. J.
Filed December 2, 1914. Serial No. 83,012. PUBLISHED APRIL 6, 1915.

104,789. RUBBER JAR-RINGS AND RUBBER HOSE. BOSTON WOVEN HOSE & RUBBER CO., Boston and Cambridge, Mass.
Filed January 9, 1915. Serial No. 83,746. PUBLISHED MARCH 30, 1915.

104,790. WATERPROOFED FABRIC. BRITISH AMERICAN MANUFACTURING COMPANY, Springdale, Conn.
Filed October 27, 1914. Serial No. 82,202. PUBLISHED APRIL 6, 1915.

104,791. GERMICIDES. CHICAGO GERMICIDE CO., Chicago, Ill.
Filed January 23, 1915. Serial No. 84,052. PUBLISHED APRIL 13, 1915.

104,792. PRESSED-METAL GREASE-CUPS, GREASE-GUNS, AND FITTINGS. CITY IRON WORKS & MACHINE CO., Philadelphia, Pa.
Filed February 6, 1915. Serial No. 84,334. PUBLISHED APRIL 6, 1915.

104,793. ELECTRICAL AND GALVANIC CARBONS. C. CONRADTY, Nuremberg, Germany.
Filed January 28, 1915. Serial No. 84,170. PUBLISHED APRIL 6, 1915.

104,794. ELECTRICAL AND GALVANIC CARBONS. C. CONRADTY, Nuremberg, Germany.
Filed January 28, 1915. Serial No. 84,171. PUBLISHED APRIL 6, 1915.

104,795. METAL ALLOY AND CASTINGS MADE THEREFROM. DOEHLER DIE CASTING CO., New York, N. Y.
Filed December 30, 1914. Serial No. 83,577. PUBLISHED APRIL 6, 1915.

104,796. PORCELAIN, GLASS, OR VITREOUS WARE AND METAL STOPPLES FOR BOTTLES. JOHN W. DOUGLASS, Philadelphia, Pa., assignor to Protective "Frefio" Stopple Company, Dover, Del., a Corporation of Delaware.
Filed February 13, 1915. Serial No. 84,509. PUBLISHED APRIL 6, 1915.

104,797. STEAM AND WATER METERS AND RECORDERS FOR ALL PURPOSES AND INDICATING APPARATUS. EDGAR PARR GABBOTT, Manchester, England.
Filed December 11, 1914. Serial No. 83,223. PUBLISHED APRIL 6, 1915.

104,798. BAKING-POWDER. GENERAL CHEMICAL COMPANY, New York, N. Y.
Filed February 26, 1915. Serial No. 84,804. PUBLISHED APRIL 6, 1915.

104,799. CLOCKS. THE E. INGRAHAM COMPANY, Bristol, Conn.
Filed February 4, 1915. Serial No. 84,298. PUBLISHED APRIL 6, 1915.

104,800. ARC-LAMPS, HANGERS AND CARBONS FOR THE SAME, AND PROJECTORS. KANDEM ELECTRIC COMPANY INC., New York, N. Y.
Filed February 11, 1915. Serial No. 84,457. PUBLISHED APRIL 6, 1915.

104,801. UNSPUN COTTON FIBER MADE INTO SHEET OR BLANKET FORM, REINFORCED AND HELD COMPACTED BY STITCHING THERETHROUGH. KNITTED PADDING COMPANY, Canton, Mass.
Filed February 5, 1915. Serial No. 84,311. PUBLISHED MARCH 30, 1915.

104,802. VITREOUS-CHINA WATER-CLOSETS, URINALS, LAVATORIES, PUBLIC DRINKING-FOUNTAINS, SINKS, AND BIDET-PANS. THOMAS MADDOCK'S SONS COMPANY, Trenton, N. J.
Filed April 29, 1912. Serial No. 63,202. PUBLISHED APRIL 13, 1915.

104,803. CANDY CONFECTION. PETER A. MANDABACH, Chicago, Ill.
Filed August 1, 1914. Serial No. 80,262. PUBLISHED MARCH 16, 1915.

104,804. SILK PIECE GOODS. M. C. MIGEL & CO., New York, N. Y.
Filed February 24, 1914. Serial No. 76,115. PUBLISHED APRIL 21, 1914.

104,805. GROWING PLANTS AND FLOWERS AND CUT FLOWERS. ADOLPH L. MOCK, New York, N. Y.
Filed February 3, 1915. Serial No. 84,287. PUBLISHED APRIL 6, 1915.

104,806. CANDY. THE NUSS CONFECTIONERY CO., Cincinnati, Ohio.
Filed March 28, 1914. Serial No. 77,027. PUBLISHED NOVEMBER 3, 1914.

104,807. BOOK OF NURSERY-RHYMES, ISSUED IN SERIES, AND ADHESIVE POSTERS ILLUSTRATIVE THEREOF. JEROME D. ROSENBERG, New York, N. Y.
Filed December 7, 1914. Serial No. 83,129. PUBLISHED APRIL 6, 1915.

104,808. INSULATING-VARNISH. THE SHERWIN-WILLIAMS CO., Cleveland, Ohio.
Filed January 16, 1915. Serial No. 83,920. PUBLISHED APRIL 6, 1915.

104,809. PREPARATION USED IN PRACTICE OF MEDICINE AND PHARMACY ADAPTED FOR THE BRAIN AND NERVES. ST. IVEL, LIMITED, Yeovil, England.
Filed May 29, 1912. Serial No. 63,865. PUBLISHED APRIL 6, 1915.

104,810. ROASTED COFFEE. STEINWENDER-STOFFREGEN COFFEE CO., St. Louis, Mo.
Filed January 21, 1915. Serial No. 84,013. PUBLISHED MARCH 30, 1915.

104,811. CERTAIN NAMED CUTLERY, MACHINERY, AND TOOLS. THE CHARLES WILLIAM STORES, INC., Brooklyn, N. Y.
Filed January 9, 1915. Serial No. 83,768. PUBLISHED APRIL 6, 1915.

104,812. PRIMERS, FILLERS, SURFACERS, AND PAINTS, PASTE AND READY-MIXED. VALENTINE & COMPANY, New York, N. Y.
Filed January 30, 1915. Serial No. 84,229. PUBLISHED APRIL 6, 1915.

104,813. STEELS AND HIGH-SPEED STEELS. J. H. WILLIAMS & CO., New York, N. Y.
Filed March 6, 1914. Serial No. 76,418. PUBLISHED APRIL 6, 1915.

104,814. CRAYONS. BINNEY & SMITH COMPANY, East Orange, N. J., and New York, N. Y.
Filed June 17, 1914. Serial No. 79,166. PUBLISHED AUGUST 4, 1914.

104,815. TYPE-WRITER RIBBONS AND CARBON-PAPER. THE CARTER'S INK COMPANY, Cambridge, Mass.
Filed January 11, 1915. Serial No. 83,772. PUBLISHED MARCH 30, 1915.

104,816. MONTHLY MAGAZINE. C. R. COOK PAINT COMPANY, Kansas City, Mo.
Filed January 25, 1915. Serial No. 84,074. PUBLISHED APRIL 6, 1915.

104,817. MOTION-PICTURE FILMS. THE CRYSTAL FILM COMPANY, New York, N. Y.
Filed January 13, 1915. Serial No. 83,810. PUBLISHED FEBRUARY 23, 1915.

104,818. TOOLS FOR OPENING AND CLOSING ATTACHING HOOKS OF NON-SKID TIRE-CHAINS AND LIKE CHAIN STRUCTURES. JOHN N. MACDONALD, Wethersfield, Conn.
Filed October 27, 1914. Serial No. 82,215. PUBLISHED APRIL 6, 1915.

104,819. MONTHLY PERIODICAL. HAROLD W. PHILLIPS, Washington, D. C.
Filed January 26, 1915. Serial No. 84,121. PUBLISHED APRIL 6, 1915.

104,820. BRAIDS, SHOE-LACES, GALLOONS, AND CORSET-LACES. THE UNITED LACE & BRAID MANUFACTURING COMPANY, Cranston, R. I.
Filed December 7, 1912. Serial No. 67,288. PUBLISHED APRIL 6, 1915.

104,821. MOVING-PICTURE FILMS. UNIVERSAL FILM MANUFACTURING COMPANY, New York, N. Y.
Filed April 13, 1914. Serial No. 77,460. PUBLISHED MAY 19, 1914.

104,822. PREPARATION FOR PREVENTING THE PUNCTURE OF AUTOMOBILE-TIRES. WOODBRIDGE CHEMICAL CO., INC., Woodbridge, N. J., and New York, N. Y.
Filed December 17, 1914. Serial No. 83,357. PUBLISHED APRIL 13, 1915.

104,823. TEA. THE WOOLSON SPICE COMPANY, Toledo, Ohio.
Filed January 27, 1915. Serial No. 84,149. PUBLISHED APRIL 6, 1915.

LABELS

REGISTERED JUNE 15, 1915.

18,515.—*Title:* "FERRANDINA." (For Olive-Oil.) FRANCESCO ALBANO, New York, N. Y. Filed May 20, 1915.

18,516.—*Title:* "BABCOCK'S." (For Talcum Powder.) A. P. BABCOCK CO., New York, N. Y. Filed March 19, 1915.

18,517.—*Title:* "COOPERS K-K-K QUALITY SINCE 1876." (For Underwear.) COOPER UNDERWEAR COMPANY, Kenosha, Wis. Filed March 6, 1915.

18,518.—*Title:* "COOPERS K-K-K QUALITY SINCE 1876." (For Underwear.) COOPER UNDERWEAR COMPANY, Kenosha, Wis. Filed March 6, 1915.

18,519.—*Title:* "EMERALD-GLO." (For Eyeglasses.) DETROIT OPTICAL MFG. CO., Detroit, Mich. Filed May 10, 1915.

18,520.—*Title:* "DOMINO SUGARMINT." (For Peppermint Lozenges.) DOMINO SUGARMINT CO., New York, N. Y. Filed March 22, 1915.

18,521.—*Title:* "DURKEE'S TAPIOCA." (For Tapioca.) E. R. DURKEE & CO., New York, N. Y. Filed May 13, 1915.

18,522.—*Title:* "DURKEE'S PEARL BARLEY." (For Barley.) E. R. DURKEE & CO., New York, N. Y. Filed May 13, 1915.

18,523.—*Title:* "DURKEE'S RICE FLOUR." (For Flour.) E. R. DURKEE & CO., New York, N. Y. Filed May 13, 1915.

18,524.—*Title:* "INVISIBLE STARCH." (For Starch.) E. R. DURKEE & CO., New York, N. Y. Filed May 13, 1915.

18,525.—*Title:* "DURKEE'S MIXED BIRD SEED." (For Bird-Seed.) E. R. DURKEE & CO., New York, N. Y. Filed May 13, 1915.

18,526.—*Title:* "DURKEE'S CORN STARCH." (For Corn-Starch.) E. R. DURKEE & CO., New York, N. Y. Filed May 13, 1915.

18,527.—*Title:* "TRUE BLUE." (For a Veterinary Remedy.) JOHN EASTMAN, Syracuse, N. Y. Filed April 12, 1915.

18,528.—*Title:* "SUN KIST BURGUNDY." (For Wine.) ESCONDIDO VINEYARD & WINERY COMPANY, Escondido, Cal. Filed August 29, 1914.

18,529.—*Title:* "LINOLEUM OIL SOAP." (For Soaps.) FITZPATRICK BROS., Chicago, Ill. Filed June 1, 1914.

18,530.—*Title:* "GOODWAY'S SUNBURN LOTION." (For a Liquid Lotion Having Certain Medicinal Properties.) JOSEPH A. GOODWAY, Pittsburgh, Pa. Filed May 22, 1915.

18,531.—*Title:* "ROUNDEES." (For a Chewing-Gum Confection.) THE HELMET COMPANY, Cincinnati, Ohio. Filed April 23, 1915.

18,532.—*Title:* "PARKER'S TOILET CREAM." (For a Toilet Cream.) HISCOX BROS. CO., Patchogue, N. Y. Filed April 5, 1915.

18,533.—*Title:* "WAUKESHA." (For Toilet-Paper.) THE JOHN HOBERG COMPANY, Green Bay, Wis. Filed May 6, 1914.

18,534.—*Title:* "WAHNETTA." (For Toilet-Paper.) THE JOHN HOBERG COMPANY, Green Bay, Wis. Filed May 6, 1914.

18,535.—*Title:* "BRAN NU BREAD." (For Bread.) KALAMAZOO VEGETABLE PARCHMENT CO., Kalamazoo, Mich. Filed May 5, 1915.

18,536.—*Title:* "MASTER BRAND PITCH." (For Pitch.) MASTER ROOFERS ASSOCIATION OF CHICAGO, Chicago, Ill. Filed May 14, 1915.

18,537.—*Title:* "MASTER BRAND TARRED FELT." (For Tarred Felt.) MASTER ROOFERS ASSOCIATION OF CHICAGO, Chicago, Ill. Filed May 14, 1915.

18,538.—*Title:* "MASTER BRAND FLUX." (For Flux.) MASTER ROOFERS ASSOCIATION OF CHICAGO, Chicago, Ill. Filed May 14, 1915.

18,539.—*Title:* "OLDE BROWNE HEALTH BEER." (For Beer.) MILWAUKEE-WAUKESHA BREWING CO., Milwaukee, Wis. Filed May 19, 1915.

18,540.—*Title:* "BOUQUET DE HABANA." (For Cigars.) THE MOEHLE LITHOGRAPHIC CO., New York, N. Y. Filed May 6, 1915.

18,541.—*Title:* "SOCK SURECURE COLD." (For a Medicinal Preparation.) THE ROBINSON COMPANY, Pittsburgh, Pa. Filed March 2, 1915.

18,542.—*Title:* "PIURY & CO. SHERRY." (For Wine.) SONN BROTHERS COMPANY, New York, N. Y. Filed May 11, 1915.

18,543.—*Title:* "STEPHENS' DURO INK." (For Ink.) WILLIAM PHILIP STEPHENS, Hutchinson, Kans. Filed November 28, 1914.

PRINTS

REGISTERED JUNE 15, 1915.

3,945.—*Title:* "DURKEE'S PASTRY SPICE." (For Spices.) E. R. DURKEE & CO., New York, N. Y. Filed May 13, 1915.

3,946.—*Title:* "THE COLOSSUS OF ROADS." (For Rubber Tires.) THE FIRESTONE TIRE & RUBBER COMPANY, Akron, Ohio. Filed February 8, 1915.

3,947.—*Title:* "KNEIPP MALT BETTER THAN COFFEE." (For Kneipp Malt.) KNEIPP MALT FOOD COMPANY, Manitowoc, Wis. Filed May 24, 1915.

3,948.—*Title:* "ORONA CLEANS." (For Cleansers.) ORONA MFG. CO., Boston, Mass. Filed June 29, 1914.

3,949.—*Title:* "LUXURY." (For Cake.) PAUL SCHULZE, Chicago, Ill. Filed May 17, 1915.

3,950.—*Title:* "BIG-DANDY." (For Bread.) PAUL SCHULZE, Chicago, Ill. Filed May 17, 1915.

DECISIONS

OF THE

COMMISSIONER OF PATENTS

AND OF

UNITED STATES COURTS IN PATENT CASES.

DECISIONS OF THE U. S. COURTS.

Court of Appeals of the District of Columbia.

ELECTRO STEEL COMPANY, SUCCESSOR OF HAMMACHER DELIUS & CO., *v.* LINDENBERG STEEL COMPANY.

Decided March 1, 1915.

1. TRADE-MARKS—"ELECTRO"—DESCRIPTIVE.
The word "Electro", as applied to steel produced in an electric furnace *Held* to be descriptive and not capable of exclusive appropriation as a trademark.

2. SAME—CANCELATION—SHOWING OF INJURY REQUIRED BY APPLICANT.
Where applicant used the word "Electro" in its advertisements and letters and also as the name of a steel it was selling and which buyers bought as such, *Held* that it is not essential in all cases that applicant should have had a strictly trade-mark use of the word in order to deem itself injured by the registration of the mark.

Mr. Grafton L. McGill for the appellant.
Mr. Perry B. Turpin for the appellee.

SHEPARD, *C. J.*:

This is an appeal from the decision of the Commissioner of Patents canceling the registration of a trade-mark.

August 27, 1907, Hammacher Delius & Co. registered the word "Electro" as a trade-mark for steel.

The Lindenberg Steel Company applied for the cancelation of this registration August 8, 1912.

The Lindenberg Steel Company alleged in its application for cancelation that it and its predecessors in business have, since the year 1902 been engaged in the business of selling steel in billets, bars, tubing, sheets, plates, disks and forgings consisting of electro tool-steel, high-speed steel, nickel-chrome steel, nickel steel, chrome steel, magnet steel and silicon steel largely the product of the steel-works of Richard Lindenberg, of Remscheid-Hasten, Germany.

Since the introduction of the electric furnace in about 1902, the said works has been engaged in the manufacture of steel by this method, that is, the manufacture of "Electro" steel. During this period petitioner has been selling as agent for said steel-works so called "Electro" steel continuously and extensively. The word "Electro" has been registered by Hammacher Delius & Co. for use in connection with steel in bars, billets, and ingots, and is alleged to have been used as a trade-mark in this business since 1904. Petitioner has used the expression "Electro" not as a trade-mark but as an adjective to designate steel of a certain kind, that is, steel produced in an electric furnace, and therefore steel which is manufactured and sold by a large number of people engaged in that industry. The alleged trade-mark of the registrants consisting of the word "Electro" is descriptive of the goods with which it is used and not capable of exclusive appropriation.

The goods with which it is used are of the same descriptive properties and are in fact identical with those with which petitioner has used the descriptive expression "Electro" in business, having extensively advertised its wares by means of the term "Electro."

Petitioner's purchasing trade and the public in general have come to recognize "Electro" steel as manufactured in the electric furnace and that steel is ordered and specified by the purchasing public in that manner. Should registrants be permitted to retain their registration they would be in a position to prevent others from applying said mark to steel manufactured in the electric furnace and would be in a position to institute expensive and troublesome litigation basing their suits upon said registration and attacking both the petitioner's purchasing trade as well as the purchasing public in general, and they would be in a position to threaten and intimidate the purchasing public. In this way the business of petitioner would be seriously and permanently damaged; its sales of "Electro" steel would necessarily fall off, and the purchasing public would be at a loss how to identify or designate the steel manufactured in the electric furnace, without circumlocution, if they wished to purchase such steel from other than registrants and the trade and business of petitioner would be seriously injured were the registrants to be allowed to retain their registration of the word "Electro."

The Electro Steel Company, successor to Hammacher Delius & Co., answered, denying that "Electro" is descriptive when used in connection with steel, and that irrespective of any meaning it may have come to possess at the time of registration it was a trade-mark denoting origin.

Replication having been filed proofs were taken by both parties.

The Examiner of Interferences decided that the trade-mark should be canceled and this decision was affirmed on appeal to the Commissioner.

We agree with the tribunals of the Patent Office that "Electro" as applied to steel is descriptive. To a purchaser of steel or to one familiar with the steel industry it would undoubtedly convey the impression that the steel to which it is applied is the product of an electrical furnace. The proof taken shows this to be true. Furthermore, it appears from publications in scientific journals prior to the registration, several of which are cited in the decision of the Examiner of Interferences, that "electro" is a common adjective meaning "pertaining to electricity." It has long been the combining form for "electric" and is universally recognized as synonymous therewith. Words illustrating this are numerous and well known, *e. g.* "electro-plate." "electro-magnet." "electro-metallurgy." "electro-chemistry," and others that might be mentioned. Electric was certainly common property as descriptive of steel at the time of the registration and "Electro" as a trade-mark or as a description of *Co. v. Menefee*, 144 S. W., 869.)

It remains to consider whether the Lindenberg Steel Company has such an interest in the subject-matter as entitles it to claim cancelation of the trade-mark "Electro" notwithstanding its descriptive nature. It is contended that the petitioner fails to show that it has ever affixed on its goods the word "Electro" as a trade-mark or as a description of the goods, and has had consequently no such use of the word as would give it standing in this proceeding,

It is quite true that to have a right to cancel or oppose the registration of a trade-mark is dependent upon a showing of interest. (*McIlhenny Sons Co. v. New Iberia Tabasco Pepper Co.*, 30 App. D. C., 337, 339; 133 O. G., 995; 1908. C. D., 325.)

It is not essential in all cases, however, that there should have been a strictly trade-mark use of the words by complainant. Injury to its business might be otherwise shown. (*Natural Food Company v. Williams*, 30 App. D. C., 348, 350; 133 O. G., 232; 1908, C. D., 320.) The trade-mark involved in that case was "Shredded Whole Wheat," and it was said, (p. 350:)

The evidence above briefly reviewed, we think, clearly establishes the fact that appellant was not the exclusive user of these words during the ten years' period. No claim is made of any attempt on the part of Williams to deceive the public, or that, the product of his machine is not in fact as much entitled to be called shredded whole wheat as is the product of appellant's machines. That he did not use the words as a trade-mark, but merely in a descriptive sense, is of no moment. He, in common with all other manufacturers of shredded whole wheat, had the same right to properly designate their product as did the Natural Food Company.

See also *H. W. Johns-Manville Co. v. American Steam Packing Company*, (33 App. D. C., 224, 226; 145 O. G., 257; 1909, C. D., 425.) In that case the word "Asbestos" was involved. It was shown that the American Steam Packing Company and its predecessors for about thirty-five years before the filing of the application had continuously used the word "Asbestos" to designate engine and machinery packing sold by it. In considering the right to oppose the court said, (p. 226:)

It is also insisted by appellant that the opposer has no standing in this case, since it appears from the agreed statement of facts that the English word "asbestos" had not been used by appellee as a trade-mark, but merely to designate engine and machinery packing made and sold by it. This, however, we think is a sufficient use of the word "asbestos" to prevent the registration of appellant's mark under the ten years' clause of the Trademark Act, since the predominating characteristic of appellant's mark is the same word, merely in embellished letters, as the word used by appellee to designate its goods.

In the present case the Lindenberg Steel Company used the word "Electro" as the name of the steel it was selling and also in its advertisements and letters. The proof shows that this company sells electric steel as electro steel and so represents it to purchasers through its selling agents and buyers buy it as such. Orders by purchasers were shown in evidence calling for electro steel. It is also shown that the respondent has notified the trade that any other person than itself offering electro steel would be liable for appropriation of its trade-mark "Electro." It evidently intended as far as possible to establish a monopoly and to restrain the business of rival dealers which would undoubtedly be an injury to the complainant. The complainant was engaged in selling the steel product of electric furnaces under the properly descriptive name of electro steel. Its business was extensive and would necessarily have suffered if this unfounded claim of the trade-mark should be upheld.

The decision appealed from is affirmed. This decision will be certified by the clerk to the Commissioner of Patents as required by law.

Affirmed.

ADJUDICATED PATENTS.

(U. S. D. C.) The Levy patent, No. 627,430, for a process and apparatus for the production of etched printing-plates, *Held* not infringed. *Graphic Arts Co. v. Photo-Chromotype Engraving Co.*, 221 Fed. Rep., 648.

(U. S. C. C. A.) The Fessenden patent, No. 706,736, for improvements in apparatus for wireless telegraphy, if conceded validity, *Held* not infringed. *National Electric Signaling Co. v. Telefunken Wireless Telegraph Co. of United States*, 221 Fed Rep., 629.

(U. S. D. C.) The Werk patents, Nos. 758,574 and 758,575, for oil-press mats. *Held* not infringed. *Werk v. F. T. Parker Co.*, 221 Fed. Rep., 644.

(U. S. D. C.) The Votey patent, No. 780,078, for an improvement in pianos, *Held* void for lack of invention. *Aeolian Co. v. Wanamaker*, 221 Fed. Rep., 666.

(U. S. D. C.) The Linn patent, No. 794,991, for a motor-control system, *Held* valid and infringed as to claims 1 to 4. *General Electric Co. v. Sundh Electric Co.*, 221 Fed. Rep., 657.

(U. S. D. C.) The Wysong patent, No. 832,114, for an abrasive apparatus, *Held* void for lack of

patentable novelty and invention. *Wysong & Miles Co. v. Stiles Foundry & Supply Co.*, 221 Fed. Rep., 680.

(U. S. D. C.) The Smith patent, No. 850,681, for a fire-alarm device, *Held* valid and infringed. *Smith v. Bickford & Francis Belting Co.*, 221 Fed. Rep., 673.

(U. S. D. C.) The Whitaker patent, No. 899,583, for a gas-pump, *Held* valid and infringed. *Brunswick Refrigerating Co. v. Wolf, Sayer & Heller*, 221 Fed. Rep., 639.

(U. S. D. C.) The Wysong patent, No. 918,247, for an abrasive apparatus, *Held* void for lack of patentable novelty and invention. *Wysong & Miles Co. v. Oakley & Jansen Co.*, 221 Fed Rep., 682.

(U. S. C. C. A.) The Hutchinson patents, Nos. 923,048, 923,049, and 932,122, each for an alarm or signaling apparatus for automobiles, *Held* void for lack of invention in view of the prior art. *Lovell-McConnell Mfg. Co. v. Garland Automobile Co.*, 221 Fed. Rep., 634.

(U. S. D. C.) The Read patent, No. 906,765, for a cake-mixing machine, *Held* infringed. *Read Mach. Co. v. Jaburg*, 221 Fed. Rep., 662.

(U. S. C. C. A.) The Stenz patent, No. 1,047,849, for a sample-card, *Held* valid, but not infringed, on showing for preliminary injunction. *Simplex Lithograph Co. v. Renfrew Mfg. Co.*, 221 Fed Rep., 639.

In re Foreign Patents, Trade-Marks, Etc.—Taxes, Fees, Etc.

DEPARTMENT OF THE INTERIOR.
UNITED STATES PATENT OFFICE,
Washington, D. C., June 10, 1915.

The following letter from the Department of State has been received through the Secretary of the Interior and is published for the information of those concerned.

THOMAS EWING,
Commissioner.

DEPARTMENT OF STATE.
Washington, June 7, 1915.

The Honorable the Secretary of the Interior.

SIR: I have the honor to inclose for the information of the Commissioner of Patents a copy of a despatch from the American Ambassador at Berlin, transmitting copies and translations of two proclamations recently promulgated by the German Government affecting patent applicants and holders who are citizens of the United States.

I have the honor to be, sir, your obedient servant.

For the Secretary of State:
ROBERT LANSING,
Counselor.

EMBASSY OF THE UNITED STATES OF AMERICA, BERLIN,
May 11, 1915.

The Honorable the Secretary of State,
Washington.

SIR: With reference to my despatches relative to facilities in patent matters, I have the honor to transmit herewith copies and translations of two proclamations recently promulgated by the German Government affecting patent applicants and holders who are citizens of the United States.

I have the honor to be, sir, your obedient servant,

(Signed) JAMES W. GERARD.

TRANSLATION—"*Reichs-Gesetzblatt*, 1915, No. 56."

On the ground of section 3 of the law of August 4, 1914, (*Reichs-Gesetzblatt*, p. 327,) authorizing the Bundesrat to take measures of an economic nature, the Bundesrat has issued the following ordinance:

SEC. 1. The priority time limits provided in Article 4 of the revised Paris Convention for the Protection of Industrial Property of June 2, 1911, (*Reichs-Gesetzblatt*, 1913, p. 209,) are extended to the expiration of six months after the termination of the state of war, but at the latest to June 30, 1916, provided they did not run out previous to July 31, 1914. The Imperial Chancellor shall determine the date when the state of war is to be considered as terminated.

These provisions shall apply in favor of subjects of foreign countries when and to the same extent as the priority time limits are prolonged in such countries in favor of German subjects, as shall be certified by proclamation published in the *Reichs-Gesetzblatt*.

SEC. 2. This ordinance shall take effect the day of its promulgation.

Berlin, May 7, 1915.

Vice the Imperial Chancellor,
DELBRÜCK.

TRANSLATION—"*Deutscher Reichsanzeiger.*"
Monday, May 10, 1915.

PROCLAMATION.

The time limits set in patent, model, and trade-mark matters for applicants residing in foreign countries have been extended by the competent authorities of the Patent Office as follows, wherever no special action has been taken in individual cases:

(1) For applicants residing in Europe, for three months; (2) for applicants residing in the United States of America, for four months; (3) for applicants residing in other non-European countries, for six months.

Berlin, May 7, 1915.

The President of the Imperial Patent Office.
ROBOLSKI.

Changes in Classification.

(ORDER No. 2,203.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., June 4, 1915.

The following changes in the classification of inventions are hereby directed, to take effect immediately:

In class 171, Electricity, Generation, (Division XXVI,) abolish subclasses—

Inductoriums—
122. Induction-coils,
124. Transformers, stationary.
Systems of distribution—
253. Alternating-direct.

The patents formerly contained in these subclasses have been placed in other subclasses in class 171, Electricity, Generation, and in class 175, Electricity, General Applications, subclasses 356 to 365, hereinafter established.

In class 175, Electricity, General Applications, (Division XXXVII,) establish subclasses—

363. Rectifying—
364. Mechanical—
365. Vibratory.
356. Stationary induction apparatus—
362. Coil sections,
361. Incased,
358. Instrument transformers,
Stationary induction apparatus—
359. Open magnetic circuit type—
360. Incased.
357. With interrupters or condensers.

The patents contained in these subclasses have been taken for the most part from class 171, Electricity, Generation, subclasses 122, Inductoriums, Induction-coils: 124, Inductoriums, Transformers, stationary, and 253, Systems of distribution, Alternating-direct, hereinbefore abolished.

THOMAS EWING,
Commissioner.

Adverse Decisions in Interference.

PATENT No. 1,037,359.

On June 5, 1915, William F. Stone was held not the first inventor of the invention covered by claims 1, 2, 6, and 7 of his Patent No. 1,037,359, subject, "Bottle-sealing machine," in view of a concession of priority as to this subject-matter filed by him June 4, 1915.

PATENT No. 1,081,582.

On May 10, 1915, a decision was rendered that Charles H. Crowell was not the first inventor of the subject-matter covered by claim 1 of his Patent No. 1,081,582, subject, "Moistening-machines," and no appeal having been taken within the time allowed such decision has become final.

PATENT No. 1,109,958.

On May 15, 1915, a decision was rendered that Clyde J. Bryant was not the first inventor of the subject-matter covered by claims 5, 6, 8, 9, and 12 of his Patent No. 1,109,958, subject, "Mail-opening machines," and no appeal having been taken within the time allowed such decision has become final.

Interference Notices.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., June 11, 1915.

Maurice H. Strong, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Spratt's Patent (America) Limited, of Congress, Market, and Jefferson streets, Newark, N. J., for registration of a trade-mark and trade-mark registered May 19, 1885, No. 12,249, to Maurice H. Strong, of Cincinnati, Ohio, and a notice of such declaration sent by registered mail to said Maurice H. Strong at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Maurice H. Strong, his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

J. T. NEWTON, *First Assistant Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., June 5, 1915.

Kuhn Bros., their assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Heilpern & Gross, of 6 Village street, Hartford, Conn., for registration of a trade-mark and trade-mark registered February 23, 1892, No. 20,768, to Kuhn Bros., of 945–947 Fifth street, San Diego, Cal., and a notice of such declaration sent by registered mail to said Kuhn Bros. at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Kuhn Bros., their assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

J. T. NEWTON, *First Assistant Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., June 3, 1915.

John Kean, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of The Autipalnola Company, South Railroad street, Willacoochie, Ga., for registration of a trade-mark and trade-mark registered March 17, 1903, No. 39,945, to John Kean, No. 155 South Clark street, Chicago, Ill., and a notice of such declaration sent by registered mail to said John Kean at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said John Kean, his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

J. T. NEWTON, *First Assistant Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., May 29, 1915.

The Borated Specialty Company, its assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Henry W. Holly, No. 27 Fleet street, New York, N. Y., for registration of a trade-mark and trade-mark registered April 3, 1906, No. 50,831, to The Borated Specialty Company, No. 63 Clymer street, Brooklyn, N. Y., and a notice of such declaration sent by registered mail to said The Borated Specialty Company at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said The Borated Specialty Company, its assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

J. T. NEWTON, *First Assistant Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., May 24, 1915.

Domingo Mendia & Co., their assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Maclin-Zimmer-McGill Tobacco Co., Incorporated, Market and Tabb streets, Petersburg, Va., for registration of a trade-mark and trade-mark registered October 6, 1891, No. 20,202, to Domingo Mendia & Co., 110 Laltad street, Habana, Cuba, and a notice of such declaration sent by registered mail to said Domingo Mendia & Co. at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Domingo Mendia & Co., their assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

J. T. NEWTON, *First Assistant Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., May 21, 1915.

Morgan & Brehaut, their assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of E. Carré Company, 6–10 North Franklin street, Mobile, Ala., for registration of a trade-mark and trade-mark registered September 29, 1903, No. 41,186, to Morgan & Brehaut, Cottage Grove, Oreg., and the registry return receipt for the notice of such declaration sent to Morgan & Brehaut having been returned signed by Harry C. Hart, administrator Brehaut Estate, and said Hart having failed to file evidence of his right to intervene on behalf of Morgan & Brehaut, notice is hereby given that unless said Morgan & Brehaut, their assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

J. T. NEWTON, *First Assistant Commissioner.*

THE
OFFICIAL GAZETTE
OF THE
United States Patent Office.

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Designs	35	No. 47,480 to No. 47,514, inclusive.
Trade-Marks	99	No. 104,824 to No. 104,922, inclusive.
Labels	15	No. 18,544 to No. 18,558, inclusive.
Prints	7	No. 3,951 to No. 3,957, inclusive.
Reissues	7	No. 13,983 to No. 13,989, inclusive.
Total	901	

The patents of this issue were pending an average of 21.2 months.

TO RESIDENTS OF THE UNITED STATES.

States.	Patents and Designs.	Trade-Marks, Labels, and Prints.	States.	Patents and Designs.	Trade-Marks, Labels, and Prints.
Alabama	1	2	North Carolina	6	....
Arizona	4	....	North Dakota	1	....
Arkansas	2	....	Ohio	58	12
California	28	4	Oklahoma	5	....
Colorado	11	3	Oregon	3	....
Connecticut	12	3	Pennsylvania	80	7
Delaware	....	1	Rhode Island	9	1
Florida	1	....	South Carolina	3	....
Georgia	6	1	South Dakota	2	....
Idaho	3	....	Tennessee	5	....
Illinois	69	13	Texas	13	1
Indiana	12	1	Utah	2	2
Iowa	9	1	Vermont	2	1
Kansas	8	....	Virginia	5	....
Kentucky	7	1	Washington	12	....
Louisiana	4	....	West Virginia	6	1
Maine	3	....	Wisconsin	29	5
Maryland	12	2	Wyoming	1	....
Massachusetts	56	3			
Michigan	31	4	Alaska, District of	....	....
Minnesota	9	2	Canal Zone	....	....
Mississippi	3	....	District of Columbia	2	1
Missouri	16	4	Hawaii Territory	....	....
Montana	4	....	Philippine Islands	....	....
Nebraska	4	....	Porto Rico	....	....
Nevada	....	....	U. S. Army	....	....
New Hampshire	1	....	U. S. Navy	....	....
New Jersey	40	2	Total to residents of the United States	676	114
New Mexico	....	....			
New York	93	35			

TO RESIDENTS OF FOREIGN COUNTRIES.

Countries.	Patents and Designs.	Trade-Marks.	Countries.	Patents and Designs.	Trade-Marks.
Argentina	....	....	Natal	....	....
Austria-Hungary	5	....	Netherlands	....	....
Belgium	1	1	New South Wales	....	....
British India	....	....	New Zealand	....	....
British West Indies	....	....	Norway	....	....
Canada	13	....	Portugal	....	....
Cape Colony	....	....	Queensland	....	....
Chile	....	....	Roumania	....	....
Costa Rica	....	....	Russia	....	....
Cuba	....	....	Scotland	2	....
Denmark	1	....	South Australia	....	....
England	25	2	Spain	....	....
Finland	....	....	Sweden	3	....
France	5	....	Switzerland	5	2
Germany	32	1	Transvaal, South Africa	1	....
Greece	....	1	Victoria	....	....
India	1	....	Wales	1	....
Ireland	....	....	Total to residents of foreign countries	97	7
Italy	2	....			
Luxemburg	....	....			
Mexico	....	....			

Drawings.

PRECAUTIONS TO BE OBSERVED IN FORWARDING DRAWINGS TO THE UNITED STATES PATENT OFFICE.

Where drawings are to be filed in connection with an application for Letters Patent in the United States Patent Office, each sheet, before it can be accepted by the Office as a part of the application, must be signed in the name of the inventor at the lower right-hand corner, either by him or by an attorney whose written authorization from the applicant is filed in connection with the application. This signature must also be attested by two witnesses, each of whom should sign the drawing at the lower left-hand corner of the sheet. The signatures should never be written on a line parallel with the longer edges of the sheet, one of the shorter edges being always regarded, for the purpose of locating the signatures, as the lower edge of the sheet. The signatures must all be within the margin-lines of the sheet and below the lines of the drawing. The title of the invention should be written with pencil on the back of each sheet of drawings.

When there are filed on the same day two or more applications by the same inventor, each of the documents and drawings belonging to the same application should have placed thereon the same letter or number, which should be different from the letter or number placed upon those of any other of the applications.

It is desirable that all parts of the complete application, including the drawings, be deposited in the Office at the same time. Should, however, the other parts of the application be filed before the drawings are sent, the letter when forwarded should be accompanied by a letter stating the number of sheets inclosed, and that the drawings are to be filed with the other parts of the application, giving the date at which such other parts were filed in the Office, the name of the inventor, and title of the invention. If the application has received a serial number, that should also be given, and it should be indorsed with pencil on the back of each sheet of drawings. The letter should also state, if such be the case, that the new drawings are to be substituted for those previously filed.

APPLICATIONS UNDER EXAMINATION.

Condition at Close of Business June 19, 1915.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action. New.	Amended	No. of applications awaiting action.
314	1. Fences; Fences, Gates; Harrows and Diggers; Plows; Seeders and Planters; Trees, Plants, and Flowers.	Mar. 18	Mar. 13	463
128	2. Bee Culture; Curtains, Shades, and Screens; Dairy; Label Pasting and Paper Hanging; Paper Files and Binders; Medicines; Pneumatics; Presses; Tents, Canopies, Umbrellas, and Canes; Tobacco.	Jan. 16	Mar. 9	770
175	3. Annealing and Tempering; Electric Heating and Rheostats; Electrochemistry; Metal-Founding; Metallurgy; Plastic Metal Working.	June 11	June 11	50
232	4. Conveyers; Elevators; Excavating; Hoisting; Loading and Unloading; Pneumatic Despatch; Railway Mail Delivery; Traversing Hoists.	Feb. 12	May 29	603
167	5. Bookbinding; Harvesters; Jewelry; Music.	Mar. 26	May 20	307
318	6. Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Liquid Coating Compositions; Plastic Compositions; Preserving; Sugar and Salt; Substance Preparation.	Dec. 26	May 27	503
312	7. Educational Appliances; Clutches; Games and Toys; Motors; Optics; Velocipedes.	Apr. 28	May 17	445
131	8. Beds; Chairs; Furniture; Kitchen and Table Articles; Store Furniture; Supports.	Feb. 4	May 24	1187
142	9. Air and Gas Pumps; Fluid-Pressure Regulators; Hydraulic Motors; Motors, Fluid; Motors, Fluid-Current; Pumps.	Nov. 14	June 7	675
235	10. Carriages and Wagons	Mar. 1	May 22	553
154	11. Boot and Shoe Making; Boots, Shoes, and Leggings; Button, Eyelet, and Rivet Setting; Harness; Leather Manufactures; Nailing and Stapling; Whips and Whip Apparatus.	May 14	June 2	101
322	12. Journal-Boxes, Pulleys, and Shafting; Lubrication; Machine Elements.	Apr. 24	June 2	565
329	13. Arms, Projectiles, and Explosive Charges, Making; Bolt, Nail, Nut, Rivet and Screw Making; Boring and Drilling; Button Making; Chain, Staple, and Horseshoe Making; Driven, Headed, and Screw Threaded Fastenings; Gear Cutting, Milling, and Planing; Metal Drawing; Metal Forging and Welding; Metal Rolling; Metal Tools and Implements, Making; Metal Working; Needle and Pin Making; Nut and Bolt Locks; Turning.	May 19	May 19	380
307	14. Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal-Bending; Metal-Ornamenting; Sheet-Metal Ware, Making; Tools; Wire Fabrics and Structure; Wire-Working.	Jan. 23	May 19	279
308	15. Bread, Pastry, and Confection Making; Coating; Fuel; Glass; Laminated Fabrics and Analogous Manufactures; Paper-Making and Fiber Liberation; Plastic Block and Earthenware Apparatus; Plastics.	Feb. 11	May 21	605
109	16. Electric Signaling; Radiant Energy; Telegraphy; Telephony.	Mar. 2	Apr. 6	439
303	17. Matrix-Making; Paper Manufactures; Printing; Type-Bar Making.	Apr. 16	June 5	149
327	18. Injectors and Ejectors; Liquid Heaters and Vaporizers; Miscellaneous Heat-Engine Plants; Steam and Vacuum Pumps; Steam-Engines; Steam-Engine Valves.	May 20	May 18	303
286	19. Dampers, Automatic; Furnaces; Heating Systems; Stoves and Furnaces.	Apr. 19	May 7	216
179	20. Artificial Limbs; Builders' Hardware; Cutlery; Dentistry; Locks and Latches; Safes; Undertaking.	May 22	May 22	167

Applications Under Examination—Continued.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action. New.	Amended	No. of applications awaiting action.
112	21. Brakes and Gins; Carding; Cloth-Finishing; Cordage; Felt and Fur; Knitting and Netting; Silk; Spinning; Weaving; Winding and Reeling.	Mar. 15	May 20	355
249	22. Aeronautics; Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Boats and Buoys; Firearms; Marine Propulsion; Ordnance; Ships.	May 22	May 19	234
379	23. Acoustics; Coin-Handling; Horology; Recorders; Registers; Time-Controlling Mechanism.	Feb. 16	Mar. 1	448
144	24. Apparel; Apparel Apparatus; Sewing-Machines.	Feb. 24	May 11	455
315	25. Butchering; Mills; Threshing; Vegetable Cutters and Crushers.	May 15	May 26	162
106	26. Electricity, Generation; Motive Power.	Jan. 11	Apr. 12	463
372	27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus.	May 1	May 22	280
65	28. Internal-Combustion Engines	Nov. 17	May 8	390
147	29. Coopering; Fire-Escapes; Ladders; Roofs; Wheelwright-Machines; Wooden Buildings; Wood-Sawing; Wood-Turning; Woodworking; Woodworking-Tools.	Apr. 6	May 3	296
152	30. Illuminating-Burners; Illumination; Liquid and Gaseous Fuel Burners; Type-Writing Machines.	Mar. 6	June 2	281
172	31. Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Glue.	Apr. 7	Apr. 30	251
278	32. Agitating; Carbonating Beverages; Dispensing Beverages; Dispensing; Domestic Cooking Vessels; Gas and Liquid Contact Apparatus; Heat Exchange; Ornamentation; Packaging Liquids; Refrigeration.	Feb. 1	June 1	672
71	33. Bridges; Hydraulic Engineering; Masonry and Concrete Structures; Metallic Building Structures; Paving.	Apr. 1	May 1	359
304	34. Railways; Railway-Brakes; Railway Rails and Joints; Railway Rolling-Stock; Railway Ties and Fasteners.	May 18	May 3	223
57	35. Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Garment-Supporters; Toilet.	Mar. 20	June 10	503
264	36. Driers; Geometrical Instruments; Measuring Instruments; Photography.	Apr. 9	June 4	606
107	37. Electric Lamps; Electricity, Conductors; Electricity, Conduits; Electricity, General Applications.	Jan. 2	Mar. 18	682
378	38. Animal Husbandry; Earth Boring; Fishing and Trapping; Stationery; Stone-Working; Wells.	Jan. 30	May 17	464
321	39. Water Distribution	Apr. 1	Apr. 21	444
280	40. Baggage; Bottles and Jars; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Shipping and Storing Vessels; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles.	Jan. 13	Apr. 30	1052
125	41. Railway Draft Appliances; Resilient Tires and Wheels.	Mar. 30	May 19	256
279	42. Railway Signaling; Signals; Electricity-Transmission to Vehicles.	Feb. 10	Mar. 4	723
382	43. Baths and Closets; Electricity, Medical and Surgical; Fire-Extinguishers; Sewerage; Surgery; Water Purification.	May 21	Apr. 24	257

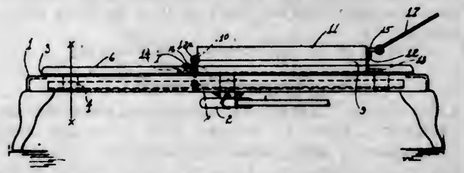
Oldest new case, Nov. 14; oldest amended, Mar. 1.
Total number of applications awaiting action..... 18,616

161	TRADE-MARKS, DESIGNS, LABELS AND PRINTS:			
	Trade-Marks	Apr. 28	June 1	726
	Designs	Mar. 19	Apr. 20	541
	Labels and Prints	June 1	June 8	44

PATENTS

GRANTED JUNE 22, 1915.

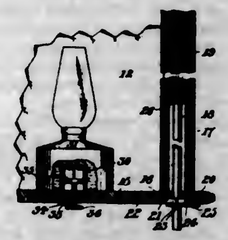
1,143,603. BROILER AND BAKING ATTACHMENT FOR GAS-STOVES. MABEL AARON, Stockton, Cal. Filed Jan. 25, 1915. Serial No. 4,194. (Cl. 126—41.)



1. A device of the character described comprising a frame, carriers movable along said frame, a pin disposed in said carriers, a cooking utensil having one end povitally mounted on said pin, said cooking utensil being arranged to be turned on said pin to reverse the position of the cooking utensil, as described.

2. A device of the character described comprising a frame, carriers movable on said frame, a pin disposed in said carriers, a cooking utensil pivotally mounted on said pin and being arranged to be turned on said pin to reverse the position of such cooking utensil, such cooking utensil comprising two parts hinged together by said pin, as described.

1,143,604. INTERCHANGEABLE PORTABLE LIGHT. JÖSEF ACHBERGER, Middletown, Ohio. Filed Jan. 18, 1915. Serial No. 2,850. (Cl. 240—37.)

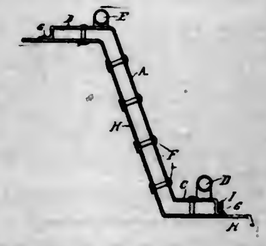


1. A device of the class described comprising in combination with a lantern casing having corner posts provided with central longitudinal bores and with a central movable bottom support portion, spring-pressed legs mounted in said bores and projecting exteriorly of the bottom, brackets carried by said legs and attached to the outer surface of said bottom portion, expansion springs engaging the said legs within said bores and leg engaging latches swingingly mounted upon the said bottom.

2. A lantern comprising a box shape casing having a corner post provided with a central longitudinal bore, a bottom upon said casing having a perforation in alinement with the said bore and having a central opening, a shiftable bottom support normally positioned within the said opening, a leg rod slidably mounted within the said bore and through the said perforation and having its inner headed end seated against the outer end of a spring, a bracket secured to said leg beneath said bottom and attached to the lower face of the said support, the said leg being provided with a shoulder adjacent its point of attachment with said bracket and a swinging latch carried by said bottom adjacent the said leg receiving perforation thereof.

3. A lantern comprising a casing having a threaded bushing extending through the bottom thereof, an open ended tapered tubular bracket secured to the inner side of said bottom circumferentially of the said bushing and having longitudinal side slots therein forming intervening lamp engaging side portions, inwardly projecting candle engaging pins at the upper edges of said side portions, a screw movably threaded within said bushing, a disk having a slightly tapered peripheral surface mounted upon the inner end of the said screw engagingly positioned within the said bracket and an exteriorly arranged hand engaging turn member upon the said screw.

1,143,605. FEED-WATER HEATER. CALVIN H. BILLINGSLEY, French Lick, Ind. Filed Apr. 15, 1913. Serial No. 761,249. (Cl. 122—423.)

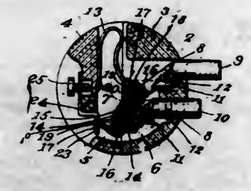


The combination with the flues, smoke-box usual draft sheet and nozzle-box at the forward end of a locomotive boiler, of a combined deflector, draft sheet and feed water heater independent of the usual draft sheet aforesaid, consisting of a substantially thin and flat reservoir having imperforate upright and horizontal parts, the walls of which are connected by stay bolts, said upright and horizontal parts being arranged at an angle to each other and both extending entirely across the smoke-box and connected to the interior of the boiler shell, said feed water heater being disposed with its upright part constituting a deflector which is inclined downwardly and forwardly in relation to the front end of the boiler and disposed in front of the flues thereof, the horizontal part of the reservoir being also hollow and straddling said nozzle-box and provided with clean-out means at its front, the feed water heater being adapted to directly receive the flame and heat from the boiler flues and to deflect them below its lower edge and below the horizontal part aforesaid, and water inlet and outlet means for said reservoir.

1,143,606. MECHANICAL MOVEMENT. TONJES AUGUST CARL BOTH, Malden, Mass., assignor, by mesne assignments, to The Zee Socket & Mfg. Co., Boston, Mass., a Corporation of Massachusetts. Original application filed Dec. 30, 1911, Serial No. 668,632. Divided and this application filed Mar. 29, 1912. Serial No. 687,184. (Cl. 74—39.)

1. A mechanical movement comprising two independent reciprocating driving members, an independent intermediate member pivotally connected to the reciprocating driving members and provided with valleys at its ends, and a reciprocating spring having a surface to coöperate with the valleys in the intermediate member.

2. A mechanical movement comprising two reciprocating driving members, a pivoted intermediate member connected to the reciprocating members and provided with valleys at its ends, a reciprocating compression spring having a surface to coöperate with the valleys in the pivoted intermediate member and to be compressed by the pivoted intermediate member.



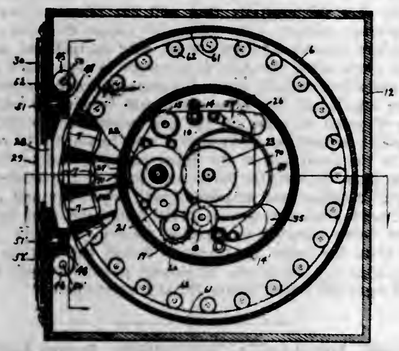
3. A mechanical movement comprising two independent reciprocating driving members, an independent intermediate member pivotally connected to the reciprocating members and provided with valleys and kickers at its ends, and a reciprocating spring having a surface to coöperate with the valleys in the intermediate member.

4. A mechanical movement comprising two independent reciprocating driving members located adjacent to each other, an independent intermediate member pivotally connected to the reciprocating driving members and provided with valleys at its ends and a reciprocating spring having a surface to coöperate with the valleys in the intermediate member.

5. A mechanical movement including a support, two reciprocating driving members located on the same side of the support and of the intermediate member, an intermediate member connected to the reciprocating driving members and provided with valleys at its ends, and a reciprocating resilient driven member located on the side of the intermediate member opposite from the driving members and having a surface to coöperate with the valleys in the intermediate member.

[Claims 6 to 9 not printed in the Gazette.]

1,143,607. MOVING-PICTURE MACHINE. BURT A. BRIGDEN, Cleveland, Ohio. Filed Sept. 19, 1912, Serial No. 721,250. Renewed Nov. 17, 1914. Serial No. 872,649. (Cl. 88—16.8.)



1. In a moving picture apparatus, the combination of a traveling film, and a succession of radial objectives traveling in the same direction as the film across the exposure opening, and means whereby a plurality of objectives will simultaneously operate on different parts of the field during movement across the exposure opening.

2. In a moving picture apparatus, the combination of a traveling film, and a succession of radial objectives, traveling in the same direction as the film across the exposure opening, and a shutter, the opening of which at each operation travels with the movement of the objectives across said opening.

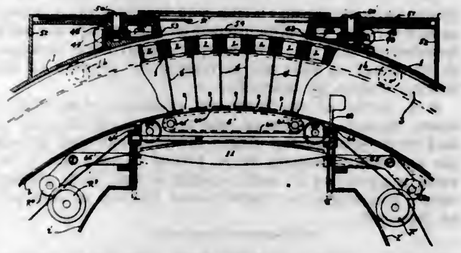
3. In moving picture apparatus, the combination of a circular rotatable carrier having a central recess, a series of lenses disposed radially on said carrier, around said recess, and means within said recess for supporting and advancing a traveling picture strip in position for exposure through said lenses successively.

4. In a moving picture apparatus, the combination of a circular revolving carrier having a central recess, a series of radial objectives mounted on said carrier, a relatively fixed casing located within said recess, and having an exposure opening, and means located within said casing to advance a film across said opening, in position for exposure through the objectives successively.

5. In moving picture apparatus, the combination of a revolving ring of radial objectives and means to make exposures through the same successively, and means to simultaneously focus the said objectives while the ring is moving.

[Claims 6 to 21 not printed in the Gazette.]

1,143,608. MULTICOLOR-MOVING-PICTURE MACHINE. BURT A. BRIGDEN, East Cleveland, Ohio. Filed Aug. 1, 1913. Serial No. 782,457. (Cl. 88—16.4.)



1. In a moving picture apparatus, the combination of a traveling film, means for advancing the film and means to record a field in different color representations on different parts of said film, said means including different color screens located opposite different parts of said film at the exposure opening, and a series of rows of traveling objectives movable across the exposure opening, each row corresponding in position to one of the color screens and means for moving the objectives.

2. In a moving picture apparatus, the combination of a rotary carrier having rows of slots, a series of rows of lenses carried by said carrier and corresponding to the slots in position, means for rotating the carrier, a color screen corresponding to each row of lenses, and means for supporting and advancing a traveling picture strip in position for exposure through said lenses and slots successively.

3. In a moving picture apparatus, the combination of a rotary carrier, means for rotating the carrier, a succession of objectives arranged in different rows thereon and in the same number and relative position in the respective rows, the carrier having exposure slots corresponding to the objectives in position, different color screens through which the respective rows of objectives operate, and means for supporting and advancing a traveling picture strip in position for simultaneous exposure of different parts thereof through the respective rows of slots and objectives.

4. In a moving picture apparatus, means for feeding a film comprising a feed roller or sprocket, a driving gear for the same including a shaft, a friction driven disk thereon, a friction driving disk, and means to shift the shaft to engage or disengage the disks, or to move the driven disk toward or from the center of the driving disk.

5. In a moving picture apparatus, means for feeding a film comprising a feed roller, a sliding frame, a shaft shiftable laterally with the frame and longitudinally in the frame, gearing between said shaft and the feed roller, a lever operatively connected to the frame and the shaft and movable in one direction to shift the frame and in another direction to shift the shaft, a driving shaft and friction gears operatively connecting the driving shaft and the shiftable shaft one of which gears is carried by the shiftable shaft and is movable therewith, for the purposes stated and the other of which is carried by the driving shaft.

1,143,609. METAL-FOIL ENVELOP OR CONTAINER. ADOLF BEYNER, Brooklyn, N. Y., assignor to Conley Foil Company, New York, N. Y., a Corporation of New York. Filed Nov. 20, 1913. Serial No. 802,104. (Cl. 220—5.)

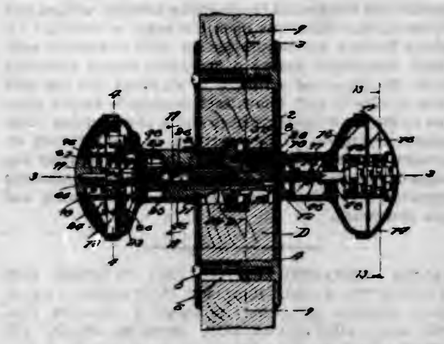


1. As a new article of manufacture, a hermetically sealed metallic envelop or container, consisting of a thin sheet of pliable metal fusible at low temperature, folded upon itself and about the article or substance to be inclosed, with the marginal edges of the sheet contacting and extending in the same direction and integrally united by a metallic seam composed wholly of fused metal portions of the sheet.

2. As a new article of manufacture, a hermetically sealed package or container comprising two layers of relatively heavy metallic foil superposed one upon the other with their marginal edges coinciding and integrally united by a metallic seam composed solely of fused metal portions of said layers.

3. As a new article of manufacture, a hermetically sealed package or container consisting of a circular sheet of relatively heavy flexible metal foil fusible at low temperature, said sheet being folded upon itself about the article or substance to be inclosed, the two semi-circular margins of the folded sheet overlapping and extending in the same direction with their outer curved edges substantially coinciding and inseparably united by a continuous metallic seam composed solely of fused metal portions of the sheet, said seam extending entirely around the said semi-circular margins of the package.

1,143,610. LOCK. SELBY C. CARR, Muskogee, Okla. Filed Dec. 28, 1912. Serial No. 739,136. (Cl. 70—91.)



1. In lock mechanism, a lock and latch bolt, a shiftable spindle, means arranged when the spindle is in one shifted position and rotated, to retract the bolt and when the spindle is in another shifted position to be out of operative relation to the bolt, means for shifting the spindle, and means for holding the spindle in its last mentioned shifted position in all positions of rotation of the spindle, the said means being movable into and out of position to release the spindle for movement to its first mentioned shifted position when the spindle is rotated to a predetermined position.

2. In lock mechanism, a lock and latch bolt, a shiftable spindle, means arranged when the spindle is in one shifted position and rotated, to retract the bolt and when the spindle is in another position to be out of operative relation to the bolt, means for shifting the spindle, and means for holding the spindle in its last mentioned shifted position, the said means being arranged when in one position to release the spindle for movement to its first mentioned shifted position when the spindle is rotated to a predetermined position, and being arranged when in another position to hold the spindle against such movement at all points in its rotative movement.

3. In lock-mechanism, a lock and latch bolt, a shiftable spindle, means arranged when the spindle is in one shifted position and rotated to retract the bolt and when the spindle is in another shifted position to be out of operative relation to the bolt, means yieldably holding the spindle in its first mentioned position and arranged to shift the spindle to such position when released from its second mentioned shifted position, means for moving the spindle to its second mentioned shifted position, and means arranged to hold the spindle in the first mentioned position, said means being arranged, when in a predetermined relation to the spindle to release the latter at a point in its rotative movement, and arranged when in another position to restrain the spindle against movement to its first mentioned position at all points in its rotative movement.

4. In lock mechanism, a lock and latch bolt, a shiftable spindle, means arranged when the spindle is in one shifted position and rotated to retract the lock-bolt and when the spindle is in another shifted position to be out of operative relation to the bolt, means yieldably holding the spindle in its first mentioned position and arranged to shift the spindle to such position, means for moving the spindle to its second mentioned shifted position, means arranged to hold the spindle in the last mentioned position, said means being arranged, when in a predetermined relation to the spindle to release the latter at a point in its rotative movement, and arranged when in another position to restrain the spindle against movement to its first mentioned position at all points in its rotative movement, and key-operated means for rotating the spindle.

5. In lock-mechanism, a lock and latch bolt, a shiftable spindle, means arranged when the spindle is in one shifted position and rotated to retract the bolt and when the spindle is in another shifted position to be out of cooperative relation to the bolt, a knob arranged at each end of the spindle, key-operated means carried by one of the knobs for rotating the spindle, and means carried by the other knob for holding the spindle in its second mentioned shifted position in all positions of rotation of the spindle and movable to position to release the spindle for movement to its first mentioned shifted position.

[Claims 6 to 28 not printed in the Gazette.]

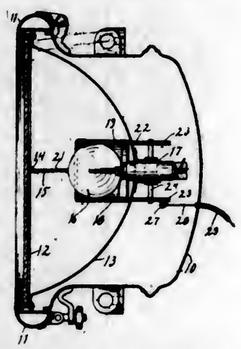
1,143,611. HEADLIGHT-DIMMER. FREDERIK C. CHRISTENSEN and THEODORE W. FULLER, Racine, Wis. Filed Jan. 2, 1914. Serial No. 809,836. (Cl. 240—45.)

1. In a headlight or the like having an electric lamp and its reflector, a spring retracted tubular guard normally held in a position in front of the electric light, and means for drawing the guard to a position surrounding the electric lamp where it will intercept the rays of light to the reflector.

2. In a headlight or the like having an electric lamp and its reflector, a tubular guard movable axially of the headlight from a position in front of the electric light to a position surrounding the electric light where it intercepts the rays of light to the reflector, and a translucent covering on the outer end of the guard.

3. In a headlight or the like having an electric lamp

and its reflector, a wire stretched across the reflector, a pair of parallel guide wires connecting said wire with the reflector, a tubular guard slidably mounted on the guide wires, springs connecting the guard with the first mentioned wire for normally holding the guard in front of the electric lamp, and means for drawing the guard along the guide wires to a position where it surrounds the electric lamp and intercepts the rays of light to the reflector.

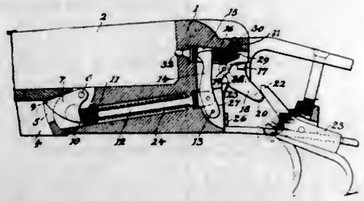


4. In a headlight or the like having an electric lamp and its reflector, a spring retracted cylindrical guard suitably mounted to move from a position in front of the electric lamp to a position where it surrounds the electric lamp and intercepts the rays of light to the reflector, and means for moving the guard to the latter position, comprising wires connected with the guard and passing through the reflector, a pair of grooved pulleys to which the wires are secured, a shaft carrying the grooved pulleys, a clamp surrounding the lamp socket and forming a support for the shaft, and means for turning the shaft.

5. In a headlight or the like having an electric lamp and its reflector, a wire stretched across the front of the lamp and connected to the edges of the reflector, a pair of parallel guide wires connected with the first mentioned wire and secured to the reflector, a tubular guard or shield comprising a coil spring with a covering having projecting loops engaging the guide wires, springs connecting the guard or shield with the first mentioned wire, and means for drawing the guard or shield along the guide wires to a position where it surrounds the electric lamp and intercepts the rays of light to the reflector.

[Claim 6 not printed in the Gazette.]

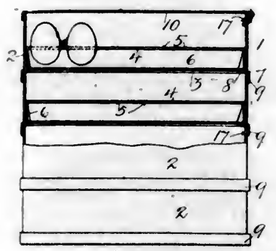
1,143,612. BREECH MECHANISM OF GUNS. BRUNO CLARUS, Liege, Belgium. Filed Oct. 12, 1911. Serial No. 654,369. (Cl. 42—43.)



1. A hammerless gun comprising a barrel, a pivotally mounted cocking member actuated during the rocking of the barrel, a spring-controlled rod actuated by said cocking member, a percussion lever connected to said rod, a percussion bolt formed with a recess adapted to be engaged by said percussion lever so as to move said percussion bolt rearwardly, and also formed with a slot, and a scar adapted to engage said slot to hold the percussion bolt in its cocked position.

2. A hammerless gun comprising a breech, a stock-iron, a cocking member pivotally mounted in the stock-iron and actuated during the opening of the breech, a breech frame, a rod passing through a recess formed in said frame, an adjustable nut on one end of said rod adapted to be engaged by said cocking member to move said rod longitudinally, a spring surrounding said rod arranged between said nut and said breech frame, a percussion lever pivoted to the other end of said rod, a percussion bolt formed with a recess adapted to be engaged by said percussion lever so as to move said bolt rearwardly on the opening of the breech, a sear, a lug on said sear adapted to engage a slot formed in the percussion bolt so as to hold said bolt in its cocked position, and a trigger adapted to actuate said sear to disengage said lug from said slot so as to allow the percussion bolt to move forward rapidly under the action of said spring.

1,143,613. EGG-SORTING DEVICE. WALTER H. COLLINS, Summit, N. J. Filed Sept. 18, 1913. Serial No. 790,439. (Cl. 217—13.)



1. In a device of the class described, the combination of a plurality of receptacles for receiving a supply of eggs, and adapted to be stacked one upon the other so that one receptacle forms a top closure for the one next below, each of said receptacles having a depending flange extending around the same arranged to surround the top edge of the receptacle next below, each receptacle having apertures to receive a hinge member, the apertures of one receptacle being arranged to be closed by the depending flange of the receptacle above it, and a cover having a hinge member insertible in the apertures of the different receptacles, whereby said cover may be removed from one receptacle and be attached to a receptacle added to the stack.

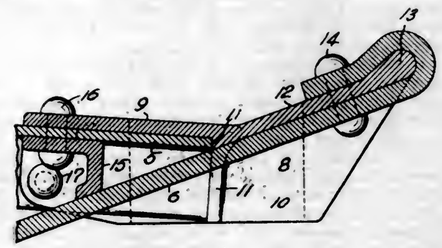
2. In a device of the class described, the combination of a plurality of receptacles for receiving a supply of eggs, and adapted to be stacked one upon the other so that one receptacle forms a top closure for the next one below, each of said receptacles having a depending flange extending around the same and arranged to surround the top edge of the receptacle next below, each receptacle having apertures to receive a hinge member and a cover having hinge members insertible in the apertures of the different receptacles, whereby said cover may be removed from one receptacle and be attached to another, said hinge members comprising a rod extending downward, then forward and again downward.

1,143,614. CLEANING-CLOTH AND PROCESS FOR PRODUCING SAME. BENJAMIN H. CRISWELL, Canton, Ohio, assignor of one-half to Daniel L. Holwick, Canton, Ohio. Filed Apr. 12, 1915. Serial No. 20,703. (Cl. 87—5.)

1. The process of producing a cleaning cloth which consists, first, impregnating the cloth with a solution of salt, Epsom salt and water; second, drying the fabric; third, impregnating the fabric with oleic acid, petrolatum, ammonia, glycerin, tripoli, whiting and water; and fourth, drying the fabric.

2. As an improved article of manufacture, a cloth impregnated with the following ingredients, to-wit: salt, Epsom salt, oleic acid, petrolatum, ammonia, glycerin, tripoli, whiting and water.

1,143,615. BOLSTER. FRANK DITCHFIELD, Montreal, Quebec, Canada. Filed Apr. 10, 1914. Serial No. 830,931. (Cl. 105—107.)



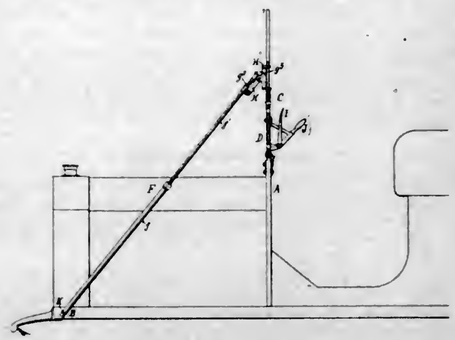
1. In a bolster, compression and tension members, an end member connecting said compression and tension members at their ends, and a key inserted between the compression and tension members within said end member and connected through the compression member with the end member.

2. In a bolster, compression and tension members, an end member connecting and embracing the ends of said compression and tension members, and a key inserted between the ends of said compression and tension members within and attached to the end member, arranged to hold the compression and tension members against movement relative to one another and to the end member.

3. In a bolster, compression and tension members, an end member embracing the top and sides of the compression and tension members, and a key inserted between the ends of the compression and tension members arranged to force the compression member upwardly against the end member.

4. In a bolster, a compression member of channel section and a tension member passing between the flanges thereof, an end member of channel form embracing the extremities of said compression and tension members, an internal rib on said end member forming an abutment for the compression member, and a key inserted between the ends of the compression and tension members arranged to hold the compression member in engagement with its abutment.

1,143,616. WIND-SHIELD FOR VEHICLES. OLIVER M. EDWARDS, Syracuse, N. Y. Filed Feb. 1, 1909. Serial No. 475,333. (Cl. 21—148.)



1. The combination with a vehicle; of a wind shield comprising a movable portion, adjustable holding means connected to the vehicle and the movable portion and including a locking part for securing the holding means in any adjusted position, and operating means for the locking part comprising power transmitting rods arranged at an angle to each other and associated, respectively, with the holding means and the movable portion of the shield, and intermeshing gear members associated with the rods for transmitting the motion of the rod associated with the shield to the rod associated with the holding means, substantially as and for the purpose described.

2. The combination with a vehicle; of a wind shield comprising a movable portion, adjustable holding means including telescoping rods connected to the vehicle and to the adjustable portion of the shield, the holding means also including a movable locking part for securing the rods in any adjusted position, and operating means for the holding part comprising power transmitting parts associated with the holding rods and extending lengthwise thereof, and with the movable portion of the shield, the rods being arranged at an angle to each other and having intermeshed toothed members connected, respectively, to said power transmitting parts, a spring arranged to move the locking part out of operative position and the toothed member being movable out of mesh with the other, and a stronger spring acting on the power-transmitting part associated with the movable portion of the shield to return the power-transmitting parts and the locking part to their starting positions, substantially as and for the purpose specified.

3. The combination with a vehicle; of a wind shield including a hinged portion, adjustable brace rods pivotally connected to the vehicle and to the hinged portion eccentric to the axis thereof, the holding means comprising a movable locking part operable to secure the brace rods in any adjusted position, and operating means for the locking part including power transmitting parts associated, respectively, with the brace rods and the movable portion of the shield, said parts being arranged at an angle to each other and intermeshing gearing connected, respectively, to the power transmitting parts and supported by the movable portion of the shield near the point of connection of the holding means and the movable portion of the shield and at an angle to said parts, substantially as and for the purpose set forth.

4. The combination with a vehicle; of a wind shield comprising a movable portion, adjustable brace rods connected to the movable portion and including a movable locking part for securing the holding means in any adjusted position, and operating means for the locking part comprising endwisely movable parts extending, respectively, in the direction of the plane of the movable portion of the wind shield, and parallel to the direction of the adjusting movement of the rods, a toothed segment pivoted to the movable portion of the wind shield and connected to one of said parts and a rack associated with the other of said parts and meshing with the segment, substantially as and for the purpose described.

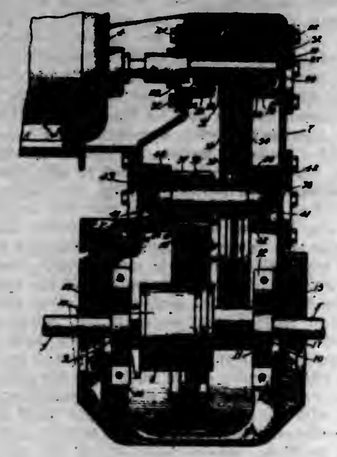
5. The combination with a vehicle; of a wind shield comprising a hinged movable portion, adjustable holding means pivotally connected to the movable portion eccentric to the axis thereof and including a movable locking part for securing the holding means in any desired position, and operating means for the locking part including power transmitting connections, a portion of which extends in the direction of the plane of the wind shield and includes a rack, and another portion of which extends parallel to the direction of the adjusting movement of the holding means, the power-transmitting connections also including a toothed segment mounted concentric with the pivotal axis connecting the holding means and the movable portion of the wind shield and meshing with the rack, substantially as and for the purpose specified.

[Claims 6 to 14 not printed in the Gazette.]

1,143,617. TRANSMISSION-GEARING. WILLIAM EHRLICH, Chicago, Ill., assignor to Case & Martin Co., Chicago, Ill., a Corporation of Illinois. Filed Dec. 31, 1914. Serial No. 879,817. (Cl. 74—41.)

1. In transmission gearing, a longitudinal self-aligning gear consisting of right and left hand spiral toothed sec-

tions secured together and adapted to coöperate with a correspondingly toothed and longitudinally fixed gear.



2. In transmission gearing, the combination of a longitudinally movable gear formed with right and left hand teeth, and a correspondingly toothed and longitudinally fixed gear with which the first gear meshes, whereby the first gear is maintained in longitudinal alinement.

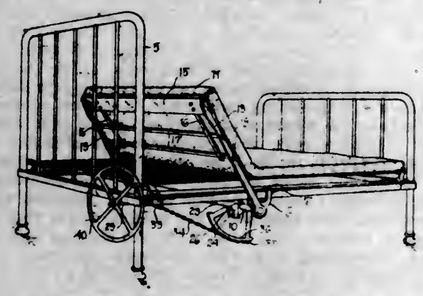
3. In transmission gearing, the combination with a self-alining gear consisting of oppositely toothed portions, a member to which the portions are secured, and means to permit the free longitudinal movement of the said member.

4. In transmission gearing, the combination with a gear having oppositely toothed portions, a member to which said portions are secured, bearing glands at the ends of the member, and anti-friction bearings between the glands and the member adapted to permit the longitudinal movement of the member.

5. In transmission gearing, the combination with a casing having alined openings in opposite sides, of bearing glands extending from the outside of the casing into said openings, anti-friction bearings freely movable in the bearing glands, a rotatable member mounted in the anti-friction bearings, and a gear secured to the member and movable longitudinally with the member for self-alining.

[Claims 6 to 12 not printed in the Gazette.]

1,143,618. BED ATTACHMENT. MARTIN R. EWALD, Pentwater, Mich. Filed Sept. 12, 1914. Serial No. 861,456. (Cl. 5—43.)



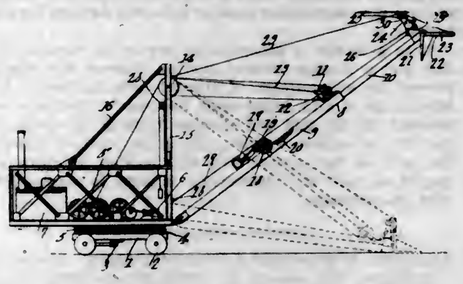
1. The combination with a bed, of a transverse rock shaft removably mounted thereon, lifting arms secured upon said shaft, a removable brace between said shaft and one end of the bed frame, a slide member mounted upon said brace, operating means between said member and the shaft to rock the latter, and means for actuating said slide member to rock the shaft and elevate the lifting arms.

2. The combination with a bed, of removable hanger bearings secured to the side rails of the bed, a rock shaft journaled at its ends in said bearing, lifting arms fixed upon the ends of said shaft, mattress supporting means connecting said arms, a removable brace arranged between said shaft and one end of the bed frame, a slide block longitudinally movable upon said brace, an operating screw mounted upon the brace and threaded in said block to slide the same, and means connecting said slide block to the rock shaft to actuate the latter and elevate the lifting arms.

3. The combination with a bed, of hanger bearings removably clamped to the side rails of said ber, a rock shaft journaled in said bearings, lifting arms secured upon the ends of said shaft, mattress supporting means connecting said arms, a removable brace arranged between the shaft and one end of the bed frame, a sector fixed upon the shaft, a slide block longitudinally movable on the brace, a flexible connection between said slide block and the sector, and manually operable means mounted upon the brace for actuating said slide block to rock the shaft and elevate the lifting arms.

4. The combination with a bed, of hanger bearings removably clamped upon the side rails of said bed, a rock shaft journaled at its ends in said bearings, lifting arms fixed upon the ends of said shaft, mattress supporting means connecting said arms, a removable brace arranged between the shaft and the end of the bed frame, a block slidably engaged upon said brace, an adjusting screw rotatably mounted upon the brace and threaded in said block, a sector fixed upon the rock shaft in line with said adjusting screw, and a flexible element connected to the slide block and to said sector whereby the rock shaft is actuated and the lifting arms elevated.

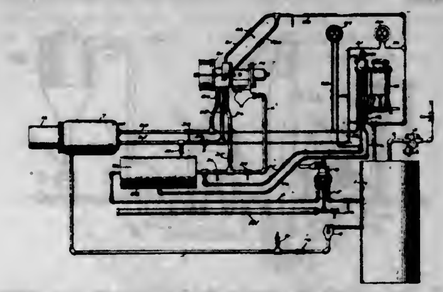
1,143,619. EXCAVATING-MACHINE. JOHN W. FAIRBANKS, Marion, Ohio. Filed Apr. 4, 1914. Serial No. 829,579. (Cl. 37—16.)



An excavating machine including a boom, a scoop hingedly connected to the boom, a looped handle upstanding from the scoop, a cross pin carried thereby, a dog for engaging the pin to lock the scoop against movement relative to the boom, and means connected to the arm for retarding the movement of the scoop to discharging position relative to the boom, and means for actuating the dog to release the arm.

1,143,620. TRIPLE-VALVE-TESTING APPARATUS. CLYDE C. FARMER, Chicago, Ill., assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Feb. 4, 1909. Serial No. 475,972. (Cl. 73—51.)

1. In a triple valve testing apparatus, the combination with a brake pipe and auxiliary reservoir, a movable abutment subject to the opposing pressures of the auxiliary reservoir and brake pipe, means for loading the abutment to correspond with a predetermined difference in pressures between the auxiliary reservoir and brake pipe, and valve means governed by said abutment for regulating the pressure on one side of said abutment to maintain said difference in pressures constant.



2. In a triple valve testing apparatus, the combination with a brake pipe and auxiliary reservoir, of a movable abutment subject to the opposing pressures of the auxiliary reservoir and brake pipe, valve means operated by said abutment for regulating the fluid pressure on one side of said abutment, a plurality of weights for loading said abutment, and manually operated means for relieving the abutment of the load of one or more weights.

3. In a triple valve testing apparatus, the combination with a brake pipe and auxiliary reservoir, of a movable abutment subject to the opposing pressures of the auxiliary reservoir and brake pipe, valve means operated by said abutment for regulating the fluid pressure on one side of said abutment, a plurality of weights adapted to be suspended from said abutment to apply a load thereto corresponding with a predetermined difference in pressures, and manually operated means for varying the number of weights acting on said abutment.

4. A pressure regulating mechanism for testing valve mechanisms employed with fluid pressure brakes comprising two receptacles containing fluid under pressure, means for gradually reducing the pressure in one receptacle, a movable abutment subject to the opposing pressures in said receptacles, means for loading said abutment to correspond with a predetermined difference in pressures, and a vent valve operated by said abutment for releasing fluid from the receptacle the pressure in which opposes that in the receptacle whose pressure is being reduced to maintain said predetermined difference in pressure constant.

5. In a triple valve testing apparatus, the combination with a brake valve provided with a supply port and having means for varying the brake pipe pressure, of a feed regulating mechanism comprising a rotatable disk valve having a series of ports of graduated sizes and having a seat provided with a port for supplying fluid to said supply port upon registry with one of said series of ports and a manually operated handle for rotating said disk valve.

[Claim 6 not printed in the Gazette.]

1,143,621. LICORICE-ROOT-FIBER BOARD. WILLIAM L. GEDDES, Philadelphia, Pa., assignor to MacAndrews & Forbes Company, Camden, N. J., a Corporation of New Jersey. Filed Apr. 9, 1914. Serial No. 830,789. (Cl. 92—14.)

The process of forming artificial board, which consists in treating spent licorice root with a caustic substance to remove the resin and other non-cellulose constituents, washing the caustic substance from the pulp thereafter and forming the pulp into sheets.

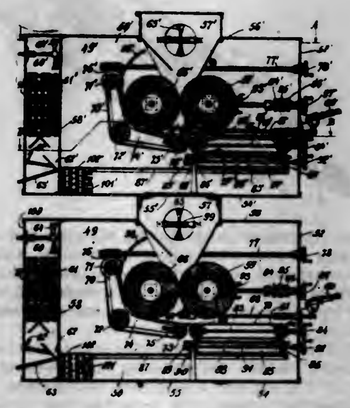
1,143,622. COMPOSITION FOR CORE OF GAS-CHECK PADS. GREGORY GERDOM, Watervliet, N. Y., assignor to Ordnance Improvement Company, New York, N. Y., a Corporation of New York. Filed July 10, 1913. Serial No. 778,392. (Cl. 106—1.)

1. The improved composition of matter comprising tung oil, tallow, petroleum jelly and asbestos, in substantially the proportions of tung oil 10 pounds, tallow 14 pounds, petroleum jelly 7 pounds, asbestos 70 pounds.

2. The improved composition of matter comprising a mixture of tung oil, tallow and petroleum jelly, in substantially the proportions of 10 pounds of tung oil, 14 pounds of tallow, and 7 pounds of petroleum jelly, which have been heated to a temperature of about 400° F., and finely shredded asbestos in the proportion of about 35 pounds of asbestos to 16 pounds of said mixture.

3. The improved method of preparing a plastic core for obturators of breech loading ordnance, consisting in first separately heating to a temperature of about 400° F. and then combining in the following proportions, tung oil 10 pounds, tallow 14 pounds, petroleum jelly 7 pounds, and then mixing with this composition 35 pounds of finely shredded asbestos to 16 pounds of said composition at a temperature of about 250° F., then allowing the mass to become cold, and then mixing, compressing and shaping the same while cold into the desired form.

1,143,623. HANDLING AND TREATING COMBUSTIBLE GASES AND VAPORS. WILLIAM M. GROSVENOR, Ridgewood, N. J. Filed June 27, 1911. Serial No. 635,684. (Cl. 34—24.)



1. The method of handling combustible vapors evolving from material during the course of manufacture, which consists in treating the material in two stages, in the first stage maintaining the percentage of volatilized vapor in the medium surrounding the material so great that the medium is non-explosive, and in the second stage maintaining the percentage of volatilized vapor in the surrounding medium so small that the medium is non-explosive.

2. The process of handling combustible vapors which consists in carrying out the process in two stages, in one stage maintaining the vapors in a condition of excessive enrichment to render them non-explosive, and in the other stage maintaining them in a condition of excessive impoverishment to render them non-explosive.

3. The process of recovering solvents evolved from material in drying operations which consists in condensing the solvents in two stages, in the first condensing only so much of the solvents as to maintain such a comparatively large percentage of solvent vapor in the medium surrounding the material as to render the medium non-explosive, and in the second condensing and removing so much of the solvent vapor as to maintain such a comparatively small percentage of solvent vapor in the surrounding medium as to render the medium non-explosive.

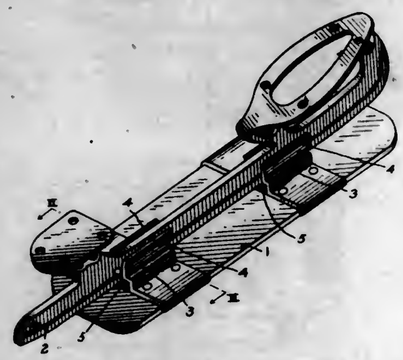
4. The process of handling combustible vapors evolving from material in drying operations which consists in treating drying in two stages, in one maintaining the drying medium in a non-explosive condition due to excess of combustible gas or vapor, and in the other stage maintain-

ing the drying medium in a non-explosive condition due to excess of non-combustible gas or vapor.

5. The method of handling combustible gases evolving from material in drying operations and the like, which consist in handling them in two stages, in one stage adjusting the temperature, pressure, rate of evolution and removal of gases such that the ratio of combustible gas to oxygen is excessive so that the propagation of explosions is prevented, and in the second stage adjusting the temperature, pressure, rate of evolution and removal of gases such that the ratio of air to combustible gas is so great that explosion is prevented.

[Claims 6 to 14 not printed in the Gazette.]

1,143,624. SKATE ATTACHMENT. JOHN N. HAUCH, Pittsburgh, Pa. Filed Feb. 19, 1915. Serial No. 9,394. (Cl. 46—53.)



1. An attachment for protecting the runner of a skate, comprising a wide tread supporting member, and spring clips secured to it, which clips when under pressure yield laterally to receive the runner of a skate and which in and of themselves are effective to secure such support to said runner.

2. A skate attachment comprising a wide tread supporting member, means for attaching such member to the runner of a skate, and a cushioner on the upper face of said supporting member for protecting the runner of a skate from being dulled by said member.

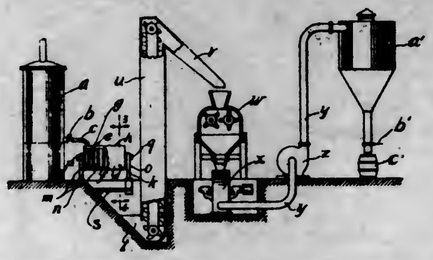
3. A skate attachment, comprising a relatively wide plate, a pair of oppositely disposed spring clips secured thereto and adapted to engage the runner of a skate, and a cushioning member between said clips and above said plate.

4. An attachment for protecting the runner of a skate, comprising a wide tread supporting member, and spring clips secured at one end to said member and having outwardly turned free ends, said clips yielding laterally to receive the runner of a skate and in and of themselves effective to secure said support to such runner.

1,143,625. PROCESS FOR COOLING AND REDUCING NITRATE OF LIME. INGENUIN HECHENBLEIKNER, Great Falls, S. C., assignor to Southern Electro-Chemical Company, New York, N. Y., a Corporation of New Jersey. Filed Aug. 13, 1914. Serial No. 784,535. (Cl. 23—13.)

1. The process of treating fluid nitrate of lime which consists in collecting the same in segregated pools, circulating a cooling medium around said pools to harden the nitrate of lime into separated cakes and then pulverising the cakes.

2. The process of treating fluid nitrate of lime which consists in collecting the same in molds in the form of segregated pools, circulating a cooling medium around said pools to harden the nitrate of lime into separated cakes, then comminuting the cakes and passing an air blast over the nitrate of lime while it is being comminuted to prevent the nitrate of lime from becoming heated.



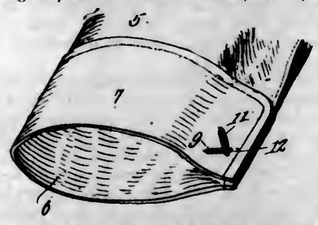
3. The process of treating fluid nitrate of lime which consists in collecting the same in segregated pools, circulating a cooling medium around said pools to harden the nitrate of lime into separated cakes, then softening the walls of the cakes by heat to free them from the walls of the molds, then dislodging the cakes from the molds and reducing the cakes to a finely divided state.

4. The process of treating fluid nitrate of lime which consists in collecting the same in segregated pools, circulating a cooling medium around said pools to harden the nitrate of lime into separated cakes, dislodging the cakes and causing them to move against an obstruction to break up the cakes and then pulverising the same.

5. The process of treating fluid nitrate of lime which consists in collecting the same in molds in the form of segregated pools, circulating a cooling medium around said pools to harden the nitrate of lime into separated cakes, then comminuting the cakes and passing an air blast over the nitrate of lime while it is being comminuted to prevent the nitrate of lime from becoming heated and carrying the nitrate of lime to the point of delivery on an air current.

[Claims 6 to 10 not printed in the Gazette.]

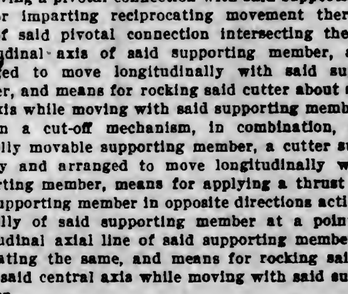
1,143,626. CUFF. GERHARD P. HELMERS, Baltimore, Md. Filed Aug. 29, 1914. Serial No. 859,163. (Cl. 2—79.)



A wrist band having a cuff attached thereto and provided with a permanent folding line therebetween whereby said cuff can be folded back upon the wrist band, said cuff and wrist band each being provided adjacent their ends with a button hole inclined relative to said folding line, said button holes in each respective part being inclined in opposite directions and corresponding button holes in respective ends being arranged parallel with each other with their outer terminals spaced an equal distance from the folding line and also from the edges of said ends, whereby, when the cuff is folded upon the wrist band, said corresponding button holes will lie in angular relation with respect to each other and to said folding line with their outer terminals in register and diverging backwardly toward the center of the cuff.

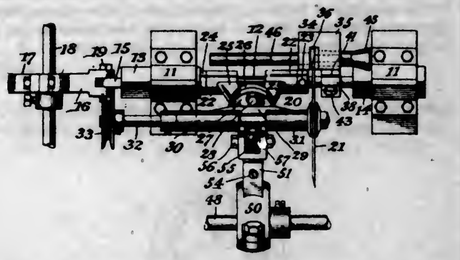
1,143,627. COMBINED CIGARETTE-BOX AND MATCH-HOLDER. JOHN HEBETYK, Fulton, N. Y. Filed Sept. 17, 1914. Serial No. 862,200. (Cl. 206—48.)

A device of the class described comprising in combination with a box casing and a slidable container tray therein, a match holder consisting of a base strip flatly secured to the outer side of the upper wall of the casing, a lid hingedly secured to the rear edge of said strip, a front marginal flange upon said strip adapted for the reception of said lid therebehind when in its closed position, the upper wall and strip having alining central openings



therethrough, a connector extending through the said openings and having one end thereof secured to the rear end of the tray within the casing and its other end centrally secured to the lower face of said lid, and the said lid provided with a roughened match striking surface upon its outer side.

1,143,628. CUTTING MECHANISM FOR CIGARETTE-MACHINES. JAMES M. HORNADAY, Durham, N. C., assignor to Liggett & Myers Tobacco Company, St. Louis, Mo., a Corporation of New Jersey. Filed Mar. 3, 1914. Serial No. 822,143. (Cl. 131—37.)



1. In a cut-off mechanism, in combination, a longitudinally movable supporting member, an actuating member having a pivotal connection with said supporting member for imparting reciprocating movement thereto, the axis of said pivotal connection intersecting the central longitudinal axis of said supporting member, a cutter arranged to move longitudinally with said supporting member, and means for rocking said cutter about said central axis while moving with said supporting member.

2. In a cut-off mechanism, in combination, a longitudinally movable supporting member, a cutter supported thereby and arranged to move longitudinally with said supporting member, means for applying a thrust force to said supporting member in opposite directions acting longitudinally of said supporting member at a point in the longitudinal axial line of said supporting member for reciprocating the same, and means for rocking said cutter about said central axis while moving with said supporting member.

3. In a cut-off mechanism, in combination, a slide, a cutter, a supporting arm for said cutter having an axis of rotation on said slide, a guide for said slide, said guide having a geometrical axis coinciding with said first named axis, means for applying a thrust force to said slide in opposite directons acting longitudinally of said slide at a point on the coincident axes to reciprocate said slide, and means for rocking said arm and cutter while said slide is moving.

4. In a cut-off mechanism, a longitudinally movable supporting member, means for imparting reciprocating movement thereto having a pivotal connection with said supporting member, the axis of said pivotal connection intersecting the central longitudinal axis of said supporting member, a tubular guide for the article to be cut, a revolving cutter co-acting with said guide, a frame carrying said cutter mounted on said supporting member and movable thereon, and means for rocking said cutter angularly about said central axis while moving longitudinally thereof.

5. In a cut-off mechanism for cigarette machines, a pair of spaced guides, a supporting bar mounted to reciprocate longitudinally in said guides, a cigarette rod guide rigidly connected to said bar, a revolving cutter mounted on said bar between said guides to reciprocate with the bar and rock independently thereof, means for reciprocating said bar and the cutter having a pivotal connection with said bar, said pivotal connection having its axis in the central axial line of said bar, and means for rocking said cutter angularly about the said axis.

[Claims 6 to 8 not printed in the Gazette.]

1,143,629. ATTACHMENT FOR PENS. JOHN CLEMENT HUGHES, New York, N. Y. Filed Nov. 20, 1912. Serial No. 732,529. (Cl. 120—36.)



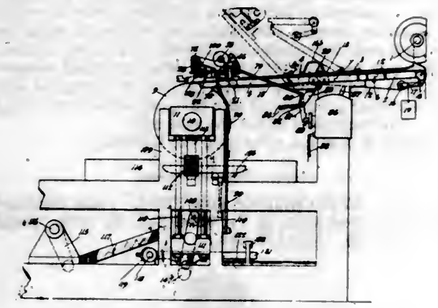
1. A pen cap comprising, a tubular body having a pair of upper receptacles of substantially semi-circular cross-section and a single partition therebetween; a pair of flanged covers received in the upper ends of the receptacles respectively; a spreader depending from each cover; and a cap having threaded engagement with said body and pressing the top of said covers and forcing the flanges into tight engagement with the top of the receptacles.

2. A device of the character described, comprising a tubular body having a pair of upper receptacles of substantially semi-circular cross-section and a single partition therebetween; a pair of flanged covers received in the upper ends of the receptacles respectively; a spreader depending from each cover; a means engaging with said body and pressing the top of said covers and forcing the flanges into tight engagement with the top of the receptacles.

1,143,630. FEEDING ATTACHMENT FOR PRINTING-PRESSES AND THE LIKE. RICHARD E. JONES, Pearl River, N. Y., assignor to Dexter Folder Company, Pearl River, N. Y., a Corporation of New York. Filed Mar. 14, 1913. Serial No. 754,293. (Cl. 101—36.)

1. In a machine of the character described, the combination of a conveyer comprising separately operable sections arranged to act successively on a sheet which is being fed, sheet-presenting mechanism arranged adjacent the delivery end of one of said sections, a sheet-feeding device arranged adjacent the delivery end of the other section of said conveyer and adapted to have sheets fed thereto by hand, and means for driving said conveyer sections, said second section being provided with an operating connection permitting it to be brought to rest to receive a pile of sheets to be fed by hand to the sheet-feeding device.

2. The combination with a feed board, of a conveyer comprising sections arranged in series across said feed board, means for driving one of said sections independently of the other, means for driving the other section cooperatively with the first section or permitting said other section to remain at rest, sheet-presenting mechanism arranged adjacent the discharge end of the first said section, and a sheet-feeding device arranged to deliver sheets to the first said section from a pile of sheets disposed upon the feed board above said other section, said feed board being adapted as a whole to be disposed between a machine to which sheets are to be fed and an automatic sheet-feeding machine.



3. The combination with a sheet-presenting device, of a feeding machine, a conveyer extending from said feeding machine to said sheet-presenting device, and comprising sections respectively arranged adjacent said feeding machine and sheet-presenting device, means for driving the section adjacent the sheet-presenting device while the other section remains at rest, and a sheet-feeding device adapted to be operatively disposed with respect to said driven section of said conveyer, said device being suitably disposed to permit a stack of sheets to be disposed upon said section at rest between the sheet-feeding device and said feeding machine.

4. The combination with a feed table, of a sheet-operated throw-out device disposed adjacent one edge of said table, a feeding machine disposed adjacent the opposite edge of said table, means for conveying sheets across said table from said feeding machine to said throw-out device and an auxiliary sheet feeding device removably mounted on said feed table between the feeding machine and the throw-out device, said conveying means being adapted to convey sheets from said auxiliary sheet-feeding device to said throw-out device from a pile of sheets disposed on said feed table between said feeding machine and auxiliary feeding device.

5. The combination with a feed table, of a sheet-operated throw-out device disposed adjacent one edge of said table, a feeding machine disposed adjacent the opposite edge of said table, means for conveying sheets across said table from said feeding machine to said throw-out device, and an auxiliary sheet feeding device adapted to be mounted on said feed table between the feeding machine and the throw-out device, said conveying means being adapted to convey sheets from said auxiliary sheet-feeding device to said throw-out device, said feed table being constructed in sections hinged together and said throw-out device being carried on one of said sections.

[Claims 6 to 22 not printed in the Gazette.]

1,143,631. FLUID-MEASURING DEVICE. JOSEPH F. KELLER and WILLIAM A. WARMAN, New York, and HARRY L. PARR, Yonkers, N. Y., assignors to Keller Mechanical Engraving Company, Brooklyn, N. Y., a Corporation of New York. Filed Dec. 19, 1913. Serial No. 807,596. (Cl. 73—167.)

1. In a fluid meter, a disk-shaped supporting member having openings adapted to register with the interior of a conduit through which fluid may flow; an elongated hollow deflector closed at its ends and having an opening in its side wall leading into its interior and past which opening a fluid may flow; means whereby said deflector is supported from said supporting member; and a conduit leading into the interior of said deflector.

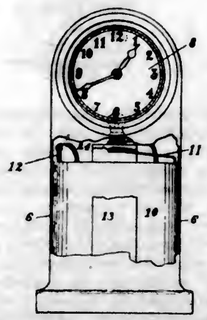


2. In a fluid meter, a disk-shaped supporting member having openings at its central portion whereby a series of arms are provided; and an elongated hollow deflector closed at its ends and suported by said arms and having an opening in its side wall leading into its interior and past which opening a fluid may flow; said support and one of said arms having a passage leading into the interior of said deflector.

3. In a fluid meter, a disk-shaped supporting member having openings adapted to register with the interior of a conduit through which fluid may flow; an elongated hollow deflector closed at its ends and having an opening in its side wall leading into its interior and past which opening a fluid may flow; and a tube surrounding said deflector; means whereby said deflector is supported from said supporting member; and a conduit leading into the interior of said deflector.

4. In a fluid meter, a disk-shaped supporting member having openings at its central portion whereby a series of arms are provided; an elongated hollow deflector closed at its ends and supported by said arms and having an opening in its side wall leading into its interior and past which opening a fluid may flow; and a tube surrounding said deflector; said support and one of said arms having a passage leading into the interior of said deflector.

1,143,632. ILLUMINATED CLOCK. HERBERT KIENZLE, New York, N. Y. Filed Oct. 28, 1914. Serial No. 868,956. (Cl. 240—8.4.)



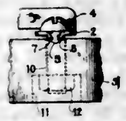
1. In combination with an upright clock having a housing, clockworks supported in the upper portion of said housing, there being an opening in the upper portion of said housing adjacent to said clockworks, a translucent clock dial positioned in said opening, the housing forming a chamber beneath said clockworks, a battery disposed in said chamber, a lamp connected to said battery and disposed adjacent to, and rearwardly of said dial to be lighted by said battery, and a base member for closing the bottom of said housing, said base member having flanges for engaging said housing thereby to be frictionally held in place and supporting said battery in place.

2. In combination with an upright clock having a housing, clockworks supported in the upper portion of said housing, there being an opening in the upper portion of said housing adjacent to said clockworks, a translucent clock dial positioned in said opening, the housing forming a chamber beneath said clockworks, a battery disposed in said chamber, a lamp connected to said battery and disposed adjacent to, and rearwardly of said dial to be lighted by said battery, and a flat spring disposed between the housing and the battery to frictionally hold said battery in place, and a base member for closing the bottom of said housing, said base member having flanges for engaging said housing thereby to be frictionally held in place and assisting in holding said battery in place.

3. In combination with an upright clock having a housing, a casing positioned in the upper portion of said housing, clockworks housed in said casing, there being a transparent dial opening near the upper portion of said housing adjacent to said casing, a clock dial positioned in said dial opening, the housing forming a chamber beneath said casing, there being a lamp opening in the lower side of said casing adjacent to and rearwardly of said dial, a battery disposed in said chamber, a lamp connected to said battery and extending through said lamp opening and being disposed just rearwardly of the lower edge of said dial, and wires connected to said battery and lamp whereby said lamp may be lighted.

4. In combination with an upright clock and housing, a casing positioned in the upper portion of said housing, clockworks housed in said casing, there being a translucent dial opening near the upper portion of said housing and adjacent to said casing, a clock dial positioned in said dial opening, the housing forming a chamber beneath said casing, there being a lamp opening in the lower side of said casing adjacent to and rearwardly of said dial, a battery disposed in said chamber, a lamp connected to said battery and extending through said lamp opening and being disposed just rearwardly of the lower edge of said dial, wires connected to said battery and lamp, there being a wire opening through said housing through which said wires pass outwardly, and a switch handle connected to the free ends of said wires extending out of said housing by the manipulation of which handle said lamp may be lighted.

1,143,633. MEANS FOR SECURING CONTACTS. CHARLES J. KLEIN, Milwaukee, Wis. Filed Oct. 28, 1913. Serial No. 797,872. (Cl. 175—282.)



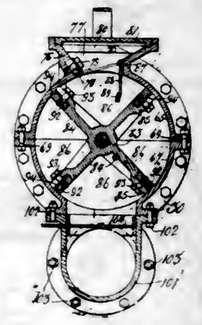
In combination, a contact having a substantially flat base with a resilient portion inclined thereto, and an insulating block for said base having a recess with an inclined face to receive said resilient portion, the inclination of said resilient portion being greater than the inclination of said recessed face whereby said resilient portion is compressed when said base engages said block.

1,143,634. FEED-REGULATOR. WILLIAM C. LANE and ERNEST J. ALLEN, Brooklyn, N. Y. Filed Apr. 14, 1910. Serial No. 555,468. (Cl. 83—44.)

1. The combination in a measuring intake of a drum, an inlet hopper for the drum, a cutting blade connected to a wall of the hopper, a blade wheel in said drum, a protecting door pivoted in said hopper and the swinging end thereof in the path of the blades of the blade wheel and a cutting strip on the swinging end of the door to coact with the cutting blade of the wall of the hopper.

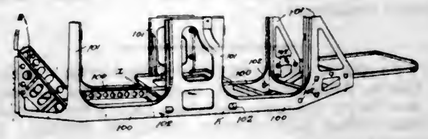
2. The combination in a measuring intake of a drum, an inlet hopper for the drum, a blade wheel in said drum, a shaft journaled in said drum for said wheel, a protecting door pivoted in said hopper, and connections on the outside of the intake between the shaft in the drum and said protecting door to actuate the latter during the rotations of the shaft, with an easy and continuous movement.

3. The combination in a measuring intake of a drum, an inlet hopper for the drum, a blade wheel in said drum, a shaft journaled in the drum for said wheel, a spindle pivoted in said hopper and extending out of the same, a protecting door in the hopper pivoted on said



spindle, a cam on the said shaft on the outside of the intake and an arm on said spindle with its swinging end in the path of said cam, the said protecting door opening and closing with an easy and continuous movement.

1,143,635. AUTOMOBILE-BODY. JOSEPH LEDWINKA, Philadelphia, Pa., assignor to The Edward G. Budd Manufacturing Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed June 17, 1914. Serial No. 845,621. (Cl. 21—7.)



1. An automobile body frame including side members each formed in one piece and having vertical portions thereof to form door posts, a skeleton frame member connecting the upper parts of corresponding door posts at opposite sides of the body frame, and a shell applied to said frame to form body sides and a seat back the seat being connected to the skeleton frame member.

2. An automobile body frame including side members each formed in one piece and having door posts formed integrally therewith, a skeleton frame member connecting the upper parts of corresponding door posts at opposite sides of the body frame, a shell applied to said body frame and forming the body sides and the seat back, and connections from the upper edge of said shell to said skeleton frame member.

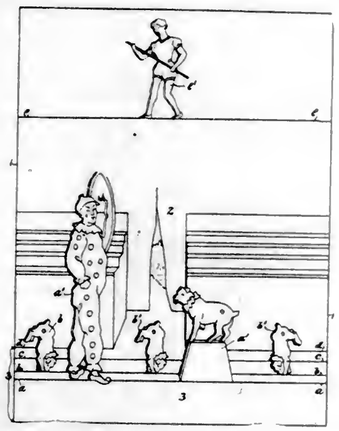
3. In an automobile body structure a shell including a rear seat portion having sides and a back formed in one piece with each other and a front seat portion having sides and a back formed in one piece with each other, both portions being fitted and integrally secured together.

4. In an automobile body structure, a body shell shaped to form the body sides and a seat back, and a skeleton frame to which said shell is secured, said skeleton frame having vertical side portions and an integral channel portion connecting the upper ends of the side portions, said channel member being shaped to conform to the contour of the back and secured to said back.

5. In an automobile body structure, an outer shell and a supporting skeleton frame therefor, each having integral vertical side portions, the proximate edges of the vertical side portions of said shell and frame being secured together, and an auxiliary channel member secured to the vertical side portions of the skeleton frame adjacent said edges.

[Claims 6 to 39 not printed in the Gazette.]

1,143,636. PICTURE-BUILDING GAME. LILLIAN LEMASSENA, Newark, N. J. Filed Dec. 10, 1914. Serial No. 876,390. (Cl. 46—37.)



In a game of the kind described a picture background having a foreground associated therewith, a series of laterally extending position lines inscribed on said foreground, and various sized, detached, movable and removable picture parts adapted to be applied to said background and foreground, and identified for use on a corresponding position line, so that the same may be moved or positioned anywhere on a corresponding line and be thereby retained in proper perspective relation to said picture background.

1,143,637. BOW-SOCKET SEPARATOR. FRED K. LEWIS, Ashtabula, Ohio, assignor to The Ashtabula Bow Socket Company, Ashtabula, Ohio, a Corporation of Ohio. Filed Aug. 10, 1912. Serial No. 714,352. (Cl. 21—61.)

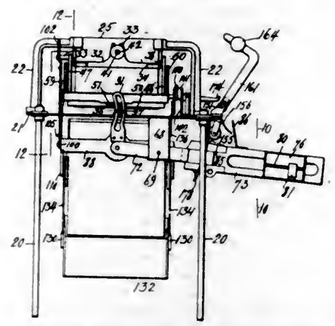


1. The combination with an apertured bow socket member; of a separator having a body portion formed to contact the socket member exteriorly, and a flexible lug integrally mounted on such separator body and adapted to snugly engage in the aperture in said socket member and to extend through the same, thereby permitting such extending portion to be bent over to contact said socket member interiorly, such body portion of said separator being formed with a recess to permit the introduction of said bow socket member upon the bending of such extending portion of said lug.

2. The combination with an apertured bow socket member; of a separator having a body portion formed to contact the socket member exteriorly, and a lug integrally mounted on such separator body and having a plurality of flexible branches adapted to engage in and extend through the aperture in said socket member, thereby permitting such branches to be bent over to contact said socket member on either side of the aperture, such body portion of said separator being formed with recesses to permit the introduction of the bow socket member upon the bending of such extending portions of said lug against said bow socket member.

3. The combination with an apertured bow socket member; of a separator having a body portion formed to contact the socket member exteriorly and a flexible lug integrally mounted on such separator body and adapted to snugly engage in the aperture in said socket member and to extend through the same, thereby permitting such extending portion to be bent over to contact such socket member interiorly, such body portion of said separator being formed with a recess to permit the introduction of said bow socket member upon the bending of such extending portion of said lug, said bow socket member being formed of yieldable material adapted to be so bent outwardly upon the positioning of such extending portion of said lug, thereby leaving the inside of said socket member substantially smooth.

1,143,638. WEIGHING APPARATUS. ZIGMUND LIPOWSKY, Hoboken, N. J. Filed May 7, 1912. Serial No. 695,592. (Cl. 73—174.)



1. In a weighing apparatus of the character described the combination of a table having an opening, a charging hopper having an opening in the bottom thereof carried on the table over its opening, a door for the opening in the hopper, a balance beam suspended below the table, a hopper frame suspended at one end of said beam, a weighing hopper suspended in said frame below the opening in the table, means to actuate said door by virtue of the movements of the hopper frame due to the entrance and weight of material therein.

2. In a weighing apparatus of the character described the combination of a table, a charging hopper over the table and having a discharge opening, means to vary the area of said opening, a balance beam suspended under the table, a hopper frame suspended on the beam, a weighing hopper suspended on the hopper frame, a pair of compartments in the discharging hopper, a door for each compartment pivoted on the weighing hopper, means to open one of said doors while closing the other and means to check the upward movement of the balance beam.

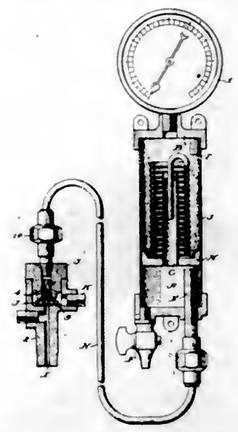
3. In a weighing apparatus of the character described the combination of a table having an opening, a charging hopper having an opening in the bottom thereof carried on the table over its opening, a balance beam suspended below the table, a hopper frame suspended at one end of said beam, a weighing hopper suspended in said hopper frame below the opening in said table, a pair of arms pivoted on the charging hopper, a main door having an opening carried by said arms, a pivot on one of said arms, a second pair of arms pivoted on the arms of the main door, a supplemental door carried by the second pair of arms, an unlocking arm with one end pivoted to the hopper frame, a forked end at the other end of the unlocking arm engaging the said pivot on one of the said first arms, a toe with a pair of members carried by one of the arms of the main door, a toe carried on one of the arms of the supplemental door and a toe carried on the unlocking lever in the path of one of the members of the toe of the arm of the main door and in the path of the arm of the supplemental door.

4. In a weighing apparatus of the character described the combination of a table, a charging hopper having an opening in the bottom thereof carried on the table over its opening, a balance beam suspended below the table, a hopper frame suspended at one end of said beam, a weighing hopper suspended in said hopper frame below the opening in said table, curved guide arms carried by the hopper frame, a roller for each of said guide arms journaled above said table to maintain the hopper frame in horizontal planes during its movements.

5. In a weighing apparatus of the character described the combination of a table having an opening, a charging hopper having an opening in the bottom thereof carried on the table over its opening, a balance beam suspended below the table, a hopper frame suspended at one end of said beam, a weighing hopper suspended in said hopper frame below the opening in said table, a shoe carried on said beam, a stop carried on the beam, an arm pivoted on the table, a roller journaled in the lower end of the arm to register with the said shoe on the beam, a stop on said arm in the path of the stop on the beam, a pin carried on said arm, a stop lever pivoted over the table, a nose at one end of the stop lever in the path of said pin to stop the movement of the arm and thereby the beam at predetermined intervals and means to swing the stop lever to clear its nose from the pin on said arm.

[Claims 6 and 7 not printed in the Gazette.]

1,143,639. APPLIANCE FOR INDICATING EXPLOSIVE PRESSURES IN GAS-ENGINES. OSBORN P. LOOMIS, Newport News, Va. Filed Mar. 13, 1909. Serial No. 483,096. (Cl. 73—31.)



1. In combination, a casing having therein two chambers connected together by a flow retarding passage, one chamber being connected to a pressure gage and the other chamber being provided with means for removing collected sediment.

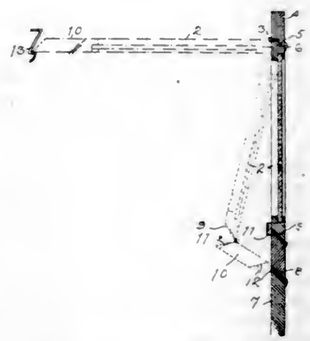
2. In combination, a reservoir having therein two chambers connected together by a throttled passage, one chamber being connected to a pressure-gage, and the other chamber being provided with a pipe for delivering pressure-gases thereinto, and means for removing sediment from such chamber.

3. The combination of a valve-casing adapted to be connected to an engine-cylinder, a retardative return valve in such casing, a pipe connected thereto and arranged to deliver into the lower or sediment chamber of a gage mechanism, such mechanism comprising a gage, a casing to which the gage is connected, an apertured partition dividing the casing into two chambers, a flow-retarding device opening into the upper chamber and means for permitting removal of sediment from the lower chamber.

4. In combination, a casing having therein two chambers connected together by a throttled passage, one chamber being connected to a gage and the other chamber being provided with deflecting surfaces arranged to throw away the sedminet from the gases passing toward the gage.

5. In a fluid-pressure actuated pressure gage, a closed cushion chamber having an indicating mechanism directly connected thereto, a chamber for pressure fluid, a conduit containing a throttled section connecting the two chambers, a pipe for connecting the pressure fluid chamber to an engine-cylinder, and a valve in such pipe constructed to permit free flow of pressure gases in one direction and to greatly retard the flow in the other.

1,143,640. WINDOW-SASH. FRED F. MCCLAIN, Xenia, Ohio. Filed Feb. 16, 1914. Serial No. 819,058. (Cl. 20—53.)



1. A window comprising a frame provided with a beveled sill, a sash oscillating about an axis parallel with the beveled sill and swinging to and from the side of the sill opposite the bevel face thereof, said sash being of greater extent than the opening of the frame and having a beveled edge to engage the beveled face of the sill and a flexible joint in the sash permitting the beveled edge thereof to be passed over the sill into engagement with the beveled face thereof.

2. A window comprising a frame having a downwardly and outwardly beveled sill, a sash oscillating about an axis parallel with the beveled sill having a downwardly and outwardly beveled free edge, a swinging section hinged to the sash having a downwardly and outwardly beveled top edge engaging with the beveled edge of the sash and a downwardly and outwardly beveled bottom edge engaging with the beveled sill.

3. A window comprising a frame, a sash comprising two sections hinged one to the other and occupying a substantially common plane when in closed position, and downwardly and outwardly beveled joints between the sash sections and between the sash and frame.

4. In a window construction, a frame having a beveled sill, a sash hinged to the frame cap, said sash being beveled on its lower edge, a swinging section hinged to the sash beveled on its upper edge to correspond with the beveled lower edge of the sash and beveled on its lower edge to correspond with the beveled sill.

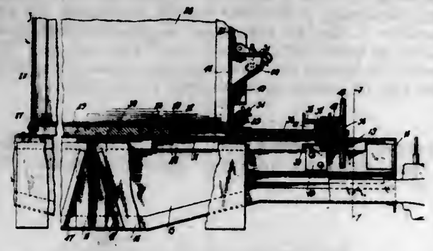
5. In a window, a frame the sill of which is beveled downward and outward, a sash hinged to said frame to swing inward having its lower edge beveled downward and outward, said sash being of less extent than the window opening of the frame, and a swinging section hinged to the sash and having both edges beveled downward and outward to correspond with the beveled lower edge of the sash and the beveled sill.

[Claims 6 and 7 not printed in the Gazette.]

1,143,641. CAR. ALEXANDER G. MCGREGOR, Globe, Ariz. Filed Aug. 10, 1914. Serial No. 856,082. (Cl. 105—185.)

1. A car having a bottom composed of a series of slats independently supported and guided for movement in a direction transverse to their length, and a gate for com-

pleting the series and adapted when closed to hold said slats in normal position to form a continuous bottom.



2. A car having a bottom composed of a series of slats independently supported and guided for movement in a direction transverse to their length, and a gate at the end of the series for completing the same and adapted when closed to hold said slats in normal position to form a continuous bottom.

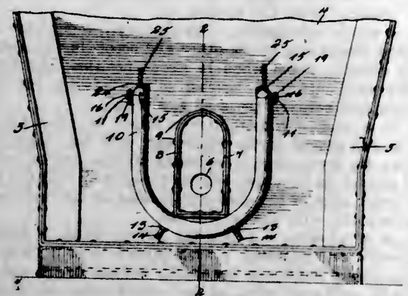
3. A car having a bottom composed of a series of slats independently supported and guided for movement in a direction transverse to their length, and a sliding gate at the end of the series for completing the same and movable longitudinally thereof, said gate when closed holding said slats in a predetermined position longitudinally of the series to form a continuous bottom.

4. A car having a bottom composed of a series of slats independently supported and guided for movement in a direction transverse to their length, a sliding gate at the end of the series for completing the same and movable longitudinally thereof, said gate when closed holding said slats in a predetermined position longitudinally of the series to form a continuous bottom, and means to lock said gate in closed position.

5. A car having a bottom composed of a series of slats independently supported and guided for movement in a direction longitudinally of said series and a gate for completing the series and adapted when closed to hold said slats in normal position to form a continuous bottom.

[Claims 6 to 16 not printed in the Gazette.]

1,143,642. WATER-JACKET. EULALIO MEDINA, Douglas, Ariz. Filed Dec. 31, 1914. Serial No. 879,942. (Cl. 122—6.)



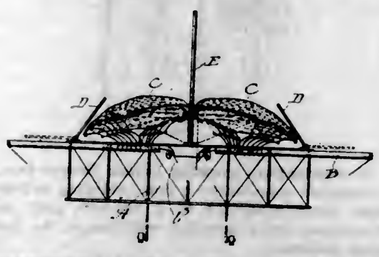
1. A water jacket of the class described comprising a U-shaped hollow body, said body being adapted to be supported adjacent a tap opening of a blast furnace, said water jacket having open upper portions and a plurality of detachable caps secured to the upper portions of said water jacket for closing the open portions, and means connected to said water jacket and to said caps for maintaining a circulation within said water jacket whereby the water jacket will remain in a chilled condition.

2. A water jacket of the class described comprising a U-shaped elongated body, said body being adapted to be supported adjacent a tap opening of a blast furnace, said body having open upper portions, integral flanges formed upon side portions of said body and extending at right angles thereto, a plurality of elongated semi-circular caps positioned upon the upper portions of said water jacket, said caps provided with integral flanges extending at right angles thereto and being adapted to rest upon the flanges of said body, the flanges of said body and the flanges of said caps provided with registering openings, means passing through said openings for retaining the flanges in engagement with each other, said body also provided with inwardly extending shelves, said caps provided with inwardly extending lugs, said lugs and said shelves provided with registering openings, means passing through said openings for securing the caps in positive engagement with said water jacket, said caps provided with enlarged threaded necks and a plurality of pipes engaging said necks and said body whereby a circulation of water may be maintained within said water jacket for causing the same to remain in a chilled condition.

3. A water jacket of the class described comprising a U-shaped hollow body, said jacket being adapted to be supported adjacent the tap opening of a blast furnace, said body being elongated, said water jacket having open upper portions, means removably carried by the upper portions of said jacket for closing the open upper portions thereof, whereby access may be had to the interior of the jacket when necessary, said water jacket being adapted to engage the material withdrawn from the furnace, and means carried by said water jacket for maintaining a circulation, thereby causing the water jacket to remain in a chilled condition.

4. A water jacket of the class described comprising a body having open outer portions whereby access may be had to the interior of said body for cleaning or repairing the same when necessary, means for closing said open outer portions, said body being adapted to be supported adjacent the tap opening of a blast furnace, and means connected to said water jacket for maintaining a circulation, whereby the water jacket will remain in a chilled condition.

1,143,643. SAFETY APPLIANCE FOR FLYING-MACHINES. JACOB MESSIKOMMER, Chicago, Ill. Filed Mar. 16, 1914. Serial No. 824,981. (Cl. 244—21.)



1. An aeroplane provided with outwardly extending rods at the top thereof, parachute sections disposed loosely over said rods, slidably connected thereto, whereby each section folds inward toward the vertical axis of the machine, and means for operating the sections on the rods to spread the same to catch the air, each section constructed to bag upward, said rods being arranged in pairs, and each parachute section having its opposite edges connected respectively with the members of a pair, which members are disposed a distance apart less than the width of the section allotted thereto.

2. An aeroplane provided with outwardly extending rods at the top thereof, parachute sections disposed loosely over said rods, slidably connected thereto, whereby each section folds inward toward the vertical axis of the machine, and means for operating the sections on the rods to spread the same to catch the air, each section constructed to bag upward, said means including springs for extending the sections on the rods, said rods being arranged in pairs, and each parachute section having its opposite edges connected respectively with the members of a pair, which members are disposed a distance apart less than the width of the section allotted thereto.

3. An aeroplane provided with outwardly extending rods at the top thereof, parachute sections disposed over said rods, slidably connected thereto, whereby each section folds inward to a position above and near the center of the machine, and means for operating the sections on the rods to spread the same to catch the air, said rods extending obliquely and horizontally at the top of the aeroplane.

4. An aeroplane provided with outwardly extending rods at the top thereof, parachute sections disposed over said rods, slidably connected thereto, whereby each section folds inward to a position above and near the center of the machine, and means for operating the sections on the rods to spread the same to catch the air, said means including springs for extending the sections on the rods, and connections for pulling the outer ends of the sections toward the center of the aeroplane, said rods being arranged in pairs, and each parachute section having its opposite edges connected respectively with the members of a pair, which members are disposed a distance apart less than the width of the section allotted thereto.

5. An aeroplane provided with outwardly extending rods at the top thereof, parachute sections disposed loosely over said rods, slidably connected thereto, whereby each section folds inward to a postion above and near the center of the machine, and means for operating the sections on the rods to spread the same to catch the air, each section having ribs for holding it distended upward in position to form a baggy parachute.

[Claims 6 to 10 not printed in the Gazette.]

1,143,644. CAKE-COOLER. CLARA C. MOORE, Jacksonville, Ill. Filed Aug. 13, 1914. Serial No. 856,620. (Cl. 65—53.)



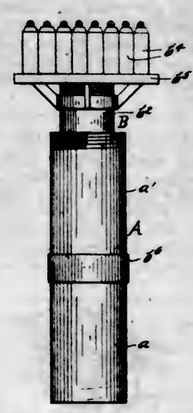
In a device of the kind described, in combination, a rectangular frame, legs formed on the corners of said frame, cross-rods interposed between the sides of said frame, a wire mesh covering said cross-rods and secured upon said frame, a rectangular cloth coextensive in size with said frame, and a plurality of ring members each of which is mounted on said cloth at the corners thereof and are adapted to engage with said legs to hold the cloth taut upon the mesh.

1,143,645. DEVICE FOR DETERMINING LOAD-CARRYING CAPACITY OF SUBTERRANEAN AREAS. JOHN F. O'ROURKE, New York, N. Y. Filed Aug. 27, 1908. Serial No. 450,443. (Cl. 73—51.)

1. For use in determining the additional weight supportable without prohibitory disturbance by a subterranean area, in combination a tube of length sufficient to extend vertically upward from adjacent said area to above the earth's surface; a plunger shorter than said tube vertically movable and horizontally rotatable within said tube concentric with said tube, laterally supported and guided thereby, a member carried by said plunger and extending, from its top, concentrically through, out of contact with, and beyond the tube; and means to impose loads on said member, and thus on said plunger, until said weight is indicated.

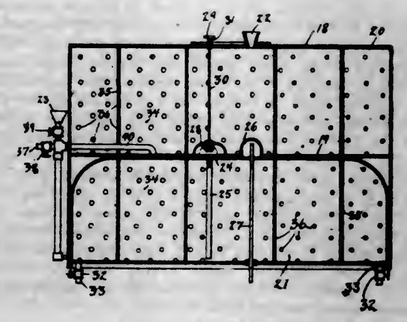
2. For use in determining the additional weight supportable without prohibitory disturbance by a subterranean area, in combination a tube of length sufficient to extend vertically upward from adjacent said area to above the earth's surface; a plunger shorter than said tube vertically movable and horizontally rotatable within said tube

concentric with said tube, laterally supported and guided thereby, a member carried by said plunger and extending, from its top, concentrically through, out of contact with, and beyond the tube; said plunger having means to level said area underneath said plunger; and means to impose loads on said member; and thus on said plunger, until said weight is indicated.



3. For use in determining the additional weight supportable without prohibitory disturbance by a subterranean area, in combination a tube of length sufficient to extend vertically upward from adjacent said area to above the earth's surface; a plunger shorter than said tube vertically movable and horizontally rotatable within said tube concentric with said tube, laterally supported and guided thereby, a member carried by said plunger and extending, from its top, concentrically through, out of contact with, and beyond the tube; also carried by said plunger a plurality of radially disposed projections from its bottom; and means to impose loads on said member, and thus on said plunger, until said weight is indicated.

1,143,646. SAFETY STORAGE-RECEPTACLE FOR COMBUSTIBLE LIQUIDS. GILBERT H. POOR, Milwaukee, Wis. Filed Nov. 4, 1911. Serial No. 658,523. (Cl. 158—50.2.)



1. In a device of the described class, the combination of a single tank subdivided by a partition into a water and a gasolene receptacle, a plurality of vertical splash plates provided with apertures subdividing both of said receptacles into a plurality of separate small compartments, a water duct communicating from the bottom of said water receptacle to the bottom of said gasolene receptacle, a gasolene duct communicating from the top of said gasolene receptacle to the place of consumption, and ducts for supplying said receptacles with water and gasolene.

2. In a device of the described class, the combination of a single tank subdivided by a partition into a water and a

gasolene receptacle, a plurality of vertical splash plates provided with apertures subdividing said receptacles into a plurality of separate compartments, a water duct communicating from the bottom of said water receptacle to the bottom of said gasolene receptacle, a manually controlled valve for closing the mouth of said water duct, a gasolene duct communicating from the top of said gasolene receptacle to the place of consumption, ducts for supplying said receptacles respectively with water and gasolene, a duct for drawing off the liquid from said gasolene receptacle, and a valve for closing said duct, all substantially as and for the purpose specified.

1,143,647. BEARING FOR SCALES. CHARLES EDWARD RIEDEL, Detroit, Mich., assignor to Detroit Scale Manufacturing Company, Detroit, Mich., a Corporation of Michigan. Filed Nov. 16, 1914. Serial No. 872,360. (Cl. 73—152.)



1. In a device of the character described, a bearing block grooved to receive a pivot, a case to receive said block having a wall offset from the end of the bearing block to receive the thrust of the pivot, and a hanger for supporting said case.

2. In a device of the character described, a bearing block grooved to receive a pivot, an inclosing case for the block provided with a ridge portion upon which the block is adapted to rock, and a loop for supporting the case.

3. In a device of the character described, a bearing block grooved to receive a pivot, an inclosing shell to receive the bearing provided with a transverse ridge upon which the bearing block is adapted to tilt within the shell, said shell having an end wall offset from the bearing block to receive the end thrust of the pivot, and a loop adapted to support the shell.

4. In a device of the character described, the combination of two bearing blocks grooved to receive knife edge pivots, a pair of cases adapted to respectively support one of the bearing blocks, each case being provided with a transverse ridge upon which the bearing block housed therein is adapted to rock and with a wall spaced from the bearing block to receive the end thrust of the knife edge pivots, and means for supporting said cases to maintain the bearing blocks in spaced relation to each other.

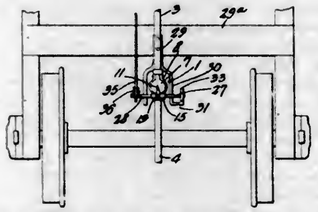
5. In a device of the character described, the combination of two agate bearings grooved to receive knife edge pivots of a scale mechanism, a pair of retaining cases adapted to respectively support the agate bearings, each retaining case having a transverse ridge upon which the agate bearing is adapted to tilt, loop hangers adapted to support the retaining cases having overlapping ends riveted together, whereby the bearings are maintained in opposed spaced relation to each other.

[Claim 6 not printed in the Gazette.]

1,143,648. SAFETY APPLIANCE FOR RAILROAD-CARS. SWEBERT B. RIEG, Meridian, Miss. Filed Mar. 17, 1915. Serial No. 15,033. (Cl. 188—2.)

1. In a safety attachment of the character described, a valve structure embodying a T-shaped casing adapted to be interposed in a train pipe, a normally closed valve for the branch of the casing, and a detent embodying a ring journaled upon one end portion of the casing and having a portion coöperating with the valve for holding the valve seated when the detent is in normal position.

2. In a safety attachment of the character described, a valve structure embodying a T-shaped valve casing, the ends of which are attachable to the sections of a train pipe, a valve pivoted to one side of the branch of the casing, the branch having a valve seat, and the valve being normally seated, and a detent embodying a ring journaled upon that end portion of the casing adjacent the free portion of the valve, the ring having a portion coöperating with the free portion of the valve for holding the valve normally seated, and the ring having an operating arm projecting therefrom.



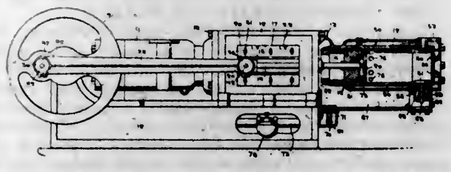
3. In a safety device of the character described, a valve casing, a normally closed valve therefor, a detent carried by the valve casing for oscillatory movement and adapted to normally hold the valve seated, the detent having a plurality of arms projecting therefrom, and a plurality of actuating devices coöperable with the respective arms of the detent whereby any one of said devices may swing the detent to valve releasing position.

4. In a safety attachment of the character described, a valve structure embodying a casing and a normally seated valve, a trip lever embodying a ring journaled upon the valve casing and having a plurality of arms projecting therefrom, the trip lever having means coöperable with the valve for normally holding the same closed, and a plurality of actuating devices coöperable with the respective arms of the trip lever whereby any one of said devices may operate the trip lever.

5. In a safety device of the character described, a brake applying device adapted to be carried by a car body and including a trip lever having a depending arm and a laterally projecting arm, and a member adapted to be carried by a car truck and having a portion into which the first mentioned arm of the trip lever depends, the said portion having an upstanding portion into which the laterally projecting arm of the trip lever extends, said portions being arranged to normally move relative to said arms without swinging them and to swing said arms in the event of excessive movements of the truck.

[Claim 6 not printed in the Gazette.]

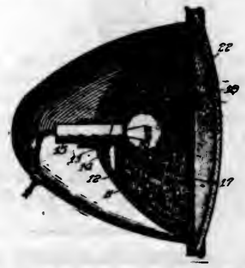
1,143,649. INTERNAL-COMBUSTION ENGINE. ANTON I. SANDBO, Rock Island, Ill., assignor to The North Dakota Gas Engine Manufacturing Company, Langsford, N. D., a Corporation of North Dakota. Filed Apr. 16, 1914. Serial No. 832,276. (Cl. 123—57.)



1. An internal combustion engine comprising a pair of alined cylinders, a frame between said cylinders to which they are secured, adjustable angle iron guide plates on said frame, a cross head slidably mounted between said guide plates, a piston rod centrally connected to said cross head and extending into each cylinder, and a piston head in each cylinder connected to the contiguous end of the piston rod.

2. An internal combustion engine comprising a pair of alined cylinders, a frame between said cylinders to which they are secured, adjustable angle iron guide plates on said frame, a cross head slidably mounted between said guide plates, a piston rod centrally connected to said cross head and extending into each cylinder, and a piston head in each cylinder connected to the contiguous end of the piston rod, said frame being of skeleton formation and the piston rod being provided with compressible packings and with compressing means accessible through openings in said skeleton frame.

1,143,650. NON-GLARE REFLECTOR. JOHN FRANKLIN SCRIBNER, Chicago, Ill. Filed Mar. 13, 1915. Serial No. 14,076. (Cl. 240—41.)



1. A reflector adapted to be positioned adjacent to a source of light to reflect rays thereof and having a reflecting area comprising a substantially flat central portion adapted to be positioned directly adjacent to the source of light and of relatively high reflecting power, said reflector having about said substantially central portion an annular portion of relatively low reflecting power.

2. A reflector adapted to be positioned adjacent to a source of light to reflect rays thereof and having a reflecting surface concave in form, the substantially central area of said reflector being substantially flat and having relatively high reflecting power, said reflector having about said central area an annular area having a surface of relatively low reflecting power.

3. A reflector adapted to be positioned adjacent to a source of light to reflect rays thereof and having a reflecting area concave in form, the substantially central portion of said reflector having a flattened reflecting surface of relatively high reflecting power, said reflector having about said central portion an annular portion having a surface containing scratch-like cuts close to each other and thereby roughening said annular surface to decrease its reflecting power.

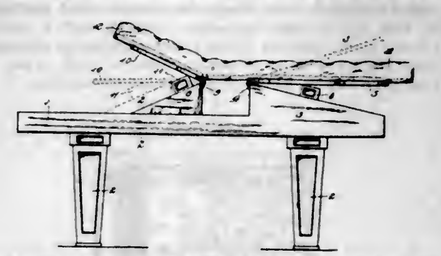
4. A reflector adapted to be positioned adjacent to a source of light to reflect rays thereof and having a reflecting surface comprising a substantially central area thereof adapted to be positioned directly in line with the source of light and of relatively high reflecting power, said reflector having about said substantially central area an annular area having a substantially smooth general surface containing scratch-like cuts therein close to each other and breaking up the general surface of said annular area into relatively small reflecting surfaces defined by said scratch-like cuts.

5. A concave reflector having a reflecting surface of aluminum and adapted to be positioned adjacent to a source of light to reflect rays thereof, the substantially central portion of said reflecting surface being polished, the annular portion of said reflecting surface about said central portion being provided with fine scratch-like cuts shallow and close to each other whereby such annular surface is provided with small reflecting surfaces constituting the walls of such cuts.

[Claims 6 to 10 not printed in the Gazette.]

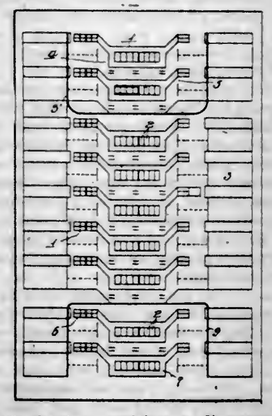
1,143,651. DIAGNOSTIC AND TREATING TABLE. OAKLEY SMITH, Chicago, Ill. Filed Nov. 15, 1913. Serial No. 801,134. (Cl. 45—50.)

A diagnostic and treatment table comprising a table top, legs rigidly secured thereto, triangular elevations upon said table the high ends whereof are spaced apart or are adjacent each other, boards or leaves pivoted to the high edges of said elevations, movable blocks interposed between said leaves and the upper surface of said



elevations for supporting said boards or leaves at different angular positions relative to said table, and a continuous pad extending over said boards or leaves and bridging the space between said boards.

1,143,652. CHART FOR THE SPINAL COLUMN. OAKLEY SMITH, Chicago, Ill. Filed Nov. 15, 1913. Serial No. 801,136. (Cl. 35—12.)



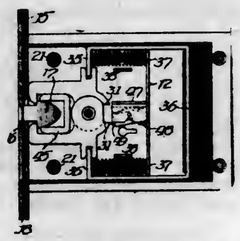
1. A spinal chart comprising a diagrammatic representation of a plurality of schematic vertebræ arranged in groups to illustrate the comparative relation of the vertebræ of one group to its respective preceding and succeeding groups, and each vertebral representation comprising a rectangular area adapted to receive indicia for indicating findings for subsequent comparison.

2. In a spinal chart a schematic representation of a plurality of vertebræ, said vertebræ arranged in groups to illustrate the comparative relation of the vertebræ of one group to its respective preceding and succeeding group, each vertebral representation comprising a plurality of separated conventional areas adapted to receive indicia for indicating findings thereon for subsequent comparison, and each respective subsidiary group being divided from the principal group.

1,143,653. SLIDING-DOOR LOCK. WILLIAM B. SMITH, Danville, Ill. Filed Feb. 5, 1914. Serial No. 816,663. (Cl. 70—31.)

1. In a door lock, the combination of a casing, a pair of latches concentrically pivoted in said casing, each latch being provided with a shoulder opposed to a similar shoulder on the other latch, a manually operable sliding yoke connected with said latches, a locking bolt adapted to be positioned between said opposed shoulders of the latches to lock the latches in locked position, and means for holding said locking bolt in locked and in unlocked positions.

2. In a door lock, the combination of a casing, a pair of latches concentrically pivoted in said casing and provided with rearwardly extending oppositely disposed shoulders, a locking bolt longitudinally slidable in said casing adapted to be interposed between said shoulders to hold the latches in locked position, and a spring-pressed means carried by said bolt adapted to automatically engage with a projection fixed on said casing to hold said bolt in locked and in unlocked positions.



3. In a door lock, the combination of a casing, a pair of pivoted latches provided with rearwardly extending opposed shoulders, a locking bolt slidable into position between said shoulders, and a tumbler pivotally carried by said bolt in position to automatically engage with a fixed projection on said casing when said bolt is moved to extreme position in either direction whereby said bolt is positively held against movement.

4. In a door lock, the combination of a casing, a pair of latches mounted therein and provided with oppositely disposed shoulders, a locking bolt slidable into position between said shoulders to hold the latches against opening movement, a tumbler provided with a centrally disposed transverse slot, a pin extending through said slot whereby said tumbler is secured to the bolt, a spring urging said tumbler outwardly with respect to the bolt, and a pair of stops fixed on the casing in position to cooperate with said tumbler to hold the bolt in locked and in unlocked positions.

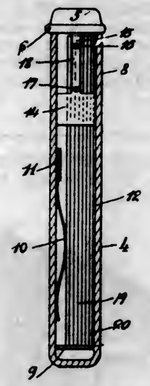
5. In a door lock, the combination of a casing, a latch pivotally mounted therein and provided with a rearwardly extending shoulder, a longitudinally slidable locking bolt provided with a longitudinal groove, a tumbler disposed in said groove and having a slot and pin connection with said bolt, a spring normally urging said tumbler outwardly in said groove, and stops mounted on said casing adjacent said bolt in position to be engaged by the ends of said tumbler whereby the bolt is held in locked and in unlocked positions.

1,143,654. CARD-CASE. EMIL SMYKAL, Bloomfield, N. J., assignor to Woods & Chatellier, New York, N. Y., a Corporation of New York. Filed Aug. 18, 1911. Serial No. 644,786. (Cl. 206—40.)

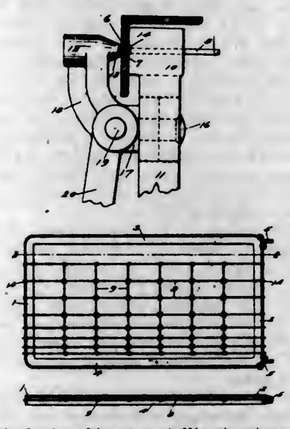
1. The combination with a card case having a hinged cover, of lugs carried by said cover and an ejector freely suspended from said lugs within the case, said ejector comprising a frame member adapted to embrace cards to be inserted within the case but open at one end and an ejecting member disposed below said frame member having means for engaging the edge of but a single card at a time.

2. The combination with a case for cards having a hinged cover, of a lug carried by said cover and an ejector suspended from said lug within the case, said ejector comprising a frame member having portions extending substantially parallel to three sides of the case and an ejecting member disposed below said frame member and having a projection of a length substantially equal to the predetermined thickness of one of the cards.

3. The combination with a case for cards having a hinged cover, of a lug carried by said cover and an ejector freely suspended from said lug within the case, said ejector comprising a frame member having portions extending substantially parallel to three sides of the case but having an open upper end and an ejector member disposed below said frame member having a projecting portion adapted to engage but a single card at one time.



1,143,655. METHOD OF MAKING A METALLIC STRUCTURE. WILLIAM H. SOMMER, Peoria, Ill. Filed Oct. 28, 1912. Serial No. 728,281. (Cl. 29—148.)

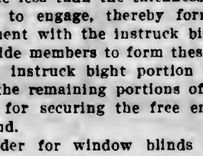


The method of making a metallic structure, which consists in forming a frame including horizontal top and bottom members and vertically disposed end members, said end members provided with oppositely placed wire receiving openings; inserting previously stretched wires through said openings; successively gripping each wire adjacent an end member of the frame, and successively forming an enlargement or head on the end of each wire, using the end member as a die-member against which the enlargement or head is formed.

1,143,656. BOTTLE-CLOSURE. OTTO SPAHR, Philadelphia, Pa. Filed Aug. 15, 1914. Serial No. 856,937. (Cl. 215—34.)

1. A bottle cap or closure comprising a disk provided with a pouring orifice, a laterally extending upwardly inclined spout at one edge of the disk in front of said orifice, a downwardly bent lip back of the inner edge of the spout and forming an inner extension of the spout and a front wall for said orifice and extending below the level of the main body of the disk, and a movable gate to open and close the orifice.

2. A bottle cap or closure comprising a disk having a pouring orifice located near one edge thereof, a laterally extending upwardly inclined spout projecting from the disk in front of the orifice, the metal of the disk at opposite front corners of the orifice being notched and the metal of the disk between said notches being bent down to form a lip acting as an inner extension of the spout and adapted to engage the inner wall of the bottle neck adjacent to the latter's upper edge, and a movable gate to open and close the orifice.



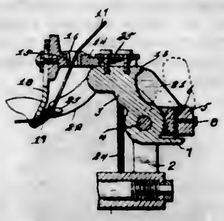
3. A bottle cap or closure comprising a substantially flat disk, a spout projecting therefrom, flanges along that part of the circumference of the disk between opposite ends of the spout and adapted for engagement with the outer wall of the bottle neck, a lip back of the inner edge of the spout extending below the level of the body of the disk and adapted for engagement with the inner wall of the bottle neck, there being a pouring orifice in the disk the front wall of which is formed by the lip, and a movable gate to open and close the orifice.

1,143,657. SLAT-HOLDER. PASCAL H. STEDMAN, Newport, R. I. Filed Aug. 27, 1913. Serial No. 786,902. (Cl. 16—1.)

1. A slat holder for window blinds formed from a single length of resilient wire bent to form a substantially U-shaped body member, the wire adjacent its free ends being bent to provide spring coils, the bight portion of the body member being instruck toward its free end to provide spring loops spaced a distance greater than the thickness of the slat rod which the body member is to engage, the side portions of the body member adjacent these loops being laterally bent and also bent toward each other to provide oppositely disposed co-acting gripping members spaced a distance less than the thickness of the slat rod which they are to engage, thereby forming a reduced throat in alinement with the instruck bight portion, the bending of the side members to form these gripping members leaving the instruck bight portion substantially in the plane with the remaining portions of the body member, and means for securing the free ends of the body member to a blind.

2. A slat holder for window blinds formed from a single length of resilient wire bent intermediate its ends to provide spaced arms joined by a substantially straight connecting portion terminating in spring loops arranged in substantially the same plane with said arms, the arms adjacent said loops being bent downwardly and inwardly to provide converging portions and thence upwardly and outwardly to provide intersecting angularly disposed diverging portions, said portions, at their intersections, providing gripping shoulders normally held in close relation to each other by said loops, and means for securing the free ends of the arms to a blind.

1,143,658. ATTACHMENT FOR KNITTING-MACHINES. WILLIAM J. STEERE, Rockwood, Tenn. Filed July 30, 1913. Serial No. 782,051. (Cl. 66—12.)



1. In a knitting machine the combination with a head provided with a vertically movable swinging upper end, thread guiding means carried thereby, said thread guiding means comprising a hollow tube portion, and a thread clamping finger adapted to pass over the rear end of said hollow tube portion for firmly clamping a thread within said hollow tube portion and preventing the longitudinal movement of said thread through said hollow tube portion when said swinging upper end is swung to a vertical position.

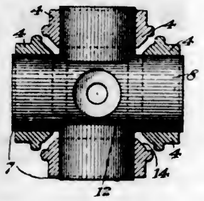
2. In a knitting machine the combination with a head provided with an upwardly swinging upper end, of a thread guiding means comprising a hollow tube portion, a body portion, a cam fixedly secured to said body portion, pivotally mounted arms supported upon said body portion and provided with a laterally extending pin at the rear end thereof, a thread binding finger carried by said pivotally mounted arm and adapted to lie snugly in engagement with the rear end of said hollow tube and adapted to be thrown into firm engagement with the rear end of said hollow tube for clamping a thread therein and preventing the longitudinal movement of a thread through said hollow tube when said swinging upper end has been swung to a vertical position.

3. In a knitting machine the combination with a head, said head provided with a pivoted upper end adapted to normally extend at right angles to said body for facilitating the guiding of a thread to the knitting portion of said knitting machine, means for raising said swinging upper end to a vertical position, of thread guiding means carried by said pivoted upper end, a pivot arm carried by said swinging portion of said head, a cam engaging said arm for swinging the same upon said head, said thread guiding means provided with a rearwardly extending hollow tube and adapted to receive a thread, a laterally extending finger carried by said arm and adapted to be thrown into engagement with the rear end of said hollow tube for clamping a thread therein and preventing the accidental sliding movement of the thread through said hollow tube.

1,143,659. UNIVERSAL JOINT. PHILIP K. STERN, New York, N. Y., assignor to Frank M. Randall Manufacturing Corporation, a Corporation of New York. Filed May 5, 1913. Serial No. 765,584. (Cl. 74—19.)

1. The combination with terminal members of a universal joint comprising a pair of members substantially cylindrical throughout their length and each intermediately recessed to form a lateral neck with parallel slabbed sides, the opposed walls of the recess in each member being at right angles to its base, forming shoulders, to receive the neck portion of the other member in crossed relation, with the neck surfaces of said members juxtaposed, the shoulders of one member engaging the slabbed sides of the other member, thereby forming a snugly interfitting bi-axial joint, and means uniting said members to prevent relative lateral displacement thereof.

2. The combination with terminal members of a universal joint comprising a pair of members substantially cylindrical throughout their length and each intermediately recessed to form a lateral neck with parallel slabbed sides, the opposed walls of the recess in each member being at right angles to its base, forming shoulders, to receive the neck portion of the other member in crossed relation, with the neck surfaces of said members juxtaposed, the shoulders of one member engaging the slabbed sides of the other member, thereby forming a snugly interfitting bi-axial joint, and a uniting bolt intersecting the axes of said cylindrical members through their neck portions.



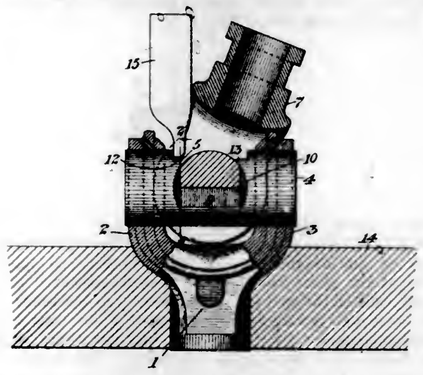
3. A universal joint comprising a pair of cylindrical members each intermediately recessed to form a lateral neck with parallel slabbed sides, the opposed walls of each recess being at right angles to its base, forming shoulders, and the edges of said shoulders, perpendicular to said neck, being mitered, whereby said cylindrical members may fit together in intersecting relation, with their neck surfaces juxtaposed, the shoulders of one member engaging the slabbed sides of the other member, and the mitered edges of said members being in opposed contact, thereby comprising a snugly fitting bi-axial joint, and means uniting said members to prevent relative lateral displacement thereof.

4. A universal joint comprising a pair of cylindrical members each intermediately recessed to form a lateral neck with parallel slabbed sides, the opposed walls of each recess being at right angles to its base, forming shoulders, and the edges of said shoulders, perpendicular to said neck, being mitered, whereby said cylindrical members may fit together in intersecting relation with their neck surfaces juxtaposed, the shoulders of one member engaging the slabbed sides of the other member, and the mitered edges of said members being in opposed contact, thereby comprising a snugly fitting biaxial joint, together with a uniting bolt intersecting the axes of said cylindrical members through their neck portions.

5. A universal joint comprising a pair of cylindrical members each intermediately recessed to form a lateral neck with parallel slabbed sides, the opposed walls of each recess being at right angles to its base, forming shoulders, and the edges of said shoulders, perpendicular to said neck, being mitered, whereby said cylindrical members may fit together in intersecting relation with their neck surfaces juxtaposed, the shoulders of one member engaging the slabbed sides of the other member, and the mitered edges of said members being in opposed contact, thereby comprising a snugly fitting biaxial joint, together with a uniting bolt intersecting the axes of said cylindrical members through their neck portions, and a pair of terminal members having bearing portions respectively engaging opposite ends of each cylindrical member.

1,143,660. UNIVERSAL JOINT. PHILIP K. STERN, New York, N. Y.; Elizabeth L. Stern, executrix of said Philip K. Stern, deceased, assignor to Frank M. Randall Manufacturing Corporation, New York, N. Y. Filed June 20, 1913. Serial No. 774,896. (Cl. 74—19.)

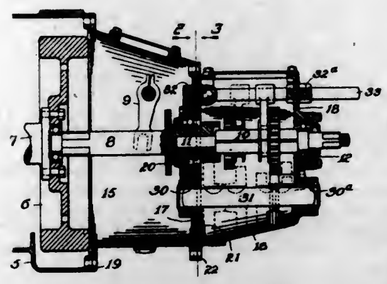
1. A universal joint comprising a pair of terminal members, and a pair of interlocked coupling members having their axes at right angles to each other in a common plane, each coupling member being provided at each end with a cylindrical formation, and an intermediate recessed neck portion, each end of the neck portion having mitered shoulders, said cylindrical formation having a transverse notch and projecting tongue formed at each end of the recessed portion, and said projecting tongue of each coupling member being upset and overlapping a portion of the upper surface of the other coupling member to lock the said coupling members together.



2. A universal joint comprising a pair of terminal members each having a pair of forks provided with bearing surfaces, a coupling pin in each of said forks, said coupling pins being slabbed on opposite sides intermediately, to provide necks, and notched at right angles thereto into the necks, said necks having a transverse notch and projecting tongue formed on the opposite sides of each of the pins, each of said tongues being upset and engaging the neck of the other of the pins to secure the said pins firmly together.

3. A universal joint comprising a pair of cylindrical members each intermediately recessed to form a lateral neck, the opposed walls of the recess in each member being at right angles to its base, to receive the neck portion of the other member in crossed relation, with the neck surfaces of said members juxtaposed, thereby forming a snugly interfitting bi-axial joint, each member having a transverse notch near each wall perimeter, forming tongues, the tongues of one member being upset and overlapped upon the adjacent surface of the other member to lock said members together.

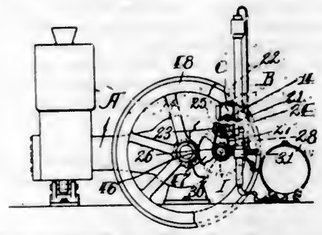
1,143,661. TRANSMISSION-GEAR CASING. DAVID D. STERNBERGH, Reading, Pa., assignor to American Die and Tool Company, Reading, Pa., a Corporation of Pennsylvania. Filed Jan. 13, 1915. Serial No. 1,903. (Cl. 74—56.)



1. A unitary transmission-gear casing comprising two separately formed approximately cylindrical sections, each provided with a shaft-bearing wall at one end thereof only, and with a bolting rim at the other end; each of said end walls being provided with a series of independently formed shaft-bearing apertures adapted to aline respectively with those of the other end wall when the sections are united.

2. In combination with a motor and a casing therefor; a unitary transmission-gear casing comprising two separately formed approximately cylindrical sections, each provided with a shaft-bearing wall at one end thereof only, and with a bolting rim at the other end; each of said end walls being provided with a series of independently formed shaft-bearing apertures adapted to aline respectively with those of the other end wall when the sections are united; a clutch-engaged motor-shaft extension inclosed by one of said casing sections and mounted in the end wall thereof; a main transmission shaft inclosed by the other casing section and mounted at its opposite ends in the end wall of said section and in said motor-shaft extension respectively; a countershaft, and change-gear-lever shaft, mounted at their opposite ends in the end walls of the respective casing sections; and gears connecting said main shaft and counter shaft, substantially as set forth.

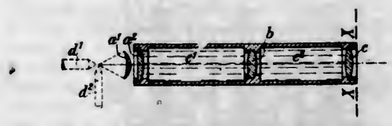
1,143,662. ELECTRIC GENERATOR. CHARLES A. STICKNEY, St. Paul, Minn. Filed June 20, 1913. Serial No. 774,814. (Cl. 123—195.)



1. The combination with an explosive motor and its shaft having a gear wheel secured thereto, of a pump chamber and its shaft having a gear wheel intermeshing with the gear wheel on the motor shaft, an electrical generator secured to said pump chamber, an actuating element with which said generator is operably associated, a crank for rotating said element by hand, and means connecting said actuating element with said motor shaft for automatically driving said generator.

2. The combination with an explosive motor and its shaft having a gear wheel, of pump mechanism having a shaft provided with a gear wheel and sprocket, said gear wheels intermeshing, an electrical generator having a shaft, a pinion carried by said generator shaft, a counter shaft having a gear meshing with said pinion, means for manually operating said counter-shaft, a sprocket carried by said counter-shaft, a sprocket chain connecting said last mentioned sprocket with the sprocket on said pump shaft, and a clutch associated with the pump sprocket whereby said generator may be automatically actuated by said motor.

1,143,663. LIGHTING SYSTEM FOR CINEMATOGRAPHS. RUDOLF STRAUBEL, Jena, Germany, assignor to the Firm of Carl Zeiss, Jena, Germany. Filed May 22, 1914. Serial No. 840,361. (Cl. 88—24.)



In a lighting system for cinematographs, comprising a source of light, a collective lens, a condenser system adapted to form an image of the said source of light approximately at the locus of the said collective lens, an auxiliary condenser system positioned on the opposite side of the said collective lens to the said condenser system, the said collective lens being adapted to form an image of the exit pupil of the said condenser system in the neighborhood of the said auxiliary condenser system, and at least one cooling chamber fitted between the two condenser systems, at least two of the water-bounded chamber-surfaces being surfaces of lenses of the lighting system.

1,143,664. SELF-WINDING ELECTRIC CLOCK. UNO L. SUNDBLAD, New Haven, Conn. Filed Apr. 5, 1915. Serial No. 19,174. (Cl. 58—41.)



1. A self-winding electric clock, the combination with a clock movement including a spring barrel, of an electric motor, connection between the motor and the spring barrel, a contact disk insulated from the clock movement and connected with one side of the motor, a slide mounted on said spring barrel and carrying a spring pin extending into the convolutions of the spring, a dog also mounted on the spring barrel and carrying a contact pin extending into the plane of the contact disk, and means moving with the slide for turning said dog.

2. A self-winding electric clock, the combination with a clock movement including a spring barrel, of an electric motor, connection between the motor and the spring barrel, a contact disk insulated from the clock movement and connected with one side of the motor, a slide mounted on said spring barrel and carrying a spring pin extending into the convolutions of the spring, said slide formed with a shoulder and with a cam, a dog pivotally connected with said spring barrel and having a tail extending between the said shoulder and cam, a spring tripper carried by the slide and extending into the path of the tail of the dog, said dog carrying a contact pin extending into the path of the contact disk.

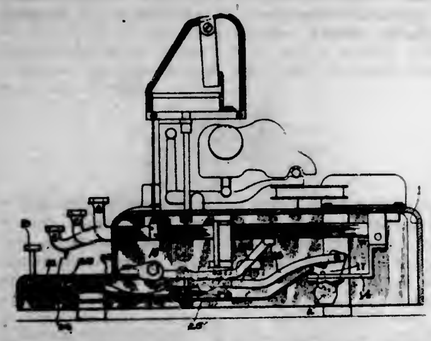
3. A self-winding electric clock, the combination with a clock movement including a spring barrel, of an electric motor, connection between the motor and the spring barrel, a contact disk insulated from the movement and connected with one side of the motor, a slide mounted on said spring barrel, said slide formed with a shoulder and with a cam, a dog mounted on said spring barrel and having a tail extending between the shoulder and cam, said dog carrying a contact pin extending into the plane of the said contact disk, a spring detent for said dog, a tripper carried by said slide and adapted to engage with said spring barrel when moved in one direction and adapted to engage with the tail of the dog when lifted by said cam out of engagement with the barrel.

1,143,665. IMPRESSION-REGISTERING DEVICE FOR TYPE-WRITERS. JOHN J. TOOLAN, Chicago, Ill. Filed Sept. 7, 1912. Serial No. 719,214. (Cl. 235—102.)

1. In a device of the class described a counter, a crank connected thereto, a cam plate adjustably connected on said crank, and levers connected therewith, one to cause actuation of the counter through said cam plate and crank, and the other to move said cam plate out of actuating position.

2. The combination with a typewriter of a counter, a crank connected thereto to operate the same, a cam plate connected to said crank, a lever connected to said cam plate and to the universal bar of the typewriter actuated by each of the character keys thereof, a relatively long connecting rod connected to said cam plate and to the space bar of the typewriter whereby when a character key is actuated the counter registers and when the space bar is actuated said long connecting rod shifts the cam plate with respect to said crank whereby movement of the cam plate takes place without causing registration by said counter.

3. The combination with a typewriter of a counter mounted thereon, means connecting said counter with the character keys of the typewriter to register each actuation of any one thereof, and mechanism connected to the space bar of the typewriter adapted to shift said connecting means for said character keys into a position to permit actuation of the character keys without actuation of said counter.

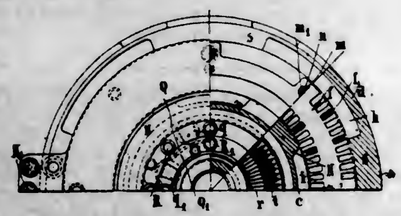


4. A registering mechanism for typewriters embracing a counter, operative connections between a part of the mechanism of the typewrier and said counter for actuating the counter to register each and all actuations of keys for significant characters, and a connecting rod engaged with the counter actuating means and operatively connected with the spacing mechanism and acting to shift the actuating means to prevent actuation of the counter when spacing or shifting keys only are actuated.

5. The combination with a typewriter of a counter mounted thereon, a crank arm for actuating the counter, a pin through said crank arm, a slotted plate with the slot thereof engaging over said pin to partially support said plate on said arm, a connection between said plate and the character keys of the typewriter, and means connecting said plate with the space bar mechanism of the typewriter to move said plate whereby actuation of the character keys causes said plate to slide on said pin without actuation of the counter shaft.

[Claims 6 and 7 not printed in the Gazette.]

1,143,666. COMMUTATOR FOR DYNAMO-MACHINES. CHARLES ANTHONY VANDERVELL and ALBERT HENRY MIDGLEY, Acton Vale, England. Filed May 6, 1913. Serial No. 765,832. (Cl. 171—211.)



1. A commutating and current collecting device for continuous current dynamos comprising a slip ring provided with teeth and commutator segments arranged between the teeth of said slip ring and insulated therefrom, the teeth of the slip ring and the commutator segments having their contact surfaces arranged in one and the same plane and a dynamo brush abutting against the commutator segments and the teeth of the slip ring, as and for the purposes set forth.

2. A commutating and current collecting device for continuous current dynamos comprising a slip ring provided with teeth, commutator segments arranged between the teeth of said slip ring and insulated therefrom, the teeth of the slip ring and the commutator segments having their contact surfaces arranged in one and the same plane, another slip ring engaging with the commutator segments insulated therefrom and arranged with its contact surface in the same plane as the contact surface of the commutator segments, a fixing ring for clamping the one slip ring to the other slip ring and for fixing the commutator segments in position and two concentric sets of brushes, one set of brushes abutting against the commutator segments and the teeth of one slip sing, and the other set of brushes against the other slip ring and the commutator segments, as and for the purposes set forth.

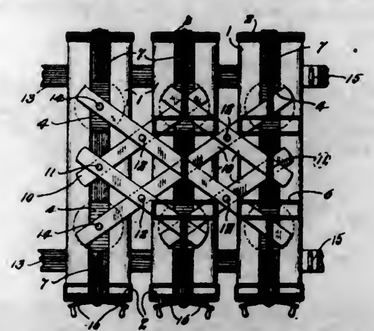
1,143,607. OPTICAL SYSTEM. MORITZ VON ROHR, Jena, Germany, assignor to the Firm of Carl Zeiss, Jena, Germany. Filed Apr. 30, 1914. Serial No. 835,456. (Cl. 88—32.)



1. Optical system for a medical appliance adapted to inspect cavities in the body, comprising a plurality of systems of reversion and a collective system between each two such systems of reversion, each such collective system consisting of two lenses separated from one another by an air space, between which lenses lies the locus of a real image.

2. Optical system for a medical appliance adapted to inspect cavities in the body, comprising a plurality of systems of reversion and a collective system between each two such systems of reversion, each such collective system consisting of two lenses separated from one another by an air space, between which lenses lies the locus of a real image, and the diameter of each of the said two lenses being less than the said air space.

1,143,668. SORTING-CABINET. AUGUST F. WALZ, St. Louis, Mo. Filed July 20, 1914. Serial No. 851,944. (Cl. 211—36.)



1. A cabinet comprising a series of relatively movable carriers, shelf members mounted on said carriers and having portions adapted to coöperate with the shelf members on adjacent carriers to form pigeon holes, said carriers being coöperatively connected by means whereby movement of one of said carriers relative to an adjacent carrier produces an equal movement of each other carrier relative to its adjacent carriers.

2. A cabinet of the class described comprising in combination a plurality of relatively movable carriers having shelf portions and partition portions, the shelf portions and partition portions on different carriers being adapted to form pigeon holes, and means for moving the carriers to vary the width of the pigeon holes.

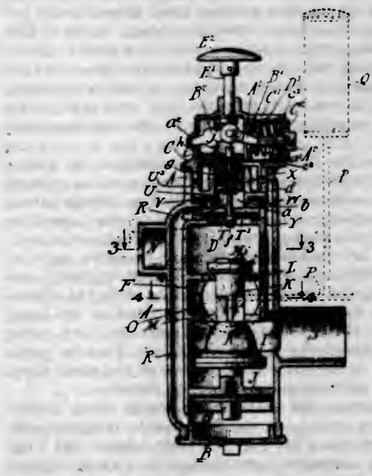
3. A sorting cabinet of the class described comprising in combination a plurality of relatively movable carriers having shelf portions and partition portions, the said shelf portions and partition portions on different carriers coöperating to form pigeon holes, and the said shelf portions and partition portions being movable on the respective carriers to vary the depth of the pigeon holes.

4. A sorting cabinet of the class described comprising in combination a plurality of carriers, partition portions and shelf portions mounted on the respective carriers and adapted to coöperate with similar portions on adjacent carriers to form pigeon holes, and means for moving the partition portions and shelf portions on the individual carriers to vary the size of the pigeon holes.

5. In a device of the class described, the combination with a plurality of relatively movable carriers having side and bottom portions adapted to coöperate to form pigeon holes, means for moving the carriers to vary the width of the pigeon holes, and means for securing the carriers in various relative positions.

[Claims 6 to 8 not printed in the Gazette.]

1,143,669. VALVE. EARL G. WATROUS, Chicago, Ill. Filed Sept. 20, 1912. Serial No. 721,370. (Cl. 4—28.)



1. A valve device for controlling the admission of water under pressure to a closed tank and its subsequent discharge therefrom, comprising an inlet valve for controlling the admission of the water to the tank and an outlet valve controlling its discharge therefrom and opening in the direction of such discharge, said valves being moved in both directions by water pressure, manually-operated means for causing the water pressure to move said valves in a direction to admit the water under pressure to the closed tank and prevent its escape therefrom, and means operated automatically by the pressure of the water in the tank to cause the water pressure acting upon the outlet valve to move the valves in the opposite direction to release and discharge the contents of the tank; substantially as described.

2. A valve device for controlling the admission of water under pressure to a closed tank and its subsequent discharge therefrom, comprising two valves moving in unison with each other and controlling, respectively, the admission of the water under pressure to the tank and its escape therefrom, said valves being moved in both directions by water pressure and the outlet valve opening in the direction of the discharge from the tank, manually-operated means for causing the water pressure to move the valves in a direction to admit the water under pressure to the closed tank and prevent its escape therefrom, and automatic means controlled by the pressure in the tank for causing the water pressure acting upon the outlet valve to move the valves in the opposite direction to release and discharge the contents of the tank; substantially as described.

3. A valve device for controlling the admission of water under pressure to a closed tank and its subsequent discharge therefrom, comprising two valves moving in unison with each other and controlling, respectively, the admission of the water under pressure to the tank and its escape therefrom, said valves being moved in both directions by water pressure, manually-operated means for causing the water pressure to move the valves in a direction to admit the water under pressure to the closed tank and prevent its escape therefrom, automatic means controlled by the pressure in the tank for causing the water pressure to move the valves in the opposite direction to release and discharge the contents of the tank, and means for varying the pressure at which the valves shall be so moved to discharge the contents of the tank; substantially as described.

4. A valve device for controlling the admission of water under pressure to a closed tank and its subsequent discharge therefrom, comprising two valves moving in unison with each other and controlling, respectively, the admission of the water under pressure to the tank and its escape therefrom, said valves being moved in both directions by the water pressure, manually-operated means for causing the water pressure to move the valves in a direction to admit the water under pressure to the closed tank and prevent its escape therefrom, means automatically operated by the pressure of the water in the tank, against the resistance of a spring, for causing the water pressure to move the valves in the opposite direction to release and discharge the contents of the tank, and means for varying the tension of said spring; substantially as described.

5. A valve device for controlling the admission of water under pressure to a closed tank and its subsequent discharge therefrom, comprising an inlet valve for controlling the admission of the water to the tank, an outlet valve controlling the discharge therefrom and opening in the direction of the discharge, a piston for moving said valves, means for causing the water pressure to be admitted to one side of said piston, to move the valves in a direction to admit the water under pressure to the closed tank and prevent its escape therefrom, and means operated automatically by the pressure of the water in the tank for relieving the piston of the pressure by which it has been moved and permitting the tank pressure acting upon the outlet valve and close the inlet valve; substantially as described.

[Claims 6 to 30 not printed in the Gazette.]

1,143,670. PROCESS OF MANUFACTURING ARTIFICIAL STONE. WILHELM WEILER, Munich, Germany, assignor to Jacques Sklarek, Munich, Germany. Filed Feb. 25, 1913. Serial No. 750,540. (Cl. 106—44.)

1. The herein described process of manufacturing artificial stone, consisting in admixing hydraulic cement with clean dried fibrous peat, adding magnesia and soluble glass to the mixture, and moistening said mixture with lime water until a felt-like substance is formed and the cement sets.

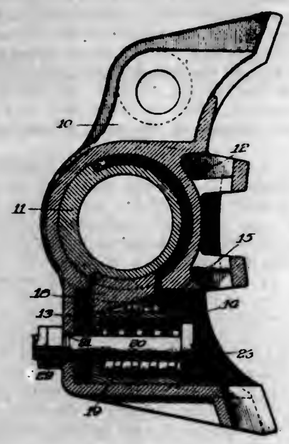
2. The herein described process of manufacturing artificial stone, consisting in admixing hydraulic cement with clean dried fibrous peat, adding magnesia and soluble glass to the mixture, moistening said mixture with lime water, and finally adding animal glue and kieselguhr thereto.

3. The herein described process of manufacturing artificial stone, consisting in admixing hydraulic cement with

clean dried fibrous peat, adding magnesia and a hardening medium to the mixture, moistening said mixture with lime-water until a felt-like substance is produced, molding said substance, and finally applying pressure thereto to expel moisture therefrom.

2. The herein described process of manufacturing artificial stone, consisting in admixing hydraulic cement with clean dried fibrous peat, adding magnesia and soluble glass to the mixture, moistening said mixture with lime water, molding said mixture under pressure whereby a portion of the moisture is expelled, and finally drying the resulting product.

1,143,671. ADJUSTABLE BRAKE-HEAD. JOSEPH W. WEINLAND, Chicago, Ill., assignor to American Steel Foundries, New York, N. Y., a Corporation of New Jersey. Filed Nov. 28, 1914. Serial No. 874,471. (Cl. 188—28.)



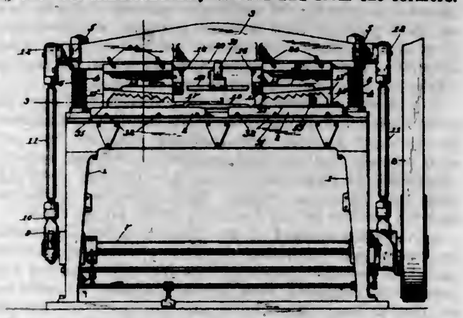
1. In a device of the class described, the combination of a bearing having a peripheral groove, a head rotatably mounted on said bearing, said head being provided with a recess in its lower portion, a pair of wedge members mounted on said recess, one of said members normally cooperating with said bearing in said groove, a spring mounted in one of said wedge members, and a bolt acting on said spring and tending to advance said wedge members into engagement with said bearing, substantially as described.

2. In a device of the class described, the combination of a bearing, a head rotatably mounted on said bearing, said head having a recess in its lower portion, a pair of wedge members mounted in said recess, one of said members being hollow, a spring mounted in said hollow wedge member, and a bolt acting on said spring and tending to force said wedge members into engagement with said bearing, substantially as described.

3. In a device of the class described, the combination of a bearing, a head rotatably mounted on said bearing, a pair of coöperating wedge members mounted in the lower portion of said head, a coil spring mounted internally of one of said wedge members, and a bolt acting on said spring and tending to advance said wedge members into engagement with the bearing, substantially as described.

1,143,672. SCORING AND CUTTING MACHINE. JOSEPH W. WEISS and THOMAS G. DEWLING, Baltimore, Md. Filed July 9, 1914. Serial No. 849,893. (Cl. 93—58.)

1. In a machine for making box blanks, two corner forming plait dies arranged in alinement in the direction of the length of the corner being formed and having their outer edges spaced apart by a distance equal to the height of the box to be formed, the inner edges being spaced by a corresponding distance, which is the distance first named diminished by twice the width of the plait, corresponding internal corner formers and means for moving the dies simultaneously toward and from the formers.



2. A machine for forming box blanks consisting of a table, a reciprocating carrier, a pair of flap cutters, a pair of plait dies and a corner scorer with the corresponding internal formers for the dies and scorer, the various operative members, *i. e.*, the cutters, dies and scorer, being mounted in alinement in the direction of the length of the corner being formed, the cutters at each end, the dies one at each side just inside the cutters, and the scorer in the center.

3. In a machine for making box blanks, a table, a carrier mounted to reciprocate at right angles to the surface of the table toward and from the table, flap cutting knives arranged in a vertical plane extending transversely of the table, one at each side depending from and secured to the carrier, two corner forming plait dies mounted on the carrier in alinement with the knives, so that the knives and dies form a single line in the direction of the cuts and corners formed, one adjacent the inner end of each knife and spaced well apart and members coöperating with the knives and with the dies, the same being mounted on the table in the path of the corresponding members.

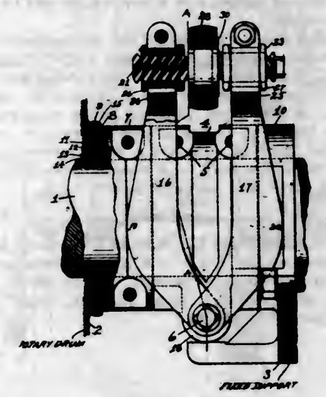
4. In a machine for making box blanks, a table, a carrier mounted to reciprocate at right angles to the surface of the table toward and from the table, flap cutting knives arranged in a vertical plane, one at each side depending from and secured to the carrier, two corner forming plait dies mounted on the carrier with their operative surfaces in alinement with the knives, one adjacent the inner end of each knife, and members coöperating with the knives and with the dies, the same being mounted on the table in the path of the corresponding members, the outer edges of the dies being spaced apart by a distance equal to the height of the boxes to be made and the inner edges being spaced apart be a corresponding distance.

5. In a machine for making box blanks from plaited paper strips, a table, a carrier mounted to reciprocate at right angles to the surface of the table toward and from the table, flap cutting knives arranged in a vertical plane transversely of the table, one at each side depending from and secured to the carrier, two corner forming dies mounted on the carrier with their operative surfaces in alinement with the knives, one adjacent the inner end of each knife, and members coöperating with the knives and with the dies, the same being mounted on the table in the path of the corresponding members, the dies being of a width corresponding to that of the plaits and spaced apart by a distance equal to the distance by which the plaits are spaced.

[Claims 6 to 17 not printed in the Gazette.]

1,143,673. CLUTCH-OPERATING MECHANISM. GUSTAV PERS WERN, New York, N. Y. Filed Apr. 29, 1913. Serial No. 764,370. (Cl. 192—1.)

1. In a clutch operating mechanism, the combination with a rotary shaft, of a fixed support, a clutch member loosely mounted on said shaft at a predetermined distance from said support, a bearing block resting on the support and fitting around the shaft, actuating means on said bearing block designed to press oppositely against said support and said clutch member, and an interposed device including interlocked washers adapted to take up the direct pressure of said actuating means.



2. In a clutch operating mechanism, the combination with a rotary shaft, of a bearing block sustained from a support thereof, a clutch member slidable on said shaft to and from said bearing block, a pair of yokes or levers straddling the bearing block and fulcrumed thereon, and means enabling said yokes or levers to slide said member, into clutch by swinging them in opposite directions.

3. In a clutch operating mechanism, the combination with a rotary shaft, of a clutch member slidably mounted thereon, a bearing block sustained from a shaft support away from said clutch member, said block being outwardly flat-surfaced and of substantially rectangular outline, a pair of yokes or levers straddling the block and having their ends or forks flattened to bear evenly on its opposite surfaces and against one another, said yokes or levers having a common pivotal connection with the bearing block, means for swinging the yokes or levers oppositely one to the other, and means adapting them to slide the said member into clutch or release it therefrom according to the direction in which they are moved.

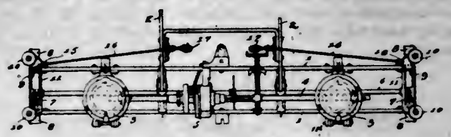
4. In a clutch operating mechanism, the combination with a rotary shaft, of a clutch member slidable thereon, a bearing block sustained from a shaft support, a pair of yokes or levers fulcrumed on said bearing block and adapted to slide said member into clutch, and a double acting screw connecting said yokes or levers together so as to control their respective movements.

5. In a clutch operating mechanism, the combination with a rotary shaft, of a bearing block sustained from a shaft support, a clutch member slidable on the shaft away from said bearing block, a pair of yokes or levers fulcrumed on the bearing block and adapted to drive said member into clutch, said yokes or members having oppositely located stems, a screw having right and left threads engaged by corresponding threads in said stems respectively, and means for turning said screw in either direction.

[Claim 6 not printed in the Gazette.]

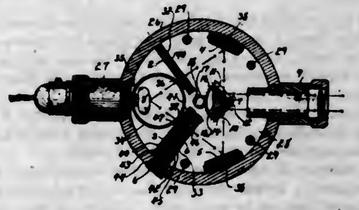
1,143,674. CHECK-ROW WIRE MECHANISM FOR PLANTERS. CHARLES E. WHITE, Moline, Ill., assignor to Deere & Mansur Company, Moline, Ill., a Corporation of Illinois. Filed Aug. 6, 1913. Serial No. 783,445. (Cl. 111—43.)

In a wire guiding mechanism for a check-row corn planter, the combination of two elements, the first of which is stationary and the second of which is movable from a wire retaining position to a wire discharging position and also to a third unusual position, and guide rollers on the movable element adapted to limit the movement thereof to the said third position by direct engagement with the said stationary element, the said movable element being held permanently in engagement with the fixed element while in the first two positions but being



bodily detachable from said support when in the third position.

1,143,675. HEMOGLOBINOMETER. JAMES L. WHITNEY, San Francisco, Cal. Filed June 19, 1914. Serial No. 846,053. (Cl. 88—14.)



1. A method of determining the depth of color of an object by measuring the amount of obstruction that the object offers to the passage through it of a ray of light of approximately spectroscopically pure color.

2. A method of determining the depth of color of an object by passing a ray of approximately spectroscopically pure color through the object and measuring the difference between the amount of light so transmitted and the amount of light of a second ray of the same initial color and intensity.

3. A method of determining the depth of color of a transparent colored object, consisting in measuring the amount of obstruction that the object affords to the passage through it of the rays of a limited part of the spectrum, such limitation being effected by the interposition of a colored filter between the source of light and the eye.

4. In an instrument for measuring the depth of color of a transparent colored object, the combination with means for transmitting a ray of light through the object, of means for reducing the said ray of light to approximate spectroscopic purity, a movable surface upon which light so reduced and transmitted is gathered, means for correspondingly reducing another ray of light to approximate spectroscopic purity, a concurrently movable surface upon which the ray of light last mentioned is gathered and means for measuring each movement.

5. In an instrument for measuring the depth of color of a transparent colored object, the combination with means for transmitting two rays of light one of which passes through the object, of means for reducing both rays of light to approximate spectroscopic purity, a light-diffuser having two surfaces upon which the light of the respective rays is gathered, means for moving the said light-diffuser for equalizing the density of the illumination of its respective surfaces, and means for measuring the movement of the light diffuser.

[Claims 6 to 13 not printed in the Gazette.]

1,143,676. CIRCUIT-CLOSER. FREDERICK WILLIAMS, Somerville, Mass., assignor to Acme Register Company, Somerville, Mass., a Corporation of Massachusetts. Filed May 10, 1913. Serial No. 766,711. (Cl. 175—282.)

1. A device of the kind described comprising an insulating base, a forked terminal mounted thereon, two terminals each located in proximity to one of the arms

of said forked terminal, and means whereby either one of the arms of said forked terminal may be brought into contact with the adjacent terminal, said means comprising a key having wings of different lengths, the longer wing of said key being adapted to engage said terminals, in combination with a stop adapted to engage the shorter wing and limit the direction and extent of rotation of the key.

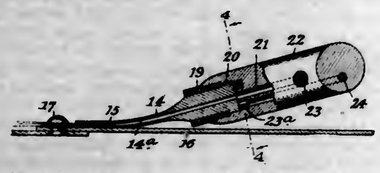


2. In a device of the kind described, in combination, an insulating base, a forked terminal mounted thereon, two terminals each located in proximity to one of the arms of said forked terminal, a key adapted to be located between the ends of said forked terminal and having wings of different lengths, said wings having slots, a ward adapted to coöperate with said slots, and a stop adapted to engage said key to limit its path of rotation.

3. A device of the kind described comprising an insulating base, a forked terminal mounted thereon, two terminals, one located in proximity to each of the arms of said forked terminal, a casing mounted on said base and covering said terminals, a keyhole in said casing, and a spring-controller rod provided with a jaw at the inner end thereof mounted to slide into and out from said casing and normally registering with the walls of said key-hole to receive a terminal-engaging key and prevent its operation.

4. In a device of the kind described, in combination, an insulating base, a forked terminal mounted thereon, two terminals each located in proximity to one of the arms of said forked terminal, a key adapted to be located between the ends of said forked terminal and having wings of different lengths, and means whereby when said key is in rotary action it will be prevented from being turned into withdrawing position.

1,143,677. BLOWPIPE. MILTON E. WINANS, Newark, N. J., assignor to Oxweld Acetylene Company, Chicago, Ill., a Corporation of West Virginia. Filed Feb. 11, 1915. Serial No. 7,459. (Cl. 158—13.5.)



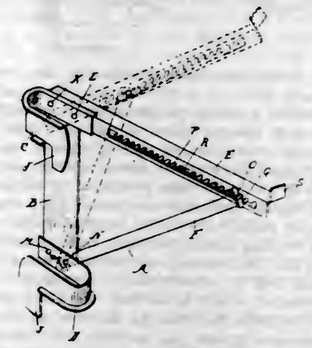
1. In a blowpipe for cutting off the heads of rivets used for fastening metal plates together, a nozzle having independent passages for oxygen and a combustible mixture, the passages being bent to project the mixture and the oxygen substantially parallel to the underside of the rivet head, and means for supplying oxygen and a combustible mixture to the respective passages.

2. In a blowpipe for cutting off the heads of rivets used to fasten metal plates together, a nozzle having a passage for a mixture of oxygen and a combustible gas to produce a heating flame and a passage for oxygen arranged to project a thin jet of oxygen in substantial parallelism with the underside of the rivet-head and in a plane substantially continuous to surface of the adjacent plate, means for supplying oxygen and a combustible gas to the first-named passage, and means for supplying oxygen to the second passage.

3. In a blowpipe for cutting off the heads of rivets used to fasten metal plates together, a nozzle of flattened cross section having independent passages for oxygen and a combustible mixture, bent to project a heating flame and a thin cutting jet of oxygen in substantial parallelism with the under surface of the nozzle adjacent to the orifices of said passages, and means for supplying oxygen and a mixture of oxygen and a combustible gas to the respective passages.

4. In a blowpipe for cutting off the heads of rivets used to fasten metal plates together, a thin and relatively wide nozzle bent transversely and having independent longitudinal passages for oxygen and a combustible mixture, the oxygen and mixture passages being separate from each other from end to end of the nozzle and arranged at their rear ends for connection with independent passages in a blowpipe head, and means for removably attaching the nozzle to a blowpipe head.

1,143,678. LADDER-JACK. WESLEY G. WINANS, Detroit, Mich., assignor, by direct and mesne assignments, to Winans Manufacturing Company, Detroit, Mich., a Corporation of Michigan. Filed July 27, 1914. Serial No. 853,298. (Cl. 20—85.)



1. A ladder jack, comprising a section having U-shaped bearings facing in opposite directions secured thereto adjacent opposite ends thereof, said bearings adapted to engage the ladder standards, an arm pivotally connected to said section adjacent one end of the latter, a brace pivotally connected to the section adjacent the opposite end, and an adjustable connection between the other end of said brace and said arm.

2. A ladder jack, comprising a section having oppositely facing bearings for engaging the standard of the ladder, and a laterally-extending arm carried by said section, said section being adjustable longitudinally of the standard while in engagement therewith.

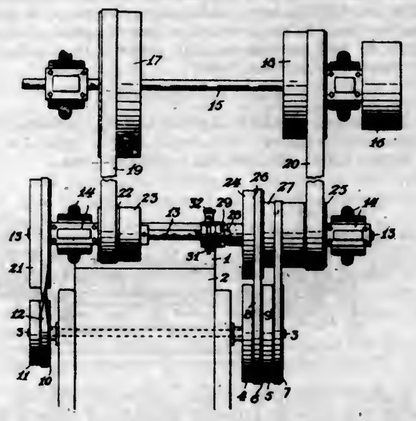
3. A ladder jack, comprising a section having U-shaped bearings facing in opposite directions adjacent opposite ends thereof, the ends of said bearings terminating in outwardly-extending flanges, an arm pivotally connected to said section adjacent one end of the latter, a brace pivotally connected to the section adjacent the opposite end, and an adjustable connection between the other end of said brace and said arm.

4. A ladder jack, comprising a section having a bearing secured thereto adjacent one end, a second and oppositely facing bearing adjacent the opposite end of said section, said bearings being adapted to engage the same ladder standard, and a laterally-extending arm carried by said section, said jack being adapted to be attached to the ladder irrespective of the angularity thereof.

5. A ladder jack, comprising a section having bearings facing in opposite directions secured thereto, a normally laterally-extending arm formed of angle-shaped cross-section, a slotted portion provided with a plurality of teeth in the downwardly-extending flange of said arm, and a brace pivotally connected to said section and engaging said teeth.

[Claims 6 and 7 not printed in the Gazette.]

1,143,679. DRIVING MECHANISM FOR VARIABLE-SPEED MACHINES. EDWARD M. WOODWARD, Worcester, Mass. Filed May 19, 1909. Serial No. 497,136. (Cl. 74—21.)



1. In an apparatus of the class described, a main shaft, a countershaft, a stepped pulley running loosely on said countershaft, and having a peripheral driving surface coextensive with one of its steps, a belt connection between said driving surface and the main shaft for establishing at will a predetermined driving ratio between said main shaft and said stepped pulley, secondary means for driving said stepped pulley from the main shaft at a different speed, a driven shaft, and means for rotating said driven shaft from the different steps of said stepped pulley.

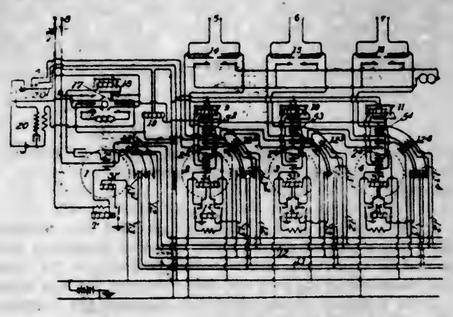
2. In an apparatus of the class described, a countershaft, means for rotating said countershaft, a stepped pulley, with steps of different diameters, running loosely on said countershaft, a loose pulley on said countershaft having the diameter of one of the steps of said stepped pulley and arranged to receive a belt from said stepped pulley, a belt connection for rotating said stepped pulley and operative with respect to a driving surface thereon which is a continuation of one of the steps thereof, means for operatively connecting said stepped pulley and said countershaft, a driven shaft, and means for rotating said driven shaft separately from each step of said stepped pulley.

3. In an apparatus of the class described, the combination with a main shaft running at a uniform speed, of a countershaft, means for rotating said countershaft from said main shaft, a stepped pulley loosely mounted on said countershaft having steps of different diameters, one of said steps being extended to form a surface to receive a driving belt, a pulley loosely mounted on said countershaft adjacent to said belt receiving surface, and having the same diameter as said step, a clutching mechanism adapted to be operated at will to rotatably connect the hub of said pulley with said countershaft, a driven shaft, and means for rotating said driven shaft from each step of said stepped pulley.

1,143,680. TELEPHONE SYSTEM. WILLIAM AITKEN, Liverpool, England. Filed Aug. 12, 1911. Serial No. 643,674. (Cl. 179—40.)

1. In a telephone system, a plurality of lines, manually operated switches individual to said lines, said switches being adapted to a rotary movement to select a connection and by a longitudinal movement to establish the connection, electromagnetic means associated with each switch for holding it in its connecting position, and means operated by the connected subscribers for causing said electromagnetic means to release said switch to disconnect said lines, substantially as described.

2. In a telephone system, a plurality of lines, switches individual to said lines for connecting said lines together, means for manually rotating a member of each of said switches to select connection terminals, and means for longitudinally moving said member for establishing the connection with the terminals selected, electromagnetic means for locking said member in its connecting position, and means operated over the connected telephone lines for releasing said member from its connecting position, substantially as described.



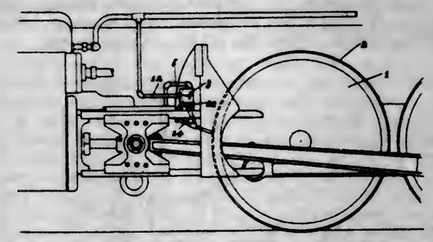
3. In a telephone system, a plurality of lines, a common source of current for said lines, manually operated switches for connecting said lines together, groups of selective contacts for each of said switches whereby said switch may selectively extend the circuit of its line, and a group of contacts individual to each switch for operating to change the current supply from its normal path whenever a switch is operated, substantially as described.

4. In a telephone system, a plurality of lines, a line signal for each line, manually operated switches for connecting said lines together, groups of selective contacts for each of said switches whereby said switch may selectively extend the circuit of its line, and a group of contacts common to said selective groups on said switch adapted to cut off said line signal whenever said switch is operated, substantially as described.

5. In a telephone system, a plurality of lines, a line signal for each line, a common source of current normally connected to each line through its individual line signal, groups of selective contacts for each of said switches whereby said switch may selectively extend the circuit of its line, and a group of contacts common to said selective groups on each switch adapted to cut off said line signal and to reëstablish a connection from said common source for talking purposes, substantially as described.

[Claims 6 to 10 not printed in the Gazette.]

1,143,681. AUTOMATIC FLANGE-LUBRICATOR. THOMAS F. BELLHOUSE, Sacramento, Cal. Filed June 14, 1909. Serial No. 501,912. (Cl. 184—3.)

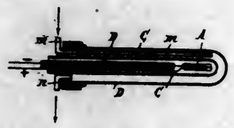


1. In a lubricator, the combination with a part to be lubricated, of a casing having an oil inlet and an oil outlet, a spring-actuated valve member controlling the flow between the inlet and outlet, and means for delivering the oil from said outlet to the part to be lubricated, said last-named means including an elbow into which the oil is delivered, a tubular member carried by the elbow and a loose member carried by said tubular member and resting on the part to be lubricated.

2. In a lubricator, the combination with a flanged wheel, of a tubular part, a loose member carried by said

part resting on the part of the wheel to be lubricated, an elbow in which the tubular part is contained and fluid-pressure controlled mechanism for admitting oil into said elbow and thence into the said tubular part to said loose member.

1,143,682. APPARATUS APPLICABLE FOR ILLUMINATING CAVITIES OR SURFACES. ROBERT BIQUARD, Paris, France, assignor to himself, Henri Cheron, and Henri Dominici, Paris, France. Filed June 11, 1913. Serial No. 773,042. (Cl. 176—16.)



1. In a device of the character specified the combination with a pair of quartz tubes, a rod of refractory oxid carried by said tubes, electric wires disposed in the tubes and connected to the said rod, and a support for said tubes.

2. In a device of the character specified the combination with a pair of quartz tubes, a rod of refractory oxid carried by said tubes, electric wires disposed in the tubes and connected to the said rod, a support for said tubes, and a quartz tube closed at one end and of a diameter just sufficient to admit the rod and its associated parts.

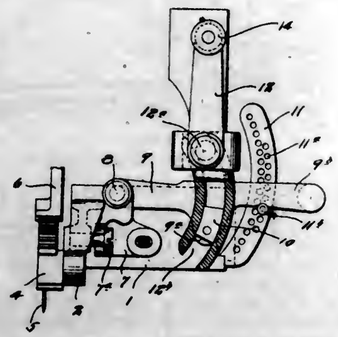
3. In a device of the character specified the combination with a pair of quartz tubes, a rod of refractory oxid carried by said tubes, electric wires disposed in the tubes and connected to the said rod, a support for said tubes, a quartz tube closed at one end and of a diameter just sufficient to admit the rod and its associated parts, and a water jacket surrounding the said quartz tube.

4. In a device of the character specified the combination with a pair of quarts tubes, a rod of refractory oxid carried by said tubes, electric wires disposed in the tubes and connected to the said rod, a support for said tubes, a quartz tube closed at one end and of a diameter just sufficient to admit the rod and its associated parts, a water jacket surrounding the said quartz tube, and means for maintaining a circulation through said jacket.

5. In a device of the character specified the combination with a pair of quartz tubes, a rod of refractory oxid carried by said tubes, electric wires disposed in the tubes and connected to the said rod, a support for said tubes, a quartz tube closed at one end and of a diameter just sufficient to admit the rod and it associated parts, and a water jacket surrounding the said quartz tube, said jacket having portions of its surface reflectory.

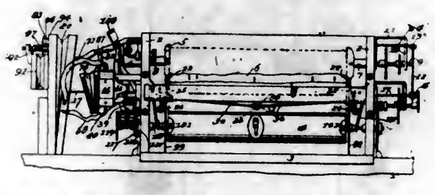
[Claim 6 not printed in the Gazette.]

1,143,683. AWL-FEEDING MECHANISM. WILLIAM R. BLAIR, St. Louis, Mo., assignor to Landis Machine Company, St. Louis, Mo., a Corporation of Missouri. Filed Feb. 1, 1915. Serial No. 5,532. (Cl. 112—20.)



In a machine of the class described, a stitch-regulating mechanism comprising a shiftable awl-carrying member, a pivoted shifting lever adapted to reciprocate the same, an adjustable lever having pivotal connection with the awl-carrying member, said shifting lever having a forwardly extending arm, a bearing member mounted on said forwardly extending arm and having shiftable engagement with the shifting lever, and means whereby said adjusting lever may be manipulated to vary the point of engagement of said bearing member relative to the fulcrum point of said shifting lever.

1,143,684. SHEET-CENTRALIZING MECHANISM. GEORGE P. BRAND, New York, N. Y. Filed Dec. 26, 1913. Serial No. 808,861. (Cl. 84—161.)



1. Sheet-contacting means connected together and mounted to move in unison in the same or opposite directions at all times in contact with the edges of a music sheet.

2. Sheet-controlling means connected together and mounted for movement in unison in the same or opposite directions at all times in contact with the edges of a music sheet.

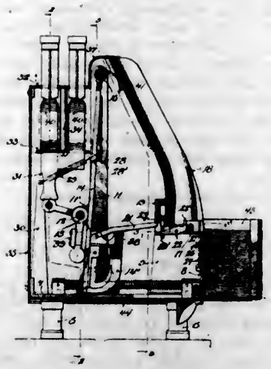
3. Sheet-engaging means mounted for engagement with the opposite edges of a music sheet at all times, swinging supports therefor, and means actuated by movement of said supports for centralizing the sheet.

4. Means coöperating with a music sheet for contract therewith at all times, movable means moving therewith in unison in opposite directions, and means actuated by said movable means for centralizing the music sheet.

5. Means coöperating with a music sheet for contact therewith at all times, movable means acting in unison to move said means in both directions, and means actuated by said movable means for centralizing the music sheet.

[Claims 6 to 28 not printed in the Gazette.]

1,143,685. COIN-DELIVERY MACHINE. EDWARD J. BRANDT, Watertown, Wis., assignor to Brandt Cashier Company, Chicago, Ill. Filed Aug. 21, 1914. Serial No. 857,878. (Cl. 133—4.)



1. In a coin-delivery machine, a coin-tray provided with guide-slots for coin-pushers and having an angle-member provided with vertical pockets, levers fulcrumed in the tray and having end-prongs that extend under coin deposited in compartments of the tray, and gravity gates that are guided in said pockets and engaged by the levers

to be lifted thereby under the weight of said coin clear of said coin-pushers to which they are opposed when the tray-compartments are empty.

2. In a coin-delivery machine, a coin-tray provided with guide-slots for coin-pushers, levers fulcrumed in the tray and having end-prongs that extend under coin deposited in compartments of the tray, and gravity gates in said tray having flaring edge-notches engaged by wedge-ends of the levers to be lifted by said levers under the weight of said coin clear of said coin-pushers to which they are opposed when the tray-compartments are empty.

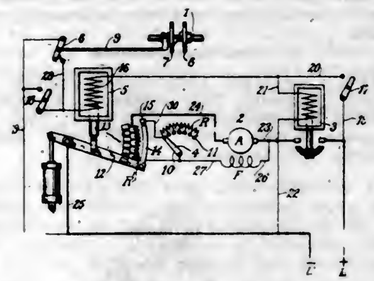
3. In a coin-delivery machine, a fixed supporting member, a series of fingers pivotally connected to the supporting member, and springs connecting the fingers in pairs, each pair being yielding in the path of the lowermost coin having discharge from a tray-compartment of the machine.

4. In a coin-delivery machine, a base having a front upper flange, a series of fingers pivoted on the rear of the flange, a horizontal plate over said flange having slots through which the fingers extend in the path of coins to be discharged from the machine, and spiral-springs connecting said fingers in pairs.

5. In a coin-delivery machine, a series of pivotal hangers each having a spring-controlled pivotal coin-pusher therewith, elbow levers each having a lower branch thereof in opposition to a hanger, a series of wings each of which extends from said branch of one lever in opposition to the similar branch of an adjacent lever, a spring-controlled reciprocative key opposing the upper branch of each lever, and a spring-controlled swing-bar in the working path of the hangers.

[Claims 6 and 7 not printed in the Gazette.]

1,143,686. PRINTING-PRESS CONTROLLER. CHARLES E. CARPENTER, New York, N. Y., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed July 1, 1913. Serial No. 776,744. (Cl. 172—239.)



1. The combination with the feeder clutch of a printing press, of speed governing means for the press controlled by said clutch to slow down and again accelerate the press automaticaly upon certain operations of said clutch.

2. The combination with the feeder clutch of a printing press, of means accelerating the press, said means being controlled by said clutch to automatically slow down the press when said clutch is tripped and automatically accelerate the press when said clutch is reset.

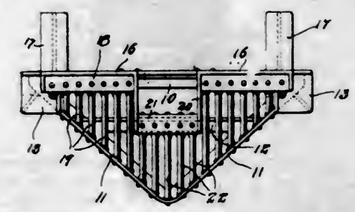
3. The combination with the feeder clutch of a printing press, of means for starting the press and establishing any one of a number of predetermined running speeds therefor, said means including decelerating and accelerating means controlled by said clutch to slow down the press when said clutch is thrown out and to again accelerate the press to the established speed when said clutch is subsequently thrown in.

4. The combination with the feeder clutch of a printing press, of means for effecting operation of the press at any one of a plurality of speeds including electro-responsive means controlled by said clutch switch to slow down the press to a definite speed when the clutch is thrown out and to subsequently accelerate the press to the previously established running speed when the clutch is again thrown in.

5. The combination with the feeder clutch of a printing press, of a motor for operating the press, means for controlling the continuity of the motor circuit, and means for accelerating the motor and establishing any one of a number of predetermined running speeds therefor, said latter means including means controlled by said clutch to slow down said motor upon one operation of said clutch and to accelerate said motor to its previously established speed upon another operation of said clutch.

[Claims 6 to 10 not printed in the Gazette.]

1,143,687. LOCOMOTIVE-PILOT. MILLARD F. COX, Louisville, Ky., assignor to Cast Steel Pilot Company, St. Louis, Mo., a Corporation of Delaware. Filed July 25, 1914. Serial No. 853,018. (Cl. 105—254.)



1. A locomotive pilot comprising a triangular base, a vertically disposed rear member, a lower portion of which is rigidly fixed to the rear portion of the triangular base, there being a draw bar pocket formed in the upper portion of the vertical member, a pair of walls integral with the vertical member and projecting forwardly therefrom at the sides of the draw bar pocket, and horizontally disposed rails connecting said walls at the lower end of said pocket.

2. A locomotive pilot comprising a triangular base, a vertically disposed rear member, the lower portion of which is rigidly fixed to the rear portion of the triangular base, there being a draw bar pocket formed in the upper portion of the vertical member, a pair of walls integral with the vertical member and projecting forwardly therefrom at the sides of the draw bar pocket, horizontally disposed rails connecting said walls at the lower end of said pocket, and a series of separate slats arranged between the forward rails of the triangular base and the upper portion of the vertical member.

3. In a locomotive pilot, a base comprising a rear rail, a pair of inclined front rails, and a transversely disposed intermediate rail in front of the rear rail, a vertically disposed rear member, the lower end of which is fixed to the rear rail of the base, a pair of walls integral with and projecting forwardly from the vertically disposed member, the lower portions of which walls are fixed to the intermediate rail of the base, and there being a draw bar pocket formed in the upper portion of the vertical member between the forwardly projecting walls thereof.

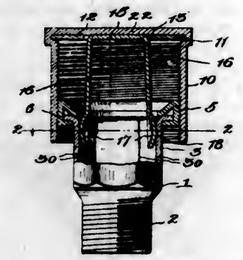
4. In a locomotive pilot, a base comprising a rear rail, a pair of inclined front rails, and a transversely disposed intermediate rail in front of the rear rail, a vertically disposed rear member, the lower end of which fixed to the rear rail of the base, a pair of walls integral with and projecting forwardly from the vertically disposed member, the lower portions of which walls are fixed to the intermediate rail of the base, there being a draw bar pocket formed in the upper portion of the vertical member between the forwardly projecting walls thereof, and a series of inclined slats between the inclined front rails of the base and the upper portion of the vertical member.

5. In a locomotive pilot, a base comprising a rear rail, a pair of inclined front rails, and a transversely disposed intermediate rail in front of the rear rail, a vertically disposed rear member, the lower end of which is fixed to the rear rail of the base, a pair of walls integral with and

projecting forwardly from the vertically disposed member, the lower portion of which walls are fixed to the intermediate rail of the base, there being a draw bar pocket formed in the upper portion of the vertical member between the forwardly projecting walls thereof, a series of inclined slats between the inclined front rails of the base and the upper portion of the vertical member, and brackets projecting rearwardly from the vertical member for engagement with a pilot beam.

[Claims 6 to 10 not printed in the Gazette.]

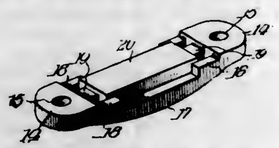
1,143,688. GREASE-CUP. NORMAN W. CUMMINS, Bridgeport, Conn., assignor to The Burns & Bassick Company, Bridgeport, Conn., a Corporation of Connecticut. Filed Dec. 12, 1914. Serial No. 876,854. (Cl. 184—48.)



1. In a grease cup, a body having angularly related interior walls, a cap threaded on the body, a disk rigidly secured within said cap, a plurality of spring legs secured to said disk and depending therefrom in proximity to said walls, and pawls carried by the lower extremities of said legs for engagement with the angular portions of said walls.

2. In a grease cup, a body having angularly related interior walls, a cap threaded on the body, said cap having an annular recess at one extremity, a disk mounted in the recess, a plurality of spring legs secured to the cap by said disk, and pawls integral with the lower extremities of the spring legs for engagement with the corners formed by said angular walls of the body.

1,143,689. CAST-STEEL CARRY-IRON. ROBERT F. DARBY, Chicago, Ill., assignor to American Steel Foundries, Chicago, Ill., a Corporation of New Jersey. Filed Sept. 11, 1913. Serial No. 789,225. (Cl. 213—42.)

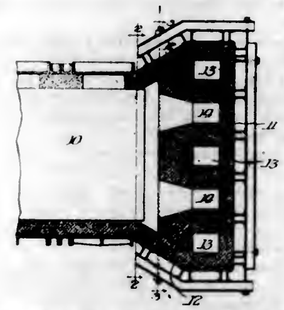


1. A carry iron comprising a body provided with terminal attaching ears offset above the top of the body, upstanding lugs at the front and also at the back of the body adjacent the inner sides of the attaching ears, and end lugs between the front and rear lugs, the inner face of each end lug being located back of the line of the inner faces of the adjacent front and rear lugs, the several lugs defining a seat for a wear plate.

2. A carry iron comprising a body provided with terminal attaching ears offset above the top of the body, upstanding lugs at the front and also at the back of the body adjacent the inner sides of the attaching ears, end lugs between the front and rear lugs, the inner face of each end lug being located back of the line of the inner faces of the adjacent front and rear lugs, the several lugs defining a seat for a wear plate, and a wear plate in the seat and of a vertical thickness exceeding that of the lugs.

3. A carry iron comprising a plate body having a flat top, front and rear depending longitudinal flanges, terminal attaching ears offset above the top of the body and in a plane substantially parallel thereto, upstanding lugs at the front and also at the back of the body adjacent the inner sides of the attaching ears, and end lugs between the front and rear lugs, the inner face of each end lug being located back of the line of the inner faces of the adjacent front and rear lugs, the several lugs defining a seat for a wear plate.

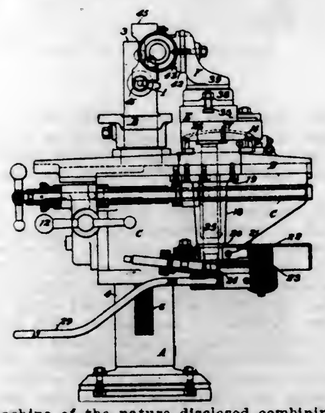
1,143,690. OPEN-HEARTH FURNACE. JAMES C. DAVIS, Hinsdale, Ill., assignor to American Steel Foundries, New York, N. Y., a Corporation of New Jersey. Filed Mar. 25, 1914. Serial No. 827,098. (Cl. 75—94.)



1. In combination, a furnace of substantially uniform cross sectional area from end to end thereof, said furnace having flaring end walls, thereby providing flues having a cross sectional area greater than that of the furnace, substantially as described.

2. In combination, a furnace having straight, substantially parallel inside walls and outwardly flaring end walls, thereby providing flues of greater cross sectional area than the cross sectional area of the furnace at the point of discharge into said flues, substantially as described.

1,143,691. GRINDER STRUCTURE. ADOLPH L. DE LEEUW, Cincinnati, Ohio, assignor to The Cincinnati Milling Machine Company, Cincinnati, Ohio, a Corporation of Ohio. Filed May 28, 1913. Serial No. 770,494. (Cl. 51—12.)



1. A machine of the nature disclosed combining a column, a knee vertically movable thereon and having a slide-way directed toward said column, a saddle vertically movable with said knee and horizontally slidable on said knee toward said column, and having a depending bracket vertically movable therewith, a table slidable on said saddle transversely to said knee slide-way, a transmission

extending from the lower end of said bracket adapted to actuate said table, and a horizontally movable lever pivotally supported at the lower end of said bracket and operative to impart motion to said table through said transmission.

2. A machine of the nature disclosed combining a column, a knee vertically movable thereon, a saddle vertically movable with said knee and horizontally slidable on said knee and having a depending bracket vertically movable therewith, a table slidable on said saddle transversely to its movement on said knee, a shaft vertically extending from the lower end of said bracket into operative engagement with said table, and a horizontally swinging lever operatively connected with the lower end of said shaft to enable it to be actuated to reciprocate said table.

3. A machine of the nature disclosed combining a column, a knee vertically movable thereon, a saddle vertically movable with said knee and horizontally slidable on said knee and having a bracket vertically movable therewith depending at one side of said knee, a table transversely slidable on said saddle, a shaft vertically extending through said bracket and operatively connected with said table, a gear fixed to the lower end of said shaft, and a horizontally extending lever pivoted at one end to the lower end of said bracket and providing a gear segment meshing with said gear whereby upon horizontally swinging said lever the table will be reciprocated.

4. A machine of the nature disclosed combining a column, a knee vertically movable thereon, an elongated bifurcated saddle vertically movable with said knee and horizontally slidable on said knee and straddling said column, a bracket depending from one side of said saddle and movable as a unit therewith, an elongated table slidable on said saddle transversely thereto, a shaft vertically supported by said bracket and operatively connected at its upper end with said table, and lever mechanism supported by the lower end of said bracket and operative to rock said shaft.

5. A machine of the nature disclosed combining a cylindrical member providing in its periphery a channel extending in parallelism with the axis of said member, said channel having diverging side walls; a second member in close fitting relation with the periphery of said first member and movable axially relatively thereto; a conical roller carried by said second member and extending into said channel; and means for adjusting the roller radially to take up backlash between said two members.

[Claims 6 and 7 not printed in the Gazette.]

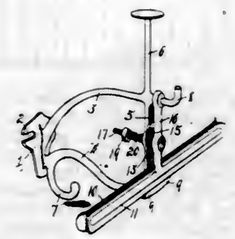
1,143,692. MATRIX-BAR FOR LINE SETTING AND CASTING MACHINES. JULIUS DORNETH, Berlin, Germany, assignor to Typograph-Gesellschaft M. B. H., Berlin, Germany, a Corporation of Germany. Filed Mar. 18, 1914. Serial No. 825,563. (Cl. 199—12.)



1. A matrix bar comprising two sections, one of said sections being provided on its narrow face with a longitudinal groove, U-shaped in cross-section, and the other section fitting in said groove.

2. A matrix bar comprising two sections, one of said sections being formed on its narrow face with a longitudinal groove, U-shaped in cross-section and opening at the end of the grooved section, and the other section fitting in said groove.

1,143,693. COMBINATION COAT, HAT, AND PANTS HANGER. ERNEST U. DOWN, Bowling Green, Ohio, assignor to Earl O. Miller and Charles F. Leatherman, Bowling Green, Ohio. Filed July 11, 1914. Serial No. 850,419. (Cl. 211—13.)



1. In combination, a supporting part having lugs projecting from opposite sides thereof and a stud projecting therefrom above said lugs, a stationary gripping member having ears for engaging over and at the rear of said lugs and having a slot for receiving said stud and cooperating with it and with said lugs and ears to removably retain said member to said part, a companion clamping member movably suspended from said supporting part, and means for acting on said movable member to cause it to have a clamping action with relation to the stationary member.

2. In combination, a supporting part having a hook projecting therefrom, a stationary clamping member carried by said part below said hook, a companion clamping member swingingly suspended from said hook for opening and closing movements relative to said stationary member, a stem projecting from the movable clamping member through a portion of said part, a nut threaded on the rear end of said stem, and a coiled compression spring interposed between said nut and part for yieldingly coöperating with the stem to yieldingly resist an outward movement of the movable member relative to the stationary member.

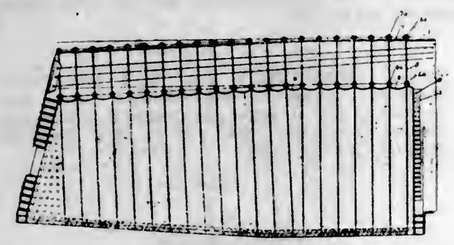
3. In combination, a supporting bracket having a vertically disposed part, lugs projecting transversely from said part, a headed stud projecting from the part above said lugs and a hook projecting from the part above said stud, a stationary pant gripping member adapted to be placed against said part and having ears for hooked engagement with said lugs, and a slotted portion for removable engagement with said stud, a movable clamping member having an arm extending forward therefrom and pivotally and removably suspended from said hook, a stem projecting from said arm through a portion of the stationary member and said part, and means coöperating with said stem and part to urge the movable clamping member toward said stationary member.

1,143,694. LOCOMOTIVE-BOILER. CHARLES DUCAS and HARRY S. COLEMAN, New York, N. Y., assignors to Jacobs-Shupert United States Fire-Box Company, New York, N. Y., a Corporation of Pennsylvania. Filed Oct. 21, 1914. Serial No. 867,721. (Cl. 122—58.)

1. In a locomotive boiler, the combination of a boiler shell and a fire-box composed of vertical sections, having substantially parallel front and rear sides, of a wedge-shaped section located at the point where it is desired to have an incline at the top of the crown sheet begin.

2. In a locomotive boiler, the combination of a throat sheet and a flue sheet, having rear faces perpendicular

to the flues, and a fire-box composed of vertical sections, whose front and rear faces are substantially parallel, and a wedge-shaped section introduced between said throat sheet and flue sheet and the fire-box sections whose upper surfaces it is desired to have inclined.



3. In a locomotive boiler, the combination of a shell and flues, and a fire-box composed of vertical sections whose front and rear surfaces are substantially parallel, and a wedge-shaped section located at an intermediate point in said series of vertical sections.

4. In a locomotive fire-box, the combination of a shell and flues, a throat sheet and flue sheet having outwardly turned flanges, inner and outer sections, having outwardly turned flanges that are substantially parallel, and inner and outer sections having outwardly turned flanges, said flanges on said last mentioned sections being in planes inclined to each other.

1,143,695. NON-REFILLABLE BOTTLE. WILLIAM R. FRARN, Camden, N. J. Filed Mar. 25, 1914. Serial No. 827,037. (Cl. 215—103.)



A non-refillable bottle comprising a primary bottle neck, a secondary neck, having two different sized bores, the lower or larger bore being tapered toward the smaller bore to form a shoulder, said secondary neck adapted to fit over the primary neck and be locked thereon, a valve seat mounted on the end of the primary neck, a valve adapted to coact with the valve seat, a ball arranged to coact with said valve, a hollow keeper provided with prongs and having an exterior shoulder intermediate its ends, the shoulder on the secondary neck adapted to coact with the shoulder on the keeper to retain the latter in its position, said keeper being provided with holes and having a flanged head, said head being spaced from the side walls of the secondary neck to permit the passage of liquid and a prong formed with the head of the keeper and projecting inwardly to limit the movement of the ball.

1,143,696. PIN FOR SECURING ARTIFICIAL TEETH AND PROCESS OF MAKING THE SAME. KARL FINCKH, Berlin, Germany, assignor to Berliner Import- und Export-Gesellschaft, M. B. H., Berlin, Germany, a Corporation of Germany. Filed Feb. 24, 1913. Serial No. 750,372. (Cl. 29—148.)

1. The process of producing a securing pin for artificial teeth, which consists in removing by chemical means a suitable portion of the core from the ends of a wire composed of a core of oxidizable material and a casing of non-oxidizable material and having the required length, whereby the ends of the casing are caused to project beyond the ends of the core, and forming said projecting ends into a closure.



2. The process of producing a securing pin for artificial teeth which consists in removing by chemical means a suitable portion of the core from the ends of a wire composed of a core of base metal and a casing of noble metal and having the required length, whereby the ends of the casing are caused to project beyond the ends of the core, pressing the material of said projecting ends toward the axis of the core, and hermetically sealing said projecting ends, substantially as and for the purpose described.

3. A securing pin for artificial teeth, comprising a cylindrical core of oxidizable material, the ends of said core having a chemically mordanted surface, and a cylindrical casing of non-oxidizable material surrounding and intimately adhering to said core and of greater length than said core, the ends of said casing being closed over the ends of said core, whereby the core is wholly enveloped by said casing.

1,143,697. COLLAPSIBLE BUILDING. JAMES W. GALLANT and ALBERT R. GALLANT, Elmore, Ohio. Filed Dec. 4, 1914. Serial No. 875,456. (Cl. 20—2.)



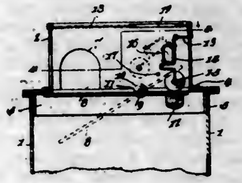
1. In a collapsible construction, the combination of a pair of side walls, one of the side walls overlapping the ends of the other side wall, an L-member overlapping the ends of the side walls, strips having rectangular cross sections secured to the side walls and near the ends thereof, one of the strips having a rabbeted corner fitting over one of the corners of the other strip, a block having right angular V-shaped channels fitting over the inner corners of the strips and a bolt for drawing the L-member and the block together.

2. In a collapsible construction, the combination of side walls, an L-member overlapping the ends of the side walls, a strip secured to each side wall near the end thereof, an iron having channels fitting over the inner edges of the strips, means for drawing the channel member to the L-member.

3. In a collapsible structure, the combination of side walls, an L-member overlapping the ends of the side walls, a strip having a rectangular cross section secured near the end of each side wall, one of the strips having a rabbetted corner adapted to fit over one of the corners of the other strip, a block having right angle V-channels fitting over the inner corners of the strips and a bolt for drawing the block and the L-member together.

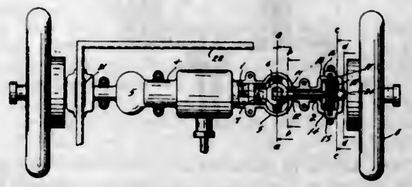
4. In a collapsible construction, the combination of side walls, a strip secured to each side wall near the end thereof, one of the strips having a rabbeted corner for fitting over the corner of the other of the strips, a block for locking the inner corners of the strips and means for binding the block and the ends of the walls together.

1,143,698. ANIMAL-TRAP. ROBERT A. GREEN, Quapaw, Okla. Filed Jan. 22, 1913. Serial No. 743,675. (Cl. 43—24.)



In an animal trap, a pivoted trap door, a bait support, a housing within which the said bait support is arranged, a bracket from which the said bait support is suspended, said bait support being constructed of a single strand of wire bent to form bearings at its respective terminals, the said wire being bent equi-distant its ends to form a coil through which the said supporting bracket extends, a roller carried by the said support, said roller being journaled between the respective bearings and engageable directly with the trap door, the roller being movable longitudinally relatively to the door upon an attempted dislodgement of the bait, and means attaching the bait to the said support directly above the roller, the weight of the roller and the bait serving to return the door to its normal position after the trap has been sprung, as and for the purpose set forth.

1,143,699. RESILIENT MEANS FOR VEHICLE AXLE SUSPENSION. NEHEMIAH GUTHRIE, Marietta, Okla., and CALLENDER L. JOHNSON, Dallas, Tex. Filed Dec. 1, 1913. Serial No. 804,131. (Cl. 21—187.)



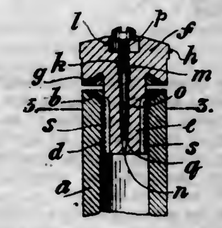
1. In an axle, an axle mounted in a housing, a universal joint carried on the axle, the axle housing enlarged to form a casing, a bearing block carried on the axle, guide members formed on the bearing block, means for guiding the bearing block through a vertical displacement, resilient members coöperating with the bearing block and adapted to carry a bed block which supports the vehicle body.

2. In an axle, the combination with an axle mounted in a housing, a universal joint carried on the axle, an axle housing, a bearing block, guide members carried by the bearing block, means for guiding the bearing block through a vertical displacement, resilient members cooperating with the bearing block, a hanger bracket cooperating with the resilient members, an opening in the top of the casing, a bed block disposed in the opening, an aperture or opening in the side of the casing adapted to accommodate the vertical displacement of the axle, and means for closing said opening.

3. In an axle, the combination of axle mounted in a housing, the axle housing enlarged to form a casing, a bearing block carried on the axle, guide members formed on the bearing block, guide ways formed in the casing and adapted to receive the guide members, a nest of resilient coiled members carried upon the bearing block, a bed block, bolts carried by the wall of the casing, coiled resilient members confined on the bolts, a hanger bracket carried by the bearing block and adapted to coöperate with the resilient members confined on the bolts, an opening in the casing adapted to accommodate the movements of the axle, and a float bearing adapted to slide in and cover said opening.

4. In an axle, a universal joint carried on an axle, a bearing block carried by the axle, guide members formed on the bearing block, an axle housing, guide ways formed in the housing and receiving the bearing block, a bed block, coiled resilient members interposed between the bearing block and bed block, a hanger bracket correlated with the bearing block and means provided for resiliently suspending the hanger bracket.

1,143,700. LIQUID-FUEL-SPRAYING DEVICE. WILLIAM WILSON HAMILL, Glasgow, Scotland. Filed Jan. 21, 1914. Serial No. 813,371. (Cl. 137—81.)



1. A liquid fuel spraying device of the character described embodying a body portion, a spray cap adjustable within the body portion, said cap adapted to be expanded, and means disposed axially of the device and independent of the said body portion for expanding the cap to lock the same in position.

2. A liquid fuel spraying device of the character described embodying a body portion, a spray cap adjustable within the body portion, said cap having a rigid and an expansible portion, means disposed axially of the cap and independent of the said body portion for expanding the cap to lock the same in position, the said means having a smooth and a threaded portion, said smooth portion projecting into the expansible portion of the cap for expanding the same, and threads disposed entirely within the rigid portion of the cap with which threads the threaded portion of the said means has adjustable engagement.

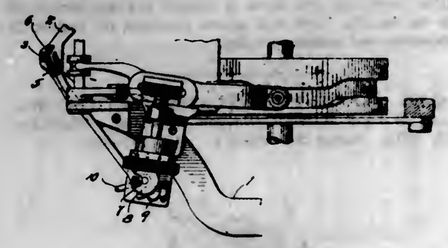
3. A liquid fuel spraying device of the character described embodying a body portion, a spray cap adjustable within the body portion, said cap having a rigid and an expansible portion, there being an opening disposed axially of the cap and extending longitudinally therethrough, threads in the wall of the opening in the rigid portion of the cap, and a screw having a smooth and tapered extremity, the threads on the screw engaging the threads on the cap, and the tapered extremity of the screw extending into the expansible portion of the cap to expand the same.

4. A liquid fuel spraying device of the character described embodying a body portion, a spray cap adjustable within the body portion, said cap having a rigid and an expansible portion, there being an opening disposed axially of the cap and extending longitudinally therethrough, threads in the wall of the opening in the rigid portion of the cap, and a screw having a smooth and tapered extremity, the threads on the screw engaging the threads in the cap, and the tapered extremity of the screw extending into the expansible portion of the cap to expand the same, the threads in the rigid portion of the cap terminating short of the said expansible portion of the cap.

5. A liquid fuel spraying device of the character described embodying a body portion, a spray cap adjustable within the body portion, said cap adapted to be expanded, and a screw disposed axially of the cap and independent of the said body portion and having threaded engagement therewith, said screw having a smooth portion provided with a tapered extremity, the expansible portion of the cap being engaged only by the smooth portion of the screw.

[Claims 6 to 10 not printed in the Gazette.]

1,143,701. WORK-GUIDE FOR SEWING-MACHINES. BLAIR HARDESTY, Clifton Forge, Va., assignor to Landis Machine Company, St. Louis, Mo., a Corporation of Missouri. Filed Nov. 14, 1914. Serial No. 872,141. (Cl. 112—20.)



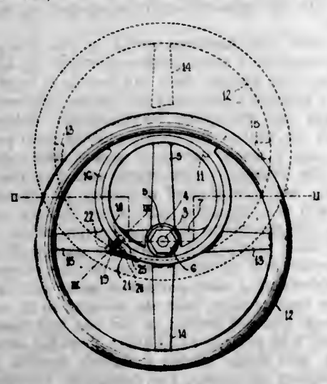
1. A work guide for sewing machines comprising a work table, a work guiding member having a slot and pin connection with the table, said slot being at an angle to the line of movement of the member, an actuating member connected for operating the guiding member, and means yieldably engaging the actuating member to hold the guiding member in adjusted positions.

2. A work guide for sewing machines comprising a work table, a work guiding member disposed obliquely to the line of travel of the work and having movable connection with the table, an actuating member connected for operating the guiding member, and means yieldably engaging the actuating member to hold the guiding member in adjusted positions.

3. A work guide for sewing machines comprising a work table and a work guiding member mounted thereon by a slot and pin connection, said slot being arranged at an angle to the direction of movement of said work guiding member, means for moving said work guiding member, said means being in the form of a disk having a series of teeth, and a spring detent coöperating with said teeth to hold the guiding member in adjusted positions.

4. A work guide for sewing machines comprising a work table, a rotary disk operatively sustained in relation to the table and having a series of teeth, a work guiding member eccentrically pivoted to the disk and having a slot and pin connection with the table, said slot being disposed at an angle to the direction of movement of the member, a hand lever connected for rotating the disk to adjust the guiding member, and a spring detent coöperating with said teeth for holding the member in adjusted positions.

1,143,702. STEERING-WHEEL. HARRY A. HART, Detroit, Mich. Filed Sept. 26, 1914. Serial No. 863,621. (Cl. 74—33.)



1. A steering wheel comprising an eccentric steering member, and a hand grip movable at the periphery thereof.

2. A steering wheel comprising an eccentric steering member, and a hand grip having a threaded connection therewith.

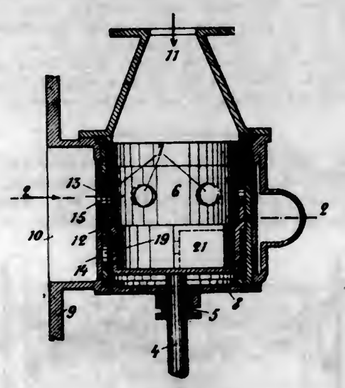
3. The combination with a stering post, of an eccentric member carried thereby, a circular member movable upon the periphery of said eccentric member, and a hand grip supported eccentrically of said circular member.

4. The combination with a steering post, of an eccentric steering member carried thereby, a circular member in threaded engagement with said eccentric steering member, a hand grip supported eccentrically of said circular member, and means for locking said circular member in adjusted position relative to said eccentric steering member.

5. The combination with a steering post, of a steering wheel normally concentric thereof, and an eccentric circular member carried by the inner side of said wheel, and a circular member on said post engaging said eccentric circular member whereby said wheel can be shifted to a position eccentric relative to said steering post.

[Claim 6 not printed in the Gazette.]

1,143,703. WATER-SIREN. HEINRICH HECHT, Kiel, Germany. Filed Nov. 1, 1911. Serial No. 657,949. (Cl. 116—18.)



1. The method of operating a motor-driven water siren which consists in maintaining substantially constant during the periods of sounding and of silence the inertia of the moving parts of the water-impelling motor and of the body of water impelled thereby; substantially as described.

2. The method of operating a water siren which consists in maintaining a flow of water therethrough during the period of silence substantially equal to the flow of water therethrough during the period of sounding, whereby tone variations arising from the inertia of the body of water are avoided; substantially as described.

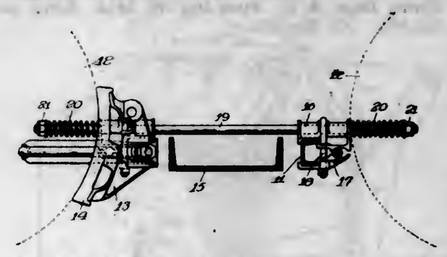
3. The method of operating a water siren which consists in maintaining a flow of water therethrough during the period of silence substantially equal to the flow of water therethrough during the period of sounding, whereby tone variations arising from the inertia of the body of water are avoided, and equalizing during the respective periods the resistance opposed to the power of the motor which drives the rotor of the siren, to prevent variations in the frequency of the sound-producing interruptions of the water flow; substantially as described.

4. The method of preventing variations in the frequency of the sound-producing interruptions of the water flow in a water siren, which consists in equalizing during the periods of sounding and of silence the resistance opposed to the power of the motor which drives the rotor of the siren; substantially as described.

5. The method of preventing variations in the frequency of the sound-producing interruptions of the water flow in a water siren which consists in compensating during the period of silence for the additional load imposed on the driving motor of the siren's rotor during the periods of sounding, to thereby maintain a constant speed of rotation of the rotor; substantially as described.

[Claims 6 to 18 not printed in the Gazette.]

1,143,704. LEVELING AND SAFETY DEVICE FOR BRAKES. WILLIAM C. HEDGCOCK, Chicago, Ill., assignor to American Steel Foundries, New York, N. Y., a Corporation of New Jersey. Filed Nov. 28, 1914. Serial No. 874,506. (Cl. 188—24.)



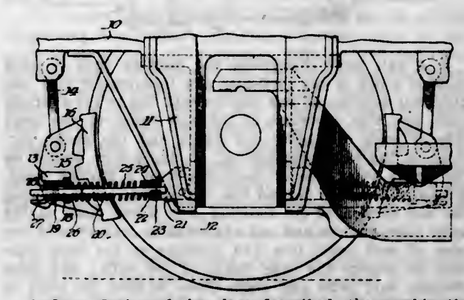
1. In a brake, the combination of a pair of wheels, brake beams mounted in proper relation to said wheels, a spring plank between said wheels, and a beam leveling member extending between adjacent beams and located above said spring plank, substantially as described.

2. In a truck, the combination of wheels, a spring plank and brake beams, and a beam leveling rod extending between adjacent beams and located above said spring plank, substantially as described.

3. In a truck, the combination of a pair of wheels, brake beams associated with said wheels, parallel motion means located at each end of the beams and including a rod extending between adjacent beams, and springs carried by said rods and adapted to force said beams out of braking engagement, substantially as described.

4. In a truck, the combination of a pair of wheels, a spring plank between said wheels, a pair of beams, a thimble carried by each beam, and a rod projecting through the thimbles of adjacent beams and located above such spring plank, said rod and thimble construction providing for freedom of movement between the rod and beam in one direction and preventing angular movement between the beams connected by said rod, substantially as described.

1,143,705. BRAKE-RELEASE. WILLIAM C. HEDGCOCK, Chicago, Ill., assignor to American Steel Foundries, Chicago, Ill., a Corporation of New Jersey. Filed Feb. 11, 1915. Serial No. 7,465. (Cl. 188—50.)



1. In a device of the class described, the combination of a truck frame, a brake head, a spring extending between said frame and said head, a rod also extending between said frame and head, means associated with said rod for permitting limited movement of said head toward and away from a wheel in all conditions of wear of the brake elements, substantially as described.

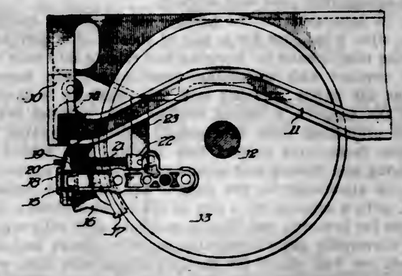
2. In a device of the class described, the combination of a truck frame providing a stop, a brake head, spring means bearing on said stop and said brake head and tending to maintain said head away from the wheels, a rack and pawl extending between said head and stop and being fixed to one thereof, said rack and pawl permitting freedom of movement of said head in one direction and preventing more than limited movement in an opposite direction, substantially as described.

3. In a device of the class described, the combination of a truck frame providing a stop, a brake head, a spring extending between said stop and head and urging said head away from the wheels, a rack and pawl mechanism extending between said stop and head, said rack having a sliding connection with one of said elements, permitting limited freedom of bodily movement, said pawl permitting freedom of movement in one direction and preventing movement in an opposite direction, substantially as described.

4. In a device of the class described, the combination of a truck frame having a bracket, a brake head, a rack extending between said bracket and said head, a spring mounted on said bracket and tending to urge said head away from a wheel, said rack having a notch in one end thereof, said notch providing for a limited bodily movement of said rack, and a pawl engaging said rack and permitting freedom of movement in one direction while preventing movement in an opposite direction, substantially as described.

5. In a device of the class described, the combination of a truck frame having a bracket, a notched rack engaging said bracket, a spring mounted on said rack, a brake head against which said spring is adapted to act, a pawl carried by said brake head and adapted to engage said rack whereby said brake head is permitted limited freedom of movement in both directions and additional movement in one direction because of a new engagement of said pawl, substantially as described.

1,143,706. SPRING-RELEASE FOR BRAKES. WILLIAM C. HEDGCOCK, Chicago, Ill., assignor to American Steel Foundries, New York, N. Y., a Corporation of New Jersey. Filed Feb. 11, 1915. Serial No. 7,466. (Cl. 188—24.)



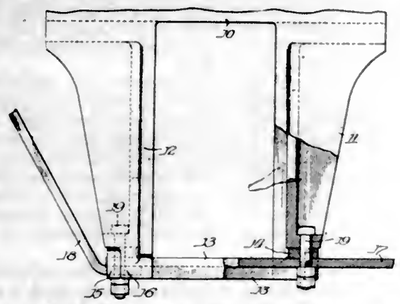
In a device of the class described, the combination of a brake beam, clamps near the ends of said beam, each of said clamps being provided with an eye, a rod slidably engaging said eye, a spring mounted on said rod, and a stop carried by the truck frame and against which one end of said spring abuts, substantially as described.

1,143,707. TRUCK-PEDESTAL. WILLIAM C. HEDGCOCK, Chicago, Ill., assignor to American Steel Foundries, Chicago, Ill., a Corporation of New Jersey. Filed Mar. 8, 1915. Serial No. 11,664. (Cl. 105—113.)

1. A car truck pedestal having jaws, a bar interlocking with said jaws and serving to tie the same together, said bar having a recess, and a tie strap accommodated within said recess, substantially as described.

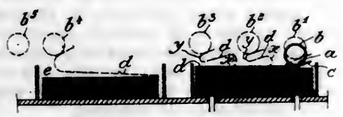
2. In a car truck pedestal, the combination of depending jaws, a skeleton bar having hooked ends, the end portions

of the bar engaging said jaws and preventing spreading thereof, a tie strap accommodated in said bar, and means



for securing said tie strap and bar to said jaws, substantially as described.

1,143,708. APPARATUS FOR SEPARATING SHEETS FROM A PILE OR STACK. JACOB HEINRICH, Nuremberg, Germany, assignor to the Firm of Metallpapier-Bronzefarben-Blattmetallwerke Aktiengesellschaft, Munich, Germany. Filed May 27, 1914. Serial No. 841,273. (Cl. 101—41.)



1. In apparatus for the purpose set forth the combination, with a support for a pile of sheets, of a perforated suction tube, means for lowering and raising said tube over said support and traversing same across the support, a second suction tube, parallel branch tubes projecting from said second tube and having flat oblique faces with perforations therein, and means for lowering and raising said second tube over said support.

2. In apparatus for the purpose set forth, the combination, with a support for a pile of sheets, of a perforated suction tube, means for lowering and raising said tube over said support and traversing same across the support, means for partly rotating said tube while it is lowered over the support, a second suction tube, parallel branch tubes projecting from said second tube and having flat oblique faces with perforations therein, and means for lowering and raising said second tube over said support.

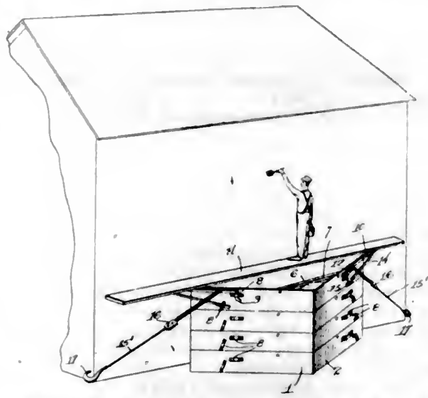
3. In apparatus for the purpose set forth the combination, with a support for a pile of sheets, of a suction tube, means for lowering and raising said tube over said support and traversing same across the support, means including a rack bar and pinion for partly rotating said tube while it is lowered over the support, a second suction tube, parallel branch tubes projecting from said second tube and having flat oblique faces with perforations therein, and means for lowering and raising said second tube over said support.

4. In apparatus for the purpose set forth the combination, with means for supporting a pile of sheets, of a suction tube, a carrier on which said tube is movable, means for raising and lowering said carrier and traversing same across the pile, a rack on said carrier, a pinion fixed to said tube meshing with said rack, a lever pivoted to said carrier and engaging said tube, an abutment in the path of said lever and adapted to rock same in one direction, whereby the pinion is rolled on said rack, a lever adapted to strike the first-mentioned lever and rock same in the opposite direction, a second suction tube, parallel branch tubes projecting from said second tube and having flat oblique faces with perforations therein, and means for lowering and raising said second tube over said support.

5. In apparatus for the purpose set forth, the combination of a support for a pile of sheets, means for removing certain of said sheets comprising a suction tube having perforated parallel branches adapted to engage sheets, fine-meshed textile material covering the perforations in said branches, and means for raising and lowering said suction tubes relatively to said support.

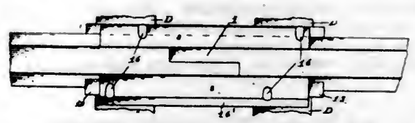
[Claims 6 to 16 not printed in the Gazette.]

1,143,709. SCAFFOLDING. LAZARUS G. HINNANT, Spring Hope, N. C. Filed May 28, 1914. Serial No. 841,600. (Cl. 20—81.)



A scaffolding including a support comprising a series of superposable sections having means for holding them rigidly in line in superimposed relation and each comprising two divergent boards braced across the angle by bars so that the succession of bars of superposed sections may serve as a ladder and maintain rigidly the angle between the boards while leaving the space between the free end of the boards unobstructed for entrance of the user to the ladder so formed.

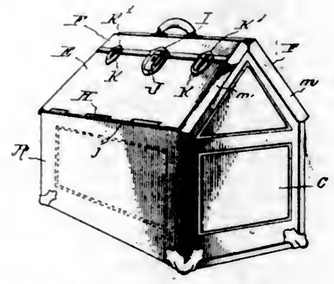
1,143,710. RAIL-JOINT. CHARLES JACINO, Garfield, Utah. Filed Apr. 9, 1915. Serial No. 20,354. (Cl. 239—8.)



1. A rail joint comprising the meeting ends of rails each of which is cut vertically and transversely to a longitudinal middle line and then on said line to the abutting ends, and also a portion of the base flange on the same side of each rail being cut away, and the uncut portions of the rails overlapping; an angle iron welded on the uncut outer side of each rail with a portion longitudinally extended beyond the end of the rail to overlap the web portion of the abutting rail; a rail plate having spike holes therein and one edge bent to contact with the edge of said angle iron and portions of the same edge bent to engage the base flange of the rails; and bolts through said rails and angle irons to hold the rails in longitudinal alinement.

2. A rail joint comprising the meeting ends of two rails, each of which is cut vertically transverse to a longitudinal middle line and on said line to the abutting ends, and a portion of the base flange on the same side of each rail being cut away, and a recess cut in the bottom of the rail contiguous the cut in the base flange; an angle iron having a brace portion and a flange portion which is welded on the uncut side of each rail with a portion longitudinally extended beyond the end of the rail; a transverse lug formed on said angle iron to engage within said recess; and bolts through said rails and angle irons to hold the rails overlapped and in longitudinal alinement.

1,143,711. TRAVELER'S BAG OR GRIP. HOWARD L. KENNEDY, Fort Wayne, Ind. Filed June 8, 1914. Serial No. 843,675. (Cl. 190—48.)



1. A sheet metal traveler's grip or bag having a body comprising rectangular vertical longitudinal sides and ends that have their upper edges inclined upward from the top of the longitudinal sides toward each other, and inclined covers for said body; the upper portion of each of said longitudinal sides extending upward in an inclined direction under the lower edge portion of one of said covers and doubled back under itself and terminating in a wire selvaged edge, and having its end edges above the sides split and embracing the adjacent portions of the upper edges of the ends, and one of said covers having its upper edge extend beyond the ridge of the grip and down the opposite incline and overlapping the top edge of the other cover.

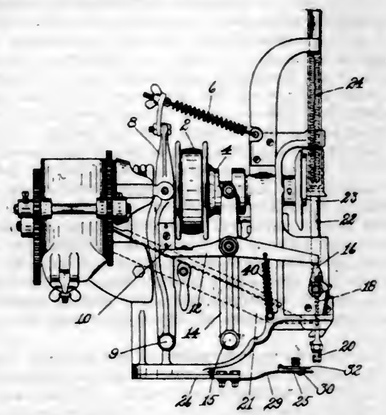
2. A sheet metal traveler's grip or bag having a body comprising rectangular vertical longitudinal sides and ends that have their upper edges inclined upward from the top of the longitudinal sides toward each other, and inclined covers for said body; the upper portions of said longitudinal sides extending upward in an inclined direction under the lower edge portion of said covers and one of said covers having its upper edge extend beyond the ridge of the grip and down the opposite incline and overlapping the top edge of the other cover, and having transverse fins depending from its under surface between which and the downwardly flanged edges of said cover the adjacent upper edges of said end-walls are adapted to be confined.

3. A sheet metal traveler's grip or bag having a body comprising longitudinal sides and bottom made in one piece of metal and said bottom corrugated, and end walls having panels; and having the upper edges thereof above the plane of said longitudinal sides inclined upward toward each other; one of said covers having its upper edge extend beyond the ridge of the grip and down the opposite incline of the other cover, and having transverse fins depending from its under surface between which and the downwardly flanged edges of said cover the adjacent upper edges of said end-walls are adapted to be confined.

1,143,712. MACHINE FOR USE IN THE MANUFACTURE OF BOOTS AND SHOES. EUGENE L. KEYES, Boston, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Oct. 28, 1907. Serial No. 399,529. (Cl. 12—67.)

1. In a machine for working upon a welted shoe, means for engaging the inseam to tighten the upper over the last, and means for engaging the welt to turn the butt end thereof over the shoe bottom.

2. In a machine for working upon a welted shoe, means for engaging the inseam to tighten the upper over the last, and means for engaging the welt to turn the butt end thereof over the shoe bottom, combined with means for fastening the upper and welt.



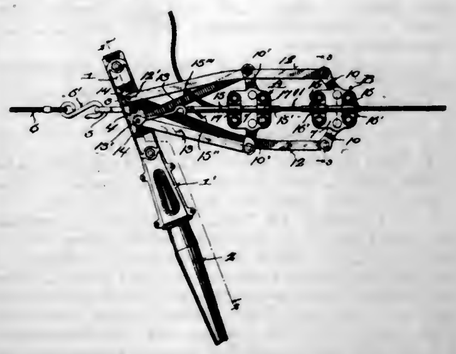
3. In a machine for working upon a welted shoe, devices constructed and arranged to engage the shoe stock to tighten the upper about the last and having a direct pushing engagement with the welt outside the welt crease to turn the butt end of the welt relatively to the body portion thereof inwardly over the shoe bottom and hold said parts while they are being tacked.

4. In a machine for working upon a welted shoe, devices constructed and arranged to engage the shoe stock to tighten the upper about the last and position the butt end of the welt over the shoe bottom, said devices including means for preventing the welt from buckling, and means for securing the welt.

5. In a machine for working upon a welted shoe, devices constructed and arranged to engage the shoe stock to tighten the upper about the last and position the butt end of the welt over the shoe bottom, said devices including a member arranged to extend under the welt to engage the inseam, and a member to engage the butt end of the welt back of the inseam.

[Claims 6 to 12 not printed in the Gazette.]

1,143,713. SLACK-TAKE-UP MECHANISM. ALFRED J. KIRSTIN, Escanaba, Mich. Filed Jan. 9, 1915. Serial No. 1,325. (Cl. 254—70.)



1. A take-up mechanism of the described character comprising an oscillatory lever, means for anchoring the same at its point of oscillation, a pair of tangentially arranged independent runner clutch-blocks, a link connection between one of the clutch-blocks and the lever below its point of oscillation, a link connection between the other

clutch-block and said lever above its point of oscillation, a guide connecting the clutch-blocks, and means for locking the guide to the oscillatory lever.

2. A slack take-up mechanism of the described character comprising an actuating lever, a fixed fulcrum for the lever, a pair of tangentially arranged clutch-blocks each comprising a cheek-plate and an oscillatory cam lever adapted to exert gripping engagement upon a runner, a link connecting one of the cam levers and actuating lever above its fulcrum, and a link connecting the other cam lever and actuating lever below its fulcrum.

3. A slack take-up mechanism of the described character comprising an actuating lever, a fixed fulcrum for the lever, a pair of tangentially arranged clutch-blocks each comprising a cheek-plate and an oscillatory cam lever adapted to exert gripping engagement upon a runner, a link connecting one of the cam levers and actuating lever above its fulcrum, a link connecting the other cam lever and actuating lever below its fulcrum, a guide rod secured to one of the cheek-plates, and a slidable connection between the cheek-plate of the other clutch-block and guide-rod.

4. A slack take-up mechanism of the described character comprising an actuating lever, a fixed fulcrum for the lever, a pair of tangentially arranged clutch-blocks each comprising a cheek-plate and an oscillatory cam lever adapted to exert gripping engagement upon a runner, a link connecting one of the cam levers and actuating lever above its fulcrum, a link connecting the other cam lever and actuating lever below its fulcrum, a guide rod secured to one of the cheek-plates, a slidable connection between the cheek-plate of the other clutch-block and guide-rod, and means for connecting the guide-rod and actuating lever.

1,143,714. PROCESS OF TREATING SULFITE WASTE LIQUOR AND PRODUCT THEREOF. ORA WILLIS KNIGHT, deceased, Portland, Me., by Minnie G. Knight, executrix, Portland, Me. Filed Aug. 10, 1914. Serial No. 856,083. (Cl. 106—22.)

1. A process which comprises treating a liquor containing a lignone derivative with a phenol, in the presence of a condensing agent.

2. A process of forming condensation products, which comprises heating a phenolic body, with a liquor containing a lignone derivative to a temperature sufficient to produce a condensation product.

3. A process which comprises heating a fermented waste sulfite liquor with a phenolic body, to a temperature sufficient to produce condensation.

4. A process of utilizing waste sulfite liquor, which comprises fermenting said liquor, adding a material capable of oxidizing at least a part of the alcohol into aldehyde, adding a phenol, and heating the mixture sufficiently to convert the aldehyde into a phenol-aldehyde condensation product.

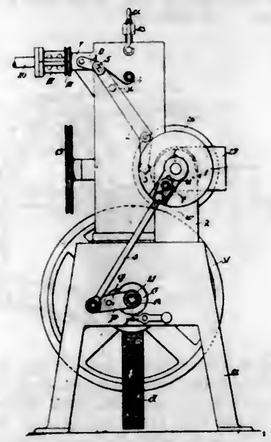
5. A composition of matter containing a condensation product of a phenol and a lignone.

[Claim 6 not printed in the Gazette.]

1,143,715. MACHINE FOR FILLING SAUSAGES AND THE LIKE. ADOLF KÖHLER, Berlin, Germany. Filed Dec. 17, 1914. Serial No. 877,690. (Cl. 17—6.)

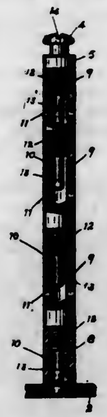
1. In a machine for filling and separating sausages, the combination of a compression piston, means for imparting to said piston an intermittent movement, a compression cylinder, a stop-cock mounted thereon, means for periodically actuating said cock, a twisting-off device, means for periodically actuating said twisting-off device, and a clutch for coupling said twisting-off device and said periodically operating means, a pinion connected to said clutch, said pinion being adapted to slide laterally, a gear-wheel adapted to actuate the compression piston, means for bringing said pinion into engagement with said gear-wheel, and means for disengaging said cock actuating means, substantially as hereinbefore described and for the purpose specified.

2. In a machine for filling and separating sausages, the combination of a compression piston, means for imparting to said piston an intermittent movement, a compression cylinder, a stop-cock mounted thereon, means for periodically actuating said cock, a twisting-off device, means for periodically actuating said twisting-off device, a clutch for coupling said twisting-off device and said



periodically operating means, a pinion connected to said clutch, said pinion being adapted to slide laterally, a gear-wheel adapted to actuate the compression piston, means for bringing said pinion into engagement with said gear wheel, and means for disengaging said cock actuating means, a sleeve for said clutch, a cam thereon and a fixed projection engaging therewith, substantially as described and for the purpose specified.

1,143,716. SECTIONAL-POST BINDER. REINHOLD KRUMMING, Milwaukee, Wis. Filed Dec. 16, 1914. Serial No. 877,597. (Cl. 129—13.)



1. A sectional post for loose leaf binders composing a base section and a plurality of removable sections, the sections other than the top having central bores open at their tops and the sections other than the top and base having transverse holes therein, the removable sections having reduced threaded portions at their lower ends adapted to be threaded into the bores of the adjacent sections and pin-like extensions constituting bits adapted to be inserted in said transverse holes in said sections whereby one section is adapted as a key for releasing another, the transverse holes being disposed so that they

are below the ends of the bits when the sections are assembled.

2. A sectional post for loose leaf binders comprising a base section and a plurality of removable sections, the sections other than the top having central bores open at their tops and the sections other than the top and base having transverse holes therein, the removable sections having reduced threaded portions at their lower ends adapted to be threaded into the bores of the adjacent sections and pin-like extensions constituting bits adapted to be inserted in said transverse holes in said sections whereby one section is adapted as a key for releasing another.

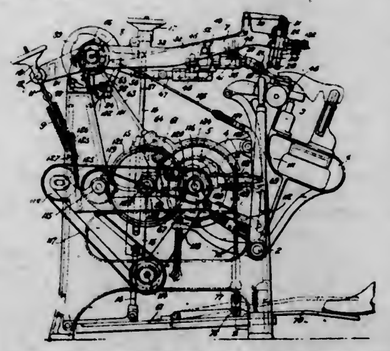
3. A sectional post for loose leaf binders comprising a base section and a plurality of removable sections, the sections other than the top having central bores open at their tops and the sections other than the top and base having transverse holes therein, the removable sections having reduced threaded portions at their lower ends adapted to be threaded into the bores of the adjacent sections and at least one of said removable sections being provided with a pin-like extension constituting a bit adapted to be inserted in said transverse holes in said sections whereby said section is adapted for use as a key.

4. A sectional post for loose leaf binders comprising a plurality of removable sections having central bores open at their tops and transverse holes therein and reduced threaded portions at their lower ends adapted to be threaded into the bores of the adjacent sections, and at least one of said sections being provided with a pin-like extension constituting a bit adapted to be inserted in said transverse holes whereby said section is adapted for use as a key.

5. A sectional post for loose leaf binders comprising a pair of sections, one of said sections having a central bore open at the top, and a transverse hole therein and the other a reduced threaded portion at its lower end adapted to be threaded into said bore and a pin-like extension constituting a bit adapted to be inserted in said transverse hole whereby such section is adapted for use as a key.

[Claims 6 and 7 not printed in the Gazette.]

1,143,717. SOLE-LEVELING MACHINE. EUCLID I. LA CHAPELLE, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed May 21, 1908. Serial No. 434,042. (Cl. 12—33.)



1. A sole leveling machine, having, in combination, a shoe supporting jack and a leveling device relatively movable to transfer the point of operation of the leveling device over the sole of a shoe supported on the jack, and means for repeatedly actuating said device during a single transfer of the point of operation along the sole to compress the sole and to move laterally toward the edge of the sole during each compression.

2. A sole leveling machine, having, in combination, a shoe supporting jack and a leveling device relatively movable to transfer the point of operation of the tool over the sole of the shoe supported by the jack and means for repeatedly actuating the tool during a single transfer of the point of operation along the sole to compress the sole and to outwardly stretch the margin of the sole during each compression.

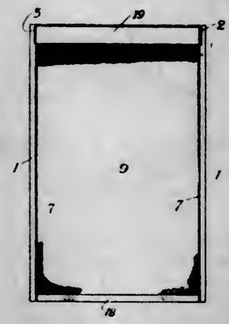
3. A sole leveling machine, having, in combination, a shoe supporting jack and a sole leveling tool relatively movable to transfer the point of operation of the tool over the sole of a shoe supported on the jack, said tool being mounted to allow its working face to conform to the lateral curvature of the sole, and means for repeatedly forcing the tool against the sole and relieving the pressure as the point of operation is transferred along the sole, substantially as described.

4. A sole leveling machine, having, in combination, a shoe supporting jack, sole compressing tools arranged to act upon the opposite sides of the bottom of the sole of a shoe supported on the jack, means for relatively actuating the jack and tools to repeatedly force the tools toward the sole and relieve the pressure, and means for relatively moving the jack and tools to transfer the point of operation along the sole, substantially as described.

5. A sole leveling machine, having, in combination, a shoe supporting jack, sole leveling tools arranged to act simultaneously upon the opposite sides of the bottom of the sole of a shoe supported on the jack, means for actuating the tools to compress the sole and to move laterally of the sole while in engagement therewith, said tools being mounted to allow their working faces to conform to the lateral curvature of the sole, and means for relatively actuating the jack and tools to transfer the point of operation along the sole, substantially as described.

[Claims 6 to 28 not printed in the Gazette.]

1,143,718. ROLLER WINDOW-SCREEN. SYLVESTER E. MCPHERSON, Chattanooga, Tenn. Filed July 8, 1914. Serial No. 849,812. (Cl. 156—39.)

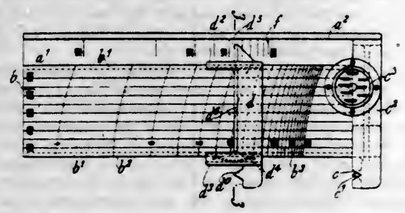


1. In a device of the class described in combination a window frame, a guard mounted at the upper portion of said frame, a roller mounted in said guard, wire mesh mounted on said roller and arranged to pass around the lower edge of said guard, and flexible reinforcing members secured to the edges of said mesh somewhat to one side of the plane of the mesh and on the sides toward the lower edge of said guard whereby the mesh is preserved from wear when passing over said edge.

2. A window screen adapted to be mounted on a window frame, said screen comprising in combination, a roller mounted at the top of the frame, flexible wire mesh arranged to roll on said roller, said mesh being arranged to close the window aperture when unrolled, reinforcing lengths of wire cord secured to the sides of said mesh, guide members mounted on said frame and projecting inwardly therefrom to receive said lengths of rope, said members inclosing said lengths of rope closely but permitting the same to move freely therein, and a curved guard partially surrounding said roller and protecting the exterior thereof, said guard having a bead at its lower edge over which said mesh and said lengths of rope run,

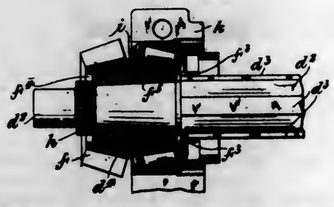
said edge being substantially in alinement with said guide members, said length of cord being bound to said wire mesh in such manner as to contact with the edge of said guard and preserve said mesh from wear.

1,143,719. SIGHTING INSTRUMENT FOR AERIAL USE. OTTO MACKENSEN, Jena, Germany, assignor to the Firm of Carl Zeiss, Jena, Germany. Filed Mar. 24, 1914. Serial No. 826,888. (Cl. 33—46.)



In a sighting instrument for aerial use means for sighting in directions variably inclined to the vertical, a member bearing graduations representing height values, an index connected with the said sighting means, the said member and the said index being adapted for relative movement, a second member bearing graduations representing height values and time values and a second index also connected with the said sighting means, the latter member and index being also adapted for relative movement, which latter relative movement is dependent on the relative movement of the first named member and index.

1,143,720. SECURING DEVICE FOR GEARS. ALFRED F. MASURY, New York, N. Y., assignor to International Motor Company, New York, N. Y., a Corporation of Delaware. Filed Jan. 2, 1914. Serial No. 809,872. (Cl. 74—8.)

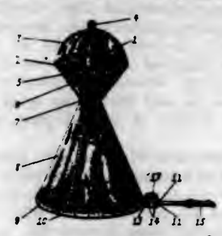


In a device of the character described, a tapered driving shaft, splines thereon, and a smooth bored beveled pinion tapered interiorly and carried on the tapered portion of the driving shaft and provided with a sleeve-like portion on an extension of one face, the sleeve having a plurality of longitudinal slots cut in its end and arranged in loose driving engagement with the splines, and a nut threaded on the driving shaft and bearing against the other face of the pinion to maintain the pinion in engagement with the splines.

1,143,721. NET FOR COLLECTING SPECIMENS. MARVIN H. MEAD, Passaic, N. J. Filed Dec. 23, 1913. Serial No. 808,383. (Cl. 43—1.)

1. A net for specimens of the class described; said net comprising a portion provided with a wide mouth-piece, and means to secure the same to a handle; and a portion of open-work material provided with a dilating member, to form a captive chamber for the reception of a plurality of insects with extended wings; the intermediate portion of said net being flexible, to permit closure of the exit from said captive chamber.

2. A net for specimens of the class described; said net comprising a portion provided with a wide mouth-piece, and means to secure the same to a handle; and a portion of open network provided with a dilating member, to form a captive chamber for the reception of a plurality of specimens, being of sufficient size to permit their limited flight; the intermediate portion of said net being flexible, to permit closure of the exit from said captive chamber, said intermediate portion being formed with a constricted neck through which a receptacle may be introduced for the removal of said specimens.

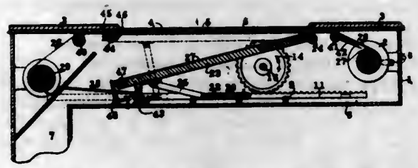


3. A frame for a specimen-net of the class described; said frame comprising a wide mouth ring; an open-work structure forming a captive chamber; and ribs connecting said parts.

4. A frame for a specimen net of the class described; said frame comprising a wide mouth ring; an open-work structure forming a captive-chamber; a narrow neck-ring; and ribs connecting said mouth-ring and open-work structure respectively with said neck-ring.

1,143,722. PHOTOGRAPHIC DEVICE. HOWARD VAN R. PALMER, Dumont, N. J. Filed June 20, 1913. Serial No. 774,727. (Cl. 250—34.)





1. An X-ray photographic apparatus comprising, in combination, a support for the object to be photographed, said support being capable of being penetrated by X-rays but impenetrable by ordinary light rays, means adapted to support a continuous supply of flexible sensitized film sufficient for taking a plurality of X-ray photographs of the object, means adapted to move said film relatively to said object support so that successive portions thereof may be presented opposite said object support, means substantially impervious to X-rays adapted to screen from X-rays the portion of said film at the side of said object support and means adapted to flatten the portion of said film opposite said object support.

2. An X-ray photographic apparatus comprising, in combination, a support for the object to be photographed, said support being capable of being penetrated by X-rays but impenetrable by ordinary light rays, means adapted to support a supply of continuous flexible sensitized film sufficient for taking a plurality of X-ray photographs of the object, and means adapted to move said film relatively to said object support so that successive portions thereof may be presented opposite said object support, means substantially impervious to X-rays adapted to screen from X-rays the portion of said film at the side of said object, means adapted to flatten the portion of said film opposite said object support and means adapted to sever successive exposed portions of said film from the supply of film.

3. An X-ray photographic apparatus comprising, in combination, a casing adapted to receive a flexible sensitized film, said casing being of a construction to exclude ordinary light while photographs are being taken,

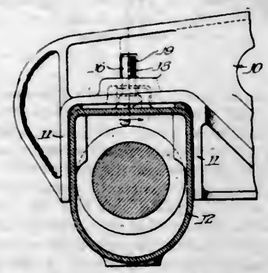
and comprising a portion pervious to X-rays and a portion impervious thereto, and means including a movable film support within said casing adapted, when operated, to feed film alternately into positions opposite said pervious portion and said impervious portion.

4. An X-ray photographic apparatus comprising, in combination, a casing adapted to receive a flexible sensitized film, said casing being of a construction to exclude ordinary light while photographs are being taken, and comprising a portion pervious to X-rays and a portion impervious thereto, and means including a movable film support within said casing and opposite said impervious portion, adapted when operated to deliver film from position opposite said impervious portion to position opposite said pervious and impervious portions, successively.

5. An X-ray photographic apparatus comprising, in combination, a casing adapted to receive a flexible sensitized film, and of a construction to exclude ordinary light while photographs are being taken, a film flattening member adapted to be moved toward and from the plane in which the exposed portion of the film lies when a photograph is being taken, and means adapted to feed the film in said casing and move the film relative to said film flattening member.

[Claims 6 to 20 not printed in the Gazette.]

1,143,723. SIDE FRAME AND JOURNAL-BOX. EMIC W. PALMQUIST, St. Louis, Mo., assignor to American Steel Foundries, New York, N. Y., a Corporation of New Jersey. Filed Nov. 28, 1914. Serial No. 874,521. (Cl. 105—243.)



1. In a truck, the combination of a side frame, a journal box, said frame having an aperture in the plane of said box, and a separate vertical bolt carried by said box and adapted to coöperate with said aperture and maintain said box and frame against separation, substantially as described.

2. In a truck, the combination of a cast side frame, a journal box interlocked with said frame, and a separate vertical bolt connecting the frame and box, substantially as described.

3. In combination, a cast side frame having jaws, a journal box mounted between said jaws, a vertical bolt interlocked with said journal box, said bolt extending upwardly through an aperture in said frame, and means carried by said bolt for locking the same in position.

4. In combination a cast side frame having jaws, a journal box mounted between said jaws, said box being provided with an apertured boss, a bolt the head of which is mounted in said boss, said bolt extending upwardly through an aperture in said frame and securing said box and frame against separation, substantially as described.

1,143,724. LUBRICANT. LYMAN DEE PETTIT, Everett, Wash. Filed June 12, 1913. Serial No. 773,299. (Cl. 87—9.)

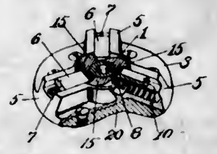
1. The herein described lubricating compound consisting of liquid petroleum 42 parts, paraffin wax 25 parts, graphite 2¾ parts, lime water 41 parts and a mixture of rosin and refined petroleum 14 parts.

2. The herein described lubricating compound consisting of crude petroleum 41 parts, lime water 41 parts, graphite 2¾ parts, paraffin wax 25 parts, red engine oil 1 part and a mixture of rosin and refined petroleum 14 parts.

3. The herein described lubricating compound consisting of crude petroleum oil 41 parts, lime water 41 parts, graphite 2¾ parts, paraffin wax 25 parts, red engine oil 1 part and a mixture of 13 parts rosin and 1 part refined petroleum oil.

4. The herein described lubricating compound consisting of crude petroleum oil 41 parts, lime water 41 parts, graphite 2¾ parts, paraffin wax 25 parts, red engine oil 1 part and a mixture of 13 parts rosin and 1 part kerosene.

1,143,725. PAD-HOLDER. WILLIAM A. REED, Chelsea, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Nov. 22, 1912. Serial No. 732,994. (Cl. 51—17.)



1. In a device of the class described a pad, a holder, movable means for engaging said pad at its edges, resilient means located between said movable means and said holder arranged to exert a continuous tension upon said pad through said movable means to draw said pad smoothly about said holder, and means for compressing said resilient means to relieve said tension.

2. In a device of the class described a pad having perforated tabs, a holder, movable means provided with prongs for engaging said perforations, resilient means located between said movable means and said holder arranged to exert a continuous pull on the edges of said pad to draw it smoothly about said holder, and means for compressing said resilient means to relieve said pull.

3. In a device of the class described, a pad holder, a buffing pad, a plurality of movable clamping members on said holder arranged to secure said pad to said holder, and yielding means to move said clamping members into operative position to draw said pad about said holder.

4. In a device of the class described, a pad holder, a buffing pad, a plurality of sliding blocks upon said holder having provision for engagement with said pad, yielding means for actuating said blocks in one direction, and means to move said blocks simultaneously in the opposite direction.

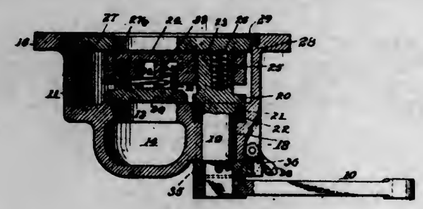
5. In a device of the class described, a pad holder, a buffing pad, a plurality of movable clamping members on said holder to secure said pad to said holder, yielding means to move said clamping members in one direction, and a thumb nut on said holder having cams formed thereon to move said clamping members in the opposite direction.

[Claims 6 to 8 not printed in the Gazette.]

1,143,726. TENDER-TANK VALVE. SAMUEL S. RIEGEL, Scranton, Pa., assignor to Patterson-Allen Engineering Company, a Corporation of New York. Filed Dec. 26, 1913. Serial No. 808,738. (Cl. 137—21.)

1. In a device of the character stated, the combination of a body adapted to form a closure for an opening in the bottom of a tank, said body having an open top portion adapted for alinement with the tank opening, a discharge opening in its bottom portion and an intermediate diaphragm portion having a port and valve seat, an abutment plate removably secured within said body below the top opening therein and provided with a normally open port for the passage of fluid and having a guide surface arranged in parallel relation to the valve seat on the diaphragm, a spindle journaled in the body to one side of said valve seat and extending exterior of said body and provided with a

collar, an operating lever secured to said spindle, packing encircling said spindle and upon which the collar seats, an arm connected to said spindle to oscillate therewith and free to move axially of said spindle, a valve piece movably mounted in the free end of said arm and guided over the valve seat, spring means located between said abutment plate and said spindle for holding said collar seated upon said packing, and a spring between said valve piece and said arm whereby the arm is held and guided against said abutment plate and the valve piece is held against said valve seat with provision for acting as a check valve.



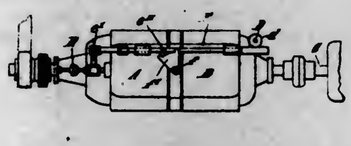
2. In a device of the character stated, the combination of a body adapted to form a closure for an opening in the bottom of a tank, said body having an open top portion adapted for alinement with the tank opening, a discharge opening in its bottom portion and a valve port and seat interposed between the open top and bottom portions, an abutment plate removably secured within said body below the top opening therein and provided with a normally open port for the passage of fluid and having a guide surface arranged in parallel relation to the valve seat surface of the body, a spindle journaled in the body to one side of said seat and extending exterior of said body, an operating lever secured to said spindle for rocking it, an arm connected to said spindle to oscillate therewith and free to move axially of said spindle to be guided by the abutment plate, a valve piece movably mounted in the free end of said arm, a spring between said valve piece and said arm whereby the arm is held against said abutment plate and the valve piece is held against said valve seat with provision for acting as a check valve, and a manually controlled locking device for locking said spindle in each of its extreme positions of adjustment.

3. In a device of the character stated, the combination of a body adapted to form a closure for an opening in the bottom of a tank, said body having a large opening at its top portion to form a well adapted to come into alinement with the tank opening, a discharge opening in its bottom portion and a valve seat and port between said discharge opening and said well, an abutment and guide plate removably secured within said well portion of the body below the top opening therein and provided with a normally open port or opening for the passage of fluid, a valve seated upon the valve seat and guided by the abutment plate, a spring to normally hold the valve upon its seat whereby said valve is held against said valve seat with provision for acting as a check valve, a spindle journaled in the body and extending exterior of said body, an operating lever secured to said spindle for rocking it to open or close the valve, and means within the valve body movable with said spindle and adapted to oscillate therewith about its axis to move the valve.

4. In a valve, a body open at its top to form a well and having a valve seat and thoroughfare through the same and terminating in an outlet port at its bottom combined with a spindle journaled in the body to one side of the valve seat and extending through the bottom of the body, a swinging arm oscillated by the spindle and loosely connected therewith in an axial direction, a removable guide plate for holding the swinging arm in position arranged in the open top portion of the body, a valve piece movable on the valve seat and connected with the swinging arm with capacity for free movement from the valve seat toward the arm to permit back flow through the valve, a spring between the valve piece and the swinging arm whereby the swinging arm is pressed against the guide plate and valve piece is normally pressed upon the valve seat but is also free to act as a check valve, and means for detachably holding the plate in position against the action of the spring.

5. In a valve, a cylindrical body open and flanged at the top to provide a well and having at its lower part a valve seat provided with a thoroughfare terminating in an outlet, combined with a plate set down into the body below the flanged upper surface and detachably clamped therein parallel to the valve seat said plate also providing apertures for normal free flow of fluid, a swinging arm guided by the under surface of the plate, a valve piece guided by the swinging arm and movable over the valve seat, a spring arranged between the valve piece and swinging arm for holding said parts respectively against their guiding surfaces and allowing the valve piece to act as a check valve, and means extending through the body at the end opposite to the open flanged end for oscillating the swinging arm.

1,143,727. VARIABLE-SPEED HYDRAULIC TRANSMISSION. JOHN ROBSON, Westminster, London, England, assignor to The Variable Speed Gear Limited, London, England. Filed Nov. 14, 1913. Serial No. 800,915. (Cl. 138—3.)



1. In a variable speed hydraulic transmission gear, the combination with the pump unit and the motor unit, of means operated by the pump unit for automatically maintaining the speed of the motor unit constant notwithstanding variations in the speed of the pump unit.

2. In a variable speed hydraulic transmission gear, the combination with the pump unit and the motor unit, of means under the influence of the speed of the pump unit for automatically maintaining the speed of the motor unit constant notwithstanding variations in the speed of the pump unit.

3. In a variable sped hydraulic transmission gear, the combination with the pump unit and the motor unit, of means under the influence of the speed of the pump unit for automatically varying the relative piston strokes of the said units during variations in the speed of the pump unit.

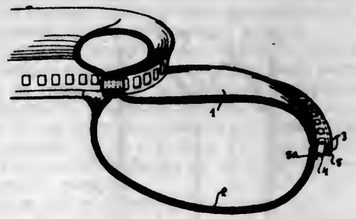
4. In a variable speed hydraulic transmission gear, the combination with the pump unit and the motor unit, of means under the influence of the speed of the pump unit for automatically varying the piston stroke of the motor unit during variations in the speed of the pump unit.

5. In a variable speed hydraulic transmission gear the combination with the pump unit and the motor unit, of a governor driven from the pump unit, a control member for the motor unit, and means for actuating said member from the governor during the movements of the latter under the influence of variations in the speed of the pump unit.

[Claims 6 to 9 not printed in the Gazette.]

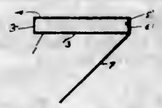
1,143,728. HORSE-COLLAR. FREDERICK SCHENKENBERG, Dallas, Tex. Filed Mar. 16, 1914. Serial No. 824,850. (Cl. 54—19.)

In a horse collar the combination with the overlapping and outwardly extending edge portions of the front and lining of the collar of a welt provided with a right-angled inner-edge, said welt disposed adjacent to said outwardly extending edge portions, a thong lacing passing through said edge portions and welt, and a seam adjacent to said lacing, passing through said welt and edge portions, all



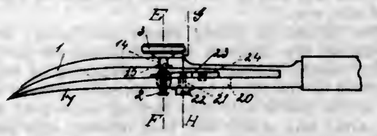
arranged so that the right-angled inner-edge rests for support upon the lining of the collar.

1,143,729. COMBINED POST-CARD, CANDY-CONTAINER, AND MAIL-RECEIPTACLE. WILLIAM A. SCHMIDT, Newark, N. J., assignor to Florence J. Schmidt, Newark, N. J. Filed May 7, 1914. Serial No. 836,919. (Cl. 229—16.)



A receptacle formed of a blank having transverse creases formed thereon dividing said blank into a series of substantially rectangular portions, alternate portions being of equal size, the first, third and fifth portions forming the sides of the receptacle and the second, fourth and sixth portions forming the bottom, top and cover for said receptacle, said first and fifth portions lying in parallel planes adjacent said cover portion, serving to reinforce said receptacle, said bottom portion having characters formed thereon, said top portion having an aperture formed therein whereby said characters may be seen when the lid portion is raised, substantially as described.

1,143,730. DRAWING-PEN. GEORG SCHOENNER, Nuremberg, Germany. Filed Dec. 9, 1912. Serial No. 735,614. (Cl. 120—109.5.)



1. A drawing-pen retaining its adjustment for a width of line, comprising a pen blade, a headed set screw passing freely through said blade, a threaded nut located at the end of the set screw, a second pen blade, the set screw and the nut being wholly free of said second blade and means in the second blade for locking the nut thereto, said locking means and the screw being relatively movable to bring the nut into and out of locking engagement with the locking means.

2. A drawing-pen retaining its adjustment for a width of line when closed again after cleaning, comprising a pen blade, a headed set screw passing freely through said blade, a threaded nut located at the lower end of the set screw, and having an enlarged locking bottom portion, a second pen blade, the set screw and the nut being wholly free of said second blade and means in the second blade for locking the nut thereto, said locking means and the set screw being relatively movable to bring the nut into and out of locking engagement with the locking means.

3. A mathematical drawing-pen retaining its adjustment for a width of line when closed again after cleaning, comprising a pen blade, a headed set screw swiveled in said blade, a threaded nut at the lower end of the set screw having a neck and an enlarged locking bottom portion, a second pen blade, the set screw and the nut being freely passable through said second blade and locking means in the second blade, said locking means being movable to inoperative position.

1,143,731. NASAL DEVICE. FREDERICK W. SCHOONMAKER, Jr., Montclair, N. J., assignor to Schoonmaker Laboratories, Inc., New York, N. Y., a Corporation of New York. Filed Mar. 8, 1915. Serial No. 12,796. (Cl. 128—25.)



1. Means for introducing ointment into the nose, comprising a short tube adapted to enter the nostril, and having a free and unobstructed passage therethrough, an elastic bulb on the rear end of said tube, a short lateral branch on the tube having a free and unobstructed passage therethrough, and a collapsible container for the ointment adapted to be secured to the free end of said branch, whereby ointment may be pressed from said container throug the branch into the tube and thence, by compression of said bulb, forced into the nostril.

2. Means for introducing ointment into the nose, comprising, in combination, a collapsible container for the ointment having a screw-threaded nozzle, a short tube adapted to enter the nostril, an elastic bulb on the rear end of said tube, and a short lateral rearwardly inclined branch on the tube, screw threaded for the reception of the nozzle of the container.

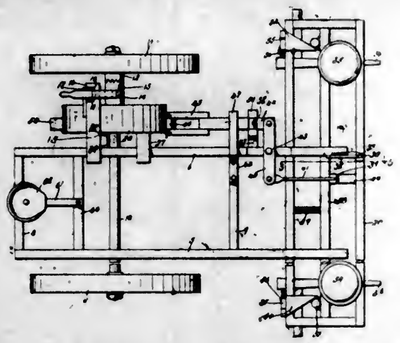
1,143,732. GLASS. OTTO SCHOTT, Jena, Germany, assignor to the Firm of Schott & Gen., Jena, Germany. Filed Dec. 10, 1914. Serial No. 876,556. (Cl. 49—90.)

Glass containing at least 50 per cent. silicic acid and having as its other glass forming components alumina 4 to 15 per cent., boracic acid 5 to 15 per cent., alkali 4 to 14 per cent., magnesia at most 7.8 per cent., zinc oxid at most 15.9 per cent., baryta at most 30 per cent. and lime, the total percentage of lime, magnesia, zinc oxid and baryta being a quantity representing the equivalent of from 3 to 11 per cent. of lime, the total percentage of alumina, lime and that quantity of lime, which would represent the equivalent of the percentages of magnesia, zinc oxid and baryta being at least half and at most five times that of the boracic acid and the total percentage of magnesia, zinc oxid and baryta being greater than zero.

1,143,733. PLANTER. NORMAN J. SHAEFFER, Woodward, Iowa. Filed Oct. 19, 1910. Serial No. 587,987. (Cl. 111—6.)

1. In a corn planter, a wheeled frame having a drive axle, a drum slidable on the drive axle and provided with a peripheral flange having an abutment member extending

outwardly therefrom, seed boxes mounted on the frame and provided with discharge valves, a rock shaft journaled adjacent to the seed boxes and having connection with the valves thereof, guides projecting laterally from the frame, a rod slidable through the guides and having an engaging member at its rear end for contact by the abutment block of the drum and connections between the forward end of the rod and the rock shaft whereby forward movement of the rod imparted thereto through the block will rock the shaft.



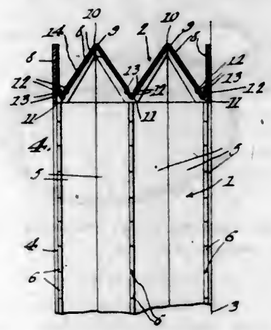
2. In a corn planter, a wheeled frame having a drive axle, a drum slidable on the drive axle and provided with a peripheral flange having an abutment member extending outwardly therefrom, seed boxes mounted on the frame and provided with discharge valves, a rock shaft journaled adjacent to the seed boxes and having connection with the valves thereof, guides projecting laterally from the frame and provided with spaced rollers, a rod movable between the rollers and having an engaging member at its rear end for contact by the abutment block of the drum, connections between the forward end of the rod and the rock shaft whereby forward movement of the rod imparted thereto through the block will rock the shaft and resilient means connected to the frame and rock shaft for returning said parts to an operative position.

3. In a planter, a frame having a drive axle, a flanged drum loosely mounted on the axle, said drum having an integral inwardly projecting stop, an arm carried by the frame and extending within the drum for contact with the stop to prevent rotation of the drum when the clutch elements are disengaged, an angular arm extending from one side of the frame above the drum, an operating lever pivoted to the last named arm and connected with the movable clutch member for shifting the latter to an inoperative position, means for holding said lever in opposite positions, bracket guides extending from one side of the block, an operating rod slidable in the guides, rollers carried by the guides upon opposite sides of the rod, a yoke at the rear end of the rod provided with a roller normally contacting with the drum, said drum having a peripheral projection to engage the roller and operate the rod, a lever pivoted to the frame and the forward end of the rod, a rock shaft journaled transversely of the frame, a pitman connected to the other end of the lever and to an upwardly extending arm of the rock shaft, a spring connected to the frame and engaging the shaft to hold the latter in an inoperative position, a stop carried by the frame limiting the movement of the rock shaft, seed boxes on the frame and provided with valves connected to the rock shaft and marking means adjacent the seed boxes simultaneously operated with the seed valves.

1,143,734. VESTIBULE-DIAPHRAGM FOR RAILWAY-CARS. GEORGE H. SHERWOOD, Denver, Colo. Filed Dec. 29, 1914. Serial No. 879,503. (Cl. 105—61.)

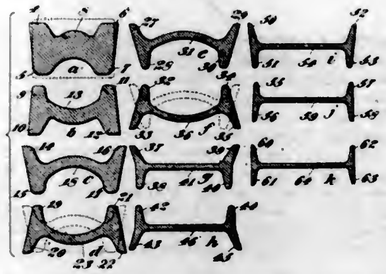
1. In a vestibule diaphragm, a bellows top comprising panels having their upper edges hinged together, and channels hingedly connecting the lower edges of the panels.

2. In a vestibule diaphragm, a bellows top comprising panels having their uper edges hinged together, and chan-



nels hingedly connecting the lower edges of the panels, the bottoms of the channels being inclined.

1,143,735. MAKING FLANGED SHAPES. EDWIN E. SLICK, Westmont borough, Pa. Filed Dec. 15, 1914. Serial No. 877,300. (Cl. 80—66.)



1. The steps in the method of rolling shapes comprising: bending and reducing the intermediate portion of a bloom to form a concavo-convex thick web, reducing the edge portions and bending them to divergent positions on one side of the web and to convergent positions on the other side of said web.

2. The method of rolling shapes comprising: bending and reducing the thickness of the intermediate portion of a blank, thereby producing a web projecting on one side and hollow on the other, forming divergent flanges on the edges of one side of said web, forming convergent flanges on the other side of said web, then reducing said web and bending it in direction opposite to its previous position and at the same time reducing the flanges and making the convergent ones divergent and vice versa.

3. The method of rolling flanged shapes comprising a web and flanges on both edges thereof: which consists in bending the web in one direction, thereby making it project on one side and hollow on the other side, reducing the edge portions to form flanges and bending them to divergent positions adjacent to the projecting side of the web and to convergent positions adjacent to the hollow side of the web, then bending the web in opposite direction to its previous position while reducing the flanges and at the same time making the convergent flanges divergent and vice versa.

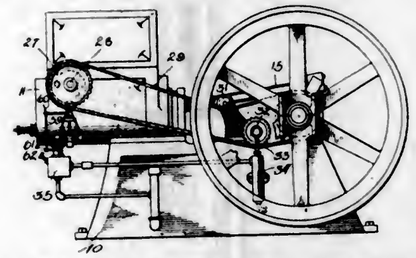
4. The method of rolling flanged shapes comprising a web and flanges adjacent to the edges thereof: consisting in reducing the web thickness and bending it in one direction to form a protuberance on one side and a corresponding groove on the other side, reducing the flanges and bending those adjacent to the protuberant side of the web into divergent positions and those adjacent to the grooved side of the web into convergent positions, then reducing

the web thickness and bending it oppositely from its previous position, reducing the thickness of the flanges while making the convergent ones divergent and the divergent ones convergent, then reducing the flanges and making their exterior surface substantially parallel.

5. The steps in the method of rolling flanged shapes comprising a web and flanges on both edges thereof: consisting in reducing the web thickness and bending it in one direction to project on one side, with a corresponding hollow on the other side, reducing the flanges and bending those adjacent to the projecting web into divergent positions and maintaining those on the other side of the web substantially parallel.

[Claims 6 to 9 not printed in the Gazette.]

1,143,736. GAS-ENGINE. CHARLES A. STAPLETON and OTHA P. BURCHFIEL, Anthony, Kans. Filed Jan. 28, 1914. Serial No. 814,968. (Cl. 123—170.)



1. A speed regulating mechanism for internal combustion engines including in combination a timing wheel, and means controlled thereby for operating an exhaust valve, controlling the ignition, and throttling the charge of the engine.

2. A speed regulating mechanism for internal combustion engines including in combination a timing wheel adapted to control the ignition and exhaust of the engine and to throttle the charge, and means operatively connecting the timing wheel to the crank shaft of the engine.

3. A speed regulating mechanism for internal combustion engines including in combination a timing wheel, an exhaust cam, an igniter trip carried thereby, a speed controlled governor actuated from said timing wheel, a charge throttling device, and means operatively connecting the governor with said throttling device.

4. A speed regulating mechanism for internal combustion engines including a timing wheel, an exhaust cam, a rocker arm connected to the exhaust valve of the engine, a slidably mounted push rod connected to said rocker arm, and a roller carried on the free terminal of the rod and arranged for engagement by said cam.

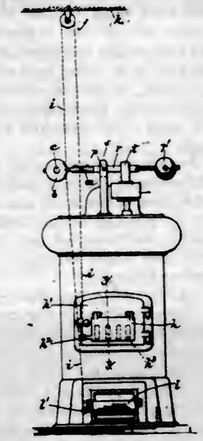
5. A speed regulating mechanism for internal combustion engines including a timing wheel, an exhaust cam formed integral with the timing wheel, an igniter trip carried by said wheel, a speed controlled governor operatively connected to the timing wheel, and means connecting the governor to the engine throttle for throttling the charge of the engine.

[Claims 6 to 9 not printed in the Gazette.]

1,143,737. ADJUSTING DEVICE FOR DRAFT-REGULATORS FOR STEAM-BOILERS. JAMES E. SULLIVAN, Pawtucket, R. I. Filed July 20, 1914. Serial No. 852,093. (Cl. 236—6.)

1. An adjusting device for diaphragm-operated dampers of steam boilers, consisting of a disk adapted to be revolubly mounted upon the diaphragm lever of the boiler; a cord or other flexible body adapted to be peripherally wrapped around said disk intermediate its ends, means for holding the cord in fixed relation to said disk, the free ends of said cord being attached to the draft dampers of said boiler; and means for retaining said disk in any predetermined position of revolution upon its axis.

2. An adjusting device for diaphragm-operated dampers of steam boilers, consisting of a clamping member capable of being fixed upon the diaphragm lever; a graduated disk adapted to be revolubly mounted upon said clamping member, and having a circular lateral recess adjacent to its axis; a cord or other flexible body encircling said disk peripherally and adapted to be held in fixed relation thereto, the free ends of said cord being attached to the draft dampers of said boiler; a split lock-washer fitting said recess; and means for varying the pressure between said disk and washer.



3. An adjusting device for diaphragm-operated dampers of steam boilers consisting of a clamping member suitably fixed upon the diaphragm lever; a disk having graduated marks at the circumference thereof adapted to be revolubly mounted upon said clamping member and having a circular lateral recess adjacent to its axle; a cord or other flexible body encircling said disk peripherally and adapted to be held in fixed relation thereto, the free ends of said cord being attached to the draft dampers of said boiler; a split lock-washer fitting said recess, a bolt forming an axle for said disk and supported by the diaphragm lever, or by said clamping member; and nuts operating to vary the pressure between said disk and washer.

4. An adjusting device for diaphragm operated dampers of boilers comprising a supporting member, a disk revolubly-mounted thereon, a flexible member connected at its ends to said dampers, said flexible member being wound on said disk and secured intermediate its ends to said disk whereby when said disk is rotated the dampers will be selectively positioned, and means for retaining said disk in adjusted positions.

1,143,738. FLY-KILLER. WILLIS E. TITUS, Hanover, Mich. Filed Aug. 20, 1914. Serial No. 857,748. (Cl. 43—22.)



1. A device of the character described including a receptacle having a flat side and provided with an opening, the said receptacle being adapted to contain a liquid, a wick arranged in said opening and disposed to contact with the liquid, and a suspending hook having its free extremity arranged parallel with the flat side of the support

and extending throughout the major portion of the transverse width thereof, said receptacle being adapted to be suspended upon a support with the free extremity of the hook extending through the support to contact with the side thereof opposite the receptacle for urging the receptacle toward the support.

2. A device of the character described including a receptacle having one curved side, and one flat side intersecting the curved side, and provided with an opening, the said receptacle being adapted to contain a liquid, a wick arranged within said opening and disposed to contact with the liquid, and a suspending hook carried by the receptacle, the said hook being formed from a length of suitable resilient wire having one extremity thereof secured to the curved side of the receptacle to extend transversely thereof, the said wire being bent at one of the intersections of said sides to extend upwardly upon one side thereof to provide a suspending loop and being thence continued to form a bill normally abutting the flat side of the receptacle.

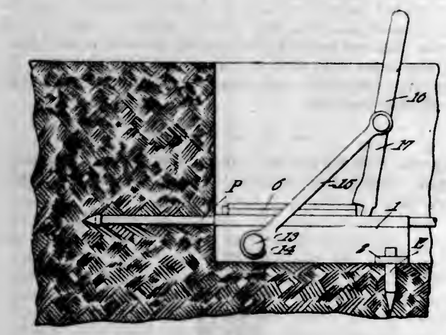
3. A device of the character described including a receptacle adapted to contain a liquid and having a laterally extending flange formed thereon, the said receptacle being provided with an opening at the base of said flange, and a wick arranged in said opening and disposed to contact with the liquid, said flange forming a protection for the wick at its outer extremity.

4. A device of the character described including a receptacle having a curved wall and adapted to contain a liquid, said receptacle having an opening formed therein, a wick arranged in said opening and disposed to contact with the liquid, and a supporting hook carried by the receptacle, the said hook providing a foot adjacent the curved wall of the receptacle disposed to contact with a support to maintain the wick in a relatively upright position.

5. A device of the character described including a receptacle adapted to contain a liquid and having a laterally extending flange formed thereon, the said flange being provided with a notch and said receptacle having an opening formed therein at the inner extremity of said notch, and a wick arranged in said opening and disposed to contact with the liquid, the free extremity of the wick being disposed in said notch of the flange.

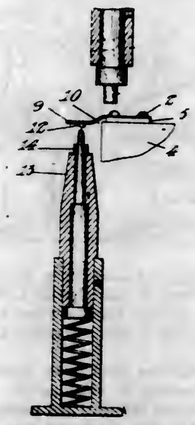
[Claim 6 not printed in the Gazette.]

1,143,739. PIPE-JACK. GEORGE F. VOIGT, Charlestown, Ind. Filed Apr. 4, 1914. Serial No. 829,626. (Cl. 254—29.)



A pipe jack, comprising a base plate having two upstanding walls, said walls being provided with parallel and alined tongues, a block provided with alined grooves mounted within the walls of the base plate with the grooves engaging the tongues, whereby the block is permitted reciprocatory movement relatively to the base plate, said block being provided with a longitudinally disposed pipe receiving bore extending therethrough, two cylindrical recesses formed in the forward edge of the block one upon each side of the bore, two pipe engaging members each having a biting end and a cylindrical portion mounted within the last recesses with the pipe engaging portions disposed toward each other for engagement with the pipe when mounted within the bore of the block, two links pivotally connected to and exteriorly of the base plate and extending upwardly above the reciprocatory block, a reduced apertured portion extending from the rear of the block, and a lever having a reduced lower end engaging the apertured portion of the block and operably connected to the terminals of the links, whereby the reciprocation of the lever reciprocates the block.

1,143,740. ART OF SHOEMAKING. ALFRED B. WALES, Whitman, Mass., assignor, by mense assignments, to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Apr. 25, 1914. Serial No. 834,438. (Cl. 218—15.)



1. In the manufacture of boots and shoes, the method of inserting blind eyelets which consists in perforating both the leather and the lining parts of a shoe upper by means of a punching tool, inserting an eyelet through the lining from the inside of the upper, and clenching the end of its barrel on the covered side of the lining beneath the leather part of the upper while the leather part is held by the punching tool which has been inserted therein and while the two parts of the upper occupy the same normal relation that is preserved in the finished shoe.

2. In the manufacture of boots and shoes, the method of inserting blind eyelets which consists in perforating both the leather and the lining parts of a shoe upper while said parts are held in their normal superposed relation, inserting an eyelet through the lining from the inside of the upper, and clenching the end of its barrel on the lining while the hole in the leather part is positively held in register with the eyelet and while the two parts of the upper are maintained in said normal relation and in contact over substantially their entire area.

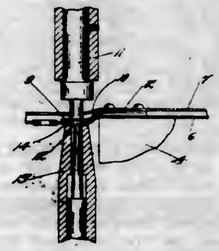
3. In the manufacture of boots and shoes, that method which consists in securing together in normal relation the leather and lining parts of a shoe upper, perforating both parts, and setting an eyelet in one part in register with the hole in the other part while the two parts of the upper are maintained in said normal relation and adjacent to each other and with the hole positively held in alinement with the eyelet during the setting operation.

4. In the manufacture of boots and shoes, that method which consists in securing together in normal relation the leather and lining parts of a shoe upper, perforating both parts, introducing an upsetting surface between the two parts, and thereafter inserting an eyelet through the lining part and clenching its barrel against the upsetting surface on the lining part and independently of the leather part and while the hole in the leather part is held positively in alinement with the eyelet being set.

5. In the manufacture of boots and shoes, the method of inserting blind eyelets which consists in securing together the lining and outer parts of an upper in that relation which they are to occupy in the finished shoe, perforating both parts by means of a punching tool, inserting an eyelet through the lining part from the inside of the upper, and clenching the end of the eyelet barrel on the concealed side of the lining beneath the outer part before the punching tool is withdrawn from the upper and while the two parts of the upper occupy their normal relation.

[Claim 6 not printed in the Gazette.]

1,143,741. EYELETING-MACHINE. ALFRED B. WALES, Whitman, Mass., assignor, by mesne assignments, to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed May 4, 1912. Serial No. 695,064. (Cl. 218—14.)



1. In an eyeleting machine, the combination with the punch and set of an intermediate plate comprising a body portion, a projecting portion and a curved connecting neck, said neck and body portion being slotted to permit the passage of the punch and said projecting portion being provided with a setting member to coöperate with the set of the machine.

2. In an eyeleting machine, the combination with the punch and set of a plate located permanently between said punch and set, said plate having a coöperating setting member thereon registering with the set.

3. In an eyeleting machine, the combination with the punch and set of an intermediate plate on the work table of the machine, said plate comprising a body portion, a projecting portion, and a connecting curved neck, said body portion and curved neck being slotted to permit the punching and feeding movements of the punch, said neck serving to remove the lower strip in which the eyelet is to be set from the punch.

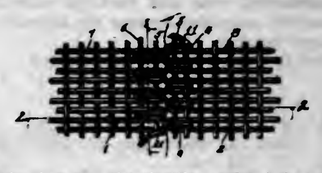
4. In an eyeleting machine, the combination with a punch and set of an intermediate plate adapted to project between two strips of material both of which are to be punched and in one of which eyelets are to be set, said plate having an opening therein to permit the passage of the punch in the punching operation and to permit the movement of the punch in the feeding operation and having a projection provided with a coöperating setting member, said projection being located below the cutting end of the punch when the latter is feeding the stock forward.

5. In an eyeleting machine, the combination with the punch and set of a plate adapted to project between two strips of leather through which the punch operates, said plate being slotted to permit the passage therethrough of the punch and being so shaped as to be above the cutting end of the punch where the punching operation is performed and below the cutting end of the punch where the setting operation is performed.

[Claims 6 to 23 not printed in the Gazette.]

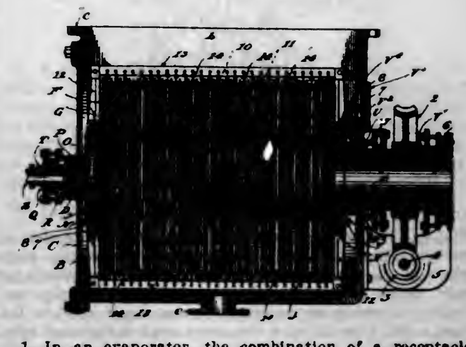
1,143,742. SEAM FOR FOURDRINIER WIRES. JOHN D. WATSON, Appleton, Wis. Filed Apr. 21, 1913. Serial No. 762,648. (Cl. 245—10.)

A seam for Fourdrinier wires, comprising a pair of wire mesh sections, each section comprising weft and warp wires, a lacing wire passing over the last two weft wires of each adjoining wire mesh section, said lacing wire extending parallel with and fitting snugly between the warp wires for the distance of the two last weft wires and held against lateral movement thereby, and said lacing



wire crossing between the abutting ends of the warp wires of the adjacent sections at an angle of approximately 45° for producing a strong and perfectly smooth seam between the adjacent ends of the two sections of wire mesh fabric.

1,143,743. EVAPORATING APPARATUS. LOUIS P. BAUER, Pekin, Ill. Filed Apr. 29, 1911. Serial No. 624,243. (Cl. 257—258.)



1. In an evaporator, the combination of a receptacle and a track therein, of a support mounted upon and adapted to move along the track and including two spaced end portions, a member having hollow trunnions at its ends and carried by and rotatable in said end portions, a separate conduit communicating with each said trunnion, and a series of flexible members carried by the support and lying in close proximity to the said rotatable member.

2. In an evaporating apparatus, a receptacle for the liquor to be evaporated, a rotatable member therein comprising a series of hollow disks separated from one another by a narrow space, a conduit extending through the disks conducting a heated gas thereto, and a flexible member lying in each space between adjacent disks, the disks rotating relative to said members, their surfaces rubbing upon the members in their rotation.

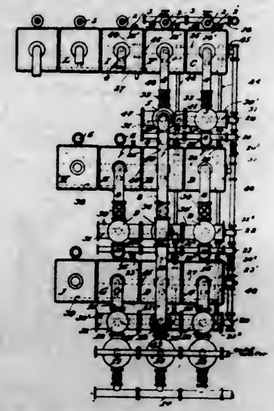
3. In an evaporating apparatus including a receptacle for liquor to be evaporated, a track, a rotatable heat containing member in said receptacle, a member to carry said rotatable member and mounted upon the track and adapted for withdrawal from the receptacle, means adapted for frictional engagement with the rotatable member, and means for rotating said member.

4. In an evaporator the combination of a receptacle for the liquor to be evaporated, a rotatable member therein comprising a series of hollow disks each provided with a pair of openings in its walls, supporting trunnions for said member, rings interposed between the walls of all of the disks and constituting, together with one series of said openings, a conduit through the member, all of the rings having holes therein corresponding to and registering with the other openings in the walls, and constituting a second conduit through the member, the conduits extending through opposite trunnions.

5. In an evaporator, the combination with a vacuum pan, of a series of hollow spaced members rotatably mounted in said pan, means to space apart said members, a steam conduit directly communicating with the members, a discharge conduit for water, a pipe in each member communicating with said discharge conduit, and a flexible member suspended between the adjacent surfaces of adjoining members.

[Claims 6 to 9 not printed in the Gazette.]

1,143,744. EVAPORATING APPARATUS. LOUIS P. BAUER, Pekin, Ill. Filed Apr. 29, 1911. Serial No. 624,244. (Cl. 127—18.)



1. An evaporating apparatus comprising two series of vacuum pans, individual vapor pipes connecting each effect of each series of pans in sequence to constitute each series a multiple effect evaporator, each pipe including a valve, an individual main vapor conduit for each series of pans, each connected with the several individual pipes of a series, and including valves therein to control each place of communication, a pipe common to and connecting both the said main vapor pipes, a liquor pipe connecting the individual effects of each series of effects including controlling valves for each effect, and a pipe common to and connecting the said liquor pipes with one another.

2. An evaporating apparatus consisting of two series of vacuum pans, each series constituting a separate multiple effect vacuum system, individual valved vapor conduits connecting the several pans of each series, a main vapor conduit connecting all of the individual conduits of a series and including therein a valve at the connection with each of the said individual conduits, a separate liquor conduit for each series, the same including a branch connected to each pan of the series and also including a valve in each said branch, and a series of pipes connecting the separate liquor conduits.

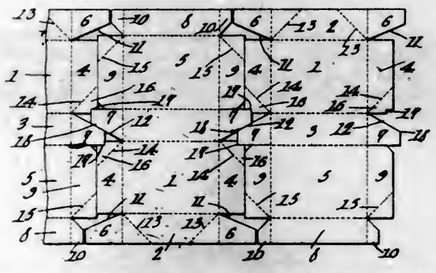
3. An evaporating apparatus having the adaptability of increasing its number of "effects" and its capacity of individual effects consisting of unit-pans connected in two directions one to increase the said number of "effects" and in the other to increase the capacity of individual effects and including a liquor line common to all of the effects and valves for isolating any one of the effects from said liquor line, and including also a vapor pipe common to all of the said effects and valves for isolating any one of the effects from said pipe.

4. An evaporating apparatus made up of a number of unit-pans connected together in two series to form two multiple effect evaporators, all the pans of both series having intercommunication.

5. An evaporaing apparatus comprising a plurality of series of unit pans, each series of said pans being connected to constitute in itself a multiple effect evaporator, pipe connections for intercommunication of vapor with all of the pans of the plurality of series including valves to isolate one or more of the pans for the others, and liquor pipe connections for intercommunication of all of the pans of the plurality of series including valves to isolate one or more of the pans from the others.

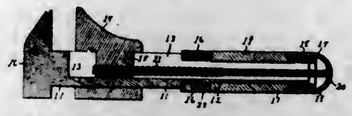
[Claims 6 to 21 not printed in the Gazette.]

1,143,745. EGG-BOX. CHARLES T. BLOOMER, Newark, N. Y. Filed Apr. 24, 1915. Serial No. 23,719. (Cl. 229—33.)



A blank box comprising a rectangular bottom having front and back walls at its edges and end walls at its ends, the back wall having a rectangular top, the free edge of the top having a flap, the ends of the top each having a flap, the said front and back walls each having a flap at each end, the first mentioned flap having short tabs at its ends to be secured to the adjacent ends of the second mentioned flaps, the first and second mentioned flaps and end walls being slightly narrower than the front and back walls, the flaps of the front and back walls being tapered and having their upper edges flush with the upper edges of the front and back walls, the flaps of the front and back walls being longer than the widths of the end walls and second mentioned flaps and the upper rear corners of the end walls having notches, whereby the opposite edges of the blank are adapted to interfit with like blanks in reversed position, as and for the purposes set forth.

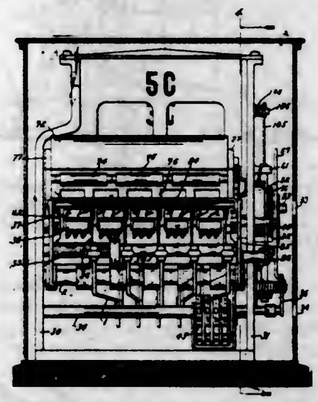
1,143,746. WRENCH. CHARLES A. BROCKMAN and THOMAS D. CONROY, Jolley, Iowa; said Conroy assignor to Albert H. Zastrow, Chisholm, Minn. Filed June 14, 1913. Serial No. 773,774. (Cl. 81—170.)



1. A wrench, comprising a stationary jaw member, a shank thereon formed with a forwardly opening longitudinal groove, an adjustable jaw member slidingly mounted on said shank and formed with a block entering said groove, a collar screwed on said shank and limiting movement of said adjustable jaw member in one direction, a handle rotatively mounted on said shank, a collar screwed on the end of said shank against said handle, a cap screwed on said handle over said latter collar, and screw connections between said cap and the block of said movable jaw member.

2. A wrench, comprising a stationary jaw member, a shank thereon formed with a forwardly opening longitudinal groove, and adjustable jaw member slidingly mounted on said shank and formed with a block entering said groove, said shank terminating in a rounded spindle, a collar screwed on said spindle and abutting said shank, a handle rotatively mounted on said spindle, a collar screwed on the end of said spindle and abutting said handle, a cap screwed on the lower end of said handle over the latter collar, and a rod fixed at one end within said cap and traversing said groove, said rod formed with a screw seated in the block of said movable jaw member.

1,143,747. FARE-REGISTER. THOMAS CARROLL, Oakwood, Ohio, assignor to The National Cash Register Company, Dayton, Ohio, a Corporation of Ohio, (incorporated in 1906.) Filed Nov. 24, 1909. Serial No. 529,734. (Cl. 234—4.)



1. In a machine of the class described, the combination with a plurality of counters and separate operating means for each of said counters, of a platen and resetting devices common to all of said counters, and common operating means for first bringing the counters and platen into coöperative relation for taking an impression from all of said counters upon a record strip and then operating the resetting devices simultaneously to reset all of said counters.

2. In a machine of the class described, the combination with a series of counters and means for operating said counters separately, of resetting devices for said counters, a platen, and means for moving it against all said counters simultaneously, and a common operating device having connections for first moving said platen and then actuating said resetting device.

3. In a machine of the class described, the combination with a series of counters and means for operating said counters separately, of a resetting shaft for said counters, a printing platen, and means for moving it to take impressions from all said counters, an operating device, and a cam and a gear fast to said operating device and having connections respectively to said platen moving means and said resetting shaft.

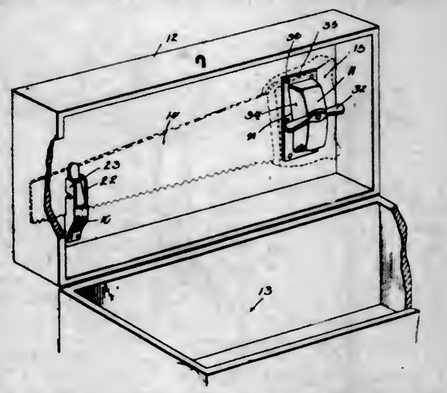
4. In a machine of the class described, the combination with a series of counters, and a resetting shaft supporting the same, of means for separately operating said counters, a printing platen positioned to confront all said counters, an operating device having a cam and a gear fast thereto, and connections from said cam to move the platen to take printing impressions from said counters, and from said gear to rotate said resetting shaft.

5. In a machine of the class described, the combination with a series of counters, and means for operating said counters separately, means for simultaneously resetting them, of a printing platen confronting all said counters, and a hand operated element having connections to operate said platen and thereafter to operate said resetting means simultaneously to reset all of said counters.

[Claims 6 to 23 not printed in the Gazette.]

1,143,748. SAW-HOLDING DEVICE. MATTHEW CLARKE, Wilkes-Barre, Pa. Filed Apr. 8, 1914. Serial No. 830,528. (Cl. 24—221.)

1. A saw holding device including a casing, a keeper member rotatable thereon, a spindle carried by the keeper member and journaled in the casing, a spring carried by said spindle for normally holding the keeper in engagement with the casing, supporting rods arranged within the casing, and a spring carried by said rods and engaging the spindle for yieldably holding the keeper against rotation.



2. A saw holding device including a casing, a keeper member rotatable thereon, a spindle carried by the keeper member and journaled in the casing, a spring carried by the spindle for normally holding the keeper in engagement with the casing, supporting rods arranged within the casing, and a flat spring supported at its extremities upon said rods, said last mentioned spring engaging the spindle for yieldably holding the keeper against rotation.

3. A saw holding device including a casing, a keeper member rotatable thereon, a spindle carried by the keeper member and journaled in the casing, a spring carried by the spindle for normally holding the keeper in engagement with the casing, supporting rods arranged within the casing, spacer members carried by said rods, and a spring supported by the rods and mounted upon said spacer members, said last mentioned spring engaging the spindle for yieldably holding the keeper against rotation.

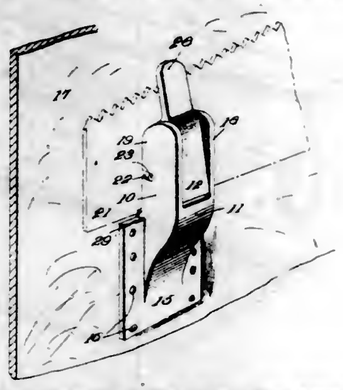
4. A saw holding device including a casing, a keeper member rotatable thereon, a spindle carried by the keeper member and journaled in the casing, a spring carried by the spindle for normally holding the keeper in engagement with the casing, supporting rods extending transversely of the casing, spacer blocks carried by said rods, and a spring supported at its extremities upon said rods and seating upon said spacer blocks, said last mentioned spring engaging the spindle for yieldably holding the keeper against rotation.

1,143,749. SAW-HOLDING DEVICE. MATTHEW CLARKE, Wilkes-Barre, Pa. Original application filed Apr. 8, 1914, Serial No. 830,528. Divided and this application filed July 7, 1914. Serial No. 849,521. (Cl. 24—252.)

1. A device of the character described including a holding member adapted for attachment to a supporting structure, a body member extending laterally upon one side of said holding member, side walls formed on said body member and extending laterally therefrom, the inner edges of said side walls being cut away to define slots adapted to receive an article, the inner extremities of said slots being defined by laterally extending shoulders, the said shoulders being adapted to support the article vertically, the said side walls having transversely extending slots formed therein communicating with said first mentioned slots, and a spring pressed clamping jaw detachably connected with the body member and pivotally mounted upon the side walls in said last mentioned slots, said jaw being adapted to engage the article upon one side thereof.

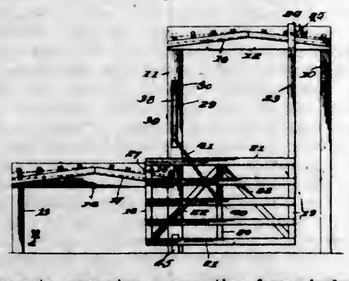
2. The combination with a supporting structure, or a holding member adapted for attachment to the structure.

a body member extending laterally upon one side of the holding member in spaced relation to the supporting structure, spaced side walls formed on the body member and extending inwardly toward the supporting structure, the said side walls being cut away to receive an article seating against the supporting structure and having laterally extending shoulders formed thereon at the inner extremi-



ties of said cut away portions disposed to support the article vertically, the space between the cut away portions of the side walls and the supporting structure being unobstructed, and a spring pressed clamping member pivoted between the side walls and adapted to engage the article for urging it toward the supporting structure.

1,143,750. GATE. HENRY L. COATS, Moscow, Idaho. Filed Apr. 8, 1914. Serial No. 830,452. (Cl. 39—30.)



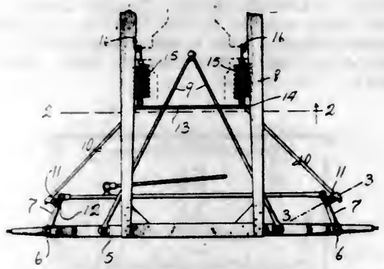
In a gate apparatus, a suporting frame including head members, coacting tracks carried by said members, each of said tracks including oppositely inclined portions adjustable independently of each other vertically of the adjacent head member, a gate having travelers respectively engaging said tracks, and means for operating the gate to slide upon said tracks.

1,143,751. VEHICLE ATTACHMENT. AARON J. COOK, Gloster, Miss. Filed Oct. 17, 1914. Serial No. 867,174. (Cl. 21—200.)

1. The combination with a motor vehicle steering mechanism including steering arms, rearwardly extending rods connected at their forward ends to said arms, and coil springs fixed at one of their ends and connected at their other ends to said rods to normally exert a rearward pull upon the same, substantially as and for the purposes set forth.

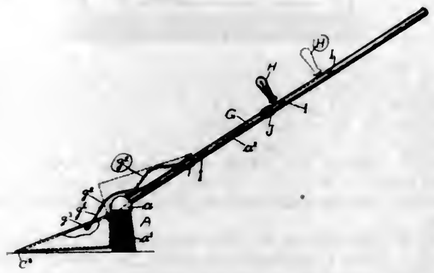
2. The combination with an automobile steering mechanism including steering arms, of rods connected at their forward ends to said arms, a transverse rod connecting said first named rods at their rear ends, and coil springs secured at their forward ends to said first named rods and provided with means upon their rear ends for engagement with the bed plate of the vehicle engine.

3. The combination with the steering mechanism of an automobile including steering arms, of rearwardly converging rods clamped at their forward ends to said arms, a transverse rod connecting said converging rods at their rear ends, coil springs connected at one of their ends to



the rear ends of said converging rods and normally exerting a rearward pull upon the same, and hooks on the rear ends of said springs engaged upon the bed plate of the vehicle engine.

1,143,752. COMBINED SHOVEL AND BRUSH. CALEB CRISMAN, Chicago, Ill. Filed Mar. 29, 1915. Serial No. 17,756. (Cl. 15—21.)



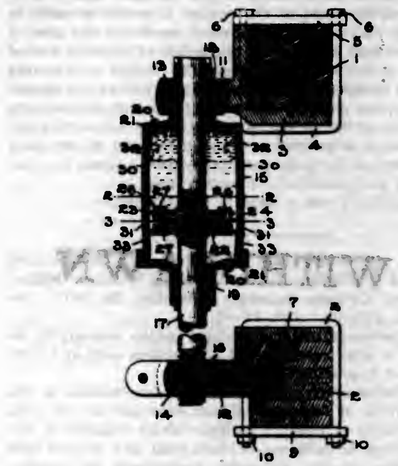
1. In a combined shovel and brush, a brush provided with a back, a base attached to said back, bearings on said base, a handle removably attached to said back, and a rod, comprising parts pivotally attached together, longitudinally movable on said handle, in combination with a shovel pivotally mounted in said bearings, and an attachment between said shovel and said longitudinally movable rod.

2. In a combined shovel and brush, a brush provided with a back, a base attached to said back, bearings on said base, a handle removably attached to said back, and a two part rod longitudinally movable on said handle, the parts of said rod pivotally joined, in combination with a shovel comprising a back having recesses therein and a rod bridging said recesses, said rod and recesses adapted to engage with said bearings, and a rod extending from one to the other side of said shovel, said last mentioned rod adapted to be attached to said two-part rod.

1,143,753. SHOCK-ABSORBER. GARIBALDI DE FERNANZO, Philadelphia, Pa. Filed June 8, 1914. Serial No. 843,685. (Cl. 21—105.)

1. A shock absorber, comprising a casing of maximum diameter intermediate its ends, and cylindrical in form, said casing of least diameter and cylindrical in form at both ends, the walls of said casing tapering from its intermediate portion toward its ends, a rod projecting through the casing, and a piston on the rod of a diameter fitting the smallest diameter of the casing at its ends, said piston having an annular groove in its periphery and having ports connecting the groove with the respective faces of the piston, the ports extending to one face of the piston being out of alinement with the ports

extending to the opposite face of the piston, substantially as described.



2. A shock absorber, comprising a casing of maximum diameter intermediate its ends, and cylindrical in form, said casing of least diameter and cylindrical in form at both ends, the walls of said casing tapering from its intermediate portion toward its ends, a rod projecting through the casing, a piston on the rod having annular flanges at its ends fitting the smallest diameter of the casing at the ends of the latter, and said piston having ports connecting the periphery of the piston between the flanges with the respective faces of the piston, and check valves controlling said ports, substantially as described.

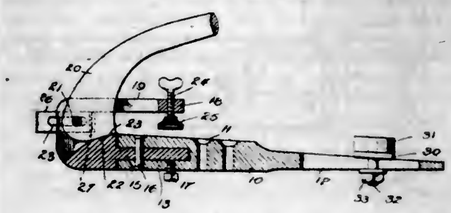
3. A shock absorber, comprising a casing of maximum diameter intermediate its ends and cylindrical in form, said casing of least diameter and cylindrical in form at both ends, the walls of said casing tapering from its intermediate portion toward its ends, a rod projecting through the casing, a piston secured on the rod and having an annular groove therein, said piston having ports connecting the grooved portion with the opposite faces of the piston, and check valves controlling the ports, substantially as described.

4. A shock absorber, comprising a casing of maximum diameter intermediate its ends, and cylindrical in form, said casing of least diameter and cylindrical in form at both ends, the walls of said casing tapering from its intermediate portion toward its ends, a rod projecting through the casing, a piston secured to the rod in the casing, said piston having annular flanges adjacent its edges of a diameter to fit the smallest diameter of the casing at its ends, said piston having an annular groove between the flanges, and having ports connecting the groove with the respective faces of the piston, and check valves secured to the piston and controlling said passages, substantially as described.

5. A shock absorber comprising a casing largest in diameter at its intermediate portion and tapering toward both ends, a rod extending through the casing, a piston fixed to the rod in the casing and having an annular groove, said piston having passages connecting the groove with the opposite faces of the piston, and check valves controlling said ports, substantially as described.

1,143,754. SAW-SET. OLE H. DETLIE, Hudson, S. D. Filed Apr. 13, 1914. Serial No. 831,659. (Cl. 76—63.)

1. A device of the character described including a stock, a set lever head embraced at one end by the stock and adjustable thereon in a plane with the stock, the said head being provided with an anvil, means adjustable upon the stock to engage the end of the head embraced by the stock for holding the head at adjustment, a set lever carried by the head and disposed to coact with the anvil, and means adjustable upon the head longitudinally of the anvil in a plane parallel with the plane of the stock and providing a saw gage.



2. A device of the character described including a stock provided with a flat upper face, a set lever head embraced by the stock and adjustable thereon in a plane with the stock, means adjustable upon the stock to engage the portion of the head embraced by the stock for holding the head at adjustment, the said head being provided with an anvil, a set lever carried by the head and disposed to coact with said anvil, and means adjustable upon the head toward or away from said flat face and providing a saw clamp.

3. A device of the character described including a stock, a set lever head freely connected with the stock and adjustable thereon in a plane with the stock, means adjustable upon the stock to engage the head for holding the head at adjustment, the said head being provided with an anvil, a set lever pivoted upon the head and disposed to coact with the anvil, and means adjustable upon the pivot of the said lever longitudinally of the anvil in a plane parallel with the plane of the stock and providing a saw gage.

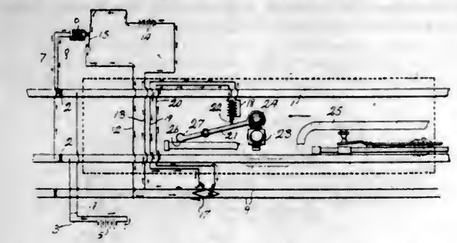
4. A device of the character described including a stock, a set lever head freely mounted upon the stock and adjustable thereon in a plane with the stock, means adjustable upon the stock to engage the head for holding the head at adjustment, said head being provided with an anvil, a set lever pivoted upon the head and disposed to coact with the anvil, means adjustable upon said pivot longitudinally of the anvil in a plane parallel with the plane of the stock and providing a saw gage, and means adjustable upon said pivot for holding said gage at adjustment.

5. A device of the character described including a stock, a substantially U-shaped set lever head providing spaced arms, one of which is freely connected to the stock and formed with an anvil adjacent its inner extremity, the other of said arms bearing over the stock in spaced relation thereto and being longitudinally slotted, the head being adjustable upon the stock in a plane therewith, means adjustable upon the stock to engage said first mentioned arm for holding the head at adjustment, saw clamping means adjustable upon said last mentioned arm toward or away from the stock, and a set lever disposed to coact with the anvil and pivotally mounted upon the bight portion of said head, the said lever being disposed for movement in said slot.

1,143,755. RAILWAY SIGNALING SYSTEM. CHARLES F. DINGMAN, Jersey City, N. J. Filed Nov. 7, 1913. Serial No. 799,770. (Cl. 246—58.)

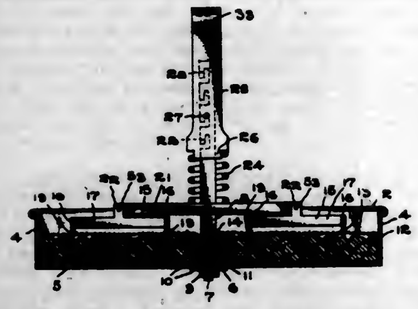
1. In combination with a vehicle provided with a fluid brake system and a lamp carried by the vehicle in close proximity to the train pipe of the brake system, said train pipe being provided with an opening in communication with the atmosphere, a valve for closing the opening in the pipe line, a lever pivotally supported by the vehicle intermediate its length, one extremity of said lever being provided with a roundel adapted to overlie the lamp, the opposite extremity of the lever being adapted to engage the valve when the roundel is in an inoperative position relative to the lamp for holding the valve in closed position, and electrical means under control of a normally closed circuit for maintaining the lever in an adjustment

with the roundel away from the lamp and with the opposite extremity of the lever in contact with the valve.



2. In combination with a vehicle provided with a fluid brake system and a lamp carried by the vehicle in close proximity to the train pipe of the brake system, said train pipe being provided with an opening in communication with the atmosphere, a valve for closing the opening in the pipe line, a lever pivotally supported by the vehicle intermediate its length, one extremity of said lever being provided with a roundel adapted to overlie the lamp, the opposite extremity of the lever being adapted to engage the valve when the roundel is in an inoperative position relative to the lamp for holding the valve in closed position, a solenoid operatively engaged with the lever at a point between the rounded and the pivotal connection of the lever, said solenoid being positioned above the lever, and a normally closed circuit for maintaining the core of the solenoid in retracted position whereby the roundel is maintained in an elevated position.

1,143,756. CHICKEN-FEEDER. WALTER F. DREIBELBIS, Royersford, Pa. Filed Dec. 1, 1914. Serial No. 875,035. (Cl. 119—60.)



1. A chicken feeder, comprising a casing having a rigid slotted post extending from the center thereof, a screen having an opening therein receiving the post, and a bar adjustably secured in the slotted post and connected to the screen, substantially as described.

2. A chicken feeder, comprising a casing, a screen movable in the casing, a pair of frames secured to the screen, a bar pivotally connected at its ends to the frames, a central post in the casing having a slot receiving the bar, and elastic means adjustably secured to the post and engaging the bar, substantially as described.

3. A chicken feeder, comprising a casing, a screen movable in the casing, a pair of frames secured to the screen, a bar pivotally connected at its ends to the frames, a central post in the casing having a slot receiving the bar, a spring on the post engaging the bar, and an adjustable member connected to the post and bearing against the outer end of the spring, substantially as described.

4. A chicken feeder, comprising a casing having a central rigid post, a screen movable in the casing, a pressure frame connected to the screen and having a bar engaging the post, a spring around the post engaging the bar, a plunger positioned against the outer end of the spring, said post having a plurality of openings therein, and a pin connected to the plunger and engaging in any of the openings, substantially as described.

5. A chicken feeder, comprising a casing, a central slotted post rigidly fixed to the casing, a screen movable in the casing and having an opening receiving the post, a pair of frames, each frame consisting of parallel arched bars, and a bar connecting them, the arched bars having sharpened recessed ends receiving the wires of the screen, flexible devices securing the ends of the arch shaped bars to the wire of the screen, a bar pivotally connecting the two frames, and projecting through the slot of the post, and a spring on the post exerting pressure against the last-mentioned bar, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

1,143,757. WITHDRAWN FOR USE AS [illegible] WILLIAM DRURY, Kingston, Ontario, Canada. Filed Dec. 28, 1914. Serial No. 879,393. (Cl. 71—7.)

1. A process of treating feldspar which consists in reacting on it with calcium oxid and ferrous oxid at a temperature of approximately 1200° C.

2. A process of treating feldspar which consists in fusing a mixture of feldspar, calcium oxid and ferrous oxid.

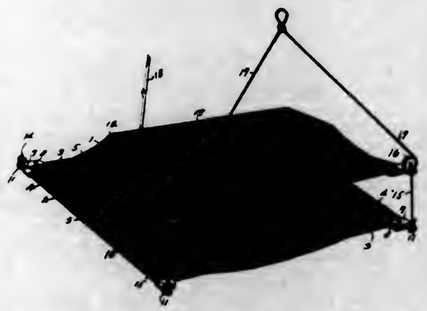
3. A process of treating feldspar which consists in fusing a mixture of feldspar, calcium oxid and ferrous oxid substantially in the following proportions by weight: 50 feldspar, 16.8 calcium oxid, 13.5 ferrous oxid.

4. A process of treating feldspar which consists in reacting on it with reagents capable of combining with silica to form a complex silicate insoluble in water but decomposable by weak acids and the potash thereby rendered available.

5. A new composition of matter resulting from the treatment of feldspar comprising substantially a mixture of potassium, aluminum, iron and calcium silicates, characterized by the fact that the potassium compound is decomposable by weak acids and the potash thereby rendered available.

[Claim 6 not printed in the Gazette.]

1,143,758. TRAP-NET. ROBERT M. FRANKLIN, Galveston, Tex. Filed Apr. 17, 1914. Serial No. 832,639. (Cl. 43—20.)



1. A trap for fish and the like comprising sections loosely connected together, one of said sections being held downwardly by gravity, the other of said sections being buoyed upwardly to leave a space between the sections, and means for drawing the two sections together.

2. A trap for fish and the like, comprising a lower section heavier than water, a buoyant upper section loosely connected at one edge therewith, means for regulating the width of the opening between the other edges of the sections, and means for drawing the sections together in hoisting the trap out of the water.

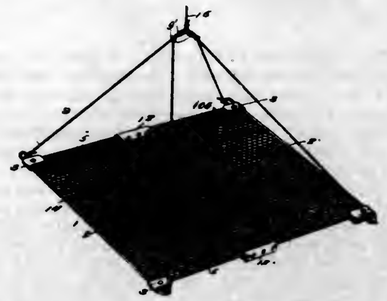
3. A trap for fish and the like comprising a lower section held in lowered position by gravity, an upper section loosely hinged thereto, buoyant means secured to the upper section adapted to hold the upper section spaced from the lower section, and means for drawing the two sections together.

4. A trap for fish and the like comprising an upper frame provided with eyelets, floating means carried by the upper frame, a lower frame acted upon by gravity to remain in lowered position normally, and means extending through the eyelets and secured to the lower frame adapted to close the sections together when said means are spaced under tensional strain.

5. A trap for fish and the like comprising an upper frame, buoyant means carried by the frame, eyelets formed in the frame, a lower section hingedly connected thereto and held normally in lowered position by gravity, and means extending above the upper section through the eyelets and secured to the lower section, said sections adapted to be drawn together as the said means are pulled upwardly.

[Claims 6 to 8 not printed in the Gazette.]

1,143,759. LANDING-NET. ROBERT M. FRANKLIN, Galveston, Tex. Filed Apr. 25, 1914. Serial No. 834,450. (Cl. 43—9.)



1. A corner construction for frames comprising a side member, a U-shaped clip rigid therewith, an end member connected to the clip, the end of the side member extending beyond the clip and bent back to form an eye standing partly between the sides of the clip and having its outer portion exposed, for the purpose set forth.

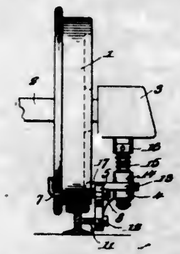
2. A corner construction for folding frames comprising a U-shaped clip, a side-frame member extending through and secured in the bend of said clip and having its extremity formed into an eye standing partly between the sides of such clip, an end-frame member extending between the sides of said clip and having an eye standing nearer to its bend than the size of the eye on said side member, and a pivot connecting the sides of the clip and passing through the eye in the end member.

3. The herein described folding landing net, the same comprising a netting, a four-arm bail cord, and a frame consisting of parallel side members having eyes at their extremities to which the arms of said cord are attached, two end members whereof each is made in parts, knuckle hinges connecting the meeting ends of said parts and permitting them to fold upwardly, horizontal eyes at the outer ends of said parts, a horizontal U-shaped clip embracing each of the last-named eyes, its bend secured to one of the side bars so as to leave the eye thereof exposed for the attachment of the bail-arms, and an upright pivot through the sides of the clip and the eye in the end member.

4. In a landing net, the combination with the netting, and a frame therefor made up of side members, end members whereof each is in two parts, and pivotal connections between the outer ends of said parts and the ends of the side members; of a knuckle hinge connecting the inner ends of each pair of parts, said ends being formed into eyes standing in upright planes, the hinge consisting of a strap bent into U-shape and having its center loosely embracing said eyes and its corners pressed toward each other so as to frictionally engage the sides of said parts, and pivots connecting the sides of strap and passing through said eyes.

5. A compound knuckle hinge for the purpose set forth comprising a U-shaped metallic strap whose sides are out of contact with each other at the center of the length of the strap and whose corners are bent respectively toward each other near the ends of the length of the strap, two wire members having eyes at their extremities disposed between the sides of said strap at its center and their bodies adapted to be swung between the sides of said strap near its ends, and rivets connecting said sides and passing through said eyes, for the purpose set forth.

1,143,760. JACK-BLOCK. GEORGE GUILD, South Houston, Tex. Filed June 17, 1913, Serial No. 774,222. Renewed Nov. 30, 1914. Serial No. 874,933. (Cl. 254—33.)



1. A car wheel jack-stand including a support member, adjustable means carried by said member and disposed for engagement with the rail upon which the wheel is supported to lock the said member against lateral play, adjustable means carried by said support and disposed for engagement with the periphery of the car wheel to lock the support member against longitudinal play, means adapted for engagement with the wheel to lock the support against vertical play, and means operable upon the support for raising and lowering the journal box of the wheel axle, as and for the purpose set forth.

2. In a car wheel jack-stand, a base support member disposed to extend in parallel relation to the car wheel acted upon, a lateral integrally formed extension, means operable upon said extension for raising and lowering the journal box of the wheel axle, side extensions integral with said base support, a hook-shaped member adjustable upon each extension, the said members being so formed as to overlap and engage the periphery of the wheel in spaced relation to its rail support to prevent oscillatory movement of the said wheel during a jacking operation, a bolt adjustable upon said base support, said bolt being adapted for engagement with the said rail to maintain said base against lateral play, and a tongue integral with the said base and disposed for engagement with the wheel to lock the same against vertical play, as and for the purpose set forth.

1,143,761. COMBINED TWEEZERS AND FILE. ELLERY L. HAMMOND, Sayre, Pa. Filed Mar. 20, 1914. Serial No. 825,969. (Cl. 7—1.)

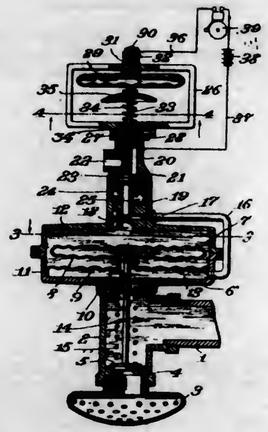


In an article of the character described, a body part adapted to be folded upon itself in a substantially U-shaped cross section, with the sides separated at one end and outwardly bowed, so as to construct tweezers, and the sides at the opposite end having inwardly struck-up parts to constitute a bearing, and an extension part normally housed within the body part and adapted to swing on said bearing.

1,143,762. THERMOSTATIC FIRE-EXTINGUISHING DEVICE. JESSE J. HOOKS, Donna, Tex. Filed Sept. 15, 1914. Serial No. 861,860. (Cl. 169—5.)

1. In a fire extinguishing apparatus, the combination of a casing, a diaphragm in said casing consisting of com-

nected disks having different amplitudes of movement, the disk of the lesser amplitude of movement being connected with the casing, a fluid supply pipe, means connecting the casing with said supply pipe for the supply of fluid pressure on opposite sides of said diaphragm, a discharge valve connected with the diaphragm disk of greater amplitude of movement, and means for creating variations of pressure in the casing on opposite sides of the diaphragm under determined conditions to effect an opening movement of said valve.



2. A fire extinguishing apparatus, the combination of a casing, a diaphragm in said casing consisting of outer disks and a central disk, one of said outer disks being fixed to the casing so as to have a lesser amplitude of movement than the other outer disk, a fluid supply pipe provided with an outlet, means establishing communication between said pipe and the casing on opposite sides of said diaphragm, a discharge valve controlling said outlet and connected with the diaphragm disk of greatest amplitude of movement, and means for establishing variations of pressure on opposite sides of the diaphragm under certain conditions to effect an opening movement of said valve.

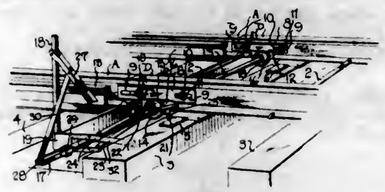
3. In a fire extinguishing apparatus, the combination of a casing, a diaphragm in said casing, comprising outer disks connected by an intermediate disk, one of said outer disks being fixed to the casing so as to have a lesser amplitude of movement than the outer disk, a fluid supply pipe, means connecting the same with the casing for the supply of fluid pressure on opposite sides of the diaphragm, a discharge valve connected with the diaphragm disk having the greatest amplitude of movement, means for establishing variations of pressure in the casing on opposite sides of said diaphragm to effect an opening movement of said valve, and spring means for resisting the opening movement of the valve and coöperating with the diaphragm to normally hold the valve in closed position.

4. In a fire extinguishing apparatus, the combination of a fluid supply pipe having a discharge outlet, a casing in communication at one side with said pipe, a diaphragm in said casing, a relief passage communicating with the opposite side of the casing, a by-pass leading from the first-named side of the casing and communicating with the opposite side thereof through said relief passage, a discharge valve controlling said outlet, and connected with the diaphragm, a double valve controlling the relief passage and by-pass, and thermostatically controlled means for adjusting said double valve to simultaneously open the relief passage and close the by-pass.

5. In a fire extinguishing apparatus, the combination of a fluid supply pipe having a discharge outlet, a casing in communication at one side with said pipe, a relief passage at the other side of the casing, a by-pass establishing communication between the pipe and the second named side of the casing through said relief passage, a diaphragm within the casing, a valve controlling said discharge passage and actuated by the diaphragm, a double valve controlling said relief passage and by-pass, a spring for normally maintaining said valve in position to close the relief passage and open the by-pass, and a thermostat acting on said valve under certain conditions to open the relief passage and close the by-pass.

[Claim 6 not printed in the Gazette.]

1,143,763. SELF-LOCKING SWITCH. FOREST LOUIS HOWARD, Clinton, S. C. Filed Nov. 4, 1914. Serial No. 870,243. (Cl. 104—25.)



1. The combination with two pairs of main rails and a pair of switch points shiftable into alinement with either pair of main rails; of a longitudinally shiftable locking bolt mounted on each switch point and movable therewith and longitudinally thereof into or out of projected position and into engagement with the main rails, and unitary means for shifting the switch points and both of said bolts.

2. The combination with two pairs of main rails and a pair of switch points, shiftable into alinement with either pair of main rails, of a pair of longitudinally shiftable locking bolts mounted on each switch point and movable therewith and longitudinally thereof into projected position in engagement with the main rails, and unitary means for shifting the switch points and the locking bolts.

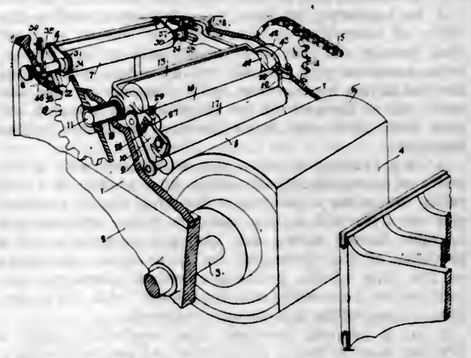
3. The combination with the point rails of a switch, of a locking bolt mounted between the head and base flange of the point rail for longitudinal movement to a projected position or to a retracted position, a shaft passing beneath the point rail and having engagement with the locking bolt to cause a projection or retraction of the locking bolt upon a rotation of the shaft, and unitary means for shifting the shaft transversely and rotating it.

4. The combination with two pairs of main rails and a pair of switch points, of oppositely disposed locking bolts mounted for sliding movement on each side of the switch points in the head and base flange thereof, a shaft rotatably mounted beneath and upon the switch points and having engagement with the bolts to cause their projection or retraction upon the shaft being rotated, a rotatable actuating member having an arm operatively connected to the shaft and the switch points, whereby to cause transverse movement of the switch points upon the rotation of the member, and a lever operatively connected with the actuating member to rotate it upon a movement in one direction and movable independently in a plane transverse to the shaft, said lever being operatively connected to the shaft to rotate it upon a movement of the lever in a plane transverse to the shaft.

5. The combination with two pairs of main rails and a pair of switch points shiftable into alinement with either pair of main rails, of longitudinally shiftable locking bolts mounted on the switch points and transversely movable therewith, the under edges of said bolts being toothed, a shaft supported in bearings upon said switch points, toothed wheels mounted upon the shaft and engageable with the toothed edges of the bolts, means engaging the shaft with the switch points for unitary movement but permitting the independent rotation of the shaft, a switch stand, a rotatable mast therein, an arm extending from the mast and pivotally connected to the shaft to cause its transverse movement on rotation of the mast, an operating lever pivotally mounted upon the mast for vertical movement but rotating with the mast, an arm operatively connected to the shaft but projecting radially therefrom, and a link connecting said last named arm and the lever whereby an elevation or depression of the lever will rotate the shaft and a rotation of the mast will cause the transverse movement of the shaft and switch points.

[Claims 6 and 7 not printed in the Gazette.]

1,143,764. INK-DISTRIBUTING DEVICE. EMERSON P. JENNINGS, Jr., Lehighton, Pa. Filed Mar. 27, 1914. Serial No. 827,556. (Cl. 101—79.)



1. In a printing press, the combination, with an inking surface, an ink fountain, and a ductor roller to transfer the ink from the fountain to the inking surface, of an auxiliary distributing device traveling with said ductor roller and coöperating therewith to break up the ink before it is delivered to said inking surface.

2. In a printing press, the combination, with an inking surface, an ink fountain, and a revolving ductor roller to transfer the ink from the fountain to the inking surface, of any auxiliary distributing device traveling with said ductor roller and coöperating therewith to break up the ink before it is delivered to said inking surface.

3. In a printing press, the combination, with an inking surface, an ink fountain, and a ductor roller to transfer the ink from the foundtain to the inking surface, of a distributing roller arranged to engage said ductor roller during its passage from the fountain to the inking surface and means to rotate said distributing roller during said passage.

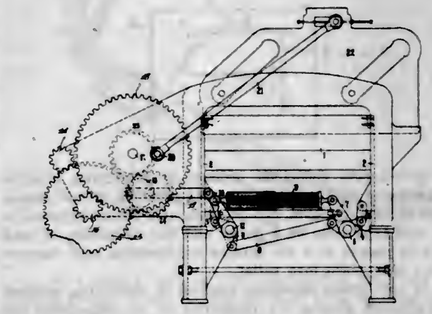
4. In a printing press, the combination, with an inking surface, an ink fountain, and a ductor roller to transfer the ink from the fountain to the inking surface, of distributing rollers moving with said ductor roller and coöperating therewith to break up the ink during the passage of said ductor roller from the fountain to the inking surface.

5. In a printing press, the combination, with an inking surface, and an ink fountain, of a ductor roller having bodily movement about an axis and arranged to successively engage said ink fountain and said inking surface, a distributing roller revolving with said ductor roller in normal engagement therewith, and means for rotating said distributing roller during the bodily movement of said ductor roller.

[Claims 6 to 25 not printed in the Gazette.]

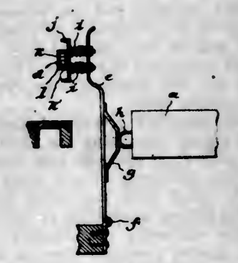
1,143,765. MACHINE FOR CUTTING PILES OF PAPER. OTTO JOHNE, Bautzen, Germany, assignor to Firm of Bautzner Industriewerk, Aktiengesellschaft, Bautzen, Germany. Filed Jan. 8, 1914. Serial No. 811,045. (Cl. 164—54.)

In paper cutting machines of the character described, in combination with the cutter thereof, an automatic spring actuated paper presser, two levers between the springs of said presser, stationary bearings in which said levers oscillate, a crank gear for operating one of said



levers and a system of levers connected to the other of said levers for imparting to the beam of the presser a reciprocating vertical movement and compressing the paper, substantially as described.

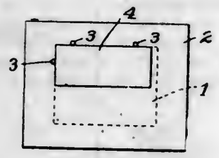
1,143,766. SAFETY ELEVATOR-GATE. WILLIAM G. JOHNSON, Old Forge borough, Pa. Filed June 1, 1914. Serial No. 842,063. (Cl. 187—61.)



1. In an apparatus of the class described, the combination of an elevator structure provided with a pair of swinging gates at opposite sides of the shaft, a cage working in the shaft, a pair of locking bolts arranged side by side and arranged to slide in opposite directions, means whereby the opening of the gates will cause the bolts to slide in opposite directions, a locking device acting normally to prevent both bolts sliding in the direction necessary to permit opening of the gates, and means whereby when the cage arrives at the landing both bolts will be automatically released and thus permit either or both gates to be opened, said locking device consisting of a U-member and a spring for causing it to normally move inwardly and a swinging lever mounted in the shaft and carrying said U-member at its free end.

2. In an apparatus of the class described, the combination of an elevator structure provided with a swinging gate, a cage working in the shaft, a horisontally sliding locking bolt and means whereby the opening of the gate will slide said bolt, a locking member for said bolt and means whereby it is normally forced inwardly to normally lock said bolt against sliding, a lever having affixed to its upper end said locking member and having its lower end pivoted in the shaft at a point below the landing, and means whereby when the cage arrives at the landing the upper end of the lever will be forced outwardly to thus unlock the bolt.

1,143,767. PROCESS OF PRODUCING PRINTED AND EMBOSSED SHEETS. GEORGE W. KING, Worcester, Mass. Filed Sept. 3, 1912. Serial No. 718,209. (Cl. 101—182.)



1. The herein described process of producing printed and embossed sheets, comprising the printing of said sheets from a given type form, the printing of a direct impression from said type form on a plate, and the embossing of said sheets by means of a die formed by bringing said impression on said plate into relief.

2. In the herein described process of producing printed and embossed sheets, the formation of an embossing die by printing a direct impression upon a plate from the same type form used to print said sheets, and bringing said impression into relief.

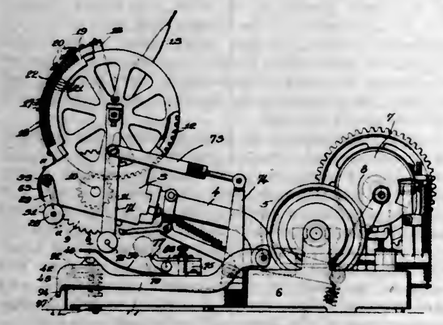
3. In the herein described process of producing printed and embossed sheets, the production of an embossing die by printing a direct impression upon a plate from the same type form employed to print said sheets, the positions of the impressions on said sheets and on said plate being determined by the same gaging means, and the etching of said plate to bring said impression into relief.

4. The herein described process of producing printed and embossed sheets, comprising the printing of an impression on a plate from the same type form employed to print said sheets, bringing said impression into relief to form an embossing die, forming a coöperating embossing die, placing a printed sheet on said first mentioned die with its printed impression in register with the embossing portion of the die, and impressing the two dies together to emboss the printed sheet.

5. The herein described process of producing printed and embossed sheets, comprising the printing of an impression on a plate from the same type form employed to print said sheets, operating on said plate to bring said impression into relief, with the raised portions thereof smaller than the printed impressions on the sheets, thereby forming a male embossing die, forming a coöperating embossing die, placing a printed sheet on said first mentioned die with its printed impression in register with the embossing portion of the die, and pressing the two dies together to emboss the printed sheet.

[Claim 6 not printed in the Gazette.]

1,143,768. LAUNDRY-MARKING MACHINE. GEORGE H. LANG, Boston, Mass. Filed Nov. 29, 1909. Serial No. 530,347. (Cl. 101—83.)



1. In a printing machine, the combination with a plurality of type wheels, of individual setting members, one for each type wheel capable of operating independently in any order, and a plurality of stops for limiting the movement of each setting member, each stop being common to all the setting members.

2. In a printing machine, the combination with a plurality of independently-adjustable type wheels, of a setting member for each type wheel, each setting member having rigid therewith a handle by which it is manipulated and said setting members being independently operable in any order, and settable means common to all the setting members to limit the movement thereof, said means being normally in inoperative position but when set occupying a position to engage the setting members as they are moved and thereby limit the movement thereof.

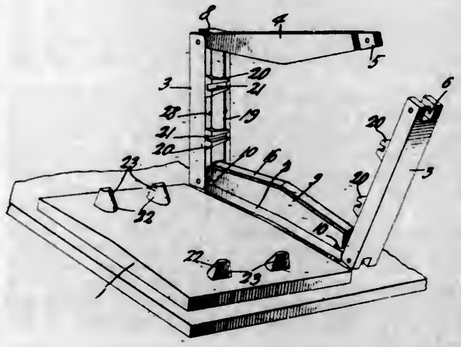
3. In a printing machine, the combination with a plurality of independently-adjustable type wheels, of a setting member for each type wheel, said setting member being independently operable in any order, each setting member having a projection, and a plurality of stops normally out of the path of the projection but movable into said path, each stop being common to all the setting members.

4. In a printing machine, the combination with a plurality of independently-adjustable type wheels, of a plurality of setting members for the type wheels arranged side by side, said setting members being independently operable in any order, each having a projection, and a plurality of stop bars, one for each of the characters on the type wheels, normally sustained above the projections but depressible into engagement with the projections as the setting members are adjusted.

5. In a printing machine, the combination with a printing head having a plurality of independently-adjustable type wheels and means to set said type wheels, of a yoke-shaped frame pivotally sustained by said head eccentrically of said type wheels and adapted to swing toward and from the type wheels, and a cleaning pad carried by said frame and adapted to be brought into and out of contact with said type wheels by a swinging movement of said frame, said frame normally sustaining the pad separated from the type wheels.

[Claims 6 to 16 not printed in the Gazette.]

1,143,769. BLOCK-MOLDING MACHINE. GEORGE A. LEONARD, Sheffield, Iowa. Filed Mar. 14, 1914. Serial No. 824,768. (Cl. 25—121.)

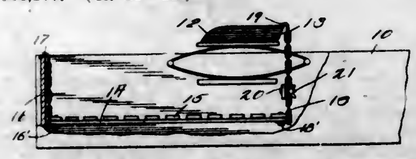


1. A mold including a bed plate, upstanding core members fixedly mounted thereon, a bottom member hingedly mounted relative to the bed plate, side members hingedly connected to the ends of the bottom member and adapted to swing outwardly relative thereto, a top member hingedly connected to one of said side members, means for detachably connecting side top member to the other side member, a pallet detachably mounted on the bottom member and having its ends engaged by the side members, core members carried by the side members and adapted to engage and partly overhang the stationary core members, certain of the core members being formed with grooves in those faces thereof engaged by the opposed core members.

2. A mold comprising a bed plate, an up-standing core member thereon, a bottom member movably mounted relative to the bed plate, side members movably connected to the ends of the bottom member and adapted to move outwardly relative thereto, a top member movably connected to one of the side members, means for detachably connecting the top member to the other side member, a pallet detachably mounted on the bottom member and having its ends engaged by the side members, a core member carried by one of the side members and adapted to engage and partly overhang the core member upon the bed plate, one of said core members being formed with a groove in that face thereof engaged by the opposed core member.

3. A mold including a bed plate, stationary core members upstanding from the bed plate, a bottom member hingedly connected to one side of the bed plate, side members hingedly conected to the bottom member, core members carried by the side members and adapted when said members are resting on the bed plate, to engage and partly overlap the stationary core members, there being wire receiving grooves in the core members on the side members, a top member hingedly connected to one of the side members and detachably connected to the other side member, a pallet removably mounted on the base member, there being recesses in the end portions of the pallet for the reception of lifting means.

1,143,770. WAGON FOOT-REST. JOHN A. MCALLISTER, Madison, S. D. Filed Sept. 29, 1914. Serial No. 864,177. (Cl. 21—15.)



A foot rest attachment for a wagon comprising a slatted platform, shorter flexible elements carried by the forward portion of the platform, hooks carried by the flexible elements for attachable engagement with the dashboard of the wagon, longer flexible elements carried by the opposite side of each platform, hooks carried by the flexible elements for engagement with the upper edge of the back of the seat of the wagon, and an adjustable guard rail carried by the said longer flexible element.

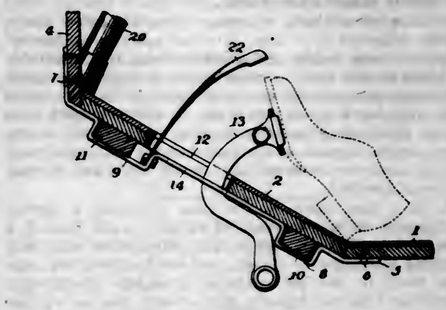
1,143,771. TYPE-WRITER. JOHN MCRAVEN, Little Rock, Ark. Filed Mar. 17, 1914. Serial No. 825,390. (Cl. 197—39.)



In a typewriter, a curvilinear support, a plurality of type bars having disks at their ends which are journaled on said curvilinear support, a wedge shaped disk journaled on the support between each pair of the first mentioned disks, said disks each having an annular ball race in each of its side faces and balls interposed between each pair of disks, substantially as shown and for the purposes stated.

1,143,772. ROBE-SUPPORT. CHARLES J. MOORE, Detroit, Mich., assignor, by mesne assignments, to Packard Motor Car Company, Detroit, Mich., a Corporation of Michigan. Filed May 16, 1908. Serial No. 433,309. (Cl. 21—23.)

1. In a motor vehicle, the combination with floor boards having a slot therein, of a controlling pedal projecting through said slot, and a robe support projecting through said slot in advance of the pedal.



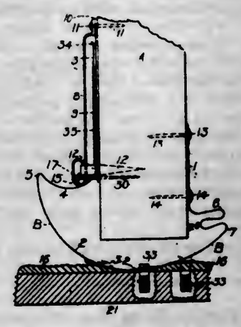
2. In a motor vehicle, the combination with the floor boards having a slot formed between their meeting edges, one of said boards being movable, of a controlling pedal projecting through said slot, and a robe support secured to the vehicle and projecting through said slot in advance of the pedal.

3. In a motor vehicle, the combination with the floor boards having a slot formed between their meeting edges, one of said boards being movable, of a controlling pedal projecting through said slot, a supporting strip below the meeting edges of the floor boards provided with a slot for the controlling pedal, and a robe support secured to said strip and projecting upwardly through the slot in the floor boards.

4. In a motor vehicle, the combination with a movable floor board provided with a slot, of a support for said board provided with a slot, a controlling pedal extending through said slots, and a robe support passing through the slot in the board and secured to the support.

5. In a motor vehicle, the combination with the floor boards having a slot formed betwen their meeting edges, one of said boards being movable, of a controling pedal projecting through said slot, transverse strengthening cleats on the under surface of one of said boards, a supporting strip below the meeting edges of the floor boards provided with depressions to receive the cleats, and a robe support secured to a vertical wall of one of said depressions and projecting upwardly through the slot in the floor boards.

1,143,773. DOOR-CHECK. JOHN F. MULLANEY, Colorado Springs, Colo. Filed Aug. 12, 1909. Serial No. 512,586. (Cl. 16—79.)



1. A broad flat member of elastic material permanently bent upon itself so as to have its ends close together and attached to opposite faces of a door or gate near the swing edge thereof, one of its ends being secured thereto rigidly and the other end being adjustably secured to the opposite face of said door or gate, the part of said member intermediate its ends being formed into a projecting curve extending around and free from the swing edge of said

door or gate, and adapted to engage some fixture while said door is open, as a floor, for the purpose of arresting the motion of said door or gate.

2. In a door check, a spring in a horseshoe shape, rigidly attached to a door, or other aperture-closing appliance, at one end by an attaching arm, and adjustably attached to said door, or other aperture-closing appliance, at its opposite end, by means of teeth in the adjustable arm, engaging a pin in said door, the curved-shaped form of the said spring being adapted to engage some fixture to arrest the motion of the said door, or other aperture-closing appliance, substantially as set forth and for the purposes specified.

3. In a door check, of the class described, a spring, having one of its ends secured rigidly to the face of a door or window sash, and having convolutions near said end, and having in its opposite end an elongated slot with rack teeth in one side adapted to engage a rigid pin projecting from the opposite face of said door or window sash, a convex slot-shaped hole, stiffening inturned ribs, on either side of said slot-shaped hole, in combination with a locking screw, permanently secured to some fixture, in the path of the slot-shaped hole, and provided to engage same, all substantially as set forth.

4. In a door check, of the class described, a door, a flat spring member having one end rigidly secured near the swing edge of the door, and being bent upon itself so that its connecting curve projects from and embraces one edge of said door, and having its opposite end attached to said door adjustably by means of teeth in a longitudinally arranged slot in said spring near its end, in combination with a nail with a T shaped head, said head adapted to prevent said flat spring from slipping over said nail, said nail passing through said slot into said door in a manner to engage said teeth, said connecting spring having a hole in the portion farthest projecting from the said door, adapted to engage a locking screw projecting from the floor in the path of the spring, a projecting obstruction attached rigidly to the floor or other stationary structure in the path of said connecting curve, to engage same to retard its passage but not projecting enough to engage the said door, in combination with a housing inclosing the adjustable end of said spring, all substantially as set forth.

5. In a door check, the combination of a flat spring member, one end of which is permanently secured to one face of the door near a swing edge thereof, the opposite end of said spring having an elongated slot, the said slot being provided with rack teeth adapted to engage a pin in said door to adjustably attach said spring to said pin, the part of said spring intermediate its ends being bent around said swing edge of the door and projecting therefrom so that it may project yieldingly against some fixture to arrest said door, while open, said spring being so formed normally as to withdraw from said fixture and hug the swing edge of the door when released from said pin, a protecting shield covering the adjustable end of said spring, a hole in the curved part of said spring provided to receive the end of a locking pin projecting from said fixture, and adapted to arrest the motion of said spring, a projecting corrugation extending outwardly at right angles to the plane line of the adjustable end of said spring adapted to be engaged by the human foot or hand to adjust said spring with said rack teeth and said pin as provided, substantially as set forth and for the purposes specified.

[Claims 6 to 11 not printed in the Gazette.]

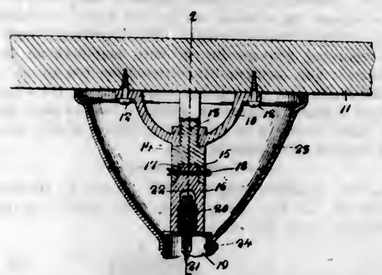
1,143,774. CANOPY. EMMA BERTA NICHOLLS, Philadelphia, Pa. Filed Oct. 15, 1913. Serial No. 795,381. (Cl. 5—14.)

A canopy, comprising two pairs of hinged members, a plurality of netting covered wire frames all pivotally secured to the pairs of members, one of said frames having outwardly bent ends constituting hinge pins for the members, the frames pivoted to the outer members being arranged on the outer faces thereof and those pivoted to the inner members being arranged on the inner faces thereof, whereby the device may be compactly folded, and cooperating means on said members for holding the same



against pivotal movement and in alinement when the device is extended for use, substantially as described.

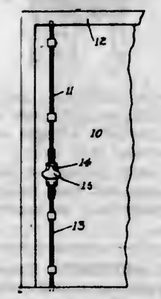
1,143,775. HOLDER FOR LIGHTING-FIXTURES. NORTIE BENJ. OPPEN, Stoughton, Wis. Filed Aug. 4, 1914. Serial No. 855,027. (Cl. 248—30.)



1. In a holder for light fixtures, the combination with a crow-foot for connection with a wall or ceiling, of a section carried by the crow-foot, a second section for connection with the fixture and provided with openings for the passage of wires projecting from the fixture, and a pin extending transversely through the sections for securing the second section to the first section when the same are united.

2. In a holder for fixtures, the combination with a threaded shank on the fixture, of a section for connection with the shank, a head formed with the said section, a crow-foot, a second section provided with a recess adapted to receive the head of the first section therein, a shank on the second section and adapted for engagement with the crow-foot, and a pin adapted to pass through the second section and the head of the first section when the said sections have been connected.

1,143,776. PANIC-BOLT. ALBERT A. PAGE, East Haven, Conn., assignor to Sargent & Company, New Haven, Conn., a Corporation of Connecticut. Filed Mar. 4, 1914. Serial No. 822,424. (Cl. 70—120.)



1. In panic bolt mechanism, the combination of a case, an operating lever having a part projecting into the case, a bolt, a link connected with the bolt, a pin connecting the link with the lever, and means coöperating with said pin to arrest the movement of the lever; substantially as described.

2. In panic bolt mechanism the combination of a case, an operating lever having a part projecting into the case, a bolt, a link connected with the bolt, a pin connecting the link with the lever, and means coöperating with said pin to arrest the movement of the lever in both directions; substantially as described.

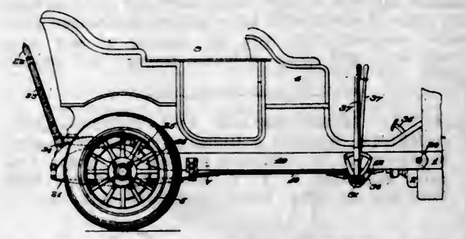
3. In panic bolt mechanism, the combination of a case, a lever pivoted thereto and having a part projecting into the case, a bolt, a link connected therewith, and a member connecting the link with the lever and cooperating with one of the case walls to limit the movement of the lever; substantially as described.

4. In panic bolt mechanism, the combination of a case, a lever pivoted thereto and having a part projecting into the case, a bolt, a link connected therewith, and a member connecting the link with the lever and coöperating with one of the case walls to limit the movement of the lever in both directions; substantially as described.

5. In panic bolt mechanism, the combination of a case having a pair of lugs, a lever pivoted between said lugs, a bolt adapted for operation by said lever, and locking mechanism carried by the lever associated with one of said lugs; substantially as described.

[Claims 6 to 9 not printed in the Gazette.]

1,143,777. AUTOMOBILE. CHARLES J. PEMBROKE, Rochester, N. Y. Filed Oct. 12, 1910. Serial No. 586,612. (Cl. 21—90.)



1. In a self propelled vehicle, the combination with a main frame, a motor thereon, driving wheels for the vehicle, a supporting member for the wheels pivoted to the main frame and permitting relative movement between the latter and the wheels, springs interposed between the supporting member and the main frame, and driving mechanism between the wheels and motor, of a speed controlling device for the wheels carried with the wheel supporting member and operating means for said device comprising a laterally projecting shaft journaled in the wheel supporting member, and a hand lever mounted thereon to project above the frame.

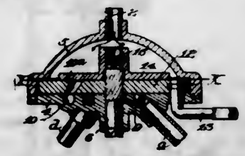
2. In a self propelled vehicle, the combination with a main frame and a motor and a driver's seat mounted thereon, of a supplemental frame pivoted to the main frame, a spring interposed between the frames, driving wheels for the vehicle, a supporting member therefor pivoted to the main frame, a spring interposed between the supporting member and the supplemental frame, driving mechanism between the wheels and motor, a speed controlling device for the wheels movable with the wheel supporting member and an operating lever for the controlling device journaled in the supporting member to move therewith relatively to both frames and extending in accessible proximity to the driver's seat.

3. In a vehicle, the combination with a main frame, of a supplemental frame pivoted to the main frame, a spring interposed between the frames, driving wheels for the vehicle, a supporting member therefor pivoted to the main frame and a spring interposed between the supporting member and the supplemental frame.

4. In a self propelled vehicle, the combination with a main frame, of a supplemental frame pivoted to the main frame, a spring interposed between the frames, driving wheels for the vehicle, a seat on the main frame arranged intermediate the pivot of the frames and the turning axis of the wheels, a supporting member for the latter pivoted to the main frame and a spring interposed between the supporting member and the supplemental frame.

5. In a vehicle, the combination with a main seat carrying frame, of a supplemental frame pivoted at its front end to the main frame and having an upwardly projecting standard at the rear thereof from which the rear end of the main frame is yieldingly suspended, wheels supporting the supplemental frame, and springs interposed between the wheels and the latter.

1,143,778. DISTRIBUTING-VALVE STARTING MECHANISM FOR EXPLOSIVE-ENGINES. CHARLES J. PEMBROKE, Rochester, N. Y. Filed Aug. 2, 1912. Serial No. 712,933. (Cl. 137—26.)



1. In a distributing valve, the combination with a casing having a wall provided with a plurality of channels disposed in pairs and forming outlets, the respective pairs being concentrically arranged on arcs of circles of different diameters, and a rotatable distributing member having a port, of an oscillatory controlling member arranged between the distributer and said wall and provided with a plurality of aperturse coöperating with the port of the distributing member and the channels of the wall.

2. In a distributing valve, the combination with a casing having a wall provided with a plurality of channels disposed in pairs and forming outlets, the respective pairs being concentrically arranged on arcs of circles of different diameters, and overlapping at their ends and a rotatable distributing member having a port, of an oscillatory disk located between the distributer and the wall and having two pairs of apertures coöperating with said channels and said port in the distributer.

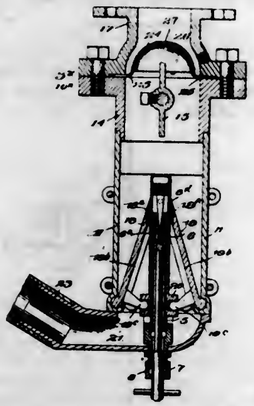
3. A distributing valve comprising a valve casing, a plurality of outlet openings, a movable controlling member provided with a plurality of ports spaced equi-distantly and respectively connecting at one side of the controlling member directly with the several outlet openings, and a movable distributer overlying the other side of said member and having an elongated port adapted to coöperate successively with the ports in the oscillatory member.

1,143,779. CARBURETER. CHARLES J. PEMBROKE, Rochester, N. Y. Filed Mar. 12, 1913. Serial No. 753,713. (Cl. 48—150.2.)

1. A carbureter including an air inlet and fuel discharge nozzle arranged in the air inlet, a fuel spray head extending substantially across the air inlet and provided with a plurality of laterally arranged apertures in its opposite walls, a valve carried by the spray head and a swinging gate disposed in the air inlet and operated by the inrush of air and adapted when opened to lie substantially parallel to the axis of the inlet and when closed to lie at an angle to the same, and connections between the valve and the gate.

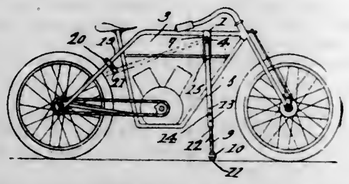
2. A carbureter including an air inlet, a fuel discharge nozzle arranged in the air inlet, a movable fuel spray head extending substantially across the air inlet and surrounding the nozzle, the discharge head being provided with a plurality of transversely disposed apertures in its opposite walls, a valve normally fixed with relation to the head and coöperating with the nozzle, a swinging gate arranged in the air inlet, and connections between the valve and the gate.

3. A carbureter including an air inlet, a fuel discharge nozzle arranged in the air inlet, a spray head surrounding and movable on the nozzle, said spray head extending substantially across the air inlet and provided with a plurality of laterally arranged apertures in its opposite walls, a valve carried by the spray head, a swinging gate disposed in the air inlet, said gate being operated by the inrush of air and adapted, when open, to lie substantially parallel to the axis of the inlet and when closed to lie at an angle to the same, and connections between the valve and the gate.



4. A carbureter including an air inlet, a nozzle disposed in the air inlet, a weighted spray head slidable longitudinally of the nozzle, a valve arranged in the spray head and coöperating with the nozzle, said head being provided with a plurality of laterally disposed apertures in its opposite walls, a plurality of swinging gates pivoted at the sides of the inlet and adapted to contact with the spray head when closed, and connections between the gate and the head.

1,143,780. ADJUSTABLE SUPPORT FOR MOTORCYCLES AND THE LIKE. JACOB C. PINTO, San Jose, Cal., assignor of one-half to Harry Gilmour, San Jose, Cal. Filed Nov. 3, 1914. Serial No. 870,098. (Cl. 208—77.)



1. A support for motor cycles and the like, including a frame, a bail connected to one side of the frame and disposed transversely thereof, an extensible member having an apertured end swingingly connected to said bail, and coöperative means carried by the frame and extensible member for holding the said member against spreading movement when in supporting position.

2. A support for motor cycles and the like, including a clamping frame, a figure 3 shaped bail having its terminals connected to said frame and having its longitudinal length extending transversely of the frame, an extensible member having its upper end slidably and swingingly mounted upon the bail, and coöperative means carried by the extensible member and the frame for locking the said member relatively to the frame when in supporting position.

3. A support for motor cycles and the like, including a clamping frame, a figure 3 shaped bail having its terminals connected to said frame and having its longitudinal length extending transversely of the frame, and an extensible member having its upper end slidably and swingingly mounted upon the bail.

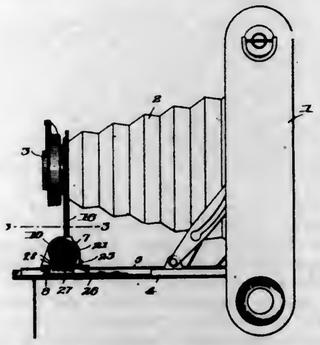
1,143,781. TIRE. GEORGE H. QUENNARD, Allendale, N. J. Filed Jan. 12, 1914. Serial No. 811,536. (Cl. 152—22.)



1. The combination, with a wheel rim having a pair of oppositely disposed flanges, of a pneumatic unit provided with a base and with a metallic plate embedded within said base, said plate having a set, the tendency of which is to normally maintain said plate curved, and means for forcing said base against said rim so as to locate said plate between said flanges, and to flatten said plate in order to tighten said base against said flanges.

2. The combination, with a felly having a rim secured thereto and provided with flanges, of a plurality of pneumatic units secured to said rim, each unit having a base containing a metallic plate, means for forcing said base against said rim so as to flaten said plate and thus cause the edges of said base to press against said flanges, and a valve communicating with the interior of said pneumatic unit, said valve extending through said metallic plate.

1,143,782. LENS-CARRIAGE FOR PHOTOGRAPHIC CAMERAS. WILLIAM A. RIDDELL and ROBERT KROEDEL, Rochester, N. Y., assignors to Eastman Kodak Company, Rochester, N. Y., a Corporation of New York. Filed Mar. 23, 1914. Serial No. 826,745. (Cl. 95—46.)



1. In a photographic camera, the combination with a bed having a series of stops thereon and associated graduations in units of focal distance, of a lens carriage movable freely on the bed and a locking device on the carriage adapted to coöperate with the stops on the bed, selectively to simultaneously lock the carriage and indicate the focus.

2. In a photographic camera, the combination with a bed having a track thereon and a series of stops paralleling the track and provided with associated graduations in units of focal distance, of a lens carriage movable freely formed by depressions on opposite sides thereof, and having a recess adjacent to one of said surfaces, a locking device adapted to coöperate with the bed to lock the carriage thereon arranged in the recess, and an operating portion on the locking device comprised within the depression of the last mentioned finger grip surface and constituting a substantially continuous part of said surface.

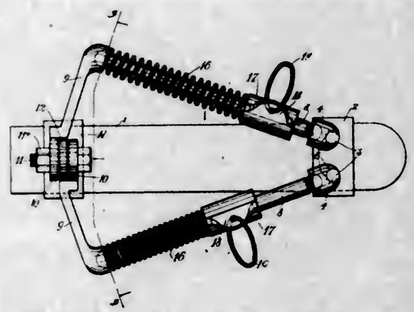
3. In a photographic camera, the combination with a bed, and a track thereon, of a lens carriage movable on the track and comprising a block having integral opposed track engaging jaws and relatively rigid finger grip surfaces on opposite sides thereof, and a locking device on the carriage adapted to coöperate with the bed to lock the carriage thereon and having an operating portion constituting a substantially continuous part of one of the finger grip portions.

4. In a photographic camera, the combination with a bed, of a lens carriage movable thereon and comprising a block having opposed and relatively rigid finger grip surfaces on opposite sides thereof and a recess adjacent to one of said surfaces, a locking device adapted to cooperate with the bed to lock the carriage thereon arranged in the recess, and an operating portion on the locking device constituting a substantially continuous part of the last mentioned finger grip surface.

5. In a photographic camera, the combination with a bed, of a lens carriage movable thereon and comprising a block having opposed relatively rigid finger grip surfaces on the track and having relatively fixed jaws engaging the latter, said carriage being further provided with relatively fixed finger grip surfaces on opposite sides thereof, and a locking device on the carriage adapted to coöperate with the stops on the bed, selectively, to simultaneously lock the carriage and indicate the focus, said locking device being provided with an operating portion having a finger grip surface substantially continuous with one of the first mentioned finger grip surfaces.

[Claims 6 and 7 not printed in the Gazette.]

1,143,783. ADJUSTABLE SHOCK-ABSORBER FOR VEHICLE-TONGUES. FREDERICK W. RIEKE, Red Bud, Ill. Filed Jan. 18, 1915. Serial No. 2,872. (Cl. 21—77.)

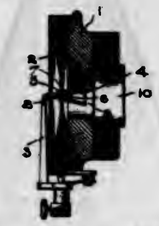


1. The combination with a vehicle tongue, of a pair of bands, a pair of bolts adjustably secured to one of said bands, a rack secured to the other band and to the tongue, angular arms, annular racks formed integral with said arms for adjustable engagement with the first named rack, pitmen connecting said arms and the aforesaid bolts and shock absorbing means carried by said pitmen.

2. The combination with a vehicle tongue, of a pair of bands, a pair of bolts adjustably secured to one of said bands, a rack secured to the other band and to the tongue, angular arms, annular racks formed integral with said arms for adjustable engagement with the first named rack, pitmen connecting said arms and the aforesaid bolts, sliding blocks disposed upon said pitmen and springs disposed about said pitmen and terminally abutting said sliding blocks.

3. The combination with a vehicle tongue, of a pair of apertured bands, the apertures in one face of one of said bands being formed with spur grooves, a pair of bolts adapted for releasable engagement with one of said apertured bands, spurs formed upon said bolts for releasable engagement with the spur grooved portions of said bands, a rack secured to the other band and to the tongue, angular arms, annular racks formed integral with said arms for adjustable engagement with the first named rack, pitmen connecting said arms and the aforesaid bolts and shock absorbing means carried by said pitmen.

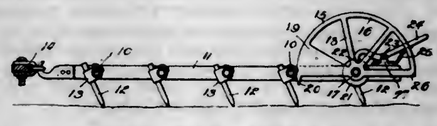
1,143,784. PHONOGRAPH. CLARENCE H. ROOP, Camden, N. J., assignor of one-third to Edward Walt. Havens, Belford, N. J., and one-third to Howard G. Havens, Camden, N. J. Filed June 29, 1914. Serial No. 847,839. (Cl. 181—11.)



1. The combination with a diaphragm, and a stylus bar, of a hollow conical rectifier having its smaller end secured to the center of the diaphragh by a screw extending through the rectifier and the diaphragm and screwed into the stylus bar, rigidly securing the parts together, substantially as described.

2. The combination with a sound box, a diaphragm in the sound box, said sound box having an outlet sound passage in one side, and a stylus bar positioned at one side of the diaphragm, of a hollow conical rectifier having its smaller end secured to the center of the diaphragm, and its larger end projecting centrally into the sound passage, said rectifier being secured by a screw projected through the rectifier and the diaphragm and screwed into the stylus bar, clamping the parts together, substantially as described.

1,143,785. HARROW ATTACHMENT. WALTER H. RUTH, Greensburg, Kans. Filed Mar. 21, 1914. Serial No. 826,314. (Cl. 55—34.)



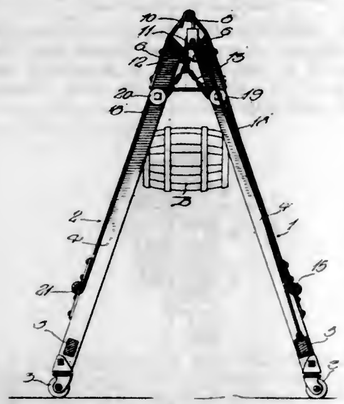
1. The combination with a harrow including a frame and toothed bars, of an elevating member having a segmental rim and a solid web at one side of the center to overbalance the elevating member, a spur extending from the elevating member and co-acting with the overbalancing web, and means for locking said elevating member in inoperative position relative to said frame and the toothed bars.

2. The combination with a harrow including a frame and toothed bars, of an elevating member having a segmental rim a hub and connecting spokes and a solid web at one side of the center to overbalance the elevating member, said hub being extended laterally and terminating in a notched flange, a spur extending from the elevating member and co-acting with the overbalancing web, and means co-acting with the notched flange for locking said elevating member in inoperative position relative to said frame and the toothed bars.

1,143,786. COMBINED HOIST AND CONVEYER. CHARLES JOHN SCHERRER, Council Bluffs, Iowa. Filed Nov. 19, 1914. Serial No. 873,043. (Cl. 212—142.)

1. A device of the character described comprising an inverted V-shaped frame having its two arms hingedly connected at their upper ends and provided with supporting members on their lower ends capable of being moved upon a support, a windlass on one arm of the frame, guides on both arms thereof, and a flexible element

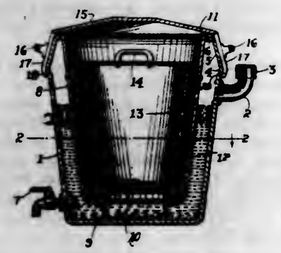
passing over said guides and wound around the windlass on one arm of the frame, the other end of said element being secured to the other arm of said frame.



2. A device of the character described comprising a pair of inverted V-shaped frames, the two arms of each frame being hingedly connected at their upper ends, a transverse ridge bar extending from one hinge to the other hinge whereby to space the two V-shaped frames, transverse bars spacing the lower ends of said frames, a bearing carried by one arm of each frame, the two bearings being alined, a windlass revolubly mounted in said bearings, guides near the upper ends of the two arms of each frame, and flexible elements secured at one end to said windlass and at their other ends to the other arms of the frames, said elements passing over said guides, combined with a grappling device suspended from the rigid bar.

3. A device of the character described comprising a pair of sections each having a pair of legs, hinge leaves secured to the upper ends of said legs and having knuckles on their upper ends, the knuckles of one section interengaging those on the other section, a transverse ridge bar passing through the alined knuckles, a windlass revolubly mounted on one of said sections, guides carried by both of the sections near the upper ends thereof, and a flexible element secured to said windlass and to the other section, said element passing over said guides, combined with a grappling device suspended from the ridge bar.

1,143,787. DOUGH-RAISER. AUGUST SCHNEBELEN, Canton, Ohio. Filed Jan. 2, 1914. Serial No. 809,979. (Cl. 126—281.)



1. A dough raiser comprising a water containing vessel provided with an inlet tube and with an annular bulged portion immediately above said tube and sloping inwardly beyond said bulged portion and terminating in an inwardly extended flange disposed at right angles to the perpendicular, an intermediate vessel disposed within said water containing vessel and formed with an outwardly extending annular flange adapted to rest normally upon the flange of said water containing vessel, a dough containing vessel disposed within said intermediate vessel and spaced away therefrom and a cover provided with handles and adapted for frictional engagement with the bulged portion and with the inwardly sloping portion of the said water containing vessel.

2. A dough raiser comprising a water containing vessel provided with an inlet tube and with an annular bulged portion immediately above said tube and sloping inwardly beyond said bulged portion and terminating in an inwardly extending flange disposed at right angles to the perpendicular, an intermediate vessel disposed within said water containing vessel and formed with an outwardly extending annular flange adapted to rest normally upon the flange of said water containing vessel, a dough containing vessel disposed within said intermediate vessel and uniformly spaced away from the same and a cover provided with handles and with a plurality of slots and adapted for frictional engagement with the bulged portion and with the inwardly sloping portion of the said water containing vessel.

1,143,788. GLASS AND BATCH FOR MAKING THE SAME. HARRY A. SCHNELBACH, Steubenville, Ohio, assignor, by mesne assignments, to Macbeth-Evans Glass Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed July 20, 1912. Serial No. 710,554. (Cl. 49—90.)

1. A batch for producing glass consisting of a foundation mixture capable when fused of producing a substantially colorless glass, so combined with a sulfate and aluminum and fluorin compounds that the resulting glass will contain undecomposed sulfate.

2. A batch for producing glass consisting of a foundation mixture capable when fused of producing a substantially colorless glass, combined with a sulfate and with aluminum and fluorin compounds and free from any material tending to decompose the sulfate at the working temperature of a glass furnace.

3. A batch for producing glass consisting of a foundation mixture capable when fused of producing a substantially colorless glass with compounds containing aluminum and fluorin and a sulfate, the amount of aluminum in the batch being in excess of the amount of fluorin, the amount of fluorin being in excess of that of the sulfur in the sulfate, and the aluminum, fluorin, and sulfur together comprising less than 10% of the total batch.

4. A semi-translucent glass containing undecomposed sulfate and made by fusing together in a batch, a foundation mixture capable of producing substantially colorless glass with compounds containing aluminum and fluorin and a sulfate.

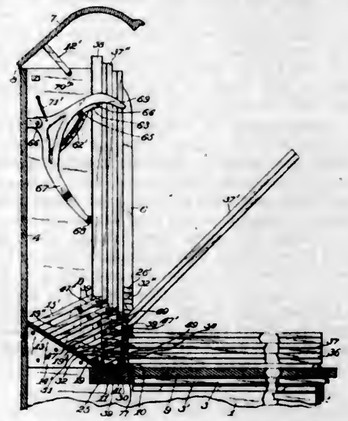
5. A semi-translucent glass made by fusing together in a batch, a foundation mixture capable of producing substantially colorless glass with compounds containing aluminum and fluorin and a sulfate, the batch being free from any reducing agent capable of deoxidizing the sulfate contained in the batch.

[Claims 6 to 12 not printed in the Gazette.]

1,143,789. CREDIT-ACCOUNTING REGISTER. ELLIS T. SILVIUS, Indianapolis, Ind., assignor, by mesne assignments, to The McCaskey Register Company, (incorporated in 1914,) Alliance, Ohio, a Corporation of Ohio. Filed May 4, 1909. Serial No. 493,924. (Cl. 45—2.)

1. The combination of a base having thereon a pair of guide-plates provided with guides, a plurality of leaves normally arranged in vertical position, cross-heads to which all of said leaves exceping the foremost one are pivotally supported, the foremost one being pivotally supported on stationary bearings, means for connecting each leaf to the crosshead of an adjacent leaf, and springs mounted on the leaves individually, the springs of the foremost leaf being anchored to the base and the springs of the remaining leaves anchored to the crossheads of the leaves.

2. A pair of stationary guide-plates, a base-plate having a pair of guide-plates thereon that are detachably connected to the stationary guide-plates, a plurality of cross-heads mounted to move on the guide-plates, a plurality of leaves of which the foremost one is pivotally mounted on the base-plate and the remaining leaves pivoted to the crossheads, connections between the leaves and the crossheads, and means for locking the base-plate and the guide-plates substantially to the plurality of leaves.



3. A plurality of leaves arranged in series, a base-plate pivotally connected to one of the leaves and having a pair of guide-plates thereon, crossheads mounted movably on the guide-plates and pivotally connected to the remaining leaves, rods connecting the leaves with the crossheads, springs on the leaves in engagement with the crossheads, and stationary guide-plates with which the guide-plates on the base-plate may be detachably connected to coöperate therewith.

4. The combination of a casing, a pair of guide-plates mounted in the casing, the guide-plates having guide-grooves therein, a pair of detachable guide plates having guide grooves arranged to aline with the first-mentioned guide grooves and a pair of pivot bearings, a series of bill holding leaves having pivots, and means for slidably supporting and connecting said leaves together, said means including a plurality of cross-heads each mounted movably in and supported by a guide groove, and the pivots of the foremost one of the leaves being mounted in the pivot-bearings and the pivots of the remaining leaves mounted in the crossheads, the said detachable guide plates being of a length to receive the crossheads, whereby said leaves and the detachable plates can be removed together from the casing.

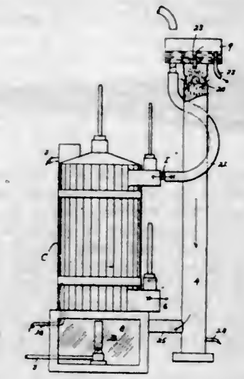
5. The combination of a casing, a pair of plates provided with alined guides, a member removably mounted in the casing and comprising a base and side plates provided with alined guides which register with the first-mentioned guides, bearings carried by the base, a series of leaves adapted to be assembled face to face, connections between said leaves permitting them to be inclined relatively to each other, the said connections including a plurality of cross-heads each slidably supported in a pair of alined guides, the frontmost leaf being mounted in said bearings, the guides in said side plates of the removable member being of a length to receive the said crossheads, whereby said leaves and removable member may be removed together from the casing, and means separate from the pivotal connection between the base and frontmost leaf for connecting the series of leaves and removable member together.

[Claims 6 to 12 not printed in the Gazette.]

1,143,790. CALORIMETER. JOHN FREDERICK SIMMANCE and JACQUES ABADY, London, England. Filed Nov. 28, 1913. Serial No. 803,638. (Cl. 73—184.)

1. In a gas calorimeter, means for supplying air and water thereto, and means for substantially equalizing the temperatures of said air and water.

2. In a gas calorimeter, means for supplying water thereto and means for supplying air at substantially the same temperature as the water supplied, and for substantially standardizing the saturation of said air at said temperature.



3. In a gas calorimeter, means for supplying water, air, and gas to said calorimeter, and means for substantially equalizing the temperatures of said water, air, and gas supplied thereto.

4. In a gas calorimeter, means for supplying water thereto, and separate means for supplying air thereto, said air being brought into contact with water at substantially the same temperature as the water supplied.

5. In a gas calorimeter, the combination with a closed burner box, of a chamber connected at one end to said burner box and having air openings, and a passage for water at the opposite end, means for pasaing water and air through said chamber, the water running to waste and the air passing into said burner box, and a gas tube coiled within said burner box having an enlargement therein.

[Claims 6 to 8 not printed in the Gazette.]

1,143,791. RESONATING STETHOSCOPE OR INTENSIFIER. JACOB J. SINGER, St. Louis, Mo. Filed Jan. 6, 1914. Serial No. 810,672. (Cl. 181—24.)



A sound intensifier comprising a substantially cup-shaped member formed from resonating material and having a substantially flat wall from which a flange depends, the interior of said member being unobstructed so that when the lower edge of said flange is pressed against the object being examined the column of air that is trapped inside of said member will be set in vibration by the vibration waves emanating from said object, said vibrations being taken up in unison by said cup-shaped member and thus causing the sound waves from said object to be greatly intensified.

1,143,792. HYDROCARBON-BURNER. ALGERNON V. SMITH, Houston Heights, Tex. Filed Aug. 17, 1914. Serial No. 857,018. (Cl. 158—76.)

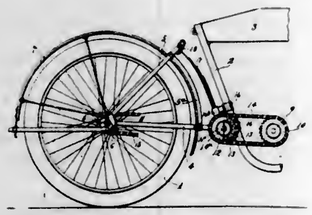
1. A hydro-carbon burner, including a fuel pipe and a fuel nozzle secured to the free end thereof, said nozzle be-

ing flared laterally and tapered toward its discharge end, a burner nozzle conforming in shape to and surrounding the fuel nozzle and being spaced therefrom, said burner nozzle projecting beyond the fuel nozzle and having a discharge orifice in alinement with the discharge orifice of the burner nozzle and a pneumatic pressure inlet communicating with the interior of the burner nozzle.



2. A hydro-carbon burner, including a fuel inlet and a fuel nozzle secured to the free end thereof, said nozzle being flared laterally and tapered toward its discharge end, a burner nozzle conforming in shape to and surrounding the fuel nozzle, and being spaced therefrom, said burner nozzle projecting beyond the fuel nozzle and having a discharge orifice in alinement with the discharge orifice of the burner nozzle, a pneumatic pressure inlet communicating with the interior of the burner nozzle and means for adjusting the fuel nozzle relative to the burner nozzle.

1,143,793. MOTOR-CYCLE. ANDREW STRAND, Minneapolis, Minn., assignor to Joerns Motor Manufacturing Company, St. Paul, Minn., a Corporation. Filed Oct. 11, 1912. Serial No. 725,168. Renewed Dec. 9, 1914. Serial No. 876,360. (Cl. 21—90.)



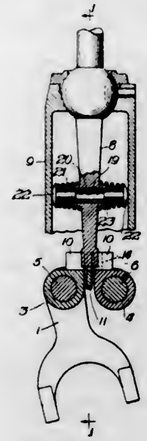
1. In a motor cycle, the combination with the framework, crank shaft and traction wheel, the said framework including lower rear stays to the rear ends of which said traction wheel is journaled, of a cylindrical bearing secured to said framework intermediate of said crank shaft and traction wheel, a spindle extended eccentrically through said bearing, an eccentric on said spindle adjustably mounted in said bearing and having sleeves that are concentric to said spindle and on which the front ends of said lower rear stays are mounted, a sprocket on said crank shaft, a sprocket on said traction wheel, two sprockets on said spindle, and two chains, one running over the sprocket on said crank shaft and over one of said intermediate sprockets, and the other over the sprocket on said traction wheel and over the other intermediate sprocket.

2. In a motor cycle, the combination with the framework, crank shaft and traction wheel, the said framework including lower rear stays to the rear ends of which said traction wheel is journaled with freedom for forward and rearward adjustments, of a cylindrical bearing secured to said framework intermediate of said crank shaft and traction wheel, a spindle extended eccentrically through said bearing, a pair of eccentrics on said spindle adjustably mounted in said bearing and having sleeves that are concentric to said spindle and on which the front ends of said lower rear stays are mounted, means for clamping said eccentrics to said bearing for different adjustments, a sprocket on said crank shaft, a sprocket on said traction wheel, two sprockets on said spindle secured to rotate together, and two chains, one running over the sprocket on said crank shaft and over one of the said intermediate sprockets, and the other chain running over the sprocket on said traction wheel and over the other intermediate sprocket.

3. In a motor-cycle, the combination with a framework having pivotally connected sections, of two intermediate drive wheels journaled for common rotation around the axis of the pivotal connection between said frame sections, a driving wheel journaled on the front frame section, a driven wheel journaled on the rear frame section, a driving belt running over said front driving wheel and one of the said intermediate wheels, and another driving belt running over the other intermediate wheel and over the rear driven wheel.

4. In a motor-cycle, the combination with a framework having pivotally connected sections, of two intermediate drive wheels journaled for common rotation around the axis of the pivotal connection between said frame sections, a driving wheel journaled on the front frame section, a driven wheel journaled on the rear frame section, a driving belt running over said front driving wheel and one of the said intermediate wheels, another driving belt running over the other intermediate wheel and over the rear driven wheel, and means incorporated in the pivotal connection between said frame sections and operative to simultaneously adjust the said two intermediate sprockets and rear frame section forwardly and rearwardly in respect to the front frame section.

1,143,794. TRANSMISSION MECHANISM CARL E. SWENSON and LEVIN FAUST, Rockford, Ill., assignors to Mechanics' Machine Company, Rockford, Ill., a Corporation of Illinois. Filed June 22, 1914. Serial No. 846,428. (Cl. 74—39.)



1. In a transmission, in combination, shifter elements, a housing, a lever mounted in said housing and movable in planes at angles to each other and adapted for swinging movement in one plane to engage either of said elements and for swinging movement in another plane to shift the element so engaged, and springs carried by said lever and provided with bearings at their ends against the housing, tending to hold the lever in central position, said bearings being slidable laterally across the wall of said housing as the lever is swung to shift said element.

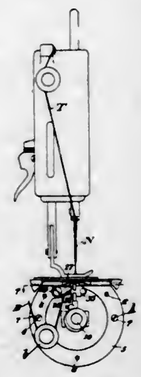
2. In a transmission, shifter elements, a part in which said elements are movably mounted, a housing connected to said part, a lever mounted in said housing for universal movement, said lever being adapted to engage either of said shifter elements, and means carried by the lever and bearing against the opposite walls of said housing and movable laterally across the surface of said walls, said means tending to restore the lever to central position.

3. In a transmission, a pivotally mounted lever, a part extending slidably through said lever, heads at the opposite ends of said part, spring means interposed between each head and the adjacent side of the lever, and stationary parts against which said heads bear.

4. In a transmission, shifter elements, a hollow casting in which said elements are movably mounted, a lever adapted for engagement with either of said elements, and a locking plate for the lever, said locking plate extending across the casting and the ends of the plate being embedded in the walls of the casting, to support said plate in position, said locking plate having stops on opposite sides thereof bent up from the plate.

5. In a gear shifting device for transmissions, a base having a housing rising therefrom, the base having two pairs of bearings therein, two parallel shifter rods having their ends mounted in said bearings for sliding movement, two shifter elements each having a collar fixed on the central portion of one of said rods to slide therewith, said rods having notches therein, spring-pressed dogs mounted in the base and arranged to engage in said notches, a lever mounted for universal movement in a fixed bearing at the upper end of said housing, a locking plate disposed longitudinally between said shifter rods and having its ends cast into said base, said plate having stops bent up therefrom at opposite ends against which the collars of said shifter elements may abut, the plate further having a central notch adapted to receive the lower end of said lever, and a pair of lugs on each of said collars between which the lower end of the lever is arranged to engage for moving said shifter elements.

1,143,795. SEWING-MACHINE. VANDIVER J. VAN HORN, Chicago, Ill. Filed May 15, 1914. Serial No. 838,808. (Cl. 112—5.)



1. In a sewing machine, means for forming a double-chain-stitch having, in combination, a rotatable member, means for rotating it continuously in one and the same direction, and mechanism having parts operatively arranged with relation to said rotatable member and coöperating therewith to form loops in both the top thread and the bottom thread, said rotatable member being adapted to engage and hold the loops of the top thread and having means for engaging the loops of the bottom thread and drawing them through the loops of the top thread.

2. In a double-chain-stitch sewing machine, a rotatable member having a beak arranged to engage and temporarily hold a loop of the top thread, and having means for engaging the bottom thread when the top thread is so engaged by the rotatable member, whereby as said rotatable member advances, a loop is formed in the bottom thread and interlooped with the aforesaid loop of the top thread.

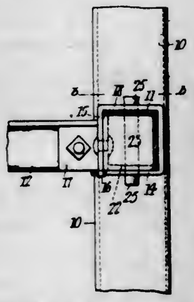
3. In a sewing machine, means for forming a double-chain-stitch having, in combination, a rotatable member, means for rotating it continuously in one and the same directions, and mechanism having parts operatively arranged with relation to said rotatable member and cooperating therewith to form loops in both the top and bottom threads, the means for forming the loops in the two threads being so arranged relatively to each other that the loops of one thread are passed through and interlocked with the loops of the other thread.

4. In a double-chain-stitch sewing machine, the combination with a needle, means for operating it, a rotatable member and means for rotating it, said member having a beak arranged to enter a loop of the top thread formed by a previous stroke of the needle, said member being so shaped that it distends the loop sufficiently to permit its own passage through it and said member having means for engaging the bottom thread, of means for holding the bottom thread when so engaged whereby as said rotatable member advances, after engaging the bottom thread it will form a loop therein and draw said loop through the aforesaid loop of the top thread and in a position where it surrounds the path of the needle, the movements of the needle and revoluble member being so timed that the point of the needle, in descending, enters and passes through the loop of the bottom thread, and thereafter the loop of the top thread escapes from the rotatable member and surrounds the two sides of the loop of the bottom thread.

5. In a double-chain-stitch sewing machine, the combination with a rotatable member, in the form of a segmental ring, and means for revolving it about an axis concentric with it, said rotatable member having a beak arranged in position to enter a loop of the top thread formed by a preceding stroke of the needle, said member being so shaped that it distends the loop of the top thread sufficiently to permit its own passage through it and said member having in advance of its heel end a shoulder adapted to engage the bottom thread, of means for engaging the bottom thread when so engaged whereby as said rotatable member advances it will draw a portion of the bottom thread forward, laterally, thereby forming therein a loop and drawing said loop into the aforesaid loop of the top thread, to a position where it surrounds the path of the needle, the movements of the needle and revoluble part being so timed that the point of the needle, in descending enters and passes through the loop of the bottom thread carrying with it a portion of the top thread which forms a second loop in position to be entered by the break of the revoluble member.

[Claims 6 to 24 not printed in the Gazette.]

1,143,796. CORNER-POST FASTENER. AARON WOLP and ANTONI GOVERNALE, New York, N. Y., assignors to Metallic Flexible Hose Company, Brooklyn, N. Y., a Corporation of New Jersey. Filed June 11, 1912. Serial No. 703,004. (Cl. 5—55.)



1. A corner post fastening, including a tubular member adapted to be detachably secured to the corner post in a substantially horizontal position, a horizontally-disposed side rail in alinement with said tubular member, a supporting member secured within said tubular member and

presenting supporting faces for the lower side and one lateral face of said side rail, and means for detachably securing said side rail in position.

2. In combination, a corner post, a tubular member rigidly secured to said post, an angle iron projecting into said tubular member and having an upper horizontal flange and a vertical side flange, and a member within said tubular member for supporting said angle iron along the length of the free edge of the horizontal flange.

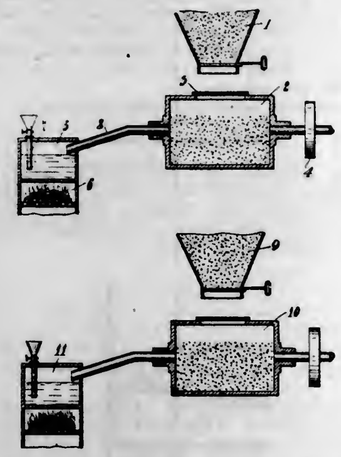
3. In combination, a corner post, a tubular member secured thereto, an angle iron slidable endwise into the end of said tubular member, and a supporting member secured within said tubular member and presenting supporting edges extending transversely and longitudinally of said angle iron.

4. In combination, a corner post, a tubular member attached to said post and having a portion of one side struck out to form a lug and leaving an opening, a side rail, and a member serving to support said side rail and having a portion within said tubular member covering said opening and a portion serving together with said side rail to close the end of said tubular member.

5. In combination a corner post, a tubular member secured thereto and formed from a sheet metal blank, said blank being provided with spaced apertures therethrough adjacent to one edge, and the opposite edge of said blank being provided with separate spaced projections adapted to enter said apertures along the length of said tubular member, said tubular member having a portion of one side wall thereof between said projections bent outwardly to form a lug, extending in a vertical plane at right angles to the plane of said side wall, a side rail detachably connected to said tubular member and a cross rail connected to said lug.

[Claims 6 and 7 not printed in the Gazette.]

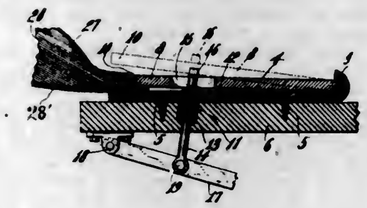
1,143,797. PROCESS OF SEPARATING THE CONSTITUENTS OF ROCKS. GUNNAR SIGGE ANDREAS APPELQVIST and EINAR OLOF EUGEN TYDÉN, Stockholm, Sweden. Filed Jan. 25, 1911. Serial No. 604,653. (Cl. 83—85.)



1. The process of separating the constituents of rocks by the aid of oils which consists in treating the material to be separated in the form of a powder in dry condition with oils gasified by the application of heat, immersing the material thus treated into a liquid, agitating the mass, and allowing the different particles to separate from one another, substantially as and for the purpose set forth.

2. The process of separating the constituents of rocks by the aid of oils which consists in treating the material to be separated in the form of a powder in dry condition with oils gasified by the application of heat, repeating at will the said treating operation, immersing the material thus treated into a liquid, agitating the mass, and allowing the different particles to separate from one another.

1,143,798. LASTING DEVICE. WILLIAM H. ATKINS, Madison, Wis., assignor, by mesne assignments, to Charles H. Bowman, Madison, Wis. Filed Aug. 23, 1913. Serial No. 786,207. (Cl. 12—7.)



1. In a lasting machine, the combination of a suitable base, a pressure plate having its outer end provided with an inwardly-extending recess, conforming in shape to the shape of, and adapted to surround, a shoe toe, said plate being resiliently supported and movably mounted on the base, with its recessed end normally up-standing from the base, and means connected to the plate for bringing the recessed end of the pressure plate downwardly, so as to engage the outstanding margin of the toe portion of a shoe upper.

2. In a lasting machine, the combination of a suitable base, a pressure plate pivotally connected at one end to the base, and having its opposite end provided with an inwardly-extending recess, conforming in shape to the shape of, and adapted to surround, a shoe toe, means comprising a spring for normally holding the recessed end of the pressure plate up out of contact with the base, and means connected to the plate for bringing the recessed end of the pressure plate downwardly against the action of said spring, so as to engage the outstanding margin of the toe portion of a shoe upper.

3. In a lasting machine, the combination of a suitable base, having one end thereof upturned into hook form, a pressure plate having one end fitting loosely in the upturned hook end of the base, and thereby pivoted removably to said base, and said pressure plate having its opposite end provided with an inwardly-extending recess, conforming in shape to the shape of, and adapted to surround, a shoe toe, means for normaly holding the recessed end of the pressure plate, up out of contact with the base, and means for bringing the recessed end of the pressure plate downwardly, so as to engage the outstanding margin of the toe portion of a shoe upper.

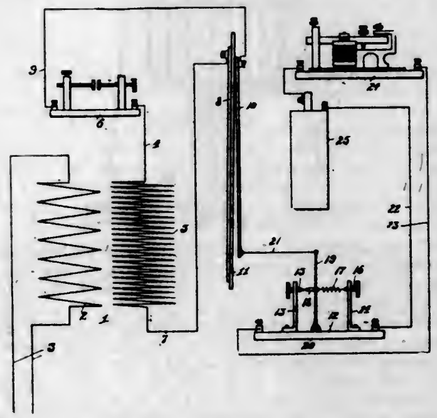
4. In a lasting machine, the combination of a suitable base, provided with a socket, a pressure plate, having its outer end provided with an inwardly-extending recess, conforming in shape to the shape of, and adapted to surround, a shoe toe, said plate being movably mounted on the base, a spring, seated in the bottom of the socket of the base, and having its upper end bearing against the under side of the pressure plate, so as to normally hold said plate in a raised position above the base, and means for bringing the recessed end of the pressure plate downwardly against the contrary force exerted by the spring, to thereby cause the edges of the recess to engage the outstanding margin of the toe portion of a shoe upper.

5. In a lasting machine, the combination of a suitable base, provided with a socket, a pressure plate, pivoted at its rear end to the base, and having its outer end provided with an inwardly-extending recess, conforming in shape to the shape of, and adapted to surround, a shoe toe, a spring, seated in the bottom of the socket of the base, and having its upper end bearing against the under side of the pressure plate, so as to normally hold the recessed end of said pressure plate in a raised position, and means for

bringing the recessed end of the pressure plate downwardly against the contrary force exerted by the spring, to thereby cause the edges of the recess to engage the outstanding margin of the toe portion of the shoe upper.

[Claims 6 to 11 not printed in the Gazette.]

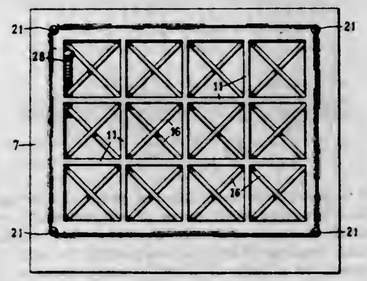
1,143,799. RECEIVER FOR WIRELESS TELEGRAPHY. ROSS B. AVERY, South Bend, Ind. Filed Apr. 5, 1913. Serial No. 759,205. (Cl. 250—8.)



1. A wireless wave detector including a signaling instrument, a local circuit therefor, means for opening and closing said local circuit, a step-up transformer having the primary thereof in circuit with a normally-energizing circuit, an electrostatic element in circuit with the secondary of the transformer, a spark-gap in the secondary circuit and means operated by said element to control the means for opening and closing of the local circuit.

2. A wireless wave detector including a signaling instrument, a local circuit therefor, a make and break devite for said local circuit, a step-up transformer having the primary thereof in circuit with a normally energized circuit, an electrostatic device in circuit with the secondary of the transformer, a spark-gap control in circuit with the electrostatic device, and a mechanical connection between the electrostatic device and the make and break.

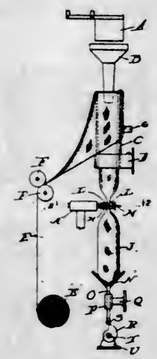
1,143,800. REGISTER. JAMES H. BAILEY, Brooklyn, N. Y. Filed Mar. 4, 1914. Serial No. 822,357. (Cl. 98—54.)



1. In a register and ventilator, an outer grille consisting of webs relatively narrow and spaced widely apart to provide openings between them of greater area than said webs to thereby constitute a grille whose major portion is made up of air passages, and an inner grille disposed behind the outer grille and consisting of webs disposed in line with the air passages in the outer grille and narrower than said passages to thereby interrupt the expanse of the passages in the outer grille without shutting off direct flow through said passages and to thereby constitute a compound grille whose design is a composite of the webs in the outer grille and the webs in the inner grille visible through the passages in the outer grille.

2. A register comprising an outer member having a plurality of intersecting narrow bars forming a grille and rearwardly projecting border flanges in combination with an inner member having border flanges and narrow intersecting bars forming a grille and means for detachably securing said inner and outer members together with the grilles in spaced-apart relation, the narrow bars of the inner grille being in line with the spaces between the narrow bars of the outer grille.

1,143,801. PROCESS OF MAKING AND FILLING BAGS. ADELMER M. BATES, Chicago, Ill., assignor to Bates Valve Bag Company, Chicago, Ill., a Corporation of West Virginia. Filed Dec. 1, 1913. Serial No. 803,923. (Cl. 83—26.)



1. The method of producing and filling bag-like packages of powdery or granular substance from a continuous blank roll of fabric which consists in forming from said roll a single bag tube section with a closed end, filling the same through the open end, closing the top of such section and the bottom of the next, then forming another single bag tube section from the continuous blank roll and proceeding thus to successively form and fill single bag tube sections.

2. The method of producing and filling bag-like packages of powdery or granular substance from a continuous blank roll of fabric which consists in forming from said roll a single bag tube section with a closed end, folding back a portion of the formed tube on another portion thereof, filling the single bag tube section with the closed end through such folded tube sections, closing the top of the last section and the bottom of the next, then forming another single bag tube section from the continuous blank roll and proceeding thus to successively form and fill bag tube sections.

3. The method of producing and filling bag-like packages of powdery or granular substance from a continuous blank roll of fabric which consists in forming from said roll a single bag tube section with a closed end, forming a tubular section above the bag tube section, filling the single bag tube section through its open end and through the tubular section, closing the top of such bag tube section and the bottom of the next section, filling the next single bag tube section, then forming a tubular section above the same from the continuous blank roll and proceeding thus to successively form and fill bag tube sections.

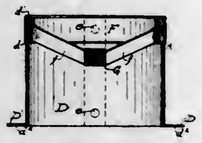
4. The method of producing and filling bag-like packages of powdery or granular substance from a continuous blank

roll of fabric which consists in forming from said roll a single bag tube section with a closed end, forming a tubular section above the bag tube section, folding back the tubular section thereon, filling the single bag tube section through its open end and through the folded tube sections, closing the top of such bag tube section and the bottom of the next section, filling the next single bag tube section, then forming a tubular section above the same from the continuous blank roll and proceeding thus to successively form and fill bag tube sections.

3. The method of producing and filling bag-like packages of powdery or granular substance from a continuous blank roll of fabric which consists in forming from said roll a single bag tube section with a closed end, filling the same through the open end, closing the top of such section and the bottom of the next, then forming another single bag tube section from the continuous blank roll and proceeding thus to successively form and fill bag tube sections, said closures being effected by sewing the parts together and filling the fabric near the sewed portions with adhesive material.

[Claims 6 to 8 not printed in the Gazette.]

1,143,802. REGISTER. HERMAN E. BATTERMAN, Chicago, Ill. Filed Nov. 28, 1913. Serial No. 803,515. (Cl. 98—49.)



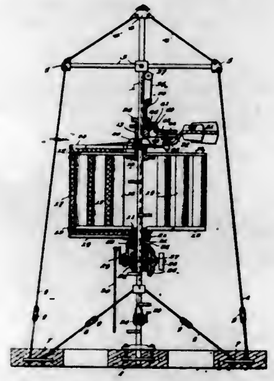
1. A concrete wall having an opening, in combination with a cylinder embedded in said concrete to register with said opening, and with the outer end of said cylinder and the corresponding surface of said concrete in substantially the same plane, a ring secured in said cylinder, said ring provided with arms and a hub having a screw threaded aperture, an additional ring to said cylinder, said additional ring provided with arms and with a hub having a screw threaded aperture, a disk and a screw threaded bolt secured in said disk, the threads on said bolt corresponding with the threads in said apertures in said hubs.

2. A concrete wall having openings, in combination with cylinders, means to attach said cylinders in said wall to register with said openings, said cylinders respectively embedded in said concrete with the outer ends of said cylinders and the corresponding surface of the concrete in substantially the same plane, rings secured in the outer ends of said cylinders, arms to said rings and hubs, said hubs provided with screw threaded apertures, additional rings, arms and a hub to said additional rings, and screw threaded apertures in said last named hubs, disks and screw threaded bolts secured to said disks, the threads on said bolts corresponding with the threads in the apertures in said hubs and in said additional hubs.

3. A register comprising the following elements in combination, a cylinder provided with a bead near one end and an enlarged portion between said bead and said end, a ring secured in said enlarged end, an additional ring, both said rings provided with arms and with a hub, and said hubs respectively provided with screw threaded apertures, a disk, a hub to said disk and a screw threaded bolt in said hub, the screw threads on said bolt and in said hubs adapted to correspond.

4. A cylinder, projecting lugs on one end of said cylinder, a ring secured in the opposite end of said cylinder, an additional ring, both said rings provided with arms and with a hub, and said hubs respectively provided with screw threaded apertures, a disk, a hub to said disk, and a screw threaded bolt secured in said hub of said disk, the threads corresponding with the threads in said first named hubs.

1,143,803. WINDMILL. CHARLES A. BENBOW, Portland, Oreg. Filed Aug. 20, 1913. Serial No. 785,690. (Cl. 170—15.)

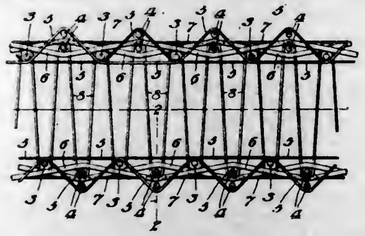


1. The combination in a wind motor with a central supporting column and rotary wind wheel thereon, of a rotary shield on the column, a main vane connected to the shield to hold it in normal position so that it covers a portion of the wind wheel, and means for moving said shield comprising a vane at each side of the main vane and pivotally supported therefrom and connected to the shield.

2. The combination in a wind motor with a central supporting column and rotary wind wheel thereon, of a rotary shield on the column, a main vane holding the shield in normal position to cover a portion of the wheel, a pair of relatively movable vanes one of which is larger than the other pivoted on the main vane and having annular toothed portions in mesh, and connections from said vanes to the shield.

3. The combination in a wind motor with a central supporting column and rotary wind wheel thereon, of a rotary shield on the column and means for holding the shield in normal condition, a pair of relatively movable vanes pivoted on said holding means and having annular toothed portions in mesh, and connections from said vanes to the shield.

1,143,804. PILE FABRIC. ALBERT W. BINZ, Philadelphia, Pa., assignor to George N. Schofield and Edward F. Mason, Philadelphia, Pa., Copartners trading as Schofield, Mason & Co. Filed Mar. 21, 1914, Serial No. 826,171. Renewed Apr. 2, 1915. Serial No. 18,839. (Cl. 139—71.)



1. In a pile fabric, weft threads, pairs of binding warp threads alternating with pairs of stuffer warp threads, the threads of a pair of stuffer warp threads crossing each other and forming sheds inclosing weft threads therein, the threads of a pair of binding warp threads passing around and binding the weft threads, and pile threads between adjacent pairs of binding warp threads and engaging certain of the weft threads.

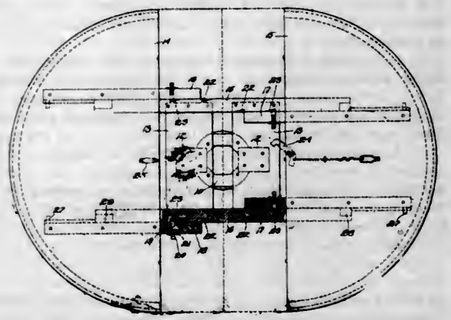
2. In a pile fabric, weft threads in different horizontal planes, pairs of binding warp threads alternating with pairs of stuffer warp threads, the threads of a pair of stuffer warp threads crossing each other and forming sheds inclosing weft threads therein and extending between adjacent weft threads in the different planes, the threads of a pair of binding warp threads passing around and binding the weft threads, and pile threads between adjacent pairs of binding warp threads and engaging certain of the weft threads.

3. In a pile fabric, pairs of weft threads alternating with single weft threads, pairs of binding warp threads alternating with stuffer warp threads, the stuffer warp threads separating the threads of the pairs of weft threads, each of said pairs of weft threads being inclosed in a shed formed by the threads of a pair of binding warp threads, each of said single weft threads being inclosed in a shed formed between a pair of binding warp threads and a stuffer warp thread, and pile threads between adjacent pairs of binding warp threads and engaging certain of the weft threads.

4. In a pile fabric, pairs of weft threads alternating with single weft threads, pairs of binding warp threads alternating with pairs of stuffer warp threads, the threads of a pair of stuffer warp threads crossing each other and forming sheds each of which incloses a weft thread of one of the pairs thereof, each of said pairs of weft threads being inclosed in a shed formed by the threads of a pair of binding warp threads, said single weft threads being inclosed in sheds formed between a pair of binding warp threads and a pair of stuffer warp threads, and pile threads between adjacent pairs of binding warp threads and engaging certain of the weft threads.

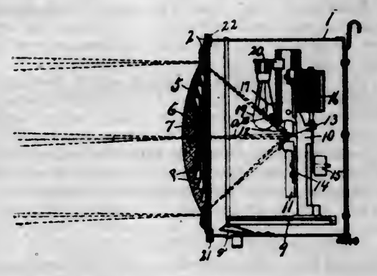
5. In a pile fabric, weft threads in different horizontal planes, pairs of binding warp threads, stuffer warp threads alternating with the pairs of binding warp threads and extending between said planes, each thread of a pair of binding warp threads passing over four adjacent weft threads and under the next two adjacent weft threads in alternate succession, and pile threads between adjacent pairs of binding warp threads and engaging certain of the weft threads.

1,143,805. KNOCKDOWN EXTENSION DINING-TABLE. CHARLES J. BROWN, Newton, Mass. Filed Jan. 31, 1910. Serial No. 540,992. (Cl. 45—9.)



A knock-down pedestal extension table comprising a non-separable or integral pedestal, parallel supporting bars extending transversely of the table and secured to the top of the pedestal, parallel guides each secured to said supporting bars and at right angles thereto, the ends of said guides projecting beyond both sides of each supporting bar, said guides having notches spaced predetermined distances from a vertical transverse plane in the center of the pedestal, a table top formed of two separable sections, parallel slides carried by each section, the slides of one top section being engaged with and guided by the inner faces of said guides, and the slides of the other top section being engaged with and guided by the outer faces of said guides, when the table is assembled, automatically operated stops carried by said slides and adapted to engage said notches to cause said top sections to be located at the same distance from the said plane, said stops being movable to permit the total separation of said top sections and their slides from the pedestal and the guides thereon.

1,143,806. HEADLIGHT. FRANK BUCHANAN, Dayton, Ohio. Filed Dec. 9, 1909. Serial No. 532,245. (Cl. 240—41.)



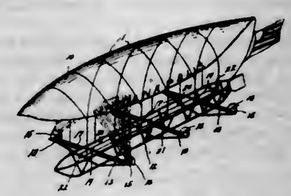
1. A headlight comprising a casing, a lens arranged in said casing and constructed to refract the rays of light into a beam, a vertically disposed substantially non-consuming anode arranged above and contiguous to the focal axis of the lens, and a cathode of slow-consuming material vertically disposed directly beneath the anode and with its upper end below and contiguous to the focal axis of the lens, said cathode furnishing an arc stream giving the major portion of the illumination of the arc, and said stream being located in the focal axis of the lens and at the focal point thereof, substantially as and for the purpose described.

2. An electric head light having upper and lower electrodes, a draft tube, and an incandescent electric lamp supported by the draft tube, substantially as and for the purpose described.

3. An electric head light comprising a fixed upper electrode and a movable lower electrode, a draft tube inclosing the upper electrode and having means for supporting the same, and an incandescent electric lamp supported by the draft tube, substantially as and for the purpose specified.

4. In an electric head-light, comprising a casing having a glass front, vertically disposed electrodes within the casing, a tube supporting the upper electrode and incandescent lamps supported by said tube.

1,143,807. ADVERTISING-LIGHTING FOR DIRIGIBLE BALLOONS. GEORGE L. BUMBAUGH, Indianapolis, Ind., assignor of one-half to Albert L. Watters, Indianapolis, Ind. Filed Oct. 5, 1914. Serial No. 865,033. (Cl. 240—2.)



1. In a balloon, the combination of a gas bag, a frame supported thereby, one or more lamps carried by said frame and illuminating the under side of the gas bag, and one or more shades coöperating with said lamp or lamps and movable relatively thereto to control the area of gas-bag surface illuminated.

2. In a balloon, the combination of an elongated gas bag, a frame supported by and beneath such gas bag, lat-

erally projecting arms from said frame, lamps carried by said arms and provided with reflectors for directing the light therefrom toward the gas bag, and shades coöperating with said reflectors for controlling the area of gas-bag surface illuminated.

3. In a balloon, the combination of an elongated gas bag, a frame supported by and beneath such gas bag, laterally projecting arms from said frame, lamps carried by said arms and provided with reflectors for directing the light therefrom toward the gas bag, shafts extending outward along said arms, shades carried by said shafts and coöperating with said reflectors to control the area of gas-bag surface illuminated, and a common means for operating all said shafts.

4. In a balloon, the combination of an elongated gas bag, a frame supported by and beneath such gas bag, laterally projecting arms from said frame, lamps carried by said arms and provided with reflectors for directing the light therefrom toward the gas bag, shafts extending outward along said arms, and shades carried by said shafts and coöperating with said reflectors to control the area of gas-bag surface illuminated.

1,143,808. AMUSEMENT DEVICE. WILLIAM B. CHOATE, Aurora, Ill. Filed Apr. 17, 1915. Serial No. 22,103. (Cl. 46—40.)



1. An amusement device comprising a main part formed to simulate the nose and eyes of a face and adapted to fit between the fingers of a human hand, and means for holding said part in position.

2. An amusement device comprising a main part formed to simulate the nose and eyes of a face and adapted to fit between the fingers of a human hand, and means for holding said part in position, said means being provided with a part simulating hair, said part being adapted to be disposed above the upper of the fingers between which the first mentioned part may be positioned.

3. An amusement device comprising a part of width sufficient to permit its carrying projections simulating a pair of eyes and a nose, said part being adapted to be disposed between the fingers of a human hand.

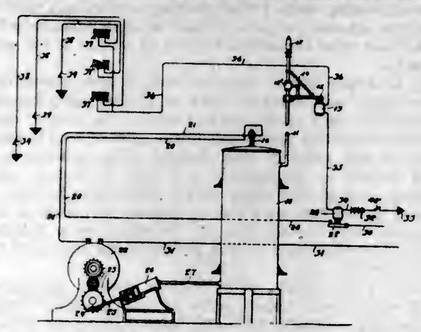
4. An amusement device comprising a part formed of a sheet of suitable material, the forward edge of said sheet being formed to present projections simulating in contour and decoration a pair of eyes and a nose, the body of said sheet being adapted to be positioned between the fingers of a human hand.

5. An amusement device comprising a sheet of suitable material having a body adapted to be disposed between the fingers of a human hand and having at its front bent portions decorated to simulate a pair of human eyes and a bent portion between said first mentioned bent portion decorated to simulate a human nose.

[Claims 6 to 14 not printed in the Gazette.]

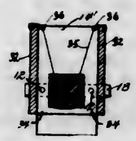
1,143,809. FIRE-ALARM SYSTEM. CHARLES F. CHRISTMAN, Winslow, Ariz. Filed May 19, 1914. Serial No. 839,610. (Cl. 177—339.)

In a device of the kind described, an electric motor, an air pump driven by said motor, an air reservoir connected to said pump, a pipe extending from said reservoir, an alarm whistle on said pipe, a valve in said pipe, a magnet for controlling the opening of said valve, a line wire connected to said motor, a circuit closer, a magnet connected in series to the first mentioned magnet and arranged to operate said circuit closer, a line wire connected to said circuit closer, a wire leading from the cir-



cuit closer to said motor, a battery connected in series to said magnets, and a series of circuit closers connected in multiple through said magnets.

1,143,810. COMPRESSION-RHEOSTAT. EMERSON L. CLARK, Lakewood, Ohio, assignor to National Carbon Company, Cleveland, Ohio, a Corporation of New Jersey. Filed May 31, 1912. Serial No. 700,558. (Cl. 219—51.)



1. In electric rheostats, a resistor element consisting of a block of carbonaceous material and having channels for conducting a cooling fluid.

2. In electric rheostats, a resistor element consisting of a block having grooves extending along the surface of one side.

3. A pile rheostat consisting of a series of carbon blocks having a plurality of channels for the circulation of cooling fluid.

4. In electric rheostats, a plurality of double-faced resistor plates arranged in a pile, a plurality of corrugations in the faces of each plate whereby a plurality of channels are formed by the adjacent corrugations for conducting a cooling fluid.

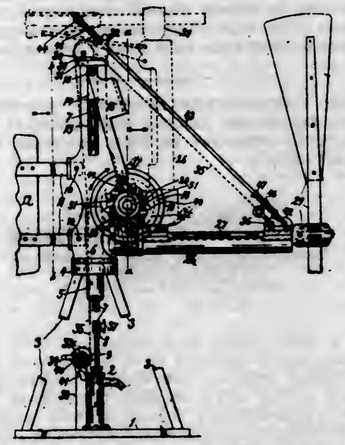
5. A rheostat consisting of a series of blocks of carbonaceous material, an inclosure for the blocks having openings for admitting and removing a cooling fluid whereby a circulation of said fluid is produced when the blocks become heated.

[Claims 6 to 13 not printed in the Gazette.]

1,143,811. WINDMILL OPERATING MECHANISM. GEORGE CUFF, Poynette, Wis. Filed Apr. 24, 1913. Serial No. 763,293. (Cl. 74—5.)

1. In a wind mill mounted in a suitable tower and frame work, a vertically reciprocating rod, a pitman connected with the rod, a wheel having pivoted supports, catches arranged to engage the pitman to raise it while moving upward half a turn of the wheel, said catches being yieldable away from their supports to permit the pitman to return quickly downward ahead of the turning of the wheel to the lowest position relative to the wheel, and a power transmitting wheel operatively connected with the wheel having the catches.

2. In a wind mill, the combination of a tower, a frame mounted to rotate about a vertical axis at the top of the tower and having a central opening, a rod extending down through said opening, a cross-head secured to the top of the rod and guided to slide vertically in the frame, a pitman having its upper end pivoted to the crosshead and its lower end provided with a horizontally disposed roller, a horizontally disposed shaft mounted in the frame, a wheel fixed on the shaft and having in one side a concentric groove for the roller of the pitman to move in, catches pivoted on the wheel adjacent the groove so as to engage the roller, said wheels having lugs to prevent the catches from swinging in more than one direction, and a power transmitting wheel operatively connected with the shaft to turn it.



3. In a wind mill, the combination of a tower, a frame mounted to rotate about a vertical axis at the top of the tower and having a central opening, a rod extending down through said opening, a cross-head secured to the top end of the rod and guided to slide vertically in the frame, a pitman having its upper end pivoted to the cross head and its lower end provided with a horizontally disposed roller, a horizontally disposed shaft mounted in the frame, a wheel fixed on the shaft and having in one side a concentric groove for the roller of the pitman to move in, catches pivoted on the wheel adjacent the groove so as to engage the roller, said wheels having lugs to prevent the catches from swinging in more than one direction, and a power transmitting wheel operatively connected with the shaft to turn it, and means for holding the catches yieldingly against the lugs.

4. In a wind mill, the combination of a tower, a frame mounted to rotate about a vertical axis at the top of the tower and having a central opening, a cross-head mounted to slide up and down in the frame, a working rod extending from the cross head centrally down through the frame and the tower, a pitman having its ends bifurcated into two upper and two lower arms, the upper arms being pivoted to two opposite sides of the cross-head, and the lower arms being each provided with a laterally projecting antifriction roller, a shaft journaled in the frame, two wheels fixed on the shaft, each of said wheels having in one side a concentric groove for one of the antifriction rollers to move in, a series of concentrically arranged lugs on each wheel adjacent the groove, a spring-held catch pivoted near each lug so as to be supported in one direction by the lug and when thus supported adapted to engage the roller and carry it and the pitman upward during half a revolution of the wheel, a power transmitting wheel, and operative connection between it and said shaft.

5. In a wind mill and mounted in a suitable frame and tower, a power-transmitting shaft and a worm-screw fixed on same, a worm-wheel driven by said worm-screw, a shaft fixed in the worm-wheel, a wheel fixed on each end of the worm-wheel shaft, and having in one side a concentric groove and near the groove a series of lugs, catches pivotally mounted near the groove and by said lugs allowed to turn in but one direction; a pitman having two downward arms, each arm provided with a roller fitting in one of the concentric grooves, a cross-head guided in the framework to slide up and down therein and pivotally secured to the pitman, a working rod operated by the cross-head and adapted to operate working machinery at the base of the wind mill.

1,143,812. LUBRICATING-STRIP FOR LEAF-SPRINGS. ERNEST G. DANN, Chicago, Ill. Filed Jan. 2, 1914. Serial No. 810,074. (Cl. 184—1.)



1. A lubricating element for a compound spring comprising a lubricant carrier formed with pockets, a lubricating substance in said pockets, and an adherent covering for said pockets.

2. A lubricating element for a compound spring comprising a lubricant carrier formed with pockets, a lubricating substance in said pockets, and an adherent disintegrable covering for said pockets.

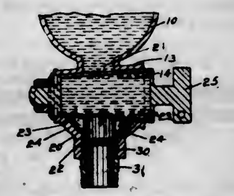
3. A lubricating element for a compound spring comprising a perforated metal strip, a lubricating substance in the perforations of said strip, and adherent coverings on opposite sides of said metal strip.

4. A lubricating element for a compound spring comprising a perforated metal strip, a lubricating substance in the perforations of said strip, and adherent disintegrable covering strips on opposite sides of said metal strip.

5. A lubricating element for a compound spring comprising a perforated metal strip, a lubricating substance in the perforations of said strip, and strips of paper on opposite sides of the metal strip which are caused to adhere thereto by the lubricant.

[Claims 6 and 7 not printed in the Gazette.]

1,143,813. INJECTING DEVICE. CHARLES L. DAY, Glencoe, Ill. Filed Nov. 18, 1912. Serial No. 732,058. (Cl. 137—72.)

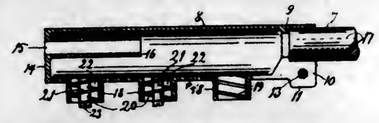


1. The combination with a gas system, of means for injecting measured quantities of alcohol into said system comprising a cup formed with an opening in the bottom, a conical valve casing below the cup and communicating therewith through said opening and formed in the bottom with an outlet opening communicating with said gas system, and a hollow conical valve in said valve casing closed except for an opening adapted to register with the opening in the bottom of the cup, and, on opposite sides thereof, lengthwise of the valve, two other openings; all three openings in the valve being adapted to communicate with the outlet opening in the bottom of the valve casing when the valve is turned into discharging position.

2. The combination with a gas system, of means for injecting measured quantities of alcohol into said system, comprising a cup formed with an opening in the bottom, a conical valve casing below the cup and communicating therewith through said opening and formed in the bottom with an outlet opening communicating with said gas system, and a hollow conical valve in said valve casing closed except for a plurality of openings in one side arranged longitudinally of the valve, one of said openings being adapted to register with the opening in the bottom

of the cup and all adapted to communicate with the outlet opening in the bottom of the valve casing when the valve is turned into discharging position.

1,143,814. GUN-MUFFLER. PETER J. DE VRIES, Sheldon, Iowa. Filed Sept. 30, 1914. Serial No. 864,241. (Cl. 89—31.)

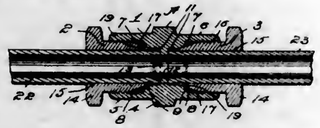


1. A gun muffler comprising an elongated shell having at one end means for securing it upon the end of a gun barrel and at the other end an outlet for the bullet, and around said outlet a rearward sleeve extending some distance into the shell, said shell also having laterally disposed spiral ducts for the escape of the gas of the powder.

2. A gun muffler comprising an elongated shell having at one end means for securing it upon the end of a gun barrel and at the other end an outlet for the bullet, and around said outlet a rearward sleeve extending some distance into the shell, said shell also having laterally disposed spiral ducts for the escape of the gas of the powder, said spiral ducts being formed by lateral tubular projections on the shell and plugs threaded therein and having threads so deep as to form a permanently open spiral duct about each plug.

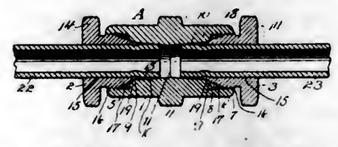
3. A gun muffler comprising an elongated shell having in one end an outlet for bullets and at the other end means for securing it to a gun barrel, said shell having along its lower side a series of depending internally threaded tubes, a removable screw plug, threaded into each tube and having its outer end provided with means for taking hold of in turning the plug, the threads of said plug being deep enough to form permanently open spiral ducts, for the purposes set forth.

1,143,815. COMPRESSION-COUPLING. CHARLES HUGH DUFFY, North Laurel, Md., assignor to Frederick H. Tweed, Chicago, Ill. Filed June 14, 1911. Serial No. 633,174. (Cl. 137—28.)



1. In a readily detachable coupling, a relatively stationary female member centrally bored to receive an element to be coupled and provided with a shoulder therein to limit the entrance of said element to be coupled, a second shoulder within the said female member and an internally threaded portion therein, a rotatable male member centrally bored to receive an element to be coupled and comprising an externally threaded portion and a readily distortable end portion, the said externally threaded portion of said rotatable male member being adapted to enter the said female member, the said readily distortable end portion being adapted to engage said second shoulder within said female member when the said two members are threaded together and to rotate thereon to grind a gas tight joint therebetween and to simultaneously distort the said readily distortable end portion to force said distortable end portion into intimate contact with the element therein to be coupled, the said distortable end portion being rotatable on the element to be coupled to grind a gas tight union therebetween.

1,143,816. COMPRESSION-COUPLING. CHARLES HUGH DUFFY, Laurel, Md., assignor to Frederick H. Tweed, Chicago, Ill. Filed Nov. 15, 1911. Serial No. 660,460. (Cl. 137—28.)



1. In a readily detachable coupling, a relatively stationary female member centrally bored to receive an element to be coupled, said bore providing a threaded portion, a tapered portion and a shoulder intermediate of said portions, a rotatable male member centrally bored to receive the element to be coupled and comprising a threaded portion and a readily distortable end portion, said rotatable male member being adapted to enter said female member, the said readily distortable end portion of said rotatable male member being adapted to engage and rotate on said shoulder in said female member to grind a gas tight union therebetween and to simultaneously be distorted by said shoulder and forced into intimate contact with the element to be coupled and to simultaneously grind a gas tight union therebetween, the said tapered portion in the bore of the stationary female member being adapted to receive the inner end of the element to be coupled, the said readily distortable portion of the rotatable male member upon its inward progression jamming the said inner end of the element to be coupled within the said taper in the bore of the stationary female member to form a tight union between the inner end of the element to be coupled and the said tapered portion in the bore of the stationary female member in such manner that the element to be coupled is engaged and gripped at two points within the coupling.

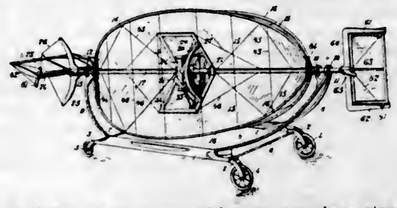
2. In a readily detachable coupling, a relatively stationary female member having an internal threaded portion, an internal tapered portion and an internal shoulder intermediate the two portions, the said internal tapered portion being adapted to receive the inner end of an element to be coupled and to limit the entrance thereof, a rotatable male member centrally bored to receive the element to be coupled and externally threaded for threaded engagement with said stationary female member and provided with a readily distortable end portion adapted to engage and rotate on said shoulder within said female portion to grind a gas tight union therebetween and to be distorted and forced by said shoulder into intimate contact with the element to be coupled, to simultaneously grind a gas tight union therebetween and upon inward progression of said readily distortable portion to jam the end of the element to be coupled into the said internal tapered portion in the stationary female member to effect a tight union therebetween in such manner that the element to be coupled is engaged and gripped at two points within the coupling.

3. In a readily separable coupling, a relatively stationary female member, means therein to engage and grip the end of an element to be coupled, an internally threaded

portion and an internal annular shoulder, a rotatable male member bored to receive the element to be coupled and threaded for engagement with the said stationary female member, a readily distortable portion on said rotatable male member adapted upon inward progression thereof to engage and rotate on said internal annular shoulder to grind a gas tight joint therebetween, to be distorted by said shoulder into intimate contact with the element to be coupled and to jam the inner end of the element to be coupled into said means within the female member for engaging and gripping the end of the element to be coupled in such manner that the element to be coupled is rigidly held at two points within the coupling.

4. In a readily separable coupling, a relatively stationary female member, means therein to receive and grip the end of an element to be coupled, a rotatable male member, said members being threaded for connection together, a readily distortable portion on said rotatable male member, means within said stationary female member for distorting said distortable portion on said rotatable male member upon rotation and inward progression thereof to cause said distortable portion to engage and grip the element to be coupled and to cause an inward movement of the element to be coupled thereby forcing the element to be coupled into intimate engagement with the said means within the said female member for receiving and gripping the end of the element to be coupled, the whole arranged in such manner that the element to be coupled is rigidly held at two points within the coupling.

1,143,817. FLYING-MACHINE. GEORGE M. ECKENWILER, Canton, Ohio, assignor of nine-twentieths to Ernest Singer, Fred Singer, Arthur Claypool, Joseph Adams, Alfred Crider, John Brogden, William O'Brien, Albert Grimm, Vincent Pennell, and Dale Pennell, Canton, Ohio. Filed Aug. 19, 1912. Serial No. 715,700. (Cl. 244—14.)



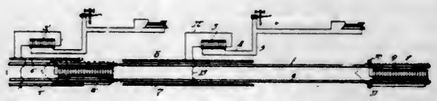
1. A flying machine comprising an aeroplane structure formed of intersecting planes adapted for movement through the air in the direction of the line of their intersection, said planes, intermediate their forward and rear ends, having portions cut out of the bodies of said planes adjacent said line of intersection and producing an opening in said planes in the midst of the aeroplane structure, a main shaft extending throughout the length of said aeroplane structure at the line of intersection of said planes, said planes extending to and connected to said shaft to the front and rear of said opening, and propelling means arranged within the said opening and connected to said main shaft, said aeroplane structure adapted for rotation about said shaft and with relation to said propelling means.

2. A flying machine comprising a shaft, an aeroplane structure formed of four substantially semi-elliptical planes arranged at substantially 90° to each other and connected at their inner, straight edges to said shaft, said planes, intermediate their forward and rear ends, and adjacent said shaft provided with cut away portions forming an opening in said planes in the midst of the aeroplane structure, vertical and horizontal rudders at the ends of said shaft and propelling means and rudder controlling means arranged within said opening, said aeroplane structure, comprising said four planes, being rotatable about said shaft and with relation to the remainder of the flying machine.

3. A flying machine comprising a shaft, an aeroplane structure formed of four planes arranged at substantially 90° to each other and connected at their inner, straight edges to said shaft, four rotatable propellers arranged with their axes at the four corners of a square, the center of which is concentric with said shaft, means for rotating said propellers upon their individual axes and for maintaining the equilibrium of said propellers to prevent rotation of said individual axes about said shaft, and said aeroplane structure comprising said four planes adapted for rotation about said shaft and with respect to said individual axes, whereby said planes may be disposed in alinement with said individual axes or may be moved into positions intermediate said axes.

4. The combination with elongated supporting planes extending radially from a common axis and a pivot rod longitudinally of said axis, said planes having openings adjacent to said rod, an operator's basket fixed to the rod and suspended therefrom within the area of said openings whereby the planes may swing laterally with respect to the rod and basket, propelling means carried by the rod and operating within the area of said openings, means for causing the ascent and descent of the machine, and means for guiding the machine to the right or left.

1,143,818. CHARGING STORAGE BATTERIES. THOMAS A. EDISON, Llewellyn Park, West Orange, N. J. Filed Jan. 17, 1912. Serial No. 671,755. (Cl. 171—314.)



1. The method of charging storage batteries located at intervals along a railway, which consists in providing a suitable vehicle with a source of current, and connecting each of the batteries to the said source during the period of time occupied by the railway vehicle in passing over a short distance predetermined for each battery, substantially as set forth.

2. The method of charging storage batteries located at intervals along a railway track, which consists in supplying current to each of the batteries from sources carried by passing trains, the rate of charge from each such source being inversely approximately proportional to the average speed of the train carrying it, substantially as set forth.

3. In a system of the class described, a railway track, a plurality of storage batteries located at intervals along said track, and a charging terminal for each of said storage batteries adapted to contact with a contact terminal located upon a railway vehicle during the passage of the vehicle thereby, substantially as described.

4. In a system of the class described, a railway track, a plurality of storage batteries located at intervals along said track, and a pair of conducting rails for each storage battery located parallel to the track and insulated therefrom, each of said pairs of rails constituting charging terminals for the storage battery associated therewith, substantially as described.

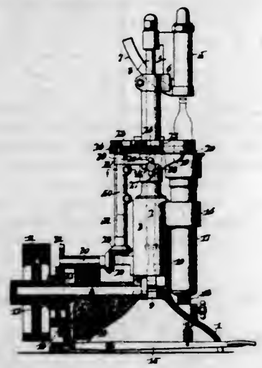
5. In a system of the class described, a railway track, a plurality of stationary storage batteries located at intervals along said track, a railway vehicle adapted to travel on said track and provided with a storage battery having a terminal contact and containing a greater number of cells than any one of said stationary storage batteries, and a charging terminal for each of said storage batteries, said charging terminals being in fixed relation to the track and adapted to contact with the terminal contact of the storage battery of the railway vehicle throughout predetermined distances of travel of the railway vehicle, substantially as described.

[Claim 6 not printed in the Gazette.]

1,143,819. BOTTLE-CAPPING MACHINE. GEORGE FAILING, Philadelphia, Pa. Filed Jan. 25, 1912, Serial No. 673,286. Renewed Dec. 14, 1914. Serial No. 877,221. (Cl. 113—2.)

1. A bottle capping machine including in combination a standard, a bottle capping head mounted on said standard,

an operating shaft, means for reciprocating said head from said shaft, a bracket adjustably carried by said standard, a supporting table mounted on said bracket, a conveyer carried by the bracket and mounted to turn about the standard as an axis and located above said table, a yielding support on which the bottles rest for capping, a bearing carried by said bracket, a shaft mounted in said bearing, and having operating connection with said conveyer at its upper end, said shaft having an operating connection with the shaft which reciprocates the head, whereby said conveyer is moved in timed relation to the reciprocations of said head.



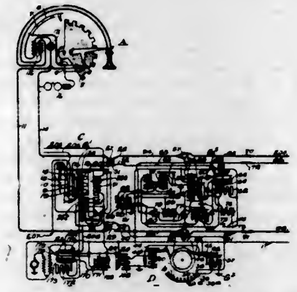
2. A bottle capping machine including in combination a standard, bottle capping means carried by said standard, a vertically adjustable bottle support disposed beneath said means, a vertically adjustable conveyer mounted on said standard and rotatable about the axis of said standard for moving said bottles onto said support, an operating shaft disposed below said conveyer, and means for rotating said conveyer from said operating shaft including an extensible driving shaft.

3. A bottle-capping machine including in combination, a standard, a bottle-capping head mounted on said standard, a shaft, means for reciprocating said head from said shaft, a bracket adjustably carried by said standard, a supporting table mounted on said bracket, a conveyer mounted to turn about the standard as an axis and located above said table, a yielding support on which the bottles are moved by the conveyer for capping, means carried by the table and coöperating with the conveyer for guiding the bottles to and from said yielding support, and means for operating said conveyer from said shaft, whereby said conveyer is moved in timed relation to the reciprocation of the head.

4. In a bottle capping machine, a rotary bottle conveyer comprising a circular disk having peripheral bottle receiving pockets formed therein, said disk being formed with flanges respectively projecting upwardly from the walls of said pockets and removable segments engaged with said flanges to vary the sizes of said pockets.

1,143,820. TELEPHONE TRUNKING SYSTEM. EDWARD D. FALES, La Grange, Ill., assignor to Automatic Electric Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 30, 1909. Serial No. 486,725. (Cl. 179—18.)

1. In a telephone system, a calling subscriber's line, a called subscriber's line, means for extending a connection between said lines, including a switch, a second calling subscriber's line, a second called subscriber's line, means for extending connection between the said second lines, also including a second switch, a common controlling mechanism for both of said switches, said common mechanism adapted to be operated when either of said switches is operated, together with means whereby, when the first switch causes the operation of said common mechanism, the said second switch is rendered inoperative for calling while the common mechanism is operating, and means whereby, if an attempt is made to use the said second switch for calling, the call is blocked and a signal given to the calling party indicating that he cannot get his call and should release.



2. A subscriber's line, a switch for calling purposes adapted to be used by said line, a controlling device for said switch, said controlling device adapted to be operated, means whereby, while the said controlling device is operated, the said switch is rendered inoperative for calling, together with means whereby, if an attempt is made to make a call through the said switch, the call is blocked and the subscriber is given a signal indicating that he cannot get his call and should release.

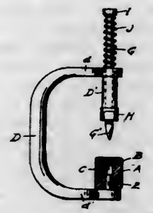
3. In a telephone system, a switch for calling purposes, a device for controlling said switch, means for operating said device, means for rendering the said switch incapable of transmitting a call while the device is operating, together with means whereby, if an attempt is made to use the said switch for calling while the said device is operating, the calling party is signaled to that effect.

4. In a telephone system, a subscriber's line, a switch for said line for establishing connection with another line, an operating magnet for closing said connection, a controlling master switch adapted to be operated when such a connection is made by said switch, or by some other switch, means for rendering the said operating magnet inoperative while the master switch is operating, together with means whereby, if an attempt is made to operate the said operating magnet, the first-mentioned switch is locked and made unresponsive to a call until the switch is released.

5. In a telephone system, a switch for establishing connection between two lines, an auxiliary switching mechanism adapted to be operated, means for rendering said switch inoperative for connecting purposes while the said auxiliary mechanism is in operation, together with means for preventing the said switch from becoming operative for calling purposes as soon as the auxiliary mechanism stops its operation, if an attempt has been made to use the said switch for connecting purposes while the auxiliary mechanism was operating.

[Claims 6 to 28 not printed in the Gazette.]

1,143,821. WHEEL-TIRE-MARKING TOOL. JAMES M. FRAZER, Weston, Mo. Filed Dec. 6, 1913. Serial No. 805,034. (Cl. 33—189.)

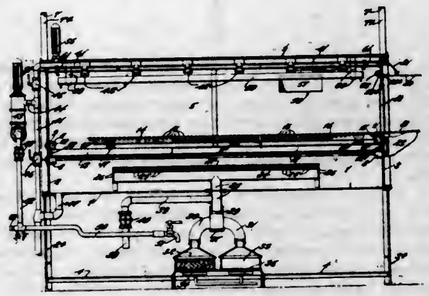


1. In a wheel tire marking tool the combination with a curved handle having corresponding flattened ends in vertical alinement, of a rod having a punch end, a thread immediately above said punch end, and a thimble to engage said thread, a holding sleeve extending vertically below the upper lateral end of the handle, a flange on the top of said rod, and a spiral spring on said rod having its upper end always in engagement with said flange and its lower end always seated on the upper lateral end of said handle.

2. The combination in a wheel tire marking tool having its ends in vertical alinement the upper end having a central circular opening, and a rigidly set holding sleeve extending below said opening, of a straight vertical rod having a tapering marking point at the bottom, a threaded portion above said taper point, a threaded thimble serving as a buffer on said rod against the bottom of said sleeve adjustable off and on said rod, and a flat flanged head and a spiral spring seated on said rod at the top of said circular opening and always in engagement with the bottom of said flanged head.

3. In a wheel tire marking tool the combination with a curved handle its ends always in vertical alinement the lower end having a wheel rim and tire holding bolt and the upper end a downwardly projecting holding sleeve, of a rod having a tapered and threaded lower end and a flanged head, and an unhoused spiral spring on said rod between its flanged head and the upper end of the handle in engagement at its top and bottom only and a thimble on the lower portion of said rod to serve as a buffer.

1,143,822. BATH-CABINET. WILLIAM GIEDINGHAGEN, Mount Sterling, Mo. Filed Apr. 21, 1913. Serial No. 762,545. (Cl. 4—13.)



1. In a bath apparatus, a horizontal cabinet having an open side, a closure therefor, a wheel supported carriage mounted in said cabinet and movable sidewise through said open side, and a body support on said carriage.

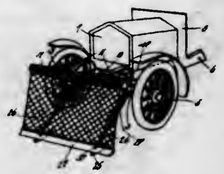
2. In a bath apparatus, a horizontal cabinet having an open side and an opening in its end, a carriage mounted in said cabinet and movable sidewise through said open side, and a body support movable longitudinally on said carriage, said body support having a head-rest at its end arranged and adapted to move through said opening in the end of the cabinet.

3. In a bath apparatus, a horizontal cabinet having opposite open sides and an opening in its end, a carriage mounted in said cabinet and movable sidewise through either of said open sides, and a body support movable longitudinally on said carriage, said body support having a head-rest at its end arranged and adapted to move through said opening in the end of the cabinet.

4. In a bath apparatus, a horizontal cabinet having an open side and an opening in its end, a transversely movable carriage supported at its ends on the end walls of said cabinet so as to move through said open side, and a body support movable longitudinally on said carriage, said body support having a head-rest at its end arranged and adapted to move through said opening in the end of the cabinet.

5. In a bath apparatus, a horizontal, substantially cylindrical cabinet having an opening in its side, extending the length thereof, and an opening in its end, a closure for said side opening, a transversely movable carriage comprising a rectangular frame supported at its ends on the end walls of said cabinet and arranged and adapted to move through said side opening, an open-work body support movable lengthwise on said carriage and having a head-rest at its end arranged and adapted to move through said opening in the end of the cabinet.

1,143,823. FENDER FOR WHEELED VEHICLES. LUE V. GREGSON and ARTHUR P. GOUGH, Seattle, Wash. Filed May 7, 1914. Serial No. 836,843. (Cl. 105—130.)



1. In a fender for wheeled vehicles, in combination with a casing adapted to receive a net in folded condition, a plate arranged in parallel with said casing, said net having opposite edges connected to said casing and plate, means for releasably securing said plate to said casing, a pair of cylinders having axially arranged bores therein and pivotally connected to the vehicle, rods reciprocatively received in said cylinders and connected at their forward ends with said plate, and means within said cylinders adapted to extend said rods when the plate is released.

2. In a fender for wheeled vehicles, in combination with a casing adapted to receive a net in folded condition, a plate arranged in parallel with said casing, said net having opposite edges connected to said casing and plate, means for releasably securing said plate to said casing, a pair of cylinders having axially arranged bores therein and pivotally connected to the vehicle, rods reciprocatively received in said cylinders, and connected at their forward ends with said plate, and means to secure said rods in extended position.

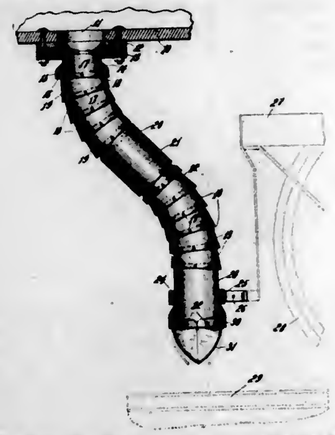
3. In a fender for wheeled vehicles, in combination with a casing adapted to receive a net in folded condition, a plate arranged in parallel with said casing, said net having opposite edges connected to said casing and plate, means for releasably securing said plate to said casing, a pair of cylinders having axially arranged bores therein and pivotally connected to the vehicle, rods reciprocatively received in said cylinders and connected at their forward ends with said plate, and a coil-spring secured at one end to the forward portion of the cylinder-bore and at its other end adapted to be extended in tension upon the end of said rods.

4. In a fender for wheeled vehicles, in combination with a casing adapted to receive a net in folded condition, a plate arranged in parallel with said casing, said net having opposite edges connected to said casing and plate, means for releasably securing said plate to said casing, a pair of cylinders having axially arranged bores therein and pivotally connected to the vehicle, rods reciprocatively received in said cylinders and connected at their forward ends with said plate, a coil-spring secured at one end to the forward portion of the cylinder-bore and at its other end adapted to be extended in tension upon the end of said rods, and means to secure said rods in extended positions.

5. In a fender for wheeled vehicles, in combination with a casing adapted to receive a net in folded condition, a plate arranged in parallel with said casing, said net having opposite edges connected to said casing and plate, means for releasably securing said plate to said casing, a pair of cylinders having axially arranged bores therein and pivotally connected to the vehicle, rods reciproca-

tively received in said cylinders and connected at their forward ends with said plate, and a coil-spring secured at one end to the forward portion of the cylinder-bore and at its other end provided with a disk adapted to bear against the end of said rods.

1,143,824. TRACK-SANDER SPOUT. WILLIAM C. HAESE, Milwaukee, Wis. Filed Dec. 7, 1914. Serial No. 875,779. (Cl. 105—60.)



1. A spout for track sanders, comprising a flexible tube formed of sections pivotally connected together, each section having a groove in its lower edge receiving the upper edge of the section therebeneath, means on the uppermost section for connection with a car body and means on the lowermost section for connection with a car truck.

2. A spout for track sanders, comprising a flexible tube formed of sections pivotally connected together, each section having its side walls of V-shape in cross section with its single edge pivotally connected between the double edge of the section thereabove, means on the uppermost section for connection with a car body and means on the lowermost section for connection with a car truck.

3. A track sander spout, comprising a pair of oppositely curved flexible elbows connected with the car body and the car truck respectively, each elbow being formed of sector-shaped tubular members pivotally connected together, the upper single edge of each member fitting between a pair of lower divergent edges of the member thereabove, and means for connecting the elbows together.

4. A spout for track sanders, comprising a pair of flexible tubular elbows connected respectively to a car body and a car truck, each elbow comprising a series of sector-shaped tubular members pivotally connected together, each member having a single upper edge and a pair of divergent flanges for the lower edge forming an annular groove between them and each member having its upper edge pivotally connected within the annular groove of the member thereabove, a tubular member having its upper edge pivotally connected in the annular groove of the lowermost member of the upper elbow and having an inner and an outer wall with an annular space between them, and a tubular member slidably fitting within said annular space and having an annular groove at its lower end within which is pivotally connected the upper edge of the uppermost member of the lower elbow.

5. A spout for track sanders, comprising a funnel plate, a flanged ring secured thereto, a flanged swivel member fitting between the funnel plate and the flanged ring and capable of turning, said swivel member having an annular groove at its lower edge, a flexible elbow of articulated interfitting members having tongued and grooved upper and lower edges respectively, a similar flexible elbow having telescoping connection with the first mentioned flexible elbow, a tubular member at the lower end of the second flexible elbow, a flanged collar thereon, a ring within which the flanged collar is swivelly mounted and adapted for connection with a car truck, said tubular member having an annular groove at its lower edge, and curved lip members pivotally mounted within the annular groove and normally engaging each other to close the end of the spout but opening by the weight of the sand to distribute the sand on the rail.

1,143,825. PURSE. ALFRED HAUSAMMANN, Peoria, Ill. Filed Nov. 18, 1914. Serial No. 872,757. (Cl. 150—28.)



1. A purse comprising a cover formed of a piece of material open at its ends and comprising flat sides, one of said sides forming a loop, an inner member folded in a U-shape, angle pieces carried by said member and fastening means releasably connecting said member and the cover for retaining them in operative relation with each other.

2. A purse comprising a cover formed of a piece of material open at its ends and comprising flat sides, one of said sides being longer than the other and forming a loop, an inner member folded in a U-shaped, angle pieces carried by said member and a strap releasably connecting said inner member and cover for retaining them in operative relation with each other.

1,143,826. PURE-KIESELGUHR BRICK AND PROCESS FOR MAKING THE SAME. ARTHUR CH. HESSELMEYER, Chicago, Ill. Filed Nov. 6, 1914. Serial No. 870,576. (Cl. 25—156.)

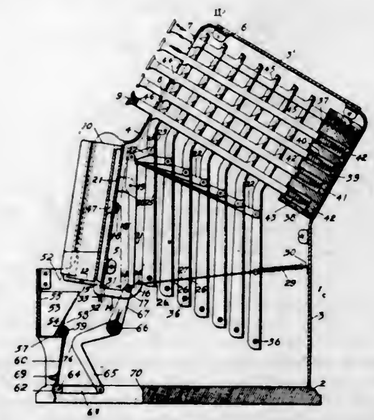
1. The process of making kieselguhr into a solid brick or mass which consists in grinding the raw kieselguhr to bond, that is to the point just short of destroying the individual cell structures and thereafter forming the same in a suitable mold in moist condition, subjecting the same to sufficient pressure to bring the particles into intimate bonding relation and finally firing the brick or mass above dehydrating temperature but short of the sintering temperature to cure the same.

2. The process of making kieselguhr into a solid brick or mass which consists in grinding the raw kieselguhr under water to the degree of fineness short of destroying the individual cell walls whereby the material is brought to the bonding state, then forming the same in a suitable mold, then subjecting the same to pressure so as to bring the cells or particles into bonding relation then dehydrating the material by heating.

3. A molded article of kieselguhr composed of particles of pure kieselguhr ground to a fineness just short of destroying the cell walls, said particles being bonded together solely by the cementitious properties of the finely ground material.

4. A dense cohesive molded mass of pure homogeneous kieselguhr, said mass consisting of finely ground unsintered particles of kieselguhr bonded together by the cementitious properties of the finely ground material only.

1,143,827. COIN-HANDLING APPARATUS. CHARLES P. HIDDEN, Brookline, Mass., assignor to The Lamson Company, Boston, Mass., a Corporation of New Jersey. Filed Oct. 20, 1913. Serial No. 796,229. (Cl. 133—4.)



1. In a coin handling mechanism, a series of keys, a series of grids, supporting elements for the latter, pivotal connections between said grids and elements to permit of free movement of said grids with respect to each other, key operated selective means for swingingly displacing one or more of said grids in accordance with the keys actuated, a coin receptacle, and means controlled by said grids for ejecting coins of different denominations from said receptacle in accordance with the grids operatively displaced.

2. In a coin handling mechanism, a series of keys, a series of pivotally mounted grids, key operated elements normally extending through said grills and having parts adapted to selectively engage said grids whereby to swing the latter, a coin receptacle, and means actuated by said grids for effecting the displacement of coins from said receptacle.

3. In a coin handling mechanism, a series of grids, a series of bars normally extending through said grids and adapted for movement in the direction of the length of said bars, said bars having shouldered parts for selectively displacing said grids by pressure thereagainst when said bars are displaced in the direction of their length, coin compartments, and means controlled by said grids for effecting the displacement of coins from said compartments.

4. In a coin handling mechanism, a series of keys, a series of pivotally mounted apertured plates, a series of bars normally extending through the apertures in said plates, said bars having shoulders for selectively rocking said plates by pressure thereagainst when said bars are operated, coin compartments, and a series of means each of which is controlled by one of said plates, for effecting the displacement of coins from said compartments.

5. In a coin handling mechanism, a series of keys, a series of substantially vertically disposed apertured grids relatively movable with respect to each other, means extending through the aperture of said grids for selectively moving said grids in accordance with the key actuated, coin compartments, the axes of which extend in substantial parallelism with the general planes of said grids, means controlled by said grids for effecting the displacement of coins horizontally from said compartments, and a casing for said grids adapted to occupy but relatively small space when placed upon a counter, said substantially vertical disposition of said grids permitting of said small base.

[Claims 6 to 16 not printed in the Gazette.]

1,143,828. PROCESS FOR MANUFACTURING ANODES. PERCY CLAUDE CAMERON ISHERWOOD, Bushey Heath, England. Filed May 17, 1913. Serial No. 768,377. (Cl. 204—4.)

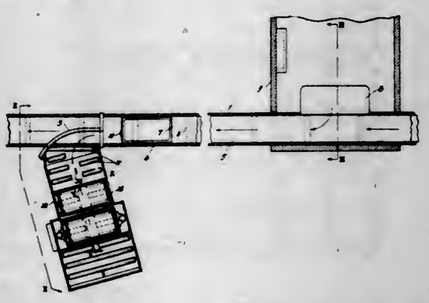
1. A method of producing anodes which comprises comminuting natural manganese dioxid ore, subjecting said ore to treatment with sulfuric acid under conditions effective to remove all metallic compounds present other than manganese compounds, mixing the treated ore with a solution of manganese nitrate to form a paste, molding, drying, and heating to remove nitrogen compounds.

2. A method of producing anodes which comprises comminuting natural manganese dioxid ore, subjecting said ore to treatment with a solvent indifferent to manganese dioxid but capable of removing other metallic compounds present, mixing the comminuted ore so treated with a solution of manganese nitrate in quantity about one-half the necessary amount to make the anode non-porous, molding, drying, heating to drive off nitrogen oxids, charging with the remaining half of the manganese nitrate and again drying and heating.

3. The method of producing anodes which comprises comminuting natural manganese dioxid ore, subjecting said ore to treatment with sulfuric acid under conditions effective to remove all metallic compounds present other than manganese compounds, mixing the treated ore with a solution of manganese nitrate to form a paste, molding, drying, and heating to remove the nitrogen compounds from the nitrate, and saturating the anode so produced repeatedly and drying and heating to produce a dense coherent article.

4. A method of producing dense coherent electrodes of pure manganese dioxid from manganese ore, which consists in comminuting the ore, leaching with a suitable agent to secure the removal of iron, nickel and cobalt impurities, mixing the leached ore with a solution of manganese nitrate to make a paste, molding, drying, and heating to drive off nitrogen oxids, and repeatedly soaking the electrode with a solution of manganese nitrate, drying and heating, until the pores thereof become filled and it becomes dense and hard.

1,143,829. DESPATCH OR CONVEYER SYSTEM. CHESTER S. JENNINGS, Boston, Mass., assignor to The Lamson Company, Boston, Mass., a Corporation of New Jersey. Filed Feb. 27, 1913. Serial No. 750,941. (Cl. 186—14.)



1. In a delivery system, a plurality of stations including a sending station and a delivering station, means for conveying material from the first toward the second station, provisions for preventing access to said material while in transit, and co-acting means, jointly controlled from a plurality of said stations and inoperative from a single one of said stations alone, for affording access to said material at said delivering station.

2. In a delivery system, a plurality of stations including a sending station and a delivering station, the latter adapted to serve a plurality of operatives, means for conveying material from the sending toward the delivering station, provisions for preventing access to said material while in transit, and co-acting means, having portions thereof disposed at and jointly controlled from said delivering station and from one other of said plurality of stations and inoperative from either of said two last mentioned stations alone, for affording access to said material at said delivering station, said system further comprising means for rendering evident when said co-acting means is so operated, which of said plurality of operatives actuated the portion of said co-acting means disposed at said delivering station.

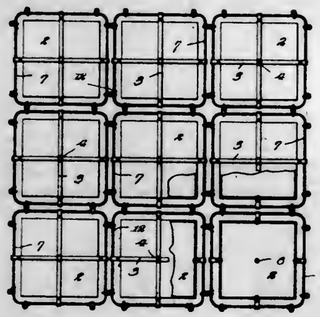
3. In a delivery system, a sending station and a delivering station, means for conveying material from said sending station to said delivering station, means for stopping said material while in transit, and co-acting means requiring joint operation from said sending and delivering station for controlling the advance thereafter of the so stopped material, toward a delivery point at said delivering station.

4. In a delivery system, a sending station, a delivering station, a plurality of trays, a conveyer for transmitting said trays from said sending station toward said delivering station, means for stopping the advance of said trays, means for rendering evident the stoppage of said trays to a person at said sending station, and means controlled jointly from both of said stations for controlling the advance thereafter of the so stopped material toward a delivery point at said delivering station.

5. In a delivery system, a sending station, a delivering station, a plurality of receptacles, means for transmitting said receptacles from said sending station generally toward said delivering station, means for diverting a receptacle from the path in which it has been traveling substantially directly toward said station, means for checking the onward progress of the so diverted receptacle, an actuating part disposed at said sending station, an actuating part disposed at said delivery station, and connections between said two last mentioned parts for jointly controlling the continued advance of the material the progress of which has been checked.

[Claims 6 to 23 not printed in the Gazette.]

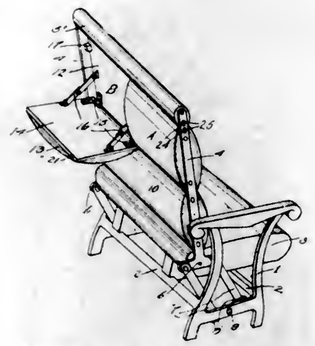
1,143,830. FLOAT. HANS CHRISTIAN JORGENSEN, Montreal, Quebec, Canada. Filed July 25, 1914. Serial No. 853,169. (Cl. 9—11.)



1. A float consisting of a hollow air-tight member, bands extending about the exterior of the member and crossing each other at the middle of the latter, a bolt passing through the crossed bands and extending from top to bottom of the hollow member, a sleeve inclosing the bolt and bearing at its ends respectively against the top and bottom interior surfaces of such member, supports secured to the exterior sides of the hollow member, a rail carried by such supports and spaced from the sides of the member.

2. A float consisting of a plurality of hollow, air-tight members, rails secured to and spaced from all the sides of the members, eyes secured to and extending rigidly from said rails, the eyes of each hollow member registering with the eyes of another hollow member, pins inserted through the eyes and cotters passed through said pins.

1,143,831. CAR-SEAT. UTAKICHI KAWASAKI, Seattle, Wash. Filed Dec. 16, 1912. Serial No. 736,931. (Cl. 155—26.)



1. In a railway car-seat, a walk-over back frame, a back-section comprising a pair of leaves hingedly connected to said frame and to each other, and a brace for each of said leaves whereby either of said leaves may be utilized as a back-rest and the other leaf employed as a rearwardly directed shelf.

2. In a railway car-seat, a walk-over back frame, a back-section in said frame comprising a pair of corresponding leaves hingedly connected upon opposite sides of said frame, each of said leaves being adapted to fold outwardly while supported from the other leaf and to serve as a shelf, said other leaf serving as a back-rest.

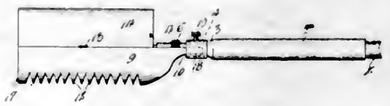
3. In a railway car-seat, a walk-over back frame, a back-section comprising a pair of leaves hingedly connected upon opposite sides of said frame and to each other, a folding brace hingedly connected at its opposite ends to each of said leaves, and means to releasably secure said leaves in closed condition, whereby either of said leaves may be utilized as a back-rest and the other leaf employed as a rearwardly directed shelf.

4. In a railway car-seat, a walk-over back frame, a pair of leaves hingedly connected upon opposite sides of said frame, and a folding brace connected at its opposite ends to the respective leaves, whereby either of said leaves may be utilized as a back-rest and the other leaf employed as a rearwardly directed shelf.

5. In a railway car-seat, a walk-over back-frame including vertical side-members upon each side of the seat, separate back-sections arranged side by side in said frame, each said section composed of two leaves hingedly connected upon opposite sides of the frame and with each other, a folding brace hingedly connected at its opposite ends to each leaf, whereby either of said leaves may be utilized as a back-rest and the other leaf employed as a rearwardly directed shelf, and means extending to and actuated from one of said side members for releasably securing either of said back-sections in closed condition.

1,143,832. RAZOR. MOTT KEISLAR, Phulera, India. Filed Sept. 11, 1912. Serial No. 719,720. (Cl. 30—12.)

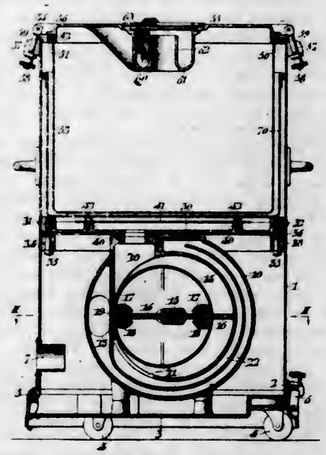
1. In a device of the character described, a hollow handle, a flexible shaft therein, an extension formed upon said handle, a split extension having connection with said flexible shaft, a blade shaft having connection with said split extension, said blade shaft carrying a plurality of razor blades, a substantially spoon shaped member having an opening formed in the bottom thereof, a plurality of teeth formed upon said spoon shaped member and projecting into said opening, an extension formed upon said substantially spoon shaped member, a sleeve slidably mounted upon said first named extension adapted to receive said last named extension and support said substantially spoon shaped member, and a semicylindrical cover carried by said spoon shaped member for the purpose described.



2. In a safety razor, a substantially spoon-shaped housing member having an opening formed in the bottom thereof, an extension formed upon said substantially spoon-shaped member, a handle provided with an extension to be received within the extension of the casing member, a sleeve slidably mounted upon said first extension to be received and fitted over the extension of the handle to hold said members rigidly connected together, and a bladed cutter rotatably mounted within said casing member to have turning movement adjacent the opening therethrough.

3. In a safety razor, a substantially spoon-shaped casing member having an opening formed in the bottom thereof, an extension formed upon said substantially spoon-shaped member, a handle provided with an extension to be received within the extension of the casing member, a sleeve slidably mounted upon said first extension to be received and fitted over the extension of the handle to hold said members rigidly connected together, a bladed cutter rotatably mounted within said casing member to have turning movement adjacent the opening therethrough, a semi-circular casing member mounted upon said spoon-shaped casing member to close over the openings thereof and form a tubular casing, and a circular end member to be received to fit the end of said tubular casing opposite the disposition of the handle therefrom.

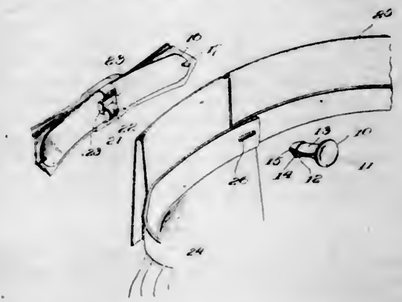
1,143,833. VACUUM-CLEANER. WILLIAM H. KELLER, Philadelphia, Pa., assignor, by mesne assignments, to Santo Manufacturing Company, Philadelphia, Pa., a Corporation of Delaware. Filed Feb. 5, 1909. Serial No. 476,285. (Cl. 83—47.)



1. A portable vacuum cleaner comprising a supporting base, a cylindrical outer casing mounted on said base with its axis vertical, means for detachably connecting said casing to said base, a single partition extending across said casing intermediate its ends, said partition fitting the inner face of said casing, means for securing the partition to said casing, means coöperating with said partition for forming an air tight joint between the partition and the casing, a filtering material arranged in the casing above said partition, means for closing the top of the casing, said closing means having an inlet opening, said partition having an opening formed therethrough and vacuum creating means located in the casing below the partition and connected to said opening formed through said partition.

2. A portable vacuum cleaner comprising a supporting base, a cylindrical outer casing mounted on said base with its axis vertical, means for detachably connecting said casing to said base, a single partition extending across said casing intermediate its ends, said partition fitting the inner face of said casing, means for securing the partition to said casing, the lower edge of said partition having a beveled portion, a ring, means for clamping said ring to said partition, said ring having a beveled portion facing the beveled portion on said partition, a packing adapted to be engaged by said beveled portions and forced against the outer casing for making an air tight joint between the partition and the casing, a filtering material arranged in the casing above said partition, means for closing the top of the casing, said closing means having an inlet opening, said partition having an opening formed therethrough, and vacuum creating means located in the casing below said partition and having an inlet opening registering with the opening in said partition.

1,143,834. COMBINED COLLAR-BUTTON AND NECK-TIE-FASTENER. ROY H. KIMSEY, Gillett, Ark. Filed Aug. 20, 1914. Serial No. 857,738. (Cl. 24—64.)



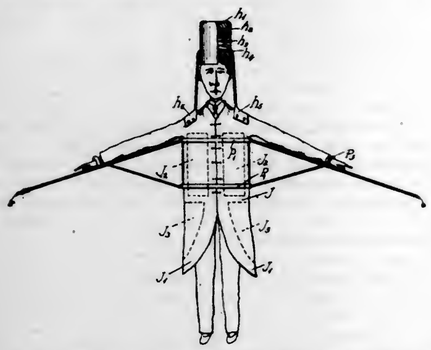
1. A device of the character described including a stud, and an attaching plate adapted to coact with the stud, said plate having an aperture formed therein, opposite walls of said aperture being bent laterally to provide guides, lugs formed on said plate and bent to provide coacting gripping jaws disposed for engagement with said stud, the said guides being arranged to direct the stud into engagement with said jaws.

2. A device of the character described including a stud, and a substantially oblong attaching plate adapted to coact with the stud, said plate being provided with relatively straight uninterrupted side edges and having an aperture medially formed therein, opposite walls of the aperture adjacent the ends of the plate being bent laterally to provide guides, and oppositely disposed lugs formed on the side edges of the plate, said lugs being bent to extend through said aperture and providing coacting gripping jaws arranged for engagement with said stud, said guides being disposed to direct the stud into engagement with the said jaws.

3. A device of the character described including a stud, and an attaching plate adapted to coact with the stud, said plate having an aperture formed therein, the opposite walls of said aperture being bent laterally to provide guides, and oppositely disposed lugs struck from

the plate, said lugs being bent to extend through said aperture and providing coacting gripping jaws arranged to engage the stud, said guides being disposed to direct the stud into engagement with said jaws.

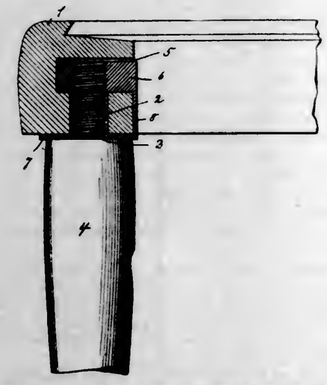
1,143,835. LIFE-SAVING APPARATUS. MICHAEL KISPÉTER, New York, N. Y. Filed Jan. 16, 1915. Serial No. 2,540. (Cl. 244—21.)



1. A life saving apparatus, for aeronauts, comprising, in combination, a jacket lined with air-tight inflatable cushions, a parachute adapted to be easily opened and closed, removably attached to the body over said jacket, and a helmet supported over the head of the wearer by means of supports attached removably to the shoulder and back portions of said jacket, resilient means in said helmet, substantially as and for the purpose set forth.

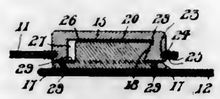
2. A life saving helmet, comprising, in combination, a cylindrical body portion closed at the top, said top lined at the inside with resilient material, a helical spring between two metal plates within said cylindrical body, projections of the lower one of said plates piercing the sides of said cylindrical body, adapted to be fastened to the shoulder portions of a life saving jacket, and to support said helmet just above the head of the wearer, and a prolongation of the material covering said helmet adapted to be removably fastened to the back portion of a life saving jacket, substantially as and for the purpose set forth.

1,143,836. FURNITURE-LEG FASTENER. JULIUS KOHN, Vienna, Austria-Hungary. Filed Dec. 10, 1914. Serial No. 876,485. (Cl. 45—48.)



In a device of the character described, a frame provided with a mortise, a perforated web formed below said mortise, and a U-shaped clamp straddling said web and comprising an upper shank accommodated within the mortise and having a threaded bore in axial alinement with the web-perforation, a lower shank extending along the lower side of the frame and having a perforation also in alinement with the web-perforation, and a cross piece connecting said upper and lower shanks, combined with a leg engaging the lower clamp-shank, and a screw projecting upwardly from said leg and loosely passing through the lower shank- and web-perforations into engagement with the threaded bore of the upper clamp-shank.

1,143,837. SHOE-CLASP. MARTIN KOZLOWSKI, Greensburg, Pa. Filed Dec. 26, 1914. Serial No. 879,094. (Cl. 24—208.)



A device of the class described, comprising a block member and a socket member, the said block member including a base, a triangular-shaped block mounted upon the base and having two inclined sides meeting in an apex line inwardly inclined to the said base to provide an undercut edge, the said socket member being of substantially the same dimensions as the said block base and having an opening therein of greater dimensions than the block with inclined converging sides flatly engaging the sides of the block when the block and socket members are assembled, the converging end of the socket member being closed and carrying a rearwardly extending inclined abutment adapted to engage the undercut forward edge of the block to reinforce the same at the contacting point and relieve the strain on the side walls.

1,143,838. HAT-PIN-POINT PROTECTOR. LOUIS F. KRUPICKA, Niobrara, Nebr. Filed May 23, 1912. Serial No. 699,288. (Cl. 24—155.)

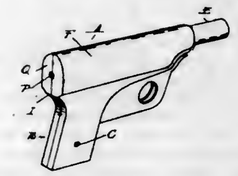


1. A hat pin point protector, comprising two sections pivotally connected together, each of which is provided at its forward end with a concave portion extending along the meeting edge thereof, the rearward ends of said sections being bulged and having a spring carried between said bulged sections whereby to normally hold the forward ends thereof into engagement with the pin, and staples carried approximately midway of said forward and rearward ends adapted to be brought into alinement and upon release thereof to bind against the end of the pin to positively lock the same within the sections and a guide arranged in front of said staples.

2. A hat pin point protector comprising two sections pivotally connected together each of which is provided at its forward ends with a concave portion extending along the meeting edge thereof, frictional material carried in said concave portion and adapted to frictionally engage with the hat pin, the rearward ends of said sections being bulged and having a guide carried on the inner face of each of said rearward sections, a spring having its ends operating in said guides when pressure is exerted on said bulged portions, staples carried approximately midway of said forward and rearward ends adapted to be brought into alinement and upon release thereof to bind against the end of the pin to positively lock the same within the sections and a frusto-conical guide arranged between the sections in front of said means whereby the pin is positively guided into said staples.

3. A hat pin point protector comprising two sections pivotally connected, each of which is provided at its forward end with a concave portion extending along the meeting edge thereof, frictional material carried in said concave portions, the rearward ends of said sections being bulged and having guides arranged therein, a spring operating in said guides, a plurality of staples carried on the inner side of the bulged portions and adapted to be brought into alinement and upon release thereof to bind against the pin shank.

1,143,839. LIQUID-PISTOL. CHARLES F. LEFEVER, Plymouth, Mich., assignor to Daisy Manufacturing Company, Plymouth, Mich., a Corporation of Michigan. Filed Apr. 1, 1915. Serial No. 18,487. (Cl. 42—56.)



1. In a liquid pistol, the combination of a barrel, a stationary piston therein including its head and a liquid barrel within which the head is arranged, a movable member arranged in the barrel and carrying the liquid barrel, and a power storing spring adapted to act on said member.

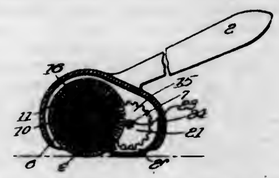
2. In a liquid pistol, the combination of a barrel, a stationary piston therein including its head and a liquid barrel within which the head is arranged, a movable member arranged in the barrel and carrying the liquid barrel, and a power storing spring adapted to act on said member, the latter being provided with a portion forming a trigger.

3. In a liquid pistol, the combination of a barrel, a stationary piston therein including its head, a member arranged in said barrel for longitudinal sliding movement and having a portion projecting therewithout, provided with a trigger part, a power storing spring acting upon said member, and a liquid cylinder arranged in said member within which said head is positioned.

4. In a liquid pistol, the combination of a barrel, a stationary piston therein including its head, a member arranged in said barrel for longitudinal movement, a spring acting upon said member to hold the same in one position of adjustment, a liquid cylinder within which said head is arranged, said cylinder being positioned within the forward end of said member and secured thereto against longitudinal movement.

5. In a liquid pistol, the combination of a barrel, a stationary piston therein, a member arranged in said barrel for longitudinal movement, a spring acting upon said member, the forward end of said member being cylindrical, a liquid cylinder arranged in said cylindrical end, and means for retaining said member in said cylindrical end.

1,143,840. CRUMB-COLLECTING DEVICE. LOUIS LELONG and JOHN ROSCOE MILLWARD, Newark, N. J. Filed Aug. 26, 1913. Serial No. 786,766. (Cl. 15—60.)



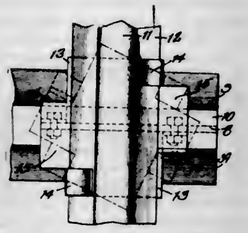
1. A crumb collecting device comprising a suitable casing, drive wheels suitably journaled, a rotary brush journaled concentric with the drive wheels, a counter shaft arranged parallel to the brush, driving connections on the counter-shaft in engagement respectively with the drive wheels and the brush whereby the brush is rotated from the drive wheels and a collecting pan pivotally supported on the counter-shaft to afford a rear support for the device and adapted to be swung rearwardly within the case to empty its contents.

2. A crumb collecting device comprising a suitable casing, drive wheels suitably journaled, a rotary brush journaled concentric with the drive wheels, connections from the wheels to the brush whereby the brush is rotated, a collecting pan suitably journaled to afford a rear support for the device and adapted to be swung upwardly within the casing to empty its contents, a yieldable catch operating between the pan and the casing for retaining the pan in its operative position and a handle on the casing.

3. A crumb collecting device comprising a casing, a drive shaft journaled in the casing, driving wheels fixed on the drive shaft, a rotary brush journaled on the drive shaft, a counter shaft suitably journaled parallel to the drive shaft, a pinion at one end of the drive shaft and rotatively connected thereto, a pinion on the counter shaft in mesh therewith, a pinion at the opposite side of the counter shaft, a pinion secured to the brush in mesh with said opposite pinion and a collecting pan arranged to the rear of the brush and pivotally supported on the counter shaft.

4. A crumb collecting device comprising a suitable casing, drive wheels suitably journaled, a rotary brush suitably journaled, a counter shaft arranged paralell to the brush, driving connections on the counter shaft in engagement respectively with the drive wheels and the brush whereby the brush is rotated from the drive wheels and a collecting pan pivotally supported on the counter shaft to be swung rearwardly within the case to empty its contents.

1,143,841. METALLIC TIE AND RAIL-FASTENING THEREFOR. FREDERICK A. LESTER, Chicago, Ill., assignor to Chicago Standard Equipment Company, Chicago, Ill., a Corporation of Maine. Filed Aug. 10, 1914. Serial No. 856,003. (Cl. 238—2.)



1. A rail fastener comprising a body member provided on its upper face with rail engaging elements extending inwardly toward the rail seat, and having transverse side members extending from said rail seat to one side of and beyond said rail engaging elements, each of said transverse members being formed at diagonally disposed side portions thereof with an inwardly extending tie head gripping element and a depending attaching side flange, substantially as described.

2. The combination with an I-beam tie, of a tie plate therefor comprising a rail seating portion and side members adapted to seat on the head of the tie, the rail seating portion extending longitudinally of the rail beyond the side portions and provided thereat with rail gripping elements on its upper face, said side members forming an integral extension of the rail seat proper in the transverse direction beyond said rail gripping elements and provided with diagonally disposed tie head gripping elements, substantially as described.

3. The combination with an I-beam tie, of a tie plate formed from a single substantially rectangular blank and comprising a rail seating portion and side portions adapted to seat on the head of the tie, the rail seating portion extending longitudinally of the rail beyond the side portions at each side of the tie and provided thereat with oppositely disposed rail gripping elements on its upper face, said side portions constituting integral transverse extensions of the rail seat proper and having side portions thereof provided with diagonally disposed tie head grip-

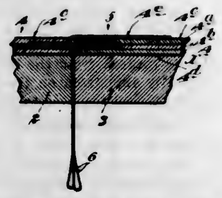
ping elements and depending flanges formed with reference to the side of the tie for attachment thereto.

4. A metallic tie plate for a headed metal beam tie comprising a central web portion and four integral arms extending substantially radially therefrom, two of the arms with the central portion constituting the rail seat and the other two arms with the central web portion being seated on the head of the tie, the first mentioned arms being provided with diagonally disposed rail base-engaging elements and the other said arms with similarly disposed tie head gripping elements, said plate being adjustable bodily to simultaneously bring the said elements in operative relation with the rail base and tie head.

5. A tie plate formed from a single substantially rectangular metal blank and having oppositely extending and diagonally disposed rail engaging and tie engaging members embodying partially separated and rebent corner edge portions of the web of the plate.

[Claim 6 not printed in the Gazette.]

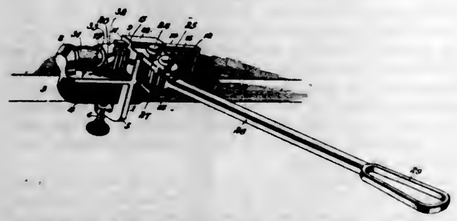
1,143,842. TABLE-PAD. COLEMAN C. LYDON, Minneapolis, Minn. Filed Sept. 13, 1913. Serial No. 789,677. (Cl. 65—53.)



1. A table top protector made up of rigid sections, having at their abutting edges depending flexible straps permanently attached thereto and adapted to be pinched between the sections of a table top, said straps extending below the table top and affording hand pieces by which the sections of the table top protector may be pulled into place before the straps are pinched by the closing of the table top sections.

2. A table top protector made up of rigid sections, each section being made up of upper and lower plies and coverings therefor, said sections having at their abutting edges depending flexible anchoring straps, the upper ends of which are interposed between the upper and lower plies of said sections permanently secured thereto and adapted to be pinched between the sections of a table top, said straps extending below the table top and affording hand pieces by which the sections of the table top protector may be pulled into place before the straps are pinched by the closing of the table top sections.

1,143,843. MACHINE FOR CRACKING NUTS. CHARLES WALTON MCDONALD, Austin, Tex., assignor of one-half to Clarence W. Connally, Austin, Tex. Filed June 17, 1914. Serial No. 845,640. (Cl. 146—3.)



1. A nut cracking device including a frame comprising a horizontal plate, a vertical flange depending from and extending longitudinally of the plate and arranged to fit against the edge of a table or other support, a guide extending upwardly from the horizontal plate, which constitutes the bottom wall of the guide, a fixed jaw rigid with and extending upwardly from the said plate and arranged in spaced relation with the guide, a clamp depending from the frame and extending in rear of the flange for engaging the lower face of the top of the table, a horizontally movable slide or member mounted in the said guide and provided at one end with a head or jaw arranged to coöperate with the fixed jaw, and gearing for actuating the slide or member, said gearing including a horizontally swinging operating lever.

2. A nut cracking machine including a horizontal plate adapted to be secured upon a table or other supporting surface, a fixed jaw rigid with and extending upwardly from one end of the plate, a guide located at the other end of the plate and composed of a rear wall, a bottom wall formed by the said horizontal plate, and a top wall, said guide being open at the front, and upper and lower supporting arms extending forwardly at the open front of the guide, a horizontally movable slide or member mounted in the said guide and provided with a jaw or head arranged to coöperate with the fixed jaw, said slide or member being also provided at the front with a rack, an intermediate gear mounted between the inner portions of the supporting arms and meshing with the said rack, and an operating handle provided with a gear mounted between the outer portions of the said arms and meshing with the intermediate gear, whereby when the lever is oscillated the slide or member will be simultaneously moved in the same direction.

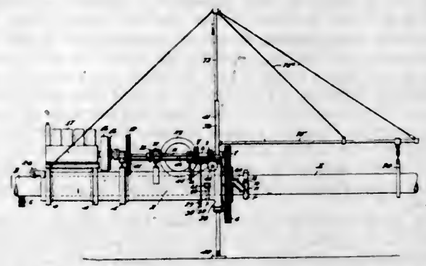
3. A nut cracking machine including a horizontal plate provided at one end with a fixed jaw rigid with and extending upwardly from the plate, a guide arranged at the other end of the plate and composed of a rear vertical wall and top and bottom walls, said guide being provided with an opening of a height less than that of the guide and forming upper and lower shoulders, upper and lower supporting arms extending from the guide at the top and bottom of the said opening, a horizontally movable slide mounted in the guide and provided at the front with a rack and having curved upper and lower longitudinal flanges slidable in the top and bottom portions of the guide and fitting against the said upper and lower shoulders, said rack projecting forwardly through the said front opening in the guide, and means for actuating the slide including a gear mounted between the supporting arms and meshing with the rack.

4. A nut cracking machine including a horizontal plate adapted to rest upon and be secured to a table or other supporting surface and provided at one end with an integral inclined jaw extending upwardly and inwardly from the said plate, a guide extending upwardly from the horizontal plate at the other end thereof and having its bottom wall formed by the said plate, said guide being open at the front, spaced upper and lower horizontal supporting arms extending from the guide at the open front thereof, a horizontally movable slide mounted in the guide and slidable along the said plate and provided at the front with a rack, said slide being also provided with a jaw arranged to coöperate with the said fixed jaw, and gearing supported by the said arms and coacting with the rack for reciprocating the slide.

5. A nut cracking machine comprising a frame including a horizontal plate, a slide or member provided at the front with a rack and having a head or jaw laterally enlarged at the side of the front of the slide or member and having a rack at the front, a gear mounted on the frame and meshing with the rack, said laterally enlarged head or jaw having a socket located in alinement with the pitch line of the meshing teeth of the rack and the gear, means for rotating the gear, and a fixed inclined jaw extending upwardly and rearwardly from the front end of the plate and arranged to coöperate with the movable jaw or head.

1,143,844. PIPE-LAYING MACHINE. JOHN J. MAHONEY, San Francisco, and WILLIAM L. NORRIS, Berkeley, Cal., assignors to California Pipe Line Machine Co., San Francisco, Cal., a Corporation of California. Filed May 7, 1913. Serial No. 766,056. (Cl. 29—88.2.)

1. In a machine for connecting pipes and the like, a carriage movably mountable on a laid pipe, driving means on the carriage, means actuated by said driving means for connecting a second pipe to the first pipe, means for moving the carriage to enable alinement of the pipes, and means actuated by the driving means to progressively move the carriage from one pipe to another as same are connected so as to be positioned ready for connecting a new pipe to the last connected pipe.



2. In a pipe screwing machine, the combination of a carriage adapted to be movably mounted on a horizontal pipe, a motor mounted on said carriage, means for propelling said carriage horizontally on the pipe by said motor, means for moving the carriage vertically, revoluble pipe gripping means on said carriage, and means for rotating said pipe gripping means by said motor.

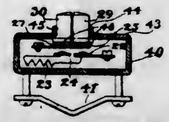
3. In a pipe screwing machine, the combination of a carriage adapted to be movably mounted on a horizontal pipe, a motor mounted on said carriage, means for propelling said carriage horizontally on the pipe by said motor, means for moving the carriage vertically, revoluble pipe gripping means on said carriage, means for rotating said pipe gripping means by said motor, and gripping means for locking the carriage and a pipe together.

4. In a pipe screwing machine, the combination of a carriage adapted to be movably mounted on a pipe line as on a track, a motor mounted on said carriage, means for propelling said carriage by said motor, revoluble pipe gripping means on said carriage, means for rotating said pipe gripping means by said motor, adjustable supporting legs on said carriage, and means for operating said legs by said motor.

5. In a pipe screwing machine, the combination of a carriage adapted to be movably mounted on a pipe line as on a track, a motor mounted on said carriage, means for propelling said carriage by said motor, revoluble pipe gripping means on said carriage, means for rotating said pipe gripping means by said motor, adjustable supporting legs on said carriage, means for operating said legs by said motor, and means on said carriage for suspending a pipe in horizontal relation thereto.

[Claims 6 to 22 not printed in the Gazette.]

1,143,845. AUTOMOBILE-HORN. RAY H. MANSON, Elyria, Ohio, assignor to The Garford Manufacturing Company, Elyria, Ohio, a Corporation of Ohio. Filed June 7, 1912. Serial No. 702,183. (Cl. 200—27.)



1. As an article of manufacture, the combination of a casing, contact springs in said casing, and complementary push buttons each consisting of a segment of a cylinder mounted contiguous to each other in said casing and controlling said contact springs, said buttons mutually sustaining each other.

2. As an article of manufacture, the combination of a casing, a plurality of contact springs mounted in said casing, a plurality of complementary push buttons, each consisting of a segment approximating a half cylinder, mounted contiguous to each other in said casing to reciprocate therein and controlling said contact springs, said buttons mutually sustaining each other.

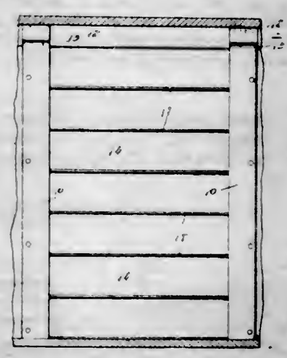
3. As an article of manufacture, the combination of a casing having an opening therein, a plurality of contact springs in said casing, complementary push buttons each consisting of a segment of a cylinder mounted in said casing and projecting through the opening, said push buttons having flanges adapted to engage the edge of the opening in the casing, said push buttons controlling said contact springs.

4. As an article of manufacture, the combination of a casing having an opening therein, a boss around the edge of said opening, a plurality of contacts in said casing, complementary push buttons mounted in the opening in said casing and having their sides engage the boss about the edges, said push buttons engaging the under side of the edge of the opening when said push buttons are in normal position, such push buttons controlling said contacts.

5. As an article of manufacture, the combination of a casing having an opening therein, contact springs mounted in said casing and complementary push buttons controlling said springs, said buttons mounted in said casing and projecting through the opening therein, one of said buttons being longer than the other and when in normal position having its upper surface above the upper surface of the shorter button, said buttons being depressed simultaneously.

[Claim 6 not printed in the Gazette.]

1,143,846. GRAIN-CAR DOOR. SAMUEL MANUEL, Saltcoats, Saskatchewan, Canada. Filed Apr. 10, 1914. Serial No. 831,092. (Cl. 20—32.)



The combination with grooved slideways mounted on opposite sides of the car door, of a plurality of metal plates disposed between the slideways, and each having reduced end portions disposed in the grooves of the slideways, such reduced portions being deflected so that they lie in a common plane while the bodies of the plates lie in parallel inclined planes, the lower edge portion of each of the plates being bent inwardly at right angles to the plate and the upper edge portion being bent outwardly at right angles whereby convenient finger holds are provided to facilitate the manipulation of the plate, said plates being adapted to be moved to the tops of the slideways and into a nested plie.

1,143,847. AUTOMATIC CLOSURE FOR GARBAGE-CANS. ISAAC GUSTAVE MARKS, New Orleans, La. Filed Sept. 22, 1914. Serial No. 862,951. (Cl. 220—115.)

1. In a garbage can the combination of a closure; a pair of pivoted supports provided with slots for said closure; connections carried by said closure adapted to traverse said slots; and a counter-weight connected to said supports adapted to automatically return said closure when

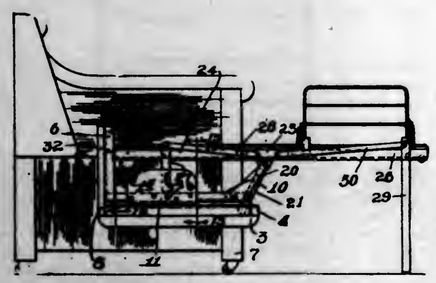
removed from its closing position, substantially as described.



2. In a garbage can the combination of a closure provided with a flared extension; a pivoted support for said closure provided with a slot and pin connection; and a counter weight for automatically returning said closure when displaced rigid with said support, the parts being so dimensioned that said weight is adapted to be raised to near the top edge of the can when the cover is moved to its extreme open position and to be lowered to near the bottom edge of the can when the cover is in its closed position, substantially as described.

3. In a garbage can the combination of a cover having a vertical member adapted to surround the top portion of the wall of the can and having a flared member extending outwardly from said vertical member; a pair of pivoted supporting members for said cover, having slots; pins carried by said cover entering said slots and adapted to traverse said slots when said cover is raised and lowered; an extension rigid with one of said pivoted supports; and a weighted member rigid with said last named extension, the parts being so arranged that said cover may be vertically lifted to disengage said vertical member from the top edge of the can, and then turned to one side to lift said weight, while the parts are so dimensioned that said weight will in all positions tend to return said cover to its closing position, substantially as described.

1,143,848. REVOLVING-SEAT DAVENPORT. ROYAL R. MILLER, Chicago, Ill., assignor to Adolph Karpen, Chicago, Ill. Filed Sept. 23, 1912. Serial No. 721,811. (Cl. 5—50.)



1. In a revolving seat davenport a davenport frame having end members thereon and a transverse locking plate rigidly secured on each end member in a vertical plane, and having a horizontal slot therein, a pin rigidly secured on each locking plate above the middle of said slot, and an inwardly projecting offset at the forward end of each locking plate affording an upwardly facing shoulder.

2. A revolving seat davenport, the davenport frame having end members thereon of transversely extending parallel locking plates, one secured on the inner side of each of said end frame members, and having an elongated horizontal slot therein, an inwardly projecting pin secured on each locking plate above the middle of said slot, an inwardly offset, upwardly projecting tongue at the forward end of each locking plate affording an upwardly facing shoulder at its throat, the revolving seat, a pivot and cam plate secured on each end thereof, a headed pivot pin secured therein, and engaging in the slot in the locking plate, and a forwardly directed arm on said plate adapted to engage between the hook and locking plate to support the seat at normal position, said pivot plate having a diagonal slot therein to receive the pin on the locking plate.

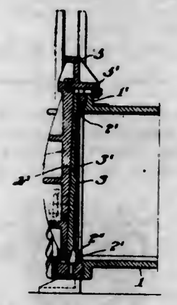
3. In a revolving seat davenport a combination with the ends of the davenport frame and the revolving seat of a locking plate secured on one of the same and having a horizontal slot therein, a locking pin secured in said plate above the slot, a pivot pin on the other plate adapted to engage in said slot, a V-shaped slot in said plate having its apex directed toward the pivot pin, and the ends of said slot directed obliquely toward opposite edges of the plate to receive the locking pin therein, an offset hook on one of said plates adapted to engage over the other to lock said plate from further movement at one of its normal positions.

4. In a revolving seat davenport the davenport frame and the revoluble seat therein, a pivot and locking plate affording the connection between the same and adapted for engagement respectively thereto, and the one having a longitudinal slot therein, a locking pin secured therein adjacent the middle of the slot, the other having a rearwardly directed V-shaped slot therein, one end of said slot inclining obliquely upward above the middle of the plate, the other end of said slot extending horizontally, then downwardly below the middle of said plate, a pivot pin rigidly secured near the rear end of said plate, the pins on the respective plates slidably engaging each in the slot in the other, and acting to move the seat bodily on said pivot pin when the seat is rotated, and interlocking projections on the forward ends of said plates acting to rigidly support the same when the seat is at normal.

5. In a revolving seat davenport the davenport frame, the revolving seat frame pivotally supported thereon, the extendible mattress frame carried on the seat, a swinging leg on the mattress frame adapted to rest on the inverted seat frame to support the mattress frame, and mutually engaging locking and pivot plates secured respectively to the davenport frame and seat ends and acting to positively interlock to support the seat at either of its adjusted positions, and mutually engaging means on said plates acting to shift the seat bodily while revolving the same to or from its adjusted positions.

[Claims 6 to 15 not printed in the Gazette.]

1,143,849. PRESS. ANTHONY SAUNDERS MORRIS, Haverford, Pa. Filed Jan. 14, 1915. Serial No. 2,118. (Cl. 100—50.)



1. In a press, the combination with a cylinder, of closing means comprising a reciprocating gate, a reciprocating member, and means whereby said member communicates a blow to said gate.

2. In a press, the combination with a cylinder, of closing means comprising a reciprocating gate, and opening means comprising a striking device movable relatively to said gate.

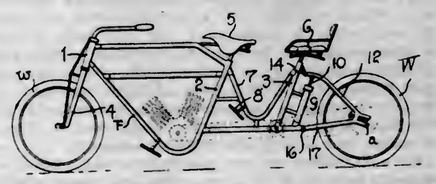
3. In a press, the combination with a cylinder, of an inner reciprocating gate, an outer reciprocating gate, and means whereby said outer gate is adapted to move relative to and move said inner gate.

4. In a press, the combination with a cylinder, of an inner gate, an outer gate, means whereby said outer gate communicates a blow to said inner gate, and means for moving said outer gate.

5. In a press, the combination with a cylinder, of a gate having a projecting member and an outer member movable relatively to and adapted for striking said projecting member.

[Claims 6 to 10 not printed in the Gazette.]

1,143,850. BICYCLE. ALPHONSE J. NADREAU, Miami, Fla. Filed Nov. 7, 1914. Serial No. 870,869. (Cl. 208—94.)
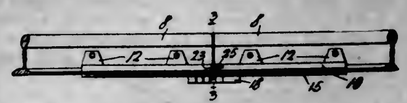


1. A device of the character described comprising a frame including a seat post, a tubular post positioned rearwardly of the seat post, a fork pivotally engaged with the seat post and overlying the tubular post and adapted for engagement with the axle of the rear wheel, the pivotal connection between the fork and post permitting endwise movement of the fork, a rod pivotally engaged with the fork and disposed within the tubular post, a coil spring positioned within the tubular member and having its upper extremity secured to the upper end portion of the tubular post, said rod being disposed through the coil spring and having its lower extremity suitably secured to the lower extremity of the coil spring and an arm carried by the fork pivotally engaged with the frame.

2. A device of the character described comprising a frame including a seat post, a tubular post positioned rearwardly of the seat post, a fork pivotally engaged with the seat post and overlying the tubular post and adapted for engagement with the axle of the rear wheel, the pivotal connection between the fork and post permitting end wise movement of the fork, a rod pivotally engaged with the fork and disposed within the tubular post, a coil spring positioned within the tubular member and having its upper extremity secured to the upper ends portion of the tubular post, said rod being disposed through the coil spring and having its lower extremity suitably secured to the lower extremity of the coil spring, laterally directed oppositely disposed trunnions carried by the frame adjacent the lower extremity of the tubular post and rearwardly thereof, and an arm pivotally engaged with each of the trunnions and adapted to be connected with the fork.

3. In a device of the character described, a frame including a seat post, a tubular post positioned rearwardly of the seat post, a fork pivotally engaged with the seat post and overlying the tubular post and adapted for engagement with the axle of the rear wheel, the pivotal connection between the fork and post permitting endwise movement of the fork, a rod pivotally engaged with the fork and disposed within the tubular post, a spring member disposed within the tubular member and coacting with the rod, and an arm carried by the fork pivotally engaged with the frame.

4. In a device of the character described, a frame including a seat post, a tubular post positioned rearwardly of the seat post, a fork overlying the tubular post and adapted for engagement with the axle of the rear wheel, a link interposed between the seat post and the adjacent extremity of the fork, a rod pivotally engaged with the fork and disposed within the tubular post, a spring member disposed within the tubular member and coacting with the rod, and an arm carried by the fork pivotally engaged with the frame.

1,143,851. RAIL-JOINT. HENRY F. NELSON, Angola, La. Filed Oct. 9, 1914. Serial No. 865,900. (Cl. 239—6.)



1. In a device of the class described, a pair of fish plates provided with locking bosses; and a locking ring rotatable on the bosses, the locking ring engaging the bosses with a cam-like action.

2. In a device of the class described, a pair of fish plates provided with locking bosses; a locking ring rotatable on the bosses, the locking ring engaging the bosses with a cam-like action; and means for holding the ring against rotation.

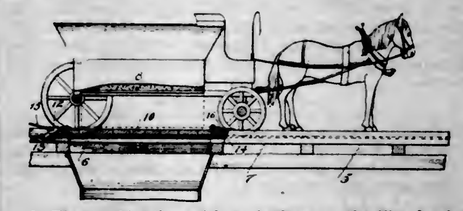
3. In a device of the class described, a pair of fish plates provided with locking bosses; a locking ring rotatable on the bosses, the locking ring engaging the bosses with a cam-like action; and a key engaging one fish plate and the ring to hold the latter against rotation.

4. A device of the class described, comprising clamp members adapted to receive the rail ends and engage the same, locking plates carried by said clamp members, and a locking ring engaging said locking plates drawing the same, and the clamp members, together.

5. A device of the class described, comprising clamp members adapted to receive the rail ends and engage the same, locking plates carried by said clamp members, a locking ring engaging said locking plates drawing the same, and the clamp members, together, and means for holding said ring against rotation.

[Claims 6 to 9 not printed in the Gazette.]

1,143,852. TRAP-DOOR FOR DISCHARGE-OPENINGS. WILLIAM J. NEWMAN, Chicago, Ill. Filed Aug. 4, 1913. Serial No. 782,927. (Cl. 214—1.)



1. The combination with a platform or the like, having a discharge opening therethrough for dumping horse-drawn wagons, of a slidable door for said opening, said door forming a support over which the horses are driven, means for locking said door in closed position, means connected with said locking device for unlocking the door and drawing it to open position, and means adapted to coact with the wagon for drawing the door to closed position.

2. The combination with a platform or the like, having an opening therethrough for discharging material from horse drawn wagons, of a slidable door for said opening said door forming a cover over which the horses are driven, a pawl or lock at the rear end of said door for locking it in closed position, a rope secured to said pawl for releasing the pawl and pulling the door open and a second rope secured to said door for pulling the door to closed position.

3. The combination with a driveway for dumping wagons having beams for forming a track and having a discharge opening between said beams, of slideways secured to said beams, a door slidably mounted in said slideways, a lock for holding said door in closed position, a rope secured to said lock for unlocking the same and drawing the door open, and a second rope secured to said door and adapted to engage with a portion of a wagon for drawing the door to closed position.

4. The combination with a platform or the like, of beams for forming a track for wagons, a discharge opening between said beams, angles secured to the inner sides of said beams along said opening and somewhat beyond the same, a door slidably mounted on said angles, a locking pawl at one end of said door for engagement with a recess in the platform a rope secured to said pawl, and a rope secured to the opposite end of the door.

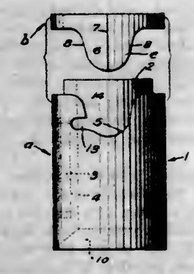
1,143,853. EXTENSION-TABLE. BROR EUGEN OLSON. Stockholm, Saskatchewan, Canada. Filed Dec. 11, 1913. Serial No. 806,125. (Cl. 45—9.)



1. In a folding table, transversely arranged end battens, extension slides connected thereto, table top sections carried by the battens, the inner free edge of one of the top sections having its under edge beveled, a plurality of resiliently supported boards disposed between the extension slide and the beveled top section, said boards being arranged in a longitudinal series in the same plane, depending stop members carried by the other top section for engagement by the edge of the adjacent board means, pivotally and slidably connected to the boards connected to between the boards and the extension slides for supporting the boards in elevated position and means carried by the successive slides for engagement with the said means to move the means out of supporting position, whereby the boards are given an initial downward movement.

2. In an extension table top, table top sections fixed to the frame of the table, vertically movable spring-pressed auxiliary boards supported below the table top, said frame including extension slides each provided with a longitudinal series of undercut grooves, links pivotally connected to the said boards and having heads slidably disposed in the grooves, and longitudinally slidable operating rods mounted on the extension slide and provided with laterally extending pins for engagement with the said links to impart an initial downward movement to each of the boards.

1,143,854. STUFFING-BOX FOLLOWER. WILLIAM H. O'NEIL, Los Angeles, Cal. Filed Nov. 29, 1913. Serial No. 803,805. Renewed Nov. 14, 1914. Serial No. 872,262. (Cl. 137—115.)

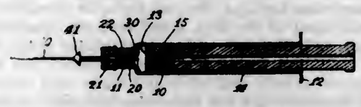


1. A stuffing-box follower comprising main cylindric segments jointed together to prevent relative axial, and to allow relative lateral, displacement of each other; each of said segments being provided with a reduced terminal, and with a seat adjoining such reduced terminal; and a segmental band to encircle the terminals; the segments of said band being provided at their ends with teeth to fit the seats of said main cylindric segments to prevent relative lateral and rotative displacement of said main cylindric segments.

2. A stuffing box follower comprising main cylindric segments, each of said main cylindric segments being provided with a reduced terminal, and with a seat adjoining such reduced terminal; and a segmental band to encircle the terminals; the segments of said band being provided at their ends with teeth to fit the seats of said main cylindric segments to prevent relative lateral and rotative displacement of said main cylindric segments; and a segmental band to encircle the terminals; the segments of said band being provided at their ends with teeth to fit the seats of said main cylindric segments to prevent relative lateral and rotative displacement of said cylindric segments; said outer follower having a frusto-conical recess provided at its inner end to receive the upper end of the packing of the stuffing box.

[Claims 6 to 8 not printed in the Gazette.]

1,143,855. SERUM-CONTAINER. WILLIAM H. PARK, New York, N. Y., assignor, by mesne assignments, to E. R. Squibb & Sons Research & Biological Laboratories, a Corporation of New Jersey. Filed Nov. 25, 1911. Serial No. 662,269. (Cl. 215—8.)

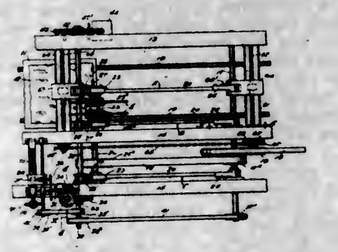


1. A stopper for a device of the character described provided with a needle receiving aperture extending therethrough and a temporary closing device therein, the stopper being made of elastic material and the temporary closing device being made of rigid material unaffected by serum, substantially as described.

2. In a device of the character described, the combination of a stopper, said stopper provided with a needle receiving aperture extending therethrough, and a temporary closing device in said aperture, the said temporary closing device being of greater diameter than the aperture, and the walls of said aperture being expansible so that it is held normally in said aperture by the pressure of the expanded walls thereof, said temporary closing device being made of material unaffected by serum, substantially as described.

3. In a device of the character described, the combination of a stopper, said stopper provided with an aperture extending therethrough, a temporary closing device of greater normal diameter than the said aperture located therein and adapted to be forced bodily out of said aperture by the shank of a needle when passed therethrough, the materials of the said temporary closing device and the portion of the stopper surrounding the aperture being such that the stopper is held in said aperture by pressure due to the compression of such materials, and the material of said closing device being unaffected by and having no deleterious effect upon serum.

1,143,856. STONE-SAWING MACHINE. DANIEL W. PARKER, Everett, Wash. Filed Aug. 21, 1913. Serial No. 785,861. (Cl. 125—18.)



1. In a stone-sawing machine, the combination with a frame comprised of a plurality of members adjustable relative to each other, an arbor journaled in one of said members, a flanged member secured to the end of said arbor, a second flanged member disposed in axial alinement with said arbor and provided with a stub which is journaled in the other of the frame members, a saw, and means for securing said saw to both of said flanged members.

2. A stone-sawing machine having a frame comprised of a plurality of members adjustable relative to each other, a plurality of racks secured to said members, pinions engaging said racks, power driven means for driving said pinions for effecting vertical swinging movements of said frame, a saw-arbor carried by the frame, and means for simultaneously adjusting the positions of one of said pinions and the relative positions of the frame members to accommodate one or more saws to the arbor and the frame.

3. In a stone-sawing machine, a frame, saws, an arbor journaled in said frame, a flanged member for securing one of said saws to the arbor, a second flanged member provided with a stub which is journaled in said frame for another of said saws, and spacing means interposed between the saws and secured thereto.

4. In a stone-sawing machine, the combination with the framework of the machine, of a frame supported by said framework, said frame being comprised of two members adjustable relative to each other, a saw-arbor journaled in the swinging frame, elements supplemental to said arbor for securing a saw or a number of saws to said arbor and affording a second journal in the frame, and means for adjusting the relative positions of the aforesaid members whereby the frame is regulated to accommodate the respective journals.

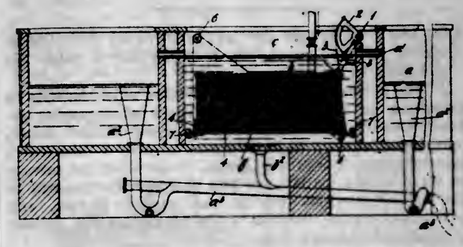
1,143,857. CUTTING DEVICE. WILLIAM G. PATTON, Seattle, Wash. Filed Aug. 17, 1914. Serial No. 857,129. (Cl. 30—14.)



A device of the character described comprising a body, a guide thereon provided with a slot, a blade support bent from the body outwardly of the guide to dispose the latter intermediate the body and support, and a blade carried by the blade support and arranged in the slot of the guide.

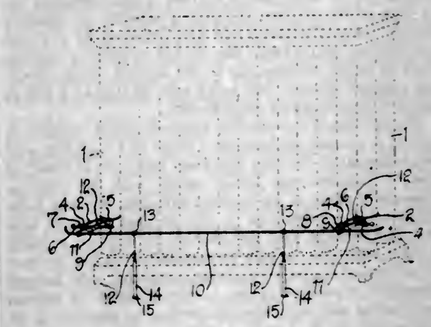
1,143,858. APPARATUS FOR WASHING CROCKERY. HENRY MUNRO PEARMAN, Oxford, England. Filed Oct. 18, 1912. Serial No. 726,404. (Cl. 187—3.)

A hoisting device for receptacles comprising, in combination with the receptacle, a basket element arranged therein, means for operating said basket element including a shaft having journal bearings in the receptacle, quadrants carried by the said shaft and having peripheral grooves, pulleys also mounted on the inner opposite sides of the receptacle and diagonally arranged,



flexible basket supporting means attached to the quadrants and lower corners of the basket element and also passing around the diagonally arranged pulleys, and means for holding the basket in its elevated position.

1,143,859. FOOT-REST FOR RADIATORS. NICHOLAS A. PEOT, Jr., Green Bay, Wis. Filed Aug. 24, 1914. Serial No. 858,303. (Cl. 155—9.)



1. A foot rest for radiators and the like comprising a pair of spaced clamps each comprising a pair of crossed clamping levers curved at one end to provide jaws, clamping bolts connecting the other ends of each pair of levers to hold the jaws in closed position, supporting arms loosely mounted upon said clamping bolts, and a foot rail carried by said supporting arms.

2. A foot rest for radiators and the like comprising spaced clamps, each of the clamps consisting of a pair of crossed levers curved at one end to provide jaws, one of the levers of each pair intermediate of its ends being formed with an offset portion to provide a seat for the other lever whereby the levers are pivotally engaged upon each other, the outer end of each lever being provided with an eye, a clamping bolt disposed through the eye of each pair of levers, each of the bolts having a shoulder formed thereon for engagement against one of the eyes of each pair, means mounted on the other end of each bolt to close the jaws of the clamps, a supporting arm loosely mounted upon each bolt, and a foot rail carried by said supporting arms.

3. A foot rest for radiators including a pair of spaced clamps, each of said clamps including a pair of crossed levers, one of said levers being offset intermediate its length to receive the other lever, whereby the two levers are pivotally connected, and a clamping bolt connecting the outer ends of the levers, whereby the same may be drawn toward each other to clamp the jaw portions of the levers about the radiator, a supporting arm pivoted on the bolt of each clamp, and a foot rail supported by the arms.

4. A foot rest for radiators including a pair of spaced clamps adapted to be engaged with the sections of the radiator, each of said clamps including a pair of crossed

levers, an arm swingingly attached to the outer ends of the levers of each clamp, the inner end of each arm being engageable with the levers at the intersection of these members, and a foot rail carried by the outer ends of the arms.

1,143,860. PROCESS OF REPRODUCING PICTURES. HENRY PETERS, Rahway, N. J. Filed Dec. 9, 1913. Serial No. 805,661. (Cl. 41—25.)

1. The process of reproducing pictures which consists in producing on an embossable surface a photographic reproduction of the picture in its true and natural colors, applying a solution of a solid substance in a vaporizable solvent to the face of the picture, evaporating the solvent to leave a hard matrix, the face of which corresponds to the surface irregularities of the original picture, and using said matrix itself as a die to emboss the colored photographic reproduction.

2. The process of reproducing pictures which consists in producing on an embossable surface a photographic reproduction of the picture, applying a solution of a solid substance in a vaporizable solvent to the face of the picture, evaporating the solvent to leave a matrix, the face of which corresponds to the surface irregularities of the original picture, and using said matrix as a die to emboss the photographic reproduction.

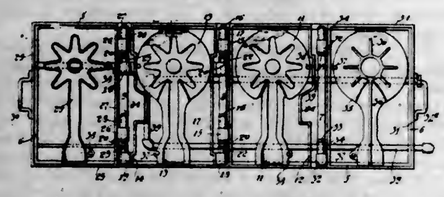
3. The process of reproducing pictures which consists in producing on an embossable surface a photographic reproduction of the picture, applying a solution of cellulose acetate in tetrachlorethane and dichlorhydrin to the face of the picture, evaporating the solvent to leave a matrix, the face of which corresponds to the surface irregularities of the original picture, and using said matrix as a die to emboss the photographic reproduction.

4. The process of reproducing pictures which consists in producing a colored photographic print of a painting and on an embossable surface, applying paint to a sheet of canvas to simulate the brush marks and the varying thicknesses of paint of the original painting, forming a die by applying a composition to the painted face of said canvas and causing said composition to acquire a hard, solid form with one surface corresponding to the surface irregularities of the painted canvas, mounting said colored photographic reproduction on a second sheet of canvas and embossing said colored reproduction by pressing it on to said second sheet of canvas with said die.

5. The process of reproducing pictures which consists in applying paint to a sheet of canvas to simulate the brush marks and the varying thickness of paint of the original painting, forming a die by applying a composition to the painted face of said canvas and causing said composition to acquire a hard, solid form with one face conforming to the surface irregularities of the painted canvas and removing the die from the painted canvas and pressing it on a colored photographic print of the painting to emboss the latter.

[Claim 6 not printed in the Gazette.]

1,143,861. CORE-MAKING APPARATUS. GEORGE E. PICKUP, Newark, Ohio, assignor to The Wehrle Company, Newark, Ohio, a Corporation of Ohio. Filed June 11, 1913. Serial No. 772,944. (Cl. 22—10.)



1. A core-making apparatus comprising two half-molds, and a receiving device for the completed core, said receiving device being hinged at its edge adjacent to said half-molds, the half-mold adjacent to said receiving device being hinged to swing on either of two axes at its opposite sides, and the other half-mold being hinged at its edge adjacent to the last-mentioned mold.

2. A core-making apparatus comprising a mold section, a device adapted to receive the completed core, said mold section and said device being hinged upon axes at their adjacent edges, and a second mold section positioned between the first mold section and said receiving device, said second mold section being hinged to swing on axes at opposite edges either toward the first mold section or toward said receiving device.

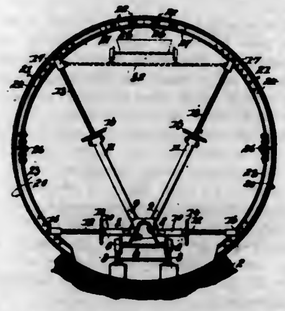
3. A core-making apparatus comprising a mold section and a receiving device, and a second mold section positioned therebetween and hinged to swing toward either.

4. A core-making apparatus comprising a supporting framework, two mold sections each of which is hinged thereto to swing over toward the other, and a venting device also hinged to said framework and arranged to swing over on top of one of said mold sections to vent the core part therein.

5. A core-making apparatus comprising a supporting framework, two mold sections each of which is hinged to said framework to swing over toward the other and a venting device pivoted to said framework at its edge adjacent to one of said mold sections, said venting device being arranged to swing over on top of one of said mold sections to vent the core part therein.

[Claims 6 and 7 not printed in the Gazette.]

1,143,862. FORMING-MOLD FOR SEWER-CONDUITS. SAMUEL L. ROMANO, Vancouver, British Columbia, Canada. Filed Jan. 26, 1914. Serial No. 814,482. (Cl. 25—131.6.)



1. A form supporting frame for conduit construction in concrete, comprising the combination with a wheeled truck of screw jacks immovably secured to the truck, said jacks pin-connected to the lower edges of lower side form plates and to approximately the mid-width of upper side form plates, and means for removably connecting together the edges of said lower and upper side plates.

2. A form supporting frame for conduit construction in concrete, comprising the combination with a wheeled truck of tubes immovably secured to and projecting laterally outward horizontally and angularly upward from the truck on each side, a screw endwise movable within each tube, said screws connected at the outer ends to the form plates, and a nut threaded on each screw and bearing on the ends of its tubular support.

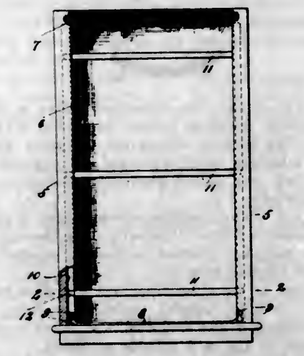
3. A form supporting frame for conduit construction in concrete, comprising the combination with a wheeled truck of tubular supports rigidly secured to the truck and projecting laterally ouward horisontally and angularly upward on each side from the truck, a screw endwise movable in each tubular support, said screws connected to lower and upper side form plates the adjacent edges of which are hinge connected together, a nut threaded on each screw and bearing on the end of its tubular support, and narrow crown plates supported on the upper edges of the upper side plates.

4. In an apparatus of the character stated, a wheeled truck including a truck frame, two sets of screw jacks, each having one of their ends rigidly secured to the truck frame, one set of jacks extending in a horizontal plane from each side of the truck frame, the other set of jacks extending upwardly and divergingly from each side of the truck frame, and form plates supported by said jacks.

5. In an apparatus of the character stated, a wheeled truck including a truck frame, two sets of screw jacks, each having one of their ends rigidly secured to the truck frame, one set of jacks extending in a horizontal plane from each side of the truck frame, the other set of jacks extending upwardly and divergingly from each side of the truck frame, form plates supported by said jacks, said form plates including a pair of lower plate sections, to the lower edges of which the horizontal jacks are connected, a pair of upper form plates, means connecting the adjacent edges of said upper form plates together at the top of the form, means pivotally connecting the lower edges of said upper form plates to the upper edges of said lower form plates, said upwardly projecting set of jacks being secured to said upper form plates at locations approximately midway between the upper and lower edges of the same, substantially as shown and described.

[Claims 6 to 8 not printed in the Gazette.]

1,143,863. WINDOW-SCREEN. EDWARD G. SCHENK, Louisville, Ky. Filed Sept. 1, 1914. Serial No. 859,636. (Cl. 156—39.)

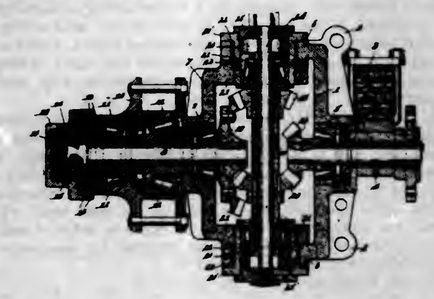


1. The combination with the jambs of a window frame the inner edges of which have guide channels; of a rolling screen composed of a flexible fabric having transverse pockets, and rigid cross bars removably mounted in said pockets and projecting at their ends into the aforesaid guide channels.

2. The combination of the jambs of a window frame, with a shade wound up on a spring roller, and having a rigid cross bar at the bottom, channels in said window jambs for guiding said shade and cross bar, a flexible screen attached to said cross bar, and having its edge extending into said channels on either side, and pockets in said screen at intervals for holding additional cross bars running in said channels to hold the said screen in position in said channels of said window jambs.

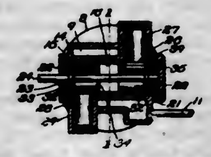
1,143,864. STEERABLE DRIVE-GEARING. WILLIAM SCHNECKLOTH, Chicago, Ill. Filed May 29, 1914. Serial No. 841,771. (Cl. 21—90.)

1. In a steerable drive gearing the combination of a stationary supporting member having spaced vertically alining lugs; tubular trunnions arranged in said lugs; a steering knuckle having spaced vertically alining lugs at its inner end connected with said trunnions whereby steering oscillation of said knuckle is permitted; a driving shaft rotatably mounted in said supporting member; a driven shaft rotatably mounted in said steering knuckle; an operative connection between adjacent ends of said shafts permitting of steering oscillation of said driven shaft, said connection comprising a vertically disposed tubular shaft arranged with its axis coincident with the axis of oscillation of said steering knuckle; bearings for the respective ends of said vertically disposed shaft in said trunnion; an operative connection between said vertically disposed shaft and said adjacent ends of said driving and driven shafts; and a tie member extending through said vertically extending shaft and connected at its ends with said trunnions, substantially as described.



2. In a steerable drive gearing, the combination of a stationary supporting member having spaced vertically alining lugs; tubular trunnions arranged in said lugs; a steering knuckle having spaced vertically alining lugs at its inner end connected with said trunnions whereby steering oscillation of said knuckle is permitted; a driving shaft rotatably mounted in said supporting member; a driven shaft rotatably mounted in said steering knuckle; an operative connection between adjacent ends of said shafts permitting of steering oscillation of said driven shaft, said connection comprising a vertically disposed tubular shaft arranged with its axis coincident with the axis of oscillation of said steering knuckle; bearings for the respective ends of said vertically disposed shaft in said trunnions; an operative connection between said vertically disposed shaft and said adjacent ends of said driving and driven shafts; heads fitted in and engaging against the outer ends of said trunnions; and a tie member extending through said vertically extending shaft and connected with said head members, substantially as described.

1,143,865. VALVE. LOUIE A. SHERMAN, Kansas City, Mo., assignor to Rotary Valve Manufacturing Company, Kansas City, Mo., a Corporation of Missouri. Filed Sept. 14, 1914. Serial No. 861,510. (Cl. 123—190.)



1. The combination with an engine cylinder, of a valve chamber having a cylindrical channel, a sleeve fixed in said channel and provided with intake and exhaust ports, and having an intermediate cylinder port, intake and exhaust conduits in constant communication with the sleeve intake and exhaust ports, a shaft revolubly mounted in the sleeve, and paired valves fixed on the shaft and spaced on opposite sides of the cylinder intake port, and having intake and exhaust ports adapted for intermittent registration with the sleeve intake and exhaust ports.

2. The combination with an engine cylinder, of a valve chamber having a cylindrical channel, a sleeve fixed in said channel and provided with intake and exhaust ports, and having an intermediate cylinder port, intake and exhaust conduits in constant communication with the sleeve intake and exhaust ports, a shaft revolubly mounted in the sleeve, paired valves fixed on the shaft and spaced on opposite

sides of the cylinder intake port, and having intake and exhaust ports adapted for intermittent registration with the sleeve intake and exhaust ports, and a spark plug projected through the sleeve and between the valves.

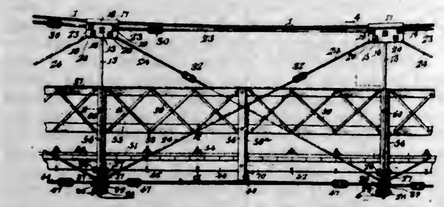
3. A rotary valve comprising a sleeve having a laterally opening slot, an aperture opposite said slot adapted to receive a spark-plug, and a port adjacent each side of said slot, and a pair of facing valve members adjacent opposite sides of the slot and spark-plug, and having apertures adapted for successive registration with said ports.

4. A rotary valve comprising a sleeve having a plurality of apertures, a bearing plate in each end of said sleeve, a shaft revolubly mounted in said bearing plates, a pair of facing valve members rigidly mounted on said shaft having apertures adapted for successive registration with said sleeve ports.

5. A rotary valve comprising a sleeve having a laterally opening slot, an aperture opposite said slot for receiving a spark-plug, and a port adjacent each side of said slot, a bearing plate in each end of said sleeve, a shaft revolubly mounted in said bearing plates, and a pair of inwardly facing valve members rigidly mounted on said shaft adjacent the sides of said slot and on opposite sides of said spark-plug, and having apertures adapted for successive registration with said sleeve ports.

[Claim 6 not printed in the Gazette.]

1,143,866. SUSPENSION-BRIDGE. NELSON H. STURGIS, Guthrie, Okla. Filed Oct. 11, 1913. Serial No. 794,702. (Cl. 14—20.)



1. A suspension bridge including suspension cables, means for supporting the same, hanger rods depending from the cables at short intervals and adapted to support a floor structure, and series of spacing rods connected with and maintaining the hanger rods in proper spaced relation, each spacing rod being arranged in substantial parallelism with a short section of the adjacent cable and the series of spacing rods following the curve of the cables.

2. A suspension bridge including suspension cables, clamps arranged on the suspension cables and composed of spaced sides and a top connecting portion, depending hanger rods having their upper terminals secured between the sides of the clamps centrally thereof, said hanger rods being adapted to support a floor structure, a series of spacing rods located beneath the cable and extending longitudinally thereof and having their terminals secured between the sides of the clamps at the upper portions thereof at opposite sides of the hanger rods, and oppositely inclined truss rods having their upper ends secured between the sides of the clamps below the terminals of the spacing rods.

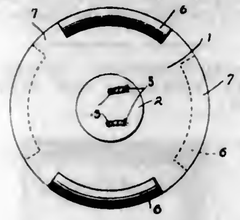
3. A suspension bridge including suspension cables, means for supporting the same, cable clamps arranged on the cables at short intervals and provided with adjusting means for causing the clamps to grip the cables, hanger rods connected with and depending from the clamps and adapted to support a floor structure, and series of spacing members located at and extending longitudinally of the suspension cables and connected with the clamps to hold the same against movement on the cables and positively maintain the said clamps in proper spaced relation, each spacing member being arranged in substantial parallelism with a short section of the adjacent cable and the series of spacing members following the curve of the cables.

4. A suspension bridge including suspension cables, means for supporting the same, clamps arranged on the suspension cables, hanger rods depending from the clamps and adapted to support a floor structure, and series of spacing rods located adjacent to the cables and having their terminals secured within the clamps and provided with adjusting means for varying the length of the rods to position the clamps along the cables, each spacing rod being arranged in substantial parallelism with a short section of the adjacent cable and the series of spacing rods following the curve of the cables.

5. A suspension bridge, including cables, means for supporting the same, hanger rods depending from the cables, needle beams connected with the lower ends of the hanger rods, stringers supported by the needle beams, hand railings arranged at opposite sides of the bridge and supported upon and connected at the bottom with the stringers, and adjustable means for connecting the hand railings with the hanger rods for maintaining the said railings in a plumb position.

[Claim 6 not printed in the Gazette.]

1,143,867. TOY. JOHN L. THOMPSON, El Centro, Cal. Filed Feb. 19, 1913. Serial No. 749,451. (Cl. 46—46.)

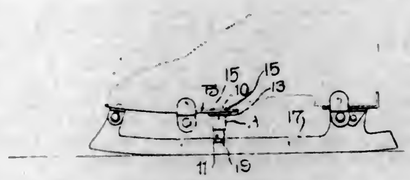


1. In a toy of the class described, a disk, a plurality of arcuate tubular members formed integrally with the said disk and lying entirely within the periphery thereof, the alternate members being arranged on opposite sides of the said disk, and sound producing devices in the said tubular members.

2. In a toy of the class described, a disk, a plurality of tubular members formed integrally with the said disk and within the periphery thereof, and sound producing devices in the said tubular members.

3. In a toy of the class described, a disk, a plurality of concentric arcuate tubular members forming integral rolled extensions of the said disk, and sound producing devices located in the said tubular members.

1,143,868. ICE-SKATE. NATHAN GENETHO TULLER and ANDREW MATTHEW RASMUSSEN, Beloit, Wis. Filed Apr. 19, 1913. Serial No. 22,458. (Cl. 46—50.)



The combination with a skate, of a shock absorbing supporting member for the sole plate thereof, said supporting member including a stud having its lower terminal bifurcated to receive the skate runner and having a socket formed in its upper terminal, a sleeve slidably receiving the stud, a head plate formed on the sleeve, fastening devices detachably securing the head plate to the lower face of the sole plate, and a helical spring disposed within the sleeve for normally holding the upper end of the stud in spaced relation to the head plate, the lower end of said spring being seated in the socket of the stud, and the upper end of the spring being disposed to bear against the head plate.

1,143,869. ELECTRIC TIME-SWITCH. ALFRED W. VOEDISCH, Aberdeen, S. D. Filed June 1, 1914. Serial No. 842,173. (Cl. 161—27.)



1. In an electric time switch, a time movement, an electric switch, actuating mechanism for the electric switch, adjustable rotative means movable by the time movement, means movable in a direction parallel with the axis of rotation of the rotative means and controlled by said rotative means, a lever movable by the last-named means, and means controlled by the lever for releasing and stopping the actuating mechanism for the electric switch.

2. In an electric time switch, a time movement, an electric switch, power means for driving the switch, stop means for the switch actuating means, adjustable rotatable setting means mounted on the time movement for actuation thereby, and connections between the setting means and stop means for moving the latter to release the switch actuating means, said connections including means movable in a direction parallel with the axis of rotation of said setting means and also including direction-changing means between the last-named means and the stop means.

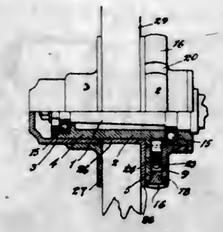
3. In an electric time switch, a time movement, an electric switch, actuating mechanism for the electric switch, rotatable setting means carried and actuated by the time movement, a rock lever in the path of the setting means for actuation thereby, a slidable pin mounted for movement in a direction parallel with the axis of rocking of the rock lever and at one end provided with a bevel head in the path of the lever, and stop and release mechanism for the switch actuated mechanism in the path of and controlled by the slidable pin.

4. In an electric time switch, a time movement, an electric switch, actuating mechanism for the latter including a notch wheel having notches disposed in accordance with the open and closed positions of the switch, pins participating in the movement of the switch-actuating mechanism, a rock arm provided with a finger related to the notch wheel to move into and out of the notches, another finger movable into and out of the path of one of the pins on the actuating mechanism and also provided with a third finger, a slidable pin having one end movable into and out of the path of the other pin on the actuating mechanism and provided with a bevel portion in operative relation to the third finger on the rock arm, said slidable pin having a normal constraint toward the inactive position and provided at one end with a taper head, a lever having an arm in operative relation to the taper head and also provided with another arm, and setting means carried by the time movement for engaging the second-named arm of the lever.

5. In an electric time switch, a time movement, a striker movement associated therewith, setting means on and actuated by the time movement, a lever having an arm in the path of the setting means for actuation thereby, and also having another arm, a spring actuated slidable pin having a taper head in the path of the second-named arm of the lever and also provided with a taper block movable with the pin, a pin on the striker movement into and out of the path of which the first-named pin is movable, a rock arm associated with the striker movement and provided with fingers, a pin on the striker movement into and out of the path of which one of the fingers is movable, with another one of the fingers of the arm in the path of the taper block of the first-named pin, a notch disk on the striker movement with which a third one of the fingers on the arm is associated for movement into and out of the notches, and an electric switch carried by the striker movement and movable from closed to open position, and from open to closed position in accordance with the spacing of the notches of the notch wheel.

[Claims 6 and 7 not printed in the Gazette.]

1,143,870. DEMOUNTABLE WHEEL. JETHRO THOMAS WADE, Peterborough, England. Filed June 6, 1914. Serial No. 843,591. (Cl. 21—31.)



1. The combination with a vehicle axle, of an inner cylindrical carrier portion rotatably mounted on the axle and formed with outstanding parts presenting cross openings, a ring rotatably mounted on the outstanding parts and crossing the openings, locking webs carried by the ring and an outer wheel carrying cylindrical portion mounted on the inner portion and provided with channeled projecting parts arranged to pass into the cross openings, the said channels being designed to receive the webs upon the ring being turned, as and for the purpose specified.

2. The combination with a vehicle axle, of a central cylinder rotatably mounted on the axle and having an outstanding flange with portions thereof cut away at the periphery, a face plate secured to the flange and fitted with openings registering with the flange openings, a locking ring rotatably mounted on the peripheries of the flange and facing plate and fitted with inwardly projecting webs slidably received between the flange and plate, an outer cylindrical wheel carrying portion slidably mounted on the carrier portion and provided with spaced extending channeled members on the side next the flange, the said members being designed to enter the openings in the flange and plate and having the channels arranged to receive the webs when projected by the turning of the ring and means effecting the locking of the ring in the projected and withdrawn positions of the webs, as and for the purpose specified.

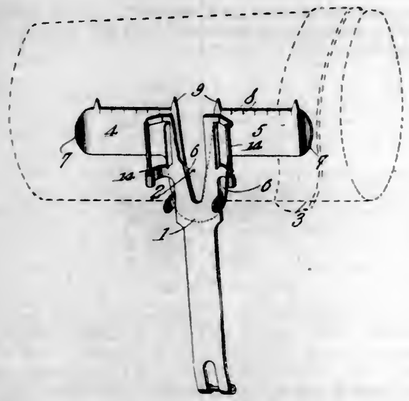
1,143,871. TYPE-WRITER ATTACHMENT. GEORGE SELDEN WATTS, Marietta, Ga., assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of New Jersey. Filed Apr. 21, 1909. Serial No. 491,292. (Cl. 197—170.)

1. In a typewriting machine, the combination with a ribbon carrier, a platen, of elastic wings adapted for light pressure against the platen fast on said ribbon carrier, each of said wings being provided on its upper edge with projecting fingers extending on each side the printing point over the printing line, in the direction of travel of the paper with the platen when the latter is moved about its longitudinal axis to cause line spacing of the paper, in order to keep said paper from springing from said platen.

2. In a typewriter, the combination with a ribbon carrier of a typewriter, of wings adapted for light pressure against the platen on either side of the type striking zone, each wing having on its upper edge spaced fingers extending over a tensionally operative horizontal range, each side the printing point, said fingers projecting from said edge to keep paper from springing from said platen, and index marking between the fingers.

3. In a typewriting machine, the combination with a ribbon carrier of a typewriter machine, said ribbon carrier being provided with a space for the passage of the type, a platen, of wings adapted for light pressure against the

platen mounted on said carrier and having a normal tendency toward the platen to hold paper against said platen, said wings each being provided with upwardly projecting fingers extending over a tensionally operative horizontal range each side the printing point, one of said fingers being adjacent to the typewriting zone.

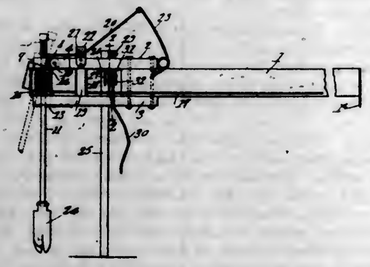


4. In a typewriting machine, the combination with a ribbon carrier of the typewriter, a platen, of wings adapted for light pressure against the platen on either side of the striking zone of the type, said wings being each elastically mounted on the ribbon carrier and spaced apart at contiguous ends and each provided on the other end with index marking and spaced fingers projecting in the direction of travel of the paper being printed, said fingers extending over a tensionally operative horizontal range on each side the printing point and being arranged to hold the paper against the platen of the typewriter.

5. In a typewriting machine, the combination of a platen, of a ribbon carrier provided with opposite wings adapted for light pressure against the platen, each of said wings being in the form of a plate fast on one end to one of a pair of arms flanking the opening in the ribbon carrier, joined to the ribbon carrier, and arranged to keep work from springing from the platen, said arms extending from a tensionally operative horizontal range each side the printing point.

[Claims 6 to 25 not printed in the Gazette.]

1,143,872. POST-HOLE-BORING APPARATUS. TRAIN WHEELER, Downing, Mo. Filed Oct. 14, 1913. Serial No. 795,130. (Cl. 255—19.)



1. In a hole boring apparatus, a supporting structure, an auger spindle journaled thereto having primary and secondary drums, an actuating cable wound upon the primary drum, a spring carried by the said structure, and a cable attached to the spring and wound upon the secondary drum to wind the actuating cable upon the primary drum.

2. In a hole boring apparatus, a beam having a fork at one end, an auger spindle journaled through the arms of the fork, the spindle having a primary drum between the arms of the fork and having a secondary drum of smaller diameter above the fork, an actuating cable extending along the beam and wound upon the primary drum, a spring secured upon the beam, and a cable attached to the spring and wound upon the secondary drum to wind the actuating cable upon the primary drum.

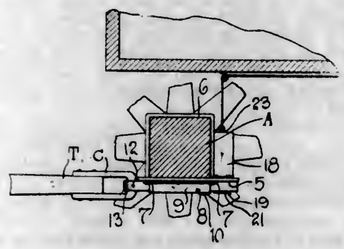
3. In a hole boring apparatus, a supporting structure including a fork, a bearing pivoted to one arm of the fork, an auger spindle journaled through the bearing, the other arm of the fork having a recess to receive the spindle, and means carried by the last mentioned arm for normally maintaining the spindle within the recess.

4. In a hole boring apparatus, a supporting structure including a fork, a block swiveled to one arm of the fork, a bearing pivoted to the block, an auger spindle journaled through the bearing, the other arm of the fork having a recess to receive the spindle, and a latch carried by the last mentioned arm and normally engaging the spindle.

5. In a hole boring apparatus, a supporting structure including a fork, a bearing pivoted to one arm of the fork, an auger spindle journaled through the bearing and having a drum adapted to stand between the said bearing and the other arm of the fork, the last mentioned arm having a recess to receive the spindle, means carried by the last mentioned arm for normally engaging the spindle, and a U-shaped guide having its ends embracing the spindle over the ends of the drum, the respective end of the guard being secured to the bearing.

[Claim 6 not printed in the Gazette.]

1,143,873. COUPLING DEVICE. DAVID H. WINGERD, Ramona, Kans. Filed Mar. 17, 1915. Serial No. 15,035. (Cl. 21—114.)



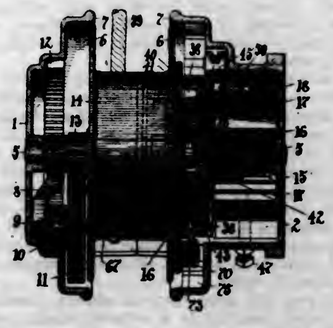
1. A coupling device of the character described including a housing, coupling jaws having arms longitudinally movable through the housing and adapted to be projected beyond one end thereof, said jaws being pivotally connected together at one of their ends, each of the jaws being provided with means to be engaged by one of the parts to be coupled whereby the jaws are forced to their closed positions, and a locking key to engage between the opposite ends of the jaws which are projected beyond the housing, whereby the jaws are held against longitudinal movement.

2. A coupling device of the character described including a housing, coupling members arranged in opposed relation and having arms pivotally connected together at one of their ends, curved jaws on the other ends of said arms, a spring within the housing normally urging the jaws apart, each of the jaws being provided with means for engagement by a part to be coupled to project the jaws into said housing and against the side walls thereof, whereby the jaws are forced to their closed position, the other ends of said jaws being projected beyond the end of the housing, and a vertically movable spring pressed locking key adapted to be received between the pivotally connected ends of the arms whereby the coupling members are locked against longitudinal movement.

3. A coupling device of the character described including a housing having longitudinally tapering side walls, opposed coupling members disposed within said housing each having an arm provided with a jaw upon one end projecting from the wider end of the housing, said arms at their opposite ends being pivotally connected together, inwardly projecting overlapping lugs formed on said jaws adapted to be engaged by one of the parts to be coupled whereby the coupling members are forced longitudinally through the housing and the jaws engaged with the tapering side walls and close upon said part, the pivotally connected ends of the arms being projected beyond the opposite end of the housing, and a spring pressed vertically movable locking key adapted for engagement with the latter end of said arms to prevent longitudinal movement of the coupling members.

4. A coupling device of the character described including a body plate, a housing fixed thereon having longitudinally tapering side walls, coupling members arranged within said housing and each including an arm provided with a jaw on one end, the other ends of said arms being pivotally connected together, a spring within the housing normally urging the jaws apart, said jaws having overlapping lugs formed thereon adapted to be engaged by one of the parts to be coupled whereby the jaws are forced into the end of the housing and into engagement with the tapering side walls to close the jaws upon said part, the pivotally connected ends of the coupling members being projected beyond the opposite end of the housing, said plate having an opening therein, a casing mounted upon the plate above said opening, and a spring pressed locking key arranged within said casing and adapted to be projected through the opening in the plate and between the pivotally connected ends of said arms whereby the coupling members are held against longitudinal shifting movement with respect to the housing.

1,143,874. TROLLEY RETRIEVER OR SAFETY DEVICE. MELVIN ALBERT YEAKLEY, Kamms, Ohio, assignor to John E. McLain, Canton, Ohio. Filed Oct. 7, 1907. Serial No. 396,243. (Cl. 191—93.)



1. In a trolley safety device, the combination of a rope winding drum, to which a trolley rope is connected, a power spring connected thereto for operating it, and means for locking said drum against rotation, the said means being controlled by the connection to and disconnection from said drum of the trolley rope.

2. In a trolley retriever, the combination of a winding drum to which one end of a trolley rope is detachably connected, a power spring connected to the drum for rotating it, and automatically operating means for locking the drum against rotation when the rope end is detached from the drum, the act of attaching and detaching the rope end operating to control said locking means.

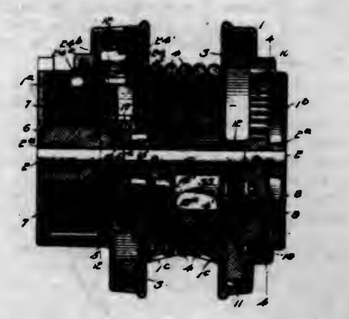
3. A trolley safety device having a winding drum, a cord having a knot in its end removably engaged in said drum, a locking pawl for said drum, and a ratchet adapted to be engaged thereby, said pawl being constructed to bear on the knot in said cord and to be held out of engagement with said ratchet while the knot remains engaged in the drum.

4. A trolley safety device comprising a drum formed with a slot for engagement with and disengagement from said drum of the trolley cord, in combination with a locking pawl, said pawl being pivoted on the drum and having a wing adapted to rest on said trolley cord and keep the pawl out of locking position.

5. A trolley safety device comprising a rope drum having a rope slot, driving mechanism for said drum, and means for locking said driving mechanism arranged to be held inactive by the end of the trolley rope inserted in said rope slot.

[Claims 6 to 70 not printed in the Gazette.]

1,143,875. TROLLEY-RETRIEVER. MELVIN A. YEAKLEY, Canton, Ohio, assignor to John E. McLain, Canton, Ohio. Filed Oct. 11, 1909. Serial No. 522,033. (Cl. 191—93.)



1. In a trolley retriever, the combinaion of a rope winding drum, a driver, a power spring connected with said driver and continuously exerting its power to rotate said driver, two lines of power connections arranged to be alternately connected in between said drum and driver, one of said lines of power connections including an accommodator movable relative to said driver, means for changing said lines of power connections from one to the other, and means for moving the said accommodator relative to the driver when one of the lines of connections is connected in.

2. In a trolley retriever, the combination of a rope winding drum, a driver, a power spring connected with said driver and continuously exerting its power to rotate said driver, two lines of power connections arranged to be alternately connected in between said drum and driver, one of said lines of power connections including an accommodator movable relative to said driver, means for changing said lines of power connections from one to the other, the said accommodator being provided with a thrust member, and means engaging with the thrust member for moving the said accommodator relative to the driver when one of the lines of connections is connected in.

3. In a trolley retriever, the combination of a rope winding drum, a driver, a power spring connected with said driver and continuously exerting its power to rotate said driver, two lines of power connections arranged to be alternately connected in between said drum and driver, one of said lines of power connections including an accommodator movable relative to said driver, means for changing said lines of power connections from one to the other, the said accommodator being provided with a thrust member, and a compression spring engaging with the thrust member for moving the said accommodator relative to the driver when one of the lines of connections is connected in.

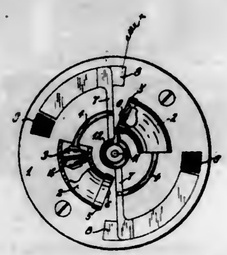
4. In a trolley retriever, the combination of a rope winding drum, a driver, a power spring connected with said driver and continuously exerting its power to rotate said driver, two lines of power connections arranged to be alternately connected in between said drum and driver, one of said lines of power connections including an accommodator movable relative to said driver, means for

changing said lines of power connections from one to the other, the said accommodator being provided with a thrust member, and a compression spring mounted on the driver and engageable with the thrust member for moving the said accommodator relative to the driver when one of the lines of connections is connected in.

5. In a trolley retriever, the combination of a winding drum, a power spring, two different lines of power connections between said spring and drum, and coöperating trigger mechanism for automatically cutting out one of said lines of power connections between the said spring and drum when the other line of power connections is thrown in.

[Claims 6 to 55 not printed in the Gazette.]

1,143,876. SNAP ELECTRIC-LIGHT SWITCH. JAMES YUILL, Toronto, Ontario, Canada, assignor of one-third to William Homewood Taylor Stevens, Toronto, Ontario, Canada, and one-third to Leonard Rahne, Fort George, British Columbia, Canada. Filed June 19, 1914. Serial No. 846,121. (Cl. 161—25.)



1. An electric switch comprising in combination, a member for closing the circuit, frictional means for holding said member in position to close the circuit, and means for moving said member into position to open the circuit after the beginning of the opening movement.

2. An electric switch comprising in combination, a member for closing the circuit, frictional means for holding said member in position to close the circuit, and spring means for moving said member into position to open the circuit after the beginning of the opening movement.

3. An electric switch comprising in combination, a member for closing the circuit, frictional means for holding said member in position to close the circuit, spring means for moving said member into position to open the circuit after the beginning of the opening movement, and means for retarding the operation of said spring means.

4. An electric switch comprising in combination, a member for closing the circuit, frictional means for holding said member in position to close the circuit, spring means for moving said member into position to open the circuit after the beginning of the opening movement, and adjustable means for retarding the operation of said spring means.

5. A switch comprising in combination, at least one pivotally mounted arm, spring means normally tending to throw said arm to the off position, friction means for holding said arm in the open position, and a dash pot for opposing the force of said spring during the opening movement.

[Claims 6 to 8 not printed in the Gazette.]

1,143,877. PAINT-REMOVER COMPOSITION. WALTER ALEXANDER, New York, N. Y. Filed Feb. 23, 1910. Serial No. 545,264. (Cl. 87—5.)

1. A fluid composition of matter comprising a solution of a cellulose ester in a volatile organic solvent, said solution having film-forming properties and consistency, a small amount of a waxy body in solution and an aqueous liquid, said composition possessing the property of forming a cellulose ester film upon exposure to the air, but remaining fluid beneath said film for many hours, and being a paint remover for both water and oil paints.

2. A fluid composition of matter comprising a solution of a nitrocellulose in a volatile organic solvent, said solution having film-forming properties and consistency, a small amount of a waxy body in solution and an aqueous liquid, said composition possessing the property of forming a nitrocellulose film upon exposure to the air, but remaining fluid beneath said film for many hours, and being a paint remover for both water and oil paints.

3. A fluid composition of matter comprising a solution of a cellulose ester in a volatile organic solvent, said solution being of film-forming consistency and properties, a fraction of a per cent. of a waxy body in solution, and an aqueous liquid, said composition possessing the property of forming a cellulose ester film upon exposure to the air, but remaining fluid beneath said film for many hours, and being a paint remover for both water and oil paints.

4. A fluid composition of matter comprising the following ingredients in about the following proportions,—2 parts glucose dissolved in 2 parts water, 57 parts of pyroxylin varnish, 10 parts of acetone, 17 parts of coal tar benzene, 10 parts of water and 1/10 parts of paraffin dissolved in benzol.

5. As a new composition of matter a cellulose-ester solution which is kept in a fluid condition, when exposed to evaporation under the conditions as herein described, comprising cellulose esters dissolved in organic solvents, an aqueous solution of a carbohydrate and a waxy body, substantially as described.

[Claims 6 to 14 not printed in the Gazette.]

1,143,878. PAINT-REMOVER. WALTER ALEXANDER, New York, N. Y. Filed Feb. 23, 1910. Serial No. 545,265. (Cl. 87—5.)

1. A new skin-forming paint remover for both oil and water paints comprising a solution of a cellulose ester in a suitable organic solvent, said solution being of film-forming consistency, an aqueous liquid emulsified therewith and organic paint solvents, said cellulose ester solution remaining of film-forming consistency, and the skin-forming properties of the paint remover being due to said film-forming solution.

2. A new skin-forming paint remover for both oil and water paints comprising about 70 parts of a solution of 1 part of nitrocellulose in about 9 parts of a suitable organic solvent, about 25 parts of an aqueous liquid, and about 20 parts of an organic paint solvent.

3. A new skin-forming paint remover for both oil and water paints comprising a mixture of the following ingredients in about the following proportions,—5 parts glucose dissolved in 5 parts water, 70 parts of a nitrocellulose solution made by dissolving 10 parts nitrocellulose in 90 parts of acetone, 20 parts of coaltar benzene and 15 parts of water.

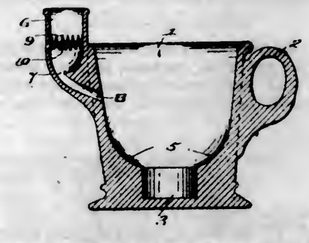
4. The new skin forming paint remover comprising a cellulose ester dissolved in a suitable organic solvent, a carbohydrate dissolved in water, and organic paint solvents.

5. The new skin forming paint remover comprising nitro cellulose dissolved in a suitable organic solvent, a carbohydrate dissolved in water, and organic paint solvents.

[Claims 6 to 8 not printed in the Gazette.]

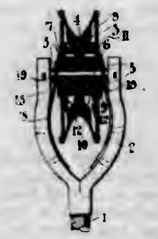
1,143,879. ASEPTIC SHAVING-CUP. JOHN M. ALLSPAW, Middletown, Ohio. Filed July 17, 1914. Serial No. 851,545. (Cl. 132—15.)

1. A shaving cup having a central soap cavity in the bottom thereof, a vertical water chamber the walls thereof projecting outwardly and upwardly from the side of the cup and terminating in an open end above the top of the cup, a water duct extending from the bottom of the chamber through the side of the cup for discharging water into the cup above said cavity, and a removable holder comprising a wire coil adapted to be compressed for inserting it into and crosswise the chamber and abutting against the said walls whereby the holder is suspended for holding an aseptic tablet, substantially as shown and described.



2. A shaving cup having a central soap cavity in the bottom thereof, a water chamber the walls thereof projecting outwardly and upwardly from the side of the cup and terminating in an open end above the top of the cup, a water duct extending from the bottom of the chamber through the side of the cup for discharging water into the cup above said cavity, and a removable holder composed of wire for suspending a tablet in said chamber.

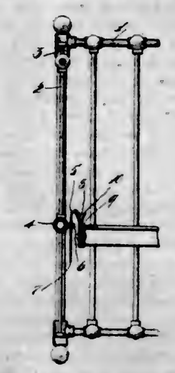
1,143,880. TROLLEY-WHEEL. JOHN WILLIAM ANDERSON, Hamilton, Ontario, Canada, assignor, by mesne assignments, to American Trolley Wheel Company, Inc., Buffalo, N. Y., a Corporation of New York. Filed Apr. 5, 1913. Serial No. 759,112. (Cl. 64—26.)



In a trolley wheel, the combination with a wheel-portion, of independent hollow flanges forming lubricant reservoirs, with their inner walls conforming to the outer surfaces or contours of said wheel-portion, said wheel-portion having a concentric tubular shank portion provided with lubricant feeding passages, said lubricant-reservoirs having their bottoms encompassing said tubular wheel-shank portion, said bottoms having lubricant-feeding passages registering the lubricant-feeding passages of said wheel shank portion, and a bushing having an intermediate annular reduction, also having lubricant-feeding passages, said tubular wheel shank portion encompassing said bushing, said bushing having a headed end and securing means on its opposite end, said headed and securing means connecting together said bushing and said tubular wheel shank-portion.

1,143,881. CATCH DEVICE FOR CRIB-GATES AND THE LIKE. LOUIS APPUGLIESE, Jersey City, N. J., assignor to Mersereau Metal Bed Company, Jersey City, N. J., a Corporation of New Jersey. Filed May 27, 1914. Serial No. 841,208. (Cl. 5—58.)

1. The combination with a vertically movable gate and a stationary ledge, of a device for holding said gate in elevated position comprising coacting catch members one mounted on said gate and one mounted on said ledge, said catch members arranged to have a swinging movement relatively to one another in different planes, the movement in one plane causing said members to become engaged and the movement in the other plane causing said members to become disengaged, and means for holding said catch members normally in position to become engaged when moved toward one another.



2. The combination with a vertically movable gate and a stationary ledge, of a device for holding said gate in elevated position comprising coacting catch members one mounted on said gate and one mounted on said ledge, said catch members arranged to have a swinging movement relatively to one another in different planes, the movement in one plane causing said members to become engaged and the movement in the other plane causing said members to become disengaged.

3. The combination with a vertically movable gate and a stationary ledge, of a device for holding said gate in elevated position comprising coacting catch members one mounted on said gate and one mounted on said ledge, one of said catch members being a fixed tongue and the other of said catch members being a hook having a pivotal mounting with a bearing substantially larger than the pivot thereof so as to loosely swing thereon in different planes for becoming engaged and disengaged from said fixed tongue.

4. In a crib in combination, a vertically movable side gate and a stationary ledge, a device for holding said gate in elevated position comprising a tongue fixed to said ledge and a hook pivotally mounted on said side gate for a swinging movement in different planes, the movement of said hook in one plane forward and back of said tongue causing said hook to pass over said tongue in engaging the same, and the movement of said hook in another plane causing said hook to swing sidewise of said tongue so as to be disengaged therefrom, said hook having a weighted lower end so as to be normally held by gravity in position to engage said tongue when moved toward the same.

1,143,882. GRINDING-MACHINE. MONTGOMERY BERFIELD, Vergas, Minn. Filed June 15, 1914. Serial No. 845,309. (Cl. 51—12.)



1. A grinding device of the character described comprising a hollow handle, a sleeve mounted in one end of said handle, a head for said sleeve, said sleeve and handle being provided with bearing cups, bearing balls mounted in said cups, a shaft passing through said handle and having one end portion provided with a bearing head engaging the bearing balls mounted in the cup of said handle, a grinding stone carried by the outer end portion of said shaft, a gear carried by the opposite end portion of said shaft within the head of said sleeve and provided with a neck terminating in a bearing face engaging the bearing balls positioned in the cup of said sleeves, a sec-

ond sleeve having its end portions provided with bearing cups, a head carried by said second sleeve and pivotally connected with the head of said first mentioned sleeve, bearing balls mounted in the cups of said second sleeve, the shaft extending through said second sleeve and provided with a collar having a bearing face engaging the bearing balls in one of the cups of said second sleeve, and a gear carried by said second shaft and meshing with said first mentioned gear and provided with a neck terminating in a bearing surface engaging the bearing balls mounted in the second cup of said second sleeve.

2. A grinding device of the character described comprising a handle, a sleeve carried by said handle, a second sleeve pivotally connected with said first mentioned sleeve, a shaft rotatably mounted in said handle and said first mentioned sleeve, a second shaft rotatably mounted in said second sleeve, gears carried by said shaft and having their teeth intermeshing to cause rotary motion of said second mentioned shaft to be transmitted to said first mentioned shaft, a grinding medium carried by the outer end portion of said first mentioned shaft, a jacket for said handle extending beyond the same and extending about said first mentioned shaft and means for securing said jacket in a desired position upon said handle.

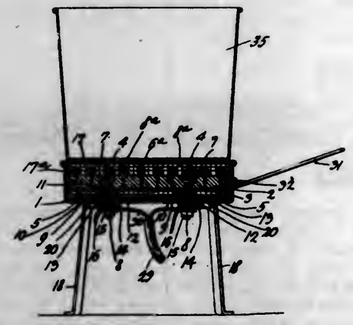
3. A grinding device of the character described comprising a handle, a rotatable shaft extending through said handle, a grinding medium carried by said shaft, a jacket for said handle surrounding the same having its longitudinal edge portions positioned in overlapping relation and provided with registering eyes, a lacing extending through the eyes of said jacket, a set screw passing through said jacket into said handle to hold said jacket in a desired position upon said handle against accidental displacement, and means for rotating said shaft.

4. A grinding device comprising a handle, a rotatable shaft extending through said handle, a grinding medium carried by said shaft, a jacket for said handle, means for connecting the edge portions of said jacket to hold the same about said handle, means for securing said jacket in a desired position upon said handle against accidental displacement, and means for rotating said shaft.

5. A grinding device comprising a handle, a rotatable shaft mounted in said handle and extending beyond the forward end thereof, a grinding medium carried by the outer end portion of said shaft, and a jacket constructed separate from the handle carried by said handle and extending beyond the forward end thereof and positioned about the outer end portion of said shaft between said handle and grinding medium, and means to prevent longitudinal displacement of the jacket.

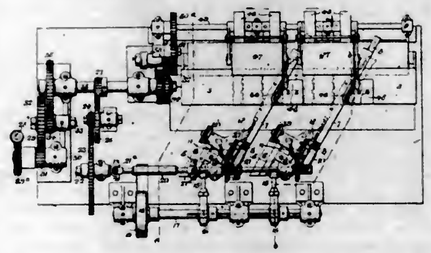
[Claim 6 not printed in the Gazette.]

1,143,883. ELECTRIC STOVE. RICHARD F. BOETTIGER, Aberdeen, Wash. Filed Mar. 15, 1915. Serial No. 14,437. (Cl. 219—37.)



An electric heater comprising a pan, a heating unit therein embodying a base and a conductor having heating elements extending across the base, a pair of bolts engaged through the said base and having upper heads, nuts threaded upon the bolts below the base for securing the bolts to the base, said nuts seating above the bottom of the pan, and the bolts extending through the said bottom of the pan, and nuts threaded upon the lower ends of the bolts for securing the same to the bottom of the pan and for the attachment of a pair of conductors to the bolts.

1,143,884. EMBROIDERY-TRIMMING MACHINE. GUSTAVE LOUIS BOURQUIN, Perkasie, Pa., and RUDOLF LOEB, Camden, N. J., assignors to Rudolf Loeb, Camden, N. J. Filed Nov. 18, 1909. Serial No. 528,725. (Cl. 164—49.)



1. In an embroidery cutting or trimming machine, the combination of a suitable work table, means for feeding the fabric across the same, a continuous knife blade mounted for engagement with the work, said knife having its cutting edge horizontally disposed and reciprocable in substantially the same plane as the material operated upon, and means for reciprocating said knife blade.

2. In an embroidery cutting or trimming machine, the combination of a suitable work table, means for feeding the fabric across the same, a continuous knife blade mounted diagonally with respect to the work, a shear plate coacting therewith, means for reciprocating said knife blade, and means for carrying away the work after it has been cut.

3. In a cutting or trimming machine for removing waste from embroidered fabric, the combination of a suitable frame, a work table carried thereby, means for feeding work across the same, a cutting blade, a guide for said blade, means coacting therewith to remove waste adjacent an embroidered edge, and means for reciprocating said guide.

4. In an embroidery cutting or trimming machine, the combination of a suitable frame, a work table carried thereby, means for feeding fabric containing embroidered edges across the same, a cutting blade, a guide for said blade, means for reciprocating said guide, and a fixed shear plate carried by said table in parallelism with the cutting edge of said cutting blade.

5. In an embroidery cutting or trimming machine, the combination of a work table over which the fabric to be trimmed is passed, a guide, a continuous blade disposed in said guide, means for reciprocating the guide across said table, and means for feeding the knife through the guide.

[Claims 6 to 11 not printed in the Gazette.]

1,143,885. PROCESS FOR MAKING A COMPOUND OF GLASS. HENRY M. BROOKFIELD, New York, N. Y. Filed Jan. 27, 1912, Serial No. 673,715. Renewed May 10, 1915. Serial No. 27,241. (Cl. 49—90.)

1. The process of making a glass compound containing an excess of one ingredient, which comprises the steps of mixing with ground glass, containing the usual amount of said ingredient, a chemical compound of said ingredient such as will furnish the oxid thereof, and fusing the whole to incorporate this excess into the mass.

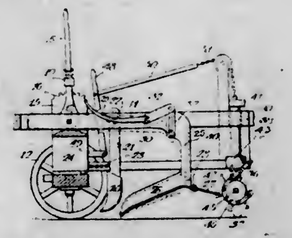
2. The process of making a glass compound containing an excess of one ingredient, which comprises the steps of forming the cullet with the usual amount of said ingredient, pulverizing said cullet, adding to said cullet, before or after its pulverization, a chemical compound of said ingredient such as will furnish the oxid thereof, and fusing the whole to incorporate this excess into the mass.

3. The process of progressively increasing the lime content of glass, which consists in providing ground lime glass cullet, thoroughly mixing therewith a chemical compound which will furnish the oxid of calcium and then fusing the mixture.

4. The process of progressively increasing the lime content of glass, which consists in providing ground cullet formed from glass containing lime, thoroughly mixing therewith material which will furnish the oxid of calcium during the succeeding steps, the proportion of said oxid of calcium thus furnished being approximately 30 per cent. of the amount of the ground glass added to said mixture, and heating the whole to a temperature of approximately 2500° F. to fuse the mixture.

5. The process of progressively increasing the lime content of glass, which consists in providing ground cullet formed from glass containing lime, thoroughly mixing therewith oxid of calcium, the proportion of the oxid of calcium to the ground glass being as 30 to 100, and heating the mixture to a temperature of approximately 2500° F. to fuse the same.

1,143,886. POTATO-DIGGER. FRANK BRYLA, Westfield, Mass. Filed May 25, 1914. Serial No. 840,773. (Cl. 55—134.)



1. The combination with the frame of a potato digger, of an angular supporting bar pivoted to the forward portion of the frame, a plow pivoted to said bar, a shovel rigidly-secured to the lower end of said angular bar in rear of said plow, a hand-lever, and a foot lever operatively connected to said bar.

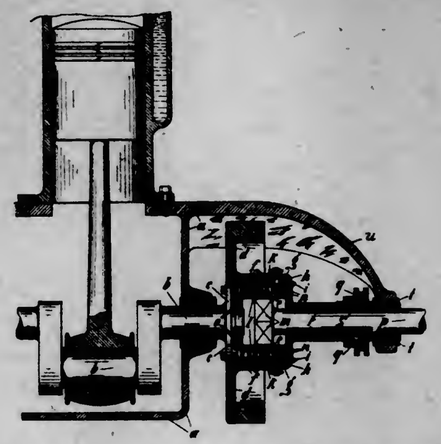
2. The combination with the frame of a potato-digger, of an angular supporting bar pivoted to the forward portion of the frame, a plow pivoted to said bar, a shovel rigidly-secured to the angular end of said bar in rear of said plow, a hand lever, and a foot lever operatively connected to said bar, and a hinged plate mounted upon the rear end of said shovel.

3. In a potato-digger, the combination with a frame, of an angle bar pivoted thereto, a plow pivoted to said bar, a shovel secured to said angle bar in rear of said plow, means operatively connected to said angle bar for adjusting said shovel, and a hinged plate mounted upon the rear end of said shovel.

4. In a potato digger, the combination with a frame, of an angle-bar pivoted thereto, a plow pivoted to said bar, a shovel secured to said angle-bar in rear of said plow, and a foot lever having a link connection with said angle-bar for adjusting said shovel.

1,143,887. MEANS FOR JOURNALING THE MOTOR-SHAFT IN SELF-PROPELLED VEHICLES. ETTORE BUGATTI, Molsheim, Germany. Filed July 1, 1914. Serial No. 848,400. (Cl. 192—1.)

1. In self-propelled vehicles, in combination with the engine casing and a crank shaft journaled therein, a fly wheel on the free end of said crank shaft, a clutch within said fly wheel, a knuckle joint within said clutch, the driven shaft member of said knuckle joint extending coaxially with said crank shaft, a hollow axle extending from said fly wheel and loosely surrounding said driven member, and means for journaling the free end of said hollow axle

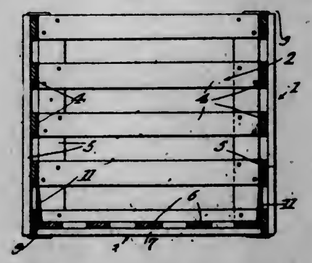


2. In self-propelled vehicles, in combination with the engine casing and a crank shaft journaled therein, a fly wheel on the free end of said crank shaft, a clutch within said fly wheel, a knuckle joint within said clutch comprising a driving and a driven member, a hollow axle coaxially extending from said fly wheel and loosely surrounding said driven member, and a bracket member extending from said engine casing and adapted to journal the free end of said hollow axle.

3. In self-propelled vehicles, in combination with the engine casing and a crank shaft journaled therein, a fly wheel on the free, protruding end of said crank shaft, a clutch within said fly wheel, a knuckle joint within said clutch comprising a driving and a driven member, a hollow axle coaxially extending from said fly wheel and loosely surrounding said driven member, and a bracket member extending in the rear of said engine casing, partly covering-in said clutch fly wheel and adjacent parts and journaling the free end of said hollow axle.

4. In self-propelled vehicles, in combination with the crank casing and a crank shaft journaled therein, a fly wheel on the end of the said crank shaft protruding from said casing, a multiple disk clutch within said fly wheel, a Cardan joint within said clutch, the driven Cardan shaft of said joint extending in alinement with said crank shaft, a hollow axle rigidly secured to said clutch fly wheel also in alinement with said crank shaft, said Cardan shaft floating in said hollow axle, and a bracket member extending from said crank case and adapted to journal the free end of said hollow axle.

1,143,888. COLLAPSIBLE CRATE. COOLIE D. CAMPBELL, Traverse City, Mich. Filed Nov. 13, 1914. Serial No. 871,952. (Cl. 217—48.)



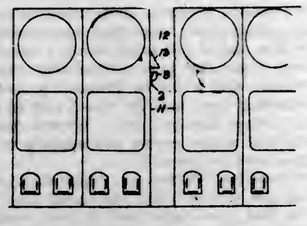
1. A collapsible crate comprising sides and ends, links connecting the sides and ends at the corners thereof, a

bottom insertible within the sides and ends and having its corners seatable upon the said links, the sides having yieldable portions, and interengaging means carried by the said yieldable portions of the sides and bottom for holding the bottom in place.

2. A collapsible crate comprising sides and ends, links connecting them at the corners, a bottom insertible within the sides and ends and seatable upon the links, the sides having yieldable portions, and wedge-shaped dogs secured to the said yieldable portions and having their sharp ends projecting upwardly, the dogs being arranged to snap over the bottom when the bottom is seated upon the said links.

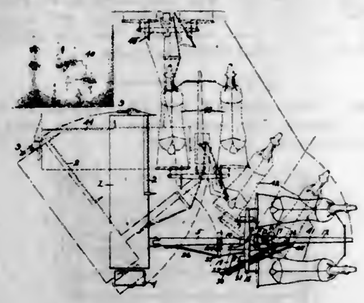
3. A collapsible crate embodying hinged ends and sides having portions upon which a bottom is seatable, a bottom insertible within the sides and ends to seat on the said portions, the sides having yieldable portions, and dogs carried by the said yieldable portions and arranged to snap over the bottom when the bottom is in place.

1,143,889. DEVICE FOR DETECTING INCOMPLETE COMBUSTION. ALFRED EDWARD CARR, Formby, near Liverpool, England. Filed Mar. 13, 1913. Serial No. 753,928. (Cl. 88—14.)



A smoke testing apparatus comprising means connected with the source of smoke supply for conveying a sample of the smoke from said source, means for withdrawing the smoke and discharging it into the atmosphere, means for removing the sample abstracted arranged adjacent the outlet of the abstracting means thereby providing an open air space for the passage of the smoke to be tested.

1,143,890. TONGUE-TRUCK TURNING ATTACHMENT FOR BINDING-MACHINES. JOHN CHAMBERLIN, Flat Rock, Mich. Filed Oct. 3, 1914. Serial No. 864,762. (Cl. 21—93.)



1. In combination with a binding machine having a tongue truck pivoted to swing thereon, a fixed support on said machine, a tongue pivoted to swing on said tongue truck, power transmitting means connecting said fixed support with said tongue truck and said tongue, whereby through a swinging movement of said tongue movement is transmitted to swing the truck and accelerate the movement of said truck, and means connecting said tongue with said truck for yieldably retaining said truck and tongue against relative movement.

2. In combination with a binding machine having a tongue truck pivoted to swing thereon, a fixed support on said machine, a tongue pivoted to swing on said tongue truck, power transmitting means connected to said fixed support and to said tongue truck and slidably engaging said tongue, whereby through the swinging movement of said tongue an augmented swinging movement is imparted to said tongue truck, means on said tongue truck for limiting the movement of said tongue, and means flexibly connecting said tongue with said tongue truck for yieldably retaining said truck and tongue against relative movement.

3. In combination with a binding machine having a tongue truck pivoted to swing thereon, a fixed support on said machine, a tongue pivoted to swing on said tongue truck, a non-elastic flexible member fixedly connected to said support and to said tongue truck and slidably engaged with said tongue, whereby through the swinging movement of said tongue movement is imparted to swing said tongue truck, means on said tongue truck for limiting the movement of said tongue and for retaining it in alinement with said tongue truck, and flexible means connecting said tongue with said tongue truck for steadying said tongue and truck against relative movement.

4. In combination with a binding machine having a tongue truck pivoted to swing thereon, a fixed support on said machine, a member connected to said truck to swing therewith, a tongue pivoted to swing on said member, said member having means to limit the movement of said tongue, an extension on said tongue truck adapted to swing therewith, a flexible non-elastic member secured at one end to said fixed support and at its opposite end to said extension and having its body portion slidably connected with said tongue, whereby through the swinging movement of said tongue a relatively increased swinging movement is imparted to said truck, and expansive and contractive means connecting said tongue with said extension for yieldably retaining said tongue and truck against relative swinging movement.

5. A tongue truck turning device comprising a fixed member having a tongue truck pivoted to swing thereon, a fixed support on said member, a coupling member connected to said tongue truck to swing therewith, a tongue pivoted to swing on said coupling member, means on said coupling member to limit the movement of said tongue, an extension on said tongue truck adapted to swing therewith, a flexible non-elastic member secured at one end to said fixed support and at its opposite end to said extension, means on said tongue for effecting a sliding engagement with said flexible member, whereby through the swinging of said tongue movement is imparted through said flexible member to swing said truck, a member pivotally connected at one end to said tongue and slidably engaged at its opposite end with said extension, and means on said member for exerting an outward yielding pressure upon said extension.

[Claim 6 not printed in the Gazette.]

1,143,891. SUNSHADE. EDWARD M. COYNE, Chatham, Ontario, Canada. Filed Aug. 4, 1914. Serial No. 855,014. (Cl. 54—80.)

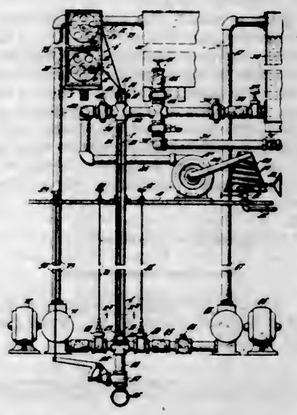
1. An apparatus of the class described, including a bridle frame, threaded projections carried thereby, and a sun-shade including a socket with a lower threaded end adapted to engage any of said projections, a post frictionally engaging said socket, and a shade frame and cover mounted upon the upper extremity of said post.

2. An apparatus of the class described, comprising a bridle frame including cheek pieces and a forehead member, means for securing the same to an animal's head, a series of attaching means carried by and arranged in an axial row upon the said forehead member, a bracket with a socket adapted to detachably engage any of said attaching means, a center post frictionally engaging said socket, a ferrule carried at the upper extremity of said center post, a wire frame carried by said ferrule and post, and a



cover carried by said wire frame for shading and protecting an animal's head.

1,143,892. APPARATUS FOR DEVELOPING FILMS. VINCENT C. DE YBARRONDO, Los Angeles, Cal. Filed Apr. 6, 1914. Serial No. 830,082. (Cl. 95—90.5.)



1. An apparatus for developing films comprising a pipe having an elevated end, means for passing a film into said elevated end, a weight fastened to the end of said film sufficiently heavy to draw the film into said pipe, and means for preventing the weight from turning as it travels through said pipe.

2. An apparatus for developing films comprising a pipe, means for passing various fluids through said pipe, a weight adapted to be fastened to the end of the film, and means for preventing the weight from turning as it passes through the pipe.

3. An apparatus for treating films comprising a pipe, means for passing treating fluids through said pipe, a weight adapted to be secured to the end of the film, and projections on said weight sliding in grooves in said pipe.

4. An apparatus for treating films comprising a cylindrical pipe, means for passing a film into the top of said pipe, a weight secured to the bottom of said film, means on said weight coöperating with said pipe to prevent the weight from twisting the film as it passes downwardly through said pipe, and means for passing treating fluids over said film as it passes into said pipe.

1,143,893. PREPARATION OF SEMIPLASTIC MATERIAL FROM THE SOJA BEAN. ROBERT DODD and HERBERT BROOKE PERREN HUMPHRIES, London, England. Filed June 26, 1914. Serial No. 847,493. (Cl. 106—38.)

1. A process for the preparation of a semi-plastic material from the soja bean consisting in macerating and extracting the oil freed bean with a solvent, separating the solution containing the soluble and emulsifiable portion from the part which is not so, subjecting the separated portion to the action of a coagulant, separating the coagulate, and molding it.

2. A process for the preparation of a semi-plastic material from the soja bean consisting in macerating and extracting the oil freed bean with a solvent, separating the solution containing the soluble and emulsifiable portion from the part which is not so, subjecting the separated portion to the action of a coagulant in the presence of formalin, separating the coagulate, and molding it.

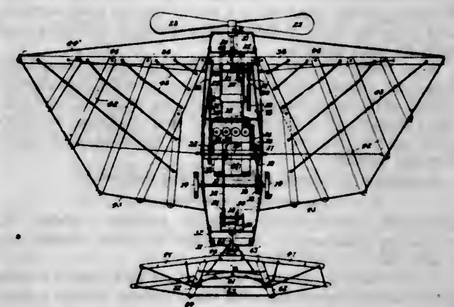
3. A process for the preparation of a semi-plastic material from the soja bean consisting in macerating and extracting the oil freed bean with a solvent, separating the solution containing the soluble and emulsifiable portion from the part which is not so, subjecting the separated portion to the action of a coagulant consisting of aluminium sulfate, separating the coagulate, and molding it.

4. A process for the preparation of a semi-plastic material from the soja bean consisting in macerating and extracting the oil freed bean with a solvent, separating the solution containing the soluble and emulsifiable portion from the part which is not so, subjecting the separated portion to the action of a coagulant consisting of aluminium sulfate in the presence of formalin, separating the coagulate, and molding it.

5. A process for the preparation of a semi-plastic material from the soja bean consisting in macerating and extracting the oil freed bean with a solvent, separating the solution containing the soluble and emulsifiable portion from the part which is not so, subjecting the separated portion to the action of a coagulant consisting of aluminium sulfate and an acid, separating the coagulate, and molding it.

[Claims 6 and 7 not printed in the Gazette.]

1,143,894. COMBINED AERO, HYDRO, AND AUTO PLANE. BRONISLAW DROZINSKI, Scranton, Pa. Filed Feb. 23, 1915. Serial No. 10,010. (Cl. 244—14.)



1. A device of the class described comprising a car frame, a rearwardly positioned transverse brace mounted therein, a steering shaft journaled through the said brace and the rear end of the said frame, a post secured to the rear projecting end of the said shaft, a steering plane hingedly mounted upon the free end of the said post, a flexible connection between the rear portion of the said car frame and said plane, a pulley upon said frame in engagement with the said connection and manual operating means for the said shaft.

2. A device of the class described comprising a car frame, a motor positioned therein, a longitudinally arranged propeller shaft journaled forwardly of the said frame, a propeller upon the forward end of the said shaft,

operative connections between the said motor and shaft, traction wheels journaled beneath the rear portion of the said frame, operative connections between said traction wheels and the said motor, a forwardly positioned steering wheel pivoted beneath the said frame, shifting means for the said steering wheel extending to a point adjacent the said motor, a rearwardly positioned steering shaft, a steering plane hingedly attached to the said steering shaft and revolving means for the said steering shaft positioned adjacent the said motor.

3. A device of the class described comprising a car frame, a motor within said frame, a driving shaft for the said motor, a traction wheel pulley, a propeller pulley and a steering pulley freely journaled upon the said shaft, separate clutching means between the said shaft and the said traction wheel and propeller pulleys and an operating turn lever for the said steering pulley fixedly secured to the said steering pulley.

1,143,895. MOLD FOR LENS-MOUNTING BLOCKS. WILLIAM W. ESSICK, Reading, Pa. Filed Jan. 19, 1914. Serial No. 812,925. (Cl. 18—34.)



1. A lens-block mold comprising a spherically-surfaced base portion, and a sectional facing for said spherical surface made up of separately formed facet-forming spherical segments the marginal portions of each of which abut adjacent segments.

2. A lens-block mold comprising a spherically-surfaced base portion, and a sectional facing for said spherical surface made up of separately formed facet-forming spherical segments arranged in a spherical zone, the side walls of each segment abutting adjacent segments.

3. A lens-block mold comprising a spherically-surfaced base portion, and a sectional facing for said spherical surface made up of separately formed facet-forming spherical segments arranged in zone series, the segments of each series being different in contour from those of each other series substantially as set forth.

4. A facet-forming spherical-segment mold comprising base and coping portions providing parallel spherically-curved surfaces and one of which is provided with a facet-forming portion squared to a radial line of said surfaces, and segment walls between said surfaces inclosing said facet-forming portion.

5. A facet-forming spherical-segment mold comprising base and coping portions providing parallel spherically-curved surfaces, a facet-forming fitting to one of said portions squared to a radial line of said surfaces, and segment walls between said surfaces inclosing said facet-forming portion.

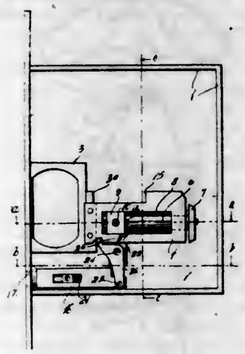
[Claims 6 to 12 not printed in the Gazette.]

1,143,896. SPRING-PULL FOR LOCKS. HARRY L. EWING, Dallas, Tex. Filed June 15, 1914. Serial No. 845,095. (Cl. 70—16.)

1. In a spring actuated door pull, a pull loop, an actuating bracket correlated with the pull loop, a tube, a compression spring confined in the tube and correlated with the actuating bracket and a push button correlated with the actuating bracket.

2. In a spring actuated door pull, a pull loop, an actuating bracket correlated with the pull loop, a thrust head correlated with the actuating bracket, a tube, a slot formed in the tube, a compression spring confined in the tube, the aforesaid thrust head correlated with the said compression spring and a push button correlated with the actuating bracket.

3. In a spring actuated door pull, a pull loop, an actuating bracket correlated with the pull loop, a slot formed in the actuating bracket, adjustable clamping plates correlated with the slot in the actuating bracket, a thrust head correlated with the clamping plates, a tube, a slot formed in the tube, a compression spring confined within the tube, the aforesaid thrust head correlated with the compression spring, and a push button correlated with the actuating bracket.

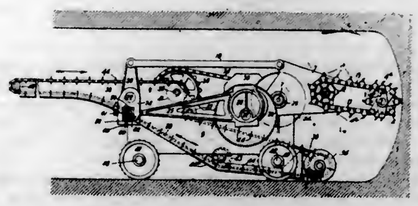


4. In a spring actuated door pull, a pull loop, an actuating bracket correlated with the pull loop, a slot formed in the actuating bracket, adjustable clamping plates correlated with the slot in the actuating bracket, a thrust head correlated with the clamping plates, a tube, a slot formed in the tube, a compression spring confined within the tube, the aforesaid thrust head correlated with the compression spring, a push button correlated with the actuating bracket and a release member correlated with the push button and actuating bracket.

5. In a spring actuated door pull, a pull loop, an actuating bracket correlated with the pull loop, a slot formed in the actuating bracket, adjustable clamping plates correlated with the slot in the actuating bracket, a thrust head correlated with the clamping plates, a tube, a slot formed in the tube, a compression spring confined within the tube, the aforesaid thrust head correlated with the compression spring, a push button correlated with the actuating bracket, a push arm, a spring correlated with the push arm, a push button carried by the push arm and a release member correlated with the push arm and actuating bracket.

[Claim 6 not printed in the Gazette.]

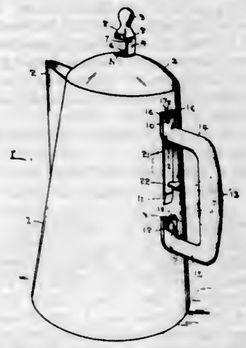
1,143,897. MINING-MACHINE. JEFFERSON E. FLEXNER and EDWARD O'TOOLE, Gary, W. Va. Filed July 8, 1912. Serial No. 708,122. (Cl. 125—14.)



1. In a mining machine, a frame, a drive shaft journaled on said frame, a driven shaft operatively connected to the drive shaft, arms pivoted concentric to the drive shaft, a rotary cutter bar supported by the arms and operatively connected to said drive shaft, a rock shaft mounted on the frame, rock arms on the rock shaft, links connecting the rock arms and the first mentioned arms, a lever arm on the rock shaft, a crank device carried by the driven shaft, and a link connecting the crank device with the lever arm.

2. In a mining machine, a frame, a drive shaft journaled on said frame, a driven shaft operatively connected to the drive shaft, arms pivoted concentric to the drive shaft, a rotary cutter bar supported by the arms and operatively connected to said drive shaft, a rock shaft mounted on the frame, rock arms on the rock shaft, links connecting the rock arms and the first-mentioned arms, a lever arm on the rock shaft, a crank device carried by the driven shaft, a link connected to the crank device, and means adjustably connecting the link and lever arm.

1,143,898. HANDLE FOR COOKING VESSELS. JOHN B. JESSE FOURNIER, Oquossoc, Me. Filed Jan. 15, 1914. Serial No. 812,219. (Cl. 53—3.)



1. A vessel having a retaining pin with an enlarged head projecting from the wall of the vessel, a staple vertically disposed above said lug and having parallel sides and a central aperture, a lug having an upper horizontal surface projecting from said vessel between said pin and staple, a handle having two parallel arm members horizontally disposed, each having angular projections rising vertically, each projection having a plurality of attaching claws to engage said pin and staple to attach said handle to said vessel, and a depending leaf spring latching member fastened to the end of the upper horizontal arm and adapted to seat upon the horizontal surface of the lug to retain said handle upward in attached position to said vessel.

2. A vessel having a lug with a horizontal upper surface projecting from said vessel, a spring-like vertically disposed latching member seated upon and suported by said latch device, a staple above and a lug below said latch device, a handle having two upturned ends with claws thereon adapted to be pushed upward into engagement with said pin and staple, said claws attaching said handle to said vessel, and fastening means connecting said handle to the upper end of said lug, said lug thereby supporting said handle in upward position.

3. A vessel having a horizontal retaining pin and a horizontal staple vertically disposed to each other, projecting from the wall of said vessel, a handle engaged with said pin and staple, said engaging operation being derived from a vertical upward movement of said handle, a lug having an upper horizontal surface projecting from the wall of said vessel between said pin and staple, and a flexible leaf spring supporting device fastened at its upper end to the upper portion of said handle and adapted to slide over and rest upon said horizontal surface of said lug to support said handle in its engagement with said pin and staple.

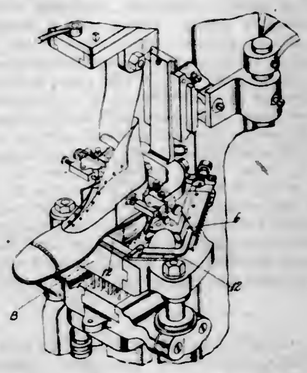
1,143,899. LIFE-SAVING WAISTCOAT. JAMES WATSON GIEVE, London, England, assignor to Gieve, Matthews & Seagrove Limited, Portsmouth, England. Filed Feb. 5, 1915. Serial No. 6,369. (Cl. 9—20.)

1. A life-saving garment in the form of a waistcoat comprising an extra piece of material surrounding and attached to the waistcoat under the arm holes, fastenings adapted to connect the ends of said piece of material, an air tube inclosed in said extra piece of material, an inflating tube projecting from said air tube through a pocket of the waistcoat and a valve at the free end of said inflating tube.



2. A life-saving garment in the form of a waistcoat comprising an extra piece of material surrounding and attached to the waistcoat under the arm holes, an air tube inclosed in said extra piece of material, so proportioned that its larger portion extends around the front of the waistcoat, fastenings for connecting the ends of said piece of material, an inflating tube projecting through said tube through a pocket of the waistcoat and a valve at the free end of said inflating tube.

1,143,900. HOLDER FOR HEELS OR TOP-LIFTS. FREDERICK WILLSON GLEASON, Lestershire, N. Y., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Feb. 3, 1908. Serial No. 414,079. (Cl. 1—32.)



1. A blank holder for a heeling machine, comprising a rear gage including a normally stationary but adjustable member having a stop surface concaved upon a larger radius than the curved end of a blank, and a pair of blank centering arms pivotally mounted on and adjustable with said member and extending obliquely forwardly on either side of the center of the stop surface, together with a breast gage mounted for bodily movement toward and from the rear gage.

2. In a holder for heels or top lifts, the combination with a rear gage formed to locate the rear ends of blanks of different sizes in substantially the same position longitudinally of the holder and constructed and arranged for adjustment to permit variation of the position of the rear end of a blank, of relatively movable members for engaging the rear end of the blank to center it laterally of the holder, the said members being mounted upon the rear gage and adjustable with it, and means for positioning the blank angularly and pressing it into engagement with said rear gage.

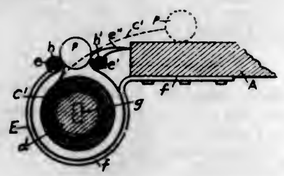
3. A holder for heels or top lifts having, in combination, a rear gage adjustable forwardly and rearwardly and provided with a curved heel engaging face of such curvature that it can only engage at one point any heel or top lift to be handled, a spring actuated breast engaging means movable toward and from said rear gage, and laterally acting centering means arranged to engage a heel or lift between its rear end and its breast end.

4. A holder for top lifts, having in combination, a rear gage having a work engaging face curved to engage a

lift at a single point only on its curved end, a breast gage for holding a blank in engagement with said rear gage and a plurality of spring-pressed members arranged to grip the blank upon opposite sides while so held and center the rear end of the blank laterally in its holder.

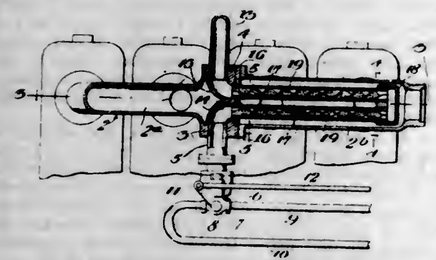
5. A holder for heels or top lifts, having in combination, an adjustable rear gage, a plurality of relatively movable members shaped to engage the rear portion of a blank and arranged to center it in the holder, said members being adjustable simultaneously with the rear gage, and a breast gage for holding the blank in engagement with said rear gage.

1,143,901. FLEXIBLE COVER FOR DRAFTING-TABLES, DESKS, AND THE LIKE. EDWARD GRAND, Jr., Ottawa, Ontario, Canada. Filed May 7, 1914. Serial No. 837,098. (Cl. 45—75.)



A device of this class described consisting of a tube or casing of suitable material formed with a longitudinally extending slot or aperture therein, one of the edges of said slot being folded to form a longitudinally extending pipe like bead, and the other of said edges being folded to form a runner or lip, and underneath a corresponding extended pipe-shaped bead, movable locking means for one end of said casing comprising a hinged portion, a pronged staple therein adapted to fit into said pipe-shaped beads, whereby the sides of the casing aperture are held together; a spring actuated roller adapted to fit into and operate in said casing, a flexible waterproof cover wound on said roller, means in the ends of said casing adapted to hold said roller, reinforcing means for said folded sides of the casing aperture, said casing provided with a plurality of brackets for fixedly securing it in position.

1,143,902. GASEOUS-FUEL HEATER AND MIXER FOR INTERNAL-COMBUSTION ENGINES. THEODORE H. HABERKORN, Denver, Colo. Filed June 15, 1914. Serial No. 845,282. (Cl. 257—239.)



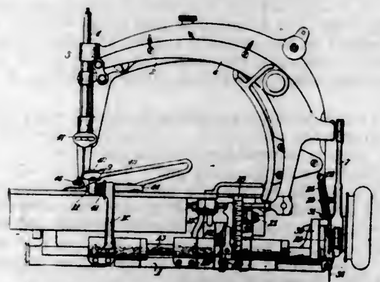
1. In a device of the class described the combination with a casing adapted to be heated and having an inlet and outlet opening intermediate of its ends and at diametrically opposite points therein, centrally converging elbow sections formed integrally with and disposed within said casing and continuing from the openings therein; of a U-shaped mixture carrying pipe section disposed in said casing and having the ends of its arms respectively engaged with the converging ends of said elbow sections.

2. In a device of the class described, the combination with a casing adapted to be heated and having an inlet and outlet opening intermediate of its ends and at diametrically opposite points thereon, centrally converging elbow sections formed integrally with and disposed within the casing and continuing from the openings therein, the inner converging ends of said elbow sections being internally threaded, of a pair of tubular arms engaged with the threaded ends of said elbows and continuing longitudinally within the casing in spaced relation to one another, and a U-shaped cap member removably engaged with the opposite ends of said tubular members whereby to form substantially a U-shaped mixture-conducting member in the casing.

3. A device of the character described comprising an elongated cylindrical casing formed of a pair of connected sections disposed end to end, the inner end of the one section having a pair of diametrically alined openings, inwardly extending elbows formed integrally with the one section and leading from the openings therein toward the other section, and a pair of pipes lying in said last-named section and having their outer ends communicating one with the other, their inner ends being anchored in the free ends of the elbows.

4. A device of the character described comprising an elongated casing formed of a comparatively small tubular section and a comparatively large tubular section disposed end to end and connected to each other, the inner end of the smaller section being enlarged and having a pair of openings formed at diametrically opposite points, a pair of elbows formed integrally with said enlarged end of the smaller section and leading therefrom toward the larger section, a pair of pipes disposed within said larger section and having their inner ends threaded into the free ends of the elbows, and a cap disposed within said larger section and into which the outer ends of said pipes are threaded, whereby they may communicate one with the other.

1,143,903. RUFFLING AND SEWING MACHINE. NATHAN E. HANSON, New York, N. Y., assignor to Union Special Machine Company, Chicago, Ill., a Corporation of Illinois. Filed July 8, 1908. Serial No. 442,529. (Cl. 112—16.)



1. A sewing machine including in combination, a work support, a main shaft beneath the work support, stitch-forming mechanism and a ruffling member located above the work support and adapted to engage the underface of the fabric to be ruffled, an arm supporting said ruffling member, a rock shaft beneath the work support by which said arm is carried, means beneath the work support for vibrating said rock shaft from said main shaft, and means operable without stopping the stitch-forming mechanism for varying the throw of the ruffling member.

2. A sewing machine including in combination, a work support, a main shaft beneath the work support, stitch-forming mechanism and a ruffling member adapted to engage the underface of the fabric to be ruffled, an arm supporting said ruffling member, a rock shaft beneath the work support by which said arm is carried, means beneath the work support for vibrating said rock shaft from said main shaft, including a shiftable member for varying the throw of the ruffling member, and means for shifting said member without stopping the stitch-forming mechanism.

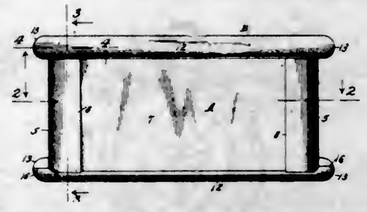
3. A sewing machine including in combination, a work support, stitch forming mechanism, a ruffling member, a rock shaft carrying said ruffling member, means for oscillating said rock shaft including a vibrating member, a link connected to said vibrating member and to said rock shaft, and means for shifting the connection between said link and vibrating member without stopping the stitching mechanism, and a plurality of adjustable stops for limiting the movement of said shifting means.

4. A sewing machine including in combination, a work support, stitch forming mechanism, a ruffling member, a rock shaft located beneath the work support and carrying said ruffling member, means for vibrating said rock shaft including a slotted plate, a link connected to said slotted plate, and a stop nut located in said slot for limiting the movement of said link, and means for shifting said link without stopping the stitching mechanism.

5. In sewing machine including in combination, a work support, stitch forming mechanism, a ruffling member, a rock shaft located beneath the work support and carrying said ruffling member, means for vibrating said rock shaft including a slotted plate, a link, a bolt to which said link is pivoted, slidingly secured in said slot, a knee shift, and means operated by said knee shift, for adjusting said bolt in said slot.

[Claims 6 to 17 not printed in the Gazette.]

1,143,904. REEL. EDMUND J. HASSETT, Yonkers, N. Y., and EDWIN E. DARAAGH, Boonton, N. J., assignors, by mesne assignments, to Anna F. Hassett, Yonkers, N. Y. Filed Dec. 6, 1911. Serial No. 664,160. (Cl. 206—51.)



1. A reel for ruchings and the like consisting of a body formed of two blanks with their ends bent to overlap upon each other at the ends of the reel and secured together to form a flat tube with double thickness of material at the ends of the reel, and integral flanges on the walls of the tube on each side and extending at right angles thereto.

2. A reel for ruchings and the like consisting of a body formed of two blanks with their ends bent to overlap upon each other at the ends of the reel and secured together to form a flat tube with double thickness of material at the ends of the reel, integral flanges on the walls of the tube on each side and extending at right angles thereto, and side pieces formed separately from the tube and secured to the flanges.

3. A reel for ruchings and the like consisting of a body formed of two blanks with their ends bent to overlap upon each other at the ends of the reel forming a flat tube with double thickness of material at the ends of the reel, integral flanges on the walls of the tube extending at right angles thereto, and side pieces formed separately from the tube and secured to the tube flanges and folded over onto the inner side of the flanges, forming double thickness of the side material on the side edges.

4. A reel for ruchings and the like consisting of a body formed of two blanks with their ends bent to overlap upon each other at the ends of the reel forming a flat tube with double thickness of material at the ends of the reel, integral flanges on the walls of the tube on each side and extending at right angles thereto, and side pieces formed separately from the tube and on the outside of the flanges and folded over onto the inside of the flanges and on the body of the side pieces beyond the tube walls, forming double thickness of side piece material throughout the edges of the reel.

5. A reel for ruchings and the like consisting of a body A in the form of a flat tube formed of two blanks each of which has flaps 8 bent to overlap upon each other at the ends of the reel and integral flanges 10 between the flaps and bent at right angles to the walls of the tube, side edges B formed separately from the tube and secured on the flanges having body portions 12 and integral flanges 14 folded over onto the inside of the flanges 10, and tabs 15 projecting beyond the tube ends and folded over onto the body portions 12.

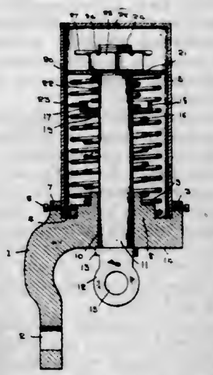
[Claim 6 not printed in the Gazette.]

1,143,905. WATER-MOTOR. JOHN HAWLEY, Green River, Wyo. Filed Mar. 23, 1914. Serial No. 826,681. (Cl. 170—86.)



The combination in a water motor including a pair of spaced endless chains, of transverse pivot bars connecting said chains, paddles having sleeves rotatable on said bars, and pins in said chains adapted to engage the back edges of the paddles to limit their movement and hold them in operative position.

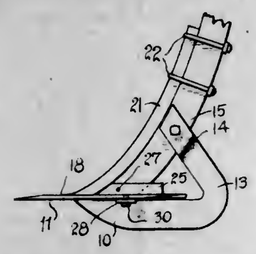
1,143,906. SHOCK-ABSORBER. EDWARD G. HAYNE, Ottawa, Ill. Filed June 30, 1914. Serial No. 848,262. (Cl. 21—105.)



1. A shock absorber comprising; a bracket, a casing mounted upon said bracket, a reciprocating spindle mounted in said bracket, a stiff spring mounted around said spindle of comparatively small diameter coil, a washer having upturned flange edges mounted upon said stiff spring, a second spring of resilient metal of comparatively large diameter mounted to encircle said spindle and said first mentioned spring, a second washer mounting said spindle and contacting with said last mentioned spring, and a third smaller spring mounted between said washer and protected by the upturned flange edges thereof to spread said washers apart.

2. A shock absorber comprising; a bracket having a bore therethrough, a spindle reciprocatingly mounted through said bore, a stiff spring adapted to receive heavy shocks mounted upon said bracket and encircling said spindle for a portion of its length, a cup-like washer slidingly mounted upon said spindle and engaging the end of said spring, a second light spring encircling the balance of said spindle and seated in said washer adapted to retain said washer and said stiff spring in place without compression and from rattling, means upon the end of said spindle to retain said second mentioned spring in place, and a third spring adapted to receive light shocks encircling both of said first mentioned springs and retained between said bracket and said retaining means upon the end of the spindle.

1,143,907. AGRICULTURAL IMPLEMENT. ROY B. HEDGES, La Junta, Colo. Filed Mar. 1, 1915. Serial No. 11,296. (Cl. 55—60.)



1. An agricultural implement including a supporting standard, a horizontal blade, a vertical blade detachably secured to the horizontal blade and extending from the lower face thereof, and independent means for detachably securing both the horizontal and vertical blades to the standard.

2. An agricultural implement including a supporting standard, a horizontal blade of triangular shape, a vertically disposed blade, means rigidly connecting the horizontal and vertical blades, and means detachably securing both of said blades to the supporting standard.

3. An agricultural implement including a supporting standard, a horizontal blade, an attaching shank rising from the horizontal blade and engageable against the supporting standard, means detachably securing the shank against the supporting standard, a vertically disposed blade arranged below the horizontal blade, and an attaching arm for detachably securing the vertical blade to the supporting standard.

4. An agricultural implement including a supporting standard, a horizontal blade, an attaching shank rising from the horizontal blade and engageable against the supporting standard, means detachably securing the shank against the supporting standard, a vertically disposed blade arranged below the horizontal blade, an attaching arm for detachably securing the vertical blade to the supporting standard, and horizontally arranged attaching plates carried by the vertical blade and rigidly secured to the horizontal blade for maintaining the two blades in fixed relation to each other.

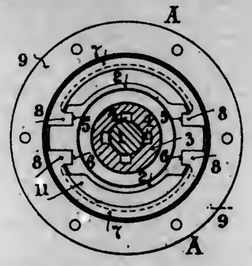
5. An agricultural implement including a supporting standard, a horizontal blade, a shank extending upwardly from the blade and engaging against the supporting standard, spaced attaching lugs rising from the blade and engaging against opposite faces of the supporting standard, a vertical blade disposed beneath the horizontal blade, laterally extending plates carried by the vertical blade, means rigidly securing the plates to the horizontal blade for maintaining the vertical and horizontal blades in fixed relation to each other, and an upwardly extending attaching arm carried by the vertical blade, said vertical blade being disposed in the longitudinal center line of the supporting standard, said attaching arm being detachably secured to the supporting standard.

[Claims 6 and 7 not printed in the Gazette.]

1,143,908. FRICTION-CLUTCH. JAMES MITCHELL HEWITT, Hale, England. Filed July 15, 1913. Serial No. 779,076. (Cl. 192—3.)

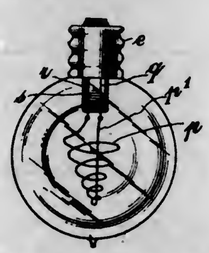
1. An incased friction clutch comprising two movable half sleeves, inclined projections thereon extending in the length of the sleeves, a movable device combining therewith, inclined grooves in said movable device engaging the inclined projections, movement of the movable device actuating the half sleeves as described.

2. An incased friction clutch comprising a cylindrical casing, a removable cover for the casing, two half sleeves within the casing, inclined projections on the two half sleeves, inclined recesses in which said projections engage, relative movement between projections and inclines moving inward and outward the half sleeves to effect clutching or un-clutching as described.



3. An incased friction clutch having a casing, a cover therefor, two half sleeves within the casing, inclined projections longitudinally of the two half sleeves, an actuator, inclined recesses therein in which said projections engage, means to move said actuator to move inward and outward the two half sleeves to bind on or release the casing as described.

1,143,909. METALLIC-FILAMENT LAMP. HERMAN J. JAEGER, Weehawken, N. J. Filed Mar. 14, 1913. Serial No. 754,173. (Cl. 176—16.)

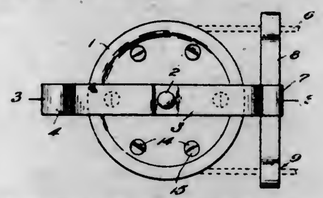


1. A metallic filament lamp comprising an inner stem with leads, and a coiled, metallic filament secured to said leads, and an integral inner supporting portion passing through the filament loops and rendered incandescent with said loops.

2. A metallic filament lamp comprising an inner stem with leads, and a coiled, cone-shaped tungsten filament secured to said leads having its apex near the tip end of the lamp, and an integral inner supporting portion passing through the filament loops and rendered incandescent with said loops.

3. In a metallic filament lamp a coiled, cone shaped metallic filament having its apex near the tip end of the lamp, and an integral inner portion passing through the filament loops and rendered incandescent with said loops during the use of the lamps.

1,143,910. CLOTHES-LINE PULLEY. IVER JOHNSON, Vancouver, British Columbia, Canada, assignor to Nicholas Cook, Seattle, Wash. Filed Mar. 25, 1913. Serial No. 756,682. (Cl. 254—188.)



1. In a pulley of the class described, a pulley-wheel, a strap providing a pivotal bearing for said pulley wheel,

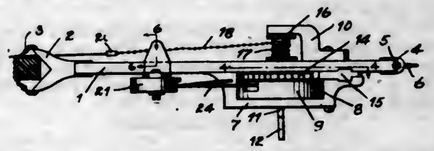
and extending about the wheel at one side of the axis, and extending beyond the axis in the other direction, and a guide-bar fixedly secured to this end of the strap, and provided with eye openings at its opposite ends.

2. In a pulley of the class described, a pulley-wheel, a strap providing a pivotal bearing for said pulley wheel, and extending about the wheel at one side of the axis, and extending beyond the axis in the other direction, and a guide-bar fixedly secured to this end of the strap, and provided with eye openings at its opposite ends, the grooved peripheral edges of said pulley being in tangential relation with both of said eye-openings.

3. In a pulley of the class described, a strap having a loop at one end, a pulley wheel pivoted in said strap, a guide-bar fixedly secured to an extension of said strap beyond the periphery of said pulley wheel, and provided with eye openings in tangential relation with opposite sides of the pulley wheel.

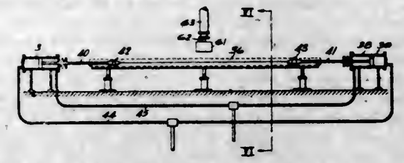
4. In a pulley of the class described, a strap having a loop at one end, a pulley-wheel pivoted in said strap, a guide-bar fixedly secured at right angles to an extension of said strap beyond the periphery of said pulley wheel, and provided with eye openings at each end spaced apart a distance equal to the diameter of the pulley wheel.

1,143,911. WIRE-STRETCHER. BURRELL L. KIDD, Tuscola, Tex. Filed July 26, 1913. Serial No. 781,440. (Cl. 254—162.)



A wire stretching device comprising an elongated bar adapted to be connected to a stationary post, a revolubly mounted drum on said bar remote from the end thereof, a chain secured to said drum adapted to be secured to the end of a wire and to be wound on the drum, a shaft secured to said drum and extending through the said bar and terminating in a crank handle, a pulley secured to said shaft, a second pulley secured to the bar in spaced relation to the first mentioned pulley, the said pulley being relatively smaller than the first mentioned pulley, a flexible member extending around and secured to the periphery of the first mentioned pulley and passing over the second mentioned pulley, means for preventing the displacement of the said flexible member from either of the pulleys, the said crank handle being constructed and arranged so that force may be applied directly to the drum and the said flexible member, and pulleys being constructed and arranged so that power applied to the end of the said flexible member will be increased according to the proportion of the pulleys and thus more readily rotate the drum, and means for preventing the accidental retrograde movement of the drum.

1,143,912. METHOD OF AND APPARATUS FOR FINISHING PIPES AND TUBES. JOSEPH W. LATSHAW, Pittsburgh, Pa., assignor to National Tube Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed Dec. 26, 1914. Serial No. 879,116. (Cl. 78—88.)



1. The method of finishing welded pipes and tubes which consists in welding the pipe or tube, expanding the small end of the welded pipe or tube and then subjecting the expanded pipe or tube to the action of sizing rolls, to thereby standardize the diameter of the ends thereof.

2. The method of finishing welded pipes and tubes which consists in welding the pipe or tube, then expanding at least one end of the welded pipe or tube, and then subjecting the expanded pipe or tube to the action of sizing rolls while still heated from the welding operation to thereby standardize the diameter of the ends thereof.

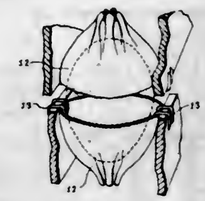
3. The method of finishing welded pipes and tubes which consists in welding the pipe or tube, then expanding the ends of the welded pipe or tube, and then subjecting the expanded pipe or tube to the action of sizing rolls while still heated from the welding operation to thereby standardize the diameter of the ends thereof.

4. Apparatus for making welded pipes and tubes comprising, in combination, welding rolls, sizing rolls on the discharge side of the welding rolls, and means for expanding the small end of the welded pipes or tubes after the welding operation and prior to passing the tubes through said sizing rolls in finally sizing the pipes, said means including an expanding ball and means for causing the ball to enter said end of the pipes or tubes.

5. Apparatus for making welded pipes and tubes comprising, in combination, welding rolls, sizing rolls on the discharge side of the welding rolls, an expanding ball positioned between the welding rolls and sizing rolls and means for supporting said expanding ball, said means being arranged to hold the ball in position to enter an end of the pipes or tubes.

[Claims 6 to 10 not printed in the Gazette.]

1,143,913. EGG-CRATE. ROBERT E. MILLER, Pecos, Tex. Filed May 5, 1914. Serial No. 836,422. (Cl. 217—28.)



In a device of the character described, in combination with a series of frames each formed into a series of compartments and a sheet of packing material interposed between superposed frames in series, of a cup shaped egg receiving member formed of flexible and elastic material and having its base gathered to form a rounded bearing surface for the egg and a wire clamping device connecting the rim of an egg receiving member with a side wall of a compartment of a frame.

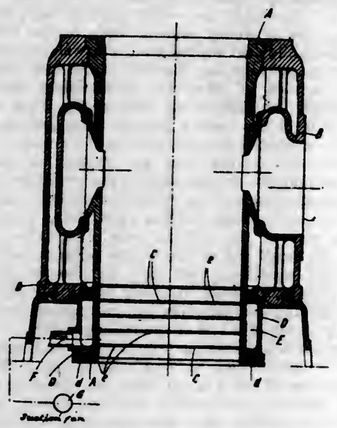
1,143,914. EXCESS-LUBRICANT-COLLECTING MEANS FOR ENGINE-CYLINDERS. CHARLES RADIGUER, St.-Denis, France, assignor to The Societe Anonyme des Etablissements Delaunay-Belleville, St.-Denis, France, a Corporation of France. Filed Feb. 1, 1915. Serial No. 5,559. (Cl. 184—18.)

1. In a combustion engine, the combination of a cylinder provided on its inner wall with a lubricant collecting groove, and suction-producing means to withdraw the lubricant collected in said groove.

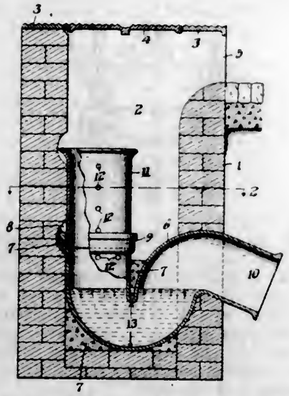
2. In a combustion engine, the combination of a cylinder provided on its inner wall with a plurality of circumferential lubricant collecting grooves, a lubricant chamber, the cylinder having a plurality of passages for conducting the lubricant collected in each of said grooves to said chamber, and suction-producing means to withdraw the lubricant from said chamber and from said grooves.

3. In a combustion engine, the combination of a cylinder provided on its inner wall with a plurality of circumferential lubricant collecting grooves, a collor surrounding that part of the cylinder provided with such

grooves and forming with the cylinder a fluid-tight chamber, the cylinder having a plurality of passages placing each of said grooves in communication with said chamber, and suction-producing means in communication with said chamber.



1,143,915. CATCH-BASIN. WILLIAM M. RAPP, Atlanta, Ga. Filed Jan. 8, 1915. Serial No. 1,082. (Cl. 182—10.)



1. In a device of the character stated, the combination of a catch basin chamber, with a siphon tube mounted therein to discharge the water from said basin, said tube having an extension or stand pipe having its inlet end above the floor or bottom of the chamber and provided with a plurality of small openings to form a communication between the interior of said tube and said catch basin chamber whereby debris may be separated from the water and collected in said basin.

2. In a device of the character stated, the combination of a catch basin chamber, with a siphon tube mounted therein and extending below the bottom of the chamber and having a restricted passage at its lowest portion to form a water seal below the level of said chamber bottom, said siphon tube having a stand pipe section on its inlet side extending upward to a distance above said bottom and having a large inlet opening at its upper end.

3. In a device of the character stated, the combination of a catch basin chamber, with a siphon tube mounted therein to provide a water seal below the bottom of the chamber, said seal having a restriceted section sufficiently below the said bottom whereby the velocity of the discharging water from the chamber is increased for the purpose of removing collected material in said tube.

4. In a device of the character stated, the combination of a catch basin chamber, with a siphon tube mounted therein to extend below the surface of the bottom and having a restricted section, and a stand pipe connected to the inlet of said tube and extending a sufficient distance above the bottom of said catch basin chamber to form an artificial head, said pipe having a small opening therethrough located adjacent the surface level of the bottom of the chamber.

5. In a device of the character stated, the combination of a catch basin chamber, with a siphon tube mounted therein, said tube having its inlet end arranged in abutting relation with the side walls of the catch basin, means to maintain said tube in fixed operative position and form the floor of the chamber, a stand pipe extension secured to the inlet end of said siphon tube, said siphon having an opening therein adjacent to the floor of the chamber.

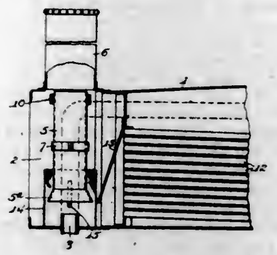
[Claims 6 to 9 not printed in the Gazette.]

1,143,916. METHOD OF MAKING PIPES FOR ELECTRICAL CONDUITS. NELSON H. RAYMOND, Buffalo, N. Y., assignor to Clifton Manufacturing Company, Boston, Mass., a Corporation of New Jersey. Filed Jan. 30, 1909. Serial No. 475,586. (Cl. 29—81.)

1. An improvement in the art of making pipes for electrical conduits characterized by agitating, loosening and freeing the scale and slag therefrom by distortion and then abrading the same to remove the iron oxid and other deleterious materials.

2. An improvement in the art of making pipes for electrical conduits characterized by hammering to loosen and detach scale and slag therefrom and then abrading the pipe by a sand lap to remove iron oxid and other deleterious materials.

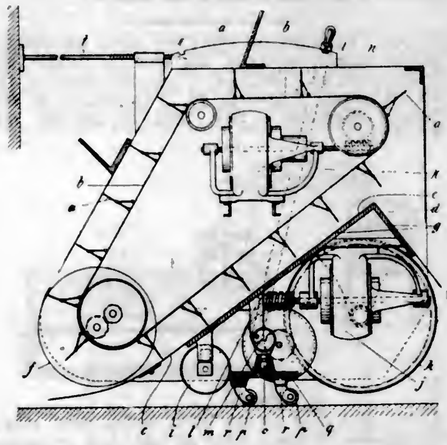
1,143,917. DRAFT-REGULATOR. HOSEA E. REECE, McMechen, W. Va. Filed Feb. 17, 1913. Serial No. 748,823. (Cl. 110—127.)



1. The combination with a boiler, of an exhaust nozzle which extends into the smoke box of said boiler, a tubular shell suspended over said nozzle and communicating with the smoke stack, said shell having a bell mouth located over said nozzle and in relatively close proximity to the bottom of said smoke box, means for introducing live steam into said shell, and a cylindrical screen disposed in close encircling relation both to the mouth of the shell and to said nozzle, said screen occupying a relatively small space and permitting access thereby to the rear end of the smoke box.

2. The combination with a boiler, of an exhaust nozzle extending into the smoke box thereof, a tubular shell suspended over said nozzle and communicating with the smoke stack, the lower end of said shell being located over said nozzle, means for directing the products of combustion toward the lower end of said shell, a wire screen closely embracing the lower end of said shell and inclosing said nozzle, said screen being of relatively small diameter to afford spaces between it and the boiler walls, through which spaces ready acess to the boiler tubes is permitted, and means for introducing live steam within the lower end of said shell.

1,143,918. MACHINE FOR TURNING GREEN MALT. MAX SCHUSTER, Vienna, Austria-Hungary. Filed June 10, 1913. Serial No. 772,764. (Cl. 34—43.)

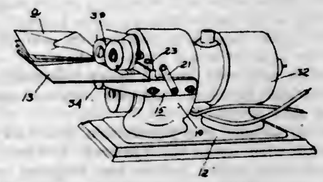


1. In a traveling malt turner, the combination of a rotatable carriage, a frame operatively connected thereto, a malt turning machinery carried by said frame, wheels mounted upon said frame and normally engaging the floor, and lever operated eccentric means for raising said frame relatively to said carriage whereby said wheels will be lifted out of engagement with said floor and said frame will be supported by the said carriage to permit parallel displacement of the frame on the carriage.

2. In a traveling malt turner, in combination, a swiveled carriage, a frame pivotally connected thereto, a malt turning machinery carried by said frame, wheels mounted on said frame and normally engaging the floor, and cam operated means for raising said frame relatively to said carriage whereby said wheels will be lifted out of engagement with said floor and said frame may be rotated on a vertical axis about its pivotal connection with the carriage.

3. In a traveling malt turner, in combination, a carriage, a frame operatively connected thereto, malt turning machinery carried by said frame, wheels mounted upon said frame and normally engaging the floor, means for raising said frame relatively to said carriage whereby said wheels will be lifted out of engagement with said floor and said frame will be supported by said carriage, and means adapted to be engaged by an obstacle in the path of the malt turner for automatically actuating said raising means.

1,143,919. MACHINE FOR OPENING ENVELOPS. EPHRIAM J. SCOTT, Providence, R. I. Filed July 2, 1913. Serial No. 776,913. (Cl. 164—61.)



1. In an envelop opening machine, a supporting table, a pair of rotary cutters, a pair of envelop feeding and guiding rolls mounted substantially opposite said cutters to support the work while being acted upon thereby, and means for rotating said cutters and rolls.

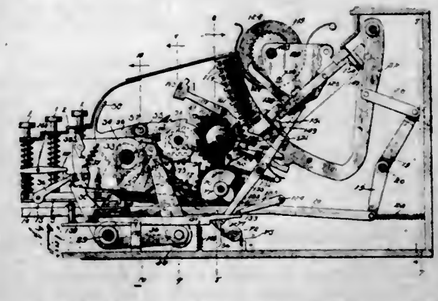
2. In an envelop opening machine, a supporting table, a pair of rotary cutters, a pair of envelop feeding and guiding rolls mounted substantially opposite said cutters, to support the work while being acted upon thereby the axis of one of said rolls being set on an angle to that of the other of the pair and means for driving both cutters and one of said rolls.

3. In a machine for opening envelops, a pair of rotary cutters, a set of feed rolls, mounted substantially opposite said cutter, a set of guide rolls, the axis of one of each of said sets of rolls being set on an angle to that of its mate, means for driving both of said cutters and one of said rolls in each set, and a table over which the envelops to be opened are fed by said rolls.

4. In a machine for opening envelops, a pair of rotary cutters, a set of feed rolls, mounted substantially opposite said cutters, a set of guide rolls, the axis of one of each of said sets of rolls being set on an angle to that of its mate, means for driving both of said rolls in each set, a table over which the envelops to be opened are fed by said rolls, and means whereby one roll of each set is adjustable to feed letters of different thicknesses.

5. In a machine for opening envelops, a pair of driven rotary cutters, a pair of feed rolls, mounted substantially opposite said cutters, a pair of independent guide rolls, means for driving one roll of each set, the axis of one of said rolls being set on an angle, a table for supporting the envelops while being cut, a guide flange on said table back of said cutters, and means for adjusting said table and guide to regulate the amount to be cut.

1,143,920. CALCULATING-MACHINE. DANIEL W. SHLEK, Chicago, Ill., assignor, by mesne assignments, to Walter L. Milliken, trustee. Filed Dec. 10, 1901. Serial No. 85,383. (Cl. 235—60.)



1. In a device of the character described, a translating mechanism comprising a substantially centrally supported pivotal driving member, and means for forcing said member forward and backward, in combination with complemental movable members engaging said driving member on opposite sides of the pivotal support, indicating mechanism and means for transmitting the movement of one of said complemental members to the indicating mechanism.

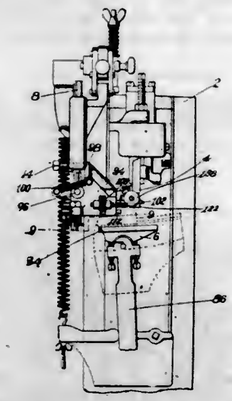
2. In a device of the kind described, arms 49 and 45, both loosely mounted on a shaft 31, the former being provided with a double segmental cog-rack 50 and the latter with a segmental cog-rack, 17, in combination with a lever 48 secured to the shaft 31 and bearing upon its end a loosely mounted pinion 46, meshing with the cog-racks 50—17, a pinion 52 adapted to be engaged by the cog-rack 50, indicating mechanism, means for transmitting the movement of the pinion 52 to the indicating mechanism, and means for laterally moving the shaft 31 to engage the cog-rack 50 with the pinion 52, and means for partially rotating the said shaft.

3. In a device of the kind described, a longitudinally movable bar, and means for regulating the travel of said bar, in combination with two complemental movable members one of which is connected with said bar, a pivotally supported driving member engaged by said movable members on opposite sides of its center, and means for operating said driving member.

4. In a device of the kind described, a longitudinally movable bar and means for regulating the travel of said bar at will, in combination with an independently operated driving pinion, two complemental cog-rack members meshing with said pinion on opposite sides of its center, one of said members being controlled by the travel of the movable bar, and means for operating said driving pinion.

5. In a device of the kind described, a longitudinally movable bar and means for regulating the travel of said bar at will, in combination with a movable cog-rack connected to said bar, a driving pinion meshing with said cog-rack, a double cog-rack on one side meshing with said pinion and on the other side meshing with and driving a pinion, and means for operating the driving pinion whereby the rotation of the driven pinion is governed by the distance traveled by said bar.

1,143,921. MACHINE FOR OPERATING UPON HEELS. RALPH C. SIMMONS, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Original application filed Apr. 23, 1909, Serial No. 491,785. Divided and this application filed June 10, 1910. Serial No. 566,202. (Cl. 12—47.)



1. A shoe positioning device, having in combination, means for laterally centering the rounded end of a heil, and means arranged to contact with the heel and to permit a limited free lateral movement of the breast of the heel in opposite directions respectively.

2. A shoe positioning device, having in combination, means for laterally centering the rounded end of a heil, and means for engaging opposite edges of the heel in proximity to its breast corners arranged to permit a limited free lateral movement of said breast end in opposite directions respectively.

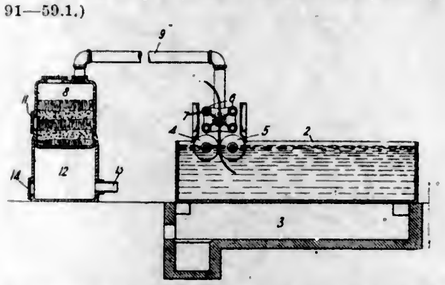
3. A shoe positioning device, having in combination, means for limiting the movement of a heel in the direction of its length arranged for engagement with the rounded end of the heel and constructed to center said end in the movement of the heel into operative position, and gages for engagement with opposite sides of the heel arranged to permit a limited tilting movement of the latter about an axis in proximity to the center of its rounded end.

4. In a shoe positioning device, means for centering a shoe heel, means normally pressing the centering means forward, adjustable means for limiting the forward movement of the centering means, and adjustable means for limiting the lateral movement of the breast end of the heel in both directions.

5. A heel breasting machine, having in combination, a breasting knife, a support for sustaining a shoe in the path of the knife constructed to permit tilting movement of the shoe to allow the latter to be positioned with the longitudinal median line of its heel in an oblique relation to the knife, a member arranged for clamping engagement with the tread surface of the heel, and means carried by said member for limiting the said tilting movement of the shoe.

[Claims 6 to 17 not printed in the Gazette.]

1,143,922. METHOD OF COATING IRON OR STEEL. ROBERT SKEMP, Scottdale, and WILLIAM GIBSON, Sr., Vandergrift, Pa., assignors to American Sheet & Tin Plate Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed Sept. 1, 1910. Serial No. 580,030. (Cl. 91—59.1.)



1. The method of coating metal articles with metal, which consists in maintaining an open bath of molten metal; introducing metal articles into the bath, withdrawing the articles through the surface of the bath, maintaining a dry non-oxidizing gas heavier than atmosphere on the surface of the bath at the exit of the articles to displace atmospheric air therefrom, and maintaining the articles in said gas to prevent oxidation of the coating while solidifying upon the articles.

2. The method of coating metal articles with metal, which consists in maintaining an open bath of molten metal, introducing the articles to be coated into the bath, withdrawing the articles through the surface of the bath, maintaining carbon dioxid gas on the surface of the bath at the exit of the articles to displace atmospheric air therefrom, and maintaining the articles in said gas to prevent oxidation of the coating while solidifying upon the articles.

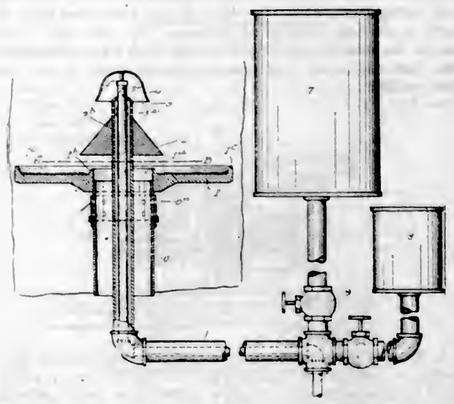
3. The method of coating metal articles with metal, which consists in maintaining an open bath of molten metal, introducing metal articles into the bath, withdrawing the articles through the surface of the bath, impinging a stream of dry non-oxidizing gas heavier than atmospheric air upon the coated surfaces of the articles as they emerge from the bath, and thereby maintaining a gaseous atmosphere on the surface of the bath at the exit of the articles to displace atmospheric air therefrom, and maintaining the articles in said gaseous atmosphere to prevent oxidation of the coating while solidifying upon the articles.

1,143,923. CRUDE-OIL BURNER. EDWARD D. VARNUM, San Diego, Cal. Filed Jan. 4, 1915. Serial No. 334. (Cl. 158—92.)

1. In an oil burner, the combination of an oil supply pipe provided with outlet perforations, a water supply pipe provided with outlet perforations, a cone for said oil and water to run upon adjustably mounted on said oil supply pipe, a burner plate of larger diameter than said cone and mounted below said cone, spaced apart therefrom and an air conveying pipe for supporting said plate and conveying air between said plates.

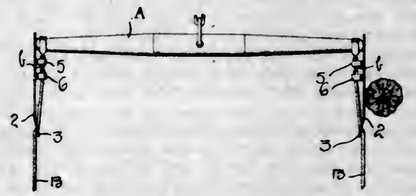
2. In an oil burner, the combination of an oil supply pipe provided with outlet perforations, a water supply pipe provided with outlet perforations mounted centrally therein, a cone adjustably mounted on said oil supply pipe, a burner plate of larger diameter than said cone, mounted below said cone and spaced apart therefrom, an air conveying pipe for supporting said plate and conveying air between said plate and said cone and below said plate around the outer edge thereof and a hood over the upper end of said water and fuel supply pipes mounted on said water supply pipe.

3. In a crude oil burner the combination of an oil supply pipe, a water supply pipe mounted centrally therein, means for supplying water and oil thereto in regulated quantities, an air intake pipe surrounding said fuel and water supply pipe provided with perforations therein, an annular plate mounted on the upper end of said air intake pipe provided with a central hole therein, adapted to allow the passage of air therethrough, and a cone adjustably mounted above said plate, whereby the fuel from said fuel and water supply pipes will run down onto said cone and drop from the outer edges thereof to said plate.



4. In a crude oil burner the combination of an oil supply pipe, provided with perforations near the top end thereof, a water supply pipe mounted centrally therein provided with perforations near its top end, means for supplying water and oil thereto in regulated quantities, an air intake pipe surrounding said oil supply pipe provided with perforations therein, an annular plate mounted on the upper end of said air intake pipe provided with a central hole therein adapted to allow the passage of air therethrough, and a cone adjustably mounted on said oil supply pipe, whereby the fuel from said fuel supply pipe will run down onto said cone and drop from the outer edges thereof to said plate and a hood over the upper end of said supply pipes.

1,143,924. WHIFFLETREE-GUARD. JOHN WEBER, Elba, N. Y. Filed Dec. 5, 1914. Serial No. 875,708. (Cl. 54—52.)



1. A shield for whiffletrees of the character described, comprising a strip having its forward end inwardly deflected and transversely slotted for the passage of a trace, the rear portion of the shield being formed upon its inside face with a loop through which the trace is adapted to pass.

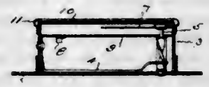
2. A shield of the character described, comprising a strip of metal, the forward end of which is laterally enlarged and deflected at an angle to the plane of the body of the and deflected at an angle to the plane of the body of the strip, this deflected portion being slotted transversely to inner face of the shield adjacent its rear end being provided with a loop through which the trace is adapted to pass.

3. A shield of the character described, including a strip of metal deflected at its forward end at an angle to the plane of the strip less than a right angle, said forward end being slotted transversely to the length of the strip to provide oppositely disposed trace gripping walls extending at right angles to the length of the strip, the strip on its inner face adjacent its rear end being provided with a loop for the passage of a trace.

4. A shield for whiffletrees comprising a strip having its forward end deflected and slotted for the passage of the trace, the rear portion of the shield being formed upon its inside face with a plurality of spaced loops through which the trace is adapted to pass.

5. A shield for whiffletrees comprising a strip of metal having its forward end inwardly deflected, this deflected portion having an opening for the passage of a trace, the rear portion of the shield being formed upon its inside face with a loop through which the trace is adapted to pass.

1,143,925. OVEN-THERMOMETER. ALBERT E. WHITTIER, Bristol, Conn. Filed July 15, 1914. Serial No. 851,093. (Cl. 73—119.)

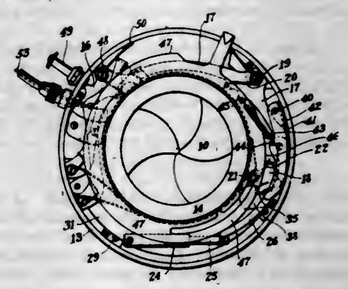


1. An oven thermometer having a casing, an arm of thermo-metric metal with one end fastened to a wall of the casing, said arm for a substantial portion of its length lying against the back wall of the casing, a spindle with a spiral portion engaged by the free end of said arm, a pointer on the spindle, and a dial provided with a scale with which the pointer coöperates to indicate temperature.

2. An oven thermometer having a casing, a thermo-metric arm having one end fastened to the casing and its other end forked, a spindle with a spiral portion embraced by the forked end of the arm, a bridge piece secured to a wall of the casing and supporting the spindle, a pointer on the spindle, and a dial bearing a scale with which the pointer coöperates to indicate temperature.

3. An oven thermometer having a back plate, a receptacle secured to the back plate, a thermo-metric arm with one end fastened to a wall of the receptacle, said arm lying for a substantial portion of its length against the back wall of the receptacle, a spindle with a spiral portion engaged by the free end of said arm, means for supporting the spindle a dial held in the receptacle, and a pointer carried by the spindle outside of and registering with the dial.

1,143,926. PHOTOGRAPHIC SHUTTER. ANDREW WOLLENSAK, Rochester, N. Y., assignor to Wollensak Optical Company, Rochester, N. Y., a Corporation of New York. Filed Aug. 3, 1914. Serial No. 854,887. (Cl. 95—63.)



1. In a shutter, the combination, with a blade-ring, of a bearing-ring, for supporting the blade-ring, comprising inner and outer portions lying in different parallel planes

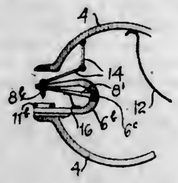
and connected by an inclined portion; the metal of the bearing-ring having separate portions sheared, at said inclined portion, to produce substantially square edges providing bearings for the inner edge of the blade-ring.

2. In a shutter, the combination, with a blade-ring, of a bearing-ring, for supporting the blade-ring, having inner and outer portions lying in different parallel planes and connected by a shouldered portion providing a bearing for the inner edge of the blade-ring, and lugs, on said outer portions, overhanging the outer face of the blade-ring and retaining its inner face in engagement with the outer portion of the bearing-ring.

3. In a shutter, the combination, with a retarder-member and a master-lever, of abutments thereon coöperable to cause the retarder-member to have its operative movement during, and in consequence of, the later part of the exposure-movement of the master-lever; a spring connecting the master-lever and the retarder-member and tending to cause said abutments to remain in engagement and to cause the retarder-member to follow the master-lever and perform its inoperative movement during the setting movement thereof; and means for arresting such inoperative movement of the retarder-member before the completion of the setting-movement of the master-lever, whereby said spring is subjected to a tension tending to assist the exposure-movement of the master-lever.

4. In a shutter, the combination, with a lever having an inclined lug, and a second lever having an extremity adapted to ride yieldingly over said lug, in one direction of movement of the second lever, and to coöperate with said lug to actuate the first lever during the opposite movement of the second lever, of a guide-member located adjacent the first lever and engaged by the second lever so as to receive the resilient pressure thereof and relieve the first lever therefrom except when the extremity of the second lever is riding over said lug as aforesaid.

1,143,927. COMBINATION DENTAL INSTRUMENT. WILLIS EDW. ALLEN, San Diego, Cal. Filed Mar. 17, 1915. Serial No. 15,065. (Cl. 32—10.)

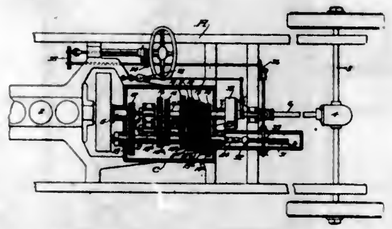


1. A tool of the character described, comprising pivoted members formed with handle portions, a spring secured to one of said handle portions and having one free end, a die plate carried by said handle portion, and a punching die carried by the free end of the spring and adapted to be engaged by an extremity of the other handle portion, for the purpose specified.

2. A tool of the character described, comprising pivotally connected members formed with handle portions, a U-shaped spring secured to the extremity of one of said handle portions with its bend lying inward toward the pivot, and one end of the spring being movable, a die plate carried by the relatively fixed end of the spring, and a punching die carried by the movable end of the spring and adapted to be engaged by the extremity of the other handle portion, for the purpose specified.

1,143,928. TRANSMISSION MECHANISM. ANDREW S. ANDERSON, Point Richmond, Cal., assignor of nine one-hundredths to Charles H. Woodruff and twenty-five one-hundredths to William B. Richmond, Richmond, Cal., and fifteen one-hundredths to John Roth, Point Richmond, Cal. Filed Dec. 5, 1914. Serial No. 875,620. (Cl. 74—59.)

1. In a transmission mechanism, the combination of a casing, a countershaft journaled in said casing, a drive-shaft journaled in the casing, a plurality of gears secured on the drive-shaft, a plurality of gears loosely mounted on the countershaft and intermeshing with the first named gears, a plurality of disks secured on the countershaft, one for each gear, teeth formed on the inner rim of each of said countershaft gears, a locking bar slidably mounted in each disk, a controller bar slidably mounted in the countershaft, a T-shaped projection formed on the inner end of each locking bar and extending through the countershaft for slidable engagement with the controller bar, a cam on said controller bar adapted to engage said projections, one at a time, to project each locking bar out into engagement with the teeth on the connected gear to form a driving connection between the disk and gear, means for driving the countershaft, and means for moving the controller bar longitudinally interior of the countershaft.



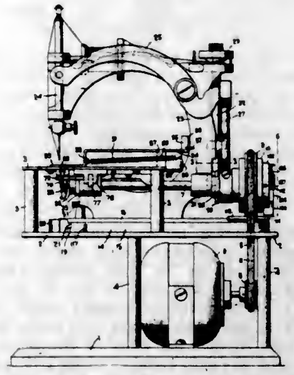
2. In a transmission mechanism, the combination of a casing, a countershaft journaled in said casing, a drive-shaft journaled in the casing, a plurality of gears secured on the drive-shaft, a plurality of gears loosely mounted on the countershaft and intermeshing with the first named gears, a plurality of disks secured on the countershaft, one for each gear, teeth formed on the inner rim of each of said countershaft gears, a locking bar slidably mounted in each disk, a controller bar slidably mounted in the countershaft, projections formed on the inner end of each locking bar extending through the countershaft into engagement with the controller bar, a cam on said controller bar adapted to engage said projections, one at a time, to project each locking bar out into engagement with the teeth on the connected gear to form a driving connection between the disk and gear, means for driving the countershaft, means for moving the controller bar longitudinally interior of the countershaft, said means comprising a rack bar, a socket joint connecting the controller bar and rack bar, a gear intermeshing with the rack bar, and manually controlled means for revolving said gear to move the connected bars.

3. In a transmission mechanism, the combination of a casing, spaced shafts journaled therein, a plurality of gears secured to one shaft, a plurality of spaced disks secured on the other shaft, a plurality of gears loosely mounted on the last shaft and interposed between the disks, each loose gear being formed with an annular recess to receive the companion disk and having the peripheral wall of the recess opposing the periphery of the disk and provided with an inward projection, a locking bar slidably carried by each disk and adapted for projection beyond the periphery of the disk to engage the inward projection of the respective loose gear, and means for projecting the bar.

4. A transmission mechanism including a rotatably supported hollow shaft formed with a longitudinal slot, a loose gear rotatable on the shaft, a locking bar slidably supported on the shaft and adapted to be slid into operative engagement with the gear to lock the latter to the shaft for movement therewith, a T-shaped projection on the locking bar operable in the shaft slot and having its cross head extending into the hollow portion of the shaft, and a U-shaped controller bar slidable in the hollow shaft and slidably interlocking with the T-shaped projection, said controller bar being formed with means to slide the locking bar on sliding movement of the controller bar.

5. A transmission mechanism including a rotatably supported hollow shaft formed with a longitudinal slot, a loose gear rotatable on the shaft, a locking bar slidably supported on the shaft and adapted to be slid into operative engagement with the gear to lock the latter to the shaft for movement therewith, a T-shaped projection on the locking bar operable in the shaft slot and having its cross head extending into the hollow portion of the shaft, a U-shaped controller bar slidable in the hollow shaft and receiving the projection of the locking bar between its sides, and a guide plate secured to each side of the U-bar for engagement over an arm of the T-projection, said U-bar being provided with a cam for sliding the locking bar on movement of the controller bar.

1,143,929. TAG-SEWING MACHINE. MARCUS O. ANTHONY, New York, N. Y., assignor to A. Kimball Company, New York, N. Y., a Corporation of New York. Filed Sept. 3, 1913. Serial No. 788,025. (Cl. 112—24.)



1. An automatic machine of the class described comprising a stitch forming mechanism and means for operating it, a work clamp having members adapted to grip the work positively and continuously during the stitch forming operation, means for causing a relative step by step feeding movement in a substantially straight line for a predetermined distance between said stitch forming mechanism and said clamp, means for stopping the operation of the stitch forming mechanism at the termination of said feeding movement and for automatically restoring the stitch forming mechanism and clamp to initial position.

2. An automatic machine of the class described comprising a stitch forming mechanism, a work support, means operated in connection with said stitch forming mechanism for causing a relative feeding movement between the stitch forming mechanism and the work support in one direction along a predetermined path, means for stopping the operation of the stitch forming mechanism at the termination of said feeding movement and automatically returning the movable part through the same path to initial position.

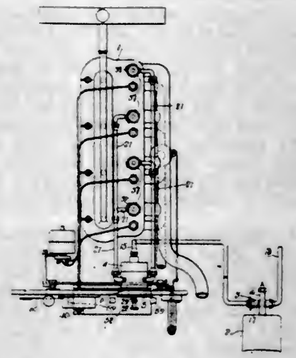
3. A machine for sewing tags to merchandise comprising a stitch-forming mechanism, a work clamp, a source of power, driving connections between said source of power and said stitch-forming mechanism and means operated in unison with said stitch-forming mechanism for causing relative movement between said stitch-forming mechanism and work clamp step by step successively in one direction to form a row of stitches, with a dwell during the formation of each stitch and a continued dwell during the formation of two stitches near the end of said movement.

4. A machine for sewing tags to merchandise comprising a stitch-forming mechanism, a work clamp, a source of power, driving connections between said source of power and stitch-forming mechanism means operated in unison with said stitch-forming mechanism for causing relative movements successively in one direction between the stitch-forming mechanism and the work clamp step by step to form a row of stitches with a dwell during the formation of each stitch and a continued dwell during the formation of two stitches near the end of said movement, means for automatically disconnecting the stitch-forming mechanism from the source of power at the termination of the relative movement and means for automatically returning the movable element to initial position.

5. An automatic machine of the class described, comprising a stitch forming mechanism, a stationary work clamp, a source of power, driving connections between said source of power and stitch forming mechanism, means for causing a feeding movement of said stitch forming mechanism relative to said stationary work clamp in one direction for a predetermined number of stitches, means for automatically disconnecting the stitch forming mechanism from said source of power after said predetermined number of stitches, and means for automatically returning the stitch forming mechanism to initial position.

[Claims 6 to 26 not printed in the Gazette.]

1,143,930. STARTER FOR EXPLOSIVE-ENGINES. JOHN B. AUFFLDISH, Dayton, Ohio. Filed Dec. 1, 1911. Serial No. 663,208. (Cl. 123—187.5.)



1. The combination, with an engine having a plurality of cylinders, of a casing having a plurality of chambers adapted to communicate with a source of gas supply, and operable means to connect said chambers with the respective cylinders of said engine.

2. The combination, with an engine having a plurality of cylinders, of a starter comprising a series of pockets adapted to receive and store quantities of gas, means to connect said pockets with the respective cylinders of said engine, and a single operating device to actuate the connecting means of all of said pockets.

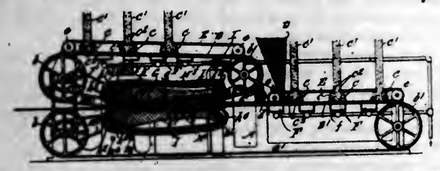
3. The combination, with an engine having a plurality of cylinders, and a storage device to receive and store a quantity of gas under pressure, of means to connect said device with the cylinders of said engine and to cause measured portions of said gas to enter the respective cylinders.

4. The combination, with an explosive engine having a plurality of cylinders, and a source of gas supply, of a distributer having a series of pockets, a connection between said pockets and said source of supply, other connections between said pockets and the respective cylinders of said engine, and means to open and close both the first-mentioned and the last-mentioned connections.

5. The combination, with an explosive engine having a plurality of cylinders and a source of gas supply, of a device having a plurality of storage chambers each connected with said source of gas supply and adapted to receive and store a charge of gas, connections between said chambers and the respective cylinders of said engine, operable means to control the last-mentioned connections, and a single device to actuate the controlling means for all of said last mentioned connections.

[Claims 6 to 24 not printed in the Gazette.]

1,143,931. MACHINE FOR MAKING PAPER-BOARD. EDWARD O. BABCOCK, Niagara Falls, N. Y. Filed Apr. 2, 1913. Serial No. 758,323. (Cl. 92—39.)



1. In a compressing machine, the combination of a pair of stationary plates having adjacent converging faces, endless belts surrounding said plates, friction rollers interposed between said belts and the converging faces of the plates, aprons arranged to pass between said belts and to carry the material to be compressed between the converging faces of said plates, means for driving said belts, rolls over which said aprons pass and which are adapted to impart movement to the aprons, and a driving connection between said means for driving the belts and said rolls to cause said aprons to be positively driven at the same speed as said belts.

2. In a compressing machine, the combination of a pair of stationary plates having adjacent converging faces, a pair of aprons arranged one above the other and adapted to pass between the converging faces of said plates, the lower run of the upper apron being supported adjacent to the upper run of the lower apron, means for driving the aprons to cause said runs to travel in the same direction, means for depositing pulp on the upper run of each apron, and means for pressing the lower run of the upper apron and the upper run of the lower apron toward each other to consolidate the layers of pulp on said aprons.

3. In a compressing machine, the combination of a pair of stationary plates having adjacent converging faces, a pair of aprons arranged one above the other and adapted to pass between the converging faces of said plates, the lower run of the upper apron being supported adjacent to the upper run of the lower apron, means for driving the aprons to cause said runs to travel in the same direction, means for depositing pulp on the upper run of each apron, means for pressing the lower run of the upper apron and the upper run of the lower apron toward each other to consolidate the layers of pulp on said aprons, and means for depositing a filler on the layer of the pulp on said lower apron but before the consolidation of said layers.

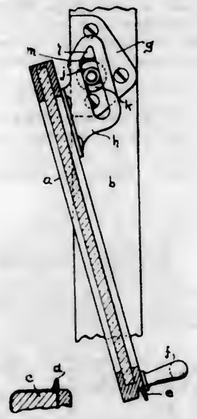
4. In a compressing machine, the combination of a pair of plates having adjacent converging faces, means for adjusting said plates relatively toward each other to vary the distance between said converging faces, an endless belt surrounding one of said plates, a shaft and means connected therewith for driving said belt, said shaft extending through a slot in the plate around which said belt passes, whereby the plate is movable independently of the shaft.

5. In a compressing machine, the combination of a pair of plates having adjacent converging faces, means for adjusting said plates relatively to each other to vary the distance between said converging faces, endless belts surrounding said plates, shafts for driving said belts, and means connecting said shafts to cause the same to drive both belts at the same speed, said shafts extending through said plates, at least one of said plates having a slot through which the shaft extends to permit one plate to be adjusted relatively to the other plate without changing the distance between said shafts.

[Claims 6 to 9 not printed in the Gazette.]

1,143,932. WIND-SHIELD PIVOT. ALBERT P. BALL, Detroit, Mich., assignor of one-half to Hudson Motor Car Company, a Corporation of Michigan, and one-half to Detroit Body Co., a Corporation of Michigan. Filed Oct. 14, 1914. Serial No. 866,569. (Cl. 21—148.)

1. A pivot, comprising a plate provided with a bearing and a prismatic stud above the bearing and a second plate provided with a slot that fits over the bearing and also the stud, said slot being provided at its top with an angular recess, the angle of which corresponds to the top angle of the prismatic stud so that the walls of the angular recess are able to rest thereupon, and the angular recess being also located so as to hold the slotted plate in a defined tilt with respect to the other plate.



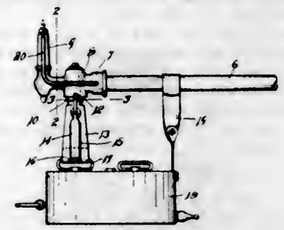
2. A pivot, having in combination a plate provided with a bearing, a prismatic stud above the bearing, a second plate having an "O"-like portion which fits over the bearing and the stud and the slot of the "O" being provided at its top with an angular recess whose angle corresponds to the angle of the two upper sides of the prismatic stud so that the walls of the angular slot can rest thereupon, the said angular recess also being located so as to tilt the one plate with respect to the other when the walls of the angular recess rest upon the stud.

3. A pivot, having in combination, a plate provided with a bearing having interior screw threads and with a prismatic stud above the bearing, a second plate provided with an "O"-like portion that fits over the bearing and the stud and which is provided at the top of the slot of the "O" with an angular recess whose angle corresponds with the angle of the two upper sides of the prismatic stud and whose angular recess is located with respect to the stud so that when the walls of the angular recess rest upon the stud the one plate is tilted with respect to the other plate, and a screw engaging the interior threads of the bearing to hold the two plates tightly together when in adjusted position.

4. A pivot having in combination, a plate adapted to be secured to a stationary frame and provided with a bearing having a reduced cylindrical portion forming a shoulder and a prismatic stud above the bearing, said bearing having interior screw threads, and an angle plate provided with an "O"-like portion which fits over the reduced portion of the bearing and the prismatic stud, the slot of the "O" being provided at its upper end with an angular recess, the angle of which corresponds to the angle of the two upper sides of the prismatic stud, the said angular recess being located with respect to the stud so as to hold the angle plate in a tilted position with respect to the other plate when the walls of the angular recess rest upon the prismatic stud, and a tightening screw engaging the threads of the bearing, substantially as described.

1,143,933. TIME-ACTUATING DEVICE FOR GAS-COCKS AND THE LIKE. EPHRAIM BARBER, Hartford, Conn. Filed Aug. 28, 1912. Serial No. 717,451. (Cl. 137—7.)

1. A valve actuating device including a valve casing, a valve plug to control the flow of fluid through the casing, means movably mounted upon the plug to stop its movement, means for attachment of a power driven device to rotate the plug always in one direction, a stop located in fixed position to be engaged by said stopping means when the valve is in one position, a stop to be engaged by said stopping means when the valve is rotated in a certain direction to its opposite position, another stop to be engaged by said stopping means when rotation of the valve is continued in the same direction, and means for automatically engaging the stopping means with the stops.



2. A valve actuating device including a valve casing, a plug to control the flow of fluid through said casing, means movably attached to the plug to stop its movement, means for attachment of a power driven device to rotate said plug always in one direction, a plural number of stops located on said casing to receive the stopping means when the valve plug is moved continuously in one direction to any of its extreme positions, means for causing said stopping means to automatically engage said stops and means for rotating the plug continuously in one direction.

3. A valve actuating device including a valve casing, a plug to control the flow of fluid through said casing, a device for actuating said plug and including means for attachment of a time piece to rotate the plug, always in one direction, means movably mounted on the actuating device to stop movement of the plug, a plural number of stops located in fixed position to receive said stopping means when the valve is moved in one direction to either of its extreme positions, and means for influencing the stopping means to normally engage said stops.

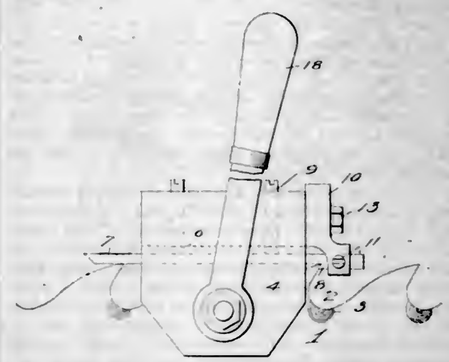
4. A valve actuating device including a valve casing, a plug to control the flow of fluid through said casing, a burner attached to the valve, means for igniting the fluid, a device for rotating the plug always in one direction and including means for attachment of a time device to effect such rotation, stopping means movably mounted on the plug, a plural number of stops located to stop movement of the valve when rotated in one direction to any of its extreme positions, and means for influencing the stopping means to normally engage said stops.

5. A valve actuating device including a valve casing, a plug to control the flow of fluid through said casing, means movably attached to the plug to stop its movement, means for causing said stopping means to normally engage hereinafter mentioned stops, a plural number of stops to position the valve for one operation and a single stop to position the valve for the other operation, and means for rotating the plug always in one direction and including means for attachment of a power driven device to effect such rotation.

[Claims 6 to 8 not printed in the Gazette.]

1,143,934. SAW-TREATING DEVICE. GEORGE BRADY BEGG, Harvey, La. Filed May 29, 1914. Serial No. 841,823. (Cl. 76—25.)

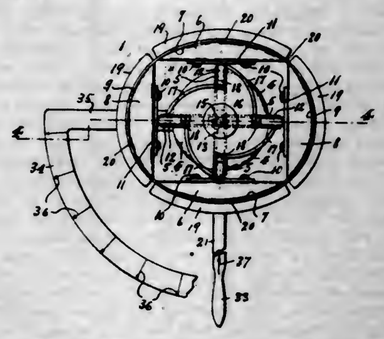
1. In a device for the purpose described, the combination of a body having spaced depending walls, whereby it is enabled to straddle a saw, a clamping member carried by one of said walls and having an inner saw-distorting end to engage one side of a saw at the base of a gullet therein, an adjustable clamping member carried by the other wall of the body and having an inner saw-distorting end arranged to engage the opposite side of the saw in alinement with the first-named member, a gage bar arranged in the space between said walls of the body and having an abutment arranged to be opposed to the forward edge of a saw tooth, adjusting means mounted in the body and backing the gage bar, a hanger adjustably connected with the body and loosely receiving the gage bar, and a set screw carried by the hanger and engaging the gage bar.



2. In a device for the purpose described, the combination of a body constructed and arranged to straddle the toothed edge of a saw, a member carried by the body and having an inner end adapted to be opposed to one side of a saw blade and also having annular cutting edges on said end adapted to form kerfs in one side of the blade, and an adjustable member carried by the body and having an inner end alined with the inner end of the first-named member; the second named member also having on its said inner end annular cutting edges adapted to form kerfs in the opposite side of the saw.

3. In a device for the purpose described, the combination of a body constructed and arranged to straddle the toothed edge of a saw, a member carried by the body and having an inner end adapted to be opposed to one side of the saw and also having annular cutting edges on said inner end adapted to form kerfs in the side of the saw, a second member threaded in the body and having an inner end alined with the first named inner end and also having on its said inner end annular cutting edges adapted to form kerfs in the opposite side of the saw, and a bail-shaped handle having in one of its arms an annular portion loosely receiving the angular portion of the first-named member and also having its other arm secured to the second-named member.

1,143,935. HAT-STRETCHING APPARATUS. THEODORE J. BENNETT, Bloomfield, N. J., assignor, by direct and mesne assignments, to Benjamin H. Kaufman, Bloomfield, N. J. Filed June 26, 1914. Serial No. 847,406. (Cl. 223—21.)



1. In a device of the character stated, a standard having supporting means, a plurality of stretching blocks, the outer surfaces of which are curved to conform to the contour of a hat, each stretching block having a push-rod

slidably disposed upon said suporting means of said standard, a yielding cushioning element interconnecting said blocks, and a cam-device adapted to simultaneously engage said push-rods when rotated to move the stretching blocks outwardly against the tension of said yielding cushioning element.

2. In a device of the character stated, a standard having suporting means, a plurality of stretching blocks, the outer surfaces of which are curved to conform to the contour of a hat, each stretching block having a push-rod slidably disposed upon said suporting means of said standard, an elastic band interconnecting said blocks, and a cam-device adapted to simultaneously engage said push-rods to move the stretching blocks outwardly against the tension of said elastic band.

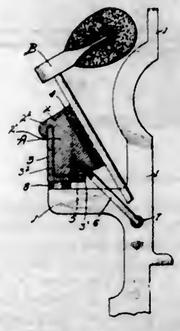
3. In a device of the kind described, a standard member having a supporting table connected with its upper end, a base flange connected with the lower end of said standard member, said supporting table having in its upper surface a plurality of radiating channel portions, a pair of oppositely disposed side stretching blocks, a pair of oppositely disposed end stretching blocks, inwardly extending push-rods connected with each stretching block and respectively arranged to slide longitudinally in said channel portions, a vertical shaft journaled to extend through the interior of said standard member so that its upper end projects above said supporting table, a cam-member fixed on the upper exterior end of said shaft, said cam-member having circumferential cam-portions corresponding in number to the number of stretching blocks, each push-rod having an upwardly extending transmission lug adapted to be engaged by one of said cam-portions, an elastic means interconnecting said stretching blocks, and a hand-lever connected with said shaft for rotating the same and said cam-member.

4. In a device of the kind described, a standard member having a supporting table connected with its upper end, a base flange connected with the lower end of said standard member, said suporting table having in its upper surface a plurality of radiating channel portions, a pair of oppositely disposed side stretching blocks, a pair of oppositely disposed end stretching blocks, inwardly extending push-rods connected with each stretching block and respectively arranged to slide longitudinally in said channel portions, a vertical shaft journaled to extend through the interior of said standard member so that its upper end projects above said suporting table, a cam-member fixed on the upper exterior end of said shaft, said cam-member having circumferential cam-portions corresponding in number to the number of stretching blocks, each push-rod having an upwardly extending transmission lug adapted to be engaged by one of said cam-portions, an elastic means interconnecting said stretching blocks, a hand-lever connected with said shaft for rotating the same and said cam-member, and means for locking said hand-lever in desired operative position.

5. In a device of the kind described, a hollow standard member, a base-flange connected with the lower end of said standard member, a supporting table provided with a plurality of radiating channel portions connected with the upper end of said standard members, a pair of side stretching blocks having curved outer surfaces corresponding with the inner side contours of a hat, a pair of end stretching blocks having curved outer surfaces corresponding with the inner end contours of a hat, inwardly extending push-rods connected with each stretching block and respectively arranged to slide longitudinally in said channel portions, a vertical shaft journaled to extend through the interior of said standard member so that its upper end projects above said supporting table, a cam-member fixed on the upper end of said shaft, said cam-member being provided at its circumference with eccentric cam-portions corresponding in number to the number of stretching blocks, each push-rod having an upwardly extending transmission lug adapted to be engaged by one of said cam-portions whereby said stretching blocks are moved simultaneously outward, an elastic band extending around and interconnecting the curved outer surfaces of said stretching blocks, the same serving to return said stretching blocks to normal initial positions after operation, and a hand-lever connected with said shaft for rotating the same, said standard-member having in its wall an elongated opening through which said hand-lever extends.

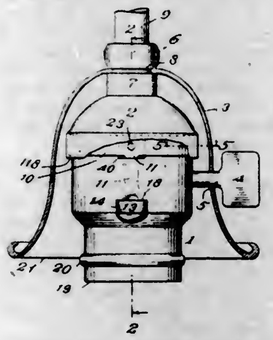
[Claims 6 to 14 not printed in the Gazette.]

1,143,936. HAMMER REST-RAIL FOR PIANOS. WILLIAM G. BETZ, Chicago, Ill. Filed July 26, 1913. Serial No. 781,339. (Cl. 84—102.)



A hammer rest-rail for pianos comprising an L-shaped angle-iron, a wooden rail fitted within the angle formed by the legs of the angle-iron, means for attaching the rail to the horizontal leg of the angle, and a slotted overhanging portion for the rail embracing the upper end of the vertical leg for securely holding the upper portion of the rail and the vertical leg together.

1,143,937. SNAP-LOCK FOR ELECTRIC-SOCKET SHELLS. TONJES AUGUST CARL BOTH, New York, N. Y., assignor, by mesne assignments, to The Zee Socket and Mfg. Co., Boston, Mass., a Corporation of Massachusetts. Filed Apr. 29, 1911. Serial No. 624,026. (Cl. 173—362.)



1. In electric light sockets the combination of a shell, a cap provided with a rotatable locking ring provided with one or more spring arms for locking the shell and ring together and having an engaging member accessible between the mouth of the cap and the mouth of the shell.

2. In a snap lock for electric light switches the combination of a shell, a cap, a rotatable ring mounted in the cap, one or more spring arms depending from the rotatable ring, a portion of the spring arms being accessible between the mouth of the cap and the mouth of the shell.

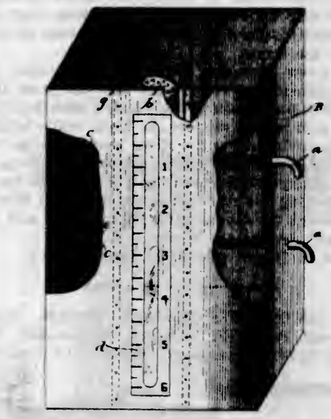
3. In a snap lock for electric light switches the combination of a cap provided with a rotatable ring, a shell, depending arms from the rotatable ring, and means carried partly by the ring to cause the ring to automatically expand and lock the cap and locking ring together upon the insertion of the shell.

4. In electric light sockets the combination of a cap, a rotatable member carried by the cap and provided with one or more depending locking spring arms, coöperating locking surfaces carried by the ring and the shell to prevent the rotation of the ring after it has been moved into its adjusted position, a shell to coöperate with the cap having one or more openings located beneath the mouth of the cap for the reception of a proportion of the spring arms so that they may be readily operated to disengage the cap and ring.

5. In electric light sockets the combination of a cap provided with a rotatable locking ring having one or more depending locking spring arms, a shell provided with one or more openings located beneath the mouth of the cap to receive the engaging members of the spring arms, said spring arms closing the openings in the shell.

[Claims 6 to 9 not printed in the Gazette.]

1,143,938. DRAINAGE APPARATUS. GARLAND A. BRICKER, Columbus, Ohio. Filed June 17, 1911, Serial No. 634,095. Renewed Apr. 14, 1915. Serial No. 21,458. (Cl. 73—51.)



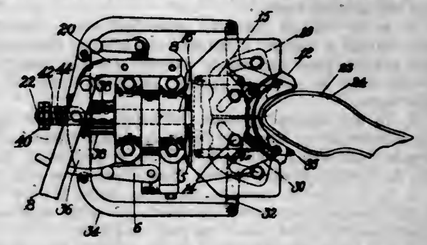
1. In an apparatus of the class described, the combination of a water tight vessel pierced by two tubes, each of said tubes having openings in its walls inside of said vessel, said openings being covered with strainer cloth, a water gage sealed into the side of said vessel, and a removable, perforated sheet protector or guard member on the inside of said vessel, back of said water gage.

2. An apparatus for illustrating the action of water on soil comprising a portable receptacle open at the top and having a visible gage for showing at all times the height of water in the receptacle, and perforated tubes arranged transversely in said receptacle and opening on the exterior thereof, substantially as described.

1,143,939. TOE-CLAMP FOR LASTING-MACHINES. MATTHIAS BROCK, Boston, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Jan. 27, 1912. Serial No. 673,805. (Cl. 12—14.)

1. In a lasting machine, end lasting wipers, operating mechanism for the wipers, and toe centering means comprising shoe engaging devices located at opposite sides of the toe of the shoe being operated upon, combined with operating mechanism for the toe centering means arranged to predetermine a symmetrical movement of the shoe engaging devices laterally toward the shoe first to center the shoe relatively to the machine's center line and then to clamp the shoe, said last named operating mechanism being connected with the wiper operating mechanism.

2. In a lasting machine the combination with toe embracing wipers and operating mechanism for advancing and closing the wipers to lay the upper over the feather and against the shoulder of an innersole, of toe centering means which is automatically self adjusting for shoes of different sizes or widths, and operative connections therefrom to the wiper operating mechanism arranged to cause said centering means to hold the shoe against lateral displacement during the overlaying operation by the wipers.



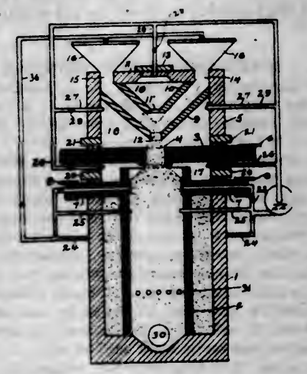
3. In a lasting machine the combination with toe embracing wipers and operating means for advancing and closing the wipers to lay the upper over the feather and against the shoulder of an innersole, of toe centering blocks, angle levers on which the blocks are carried, a cross-head, links connecting the levers and cross-head, a yielding connection from the cross-head to said wiper operating means through which to advance the blocks to center the toe, and a connection with said operating means to retract the blocks with the wipers for the presentation of the shoe.

4. In a lasting machine the combination with toe embracing wipers and operating means for advancing and closing the wipers to lay the upper over the feather and against the shoulder of an innersole including a plunger and a hand lever, of a cross-head, a spring located between the lever and the cross-head to transmit lever movement and pressure to the cross-head, means for guiding the cross-head for right line movement, links connected to opposite ends of the cross-head, angle levers connected to the links, and toe centering blocks mounted on the angle levers to clamp the toe between themselves when the wipers are operated.

5. In a lasting machine the combination with toe embracing wipers and operating means for advancing and closing the wipers to lay the upper over the feather and against the shoulder of an innersole, of toe clamping blocks, angle levers carrying the blocks and having corner extensions by which they are fulcrumed, and connections from the levers to the wiper operating mechanism for actuating the levers and the blocks.

[Claims 6 to 12 not printed in the Gazette.]

1,143,940. ELECTRIC FURNACE. JOHN W. BROWN, Lakewood, Ohio, assignor to National Carbon Company, Cleveland, Ohio, a Corporation of New Jersey. Filed Jan. 8, 1912. Serial No. 670,072. (Cl. 204—64.)



1. In an electric furnace, the combination with electrodes of a condensing chamber within the furnace,

adapted to collect and condense the votalized impurities from a charge and means for maintaining a reduced pressure in the chamber whereby the volatile matters are drawn into the chamber from the furnace charge.

2. In an electric furnace, upper and lower electrodes for heating a charge, and a condensing chamber surrounding the heating zone.

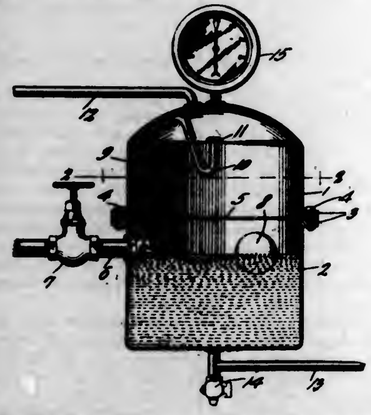
3. In an electric furnace, upper and lower electrodes for heating a charge, a condensing chamber surrounding the heating zone and means whereby the condensed materials may be removed without removing either of the electrodes.

4. In an electric furnace, inclosing walls, an upper floor electrode, an electrode below said floor electrode, and means coöperating therewith to form a condensing chamber for volatile matter arising from the furnace charge.

5. In an electric furnace, inclosing walls, a floor electrode, means coöperating therewith to form condensing chambers above and below the floor electrode.

[Claims 6 to 19 not printed in the Gazette.]

1,143,941. CARBONATOR FOR SODA-FOUNTAINS. STANLEY L. BROWN, Spokane, Wash. Filed Aug. 5, 1913. Serial No. 783,177. (Cl. 209—14.)



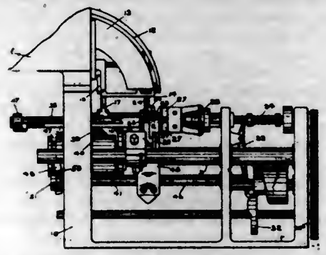
A carbonating apparatus, including a tank divided into two superposed chambers by a foraminous partition, a gas supply pipe leading into the tank from the top, a carbonated water conveying pipe leading from the bottom of the tank, and a float controlled valved water supply pipe leading into the tank below the partition and having an upstanding extension projecting through the partition, the extreme upper end of the extension being disposed upwardly and having a nozzle for projecting the water in the path of the inrushing gas from the gas supply pipe.

1,143,942. SCREW-THREADING MACHINE. TEUNAUSKI Z. CARPENTER, Providence, R. I., assignor to Federal Screw Corporation, Providence, R. I., a Corporation of Rhode Island. Filed Aug. 28, 1912. Serial No. 717,522. (Cl. 10—101.)

1. In a screw threading machine, means for receiving and rotating the blank, means for cutting threads on the blank, a rest for supporting the blank while being cut, and means coöperating with the rest for engaging and removing the screw from the chuck when finished.

2. In a screw threading machine, means for receiving and rotating the blank, means for cutting the threads on the blank, a rest for supporting the blank while being cut, means carried by said rest for engaging and binding the finished screw to said rest, and means for moving said rest to remove said screw from said chuck.

3. In a screw threading machine, means for receiving and rotating the blank, means for cutting threads on the blank, a rest for supporting the blank while being cut, and means including said rest for removing the screws from the chuck when finished.

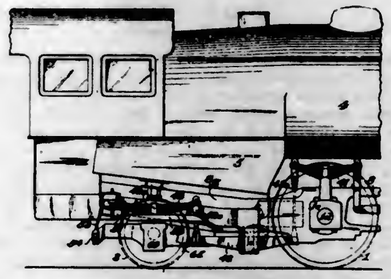


4. In a screw threading machine, a rotatable chuck, means for depositing screw blanks into the jaws of said chuck, a cutter for threading the blank, a back rest, means for moving said rest to support the blank while being cut, means for removing the cutter after having cut the blank, means for binding the finished screw to the rest, means for causing said chuck to release the screw, means for moving the rest and screw from said jaws, and means for subsequently removing said binding means to release and deposit the screw.

5. In a screw threading machine, a rotatable chuck, means for depositing screw blanks into the jaws of said chuck, a cutter for threading the blank, a back rest, means for moving said rest to support the blank while being cut, means for removing the cutter after having cut the blank, a finger carried by said chuck, means for moving said fingers to engage and bind the finished screw to the rest, means for moving the rest and screw thus held from said jaws, and means for subsequently withdrawing said finger to release and deposit the screw.

[Claims 6 to 10 not printed in the Gazette.]

1,143,943. LOCOMOTIVE TRAILING TRUCK. FRANCIS J. COLE and FRANK F. SCOVILLE, Schenectady, N. Y. Filed May 6, 1915. Serial No. 26,245. (Cl. 105—226.)



1. In a locomotive engine, the combination of a main frame, driving wheels journaled in bearings therein, a radial truck pivoted to the main frame, springs through which weight borne by the main frame is transmitted to the frame of the truck, and frictional members interposed between said springs and the frame of the truck, and connected at their opposite ends, to said frame and to the main frame.

2. In a locomotive engine, the combination of a main frame, driving wheels journaled in bearings therein, a radial truck pivoted to the main frame, springs through which weight borne by the main frame is transmitted to the frame of the truck, frictional members interposed between said springs and the frame of the truck, and pivotal connections coupling said frictional members, at their opposite ends, to said frame and to the main frame.

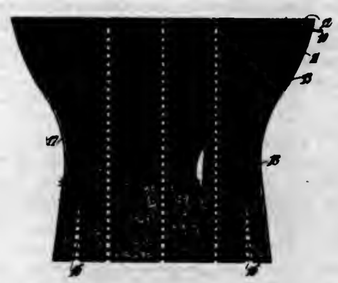
3. In a locomotive engine, the combination of a main frame, driving wheels journaled in bearings therein, a radial truck pivoted to the main frame, springs through which weight borne by the main frame is transmitted to the frame of the truck, frictional members interposed between said springs and the frame of the truck, links pivotally connected to the rear ends of said frictional members and to the main frame, and pivotal connections coupling the front ends of said frictional members to the frame of the truck.

4. In a locomotive engine, the combination of a main frame, driving wheels journaled in bearings therein, a radial truck pivoted to the main frame, springs through which weight borne by the main frame is transmitted to the frame of the truck, frictional members interposed between said springs and the frame of the truck, universal joint pivotal connections coupling the rear ends of said frictional members to the main frame, and pivotal connections coupling the front ends of said frictional members to the frame of the truck.

5. In a locomotive engine, the combination of a main frame, driving wheels journaled in bearings therein, a radial truck pivoted to the main frame, springs through which weight borne by the main frame is transmitted to the frame of the truck, journal boxes fixed in said frame, frictional members bearing on said journal boxes and forming seats for said springs, and pivotal connections coupling said frictional members, at their opposite ends, to the main and to the truck frame, respectively.

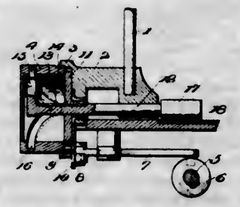
[Claims 6 to 11 not printed in the Gazette.]

1,143,944. CORSET. SAMUEL F. COLMAN, New York, N. Y. Filed Jan. 10, 1914. Serial No. 811,437. Cl. 2—73.)



A stayless corset consisting of vertical back sections disposed apart, elastic material connecting said back sections, vertical sections constituting the sides and front and elastic material connecting said back sections with said side and front sections, said vertical sections being severally composed of a haircloth base, an inelastic lining and an inelastic facing stitched together.

1,143,945. EMBROIDERING-MACHINE. ROBERT CORNELY, Paris, France. Filed Jan. 24, 1913. Serial No. 744,007. (Cl. 112—7.)



1. In a sewing machine adapted to produce seams of predetermined and automatically repeated design, mechanism for relatively shifting the needle and work laterally to change the direction of the seam in conformity with the desired pattern as the work advances through the machine and the formation of the seam progresses, said mechanism comprising a fixed pattern cam, adapted to determine and vary the direction of the seam, a movable member adapted to engage and be guided in its movement by said pattern cam and to relatively shift the needle and work laterally under control of said pattern cam to vary the direction of the seam, and driving connections for actuating said movable member.

2. In a sewing machine adapted to produce seams of predetermined and automatically repeated design, mechanism for relatively shifting the needle and work laterally to change the direction of the seam in conformity with the desired pattern as the work advances through the machine and the formation of the seam progresses, said mechanism comprising a fixed pattern cam adapted to determine and vary the direction of the seam, a rotary member adapted to engage and follow said pattern cam in its rotation and to relatively shift the needle and work laterally under control of said pattern cam to vary the direction of the seam, and driving connections for rotating said member.

3. In a sewing machine adapted to produce seams of predetermined and automatically repeated design, mechanism for relatively shifting the needle and work laterally in conformity with the desired pattern as the work advances through the machine and the formation of the seam progresses, said mechanism comprising a fixed annular pattern cam surface, a rotary member adapted to engage and follow said pattern cam in its rotation and to relatively shift the needle and work laterally under control of said pattern cam, and driving connections for rotating said member.

4. In a sewing machine adapted to produce seams of predetermined and automatically repeated design, mechanism for relatively shifting the needle and work laterally in conformity with the desired pattern as the work advances and the formation of the seam progresses, said mechanism comprising a fixed annular pattern cam surface, a rotary and longitudinally movable shaft having its axis approximately coincident with that of the annular pattern cam surface and also having a part adapted to progressively contact said pattern-cam during rotation of the shaft to longitudinally move the shaft under control of said pattern-cam, means associated with said shaft to relatively shift the needle and work laterally in accordance with the longitudinal movement of the shaft, and driving connections for rotating said shaft.

5. In a sewing machine adapted to produce seams of predetermined and automatically repeated design, mechanism for relatively shifting the needle and work laterally in conformity with the desired pattern as the work advances and the formation of the seam progresses, said mechanism comprising a fixed part having a cylindrical interior surface formed with a cam-groove therein constituting a pattern for the desired design, a rotary and longitudinally movable shaft having its axis approximately coincident with that of said cylindrical surface and also having a part extending into engagement with said cam-groove, driving connections for rotating said shaft and thereby imparting longitudinal movement to the shaft under control of the cam-groove, and means associated with said shaft to relatively shift the needle and work laterally in accordance with the longitudinal movement of the shaft.

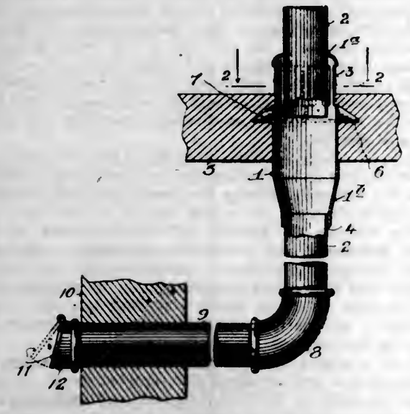
[Claim 6 not printed in the Gazette.]

1,143,946. WATER-ESCAPE FOR BUILDINGS. STANLEY S. COVERT, Montclair, N. J., assignor to Watertite Drain & Scupper Co., Inc., New York, N. Y., a Corporation of New York. Filed Sept. 5, 1914. Serial No. 860,312. (Cl. 169—20.)

1. The combination of a hollow section or fitting adapted to be installed in a floor, and provided with one or more ports extending above and adapted to register with the upper surface of the floor, combined with a pipe extending loosely into the upper end of the section or fitting opposed to said port or ports at a distance therefrom, said pipe terminating within the fitting below said ports and a pipe leading from the lower part of said section or fitting.

2. The combination of a hollow section or fitting adapted to be installed in a floor, and provided with one or

more ports extending above and adapted to register with the upper surface of the floor, combined with a pipe extending loosely into the upper end of the section or fitting opposed to said port or ports at a distance therefrom, providing a space between the fitting and pipe opposed to said ports, said pipe terminating within said section or fitting below said port or ports, and a pipe leading from the lower part of said section or fitting.



3. The combination of a hollow section or fitting adapted to be installed in a floor, and provided with one or more ports extending above and adapted to register with the upper surface of the floor, combined with a pipe extending into the upper end of the section or fitting opposed to said port or ports at a distance therefrom, the lower portion of said section or fitting being reduced in diameter and a second pipe leading from said reduced portion of said section or fitting, said pipe at its upper end being spaced from the first named pipe.

4. The combination of a hollow section or fitting adapted to be installed in a floor, and provided with one or more ports adapted to register with the upper surface of the floor, combined with a pipe extending loosely into the upper end of the section or fitting opposed to said port or ports at a distance therefrom, said pipe terminating within said section or fitting below said ports, and a pipe leading from the lower part of said section or fitting, said section or fitting having a laterally disposed flange embedded in the floor.

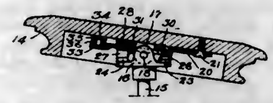
5. The combination of a hollow section or fitting adapted to be installed in a floor, and provided with one or more ports adapted to register with the upper surface of the floor, combined with a pipe extending into the upper end of the section or fitting opposed to said port or ports at a distance therefrom, a pipe leading from the lower part of said section or fitting, a laterally disposed pipe connected with the last named pipe and leading through a wall below said section or fitting, and a valve pivotally carried upon the outer end of the lateral pipe to deliver water without said wall.

[Claim 6 not printed in the Gazette.]

1,143,947. ADJUSTABLE SEAT. FREDERICK W. COY, Boston, Mass., assignor to Charles F. Brown, trustee, Reading, Mass. Filed Aug. 3, 1912. Serial No. 713,181. (Cl. 155—22.)

1. An article of the character described comprising a base, a seat, a seat-supporting post sustained by the base, said post having a cam, a hinged connection between the seat and the seat-supporting post, a seat-tilting member interposed and horizontally movable between said cam and the seat, and having means to coöperate with said cam to vary the inclination of the seat, and means for moving said tilting member to adjust the angle of the seat.

2. A duet bench comprising a base portion, seat-supporting posts connected with said base portion, a seat supported by the seat-supporting posts, a hinged connection between the seat and each of its supporting posts, cams carried by said posts, rings interposed between said cams and the seat, and having lugs to coöperate with said cams to vary the inclination of the seat, and means to connect said rings and rotate them to adjust the angular or tilting relation between the seat and the supporting posts.



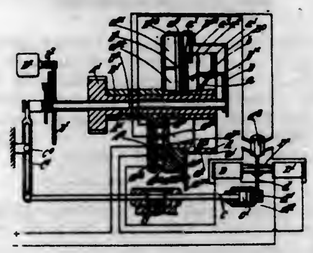
3. An article of the character described comprising a base, a seat-supporting post sustained by the base and having cams, a seat pivotally mounted on the post, a plate secured to the seat, a ring adjacent said plate and having lugs to coöperate with said cams to vary the inclination of the seat, and means for fixedly adjusting the position of said ring.

4. A duet bench comprising a base, two posts mounted in said base, a seat pivotally connected with the upper ends of said posts, horizontally rotatable cams carried by the upper ends of the posts, rings having lugs to coöperate with said cams to vary the inclination of the seat, and means for simultaneously rotating both of said rings.

5. A duet bench comprising a base, two posts mounted in said base, a seat pivotally connected with the upper ends of said posts, horizontally rotatable cams carried by the upper ends of the posts, rings having lugs to coöperate with said cams to vary the inclination of the seat, and means for simultaneously rotating both of said rings, said means comprising a bar connecting the two rings, and push rods extending to both ends of the seat.

[Claim 6 not printed in the Gazette.]

1,143,948. CONTROL SYSTEM FOR GUN-MOUNTINGS AND OTHER MECHANISM. ARTHUR TREVOR DAWSON, Westminster, London, and JAMES HORNE, Barrow-in-Furness, England, assignors to Vickers Limited, Westminster, England. Filed July 12, 1912. Serial No. 708,964. (Cl. 172—239.)



1. In a control system for power driven mechanism, the combination of a member driven from said mechanism, a member actuated from a distance, a relay under the control of said members, a control device for the power driven mechanism, means for operating said control device from the relay, means whereby relative movement between said members renders the relay operative, and means whereby the movement of said relay consequent on its being rendered operative, renders it again inoperative, the amount of such relay movement varying according to the relative displacement between the two members.

2. In a control system for power driven mechanism, the combination of a member driven from said mechanism, contacts forming part of said member, a relay in electrical connection with said contacts, a member actuated from a distance, a control device for the power driven mechanism, means for operating said control device from the relay, means whereby relative movement between said members completes the electric circuit through the relay, and means whereby the movement of the relay consequent on the completion of the circuit, effects the opening of the circuit, the amount of such relay movement varying according to the relative displacement between the two members.

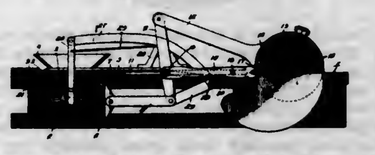
3. In a control system for power driven mechanism, the combination of a member driven from said mechanism, contacts forming part of said member, a relay in electrical connection with said contacts, a member actuated from a distance, a control device for the power driven mechanism, means for operating said control device from the relay, means whereby relative movement between said members completes the electric circuit through the relay, and means whereby the movement of the relay consequent on the completion of the circuit, causes relative movement between the two members to take place in a direction lateral to the movement of the second mentioned member when actuated from a distance, this relative lateral movement effecting the opening of the circuit through the relay.

4. In a control system for power driven mechanism, the combination of a member driven from said mechanism, contacts forming part of said member, an inclined gap between said contacts, a relay in electrical connection with said contacts, a member actuated from a distance, a control device for the power driven mechanism, means for operating said control device from the relay, means whereby the movement of the second mentioned member out of contact with the insulating gap as a result of the relative displacement between said members completes the electric circuit through the relay, and means whereby the movement of the relay consequent on the completion of the circuit, causes the said second mentioned member to be returned into contact with the insulating gap to open the circuit through the relay.

5. In a control system for power driven mechanism, the combination of a rotary member driven from said mechanism, contacts forming part of said rotary member, an inclined insulating gap between said contacts, a relay in electrical connection with said contacts, a rotary member actuated from a distance, a control device for the power driven mechanism, means for operating said control device from the relay, means whereby the movement of the second mentioned member out of contact with the insulating gap as a result of the relative displacement between said rotary members completes the electric circuit through the relay, and means whereby the movement of the relay consequent on the completion of the circuit causes the said second mentioned member to be returned into contact with the insulating gap to open the circuit through the relay.

[Claims 6 to 12 not printed in the Gazette.]

1,143,949. HAY-PRESS. JAMES A. DICKEL and LEE H. BAKER, Ottumwa, Iowa. Filed July 11, 1914. Serial No. 850,360. (Cl. 100—2.)



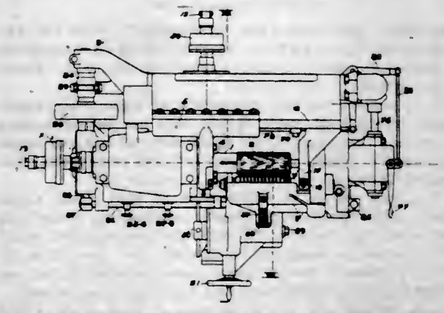
1. In a press embodying a chamber and a plunger adapted to reciprocate therein, a lever, connecting means between such lever and plunger, a movable support for the lever and means for actuating the movable support and at the same time rocking the lever.

2. In a press embodying a baling chamber and plunger arranged to reciprocate therein, a movable support, a lever mounted upon the movable support and connecting means between such lever and plunger, whereby the latter is operated by a two-fold movement due to the rocking of the lever and the movement of the support for such lever.

3. In a press embodying a baling chamber and plunger arranged to operate therein, a slidable support, a lever fulcrumed upon the support, connecting means between the lever and plunger and means for imparting a rocking movement to the lever simultaneously with the movement of the support.

4. In a press, the combination of a baling chamber having a feed opening, a plunger arranged to operate in the baling chamber, a sliding member, a cut off connected with the sliding member and adapted to close the feed opening, a lever mounted upon the sliding member and connecting means between such levers and plunger.

1,143,950. PISTON-RING-SHELL TURNING AND PARTING MACHINE. DAVID F. DOMIZI, Franklin, Pa. Filed Nov. 25, 1912. Serial No. 733,462. (Cl. 29—27.)



1. In a piston-ring-shell turning and parting machine, the combination of a frame having a driving shaft mounted therein, a spindle mounted within said frame, a shell-arbor attached to said spindle and arranged to secure a ring-shell thereon, a turning-tool carriage mounted upon said frame and arranged to travel thereon in a line parallel with the axis of said arbor, there being an opening in said carriage through which said mandrel passes, turning tools radially disposed about said opening and arranged to operate upon the periphery of said shell, a parting-tool housing swingingly mounted in said frame, and parting-tools carried by said housing and adapted to sever said shell into a plurality of rings simultaneously.

2. In a piston-ring-shell turning and parting machine, in combination, a spindle revolubly mounted within the frame of said machine, an expansive mandrel attached to said spindle arranged to receive such shell and to secure the same thereon by expansive action, a rod passing longitudinally through said arbor and arranged to expand same, the outer end of said rod being arranged to project beyond the outer end of said mandrel or arbor, a bearing for said projecting end comprising a bracket secured to the frame of said machine, a removable bushing secured in said bracket, there being a hole formed centrally in said bushing for the reception and support of said rod end.

3. In a piston-ring-shell turning and parting machine, the combination of a frame having a driving shaft mounted therein, a spindle mounted within said frame, a shell arbor attached to said spindle and arranged to secure a ring shell thereon, a turning-tool carriage mounted upon said frame and arranged to travel thereon in a line parallel to the axis of said arbor, there being an opening in said carriage through which said mandrel passes, turning tools radially disposed about said opening and arranged to operate upon the periphery of said shell, a parting-tool housing swingingly mounted within said frame, parting tools secured in said housing and arranged to sever said shell into a plurality of rings simultaneously, and means transmitting variable motion from said driving shaft to said spindle, carriage and parting tools, for the respective purposes set forth.

1,143,951. BRIQUETING OF CARBONIZED PEAT AND THE LIKE. MARTIN EKENBERG, London, England, assignor, by mesne assignments, to Wetcarbonising Limited, London, England. Filed June 5, 1909. Serial No. 500,343. (Cl. 44—1.)

1. A method of producing peat briquet fuel in which the water binding properties of the peat are destroyed by

heating the wet raw material to an elevated temperature under pressure preventing ebullition, dewatering the material and carrying this dewatering to such a point that the product contains at most about 2% of water, then heating the material to a temperature above 100° C., to develop binding properties therein, and thereafter consolidating the material by pressure.

2. In the production of briquets from wet carbonized peat, drying the wet carbonized peat to a moisture content of at most about 2%, then heating the material to a temperature above 100° C. to develop binding properties therein, and thereafter consolidating the material by pressure.

1,143,952. PROCESS FOR THE PRODUCTION OF ALKALI-METAL CYANID. HORACE FREEMAN, Vancouver, British Columbia, Canada. Filed Oct. 13, 1914. Serial No. 866,508. (Cl. 23—13.)

1. A process for the production of high grade alkali metal cyanid from crude cyanid, said process comprising converting the cyanid of the crude material to alkali metal ferro-cyanid, purifying the ferro-salt and reconverting the purified ferro-salt to alkali metal cyanid.

2. A process for the production of high grade alkali metal cyanid from crude cyanid, said process comprising converting the cyanid of the crude material to alkali metal ferro-cyanid in solution, eliminating the impurities by crystallization of the ferro-salt from the solution, and reconverting the purified ferro-salt to alkali metal cyanid.

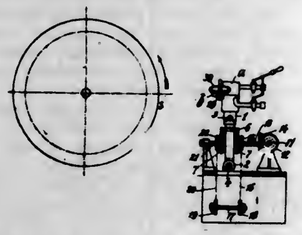
3. A process for the production of high grade alkali metal cyanid from crude alkali metal cyanid, said process comprising converting the cyanid of crude material to alkali metal ferro-cyanid, purifying the ferro-cyanid and fusing the dehydrated ferro-salt in association with alkali metal and in contact with molten lead.

4. A process for the production of high grade alkali cyanid from crude cyanid, said process comprising the converting the cyanid of the crude material to alkali ferro-cyanid by heating a solution of the crude alkali cyanid with a ferrous-hydrate, purifying the ferro-cyanid by crystallization of it from the solution and reconverting of the pure ferro-salt to alkali cyanid.

5. A process for producing high grade alkali metal cyanid from crude cyanid, which consists in first converting the crude cyanid to alkali metal ferro-cyanid, then purifying such ferro-cyanid and subsequently reconverting the pure ferro-cyanid to alkali metal cyanid by heating the dehydrated ferro-salt in a suitable vessel in association with alkali metal and on a bath of molten lead.

[Claims 6 to 8 not printed in the Gazette.]

1,143,953. APPARATUS FOR SPRAYING DESIGNS ON FABRICS. RUDOLF GOTTLIEB, Brünn, Austria-Hungary. Filed Sept. 14, 1911. Serial No. 649,255. (Cl. 101—132.)



1. In a device for stenciling fabrics, the combination of a means for supporting the fabric in a determined path; a dye reservoir provided with nozzles opposite the fabric supporting means and movable transversely to the path of the fabric; and means for reciprocating said reservoir across the fabric supporting means, the length of the path of the reservoir being at least twice the length of the reservoir in the direction of the path of the reservoir.

2. In a device for stenciling fabrics, the combination of a means for supporting the fabric in a determined path; a dye reservoir provided with nozzles opposite the fabric supporting means and movable transversely to the path of the fabric; and means for reciprocating said reservoir across the fabric supporting means, the length of the path of the reservoir being at least three times the length of the reservoir in the direction of the path of the reservoir.

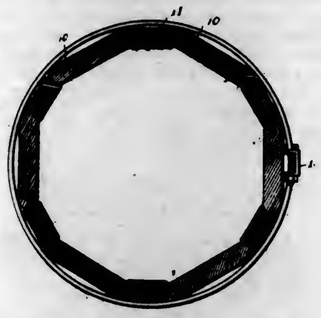
3. In a device for stenciling fabrics, the combination of a means for supporting the fabric in a determined path; a dye reservoir provided with nozzles opposite the fabric supporting means and movable transversely to the path of the fabric; and means for reciprocating said reservoir across the fabric supporting means, the length of the path of the reservoir being at least four times the length of the reservoir in the direction of the path of the reservoir.

4. In a device for stenciling fabrics, the combination of a means for supporting the fabric in a determined path; a dye reservoir provided with nozzles opposite the fabric supporting means and movable transversely to the path of the fabric; a stationary supporting means for said reservoir and means for reciprocating said reservoir on said supporting means across the fabric supporting means, the length of the reservoir supporting means being at least three times the length of the reservoir in the direction of the path of the reservoir.

5. In a device for stenciling fabrics, the combination of a means for supporting the fabric in a determined path; a dye reservoir provided with nozzles opposite the fabric supporting means and movable transversely to the path of the fabric; a pair of supporting rods on which the reservoir is slidably supported; and means for reciprocating said reservoir across the fabric supporting means, the length of the rods being at least three times the length of the reservoir in the direction of the path of the reservoir.

[Claims 6 to 11 not printed in the Gazette.]

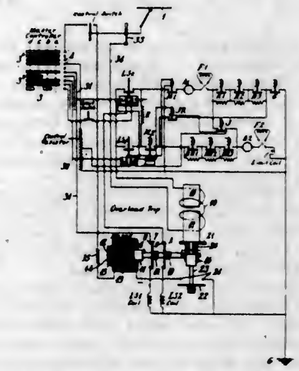
1,143,954. SILO. ALFRED G. HAGUE, Des Moines, Iowa, assignor to O. R. Savage, Des Moines, Iowa. Filed Dec. 17, 1914. Serial No. 877,796. (Cl. 72—6.)



1. In a structure of the class described, the combination of a series of staves arranged in substantially circular form, an encircling hoop on the exterior thereof, some of said staves having two convex edges and the others having two concave edges to co-act with the said convex edges and being arranged alternately in the structure, said staves being provided with means whereby the convex edged staves only engage the hoop and the outer faces of the concave edged staves are not engaged either directly or indirectly by the hoop, whereby when the structure expands or contracts, due to internal pressure or to changes in temperature, the inner corners of the meeting edges of the staves will remain firmly in contact even though the outer corners of the meeting edges should slightly separate.

2. In a structure of the class described, the combination of a series of staves each being substantially the same thickness as the others and being arranged in substantially circular form in the structure, an encircling hoop on the exterior thereof, some of the staves having two convex edges and the others having two concave edges to co-act with the said convex edges and being arranged alternately in the structure, the outer corners of the concave edged staves being beveled or cut away to avoid contact with the hoop, whereby the convex edged staves only engage the hoop and the outer faces of the concave edged staves are not engaged by the hoop, for the purposes stated.

1,143,955. CONTROL SYSTEM FOR ELECTRIC MOTORS. ARTHUR J. HALL, Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Aug. 2, 1913. Serial No. 782,554. (Cl. 172—179.)



1. A switching device comprising stationary and movable magnetizable cores, an energizing coil therefor, a switch member associated with said movable core, a latch adapted to mechanically restrain said core and switch member in their closed positions, an electro-responsive device for releasing said latch, and a switch member associated therewith and included in a circuit to be governed, said electro-responsive device having its coil in circuit with said first switch member.

2. A switching device comprising coöperating relatively movable switch members, means normally tending to separate said members, an electromagnet for opposing said means, electro-responsive means normally adapted to retain said switch members in engagement and adapted to release them under predetermined conditions and an auxiliary switch member associated with said electro-responsive means for closing the circuit of said electromagnet under said conditions.

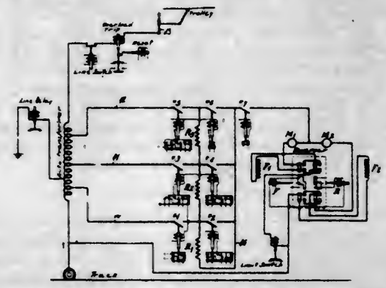
3. A switching device comprising relatively movable cooperating switch members included in a circuit to be controlled, means normally tending to disengage said members, and means for opposing said disengaging means, of means adapted to retain said switch members in engagement and dependent upon abnormal circuit conditions for permitting their separation, and means associated with said retaining means for effecting the operation of said opposing means.

4. A switching device comprising coöperating switch members included in a circuit to be controlled, resilient means for separating said switch members, a latch for preventing said separation under normal conditions, an electromagnet for governing the operation of said latch in response to current conditions of an electric circuit, switch members associated with said latch and normally disengaged, and a reset electromagnet in circuit with said last named switch members and adapted to be energized for effecting the engagement of the switch members in the circuit to be controlled.

5. The combination with an electric circuit and an electrically operated switching device included therein, of an auxiliary switching device included in the energizing circuit of said electrically operated device and normally restrained in its closed position, an electro-responsive device in said electric circuit for governing the operation of said auxiliary switching device in accordance with current conditions of said electric circuit, electro-magnetic means for closing said auxiliary switching device, and means for limiting the duration of energization of said electromagnetic means.

[Claims 6 to 9 not printed in the Gazette.]

1,143,956. CONTROL SYSTEM FOR ELECTRIC MOTORS. ARTHUR J. HALL and LYNN G. RILEY, Wilkinsburg, Pa., assignors to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed July 9, 1913. Serial No. 778,066. (Cl. 172—179.)



1. In a control system, the combination with a source of energy, an electric motor adapted to be connected thereto, and a plurality of resistors adapted to be successively connected to said source and in series with said motor, of a plurality of switching devices for effecting said connections, and means for causing an automatic operation of said switching devices during the accelerating period of said motor.

2. In a control system, the combination with a source of energy, an electric motor adapted to be connected thereto, and a plurality of resistors adapted to be successively connected to said source and in series with said motor, of electro-responsive means for automatically effecting the connections of said motor and said resistors during the period of accelerating said motor.

3. In a control system, the combination with a source of energy, an electric motor adapted to be connected thereto, a plurality of resistors adapted to be successively connected to said source and in series with said motor, and a plurality of independently operated switches for effecting said connections, of automatic means dependent upon the current traversing said motor for governing the progressive closure of said switches and effecting a smooth acceleration of said motor.

4. In a control system, the combination with a source of energy, an electric motor adapted to be connected thereto, and a plurality of resistors adapted to be successively connected to said source and in series with said motor, of a plurality of electro-magnetically operated switches for arranging the connections of said motor and said resistors, and automatic means for governing the operation thereof in accordance with predetermined circuit conditions.

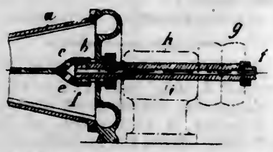
5. In a control system, the combination with a source of energy, an electric motor adapted to be connected thereto, and a plurality of resistors adapted to be successively connected to said source and in series with said motor, of a plurality of electro-magnetically operated switches for arranging the connections of said motor and said resistors, and an electro-responsive relay and plurality of interlock switches for automatically controlling the operation of said electromagnetically operated switches in accordance with the current traversing said motor.

[Claims 6 to 13 not printed in the Gazette.]

1,143,957. CENTRIFUGAL PUMP. EIGIL AAGE HANSEN, Copenhagen, Denmark. Filed June 12, 1913. Serial No. 773,159. (Cl. 103—43.)

1. A centrifugal pump comprising a pump body, a shaft carrying an impeller adapted to rotate in the said body

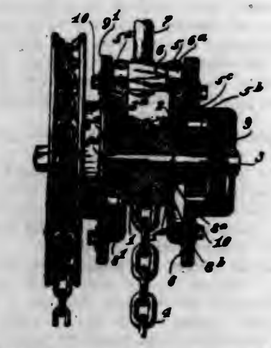
and means arranged at the pressure end of the pump whereby the interior of the said body is in communication with the outer atmosphere.



2. A centrifugal pump comprising a pump body, a longitudinally bored shaft, and an impeller carried by said shaft and adapted to rotate in the said body, said shaft connecting the interior of the pressure end of the pump with the outer atmosphere.

3. A centrifugal pump comprising a pump body, a longitudinally bored shaft, an impeller carried by said shaft and adapted to rotate in the said body, said shaft having a plurality of holes connecting the interior of the pressure end of the pump with the bore of the shaft.

1,143,958. HOIST. ARTHUR M. HARRINGTON and PETER MULLEN, Philadelphia, Pa., assignors to Edwin Harrington, Son & Co., Inc., Philadelphia, Pa., a Corporation of Pennsylvania. Filed May 18, 1914. Serial No. 839,296. (Cl. 254—171.)



1. In a hoist, hangers having bearings, a load sheave having journals revoluble in said bearings, and one or more casings carried on the bearings of said hangers independently of said journals.

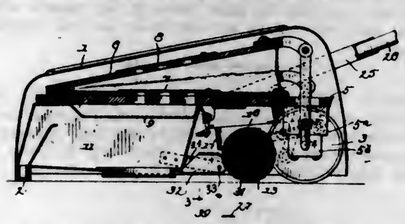
2. In a hoist, a load sheave having journals, a cross head having pintles, hangers having bearings in which said journals and pintles are revoluble, and casings having members sleeved on and carried by hanger bearings aforesaid, said casings being supported independently of said journals and said hangers being adapted to oscillate independently of said casings.

3. In a hoist, a load sheave having journals, hangers having bearings in which said journals are revoluble, said bearings having oppositely projecting sections, and casings having members sleeved on said sections.

4. In a hoist, a load sheave having journals, hangers provided with cylindrical bearings having oppositely projecting cylindrical sections, and casing members sleeved on said projections and having recesses in which said hangers have a limited movement of oscillation.

1,143,959. CLEANING APPARATUS. BENJAMIN E. HARRIS, Chicago, Ill. Filed Dec. 9, 1911. Serial No. 664,724. (Cl. 15—60.)

1. In a cleaner for floors and floor coverings, a casing having a suction nozzle upon its forward portion arranged to rest directly upon the surface to be cleaned, a dust-collecting chamber being formed within said casing adjacent to the nozzle; suction-creating means within the casing; brushing means associated with said casing; and means for moving said brushing means, while said suction-creating means is in operation, into and out of contact with the article to be cleaned.



2. In a cleaning apparatus, a framework, rollers supporting said framework, a propelling handle pivoted to the framework for moving said framework over an article to be cleaned, a brush supporting device pivoted to said framework, a brush supported by said brush-supporting device, a spring normally holding said brush away from said article, rollers supported by said brush-supporting device and operatively connected with said brush, mechanism connecting said handle to said brush-supporting device, whereby when the handle is swung downwardly on its pivot, said supporting rollers and said second mentioned rollers are brought in contact, and said brush is brought in contact with the article to be cleaned.

3. In a cleaning apparatus, a framework, rollers supporting said framework, a propelling handle for moving said framework on said rollers over an article to be cleaned, a brush-supporting device pivoted to said framework, a shaft journaled in said brush-supporting device, a brush fixed on said shaft, rollers fixed on said shaft, a spring normally holding said brush-supporting device in a raised position, mechanism connecting said handle and said brush-supporting device whereby the brush supporting device is lowered when the handle is lowered, and said second mentioned rollers are brought into operative contact with said supporting rollers.

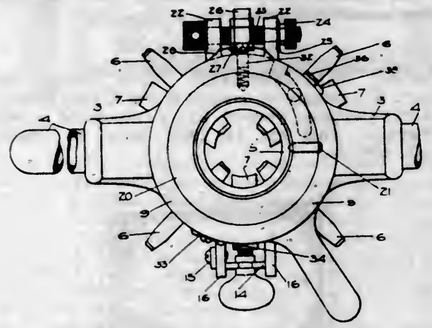
4. In a cleaner for floors and floor coverings, in combination, a framework; rollers supporting said framework; a handle for propelling said framework and thus causing said rollers to revolve; suction cleaning means attached to said framework and constantly in operative relation to the surface to be cleaned, said cleaning means being driven by said rollers; auxiliary cleaning means normally out of operative relation to said surface, and arranged to be driven by said rollers; and means for placing the auxiliary cleaning means in operative relation to said surface.

5. In a vacuum cleaner for floors and floor-coverings, a casing having a suction nozzle upon its forward portion, rollers for supporting the rear end of the casing, a handle pivoted to the casing for propelling the casing across the floor, suction-creating means located within the casing and driven by said rollers, dust-collecting means located between the nozzle and the suction-creating means, and thread-collecting means arranged to be moved into driven relation to the rollers and into operative relation to the surface to be cleaned by a swinging movement of the propelling handle.

[Claims 6 to 8 not printed in the Gazette.]

1,143,960. DIE-STOCK. LOUIS F. HART, Cleveland, Ohio, assignor to The Hart Manufacturing Company, Cleveland, Ohio, a Corporation of Ohio. Filed Aug. 25, 1910. Serial No. 578,850. (Cl. 10—122.)

1. In mechanism of the character described, the combination of a body member; dies movable in said member; a cam-member, said body member and cam-member being relatively movably secured together and the latter being adapted to position said dies in the former, upon such relative movement; a screw rotatably mounted on one of said members about an axis lying parallel to the plane of such relative movement between said members, the other member having an engaging element; means adapted to hold said screw against rotation; and a catch having threaded engagement with said screw and adapted to engage said element to secure said members against relative movement.



2. In mechanism of the character described, the combination of a body member; dies movable in said member; a cam-member movably secured to said body member and adapted to position said dies therein; a screw rotatably mounted on one of said members about an axis lying parallel to the plane of such relative movement between said members, the other member having its periphery notched; a lock-nut on said screw adapted to hold the same against rotation; and a catch having threaded engagement with said screw, and adapted to engage the notch in said last named member.

3. In mechanism of the character described, the combination of a body member; dies movable in said member; a cam-plate rotatably secured to said member and adapted to position said dies therein, said cam-plate having its periphery notched; a screw rotatably mounted on said member about an axis transverse to that of said cam-plate; means adapted to hold said screw against rotation; and a catch having threaded engagement with said screw and adapted to engage a notch in said cam-plate.

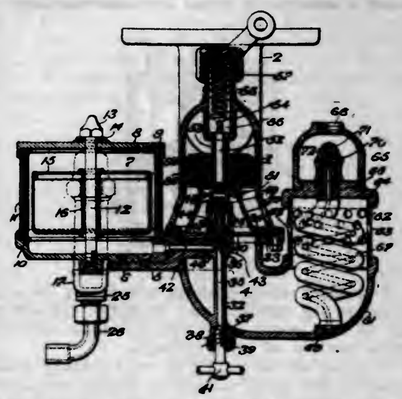
4. In mechanism of the character described, the combination of a body member; dies movable in said member; a cam-plate rotatably secured to said member and adapted to position said dies therein, said cam-plate having its periphery notched; a screw rotatably mounted on said member about an axis transverse to that of said cam-plate; a lock-nut on said screw adapted to hold the same against rotation; and a catch having threaded engagement with said screw and adapted to engage a notch in said cam-plate.

5. In mechanism of the class described, the combination of a body member having transversely alined, spaced lugs on one side; dies movable in said member; a cam-plate rotatably secured to said member and adapted to position said dies therein, said cam-plate having its periphery notched; a screw rotatably mounted in the lugs on said member with a head adapted to rest against the one such lug and an end projecting through the other lug; a lock-nut on such projecting end of said screw; a spring washer interposed between said nut and the adjacent lug; and a catch having threaded engagement with said screw and adapted to engage a notch in said cam-plate.

[Claims 6 to 12 not printed in the Gazette.]

1,143,961. CARBURETER. CLARENCE B. HAYNES, Camden, N. J., assignor of twenty-two and one-half one-hundredths to Charles A. Richardson and ten one-hundredths to William K. B. Richardson, Haddonfield, N. J., and twenty-two and one-half one-hundredths to Max Liveright, Philadelphia, Pa. Filed Jan. 29, 1914. Serial No. 815,145. (Cl. 48—150.1.)

In a device of the character stated, a carbureter casing having a bottom opening and fuel-comminuting means within it, a float-chamber supported at one side of the carbureter chamber and having a channel connected to said comminuting means, a curved duct having one upturned end connected to the bottom-opening of the carbureter chamber and extending laterally oppositely to the float-chamber, and an air-moistening chamber secured in the outer upturned end of said curved duct.



1,143,962. AIR-MOISTENER. CLARENCE B. HAYNES, Camden, N. J., assignor of twenty-two and one-half one-hundredths to Charles A. Richardson, Haddonfield, N. J., twenty-two and one-half one-hundredths to Max Liveright, Philadelphia, Pa., and ten one-hundredths to William K. B. Richardson, Haddonfield, N. J. Filed Jan. 29, 1914. Serial No. 815,301. (Cl. 98—44.)

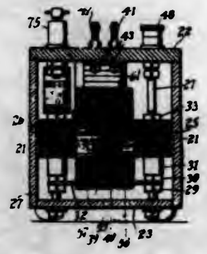
1. An air moistener, comprising a casing forming an air moistening chamber having an air inlet and an air outlet and a liquid reservoir, adjacent thereto, having an aperture forming a communication with the chamber, and a body of absorbent material having a portion thereof fitting and closing the aperture to insure that moisture is fed only by capillary action and having one end secured in the chamber, the other end extending into the liquid in the reservoir, whereby the body will absorb liquid in the reservoir and such liquid evaporate in the chamber.

2. An air moistener comprising a casing forming an air moistening chamber having an air inlet and an air outlet and a liquid reservoir, adjacent thereto, having an aperture forming a communication with the chamber, means for feeding the liquid to the air moistening chamber by capillary action only, said means including a plurality of coils situated in said moistening chamber, and a supporting member having its ends suitably mounted and engaging said body throughout its extent to hold the coils in spaced relation to each other and to the casing.

1,143,963. UNIVERSAL LOAD-BOX. JOHN L. HEILMAN, Fort Wayne, Ind. Filed Sept. 5, 1912. Serial No. 718,627. (Cl. 171—119.)

1. A primary winding, two secondary windings having different load capacities and different ranges of high power factor and a common magnetic core for all three windings.

2. A primary winding, two secondary windings having different load capacities and different ranges of high power factor, a common magnetic core for all three windings and a resistance in circuit with each secondary.



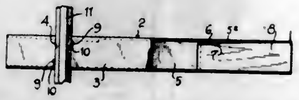
3. A primary winding, two independent secondary windings having different load capacities and different ranges of high power factor and a common continuous magnetic core for all three windings.

4. In a load box for testing meters, a primary winding arranged in two parts, connections placing the parts in series or in parallel at will, a secondary winding in two parts superimposed upon the respective parts of the primary winding, a separate secondary winding of different load capacity located between the parts of said primary and superimposed secondary windings and a common continuous magnetic core for the windings.

5. In a load box for testing meters, a magnetic core, two primary windings thereon, spaced along the core, a secondary winding between the primary windings forming one secondary circuit and a secondary winding mounted upon each side of the first secondary winding and upon the primary windings having load capacity different from that of the first named secondary and forming a secondary circuit.

[Claims 6 to 18 not printed in the Gazette.]

1,143,964. RAILROAD-TIE. HARRY HESS, Glengarry, Mont. Filed Mar. 31, 1915. Serial No. 18,372. (Cl. 238—5.)



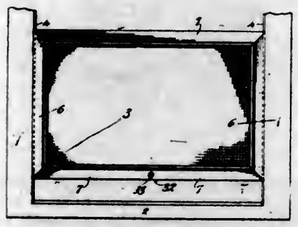
1. A tie comprising a hollow shell, one wall of which is thickened, the inner face of said wall being inclined away from the exterior of the tie and toward the middle thereof, relatively elastic filling pieces disposed within the tie and having wedging engagement with said wall.

2. A tie comprising a hollow metallic shell, one wall of which is thickened adjacent opposite ends, each thickened portion having an inwardly and medially inclined inner surface, the upper web of the shell being cut away adjacent opposite ends, and relatively elastic filling pieces forced into opposite ends of the shell and held in engagement therewith by wedging contact with the inner surface of the thickened portion.

3. In a tie, a hollow metallic shell including a bottom wall and a top wall, the top wall being transversely cut away adjacent its ends for the reception of rails, the bottom wall having wedging faces confronting the cut-away portion, and wooden filling pieces driven into the ends of the tie and having wedging engagement with said faces, the side walls of the opening in the upper web being formed with spike-receiving notches.

4. A railway tie comprising a hollow shell of relatively non-yielding material and open at its opposite ends and cut away upon its upper face to form rail seats, one wall of the shell being formed at opposite ends with thickened portions extending toward the middle of the shell and beyond said rail seats and terminating abruptly, the inner face of each of said walls being inclined away from the exterior of the tie and toward the middle thereof, and wooden filling pieces interposed within the ends of the tie and having wedging engagement with said thickened inclined walls and adapted to extend over the abrupt ends of said thickened portions to thereby cause the filling pieces to be held in place.

1,143,965. WINDOW-SCREEN. HENRY HIGGIN, Newport, Ky., assignor of one-half to The Higgin Manufacturing Company, Newport, Ky., a Corporation of West Virginia. Filed Apr. 14, 1913. Serial No. 760,961. (Cl. 156—14.)



1. In a window screen, a hollow molding and a locking device mounted therein, the locking device comprising sliding bolts, with an intermediate crank and connection therefor with the bolts, and a plurality of means for rocking the crank to simultaneously retract the bolts, and springs to project them into locking position, one of said means extending outwardly at the side of the screen, and the other located in the hollow molding at the base of the screen to be available only in raised position of the screen, for the purpose described.

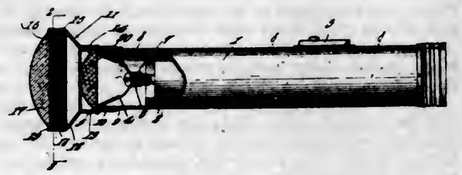
2. In a window screen, a hollow molding and a locking device mounted therein, the locking device comprising sliding bolts, with an intermediate crank and connection therefor with the bolts, a rotatable pin upon which the crank is mounted, and means for rocking the pin to retract the bolts to release the window screen, and means connected to the crank for rocking it and the pin, said means located in the hollow molding at the base of the screen to be available only in raised position of the screen, for the purpose described.

3. In a window screen, a hollow molding and a locking device mounted therein, the locking device comprising sliding bolts, with an intermediate crank and connection therefor with the bolts, a rotatable pin upon which the crank is mounted, the head of the pin having a slot for the reception of a tool for turning, a supplemental arm on the crank with loops loosely engaging same for actuating said crank to release the bolts, said loop depending through the base of the molding and adapted to be withdrawn within the same when the screen rests upon the sill.

4. In a window screen, a hollow molding and a locking device mounted therein, the locking device comprising sliding bolts, with an intermediate crank and connection therefor with the bolts, a rotatable pin upon which the crank is mounted, the pin being squared to engage the crank, with a cylindrical end to find a bearing in the molding wall, and with the head flush with the outer face of the molding and provided with a slot for the reception of a tool for turning and additional means for rocking the crank, located in the base of the screen to be available only in raised position of the screen, for the purpose specified.

1,143,966. FLASHLIGHT. HARRY T. HIPWELL, Pittsburgh, Pa. Filed Oct. 31, 1914. Serial No. 869,611. (Cl. 240—8.5.)

1. A flashlight comprising a body, a reflector fitting within one end thereof, a lamp mounted within the reflector, a condensing lens disposed over the mouth of the reflector, a shell detachably engaged over the said end of the body and having means for holding the condensing lens and reflector in place, and a main lens carried by the free portion of the shell.

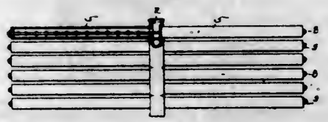


2. A flashlight comprising a body, a reflector fitting within one end thereof and having a flange seated against the said end of the body, a lamp disposed within the reflector, a condensing lens seated against the said flange of the reflector, a shell detachably engaged over the said end of the body and having an inner flange engaging the condensing lens for clamping the reflector flange and condensing lens against the end of the body, and a main lens carried by the free portion of the shell.

3. A flashlight comprising a body, a reflector fitting within one end thereof, a lamp disposed within the reflector, a funnel shaped shell having its spout portion detachably engaged over the said end of the body, a relatively large main lens carried by the mouth portion of the shell, and a relatively small condensing lens disposed within the spout portion of the shell over the mouth of the reflector, the spout portion of the shell having means for holding the condensing lens and reflector in place against the end of the body.

4. A flashlight comprising a body, a reflector fitting within one end thereof and having a flange seated thereagainst, a lamp disposed within the reflector, a funnel-shaped shell having its spout portion detachably engaged over the said end of the body, a relatively large main lens carried by the mouth portion of the shell, and a relatively small condensing lens disposed within the spout portion of the shell and fitting over the mouth of the reflector, the spout portion of the shell having an inner flange engaging the condensing lens for holding the same and the reflector flange against the end of the body.

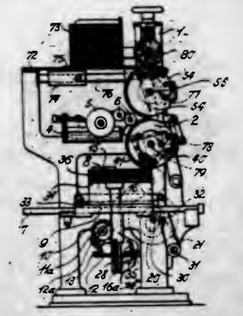
1,143,967. RADIATOR. BENJAMIN HOLT, Stockton, Cal. Filed Oct. 14, 1911. Serial No. 654,735. (Cl. 257—131.)



A radiator including an upper header having a series of large chambers and a pair of end chambers, stationary partitions separating the chambers, a lower header having a series of large chambers, stationary partitions separating said last named chambers, a pair of manifolds for each end chamber, two pairs of manifolds for each large chamber arranged one pair on each side thereof, and communicating therewith, each of said manifolds being of considerable length and being spaced apart throughout their lengths and being independent of each other, and a plurality of series of vertical tubes, each series being composed of a multiplicity of tubes which connect the manifolds of the end chambers of the upper header to the outer ends of the chambers of the lower header and also connect the manifolds at the alternate ends of the larger chambers of both headers.

1,143,968. LABELING-MACHINE. EMIL JAGENBERG, Dusseldorf, Germany. Filed Aug. 7, 1914. Serial No. 855,540. (Cl. 216—54.)

1. Labeling machine comprising a slidable pile of labels, a rotary roller with a segment which receives gum and pulls off the uppermost label from the pile, recesses in the front edge of said segment, parts, adapted to be automatically engaged in these recesses and again withdrawn therefrom, a second roller, said roller carrying a segment, adapted to roll on the segment of the first roller, tongues on the second roller, means for rocking and pressing said tongues against the front edge of this segment, means for moving the articles to be labeled over the second roller, and for pressing said articles against the labels.



2. Labeling machine comprising a slidable pile of labels, a rotary roller with a segment which receives gum and pulls off the uppermost label from the pile, recesses in the front edge of said segment, parts, adapted to be automatically engaged in these recesses and again withdrawn therefrom, a second roller, said roller carrying a segment, adapted to roll on the segment of the first roller, in said roller a shaft, on said shaft levers, linked to said shaft levers arms, attached to said arms tongues and springs, means for advancing the articles to be labeled and for pressing the said articles against the labels.

1,143,969. CIRCUIT-CONTROLLING ELEMENT. CHARLES H. KAYSER, West Orange, N. J., assignor to Ideal Fire Detector Company, a Corporation of New Jersey. Filed June 5, 1913. Serial No. 771,804. (Cl. 200—81.)



A circuit controlling element for fire-alarm systems comprising a chambered body containing air and having an internally threaded end, an externally threaded flanged cap-member having a central opening the upper portion of which is internally threaded, a diaphragm member stretched over the lower end of said central opening, a sealing gasket interposed between the flange of said cap-member and the edges of said chambered body to seal the latter, a contact-base of insulating material provided with a vertically disposed opening, an externally threaded neck connected with said contact-base adapted to screw into said cap member, a pair of normally closed contact members mounted on said contact base, a normally separated contact mounted on said contact base, and a push-rod mounted in said opening of said contact-base and interposed between said diaphragm and one of said normally closed contact members whereby the outward pressure of said diaphragm separates said normally closed contact-

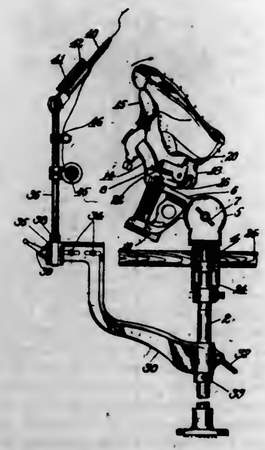
members and carries one of the same into contact-closing engagement with said normally separated contact-member, substantially as and for the purposes set forth.

1,143,970. FIRE-DETECTOR APPARATUS. CHARLES H. KAYSER, Orange, N. J., and WILLIAM H. HAMPTON, New York, N. Y., assignors to Ideal Fire Detector Company, a Corporation of New Jersey. Filed Sept. 25, 1912. Serial No. 722,212. (Cl. 200—32.)



In a device of the kind described, a hollow shell comprising an upper body-section and a lower body-section each having marginal flanges, a flexible diaphragm extending transversely between said body-sections and clamped between the marginal flanges thereof, a lift-means connected with said diaphragm, said lower body-section providing an air-chamber beneath said diaphragm, a compensating vent-means connected with said lower body-section provided with a vent of minute diameter communicating with said air-chamber, said upper body-section having an opening providing a quick relief for the air from within said upper body-section and above said diaphragm, and an electrical circuit make and break means connected with said upper body-section comprising an adjustable contact-screw and a spring-like contact-plate, the free end of which extends between said contact-screw and said lift-means, the same being electrically insulated from each other, and means for connecting in an electrical circuit said contact-screw and said spring-like contact-plate.

1,143,971. APPARATUS FOR USE IN LASTING TOES. EUGENE L. KEYES, Boston, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Apr. 28, 1911. Serial No. 623,874. (Cl. 12—7.)



1. A lasting apparatus comprising a shoe support, a wire guiding arm mounted for manual movement of its wire delivering end around the toe portion of the shoe from one side thereof to the other by the operator step by step as the lasting proceeds, and means for causing said wiring arm to hold the wire under tension at different points in its path.

2. A lasting apparatus comprising a support for a shoe, a wiring arm, supporting means for the arm permitting movement thereof about horizontal and vertical axes to enable the wiring arm to be manipulated for placing the wire around the shoe toe under tension and friction means for maintaining the wiring arm stationary with the wire under tension at any point to which the arm is moved by the operator.

3. A lasting apparatus having, in combination, a support for a shoe, a wire guiding arm having a wire passage extending lengthwise through it and mountings for the arm permitting it to be moved from and toward the shoe and to be swung step by step by the operator as the lasting proceeds for carrying the wire around the toe of the shoe from one side to the other as the toe is being progressively lasted.

4. A lasting apparatus having, in combination, a shoe support, and a wiring arm, said support and arm being mounted to turn about vertical axes which are spaced a substantial distance apart, the axis of the wiring arm being in front of the axis of the shoe support, and adapted to permit manually controlled rotative movement of the shoe and of the wiring arm in laying the wire around the toe from an anchor tack on one side of the shoe to an anchor tack on the other side step by step as the lasting progresses.

5. A lasting apparatus having, in combination, a shoe support mounted for movement to move the shoe about a vertical axis located in the rear of the toe, and a wiring arm mounted for rotative movement about a vertical axis located in the front of the toe, said parts being arranged to permit manually controlled rotative movement of the shoe and of the wiring arm in laying the wire around the toe from an anchor tack on one side of the shoe to an anchor tack on the other side of the shoe.

[Claims 6 to 11 not printed in the Gazette.]

1,143,972. METHOD OF MAKING SHOES. EUGENE L. KEYES, Chicago, Ill., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Original application filed Apr. 28, 1911, Serial No. 623,874. Divided and this application filed Nov. 7, 1914. Serial No. 870,811. (Cl. 12—145.)



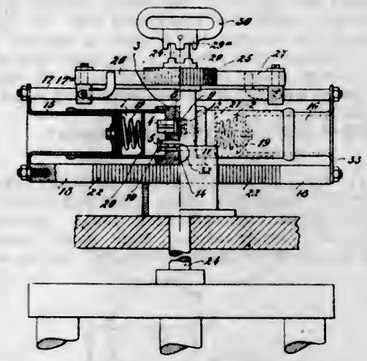
1. That improvement in methods of making shoes which consists in anchoring a toe binding wire at its free end to one side of the shoe; holding said wire under tension in engagement with the upper along the side of the toe; beginning at the end of the toe and pulling and plaiting the upper into lasted position, laying the plaits toward the toe; then lasting the other side of the toe from the end thereof backwardly along said side of the toe and laying the plaits toward the toe while causing the wire to be wrapped around the second side of the toe to hold the upper in position as it is lasted.

2. That improvement in methods of making shoes which consists in anchoring a toe binding wire at its free end to one side of the shoe; holding said wire under tension in engagement with the upper along the side of the toe; pulling and manipulating the upper under the wire toward lasted position over the margin of the shoe sole or innersole; turning the shoe to wrap the binding wire around the toe ahead of the lasting as the lasting operation proceeds and drawing up each successive portion of the upper between said wire and the sole; and finally anchoring the wire at that side of the toe at which the lasting is finished.

3. That improvement in methods of making shoes which consists in anchoring a toe binding wire at its free end to one side of the shoe; holding said wire under tension in engagement with the upper along the side of the toe; pulling and manipulating the upper under the wire toward lasted position over the margin of the shoe sole or innersole; turning the shoe to wrap the binding wire around the toe ahead of the lasting as the lasting operation proceeds, and laying toward the center of the toe first along one side of the toe and then along the other side the plaits required for disposing of the fullness produced by gathering the marginal portion of upper materials inwardly over the curved edge of the toe; and anchoring the second end of the wire to maintain the wire under binding tension.

4. That improvement in methods of making shoes which consists in anchoring a toe binding wire at its free end to one side of the shoe; holding said wire under tension in position to confine the margin of the upper between the wire and the sole of the shoe; pulling up the confined upper step by step around the toe and increasing the tension on the wire as necessary to restrain the successively pulled up portions of upper from slipping back; and anchoring the wire to maintain the tension.

1,143,973. TWO-CYLINDER ENGINE. HERMANN KLEINBRAHM, Mülheim-on-the-Ruhr, Germany. Filed Aug. 6, 1914. Serial No. 855,390. (Cl. 138—2.)

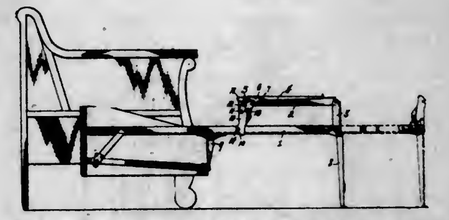


In an engine, the combination of two coaxially disposed cylinders, with a dividing partition, plungers engaging the cylinders, means for coupling the plungers, two double valves in the partition, one of said valves communicating with a pressure medium supply and the other valve communicating with an exhaust, elastic means on the plungers for controlling the valves, a rack and pawls operatively connected to the plungers, a shaft, a pinion loosely mounted on the shaft and adapted to be engaged by the rack, a ratchet wheel likewise loosely mounted on the shaft and adapted to be engaged by the pawls, means for coupling the pinion to the shaft, and means for coupling the ratchet wheel to the shaft.

1,143,974. BED-DAVENPORT. ADOLPH C. KLOPPING, Toledo, Ohio, assignor of one-half to The Toledo Parlor Furniture Company, Toledo, Ohio, a Corporation of Ohio. Filed Apr. 9, 1913. Serial No. 759,835. (Cl. 5—16.)

1. In combination, a set of foldable hinged sections, one section having a projection, a latch member pivoted to the other section and operable to engage said part and to cooperate therewith to firmly space the sections when in folded position, means urging an engagement of the member with said projection when in engaging position, and a leg pivoted to the section carrying said member and having its inner end portion extended and operable to coact with a portion of said member to move it from engagement with said part when initial unfolding movements are imparted to the leg.

2. In combination, a bed frame having outer and inner foldable hinged sections, a leg pivoted to the outer section, and a pivoted catch-member carried by the outer section and operable to have locking engagement with a part of the inner section when the outer section is folded thereover, means urging a movement of said member in one direction, said leg and member having their inner end portions in yielding contact whereby a movement of the leg from folded position imparts a releasing movement to said member.



3. In combination, a bed frame having an outer and inner section foldable one over the other, a leg pivoted to the outer section and having a projection at its inner end, a catch-member pivotally carried by the outer section and normally standing in upright position relative thereto, said member being adapted to have locking engagement with a part of the inner section when the sections are in folded position and having a flange projecting laterally from one edge thereof in the path of oscillatory movements of the inner end projection of said leg whereby a movement of the leg from folded position will communicate a section-releasing movement to said member, and means influencing a movement of the catch-member in one direction.

4. In combination, a plurality of foldable bed frame sections, a leg pivoted to one of said sections, a section locking device movably carried by the section with said leg and controlled by movements of the leg, and means acting on said device to cause it to yieldingly retain the leg in either set-up or folded relation to the carrying section.

5. In combination, a plurality of foldable bed frame sections, a leg pivoted to one of said sections, a catch member yieldingly carried by one section for yielding movements relative thereto and adapted to engage a part of another section to retain the sections in folded relation, and means acting through said catch member to yieldingly retain the leg in folded position relative to its carrying section.

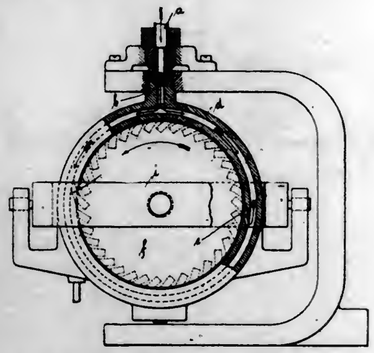
[Claim 6 not printed in the Gazette.]

1,143,975. GYROSCOPE. PAUL KORTMANN, Berlin-Waidmannslust, Germany, assignor to Berliner Maschinenbau-Aktien-Gesellschaft vormals L. Schwartzkopff, Berlin, Germany, a Corporation of Prussia. Filed Feb. 7, 1914. Serial No. 817,379. (Cl. 74—78.)

1. A gyroscope with a Cardan suspension and with a permanent air drive, comprising in combination, two turnable rings, one ring being journaled on the other and turning about an axis perpendicular to the axis of rotation of the other ring, a turbine journaled in one of the rings, means in the other of said rings for supplying air, a conduit in said last named ring, and means communicating with said conduit for discharging the air to impinge against the outer periphery of the turbine, substantially in the axis of rotation of the other ring bearing the turbine.

2. A gyroscope with a Cardan suspension and with a permanent air drive comprising in combination, two turnable rings, one ring being journaled on the other, and turning about an axis perpendicular to the axis of rotation of the other ring, a turbine journaled in one of said rings, air supply nozzles in the other of said rings, a conduit in said last named ring and outlet nozzles communicating with said conduit for discharging the air to impinge against the outer periphery of the turbine, substantially in the axis of rotation of the other ring, bearing the turbine.

3. A gyroscope with a Cardan suspension and with a permanent air drive comprising in combination a first ring turning about a vertical axis, a second ring turning about a horizontal axis, a turbine journaled in the said second ring and outlet nozzles and a conduit for the driving air arranged on the first ring in such a manner that the air impinges against the outer periphery of the turbine substantially in the axis of rotation of the second ring bearing the turbine.

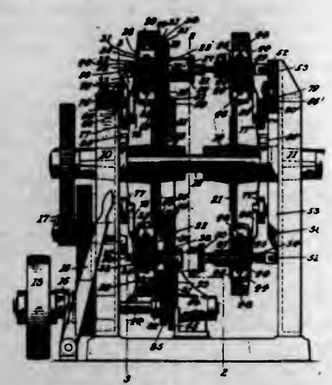


4. A gyroscope with a Cardan suspension and with a permanent air drive comprising in combination an inner ring turning about an axis and conveying the driving air, nozzles on said inner ring, an outer ring journaled on said inner ring and turning about an axis perpendicular to the axis of rotation of the inner ring and a turbine journaled on said outer ring, the said nozzles conveying the air immediately to the outer periphery of the turbine.

5. A gyroscope with a Cardan suspension and with a permanent air drive comprising in combination an inner ring turning about an axis and conveying the driving air, nozzles on said inner ring, an outer ring journaled on said inner ring and turning about an axis perpendicular to the axis of rotation of the inner ring and a turbine journaled on said outer ring, the said nozzles conveying the air immediately to the outer periphery of the turbine substantially on the axis of rotation of the outer ring.

[Claims 6 and 7 not printed in the Gazette.]

1,143,976. DOUBLE-SEAMING MACHINE. PETER KAUSH, Brooklyn, N. Y., assignor to E. W. Bliss Company, Brooklyn, N. Y., a Corporation of West Virginia. Filed Jan. 21, 1915. Serial No. 3,442. (Cl. 113—17.)



1. A machine of the character described, comprising a pair of concentric annular seamers arranged in a common plane, means for rotating said seamers, and means for bringing a can into consecutive engagement with said seamers.

2. A machine of the character described, comprising a pair of spaced concentric annular seamers arranged in a common plane, means for rotating said seamers, means for advancing a can along the space formed between the seamers, and means for moving the can into consecutive engagement with said seamers.

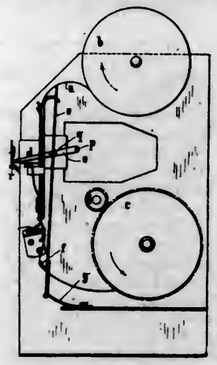
3. A machine of the character described, comprising a pair of concentric annular seamers, arranged in a common plane, the radial distance between the seamers exceeding the diameter of a can to be seamed, means for rotating said seamers in opposite directions, means for advancing said can along the space formed between the seamers, and means for radially reciprocating the can whereby it is brought consecutively into engagement with said seamers.

4. A machine of the character described, comprising a pair of spaced concentric annular seamers, means for rotating said seamers in opposite directions, means for rotatably suporting a can, means for rotating said can-supporting means thereby advancing the can along the space formed between the seamers, and means for radially reciprocating the can-supporting means, thereby bringing the can into consecutive engagement with the seamers.

5. A machine of the character described, comprising a pair of spaced concentric annular seamers, means for rotatably supporting a can, means for rotating said can-supporting means thereby advancing the can along the space formed between the seamers, means for radially reciprocating the can-supporting means thereby bringing the can into consecutive engagement with the seamers, and means for rotating the seamers in opposite directions, the seamer that rotates in the same sense as the can-supporting means exceeding the speed of said last named means and that of the seamer rotating in the opposite direction.

[Claims 6 to 27 not printed in the Gazette.]

1,143,977. APPARATUS FOR INTERMITTENTLY MOVING FORWARD THE PICTURE-FILM FOR CINEMATOGRAPHS OR THE LIKE. STANISLAUS KUCHARSKI, Waldmannslust, near Berlin, Germany. Filed Mar. 19, 1914. Serial No. 825,929. (Cl. 88—18.4.)



1. In an apparatus for intermittently feeding cinematograph films, the combination of means for holding a part of the film stationary, means for applying tension to the film, a device, operated by the tension on the film, to disengage the film and holding means and thereby permit movement of the film, and means for returning said device to its original position upon disengagement of the film.

2. In an apparatus for intermittently feeding cinematograph films, the combination of a catch claw for preventing movement of a part of the film, a movable frame operated by tension on the film to disengage the film and claw, means for returning said frame to original position upon disengagement of the film, and means for applying tension to the film.

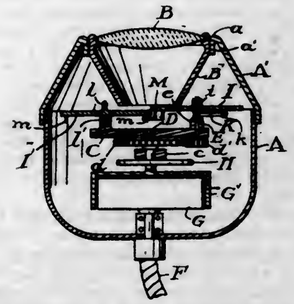
3. In an apparatus for intermittently feeding cinematograph films, the combination of a catch claw for preventing movement of a part of the film, a movable frame operated by tension on the film to disengage the film and claw, a spring for returning said frame to original position upon disengagement of the film, and means for applying tension to the film.

4. In an apparatus for intermittently feeding cinematograph films, the combination of a movable catch claw for preventing forward movement of a part of the film, and permitting backward movement thereof, a movable frame operated by tension on the film to disengage the film and claw, means for returning said frame to original position upon disengagement of the film, and means for applying tension to the film.

5. In an apparatus for intermittently feeding cinematograph films, the combination of a catch claw for preventing movement of a part of the film, a movable frame operated by tension on the film to disengage the film and claw, a feeding spool, means on said frame for effecting a preliminary unwinding of the film from said spool, means for returning said frame to original position upon disengagement of the film, and means for applying tension to the film.

[Claims 6 and 7 not printed in the Gazette.]

1,143,978. SPEEDOMETER. WARD G. LEATHERS, New York, N. Y., assignor to Stewart-Warner Speedometer Corporation, Chicago, Ill., a Corporation of Virginia. Filed July 22, 1912. Serial No. 710,842. (Cl. 116—65.)



1. In a speedometer, the combination of speed indicating means provided with characters for denoting speed; yielding means for actuating said indicating means, adapted to cause the positions of the latter to vary in proportion to increase or decrease in the speed, and means for yieldingly arresting the rotation of said indicating means at intervals.

2. In a speedometer, in combination with a rotatable indicating member positioned to acord a direct reading; a driven member; means by which the driven member yieldingly actuates the indicating member, and means for yieldingly arresting the rotation of said indicating member at intervals in its rotation.

3. In a speedometer, the combination with an indicating member having characters for denoting speed; a non-positively driven member; yielding means by which said yieldingly driven member actuates the indicating member, and means for yieldingly retarding the rotation of the indicating member at intervals in its rotation.

4. In a speedometer, the combination of an indicating means provided with characters for denoting speed; a driven member; means by which the driven member yieldingly actuate the indicating member at intervals, and yielding means for retarding the indicating member at corresponding intervals.

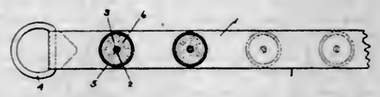
5. In a speedometer, in combination with an indicating means mounted for rotation; a driven member; magnetic means operated by said driven member and means for yieldingly connecting said magnetic means with said indicating means, and means for retarding the rotation of said indicating means at intervals in its rotation.

[Claims 6 and 7 not printed in the Gazette.]

1,143,979. SOLVENT FOR ACETYL CELLULOSE. WILLIAM G. LINDSAY, Caldwell, N. J., assignor to The Celluloid Company, New York, N. Y., a Corporation of New Jersey. Filed May 23, 1912. Serial No. 699,285. (Cl. 106—40.)
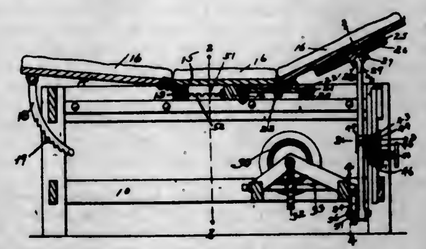
A solvent for acetyl cellulose of that variety which is freely soluble in acetone comprising 60 to 70 parts by volume of ethyl acetate and 30 to 40 parts by volume of methyl alcohol, substantially as described.

1,143,980. SEED-TAPE. WILLIAM NELSON MCCOMB, New York, N. Y. Filed Aug. 20, 1913. Serial No. 785,634. (Cl. 47—36.)



As a new article of manufacture, a roll of flat flexible disintegrable tape, seeds secured substantially along the longitudinal center in spaced relation to each other and upon one face of the tape, fertilizing and insecticide material applied to the tape only around each seed, and means secured to the outer end of the tape adapted to engage a suitable fastening means in the ground while the tape is being stretched thereupon.

1,143,981. OSTEOPATHIC OPERATING-TABLE. JESSE W. MACKLIN, Stuart, Iowa. Filed June 25, 1914. Serial No. 847,342. (Cl. 128—16.)



1. In a device of the class described, a frame, a table member longitudinally slidable thereon, means for securing said table member in various positions of its movement, a turn table slidably mounted on said frame, a second table member pivotally secured to the rotatable portion of said turn table adjacent to one end of said first table member, and means for imparting reciprocatory vertical motion to said second table member, and for imparting lateral reciprocatory motion to said second table member.

2. In a device of the class described, a frame, a table member longitudinally slidable thereon, means for securing said table member in various positions of its movement, a turn table slidably mounted on said frame, a second table member pivotally secured to the rotatable portion of said turn table adjacent to one end of said first table member, and means for imparting reciprocatory lateral movement to said second table member.

3. In a device of the class described, a frame, a table member longitudinally slidable thereon, means for securing said table member in various positions of its movement, a turn table slidably mounted on said frame, a second table member pivotally secured to the rotatable portion of said turn table adjacent to one end of said first table member, and means for imparting reciprocatory lateral movement to said second table member, said means being capable of adjustment for varying the degree of lateral movement so imparted.

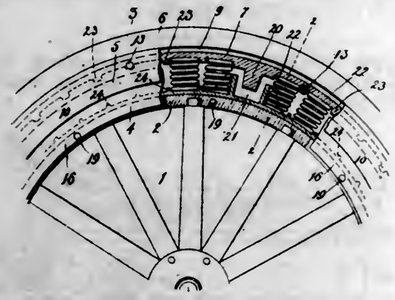
4. In a device of the class described, a frame, a table member longitudinally slidable thereon, means for securing said table member in various positions of its move-

ment, a turn table slidably mounted on said frame, a second table member pivotally secured to the rotatable portion of said turn table adjacent to one end of said first table member, and means for imparting reciprocatory vertical motion to said second table member and for imparting lateral reciprocatory motion to said second table member, said means being capable of adjustment for varying the degree of vertical movement so imparted and the degree of lateral movement so imparted.

5. In a device of the class described, a frame, a table member longitudinally slidable thereon, means for securing said table member in various positions of its movement, a turn table slidably mounted on said frame, a second table member pivotally secured to the rotatable portion of said turn table adjacent to one end of said first table member, means for imparting reciprocatory vertical motion to said second table member, a third table member pivoted to said first table member at its end opposite said second table member, and means for securing said third table member in various positions of its pivotal adjustment.

[Claim 6 not printed in the Gazette.]

1,143,982. TIRE FOR VEHICLES. WILLIAM R. MEREDITH, Youngstown, Ohio. Filed Mar. 28, 1913. Serial No. 757,393. (Cl. 152—38.)



A vehicle tire, including an inner fixed casing, an outer, inwardly yielding casing, each of said casings comprising annuli, said outer casing having an annular peripheral recess, a tread member having an inner annular rib received by said annular peripheral recess of the outer casing, said inner casing having an inner annular recess, a rim received by the inner recess of said inner casing, and spaced springs intermediate said inner and outer casings, said outer casing embracing said inner casing, and said outer casing having upon its inner surface, opposed stepped outlines, the resultant recess and shoulders receiving the outer ends of said springs and forming controlling stops for said inner casing, respectively, the outer casing having inwardly extending projections at right angles to said inner stepped outline thereof, between the springs at the outer ends thereof, and said outer casing having upon its inner surface lugs between pairs of said springs, and said inner casing having "well" forming members receiving therebetween the outer ends of said lugs, said inner casing also having inwardly extending projections opposed to the inwardly extending projections of the outer casing for the inner ends of said springs.

1,143,983. INSULATOR-SUPPORT. CHARLES E. MILLER, Pittsburgh, Pa. Filed May 4, 1914. Serial No. 836,092. (Cl. 173—321.)

1. An insulator support comprising a body having a threaded section, and a thimble in the form of a wire coil having some of its turns of a diameter and pitch to detachably fit the threaded section and having other turns spaced away from the threaded section for receiving an insulator.

2. An insulator support comprising a body part having a threaded section, and a thimble in the form of a wire coil having turns at its upper and lower ends of a diameter and pitch to detachably fit the threaded section, the intermediate turns being spaced away from the threaded section to receive an insulator.



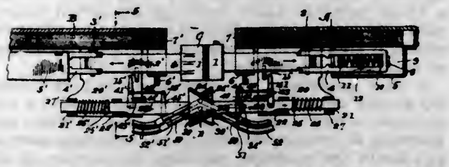
3. An insulator support comprising a body part having a belt of ratchet teeth a distance below its upper end, and a thimble in the form of a wire spiral, the lower end of said wire being toothed to coöperate with said ratchet teeth to prevent rotation of the thimble in one direction.

4. An insulator support comprising a body part having a belt of ratchet teeth a distance downwardly from its upper end, and a thimble in the form of a wire spiral, the lower turns being contracted to closely fit the body part and being toothed to coöperate with the ratchet teeth to lock the thimble against rotation in one direction, the upper end of the spiral being contracted to form an abutment to limit the downward movement of the thimble on the body part.

5. An insulator pin comprising a body part having its upper end threaded, an insulator receiving thimble adapted at its lower end for detachable engagement with said threaded end whereby said thimble may be screwed on to the body part, means at the upper end of the thimble for limiting the downward travel of the thimble, and cooperating means at the lower end of the thimble and on the body part for locking the thimble against removal after application thereof to the body part.

[Claims 6 to 13 not printed in the Gazette.]

1,143,984. AUTOMATIC TRAIN-PIPE COUPLING. WILLIAM C. MILLER, Moretown, Vt. Filed Mar. 4, 1915. Serial No. 11,960. (Cl. 188—13.)



1. A train-pipe coupler head having a plurality of fluid ports therein, means to latch the same to a counter-part coupler head, also having fluid ports therein, the fluid ports of one head co-acting with the ports of the other head and means independent of and separate from the train pipe coupler head to unlatch the coupler heads upon the uncoupling of the cars.

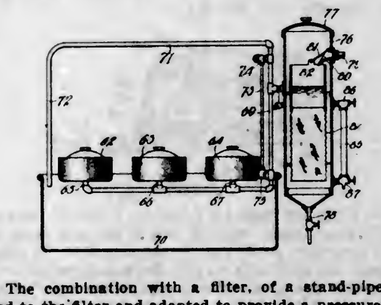
2. A train-pipe coupler head having a fluid port in its face, a conduit extending from the ports through the head thereof, a latch for locking one coupler head to another, spring controlled means mounted upon the car independent of and separate from the train pipe coupler head operable upon the uncoupling of the car coupler to release the latch which holds the train-pipe coupler heads together.

3. A train-pipe coupler head having a funnel shaped flange thereupon to receive the adjacent coupler head and in which it is inserted, an extension from the flange forming a pocket for the adjacent coupler head, a latch on one coupler head engaging the pocket, and spring actuated means constructed to have a movement independent of the movement of the car and independent of the movement of the train pipe coupler head operable upon the uncoupling of the car to release the latch.

4. A train-pipe coupler head, means for latching the same to a counter-part coupler-head and spring means operable independently of the train pipe coupler head upon the unlatching of the coupler-head to release the latch.

5. In a device of the class described, a train pipe coupler head, means for latching the same to a counter part coupler head, means mounted upon the train pipe coupler head to unlatch the latch, means independent of the train pipe coupler head mounted to have a reciprocatory movement with respect thereto arranged to operate the unlatching means during said independent reciprocatory movement.

1,143,985. FILTER. WILLIAM L. MORRIS, Chicago, Ill., assignor to S. F. Bowser & Company, Inc., Fort Wayne, Ind., a Corporation of Indiana. Filed Dec. 27, 1910. Serial No. 599,254. (Cl. 210—10.)



1. The combination with a filter, of a stand-pipe connected to the filter and adapted to provide a pressure head for the fluid fed to the filter, and a cleanliness indicator consisting of a gage glass in connection with the stand-pipe for showing the variable height of liquid in the stand-pipe necessary to force the liquid to be filtered through the filter thereby indicating the cleanliness of the filter.

2. The combination with a filter, of a stand-pipe connected to the filter and adapted to provide a pressure head for fluid fed to the filter, means for discharging fluid to the stand-pipe, and a cleanliness indicator consisting of a gage glass in connection with the stand-pipe for showing the variable height of liquid in the stand-pipe necessary to force the liquid to be filtered through the filter, thereby indicating the cleanliness of the filter.

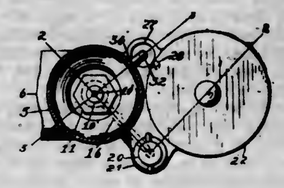
3. The combination of a plurality of closed filters adapted to receive fluid under pressure from a common source, a pipe to provide a pressure head for fluid to be filtered, means for discharging liquid to be filtered to the stand-pipe, a cleanliness indicator for the filters consisting of a gage glass connected to the stand-pipe, and a filter pressure relief consisting of a pipe connected to the stand-pipe adjacent the top thereof constituting an overflow.

4. The combination with a plurality of filters, of a stand-pipe connected to the filters in parallel and adapted to provide a pressure head for the fluid fed to the filters, means for connecting and disconnecting each of the separate filters from the parallel connection, a separator for discharging fluid into the top of the stand-pipe, and a cleanliness indicator consisting of a gage glass in connection with the stand-pipe for showing a variable height of liquid in the stand-pipe necessary to force the liquid to be filtered through the filters, thereby indicating the cleanliness of the filters.

5. The combination with a plurality of separate filter units, of a stand-pipe connected in parallel thereto, a cleanliness indicator tube in connection with the stand-pipe for showing a variable height of liquid in the stand-pipe, and an over-flow separator adapted to discharge overflow liquid from the top of the stand-pipe.

[Claims 6 to 10 not printed in the Gazette.]

1,143,986. CARBURETER. WELLINGTON W. MUIR, Baltimore, Md. Filed Mar. 18, 1914. Serial No. 825,476. (Cl. 48—150.3.)



1. In a carbureter for internal combustion engines to be connected to the intake and operated by the vacuum of the engine, a carbureting passage, a fuel nozzle therein, a constant level fuel supply chamber, a fuel passage connecting the nozzle to the supply chamber, means in the form of a chamber open to the air space of the fuel supply chamber above the normal gasolene level and below into the fuel passage, for supplying air to the fuel passage at high speeds taking it from the fuel supply chamber, the fuel supply chamber having openings for the admission of air sufficient to maintain atmospheric pressure over the liquid at low speeds but insufficient to supply the air taken from the fuel supply chamber at high speeds so the air over the fuel in the fuel supply chamber is partially exhausted reducing the pressure on the fuel when the vacuum in the carbureting passage is increased beyond a certain point.

2. In a carbureter, a constant level fuel supply chamber, a carbureting passage, a fuel nozzle in the carbureting passage, a fuel passage leading from the fuel supply chamber to the nozzle and an air tube delivering air into the fuel passage, the tube being in the form of a hollow plug valve regulating the fuel supply to the nozzle.

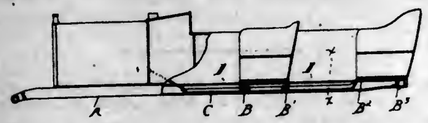
3. In a carbureter, a fuel supply chamber, a carbureting passage, a fuel nozzle in the carbureting passage, a fuel passage leading from the fuel supply chamber to the nozzle and an air tube taking air from the fuel chamber over the level of the fuel therein and delivering air into the fuel passage, the air tube being in the form of a hollow plug valve adapted to determine the capacity of the fuel passage leading from the fuel supply to the nozzle.

4. In a carbureter, a fuel supply chamber, a carbureting passage, a fuel nozzle in the carbureting passage, a fuel passage leading from the fuel supply chamber to the nozzle and an air tube taking air from the fuel chamber over the level of the fuel therein and delivering air into the fuel passage, the air tube being in the form of a hollow plug valve adapted to determine the capacity of the fuel passage leading from the fuel supply to the nozzle, and means for adjusting the said valve to vary the capacity of this passage.

5. In a carbureter, a fuel supply chamber, a carbureting passage, a fuel nozzle in the carbureting passage, a fuel passage leading from the fuel supply chamber to the nozzle, a valve controlling the size of the opening in the passage, means for adjusting the valve to vary the size of the opening, the valve being hollow and having an opening at the bottom and also an opening near the top above the level of the fuel, the supply chamber also having an air inlet opening above the level of the fuel, and means tending to keep the height of fuel in the chamber at a substantially constant level.

[Claims 6 to 12 not printed in the Gazette.]

1,143,987. MOTOR-VEHICLE FRAME AND BODY CONSTRUCTION. EMIL A. NELSON, Detroit, Mich., assignor to Hupp Motor Car Company, Detroit, Mich., a Corporation of Michigan. Filed Feb. 14, 1912. Serial No. 677,598. (Cl. 21—8.)



1. In a motor vehicle, the combination with a chassis frame having flanged side sills, of a body unit mounted on said frame, and a floor or foot-board extending substantially the length of said chassis and permanently attached to the lower flanges of said frame and forming a structural element thereof.

2. In a motor vehicle, the combination with a chassis frame comprising side sills provided with lower flanges and cross bars, of a seat unit mounted on said frame above the cross bars thereof, and a sheet metal plate arranged on said lower flanges of said side sills and spanning the space between said side sills in front of said seat, said plate forming a structural element of said chassis frame.

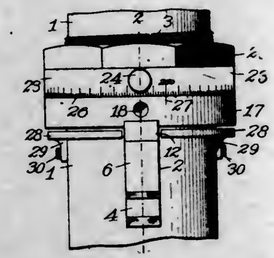
3. In a motor vehicle, the combination with a chassis frame composed of side sills provided with lower flanges and cross bars, of a metal plate arranged on said lower flanges of said side sills and forming a bottom or floor, and a body formed of a plurality of units separately attached to said frame with the space in front of each seat thereof spanned by said bottom or foot-board.

4. In a motor vehicle, a chassis frame comprising side sills, cross bars, a plate secured to the bottom of said side sills and a seat separate from said plate mounted on said frame above the cross bar.

5. In a motor vehicle, a chassis frame comprising side sills and cross bars formed of channel members, a plate arranged between the bottom flanges of said sills and cross bars and secured to said sills, and a seat mounted on said sills and cross bars.

[Claims 6 to 8 not printed in the Gazette.]

1,143,988. BORING-BAR. EDWARD NEWITT, Fitchburg, Mass. Filed Oct. 21, 1911. Serial No. 656,046. (Cl. 77—56.)



1. The combination with a rotatable bar having a transverse opening for a cutter, a cutter held in said opening, a bar resting upon the upper surface of said cutter and detachably interlocked therewith, said bar having helically arranged teeth on its upper surface, a rotatable collar having helical teeth engaging the teeth on said bar, a collar resting on said rotatable collar and having a splined connection with said rotatable bar, adjusting means carried by said second mentioned collar, and a nut bearing on said splined collar and having a screw threaded connection with said rotatable bar.

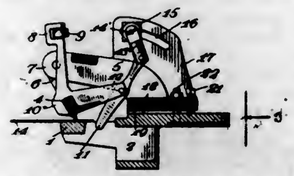
2. The combination of a bar, a pair of cutters held therein with their ends projecting from the sides of the bar, a rotatable collar inclosing the bar and operatively connected with said cutters to impart a longitudinal movement thereto, a nonrotatable collar held upon said bar and a graduated collar adjustably held on said nonrotatable collar adjacent to said rotatable collar.

3. The combination with a rotatable bar having an opening, of cutters disposed in said opening, bars resting on said cutters and interlocked therewith, said bars having their ends projecting beyond said rotatable bar and provided with helically arranged teeth on their upper sides, a rotatable collar having helical teeth engaging the teeth of said bars, and a pair of semiannular plates attched to said rotatable bar in shielding relation to the exposed teeth of said rotatable collar.

4. The combination, with a rotatable bar having a transverse opening, of a cutter slidable within said opening and provided with a notch, a bar within said opening provided with a projection engaging the notch in said cutter, whereby to provide a detachable connection between said bar and cutter, and means for imparting movement to said bar.

5. The combination, with a rotatable bar, of a pair of cutters carried thereby, a collar rotatable on said bar for moving said cutters radially with respect thereto, and means, comprising a second collar adjustably mounted on said bar, for coöperating with said first mentioned collar to indicate the movement imparted to said cutters.

1,143,989. CLIP FOR TENTERING-MACHINES. HENRY NOLIN, Providence, R. I. Filed Sept. 20, 1912. Serial No. 721,407. (Cl. 26—8.)



1. In a clip for tentering machines, a pair of jaws operative to grip a sheet of cloth, one of the jaws being movable, a controller pivoted to the movable jaw and adapted to engage the cloth with its free end and operative to hold the movable jaw open while in engagement with the cloth and to permit the jaw to close when the cloth is disengaged from the controller, and an adjustable fulcrum pivotally engaging the other end of the controller beyond its pivotal connection to the movable jaw and adjustable to vary the relative distance between the movable jaw and the free end of the controller.

2. In a clip for tentering machines, a pair of jaws operative to grip a sheet of cloth, one jaw being pivoted and movable to and from its complementary jaw and having a tendency to move to closed position, a rearwardly extending controller arm carried by the movable jaw, a controller pivoted to the controller arm and adapted to engage the cloth with its free end and operative to hold the movable jaw open while in engagement with the clutch and to permit the jaw to close when the clutch is disengaged from the controller, and an adjustable fulcrum pivotally engaging the other end of the controller beyond its pivotal connection to the controller arm and adjustable to vary the relative distance between the movable jaw and the free end of the controller.

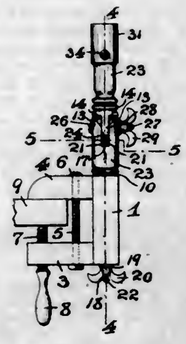
3. In a clip for tentering machines, a stationary lower jaw and a pivoted upper jaw coöperative therewith to grip a sheet of cloth, a controller pivoted to the upper jaw and arranged to engage the cloth behind the jaws with its lower end and to hold the jaw open while the controller engages the cloth and to permit the jaw to close when the cloth is withdrawn from underneath the controller, and an adjustable fulcrum for the controller above its pivotal connection with the upper jaw, whereby the width of the grip upon the cloth permitted by the controller may be regulated.

4. In a clip for tentering machines, a frame provided with a lower jaw and an overhanging portion, the upper jaw being pivoted to the overhanging portion and provided with a rearwardly extending arm, a controller pivoted to the rearwardly extending arm and arranged to rest upon the cloth and hold the upper jaw open and to drop down and permit the upper jaw to close when the cloth is withdrawn from underneath the controller, and an adjustable fulcrum for the controller above its pivotal connection, whereby the width of the grip upon the cloth permitted by the controller may be regulated.

5. In a clip for tentering machines, a stationary lower jaw and a pivoted upper jaw coöperative therewith to grip a sheet of cloth, a controller pivoted to the upper jaw and arranged to engage the cloth behind the jaws with its lower end and to hold the jaw open while the controller engages the cloth and to permit the jaw to close when the cloth is withdrawn from underneath the controller, a fulcrum for the upper end of the controller, and means for raising and lowering the fulcrum to adjust the lower end of the controller farther from and closer to the upper jaw, thereby regulating the width of the grip which the jaws are permitted to take.

[Claims 6 to 8 not printed in the Gazette.]

1,143,990. CLAMPING-SUPPORT. JOHN B. OELKERS, Newark, N. J. Filed Jan. 30, 1914. Serial No. 815,385. (Cl. 248—20.)



1. A clamping support comprising a vertically disposed main supporting post, and a pair of clamping members extending laterally from said post, said clamping members being provided with means for clamping the same to the edge of a table or the like, said post being provided with a bore extending from the bottom to the top of said main post, a stem in said bore, said stem being longer than said main post so as to project above the top of the post, a longitudinally perforated member rotatably mounted upon said projecting end-portion of the stem, so as to be rotatable with relation to said post, means upon said stem for securing said post and member in rigid relation to each other, a clamping member pivotally connected with said rotatable member, and means for securing said members in rigid relation to each other.

2. A clamping support comprising a vertically disposed main supporting post and a pair of clamping members extending laterally from said post, said clamping members being provided with means for clamping the same to the edge of a table or the like, said post being provided with a bore extending from the bottom to the top of said main post, a stem in said bore, said stem being longer than said main post so as to project above the top of the post, a longitudinally perforated member rotatably mounted upon said projecting end-portion of the stem, so as to be rotatable with relation to said post, means upon said stem for securing said post and member in rigid relation to each other, perforated ears upon said rotatable member, a pintle in said perforated ears, a clamping member having a perforated lug extending between said ears and pivotally mounted upon said pintle, and a binding nut upon said pintle for securing said members in rigid relation to each other.

3. A clamping support comprising a vertically disposed main supporting post, and a pair of clamping-members extending laterally from said post, said clamping-members being provided with means for clamping the same to the edge of a table or the like, said post being provided with a bore extending from the bottom to the top of said main post, a stem in said bore, said stem being longer than said main post so as to project above the top of said post, a longitudinally perforated member rotatably mounted upon said projecting end portion of the stem, so as to be rotatable with relation to said post, a washer upon said stem above said post, said member being rotatably supported upon said washer, means upon said stem for securing said post and member in rigid relation to each other, a clamping member pivotally connected with said rotatable member, means for securing said members in rigid relation to each other, a pair of clamping lugs upon the upper end of said clamping member, said clamping member being provided with a saw-cut and a perforation extending across said saw-cut, a thumb-screw in said perforation, and a thumb-nut upon said screw for bringing said clamping lugs in binding relation with an object placed between them.

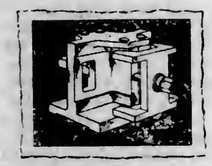
4. A clamping support comprising a vertically disposed main supporting post, and a pair of clamping-members extending laterally from said post, said clamping-members being provided with means for clamping the same to the edge of a table or the like, said post being provided with a bore extending from the bottom to the top of said main post, a stem in said bore, said stem being longer than said main post so as to project above the top of said post, a longitudinally perforated member rotatably mounted upon said projecting end portion of the stem, so as to be rotatable with relation to said post, a washer upon said stem above said post, said member being rotatably supported upon said washer, means upon said stem for securing said post and member in rigid relation to each other, perforated ears upon said rotatable member, a pintle in said perforated ears, a clamping member having a perforated lug extending between said ears and pivotally mounted upon said pintle, a binding nut upon said pintle for securing said members in rigid relation to each other, a pair of clamping lugs upon the upper end of said clamping member, said clamping member being provided with a saw-cut and a perforation extending across said saw-cut, a thumb-screw in said perforation, and a thumb-nut upon said screw for bringing said clamping lugs in binding relation with an object placed between them.

5. A clamping support comprising a vertically disposed main supporting post, and a pair of clamping-members extending laterally from said post, said clamping-members being provided with means for clamping the same to the edge of a table or the like, said post being provided with a bore extending from the bottom to the top of said main post, a stem in said bore, said stem being longer than said main post so as to project above the top of said post, a longitudinally perforated member rotatably mounted upon said projecting end portion of the stem, so as to be rotatable with relation to said post, perforated ears upon said rotatable member, a head upon said stem having flat surface-portions located between said ears to prevent turning of the rotatable member upon said stem, means upon said stem for securing said post and member in rigid relation to each other, and a clamping member pivotally connected with the ears of said rotatable member.

1,143,991. PROCESS OF PRODUCING ILLUSTRATIONS. ARTHUR L. ORMAY, Brooklyn, N. Y., assignor to Hill Publishing Co., New York, N. Y., a Corporation of New York. Filed Apr. 6, 1915. Serial No. 19,598. (Cl. 101—205.)

1. The process of producing plates for pictorial illustrations which consists of making a negative from a shaded line drawing, printing from said negative on a photo-sensitized metallic plate, gamboging the parts of said plate which surround the image thereon, coating

the gamboged plate with an opaque material, dissolving from said plate the coated gamboging matter, treating the part of said plate which is thus uncoated to produce a shaded background producing portion, and etching the plate.



2. The process of producing plates for pictorial illustrations which consists of making a negative from a shaded line drawing, printing from said negative on a photo-sensitized metallic plate, gamboging the parts of said plate which surround the image thereon, coating with ink the gamboged plate, dissolving from said plate the coated gamboging matter, exposing the partially inked plate to light through a half tone film, and etching the plate.

3. The process of producing pictorial illustrations which consists of making a negative from a shaded line drawing, printing from said negative on a photo-sensitized metallic plate, gamboging the parts of said plate which surround the image thereon, coating the gamboged plate with an opaque material, dissolving from said positive plate the coated gamboging matter, treating the part of said plate which is thus uncoated to produce a shaded background producing portion, etching the plate and printing from said plate.

4. The process of producing pictorial illustrations which consists of making a negative from a shaded line drawing, printing from said negative on a photo-sensitized metallic plate, gamboging the parts of said positive plate which surround the image thereon, inking the gamboged plate, dissolving from said plate the inked gamboging matter, exposing the partially inked plate to light through a halftone film, etching the plate and printing from said plate.

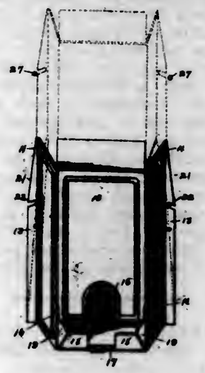
5. The process of producing plates for pictorial illustrations which consists of making a line tracing from a photograph of the article to be illustrated, making a negative from said tracing, printing from said negative on a photo-sensitized metallic plate, gamboging the parts of said plate which surround the image thereon, inking the gamboged plate, dissolving from said plate the inked gamboging matter, treating the part of said plate which is thus uninked to produce a shaded background producing portion and etching the plate.

[Claims 6 to 9 not printed in the Gazette.]

1,143,992. MATCH-HOLDER. JOSEPH R. ORWIG, Des Moines, Iowa. Filed Mar. 24, 1910. Serial No. 551,369. (Cl. 206—31.)

1. A nestable match holder, designed to be formed from a single piece of sheet metal and comprising a main body portion consisting of a front, two sides and a bottom and being open at its top and back, a delivery extension projecting forwardly and upwardly from the bottom and having sides extended rearwardly toward the sides of a body portion, said body portion and said delivery extension being so shaped and arranged that when nested with other similar match holders, the sides of the body portion are inclined along lines converging in front of the match holder and the top of the lower edge of the body portion front is in a plane above that of the top of the delivery extension front, for the purposes stated.

2. A nestable match holder designed to be formed from a single piece of sheet metal and comprising a body portion and delivery extension, the body portion being open at its top and back, and the delivery extension being extended upwardly and forwardly from the bottom and comprising wings extending rearwardly toward the sides of the body portion, the sides of the body portion and the wings of the delivery extension being tapered on lines converging in front of the match holder and the top of the delivery extension being arranged, when in position for nesting, in a plane below that of the lower edge of the front of the body portion, for the purposes stated.



3. A match holder comprising a front and sides, said sides being capable of springing toward and from each other at their rear portions, and said holder being designed to receive a box of matches, and means at the rear edges of said sides for securing the holder to a support, said means comprising outwardly extended flanges at the rear of the sides shaped to engage and coact with a supporting means.

4. A match holder, comprising a front and sides, said sides being capable of springing toward and from each other at their rear portions and said holder being designed to receive a box of matches, and means at the rear edges of said sides for securing the holder to a support, said means comprising outwardly extended flanges at the rear of the sides substantially parallel with the front and provided with notches to receive supporting means such as tacks, the parts of the said flanges above said slots being beveled or inclined upwardly and toward a line extended longitudinally of the vertical center of the holder.

5. A match holder formed of a single piece of metal and comprising a front, two sides, a bottom and a match delivering extension, the sides above the bottom being capable of springing inwardly toward each other at their rear edges, and flanges formed at the rear edges of the sides and provided with slots to receive supporting means such as tacks.

[Claims 6 and 7 not printed in the Gazette.]

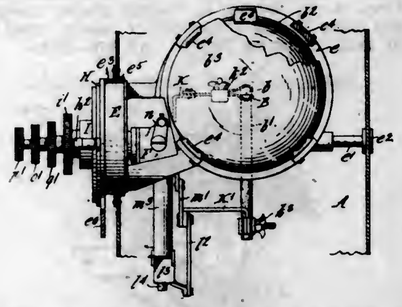
1,143,993. PROJECTION APPARATUS AND THE LIKE. HARVEY N. OTT and CHARLES W. BARTON, Buffalo, N. Y., assignors to Spencer Lens Company, Buffalo, N. Y. Filed July 31, 1912. Serial No. 712,412. (Cl. 240—61.)

1. The combination with a lamp pivotally mounted to swing to different operative positions, of mechanisms for respectively adjusting the lamp longitudinally, transversely and vertically, said mechanisms being constructed and arranged to permit the swinging of the lamp and being operative in the different operative positions of the lamp.

2. The combination with a lamp pivotally mounted to swing to different operative positions, of mechanisms for respectively adjusting the lamp longitudinally, transversely and vertically, said mechanisms having actuating members arranged substantially concentric with the pivotal axis of the lamp.

3. The combination with a lamp pivotally mounted to swing to different operative positions, of mechanisms for respectively adjusting the lamp longitudinally, transversely and vertically, said mechanisms having actuating members arranged substantially concentric with relation to each other and to the pivotal axis of the lamp.

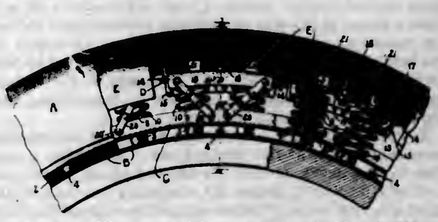
4. The combination with a lamp pivotally mounted to swing to different operative positions, of mechanisms for respectively adjusting the lamp longitudinally, transversely and vertically, said mechanisms having adjusting devices which swing with the lamp, and actuating members which are arranged substantially concentric with the pivotal axis of the lamp.



5. The combination with a lamp, of a pivoted supporting frame therefor, a frame which is carried by and adjustable vertically on said pivoted frame, a carriage which is adjustable transversely on said vertically adjustable frame, said lamp being adjustable longitudinally on said carriage, and mechanisms for effecting said several adjustments.

[Claims 6 to 20 not printed in the Gazette.]

1,143,994. RESILIENT TIRE. LAFAYETTE ELMER PICKETT, St. Louis, Mo. Filed Feb. 12, 1915. Serial No. 7,674. (Cl. 152—8.)

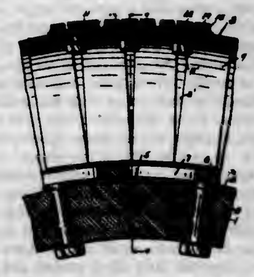


1. A tire filler comprising a spring holder having a series of spring holding pins, springs closely fitted to said pins, spring caps seated on the outer ends of said springs and flexibly connected to said spring holder, said spring caps being adapted to slide on the outer ends of said springs, and cushions fitted to the outer faces of said spring caps, said cushions and spring caps being provided with openings for the reception of said spring holding pins.

2. A resilient tire comprising a circular spring holder, radial springs seated on said spring holder, rigid spring caps slidably fitted to the outer ends of said springs, divergent chains connecting the sides of said rigid spring caps to said spring holder so as to permit said springs to slide on the inner faces of said rigid spring caps, said rigid spring caps having no direct connection with each other and each being free to play circumferentially of the tire independently of the other spring caps, and spring holding studs arranged with said springs and secured to said rim, the outer ends of said studs being normally located adjacent to the inner faces of said rigid spring caps and serving to securely hold said springs when they slide on the inner faces of said rigid spring caps.

1,143,995. METALLIC RESILIENT TIRE. ALFRED W. RAETTIG, Sturgis, Mich. Filed Apr. 3, 1914. Serial No. 829,290. (Cl. 152—8.)

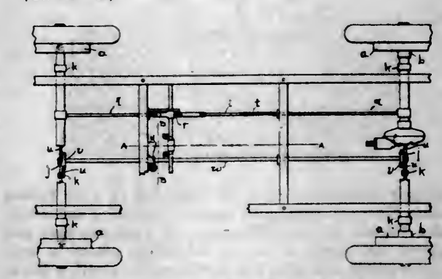
1. A tubular sheet metal tire comprising a rim attaching band and a strip of spring metal forming the periphery of the tire and provided with a plurality of radially extending spring fingers on both edges thereof, said spring fingers having parallel edges, the ends of said fingers being secured to said rim attaching band with the edges of the ends abutting each other, substantially as described.



2. A tubular sheet metal tire comprising a rim attaching band and a pair of strips of spring metal forming the periphery of the tire and provided with a plurality of radially extending spring fingers on both edges thereof, said spring fingers having parallel edges, the ends of said fingers being secured to said rim attaching band with the edges abutting each other, said strips being superimposed one upon the other with the fingers of one strip covering the openings between the fingers of the other strip, substantially as described and for the purpose specified.

3. A tubular sheet metal tire comprising a rim attaching band, and a pair of strips of spring metal forming the periphery of the tire, the edges of said strips being provided with a plurality of spring fingers, the ends of said fingers being secured to said rim attaching band, tread plates disposed on the periphery of said tire, openings in said strips having down turned flanges around the same, apertures in said tread plates having down turned flanges disposed in the openings through said strips, and securing means passing through said tread plates and said strips, all coacting substantially as described for the purpose specified.

1,143,996. VEHICLE-BRAKE. RALPH E. RELYEA, Detroit, Mich. Filed Dec. 19, 1914. Serial No. 878,146. (Cl. 21—8.)



1. In apparatus of the class described, the combination of a brake drum, a brake collar, a shoe movably held by said brake collar and arranged to engage with the brake drum when desired, a spring-controlled device normally tending to force the shoe into engagement with the brake drum, a pair of toggle levers connected with said spring-controlled device so that when they are on one side of their dead center and bear against the brake collar, they resist the efforts of the spring to cause the said spring-controlled device to apply the shoe to the brake drum, and when on the other side of their dead center they allow the spring to cause the spring-controlled device to apply the brake shoe.

2. In apparatus of the class described, the combination of a brake drum, a brake collar, a pair of shoes pivoted thereto, a wedge for spreading the shoes, a spring normally tending to operate the wedge to spread the shoes, means

for locking the wedge to prevent the action of the spring, and means for releasing the lock and for putting it on.

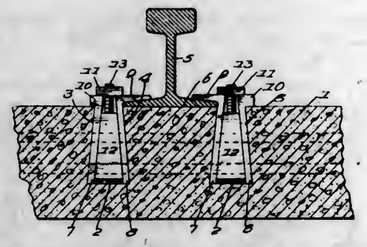
3. In apparatus of the class described, the combination of a brake drum, a brake collar, a pair of shoes pivoted to the brake collar, a wedge for spreading the shoes, a spring for operating the wedge and a pair of toggle levers which on one side of their dead center prevent the spring operating the wedge, while on the other side of their dead center allow the spring to operate the wedge, and means for drawing the toggle levers from one side to the other of their dead center to release or lock the wedge.

4. In apparatus of the class described, the combination of a brake drum, a brake collar, brake shoes pivoted thereto, a wedge for spreading the brake shoes, a spring for operating the wedge, and a pair of toggle levers connected with the wedge and which on one side of their dead center lock the wedge to prevent operation by the spring and on the other side of their dead center free the wedge to allow the spring to operate, draft connections for pulling the toggle levers beyond their dead center and away from the brake collar, and push connections for forcing the toggle levers beyond their dead center and back against the brake drum.

5. In apparatus of the class described, the combination of a brake drum, a brake collar, a pair of shoes pivoted thereto, a wedge for spreading the shoes, a spring normally tending to cause the wedge to spread the shoes, a pair of toggle levers which on the side of the dead center toward and against the brake collar, lock the wedge against the action of the spring, and on the side of their dead center away from the brake collar, allow the operation of the spring, draft connections for pulling the toggle levers away from the brake collar, push connections for forcing the toggle levers against the brake collar, a clutch pedal and connections for operating the draft connections, and a separate operating device for operating the push connections to release the brakes.

[Claim 6 not printed in the Gazette.]

1,143,997. RAILWAY-RAIL FASTENER. GEORGE RIELLY, Santa Rosa, Cal. Filed Sept. 17, 1913. Serial No. 790,241. (Cl. 238—4.)

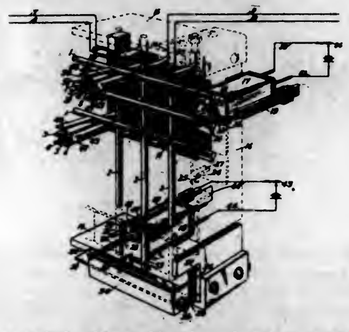


1. The combination in a rail fastening of a tie having sockets formed therein with upwardly tapering end walls, plates formed with parallel sides for engaging said end walls of the socket, a lug on one of the plates in each socket adapted to engage the base flange on a rail, a downwardly flared wedge between the plates for forcing them against the walls of the sockets, a shank on each wedge projecting above the ends of the plates, and means engaging the shank and the tops of the plates for drawing the wedge upwardly.

2. The combination of a rail fastening of a tie having sockets therein with upwardly tapering end walls, plates with parallel sides for engaging the opposite end walls of the socket, means secured on one of said plates to engage a base flange of a rail, a lug formed on the other plate, a downwardly flared wedge between the said plates, and means to adjust the relative position between said plates for the purpose set forth.

3. The combination of a rail fastening of a tie having sockets therein with upwardly tapering end walls, plates with parallel sides for engaging the opposite end walls of the socket, means secured on one of said plates to engage a base flange of a rail, a lug formed on the other plate, a downwardly flared wedge between the said plates, and means to adjust the relative position between said plates and core of suitable material recessed in the tapering walls of the holes adjacent the plates.

1,143,998. LINE-SWITCH. JOHN G. ROBERTS, Dobbs Ferry, N. Y., assignor to Western Electric Company, New York, N. Y., a Corporation of Illinois. Filed May 10, 1913. Serial No. 766,772. (Cl. 179—27.5.)



1. In a switch, the combination of sets of intersecting bars, sets of spring contacts rigidly mounted in a frame at one side of said bars with their free ends projecting by said bars to the other side thereof, and means effective upon conjoint displacement of two intersecting bars for operating the adjacent contact set.

2. In a switch, the combination of sets of intersecting bars, sets of contact springs at the intersections of said bars, a frame at one side of said bars in which said springs are mounted, the free ends of the springs extending by the bars to the other side thereof, and arms carried by said bars extending toward the said free ends of the springs and effecting upon displacement of two intersecting bars the operation of a set of springs.

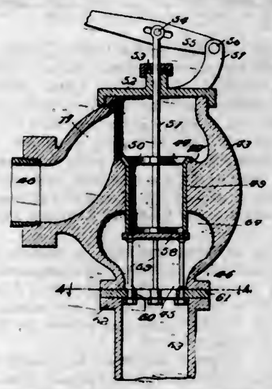
3. In a switch, the combination of sets of intersecting bars, contact sets at the intersections of said bars, a common locking device for holding any bar of one of the sets normally displaced, means for displacing any bar of the other set, and means effective upon such conjoint displacement for operating a contact set.

4. In a switch, the combination of sets of intersecting bars, contact sets at the intersections of said bars, a common locking device for holding any bar of one of the sets normally displaced, means for displacing any bar of the other set, means effective upon such conjoint displacement for operating a contact set, said locking device being adapted upon subsequent displacement of another bar to release the normally displaced bar, and a detent for maintaining said contact set operated upon continued displacement of the said bar of the other set notwithstanding the restoration of said normally displaced bar.

5. In a switch, the combination of sets of intersecting bars, contact sets at the intersections of said bars, a common locking device for holding any bar of one of the sets normally displaced, a displacing electromagnet for said bar, a contact device actuated by said electromagnet and adapted to open and hold open its circuit when the said bar is displaced and locked, means for displacing any bar of the other set, and means effective upon the displacement of the last-mentioned bar for operating the contact set at the intersection of said bar and said normally displaced bar.

1,143,999. VALVE. HERMAN F. ROSENCRANS, Durand, Mich. Filed Aug. 16, 1912. Serial No. 715,521. (Cl. 137—4.)

1. A valve including a valve casing having a valve chamber divided by a transversely extending web provided with a valve passage, one end of said valve chamber extending through the casing to form an outlet passage, a ring secured to the outer face of the casing about said outlet passage and provided with inwardly directed ears, studs secured to the ears and extending inwardly of the valve chamber, a valve seat carried by said studs, and a hollow cylindrical valve movable in the valve passage and adapted for engagement with the seat.



2. A valve including a substantially cylindrical valve casing reduced intermediate its length to form a valve passage and enlarged adjacent the passage to form a chamber having a discharge passage leading through the valve casing, a seat supported centrally of said chamber, a hollow cylindrical valve movable in the valve passage and adapted to engage by one end against the valve seat, and means for reciprocating said valve, said means including a valve stem carried by the valve, a shaft journaled through the valve casing and carrying a crank arm, and a link pivotally connecting the crank arm and free end of the valve stem.

3. A valve including a valve casing having a valve chamber divided by a transversely extending web provided with a valve passage, one end of said valve chamber extending through the casing to form an outlet passage, a ring secured to the outer face of the casing about said outlet passage and provided with inwardly directed ears, studs secured to the ears and extending inwardly of the valve casing, a valve seat carried by said studs, and a hollow cylindrical valve movable in the valve passage for engagement with the seat, one end of said valve being flared for simultaneous engagement with the web.

4. A valve including a valve casing having inlet and outlet passages enlarged into chambers at their inner ends, a web dividing the casing between the chambers and provided with a central passage, a valve seat supported in spaced relation to the web and substantially centrally of the outlet chamber, the space between the web and seat being entirely unobstructed, as well as the space surrounding the seat, and a hollow cylindrical valve open at its ends reciprocally mounted in the passage of the web and movable into and out of engagement with the seat.

1,144,000. TREATMENT OF SURFACES OF ALUMINUM OR ALLOYS OF ALUMINUM IN ORDER TO PREPARE THEM FOR RECEIVING A METALLIC DEPOSIT. FRANÇOIS AUGUSTE ROUX, Paris, France, assignor to Société L'Aluminium Francais, Paris, France. Filed Jan. 19, 1914. Serial No. 813,062. (Cl. 204—3.)

1. A process of treating surfaces of aluminum or its alloys to prepare them for receiving a metallic deposit, which consists in subjecting the previously cleansed surfaces to the action of a weak bath containing a hydracid holding a soluble metal in solution, thereby to precipitate a deposit of said soluble metal upon said surfaces and to liberate hydrogen which remains occluded in the deposit where it adheres to said surfaces, rinsing said surfaces, and passing the surfaces through a hot bath constituted by a saturated solution of a salt capable of expelling the occluded hydrogen and of fixing on said surfaces the soluble metal employed.

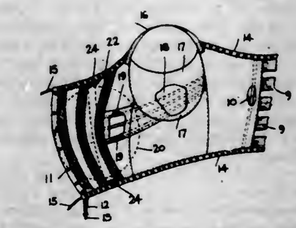
2. A process of treating surfaces of aluminum or its alloys to prepare them for receiving a metallic deposit, which consists in subjecting the previously cleansed surfaces to the action of a weak bath containing a hydracid holding tin in solution, thereby to precipitate a deposit of tin upon said surfaces and to liberate hydrogen which remains occluded in the deposit where it adheres to said surfaces, rinsing said surfaces, and passing the surfaces through a hot bath constituted by a saturated solution of a salt capable of expelling the occluded hydrogen and of fixing the tin on said surfaces.

3. A process of treating surfaces of aluminum or its alloys to prepare them for receiving a metallic deposit, which consists in subjecting the previously cleansed surfaces to the action of a weak bath containing a hydracid holding tin in solution, rinsing said surfaces, and passing them through a hot bath constituted by a saturated solution of an aluminum salt.

4. A process of treating surfaces of aluminum or its alloys to prepare them for receiving a metallic deposit, which consists in subjecting the previously cleansed surfaces to the action of a weak bath containing a substance holding a soluble metal in solution, thereby to precipitate a deposit of said soluble metal upon said surfaces and to liberate hydrogen which remains occluded in the deposit where it adheres to said surfaces, rinsing said surfaces, and passing the surfaces through a hot bath constituted by a saturated solution of a salt capable of expelling the occluded hydrogen and of fixing on said surfaces the soluble metal employed.

5. A process of treating surfaces of aluminum or its alloys to prepare them for receiving a metallic deposit, which consists in subjecting the previously cleansed surfaces to the action of a weak bath containing a hydracid holding a soluble metal in solution, thereby to precipitate a deposit of said soluble metal upon said surfaces and to liberate hydrogen which remains occluded in the deposit where it adheres to said surfaces, rinsing said surfaces, passing the surfaces through a hot bath constituted by a saturated solution of a salt capable of expelling the occluded hydrogen and of fixing on said surfaces the soluble metal employed, and immersing said surfaces in a mineral acid solution.

1,144,001. BRASSIÈRE. JOSIPHINE ROVIRA, New York, N. Y. Filed Apr. 4, 1912. Serial No. 688,351. (Cl. 2—73.)

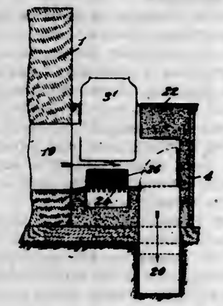


A brassière for forming and confining busts comprising a fabric-body for encircling the wearer and having a series of elongated stiffeners on each side, each stiffener extending from the rear portion back of an arm forward to the position of a bust, the individual stiffeners of each series being flared apart toward the front whereby the fatty tissue may be confined under the arms and be brought forward to blend into a bust outline under the flare of the stiffeners.

1,144,002. STEAM COOKING APPARATUS. SECONDO SACERDOTE, Milan, Italy. Filed July 22, 1913. Serial No. 780,484. (Cl. 126—20.)

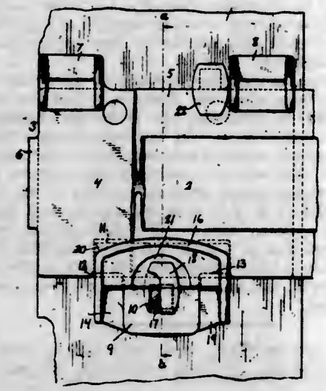
In a cooking apparatus, the combination of a boiler; a furnace therefor; an additional heating member; a cook-

ing vessel therein; a grate under the cooking vessel; the furnace and heating member being provided with a pas-



sage for leading the products of combustion from the furnace under the cooking vessel; and a removable block of heat retaining material placed over said grate.

1,144,003. TIE-PLATE AND RAIL-BRACE. JOHN M. SCOTT, Racine, Wis. Filed Feb. 27, 1914. Serial No. 821,403. (Cl. 238—2.)

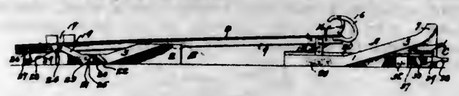


1. A tie plate and rail brace comprising a plate part provided with flange clips, a bracing lug projecting downwardly and adapted to abut against the side of a tie, and a projection having a spike aperture therein, in combination with a clamping clip having a spike aperture therein, and a spike adapted to bear against the inner side of the last mentioned aperture and the outer side of the first mentioned aperture to wedge the flange clips and the clamping clip on the flanges of a rail.

2. A tie plate and rail brace comprising a plate part provided with flange clips, a bracing lug and a projection having a spike aperture therein and having a recess on the under side adjacent said projection of less depth at its inner end than at its outer part, in combination with a clamping clip provided with a wedge-shaped base flange and a spike aperture, and a spike adapted to bear against the inner side of the last mentioned aperture and the outer side of the first mentioned aperture to wedge the flange clips and the clamping clip on the flanges of a rail.

1,144,004. VEHICLE-ELEVATOR. HARVEY E. SHUMWAY and WALTER T. SCHOLZ, Frankfort, Kans., assignors to The S. & S. Automatic Tireaze Company, Marysville, Kans., a Corporation of Kansas. Filed Apr. 8, 1914. Serial No. 830,439. (Cl. 254—88.)

1. A vehicle elevating device including a plurality of stationary guide members, and a vehicle supporting platform having relatively fixed truck members slidably mounted in certain of said guide members and also having automatically foldable truck members slidably mounted in other of said guide members.



2. A vehicle elevating device including front and rear pairs of stationary inclined guide members, and a vehicle supporting platform carrying fixed truck members riding on the front guides, and also carrying folding rear truck members riding on the rear guide members.

3. A vehicle elevator including a vehicle supporting platform, a plurality of inclined guide members, supporting members carried by the platform and riding in said guide members to elevate the platform, and means for elevating and retaining the platform to higher elevated positions.

4. A vehicle elevator including a vehicle supporting platform, a plurality of inclined guide members, said vehicle platforms carrying supporting members riding in said guide members to elevate the same, cam means for starting the rise of the platform and means for holding the platform in elevated position.

5. A vehicle elevator including a vehicle supporting platform, a front and rear set of inclined guide members, supporting members rigidly carried by the front end of said vehicle platform, and other supporting members pivotally carried by the rear of said platform, each of said supporting members adapted to ride in the inclined elevating guide members, and means for elevating and retaining the platform in higher elevated positions.

[Claims 6 to 12 not printed in the Gazette.]

1,144,005. HYDRAULIC CARTRIDGE. DAVY VANCE SICKMAN, Denver, Colo. Filed Apr. 13, 1914, Serial No. 831,419. Renewed Nov. 16, 1914. Serial No. 872,498. (Cl. 102—6.)



1. A hydraulic cartridge comprising a body member having chambers elongated in the direction of the length of the cartridge, and pistons in said chambers and of counterpart shape, the said pistons and chambers being progressively larger from the front to the rear of the cartridge.

2. A hydraulic cartridge comprising a body member having ellipsoidal shaped chambers, the longer axes of the chambers being lengthwise of the cartridge, and pistons of counterpart shape located in said chambers, the chambers and pistons being variably spaced from the front toward the rear of the cartridge.

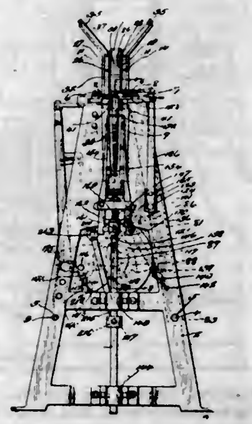
3. A hydraulic cartridge comprising a body member having a number of ellipsoidal shaped chambers, the longer axes of the chambers being parallel with the longitudinal axis of the cartridge, and pistons of counterpart shape located in the said chambers, the chambers and pistons being variably spaced from the front toward the rear of the cartridge, the said spacing diminishing in degree progressively from the front toward the rear.

4. A hydraulic cartridge comprising a body member having chambers of ellipsoidal shape, the longer axes of the chambers extending lengthwise of the cartridge, a number of pistons of counterpart shape located in said chambers, and the chambers diminishing in size progressively from the front to the rear, and variably spaced from the front to the rear of the cartridge.

5. A hydraulic cartridge comprising a body having chambers elongated in the direction of the length of the cartridge, pistons of counterpart shape located in the said chambers and diminishing in size progressively from front to rear, the chambers being variably spaced and the spacing diminishing in degree progressively from the front toward the rear of the cartridge.

[Claims 6 to 10 not printed in the Gazette.]

1,144,006. BOBBIN OR QUILL STRIPPING MACHINE. CHARLES S. SMART and WALTER W. LINDER, Cooleemee, N. C.; said Linder assignor to Theodore V. Terrell, Cooleemee, N. C. Filed Nov. 28, 1913. Serial No. 803,575. (Cl. 118—26.)



1. In a quill stripping machine, a pair of quill holding jaws, a reciprocating element having stripping jaws movable therewith, a member movable independently on said element for closing said jaws, and a revoluble device for reciprocating said element, and means actuated by said device to actuate said member at a pre-determined moment in a reverse direction to the movement of the element to close the jaws.

2. In a quill stripping machine, a reciprocating element having stripping jaws movable therewith, a member movable independently on said element for closing said jaws, and a revoluble device for reciprocating said element, and means actuated by said device to actuate said member at a pre-determined moment in a reverse direction to the movement of the element to close the jaws, and means for returning said member to its initial position, whereby said jaws may open.

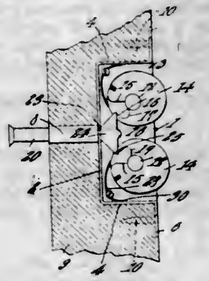
3. In a quill stripping machine, a reciprocating element having stripping jaws movable therewith, a member movable independently on said element for closing said jaws, and a revoluble device for reciprocating said element, and means actuated by said device to actuate said member at a pre-determined moment in a reverse direction to the movement of the element to close the jaws, and means for returning said member to its initial position, whereby said jaws may open, and spring means for throwing the stripping jaws open.

4. In a quill stripping machine, a reciprocating element having a cross head provided with stripping jaws, spring tensioned means between said jaws, and a member slidable on said element to close said jaws against the spring means, means for actuating said member independently of the element to close the jaws.

5. In a quill stripping machine, an element having a pair of stripping jaws provided with heel buffers, means for reciprocating said element, a member slidable on the element adapted to be forced between the heel buffers independent of the movement of the element to close the stripping jaws.

[Claims 6 to 38 not printed in the Gazette.]

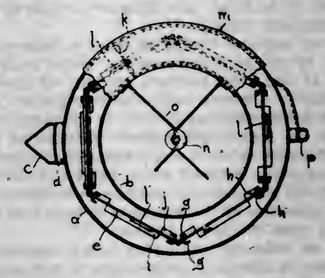
1,144,007. WINDOW-LOCK. PAUL J. STADTHERR, Melrose, Minn. Filed Apr. 28, 1915. Serial No. 24,523. (Cl. 16—19.)



1. In a sash holder, a casing; a pair of eccentrics journaled on the casing; a spring means coacting with each eccentric to move the same to an advanced position; a plunger coacting with the eccentrics to move the same to retracted positions; and a spring means coacting with the plunger to move the plunger to a retracted position, thereby removing the strain from the eccentric actuating springs, and rendering the said springs efficient as a means for moving the eccentrics to advanced positions.

2. In a sash holder, a casing; a pair of eccentrics journaled in the casing, the eccentrics being provided upon one side with recesses defining fingers, the eccentrics being provided upon their opposite sides with parti-circumferential flanges; spiral springs each connected at one end to the casing and connected at their other ends with the respective eccentrics, the flanges coöperating with the casing to prevent the springs from being bound between the eccentrics and the casing; and a plunger slidable with respect to the casing and provided with means for engaging the fingers.

1,144,008. TANK FOR DEVELOPING PHOTOGRAPHIC PLATES. FERN A. STRAWSINE, Detroit, Mich. Filed Dec. 7, 1914. Serial No. 875,770. (Cl. 95—90.)



1. A developing tank, having in combination, a vertical ring like shell comprising an outer and inner wall forming a liquid containing space that may be fairly narrow and a polygonal frame adapted to be dropped into and withdrawn from said ring like shell.

2. A developing tank, having in combination, a ring like shell for holding the developing fluid, a polygonal frame for holding the plates adapted to be dropped into and withdrawn from said shell, a cover for said tank, and means for interlocking the cover with the frame so that the frame may be lifted with the cover.

3. A developing tank, having in combination, a ring like shell having an outer and inner wall, a polygonal frame provided with rests at the bottom and vertical guides, said frame adapted to be dropped into and removed from the said ring like shell.

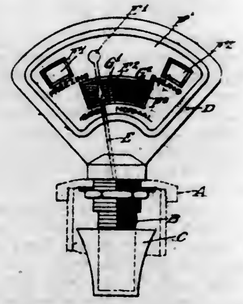
4. A developing tank, having in combination, a vertical ring like shell for holding the developing fluid, a poly-

gonal frame or shell comprising a plurality of panels, each panel being provided with vertical guides at the sides and a rest at the bottom.

5. A developing tank, having in combination a vertical ring like shell for holding the developing fluid, a polygonal frame comprising a plurality of panels, each panel provided at each side at its two vertical extremities with vertical guides and provided on each side with rests at the bottom.

[Claims 6 and 7 not printed in the Gazette.]

1,144,009. TEMPERATURE-INDICATOR. ERNEST J. SWANSON, Chicago, Ill., assignor to Stewart-Warner Speedometer Corporation, Chicago, Ill., a Corporation of Virginia. Filed Sept. 21, 1914. Serial No. 862,810. (Cl. 116—31.)



1. In an indicator having an index member movable in response to change of temperature, a dial plate mounted in front of said index, having a plurality of apertures corresponding to different ranges of temperature and positioned to reveal different portions of the index during the travel of the latter.

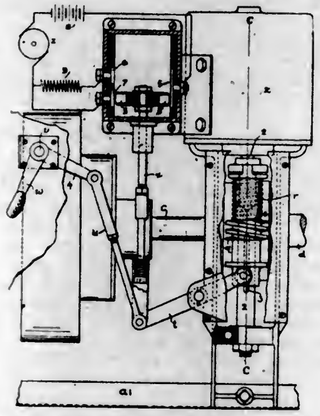
2. In an indicator having an index member movable in response to change of temperature, a dial plate mounted in front of said index, having a plurality of apertures corresponding to different ranges of temperature and positioned to reveal different portions of the index during the travel of the latter, said different portions of the index being differently colored.

3. In an indicator having an index member movable in response to change of temperature, a dial plate mounted in front of said index having a plurality of apertures corresponding to different ranges of temperature and positioned to reveal different portions of the index during the travel of the latter, said different portions of the index being differently colored; and a background plate mounted behind the plane of travel of the index and having differently colored portions positioned to show through the respective apertures of the dial plate to form different color contrasts with the index member.

4. In an indicator having an index member movable in response to change of temperature, a dial plate mounted in front of said index having a plurality of apertures corresponding to different ranges of temperature and positioned to reveal different portions of the index during the travel of the latter, said different portions of the index being differently colored, and a background plate mounted behind the plane of travel of the index and having differently colored portions positioned to show through the respective apertures of the dial plate to form different color contrasts with the index member; a plurality of such differently colored background sections being arranged to appear through one of the said apertures.

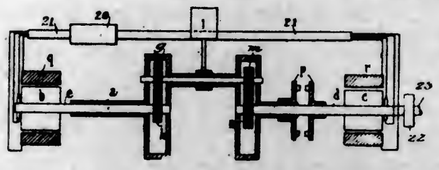
1,144,010. STARTING MECHANISM. HORACE T. THOMAS, Lansing, Mich., assignor to Reo Motor Car Co., Lansing, Mich., a Corporation of Michigan. Filed Jan. 11, 1913. Serial No. 741,408. (Cl. 74—36.)

1. In an engine starter, the combination of a worm wheel having peripheral teeth, said wheel being connected with the engine so that its rotation in one direction shall set the engine in motion, said wheel being adapted to turn freely in the other direction, a motor having a shaft, a worm having threads adapted to engage the teeth of said wheel, said worm being adapted to slide longitudinally upon, but restrained from angular motion relative to, said shaft, said worm being adapted to engage said wheel by turning the latter in the direction of its free rotation, at one end of the travel of said worm, and to be free from said wheel at the other end of its travel, and means for reciprocating said worm to cause the engagement and disengagement thereof.



2. In an engine starter, the combination of a worm wheel having peripheral teeth, said wheel being connected with the engine so that its rotation in one direction shall set the engine in motion, said wheel being adapted to turn freely in the other direction, a motor having a shaft, a worm having threads adapted to engage the teeth of said wheel, said worm being adapted to slide longitudinally upon, but restrained from angular motion relative to, said shaft, said worm being adapted to engage said wheel by turning the latter in the direction of its free rotation, at one end of the travel of said worm, and to be free from said wheel at the other end of its travel, and means for reciprocating said worm to cause the engagement and disengagement thereof, and a spring acting to retract said worm.

1,144,011. POWER-TRANSMISSION MECHANISM. JOHN GODFREY PARRY THOMAS, Holywell, Wales. Filed Oct. 24, 1910. Serial No. 588,757. (Cl. 172—239.)



1. In a motor driven vehicle the combination of a prime motor, a crank shaft driven thereby, shafts concentric with said crank shaft, pinions on the crank, pinions on the other shafts respectively intermeshing therewith, dynamo electric machines on two of the three shafts, and means operatively connecting said machines electrically.

2. In a motor driven vehicle the combination of a prime motor, a crank shaft driven thereby, shafts concentric with said crank shaft, pinions on the crank, pinions on the concentric shafts respectively intermeshing therewith, dynamo electric machines on said concentric shafts, and means operatively connecting said machines electrically.

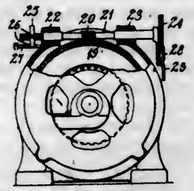
3. In a power transmission system, the combination with a prime motor, of a crank shaft driven thereby, a load shaft, an electrical machine connected with said load shaft co-axial with the crank shaft, a second electrical machine co-axial with the crank shaft, means electrically interconnecting said machines, pinions attached to said machines, and intermeshing pinions upon the crank.

4. In an electromechanical power transmission system, the combination with a prime motor, of a crank shaft with hollow cranks, electrically interconnected dynamo electric machines co-axial with the crank shaft, pinions upon the crank pin within said hollow cranks and intermeshing pinions attached to said machines.

5. In an electromechanical power transmission system, the combination with two electrically interconnected dynamo electric machines, one joined to the load, and a prime motor driving a crank shaft, of a gear interconnecting said prime motor and dynamo electric machines, comprising pinions upon the crank pin, and intermeshing pinions coaxial with the crank shaft.

[Claims 6 and 7 not printed in the Gazette.]

1,144,012. SPEED-CONTROLLING DEVICE. ALBERT WALTON, Boston, Mass., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Mar. 20, 1911. Serial No. 615,497. (Cl. 172—274.)



1. The combination with a rotatable member and means for effecting automatic operation thereof at a predetermined varying speed, of an adjustable means for fixing the initial speed of operation.

2. The combination with a rotatable member, means for operating the same, and automatic means for varying the speed of operation, of an adjustable stop for fixing the initial speed of operation.

3. The combination with a rotatable member, an electric motor for operating the same, and means dependent upon predetermined conditions for automatically varying the speed of operation, of means for restricting the starting speed to any predetermined value.

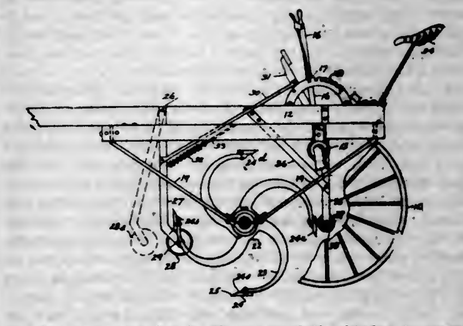
4. The combination with a rotatable member, an electric motor having a single rotor member and two relatively movable stator members, and means for automatically varying the relationship of said relatively movable stator members, of an adjustable means for restricting the initial relationship of said relatively movable stator members.

5. The combination with a drum shaft, an electric motor for driving said shaft, and means dependent upon predetermined conditions for gradually increasing the speed of said motor, of an adjustable means for limiting the initial speed of operation to a predetermined minimum value.

[Claims 6 to 13 not printed in the Gazette.]

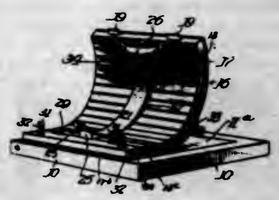
1,144,013. WEEDER. SAMUEL A. WEITMAN, Thornton, Wash. Filed Oct. 18, 1913. Serial No. 795,919. (Cl. 55—61.)

A weeder comprising supporting wheels and an axle, a frame mounted on said axle, a cylinder suspended from said frame, said cylinder comprising a transversely arranged shaft adapted to rotate, arms radiating from such shaft, knives secured to the outer ends of such arms and paralleling the said shaft, a roller suspended from the said frame and normally occupying a space within the path of said knives means for manually removing said roller from the path of the knives and for automatically returning the same thereto, and a support extending from



the frame to a point in the rear of the blades to guard against the rearward springing of the blades.

1,144,014. PRINTING-FRAME. WILHELM WESTMAN, Los Angeles, Cal., assignor of one-half to Ernest Williams, Los Angeles, Cal. Filed Dec. 14, 1914. Serial No. 877,003. (Cl. 95—77.)



1. The combination of a frame for holding a printing element for light transmission therethrough, and flexible means for holding a sensitized sheet in printing position upon such printing element, said flexible means including a plurality of pressure bars side by side and transversely apertured at end portions respectively to accommodate a pair of springs, normally curved springs in said apertures respectively, said springs being adapted to cause end portions of said flexible means normally to curl away from said frame, and means for holding said flexible means in substantially flat position on said frame.

2. In a printing frame, the combination of means for supporting printing elements in printing relation, and a resilient flexible articulated pressure back for said supporting means, the construction of said pressure back being such that when one end thereof is held on said supporting means the free portion thereof is curled away from said supporting means, automatically adjustable hinge means for so holding one end of said pressure back, and means coöperating with said hinge means for holding said pressure back substantially straightened out upon said supporting means whereby printing elements may be held when positioned in said printing frame.

3. The combination of a printing frame proper adapted to hold a printing element for light transmission therethrough, an articulated pressure back adapted to cover such printing element when so positioned and to hold thereon a sensitized sheet for printing, the articulated construction of said pressure back being such that an end portion thereof may be turned back by degrees to expose successive relatively small portions of such sheet when so positioned, means for holding end portions of said back in printing element holding position, and a spring element carried by said articulated back adapted to impart printing element holding pressure upon portions thereof intermediate its ends.

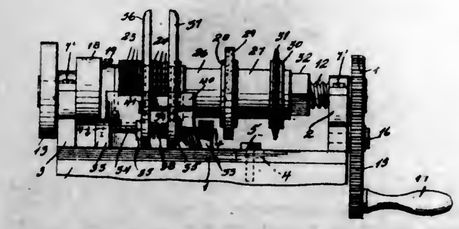
4. The combination of a printing frame proper having provisions for holding a printing element for light transmission therethrough, and a resilient back for holding a sensitized sheet in printing position upon such printing

element when in said frame proper, said resilient back comprising pressure bars side by side and spring means adapted normally to cause a free end of said back to stand away from said frame proper in an open position, means for holding end portions of said back in printing element holding position, and means for holding intermediate portions of said back in such holding position.

5. The combination of means for holding a printing element for light transmission therethrough, and a flexible pressure back adapted to hold another printing element upon such first mentioned printing element, said pressure back including transverse pressure elements side by side and adapted to move away from said printing element holding means by successive steps until such printing elements, when held by said means and said back, are exposed, said pressure back being adapted to creep upon successive small portions of such printing elements when so positioned that the pressure back is out of holding position and is brought into holding position on said means, means for holding the end portions of said pressure back in printing element holding position on said other means, and spring means adapted to hold intermediate portions of said pressure back in such holding position.

[Claims 6 to 11 not printed in the Gazette.]

1,144,015. MILLING-MACHINE. CHRISTIAN WIEMER, Cuyahoga Falls, Ohio. Filed July 28, 1914. Serial No. 853,667. (Cl. 90—59.)



1. A device of the class described comprising a base, a milling shaft carried by said base, a plurality of lugs extending from said base, a threaded rod carried by said lugs, adjustment nuts carried by said rod, handles pivotally mounted upon said adjustment nuts, a coiled spring positioned upon said threaded rod, and bearing upon the inner portions of said handles whereby said handles will normally be urged apart, a supporting pin fixedly secured to one of said handles and slidably mounted upon the other handle, said handles being adapted to carry a tool there-between at which time said nuts may be rotated for positively binding said handlee in engagement with a tool, whereby a tool may be held in position to engage said milling shaft.

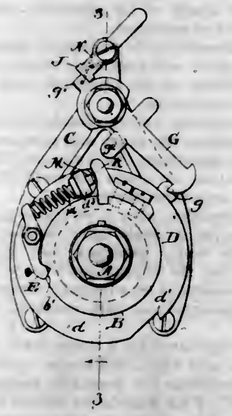
2. A device of the class described comprising a base, a milling shaft carried by said base, a plurality of lugs extending from said base, a threaded rod carried by said lugs, adjustment nuts carried by said rod, handles pivotally mounted upon said adjustment nuts, a coiled spring positioned upon said threaded rod and bearing upon the inner portions of said handles whereby said handles will normally be urged apart, a supporting pin fixedly secured to one of said handles and slidably mounted upon the other handle, said handles being adapted to carry a tool there-between at which time said nuts may be rotated for clamping said handles in engagement with a tool, a tool supporting block carried by said base at a spaced distance from said threaded rod, said block provided with a plurality of notches upon its upper edge, whereby a tool carried by said handles may rest upon said block for lifting a considerable amount of the supporting strain from said handles, whereby a tool may be held in engagement with said milling shaft.

3. A device of the class described comprising a base, a milling shaft carried by said base, a threaded rod carried by said base, adjustment nuts carried by said rod, handles pivotally mounted upon said nuts, a coiled spring positioned upon said threaded rod and bearing upon the inner portions of said handles whereby said handles will normally be urged apart, and means engaging said handles for holding the same in alinement with each other, said handles being adapted to carry a tool there-between at which time said nuts may be rotated for positively binding said handles in engagement with a tool, whereby a tool may be held in position to engage said milling shaft.

4. A device of the class described comprising a base, a milling shaft carried by said base, a plurality of lugs extending from said base, a rod carried by said lugs, handles adjustably mounted upon said rod, a supporting pin fixedly secured to one of said handles and slidably mounted upon the other handle, said handles being adapted to releasably retain a tool, said pin being adapted to hold said handles in alinement with each other whereby said handles may hold a tool in engagement with said shaft.

5. A device of the class described comprising a base, a milling shaft carried by said base, a plurality of lugs extending from said base, a threaded rod carried by said lugs, adjustment nuts carried by said rod, handles pivotally mounted upon said adjustment nuts, a coiled spring positioned upon said threaded rod, and bearing upon the inner portion of said handles whereby said handles will normally be urged apart, a supporting pin fixedly secured to one of said handles and slidably mounted upon the other handle, said handles being adapted to carry a tool therebetween at which time said nuts may be rotated for positively binding said handles in engagement with a tool, whereby a tool may be held in position to engage said milling shaft, and means carried by said base for limiting the pivotal movement of said handles in one direction, thereby preventing said handles from engaging said shaft.

1,144,016. MAGNETO DRIVING MECHANISM. JOSEPH A. WILLIAMS, Cleveland, Ohio, assignor to K. W. Ignition Company, Cleveland, Ohio, a Corporation of Ohio. Filed Dec. 26, 1911. Serial No. 667,613. (Cl. 123—149.)



1. The combination with the armature shaft of a magneto, of a driving member concentric with the shaft, said driving member having an enlarged cup shaped portion, a coiled spring surrounding the shaft and within said cup shaped portion of the driving member, said spring being operatively connected at opposite ends to the driving shaft and the driving member, a device for preventing rotation of the armature shaft, and means carried by the driving member for displacing said preventing device, substantially as described.

2. The combination with the armature shaft of a magneto, a concentric driving member, a spring pawl carried by one of said members and having a beveled end which enters a beveled notch in the other member, and a spring through which motion is transmitted from the driving member to the armature shaft, of a device to temporarily prevent the turning of said armature shaft, means carried by the driving member for moving said device to an inoperative position whereby the armature shaft may move quickly forward by said spring relatively to the driving member, and a spring buffer for yieldingly stopping said forward movement of the armature shaft relative to the driving member.

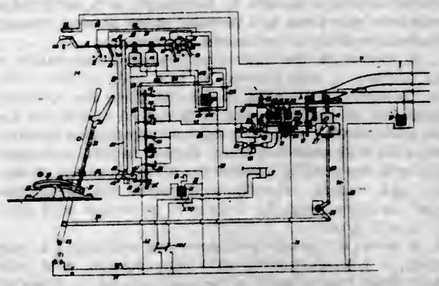
3. The combination with the armature shaft of a magneto, a concentric driving member, and a spring through which motion is transmitted from the latter to the former, of a disk fixed to the armature shaft and provided with a shoulder, a dog pivoted to a fixture for engagement with said shoulder, and a knock out arm carried by said driving member and adapted to move said dog out of engagement with said shoulder.

4. The combination with the armature shaft of a magneto, a concentric driving member, and a spring through which motion is transmitted from the latter to the former, a disk fixed to the armature shaft and provided with a shoulder, a dog pivoted to a fixture for engagement with said shoulder, a knock out arm carried by said driving member and adapted to move said dog out of engagement with said shoulder, and a spring buffer carried by the disk and adapted to engage said knock out arm.

5. The combination with the armature shaft of a magneto, a concentric driving member and a spring through which motion is transmitted from the latter to the former, a disk fixed to the armature shaft and provided with a shoulder, a dog pivoted to a fixture for engagement with said shoulder, a knock out arm carried by said driving member and adapted to move said dog out of engagement with said shoulder, a buffer plunger movably mounted in a lug carried by said disk in position to engage said knock out arm, a pawl carried by said disk and having a beveled end adapted to engage a beveled notch in the driving member, and a spring interposed between said buffer plunger and pawl and acting on both.

[Claim 6 not printed in the Gazette.]

1,144,017. RAILWAY-TRAFFIC-CONTROLLING APPARATUS. WALTER P. ALLEN, Ardmore, and GEORGE R. SCATTERGOOD, Philadelphia, Pa., assignors to The Union Switch and Signal Company, Swissvale, Pa., a Corporation of Pennsylvania. Filed Jan. 4, 1913. Serial No. 740,149. (Cl. 246—53.)



1. In combination, a railway traffic controlling device, a lock for said device, an operating magnet for releasing said lock, a lever for controlling said device, means for retaining said lever in its extreme positions, and contacts and conductors controlled by said retaining means for deenergizing said magnet when the retaining means is in retaining position and for energizing said magnet when said means is not in retaining position.

2. In combination, a railway traffic controlling device, a lock for said device, two holding magnets each for holding the lock in locking position, an operating magnet for releasing the lock, a lever for controlling said device, means for retaining said lever in its extreme positions, and contacts and conductors controlled by said means for causing one or the other of the holding magnets to be energized according as the means is operative to retain the lever in one extreme position or the other, and for causing the operating magnet to be energized when the means is not in retaining position.

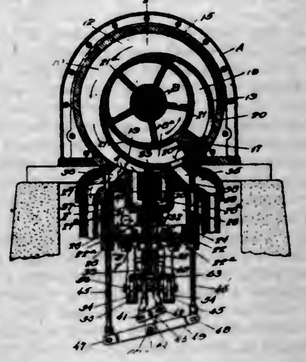
3. In combination, a railway traffic controlling device, a lock for said device, an operating magnet for releasing said lock, a lever mechanically connected with said device for operating the device, a latch for said lever adapted to retain the lever in either of its extreme positions, and contacts and connections controlled by said latch for deenergizing the said operating magnet when the latch is in retaining position and for energizing said magnet when the latch is not in retaining position.

4. In combination, a railway traffic controlling device, an electric lock for said device, a lever mechanically connected with said device for operating the device, means for retaining said lever in the extreme positions of its stroke, contacts operated by said means, a source of current, and a circuit for said electric lock including the source of current and a contact which is open when the said means is in retaining position and closed when the said means is not in retaining position.

5. In combination, a railway traffic controlling device, a lock for locking said device in either extreme position, an operating magnet for releasing said lock, and a holding magnet for holding said lock in locking position, a lever mechanically connected with said device for operating the device, a latch for retaining the lever in either extreme position; and contacts and connections controlled by said latch for energizing the holding magnet and deënergizing the operating magnet when the latch is in retaining position, and for deënergizing the holding magnet and energizing the operating magnet when the latch is not in retaining position.

[Claims 6 to 12 not printed in the Gazette.]

1,144,018. ROTARY ENGINE. BENJAMIN H. ALVEY, Elizabethtown, Ky. Filed Apr. 5, 1913. Serial No. 759,092. (Cl. 121—69.)



1. A rotary steam engine having, in combination, a casing provided with a rotor chamber having a plurality of inlet ports and a plurality of exhaust ports, a rotor in the rotor chamber, a steam chest and means for controlling communication of the steam chest with the rotor chamber through the inlet ports, comprising a reversing valve-mechanism and a combined abutment and valve, said reversing valve-mechanism being adjustable to cut-off communication of the steam chest with one inlet port and open communication of the steam chest with the other inlet port, and said combined abutment and valve being operatively associated with the reversing valve-mechanism and arranged so as alternately to admit steam to and cut it off from the rotor chamber automatically at predetermined places in the rotation of the rotor.

2. A rotary steam engine having, in combination, a casing provided with a rotor chamber having a plurality of inlet ports and a plurality of exhaust ports, a rotor in the rotor chamber, a steam chest and means for con-

trolling communication of the steam chest with the rotor chamber through the inlet ports, comprising a pair of manually adjustable slidably mounted reversing valves having openings through which the steam chest has communication with the inlet ports, respectively, means whereby the opening in one valve is closed when the other valve is in position to admit steam to the rotor chamber and a combined abutment and valve slidably mounted between the reversing valves and alternately covering and uncovering the opening in the valve which is adjusted to admit steam to the rotor chamber, at predetermined places in the rotation of the rotor.

3. A rotary steam engine having, in combination, a casing provided with a rotor chamber, having a plurality of inlet ports and a plurality of exhaust ports, a rotor in the rotor chamber, a steam chest having channels which respectively lead to said inlet ports and also having a chamber between said channels, a pair of reversing valves slidably mounted in the chamber of the steam chest and having openings which register with said channels in certain positions of adjustment of the reversing valves, said openings being out of registration with said channels and closed in other positions of adjustment of the valves, means whereby said valves are adjusted to close communication of one channel with the steam chest and open communication of the other channel with said chest, simultaneously, and an abutment mounted between said reversing valves and arranged to be automatically reciprocated across the opening of the reversing valve which is in registration with a channel, so as alternately to cover and uncover said opening.

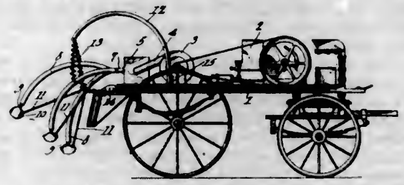
4. A rotary steam engine having, in combination, a casing provided with a rotor chamber having a plurality of inlet ports and a plurality of exhaust ports, a rotor in the rotor chamber, a steam chest having channels which respectively lead to said inlet ports and also having a chamber between said channels, a pair of reversing valves slidably mounted in the chamber of the steam chest and having openings which register with said channels in certain positions of adjustment of the reversing valves, said openings being out of registration with said channels and closed in other positions of adjustment of the valves, means whereby said valves are adjusted to close communication of one channel with the steam chest and open communication of the other channel with said chest, simultaneously, and an abutment slidably mounted between said reversing valves and operatively arranged with relation thereto so as alternately to cover and uncover the opening which is in registration with a channel, said rotor having an eccentric surface engaged with the inner edge of the abutment and said abutment being provided with means for holding it against surface.

5. A rotary steam engine having, in combination, a casing provided with a rotor chamber, having a plurality of inlet ports and a plurality of exhaust ports, a rotor in the rotor chamber, a steam chest having channels which respectively lead to said inlet ports and also having a chamber between said channels, a pair of reversing valves slidably mounted in the chamber of the steam chest and having openings which register with said channels in certain positions of adjustment of the reversing valves, said openings being out of registration with said channels and closed in other positions of adjustement of the valves, rods extending from said valves, a rocker arm connecting said rods with each other, means for rocking said arm manually, and an abutment mounted between said reversing valves and arranged to be automatically reciprocated across the opening of the reversing valve which is in registration with a channel so as alternately to cover and uncover said opening.

[Claims 6 to 9 not printed in the Gazette.]

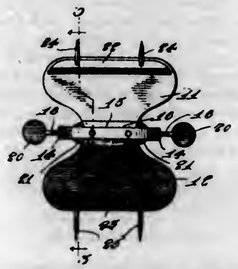
1,144,019. BUG-ELIMINATING MACHINE. CHARLES F. BACON, Toledo, Ohio. Filed Aug. 6, 1914. Serial No. 855,486. (Cl. 43—1.)

1. A machine for collecting insects, including a vehicle, a collecting tank, means for sucking air through the tank, a screen within the tank for separating insects from the air issuing from the tank, a hood, a flexible tube connecting the hood to the tank, a swiveled arm upon the vehicle, and a yielding connection between the arm and the tube.



2. A machine for collecting insects, including a vehicle, a collecting tank, means for sucking air through the tank, a hood, a flexible tube connecting the hood to the tank, means within the tank for retaining insects, a handle extending from the hood for actuation by an occupant of the vehicle, an arm swiveled upon the vehicle, and a spring connection between the arm and the tube.

1,144,020. CALF-WEANER. GEORGE W. BENAGE, Juda, Wis. Filed Oct. 29, 1914. Serial No. 869,287. (Cl. 119—132.)



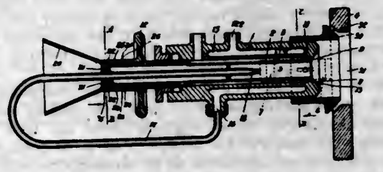
1. A device of the character described comprising a body portion, a yoke carried by said body portion, said yoke being formed from a resilient strip having its end portions bent to form arms, the free end portions of said arms being bent to form fingers extending inwardly in spaced relation to the arms, said fingers being provided with threaded openings formed in alinement with unthreaded openings in said arms, and threaded stems passing through the alined openings of said arms and fingers.

2. A device of the character described comprising a body portion, a yoke carried by said body portion, said yoke including resilient arms having their end portions terminating in fingers extending in spaced relation to the arms and provided with threaded openings formed in alinement with unthreaded openings formed in said arms, and securing stems passing through the alined openings of said arms and fingers, whereby said stems will constitute means for permitting the fingers to be moved with relation to said arms.

3. A device of the character described comprising a body portion, a yoke carried by said body portion, said yoke being formed from a strip of resilient material and having its end portions bent to form arms terminating in fingers extending in spaced relation to the arms, and securing stems adjustably connected with said fingers and slidably engaging said arms to permit said fingers and stems to be moved simultaneously with respect to said arms.

1,144,021. OIL-FUEL BURNER. CYRIL GEORGE MANCHA BENNETT, London, and SYDNEY HERBERT SMITH, West Ealing, England, assignors to Smokeless Economisers Limited, London, England. Filed Oct. 11, 1913. Serial No. 794,637. (Cl. 158—74.)

1. A steam jacketed oil fuel burner comprising an outer casing, a steam jacket formed in said outer casing, an oil reservoir within said casing concentric with said outer casing and said steam jacket, and having a forwardly extending portion forming a hollow oil controlling valve, an air chamber at the exterior end of the burner, a central air chamber in said burner surrounded by said oil reservoir, a steam nozzle mounted in said air chamber, and an outlet steam pipe leading from said steam jacket through said air chamber to said steam nozzle.

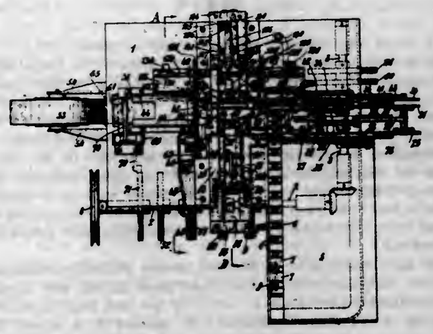


2. A steam jacketed oil fuel burner comprising a steam jacket, a spindle sleeve extending beyond the steam jacket, an air chamber for an interior air supply formed by the interior of said sleeve, a steam pipe extending longitudinally through said air chamber and adapted to heat said air by radiation, a steam nozzle mounted in said sleeve at the end of said steam pipe for inducing said air supply, and means for conveying the steam from the steam jacket to said radiating steam pipe.

3. A steam jacketed oil fuel burner, comprising a steam jacket having a valve seat, a hollow oil controlling valve coöperating therewith, a spindle sleeve formed by an extension of said oil valve and extending beyond the steam jacket, a passage for an interior air supply formed by the interior of said sleeve, a steam pipe adapted to heat said air supply by radiation, a steam nozzle at the end of said steam pipe for inducing said air supply, a conical air chamber rotatably mounted at the exterior end of said spindle sleeve, and means controlled by the rotation of said chamber for governing the supply of air to the interior of said spindle sleeve.

4. A steam jacketed oil fuel burner comprising in combination, a furnace plate provided with a burner opening having an outwardly flared conical wall, a steam jacket, an annular oil reservoir having an inner wall formed as a longitudinally movable sleeve the end of which coöperates with the end of the steam jacket to form a burner opening, and a longitudinally adjustable member coöperating with said burner and provided with a conical end portion coöperating with said conical opening in the furnace plate, to form a valve, whereby the outside air supply is caused to enter the furnace at the mouth of the burner in the form of a conical stream, variable in volume but constantly converging toward the blast of burning oil.

1,144,022. MACHINE FOR WRAPPING SWEETS. RICHARD ALFRED BERGER, Lausanne, Switzerland, assignor to Sapal Société Anonyme des Pileuses Automatiques, Lausanne, Switzerland. Filed Sept. 30, 1913. Serial No. 792,627. (Cl. 93—5.)



1. In a machine for wrapping sweets in at least one wrapper, the combination of means for bringing together two sweets situated a determined distance apart and a common wrapper for same, means for wrapping the said wrapper in a tubular manner around the two sweets, means to prevent a relative shifting of the sweets and the wrapper during this wrapping, means for gripping the tubular wrapper together with the two sweets on both ends and in the middle of the wrapper, means for cutting the wrapper between the two sweets and means for twisting the tubular wrapper outside and between the two sweets, as set forth.

2. In a machine for wrapping sweets in at least one wrapper, the combination of means for bringing together two sweets located a determined distance apart and a common wrapper for same, means for wrapping the said wrapper in a tubular manner around the two sweets, a middle fixed pair of tongs, two outer rotary pairs of tongs, a cutter on said fixed pair of tongs, and means for bringing the tubular wrapper together with the two sweets between said fixed and movable pairs of tongs, and means for actuating said tongs to hold the tubular wrapper between the sweets and to sever the same between the sweets, while the outer pairs of tongs grip the tubular wrapper outside the sweets and twist it first between the sweets and the fixed tongs and then outside the sweets, as set forth.

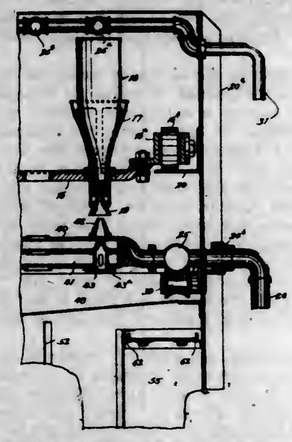
3. In a machine for wrapping sweets in at least one wrapper, the combination of means for bringing together two sweets located a determined distance apart and a common wrapper for same, means for wrapping said wrapper in the form of a tube around the two sweets, a middle fixed pair of tongs, two outer rotary pairs of tongs, a cutter on said fixed pair of tongs, means for bringing said tube with the two sweets between the said fixed and rotary pairs of tongs, and means for actuating said tongs, whereby the tube is held between the sweets and is cut between the sweets, and whereby the outer tongs grip the tube outside the sweets and twist it first between the sweets and the fixed pair of tongs and then outside the sweets and a movable holder for holding the wrapped sweets during the second period of the twisting of the tubular wrapper as set forth.

4. In a machine for wrapping sweets in at least one wrapper, the combination of means for bringing together two sweets located a determined distance from each other and a common wrapper for same means for wrapping said wrapper in the form of a tube around the two sweets, a fixed middle pair of tongs, two outer rotary pairs of tongs, a cutter on said fixed pair of tongs, means for bringing the said tube with the two sweets between the said fixed and rotary pairs of tongs, and means for actuating the said tongs, whereby the tube is held fast between the sweets and is cut between the sweets, and whereby the outer tongs serve to grip the tube outside the sweets, and to twist it first between the sweets and the fixed pair of tongs, and then to twist it outside the sweets, a movable holder for holding the wrapped sweets during the second period of twisting of the tube and means for effecting an axial mutual approach of the rotary tongs during the twisting of the tube without letting go of the tube, as set forth.

5. In a machine for wrapping sweets in at least one wrapper, the combination of means for bringing together two sweets located a determined distance apart and a common wrapper for same, means for wrapping said wrapper in the form of a tube around the two sweets, a middle fixed pair of tongs, two outer intermittently rotatable and axially movable pairs of tongs, a cutter on said fixed pair of tongs, a reciprocating holder with two holding jaws, a slide coöperating with said holding jaws, to bring said tube with the two sweets between the said fixed and rotatable pairs of tongs, whereby the tube is held and cut between the sweets by the fixed tongs, and whereby the outer pairs of tongs serve to grip the tube outside the sweets and to twist it first between the sweets and the fixed pair of tongs, and then to twist it outside the sweets, and means for moving the said holder into a position in which its holding jaws prevent the sweets from rotating during the second period of twisting of the tube as set forth.

[Claims 6 to 12 not printed in the Gazette.]

1,144,023. BOTTLE-WASHING MACHINE. RICHARD F. BEUTLICH, Chicago, Ill., assignor to Twentieth Century Machinery Co., Chicago, Ill., a Corporation of Wisconsin. Filed Jan. 23, 1915. Serial No. 3,904. (Cl. 141—7.)



1. In a bottle-washing machine of the character described, the combination of a tank, an endless carrier movable lengthwise over the tank and provided with supports for bottles in inverted position, means including a motor for driving said carrier, a motor-driven pump connected at its suction-side with the tank, water-tubes supported to extend at intervals crosswise over the tank below the upper section of said carrier and communicating with the discharge-side of the pump, nozzles projecting upwardly from said tubes, and steam-tubes extending along said water-tubes and provided with jets coinciding and cooperating with said nozzles.

2. In a bottle-washing machine of the character described, the combination of a tank, an endless carrier movable lengthwise over the tank and provided with supports for bottles in inverted position, means including a motor for driving said carrier, a motor-driven pump connected at its suction-side with the tank, a manifold for the wash-water supported to extend over the tank along one side thereof below the upper section of said carrier and communicating with the discharge-side of the pump, a manifold for steam extending along the opposite side and over the tank, water-tubes extending at intervals at the inner side of said first-named manifold and provided with upwardly projecting nozzles, and steam-tubes extending along said water-tubes from the steam-manifold and provided with jets coinciding and coöperating with said nozzles.

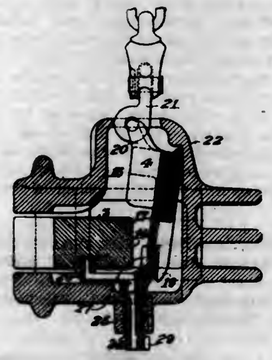
3. In a bottle-washing machine of the character described, the combination of a tank, an endless carrier movable lengthwise over the tank and provided with supports for bottles in inverted position, means including a motor for driving said carrier, a motor-driven pump connected at its suction-side with the tank, a manifold for the wash water supported to extend over the tank along one side thereof below the upper section of said carrier and communicating with the discharge-side of the pump, a manifold for steam extending along the opposite side and over the tank, water and steam-tubes connecting said manifolds at intervals and being formed in pairs having their members parallel and integral with each and closed at respectively opposite ends, nozzles projecting upwardly from the water-tubes and jets extending from said steam-tubes into and coöperating with said nozzles.

4. In a bottle-washing machine of the character described, the combination of a tank, an endless carrier movable lengthwise uninterruptedly over the tank and provided with supports for bottles in inverted position, a motor-driven pump connected at its suction-side with the tank, manifolds reciprocably supported to extend opposite each other lengthwise of the tank below the upper section of said carrier and connected respectively with the discharge-side of the pump and a steam-supply, water and steam tubes extending respectively from said manifolds in pairs crosswise of the tank, nozzles projecting upwardly from said water-tubes, jets extending from said steam-tubes to coincide and coöperate with said nozzles, and motor-driven means for driving said carrier and moving said manifolds correspondingly in one direction with the movement of the carrier and quickly returning them to their initial position.

5. In a bottle-washing machine of the character described, the combination of a tank, an endless carrier movable lengthwise uninterruptedly over the tank and provided with supports for bottles in inverted position, a motor-driven pump connected at its suction-side with the tank, series of rollers supported on the opposite walls of the tank near its top, manifolds reciprocably supported on said rollers and connected respectively with the discharge-side of the pump and a steam-supply, water and steam tubes in pairs of integral members extending respectively from and connecting said manifolds at intervals, nozzles projecting upwardly from said water-tubes, jets extending from said steam-tubes into said nozzles at their bases, a worm-driven connection between said motor and carrier for driving the latter, and means coöperating with said connection to move said manifolds on their supporting-rollers correspondingly in one direction with the movement of the carrier and quickly return them to their initial position.

[Claims 6 to 12 not printed in the Gazette.]

1,144,024. CAR-COUPLING. WILLIAM BLACKMORE, Cleveland, Ohio, assignor to The National Malleable Castings Company, Cleveland, Ohio, a Corporation of Ohio. Original application filed Nov. 7, 1912, Serial No. 729,943. Divided and this application filed Dec. 16, 1914. Serial No. 877,504. (Cl. 213—10.)



1. In a car coupler, a lock having a connection for a lifting link on its head on the side toward the longitudinal center line of the coupler, a projection on the opposite side of the head of the lock, a shoulder in the upper part of the coupler-cavity with which said projection is designed to coöperate, a leg depending from the lock, a two-armed knuckle-opener pivotally mounted in the bottom of the coupler-head, the said leg being adapted to swing transversely of the coupler-cavity and in a direction toward the rear side of the knuckle-tail, to coöperate with an arm of the opener for lock-setting and knuckle-throwing.

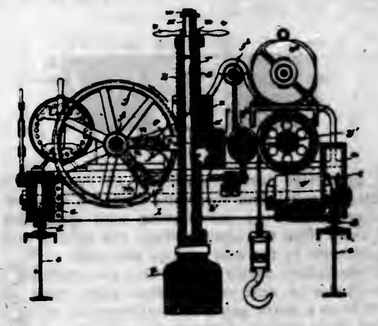
2. In a car coupler, a knuckle-opener pivotally mounted in the bottom of the coupler-head and having two arms, one being adapted to be actuated by the lock and the other having a lug thereon, adapted to operate in a recess in the under face of the knuckle-tail, the said recess being located along the line of the neutral axis of the knuckle-tail.

3. In a car coupler, a vertically-movable lock having a depending leg adapted to swing transversely across the coupler cavity, and a two-armed knuckle-opener having a pivotal bearing on the bottom of the coupler head, the said leg being adapted to seat upon said opener for lock-setting and to actuate it for knuckle-throwing.

4. In a car coupler having a pivoted knuckle and a vertically movable and tilting locking device, said locking device having a head and a depending leg and a point of attachment for lifting mechanism, a fulcrum point on said lock at one side of said point of attachment, a shoulder in the coupler head against which the fulcrum point bears when it has been lifted to tilt the leg of the lock transversely to actuate a knuckle throwing member.

5. In a car coupler a pivoted knuckle, a floating locking piece comprising a head adapted to transmit pulling strains therethrough and a depending leg, the said head having a longitudinally disposed fulcrum shoulder, a shoulder in the coupler head adapted to coöperate with the shoulder on the lock by a bodily vertical movement of the lock to throw the leg of the lock transversely to actuate a knuckle throwing member.

1,144,025. CRANE TRIP-HAMMER. ROBERT BUNTS, Jr., Pulaski, Va. Filed July 17, 1914. Serial No. 851,675. (Cl. 29—66.)



1. In combination with a tool of the class set forth provided with a lifting rack bar, a mutilated gear adapted to mesh with said rack bar and means for rotating it to lift the bar, the initial teeth of said gear being mounted to yield inwardly.

2. In an apparatus of the class set forth, a drop tool carrying a rack bar, a mutilated gear for raising the tool through the medium of the rack bar, the terminal teeth of the gear being mounted on a member movable inwardly, and means for drawing said member inwardly to release the rack bar at a predetermined point.

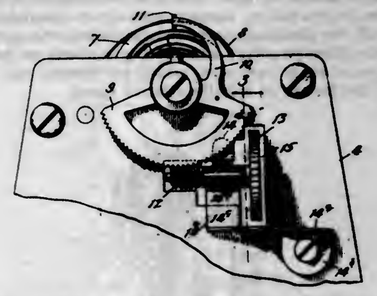
3. In a trip hammer apparatus, the combination of a frame, a hammer provided with a rack bar, gearing for engaging the rack bar to lift the hammer, tripping means, a block supported on the frame by a ball and socket device, the hammer being slidable through this block and the block being open at one side to permit the rack bar to engage the lifting gear, the hammer and the groove in which it slides through the block being angular in cross-section to prevent disconnection of the hammer from the block, for the purposes set forth.

4. In a trip hammer, the combination of a hammer having fixed to it a rod, a sleeve surrounding the rod and provided with a rack bar, means for resiliently connecting the rack bar to the rod to cushion the upward stroke of the hammer, and a lifting gear meshing with said rack.

5. In a trip hammer, the combination of a frame, a vertically slidable sleeve carrying a rack bar, a tool having a rod extending upwardly through said sleeve, means at the upper end of the rod for rotatively adjusting it relatively to the sleeve to thereby adjust the angle of the tool to the work, and means for raising and dropping the tool through the medium of said rack bar.

[Claims 6 to 9 not printed in the Gazette.]

1,144,026. REGULATOR FOR LEVER TIME-MOVEMENTS. JACOB J. BUSENBENZ, Grand Rapids, Mich., assignor to Differential Clock Co., Chicago, Ill., a Corporation of Illinois. Filed Jan. 2, 1915. Serial No. 85. (Cl. 58—112.)



1. In combination with a time-movement, a regulator comprising a journaled gear having an arm extending into movable engagement with the outer coil of the hair-spring of said movement, and a spring-supported worm in driving engagement with said gear.

2. In combination with a time-movement, a regulator comprising a segmental gear journaled on the movement-frame and having an arm extending into movable engagement with the outer coil of the hair-spring of said movement, a spring-support on said frame, and a worm journaled on said support to mesh with said gear.

3. In combination with a time-movement, a regulator comprising a segmental gear journaled on the front member of the movement-frame and having an arm provided with an extension movably engaging the outer coil of the hair-spring of said movement, an opening in said frame-member, a spring-support secured on said frame-member to extend into said opening, and a worm having a hand-wheel-carrying shaft journaled on said support at said opening to engage the worm with said gear.

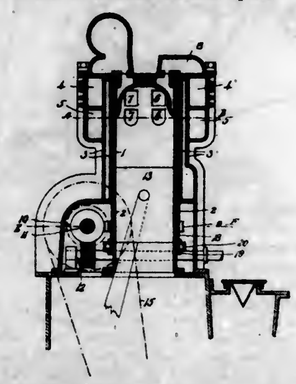
4. In combination with a time-movement, a regulator comprising a segmental gear journaled on the front member of the movement-frame and having an arm provided with a slotted extension movably engaging in the slot the outer coil of the hair-spring of said movement, an opening in said frame-member, a spring-support having a lower member secured near one end to said frame-member and an upright cross-shaped member terminating in a tongue, said cross-shaped member having an offset section extending backwardly in said opening to bear said tongue against the rear face of said frame-member and being provided with journal bearings, a worm on a shaft journaled in said bearings to engage the worm with said gear, and a hand-wheel on the shaft in said opening.

1,144,027. INTERNAL-COMBUSTION ENGINE. HOWARD CRUNDEN CLEAVER, London, England. Filed Nov. 29, 1912. Serial No. 734,163. (Cl. 123—80.)

1. In an engine the combination of a fixed interior cylinder having a plurality of pairs of ports, one port of each pair being an admission port and the other an exhaust port; a piston working in said cylinder; a main shaft; crank connections between said piston and main shaft; an annular cylindrical valve sleeve mounted to rotate about said cylinder and having ports equal in number with the pair of ports in said cylinder, adapted when the valve is rotated to register alternately simultaneously with all the admission ports and then simultaneously with all the exhaust ports; and driving connections between said main shaft and valve sleeve for driving the latter from the former at suitable relative speed.

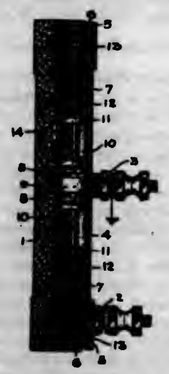
2. In an engine the combination of a fixed cylinder structure comprising a pair of coaxial cylindrical shells spaced apart and having a plurality of pairs of through ports leading through said shells one port of each pair being an admission port and the other an exhaust port;

a piston mounted to reciprocate within the inner shell; a main shaft; crank connections between said piston and main shaft; an annular cylindrical valve sleeve fitted to rotate in the space between the fixed cylindrical shells and having through ports equal in number with the pairs of ports in said cylinder structure and adapted when the sleeve is rotated to register alternately simultaneously with all the admission ports and then simultaneously with all the exhaust ports; and driving connections between said main shaft and valve sleeve for driving the latter from the former at suitable relative speed.



3. In an engine the combination of a fixed cylinder structure comprising a pair of coaxial cylindrical shells spaced apart and having a plurality of pairs of through ports leading through said shells, one port of each pair being an admission port and the other an exhaust port; a piston mounted to reciprocate within the inner shell; a main shaft; crank connections between said piston and main shaft; a pair of annular cylindrical valve sleeves mounted to rotate coaxially and in opposite directions in the space between said fixed sleeves, each sleeve having a plurality of ports adapted upon the rotation of said sleeves to register alternately simultaneously with all the admission ports and then simultaneously with all the exhaust ports; and driving connections between said main shaft and said sleeves for rotating the latter in opposite directions at suitable relative rates.

1,144,028. PROTECTIVE DEVICE. ELMER E. F. CREIGHTON, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Mar. 19, 1913. Serial No. 755,529. (Cl. 175—30.)



1. A protective device comprising a chamber and spark gap terminals spaced apart within said chamber and surrounded by a fluid at a pressure which renders the equivalent needle gap of said spark gap a minimum.

2. A protective device comprising a chamber and spark gap terminals therein, said chamber containing fluid at a pressure which renders the equivalent needle gap of said spark gap a minimum, and said terminals being spaced to have a low spark potential at the pressure existing in said chamber.

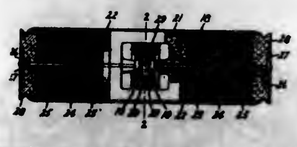
3. A protective device comprising spark gap terminals, and a partially evacuated chamber inclosing said terminals and containing a monatomic gas at a pressure between 8 mm. to 20 mm. of mercury.

4. A protective device comprising spark gap terminals, and a partially evacuated chamber inclosing said terminals and containing gas at a pressure greater than the critical pressure of said gap but low enough to render the equivalent needle gap substantially a minimum.

5. A protective device comprising spark gap terminals separated by a gap of about 1 mm. and a chamber inclosing said spark gap and containing gas at a pressure of 8 to 20 mm. of mercury.

[Claims 6 to 27 not printed in the Gazette.]

1,144,029. PROTECTIVE DEVICE. ELMER E. F. CREIGHTON, Schenectady, N. Y., assignor to General Electric Company, a Corportion of New York. Original application filed Mar. 19, 1913, Serial No. 755,529. Divided and this application filed Jan. 5, 1914. Serial No. 810,275. (Cl. 175—30.)



1. A protective device comprising an evacuated vessel containing parallel disk electrodes having a common axis, and a grounded ring surrounding said electrodes and spaced away from the edges thereof, the axis of said ring being eccentric to the axis of said electrode.

2. A protective device comprising an evacuted vessel and electrodes in said vessel spaced away from one another to form a spark gap which increases in width in the direction of movement of the arc in said gap whereby the arc is lengthened and broken.

3. A protective device comprising an evacuated vessel, electrodes in said vessel having curved coöperating surfaces spaced apart to form a spark gap, the corresponding portions of said coöperating surfaces having different radii and centers of curvature, said curved surface of one electrode being adjacent the concave side of the coöperating surface of the other electrode.

4. A protective device comprising an evacuated vessel, electrodes in said vessel having edges similarly curved about a common axis, and a grounded electrode curved about an axis eccentric to the axis of the other electrodes and spaced away from the edges of said other electrodes to form spark gaps to ground.

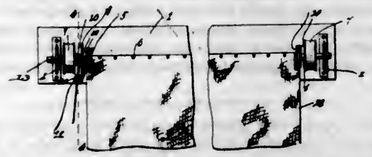
5. A protective device comprising disk electrodes mounted face to face, each of said electrodes having on its face a disk of fusible metal smaller than said electrodes, and a grounded electrode spaced away from the lower edges of said other electrodes to form spark gaps which are bridged by the melting of said fusible metal.

[Claims 6 and 7 not printed in the Gazette.]

1,144,030. AUTOMATIC ROLLER. JOHN B. DRUMM, Winslow, Ariz. Filed July 15, 1914. Serial No. 851,149. (Cl. 156—36.)

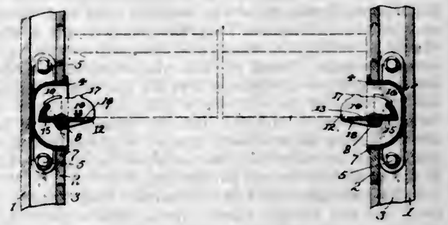
1. A device of the class described comprising an elongated base, a bracket secured to each end thereof and having an upwardly opening slot therein, a roller extending between said brackets, a drum secured to one end of the roller, said drum comprising a threaded shank arranged to engage screw threads in the roller, a casing on one end of the said shank, a disk secured to the shank between the

casing and threaded end thereof, an axle having a slot therein and extending through the shank and casing portion and rotatable therein, the end of said axle being mounted in the slot in the adjacent bracket in such manner that the rotation of the axle will be prevented, a spring connected to the axle and to the casing, a cover for the casing having a slot therein, and pawls freely slidable in said slots and arranged to engage the slot in the axle.



2. In an automatic roller, the combination with a roller member, of a drum secured to one end thereof, a stationary axle extending through the said drum on which it is arranged to rotate, the said drum comprising a casing, a spring secured to the casing and to the axle for rotating the drum in one direction, the said drum further comprising a shank and a flange formed integrally with said shank in spaced relation to the said casing whereby an operating member may be wound upon the shank to cause the rotation of the drum against the action of the spring.

1,144,031. STRINGER-SUPPORT. CHARLES E. FULLER, Omaha, Nebr. Filed Feb. 9, 1911. Serial No. 607,633. (Cl. 20—94.)



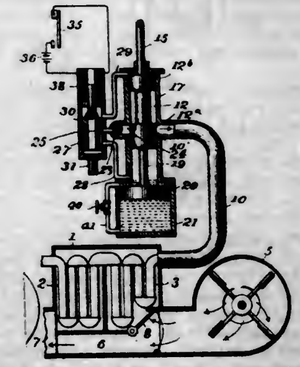
1. The combination of a supporting pocket; bosses formed in said pocket; a hanger pivoted therein adapted in one position to support a stringer or the like and in another to be contained within the pocket; a counterweight adapted to urge the hanger toward the second named position in all positions of the hanger; and lugs on the hangers adapted to coact with the bosses in the pocket to sustain the hanger when drawn outward to supporting position.

2. The combination of a wall including a supporting frame and a sheathing; a cup shaped hanger pocket inserted through said sheathing; means for supporting the hanger pocket on the frame; a flange on the hanger pocket adapted to lap the space between the pocket and the sheathing; a hanger pivoted in the pocket and adapted in one position to support a stringer and in another to be contained within the pocket; and a counterweight formed integrally with the hanger and adapted constantly to urge the same toward the second named position.

1,144,032. AUTOMATIC TEMPERATURE-REGULATING SYSTEM. HARRY G. GEISSINGER, New York, N. Y., assignor to Geissinger Regulator Company, New York, N. Y., a Corporation of New York. Filed Feb. 26, 1910. Serial No. 546,248. (Cl. 236—4.)

1. A temperature regulating system, comprising means for supplying air thereto, a conduit for conveying a temperature-changing medium, means for heating a portion of said air-supply by causing it to pass over said conduit, and means for simultaneously varying the amount of the heated air portion and the amount of temperature-changing medium passing through said conduit, and maintaining the volume of air supplied to the system substantially constant.

2. A temperature regulating system, comprising means for supplying air thereto, a conduit for conveying a temperature-changing medium, means for heating a portion of said air-supply by causing it to pass over said conduit, controlling means for simultaneously varying the amount of the heated air portion and the amount of temperature-changing medium passing through said conduit proportionately, and maintaining the volume of air supplied to the system substantially constant, and means for regulating the operation of the controlling means.



3. A temperature regulating system, comprising means for supplying air thereto, a conduit for conveying a temperature-changing medium, means for heating a portion of said air-supply by causing it to pass over said conduit, controlling means for simultaneously varying the amount of the heated air portion and the amount of temperature-changing medium passing through said conduit proportionately, and maintaining the volume of air supplied to the system substantially constant, actuating mechanism therefor, adjustable retarding means to regulate the operation of the controlling means to thereby prevent fluctuations in the heat supply, and a thermostat controlling said actuating mechanism.

4. A temperature regulating system, comprising an air supply, a conduit for conveying a temperature-changing medium, means for shunting a portion of said air supply into contact with the walls of said conduit, controlling means for proportionately and simultaneously varying the amount of said shunted air portion and the amount of temperature-changing medium passing through said conduit, while maintaining the volume of air supplied to the system substantially constant, actuating means therefor, and governing means for rendering the operation of said controlling means independent of the friction or condition of the moving parts thereof.

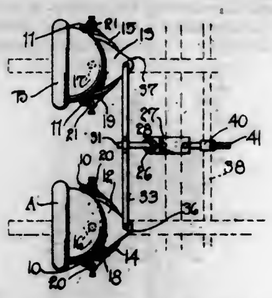
5. A temperature regulating system comprising an air-duct, a temperature changing chamber connected therewith and provided with a by-pass channel, a heating conveying vehicle in said chamber, a valve regulating the passages through said chamber and said by-pass, respectively, proportioning means for varying the amount of said heat-conveying vehicle, actuating means for said valve and for said proportioning means, and a thermostatic device controlling the operation of said actuating means.

[Claim 6 not printed in the Gazette.]

1,144,033. STEERING APPARATUS FOR AUTOMOBILE-HEADLIGHTS. GROVER GEORGE, Williamsfield, Ill., assignor of one-half to Eugene H. Gale, Williamsfield, Ill. Filed Mar. 6, 1915. Serial No. 12,576. (Cl. 240—62.)

1. In a headlight steering mechanism for vehicles, a pair of supporting brackets, a lamp rotatably mounted in each bracket, a transverse connecting rod pivotally connected at its terminals to the lamps, a vertically disposed shaft rotatably secured to the axle of the vehicle, forwardly and rearwardly extending horizontal arms formed respectively on the upper and lower terminals of

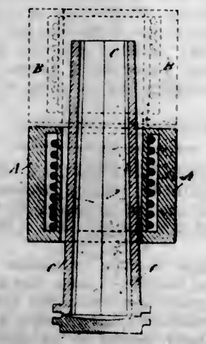
the shaft, a pair of transversely spaced vertical fingers carried by the connecting rod and receiving between them the forwardly extending arm, and a bracket attached to the transverse steering rod of the vehicle steering mechanism, said bracket being provided with vertically spaced rods, between which is disposed the rearwardly extending arm.



2. In a head light steering mechanism for vehicles, a pair of substantially U-shaped supporting brackets fixed to the vehicle, a pair of socket members detachably secured to the upper terminal of each arm of each bracket, a hanger strap depending from each socket member, a supporting plate secured to the hanger straps of each bracket, a base plate rotatably mounted on each supporting plate, a lamp supporting fork rising from each base plate, means operatively connecting the base plates, and means operatively connecting said means to the transverse connecting rod of the vehicle steering mechanism.

3. In a steering mechanism for vehicle head lamps, a pair of supporting brackets, base plates rotatably mounted therein for supporting the head lamps, a rod member connecting the base plates of the two lamps, and a pair of transversely spaced fingers depending from the rod, a vertically disposed shaft rotatably secured to the axle of the vehicle, a horizontal arm extending forwardly from the upper terminal of the shaft, said arm being disposed between the fingers and being engageable therewith for moving the connecting rod upon rotation of the shaft, said arm being vertically movable between the fingers, a horizontal arm extending rearwardly from the lower terminal of the shaft, and a bracket adapted to be secured to the transverse connecting rod of the vehicle steering mechanism, said bracket being provided with spaced vertical portions and spaced horizontal portions, said arm being freely disposed between the vertical and horizontal portions.

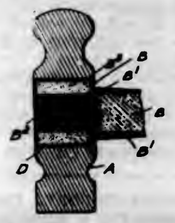
1,144,034. PROCESS FOR THE TREATMENT OF STEEL. FEDERICO GIOLITTI, Turin, Italy, assignor to Società Anonima Italiana Gio. Ansaldo & C., Genoa, Italy. Filed Apr. 8, 1913. Serial No. 759,648. (Cl. 22—216.)



1. Improvement in the process for preventing piping in bodies of cast metal in which the body of cast metal is gradually cooled from the bottom upward, the metal in the upper portion being retained in the liquid condition during the cooling of the portion below which consists in heating the body of metal by electric currents induced in the metal by means of an alternating current in a coil surrounding the metal.

2. The improvement in the process for preventing piping in an ingot, in which the ingot is gradually cooled from the bottom upward, the metal in the upper portion being retained in the liquid condition during the cooling of the portion below which consists in heating the body of metal by electric currents induced in the metal by means of an alternating current in a coil surrounding the metal.

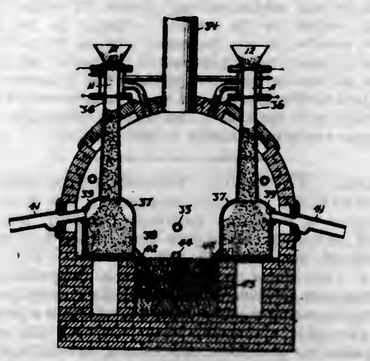
1,144,035. HAMMER. JOHN GUY and JOHN PLATT HUYCKE, Cobourg, Ontario, Canada. Filed July 6, 1914. Serial No. 849,214. (Cl. 145—79.)



1. The combination with the hammer head provided with the usual handle eye and elongated cross slots extending longitudinally of the hammer head and through each side of the hammer head into the eye, of a hammer handle extending into the eye of the head and fitting between the sides of such eye and free of the ends thereof, cushioning means interposed between the hammer handle and the ends of the eye, and a pin projecting from the hammer handle at each side into the cross slots and capable of moving longitudinally thereof in proportion to the yielding of the cushioning means when the hammer blow is struck, as and for the purpose specified.

2. The combination with a hammer head having the usual eye and hammer handle fitting therein and free of the ends thereof and provided with recesses opposing the ends of the eye, resilient cushions fitting into such recesses and metallic clips extending over the exposed ends of the cushion and bearing against the ends of the eye, and means for preventing the withdrawal of the handle from the main eye, as and for the purpose specified.

1,144,036. ZINC-SMELTING FURNACE. JAMES M. HYDE, Berkeley, Cal. Filed Mar. 10, 1915. Serial No. 13,376. (Cl. 75—154.)



1. A furnace for smelting material containing a volatilizable substance having a heating chamber, a smelting vessel or retort within the heating chamber having an outlet for the removal of volatilizable metal and an outlet for the removal of molten material, a chamber into which said latter outlet discharges, and means whereby said molten material seals against the passage of gas the communication between the latter chamber and the smelting vessel.

2. A furnace for smelting material containing a volatilizable substance having a heating chamber, a smelting vessel or retort within the heating chamber having an outlet for the removal of volatilizable metal and an outlet for the removal of molten material, a chamber into which said latter outlet discharges, a tap for removing the molten material from said latter chamber, and means whereby said molten material seals against the passage of gas the communication between the latter chamber and the smelting vessel.

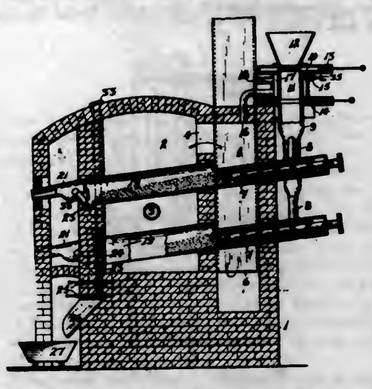
3. A furnace for smelting material containing a volatilizable substance having a heating chamber, a smelting vessel or retort within the heating chamber having an opening by which material can be charged thereinto having an outlet for the removal of volatilizable metal and an outlet for the removal of molten material, a chamber into which said latter outlet discharges, and means whereby said molten material seals against the passage of gas the communication between the latter chamber and the smelting vessel.

4. A furnace for smelting material containing a volatilizable substance having a heating chamber, a smelting vessel or retort within the heating chamber having an opening by which material can be charged thereinto, having an outlet for the removal of volatilizable metal and an outlet for the removal of molten material, mechanical means for continuously or intermittently feeding the material through said opening, a chamber into which said latter outlet discharges, and means whereby said molten material seals against the passage of gas the communication between the latter chamber and the smelting vessel.

5. A furnace for smelting material containing a volatilizable substance having a heating chamber, a smelting vessel or retort within the heating chamber having an outlet for the removal of volatilizable metal, a condenser located to condense the material volatilized in said smelting vessel, an outlet for the removal of molten material, a chamber into which said latter outlet discharges, and means whereby said molten material seals against the passage of gas the communication between the latter chamber and the smelting vessel.

[Claims 6 to 11 not printed in the Gazette.]

1,144,037. METHOD OF SMELTING ZINC AND OTHER ORES. JAMES M. HYDE, Berkeley, Cal. Filed Mar. 10, 1915. Serial No. 13,377. (Cl. 75—153.)



1. The process of smelting zinciferous materials which consists in mixing with the zinciferous material a proper amount of reducing agent, charging the same into a retort while preventing the passage of vaporized zinc through the charging device, vaporizing by external heat the zinc in the retort, and spearately removing the vaporized zinc and the solid residues from the retort while continuing the smelting operation, and preventing the passage of gas out of or into the retort through the opening through which the residues are withdrawn.

2. The process of smelting zinciferous materials which consists in mixing with the zinciferous material a proper amount of reducing agent, driving out of the prepared charge any air or moisture which it may contain, charging the same into a retort while preventing the passage of vaporized zinc through the charging device, vaporizing by external heat and zinc in the retort, and separately removing the vaporized zinc and the solid residues from the retort while continuing the smelting operation, and preventing the passage of gas out of or into the retort through the opening through which the residues are withdrawn.

3. The continuous process of smelting zinciferous ores which consists in converting the zinc into zinc oxid by roasting or calcining the crude ore or concentrates, mixing this prepared ore with a proper amount of a reducing agent, driving out of the prepared charge any air or moisture which it may contain, introducing this charge into a retort while sealing the charging aperture against the passage of gas, vaporizing by external heat the zinc in the retort and removing the same therefrom, drawing off the unfused residue from the retort during the smelting operation into a smelting chamber, introducing a proper amount of fluxing materials and utilizing substantially the whole of the heat of the residue to assist in smelting it for the recovery therefrom of its other metallic contents.

4. The continuous process of smelting zinciferous ores which consists in converting the zinc into zinc oxid by roasting or calcining the crude ore or concentrates, mixing this prepared ore with a proper amount of a reducing agent, driving out of the prepared charge any air or moisture which it may contain, introducing this charge into a retort while sealing the charging aperture against the passage of gas, vaporizing by external heat the zinc in the retort and removing the same therefrom, drawing off the unfused residue from the retort during the smelting operation into a smelting chamber, introducing a proper amount of fluxing materials and utilizing the waste portion of said external heat to assist in smelting the residue for the recovery therefrom of its other metallic contents.

5. The continuous process of smelting zinciferous ores which consists in converting the zinc into zinc oxid by roasting or calcining the crude ore or concentrates, introducing this charge into a retort while sealing the charging aperture against the passage of gas, vaporizing by external heat part of the zinc in the retort, and separately removing the vaporized zinc and the unfused residue, introducing a proper amount of fluxing material, smelting the residue for the recovery therefrom of its metallic contents other than zinc, reducing, vaporizing and oxidizing by the smelting furnace gases the residual zinc ore, and separating from said gases the zinc oxid thus obtained.

[Claims 6 and 7 not printed in the Gazette.]

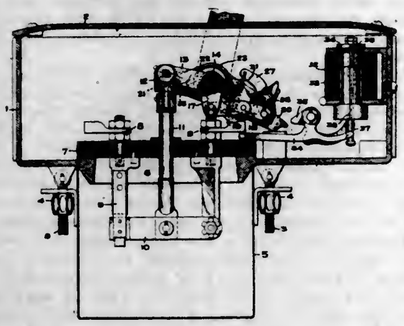
1,144,038. ELECTRIC SWITCH. ERNEST H. JACOBS, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Apr. 4, 1910. Serial No. 553,186. (Cl. 175—267.)

1. An electric switch actuating mechanism comprising an operating member and an actuating member mounted side by side to oscillate in both directions independently of each other, a resilient connection between said members strained by the movement of said operating member in either direction, and latching means controlled by a lug on said operating member for holding said actuating member in either opened or closed position against the strain exerted by said resilient connection.

2. In an actuating mechanism for electric switches, the combination with an operating member and an actuating member mounted side by side to oscillate in both directions independently of each other, and a lug on each member projecting toward the other member, of a spring for connecting the corresponding lugs on said members, latching means for engaging another lug on said actuating member to hold said member in either open or closed posi-

tion, and means on said operating member for coöperating with said latching means to release said actuating member.

3. An actuating mechanism for electric switches comprising an operating member and an actuating member mounted side by side to oscillate about a common axis, a spring connected to said members and set under strain by relative movement thereof, two detents mounted on a common pivot for holding said actuating member in either open or closed position, and a projection on said operating member coöperating with said detents to release said actuating member.

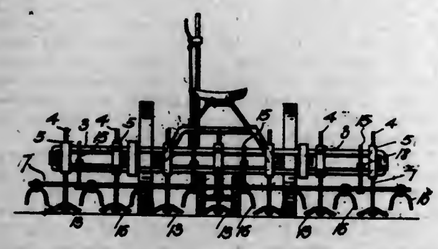


4. In an actuating mechanism for electric switches, the combination with an operating member and an actuating member, both mounted to rock on a common axis, of two detents mounted on a pivot eccentric to said axis and between said members to hold said actuating member in either open or closed position, a spring connected to both said detents to hold them in latching position, and a projection on said operating member for engaging said detents to move them out of latching position and thereby release said actuating member.

5. In an actuating mechanism for electric switches, the combination of an operating member and an actuating member mounted to rock about a common axis and extending on both sides of said axis, each of said members having at the ends lugs which project toward the other member, the lugs on said actuating member being at a greater distance from said axis than the lugs on said operating member, a spring coöperating with the adjacent lugs on one side of said axis to yieldingly hold said members in normal relation, a pivot mounted on the other side of said axis outside the arc of movement of the lug on said operating member and inside that of the lug on said actuating member, and two detents mounted on said pivots and biased to position to catch the lug on said actuating member, each of said detents having a cam surface coöperating with the lug on said operating member to move either detent to release said actuating member.

[Claims 6 to 9 not printed in the Gazette.]

1,144,039. CULTIVATOR. JOHN B. JOHNSON, Fort Collins, Colo. Filed July 7, 1914. Serial No. 849,379. (Cl. 97—48.)

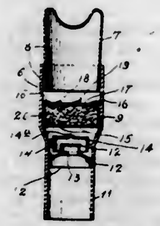


1. In a cultivator, a carrier including a transverse bar, a series of cultivating tools mounted on said bar to be driven through the ground over which the carrier is propelled, and a series of interconnected plant-covering shields collectively suspended from the bar so as to place the shields in alternate order with relation to the tools and at a short distance above the surface of the ground.

2. In a cultivator, a carrier including a transverse member, a series of cultivating tools mounted thereon, a second transverse member attached to the first-mentioned member, and a series of plant-covering shields connected with the said second member so as to be positioned in alternate order with relation to the said tools.

3. In a cultivator, a carrier including a transverse member, a series of cultivating tools mounted thereon, a second transverse member removably attached to the first-mentioned member, and a series of plant-covering shields connected with the said second member so as to be positioned in alternate order with relation to the said tools.

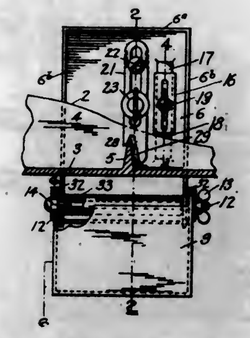
1,144,040. GAS-REGULATOR. PETER KELLER, Chicago, Ill. Filed May 27, 1914. Serial No. 841,341. (Cl. 67—120.)



1. In a gas regulator a pillar containing a retarding chamber suitably packed with a filtering substance, said chamber containing a disk or cover formed with fan like blades or sectors.

2. In a gas regulator a pillar, containing a retarding chamber suitably packed with a filtering substance, said chamber containing a disk or cover formed with fanlike blades or sectors, bent at a slight angle, and a suitable gas pressure regulating mechanism placed below said retarding chamber, substantially as shown.

1,144,041. GAGE ATTACHMENT FOR PLANES. THEODORE J. KINTNER, Denver, Colo. Continuation in part of application Serial No. 820,890, filed Feb. 25, 1914. This application filed Oct. 13, 1914. Serial No. 866,453. (Cl. 145—20.)



1. In a gage attachment for planes having a transverse rib, a body part having a seat to engage the sole of a plane, and an abutment for engagement with the side of the plane, a member on said body-part for engagement with the edge of said side, and an adjustable member on said body part having at one of its ends a slanting edge to engage the upper edge of the said rib.

2. In a gage attachment for planes having a transverse rib, a body part having a seat to engage the sole of a plane, and an abutment for engagement with the side of the plane, a member on said body part for engagement with the edge of said side, and an adjustable member on said body part having at one of its ends an edge which slants from the perpendicular to a greater degree than one of the sides of the said rib, to engage the upper edge of the same.

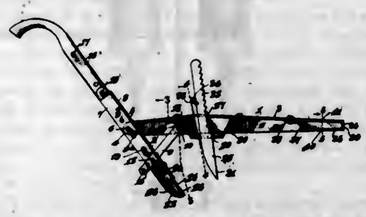
3. In a gage attachment for planes having a transverse rib, a body part having a seat to engage the sole of a plane, and an abutment for engagement with the side of the plane, a member on said body-part for engagement with the edge of said side, and an adjustable member on said body part having at one of its ends a slit adapted to receive the said rib of the plane, the part of the said member at one side of the said slit being longer than the part at the opposite side of the same.

4. In a gage attachment for planes having a transverse rib, a body part having a seat to engage the sole of a plane and an abutment for engagement with the side of the plane, a member on said body part for engagement with the edge of said side, an adjustable member on said body part for engagement with the said rib of the plane, and a spring between the last-mentioned member and the said body part, for maintaining said member in spaced relation thereto.

5. In a gage attachment for planes having a transverse rib, a body part having a seat to engage the sole of a plane, and an abutment for engagement with the side of the plane, a member on said body-part for engagement with the edge of said side, a longitudinally slotted member in spaced relation to said body part, for engagement with the said rib of the plane, screws extending through said slot to guide said member for longitudinal movement and to secure the same in its adjusted positions, and a spring coiled around one of said screws between the said member and the said body part.

[Claims 6 to 11 not printed in the Gazette.]

1,144,042. PLOW-STOCK. FRANK CORNELIUS KIRKPATRICK, Amory, Miss. Filed June 4, 1914. Serial No. 843,037. (Cl. 97—26.)



1. A plow stock including a beam, a channeled standard arranged at and extending above and below the rear end of the beam and provided below the same with a slot, said standard being also provided in its side flanges with perforations arranged at intervals, a pivot piercing the rear end of the beam and adapted to be arranged in the perforations of the side flanges of the standard for adjustably connecting the same to the beam, an inclined brace pivotally connected at its upper end to the beam and extending downwardly and rearwardly through the slot of the standard, a fastening device piercing the lower portion of the brace and the side flanges of the standard and adjustable on one of said parts, and handles secured to and carried by the standard in its adjustment.

2. A plow stock including a channeled beam having rearwardly projecting side flanges, a channeled standard adjustably pivoted between the projecting portions of the side flanges, an inclined brace extending downwardly from the beam in advance of the standard and adjustably secured at its lower portion to the standard a fastening device piercing the flanges of the beam and securing the upper end of the brace to the same, and a spacing sleeve arranged on the said fastening device and having a slot receiving the upper end of the brace.

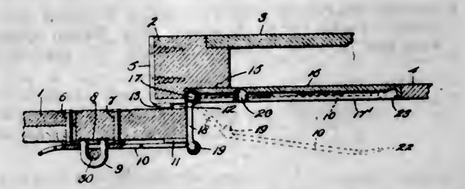
3. A plow stock including a beam, an inclined channeled standard secured to and extending above and below the rear end of the beam and having its side flanges extended at the top of the standard and projecting laterally to form handle supporting arms, and plow handles connected at their lower ends to the standard and supported at an intermediate point by the said arms.

4. A plow stock including a beam, an inclined channeled standard provided at the upper ends of its side flanges with integral laterally projecting arms having terminal diverging attaching portions, said standard being secured to and projecting above and below the beam, and plow handles secured at their lower terminals to the standard and connecting at an intermediate point to the attaching portions of the said arms.

5. A plow stock including a beam, plow handles and a channeled standard provided at its lower portion with a curved plate arranged between the side flanges of the standard and having its terminals fitted against the rear face of the connecting portion of the standard, one of the terminals of the said plate being secured to the standard, said plate and standard having alined bolt openings.

[Claims 6 and 7 not printed in the Gazette.]

1,144,043. HASP FOR CAR-DOORS. JOSEPHUS ADOLPHUS LINN, Selma, Ala. Filed Apr. 29, 1915. Serial No. 24,759. (Cl. 70—102.)



1. In a car door fastening means the combination of a hasp; a link to which said hasp is pivoted; and a pocket member adapted to receive said hasp and link to which said link is pivoted; substantially as described.

2. In a fastening means for car doors the combination of a pocket member provided with a recess adapted to be secured to the wall of a car; a link member pivoted in said recess of a length sufficient to overlie the edge of the car door; and a hasp member pivoted to said link member, substantially as described.

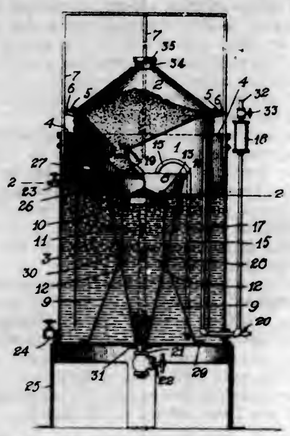
1,144,044. ACETYLENE-GAS GENERATOR. JAMES J. MCNOON, Bowling Green, Ky., assignor of one-half to Charles C. Heminger, Bowling Green, Ky. Filed Dec. 2, 1914. Serial No. 875,102. (Cl. 48—53.2.)

1. In acetylene gas generators of the bell type, a carbid receptacle carried by the bell and an upwardly flaring cone-shaped generator, in combination with a float rising and falling in said generator, with the level of the water therein, a screen or grate carried by said float slightly submerged when loaded, guides for said float supported by said generator and automatic means engaging said generator on the descent of the bell to supply carbid to said grate.

2. In acetylene gas generators of the bell type, a carbid receptacle carried by the bell and a generator, in combination with a float rising and falling with the level of the water in said generator, a grate carried by said float slightly submerged in all positions of its vertical movement when loaded and automatic means engaging said generator on the descent of the bell to supply carbid to said grate.

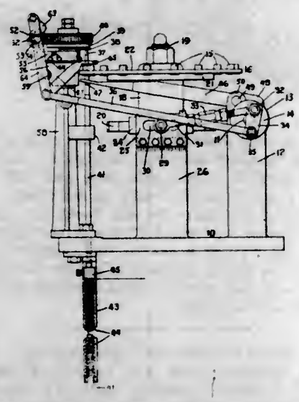
3. In acetylene gas generators of the bell type, a carbid receptacle carried by the bell and a generator, in combination with a float rising and falling with the level of the water in said generator, a grate carried by said float slightly submerged in all positions when loaded, guides for said float, bracing wedges interposed between the

guides and the inner face of the generator, braces for said generator, each having one end secured thereto and a



single means for fastening the respective guides, bracing wedges and ends of the generator braces firmly in position.

1,144,045. MACHINE FOR PUNCHING RUBBER NIPPLES. JEREMIAH L. MAHONEY, New Haven, Conn. Filed Dec. 16, 1914. Serial No. 877,503. (Cl. 164—87.)



1. A machine of the character described comprising an intermittently rotating carrier having thimbles for nipples, a stretcher plate having a hole, a punch block and a punch adapted to be passed through each thimble when in alinement with the stretcher plate.

2. A machine of the character described comprising an intermittently rotating carrier having thimbles for nipples, a punch block and a vertically movable punch adapted to be passed through each nipple and to engage the punch block.

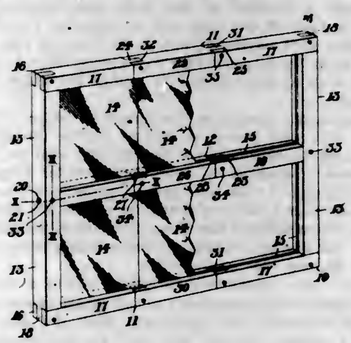
3. A machine of the character described comprising an intermittently rotating carrier having thimbles for nipples, a rotating punch block and a vertically movable punch adapted to be passed through each nipple and to engage the punch block.

4. A machine of the character described comprising an intermittently rotating carrier for nipples, a punch block and a vertically movable punch adapted to be passed through the carrier and to engage the punch block.

5. A machine of the character described comprising an intermittently rotating carrier having holes, thimbles for nipples set in said holes, a punch block and a punch adapted to be passed through the thimbles successively and to engage the punch block.

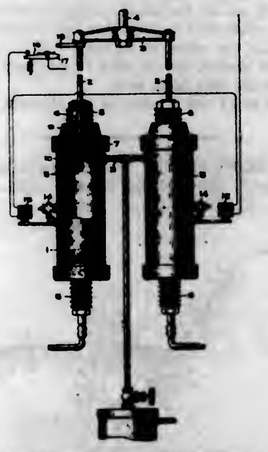
[Claims 6 to 37 not printed in the Gazette.]

1,144,046. EXTENSIBLE WINDOW-FRAME. JOHN MARCZI, La Belle, Pa. Filed Mar. 12, 1915. Serial No. 13,947. (Cl. 20—56.)



An extensible sash comprising end sections oppositely arranged with side rails approaching each other, and intermediate side rail sections extending between and connected to the spaced inner ends of the end section rails.

1,144,047. ELECTRIC SWITCH. EZRA B. MERRIAM, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Feb. 4, 1910. Serial No. 541,989. (Cl. 175—282.)



1. An electric switch comprising relatively movable cooperating contacts, means for maintaining at atmosphere of compressed gaseous insulating medium around said contacts during their separation, and means controlled by said contacts for permitting at intervals the insulating medium to escape.

2. An electric switch comprising a vessel provided with a normally closed vent, relatively movable coöperating contacts mounted to separate in said vessel, means coöperating with said contacts to control the opening of said vent, and means for maintaining in said vessel an atmosphere of compressed gaseous insulating medium during the separation of said contacts.

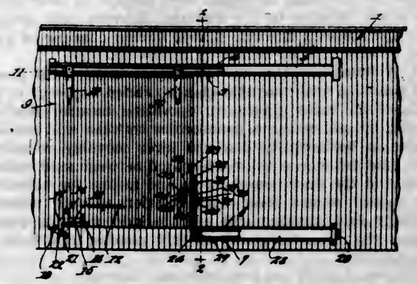
3. An electric switch comprising a vessel having a normally closed vent, a gaseous insulating medium normally maintained under pressure within said vessel, relatively movable coöperating contacts separable within said vessel to produce an arc therein, and means whereby said contacts control the opening of said vent to remove said insulating medium from between said contacts after the arc has been extinguished.

4. An electric switch comprising separable contacts, a vessel surrounding said contacts containing a normally compressed gaseous insulating medium, said vessel having a vent normally closed during the separation of said contacts, and means controlled by said contacts for opening said vent during the closing movement of the switch to permit the escape of said insulating medium.

5. A switch comprising relatively movable coöperating contacts, a vessel inclosing said contacts, means for supplying a compressed gaseous insulating medium to said vessel, a valve for venting said vessel, and means for opening said valve to vent said vessel during a predetermined portion of the movement of said contacts.

[Claims 6 to 9 not printed in the Gazette.]

1,144,048. BOX-CAR DOOR. JOHN P. MÜLLER, Freeport, Ill. Filed Sept. 19, 1914. Serial No. 862,509. (Cl. 20—22.)



1. In a device of the class described, a supporting structure having a doorway; a main track on the supporting structure; a door mounted on the main track to slide therealong and to swing thereon; an auxiliary track on the supporting structure; a guide having means to engage the auxiliary track; slidably, whereby the guide may be moved on the auxiliary track independently of the door and away from the door and detachably interengaged securing elements on the door and the guide, said elements coacting to prevent a swinging of the door and being separable by the movement of the guide on the auxiliary track independently of the door.

2. In a device of the class described, a supporting structure having a doorway; a main track on the supporting structure above the doorway; a door mounted on the main track to slide therealong and to swing thereon; an auxiliary track on the supporting structure below the doorway and to one side of the doorway; an upright guide mounted to move longitudinally of the auxiliary track, independently of the door, the guide lying movably along one edge of the door; and a latch mechanism for securing the guide to said edge of the door.

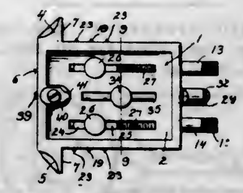
3. In a device of the class described, a supporting structure having a doorway; a main track on the supporting structure; a door mounted on the main track to slide therealong and to swing thereon; an auxiliary track on the supporting structure; a guide having means to engage with the auxiliary track; a shield secured to the guide and housing the auxiliary track, the shield being substantially equal in length to the auxiliary track; and means for detachably securing the guide to the door.

4. In a device of the class described, a supporting structure having a doorway; a main track on the supporting structure; a door mounted on the main track to slide therealong and to swing thereon; an auxiliary track on the supporting structure; a guide having means to engage the auxiliary track; interengaging elements on the door and the guide; and door carried latch mechanism extended across the guide and interlocked with that interengaging element which is upon the door.

5. In a device of the class described, a supporting structure having a doorway; a main track on the supporting structure; a door mounted on the main track to slide therealong and to swing thereon; an auxiliary track on the supporting structure; a bar having an opening; means on the bar for engaging the auxiliary track; a stud on the door and projecting through the opening in the bar, the stud being provided with a slot; and a securing device lodged in the slot.

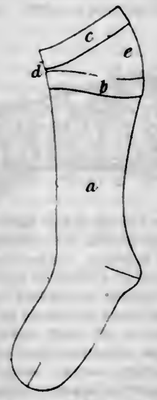
[Claims 6 to 8 not printed in the Gazette.]

1,144,049. BUTT AND LOCK GAGE. RUDOLPH NEUMANN, Indianapolis, Ind. Filed Aug. 20, 1913. Serial No. 785,808. (Cl. 33—44.)



In a gage of the character described, a body having a channel formed therein and provided with a slot opening upon one face and communicating with the channel, a rod extending into the channel provided with oppositely threaded portions and an unthreaded portion intermediate said threaded portions, the unthreaded portion being formed with a circumferential groove, a collar loosely mounted upon the unthreaded portion, a marking pin carried by the collar and extending into the circumferential groove, said pin projecting through said slot, a collar positioned upon each side of said first mentioned collar and threadingly engaging the rod, a marking pin carried by each of said second mentioned collars and projecting through said slots and a knurled extension formed integral with the rod to form a thumb piece whereby the rod may be rotated.

1,144,050. SOCK AND STOCKING. JOSEPH MELVIN NIGHTINGALE, London, and EDWARD SMITH GOY, Buckhurst Hill, England. Filed May 16, 1913. Serial No. 768,160. (Cl. 66—4.)



1. A sock or stocking having at its upper part a reinforced portion comprising a pair of loops which meet at one side of the sock or stocking and diverge toward the opposite side thereof, leaving a space between their diverging portion, and a filling entirely closing said space.

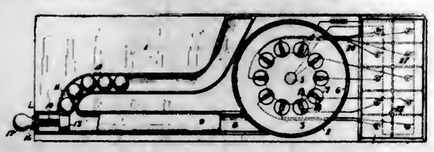
2. A sock or stocking having at its upper part a reinforced portion formed integrally with the sock or stocking during the formation of the same, comprising a pair of loops which meet at one side of the sock or stocking and diverge toward the opposite side thereof leaving a space between said diverging portion, and a filling entirely closing said space.

3. A sock or stocking having at its upper part a reinforced portion comprising a pair of loops which meet at

the front of the sock or stocking and diverge toward the back thereof leaving a space between said loops, and a filling shaped to conform to a portion of the wearers limb entirely closing said space.

4. A stocking having at its upper end, a pair of annular bands located closely adjacent to each other at the front of the stocking and diverging from each other at the back and leaving a space between said diverging portions and a filling entirely closing said space.

1,144,051. GAME APPARATUS. KENKICHI OKAMOTO, San Francisco, Cal. Filed Apr. 10, 1915. Serial No. 20,443. (Cl. 46—57.)



1. A game apparatus comprising a runway having therein a series of pockets, balls, means for directing the balls into said runway, electric lamps, electrical circuits for the several lamps arranged to be closed by the resting of balls in the several pockets, playing cards, and means for supporting said cards so that the symbols thereon are visible only when illuminated by said lamps.

2. A game apparatus having a series of pockets, balls, electric lamps, electrical circuits for the several lamps arranged to be closed by the resting of balls in the several pockets, playing cards, and means for supporting said cards so that the symbols thereon are visible only when illuminated by said lamps.

3. A game apparatus having a series of pockets, balls, playing cards corresponding to the several pockets, electric lamps for illuminating said cards and means for closing a circuit through said lamps.

1,144,052. FLYING-MACHINE. JOHN F. O'ROURKE, New York, N. Y. Filed Dec. 4, 1909. Serial No. 531,414. (Cl. 244—29.)



1. A flying machine having one or more main planes and provided with movable planes, an operating member movably carried by said machine, connections interposed between said member and said movable planes to move them simultaneously in opposite directions, means comprised in said connections to move the parts of said connections in opposite directions to set said movable planes simultaneously in the same direction, and adjustable devices connecting said operating member with said connections for setting said planes in opposite directions relatively to each other to be operated by said member when set in the same or opposite directions.

2. A flying machine having one or more main planes and provided with movable planes, an operating member movably carried by said machine, connections between said movable planes and said member to move said planes in opposite directions by the action of said member, said connections comprising an adjustable member to move parts of said connections relatively to each other, means to lock said adjustable member and connections in operative relation to the first named member, and means to unlock said members to permit relative movement of said connections to set said planes in the same direction to be actuated by the operating member when so set.

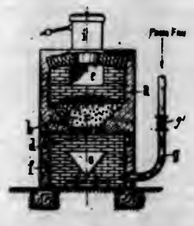
3. A flying machine provided with movable planes, an operating member movably carried by said machine, connections between said planes to operate them simultaneously, a lever operatively connected with said member and with said connections to move them in the same direction, means to change the relative positions of said connections to vary the angles of said planes relatively to each other, and means to adjust the position of said lever relatively to said member to set said planes in opposite directions relatively to each other.

4. A flying machine having one or more main planes and provided with movable planes carried adjacent to the ends of the main planes, an operating member movably carried by said machine, connections between said movable planes, a horizontally disposed lever movably connected with said member, a lever interposed between said connections and the first named lever, and means interposed between said member and said movable planes to adjust said planes in the same direction with respect to their previous angle relative to the machine, whereby said member will operate said movable planes during changes of position of said member relatively to the machine.

5. A flying machine having one or more main planes and provided with movable planes carried adjacent to the ends of the main planes, an operating member movably carried by said machine, connections between said movable planes, a horizontally disposed lever movably connected with said member, a lever interposed between said connections and the first named lever, and means for adjusting the second named lever with relation to said member, whereby said member will operate said movable planes during changes of position of said member relatively to the machine.

[Claims 6 to 16 not printed in the Gazette.]

1,144,053. FURNACE FOR WORKING UP ORES. HERMANN PAPE, Oker-in-the-Harz, Germany. Filed Oct. 15, 1912. Serial No. 725,893. (Cl. 75—155.)

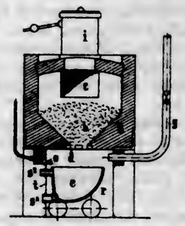


A continuously working furnace comprising a reduction chamber having a bottom part provided with perforations for the continuous removal of the molten non-volatile portions of the charge and for the introduction of compressed air into the furnace charge, means whereby the charge is fed into the reduction chamber, a tightly closed chamber below said reduction chamber for the supply of compressed air and the periodical removal of the residues resulting from combustion, and a conduit for supplying compressed air to said chamber.

1,144,054. REDUCTION-FURNACE. HERMANN PAPE, Oker-in-the-Harz, Germany. Filed Nov. 28, 1913. Serial No. 803,608. (Cl. 75—28.)

1. In a furnace for continuously working up a charge consisting of a mixture of reducing agents consisting of a mixture of reducing agents with substances containing reducible metallic compounds, a current of air passing through the charge from below upward, the combination with the reducing chamber having apertures in the bottom thereof, a blast-box located immediately below the reduction chamber, a pipe connected to the blast-box, and a collecting device for collecting molten material falling out of said apertures, of independent means for producing a hot flame playing on the surface of the molten material in the collecting device.

2. In a furnace for continuously working up a charge consisting of a mixture of reducing agents with substances containing reducible metallic compounds, a current of air passing through the charge from below upward, the combination with the reducing chamber having apertures in the bottom thereof, a blast-box located immediately below the reduction chamber, a pipe connected to the blast-box, and a collecting device for collecting molten material falling out of said apertures, of independent burners in the blast-box for producing a hot flame playing on the surface of the molten material in the collecting device.

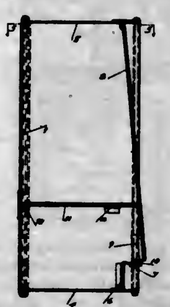


3. In a furnace for continuously working up a charge consisting of a mixture of reducing agents with substances containing reducible metallic compounds, a current of air passing through the charge from below upward, the combination with the reducing chamber having apertures in the bottom thereof, a blast-box located immediately below the reduction chamber, a pipe connected to the blast-box, and a collecting device for collecting molten material falling out of said apertures, of independent means for producing a hot flame playing on the surface of the molten material in the collecting device, said collecting device having a tap-hole in the upper part thereof and a tap-hole in the lower portion thereof.

4 In a continuously working reduction furnace, the combination with a melting chamber and a closed wind chamber below said chamber, of a grate separating both chambers for simultaneously removing the molten slags and supplying air of combustion, an auxiliary flame below said grate for keeping the molten residues passing through said grate into the wind chamber in molten condition, and means for continuously collecting the molten mass substantially as described.

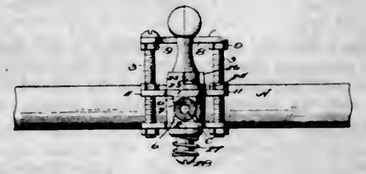
5. In a continuously working reduction furnace, the combustion with a melting chamber and a closed wind chamber below said melting chamber, of a grate separating both chambers for simultaneously removing the molten slags and supplying air of combustion, an auxiliary flame below said grate for keeping the molten residues passing through said grate into the wind chamber in molten condition, and a collection chamber within the wind chamber heated by said auxiliary flame for collecting the molten mass continuously dripping from said melting chamber directly into said collection chamber, substantially as described.

1,144,055. RECEPTACLE-HOLDER. EMORY PARSONS, Lakewood, Ohio. Filed Mar. 19, 1914. Serial No. 825,839. (Cl. 232—41.)



A milk bottle holder, a box, a door hinged at its upper edge to the inner side of the top of the box and at a distance from the front edge thereof, a keeper strip extending on the inside of the box at the bottom and at a distance from the front edge thereof, a lock carried by the door coöperating with said keeper strip, a holding plate hinged to the back of the box at a point less than the height of any of the bottles used and of a width greater than the distance from the door when closed to the back of the box, so as to hold the door open when in a horizontal position, and suitable stops secured to the ends of the box for retaining the holding plate in horizontal position.

1,144,056. LOCKING ATTACHMENT FOR VALVES. CHARLES A. PATTERSON, Baltimore, Md., assignor of one-third to Ernest B. Clark and one-third to Harry C. Hazard, Baltimore, Md. Filed Dec. 12, 1914. Serial No. 876,862. (Cl. 137—7.)



1. A locking attachment for valve plugs consisting of a pair of clamp-plates, clamp-bolts, a segmental rack carried by said bolts, a valve plug, and a spring pressed handle connected with the plug and carrying a locking pin to engage said rack.

2. A locking attachment for valve plugs consisting of a pair of clamp-plates, clamp-bolts, a segmental rack carried by said bolts, clamp nuts threaded on said bolts, a valve plug, and a spring pressed handle carrying a locking pin to engage said rack.

3. A locking attachment for valve plugs, consisting of a pair of bolts, a segmental rack fixedly secured at the ends of said bolts, a pair of clamp-plates adjustably mounted on said bolts, a valve-plug, and a spring pressed handle connected with the plug and carrying a locking pin to engage the rack.

4. A locking attachment for valve plugs consisting of a pair of bolts, a segmental rack fixedly secured at the ends of said bolts, a pair of clamp plates adjustably mounted on said bolts, a valve-plug, and a non-rotative spring-pressed handle connected with the plug and carrying a locking pin to engage the rack.

5. A locking attachment for valve plugs consisting of a pair of bolts, an L-shaped plate having a segmental rack fixedly secured at the ends of said bolts, ring-shaped clamp-plates adjustably mounted on said bolts, and a spring pressed handle connected with the plug and having a locking pin to engage the rack.

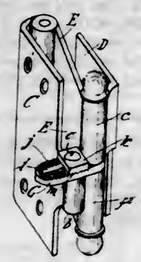
[Claim 6 not printed in the Gazette.]

1,144,057. ADJUSTABLE HINGE. HENRY PEARSON, Springfield, Mass., and JOHN RENFREW, Habana, Cuba. Filed Mar. 29, 1915. Serial No. 17,773. (Cl. 16—112.)

1. In an adjustable hinge in combination, a jamb-plate having a bracket member at an outer portion thereof and having a link-plate hinged to an inner portion thereof, a door-plate hinged to the outer portion of the link plate, and a bar adjustably confined on said jamb-plate-bracket, and engaged with the hinge-connected link-plate and door-plate.

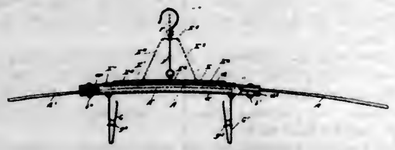
2. In an adjustable hinge in combination, a jamb-plate having a bracket member at an outer portion thereof and having a link-plate hinged to an inner portion thereof, a door-plate hinged to the outer portion of the link plate, a bar having a slot therein, and a serrated face, resting on and adjustable relatively to said jamb-plate bracket, and engaged with the hinge-plate and door-plate, a perforated block having serrations to engage with the serrations of the bar, and a headed screw having the shank thereof passed through the block, and slotted bar and with a thread engagement into the jamb plate bracket.

3. In combination, a jamb-plate having at its outer edge a bracket member, a link plate having its inner edge hinged to the jamb plate and having a barrel member at its outer edge, a door plate having a barrel member axially coincident with the link plate barrel member, and a pintle



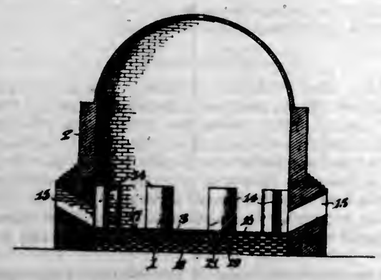
for hinge connecting said barrel members, a bar supported by and adjustable relatively to the jamb plate bracket and engaged with said pintle and means for adjustably confining said bar in any given adjusted position on the jamb plate bracket.

1,144,058. CLOTHES-HANGER. GRACE FERN PETER, Chicago, Ill. Filed May 2, 1913. Serial No. 765,059. (Cl. 211—13.)



A clothes-hanger, comprising an elongated casing formed of an upper and a lower plate, disks interposed between the ends of said plate to form a compartment therebetween, extension arms pivotally secured at the ends of said casing and adapted to fold inside of the same, each of said plates having a groove formed in one end thereof on its inner surface, springs between the ends of said plates exerting a pressure against the pivotal ends of the extension arms whereby they are held in the grooves when in open position, substantially as described.

1,144,059. STEAM-GENERATING SYSTEM. FRED CARL PETERSON, Clermont, Pa. Filed Feb. 12, 1914, Serial No. 818,355. Renewed Apr. 27, 1915. Serial No. 24,348. (Cl. 122—6.)



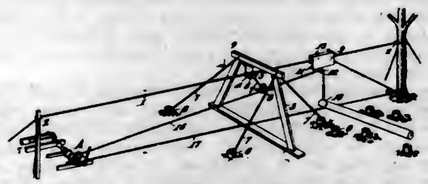
1. A steam generating system including a kiln having a floor provided with apertures for the passage of the products of combustion, supports for the floor arranged at intervals and provided with apertures, and a steam generating coil located beneath the floor and having pipes extending through the apertures of the said supports and supported by the latter.

2. A steam generating system including a kiln having a floor provided with apertures for the passage of the products of combustion, spaced walls or supports arranged at intervals beneath and supporting the floor and provided with apertures for the passage of the products of combustion, and a steam generating coil having pipes arranged beneath the floor and extending through the apertures of the walls or supports and supported by the latter.

3. A steam generating system including a kiln, spaced floor supporting walls arranged at intervals and provided with apertures for the passage of the products of combustion, a floor composed of bricks spanning the spaces between the said walls and supported by the same, said floor being provided at the spaces between the walls with apertures for the passage of the products of combustion, and a steam generating coil having pipes passing through apertures of the said walls and supported by the same beneath the said floor.

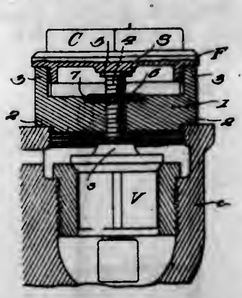
4. A steam generating system including a kiln, spaced floor supporting walls arranged at intervals, a floor composed of bricks supported at their ends upon the said walls and spanning the spaces between the same, each brick being provided at one side with a recess, the recessed side being fitted against the continuous side of the adjacent brick to form an opening at the space between the walls, and a steam generating coil having pipes located beneath the floor and supported by the said walls.

1,144,060. ELEVATED CARRIER. ROBERT B. PHILLIPS, Dublin, N. C. Filed Apr. 1, 1913. Serial No. 758,207. (Cl. 104—146.)



The combination with a supporting cable and supporting means therefor embracing a portion of the cable, of means for lubricating the cable and the supporting means, said lubricating means including a carriage, an axle extending transversely within the carriage, and a grooved wheel journaled on the axle and straddling the cable, the cable engaging hub portion of the wheel being formed with radial openings extending from the center of the wheel to the periphery of the hub, and means for directing a lubricant upon the periphery of the hub from the upper portion of the carriage.

1,144,061. MICROMETER PUMP-VALVE GAGE. NATHANIEL JOHNSTON PRITCHARD, Point Richmond, Cal. Filed May 4, 1914. Serial No. 836,208. (Cl. 33—185.)



1. A valve lift gage comprising a substantially rectangular base having transverse notches in the opposite ends of one of its sides, said notches being adapted to be positioned on the edge of a valve casing, a pair of arms projecting at right angles from the opposite side of the base and adapted to receive a valve cap, and a gage screw threaded through said base and having a stop engaging head on one end, said screw lying parallel to said arms and being spaced equi-distantly therebetween, there being coacting indicating characters on said head and adjacent sides of the base.

2. A valve lift gage comprising a rectangular base having transverse notches in opposite ends of one of its sides, said notches being adapted to be positioned upon the edge of a valve casing, a pair of arms projecting at right angles from the opposite ends of the opposite side of said base and having their inner sides channeled longitudinally on a radius struck from the center of the base, said arms being adapted to receive a cylindrical valve cap, and a gage screw threaded through the center of the base and lying parallel with said arms.

3. A valve lift gage comprising a rectangular base, a pair of parallel arms projecting from opposite ends of one side thereof and having their inner sides channeled longitudinally on a radius around the center of the base, and a gage screw threaded through said base and parallel with said arms.

4. A pump valve gage comprising a horizontal base, a pair of upright arms projecting therefrom and lying in parallel relation, said arms being of equal length and being formed integrally with the base, and a single gage screw threaded through the center of said base and projecting centrally between said arms, there being coacting indicating characters on the screw and on the base for the purpose set forth.

1,144,062. END-GATE FASTENER. PAUL A. REYNER, Broken Bow, Nebr. Filed Mar. 15, 1915. Serial No. 14,422. (Cl. 70—45.)



A latch for an end gate comprising a casing having attaching ears secured to a portion of the gate and having an opening in the upper portion at one end thereof, a pin passed through the opposite end of the casing and into the end gate, an arm pivotally mounted on the pin and extending to the other end of the casing, a depending lug on the arm at the free end thereof, a longitudinally and outwardly directed finger piece carried by the upper side of the free end of the arm and extending through the said opening of the casing, said finger piece normally resting on one of the attaching ears, and resilient means for normally urging the arm in lowered position to be supported by the engagement of the finger piece with the ear.

1,144,063. MAGNETICALLY-OPERATED DEVICE. CHARLES H. RIPPL, Cleveland, Ohio, assignor to The Electric Controller and Manufacturing Company, Cleveland, Ohio, a Corporation of Ohio. Filed Apr. 18, 1913. Serial No. 761,972. (Cl. 175—345.)



1. In a magnetically-operated device, a magnet with poles, an armature normally separated from the poles but adapted to engage the same, a pivot for the armature, an energizing winding, and means for causing the armature to first engage the magnet pole nearest the pivot.

2. In a magnetically-operated device, a core, an energizing winding, an armature therefor, a perforated lug on the pack of the armature, a barrel-shaped bearing-pin in the perforation in the lug to make the armature free to move in two or more directions, and means for causing the same portion of the armature whenever it is operated to first engage the core.

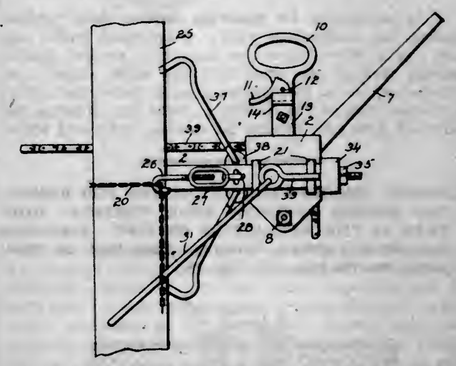
3. In a magnetically operated device, a magnet pole, an energizing winding therefor, an armature having a face for engaging said magnet pole, and means for supporting the armature to permit it, when it engages the said pole, to have a rolling motion about an apparent longitudinal axis eccentric to the supporting means of the said armature face.

4. In a magnetically-operated device, magnet poles, an energizing winding, an armature normally separated from the poles, and means for causing the armature whenever it is operated to first engage the same pole of the magnet.

5. In a magnetically-operated device, a core, an energizing winding, an armature, an axis around which the armature oscillates in its movement toward the magnet, and a second axis substantially parallel to the first axis, around which the armature oscillates to cause the same to engage first one edge of the pole and then to engage the surface of the pole.

[Claims 6 to 12 not printed in the Gazette.]

1,144,064. WIRE-FENCE STRETCHER. STEPHEN S. ROBERTS, Mexico, Mo. Filed June 5, 1914. Serial No. 843,164. (Cl. 254—164.)



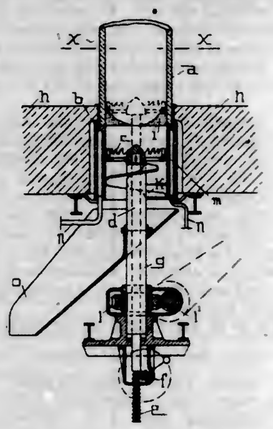
1. In a wire fence stretcher, the combination, with a casing and stretching mechanism carried by the casing, of means for securing the stretching mechanism to a post, comprising an anchor bar, keepers on the casing in which said anchor bar is mounted, a brace connected to said anchor bar and provided with an angular arm having a prong thereon, a chain connected to the anchor bar, a hook adjustably connected to said chain, said hook having a threaded shank, and a turn-buckle swiveled to the anchor bar and adjustable on the threaded shank of the hook.

2. In a wire fence stretcher, the combination, with a casing and streaching mechanism carried by the casing, of means for securing the stretching mechanism to a post, comprising an anchor bar, keepers in which said anchor bar is mounted, a chain connected to said anchor bar, a hook adjustably connected to said chain, a turn-buckle swiveled to the anchor bar, for adjusting said hook, a bracket connected to said casing, and hooks connected to the opposite sides of said bracket for engaging a fence post.

1,144,065. MECHANISM FOR REMOVING RESIDUES FROM VERTICAL RETORTS. ALEXANDER ROTHERHIM and WILHELM REMY, Duisburg-Ruhrort, Germany. Filed Dec. 20, 1912. Serial No. 737,879. (Cl. 75—153.)

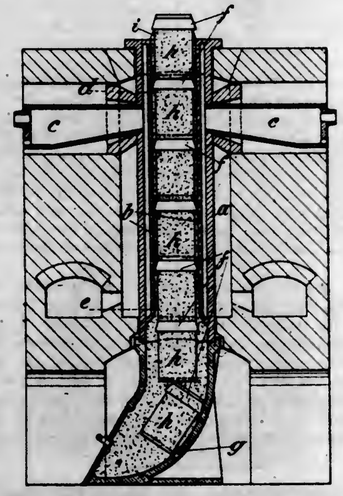
1. Mechanism for removing residues from vertical retorts, comprising a rotatable cutter mounted below the discharge end of the vertical retort, and means for raising and lowering the cutter as required during its rotation.

2. Mechanism for removing residues from the discharge end of vertical retorts, comprising a vertical spindle, an annular cutter thereon, mechanism for rotating the cutter and means for manually raising and lowering the spindle.



3. In mechanism for removing residues from vertical muffles, the combination with a water-cooled muffle support; of a chute below the support, a vertical spindle passing through the chute into the muffle support, an annular cutter on the spindle, a screw below the cutter, a circular rack on the spindle, a pinion for actuating the rack and means for driving the spindle, cutter and screw.

1,144,066. PROCESS AND APPARATUS FOR REMOVING DROSSY RESIDUES FROM VERTICAL MUFFLES IN THE EXTRACTION OF ZINC. ALEXANDER ROITZHEIM, Duisburg, Germany. Filed Sept. 22, 1913. Serial No. 791,108. (Cl. 75—28.)



1. A zinc retort piston of refractory material substantially filling the retort, having a refractory stem for supporting the piston thereabove to maintain adjacent pistons spaced and provide a chamber for the charge without compressing the same.

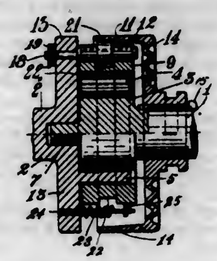
2. A zinc retort piston of refractory material having a refractory stem removable from, arranged to rest on and interfit with the piston.

3. A retort piston of refractory material having a refractory stem and ducts for fumes and gas for connecting the space on one side of a piston to that on the other.

4. A retort piston of refractory material having a separate stem of refractory material interfitting with the piston, and ducts, partly in the piston and partly in the stem, and arranged to conduct fumes and gas from one side of the piston to the other.

5. The method of working zinc retorts which comprises passing through an open-ended retort a plurality of separately supported quantities of the charge.

1,144,067. COUPLING. ERIK ANTON RUNDLÖF, Stocksund, Sweden. Filed Mar. 20, 1913. Serial No. 755,791. (Cl. 192—22.)



1. The combination of a driving member, a driven member, a sleeve having a plurality of oblique faces arranged to have a limited motion in either direction between said members, a plurality of rollers arranged to be pressed between the faces and one of the members, a plurality of other rollers resting against the outside circumference of the sleeve, and a ring attached to one of the members and arranged to press against the latter said rollers.

2. The combination of a driving member, a driven member, a sleeve having a plurality of oblique faces arranged to have a limited motion in either direction between said members, a plurality of rollers arranged to be pressed between the faces and one of the members, a plurality of other rollers resting against the outside circumference of the sleeve, and a springy yielding ring attached to one of the members and arranged to press against the latter said rollers.

3. The combination of a driving member, a driven member, a sleeve having a plurality of oblique faces arranged to have a limited motion in either direction between said members, a plurality of rollers arranged to be pressed between the faces and one of the members, a plurality of eccentric studs fastened to one of the members, a roller mounted loosely on each stud and resting against the outside circumference of the sleeve, and a ring attached to the other member and arranged to press the latter said rollers against the sleeve.

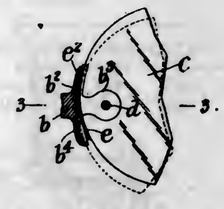
4. The combination of a driving member, a driven member, a sleeve having a plurality of oblique faces arranged to have a limited motion in either direction between said members, a plurality of rollers mounted on one of the members and arranged to be pressed between the faces and the other member, a plurality of studs fastened to the first member, a roller mounted loosely upon each stud, the central part of said roller being of greater diameter than the diameter at either end of the roller, and a ring attached to the second member and arranged to press against the central part of said roller and force the roller against the sleeve.

5. The combination of a driving member, a driven member, a sleeve having a plurality of oblique faces arranged to have a limited motion in either direction between the members, a plurality of rollers mounted on one of the members and arranged to be pressed between the faces and the other member, a plurality of studs fastened to the first member, a roller mounted loosely upon each stud, the central part of said roller being of greater diameter than either end of the roller, a ring attached to the second

said member and arranged to press against the central part of said roller, so as to force the roller against the sleeve, and a spring fastened between the sleeve and the first said member.

[Claim 6 not printed in the Gazette.]

1,144,068. EYEGLASSES. PHILIP SALIAS, Whitestone, N. Y. Filed Mar. 5, 1915. Serial No. 12,234. (Cl. 88—47.)



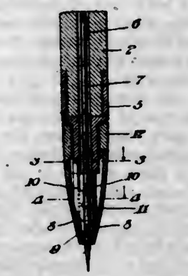
1. An eyeglass strap, the front or outer side of which is provided with a longitudinal groove, a spring secured in the upper end of said groove and extending downwardly and longitudinally therethrough and the lower end of which is free.

2. An eyeglass strap, the front or outer side of which is provided with a longitudinal groove, a spring secured in the upper end of said groove and extending downwardly and longitudinally therethrough and the lower end of which is free and bent outwardly.

3. The combination with the lens holding stud of a pair of eyeglasses having the usual strap and projecting jaws between which the lens is secured, said strap being provided in its front or outer face with a longitudinal groove, of a spring secured in the upper end of said groove and extending downwardly therethrough and on which the lens bears and the lower end of which is bent outwardly.

4. An eyeglass strap having the usual projecting jaws between which the lens is secured, said strap being provided in the face thereof with a longitudinal groove, and a spring secured in said groove and bearing on the adjacent edge portion of said lens and by which said lens is prevented from drooping.

1,144,069. PENCIL. RUDOLPH H. SCHLEICHER, Philadelphia, Pa. Filed Nov. 26, 1913. Serial No. 803,110. (Cl. 120—21.)

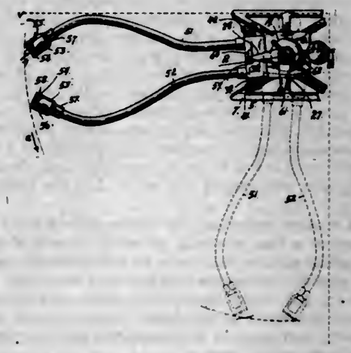


1. In a pencil of the class described, a body portion having an opening therein to receive the marking bar, and means for clamping the bar in different positions of adjustment, said means including a part surrounding said bar, and carrying a pin which extends transversely to a line radiating from the axis of said part, a clutch member having a radially extending slot therein through which said pin extends and a clamping face extending parallel to said bar and bodily movable toward and from said bar in parallel relation thereto, and means operative to move said member toward said bar.

2. In a pencil of the class described, a body portion having an opening therein to receive the marking bar, and means for clamping the bar in different positions of adjustment; said means comprising a double clutch device having two sets of independently-movable clutch members having clamping portions, the clamping portions of one set being spaced from the clamping portions of the other set longitudinally of the pencil, and means common to both members for moving them toward said bar.

3. In a pencil of the class described, a body portion having an opening therein to receive the marking bar, and means for clamping the bar in different positions of adjustment; said means comprising a double clutch device having two spaced independently-movable clutch members, and means common to both members for moving them toward said bar, one of said clutch members being a spring having a yielding action with respect to the other after being brought into contact with said bar.

1,144,070. SPRINKLING DEVICE. MAX SCHNEIDER and CLARA G. SCHNEIDER, Denver, Colo. Filed Dec. 14, 1914. Serial No. 877,155. (Cl. 137—59.)



1. In a lawn sprinkler, the combination of a base having an opening therein, means for supplying water to said opening, a hollow upright stem rigidly connected with the said base over the said opening, a casing rotatably mounted on said stem, an annular chamber in the casing surrounding the stem and communicating with the interior of the latter, a valve casing secured exteriorly to the rotatable casing and in communication with the said annular chamber, a pair of hollow sprinkler arms secured to the valve casing and communicating with the interior of the latter, a valve located in the last named casing, adjustable members mounted upon the upper extremity of the upright stem, and an operative connection between said members and valve for automatically reciprocating the latter to direct the stream of water alternately to the sprinkler arms, whereby an oscillating movement is imparted to the rotatable casing.

2. In a lawn sprinkler, the combination of a base having an opening connected with a suitable water supply, a hollow stem rigidly connected with said base over the opening, a casing rotatably mounted upon and surrounding the stem, and provided with an annular chamber also surrounding the stem and in communication with the interior of the latter, a valve casing secured exteriorly to the first named casing and in communication with the said annular chamber, a pair of hollow sprinkler arms mounted upon the valve casing and projecting horizontally therefrom and in communication with the interior of the said valve casing, a valve interposed in the last named casing between the sprinkler arms and the rotatable casing, fingers adjustably mounted upon the upper extremity of the stem, means applied to the stem above said fingers for holding the same in the desired position, and an operative connection between the fingers and the valve for automatically reciprocating the latter, for the purpose set forth.

3. In a lawn sprinkler, the combination of a base provided with a hollow elbow, means for supplying water to the lower extremity of said elbow, a stem rigidly mount-

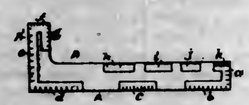
ed upon the upper extremity of the elbow and having a passage therein, the said passage registering with the interior of the elbow, a casing provided with an annular chamber, said casing mounted to rotate upon the stem, means forming communication between the annular chamber and passage in the stem, a valve casing connected with the rotatable casing and provided with an inner and outer chamber, said chambers being in communication with each other and one of said members being in communication with the said annular chamber, sprinkler arms applied to the valve casing and communicating with the said outer chamber, a valve provided with two passages and located in the outer chamber, the top of the valve casing having an elongated slot therin, a pin secured to the valve and adapted to project upwardly through said slot, and adjustable means mounted upon the upper extremity of the stem and adapted to coöperate with the said pin to automatically reciprocate the valve within the outer chamber upon rotation of the casing to direct the stream of water alternately to the sprinkler arms for the purpose set forth.

4. In a lawn sprinkler, the combination of an upright hollow stem, a casing rotatably mounted upon said stem and in communication with the interior of the latter, a second casing mounted exteriorly upon said first named casing and in communication therewith, a pair of sprinkler arms inserted in openings formed in the second named casing, a valve located in the latter between the sprinkler arms and the rotatable casing, and means mounted upon the upper extremity of the stem and adapted to coöperate with said valve when water is forced through the stem to automatically reciprocate the valve, for the purpose set forth.

5. In a lawn sprinkler, the combination with a hollow stem and a casing rotatably mounted on said stem, of a valve casing secured exteriorly to said rotatable casing, a pair of sprinkler arms inserted in the valve casing, a valve located in said valve casing, and means connected with the upper extremity of the hollow stem adapted to coöperate with said valve to automatically operate the latter, for the purpose set forth.

[Claim 6 not printed in the Gazette.]

1,144,071. TAILOR'S GRADING SYSTEM AND DEVICE THEREFOR. WOLF SEMONOF, Providence, R. I. Filed July 22, 1912. Serial No. 710,962. (Cl. 33—11.)

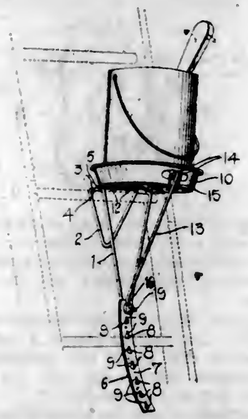


1. As an improved article of manufacture, a tailor's grading instrument for use in enlarging patterns from a master pattern, comprising a portable square having its face provided with a plurality of scales differing from one another, the divisions of each scale indicating units of size changes corresponding with size changes at certain points or parts of a master pattern, said scales being arranged to maintain the symmetry of the design of the master pattern.

2. As an improved article of manufacture, a tailor's grading instrument for use in enlarging patterns from a master pattern, comprising a portable square having its face provided with a plurality of scales differing from one another, the divisions of each respective scale being aliquot parts of size differences between two master patterns differing in size, said divisions corresponding with size changes at certain points between the master patterns, said scales being arranged to maintain the symmetry of the design of the master pattern.

3. As an improved article of manufacture, a tailor's grading instrument for use in enlarging patterns from a master pattern provided with a breast line, comprising a portable square having its face provided with a plurality of scales differing from one another, the divisions of each respective scale being aliquot parts of size differences between two master patterns differing in size, said divisions corresponding with size changes measured along and from certain points on the breast lines of the master patterns, the measurements from the points of said breast line being taken perpendicularly to such lines.

1,144,072. PAIL-SUPPORT. JAMES A. SHERWOOD, Scotia, N. Y. Filed Dec. 12, 1914. Serial No. 876,888. (Cl. 248—18.)



1. A pail holder including a supporting member constructed from a single wire rod having its intermediate portion bent to provide a hook adapted to be engaged with a ladder rung, a pail receiver mounted upon said member at the inner end of the hook, an elongated plate connected at one of its ends to the extremities of the wire supporting member and adapted for bearing engagement upon an adjacent ladder rung, and bracing means connected to the pail receiver and provided with means for adjustably connecting the same to said plate.

2. A device of the class described including a supporting element having an arcuate plate attached to the lower end thereof, said plate being provided with a plurality of openings and further provided with slots communicating with said openings, a holder hingedly connected with the support at one side of the holder, a brace rod hingedly connected to the holder at the opposite side, a rotatable pin carried by the lower end of the rod adapted to be inserted through the openings in the plate, a lug formed on the pin adapted to extend through the slots, and means whereby to rotate said pin and arrange the lug out of alinement with the slots.

3. A device of the class described including a supporting element consisting of a single rod having its intermediate portion bent into V-shape, the ends being bent to form a horizontal portion, thence extending convergently, an arcuate plate secured to the ends of the rod, a plate mounted upon the horizontal portion, a holder hingedly connected at one side of the same with the plate, a brace rod pivotally connected with the holder at the opposite side and adapted to be engaged and disengaged with the plate at various intervals thereon, as and for the purpose set forth.

4. A pail support including a wire pail supporting member having its intermediate portion bent to provide a hook for engagement over a ladder rung, the end portions of said wire being convergently disposed, an elongated metal plate permanently secured to the extremities of the converging end portions of the wire, a pail receiver mounted upon said supporting member at the inner end of the hook thereon, a brace rod pivotally connected at one of its ends to said receiver, and a rotatable locking element mounted in the other end of said rod and adapted to be adjustably engaged with said plate.

5. A device of the character described including a holder, a hook-shaped member hingedly connected to the holder and including downwardly extending members disposed in parallel relation for a portion of their length, a strip having sleeves formed upon its marginal edges, each of said sleeves embracing one of said members, said strip having a plurality of openings therein, a holder mounted upon said hook-shaped member, a brace rod hingedly connected with the holder opposite the hook-shaped member and extending downwardly into engagement with said strip, and means engageable through any one of said openings in the strip for supporting the brace rod in adjusted positions.

1,144,073. RESILIENT WHEEL. JOHN H. SPANGLER, Minneapolis, Minn., assignor of one-half to John A. Nelson, Minneapolis, Minn. Filed July 29, 1914. Serial No. 853,824. (Cl. 152—45.)



1. In a resilient wheel, the combination with a continuous disk-like axle flange having radial slots, of a wheel hub having an annular seat receiving said axle flange, followers extending through and movable radially in the radial slots of said axle flange, seated against said wheel hub and spanning said seat, and springs re-acting against said followers and axle flange.

2. In a resilient wheel, the combination with an axle sleeve having a projecting continuous disk-like flange with radial slots, of a wheel hub having an annular seat receiving said disk-like flange, followers projecting through and working in the radial slots of said flange, seated against said wheel hub and spanning said seat, and coiled springs arranged in two radially disposed series, one series on each side of said disk-like flange compressed between said followers and axle sleeve.

3. In a resilient wheel, the combination with an axle sleeve having a projecting continuous disk-like flange with radial slots, of a two-part wheel hub spaced to afford a seat receiving said disk-like flange, followers projecting through and working radially in the slots of said disk-like flange and seated against the interior of said wheel hub, two series of radially disposed springs located, one inside and one outside of said disk-like flange and compressed between said axle sleeve and said followers, and a stud or driving projection on said wheel hub working in one of the radial slots of said disk-like flange.

4. In a resilient wheel, the combination with a disk-like axle flange having radial slots, of a wheel hub having an annular seat receiving said axle flange, followers extending through and movable radially in the radial slots of said axle flange and seated against said wheel hub, springs re-acting against said followers and axle flange, and lock plates detachably engageable with said radial slots, for temporarily holding said followers in inwardly forced positions, and the said springs compressed.

1,144,074. VIEW-FINDER. CHARLES F. SPEIDEL, Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a Corporation of New York. Filed Mar. 23, 1914. Serial No. 826,789. (Cl. 88—1.5.)

1. In a view finder, the combination with a front lens support, of an angle mirror and a top lens support pivotally connected to each other and to the front lens support to assume relatively angular operative positions or substantially parallel folded positions, means normally tending to actuate the parts to operative positions and means for effecting disengagement of one of the last mentioned members from the front lens support only when said member is in other than the operative position.



2. In a view finder, the combination with a front lens support and an angle mirror pivoted thereto and adapted to fold to a position substantially parallel therewith, of a top lens support pivoted to one of said parts at one end and having a projection at the other and a continuous guide on the other part in which the said projection is arranged to travel whereby the top lens support is caused to assume a folded position between the other parts as the angle mirror is moved toward the front lens support, said guide being provided with a channel leading therefrom and through which the projection on the top lens support may be passed to disconnect the top lens support from the guide carrying member.

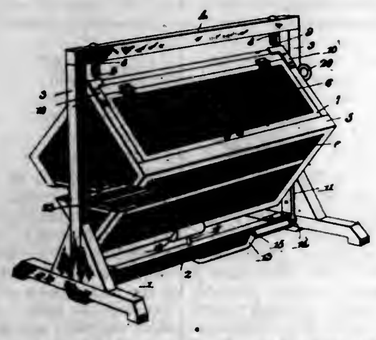
3. In a view finder, the combination with a front lens support and an angle mirror pivoted thereto and adapted to fold to a position substantially parallel therewith, of a top lens support pivoted to one of said parts at one end and having a projection at the other and a spring flange on the other part provided with a continuous guide in which the said projection is arranged to travel whereby the top lens support is caused to assume a folded position between the other parts as the angle mirror is moved toward the front lens support, said guide being provided with a channel leading therefrom and formed by a depression in the spring flange having an inclined bottom wall, through which channel the projection on the top lens support may be passed to disconnect the top lens support from the guide carrying member, by deflecting the flange slightly to admit the passage of the projection from the guide into the channel.

4. In a folding view finder, the combination with a front lens support having a rearwardly turned spring flange at one side thereof, provided with a slot constituting a guide and with a depression constituting a channel leading from the slot or guide and having an inclined bottom wall, and an angle mirror pivoted at its lower end to said front lens support, of a top lens support pivoted at its rear end to the upper end of the angle mirror and having a rounded projecting pin at its front end coöperating with the slot or guide on the front lens support whereby the top lens support is caused to assume a folded position between the other parts as the angle mirror is moved toward the front lens support, the rounded end of said pin being adapted to be forced from the guide through the channel by slightly deflecting the spring flange to disconnect the top lens support from the front lens support.

1,144,075. FRESH-AIR BED. ROBERT SPENCER and CHARLES C. BLAND, Terre Haute, Ind. Filed July 29, 1911. Serial No. 641,293. (Cl. 5—56.)

The combination with a main frame including uprights and upper and lower cross-bars connecting said uprights, of a diamond-shaped screen-covered bed inclosure, a door comprising one of the upper faces of said diamond shaped bed inclosure and wholly below said upper cross bar, whereby it is normally held closed by gravity, means removably connecting one of the major-length members of said diamond-shaped bed inclosure to the upper cross-bar to swingingly suspend said inclosure from the upper cross-bar and between and free of contact with the uprights, a bed support arranged in said inclosure between the lowermost edge thereof and the point of maximum width of said inclosure, and means coöperating with the

inclosure to fix the inclosure with relation to the main frame, said means engaging the inclosure on the line diagonally opposed to the point of connection of said inclosure to the upper cross-bar, whereby when the in-



closure is fixed with relation to the main frame the bed support is maintained horizontal and the space within the inclosure above the bed support is of gradually increasing width for a portion of its height.

1,144,076. MATCH-HEAD OR SIMILAR COMPOSITION. HENRY STAIER, New York, N. Y. Filed Mar. 17, 1915. Serial No. 15,071. (Cl. 52—5.)

1. A composition of matter for making matches and for similar purposes, comprising combustible and flaming materials, an oxygen carrying material and a binder comprising an aqueous paste of Feculose.

2. A composition of matter for making matches and for similar purposes, comprising potassium chlorate, sulfid of phosphorus, and a binder comprising an aqueous paste of Feculose.

1,144,077. MATCH-HEAD OR SIMILAR COMPOSITION. HENRY STAIER, New York, N. Y. Filed Mar. 17, 1915. Serial No. 15,072. (Cl. 52—5.)

1. A composition of matter for making match heads or other similar purposes, comprising combustible and flaming materials, an oxygen carrying material and a binder containing gum ammoniac, substantially as described.

2. A composition of matter for making match heads and for similar purposes, comprising potassium chlorate, sulfid of phosphorus and a binder comprising an aqueous paste of 30% of gum ammoniac and 70% of glue.

1,144,078. BOWLING-PIN. RICHARD E. STANLEY, Pittsburgh, Pa., assignor of one-third to John N. Barnett and one-third to Charles Bitzer, Jr., Pittsburgh, Pa. Filed Oct. 17, 1914. Serial No. 867,176. (Cl. 46—66.)

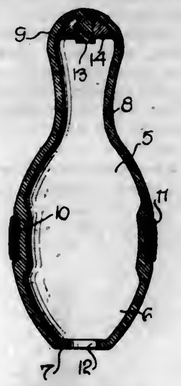
1. A hollow metal bowling pin, a balancing weight insertible into the head of the pin, and means projecting into the pin head longitudinally thereof to retain said weight in position.

2. A hollow metal bowling pin, an anchoring lug projecting into the head of the pin from the wall thereof, and a weight element immovably held in the head of the pin by said lug.

3. A hollow metal bowling pin, an inwardly projecting tapering lug formed upon the head of said pin, and a weight element surrounding said lug and immovably held thereby in the head of the pin.

4. A hollow metal bowling pin having an integral tapering lug projecting longitudinally from the wall of the pin and through the head thereof, and a weight element surrounding said lug and immovably held by the lug within the head of the pin.

5. A hollow metal bowling pin having an anchoring lug integrally formed with the wall thereof and projecting into the head of the pin, said pin being provided with an opening in its base through which balancing means may



be inserted and associated with said lug to be retained thereby within the head of the pin.

[Claims 6 to 9 not printed in the Gazette.]

1,144,079. TUBULAR CORD. JAMES D. TEW, Akron, Ohio. Filed Nov. 11, 1913. Serial No. 800,337. (Cl. 28—5.)



1. A cord for tire casings consisting of a plurality of strands wound side by side around a hollow center and treated with an adhesive material to impart to the cord a definite normal shape but capable of being flattened under pressure.

2. A hollow twisted rubber treated textile cord.

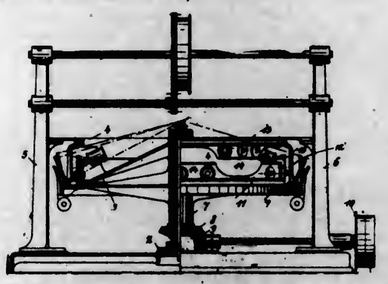
3. A cord made of a number of rubber-impregnated strands twisted together about a central bore.

4. A hollow cord made of strands impregnated with rubber and twisted together.

5. A cord composed of strands impregnated with rubber or similar substance and twisted about a central bore, the strands being cemented to each other by rubber.

[Claims 6 and 7 not printed in the Gaette.]

1,144,080. PLAITING-MACHINE. BRUNO NITZ, Berlin-Reinickendorf, Germany, assignor to the Firm of Wilh. Körting, Barmen, Germany. Filed Dec. 8, 1914. Serial No. 876,169. (Cl. 28—4.)



1. Plaiting machine comprising two concentric rows of strand bearing bobbins, a rotor for rotating the outer row of bobbins, means for moving the strands of the outer bobbins to and fro in the circular path of these bobbins, bobbin carriers supporting bobbins of the inner row of bobbins, a ring provided with teeth on said rotor, racks on the said bobbin carriers and gearing engaged by the said ring of teeth and alternately engaging first the one

rack of a bobbin carrier and then another rack of a said carrier and thereby rotating the same in the opposite direction of the rotor.

2. A plaiting machine comprising two concentric rows of strand bearing bobbins, a rotor for rotating the outer row of bobbins, means for moving the strands of the outer bobbins to and fro in the circular path of these bobbins, bobbin carriers supporting bobbins of the inner row of bobbins, upper guide-ways and lower guide-ways for the said carriers, a ring provided with teeth on said rotor, racks on the said bobbin carriers and gearing engaged by the said ring of teeth and alternately engaging first the one rack of a bobbin carrier and then another rack of a said carrier so as to rotate it in the opposite direction to the said rotor.

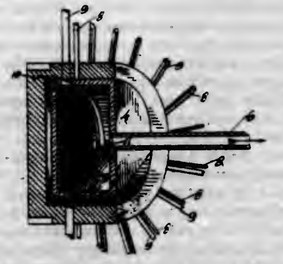
3. A plaiting machine comprising two rows of strand bearing bobbins, a rotor for moving the one row of bobbins in a circle, two rings of teeth fixed to the rotor, driving wheels placed at different points of the circumference of the machine and engaging with the said rings, bobbin carriers for the inner row of bobbins, and racks at different parts of each bobbin carrier which engage alternately with different ones of the said driving wheels and by which the bobbin carriers are moved in a circle in the opposite direction to the said toothed rings.

4. A plaiting machine comprising rows of strand bearing bobbins, means for moving the one bobbin row in a circle, means for moving a second bobbin row in a circle inside the first circle and in an opposite direction to the first row, means for moving the strands of the outer bobbin row to and fro in the circular path of these bobbins, means for moving the strands of the inner bobbins in a plane circular path and bobbin carriers for the inner row of bobbins, the said moving means for the second bobbin row comprising driving means for the bobbin carriers which engage with the carriers at different surfaces of the same alternately, the said inner bobbins being mounted on the sides of the said carriers which are directed outward from the center of their circular paths.

5. A plaiting machine comprising two concentric rows of strand bearing bobbins, a rotor for rotating the outer row of bobbins, means for moving the strands of the outer bobbins to and fro in the circular path of these bobbins, bobbin carriers supporting bobbins of the inner row, a ring provided with teeth on said rotor, racks on the said bobbin carriers and gearing engaged by the said ring of teeth and alternately engaging first the one rack of a bobbin carrier and then another rack of a said carrier and thereby rotating the same in the opposite direction to the rotor, said inner bobbins being mounted on the sides of the said carriers that are turned away from the carriers' center of rotation.

[Claims 6 and 7 not printed in the Gazette.]

1,144,081. CAN-TESTER. JAMES W. VORIS and CLYDE E. HOVER, Norwood, Ohio; said Hover assignor of one-half of the whole right to Oscar C. Huffman, Cincinnati, Ohio. Filed Oct. 3, 1913. Serial No. 793,144. (Cl. 73—51.)



1. A tester for cans and the like, comprising a revoluble can receiving member, and a stationary member on which the revoluble member abuts, means for putting the stationary member under reduced pressure, a series of radial tubes on the revolving member communicating at the outer end with cans to be tested, and at the inner end opening against the stationary member, and a slot at one point in the stationary member, located so as to communicate with the inner ends of the radial tubes, said slot being of a size to communicate with the said tubes at one position only of the revolving member, and means for holding the cans against the outer ends of the tubes at this position, for the purpose described.

2. A tester for cans and the like, comprising a revoluble can receiving member, and a stationary member on which the revoluble member is journaled, means for putting the stationary member under reduced pressure, a series of radial tubes on the revolving member communicating at the outer end with cans to be tested, and at the inner end opening against the stationary member, and a slot at one point in the stationary member, located so as to communicate with the inner ends of the radial tubes, said slot being of a size to communicate with the said tubes at one position only of the revolving member, and means for holding the cans against the outer ends of the tubes at this position, for the purpose described.

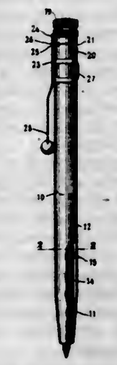
3. A tester for leakage in cans and the like, comprising a revolving can receiving member, a member under suction on which it revolves, means for putting said member under suction, openings therein, a passageway in the receiving member registering with one of the openings to apply initial suction to the cans, a valve in said member, and a passageway from the valve registering with another opening in the suction member, for the purpose described.

4. A tester for leakage in cans and the like, comprising a cylindrical vacuum box, a wheel, having a rim adapted to receive the cans, and a hub adapted to revolve on the box, radial tubes running through the hub, out, and through the rim, the box having openings to register with the tubes positioned so as to apply suction to the cans when received on the rim, and means for releasing the suction upon leakage of air into the cans, for the purpose described.

5. A tester for leakage in cans and the like, comprising a cylindrical vacuum box, a wheel, having a rim adapted to receive the cans, and a hub adapted to revolve on the box, primary radial tubes running through the hub, out and through the rim, secondary tubes running through the hub and communicating with the primary tubes, a valve at the point of communication, and means controlled by said valve for admitting atmosphere to the primary tubes, upon slight inequalities of suction between the two tubes.

[Claims 6 to 11 not printed in the Gazette.]

1,144,082. PENCIL. HARRY CLARENCE WELTON, Waterbury, Conn., assignor to The Mattatuck Manufacturing Company, Waterbury, Conn., a Corporation of Connecticut. Filed Sept. 9, 1914. Serial No. 860,834. (Cl. 120—21.)



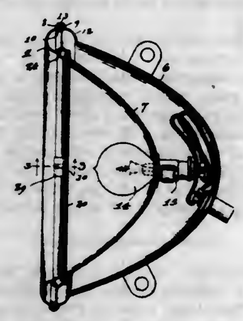
1. A pencil comprising a tubular outer casing, a longitudinally slotted lead carrier in said casing, a washer non-

rotatably held in said casing and provided with a lug engaging in the slot in the lead carrier to thereby hold the same against rotation in the casing, said lead carrier having a threaded upper end portion, an operating knob seated in the upper end of the outer casing provided with an external annular groove and having threaded engagement with the upper threaded end portion of the lead carrier, and said outer casing having a portion of the wall thereof indented into said annular groove to thereby rotatably confine the knob to the outer casing and prevent relative longitudinal movement.

2. A pencil comprising an outer tubular casing having a tapered jaw-closing lower end, a tubular lead carrier within the casing having a threaded upper end and its lower end slotted longitudinally to provide spaced lead-gripping jaws, a washer non-rotatably engaged in the lower portion of the casing having an inwardly projecting lug engaging in the longitudinal slot between the jaws to thereby hold the lead carrier against rotation in the outer casing while permitting longitudinal shifting thereof and an operating knob rotatably secured in the upper end of the outer casing.

3. A pencil comprising a casing, a lead carrier therein, a rotatable operating knob mounted in the upper end of the casing and having a screw threaded engagement with said carrier, means for preventing relative longitudinal movement of said knob and casing and a clip secured to the casing having a downwardly extending spring finger for engagement with a pocket and an upwardly extending spring finger frictionally engaging said knob for holding said knob against rotation in the casing.

1,144,083. LOCKING-RING FOR GLAZINGS. WALTER H. WHITE, Kenosha, Wis., assignor to The Badger Brass Mfg. Co., Kenosha, Wis., a Corporation of Wisconsin. Filed Dec. 9, 1914. Serial No. 876,211. (Cl. 40—241.)



1. In a glazing mounting, the combination of a circumferential inclosing structure provided with an inner glazing seat and an outer circumferential seat, a glazing located between said seats, and a locking ring interposed between said outer seat and said glazing and adapted to force the glazing into engagement with said seat, said locking ring being formed of resilient material and having its inner edge, which engages the glazing, of a substantially less diameter than the portion of said ring in engagement with said outer seat.

2. In a lamp, the combination of an inclosing structure having a pair of circular, axially spaced-apart opposed circumferential seats, a glazing mounted on one of said seats, and a resilient sheet metal locking ring interposed between said glazing and the other seat, said ring being relatively wide in its cross-section compared with the thickness of metal, and engaging one of said opposed parts on a diameter substantially less than the diameter of its engagement with the other of said parts whereby said ring is capable of being compressed axially between said glazing and said second seat.

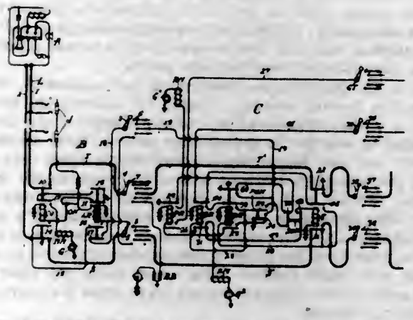
3. In a lamp, the combination of an annular supporting structure provided with an inner and an outer annular seat, a glazing supported on said inner seat, and a sheet metal annular axially compressible locking ring interposed between said outer seat and said glazing.

4. In a lamp, the combination of an annular inclosing structure provided with an inner outwardly facing glazing seat and an outer recessed inwardly facing locking ring seat, said seats being spaced apart along the axis of the lamp, a glazing supported upon said inner seat, a non-continuous sheet metal locking ring interposed between the outer seat and the glazing, said locking ring being axially flexible and adapted to form an annular finishing trim around the outer exposed surface of the glazing, and means for locking the ends of said ring in position.

5. In a parabolic head-lamp, the combination of a glazing provided with an annular glazing seat and a recessed outwardly projecting locking ring seat spaced along the axis of the lamp in front and outside of the glazing seat, a circular glazing supported on said glazing seat and interposed between both of said seats, a non-continuous locking ring pressed out of comparatively thin resilient sheet metal and having an outer edge of comparatively large diameter adapted to engage the outer recessed seat, and provided with an inwardly projecting edge or lip adapted to engage the glazing on a circle less in diameter than the smallest diameter of said outer seat, and means for locking the ends of said ring in position.

[Claim 6 not printed in the Gazette.]

1,144,084. CALL-DISTRIBUTING SYSTEM. CHARLES S. WINSTON, Chicago, Ill., assignor to Kellogg Switchboard and Supply Company, Chicago, Ill., a Corporation of Illinois. Filed Aug. 4, 1913. Serial No. 782,803. (Cl. 179—27.)



1. A call distributing system comprising telephone lines, automatic line switches for said lines, cord selectors multiply connected to terminals of said line switches, operators' cord circuits, and means controllable over a calling line for causing its line switch to test its terminals progressively to automatically select an idle cord selector and said cord selector to thereafter automatically select an idle cord.

2. A call distributing system comprising telephone lines, one-dimension automatic line switches for said lines, two-dimension cord selectors multiply connected to terminals of said line switches, operators' cord circuits, means controllable over a calling line for causing its line switch to automatically select an idle cord selector, and means whereby said cord selector thereafter automatically selects an idle cord.

3. A call distributing system comprising telephone lines, one-dimension automatic line switches for said lines, two-dimension cord selectors accessible by said line switches, operators' cord circuits accessible by said cord selectors, means controllable over a calling line for causing its line switch to automatically select an idle cord selector, and means whereby said cord selector thereafter automatically selects an idle cord.

4. A call distributing system comprising telephone lines, one-dimension automatic line switches for said lines, two-dimension cord selectors having terminals divided into groups, operators' cord circuits connected to said terminals, means controllable over a calling line for causing its line switch to automatically select an idle cord-selector, and means whereby said cord selector thereafter tests said terminals by groups and individually to select an idle one of said cord circuits.

5. A call distributing system comprising telephone lines, one-dimension automatic line switches for said lines, two-dimension cord selectors multiply connected to terminals of said line switch and having terminals divided into groups, operators' cord circuits multiply connected to said selector terminals, means controllable over a calling line for causing its line switch to automatically select an idle cord selector, and means whereby said cord selector thereafter tests said terminals by groups and individually to select an idle one of said cord circuits.

[Claims 6 to 11 not printed in the Gazette.]

1,144,085. EXERCISING APPARATUS FOR USE IN A LYNG POSITION. ARTHUR ABPLANALP, Basel, Switzerland. Filed Oct. 21, 1913. Serial No. 796,453. (Cl. 46—69.)



1. In an exercising apparatus for use in a lying position, the combination of two flexible strings of equal length provided at one end with means for their connection with the legs of the user and at the other end with handles adapted to be gripped by the hands of the user, with two pairs of pivotally suspended pulley blocks, which are exclusively borne by a fixed vertical support and of which one pair is located only a few inches and the other at least 18 inches above the floor, and over which the said strings are guided in such a manner that their portions adjacent to the handles and to the pulley blocks located only a few inches above the floor form in their end positions as small an angle as possible with the horizontal, substantially as described.

2. In an exercising apparatus for use in a lying position, the combination of two flexible strings of equal length, provided at one end with a weighting device adapted to be connected with the legs of the user and at the other end with handles adapted to be gripped by the hands of the user, with two pairs of pivotally suspended pulley blocks, which are exclusively borne by a fixed vertical support and of which one pair is located only a few inches and the other at least 18 inches above the floor, and over which the said strings are guided in such a manner that their portions adjacent to the handles and to the pulley blocks located only a few inches above the floor form in their end positions as small an angle as possible with the horizontal, substantially as described.

3. In an exercising apparatus for use in a lying position, the combination of two flexible strings of equal length, provided at one end with a weighting device adapted to be connected with the legs of the user and at the other end with handles adapted to be gripped by the hands of the user, with pivotally suspended pulley blocks which are exclusively borne by a fixed vertical support and over which the said strings are guided in such a manner that their portions adjacent to the handles form in both their end positions as small an angle as possible with the horizontal, the said weighting device consisting of a curved metal block having a shin protecting pad and straps and buckles for its fastening, substantially as described.

4. In an exercising apparatus for use in a lying position, the combination of two flexible strings provided at one end with handles adapted to be gripped by the hands of the user, a series of different weighting devices, which may be adapted successively to the other end of the said strings and consist of curved metal blocks having a shin protecting pad and straps and buckles for their connection with the legs of the user, with pivotally suspended pulley blocks which are exclusively borne by a fixed vertical support and over which the said strings are guided in such a manner that their portions adjacent to the handles form in both their end positions as small an angle as possible with the horizontal, substantially as described.

5. In an exercising apparatus for use in a lying position, the combination of two flexible strings of equal length provided at one end with means for their connection with the legs of the user and at the other end with handles adapted to be gripped by the hands of the user, with an adjustable stopping device to prevent the user's body from sliding on the floor and with two pairs of pivotally suspended pulley blocks which are exclusively borne by a fixed vertical support and of which one pair is located only a few inches and the other at least 18 inches above the floor, and over which the said strings are guided in such a manner that their portions adjacent to the handles and to the pulley blocks located only a few inches above the floor form in their end positions as small an angle as possible with the horizontal, substantially as described.

[Claim 6 not printed in the Gazette.]

1,144,086. DISPLAY DEVICE FOR BOTTLES, &c. MOORE S. ACHENBACH, Pittsburgh, Pa. Filed Aug. 14, 1914. Serial No. 856,709. (Cl. 40—20.)



1. A display device comprising a body portion, a central flap formed of terminal sections and an intermediate section, said sections being bendable with respect to each other to form a support for the body portion and the terminal sections being provided with openings adapted to register and receive a supporting object when the sections are in operative position, and the intermediate section connecting said terminal sections and holding them spaced apart to retain the device in position on said supporting object and to sustain said body portion upright thereon.

2. A display device comprising a body portion with depending legs upon the sides thereof and a flap upon said body portion intermediate of said legs in the same plane as said body, said flap being formed of an intermediate and two terminal sections, said sections being bendable with respect to each other to form a support for the body portion and the terminal sections thereof having openings therein adapted to register and receive an object when the sections are in operative position, and a strap on said flap bendable to engage the body portion to form a brace for the flap in its operative position.

3. A display device comprising a body portion with a recess and legs upon each side thereof and a flap intermediate said legs, said flap embodying terminal and intermediate sections with means for securing said flap to said legs, said sections being bendable with respect to each other to form a support for the body portion and the terminal sections of said flap having openings therein adapted to register when the sections are in operative position and to receive an object to which it is applied, said terminal sections being connected by the intermediate section which serves to sustain said terminal sections in position.

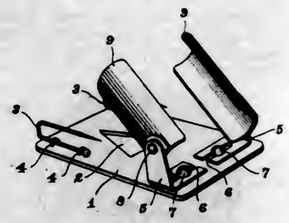
4. A display device comprising a body portion with a recess and legs upon each side thereof and a flap on the body portion within said recess and comprising terminal and intermediate portions, said portions being bendable

with respect to each other to form a support for the body portion and the terminal portions having openings adapted to register with each other when the sections are in operative position and one of said portions having means connecting it with the adjacent wall of the body portion on the inner sides of said legs when said sections are bent to engage an object to which the device is applied.

5. A display device comprising a body portion with a flap thereon continuous thereof, said flap being formed of terminal sections and an intermediate section, bendable with respect to each other to form a support for the body portion, the terminal sections having openings therein and the intermediate section connecting said terminal sections and serving to hold the latter spread apart on an object to which the device is applied, and a tongue carried by one terminal section adapted to engage the body portion.

[Claims 6 to 8 not printed in the Gazette.]

1,144,087. ADJUSTABLE HOLDER FOR POCKET ELECTRIC LAMPS. DE WITT SELEGNIAN ADLER, Allston, Mass., assignor to The Metalyte Company, Inc., a Corporation of New York. Filed Jan. 14, 1915. Serial No. 2,293. (Cl. 240—59.)



1. An adjustable support for pocket electric lamps or the like comprising in combination, a plate, hook-shaped pins attached thereto, and two oppositely disposed spring clamps hinged to the plate by a friction hinge whereby they may be held in different angular positions with reference to the plate.

2. An adjustable support for pocket electric lamps or the like comprising in combination, a plate having a triangular opening therein, and two oppositely disposed spring clamps hinged to the plate by a friction hinge whereby they may be held in different angular positions with reference to the plate.

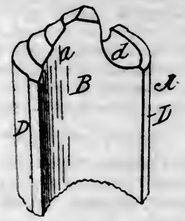
3. An adjustable support for pocket electric lamps or the like comprising in combination, a plate, hook-shaped pins attached thereto by hinges upon the upper surface of the plate located adjacent to the edges thereof in such position that the free ends of the hooked pins may be swung over said edges, and two oppositely disposed spring clamps hinged to the plate.

4. An adjustable support for pocket electric lamps or the like comprising in combination a plate having a central triangular opening and hook-shaped pins hinged to it at one end, a pair of brackets adjustably attached to it near the other end and a pair of spring clamps hinged, one to each bracket.

1,144,088. DRILL FOR BORING GUN-BARRELS. NAPOLEON L. AINS, Chicopee, Mass. Filed Mar. 11, 1915. Serial No. 13,699. (Cl. 77—68.)

1. A drill bar having, at its opposite sides, longitudinal channels leading to its end, having arc shaped sides between the channels, said sides at the working end being convergent to the axis, and having cutting lips at their respectively advanced or forward edges, one of said convergent cutting-lip-including portions being traversed by a channel on a substantial angle to the length of the drill bar, and said bar having an oil duct longitudinally therethrough and opening to one of its sidewise located channels.

2. A drill bar having, at its opposite sides, longitudinal channels leading to its end, one of side channels having a lengthwise extent but partially that of the bar, and relatively shorter than the other side channel, said bar having arc shaped sides between the channels, and said sides at the working end being convergent to the axis, and having cutting lips at their respectively advanced or forward edges, one of said convergent cutting-lip-including portions being traversed by a channel on a substantial angle to the length of the drill bar, and said bar having an oil duct longitudinally therethrough and opening to the shorter one of its sidewise located channels.



3. A drill bar having, at its opposite sides, longitudinal channels leading to its end, having arc shaped sides between the channels, which are "backed off" or reduced from their forwardly advancing edges rearwardly, said sides at the working end being convergent to the axis, and having cutting lips at their respectively advanced or forward edges, one of said convergent cutting-lip-including portions being traversed by a channel on a substantial angle to the length of the drill bar, and said bar having an oil duct longitudinally therethrough and opening to one of its sidewise located channels.

4. A drill bar having, at its opposite sides longitudinal channels leading to its end, one of said side channels having a lengthwise extent but partially that of the bar, and relatively shorter than the other side channel, said bar having arc shaped sides between the channels, and said sides at the working end being convergent to the axis, and having cutting lips at their respectively advanced or forward edges, one of said convergent cutting-lip-including portions being of step shape, and the other of said convergent cutting-lip-including portions being traversed by a channel on a substantial angle to the length of the drill bar, and said bar having an oil duct longitudinally therethrough and opening to the shorter one of its sidewise located channels.

5. A drill-bar having, at its opposite sides, longitudinal channels leading to its end, having arc shaped sides between the channels, said sides at the working end being convergent to the axis, and having cutting lips at their respectively advanced or forward edges, one of said converegent cutting lip-including-portions being traversed by a channel on a substantial angle to the length of the drill bar, and said bar having an oil duct longitudinally therethrough and opening to one of its sidewise located channels, combined with a tubular carrier shank, with which the drill-bar has a mortise-and-tenon-engagement, the passage in the tubular carrier communicating with said longitudinal oil duct in the drill bar.

1,144,089. ATTRITION-MILL PLATE. EDWARD P. ALSTED, Truesdell, Wis. Filed Dec. 16, 1912. Serial No. 736,949. (Cl. 83—3.)



1. Attrition mill plates, comprising oppositely rotatable plates provided with material reducing radial ribs of varying lengths, the material engaging edges of ribs of opposite plates diverging toward the axis of the plates when in engagement with each other for a portion of their lengths to advance the line of material engagement in a direction toward the axis of rotation, and transverse ribs extending in approximately straight short broken lines circumferentially around the medial portions of the faces of the plates, said broken lines of transverse ribs forming outlet openings permitting the reduced material to work outwardly.

2. Attrition mill plates, comprising oppositely rotatable plates provided with material reducing radial ribs of varying lengths and with transverse ribs, the medial face portions of the radial ribs being of less width than their opposite end portions to advance the line of material engagement toward said medial face portions, the transverse ribs extending in approximately straight short broken lines which have a shearing engagement with like ribs of opposite plates, said broken lines of transverse ribs forming outlet openings permitting the reduced material to work outwardly.

3. A grinding plate for attrition mills, comprising a segmental plate provided with radial ribs of varying lengths, other ribs extending transversely across the radial ribs and also extending approximately in straight short broken lines hexagonally around the face of the plate and short transverse guard ribs overlapping the broken portions of the broken ribs, said broken lines of transverse ribs forming outlet openings permitting the reduced material to work outwardly.

4. A grinding plate for attrition mills provided with material reducing radial ribs of varying lengths and with short angular ribs which extend across the radial ribs at angles other than at right angles, said short ribs forming outlet openings permitting the reduced material to work outwardly.

5. A grinding plate for attrition mills, comprising segmental plates provided with material reducing radial ribs of varying lengths which are of less width medially than at their outer ends, and short biangular ribs extending across the radial ribs, said short ribs forming outlet openings permitting the reduced material to work outwardly.

[Claim 6 not printed in the Gazette.]

1,144,090. HINGE-JOINT. FRITZ ARTHUR ANDERSON, Milton, Wis. Filed Mar. 11, 1914. Serial No. 823,869. (Cl. 16—11.)



1. A hinge joint comprising a pair of co-acting members having respectively a knuckle-roll and a pintle-roll concentric with each other and longitudinally straight and parallel with their axis, the pintle-roll substantially surrounding the knuckle-roll peripherally, and complementary end thrust stop means carried by the roll portions respectively, one of the stop means being detachable to permit said members to be slid axially into coactive relation.

2. A hinge joint, comprising a pintle roll and a knuckle roll adapted and arranged for concentric rotative coaction one within the other throughout substantially the entire length of the hinge, one of said rolls being shouldered at one end of the hinge, and means carried by the corresponding end of the other roll and disposed transversely of the axis, said means being formed and adapted to serve as a closure for the end of the joint and also as a stop shoulder for coaction with the shouldered roll.

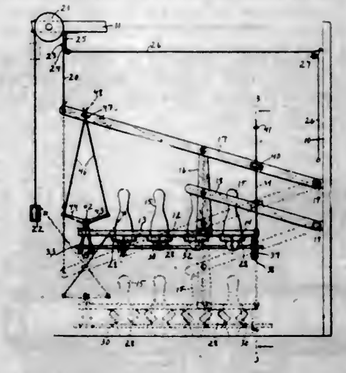
3. A hinge joint, comprising a pair of coacting members having respectively a pintle-roll of semi-cylindrical shape with its free edge turned inward diametrically, and a knuckle-roll of substantially cylindrical shape with a longitudinal offset in its medial portion providing oppositely facing inner and outer shoulders adapted to serve as stops for the longitudinal edges of the pintle-roll as the hinge is closed and opened respectively.

4. A hinge joint, comprising a pair of coacting members having respectively a pintle-roll and a knuckle-roll adapted to coact concentrically, one of said rolls having the medial portion of its free edge turned inward, in combination with an end thrust stop member comprising a pair of blocks, coaxially disposed side by side, one secured to the said inwardly turned roll edge and the other secured to the other roll.

5. A hinge joint, comprising a pintle-roll and a knuckle-roll adapted and arranged for concentric rotative coaction, in combination with end thrust stop means comprising a block secured to the knuckle-roll, the pintle-roll having its inner edge turned inwardly medially and with its end formed to provide a bearing shoulder for said block to bear against.

[Claims 6 and 7 not printed in the Gazette.]

1,144,091. PIN-SETTER. HANS J. ANDERSON, Lakemills, Wis., assignor of one-half to George W. Carleton, Lakemills, Wis. Filed Dec. 5, 1912. Serial No. 735,106. (Cl. 46—54.)



1. A pin setter, comprising a support, a horizontally extending pin frame positioned adjacent thereto, a parallelogram connection between the support and the frame for moving and maintaining the pin frame in horizontal position, pin holders carried by the pin frame, means for normally holding the pin frame in an upper position and the pin holders in pin holding position, and means actuated by a downward movement of the pin frame for releasing the pins held by the pin holding members.

2. A pin setter, comprising a support, a horizontally extending pin frame positioned adjacent thereto, a parallelogram connection between the support and the frame for moving and maintaining the pin frame in horizontal position, pin holders carried by the pin frame, means for moving the pin frame to an upper position when relieved of the weight of the pins, said pin frame adapted to be moved to a lower position by the weight of the pins inserted therein, and means actuating the pin holders to release said pins when the pin frame is moved downwardly.

3. A pin setter, comprising a support, a horizontally extending pin frame positioned adjacent thereto, a parallelogram connection between the support and the frame for moving and maintaining the frame in horizontal position, means for moving the pin frame to an upper position when relieved of the weight of pins, pairs of pin holders hinged to the pin frame, said pin frame adapted to be moved to a lower position by the weight of the pins inserted therein, and means actuating the pin holders to swing to open position to release the pins when the pin frame is moved downwardly.

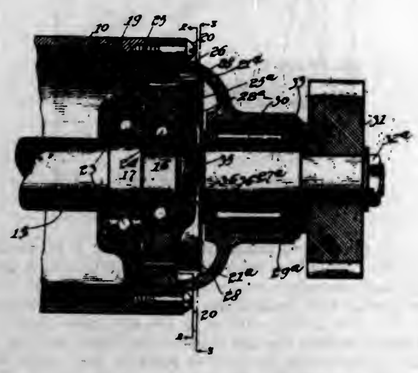
4. A pin setter, comprising a support, a horizontally extending pin frame positioned adjacent thereto, a parallelo-

gram connection between the support and the frame for moving and maintaining the frame in horizontal position, means for moving the pin frame to an upper position when relieved of the weight of pins, pairs of pin holders hinged to the pin frame, and provided with pin recesses and adapted to swing toward each other in pairs to pin holding position, means for locking the pin holders in pin holding positions, said pin frame adapted to be moved to its lower position by the weight of the pins inserted in the pin recesses, and means for automatically unlocking the pin holding members to release the pins by the downward movement of the pin frame.

5. A pin setter, comprising a support, a horizontally extending pin frame positioned adjacent thereto, a parallelogram connection between the support and the frame for moving and maintaining the frame in horizontal position, means for moving the pin frame to an upper position when relieved of the weight of pins, pairs of pin holders hinged to the pin frame, and provided with pin recesses and adapted to swing toward each other in pairs to pin holding position, horizontal bars positioned beneath the pin frame and pivotally connected to the pin holders, dogs for holding said horizontal bars in locked positions, and means automatically actuating said dogs to release the horizontal bars when the pin frame is moved downwardly.

[Claims 6 to 9 not printed in the Gazette.]

1,144,092. GEARING. VINCENT G. APPLE, Dayton, Ohio, assignor to The Apple Electric Company, Dayton, Ohio, a Corporation of Ohio. Filed Apr. 17, 1914. Serial No. 832,474. (Cl. 74—35.)

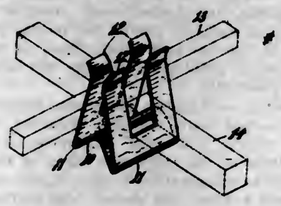


1. In combination with a casing, a shaft bearing, a head for the casing, providing one member of a reduction gearing and a support for the said bearing, a shaft within said bearing; a coöperating gear member, driven by said shaft, and within said head, a cover connected with said casing, a driven shaft supported by said cover, and a connection between said gearing and driven shaft.

2. The combination with a casing and driven shaft, of a casing head, a gear carried thereby, and adapted to serve as one member of a reduction gearing, a driving shaft bearing supported by said head, a gear member driven by said shaft and coöperating with the aforesaid gear, a cover connected with the casing and projecting beyond the gearing, a driven shaft supported by said cover and a connection between said gearing and the driven shaft.

3. The combination with a casing and a driving shaft, of a bearing for said shaft, a casing head providing one member of a reduction gearing and a support for said bearing, a coöperating gear member driven by said shaft, a cup shaped cover connected at its periphery to the casing and inclosing said gearing, a driven shaft, a connection between said gearing and the driven shaft, and a bearing for the driven shaft mounted in said cover.

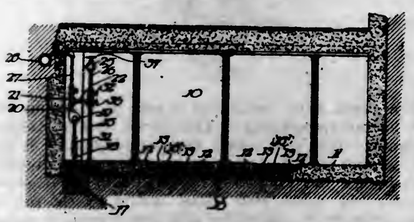
1,144,093. BAR TIE AND SUPPORT. HERBERT E. BANDTEL, Milwaukee, Wis., assignor of one-half to Robert H. Becker, Milwaukee, Wis. Filed Apr. 22, 1914. Serial No. 833,634. (Cl. 72—122.)



1. A bar tie and support for crossed reinforcing rods, comprising a strip of sheet metal bent to form an arched base with rounded edges and continuing upwardly from the bearing edges to form converging side checks, said side checks being slotted from their upper edge downwardly to divide them into pairs of spring fingers, the slots between the fingers being adapted to receive one of the reinforcing rods and the pairs of spring fingers being adapted to receive another reinforcing rod of greater thickness than the distance between the spring fingers so that said rod is held thereby with spring pressure, the upper end of the spring fingers being turned outwardly to facilitate the passing of the last mentioned reinforcing rod therebetween.

2. A bar tie and support for crossed reinforcing rods, comprising a single strip of sheet metal bent to the shape of the letter W with an arched base having rounded bearing edges with converging side cheeks extending upwardly therefrom, said side cheeks being slotted from their upper edges downwardly to a point above the bearing surfaces higher than the arched portion of the base, the slots being square at their ends and adapted to receive a square reinforcing bar passing through the slots of both cheek members, said slots dividing the cheek members into pairs of spring fingers converging and then diverging to produce contracted throatways between them to receive another reinforcing rod of greater thickness than the distance between the contracted portion of the spring fingers and to retain said rod in place by their spring pressure therein.

1,144,094. WATER-CIRCULATION SYSTEM FOR SUBWAYS. WENDELL A. BARKER, Chicago, Ill. Filed Feb. 11, 1915. Serial No. 7,628. (Cl. 137—78.)



1. In a water circulation system for subways, the combination with an inclined floor of a subway, of track-troughs carried thereby, track-rails in said troughs, a return-flow water conduit communicating at its ends with relatively low and high points of said track-troughs, respectively, and a water circulation pump located in said return-flow conduit.

2. In a water circulation system for subways, the combination with an inclined floor of a subway, of track-troughs carried thereby, track-rails in said troughs, a return-flow water conduit communicating at its ends with relatively low and high points of said track-troughs, respectively, a water circulation pump located in said return-flow conduit, means for collecting and discharging foul water from said system, and means for admitting fresh water thereto when required.

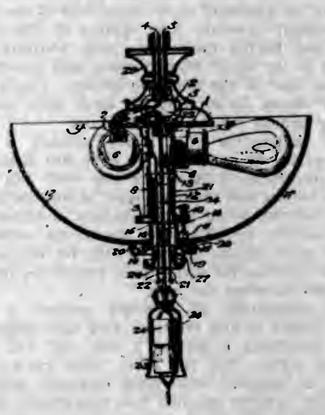
3. In a water circulation system for subways, the combination with an inclined floor of a subway, of track-troughs carried thereby, track-rails laid in said troughs, a return-flow water conduit communicating at its ends with relatively low and high points of said track-troughs, respectively, a flow-retarding agent in said track-troughs, and a water circulation pump located in said return-flow conduit.

4. In a water circulation system for subways, the combination with an inclined floor of a subway, of track-troughs carried thereby, track-rails laid in said troughs, a return-flow water conduit comprising a pipe for supplying water to said troughs at a relatively high point of the latter, a drain pipe communicating with said troughs at a relatively low point of the latter, a sump into which said drain pipe discharges, and a pipe connecting said sump with said supply pipe, and a water circulation pump located in one of said pipes.

5. In a water circulation system for subways, the combination with an inclined floor of a subway, of track-troughs carried thereby, track-rails laid in said troughs, a return-flow water conduit comprising a pipe for supplying water to said troughs at a relatively high point of the latter, a drain pipe communicating with said troughs, at a relatively low point of the latter, a sump into which said drain pipe discharges, and a pipe connecting said sump with said supply pipe, a water circulation pump in said connecting pipe, a fresh water admission pipe connected to said supply pipe, a foul water discharge pipe connected to said connecting pipe on the discharge side of said pump, and suitable valves governing the flow of water through pipes, troughs, and sump.

[Claim 6 not printed in the Gazette.]

1,144,095. SUPPORT FOR INDIRECT OR SEMI-INDIRECT LIGHTING FIXTURES. HARRY A. BAUER, Lansdowne, Pa. Filed Jan. 6, 1915. Serial No. 746. (Cl. 240—78.)



1. In a device of the character stated, a body portion, independently adjustable bowl clamping members carried thereby, a threaded bowl supporting member carried by said body portion, a threaded open ended tubular sleeve adapted for adjustable connection with said bowl supporting member, a bowl supporting shelf carried by said tubular sleeve and yielding clamping means between which and the clamping members the bowl to be supported is engaged.

2. In a support for a bowl having an opening therein, a body portion, bowl clamping means adapted to engage the inner wall of the bowl, a yielding clamping means adapted to engage the outer wall of the bowl, an open ended tubular sleeve passing through the opening in the bowl adapted for engagement with the body portion and carrying said yielding clamping means, and a pull member connected at its inner end to the control of the lighting medium and passing through said tubular sleeve to the exterior thereof.

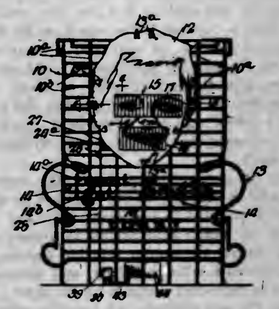
3. In a holder for a bowl having an opening therein, a body portion carrying the lighting elements, adjustable bowl clamping members carried by the body, a threaded bowl supporting member supported by the body, a tubular open ended sleeve adapted for adjustable connection with the bowl supporting member, and having an opening in its wall communicating with the interior of the bowl at the bottom thereof, a yielding clamping means carried by the sleeve and between which and the adjustable bowl clamping members the bowl is engaged, and a pull member for each lighting element passing through said tubular sleeve to the exterior thereof to provide for individual control of each lighting element.

4. In a holder for a bowl having an opening therein, a body portion, electric sockets carried thereby, adjustable bowl clamping means carried by the body, a threaded bowl supporting member supported by the body, an open ended tubular sleeve adapted for adjustable connection with the bowl supporting member, a yielding clamping means carried by the tubular sleeve, a pull member for each socket passing through said tubular sleeve and each having an end exterior thereof, a conductor passing through said tubular sleeve to the exterior thereof, and an electric socket carried at the outer end thereof.

5. A support for an indirect or semi-indirect lighting bowl comprising a body portion, electric sockets in connection with breakable circuits carried by said body portion, adjustable bowl clamping means carried by the body portion, a threaded bowl supporting member carried by the body, an open ended tubular sleeve passing through an opening in the bowl and adapted for engagement with the bowl supporting member, a yielding clamping means carried by the tubular sleeve, a pull member in connection with the circuit control of each socket passing through said tubular sleeve and extending exterior thereof, and an auxiliary circuit conductor suitably supported and passing through said tubular sleeve to a point beneath said bowl and carrying a breakable connection at its outer end.

[Claims 6 to 8 not printed in the Gazette.]

1,144,096. ADVERTISING DEVICE. WILLIAM FREDERICK BECKER, Chicago, Ill., assignor to Thomas Cusack Company, a Corporation of New Jersey. Filed Dec. 15, 1911. Serial No. 666,078. (Cl. 40—33.)

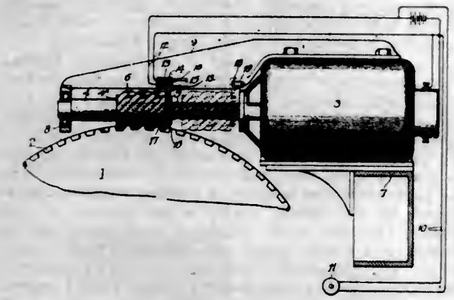


1. An advertising device comprising a placard on which a representation is depicted, said placard including a plurality of shutters having opposite sides each adapted to form a part of the exposed surface of said placard, the opposite sides of said shutters bearing alternative representations of the parts of the depicted matter adapted to appear in the spaces covered by said shutters, rock-shafts made rigid with said shutters, pinions fixed to said rock-shafts, gears meshing with said pinions, arms rigid with said gears, a longitudinal reciprocating rod having

pivotal connection with each of said arms, and means capable of lost motion for reciprocating said rod.

2. An advertising device comprising a placard on which a representation is depicted, said placard including a plurality of shutters having opposite sides each adapted to form a part of the exposed surface of said placard; the opposite sides of said shutters bearing alternative representations of the parts of the depicted matter adapted to appear in the spaces covered by said shutters, rock shafts made rigid with said shutters, a longitudinal reciprocating rod, mechanism intermediate said reciprocating rod and said rock shafts for imparting rocking movement to said shafts in unison, a reciprocating link, means intermediate said reciprocating link and said reciprocating rod for imparting the movement of one to the other, a crank-arm provided with a crank-pin, said reciprocating link being provided with a slot in which said crank-pin engages, and means for continuously rotating said crank arm.

1,144,097. STARTER FOR GAS-ENGINES. VINCENT BENDIX, Memphis, Tenn. Filed Dec. 30, 1912. Serial No. 739,168. (Cl. 74—7.)



1. A starter for gas engines and the like, comprising in combination with a member operatively connected with the engine, an electric motor including its armature shaft, a screw threaded shaft in line with the armature shaft and driven thereby, a driving member adapted to engage and drive the engine member but normally out of engagement therewith, said driving member being mounted on the screw threaded shaft and having means for engaging the latter whereby operation of the motor advances the driving member into engagement with the engine member.

2. A starter for gas engines and the like, comprising, in combination with a toothed wheel operated by the engine, an electric motor having an extended armature shaft, a pinion mounted thereon for longitudinal and rotary movements relative thereto and adapted to mesh with said wheel, the rotation of the shaft advancing the pinion into mesh with the wheel and the subsequent rotation of the wheel, which exceeds that of the shaft, withdrawing the pinion from mesh.

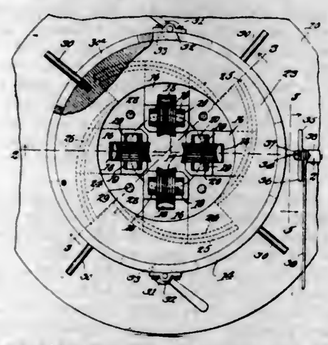
3. A starter for gas engines and the like comprising, in combination with a toothed wheel operated by the engine, a driving pinion adapted to coöperate with and drive said wheel, a shaft on which said pinion is arranged to have a spiral longitudinal movement relative thereto, a motor operatively connected with the shaft, and means for holding the pinion in retracted position on its shaft.

4. A starter for gas engines and the like comprising, in combination with a toothed wheel operated by the engine, a driving pinion adapted to coöperate with and drive said wheel, a shaft on which said pinion is arranged to have a longitudinal movement relative thereto, a motor operatively connected with the shaft, a spring catch for yieldingly holding the pinion in retracted position.

5. A starter for gas engines and the like comprising in combination with a toothed fly-wheel of the engine, a motor, a driving pinion operated by the motor and adapted to mesh with and drive said wheel but normally out of engagement therewith, and means whereby relative movement between the motor and pinion automatically moves the latter into driving engagement with the wheel.

[Claims 6 and 7 not printed in the Gazette.]

1,144,098. ROTARY DRILLING APPARATUS. LEE J. BLACK, Beaumont, Tex. Filed July 30, 1914. Serial No. 854,059. (Cl. 255—23.)



1. The combination of a rotary member, an annular scroll plate carried by the rotary member and rotatable therewith and relative to said member, said scroll plate having recesses, the inner ends of which are spiral, radially movable jaws carried by the rotatable member and having their outer ends engaging the spiral inner ends of the scroll plate recesses, guides for the jaws, and means for rotating the scroll plate relative to the rotary member for operating the jaws.

2. The combination of a rotary member, an annular scroll plate carried by the rotary member and rotatable therewith and relative to said member, said scroll plate having recesses, the inner ends of which are spiral, and the bottom of the scroll plate having grooves which are parallel to the aforesaid spiral inner ends of the plate recesses, radially movable jaws carried by the rotatable member and having their outer ends abutting against said ends of the scroll plate recesses, and provided with ribs which seat in the aforesaid grooves, guides for the jaws, and means for rotating the scroll plate relative to the rotary member for operating the jaws.

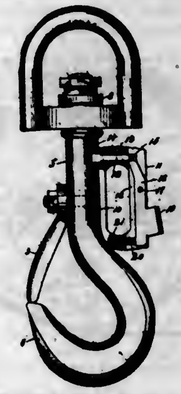
3. The combination of a rotary member, a circular housing carried by and rotatable with said member, said housing comprising a bottom, a side wall and a cover plate, the bottom and the cover plate having central openings, an annular scroll plate rotatably mounted in the housing radially movable jaws operatively connected to the scroll plate, guides in the housing for the jaws, and means for rotating the scroll plate relative to the rotary member for operating the jaws.

4. The combination of a rotary member, a circular housing carried by and rotatable with said member, said housing comprising a bottom, a side wall and a cover plate, the bottom and the cover plate having central openings, an annular scroll plate rotatably mounted in the housing, radially movable jaws operatively connected to the scroll plate, guides in the housing for the jaws, the scroll plate being mounted between the guides and the sidewall of the housing, and means for rotating the scroll plate relative to the rotary member for operating the jaws.

5. The combination of a rotary member, a circular housing carried by and rotatable with said member, said housing comprising a bottom, a side wall and a cover plate, the bottom and the cover plate having central openings, an annular scroll plate rotatably mounted in the housing, radially movable jaws operatively connected to the scroll plate, guides in the housing for the jaws, the scroll plate being mounted between the guides and the side wall of the housing, and said scroll plate having parts which overhang the jaws, and means for rotating the scroll plate relative to the rotary member for operating the jaws.

[Claims 6 to 9 not printed in the Gazette.]

1,144,099. HOISTING-HOOK. LEE J. BLACK, Beaumont, Tex. Filed Sept. 8, 1914. Serial No. 860,640. (Cl. 24—241.)



1. The combination with a hoisting hook comprising a shank and a bill extending beyond one side thereof, of a hand grip on the other side of the shank, a rotatable pin passing transversely through the shank, to one end of which pin the hand grip is rigidly connected, and a latch bar rigidly carried by the other end of the pin and adapted to extend between the shank and the bill of the hook.

2. The combination with a hoisting hook, of a safety device comprising a swinging latch bar extending between the shank and the bill of the hook, a rotatable pin passing transversely through the hook shank and carrying at one of its ends the aforesaid latch bar, a hand grip connected to the other end of the pin for rotating the same, and a latch bolt carried by the hand grip, the hook having a keeper for said latch bolt.

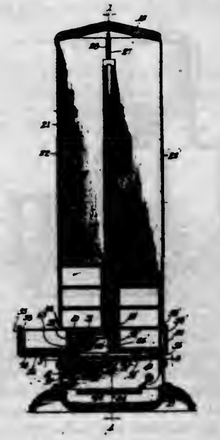
3. The combination with a hoisting hook, of a safety device comprising a swinging latch bar extending between the shank and the bill of the hook, a rotatable pin passing transversely through the hook shank and carrying at one of its ends the aforesaid latch bar, a hand grip connected to the other end of the pin for rotating the same, a latch bolt carried by the hand grip, the hook having a keeper for said latch bolt, and means carried by the hand grip for operating the latch bolt.

4. The combination with a hoisting hook, of a safety device comprising a swinging latch bar extending between the shank and the bill of the hook, a rotatable pin passing transversely through the hook shank and carrying at one of its ends the aforesaid latch bar, a hand grip connected to the other end of the pin for rotating the same, a latch bolt carried by the hand grip, the hook having a keeper for said latch bolt, and means carried by the hand grip for operating the latch bolt, said operating means having an actuating part projecting from the hand grip.

5. The combination with a hoisting hook, of a safety device comprising a swinging latch bar extending between the shank and the bill of the hook, a rotatable pin passing transversely through the hook shank and carrying at one of its ends the aforesaid latch bar, a hand grip connected to the other end of the pin for rotating the same, a latch bolt carried by the hand grip, the hook having a keeper for said latch bolt, and a pivoted trigger carried by the hand grip and operatively connected to the latch bolt, said trigger having an actuating part projecting from the hand grip.

1,144,100. VENDING-MACHINE. EMERSON A. BOLEN, Morris, Ill., assignor to North Western Novelty Company, Morris, Ill., a Corporation of Illinois. Original application filed Oct. 26, 1912, Serial No. 727,820. Divided and this application filed Dec. 16, 1913. Serial No. 806,989. (Cl. 211—8.)

1. In a machine of the character described, the combination of a casing providing two storage compartments, and having alined openings in opposite walls of the casing, a slide extending through said casing from side to side thereof across the end of said compartments and projecting from the casings through said openings, said slide comprising two spaced-apart package receptacles, separated by a raised ejector-wall each said receptacle arranged for protrusion outside of the casing when the contiguous storage compartment is guarded by the ejector portion and the other receptacle coacts with the remoter storage compartment, and upwardly extending lips forming the end walls of said receptacles and respectively cooperating with the contiguous side wall openings to restrict the same against the removal of any package save the one contained in the protruded package receptacle.



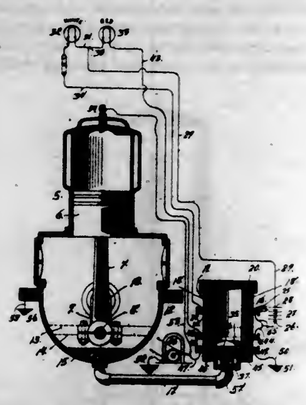
2. In a machine of the character described, the combination of a casing providing two storage compartments and having alined openings in opposite walls of the casing, a slide extending through said casing from side to side thereof across the end of said compartments and projecting from the casing through said openings, said slide comprising two spaced apart package receptacles open at their tops, and a horizontal table portion joining the upper ends of the adjacent side walls of said receptacles, adapted and arranged to guard the end of either of the storage compartments, when the other is opened to a receptacle, each said receptacle arranged for presentation outside of the casing when the other receptacle coacts with the appropriate storage compartment, and the appropriate inner and outer walls of the said receptacles respectively coöperating with the contiguous side wall openings to restrict the same against the removal of any packages save one contained in a package receptacle.

3. In a machine of the character described, the combination of a substantially closed casing providing two storage compartments, alined openings in opposite walls of the casing, a slide extending through said casing from side to side to coact with said compartments and projecting from the casing through the said openings, said slide comprising two spaced apart U-shaped receptacles having the upper ends of their adjacent legs joined by a horizontal table portion, for coaction with the respective storage compartments, each said receptacle arranged for presentation outside of the casing when the other receptacle coacts with the appropriate storage compartment, and the appropriate inner and outer legs of the U-shaped receptacles respectively coöperating with the contiguous side wall openings to restrict the same against removal of any package save one contained in a package receptacle.

1,144,101. SAFETY DEVICE FOR GASOLENE-MOTORS. ROY J. BRADBURY, Denver, Colo., assignor of two-fifths to Andrew Jackson, Denver, Colo. Filed Mar. 12, 1914. Serial No. 824,252. (Cl. 177—10.)

1. The combination with the oil-containing crank case of an internal combustion engine, of an auxiliary receptacle in communication with the crank case to allow the

oil to flow freely to the receptacle and maintain the same level therein as in the crank case, the receptacle having contact plates mounted therein upon opposite sides, a circuit in which said contacts are located, a float within the receptacle and arranged to electrically bridge the contacts when the oil is at a predetermined level, and means located in the circuit for automatically indicating the changes of the oil level in the auxiliary receptacle and the crank case.



2. The combination with an oil-containing crank case of an internal combustion engine, of an auxiliary receptacle in communication with the crank case to allow the oil to freely enter the receptacle, a number of sets of spaced electrical contacts in the receptacle, circuits in which the sets of contacts are respectively located, translating devices located in the respective circuits, a float located within the receptacle, and means surrounding the periphery of said float for electrically bridging the space between the individual members of the several sets of contacts as the oil level fluctuates.

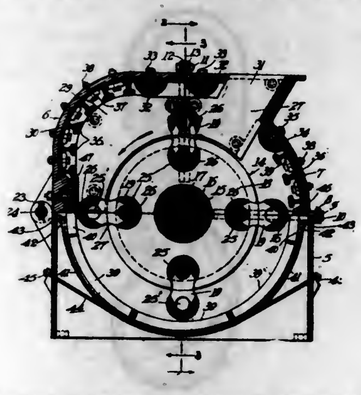
3. The combination with the oil-containing crank case of an internal combustion engine, of an auxiliary receptacle in communication with the crank case to allow the oil to flow freely to the receptacle and maintain the same level therein as in the crank case, the receptacle having contact plates mounted therein upon its side, a circuit in which said contacts are located, a float within the receptacle and arranged to electrically bridge the contacts when the oil is at a predetermined level, and means located in the circuit for automatically indicating the changes of the oil level in the auxiliary receptacle and the crank case.

4. The combination with an oil-containing crank case of an internal combustion engine, of an auxiliary receptacle in communication with the crank case to allow the oil to freely enter the receptacle, a number of sets of spaced electrical contacts in the receptacle, circuits in which the sets of contacts are respectively located, translating devices located in the respective circuits, a float located within the receptacle, and means mounted on said float and projecting beyond its periphery for bridging the space between the individual members of the several sets of contacts as the oil level fluctuates.

1,144,102. ROTARY PULVERIZER. CHARLES E. BRAINARD, Chicago, Ill. Filed Sept. 8, 1914. Serial No. 860,636. (Cl. 83—11.)

1. A double face hammer for a pulverizer rotor, comprising two parallel spaced apart striking bars of concavo-convex cross section, said bars being positioned with their concaved surfaces facing each other, and bridge pieces connecting said bars, said pieces being provided with perforations near each striking bar for making pivotal connection with the rotor.

2. A double faced, double sided hammer for a pulverizer rotor, comprising two parallel striking bars and bridge pieces, said pieces provided with perforations near each striking bar for making pivotal connection with the rotor, substantially as and for the purpose set forth.



3. A rotary pulverizer, comprising a casing; a rotor, comprising a hub and terminal flanges, said flanges provided with registering perforations at circumferential intervals, near their periphery; a double faced double sided hammer, provided with two parallel striking bars and bridge pieces, said pieces provided with perforations near each striking bar and a shaft taking through said perforations whereby to pivot either end of each said hammer to said rotor.

4. A double face hammer for a pulverizer rotor, comprising two parallel spaced apart striking bars of concavo-convex cross section, said bars being positioned with their concaved surfaces facing each other, bridge pieces connecting said bars, said bridge pieces being provided with perforations near each striking bar, the outer edges of the perforations registering with the concaved faces of the striking bars and a shaft connectible at its end with said rotor and adapted to pass through either set of perforations substantially as and for the purpose set forth.

1,144,103. SURGICAL DEVICE. EDMUND DEMPSTER BRANT, Canton, Ohio. Filed Aug. 8, 1913. Serial No. 783,700. (Cl. 128—52.)

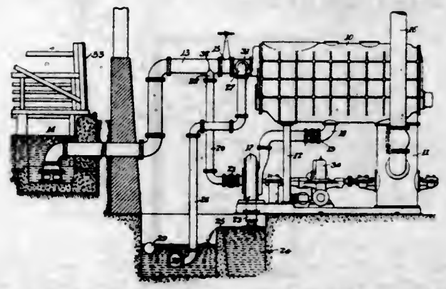


1. A finger cot or splint consisting of a pair of thin pliable strips secured together at their centers to extend at right angles to each other, said strips being bent at a point adjacent the center inwardly toward each other to form an elongated frame work, the free ends of said strips being provided with slots, and a flexible member adapted to be arranged in said slots to encircle said injured member, substantially as described.

2. A finger splint consisting of a pair of resilient pliable strips secured together intermediate their ends and extending at right angles to each other, and said strips being bent inwardly toward and in approximately parallel relation to each other to form a frame work for engagement over a finger and to conform to the shape thereof, substantially as described.

3. A finger splint consisting of a pair of resilient pliable strips secured together intermediate their ends and extending at right angles to each other, said strips being bent inwardly toward and in approximately parallel relation to each other to form a frame work for engagement over a finger and to conform to the shape thereof, and means for securing the free ends of said strips in engagement with the finger, substantially as described.

1,144,104. CONDENSING APPARATUS. JOHN J. BROWN, Newark, N. J. Filed July 31, 1914. Serial No. 854,239. (Cl. 261—2.)



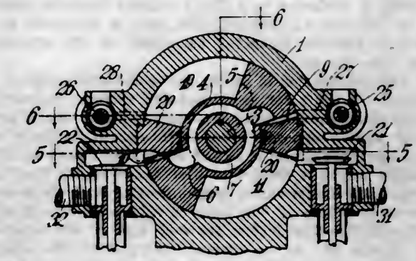
1. A steam condensing plant comprising a jet condenser, a source of injection water therefor, a hydraulic air pump, a connection from the condenser to the pump for withdrawing the gases from the interior of the condenser, a connection from the said pump to the source of injection water, a receptacle independent of the source of injection water and into which the said pump discharges under a free head, and a pipe connection between the said receptacle and the interior of the condenser so that a portion of the injection water is first passed through the said pump to withdraw the gases from the condenser and is then returned from the said receptacle through the said pipe connection to the condenser and employed for condensing purposes.

2. A steam condensing apparatus comprising a jet condenser, a source of injection water, an injection pipe leading to the condenser, a discharge pipe leading from the same, a hydraulic air pump, a connection between the said injection pipe and the said pump through which water is supplied to the pump to operate the same, a receptacle independent of the source of injection water and into which the pump discharges under a free head, a pipe connection between the said receptacle and the said injection pipe through which the water that is passed through the pump to operate the same is returned from the said receptacle to the said injection pipe to be utilized for condensing purposes before being returned to the said source of injection water.

3. A steam condensing apparatus comprising a jet condenser, a cooling tower, an injection pipe leading from the cooling tower to the condenser, a tail pump, a discharge pipe leading from the tail pump to the cooling tower, a hydraulic air pump, a connection from the same to the said condenser for withdrawing the non-condensable vapors therefrom, a connection from the said injection pipe to the said pump through which a part of the injection water is passed to operate the pump, a receptacle independent of the cooling tower and into which the said pump discharges under a free head, and a pipe connection from the said receptacle to the said injection pipe at a point adjacent the said condenser and through which pipe connection the water for operating the pump is returned from the said receptacle to the said injection pipe to be utilized for condensing purposes.

4. A steam condensing apparatus comprising a jet condenser, a cooling tower, an injection pipe leading from the cooling tower to the condenser, a tail pump, a discharge pipe leading from the tail pump to the cooling tower, a hydraulic air pump, a connection from the same to the said condenser for withdrawing the non-condensable vapors therefrom, a connection from the said injection pipe to the said pump through which a part of the injection water is passed to operate the pump, a receptacle independent of the cooling tower and into which the said pump discharges under a free head, a pipe connection from the said receptacle to the said injection pipe at a point adjacent the said condenser and through which pipe connection the water for operating the pump is returned from the said receptacle to the said injection pipe to be utilized for condensing purposes, an injection valve in the said injection pipe between the points at which part of the water is taken therefrom to operate the pump and that part at which the water from the pump is returned thereto, a control valve in the connection leading from the injection pipe to the pump, and a control valve in the connection leading from the condenser to the pump.

1,144,105. INTERNAL-COMBUSTION ENGINE. WALTER J. BROWN, Springfield, Mass., assignor of one-half to John Firth, Jr., Springfield, Mass. Filed Feb. 16, 1915. Serial No. 8,502. (Cl. 123—18.)



1. In an internal combustion engine of the oscillatory wing type, a cylinder, abutments fixed therein, a piston in said cylinder having opposed wings arranged to oscillate between said abutments, passages formed in said piston extending from each face of one wing to the opposite faces of the other wing, means to admit fuel to either of the spaces between one wing and said abutments, means to admit air to either of the spaces between the other wing and said abutments, whereby one wing may be propelled in either direction by a direct explosive impulse and the other wing may be propelled in either direction by an expansion of said explosive impulse through said passages upon the air, together with suitable exhaust valves and ignition devices, substantially as described.

2. An internal combustion engine, comprising, a cylinder, abutments fixed therein, a plurality of pistons, each thereof having a pair of opposed wings arranged to oscillate between said abutments, means to admit fuel to either of the spaces between one wing of each piston and said abutments, means to admit air to either of the spaces between the other wing of each piston and said abutments, passages formed in each of said pistons extending from each face of one wing to the opposite faces of the other wing, together with suitable exhaust valves, ignition devices and means to operate said valves and devices, whereby one wing of each piston may be propelled in either direction by a direct explosive impulse and the other wing of each piston may be propelled in either direction by an expansion of said explosive impulse through said passages upon the air, substantially as described.

3. An internal combustion engine, comprising in combination, a cylinder, a shaft mounted therein, abutments fixed in said cylinder, a plurality of pistons fixed to said shaft, each thereof having a pair of opposed wings arranged to oscillate between said abutments, passages formed in each piston to connect each side of one wing with the opposite sides of the other wing, means to admit fuel to either of the spaces between one wing of each piston and said abutments, means to admit air to either of the spaces between the other wing of each piston and said abutments, a crank shaft, connecting means between the latter and said piston shaft arranged so that the oscillatory movement of the piston shaft will rotate

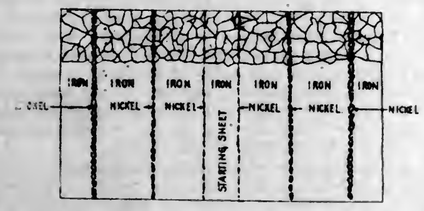
the crank shaft, together with suitable exhaust valves and ignition devices, substantially as described.

4. The combination in an internal combustion engine, of a cylinder, a shaft rotatably mounted therein, abutments fixed in said cylinder, pistons mounted on said shaft, each thereof having a pair of opposed wings arranged to oscillate between said abutments, a crank shaft, connecting means between the latter and said first named shaft operable to continuously rotate the crank shaft, admission and exhaust valves communicating with the space between each side of one wing of each piston and the abutments, ignition devices for each side of one wing of each piston, air valves communicating with the space between each side of the opposed wing of each piston and the abutments, passages formed in each piston to connect the space between each side of one wing of each piston with the space between the opposite side of the opposed wing and the abutments, and means to operate said valves, said means operable to permit fuel to enter the space on one side of one wing of one piston and air to enter the space on the opposite side of the opposed wing, whereby one wing is subjected to a direct impulse from the explosion of the fuel and the opposed wing is subjected to a secondary impulse from the expansion of the exploded gases upon the air.

5. The combination in an internal combustion engine, of a cylinder, a shaft rotatably mounted therein, abutments fixed in said cylinder, pistons mounted on said shaft, each thereof having opposed wings arranged to oscillate between said abutments, a second shaft and means to continuously rotate it from said first named shaft, fuel admission and exhaust valves communicating with the spaces between each side of one wing of said pistons and said abutments, ignition devices for each side of one wing of said pistons, air valves communicating with the spaces between each side of the opposed wing of said pistons and said abutments, passages to connect the spaces between each side of one wing and the abutments with the spaces between the opposite sides of the opposed wing and the abutments, means to operate said valves, said means arranged so that a fuel admission valve communicating with the space on one side of one wing is opened simultaneously with an air valve communicating with the space on the opposite side of the opposed wing, whereby opposite sides of the opposed wings of one piston may be positively propelled, the one from a direct impulse from the explosion of fuel and the other from a secondary impulse due to an expansive action of said explosion upon the air.

[Claims 6 and 7 not printed in the Gazette.]

1,144,106. SHEET METAL AND METHOD FOR ITS PRODUCTION. CHARLES F. BURGESS, Madison, Wis., assignor to C. F. Burgess Laboratories, Madison, Wis., a Corporation of Wisconsin. Filed Mar. 21, 1913. Serial No. 756,004. (Cl. 29—189.)



1. Sheet iron rendered resistant to corrosion through embedded layers of metal electronegative to iron.

2. Sheet iron having distributed therethrough strata of metal more resistant to corrosion than is iron.

3. Sheet metal having distributed between iron strata thereof strata of metal occupying but a small percentage of the total thickness of the sheet, said last named metal being of a chemical composition resistant to the inward growth of rust pits.

4. Sheet iron having distributed therethrough between iron strata thin and substantially continuous strata, which are high in nickel and resistant to corrosion.

5. Sheet iron having distributed therethrough between iron strata thin strata of nickel-iron alloy.

[Claims 6 to 8 not printed in the Gazette.]

1,144,107. SWITCH-PLATE. WILLIAM H. BURT, Waterbury, Conn., assignor to Waterbury Mfg. Co., Waterbury, Conn., a Corporation. Filed Nov. 23, 1914. Serial No. 873,614. (Cl. 173—330.)



1. A switch plate formed with a central opening, a door adapted to fit said opening, said door formed with perforations countersunk in the outer face, a bar extending across said opening, means for holding the ends of the bar, a hinge plate secured to the rear face of the door by rivets extending through the perforations in the door the ends of the rivets upset within the countersunk portions of the perforations in the door, said hinge plate engaging with said bar whereby the doors are hinged to the plate.

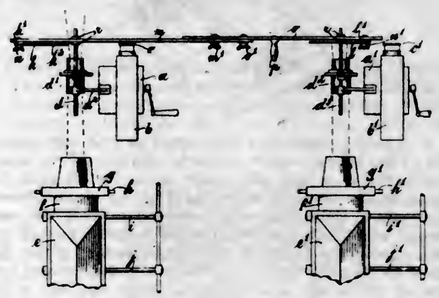
2. A switch plate formed with a central opening and with perforations on opposite sides thereof, the outer ends of said perforations countersunk, a door adapted to fit said opening, said door formed with perforations countersunk in the outer face of the door, a bar extending across said opening and having its ends turned outward and passed through said perforations in the plate, and the outer ends of the bar upset in the countersunk portions of the perforations, a hinge plate secured to the rear face of said door by rivets extending through the perforations in the door the ends of the rivets upset within the countersunk portions of the perforations in the door, said hinge plate engaging with said bar whereby the doors are hinged to the plate.

3. A switch plate having a rectangular opening and formed with countersunk perforations on opposite sides of said opening near the ends thereof, bars extending across said opening at the rear of said plate, the ends of said bars extended outward through said perforations and upset in the countersunk portions thereof, two doors located in said opening in the plate, said doors each formed with two perforations countersunk in their outer faces, hinge plates secured to the doors by rivets passing through said perforations in the doors, said rivets upset in the countersunk portions of said openings and the ends of the rivets and ends of the bars ground flush with the face of the plate.

1,144,108. STEREOPTICON-DISSOLVER FOR MOVING-PICTURE MACHINES. JULIUS C. BUTTNER and FREDERICK J. MERKLEIN, Brooklyn, N. Y. Filed Mar. 19, 1915. Serial No. 15,453. (Cl. 88—24.)

1. A stereopticon dissolver for moving picture machines comprising two diaphragms, horizontally adjustable means permitting of an increase and decrease of its length and having the said diaphragms secured to its outer ends, and means for moving said diaphragms to the right and left before the stereopticon lenses uncovering one lens while covering the other, at the same ratio, dissolving thus one stereopticon slide into another one.

2. A stereopticon dissolver for moving picture machines comprising a diaphragm having on its inner edge a reduced portion, a second diaphragm having on its inner edge an incision conforming in shape to the reduced portion of the first mentioned diaphragm, horizontally adjustable means to the outer ends of which the diaphragms are secured, and means for moving said diaphragms to the right and left in a horizontal plane before the stereopticon lenses uncovering one lens while covering the other, at the same ratio.



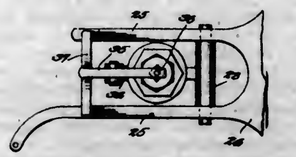
3. A stereopticon dissolver for moving picture machines comprising a diaphragm having on its inner edge an angular pointed inner portion, a second diaphragm having on its inner edge an angular pointed incision conforming in shape to the pointed portion of the first mentioned diaphragm, horizontally adjustable means to the outer ends of which said diaphragms are secured, and means for moving the diaphragms before the stereopticon lenses uncovering one while covering the other, at the same ratio.

4. A stereopticon dissolver for moving picture machines comprising a diaphragm having on its inner edge an angular pointed inner portion, a second diaphragm having on its inner edge an angular pointed incision conforming in shape to the pointed portion of the first mentioned diaphragm, a set of horizontally adjustable slide bars to the outer ends of which the diaphragms are adjustably secured, and means for moving the device before the stereopticon lenses uncovering one lens while covering the other, at the same ratio.

5. A stereopticon dissolver for moving picture machines comprising a diaphragm having on its inner edge an angular pointed inner portion, a second diaphragm having on its inner edge an angular pointed incision conforming in shape to the pointed portion of the first mentioned diaphragm, a set of horizontally adjustable slide bars to the outer ends of which the diaphragms are adjustably secured, means for supporting the device adjoining the stereopticon lenses, and means for moving it before the stereopticon lenses uncovering one lens while covering the other, at the same ratio.

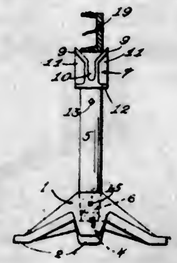
[Claims 6 to 8 not printed in the Gazette.]

1,144,109. FLUSH-VALVE. THOMAS B. COOPER and FERDINAND F. ROB, Baltimore, Md. Filed May 18, 1914. Serial No. 839,227. (Cl. 137—69.)



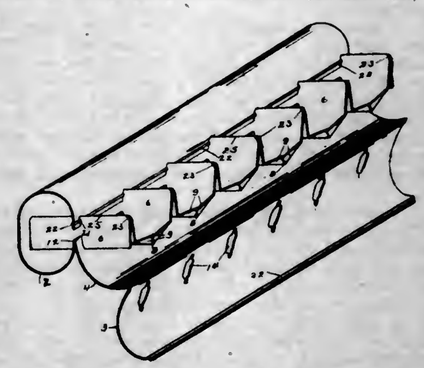
In a device of the kind described, a valve body including a pair of lateral extensions, said body being provided with a valve seat between said extensions, a cap closing the upper end of said body and provided with a centrally disposed opening, a valve stem slidably mounted in said opening, a valve disk carried on said stem and adapted for seating on said seat, a lever pivotally mounted on one of said lateral extensions, a bracket extending upward from said body, a second lever pivoted to said bracket and extending over the upper end of said stem, said second lever having slidable connection at one end with the first lever, and an adjusting screw extending through the second lever and engaging the upper end of said stem.

1,144,110. SUPPORTING-STAND FOR AUTOMOBILES. WILLIAM P. DEACON, East Orange, and JOHN E. JORDAN, Newark, N. J., assignors of one-third to Herbert A. Deacon, East Orange, N. J. Filed Dec. 29, 1913. Serial No. 809,167. (Cl. 248—30.)



A supporting stand for automobiles and the like, comprising in combination a base having a socket, a shank adapted to detachably engage at one end said socket and extend upward from the said base, a head having a circumferentially grooved stem adapted to rotatably enter the other end of said shank, the body of the head adapted to seat against said end of the shank and having flaring flanges forming a transverse recess, and a set screw working through the side of the shank into said groove of the stem of the head.

1,144,111. EGG-CARRIER. LOUIS A. DEGGINGER, Covington, Ky., assignor to The No Break Egg Carrier Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Dec. 26, 1914. Serial No. 879,133. (Cl. 217—34.)

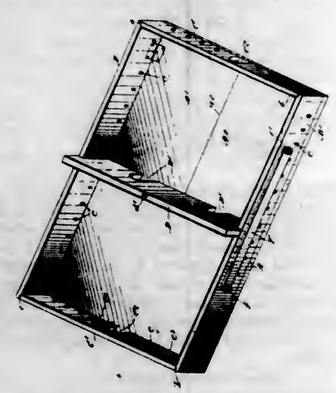


1. In an egg carrier of the class described, a body portion made of a series of half sections joined together, and capable of being folded together, an egg carrying tray, said egg carrying tray connected to the body portion, the outer half sections of the body portions each provided with a rib and the egg carrying tray provided with engagement slots, whereby, when the two outer half sections are folded to close the carrier, the ribs will automatically enter said engagement slots and lock the body and egg carrying tray together.

2. In an egg carrier of the class described, a body portion made of a series of half sections joined together, and capable of being folded together, an egg carrying tray, said egg carrying tray supported in the body portion, the outer half sections of the body portion each provided with a rib, and the egg carrying tray provided with vertical slots having laterally disposed recesses, whereby, when the two outer halves are folded to close the carrier, the ribs will enter and become interlocked with said laterally disposed recesses.

3. In an egg carrier of the class described, a body portion comprising a series of half sections capable of being folded together, an egg carrying tray supported therein and combined therewith, the two outer halves of the body portion provided near their outer edges with ribs embossed therein and the tray portion provided with engaging slots, so that when the carrier is folded and closed the ribs on the outer halves of the body portion will engage the slots in the tray portion and become interlocked therewith.

1,144,112. GAME APPLIANCE. CLARENCE B. DENNY, Milton, Mass., assignor to Wright & Ditson, Boston, Mass., a Corporation of New Jersey. Filed Jan. 8, 1914. Serial No. 811,088. (Cl. 46—61.)



1. A game board comprising a base having side walls and removable end walls, said side walls and end walls being perforated, and said end walls having goal openings therein.

2. A game board comprising a base having hinged side walls, removable end walls, and a removable partition parallel to said end walls, said end walls having goal openings and said partition having passages therethrough.

3. A game board having side walls, end walls and a partition parallel to said end walls, said end walls having goal openings and said partition having passages therethrough, said side walls, said end walls and both sides of said partition being covered with sound-deadening material.

4. A game board composing a base having hinged side walls, removable end walls, and a removable partition parallel to said end walls, said end walls having goal openings and said partition having passages therethrough, said side walls, said end walls and both sides of said partition being covered with sound-deadening material.

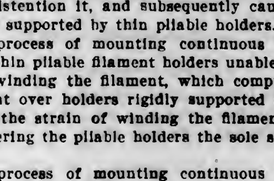
5. A game board comprising a base, side walls, end walls, and a partition supported between said side walls, said partition and two opposing walls being removable and the other two opposing walls being hinged to said base, whereby said game board may be folded for shipment.

[Claims 6 and 7 not printed in the Gazette.]

1,144,113. SLEEVE-HOLDER. CHARLES H. DYGERT, Rochester, N. Y., assignor to D. & H. Manufacturing Jewelers, Inc. Filed Aug. 28, 1912. Serial No. 717,527. (Cl. 24—15.)

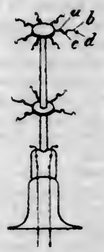
1. A holder comprising a frame, a shaft rotatably mounted on the frame and carrying means for engaging the fabric, a pinion fixed on said shaft, and a detent pivotally mounted beyond the shaft, said detent coöperating with and overlying the outer surface of the pinion whereby to shield the latter.

2. A holder comprising a frame having a pair of ears at one end thereof, a shaft rotatably arranged on the frame and mounted in said ears, means carried by the shaft for engaging the fabric, a pinion fixed on said shaft and arranged between the ears, and a detent pivotally mounted at the outer edge of the aforementioned ears, said detent coöperating with and overlying the outer surface of the pinion and adapted to shield the latter.



3. A holder comprising a frame, a pair of ears at one end of the frame, a shaft rotatably mounted on the frame and journaled in said ears, means carried by the shaft for engaging the fabric, a pinion fixed on the shaft between said ears, a detent pivotally mounted between the ears beyond said shaft and engaging the outer surface of the pinion, whereby to shield the latter, and a spring disposed between the ears and connected to the forward portion of the detent, said spring having a free end in engagement with the under surface of the shaft.

1,144,114. PROCESS OF MOUNTING METALLIC FILAMENTS ON FILAMENT-CARRIERS OF INCANDESCENT LAMPS. OTTO FEUERLEIN, Charlottenburg, and MARCELLO VON PIRANI, Wilmersdorf, Germany, assignors, by mesne assignments, to General Electric Company, a Corporation of New York. Filed July 21, 1910. Serial No. 573,058. (Cl. 176—7.)



1. The process of mounting continuous metallic filaments, which comprises winding the filament back and forth and resisting the tension of the wire by rigid supporting means, passing electric current through the filament to distention it, and subsequently causing the filament to be supported by thin pliable holders.

2. The process of mounting continuous metallic filaments on thin pliable filament holders unable to resist the strain of winding the filament, which comprises winding the filament over holders rigidly supported against bending under the strain of winding the filament, and thereafter rendering the pliable holders the sole support of the filament.

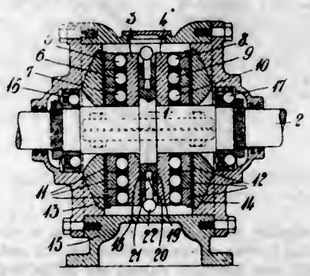
3. The process of mounting continuous metallic filaments upon thin pliable holders unable to resist the strain of winding the filament, which comprises winding the filament over the holders while the tension of the winding is resisted by rigid supporting means, passing current through the filament to distention it, and thereafter rendering the filament free of the rigid supporting means and dependent upon the pliable holders.

4. The process of mounting continuous metallic filaments on holders which comprises winding the filament preliminarily over firm sections of holders, each holder comprising a firm section and a pliable section, passing current through the filament to distention the same and subsequently transferring the filament to the pliable section of the holder.

5. The process of mounting continuous metallic filaments which comprises winding the filament over the firm section of a permanent holder comprising firm and pliable sections, passing current through the filament to distention it and bending the individual arms of the holders inward to free the filament, transferring the filament to the pliable section of the holders attached to the free ends of the firm section thereof and finally bending the individual arms of the holders back into their original position.

[Claims 6 and 7 not printed in the Gazette.]

1,144,115. THRUST BALL-BEARING. BENGT WIKTOR FJELLMAN, Gottenborg, Sweden, assignor to Aktiebolaget Svenska Kullagerfabriken, Gottenborg, Sweden, a Corporation of Sweden. Filed Oct. 17, 1914. Serial No. 867,085. (Cl. 64—49.)



1. In a double acting thrust ball bearing, each half of which is exposed to varying load, the combination of weights adapted to be actuated by centrifugal forces during the rotation, and means transmitting said centrifugal forces as axially acting pressure to the half of the bearing momentarily unloaded, substantially as and for the purpose set forth.

2. In a double acting thrust ball bearing, each half of which is exposed to varying load, the combination of weights adapted to be actuated by centrifugal forces during the rotation, and power transmitting means actuated by said weights and arranged to transmit the said centrifugal forces with increased value to the unloaded half of the bearing, substantially as and for the purpose set forth.

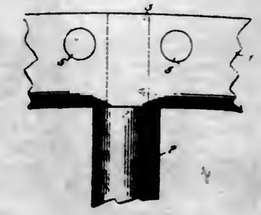
3. In a double acting thrust ball bearing, each half of which is exposed to varying load, the combination of bearing plates rotating with the shaft, weights arranged to be moved by centrifugal forces during the rotation, and means operating between said bearing plates and arranged to transmit movements from said weights to the half of the bearing momentarily unloaded, so as to compress said half, substantially as and for the purpose set forth.

4. In a double acting thrust ball bearing, each half of which is exposed to varying load, the combination of bearing plates rotating with the shaft, a shaft flange, weights arranged to be moved by centrifugal forces during the rotation, and means operating between said shaft flange and each of the said bearing plates and arranged to transmit movements from said weights to the half of the bearing momentarily unloaded, substantially as and for the purpose set forth.

1,144,116. VEHICLE-WHEEL AND METHOD OF MANUFACTURING SAME. HORACE M. FOULKE, Oshkosh, Wis., assignor to The J. L. Clark Carriage Company, Oshkosh, Wis., a Corporation of Wisconsin. Filed Dec. 7, 1914. Serial No. 875,915. (Cl. 21—171.)

1. A wooden wheel felly having radial recesses for the reception of spoke ends and also perforated transversely by rivet holes upon both sides of each of said recesses, in combination with reinforcing rivets located in said rivet holes, and surface indentations of unbroken fiber formed in opposite sides of the wheel felly adapted to receive the ends of said reinforcing rivets when swaged therein.

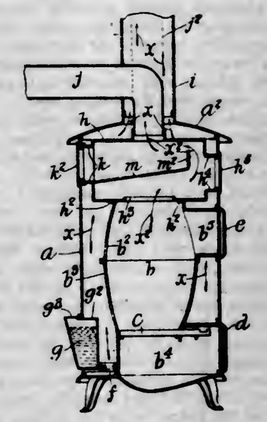
2. A method of fastening spokes into wooden wheel fellies including the following steps, namely, boring the wheel felly radially and transversely, compressing the fixer of said felly to form surface indentations unbroken except by said transverse borings, introducing spoke ends into said radial borings and reinforcing rivets into said transverse borings upon both sides of each spoke, and finally swaging the ends of said rivets into the indentations thus formed.



3. The method of reinforcing wheel fellies which consists in the following steps, namely, boring the wheel felly transversely to receive reinforcing rivets, compressing the wood fiber to receive the rivet ends, and swaging the ends of said rivets into the depressions thus formed.

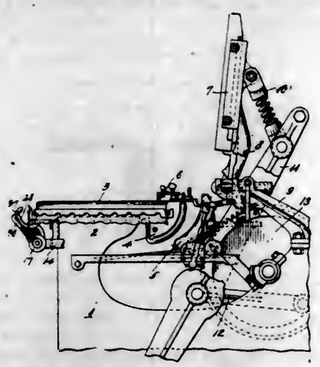
4. A method of making wooden wheel fellies including the following steps, namely, boring the wheel felly to receive reinforcing rivets, indenting the wood fiber to receive the rivet ends, introducing rivets with inverted dome-shaped heads and similarly shaped removable burs the convex surfaces of which are struck upon a slightly shorter radius than that of the indentations which receive them, and swaging said heads and burs into their respective indentations flush with the surface of the felly.

1,144,117. HEATING STOVE AND FURNACE. HERMAN FREDERICKSON, Mariners Harbor, N. Y. Filed Feb. 25, 1915. Serial No. 10,440. (Cl. 126—67.)



A heating apparatus of the class described, comprising a stove or furnace body, a casing inclosing said body and provided at the bottom thereof with air inlets, and a box member placed on the top of the stove or furnace body and inclosed by said casing and around which air admitted at the bottom of said casing passes, said box member being in communication with the stove or furnace body and being provided with a tortuous passage for the products of combustion, and centrally of the top thereof with an attachment for a smoke flue, the top of the casing being also provided with an attachment for an air flue, and said box member being provided at one side with a doorway which opens through the corresponding side of the casing and at the opposite side with a smoke flue attachment which opens through said side of the casing.

1,144,118. BOSOM-BOARD. LADBROOK H. FREEMAN, Cleveland, Ohio, assignor to The Guggenheim Laundry Machinery Company, Cleveland, Ohio, a Corporation of Ohio. Filed Sept. 29, 1913. Serial No. 792,382. (Cl. 68—1.)



1. In a bosom board structure, a bosom board, means for holding the shirt at the neck, and a bosom stretcher comprising a clamp, a single element for opening and closing the clamp and for moving it in the stretching and releasing operation.

2. In a bosom board structure, a bosom board, means for holding the shirt at the neck, and a bosom stretcher comprising a clamp mounted to move bodily, a single operating element, connections between said element and the clamp to cause it to move into clamping position, connections between said operating element and the clamp for moving it bodily, and means for holding said member in any adjusted position.

3. In a bosom board structure, a bosom board, and a bosom stretcher comprising a supporting bracket suitably mounted, a stretcher bracket pivotally mounted in said supporting bracket, a clamping frame also pivotally mounted, mechanism between the stretcher bracket and the clamping frame for drawing the same together and for finally moving both of said members in clamped position to stretch the bosom over the ironing board.

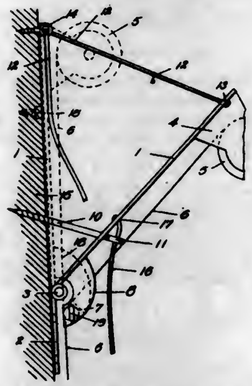
4. In a bosom board structure, a bosom board, and a bosom stretcher comprising a supporting bracket, a stretcher bracket pivotally mounted in said supporting bracket, a clamping frame also pivotally mounted, an operating device, and suitable mechanism between said operating device, said stretcher and said clamping frame for causing a movement of the operating device to close the clamping frame upon the stretcher bracket and a further movement to move said parts while in a clamped position to draw the bosom over the ironing board.

5. In a bosom board structure, a bosom board, and a bosom stretcher comprising a supporting bracket, a stretcher bracket pivotally mounted in said supporting bracket, a clamping frame also pivotally mounted, an operating device, suitable mechanism between said operating device, said stretcher and said clamping frame for causing a movement of the operating device to close the clamping frame upon the stretcher bracket and a further movement to move said parts while in a clamped position to draw the bosom over the ironing board, and means for holding the operating device in any adjusted position.

[Claims 6 to 9 not printed in the Gazette.]

1,144,119. ADJUSTABLE WINDOW-SHADE FIXTURE. HARRY E. GIFFORD, Boston, Mass., assignor to Champion Metal Weather Strip and Parting Bead Company, Boston, Mass., a Corporation of Massachusetts. Filed Dec. 6, 1911, Serial No. 664,262. Renewed Nov. 17, 1914. Serial No. 872,651. (Cl. 156—23.)

1. A window shade fixture comprising a pivotally supported arm having means for carrying one end of a shade roller, said arm having an elongated aperture, a screw passing through said aperture to direct the path of movement of the arm and prevent lateral movement thereof, said screw having a head to adjustably limit the outward swing of the arm, and means for actuating said arm.

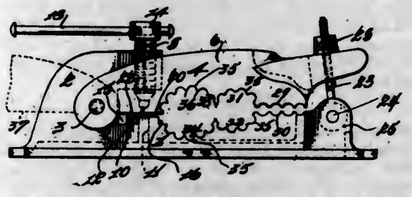


2. A window shade fixture comprising a pivotally supported arm having means for carrying one end of a shade roller, said arm having a curved ear projecting outwardly and downwardly below the pivotal point of the arm, said ear having means for supporting one end of a guide rod, and means for swinging said arm on its pivot.

3. The combination with a window shade fixture comprising a pivotally supported arm having means for carrying one end of a shade roller, two cords connected to said arm, a guide for one of said cords, whereby that cord may be utilized to swing the arm inwardly and a guide for the other cord which is utilized for swinging the arm outwardly, the last mentioned guide being located at a distance outwardly from the window casing whereby said cord is deflected to enable a downward pull upon the lower portion of the cord to effect an outward movement of the arm.

4. A window shade fixture comprising an arm 1 and a bracket 2 to which said arm is pivotally connected, said arm having a shade-supporting ear at its upper end, and a guide rod supporting ear projecting from its lower portion to a point below the pivotal connection with the bracket 2, the lower ear having an aperture for a guide rod, the said arm 1 having also an aperture for a guiding screw and having also apertures for actuating cords.

1,144,120. COMBINATION PUNCH AND CLAMPING-TOOL. CHARLES C. GLADWIN, New York, N. Y. Filed Apr. 12, 1915. Serial No. 20,660. (Cl. 81—19.)



1. In a combination punch and clamping-tool, a base-member, a bracket carried thereby, a rotatable punch carried by the bracket, means to operate the punch, an arm pivotally secured, at one end thereof, to said bracket, an anvil carried by the base-member located under said punch and provided with a die opening alining with said punch, said base being provided with recesses one on each side of the anvil, said base-member being provided with pockets to receive a cylindrical conduit or the like, said arm being also provided with pockets alining with the pockets in said base, said arm being also provided with a flat face located over the top surface of said anvil to form a clamping element, and means to lock said arm in closed position.

2. In a combination punch and clamping-tool, a base-member, a bracket carried thereby, a rotatable punch carried by the bracket, means to operate said punch, an arm consisting of a plurality of members to form a jaw formed to pass over said bracket, each of said arm-members being pivotally secured to said bracket one at each side thereof, an anvil carried by the base-member located under said punch and provided with a die opening alining with said punch, said base being provided with a recess on each side of said anvil to receive the flanges of a flanged conduit, said base being provided with pockets having teeth to grip cylindrical conduits or the like and recesses to receive nails or the like, said arm being also provided with pockets, having teeth, alining with the pockets in said base and recesses alining with the recesses in said base, each of the arm-members having a flat face on its under surface located over the top surface of said anvil to form a clamping-element, and a locking bolt to clamp said arm in closed position.

1,144,121. BATHING-CAP. EDWIN A. GUINZBURG, New York, N. Y. Filed Nov. 17, 1914. Serial No. 872,517. (Cl. 2—118.)

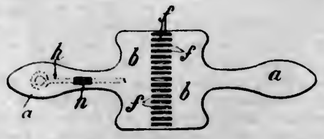


1. In a bathing cap, a body portion, a head portion contained within said body portion and portions depending from the body portion and adapted to wrap about the body portion and secure the cap about the head of the wearer.

2. In a bathing cap, a body portion, a head portion secured within said body portion, securing means on said body portion and means on the body portion for extending about the head and attaching to the securing means on the body portion.

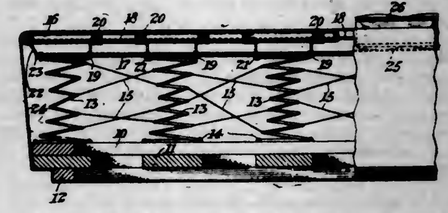
3. A bathing cap comprising a body portion, a head portion secured therein for containing the head of the wearer, portions extending downwardly from the body portion, each of said portions extending about the head of the wearer and securing to fastening means on the body portion.

1,144,122. TOOL OR APPLIANCE FOR USE IN MAKING JOINTS IN DRIVING-BELTING. FRANCIS GUNN, Reddish, England. Filed Mar. 8, 1913. Serial No. 752,965. (Cl. 1—50.)



A holder for joint hooks formed of a metallic plate bent double and having a loop at one end portion and having at its other end portion two opposed half handles which together constitute the handle of the holder, the said loop being provided with a series of slots which form notches for receiving the joint hooks, and a retaining pin for the joint hooks which is slidable in the said loop and which retains the joint hooks in the notches.

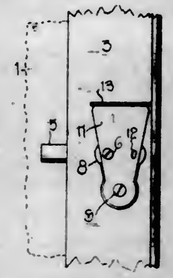
1,144,123. BED-SPRING. MORIS HAAS, New York, N. Y. Filed Aug. 8, 1914. Serial No. 855,766. (Cl. 5—29.)



1. A box bed spring comprising a base, a rim defining the outline of the upper portion of the box bed spring, an auxiliary rim of similar configuration but smaller than the said rim and lying between the same and the said base, a plurality of springs, each secured at one end to the said base, the opposite ends of the outer springs being formed in the shape of inverted U's, means for securing a portion of the said outer springs to the said auxiliary rim, and means for securing the base of the said U-shaped portions of the said outer springs to the said rim, the said rim, auxiliary rim, and those portions of the said springs extending between the same, forming a frame to receive a mattress so as to prevent the same from spreading.

2. A box bed spring comprising a base, a rim defining the outline of the upper portion of the box bed spring, an auxiliary rim of similar configuration but smaller than the said rim, and lying between the same and the said base, a plurality of springs, each secured at one end to the said base, the opposite ends of the outer springs being formed in the shape of inverted U's, ties for securing a portion of the said outer springs to the said auxiliary rim, means for securing the base or the said U-shaped portions of the said outer springs to the said rim, a cover extending between the said base and rim and secured to the said auxiliary rim and a lining secured to the said cover adjacent the said auxiliary rim, the said rim, auxiliary rim, and those portions of the said springs extending between the same, together with that portion of the cover extending between the said rim and the auxiliary rim and also the lining, forming a receptacle for a mattress to prevent the same from spreading.

1,144,124. SASH-LOCK. GEORGE R. HALL, Fremont, Mich. Filed July 21, 1914. Serial No. 852,239. (Cl. 16—119.)



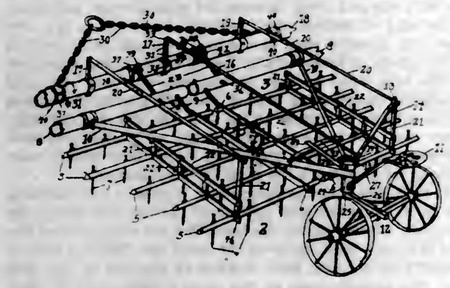
1. In a sash lock and lifter, an operating lever adapted to act as a hand hold and normally resting against the face of the sash, said lever being pivoted at its lower end, a bolt operatively connected with the lever above the pivotal axis of the lever, whereby as the lever is operated to fully retract the bolt the upper end of the lever is moved outwardly to its fullest extent beyond the inner edge of

the sash, and therefore away from the jamb and in position to be conveniently employed for raising and lowering the sash.

2. In a sash lock and window lifter, a reciprocatable bolt, an operating lever having a fixed pivot and operatively connected with the bolt to entirely retract the bolt upon an outward movement of the lever to its extreme position, and means for limiting the outward movement of the lever to prevent its upper end at any time being disposed below the pivotal axis of the lever.

3. In a sash lock such as described and embodying a reciprocatory bolt within a mortise in the sash, and a lever connected with the bolt by a screw, screw holes or passages on opposite sides of its vertical center whereby the lock may be employed on the right or left sides of the sash, accordingly as the screw connecting the lever to the bolt is placed through one or the other of the screw holes or passages as hereinbefore set forth.

1,144,125. HARROW. LEWIS E. HANSEN, Blair, Nebr. Filed Aug. 3, 1914. Serial No. 854,613. (Cl. 55—103.)



1. A harrow of the specified class, comprising a plurality of rockshafts having teeth, a rocking draft bar having a link and lever connection with the rockshafts, and a pivoted hand lever having a like connection with the draft bar.

2. A harrow of the specified class, comprising a plurality of soil-stirring teeth, a plurality of transverse rockshafts carrying the teeth, a transverse draft bar movable rotarily, a pivoted hand lever within reach of the rider, and link and lever connections between the draft bar and the rockshafts and between the draft bar and the hand lever respectively.

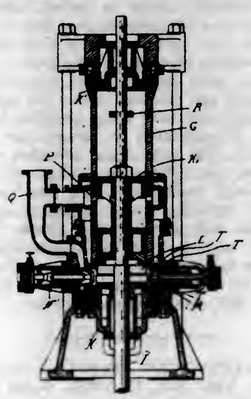
3. A harrow of the specified class, comprising horizontally disposed bars, a plurality of transverse tooth-carrying rockshafts journaled in the bars, a rocking transverse draft bar, flexibly connected with the horizontal bars, a link and lever connection between the draft bar and the rockshafts, a pivoted hand lever behind the draft bar, and a link and lever connection between the draft bar and the hand lever.

4. A harrow of the specified class, comprising horizontally disposed bars, a plurality of transverse tooth-carrying rockshafts journaled in the bars, a transverse rocking draft bar flexibly connected with the horizontal bars, a link and lever connection between the draft bar and the rockshafts, a pivoted hand lever spaced from the draft bar, a link and lever connection between the hand lever and the draft bar, and a latch for holding the hand lever.

1,144,126. STAMP-MILL. NORMAN TAYLOR HARRINGTON, Lansing, Mich. Filed Oct. 30, 1909. Serial No. 525,559. (Cl. 83—57.)

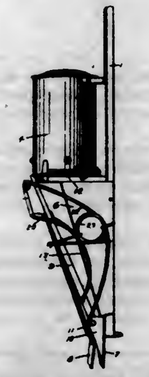
1. The combination with a material holding member, of a reciprocatory plunger, means for varying the length of stroke of said plunger by the quantity of material in said material holding member, an explosion motor for actuating said plunger, and means for governing said explosion motor by the variable stroke of said plunger to vary the power developed.

2. The combination with a material holding member, of a plunger, an explosion motor for actuating said plunger, means for varying the quantity of material in said member, and automatic means depending upon the varying quantity of material for varying the power developed by said explosion member.



3. The combination with a material holding member, of a plunger, a motor for actuating said plunger, means for varying the quantity of the material in said material-holding member, and automatic means controlling said motor for varying the impact of said plunger according to the variations of quantity of material in the material-holding member.

1,144,127. HAND-PLANTER. RAY C. HIMEBAUGH, Burr Oak, Mich., assignor to Adelbert C. Himebaugh, Burr Oak, Mich. Filed Aug. 27, 1914. Serial No. 858,862. (Cl. 111—23.)



1. A planter comprising a channel shaped staff of sheet metal, disposed with the channel facing rearwardly, a channel shaped actuating lever of sheet metal pivotally mounted at its lower end and disposed with the channel facing forwardly, the flanges of said lever being provided with opposed key-hole slots, the narrower portions of the slots being disposed downwardly, an actuating arm formed of a loop of wire, the arms of the loop terminating in inwardly projecting pintles having laterally projecting lugs struck up therefrom, said lugs being adapted to enter the narrow portions of the slots in said lever when presented laterally thereto and to retain the pintles when the arm is swung to operative position, said actuating arm having coils at its bight end constituting brace engaging eyes, a brace formed of a loop of wire pivotally connected to said lever at its bight end, its arms terminating in inwardly projecting portions engaging said eyes on said arm, and a U-shaped spring having a coil at its bight, one arm of said spring terminating in an inwardly offset lever engaging pin and the other terminating in a hook engaging a hole in one of the flanges of said staff, all coacting for the purpose specified.

2. A planter comprising a channel shaped staff of sheet metal, disposed with the channel facing rearwardly, a channel shaped actuating lever pivotally mounted at its lower end and disposed with the channel facing forwardly, the flanges of said lever being provided with opposed key-hole slots, an actuating arm formed of a loop of wire, the arms of the loop terminating in inwardly projecting pintles having laterally projecting lugs, said lugs being adapted to enter the narrow portions of the slots in said lever when presented laterally thereto and to retain the pintles when the arm is swung to operative position, a brace pivotally connected to said lever and connected to said arm, and a U-shaped spring, one arm of said spring terminating in a lever engaging pin and the other terminating in a hook engaging a hole in one of the flanges of said staff, all coacting for the purpose specified.

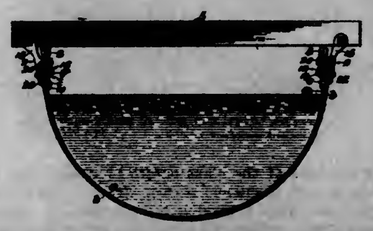
3. A planter comprising a staff, a channel shaped actuating lever pivotally mounted at its lower end, the flanges of said lever being provided with opposed key-hole slots, an actuating arm formed of a loop of wire, the arms of the loop terminating in inwardly projecting pintles having laterally projecting lugs struck up therefrom, said lugs being adapted to enter the narrow portions of the slots in said lever when presented laterally thereto and to retain the pintles when the arm is swung to operative position, said actuating arm having coils at its bight end constituting brace engaging eyes, and a brace formed of a loop of wire pivotally connected to said lever at its bight end, its arms terminating in inwardly projecting portions engaging said eyes on said arm, substantially as described.

4. A planter comprising a staff, a channel shaped actuating lever pivotally mounted at its lower end, the flanges of said lever being provided with opposed key-hole slots, an actuating arm comprising wire side members terminating in inwardly projecting pintles having laterally projecting lugs adapted to enter the narrow portions of the slots in said lever when presented laterally thereto and to retain the pintles when the arm is swung to operative position, and a brace for said arm detachably secured thereto.

5. A planter comprising a flanged staff, an actuating lever pivotally mounted at its lower end, an actuating arm for said lever and a U-shaped spring having a coil at its bight, one arm of said spring terminating in an inwardly offset pin engaging said lever from its rear side and the other terminating in a hook engaging a hole in one of the flanges of said staff, the bill of said hook being substantially parallel with the arm and lying within the flange of the staff so as to limit the outward lateral movement of the said spring.

[Claims 6 and 7 not printed in the Gazette.]

1,144,128. COUPLING DEVICE. WRIGHTSMAN D. HIMES, Delta, Colo., assignor of one-half to James F. Terry, Delta, Colo. Filed Nov. 21, 1914. Serial No. 873,336. (Cl. 61—5.)

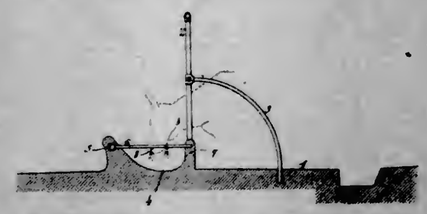


1. In combination with the overlapped trough sections; a clamping member secured to the inside of the inner one of said sections, the said clamping member including an inwardly projecting top portion, another clamping member secured to the outside of the outer trough section and including an inwardly projected top portion adapted to extend over the top portion of the other clamping member, and means coöperating with the two top portions of the said clamping members for separating the said members to thereby draw the overlapping ends of the trough sections into tight frictional contact, the said means including a screw mounted in the top portion of the outer clamping member and engaging the top portion of the inner clamping member.

2. In combination with the overlapping trough sections; a clamping member secured to the inside of the inner one of said sections, the said clamping member including an inwardly projecting top portion, another clamping member secured to the outside of the outer trough section and including an inwardly projected top portion adapted to extend over the top portion of the other clamping member, means coöperating with the two top portions of the said clamping members for separating the said members to thereby draw the overlapping ends of the trough sections into frictional contact, the said means including a screw mounted in the top portion of the other clamping member and engaging the top portion of the inner clamping member, the said top portion of the inner clamping member having a socket larger than the screw and adapted for holding the screw from displacement when moving down into engagement with the inner clamping member.

3. A clamping device of the class described comprising an outer clamping member having an inner flat face to which one trough section is adapted to be fastened, the said member including a projection extending over the said face and ears extending in a direction parallel to the said face above the said projection, the said projection having a threaded opening, an adjusting screw in the said opening; a second clamping member having a face adapted to be held in parallel with the face of the said first clamping member and to which the second trough section is adapted to be secured, the said second clamping member including a recessed projection into which the end of the said screw is designed to seat and bear to force the said two clamping members apart with their faces in parallelism.

1,144,129. DRINKING-TROUGH, &c. ALFRED HOPKINS, New York, N. Y. Filed July 21, 1914. Serial No. 852,142. (Cl. 119—72.)



1. In a structure of the class set forth, a drinking vessel, a plurality of cross-bars, adapted and set as described to divide a plurality of spaces capable of accommodating the heads of a plurality of animals, said cross-bars being constructed in the form of individual feed pipes with openings adapted to direct the water into the said drinking vessel, and a water conduit leading to said cross-bar feed pipes, all substantially as set forth.

2. In a structure of the class set forth, a drinking vessel, a plurality of cross-bars adapted and set as described to divide a plurality of spaces capable of accommodating the heads of a plurality of animals, said cross-bars being constructed in the form of individual feed pipes with openings adapted to direct the water downward into the trough, and a water conduit leading to said cross-bar feed pipes, all substantially as set forth.

8. In a structure of the class set forth, a watering trough provided with a plurality of cross-bars adapted and set as described to divide a plurality of spaces capable of accommodating the heads of a plurality of animals, said

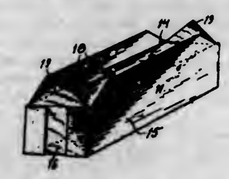
cross-bars being constructed in the form of individual feed pipes with openings adapted to direct the water into the trough, and a water conduit leading to said cross-bar feed pipes, together with means for regulating the proportionate flow of water through said respective cross-bars, individually, all substantially as set forth.

4. In a structure of the class set forth, a watering trough provided with a plurality of cross-bars adapted and set as described to divide a plurality of spaces capable of accommodating the heads of a plurality of animals, said cross-bars being constructed in the form of individual feed pipes with opening adapted to direct the water into the trough, and a water conduit leading to said cross-bar feed pipes, said trough being clear of obstacles on the inner sides and bottom, as set forth, and long enough to accommodate a plurality of animals, all substantially as set forth.

5. In a structure of the class described, a watering trough provided with a plurality of cross-bars adapted to divide a plurality of spaces capable of accommodating the heads of a plurality of animals, said cross-bars being constructed in the form of individual feed pipes with openings adapted to direct the water into the trough which is clear of obstacles on its inner sides and bottom and long enough to accommodate a plurality of animals and located below said cross-bars, and a water conduit leading to said bross-bar feed pipes, all substantially as set forth.

[Claim 6 not printed in the Gazette.]

1,144,130. BOX. JOHN P. HUMMEL, Milwaukee, Wis. Filed June 8, 1914. Serial No. 843,679. (Cl. 229—43.)



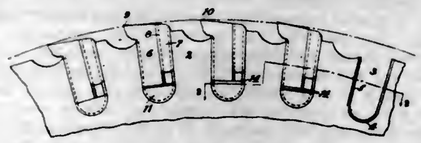
1. A box, comprising an inner box member having an open side, and an outer box member telescoping the inner member and having closing flaps which may be folded over one of the closed side portions of the inner member and will completely cover said closed portion without overlapping each other.

2. A box, comprising an inner box member having an open side, and an outer box member telescoping the inner member and having diagonally cut closing flaps which may be folded over one of the closed side portions of the inner member and will completely cover said closed portion without overlapping each other, the edge portions of said flaps abutting against the edges of adjacent flaps to form a flat exterior surface.

3. A box, comprising an inner box member having an open side, and an outer box member telescoping the inner member and having diagonally cut closing flaps projecting from its sides and ends which may be folded over upon the closed portion of the inner member and will completely cover said closed portion without overlapping each other, the edge portions of said flaps abutting against the edges of adjacent flaps and the joints formed by said abutting edges being reinforced by the closed portion of the inner box member.

4. A box, comprising an inner box member having an open side, and an outer box member telescoping the inner member and having diagonally cut closing flaps projecting from its side and end portions which may be folded over upon the closed portion of the inner member and will completely cover said closed portion without overlapping each other, the edge portions of said flaps abutting against the edges of adjacent flaps and the joints formed by said abutting edges being reinforced by the closed portion of the inner box member, said closed side portion of the inner box member and the flaps of the outer box member forming a reinforced wall of two thicknesses of material throughout the said wall.

1,144,131. MILLING-SAW. HARRY S. HUNTER, Pittsburgh, Pa., assignor to Hunter Saw & Machine Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed July 7, 1914. Serial No. 849,589. (Cl. 29—105.)



1. A one-piece saw blade having a socket-forming depression extending inwardly from its working edge and with the inner extremity of the socket semi-circular, a cutter removably fitting the socket and having a straight inner extremity, cutter securing means, and a semi-circular block fitting the semi-circular inner extremity of the socket, the block having a straight face disposed toward the outer end of the socket and parallel with and adapted to form an abutment for the straight inner extremity of the cutter.

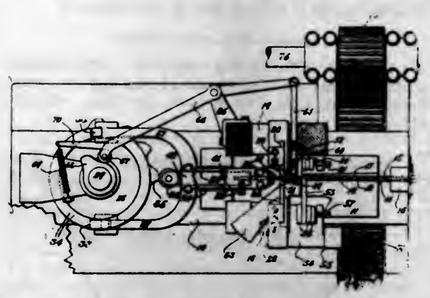
2. The combination of a saw blade formed with a socket and provided with a cutter abutment at its inner end, a cutter secured in the socket, and spacing strips adapted to be interposed between the cutter and the abutment with opposite ends of the strips interlocking with the socket.

3. The combination of a saw blade formed with a beaded socket and provided with a cutter abutment, a cutter secured in the socket, and spacing strips interposed between the abutment and the cutter and notched at their ends to embrace the socket bead.

4. The combination of a saw blade formed with a beaded socket, a removable abutment-forming block fitting the inner end of the socket and grooved to embrace the bead thereof, a cutter within the socket, and grooved spacing strips adapted to be interposed between the block and the cutter and embrace the socket bead.

5. The combination of a saw blade formed with a beaded socket rounded at its inner end, a rounded abutment-forming block fitting said end and grooved to embrace the socket head, a cutter within the socket, and spacing strips grooved at their ends to embrace the socket bead and adapted to be interposed between the abutment block and the cutter.

1,144,132. MACHINE FOR FORMING SPURS AND THE LIKE UPON BARS. CHARLES E. JACOBSON, Manchester, Conn., assignor, by mesne assignments, to Crescent Calk Corporation, Syracuse, N. Y., a Corporation of New York. Filed July 1, 1912. Serial No. 706,928. (Cl. 59—66.)



1. A machine of the class described comprising an oscillatory carrier, a slidable carrier on said oscillatory carrier, provided with a forging tool, means for oscillating said oscillatory carrier and means for advancing said slidable carrier on said oscillatory carrier during the oscillatory movement of said oscillatory carrier.

2. In a machine of the class described, the combination of a work support, tools to operate upon the work from opposite sides thereof, an oscillatory carrier, a slidable carrier on said oscillatory carrier provided with a tool to operate upon the work transversely of said side operating tools, means for oscillating said oscillatory carrier and means for advancing said slidable carrier on said oscillatory carrier during the oscillation of said slidable carrier.

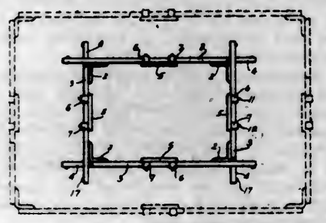
3. In a machine of the class described, the combination of a plurality of carriers, one of which is supported by another, a tool connected with the supported carrier, and mechanism for simultaneously and independently operating said carriers, to cause said tool to follow an oblique path.

4. In a machine of the class described, the combination of a work support, a plurality of tools to operate upon the work from opposite sides thereof, means for causing said tools to strike the work at substantially the same place several times, a tool to operate upon the work in the space between the other tools, means for causing said last mentioned tool to strike the work several times and means for also giving to the same a lateral movement at approximately the time it is against the work.

5. In a machine of the class described, the combination of a plurality of tools to act upon the work at opposite sides thereof, a tool to operate upon the work transversely of the other tools, and mechanism for imparting to said last mentioned tool an endwise movement and a lateral movement in an oblique direction.

[Claims 6 to 15 not printed in the Gazette.]

1,144,133. PRINTER'S SHEET-RECEPTACLE. JOSEPH F. JIROUSEK, Cleveland, Ohio, assignor of one-half to B. F. Corday, Cleveland, Ohio. Filed July 13, 1914. Serial No. 850,557. (Cl. 101—34.)



1. In a printer's sheet receptacle, a series of corner members of L-shape, a pair of bars connected to each corner member and disposed one on each side thereof and extending at right angles to one another, and arranged to pass beyond the adjacent corner member, said bars being disposed in planes parallel to each other and in vertical spaced relation, and clamping means for engagement with free end portions of the bars of adjacent members to rigidly clamp the bars together.

2. In a printer's sheet receptacle, corner members, a pair of bars connected to each member and disposed on the sides of the member so as to have a right angular relationship and arranged to pass beyond the adjacent corner member, said bars being disposed in planes parallel to each other and in vertical spaced relation, and means for adjustably and rigidly connecting the adjacent bars of adjacent members.

3. In a printer's sheet receptacle, corner members, adapted to be contracted and expanded relatively to each other, rods borne by said members and arranged so that the rods of adjacent members will be capable of passing one another and the opposed members when the members are contracted, and means to connect the adjacent ends of adjacent rods, said means being independently connected to the rods.

4. In a printer's sheet receptacle, a series of corner members, separable coöperating clamping means to adjustably connect said members, said means forming side and end portions which coöperate with the members to form sides and end walls for the receptacle.

5. In a printer's sheet receptacle, a series of corner members, oppositely extending rods connected to the corner members, and means forming side and end walls for the receptacle to adjustably connect the rods.

[Claims 6 to 10 not printed in the Gazette.]

1,144,134. CYCLE-SKATE. JEFFERSON D. JONES, Long Beach, Cal., assignor of one-half to Robert G. Warnick and one-half to Charles E. Buckwalter, Long Beach, Cal. Filed June 16, 1914. Serial No. 845,482. (Cl. 46—51.)



1. A cycle skate having a foot supporting plate adjustably mounted on a pair of opposite traction wheels at a point midway of the length of said plate and a single pivotally mounted balancing wheel at the rear of said plate.

2. A cycle skate having a foot supporting plate adjustably mounted on a pair of opposite traction wheels at a point midway of the length of said plate, a single pivotally mounted balancing wheel at the rear of said plate and means for limiting the movement of said balancing wheel.

3. A cycle skate having a foot supporting plate adjustably mounted on a pair of opposite traction wheels at a point midway of the length of said plate, and a single pivotally mounted balancing wheel at the rear of said plate provided with means for resiliently limiting the movement thereof.

4. In a cycle skate, the combination of an axle; a pair of resilient traction wheels mounted on frictionless bearings on the ends thereof; a sleeve on said axle between said wheels; a foot plate adjustably mounted and balanced upon said sleeve; a fork resiliently and frictionlessly pivoted on the rear end of said plate; and a caster wheel revolubly mounted on frictionless bearings in said fork.

5. In a cycle skate, the combination of an axle; a pair of resilient traction wheels mounted on frictionless bearings on the ends thereof; a sleeve on said axle between said wheels; a foot plate adjustably mounted and balanced upon said sleeve; a bracket rigidly secured to said sleeve and adjustably secured to said foot plate; a fork resiliently and frictionlessly pivoted on the rear end of said plate; and a caster wheel revolubly mounted on frictionless bearings in said fork.

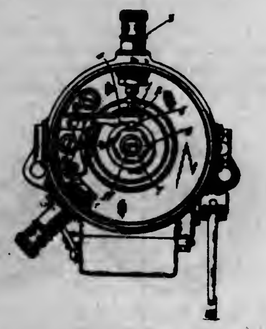
[Claims 6 to 9 not printed in the Gazette.]

1,144,135. IGNITION-TIMER. WILLIAM KAISLING, Chicago, Ill., assignor to Kellogg Switchboard & Supply Company, Chicago, Ill., a Corporation of Illinois. Filed July 21, 1913. Serial No. 780,141. (Cl. 123—166.)

1. A device of the character described comprising a shaft, an element driven by said shaft, means interposed between said element and said shaft to adjust the relative angular position between said element and shaft during rotation of said shaft, a contact controlling device, and means interposed between said element and said device to permanently adjust the relative angular position of said device with respect to said element with said parts all in assembled position, said last aforesaid means including a slotted sleeve and a wedge for forcing the slotted portions into engagement with said element.

2. A device of the character described comprising a shaft, an element driven by said shaft, means interposed between said element and said shaft to adjust the relative angular position between said element and shaft during rotation of said shaft, a contact controlling cam, and means interposed between said element and said cam to

permanently adjust the relative angular position of said cam with respect to said element with said parts all in assembled position, said last aforesaid means including a spiral sleeve and a wedge for forcing the spiral portions into engagement with said element.



3. A device of the character described comprising a shaft, an element driven by said shaft, means interposed between said element and said shaft to adjust the relative angular position between said element and shaft during rotation of said shaft, a contact controlling device, and means interposed between said element and said device to permanently adjust the relative angular position of said device with respect to said element with said parts all in assembled position, said last aforesaid means including a sleeve for said device having a slotted portion and a wedge for forcing said slotted portion into engagement with said element.

4. A device of the character described comprising a shaft, an element driven by said shaft, means interposed between said element and said shaft to adjust the relative angular position between said element and shaft during rotation of said shaft, a contact controlling cam, and means interposed between said element and said cam to permanently adjust the relative angular position of said cam with respect to said element with said parts all in assembled position, said last aforesaid means including a sleeve for said cam having a slotted portion and a wedge for forcing said slotted portion into engagement with said element.

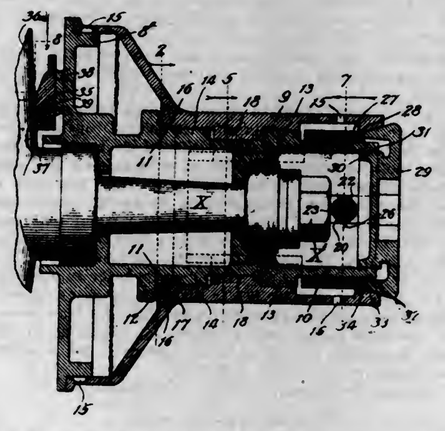
5. A device of the character described comprising a shaft, an element driven by said shaft, means interposed between said element and said shaft to adjust the relative angular position between said element and shaft during rotation of said shaft, a contact controlling device, and means interposed between said element and said device to permanently adjust the relative angular position of said device with respect to said element with said parts all in assembled position, said last aforesaid means including a sleeve for said device having a slotted portion and a wedge having screw threaded engagement with said sleeve for forcing said slotted portion into engagement with said element.

[Claims 6 to 9 not printed in the Gazette.]

1,144,136. DEMOUNTABLE WHEEL. JOHN B. KELLY, Chicago, Ill. Filed Jan. 21. 1915. Serial No. 3,443. (Cl. 21—31.)

1. A demountable hub formed of telescoping members provided with projections which interlock with each other upon rotating said members relative to each other and prevent said members from being separated longitudinally of each other, wedge surfaces on said members, a third member interposed between said wedge surfaces and adapted to be in clamped position between said wedge surfaces when said projections are interlocked, and means engaging said projections for preventing said members from turning relative to each other.

2. A demountable hub formed of telescoping members provided with projections which interlock with each other upon rotating said members relative to each other and prevent said members from being separated longitudinally of each other, wedge surfaces on said members, a ring adapted to be in clamped position between said wedge surfaces when said projections are interlocked, and means engaging said projections for preventing said members from turning relative to each other.



3. A demountable hub formed of telescoping members provided with projections which interlock with each other upon rotating said members relative to each other and prevent said members from being separated longitudinally of each other, wedge surfaces on said members, a split ring adapted to be in clamped position between said wedge surfaces when said projections are interlocked, and means engaging said projections for preventing said members from turning relative to each other.

4. A demountable hub formed of telescoping members provided with projections which interlock with each other upon rotating members relative to each other and prevent said members from being separated longitudinally of each other, annular beveled surfaces on said members, a ring adapted to extend in clamped position between said surfaces when said lugs are interlocked, and means engaging with said projections for preventing said members from turning relative to each other.

5. A demountable hub formed of telescoping members provided with projections which interlock with each other upon rotating said members relative to each other and prevent said members from being separated longitudinally of each other, annular beveled surfaces on said members, a split-ring adapted to extend in clamped position between said surfaces when said lugs are interlocked, and means engaging with said projections for preventing said members from turning relative to each other.

[Claims 6 to 10 not printed in the Gazette.]

1,144,137. GEAR. JULIAN KENNEDY, Pittsburgh, Pa. Filed Oct. 14, 1914. Serial No. 866,621. (Cl. 74—41.)



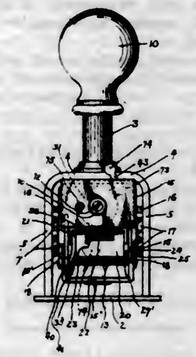
1. A double helical or herring-bone gear, comprising a body portion or carrier having adjacent oppositely threaded portions and two separate rim or ring members screwed on said threaded portions, and having teeth which together form the complete gear; substantially as described.

2. A double helical or herring-bone gear, comprising a body portion or carrier having adjacent oppositely threaded portions and two separate rim or ring members screwed on said threaded portions, and having teeth which together form the complete gear, together with means for securing the two rim or ring members against independent turning movement on the body or carrier; substantially as described.

3. A double helical or herring-bone gear, comprising a shaft member or carrier having adjacent right and left threaded portions separated from each other by a clearance space and two separate gear members screwed on said threaded portions, and having means for locking them together to prevent independent turning thereof on the shaft or carrier; substantially as described.

4. A gear of the character described, comprising a shaft or carrier member having adjacent right and left threaded portions and two separate toothed ring or rim members screwed on said threaded portions, and having interposed connecting means; substantially as described.

1,144,138. NUMBERING-MACHINE. MAXIMILIAN H. KERN, Brooklyn, N. Y., assignor to The Roberts Numbering Machine Company, Brooklyn, N. Y., a Corporation of New York. Filed Sept. 17. 1913. Serial No. 790,223. (Cl. 101—185.)



1. The combination with the numeral printing wheel, the actuating handle, and the numeral printing wheel advancing mechanism including an actuating pawl, of a rotatable ratchet wheel, a dial adjustable in one of a plurality of adjustments upon said ratchet wheel, means for moving the ratchet wheel and said dial as so adjusted once at each of certain actuations of the handle, and means adapted predeterminedly and in accordance with the aforesaid adjustment of said dial to disable the actuating pawl.

2. The combination with the numeral printing wheel, the actuating handle, and the numeral printing wheel advancing mechanism including an actuating pawl, of a ratchet wheel, a dial adjustable in one of a plurality of adjustments upon said ratchet wheel and rotatable therewith, means for moving the ratchet wheel and the dial once at each actuation of the handle, means adapted predeterminedly and in accordance with the aforesaid adjustment of said dial to disable the actuating pawl, and means for causing the actuating pawl subsequently to be freed of its disability.

3. The combination with the numeral printing wheel, the actuating handle, and the numeral printing wheel advancing mechanism including an actuating pawl, of a dial, a rotatable ratchet wheel, a cam adapted after the below-mentioned adjustment to be carried by the ratchet wheel and coaxially adjustable to one of a plurality of positions thereon, means for moving the ratchet wheel once at each of certain actuations of the handle, and means adapted predeterminedly to disable the actuating pawl, said cam thereafter predeterminedly freeing from disability said actuating pawl.

4. The combination with the numeral printing wheel, the actuating handle, and the numeral printing wheel advancing mechanism including an actuating pawl, of a dial, a rotatable ratchet wheel, means for moving the ratchet wheel once at each of certain actuations of the handle, means coaxially adjustable on the ratchet wheel and adapted to disable the actuating pawl, and means adapted to maintain the actuating pawl disabled until after a predetermined number of actuations of the handle, and then predeterminedly to free said pawl from its disability.

5. The combination with a numeral printing wheel, the actuating handle, and the numeral printing wheel advancing mechanism including an actuating pawl, of a dial, a rotatable ratchet wheel fixedly carrying the dial, means for moving the ratchet wheel once at each of certain actuations of the handle, and a coaxially adjustable controller carried by the dial and adapted to be preliminarily arranged in a predetermined location whereby said controller will cause a predetermined disablement of the actuating pawl.

[Claims 6 to 43 not printed in the Gazette.]

1,144,139. SCORING ATTACHMENT FOR PRINTING-PRESSES. EDWARD L. KINAST, Chicago, Ill. Filed July 9, 1913. Serial No. 778,014. (Cl. 164—98.)



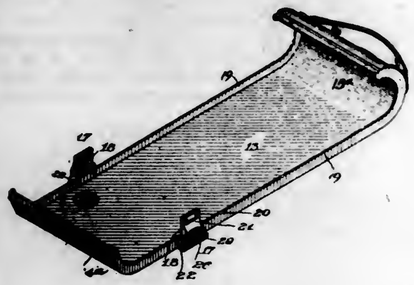
1. A device of the kind described, comprising the combination of a finger adapted to be secured at one end to the rocking bar, and provided with a ridge on one face thereof with a coöperating back plate formed to lie upon the opposite face of the finger, and means for detachably securing the same together.

2. A device of the kind described, comprising a finger bar constructed with a V-shaped extension on one face thereof, and arranged to be detachably connected to a rocking shaft, in combination with a coöperating back plate, provided with a groove adapted to receive the ridge when the bar is reversed, and means for detachably securing the two together.

3. In a device of the kind described, a rock shaft provided with a longitudinal adjusting slot and a groove for receiving an extension on the coöperating finger, in combination with a coöperating finger, provided at one end with a T-shaped extension constructed on either side to be set in the groove and a bolt hole therethrough, one face of the finger being provided with a V-shaped ridge a coöperating back plate adapted to lie against the opposite face of the finger, and means for detachably securing the two together.

4. A device of the kind described, comprising a finger bar constructed at one end with a T-shaped head and a bolt hole therethrough, and provided a V-shaped ridge on one face thereof, in combination with a coöperating back plate constructed with a slot adapted to receive the V-shaped ridge when the finger bar is reversed, and means for securing the two together.

1,144,140. PHOTOGRAPHIC-CAMERA BACK. ROBERT KROEDEL and CHARLES F. SPEIDEL, Rochester, N. Y., assignors to Eastman Kodak Company, Rochester, N. Y., a Corporation of New York. Filed Mar. 23, 1914. Serial No. 826,793. (Cl. 95—31.)



1. In a photographic camera, the combination with the camera box or body having an exposure chamber and film chambers at opposite ends thereof, of a one-piece detachable back adapted to entirely close the exposure chamber and both film chambers and having one end extended forwardly around the end of the body and forming an interlocking joint with the latter at the front of the body.

2. In a photographic camera, the combination with the camera box or body, of a back having one end extended forwardly around the end of the body and forming an interlocking joint with the latter at the front of the body, said back being adapted to be disengaged from the body by a combined rotative movement transverse to its plane and an endwise movement substantially parallel with its plane.

3. In a photographic camera, the combination with the camera box or body, of a back having one end extended forwardly around the end of the body and forming an interlocking joint with the latter at the front of the body, said back being adapted to be disengaged from the body by a combined rotative movement transverse to its plane and an endwise movement substantially parallel with its plane, and a catch for detachably locking the body and back together arranged near the other end of the latter.

4. In a photographic roll holding camera, the combination with the camera body having an exposure chamber and film chambers at opposite ends thereof, of a one-piece separable back adapted to entirely close the exposure chamber and both film chambers and having a forwardly extended end portion constituting the front, end and back walls of one of the film chambers.

5. In a photographic camera, the combination with the camera body comprising a metallic shell having an inwardly turned marginal flange at the back edge of the camera, said flange being provided with a cutaway portion and the shell with an adjacent recess, of a separable back carrying a catch embodying a rigid plate and a resilient plate attached thereto and adapted, when deflected, to enter the body beyond the flange, the resilient plate having a shoulder adapted to engage behind the flange when released and being further provided with a finger portion occupying the recess in the shell, and the rigid plate being provided with a protecting flange extending outwardly flush with the normal locking position of the finger portion of the resilient plate.

1,144,141. PRODUCTION OF STABLE SALTS OF DIMETHYL-P-AMINOPHENOL AND P-OXYPHENOL-TRIMETHYLAMMONIUM. JAN LAGUTT, Basel, Switzerland, assignor to Chemische Fabrik vormals Sandoz, Basel, Switzerland, a Corporation of Switzerland. Filed Aug. 31, 1914. Serial No. 859,294. (Cl. 23—24.)

1. The process of producing the acid ferrocyanids of dimethyl-p-aminophenol and p-oxyphenyltrimethylammonium which comprises precipitating such salts from a mineral acid solution containing dimethyl-p-aminophenol and p-oxyphenyltrimethylammonium compound and then separating said precipitated salts, substantially as and for the purpose described.

2. The process of producing the acid ferrocyanids of dimethyl-p-aminophenol and p-oxyphenyltrimethylammonium which comprises precipitating such salts from a mineral acid solution containing dimethyl-p-aminophenol and p-oxyphenyltrimethylammonium compound and then separating said salts by extracting an alkaline solution of said precipitated salts with a suitable organic solvent substantially as and for the purpose described.

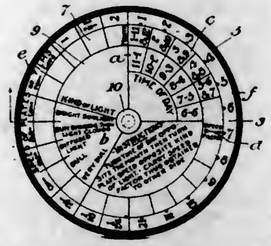
3. The process of producing the acid ferrocyanids of dimethyl-p-aminophenol and p-oxyphenyltrimethylammonium which comprises precipitating such salts from a mineral acid solution containing dimethyl-p-aminophenol and p-oxyphenyltrimetholammonium compound, then separating said salts by extracting an alkaline solution of said precipitated salt with a suitable organic solvent and then precipitating the acid ferrocyanid of dimethyl-p-aminophenol from said extract, substantially as and for the purpose described.

4. The improvement in the art of producing the acid ferrocyanids of dimethyl-p-aminophenol and p-oxyphenyltrimethylammonium which comprises precipitating such salts by adding ferrocyanid to a mineral acid solution containing dimethyl-p-aminophenol and p-oxyphenyltrimethylammonium compound, substantially as and for the purpose described.

5. As a new product, the crystalline substance capable of being produced by precipitation from an acid solution containing dimethyl-p-aminophenol by means of ferrocyanid and comprising the acid ferrocyanid of dimethyl-p-aminophenol substantially as and for the purpose described.

[Claim 6 not printed in the Gazette.]

1,144,142. PHOTOGRAPHIC EXPOSURE-METER. BENJAMIN M. LUPTON, Jr., Jersey City, N. J. Filed Nov. 28, 1914. Serial No. 874,362. (Cl. 235—88.)

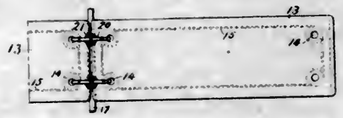


1. A photographic exposure meter comprising a body, the upper surface whereof bears a scale indicating speed factors, and the lower surface of which body bears two scales whereof one indicates speed factors corresponding with those on the upper surface and whereof the other indicates seconds and fractions of seconds; an upper member on said body movable relatively thereto bearing a scale indicating variable light conditions and also a scale indicating the time of day, said latter scale being coördinated with a suitably-disposed scale indicating groups of months; and a lower member on said body movable relatively thereto bearing two scales whereof one indicates various photographic subjects and the other denotes various diaphragms or stops.

2. A photographic exposure scale comprising a body having thereon three co-axial disks, two of which are superposed on the upper side of the body and the other of which is on the underside of the body, the upper surface of said body bearing two scales whereof one indicates the various speed equivalents of films or plates and the other indicates speed factors, and the lower surface of said body bearing two scales whereof one indicates speed factors corresponding with those on the upper surface and whereof the other indicates seconds and fractions of seconds, one of said upper disks bearing a scale indicating the time of day and also scale indicating variable light conditions, and the other of said upper disks bearing a scale indicating groups of months and having also an index in operative relation to the proximate speed factors on the upper surface of the body, and the lower disk bearing two scales whereof one indicates various photographic subjects and the other denotes various diaphragms or stops.

3. A photographic exposure meter comprising an internally flanged ring, and superposed disks seated in said ring having a common axis of rotation, the upper surface of said ring bearing a scale indicating speed factors and the lower surface of said ring bearing two scales whereof one indicates speed factors corresponding with those on the upper surface and whereof the other indicates seconds and fractions of seconds, one of said disks bearing thereon adjacent the upper surface of the ring a scale indicating variable light conditions and also a scale indicating the time of day, said latter scale being coördinated with a suitably-disposed scale indicating groups of months, and another of said disks bearing thereon adjacent the lower surface of the ring two scales whereof one indicates various photographic subjects and the other denotes various diaphragms or stops.

1,144,143. REVETMENT. JAMES MCGILLIVRAY, Sacramento, Cal. Original application filed May 17, 1913, Serial No. 768,293. Divided and this application filed Oct. 6, 1913. Serial No. 793,579. (Cl. 61—30.)



1. A revetment consisting of slabs of concrete laid with edges in contact one of each pair of contacting edges being convex for the purpose specified and said slabs having transverse tie holes near their edges, and ties consisting of U-shaped rods passed through approximate holes in adjacent slabs and links through which the ends of said rods also pass and over which their ends are bent down.

2. In a revetment the combination of slabs provided with tie holes near their edges, of U-shaped rods having their ends upwardly extended through tie holes of adjacent slabs, links for joining the ends of each rod, and other links for joining the ends of like rods in adjacent longitudinal series of slabs, whereby the slabs are joined in end-to-end series and said series are joined together.

3. A revetment consisting of adjacent longitudinal series of slabs each of which slabs is provided with transverse tie holes at the corners, tie rods joining the slabs in each series, a link uniting the ends of each tie rod across the joint between the slabs so joined, and other links uniting the adjacent ends of said rods across the joints between adjacent longitudinal series, whereby two tie rods serve to unite adjacent corners of four slabs.

1,144,144. REVETMENT. JAMES MCGILLIVRAY, Sacramento, Cal. Filed May 19, 1914. Serial No. 839,628. (Cl. 61—30.)

1. A revetment unit consisting of a slab of concrete provided with a groove along one end equal in depth to the thickness of an anchoring cable and having the opposite end ungrooved and having also transverse tie holes at the ends for the purpose set forth.

2. In a revetment the combination of cables for the purpose specified, concrete slabs provided at their ends with transverse tie holes and each having a cable groove extending along one end deep enough to receive the entire thickness of one of said cables, and having the opposite end ungrooved, and ties for uniting said slabs together with the ungrooved ends abutting the grooved ends and thereby confining the cables in said grooves.



3. In a revetment the combination of cables for the purpose specified, concrete slabs provided at their ends with transverse tie holes and each having a cable groove extending along one end deep enough to receive the entire thickness of one of said cables, an end tier of slabs provided with cable grooves along both ends, and ties for uniting the slabs together end-to-end and to the cables at the ends of the revetment.

1,144,145. BOWLING-ALLEY BALL-RETURNWAY. JACOB N. MCINTIRE, New York, N. Y., assignor to The Brunswick-Balke-Collender Company of New York, New York, N. Y., a Corporation of New York. Filed Sept. 18, 1911. Serial No. 650,068. (Cl. 46—66.)



1. In a ball returnway, a track the rails of which are so shaped in cross-section that the ratio of the radius of any larger ball to the perpendicular distance between the center and the horizontal plane passing through the bearing surfaces of such ball is enough greater than the ratio of corresponding dimensions of any smaller ball to reduce to a desired extent the speed of return of such larger ball relative to that of the smaller ball.

2. In a "loop-the-loop" genus of ball returnway, a ball receiving portion of the terminal and a portion of the loop overhanging the same, the ball contacting surfaces of each of which parts are parallel and the distance between which parts is just equal to the diameter of the biggest ("regulation") ball used on an alley.

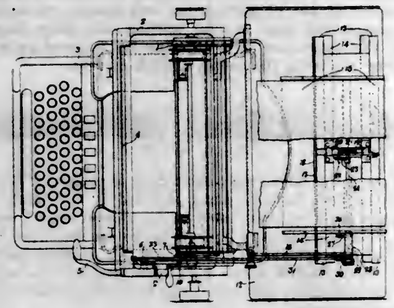
3. In a ball returnway for bowling alleys, a track structure having an inner track and an outer track, each of uniform cross section throughout its entire length, said inner track being located immediately below the level of the other track and close thereto.

4. In a ball returnway for bowling alleys, a track structure having an upwardly and backwardly curved terminal end, and a rack at said terminal end, located beneath the top of said curved end, said track structure being of constant cross section throughout its length, and having an outer track and an inner track there between, the outer one being slightly above the inner, and the members of both tracks, spaced apart in such manner as to support all sized bowling balls at points near their largest diameters whereby their speed on the track is not appreciably lessened in traveling from one end to the other thereof.

1,144,146. MANIFOLDING ATTACHMENT FOR TYPEWRITING MACHINES. AXEL C. V. MALM, Dayton, Ohio, assignor to The Egry Register Company, Dayton, Ohio, a Corporation of Ohio. Filed Nov. 23, 1914. Serial No. 873,480. (Cl. 197—133.)

1. The combination, with a typewriting machine having a paper carriage, a traveling paper support, and a connection between said paper carriage and said paper support to cause movement to be imparted to the latter, of means to prevent the return movement of said paper support, and a device connected with said means and with said paper car-

riage to release said paper support and to impart return movement to said paper support and to said paper carriage.



2. The combination, with a typewriting machine having a paper carriage, a traveling paper support, and a connection between said paper carriage and said paper support to cause movement to be imparted to the latter, of a device to prevent the return movement of said paper support, and means arranged adjacent to said carriage to manipulate said device to release said paper support.

3. The combination, with a typewriting machine having a paper carriage, a traveling paper support, and a connection between said paper carriage and said paper support to cause movement to be imparted to the latter, of a device to prevent the return movement of said paper support, and means to automatically actuate said device to permit said paper support to return with said carriage.

4. The combination, with a typewriting machine having a paper carriage, a traveling paper support, and a connection between said paper carriage and said paper support to cause the movement to be imparted to the latter, of a fixed stop, a detent carried by said paper support to engage said stop and prevent the return movement of said paper support, and an actuating device connected with said detent and extending to a point near the front of said typewriting machine.

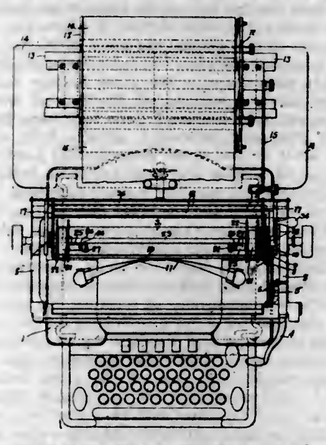
5. The combination, with a typewriting machine having a paper carriage, a track, a paper support mounted to move along said track, and a connection between said paper support and said paper carriage to impart movement to the former, of a toothed rack extending lengthwise of said track, a pawl pivotally mounted on said paper support, a rod having one end supported by said paper support and operatively connected with said pawl and having its other end supported by said paper carriage.

[Claims 6 to 14 not printed in the Gazette.]

1,144,147. MANIFOLDING ATTACHMENT FOR TYPEWRITERS. AXEL C. V. MALM and LEOPOLD RAUH, Dayton, Ohio, assignors to The Egry Register Company, Dayton, Ohio, a Corporation of Ohio. Filed Oct. 24, 1914. Serial No. 868,372. (Cl. 197—153.)

1. A manifolding attachment for typewriters comprising a frame having members shaped to engage a part of the typewriter carriage and removably support said frame thereon, said frame and said carriage having parts cooperating to secure said frame in operative position on said carriage, ribbon spools and guides mounted on said frame, and ribbon feeding devices mounted on said frame and comprising an actuating member adapted to be moved into and out of operative relation with a movable part of said typewriter when said frame is moved into and out of its operative position on said carriage.

2. A manifolding attachment for typewriters comprising a frame having members shaped to pivotally engage a fixed part of the typewriter carriage to enable said frame to be moved into and out of operative position, a fastening device to secure said frame in operative position, ribbon spools and guides mounted on said frame, and ribbon feeding devices mounted on said frame and comprising an actuating member adapted to be moved into and out of operative relation with a movable part of said typewriter when said frame is moved about its pivotal support.



3. The combination, with a typewriter carriage, of a manifolding attachment comprising a frame having parts shaped to engage parts of said typewriter to support said frame thereon, ribbon spools and guides carried by said frame and arranged to support a supplemental ribbon in operative position on said carriage when said frame has been placed in operative position on said carriage.

4. A manifolding attachment for typewriters comprising a frame having slotted members to engage a part of the typewriter carriage and pivotally support said frame thereon, whereby said frame may be readily attached to and detached from said carriage and when attached to said carriage may be moved into and out of operative position, means to hold said frame against pivotal movement, and ribbon spools and guides carried by said frame.

5. A manifolding attachment for typewriters comprising a frame having slotted members to engage a part of the typewriter carriage and pivotally support said frame thereon, whereby said frame may be readily attached to and detached from said carriage and when attached to said carriage may be moved into and out of operative position, a clamping device to hold said frame against movement relatively to said carriage, and ribbon spools and guides carried by said frame.

[Claims 6 to 13 not printed in the Gazette.]

1,144,148. GARMENT. ALBERT MALSIN, New York, N. Y. Filed Oct. 4, 1913. Serial No. 793,269. (Cl. 2—145.)



1. In a garment, the combination with a dress portion having a generally cylindrical form adapted to surround the wearer and divided into a number of sections separable from each other so as to leave vertical openings, of horizontal flexible means running loosely through the sections and capable of stretching to permit of the adjustment of the sections with relation to each other, and flexible means for covering the openings between the sections when they are separated so as to permit the general external appearance of the garment to remain the same.

2. In a garment, the combination with a dress portion having a generally cylindrical form adapted to surround the wearer and divided into a number of sections separable from each other so as to leave vertical openings, of yielding means running loosely through the sections along a horizontal line for separating said sections and capable of stretching to permit of the adjustment of the sections with relation to each other, and a flexible concentric dress portion likewise divided into a number of sections which cover the openings between the sections of the first mentioned dress portion when the latter are separated so as to permit the general external appearance of the garment to remain the same at all times.

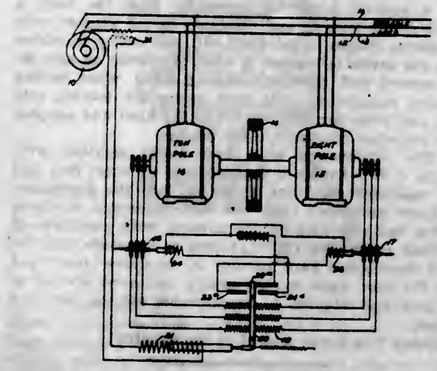
3. In a garment, the combination of a sectional skirt, an elastic device arranged in connection therewith to permit the sections to separate from each other when the skirt is expanded, and a concentric skirt likewise composed of sections, and elastic means passing through the latter sections for enabling them to separate from each other when the skirt is stretched, the sections of the outer skirt overlapping the openings between the sections of the inner skirt.

4. In a garment, the combination of an inner sectional skirt, elastic means for enabling the sections to separate from each other, an outer sectional skirt, whose sections lie opposite to the opening between the sections of the inner skirt, elastic means running through the sections of the outer skirt for permitting expansion of the latter when the sections are separated, and a panel or flap overhanging the opening between the sections of the outer skirt, and belting means for the garment.

5. In a garment, the combination with a dress portion divided into a number of sections separable from each other so as to leave vertical openings, an elastic device arranged in connection therewith to permit the sections to separate from each other when said dress portion is expanded, and a second concentric dress portion likewise composed of sections, together with elastic means passing through the latter sections, the sections of one dress portion covering the openings between those of the other.

[Claims 6 to 10 not printed in the Gazette.]

1,144,149. ALTERNATING-CURRENT SYSTEM. LOUIS C. MARBURG, Milwaukee, Wis., assignor, by mesne assignments, to Allis-Chalmers Manufacturing Company, a Corporation of Delaware. Filed Jan. 7, 1910. Serial No. 536,880. (Cl. 171—312.)



1. In combination, a generator, an electric circuit supplied thereby and carrying a variable load, a dynamo-electric power device connected across said circuit and having a rotating member which has large inertia, said dynamo-electric power device being provided with two windings which determine different maximum motor speeds, said windings being permanently connected to said circuit during the operation of said power device and means responsive to the current supplied by said generator to said circuit for rendering effective the winding which determines the higher maximum motor speed when the current supplied by the generator is below a predetermined value, and for rendering the other winding effective when the current supplied by said generator is above a predetermined value.

2. In combination, a generator, an electric circuit supplied thereby, a dynamo-electric power device connected across said circuit and provided with two windings which determine different maximum motor speeds, the rotating member of said power device having large inertia, and means responsive to electrical conditions in said circuit for rendering either of said windings effective or ineffective while at all times maintaining both of said windings connected to the circuit during the operation of said power device.

3. In combination, a generator, a circuit supplied thereby, a dynamo-electric power device connected across said circuit and comprising two motors having different maximum motor speeds, a fly-wheel connected to said dynamo-electric power device, and means responsive to electrical conditions in said circuit for rendering either of said motors effective or ineffective while at all times maintaining both motors connected to the circuit during the operation of said power device.

4. In combination, an alternating current generator, an alternating current circuit supplied thereby and carrying a variable load, a dynamo-electric power device connected across said circuit and having a rotating member of large inertia and flux-producing means capable of determining different numbers of poles and permanently connected to said circuit during the operation of said power device, and means responsive to the current supplied by said generator to said circuit for varying the effective number of poles of said dynamo-electric power device in the same sense as the current supplied by said generator varies.

5. In combination, an alternating current generator, an alternating current circuit supplied thereby and carrying a variable load, a dynamo-electric power device of the induction motor type connected across said circuit during the operation of said power device, and means responsive to the current supplied by said generator for varying the effective number of poles of said dynamo-electric power device and for varying the secondary resistance of said power device.

[Claims 6 to 13 not printed in the Gazette.]

1,144,150. PROTECTIVE ARMOR FOR CYCLE-RIDERS. FRANK MARCOVSKY, Pittsburgh, Pa. Filed Aug. 5, 1914. Serial No. 855,249. (Cl. 2—190.)



1. An armor suit consisting of continuous flexible fabric and provided with outermost series of tubular ribs, in-

dividual separable casings therefor secured to the fabric, substantially as set forth.

2. An armor suit consisting of continuous flexible fabric and provided with outermost series of tubular ribs arranged in looped arrangement, individual separable casings therefor secured to the fabric, substantially as set forth.

3. An armor suit consisting of continuous flexible fabric and provided with outermost series of tubular ribs arranged in looped arrangement across the body, shoulder and thigh portions, and encircling the terminal portions of the arms and legs, substantially as set forth.

4. The combination with a suit of suitable fabric, of an outermost protecting inflatable tube of suitable material variously arranged thereon and provided with an inflating terminal connection, and a divisible laced casing therefor secured to the fabric, substantially as set forth.

5. The combination with the suit fabric, of an inflatable tube, and supplemental inclosing flaps therefor secured to the suit and having means for connecting them together around the tube, substantially as set forth.

[Claims 6 to 10 not printed in the Gazette.]

1,144,151. DISK CULTIVATOR. CLEMENT W. MICHAEL, Racine, Wis., assignor to J. I. Case Plow Works, Racine, Wis., a Corporation. Filed Dec. 7, 1912. Serial No. 735,569. (Cl. 97—37.)



1. In a disk cultivator, the combination with a disk gang, of a trailing, horizontal, curved leveler blade having a rigid, upwardly extending end portion, connecting means between the upwardly extending forward end portion of said leveler blade and said disk gang, and means for simultaneously adjusting said gang and said leveler blade in horizontal direction to vary the angle of said disks and said blade relatively to the line of draft, said connecting means being arranged to effect the independent adjustment of said blade in horizontal direction.

2. In a disk cultivator, the combination of a yoke, disks journaled on said yoke, rearwardly extending arms connected to the arms of said yoke, curved, horizontal, leveler blades having upwardly extending forward portions, adjustable connections between said arms and the upwardly extending forward portions of said leveler blades, a support, and means for adjustably connecting said yoke to said support to vary the angle of said disks and said leveler blades relatively to the line of draft, said adjustable connections being arranged to effect the independent adjustment of said leveler blades in horizontal direction transverse to the line of draft.

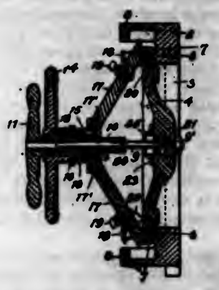
3. In a disk cultivator, the combination with a disk gang, a rearwardly extending arm connected to said gang and having a horizontally curved rear end, and a horizontal leveler blade provided with an upturned forward end having an adjustable bolt and slot connection with the end of said arm, whereby said blade may be adjusted in a horizontal plane, substantially as described.

4. In a disk cultivator, the combination with a disk gang, a rearwardly extending arm connected to said gang and having a horizontally curved concavo-convex portion at its rear end provided with a longitudinal slot, a leveler blade having an upturned forward end, and a bolt extending through said slot and the upturned forward end of said blade for adjustably clamping the latter against the concave face of the curved rear end of said arm, substantially as described.

5. In a disk cultivator, the combination of a yoke, disks journaled on said yoke, a support to which said yoke is adjustably connected for varying the angle of the disks, rearwardly extending arms mounted on the members of said yoke, said arms having curved rear ends, leveler blades having upturned forward ends, and adjustable connections between the upturned forward ends of said blades and the curved rear ends of said arms for independently varying the angle of said blades, substantially as described.

[Claims 6 to 10 not printed in the Gazette.]

1,144,152. RETORT-DOOR-SECURING MECHANISM. FRANK L. MILLER, Parkersburg, W. Va., assignor to James T. Callanan, Parkersburg, W. Va. Filed June 29, 1914. Serial No. 847,990. (Cl. 70—3.)



1. The combination of a door frame provided with keepers, a door, a support projecting from the door, a sleeve slidable on the support and adapted to be secured to the door, a head adjustable on the sleeve toward and from the door, and arms movably secured to the head and adapted to be projected thereby into the keepers.

2. The combination of a door frame provided with keepers, a door, a support projecting from the door, a sleeve slidable on the support toward and from the door, means for detachably securing the inner end of the sleeve to the door, a head adjustable on the sleeve toward and from the door, and arms movably secured to the head and adapted to be projected thereby into the keepers.

3. The combination of a door frame provided with keepers, a door, a support projecting from the door, a sleeve rotatable on the support and movable thereon toward and from the door, means providing an interlocking connection between the sleeve and door with said connection adapted to be made and broken by rotating the sleeve, a head adjustable on the sleeve toward and from the door, and arms movably secured to the head and adapted to be projected thereby into the keepers.

4. The combination of a door frame provided with keepers, a door having a shouldered cavity in its outer face, a support projecting outwardly from the door, a headed device slidable and rotatable on the support with said device shaped to interlock with the cavity shoulders when the device is rotated, a head adjustable on said device toward and from the door, a hand wheel having threaded engagement with said device for moving said head, and arms movably secured to the head and adapted to be projected thereby into the keepers.

5. The combination of a door frame provided with keepers, a door having a depression in its outer face and with separated shoulders projecting into the depression, a support projecting from the door depression, a sleeve slidable and rotatable on the support with shoulders at the inner end of the sleeve adapted to interlock with the cavity shoulders, a head movable on the sleeve toward and from the door, head moving means, and arms pivoted to the head and adapted to be projected thereby into the keepers.

[Claims 6 to 8 not printed in the Gazette.]

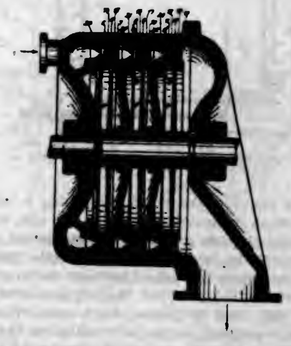
1,144,153. INSULATOR. WILLIAM H. NICHOLS, Bennington, Vt. Filed June 15, 1912. Serial No. 703,784. (Cl. 173—314.)

An insulator, of the class described, consisting of two members, duplicates of each other, each member having a head portion and a base portion at different elevations; the face surface of the head portion occupying one-half of the horizontal plane section of the insulator and the face surface of the base portion occupying one-half of the opposite horizontal plane section of the insulator; grooves in the face surfaces of both the head portion and the base portion extending across the entire distance of each of the face surfaces; said grooves crossing each other at angles less than right angles; said grooves being of different depths and each adapted to contain an electrical conducting wire; the face surface of the head portion of one member of the insulator adapted to coincide with and fit upon the face surface of the base portion of the other member of said insulator, and said grooves to correspond with each other; a perpendicular shoulder extending through the vertical central plane of each member from the face surface of the base portion to the face surface of



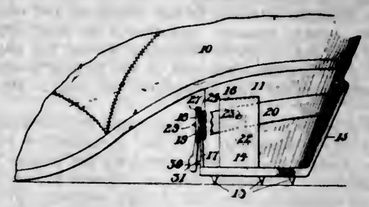
the head portion of each member; a hole adapted to contain a screw or nail passing vertically through the center of each member; a casing surrounding said hole in each member extending one-half the perpendicular distance from the face surface of the base portion to the face surface of the head portion, a recess in said perpendicular shoulder extending from the top surface of the casing to the terminus of said perpendicular shoulder; the upper face surface of said casing being parallel to the face surface of said base, and said face surfaces of the different members of said insulator adapted to fit upon each other and the front portions of said casing adapted to occupy the corresponding recesses in the shoulder of each member whereby the vertical holes through the members will coincide with each other, forming a vertical hole through the center of said insulator adapted to hold the members of each insulator together and against the surface being wired.

1,144,154. TURBINE. EDWIN SCHLUMPF, Zurich, Switzerland, assignor to Firm: Aktiengesellschaft der Maschinenfabriken Escher Wyss & Cie., Zurich, Switzerland. Filed Feb. 12, 1915. Serial No. 7,702. (Cl. 121—58.)



In a distributing or guiding device for multi-chamber steam- and gas-turbines, a rotor wheel for each pressure stage, several rows of moving blades on each of said rotor wheels, rows of reversing blades in each pressure-stage arranged between the moving blades of said stage, and a guide ring for each pressure-stage provided with an annular prolongation formed integral therewith and carrying the reversing blades arranged between the moving blades of the immediately preceding rotor wheel.

1,144,155. ICE-CREEPER. JOHN SKUNDA, Urey, Pa. Filed Apr. 20, 1915. Serial No. 22,566. (Cl. 36—64.)

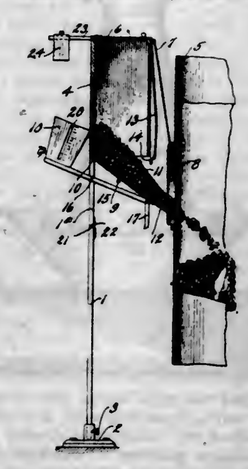


1. A creeper comprising a calked tread plate, upwardly projecting side and rear heel engaging arms mounted thereon, a frame carried by the forward portion of the said plate, a positioning strap centrally secured to the said rear arm and slidably engaging said side arms and having its opposite ends inturned adjacent the said frame and connected thereto, and shiftable clamping means connecting the adjacent ends of the strap.

2. A creeper comprising a tread plate, heel engaging members projecting therefrom, a cruciform shaped frame mounted forwardly upon the said plate, a heel encircling strap connected with the said members and having its ends inturned and slidingly overlapping the side arms of the said frame, projecting pins upon the adjacent ends of the said strap, and an operating segment cam pivoted to the said frame intermediate the ends of the said strap and having opposite cam slots therein shiftably seating over the said pins.

3. A creeper comprising a tread plate, heel engaging members projecting therefrom, a cruciform shaped frame mounted forwardly upon the said plate, a heel encircling strap connected with the said members and having its ends inturned and slidingly overlapping the side arms of the said frame, projecting pins upon the adjacent ends of the said strap, an operating segment cam pivoted to the said frame intermediate the ends of the said strap and having opposite cam slots therein shiftably seating over the said pins, a locking wedge carried by the said frame, an operating handle upon the said segment cam having a path of movement in the plane of the said wedge, straps carried by the said frame and positioningly surrounding the said strap ends, and ground engaging calks carried by the said plate.

1,144,156. MECHANICAL FUEL-FEEDING APPARATUS. INGOMAR STORDAHL, Miles City, Mont. Filed Feb. 8, 1915. Serial No. 6,949. (Cl. 161—1.)



1. In a mechanical feeding apparatus for furnaces and the like, the combination of a fuel receptacle, a movable

closure member therefor, means for maintaining the closure member inoperative, a support for said receptacle for disposing the same adjacent to the furnace, a tripping member arranged adjacent to the receptacle and coacting with the closure member, and means on said tripping member adapted to predeterminately release the tripping member to cause disengagement of the holding means for the closure member and delivery of the fuel to the furnace.

2. In a mechanical feeding apparatus for furnaces and the like, the combination of a fuel receptacle, a closure member therefor, means for maintaining the closure member inoperative, a tripping member adjacent to the receptacle and engageable with the closure member, and counterbalance means on said tripping member adapted at a predetermined time to cause the tripping member to release the holding means for the closure member aforesaid.

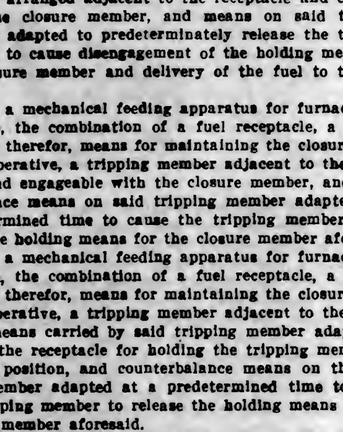
3. In a mechanical feeding apparatus for furnaces and the like, the combination of a fuel receptacle, a closure member therefor, means for maintaining the closure member inoperative, a tripping member adjacent to the receptacle, means carried by said tripping member adapted to engage the receptacle for holding the tripping member in normal position, and counterbalance means on the tripping member adapted at a predetermined time to cause the tripping member to release the holding means for the closure member aforesaid.

4. In a mechanical feeding apparatus for furnaces and the like, the combination of a fuel receptacle, a movable closure member therefor, holding means for the closure, and means for tripping the holding means to release the contents of the receptacle and for limiting movement of the closure member, said closure member constituting a chute in release position for conveying the fuel into the furnace.

5. In a mechanical feeding apparatus for furnaces and the like, the combination of a fuel receptacle, a closure member pivotally mounted at the bottom of said receptacle, a latch normally holding the closure member in closed position, a trip bar tiltingly mounted adjacent to the receptacle for releasing the latch, and means on said bar for automatically causing tilting action thereof.

[Claims 6 to 13 not printed in the Gazette.]

1,144,157. FEED-HOLDER. EARL N. STROUP, West View, Pa., assignor of one-half to James A. Skiles, Pittsburgh, Pa. Filed Sept. 14, 1914. Serial No. 861,498. (Cl. 119—52.)



1. A feed holder having a hollow base, a feed column above the base and supported thereby, a plate connected to the lower end of the column and closing the bottom thereof, there being a plurality of openings through the wall of the column, the plate extending beyond the wall of the column and having an upwardly extending flange, a pan surrounding said plate and communicating with the hollow base, there being an annular space between the edge of the flange on the plate and the pan, and a removable receptacle in the hollow base for catching feed which falls into the pan.

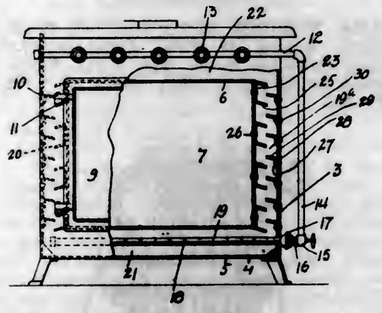
2. A frusto-conical feed holder having a plurality of openings through the wall thereof adjacent to the lower end, a plate secured to the bottom of the column and extending beyond the edge thereof, said plate having an upwardly extending annular flange, and a catch pan below and surrounding the plate; substantially as described.

3. A feed holder having a hollow base, a feed column above the base and supported thereby, said column having a plurality of openings through the wall thereof at the lower end, a plate connected to the lower end of the column and closing the bottom thereof, said plate extending beyond the wall of the column and having an upwardly extending flange, a pan surrounding said plate and communicating with the hollow base, there being a space between the edge of the flange on the plate and the pan, substantially as described.

4. A feed holder comprising a hollow base, an upwardly and outwardly flaring hopper connected to the base and communicating therewith, a plate having an upwardly extending annular flange supported in the hopper, there being an annular space between the annular flange and the hopper, a feed column supported on the plate, said column having a plurality of openings through the wall thereof at the lower end, and a removable cover for closing the openings through the wall of the column and the top of the hopper, substantially as described.

5. A frusto-conical feed holder having a plurality of openings through the wall thereof adjacent to the lower end, a plate secured to the bottom of the column and extending beyond the edge thereof, said plate having an upwardly extending annular flange, a catch pan below and surrounding the plate, and a removable cover for closing the openings through the wall of the column and the top of the pan; substantially as described.

1,144,158. GAS STOVE AND RANGE. EDWARD TRIST, Pittsburgh, Pa. Filed Mar. 14, 1914. Serial No. 824,721. (Cl. 126—39.)



A stove of the class described comprising a body, a shell arranged therein in spaced relation to the side walls thereof, a plurality of seats arranged in superposed relation to one another on the inner faces of the side walls of said body, heat retarders formed of angular metal arranged in the seats and having portions thereof projected upwardly within the body, and additional heat retarders of channel shaped design secured to the side walls of the shell and having portions thereof projected downwardly and outwardly toward the aforesaid retarders to alternate the latter.

1,144,159. CAN. EPHRAIM TRUXALL, Pittsburgh, Pa., assignor of one-half to Biddle Arthurs, Pittsburgh, Pa. Filed May 25, 1914. Serial No. 840,666. (Cl. 220—22.)

1. The combination with a can having laterally extending studs, of a bodily removable top provided with pivoted links having slotted engagement with said studs and a transverse locking rod journaled in the top and having downwardly disposed hooked terminals for locking engagement with said studs.



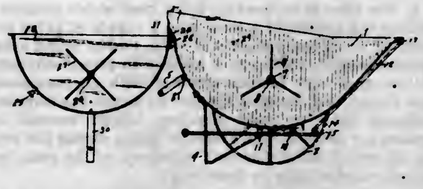
2. The combination with a can having laterally extending studs and recesses in its upper edges, of a bodily removable top provided with pivoted links having slotted engagement with said studs and a transverse locking rod journaled in the top adapted to seat in said recesses and having downwardly disposed hooked terminals for locking engagement with said studs.

3. A can having laterally extending studs, and a top provided with a transverse rod extending through its sides bent downwardly and formed into stud engaging hooks, and links pivoted on said rod having slotted engagement with said studs.

4. In a can, the combination of a main body portion having oppositely located rod-engaging recesses in its upper edge and laterally extending studs, a cover, a rod extending through the opposite sides of said cover and bent downwardly and laterally to form stud-engaging hooks, and links pivoted to said rod at each side of the cover having slotted engagement with the studs.

5. In a can, the combination of a main body portion having oppositely located rod-engaging recesses in its upper edge and laterally extending studs off-set beyond a vertical plane passing through said recesses, a cover, a rod extending through the opposite sides of said cover and bent downwardly and laterally to form stud-engaging hooks, and links pivoted to said rod at each side of the cover having slotted engagement with the studs.

1,144,160. GROUT-CARRIER. EDGAR N. TURNER, Logan, Ohio. Filed Jan. 22, 1915. Serial No. 3,848. (Cl. 83—78.)



1. A grout carrier comprising a bowl body, wheels supporting said body, a hood member hingedly carried by the upper portion of said body, and stirring means rotatably mounted within said hood.

2. A grout carrier comprising a bowl body, a pair of wheels supporting said body intermediate its front and rear ends, a stirrer device rotatably mounted within said body, a hood member hingedly carried by the upper portion of said body, and a stirring device rotatably mounted within said hood.

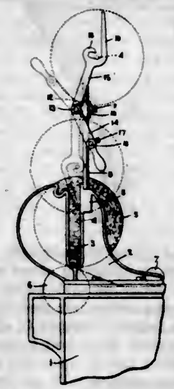
3. A grout carrier comprising a bowl body, a single pair of wheels carried by said bowl intermediate its front and rear ends, one wheel being disposed on each side of said body, a rear support for said bowl, a stirring device within said bowl on an axis running in the same direction as the axes of said wheels, a driving connection to said device to operate it by movement of the carrier, a hood member hingedly carried by the upper portion of said body, and a second stirring device in said hood independent of said first-named stirring device.

4. A grout carrier comprising a bowl body, a single pair of wheels carried by said bowl intermediate its front and rear ends, one wheel being disposed on each side of said body, a rear support for said bowl, a stirring device within said bowl on an axis running in the same direction as the axes of said wheels, a driving connection to said device to operate it by movement of the carrier, a hood member hingedly carried by the upper portion of said body, a second stirring device in said hood independent of said first-named stirring device, and means whereby said first-named stirring device may be operated when the carrier is stationary.

5. A grout carrier comprising a bowl body, wheels supporting said body, a hood member hinged to the rear upper edge of said body, stirring means rotatably mounted within said hood, and a suporting structure for said hood in addition to its hinge connection for supporting it when it is swung out of superposed relation with said body.

[Claims 6 and 7 not printed in the Gazette.]

1,144,161. LAP-STAND. HIRAM D. TURNER, Manchester, N. H. Filed May 16, 1914. Serial No. 839,149. (Cl. 19—7.)



1. In an apparatus of the class described comprising means for supporting a lap in active position, pivotally mounted mans for supporting a spare lap conveniently near said active position and adapted upon rotation to position said spare lap in the vertical plane of the active position but removed therefrom whereby the end of the lap may be pieced conveniently to the next preceding lap.

2. In an apparatus of the class described comprising means for suporting the lap in active position, pivotally mounted means for suporting a spare lap above said active position and for swinging the same adjacent to but sufficiently removed from said active position to permit the end of the lap thereon to be conveniently pieced to the next preceding lap.

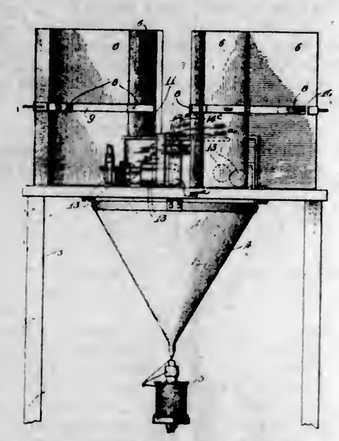
3. In an apparatus of the class described comprising means for supporting the lap in active position, adjustable means rotatably mounted above said position for supporting a spare lap above said active position and for swinging the same adjacent to but sufficiently removed from said active position to permit the end of the lap thereon to be conveniently pieced to the next preceding lap.

4. In an apparatus of the class described comprising means for supporting the lap in active position, pivotally mounted means for supporting a spare lap above said active position and for swinging the same adjacent to but sufficiently removed from said active position to permit the end of the lap to be conveniently pieced to the next preceding lap and means for transferring said roll to active position.

5. In an apparatus of the class described comprising a frame having slots to receive the ends of the axle of a roll of lap and to maintan the same in active position, supporting standards adjacent to said slots, a pair of angular levers pivotally mounted at their elbows on said standards each having at one end a booked member to engage and support the axle of the lap and at the opposite end a handle, a stop carried thereby adapted to engage the side of the standard whereby the axle of the lap when in raised position will be on the same side of the pivotal support as said stop.

[Claims 6 to 9 not printed in the Gazette.]

1,144,162. GRASS-TWINE MACHINE. OSSIAN T. WAITE, Oshkosh, Wis., assignor to Waite Grass Carpet Company, Oshkosh, Wis., a Corporation of Wisconsin. Filed Oct. 5, 1912. Serial No. 724,207. (Cl. 28—21.)



1. In a machine of the class described, the combination of a plurality of holders arranged about a common receptacle, feeding means adjacent said holders for advancing the grasses, said means being arranged to discharge into said receptacle and a selector common to all of said holders for delivering the grasses from said holders to said feeding means, said selector acting upon the material in each of the holders in turn, substantially as described.

2. In a machine of the class described, the combination of a plurality of holders arranged about a common receptacle, feeding means for each holder for advancing the grasses, said means being arranged to discharge into said receptacle, a selector common to all of said holders, for delivering the grasses from said holders to said feeding means, and means for forcing the grasses away from said selector and toward said feeding means, substantially as described.
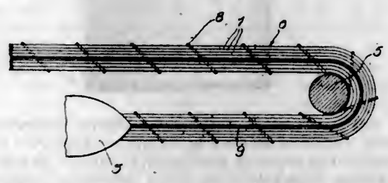
3. In a machine of the class described, the combination of a plurality of holders arranged about a common receptacle, feeding means for each holder for advancing the grasses, said means being arranged to discharge into said receptacle, a selector common to all of said holders, for delivering the grasses from said holders to said feeding means, and means for guiding said grasses toward said feeding means, substantially as described.

4. In a machine of the class described, the combination of a plurality of holders arranged about a common receptacle, feeding means for each holder to advance the grasses, said means being arranged to discharge into said receptacle, a single selector member, and means operatively connected for moving said selector, whereby it moves successively from one holder to another thereby delivering to said receptacle in successive order a wisp of grass from each of the holders, substantially as described.

5. In a machine of the class described, the combination of a plurality of holders arranged about a common receptacle, a set of feed rolls for each holder, arranged to discharge into said receptacle, a single selector member, means operatively connected for moving said selector, whereby it moves successively from one holder to another and delivers to said receptacle in successive order a wisp of grass from each of the holders, and means for forcing said grasses away from said selector and toward the bite of said feed rolls, substantially as described.

[Claims 6 to 18 not printed in the Gazette.]

1,144,163. GRASS TWINE. OSSIAN T. WAITE, Oshkosh, Wis. Filed June 27, 1913. Serial No. 776,056. (Cl. 28—5.)



1. As a new article of manufacture, a twine for weaving purposes, comprising a body filler consisting of over-lapping lengths of smooth surfaced grass-like material, a spiral winding thread therefor laid under sufficiently light tension to permit stretching of the body filler, and a center core thread of inextensible character adapted to break when the twine is subjected to a stretching strain, whereby the shock of the strain is absorbed and breaking of the grasses eliminated, substantially as described.

2. As a new article of manufacture, a twine for weaving purposes, comprising a body filler consisting of over-lapping lengths of sedge, a spiral winding thread therefor laid under sufficiently light tension to permit stretching of the twine and longitudinal displacement of the straight-laid lengths of grass-like material, and a center core thread of inextensible character adapted to break when the twine is subjected to a stretching strain, whereby the shock of such strain is absorbed and a breaking of the twine eliminated, substantially as described.

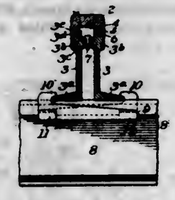
3. The process of weaving grass rugs, which consists in loading the shuttle of a loom with a supply of twine composed of overlapping lengths of smooth surfaced grass-like material, loosely bound with a spiral wrapping thread in a manner to permit stretching of the twine and an inextensible core thread, then striking the shuttle across the loom with sufficient force to break the core thread and thus relieve the grasses from excessive strain and permit a moderate extension of the same, substantially as described.

4. The process of weaving grass rugs which consists in loading the shuttle of a loom with a supply of twine composed of overlapping lengths of sedge loosely bound with a spiral wrapping thread in a manner to permit stretching of the twine and further provided with an inextensible core thread then striking the shuttle across the loom with sufficient force to break the core thread whereby the grasses are relieved from excessive strain during the weaving operation and a moderate expansion of the twine permitted, substantially as described.

1,144,164. RAILWAY-TRACK CONSTRUCTION. GEORGE H. BARNOUR, Pittsburgh, Pa. Filed Mar. 5, 1914. Serial No. 822,644. (Cl. 239—16.)

1. A compound rail, having its members sprung into interlocking engagement with each other, and means engaging said members to secure them in such engagement, said means having hooks for securing engagement with the rail supporting ties and also forming fastenings for securing the rail to its supporting ties; substantially as described.

2. A compound rail, comprising a head forming member and two web and base forming members, and means engaging the upper and lower portions of the last-named members at intervals to hold them interlocked with the head forming member and also securing the rail to a support; substantially as described.



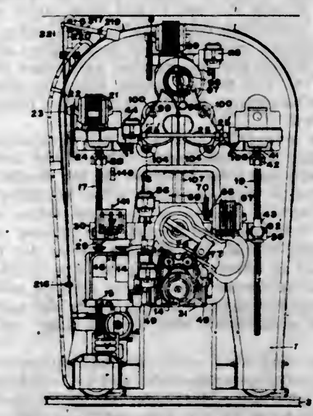
3. A compound rail, comprising a head forming member and two web and base forming members, and means engaging the base forming portions of the last-named members at intervals to hold them interlocked with the head forming member, said means having hooks for engagement with a support and forming fastenings for securing the rail to a support; substantially as described.

4. A compound rail, comprising a head forming member and two web and base forming members, the latter being sprung into interlocking engagement with the head forming member, and means engaging the upper portions of the web and base forming members at intervals to hold them interlocked with the head forming member; substantially as described.

5. A compound rail, comprising a head forming member and two web and base forming members, the latter being sprung into interlocking engagement with the head forming member, and means engaging the base forming portions of the web and base forming members at intervals to hold them interlocked with the head forming members, said means having hooks forming fastenings for securing the rail to a support; substantially as described.

[Claims 6 to 21 not printed in the Gazette.]

1,144,165. MACHINE FOR CHARGING AND DISCHARGING GAS-RETORTS. HENRY A. CARPENTER and ROBERT L. HIBBARD, Sewickley, Pa., assignors to Riter-Conley Manufacturing Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed Nov. 29, 1909. Serial No. 530,383. (Cl. 202—5.)



1. In a machine for charging and discharging gas retorts, the combination with a supporting frame, a track supported by said frame, a carriage mounted on the track, a scoop carried by the carriage, means for reciprocating the carriage, hoist mechanism for vertically adjusting the track, operable means for the hoist mechanism, and automatically operable means for preventing the vertical movement of the track while the scoop is in its extended forward position.

2. In a machine for charging and discharging gas retorts, and in combination, a supporting frame, a vertically adjustable track carried by said frame, a carriage movable upon the track, a hollow ram structure mounted upon the carriage and adapted to form a receptacle for coal when the structure is distended, said ram structure comprising complemental scoop members pivotally supported to permit distending and nesting movements of the members, means including a hollow shaft, a shaft within the hollow shaft, and coöperating gearing for moving the scoop members between the distended and nested positions, and means for moving the carriage upon the track.

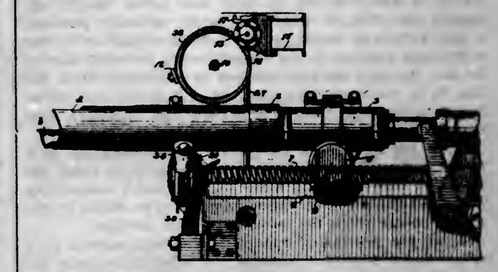
3. In a machine for charging and discharging gas retorts, the combination of a supporting frame, a track upon the supporting frame, a carriage mounted upon the track, a hollow ram structure mounted upon the carriage and comprising a pair of complemental pivotally mounted scoop members mounted to turn about a concentric axis, the said complemental scoop members forming a receptacle for coal when in one position, means for moving the carriage to force the ram into and out of a retort, and means for rotating the complemental scoop members to and from the receptacle-forming position, said means including concentric shafts and coöperating gearing.

4. In a machine for charging and discharging gas retorts, the combination of a supporting frame, a track mounted thereon, a carriage movable upon the track, a hollow ram upon the carriage, a shaft arranged parallel to the path of the carriage, a gear member rotatable with the shaft and slidable thereon so as to travel with the carriage, an operative connection between the said gear member and the hollow ram for discharging the contents of the hollow ram into the retort, means for moving the carriage, and means for turning the shaft.

5. In a machine for charging and discharging gas retorts, the combination of a supporting frame, a track mounted thereon, a carriage movable upon the track, a hollow ram upon the carriage, a rotatable shaft arranged to one side of and parallel to the path of the carriage, a member rotatable with the shaft and slidable thereon so as to travel with the carriage, an operative connection between the said member and the hollow ram for discharging the contents of the hollow ram into the retort, and means for turning the shaft.

[Claims 6 to 24 not printed in the Gazette.]

1,144,166. APPARATUS FOR CHARGING AND DISCHARGING GAS-RETORTS. HENRY A. CARPENTER, ROBERT L. HIBBARD, and ARTHUR W. WARNER, Sewickley, Pa., assignors to Riter-Conley Manufacturing Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed Feb. 15, 1913. Serial No. 748,643. (Cl. 202—5.)



1. In an apparatus for charging gas-retorts, a horizontally movable charger, and rotary means for shaping the coal contained in the charger prior to the introduction of the latter into and during its movement to charge the retort.

2. In an apparatus for charging and discharging gas-retorts, a horizontally movable charger, rotary means for shaping the coal contained in the charger during the movement of the latter to charge the retort, and positively operable means for actuating the shaping means.

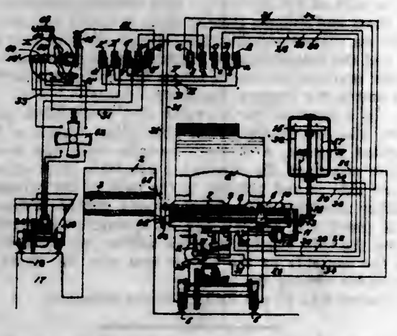
3. In an apparatus for charging and discharging gas-retorts, a horizontally movable charger, rotative means for moving the charger, a roller for shaping the coal contained in the charger, and positively operable means for rotating the roller, said roller rotating means being actuated by the means for moving the charger.

4. In an apparatus for charging and discharging gas-retorts, a horizontally movable charger, rotative means for moving the charger, a roller for shaping the coal contained in the charger during the movements of said rotative means, means for adjusting the roller relatively to the charger, and positively operable means for rotating the roller.

5. In an apparatus for charging and discharging gas-retorts, a horizontally movable charger, rotative means for moving the charger, a roller for shaping the coal contained in the charger, means for adjusting the roller relatively to the charger, and positively operable means for rotating the roller, said roller rotating means being actuated by the means for moving the charger.

[Claims 6 to 10 not printed in the Gazette.]

1,144,167. MEANS FOR CONTROLLING THE OPERATION OF GAS-RETORTS. HENRY A. CARPENTER and ARTHUR W. WARNER, Sewickley, Pa., assignors to Riter-Conley Manufacturing Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed Aug. 6, 1914. Serial No. 855,412. (Cl. 202—5.)



1. In a gas generating apparatus, the combination of a retort and a retort closure, a tool adapted to enter the retort, a tool actuating motor, and motor controlling means associated with the retort closure and operative only when the latter is open.

2. In gas generating apparatus, the combination of a retort, a tool adapted to enter the retort, means for moving the tool to and from retort entering position, a tool actuating motor, a device fixed relatively to the retort and another device movable with the tool moving means, the said devices adapted to coöperate when the tool is in retort-entering position, and motor controlling means associated with said devices and operative only when the latter are in coöperating relation.

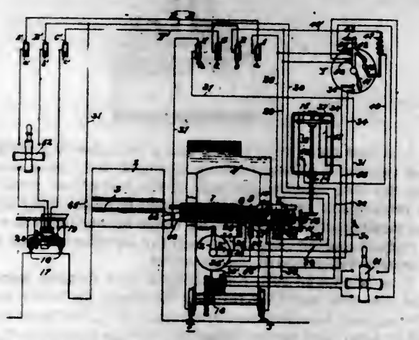
3. In gas generating apparatus, the combination of a retort and a closure therefor, a tool adapted to enter the retort, a tool actuating motor, and a motor controlling circuit having an interruption adapted to be closed by the retort closure when the latter is in open position.

4. In gas generating apparatus, the combination of a retort and a closure therefor, a tool adapted to enter the retort, means for moving the tool to and from retort-entering position, a tool actuating motor and a motor controlling circuit having an interruption, a circuit closer movable with the tool positioning means and adapted to close said interruption when the tool is in retort-entering position.

5. In gas generating apparatus, the combination of a retort and a closure therefor, a tool adapted to enter the retort, means for moving the tool to and from retort entering position, a tool actuating motor, a motor controlling circuit having two interruptions—one adapted to be closed by the retort closure when the latter is in open position, and a circuit closer movable with the tool positioning means and adapted to close the other interruption when the tool is in retort-entering position.

[Claims 6 to 16 not printed in the Gazette.]

1,144,168. MEANS FOR CONTROLLING THE OPERATION OF GAS-RETORTS. HENRY A. CARPENTER and ARTHUR W. WARNER, Sewickley, Pa., assignors to Riter-Conley Manufacturing Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed Aug. 6, 1914. Serial No. 855,413. (Cl. 202—5.)



1. In gas generating apparatus, the combination of a retort adapted to be charged at one end and discharged at its opposite end with a closure for the discharge end, a tool adapted to enter the retort, a tool actuating motor, and a motor controlling circuit having an interruption adapted to be closed when the discharge closure of the retort is in open position.

2. In gas generating apparatus, the combination of a retort adapted to be charged at one end and discharged at its opposite end with a closure for the discharge end, a tool adapted to enter the retort, a tool actuating motor, a controlling circuit for the motor having two interruptions—one adapted to be closed when the discharge closure of the retort is in open position and the other interruption adapted to be closed when the tool is in position for entering the retort.

3. In gas generating apparatus, the combination of a retort adapted to be charged at one end and discharged at its opposite end with a closure for the retort discharge, a tool adapted to enter the retort, a tool actuating motor, means for moving the tool to and from retort entering position, a controlling circuit for the tool motor having two interruptions, means actuated by the retort discharge closure for closing one interruption, and means made operative by the tool moving means when the tool is in retort entering position for closing the other interruption of said circuit.

4. In gas generating apparatus, the combination of a retort adapted to be charged at one end and discharged at its opposite end with a closure for the discharge end, a tool adapted to enter the retort, a tool actuating motor, means for moving the tool to and from retort entering position, a traction motor for the tool moving means a traction motor circuit, a controlling circuit for the tool motor having an interruption adapted to be closed by the retort discharge closure when in open position, and a controller mounted on the tool moving means and common to the traction motor circuit and the tool motor controlling circuit.

5. In gas generating apparatus the combination of a retort, a retort-coöperating device and an actuating motor therefor, a controlling circuit for the motor, means for moving said device to and from retort-coöperating position, a traction motor for said device-positioning means, a traction motor circuit, and a controller common to said controlling and traction motor circuits.

1,144,169. MEANS FOR CONTROLLING THE OPERATION OF GAS-RETORTS. HENRY A. CARPENTER and ARTHUR W. WARNER, Sewickley, Pa., assignors to Riter-Conley Manufacturing Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed Aug. 22, 1914. Serial No. 858,072. (Cl. 202—5.)

1. The combination of a retort, mechanism movable relatively to the discharge end of the retort and having predetermined position when the retort is discharging, a retort discharging tool and a tool motor, a tool controlling circuit having an interruption, and a circuit closing device actuated by said movable mechanism and adapted to close said interruption when said mechanism is in predetermined position.



2. The combination of a retort, a receptacle movable to and from position for receiving the retort discharge, a retort discharging tool and tool motor, a tool controlling circuit having an interruption, and a circuit closing device movable with said receptacle and adapted to close said interruption when the receptacle is in position to receive the retort discharge.

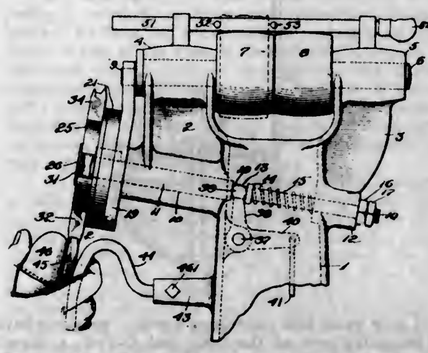
3. The combination of a retort, a retort discharging tool and a tool motor, a tool controlling circuit having an interruption, a gas producer, a producer charging machine movable to and from position for receiving the retort discharge, and a circuit closing device movable with said machine and adapted to close said interruption when the machine is in position to receive the retort discharge.

4. The combination of a retort, retort coöperating machines movable relatively to opposite ends of the retort, a retort discharging tool mounted on the machine at the front of the retort and a tool motor, a tool controlling circuit having interruptions at opposite ends of the retort, and circuit closing devices carried by said machines and adapted to close said circuit interruptions when said machines, respectively, are in predetermined position relatively to the retort.

5. The combination of a retort, a retort closure, a producer charging machine movable relatively to the retort and into which the retort is adapted to discharge, a retort discharging tool and a tool motor, a motor controlling circuit having two interruptions, a circuit closing device carried by the producer charger and adapted to close one of said interruptions when the charger is in position to receive the retort discharge, and a circuit closing device actuated by the retort closure when the latter is open to close the other circuit interruption.

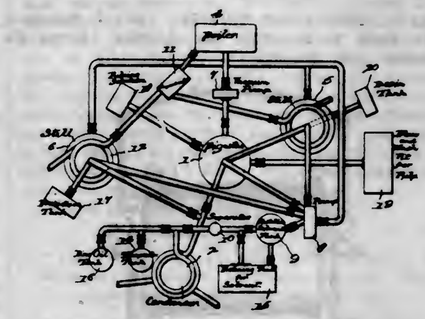
[Claims 6 to 8 not printed in the Gazette.]

1,144,170. EDGE-SETTING MACHINE. EDWIN N. CHANDLER, Braintree, Mass. Filed Aug. 14, 1913. Serial No. 784,720. (Cl. 12—78.)



In an edge setting machine, a carrier for a plurality of edge setters, means to oscillate said carrier, said oscillating means and carrier having a keyway and a key slidable therein to lock the carrier to said means, in combination with mechanism to withdraw said key from the carrier to permit the carrier to be moved to carry the edge setters into or out of operative position during the continuous running of the machine.

1,144,171. METHOD OF TREATING RESINOUS WOODS TO REMOVE THE SOLUBLE CONSTITUENTS THEREFROM. IRVING SPENCER CLOPP, Macon, Ga., assignor to Empire Chemical Company, Atlanta, Ga., a Corporation of Georgia. Filed Dec. 4, 1914. Serial No. 875,463. (Cl. 203—6.)



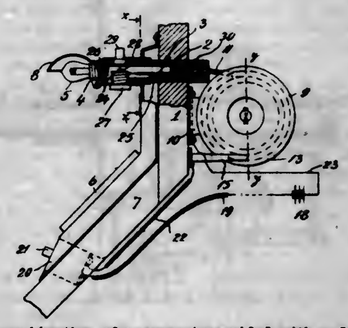
1. The method of treating resinous woods to remove the soluble constituents therefrom, which consists in subjecting chips of such wood to treatment in a digester with that distillate from coniferous woods which passes over at from 170° C. to 185° C.

2. The method of treating resinous woods to remove the resinous constituents therefrom, which consists in subjecting chips of such wood to treatment in a digester with an extractive agent, which consists mainly of limonene, dipentene, terpenene and cineol.

3. The method of treating resinous woods to remove the soluble constituents therefrom, which consists in subjecting chips of such wood to treatment in a digester with that distillate from coniferous woods which passes over at from 170° C. to 185° C., and having a specific gravity of from .875 to .880 at 15° C.

4. The method of treating resinous woods to remove their soluble constituents therefrom, which consists in subjecting the chips of such wood to treatment in a vacuum with a solvent consisting of that distillate from such woods which passes over at from 170° C. to 185° C., in the form of vapor, permitting said vapor to condense among the chips, collecting the condensed vapor and dissolved substances, separating out the substances from the wood by distillation, and re-circulating the solvent.

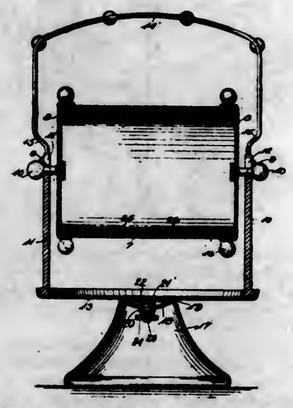
1,144,172. COMBINED DASH-LIGHT, TROUBLE-LIGHT, AND CIGAR-LIGHTER. WILLIAM H. COLLIER, Nashville, Tenn. Filed June 9, 1913. Serial No. 772,651. (Cl. 240—7.)



The combination of a support provided with a device to be illuminated, and provided with a suitable socket, a plug

adapted to fit within such socket, and adapted to carry an electric lamp, said socket positioned and said plug proportioned so that an electric lamp carried by said plug will illuminate said device to be illuminated, a cable drum secured in fixed relation to said socket, and an electric cable thereon comprising a plurality of conductors connected to suitable lamp terminals of said plug, circuit conductors and contact means for conveying electric current to the conductors of said cable, and a switch secured to said support and controlling the circuit of said conductors.

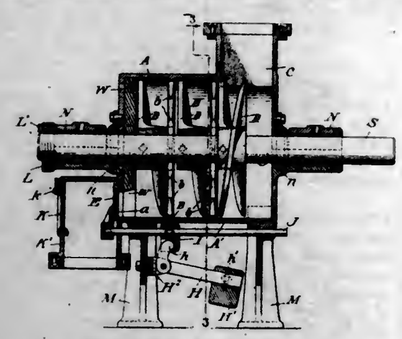
1,144,173. MENU-CARD HOLDER. JOHN J. CORCORAN, New York, N. Y. Filed Oct. 7, 1914. Serial No. 865,548. (Cl. 40—68.)



1. A holder as characterized, comprising a transparent, open-ended cylinder; a plurality of snugly-fitting, removable, opaque end caps; pivot members centrally located upon and projecting from said caps; and a resilient, expansive spreader disposed within said cylinder to press outward against the inner wall thereof.

2. A holder as characterized, comprising a transparent open-ended cylinder; a plurality of snugly-fitting, removable, opaque end caps; pivot members centrally located upon and projecting from said caps; a resilient, expansive spreader disposed within said cylinder to press outward against the inner wall thereof; and a display member constructed from flexible, non-resilient material for being held smoothly by said spreader in contact with said cylinder.

1,144,174. ANGLE-MILL. JOHN B. CORNWALL, Moline, Ill., assignor to Barnard and Leas Manufacturing Company, Moline, Ill., a Corporation of Illinois. Filed Mar. 4, 1915. Serial No. 12,096. (Cl. 83—34.)



1. In a machine of the character specified, the combination of a casing having a chamber, a shaft in said chamber, a series of scrolls on said shaft, and partitions within the chamber intermediate the scrolls, each partition having an annular series of triangularly shaped parts adapted to provide an opening for the passage of material enlarging toward the axis of the partition and contracting toward the periphery thereof.

2. In a mill of the character described, the combination of a body, an axial shaft extending therethrough, a series of scrolls on said shaft, partitions between the scrolls, each partition comprising an annular series of triangularly shaped parts, adapted to provide an opening for the passage of material enlarging toward the axis of the partition and contracting toward the periphery thereof, and a wooden lining in the rear end of the cylinder opposite the last scroll.

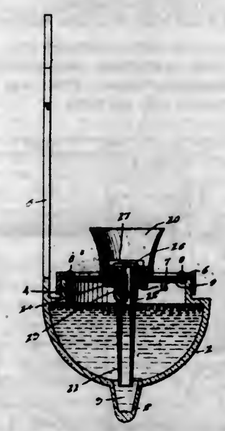
3. In a mill of the character described, the combination of a body, an axial shaft extending therethrough, a series of scrolls on said shaft, partitions between the scrolls, and a wooden lining in the rear end of the cylinder opposite the last scroll, the grain of the wood being inclined obliquely to the opposed scroll, substantially as described.

4. In a mill of the character described, the combination of a body, an axial shaft extending therethrough, a series of scrolls on said shaft, partitions between the scrolls, each partition having an annular series of triangularly shaped parts, adapted to provide an opening for the passage of material enlarging toward the axis of the partition and contracting toward the periphery thereof, and a wooden lining in the rear end of the cylinder opposite the last scroll or packer screw the grain of the wood being inclined obliquely to the end wall of the body, substantially as described.

5. In a machine of the character specified, the combination of a casing having a chamber provided with a feed opening in one end and an outlet opening in the other end, a shaft extending axially through said chamber, a series of scrolls on said shaft, and partitions within the chamber intermediate the scrolls adapted to provide an opening for the passage of material enlarging toward the axis of the partition and contracting toward the periphery thereof, and a yieldable pressure regulating controlling valve closing said outlet opening.

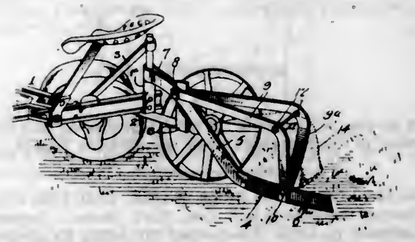
[Claims 6 to 11 not printed in the Gazette.]

1,144,175. HOLY-WATER FONT. ARTHUR HENRY DE LAGE, Alpena, Mich. Filed May 12, 1914. Serial No. 838,135. (Cl. 215—100.)



A holy water font comprising a water receptacle having a projecting well at the lower end thereof, a threaded flange extending from the upper edge of said receptacle, a collar connected to said flange and having an elastic diaphragm attached thereto, an outwardly flaring finger dip having an integral tube connected thereto and extending through the center of the diaphragm, means for holding the tube and finger dip in connection with the diaphragm, and a finger rest disposed within the finger dip over the upper end of the tube and provided with cross arms cut away underneath to permit the water to flow into the finger dip when the diaphragm is depressed.

1,144,176. ATTACHMENT FOR DISK PLOWS. IRENE DESY, Lewistown, Mont. Filed Oct. 31, 1914. Serial No. 869,631. (Cl. 97—1.)



1. An attachment for disk plows, comprising a blade having a shank at its front end extending upwardly and forwardly from the blade and provided at its front end with a forwardly extending loop for engaging the frame of the plow, said blade having its lower edge beveled, a plate extending downwardly from the front end of the shank and adapted to engage the rear axle of the disk plow, angle bars connected with the blade and the shank, each bar consisting of two portions extending at an obtuse angle with respect to each other, one of the said portions being approximately vertical and connected to the blade intermediate its ends, and the other being approximately horizontal and lapping on the adjacent side of the shank at the junction of the loop therewith and at the plate, a bolt passing through the shank, the angle bars and the plate for securing them together, said bars being spaced apart at the junction of the portions.

2. An attachment for disk plows, comprising a blade having a forwardly and upwardly extending shank provided at its front end with a loop for engaging an upright on the frame of the plow, a plate rigidly connected to the shank near its junction with the loop and depending downwardly, and a pair of angle bars, the members of the pair being arranged on opposite sides of the shank and the blade, and each comprising an approximately vertical portion and an approximately horizontal portion, the vertical portions being lapped upon the blade intermediate its ends and secured thereto and the horizontal portions being lapped upon the shank and secured thereto, said bars being spaced apart at the junction of the portions.
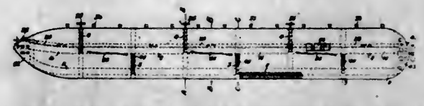
3. An attachment for disk plows, comprising a blade having a forwardly and upwardly extending shank provided at its front end with a loop for engaging an upright on the frame of the plow, a plate rigidly connected with the shank near its junction with the loop and depending downwardly and adapted to engage the frame of the plow, and a plurality of braces arranged between the blade and the shank and connected at their ends to the blade and the shank and diverging from each other intermediate their ends for supporting a weight.

4. An attachment of the character specified, comprising a blade support having a forwardly and upwardly extending shank provided at its front end with a loop for engaging an upright support on the frame of a plow, a blade detachably connected with the support, the blade having an angular portion at its front end fitting against the adjacent portion of the shank, a pair of angle bars, the members of the pair being arranged on opposite sides of the shank and the blade support and each angle bar comprising an approximately vertical portion and an approximately horizontal portion, the vertical portions being lapped upon the blade support intermediate its ends and secured thereto, and the horizontal portion being lapped upon the shank and secured thereto, said bars being spaced apart at the junction of the portions, a rigid beam for connection with the plow, said beam extending rearwardly and outwardly, a brace between the beam and the point of connection of the front end of the attachment, and a flexible member between the outer end of the beam and the blade support.

5. An attachment of the character specified, comprising a blade support having a forwardly and upwardly extending shank provided at its front end with a loop for engaging an upright on the frame of a plow, a blade detachably connected with the support, a pair of angle bars, the members of the pair being arranged on opposite sides of the shank and the blade support and each angle bar comprising an approximately vertical portion and an approximately horizontal portion, the vertical portions being lapped upon the blade support intermediate its ends and secured thereto, and the horizontal portions being lapped upon the shank and secured thereto, said bars being spaced apart at the junction of the portions, a rigid support for connection with the plow and extending rearwardly, and a flexible connection between the rear end of the support and the blade support.

[Claims 6 to 8 not printed in the Gazette.]

1,144,177. AERIAL AND LIKE VESSEL. GEORGE SUTHERLAND DODMAN, Liverpool, England. Filed July 17, 1914. Serial No. 851,549. (Cl. 244—6.)



1. In a ship capable of being supported by air (and water) comprising a plurality of sections containing gas holders, the combination of sectional division chambers, a horizontal deck extending through the ship, and columns, as 37, extending vertically through the ship, and disposed at a point or points intermediate the sectional division chambers 3 and 4; substantially as described.

2. In a ship capable of being supported by air (and water) comprising a plurality of sections containing gas holders, the combination of sectional division chambers, and a horizontal deck extending through the ship and wherein the gas holders in each section have between them, a bellows gas holder; substantially as and for the purposes set forth.

3. A ship capable of being supported by air (and water) comprising a plurality of sections containing gas holders, separated by relatively narrow sectional division chambers, and of the form substantially of a horseshoe in cross section, with the "heels" at the lower part; substantially as described.

4. A ship capable of being supported by air or water comprising a plurality of sections containing gas holders, a horizontal deck extending through the ship, a plurality of upper and lower chambers formed by said deck, an air duct extending longitudinally through the length of the ship situated in the upper part of the ship, and columns extending vertically through the ship disposed at points intermediate the upper chambers and intermediate the lower chambers.

5. A ship capable of being supported by air or water comprising a plurality of sections containing gas holders, separated by relatively narrow sectional division chambers and of the form substantially of a horseshoe in cross section with "heels" at the lower part and an air duct extending longitudinally throughout the length of the ship having means at its stern end whereby said ship may be steered.

[Claims 6 to 11 not printed in the Gazette.]

1,144,178. SHUTTLE. GEORGE ADISON DONALDSON, Girard, Ill. Filed Aug. 12, 1914. Serial No. 856,360. (Cl. 66—10.)

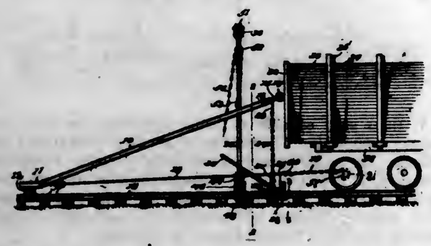
1. A tatting shuttle or bobbin, comprising two elongated plates having tapering ends, each plate having a

tubular extension adapted to telescope, the tubular extensions being of a shape in cross section similar to the shape of the plates and one of the said extensions being slotted.



2. A tatting shuttle, comprising elongated tapered plates each provided with an elongated lateral tubular extension having tapering ends and adapted to telescope one within the other, one of the extensions having a slot adjacent one tapered end, and a flange at the free end of one extension to contact with the plate of the other extension and provide for the retention of the thread or material wound thereon.

1,144,179. LOAD-TRIMMER. JAMES DYKES, New Rockford, N. D. Filed July 28, 1914. Serial No. 853,681. (Cl. 214—6.)



1. In a load trimming apparatus, an evener member adapted to bear against the material to be trimmed, a beam operating against said evener member, a holding device connected to said beam and adapted to be connected to the structure which carries the load to be trimmed, and means for forcibly depressing said beam.

2. In a car load trimming apparatus a beam adapted to bear against the material to be trimmed, means adapted to hold said beam in spaced relation to the car, a frame including a horizontal upper member and a vertical side member rigidly united, braces extending between the side members and the top member of the frame, and tie rods connecting the braces respectively to the frame members.

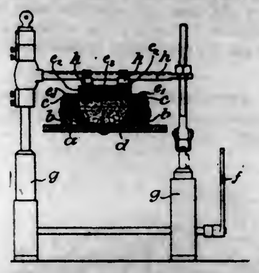
3. In a car load trimming apparatus a beam adapted to bear against the material to be trimmed, a holding device connected to said beam and adapted to be connected to the car which carries the load to be trimmed, and means for forcibly depressing the beam.

1,144,180. MOLDING-MACHINE. OTHMAR EISELE, Vienna, Austria-Hungary. Filed Jan. 27, 1914. Serial No. 814,764. (Cl. 22—41.)

1. In a molding machine, the combination with a flask adapted to contain a body of sand, and a plurality of independently movable concentric frames adapted to compress different portions of the sand in the flask.

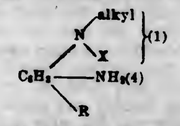
2. In a molding machine, the combination with a flask adapted to contain a body of sand, a plurality of concentric independently movable frames adapted to bear upon different portions of the sand in the flask, and means including a hand press for exerting pressure separately on said frames.

3. In a molding machine, the combination with a flask adapted to contain a body of sand, a set of concentric frames adapted to lie upon different portions of the sand in the flask, a press including a cross member, and pressure devices adjustable to different positions on said cross member to exert pressure upon the different frames.

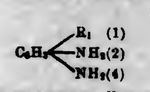


1,144,181. DYES FOR FURS, HAIRS, AND THE LIKE. ARNOLD ERLENBACH and KARL MARX, Dessau, Germany, assignors to Actien Gesellschaft für Anilin Fabrikation, Berlin, Germany. Filed Apr. 25, 1914. Serial No. 834,489. (Cl. 8—6.)

1. As new articles of manufacture new dyes for furs, hairs and the like comprising a salt of an aromatic para-diamin of the general formula:

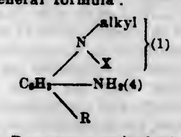


in which formula R and X mean univalent substituents and a salt of an aromatic meta-diamin of the general formula:

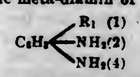


in which formula R_1 means an alkoxy group.

2. As new articles of manufacture new dyes for furs, hairs and the like comprising a salt of an aromatic para-diamin of the general formula:

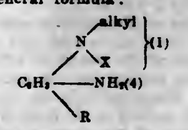


in which formula R means a univalent inorganic substituent and X means an univalent organic substituent, and a salt of an aromatic meta-diamin of the general formula:

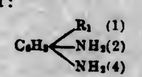


in which formula R_1 means an alkoxy group.

3. As new articles of manufacture new dyes for furs, hairs and the like comprising a salt of an aromatic para-diamin of the general formula:

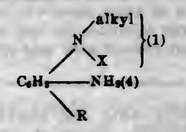


in which formula R means a hydrogen atom and X means an alkyl group and a salt of an aromatic meta-diamin of the general formula:

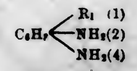


in which formula R_1 means an alkoxy group.

4. As new articles of manufacture new dyes for furs, hairs and the like comprising a salt of an aromatic para-diamin of the general formula:

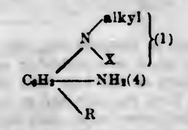


in which formula R means a hydrogen atom and X means a methyl group and a salt of an aromatic meta-diamin of the general formula:

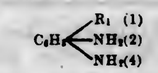


in which formula R_1 means an alkoxy group.

5. As new articles of manufacture new dyes for furs, hairs and the like comprising an inorganic salt of an aromatic para-diamin of the general formula:



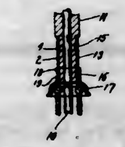
in which formula R means a hydrogen atom and X means a methyl group and an inorganic salt of an aromatic meta-diamin of the general formula:



in which formula R_1 means an alkoxy group.

[Claims 6 to 8 not printed in the Gazette.]

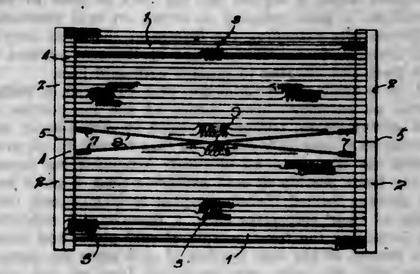
1,144,182. UMBRELLA-RIB-TIP RETAINER. FRIEDRICH C. ERNST, New York, N. Y. Filed Oct. 17, 1914. Serial No. 867,187. (Cl. 135—44.)



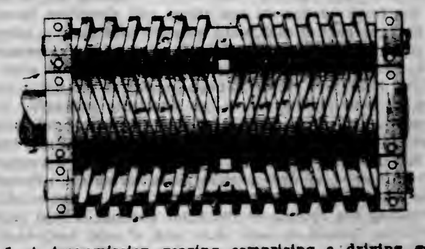
An umbrella rib-tip retainer, comprising a sleeve having a longitudinal slot and two depressions at points diametrically opposite the said slot, one of said depressions being disposed near to the lower end and the other one near the upper end of said sleeve, and a cup having a cylindrical portion slidably disposed upon said sleeve, said cylindrical portion having a rib seated in said slot, whereby said cup is prevented from rotating in relation to said sleeve, the cylindrical portion of said cup being furthermore provided with a projection adapted to enter the depressions in said sleeve, whereby said cup is held locked both in its upper and lower positions.

1,144,183. BED-SPRING. JOHN FARAGO, Stamford, Conn. Filed Aug. 22, 1914. Serial No. 858,098. (Cl. 5—65.)

A bed spring including side rails, end bars secured to the side rails, each end bar comprising two sections, hinges connected to the inner ends of the end bar section so that said bars can be folded one upon the other or extended, coil springs secured to the adjacent ends of the end bars, and crossed rods secured to the free ends of said springs so that when said end bars are folded or extended said springs and rods tend to hold said end bars in that position.



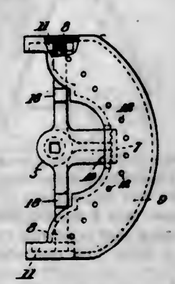
1,144,184. TRANSMISSION-GEARING. JOHN G. FAUST, Baltimore, Md., assignor of thirty-five one-hundredths to Harry C. Manns, Baltimore, Md. Filed Oct. 25, 1911. Serial No. 656,557. (Cl. 74—26.)



1. A transmission gearing comprising a driving gear and driven gears, each of the several gears having right and left threads, the diameter of the driving-gear being equal to the sum of the diameters of the driven gears on any plane at right-angles to their axes, the number of threads on the driving-gear being equal to the sum of the number of threads on the driven gears.

2. A transmission gearing comprising a driving gear and driven gears, each of the several gears having right and left threads with a groove around the axis of said gears between the right and left threads, the diameter of the driving-gear being equal to the sum of the diameters of the driven gears on any plane at right angles to their axes, the number of threads on the driving gear being equal to the sum of the number of threads on the driven gears.

1,144,185. DRIER. WILBUR R. FITCH, Belmont, Mass. Filed Dec. 17, 1914. Serial No. 877,710. (Cl. 68—34.)



1. In a drier, a guide-rod, a sliding sleeve maintained by the guide rod, an extension head on said sliding sleeve,

an upwardly extending lug formed at the front portion of said extension head, trunnions formed at the sides of said extension head, a lug on the top part of each of said trunnions, a plate adapted to swing on said trunnions, a downwardly extending lug formed at the front part of said plate, and shoulders formed at the rear portion of said plate and adapted to contact with said lugs.

2. In a drier, the combination of a guide-rod, a sliding sleeve, an extension head carried by the top portion of said sliding sleeve, trunnions formed at each side of said tension-head, upwardly projecting lugs formed on the arms having the trunnions, an upwardly extending lug formed at the front portion of said extension-head, a plate having grooves formed therein adapted to engage said trunnions at their respective ends, a downwardly extending lug formed at the front portion of said plate, and shoulders formed at the rear portion of said plate for engagement with the upwardly projecting lugs on the arms having the trunnions.

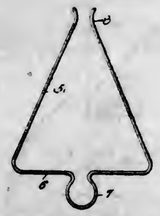
3. In a drier, the combination of a guide-rod with a sliding sleeve, an extension-head carried by the upper part of said sliding sleeve, an upwardly extending lug formed at the front portion of said extension-head, trunnions formed on said extension-head, lugs carried by the respective trunnions, an arm-carrying plate movably mounted on said trunnions at their respective outer ends by grooves formed in said plate, a downwardly extending lug formed at the front portion of said plate, and shoulders formed at the rear part of said plate, whereby said plate is adapted to be held from lateral, forward or backward movement.

4. In a drier, the combination of a guide-rod with a sliding sleeve, an extension-head carried at the upper portion of said sliding sleeve, an upwardly extending lug formed at the front portion of said extension-head, trunnions formed at the sides of said extension head and back of said lug, lugs carried on the upper parts of the respective trunnions, an arm-carrying plate having holes therein, pins adapted to fasten arms to said plate, a downwardly extending lug formed at the front portion of said plate, shoulders formed on said plate back of said downwardly extending lug, and said plate being formed with grooves into which fit the ends of the respective trunnions.

1,144,186. WASHING COMPOUND. JOSEPH THOMAS FREESTONE, Liverpool, England. Filed Nov. 23, 1914. Serial No. 873,599. (Cl. 87—5.)

A cleaning block comprising in combination ammonium sulfate, soda ash, a hydrocarbon, sodium perborate and soap all combined to form a solid cake and a coating of paraffin covering said cake.

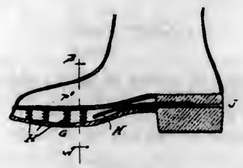
1,144,187. PILLOW-HOLDER. LEWIS A. GARREN, Oskaloosa, Kans. Filed May 13, 1913. Serial No. 767,472. (Cl. 5—15.)



1. A pillow holder including spring arms forming the sides of a triangle adapted for a yielding engagement with the sides of a pillow and at an angle to said pillow sides to compress the same into a smaller lateral compass, an integral portion joining said arms and forming the base of said triangle, and a finger loop centrally located on said portion.

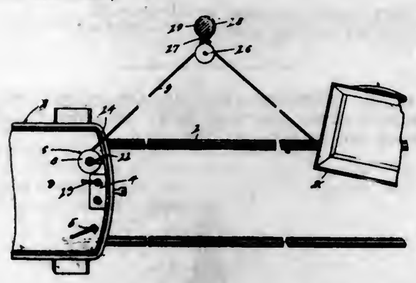
2. A pillow holder including a base portion, a finger loop centrally located thereon and affording resiliency thereto, arms integrally and resiliently formed at the extremities of said base portion, said arms being converged to normally form with said base portion a triangle and adapted to maintain a yieldable engagement with the sides of a pillow and at an angle thereto to laterally compress the same, and flared terminals on said arms for facilitating the engagement thereof with said pillow.

1,144,188. ELASTIC AND VENTILATED TREAD FOR BOOTS AND SHOES. WILHELM GERLACH, Johannesburg, Transvaal, South Africa. Filed Feb. 8, 1913. Serial No. 747,157. (Cl. 36—3.)



A shoe including in combination, the outer sole and heel, a perforated inner sole yieldably supported on the outer sole in advance of the heel, and an arch plate extending forwardly from the heel and in spaced relation to both said inner and outer soles, said heel having a passage therein communicating with the space between the plate and the outer sole with the atmosphere.

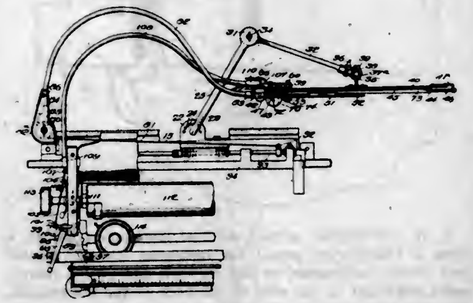
1,144,189. CAR ATTACHMENT. HENRY W. GRAFF, Chicago, Ill. Filed July 15, 1913. Serial No. 779,144. (Cl. 254—135.)



In combination, a supporting structure, a winding drum rotatably mounted upon the supporting structure, a cable wound upon said drum, a fixed post, a sheave secured to the post and operatively connected with the cable, a hook at one end of the cable, said hook being arranged to be attached to the object to be moved, the opposite end of the cable being secured to the drum, means to hold the drum against rotation in unwinding direction after the hook has been secured to the object to be moved, and means to move the supporting structure after the drum has been secured against movement.

1,144,190. LINE-MARKING MECHANISM FOR COPY-HOLDERS. WILLIAM ERNEST GRAY, Boise, Idaho. Original application filed Apr. 16, 1913, Serial No. 761,481. Divided and this application filed Jan. 29, 1914. Serial No. 815,183. (Cl. 120—34.)

1. In a copy holder, the combination with the line spacing lever of a typewriter, of an arcuate arm secured to and movable with said lever, a slide adjustable on said arm and toward and away from the fulcrum of the spacing lever, a copy holder plate, a rack bar mounted vertically along the rear surface of said plate adjacent one edge, a slide movable along the said edge of the plate adjacent the rack bar, a spring carried by the said slide and frictionally engaging the rack bar in order to maintain the slide in adjusted position, a rocking spider pivotally mounted on the plate and having an arm engaging the teeth of the rack bar thereby to operate as a pawl, said spider also having an extension forming a handle for its manual actuation and having another extending arm, a flexible wire connected to the last-mentioned arm at one end and having connection at its other end to the adjustable slide on the lever actuated arm of a typewriter, and a graduated line indicating bar connected to the forward portion of the copy plate slide and extending across the forward surface of the copy plate, all for the purpose described.



2. A copy holder attachment of the character described comprising the combination with the line spacing lever of a typewriter, of an arcuate arm secured to and movable with said line spacing lever, a slide adjustable on the arm toward and away from the fulcrum of the lever, a copy holding member, a frame mounted thereon and adapted to travel relatively thereto step by step, mechanism carried by said frame and coacting with the said copy supporting member for the purpose of shifting said frame relatively to said copy supporting member, a line indicating bar carried by said movable frame and extending across the copy supporting member, and a flexible connection secured at one end to said step by step mechanism and at its opposite end to said adjustable slide whereby to actuate the former when the line spacing lever is moved.

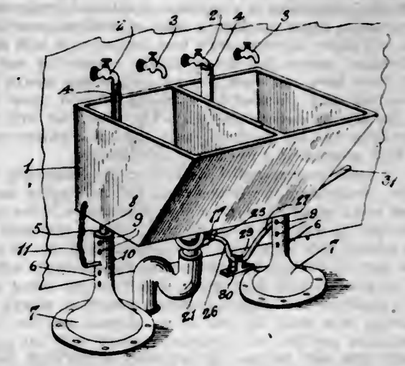
3. In a copy holder of the character described, the combination with the line spacing mechanism of a typewriter, of a flexible connection secured at one end to the said line spacing mechanism to be actuated thereby, a copy supporting member, a line indicating bar extending across the supporting member, means for supporting the said indicating bar and moving the same vertically in step by step relation on the copy supporting member, said flexible connection being in the form of a wire, the opposite end of which is secured to the bar supporting and moving means, all for the purpose described.

4. In a copy holder of the character described, the combination with the line spacing mechanism of a typewriter, of a flexible connecting member adjustably secured to the said line spacing mechanism so as to receive movement in the same degree and also in degrees greater and less than that imparted to a sheet in the said typewriter spacing mechanism, a copy supporting member, a frame mounted thereupon and adapted to travel relatively thereto, and mechanism carried by said frame and coacting with said copy supporting member for the purpose of shifting said frame in step by step relation to said copy supporting member and to which the flexible line spacing connection is also secured for the purpose described.

5. In a copy holder, the combination of a copy holder plate, a rack bar mounted upon said plate, a slide movable relatively to said plate in the general direction of the length of said rack bar, mechanism mounted upon said slide and provided with a pawl for engaging said rack bar in order to move said slide relatively to the latter, a wire connected with the said mechanism for actuating the same, and a connection from said wire to the line spacing lever of a typewriter.

[Claims 6 to 8 not printed in the Gazette.]

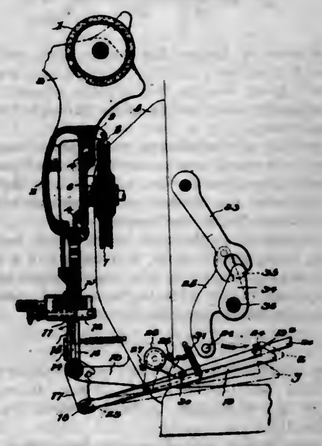
1,144,191. WASHTUB. WILLIAM E. GRAY, Brooklyn, N. Y. Filed Sept. 18, 1914. Serial No. 862,408. (Cl. 68—31.)



1. In a detergent tub structure, a tub body having depending rods secured to the base thereof, hollow supporting posts positioned beneath said tub body and slidably supporting said rods, a pin for insertion through said hollow supporting posts and said rods for holding said tub in various adjusted positions, and a lever connected to the bottom of said tub and extending beyond the end thereof for leverage movement for raising or lowering said tub into various elevated positions.

2. In a detergent tub structure, a tub body, adjustable supporting legs for said tub body, a lever having one end thereof loosely connected to the base of said tub body, said lever being curved downwardly transversely and upwardly and extending beyond one end of said tub body, said lever being pivotally connected to a supporting structure at said transverse section for raising or lowering said tub body upon upward or downward movement of said outwardly projecting end of said lever.

1,144,192. PAPER-CARRIAGE-SHIFTING MECHANISM FOR COMPUTING-MACHINES. JOHN EMIL WILLIAM GREVE, Chemnitz, Germany, assignor to Wanderer-Werke, vormals Winklhofer & Jaenicke, A. G., Schonau, near Chemnitz, Germany. Filed Apr. 10, 1915. Serial No. 20,574. (Cl. 235—60.)



1. A paper carriage shifting mechanism for computing machines, comprising in combination with a driving means and a paper carriage, a shift mechanism for said paper carriage, means connecting said driving mechanism and said shift mechanism, means for cutting out said con-

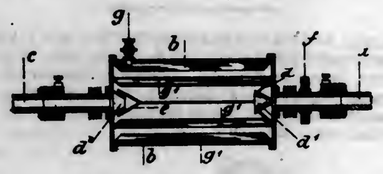
necting means, and a key for operating said shift mechanism when said connecting means is cut out.

2. A paper carriage shifting mechanism for computing machines, comprising in combination with a driving mechanism and a paper carriage, a shift mechanism associated with said paper carriage, draw bars connected to said shift mechanism, means for automatically connecting one of said draw bars and said driving mechanism, means for preventing said automatic connection of said draw bar and the driving mechanism, and a key associated with the other draw bar for actuating said shift mechanism when the first mentioned draw bar is inoperative.

3. A paper carriage shift mechanism for computing machines, comprising in combination, with a driving mechanism and a paper carriage, a shift mechanism, draw bars connected to said shift mechanism, means actuated by said driving mechanism for automatic locking one of said draw bars to the driving mechanism for automatic actuation of said shifting mechanism, said draw bar being normally positioned for said automatic connection, means for removing said draw bar out of its normal position into inoperative position, and means associated with the other of said draw bars for manual actuation of the shift mechanism.

4. A paper carriage shift mechanism for computing machines, comprising in combination, with a driving mechanism and a paper carriage, a shift mechanism, draw bars connected to said shift mechanism, means actuated by said driving mechanism for automatic locking one of said bars to the driving mechanism for automatic actuation of said shifting mechanism, said draw bar being normally positioned for said automatic connection, a lever bearing on said draw bar, a hand grip for actuating said lever to turn said draw bar into inoperative position, and a key connected to the other of said draw bars for manual actuation of said shift mechanism.

1,144,193. PROCESS OF DEODORIZING WASTE GASES. LAMBERT HAAS, Vienna, Austria-Hungary. Filed Aug. 23, 1910. Serial No. 578,604. (Cl. 110—183.)



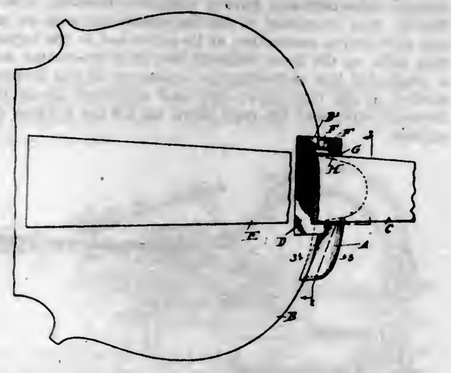
1. A process of deodorizing waste gases, said process consisting in forming a mixture of foam and soapy water in a closed space, beating the mixture whereby the mixture is sprayed; and forcing gases through the sprayed liquid and foam.

2. A process of deodorizing waste gases, said process consisting in forming a mixture of foam and soapy water in a closed space, beating the mixture whereby the mixture is sprayed; and forcing gases through the sprayed liquid and foam during the beating.

3. A process of deodorizing waste gases, said process consisting in forming a mixture of foam and a 15% solution of core soap and water in a closed space, beating the mixture whereby the mixture is sprayed; and forcing gases through the sprayed liquid and foam.

1,144,194. THUMB-REST FOR VIOLINS AND SIMILAR MUSICAL INSTRUMENTS. CYRUS HAMLIN, New York, N. Y. Filed Jan. 5, 1914. Serial No. 810,346. (Cl. 84—115.)

1. In combination with a musical instrument having a neck, a thumb rest in the form of a plate, and means for fastening the said thumb rest to the instrument in contact with the forward end of the instrument and projecting laterally from one side of the neck thereof, the inner side of the rest being contiguous to the adjacent side of the neck to allow the thumb of the fingering hand of the player to readily pass from under the neck to the under side of the said rest and from the latter back onto the neck.



2. In combination with a musical instrument having a neck, a thumb-rest, means for fastening the said thumb rest to the instrument at the forward end of the instrument body and to one side of the neck of the instrument, the said rest being in the form of a plate, the inner side of which extends onto the adjacent side of the neck, and the said fastening means comprising a transverse bar extending from the top of the plate over the top of the body and under the finger board, the bar terminating in an angular offset, screws in the said offset, and a clamping plate engaged by the said screws and pressed against the corresponding side of the neck.

3. The combination with a musical instrument having a neck, of a laterally extending plate curved to fit the thumb, said plate being at the forward end of the body and to one side of the neck of the instrument, and means extending underneath the finger board for securing said plate in position.

4. The combination with a musical instrument having a neck, of a laterally extending plate curved to fit the thumb, said plate being at the forward end of the body and to one side of the neck of the instrument, and means extending underneath the finger board for securing said plate in position, said last named means comprising a U-shaped bar, one end of said U-shaped bar being integrally connected with said plate and the other end of the U-shaped bar being provided with means for fastening the same to the neck of the instrument on the opposite side thereof from the curved plate.

5. In combination with a musical instrument, having a neck, a laterally projecting thumb rest in the form of a curved plate, said rest being disposed at the forward end of the body of the instrument and contiguous to one side of the neck thereof, and means for securing said thumb rest in position.

[Claim 6 not printed in the Gazette.]

1,144,195. UNDERREAMER. FRANK A. HAUGH, Independence, Kans., assignor to Anna B. Bloom, Independence, Kans. Filed Mar. 5, 1914. Serial No. 822,719. (Cl. 255—75.)

1. An under-reamer including a stock, co-acting bit members slidable on the stock, and an expanding head removably attached to the stock in position between the bit members for normally holding the cutting terminals of the bit members in expanded operative relation.

2. An under-reamer including a stock, co-acting bit members slidable on the sides thereof, means limiting the sliding movement of the bit members, an expanding head member removably secured to the stock and positioned between the lower terminals of the bit members, and yieldable means for normally holding the head member in operative position between the lower terminals of the bit members.

3. An under-reamer including a stock, co-acting bit members slidable thereon, means carried by the bits and engageable with the stock for limiting the sliding movement of the bit members, an expanding head member removably secured to the stock and positioned between the lower terminals of the bit members, and yieldable means for normally holding the head member in operative position between the lower terminals of the bit members, whereby the cutting terminals of the bit members are held in expanded operative relation.



4. An under-reamer including a stock member having longitudinally extending ribs and recesses at the upper ends of the ribs, a pair of co-acting bit members slidable on the stock and having recesses receiving the ribs thereof, straps connecting the bits at their upper terminals, said straps being movable through the recesses formed in the opposite faces of the stock, the terminals of the recesses being engageable by the straps, whereby the sliding movement of the bits is limited, and a spring-pressed head member adapted to normally hold the lower cutting terminals of the bits in expanded relation.

5. An under-reamer including a stock member, co-acting bits slidable thereon, means for limiting the movement of the bits, an expanding head, a rod extending downwardly from the stock and having its lower terminal threaded to receive the head, a spring wound about the rod and bearing at its lower terminal against the head, means carried by the rod and engaging the adjacent faces of the bits, said means acting as a stop for the upper terminal of the spring, whereby the head member is normally held in position between the lower terminals of the bits for holding the cutting edges thereof in operative expanded relation.

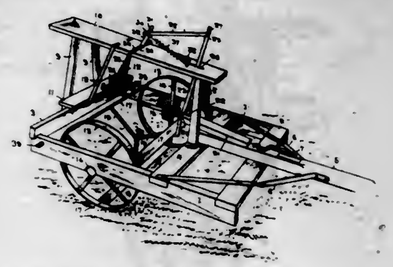
[Claims 6 to 11 not printed in the Gazette.]

1,144,196. WEEDER OR CULTIVATOR. ALLEN HAWORTH, Mabton, Wash. Filed Apr. 7, 1914. Serial No. 830,181. (Cl. 55—61.)

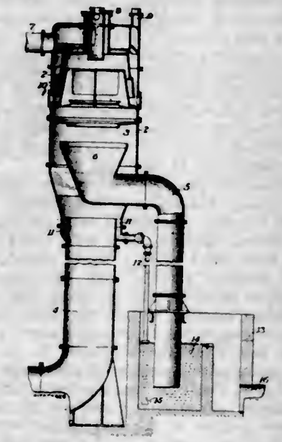
1. In a weeder, comprising a frame, a tongue for said frame, a seat arranged upon said frame, wheels having their hubs provided with stub shafts journaled in said frame, cutting blades embracing said wheels, and radially disposed bars, having their outer ends secured to the center of said blades and their inner ends pivoted together in alinement with said stub shafts, for bracing said blades.

2. In a weeder, comprising a frame, a tongue for said frame, a seat arranged upon said frame, wheels journaled in said frame, cutting blades embracing said wheels, said blades having outwardly beveled cutting edges, means for locking said wheels with a cutting blade in operative position, and means for adjusting said locking means to vary the cutting angle of said blades.

3. In a weeder, comprising a frame, a tongue for said frame, a longitudinal seat bar arranged upon said frame, wheels journaled in said frame, cutting blades embracing said wheels, means for locking said wheels against rotation for positioning certain of said blades in operative position, a shaft revolubly mounted upon said seat bar, an operating stirrup depending from said shaft, an upstanding arm upon said shaft, and a bar connecting said locking means with said upstanding arm for releasing said locking means.



1,144,197. CONDENSER. ERNST G. HELANDER, Youngstown, Ohio. Filed Oct. 2, 1913. Serial No. 793,057. (Cl. 261—2.)

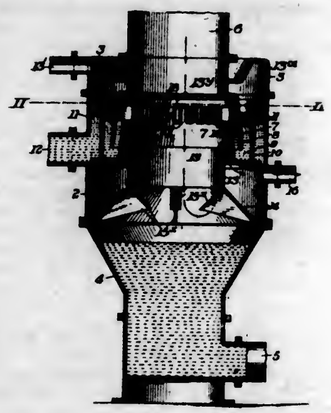


1. An elevated jet condenser having a condenser head, a steam pipe entering said head, a tail pipe connected to the lower portion of said head, a collecting chamber formed around the steam pipe, and an auxilliary tail pipe leading from said chamber to carry off water condensed from the steam before the steam comes in contact with the cooling water in the head, substantially as described.

2. In a jet condenser of the counter-current type with a steam inlet at its lower portion, a baffle plate above the steam inlet and having a circular opening over the edge of which the cooling water falls in a sheet, said baffle plate also having a plurality of vent pipes leading from the under side thereof upwardly to a point considerably above the plate, said pipes being placed between the said opening and the inner wall of the condenser shell, substantially as described.

3. In a jet condenser of the counter-current type having a head, a steam inlet pipe entering the head horizontally, a baffle plate above the steam inlet and having a circular opening for the falling cooling water, said baffle plate forming a continuation of the upper wall of the discharge portion of the steam pipe, and vent pipes in the baffle between its said opening and the inner wall of the condenser shell, substantially as described.

1,144,198. CONDENSER. ERNST G. HELANDER, Youngstown, Ohio. Filed Nov. 26, 1913. Serial No. 803,145. (Cl. 261—2.)



1. A condenser, comprising an outer shell having a vertical steam passage therein, a water overflow weir surrounding said passage, a partition wall surrounding said weir and forming therewith a water container or receptacle, a depending partition member extending downwardly within said receptacle to a point above the bottom thereof, said depending partition member, when the condenser is in operation, dividing the space within said shell above the weir into a main chamber of which the steam passage forms a part, and a preliminary chamber, a water supply connection for the preliminary chamber, and separate exhaust connections for the main and preliminary chambers; substantially as described.

2. A condenser, comprising an outer shell having a vertical steam passage therein, a water overflow weir surrounding said passage, a partition wall surrounding the weir and extending upwardly to a level above the upper edge of the weir, there being a water containing space between said partition and the weir, and another water containing space between said partition and the outer shell, a partition member or bell depending within the first named water space but terminating above the bottom thereof, said bell when the condenser is in operation dividing the space within said shell above the weir into a main chamber of which the steam passage forms a part, and a preliminary chamber, a water supply discharging into the lower portion of the last named water space, and separate exhaust connections for the main and preliminary chambers; substantially as described.

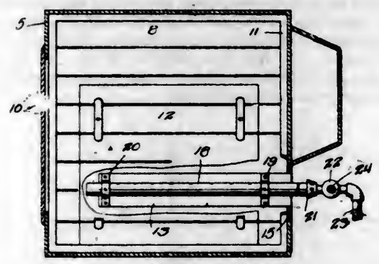
3. A condenser, comprising an outer shell, having therein a main exhaustion chamber and a preliminary exhaustion chamber, a water supply pipe leading into the preliminary exhaustion chamber, separate exhaust connections for the two chambers, a water overflow within the preliminary chamber, a water overflow within the main chamber, and means for forming a constant water seal between the two chambers; substantially as described.

4. A condenser, having a preliminary exhaust chamber, a main exhaust chamber into which the steam to be condensed is led, a water overflow within the main chamber, a water pipe communicating with the lower portion of the preliminary chamber, and a baffle within the main chamber below the weir, said baffle having means for breaking up the flow of water therethrough to permit a return flow of steam and non-condensable vapors, substantially as described.

5. In a condenser, an overflow weir having its upper edge portion formed with a plurality of vertical corrugations, the inwardly extending corrugations being formed with vertical discharge openings at their inner ends; substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

1,144,199. GAS-BURNER APPLIANCE. GUSTAVUS H. HERMANN, Minneapolis, Minn. Filed Nov. 24, 1914. Serial No. 873,749. (Cl. 126—36.)



1. The combination of a cooking stove or range including an oven and provided with an opening in one side adjacent the upper surface of the bottom, an air duct supported directly on the bottom of the oven and having an unrestricted opening at its outer end, the open outer end of the duct lying within said opening in the side wall of the stove or range, the duct also having a longitudinal opening in its top which extends throughout the length thereof, and a gas tube suspended partly within said duct through the longitudinal opening in the top of the duct and at its outer end projecting through the unrestricted opening at the outer end of the duct and also projecting through the said opening in the side wall of the stove or range.

2. The combination of a cooking stove or range including an oven and an opening in one side wall thereof leading into the oven at the bottom of the latter, an air duct supported on the bottom of the oven and having communication with the atmosphere through the opening in the side wall of the stove or range and provided with a longitudinal opening in its top, and a gas tube supported in the longitudinal opening of the air duct in spaced relation to the edges of said longitudinal opening and having perforations on opposite sides thereof slightly above the top of said duct, said gas tube extending beyond the outer end of the duct and projecting through said opening in the side wall of the stove or range.

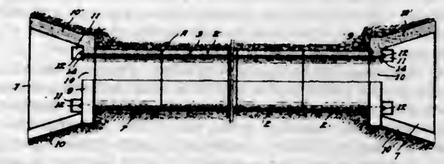
3. The combination of a cooking stove or range including an oven and an opening formed therein adjacent the bottom of the oven, an air duct removably inserted through said opening and disposed on the bottom of the oven and having communication with the atmosphere through said opening, the duct having a longitudinal opening in its top, the inner end of the duct being semicircular providing a seat, and a gas tube located in said longitudinal opening and at its inner end disposed on the seat of the duct with its outer end projecting through the outer end of the duct and through the opening adjacent the bottom of the oven, said tube being spaced slightly from the edges of said opening and having openings in opposite sides slightly above the top of the air duct and adjacent the spaces between the tube and the edges of said opening in the top of the air duct.

4. A gas appliance of the character described comprising an air duct provided with a longitudinal opening in its top, the duct being closed at one end and having an unrestricted opening at its outer end, a gas tube disposed in said longitudinal opening of the duct and extending through the unrestricted opening of the latter, and means to secure the gas tube in the longitudinal opening of the duct, the tube being spaced slightly from the edges of said longitudinal opening and having openings at opposite sides slightly above the longitudinal opening of the duct whereby the air is fed from the duct to the flame at short range.

5. The combination of a cooking stove or range including an oven and having an opening in its side adjacent the bottom of the oven, an air duct removably supported directly on the bottom of the oven and having communication with the atmosphere only through said opening in the side of the stove or range, the bottom of the oven being imperforate, said air duct having a longitudinal opening in its top, and a gas tube mounted in said longitudinal opening of the duct and provided with apertures adjacent the sides of the longitudinal opening.

[Claim 6 not printed in the Gazette.]

1,144,200. CULVERT. WILLIAM S. HEWETT, Minneapolis, Minn. Filed Jan. 20, 1915. Serial No. 3,267. (Cl. 72—52.)



1. A culvert composed of hollow concrete sections having pipes embedded therein, the sections having recesses at one end, and the pipes projecting from one end to enter the recesses of the adjoining section, rods passing through said pipes from one end of the culvert to the other, and means applied to the ends of the rods for clamping the sections together.

2. A culvert composed of hollow concrete sections having pipes embedded therein and projecting beyond the end of the sections to fit in recesses of adjoining sections, bulkheads at opposite ends of the culvert, and clamping rods passed through the pipes of the several sections and anchored in the bulk-heads.

3. A culvert comprising a plurality of hollow sections placed end to end, pipes embedded in the sections and interlocking with the abutting end of the adjoining section to hold the sections in alinement, rods passing through said pipes from one end of the culvert to the other, and means applied to the ends of the rods for holding the pipes in interlocking engagement with adjoining sections and clamping the several sections together.

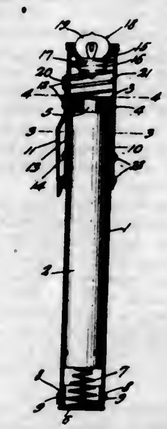
4. A culvert comprising a plurality of concrete sections placed end to end and having a continuous water passage therethrough, rods passing through said culvert sections from end to end, bulkheads provided at the ends of the culvert and having a floor and an upright wall, the upper rods in said culvert sections being anchored in the upper portion of said wall, and the lower rods of said sections being anchored in the lower portion of said wall.

1,144,201. PORTABLE FLASH-LIGHT. HARRY H. HIPWELL and HARRY T. HIPWELL, Pittsburgh, Pa. Filed Mar. 25, 1915. Serial No. 16,968. (Cl. 240—8.5.)

1. A portable flash light embodying a tube for holding a battery, a sleeve slidable upon one end portion of the tube and having means at its outer end for receiving an incandescent lamp, whereby when the sleeve is slid inwardly it will bring the lamp into engagement with the battery, a clip secured to the sleeve for engaging the edge portion of a pocket, the tube having a longitudinal slot of limited length, and the sleeve having means underneath and concealed by the clip engaging said slot for limiting the movement of the sleeve relative to the tube.

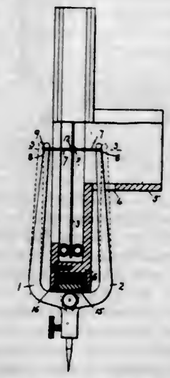
2. A portable flash light comprising a case embodying a tube and a sleeve slidable upon one portion of the tube, a battery fitting snugly within the tube, the outer end of the sleeve having a lamp socket, an incandescent lamp engaged in said socket, one pole of the battery being connected electrically to the case, and the other pole of the battery being adapted to be engaged by one terminal of the lamp when the sleeve is moved inwardly upon the tube, the tube having a longitudinal slot and the sleeve having a portion working in said slot and means for yieldably moving the sleeve outward relative to the tube for disengaging the lamp from the respective pole of the battery.

3. A portable flash light comprising a casing embodying a tube and a sleeve slidable upon one end portion thereof, the tube being adapted to hold a battery, said end of the tube having an inturned annular lip, an annular insulator fitting within the tube and seating against said lip, and adapted to receive one pole member of the battery, and the outer end of the sleeve having means for receiving an incandescent lamp whereby when the sleeve is moved inwardly it will bring the lamp into engagement with said pole member.



4. A portable flash light comprising a metallic casing including a tube and sleeve slidable upon one end portion of the tube, said end of the tube having an inturned annular lip, an annular insulator fitting within the tube and seating against said lip, a battery fitting within the tube and having one pole connected to the casing, the battery having another pole member fitting within said insulator, the sleeve and tube having interengageable means for limiting their relative movement, the other end of the sleeve having a lamp socket, a lamp engaged in said socket and arranged to contact with said pole member when the sleeve is moved inwardly to establish a circuit through the lamp, and a spring within the sleeve for yieldably moving the same outward to disengage the lamp from said pole member.

1,144,202. SOUND-BOX OR THE LIKE. JOSE HOFFAY, London, England. Filed Mar. 13, 1914. Serial No. 824,442. (Cl. 181—11.)



1. In a sound box or the like for a gramophone, phonograph, or the like machine, in combination, a diaphragm, a pivotally mounted forked stylus lever straddling the diaphragm and having its bifurcations under stress and tending to separate from each other, and flexible inelastic

means kept under continuous tension by the bifurcations and connecting the bifurcations to the diaphragm and to each other.

2. In a sound box or the like for a gramophone, phonograph, or the like machine, in combination, a diaphragm, a pivotally mounted forked stylus lever straddling the diaphragm and having its bifurcations under stress and tending to separate from each other, and flexible inelastic means kept under continuous tension by the bifurcations and connecting the free ends of the bifurcations to the diaphragm and to each other without contacting said ends with the diaphragm.

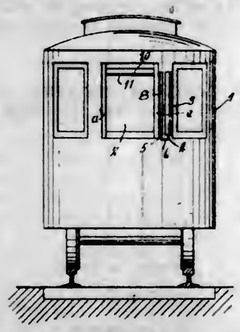
3. In a sound box or the like for a gramophone, phonograph, or the like machine, in combination, a diaphragm, a pivotally mounted forked stylus lever straddling the diaphragm and having its bifurcations under stress and tending to separate from each other, flexible inelastic means kept under continuous tension by the bifurcations and passing through the diaphragm and connecting the bifurcations to each other, and means securing the flexible means to the diaphragm.

4. In a sound box or the like for a gramophone, phonograph, or the like machine, in combination, a diaphragm, a pivotally mounted forked stylus lever straddling the diaphragm and having its bifurcations under stress and tending to separate from each other, an endless loop of flexible and inelastic material kept under continuous tension by the bifurcations and passing through the diaphragm and connecting the bifurcations to each other, and a second loop knotted on one side of the diaphragm, embracing the first loop, and knotted on the other side of the diaphragm.

5. Sound reproducing or recording means comprising, in combination, a plurality of sound chambers, a plurality of diaphragms mounted therein, a pivotally mounted forked stylus lever straddling the diaphragms and having its bifurcations under stress and tending to separate from each other, and flexible inelastic means kept under continuous tension by the bifurcations and connecting the bifurcations to the diaphragms and to each other.

[Claims 6 to 8 not printed in the Gazette.]

1,144,203. PNEUMATICALLY-OPERATED WINDOW-CLEANER. FREDERIC WILLIAM HOGG, The Dalles, Oreg. Filed July 14, 1914. Serial No. 850,920. (Cl. 15—59.)



1. A window cleaner comprising a cylinder, a piston in said cylinder, a piston rod connected to said piston and provided with an angular arm, a rod connected to said arm, a guide tube in which said rod is mounted, a window cleaner connected to said rod, and means for moving the piston up or down in the cylinder.

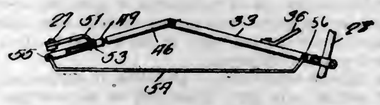
2. A pneumatically operated street car window cleaner, comprising a cylinder communicating with the source of compressed air, a piston in said cylinder, a piston rod extending through the bottom of the cylinder, an arm connected to said piston rod, a rod connected to said arm, a guide tube in which said rod is mounted to reciprocate simultaneously with the piston, said tube having a longitudinal slot therein, a window cleaner connected to said rod.

3. A pneumatically operated window cleaner for street car windows, comprising a cylinder, a piston mounted in said cylinder, a piston rod, an arm carried by the piston rod, a rod carried by the arm, a slotted guide tube, in which said rod is mounted, a window cleaner connected to said rod, guides for said window cleaner, and means for admitting compressed air near the opposite ends of said cylinder for reciprocating said plunger.

4. In a pneumatically operated window cleaner for street car windows, the combination of a cylinder communicating with the air brake system of the car, a piston in said cylinder, a window cleaner, guides for said window cleaner, and connections between the said piston and said cleaner to move the cleaner simultaneously with the piston for cleaning a window.

5. A pneumatically operated window cleaner comprising a cylinder, a piston rod, a piston in said cylinder, an arm connected to the piston rod and provided with a supporting rod disposed parallel to the piston rod, a slotted guide tube, a window cleaner connected to said supporting rod, said window cleaner comprising a tube having a slot therein, a rubber wiper connected to said tube, and guide bars at opposite sides of the window for said window cleaner.

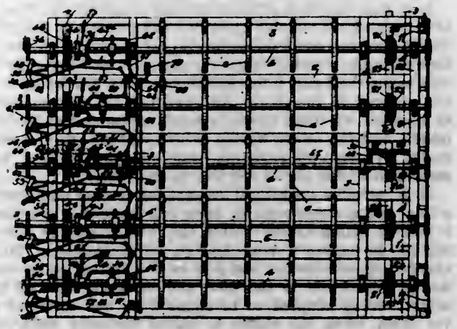
1,144,204. SPRAYING ATTACHMENT. SAM K. IVERSON, Colfax, Wis. Filed May 23, 1913, Serial No. 769,528. Renewed Dec. 5, 1914. Serial No. 875,741. (Cl. 103—62.)



1. The combination with an air pump of a swinging rod connected to the pump piston, the said rod including a jointed portion and a reach bar bridging the jointed portion and connecting the ends thereof, a pivot at an extremity of the rod, a cross bar on the rod near said pivot, and a cam operatively engaging the bar.

2. The combination with an air pump, a horizontally swinging rod connected to the pump piston for operating said piston, said rod comprising a jointed portion and a reach bar bridging the joint of and connecting the ends of said jointed portion, a vertical pivot for one end of said rod, a cross bar on said rod near said pivot, and a cam operatively engaging said bar for shifting the latter back and forth horizontally to swing said rod horizontally.

1,144,205. SPRING-MOTOR. MARTIN A. JOHNSON, Galesville, Wis. Filed Dec. 29, 1914. Serial No. 879,555. (Cl. 185—40.)



1. In a spring motor, a supporting frame, a plurality of shafts journaled longitudinally upon the frame, a plurality of coiled springs carried by each of said shafts, a shaft journaled transversely of said first named shaft and rotatable by said first named shaft, a second shaft journaled transversely of said first named shaft and in spaced relation to said first named transversely extending shaft, means for rotating said second named transversely extending shaft by the rotation of said first named transversely extending shaft and in a reverse direction thereto, means connecting said second named transversely extending shaft and said longitudinally rotated shaft whereby one of said longitudinally extending shafts will be rotated for winding the springs carried thereby, during the unwinding of the springs carried by the remainder of said shafts.

2. In a spring motor, a supporting frame, a plurality of shafts journaled longitudinally upon the frame, a plurality of coiled springs carried by each of said shafts, a shaft journaled transversely of said first named shaft and rotatable by said first named shaft, a second named shaft journaled transversely of said first named shaft and in spaced relation to said first named transversely extending shaft, means for rotating said second named transversely extending shaft by the rotation of said first named transversely extending shaft and in a reverse direction thereto, means connecting said second named transversely extending shaft and said longitudinally extending shafts will be rotated for winding the springs carried thereby, during the unwinding of the springs carried by the remainder of said shafts, a governor mechanism associated with said spring motor for regulating the speed of rotation of said shaft.

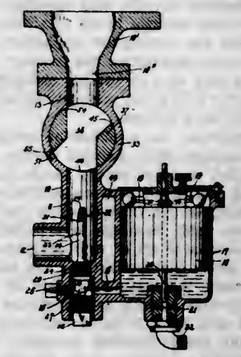
3. In a spring motor, a supporting frame, a plurality of shafts journaled longitudinally upon the frame, a plurality of coiled springs carried by each of said shafts, a shaft journaled transversely of said first named shaft and rotatable by said first named shaft, a second named shaft journaled transversely of said first named shaft and in spaced relation to said first named transversely extending shaft, means for rotating said second named transversely extending shaft by the rotation of said first named transversely extending shaft and in a reverse direction thereto, means connecting said second named transversely extending shaft and said longitudinally extending shafts will be rotated for winding the springs carried thereby, during the unwinding of the springs carried by the remainder of said shafts, a governor mechanism associated with said spring motor for regulating the speed of rotation of said shaft, friction wheels carried by the ends of said longitudinally extending shafts, friction bands mounted about said shafts and connected one to the other, a hand lever connected to said friction bands for moving them into or out of frictional engagement with said friction wheels for retarding the rotation of said shaft.

4. In a spring motor, a supporting frame, a plurality of shafts journaled longitudinally upon the frame, a plurality of coiled springs carried by each of said shafts, a shaft journaled transversely of said first named shaft and rotatable by said first named shaft, a second shaft journaled transversely of said first named shaft and in spaced relation to said first named transversely extending shaft, means for rotating said second named transversely extending shaft by the rotation of said first named transversely extending shaft and in a reverse direction thereto, means for connecting said second named transversely extending shaft and said longitudinally rotated shaft whereby one of said longitudinally extending shafts will be rotated for winding the springs carried thereby during the unwinding of the springs carried by the remainder of said shafts, friction wheels carried by the ends of said longitudinally extending shafts, friction bands mounted about said shafts and connected one to the other, a hand lever connected to said friction bands for moving them into or out of frictional engagement with said friction wheels for retarding the rotation of said shaft.

5. In a spring motor, a supporting frame, a plurality of shafts journaled longitudinally of said frame, a plurality of coiled springs carried by each of said shafts, a shaft journaled transversely of said first named shaft and positioned therebeneath, worm gears connecting said longitudinal and said transverse shaft for rotating said transverse shaft by the rotation of said longitudinal shaft, a second transversely extending shaft operatively connected to said first named transversely extending shaft, worm gears loosely mounted upon said longitudinally extending shaft, worm gears rigidly mounted upon said second named transversely extending shaft and meshing with the worm gears formed upon said longitudinally extending shaft, clutch segments slidably mounted upon said longitudinally extending shaft, and means for automatically moving said slidable clutch segments into engagement with said worm geared carried clutch segment upon the unwinding of the spring connected to the longitudinal shaft, said clutch segments rotating the longitudinal shafts in a winding direction when they are in engagement with each other.

[Claims 6 to 8 not printed in the Gazette.]

1,144,206. CARBURETER. JOHN JUHÁSZ, New York, N. Y. Filed Oct. 11, 1913. Serial No. 794,638. (Cl. 48—150.3.)



1. In a carbureter, the combination with a plurality of carbureter chambers, each chamber having a main air inlet and an outlet, of a fuel supply nozzle in each chamber, a valve casing interposed between said inlets and outlets having a plurality of apertures through which air is adapted to flow into said chambers, and a cylindrical throttle in said casing common to all of said chambers having openings through which communications are adapted to be established between the main air inlets of said chambers and their respective outlets, said openings being of varying sizes and said throttle being rotatable, whereby said communications are established gradually and in succession, said throttle controlling the passage of air through said apertures into said carbureter chambers.

2. In a carbureter, the combination with a plurality of carbureter chambers, each chamber having a main air inlet and an outlet, of a fuel supply nozzle in each chamber, a valve casing interposed between said inlets and outlets having a plurality of apertures through which air is adapted to flow into said chambers, and a cylindrical throttle in said casing common to all of said chambers having openings through which communications are adapted to be established between the main air inlets of said chambers and their respective outlets, said openings being of varying sizes and said throttle being rotatable, whereby said communications are established gradually and in succession, said throttle controlling said apertures and permitting air to flow therethrough into said carbureter chambers when shifted to its fully open position.

3. In a carbureter, the combination with a plurality of carbureter chambers, each chamber having a main air inlet and an outlet, of a fuel supply nozzle in each chamber, one of said nozzles being permanently in communication with the outlet of its chamber, a valve casing interposed between said inlets and outlets having a plurality of apertures through which air is adapted to flow into said chambers, and a cylindrical throttle in said casing common to all of said chambers having openings through which communications are adapted to be established between the main air inlets of said chambers and their respective outlets, said openings being of varying sizes and said throttle

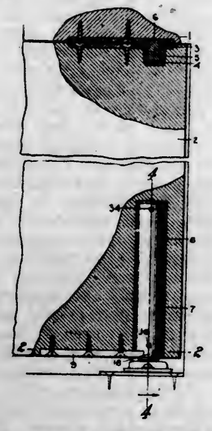
being rotatable, whereby said communications are established gradually and in succession, said throttle controlling said apertures and permitting air to flow while the throttle is in its closed position into that chamber the nozzle of which is permanently in communication with the outlet of its chamber, stopping such flow as soon as the throttle is shifted toward its open position, and allowing the passage of air into all of said chambers through said apertures when said throttle is fully opened.

4. In a carbureter, the combination with a plurality of carbureter chambers, each chamber having a main air inlet and an outlet, of a fuel supply nozzle in each chamber, a valve casing interposed between said inlets and outlets having a plurality of apertures through which air is adapted to flow into said chambers, a cylindrical throttle in said casing common to all of said chambers having openings through which communications are adapted to be established between the main air inlets of said chambers and their respective outlets, said openings being of varying sizes and said throttle being rotatable, whereby said communications are established gradually and in succession, said throttle controlling the passage of air through said apertures into said carbureter chambers, and a mixing chamber into which the combustible mixtures are conducted through said outlets.

5. In a carbureter, the combination with a plurality of carbureter chambers, each chamber having a main air inlet and an outlet, of a fuel supply nozzle in each chamber, a valve casing interposed between said inlets and outlets having a plurality of apertures through which air is adapted to flow into said chambers, a cylindrical throttle in said casing common to all of said chambers having openings through which communications are adapted to be established between the main air inlets of said chambers and their respective outlets, said openings being of varying sizes and said throttle being rotatable, whereby said communications are established gradually and in succession, said throttle controlling said apertures and permitting air to flow therethrough into said carbureter chambers when shifted to its fully open position, and a mixing chamber into which the combustible mixtures are conducted through said outlets.

[Claim 6 not printed in the Gazette.]

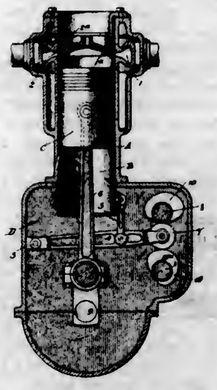
1,144,207. INVISIBLE SURFACE HINGE. OSCAR KATZENBERGER, Chicago, Ill. Filed Feb. 12, 1915. Serial No. 7,710. (Cl. 16—25.)



1. In a spring hinge of the character described, a stationary pintle, an arm loosely journaled on said pintle, said arm being provided with an annular stop having a projection and a pair of grooves, a sleeve mounted on said stop, said sleeve being formed with lugs fitting into said grooves, an annular stop arranged adjacent the top of said pintle, said last mentioned stop being formed with a projection, means for securing each of said stops to said sleeve, a spring surrounding said pintle, means connected with the ends of said spring adapted to be engaged by said stops when said arm is turned for bringing the spring under tension, and a pair of pins for preventing movement of said means in one direction.

2. In a spring hinge of the character described, a stationary pintle, an arm loosely journaled on said pintle, said arm being provided with an annular stop having a projection and a pair of grooves, a sleeve mounted on said stop formed with lugs fitting into said grooves, an annular stop arranged adjacent the top of said pintle, said last mentioned stop being formed with a projection, means for securing each of said stops to said sleeve, a pair of bearing members arranged adjacent each of said stops, each of said bearing members being formed with a projection adapted to engage the projecting member of the stop, the projections on the bearing members being of such a length as to provide a space between the bearing members and the stop, a pin for each of the bearing members rigidly secured to said pintle and adapted to normally be engaged by the projections on the bearing members, and a spring having the ends connected with said bearing members.

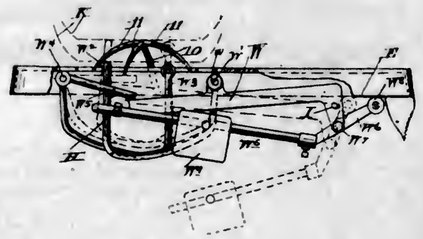
1,144,208. SINGLE-VALVE FOUR-CYCLE EXPLOSIVE-ENGINE. JAMES KEISTER, Steubenville, Ohio. Filed Jan. 30, 1914. Serial No. 815,427. (Cl. 123—75.)



1. An explosive engine comprising a cylinder having inlet and exhaust ports therein, a tubular valve reciprocating in the cylinder, inlet and exhaust ports arranged in the valve to register respectively with the corresponding cylinder ports during suction and exhaust strokes of the engine, a piston reciprocating in the valve, and a valve operating mechanism for moving the valve two steps in one direction to first open the exhaust port and then open the inlet port while closing the exhaust port, and one step in the opposite direction to close both ports, said mechanism consisting of a pair of three step complementary cams synchronously driven, a lever linked to the valve and a roller thereon engaging the said pair of complementary cams, each cam having an eccentric portion for reciprocating the valve in one continuous stroke to close both ports, a concentric portion for holding the valve to remain closed during the major parts of the compression and expansion strokes of the piston, an eccentric portion for moving the valve to open the exhaust port, a concentric portion for holding the valve in open-exhaust-port position, an eccentric portion for moving the valve still farther to close the exhaust port and open the inlet port and a concentric portion for holding the valve in inlet-port-open position, the sum of the effective radii of the cams at every instant being constant.

2. A four cycle explosive engine including a single suction and exhaust valve having an intermittent stroke in one direction to successively open an exhaust and a suction port and a continuous stroke in the other direction for intercepting communication with exhaust and intake ports on its return movement, an element connected with the valve for reciprocating the same, and a pair of synchronously rotating complementary cams, each having three concentric portions of different radii and eccentric portions so related to the concentric portions that the valve moves in two steps in one direction, and one step in the opposite direction, the sum of the radii of the portions of the cams engaging the said element being constant for every position of the cams.

1,144,209. FUEL-ECONOMIZING VALVE. WALTER J. KENNEDY, Cleveland, Ohio. Filed Apr. 11, 1914. Serial No. 831,301. (Cl. 126—52.)



1. In a valve for a fuel gas burner, a cylindrical valve casing, a stationary disk transversely mounted in said casing, a rotatable disk mounted thereon, said disks provided with equally spaced perforations therethrough, said perforations permitting the passage of gas therethrough when those in one disk are in alinement with those in the other disk, an adjustable rod rotatable in said casing and operatively connected with said rotatable disk, an adjustable arm connected with said rod and a device upon said arm engageable by a cooking utensil when placed over said burner.

2. In a valve for a fuel gas burner, in combination, a casing, a disk secured therein, a second disk rotatable therein said disks provided with perforations, the perforations in one disk alined with the perforations in the other disk when the valve is open, a device for rotating said rotatable disk, said device adapted to be centrally adjusted to said burner extending above said burner and depressible by means of a cooking utensil placed thereon, to close said valve and raise said disk operating device when the cooking utensil is removed from said burner.

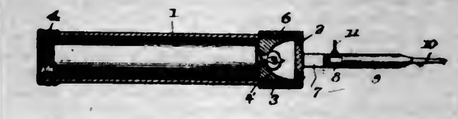
3. In a valve for a fuel gas burner, in combination, a casing, a rotatable disk therein provided with a series of outlet openings, a fixed seat upon which said disk is rotatable, said seat provided with corresponding perforations, a rotatable rod for operating said disk, means located above said burner adapted to be adjusted with respect to the center of said burner, and depressible by the weight of a cooking utensil, and means for automatically returning the disk when said rod is released.

4. In a fuel economizing valve for a stove burner, a valve casing, a rotatable valve therein, a rotatable rod in said casing, operatively connected with said valve, an arm provided with extensions projecting above said burner, a universally adjustable joint connecting said rod, and arm, whereby the position of said extensions can be adjusted relatively to their location above said burner.

5. In a fuel economizing valve for a stove burner, a valve casing, a rotatable valve therein, a rotatable member in said casing operatively connected with said valve, an arm for said rotatable member provided with extensions adapted to project above said member and to be depressed by a utensil placed thereon, a universal joint connecting said rotatable member and arm, for the adjustment of said arm relatively to said burner, and means for automatically elevating said arm and closing said valve when the weight is removed from said arm.

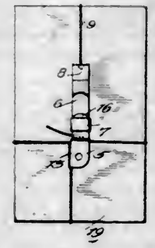
[Claims 6 to 12 not printed in the Gazette.]

1,144,210. TOOL. ROBERT KINCAID, Youngstown, Ohio. Filed May 29, 1914. Serial No. 841,897. (Cl. 240—8.4.)



The combination with a tubular handle, of an annulus at one end of said handle, a self-contained electric lamp within said handle having the reflector thereof bearing against said annulus and adapted to project the rays of light out of the adjacent end of the handle in a line coaxial therewith, a socket member surrounding the last-mentioned end of said handle, an arm secured to said socket member and extending outwardly therefrom and having a socket formed therein, a tool within said last socket, and means for effecting a detachable connection between said arm and tool whereby the tool may be removed and replaced.

1,144,211. PACKAGE-TIE. EUGENE F. KING, Guilford, N. C. Filed Aug. 28, 1914. Serial No. 859,056. (Cl. 24—18.)



1. A package tie comprising a flat body portion, a resilient locking tongue overlying one end of the body portion, an off-set loop lying in parallel relation with said body and connecting one end of the tongue with the adjacent end of the body, a cord clip at the opposite end of the body, said clip comprising a loop formed by doubling one end of the body upon itself, a key hole slot provided longitudinally of the loop on the side of the body opposite said locking tongue, a cord having a knot at one end disposed in said key hole slot, a clamping sleeve normally positioned upon the doubled end of the body and adapted to be slipped over said locking tongue when the latter is depressed against the body, and a hook provided on said clamping sleeve adapted to be engaged by the cord for operating the sleeve during the process of fastening the tie.

2. A package tie comprising a flat body, a resilient locking tongue connected with the body and disposed over the same at one end thereof, a cord clip formed on the opposite end of the body, a cord connected to said clip and adapted to be passed between the locking tongue and body during the process of fastening the tie, a clamping sleeve carried by the tie adapted to be slipped over the locking tongue for clamping the same against the cord, and means carried by the clamping sleeve and adapted to be engaged by the cord for operating said clamping sleeve during the process of fastening the tie.

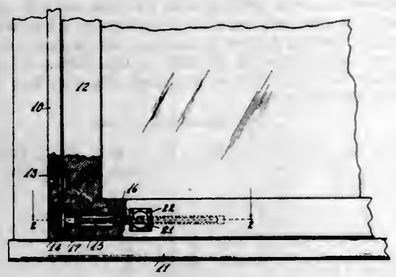
3. In a package tie the combination of a body, a locking tongue disposed in spaced relation over the body near one end and adapted to be forced into engagement with said body, a flexible element carried by the body and adapted to be wound about the package, said flexible element adapted to be engaged between the tongue and body, and a sleeve slidably disposed upon the body and adapted to be operated by the flexible element whereby to be slipped over said tongue for locking the same against the body, whereby to hold the flexible element against slipping.

4. A package tie including a body, and a locking tongue, a flexible element adapted to be engaged between the lock-

ing tongue and body during the process of fastening the tie, and a sliding sleeve operable by the flexible element for locking said tongue against the body whereby to clamp said flexible element in place.

5. A package tie comprising a body, a flexible element carried thereby, and a lock including a tongue and a clamping sleeve, said sleeve being operable by the flexible element during the process of fastening the tie for locking said flexible element against the body.

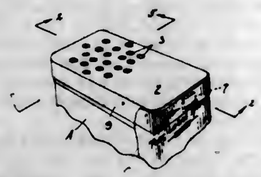
1,144,212. CASEMENT-WINDOW HOLDER. ANTHONY F. KLEINSCHMIDT, Indianapolis, Ind. Filed Mar. 8, 1915. Serial No. 13,026. (Cl. 16—22.)



1. A window casing, a window sash hinged thereto and having a horizontal chamber within it, a holder consisting of a plurality of rod-like members joined together in succession with one end secured to the window casing in position to register with the chamber in the sash when it is closed and extending and operating in said chamber, means on said sash for clamping the holder to the sash, and spring means for acting on one of said members for holding said members in position in said chamber when the window sash is opened wide.

2. A window casing, a window sash hinged thereto and having a horizontal chamber within it, a holder consisting of a plurality of rod-like members joined together in succession with one end secured to the window casing in position to register with the chamber in the sash when it is closed and extending and operating in said chamber, means on said sash for clamping the holder to the sash, a plunger located in the holding member which is secured to the window casing, a spring in said member for forcing said plunger outward and against the inner end of the adjacent holding member and to one side of the pivotal connection between said members for holding said members in position in said chamber when the window sash is opened wide.

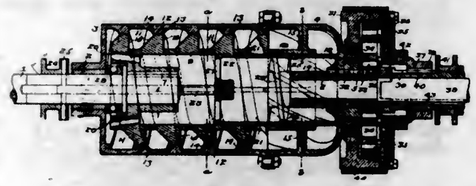
1,144,213. CAN SIFTER-TOP. JOHN T. LAGOIS, New York, N. Y. Filed July 29, 1914. Serial No. 853,868. (Cl. 221—62.)



1. The combination of a body, a cover having a peripheral flange embracing the body and provided within its margins with sifting apertures, a plate-like valve disposed within the cover and having lateral flanges which extend outside of the body and lie between the sides of the body and the flanges of the cover, whereby the valve is slidable between the under side of the cover and the top edges of the body at opposite sides, and means connected with the valve for operating the same.

2. The combination of a body, a can cover having sifting apertures provided with a peripheral flange embracing the brim of the body, a valve within the cover, said valve consisting of a flat plate having side flanges engaging the outside of the brim of the body and the inside of the marginal flange of the cover, and a shank connected with the plate and extending out of the cover to form a grip for operating the valve.

1,144,214. FLUID-CLUTCH. DAVID LAKE, Jeffersonville, and MILTON U. HEIBERGER, Philadelphia, Pa. Filed May 7, 1914. Serial No. 837,059. (Cl. 192—18.)



1. The combination in a fluid clutch, of a driving shaft; a hollow screw thereon having an external thread; a casing in which the screw is mounted; a casing forming part of the driven member and having an internal thread; ports forming communication between the interior of the screw and the space between the screw and the casing; blades on the interior of the casing at one end and means for regulating the flow of fluid.

2. The combination of a driving shaft; a hollow screw thereon having an external thread, the threads being straight at the forward end and beveled at the rear; a casing inclosing the screw and having internal threads; ports at both ends of the screw forming communication between the space between the casing and the screw and the interior of the screw; angular blades at one end of the casing and means for regulating the flow of fluid through the clutch.

3. The combination of a driving shaft; a hollow screw secured thereto; a casing inclosing the screw, said screw having external threads and the casing having internal threads cut in the opposite direction to the threads of the screw, both of said threads having abrupt forward portions and tapered rear portions; ports at both ends of the screw; angular blades at one end of the casing and means for regulating the flow of fluid through the clutch.

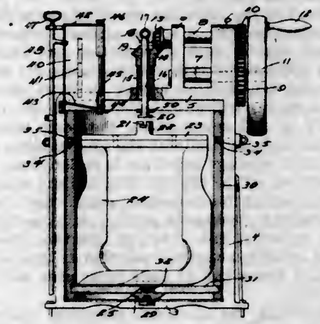
4. The combination of a driving shaft; a hollow screw secured thereto and having an external thread thereon; a casing having an internal thread, said casing inclosing the screw; an extension of the casing having a ring; curved blades thereon located between the ring and the casing; said last mentioned casing having a passage at the outer end thereof communicating with the interior of the screw; and a valve for regulating the openings of the passage so as to increase or diminish the power transmitted.

5. The combination of a driving shaft having a hollow screw thereon with external threads; a casing inclosing said screw and having an extension with angular blades therein; said extension having an opening therein communicating with the interior of the screw; ports at the rear of the screw communicating with the space between the screw and the casing; and a cylindrical valve located in the screw and arranged to close the forward passage so as to regulate the flow of fluid in the clutch.

[Claims 6 to 8 not printed in the Gazette.]

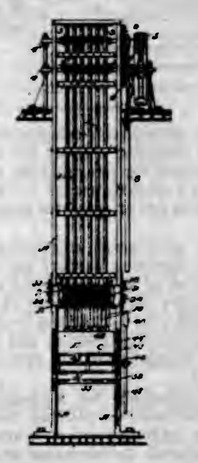
1,144,215. MAYONNAISE-MIXER. WILLIAM LANDSBERG, Brooklyn, N. Y. Filed Oct. 12, 1914. Serial No. 866,353. (Cl. 107—38.)

1. In a mixing machine, the combination with an upright frame mounted on a support, a tub in said frame, a dasher within said tub, and a boss rising from the head of the dasher above its bearing and having a bayonet slot; of bearings rising from the top bar of said frame, a driving mechanism journaled in said bearings and having a gear, a second gear driven thereby and having a tubular hub with radial notches in its upper end, a shaft slidably mounted through said hub and having keys adapted to engage its notches, a head at the lower end of said shaft adapted to engage said bayonet slot, and a handle at the upper end of the shaft.



2. In a mixing machine, the combination with a framework including a cross-bar, a wheel journaled and having a tubular hub with radial notches in the upper end of the hub, mechanism for rotating said wheel, a body beneath said bar, a dasher therein having a head at its upper end, and a boss rising from said head and having a transverse slot; of a vertical dasher shaft slidably mounted through the hub of said wheel and having keys near its upper end and a head at its lower end adapted to engage said slot when the keys engage the notches, and an oil cup on the framework surrounding the shaft above its head.

1,144,216. MACHINE FOR PACKING EXPLOSIVES KNOWN AS GELATIN INTO PAPER SHELLS. FRANK LAVAN, Miller, Ind., assignor of one-third to Charles A. Blank, Miller, Ind. Filed Feb. 21, 1913. Serial No. 750,006. (Cl. 86—20.)



1. In a gelatin packing machine, the combination with a hopper, of feeding means in the hopper for discharging the contents of the hopper therefrom, a movable shuttle carrier upon which the shells to be filled are carried, means for actuating the shuttle carrier, said shuttle carrier adapted to automatically move away from the hopper as the shells are being filled and means engaging the carrier when the shells have been sufficiently filled for moving the carrier to a position whereby the shells can be removed from the carrier.

2. In a gelatin packing machine, the combination with a hopper, of feeding means in the hopper for discharging the contents of the hopper therefrom, a movable shuttle carrier upon which the shells to be filled are carried, means for actuating the shuttle carrier, said shuttle carrier adapted to automatically move away from the hopper as the shells are being filled, means for limiting said movement of the shuttle carrier, and causing the carrier to be moved to a position for the removal of the shells therefrom.

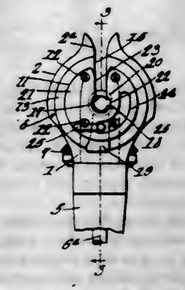
3. In a gelatin packing machine, the combination with a hopper having means therein for feeding the gelatin therefrom, of a movable shuttle carrier upon which the shells to be filled are mounted, means for operating the carrier for bringing the shells to a position with respect to the hopper for the purpose of filling the shells, said carrier automatically moving away from the hopper during the filling operation, means for limiting the rearward movement of the carrier for preventing the shells from being entirely filled, and means for actuating said last-named means for moving the carrier to a position for the removal of the shells from the carrier.

4. In a gelatin packing machine, the combination with a hopper having means therein for discharging the contents therefrom, and tubes connected to the hopper through which the gelatin is fed, of a movable shuttle carrier upon which the shells to be filled are carried, means for operating the carrier to cause the shells to be moved toward the hopper, and in which shells the tubes extend, said carrier adapted to automatically move from the hopper as the shells are being filled, means for limiting the movement of the carrier for the purpose of preventing the shells from being entirely filled, means for cutting off the feed of gelatin from the hopper, and means for actuating the means for limiting the movements of the carrier and causing the carrier to be moved to a position to disengage the shells from the tubes and permit of the shells being removed from the carrier.

5. In a gelatin packing machine, the combination with a hopper having means therein for feeding the gelatin therefrom, of a movable shuttle carrier upon which the shells to be filled are mounted, means for operating the carrier for bringing the shells to a position with respect to the hopper for the purpose of filling the shells, said carrier automatically moving away from the hopper during the filling operation, slotted wheels adapted to engage the shuttle carrier in its rearward movement on the peripheries of the wheels for limiting the rearward movement of the shuttle carrier, an extension on said shuttle carrier, and means for oscillating said slotted wheels for causing the extension of the shuttle carrier to enter the slots of the wheels for the purpose of lowering the shuttle carrier sufficient distance beneath the hopper to permit of the removal of the shells from the carrier.

[Claim 6 not printed in the Gazette.]

1,144,217. WIRE-WORKING DEVICE. MILTON MCCARTER, Boone county, Ind. Filed Oct. 1, 1914. Serial No. 864,489. (Cl. 140—122.)



1. In a wire working implement, a rotary member having a slot, an oscillatory wire-receiving element carried by the rotary member to oscillate freely therein and having a slot adapted to be brought into and out of registration with the aforesaid slot, one of the said parts being adapted to

be rotated, and the other having wire-engaging means, and means for limiting the oscillatory movement of the wire-receiving element relative to the rotary member.

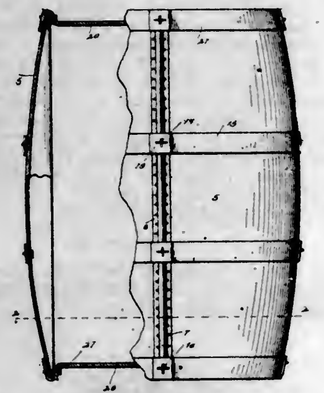
2. In a wire working implement, a rotary head having a slot, an oscillatory sleeve journaled within the head to oscillate freely therein and having a slot adapted to be brought into and out of registration with the aforesaid slot, the head being adapted to be rotated, and the sleeve having wire-engaging means, and means for limiting the oscillatory movement of the sleeve relative to the head.

3. In a wire working implement, a rotary head having a slot, an oscillatory sleeve mounted within the said head to oscillate freely therein and having a slot adapted to be brought into and out of registration with the aforesaid slot, the head being adapted to be rotated, and the sleeve having an arm provided with wire-engaging means, and means for limiting the movement of said arm.

4. In a wire-working implement, a rotary head having a bore and a slot leading therefrom, an oscillatory sleeve mounted within the said bore and having a slot adapted to be brought into and out of registration with the aforesaid slot, the sleeve having an arm at one end, and a plate secured to the said head and over the said end of the sleeve to hold the sleeve in place, the plate having a slot, and the said arm having wire-engaging means projecting through the said slot.

5. In a wire working implement, a rotary member having a slot, an oscillatory wire-receiving element carried by the rotary member to oscillate freely therein and having a slot adapted to be brought into and out of registration with the aforesaid slot, a wire-engaging portion carried by the wire-receiving element, and a portion carried by the rotary member and having an arcuate slot through which said wire-engaging portion projects to limit the oscillatory movement of the wire-receiving element relative to the rotary member.

1,144,218. COLLAPSIBLE BARREL. WILLIAM H. MCCREERY, Savannah, Ga. Filed June 20, 1914. Serial No. 846,323. (Cl. 217—44.)



1. A barrel of the character described, comprising a plurality of stave-sections provided with double walled interfitting tongue and groove elements having apertures adapted for registration, and a member adapted to be inserted from the interior of the barrel through the apertures with its inner end arranged within the interior of the double walled groove element.

2. A barrel of the character described, comprising a plurality of stave-sections provided with resilient double walled interfitting tongue and socket elements, and means to retain the tongue elements within the socket elements, substantially as described.

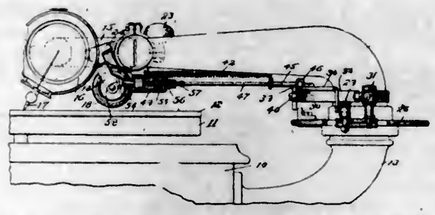
3. A barrel of the character described, comprising a plurality of stave-sections, a tongue element secured to one longitudinal edge of each stave-section and provided with transverse openings, a double walled socket element secured to the opposite longitudinal edge of each stave-section and having a groove to receive the tongue element and provided with transverse openings adapted for registration with the first named transverse openings, and a key provided with a lateral extension to be inserted through the registering transverse openings and to be turned and held therein.

4. A barrel of the character described comprising a plurality of stave-sections, a socket element secured to one longitudinal edge of each stave-section and formed of a section of sheet metal bent longitudinally for forming a double walled construction having an inner groove with its walls arranged within and spaced from the inner and outer walls of said construction, the outer wall of said construction and the walls of the groove being provided with elongated openings which are in registration, a tongue element secured to the opposite longitudinal edge of each stave and adapted for insertion within the groove and having elongated openings to register with the first named elongated openings, and keys for insertion through the registering elongated openings provided at their outer ends with turning heads and at their inner ends with locking heads.

5. A barrel of the character described, comprising a plurality of stave-sections provided with interfitting tongue and socket elements having apertures adapted for registration, keys passed through the apertures to secure the tongue and socket elements together. and means arranged within the barrel to cover the inner ends of the keys, whereby the barrel is substantially water tight, substantially as described.

[Claim 6 not printed in the Gazette.]

1,144,219. REPEATING PHONOGRAPH. ALBERT F. MADDEN, Newark, N. J. Filed Dec. 9, 1914. Serial No. 876,239. (Cl. 181—3.)



1. A repeating phonograph comprising in combination a reproducer, an operating support for a record, a roller operated by the record for returning the producer to starting position, and automatic means for throwing said return roller into and out of operative engagement with the record.

2. A repeating phonograph comprising in combination a reproducer, an operating support for the record, a return roller mounted on said reproducer and movable into operative engagement with the record at inclined relation to the record groove, for raising the needle and returning the reproducer to starting position and automatic means for moving said return roller into and out of such operative engagement.

3. A repeat mechanism for phonograph reproducers, comprising in combination a yielding roller for returning the reproducer to starting position, a knee lever in which said roller is mounted, for elevating and supporting the needle during the return of the reproducer, means for setting said roller in contact with and inclined to the record groove for actuation thereby, means for withdrawing said setting means from said roller, and means for removing said roller from the record groove.

4. A repeat mechanism for phonograph reproducers, comprising in combination a yielding roller for returning the reproducer to starting position, a knee lever in which said roller is mounted, for elevating and supporting the needle during the return of the reproducer, means for attaching said knee lever to the reproducer, means mounted on the reproducer for normally holding said roller out of contact with the record groove, means for setting said roller in contact with and inclined to the record groove for actuation thereby and means for withdrawing said setting means from said roller.

5. A repeat mechanism for phonograph reproducers, comprising in combination a yielding roller for returning the reproducer to starting position, a knee lever in which said roller is mounted, for elevating and supporting the needle during the return of the reproducer, means for setting said roller in contact with and inclined to the record groove for actuation thereby, means for withdrawing said setting means from said roller, means for removing said roller from the record groove, and means for cushioning the return of the needle to the record groove.

[Claims 6 to 9 not printed in the Gazette.]

1,144,220. DIAGNOSTIC SOUND. FRANCIS J. W. MAGUIRE, Detroit, Mich. Filed Nov. 12, 1914. Serial No. 871,743. (Cl. 128—28.)



1. A diagnostic sound comprising a body of a diameter substantially equal to that of the normal caliber of the urethra, said body having a recess for accommodating projecting tissue of a stricture, spaced from the end of the body a distance leaving a cylindrical portion of the body of the diameter of the main portion of the body between the recess and the end of the body.

2. A diagnostic sound comprising a body of a diameter substantially equal to that of the normal caliber of the urethra, said body having an annular groove for accommodating projecting tissue of a stricture, spaced from the end of the body a distance leaving a cylindrical portion of the body of the diameter of the main portion of the body between the recess and the end of the body.

3. A diagnostic sound comprising a body of a diameter substantially equal to that of the normal caliber of the urethra, said body having an annular groove for accommodating projecting tissue of a stricture, the walls of the body tapering gradually from cylindrical portions of the body at the opposite ends of the groove to the base thereof for presenting rounded surfaces at all points.

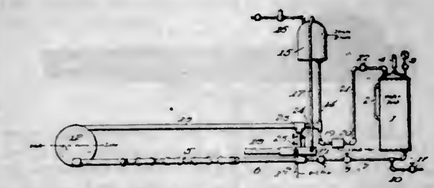
4. A diagnostic sound comprising a cylindrical body of a diameter substantially equal to the normal caliber of the urethra, and having a portion of reduced diameter relative to the main portion of the body, spaced from the end of the body a distance leaving a cylindrical portion of the body of the diameter of the main portion of the body between the recess and the end of the body.

5. A diagnostic sound comprising a body of a diameter substantially equal to that of the normal caliber of the urethra, said body having a plurality of longitudinally spaced recesses for accommodating projecting tissue of strictures, and a cylindrical portion at each end of each recess.

1,144,221. COMBINED OIL-BURNER AND STEAM-GENERATOR. ARTHUR DUNBAR MARCOTTE, Eunice, La. Filed Jan. 20, 1915. Serial No. 3,257. (Cl. 122—10.)

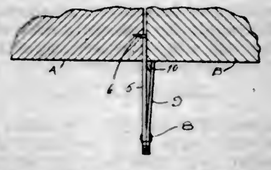
1. An improved oil burner and steam generator comprising a water-supply pipe, a horizontal pipe-coil adapted to be used in the fire-box, and pipes connecting its opposite ends with the bottom and top of aforesaid tank, an elevated steam-receiver and the pipes connecting it with said coil and top of water tank, an oil-burner, and pipes connecting it with said steam-receiver, as described.

2. The improved apparatus for the purpose specified consisting of a water tank, an oil burner, a steam generating coil, a water drum adapted to be used in the fire-box of a furnace, a water pipe connecting the bottom of the water tank with the lower leg of the coil and provided with check and stop valves, and a steam-receiver 15, steam pipes 13 and 14 connecting such receiver with the



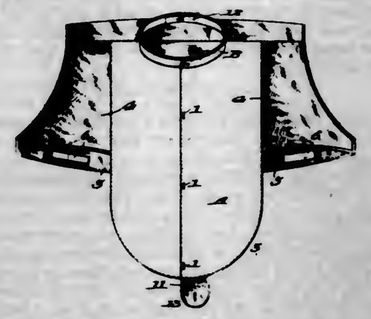
upper leg of coil, and the pipe 23 connecting the steam pipe with the water feed, the pipe 21 connecting the steam pipe 14 with the top of the water-tank, and a pipe 17 connecting the said steam-receiver with the burner, as described.

1,144,222. FASTENER. FRANK N. MERTES, Los Angeles, Cal. Filed Sept. 1, 1914. Serial No. 859,694. (Cl. 16—8.)



A fastener comprising an anchoring plate having an aperture adjacent one end, laterally projecting teeth at said apertured end, a spring locking member pivotally secured to the opposite end of said anchoring plate, a cam-shaped flange formed on the free end of said locking member adapted to engage the adjacent face of the anchoring plate to retain the latter and said locking member in spaced relation, and a lug formed centrally of said flange adapted to engage within said aperture to lock said plate and said member against relative movement.

1,144,223. SHIRT. JOHN J. MILES and JEROME A. WILLIAMS, Corpus Christi, Tex. Filed Nov. 14, 1913. Serial No. 801,015. (Cl. 2—89.)



In a shirt, the combination with a collar band having a short bosom connected thereto, said collar band and shirt bosom adapted to be reversed, said collar band provided with pockets and buttonholes on each side thereof for the reception of the rear collar button, a back portion connected to the collar band and bosom extending below the shoulders of the wearer, front straps connected to the shirt bosom, and means for connecting the back portion and front straps adjustably together thereby forming armholes.

1,144,224. CABLE-TAP. CHARLES B. MILLS, Baltimore, Md., assignor of one-fourth to Alfred J. Carr, Baltimore, Md. Filed Sept. 24, 1913, Serial No. 791,632. Renewed Feb. 13, 1915. Serial No. 8,073. (Cl. 173—340.)



1. A cable tap comprising a base, conducting strips secured to the upper surface of said base and spaced apart, prongs upstanding from said strips, a yoke secured to the upper surface of the base and inclosing said prongs, a terminal member connected to said strips, said member comprising a block of insulating material formed with parallel bores, a metallic plug within each bore and having a socket formed in one end thereof, and means connecting said block with said base.

2. A cable tap comprising a base having a block projecting outwardly from one side thereof, conducting strips embedded in said base, prongs upstanding from said strips, a terminal member comprising a block having one end portion rabbeted to engage said first block and formed with parallel bores, metallic plugs within said bores and each having one end thereof formed with a socket and the opposite end lying within the rabbeted portion of said block and contacting with said strips, and means for securing said terminal member to said block.

1,144,225. CABLE-CONNECTOR. CHARLES B. MILLS, Gardenville, Md., assignor of one-fourth to Alfred J. Carr, Baltimore, Md. Filed Sept. 24, 1913, Serial No. 791,633. Renewed Mar. 16, 1915. Serial No. 14,752. (Cl. 173—328.)



A cable connector comprising companion sections each formed of a block of insulating material having longitudinal bores formed therein and spaced apart in parallelism, plugs disposed within said bores and each having one end thereof formed with a socket receiving the adjacent end of the conductor of the cable, the free end of each block and the adjacent extremities of said plugs being rabbeted and adapted to seat upon the rabbeted end of the other section and bolts passed through the rabbeted ends of said sections and having the head thereof counter-sunk within the sections.

1,144,226. ELECTROPLATING PROCESS. CHARLES B. MILLS, Baltimore, Md. Filed Mar. 16, 1915. Serial No. 14,809. (Cl. 204—8.)

1. The herein described process of electroplating nonmetallic substances, which consists in first applying a moisture and acid proof filling and coating, then applying a sizing coating, then applying an adhesive ground coating, then applying a powdered conducting material, and finally electroplating the surface thus prepared.

2. The herein described process of electroplating nonmetallic substances, which consists in first applying a moisture and acid proof filling and coating solution of asphaltum, methylated spirits, stearic acid and glycerin, then applying a sizing coating, then applying an adhesive ground coating, then applying a powdered conducting material, and finally electroplating the surface thus prepared.

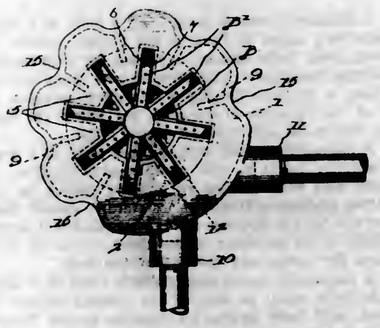
3. The herein described process of electroplating nonmetallic substances, which consists in first applying a moisture and acid proof filling and coating, then applying a sizing coating, then applying an adhesive ground coating composed of a mixture of litharge, asphaltum, methylated spirits and a suitable gum resin, then applying a powdered conduting material, and finally electroplating the surface thus prepared.

4. The herein described process of electroplating nonmetallic substances, which consists in first applying a moisture and acid proof filling and coating solution of asphaltum, methylated spirits, stearic acid and glycerin, then applying a sizing coating, then applying an adhesive ground coating, then applying to said ground coating a first coating of a dry powdered conducting substance, then applying a second coating of the conducting substance mixed with a volatile liquid, and finally electroplating the surface thus prepared.

5. The herein described process of electroplating nonmetallic substances, which consists in first treating the article with a moisture and acid proof filling and coating solution of asphaltum, methylated spirits, stearic acid and glycerin, then applying a sizing coating, then applying an adhesive ground coating of litharge, asphaltum, methlated spirits and a suitable gum resin, then applying a powdered conducting material, and finally electroplating the surface thus prepared.

[Claim 6 not printed in the Gazette.]

1,144,227. WATER-HEATER. EDGAR A. MILLS, Baltimore, and RICHARD H. RICHARDS, Hamilton, Md., assignors of three-fifths to John B. Wells, Baltimore, Md. Filed Jan. 18, 1915. Serial No. 2,941. (Cl. 126—53.)

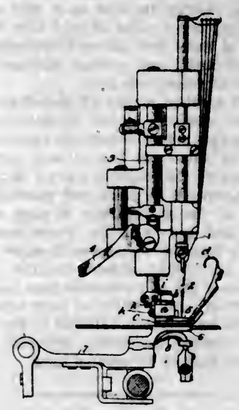


A water heater of the character described, comprising a body portion provided with a hollow zig-zag substantially annular chamber therein, with deflectors provided in said chamber, and with a radial partition breaking the continuity of said annular chamber and having a water inlet at one side of said radial partition and a water outlet at the other side of said radial partition, the exterior of said body portion being scalloped to provide an increased heat absorbing and transmitting surface, and the interior of said body portion being provided with a series of hollow radial legs terminating at a distance from the center of said body portion so as to leave a substantially annular opening therethrough, which legs are V-shaped in cross section, being provided with downwardly-inclined side walls, and being also provided with inclined V-shaped end walls, and the bottom of said legs sloping upward toward the center of said body portion, substantially as described.

1,144,228. SHIRRING PRESSER-FOOT FOR SEWING-MACHINES. JAMES B. MOFFATT, Chicago, Ill., assignor to Union Special Machine Company, Chicago, Ill., a Corporation of Illinois. Filed Nov. 18, 1908. Serial No. 463,227. (Cl. 112—16.)

1. A sewing machine for shirring a fabric and forming a heading thereon, including in combination a plurality of needles a main presser foot, means carried thereon whereby the fabric is shirred, and an auxiliary presser foot arranged at one side of the main presser foot, and acting on the heading.

2. A sewing machine for shirring a fabric, and forming a heading thereon, including in combination a plurality of needles a main presser foot, means carried thereon whereby the fabric is shirred, an auxiliary presser foot arranged at one side of the main presser foot and acting on the heading, and a double edge folder carried by said auxiliary presser foot for holding and guiding a tape to form the heading.



3. A sewing machine for shirring a fabric and forming a heading thereon including in combination a main presser foot, means carried thereon whereby the fabric is shirred, an auxiliary presser foot arranged at one side of the main presser foot and acting on the heading and a double edge folder carried by said auxiliary presser foot for folding and guiding a tape to form the heading, said presser having a recess on its inner face to receive and guide said folded tape after it is stitched.

4. A sewing machine including in combination, a plurality of needles arranged side by side, a main presser foot engaging the fabric operated upon by certain of said needles, means coöperating with the fabric engaging face of said main presser foot in rear of the needle for forming shirring in said fabric, an auxiliary presser foot at one side of said main foot having means for guiding a heading.
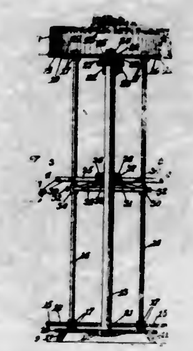
5. A sewing machine including in combination, a main presser foot, and means for forming a heading on the material being sewed including an auxiliary presser foot engaging said heading, said main presser foot having a bearing surface in advance of the needle and a recess or cut away portion in rear of the needle.

[Claims 6 to 14 not printed in the Gazette.]

1,144,229. OIL-CLOTH STAND. JOHN L. MUELLER, St. Louis, Mo. Filed Apr. 19, 1913. Serial No. 762,245. (Cl. 211—20.)

1. An oilcloth stand comprising, a revoluble carrier, means on said carrier engaging the rolls for axially and laterally supporting one end of the rolls, means on said carrier engaging the rolls for laterally supporting the other ends of the rolls, and a series of radially facing and circumferentially opening and closing clamps on said carrier for detachably embracing the rolls intermediate their ends, constructed to hold the oilcloth in rolled up position while supported in the stand, whereby a roll may be moved by a combined axial and radial movement out of engagement with said supporting and holding means to remove the same from said carrier.

2. An oilcloth stand comprising upper and lower plates, means connecting said plates to form a braced revoluble carrier, a base for revolubly supporting said carrier, said lower plate having a plurality of recesses constructed to receive and vertically and laterally support the lower ends of the rolls, and the upper plate having a plurality of apertures extending therethrough constructed to receive and laterally support the upper ends of the rolls, and radially facing and circumferentially opening and closing clamps adapted to embrace and clamp the rolls intermediate their ends whereby said rolls are supported at their upper and lower ends, and whereby a roll may be removed by raising the roll out of its recess, swinging its lower end radially and dropping it to disengage its upper end from its apertures.



3. An oilcloth stand comprising, a revoluble base having recesses constructed to receive and support the lower ends of the rolls, a plate mounted upon and above said base and having recesses therein constructed to receive and support the upper ends of the rolls, the rolls projecting through the upper plate, a cover or hood for the upper ends of the rolls mounted upon and supported by said plate, and clips secured to said cover and extending underneath said plate to hold said cover in position.

4. An oilcloth stand comprising a support, a pair of upper and lower plates together with rods connecting said plates to form a braced revoluble carrier, said plates being adapted to support the rolls vertically at their upper and lower ends, a bracket mounted on and secured to said rods, and positioned intermediate said plates, a series of radially facing clamps mounted on said bracket and adapted to embrace and clamp the rolls intermediate their ends, and means for supporting said carrier vertically on said support.

5. An oilcloth stand comprising a support, a pair of upper and lower plates together with rods connecting said plates to form a braced revoluble carrier, said plates being adapted to support the rolls vertically at their upper and lower ends, a bracket mounted on and secured to said rods, a series of radially facing clamps mounted on said bracket and adapted to embrace and clamp the rolls intermediate their ends, a ring for securing said clamps in position on said bracket, and means for supporting said carrier vertically on said support.

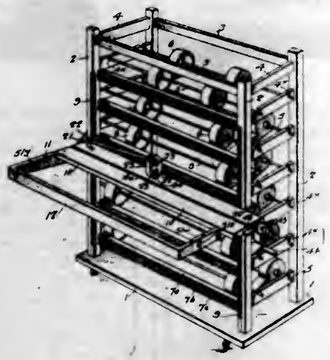
[Claims 6 and 7 not printed in the Gazette.]

1,144,230. SCREEN-WIRE-CLOTH RACK. WILLIAM GOLD NEWMAN, Ogden, Utah. Filed Sept. 12, 1913. Serial No. 789,515. (Cl. 211—18.)

1. In a screen wire cloth rack, a frame, a plurality of core rods carried by said frame, each of said core rods being adapted to loosely carry a screen wire cloth roll, and means carried by each core rod for preventing the unwinding of the roll from the inner end of the roll while permitting the unwinding of the roll from the outer end, said means comprising a pair of oppositely disposed cylindrical shields adapted to fit over the ends of the roll and to frictionally engage the sides of the roll, said shields having outlets for the wire cloth.

2. In a screen wire cloth rack, a frame, a plurality of core rods carried by said frame, each of said core rods being adapted to loosely carry a screen wire cloth roll, means carried by each core rod for preventing the unwinding of the roll from the inner end of the roll while permitting the unwinding of the roll from the outer end, said means comprising a pair of oppositely disposed cylin-

drical shields adapted to fit over the ends of the roll and to frictionally engage the sides of the roll, said shields having outlets for the wire cloth, and means for adjusting the shields toward or away from each other and for securing them in their adjusted position.



3. In a screen wire cloth rack, a frame, a plurality of core rods carried by said frame, each of said core rods being adapted to loosely carry a screen wire cloth roll, means carried by each core rod for preventing the unwinding of the roll from the inner end of the roll while permitting the unwinding of the roll from the outer end, said means comprising a pair of oppositely disposed cylindrical shields adapted to fit over the ends of the roll and to frictionally engage the sides of the roll, said shields having outlets for the wire cloth, means for adjusting the shields toward or away from each other and for securing them in their adjusted position, and guide means carried by the frame at the front end thereof for guiding the wire cloth removed from the shields.

1,144,231. EQUALIZING DRAFT-GEAR FOR RAILWAY-CARS. EDWARD A. NIX, Memphis, Tenn., and EUGENE C. RODDIE, New Orleans, La. Filed June 12, 1914. Serial No. 844,821. (Cl. 213—41.)

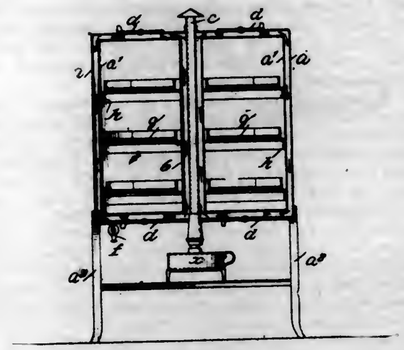


1. In a draft gearing, a pair of spaced sills provided with sets of alining slots at the ends thereof, draw bars mounted between said sills at the ends of the same, a series of sliding bars mounted between the sills at each end thereof, a cross bar connecting the outermost bar of each series to the respective draw bar and having its ends mounted in the outermost slots at the respective ends of the sills, a cross bar connecting the innermost bar of each series with the outermost bar of the respective series and extending through corresponding alining slots at the respective ends of the sills, a pair of longer cross bars extending through each innermost bar of each series and through the respective alining slots of the sills, a cushioning connection between each pair of said longer bars and arranged exteriorly of the sills, a pair of links connected to the inner end of the innermost bar of each series of bars with a pair of links of one series overlapping a pair of links of the other series, cross bars extending through the pairs of links and through the intermediate opening in the sills, and cushioning means between said latter bars.

2. In a draft gearing, a pair of spaced sills, draw bars slidable between the ends of the sills, coupling members carried by the draw bars, a separate series of sliding bars mounted in said sills, one series at each end thereof, one series of bars being connected at the outer end thereof to the respective draw bar, transversely disposed bars arranged in pairs and passing through the innermost one of the sliding bars of each series and through the sills, springs interposed between each pair of transverse bars, a pair of links connected to each of the innermost one of the series of sliding bars, said pairs of links being slidable relative to each other, an additional or inner set of transverse bars passing through each pair of links, each of said additional inner pairs of said bars being movable with one pair of links and movable inedpendently of the opposite pair of links, and springs disposed between the additional pair of transverse bars.

3. In a draft gearing, a pair of spaced sills, draw bars slidable between said sills at the opposite ends thereof, a series of sliding bars mounted between the sills at each end thereof with the outermost bar of each series connected to the inner end of the respective draw bar, transversely disposed bars arranged in pairs and passing through the innermost one of the sliding bars of each series thereof, springs interposed between the transverse bars, links connected to the innermost bar of each series and arranged in pairs, each pair being slidable relative to the other, an additional inner set of transverse bars passing through said links, each of said additional bars being secured to one pair of links and slidable relative to the opposite pair of links, and springs interposed between the said additional or inner pair of transverse bars.

1,144,232. INCUBATOR. CLARK H. OSBORN, St. Joseph, Mo. Filed July 15, 1914. Serial No. 851,082. (Cl. 119—41.)

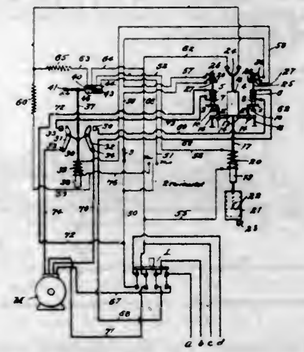


1. The improved incubator comprising a body having hollow walls formed by inner and outer cylinders spaced apart, a central vertical tube connecting the upper and lower ends of the inner cylinder, a water-holding circulating space being thus formed at the top, bottom, sides, and middle of the incubator, and egg-holding trays arranged and supported within the inner cylinder, as described.

2. The improved incubator comprising a body formed of inner and outer concentric cylinders spaced apart at top, bottom, and sides, a central tube connecting the top and bottom of the inner cylinder, and a smaller tube arranged within the former and spaced therefrom, the same being extended below the body and to the top of the outer cylinder and serving as a chimney and heat-distributer, as described.

3. The improved incubator comprising inner and outer concentric cylinders spaced apart at top, bottom and sides, a central tube connecting the ends of the inner cylinder and providing a water circulating space in the center, and on the top, bottom, and sides of the body, a heating tube arranged within the first-named tube and spaced therefrom, and means attached to the top and bottom of the body for regulating admission of air, as described.

1,144,233. TIME-LIMIT CIRCUIT-BREAKER. MICHAEL F. OWENS, Hartford, Conn., assignor to Automatic Refrigerating Company, Hartford, Conn., a Corporation of New Jersey. Filed Nov. 23, 1911. Serial No. 661,979. (Cl. 172—289.)



1. In a time limit circuit breaker the combination with an electric motor, and main conductors supplying the current thereto; of a cut out controller and auxiliary circuits connecting it with said main conductors, said controller having means responsive to an amount of motor current exceeding a predetermined limit for interrupting the connection between said mains and the motor, said controller also having means for automatically locking said interrupting means during a predetermined time to permit the starting of the motor without interrupting the main circuit.

2. In a time limit circuit breaker, the combination with an electric motor, and main conductors supplying the current thereto; of a cut out controller and auxiliary circuits connecting it with said main conductors, said controller having solenoids located in said main conductors and responsive only to amounts of motor current in excess of a predetermined limit, and cores located therein, causing the interruption of the motor circuit when their solenoids respond, means tending to lock said cores in inoperative position, means tending normally to discharge said locking means from their cores, a starting solenoid connected with said auxiliary circuits for removing said disengaging means from normal position, to render said locking means operative when it is desired to start the motor, means for closing the circuit through said solenoid, and means for deënergizing said starting solenoid to permit return of said disengaging means to normal position, a dash pot for controlling the return of said means to its normal position within a predetermined time, the solenoid cores of said controller causing the interrupting of the motor current after said predetermined time if an excess amount of current continues passing through said solenoid.

3. In a time limit circuit breaker, the combination with an electric motor, main conductors supplying the current thereto and a motor switch in said main conductors for controlling the current supply to the motor; of a cut out controller and auxiliary circuit connecting it with said main conductor, said controller having solenoids located in said main conductors and responsive only to amounts of motor current in excess of a predetermined limit, and cores located therein, causing the interruption of the motor circuit when their solenoids respond, means tending to lock said cores in inoperative position, means normally tending to disengage said locking means from their cores, a starting solenoid connected with said auxiliary circuits for removing said disengaging means from normal position to render said locking means operative when it is desired to start the motor, means for closing the circuit through said solenoid, and a solenoid connected with said auxiliary circuits for closing said motor switch, a switch connected with said disengaging means for closing said motor-switch-solenoid circuit when said means are removed from normal position, an auxiliary switch for opening said starting-solenoid circuit and for closing a shunt to the switch operated by said disengaging means when the motor switch is closed, a dash pot for controlling the return of said disengaging means to normal position within a predetermined time, the solenoid cores of said cut out controller causing the interrupting of the motor current after said predetermined time if an excess amount of current continues passing through their solenoids.

4. In a time limit circuit breaker, the combination with an electric motor, main conductors supplying the current thereto and a solenoid operated motor switch in said main conductors for controlling the current supply to the motor; of a cut out controller and auxiliary circuits connecting it with said main conductors, said controller having solenoids located in said main conductors and responsive only to amounts of motor current in excess of a predetermined limit, and cores located therein, means tending to lock said cores in inoperative position, a weight for normally holding said locking means in inoperative position, a starting solenoid connected with said auxiliary circuits for lifting said weight to render said locking means operative when it is desired to start the motor, means for closing the circuit through said solenoid, and a solenoid connected with said auxiliary circuits for closing said motor switch, a switch connected with said weight for closing said motor switch solenoid circuit when in lifted position, an auxiliary switch for deënergizing the weight-solenoid and for closing a shunt to said weight switch when the motor switch is closed, a dash pot for controlling the dropping of said weight to its normal position within a predetermined time, the solenoid cores of said cut out controller interrupting the auxiliary circuit through said motor switch solenoid after such predetermined time if an excess amount of current continues passing through their solenoids.

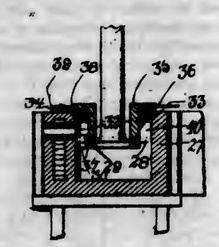
5. In a time limit circuit breaker, a cut out controller having two main solenoids each connected in series with the main circuit to be broken, and a core for each solenoid, a latch for each core normally tending to lock its core in deënergized position, a bar disposed substantially vertically between the two solenoids having a weight attached to it resting upon both of said latches to normally unlock said cores, a starting solenoid having its core connected with said bar, and a dash pot also connected with said bar permitting free upward movement of said bar and said weight when said core is drawn in by its solenoid, but causing said weight to drop within a predetermined time when said starting solenoid is deënergized, a switch adjacent to each core of said main solenoids normally tending to remain closed, said switches having suitable connection with the main motor circuit, whereby the latter is opened when said switches are opened, the cores of said main solenoids adapted to open said switches when their solenoids are energized by a current exceeding the predetermined limit, and said weight is resting in normal position, said latches preventing said cores from rising and opening said switches so long as the weight remains in raised position.

[Claims 6 to 18 not printed in the Gazette.]

1,144,234. GLASS-DRAWING APPARATUS. PIERRE JOSEPH PAQUET, Salem, W. Va. Filed May 1, 1914. Serial No. 835,631. (Cl. 49—53.)

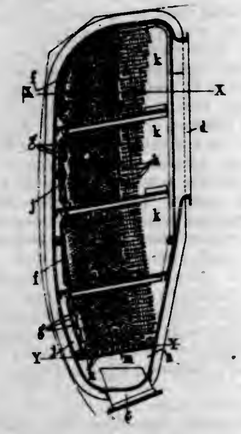
1. In combination with a glass furnace casing having a vertical dove-tailed slot in its inner face, a gathering ring adapted for floating upon the molten glass within said pot and having an inwardly-inclined upper face, projecting feet upon said ring having outwardly-diverging faces slidably positioned within said slot, the wider ends of said feet being movable into and out of said dove-tailed slot, a perforated plate upon said furnace casing, a damper ring provided with a depending flange slidably-positioned through the perforation of said plate and also having an inwardly-inclined lower face adapted for seating upon the upper face of said gathering ring, the said furnace casing provided with an annular heating chamber surrounding the upper portion of said gathering ring and the lower portion of said damper ring flange when said flange and

gathering ring are in engagement with each other, and elevating means for said damper ring.



2. In combination with a glass furnace casing having a chamber adapted for holding molten glass, and said chamber having a vertical slot with inwardly-converging sides, a gathering ring within the molten glass of said chamber, outwardly-projecting feet upon said ring and provided with outwardly-flaring opposite faces adapted for sliding reception within the said slot and movable into and out of the slot, and a damper ring mounted upon said gathering ring.

1,144,235. SURFACE CONDENSER. CHARLES ALGERNON PARSONS, Newcastle-upon-Tyne, and STANLEY SMITH COOK, Wallsend-upon-Tyne, England; said Cook assignor to said Parsons. Filed Feb. 10, 1913. Serial No. 747,374. (Cl. 257—43.)

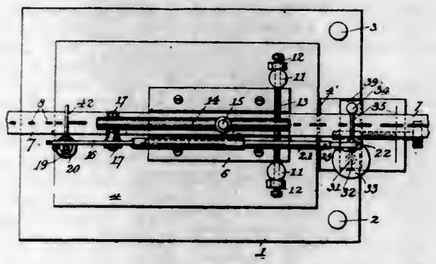


In combination in a surface condenser a casing, a tube nest within said casing, a free space within said casing on one side of said tube nest, a steam inlet opening into said free space, a second free space on the other side of said tube nest, a perforated baffle plate between said second free space and said tube nest, an outlet from said casing communicating with said second free space the distance between said inlet and said outlet being greater than the distance between said free spaces through said tube nest and perforated baffle.

1,144,236. TRANSMITTER OR REPRODUCER. WILLIAM E. PEIRCE, San Francisco, Cal. Filed Oct. 28, 1912. Serial No. 728,192. (Cl. 178—17.)

1. An instrument of the class described, comprising a lever provided with an adjustable stylus, a second lever, a resilient member on the end of said second lever, a contact on the lower side of the second lever, a member having a contact engaged by the contact on said second lever, and a contact engaged by the free end of said resilient member.

2. An instrument of the class described, comprising a lever provided with an adjustable stylus, a second lever, a resilient member on the end of said second lever, a contact on the lower side of the second lever, a member having a contact engaged by the contact on said second lever, and a contact engaged by the free end of said resilient member, and means for regulating the degree of separation of the latter contacts.



3. An instrument of the class described, comprising an extensible lever, a stylus carried by one section of said lever, an embossed tape engaged by said stylus, a resilient member carried on one end and a contact on the lower side of said lever, a contact adjacent the aforesaid contact, and an adjustable member supporting a contact engaged by the free end of said resilient member.

4. An instrument of the class described, comprising a duplex lever, one of which members is pivotally supported at one end and the opposite end pivotally connected to the other member, the latter member being pivotally supported at one end, and means at the opposite end of said member for making and breaking circuit, and a stylus on one of said members.

5. An instrument of the class described comprising a lever provided with an elongated slot at one end and pivotally supported therein, means at the opposite end for making and breaking circuit, and an adjustable stylus connected to said lever and adapted to engage an embossed tape.

[Claim 6 not printed in the Gazette.]

1,144,237. MANUFACTURE OF HALOGEN DERIVATIVES OF ORGANIC COMPOUNDS. WILLIAM HENRY PERKIN, CHARLES WEIZMANN, and HAROLD DAVIES, Manchester, England. Filed Dec. 30, 1912. Serial No. 739,409. (Cl. 23—24.)

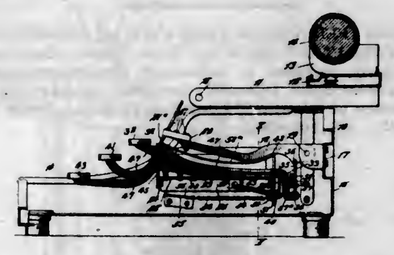
1. The manufacture of dichloro derivatives of paraffin hydrocarbons having the chlorin attached to different carbon atoms by causing a halogen to react with vapors of a mono-chlorinated paraffin hydrocarbon while regulating the access of the halogen so that it is used up immediately it comes into contact with said vapors, substantially as described.

2. The manufacture of dichloro derivatives of paraffin hydrocarbons having the chlorin attached to different carbon atoms by causing a halogen to react with vapors of a mono-chlorinated paraffin hydrocarbon while regulating the access of the halogen so that it is used up immediately it comes into contact with said vapors removing the desired helogenated product as it is formed and subjecting it to fractional distillation.

3. The manufacture of dihalogen-derivatives of hydrocarbons having the halogen atoms attached to different carbon atoms, by causing a halogen to react with vapors of a mono-halogen-hydrocarbon while regulating the access of the halogen so that it is used up immediately it comes into contact with the said vapors.

4. The manufacture of dichloro-derivatives of hydrocarbons having the chlorin atom attached to different carbon atoms, by causing chlorin to react with vapors of a monochloro-hydrocarbon while regulating the access of chlorin so that it is used up immediately it comes into contact with the said vapors.

1,144,238. KEYBOARD FOR TYPE-WRITING MACHINES. OTTO PETERMANN, Groton, N. Y., assignor to Corona Typewriter Company, Incorporated, a Corporation of New York. Filed Mar. 24, 1911. Serial No. 616,708. (Cl. 197—22.)



1. In a typewriting machine, a plurality of key-levers and a bearing for said levers, each lever having a power arm and a load arm, the power arm being considerable longer than the load arm of the lever, said bearing providing a shiftable fulcrum for the lever whereby the depression of a key-lever causes the load arm to become longer than the power arm.

2. In a typewriting machine, supporting means, and key-levers each having a power and a load arm and supported on said means between the ends thereof, said supporting means providing a fulcrum which shifts and makes the load arm of each lever greater than the power arm.

3. In a typewriting machine, a support, and a key-lever engaging said support and having a load arm and a power arm, said support providing a shiftable fulcrum for the lever whereby on the depression of the key-lever the length of the power arm will initially exceed the length of the load arm at the beginning of the depression and the length of the load arm exceed the length of the power arm at the end of said depression.

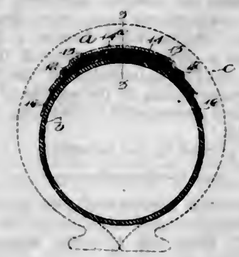
4. In a typewriting machine, a stationary support, a plurality of depressible key-levers engaging said support, each lever having a load arm and a power arm, said support providing a shiftable fulcrum for said levers whereby on depression of each lever the load arm at one part of the depression is of much less length than the power arm and at another part of the depression exceeds greatly that of the power arm, type-bars, and means connecting each lever to one of the type-bars.

5. In a typewriting machine, a stationary support, and a plurality of key-levers having a relatively changeable edgewise and continuous rocking connection directly with said support and intermediate the ends thereof and providing thereby a load arm and a power arm, the relative lengths of said arms changing materially during each depression to cause one arm first to exceed the other and the latter to exceed the former, a plurality of type-bars, and means connecting the type-bars to the levers.

[Claims 6 to 32 not printed in the Gazette.]

1,144,239. INNER TUBE FOR PNEUMATIC TIRES. JOHN H. POOLE, Avon, Mass., assignor to Reinforced Inner Tube Company, Brockton, Mass., a Corporation of Massachusetts. Filed Feb. 23, 1915. Serial No. 9,987. (Cl. 152—13.)

1. An inner tube for pneumatic tires, composed of a continuous tubular member of elastic rubber and an external inextensible member covering and rendering inextensible the outer portion of said tubular member, leaving the inner portion of the tubular member free to expand and contract, the inextensible member being attached to all portions of the surface of the tubular member covered thereby, and comprising superimposed intimately united laminated layers, each including a protective lamina of practically inextensible fabric and a binding lamina of rubber united thereto and to the next layer, there being at least three layers of different widths, viz., an inner layer of medium width, a narrower intermediate layer, the protective lamina of each of said layers being between and united to two binding laminæ, and an outer layer of maximum width the protective lamina of which is united at its inner side only to a binding lamina, the said layers being arranged to impart a transversely tapering form to the inextensible member as a whole, from a relatively thick median portion to relatively thin edges, the protective lamina of the outer layer being exposed and forming a wear-resisting external surface contacting with the inner surface of the shoe, which contains the inner tube.



2. An inner tube for pnuematic tires, composed of a continuous tubular member of elastic rubber and an external inextensible member covering and rendering inextensible the outer portion of said tubular member, leaving the inner portion of the tubular member free to expand and contract, the inextensible member being attached to all portions of the surface of the tubular member covered thereby, and comprising superimposed intimately united laminated layers, each including a protective lamina of practically inextensible fabric and a binding lamina of rubber united thereto and to the next layer, the protective lamina of the inner layer being between and united to two binding laminæ, each protective lamina constituting an inextensible backing adapted to support the edges of a fracture in any rubber portion within its area and prevent the enlargement of such fracture, and the series of protective laminæ performing the same function for the covered portion of the tubular member, the inextensible member being provided with a supplemental inner binding lamina which is united to and reinforces the covered portion of the tubular member.

1,144,240. COMBINATION-GARMENT. ORLYSTIS M. POTTERF, Larned, Kans., assignor to Mark M. Henderson, Norwalk, Conn. Filed Dec. 9, 1912. Serial No. 735,790. (Cl. 2—144.)



1. In a union undergarment having a permanently closed crotch and a leg which is closed at its inner and outer sides, an opening originating in the back of the undergarment and extending to the outside of the remaining leg thereof and then downwardly of said leg, thereby providing a seat flap.

2. A combination garment comprising in a one piece suit, a shirt and nether garment or drawers, open in front from the neck to the crotch, and having an opening extending from a point below the waist along the outside of only one leg portion to the bottom thereof and trans-

versely from said point toward the center in the rear of the garment.

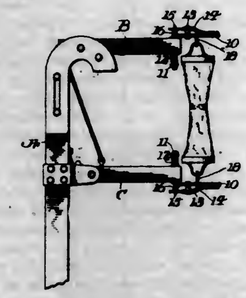
3. A union undergarment having a permanently closed crotch and an opening originating in its back and extending to the outside of only one of the legs of said undergarment and downwardly of said leg, thereby providing a seat flap.

4. A union undergarment having a permanently closed crotch, an opening extending partially across the back of the undergarment and down the outside of one of its legs to the extreme lower edge thereof, thereby providing a seat flap of which the posterior portion of said leg constitutes a part, and fastening means for said seat flap.

5. In a union undergarment having a permanently closed crotch and a leg which is closed at its inner and outer sides, an opening originating in the back of the undergarment and extending to the outside of the remaining leg thereof and downwardly of said leg, thereby providing a seat flap.

[Claim 6 not printed in the Gazette.]

1,144,241. MAIL-BAG RETAINER FOR MAIL-CRANES. LESTER C. POULSON and ALEXANDRIA J. BUCHANAN, Birdsnest, Va. Filed Feb. 1, 1915. Serial No. 5,517. (Cl. 258—24.)



A mail bag retaining device for mail cranes comprising a swiveled arm formed with a straight smooth surface on which the mail bag supporting ring is carried and adapted to slide, a bracket secured thereto to extend outwardly therefrom, a ring-securing lever pivoted in said brackets to extend each way therefrom the outer end being formed at an angle tapering from its pivot gradually toward the adjacent surface of said swiveled arm until it contacts therewith and from the point of contact extending for a considerable distance parallel and in contact with said surface, whereby a long contact is provided between said two parts, and the other end of said pivoted lever being formed to extend back from said bracket for a distance, and a coiled spring mounted between said lever and said arm, whereby the outer ends thereof are held in contact and the accidental or inadvertent escape of the mail bag ring from the retaining device prevented substantially as set forth.

1,144,242. COMBINED TIME AND PERCUSSION FUSE. HUGO PRAHL, Dusseldorf, Germany, assignor to Rheinische Metallwaaren- und Maschinenfabrik, Dusseldorf-Derendorf, Germany, a Corporation of Germany. Filed Feb. 17, 1915. Serial No. 8,862. (Cl. 102—37.)



In a combined mechanical time and percussion fuse the combination of a rock arm connected with the priming device, a double armed lever pivoted on the rock arm, a bolt operatively connected with the time fusing device and a second bolt adapted to protrude on the impact of the shell, the said lever abutting with its both arms against the said bolts respectively.

1,144,243. PERCUSSION-FUSE WITH AN ADJUSTABLE RETARDATION DEVICE. HUGO PRAHL, Dusseldorf, Germany, assignor to Rheinische Metallwaaren- und Maschinenfabrik, Dusseldorf-Derendorf, Germany, a Corporation of Germany. Filed Feb. 17, 1915. Serial No. 8,863. (Cl. 102—39.)



1. In a percussion fuse the combination of a primer bolt, an arm connected therewith, means for locking this arm and for unlocking it after the impact of the shell, means arranged so as to protrude on impact for locking said arm and a spring tensioned by this protruding action.

2. In a percussion fuse the combination of a primer bolt, a disklike arm connected therewith, means for locking this arm and for unlocking it after the impact of the shell, means arranged so as to protrude on impact for locking said arm and a spring tensioned by this protruding action.

3. In a percussion fuse the combination of a primer bolt, an arm connected therewith, means for locking this arm and for unlocking it after the impact of the shell, means arranged so as to protrude on impact for locking said arm, a spring tensioned by this protruding action and adjustable means for preventing the protruding means from operation.

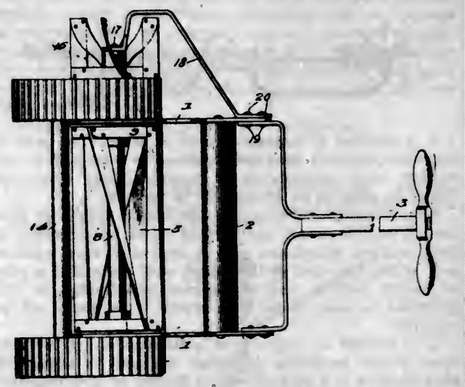
4. In a percussion fuse the combination of a primer bolt, an arm connected therewith, means for locking this arm and for unlocking it after the impact of the shell, means arranged so as to protrude on impact for locking said arm, a spring tensioned by this protruding action and adjustable slide for preventing the protruding means from operation.

5. In a percussion fuse the combination of a primer bolt, an arm connected therewith, means for locking this arm and for unlocking it after the impact of the shell, means arranged so as to protrude on impact for locking said arm, a spring tensioned by this protruding action and a slide adjustable by means of a timing cap for preventing the protruding means from operation.

1,144,244. LAWN-MOWER. TWIGGS PRICE, Bucyrus, Ohio. Filed Apr. 13, 1912. Serial No. 690,557. (Cl. 56—19.)

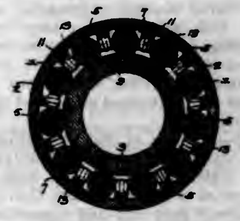
In a lawn mower, the combination with a frame, of inner and outer wheel disks, the inner disks fastened to the frame, a guard rod connecting the inner and outer disks together, a cutter shaft journaled in and projecting through the disks carrying a cutter cylinder between the inner disks and an auxiliary cutter removably mounted on the shaft adjacent to one of the outer disks, a bracket connected to the frame having one end thereof engaging an end of the cutter-shaft for holding the auxiliary cutter

in place, a screw passing through the bracket and into the shaft for fastening the bracket to the shaft, and wheel rims mounted on the disks having internal toothed flanges, gear wheels on the cutter shaft located between



the disks and meshing with the teeth of the flanges, lugs on the frame located beyond the wheels, and a cutter bar connected to the lugs adapted to coöperate with both the main and auxiliary cutter.

1,144,245. ANTIFRICTION-BEARING. JAMES C. REBER, Reading, Pa. Filed Nov. 10, 1914. Serial No. 871,295. (Cl. 64—61.)



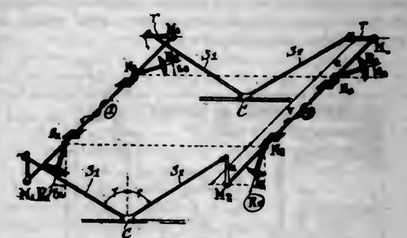
1. The combination of an anti-friction bearing of inner and outer bearing members; rollers operative between said members; a cage consisting of a ring flanged at both edges to provide bearings for the rollers and having radially projecting portions between the rollers; with balls confined between said portions and the flanges in positions to operatively engage the adjacent rollers respectively.

2. The combination in an anti-friction bearing of inner and outer bearing members; rollers operative between said bearings; a ring providing bearings for the rollers and having pressed out portions formed to provide retaining recesses between the rollers; with a ball held in each recess in engagement with the adjacent rollers.

3. The combination in an anti-friction bearing of inner and outer bearing members; rollers mounted between said members; a ring having projecting portions at both edges providing bearings for said rollers and formed with radially extending pressed out tongues having their ends spaced away from said projecting bearing portions; with balls retained in the spaces between said ends of the tongues and the projecting portions of the ring in positions to engage the adjacent rollers respectively.

4. The combination of a ring having flanges at both edges and provided with radially extending integral portions having overhung ends spaced away from the flanges; rollers mounted between the respective radially extending portions and journaled in the flanges; with balls rotatably mounted in the spaces between the ends of each radial portion and the adjacent flanges in positions to engage the adjacent rollers.

1,144,246. DRIVING OF VEHICLES. JAKOB REBSTEIN, Winterthur, Switzerland, assignor to Aktiengesellschaft Brown Boveri & Cie., Baden, Switzerland. Filed Nov. 25, 1913. Serial No. 803,042. (Cl. 105—259.)



1. In means for the driving of vehicles in combination two driving motors, a plurality of wheel axles, said axles being situate below the axles of said motors and means for compensating the unbalanced masses of the sprung connecting rods and the like, said means comprising counterweights, the counterweights which are equal one to the other and are opposite the leading crank of the front motor axle in the direction of travel, and opposite the trailing crank of the rear motor axle in the direction of travel being smaller than the counterweights which are likewise equal one to the other and are located opposite the trailing crank of the front motor axle in the direction of travel and opposite the leading crank of the rear motor axle in the direction of travel.

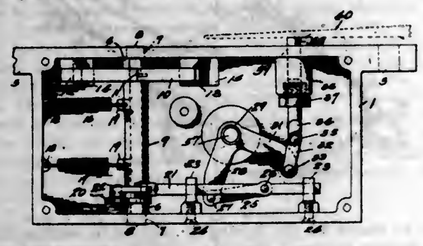
2. In means for the driving of vehicles in combination two driving motors, a plurality of wheel axles, said axles being situate below the axles of said motors, and means for compensating the unbalanced masses of the spring connecting rods and the like, said means comprising counterweights so disposed that when their planes of rotation are situated inside or outside those of the crank pins they are situated not exactly 180 degrees from the crank pins, but that the radius of the center of gravity of the counterweight forms with the plane of the crank radius an angle which leads in the case of the leading cranks and lags in the case of the trailing cranks.

3. Vehicle driving means comprising in combination two driving motors with shafts disposed across the vehicle, a plurality of wheel axles also disposed across the vehicle and situate below the aforesaid shafts, cranks on said shafts one at each end thereof, the cranks on one side of the vehicle on each shaft being set at substantially the same angle and the cranks on the other side of the vehicle on each shaft being set also at substantially the same angle, but this latter angle being 90° different from the former angle, cranks connected with the wheel axles and a connecting rod on each side of the vehicle connecting the cranks on that side, coupling rods on each side of the vehicle connecting the motor cranks with a point in the aforesaid connecting rods, and masses rigidly attached to the motor shafts in two sets as follows: a large mass and a smaller mass on each shaft, each mass being set at an angle substantially opposite to the adjacent motor crank but not quite opposite thereto, the greater mass on one shaft being on the side of the vehicle at which the smaller mass is situate on the other shaft.

1,144,247. RAILWAY-SWITCH. CHARLES F. REMTOY, Flint, Mich. Filed Mar. 3, 1915. Serial No. 11,751. (Cl. 104—24.)

1. The combination with a box and a shaft therein, of a sleeve on said shaft, an arm on the sleeve in position to be moved by a tappet on a passing car, a rocker arm on said sleeve, a plunger bar pivoted to said rocker arm, a push bar at right angles to said plunger bar adapted to engage a switch tongue, and connections whereby the movement of the plunger bar is transmitted to the push bar.

2. The combination with a box having a slotted top and a wear plate thereon provided with a groove, of a rock sleeve supported in the box and a plate and rocker arm at opposite ends of said sleeve, said plate projecting through said slots and groove, and means for limiting the movement of said plate, a push bar adapted to engage a switch tongue, and connections between said rocker arm and push bar for actuating the bar.



3. The combination with a box having a slotted lid and a slotted wear plate provided with a groove, of a rock sleeve supported in the box having a plate formed with extensions, and a central shoulder, lugs on the box in the path of movement of said extensions, and springs for holding the plate in normal position, a rocker arm at the opposite end of the rock sleeve, a plunger bar pivoted to said rocker arm, a push bar movable at right angles to said plunger bar, a bell crank lever, and links connecting the respective ends of said lever to the plunger bar and push bar.

1,144,248. PROTECTIVE DEVICE FOR RAILWAY-CROSSINGS. SIGMUND REICHENTHAL, Jr., New York, N. Y. Filed Nov. 18, 1913. Serial No. 801,717. (Cl. 39—35.)



1. In a device for the purposes set forth, swinging gates arranged at the corners of a railway crossing, compensating weights for normally sustaining the gates in a vertical open position angularly arranged, bars upon certain of the gates, a U-shaped member between the tracks and connecting two of the bars, and a flexible connection between the opposite gates for simultaneously swinging all of the gates to a closed position over the crossing when a weight is deposited upon any of the bars.

2. In a device for the purpose set forth, pivoted gates arranged one at each of the corners of a railway crossing, depending fingers upon the gates below their pivots, a flexible element connecting the oppositely longitudinally disposed gates, guide pulleys for the flexible elements, compensating weights for normally sustaining the gates in a vertical open position, means for halting the gates in either an open or a closed position, angular bars having a pivotal connection with certain of the gates, a connecting member between certain of the angular bars, and adapted when one of the bars is contacted to operate the opposite bars and to exert a tension upon the flexible elements simultaneously to close all of the gates.

3. In a device for the purpose set forth, a support at each of the corners of the railway crossing, a gate pivotally connected to each of the supports, a well arranged adjacent each of the supports, a weight within the well, a flexible element between each of the weights and each of the gates, flexible members disposed below the crossing and connecting the opposite longitudinal gates to cause the same to be lowered in unison, and means comprising angular bars adapted, upon compression, to swing one of the gates to permit of the simultaneous swinging movement of the remaining gates to a closed position.

1,144,249. GETTING OR EXCAVATING PEAT. THOMAS RIGBY, Dumfries, Scotland, assignor, by mesne assignments, to Wetcarbonizing Limited, London, England. Filed May 11, 1912. Serial No. 696,798. (Cl. 44—3.)



1. A method of gathering peat in which the peat is excavated, disintegrated until reduced to a pulp of watery fluidity, then transported by pumping, and thereafter stored as pulp in an excavation in the bog.

2. A method of obtaining a continuous supply of peat from a bog, in which part of the latter is excavated to form a store, whereupon peat is excavated from another part of the bog, then disintegrated until reduced to a pulp of watery fluidity, and transported by pumping in this condition to said store, from which it is drawn off as required.

3. A method of obtaining a continuous supply of peat from a bog, according to which the peat is excavated, then reduced to a pulp of watery fluidity by disintegration in the undrained condition, and the pulp then conveyed to the desired locality by pumping, whereupon on the excavation becoming sufficiently large, work is commenced on another part of the bog, and the peat therefrom in the form of pulp conveyed by pumping to the part of the bog which was first excavated, wherein it is stored until required.

4. A method of obtaining a continuous supply of peat from a bog, in which peat is excavated, disintegrated until reduced to a pulp of watery fluidity, conveyed in this condition to the desired locality by pumping, whereupon on the excavation thus formed being large enough to be capable of storing sufficient peat to tide over the cold season, the excavation is partitioned off from the part of the bog in which excavating is continued, and the peat pulp conveyed to the partitioned off part of the bog, where it is stored as required.

5. In the transportation of peat hydraulically as a fluid pulp to a peat treating installation adjoining the deposit, the method in which the peat is cut from the deposit, forthwith macerated to watery fluidity, then forced to flow through an inclosed duct into and accumulate in an adjacent but entirely distinct cutting in the deposit itself, and then withdrawn from the bottom of this accumulation and forced through a further inclosed duct to the treating installation.

1,144,250. PROCESS FOR THE UTILIZATION OF PEAT. THOMAS RIGBY, Dumfries, Scotland, and NILS TESTRUP, London, England, assignors to Wetcarbonising Limited, London, England. Filed Nov. 23, 1912. Serial No. 733,214. (Cl. 44—3.)

1. Method of utilizing peat according to which the latter is partially dried, then at least in part pulverised, dried further as a powder suspended in hot products of combustion, and thereupon gasified to yield gas from which the products required for drying are ultimately obtained.

2. Method of utilizing peat according to which the latter is partially dried, then at least in part pulverised, further dried as a powder suspended in hot products of combustion, and thereupon gasified to yield gas which, after being treated for the recovery of by-products, is utilized to generate power and thereby supply the hot products required in drying the peat.

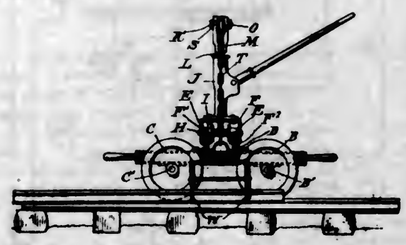
3. Method of utilising peat according to which the latter is filter pressed, then at least in part pulverised, dried further as powder suspended in hot products of combustion, consolidated and thereupon gasified to yield gas from which the products required for drying are ultimately obtained.

4. Method of utilising peat according to which the latter is filter pressed, then at least in part pulverised, further dried as a powder suspended in hot products of combustion, consolidated and thereupon gasified to yield gas which, after being treated for the recovery of by-products, is utilised to generate power and thereby supply the hot products required in drying the peat.

5. Method of utilising peat in which the peat is filter pressed, a part thereof then pulverized, and the powder so obtained dried by suspension in hot products of combustion, then briqueted, and along with another part of the filter pressed peat is gasified to yield gas from which the products of combustion required for drying the peat are ultimately obtained.

[Claims 6 to 10 not printed in the Gazette.]

1,144,251. RAIL-ELEVATING APPARATUS. GEORGE W. ROBERTS, Columbus, Ga. Filed Mar. 23, 1915. Serial No. 16,385. (Cl. 212—11.)



A rail elevating apparatus comprising a truck with rails thereon, a carriage with a bottom having downwardly extending parallel sides with their lower edges inwardly bent, adapted to engage the under edge of the tread surface of the rails, axles journaled in said sides, wheels upon the axles, and a lifting jack having a base which is secured to said bottom of the carriage.

1,144,252. ELECTRICAL CONDUCTOR. LUDWIG ROSSEL, Mannheim-Käferthal, Germany, assignor to Aktiengesellschaft Brown Boveri & Cie., Baden, Switzerland. Filed Mar. 1, 1913. Serial No. 751,640. (Cl. 171—206.)



1. An electrical conductor comprising a number of metallic strips each with two crankings one toward one edge of the strip and the other away from that edge; the strips forming one half of the conductor being assembled in such a manner that a group is formed wherein the conductor which is at the bottom or side at one end passes by way of the top or other side at one cranking to the bottom or original side at the next cranking; the strips forming the other half of the conductor being similarly assembled; one half being turned through 180 degrees and the two halves then assembled to interlock.

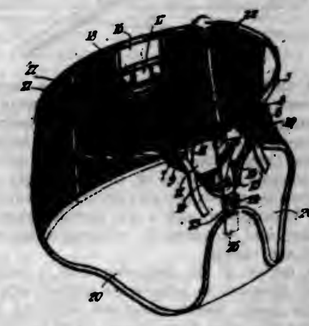
2. An electrical conductor comprising a number of metallic strips of constant width throughout their length and each provided with two crankings, one toward one edge of the strip and the other away from that edge; the strips being disposed at right angles to the crankings and with the crankings evenly displaced in adjacent strips in each half of the conductor, the two halves of the conductor being relatively turned through 180 degrees and assembled.

3. An electrical conductor comprising a metal strip having a portion extending in a straight line, a right angle off-set formed therein, a diagonal bend at said off-set inclining a portion of said strip away from the straight line portion, a second right angle off-set formed in the strip, a second diagonal bend at said off-set and a further straight line portion on the same plane as the first mentioned straight line portion, substantially as described.

4. An electrical conductor adapted to be disposed in a rectangular groove comprising a metallic strip having a portion horizontally disposed along the upper surface of the groove, a right angle off-set formed in said strip, a diagonal bend inclining a portion of said strip downwardly to the bottom surface of the groove and a second right angle off-set, a second diagonal bend inclining a portion of said strip upwardly to the upper surface of said groove, and a second portion extending along the upper surface of the groove in the same horizontal plane as the first mentioned portion, substantially as described.

5. An electrical conductor comprising a metallic strip with two crankings, one toward one edge of the strip and the other away from that edge, said conductor adapted to be inserted in a rectangular groove in such position that a portion of the strip which is at the bottom or side at one end passes by way of the top or other side at each cranking to the bottom or original side at the next cranking, substantially as described.

1,144,253. CATAMENIAL APPLIANCE. JACOB RUBEL, New York, N. Y., assignor to Standard Mail Order Company, New York, N. Y., a Corporation of New York. Filed Mar. 20, 1915. Serial No. 15,718. (Cl. 128—5.)



1. A catamenial appliance comprising a suspension tape, a protector permanently secured at the rear thereto, an independent triangular shield at the front of the appliance, means at the opposite upper corners of said shield for separately fastening the ends of said tape thereto, and means for securing at the lower corner of said shield the front end of an absorbent napkin, together with a tape secured to the upper portion of said shield and overlying the outer face thereof, for engaging the front end of said protector.

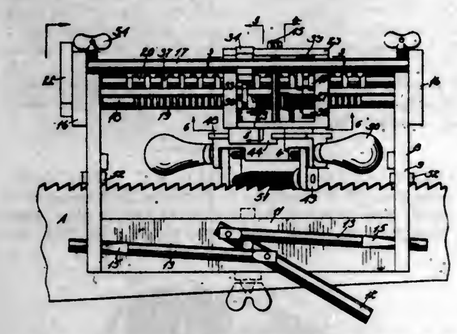
2. A catamenial appliance comprising a suspension tape, a protector permanently secured at the rear thereto, an independent shield arranged at the front thereof, means on the outer face of said shield for securing the ends of said tape separately thereto, means at the lower portion of said shield for detachably engaging the front end of an absorbent napkin, a tape depending from the upper portion of said shield, overlying the outer face thereof and having adjustable means for detachably engaging the front end of said protector, in combination with a shield at the back of said appliance, lying within the protector and having means for detachably engaging the rear end of said napkin.

1,144,254. AUTOMATIC SAW-FILING DEVICE. FRANK N. RUSSELL and OTTO S. LIND, Chicago, Ill. Filed July 15, 1914. Serial No. 851,077. (Cl. 76—33.)

1. In a device of the class described, a frame, a saw clamp in the frame, a file carrier mounted to reciprocate transversely of the clamp, means associated with the file carrier for oscillating the same transversely of the clamp, means associated with the file carrier for moving it laterally through a predetermined distance when the same is oscillated, and with means associated with the

frame for maintaining the edge of a saw in a plane parallel to the lateral movement of the file carrier.

2. In a device of the class described, a frame, a saw clamp, a carriage mounted to translate parallelly to the clamp and oscillate transversely thereto, means controlling the translation of the carriage operable by the oscillatory movement thereof, a file carrier associated with the carriage and mounted to be reciprocated thereon transversely of the clamp, and means associated with the frame whereby the distance from the carriage to the clamp can be varied substantially as and for the purpose set forth.



3. In a device of the class described, a frame, a saw clamp therein, a carriage mounted to translate parallelly to the clamp and oscillate transversely thereto, locking means associated with the carriage and normally preventing the translation thereof, means for unlocking the carriage becoming operable by the oscillatory movement of the carriage, means for translating the carriage when the same is unlocked, and a file carrier associated with the carriage and mounted to reciprocate thereon transversely of the clamp.

4. In a device of the class described, a saw clamp, a file carrier mounted to reciprocate transversely of a saw edge in the clamp, means associated with the file carrier for clearing the same from the saw and to move the file carrier laterally while the same is cleared of the saw edge, means controlling the displacement of the carrier, and means for disengaging the carrier from the means controlling its displacement, whereby said carrier can be translated laterally any desired distance.

5. In a device of the class described, a frame, a saw clamp in the frame, a carriage mounted to translate parallelly to the clamp and oscillate transversely thereto, means controlling the translation of the carriage operable by the oscillatory movement thereof, a file carrier associated with the carriage and mounted to be reciprocated thereon transversely of the clamp, and means for adjusting said file carrier on the carriage whereby the angular relation of the file carrier and the saw clamp may be varied.

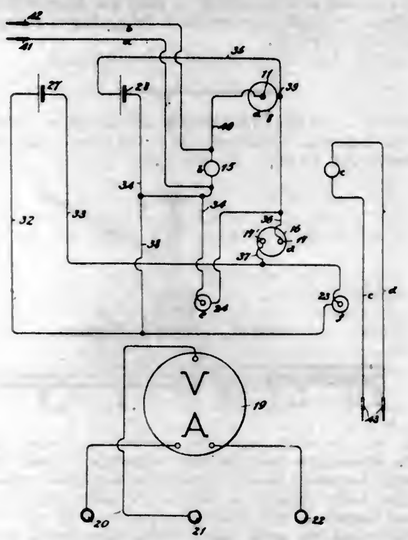
[Claims 6 to 15 not printed in the Gazette.]

1,144,255. ELECTRIC TESTING INSTRUMENT. HENRY SCHADE, Albany, N. Y. Filed May 21, 1914. Serial No. 839,979. (Cl. 175—183.)

1. In a device of the class described,—a box; a pair of cells in said box; a fuse-testing socket in circuit with one of said cells; a lamp in said circuit and in series with said socket; a lamp testing socket in a parallel circuit with said fuse testing socket; a second lamp socket in circuit with the other cell; and a third lamp socket in a series circuit with the two cells.

2. In a device of the class described,—a box; a pair of cells in said box; a fuse-testing socket in circuit with one of said cells; a lamp in said circuit in series with said socket; a lamp-testing socket in said circuit in parallel with said fuse-testing socket; means for testing batteries shunting said lamps; a second lamp socket in circuit with the other cell; and a third lamp socket in a series circuit with the two cells.

3. In a device of the class described,—a pair of circuits; a testing socket in one of said circuits; a circuit indicator in series with said socket; a second testing socket in parallel connection with said first testing socket; a third testing socket in the second circuit; and a fourth testing socket in series with the two circuits.



4. In a device of the class described,—a pair of circuits of different strength; a fuse-testing socket in connection with one of said circuits; an electrical current indicator in series with said socket; a lamp-testing socket in parallel connection with said fuse-testing socket; a second lamp socket in connection with the second circuit; and a third lamp socket in series with the two circuits.

1,144,256. METHOD OF PRODUCING PRACTICALLY PURE IRON. ARTHUR P. SCOTT, Brackenridge, Pa., assignor to Allegheny Steel Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Oct. 6, 1910. Serial No. 585,718. (Cl. 75—27.)

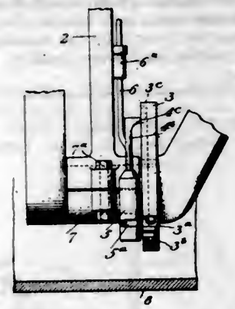
1. The process of producing practically pure iron which comprises melting down iron in combination with fluxes and reagents to separate the impurities, transferring the purified metal to a ladle and allowing it to remain in the latter for a period of four minutes or thereabout, without heating and without the addition of slag producing reagents, and finally teeming.

2. The process of producing practically pure iron comprising melting down iron in combination with the usual fluxes or reagents, tapping or pouring the metal into a ladle, and allowing it to remain in the ladle for a predetermined time and concurrently agitating the liquid metal therein before teeming.

3. The process of producing practically pure iron comprising melting down iron in combination with the usual fluxes and reagents, tapping or pouring the metal into a ladle, allowing the same to remain in the ladle for a predetermined period and concurrently agitating the liquid metal by rotating the ladle before teeming.

4. The process of producing practically pure iron comprising melting down iron in combination with the usual fluxes or reagents to purify the same, tapping or pouring the molten metal into a ladle and allowing the same to remain in the ladle for a period of four minutes or thereabout, and concurrently agitating the molten metal before teeming.

1,144,257. LUBRICATING DEVICE FOR ENGINES. JOHN J. PRINGLE SMITH, Charleston, S. C. Filed Aug. 29, 1913. Serial No. 787,309. (Cl. 184—27.)



1. In an oil pumping device, the combination of a crank, a pitman connected therewith, an eccentric grooved cam on the crank, a pump on the pitman, and a pump piston rod operatively engaged with the groove in said cam.

2. In combination with a crank and a pitman connected therewith; of an eccentrically grooved member on the crank, a pump fixed to the pitman, a piston in said pump, and a pump-piston rod operatively engaged with the groove in said member.

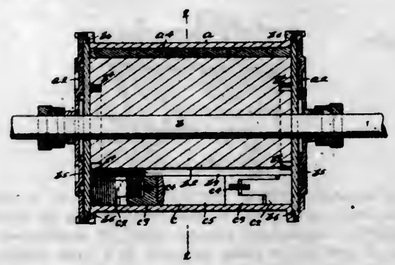
3. In an oil pumping device, the combination of a crank, a pitman connected therewith, an eccentrically grooved member on the crank, a pump fixed to the pitman head, a piston in said pump, a piston rod connected therewith and operatively engaged with the groove in said member, and means for conducting oil away from said pump, substantially as described.

4. In combination with a crank shaft and pitman; a cam member on the crank shaft, a pump cylinder on the pitman, a piston, a piston rod, and means positively connecting said rod to said member for positively reciprocating the pump piston during the rotation of the shaft.

5. In an oil supplying apparatus, the combination of a crank, and a pitman; with a cam member and an oil pump cylinder respectively mounted on and moving with the pitman and the crank, a piston in the pump, a piston rod, and means positively connecting said rod to said cam member whereby said piston is positively reciprocated by said cam member during each rotation of the crank.

[Claims 6 and 7 not printed in the Gazette.]

1,144,258. ROTARY ENGINE. LYLE GROW SMITH, St. Louis, Mich. Filed June 27, 1914. Serial No. 847,650. (Cl. 121—77.)



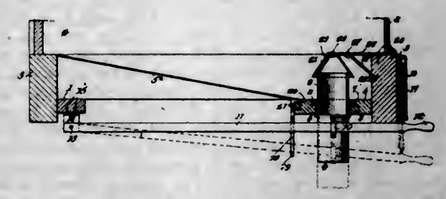
1. A rotary engine, comprising a casing having a circular chamber therein, an eccentrically disposed abutment in said chamber having pressure equalizing grooves extending inwardly from each end, a shaft arranged within said chamber, a rotor concentric with said shaft, a plate at each end of said rotor, said rotor being provided with radial slots and concentric end channels in communication with said slots, the said plates closing the said end channels and the ends of the radial slots, pistons slidably arranged in said slots, and spring means for maintaining said pistons in contact with the end plates, said pistons being maintained in contact with the casing interior by a fluid cushion held in the said slots and end channels, the fluid cushion in one slot when the corresponding piston is moved inwardly by said abutment being forced through the said end channels into the other piston slots, whereby the corresponding pistons are forced outwardly.

2. A rotary engine, comprising a casing having a chamber therein, a shaft eccentrically arranged therein, a rotor concentrically mounted on said shaft, and provided with a plurality of radial slots and connecting concentric end channels for containing a fluid cushion, a piston movable in each of said slots, plates at each end of the rotor and closing the ends of the radial slots and the said end channels, to prevent escape of the cushioning fluid, and spring means for maintaining the pistons in contact with the said end plates, said pistons each comprising a central block or spacing member, and end members each comprising a pair of interlocking blades normally forced apart by spring pressure.

3. A rotary engine, comprising a casing having a chamber therein, a shaft eccentrically arranged therein, a rotor concentrically mounted on said shaft, a plate at each end of said rotor, said rotor being provided with radial slots, and concentric end channels in communication with all of said radial slots, the ends of said slots and the said end channels being closed fluid tight by said end plates, a piston slidably arranged in each of said slots, and spring means for maintaining said pistons in contact with the end plates, said pistons being maintained in contact with the circular surface of said casing interior by a fluid cushion held in said slots and end channels.

4. A rotary engine, comprising a casing having an eccentric chamber therein, a shaft eccentrically arranged therein, a rotor concentrically mounted on said shaft and provided with a plurality of radial slots and a concentric channel at each end communicating with all of said slots, the said slots and channels being adapted to contain a cushion of steam or air, a piston in each of said slots and maintained in contact with the circular surface of said chamber by means of the cushion of steam or air, in said slots, and end channels, plates held at each end of the casing and engaging the ends of the rotor, the said plates forming a fluid tight closure for the ends of the radial slots and the said end channels, means for maintaining said piston ends in contact with the rotor end plates, said casing being provided with inlet and exhaust ports, and supplemental outlet ports adjacent the inlet ports.

1,144,259. CUT-OFF. JOHN L. STEEL, Wellston, Ohio. Filed Feb. 12, 1913. Serial No. 747,899. Renewed Mar. 24, 1915. Serial No. 16,755. (Cl. 193—45.)



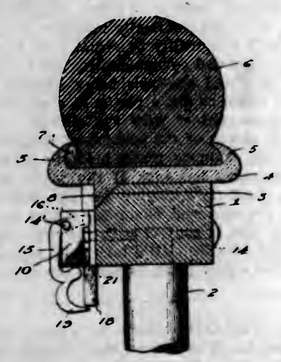
1. In combination, a container having an opening in its bottom, a bushing in the opening, a pipe having open ends movable through the bushing, a shield of frusto-conical shape arranged with its large end downward above the bushing, said shield being fixed and having its upper small end closed, the large end of the shield being of greater diameter than the diameter of the pipe, a lever pivoted to the container at the rear thereof and extending beyond the same at the front of the container, a stirrup on the pipe through which the lever passes, a spring normally holding the lever with the pipe lifted, said shield being spaced to inclose the upper end of the pipe when the said pipe is lifted, and a housing for the spring.

2. In combination with a container having a plate in its bottotm at the front thereof, said bottom provided with an opening, a bushing secured to the plate in the opening, a pipe having open ends fitting the bushing and movable in the bushing, a lever pivoted to the rear of the container and extending beyond the front of the container, a connection between the lever and the pipe for moving the said pipe, a shield secured to the container above the pipe and arranged to close the upper end thereof when the pipe is lifted, and a spring normally pressing the lever upward.

3. In combination with a container having an opening in its bottom, a bushing in the opening, a pipe having open ends fitting the bushing and movable in the bushing, a substantially conical shield fixed in the container above the upper end of the pipe and adapted to receive the said end to close the pipe when the pipe is in its uppermost position, a lever pivoted to the container and connected to the pipe for moving said pipe, said lever extending beyond the front of the container, and means for normally holding the lever with the pipe lifted.

4. In combination with a container having an opening in its bottom, a bushing in the opening, a pipe having open ends fitting the bushing and movable in the bushing, a substantially conical shield fixed in the container above the upper end of the pipe and adapted to receive the said end to close the pipe when the pipe is in its uppermost position, means for moving the pipe, and a spring normally holding the pipe lifted.

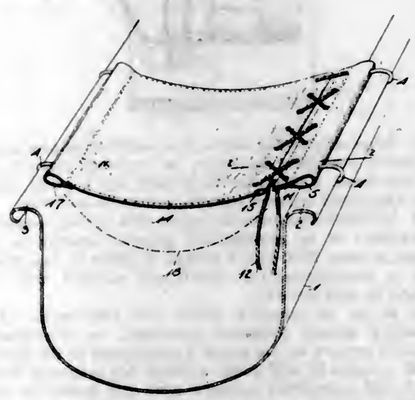
1,144,260. DEMOUNTABLE RIM. JOSEPH STEHR, Cincinnati, Ohio. Filed Dec. 17, 1914. Serial No. 877,719. (Cl. 152—21.)



1. In a demountable wheel rim structure, the combination with a vehicle wheel having a felly, said felly having its upper outer corner cut away, of a tire carrying rim, a flange formed integrally with the inner surface of said rim and depending therefrom, said flange provided for seating against the cut away corner of said felly, a plurality of U-shaped brackets detachably carried by said felly, levers pivotally carried by said brackets, said levers connected to said tongues for moving said tongues into or out of engagement with said flange for holding said rim upon said felly for permitting of removal therefrom, and flat springs carried by said brackets and engaging said tongues for holding said tongues in engagement with the side of said felly and said flange.

2. In a demountable wheel rim structure, the combination with a vehicle wheel having a felly, said felly having its upper outer corner cut away, of a tire carrying rim, a flange formed integrally with the inner surface of said rim and depending therefrom, said flange provided for seating against the cut away corner of said felly, a plurality of U-shaped brackets detachably carried by said felly, levers pivotally carried by said brackets, said levers connected to said tongues for moving said tongues into or out of engagement with said flange for holding said rim upon said felly for permitting of removal therefrom, and flat springs carried by said brackets and engaging said tongues for holding said tongues in engagement with the sides of said felly and said flange, said levers each having an arcuate finger engaging handle formed integrally therewith, a lug formed upon said lever at the conjunction of said handle and the lever body for engagement with said brackets for holding said levers against accidental pivotal movement.

1,144,261. BATH-TUB SEAT. TOMO TANAKA, New York, N. Y. Filed Sept. 26, 1914. Serial No. 863,657. (Cl. 4—2.)



In a bath tub seat of the character described, a flexible body having loops at each end, means for connecting the ends of said loops to said body so as to provide passageways, reinforcing members arranged in each of said loops for stiffening the edges of the body, said body being provided along the edge of one of said loops with a row of apertures, hook members connected with the reinforcing member of the opposite loop, a retaining strip having apertures therein complementary to the apertures in said body, said retaining strip having a loop, a reinforcing bar arranged in said loop, hooks connected with said reinforcing bar adapted to fit over the tub, and a lacing threaded through said apertures for adjustably connecting said body with said retaining strip.

1,144,262. BLIND-HINGE. JAMES WILLIAM TATUM, Coats, N. C. Filed July 8, 1914. Serial No. 849,789. (Cl. 16—110.)



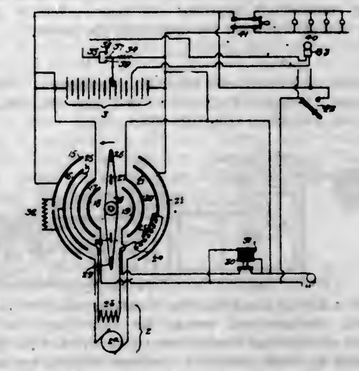
A hinge comprising two parts adapted to be stamped from sheet metal, each of said parts having an outwardly projecting horizontal bearing plate of substantial area, one of said plates being attached to a fixed member and the other to a swinging member, the plate on said swinging member being adapted to overlap and frictionally slide upon the plate on said fixed member whereby the weight of the swinging member is supported by the latter plate, a vertical pintle substantially at the center of one of said bearing plates, an elongated socket substantially at the center of the other plate into which said pintle enters, and in which said pintle is adapted to move in a straight line, a curved edge on one of said plates, and a tongue projecting from the face of one of said plates adapted to be held against the curved edge of the other plate by the weight of the moving member, said edge having a notch into which said tongue enters when the moving member is fully open, said tongue being adapted to be retained in said notch by the weight of said swinging member to lock the parts open.

1,144,263. HAT-PIN. THOMAS P. THERIAULT, Sheridan, Me. Filed July 10, 1914. Serial No. 850,149. (Cl. 24—155.)



A hat pin comprising a tubular member having a flange on one end thereof, and an integral spur adjacent the opposite end, said tubular member being cutaway adjacent the spur, to provide a resilient concaved neck, a shoulder at the junction of the neck and spur, a plunger operating in the tubular member, a head on one end of the plunger, the opposite end of the plunger being rounded to conform to the concaved surface of the neck, said plunger adapted to engage with the neck portion and shoulder for holding the neck portion in alinement with the walls of the tubular member, and resilient means between the head of the plunger and flange of the tubular member for holding the rounded edge of the plunger normally out of engagement with the shoulder.

1,144,264. CONTROLLING SYSTEM FOR ELECTRICAL APPARATUS. SAMUEL K. THOMPSON, Jenkintown, Pa. Filed Jan. 26, 1911. Serial No. 604,768. (Cl. 171—315.)



1. A system including an engine; a dynamo electric machine operatively connected to said engine; a storage battery; and controlling apparatus including means for supplying current from the battery at will to start the engine and thereby causing the dynamo electric machine to charge the battery, with automatic means including an electromagnetic switch, a motor and a switch controlled by said motor for causing stopping of the engine upon the cessation of the charging current.

2. A system including an engine; a dynamo-electric machine operatively connected thereto; a storage battery; a controlling switch for said battery and electric machine; a pilot motor for actuating said switch; a manually controlled switch independently connected to the storage battery and to the pilot motor for starting the latter at will; and means independent of said switch for automatically stopping said pilot motor.

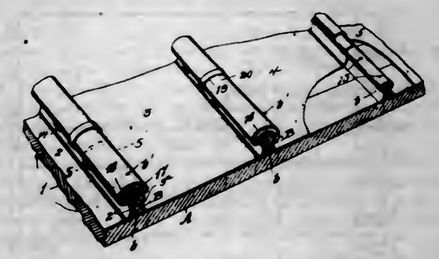
3. A system including an engine; a dynamo electric machine operatively connected thereto; a storage battery; a controller for said electric machine and battery; a pilot motor for actuating said controller; and a switch for starting said pilot motor at will; said controller including means for automatically stopping the pilot motor.

4. A system including an engine; a dynamo electric machine; a storage battery; a controller for the battery and electric machine; a pilot motor for actuating the movable member of said controller; a hand-operated switch for starting said pilot motor at will; and an automatic switch in circuit with the motor including means whereby the circuit of said motor is maintained open as long as the storage battery is being charged.

5. A system including an engine; a dynamo electric machine; a storage battery; a controller for the battery and electric machine; a pilot motor for actuating the movable member of said controller; two switches in circuit with the pilot motor; with means for maintaining one of said switches open when the dynamo electric machine is charging the battery.

[Claims 6 to 19 not printed in the Gazette.]

1,144,265. STANDING WEATHERPROOF SEAM FOR FELT ROOFING. HERMAN VON UFFEL, Philadelphia, Pa. Filed June 23, 1914. Serial No. 846,762. (Cl. 108—7.)



1. The combination of a roof, pieces of pliable roofing material covering the same, seam strips fastened to the roof at the joints between adjacent pieces, each strip having a base provided with rounded side surfaces, a relatively narrow web above the base, and a head wider than the web, the edges of the roofing pieces being bent upwardly at the sides of the strips and engaging the sides of the base and the head, and a cap strip for each strip covering the edges of the pieces of roofing material and including means engaging under the head to clamp the roofing material thereto while permitting the said material at both sides of the web to move inwardly and outwardly with the expansion and contraction of the roofing material.

2. The combination of a roof, strips of roofing material thereon, and an upstanding joint between the edges of the said strips, said joint comprising an upstanding seam strip formed with a base, a web and a head, the edges of the roofing strips being bent upwardly at opposite sides of the seam strip and contacting with the base and head thereof, and a cap strip of channel-shaped cross-section whereby the under side thereof forms a mold for bending the edges of the roofing strip down on the top of the head of the seam strip, said cap strip having means for engaging the under side of the head while the roofing strips are free from the web.

3. The combination of a roof, strips of roofing material thereon, and an upstanding joint between the edges of the said strips, said joint comprising an upstanding seam strip

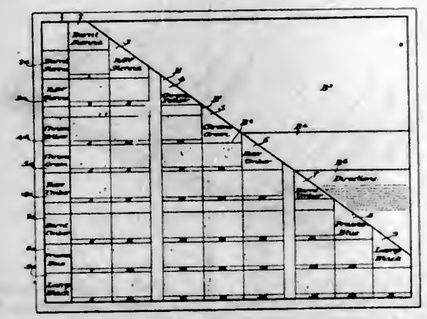
formed with a base, a web and a head, the edges of the roofing strips being bent upwardly at opposite sides of the seam strip and contacting with the base and head thereof, and a cap piece of channel-shaped cross-section having the side portions yielding for fitting down on the top of the seam, and the side portions engaging under the head of the seam strip and clamping the roofing strips against the under side of the head.

4. The combination of a roof, strips of roofing material thereon, an upstanding seam strip fastened to the roof and formed with a head at its top, the edges of the roofing strips being bent upwardly along the sides of the seam strip, and a channel shaped metal cap piece having its side portions yielding toward and from each other and formed with internal beads arranged to engage the roofing material and clamp it to the under side of the head of the seam strip, the side members of the cap strip forming clamping members to hold the cap strip in place.

5. A cap strip for an upstanding seam of roofing material of the class described, comprising a metal piece curved into channel shaped cross-section to form side members which are yielding toward and from each other, the edges of the side members being formed with internal beads, the combination with a seam strip having side surfaces under which the beads are engaged, and strips of pliable roofing material having their edges bent upwardly along the sides of the seam strip, and said edges being clamped against the side surfaces of the said strip by the said internal beads.

[Claims 6 to 10 not printed in the Gazette.]

1,144,266. COLOR-CHART. JACOB VAN HEEST, New Freedom, Pa. Filed Oct. 7, 1914. Serial No. 865,551. (Cl. 88—14.)

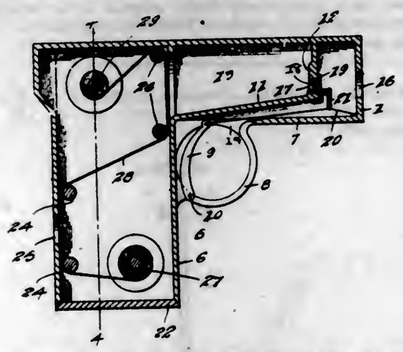


1. A painter's color chart having a series of indicated color groups, arranged in vertical and horizontal rows, each consisting of a primary or basic color and shades produced by combination of the same with each of the other primary or basic colors.

2. A chart for indicating colors and shades and the required combination of colors to produce the same, comprising a triangular field divided into blocks or spaces arranged in vertical and horizontal rows, the vertical rows having head spaces disposed in stepped order along the base of the field and containing the names of primary or basic colors, followed by representations of such colors and shades of the same produced by combination with the other colors, the names of the primary colors being also arranged in vertical order.

1,144,267. CAMERA. KENNETH J. VAN SICKLE and FREDERICK G. TRULAN, Seneca Falls, N. Y. Filed June 30, 1914. Serial No. 848,255. (Cl. 95—34.)

1. A camera including a hollow handle and a barrel communicating therewith, a film holder in said hollow handle, a trigger guard secured between said barrel and said handle, a trigger pivotally secured to said guard, a lens in said barrel, a shutter operably mounted in front of said lens, and operating connections between the free extremity of said trigger and said shutter for operating the latter.

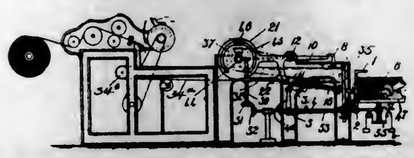


2. A camera including a hollow handle and a barrel communicating therewith, a film holder in said hollow handle, a trigger guard secured between said barrel and said handle, a trigger pivoted to said trigger guard, a lens in said barrel, a shutter operably mounted in front of said lens, a wire secured at one end in said barrel and at the opposite end to the free extremity of said trigger, and an operating connection between said wire and said shutter.

3. A camera including a hollow handle and a barrel communicating therewith, a film holder in said hollow handle, a trigger guard secured between said barrel and said handle, a trigger pivotally secured to said guard, a lens in said barrel, a shutter operably mounted in front of said lens, a flexible wire secured at one end in said barrel and at the opposite end to the free extremity of said trigger, and a spring connecting said wire intermediate its ends with said shutter.

4. A camera including a hollow handle and a barrel communicating therewith and having a longitudinal opening in its lower wall, an apertured partition disposed transversely within said barrel, the front wall of said handle being extended a distance within said barrel and connecting with said apertured partition, a trigger guard secured between said barrel and said handle, a trigger pivotally secured to said guard and projecting into said longitudinal opening, a lens in said apertured partition, a shutter operably mounted in front of said lens, and operating connections between the free extremity of said trigger and said shutter for operating the latter.

1,144,268. LAYING-MACHINE. FREDERICK WILLIAM VICKERY, London, England. Filed Aug. 24, 1911. Serial No. 645,724. (Cl. 101—34.)

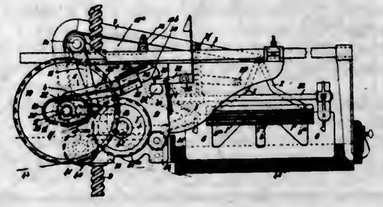


1. In a laying machine, the combination, with a sheet-receiving element and means for delivering the sheets thereto; of pressing mechanism coöperative with the pile of sheets on said receiving element embodying a series of sheet-engaging members, a rod to which said members are connected at their lower ends, a pair of parallel levers to which said rod is pivotally connected at its ends, one of said levers having an extension, a cam arranged to engage said extension for moving said rod and members above the pile, spring means for normally holding said members away from the pile, and cam-operated means for moving said members toward said pile against the action of said spring means.

2. In a laying machine, the combination, with a movable sheet-supporting element; of mechanism for controlling the movement of said supporting element comprising a shaft connected therewith, a driving element loosely mounted on said shaft and provided with a clutch member, a coöperative clutch member fixed to said shaft, a cam carried by said driving element, and a movable rod provided with a terminal spring cam coöperative with the first-named cam for shifting said driving element along said shaft, to engage the two clutch members together.

3. In a laying machine, the combination, with a movable sheet-supporting element; of mechanism for controlling the movement of said supporting element comprising a shaft connected therewith, a driving element loosely mounted on said shaft and provided with a clutch member, a coöperative clutch member fixed to said shaft, a cam carried by said driving element, means for shifting said driving element along said shaft, to engage the two clutch mebmers together, and means coöperative with said cam for subsequently moving said driving element away from said fixed clutch member, to disengage the two clutch members.

4. In a laying machine, the combination, with a movable sheet-supporting element; of mechanism for controlling the movement of said supporting element comprising a shaft connected therewith, a driving element loosely mounted on said shaft and provided with a clutch member, a coöperative clutch member fixed to said shaft, a cam carried by said driving element, means for shifting said driving element along said shaft, to engage the two clutch members together, and a member associated with the fixed clutch member and provided with a cam coöperative with the first-named cam for subsequently moving said driving element away from said fixed clutch member, to disengage the two clutch members.



5. In a laying machine, the combination, with a movable sheet-supporting element; of mechanism for controlling the movement of said supporting element comprising a shaft connected therewith, a driving element loosely mounted on said shaft and provided with a clutch member, a coöperative clutch member fixed to said shaft, a cam carried by said driving element, means for shifting said driving element along said shaft, to engage the two clutch members together, and a slotted member associated with the fixed clutch member and provided with a cam adjustably mounted in the slot therein and coöperative with the first-named cam for subsequently moving said driving element away from said fixed clutch member, to disengage the two clutch members.

[Claims 6 to 13 not printed in the Gazette.]

1,144,269. PAPER PILING OR LAYING MACHINE. FREDERICK WILLIAM VICKERY, London, England. Filed Dec. 8, 1913. Serial No. 805,420. (Cl. 101—34.)

1. In a machine for piling and laying sheets of paper, the combination, with a sheet-receiving element, and side gages associated therewith; of vertically-movable pressers disposed adjacent the opposite side faces of said gages and operative solely upon the edges of the pile of sheets on said element; and mechanism for raising said pressers, the pressers falling by the action of gravity.

2. In a machine for piling and laying sheets of paper, the combination, with a sheet-receiving element, and side gages associated therewith; of horisontally-arranged pressers disposed adjacent said gages and operative solely upon the edges of the pile of sheets on said element; an arm from which said pressers are suspended; a vertically-movable frame carrying said arm; mechanism for lifting said arm to raise the pressers, said pressers falling by the action of gravity; and mechanism for operating said frame.

3. In a machine for piling and laying sheets of paper, the combination, with a sheet-receiving element and side gages associated therewith; of pressers disposed adjacent said gages and operative upon the pile of sheets on said element; means for reciprocating said pressers; a carrier with which said pressers are connected; mechanism for effecting a relative vertical movement between the carrier and the sheet receiving element; and means operable by said pressers for automatically throwing said mechanism out of operation when the height of the said pile falls below the normal.

4. In a machine for piling and laying sheets of paper, the combination, with a sheet-receiving element and side gages associated therewith; of pressers disposed adjacent said gages and operative upon the pile of sheets on said element; a carrier with which said pressers are connected; mechanism for effecting a relative vertical movement between the carrier and the sheet receiving element; and means operable by said pressers for automatically throwing said mechanism out of operation when the height of the said pile falls below the normal.

1,144,270. PROCESS FOR THE PRODUCTION OF ANTISEPTICALLY-ACTING BODIES. REINHOLD FREIHERR VON WALTHER, Dresden, Germany, assignor to T. D. Biedel Actiengesellschaft, Berlin, Germany. Filed Mar. 16, 1914. Serial No. 825,187. (Cl. 23—24.)

1. The process of producing antiseptic 6-halogen-1-methyl-3-oxybenzol-4-carboxylic acid which comprises heating 6-halogen-3-sodium-cresolate with carbon dioxid under pressure to relatively high temperatures.

2. The process of producing antiseptic 6-chloro-3-oxybenzol-4-carboxylic acid which comprises heating 6-chloro-3-sodium cresolate with carbon dioxid under pressure to relatively high temperatures.

3. The process of producing antiseptic 6-chloro-3-oxybenzol-4-carboxylic acid which comprises heating 6-chloro-3-sodium cresolate with carbon dioxid under pressure to a temperature of about 160° C.

4. The process of producing antiseptic 6-chloro-1-methyl-3-oxybenzol-4-carboxylic acid which comprises heating dry para-chloro-meta-sodium-cresolate at a pressure of about five atmospheres in an atmosphere of carbon dioxid to a temperature of about 160° C.

1,144,271. APPARATUS FOR THE CONTINUOUS PRODUCTION BY SYNTHESIS OF HYDROGEN PEROXID. WALTER WEBER, Dusseldorf, Germany, assignor to the Firm of Henkel & Cie., Dusseldorf, Germany. Filed Dec. 5, 1914. Serial No. 875,704. (Cl. 204—5.)

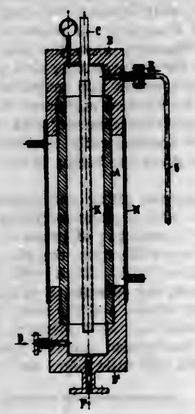
1. In electrolytic apparatus for making hydrogen peroxid, in combination, a metallic vessel adapted to withstand high pressure, a layer of suitable cathode material on the inner surface of said vessel, an anode within said vessel and a diaphragm surrounding the anode.

2. In electrolytic apparatus for making hydrogen peroxid, in combination, a metal tube closed at both ends and adapted to withstand high pressure, a layer of suitable cathode material on the inner surface of said tube, an anode arranged in the middle axis of said tube and a tubular diaphragm surrounding the anode.

3. In electrolytic apparatus for making hydrogen peroxid, in combination, a metal tube closed at both ends and adapted to withstand high pressure, a layer of suitable cathode material on the inner surface of said tube, an anode arranged in the middle axis of said tube, a tubular diaphragm surrounding the anode and a water jacket surrounding said tube.

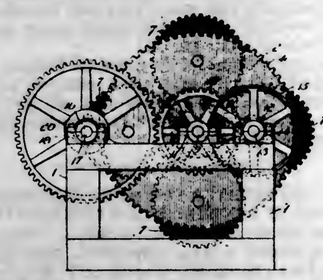
4. In electrolytic apparatus for making hydrogen peroxid, in combination, a metal tube adapted to withstand high pressure, screw-caps on the ends of said tube, a layer of suitable cathode material on the inner surface of said

tube, an anode passing through one of said screw-caps and extending along the middle axis of said tube, a tubular diaphragm surrounding the anode, a liquid inlet and a gas inlet in one and a liquid outlet in the other screw-cap and a water jacket surrounding said tube.



5. In electrolytic apparatus for making hydrogen peroxid, a plurality of metallic vessels adapted to withstand high pressure, coated inwardly with cathode material, surrounding an anode covered with a tubular diaphragm, each vessel provided with liquid and gas inlets and outlets and tubes connecting the liquid outlet of a vessel with the liquid inlet of another vessel.

1,144,272. COMPENSATING DRIVE FOR CONCENTRIC CYLINDERS OR MILLS. ABRAHAM LINCOLN WEST, Newark, N. J. Filed May 9, 1912. Serial No. 696,193. (Cl. 83—9.)



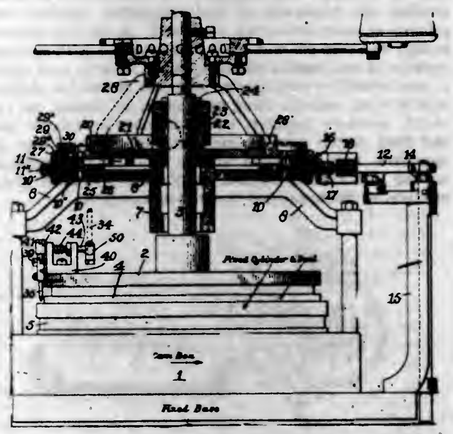
1. In mechanism of the character indicated the combination with a vertically rotatable supporting frame and a plurality of working receptacles carried by said frame, of main driving mechanism for rotating said working receptacles, and an independently operable auxiliary driving mechanism for rotating said frame at a less angular speed than that of the working receptacles.

2. In mechanism of the character indicated the combination with a vertically rotatable supporting frame and a plurality of working receptacles carried by said frame, of separate driven elements carried by said receptacles, main and auxiliary driving mechanisms for rotating said receptacles and supporting frame respectively, and a clutch for disconnecting said main and auxiliary mechanisms.

3. In mechanism of the character indicated the combination with a vertically rotatable supporting frame provided with a driven gear and a plurality of working receptacles carried by said frame each provided with a driven gear, of main driving mechanism for rotating said working receptacles, a central pinion intermeshing with the driven gears of all of said receptacles, and an auxiliary driving mechanism actuated by said main driving gear and comprising a driving pinion meshing with the driven gear upon said rotatable supporting frame.

4. In mechanism of the character indicated the combination with a vertically rotatable supporting frame provided with a driven gear and a plurality of working receptacles carried by said frame each provided with a driven gear having an axial movement with relation to that of said supporting frame, of main driving mechanism comprising a driving pinion meshing with the gears of all of said receptacles, an auxiliary driving mechanism including a driving pinion meshing with the gear upon said supporting frame, means for transmitting power from said main to said auxiliary driving mechanisms, and a clutch for disconnecting said auxiliary driving mechanism.

1,144,273. STOP MECHANISM FOR KNITTING-MACHINES. FRANK B. WILDMAN and GEORGE LAWSON BALLARD, Norristown, Pa., assignors to Wildman Mfg. Co., a Corporation of Pennsylvania. Filed Mar. 7, 1913. Serial No. 752,797. (Cl. 66—7.)



1. In combination with a knitting machine having a fixed needle carrier, a let-off connection comprising a normally stationary ring surrounding the axis of the knitting head, a pivoted dog revolving with the knitting head and independent of contact with the thread, a needle detector and a stop motion with connections therefrom for operating the said pivoted dog positively to effect engagement of said dog with the ring, a let-off device and connections between the ring and the let-off device to operate the latter when the ring is moved by the dog, substantially as described.

2. In combination in a circular knitting machine, having a fixed needle carrier and revolving cams, a ring arranged concentric with the knitting head, and normally at rest, a needle detector, a connection leading from a stop motion, a member revolving with the movable part of the knitting head, engagement between the said member and the ring being effected by either the stop motion connection or the needle detector, substantially as described.

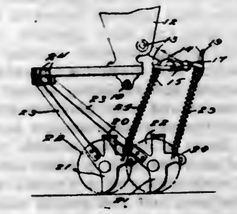
3. In combination in a circular knitting machine, having a fixed needle carrier and revolving cams, a ring arranged concentric with the knitting head, and normally at rest, a needle detector, a connection leading from a stop motion, a member revolving with the movable part of the knitting head, engagement between the said member and the ring being effected by either the stop motion connection or the needle detector, said ring being located above the needle head and connections leading up from the needle detector to the said member, substantially as described.

4. In combination in a circular knitting machine, a fixed cylinder, dial and dial post, a fixed frame ring surrounding the dial post, a rotary yarn carrier together with shifting locking means for the dial post, located within the frame ring, and connecting the same with the dial, a bobbin stand surmounting the frame ring and the said parts within the same, a let-off ring also surmounting the frame ring and surrounding the bobbin stand, a device external to and moving with the bobbin stand for engaging the let-off ring, means controlled by the yarn or knitting to control the said device, and connections operated by the said let-off ring, substantially as described.

5. In combination with a knitting machine, a pivoted needle detector finger, a spring pressed arm and a link connection between the spring pressed arm and the finger, the pivotal points between the link and the arm and detector being substantially in line when the detector finger is in operative position to hold the spring against action, said spring acting when the finger is moved from its normal position, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

1,144,274. GRAIN-DRILL. GEORGE M. WINWOOD, Jr., Springfield, Ohio. Filed July 28, 1914. Serial No. 853,740. (Cl. 111—11.)



1. In a drill, a part adapted to be manually raised and lowered, a shaft journaled in the raising and lowering part, arms extending obliquely across and rigidly secured to the shaft, and seeding devices resiliently depending below the extremities of the oblique arms.

2. In a drill, a part adapted to be manually raised and lowered, a shaft journaled upon the raising and lowering part, arms extending rigidly and obliquely across the shaft and provided at their extremities with openings, rods extending downwardly through the openings and provided with springs and seeding devices carried upon the lower end of the rods.

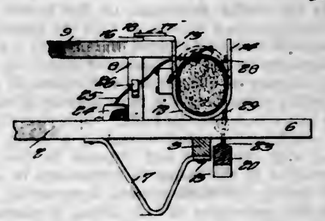
3. In a drill, a part adapted to be manually raised and lowered, a shaft journaled upon the raising and lowering part, arms extending obliquely across and rigidly secured to the shaft and provided with extremities having openings therein, said open extremities coinciding substantially with equally spaced parallel lines perpendicular to the shaft and seeding devices carried upon the extremities of such arms.

4. In a drill, a part adapted to be manually raised and lowered, a shaft journaled in said part, arms extending across and rigidly secured to the shaft and having their outer ends coinciding substantially with equally spaced parallel lines perpendicular to the shaft, seeding devices arranged in two rows, and rods connecting said devices with the ends of the arms.

5. In a drill, a support adapted to be manually raised and lowered, a rocking shaft journaled in such support, arms secured to and projecting forward and rearward from the shaft, the outer ends of one set of arms standing opposite the spaces between the outer ends of the other set, seeding devices arranged in two rows and in staggered relation to each other, swinging supports for the members in said rows, and individual connecting means between the front members and front arms and the rear members and rear arms respectively.

1,144,275. FODDER-BUNDLER. JOHN L. WOLFE, Willshire, Ohio. Filed Nov. 30, 1914. Serial No. 874,753. (Cl. 100—31.)

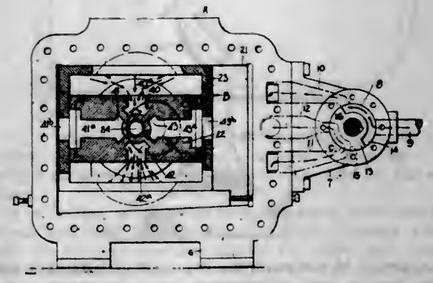
1. A device of the character specified, comprising a wheel supported main frame, an auxiliary frame supported above the main frame and adapted to support the stalks to be bundled transversely of the frame, series of U-shaped supports at the end of the auxiliary frame, and connected to the main and auxiliary frames, a bar adjacent to the supports and pivoted at one end to the main frame and having its outer end free and adapted to be swung downwardly, the bar having a hook on its upper face near its free end, a loop of flexible material connected with one of the intermediate supports at the inner side of the support and adapted to be engaged by the hook at the opposite end, a holder for the cord adjacent to the central support at each end of the frame, and guides for the cord for holding the same transversely of the central support and near the top thereof.



2. A device of the character specified, comprising a main frame, an auxiliary frame supported above the main frame for receiving the stalks and holding them transversely of the main frame, a series of U-shaped supports arranged transversely of the main frame at the end adjacent to the legs and connected to the auxiliary frame at the end thereof to permit the stalks to roll from the auxiliary frame into the supports, means for supporting a tying cord at one of the supports, and means for compressing the stalks to permit them to be tied by the tying cord.

3. A device of the character specified, comprising a main frame, an auxiliary frame supported by the main frame above the same, a series of substantially U-shaped supports arranged transversely of the main frame at one end of the auxiliary frame and in position to permit the stalks to roll from the auxiliary frame into the supports, and means for compressing the stalks in one of the supports, said means comprising a loop of flexible material connected to the inner side of one of the supports, and adapted to be passed above the bundle in the supports, and a lever pivoted below the supports and having a hook for engaging the loop.

1,144,276. ENGINE. FREDERICK JAMES ZELLAR, Grand Haven, Mich., assignor of one-half to Dake Engine Co., Grand Haven, Mich. Filed Dec. 19, 1914. Serial No. 878,105. (Cl. 121—46.)



1. An engine comprising a casing having a rectangular piston chamber, a crank chamber and a valve chamber, the piston chamber being intermediate the other two chambers and the casing including a cover that contains the valve chamber; a piston in the piston chamber reciprocable back and forth in one direction and having an inner section reciprocable at right-angles to the move-

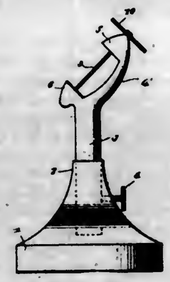
ment of the piston; a shaft having a crank pin extending through the center of the inner section of the piston and beyond the latter; a rotary valve in the valve chamber and having an opening in which the crank pin engages for rotating the valve to control the admission and exhaust of fluid to and from the piston.

2. An engine comprising a casing having a body section provided with a rectangular chamber, and a cover section provided with a valve chamber having concentric annular passages; a rotary valve in the said valve chamber and having passages registering respectively with the passages of the cover section of the casing; a piston mounted in the piston chamber to bodily reciprocate in one direction and having an inner section reciprocable at right-angles to the bodily movement of the piston, and the piston having passages to register with the passages of the valve to admit fluid to and from the piston; a shaft having an eccentric crank pin connected with the center of the inner section of the piston, and means in line with the crank pin connecting the inner section of the piston with the valve to rotate the same.

3. An engine comprising a casing, a shaft, a crank connected with the shaft and disposed in the casing, a piston mounted in the casing to reciprocate in one direction and having an inner section reciprocable at right-angles to the movement of the piston, a connection between the crank and the center of the inner section of the piston, a rotary valve mounted in the casing with its axis concentric with the shaft, and a connection between the center of the inner section of the piston and the valve at an eccentric point, said valve being located at the side of the piston opposite from the crank and controlling the flow of fluid.

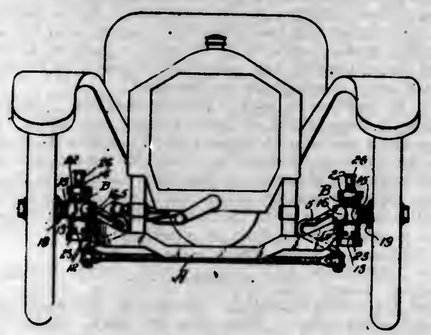
4. An engine comprising a casing including a cover having a circular chamber, a shaft, a crank connected with the shaft and disposed in the casing, a piston mounted in the casing to recipricate in one direction and having an inner section reciprocable at right-angles to the movement of the piston, a connection between the crank and the center of the inner section of the piston, a rotary valve mounted in the said circular chamber of the cover with its axis concentric with the shaft, a connection between the center of the inner section of the piston and the valve at an eccentric point, said valve being located at the side of the piston opposite from the crank and controlling the flow of fluid, and the crank having a weight for counter-balancing the crank pin and inner section of the piston.

1,144,277. WHEEL DRESSER AND TRUER. WILBER E. ADAMS, Detroit, Mich., assignor to W. A. Adams, Detroit, Mich. Filed Feb. 27, 1914. Serial No. 821,563. (Cl. 125—6.)



A device of the character described embodying a suitable base, a post or standard rising therefrom, and a bracket at the upper end of said standard disposed substantially at an oblique angle thereto and offset mainly therefrom, said bracket being bifurcated to provide upper and lower bearing lugs, the upper lug having a bearing passage extending therefrom and the lower lug having a bearing passage extending but partially therethrough and forming a bearing socket.

1,144,278. STEERING DEVICE. DAVID ALLEN, Trenton, N. J. Filed July 24, 1914. Serial No. 852,966. (Cl. 21—141.)



1. The combination with the axle of a motor car, of a steering knuckle housing on the end thereof, said housing embodying two main sections separable along a vertical diametrical line and each provided with a substantially semi-cylindrical external bearing face intersected by a horizontal slot, tie-plates fastened to opposite sides of said housing and extending across the meeting edges of said housing and each provided with a curved bearing face which forms a complemental portion of said semi-cylindrical faces, a steering knuckle journaled in said housing and provided with a wheel spindle passing through one of said slots and a knuckle arm passing through the other slot, and dirt guards secured to said spindle and knuckle arm and embodying concaved bearing faces which work in contact with the external bearing faces on the housing sections and tie-plates.

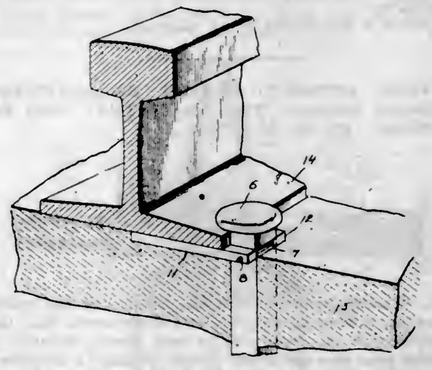
2. The combination with the axle of a motor car, of a steering knuckle housing on the end thereof, said housing embodying two main sections separable along a vertical diametrical line and each provided with a substantially semi-cylindrical external bearing face intersected by a horizontal slot, tie-plates fastened to opposite sides of said housing and extending across the meeting edges of said housing and each provided with a curved bearing face which forms a complemental portion of said semi-cylindrical faces, flanged caps threaded on the upper and lower ends of said housing and serving to lock the housing sections together, a steering knuckle journaled in said housing and provided with a wheel spindle passing through one of said slots and a knuckle arm passing through the other slot, and dirt guards secured to said spindle and knuckle arm and embodying concaved bearing faces which work in contact with the external bearing faces on the housing sections and tie-plates.

1,144,279. SPIKE. AUGUST J. ALTHEIDE, Lewiston, Idaho. Filed Oct. 31, 1914. Serial No. 869,633. (Cl. 238—4.)

1. A device of the character described comprising a spike including a shank, a head and a V-shaped notch formed transversely in the rear face of said shank adjacent said head and a flat plate having a recess in one end removably receiving the notched portion of said shank, and means carried by said plate engaged in the notch to prevent upward movement of the spike relative to said plate.

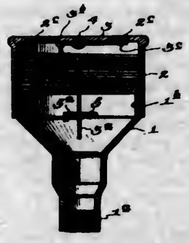
2. A device of the character described comprising a spike including a shank, a head and a V-shaped notch extending transversely of the rear face of said shank adjacent said head, a flat plate having a recess in one end removably receiving the notched portion of said shank, and a locking pin positioned through the recessed end of said plate and engaged in the notch in said shank to lock the spike against upward movement.

3. A device of the character described comprising a spike including a head, a shank rectangular in cross section and having a notch in the rear face thereof engaging said head, a plate having a rectangular recess in one end removably and snugly receiving said shank, and a locking pin removably positioned through the recessed end of said plate and engaged in said notch to lock said spike against upward movement relative to said plate.



4. In combination, a railroad tie, a rail positioned upon said tie, a flat plate positioned between said tie and said rail and projecting laterally of one side of the base of said rail and having its exposed end recessed, a spike positioned in said tie within the recess having a head at the upper end engaging the base of said rail, a transverse V-shaped notch in the shank thereof adjacent the head, and a locking pin positioned through the recessed end of said plate and the notch in said spike for locking the latter against upward movement.

1,144,280. LOCKING DEVICE FOR GREASE-CUPS. HERBERT B. ANDREWS, Battle Creek, Mich., assignor to American Stamping Co., Battle Creek, Mich., a Corporation of Michigan. Filed Dec. 30, 1914. Serial No. 879,656. (Cl. 184—48.)



1. In combination with a grease cup comprising separable members, of a locking member having a tongue pivoted within and at the axial line of one member of the cup with its free end yieldably engaged with said cup-member, and a portion extending from the pivoted end of the tongue and lying in the axial line of the cup and non-rotatably engaged with the other member of the cup.

2. In combination with a grease cup comprising separable members, a spring locking member comprising a tongue pivoted to and within one member of the cup and at the axial line thereof and having its free end yieldably engaged therewith, and a portion integral with the tongue lying in the axial line of the cup and having a non-rotative engagement with the other member of the cup.

3. In combination with a grease cup having a cap and base, of a locking tongue pivoted within and to the underside of the top of the cap of the cup and having a yieldable engagement therewith, and having a depending portion non-rotatably engaged with the base of the cup.

4. In combination with a grease cup having a cap and base, a spring locking member comprising a tongue pivoted to the underside of the top of and within the cap and having a yieldable engagement therewith, and a depending portion connected with the tongue and lying in the axial line of the cup and having a non-rotative engagement with the base of the cup.

5. In combination with a grease cup comprising a base and a cap rotatively engaged therewith, a spring locking member having a tongue portion pivoted to the underside of the top of and within the cap, and an integral depending portion connected with the tongue and lying in the axial line of the cup and having a slidable non-rotative engagement with the base of the cup.

[Claims 6 and 7 not printed in the Gazette.]

1,144,281. PROCESS OF MAKING TERMINALS. HERBERT B. ANDREWS, Battle Creek, Mich., assignor to H. B. Sherman Manufacturing Company, Battle Creek, Mich., a Corporation of Michigan. Filed May 8, 1915. Serial No. 26,802. (Cl. 113—51.)

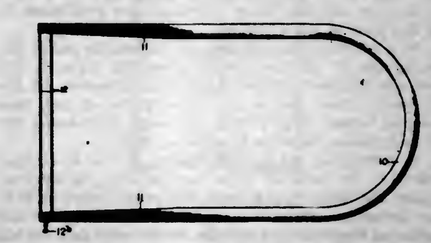


1. The process of making terminals and the like consisting in drawing a blank into a cartridge of the desired length and diameter, and flatting the closed end of such cartridge to form the tang of the terminal, the unflattened portion forming the socket thereof.

2. The process of making terminals and the like consisting in drawing a blank into a cartridge of the desired length and diameter, flatting the closed end of such cartridge to form the tang of the terminal, the unflattened portion forming the socket thereof, and perforating the tang, substantially as described.

3. The herein described process of making terminals, consisting in drawing a sheet metal blank into a cartridge of about the desired length of the terminal and having an interior diameter about equal to that desired for the terminal socket, then flatting the closed end of such cartridge to form the tang of the terminal, the unflatened portion forming the socket thereof, substantially as described.

1,144,282. BUTTER-CUTTER. SHUZOBURO ARAKI, Fromberg, Mont. Filed Mar. 31, 1915. Serial No. 18,266. (Cl. 31—65.)



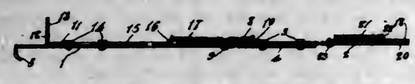
1. A cutter of the character described, comprising a frame and a cutting element thereon, consisting of a strand of wire presenting minute, close coils on the surface.

2. A cutter of the character described, comprising a frame and parallel stretches of cutting elements thereon, one element arranged behind the other and spaced therefrom in alinement therewith, the said cutting elements presenting close, minute coils on the surface.

1,144,283. ADJUSTABLE SHADE-ROLLER HANGER. KENNETH W. BARRAGER, Atlantic Highlands, N. J. Filed June 16, 1914. Serial No. 845,404. (Cl. 156—28.)

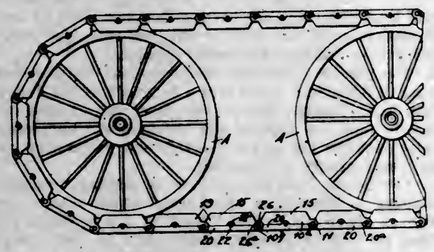
An adjustable shade roller hanger comprising a body section provided near its inner end with a longitudinally

extending elongated slot, another body section having an overlapping engagement with the first named body section, guide pins carried by said other body section and passing through said elongated slot to adjustably connect the sections, a claw formed on the outer end of each body section, an upturned lug formed on the inner end of said other body section, a contractile spring secured at one end to said first named body section and at its other end to said



lug, a pair of shade roller supports, each of said supports being provided with an elongated slot extending longitudinally thereof, guide pins carried by the sections and passing through the slots of the supports to adjustably mount a support upon each section, lugs formed on the inner ends of said supports, a contractile spring secured to the lug of one of the supports and to one of the body sections, and another contractile spring secured to the lug of the other support and to said other body section.

1,144,284. SELF-LAYING TRACTION-TRACK. WILLIAM EDWARD BASSETT, Fresno, Cal. Filed Aug. 19, 1914. Serial No. 857,494. (Cl. 21—114.)



1. In a traction chain, a series of links, each link being formed at one end with hinge elements in the form of hooks, said hooks presenting open slots, the opposite end of each link presenting hinge members adapted to enter the slots at the opposite end of an adjacent link and be engaged by the hooks of the latter, and detachable shoes on the links, one end of the shoe forming the closure of the slots at an end of the link and overlapping, at the opposite end, the adjacent hinge elements, and positioned to close the slots in the next link.

2. In a traction chain, links, and detachable shoes, the links having at one end, hooks presenting slots at the under side inclined to the longitudinal direction of the links, and a hinge bar at the opposite end of each link presenting lateral hinge pintles, the shoes overlapping the links and closing the slots in adjacent links.

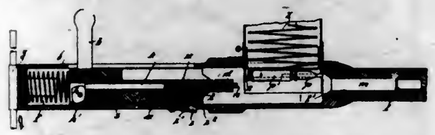
3. In a traction chain, links having at one end hinge elements in the form of hooks located near the sides of the link, the backs of the hooks being rounded, and said hooks presenting slots at an angle to the longitudinal direction of the links, the opposite end of each link having a hinge bar presenting laterally projecting pintles received in the slots of an adjacent link, and shoes having ends overlapping the hinge members of the links and closing the slots of the respective links.

4. In a traction chain, a series of pivotally connected links having ribs at the inner side forming a channel for wheels, and having transverse ribs at the outer sides, shoes on the links at the outer sides thereof, flanges on the shoes between which the ribs on the links are received, and a transverse pin uniting the said ribs and flanges, the ends of the shoes overlapping the pivots of the links.

5. In a traction chain, links formed at one end with hooks and at the opposite end with outwardly projecting hinge pintles adapted to be received in the hooks of an adjacent link, the said hooks being rounded on the exterior surface and presenting slots for the entrance of the pintles, the ends of the links adjacent to the pintles overlying the latter and presenting opposed rounded surfaces, the said rounded surfaces being spaced from the pintles to receive the hooks of an adjacent link, and shoes detachably secured to the links at the exterior and having overlapping members curved to conform to the curvature of the hooks.

[Claim 6 not printed in the Gazette.]

1,144,285. AUTOMATIC FIREARM. REINHOLD BECKER, Krefeld, Germany. Filed Oct. 27, 1914. Serial No. 868,898. (Cl. 42—3.)



1. In an automatic fire-arm the combination of a breech chamber, a cartridge chamber of greater length than the cartridge at the front end of said breech chamber, a breach piece movable in said breech chamber, a projection on the front end of said breech piece adapted to accurately fit into said cartridge chamber, means for projecting said breech piece toward the front, a firing pin carried by said breech piece and automatic means for insuring the actuation of said pin shortly before said breech piece completes its forward movement.

2. In an automatic fire-arm the combination of a breech chamber, a cartridge chamber of greater length than the cartridge at the front end of said breech chamber, a breech piece movable in said breech chamber, a projection on the front end of said breech piece adapted to accurately fit into said cartridge chamber, means for projecting said breech piece toward the front, a firing pin carried by said breech piece and automatic means for insuring the actuation of said pin shortly before said breech piece completes its forward movement, means for automatically locking said breech piece in its rear position, and mechanism for releasing said breech piece.

3. In an automatic fire-arm the combination of a breech chamber, a cartridge chamber of greater length than the cartridge at the front end of said breech chamber, said cartridge chamber terminating at its rear in a conical part, a breech piece movable in said breech chamber and having a conical shoulder and a reduced part in front of said shoulder adapted to accurately fit into said cartridge chamber, means for projecting said breech piece toward the front, a firing pin carried by said breech piece and automatic means for insuring the actuation of said pin shortly before said breech piece completes its forward movement.

4. In an automatic fire-arm the combination of a breech chamber, a cartridge chamber of greater length than the cartridge at the front of said breech chamber, a breech piece movable in said breech chamber, a projection on the front end of said breech piece adapted to accurately fit into said cartridge chamber, a spring for projecting said breech piece toward the front, a catch adapted to arrest said breech piece in its rear position, mechanism for releasing said catch, a firing-pin carried by said breech piece, a hammer on said breech piece adapted to strike said pin, and means for automatically actuating said hammer shortly before said breech piece completes its forward movement.

5. In an automatic fire-arm the combination of a breech chamber, a cartridge chamber of greater length than the cartridge at the front end of said breech chamber, a breech piece movable in said breech chamber, a projection on the front end of said breech piece adapted to accurately fit into said cartridge chamber, a spring for projecting said breech piece toward the front, a catch adapted to arrest said breech piece in its rear position, mechanism for releasing said catch, a firing-pin carried by said breech piece, a hammer on said breech piece adapted to strike said pin, and a detent secured to said breech chamber in such a position as to actuate said hammer shortly before said breech piece completes its forward movement.

[Claims 6 to 12 not printed in the Gazette.]

1,144,286. NON-REFILLABLE BOTTLE. WILLIAM JAKOB BEISEL, Brooklyn, N. Y. Filed July 16, 1914. Serial No. 851,382. (Cl. 215—62.)



1. The combination with a bottle having a neck, of a cylinder suspended in the neck of the bottle and provided in its side wall with a plurality of passages through which liquid can flow from the body of the bottle, a tapered valve seat beyond the outer end of said cylinder, a tapered valve adapted to fit said seat and have its inner end project slightly into said cylinder, a weight within the body of the bottle, means flexibly connecting the weight to the valve and a fixed support at the bottom of the bottle, and a sliding hammer supported by and within the cylinder and adapted to impart a slight blow to the inner end of the valve when the bottle is inverted.

2. The combination with a bottle having a neck, of a cylinder suspended in the bottle and provided with a plurality of lateral openings through which liquid from the body of the bottle can flow, a tapered valve seat arranged beyond the outer end of said cylinder, a tapered valve adapted to fit said seat and have its inner end project slightly into the outer end of the cylinder, means for holding the valve in contact with the seat to prevent the flow of liquid through the bottle neck, a hammer supported to slide within the cylinder and adapted to impart a slight blow to the valve to move it from its seat when the bottle is inverted, and a plurality of flexible fingers carried by the cylinder and projecting into the path of the hammer adjacent the valve, for the purpose described.

3. The combination with a bottle having a neck, of a cylinder suspended in the bottle and having a plurality of lateral liquid passages extending through its side wall and a plurality of longitudinally extending grooves formed in its inner surface, a tapered valve seat arranged beyond the outer end of said cylinder, a tapered valve adapted to fit said seat and have its inner end project into the outer end of said cylinder, means for holding said valve in contact with the seat to prevent the flow of liquid through the bottle neck, and a tubular hammer having projections engaging the longitudinal grooves in said cylinder and adapted to impart a slight blow to the valve when the bottle is inverted.

4. The combination with a bottle having a neck, of a cylinder suspended in the bottle and having a plurality of lateral liquid passages extending through its side wall and a plurality of longitudinally extending grooves formed in its inner surface, a tapered valve seat arranged beyond the outer end of said cylinder, a tapered valve adapted to fit said seat and have its inner end project into the outer end of said cylinder, means for holding said valve in contact with the seat to prevent the flow of liquid through the bottle neck, plugs fitted in the outer ends of the longitudinal grooves of said cylinder and provided with inwardly projecting flexible fingers which are normally out of contact with the inner end of the valve, and a tubular hammer adapted to slide in said longitudinal grooves in the cylinder and through said flexible fingers impart a slight blow to the inner end of the valve when the bottle is inverted.

5. The combination with a bottle having a neck, of a cylinder suspended in the neck of the bottle and extending into the body thereof, said cylinder having its side wall provided with a plurality of liquid passages and having longitudinally extending grooves formed in its inner surface, a tapered valve seat arranged beyond the end of said cylinder, a tapered valve adapted to fit said cylinder, a weight within the body of the bottle connected with the valve to hold the same in close contact with its seat unless the bottle is inverted, a hammer engaging said longitudinal grooves in the cylinder and adapted to impart a slight blow to the inner end of the valve when the bottle is inverted, a washer at the inner end of said cylinder for cushioning the blow of the hammer in that direction, and yielding means arranged between the hammer and the inner end of the valve for cushioning the blow of the hammer in that direction.

1,144,287. NON-REFILLABLE BOTTLE WILLIAM JAKOB BEISEL, Brooklyn, N. Y. Filed Oct. 26, 1914. Serial No. 868,751. (Cl. 215—62.)



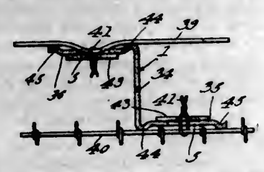
1. The combination with a bottle, of a tapered tubular valve seat adjacent the mouth of the bottle, a correspondingly tapered valve within said seat and adapted to project beyond the inner end thereof, the inclined valve contacting face or surface of said seat being provided with a series of shallow grooves, the inner ends of which do not extend to the inner end of the seat, a weight acting to hold the valve in contact with the seat with its inner end projecting therefrom, and a hammer within the bottle adapted to impart a slight blow to the projecting inner end of the valve when the bottle is inverted.

2. The combination with a bottle, of a tapered tubular valve seat having its operative inclined surface provided with a series of longitudinally extending grooves, the length of said grooves being such that an unbroken, smooth, annular surface is provided at the inner end of the seat, a tapered valve within said seat and adapted to project beyond the inner end thereof, a weight connected with the valve and acting to hold it in its innermost posi-

tion, and a hammer within the bottle adapted to impart a slight blow to the inner end of the valve when the bottle is inverted.

3. The combination with a bottle, of an apertured cylindrical guide suspended in the neck of the bottle, a tapered tubular valve seat supported across the outer end of said guide, a correspondingly tapered valve within said seat adapted to project beyond the inner end thereof into said cylinder, the inclined contacting surfaces of said valve and seat having slight grooves formed therein and terminating short of the inner ends of the valve and seat, a weight acting to maintain the valve in its innermost position, and a hammer supported by said cylindrical guide and adapted to impart a slight blow to the inner end of the valve when the bottle is inverted.

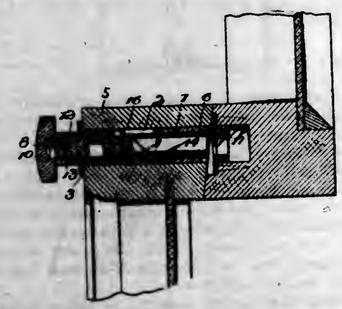
1,144,288. FENCE-POST. HENRY KROPP BENTS, Sedalia, Mo., assignor of one-fourth to Melville T. Henderson and one-fourth to Edward D. Bosserman, Sedalia, Mo. Filed July 8, 1913. Serial No. 777,931. (Cl. 256—57.)



1. In a device of the class described, a fence post comprising a body and flanges projecting in opposite directions from the longitudinal edges of the body, the flanges being struck inwardly toward each other between the outer longitudinal edges of the flanges and the outer longitudinal edges of the body, to form longitudinal reinforcing ribs at the outer longitudinal edges of the flanges and at the outer longitudinal edges of the body, each flange having an opening; a flexible element engaging certain of the ribs; and a securing device located in the opening and engaging the flexible element.

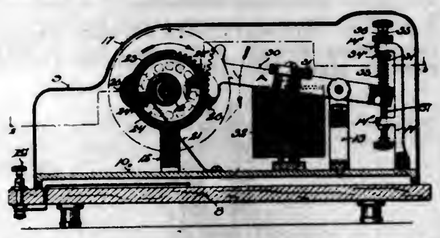
2. In a device of the class described, a post provided with longitudinal ribs and provided with a single slot therethrough and elongated transversely of the ribs, the ends of the slot being spaced from the ribs; a flexible element extended transversely of the ribs and having a bend removably seated in the slot and held therein against movement both longitudinally and transversely of the post; and a securing device engaging the bend and located in the slot.

1,144,289. SASH-FASTENER. JOHN C. BLAIR and ROBERT L. FREUDENBERGER, Charleston, W. Va. Filed Oct. 16, 1914. Serial No. 866,925. (Cl. 16—143.)



A sash-fastener comprising a stationary barrel provided with a longitudinal slot, a rotary sleeve having a spiral slot therein, and a sliding bolt, and means connected to the bolt passing through the spiral slot of the sleeve and entering the longitudinal slot of the barrel for fastening the barrel, sleeve and bolt together, whereby upon the rotation of the sleeve the bolt will be moved longitudinally.

1,144,290. TELEGRAPHY. BORNETT L. BOSHOFF, Milwaukee, Wis., assignor, by direct and mesne assignments, to Universal Indicator Company, Milwaukee, Wis., a Corporation of Wisconsin. Filed Feb. 9, 1914. Serial No. 817,541. (Cl. 177—338.)



1. A telegraph apparatus comprising a spindle and its bearings, a ratchet-wheel fast on the spindle, an electro-magnet provided with an armature having a detent-end engageable with the ratchet-wheel, a spring-controlled sliding rack-wheel in clutch-connection with the spindle, an electro-magnet by which to draw the rack-wheel out of clutch against spring resistance, a rack-lever engaging said rack-wheel, an electro-magnet having the armature thereof in connection with the lever, a dial fast on said spindle and provided with indices at regular intervals of a circle thereon, means under control at a distant point for energizing the last named magnet separately and for simultaneously energizing the other two of the magnets, and means for effecting an automatic reverse movement of the spindle out of clutch with said rack-wheel.

2. A telegraph apparatus comprising a spindle and its bearings, a ratchet-wheel fast on the spindle, an electro-magnet provided with an armature having a detent-end engageable with the ratchet-wheel, a spring-controlled sliding rack-wheel in clutch-connection with the spindle, an electro-magnet by which to draw the rack-wheel out of clutch against spring resistance, a rack-lever engaging said wheel, an electro-magnet having the armature thereof in connection with the lever, a dial fast on said spindle and provided with indices at regular intervals of a circle thereon, means under control at a distant point for energizing the last named magnet separately, means for simultaneously energizing the detent and wheel control magnets, means for effecting an automatic reverse movement of the partly revolved spindle out of clutch with said rack-wheel, and a contact in connection with the said spindle for automatically closing electric circuits through said detent and wheel control magnets when said spindle completes a revolution.

3. A telegraph apparatus comprising a spindle and its bearings, a ratchet-wheel fast on the spindle, an electro-magnet provided with an armature having a detent-end engageable with the ratchet-wheel, a helical spring connected at its ends to the spindle and a fixed part of the apparatus, a spring-controlled sliding rack-wheel in clutch-connection with the spindle, an electro-magnet by which to draw the rack-wheel out of clutch against spring resistance, a rack-lever engaging said rack-wheel, an electro-magnet having the armature thereof in connection with the lever, a dial fast on said spindle and provided with indices at regular intervals of a circle thereon, and means under control at a distant point for energizing the last named magnet separately and for simultaneously energizing the other two of the magnets.

4. A telegraph apparatus comprising a spindle and its bearings, a ratchet-wheel fast on the spindle, an electro-magnet provided with an armature having a detent-end engageable with the ratchet-wheel, a flanged sleeve fast on the spindle, a disk rigid with the sleeve and having spring-tongues struck out therefrom to form a clutch, a rack-wheel loose on the sleeve to have slip engagement with the clutch, a spring on said sleeve between the flange thereof and the rack-wheel hub, an electro-magnet by which to draw the rack-wheel out of clutch against spring resistance, a rack-lever engaging said rack-wheel, an electro-magnet having the armature thereof in connection with the lever, a dial fast on said spindle and provided with indices at regular intervals of a circle thereon, means under control at a distant point for energizing the last named magnet separately and for simultaneously energizing the other two of the magnets, and means for effecting an automatic reverse movement of the spindle out of clutch with said rack-wheel.

1,144,291. INSOLE. ALDEN S. BOYER, Chicago, Ill., assignor, by mesne assignments, to Albert G. McCaleb, Chicago, Ill. Filed June 12, 1912. Serial No. 703,107. (Cl. 36—44.)



1. An insole comprising a piece of suitable material impregnated with zinc peroxid.

2. An insole comprising a piece of felt, and zinc peroxid in the interstices of the felt.

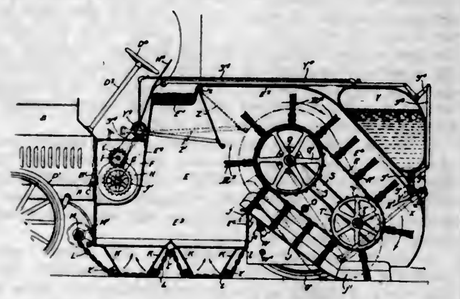
3. An insole comprising a piece of felt, and a mixture of zinc peroxid, glue and shellac filling the interstices of the felt.

4. An insole of suitable material impregnated with a medicinal agent adapted to react with the uric acid of the perspiration to set free a deodorizing agent.

5. An insole of suitable material impregnated with a medicinal agent adapted to react with the uric acid of the perspiration to form a healing agent and to set free a deodorizing agent.

[Claims 6 and 7 not printed in the Gazette.]

1,144,292. STREET-SWEEPER. ALVIN BROWN, Plainfield, Ill. Filed Dec. 20, 1913. Serial No. 807,906. (Cl. 15—17.)



1. In a street sweeper, the combination of an endless sweeper belt mounted to swing at its upper end in order that its lower end may be adjusted toward and away from the ground, a rod extending horizontally and transversely beneath the upper end of the sweeper, a body within which the sweeper is disposed, and beyond the sides of which the ends of the said rod project, a dust pan with which the sweeper coöperates, disposed within this body and having its upper end carried by the said rod, said dust pan having an upper inner extension hinged on the said rod to swing freely with respect thereto, means external of each side of the body and engaging the projecting ends of the rod whereby to adjust the latter and the dust pan vertically, and connections between said adjusting means whereby to render their movements simultaneous.

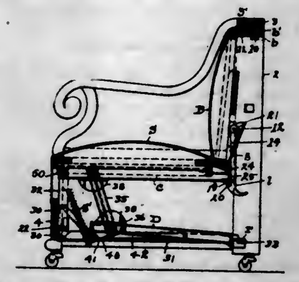
2. In a street sweeper, the combination of a body having arcuate slots, in the lower rear portion of its sides, a brush within the body comprising an endless sweeper belt, an upper transverse driven shaft upon which the upper portion of the belt travels, side bars journaled at their upper ends upon the upper shaft and inclined downwardly and rearwardly therefrom, a lower transverse shaft upon which the lower portion of the sweeper belt travels, journaled in the lower portions of the said side bars, the said lower portions of the side bars having laterally extending ears projecting outwardly through the slots of the body, means external of each side of the body and engaging said extending ears for adjusting the lower end of the brush vertically, and connections between said adjusting means whereby to render their movements simultaneous.

3. In a street sweeper, the combination of a body, an endless sweeper belt operating within the body, an adjustable clearing plate hinged at its upper end within the body and having its lower end movable into and out of the path of movement of the brush whereby to engage the latter in operation, and an adjusting rod pivotally connected at its rear end to the lower end of said clearing plate and having its forward end extending forwardly through the body to a point convenient to the operator thereof, for the purpose described.

4. In a street sweeper, the combination of an endless sweeper belt mounted to swing at its upper end in order that its lower end may be adjusted toward and away from the ground, a dust pan with which the sweeper coöperates, a rod extending horizontally and transversely beneath the upper end of the sweeper, a body within which the sweeper and pan are disposed, and beyond the sides of which the ends of the said rod project, vertically disposed screw rods threaded through the said projecting ends of the said rod and mounted in bearings upon the body sides, a shaft extending through the body and having geared connections at its ends with the said screw rods, one end of the shaft being extended and squared for the reception of an implement whereby to cause the rotation thereof, the upper end of the dust pan being connected to and carried by the said horizontal rod to be adjusted.

5. In a street sweeper, the combination of a body having arcuate slots in the lower rear portion of its sides, a brush within the body comprising an endless sweeper belt, an upper transverse driven shaft upon which the upper portion of the belt travels, side bars journaled at their upper ends upon the upper shaft and inclined downwardly and rearwardly therefrom, a lower transverse shaft upon which the lower portion of the sweeper belt travels and journaled in the lower portions of the said side bars, the said lower portions of the side bars having laterally extending ears projecting outwardly through the slots of the body, blocks carried by the said gears, nuts rotatably disposed in the blocks, inclined screw rods journaled in bearings on the body and extending through the ears and blocks and threaded through the said nuts, and a transverse shaft mounted in bearings on the rear portion of the body and having geared connections at its ends with the said screw rods, one end of the said transverse shaft being extended and squared for the reception of an implement for rotating the same in order to adjust the side bars, substantially as described.

1,144,293. DAVENPORT-BED. EDWARD N. BROWN, Cleveland, Ohio. Filed Apr. 20, 1914. Serial No. 833,282. (Cl. 5—51.)



1. The bed described having two folding sections and links connecting the ends thereof across the fold line and a wire mattress stretched across said sections, and bearing plates fixed on said sections in a plane with the ends

thereof and extending above said ends in position to brace the said links when the sections are folded.

2. A davenport bed having a swing back and levers pivoted on the ends thereof and a pivotally mounted bed section adapted to make hook connection with said levers.

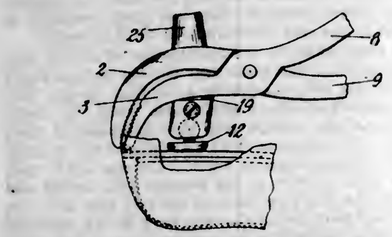
3. A davenport bed as described, having a swinging back and levers pivoted on the ends thereof provided with springs to throw them forward, and a folding bed section provided with catches at its ends and bottom adapted to engage the lower ends of said levers.

4. The structure described comprising a swinging back and spring controlled levers thereon having hooks at their ends, in combination with a bed section having lips adapted to engage over and rest upon said hooks, and said levers constructed to press said back forward when engagement is made by said bed section with said levers.

5. The structure described comprising a swinging back and a folding bottom adapted to be turned beneath the edge of said back, means temporarily engaging the back with said section and a wedge shaped part on said back adapted to bear on the edge of said section and hold the said parts separably together.

[Claims 6 and 7 not printed in the Gazette.]

1,144,294. PINCERS. LOUIS M. BROWN, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Oct. 2, 1914. Serial No. 864,617. (Cl. 12—109.)

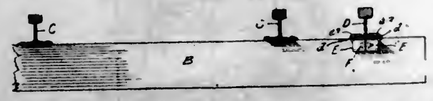


1. Hand lasting pincers comprising, in combination, cooperating jaws pivoted together, means for opening and closing said jaws, and work engaging means operatively connected to one of said jaws and relatively to which said jaws are universally movable.

2. Hand lasting pincers comprising, in combination, cooperating upper and lower jaws pivoted together, rearwardly extending handles for opening and closing said jaws, a foot for engaging the work, and a ball and socket connection between said foot and said lower jaw to enable the pincers to be turned and twisted in all directions.

3. Hand lasting pincers comprising, in combination, cooperating jaws pivoted together, means for opening and closing said jaws, a work engaging foot upon which the pincers are fulcrumed, and a ball and socket connection between said jaws and said foot and arranged with the center of motion substantially above the work engaging face of said foot.

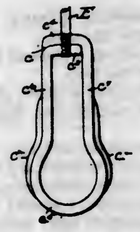
1,144,295. GUARD-RAIL FOR BRIDGES AND LIKE STRUCTURES. THOMAS JACKSON CARTER, Roanoke, Va. Filed Nov. 1, 1912, Serial No. 729,089. Renewed Mar. 13, 1915. Serial No. 14,210. (Cl. 239—17.)



1. In track structures of the character described, the combination with the track ties, of a guard rail having base flanges, and tie spacing members having connection with the said base flanges and adjustable so as to engage the sides of the ties irrespective of the distances between such ties.

2. In bridge track structures of the character described, the combination with the track ties, of a guard rail having base flanges, and tie spacing members comprising body portions disposed between the ties and beneath the guard rail, said body portions of said spacing members having overlying flanges engageable with the base flanges of the guard rail, clamping bolts extending through the said body portion for connecting the same, the said body portions of said tie spacing members having longitudinal series of openings whereby they may be adjusted and connected to occupy the entire space between the ties.

1,144,296. PIPE-HANGER. HJALMAR G. CARLSON, Worcester, Mass., assignor to Rockwood Sprinkler Company of Massachusetts, a Corporation of Massachusetts. Filed Dec. 3, 1914. Serial No. 875,358. (Cl. 248—31.)



1. As an article of manufacture, a pipe hander consisting of a piece of bar steel bent double and provided with a passage for a pipe and having an overlapping end offset inwardly and engaging the other end to hold the two ends together and a supporting device therefor passing through both of said ends and holding them positively together.

2. As an article of manufacture, a pipe hanger consisting of a piece of metal having its two ends bent inwardly on the same side, one being longer than the other, the longer one having an inward angular projection on the inner end overlapping the other end, said other end engaging the inner side of the opposite side of the pipe hanger to prevent the two ends moving nearer together, and provided with a passage for a pipe.

3. As an article of manufacture, a pipe hanger consisting of a piece of metal having its two ends bent inwardly on the same side, one having an inward angular projection on the inner end overlapping the other, and provided with a passage for a pipe and means for positively holding said ends together.

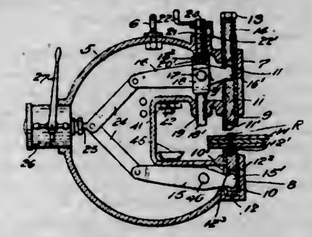
4. As an article of manufacture, a pipe hanger, comprising a bottom loop for a pipe, two substantially parallel arms extending upwardly from the opposite sides of the loop, the ends of both of said arms extending inwardly and overlapping, the lower end engaging the top of the opposite arm to hold it at the right distance away, and the upper end having a downward projection on its end fitting the outer end of the lower end to prevent separation of the arms.

1,144,297. RIVETING-MACHINE. MANLEY J. CHAPLIN, Seattle, Wash., assignor of one-half to Fred C. Furth, Seattle, Wash. Filed Nov. 18, 1913. Serial No. 801,591. (Cl. 78—20.)

1. In a machine of the class described, in combination, a machine frame, levers pivoted in said frame, toggle links each pivoted at one end to one of said levers and at its other end to the piston rod of a power cylinder, a pair of dies operated by said levers, and bushings therefor mounted for independent reciprocatory movements in the frame, whereby the work is first clamped between the bushings, and the dies are subsequently influenced to effect the heading of a bolt therebetween.

2. In a machine of the class described, the combination with the machine frame, of a pair of dies, bushings for the respective dies and axially movable in the frame, yielding connection between one of the dies and the

associated bushing, and power-driven means engageable with the dies for operating both the dies and the bushings thereof.

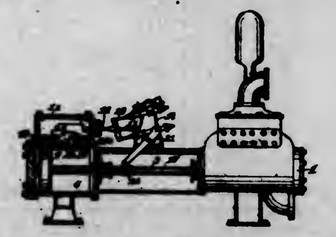


3. In a machine of the class described, in combination, a machine frame, a pair of axially alined bushings mounted in said frame for endwise movements, dies having recessed ends mounted in the respective bushings, a pair of levers pivoted in said frame intermediate their ends, toggle links respectively pivoted at one end to said levers and at their other ends to the piston rod of a power cylinder, slots in said dies, and bushings for the reception of the free ends of said levers whereby said dies and bushings are given an endwise motion to first clamp the work between the bushings and to subsequently actuate the dies to produce heads on both ends of a bolt which is inserted within a hole provided in the work.

4. In a machine of the class described, a pair of axially alined riveting dies having recesses in the opposing ends thereof, a bushing for each die, a spring connection between one of said dies and the associated bushing, and power-actuated means adapted to actuate said bushings to clamp the work therebetween and subsequently cause the dies to become operative to produce heads on both ends of a bolt extending through such work.

5. In a machine of the class described, the combination with the machine frame, bushings mounted therein, a rivet-heading die in each of said bushings, levers for successively actuating said bushings and dies, an adjustable fulcrum support for one of said levers, a power cylinder, and operative connections including a pair of toggle elements for actuating said levers.

1,144,298. DUPLEX PUMP. CLARENCE M. CHURCH, Arnold, Pa. Filed July 24, 1913. Serial No. 780,950. (Cl. 121—4.)



1. A duplex pump comprising a pair of cylinders each having a piston therein connected to a piston rod, valves controlling the operation of said pistons and having valve stems connected thereto, a pair of shafts rotatably mounted with one connected to each of said piston rods by a rock arm, a connecting rod at each end of said shafts and connected thereto, and a link member pivotally and slidably connected to each of said connecting rods and connecting with said valve stems to regulate the operating fluid cut-off in said cylinder.

2. A duplex pump comprising a pair of cylinders each having a piston therein connected to a piston rod, valves controlling the operation of said pistons and having valve stems connected thereto, a pair of shafts rotatably mounted with one connected to each of said piston rods by a rock arm, arms extending from each end of said shaft and connected to a sleeve slidable on a connecting rod in order to provide for lost motion, movable means for limiting the distance traveled by the sleeve and a link connected between each pair of said connecting rods and connected to the respective valve stems to regulate the operating fluid cut-off in said cylinders.

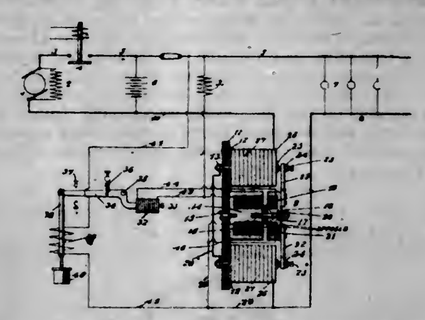
3. The combination with a duplex pump having a pair of cylinder pistons therein, piston rods for the pistons, valves controlling the operation of the pistons, and valve stems for the valves, of a valve operating mechanism including a pair of shafts, a pair of rock arms connecting the terminals of one shaft to each piston rod, links pivoted to the valve stems, connecting rods freely connected to the links, means slidable upon the connecting rods for pivotally connecting the rock arms and one of said shafts thereto, and movable means controlled by the said shafts for limiting the sliding movement of the last mentioned means.

4. The combination with a duplex pump having a pair of cylinder pistons therein, piston rods for the pistons, valves controlling the operation of the pistons, and valve stems for the valves, of a valve operating mechanism including a pair of rotatable shafts, a pair of rock arms actuated by the piston rods and keyed to the shafts at opposite ends thereof, each of said arms being free with respect to one shaft, a link carried by each piston rod, a connecting rod pivoted to each end of each link, a sleeve slidable upon each connecting rod, and means pivotally connecting certain of said sleeves to the rock arms and certain other of said sleeves to the shafts.

5. The combination with a duplex pump having a pair of cylinder pistons therein, piston rods for the pistons, valves controlling the operation of the pistons, and valve stems for the valves, of a valve operating mechanism including a pair of rotatable shafts, a pair of rock arms actuated by the piston rods and keyed to the shafts at opposite ends thereof, each of said arms being free with respect to one shaft, a link carried by each piston rod, a connecting rod pivoted to each end of each link, a sleeve slidable upon each connecting rod, means pivotally connecting certain of said sleeves to rock arms and certain other of said sleeves to the shafts, and stop members movable to position against the connecting rods for limiting the movement of the sleeves thereon.

[Claims 6 and 7 not printed in the Gazette.]

1,144,299. ELECTRIC REGULATION. JOHN L. CREVELING, New York, N. Y., assignor to Safety Car Heating and Lighting Company, a Corporation of New Jersey. Filed Jan. 5, 1910. Serial No. 536,506. (Cl. 171—229.)



1. A regulating system comprising a generator and a work circuit, a regulating device for said work circuit, the action of which is varied by pressure exerted thereon, electromagnetic means for exerting pressure thereon, electromagnetic means for decreasing said pressure, and automatic means for governing the joint operation of said means.

2. A regulating system comprising a generator and a work circuit, a regulating device for said circuit, the action of which is altered by variations in pressure thereon, electromagnetic means for exerting pressure thereon,

electromagnetic means modifying said pressure, and automatic means for controlling said pressure exerting and said modifying means.

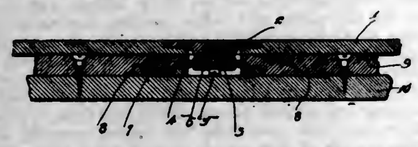
3. A regulating system comprehending a generator and a work circuit, a regulating device for said work circuit, the action of which is altered by variations in pressure thereon, electromagnetic means for exerting pressure thereon, electromagnetic means tending to decrease said pressure, and automatic means for governing said electromagnetic means.

4. A regulating system comprising a generator and a work circuit, a regulating device for said work circuit comprising an element the effect of which is varied by variations in pressure thereupon, electromagnetic means for exerting said pressure, electromagnetic means coöperating with the first means tending to modify said pressure, and automatic means responsive to variations in the conditions of said circuit adapted to vary the combined operation of the said electromagnetic means.

5. A regulating system comprising a generator and a work circuit, a regulating device for said work circuit, the effect of which is altered by variations in pressure thereupon, electromagnetic means for exerting said pressure, electromagnetic means for decreasing said pressure, and automatic means affected by changes in said circuit governing both the said electromagnetic means.

[Claims 6 to 17 not printed in the Gazette.]

1,144,300. TABLE FOR GARMENT-PRESSING. EDWIN F. FRENCH, Los Angeles, Cal. Filed Nov. 24, 1913. Serial No. 802,689. (Cl. 68—9.)



In a garment pressing machine, a carriage having a base member and a top member mounted on the base member, the top member being formed with a slot extending entirely therethrough providing ways, a slide movable between and guided by the walls of said slot, the slide being supported by the base member, a table mounted upon the top member, the slide being formed with an opening extending entirely therethrough, a lower swivel member positioned within said last mentioned opening, the opening being countersunk around its lower end, and the swivel member having a flange projecting into the countersunk portion, the table being formed with an opening, an upper swivel member extending through said opening and having a boss formed on its lower side, the lower swivel member being provided with an opening to accommodate said boss, and means securing the swivel members to one another, the opening in the slide being countersunk around its upper end, and the upper swivel member being provided with a flange projecting into said last mentioned countersunk portion.

1,144,301. AUTOMATIC RELEASING MECHANISM FOR CAMERAS. HYOSAKU FURUKAWA, Seattle, Wash. Filed Oct. 21, 1914. Serial No. 867,783. (Cl. 161—26.)



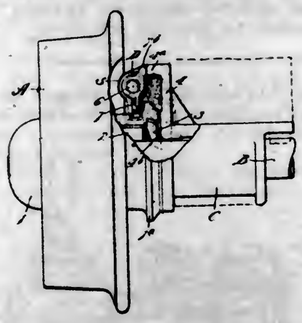
1. A device of the class described comprising a casing, a pair of spaced vertical partitions in said casing dividing the same into three compartments, a clock mechanism in one compartment, a train of gearing in the middle compartment, air compressing mechanism in the other compartment, the train of gearing in the middle compartment being operatively connected to the air compressing mechanism and the clock mechanism, and independent mechanism for operating the air compressor when said clock mechanism releases the same.

2. A device of the class described comprising a casing, an open-ended semi-cylindrical tube arranged in said casing, a piston in said tube, means for operating said piston, a clock mechanism within said casing, and means associated with said clock mechanism and piston operating means for holding said piston at one end of said tube, said clock mechanism adapted to operate said last named means to release said piston operating means whereby the piston may move to the opposite end of the tube.

3. A device of the class described comprising a casing, an arcuate cylinder within said casing, a spring actuated piston within said arcuate cylinder, a clock mechanism within said casing, means associated with said casing and piston for holding the piston at one end of the cylinder against the tension of the spring, and means operatively associated with said clock mechanism and said piston retaining means adapted to be moved to free the piston and allow the spring to move the piston through the cylinder.

4. A device of the class described comprising a casing, an arcuate cylinder within said casing, a spring actuated piston within said arcuate cylinder, a clock mechanism within said casing, means associated with said casing and piston for holding the piston at one end of the cylinder against the tension of the spring, means operatively associated with said clock mechanism and said piston retaining means adapted to be moved to free the piston and allow the spring to move the piston through the cylinder, means for holding the clock mechanism inoperative, and means operated exteriorly of the casing for retracting the piston to its initial operative position.

1,144,302. MINE-CAR WHEEL. HIRAM A. HOLDEN, Pittsburg, Kans., assignor to United Iron Works Company, Springfield, Mo., a Corporation of Missouri. Filed Apr. 5, 1915. Serial No. 19,267. (Cl. 105—67.)



1. In a wheel structure of the character described, an axle box, a wheel having a hub provided with an annular flange, a removable hood pivotally mounted on said axle box and coöperating with the flange on said wheel hub to retain said wheel in position, and coöperating bearing surfaces on said hood axle box arranged above the fulcrum of said hood.

2. In a wheel structure of the character described, an axle box, a wheel having a hub provided with an annular flange, a removable hood on said axle box having a portion that lies in front of the flange on said wheel hub, a retaining device for said hood arranged at approximately right angles to the axis about which the wheel revolves, and coöperating bearing surfaces on said hood and axle box arranged at a point above said retaining device.

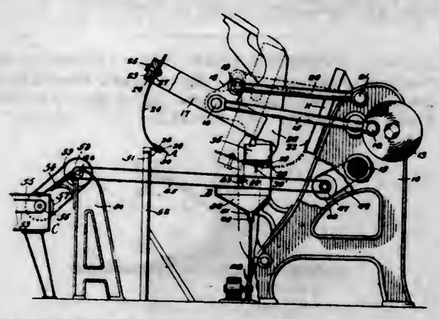
3. In a wheel structure of the character described, an axle box, a wheel having a hub provided with an annular flange, forwardly projecting portions at the front end of said box, a removable hood arranged between said forwardly-projecting portions and coöperating with the flange on the wheel hub to retain the wheel in operative position, and a removable fastening device that passes through said hood and the forwardly-projecting portions on the axle box so as to retain said hood in position.

4. In a wheel structure of the character described, an axle box, a wheel having a hub whose inner end bears against the front face of said axle box, an annular flange on the hub of the wheel, a removable hood provided at its lower end with a depending portion that lies in front of said flange and at its upper end with a portion that bears against the axle box, and a removable retaining device for said hood arranged intermediate the upper and lower ends of the hood and extending approximately at right angles to the axis of rotation of the wheel.

5. In a wheel structure of the character described, an axle box provided at its front end with an upwardly-projecting flange that bears against the side of the vehicle body to which the axle box is connected, a wheel having a hub that bears against the front face of said axle box, an annular flange on said wheel hub, integral lugs projecting forwardly from the flange on said axle box and formed integral with a horizontally-disposed tie member on said flange, a hood arranged between said lugs and provided with a portion that bears against said tie member, a depending portion on said hood having a curved lower edge and provided with substantially vertically-disposed bearing ribs that coöperate with the flange on the wheel hub to retain the wheel in position, and means for securing said hood to the lugs on said axle box.

[Claim 6 not printed in the Gazette.]

1,144,303. APPARATUS FOR PRODUCING RAISED PRINTED MATTER. SAMUEL LIPSIUS, New York, N. Y. Filed Apr. 2, 1913, Serial No. 758,396. Renewed Feb. 6, 1915. Serial No. 6,639. (Cl. 101—182.)



1. An embossographer, combining a printing mechanism; a sheet carrier; a powderer for discharging a surplus quantity of fusible powder on the printing area of each one of a succession of sheets conveyed by said carrier; an instrumentality for automatically vibrating each of the powdered sheets to remove powder from non-inked portions thereof; and a heating device for automatically receiving each of the sheets and for subjecting them to a sufficient heat to cause the fusible powder to fuse on to and amalgamate with the inked portions of said sheets to form a raised surface thereover.

2. An embossographer, combining a carrier adapted to convey a train of separate sheets; a powderer for sprinkling fusible powder on each of said sheets; a tapper for vibrating superfluous powder free from non-inked portions of said sheets; and a heater for automatically receiving said train of sheets and fusing the powder heaped on the inked portions thereof.

3. A device for distributing fusible powder on to freshly printed sheets, combining an upper compartment having a bottom outlet; a spring-actuated means for controlling said outlet; mechanism for operating said means to govern the powder discharged through said outlet; a lower compartment for receiving superfluous powder discharged from said upper compartment, said compartments having a horizontal passageway between them; a tube leading from the lower compartment to the upper compartment; a pneumatic device for forcing powder through said tube and discharging it into the upper compartment; an agitator comprising a revoluble shaft having paddles; means for imparting movement to said paddles; means for feeding wet-printed sheets through said passageway and means for fusing the powder adhering to the inked portions.

4. A device for distributing superfluous fusible powder on to freshly printed sheets, combining swinging sheet-carrying grippers; means for actuating them; an endless sheet-carrying feed belt; means for actuating it; an agitator; means for agitating it; a container having a powder outlet; means for controlling the flow of powder through said outlet; a lower compartment for receiving unused powder, said compartments having a passageway between them; a pneumatic device for conveying powder from the lower to the upper compartment, said grippers being adapted to carry printed sheets through said passageway, whereby they may be powdered and said agitators being adapted to shake superfluous powder therefrom and means for fusing the powder adhering to the inked portions.

5. An apparatus for distributing powder on to the tacky surfaces of freshly-printed sheets, comprising an upper compartment having a discharge outlet; an endless feed belt; a reciprocating sheet-carrying gripper; an agitator for shaking a sheet carried by said gripper, whereby said sheet may be dusted and then agitated to remove the superfluous powder therefrom; and means for fusing the powder adhering to the inked portions; said apparatus being adapted to be combined with a printing press, whereby it may receive the output thereof.

[Claims 6 to 14 not printed in the Gazette.]

1,144,304. MANUFACTURE OF ALUMINUM CHLORID. ALMER MCDUFFIE MCAFEE, New York, N. Y. Filed Mar. 2, 1915. Serial No. 11,548. (Cl. 23—13.)

1. In the treatment of coky or sludgy residues arising from the treatment of oil with anhydrous aluminum chlorid, the process which comprises treating such residues to obtain hydrated aluminum chlorid, breaking up the hydrated aluminum chlorid by heat to form hydrochloric acid and alumina, mixing the alumina with carbon and submitting the mixture to the action of hydrochloric acid gas at a high temperature.

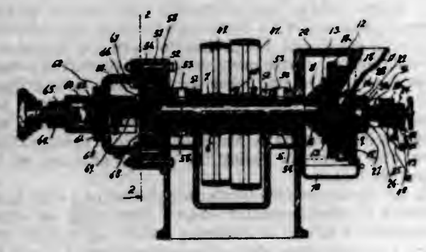
2. In the treatment of coky or sludgy residues arising from the treatment of oil with anhydrous aluminum chlorid, the process of making anhydrous active aluminum chlorid from sludgy or coky residues containing the same, which comprises treating such residues to obtain hydrated aluminum chlorid, breaking up the hydrated aluminum chlorid by heat to form hydrochloric acid and alumina, mixing the alumina with carbon in the form of untreated coky residue and submitting the mixture to the action of hydrochloric acid gas at a high temperature.

3. In the treatment of coky or sludgy residues arising from the treatment of oil with anhydrous aluminum chlorid, the process of making anhydrous active aluminum chlorid from sludgy or coky residues containing the same, which comprises extracting oil from such residues, treating extracted residue with a limited amount of moisture to produce a concentrated solution of hydrated aluminum chlorid, breaking up the hydrated aluminum chlorid by heat to produce hydrochloric acid and alumina, admixing the alumina with carbon and exposing to the action of hydrochloric acid vapors.

4. In the treatment of coky or sludgy residues arising from the treatment of oil with anhydrous aluminum chlorid, the process of making anhydrous active aluminum chlorid from sludgy or coky residues containing the same, which comprises extracting oil from such residues, treating the extracted residue with a limited amount of moisture to produce a concentrated solution of hydrated aluminum chlorid, breaking up the hydrated aluminum chlorid by heat to produce hydrochloric acid and alumina, admixing the alumina with fresh untreated residues.

5. In the treatment of coky or sludgy residues arising from the treatment of oil with anhydrous aluminum chlorid, the process which comprises hydrating such aluminum chlorid, roasting to form HCl and Al_2O_3 and heating the Al_2O_3 with HCl and carbon at a high temperature and submitting the mixture to the action of hydrochloric acid at a high temperature.

1,144,305. ORE-GRINDER. EDWARD F. MCCOOL, Victor, Colo. Filed Sept. 13, 1911, Serial No. 649,209. Renewed Nov. 16, 1914. Serial No. 872,501. (Cl. 83—10.)



1. An ore grinder, comprising a suitable frame, an operating shaft, a grinding disk mounted to rotate with said shaft, a coöperating non-rotary grinding member, a housing surrounding the grinding member, a yoke carried by said housing and extending forward of the same, a nut slidable in said yoke, a screw threaded into the nut, the inner extremity of the screw having a ball-and-socket connection with the non-rotary grinding member, whereby the said member is longitudinally movable toward and away from its coöperating member, and means for moving the nut within the yoke to impart longitudinal movement to the non-rotary grinding member, substantially as described.

2. In an ore grinder, the combination with a suitable frame, of a housing hinged to the frame, a yoke connected with the housing, a nut slidable in the yoke, a non-rotary grinding member inclosed by the said housing, a suitable connection between the non-rotary member and the nut, a rock shaft, a connection between the rock shaft and the nut for sliding the latter as the shaft is actuated, a hand lever connected with the rock shaft, a bell-crank lever, mounted on the housing remote from the hinge and having one of its arms hook-shaped to engage the adjacent member of the frame when the housing is in the normal position, and an operative connection between the bell-crank lever and the hand lever, whereby as the latter is actuated, the bell-crank lever is disengaged from the frame, and the non-rotary grinding member moved longitudinally by virtue of its connection with the slidable nut, the hand lever also serving to swing the housing and its connections on the housing hinge.

3. In an ore grinder, a sleeve, a shaft eccentrically mounted within said sleeve, means for rotating said sleeve and shaft at different speeds, a grinding disk supported upon said shaft and a non-rotatable grinding disk mounted to permit of a slight rocking movement and arranged to bear against the grinding face of said first disk.

4. In an ore grinder, a sleeve, a shaft eccentrically mounted therein, means for rotating said sleeve and shaft, a grinding disk supported on said shaft and a non-rotatable grinding disk mounted to permit of a slight rocking movement and arranged to bear against the grinding face of said first disk.

5. In an ore grinder, a sleeve, a shaft eccentrically mounted therein, means for rotating said sleeve, a grinding disk supported upon said shaft and a non-rotatable grinding disk mounted to permit of a slight rocking movement and arranged to bear against the grinding face of said first disk.

[Claims 6 to 12 not printed in the Gazette.]

1,144,306. APPARATUS FOR MUFFLING SOUND. FRANK C. MOCK, Cleveland, Ohio. Filed June 15, 1910. Serial No. 566,917. (Cl. 121—116.)



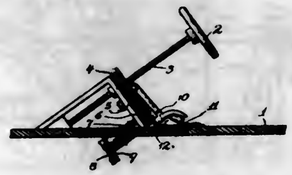
1. Apparatus for muffling sound, comprising a chamber having an unobstructed spiral passage, and a plurality of openings disposed in the walls of said passage adapted to by-pass gases from said portion of such passage to a portion farther advanced, substantially as described.

2. Apparatus for muffling sound, comprising a chamber having an unobstructed spiral passage, and a plurality of openings disposed throughout the length of said spiral passage adapted to successively by-pass gases from one portion of such passage to a portion farther advanced, substantially as described.

3. Apparatus for muffling sound, comprising a chamber having an unobstructed spiral passage adapted to receive the gases at one end thereof, and a plurality of openings in the spiral walls disposed throughout the length of said spiral passage and adapted to successively by-pass gases from one portion to a portion farther advanced, substantially as described.

4. Apparatus for muffling sound, comprising a cylindrical chamber having a rod disposed centrally therein and a helical plate disposed about such rod forming an unobstructed helical passage, said plate having a plurality of openings disposed throughout its length adapted to by-pass gases from one portion of such passage to a portion farther advanced, substantially as described.

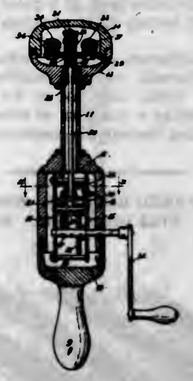
1,144,307. STEERING-GEAR FOR AUTOMOBILES. WILLIAM J. MOORE, Cedar Springs, and FRANKLIN M. THAYER, Grand Rapids, Mich. Filed Mar. 14, 1914. Serial No. 824,812. (Cl. 74—79.)



In combination with the steering shaft of an automobile, having its lower end stepped on the floor of the automobile, said shaft stationed at an incline from the perpendicular toward the operator, a gear wheel mounted on the steering shaft near the floor, an auxiliary shaft parallel with the steering shaft, a gear wheel mounted on said shaft, an idler gear wheel pivotally mounted between the gear wheels on the steering shaft and the idler shaft in position to mesh with both these gear wheels to transmit the revoluble movements of the steering shaft to the auxiliary shaft in the same direction, a casing covering said gear wheels, a latch pivotally connected with said casing in position to be made to readily engage one of the gear wheels and lock the steering shafts in the desired position, by the foot of the operator, and a spring to hold the latch normally out of engagement with the gear wheels.

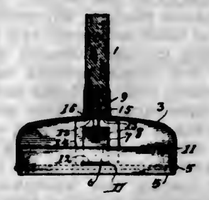
1,144,308. VIBRATOR. MASAHACHI NAKATA, Crystal Springs, Wash. Filed Jan. 11, 1915. Serial No. 1,533. (Cl. 128—16.)

1. A vibrator embodying a shaft rotatably mounted in suitable bearings, a disk securely mounted on said shaft, said disk being provided with oppositely and concentrically disposed slots of the form of an arc of a circle; and two weights removably secured to said disks each by means of a screw extending through a different one of said slots whereby such weights may be secured at desired relative positions on said disk thus to change the position of the center of gravity of the weight carried by said shaft.



2. A vibrator embodying a shaft rotatably mounted in suitable bearings, a disk securely mounted on said shaft, said disk being provided with oppositely and concentrically disposed slots of the form of an arc of a circle; two weights removably secured to said disk each by means of a screw extending through a different one of said slots whereby such weights may be secured at desired relative positions on said disk thus to change the position of the center of gravity of the weight carried by said shaft; and hand operated mechanism for rotating said shaft.

1,144,309. BROOM. HENRY NOPPE and RICHARD IKE, Grand Rapids, Mich. Filed Oct. 24, 1914. Serial No. 868,509. (Cl. 15—20.)



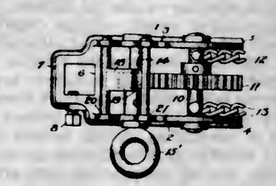
1. In combination with the brush and handle of a broom, a metal band firmly embedded around the upper end of the brush, a bail secured thereto and having a nut thereon, a cap made to engage said band and a socket projecting upward from the longitudinal center of the cap, a screw firmly seated in the end of the handle in position to be made to pass through the cap and into the nut on the bail to secure the cap and band firmly together.

2. In combination with the handle and brush of a broom, a band secured around the upper end of the brush, a bead formed on the periphery of the band, a bail secured to the band forming a centrally located screw threaded nut, a cap fitted to pass over the rim of the band and rest against the head, a socket on said cap, a handle fitted into the socket, a screw firmly fitted into the end of the handle and projecting downward therefrom in position to be made to pass through the cap and engage the nut on the bail to secure the cap and the band firmly together, thus forming a complete and rigidly constructed broom substantially as shown and described.

3. In combination with the handle and brush of a broom, a band securely connected around the upper end of the brush, a bead and an upwardly projecting rim on said band, a bail connected with the band and having a screw threaded nut thereon, a cap fitted to the rim of the band, a socket on the cap, the end of the broom handle fitted into said socket and provided with a screw projecting downward therefrom, the screw and the nut arranged to interlock and secure the cap and band firmly together, substantially as shown and described.

4. In combination with the handle and brush of a broom, a band securely connected around the upper end of the brush and having a slot through each of the two opposite sides, a bail having the ends bent inward and passed through said slots to secure it to the band, a screw-threaded nut formed in said bail, a cap fitted closely over the rim of said band, a reinforcing plate secured inside and laterally of said cap, a socket having lugs arranged to engage slots in the reinforcing plate to secure the socket firmly thereto, the end of the broom handle secured in the socket, and a screw projecting downward from the broom handle and made to engage the nut in the bail to secure the broom head, the handle and the cap firmly together.

1,144,310. WIRE-STRETCHER. HORACE P. OWENS, Atlanta, Ga. Filed Aug. 14, 1914. Serial No. 856,767. (Cl. 254—162.)



1. A device of the class described including in combination a U shaped frame having a post engaging means provided on one end of said frame, means for stretching the wire including a cross shaft having a gear mounted thereon, a second gear engaging said first mentioned gear, a shaft for said second gear, independent gripping chains secured to the first mentioned shaft upon opposite sides of the first mentioned gear and between the sides of the frame and the sides of the gear, a plurality of gravitating pawls arranged to engage the said second gear alternately in the stretching operation, and means for rotating the same.

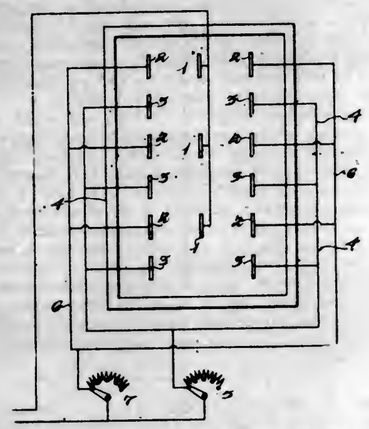
2. A device of the class described including in combination a U shaped frame having a post engaging means provided on one end of said frame, means for stretching the wire including a plurality of operating and receiving stations comprising a cross shaft, a gear secured to said shaft, a second gear of less diameter than the first mentioned gear adapted to mesh with said gear, an operating shaft for said second gear, independent gripping chains secured to the cross shaft upon opposite sides of the first mentioned gear and between the sides of the frame and the sides of the said gear, a plurality of gravitating pawls mounted above said second gear and arranged to alternately engage the said second gear in the stretching operation, and means for rotating the same.

1,144,311. STORAGE-BATTERY ELEMENT AND METHOD OF MAKING THE SAME. JEROME REDDING, Malden, Mass., assignor of one-half to Eliab Parker, Boston, Mass. Filed July 10, 1914. Serial No. 850,091. (Cl. 204—29.)

1. A method of producing storage battery plates which consists in electrolytically depositing lead and an alkaline metal upon a support and hydrating and removing the alkaline metal to leave a porous spongy mass of lead.

2. A method of producing storage battery elements which consists in passing a current of electricity through an alkaline solution containing lead salt to a cathode, to cause an electrolytic deposit of the alkaline metal and lead thereon, then removing and washing the cathode,

and then drying the cathode in an inert atmosphere containing no free oxygen.



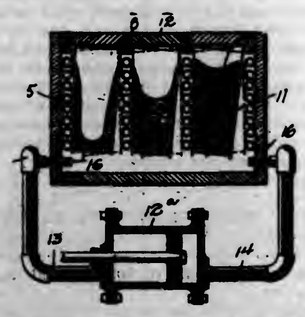
3. A method of producing storage battery elements which consists in passing an electric current through a heated strongly alkaline caustic solution containing lead salt, to a cathode, thereby decomposing said solution and said salt and depositing lead and the alkaline metal on the cathode, washing said cathode to remove any alkaline deposit, and drying said cathode in an inert atmosphere.

4. A method of producing storage battery elements which consists in passing an electric current through a heated strongly alkaline caustic solution containing lead salt to a cathode, thereby decomposing said solution and said salt and depositing lead and the alkaline metal on the cathode, washing said cathode to remove any alkaline deposit, drying said cathode in an inert atmosphere, and then suboxidising the exposed portions of the said lead deposit on the cathode.

5. The herein described process which consists in passing a current of electricity through an electrolyte from a lead anode to a cathode, to cause the electrolytic deposit of lead upon said cathode, and shunting a portion of said current through an anode of other material than lead to prevent the over-oxidation of the lead salt formed in the electrolyte.

[Claims 6 to 11 not printed in the Gazette.]

1,144,312. MANUFACTURE OF PURE ICE. WILLIAM P. WISMANN, Pittsburgh, Pa. Filed Feb. 18, 1914. Serial No. 819,528. (Cl. 62—157.)



1. In the manufacture of ice, a brine tank containing brine, and further having ammonia pipes arranged therein, ice cans floating in the brine and containing water, a surge pump, and a pipe system leading from said pump to the sides of the tank whereby when the pump is operated a reciprocatory motion to the brine will be imparted to the brine, causing the brine to move across the path of the ammonia pipes.

2. In the manufacture of ice, a brine tank containing brine, and further having ammonia pipes arranged therein, ice cans floating in the brine and containing water, a surge pump and a pipe system leading from said pump to the sides of the tank whereby when the pump is operated a reciprocatory motion will be imparted to the brine, causing the brine to move across the path of the ammonia pipes, said pipe system including branch connections extending into the brine tank at a point near the bottom of the tank, and having their openings directed against the cans.

3. In the manufacture of ice, a brine tank, ammonia coils arranged therein, ice cans within the tank, said tank containing brine, and means for alternately displacing and replacing a quantity of brine from each side of the tank, causing thereby the reciprocation of the brine in the tank.

1,144,313. PREPARED ROOFING, STEPHEN G. WRIGHT, Oak Park, Ill. Filed Oct. 3, 1913. Serial No. 793,135. (Cl. 154—51.)



1. As a new article of manufacture, roofing composed of a sheet of material having a waterproof coating thereon, the surface of which is covered with particles of grit partially embedded therein, a coating of adhesive substance extending over certain portions only of said grit coating in conformity with the design to be produced and embedding the upper surfaces of those grit particles over which said last-named coating extends, and particles of grit of different shade or color than said first-named particles of grit, partially embedded in the upper surface of said last-named coating, said last-named coating adhering to the grit particles over which it extends, and being non-homogeneous with said first-named coating.

2. As a new article of manufacture, roofing composed of a sheet of material having a waterproof coating thereon, the surface of which is covered with particles of grit partially embedded therein, a coating of adhesive substance existing over certain portions only of said grit coating in conformity with the design to be produced and embedding the upper surfaces of those grit particles over which said last-named coating extends, and particles of grit of different shade or color than said first-named particles of grit, partially embedded in the upper surface of said last-named coating, said last-named coating being colored to correspond substantially with said last-named particles and firmly adhering to the grit particles over which it extends, and being non-homogeneous with said first-named coating.

3. As a new article of manufacture, a roofing composed of a sheet of fibrous material having one side coated with a water-proof plastic organic compound, a layer of colored grit embedded therein, a second coating of plastic material covering certain portions of the colored grit according to predetermined design, and a layer of different colored grit applied to said second coating, the first and second coatings being effectively separated by said first layer of grit said second coating being non-homogeneous with said first-named coating.

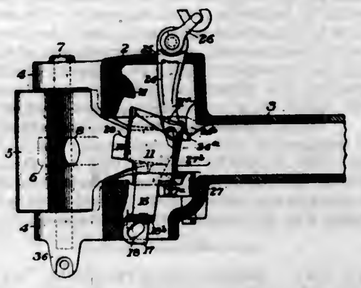
1,144,314. COMBINED WEEDER AND CULTIVATOR. AUGUST H. BASTIAN, Hillsdale, Oreg. Filed Feb. 19, 1915. Serial No. 9,436. (Cl. 55—42.)

1. A tool of the character described, consisting of a flat blade having its ends formed with perpendicular sides, the latter being spaced farther apart at the front than at the rear, the front faces of said sides being made with oblique knife edges, and a handle fastened to said blade.

2. A tool of the character described, consisting of a flat blade having its front made with knife-like edges converging on oblique lines, and having its ends formed with narrow arms projecting laterally and rearwardly, the extremities of such arms being formed with perpendicular sides, the latter being spaced farther apart at the front than at the rear, the front faces of said sides being made with oblique knife edges, and a handle fastened to said blade.



1,144,315. CAR-COUPLING. ARTHUR J. BAZELEY, Cleveland, Ohio, assignor to The National Malleable Castings Company, Cleveland, Ohio, a Corporation of Ohio. Filed July 20, 1911. Serial No. 639,589. (Cl. 213—10.)



1. In a car coupler, a floating locking piece comprising a head adapted to transmit pulling stresses therethrough and a depending leg, the said head having a fulcruming shoulder on its forward side below the top of that locking surface which coöperates with the knuckle tail, a shoulder on the front wall of the coupler head intermediate the knuckle opening and the top wall of the coupler cavity, adapted to coöoperate with the shoulder on the lock by a bodily vertical movement of the lock, to throw the leg of the lock rearwardly.

2. A locking piece for car couplers, comprising a locking head and a depending leg, said locking head having a fulcruming shoulder projecting from its forward side and located below the upper surface of said head, the said shoulder being adapted to coöperate with an intermediate portion of the front wall of the coupler head, and the said leg being adapted to coöperate with a knuckle-opening member.

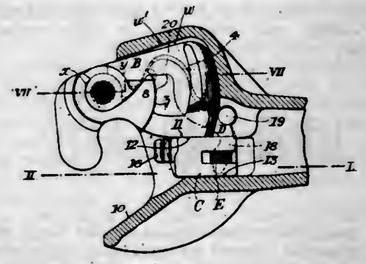
3. In a car coupler, the combination with a coupler head and a knuckle pivoted thereto, of a vertically and bodily movable floating locking piece comprising a locking head and a depending leg, the locking head having a fulcruming shoulder projecting from its forward side and the coupler head having a coöperating shoulder on its front wall, said shoulders, when the lock is in locking position, being separated vertically by a distance at least as great as the vertical depth of the locking surface on the locking head on the knuckle side, whereby the lock may be lifted vertically, first, to free it from the knuckle tail, and, afterward, to bring said shoulders into contact to cause the leg of the locking piece to swing rearwardly.

4. A locking piece for couplers, comprising a locking head and a depending leg, the head having a fulcruming shoulder at its forward side, and the leg terminating at its lower end in a forwardly offset portion and having its rear side provided with a substantially horizontal shoulder; substantially as described.

5. In a car coupler, a knuckle pivoted therein, a floating locking piece comprised of a locking head and a depending leg, and a knuckle-opener coöperating with said leg, said locking head having a T-slot therein and a recess on its top surface, a lifter having at its lower end trunnions bearing in said slot, a shoulder on the lifter, coöperating with said recess, to prevent disengagement of the trunnions from said slot.

[Claims 6 to 11 not printed in the Gazette.]

1,144,316. CAR-COUPLING. ARTHUR J. BAZELEY, Cleveland, Ohio, assignor to The National Malleable Castings Company, Cleveland, Ohio. Filed Dec. 16, 1912, Serial No. 736,889. Renewed May 20, 1915. Serial No. 29,433. (Cl. 213—65.)

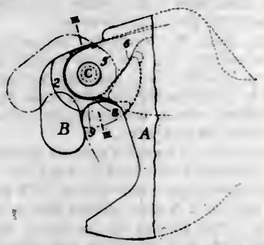


1. In a car coupler, a coupler head, a knuckle having a tail, inclined projections on the knuckle tail, bearings in the coupler head coöperating with said projections to force the nose of the knuckle as it moves forwardly under pulling stresses, toward the guard-arm side of the coupler, the corresponding faces of said projections and bearings being arranged tangentially to the bearing on the hub and substantially parallel to the guard arm face.

2. In a car coupler, a coupler head, a pivot pin and a knuckle having a tail, and bearings on the hub of the knuckle coöperating with ears on the coupler head, inclined bearing surfaces on the top and bottom of the knuckle, forming a continuation of the hub bearing against the ears and extending tangentially and rearwardly therefrom and transversely of the knuckle and toward the rear portion thereof, the said bearing surfaces on the knuckle being substantially parallel with the guard arm face to maintain the nose of the knuckle substantially at the same distance from the guard-arm under pulling stresses.

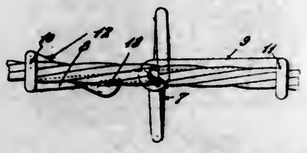
3. In a car coupler, a coupler head, a knuckle and a pivot pin therefor, ears on said coupler head to which said knuckle is pivoted, inwardly projecting bosses integral therewith and concentric with the pivot pin hole and of less diameter than said ears, coöperating shoulders on the hub of the knuckle, rearwardly inclined bearings forming continuations of said shoulders arranged tangentially thereto and substantially parallel to the guard arm face, and extending transversely of the knuckle tail on the upper and lower surfaces thereof, and corresponding bearings in the coupler head, said bearings comprising means for causing the nose of the knuckle to move toward the guard-arm side when the knuckle moves forwardly under pulling stress.

1,144,317. CAR-COUPLING. ARTHUR J. BAZELEY, Cleveland, Ohio, assignor to The National Malleable Castings Company, Cleveland, Ohio. Filed Feb. 5, 1913, Serial No. 746,257. Renewed May 20, 1915. Serial No. 29,434. (Cl. 213—65.)



In a car coupler, a coupler knuckle having continuous vertically extending projections bearing against the outer faces of the coupler ears, and forming part of the contour of the inner face of the knuckle and extending from the outer side of said ears around the inner side of said ears and tangentially to the curved faces of said ears to the rear of the hub of the knuckle, the said bearing being adapted to coöperate with the said ears, and with shoulders on the coupler head extending rearwardly therefrom to relieve the pivot pin from lateral pressure.

1,144,318. CABLE-HANGER. JASPER BLACKBURN, Webster Groves, Mo. Filed Nov. 10, 1913. Serial No. 800,119. (Cl. 248—33.)



1. A cable hanger comprising a support for a cable, a pair of separated elements for suspending the hanger from a messenger, and an elastic element extending from one of the separated elements toward the other and disposed at an angle relative to a line drawn through the separated elements.

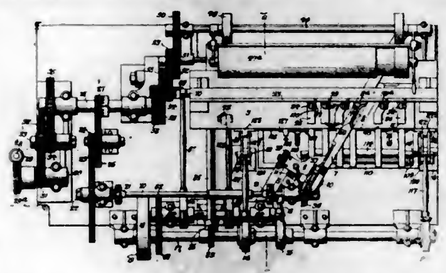
2. As a new article of manufacture, a cable hanger constructed of a single piece of material and comprising a loop or support for a suspended cable, a pair of hooks to partially embrace a suspending cable, and an arm, having a tooth arranged between the hooks for engagement with the suspending cable.

3. A cable hanger constructed of a single piece of spring metal wire, comprising an eye for the support of a suspended cable, arms leading from said eye and terminating in hooks for engagement with a suspending cable, and an arm having a tooth at its end leading from one of said hooks for engagement with the suspending cable between said hooks to prevent lengthwise movements.

1,144,319. FABRIC-TRIMMING MACHINE. GUSTAVE LOUIS BOURQUIN, Perkasie, Pa., and RUDOLF LOEB, Camden, N. J., assignors to said Loeb. Filed Aug. 23, 1910, Serial No. 578,545. Renewed May 14, 1915. Serial No. 28,203. (Cl. 164—49.)

1. In an embroidery cutting or trimming machine, the combination of means for supporting edged material to be trimmed in a substantially horizontal position, cutting means for engagement with such edge including a horizontally reciprocating knife engaging the fabric in a substantially horizontal plane, and means combined with said supporting means for feeding such material across the same.

2. In an embroidery cutting or trimming machine, the combination of means for supporting edged material to be trimmed in a substantially horizontal position, cutting means for engagement with such edge including a horizontally reciprocating knife engaging the fabric in a substantially horizontal plane, means for reciprocating said knife, and automatically operated presser feet combined with said supporting means for engaging said material to feed the same; said supporting means being apertured for the reception of some of said presser feet.



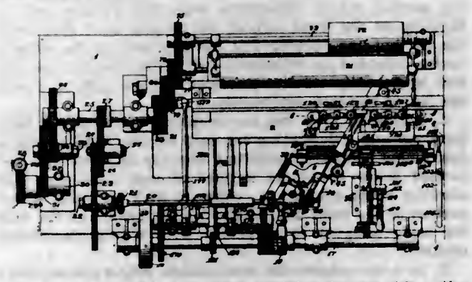
3. In an embroidery cutting or trimming machine, the combination of means for supporting edged material to be trimmed in a substantially horizontal position, cutting means including a horizontally reciprocating knife, means for feeding said knife, means for reciprocating said knife during such feeding movement, said knife engaging the fabric in a substantially horizontal plane and being mounted to move in a line diagonally with respect to the material operated upon, and automatically operated presser feet for moving the fabric.

4. In an embroidery cutting or trimming machine, the combination of a work table, cutting means including a horizontally reciprocating knife mounted adjacent said work table, means for feeding said knife, means for reciprocating said knife during its feeding movement in a substantially horizontal plane diagonally with respect to the work to be operated upon, and presser feet for feeding said work simultaneously with the movement of the knife.

5. In an embroidery cutting or trimming machine, the combination of a suitable work table, means for supporting the fabric in a horizontal position over said work table, a cutting blade mounted for substantially horizontal engagement with said work, means for feeding said cutting blade, means for reciprocating said blade during the feeding movement, and means for feeding fabric simultaneously with the movement of the cutting blade.

[Claims 6 to 23 not printed in the Gazette.]

1,144,320. EMBROIDERY-TRIMMING MACHINE. GUSTAVE LOUIS BOURQUIN, Sellersville, Pa., and RUDOLF LOEB, Camden, N. J., assignors to Rudolf Loeb, Jenkintown, Pa. Filed Aug. 21, 1912, Serial No. 716,160. Renewed May 14, 1915. Serial No. 28,204. (Cl. 164—49.)



1. In an embroidery cutting or trimming machine, the combination of means for supporting edged material to be trimmed in a substantially horizontal position, cutting means for engagement with such edge including a horizontally reciprocating knife engaging the fabric in a substantially horizontal plane, means combined with said supporting means for feeding such material across the same, and means laterally movable with respect to the line of draft of the material operated upon for simultaneously carrying the embroidered and waste strips in divergent paths.

2. In an embroidery cutting or trimming machine, the combination of means for supporting edged material to be trimmed in a substantially horizontal position, cutting means for engagement with such edge including a horizontally reciprocating knife engaging the fabric in a substantially horizontal plane, means for reciprocating said knife, means for feeding said knife during its reciprocations, and automatically operated presser feet disposed in a plurality of planes and combined with said supporting means for engaging said material to feed the same.

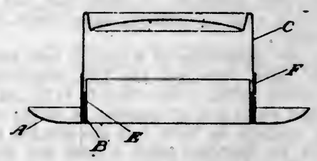
3. In an embroidery cutting or trimming machine, the combination of means for supporting edged material to be trimmed in a substantially horizontal position, cutting means including a horizontally reciprocating knife, means for reciprocating said knife during the feeding movement, means for feeding said knife during its reciprocations, said knife engaging the fabric in a substantially horizontal plane and being mounted to move in a line diagonally with respect to the material operated upon, and automatically operated presser feet disposed in a plurality of planes for moving the fabric.

4. In an embroidery cutting or trimming machine, the combination of a work table, cutting means including a horizontally reciprocating knife mounted adjacent said work table, means for reciprocating said knife in a substantially horizontal plane diagonally with respect to the work to be operated upon, means for feeding said knife during its reciprocations, and presser feet disposed in a plurality of planes for feeding said work simultaneously with the movement of the knife.

5. In an embroidery cutting or trimming machine, the combination of a suitable work table, means for supporting the fabric in a substantially horizontal position over said table, a cutting blade mounted for substantially horizontal engagement with said work, means for feeding said cutting blade, means for reciprocating said blade during the feeding movement, means for feeding the fabric simultaneously with the movement of the cutting blade, an anvil, and a flexible guide for the fabric adjacent said anvil.

[Claims 6 to 27 not printed in the Gazette.]

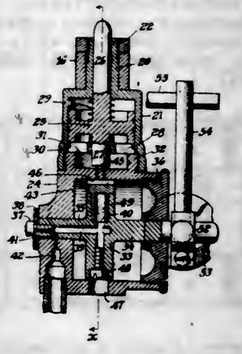
1,144,321. HAT. CHARLES G. BRAZIER, New York, N. Y. assignor to Knox Hat Company, Inc., New York, N. Y., a Corporation of New York. Filed Aug. 15, 1914. Serial No. 856,888. (Cl. 2—108.)



A head covering adapted to be held on the head by the tight fit of the base thereof with the head, comprising a pliable felt brim having an integral upwardly projecting band, a sweat-band secured within said upwardly extending band, and a crown of straw or like material closely fitting and secured to said upwardly extending band.

1,144,322. PRESSURE-MOTOR. HERMAN C. BREHMER, Philadelphia, Pa., assignor to H. W. Butterworth & Sons Company, Philadelphia, Pa., a Corporation of Pennsylvania. Original application filed June 12, 1914, Serial No. 844,635. Divided and this application filed Feb. 3, 1915. Serial No. 5,836. (Cl. 121—45.)

1. In a device of the character stated, a suitable supporting frame, a cylinder mounted on said frame, a head detachable from the cylinder, a piston in said cylinder having a plunger at one end projecting through and guided by the cylinder wall, a stem at the opposite end of said piston wholly within the cylinder, a bearing member snugly fitting the bore of said cylinder to hold it against lateral movement but movable axially of said cylinder to a slight extent for guiding said stem and maintaining said plunger centered in the cylinder, and means to operate said piston and plunger.



2. In a device of the character stated, a suitable supporting frame, a cylinder mounted on said frame, a piston positioned in said cylinder having a plunger at one end projecting through and guided by the cylinder wall and also having a stem at its opposite end, a spider member having a central opening to guide and form a bearing for said stem, said spider member having its peripheral portion circumferentially notched to accurately fit the bore of said cylinder and provide extended portions loosely fitting over the end of the wall of the cylinder, and means to operate said piston and plunger, said means having a portion secured to the lower end of the cylinder and holding the spider member in loose operative relation with the cylinder.

3. In a device of the character stated, a suitable supporting frame, a cylinder fixed to the frame and having one end closed, a piston in said cylinder having a plunger at one end guided through the closed end of the cylinder and also having a stem at the other end, a valve mechanism secured to the open end of the cylinder and forming an annular space between it and the end of the cylinder, a guide for the stem of the piston provided with openings through it and also having its periphery arranged to fit the cylinder whereby it is centered, and having also radial portions loosely fitting the annular space and permitting slight movement in the axial direction of the piston whereby the guide is accurately positioned and at no time clamped against movement.

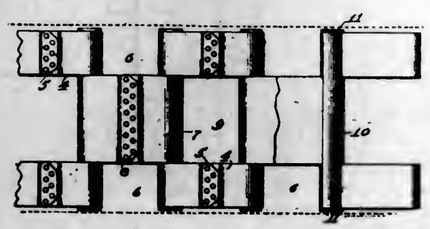
4. In a device of the character stated, a cylinder open at one end, a valve casing secured to the open end of the cylinder to close it and providing an annular clearance between the valve casing and the interior of the cylinder wall said valve casing having a centrally arranged port opening into the cylinder, a piston arranged within the cylinder and having a plunger projecting through one end of the cylinder and also having a stem at the other end extended down to a position in alinement with the port, and a bearing member fitting the bore of the cylinder and through which the stem extends to maintain the stem centered in the cylinder and said bearing member having radial portions extending into the annular clearance between the casing and cylinder and with capacity for slight movement axially of said cylinder.

5. The combination of a cylinder, a valve casing secured in one end of the cylinder and providing lateral clearances of the wall of the cylinder arranged annularly about its axial center, valve devices for controlling a pressure fluid to and from the cylinder, a piston within the cylinder having a plunger portion extending from one side and with a stem portion extending from the other side in axial line with the center of the cylinder, and a

bearing member in which the stem is guided said bearing member closely fitting the interior of the cylinder whereby it is centralized and having lateral extensions projecting into the lateral clearances between the cylinder and valve casing.

[Claim 6 not printed in the Gazette.]

1,144,323. CONTINUOUS CONVEYER. HENRY A. CARPENTER, Sewickley, Pa., assignor to Riter-Conley Manufacturing Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed Sept. 30, 1910. Serial No. 584,699. (Cl. 193—8.)



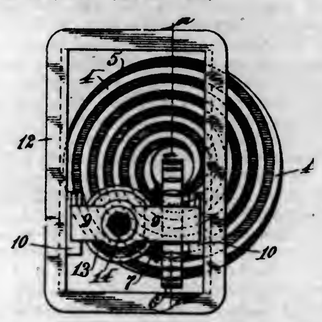
1. In a conveyer adapted to accommodate for heat expansion and contraction, two pairs of sheet-metal relatively flat endless bands, each pair being alined laterally with corresponding bands of a pair alined longitudinally of the conveyer, pins or rods extending transversely of the conveyer through the ends of said bands, and a sheet-metal relatively flat endless connecting band mounted on the pin of opposing ends of the pairs of bands between and forming a spacing member for each of said pairs, each of said bands having a width less than the width of the conveyer, the spaces at the sides and in advance and in rear of the connecting band forming tooth-receiving spaces.

2. In a conveyer adapted to accommodate for heat expansion and contraction, two pairs of sheet-metal relatively flat endless bands, each pair being alined longitudinally of the conveyer, pins or rods extending transversely of the conveyer through the ends of said bands, and a sheet-metal relatively flat endless connecting band mounted on the pins of opposing ends of the pairs of bands between and forming a spacing member for each of said pairs, each of said bands having a width less than the width of the conveyer, the spaces between the opposing ends of longitudinally alined bands of the pairs being open opposite the connecting band, the bands of a pair being of a width to permit said open spaces to receive the teeth of a driving member.

3. In a conveyer adapted to accommodate for heat expansion and contraction, two pairs of sheet-metal relatively flat endless bands, each pair being alined laterally with corresponding bands of a pair alined longitudinally of the conveyer, pins or rods extending transversely of the conveyer through the ends of said bands, and a sheet-metal relatively flat endless connecting band mounted on the pins of opposing the ends of the pairs of bands between and forming a spacing member for each of said pairs, each of said bands having a width less than the width of the conveyer, the spaces at the sides and in advance and in rear of the connecting band forming tooth-receiving spaces, in combination with a driving member having teeth corresponding in relative positions to the teeth-receiving spaces of the conveyer, the contact driving stress extending substantially throughout the lateral width of the conveyer.

4. In a conveyer adapted to accommodate for heat expansion and contraction, two pairs of sheet-metal relatively flat endless bands, each pair being alined laterally with corresponding bands of a pair alined longitudinally of the conveyer, pins or rods extending transversely of the conveyer through the ends of said bands, and a sheet-metal relatively flat endless connecting band mounted on the pins of opposing ends of the pairs of bands between and forming a spacing member for each of said pairs, each of said bands having a width less than the width of the conveyer, the contact of pin and band being insufficient to prevent release of contact upon placing slack in the conveyer.

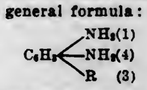
1,144,324. GEARING. GEORGE F. DEADY and GEORGE H. HOLLAND, Dayton, Ohio, assignors of one-third to said Deady, one-third to said Holland, and one-third to William Haas, Dayton, Ohio. Filed Sept. 22, 1913. Serial No. 790,987. (Cl. 74—36.)



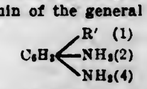
A driving gear having convolute gear threads on a face thereof, a pinion in mesh therewith and driven therefrom, and means for shifting said pinion relative to the axis of the driving gear, whereby the direction of rotation of the pinion is reversed.

1,144,325. PREPARATION FOR DYEING HAIRS, FURS, AND THE LIKE. ARNOLD ERLENBACH, Dessau, Germany. Filed Feb. 21, 1913. Serial No. 749,992. (Cl. 8—6.)

1. As new compositions of matter new preparations for dyeing hairs, furs and the like, comprising an aromatic paradiamin of the general formula:



in which formula R means an organic substituent, and an aromatic meta-diamin of the general formula:



in which formula R′ means an oxyalkyl group, which new preparations in the dry state when powdered form gray to black powders being rather soluble in water, and these new preparations producing on hairs, furs and the like in combination with an oxidizing agent black tints of a great stability.

2. As a new composition of matter, a new preparation for dyeing hairs, furs and the like comprising para-toluylene-diamin ($NH_2 : NH_2 : CH_3$—1 : 4 : 3) and meta-diaminoanisol which new composition is rather soluble in water and produces on hairs, furs and the like in combination with an oxidizing agent a deep and full bluish black of a great stability.

1,144,326. SUPPLEMENTAL COVER FOR BOXED GOODS. JAMES F. FLAHERTY and CHARLES GERLACH, Philadelphia, Pa., assignors, by mesne assignments, to Carey & Co., Philadelphia, Pa., a Firm comprising Edward Reukauf and Edward Reukauf, Jr. Filed July 18, 1912. Serial No. 710,248. (Cl. 217—58.)

1. The combination of a metal frame carrying a sheet of glass, and clips carried by said frame for engagement with the ends of a box lid, said clips comprising a pair of paralleling vertical walls connected by an end wall, a horizontal portion at right angles to the vertical walls and permanently secured to the frame, and a stiffening rib bent up from the horizontal portion and connected to the vertical end wall.

2. A supplemental cover for boxed goods, cigars and the like, comprising a frame, upstanding clips rigidly fixed to said frame and disposed substantially at right angles thereto for engagement with the ends of a box lid, said clips comprising paralleling vertical walls connected by an end wall and designed for engagement with and to support the box lid in a fixed position with relation to the frame, and a transparent plate carried by said frame and overlying the contents of the box.

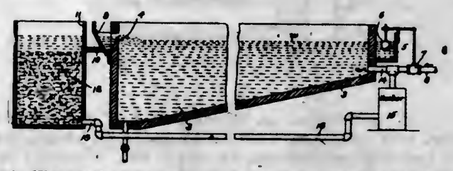


3. The combination, in a display cover for boxes having hinged lids, of a metal frame grooved at its inner edges, a glass plate carried by the grooved portion of the frame, and clips rigidly connected to said frame and upstanding from the upper surface of the same for embracing the edges of the box, said clips serving to hold the lid in definite position with relation to the frame and rendering the latter movable with said lid on its hinged connection with the box.

4. The combination of a metal frame, a sheet of glass carried thereby, clips carried by said frame comprising connected paralleling walls vertically disposed and adapted to embrace the ends of a box lid, and a stiffening rib integral with said clip, said rib being bent up from a portion of the clip overlying the frame and secured to one of the vertical walls of the same.

5. The combination of a metal frame, a sheet of glass carried thereby, clips carried by said frame comprising paralleling walls vertically disposed and adapted to embrace the ends of a box lid, stiffening ribs integral with said clips and secured to one of the vertical walls of the same, and a plate connecting said clips and spacing and bracing the same.

1,144,327. AUTOMATIC PURIFIER FOR SWIMMING-POOLS. JOHN C. W. GRETH, Pittsburgh, Pa. Filed Feb. 24, 1915. Serial No. 10,178. (Cl. 210—1.)



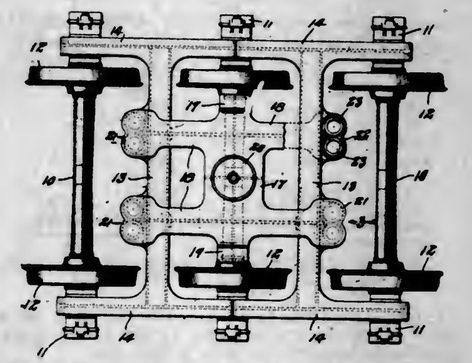
1. The method of continually purifying the water of a swimming pool which consists in maintaining a normal fixed level, raising part of the water above said level by the immersion of swimmers therein, filtering the water by gravity, and leading it back into the pool, substantially as described.

2. Apparatus for purifying the water of swimming pools, comprising the provision of an overflow receptacle placed above the normal level of the water in the pool, and a filter and gravity return tube connecting with the pool, substantially as described.

3. A swimming pool provided with a main water inlet, an automatic device to maintain a fixed level in the pool, an overflow chamber arranged just above said normal level, a filter connected with said overflow, and a return pipe leading back into the pool and containing a heater therein.

1,144,328. ARTICULATED CAR-TRUCK. CLARENCE H. HOWARD and HARRY M. PFLAGER, St. Louis, Mo., assignors, by mesne assignments, to Commonwealth Steel Company, a Corporation of New Jersey. Filed July 25, 1914. Serial No. 852,977. (Cl. 105—244.)

1. In a car truck, a series of wheel carrying axles, a truck frame composed of two separately formed and independently movable parts, each part comprising a transom and a pair of wheel pieces rigidly fixed thereto, each part having four points of support upon the axles, and a center bolster supported by the truck frame, the points of support for said center bolster being located so that the supported load is transmitted to and divided equally between the axles.



2. In a car truck, a series of wheel carrying axles, a truck frame composed of two separately formed and independently movable parts, each part comprising a transom and a pair of wheel pieces rigidly fixed thereto, which parts are supported by said axles, and a center bolster supported by said truck frame, the points of support for said center bolster being located so that the loads impressed on the bolster are transmitted to and divided equally between the axles.

3. In a car truck, a series of wheel carrying axles, a truck frame composed of two separately formed and independently movable parts, each part comprising a transom and a pair of wheel pieces rigidly fixed thereto, each part having four points of support upon the axles, and a center bolster yieldingly supported upon the parts of the truck frame.

4. In a car truck, a series of wheel carrying axles, a truck frame composed of two separately formed and independently movable parts, each part comprising a transom and a pair of wheel pieces rigidly fixed thereto, each part having four points of support upon the axles, and a center bolster yieldingly supported at four points on the parts of the truck frame.

5. In a car truck, a series of wheel carrying axles, a truck frame composed of two separately formed and independently movable parts, each part comprising a transom and a pair of wheel pieces rigidly fixed thereto, each part having four points of support upon the axles, a center bolster supported by the truck frame, the points of support for said center bolster being located so that the supported load is transmitted to and divided equally between the axles, and a center bearing on said center bolster.

[Claims 6 to 23 not printed in the Gazette.]

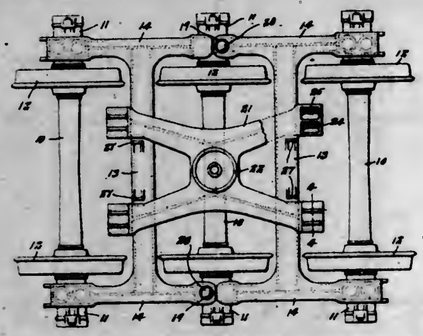
1,144,329. ARTICULATED CAR-TRUCK. CLARENCE H. HOWARD and HARRY M. PFLAGER, St. Louis, Mo., assignors, by mesne assignments, to Commonwealth Steel Company, a Corporation of New Jersey. Filed July 25, 1914. Serial No. 852,978. (Cl. 105—244.)

1. In a car truck, a two-part frame and a bolster, the same being relatively movable laterally with respect to each other, a center bearing on the bolster, a side bearing on each part of the frame.

2. In a car truck, a two-part truck frame, lateral motion devices on each part of the frame, and a center bolster supported by said lateral motion devices.

3. In a car truck, a frame formed in two parts, a center bolster, the parts of said frame and said center bolster being independently movable laterally with respect to each other and a side bearing on each part of the frame.

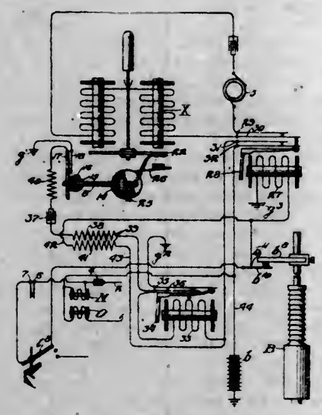
4. In a car truck, a frame formed in two parts, each of which is spring-supported and independently movable with respect to the other, a center bolster supported by and independently movable laterally with respect to the parts of the frame, and a side bearing on each part of said frame.



5. In a car truck, a frame formed in two parts, and a center bolster which is supported by and movable transversely with respect to the parts of the frame.

[Claims 6 to 25 not printed in the Gazette.]

1,144,330. TELEPHONE BUSY-SIGNAL APPARATUS. GEORGE E. KIMBALL, Chicago, Ill., assignor, by mesne assignments, to First Trust and Savings Bank, trustee, Chicago, Ill. Filed Sept. 19, 1906. Serial No. 335,260. (Cl. 179—16.)



1. In apparatus of the character set forth, the combination of means for producing a current of comparatively rapid variations, a switch for intermittently interrupting the current, a polarized armature connected for operating said switch, an electro-magnet for vibrating said armature, means for supplying alternating current of comparatively slower variations for energizing said electro-magnet, and means controlling the operation of said apparatus.

2. In apparatus of the character set forth, the combination of means for producing a current of comparatively rapid variations, a switch for intermittently interrupting the current, a torsional spring, a polarized armature mounted to vibrate against the torsion of said spring, means by which the said armature operates the said switch, an electro-magnet for vibrating said armature, means for supplying alternating current of comparatively slower variations for energizing said electro-magnet, and means controlling the operation of said apparatus.

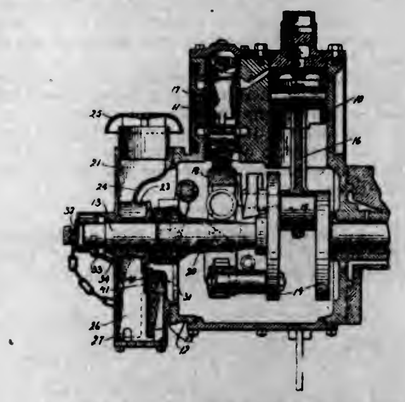
3. In apparatus of the character set forth, the combination of means including a busser or interrupter normally at rest for supplying a signal current, means independent of said busser for intermittently interrupting said signaling current, and means controlling the operation of said apparatus.

4. In apparatus of the character set forth, the combination of means for producing a current of comparatively rapid variations, a switch for intermittently interrupting the current, an alternating current motor for operating said switch, means for supplying alternating current of comparatively slower variations to said motor, and electromagnetically-operated means for controlling the operation of said alternating current-supplying means.

5. In apparatus of the character set forth, the combination of a polarized armature, an electro-magnet for operating said armature, an electric circuit, a switch controlling said circuit, a rotary shaft for intermittently operating said switch, connections by which the armature rotates said shaft, means for supplying current to energize said electro-magnet, and electromagnetically-operated means for controlling the operation of said apparatus.

[Claims 6 to 13 not printed in the Gazette.]

1,144,331. OIL-SEPARATOR FOR STEAM-ENGINES. NATHAN M. LOWER, Schenectady, N. Y., assignor to Locomotive Stoker Company, Schenectady, N. Y., a Corporation of Pennsylvania. Filed Feb. 19, 1914. Serial No. 819,767. (Cl. 184—13.)



1. In combination, an engine having a closed crank case, such case being vented, and means for eliminating oil from the spray passing out at the vent, a chamber for receiving the oil so separated and having a return port open to the crank case.

2. In combination, an engine having a closed crank case, such case being vented, means for separating liquids from the spray discharge from the vent, and means for separating the oil content out of such liquid and returning it to the crank case.

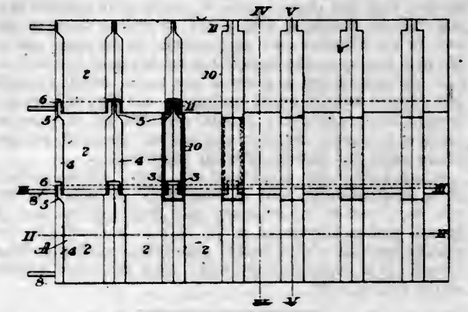
3. In combination, a steam engine having a closed crank case, an oil separator comprising a casing having ports at different elevations communicating with the crank case, a hood within the casing over the outer end of the upper port, and a water trap in the lower end of the casing having a discharge port.

4. In combination, a steam engine having a closed crank case, an oil separator comprising a vented casing having ports at different elevations communicating with the crank case, a hood within the casing over the upper port, and a water trap in the lower end of the casing having a discharge port.

5. In combination, a steam engine having a closed crank case, an oil separating chamber connected with the crank case by induction and eduction ports and having a vent opening, the passage leading to the vent opening being of greater cross-sectional area than the induction passage.

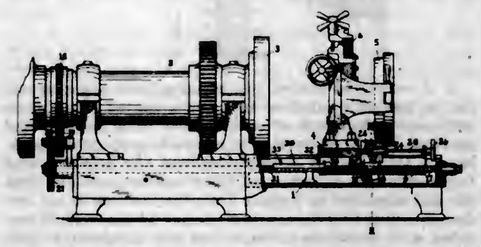
[Claims 6 to 12 not printed in the Gazette.]

1,144,332. LOOSE-ROLL TILE ROOF. SOLOMON B. MYERS, Plainfield, N. J., and HERBERT L. ROGERS, Jamaica, N. Y. Filed June 24, 1912. Serial No. 705,448. (Cl. 108—10.)



A tile roof, comprising a plurality of courses of tiles, the tiles in one course being approximately in line with the tiles in an adjacent course, the lower ends of the tiles of one course overlapping the ends of the tiles in the next course, the tiles of the upper course each having a cutaway portion at one edge and at the lower end thereof, the cut-away portion on adjacent tiles forming recesses the full depth of the tiles, upwardly extending projections along each longitudinal edge of each of said tiles, the upper ends of said projections extending into the recesses formed between adjacent tiles in the course above, and rolls having closed sides and ends overlapping the joint between two tiles, the upper ends of said rolls engaging the upper ends of two of the projections on the tiles below, said rolls each lying above four tiles and overlapping each other, the length of said rolls being greater than the length of the tiles, so that the overlap of said rolls at the lower end is beyond the lower end of the respective tiles over which the rolls lie; substantially as described.

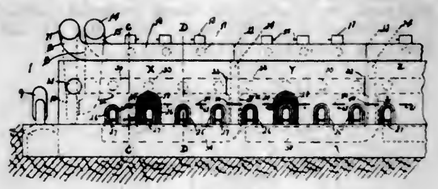
1,144,333. PIPE-THREADING MACHINE. WILLIAM OFFERMAN, Yonkers, N. Y., assignor to D. Saunders' Sons, Yonkers, N. Y., a Corporation of New York. Filed Apr. 1, 1914. Serial No. 828,688. (Cl. 10—105.)



1. The combination in a pipe-threading machine with means for rotating pipe, of a die-carrying carriage movable in line with the axis of the pipe, a lead screw beneath the carriage, means for turning the lead screw from the pipe rotating means, a half-nut for engagement with the lead screw, a shank for the nut carried by the carriage and projecting through the floor thereof, a crank engaging with the shank above the carriage floor, a worm and worm-wheel for turning the crank, and a shaft and hand wheel for operating the worm, substantially as described.

2. The combination in a pipe-threading machine with means for rotating pipe, of a die-carrying carriage movable in line with the axis of the pipe, a lead screw beneath the carriage, means for turning the lead screw from the pipe rotating means, a half-nut for engagement with the lead screw, a shank for the nut carried by the carriage and projecting through the floor thereof, a worm-wheel, connections between the worm-wheel and shank located above the floor of the carriage for moving the nut into and out of engagement with the lead screw, a worm engaging with the worm-wheel, a shaft parallel with the axis of the machine for operating the worm and a hand wheel for the shaft, substantially as described.

1,144,334. BRICK-KILN. LOTT DAVE OLIVER, Blackwell, Okla., assignor of one-half to Lloyd H. Thompson, Blackwell, Okla. Filed Aug. 29, 1913. Serial No. 787,317. (Cl. 25—134.)



1. In an apparatus of the character described a series of kiln sections, internal ducts connecting adjacent sections, means for controlling the circulation through said ducts, an external pipe system connected with each of the sections, means for controlling the circulation through said external pipes, means for creating circulation within said pipes, passageways extending adjacent to the sections, goose necks connecting said passageways with said sections, means for exhausting air from said sections, means for supplying said sections with fresh air, and dampers for regulating the flow of the fresh air.

2. In an apparatus of the character described a series of kiln sections arranged adjacent each other, upper and lower ducts passing through all the sections, controlling dampers located within said upper ducts, passageways leading from the upper ducts situated in one section into the lower ducts of the next adjacent section, other passageways under the floors of said sections connected with the lower ducts, grilled floors connecting the interior of the sections with the last named passageways, branches connecting the interior of the sections with the upper ducts, and means for causing circulation through said sections and ducts.

3. In an apparatus of the character described a series of kiln sections arranged adjacent each other, upper and lower ducts passing through all the sections, controlling dampers located within said upper ducts, permanent arches containing grate bars ending in bag walls, passageways leading from the upper ducts situated in one section into the lower ducts of the next adjacent section, other passageways under the floors of said sections connected with the lower ducts, grilled floors connecting the interior of the sections with the passageways, branches connecting the interior of the sections with the upper ducts and means for causing circulation through said sections and ducts.

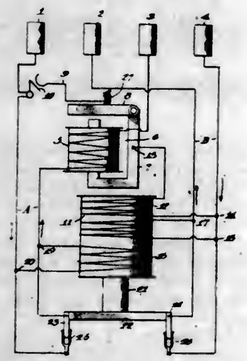
4. In an apparatus of the character described a series of kiln sections arranged adjacent each other, upper and lower ducts passing through all the sections, controlling dampers located within said upper ducts, permanent arches containing grate bars ending in bag walls, passageways leading from the upper ducts situated in one section into the lower ducts of the next adjacent section, a grilled floor in each section, other passageways connected with the grilled floor and the lower ducts, so that the heat can be evenly drawn through the baked product, and dampers in the first named pasageways, for controlling the circulation therethrough.

5. In an apparatus of the character described, a series of kiln sections arranged adjacent each other, upper and lower ducts passing through all the sections, controlling dampers located within the upper ducts, permanent arches containing grate bars ending in bag walls, temporary arches surrounding certain of said permanent arches, passageways leading from the upper ducts situated in

one section into the lower ducts of the next adjacent section, a grilled floor in each section, passageways connected with the grilled floor and the lower ducts, so that the heat can be evenly drawn through the baked products, dampers located in the first named passageways, vertical ducts connected with the lower ducts, continuous tubes, and branches containing dampers connecting the vertical ducts with the continuous tubes, said tubes being provided with means for circulating the gases.

[Claims 6 to 11 not printed in the Gazette.]

1,144,335. EXCESS-INDICATOR. HANS O. SWOBODA, Edgewood, Pa., assignor to Excess Indicator Company, a Corporation of Pennsylvania. Filed May 27, 1913. Serial No. 770,223. (Cl. 175—268.)



1. The combination of a main line electric circuit, a switch in the main line electric circuit, electro-responsive means associated therewith for intermittently opening and closing the switch upon a predetermined excess demand on the main line and electro-responsive means to hold the switch open during a greater excess load on the main line and for increasing the resistance in the main line during the period the switch is held open, and permanent connections between the second mentioned means and the main line.

2. A main supply circuit, and a circuit supplied therefrom, electro-responsive means associated therewith for intermittently increasing and restoring the resistance between the main supply circuit and the circuit supplied therefrom, when the resistance of the supplied circuit falls to a certain predetermined value, and means permanently connected to the supply line for maintaining the increased resistance when the resistance of the supplied circuit falls below a certain other predetermined value.

1,144,336. ARTIFICIAL TOOTH. GEORGE H. WHITELEY, Jr., York, Pa. Filed July 24, 1913. Serial No. 780,905. (Cl. 32—9.)



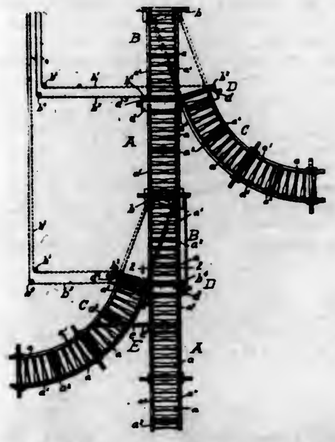
1. As an article of manufacture, an artificial tooth having embedded therein a metal anchor of tubular form having at the inner end a laterally extending inwardly directed flange to partly close the tubular opening through the bottom of the anchor and also having a lateral flange extending outwardly from the anchor and embedded in the tooth body.

2. An artificial tooth which consists of a vitreous body having embedded therein a metal anchor consisting of a tubular part having at its bottom lateral flange portions one flange outwardly extending and the other flange inwardly extending over the end of the anchor and the vitreous body having a hole leading through its outer wall into the tubular space within the anchor and of a less cross section than the cross section of the tubular opening into the anchor, combined with a pin extending through the hole in the vitreous body and soldered at its inner end to the side walls and the inward lateral flange of the anchor.

3. An anchor for a soldered pin tooth, which consists of a tubular body of metal having one end flanged laterally inward partly over the tubular opening of the anchor to form a closure therefor and having the other portion of the same end flanged laterally outward.

4. An anchor for a soldered pin tooth, which consists of a longitudinally split tubular body of metal having one end crushed transversely and flattened to form a flanged end, a portion of which acts as a closure to the tubular opening of the anchor and the remaining portion extends as a flange directed away from the outer surface of the anchor body.

1,144,337. CONVEYER. BENJAMIN H. ALVEY, Louisville, Ky., assignor, by mesne assignments, to The Alvey-Ferguson Company, Oakley, Cincinnati, Ohio, a Corporation of Ohio. Filed Aug. 6, 1907. Serial No. 387,264. (Cl. 193—1.)



1. A conveying system comprising a first and a second section having contiguous ends and arranged at an angle with each other, each of said sections being inclined and provided with freely rotatable rollers to support the packages, a third section similarly inclined and provided with freely rotatable rollers, said third section arranged with one end separated by a space from the junction of the two first mentioned sections, and a pivoted switch section provided with freely rotatable rollers and arranged in said space, with one of its ends contiguous to the end of the third sections and its other end at said junction and movable into line with either the first or the second section.

2. A conveying system comprising a main trunk line having a break in its length, and a curved line leading off from one end of said break, each of said lines being inclined and provided with freely rotatable rollers to support packages, and a switch section arranged in said break and inclined and provided with freely rotatable rollers, the last mentioned section being pivotally mounted and adapted to close the break in the main line or to break the continuity of the main line and connect the portion thereof on one side of the break with the curved line, for the purposes described.

3. A conveying system comprising a main trunk line having a break in its length, and a curved line leading off from one end of said break, each of said lines being inclined and provided with freely rotatable rollers to support packages, and a switch section arranged in said break and inclined and provided with freely rotatable rollers, the last mentioned section adapted to form a part of the main trunk line, and being pivoted at one end and having its other end provided with a means for moving it into and out of position in which the continuity of the main trunk line is broken and a section of the latter is connected with the curved line.

4. A gravity conveying system having a series of sections relatively arranged to form inclined main and supplemental runs, a pivoted switch section arranged contiguous to ends of said runs and adjustable to communicate with either of the same, each of said sections having freely rotatable rollers upon which the packages travel, and a support arranged under contiguous ends of sections of the main and supplemental runs and upon which the end of the switch section moves.

5. In a gravity conveying system, a plurality of sections relatively arranged to form inclined main and supplemental runs, a switch section pivotally mounted at one end and having its other end adapted to communicate with contiguous ends of sections of either the main or supplemental runs, each of said sections having freely rotatable rollers upon which the packages travel, a support for contiguous ends of the sections of the main and supplemental runs, and upon which said other end of the switch section is adapted to travel, and rollers between said support and switch section.

[Claims 6 to 10 not printed in the Gazette.]

1,144,338. PRODUCTION OF MATRICES. JONAS W. AYLSWORTH, East Orange, N. J., assignor, by direct and mesne assignments, to Condensite Company of America, East Orange, N. J., a Corporation of New Jersey. Filed Aug. 29, 1910. Serial No. 579,585. (Cl. 198—7.)

1. A matrix for producing fac-similes of intaglio and relief plates, set type and the like, and composed of a hard, infusible, insoluble phenol-methylene condensation product.

2. A matrix for producing fac-similes of intaglio and relief plates, set type and the like, and composed of a hard, infusible, phenol-methylene condensation product, and asbestos.

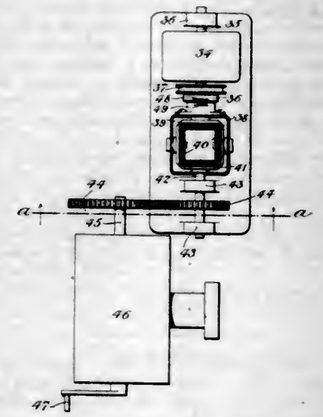
3. A matrix for producing fac-similes of intaglio and relief plates, set type and the like, composed of a hard reaction product of a fusible phenol resin and a methylene containing hardening agent therefor.

4. A matrix for producing facsimiles of intaglio and relief plates, half-tones, set type and the like, composed of the hard infusible product formed by the combination under sufficient heat of a fusible phenol-formaldehyde condensation product with hexa-methylene-tetra-amin.

5. A matrix for stereotype or like plates comprising an infusible phenolic condensation product, said matrix capable of withstanding the action of molten type metal or similar alloy for the period necessary for its solidification, and capable of affording clear impressions thereof.

1,144,339. MEANS FOR SYNCHRONOUSLY DISPLAYING CINEMATOGRAPHIC PICTURES AND REPRODUCING SOUND. LÉON GAUMONT, Paris, France, assignor to Société des Etablissements Gaumont, Paris, France. Filed Jan. 4, 1907. Serial No. 350,857. (Cl. 177—337.)

1. Means for synchronously displaying cinematographic pictures and reproducing sound, comprising a cinematograph and a phonograph adapted to be located remote one from the other, an indicating device, said indicating device comprising a differential gearing, an electric motor adjacent said differential gearing for driving one of the gears thereof, electrical means under the control of a moving part of, and adapted to rotate said motor at a speed having a definite time relation to, the remote one of said cinematograph and said phonograph, a connection between the second gear of said differential and the other of said phonograph and said cinematograph, and an indicator hand actuated by the intermediate gear of said differential.



2. Means for synchronously displaying cinematographic pictures and reproducing sound, comprising a cinematograph and a phonograph adapted to be located remote one from the other, a differential gearing, an electric motor adapted to drive one of the gears of said differential, electrical means under the control of a moving part of said phonograph for driving said motor at a speed having a definite time relation to said phonograph, a connection between the other gear of said differential and said cinematograph, and an index actuated by the intermediate gear of said differential, said index being adapted to maintain a fixed position when the definite time relation between the phonograph and cinematograph is maintained, and to indicate by its movement to one side or the other a deviation from the definite time relation of said cinematograph and phonograph.

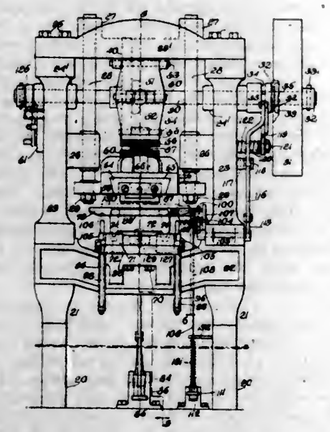
3. Means for synchronously displaying cinematographic pictures and reproducing sound, comprising a cinematograph and a phonograph adapted to be located remote one from the other, an indicating device comprising a frame, a differential gearing mounted in said frame, an electric motor also mounted in said frame and adapted to drive one of the gears of said differential, electrical means under the control of a moving part of said phonograph for driving said motor at a speed having a definited time relation to said phonograph, a connection between the other gear of said differential and said cinematograph, and an index actuated by the intermediate gear of said differential, said index being adapted to maintain a fixed position when the definite time relation between the phonograph and cinematograph is maintained, and to indicate by its movement to one side or the other a deviation from the definite time relation of said cinematograph and phonograph.

4. Means for synchronously displaying cinematographic pictures and reproducing sound, comprising a cinematograph and a phonograph adapted to be located remote one from the other, a differential gearing, an electric motor adapted to drive one of the gears of said differential, electrical means under the control of a moving part of said phonograph for driving said motor at a speed having a definite time relation to said phonograph, a connection between the other gear of said differential and said cinematograph, and an index actuated by the intermediate gear of said differential, said index being adapted to maintain a fixed position when the definite time relation between the phonograph and cinematograph is maintained, and to indicate by its movement to one side or the other a deviation from the definite time relation of said cine-

matograph and phonograph, said motor and said cinematograph being connected to the respective gears of the differential through intermediate gears which are adapted to be changed to obtain a desired speed relation between said phonograph and motor.

5. Means for synchronously displaying cinematographic pictures and reproducing sound, comprising a cinematograph and a phonograph adapted to be located remote one from the other, a differential gearing, an electric motor adapted to drive one of the gears of said differential, electrical means under control of a moving part of said phonograph for driving said motor at a speed having a definite time relation to said phonograph, a connection between the other gear of said differential and said cinematograph, and an index actuated by the intermediate gear of said differential, said index being adapted to maintain a fixed position when the definite time relation between the phonograph and cinematograph is maintained, and to indicate by its movement to one side or the other a deviation from the definite time relation of said cinematograph and phonograph, electrical signaling devices, and contacts at each side of said index, said index being adapted to actuate said signaling devices upon coming into contact with said contacts.

1,144,340. EMBOSSING-MACHINE. DUNCAN R. CAMPBELL, Boston, Mass., assignor of one-half to Frank Rumrill, Newton, Mass. Filed Dec. 26, 1914. Serial No. 879,219. (Cl. 101—13.)



1. In a machine of the character described, the combination of a printing bed arranged to be horizontally and vertically reciprocated, and power-controlling means operable by horizontal movement of the printing bed toward the die to cause reciprocation of the die.

2. In a machine of the character described, the combination with a printing bed arranged to be horizontally reciprocated, of power-controlling means normally operable by movement of the printing bed toward the die to cause reciprocation of the die, said means having provisions manually adjustable to permit die-ward movement of the printing bed without causing reciprocation of the die.

3. In a machine of the character described, the combination with means for engaging and vertically reciprocating a die, and a work support arranged to be reciprocated horizontally, of means for raising said support and returning it to the plane of its horizontal reciprocation.

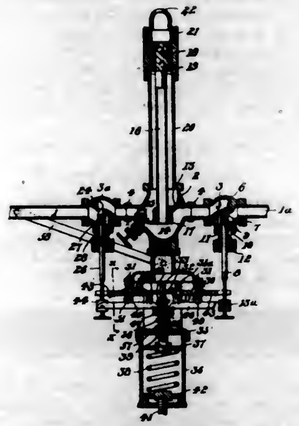
4. In a machine of the character described, the combination of a work support arranged to be reciprocated horizontally and vertically, and means for holding a die, said die-holding means being arranged so that the die may yield against spring pressure upon engagement with the work.

5. In a machine of the character described, the combination with a work support arranged to be horizontally and vertically reciprocated, of means for vertically reciprocating said work support, said means including a plurality of levers spaced apart and fulcrumed in alinement, a handle connecting said levers, and a plurality of vertically movable yoke members each of which is arranged to be engaged and operated by one of said levers, each of said yoke members having a plurality of vertical lifting pins arranged to contact with suitably formed under portions of said work support to prevent skewing of said work support when the latter is supported by said pins.

[Claims 6 to 12 not printed in the Gazette.]

REISSUES.

13,933. FUEL-CONTROLLING DEVICE. LOUIS AUGUSTUS DRAGO, Seattle, Wash. Filed Mar. 8, 1915. Serial No. 13,053. Original No. 1,075,701, dated Oct. 14, 1913, Serial No. 725,639. (Cl. 236—6.)



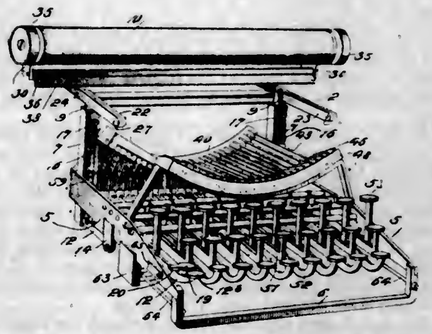
1. In a device of the class described, the combination with a hollow metal casting whose interior space is divided into two chambers by a partition, of a large outlet pipe disposed to lead from one of said chambers; a smaller outlet pipe connected with the other of said chambers to extend therefrom to project within said large outlet pipe in a position concentric therewith; an inlet passageway for conducting fluid under pressure into the chamber having the large outlet pipe; an inlet passageway for conducting fluid fuel into the chamber having the smaller outlet pipe; a separate controlling valve for each of said inlet passageways; a steam pipe connected to the valve which controls the inlet passageway leading to the chamber having the large outlet pipe; a fluid fuel pipe connected to the valve which controls the passageway leading to the chamber having the smaller outlet pipe; a receptacle for steam associated with said hollow body; a pipe disposed to connect said receptacle with said steam and compressed air supply pipe, a flexible diaphragm disposed to adapt it to vibrate in response to changes in the pressure of steam within said receptacle; a rod disposed to adapt it to be moved endwise in response to vibratory movements of said diaphragm; two levers each having one of its ends adjustably connected with said rod while its other end is pivotally associated with the valve stem of a different one of said valves; and an adjustable and independently movable fulcrum for each of said levers.

2. A device for regulating the flow of two combustive agents from their sources of supply to the same point of consumption, which device embodies a conducting pipe for each of said agents, a valve associated with each of said pipes and adapted to be operated to control the flow of fluid therethrough, a diaphragm adapted by suitable means to be vibrated in response to changes in the degree of pressure of one of said agents in one of said pipes, a rod disposed with one of its ends in engagement with the central portion of said diaphragm and adapted to be moved in its lengthwise direction in response to vibratory movements of said diaphragm, resilient means for pressing said rod against said diaphragm, a collar mounted on said rod and adapted to be removably secured at different desired points thereon, two levers each having one of its ends articulated with the valve stem of a different one of said valves while its other end is in connection with said rod and an adjustable and independently rolling fulcrum for each of said two levers.

3. The combination with the steam and oil inlet valves and diaphragm of an oil burner, of a spring-pressed stem centrally connected to the diaphragm and adapted to vibrate therewith, an adjustable recessed collar upon said stem, levers connected with the said valves and adapted to hook over the annular edge formed by the said recess, racks fixed with respect to the frame of the burner, and pinions which coöperate with the said racks and form movable fulcrums for the said levers, whereby varying movements thereof are permitted as the diaphragm is vibrated, and safety locks adapted to limit the movement of said valves.

4. The combination with the steam and oil inlet valves and diaphragm of an oil burner, of a spring-pressed stem centrally connected to the diaphragm and adapted to vibrate therewith, an adjustable cupped collar upon said stem, levers connected with said valves and adapted to hook over the edge of the cupped portion of said collar, racks fixed with respect to the frame of the burner, pinions which coöperate with said racks and form movable fulcrums for said levers, whereby varying movements thereof are permitted as the diaphragm is vibrated, and safety catches which are adapted to spring out over the said levers and lock them against retrograde movement when the said levers have completed a predetermined travel.

13,934. TYPE-WRITING MACHINE. FRANK S. ROSE, deceased, Newark, N. J., by Corona Typewriter Company, Inc., Groton, N. Y., assignee by mesne assignments. Filed May 22, 1915. Serial No. 29,761. Original No. 754,242, dated Mar. 8, 1904, Serial No. 142,828. (Cl. 197—60.)



1. In a type-writer, key-operated type, and a foldable support for a carriage and a platen, consisting of a non-adjustable member, and an adjustable member foldably connected with said non-adjustable member and movable from a normal to an abnormal and compact position out of the path of the type, combined with a carriage mounted to travel on the adjustable member of said support, and a platen supported by said carriage.

2. In a type-writer, a foldable support for a carriage and platen, consisting of a skeletonized non-adjustable member, and an adjustable member having pivotal connection with said non-adjustable member and foldable relatively thereto from a normal to an abnormal and compact position, in combination with a carriage mounted on the adjustable member, and a platen supported in said carriage.

3. In a type-writer, a foldable support for a carriage and a platen, consisting of a non-adjustable member, and an adjustable member pivotally connected with said non-adjustable member and movable from a normal to an abnormal compact position, combined with a carriage mounted on the adjustable member, and a platen in said carriage, said adjustable member and the parts supported thereby being arranged to rest in normal position on the non-adjustable member of the support.

4. In a type-writer, the combination of a two-part foldable carriage support, a traveling platen carriage mounted on the foldable part of said carriage support and movable from a normal to an abnormal compact position, and means for shifting said carriage support and the platen carriage bodily in a vertical plane.

5. In a type-writer, the combination of a foldable carriage supporting frame, a traveling platen carriage mounted on the foldable member of said carriage frame to be foldable therewith from a normal to an abnormal compact position, and means for bodily raising and lowering the carriage supporting frame and the carriage thereon in a vertical plane.

6. In a type-writer, the combination of vertical posts, a two-part carriage frame having a non-foldable member mounted on said posts and movable vertically therewith, a platen carriage supported by said foldable member of the frame to travel thereon and to be raised or lowered bodily with said carriage frame, said foldable member moving the platen carriage from a normal to an abnormal compact position, and means controllable at will for adjusting the carriage frame and the carriage thereon in a vertical plane.

7. In a type-writer, the combination of vertical posts, a two-part carriage frame having one member attached to said posts, and a foldable member pivoted to said first-named member for adjustment to an abnormal position relatively thereto, a platen carriage carried wholly by the adjustable member of said frame for movement vertically and foldably therewith from a normal to an abnormal compact position, and means for vertically adjusting the supporting frame and the carriage thereon.

8. In a type-writer, a carriage supporting frame consisting of a skelentonized non-adjustable member, and an adjustable member pivoted to said skeletonized member and equipped with a base-plate affording two track surfaces, in combination with a platen carriage mounted on said base-plate to travel thereon and to be foldable to an abnormal compact position with the adjustable member of the carriage supporting frame.

9. In a type-writer, a foldable carriage supporting frame consisting of a skeletonized non-adjustable member, and an adjustable member pivoted to said non-adjustable member, said adjustable member of the frame having a track surface, combined with a platen carriage fitted to said track surface of the adjustable frame member to travel thereon and to be foldable therewith from a normal to an abnormal compact position, and means for bodily shifting the carriage frame and its contained parts in a vertical direction.

10. In a visible typewriting machine, the combination of a non-folding frame, type-bars and key-operated levers supported in said frame and operatively connected together, one key-operated lever for each type-bar, two foldable members supported by said frame, each member having two forwardly extending side arms, said arms of each member being spaced apart and the arms of one member being arranged alongside of the arms of the other member and pivoted thereto at their forward ends, means whereby both supporting members may be moved vertically, a bed rigidly connected to two of said arms, and a platen carriage movable transversely of the machine along said bed above the frame and at the rear thereof so as to extend beyond the frame when in its normal working position and foldable forward out of the path of the type-bars with the bed from the rear of the machine to an inverted overhanging compact relation at the forward part of the frame.

11. In a visible typewriting machine, the combination of a non-folding main frame, type-bars, key-operated le-

vers forming a part of a keyboard supported in said frame and operatively connected to said type-bars, one key-operated lever for each type-bar, a pivotally held member supported by said frame and having two horizontally arranged side arms, and a platen carriage supported by said arms and movable transversely of the machine at the rear thereof when in its normal working position and foldable forward with the arms from its normal position at the rear of the machine to an inverted overhanging compact relation at the forward part of the frame.

12. In a visible typewriting machine, a keyboard, a platen carriage, a non-folding member, and a foldable member for the platen carriage provided with horizontally arranged side arms pivotally held to the non-folding member and foldable with the platen carriage into compact relation to the keyboard when not in use.

13. In a visible type-writer, type-bars, a key-operated lever for each type-bar forming a part of a keyboard, a non-folding frame in which the levers and type-bars are mounted, a platen carriage, and a foldable supporting member for the platen carriage movable to an abnormal position in overhanging and compact relation to the keyboard.

14. In a typewriting machine, type, key-operated levers forming a part of a keyboard and operatively connected to the type, each key-operated lever being adapted to move a type to printing position, a non-folding main frame in which the type and levers are mounted, a platen carriage, and means for supporting the carriage at the rear part of the frame in its normal position and foldable with said carriage at the front of the machine near the keyboard out of the path of the type and in a compact position when not in use.

15. In a visible typewriting machine, the combination of a main frame, type, and key-operated levers supported in said frame and operatively connected together, two side arms pivotally supported at their forward ends and supported by the main frame at the rear thereof, a carriage bed rigidly held to said arms, means whereby the bed may be moved vertically, and a platen carriage movable transversely of the machine along said bed at the rear of the frame and foldable forward with the bed from its position at the rear of the machine to inverted overhanging and compact relation at the forward part of the frame.

16. In a typewriting machine, a keyboard, a main frame in which the keyboard is mounted, two pair of horizontally arranged arms pivotally held together at their forward ends in pairs, one pair of arms being in overlapping relation to the other pair of arms lengthwise thereof in all normal positions of the carriage, means for shifting the arms vertically without disturbing their relation, a platen, and a carriage in which the platen is rotatably mounted to move transversely of the machine on one pair of arms and movable with said arms in overhanging compact relation to the forward part of the machine.

17. In a typewriting machine, a keyboard, a platen carriage, a non-folding main frame in which the keyboard is mounted, a pivotally supported skeletonized member on which the platen carriage is mounted and which is foldable with the platen carriage to place the latter in overhanging compact relation to the keyboard when not in use and reduce the cubical dimensions of the machine.

18. In a typewriting machine, a keyboard, a platen carriage, a non-folding frame in which the keyboard is mounted, a pivotally held supporting member for the platen carriage movable with the platen carriage from a normal position into compact relation to the keyboard above the front of the frame when not in use to reduce the cubical dimensions of the machine, and means for shifting said supporting member and platen carriage when in normal working position.

19. In a typewriting machine, the combination of a main frame, type-bars and key-operated levers supported in said frame and operatively connected together, one key-operated lever for each type-bar, two horizontally arranged supporting members movable in said frame and foldable with respect to each other, each member having two forwardly extending side arms, one pair of arms being arranged alongside the other pair of arms lengthwise thereof and pivoted thereto at the forward ends thereof, a bed rigidly connected to two of said arms, and a platen carriage movable transversely of the machine along said bed above the frame and at the rear thereof so as to overhang the frame when in its normal working position and foldable forward with the bed from its position at the rear of the machine to an inverted overhanging relation out of the path of the type-bars at the forward part of the frame.

20. In a visible typewriting machine, the combination of a keyboard having printing keys, type operatively connected to be moved when each key is depressed, a non-folding member, a folding member provided with side arms engaging the non-folding member lengthwise thereof and pivoted to said non-folding member at the forward part thereof, means for shifting said arms, and a platen carriage mounted on said arms and movable therewith from the rear of the machine into compact relation to the keys to reduce the cubical dimensions of the machine when not in use and without disturbing the relation between the keys and the type.

21. In a typewriting machine, the combination of a keyboard having key-operated levers, type operated by said levers, a foldable member, a platen and a carriage therefor held to said member and foldable therewith out of the path of the type into close relation to the keyboard without disturbing the relation between the key-operated levers and the type, and means for shifting the foldable member in a vertical direction.

22. In a visible typewriting machine, the combination of a keyboard having key-operated levers, type-bars one for each lever operated by said levers, a foldable member, and a platen carriage held to said member and foldable therewith out of the path of the type-bars into close relation to the front of the machine without disturbing the relation between the key-operated levers and the type-bars.

23. In a front-strike typewriting machine, the combination of a keyboard having key-operated levers, upwardly and rearward moving type-bars each operated by one of said levers, a non-folding rigid frame for the said levers and type-bars, a horizontally arranged foldable member supported at the upper portion of the frame, a platen and a carriage therefor held to move along said member and foldable therewith out of the path of the type-bars into overhanging relation to the keyboard without disturbing the relation between the key-operated levers and the type-bars, and means for shifting the foldable member in a vertical direction to adapt the type-bars to carry a plurality of type.

24. In a typewriting machine, a non-folding rigid frame, a keyboard having keys supported in the frame, type-bars pivotally held in said frame and each connected to an individual key, a carriage, a platen mounted in said carriage, and a horizontally arranged foldable supporting member for the platen carriage located at the upper portion of the frame above the type-bars and movable forward in the arc of a circle over the type-bars out of the path thereof to the forward part of the frame to make the machine more compact than when in use.

25. In a front-strike typewriting machine, the combination of a keyboard having key-operated levers, type-bars carrying a plurality of type and each bar operated by one of said levers, a carriage, a platen mounted in the carriage and normally in the path of movement of the type and movable forward with the carriage away out of the path of the type and into compact relation to the forward part of the machine when not in use without disturbing the relation between the typebars and key-operated levers, and means for shifting the platen carriage vertically.

26. In a visible typewriting machine, the combination of a main frame, a keyboard at the forward part of the machine, type operatively connected to certain of the keys of the keyboard, a horizontally arranged supporting member having side arms pivotally held at their forward ends, and a platen carriage adapted to move along said member transversely of the machine and adapted to be folded forward with the arms from the rear part of the machine over

the front part of the frame to reduce the cubical dimensions of the machine when not in use without disturbing the relation between the keys and the type.

27. In a typewriting machine, the combination of key-operated levers, type operatively connected to the key-operated levers to adapt a single type to be printed on the depression of each key, a foldable support having arms arranged in pairs alongside of each other, one pair of arms being pivoted to another pair of arms at their forward ends, and a platen carriage supported by one pair of arms to move transversely of the machine and adapted to be moved from a position at the rear of the machine to an inverted overhanging relation to the keys of the levers and reduce the cubical dimensions of the machine for transportation purposes.

28. In a visible typewriting machine having a universal or standard keyboard, the combination of key-operated levers and type operated by said levers, a carriage, and a platen mounted in the carriage and normally in the path of said type and foldable with the carriage out of its normal position away from the type and into compact relation to another part of the typewriter to occupy less space than when in use.

29. In a visible typewriting machine having a universal or standard keyboard, the combination of key-operated levers and type operated by said levers, a carriage, a platen mounted in the carriage and normally in the path of said type and foldable with the carriage out of its normal position away from the type and into compact relation to another part of the typewriter to occupy less space than when in use, and means for shifting the platen carriage vertically when in its normal working position only.

30. In a front-strike typewriting machine having a universal or standard keyboard, type-bars, a key-operated lever connected to each type-bar, a vertically movable carriage, a platen mounted on the carriage and normally in the path of said type-bars and foldable bodily forward with the carriage into compact relation to another part of the typewriter out of the path of the type-bars to occupy less space than when in use, and means forming a part of the keyboard for elevating the carriage and platen when in a normal operative position.

31. In a visible typewriting machine, the combination of a keyboard having key-operated levers, type-bars operated by individual key-operated levers, a platen carriage, means for shifting the platen carriage in a vertical direction, and a foldable support on which the platen carriage is mounted, said support having the platen carriage normally in the path of the type-bars when in a working position and moving said carriage out of the path of the type-bars over the keyboard to reduce the size and cubical dimensions of the machine for transportation purposes.

32. In a typewriter, the combination of a main rigid frame, a keyboard mounted in said frame, vertical posts movably held at the rear corners of the frame, a non-folding member attached to said posts, a foldable member pivoted to said non-folding member for movement to an abnormal compact position relatively thereto over the front part of the main frame, a platen carriage carried wholly by the foldable member for movement vertically and foldable therewith, and means for shifting vertically both members and the carriage thereon.

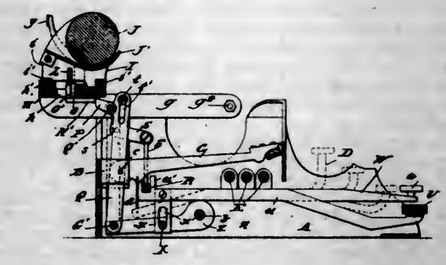
33. In a typewriter, the combination of vertical posts, two side arms attached to said posts, and a foldable member having side arms pivoted to the first-mentioned side arms and extending alongside of said latter arms and movable to an abnormal compact position relatively thereto, a platen carriage carried wholly by the foldable member for movement vertically and foldable therewith, and means for vertically shifting the foldable member and the carriage thereon.

34. In a visible typewriter, a rigid main frame, a skeletonized non-folding member movable in the main frame, and a folding member pivoted to said skeletonized member and equipped with a base plate affording two track surfaces, in combination with a platen carriage mounted on said base plate to travel thereon and to be foldable with the folding member from a high normal operative position to a lower and more compact position when not in use.

35. In a front-strike typewriting machine, the combination of a universal keyboard having keys, type-bars having type operated by individual keys, a carriage, a platen mounted on said carriage, and a support having relatively movable members whereby the platen and carriage and keys of the keyboard may be brought into close relation to make the machine more compact when not in use than when in a normal working position.

36. In a front-strike typewriting machine, the combination of a universal keyboard having keys, type-bars having type operated by individual keys, a carriage, a platen mounted on said carriage, a support having relatively movable members whereby the platen and carriage and keys of the keyboard may be brought into close relation to make the machine more compact when not in use than when in a normal working position, and means for giving a relative shifting movement between the platen and carriage and the type-bars to adapt the latter to have a plurality of type characters.

13,935. ESCAPEMENT MECHANISM FOR TYPEWRITERS. FRANK S. ROSE, deceased, Newark, N. J., by Corona Typewriter Company, Inc., Groton, N. Y., assignee. Filed May 22, 1915. Serial No. 29,762. Original No. 948,553, dated Feb. 8, 1910, Serial No. 256,244. (Cl. 197—88.)



1. In a visible typewriter, the combination of a keyboard, type-bars operated by the keys, a platen carriage foldable into substantially overhanging relation to the keys of the type-bars, a separable escapement-mechanism for said carriage, said escapement mechanism comprising means adapted to be actuated normally by the typewriter keys, means foldable with the platen carriage, together with means for shifting vertically the entire escapement mechanism.

2. In a visible typewriter, the combination of key-operated levers, a type-bar for each lever, a platen carriage foldable forward into substantially overhanging relation to the keys or the type-bars, a carriage-tension mechanism for actuating said platen carriage, a separable escapement-mechanism for said carriage, said escapement mechanism comprising means adapted to be actuated normally by the typewriter keys and means foldable with the platen carriage, said last-mentioned means operating to hold the platen-carriage against movement under the action of a carriage-tension device when said carriage is folded to a non-working position, together with means for shifting the platen carriage and the entire escapement mechanism vertically.

3. In a visible typewriter, the combination of key-operated levers, a type-bar for each lever, a platen carriage foldable into substantially overhanging relation to the keys or the type-bars, a separable escapement mechanism for said carriage, said escapement mechanism comprising means adapted to be actuated normally by the typewriter keys and means foldable with the platen carriage, said escapement mechanism means on said carriage being adapted for coöperation with the key-actuated means of said escapement mechanism when the carriage is restored to a working position, together with means for shifting

the platen carriage and the entire escapement mechanism vertically.

4. In a visible typewriter, the combination of key-operated levers, a type-bar for each lever, a platen carriage foldable into substantially overhanging relation to the keys or type-bars, a rack and a dog-carrier foldable with the carriage, dogs on said carrier, key-actuated means cooperating with said dog-carrier, said key-actuated means being unaffected by the folding movement of the carriage and the dog-carrier and adapted to be engaged automatically with the dog-carrier when the carriage is moved into position for use, together with means for shifting the platen carriage, rack, dog-carrier, dogs and key-actuated means vertically.

5. In a visible typewriter, the combination of key-operated levers, a type-bar for each lever, a platen carriage foldable into substantially overhanging relation to the keys or type-bars, a rack foldable with the carriage, a dog-carrier movable with said foldable carriage and provided with dogs which remain in coöperative relation to the rack when the carriage is folded and unfolded, separable key-actuated means adapted to coöperate with the dog-carrier when the carriage is in working position, together with means for shifting the platen carriage, rack, dog-carrier and key-actuated means vertically.

6. In a visible typewriter, key-operated levers, a type-bar for each lever, a platen carriage foldable into substantially overhanging relation to the keys or type-bars, key-actuated means for an escapement mechanism, a rack on the carriage, and a dog carrier coöperating with said rack and with said key-actuated means, said dog carrier having a predetermined relation to the aforesaid key-actuated means for engagement therewith, and disengagement therefrom, when the carriage is adjusted to its working and folded positions, respectively, and means for shifting the platen carriage, dog carrier, and key-actuated means vertically.

7. In a visible typewriter, key-operated levers, a type-bar operated by each lever, a carriage bed foldable into substantially overhanging relation to the keys or type-bars, a platen carriage movable endwise on the carriage bed and foldable therewith, a separable escapement mechanism for said platen carriage, key-actuated means for said escapement mechanism, the said escapement mechanism being movable with the carriage bed into and out of engagement with an element of the key-actuated means, and means for moving the platen carriage, bed and the entire escapement mechanism in a vertical direction.

8. In a visible typewriter, type, key-operated means for the type, a carriage bed foldable from a normal to an abnormal and more compact position, a platen carriage adapted to travel thereon, a rack, a dog-carrier on said carriage bed and movable therewith in its foldable movement, separable key-actuated means adapted to coöperate with the dog-carrier in the normal position only of the carriage, and means for giving a relative shifting movement between the platen carriage and type.

9. In a typewriter, a carriage bed foldable from a normal to an abnormal and more compact position, a platen carriage adapted to travel thereon, a rack movable with the platen carriage, a dog-carrier mounted on the carriage bed and provided with dogs to engage with the rack, and key-actuated means for engagement with the dog-carrier.

10. In a visible typewriter, a carriage bed foldable from a normal to an abnormal and more compact position, a platen carriage adapted to travel thereon, a rack movable with the platen carriage, a dog-carrier mounted on the carriage bed and provided with dogs to engage with the rack, and a rocking key-actuated frame having means for coöperation with the dog-carrier and separable therefrom during the folding movement of the carriage bed.

11. In a typewriter, a foldable or shiftable carriage bed, a platen carriage adapted to travel thereon, a rack movable with the platen carriage, a dog-carrier mounted on the carriage bed and provided with dogs to engage with the rack, a vertically movable rocking frame adapted to be operated at all times by the typewriter keys, and a tappet mounted on the frame and coöperating with the dog-carrier.

12. In a front-strike typewriter, a carriage bed, a traveling carriage thereon, means for shifting the carriage bed vertically, and an escapement mechanism comprising key-actuated means adapted for adjustment vertically and to maintain coöperative relation to the platen carriage.

13. In a front-strike typewriter, a carriage bed, a traveling carriage thereon, separate devices for shifting the carriage bed vertically for different predetermined distances, and escapement mechanism having key-actuated means adapted for adjustment vertically and to maintain a cooperative relation to said platen carriage.

14. In a front-strike typewriter, a carriage bed, a traveling carriage thereon, separate devices for shifting the carriage bed vertically for different predetermined distances, an escapement mechanism, spacing and type-bar keys, and means coöperating with all the keys and the escapement mechanism in whatever position the platen carriage may be shifted.

15. In a front-strike typewriter, a carriage bed, a traveling carriage thereon, separate devices for shifting the carriage bed vertically for different predetermined distances, an escapement member on the carriage bed, a rocking tappet coöperating with said member, and key-actuated means for said tappet.

16. In a front-strike typewriter, a platen carriage having a rack, a dog-carrier, a rocking frame having a tappet in coöperative relation to the dog-carrier, means for adjusting the platen carriage and the frame vertically, key-levers, a universal bar actuated thereby, and bell-crank connections between the universal bar and the rocking frame.

17. In a front-strike typewriter, a platen-carriage having a rack, a dog-carrier, a rocking frame having a tappet in coöperative relation to the dog-carrier, key-levers, type-bars, a spacing key, a universal bar coöperating with the key-levers and spacing levers, separate case levers arranged to elevate the platen carriage and the rocking frame, means between the universal bar and the rocking frame for actuating the tappet at different points in the elevation of the platen carriage, and means whereby the platen carriage may be moved forward out of the path of the type-bars into a more compact position than when in use.

18. In a typewriter, key-operated type-bars, a platen carriage normally in the path of said type-bars and adapted to be folded to a position out of coöperative relation to said type-bars, and a separable escapement mechanism comprising a plurality of elements, certain of which are normally in coöperative relation to the key-actuated type-bars, other elements of said escapement mechanism being foldable with said platen carriage when it is adjusted into and out of the aforesaid coöperative relation to the key-operated type-bars.

19. In a typewriter, type-bars, a platen carriage adapted to lie in the path of said type-bars and foldable from said position into a compact relation to another part of the typewriter when not in use, an escapement mechanism, and means for actuating said escapement mechanism to control the step-by-step movement of said platen carriage, said escapement mechanism comprising coöperating devices which are separable when said carriage is adjusted to a position out of the path of the type-bars.

20. In a visible typewriter, the combination with key-levers and type-bars operated by said key-levers, of a platen normally in the path of said type-bars and movable out of the path of the type-bars into compact relation to another part of the typewriter when not in use, and feed mechanism coöperaing with the platen and the key-levers when the latter are moved to operate the platen for letter spacing.

21. In a visible typewriter, key-levers, type-bars operated by said levers, a vertically movable platen normally in the path of said type-bars and bodily movable forward out of the path of the type-bars into compact relation to another part of the typewriter to occupy less space than when in use, and separable feed mechanism cooperating with the key-levers and operating to move the platen only when the latter is in its normal position.

22. In a visible typewriter, the combination with key-levers and type-bars operated by said key-levers, of a platen normally in the path of said type-bars and foldable bodily out of the path of the type-bars into a compact relation to another part of the typewriter when not in use, and a separable feed mechanism a part only of which is foldable with the platen and the other parts of said mechanism being independent of such folding movement and coöperating with the key-levers to move the platen for letter spacing and only when the latter is in its normal position.

23. In a typewriter, the combination with key-levers and type-bars operated by said key-levers, of a platen normally in the path of said type-bars and foldable into a compact relation to another part of the typewriter out of the path of the type-bars when not in use, propelling mechanism for moving the platen in a direction lengthwise thereof and bodily foldable with the platen, and separable escapement mechanism coöperating with the platen and the key-levers when the latter are moved to operate the platen for letter spacing.

24. In a typewriter, key-levers, type-bars operated by said levers, a vertically movable platen normally in the path of said type-bars and bodily movable into compact relation to another part of the typewriter to occupy less space than when in use, propelling mechanism for moving the platen in one direction and bodily movable therewith, and escapement mechanism coöperating with the key-levers and operating to move the platen only when the latter is in its normal position.

25. In a typewriter, the combination with key-levers and type-bars operated by said key-levers, of a vertically movable platen normally in the path of said type-bars and bodily movable out of the path of the type-bars into a more compact relation to another part of the typewriter when not in use, propelling mechanism for moving the platen in one direction and partaking of the compact movement thereof, and a separable escapement mechanism a part only of which partakes of the compact movement of the platen and the other parts of said mechanism being independent of such compact movement and normally cooperating with the key-levers to move the platen for letter spacing and only when the latter is in its normal operative position.

26. In a typewriter, the combination with a support, of a platen mounted on said support, key-levers, spacing levers having slotted ends, feed mechanism for moving the platen for letter spacing, bell-crank levers forming a part of said feed mechanism and pivoted to the sides of the machine, and a universal bar extending over the key-levers and guided in the slotted ends of the spacing levers and supported by said bell-crank levers.

27. In a typewriter, the combination with a support, of a platen mounted on said support, key-levers, spacing levers having slotted ends, a universal bar extending over the key-levers and guided in the slotted ends of the spacing levers, and means coöperating with the universal bar to operate the platen for letter spacing.

28. In a typewriter, the combination with a vertically movable platen, of feed mechanism for imparting a step-by-step movement to said platen and including a vertically moving rocking frame, pivotally held bell-crank levers connected to said rocking frame, a universal bar, links connecting the universal bar to the bell-crank levers, together with space levers having upturned slotted ends serving as a guide for said universal bar and adapted to operate said bar to move the rocking frame.

29. In a typewriter, the combination with a movable platen, of means for shifting the platen to different vertical positions, arms movable vertically with the platen, key-levers, and means including bell-crank levers operatively connecting the key-levers to the arms for operating said arms.

30. In a typewriter, the combination with a platen movable in two directions, of arms movable with the platen during one of the movements only, a transverse bar connected to said arms, a plurality of key-levers, and means operated by the key-levers to rock the arms and bar.

31. In a typewriter, the combination with a platen carriage movable in two directions, of arms movable with the platen carriage during one of the movements only, a plurality of key-levers, and a universal bar connected to said arms and located over said levers.

32. In a typewriter, the combination with a support, of a carriage mounted on said support, a carriage bed arranged on the support along which the carriage is adapted to travel and movable from a normal to an abnormal position and into a more compact relation to another part of the machine, key-levers, a rock bar movable with the carriage, an escapement mechanism having a spring-actuated drum tending normally to force the carriage in one direction and partaking of the compact movement of the carriage, an arm pivotally held under the carriage bed, a spring normally forcing the arm in one direction, fixed and pivotally held pawls carried by the arm so as to be moved transversely of the rack bar in the arc of a circle, and means for operating the arm to permit the carriage to have a step-by-step movement.

33. In a typewriter, the combination with a support, of a carriage mounted on said support, a carriage bed arranged on the support along which the carriage is adapted to travel and movable from a normal to an abnormal and a more compact relation to another part of the typewriter when not in use, a rack bar movable with the carriage, an escapement mechanism having spring-actuated means tending normally to force the carriage in one direction, an arm pivotally held under the carriage bed, means carried by the arm so as to be moved transversely of the rack bar in the arc of a circle, and means independent of and separable from the arm for operating the arm only when in a normal position to permit the carriage to have a step-by-step movement.

34. In a typewriter, the combination with a shiftable carriage bed, of a carriage movable along the bed both of which are bodily movable from a normal to an abnormal position and into a more compact relation to another part of the typewriter when not in use, a rack bar movable with the carriage and provided with teeth on the under surface thereof, means normally forcing the carriage in one direction, an arm pivotally held to the carriage bed so as to swing in the arc of a circle, means carried by the arm and adapted to engage the rack bar to permit a step-by-step movement to be given to said carriage, key-levers, means separable from the said arm when the carriage bed is moved to its compact position and operatively connected to the key-levers to operate said arm when the carriage bed is in its normal position only, and means for moving the carriage bed, carriage, carriage forcing means, rack bar, arm and separable means vertically.

35. In a typewriter, the combination with a carriage having a platen mounted thereon, of letter-spacing mechanism for operating the carriage and platen, a transverse bar, means for adjusting the carriage and platen vertically, arms movable vertically with the carriage and having the ends of the transverse bar fixed thereto, said arms being provided with slots at the upper ends thereof, bell-crank levers having a projection entering the slots of said arms carrying the transverse bar, a universal bar, and links connecting the bell-crank levers to the universal bar whereby the carriage may be moved by its mechanism whatever adjustment it may be in as the said universal bar is operated.

36. In a typewriter, the combination with a carriage having a platen mounted thereon, of letter-spacing mechanism for operating the carriage and platen, means for folding the carriage and platen to a compact position, means for shifting the carriage and platen vertically, arms movable vertically with the carriage, said arms being provided with slots at the upper ends thereof, bell-crank levers having a part carried thereby entering the slots of said arms, means operated by said arms for engaging a part of the letter-spacing mechanism, a universal bar, and links connecting the bell-crank levers to the universal bar whereby the carriage may be moved by its mechanism whatever its vertical shifted position.

37. In a typewriter, the combination with a carriage having a platen mounted thereon, of letter-spacing mech-

anism for operating the carriage and platen, means for shifting the carriage and platen vertically, arms movable vertically with the carriage, bell-crank levers operatively connected to said vertically, movable arms, and key-operated means for operating the bell-crank levers.

38. In a typewriter, the combination with a carriage having a platen mounted thereon, of letter-spacing mechanism for operating the carriage and platen, a transverse bar, means for shifting the carriage and platen vertically, arms movable vertically with the carriage and having the ends of the transverse bar fixed thereto, said arms being provided with slots at the upper end thereof, bell-crank levers pivoted adjacent to the vertically movable arms, means carried by said bell-crank levers and entering the slots of said arms, a universal bar, and links connecting the bell-crank levers to the universal bar.

39. In a typewriter, the combination with a carriage and means for moving the same vertically, of letter-spacing mechanism for the carriage, an escapement operating frame forming a part of said mechanism and having vertically movable arms, and means for rocking the arms whatever their position.

40. In a typewriter, the combination with a carriage, of letter-spacing mechanism for the carriage, means for moving the carriage laterally with respect to its letter-spacing movement, an escapement operating frame forming a part of said mechanism and having arms movable laterally with the carriage, key-levers, and means operated by the key-levers for rocking the arms of the escapement frame whatever their position.

41. In a typewriter, the combination with a carriage and means for moving the same vertically, of escapement mechanism for the carriage having an escapement frame as a part thereof, vertically movable arms forming a part of said frame, bell-crank levers operating the vertically movable arms, and means for operating the bell-crank levers.

42. In a typewriter, the combination with a carriage and means for moving the same, of escapement mechanism for the carriage having an escapement frame as a part thereof, arms forming a part of said frame, bell-crank levers operating the arms, and means for operating the bell-crank levers.

43. In a typewriter, the combination with a vertically movable carriage, of an escapement frame having vertically movable arms, a transverse bar connected to said arms, bell-crank levers having a pin-and-slot connection with said arms, a universal bar, a plurality of key-levers for operating said latter bar, and links connecting the universal bar to the bell-crank levers.

44. In a typewriter, the combination with a movable carriage, of an escapement frame having arms, a transverse bar connected to said arms, levers having a pin-and-slot connection with the arms, a universal bar, a plurality of key-levers for operating said latter bar, and means connecting the universal bar to the first-mentioned levers.

45. In a typewriter, the combination with a vertically movable carriage, of an escapement frame having vertically movable arms, a transverse bar connected to said arms, bell-crank levers having a connection with said arms, a universal bar, a plurality of key-levers for operating said latter bar, and means connecting the universal bar to the bell-crank levers.

46. In a typewriter, the combination with a carriage, of letter-spacing mechanism for the carriage, means for moving the carriage laterally with respect to letter-spacing movement, an escapement operating frame forming a part of said mechanism and having arms movable laterally with the carriage, and means for rocking the arms whatever their position.

47. In a visible typewriter, the combination with a support, of a platen carriage mounted on said support, key-levers, spacing levers having slotted ends, escapement mechanism for moving the platen carriage for letter-spacing, bell-crank levers pivoted to the sides of the machine, a universal bar extending over the key-levers and guided in the slotted ends of the spacing levers and supported by said bell-crank levers, and means operated by the bell-crank levers for operating the escapement.

48. In a visible typewriter, the combination of a main frame, a platen carriage mounted to travel transversely of said frame, key-levers, spacing levers having slotted ends, a universal bar extending over the key-levers and guided in the slotted ends of the spacing levers, means co-operating with the universal bar to operate the platen carriage for letter spacing, and means whereby the platen carriage may be moved to an abnormal compact position out of letter spacing connection with the universal bar.

49. In a visible typewriter, the combination of a movable platen carriage, means for shifting the platen carriage to different vertical positions, arms movable vertically with the platen carriage, key-levers, means including bell-crank levers operatively connecting the key-levers to the arms for operating said arms, means operated by said arms to letter space the carriage, and means whereby the carriage may be moved out of letter spacing connection with said arms.

50. In a visible typewriter, the combination with a platen movable in two directions, of arms movable with the platen during one of the movements only, a transverse bar connected to said arms, a plurality of key-operated levers, means operated by the levers to rock the arms and bar, means operated by said bar to letter space the platen, and means for moving the platen to an abnormal compact position out of letter spacing connection with said arms and bar.

51. In a typewriter, the combination with a carriage having a platen mounted thereon, of letter spacing mechanism for operating the carriage and platen, means for shifting the carriage and platen vertically, arms movable vertically with the carriage, bell-crank levers operatively connected to said vertically movable arms, key-operated means for operating the bell-crank levers, and means whereby the platen carriage and a part of the escapement mechanism may be moved to an abnormal and compact position out of operative relation with said arms.

52. In a typewriter, the combination with a carriage having a platen mounted thereon, of letter spacing mechanism for operating the carriage and platen, a transverse bar, means for shifting the carriage and platen vertically, arms movable vertically with the carriage and having the ends of the transverse bar fixed thereto, said arms being provided with slots at the upper end thereof, bell-crank levers pivoted adjacent to the vertically movable arms, means carried by said bell-crank levers and entering the slots of said arms, a universal bar, and links connecting the bell-crank levers to the universal bar, and means whereby the platen and carriage may be moved to an abnormal position out of letter spacing operative relation to said transverse bar.

53. In a visible typewriter, the combination with a platen carriage and means for moving the same vertically, of letter spacing mechanism for the carriage, a frame having vertically movable arms adapted to operate said letter spacing mechanism, means for rocking the arms whatever their position, and supporting means for the platen carriage for moving the same to an abnormal compact position out of letter spacing operative relation with said frame.

54. In a visible typewriter, the combination of a platen carriage, of escapement mechanism for the carriage, means for moving the carriage laterally with respect to its letter-spacing movement, a frame having a transverse bar carrying a part of said escapement mechanism and having arms movable laterally with the carriage, key-levers, and means operated by the key-levers for rocking the arms of the frame whatever their position.

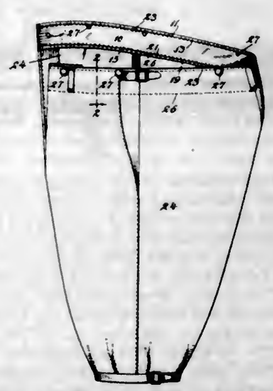
55. In a visible typewriter, the combination with a carriage and means for moving the same vertically, of escapement mechanism including a tappet for the carriage, a rocking frame, vertically movable arms forming a part of said frame, bell-crank levers operating the vertically movable arms, means for operating the bell-crank levers, and supporting means for moving the platen carriage to an abnormal position out of operative relation to said frame.

56. In a visible typewriter, the combination of a platen carriage and means for moving the same, a rocking frame, a separable escapement mechanism for the carriage adapted to be operated by said frame, arms forming a part of said frame, bell-crank levers operating the arms, and means for operating the bell-crank levers.

57. In a visible typewriter, the combination with a vertically movable platen carriage, of a frame having vertically movable arms, a transverse bar connected to said arms, bell-crank levers connected to operate said arms, a universal bar connected to operate the bell-crank levers, a plurality of key-levers for operating said bar, and separable means operated by the frame for operating said platen carriage for letter spacing when the carriage is in normal operative position and having a part thereof movable to an abnormal compact position.

58. In a visible typewriter, the combination of a platen carriage, letter spacing mechanism for the carriage, means for giving the platen carriage a case shift movement with respect to the letter spacing movement, a frame carrying a part of said mechanism and having arms shiftable with the carriage, means for rocking the arms whatever their position, and supporting means for moving the platen carriage out of its operative letter spacing relation with the frame.

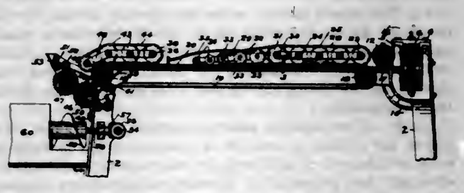
13,936. CURTAIN FOR KNEE-TROUSERS. JULIUS SCHWARZ, New York, N. Y. Filed May 14, 1915. Serial No. 28,196. Original No. 1,132,040, dated Mar. 16, 1915, Serial No. 668,652. (Cl. 2—142.)



1. A curtain for knee trousers comprising a main or curtain section consisting of a fabric portion folded upon itself along both top and bottom edges to form a rectangular imperforate panel, a top garment-attaching fabric portion united to said main section by a seam extending from end to end of the main portion in a straight line, the stiches passing through the fold of the main section near the bend therein and at a uniform distance throughout from the line defined by said bend, the said seam acting as a definite line upon which the top attaching portion is folded irrespective of irregularities in the stitching by which the said top portion is fastened to the garment, a bottom garment-attaching fabric portion permanently folded upon itself, the fold being the bottom line of the curtain and parallel with the top seam, and a bottom seam passing through the said garment-attaching portion and through the bottom edge fold of the panel in a straight line extending from end to end of the main section at a uniform distance from the line of said bend whereby a bead is formed to act as a guide for stitches parallel with said bend to unite the lower part of the curtain with the garment.

2. A curtain for knee trousers comprising a main or curtain section consisting of a fabric portion folded upon itself along both top and bottom edges to form a rectangular imperforate panel having permanent folded edges extending in parallel straight lines from end to end of the curtain, a top garment-attaching fabric portion, and, passing therethrough as well as through said main section, a seam extending from end to end of the main section in a straight line, the stitches passing through the fold of the main section near the bend therein and at a uniform distance throughout from the line defined by said bend, the said seam acting as a definite line upon which the top attaching portion is folded irrespective of irregularities in the stitching by which the said top portion is fastened to the garment, and a seam for attaching the lower part of the curtain to the trousers, said seam being parallel to the edge of the lower fold of the main section.

13,937. MACHINE FOR MAKING FLEXIBLE BOXES. EDWIN GUSTAVE STAUDE, Minneapolis, Minn., assignor to E. G. Staude Manufacturing Company, a Corporation of Minnesota. Filed Apr. 27, 1911. Serial No. 623,791. Original No. 948,710, dated Feb. 8, 1910, Serial No. 143,179. (Cl. 93—58.)



1. In a machine for making paper boxes, the combination with a suitable frame, of a table, a shaft near the receiving end of said table, means for driving said shaft, wheels secured on said shaft, a frame hinged on said shaft, a series of idle wheels carried by said frame, and belts passing over said shaft wheels and said idle wheels, substantially as described.

2. In a machine for making paper boxes, the combination of a table, a revolving shaft near the receiving end of said table, wheels secured on said shaft, a frame hinged on said shaft between said wheels, idle wheels carried by said frame, belts connecting said idle wheels and said shaft wheels, an arm pivoted on said frame, and a series of idle wheels carried by said arm.

3. In a machine for making paper boxes, the combination of a table, an endless belt operating over the same, a revolving shaft wheels secured to said shaft, a frame hinged on said shaft, idle wheels carried by said frame, and belts connecting said idle wheels and said shaft wheels.

4. In a machine for making paper boxes, the combination of a table, an endless belt operating over the same, a revolving shaft, wheels 26 secured to said shaft, a frame hinged on said shaft between said wheels, idle wheels mounted in said frame, belts connecting said idle wheels, and wheels 27 in advance of and in line with said wheels 26.

5. In a machine for making paper boxes, the combination of a table, an endless belt operating over the same, a revolving shaft, a frame hinged thereon, idle wheels carried by said frame, an arm hinged on said frame, idle wheels carried by said arm, and folder arms provided on said table, upon each side of said frame.

6. In a machine for making paper boxes, the combination of a table, a belt operating over the same, a frame hinged above said table, idle wheels carried by said frame, an arm pivoted upon said frame, idle wheels carried by said arm and arranged above said belt near the middle thereof, and said wheels gradually decreasing in size toward the discharge end of said table.

7. In a box-making machine having a table and an endless belt operating over the same, a frame hinged above said belt near the discharge end of said table, and having its free end toward the discharge end of the table, a series of idle wheels carried by said frame, and belts connecting said wheels.

8. The combination, with a table, of an endless belt operating over the same, a revolving shaft provided near the discharge end of said table, wheels secured on said shaft, a frame hinged on said shaft, idle wheels carried by

said frame and belts connecting said idle wheels and said shaft wheels, substantially as described.

9. In a box making machine having a table, an endless belt operating over the table, means for folding a box blank, and printing rolls located at the discharge end of said table and below the top thereof, gripping means located above said table and printing rolls at the discharge end thereof and having an overhanging part beyond the end of the table to direct a blank from the belt downwardly to the printing rolls, substantially as described.

10. In a box making machine having a table, an endless belt operating over the table, means for folding a box blank and printing rolls located at the discharge end of the table and below the top thereof, a frame above the discharge end of the table, and above the printing rolls, and a series of idle wheels mounted in said frame and cooperating with the belt to deliver blanks from the table to the printing rolls.

11. The combination, with means for folding a box blank, of means for printing on the folded blank, means for holding down the folded portions of the box blank while the latter is passing to the printing means, and means for delivering the blanks from said printing means to a receptacle.

12. In a box-making machine having a feed belt, and means for folding a box blank thereon, printing rolls located at the end of said feed belt, and means located above said belt for gripping the blanks and delivering them to said printing rolls, substantially as described.

13. The combination, with a suitable frame, of a belt mounted therein, a table over which said belt operates, folding devices arranged to engage blanks on said belt, means for pressing the edges of the blank together, and printing rolls to receive the blanks from said belt and said pressing means.

14. In a box making machine, an endless carrier for conveying the blanks while being folded, means above said carrier for folding a blank, pressing belts situated above said carrier at the discharge end of said folding means, for engaging a blank to complete its fold, pulleys or wheels over which said belts run, a shaft carrying one set of said pulleys or wheels, and means, independent of said belts, for driving said shaft to operate said belts.

15. In a paper-box making machine, the combination, with scoring and severing rolls, of a table to receive the blank from said rolls, said table having an opening therein adjacent to said rolls, for the discharge of the severed portion of the blank, and a roll above the table, said roll provided with a raised portion corresponding to the cut-portion of the blank which is to be removed and arranged to be brought into register therewith and with the opening in the table, substantially as described.

16. In a box making machine, an endless carrier for conveying the blanks while being folded, means above said carrier for folding a blank, pressing belts situated above said carrier, at the discharge end of said folding means, for engaging a blank to complete its fold, pulleys or wheels over which said belts run, suitable mountings for said pulleys or wheels, and means for driving said pulleys or wheels to operate said belts.

17. In a machine for making paper boxes, the combination, with a lower endless carrier belt, of an upper cooperating endless carrier belt, a series of wheels engaging the lower stretch of the said upper carrier belt, a frame in which said wheels are journaled so that said wheels will be adapted to move up and down with said frame, whereby said lower stretch of said upper carrier belt will be pressed toward the upper stretch of the lower carrier belt by the weight of said wheels and frame, means for driving said carrier belts, means for folding the flaps of a blank over onto the body portion thereof, one or more pressing belts beyond the folding means, and a yielding pressing device beyond the said upper carrier belt to hold down the blanks while being folded.

18. In a machine for making paper boxes, the combination with a lower endless carrier belt, of upper cooperating endless carrier belts, a series of wheels engaging the lower stretches of the said upper carrier belts, a frame in which said wheels are journaled so that said wheels will be adapted to move up and down with said frame, whereby said lower stretches of said upper carrier belts will be pressed toward the upper stretch of the lower carrier belt by the weight of said wheels and frame, means for driving said carrier belts, means for folding the flaps of a blank over onto the body portion thereof, one or more pressing belts beyond the folding means, and a yielding pressing device beyond the said upper carrier belts to hold down the blanks while being folded.

19. In a machine for making paper boxes, the combination, with a lower carrier comprising a lower belt having an upper horizontal stretch to engage the blanks, of an upper carrier comprising wheels and belts serving to press the blanks against said lower carrier, a frame in which the wheels of said upper carrier are journaled so that the weight of said frame, as also of said wheels, will be utilized to hold the blanks down, means for operating said carriers, flap-folding devices, a pressing device beyond the folding devices and comprising wheels and belts for tightening down the folded flaps, and a yielding pressing device beyond said upper carrier and serving to hold down the blanks while being folded.

13,938. RECOIL-CHECKING MECHANISM FOR ORDNANCE. FRANK B. YINGLING, Hamilton, Ohio. Filed May 5, 1915. Serial No. 26,162. Original No. 1,043,890, dated Nov. 12, 1912. Serial No. 317,845. (Cl. 89—43.)



1. In a fluid pressure recoil checking mechanism for ordnance, the combination with a fluid cylinder, and a piston in said cylinder, of means providing a fluid passage from one side of the piston to the other that is operative at all elevations of the gun, said passage varying in sectional area for different relative positions of the piston and cylinder and being of such capacity that the flow of fluid therethrough will properly check the recoil when the gun is at its maximum elevation, means for providing a supplemental or auxiliary fluid passage from one side of the piston to the other, and means for automatically varying the dimensions of said supplemental passage in accordance with variations in the elevation of the gun, for the purpose described.

2. In a fluid pressure recoil checking mechanism for ordnance, the combination with a fluid cylinder, and a piston in said cylinder, of means providing a fluid passage from one side of the piston to the other that is operative at all elevations of the gun, said passage varying in sectional area for different relative positions of the piston and cylinder and being of such capacity that the flow of fluid therethrough will properly check the recoil when the gun is at its maximum elevation, means for providing a supplemental or auxiliary fluid passage from one side of the piston to the other, and means for automatically increasing the capacity of said supplemental passage as the elevation of the gun is reduced from the maximum, for the purpose specified.

3. In a fluid pressure recoil checking mechanism for ordnance, the combination with a fluid cylinder, and a piston in said cylinder, said piston and cylinder being relatively movable during recoil, of means dividing the fluid in the cylinder into two tandem bodies on the pressure side of the piston, means preventing movement of one of said bodies of fluid relative to the cylinder during recoil when the gun is at its maximum elevation, and means for permitting fluid from both said bodies to flow from one side of the piston to the other during recoil when the elevation of the gun is reduced, for the purpose specified.

4. In a fluid pressure recoil checking mechanism for ordnance, the combination with a fluid cylinder, and a piston in said cylinder, said piston and cylinder being relatively movable during recoil, of means dividing the fluid in the cylinder into two tandem bodies on the pressure side of the piston, means for permitting fluid from the main fluid body to pass from one side of the piston to the other during recoil at all elevations of the gun, means for preventing fluid from the auxiliary fluid body from passing from one side of the piston to the other during recoil when the gun is at a predetermined elevation, and means for permitting fluid from said auxiliary body to pass the piston when the elevation of the gun is reduced, for the purpose specified.

5. In a fluid pressure recoil checking mechanism for ordnance, the combination with a fluid cylinder, and a piston in said cylinder, said piston and cylinder being relatively movable during recoil, of means dividing the fluid in the cylinder into two tandem bodies on the pressure side of the piston, and means for rendering one of said bodies inoperative when the elevation of the gun is raised to a predetermined extent, whereby the length of recoil can be automatically varied.

6. In a fluid pressure recoil checking mechanism for ordnance, the combination with a fluid cylinder, and a piston in said cylinder, said piston and cylinder being relatively movable during recoil, of a body of fluid within the cylinder adapted to coöperate with the piston and cylinder to check the recoil when the gun is at its maximum elevation, and an auxiliary body of fluid within the cylinder adapted to coöperate with the main body in checking the recoil when the elevation of the gun is reduced a predetermined extent.

7. In a fluid pressure recoil checking mechanism for ordnance, the combination with a fluid cylinder, of two abutments mounted in and adapted to move longitudinally of said cylinder, a piston within the cylinder between said abutments, said piston and cylinder being relatively movable longitudinally of the cylinder, means connecting said abutments and coöperating with the piston to provide a fluid passage from one side of the piston to the other, that is operative at all elevations of the gun, a supplemental valved passage for conducting fluid from one side of the piston to the other, which when opened permits said abutments to move longitudinally of the cylinder, and means for automatically varying the extent of opening of said supplemental passage in accordance with variations in the elevation of the gun, substantially as and for the purpose described.

8. In a fluid pressure recoil checking mechanism for ordnance, the combination with a fluid cylinder, of two abutments mounted in and adapted to move longitudinally of said cylinder, a piston within the cylinder between said abutments, said piston and cylinder being relatively movable longitudinally of the cylinder, means connecting said abutments and coöperating with the piston to provide a fluid passage from one side of the piston to the other that is operative at all elevations of the gun, a supplemental passage through which fluid can pass from one side of the piston to the other, a valve for closing said supplemental passage, and means for holding the valve in position to close said supplemental passage when the gun is at its maximum elevation and adjusting said valve to open said passage as the elevation of the gun is reduced a predetermined extent, for the purpose specified.

9. In a fluid pressure recoil checking mechanism for ordnance, the combination of a relatively stationary fluid cylinder, a piston in said cylinder arranged to move longitudinally thereof during recoil, a fluid passage varying in sectional area for different relative positions of the piston and cylinder and controlled by the piston and operative at all elevations of the gun, a supplemental passage through which fluid can flow from one side of the piston to the other, a valve for closing said supplemental passage, and means for adjusting said valve to vary the extent of opening of said supplemental passage in accordance with variations in the elevation of the gun, for the purpose specified.

10. In a fluid pressure recoil checking mechanism for ordnance, the combination of a relatively stationary fluid cylinder, a piston in said cylinder arranged to move longitudinally thereof during recoil, a fluid passage varying in sectional area for different relative positions of the piston and cylinder and controlled by the piston and operative at all elevations of the gun, a supplemental passage through which fluid can flow from one side of the piston to the other, a valve for closing said supplemental passage, and means for moving said valve to open the supplemental passage when the elevation of the gun is varied a predetermined extent, for the purpose specified.

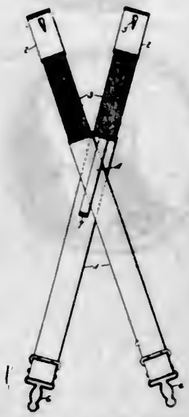
11. In a fluid pressure recoil checking mechanism for ordnance, the combination of a relatively stationary fluid cylinder, two abutments mounted in said cylinder and dividing the fluid therein into two bodies, a piston mounted between said abutments and connected with the gun, means for providing a passage operative at all elevations of the gun for conducting the main body of fluid situated between said abutments from one side of the piston to the other during recoil, an independent passage for conducting fluid from the chamber between said abutments and the end of the cylinder from one side of the piston to the other, a valve for closing said auxiliary passage when the gun is at its maximum elevation, and means for automatically adjusting said valve to open said passage to a greater or less amount when the elevation of the gun is reduced a predetermined extent, for the purpose described.

12. The combination, in a recoil mechanism for guns, of recoil checking means comprising means to vary the length of recoil for different elevations of the gun, and means to control the checking means at each instant of recoil in proportion to the retarded velocity for the instant in question; substantially as described.

13. The combination, in a recoil mechanism for guns, of a recoil cylinder and piston provided with a by-pass, means to vary the length of recoil for different elevations of the gun, and means to change the by-pass in proportion to the changes in the retarded velocities of the recoiling parts at each instant of recoil, and thereby cause the pressure in the cylinder to remain substantially constant throughout the recoil, substantially as described.

14. In a gun mount, the combination of a piston and recoil cylinder containing a fluid and provided with a by pass, automatic means to vary the length of recoil for different elevations of the gun, and automatic means adapted as the gun recoils to vary the exit of said fluid through said by pass in accordance with the retarded velocities of the recoiling parts at each instant of the recoil, whereby the pressure in said cylinder remains substantially constant throughout the recoil, substantially as described.

13,939. SUSPENDERS. SIDNEY MARTIN, Cliftondale, Mass. Filed Oct. 27, 1914. Serial No. 868,914. Original No. 1,042,939, dated Oct. 29, 1912. Serial No. 654,360. (Cl. 241—19.)



1. A button tab formed of a tubular web, the outer end of said web having its edges turned in and stitched to-

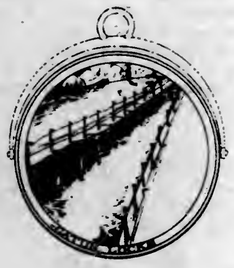
gether with barred stitching, a strap inserted into the inner end of the tubular web and secured thereto with barred stitching, and a button hole formed by cutting through both plies of said tubular web and stitched around with barred stitching for preventing any rough places appearing upon the suspenders which would be likely to rub upon the wearer's body.

2. A joint of the class described comprising a tubular member, a member having its end extending longitudinally into the first member, and a row of bar stitching extending from one side edge of the tubular member to the other edge and crossing and covering the end edge of the tubular member, the stitching passing through the tubular member along a line substantially parallel with and inwardly from the end edge, and also through the second member along a line outwardly from and substantially parallel with the end edge of the tubular member.

3. A joint of the class described comprising a non-elastic tubular member open at one end, an elastic member having one end inserated in the open end of the tubular member, and a single row of stitches connecting the ends of the members together, and the stitches extending longitudinally of the members and covering the edges of the front and rear sides of the tubular member at the said open end thereof.

DESIGNS.

47,480. MEDALLION, BADGE, WATCH-FOB, OR SIMILAR ARTICLE. SAMUEL N. ACKER, Washington, D. C. Filed May 14, 1914. Serial No. 838,585. Term of patent 3½ years.





The ornamental design for a medallion, badge, watch-fob or similar article, as shown.

47,481. MEDALLION, BADGE, WATCH-FOB OR SIMILAR ARTICLE. SAMUEL N. ACKER, Washington, D. C. Filed Jan. 23, 1915. Serial No. 4,062. Term of patent 3½ years.





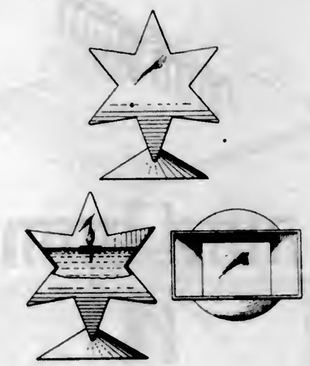
The ornamental design for a medallion, badge, watch-fob or similar article, as shown.

47,482. HANDLE FOR SPOONS, KNIVES, FORKS, AND OTHER TABLE AND TOILET ARTICLES. GROSVENOR N. ALLEN, Oneida, N. Y., assignor to Oneida Community, Limited, Oneida, N. Y., a Corporation of New York. Filed Apr. 3, 1915. Serial No. 19,074. Term of patent 14 years.



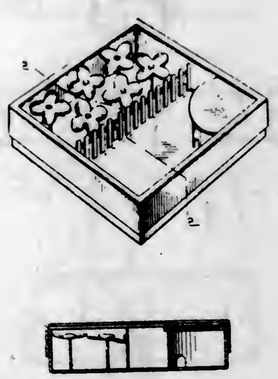
The ornamental design for a handle for spoons, knives, forks and other table and toilet articles, as shown.

47,483. CANDLE-LAMP. MAX H. BURGER, Bradley Beach, N. J. Filed Feb. 12, 1915. Serial No. 7,681. Term of patent 7 years.



The ornamental design for a candle lamp, as shown.

47,484. PUZZLE-BOX. ADELBERT M. ECKERT, Wheeling, W. Va. Filed Mar. 12, 1915. Serial No. 14,032. Term of patent 3½ years.



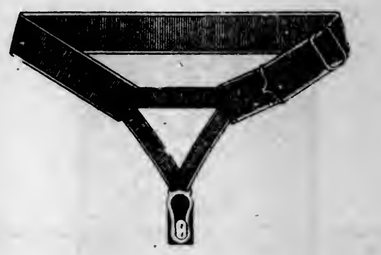
The ornamental design for a puzzle box, as shown.

47,485. RING, SCARF-PIN, BROOCH, BUTTON, OR SIMILAR ARTICLE OF JEWELRY. GEORGE H. EDWARDS, VICTOR H. KING, and HERBERT J. SKIPP, Providence, R. I., assignors to Ostby and Barton Company, Providence, R. I., a Corporation. Filed Nov. 16, 1914. Serial No. 872,478. Term of patent 3½ years.



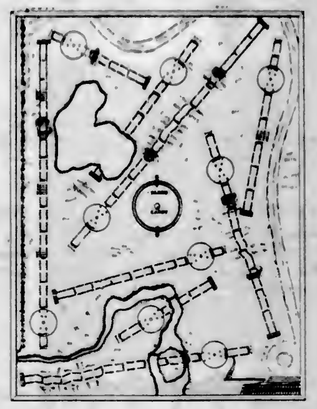
The ornamental design for a ring, scarf pin, brooch, button or similar article of jewelry, as shown.

47,486. GARTER. GEORGE B. GLIDDEN, Dighton, Mass., assignor to George Frost Company, Boston, Mass. Filed Apr. 13, 1915. Serial No. 21,138. Term of patent 14 years.



The ornamental design for a garter substantially as shown and described.

47,487. GAME-BOARD. HENRY C. HAZZARD, San Francisco, Cal. Filed May 3, 1915. Serial No. 25,617. Term of patent 14 years.



The ornamental design for a game board, substantially as shown.

47,488. BASE-BALL EMBLEM. WILLIAM F. HIRSCHMANN, New York, N. Y. Filed Mar. 17, 1915. Serial No. 15,087. Term of patent 7 years.



The ornamental design for a base-ball emblem, as shown.

47,489. ARTICLE OF MANUFACTURE. WILBER E. HUNTER, Morgantown, W. Va. Filed Mar. 27, 1915. Serial No. 17,547. Term of patent 7 years.



The ornamental design for an article of manufacture as shown and described.

47,490. ARTICLE OF MANUFACTURE. WILBER E. HUNTER, Morgantown, W. Va. Filed Mar. 27, 1915. Serial No. 17,548. Term of patent 7 years.



The ornamental design for an article of manufacture as shown and described.

47,491. LACE EDGING. DAVID JARVIS, Jr., Philadelphia, Pa., assignor of Philip Rosenau and Perry Frankel, Philadelphia, Pa., trading as Rosenau, Frankel & Co. Filed Mar. 6, 1915. Serial No. 12,629. Term of patent 3½ years.



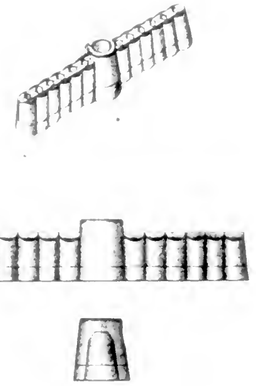
The ornamental design for a lace edging substantially as shown and described.

47,492. POCKET ARTICLE. JOHN LEMIESZ, Largo, Pa. Filed Feb. 24, 1915. Serial No. 10,381. Term of patent 7 years.



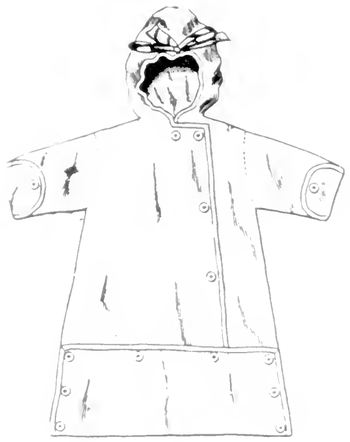
The ornamental design for a pocket article, as shown.

47,493. DENTAL MOLD. SAMUEL A. LEVIN, Chicago, Ill. Filed Jan. 25, 1915. Serial No. 4,394. Term of patent 14 years.



The ornamental design for dental mold, as shown.

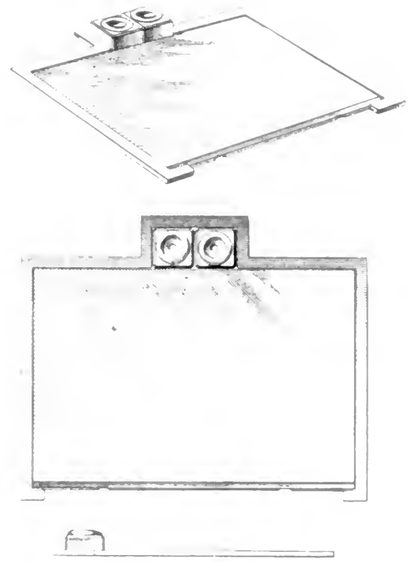
47,494. SLEEPING ROBE. LEAH G. MILKES, Minneapolis, Minn. Filed Mar. 5, 1915. Serial No. 12,427. Term of patent 7 years.





The ornamental design for a sleeping robe, as shown.

47,495. COMBINATION DESK PAD AND INKSTAND. CHARLES H. NUMAN, New York, N. Y. Filed Apr. 2, 1915. Serial No. 18,833. Term of patent 3½ years.



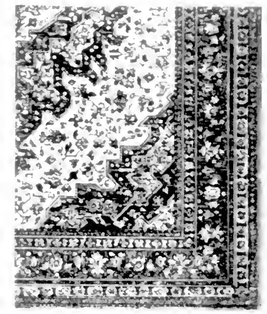
The ornamental design for a combination desk pad and inkstand, substantially as shown.

47,496. DOLL. GEORGIA C. ORMSBY, Oakland, Cal. Filed Apr. 10, 1915. Serial No. 20,583. Term of patent 7 years.



The ornamental design for a doll, as shown.

47,497. RUG. ADOLPH PETZOLD, Philadelphia, Pa., assignor to John H. Bromley and Edward Bromley, Co-partners trading as John Bromley & Sons, Philadelphia, Pa. Filed Apr. 29, 1915. Serial No. 24,813. Term of patent 7 years.



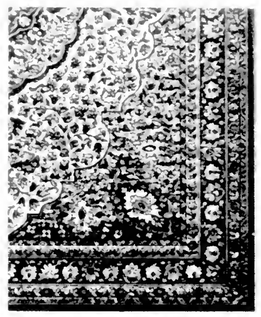
The ornamental design for a rug, as shown.

47,498. RUG. ADOLPH PETZOLD, Philadelphia, Pa., assignor to John H. Bromley and Edward Bromley, Co-partners trading as John Bromley & Sons, Philadelphia, Pa. Filed Apr. 29, 1915. Serial No. 24,814. Term of patent 7 years.



The ornamental design for a rug, as shown.

47,499. RUG. ADOLPH PETZOLD, Philadelphia, Pa., assignor to John H. Bromley and Edward Bromley, Co-partners trading as John Bromley & Sons, Philadelphia, Pa. Filed Apr. 29, 1915. Serial No. 24,815. Term of patent 7 years.



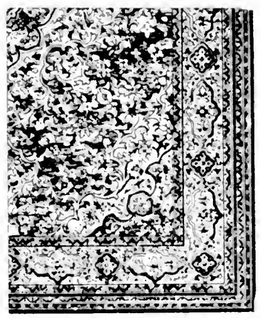
The ornamental design for a rug, as shown.

47,500. RUG. ADOLPH PETZOLD, Philadelphia, Pa., assignor to John H. Bromley and Edward Bromley, Copartners trading as John Bromley & Sons, Philadelphia, Pa. Filed Apr. 29, 1915. Serial No. 24,816. Term of patent 7 years.



The ornamental design for a rug, as shown.

47,501. RUG. ADOLPH PETZOLD, Philadelphia, Pa., assignor to John H. Bromley and Edward Bromley, Copartners trading as John Bromley & Sons, Philadelphia, Pa. Filed Apr. 29, 1915. Serial No. 24,817. Term of patent 7 years.



The ornamental design for a rug, as shown.

47,502. RUG. ADOLPH PETZOLD, Philadelphia, Pa., assignor to John H. Bromley and Edward Bromley, Copartners trading as John Bromley & Sons, Philadelphia, Pa. Filed May 14, 1915. Serial No. 28,214. Term of patent 7 years.



The ornamental design for a rug, as shown.

47,503. RUG. ADOLPH PETZOLD, Philadelphia, Pa., assignor to John H. Bromley and Edward Bromley, Copartners trading as John Bromley & Sons, Philadelphia, Pa. Filed May 14, 1915. Serial No. 28,215. Term of patent 7 years.



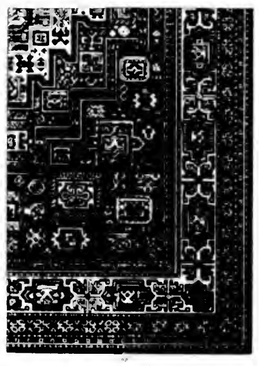
The ornamental design for a rug, as shown.

47,504. RUG. ADOLPH PETZOLD, Philadelphia, Pa., assignor to John H. Bromley and Edward Bromley, Copartners trading as John Bromley & Sons, Philadelphia, Pa. Filed May 14, 1915. Serial No. 28,216. Term of patent 7 years.



The ornamental design for a rug, as shown.

47,505. RUG. ADOLPH PETZOLD, Philadelphia, Pa., assignor to John H. Bromley and Edward Bromley, Copartners trading at John Bromley & Sons, Philadelphia, Pa. Filed May 18, 1915. Serial No. 28,975. Term of patent 7 years.



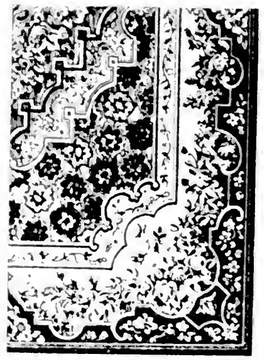
The ornamental design for a rug, as shown.

47,506. RUG. ADOLPH PETZOLD, Philadelphia, Pa., assignor to John H. Bromley and Edward Bromley, Copartners trading at John Bromley & Sons, Philadelphia, Pa. Filed May 18, 1915. Serial No. 28,976. Term of patent 7 years.



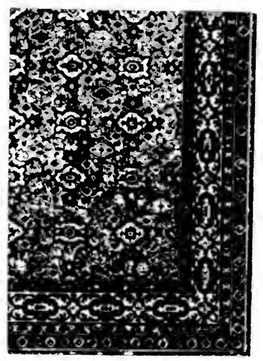
The ornamental design for a rug, as shown.

47,507. RUG. ADOLPH PETZOLD, Philadelphia, Pa., assignor to John H. Bromley and Edward Bromley, Copartners trading at John Bromley & Sons, Philadelphia, Pa. Filed May 18, 1915. Serial No. 28,977. Term of patent 7 years.



The ornamental design for a rug, as shown.

47,508. RUG. ADOLPH PETZOLD, Philadelphia, Pa., assignor to John H. Bromley and Edward Bromley, Copartners trading at John Bromley & Sons, Philadelphia, Pa. Filed May 18, 1915. Serial No. 28,978. Term of patent 7 years.



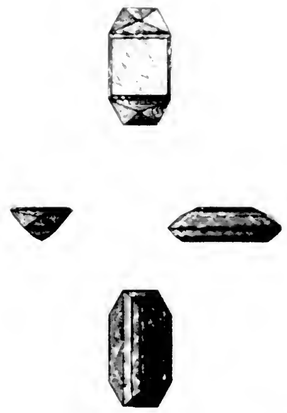
The ornamental design for a rug, as shown.

47,509. PIERCED SPOON, FORK, OR SIMILAR ARTICLE. FREDERICK SCHWINN, Attleboro, Mass. Filed Mar. 19, 1915. Serial No. 15,627. Term of patent 3½ years.



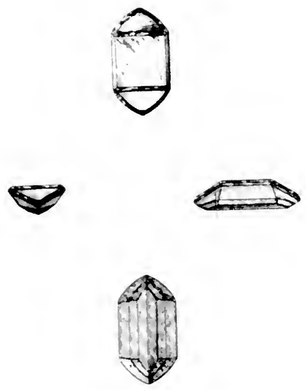
The ornamental design for a pierced spoon, fork, or similar article, as shown.

47,510. CUT GEM. EGBERT B. SHEPARD, Providence, R. I., assignor to Albert Lorsch and Company, Incorporated, a Corporation of New York. Filed Mar. 24, 1915. Serial No. 16,805. Term of patent 7 years.



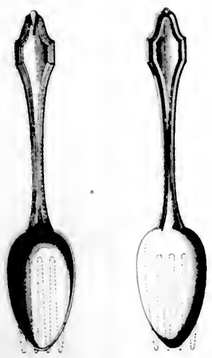
The ornamental design for a cut gem, as shown.

47,511. CUT GEM. EGBERT B. SHEPARD, Providence, R. I., assignor to Albert Lorsch and Company, Incorporated, a Corporation of New York. Filed Mar. 24, 1915. Serial No. 16,806. Term of patent 7 years.



The ornamental design for a cut gem, as shown.

47,512. SPOON, FORK, OR SIMILAR ARTICLE. GEORGE P. TILTON, Newburyport, Mass., assignor to The United Jewelers Inc., New York, N. Y., a Corporation of New York. Filed Apr. 1, 1915. Serial No. 18,616. Term of patent 14 years.



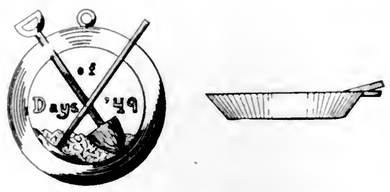
The ornamental design for a spoon, fork or similar article substantially as shown.

47,513. SLAVONIAN-PEASANT DOLL. ZUZA WALOVICH, Hawleyville, Conn. Filed Mar. 30, 1915. Serial No. 18,196. Term of patent 7 years.



The ornamental design for a Slavonian peasant doll, as shown.

47,514. BADGE. CLAIRE WHITNEY, San Francisco, Cal. Filed Apr. 26, 1915. Serial No. 24,165. Term of patent 3½ years.



The ornamental design for a badge, as shown.

TRADE-MARK REGISTRATIONS GRANTED

JUNE 22, 1915.

104,824. CHEWING-GUM. THE BEE BEE CONFECTION COMPANY, Dayton, Ohio.
Filed December 7, 1914. Serial No. 83,105. PUBLISHED MARCH 16, 1915.

104,825. SEDATIVE, ANTIPYRETIC, AND ANTIMYALGIC COMPOUNDS; COMPOUNDS FOR THE RELIEF OF HEADACHE AND HEART DISEASE. J. D. RIEDEL AKTIENGESELLSCHAFT, Berlin, Germany.
Filed March 23, 1914. Serial No. 76,874. PUBLISHED APRIL 6, 1915.

104,826. TIRE-STRAPS OR TIRE-PROTECTORS. JOHN JOSEPH BUKOLT, Stevens Point, Wis.
Filed January 13, 1915. Serial No. 83,807. PUBLISHED MARCH 30, 1915.

104,827. PIPE COUPLINGS. H. W. CLARK CO., Mattoon, Ill.
Filed February 26, 1915. Serial No. 84,794. PUBLISHED APRIL 13, 1915.

104,828. INTERNAL MEDICINE USED AS TONIC, STIMULANT, GENERAL STOMACHIC, AND FOR DISORDERS PECULIAR TO WOMEN. THE COOPER MEDICINE COMPANY, Dayton, Ohio, assignor, by mesne assignments, to Tona Vita Medicine Company, Dayton, Ohio, a Firm composed of Jacob F. Detrick and Benjamin E. Detrick.
Filed June 4, 1914. Serial No. 78,783. PUBLISHED MARCH 30, 1915.

104,829. POLISH AND CLEANER FOR FURNITURE, PIANOS, WOODWORK, AUTOMOBILES, AND CARRIAGES. DU MOR SPECIALTY CO., Cincinnati, Ohio.
Filed January 28, 1915. Serial No. 84,155. PUBLISHED APRIL 6, 1915.

104,830. NON-ALCOHOLIC AND CARBONATED BEVERAGE. GLEE-COLA CO., Birmingham, Ala.
Filed March 1, 1915. Serial No. 84,844. PUBLISHED APRIL 6, 1915.

104,831. WOMEN'S AND MISSES' CLOAKS, COATS, SUITS, AND DRESSES. I. EDWIN GOLDMAN, New York, N. Y.
Filed March 1, 1915. Serial No. 84,845. PUBLISHED APRIL 6, 1915.

104,832. HAIR-NETS. HYMAN & OPPENHEIM, New York, N. Y.
Filed March 8, 1915. Serial No. 85,021. PUBLISHED APRIL 13, 1915.

104,833. BEER. HENRY ILSE, Bronxville, N. Y.
Filed February 2, 1915. Serial No. 84,265. PUBLISHED APRIL 6, 1915.

104,834. INTRAVENOUS TREATMENT OF CERTAIN NAMED DISEASES. THE INTRAVENOUS PRODUCTS COMPANY, Denver, Colo.
Filed January 22, 1915. Serial No. 84,034. PUBLISHED APRIL 6, 1915.

104,835. CANDY. F. X. KUCHLER & SON, Brooklyn, N. Y.
Filed January 29, 1915. Serial No. 84,199. PUBLISHED APRIL 6, 1915.

104,836. WHEAT, GRAHAM, BUCKWHEAT, AND PANCAKE FLOURS, CORNMEAL, SCRATCH, MILL, AND CHOP FEEDS. LITTLE CROW MILLING CO., Warsaw, Ind.
Filed December 12, 1914. Serial No. 83,251. PUBLISHED APRIL 6, 1915.

104,837. COTTON PIECE GOODS. M. M. V. CO., Huntsville, Ala.
Filed March 18, 1915. Serial No. 85,239. PUBLISHED APRIL 13, 1915.

104,838. WOOL TOPS. MIDDLEBROOK WOOL COMBING COMPANY, East Boston, Mass.
Filed February 6, 1914. Serial No. 75,728. PUBLISHED APRIL 6, 1915.

104,839. KNIVES AND KNIFE-BLADES. NAGLE RE BLADE KNIFE COMPANY, INC., Poughkeepsie, N. Y.
Filed January 20, 1915. Serial No. 83,978. PUBLISHED APRIL 6, 1915.

104,840. LAXATIVE SYRUP. NATIONAL REMEDY COMPANY, INC., New York, N. Y.
Filed March 5, 1915. Serial No. 84,967. PUBLISHED MARCH 30, 1915.

104,841. CORN REMEDY, TOOTHACHE-DROPS, COLD-TABLETS, COUGH-SYRUP, AND SALVE. HERBERT LOVETTE PARTRIDGE, La Crosse, Wis.
Filed March 1, 1915. Serial No. 84,862. PUBLISHED MARCH 30, 1915.

104,842. VELVETS AND PLUSHES IN THE PIECE. THE SALT'S TEXTILE MANUFACTURING COMPANY, Bridgeport, Conn., and New York, N. Y.
Filed March 9, 1915. Serial No. 85,051. PUBLISHED APRIL 13, 1915.

104,843. REMEDIAL OIL FOR TOPICAL USE. NAMAN SAPAH, Brooklyn, N. Y.
Filed February 4, 1915. Serial No. 84,302. PUBLISHED APRIL 13, 1915.

104,844. LAXATIVE TABLETS. WILLIAM H. SCHLEIZER, Chicago, Ill.
Filed December 9, 1914. Serial No. 83,189. PUBLISHED APRIL 6, 1915.

104,845. ROASTED COFFEE. WILLIAM SCHOTTEN COFFEE CO., St. Louis, Mo.
Filed January 26, 1915. Serial No. 84,123. PUBLISHED APRIL 6, 1915.

104,846. AUTOMOBILE-OIL. SEARS, ROEBUCK AND CO., Chicago, Ill.
Filed January 13, 1915. Serial No. 83,840. PUBLISHED APRIL 6, 1915.

104,847. LADIES' COATS AND OUTER SUITS. S. L. SILVER & CO., New York, N. Y.
Filed February 15, 1915. Serial No. 84,540. PUBLISHED MARCH 30, 1915.

104,848. WHEAT-FLOUR. SPARKS MILLING COMPANY, Alton, Ill., and Terre Haute, Ind.
Filed January 29, 1915. Serial No. 84,208. PUBLISHED APRIL 6, 1915.

104,849. CHOCOLATES. SWEET CANDY COMPANY, Salt Lake City, Utah.
Filed January 29, 1915. Serial No. 84,205. PUBLISHED APRIL 6, 1915.

104,850. CHOCOLATES. SWEET CANDY COMPANY, Salt Lake City, Utah.
Filed January 29, 1915. Serial No. 84,206. PUBLISHED APRIL 6, 1915.

104,851. OYSTER-CRACKERS. THE GEO. H. STRIETMANN'S SONS CO., Cincinnati, Ohio.
Filed January 29, 1915. Serial No. 84,207. PUBLISHED APRIL 6, 1915.

104,852. CARD-INDEX BOXES MADE OF WOOD. TOWER MANUFACTURING & NOVELTY CO., New York, N. Y.
Filed February 6, 1912. Serial No. 61,292. PUBLISHED APRIL 6, 1915.

104,853. CRACKERS. WALKER & TRACY, Canandaigua, N. Y.
Filed January 13, 1915. Serial No. 83,843. PUBLISHED APRIL 6, 1915.

104,854. SILK PIECE GOODS. WECHSLER-BARBER SILK CO., Paterson, N. J.
Filed February 20, 1915. Serial No. 84,673. PUBLISHED APRIL 6, 1915.

104,855. SILK PIECE GOODS. WECHSLER-BARBER SILK CO., Paterson, N. J.
Filed February 20, 1915. Serial No. 84,674. PUBLISHED APRIL 6, 1915.

104,856. COGNACS AND BRANDIES. BARBARESSOS BROS., Piræus, Greece.
Filed November 30, 1914. Serial No. 82,967. PUBLISHED APRIL 13, 1915.

104,857. BARIUM COMPOUNDS, INCLUDING CHLORID, NITRATE, SULFID, BENOXID, SULFATE, CITRATE, AND HYDROXID. BARBOUR CHEMICAL WORKS, San Francisco, Cal.
Filed February 8, 1915. Serial No. 84,353. PUBLISHED APRIL 6, 1915.

104,858. TEA, PEPPER, GINGER, CINNAMON, ALLSPICE, SAGE AND NUTMEG, RICE AND TAPIOCA. BERRY-HALL COMPANY, Burlington, Vt.
Filed June 2, 1914. Serial No. 78,733. PUBLISHED FEBRUARY 16, 1915.

104,859. INNER TUBES FOR PNEUMATIC TIRES. BITTEL-LEFTWICH TIRE SERVICE CO., St. Louis, Mo.
Filed January 22, 1915. Serial No. 84,,019. PUBLISHED MARCH 30, 1915.

104,860. PRINTED BOOKS, BOOKLETS, PAMPHLETS, CIRCULARS, CATALOGUES, "GUIDES," "TALKS," "PROBLEMS," CIRCULAR-LETTERS. BLACKSTONE INSTITUTE, Chicago, Ill.
Filed January 14, 1915. Serial No. 83,848. PUBLISHED APRIL 6, 1915.

104,861. CLUTCHES. ELLIS E. BROWN, Reading, Pa.
Filed February 17, 1915. Serial No. 84,566. PUBLISHED APRIL 13, 1915.

104,862. LINIMENT FOR EXTERNAL USE. RALPH BROWN, New York, N. Y.
Filed February 17, 1915. Serial No. 84,565. PUBLISHED APRIL 13, 1915.

104,863. IMPREGNATED WOVEN-FABRIC BELTING, HOSE FORMED FROM SAME BY ADDITION OF RUBBER COATING AND LINING. ERNEST L. BURRELL, Chicago, Ill.
Filed December 17, 1914. Serial No. 83,341. PUBLISHED APRIL 6, 1915.

104,864. SASH-CORD. GEO. B. CARPENTER & CO., Chicago, Ill.
Filed February 12, 1915. Serial No. 84,479. PUBLISHED APRIL 13, 1915.

104,865. WHOLE MILK SCIENTIFICALLY SOURED. CHILDS COMPANY, New York, N. Y.
Filed February 1, 1915. Serial No. 84,236. PUBLISHED APRIL 6, 1915.

104,866. CARBON-REMOVER. CYCLONE CO., New York, N. Y.
Filed February 17, 1915. Serial No. 84,573. PUBLISHED APRIL 13, 1915.

104,867. DENTAL SUPPLIES—NAMELY, FILLING MATERIALS, PORCELAIN BODIES, AND CEMENT FOR PROSTHETIC WORK IN ODONTOLOGY. DE TREY BROS., Zurich, Switzerland.
Filed October 13, 1914. Serial No. 81,846. PUBLISHED APRIL 13, 1915.

104,868. ADDING AND CALCULATING MACHINES. HANS W. EGLI, Zurich, Switzerland.
Filed March 3, 1915. Serial No. 84,917. PUBLISHED APRIL 13, 1915.

104,869. CERTAIN NAMED FOODS. LEWIS S. ELMER, Baltimore, Md.
Filed February 17, 1914. Serial No. 75,960. PUBLISHED SEPTEMBER 1, 1914.

104,870. COFFEE. THE FEDERAL COFFEE MILLS COMPANY, Cleveland, Ohio.
Filed January 9, 1915. Serial No. 83,755. PUBLISHED APRIL 6, 1915.

104,871. PRODUCTS FOR CONSERVING WOOD. QUIRIN FÖRSTER, Brussels, Belgium.
Filed February 25, 1913. Serial No. 68,719. PUBLISHED APRIL 13, 1915.

104,872. HORSESHOE-NAILS. THE FOWLER NAIL CO., Seymour, Conn.
Filed February 1, 1915. Serial No. 84,240. PUBLISHED APRIL 13, 1915.

104,873. COUGH-DROPS AND CATARRH-BONBONS. WILLIAM FRITZ COMPANY, Lester, Pa.
Filed March 6, 1915. Serial No. 84,974. PUBLISHED APRIL 13, 1915.

104,874. KITCHEN-CABINETS. DAVID HALL, St. Louis, Mo.
Filed November 25, 1913. Serial No. 74,187. PUBLISHED FEBRUARY 2, 1915.

104,875. LINING FABRICS. S. M. HEXTER & COMPANY, Cleveland, Ohio.
Filed March 2, 1914. Serial No. 76,281. PUBLISHED APRIL 13, 1915.

104,876. HAND AND POWER SPRAYERS. THE H. L. HURST MFG. CO., Canton, Ohio.
Filed February 17, 1915. Serial No. 84,579. PUBLISHED April 13, 1915.

104,877. POWDERED FORM OF RHEUMATISM REMEDY. EDGAR V. JOHNSON, Lawrenceburg, Ky.
Filed February 27, 1915. Serial No. 84,814. PUBLISHED APRIL 6, 1915.

104,878. MANICURE INSTRUMENTS. MAX KLAAS, New York, N. Y.
Filed February 15, 1915. Serial No. 84,530. PUBLISHED APRIL 13, 1915.

104,879. CERTAIN NAMED MEDICAL AND SURGICAL APPLIANCES. LEE TIRE & RUBBER CO., Whitemarsh township, Montgomery county, Pa.
Filed March 16, 1914. Serial No. 76,697. PUBLISHED APRIL 13, 1915.

104,880. PREPARATION FOR THE TREATMENT OF CANCER. CHARLES H. MCCLANAHAN, Cowden, Ill.
Filed September 22, 1913. Serial No. 72,989. PUBLISHED APRIL 6, 1915.

104,881. METAL PIPES, TUBES, AND CASINGS. NATIONAL TUBE COMPANY, Pittsburgh, Pa.
Filed February 23, 1915. Serial No. 84,702. PUBLISHED APRIL 13, 1915.

104,882. METAL PIPES, TUBES, AND CASINGS. NATIONAL TUBE COMPANY, Pittsburgh, Pa.
Filed February 23, 1915. Serial No. 84,703. PUBLISHED APRIL 13, 1915.

104,883. MATCHES. NORTH AMERICAN MERCANTILE CO., San Francisco, Cal.
Filed January 12, 1915. Serial No. 83,802. PUBLISHED APRIL 6, 1915.

104,884. CERTAIN NAMED MEDICINES AND PHARMACEUTICAL PREPARATIONS. GEORGE F. E. PAWLAS, Cleveland, Ohio.
Filed January 25, 1915. Serial No. 84,095. PUBLISHED APRIL 13, 1915.

104,885. MEDICINAL PREPARATION CONSISTING OF A BLEND OF PURE OLIVE AND REFINED MINERAL OILS. THE PETROLIVE CO., San Francisco, Cal.
Filed February 16, 1915. Serial No. 84,559. PUBLISHED APRIL 6, 1915.

104,886. DENTIST-PLATES. JACOB PETRY SUCTION RETAINER COMPANY, Charleston, W. Va., and Pittsburgh, Pa.
Filed February 18, 1914. Serial No. 76,011. PUBLISHED APRIL 13, 1915.

104,887. DOLLS. ANNA C. RENWICK, Flushing, N. Y.
Filed December 30, 1914. Serial No. 83,594. PUBLISHED APRIL 13, 1915.

104,888. OINTMENT FOR USE IN THE TREATMENT OF IRRITATION OR INFLAMMATION OF THE MUCOUS MEMBRANE. FREDERICK W. SCHOONMAKER, New York, N. Y., assignor to Schoonmaker Laboratories, Inc.
Filed January 9, 1915. Serial No. 83,770. PUBLISHED APRIL 13, 1915.

104,889. BREAD. JOSEPH J. SHUPE, Detroit, Mich.
Filed January 11, 1913. Serial No. 67,855. PUBLISHED FEBRUARY 3, 1914.

104,890. APPARATUS FOR REVIVING OR RESUSCITATING PERSONS ASPHYXIATED OR APPARENTLY DROWNED. SIEBE, GORMAN & CO. LTD., London, England.
Filed February, 23, 1915. Serial No. 84,715. PUBLISHED APRIL 13, 1915.

104,891. LIME. HANNAH A. SMITH, Philadelphia, Pa.
Filed March 6, 1915. Serial No. 84,990. PUBLISHED APRIL 13, 1915.

104,892. SHAVING MASSAGE-BRUSH AND CASING. THE STERRICK SALES CORPORATION, Wilmington, Del., and Pittsburgh, Pa.
Filed October 30, 1914. Serial No. 82,282. PUBLISHED APRIL 13, 1915.

104,893. HAIR-TONICS. F. A. THOMPSON & CO., Detroit, Mich.
Filed February 8, 1915. Serial No. 84,389. PUBLISHED APRIL 13, 1915.

104,894. HOSIERY. A. V. VICTORIUS & CO., INC., New York, N. Y.
Filed May 15, 1913. Serial No. 70,438. PUBLISHED OCTOBER 20, 1914.

104,895. RED AND WHITE CHIANTI. VOLA IMPORTING COMPANY, New York, N. Y.
Filed February 23, 1915. Serial No. 84,724. PUBLISHED APRIL 13, 1915.

104,896. BEER. THE WALTER BREWING CO., Pueblo, Colo.
Filed June 9, 1914. Serial No. 78,937. PUBLISHED APRIL 13, 1915.

104,897. CATHARTIC. MALCOLM ROBERTSON WHITE, Detroit, Mich.
Filed February 12, 1915. Serial No. 84,493. PUBLISHED APRIL 13, 1915.

104,898. POULTRY REMEDIES. THE WIGHT COMPANY, Lamoni, Iowa.
Filed March 3, 1915. Serial No. 84,916. PUBLISHED MARCH 30, 1915.

104,899. FILING-CABINETS, SECTIONAL FURNITURE, RECORD-KEEPING DESKS, OFFICE STANDS AND REFERENCE-SHELVES, AND RECORD-SAFES. YAWMAN & ERBE MFG. CO., Rochester, N. Y.
Filed December 7, 1914. Serial No. 83,142. PUBLISHED APRIL 13, 1915.

104,900. INSECTICIDE. H. C. DUSENBERRY, INC., New York, N. Y.
Filed July 17, 1914. Serial No. 79,867. PUBLISHED NOVEMBER 17, 1914.

104,901. STEEL BARS. THE BETZ-PIERCE COMPANY, Cleveland, Ohio.
Filed February 26, 1915. Serial No. 84,792. PUBLISHED APRIL 13, 1915.

104,902. CANTEENS. WILLIAM J. BRETT, New York, N. Y.
Filed March 13, 1915. Serial No. 85,128. PUBLISHED APRIL 13, 1915.

104,903. AUTOMOBILES, MOTOR-VEHICLES, AND PARTS THEREOF. CHEVROLET MOTOR COMPANY OF NEW YORK, INC., New York, N. Y.
Filed January 23, 1915. Serial No. 84,054. PUBLISHED APRIL 20, 1915.

104,904. PREPARATION FOR CHILLS AND FEVER. W W CHILL KILL CO., Douglas, Ga.
Filed January 19, 1915. Serial No. 83,954. PUBLISHED APRIL 13, 1915.

104,905. VEHICLE WHEEL-RIMS. CLINCHER AUTOMOBILE TIRE MANUFACTURERS' ASSOCIATION, Cleveland, Ohio.
Filed February 15, 1915. Serial No. 84,523. PUBLISHED APRIL 13, 1915.

104,906. TONIC RECONSTITUENT DIGESTIVE ANTIMALARIC. ALFONSO DE TULLIO, Youngstown, Ohio.
Filed January 5, 1915. Serial No. 83,685. PUBLISHED APRIL 20, 1915.

104,907. SALVE AND OINTMENT FOR CERTAIN NAMED AILMENTS AND DISEASES. HEALINE MANUFACTURING CO., Elmira, N. Y.
Filed March 8, 1915. Serial No. 85,019. PUBLISHED APRIL 13, 1915.

104,908. PLUSHES IN THE PIECE. THE HIND & HARRISON PLUSH CO., New York and Clark Mills, N. Y.
Filed March 17, 1915. Serial No. 85,209. PUBLISHED APRIL 13, 1915.

104,909. PLUSHES IN THE PIECE. THE HIND & HARRISON PLUSH CO., New York and Clark Mills, N. Y.
Filed March 20, 1915. Serial No. 85,273. PUBLISHED APRIL 13, 1915.

104,910. PREPARATION FOR THE TREATMENT OF CERTAIN NAMED DISEASES. GEORGE M. JACKMAN, Columbus, Ohio.
Filed September 22, 1913. Serial No. 72,987. PUBLISHED APRIL 13, 1915.

104,911. REMEDIES FOR STOMACH AND BOWEL AILMENTS. WALDEMAR KALITZKY, Milwaukee, Wis.
Filed March 1, 1915. Serial No. 84,849. PUBLISHED APRIL 20, 1915.

104,912. ICE-CREAM-SANDWICH MACHINES. CHARLES R. MCDONALD, East Liverpool, Ohio, assignor to The Sanitary Ice Cream Sandwich Company, Cleveland, Ohio, a Corporation of Ohio.
Filed January 20, 1915. Serial No. 83,974. PUBLISHED MARCH 9, 1915.

104,913. SALT. MORTON SALT COMPANY, Chicago, Ill.
Filed March 3, 1915. Serial No. 84,896. PUBLISHED APRIL 13, 1915.

104,914. SALT. MORTON SALT COMPANY, Chicago, Ill.
Filed March 3, 1915. Serial No. 84,897. PUBLISHED APRIL 13, 1915.

104,915. PREPARED MIXED FEED FOR STOCK, DAIRY-ANIMALS, AND POULTRY. RALSTON PURINA COMPANY, St. Louis, Mo.
Filed December 28, 1914. Serial No. 83,556. PUBLISHED APRIL 6, 1915.

104,916. PRESERVED FRUIT-PULP, JELLIES, VINEGAR, AND MUSTARD. S. N. SAMAHA & BRO., Washington, D. C.
Filed December 7, 1914. Serial No. 83,135. PUBLISHED MARCH 23, 1915.

104,917. CERTAIN NAMED COTTON PIECE GOODS. TOOTAL, BROADHURST LEE COMPANY, LTD., Manchester, England.
Filed May 12, 1914. Serial No. 78,224. PUBLISHED MARCH 16, 1915.

104,918. CERTAIN NAMED THREADS AND YARNS AND COMBINATIONS THEREOF. H. E. VERRAN COMPANY, INCORPORATED, New York, N. Y.
Filed January 23, 1915. Serial No. 84,069. PUBLISHED APRIL 13, 1915.

104,919. CARAMELS AND CANDIES. AMERICAN CARAMEL COMPANY, York and Lancaster, Pa.
Filed April 30, 1914. Serial No. 77,877. PUBLISHED APRIL 20, 1915.

104,920. WHISKY. THE GOTTSCHALK CO., Baltimore, Md.
Filed November 3, 1914. Serial No. 82,373. PUBLISHED DECEMBER 29, 1914.

104,921. ARMORED FLEXIBLE ELECTRIC EXTENSION-CONDUCTORS. INLAND ELECTRIC CO., Chicago, Ill.
Filed February 18, 1915. Serial No. 84,611. PUBLISHD APRIL 20, 1915.

104,922. POST-HOLE DIGGERS AND REPAIR PARTS THEREFOR. L. A. VINTON & SON, Moline, Ill.
Filed February 27, 1915. Serial No. 84,832. PUBLISHED APRIL 20, 1915.

TRADE-MARK REGISTRATIONS RENEWED.

12,313. ILLUMINATING-OILS REFINED FROM PETROLEUM. SONE & FLEMING MFG. CO., LIMITED; Standard Oil Company of New York, New York, N. Y., assignee.
Registered June 16, 1885. Renewed June 16, 1915.

12,314. ILLUMINATING-OILS REFINED FROM PETROLEUM. SONE & FLEMING MFG. CO., LIMITED; Standard Oil Company of New York, New York, N. Y., assignee.
Registered June 16, 1885. Renewed June 16, 1915.

LABELS

REGISTERED JUNE 22, 1915.

18,544.—*Title:* "TERESA DE ROSA." (For Alimentary Pastes.) FRANCESCO ALBANO, New York, N. Y. Filed May 28, 1915.

18,545.—*Title:* "MACARONI." (For Macaroni.) THE BUCKLEY BAKERY & MACARONI COMPANY, Kensington, Conn. Filed May 28, 1915.

18,546.—*Title:* "CALIFORNIA FRUTSTIX." (For Confections Made from Fruits.) FRANK J. COOPER, San Francisco, Cal. Filed January 13, 1915.

18,547.—*Title:* "STERLING BRAND CLOTHES." (For Clothing.) DAVID ADLER & SONS CLOTHING CO., Milwaukee, Wis. Filed May 10, 1915.

18,548.—*Title:* "SOUTHERN GIRL." (For Coffee.) DWINELL-WRIGHT CO., Boston, Mass. Filed May 17, 1915.

18,549.—*Title:* "MUSCADINE PUNCH." (For a Beverage.) GREEN & GREEN, Houston, Tex. Filed May 10, 1915.

18,550.—*Title:* "NEVER-MEND." (For Metal Ware.) H. BEHRENS M'F'G. CO., Winona, Minn. Filed May 22, 1915.

18,551.—*Title:* "KERNOLA, 'THE FOOD DRINK'." (For a Coffee Substitute.) KERNOLA CEREAL CO., Bay City, Mich. Filed May 10, 1915.

18,552.—*Title:* "HYMETTE GREEK HONEY." (For Honey.) LEKAS AND DRIVAS, New York, N. Y. Filed June 2, 1915.

18,553.—*Title:* "ELENDI BRAND COFFEE." (For Coffee.) LEKAS AND DRIVAS, New York, N. Y. Filed June 2, 1915.

18,554.—*Title:* "MARCELAS JUNIPER SALVE." (For Salve.) THE MARCELAS JUNIPER COMPANY, Chicago, Ill. Filed December 9, 1914.

18,555.—*Title:* "CANE-MAPLE SYRUP." (For Cane-Maple Syrup.) EDMOND NORMANDIN, Woonsocket, R. I. Filed May 12, 1915.

18,556.—*Title:* "DIAMOND CRISP WAFERS." (For Flat Bread.) THE NEUBSON BAKING COMPANY, Duluth, Minn. Filed June 2, 1915.

18,557.—*Title:* "K-O." (For a Hog-Cholera Compound.) STILL J. SMITH, Eau Claire, Wis. Filed May 20, 1915.

18,558.—*Title:* "GOLD LABEL." (For Beer.) THE WALTER BREWING CO., Pueblo, Colo. Filed May 6, 1915.

PRINTS

REGISTERED JUNE 22, 1915.

3,951.—*Title:* "MOORE SELF WINDING CLOTHES LINE." (For Clothes-Line Reels.) MOORE DROP FORGING COMPANY, Springfield, Mass. Filed May 5, 1915.

3,952.—*Title:* "DURKEE'S CELERY SALT." (For Celery-Salt.) E. R. DURKEE & CO., New York, N. Y. Filed May 13, 1915.

3,953.—*Title:* "DURKEE'S CHALLENGE SAUCE." (For Sauces.) E. R. DURKEE & CO., New York, N. Y. Filed May 13, 1915.

3,954.—*Title:* "DURKEE'S POULTRY SEASONING." (For Seasoning.) E. R. DURKEE & CO., New York, N. Y. Filed May 13, 1915.

3,955.—*Title:* "DURKEE'S SALAD DRESSING." (For Salad-Dressing.) E. R. DURKEE & CO., New York, N. Y. Filed May 13, 1915.

3,956.—*Title:* "DURKEE'S CURRY POWDER." (For Curry-Powder.) E. R. DURKEE & CO., New York, N. Y. Filed May 13, 1915.

3,957.—*Title:* "DURKEE'S FLAVORING EXTRACTS." (For Flavoring Extracts.) E. R. DURKEE & CO., New York, N. Y. Filed May 13, 1915.

DECISIONS

OF THE

COMMISSIONER OF PATENTS

AND OF

UNITED STATES COURTS IN PATENT CASES.

DECISIONS OF THE U. S. COURTS.

Court of Appeals of the District of Columbia.

LUELLEN *v.* CLAUSSEN AND CLAUS.

Decided April 5, 1915.

1. INTERFERENCE—PRIORITY—CONCEALMENT.

Evidence reviewed and *Held* that if L. reduced the invention to practice in 1907 or early in 1908 he subordinated his rights to those of C. and C. because of his deliberate concealment and suppression of the invention, and priority was properly awarded to C. and C.

2. SAME—SAME—INVENTION MADE BY THIRD PARTY.

Where L. contends that the testimony of one of the witnesses shows that C. and C. derived the invention from a third party, and hence L. has no standing in this proceeding, *Held* that evidence that some other party than the parties to the pending proceeding is the real inventor is impertinent to the issue.

Mr. Clifford E. Dunn for the appellant.

Mr. A. H. Walker for the appellee.

ROBB, *J.:*

Appeal from concurrent decisions of the Patent Office tribunals in an interference proceeding.

The subject-matter of the invention is an ornamental design for a paper cup. The application of Claussen and Claus was filed December 30, 1911, and a patent was granted thereon May 14, 1912. On July 11, 1912, the appellant Luellen filed his application. Inasmuch, therefore, as the appellees already were in the possession of a regularly-issued patent when Luellen filed his application, the burden of proof is heavily upon him in this proceeding. The Examiner of Interferences, after an exhaustive review of the evidence, ruled that Luellen reduced the invention to practice in December of 1907 but that his rights were subordinated to those of Claussen and Claus by reason of his suppression of the invention. The Examiners-in-Chief, after calling attention to the fact that—

> Luellen admittedly did not take steps toward the filing of his application in issue until after he had become aware of the commercial activity of his opponent,

accepted the finding of the Examiner of Interferences that the invention had been suppressed. The First Assistant Commissioner observed that—

> neither of these inventors is entitled broadly to claim a design for a cup made of a single piece of paper, the cup having sloping walls of creased paper and a flange at its upper edge, as stated by the Examiners-in-Chief. Such a cup was old in the art long before either of these inventors entered the field.

Considering the early cups upon which Luellen based his claim of priority, the First Assistant Commissioner reached the conclusion that they showed nothing more than the prior art and, therefore, that Luellen must be restricted to his filing date. The First Assistant Commissioner, however, further suggested that, even if it be assumed that Luellen did produce in 1907 or 1908 something patentably different from the prior art the conclusions of the lower tribunals that he had secreted and suppressed the same until after the Claussen and Claus patent were correct.

Assuming, without deciding, that Luellen reduced the invention to practice in 1907 or early in 1908, we fully agree with the Patent Office tribunals that his rights became subordinated to those of the appellees because of his deliberate concealment and suppression of the invention. (*Mason* v. *Hepburn*, 13 App. D. C., 86; 84 O. G., 147; 1898, C. D., 510; *Matthes* v. *Burt*, 24 App. D. C., 265; 114 O. G., 764; 1905, C. D., 574; *Howard* v. *Bowes*, 31 App. D. C., 619; 137 O. G., 733; 1908, C. D., 547; *Dieckmann* v. *Brune*, 37 App. D. C., 399; 171 O. G., 1258; 1911, C. D., 436.) The evidence upon this point has been so fully reviewed by the Examiner of Interferences that further analysis is unnecessary.

It is insisted, however, in behalf of Luellen, that the testimony of one of his witnesses shows that Claussen and Claus derived the invention from a Mr. House, whose conception was subsequent to that of Luellen, and, arguing from that postulate, they contend that Claussen and Claus are not inventors at all and hence have no standing in this proceeding. In *Foster* v. *Antisdel* (14 App. D. C., 552; 88 O. G., 1527; 1899, C. D., 413) the same contention was made and rejected, the court observing that the interference proceeding—

> was instituted to determine, as between the parties to it, which of them is entitled to priority of the invention claimed,

and that evidence that some other party than the parties to the pending proceeding is the real inventor is impertinent to the issue. This ruling has since been followed. (*Pope* v. *McKenzie*, 38 App. D. C., 111; 176 O. G., 1072; 1912, C. D., 450.) *Lemp* v. *Randall* (33 App. D. C., 430; 146 O. G., 255; 1909, C. D., 455) is not in conflict with these decisions. There it was contended that evidence of the alleged joint inventors, Randall and Bates,

showed that they were not in fact such inventors but that the invention was the sole production of Randall. In other words, it was in effect contended that Randall and Bates had admitted that they were without standing in the proceeding by reason of the fact that they were not joint inventors. There was no attempt, as we pointed out—

to show that the right of the award of priority was in a third party, an alien to the proceeding, but that the senior parties to the proceeding were without standing, because it appeared that they were not joint inventors.

The question for determination in the present case is which of the parties thereto is entitled to the award of priority, and the question whether a third party may subsequently defeat the successful party here is beside the issue and may not be raised.

Moreover, even if we should consider the evidence in reference to the House cup the result would be the same, since we fully agree with the Commissioner's ruling that that cup is not as near the issue here as were the cups of the prior art.

The decision is affirmed.

Affirmed.

Supreme Court of the United States.

UNITED STATES, *ex rel.* CHOTT, *v.* EWING, COMMISSIONER OF PATENTS.

Decided April 12, 1915.

DECISION OF THE COURT OF APPEALS OF THE DISTRICT OF COLUMBIA ON A QUESTION OF AUTHORITY ARISING UNDER THE PATENT LAWS OF THE UNITED STATES—NOT REVIEWABLE BY WRIT OF ERROR.

Paragraph V of section 250 of the Judicial Code, concerning the validity of an authority of the United States, confers no jurisdiction on this Court to review a judgment of the Court of Appeals of the District of Columbia where the question of authority arises under the patent laws of the United States. Judgment in such cases is made final by the concluding paragraph of section 250 unless this Court exercises its rights of certiorari or the court of appeals certifies question to this Court as provided by that paragraph.

Mr. Joshua R. H. Potts for the plaintiff in error.

Mr. Assistant Attorney General Warren, with whom *Mr. R. F. Whitehead* and *Mr. W. S. Ruckman* were on the brief, for the defendant in error.

Mr. Chief Justice WHITE delivered the opinion of the Court.

A brief statement of the origin and nature of the controversy is essential to an understanding of the questions which we are called upon to decide. The relator applied for a patent. His claim was rejected by the Primary Examiner. He appealed to the Board of Examiners-in-Chief, and that body, disagreeing with the Primary Examiner, reversed his decision and sustained the claims of the patent. By authority of the Commissioner the Primary Examiner then made a further investigation and directed the attention of the Commissioner to additional patents which it was deemed demonstrated that the invention was not patentable. Thereupon the Commissioner, coinciding with such opinion, approved the action of the Primary Examiner and decided that the invention was not patentable. The Commissioner, however, did not then formally reject the claim to patent but wrote to the applicant calling attention to the authority of the Commissioner to review the case personally despite the favorable action of the Board of Examiners-in-Chief and assigning a day when a hearing would be afforded as to the patentability of the invention. The applicant challenged the right of the Commissioner to act in the premises and insisted that as a result of the conclusions of the Board of Examiners-in-Chief he was entitled to a patent and that it was the plain ministerial duty of the Commissioner to direct it to issue. The Commissioner then filed an opinion insisting upon his authority and pointing out the reasons which caused him to conclude that the invention was not patentable. The opinion concluded with the statement:

I am clearly of the opinion that the application sets forth nothing upon which a patent can properly be based. The claims are therefore rejected and the patent refused. Appeal from this decision to the court of appeals should be taken, if at all, within the time prescribed by the rules of that court.

Instead of taking the appeal as thus suggested, the relator commenced this proceeding by mandamus in the supreme court of the District to compel the issue of the patent. From a judgment in his favor ordering the mandamus as prayed the Commissioner and the Primary Examiner prosecuted error to the court of appeals. That court, concluding that it was without authority to control the Commissioner in the performance of his administrative duties by the writ of mandamus, reversed the action of the trial court, directed the dismissal of the application for mandamus, reserving however the right of the relator to seek by appeal (Rev. Stat., 4911) the redress of any wrong which it was deemed had been committed by the Commissioner in refusing to direct the issue of the patent, and this writ of error is prosecuted to that judgment. (40 App. D. C., 591.)

At the threshold our jurisdiction to review is disputed on the ground that the concluding paragraph of section 250 of the Judicial Code upon which our jurisdiction depends provides that—

except as provided in the next succeeding section, the judgments and decrees of said court of appeals [of the District of Columbia] shall be final in all cases arising under the patent laws,

and that the exception embraced in the subsequent section includes only the discretionary right to certiorari and the power of the court of appeals to certify a question under the circumstances provided. On the other hand, it is insisted jurisdiction obtains because of the right of this Court to review the judgments and decrees of the court of appeals of the District conferred by the fifth paragraph of section 250, that is—

in cases in which the validity of an authority exercised under the United States or the existence or scope of any power or duty of an officer of the United States is drawn in question.

Our jurisdiction is therefore to be determined by fixing the meaning of these two provisions. It cannot be doubted that isolatedly considering the text of the fifth paragraph the controversy comes within its terms, that is, it involves the validity of an authority exercised under the United States or draws in question the existence or scope of the power of an officer of the United States. So also it is not substantially disputable, although the contrary is argued, that isolatedly considered the case is excluded from our jurisdiction because it is within the last paragraph of section 250, that is, is one arising under the patent laws since it depends upon those laws and concerns the very right and authority to issue a patent as provided by those laws. Looked at isolatedly, therefore, there is absolute conflict between the two provisions. But even if the method of isolated consideration were not otherwise plainly a mistaken one, it follows that it cannot be adopted since it affords no possible solution of the controversy. Such solution must therefore be sought by following the elementary rules, that is, by turning primarily to the context of the section and secondarily to provisions *in pari materia* as affording an efficient means for discovering the legislative intent in enacting the statute thereby vivifying and enforcing the remedial purposes which it was adopted to accomplish.

From the point of view of the context, as it is manifest that the provisions in the concluding clause were enacted as exceptions or limitations upon the grant of jurisdiction contained in the previous passage of section 250, it clearly results that it was not contemplated that the power conferred by the fifth paragraph would extend to and embrace the cases wherein by the last paragraph the judgments or decrees of the Court of Appeals of the District of Columbia were made final. This being true, it hence also is necessarily true that the fifth paragraph concerning the validity of an authority confers no jurisdiction on this court to review a case where the question of authority arises under the patent laws of the United States. Indeed it would be very unreasonable to assume that jurisdiction was conferred to review the action of the court of appeals in all cases in which its authority was exerted to direct the officials of the Patent Office under the patent laws to issue a patent, and yet no power was reserved to review the action of that court in determining after the issue of a patent whether it was or was not rightfully issued. And the cogency of this view becomes at once apparent when it is considered that prior to the enactment of the Judicial Code, under section 233 of the District Code (31 Stat., 1227) jurisdiction of this Court to review the judgment or decrees of the court of appeals of the District embraced cases—

without regard to the sum or value of the matter in dispute, wherein is involved the validity of any patent,

a provision not preserved in section 250 of the Judicial Code. But the question is hardly an open one since it has been expressly held that the power does not exist in this Court to review the Court of Appeals of the District of Columbia in a criminal case which would obtain under section 250 but for the provision of the last paragraph making final the action of that court in criminal cases. (*Gompers* v. *United States*, 233 U. S., 604.) And by analogy a like consideration when applied to the sections of the statute concerning the jurisdiction of this Court to review the judgment of circuit courts of appeals has led to a like conclusion. (*Macfadden* v. *United States*, 213 U. S., 288.) Besides, when looked at comprehensively, in view of the fact that the provisions of the Judicial Code were obviously intended not to enlarge the jurisdiction of this Court but to relieve it, and considering in this light the omissions and the limitations therein expressed and the power to certiorari stated in section 251, the conclusion is irresistible that the intent and purpose of the act was, while narrowing the imperative jurisdiction, to create an equipoise by extending the voluntary or discretionary exercise of jurisdiction by means of the writ of certiorari,—a purpose which would be wholly frustrated if the contention as to jurisdiction now insisted upon were sustained.

Dismissed for want of jurisdiction.

Disclaimer.

928,701.—*Adolph F. Rietzel*, Lynn, Mass. UNITING THE COMPONENT PARTS OF COMPOSITE SHEET-METAL STRUCTURES. Patent dated July 20, 1909. Disclaimer filed June 12, 1915, by the assignee, *Thomson Electric Welding Company*.

Enters this disclaimer to that part of the invention described in said patent which is set forth in the specification in the following words:

"Briefly stated, the invention consists in electrically welding pieces together in spots definitely located in and involving a portion only of their meeting surfaces, by the application of pressure and heating current localized in such spot or spots"—

except when that process is carried out by the preferred method of providing conducting projections or points between the meeting surfaces of the pieces to be united; and also enters its disclaimer to that part of the claim in the specification which is in the following words:

"1. The hereinbefore described improved method of fastening two pieces of metal together by electrically welding them to one another at spots only of their juxtaposed or opposite faces by the application of pressure and heating current localized in such spots.

"2. The herein described method of uniting two pieces of metal at a number of distinct or separate spots separated from one another by well-defined areas of no union, consisting in applying pressure localized at the spots of desired union, and passing electric current through the pieces from one to the other while confining the flow of current to said spots until the union is effected.

"3. The herein described method of uniting two pieces of metal, consisting in pressing them together while passing a heating electric current from one to the other and localizing the flow of current and the heating throughout the operation in a spot or spots of circumscribed or limited area as compared with the area of the immediately opposed surfaces so as to limit the union of the pieces to a spot or spots.

"4. The improved method of uniting two pieces of metal at a spot or spots only in their opposed meeting surfaces, consisting in pressing the two pieces together, and passing a welding electric current from one to the other while localizing the pressure in and confining the flow of current to the spot or spots of desired union so as to produce an isolated spot or spots of union, leaving distinct or well-defined areas in which the pieces are not welded together.

"5. The method of uniting two sheet metal pieces together face to face, consisting in pressing them together, and, simultaneously with the pressure, passing an electric current from one to the other at isolated or distinct spots in the areas lapping or opposed, said spots being separated from one another by such a distance that there is a union of the sheets at spots entirely surrounded by areas of no union.

"6. The method of uniting sheets of metal by pressing them together and at the same time passing a heating and welding current from one to the other at a spot on their meeting surfaces which is restricted in area throughout the operation so as to leave on the meeting surfaces a well-defined and comparatively extensive area of no union completely surrounding said spot.

"16. Metal plates fastened together by a number of distinct or isolated welds on their meeting surfaces and in spots comprising meeting portions of the metal plates, the backs of said plates being practically unaltered in their metallic condition and the spots on the meeting surfaces being separated from one another by distinct unwelded areas.

"17. Sheet metal work comprising pieces of sheet metal welded together in the material of their meeting surfaces and in spots only, each surrounded by distinct areas of

unwelded union, the back surfaces of said pieces being substantially unaltered over the welded spots, substantially as and for the purpose described.

"18. Composite metal work having its component pieces welded together in spots only involving the material of their opposed or meeting surfaces, said spots being each entirely surrounded by distinct areas of unwelded union and the portion of the pieces back of the welds being substantially unaltered, as and for the purpose described.

"19. Metal work comprising a metal plate fastened on its surface to the opposed surface of another piece of metal by a weld at a spot only in the material of the opposed surfaces, said spot being surrounded by a distinct area of unwelded union and the back surface of said plate being practically unaltered over said spot, as and for the purpose described.

"20. A metal article comprising two bodies of metal having adjacent plane surfaces united at a plurality of spaced and isolated spots of integral and autogenous welded union, the metal at the spots of welded union having substantially the same qualities as at other points."

Interference Notices.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., June 12, 1915.

The Red Seal Remedy Company, its assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of The Newton Tea & Spice Co., of 18 East Second Avenue, Cincinnati, Ohio, for registration of a trade-mark and trade-mark registered June 25, 1895, No. 26,734, to The Red Seal Remedy Company, of Rockland, Me., and a notice of such declaration sent by registered mail to The Red Seal Remedy Company at the said address having been returned by the post-office undeliverable, notice is hereby given that unless The Red Seal Remedy Company, its assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

J. T. NEWTON, *First Assistant Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., June 12, 1915.

Cabel H. Butterworth, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of The Newton Tea & Spice Co., of 18 East Second avenue, Cincinnati, Ohio, for registration of a trade-mark and trade-mark registered October 24, 1905, No. 47,097, to Cabel H. Butterworth, of Philadelphia, Pa., and a notice of such declaration sent by registered mail to said Cabel H. Butterworth at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Cabel H. Butterworth, his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

J. T. NEWTON, *First Assistant Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., June 11, 1915.

Maurice H. Strong, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Spratt's Patent (America) Limited, of Congress, Market, and Jefferson streets, Newark, N. J., for registration of a trade-mark and trade-mark registered May 19, 1885, No. 12,249, to Maurice H. Strong, of Cincinnati, Ohio, and a notice of such declaration sent by registered mail to said Maurice H. Strong at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Maurice H. Strong, his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

J. T. NEWTON, *First Assistant Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., June 5, 1915.

Kuhn Bros., their assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Heilpern & Gross, of 6 Village street, Hartford, Conn., for registration of a trade-mark and trade-mark registered February 23, 1892, No. 20,768, to Kuhn Bros., of 945–947 Fifth street, San Diego, Cal., and a notice of such declaration sent by registered mail to said Kuhn Bros. at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Kuhn Bros., their assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

J. T. NEWTON, *First Assistant Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., June 3, 1915.

John Kean, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of The Autipalnola Company, South Railroad street, Willacoochie, Ga., for registration of a trade-mark and trade-mark registered March 17, 1903, No. 89,945, to John Kean, No. 155 South Clark street, Chicago, Ill., and a notice of such declaration sent by registered mail to said John Kean at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said John Kean, his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

J. T. NEWTON, *First Assistant Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., May 29, 1915.

The Borated Specialty Company, its assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Henry W. Holly, No. 27 Fleet street, New York, N. Y., for registration of a trade-mark and trade-mark registered April 3, 1906, No. 50,831, to The Borated Specialty Company, No. 63 Clymer street, Brooklyn, N. Y., and a notice of such declaration sent by registered mail to said The Borated Specialty Company at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said The Borated Specialty Company, its assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

J. T. NEWTON, *First Assistant Commissioner.*

THE
OFFICIAL GAZETTE
OF THE
United States Patent Office.

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ISSUE OF JUNE 29, 1915.

Patents	645—	No. 1,144,341 to No. 1,144,985,	inclusive.
Designs	15—	No. 47,515 to No. 47,529,	inclusive.
Trade-Marks	112—	No. 104,923 to No. 105,034,	inclusive.
Labels	19—	No. 18,559 to No. 18,577,	inclusive.
Prints	17—	No. 3,958 to No. 3,974,	inclusive.
Reissues	2—	No. 13,940 to No. 13,941,	inclusive.
Total	810		

The patents of this issue were pending an average of 20.8 months.

TO RESIDENTS OF THE UNITED STATES.

States.	Patents and Designs.	Trade-Marks, Labels, and Prints.	States.	Patents and Designs.	Trade-Marks, Labels, and Prints.
Alabama	2	.....	North Carolina	2	.....
Arizona	1	.....	North Dakota	1	.....
Arkansas	1	.....	Ohio	45	13
California	34	6	Oklahoma	2	.....
Colorado	4	.....	Oregon	8	.....
Connecticut	10	1	Pennsylvania	47	8
Delaware	1	1	Rhode Island	3	.....
Florida	2	.....	South Carolina	.....	.....
Georgia	3	1	South Dakota	2	.....
Idaho	.....	.....	Tennessee	.....	.....
Illinois	63	12	Texas	10	2
Indiana	8	6	Utah	4	2
Iowa	3	4	Vermont	2	.....
Kansas	6	.....	Virginia	7	3
Kentucky	7	.....	Washington	8	2
Louisiana	3	1	West Virginia	3	.....
Maine	1	.....	Wisconsin	21	2
Maryland	6	.....	Wyoming	.....	.....
Massachusetts	40	6			
Michigan	58	3	Alaska, District of	1	.....
Minnesota	16	1	Canal Zone	1	.....
Mississippi	.....	.....	District of Columbia	4	1
Missouri	20	3	Hawaii Territory	1	.....
Montana	3	1	Philippine Islands	.....	.....
Nebraska	3	3	Porto Rico	1	.....
Nevada	.....	.....	U. S. Army	.....	.....
New Hampshire	4	.....	U. S. Navy	1	.....
New Jersey	32	6			
New Mexico	1	.....	Total to residents of the United States	589	145
New York	103	57			

TO RESIDENTS OF FOREIGN COUNTRIES.

Countries.	Patents and Designs.	Trade-Marks.	Countries.	Patents and Designs.	Trade-Marks.
Argentina	.....	.....	Natal	.....	.....
Austria-Hungary	3	.....	Netherlands	1	.....
Belgium	1	.....	New South Wales	3	.....
British India	.....	.....	New Zealand	.....	.....
British West Indies	.....	.....	Norway	1	.....
Canada	17	.....	Portugal	.....	.....
Cape Colony	.....	.....	Queensland	.....	.....
Chile	.....	.....	Roumania	.....	.....
Costa Rica	.....	.....	Russia	.....	.....
Cuba	.....	.....	Scotland	.....	.....
Denmark	.....	.....	South Australia	.....	.....
Dutch West Indies	1	.....	Spain	.....	.....
England	19	.....	Sweden	.....	.....
Finland	.....	.....	Switzerland	1	.....
France	6	.....	Transvaal, South Africa	.....	.....
Germany	15	3	Victoria	2	.....
India	.....	.....	Western Australia	.....	.....
Ireland	.....	.....			
Italy	.....	.....	Total to residents of foreign countries	70	3
Luxemburg	.....	.....			
Mexico	.....	.....			

Adverse Decisions in Interference.

PATENT No. 1,104,451.

On May 24, 1915, a decision was rendered that Michael Setter was not the first inventor of the subject-matter covered by claims 3, 4, and 7 of his Patent No. 1,104,451, subject, "Telephone automatic trunk-selecting system," and no appeal having been taken within the time allowed such decision has become final.

Notaries Public—Amended Law.

[PUBLIC—No. 362.]

An act to amend section five hundred and fifty-eight of the Code of Law for the District of Columbia.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, **That section five hundred and fifty-eight of the Code of Law for the District of Columbia, relating to notaries public, be amended by adding at the end of said section the following: "*Provided*, That the appointment of any person as such notary public, or the acceptance of his commission as such, or the performance of the duties thereunder, shall not disqualify or prevent such person from representing clients before any of the Departments of the United States Government in the District of Columbia or elsewhere, provided such person so appointed as a notary public who appears to practice or represent clients before any such Department is not otherwise engaged in Government employ, and shall be admitted by the heads of such Departments to practice therein in accordance with the rules and regulations prescribed for other persons or attorneys who are admitted to practice therein: *And provided further*, That no notary public shall be authorized to take acknowledgements, administer oaths, certify papers, or perform any official acts in connection with matters in which he is employed as counsel, attorney, or agent or in which he may be in any way interested before any of the Departments aforesaid."**

Approved, June 29, 1906.

APPLICATIONS UNDER EXAMINATION.

Condition at Close of Business June 26, 1915.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action. New.	Amended	No. of applications awaiting action.
314	1. Fences; Fences, Gates; Harrows and Diggers; Plows; Seeders and Planters; Trees, Plants, and Flowers.	Mar. 19	Mar. 12	462
128	2. Bee Culture; Curtains, Shades, and Screens; Dairy; Label Pasting and Paper Hanging; Paper Files and Binders; Medicines; Pneumatics; Presses; Tents, Canopies, Umbrellas, and Canes; Tobacco.	Feb. 1	Mar. 9	774
175	3. Annealing and Tempering; Electric Heating and Rheostats; Electrochemistry; Metal-Founding; Metallurgy; Plastic Metal Working.	June 16	June 15	44
232	4. Conveyers; Elevators; Excavating; Hoisting; Loading and Unloading; Pneumatic Despatch; Railway Mail Delivery; Traversing Hoists.	Mar. 3	May 25	592
167	5. Bookbinding; Harvesters; Jewelry; Music.	Apr. 2	May 25	303
318	6. Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Liquid Coating Compositions; Plastic Compositions; Preserving; Sugar and Salt; Substance Preparation.	Jan. 9	June 5	479
312	7. Educational Appliances; Clutches; Games and Toys; Motors; Optics; Velocipedes.	Apr. 21	May 22	429
131	8. Beds; Chairs; Furniture; Kitchen and Table Articles; Store Furniture; Supports.	Feb. 15	May 28	1198
142	9. Air and Gas Pumps; Fluid-Pressure Regulators; Hydraulic Motors; Motors, Fluid; Motors, Fluid-Current; Pumps.	Dec. 2	June 14	643
235	10. Carriages and Wagons	Mar. 20	May 27	538
154	11. Boot and Shoe Making; Boots, Shoes, and Leggings; Button, Eyelet, and Rivet Setting; Harness; Leather Manufactures; Nailing and Stapling; Whips and Whip Apparatus.	May 24	June 5	98
322	12. Journal-Boxes, Pulleys, and Shafting; Lubrication; Machine Elements.	May 20	June 2	564
329	13. Arms, Projectiles, and Explosive Charges, Making; Bolt, Nail, Nut, Rivet, and Screw Making; Boring and Drilling; Button Making; Chain, Staple, and Horseshoe Making; Driven, Headed, and Screw Threaded Fastenings; Gear Cutting, Milling, and Planing; Metal Drawing; Metal Forging and Welding; Metal Rolling; Metal Tools and Implements, Making; Metal Working; Needle and Pin Making; Nut and Bolt Locks; Turning.	May 20	May 27	367
307	14. Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal-Bending; Metal-Ornamenting; Sheet-Metal Ware, Making; Tools; Wire Fabrics and Structure; Wire-Working.	Feb. 6	May 25	275
308	15. Bread, Pastry, and Confection Making; Coating; Fuel; Glass; Laminated Fabrics and Analogous Manufactures; Paper-Making and Fiber Liberation; Plastic Block and Earthenware Apparatus; Plastics.	Feb. 18	June 1	585
109	16. Electric Signaling; Radiant Energy; Telegraphy; Telephony.	Mar. 9	Apr. 14	426
303	17. Matrix-Making; Paper Manufactures; Printing; Type-Bar Making.	Apr. 23	June 12	146
327	18. Injectors and Ejectors; Liquid Heaters and Vaporizers; Miscellaneous Heat-Engine Plants; Steam and Vacuum Pumps; Steam-Engines; Steam-Engine Valves.	May 26	May 26	283
236	19. Dampers, Automatic; Furnaces; Heating Systems; Stoves and Furnaces.	Apr. 19	May 19	207
179	20. Artificial Limbs; Builders' Hardware; Cutlery; Dentistry; Locks and Latches; Safes; Undertaking.	June 2	June 2	167

Applications Under Examination—Continued.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action. New.	Amended	No. of applications awaiting action.
112	21. Brakes and Gins; Carding; Cloth-Finishing; Cordage; Felt and Fur; Knitting and Netting; Silk; Spinning; Weaving; Winding and Reeling.	Mar. 15	May 25	340
249	22. Aeronautics; Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Boats and Buoys; Firearms; Marine Propulsion; Ordnance; Ships.	May 26	May 25	222
379	23. Acoustics; Coin-Handling; Horology; Recorders; Registers; Time-Controlling Mechanism.	Feb. 16	Mar. 5	432
144	24. Apparel; Apparel Apparatus; Sewing-Machines.	Mar. 11	June 2	448
315	25. Butchering; Mills; Threshing; Vegetable Cutters and Crushers.	May 27	May 26	157
106	26. Electricity, Generation; Motive Power.	Jan. 18	Apr. 19	462
372	27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus.	May 10	June 3	272
65	28. Internal-Combustion Engines	May 6	May 19	387
147	29. Coopering; Fire-Escapes; Ladders; Roofs; Wheelwright-Machines; Wooden Buildings; Wood-Sawing; Wood-Turning; Woodworking; Woodworking-Tools.	Apr. 6	May 10	284
152	30. Illuminating-Burners; Illumination; Liquid and Gaseous Fuel Burners; Type-Writing Machines.	Mar. 16	June 10	281
172	31. Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Glue.	Apr. 17	May 11	247
278	32. Agitating; Carbonating Beverages; Dispensing Beverages; Dispensing; Domestic Cooking Vessels; Gas and Liquid Contact Apparatus; Heat Exchange; Ornamentation; Packaging Liquids; Refrigeration.	Feb. 1	June 5	668
71	33. Bridges; Hydraulic Engineering; Masonry and Concrete Structures; Metallic Building Structures; Paving.	Apr. 19	May 10	352
304	34. Railways; Railway-Brakes; Railway Rails and Joints; Railway Rolling-Stock; Railway Ties and Fasteners.	May 21	May 24	223
57	35. Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Garment-Supporters; Toilet.	Mar. 22	June 16	488
264	36. Driers; Geometrical Instruments; Measuring Instruments; Photography.	Apr. 12	June 4	606
107	37. Electric Lamps; Electricity, Conductors; Electricity, Conduits; Electricity, General Applications.	Jan. 5	Mar. 22	676
378	38. Animal Husbandry; Earth Boring; Fishing and Trapping; Stationery; Stone-Working; Wells.	Feb. 26	May 21	449
321	39. Water Distribution	Apr. 1	Apr. 21	427
280	40. Baggage; Bottles and Jars; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Shipping and Storing Vessels; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles.	Jan. 19	May 5	1038
125	41. Railway Draft Appliances; Resilient Tires and Wheels.	Apr. 9	May 26	252
279	42. Railway Signaling; Signals; Electricity-Transmission to Vehicles.	Feb. 26	Mar. 17	729
382	43. Baths and Closets; Electricity, Medical and Surgical; Fire-Extinguishers; Sewerage; Surgery; Water Purification.	June 8	May 4	250

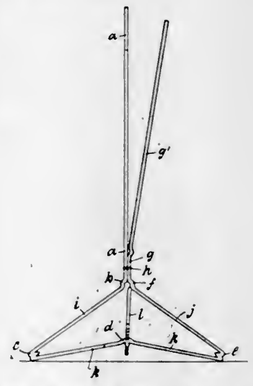
Oldest new case, Dec. 2; oldest amended, Mar. 5.
Total number of applications awaiting action..... 18,270

161	TRADE-MARKS, DESIGNS, LABELS AND PRINTS:			
	Trade-Marks	May 12	June 9	770
	Designs	Mar. 19	May 4	546
	Labels and Prints	June 16	June 15	90

PATENTS

GRANTED JUNE 29, 1915.

1,144,341. DISPLAY DEVICE. WILLIAM JOSEPH ANDERSON, Hyde, England. Filed Mar. 23, 1914. Serial No. 826,747. (Cl. 40—149.)



1. A collapsible display device comprising a vertically disposed body portion, diverging legs at the lower edge of the body portion, an upwardly arched base connecting the lower ends of said legs, a tongue extending between said legs and said base and positioned approximately in the plane of the body portion and serving to hold the legs and base in extended position.

2. A collapsible show card comprising a vertically disposed body portion and a supporting portion creased and bent to provide diverging legs and an arcuated base connecting said legs, and a tongue formed from one of said legs and extending into said base.

1,144,342. AIR-LIFT FOR ELEVATING LIQUIDS. BENJAMIN ANDREWS, Houston, Tex. Filed Oct. 7, 1913. Serial No. 793,794. (Cl. 103—84.)

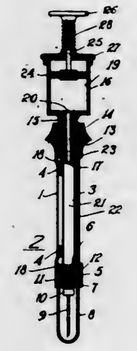


1. In apparatus of the kind described, the combination of an eduction pipe and a spiral shaped perforated diaphragm disposed therein in position to direct a stream of fluid passing therethrough in a spiral direction, for the purpose described.

2. In apparatus of the kind described, the combination of an eduction pipe, an air pipe disposed therein and a spiral-shaped perforated member surrounding said air pipe, for the purpose described.

3. In apparatus of the kind described, the combination of a fluid eduction pipe, a perforated diaphragm disposed therein and arranged in the form of a spiral, and means for introducing compressed air into said eduction pipe, for the purpose described.

1,144,343. HYPODERMIC SYRINGE. MOSES BENMOSCHE, Nashua, N. H., and RICHARD P. ELLIOTT, Boston, Mass. Filed Aug. 22, 1913. Serial No. 786,119. (Cl. 128—25.)



1. In a hypodermic syringe, the combination of a holder; fluid containers which have a plurality of puncturable closures adapted to be removably held by said holder; means for puncturing the puncturable closures after the fluid container is inserted in the holder; and a pressure creating chamber connected to the holder.

2. In a hypodermic syringe, the combination of a holder arranged to removably hold the fluid containers which have a plurality of puncturable closures adapted to be removably held by said holder; means for puncturing the puncturable closures after the fluid container is inserted and while it is being secured in the holder; a pressure creating chamber at one end of said holder; and a hollow needle at the other.

3. In a hypodermic syringe, the combination of a holder for removably holding fluid containers which have a plurality of puncturable closures; means for puncturing said closures; a pressure-creating chamber removably secured to one end of said holder, and a hollow needle secured to the other end of said holder, the pressure-creating chamber and needle being so arranged that pressure created in the pressure-chamber will force liquid in the containers outwardly through the needle.

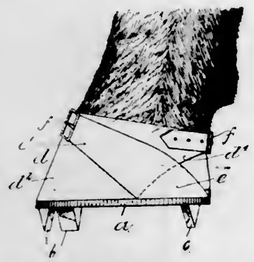
4. A device for injecting fluids into human or animal tissues, comprising a holder; a pressure creating chamber adjustably secured to one end of said holder; a hollow needle removably secured to the other end of said holder; a fluid-container having puncturable non-leakable closures secured to its ends, said fluid-container and holder arranged so the fluid-container can be removably secured in the holder; and means for puncturing the

closures to the fluid-container after it is inserted in the holder.

5. In a hypodermic syringe, the combination of a holder for removably holding fluid-containers which have puncturable closures; means for removably securing a hypodermic needle to one end of said holder; means for adjustably securing a pressure creating chamber to the other end of said holder; and means for puncturing said closures after a container is inserted in the holder.

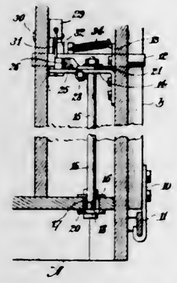
[Claims 6 and 7 not printed in the Gazette.]

1,144,344. HORSESHOE. KARL BISCHOFF, New York, N. Y. Filed Apr. 13, 1914. Serial No. 831,359. (Cl. 168—22.)



The combination with a horseshoe, of a sheath comprising a base shaped to conform with the bottom contour of the hoof, an upwardly sloping sleeve-shaped piece adapted to fit around the front and sides of the hoof and formed with extensions to be fastened at the rear of the hoof and side flaps fixed on the rear of the base and adapted to be fastened in front of the hoof.

1,144,345. CAR-DOOR LOCK. EDGAR C. BROWN and WILLIE B. MAY, Wadesboro, N. C. Filed Nov. 28, 1914. Serial No. 874,451. (Cl. 70—102.)



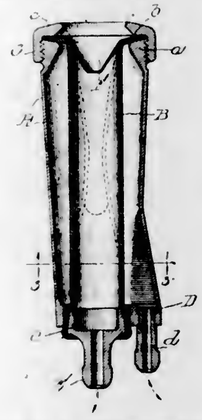
1. The combination with a sliding door for a car, of locking mechanism comprising a sliding bolt movable into the path of movement of the door for fastening the same closed, a shaft mounted within the car and exposed at one end through the bottom thereof, a locking detent engageable with the bolt when fastening the door, and means actuated by the shaft for synchronously releasing the detent and throwing the bolt.

2. The combination with a sliding door for a car, of locking mechanism comprising a sliding bolt movable into the path of movement of the door for fastening the same closed, a shaft mounted within the car and exposed at one end through the bottom thereof, a locking detent engageable with the bolt when fastening the door, means actuated by the shaft for synchronously releasing the detent and throwing the bolt, and means for automatically resetting the bolt when the door has been closed.

3. The combination with a sliding door for a car, of locking mechanism comprising a sliding bolt movable into the path of movement of the door for fastening the same closed, a shaft mounted within the car and exposed at one end through the bottom thereof, a locking detent engageable with the bolt when fastening the door, means actuated by the shaft for synchronously releasing the detent and throwing the bolt, means for automatically resetting the bolt when the door has been closed, and means for gravitating the detent on the resetting of the bolt for locking engagement therewith.

4. The combination with a sliding door for a car, of locking mechanism comprising a sliding bolt movable into the path of movement of the door for fastening the same closed, a shaft mounted within the car and exposed at one end through the bottom thereof, a locking detent engageable with the bolt when fastening the door, means actuated by the shaft for synchronously releasing the detent and throwing the bolt, means for automatically resetting the bolt when the door has been closed, means for gravitating the detent on the resetting of the bolt for locking engagement therewith, and means for detachably engaging the shaft from without the car for operating said shaft.

1,144,346. TEAT-CUP. LIONEL BULL, Chicago, Ill. Filed Apr. 24, 1914. Serial No. 834,077. (Cl. 31—102.)

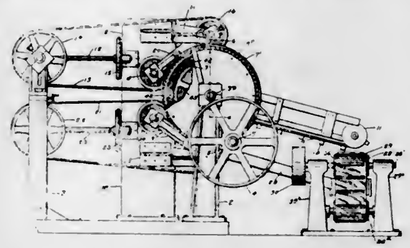


1. A teat-cup for a milking machine comprising an elastic cylindrical tube made open at its ends and having a funnel-shaped apron extending into the mouth of the same, a hollow metal casing through which said tube extends, and means engaging the ends of said tube that attach the ends of said tube to the ends of said casing.

2. A teat-cup for a milking machine comprising an elastic cylindrical tube made open at its ends and having a funnel-shaped apron extending into the mouth of the same and having a circumferential end flange projecting therefrom, a hollow metal casing through which said tube extends, and means engaging the ends of said tube that attach the ends of said tube to the ends of said casing.

1,144,347. AUTOMATIC SPOKE-SANDING MACHINE. ARTHUR L. BUTCHER and HENRY FLICK, Jackson, Mich., assignors to Hayes Wheel Company, Jackson, Mich. Filed Sept. 22, 1914. Serial No. 862,897. (Cl. 51—5.)

1. In a machine of the class described, the combination of a base, standards carried thereby, a main shaft journaled in said standards, a head fixed on said shaft, a plurality of spindles rotatably mounted in said head, connections for rotating said spindles as said head revolves, an external gear on said head, a suitably journaled driving shaft, a pinion on said driving shaft meshing with said external gear, a second head fixed on said main shaft, a plurality of sockets formed in said head, a spindle slidably mounted in each socket, each spindle having a reduced portion extending through said head, a spring for each of said spindles tending to project the same, disks carried by the reduced portions of said spindles, a plurality of levers mounted on said head having their outer ends engaging said disks, a fixed block having a cam surface thereon adapted to engage the inner ends of said levers to retract the spindles, a stop arm secured to said block and having an inturned end adapted to engage the disk on the end of each spindle as it is projected, an arm journaled on the main shaft, a shaft journaled in the end of said arm, a pinion on said shaft meshing with the external gear on the first named head, an eccentric disk on said shaft, a pair of pins on said disk, a second shaft journaled in said arm, a toothed wheel on said second shaft, a plurality of pins on said wheel adapted to be engaged by a portion of the periphery of said eccentric disk to hold said toothed wheel against movement, the teeth of said wheel being adapted to be engaged by the pins on said eccentric disk to rotate said wheel, a pair of sprocket wheels mounted on said last named shaft, a pair of sprocket chains carried and driven by said sprocket wheels and adapted to deliver spokes into position to be received by said spindles, and a pair of sanding belts disposed to act upon the said revolving spokes during the revolution of said head, all coacting substantially as described for the purpose specified.



2. In a machine of the class described, the combination of a base, standards carried thereby, a main shaft journaled in said standards, a head fixed on said shaft, a plurality of spindles rotatably mounted in said head, an external gear on said head, a second head fixed on said main shaft, a plurality of spindles slidably mounted in said head, an arm journaled on the main shaft, a shaft journaled in the end of said arm, a pinion on said shaft meshing with the external gear on the first named head, an eccentric disk on said shaft, a pair of pins on said disk, a second shaft journaled in said arm, a toothed wheel on said second shaft, a plurality of pins on said wheel adapted to be engaged by a portion of the periphery of said eccentric disk to hold said toothed wheel against movement, the teeth of said wheel being adapted to be engaged by the pins on said eccentric disk to rotate said wheel, a sprocket wheel mounted on said last named shaft, a conveyer chain carried and driven by said sprocket wheel and adapted to deliver spokes into position to be received by said spindles, and a sanding belt disposed to act upon the said revolving spokes during the revolution of said head, all coacting substantially as described for the purpose specified.

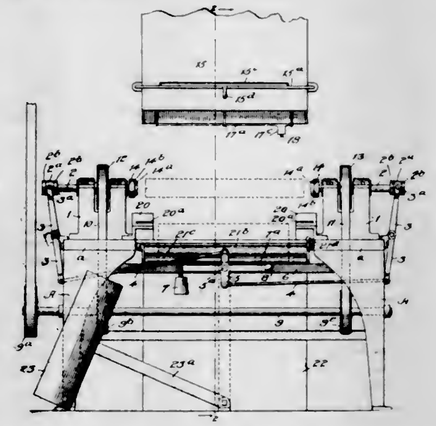
3. In a machine of the class described, the combination of a base, standards carried thereby, a main shaft journaled in said standards, a head fixed on said shaft, a plurality of spindles rotatably mounted in said head, an external gear on said head, means for driving said head, a second head, a plurality of spindles slidably mounted in said head, an arm journaled on the main shaft, a shaft journaled in the end of said arm, a pinion on said shaft, a soft metal pin connecting said pinion to said shaft, said pinion meshing with the external gear on the first named head, an eccentric disk on said shaft, a pin on said disk, a second shaft journaled in said arm, a toothed wheel on said second shaft, the pin on said eccentric disk being adapted to engage said wheel to rotate the same, a sprocket wheel mounted on said last named shaft, a conveyer chain carried and driven by said sprocket wheel and adapted to deliver spokes into position to be received by said spindles, and a sanding belt disposed to act upon the said revolving spokes during the revolution of said head, all coacting substantially as described for the purpose specified.

4. In a machine of the class described, the combination of a base, standards carried thereby, a main shaft journaled in said standards, a head fixed on said shaft, a plurality of spindles rotatably mounted in said head, a second head fixed on said main shaft, a plurality of spindles slidably mounted in said head, an arm journaled on the main shaft, a shaft journaled in the end of said arm, driving connections between the first named head and said shaft, an eccentric disk on said shaft, a pin on said disk, a second shaft journaled in said arm, a toothed wheel on said second shaft, the pin on said disk being adapted to engage the teeth of said wheel to rotate the same, a sprocket wheel mounted on said last named shaft, a conveyer chain carried and driven by said sprocket wheel and adapted to deliver spokes into position to be received by said spindles, and a sanding belt disposed to act upon the said revolving spokes during the revolution of said head, all coacting substantially as described for the purpose specified.

5. In a machine of the class described, the combination of a base, standards carried thereby, a main shaft journaled in said standards, a head fixed on said shaft, a plurality of spindles rotatably mounted in said head, a second head fixed on said main shaft, a plurality of spindles slidably mounted on said head, an arm journaled on the main shaft, a shaft journaled in said arm, a sprocket wheel on said shaft, a conveyer chain carried and driven by said sprocket wheel and adapted to deliver spokes into position to be received by said spindles, means for imparting intermittent movement to said last named shaft, and a sanding belt disposed to act upon the said revolving spokes during the revolution of said head, all coacting substantially as described for the purpose specified.

[Claims 6 to 11 not printed in the Gazette.]

1,144,348. REELING AND WRAPPING MACHINE. BENJAMIN G. CASLER, Tonawanda, N. Y., assignor of one-third to Frederic W. Ritter, Jr., Washington, D. C., and one-sixth to John Ayrault and one-sixth to Miles Ayrault, Tonawanda, N. Y. Filed Nov. 7, 1914. Serial No. 870,808. (Cl. 242—55.)



1. In a machine for reeling fabrics; the combination of a plurality of revoluble reel-heads, said heads being relatively movable to and from each other, a chute for containing mandrels, a mandrel carrier having a portion which is adapted to receive a mandrel and transfer the same to a position in axial alinement with the reel-heads for the reception of the fabric to be wound thereon, said mandrel carrier being movable independently of the mandrel-chute and the mandrel receiving portion of the carrier arranged to describe an arc which intersects the axis of rotation of the reel heads.

2. In a machine for reeling and wrapping ready roofing fabrics, the combination of a plurality of revoluble reel-

heads, said reel-heads being relatively movable to and from each other, means for delivering a mandrel between said reel-heads and in axial relation thereto, in position to receive the fabric to be wound thereon, a wrapper receptacle, and means for applying adhesive material to a wrapper, said last-recited means being interposed between the wrapper receptacle and the revoluble reel-heads.

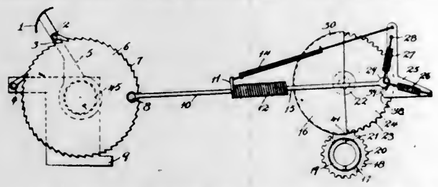
3. In a machine for reeling and wrapping ready roofing fabrics, the combination of a plurality of revoluble reel-heads, said reel-heads being relatively movable to and from each other, means for delivering a mandrel between and in axial relation to said reel-heads in position to receive the fabric to be wound thereon, and an oscillating roll carrier, said roll carrier being movable across the front of the machine and in juxtaposition thereto to receive the roll from the reel-heads and deliver it at one side of the machine.

4. In a machine for reeling and wrapping ready roofing fabrics, the combination of a plurality of revoluble reel-heads, said reel-heads being relatively movable to and from each other, means for delivering a mandrel between and in axial relation to said reel-heads in position to receive the fabric to be wound thereon, a wrapper receptacle, means interposed between the wrapper receptacle and the revoluble reel-heads for applying adhesive material to a wrapper, and a roll carrier said roll carrier being movable to and from the revoluble reel-heads to receive and deliver a finished roll.

5. In a machine for reeling and wrapping ready roofing fabrics, the combination of a plurality of revoluble reel-heads, said reel-heads relatively movable to and from each other, a mandrel chute, and a counterweighted mandrel carrier interposed between the mandrel chute and the revoluble reel-heads, said mandrel carrier being movable independently of the mandrel chute for delivering a mandrel between and in axial relation to the revoluble reel-heads.

[Claims 6 to 18 not printed in the Gazette.]

1,144,349. STARTING DEVICE FOR GAS-OPERATED MOTORS. JAMES M. CLARK, 3d, Buffalo, N. Y. Filed Dec. 26, 1913. Serial No. 808,905. (Cl. 123—85.)

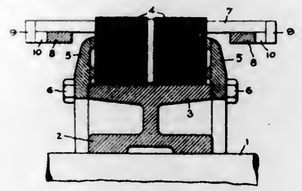


1. In a starting device for gas operated motors, an engine shaft, a rotatable gear, a ratchet wheel spaced therefrom, a stud on said gear, a pivoted member adapted to engage the stud, springs connecting the stud to the pivoted member, means connecting the gear and ratchet wheel, including a coil spring means for rotating the ratchet wheel to place said coil spring under tension, telescoping links connecting said coil spring and pivoted member whereby said stud is released from the pivoted member when the spring has attained a predetermined tension, and means operated by the rotation of said gear wheel to engage and rotate said engine shaft.

2. In a starting device for gas operated motors, in combination with an engine shaft, a rotatable gear wheel, a stud and cam on one face thereof, a pivoted member adapted to engage said stud, a ratchet spaced from said gear wheel, means connecting said ratchet and gear including a coil spring, a pawl for operating the ratchet to place the spring under tension, a connection from said spring to the pivoted member to disengage the pivoted member from the stud after the spring has reached a predetermined tension, slidable means connecting the rotatable gear to the engine shaft, the engagement and disengagement of said last mentioned means with said shaft being controlled by said cam.

3. In a starting device for gas operated motors, an engine shaft having a ratchet clutch member, a cranking shaft in longitudinal alinement with said engine shaft, a gear wheel slidable on said cranking shaft having a ratchet adapted to engage said clutch member, a spring tending to engage said ratchets, a rotatable gear wheel engaging the slidable gear wheel, a cam on one face thereof to control the engagement and disengagement of said ratchet, a ratchet wheel, means connecting the rotatable gear and ratchet wheel, including a coil spring, a pawl for operating said ratchet wheel to place said coil spring under tension, and means for releasing the coil spring at a predetermined tension whereby the second mentioned gear is rotated and the slidable gear is permitted to engage with and is disengaged from the engine shaft.

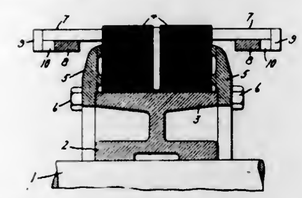
1,144,350. ELECTRIC WELDING. EDGAR F. COLLINS, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Feb. 19, 1913. Serial No. 749,360. (Cl. 219—10.)



1. The method of securing together by means of a third member two adjacently located metallic members one of which has a greater heat radiating and conducting capacity than the other which consists in welding the third member to the member having the lesser heat capacity and to a segregated portion of the member having the greater heat radiating and conducting capacity, the segregated portion having such a heat radiating and conducting capacity that the temperature of its contacting surface during the welding operation is substantially equal to that of the contacting surface of the lesser capacity member.

2. The method of securing together by means of a third member two adjacently located metallic members one of which has a greater heat radiating and conducting capacity than the other, which consists in welding the third member to the member having the lesser heat capacity and to a segregated portion of the member having the greater heat radiating and conducting capacity, the segregated portion having such a heat radiating and conducting capacity that the temperature of its contacting surface during the welding operation is substantially equal to that of the contacting surface of the lesser capacity member and that of the third member.

1,144,351. DYNAMO-ELECTRIC MACHINE. EDGAR F. COLLINS, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Original application filed Feb. 19, 1913, Serial No. 749,360. Divided and this application filed Jan. 27, 1914. Serial No. 814,628. (Cl. 172—120.)

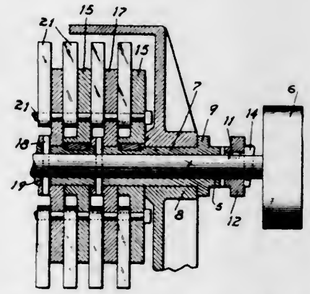


1. In a dynamo electric machine, a short-circuited winding comprising conductor bars, an end ring having its end surface in substantially the same plane as the ends of the conductor bars, and metallic members integrally secured to the end ring and the conductor bars, the end ring being provided with radial slots extending inwardly from the end surface and located between the conductor bars.

2. In a dynamo electric machine, a short-circuited winding comprising conductor bars, an end ring provided with projections, each of said projectins having substantially the same area as each of the ends of the conductor bars, and metallic members integrally secured to the ends of the conductor bars and to the end ring.

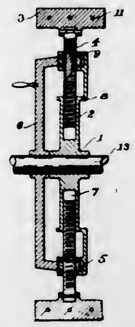
3. In a dynamo electric machine, a short-circuited winding comprising conductor bars, an end ring provided with lateral projections, each of said projections having substantially the same area as each of the ends of the conductor bars, and metallic members integrally secured to the ends of the conductor bars and to the end ring, said members extending in a substantially radial direction.

1,144,352. PULVERIZER. FREDERICK R. CORNWALL, St. Louis, Mo., assignor to Williams Patent Crusher and Pulverizer Company, St. Louis Mo., a Corporation of Missouri. Filed Nov. 30, 1910. Serial No. 594,918. (Cl. 83—11.)



In a rotary hammer mill a shaft, disks arranged on the shaft, hammers outwardly adjustably mounted in the disks, means for effecting outward adjustment of said hammers and locking means arranged directly on said shaft and coöperating with said adjusting means whereby the latter may be rigidly held in different adjusted positions.

1,144,353. EXPANSIBLE PULLEY. ERNEST O. CUSTER, West New York, N. J. Filed Jan. 23, 1914. Serial No. 813,972. (Cl. 64—8.)

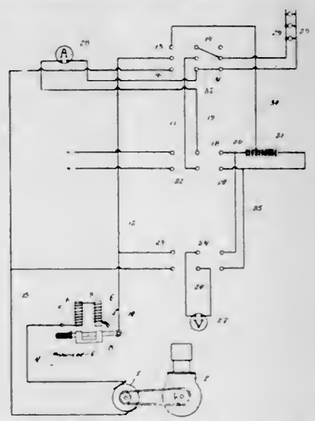


1. An expansible pulley comprising relatively movable rim sections having openings formed therein, curved rods having their end portions inserted in the openings of the rim sections, and expansible helical springs embracing such rods with their end portions entering the openings of the rim sections, said rods and springs spanning the spaces formed between the rim sections when the pulley is expanded.

2. An expansible pulley comprising relatively movable spaced rim sections having openings formed in the opposite ends therof, curved rods mounted in the spaces between adjacent rim sections and having their end portions inserted in the openings of said rim sections, and expansible helical springs embracing such rods with their end portions entering the openings of the rim sections, said rous and springs spanning the spaces formed between the rim sections when the pulley is expanded.

3. An expansible pulley comprising relatively movable spaced rim sections having openings formed in the opposite ends thereof, curved rods mounted in the spaces between adjacent rim sections and having their end portions inserted in the openings of said rim sections, and expansible helical springs embracing such rods with their end portions entering the openings of the rim sections, said rods and springs spanning the spaces formed between the rim sections when the pulley is expanded, said rods serving as reinforcements in said springs.

1,144,354. STORAGE-BATTERY-CHARGING SYSTEM. FRED E. FANNING, Woodland, Ill. Filed May 23, 1913. Serial No. 769,486. (Cl. 171—314.)



In a system of the class described, an electric generator, a storage battery, electric light feeders and a three pole double switch having certain of its poles interconnected independently of the blades, whereby in one position the light feeders and generator will be connected to said battery and when in its other position, the generator will be cut out.

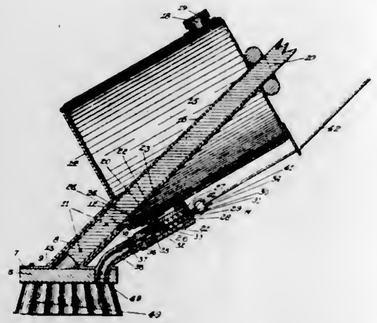
1,144,355. BRUSH. JAMES D. GARVEY, Chicago, Ill. Filed Oct. 13, 1913. Serial No. 794,796. (Cl. 15—51.)

1. In a fountain brush, the combination of a brush, a handle, a container mounted upon said handle, a tube connecting the container and the said brush, with a sleeve mounted on said handle and arranged intermediate of the container and brush whereby the relative position of the container to the brush is maintained.

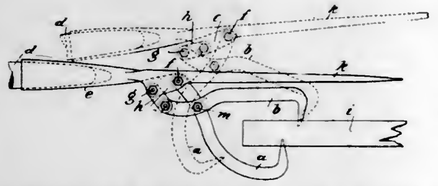
2. In a fountain brush, the combination of, a brush, a handle, a container mounted upon said handle, a tube connecting the container and the said brush, with a sleeve mounted on said handle intermediate of the container and the brush, said sleeve being provdeid with a flange, whereby the sleeve is rigidly secured to the container and the latter supported in proper position.

3. A fountain brush, comprising a brush, the back whereof is provided with an opening therethrough, a ferrule obliquely secured to said brush, a handle secured in said ferrule, a liquid container obliquely mounted on said handle and provided with an outlet adjacent the lower-

most portion thereof, a valve-casing connected to said outlet and located outside of said container, a spring-controlled valve arranged in said casing so as to normally close off the outlet in said container, means extending lengthwise of the handle whereby said valve may be moved so as to open said outlet, a conduit extending from said casing to the opening in the brush-back whereby the contents of said container will be discharged onto the bristles of the brush when said valve is operated, means frictionally secured to the handle and above said container, whereby the latter is held against longitudinal movement on the handle, and a spacing-member slidably mounted on said ferrule whereby the relative position of said container to the brush is maintained.

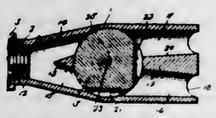


1,144,356. GRIPPER-TONGS. JOSEF GEIST, Kraiburg-on-the-Inn, Germany. Filed Jan. 14, 1915. Serial No. 2,131. (Cl. 57—9.)



In gripper tongs, the combination of a pair of pivotally interconnected tong members, one of said members normally projecting forwardly beyond the other, a handle, a pivot support extending beyond the plane of said handle and inclined in relation to the latter at an angle greater than a right angle, a pivot in said support to which the less forwardly projecting tong member is directly connected, a second pivot in said support below and to one side of said first named pivot, and a link having one of its ends connected to said second named pivot and its other end pivotally connected to the tong member projecting beyond the other.

1,144,357. CONTROLLING AND CUT-OFF VALVE FOR STEAM-LINES. JOHN A. GOLLIHER, Fulton, Ky. Filed May 9, 1914. Serial No. 837,539. (Cl. 137—26.)



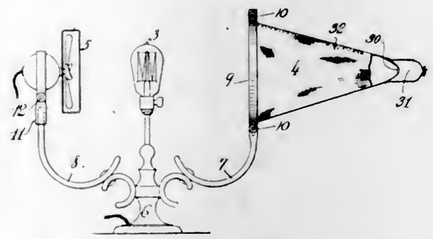
1. A valve of the character described comprising a casing having an inlet at one side and a pair of outlets at its diametrically opposite side, and a rotary plug valve in said casing having cavities of relatively different sizes in its sides at a right angle to each other, said cavities being so arranged that by adjusting the valve to a certain position communication between the inlet and outlet ports will be cut off, by adjusting the valve to a second position communication may be established between the inlet and one of the outlets, and by adjusting the valve to a third position communication may be established between the inlet and the other outlet.

2. A valve of the character described comprising a casing having a vertical valve chamber, an inlet at one side of said chamber, outlets at the other side of the chamber, a partition dividing the inner portion of the inlet into branch passages, a partition separating the outlets from each other, a rotary valve in said chamber having side cavities arranged at a right angle to each other, one of said cavities being of greater size than the other, said valve being adjustable to one position to cut off communication between the inlet and outlets, to a second position to establish communication between one of the branch passages and one of the outlets through the valve cavity of larger size, while simultaneously establishing communication between the outlets through the valve cavity of smaller size, and to a third position to establish communication between the other branch channel and other outlet through the valve cavity of larger size.

3. A valve of the character described comprising a casing having an inlet at one end and a pair of longitudinally extending outlet passages at its opposite end, a valve chamber between said inlet and outlet passages and a rotary valve mounted in said chamber to control said passages, said valve having cavities in its sides at right angles to each other, said cavities being so arranged that the valve when turned to one position will cut off communication between the inlet and outlet passages, when turned to a second position will directly connect the inlet with one of said passages through one of said cavities and connect the two passages through the other cavity, and when turned to a third position will connect the inlet with one of said passages and blank the other passage.

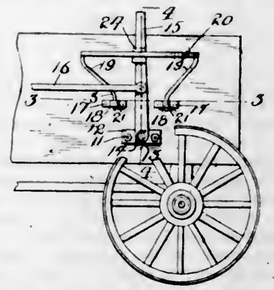
4. A valve of the character described having an inlet at one end, longitudinally extending outlet passages at its opposite end, and an intervening valve chamber, a V-shaped partition separating the inlet end into two divisions; a partition separating the outlet passages and formed to constrict said passages in a discharge direction, and a rotary valve arranged in said valve chamber and provided with ports at right angles to each other for cooperation with said inlet and passages.

1,144,358. INSECT-CAPTURING APPARATUS. KNUT GEORGE GYLLSTHOM, Richmond Hill, N. Y. Filed Nov. 17, 1914. Serial No. 872,515. (Cl. 43—1.)



An apparatus for capturing insects comprising in combination portable supporting means, a light mounted centrally on the same, a fan detachably mounted on the said supporting means to the one side of the said light, a ring formed bracket mounted on the said supporting means on the opposite side of said light, a bag detachably secured in said bracket, a rigid member supported within the bag to maintain the latter in alinement with the said light and the said fan and an insect trap secured to the said bag.

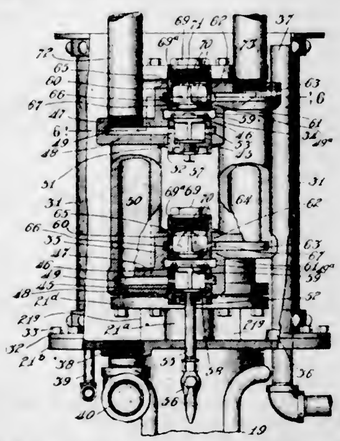
1,144,359. BRAKE. WILLIAM A. HUNTER, Mankato, Kans. Filed Nov. 20, 1912, Serial No. 732,480. Renewed Nov. 18, 1914. Serial No. 872,846. (Cl. 21—8.)



A brake for a wagon comprising a brake controlling lever detachably pivoted to the side of the wagon, a bracket secured to the wagon on each side of the brake lever, an elongated plate having depending integral arms removably engaged in said brackets, said plate having a longitudinally extending slot formed therein through which the brake lever projects, the inner side walls of the slots being formed with inwardly projecting teeth for engagement by the brake lever to hold the lever in adjusted position

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1,144,360. VALVE MECHANISM FOR GAS-COMPRESSORS. HENRY W. JACOBS and HOWARD H. LANNING, Topeka, Kans. Filed June 24, 1912. Serial No. 705,645. (Cl. 230—34.)



1. In a gas compressor, a cylinder provided with a port at each end thereof, the combination of valve-receiving housings arranged about said ports at opposite ends of the cylinder, said housings being provided with intake and discharge ports on opposite sides of the cylinder port with which they are adapted to communicate, valve cages removably secured in opposite ends of said housings, and valves reciprocatingly mounted in the inner or opposing ends of said cages.

2. In a gas compressor, a cylinder provided with a port at each end thereof, the combination of a housing formed integral with each end of the cylinder and coincident with said ports, said housings being each provided with an intake and outlet port arranged on opposite sides of the cylinder port and adapted to be alternately put into communication therewith, said housings being provided with openings extending therethrough, a set of valve cages removably secured in opposite ends of each of said openings in the housings, and a valve mounted in each of said cages whereby communication between the intake and discharge ports of the housings and the ports at opposite ends of the cylinder is controlled.

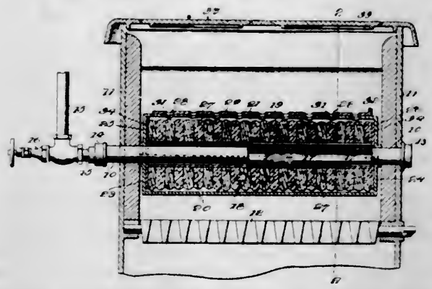
3. In a gas compressor, provided with a cylinder having ports at opposite ends thereof, the combination of housings secured to both ends of the cylinder and provided with intake and discharge ports arranged on opposite sides of the ports of the cylinder and adapted to alternately have communication with the ports at opposite ends of the cylinder, said housings being provided with openings extending therethrough, a valve cage removably secured in each end of the opening in said housings, said cages being provided with openings in the side walls adapted to register with the ports in said housings, and a valve mounted at the inner end of each cage whereby communication between the ports of the cylinder and the ports in the housings is controlled.

4. In a gas compressor, having a cylinder provided with ports at opposite ends thereof, the combination of housings formed integral with opposite ends of the cylinder and provided with intake and discharge ports adapted to be alternately put into communication with the ports of the cylinder, said housings being provided with passages extending therethrough, a valve cage removably secured in each end of said passages, said cages being provided with openings in the side walls adapted to register with the intake and discharge ports in said housings, respectively, a puppet valve mounted at the inner end of each of said cages, passages whereby communication between the intake ports and between the discharge ports in the housings at opposite ends of the cylinder is established, and intake and discharge conduits communicating with the intake and discharge ports respectively.

5. In a gas compressor, comprising a cylinder provided with ports at opposite ends of the cylinder, the combination of housings formed integral with the ends of the cylinder, said housings being provided with intake and outlet ports adapted to have communication with the ports of the cylinder and provided with openings extending longitudinally therethrough, a set of valve cages removably secured in opposite ends of said openings and arranged to provide an intermediate gas passage connected with the ports of the cylinder, the adjacently presented ends of said cages being provided with valve seats, valves mounted in said cages and adapted to take onto said seats, and means whereby the maximum movement of the valves is controlled.

[Claims 6 to 13 not printed in the Gazette.]

1,144,361. OIL-BURNER. DAVID JORDAN, Sweetwater, Tex. Filed Jan. 27, 1915. Serial No. 4,730. (Cl. 158—96.)



1. A burner including a feed tube for the fuel having discharge orifices, a body of porous refractory material, a casing inclosing said body and formed in a plurality of separable members, one of said casing members having discharge orifices spaced apart and disposed in alinement longitudinally of the casing, and a movable member engaging said orificed casing member and having vent orifices registering with the orifices of the casing member

when in one position and registering with the imperforate portion of the adjacent casing member when in another position.

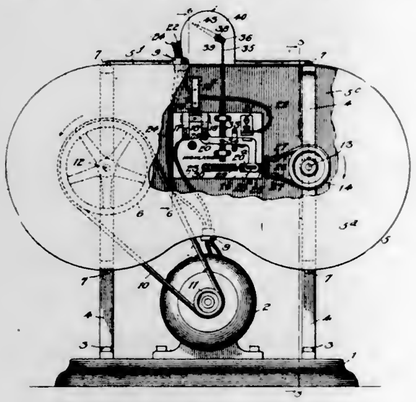
2. A burner including a feed tube for the fuel and having discharge orifices, an inner casing having a longitudinal opening and inclosing said feed tube, a body of porous refractory material inclosing said inner casing, and an outer casing inclosing said body and formed of a plurality of separable members, one of said outer casing members having discharge orifices.

3. A burner including a feed tube for the fuel and having discharge orifices, a body of porous refractory material, an outer casing inclosing said body and formed of a plurality of separable members, one of said outer casing members having discharge orifices, and a combined controlling and cut off member movable over said orificed outer casing member and having a plurality of discharge orifices registering with the orifices of the outer casing.

4. In a burner, a feed tube having discharge orifices, an outer casing in separable parts and having ends engaging the feed tube, bearing disks carried by the feed tube and engaging the outer casing ends, an inner casing having a longitudinal opening and inclosing said feed tube and bearing at the ends against said disks, and a body of porous refractory material surrounding the inner casing and bearing against the disks.

5. A burner including a feed tube for the fuel and having discharge orifices, an inner casing having a longitudinal opening and inclosing said feed tube, an outer casing formed of a plurality of separable members, one of the outer casing members having discharge orifices, and a member of porous refractory material in rope like form and wound around the inner casing member and spaced from the outer casing member.

1,144,362. FILM-WINDING APPARATUS. FREDRICK L. KEMPFF, Philadelphia, and HARRY W. SMITH, Harrisburg, Pa., assignors of three-eighths to Myron W. Pickens and three-eighths to Frank O. Horting, Harrisburg, Pa., and one-fourth to said Kempff. Filed Jan. 21, 1915. Serial No. 3,497. (Cl. 242—55.)



1. In an apparatus of the character indicated, the combination of an electric motor, a driving shaft actuated thereby and which is adapted to be provided with a film receiving reel, a driven shaft also adapted to be provided with a reel for the film, said driven shaft being driven by said driving shaft through the instrumentality of the film, brake mechanism operating on said driven shaft to thereby apply tension to the film passing from one reel to the other, and a circuit breaker adapted to be controlled by the brake mechanism of the driven shaft.

2. In an apparatus of the character indicated, the combination of an electric motor, a driving shaft actuated thereby and which is adapted to be provided with a film receiving reel, a driven shaft also adapted to be provided with a reel for the film, said driven shaft being driven by said driving shaft through the instrumentality of said film, a pulley rigidly mounted on said driven shaft, a brake band passing around said pulley, yielding means for causing said brake band to press against said pulley, and a circuit breaker which is adapted to be automatically opened by the brake mechanism of the driven shaft.

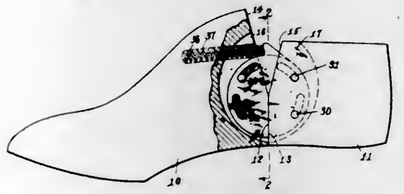
3. In an apparatus of the character indicated, the combination with an electric motor, of a shaft driven thereby which is adapted to be provided with a film receiving reel, a second shaft which is also adapted to be provided with a reel for the film and which is driven from said shaft first named through the instrumentality of the film, a pulley rigidly secured to said film-driven shaft, a circuit breaker in the motor circuit, and means actuated through the rotation of said pulley for maintaining said circuit breaker in circuit closing position.

4. In an apparatus of the character indicated, the combination with an electric motor, of a shaft driven thereby which is adapted to be provided with a film receiving reel, a second shaft which is also adapted to be provided with a reel for the film and which is driven from said shaft first named through the instrumentality of the film, a circuit breaker in the motor circuit, a pulley rigidly secured to said film-driven shaft, a brake band passing around said pulley, and yieldingly supported movable means connected to said brake band and to said circuit breaker.

5. In an apparatus of the character indicated, the combination with an electric motor, of a shaft driven thereby which is adapted to be provided with a film receiving reel, a second shaft which is also adapted to be provided with a reel for the film and which is driven from said shaft first named through the instrumentality of the film, a circuit breaker in the motor circuit, means actuated by said film-driven shaft for automatically actuating said circuit breaker, and means for manually actuating said circuit breaker.

[Claims 6 to 8 not printed in the Gazette.]

1,144,363. HINGED LAST. STEPHEN D. LAYMAN, Newark, N. J. Filed Dec. 21, 1914. Serial No. 878,206. (Cl. 12—136.)



1. In a last, heel and toe portions, a pair of rotative members set side by side therebetween, and a plurality of means for securing the same to the said heel and toe portions, one of the rotative members turning only on certain of the securing means, and the other rotative member turning only on other of the securing means, substantially as set forth.

2. In a last, heel and toe portions, a pair of disks set side by side therein, means for securing one of said disks rigidly and the other rotatively to one last portion and means for securing the first named disk rotatively and the other disk rigidly to the other last portion, substantially as set forth.

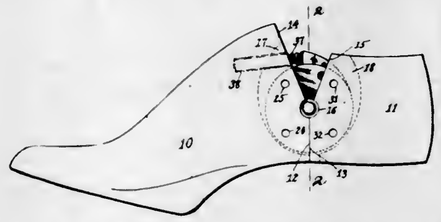
3. In a last, heel and toe portions having a longitudinally extending recess formed part in each thereof, a pair of disks in said recess, means for attaching one of said disks rigidly and the other rotatively to one of said last portions, and means for securing the first named disk rotatively and the other disk rigidly to the other last portion, substantially as set forth.

4. In a last, heel and toe portions having a longitudinally extending recess formed part in each thereof, a pair of disks in said recess, each of said disks being provided with holes and concentric slots, the holes in one being opposite the slots in the other, and pins in said last portions and extending through said holes and slots, substantially as set forth.

5. In a hinged last, heel and toe portions, a pair of disks set side by side therein and connected to the last portions to permit relative movement thereof, said disks being provided with registering openings, one of such openings being substantially elongated, a compression spring, and means of attachment for said spring passing through said openings and movable longitudinally in said elongated opening when said last portions are moved relative to one another, substantially as set forth.

[Claims 6 to 8 not printed in the Gazette.]

1,144,364. HINGED LAST. STEPHEN D. LAYMAN, Newark, N. J. Continuation of application Serial No. 878,206, filed Dec. 21, 1914. This application filed Jan. 18, 1915. Serial No. 2,823. (Cl. 12—136.)



1. In a last, heel and toe portions, a pair of disks set side by side therein, means for securing one of said disks rigidly to one of the last portions and rotatively to the other of said last portions, means for securing the other disk rigidly to the first named last portion and rotatively to the other of said last portions, and means for rotatively connecting the disks at substantially the centers thereof, substantially as set forth.

2. In a last, heel and toe portions having a longitudinally extending recess and an intersecting transversely extending recess, each of said recesses formed part in each of said last portions, a pair of disks in said longitudinally extending recess, means for attaching one of said disks rigidly and the other rotatively to one of said last portions, means for attaching the other of said disks rotatively to said first named last portion and rotatively to the other last portion, and means arranged within the transversely extending recess for rotatively securing the two said disks together, substantially as set forth.

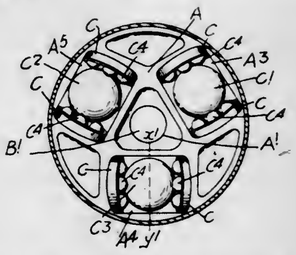
3. In a last, heel and toe portions having a longitudinally extending recess formed part in each thereof and a transverse recess also formed part in each thereof and intersecting the first named recess, a pair of disks in said longitudinal recess, each of said disks being provided with holes and concentric slots, the holes in one being opposite the slots in the other, pins in said last portions and extending through said holes and slots, and means received in said transversely extending recess for rotatively connecting the two disks together, substantially as set forth.

4. In a last, heel and toe portions having a longitudinally extending recess formed part in each thereof and a transversely extending bore intersecting said longitudinal recess and also formed part in each of said last portions, a pair of disks, each of said disks being provided with holes and, slots, the holes in one being opposite the slots in the other, pins in said last portions and extending through said holes and slots, said disks being each provided with an aperture at substantially its center, a pin extending through said aperture, and means on said pin on each side of said disks for holding said disks together and fitting substantially closely in said transverse bore, substantially as set forth.

5. In a last, heel and toe portions, a pair of disks set side by side therein, means for securing one of said disks rigidly and the other rotatively to one of said last portions, means for securing the other of said disks rotatively to the first named last portion and rigidly to the other last portion, and means extending transversely through the last and through said disks for rotatively connecting said disks together and for affording additional rigidity to the construction, substantially as set forth.

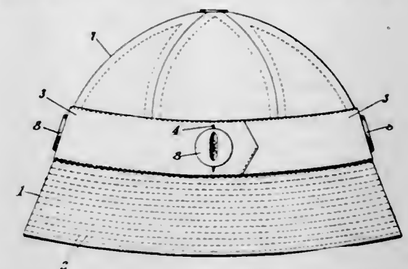
[Claim 6 not printed in the Gazette.]

1,144,365. CASTER. JOHN JACOB LEMBKE, Berlin, Ontario, Canada. Filed Dec. 28, 1914. Serial No. 879,321. (Cl. 16—151.)



In a ball caster, a main ball, a plurality of secondary balls forming bearings for said main ball, and two annular series of balls for each secondary ball forming lateral bearings therefor.

1,144,366. CAP. PHILLIP LEVINE, New York, N. Y. Filed Feb. 4, 1915. Serial No. 5,990. (Cl. 2—106.)



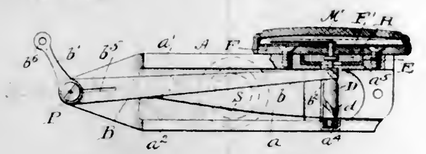
1. A cap formed with a brim part, an upwardly extending ribbon band connected to the upper end of the brim part, an upwardly extending sweat-band secured to the upper edge of the brim part and arranged on the inner side of the ribbon band, the cap ribbon and the sweat-band forming a deep annular channel, a crown part having its lower edge fitting in said annular channel and means for connecting the said lower edge of the crown part to the cap ribbon.

2. A cap formed with a brim part, an upwardly extending cap ribbon secured to the upper edge of said brim part and formed with buttonholes, an upwardly extending sweat-band connected to the upper edge of the brim part and lying on the inner side of the sweat-band and forming therewith a deep annular channel, a crown part having its lower edge fitted within the said channel said crown curving inwardly and upwardly from the upper edge of the cap ribbon, and buttons secured to the crown part and adapted to be passed outwardly through the buttonholes in the cap ribbon.

3. A cap comprising a brim part flaring outwardly and downwardly from its upper edge, an upwardly and inwardly extending cap ribbon secured to the upper edge of said brim part and formed with buttonholes, an upwardly and inwardly extending sweat-band secured to the upper edge of the brim part and arranged near the inner side of the cap ribbon and forming therewith a deep annular

channel, a dome-like crown part having its lower edge in the said annular channel, said crown part curving inwardly and upwardly from the upper edge of the cap ribbon, and buttons secured to the crown part near its lower edge and adapted to be passed outwardly through the buttonholes in the cap ribbon.

1,144,367. TEST-INDICATOR. HENRY A. LOWE, Cleveland, Ohio. Filed June 25, 1914. Serial No. 847,189. (Cl. 33—172.)



1. In a test indicator, the combination of a body plate having a recess in one face, and having on its opposite face a projecting threaded boss for connecting it with a suitable support, a removable cover plate for closing the front side of said recess, a spindle mounted on the body plate and lying partly within said recess and being provided with a spiral groove, a lever pivoted to said body plate and having one short arm which projects beyond the body plate and is adapted for contact with a surface to be tested and having a long arm which projects into said recess and is provided with a projection which engages in said spiral groove, a spring exerting its force to turn the spindle backward, and a dial and pointer secured the one to said body plate and the other to said spindle.

2. In a test indicator, the combination of a body plate, a spindle mounted thereon and provided with a spiral groove, a dial and pointer secured the one to said body plate, and the other to said spindle, a lever pivoted to said body plate,—said lever having two arms, which are adjustably connected, one adapted for contact with a surface to be tested, and the other provided with a projection which engages in said spiral groove, a light spiral spring acting on the spindle to turn it backward, and a second spring acting upon the lever to swing it backward.

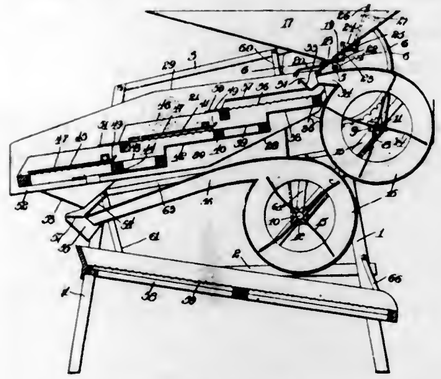
3. In a test indicator, the combination of a body plate, a spindle mounted thereon and provided with a spiral groove, a dial and pointer secured the one to said body plate and the other to said spindle, a lever pivoted to said body plate,—said lever having two arms, one adapted for contact with the surface to be tested and one having a projection which engages in said spiral groove, a spring barrel through which said spindle passes, a light spiral spring in said spring barrel secured at one end thereto and at its other end to said spindle,—said body plate having a recess in which said spring barrel is adjustably secured.

4. In a test indicator, the combination of a body plate, a spindle mounted thereon and provided with a spiral groove, a dial and pointer secured the one to said body plate and the other to said spindle, a lever pivoted to said body plate,—said lever having two arms one adapted for contact with a surface to be tested, and one having a projection which engages in said spiral groove, a spring barrel through which said spindle passes, a light spiral spring in said spring barrel secured at one end thereto and at its other end to the spindle, said body plate having a recess in which the spring barrel fits with sufficient friction to prevent its turning therein.

5. In a test indicator, the combination of a body plate, a spindle mounted thereon and provided with a spiral groove, a lever pivoted to said body plate, said lever having two arms, one adapted for contact with a surface to be tested, and the other arm having a projection which engages in said spiral groove, a spring barrel through which said spindle passes, a light spiral spring in said spring barrel secured at one end thereto and at its other end to the spindle, said body plate having a recess in which the spring barrel fits with sufficient friction to prevent its turning therein, a dial plate fixed to said body plate and extended over said spring barrel, and a pointer secured to the end of said spindle over said dial.

[Claims 6 and 7 not printed in the Gazette.]

1,144,368. FANNING-MILL. DEDRICK A. MAANUM, Benson, Minn. Filed Feb. 7, 1913. Serial No. 746,845. (Cl. 130—15.)



1. In combination, a frame, a hopper supported thereon, a shoe reciprocally mounted in the frame, a screen gang therein, a valve member carried by and movable with the shoe for regulating the discharge of grain from the hopper and means for receiving the grain from the valve and spreading the same.

2. In combination, a frame, a hopper supported thereon, a shoe reciprocally mounted in the frame, a screen gang therein, a valve member carried by and movable with the shoe for regulating the discharge of grain from the hopper, means regulating the position of the valve relative to the hopper and means for receiving the grain from the valve and spreading the same.

3. In combination, a frame, a hopper supported thereon, a shoe reciprocally mounted in the frame, a screen gang therein, a valve member carried by and movable with the shoe for regulating the discharge of grain from the hopper, means carried by the hopper for regulating the position of the valve with relation to the hopper, and means for receiving the grain from the valve and spreading the same.

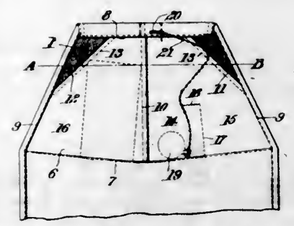
4. In combination, a frame, a hopper supported thereon, a shoe reciprocally mounted in the frame, a screen gang therein, a valve member pivoted to the shoe and movable therewith for regulating the discharge from the hopper, said valve adapted to conduct the material from the hopper to the screen gang, means for regulating the position of the valve with relation to the hopper and means for receiving the grain from the valve and spreading the same.

5. In combination, a frame, a hopper supported thereon, a shoe reciprocally mounted in the frame, a screen gang therein, a valve member pivoted to the shoe and movable therewith for regulating the discharge from the hopper, said valve adapted to conduct the material from the hopper to the screen gang and means including a blower adapted to spread the grain onto the screen gang.

[Claims 6 and 7 not printed in the Gazette.]

1,144,369. BIB FOR OVERALLS. WILLIAM J. MATTHEWS, Newburgh, N. Y. Filed Sept. 8, 1914. Serial No. 860,592. (Cl. 2—15.)

1. A bib for overalls, having a lining secured thereto near the top and bottom edges and along the sides, and also along a central vertical line from top to bottom to form a plurality of inside pockets, and left unattached at the upper corners to form openings into said pockets, one of said pockets subdivided into a plurality of compartments.



2. A bib for overalls, having a lining secured thereto at the top and bottom edges, its side, and along a central vertical line of the bib from top to bottom to form a pocket between said bib and lining, a line of stitching extending upwardly from the bottom edge between the side and central vertical line of attachment and connecting said bib and lining to form two compartments in said pocket, said lining having its upper corner cut away and left unattached to afford an opening at the rear of the bib into both compartments of said pocket.

3. A bib for overalls, having a lining secured thereto at the top and bottom edges, its side, and along a central vertical line of the bib from top to bottom to form a pocket between said bib and lining, a longitudinal line of stitching extending upwardly from the bottom edge between the side and central vertical line of attachment and connecting the bib and lining to form inner and outer compartments in said pocket, and a transverse line of stitching extending from said longitudinal line of stitching toward the central vertical line of attachment and connecting the bib and lining to form a safety watch receiving portion in the inner one of said compartments, said lining having its upper corner cut away and left unattached to afford an opening at the rear of the bib into both compartments of said pocket.

4. A bib for overalls, having a front of suitable material, and a lining applied to said front and lines of stitches by which the lining and front are united, and pockets formed by and between the front and the lining, one of said pockets being subdivided longitudinally and transversely into a safety watch pocket and a safeguard pocket.

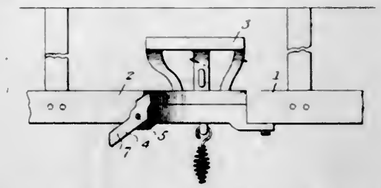
5. A bib for overalls, having a lining secured thereto near its top and bottom edges, its sides, and along a central vertical line from top to bottom to form a plurality of inside pockets, and left unattached at the upper corners to form openings into said pockets, one of said pockets subdivided into a plurality of compartments, and one of said openings being common to all of the compartments of the subdivided pocket.

1,144,370. FURROW-GAGE FOR PLOWS. EDWARD MAURER, Freeland, Mich. Filed Mar. 9, 1915. Serial No. 13,095. (Cl. 97—14.)



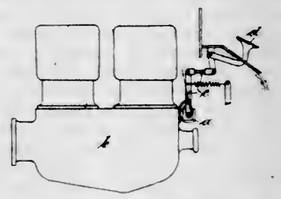
The combination with a plow, a horizontally disposed bar fixed to the forward part of the plow beam and projecting laterally therefrom, of a sleeve slidingly mounted on said bar, a second vertically disposed sleeve formed integral with said first-mentioned sleeve, a vertical rod slidably mounted in said vertical sleeve, means carried by said sleeve and secured to said rod to raise and lower said rod, a gage wheel carried by the lower end of said rod, an operating lever located within reach of the driver, and means connecting said operating lever and said horizontally disposed sleeve adapted to move said sleeve along said bar to effect lateral adjustment of said wheel toward and from the beam of the plow, for the purposes set forth.

1,144,371. SAFETY ATTACHMENT FOR TROLLEY-RAIL SWITCHES. LEWIS J. MILLER, Bergen, N. Y., assignor of one-fourth to George M. Neal, Bergen, N. Y. Filed Nov. 7, 1914. Serial No. 870,865. (Cl. 104—180.)



In combination with a pair of fixed rails and a switch rail, of a safety device therefor comprising a casting pivotally connected to one of said fixed rails and adapted to support one end of said switch when in an operative position, said casting being U-shaped in cross section so as to contact with the sides of one of said fixed rails for preventing lateral movement of the casting and to limit the vertical movement of the latter.

1,144,372. RETARDING MECHANISM FOR MOTOR-VEHICLES. ERNST MOEWES, Marienfelde, near Berlin, Germany, assignor to the Firm of Daimler-Motoren-Gesellschaft, Unterturkheim, Germany. Filed Sept. 30, 1913. Serial No. 792,625. (Cl. 123—97.)



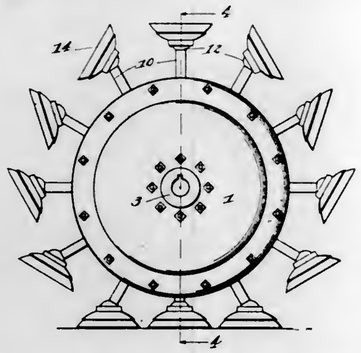
1. In combination with the engine of a motor vehicle having admission and exhaust valves, comprising means for holding the exhaust valve closed means for opening the admission valve when the piston is near the end of its instroke and during the outstroke of the piston and for closing the admission valve when the piston is near the end of its outstroke and during its instroke and means for admitting air to the engine cylinder through said admission valve.

2. In combination with the engine of a motor vehicle having admission and exhaust valves controlled by cams on an axially movable cam shaft, and exhaust cam on said shaft adapted in one position of said shaft to actuate said exhaust valve and to be out of engagement with said exhaust valve when said shaft is axially moved, an admission cam on said shaft of such width as to actuate the admission valve in either position of said shaft, one half of said cam being so shaped as, when said shaft is axially moved, to open the admission valve when the piston is near the end of its instroke and during the outstroke of the piston and to close the admission valve when the piston is near the end of its outstroke and during its instroke and means for admitting air to the engine cylinder through said admission valve.

1,144,373. TRACTION-WHEEL. SAMUEL STEPHEN MORTON, Harrisburg, Pa. Filed June 29, 1914. Serial No. 848,014. (Cl. 21—152.)

1. A traction wheel comprising a casing having a plurality of radially extending spoke sockets reduced at their

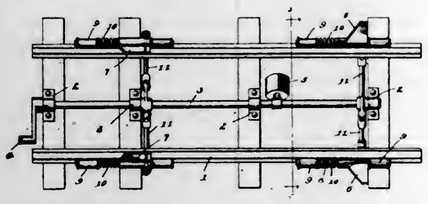
outer ends, with shoulder formed at the inner ends of said reduced portions, spokes slidably mounted in said sockets and provided on their inner ends with enlargements operating in the larger portions of the sockets, tread elements mounted on the free ends of said spokes and having a universal joint connection therewith, and load distributing frictional engaging elements mounted in said casing at the inner end of said spokes, and partially filling said casing.



2. A traction wheel comprising a casing, having a central hub, a chamber surrounding said hub, radially extending spoke sockets communicating with said chamber, spokes slidably mounted in said sockets, means for limiting the outward movement of said spokes, load distributing rollers disposed in said chamber and adapted to extend into said sockets and filling about eleven twelfths of said casing, and tread elements engaged with the free ends of said spokes by ball and socket joints.

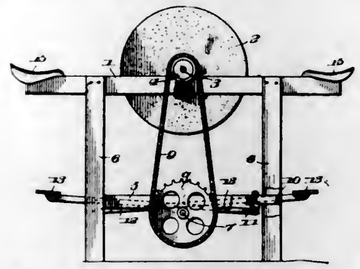
3. A traction wheel comprising a casing composed of two disk like plates having registering central hub portions, an annular partition within said casing surrounding said hub portion, a plurality of radially extending socket members formed in each of said plates, those in one plate adapted to register with those in the other when the parts are assembled to form spoke sockets, spokes slidably mounted in said sockets, coöperating means on said spokes and the inside walls of said sockets for limiting the outward movement of the spokes and inverted cup shaped tread elements mounted on the free ends of each of said spokes and having a ball and socket connection therewith.

1,144,374. AUTOMATIC CAR-CAGER. JAMES A. NOLAN, Bowerston, Ohio. Filed Nov. 28, 1914. Serial No. 874,519. (Cl. 104—223.)



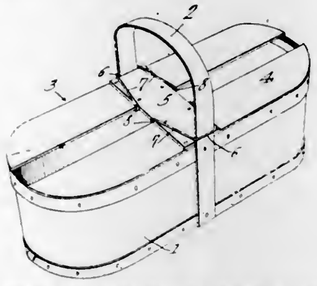
A cager including a section of track rails, said rails having their entrant ends and the greater portion of their lengths arranged at a grade corresponding to the grade of the main length of track, the remaining portion of the length of said rails including the exit ends thereof having a greater grade in the same direction as the remaining lengths of the rails, and holding means coöperating with the rails to engage and retain the car in position, one of said holding means arresting the car in a position to have one set of wheels thereof at rest upon that portion of the greater grade, whereby the position of the car body will be such that in the release of the holding means the car will start more readily and with greater speed than in the normal grade of the track.

1,144,375. FOOT-LEVER FOR GRINDSTONES. HANS OLSTAD, Elsworth, N. D. Filed Dec. 27, 1912. Serial No. 738,874. (Cl. 74—83.)



A motive power for grindstones including a drive wheel having a crank portion, a frame supporting said wheel, pivot blocks arranged at the opposite ends of the frame and capable of a limited, pivotal, longitudinal movement, levers pivotally connected to the respective pivot blocks and extending therefrom toward each other and connected to the crank, the free ends of the levers being formed to provide treadle portions.

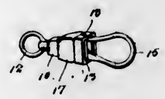
1,144,376. BASKET-COVER FASTENER. ELBERT E. PAISLEY, Portville, N. Y. Filed Nov. 2, 1914. Serial No. 869,881. (Cl. 217—124.)



1. A basket having an arched handle, a cover for the basket having longitudinal slats, and doubled wire fasteners extending around the upright portions of the handle and having inwardly extending arms provided with terminal hooks engaging over the inner edges of the cover slats.

2. A basket having an arched handle, a cover for the basket embodying a pair of longitudinal slats and a central cross piece secured thereon within the handle, and a pair of wire fasteners doubled to engage around the upright portions of the handle and to provide inwardly diverging arms having terminal hooks engaging over the inner edges of the slats at the side edges of the cross piece.

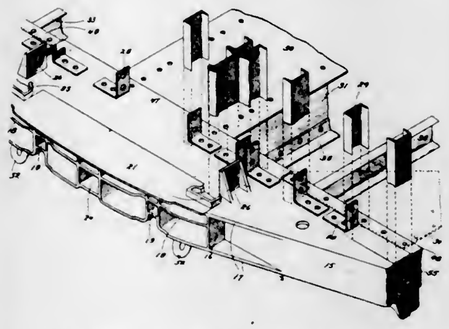
1,144,377. SAFETY-HOOK. LEON D. PEARCE, Phelps, N. Y. Filed May 22, 1914. Serial No. 840,258. (Cl. 24—240.)



1. A device of the class described, a body portion bifurcated at one end to provide a pair of spaced members each having formed in the side edge thereof a U-shaped slot, a member pivotally mounted between the spaced members, a T-shaped head formed on the free end of said member and adapted to be seated in the U-shaped slots upon the swinging of said member to a closed position, a projection on said head, and an apertured member slidably mounted on said body portion and adapted for movement over said slots, whereby its aperture will receive the projection of said head for locking the pivotally mounted member.

2. In a device of the character described, the combination with a body bifurcated at one end to provide a pair of members each having formed in the side edge thereof a U-shaped slot, of a spring like hook member pivotally mounted between said spaced members, a T-shaped head on the free end of the hook member and adapted to enter the U-shaped slots, a projection on said head, and an apertured member slidably mounted upon the body and adapted to be moved over the said head and slots, whereby the projection of the head will enter the aperture of said slidably mounted member and secure the hook member against movement thereon.

1,144,378. CAR-FRAMEWORK. EDWARD POSSON, Chicago, Ill. Filed Mar. 1, 1909. Serial No. 480,679. (Cl. 105—76.)



1. A car frame comprising a hollow cast steel end sill rectangular in cross section and having its upper horizontal wall projecting inwardly beyond its inner vertical wall, side sills having their ends attached to the ends of the end sill, diagonal gusset plates attached to the projecting portion of said horizontal wall of the end sill and to said side sills, and lugs on said center sill lying wholly beneath said projecting portion of the horizontal wall.

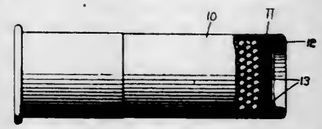
2. A car frame comprising a hollow cast steel end sill, the top thereof being extended rearwardly, in combination with a center sill comprising a horizontal top plate with its end projecting under said rearward top plate of the end sill and riveted thereto.

3. A car frame comprising a cast steel end sill with the rearwardly overhanging projection 47, and the rearward lug 46 lying wholly beneath said overhanging projection in combination with a center sill having the forward projection 39 extending beneath said end sill.

4. A car frame comprising a cast steel end sill having an inwardly overhanging projection, a center sill having its end beneath said projection and secured to said end sill, a side sill secured to the end of said end sill, a horizontal plate overlying and secured to said center sill and to said overhanging projection, and a horizontal gusset plate secured to said side sill and to said projection.

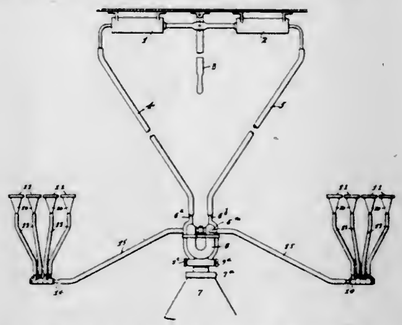
5. A car framework, a hollow cast steel end sill of rectangular cross section having its upper wall projecting inwardly beyond the body of said end sill, said end sill having a transverse web on its end to receive the end of a side sill, a side sill having its end secured to said web, a diagonal gusset plate across the side sill and end sill and attached to the projecting portion of said wall and to the top of said side sill, and a center sill secured to said projection and projecting forwardly beneath the body of said end sill.

1,144,379. WATERPROOF SHOT-CARTRIDGE. HENRY C. PRITHAM, Bridgeport, Conn., assignor to Union Metallic Cartridge Company, Bridgeport, Conn., a Corporation of Connecticut. Filed Mar. 3, 1915. Serial No. 11,838. (Cl. 102—15.)



A shot cartridge comprising a paper shell and a top wad retained in place by crimping the end of the shell thereupon, the wad being covered and the crevice between the wad and the crimp being filled and covered by a suitable transparent waterproof material through which printing on the wad may be read and which prevents moisture from passing under the crimp and around the edge of the wad.

1,144,380. COW-MILKING MACHINE. ALBERT VICTOR RACKSTRAW, Bedford, Ohio, assignor, by mesne assignments, to The Mechanical Development Company. Filed July 9, 1914. Serial No. 849,877. (Cl. 31—98.)

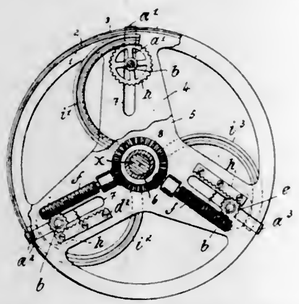


1. In an apparatus for the purpose described, the combination of an air-pump; a milk receptacle; an operating member adapted to be connected with the milk receptacle; connecting means between said operating member and the air-pump, the operating member comprising a casing provided with a port opening into said connecting means, a chamber, a valve barrel, an opening from the port into the chamber, an opening from the port into the valve barrel, an opening from the chamber into the valve barrel, an opening from the valve barrel into the milk receptacle, and a valve in the barrel for closing and opening the openings in said barrel; a series of teat cups; and connections between said teat cups and the chamber in the operating member.

2. In an apparatus for the purpose described, the combination of a double acting air-pump; a milk receptacle; an operating member adapted to be connected with the milk receptacle; connecting means between said operating member and the two cylinders of the air-pump for creating alternate suction and compression in the operating member, said operating member comprising a casing provided with ports opening into said connecting means, two chambers, a valve barrel, openings from the ports into the chambers, openings from the ports into the valve barrel, openings from the chambers into the valve barrel, an opening from the valve barrel into the milk receptacle, and a valve in the barrel for closing and opening the openings in said barrel; a series of teat cups; and connections between said teat cups and the chambers in the operating member.

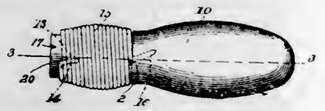
3. In apparatus for the purpose described, the combination of an air-pump; a milk receptacle; a suction member adapted to be connected with the milk receptacle; connecting means between said suction member and the air-pump; a series of teat cups; a manifold member; connecting means between said teat cups and the manifold member, said manifold member comprising a tubular core having a series of collars mounted thereon, said collars being provided with nipples, ports in the core arranged to register with the openings in the nipples, and the collars being revoluble on the core, whereby said ports may be closed; and connecting means between the manifold and the suction member.

1,144,381. EXPANSIBLE PULLEY. WILHELM REIMERS, Kiel, Germany. Filed Feb. 18, 1914. Serial No. 819,429. (Cl. 64—8.)



In an expansible pulley of the character described, the combination of an expansible rim, consisting of spring-strips, members to which the outer ends of said strips are secured, side walls for the pulley provided with slots for guiding said members, a hub to which said side walls are secured, shafts journaled in said members, spur-wheels at the ends of said shafts, racks secured to both of said side walls intermeshing with said spur-wheels, a worm gear keyed to each of said shafts, worm-shafts journaled in one of said side walls, means for rotating said worm shafts in both directions for drawing the ends of the strips into the slots of said side walls, segments moving in guides formed upon said members to which the inner ends of said strips are secured, provided at their concave faces with teeth, and gears on the shafts journaled in said members, meshing with said teeth, substantially as described and for the purpose set forth.

1,144,382. HANDLE-FERRULE. EDWARD J. RENKENBERGER, Chicago, Ill., assignor to American Tool Handle Company, Buffalo, N. Y. Filed Jan. 4, 1911. Serial No. 600,847. (Cl. 145—61.)



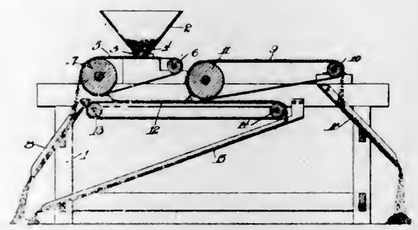
1. A tool handle having a tang-receiving socket in one end thereof and provided in its peripheral surface adjacent said end with a longitudinal recess and a cavity at the inner end of said recess, the handle being formed with a circumscribing shoulder and with a socket at the shoulder and extending inwardly therefrom at an acute angle to the plane of the shoulder and at an acute angle to the axis of the handle, and a ferrule consisting of a single length of wire having one end portion seated in said longitudinal recess and its extremity embedded in the cavity at the inner end of said recess, the wire being bent at an abrupt angle to said end portion and then wrapped closely around the handle and over said end portion, the opposite end portion of the wire being driven into the socket opening at the said shoulder.

2. A tool handle having a tang-receving socket in one end thereof and provided in its peripheral surface adjacent said end with a longitudinal recess and a cavity at the inner end of said recess, the handle being formed with a circumscribing shoulder and with a socket at the shoulder and extending inwardly therefrom at an acute angle to the plane of the shoulder and at an acute angle to the axis of the handle, and a ferrule consisting of a single length of wire having one end portion seated in said longitudinal recess and its extremity embedded in the cavity at the inner end of said recess, the wire being bent at an abrupt angle to said end portion and then wrapped closely around the handle and over said end portion, the opposite end portion of the wire being driven into the socket opening at the said shoulder, and means adjacent the opposite end portion of the wire to secure the adjacent coils thereof together and retain the said end portions in their embedded relation to the handle.

3. A tool handle having a tang-receiving socket in one end and having radial notches formed in said end, and a ferrule consisting of a single length of wire coiled closely around the end of the handle and having its opposite ends embedded in the handle, the radial plane of the handle in which the ends are embedded lying between the radial planes of adjacent notches.

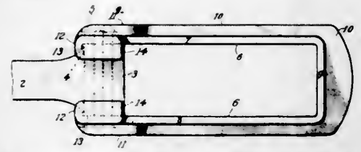
4. A tool handle having a tang-receiving socket in one end thereof and formed with a circumscribing shoulder back from the tang-receiving end, and a wire ferrule consisting if a wire strand wrapped tightly around the handle, the opposite ends of the wire strand being embedded in the handle and intermediate coils being unattached from one another, and the end portion of the wire next to the tang-receiving end of the handle being bent at an abrupt angle and wrapped around the handle and over the portion embedded in the handle, the two end coils at such end coacting one to bind the embedded portion and the other to serve as an abutment for the adjacent coil, and the shoulder to the handle serving as an abutment for another portion of the ferrule.

1,144,383. MAGNETIC SEPARATING APPARATUS. EDWARD H. ROTHERT, Leavenworth, Wash. Filed Feb. 1, 1913. Serial No. 745,657. (Cl. 83—71.)



A magnetic separator comprising a pair of primary and secondary separator belts arranged in the same horizontal plane, each of said belts having upper horizontal stretches movable in opposite directions from their relatively inner ends and lower stretches inclined in opposite directions from the relatively outer to the relatively inner ends of the belts, guide pulleys around which the inner end of the primary separator belt and the outer end of the secondary separator belt pass, rotating magnets of larger diameter than said guide pulleys and forming pulleys around which the outer descending end of the primary belt and the inner ascending end of the secondary belt pass, a hopper arranged to feed material to the upper stretch of the first-named belt, a conveyer arranged beneath said primary and secondary separator belt and having a horizontal stretch movable in the same direction as the horizontal stretch of the secondary belt and adapted to receive and convey the magnetic particles dropping from the primary belt to carry the same into the magnetic zone of the secondary belt and the associated rotating magnet, chutes leading from the outer ends of the respective separator belts, and a chute leading from the delivery end of the conveyer belt.

1,144,384. COUPLING-SHANK AND YOKE CONNECTION. ERNEST H. SCHMIDT, Cleveland, Ohio, assignor to The National Malleable Castings Company, Cleveland, Ohio. Filed Oct. 1, 1913. Serial No. 792,770. (Cl. 213—42.)



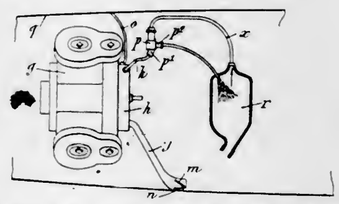
1. A draft rigging yoke having two forwardly extending arms, integral side plates at the forward end of each arm extending inwardly toward the opposite yoke arm, a coupler butt adapted to be inserted from the rear and to be drawn forwardly between said side plates and to be partially inclosed thereby, and rivets for securing the coupler to the yoke, the said plates being adapted to bear against the sides of the coupler butt and to relieve the rivets from shearing stress.

2. A draft rigging yoke having two forwardly extending arms, an external reinforcing flange about the said yoke terminating at the forward portion of each of said arms in a bifurcated reinforcement, seats for a coupler butt on the inner face of each of said arms, stop shoulders and bearing plates extending about the front and sides of said seats, and means for securing the arms and the coupler butt together.

3. A draft rigging yoke having at its forward ends integral inwardly extending side plates, a coupler butt seated between and partially inclosed by said side plates and secured to said yoke, the said side plates having vertical outer faces which converge toward the rear of the coupler butt.

4. A draft rigging yoke consisting of a single-piece casting having two forwardly-extending arms, a seat for a coupler butt upon the inner horizontal face of each arm, and vertically-projecting flanges integral with each arm extending about the front and sides respectively of each seat, the front flanges being adapted to hold the coupler against forward motion with respect to the yoke, and the side flanges being adapted to take up side strains between the yoke and the coupler.

1,144,385. DEVICE FOR THE INJECTION OF WATER AT HIGH PRESSURE INTO THE AIR-REHEATERS OF TORPEDO-ENGINES. EUGÈNE SCHNEIDER, Le Creuzot, France. Filed Mar. 28, 1914. Serial No. 828,027. (Cl. 60—3.)



1. A device for the injection of water under pressure into air reheaters of torpedo engines, consisting of a pump driven by the engine and having a suction chamber and a delivery chamber, a water supply conduit opening toward the front part of the torpedo hull and delivering into said suction chamber, a reheater having a conduit connection with said delivery chamber, and a valve in said conduit controlled by pressure in said reheater.

2. In a device for the injection of water under pressure into air reheaters of torpedo engines, the combination of a pump driven by the engine and having a suction chamber provided with a combined priming and air exhausting conduit, said conduit adapted to open through the torpedo hull with air inclination toward the rear thereof, and a valve controlled suction pipe opening toward the front of said hull and connected to said suction chamber.

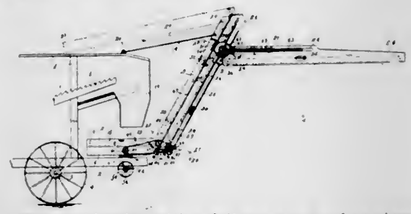
3. In a device for the injection of water under pressure into air reheaters of torpedo engines, the combination of a pump driven by the engine and having a suction chamber provided with a combined priming and air exhausting conduit, said conduit adapted to open through the torpedo hull with air inclination toward the rear thereof, a valve controlled suction pipe opening toward the front of said hull and connected to said suction chamber, a reheater having a conduit connection with said delivery chamber, and a valve in said conduit controlled by pressure in said reheater.

4. In a device of the character described, the combination of a pump, an air reheater having a valve controlled connection with the delivery chamber of said pump, said valve comprising a casing provided with inlet and outlet orifices and having pressure relief openings, a spring pressed valve in said casing for controlling said inlet and outlet orifices and normally closing said relief openings and adapted to uncover said openings when the pressure in said reheater falls below a predetermined amount.

5. In a device for the injection of water at high pressures into gas reheaters of torpedo engines, the combination of a reheater, a pump having a delivery conduit connected to said reheater, a regulating valve associated with said conduit and responsive to reheater pressures for governing the flow of fluid to said reheater, an intake conduit for said pump having a foot valve adapted to open in the bottom of the torpedo hull, and a combined priming and air exhausting conduit opening in the top of said torpedo hull and connected to said pump.

[Claims 6 to 9 not printed in the Gazette.]

1,144,386. STRAW-STACKER. HENRY F. SCHRODER, Windham, Mont. Filed Sept. 8, 1914. Serial No. 860,553. (Cl. 193—16.)



1. The combination with a delivery apron, of an elevator having a substantially horizontal delivery end portion overlapping the receiving end portion of said delivery apron and mounted for vertical adjustment therewith, and means for driving said apron and elevator.

2. The combination with a delivery apron, of upper and lower opposing aprons constituting an elevator, said lower apron having a substantially horizontal delivery end portion, overlapping the receiving portion of said delivery apron and mounted for vertical adjustment therewith, and means for driving said aprons.

3. The combination with an elevator frame of a vertically adjustable delivery frame, mounted on said elevator frame, a delivery apron mounted on said delivery frame, an elevator apron having its delivery end overlapping the receiving end of said delivery apron, upper and lower rollers over which said elevator apron runs, said upper roller being journaled in bearings mounted for adjustment toward and from said elevator frame, said lower roller being journaled on said elevator frame, and means for driving said aprons.

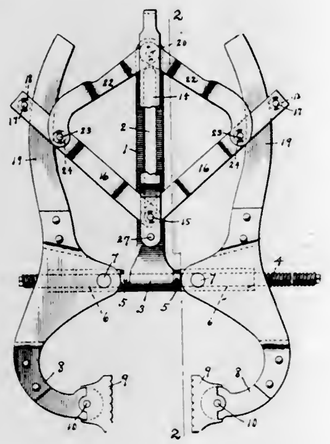
4. The combination with an elevator frame of a vertically adjustable delivery frame, mounted on said elevator frame, a delivery apron mounted on said delivery frame,

an elevator apron having its delivery end overlapping the receiving end of said delivery apron, upper and lower rollers over which said elevator apron runs, said upper roller being journaled in bearings mounted for adjustment toward and from said elevator frame, said lower roller being journaled on said elevator frame, an intermediate guide roller for said elevator apron, and means for driving said aprons.

5. The combination with an elevator frame of a vertically adjustable, substantially horizontal delivery frame mounted on said elevator frame, a platform apron, a delivery apron mounted on said delivery platform, an elevator apron arranged to receive from said platform apron and having its delivery end portion overlapping the receiving end portion of said delivery apron, upper and lower rollers over which said elevator apron runs, said upper roller being journaled in bearings mounted for adjustment toward and from said elevator frame, intermediate guide rollers for said elevator apron, and means for driving said aprons.

[Claims 6 to 8 not printed in the Gazette.]

1,144,387. GRAPPLE. HARRY E. SKELTON, Detroit, Mich. Filed Mar. 10, 1915. Serial No. 13,317. (Cl. 57—9.)



1. An improved grapple consisting of a central member having a pin at its upper end, a double ended screw mounted in its lower end, a nut on each end of the screw, a gripping lever pivoted between its ends on each nut, a yoke movable longitudinally of the central member and having a pin at its lower end, and two pairs of connected toggle links, the links of each pair connecting at a point of engagement with the adjacent gripping lever, the inner end of one link of each pair being pivoted on the pin carried by the lower end of the yoke and the inner end of the other link of each pair being pivoted on the pin carried by the upper end of the central member.

2. An improved grapple consisting of a central frame, a pair of gripping levers, an adjustable pivot for each of the levers mounted on the frame, and a pair of toggles slidably mounted on and guided by the frame for forcing the lower arms of the gripping levers toward each other, and means to actuate the toggles and lift the grapple.

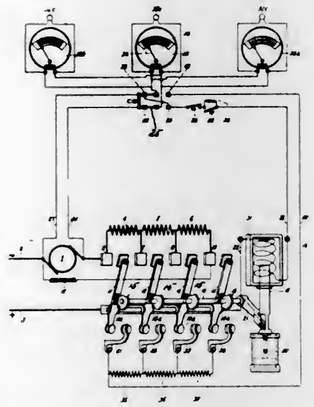
3. An improved grapple consisting of a central frame, a pair of gripping levers, adjustable pivots for the levers mounted on the frame, and a pair of toggles slidably mounted on and guided by the frame for forcing the lower arms of the gripping levers toward each other, means to actuate the toggles and lift the grapple, and means for holding the gripping levers so that their lower arms are immovable relative to each other.

4. An improved grapple consisting of a central frame, a pair of gripping levers, adjustable pivots for the levers mounted on the frame, and a pair of toggles slidably mounted on and guided by the frame for forcing the lower arms of the gripping levers toward each other, and a yoke pivotally connected to said toggles and slidable on the central frame by means of which the levers are actuated and the grapple is lifted.

5. An improved grapple consisting of a central frame, a pair of gripping levers, adjustable pivots for the levers mounted on the frame, and a pair of toggles slidably mounted on and guided by the frame for forcing the lower arms of the gripping levers toward each other, and a yoke pivotally connected to said toggles and slidable on the central frame, and means to lock the yoke to said central frame.

[Claim 6 not printed in the Gazette.]

1,144,388. MOTOR CONTROLLER AND INDICATOR. FRANK W. SMITH, Westfield, N. J., assignor to Sundh Electric Company, New York, N. Y., a Corporation of New York. Filed Oct. 24, 1913. Serial No. 797,014. (Cl. 177—337.)



1. A motor, a series of resistance units in the motor circuit, an electrically operated indicator, a series of resistance units in the indicator circuit equal in number to the resistance units in the motor circuit, and means for changing the resistance units in the motor circuit and in the indicator circuit.

2. A motor, a series of resistance units in the motor circuit, an electrically operated indicator, a single circuit for said indicator, means for varying the resistance units in the motor circuit and a means operated through the motor-circuit-controlling means to indicate on what resistance step the motor is operating.

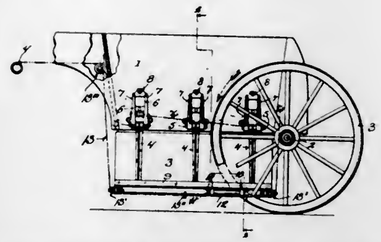
3. A motor, a series of resistance units in the motor circuit, a plurality of indicators in a single electric circuit, means for varying the resistance units in the motor circuit and means operated through the motor-circuit-controlling means to simultaneously operate all of the indicators to show on what resistance step the motor is operating.

4. A motor, a series of resistance units in the motor circuit, an electrically operated indicator, means for cutting the resistance units from the motor circuit, means operated through the motor-circuit-controlling means to indicate on what resistance step the motor is operating and means for connecting the motor to the indicator whereby the counter electromotive force will operate said indicator, and a suitable dial or index with speed indications marked thereon.

5. A motor, a series of resistance units in the motor circuit, an electrically operated indicator, a series of resistance units in the indicator circuit equal in number to the resistance units in the motor circuit and means for cutting the resistance step by step from the motor circuit, said means simultaneously cutting out the corresponding resistance units from the indicator circuit.

[Claims 6 to 23 not printed in the Gazette.]

1,144,389. BOTTOM DOOR FOR DUMP-WAGONS. CHARLES G. STREICH, Oshkosh, Wis. Filed Oct. 2, 1914. Serial No. 864,553. (Cl. 21—20.)



1. The combination with a dump wagon having a body, wheels and a drop-door bottom, a hinge connection between the body and door comprising a pair of vertically disposed spaced rail members each provided with a longitudinally disposed slot, the side walls of the rails being tapered, and a pair of spaced pintle members carried by the door engageable with the rail slots.

2. The combination with a dump wagon having a body, wheels and a drop door bottom, a hinge connection between the body and door comprising a pair of upwardly tapered vertically disposed spaced rail members each provided with a longitudinally disposed slot, the base of the slots being curvilinear to form pintle sockets, straps extending from the door, a pair of spaced rounded pintle members loosely mounted in the straps engageable with the rail slots, the pintle members being of a diameter approximately equal to the width of said slots whereby side play between the hinge members is eliminated.

3. The combination with a dump wagon having a body, wheels and a drop door bottom, a hinge connection between the body and door comprising a pair of vertically disposed bracket members fitted to the outer walls of the wagon body, the bracket members each comprising a pair of vertically disposed projecting rails the companion sides of which are tapered upwardly from a base-line, the said rails being longitudinally slotted upon a common plane, and hinge members secured to the door having a knuckle interposed between each pair of bracket rails, and a pintle extending from each knuckle engageable with the companion rail slots, the pintles being of a length equal to the distance between the outside faces of the companion rails at their base portions.

1,144,390. ELECTRIC WELDING AND FUSION DEPOSITION OF METALS. ARTHUR PERCY STROHMENGER, Westminster, London, England, assignor to Slaughter & Company, Limited, London, England, a Corporation of Great Britain and Ireland. Filed Dec. 23, 1914. Serial No. 878,808. (Cl. 219—8.)

1. An electrode for use in a process of electric welding or fusion-deposition of metals, comprising a metallic core and another metal adjacent said core, the other metal being capable of exerting a strong reducing action at the fusion temperature, and an insulating layer upon said core.

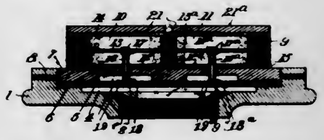
2. An electrode for use in a process of electric welding or fusion-deposition of metals, comprising a metallic core, a wire of another metal having a greater affinity for oxygen than the core metal, and laid alongside the metal core, and an insulating coating around the core and wire.

3. An electrode for use in a process of electric welding or fusion-deposition of metals, comprising a metallic core of a composition selected according to the nature of the metal to be treated, a wire of aluminium of relatively small gage laid beside the core, and an insulating coating.

4. As a new article of manufacture an electrode comprising a metallic core, a relatively thin wire of aluminium laid alongside said core and a cover of insulating material capable of forming a slag at the fusion temperature of the core.

5. As a new article of manufacture, an electrode for use in electric welding and fusion-deposition of metals, comprising a metallic core of a composition selected according to the nature of the metal to be deposited, a relatively fine wire of aluminium disposed adjacent to said core along the same, and a binding of a material of a refractory fibrous nature such that it will melt and form a slag at the fusion temperature of the core.

1,144,391. TRANSMITTER FOR TELEPHONE AND OTHER SOUND-TRANSMITTING INSTRUMENTS. WILLIAM PRESTON STUNZ, Lansdowne, Md., assignor, by mesne assignments, to The Webb Talking Pictures Company, a Corporation of Delaware. Filed Dec. 31, 1910. Serial No. 600,356. (Cl. 179—135.)



1. A telephone instrument comprising a plurality of chambers for granular carbon arranged side by side, front and rear electrodes and a movable centrally disposed electrode in each chamber, granular carbon between the several electrodes in each chamber, a diaphragm common to the several chambers and supported to be bodily movable throughout its whole area, and means for separately connecting the diaphragm to the movable electrode of each chamber to simultaneously compress granular carbon in both chambers on one side of the movable electrodes while releasing compression on the granular carbon on the other side of both of said electrodes, substantially as described.

2. A telephone instrument comprising a casing having a chambered portion formed with a diaphragm-seat, a diaphragm resting upon said seat, a backing-disk fitted over the diaphragm, means securing the backing-disk to its adjustment over the diaphragm, a plurality of chambers mounted upon the backing-disk and having each front and rear electrodes and a centrally disposed movable electrode, granular carbon between the several electrodes, and means extending centrally from the face of each movable electrode directly to the diaphragm and connected therewith at points equidistant from the periphery of the diaphragm to exert pressure from the diaphragm on the several electrodes in the direction of line of movement of the electrodes to simultaneously compress granular carbon in both chambers on one side of the movable electrodes while releasing compression on the other side thereof, substantially as described.

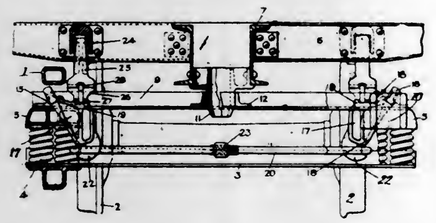
3. A telephone instrument comprising a plurality of chambers for granular carbon arranged side by side, front and rear electrodes and a movable centrally disposed electrode in each chamber, granular carbon between the several electrodes in each chamber, a diaphragm common to the several chambers and supported to be bodily movable throughout its whole area, and means connecting each movable electrode to the diaphragm to one side of its center to positively move the several electrodes to the same extent and simultaneously with each other correspondingly to the movement of the diaphragm to compress the granular carbon in each chamber on one side of the movable electrodes while releasing compression on the granular carbon on the other side of both electrodes, substantially as described.

4. A telephone instrument comprising a granular carbon holding chamber containing a movable electrode, and a diaphragm connected with the electrode, said diaphragm formed of relatively thin material and having ribs radiating from its center to render it non-flexible in response to vibrations, substantially as described.

5. A telephone instrument comprising a plurality of chambers for granular carbon arranged side by side, front and rear electrodes and a movable centrally disposed electrode in each chamber, granular carbon between the several electrodes in each chamber, a diaphragm common to the several chambers, and means extending centrally from the face of each movable electrode directly to the diaphragm and connected therewith at points equidistant from the periphery of the diaphragm to exert equal pressure from the diaphragm on the several electrodes in the direction of line of movement of the electrodes to simultaneously compress the granular carbon in each chamber on one side of the movable electrodes while releasing compression of the granular carbon on the other side thereof, and appropriate electrical connection to form two independent balanced circuits acting in conjunction to utilize the product of a simultaneous unbalancing in each, and each actuated by the same vibration, substantially as described.

[Claim 6 not printed in the Gazette.]

1,144,392. RAILWAY-CAR TRUCK. EDGAR W. SUMMERS, Pittsburgh, Pa. Filed Dec. 29, 1914. Serial No. 879,199. (Cl. 105—115.)



1. The combination with a car body and a truck under each end thereof, said trucks constituting the sole support for the car body, each truck being swiveled to the car body about a center within the sides and ends of the truck, of a pair of lever or rocker members interposed between the car body and truck and arranged to adjustably transmit the weight of the car body and its load to the truck, and means connecting the truck to the car body and arranged to center the truck relative to the car body.

2. The combination with a car body and a truck under each end thereof, said trucks constituting the sole support for the car body, each truck being swiveled to the car body about a center within the sides and ends of the truck, of a pair of lever or rocker members interposed between the car body and truck, connections between said pair of lever or rocker members whereby when one of said members is moved in one effective direction the other is moved in the opposite effective direction to thereby distribute the weight of the car body and its load between the two sides of the truck, and means connecting the truck to the car body and arranged to center the truck relative to the car body.

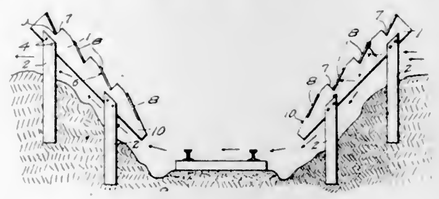
3. The combination with a car body and a truck under each end thereof, said trucks constituting the sole support for the car body, each truck being swiveled to the car body about a center within the sides and ends of the truck, of a pair of lever or rocker members interposed between the car body and truck, each of said members having lever arms of variable effective length and arranged to transmit and distribute the weight of the end of the car body and its load to the truck, and means connecting the truck to the car body and arranged to center the truck relative to the car body.

4. The combination with a car body and a truck under each end thereof, said trucks constituting the sole support for the car body, each truck being swiveled to the car body about a center within the sides and ends of the truck, of a pair of lever or rocker members interposed between the car body and truck, each of said members having lever arms of variable effective length, connections between said pair of lever or rocker members whereby when one of said members is moved in a direction to increase its effective lever arm the opposite member is moved in a direction to decrease its effective lever arm, and means connecting the truck to the car body and arranged to center the truck relative to the car body.

5. The combination with a car body and a truck under each end thereof and swiveled relative thereto, said trucks comprising the entire support for the car body, of a pair of lever or rocker members interposed between the car body and truck and arranged to adjustably transmit the weight of the car body and its load to the truck, and means to prevent displacement of the car body laterally of the truck.

[Claims 6 to 29 not printed in the Gazette.]

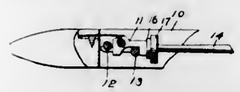
1,144,393. DEVICE FOR PREVENTING SNOW-DRIFTS. BENJAMIN F. SWEZEY, Bellingham, Minn. Filed Jan. 9, 1915. Serial No. 1,358. (Cl. 104—66.)



1. In a device of the class described, the combination of a plurality of side beams, said beams being provided with a plurality of notches, wind deflecting strips carried within said notches, said strips extending transversely across said beams and being carried at spaced distances from each other, said strips being adapted to deflect wind around the forward end portions of said beams, whereby air currents may be directed so as to remove snow from railroad cuts.

2. In a device of the class described, the combination of a plurality of side beams, means for supporting said side beams, a plurality of notches formed in said side beams, each notch being provided with a slanting rear face and with a forward abutment face, wind deflecting strips carried by said notches, each strip resting upon a plurality of said slanting faces, and having its side edge bearing upon the abutment faces, said strips extending transversely across said beams and being carried at spaced distances apart, said strips extending at angles of approximately 60 degrees with the horizontal when the device is in operation, whereby the wind striking said strips will be deflected downwardly around the forward end of the device, for preventing the drifting of snow in railroad cuts.

1,144,394. SPINDLE. JOSEPH THEBAULT, Central Falls, R. I. Filed June 16, 1914. Serial No. 845,375. (Cl. 139—89.)



1. In a detachable connection of a spindle holder and a spindle, the combination of a holder having a seat and a tubular stem or extension, a spindle having a flange constructed and arranged to occupy said seat and also having a notched portion or extension arranged to occupy said tubular stem or extension, and means carried by the holder for detachably securing the flange of the spindle in the seat of the holder and causing the holder and spindle to rotate together.

2. In a detachable connection of a spindle holder and a spindle, the combination of a holder having a seat and notches in the wall of the seat and beveled catches resting in said notches and also having a tubular stem or extension, and a spindle having a flange constructed and arranged to occupy the seat in the holder and peripheral notches in the outer side of said flange to receive the catches on the holder and further having a notched portion or extension arranged to occupy said tubular stem or extension.

1,144,395. PROCESS OF MAKING VITRIFIED OBJECTS. CHARLES W. THOMAS, East Downingtown, Pa., assignor to Silica Stone Works, Glenloch, Pa., a Corporation of Pennsylvania. Filed Nov. 16, 1911. Serial No. 660,695. (Cl. 106—11.)

1. The process of making vitrified objects which consists in subjecting a mixture of a liquid, and vitrifiable material to relatively heavy pressure to form self-sustaining clots; heating the clots to a vitrifying temperature; and thereafter subjecting them to a formative pressure less than that first exerted upon them to give them their final form and insufficient to materially reduce their volume.

2. The process of making vitrified objects, which consists in subjecting clots formed of vitrifiable material to a temperature gradually increasing from or about 1800° F. to or about 2100° F. and thereafter compressing the clots into final form; said heating being part of the time under oxidizing conditions and for another part of the time under reducing conditions.

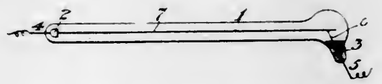
3. The process of making vitrified objects, which consists in subjecting the clots formed of vitrifiable material first to an oxidizing heat and then to a reducing heat, and thereafter compressing the said clots to their final form.

4. The process of making vitrified objects, which consists in subjecting a mixture of a liquid and vitrifiable material to pressure to form self-sustaining clots; heating said clots for a predetermined time to a vitrifying temperature and thereafter compressing the clots into final form without substantially reducing their volume.

5. The process which consists in mixing about 6 parts of water with about 66 parts of sand and about 34 parts of glass; subjecting said mixture to a relatively heavy compression to form clots; drying said clots for a predetermined time to a temperature increasing from or about 1800° F. to or about 2100° F.; said heating being first under oxidizing conditions and thereafter under reducing conditions; pressing said clots into their final forms without substantial reduction of volume.

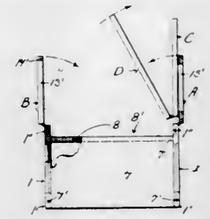
[Claims 6 to 16 not printed in the Gazette.]

1,144,396. STARTER FOR VAPOR ELECTRIC DEVICES. PERCY H. THOMAS, East Orange, N. J., assignor, by mesne assignments, to Cooper Hewitt Electric Company, Hoboken, N. J., a Corporation of New Jersey. Filed Apr. 25, 1904. Serial No. 204,712. (Cl. 176—9.)



In a vapor lamp containing a filament, the method of supplementing the spectrum of the vapor, which consists in so proportioning the resistance of the filament to that of the vapor that the current taken by the filament under operating conditions shall bring a portion or the whole of the filament to the light-giving point.

1,144,397. CONVERTIBLE FURNITURE. WILLIAM H. THOMMEN, Port Washington, Wis., assignor to Wisconsin Chair Company, Port Washington, Wis. Filed Dec. 2, 1914. Serial No. 875,171. (Cl. 45—9.)



1. A convertible article of furniture comprising a cabinet having side frames extending rearwardly of its back to form a leaf-receiving cavity, the top of the cabinet being flush with said back, leaf-supporting frames in hinged swinging union with the rear edges of the cabinet side frames, a master table leaf in vertical swinging union with the upper portion of one of the leaf-suporting frames, a leaf hinge in connection with the inner hinged edge of the master leaf arranged to swing at a right angle to the swinging movement of said master leaf, whereby the main leaf, when spread, is sustained by its connected leaf-supporting frame and the auxiliary leaf when spread is supported upon the top of the cabinet.

2. A convertible article of furniture comprising a cabinet having integral side frames, a back wall and top, leaf-supporting frames in hinge connection with the rear edges of the cabinet side frames arranged to unfold backwardly, the leaf supporting frames being provided with upper cross-connections upon the same plane as the top of the cabinet, a master leaf in hinge connection with the top edge of one of the leaf-supporting frame cross-connections adapted to swing downwardly from a horizontal position, and a second leaf section in hinge connection with the inner edge of the first mentioned leaf arranged to swing at a right angle to swing of said first mentioned leaf, whereby it may be folded thereon or spread to a horizontal position for engaging support with the top of the cabinet.

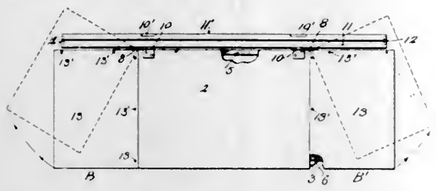
3. A convertible article of furniture comprising a cabinet having side frames, a top and a rear wall, leaf-supporting frames in hinge connection with the rear corners of the cabinet, a table leaf in hinge connection with one of the frames, means for securing said leaf to the opposite leaf-supporting frame, and a second leaf in hinge connection with the inner edge of the first mentioned leaf.

4. A convertible article of furniture comprising a cabinet having a top, side frames and rear wall, a portable tray fitted to the top of the cabinet, leaf-supporting frames in hinge connection with the rear corner edges of the cabinet side-frames, the same being of a combined width equal to the width of the cabinet, a master table leaf in hinge connection with the top edge of one of the leaf frames, means for securing the free edge of said leaf to the top edge of the opposite leaf-supporting frame, and an auxiliary leaf in hinge connection with the inner edge of the first mentioned leaf.

1,144,398. CONVERTIBLE FURNITURE. WILLIAM H. THOMMEN, Port Washington, Wis., assignor to Wisconsin Chair Company, Port Washington, Wis. Filed Dec. 2, 1914. Serial No. 875,172. (Cl. 45—9.)

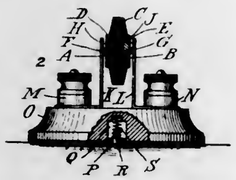
A convertible article of furniture comprising a main rectangular cabinet, wing cabinet sections in hinge connection with the rear corners of said main cabinet and adapted to fold outwardly to form cabinet extensions or to fold backwardly to form a center table supporting column, a capping tray member adapted to be fitted over the tops of the cabinet sections, means for locking the

tray to the wing sections of said cabinet, and a pair of hingedly connected table leaves one of which is in hinge



connection with the rear upper corner of the main cabinet section.

1,144,399. RECTIFYING-DETECTOR FOR WIRELESS SYSTEMS. EUGENE T. TURNEY, New York, N. Y. Filed Aug. 22, 1914. Serial No. 858,038. (Cl. 250—31.)



1. A detector for wireless systems including contact elements one of which is of material sensitive to alternating currents and adapted to rectify them and the other of which is a finely divided conductor having a number of points of contact with said rectifying element.

2. A detector for wireless systems including contact elements one of which is of material sensitive to alternating currents and adapted to rectify them and the other of which is a finely divided conductor having a number of points of contact with said rectifying element, and a rotatable casing carrying said elements and adapted by its rotation to adjust the relation between said elements and secure fresh points of contact of said finely divided conductor with said rectifying element.

3. A detector for wireless systems having two contact elements, one a unitary piece of a material sensitive to alternating currents and adapted to rectify them, and the other a finely divided conductor.

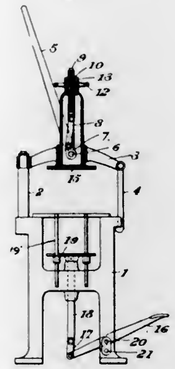
4. A detector for wireless systems having two contact elements, one a unitary piece of a material sensitive to alternating currents and adapted to rectify them, and the other a finely divided conductor, and a movable casing carrying at least one of said contacts and adapted by its movement to adjust the relation thereof to the other contact, the finely divided conductor engaging the face of the piece of sensitive material to substantially the same extent in all positions of adjustment.

5. A detector for wireless systems having two contact elements, one a unitary piece of a material sensitive to alternating currents and adapted to rectify them, and the other a finely divided conductor and a movable casing carrying said contacts and adapted by its movement to adjust the relation of said elements, the finely divided conductor engaging the face of the piece of sensitive material to substantially the same extent in all positions of adjustment.

[Claims 6 and 7 not printed in the Gazette.]

1,144,400. HAND MOLDING-MACHINE WITH LIFTING ARRANGEMENT. ANTOINE UTARD, Longeville, France. Filed June 10, 1914. Serial No. 844,146. (Cl. 22—25.)

1. A hand molding machine comprising a frame, a platform on top of said frame, for supporting the mold boxes, a standard laterally secured on top of said frame, a cross bar pivotally mounted by one of its ends on said standard, a hooked rod pivotally mounted at the opposite end of said cross bar, said frame being provided with a recess for receiving the hook of said hooked rod in order to firmly secure said cross bar on said frame, a bushing at the middle part of said cross bar, a vertically reciprocating hollow cylinder fitting said bushing, means for operating said cylinder forming the pressure piston of the machine, said means comprising a hand lever, a shaft keyed on said lever and projecting through the bushing of said cross piece and into said cylinder, a crank at the inner end of said shaft, an adjustable threaded rod adjustably connected with said cylinder, a connecting rod between said crank and said threaded rod, and means for adjusting the position of said threaded rod with respect to said cylinder.



2. A hand molding machine comprising a frame, a platform on top of said frame for supporting the mold boxes, a standard laterally secured on top of said frame, a cross bar pivotally mounted by one of its ends on said standard, a hooked rod pivotally mounted at the opposite end of said cross bar, said frame being provided with a recess for receiving the hook of said hooked rod in order to firmly secure said cross bar on said frame, a bushing at the middle part of said cross bar, a vertically reciprocating hollow cylinder fitting said bushing, means for operating said cylinder forming the pressure piston of the machine, said means compising a hand lever, a shaft keyed on said lever and projecting through the bushing of said cross piece and into said cylinder, a crank at the inner end of said shaft, an adjustable threaded rod adjustably connected with said cylinder, a connecting rod between said crank and said threaded rod, and means for adjusting the position of said threaded rod with respect to said cylinder.

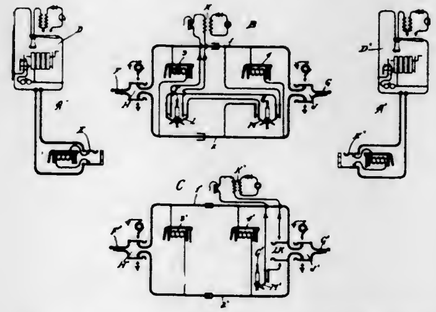
3. A hand molding machine comprising a frame, a platform integral with said frame for supporting the mold boxes, a standard projecting upward from said frame, a cross piece pivotally mounted by one of its ends on said standard, means for rigidly securing said cross piece on said frame during the operation of the machine, a bushing at the middle of said cross piece, a hollow cylinder forming the pressure piston fitting said bushing and reciprocating thereon, a sleeve on said bushing, a horizontal shaft fitting said sleeve and projecting within said hollow cylinder, a hand lever for rotating said shaft, a crank on said shaft, a hand wheel at the upper end of said cylinder, an inwardly threaded sleeve on the hub of said wheel, means for rigidly maintaining said sleeve at the upper part of said hollow cylinder, an axial threaded rod engaging said sleeve, and adjustable on said cylinder by means of said hand wheel and a connecting rod between said threaded rod and said shaft crank.

4. A hand molding machine comprising a frame, a horizontal support pivoted to said frame, said support having a central bearing, means between the support and the frame to lock the support in operative position above the frame, said means when released permitting of the support being turned on its pivot away from operative position, a hollow compressing member mounted in the bearing, a shaft extending through the bearing and into the hollow compressing member, a handle on the outer end of the shaft, a connection between the inner end of the shaft and the top of the hollow compressing member to cause the latter to be raised or lowered when the handle is operated, means for adjusting the connection to vary the movement of the compressing member, and a mold support on the frame below the hollow compressing member.

5. A hand molding machine comprising a frame provided with a mold support, a horizontal bar spaced from the mold support and pivoted above the frame, a latch for securing the horizontal bar in operative position, said horizontal bar having a vertical bearing, a hollow compressing member mounted to operate in the bearing and provided on its under side with a plate, a crank shaft mounted in the bearing and extending into the hollow compressing member, a handle on the outer end of the crank shaft, a screw extending through the upper end of the hollow compressing member, a link between the crank shaft and the screw, and means carried by the hollow compressing member to adjust the screw to vary the movement of the plate toward the mold support.

[Claim 6 not printed in the Gazette.]

1,144,401. MAGNETO CORD-CIRCUIT WITH SECRET SERVICE. RICHARD I. UTTER and HERMAN P. SCHMIDT, Chicago, Ill., assignors to Kellogg Switchboard and Supply Company, Chicago, Ill., a Corporation of Illinois. Filed July 26, 1913. Serial No. 781,357. (Cl. 179—51.)



A secret service telephone system comprising telephone lines, a plurality of cord circuits for interconnecting said lines including answering and calling plugs, an operator's telephone common to said cord circuits, plug seat switches for the answering and calling plugs, connections extending from said operator's telephone to said plug seat switches whereby when any one of the answering plugs are removed from their seats the corresponding switch is operated to connect the operator's telephone to this cord, the calling plug switches of said cords being operated upon removal of the calling plug from the seat to again disconnect the operator's telephone from the cord.

1,144,402. PROCESS FOR THE RECOVERY OF METALS FROM ORES AND THE LIKE. CHARLES S. VADNER, Salt Lake City, Utah. Filed June 16, 1914. Serial No. 845,483. (Cl. 75—18.)

1. The process of extracting iron from mineral matter and the like which consists in treating the mineral matter with SO_2 gas in the presence of moisture, leaching the iron from the mineral matter, sufficiently neutralizing the solution; passing air through same, thereby precipitating the iron as ferric oxid, eliminating the precipitated ferric oxid, and recovering the iron.

2. The process of extracting iron from mineral matter and the like which consists in treating the mineral matter with SO_2 gas in the presence of moisture, leaching the iron from the mineral matter, partially neutralizing the solution with a suitable neutralizing agent; passing air through the solution, thereby partially precipitating the iron as ferric oxid, adding sufficient additional neutralizing agent, whereby the passage of more air through the solution completely precipitates the iron as ferric oxid, eliminating the ferric oxid and recovering the iron.

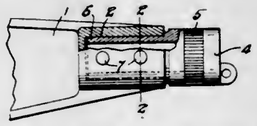
3. The process of extracting iron from mineral matter and the like which consists in treating the mineral matter with SO_2 gas in the presence of moisture, leaching the iron from the mineral matter, partially neutralizing the solution with a suitable neutralizing agent; passing air through the solution, thereby partially precipitating the iron as ferric oxid, adding sufficient additional neutralizing agent, whereby the passage of more air through the solution completely precipitates the iron as ferric oxid.

4. The process of extracting iron from mineral matter and the like which consists in treating the mineral matter with SO_2 gas in the presence of moisture, leaching the iron from the mineral matter, partially neutralizing the solution with a suitable neutralizing agent; passing air through the solution, thereby precipitating iron as ferric oxid.

5. The process of extracting iron from mineral matter and the like which consists in treating the mineral matter with SO_2 gas in the presence of moisture, leaching the iron from the mineral matter, eliminating excess of SO_2 gas by suitable means, sufficiently neutralizing the solution with a suitable neutralizing agent, whereby passing air through the solution completely precipitates the iron as ferric oxid.

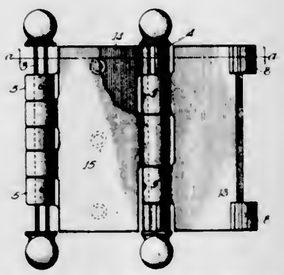
[Claim 6 not printed in the Gazette.]

1,144,403. BRAKE-BEAM. CHARLES H. WILLIAMS, Jr., Chicago, Ill., assignor to Chicago Railway Equipment Company, Chicago, Ill., a Corporation of Illinois. Filed July 13, 1914. Serial No. 850,712. (Cl. 188—22.)



A cast metal brake beam having a recess at its end for receiving a renewable trunnion, and a trunnion secured to the end of the brake beam and designed to receive a renewable head, said trunnion having shoulders or faces seated directly against the end face of the beam around said recess which thereby affords a solid seat for receiving inwardly directed end thrusts on the trunnion, and fastening devices for holding the trunnion in position, which fastening devices are relieved from inwardly directed end thrusts on the trunnion by virtue of the direct engagement between the trunnion and the end face of the beam.

1,144,404. HINGE MECHANISM. WINFIELD S. WILLIAMS, Chicago, Ill. Filed Oct. 17, 1911. Serial No. 655,133. (Cl. 16—107.)



A double acting hinge having two interchangeable elements, either one of which may be the movable element

and the other the stationary element, each element having a pintle and a pair of jaws provided respectively at opposite portions thereof, the jaws of one element being adapted to coöperate with the pintle of the other element, said pintles and jaws having circular bearing surfaces, and a flat plate associated with the supporting portions of said elements to equalize the strain, said plate having a plurality of eyes by means of which it is pivotally associated with both pintles.

1,144,405. PROCESS OF OBTAINING ALKALI COMPOUNDS USEFUL FOR FERTILIZING. THOMAS L. WILLSON and MAXIMILIAN MATTHEUS HAFF, Ottawa, Ontario, Canada, assignors, by direct and mesne assignments, to Southern Investment Co. of Canada Ltd., Montreal, Canada, a Corporation of Canada. Filed Dec. 18, 1911. Serial No. 666,400. (Cl. 71—9.)

1. The herein described process which comprises heating a mineral containing an alkali with a compound of an alkaline earth to fusion, withdrawing the fused phosphate product, and dissolving together by a suitable re-agent the acid of the alkaline earth and the alkali metal.

2. The herein described process which comprises heating a mineral containing an alkali with a compound of an alkaline earth to fusion, withdrawing the fused product, and dissolving together by a suitable re-agent the acid of the alkaline earth and then drying out the acid and alkali metal from the solution.

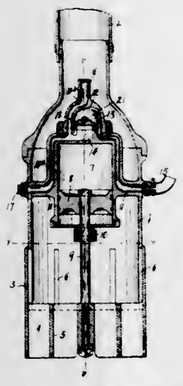
3. The herein described process which comprises heating a potassium magnesium compound with calcium phosphate to fusion and withdrawing the fused product.

4. The herein described process which comprises heating a potassium magnesium compound, and calcium phosphate to fusion, withdrawing the fused product, and then dissolving the potash in a suitable re-agent.

5. The steps of the herein described process which comprises placing a powder containing phosphoric acid and potash with other constituents of the original minerals in suspension in water and bubbling a gas therethrough, which is adapted to effect dissolution of the potash and phosphoric acid.

[Claims 6 and 7 not printed in the Gazette.]

1,144,406. GATHERING-HEAD FOR DREDGES. ELLIS BARTHOLOMEW, Toledo, Ohio, assignor to The National Peat Refining Company, Cleveland, Ohio, a Corporation of Delaware. Filed Dec. 4, 1913. Serial No. 804,713. (Cl. 37—45.)



1. In combination, a gathering head, an agitating member sleeved to the intake end of said head for reciprocatory movements longitudinally thereof, and means for reciprocating said member.

2. In combination, a gathering head, an agitating member sleeved to the intake end of said head for reciprocatory movements relative thereto and having interior web-like cutting parts, and means for reciprocating said member.

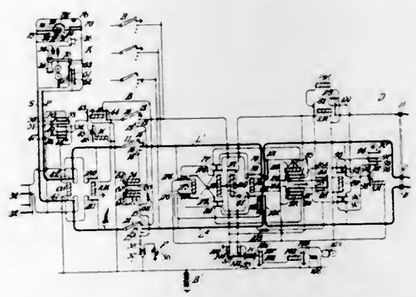
3. In combination, a gathering head, an agitating member sleeved to the intake end of said head for reciprocatory movements relative thereto, and means within the head connected to said member and operable by fluid pressure to reciprocate the member relative to the head.

4. In combination, a gathering head, an agitating and cutting member at the intake end of said head, and fluid actuated means within the head operated by fluid pressure to impart reciprocatory movements to said member.

5. In combination, a gathering head of the character described, material-chopping means carried at the intake end of said head for linear reciprocatory movements relative thereto, and fluid actuating means mounted within said head in connection with and for imparting reciprocatory movements to said chopping means.

[Claims 6 to 11 not printed in the Gazette.]

1,144,407. TELEPHONE SYSTEM. ALFRED H. DYSON, Chicago, Ill., assignor, by mesne assignments, to Kellogg Switchboard & Supply Company, a Corporation of Illinois. Filed Nov. 7, 1906, Serial No. 342,355. Renewed Sept. 27, 1913. Serial No. 792,223. (Cl. 179—18.)



1. A telephone exchange system comprising a subscriber's telephone line, an active switch contact in which said subscriber's line terminates, coöperating passive contacts adapted to be engaged by said active contact, a plurality of link-circuits extending from said passive contacts, means responsive to removal of the receiver at the calling substation for causing said active contact to automatically select and stop in engagement with the passive contact of an idle one of said link-circuits, and means for sending a characteristic signal over said subscriber's telephone line in case all of said link-circuits are in use.

2. A telephone exchange system comprising a subscriber's telephone line, an active switch contact in which said subscriber's line terminates, coöperating passive contacts adapted to be engaged by said active contact, a plurality of link-circuits extending from said passive contacts, means responsive to removal of the receiver at the calling substation for causing said active contact to automatically select and stop in engagement with the passive contact of an idle one of said link-circuits, means for sending a characteristic signal over said subscriber's telephone line in case all of said link-circuits are in use, and means whereby the subscriber may then restore said active contact to normal.

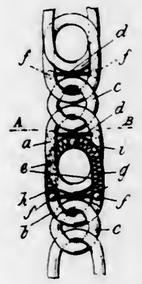
3. A telephone exchange system comprising a subscriber's telephone line, an active contact in which said subscriber's line terminates, coöperating passive contacts adapted to be engaged by said active contact, electrically operated signal transmitting apparatus associated with the last of said passive contacts to be engaged, a plurality of link-circuits extending from the remaining passive contacts, means responsive to removal of the receiver at the calling substation for causing said active contact to pass over said passive contacts, means for arresting said movement in case an idle passive contact is encountered, means for operating said signal transmitting apparatus in case its passive contact is engaged by said active contact and signal receiving means associated with said telephone line.

4. A telephone exchange system comprising a subscriber's telephone line, a plurality of associated link-circuits, interconnecting switch mechanism comprising an active contact, coöperating passive contacts adapted to be engaged by said active contact, means responsive to removal of the receiver at the calling substation for causing said active contact to pass over said passive contacts and means for arresting said movement in case an idle passive contact is encountered, electrically operated signaling apparatus associated with the last of said passive contacts, and means for operating said signaling means as soon as its passive contact is engaged by said active contact.

5. A telephone exchange system comprising a subscriber's telephone line, a plurality of link-circuits extending therefrom, automatic switching means for establishing connection between said line and an idle one of said link-circuits, means for restoring said switching means to normal position, and means for placing said restoring means under the control of the subscriber in case all of said link-circuits are in use.

[Claims 6 to 38 not printed in the Gazette.]

1,144,408. CURB-CHAIN BRACELET. RICHARD EMRICH, Pforzheim, Germany, assignor to the Firm of T. Emrich, Pforzheim, Germany. Filed July 16, 1914. Serial No. 851,291. (Cl. 59—79.)



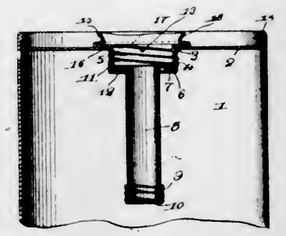
1. A bracelet comprising a plurality of connected pairs of hollow links, springs positioned in said links, a cross member carried by each of the links and having extremital portions projecting into the interior of the adjacent link to co-act with the spring therein during relative movement of the links.

2. A bracelet comprising a plurality of pairs of connected links of the curb-chain type, at least one of the links of each pair being hollow and having a spring positioned therein, a cross member carried by the other link of each pair and having extremital portions projecting into the interior of the spring-containing link, to co-act with the spring therein during relative movement of the links.

1,144,409. CAN SEAL AND SPOUT. FRANK H. GRIFFIN, San Francisco, Cal. Filed Jan. 7, 1914. Serial No. 810,859. (Cl. 221—24.)

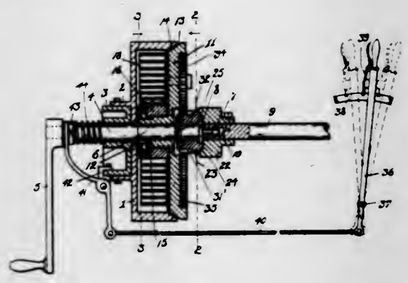
1. In combination with a can body, a support secured through the wall of the body and having a seating flange within its inner end, an invertible nozzle engaging in the support and adapted to seat in either position upon said flange, said support having a shoulder upon its outer end and a bendable flange outwardly of the shoulder, a sealing disk seated on said shoulder to seal the nozzle in the support when the latter is inverted, said bendable flange being adapted to be bent down upon the disk to retain the same in place.

2. In combination with a can body having a countersunk head and having an opening in said head, an internally threaded nozzle support secured in said opening and having an inturned flange at its lower end, and an external shoulder at its upper end, the support also having an upstanding bendable flange about the shoulder, a gasket on said inturned flange, a nozzle having an enlarged externally-threaded inner end for threaded engagement in the support and adapted to be turned down upon the gasket for



sealing the nozzle in the support, and a sealing disk adapted for engagement upon said shoulder of the support, said bendable flange being adapted to be bent down upon the disk to hold the latter in place.

1,144,410. SELF-STARTER FOR EXPLOSIVE-ENGINES. AMOS A. GROSE, Madison township, St. Joseph county, Ind. Filed Mar. 7, 1914. Serial No. 823,212. (Cl. 185—41.)



1. An engine self-starter including a crank stem, and automatic winding mechanism intermediate said stem and the engine shaft, said mechanism including a case formed with a series of peripheral notches, and a spring having its outer terminal formed with a hooked end to coöperate with either of said notches, whereby under undue winding of the spring the hooked end will automatically disengage from the particular notch and reëngage another notch.

2. An engine starter including a crank stem, a case in which said stem is rotatably mounted, means for moving the stem longitudinally, a winding disk rotatably mounted on the stem, a spring arranged within the case and under the control of the winding disk, said disk being movable with relation to the case, and a gear clutch mounted on the stem beyond the disk, said gear clutch being formed with means for independent coöperation with the disk and adapted respectively to arranged the clutch and disk for similar or reverse relative rotations.

3. An engine starter including a crank stem, a case in which the stem is rotatably mounted, manual means for shifting the stem, a winding disk rotatably mounted on the stem, a spring within the case and under the control of the winding disk, a gear clutch mounted on the stem and adapted for clutching coöperation with the engine shaft, gear connections between the gear clutch and winding disk, and means for directly locking said disk and clutch for similar movement.

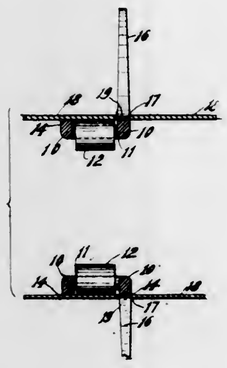
4. An engine starter including a crank stem, and automatic mechanism intermediate said stem and engine shaft, said mechanism including a spring, a winding disk controlling the same, means for shifting the disk bodily, an adjustable member mounted on the crank stem for con-

recting the disk thereto, to selectively compel either a direct or relatively reverse movement of the disk with respect to the engine shaft, and means for locking the disk against movement in one position of the disk.

5. An engine starter including a crank stem, and automatic mechanism intermediate said stem and the engine shaft, said mechanism including a fixed case, a spring arranged therein, a winding disk controlling said spring, means for shifting the disk bodily with respect to the case, and coöperating locking faces formed on the disk and case to frictionally lock the disk against movement in one position of the disk.

[Claim 6 not printed in the Gazette.]

1,144,411. DETACHABLE-LINK CHAIN. FRANK HAMACHEK, Kewaunee, Wis. Filed Oct. 3, 1910. Serial No. 584,963. (Cl. 193—8.)

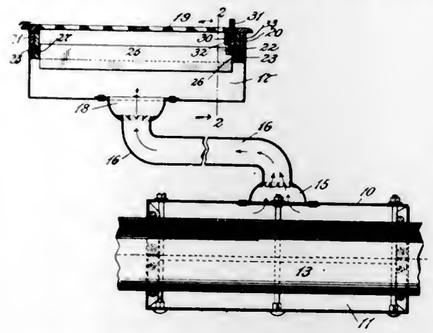


1. The combination with conveyer slotted guide plates, of a chain therefor formed of links having side portions connected together at one end by a transverse hook engaging bar and at the other end by a coupling hook, the portions of the links on one side of the chain forming runner or slide portions which are approximately in alinement with the outer portions of the coupling hooks on the same side of the links, said runners or guides constructed to substantially fill or block up the slot of the guide plates when traveling between said plates.

2. The combination with conveyer slotted guide plates, of a chain therefor formed of links consisting of side portions connected together at one end by a transverse hook engaging bar and at the other end by a coupling hook, the portions of the links on one side of the frame forming runner or slide portions which are approximately in alinement with the outer portions of the coupling hooks on the same side of the links, said runner or guide portions constructed to substantially fill or block up the slot of the guide plates when used in connection therewith, and fingers or flights projecting from some of said runner portions, the edges of the portions of the flights at their junctions with the runner portions being inclined forwardly in the direction of travel of said chain to cause material to ride up thereon.

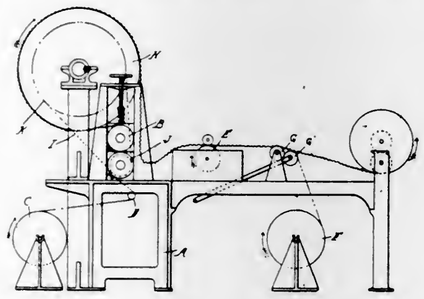
1,144,412. REGISTER. CHARLES HANSGEN, New York, N. Y. Filed Feb. 3, 1915. Serial No. 5,842. (Cl. 98—49.)

A grating having depending flanges in combination with a damper proper, comprising separate end plates removably secured to said flanges, an auxiliary strip secured parallel to one of said end plates, separate valve plates pivotally connected at their ends with said end plates, a shifting plate between said auxiliary strip and the corresponding end plate and pivotally secured to said valve plates, and an operating sector pivoted to one of said



end plates and having a pin and slot connection with said shifting plate, substantially as described.

1,144,413. APPARATUS FOR MANUFACTURING CORRUGATED PAPER-BOARD. WILLIAM F. HARBRECHT, Sandusky, Ohio, assignor to Hinde & Dauch Paper Company, Sandusky, Ohio, a Corporation of Ohio. Filed Mar. 18, 1911. Serial No. 615,420. (Cl. 154—31.)



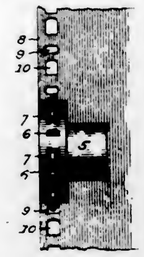
1. The combination with means for corrugating a paper strip, of a relatively large heated drum having a plain surface to which the unfaced corrugated strip is directly fed from the corrugating means and around which the unfaced strip passes, and means other than the strip for driving said drum at the same peripheral speed as the strip.

2. The combination with means for corrugating a paper strip, of a traveling drying surface independent of the corrugating means to which the unfaced strip is directly fed, and an equalizing drive mechanism between said corrugating means and said traveling drying surface for maintaining equal speed of the portions of said corrugating means and drying surface in contact with the strip.

3. The combination with means for corrugating a paper strip, of a plain surface heated drum above said means to which the unfaced strip is fed, the points of delivery of the strip to and from the drum being adjacent, means for applying adhesive to the strip after its delivery from the drum, and means for applying a facing to the strip after application of the adhesive.

1,144,414. FILM AND SPROCKET-DRUM. OSCAR J. HOLMES, Chicago, Ill., assignor to Atlas Educational Film Co., Chicago, Ill., a Corporation of Illinois. Filed Apr. 5, 1915. Serial No. 19,140. (Cl. 88—17.)

1. A moving picture film formed with a series of sprocket perforations having a standard spacing with alternate perforations of the series having a greater extent, substantially as set forth.

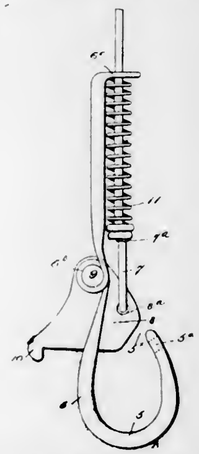


2. A moving picture film formed with a series of sprocket perforations having a standard spacing with alternate perforations of the series having a greater extent in one direction from their normal central construction lines, substantially as set forth.

3. In a moving picture mechanism, the combination of a moving picture film formed with a series of sprocket perforations having a standard spacing with alternating perforations of the series having a greater extent, and a sprocket drum formed with a series of sprocket teeth having a standard spacing with alternate teeth of the series having a greater extent, substantially as set forth.

4. In a moving picture mechanism, the combination of a moving picture film formed with a series of sprocket perforations having a standard spacing with alternating perforations of the series having a greater extent in one direction from their normal construction lines, and a sprocket drum formed with a series of sprocket teeth having a standard spacing with alternate teeth of the series having a greater extent in one direction from their normal construction lines, substantially as set forth.

1,144,415. TRIP-HOOK. MARCELLUS W. JONES, Carthage, Mo. Filed June 27, 1914. Serial No. 847,586. (Cl. 24—242.)



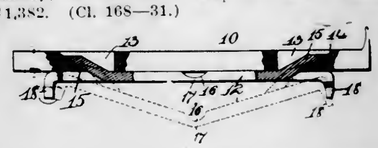
1. In a hoisting hook the combination of a shank provided with a terminal eye at one end thereof, and a latch eye formed spaced from said terminal eye, a latch plate, a pivot pin supporting said latch plate, a hoisting element secured to said latch plate, said latch plate having an eye for receiving said element, a projection provided upon the latch plate, a hook portion formed upon said shank and provided with an eye adapted to receive said projection, a stop located upon said hoisting element, and a spring mounted upon said hoisting element intermediate said stop and terminal eye and adapted to exert pressure upon said terminal eye substantially as described.

2. In a hoisting hook the combination of a shank provided with a terminal eye at one end thereof, and a latch eye formed spaced from said terminal eye, a pear-shaped latch plate pivoted to said latch eye at one corner of its base, a hoisting element secured to said latch plate at the other corner of the base and extending upwardly through the terminal eye, a projection provided upon the latch plate, a hook portion upon said shank provided with an eye adapted to receive said projection, a stop located upon said hoisting element, and an expansion spring mounted upon said hoisting element intermediate said stop and terminal eye and adapted to exert pressure against said latch plate, substantially as described.

3. In a hoisting hook the combination of a shank provided with a terminal eye at one end thereof, disposed at right angles to said shank, and a latch eye formed spaced from said terminal eye, by coiling the material of said shank upon itself to provide a closed loop, a substantially pear shaped latch plate, a pivot pin extending through one corner portion of the base of the plate adapted to secure said latch plate to said shank, a hoisting element secured to said latch plate at the other corner portion of its base and extending downwardly through the terminal eye, an offset projection or stop provided upon the latch plate, a hook portion formed upon said shank and provided with an eye adapted to receive said projection, a stop located upon said hoisting element, and an expansion spring disposed around the hoisting element intermediate said stop and terminal eye and adapted to exert pressure against said terminal eye and automatically move the plate to open or unlocking position when a bucket or other weight is removed from the hook, substantially as described.

4. In a hoisting hook the combination of a shank provided with a terminal eye at one end thereof, and a latch eye formed spaced from said terminal eye, a latch plate, a pin adapted to secure said latch plate to the latch eye, a hoisting element extending through the terminal eye and having connection with said latch plate at a point normally above the latch eye, a stop located upon said hoisting element, an expansion spring located around said hoisting element between said stop and said terminal eye, a projection located upon said latch plate, and a hook portion formed upon said shank provided with an eye adapted to receive said projection, substantially as described.

1,144,416. HORSESHOE. FERDINAND E. KAUFFMANN, Rahway, N. J. Filed Jan. 10, 1914. Serial No. 811,382. (Cl. 168—31.)



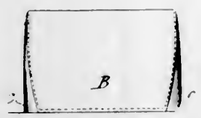
1. The combination of a horseshoe with recesses therein, and a substantially flat plate to lie against the bottom face of the horseshoe, projections to enter the recesses of the horseshoe to hold the horseshoe and the plate together, the engaging portions of the recesses and projections being inclined, the plate having a narrow transverse recess on its top face to provide a thinned portion which, when worn through, separates the plate into two pieces.

2. The combination of a horseshoe having a recess in its front end and a recess near its back end, and a plate having separated projections to enter the recesses in the shoe, the plate being substantially of the same shape as the side of the horseshoe, the engaging faces of the projections and the recesses being inclined so that the projections hold the plate in place, the plate between the projections resting against the bottom face of the shoe.

3. The combination of a horseshoe having separated inclined recesses, and a plate to rest against the shoe and extending beyond said recesses, the plate having separated

inclined projections entering the recesses of the shoe, the ends of the plate being turned away from the shoe to form calks, the major portion of the plate resting against the face of the shoe.

1,144,417. FOLDABLE COVER FOR DICTATING-MACHINES AND THE LIKE. MILTON KELLOGG, New York, N. Y. Filed June 11, 1913. Serial No. 773,036. (Cl. 45—120.)



1. A foldable cover comprising a body-piece and an end-piece, said end-piece having edge portions on the outside of the largest triangle which may be inscribed within said end-piece, said body-piece having edge portions contiguous to said edge portions of said end-piece, of a corresponding outline and said body-piece and end-piece being connected at said edge portions, said body-piece and said end-piece each being adapted when so connected to be folded into two parts, and when so folded, to lie flat.

2. A foldable cover comprising a body-piece and two end-pieces, said two end-pieces being located at opposite sides of said body-piece, said end-pieces having edge portions on the outside of the largest triangle which may be inscribed within said end-pieces, said body-piece having edge portions contiguous to said edge portions of said end-pieces, and of a corresponding outline and said end-pieces being connected to said body-piece at said edge portions, said body-piece and said end-pieces each being adapted to be folded when so connected into two parts, and when so folded, to lie flat.

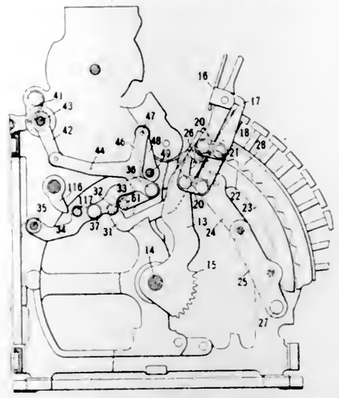
3. In a foldable cover, the combination of a body-piece and an end-piece, said end-piece being of substantially three-sided configuration and having edge portions outside of two sides of a triangle which may be inscribed within said end-piece, each side of said body-piece being of four-sided configuration and having at the side adjacent said end piece a portion outside of a line connecting its upper and lower corners corresponding to the adjacent outside portion of said end-piece, and secured thereto at its edge.

4. In a foldable cover, the combination of a body-piece and two end-pieces, each of said end-pieces being of substantially three sided configuration and having edge portions outside of two sides of a triangle which may be inscribed within said end-piece, said body-piece being folded on a line substantially intersecting the peaks of the end-pieces and each side of said body-piece being, when folded, of substantially four sided configuration and having at the side adjacent each of said end-pieces a portion outside of a line connecting its upper and lower corners corresponding to the adjacent outside portion of said end-pieces and secured thereto at its edge, and each of said end pieces being creased along a line meeting said body fold so as to tend to fold between the sides of said body-piece.

1,144,418. CASH-REGISTER. CHARLES F. KETTERING and WILLIAM A. CHRYST, Dayton, Ohio, assignors to The National Cash Register Company, Dayton, Ohio, a Corporation of Ohio. (Incorporated in 1906.) Filed Sept. 23, 1907. Serial No. 394,187. (Cl. 235—11.)

1. In a registering mechanism, the combination with a lock for the mechanism, of a spring for moving said lock, a toggle connected to said lock and preventing said spring from operation, and a manipulative device for breaking said toggle and permitting said spring to move said locking device.

2. In a registering mechanism, the combination with a main operating mechanism, of a locking device therefor, a toggle connected to said locking device and normally holding the same in locking position, manipulative means having connections to break said toggle, and a spring connected to said locking device and constructed to move it to unlocking position when said toggle is broken.



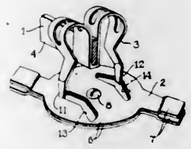
3. In a registering mechanism, the combination with a locking device for said mechanism, a toggle device normally preventing releasing movement of said locking device, means for breaking said toggle device and means made effective by breaking said toggle device for moving said locking device to releasing position.

4. In a registering mechanism, the combination with a driving mechanism, of means for locking same, a toggle connected to said locking means and preventing movement of same to releasing position, means for breaking said toggle, and a spring for moving said locking means after said toggle has been broken.

5. In a registering mechanism, the combination with a driving mechanism, of means for locking same, a spring for moving said locking means to releasing position, a toggle holding said locking means, and a manipulative device for breaking said toggle to permit said spring to operate.

[Claims 6 to 32 not printed in the Gazette.]

1,144,419. ELECTRIC SWITCH. CHARLES J. KLEIS, Milwaukee, Wis., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed Feb. 28, 1914. Serial No. 821,801. (Cl. 175—287.)



1. In an electric switch, in combination, an oscillating contact member having a convex cam and a concave cam on opposite sides of its pivotal axis, and a reciprocating operating member having resilient means acting on said cams in opposite directions to alternately impede and impel oscillation of said contact member during each reciprocation of said operating member.

2. In an electric switch, in combination, an oscillating contact member having a convex cam on one side of its axis, a reciprocating operating member movable across said contact member, and a looped spring carried by said operating member and having its free extremity biased against said cam and movable thereover to alternately impede and impel oscillation of said contact member during each reciprocation of said operating member.

3. In an electric switch, in combination, a reciprocating member, an oscillating member, one of said members being an operating member and the other a contact member, and a spring carried by said operating member and having extremities biased apart and constantly engaging said contact member on opposite sides of the pivotal axis of the oscillating member to alternately impede and impel movement of the contact member during each actuation of the operating member.

4. In an electric switch, in combination, a reciprocating member, an oscillating member, one of the same being an operating member and the other a contact member, a spring carried by said reciprocating member and having forked extremities in constant engagement with said oscillating member on opposite sides of the pivotal axis thereof to alternately impede and impel movement of the contact member during each actuation of the operating member.

5. In an electric switch, in combination, a reciprocating operating member having opposed push-button extremities, an oscillating contact member and a spring carried by said operating member and having extremities biased apart and constantly engaging said contact member on opposite sides of the pivotal axis thereof.

[Claims 6 to 10 not printed in the Gazette.]

1,144,420. PROCESS OF MAKING WELT-INNER-SOLES. WILLIAM A. KNIPE, Ward Hill, Mass. Filed Nov. 16, 1914. Serial No. 872,349. (Cl. 12—146.)



1. The process of making welt inner-soles which consists in superimposing two sole-shaped sections, one of which is composed of a textile sheet, having an adhesively connected coating of a material which is somewhat elastic at ordinary temperatures and plastic when heated, connecting said sections at points removed from the edges thereof, to provide said textile section with a disconnected edge-portion extending about the sole-forepart, heating said coating to render it plastic and turning said edge-portion of said textile section up from the other section, to provide an attaching lip, and then permitting the gutta-percha layer to become cool while the lip is held in said turned-up position.

2. The process of making welt inner-soles which consists in superimposing two sole-shaped sections, one of which is composed of a textile sheet having a thin, adhesively connected coating of gutta-percha, connecting said sections at points removed from the edges thereof, to provide said textile section with a disconnected edge-portion extending about the sole-forepart, heating said coating to render it plastic and turning said edge-portion of said textile section up from the other section, to provide an attaching lip, and then permitting said coating to become cool while the lip is held in said turned-up position.

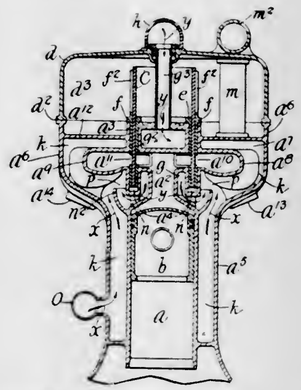
3. The process of making welt inner-soles which consists in superimposing two sole-shaped sections, one of which is composed of two textile sheets adhesively connected by a thin layer of material which is somewhat flexible at ordinary temperatures and plastic when heated, connecting said sections at points approximately uniformly removed from the edges thereof, about the sole forepart, heating said sections to render said layer of material plastic and turning the free edge-portion of said textile section up from the other section to form an attaching lip, and then permitting said layer of material to become cool while the lip is held in said turned-up position.

4. The process of making welt inner-soles which consists in superimposing two sole-shaped sections, one of which is composed of two textile sheets adhesively connected by a thin layer of gutta-percha, connecting said sections at points approximately uniformly removed from the edges thereof about the forepart, heating said sections to render said gutta-percha plastic and turning the free edge-portion of the textile section up from the other section, to form an attaching lip, and then permitting the gutta-percha layer to become cool while the lip is held in said turned-up position.

5. The process of making welt inner-soles which consists in superimposing two sole-shaped sections, one of which is composed of a textile sheet having, adhesively connected thereto, a thin coating of a material which is somewhat elastic, at ordinary temperatures, and plastic when heated, connecting said sections by a row of stitches which extend thereabout at an approximately uniform distance from the edges thereof, heating said sections to render said coating material plastic, turning the free edge-portion of said textile section up from the other section, and inwardly thereover while heated, to form a lip and then permitting the parts to become cool while in such position.

[Claims 6 to 9 not printed in the Gazette.]

1,144,421. INTERNAL-COMBUSTION ENGINE. HEBRON B. LAYMAN, New York, N. Y. Filed June 27, 1914. Serial No. 847,584. (Cl. 123—173.)



1. An explosion engine provided with a cylinder having an explosion head, a sleeve valve chamber provided with a sleeve valve which controls the inlet and exhaust ports of said head, said cylinder and valve casing being inclosed by a water chamber or passage through which water flows upwardly on the outer side of the cylinder and valve casing, and the explosion head being provided with a water passage or chamber which communicates with the first named water passage or chamber below the valve casing and through which water flows downwardly through said explosion head and on the inner side of the valve casing.

2. An explosion engine provided with a cylinder having an explosion head inclosed by an annular valve casing having a sleeve valve, and means for passing water upwardly around said cylinder and said valve casing and other means for passing water downwardly through the explosion head and on the inner side of the valve casing, the separate currents of water being united below the valve casing.

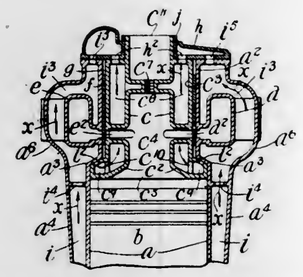
3. An explosion engine provided with a cylinder having an explosion head inclosed by an annular valve casing in which is mounted a sleeve valve which controls the inlet and exhaust ports of the explosion head, and means for passing a current of water upwardly around the cylinder and the valve casing and another current of water downwardly through the explosion head and on the inner side of the valve casing, said separate currents of water being united at the bottom of the valve casing.

4. An explosion engine provided with a cylinder having an explosion head inclosed by an annular valve casing in which is mounted a sleeve valve which controls the inlet and exhaust ports of the explosion head, and means for passing a current of water upwardly around the

cylinder and the valve casing and another current of water downwardly through the explosion head and on the inner side of the valve casing, said separate currents of water being united at the bottom of the valve casing at which point the last named current is also directed upwardly.

5. An explosion engine provided with a cylinder having an explosion head inclosed by an annular valve casing having a sleeve valve, and means for passing water upwardly around said cylinder and said valve casing and downwardly through the valve casing, the separate currents of water being united below said valve casing.

1,144,422. INTERNAL-COMBUSTION ENGINE. HEBRON B. LAYMAN, New York, N. Y. Filed June 29, 1914. Serial No. 847,870. (Cl. 123—173.)



1. In an explosion engine, a cylinder provided with an extension above the working portion thereof, an explosion head which is inserted into said extension from the bottom of the cylinder, the extension of the cylinder and said explosion head forming an annular valve chamber above the working portion of the cylinder, and a sleeve valve placed in said chamber and above the working portion of the cylinder and independent thereof.

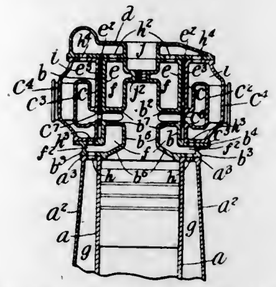
2. In an explosion engine, a cylinder provided with an extension above the working portion thereof, an explosion head which is inserted into said extension from the bottom of the cylinder, the extension of the cylinder and said explosion head forming an annular valve chamber above the working portion of the cylinder, and a sleeve valve placed in said chamber and above the working portion of the cylinder and independent thereof, said cylinder and said explosion head being also provided with a removable cap and said cylinder being provided with a water jacket forming a main water chamber or passage, and said explosion head and said cap being also provided with water chambers or passages which are in communication and also in communication with the main water chamber or passage.

3. In an explosion engine, a cylinder provided with an extension above the working portion thereof, an explosion head which is inserted into said extension from the bottom of the cylinder, the extension of the cylinder and said explosion head forming an annular valve chamber above the working portion of the cylinder, and a sleeve valve placed in said chamber and above the working portion of the cylinder and independent thereof, said cylinder and said explosion head being also provided with a removable cap and said cylinder with a water jacket forming a main water passage and said explosion head being provided within the valve chamber with a water circulating passage in communication therewith, and said cap being also provided with a water chamber or passage in communication with that within the explosion head.

4. In an explosion engine, a cylinder provided with a reduced extension at the bottom of which is an annular shoulder, an explosion head containing an explosion chamber and insertible from the bottom of the cylinder and between which and said extension is a valve chamber, said explosion head being provided at its lower end with an annular enlargement which abuts against said shoulder.

5. In an explosion engine, a cylinder provided with a reduced extension at the bottom of which is an annular shoulder, an explosion head containing an explosion chamber and insertible from the bottom of the cylinder and between which and said extension is a valve chamber, said explosion head being provided at its lower end with an annular enlargement which abuts against said shoulder and the explosion chamber in said head being inclosed by a water chamber or passage having an inlet at the bottom and an outlet at the top.

1,144,423. INTERNAL-COMBUSTION ENGINE. HEBRON B. LAYMAN, New York, N. Y. Filed July 15, 1914. Serial No. 851,026. (Cl. 123—173.)



1. In an explosion engine, a cylinder having a main outer jacket or casing, an explosion head detachably mounted on said cylinder and casing, and a detachable manifold casing inclosing the explosion head and between which and said explosion head is a sleeve valve casing formed partly by said explosion head and partly by said manifold casing.

2. In an explosion engine, a cylinder provided with a main outer casing or jacket, an explosion head detachably mounted on said cylinder and jacket and containing the explosion chamber, and a detachable manifold casing inclosing the explosion head and between which and said head is a sleeve valve casing provided with a sleeve valve which controls the inlet and exhaust ports or passages leading to and from the explosion chamber, said sleeve valve casing being formed partly by the explosion head and partly by the manifold casing, and said cylinder and its casing or jacket forming a water chamber or passage which communicates with a water chamber or passage in the explosion head and inclosing the explosion chamber and is provided with an outlet through the top of said head.

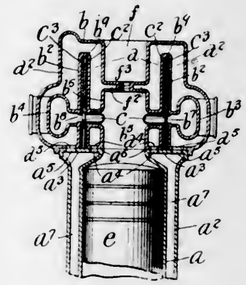
3. In an explosion engine, a cylinder provided with a main outer casing or jacket, an explosion head mounted on said cylinder and jacket and containing the explosion chamber, and a manifold casing inclosing the explosion head and between which and said head is a sleeve valve casing provided with a sleeve valve which controls the inlet and exhaust ports or passages leading to and from the explosion chamber, said sleeve valve casing being formed partly by the explosion head and partly by the manifold casing, said cylinder and its casing or jacket forming a water chamber or passage which communicates with a water chamber or passage in the explosion head and inclosing the explosion chamber and is provided with an outlet through the top of said head, and said manifold casing being also provided with an inclosing jacket or casing forming a water chamber or passage which is also in communicating with the water chamber or passage in the explosion head below the valve casing and which has an outlet at the top thereof.

4. In an internal combustion engine, a cylinder provided with an inclosing jacket forming a main water chamber or passage, an explosion head detachably mounted on said cylinder and containing the explosion chamber, said head being provided with a supplemental water chamber or passage which incloses the explosion chamber, and which is in communication with the main water chamber or passage, and a manifold casing mounted on and inclosing the explosion head and between which and the explosion head is a sleeve valve casing, a sleeve valve mounted in said casing and controlling the inlet and exhaust ports into and from the explosion chamber, said manifold casing being provided with an outer casing or jacket which incloses the manifolds and which forms an auxiliary water chamber or passage which is in communication with the supplemental water chamber or passage below the sleeve valve casing and a detachable cap mounted on the explosion head and on the manifold casing and which is in communication with the supplemental water chamber or passage and the auxiliary water chamber or passage.

5. In an internal combustion engine, a cylinder, an explosion head detachably mounted thereon and in which is the explosion chamber and a detachable manifold casing mounted on the explosion head and having inlet and exhaust manifolds, said explosion head and said manifold casing forming a sleeve valve casing in which is mounted a sleeve valve which controls the inlet and exhaust ports or passages between the manifolds and the explosion chamber.

[Claim 6 not printed in the Gazette.]

1,144,424. INTERNAL-COMBUSTION ENGINE. HEBRON B. LAYMAN, New York, N. Y. Filed Sept. 9, 1914. Serial No. 860,845. (Cl. 123—177.)



1. In an explosion engine, a cylinder provided with a water jacket, and a detachable explosion head mounted on said cylinder and jacket, and provided with a water chamber or chambers in communication with the water chamber between the jacket and the cylinder, said explosion head being also provided with an annular valve casing formed entirely in said head and in which is mounted a sleeve valve which controls the inlet and exhaust ports or passages.

2. In an explosion engine, a cylinder provided with a water jacket, and a detachable explosion head mounted on said cylinder and jacket, and provided with a water chamber or chambers in communication with the water chamber between the jacket and the cylinder, said explosion head being also provided with an annular valve casing formed entirely in said head and which opens downwardly and in which is mounted a sleeve valve which controls the inlet and exhaust ports or passages.

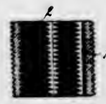
3. An explosion engine, provided with a detachable head having an annular valve casing formed entirely in said head and in which is mounted a sleeve valve which controls the inlet and exhaust ports or passages, said explosion head being provided inwardly of the valve casing with a water chamber or passage in communication with the water chamber which incloses the cylinder.

4. In an explosion engine, a cylinder provided with a water jacket, and a detachable head, in which is an annular valve casing formed entirely in said head and a sleeve valve mounted in said casing and controlling the inlet and exhaust ports, said explosion head being also provided both on the inside and outside of the valve casing with water chambers, or passages.

5. An explosion engine, provided with a detachable head containing the explosion chamber and an annular valve casing, formed entirely in said head, and provided with a sleeve valve, which controls the inlet and exhaust ports.

[Claims 6 to 12 not printed in the Gazette.]

1,144,425. METHOD OF FORMING POLYGONAL BORES. JOHN W. MEAKER, Detroit, Mich. Filed July 7, 1913. Serial No. 777,742. (Cl. 29—148.)



1. A method of forming a bore having facets in a metal article which consists in drilling the article, cutting an interior screw thread in the resultant opening and forcing a broach of the contour of the desired bore through the screw threaded aperture.

2. A method of forming a bore having facets in an article which consists in removing a portion of the metal around the bore by cuting a screw thread therein, and then forcing a broach longitudinally through the article whose greatest diameter is slightly longer than the greatest diameter of the screw thread, and whose crossesct onal contour is that of the desired faceted bore.

1,144,426. PENCIL-SECURING HOLDER. RAYMOND C. MINER, Faith, S. D., assignor, by mesne assignments, of one-half to George Gregory, Glendive, Mont. Filed Dec. 8, 1913. Serial No. 805,437. (Cl. 24—11.)



1. A securing clip comprising a body portion and a securing portion integral with said body portion, said last named portion comprising an arm reversely bent with respect to said body portion and spaced therefrom, said arm having the end portion thereof reversely bent toward the point of attachment of said arm on said body portion to form a spring member positioned between said arm and said body portion, the extremity of said spring member being arranged to normally make a yielding contact with said body portion.

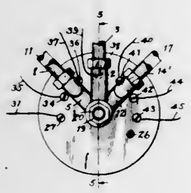
2. A securing clip comprising a body portion and a securing portion integral with said body portion, said last-named portion comprising an arm reversely bent with respect to said body portion and spaced therefrom, said arm having the end portion thereof reversely bent toward the point of attachment of said arm on said body portion to

form a spring member positioned between said arm and said body portion, the extremity of said spring member terminating in a looped end arranged to normally make a yielding contact with said body portion.

3. A securing clip comprising a body portion and a securing portion integral with said body portion, said last-named portion comprising an arm reversely bent with respect to said body portion and spaced therefrom, said arm having the end portion thereof reversely bent toward the point of attachment of said arm on said body portion to form a spring member positioned between said arm and said body portion, the extremity of said spring member being arranged to normally make a yielding contact with said body portion, said spring member being angularly disposed with respect to said body portion.

4. A securing clip comprising a body portion having the edges thereof bent to form a cylinder open along one side, an arm extending substantially parallel to the axis of said cylinder and spaced from said body portion, and a spring member extending from said arm and located between said arm and said body portion with the extremity thereof normally contacting with said body portion, all of said parts being integrally formed.

1,144,427. GAS CONTROL VALVE AND IGNITER. CHARLES J. MUEHLMANN, Detroit, Mich. Filed July 24, 1914. Serial No. 852,947. (Cl. 175—115.)



1. In a gas control and igniting device, a plurality of lamps, each having a burner connected with a source of gas supply, an electric igniting system for the lamps comprising normally open circuits including sparking electrodes at the burner of each lamp, a valve case having a supply passage communicating with said source of gas supply and a plurality of delivery passages each communicating with the burner of a lamp, a valve rotatably mounted in said valve case to control communication between said supply passage and one or more of said delivery passages, an actuating member on said valve, a switch for controlling said electric ignition system having a contact member engaging said actuating member for opening said valve and for closing said ignition circuits, whereby said valve is independently operative of said valve for opening said circuits, and said valve is independently operative thereafter for closing one or all of said delivery passages and for maintaining communication with one or more of said passages.

2. In a gas control and igniting device, a plurality of lamps, each having a burner connected with a source of gas supply, an electric igniting system for said lamps comprising normally open circuits including sparking electrodes at the burner of each lamp, a valve case having a supply passage communicating with said source of gas supply, a delivery passage communicating with one of said lamps and a dual delivery passage communicating with each of a pair of said lamps, a valve rotatably mounted in said valve case and having passages therein for establishing communication with said supply passage and with said delivery passages individually and collectively, an actuating member on said valve, a switch for closing said open circuits mounted rotatably on said valve and having actuating contact arm thereon engaging said actuating member for opening said valve and for closing said circuits, whereby said valve is operative independently of said switch for restricting or closing said dual delivery passage and for maintaining or closing said remaining delivery passage.

3. In a gas control and igniting device, a plurality of lamps each having a burner connected with a source of gas supply, an electric igniting system for said lamps comprising normally open circuits including sparking electrodes at the burner of each lamp, a tubular valve case having a supply passage communicating with said source of gas supply, a delivery passage communicating with one of aid lamps and a pair of dual delivery passages each communicating with a pair of said lamps, a valve rotatably mounted in said valve case and having passages therein for establishing communication with said supply passage and with said delivery passages individually and collectively, an actuating member on said valve, a switch for closing said open circuits rotatively mounted concentric with said valve and having means for contacting engagement with said actuating member for opening said valve when rotated to close said circuits and inoperative for closing said valve when actuated to open said circuits, means for yieldably retaining said valve against rotation, and a hand stem for rotating said valve independently of said switch for restricting or closing either or both of said dual delivery passages and for maintaining or closing said remaining delivery passage.

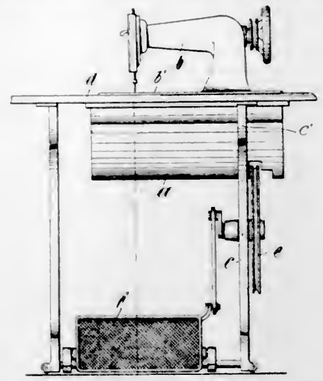
4. In a gas control and igniting device, a lamp having a burner connected with a source of gas supply, a source of electric energy, a normally open electric ignition circuit having sparking electrodes at the burner of said lamp, and adapted for connection with said source of electric energy, a valve case having supply and delivery passages, a valve seated to rotate in said valve case for controlling communication between said supply and delivery passages, a stem on said valve and a spring on said stem interposed between said valve case and said valve for yieldably retaining said valve against rotation, a hand stem for rotating said valve mounted on said valve stem, a projection on said hand stem, a switch for closing said ignition circuit rotatably mounted on said hand stem and having means for interlocking engagement with said projection for rotating said valve with the movement of said switch in one direction.

5. In a gas control and igniting device, a lamp having a burner connected with a source of gas supply, a source of electric energy, a normally open electric ignition circuit having sparking electrodes at the burner of said lamp and adapted for connection with said source of electric energy, a valve case having supply and delivery passages, a valve seated to rotate in said valve case for controlling communication between said supply and delivery passages, a stem on said valve and a spring on said stem interposed between said valve case and said valve for yieldably retaining said valve against rotation, an insulated switch block mounted on said valve case and having a contact plate thereon connected with said source of electric energy, a binding post in said switch block connected with said ignition circuit and adapted for connection with said contact plate, a hand stem mounted on said valve stem to rotate with said stem and having a radial projection thereon, a switch rotatively mounted on said hand stem and having a shoulder therein for engagement with the radial projection of said hand stem for actuating said valve with the movement of said switch, a radial projection on said switch carrying a spring tensioned conductor slidably engaging said contact plate and contacting with said binding post to close said ignition circuit with the movement of said switch to open said valve.

1,144,428. SEWING-MACHINE FRAME. RICHARD MUNDLOS, Magdeburg, Germany, assignor to the Firm of H. Mundlos & Co., Magdeburg, Germany. Filed Oct. 6, 1913. Serial No. 793,591. (Cl. 45—27.)

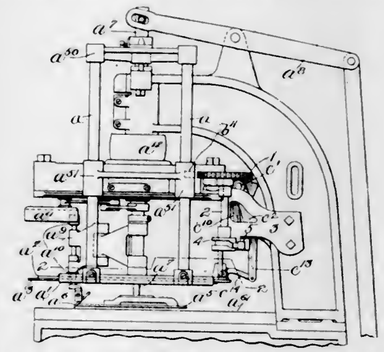
A sewing machine comprising a standard consisting of two uprights, one upright being spread at the top so as to form an open space, a table carried by said standard, a trough-shaped box supported below said table entirely

within the spread portion of said upright, and a head mounted on said table and adapted to be lowered into



said box, both said box and said head extending beyond the said upright.

1,144,429. MACHINE FOR CUTTING FORMS. ERNEST L. PATTEN, Malden, Mass., assignor to Wellman Company, Medford, Mass., a Corporation of Maine. Filed June 15, 1914. Serial No. 845,144. (Cl. 12—25.)



1. A machine for cutting forms comprising a work table; a leader movable laterally and toward and from the work table; means for operating the leader; a knife controlled by said leader; means for operating the knife; a leader support; and means independent of said support to lock the leader during a part of the travel of the knife.

2. A machine for cutting forms comprising a leader; a support for said leader; means to operate the leader; a knife carrier guided by the leader; and means separate from the leader operating means and independent of said support to hold the leader immovable during a part of the travel of the knife and to position the leader when it is to be held immovable.

3. A machine for cutting forms comprising a fixed frame; a work table; a leader carrier movable toward and from said work table; a leader slide; means for operating said slide; a movable locking member mounted on the fixed frame and adapted to directly engage the leader-carrying slide to lock it rigidly to said frame but with provision for movement of said slide toward and from the work table; and means to operate said locking member so as to cause it to engage the slide while the latter is held at rest by its operating means.

4. A machine for cutting forms comprising a knife; means for actuating the knife; a leader; means for operating the leader; a gear; means for operating said gear; a shaft to which said gear is fixed; a cam fast on said shaft; a bell crank lever actuated by said cam and co-operating directly with the leader slide, said cam operating the bell-crank lever so as to cause the latter to hold the leader slide immovable during a portion of the travel of the knife.

5. A machine for cutting forms comprising a leader carrier; a leader mounted on said carrier; a support for said carrier; means to operate the leader; and means separate from said leader operating means and independent of said support to first position said leader and then lock it immovable when said leader is held stationary by its operating means.

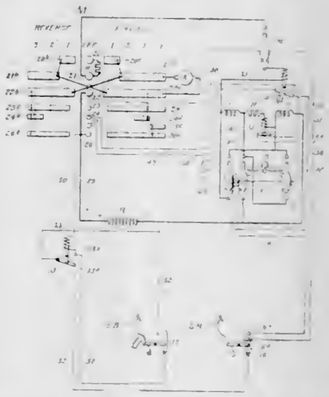
[Claims 6 and 7 not printed in the Gazette.]

1,144,430. SAFETY CHOKER-HOOK. FRED POWERS, Marshfield, Oreg. Filed Apr. 19, 1912. Serial No. 691,880. Renewed Apr. 27, 1915. Serial No. 24,349. (Cl. 24—232.)



A safety choker hook of the class described comprising a hook-shaped member consisting of a body portion having a bifurcated outer end and an inwardly bent hook at its inner end, a catch having a straight outer edge and an inwardly curved inner edge pivoted in the bifurcated end of the hook-shaped member with its inner end terminating at a point adjacent the outer end of the hook, the catch adapted to swing inwardly over the outer end of the hook against the inner wall of the body portion of the hook-shaped member to bring the inner end of the catch directly over the bend of the hook to bite or clamp the choker in said bend, the inwardly curved inner edge of the catch adapted to fit against the inner wall of the body portion of the hook-shaped member.

1,144,431. MOTOR-CONTROLLER. GUY R. RAPLEY, Milwaukee, Wis., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed Jan. 25, 1913. Serial No. 744,231. (Cl. 172—179.)



1. A controller for an electric motor having a plurality of series field winding comprising armature and field connections for the motor, a single-throw switch for controlling said field connections to effect either series or parallel connection of the field windings and a resistance associated with said switch to maintain the continuity of

the motor circuit during said change in said field connections.

2. A controller for an electric motor having a plurality of series field windings comprising armature and field connections for the motor, a single throw double-pole switch controlling said field connections for effecting either series or parallel connections of the field windings and a resistance associated with said switch and said connections to maintain the continuity of the motor circuit during said change in the field connections.

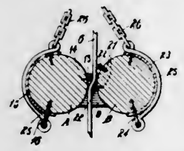
3. In a controller for motors having a plurality of series field windings, in combination, motor connections including variable connections for the motor field windings, a resistance, and a single throw double-pole switch controlling said variable field connections and said resistance to establish series connections for the field windings including said resistance or parallel connections for the field windings with a shunt therefor including said resistance, said switch effecting said changes without interruption of the motor circuit.

4. In a controller for an electric motor having a plurality of series field windings, in combination, variable motor connections including a series resistance and a single throw double-pole switch for varying said connections to establish parallel connection of the field windings with said resistance in shunt therewith, said resistance maintaining the continuity of said motor connections during said change in the field connections.

5. In a motor controller, in combination, two electroresponsive switches, one to be energized and deënergized prior to response of the other, and means automatically operating to retard the response of said latter switch and upon operation tending to prevent the deënergization of said former switch.

[Claims 6 to 25 not printed in the Gazette.]

1,144,432. WIRE-FENCE CLAMP. THOMAS L. RANDALL and GEORGE W. LESTER, Centerville, Mo. Filed Oct. 23, 1911, Serial No. 656,147. Renewed Nov. 23, 1914. Serial No. 873,637. (Cl. 254—83.)

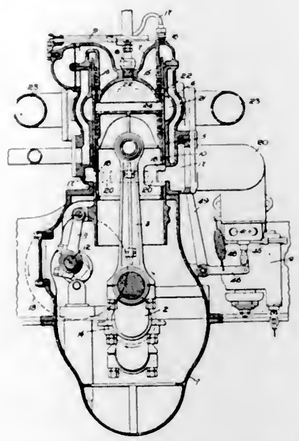


In a device of the kind described, a frame including the end members and a roller connecting said end members, a roller eccentrically journaled in said frame in parallel relation to the first roller, one of said rollers being provided with a longitudinally extending slot and the other roller being provided with a longitudinally extending rib adapted to enter said slot, and means to rotate said rollers simultaneously to cause the rib to enter the slot.

1,144,433. INTERNAL-COMBUSTION ENGINE. ANDREW L. RIKER, Bridgeport, Conn., assignor to The "Locomobile" Company of America, New York, N. Y., a Corporation of West Virginia. Filed Aug. 13, 1909. Serial No. 512,665. (Cl. 123—75.)

1. In an internal combustion engine, the combination with a cylinder of a piston, an admission port formed in the walls of said cylinder, a sleeve admission valve concentric with the piston and arranged directly upon the cylinder to control said cylinder port, and means for maintaining said admission valve closed during the suction movement of the piston but for opening the same after the creation of a substantial vacuum caused by the suction movement thereof.

2. A four-cycle internal combustion engine having in combination a cylinder provided with admission and exhaust ports, a piston, a slide valve arranged concentrically with the cylinder, means for firing a charge in the space between the piston and the end of the cylinder, and means for moving said slide valve to open the exhaust port on one inward piston stroke and the admission port on the next outward piston stroke but not until near the end thereof and close both said ports on the two succeeding piston strokes.



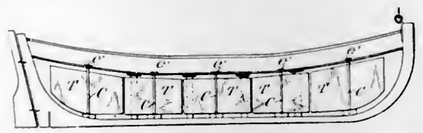
3. In a four-cycle internal combustion engine, the combination with a cylinder having a closed end and provided with exhaust passages having port openings upon the opposite sides of the cylinder, said cylinder having also an admission port, means for firing a charge in the space between the closed end of the cylinder and the piston, means for opening said exhaust ports on one inward stroke of the piston and the admission port on the next succeeding outward stroke of the piston but only after the creation of a substantial vacuum and for closing both said ports on the two succeeding piston strokes of the same cycle.

4. In a four-cycle internal combustion engine, the combination with a cylinder having a closed end, said cylinder having an exhaust port extending substantially around the entire circumferential extent of the cylinder and having also an admission port, a piston, means for firing a charge between the piston and the end of the cylinder, means for opening the exhaust port on one forward stroke of the piston and the admission port on the next succeeding inward stroke but only after the creation of a substantial vacuum and for closing both said ports on the two succeeding piston strokes.

5. In a four-cycle internal combustion engine, the combination with a cylinder and piston, said cylinder having admission and exhaust ports of a slide valve between the piston and cylinder, means for firing a charge between the piston and the end of the cylinder and means for moving said slide valve to open the exhaust on one outward stroke of the piston and the admission on the next inward stroke of the piston, but only after the creation of a substantial vacuum while closing both admission and exhaust on the next two succeeding strokes of the piston.

[Claims 6 to 16 not printed in the Gazette.]

1,144,434. BOAT. AXEL A. SAWMAN, Brooklyn, N. Y. Filed Sept. 16, 1914. Serial No. 861,943. (Cl. 9—3.)



The combination of a boat, side seats thereof, having a space beneath them, a series of tanks substantially filling said space, removable rods adapted to prevent lateral removal of said tanks, and means to lock said rods.

1,144,435. SONOROUS BODY AND PROCESS OF MAKING THE SAME. MELVIN L. SEVERY, Arlington Heights, Mass., assignor to Choralcelo Company, Boston, Mass., a Corporation of Maine. Filed Aug. 26, 1913. Serial No. 786,665. (Cl. 99—12.)

1. A tuned sonorous body comprising, in combination, a fibrous blank, and a tone-stabilizing medium filling the pores of said blank.

2. A tuned sonorous body comprising, in combination, a wooden blank, and a tone-stabilizing medium filling the pores of said blank.

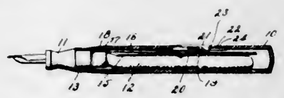
3. A tuned sonorous body comprising, in combination, a wooden blank of suitable form, and a filling of shellac in the pores of said blank.

4. A tuned sonorous body comprising a compressed wooden blank, and a tone-stabilizing medium occluded in the spaces between adjacent fibers of said blank.

5. A tuned sonorous body comprising a compressed wooden blank, and shellac occluded in the spaces between adjacent fibers of said blank.

[Claims 6 to 8 not printed in the Gazette.]

1,144,436. SELF-FILLER FOUNTAIN-PEN. JULIUS L. SCHNELL, Arlington, N. J. Filed Apr. 28, 1914. Serial No. 834,968. (Cl. 120—46.)



1. A self-filler fountain pen comprising a barrel, a pen section carried by the barrel, a collapsible tube in the barrel connected to said pen section, a spring holder in said barrel, a presser bar carried by the holder and lying against the side of said tube, a slide countersunk in one side of the barrel intermediate the ends thereof and a thrust link hinged at its opposite ends to said slide and said presser bar respectively.

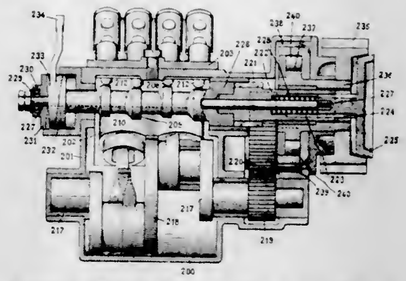
2. A self-filler fountain pen comprising a barrel, a collapsible tube in the barrel, a presser bar, a spring holder to maintain said presser bar against the side of said barrel, a slide countersunk in the side of said barrel intermediate the ends thereof and movable longitudinally of the barrel, a connecting link pivotally connected at its opposite ends to said slide and presser bar respectively whereby upon the longitudinal movement of said slide the presser bar is forced downwardly against the tube to collapse the same.

3. In a fountain pen, a barrel having an elongated recess in one side thereof intermediate its ends, a collapsible tube in said barrel, a presser bar bearing against one side of said barrel, a slide movable longitudinally in said recess and comprising a member having its ends bifurcated, means extending across said recess and engaging in said bifurcated ends to retain the slide in position in the recess, and a connecting link between the presser bar and the slide to force the bar against the tube and collapse the same as the slide is moved.

4. In a fountain pen, a barrel having a recess in one side thereof intermediate its ends, a collapsible tube in said barrel, a presser bar bearing against one side of the tube, operating means in the plane of the barrel wall comprising a slide movable in said recess in the plane of said wall and having undercut slots at either end thereof, pins passing transversely through the barrel and through said slots to retain the slide in position, and a connection between said slide and the presser bar to force the presser bar against the tube and collapse the same as the slide is moved.

1,144,437. MOTOR-STARTING DEVICE. WALTER H. SHIMPF, Boston, Mass., assignor to Shimpf Starter Company, Boston, Mass., a Corporation of Massachusetts. Filed Apr. 15, 1914. Serial No. 831,926. (Cl. 230—37.)

1. In a motor starting device, a plurality of cylinders, a piston and connecting rod for each cylinder common to a single crank shaft, an inlet and exhaust valve for each cylinder, a shiftable cam shaft gear-connected with said crank shaft and adapted to mechanically actuate all of the valves of the several cylinders and permit automatic operation of the inlet valves, a main driving gear adapted to be driven by the crank shaft and adapted to drive said crank shaft, a clutch for said gear and a single actuating device for operating said clutch and shifting the cam shaft.



2. A motor starting device having a plurality of cylinders, pistons and a single crank shaft common to all of said pistons, a shiftable cam shaft, inlet and exhaust valves for each of said cylinders adapted to be actuated by said shaft when the device operates as a motor and inoperative with reference to all of said valves when the device operates as a compressor, a main driving gear, a main clutch for said gear, driving connections intermediate the crank shaft and said gear controlled by said clutch and an actuating device common to the shifting cam shaft and clutch whereby said shaft and clutch are controlled to vary the operation of the valves and the driving mechanism intermediate the crank shaft and driving gear dependent upon whether the device operates as a motor or as a compressor.

3. In a motor starting device, a cylinder, piston and crank shaft, an inlet and exhaust valve for the cylinder, both mechanically operated when the device operates as a motor, a hollow shifting cam shaft actuating said valves as a motor, a main driving gear having driving connections with the crank shaft, an actuating rod for said gear passing through the crank shaft and a controlling device for shifting the cam shaft and the clutch.

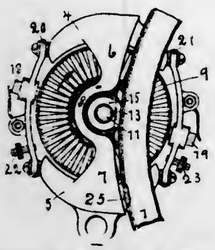
4. In a device of the character described, a plurality of cylinders, each having a piston, a main crank shaft common to all of said pistons, connections intermediate the shaft and pistons, an inlet and exhaust valve for each of said cylinders, a shiftable cam shaft for actuating all of said valves when the device operates as a motor and permitting automatic action of the inlet valves when the device operates as a compressor, a clutch member having an auxiliary movement though keyed to said shifting cam shaft, an actuating rod for said clutch extending through said cam shaft and a controlling device common to the cam shaft and clutch rod for shifting said shaft and controlling said clutch.

5. In a device of the character described, a shifting cam shaft, inlet and exhaust valves controlled by said cam shaft, a main crank shaft gear-connected with the cam shaft, a main driving gear bearing a clutch drum, a gear and roller clutches surrounding said drum, said gear driven by the gears intermediate the cam shaft and crank shaft, a clutch member rotating with the cam shaft, and axially movable with reference thereto, said clutch adapted to engage the main driving gear and a single controlling device common to the shiftable cam shaft and connected with the clutch member for varying the control of the valve and the driving gear connections.

1,144,438. ELECTRIC STARTER FOR AUTOMOBILE-ENGINES. ALBERT W. SMITH, Washington, D. C. Filed June 26, 1914. Serial No. 847,531. (Cl. 172—239.)

1. The combination with a fly wheel of a non-self-starting engine, of an electric starting motor, movably mounted with relation to said fly wheel, and having a rolling

driver in operative relation therewith; a spring acting to retain said motor, when unenergized, away from said fly wheel, and said driver out of contact therewith; and auxiliary pole pieces for said motor, forming a part of the magnetic field circuit thereof, said pole pieces conforming to said fly wheel, and acting to pull said motor toward said fly wheel, and to force said driver into contact therewith, when the motor is energized for starting the engine.



2. The combination with the fly wheel of a non-self-starting engine, of an electric starting motor, movably mounted with relation to said fly wheel, and having a rolling driver of hardened steel in operative relation therewith, said driver having nurling teeth or projections formed thereon; a spring acting to retain said motor, when unenergized, away from said fly wheel, and said driver out of contact therewith; and auxiliary pole pieces for said motor, forming a part of the magnetic field circuit thereof, said pole pieces conforming to said fly wheel, and acting to pull said motor toward said fly wheel, and to force said driver into contact therewith, when the motor is energized for starting the engine.

3. The combination with the fly wheel of a non-self-starting engine, of an electric starting motor, movably mounted with relation to said fly wheel, and having a rolling driver of hardened steel in operative relation therewith, said driver having nurling teeth or projections formed thereon, and said fly wheel having depressions corresponding with the nurling teeth of said driver, formed thereon; a spring acting to retain said motor, when unenergized, away from said fly wheel, and said driver out of contact therewith; and auxiliary pole pieces for said motor, forming a part of the magnetic field circuit thereof, said pole pieces conforming to said fly wheel, and acting to pull said motor toward said fly wheel, and to force said driver into contact therewith, when the motor is energized for starting the engine.

4. In an electric starting motor for non-self-starting engines, in combination, a pole frame without field windings, having armature poles, and also poles conforming to the fly wheel of the engine; a self magnetizing ring armature mounted on a shaft journaled in said pole frame, a driving element on said shaft in operative relation with said fly wheel; a self commutating winding for said armature, formed of square wire with a bared contact or brush surface, and contact brushes having a lead in the direction of rotation, and bearing directly on said winding.

5. In an electric starting motor for non-self-starting engines, in combination, a pole frame without field windings, having armature poles, and also poles conforming to the fly wheel of the engine; a self magnetizing ring armature with an unlaminated core, mounted on a shaft journaled in said pole frame, a driving element on said shaft in operative relation with said fly wheel; a self commutating winding for said armature, formed of square wire with a bared contact or brush surface, and contact brushes having a lead in the direction of rotation, and bearing directly on said winding.

1,144,439. STEP FOR AUTOMOBILES AND OTHER VEHICLES. FRANK H. STANWOOD, Arlington, Mass. Filed May 2, 1913. Serial No. 764,993. (Cl. 21—55.)

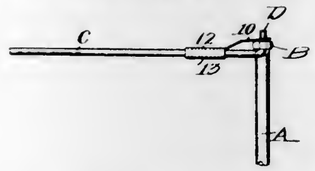
1. A running-board for automobiles and other vehicles, the running-board having an opening therein, a plurality of boards supported in said opening, the boards being spaced apart to thereby permit accumulated dirt to be washed therethrough and each board having a flat tread surface composed of fiber strips, the tips of the fiber strips being arranged to form a continuation of the remaining surface of the running-board, substantially as specified.



2. A running-board for automobiles and other vehicles, said running-board having an opening therein and a tread surface detachably supported in said opening, said tread surface comprising a plurality of members spaced apart and each provided with a yieldable surface adapted to loosen foreign matter from the shoes of persons stepping thereon, said tread surface being arranged to form a flat continuous, substantially unbroken surface with the rest of the running-board, substantially as specified.

3. A running-board for automobiles and other vehicles having an opening therethrough and a tread surface detachably supported therein, said tread surface comprising a plurality of spaced boards rigidly held together in proper relation with respect to each other by metal straps whereby all of said boards are removable simultaneously, and means for detachably holding said tread surface in position, the tread surface comprising fiber strips, the tips of which are exposed and arranged to form a flat substantially unbroken surface with the rest of the running-board, substantially as specified.

1,144,440. LINK-CONNECTOR. SIDNEY J. STAPLES, West New York, N. J., assignor to The Auto Pneumatic Action Company, a Corporation of New York. Filed May 4, 1912. Serial No. 695,168. (Cl. 74—17.)



1. The combination of a lever having a hole therethrough, a link having a bent end adapted to enter said hole, and a connector having a spring arm provided with a hole fitted on the bent end of the link and with a body section engaging the body of the link to hold the connector in position thereon.

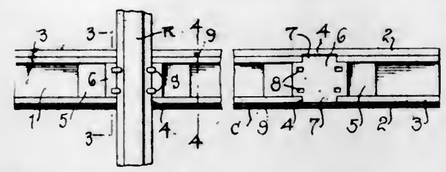
2. The combination of a member having a hole in its end, a second member having a laterally extending part engaging into and projecting beyond the hole in the first member, and a sheet metal connector having a spring arm provided with a hole fitted on the projecting portion of said part and provided with sections for engaging on opposite sides of the second member.

3. The combination of a lever having a hole in its end, a link having a bent end fitting in said hole, and a sheet metal connector having a spring arm provided with a hole fitted on the bent end of the link and with a body section, and a section bent parallel thereto, said sections engaging the body of the link.

1,144,441. RAILWAY-TIE. JERRY W. ST. CLAIR, Johnstown, Pa. Filed Apr. 5, 1915. Serial No. 19,246. (Cl. 238—5.)

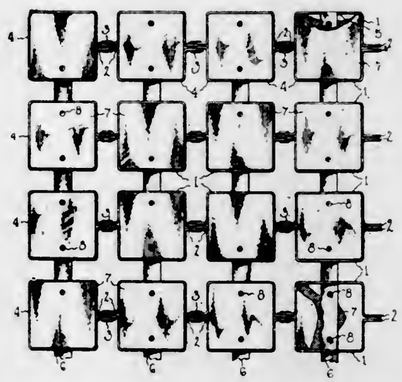
A device of the character described including an elongated casing having its ends and top open, the bottom of said casing being concaved in cross section and the sides

thereof being disposed in converging planes, the upper longitudinal marginal portions of the sides being provided with inwardly disposed flanges, said sides and flanges at predetermined points adjacent the extremities of the casing being cut out, bearing blocks insertible within the casing through the ends thereof and bridging the cut out



portions of the casing, said cut out portions terminating below the upper surfaces of the blocks, and a wear plate resting on the upper surface of each of the blocks, said plate being provided with extensions extending within the cut out portions of the casing to hold said plate against movement longitudinally of the casing.

1,144,442. FLOOR-MAT. FRANK ST. LOUIS, Windsor, Ontario, Canada. Filed Mar. 27, 1915. Serial No. 17,346. (Cl. 15—62.)



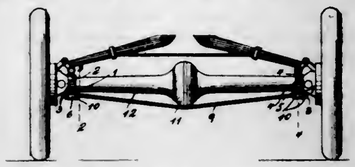
1. A rollable mat comprising series of frames with said series articulated outside of said frames, a flat stiffening member extending through the frames of each series, a block in each frame, and means in each frame independent of the walls thereof for connecting the blocks in said frame to the stiffening member extending therethrough.

2. A mat comprising a series of frames, a flat stiffening member extending throughout the series of frames and bodies in each frame connected to said flat stiffening member.

3. A mat comprising articulated series of frames, a flat stiffening member extending through the frames of each series, blocks in the frames of all of said series, and means extending through said stiffening member for connecting said block to the stiffening members.

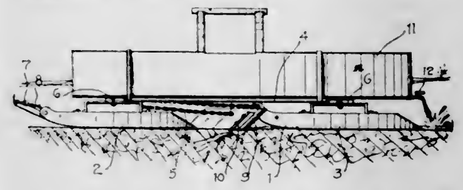
1,144,443. REAR-AXLE TRUSS. HERMAN H. SUNVOLD, Sacred Heart, Minn. Filed Nov. 12, 1914. Serial No. 871,770. (Cl. 21—5.)

1. In a device of the class described, the combination of an axle housing, a pair of sectional clamps carried by said housing, a depending lug formed upon one section of each clamp, a brace rod carried by said lugs, said clamps provided with tapering notches having enlarged base portions formed in alinement with each other, said notches being adapted to receive a plurality of bolt heads used in assembling said axle housing, whereby the bolt heads will engage the base portions of said notches thereby positively holding said clamps against rotation upon said housing for retaining said rod in a set position.



2. In a device of the class described, the combination of an axle housing, a pair of sectional clamps carried by said housing, a depending lug formed upon each clamp, a brace rod carried by said lugs, said clamps provided with tapering notches formed upon their inner portions contiguous to their inner side edges, said notches having enlarged base portions, said notches being adapted to receive a plurality of bolt heads used in assembling said axle housing, whereby the bolt heads will engage the base portions of said notches for holding said clamps against rotation as well as prevent the truss from creeping upon said axle housing.

1,144,444. ROAD-MAKING MACHINE. EMIL T. SUTHERLAND, Iron River, Mich. Filed Apr. 7, 1913. Serial No. 759,525. (Cl. 37—35.)



1. A machine for making logging roads through snow, including forward and rearward sleds flexibly connected to each other, a V-shaped plow disposed forward of the rear sled flexibly connected to the forward sled and having free vertical movement independently of the rear sled, the shares of the plow extending laterally beyond the runners of the rear sled, and rut cutters mounted on the plow shares immediately in front of the rear runners.

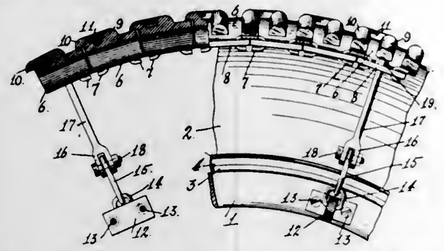
2. A road machine including forward and rear sleds, each having a pair of runners, said sleds being flexibly connected with each other, a V shaped plow disposed between the forward and rear sleds flexibly connected with the forward sled and having vertical movement independent of the rear sled, the shares of the plow extending laterally beyond the runners of the rear sled, and rut cutters disposed immediately in front of the rear runners and mounted on the shares of the plow, said cutters being disposed with their forward faces at right angles to the line of draft.

3. A road machine including forward and rear sleds, crossed connections flexibly connecting the sleds to each other, a V-shaped plow disposed between the forward and rear sled, crossed connections flexibly connecting the plow to the forward sled, the shares of the plow extending laterally beyond the runners of the rear sled, and rut cutters mounted on the plow shares inward of the ends of the shares, immediately in front of the rear runners, the faces of said cutters being disposed at right angles to the line of draft.

1,144,445. TIRE-PROTECTOR. WILLIAM B. THOMPSON, Los Gatos, Cal. Filed Mar. 19, 1913. Serial No. 755,306. (Cl. 152—16.)

1. A tire protector for vehicle wheels comprising a series of plates which embrace the tread of the tire, said plates having their adjacent edges formed to leave spaces between them which widen outwardly between those plates not resting on the ground and which close between those

plates which rest upon the ground and said plates being formed at each side of the tire with extensions which project beyond the sides of the tire, a curved arm adjustably connected to each of said extensions and embracing the sides of the tire, said arms extending to a point adjacent the wheel felly, and a flexible connection between said arms and the felly.



2. A tire protector for vehicle wheels comprising plates which embrace the tread of the tire, said plates having their adjacent edges formed to leave spaces between them which widen outwardly between those plates not resting on the ground and which close between those plates which rest upon the ground and said plates being formed with extensions which project beyond the sides of the tire, arms having an adjustable connection with said extensions, said arms being curved to embrace the sides of the tire, a link hingedly connected to the terminal of each arm, and a flexible connection between said link and the wheel felly.

3. A tire protector for vehicle wheels comprising plates which embrace the tread of the tire, said plates having their adjacent edges formed to leave spaces between them which widen outwardly between those plates not resting on the ground and which close between those plates which rest upon the ground and said plates being formed with extensions which project beyond the sides of the tire, arms having an adjustable connection with said extensions, said arms being curved to embrace the sides of the tire, a link pivotally supported on the lower terminal of each arm, a second link having a sliding connection with the first mentioned link and a pivotal connection with the wheel felly.

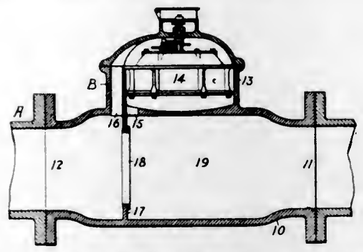
4. A tire protector for vehicle wheels comprising a series of plates which embrace the tread of the tire, said plates having their adjacent edges formed to leave spaces between them which widen outwardly between those plates not resting on the ground and which close between those plates which rest upon the ground, said plates having on their outer faces cross ribs which slidingly bridge and cover the spaces between them, and said plates being formed at each side with extensions which project beyond the sides of the tire; curved arms adjustably connected to said extensions and embracing the sides of the tire; and a flexible connection between said arms and the wheel felly.

5. A tire protector for vehicle wheels comprising a series of plates which embrace the tread of the tire, said plates having their adjacent edges formed to leave spaces between them which widen outwardly between those plates not resting on the ground and which close between those plates which rest upon the ground, said plates being formed at each side with extensions which project beyond the sides of the tire; links fitted to adjacent extensions hingedly connecting the plates in an articulated series; curved arms adjustably connected to said extensions and embracing the sides of the tire; and a flexible connection between said arms and the wheel felly.

[Claim 6 not printed in the Gazette.]

1,144,446. HYDRAULIC SYSTEM. JAMES A. TILDEN, Boston, Mass. Filed Mar. 7, 1912. Serial No. 682,255. (Cl. 73—68.)

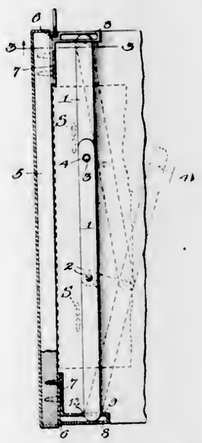
1. A proportional meter having a section of greater caliber than the main in which the meter is used, said section provided with a diaphragm having a fixed and unobstructed opening for the flow, and a by-pass around the diaphragm having a tally-meter therein.



2. A proportional meter having standard connections at either end for a main of fixed size and an intermediate section of greater caliber, the latter provided with a diaphragm having a fixed and unobstructed opening for the flow, and a by-pass around the diaphragm having a tally-meter therein.

3. A proportional meter having a gradually expanded section of greater caliber than the main in which the meter is used, said section provided with a diaphragm having a fixed and unobstructed opening for the flow, and a by-pass around the diaphragm having a tally-meter therein.

1,144,447. TEMPORARY BINDER. JOSEPH M. TOWNE, East Orange, N. J. Filed Aug. 7, 1914. Serial No. 855,625. (Cl. 129—38.)



1. In combination with a pair of spaced stationary keepers, a pair of overlapping pivotally connected thin metal strips formed to engage the keepers at their outer ends and being engageable with and disengageable from the keepers by expansion and contraction of the strips, a stud on one strip and the other strip having an aperture to receive the stud so as to hold the strips locked against expansion and contraction.

2. In a loose leaf binder, in combination with a pair of keepers, a pair of pivotlay connected flexible strips having means to engage the keepers, and means to lock said strips against pivotal movement, said means being engageable and disengageable by flexure of said strips.

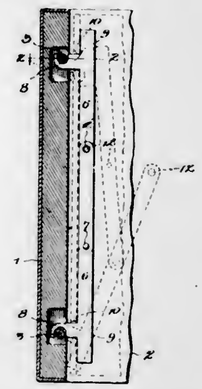
3. In a loose leaf binder, in combination with a pair of keepers, a pair of strips adapted at their ends to engage said keepers, means to connect the strips to permit expansion and contraction thereof, and means borne by the strips to lock the strips against contraction operable by lateral movement of the strips.

4. In a loose leaf binder, a pair of flexible strips, a pair of keepers, said strips being adapted at their ends to engage said keepers, means to connect the strips to permit expansion and contraction thereof, and means to lock the strips against contraction operable by flexure of the strips.

5. In a loose leaf binder, a pair of flexible strips, a pair of keepers, said strips being adapted at their ends to engage said keepers, means to connect the strips to permit expansion and contraction thereof, and means to lock the strips against contraction operable by flexure of the strips, said strips being thin so as to be insertible between the leaves of a book and the book acting to prevent accidental flexure of the strips.

[Claim 6 not printed in the Gazette.]

1,144,448. TEMPORARY BINDER. JOSEPH M. TOWNE, East Orange, N. J. Filed Aug. 7, 1914. Serial No. 855,626. (Cl. 129—1.)



1. In combination with a back having keeper members, flexible binding members capable of being shortened or lengthened and provided at their extremities with means to receive said keeper members, and means whereby said binding members may be connected to the magazine or the like and to the keeper members at points intermediate the ends of the magazine.

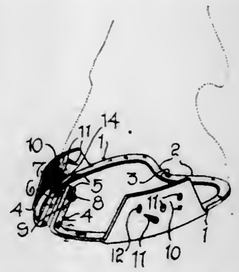
2. In a binder, a back having spaced keeper members permanently connected thereto, a pair of binding members pivotally connected so as to be capable of expansion and contraction, a right angular shank adjacent the outer end of each binding member, and a jaw formed on each shank to receive the respective keeper members, said shanks and jaws being capable of being passed through openings provided therefor in the back of a magazine or the like.

3. A binder for magazines having openings formed in the back thereof, consisting of a back having a pair of cross rods permanently connected thereto, a pair of binding members pivotally connected so as to be capable of expansion and contraction, said members having jaws near their outer ends which jaws are adapted to aline with the respective openings formed in the magazine back and are also adapted to engage the cross rods.

4. A binder for magazines having openings formed in the back thereof, consisting of a back having a pair of cross rods permanently connected thereto, a pair of binding members pivotally connected so as to be capable of expansion and contraction, said members having right angular jaws which are adapted to extend through said openings in the magazine back and are also adapted to engage the cross-rods.

1,144,449. HORSESHOE. BERNARD M. TULESKI, Bay City, Mich., assignor of one-half to John Superzynski, Bay City, Mich. Filed Mar. 10, 1915. Serial No. 13,430. (Cl. 168—21.)

A horseshoe of the character described comprising substantially duplicate sections pivotally connected at their heel extremities, the toe portions of the sections being provided with upstanding extensions adapted to overlie the hoof, each of said extensions having their free extremities bifurcated, plates carried by the sections midway thereof and provided with penetrating means, a clamping member adapted to be positioned within the bifurcated extremities of the toe extensions of the sec-



tions, said clamping member comprising a shank provided with a cross head, and a retaining member adjustably engageable with the shank, the face of one of the toe extensions with which the head of the shank coacts being provided with a groove intersecting the bifurcated portion thereof and adapted to receive said head whereby the shank is maintained against axial rotation.

1,144,450. INSECT-CATCHER. GARRETT M. TUNISON, Red Cloud, Nebr. Filed July 13, 1914. Serial No. 850,714. (Cl. 43—1.)



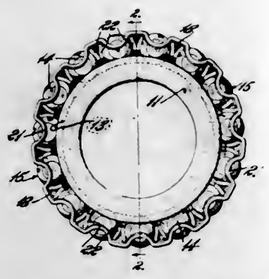
1. In an insect exterminator, upper and lower spaced rectangular frames, vertical standards connecting said frames and having a plurality of holes therein, runners on the lower ends of said standards, supporting brackets adjustably mounted on the standards, bolts connected to the supporting brackets and arranged to extend through any one of the aforementioned holes, pans removably supported on the said brackets, and a drag bar secured to the forward ends of the runners.

2. In a device of the class described, a rectangular frame, standards secured to said frame and extending downwardly therefrom, runners on the lower ends of said standards, brackets extending between standards and adjustably mounted thereon, pans supported by said brackets, and means in the pans for exterminating insects.

1,144,451. ROLLER-BEARING. HERBERT VANDERBEEK, Canton, Ohio, assignor to The Timken Roller Bearing Company, Canton, Ohio, a Corporation of Ohio. Filed June 16, 1913. Serial No. 773,871. (Cl. 64—62.)

1. An integral sheet metal roller bearing cage comprising spaced longitudinal members and end rings, said longitudinal members being provided with inwardly extending wings having concave surfaces forming roller pockets which embrace the rollers at four diametrically opposite points and the extremities of the wings between the pockets being in contact, said rings having inwardly extending portions adapted to prevent longitudinal displacement of the rollers, the inwardly extending portions of one of said rings having concave segments capable of being bent to uncover the end of the pocket.

2. A sheet metal roller bearing cage comprising lengthwise peripheral portions and end rings integral therewith, said peripheral portions being spaced apart and provided along their margins with inwardly extending wings having concave surfaces adapted to form roller pockets between adjacent peripheral portions, the extremities of the wings between the roller pockets being in contact, and one of said end rings being crimped inward to retain rollers in said pockets, said crimped portions being adapted to be bent outward beyond the ends of said roller pockets, whereby rollers may be inserted therein or removed therefrom.



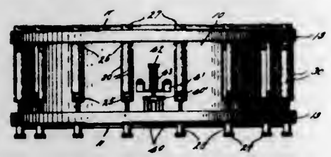
3. A pressed steel roller bearing cage comprising lengthwise spacing strips having rigid flanges along their edges and end rings integral therewith, said spacing strips being spaced apart and the flanges having concave surfaces forming roller pockets between them adapted to embrace rollers at four diametrically opposite points, whereby said rollers are rigidly held against sidewise displacement both circumferentially and radially said end rings being arranged to prevent longitudinal displacement of the rollers, one of said end rings having concave segments capable of being bent to uncover the ends of said pockets.

4. A pressed steel roller bearing cage comprising continuous end rings and connecting members integral therewith, said connecting members being spaced circumferentially between said end rings and having rigid wings projecting inwardly therefrom forming roller pockets, rollers in said pockets, the spaces between the tips of the wings forming said roller pockets being narrower than the corresponding diameters of the rollers, whereby the rollers can not be sprung into or out of the pockets, one of said end rings having portions which extend inward across the ends of said roller pockets to retain said rollers therein and which are adapted to be bent outwardly whereby said rollers may be removed therefrom.

5. A pressed steel roller bearing cage comprising lengthwise flanged spacing strips and end rings integral therewith, said flanged spacing strips being spaced apart circumferentially to form roller pockets, and one of said end rings being adapted to be bent outward between any two adjacent spacing strips to permit rollers to be inserted lengthwise in said pockets.

[Claims 6 to 10 not printed in the Gazette.]

1,144,452. SNARE-DRUM. CHARLES B. WANAMAKER, Indianapolis, Ind., assignor to Leedy Manufacturing Company, Indianapolis, Ind., a Corporation of Indiana. Filed Dec. 19, 1913. Serial No. 807,584. (Cl. 84—127.)



1. As an article of manufacture, a tensioning member for drums comprising a pair of threaded heads, an interposed spring, and a multiplicity of mating barrel-forming members each comprising a sheet metal portion formed into a cylindrical segment and having inwardly turned hooks at its opposite ends, one hook of each of said members engaging a head and the other hook of each of said members engaging the spring.

2. As an article of manufacture, a tensioning member for drums comprising a pair of threaded heads, an interposed spring, and a multiplicity of mating barrel-forming members, each having inwardly turned hooks at its opposite ends, one hook of each of said members engaging a head and the other hook of each of said members engaging the spring.

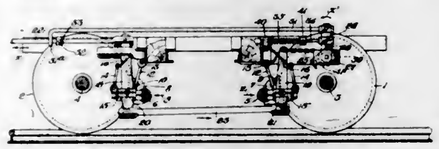
3. As an article of manufacture, a tensioning member for drums comprising a pair of heads, a compression spring between said heads, a plurality of members extending along the outside of said spring and each having hooks at both ends, some of said members being hooked to one of said heads and to the opposite end of said spring and the remainder of said members being interspersed with them and hooked to the other head and the end of the spring opposite therefrom, said spring being sufficiently long when expanded to force the ends of said members which engage it against said heads.

4. As an article of manufacture, a tensioning member for drums comprising a pair of heads, a compression spring between said heads, a plurality of members extending along the outside of said spring and each having hooks at both ends, some of said members being hooked to one of said heads and to the opposite end of said spring and the remainder of said members being interspersed with them and hooked to the other head and the end of the spring opposite therefrom.

5. A drum comprising a main body, a pair of heads, a head ring for each of said heads, means for resiliently urging these head rings toward head-tightening positions, snares coöperating with one of said heads, and resilient means for tightening said snares independently of either head ring.

[Claims 6 and 7 not printed in the Gazette.]

1,144,453. AUTOMATIC SLACK-ADJUSTER FOR BRAKES. HERBERT F. WOOD and JOSEPH GULLAGE, Somerville, Mass. Filed July 29, 1914. Serial No. 853,966. (Cl. 188—49.)

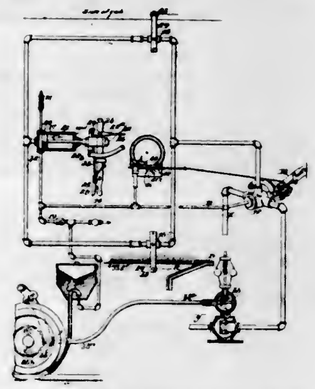


1. In a slack adjuster for brakes, a take-up wheel and a ratchet wheel and a pawl-carrying actuating lever therefor all in axial alinement, said take-up wheel and said ratchet wheel being fixed with relation to each other, a rod one end of which is pivoted to said lever and the other end of which is arranged to slide on the brake rod, said slidable rod being actuable by setting movement of the brake rod to carry said lever to potential take-up position, and a spring-pressed rod substantially parallel with said slidable rod and pivoted to said lever and arranged to move said lever to cause take-up movement of said ratchet and take-up wheel upon release of the brakes.

2. In a slack adjuster for brakes, a take-up wheel and a ratchet wheel and a pawl-carrying actuating lever therefor all in axial alinement, said take-up wheel and said ratchet wheel being fixed with relation to each other, a rod one end of which is pivoted to said lever and the other end of which is arranged to slide on the brake rod, said slidable rod being actuatable by setting movement of the brake rod to carry said lever to potential take-up position, a second rod pivoted to said lever and disposed substantially parallel with said slidable rod and operable by a compression spring to move said lever to cause take-up movement of said ratchet and take-up wheel upon release of the brakes, and means for adjusting the pressure of said compression spring.

3. In a slack adjuster for brakes, the combination with the brake rod and an adjustable member thereon, of a take-up wheel and a ratchet wheel and a pawl-carrying actuating lever therefor all in axial alinement, said take-up wheel and said ratchet wheel being fixed with relation to each other, a rod one end of which is pivoted to said lever and the other end of which is arranged to slide on the brake rod, said slidable rod being actuatable by said adjustable member upon setting movement of the brake rod to carry said lever to potential take-up position, and a spring-pressed rod pivoted to said lever and disposed substantially parallel with said slidable rod and operable by a compression spring to move said lever to cause take-up movement of said ratchet and take-up wheel upon release of the brakes.

1,144,454. SAFETY AUTOMATIC TRAIN-STOPPING MEANS. WILLIAM AUSTIN, Scranton, Pa., assignor of one-half to Michael W. O'Boyle, Pittston, Pa. Filed Mar. 10, 1914. Serial No. 823,714. (Cl. 246—59.)

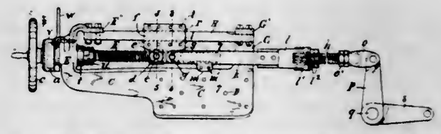


1. In a train stopping system, a gravity-drop controlled obstacle situated along the right of way and a train carried apparatus coöperative therewith; said train carried apparatus including the following elements in combination; to wit, a permissive valve, two connections between said permissive valve and the train pipe of the air brake system a speed governor controlled valve in one of said connections designed to open the same at a predetermined speed, at least one trip valve, a connection between said permissive valve and the inlet side of said trip valve, a trip lever for engaging the track obstacle to operate said trip valve, said permissive valve including an operating lever and quadrant, and means for locking said permissive valve lever against movement when said trip valve has been opened.

2. In a train stopping system, a gravity-drop controlled obstacle situated along the right of way and a train carried apparatus coöperative therewith; said train carried apparatus including the following elements in combination; to wit, a permissive valve, two connections between said permissive valve and the train pipe of the air brake system a speed governor controlled valve in one of said connections designed to open the same at a predetermined speed, at least one trip valve, a connection between said permissive valve and the inlet side of said trip valve, a trip lever for engaging the track obstacle to operate said trip valve, said permissive valve including an operating lever and quadrant, and means for locking said permissive valve lever against movement when said trip valve has been opened, and means for restraining said trip lever from accidental displacement.

3. In a train stopping system, a gravity-drop controlled obstacle situated along the right of way and a train carried apparatus coöperative therewith; said train carried apparatus including the following elements in combination; to wit, a permissive valve, two connections between said permissive valve and the train pipe of the air brake system a speed governor controlled valve in one of said connections designed to open the same at a predetermined speed, at least one trip valve, a connection between said permissive valve and the inlet side of said trip valve, a trip lever for engaging the track obstacle to operate said trip valve, said permissive valve including an operating lever and quadrant, and means for locking said permissive valve lever against movement when said trip valve has been opened, and means for restraining said trip lever from accidental displacement, said last named means comprising a spring pressed latch pin mounted to engage said trip lever when in its normal position, said trip lever having a recess to receive said latch pin.

1,144,455. SCREW REVERSE-GEAR FOR ENGINE-VALVES. WILLIAM A. AUSTIN and SHERMAN S. LAWSON, Lima, Ohio, assignors to Lima Locomotive Corporation, Lima, Ohio, a Corporation of Virginia. Filed Dec. 1, 1914. Serial No. 874,967. (Cl. 74—40.)



1. In a valve reverse-gear, the combination, with an operating screw and a hand-wheel for rotating the same, of a single guide-bar extended by the side of the screw, suitable means for connecting the said parts operatively together, a nut upon the screw, a crosshead having separable parts fitted detachably upon the guide-bar and connected to the nut, and a yoke journaled detachably upon opposite sides of the crosshead, with a clevis connected detachably to the yoke for connection to a reach-rod, whereby the crosshead may be detached from the guide-bar and nut without disturbing the screw, nut or guide-bar, and the yoke of the reach-rod may be detached from the crosshead without disturbing the operative connection of the crosshead, the nut and the guide-bar.

2. In a valve reverse-gear, the combination, with an operating screw, and a hand-wheel for rotating the same, of a bracket having a bearing for the screw adjacent to the hand-wheel, and arms upon opposite ends of the bracket extended transverse to the screw, a bar attached to the arms forming a single crosshead-guide wholly at one side of the screw, a crosshead supported wholly upon such single guide-bar and having a nut fitted to the screw, and a reach-rod connected to the crosshead.

3. In a valve reverse-gear, the combination, with a bracket having a bearing at one end with an operating screw journaled therein and means for rotating the same by hand, of a single bar sustained upon the bracket at one side of the screw to form a crosshead-guide, a crosshead having separable parts fitted detachably to opposite sides of the guide-bar and screw, a nut fixed in the crosshead and fitted to the said screw, and a reach-rod connected to the crosshead.

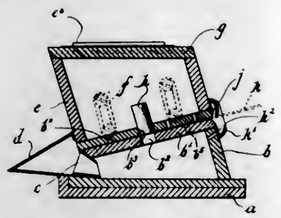
4. In a valve reverse-gear, the combination, with an operating screw and a hand-wheel for rotating the same, of a single guide-bar extended by one side of the screw, a crosshead having separable parts secured detachably upon the guide-bar, a nut upon the screw with freely detachable connection to the parts of the crosshead, and a reach-rod having a yoke extended at opposite sides of the screw and having detachable trunnion-connection with the outer sides of the crosshead.

5. In a valve reverse-gear, the combination, with a bracket having a bearing at one end with an operating screw journaled therein and means for rotating the same by hand, of a single bar sustained upon the bracket at one side of the screw to form a crosshead-guide, a crosshead having separable parts fitted detachably to opposite sides of the guide-bar and screw, a nut fixed in the crosshead and fitted to the said screw, trunnions upon opposite sides

of the crosshead, yoke-pieces journaled upon such trunnions and connected together at one side of the line of the screw, and a clevis and reach-rod attached to the said yoke.

[Claims 6 to 11 not printed in the Gazette.]

1,144,456. KNIFE-POLISHING APPARATUS. WILLIAM HENRY BARNES, Manchester, England. Filed Feb. 11, 1915. Serial No. 7,625. (Cl. 51—6.)



1. A knife polishing device comprising a pair of superposed independent casings the respective top and bottom of which constitute polishing surfaces and are provided with openings respectively whereby the polishing material will pass from the interior of the top casing to the interior of the bottom casing, means for yieldingly holding the casings together, and means for effecting delivery of the polishing material in bulk from the bottom casing to the top casing when the positions of the casings are reversed.

2. A knife polishing device comprising a pair of superposed independent casings the respective top and bottom of which constitute polishing surfaces and are provided with registering openings and further provided with openings disposed out of registration, a tubular member mounted in the registering opening of the upper casing and projecting into the latter a predetermined distance, and means for yieldingly holding the casings together.

3. A knife polishing device comprising a pair of superposed independent casings the respective top and bottom of which constitute polishing surfaces, means for yieldingly holding the casings together, means exteriorly of and at one end of the casings for wiping the polishing material from a knife, and a chute for catching such material and directing same to the interior of the lower casing.

1,144,457. METHOD OF PRODUCING CYANOGEN COMPOUNDS. CARL BEINDL, Munich, Germany. Filed Sept. 1, 1910. Serial No. 579,994. (Cl. 23—1.)

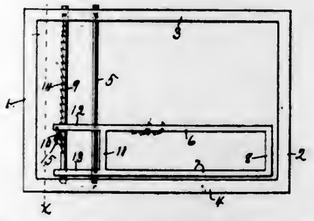
The herein described process of producing hydrocyanic acid and cyanic compounds, which process consists in forming a mixture of no more than ten parts by volume of substantially pure carbon compound and one part by volume of substantially pure nitrogenous compound, and conducting said mixture into contact with a catalytic agent of wire-net incapable of decomposing the nitrogenous compound in said mixture and heated to a temperature not exceeding 500° C.

1,144,458. CHASE FOR PRINTERS. PERCY S. BOLLES, Fort Worth, Tex. Filed Apr. 23, 1915. Serial No. 23,312. (Cl. 101—25.)

1. A chase for printers comprising a rigid frame, bars mounted in the top and bottom bars of said frame, and a type chase consisting of a rigid frame having extensions engaging said first mentioned bars and movable thereon.

2. A chase for printers comprising a rigid frame, bars mounted in the top and bottom bars of said frame, and a type chase consisting of a rigid quadrangular frame having extensions adjustably engaging said bars for holding the type chase at different positions in said rigid frame.

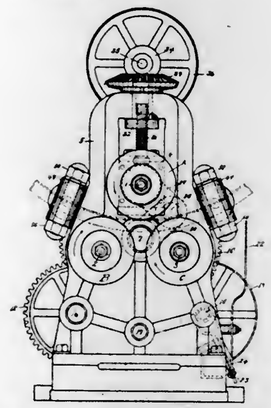
3. A chase for printers comprising a rigid frame, transverse bars passing through the top of said frame and into the bottom of said frame, a type chase consisting of a rectangular frame having extensions engaging said bars, and means in connection with one of said bars for holding said type chase at different positions within said rigid frame.



4. A chase for printers comprising a rigid frame having top and bottom and side frame pieces, a type chase mounted within said frame and consisting of a rectangular frame having extensions at one end, transverse bars engaging said top and bottom frame pieces and passing through said extensions, and means in connection with one of said bars for holding said type chase at different positions within said rigid frame.

5. A chase for printers comprising a rigid frame having top and bottom and side frame pieces, a type chase mounted within said frame and consisting of a rectangular frame having extensions at one end, transverse bars engaging said top and bottom frame pieces and passing through said extensions, one of said bars having a rack formed thereon, and one of said extensions having a spring dog for engaging said rack.

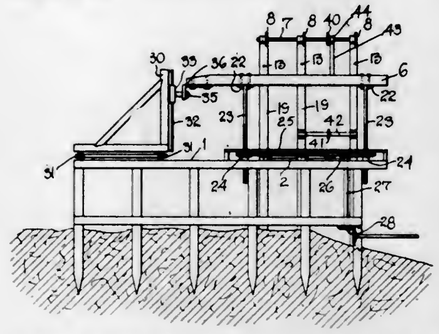
1,144,459. ANGLE-IRON-BENDING MACHINE. FRANK V. BURMAN, Bay City, Mich., assignor to Bay City Iron Co., Bay City, Mich. Filed Feb. 9, 1914. Serial No. 817,545. (Cl. 153—56.)



1. In an angle-iron bending machine, the combination with a frame and a train of driving gears, of a non-adjustable driven shaft, a pair of non-adjustable bending-roll shafts arranged in a horizontal plane below said driven-shaft and parallel therewith, a vertically adjustable bending-roll shaft arranged above said non-adjustable driven-shaft, a pair of toggle links connecting said vertically adjustable shaft and said driven-shaft, gears on said shaft, an idler gear revolubly mounted at the intersection of said toggle links and engaging the gears of said shaft respectively, a set of two-part bending rolls mounted on each of the aforesaid bending-roll shafts, one part of each bending-roll being horizontally adjustable with relation to the other part, which part is fixed, whereby to increase or decrease the flange-space between each set of bending-rolls.

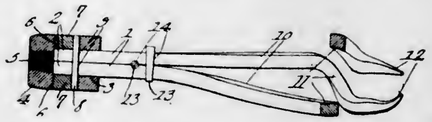
2. In an angle-iron bending machine, the combination with a plurality of shafts, a set of bending-rolls mounted on each shaft, each set comprising a roll fixed to each of said shafts, and a roll arranged on each shaft adjacent said fixed roll, said latter rolls being longitudinally adjustable upon their shafts to increase or decrease the flange-space between the two rolls of each set, and means operatively connecting said adjustable rolls and their shafts, said means adapted to force the rolls either toward or away from the corresponding fixed rolls to effect their relative adjustment.

1,144,460. LOADING APPARATUS. MICHAEL H. BYRNE, Ashland, Wis. Filed Dec. 12, 1914. Serial No. 876,901. (Cl. 193—3.)



A device of the character described comprising a support, a frame capable of movement relative to said support, a cross beam connecting the upper extremity of the frame, means coacting with the cross beam for raising and lowering said upper extremity of the frame, an upright pivotally mounted upon the support and movable in a direction longitudinally of the frame, and a slidable connection between said upright and the adjacent extremity of the cross beam.

1,144,461. BOILER-FLUE CLEANER. JOHAN W. CARLSON, Clallam Bay, Wash. Filed Nov. 30, 1914. Serial No. 874,769. (Cl. 83—64.)

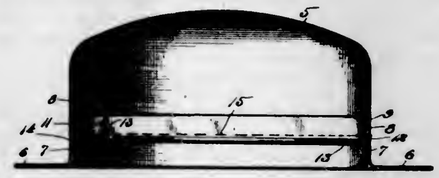


1. A cleaner head comprising a body member, a plurality of resilient shanks secured to the body and diverging away from each other toward their free ends, the free ends of the shanks having cutters, and a taper pin engaged between the basal portions of the shanks for separating the shanks when it is driven inwardly.

2. A cleaner head comprising a body member having a socket, four bars having their basal ends fitting together and secured within the said socket, the bars projecting from the body member to provide shanks, the shanks diverging from each other and having cutters at their free ends, and a pair of tapered pins disposed at right angles to each other and spaced longitudinally, and engaged between the respective pairs of bars at the inner ends of the shanks, the bars having notches through which the said pins are engaged.

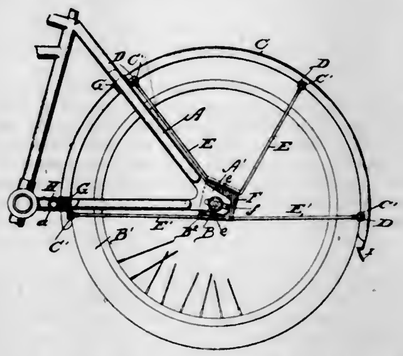
1,144,462. ADJUSTABLE HAT CONFORMER AND RETAINER. LEON COHEN, St. Louis, Mo. Filed July 30, 1914. Serial No. 854,047. (Cl. 2—108.)

1. A device of the class described, comprising a pair of parallel connected casings, a relatively inflexible reinforce for one of said casings, said reinforce at its one end arranged to be inserted into the opposite end of the casing with which it is associated and an elastic cord within the other casing, said casings being substantially at right angles, relatively, when in use.



2. A device of the class described, comprising a pair of parallel casings constructed from a single piece of flexible material, a relatively inflexible reinforce within the one casing, one end of which projects beyond the casing for insertion in the opposite end of the casing to provide for adjustment and continuity, and an elastic, flexible cord carried by the other casing, said casings being substantially at right angles, relatively, when in use.

1,144,463. MUD-GUARD SUPPORT FOR MOTOR-CYCLES OR LIKE VEHICLES. FRED J. CORNELL, Detroit, Mich. Filed Sept. 28, 1914. Serial No. 863,828. (Cl. 208—142.)



1. In a vehicle of the character described including an axle, plates removably secured to the axle at opposite ends thereof, rods connected to each of said plates, the outer ends of the rods being screw threaded, thimbles having screw threaded connection with the outer ends of said rods, nuts operable on the body of the thimbles, strips clamped between the nuts and heads of the thimbles of opposite rods, and a mud guard provided with slots through which said strips project and by means of which the mud guard is secured to said strips.

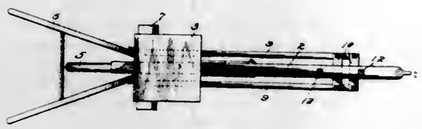
2. In a vehicle of the character described including an axle, plates removably secured on the axle at opposite ends thereof, rods connected to each of said plates, strips connected to opposite rods, means for clamping the strips on the rods, and a mudguard having side flanges provided with slots through which said strips project and by means of which the mudguard is secured to said strips.

3. In a vehicle of the character described including an axle, plates removably secured on the axle at opposite ends thereof, rods connected to each of said plates above the axle, strips connected to opposite rods, means for clamping the strips on the rods, a mudguard having side flanges provided with slots through which said strips project and by means of which the mudguard is secured to said strips, and horizontally disposed rods connected to the lower edges of said plates below the axle and at their ends connected to the ends of the mudguard.

4. In a vehicle of the character described including an axle, plates removably secured on the axle at opposite ends thereof, rods connected to each of said plates above the axle, strips connected to opposite rods, means for clamping the strips on the rods, a mudguard having side

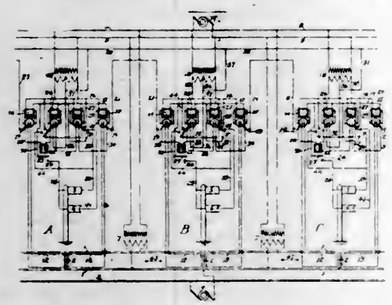
flanges provided wtih slots through which said strips project and by means of which the mudguard is secured to said strips, horizontally disposed rods connected to the lower edges of said plates below the axle and at their ends connected to the ends of the mudguard, and a spring having connection with the vehicle frame and the inner lower end of the mudguard.

1,144,464. FERTILIZER-DISTRIBUTER ATTACHMENT. JOSEPH H. CRUMPLER, Magnolia, Ark. Filed Dec. 9, 1912, Serial No. 735,822. Renewed Apr. 27, 1915. Serial No. 24,351. (Cl. 111—11.)



In combination with a fertilizer distributer comprising a draft beam, plow and feed box, an attachment of the character specified comprising a transversely disposed covering board situated directly in rear of the plow and spout of the feed box, a pair of corresponding longitudinally disposed laterally spaced connecting bars provided with downwardly bent or curved rear ends to which the covering board is attached, said bars extending in a plane beneath the draft beam of the distributer and being spaced from opposite sides thereof, a pair of transversely disposed longitudinally spaced bars to which the front ends of said connecting bars are attached and means for adjustably connecting the transverse bars to the bottom edge of the draft beam, whereby the attachment, as a whole, is capable of forward or backward movement relative to the draft beam, said means comprising a keeper plate extending longitudinally of the draft beam and bolted to the bottom edge thereof.

1,144,465. RAILWAY-TRAFFIC-CONTROLLING SYSTEM. ALBERT V. T. DAY, New Rochelle, N. Y., assignor, by mesne assignments, to Hall Switch & Signal Company, New York, N. Y., a Corporation of Maine. Filed June 15, 1908. Serial No. 438,593. (Cl. 246—36.)



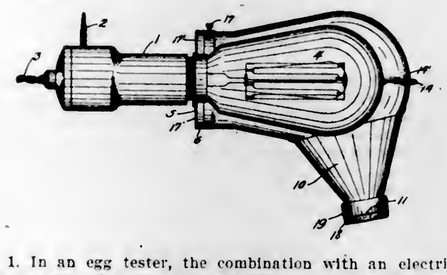
1. A normal danger block signal system comprising successive signaling blocks, for each block a line circuit and means for delivering signal controlling current thereto, home and distant signals for each block, means for controlling the current in each line circuit by the traffic-governing conditions of its own block and the block ahead and for controlling both the home and distant signals of each block by the line circuits of that block and the block in rear.

2. A block signal system comprising a number of successive blocks, of a railway track, for each block a line circuit controllable by that block, for each line circuit an electro-translative device controllable by that line current and in control of the line circuit of the block in rear, and at the rear end of each block home and distant signals both depending on the line circuit of that block for clear indications.

3. A block signal system comprising a number of successive blocks of a railway track, for each block a line circuit controllable by that block, for each line circuit one or more electro-translative devices controllable by that line circuit and in control of the line circuit of the next rear block, and at the rear end of each block home and distant signals dependent for clear indications on said one or more electro-translative devices controllable by the line circuit of that block.

4. A railway block signaling system comprising successive signaling stations, at each station four relays, a circuit extending in one direction and controlling two of said relays said two relays being responsive thereto in accordance with definite characters of transmitted current to selectively determine the indication of the signaling means at their respective said station, and two other circuits extending in opposite directions and arranged in control of the other two relays said two remaining relays co-acting with the first two relays in the control of said signaling means.

1,144,466. EGG-TESTER. FREDERICK W. DOBBEL, Sonoma, Cal. Filed May 28, 1914. Serial No. 841,563. (Cl. 99—6.)



1. In an egg tester, the combination with an electric lamp and socket therefor, a flexible connection between said socket and a source of electric supply, a shade inclosing the lamp and detachably connected to said socket and divided into sections longitudinally, one of said sections being provided with a downwardly projected funnel, said extension communicating at its large end with the interior of the said shade and open at its smaller end to the atmosphere, and a protecting strip mounted on said open end of the extension for protecting the eggs to be tested against breakage by contact of the tester therewith.

2. In an egg tester the combination with an electric lamp and socket therefor, of a supporting bracket carried by said socket, a shade inclosing said lamp and connected to said supporting bracket and divided into sections longitudinally, one of said sections being formed with an outwardly projecting funnel shaped portion communicating at its large end with the interior of said shade and open at its outer end for directing rays of light onto the eggs to be tested.

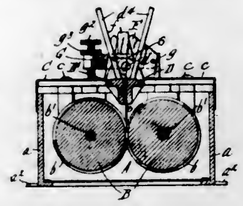
3. In an egg tester the combination with an electric lamp and socket therefor, of a supporting bracket carried by said socket, a shade inclosing said lamp and connected to said supporting bracket, said shade divided longitudinally into a plurality of detachable sections having interlocking edges, and said shade provided with an opening therein for directing rays of light onto the eggs to be tested.

4. In an egg tester the combination with an electric lamp and socket therefor, of a supporting bracket carried by said socket, a shade inclosing said lamp, said shade divided longitudinally into a plurality of detachable sections, means for detachably securing each of said sections to said bracket and one of said sections formed with an opening therein for directing the rays of light onto the eggs to be tested.

5. In an egg tester the combination with an electric lamp and socket therefor, of a supporting bracket carried by said socket, a shade inclosing said lamp, said shade divided longitudinally into a plurality of detachable sections, means for detachably securing each of said sections to said bracket, one of said sections formed with an opening therein and a protector surrounding the edges of said opening.

[Claims 6 and 7 not printed in the Gazette.]

1,144,467. MACHINE FOR SHARPENING RAZOR AND OTHER BLADES. ARTHUR J. FIX, Buffalo, N. Y. Filed May 20, 1912. Serial No. 698,402. (Cl. 51—16.)



1. In a machine for sharpening blades, the combination of a sharpening roll journaled on the machine, a holder for a blade to be sharpened, said holder having projecting supporting ends, parallel upright guide parts on said machine between which the holder can be lowered to bring the blades into operative relation to said roll, levers extending across said guide parts and upon which the ends of said holders are adapted to rest, and means for adjusting the levers vertically.

2. In a machine for sharpening blades, the combination of a sharpening roll journaled on the machine, a holder for a blade to be sharpened, said holder having projecting supporting ends, parallel upright guide parts on said machine between which the holder can be lowered to bring the blades into operative relation to said roll, means for reciprocating said holder, and coöperating parts on said means and said holder which are adapted to be connected when the holder is lowered into operative relation between said guide parts.

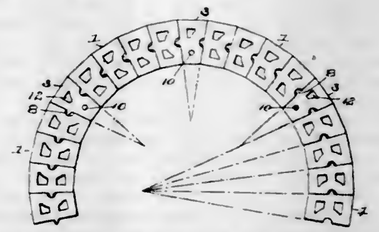
3. In a machine for sharpening blades, the combination of a sharpening roll journaled on the machine, a holder for a blade to be sharpened, said holder having projecting supporting ends, parallel upright guide parts on said machine between which the holder can be lowered to bring the blades into operative relation to said roll, a reciprocatory member actuated by the rotation of said roll, and a part on said holder adapted to be moved into operative engagement with said reciprocatory member when said holder is lowered between said guide parts.

4. In a machine for sharpening razor blades, the combination of a casing, a pair of parallel sharpening rolls journaled in said casing, a holder for a blade to be sharpened, said holder having projecting supporting ends, parallel upright guide parts on said casing between which said holder can be lowered to bring the blades into operative relation to said rolls, adjusting levers pivoted at one end on said guide parts and adapted to support said holder, and means for adjusting the free ends of said levers vertically for limiting the movement of the holder relatively to said rolls.

5. In a machine for sharpening razor and other blades, and having a frame and a pair of parallel sharpening rolls, of a holder for said blades which extends longitudinally of said rolls above the groove between them, supporting devices for said holder, said supporting devices having vertical slots in which the ends of said holder are adapted to rest, levers extending across said slots and upon which the ends of said holder are adapted to rest, and means for adjusting the positions of said levers vertically for adjusting the position of said holder, substantially as set forth.

[Claim 6 not printed in the Gazette.]

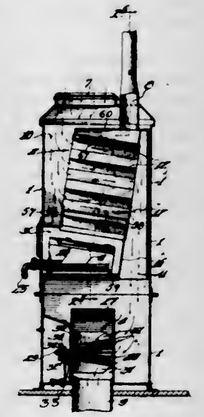
1,144,468. MANHOLE, SEWER, OR OTHER CONDUIT AND METHOD OF CONSTRUCTING THE SAME. CHARLES H. FROST, Pasadena, Cal. Filed Nov. 12, 1914. Serial No. 871,683. (Cl. 72—100.)



1. That improvement in methods of producing a tapering man hole, conduit, or similar structure, which comprises providing a suitable number of pre-formed standard bricks having a given taper from their inner to their outer edges, and a suitable number of pre-formed filler bricks, having a greater degree of taper, laying successive courses of decreasing diameters by using a suitable number of said standard bricks, with a number of said filler bricks at spaced intervals in each course, and increasing the number of filler bricks in proportion to the number of standard bricks used as the diameter of the structure decreases.

2. That improvement in methods of producing a tapering man hole or similar structure, which comprises providing a number of pre-formed standard bricks having a given taper from inner to outer edges, and a number of pre-formed filler bricks having a greater degree of taper, laying a suitable number of said standard bricks side by side with a suitable number of filler bricks to form a circular course, and continuing the structure by adding successive courses of decreasing diameters, each added course containing a greater proportionate number of the filler bricks, until the course of smallest diameter is laid to complete the structure.

1,144,469. AIR-HEATER. LLOYD GILES, Los Angeles, Cal., assignor to Pacific Heater Manufacturing Co., Los Angeles, Cal., a Corporation of California. Filed Aug. 18, 1914. Serial No. 857,409. (Cl. 126—90.)



1. An air heater comprising an outer casing having a flue extending through the top thereof and an air inlet opening, a combustion chamber in said casing, a cell structure in said casing arranged to form an air inlet chamber at the front thereof and an air outlet chamber at the rear thereof both within said casing, a series of walls extending across said cell structure and forming a series of substantially horizontally disposed air passages connecting

said air inlet passage and said air outlet passage, the walls of said air passages being connected to form tortuous conduits within the cell structure from the combustion chamber to said flue and consisting of a series of ascending and descending passages for the heated gases, and means for withdrawing the air from the air outlet chamber.

2. An air heater comprising an outer casing having a flue at the top thereof and an air inlet opening, a combustion chamber in said casing, a cell structure in said casing arranged to form a downwardly converging air inlet chamber between the front wall thereof and the front wall of said casing and a downwardly diverging air outlet chamber between the rear wall thereof and the rear wall of said casing, said cell structure having a series of passages extending therethrough and connecting the air inlet chamber with the air outlet chamber and having a series of communicating tortuous ascending and descending passages forming conduits for the heated gases from said combustion chamber to said flue, and means for withdrawing air from said air outlet chamber.

3. An air heater comprising an outer casing having a flue at the top thereof and an air inlet opening, a combustion chamber in said casing, a cell structure in said casing arranged to form an air inlet chamber at the front thereof and an air outlet chamber at the rear thereof, said cell structure having a series of diagonally disposed passages therethrough connecting the air inlet chamber with the air outlet chamber and having a series of tortuous ascending and descending passages therethrough forming conduits for the heated gases from said combustion chamber to said flue, and means for withdrawing air from said air outlet chamber.

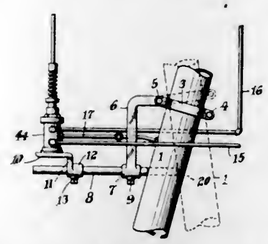
4. An air heater comprising an outer casing having a flue extending through the top thereof and an air inlet opening in the top thereof, a shell mounted in said outer casing having a combustion chamber in the lower portion thereof, the front wall of said shell being arranged at an angle with the front wall of said casing to form a downwardly converging air inlet chamber therebetween, the rear wall of said shell being arranged at an angle to the rear wall of said outer casing to form a downwardly converging air outlet chamber therebetween, a series of division walls extending through said shell from the front to the rear thereof forming a series of air passages therethrough in open communication with the air inlet and air outlet chambers, said division walls being joined vertically between said air passages thereby forming a series of ascending and descending passages forming continuous conduits from said combustion chamber to said flue, and means for withdrawing the air from said air outlet chamber.

5. An air heater comprising an outer casing having an air opening at the top thereof, a shell mounted in said casing having a combustion chamber in the lower portion thereof and a flue at the top thereof extending through the top of said casing, said shell having front rear walls spaced apart respectively from the front and rear walls of said casing to form an air inlet chamber in the front portion and an air outlet chamber in the rear portion of said casing, a series of division walls extending through said shell from the front to the rear thereof and forming a series of vertical rows of communicating passages between said air inlet and air outlet chambers, said division walls being connected vertically between said air passages and thereby forming vertically ascending and descending passages therebetween, said passages being connected to form tortuous conduits from said combustion chamber to said flue, and means for withdrawing air from said air outlet chamber.

[Claim 6 not printed in the Gazette.]

1,144,470. ADJUSTABLE BRACKET. WILLIAM U. GRIFFITHS, Philadelphia, Pa. Filed May 27, 1913. Serial No. 770,109. (Cl. 248—3.)

1. The combination of a support, a depending member, means for pivotally connecting said member to said support, an arm having connection with said member, the said arm extending transversely of the said member and being adjustable longitudinally and the inner end of said arm being adapted to contact with said support, and means upon the said arm beyond its point of connection to said depending member for supporting an object in horizontal position.

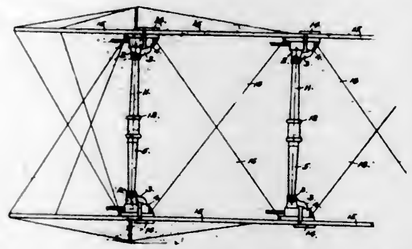


2. The combination of a support with a bracket structure, the said bracket comprising a depending member, means whereby the said depending member is pivotally connected to the said support, an arm means for adjustably securing the said arm to the said depending member, the said arm being adjustable longitudinally and the inner end of the said arm being adapted to contact with the said support, and means upon the outer end of said arm for supporting an object in horizontal position.

3. In combination, a relatively stationary support and a bracket structure having means for securing the said bracket structure to said support, a bent member having connection with the said means and depending therefrom and having a perforation through its lower end, an arm extending through said perforation and being adjustable therein, the inner end of the said arm being adapted to contact with the said support to maintain the said bent member in a position in which the perforation through its lower end occupies a horizontal plane irrespective of the relation of said support to the said bracket structure.

4. The combination of a relatively stationary support with a bracket structure, the latter comprising means for securing the said bracket structure to the said support, a bent member having pivotal connection with the said means and depending therefrom, the lower end of the said member being provided with a sleeve having a perforation extending therethrough, means extending through the said sleeve and being adjustable therein, the said means contacting with the said support and operating to maintain the pivoted depending member in fixed relative position with respect to said support, whereby the said perforation and the means therein are held in horizontal position, and means for securing the said adjustable means in adjusted position in said perforation.

1,144,471. ASSEMBLING OR DISASSEMBLING DEVICE. VICTOR G. GUSTAFSON and ELMER J. GUSTAFSON, Joliet, Ill.; said Elmer J. Gustafson assignor to said Victor G. Gustafson. Filed Mar. 3, 1913. Serial No. 751,793. (Cl. 244—31.)

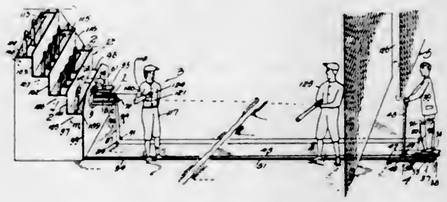


1. In an aeroplane composed of several detachable sections, jointed stanchions; twin jacks, one secured to the inner side of a plane section above, at the edge thereof, and the other secured in the same relative position to the plane section below; a socket secured to an adjoining edge of an adjoining plane section, opposite to each of said jacks; a supporting cap secured on each end of each of said stanchions and pivotable in the projecting end of a jack; a lug, integral with each of said supporting caps, and in a position to be engaged by a socket, when the two sections of the stanchion are alined, or to be withdrawn therefrom, when said sections are moved to an angle with each other.

2. In an aeroplane, stanchions, composed of two sections each, hingeable on each other; means to pivotally connect each end of each of said stanchions to one of the planes on the inner side thereof; a lug connected to each of said pivoting means in such a position as to be engaged by a socket adjacently situated, so that hinging the sections of said stanchion to a certain angle will withdraw said lug from said socket, and alining said sections will replace it in said socket; means for sealing the hinging joint of each of said stanchions, substantially as described.

3. In a flying machine comprising a sectional upper plane, a sectional lower plane, means for holding said planes apart and guy wires uniting the upper and lower sectional members of each section, said means comprising hinged posts, adjustable means for holding said posts rigid and means for removably securing said posts to upper and lower sections.

1,144,472. BASE-BALL MACHINE. EDWARD M. HARBERSON, Los Angeles, Cal. Filed Mar. 11, 1915. Serial No. 13,780. (Cl. 124—11.)



1. A base ball machine, comprising an air gun, means for feeding the balls one at a time into the air gun, an imitation pitcher mounted to be operated in unison with the air gun, means for charging the gun, and means for firing the gun.

2. A base ball machine, comprising an imitation base ball field, mechanism adapted for throwing the balls, and an imitation pitcher operated in unison with the ball-throwing mechanism.

3. In a base ball machine, an air gun, a curver mounted upon the muzzle of the air gun, an imitation pitcher mounted in front of the air gun to be operated in unison therewith, means for charging the gun and means for firing the gun.

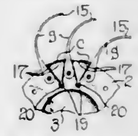
4. In a base ball machine, an air gun, an imitation pitcher mounted to be operated in unison with the air gun, and a controller mechanism for charging and firing the gun.

5. In a base ball machine, an imitation field, indicators mounted in the imitation field to mark first base, second base, and third base, an air gun discharging from the imitation field, an imitation pitcher mounted to be operated in unison with the air gun, and controller mechanism for charging and firing the gun.

1,144,473. VEHICLE-WHEEL. NOAH L. HAYDEN, Bisbee, Ariz. Filed Sept. 19, 1914. Serial No. 862,544. (Cl. 152—50.)

1. A device of the character described comprising a hub provided with spaced flanges, a rim disposed around the hub in spaced relation relative thereto, spokes secured to the rim and hingedly engaged between the flanges of the hub, expansible cap members positioned between the flanges intermediate adjacent spokes, said cap members comprising overlying extensions.

2. A device of the character described comprising a hub provided with spaced flanges, a rim disposed around the hub in spaced relation relative thereto, spokes secured to the rim and hingedly engaged between the flanges of the hub, expansible cap members positioned between the flanges intermediate adjacent spokes, said cap members comprising overlying extensions, and spaced projections between which the coacting spokes are positioned.

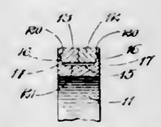


3. A device of the character described comprising a hub provided with spaced flanges, a rim disposed around the hub in spaced relation relative thereto, spokes secured to the rim and hingedly engaged between the flanges of the hub, and expansible cap members positioned between the flanges intermediate adjacent spokes, each of said cap members comprising a single piece of resilient material bent intermediate its length into substantially a V-shape with the free extremities thereof provided with inwardly disposed overlying extensions and with reversely directed spaced projections between which the adjacent spokes are adapted to be positioned.

4. A device of the character described comprising a hub provided with spaced flanges, a rim disposed around the hub in spaced relation relative thereto, spokes secured to the rim and hingedly engaged between the flanges of the hub, and expansible cap members positioned between the flanges intermediate adjacent spokes, each of said cap members comprising a single piece of resilient material bent intermediate its length into substantially a V-shape with the free extremities thereof provided with inwardly disposed overlying extensions and with reversely directed spaced projections between which the adjacent spokes are adapted to be positioned, the apex of the member being disposed inwardly.

5. A device of the character described comprising a hub provided with spaced flanges, a rim disposed around the hub in spaced relation relative thereto, spokes secured to the rim and hingedly engaged between the flanges of the hub, expansible cap members positioned between the flanges intermediate adjacent spokes, each of said cap members comprising a single piece of resilient material bent intermediate its length into substantially a V-shape with the free extremities thereof provided with inwardly disposed overlying extensions and with reversely directed spaced projections between which the adjacent spokes are adapted to be positioned, the apex of the member being disposed inwardly, and means carried by the flanges coacting with the apex of the member for holding the same against displacement.

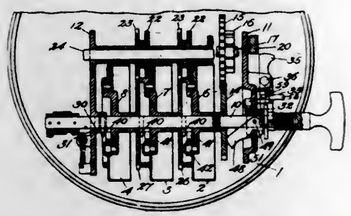
1,144,474. PISTON-RING. NAPOLEAN H. HEBERT, Franklin, N. H. Filed Oct. 9, 1914. Serial No. 865,966. (Cl. 121—108.)



1. A piston ring consisting of an inner split or open ring of relatively hard spring metal, said ring having peripheral flanges forming an outer annular groove, said flanges having beveled inner walls, and two contiguously-placed outer rings of relatively soft metal fitting in said groove between said flanges and projecting outward beyond the periphery of the latter, said outer rings each having a beveled face to fit against the beveled walls of said flanges, so that the outward pressure of the inner spring metal ring will tend to press said rings together, thus preventing leakage between them.

2. A piston ring consisting of an inner split or open ring of relatively hard spring metal, said ring having peripheral flanges forming an outer annular groove, said flanges having beveled inner walls, and two contiguously-placed outer split or open rings of relatively soft metal fitting in said groove between said flanges and projecting outward beyond the periphery of the latter, said outer rings each having a beveled face to fit against the beveled walls of said flanges, so that the outward pressure of the inner spring metal ring will tend to press said rings together, thus preventing leakage between them, said outer split or open rings being so arranged as to break joints with each other and also with said inner split or open ring.

1,144,475. FARE-REGISTER. SAMUEL P. HUNTINGTON, New Haven, Conn., assignor, by mesne assignments, to The Recording Register & Fare Box Company, New Haven, Conn., a Corporation of Connecticut. Filed Aug. 8, 1908. Serial No. 447,499. (Cl. 235—37.)



1. In a machine of the class specified, an axially movable shaft, a member so mounted on said shaft as to permit said shaft to have axial movement relatively thereto, and means connected with said shaft and movable relatively thereto by the axial movement thereof for controlling the axial position of the member relatively to the shaft.

2. In a machine of the class specified, an axially movable shaft, a member so mounted on said shaft as to permit said shaft to have axial movement relatively thereto, and means movable relatively to said shaft by the axial movement of said shaft to cause said movement of said shaft to be relative to said member.

3. In a machine of the class specified, a shaft, a member rotatably mounted on said shaft, said shaft being capable of axial movement relatively to said member, means controlled by the axial movement of said shaft for preventing rotary movement being imparted to said member in one direction, and means also controlled by the axial movement of said shaft to cause said axial movement of said shaft to be relative to said member, whereby said member is held against axial movement until said means for preventing rotary movement has been actuated.

4. In a machine of the class specified, a shaft, a member rotatably mounted on said shaft, said shaft being capable of axial movement in unison with said member and relatively to said member, and means to hold said member against axial movement during the first portion of the axial movement of said shaft and to release said member to permit it to move with said shaft during a further axial movement thereof.

5. In a machine of the class specified, a shaft, a counter mounted on said shaft, said members being capable of axial movement in unison, and means operable by the axial movement of one of said members relatively to the other for altering the relative axial positions of the two members.

[Claims 6 to 46 not printed in the Gazette.]

1,144,476. METAL POST. GEORGE HUTCHINSON, Chicago, Ill., assignor to Donald-Hutchinson Patents Ltd., Masterton, New Zealand, a Corporation of New Zealand. Filed Dec. 21, 1914. Serial No. 878,385. (Cl. 189—23.)

1. A sheet metal post of open sided cross section tapering from the ground line of the post in both directions, the apex line of the post below the ground being at an angle to the apex line of the post above the ground and the free edges of the post below the ground being located in a plane disposed at an angle to the plane in which the free edges of the post above the ground are located.



2. A sheet metal post of substantially V-shaped cross section tapering from the ground line of the post in both directions, the apex line of the post below the ground being at an angle to the apex line of the post above the ground and the free edges of the post below the ground being located in a plane disposed at an angle to the plane in which the free edges of the post above the ground are located.

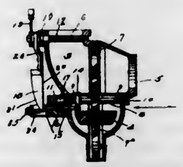
3. A sheet metal post of substantially V-shaped cross section wherein the four free edges of the post converge in couples in opposite directions, two of the converging edges below the ground being located in a plane disposed at an angle to the plane of the two converging free edges above the ground, the back or apex line of the post consisting of two portions which are angularly offset with respect to each other, whereby a camber is formed in the apex line of the post, said camber deviating a distance of approximately two-thirds of the entire side view of the post from the axis of the same.

4. A sheet metal post of substantially V-shaped cross section tapering in opposite directions, the apex or back line of the post being composed of two portions at an angle to each other, the portions of the free edges below the ground being located in a plane at an angle to the plane in which the free edges above the ground are located, in combination with means for securing wire holding devices to the said free edges of the post above the ground.

5. A sheet metal post of substantiay V-shaped cross section having a camber on the apex line of the post and a camber at each of the free edges of the post, the apices of the three cambers formed in this manner occurring at ground level.

[Claims 6 and 7 not printed in the Gazette.]

1,144,477. CARBURETER. WILLIAM S. KELLOGG, Jr., Peoria, Ill. Filed July 10, 1911. Serial No. 637,811. (Cl. 48—165.)



1. A carbureter comprising a communicating float and carbureting chamber, the latter provided with an air inlet and a mixture outlet, and a rotatable member interposed between the air inlet and the mixture outlet turnable within both chambers provided with perforations tangentially disposed with relation to an induced current passing through the carbureting chamber.

2. A carbureter comprising a combined float and carbureting chamber, the latter provided with an air inlet and a mixture outlet, a valve control for the mixture outlet and a disk rotatable in the float and carbureting chamber provided with perforations tangentially disposed with relation to an induced air current passing through the carbureting chamber.

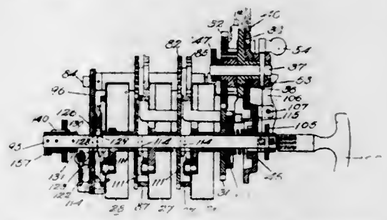
3. A carbureter comprising a combined float and carbureting chamber, an air inlet and a mixture outlet, and a suctionally operated disk interposed between the air inlet and mixture outlet openings provided with perforations tangentially disposed with relation to the induced current passing through the carbureting chamber.

4. A carbureter comprising a carbureting chamber, an air inlet and mixture outlet and a perforated disk disposed between the inlet and outlet actuated by an air current induced from the engine cylinder passing through the disk, a valve for controlling the outflow of air, and means actuating in conjunction with said valve to apply brake pressure to the disk.

5. A carbureter comprising a combined float and carbureting chamber, the latter provided with an air inlet and mixture outlet, means for controlling the mixture outlet and a suctionally rotatable disk interposed between the air inlet and mixture outlet provided with a plurality of perforations angularly disposed with relation to the direction of flow of the induced current through the carbureting chamber, the combined area of said perforations being as great at least as the area of the air inlet.

[Claims 6 to 14 not printed in the Gazette.]

1,144,478. FARE-REGISTER. FRANK B. KENNEDY, New Haven, Conn., assignor, by mesne assignments, to The Recording Register & Fare Box Company, New Haven, Conn., a Corporation of Connecticut. Filed July 6, 1908. Serial No. 441,947. (Cl. 235—29.)



1. A registering machine, provided with Geneva stop mechanism, including a rotary star wheel, and a rotary counter wheel, engaging with the star wheel, one of which is movable axially relative to the other, the star wheel and counter being provided with means for advancing the star wheel at one of their relative axial positions, and for positively preventing that advancement at another of said axial positions.

2. A registering machine, provided with resettable Geneva stop mechanism, including a coengaging star wheel, and a counter supported for rotation and for axial movement relative to each other, the star wheel and the counter being provided with coacting means for advancing the star wheel at one of their relative axial positions, and at a particular position of the counter, and for preventing that rotation at their other positions.

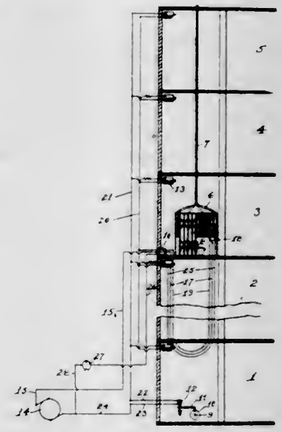
3. A registering machine provided with stop mechanism including a star wheel and a counter supported for rotation about different axes, and means for moving one of said parts axially relatively to the other, said parts having coacting surfaces shaped to permit rotation of the star wheel when said star wheel and said counter are in a particular axial relation and when the counter is in a particular rotative position and to prevent such rotation when said parts are in other positions.

4. In a counting machine, the combination of a plurality of rotary counters, a rotary star wheel and pinion coacting with two of the counters to advance the second of said counters at a predetermined position of the first counter, and means for shifting the relative axial position of the counters and the star wheel, the first counter being provided with means for controlling the movement of the star wheel, permitting the said advancing movement at one of the said axial positions, and preventing that movement at other axial positions.

5. In a counting machine, the combination of a plurality of rotary counters, a rotary star wheel and pinion coacting with the said counters to advance the second counter at a predetermined position of the first counter, means for altering the relative axial position of the counters and the star wheel, the first counter being provided with means for advancing the star wheel at one of the said axial positions and preventing the said advancing movement at the other of said axial positions.

[Claims 6 to 33 not printed in the Gazette.]

1,144,479. SAFETY DEVICE FOR ELEVATORS. JAMES A. KEYES, New York, N. Y. Filed Aug. 19, 1912. Serial No. 715,772. (Cl. 187—48.)



In a safety device for elevators, in combination, a source of current, an electrically operated lock, a circuit closing device operated by an entrance door, an operating circuit normally connecting said devices in series when the door is open, an indicator, an auxiliary circuit, including said indicator, connected to said operating circuit between said lock and source of current, and means under the control of the operator on the car for opening said operating circuit and closing said auxiliary circuit, thereby rendering said lock inoperative.

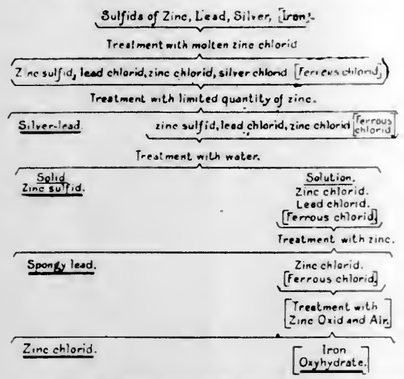
1,144,480. PROCESS FOR TREATING COMPLEX SULFID ORES. GEORGE E. KINGSLEY, Spokane, Wash. Filed Jan. 22, 1915. Serial No. 3,801. (Cl. 75—18.)

In the treatment of complex sulfid ores, the process of immersing the ores in a dilute solution of nitric acid of a strength of five per cent. or less, and heated to one hundred and seventy-six degrees Fahr., whereby a nitrate is produced and sulfur in its natural state, as and for the purpose specified.

1,144,481. PROCESS OF TREATING MIXED SULFID ORES. ERICH LANGGUTH, Neerpelt, Belgium. Filed Sept. 11, 1913. Serial No. 789,344. (Cl. 75—17.)

1. The process of treating sulfid ores containing silver, lead and iron which consists in treating said ores with molten zinc chlorid to form silver, lead and iron chlorids, adding to the melt a limited quantity of a suitable metal,

approximately that required to reduce all of the silver, separating the silver from the melt, pouring the melt containing the lead and iron chlorids into water to form a solution containing lead and iron chlorids, and finally extracting the lead from said solution, substantially as and for the purpose described.



2. The process of treating sulfid ores, which consists in treating said ores with molten zinc chlorid, adding to the melt a limited quantity of zinc approximately that required to reduce the silver and only a part of the lead, separating said silver lead from the melt, then pouring the resultant molten mass into water and then extracting the lead from the solution, substantially as and for the purpose described.

3. The process of treating sulfid ores, which consists in treating said ores with molten zinc chlorid, adding to the melt a limited quantity of zinc approximately that required to reduce the silver and only a part of the lead, then pouring the resultant molten mass into water whereby the remaining lead constituents of the ore become dissolved, then separating the dissolved constituents from the undissolved residue, and then extracting the lead from the solution, substantially as and for the purpose described.

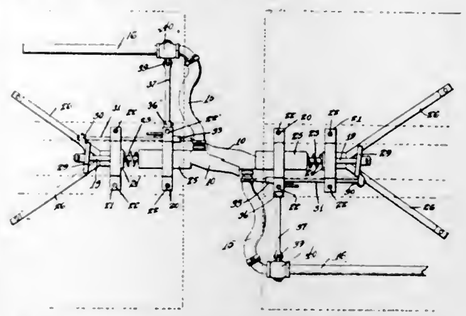
4. The process of treating sulfid ores, which consists in treating said ores with molten zinc chlorid, adding to the melt a limited quantity of zinc approximately that required to reduce the silver and only a part of the lead, then pouring the resultant molten mass into water whereby the remaining lead constituents of the ore become dissolved, then separating the dissolved constituents from the undissolved residue, maintaining said water solution in a warm condition until after the separation of the undissolved residue is completed, and then extracting the lead from the solution, substantially as and for the purpose described.

5. The process of treating sulfid ores, which consists in treating said ores with molten zinc chlorid, adding to the melt a limited quantity of zinc approximately that required to reduce the silver and only a part of the lead, then pouring the resultant molten mass into water and then extracting the lead from the solution in form of spongy lead by adding zinc thereto, substantially as and for the purpose described.

[Claim 6 not printed in the Gazette.]

1,144,482. COMBINED AUTOMATIC COUPLING FOR A TRAIN-PIPE AND VALVE-ACTUATING MECHANISM. CHRISTIAN LARSEN, Lake Benton, Minn. Filed Apr. 25, 1914. Serial No. 834,477. (Cl. 188—13.)

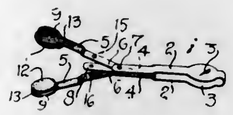
1. A system of the character described comprising a pipe, supporting means, a carrying member carried by said supporting means, means for yieldably holding said carrying means in a normal position, a coupler carried by said carrying means, a valve for said pipe, a pipe connected with said coupler and with said first-mentioned pipe, a shaft leading from the stem of said valve and rotatably connected with said supporting means, an operating lever carried by said shaft, and a rod slidably connected with said lever and having one end portion slidably connected with said supporting means and the opposite end connected with said carrying means whereby movement of said carrying means will move said rod to move said lever and rotate said shaft to operate said valve.



2. A system of the character described comprising a valve-controlled conduit, supporting brackets, carrying means slidably supported by said brackets, a coupler carried by said carrying means and communicating with said conduit, resilient means mounted upon said carrying means between said coupler and one of said brackets to yieldably hold said carrying means in a normal positoin, a valve shaft leading from the valve of said conduit and rotatably connected with one of said supporting brackets, an operating lever extending from said shaft and provided with a slot, and a rod connected with said carrying means and slidably connected with one of said brackets and provided with a pin passing through the slot of said lever to cause said lever to be moved when said carrying means is moved and move said lever to turn the shaft and operate said valve.

3. A system of the character described comprising a valve-controlled conduit, supports, a carrying member carried by said supports, a coupler carried by said carrying member and connected with said conduit, a spring placed upon said carrying member between said coupler and one of said supports, a shaft connected with the stem of the valve of said conduit and rotatably connected with one of said supports, an operating lever carried by said shaft, a guide carried by said supports, a collar carried by said carrying member, a rod connected with said collar and having its opposite end portion supported by said guide, and means connecting said rod with said lever to cause said lever to be moved when said rod is moved by said carrying member and cause said shaft to be rotated to operate the valve of said conduit.

1,144,483. EYEGLASS-CLEANER. JOSEPH T. LEONARD, St. Charles, Mo. Filed Nov. 21, 1914. Serial No. 873,342. (Cl. 15—68.)

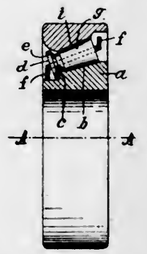


1. An eye-glass cleaner including a frame having oppositely disposed parallel members, divergently resilient arms pivoted within the frame and between said members, lens cleaning pads carried by the arms, the space between the said members of the frame being less than the combined thickness of the cleaning pads and adjacent portions of the arms when the pads are compressed whereby when the arms and pads are turned into position within the frame said pads shall be held in close contact with each other, said arms being yieldingly separated by their resilience when turned to project from the frame.

2. An eye-glass cleaner comprising a substantially U-shaped frame having parallel legs, the outer ends of the legs being deflected toward each other, a pair of divergent spring arms disposed between the legs and having their inner ends deflected toward each other, the inner ends of the arms being pivoted to the inner ends of the legs and the free ends of the arms being thereby adapted to be disposed between the legs of the frame or out of such position, and cleaning pads carried upon said arms, the space between the legs being less than the combined thickness of the cleaning pads and adjacent portions of the arms when the pads are compressed whereby to cause the pads to be held in contact with each other when the pads are disposed between the arms.

3. An eye-glass cleaner comprising a substantially U-shaped frame, the free ends of the legs of said frame being deflected toward each other, a pair of divergent spring arms having their ends disposed between the deflected ends of the legs, a spacing member disposed between said arms and extending beyond the adjacent end of the frame, a pin passing through the free ends of the legs, through said arms and the spacing member to constitute a pivot for the arms and spacing member, and means for holding the arms and spacing member in parallel relation to each other when the arms are pressed toward each other and against the spacing member, but permitting the arms to be turned each independently upon the pivot pin and therefor into rotatably separated relation when sprung apart and away from the spacing member.

1,144,484. ROLLER-BEARING WITH THRUST-COLLAR. CHARLES S. LOCKWOOD, Newark, N. J., assignor to Hyatt Roller Bearing Company, Harrison, N. J., a Corporation of New Jersey. Filed Feb. 19, 1915. Serial No. 9,255. (Cl. 64—62.)

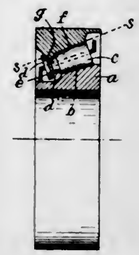


1. A roller bearing having a conical hub with a shoulder at its smaller end said shoulder projecting radially beyond the line of the roll-seat, and a set of tapering rollers each extended over said shoulder and having a neck to clear the projecting portion of the shoulder, and having adjacent such neck a collar making a line contact with the said shoulder, and bearing equally upon the same outside and inside the line of the roll-seat.

2. A roller bearing having a conical hub with a substantially flat shoulder at its smaller end, said shoulder projected radially beyond the line of the roll-seat, a set of rollers each extended over the said shoulder and having a neck to clear such projecting portion of the shoulder, and having adjacent such neck a collar flared to make a line contact with said shoulder, and a cage to guide the rollers in the bearing.

3. In a roller bearing for sustaining lateral and end thrusts, the combination, with a double conical hub with outwardly facing shoulders near the smaller ends of the roll-seats and the shoulders projected beyond the line of the roll-seats, of two sets of taper rollers fitted respectively to the seats and extended over the said shoulder and having each a neck to clear the projecting portion of the shoulder and having adjacent such neck a collar making a contact with the said shoulder, and a casing having roll-seats fitted to the outer sides of such rollers and formed with clearance for the outer sides of the said collars.

1,144,485. ROLLER-BEARING. CHARLES S. LOCKWOOD, Newark, N. J., assignor to Hyatt Roller Bearing Company, Harrison, N. J., a Corporation of New Jersey. Filed Feb. 19, 1915. Serial No. 9,256. (Cl. 64—62.)



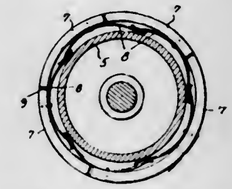
1. A roller bearing having a conical hub, a set of tapering rollers fitted to such hub and provided each with a collar upon one end, and a casing fitted to the exterior of the rolls and provided with a shoulder to engage such collar, and the contact between the roller and the shoulder extending equally inside and outside the line of the roll-seat in the casing.

2. A roller bearing having a conical hub, a set of tapering rollers fitted to such hub and provided each with a collar upon one end beveled upon one side, and a casing fitted to the exterior of the rollers and provided with a shoulder adapted to make a line contact with the beveled surface of the collar, and such contact extending equally inside and outside the line of the roll-seat in the casing.

3. A roller bearing having a conical hub, a set of rollers having a tapering body fitted to such hub, a collar upon the smaller end of the roller with a neck adjacent thereto, and a casing fitted to the exterior of the rollers and provided with a shoulder to engage such collar and projecting into the necks of the rolls and bearing upon the said collars inside and outside the line of the roll-seat.

4. In a roller bearing for sustaining lateral and end thrusts, the combination, with a hub tapered in both directions from the middle of its length, of two sets of tapering rollers fitted to the hub and provided each with a collar upon its outer end and a neck adjacent to such collar, a casing formed in two parts each having a tapering seat fitted to one series of the rollers and having a shoulder projecting into the said necks and contacting with the inner sides of the said collars, the shoulders thus making a line contact with the collars equally inside and outside the line of the said seat.

1,144,486. PISTON PACKING-RING. WILLIAM LOVATT, Greenport, N. Y. Filed July 15, 1914. Serial No. 851,195. (Cl. 121—108.)



1. In combination with the grooved piston of an engine, a packing ring comprising a plurality of interfitting arcuate sections seated within said groove, and a spring on each section bearing against the inner face of the groove and upon which the ends of the adjacent sections rest, the ends of the springs overlapping.

2. In combination with the grooved piston of an engine, a packing ring comprising a plurality of arcuate sections disposed in said groove, each section being transversely cut away to provide oppositely extending laterally reduced arms in staggered relation to each other, the reduced arms of each section overlapping and interfitting with the reduced arms of the adjacent sections, and a leaf spring secured to each section and engaging the inner face of the groove, the extremities of each arcuate section resting upon the springs that are secured to the sections at both ends thereof.

3. In combination with the grooved piston of an engine, a packing ring comprising a plurality of interfitting sections seated within said grooves, and a spring on each section bearing against the inner face of the groove and upon which the ends of the adjacent sections rest.

1,144,487. COUNTING DEVICE. EVELYN G. MCGINLEY, Boston, Mass. Filed Apr. 10, 1913. Serial No. 760,092. (Cl. 35—2.)



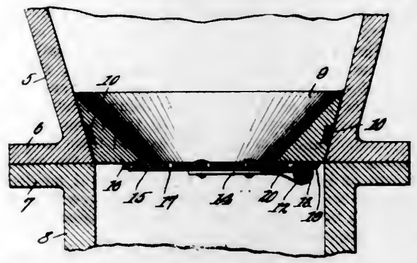
1. A counting device of the character described, comprising a rod bent to form an upright portion and a horizontal portion, the former being split at its lower end and bent substantially at right angles to form feet, and a horizontal tube secured to the said horizontal portion to form an extension thereof, and a second member comprising a rod bent to form a horizontal portion and a vertical portion, which latter is split at its end and bent substantially at right angles thereto to form feet, a rod secured at one end to the horizontal portion of the second mentioned member and extended into the horizontal portion of the first mentioned member, and a series of counters mounted upon the horizontal portions of said members, substantially as described.

2. A counting device of the character described, comprising two metal rods bent to form upright and horizontal portions, said upright portions being provided with feet at their lower ends, a tube extended from the horizontal portion of one of the bent rods, and a rod extended from the horizontal portion of the other of said bent rods and movable into and out of said tube, and a plurality of counters supported by and movable on said tube portion, substantially as described.

3. A counting device of the character described, comprising two members provided with substantially vertical portions having feet provided with openings for the passage of fastening devices, and an intermediate portion composed of separate pieces in sliding engagement with each other and movable toward and from each other and attached to said vertical portions, and a plurality of counters supported by and movable on said intermediate portion, substantially as described.

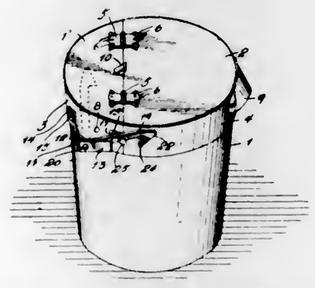
1,144,488. CLOSET-TRAP. WALTER W. MARSH, Baltimore, Md. Filed Sept. 4, 1914. Serial No. 860,129. (Cl. 182—14.)

A closet trap adapted for use in connection with a closet hopper having a conical interior wall, comprising a ring-like bowl provided with an unobstructed conical exterior wall extending its entire height and of the same degree of pitch as the interior wall of the hopper, whereby it will snugly fit within and be supported by said hopper, and also being provided with an interior wall of greater pitch than the exterior wall and which extends from the top edge of said exterior wall downwardly and inwardly to provide a sharp edge at the top of said bowl and a relatively wide flat portion on its lower side, and



a yieldingly supported trap door for closing the underside of said bowl secured to said flat portion.

1,144,489. BARREL-COVER LATCH. CARL BEE BEE MEDLOCK, Mortons Gap, Ky. Filed Apr. 27, 1914. Serial No. 834,859. (Cl. 70—45.)



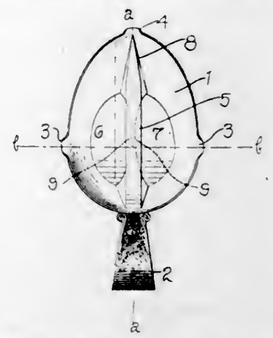
In a barrel cover latch, the combination of a bracket, said bracket comprising an arm terminating in a curved portion, said curved portion being adapted to be secured to the outer periphery of a barrel cover, an integral finger extending at right angles to said arm, a lip extending at right angles to said finger and terminating in an ear, said ear being adapted to be fixedly secured to the same section of a barrel cover as is the curved portion of said arm, said finger being held at a spaced distance from a barrel cover, said lip provided with a notched portion, a latch lever pivotally secured to said finger and passing through said notched portion, a pin, said pin being adapted to be secured to one section of a barrel cover other than the section upon which said bracket is secured, said latch lever being adapted to engage said pin for holding two sections of a barrel cover in a closed position, said latch lever extending at right angles to said pin whereby said lever will exert a direct pull upon said pin when in a latched engagement.

1,144,490. SPOON. JOHN THOMAS MEYER, Minster, Ohio. Filed Aug. 26, 1914. Serial No. 858,695. (Cl. 65—13.)

1. A spoon of the character described, having a bowl, the bowl being provided with a pouring lip at each side and a pouring lip at the point of the spoon, and a central longitudinally extending partition dividing the bowl into two equal compartments, said partition terminating short of the lip at the point of the bowl and said partition being formed on each side with a concavity whereby to permit collection of the liquid on one side of the spoon in said concavity when the liquid on the other side of the spoon is being poured from the corresponding lateral lip.

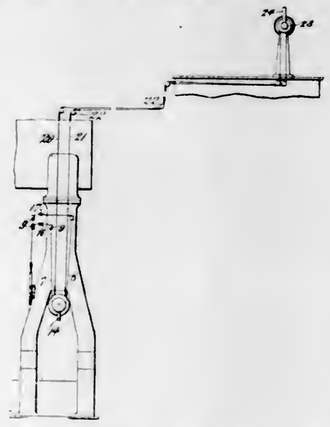
2. In a duplex compartment spoon provided with two lateral pouring lips and a pouring lip at the point and with a central longitudinal partition converging at its

forward end and terminating centrally of the lip at the point, said partition at each end flaring outwardly to-



ward the bottom of the spoon and with a central concavity on each side substantially as set forth.

1,144,491. MECHANISM FOR INSURING UNDERSTANDING OF SIGNALS FROM BRIDGE TO ENGINE-ROOM. WALTER MICHAEL, Oakland, Cal., assignor to Union Iron Works Co., San Francisco, Cal., a Corporation of New Jersey. Filed June 12, 1912. Serial No. 703,130. (Cl. 177—339.)



1. In a device of the character stated, the combination with the engine reverse lever, of a ratchet wheel connected therewith, and means interlocking with said ratchet wheel to permit movement of said lever in a predetermined direction and prevent its movement in a reverse direction.

2. In a device of the character stated, the combination with the engine reverse lever, of a ratchet connected therewith, a pawl having two members interlocking with said ratchet to permit its movement in a predetermined direction and prevent its movement in a reverse direction, and means for actuating said pawl to cause one or the other of said members to interlock with said ratchet.

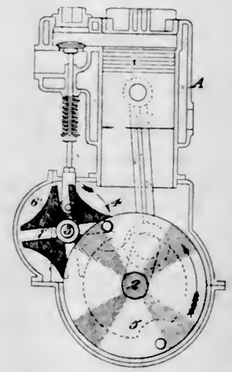
3. In a device of the character stated, the combination with the engine reverse lever, of a ratchet wheel connected therewith, a pawl interlocking with said ratchet wheel to permit its movement in one direction and prevent its movement in a reverse direction, and electromagnet means controlling said pawl, a source of electric supply, and means to close the circuit through said electromagnet means.

4. In a device of the character stated, the combination with the engine reverse lever, of a ratchet wheel connected therewith, a pawl having members alternately interlocking with said ratchet wheel, electromagnets controlling said pawl, and means for closing the circuit through either of said magnets whereby one pawl member is engaged with said ratchet wheel and the other pawl member is disengaged from said ratchet wheel.

5. In a device of the character stated, the combination with the engine reverse lever, of a ratchet wheel connected therewith, a pawl having members alternately interlocking with said ratchet wheel, electromagnets controlling said pawl, means for closing the circuit through either of said magnets whereby one pawl member is engaged with said ratchel wheel and the other pawl member is disengaged from said ratchet wheel, and means to retain said pawl in neutral position.

[Claims 6 and 7 not printed in the Gazette.]

1,144,492. CAM-SHAFT DRIVE. ERIN P. NAGLE, Emeryville, Cal. Filed Jan. 20, 1915. Serial No. 3,279. (Cl. 123—94.)



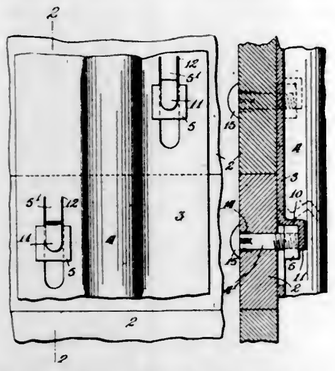
In combination, an engine having a hollow base, a crank shaft mounted in the base of the engine, a cam shaft also mounted in the hollow base, a valve operating cam fixed on the cam shaft within the engine base for actuating a valve of the engine, the slotted member of a Geneva movement fixed to the cam shaft within the engine base adjacent the valve operating cam, and the coöperating member of the Geneva movement mounted on the crank shaft and having spaced annular flanges between which the slotted member is adapted to move to engage with the driving pins supported between the flanges of said coöperating member, the hub of the slotted member being disposed in proximity to the periphery of the coöperating member to provide a compact arrangement.

1,144,493. NUT-LOCKING DEVICE. FRANKLIN GREAR NEAL, Halifax, Nova Scotia, Canada. Filed Nov. 15, 1912. Serial No. 731,595. (Cl. 151—53.)

1. In a nut locking device for car structures, the combination of a member, a bolt passed through the member and having one end protruding from one side thereof, a second member disposed with its inner surface flat against the first member, such second member having a tongue attached thereto at one end and pressed out therefrom to form an opening for the reception of the protruding end of the bolt, a nut spanning the opening in the second member and screwed upon the bolt against the outer surface of the second member, the inner surface of the tongue being disposed flat against one side of the nut for substantially the full depth of the latter.

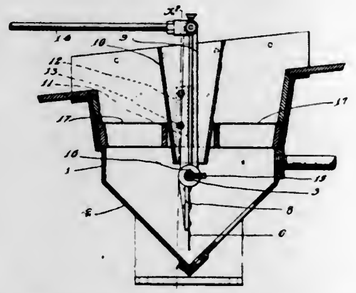
2. In a nut locking device for car structures, the combination of a member, a bolt passed through the member and having one end protruding from one side thereof, a second member disposed with its inner surface flat against the first member, such second member having a tongue attached thereto at one end and pressed out therefrom to form an opening for the reception of the protruding end

of the bolt, a nut spanning the opening in the second member and screwed upon the bolt against the outer surface of the second member, one portion of the inner sur-



face of the tongue being disposed flat against one side of the nut and another portion extended over one corner of the nut and disposed flat against the face of the latter.

1,144,494. JIGGING APPARATUS. JAMES W. NEILL, Pasadena, Cal. Filed Apr. 20, 1914. Serial No. 833,011. (Cl. 83—79.)

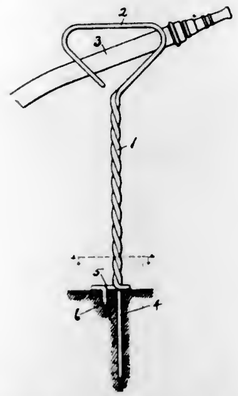


1. In combination, a jig tank, a jigging screen therein, a transverse paddle in the tank intermediate the length of the screen and beneath the same, said paddle having bearings at the sides of the tank, a lever extending upwardly from the transversely central portion of the paddle through the jig screen and above the water level, and a sleeve surrounding the lever elongated in the direction of travel of the material and narrow transversely thereof.

2. In combination, a jig tank, a jigging screen therein, a transverse paddle in the tank intermediate the length of the screen and beneath the same, said paddle having bearings at the side of the tank, a lever extending upwardly from the transversely central portion of the paddle through the jig screen and above the water level, and a sleeve surrounding the lever elongated in the direction of travel of the material, narrow transversely and tapering in longitudinal planes.

3. In combination, a jig tank, a jigging screen therein, a transverse paddle in the tank intermediate the length of the screen and beneath the same, said paddle having bearings at the sides of the tank, a lever extending upwardly from the transversely central portion of the paddle through the jig screen and above the water level, a transverse overflow partition overlying said screen substantially in line with the paddle, and a sleeve surrounding the lever and connected with said partition, said sleeve being elongated in the direction of travel of the material and narrow transversely thereof.

1,144,495. NOZZLE-HOLDER. EMIL NELSON, Portland, Oreg. Filed July 21, 1913. Serial No. 780,268. (Cl. 248—29.)

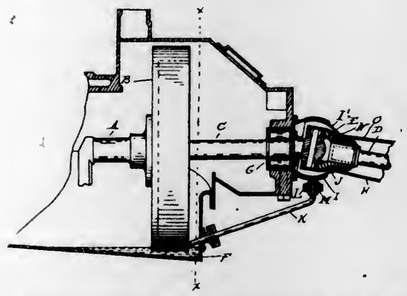


1. A hose nozzle holder of the character referred to comprising a body having a hose holding loop at its upper end, a prong at its lower end and an off-set loop intermediate its ends adapted to be hooked around the body of the hose, for the purpose described.

2. A hose nozzle holder of the character referred to comprising a body having a hose holding loop at its upper end, a prong at its lower end and an off-set loop intermediate its ends adapted to be placed around the body of the hose and terminating in a downwardly depending prong adapted to be thrust into the ground to prevent the holder from turning.

3. A hose nozzle holder of the character referred to comprising a body formed of twisted wires with their upper ends formed into a hose holding loop, one of said wires being made into a prong at its lower end, adapted to be thrust into the ground, and another of said wires being formed into an off-set loop adapted to be placed around the body of the hose when said holder body is positioned lengthwise of said hose, substantially as shown and described.

1,144,496. LUBRICATING SYSTEM FOR ENGINE AND TRANSMISSION. EMIL A. NELSON, Detroit, Mich., assignor to Hupp Motor Car Company, Detroit, Mich., a Corporation of Michigan. Filed Feb. 2, 1912. Serial No. 674,951. (Cl. 184—6.)



1. The combination with a driving member and a downwardly-inclined power transmission shaft, of a universal coupling for connecting said shaft and said driving member including a cup, and means for feeding lubricant to said coupling, said cup being secured to rotate with said downwardly-inclined shaft and arranged to prevent the flow of lubricant fed to the coupling down said shaft.

2. The combination with a substantially horizontally-arranged shaft and a downwardly-inclined shaft, of a universal coupling connecting said shafts, including a socket provided with a cup-shaped member forming a draining surface, a housing surrounding said shafts and coupling having a pocket for receiving the lubricant drainage therefrom, and a drainage connection leading from said pocket.

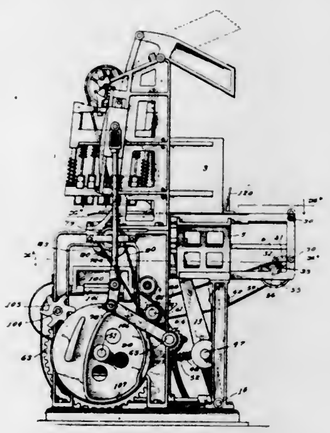
3. The combination of a driving member and a downwardly-inclined shaft, a universal coupling connecting said driving member and shaft, means for feeding lubricant to the coupling, means for preventing lubricant fed to said universal coupling from draining downward along the inclined shaft, a pocket for receiving the lubricant, and means for draining the lubricant from said pocket.

4. The combination with a substantially horizontally arranged shaft and a downwardly inclined shaft, of a universal coupling connecting said shafts including a socket provided with a cup-shaped member forming a draining surface, and a housing surrounding said shafts and coupling and having a pocket for receiving the lubricant drainage therefrom.

5. The combination of a casing, a substantially horizontally-arranged drive shaft therein, a universal coupling connecting said shafts, means for feeding lubricant to the coupling, means for perventing lubricant fed to said universal coupling from draining downward along the inclined shaft, a pocket for receiving the lubricant, and means for draining the lubricant from said pocket into said casing.

[Claims 6 to 10 not printed in the Gazette.]

1,144,497. BOX-MAKING MACHINE. ELMER C. NORTHRUP, San Francisco, Cal., assignor to Automatic Machine Company, San Francisco, Cal., a Corporation of California. Filed Feb. 15, 1911. Serial No. 608,817. Renewed Mar. 31, 1913. Serial No. 758,050. (Cl. 1—14.)



1. In a box making machine, a star wheel, mechanism operated thereby for turning the box, a shook carrier, carrier regulating mechanism, nail cut-off mechanism, and a single cam for operating the foregoing elements.

2. In a box making machine, means for turning the box comprising two pairs of clamping disks, means for yieldingly pressing the members of each pair of disks toward each other to frictionally hold the head of the box while the heads are being moved into position between the clamping disks and during the turning thereof, and means for automatically reducing the yielding pressure of said disks against the heads after the last turning movement to permit the box to be easily disengaged from the clamping disks.

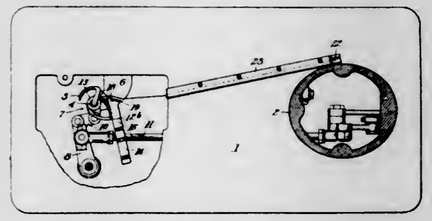
3. In a box making machine, means for feeding the heads forward comprising a pivoted dog arranged to engage behind the edge of a head to push the same forward and capable of yieding in both directions, and stiffly yielding means for strongly supporting the dog against yielding in one direction but permitting it to yield in that direction under an excess of resistance from the head to allow the dog to swing back free from the resisting head and be moved forward without carrying the head with it.

4. In a box making machine, table means supporting the box, box turning mechanism, means for moving the table from the box to permit the box to be turned, a star-wheel for operating the box turning mechanism, and means for positively locking said star-wheel after the turning of a box.

5. In a box making machine, means for supporting the box comprising a pair of tables, each table having a plurality of supporting faces, and a cam coöperating with each table for swinging the table, said table being yieldingly supported with respect to the associated cam, whereby the table can yield if the box has not been turned completely into position before the table swings back.

[Claims 6 to 21 not printed in the Gazette.]

1,144,498. TAKE-UP MECHANISM FOR SEWING-MACHINES. LANSING ONDERDONK, New York, N. Y., assignor to Union Special Machine Company, Chicago, Ill., a Corporation of Illinois. Filed Feb. 27, 1908. Serial No. 418,079. (Cl. 112—26.)



1. The combination with a thread carrying looper, of a take-up cam therefor moving about a vertical axis, thread guides coöperating with said take-up cam, and means for moving said cam in unison with said looper, said take-up cam being shaped so as to take up the looper thread when the looper is moving forward into the needle loop and also to take up the looper thread when said looper is being retracted from the needle loop.

2. The combination of a looper, a vertical support therefor, means for oscillating said looper support, a take up cam mounted to move with said looper, thread guides coöperating with said take up cam, said take up cam being so disposed as to engage and release the thread in each direction of movement.

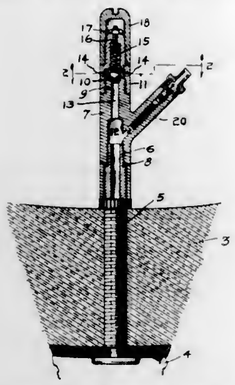
3. The combination of a looper, a looper support, means for oscillating said looper support, a take up cam secured to said looper support at a point adjacent the looper, spaced arms having thread guides therein cooperating with said take up cam, said take up cam being so shaped and disposed relative to said thread guides that the looper thread is engaged and released in each direction of movement of said take up cam.

4. The combination with a looper, a vertical support therefor, means for oscillating said looper, of a take up cam carried by said looper support, spaced thread engaging arms coöperating with said take up cam, each of said arms being provided with a thread eye and a thread slot leading to said thread eye, said thread slots being oppositely disposed in said arms.

5. The combination with a looper, a vertical support therefor, a take up cam which is substantially elliptical in outline and thread guides coöperating with said take-up cam, whereby first one side of said take up cam engages said looper thread and then the other side of said take up cam engages said thread.

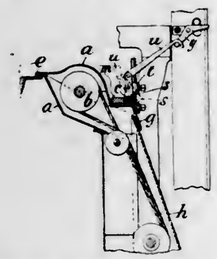
[Claims 6 to 15 not printed in the Gazette.]

1,144,499. RELIEF-VALVE FOR PNEUMATIC TIRES. ANDREW L. OWENS and CHARLES L. ALFORD, Indianapolis, Ind.; said Alford assignor to said Owens. Filed Aug. 29, 1914. Serial No. 859,184. (Cl. 152—12.)



In a relief valve for pneumatic tires, a hollow body member assembled radially of the wheel and terminating with an inner valve-seated threaded end, a valve-closed air-passage discharging into the hollow of said body between said valve-seat and the base of the body, a body extension having a threaded end-recess in which the threaded valve-seated end of the body is screwed, a valve on said recessed end of the body-extension smaller than the recess to provide circulatory passages between it and the recessed walls, a spring seated in a reduced extension of the recess and guided against the valve by the walls of the extension, and means for regulating the pressure of the spring against the valve.

1,144,500. GUARD FOR SELF-ACTING MULES AND TWINERS. JAMES PICKFORD, Oldham, England. Filed July 6, 1914. Serial No. 849,250. (Cl. 118—9.)



1. In a self-acting mule and twiner, a drawing-out scroll and a guard covering the same capable of being slid sidewise out of and into its operative position, for the purpose specified.

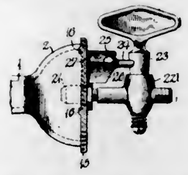
2. In a self-acting mule and twiner, a drawing-out scroll and a guard covering the same open at one end and closed at the other and means at each side of the guard for supporting and rendering it capable of being slid sidewise out of and into its operative position, for the purpose specified.

3. In a self-acting mule and twiner, a drawing-out scroll, a guard covering the same capable of being slid sidewise out of and into its operative position, and means for locking the said guard in its operative position, for the purpose specified.

4. In a self-acting mule and twiner, a drawing-out scroll and a guard covering the same capable of being slid sidewise out of and into its operative position, a headstock guard and means between the said two guards which lock and place the said scroll guard under the control of the said headstock guard, for the purpose specified.

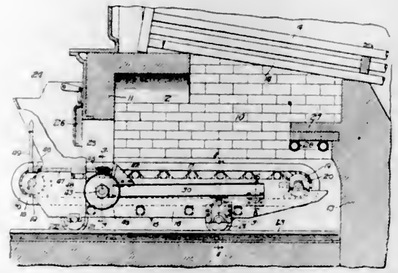
5. In a self-acting mule and twiner, a drawing-out scroll, a guard covering the same capable of being slid sidewise out of and into its operative position, means for locking the said guard in its operative position, a headstock guard which controls the side movement of the said scroll guard and means in connection with the said two guards and the machine, which, when removing the said headstock guard, will cause the machine to stop automatically and unlock the said scroll guard, for the purpose specified.

1,144,501. AIR AND GAS MIXING DEVICE. CEPHRES R. POMAVILLE, Detroit, Mich., assignor to The Michigan Stove Company, Detroit, Mich., a Corporation of Michigan. Filed Mar. 4, 1915. Serial No. 12,189. (Cl. 158—119.)



The combination with a mixing chamber having air inlet openings, of shutters movable on said mixing chamber and having air inlet openings adapted to register with the openings of said mixing chamber, means adjustably holding said shutters relative to each other whereby said shutters can be moved as a unit, a gas valve adapted to admit gas to said mixing chamber, and a connection between one of said shutters and the plug of said valve adapted to adjust said shutters as a unit simultaneously with an adjustment of said valve.

1,144,502. ELEVATION-ADJUSTING MEANS FOR CHAIN GRATES. HERMAN A. POPPENHUSEN, Hammond, Ind. Filed Jan. 22, 1915. Serial No. 3,695. (Cl. 110—40.)



1. In a furnace, the combination of a traveling grate, a frame carrying said grate, track engaging wheels supporting said frame, the wheels adjacent to one end of said frame having adjustable connection with said frame, and an elevating device mounted on said frame adapted to be operated to raise and lower one end of said frame and grate relative to said adjustably connected wheels.

2. In a furnace, the combination of a traveling grate, comprising a frame, provided with track engaging wheels mounted at the front and rear ends thereof, the wheels at one end of said grate having adjustable connection with said frame and means mounted on said grate adapted to be actuated to raise and lower one end of said grate relative to said adjustably connected wheels and about the axis of rotation of the said wheels at the opposite end of said frame.

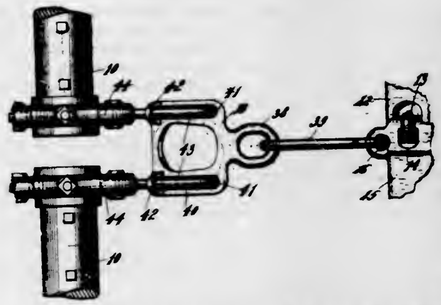
3. In a furnace, the combination of a traveling grate comprising a frame and a supporting member having adjustable connection with said frame, and means for elevating one end of said grate comprising a beam pivotally connected to said frame, and resting upon said adjustable supporting member, and means for rotating said beam about said supporting member as a fulcrum.

4. In a furnace, the combination of a traveling grate, comprising a frame and a supporting member having adjustable connection with said frame, and means for elevating one end of said grate comprising a beam pivotally connected at one end to said frame and bearing upon said supporting member intermediate of its ends, and means for applying power at the free end of said beam to rotate the same about said supporting member as a fulcrum to elevate one end of said grate.

5. In a furnace, the combination of a traveling grate, comprising a frame provided with trucks at the front and rear ends thereof, the truck at one end of said grate having sliding engagement with said frame, and means for elevating one end of said grate, comprising a beam supported upon said last mentioned truck and pivotally connected with said frame, and means for rotating said beam upon said truck as a fulcrum.

[Claims 6 to 11 not printed in the Gazette.]

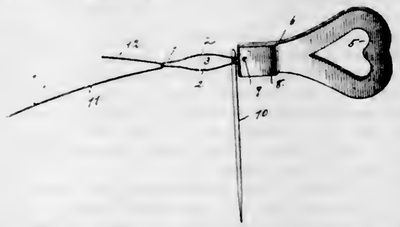
1,144,503. SECTIONAL DRAW-BAR FOR HARROWS. GEORGE H. POUNDER, Fort Atkinson, Wis. Filed Jan. 2, 1914. Serial No. 809,900. (Cl. 55—84.)



1. In a harrow, a draw iron having a loop for connection with the draw bar and provided with openings and guide arches, hook members engaging the openings and confined by the guide arches so as to permit freedom of vertical movement and prevent lateral movement thereof, said hook members being adapted for connection with the ends of different harrow sections.

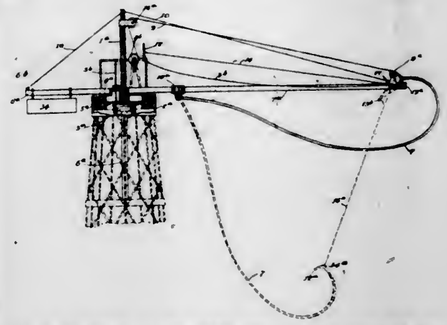
2. In a harrow, a draw iron forming a loop for connection with the draw bar and having an opening at each side thereof with a depressed groove extending rearwardly to a guide arch, said groove and guide arch forming a flaring guide way, and hook members engaging the openings and lying within the flaring guide way to have a free vertical swinging movement without lateral play.

1,144,504. NEEDLE-THREADER. JULIUS SCHNEIDER, New York, N. Y. Filed Feb. 16, 1915. Serial No. 8,460. (Cl. 223—36.)



In a needle threader a grip having a doubled apertured shank and a protuberance on the shank, combined with a resilient looped filament extending through the shank-aperture and having a contracted nose, an expanded section back of the nose and a corrugated heel back of the expanded section, which heel is engaged by the grip-protuberance.

1,144,505. AERIAL LANDING AND LAUNCHING APPLIANCE. FRANK STEFFAN, San Diego, Cal. Filed Feb. 18, 1914. Serial No. 819,402. (Cl. 244—2.)



1. In a device of the class described the combination of a rigidly mounted base, a member revolubly mounted in said base, a horizontal member rigidly secured to said revolubly mounted member, a curved arm pivotally and revolubly mounted at its one end on said horizontal member and means for raising and lowering one end of said curved arm.

2. In a device of the class described the combination of a rigidly mounted base, a revolving member mounted in said base, a horizontal member mounted on said revolving member, a curved arm pivotally and revolubly mounted at its one end on said horizontal member, and means for raising and lowering one end of said curved arm.

3. In a device of the class described the combination of a rigidly mounted base, a revolving member mounted in said base, a horizontal member mounted on said revolving member, a curved arm pivotally and revolubly mounted at its one end on said horizontal member, a catch means on the other end of said horizontal member, means on the extended end of said curved arm adapted to engage with said catch means.

4. In a device of the class described the combination of a rigidly mounted base, a revolving member mounted in said base, a horizontal member mounted on said revolving member, a curved arm pivotally and revolubly mounted at its one end on said horizontal member, means on the extended end of said curved arm adapted to engage with said catch means, means on said horizontal member adapted to hold said end of said curved arm in engagement with said catch means and a means for operating said catch means.

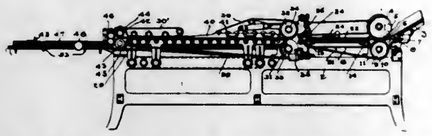
5. In a device of the kind described, a rigidly mounted base, a revolving member mounted in said base, a means for controlling said revolving member mounted thereon, a horizontal member mounted on said revolving member, a curved arm pivotally and revolubly mounted at its one end on said horizontal member, a catch means on the other end of said horizontal member, means on the extended end of said curved arm adapted to engage with said catch means, means on said horizontal member to hold said end of said curved arm in engagement with said catch means, and a means for operating said catch means.

[Claims 6 to 8 not printed in the Gazette.]

1,144,506. ENVELOP-MAKING MACHINE. EDWIN G. STAUDE, Minneapolis, Minn., assignor, by mesne assignments, to United States Envelope Company, Worcester, Mass., a Corporation. Filed July 24, 1908. Serial No. 445,166. (Cl. 93—62.)

1. In a machine of the class described, means for forwarding a blank and for squaring it during its forward

movement, comprising the following instrumentalities:—a frictionally engaging forwarding means for said blank, positively engaging means, to which the blank is delivered by said frictionally engaging means, for continuing the forward movement of said blank in the plane of its flat or extended position, means for engaging an edge of said blank during its movement by said frictionally engaging means, to square the same, and means for moving said engaging means out of the path of the blank as the same is delivered to said positively engaging forwarding means.



2. In a machine of the class described, a blank forwarding means comprising a movable member frictionally engaging the blank, and a positively engaging feeding means to which the blank is delivered by said frictionally engaging member, means for engaging an edge of said blank during its movement by said frictionally engaging member, and means for moving said engaging means at a speed different from the speed of said frictionally engaging member, said engaging means being movable out of engagement with said edge of the blank before said blank is seized by said positively engaging forwarding means.

3. In a machine of the class described, a series of moving tapes for forwarding a blank in the plane of its flat or extended position, a pair of feed rolls in advance of said tapes, into the bight of which the blank is delivered by said tapes, said rolls adapted to continue the forward movement of the blank, and a plurality of members moving in the same direction as said tapes but at a different rate of speed for engaging an edge of the blank during the period of its forward movement upon said tapes, whereby the blank is squared previous to its passage into the bight of said rolls.

4. In a machine of the class described, the combination, with feed rolls and belts adapted to feed blanks to said rolls, some of said belts operating at a higher speed than the other belts, means mounted on the slower moving belts and against which the blanks are held by the faster moving belts, means for creasing, pasting and folding the side flaps of a blank, and means for moving the blank in a direction at right angles substantially to its initial movement to crease, paste and fold the end flaps.

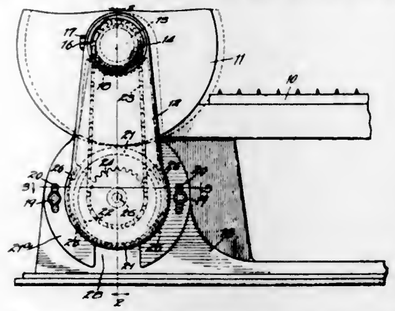
5. In a machine of the class described, the combination, with feed rolls, of belts adapted to feed blanks to said rolls, some of said belts operating at a higher speed than the other belts, lugs carried by the slower moving belts against which lugs the blanks are held by the faster moving belts, means for folding the side flaps of the blank, a stop provided in the path of said blank, means for moving the blank laterally with respect to its initial movement, means for holding the blank against said stop during a portion of such lateral movement, and means for creasing, pasting and folding the end flaps.

[Claims 6 to 23 not printed in the Gazette.]

1,144,507. SLICING-MACHINE. HENDRIK STUKART, Rotterdam, Netherlands, assignor to U. S. Slicing Machine Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 31, 1913. Serial No. 757,863. (Cl. 17—24.)

1. A slicing machine embodying a cutter, an adjustably mounted suport therefor, driving mechanism for the cutter, a bearing for the cutter, said bearing connected with the support for adjustment with respect thereto to adjust said driving mechanism, and means whereby the support may be adjusted to adjust the cutter without affecting the said driving mechanism.

2. A slicing machine embodying a cutter, an adjustably mounted support therefor, driving mechanism for the cutter, eccentric means for adjusting the cutter with relation to the support for adjusting the said driving mechanism, and means whereby the support may be adjusted to adjust the cutter without affecting the said driving mechanism.



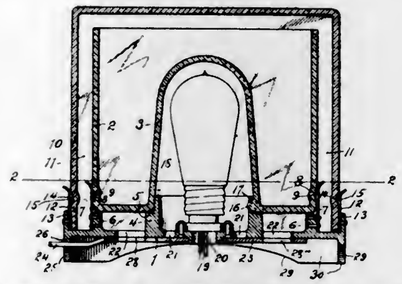
3. A slicing machine, embodying a relatively movable meat support and cutter, driving mechanism for the cutter, said cutter and support having a fixed relation to each other with respect to the said relative movement, and means operating to maintain such relation when the cutter becomes worn without affecting the driving mechanism.

4. A slicing machine embodying a relatively movable meat support and rotatable cutter, means for rotating the cutter, and means for maintaining said cutter and support in a fixed relation to each other with respect to such relative movement, the said means also operating to maintain such fixed relation when the diameter of the cutter becomes reduced and without affecting the cutter rotating means.

5. A slicing machine embodying a relatively movable meat support and cutter, an adjustably mounted support for the cutter, operating means for the cutter, said cutter and meat support having a fixed relation to each other with respect to such relative movement, and means whereby the cutter support may be adjusted to maintain such fixed relation of the cutter and meat support when the size of the cutter becomes reduced and without affecting the cutter operating means.

[Claims 6 to 23 not printed in the Gazette.]

1,144,508. HUMIDOR. JOHN TAYLOR, Jr., Kansas City, Mo. Filed July 13, 1914. Serial No. 850,542. (Cl. 131—30.)



1. In a humidor, a base having an opening communicating with the atmosphere, an outer casing having an open lower end communicating with said opening and closed by said base, a water receptacle inclosed by said outer casing and having an opening for discharging moisture into said casing, and provided with an inwardly extending hollow dome forming with said base a heating chamber, and a heating device in said chamber.

2. In a humidor, a base having an opening communicating with the atmosphere, an outer casing having an open lower end closed by said base, a water receptacle inclosed by and spaced apart at the sides and top from said outer casing, said receptacle having an open top and being provided with an inwardly extending hollow dome forming with said base a heating chamber, the space between the casing and receptacle communicating with said opening in the base, and a heating device in said chamber.

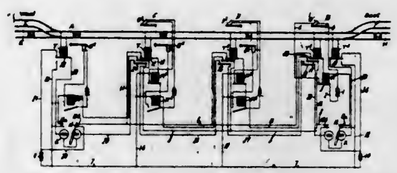
3. In a humidor, a base having an opening communicating with the atmosphere, a valve controlling said opening, an outer casing having an open lower end closed by said base and communicating with said opening, a water receptacle inclosed by and having an opening for discharging moisture into said outer casing, and provided with an inwardly extending hollow dome forming with said base a heating chamber, and a heating device in said chamber.

4. In a humidor, a base having an opening communicating with the atmosphere, an outer casing having an open lower end closed by said base and communicating with said opening, a water receptacle inclosed by and having an opening for discharging moisture into said outer casing, and provided with an inwardly extending hollow dome forming with said base a heating chamber, said base having an opening communicating with the atmosphere and with said heating chamber, and a heating device in said chamber.

5. In a humidor, a base having an opening communicating with the atmosphere, an outer casing having an open lower end closed by said base and communicating with said opening, a water receptacle inclosed by and having an opening for discharging moisture into said outer casing, and provided with an inwardly extending hollow dome forming with said base a heating chamber, the base having an opening communicating with the atmosphere and with said heating chamber, a valve controlling the last named opening, and a heating device in said chamber.

[Claims 6 to 14 not printed in the Gazette.]

1,144,509. RAILWAY SIGNALING. JOHN D. TAYLOR, Wilkinsburg, Pa.; Mary E. Taylor, executrix of said John D. Taylor, deceased, assignor to The Union Switch & Signal Company, Swissvale, Pa., a Corporation of Pennsylvania. Filed Nov. 18, 1913. Serial No. 801,617. (Cl. 246—30.)



1. In combination, a stretch of single track, signals located at intervals for governing traffic in one direction through the stretch, and other signals located at intervals for governing traffic in the other direction through the stretch, a signal relay for the control of each signal, track circuits for the stretch including track relays; a signal relay circuit including in multiple the signal relays for the signals which govern traffic in one direction, the branch for each signal relay being controlled by a track relay; another signal relay circuit including in multiple the signal relays for the signals governing traffic in the other direction, the branch for each of the latter signal relays being controlled by a track relay; and means for energizing one or the other of said signal relay circuits.

2. In combination, a stretch of single track, signals located at intervals for governing traffic in one direction through the stretch, and other signals located at intervals for governing traffic in the other direction through the stretch, a signal relay for the control of each signal, track circuits for the stretch including track relays; a signal relay circuit including in multiple the signal relays for the signals which govern traffic in one direction, the branch for each signal relay being controlled by a track relay; another signal relay circuit including in multiple the signal relays for the signals governing traffic in the other direction, the branch for each of the latter signal relays being controlled by a track relay; and means controlled by the track relays for energizing one of said signal relay circuits or the other.

3. In combination, a stretch of single track, signals located at intervals for governing traffic in one direction through the stretch, and other signals located at intervals for governing traffic in the other direction through the stretch, a signal relay for the control of each signal, a signal relay circuit for the relays for the signals which govern traffic in one direction, another signal relay circuit for the relays for the signals which govern traffic in the other direction, track circuits for the stretch including track relays for the control of said signal relay circuits, means for energizing each signal relay circuit, a polarized relay for each signal relay circuit for causing the corresponding circuit to be energized or deënergized according as the relay is energized in one direction or the other; a circuit for said polarized relays, the relays being so connected in said circuit that when the circuit is energized in one direction or the other, one or the other of the signal relay circuits is energized; and means for energizing said polarized relay circuit in one direction or the other.

4. In combination, a stretch of single track, signals located at intervals for governing traffic in one direction through the stretch and other signals located at intervals for governing traffic in the other direction through the stretch, a signal relay for the control of each signal, a signal relay circuit for the relays for the signals which govern traffic in one direction, another signal relay circuit for the relays for the signals which govern traffic in the other direction, track circuits for the stretch including track relays for the control of said signal relay circuits, means for energizing each signal relay circuit, a polarized relay for each signal relay circuit for causing the corresponding circuit to be energized or deënergized according as the relay is energized in one direction or the other; a circuit for said polarized relays, the relays being so connected in said circuit that when the circuit is energized in one direction or the other, one or the other of the signal relay circuits is energized; preliminary track sections one extending from each end of the stretch, and means controlled by a train in one preliminary section or the other for energizing said polarized relay circuit in one direction or the other.

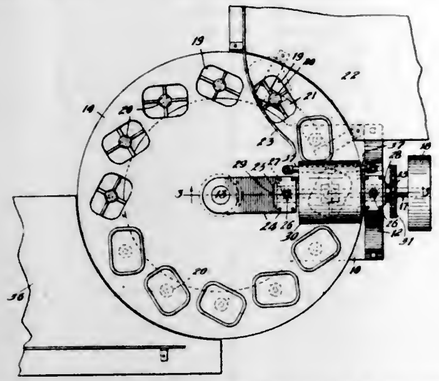
5. In combination, a stretch of single track, signals located at intervals for governing traffic in one direction through the stretch, and other signals located at intervals for governing traffic in the other direction through the stretch, a signal relay for the control of each signal, track circuits for the stretch including track relays; a signal relay circuit including in multiple the signal relays for the signals which govern traffic in one direction, the branch for each signal relay being controlled by a track relay; another signal relay circuit including in multiple the signal relays for the signals governing traffic in the other direction, the branch for each of the latter signal relays being controlled by a track relay; a polarized relay for each signal relay circuit for causing the corresponding circuit to be energized or deënergized according as the polarized relay is energized in one direction or the other; a circuit for said polarized relays, the relays being so connected in the circuit that when the circuit is energized in one direction or the other, one or the other of the signal relay circuits is energized; means for energizing said polarized relay circuit in one direction or the other, and a contact of each polarized relay included in the branch for one of the signal relays which is controlled by the other polarized relay.

[Claim 6 not printed in the Gazette.]

1,144,510. SOLDER-FUSING MACHINE. WILLIAM E. TAYLOR, Eastport, Me., assignor to American Can Company, New York, N. Y., a Corporation of New Jersey. Filed Oct. 23, 1911. Serial No. 656,208. (Cl. 113—89.)

1. In a machine of the character described, the combination of a rotatable table adapted to support cans to be soldered and having means for receiving said cans and holding them from movement on the table, and a fusing device arranged above said table and over the path of travel of the can bodies while they are supported by the table, and adapted to progressively fuse the seams of the

can bodies as they pass by and in contact with the said fusing device.



2. In a machine of the character described, the combination with a rotatable table adapted to support a can body, of a fusing roller disposed above said table and having its axis radially arranged relatively to said table and adapted to progressively fuse the seam in the can body as it is conveyed thereunder by the table.

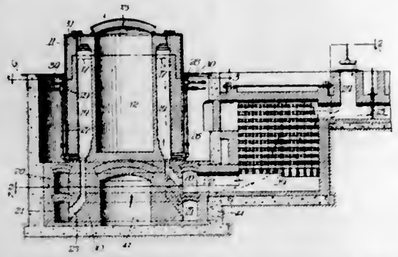
3. In a machine of the character described, the combination with a rotary table provided with a pocket in its upper face adapted to receive a can body, of a combined pressure and fusing device disposed above said table and over the path of travel of the can body while supported by the table and adapted to progressively fuse and press the seam, substantially as specified.

4. In a machine of the character described, the combination with a rotary table provided with a plurality of pockets shaped to conform to and adapted to receive can bodies, of a fusing roller supported above said table and having its axis arranged radially of the table, and means for rotating said table, substantially as specified.

5. In a machine of the character described, the combination with a table rotatable about a vertical axis and having a plurality of can body pockets therein, arranged concentrically with said axis said table serving as a pressure device, of a combined heated fusing and pressure roller adjacent said table and having its axis arranged radially relative to the table, and means for positively rotating the roller, substantially as specified.

[Claims 6 to 11 not printed in the Gazette.]

1,144,511. FURNACE. GEORGE G. THORP, Chicago, Ill. Filed May 29, 1914. Serial No. 841,692. (Cl. 148—16.)



1. In a heating furnace, the combination of walls inclosing a heating chamber, a cover for said chamber whereby the same is normally closed to the atmosphere, pairs of vertical combustion chambers in said walls and surrounding said heating chamber, each pair of combustion chambers constituting a heating unit and said pairs being located in juxtaposition in said wall, and means for supplying a combustible fluid at the lower end of one of said combustion chambers and discharging products of combustion from the lower end of the other of said combustion chambers, substantially as described.

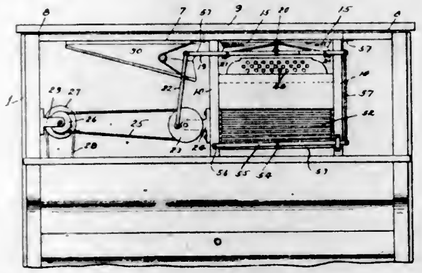
2. In a heating furnace, the combination of walls inclosing a substantially circular heating chamber, means for closing said chamber to the atmosphere and to the direct action of the heating element, and pairs of combustion chambers symmetrically located about said chamber in the walls thereof, each pair of combustion chambers constituting a unit, a plurality of said units being located in juxtaposition and surrounding said heating chamber, substantially as described.

3. In a heating furnace, the combination of walls inclosing a heating chamber, means for closing said chamber to the atmosphere and to the direct action of the heating element, pairs of combustion chambers located in said walls, regenerators, and means for reversing said regenerators and causing primary combustion in alternate combustion chambers, substantially as described.

4. In a heating furnace, the combination of walls outlining a substantially circular heating chamber, means for closing said chamber to the atmosphere and to the direct action of the heating element, heating units in spaced relation in said walls, each unit consisting in a combustion chamber divided by a vertical wall which wall terminates short of the top of said chamber, and means for supplying gas and air to said combustion chambers, substantially as described.

5. In a heating furnace, the combination of walls inclosing a chamber, a cover for closing said chamber to the atmosphere, pairs of combustion chambers located in juxtaposition in said walls, and means for supplying a combustible fluid alternately to one of each of said pairs of combustion chambers, substantially as described.

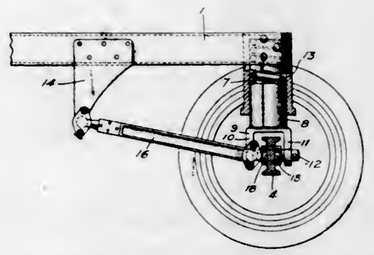
1,144,512. ATTACHMENT FOR PIANOS. IGNATIUS TRAVERSARO, San Francisco, Cal. Filed Sept. 3, 1913. Serial No. 787,882. (Cl. 84—55.)



1. In an attachment for pianos and in combination with the case, a casing front board provided with a transparent panel, an air suction device, a reed box, a wind chest connected with said air suction device, an imitation accordion bellows in rear of said transparent panel and visible through the same, means for operating said bellows, mechanism for opening communication from said wind chest into said reed box and for admitting air to be drawn through said reeds, a plurality of accordion keys in rear of said transparent panel and visible through the same and means for operating certain of said keys.

2. In an attachment for pianos and in combination with the case, a casing front board provided with a transparent panel, an air suction device, a wind chest, a reed box positioned in said wind chest and provided with reed cells and reeds, an air passage between said wind chest and said air suction device, an imination accordion bellows visible through said transparent panel and said bellows being connected to and operated by the actuation of said air suction device, valves for admitting air to be drawn through said reeds into said wind chest, and a plurality of accordion keys visible through said transparent panel and each of said keys associated with and operated by the operation of certain of said valves.

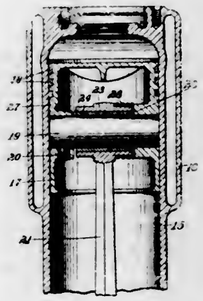
1,144,513. AXLE-SUPPORT. HARRY C. WAITE, Lewistown, Mont., assignor, by direct and mesne assignments, to International Harvester Company of New Jersey, a Corporation of New Jersey. Filed Nov. 22, 1911. Serial No. 661,706. (Cl. 21—50.)



1. In a vehicle, the combination of a frame having side members terminating in a cylinder member connecting said side members, an axle, a plunger having a relatively pivotal movement with respect to said axle and arranged to move in said cylinder, and a spring within said cylinder and bearing against said plunger to form a yieldable connection between said frame and axle.

2. In a vehicle, the combination of a frame having side members terminating in a cylinder member connecting said side members, an axle, a plunger having relatively pivotal and lateral movement with respect to said axle, a spring within said cylinder and bearing against said plunger to form a yieldable connection between said frame and axle, and a radius rod connection between said frame and axle.

1,144,514. HYDROCARBON-MOTOR. SIDNEY D. WALDON, Detroit, Mich., assignor to Packard Motor Car Company, Detroit, Mich., a Corporation of Michigan. Filed Nov. 1, 1913. Serial No. 798,694. (Cl. 121—104.)



1. In a motor, the combination with the cylinder and piston therein, of means tending to cause that side of the piston adjacent one end of the piston pin to travel in closer contact with the cylinder wall than the opposite side thereof.

2. In a motor, the combination with the cylinder and piston therein, of means tending to cause the piston to lie closer to the cylinder wall along the line of one end of the piston pin.

3. In a motor, the combination with the crank case and the cylinder thereon, the crank shaft, piston and connecting rod, said piston sliding in the cylinder with the side adjacent one end of the piston pin tending to closer contact with the cylinder wall than the opposite side thereof.

4. In a motor, the combination with the crank case and the cylinder thereon, the crank shaft, piston, and connecting rod, of means for yieldingly pressing the piston against one side of the cylinder, longitudinally of the crank shaft.

5. In a motor, the combination with the crank case and the cylinder thereon, the crank shaft, piston and connecting rod, of means between the upper end of the connecting rod and the piston for yieldingly pressing the piston against one side of the cylinder, longitudinally of the crank shaft.

[Claims 6 to 10 not printed in the Gazette.]

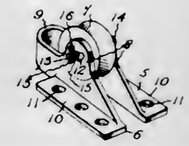
1,144,515. TWO-ROW CUTTER AND CONVEYER FOR CORN-BINDERS. ALLEN K. WEBSTER, Brookville, Kans. Filed June 24, 1912. Serial No. 705,525. (Cl. 56—119.)



1. In a machine of the character described, the combination of a frame, a guide inclined upwardly from front to rear and mounted on the frame, a substantially vertical drive shaft at the rear end of said guide and frame, a sprocket wheel mounted on said shaft so as to be movable longitudinally thereon but non-rotatable independently of said shaft, a support for said sprocket wheel that is hinged to the forward part of the frame, a sprocket wheel mounted on the forward end of said support, a conveyer chain mounted on said sprocket wheels, and means for adjusting said support lengthwise of said shaft.

2. In a machine of the kind described, the combination of a frame, a guide inclined upwardly from front to rear and mounted on the frame an inclined drive shaft at the rear end of said guide and frame, a sprocket wheel mounted on said shaft so as to be movable longitudinally thereon but non-rotatable independently of said shaft, a support for said sprocket wheel that is hinged to the forward part of the frame, a sprocket wheel mounted on the forward end of said support, a conveyer chain mounted on said sprocket wheels, means for adjusting the second-named sprocket wheel, and means for adjusting said support lengthwise of said shaft.

1,144,516. ATTACHMENT FOR DUMB-WAITER SHAFTS. LOUIS WIEBKE and ALBERT W. BULL, New York, N. Y.; said Bull assignor to said Wiebke. Filed Nov. 7, 1914. Serial No. 870,908. (Cl. 254—190.)

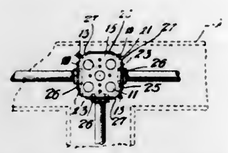


A bracket having spaced side portions provided at one edge with outstanding flanges and an intermediate curved portion merging with the said side portions, said side portions having bearings at their edges opposite the edges at which the said flanges are located, a pin detachably mounted in the bearings, and a sheave journaled on the pin and having their periphery lying below a plane in which the outer surfaces of the flanges lie.

1,144,517. JUNCTION-BOX. PAUL J. WITTENBERG, Chicago, Ill., assignor of one-third to Charles E. Downing and one-third to Jacob Aaron, Chicago, Ill. Filed Sept. 15, 1911. Serial No. 649,495. (Cl. 247—5.)

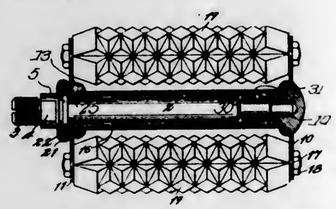
1. A sheet metal outlet box for use in concrete buildings comprising, in combination: a body member open at its top and having a plurality of openings provided with partially punched plugs: a readily attachable and detachable bottom secured to the body member, whereby the in-

terior of the outlet box is easily accessible from above when the box is in an inverted position on a concrete mold; and means adjacent the top or cover end of the box by which the box may be temporarily secured to the concrete mold in an inverted position, substantially as specified.



2. A sheet metal outlet box adapted for use in concrete buildings comprising, in combination: a body member open at the top and having its bottom edge provided with a plurality of spaced projections forming recesses therebetween, the body member being free from side seams or joints; a detachable bottom having also a plurality of spaced projections around its periphery forming recesses therebetween, the projections of the bottom engaging and fitting in the recesses between the projections on the body member, and the projections of the body member engaging and fitting in the recesses between the projections on the bottom, whereby a strong, rigid union is formed between the bottom and the body member adapted to prevent unseating of the bottom or distortion of the body member when either is struck a heavy blow; and means for detachably securing the bottom to the body member, substantially as specified.

1,144,518. PEDAL. WILLIAM J. YAHLE, Dayton, Ohio, assignor to The Davis Sewing Machine Company, Dayton, Ohio, a Corporation of Ohio. Filed Nov. 20, 1913. Serial No. 802,112. (Cl. 208—70.)



1. In a pedal structure, the combination of a pin or shaft having an outstanding flange at its inner portion, a pedal journaling on the shaft and having a hub portion extending inward of said flange on the outer side thereof and a separable piece engaging over the inner side of said flange.

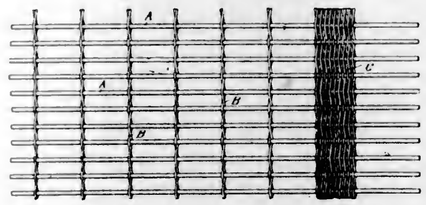
2. In a pedal structure, the combination of a pin or shaft having an outstanding flange at its inner portion, a pedal journaling on the shaft and having a hub portion extending inward of said flange on the outer side thereof, and a nut engaging the latter and extending over the inner side of the shaft flange.

3. In a pedal structure, the combination of a pin or shaft having an outstanding flange at its inner portion, a pedal journaling on the shaft and having a recessed hub portion extending inward of said flange on the outer side thereof, an interposed bearing, and a separable piece applied to said hub portion and engaging over the inner side of the shaft flange.

1,144,519. FABRIC. NICHOLAS ZUCK and FRANK G. PFISTNER, Rochester, N. Y. Filed Oct. 3, 1914. Serial No. 864,755. (Cl. 139—9.)

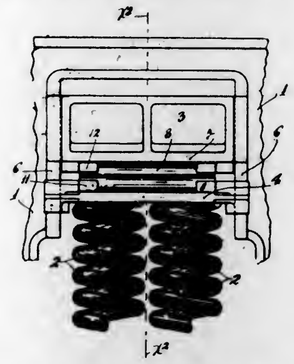
1. A fabric embodying a series of hairs arranged in spaced relation to each other and impregnated with a waterproof cementitious binding substance.

2. A fabric embodying a series of hairs arranged in spaced relation to each other and secured by threads or



strands extending at angles to the hairs and also arranged in spaced relation to each other, the fabric being impregnated with a waterproof cementitious substance.

1,144,520. LATERAL-MOTION BEARING FOR RAILWAY-TRUCKS. WALTER E. AMBERG, Chicago, Ill. Filed July 16, 1913. Serial No. 779,296. (Cl. 64—65.)



In a lateral motion bearing for cars, the combination with upper and lower bearing plates having approximately flat rocker engaging surfaces and stops at the extremities thereof, of rockers interposed between the said flat bearing surfaces of said upper and lower bearing plates and having their sides formed on reëntrant lines that interrupt their curved plate-engaging surfaces, the said reëntrant surfaces being directly engageable with said stops to aline said rockers and re-set the same properly, in respect to said stops, the said curved plate-engaging surfaces of said rockers being on line which increase the diameters of the cross sections thereof, when measured through the axes of said rockers obliquely to a normal perpendicular through the axes thereof.

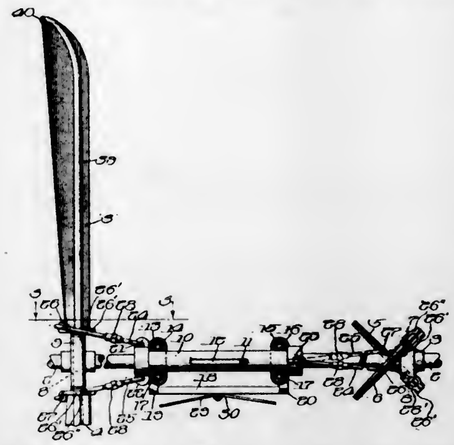
1,144,521. AERIAL PROPELLER. WILBER S. BARROWS and ASAHEL H. BARROWS, Chicago, Ill. Filed Mar. 24, 1913. Serial No. 756,304. (Cl. 170—163.)

1. The combination with a propeller shaft, of a pair of propellers, a hub on said shaft into which blades are swiveled, a member slidably mounted on said shaft and stationary relative to said shaft's rotary movement, levers upon said blades, connections between said levers and said member, means for varying the lengths of said connections, and means for varying the length of throw of said levers.

2. The combination with a propeller, of a hub for the blades of said propeller, journals on said blades, bearings in said hub for said journals, means for turning said blades in said bearings, and means for varying the lever connections to vary the extent of the turning movement of said blades.

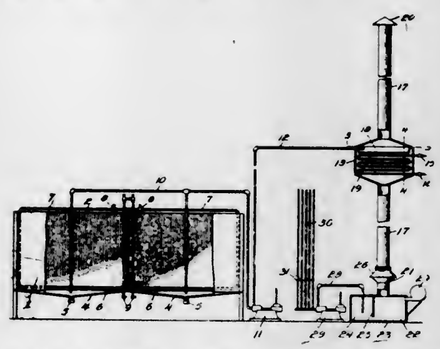
3. In a propeller, the combination with the blades of said propeller, of a hub having journal bearings therein,

a stiffening rib for each of said blades, said rib having a journal portion mounted in the journal bearing, a longitudinally adjustable lever mounted on each propeller



blade at right angles to its axis of rotation on its journal, and means for swinging said lever to vary the pitch of the blade.

1,144,522. APPARATUS FOR DRYING OILS. WILLIAM P. BENDING, Palo Alto, Cal. Filed Sept. 30, 1914. Serial No. 864,331. (Cl. 196—29.)



1. An oil drying apparatus including an oil receiving tank, a baffle or partition depending from the top of said tank, and terminating above the bottom thereof and separating the tank into receiving and delivery compartments, an inlet communicating with the top of the receiving compartment of said tank, means for discharging the oil from the delivery compartment of said tank, an air supplying device communicating with the receiving compartment of the tank above the level of the lower end of said baffle or partition, a tower having its lower end disposed in spaced relation to the inlet of the oil receptacle for the supply of air independently of the said air supplying device, a ventilator comprising relatively fixed and adjustable members upon the receptacle inlet and air inlet and the end of the tower, whereby direct flow of air into the tower may be cut off or such flow of air thereto governed, a drying chamber at a point in the length of the tower, means for heating the same, means for supplying oil to said chamber to be subjected to the drying action of the heat therein and the upwardly flowing column of air.

2. An oil drying apparatus including a vat having heating means therein, an oil receiving tank, a partition depending from the top of said tank and terminating above the bottom thereof and separating the tank into receiving and delivery compartments, a tower communicating at its lower end with the receiving compartment of the receiving tank, means for circulating air upwardly through the tower, an oil heating and receiving chamber within the tower, oil feeding means between the vat and chamber, a delivery pipe communicating with the delivery compartment of the receiving chamber, and a delivery pump connected with said pipe.

1,144,523. METAL-COATING PROCESS. JAY C. BENEKER, Cincinnati, Ohio. Filed Aug. 18, 1911. Serial No. 644,888. (Cl. 91—70.2.)

1. A process of the nature disclosed for lead-coating iron surfaces, consisting in initially obtaining a clean iron surface, and then contacting the same with a fused lead-bearing bath in the presence of metallic cadmium.

2. A process of the nature disclosed for lead-coating iron surfaces, consisting in contacting the iron surfaces at an elevated temperature, with an alloy containing lead and a relatively small proportion of cadmium.

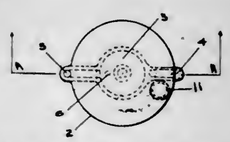
3. A process of the nature disclosed for lead-coating iron surfaces, consisting in obtaining a melted bath of an alloy containing a large percentage of lead and small percentage of zinc and cadmium, and bringing the iron surfaces into contact with said bath in the presence of a flux.

4. A process of the nature disclosed for lead-coating iron surfaces, which consists in obtaining a melted bath of a commercial grade of lead and a small quantity of zinc and cadmium, and then subjecting the cleaned iron surfaces to said bath.

1,144,524. ALLOY-COATING PROCESS. JAY C. BENEKER, Cincinnati, Ohio. Filed Jan. 9, 1913. Serial No. 740,922. (Cl. 91—70.2.)

A process of the nature disclosed consisting in obtaining a bath of fused lead containing considerable antimony and a small amount of cadmium, and contacting an iron surface therewith in the presence of a suitable flux.

1,144,525. DIFFUSING APPARATUS. CLINTON F. BLAKE, Portland, Oreg., assignor to William F. Rogers, Portland, Oreg. Filed Dec. 9, 1913. Serial No. 805,618. (Cl. 167—3.)

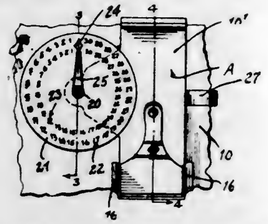


In a diffusing device for handling liquid disinfectant, a container adapted to contain liquid disinfectant and having a discharge orifice in the bottom thereof, a receiving chamber below said container adapted to receive the liquid disinfectant as same is discharged from the container through said orifice, an air tube connecting said container and said receiving chamber, said air tube terminating adjacent to the top of said container and adjacent to the bottom of said receiving chamber, said container being tightly closed except for said air tube and said discharge orifice, and said discharge orifice being of such size that liquid will pass therethrough when air is admitted to said container through said air tube, but that the liquid will not run out of said discharge orifice when said air tube is closed, an air tube connecting said receiving chamber with the atmosphere, and a siphon discharge connected to said receiving chamber.

1,144,526. COIN AND STAMP DEPOSITORY. LESTER H. BRIANT, Webster, Kans. Filed Apr. 16, 1914. Serial No. 832,377. (Cl. 133—14.)

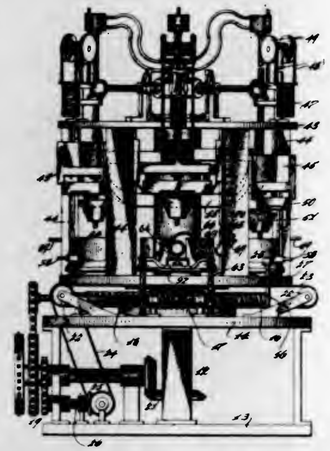
In a coin and stamp depository, the combination of a receptacle having an open upper end and an inclined bottom provided with an extension, said bottom and extension being spaced from the lower edge of the front of the receptacle, upstanding flanges at the sides of said extensions respectively, a stud projecting from the front of the re-

ceptacle, and an angular gate valve pivoted on said stud and normally held by gravity in position to dispose the free edge of one arm thereof in engagement with the extension, said arm being movable between the flanges



whereby the valve is held against rotation axially of the stud, the other arm of the valve being movable toward the front of the receptacle to dispose the free end of the first named arm in spaced relation to the extension.

1,144,527. MOLD. HENRY M. BROOKFIELD and SIGWARD OLSEN, New York, N. Y., assignors to The Brookfield Glass Company, New York, N. Y., a Corporation of New Jersey. Original application filed July 24, 1912, Serial No. 711,234. Divided and this application filed Oct. 1, 1913. Serial No. 792,746. (Cl. 49—42.)



1. A mold comprising a plurality of movable and separable parts arranged to receive a plastic substance and form an article therefrom when closed together, a part of said mold being constructed and arranged to embrace the sides of the molded article and to support the article while said part carries said article from its position in the mold into overturned position, and a pivot for said part about which it may swing for the purposes aforesaid.

2. A mold comprising separable side members and a bottom having portions adapted to engage the side of the molded article in order that said bottom may carry the article from its position in the mold into overturned position, a pivot for said bottom, and means for effecting the movement of the bottom for the purposes aforesaid.

3. A mold having separable sides and a cup-shaped bottom, said bottom being adapted to embrace a substantial portion of the article molded, and a pivot for the bottom outside the mold about which the bottom may swing bodily, when said sides are separated, from its position in the mold into a position to discharge the molded article with the bottom side uppermost.

4. A mold comprising separable side members and a bottom having portions adapted to engage the side of the molded article in order that said bottom may carry the article from its position in the mold into overturned position, a pivot for said bottom outside said mold about which the bottom may swing bodily for the purposes aforesaid, and means for swinging said bottom.

5. A mold comprising separable side members and a bottom having portions adapted to engage the side of the molded article in order that said bottom may carry the article from its position in the mold into overturned position, a pivot for said bottom, and means coöperating with said bottom for receiving and insuring the delivery in inverted position at a point remote from said mold of the molded article discharged by said bottom.

[Claims 6 to 9 not printed in the Gazette.]

1,144,528. TANK SIGHT-GAGE. THOMAS JOSEPH COLE, Guayanilla, Porto Rico. Filed July 11, 1914. Serial No. 850,417. (Cl. 73—82.)



1. In a sight-gage for tanks, the combination with a float adapted to rise and fall with the liquid level in the tank, of a hollow movable fluid display sight-gage, means placing the sight-gage in fluid communication with said tank, and means connecting the float and sight-gage, whereby the sight-gage is adapted to rise and fall with said float.

2. In a sight gage for tanks, the combination with a tank, of an exterior extensible gage composed of relatively movable sections, a float adapted to rise and fall with the level of the liquid in the tank, upper and lower sheaves, and a flexible connection between the float and the extensible gage, said connection running over the sheaves and affording means, whereby the gage is adapted to be drawn out or collapsed as said float rises and falls.

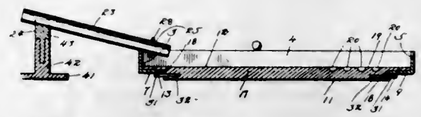
3. In a sight gage for tanks, the combination with a tank having a well extending below its bottom, of a float positioned so that it is subject to the liquid level in both the tank and the well, a hollow movable fluid display sight gage, means placing said sight-gage in fluid communication with said tank, and means operatively connecting the sight gage to the float, whereby said sight-gage is adapted to rise and fall with the float.

4. In a sight-gage for tanks, the combination with a tank having a well extending below its bottom, of a float positioned in the tank so that it is subject to the liquid level in both the tank and the well, an extensible sight-gage located exteriorly to the tank, means placing the sight gage in fluid communication with the tank, and means operatively connecting the sight-gage and float, said gage being composed of relatively movable sections and adapted to be drawn out or collapsed as the float rises and falls.

5. In a sight gage for tanks, the combination with a tank having a well extending below its bottom, of a float subject to the liquid level in both the tank and the well, an extensible sight gage located exteriorly of the tank and composed of relatively movable telescopic tubular sections, a fluid conduit connecting the interior of the tank with the interior of the said sight gage, and an operative connection between the float and the sight-gage, affording means whereby the sight-gage is adapted to be drawn out or collapsed as the float rises and falls.

[Claims 6 to 10 not printed in the Gazette.]

1,144,529. GAME. ORLANDO W. CRAMPTON, Pittsburgh, Pa. Filed May 29, 1914. Serial No. 841,819. (Cl. 46—62.)



1. A game apparatus consisting of a frame having an opening and a supporting rim around said opening, a relatively thick board having playing surfaces adapted to fit into said frame, said board having a flange reduced in thickness to engage the walls of said frame whereby the board will be held centered in the frame.

2. A game apparatus consisting of a frame having an opening and a supporting rim around said opening, a relatively thick board having playing surfaces adapted to fit into said frame, said board being reversible and having a flange to engage the walls of said frame whereby the board will be held centered in the frame, said board having an offset which in conjunction with said walls form channels when the offset side is uppermost.

3. A game apparatus consisting of a frame having an opening and a supporting rim around said opening, a relatively thick board having playing surfaces adapted to fit into said frame, said board having a flange to engage the walls of said frame whereby the board will be held centered in the frame, said board having an offset which in conjunction with said walls form channels when the offset side is uppermost, said offset adapted to engage the rim of said opening when the flanged side of the board is uppermost.

4. A game apparatus consisting of a frame having an opening and a supporting rim around said opening, a relatively thick board having playing surfaces adapted to fit into said frame, said board having a flange to engage the walls of said frame whereby the board will be held centered in the frame, said board having an offset which in conjunction with said walls form channels when the offset side is uppermost, said offset adapted to engage the rim of said opening when the flanged side of the board is uppermost, said flanged side having a series of pockets formed therein.

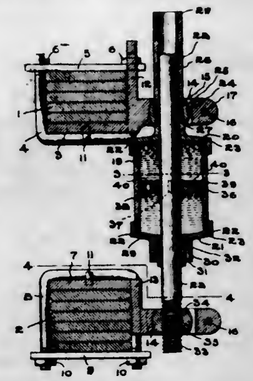
5. A game apparatus consisting of a frame having an opening and a supporting rim around said opening, a relatively thick board having playing surfaces adapted to fit into said frame, said board having a flange to engage the walls of said frame whereby the board will be held centered in the frame, said board having an offset which in conjunction with said walls form channels when the offset side is uppermost, said offset adapted to engage the rim of said opening when the flanged side of the board is uppermost, said flanged side having a series of pockets formed therein, a ball and projector therefor adapted to project balls into said pockets.

[Claims 6 to 16 not printed in the Gazette.]

1,144,530. SHOCK-ABSORBER. GARIBALDI DE FERNANZO, Philadelphia, Pa., assignor of one-third to Louis Morley, Philadelphia, Pa. Filed Apr. 13, 1914. Serial No. 831,361. (Cl. 21—105.)

1. A shock absorber, comprising a cylinder, fluid in the cylinder, a rod projecting through the cylinder, a piston fixed to the rod and having a circular series of openings therethrough for the passage of fluid, a disk secured to one face of the piston, and a circular series of flap valves formed in the disk and having openings adapted to coöperate with the openings in the piston, to control the flow of fluid through the piston, substantially as described.

2. A shock absorber, comprising a cylinder, fluid in the cylinder, a rod projecting through the cylinder, a piston fixed to the rod and having a circular series of openings therethrough for the passage of fluid, a disk secured to one face of the piston, a circular series of flap valves formed in the disk to control the flow of fluid through the piston, means permitting adjustment of the disk, whereby all of the flap valves are adjusted relative to the openings in the piston, substantially as described.



3. A shock absorber, comprising a cylinder, fluid in the cylinder, a rod projecting through the cylinder, a piston fixed to the rod and having a circular series of openings therethrough for the passage of fluid, a disk secured to one face of the piston, and a circular series of flap valves formed in the disk and having openings adapted to coöperate with the openings in the piston to control the flow of fluid through the piston, means permitting adjustment of the disk, whereby all of the flap valves are adjusted relative to the openings in the piston, substantially as described.

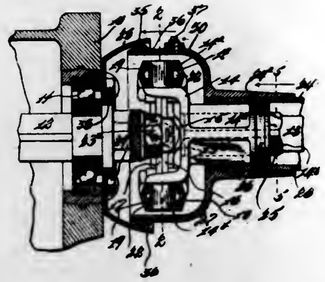
4. A shock absorber, comprising a cylinder, fluid in the cylinder, a rod projecting through the cylinder, a piston fixed to the rod and having a circular series of openings therethrough, said disk having a series of radial and curved slits forming in the disk a circular series of flap valves, and an opening in each flap valve adapted to coöperate with an opening in the piston to control the flow of liquid through said openings, substantially as described.

5. A shock absorber, comprising a cylinder, fluid in the cylinder, a rod projecting through the cylinder, a piston fixed to the rod and having a circular series of openings therethrough, said disk having a series of radial and curved slits forming in the disk a circular series of flap valves, an opening in each flap valve adapted to coöperate with an opening in the piston to control the flow of fluid through said openings, each of said flap valves having a slot therein, and set screws in the slots engaging the piston holding the flap valves in any position of adjustment, substantially as described.

1,144,531. UNIVERSAL-JOINT MECHANISM. JOHN F. DODGE, Detroit, and HORACE E. DODGE, Grosse Point, Mich., assignors to Dodge Brothers, Detroit, Mich., a Corporation of Michigan. Filed Aug. 27, 1914. Serial No. 858,812. (Cl. 74—10.)

1. In universal joint mechanism, the combination of two yokes adaptable to separate shafts, pivot pins extending in alinement on each yoke, and a yoke coupling comprising connected opposing rings, each provided with a plurality of half bearings corresponding in number to said pivot pins, the half bearings of one ring being opposed to the half bearings of the other ring and forming bearings receiving said pivot pins, said rings each having an oil channel communicating with said bearings, a sectional housing inclosing said parts, said sections having hollows which face one another, stationary means for rigidly supporting

one section of said housing, and means located on said stationary means and separate from the contact surface of said rigid section for pivotally supporting the other section of said housing movably with respect to said surface of said rigid section, the contacting parts of said sections being at the greatest diameter of each of said sections and said housing forming a chamber for containing a body of lubricant in which said coupled yokes work and with which said oil channels communicate so that the parts of said coupling will be lubricated.



2. In universal joint mechanism, the combination of two shafts, a universal joint connecting them, a sectional housing for said joint comprising reversely hollowed sections, the hollows of said sections facing one another, stationary means for supporting one of the housing sections rigidly, the other housing section being fitted movably to and working against one face of the first housing section, the contacting parts of said sections being at the greatest diameter of each of said sections, and stationary means separate from the said face of the first said housing section but located outside the latter for supporting the other housing section in said working position.

3. In mechanism of the character described, the combination with a stationary housing section, of a movable housing section arranged in working relation to said stationary section, said sections having hollows which face one another, and stationary means located laterally of said stationary section and removed from the working surfaces of said housing sections for supporting said movable section, the contact faces of said housing sections being spherical, and the contacting parts thereof being at the greatest diameter of each of said sections.

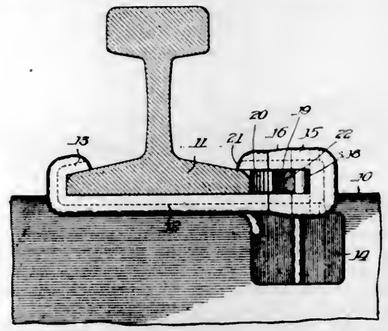
4. In mechanism of the character described, the combination of a housing comprising sections fixed against rotation, means for supporting the same, two shafts extending into said housing, and means for coupling said shafts, one of said shafts being longitudinally slidable on one member of said coupling with respect to the other shaft, and a casing tube for said slidable shaft, extending from said housing, said member bearing in said casing tube and said casing tube having an oscillatory movement on said housing.

5. In universal joint mechanism, the combination with a universal joint, of a sectioned housing for said joint, comprising a stationary section and a movable section, said sections being hollowed reversely and having mutual working surfaces, stationary means external to said housing for supporting said movable section, and pivot connections between said supporting means and said movable section, the contacting parts of said working surfaces being at the greatest diameter of each of said sections.

[Claim 6 not printed in the Gazette.]

1,144,532. RAIL-ANCHOR. FRANK G. DUNBAR, Chicago, Ill., assignor to Sargent Company, a Corporation of Illinois. Filed Jan. 7, 1915. Serial No. 904. (Cl. 238—4.)

1. In a rail anchor the combination of a rail-engaging member having a jaw on each end thereof, one engaging the rail base, the other having a vertical recess substantialy in line with the rail-engaging jaws, and a segmental clamp having a pivot adapted to be seated in said vertical recess and normally held between said jaws, the rail-engaging face of said segment being toothed and curved eccentrically to the pivot of the segment, substnutially as described.



2. In a rail anchor, the combination of a base member having an inturned hook on each end thereof, one of said hooks being adapted to engage a rail base, and an arcuate holding member pivoted in and guided between said base and one of said hooks, substantially as described.

3. In a rail anchor, the combination of a base having a rail engaging hook, an inturned flange on the other end of said base, said flange and said base being provided with a vertical recess and an arcuate clamping member having a pivot seated in said recess, said clamping member being guided between said base and said flange, substantially as described.

4. In a rail anchor, the combination of a transverse base having a rail-engaging hook, an inturned flange on the opposite end of said base, said flange, in service, lying over the top of a rail base, and an arcuate clamping member pivoted in and held between said base and said flange, substantially as described.

5. In a rail anchor, the combination of a base having a rail-engaging book on one end thereof, an inturned flange on the opposite end thereof, said base and flange being provided with registering vertical recesses and providing a vertical bearing face of substantial area, and an arcuate clamping member having a vertical pivot which is longer than the thickness of said clamping member and which pivot is adapted to bear against said bearing surface, substantially as described.

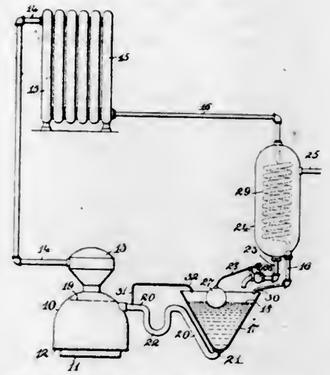
[Claims 6 and 7 not printed in the Gazette.]

1,144,533. HEATING APPARATUS. BERNARD DWOFSKY and SAM SAMBAR, Newark, N. J. Filed Oct. 6, 1914. Serial No. 865,280. (Cl. 237—67.)

1. A heating apparatus comprising a boiler, a radiator, a water receptacle open to the atmosphere, the level of water in the receptacle being the same as that in the boiler, a pipe connecting the boiler and the receptacle, a feed pipe arranged to discharge into said receptacle, an automatic means on the feed pipe for maintaining a predetermined level of water in the receptacle, a pipe connecting the boiler with the radiator, a return pipe from the radiator to the receptacle, and a chamber in the feed pipe through which the return pipe passes.

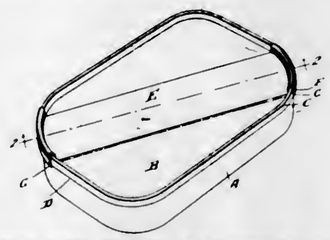
2. A heating apparatus comprising a boiler, a radiator, a water receptacle open to the atmosphere, the level of water in the receptacle being the same as that in the boiler, a pipe connecting the boiler and the receptacle, a vent pipe on the said connecting pipe and extending above the level of the water in the receptacle, a water feed pipe for the receptacle, an automatic means on said feed pipe for maintaining a predetermined level of water in the receptacle, a pipe connecting the boiler with the radiator, a return pipe from the radiator to the receptacle, and a chamber in the feed pipe through which the return pipe passes.

3. A heating apparatus comprising a boiler, a water receptacle open to the atmosphere, the boiler and receptacle being so disposed that their water levels are substantially the same, a pipe connecting the receptacle and the boiler below the water level, the pipe having a trap therein, a vent pipe on the pipe that connects the boiler and the receptacle, a water supply pipe, a float operated mechanism on the water supply pipe for regulating the flow of water to maintain a predetermined water level in the receptacle, a radiator, a pipe connecting the radiator and the boiler, and a return pipe leading from the radiator and having its outlet in the receptacle.



4. A heating apparatus comprising a boiler, a water receptacle open to the atmosphere, the boiler and receptacle being so disposed that their water levels are substantially the same, a pipe connecting the receptacle and the boiler below the water level, the pipe having a trap therein, a vent pipe on the pipe that connects the boiler and the receptacle, a water supply pipe, a float operated mechanism on the water supply pipe for regulating the flow of water to maintain a predetermined water level, a radiator, a pipe connecting the radiator and the boiler, a chamber in the water supply pipe, and a return pipe leading from the radiator, the return pipe being formed into a coil within the chamber, the outlet of the return pipe being so disposed that it empties into the water receptacle.

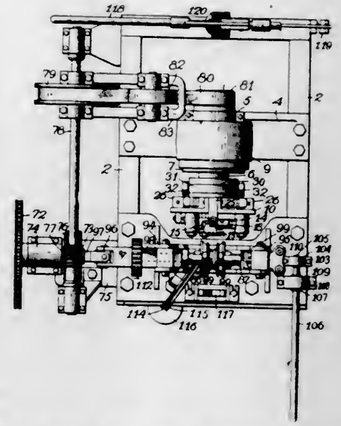
1,144,534. METALLIC LABEL. FELIX EBERHART, Newark, N. J., assignor to American Can Company, New York, N. Y., a Corporation of New Jersey. Filed Aug. 14, 1912. Serial No. 714,946. (Cl. 40—2.)



1. A sheet metal label for cans consisting of an elongated sheet of metal having its body portion intermediate of the ends adapted to lie across the head of the closed can, and formed at each end to be bent around and locked with the upstanding and outstanding seam which unites the can head with the can body, such formation consisting of an upwardly bent portion adapted to lie against the inner side of said seam, an outwardly extending portion adapted to lie over the top of said seam and a downwardly extending portion or wall which is adapted to be bent under the bottom of the outstanding seam of the can.

2. The sheet metal label for cans formed with a countersunk face, grooved ends, and an outer depending flange which may be tucked under the shoulder of the seam between the can body and can head, said label being formed and grooved to fit diagonally across the countersunk face of a four sided, round cornered sardine can.

1,144,535. TURNING-LATHE. REUBEN J. EDWARDS, Waterbury, and CHANNING B. GREENE, Morrisville, Vt., assignors, by direct and mesne assignments, to Herbert D. Ryder, Bellows Falls, Vt. Filed Mar. 16, 1912. Serial No. 684,184. (Cl. 142—28.)



1. In a turning lathe, the combination with a hollow spindle having a face plate, cutters pivotally mounted on the face plate, means engaging said cutters to swing them about their pivots, whereby to vary the distance of each from the axis of rotation of the face plate, a cam in engagement with said means for gradually changing the position of the cutters, and means actuated upon each revolution of the cam for disconnecting said cam from its driving power.

2. In a turning lathe, a cutting mechanism comprising a pair of rotatable shafts carrying feeding members for engaging the work, means for imparting a sliding movement to said shafts to change the alinement of the work, and means for causing one of the shafts to be moved toward the other shaft, whereby the feeding members are brought together for the purpose of feeding the material.

3. In a turning lathe, a hollow cutter head, means for rotating said head about a fixed axis of rotation, and a feeding mechanism arranged to control the alinement of the work, comprising means for imparting a sidewise movement to said work.

4. In a turning lathe, a hollow cutter head, means for revolving said head about a fixed axis of rotation, and a feeding mechanism arranged to control the alinement of the work, comprising means for changing the alinement of the work relatively to the axis of rotation of the cutter.

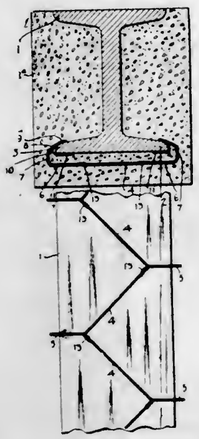
5. In a turning lathe, a feeding mechanism comprising a pair of rotatable shafts carrying feeding members for engaging the work, and means for imparting a simultaneous sliding movement to said shafts to change the alinement of the work.

[Claims 6 to 10 not printed in the Gazette.]

1,144,536. MEANS FOR REINFORCING AND BINDING CONCRETE. GUSTAV EDWARD ESCHER, South Orange, N. J. Filed Nov. 3, 1914. Serial No. 870,028. (Cl. 72—109.)

1. Means for reinforcing and binding concrete about a structural member, comprising a resilient substantially straight member provided with hook members on opposite sides thereof longitudinally spaced in staggered relation, the resilient member being distorted laterally in opposite directions to form a zigzag to permit the hooks to engage

the sides or flanges of the structural member, whereby the resilient member tends to straighten and thus hold the hooks elastically in engagement with the structural member.



2. Means for reinforcing and binding concrete about a structural member, comprising a normally substantially straight member of resilient material, in combination with a plurality of members, each having a hook at one end adapted to engage the edge of a flange of the structural member, with a loop dependent from said hook, the other ends of the loops secured to the resilient member, said hook and loop members being secured to said resilient member at intervals, the hooks oppositely disposed, the loops adapted to space apart the reinforcement from the face of the structural member, the resilient member being laterally distorted in opposite directions to form a zigzag to permit the hooks to engage the opposite flanges of the structural member, the resilience due to such distortion operating to bind the hooks to the flanges of the structural member by an elastic engagement.

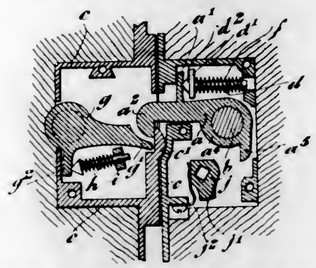
3. Means for reinforcing and binding concrete about a structural member, comprising a normally substantially straight member of resilient material, in combination with a plurality of members, each having a hook at one end adapted to engage the edge of a flange of the structural member, with a loop dependent from said hook and extending beyond and below the edge of the flange of the structural member, the other ends of the loops secured to the resilient member, said hook and loop members being secured to said resilient member at intervals, the hooks oppositely disposed, the loops adapted to space apart the reinforcement from the face of the structural member, the resilient member being laterally distorted in opposite directions to form a zigzag to permit the hooks to engage the flanges of the structural member, the resilience due to such distortion operating to bind the hooks to the flanges of the structural member by an elastic engagement.

4. Means for reinforcing and binding concrete to a structural member having a plane face bounded by longitudinal flanges comprising a resilient member, provided with oppositely disposed hook members secured thereto, the normal width between the hooks being less than that between the flanges, the resilient member distorted laterally in opposite directions to form a zigzag so as to permit the hooks to engage the flanges, the resilience due to such distortion operating to bind the hooks to the flanges by an elastic engagement, with means to space apart such reinforcement from the face and edges of the structural member.

5. Means for reinforcing and binding concrete to a structural member having a plane face bounded by longitudinal flanges, comprising a resilient member in combination with a plurality of members each having a hook at one end adapted to engage the edge of the flange of the structural member, with a loop dependent from said hook, the other ends of the loops secured to the resilient member at intervals, the hooks being oppositely disposed, the loops adapted to space apart the reinforcement from the structural member, the normal width between the hooks being less than that between the flanges, the resilient member distorted laterally, in opposite directions to form a zigzag so as to permit the hooks to engage the flanges, the resilience due to such distortion operating to bind the hooks to the flanges by an elastic engagement.

[Claim 6 not printed in the Gazette.]

1,144,537. LOCK FOR SLIDING DOORS. CHARLES EDWARD PERCY GABRIEL, Birmingham, England. Filed Apr. 11, 1914. Serial No. 831,140. (Cl. 70—102.)

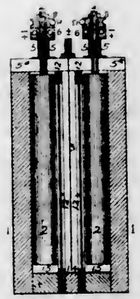


1. A lock for sliding doors, shutters, gates and the like, comprising a casing, a locking catch within said casing, a spindle or plunger above said catch, a spiral spring surrounding said spindle for controlling said catch, said spindle and spring adapted to be readily removed from the casing, substantially as described.

2. A lock for sliding doors, shutters, gates and the like comprising a casing having a cover plate provided with an aperture, a locking catch within said casing, a plate member for closing said aperture, and a spring member for controlling the locking catch adapted to be readily removed through said aperture, substantially as described.

3. A lock for sliding doors, shutters, and the like comprising in combination with the casing thereof, a locking catch within said casing, a pivot for said catch, a spring member for controlling the locking catch, radial projections upon said pivot, radial projections upon said catch adapted to engage with said first named projections for effecting a turning movement of said catch against its controlling spring for unlocking or releasing the same, spring controlled means for controlling said catch and means for removing and exchanging said spring controlled means from the casing.

1,144,538. ELECTROLYTIC APPARATUS. WILLIAM E. GREENAWALT, Denver, Colo. Filed Jan. 11, 1912. Serial No. 670,637. (Cl. 204—11.)



1. In electrolytic apparatus the combination of an electrolyte tank; a straight diaphragm separating the anode from the cathode compartment; a composite electrode composed of a series of cylindrical rods arranged in a straight line and each rotating about its own vertical axis, and means for rotating the cylindrical rods of the electrode with a common driver.

2. In electrolytic apparatus the combination of a tank containing the electrolyte; a straight diaphragm dividing the tank into anode and cathode compartments; a moving cathode, and a composite anode composed of cylindrical rods arranged in a straight line, and each revolving about its own vertical axle, and driven by a common driver.

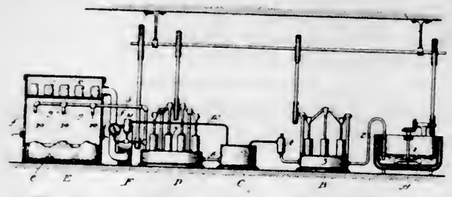
3. In electrolytic apparatus the combination of a straight reciprocating cathode and composite anode composed of a series of suspended cylindrical rods arranged in a straight line, each revolving about its own vertical axis, and driven by a common driver.

4. In electrolytic apparatus the combination of a cathode tank; a straight diaphragm dividing the tank into anode and cathode compartments; a straight reciprocating cathode, and an anode composed of a series of cylindrical rods arranged in a straight line, each revolving about its own vertical axis, and driven by a common driver.

5. In electrolytic apparatus the combination of an electrolyte tank; a straight diaphragm separating the tank into anode and cathode compartments; moving cathode in the cathode compartment, and composite anodes on both sides of the cathode composed of cylindrical rods arranged in a straight line, each rotating about its own vertical axis, and driven by a common driver.

[Claim 6 not printed in the Gazette.]

1,144,539. PROCESS FOR TREATING OILS AND FATS. WILLIAM P. M. GREELCK, Elgin, Ill. Filed Feb. 19, 1914. Serial No. 819,622. (Cl. 99—13.)



1. The process of making fatty compounds which consists in intimately mixing the component materials, treating the resulting compound to form a spray and then congealing the spray.

2. The process of making fatty compounds which consists in intimately mixing the component materials, treating the resulting compound to form a spray and causing the spray to be congealed by contact with a limited air body of lower relative temperature.

3. The process of making fatty compounds which consists in intimately mixing the component materials, treating the resultant compound to form a spray and receiving the spray in gaseous fluid of relatively lower temperature.

4. The process of making fatty compounds which consists in intimately mixing the component materials, atomizing the resulting compound, and then congealing the atomized compound.

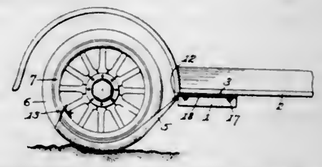
5. The process of making fatty compounds which consists in intimately mixing the component materials, atomizing the resulting compound and causing the atomized compound to be congealed by contact with air of relatively lower temperature.

[Claims 6 to 9 not printed in the Gazette.]

1,144,540. AUTOMOBILE ACCESSORY. PETER F. HABERSTICK, Wheeling, W. Va. Filed Aug. 14, 1914. Serial No. 856,816. (Cl. 21—90.)

1. An emergency device for motor vehicles, comprising a casing adapted for mounting in a stationary position adjacent to and in front of a traction wheel of such vehicle, a tape suitably disposed within said casing and adapted to have an end attached to said wheel whereby forward rotation of the latter acts to draw said tape outward from said casing and to carry the same beneath said wheel.

2. An emergency device for motor vehicles, comprising a casing adapted for mounting in a stationary position adjacent to and in front of a traction wheel of such vehicle, a tape suitably disposed within said casing and adapted to be drawn lengthwise from said casing, and means for attaching an end of said tape to said wheel, said tape being adapted to be drawn outward from said casing and spread in the path of said wheel by forward rotation of the latter.



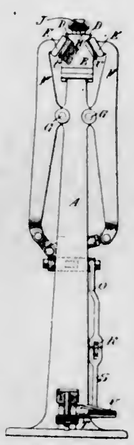
3. An emergency device for motor vehicles, comprising a casing adapted for mounting in a stationary position adjacent to and in front of a traction wheel of such vehicle, a tape disposed in lengthwise return layers within said casing, said casing having a slot therein through which an end of said tape may be projected and through which said tape may be withdrawn, and means for attaching said tape to said wheel.

4. An emergency device for motor vehicles, comprising a casing detachably mounted in a stationary position on the vehicle in front of a traction wheel thereof, said casing having an opening in the end thereof adjacent to said wheel, a tape of suitable material disposed in readily lengthwise withdrawable position within said casing and having an end projected outward through said opening, and means for attaching said end to said wheel.

5. An emergency device for motor vehicles, comprising a casing detachably mounted in a stationary position on the vehicle in front of a traction wheel thereof, said casing having an opening in the end thereof adjacent to said wheel, a tape of suitable material disposed within said casing and readily withdrawable therefrom in lengthwise direction, means maintaining said tape flat during its withdrawal, said tape having one end projected outward through said opening, and means for attaching said end to said wheel.

[Claims 6 to 8 not printed in the Gazette.]

1,144,541. COLLAR-TIPPING MACHINE. ARTHUR T. HAGEN and GOTTLOB BINDER, Rochester, N. Y., assignors to American Laundry Machinery Company, Cincinnati, Ohio, a Corporation of Ohio. Filed May 4, 1914. Serial No. 836,347. (Cl. 68—9.)

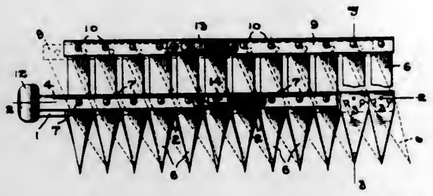


1. In a collar tipping machine, the combination with a heated bed having inclined collar engaging surfaces at the

sides and a horizontal collar engaging surface at the top, of jaws coöperating with said inclined surfaces, and a pressing member having coöperation with said horizontal top surface.

2. In a collar tipping machine, the combination with a heated bed having inclined collar engaging surfaces at the sides and a horizontal collar engaging surface at the top, of jaws pivoted at the sides of the machine, and coöperating with said inclined surfaces, and a pressing member pivoted at the rear of the machine and having coöperation with said horizontal top surface.

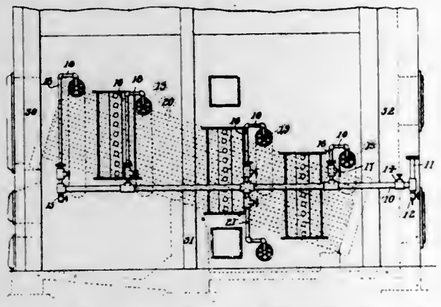
1,144,542. HEDGE-TRIMMER. LOUIS HAMMEL, Philadelphia, Pa. Filed Oct. 23, 1914. Serial No. 868,195. (Cl. 56—46.)



1. A hedge trimmer comprising a bar having a device at one end adapted to be positioned against the body of the user, and constructed for use as a handle, a longitudinal series of fixed blades on the bar, a longitudinal series of pivoted blades pivotally connected to the said bar, a bar pivotally connecting the rear ends of all of said pivoted blades, a bar on top of the pivoted blades at their point of pivotal connection with the first-mentioned bar, and handles on the intermediate portions of both of said last-mentioned bars, substantially as described.

2. A hedge trimmer comprising two members adapted to move relative to each other, a longitudinal series of fixed blades on one of said members, a longitudinal series of pivoted blades pivotally connected between their ends to the member carrying the fixed blades, and at their rear ends to the other of said members, and handles on the respective members, between the ends of the members, and a third handle secured to one end of the member carrying the fixed blades, substantially as described.

1,144,543. BOILER-FLUE-CLEANER SYSTEM. DE LOS E. HIBNER and FREDERICK W. LINAKER, Dubois, Pa., assignors to The Vulcan Soot Cleaner Co., of Pittsburgh, Pa., Dubois, Pa., a Corporation of New Jersey. Filed June 16, 1914. Serial No. 845,411. (Cl. 122—392.)



1. In a flue-cleaner system, a fluid-distributing pipe equipped with a plurality of sections revolubly connected together, certain of said sections having discharge nozzles and the nozzles being disposed in different planes radiating from the longitudinal axis of the fluid-distributing pipe, to discharge fluid in a plurality of streams from a single pipe on oblique lines with respect to the axis of the distributing pipe.

2. In a flue-cleaner system, a rotatable fluid-distributing pipe having a plurality of sections revolubly connected together, certain of said sections having discharge nozzles and the nozzles being obliquely-disposed with respect to the axis of the pipe, each of said nozzles being angularly displaced about said pipe with respect to the adjacent nozzles.

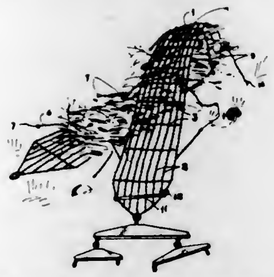
3. In a flue-cleaner system, feed and supply pipes, in combination with a rotatable distributing pipe provided with a plurality of sections revolubly connected together, certain of said sections having discharge nozzles and the nozzles being each disposed radially of the axial center of said pipe and being angularly displaced about said pipe with respect to the next adjacent nozzle, whereby a single distributing pipe is adapted to discharge a plurality of jets or streams of fluid on lines of different angularity.

4. In a flue-cleaner system, feed and supply pipes, in combination with a fluid distributing pipe provided with a plurality of sections threaded together, certain of said sections being provided with obliquely disposed discharge nozzles, and means for rotating said distributing pipe to discharge fluid in a plurality of streams successively through said nozzles in paths of varying obliquity.

5. In a tube cleaner system for boilers having rows of inclined tubes disposed to provide oblique spaces between the rows of tubes, the combination with the tubes, of a revolubly-mounted fluid distributing pipe arranged at right angles to said tubes, a feed pipe therefor, a supply pipe to which the feed pipe is connected, a plurality of nozzles interposed in the pipe and each having its outlet disposed obliquely to the axis of the pipe, said nozzles being spirally-arranged about said pipe and disposed to project fluid along generating lines of intersecting cones, the nozzles lying in different planes radial to the axis of the pipe whereby the cone-generating jets pass free from each other.

[Claims 6 to 15 not printed in the Gazette.]

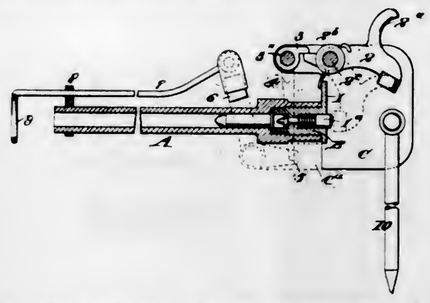
1,144,544. MANURE-CARRIER. ROBERT HICKS, Rossetti, Saskatchewan, Canada. Filed Mar. 16, 1914. Serial No. 825,192. (Cl. 57—11.)



A manure carrier comprising longitudinal stringer chains and cross chains interwoven one with the other in mesh form, the strip of mesh at each end being finished off to a point, a draft ring secured to each end, a plurality of short lengths of chain secured at intervals along one side of the mesh strip, rings secured to the ends of said lengths of chain, a second series of lengths of chain secured along the opposite side of the mesh to the first mentioned lengths, hooks secured to said last mentioned lengths, a cross bar secured at opposite ends of the mesh, one end of said cross bar being secured to the mesh and the other end having a hook adapted to catch on to the opposite side of the strip.

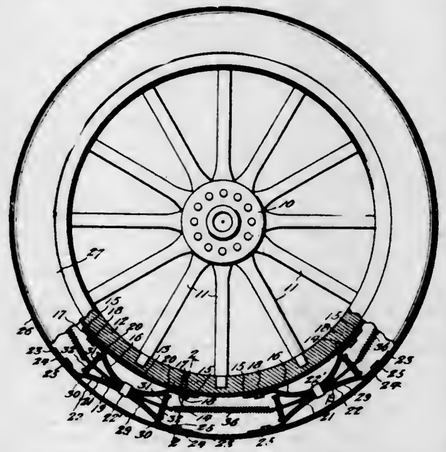
1,144,545. ANIMAL-TRAP. BYRON F. HOFFMAN, Byron, Cal. Filed Mar. 16, 1915. Serial No. 14,713. (Cl. 43—21.)

1. An animal trap comprising side plates and a transverse front plate, a breech block containing a firing pin and secured to the transverse plate, a gun barrel removably attached to the breech block and adapted to receive a cartridge, a hammer mounted upon a spring-actuated shaft journaled in the side plates, said hammer carrying a trigger, a second shaft having an eccentric cam adapted to engage the trigger when the hammer is retracted, said shaft having an arm at right angles, a push-rod slidable parallel with the barrel and carrying a stop which projects in front of the gun muzzle, and a bell-crank lever with one arm of which the push rod connects and with the other arm of which the swinging arm of the trigger engaging cam shaft engages when the hammer is raised.



2. In an animal trap of the character described, a gun barrel adapted to receive a cartridge, a breech block to which it is detachably connected, said block containing a spring retracted firing pin, a hammer mounted upon a spring pressed shaft to swing against the firing pin and having a trigger projecting from the opposite side from the hammer, a second shaft having a cam plate adapted to engage and hold the trigger, an arm extending at right angles therewith, a bell-crank lever with one arm of which said arm may engage, a slidably guided rod parallel with the barrel and connected with the other arm of the bell-crank lever, and a stop plate carried by the outer end of the sliding rod acting under exterior pressure to move the rod and disengage the lever from the trigger retaining cam shaft.

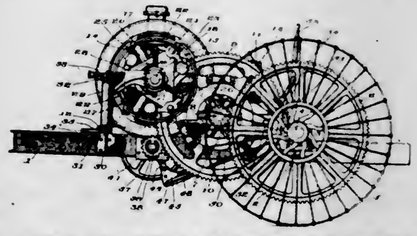
1,144,546. RESILIENT WHEEL. WILLIAM A. INGALLS, Arkansas City, Kans. Filed Oct. 7, 1912. Serial No. 724,427. (Cl. 152—37.)



1. A wheel comprising a rim, a strip surrounding the rim, clips mounted upon the strip, several sets of leaf springs located about the rim, each set including an innermost leaf spring which is slidably received at its ends within the clips, each innermost leaf spring having at its ends slots, pins mounted upon the strip and which are received within the slots of the said leaf spring, each set of leaf springs including outermost leaf springs which bear against the casing, the outermost leaf springs having at their ends slots, pins carried by the casing which are received by the last-mentioned slots, clips mounted upon the casing and slidably receiving the end portions of the last-mentioned leaf springs, each set of leaf springs including intermediate leaf springs, and coil springs connecting the intermediate leaf springs of adjacent sets of leaf springs together.

2. A wheel including in combination, an inner band, clips mounted upon said band in sets of two, inner bow springs having their ends held between said clips, inner intermediate bow leaf springs having flat outstanding ends secured to said inner springs, a flat central spring secured to each intermediate spring, outer bow leaf springs having flat outstanding ends secured to said central spring, outer bow springs secured to said last mentioned intermediate springs, a casing, clips secured to said casing, the ends of said last mentioned outer bow springs held below said last mentioned clips, a coil spring secured to each outstanding end and held to a central spring, and coil springs connecting the ends of said central springs, as and in the manner set forth.

1,144,547. POWER-TRANSMISSION MECHANISM. EDWARD A. JOHNSTON, Chicago, Ill., assignor, by mesne assignments, to International Harvester Corporation, a Corporation of New Jersey. Filed Apr. 18, 1912. Serial No. 691,735. (Cl. 74—26.)



1. A power transmitting gear mechanism for use in connection with traction engines having, in combination, an engine crank shaft, a secondary power transmitting shaft arranged parallel with said engine shaft, a spur gear member secured to said secondary shaft, a pinion carried by said engine shaft and engaging with said spur gear in a manner to cause said gear member to rotate in one direction, a reverse motion mechanism including a friction wheel carried by said engine shaft, a reverse motion shaft arranged parallel with said engine shaft and in substantially the same vertical plane, a pinion secured to one end of said reverse motion shaft and engaging with said spur gear member, a friction wheel carried by the opposite end of said reverse motion shaft, and means for moving the end of said shaft carrying the said friction wheel toward or from said engine shaft.

2. A power transmitting gear mechanism for use in connection with traction engines having, in combination, an engine crank shaft, a secondary power transmitting shaft arranged parallel with said engine shaft, a spur gear member secured to said secondary shaft, a pinion carried by said engine shaft and engaging with said spur gear member in a manner to cause said gear member to rotate in one direction, a reverse motion mechanism including a friction wheel carried by said engine shaft, a reverse motion shaft arranged parallel with said engine shaft and in substantially the same vertical plane, a pinion secured to one end of said reverse motion shaft and engaging with said spur gear member, a friction wheel carried by the opposite end of said reverse motion shaft, said shaft being journaled in a relatively fixed bearing at the end thereof carrying said pinion and in a movable bearing including an eccentric sleeve at the opposite end thereof, and means for adjusting said sleeve angularly in a manner to cause said friction wheel to move toward or from said engine shaft.

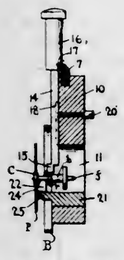
3. A power transmitting gear mechanism for use in connection with traction engines having, in combination, an engine crank shaft, a secondary power transmitting shaft arranged parallel with said engine shaft, a spur gear member secured to said secondary shaft, a pinion carried by one end of said engine shaft and engaging with said spur gear in a manner to cause said gear member to rotate in one direction, a reverse motion mechanism including a friction wheel carried by the opposite end of said engine shaft, a reverse motion shaft arranged parallel with said engine shaft and in substantially the same vertical plane, a pinion secured to one end of said reverse motion shaft and engaging with said spur gear member, a friction wheel carried by the opposite end of said reverse motion shaft, said shaft being journaled in a relatively fixed bearing at the end thereof carrying said pinion and in a movable bearing including an eccentric sleeve at the opposite end thereof, a lever arm having one end thereof secured to said sleeve, a link connection between the opposite end of said lever arm and a hand lever mounted upon the machine whereby said sleeve may be given angular motion in a manner to move said friction wheel toward or from said engine shaft.

4. In power transmitting gear mechanism, the combination of a crank shaft, a second shaft, intermeshing gears on said shafts, means for controlling the transmission of power through said shafts, a friction wheel mounted on said crank shaft, a third shaft, a gear thereon meshing with a gear on said second shaft, and a friction wheel on said third shaft for engaging and disengaging said other friction wheel for transmission purposes.

5. In power transmitting gear mechanism, the combination of drive and driven shafts, means whereby motion is transmitted from one to another, a friction wheel on said drive shaft, a third shaft adapted to be moved laterally, and means on said third shaft including another friction wheel for engaging the first transmit motion from said drive to said driven through said third shaft.

[Claim 6 not printed in the Gazette.]

1,144,548. HAIR-SPRING-REMOVING TOOL. WILLIAM M. JONES, Checotah, Okla. Filed Mar. 24, 1914. Serial No. 826,953. (Cl. 81—6.)

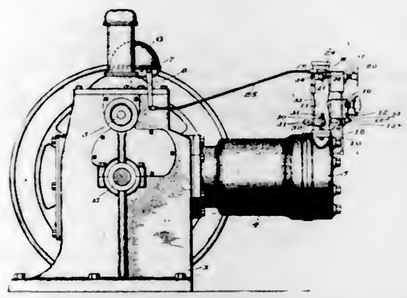


1. A tool including a supporting base having an opening with a communicating splayed slot and a socket, of a grooved plunger slidably held within said slot having an upstanding head and ending in an operating stem, a pin within said base entering said groove to limit the incursion and excursion of said plunger, a spring having one end held within said socket and the other secured to said stem to normally force said plunger into a protractile position, and a slotted lifting wedge extending over said opening said head arranged to slide below said wedge.

2. In combination, a base having an opening, a spring pressed plunger slidably secured to said base member and arranged to enter said opening, and a slotted lifting wedge extending over said opening, said plunger arranged to slide below said wedge.

3. In combination, a supporting base having an opening with a communicating splayed slot and a socket, of a grooved plunger slidably held within said slot having an upstanding head, a pin within said base entering said groove to limit the incursion and excursion of said plunger, an L-shaped stem secured to said plunger, a spring having one end held within said socket and the other upon said L-shaped stem and a slotted lifting wedge extending over said opening said head arranged to slide below said wedge.

1,144,549. CARBURETER FOR INTERNAL-COMBUSTION ENGINES. EDMUND J. KANE, Chicago, Ill., assignor, by mesne assignments, to International Harvester Corporation, a Corporation of New Jersey. Filed Dec. 19, 1912. Serial No. 737,637. (Cl. 123—106.)



1. A carbureter for internal combustion engines having, in combination, a vertically arranged mixing chamber communicating with an engine cylinder and with the atmosphere, an air throttling valve including a valve stem journaled in opposite walls of said mixing chamber near the upper end thereof, an arm secured to said valve stem and means whereby said arm may be connected with an engine governor mechanism, a second arm loosely mounted upon said stem and adapted to be turned axially by said first named arm when the latter has reached a predetermined degree of angular movement, a mixture throttling valve including a valve stem journaled in the walls of said chamber near the lower end thereof, an arm secured to said stem, an operative connection between said arm and said second arm, a spring operative to turn said mixture throttling valve toward an open position, and a fuel feed mechanism communicating with said mixing chamber.

2. A carbureter for internal combustion engines having, in combination, a mixing chamber communicating with an engine cylinder and with the atmosphere, fuel feed mechanism communicating with said mixing chamber, rocking air throttling and mixture throttling valves mounted in said chamber upon opposite sides of said fuel feed mechanism and including valve stems, means whereby said air throttling valve may be connected with an engine governor mechanism in a manner to be controlled thereby, a spring operative to normally retain said mixture throttling valve in an open position, an arm loosely mounted upon the stem of said air throttling valve, a second arm secured to th stem of said mixture throttling valve, and a link connection between said arms and said air throttling valve having a limited angular movement independent of said mixture throttling valve.

3. In a carbureter for internal combustion engines, the combination of a mixing chamber, an air throttling valve, a mixture throttling valve, and a connection between said valves whereby said valves may be actuated together or independently of each other automatically, said valves being controlled in accordance with engine working conditions.

4. In a carbureter for internal combustion engines, the combination of a mixing chamber, air throttling and mixture throttling valves, and a connection between said valves whereby said valves are actuated together under light load conditions, and one of said valves actuated independently of the other under heavy load conditions to vary the degree of vacuum in said mixing chamber.

5. In a carbureter for internal combustion engines, the combination of a mixing chamber, interconnected air throttling and mixture throttling valves in said chamber, said air throttling valve having two closed positions and said mixture throttling valve one closed position, said valves being actuated in accordance with engine working conditions, and means whereby said mixture throttling valve is arrested in open position while said other valve is free to move to vary the degree of vacuum in said chamber.

[Claims 6 to 10 not printed in the Gazette.]

1,144,550. ADJUSTABLE REAR SEAT FOR BICYCLES. JAMES W. KELLY, Bay City, Mich. Filed Dec. 20, 1913. Serial No. 807,852. (Cl. 208—24.)

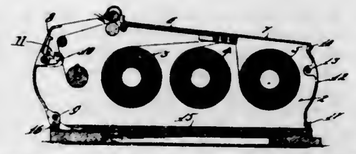


1. An adjustable seat, comprising a fixed base, a non-rotatable support carried on springs above the base, a foot support projecting from one side of the seat and pivoted to the same, and also adapted to fold over the seat to cover the same, and means for retaining the seat in fixed relation to its support.

2. An adjustable seat, comprising a fixed rectangular base, a seat rotatably supported by the base and a retainer comprising a U shaped member pivotally attached to the seat and adapted to embrace the rectangular base.

3. An adjustable seat, comprising a fixed rectangular base, a seat support above the base, springs interposed between the support and base and attached at their respective ends to the same, a rotatable seat on the support, a foot support on one side of the seat, a centrally located pivot bolt extending through the seat and support and vertically slidable through the base, a retainer comprising an inverted U shaped member pivoted on the seat and adapted to loosely embrace the base, and means for releasably holding the retainer in operative position.

1,144,551. AUTOGRAPHIC REGISTER. ALBER KRAUTH, Hamilton, Ohio. Filed July 24, 1911. Serial No. 640,257. (Cl. 11—36.)

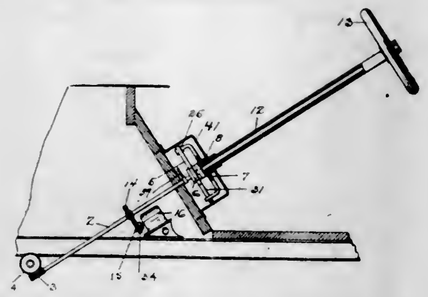


A casing for autographic registers provided with two movable closure members, a connector having at one end a free hook projection movable to confine and release one of said closure members in one direction of member movement, and the opposite end of said connector controllably engaging with the second closure member.

1,144,552. STEERING APPARATUS. HENRY A. LARDNER and GEORGE F. CHELLIS, San Francisco, Cal. Filed Oct. 2, 1913. Serial No. 793,056. (Cl. 21—90.)

1. In a power propelled vehicle, guiding means, a steering rod connected to said guiding means, an electric motor adapted to rotate said steering rod, a steering wheel, an arm on said steering rod, an arm connected to said steering wheel having a limited angular movement with respect to said first mentioned arm, contacts on said arms adapted to be brought into contact with each other by said relative movement and conductors connecting said contacts with the source of power and the electric motor.

2. In a power propelled vehicle, guiding means, a steering rod connected to said guiding means, an electric motor adapted to rotate said steering rod, a steering wheel, an arm connected to said steering rod, an arm connected to said steering wheel, one of said arms having a bifurcated end between the forks of which the end of the other arm is disposed, the distance between the forks being greater than the width of that portion of the other arm disposed therebetween, so that the steering wheel has a limited angular movement relative to the steering rod, contacts on said forks and other arm and electric circuits connecting said contacts with the source of power and the electric motor.



3. In a power propelled vehicle, guiding means, a steering rod connected thereto, an electric motor adapted to rotate said steering rod, an arm connected to said steering rod, an arm conencted to said steering wheel, one of said arms having a bifurcated end between the forks of which a portion of the other arm of less width than the distance between the forks is disposed, means for normally holding said portion spaced from said forks, contacts on said portion and forks, and electric circuits connecting said contacts with the source of power and the motor.

4. In a power propelled vehicle, guiding means, a steering rod connected thereto, a motor geared to said steering rod, a steering wheel, means connecting said steering wheel and rod arranged to permit a limited angular movement of one with respect to the other, controlling means for said motor adapted to be operated by said relative angular movement, and a magnetic clutch arranged between said motor and steering rod.

5. In a power propelled vehicle, guiding means, a steering rod connected thereto, an electric motor adapted to rotate said steering rod, a steering wheel, a sleeve secured thereto, an arm on said steering rod, an arm on said sleeve, said arms being formed at their center with engaging clutch faces arranged to permit a limited relative angular movement of said sleeve and rod, a bifurcated end on one arm, a head on the other arm engaging between the forks of said bifurcation, means for normally holding said head spaced from said forks, contacts on said head, and forks adapted to be brought into engagement by a movement of the steering wheel relative to the steering rod, and circuits connecting said contacts with the source of power, and the electric motor, said circuits being arranged so that a movement of the steering wheel in one direction causes a rotation of the motor in one direction, and a movement of the steering wheel in the opposite direction causes a rotation of the motor in the opposite direction.

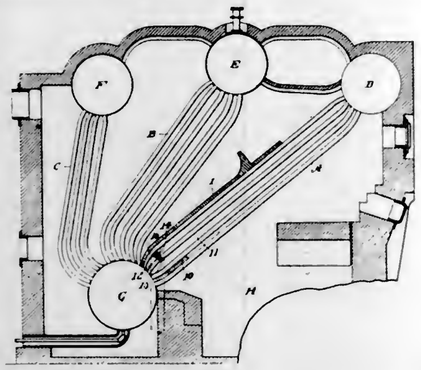
[Claims 6 to 8 not printed in the Gazette.]

1,144,553. BOILER-FLUE-CLEANER SYSTEM. FREDERICK W. LINAKER, Dubois, Pa., assignor to The Vulcan Soot Cleaner Co., of Pittsburg, Pa., Dubois, Pa., a Corporation of New Jersey. Filed Mar. 8, 1915. Serial No. 12,793. (Cl. 122—392.)

1. In a boiler tube cleaner system, the combination with an inclined bank of tubes, and a relatively long baffle in back of said tubes, of a relatively short baffle at the lower end of the bank of tubes spaced from the longer baffle to form a heat protected zone between the baffles, and a fluid distributing pipe rotatably-mounted in said heat protected zone for projecting fluid onto said tubes for cleaning the same.

2. In a boiler tube cleaner system, the combination with an inclined bank of tubes and a relatively long baffle in

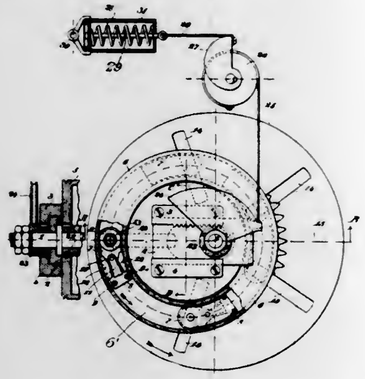
back of said tubes, of a relatively short baffle at the lower end of the bank spaced from the longer baffle to form a heat protected zone, pipe supporting means within said zone, and a fluid distributing pipe rotatively supported in said pipe supporting means.



3. In a boiler tube cleaner system, the combination with an inclined bank of boiler tubes, of a relatively short baffle at the lower end of the bank extending upwardly directly in back of the furnace chamber of the boiler to form a protected zone for the lower ends of the tubes that lie in back of said baffle, and a fluid distributing pipe located in said zone and provided with nozzles for projecting cleaning fluid onto the lower portions of the tubes of said bank for cleaning the tubes.

4. The combination with a bank of inclined tubes, and a baffle located at the lower end of said bank, of means for cleaning the lower portion of said bank of tubes comprising a rotatable fluid distributing pipe arranged transversely of the tubes adjacent said lower ends and in back of the baffle where it is protected from the heat of the furnace space.

1,144,554. GEAR. JOSEF LONČAR, Vienna, Austria-Hungary. Filed Nov. 12, 1914. Serial No. 871,789. (Cl. 74—34.)

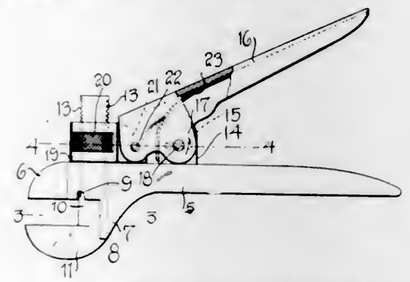


1. In variable speed gearing, a driving gear, a driven gear, a change speed element interposed between said gears, means operable upon variation of load on the driven gear for operating the change speed element, said means including a spring and connections therefor and including eccentric cams and connections therefor arranged to control the operation of the change speed element in one direction upon reduction of the load and to permit operation thereof upon increase of the load.

2. In a variable speed gearing, a shaft, a disk rotatably concentric of said shaft and provided with a series of outwardly extending guides, a disk movable transversely of the axis of the shaft, a driving gear journaled on the last mentioned disk, clutch members slidable in said slots and engageable with said driving gear when the latter is rotated, a driven gear revolubly mounted on said shaft, planetary-gearing connecting the first disk and the driven gear and including a central gear journaled on the shaft, and means controlled by the operation of said central gear for moving the second disk transversely of the axle.

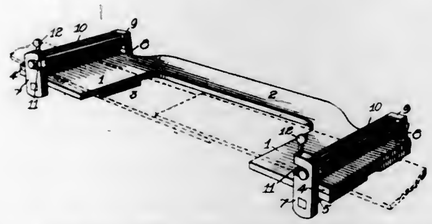
3. In a variable speed gearing, a shaft, a disk rotatably concentric of said shaft and provided with a series of outwardly extending guides, a disk movable transversely of the axis of the shaft, a driving gear journaled on the last mentioned disk, clutch members slidable in said slots and engageable with said driving gear when the latter is rotated, a driven gear revolubly mounted on said shaft, planetary-gearing connecting the first disk and the driven gear and including a central gear journaled on the shaft, means controlled by the operation of said central gear for moving the second disk transversely of the axle, and resilient means arranged to resist movement of said central gear.

1,144,555. TOOL. LE ROY F. LOBRAINE, San Diego, Cal., assignor of one-half to Russell F. Grenfell, San Diego, Cal. Filed Apr. 7, 1915. Serial No. 19,796. (Cl. 81—83.)



A tool of the character described including a handle having a stationary jaw formed on one end, an adjustable jaw opposed to the stationary jaw and provided with a shank, a yoke member through which said shank is disposed, a nut arranged in said yoke member and engaged upon the threaded shank, said handle being formed with a laterally projecting ear having a slot therein, and a spring pressed lever provided with a fulcrum shiftable in said slot, said lever being pivotally connected at its end to said yoke member.

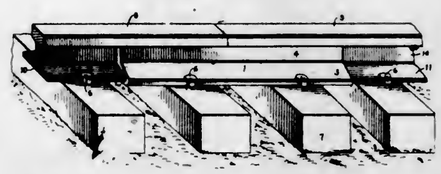
1,144,556. ROLLER-CLAMP. HERBERT JAMES LOWE, Galesburg, Ill. Filed Nov. 6, 1914. Serial No. 870,631. (Cl. 24—170.)



1. In combination with a rock-shaft and a fixed clamping member having a face inclined downward from the horizontal top of said member and in the direction opposite to that of the clamping movement of the roller hereinafter mentioned, a roller carried by said shaft and a spring tending to turn said shaft so as to move said roller into position for clamping interposed material against said inclined face, but yielding to release said material when said shaft is moved in the opposite direction.

2. In combination with a rock-shaft and a pair of arms carried thereby, one of which is provided with an open slot, removable means for closing said slot, a roller carried by said arms and permitted by said means to be held therein or dislodged at will, a fixed clamping member having a curved surface eccentric to the arc of travel of said roller in its clamping movement, and a spring for moving said roller into locking position with relation to said fixed clamping member.

1,144,557. RAILROAD-RAIL COUPLING. CLAUDE F. MCDONALD and STANLEY O. MCDONALD, Camden, Ohio. Filed Feb. 8, 1915. Serial No. 6,959. (Cl. 239—6.)



1. A rail coupling comprising a base plate, inwardly and upwardly inclined top portions integral with said base plate, and forming therewith a longitudinal cavity to receive the confronting ends of two rails, and vertical side walls integral with, and extending upwardly from, said top portions, to firmly embrace the web portions of said rails, the middle top surface of said base plate being concave to prevent engagement by the abutting ends of said rails when the latter are depressed, substantially as described.

2. A rail coupling comprising a base plate, inwardly and upwardly inclined top portions integral with said base plate, and forming therewith a longitudinal cavity to receive the confronting ends of two rails, and vertical side walls integral with and extending upwardly from said top portion, to firmly embrace the web portions of said rails, the middle top surface of said base plate being depressed a sufficient distance, longitudinally and vertically, below the abutting ends of said rails to prevent their engagement with the middle portion of said base plate, substantially as described.

1,144,558. MANUFACTURE OF UNSATURATED HYDROCARBONS AND INTERMEDIATE COMPOUNDS. FRANCIS EDWARD MATTHEWS and HENRY JAMES WHEELER BLISS, London, England. Filed June 7, 1913. Serial No. 772,390. (Cl. 23—24.)

1. In the manufacture of doubly unsaturated hydrocarbons, containing conjugated double bonds, from dihalogen substitution derivatives of hydrocarbons having the halogen on the ultimate and penultimate carbon atoms of an open chain, converting the said dihalids into more suitable dihalids by heating them to a temperature substantially above their boiling point (at ordinary pressure) but below that at which halogen acid is formed by decomposition.

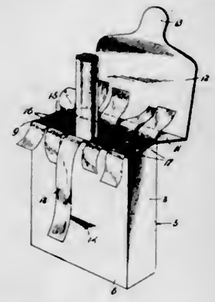
2. In the manufacture of doubly unsaturated hydrocarbons, containing conjugated double bonds for dichlor substitution derivatives of hydrocarbons having the chlorin on the ultimate and penultimate carbon atoms of an open chain, converting the said dichlorids into more suitable dichlorids by heating them to a temperature substantially above their boiling point (at ordinary pressure) but below that at which hydrochloric acid is formed by decomposition.

3. The manufacture of doubly unsaturated hydrocarbons containing conjugated double bonds from dihalogen substitution derivatives of hydrocarbons having the halogen on the ultimate and penultimate carbon atoms of an open chain, by converting the said dihalids into more suitable dihalids by heating vapors thereof to a temperature substantially above their boiling point (at ordinary pressure) but below that at which halogen acid is formed by decomposition and condensing the vapors of such portion of the product as has a boiling point different from that desired and subjecting it to further treatment for completing the isomerization.

4. The manufacture of doubly unsaturated hydrocarbons containing conjugated double bonds from dichlor substitution derivatives of hydrocarbons having the chlorin on the ultimate and penultimate carbon atoms of an open chain, by converting the said dichlorids into more suitable dichlorids by heating vapors thereof to a temperature substantially above their boiling point (at ordinary pressure) but below that at which hydrochloric acid is formed by decomposition and condensing the vapors of such portion of the product as has a boiling point different from that desired and subjecting it to further treatment for completing the isomerization.

5. Process for converting 1.2-di-chlor-3-methyl-butane into 2.3-dichlor-3-methyl-butane, consisting in heating vapors of 1.2-di-chlor-3-methyl-butane at a temperature of from 324° to 336° centigrade.

1,144,559. CIGARETTE-BOX. AARON MENDELSON and SHEPARD J. GOLDBERG, New York, N. Y. Filed Oct. 4, 1913. Serial No. 793,419. (Cl. 206—41.)



1. A dispensing box for cigarettes, including a body having a closure flap, a vertical partition in the box extending across the same, transverse partitions intercepting said first-mentioned partition dividing the box into two rows of a plurality of compartments across the box, and an independent ejecting strip of readily breakable material contained in each compartment for independently removing the cigarettes and ejecting the same one by one, the remaining cigarettes being undisturbed during such ejecting action.

2. A cigarette holding and dispensing box, comprising a blank folded to provide a closure having an open end and a cover for said end, partitions arranged at right angles to each other in said box to provide a plurality of rows of compartments disposed in pairs to contain cigarettes with one cigarette in each compartment, one of the partitions being common to all of the compartments, flexible strips of readily breakable and waterproof material secured to the opposed faces of the partition with one strip in each compartment below the exposed top edge thereof and passed downwardly beneath the cigarettes and upwardly so as to project slightly from the box in edgewise relation at the front and rear thereof to provide linings in the compartments and grasping portions whereby when pull is exerted thereon the cigarettes may be independently projected partially from the compartments.

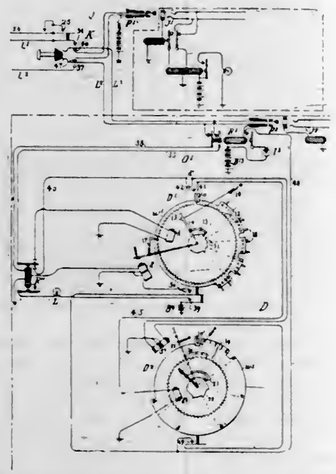
3. A dispensing box for cigarettes including a body divided into a plurality of compartments transversely thereof, a closure for the body and an independent ejecting strip of readily breakable material contained in each compartment for independently removing the cigarettes and ejecting the same one by one, said strips being located in edgewise relation to each other.

4. A cigarette box, comprising a blank folded to provide a closure having an open end, a cover for said end having

an extended flap, partitions arranged at right angles to each other in said box to provide a plurality of rows of compartments designed to contain cigarettes, a flexible and readily breakable strip of impervious material secured to the opposed faces of the partition of each compartment below the exposed edge thereof and passed downwardly beneath the cigarette and upwardly so as to project from the upper ends of the compartments near the front and rear walls of the box in edgewise alinement to provide grasping portions adapted to overlap when the box is closed, said strips forming linings for the compartments throughout the widths thereof and being designed when pull is exerted thereon to partially project the cigarettes from the compartments and to be detached with the removing of the cigarettes.

5. A cigarette holding and dispensing box, comprising a body having top and bottom portions, partitions arranged in said box to provide a plurality of rows of compartments disposed in plural series to contain cigarettes and the like with one cigarette in each compartment, flexible strips of readily breakable material secured to the opposed faces of the partitions with one strip in each compartment below the top edge thereof and passed downwardly beneath the cigarettes and upwardly so as to project from the box at or near the upper ends of the compartments to provide grasping portions adapted to permit independent partial ejection of the cigarettes, said strips forming impervious linings for the compartments facilitating the free ejection of the cigarettes.

1,144,560. INDICATING SYSTEM. EDWARD C. MOLINA, East Orange, N. J., assignor to American Telephone and Telegraph Company, a Corporation of New York. Filed Sept. 17, 1913. Serial No. 790,363. (Cl. 179—27.)



1. Indicating apparatus comprising means for displaying characters arranged in accordance with one system of grouping, and means actuated by impulses belonging to a different system of grouping for operating said displaying means.

2. Indicating apparatus comprising means for displaying a line designation in characters arranged in accordance with one system of grouping, and electro-mechanical means actuated by current impulses belonging to a different system of grouping for operating said displaying means.

3. In a telephone indicator, means for displaying a line designation in characters arranged in accordance with one system of grouping, means for actuating the displaying means and responsive to impulses belonging to a different system of grouping, and translating means operatively associating the actuating means and the indicating means.

4. Indicating apparatus comprising means for displaying numerals belonging to decimal groups, and means for actuating the displaying means including selecting members arranged in non-decimal groups.

5. The combination with decimal indicating means, of electroresponsive actuating means including non-decimal groups of actuating members.

[Claims 6 to 17 not printed in the Gazette.]

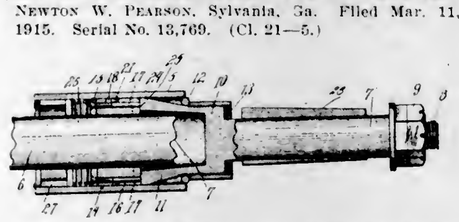
1,144,561. LADY'S HAT-FASTENING. JACOB MORRIS, Sydney, New South Wales, Australia. Filed Dec. 18, 1913. Serial No. 807,497. (Cl. 132—25.)



1. A lady's hat fastening comprising an arm, a comb pivoted to and normally having a frictional engagement therewith, a spring adapted to control said arm, and a locking device engaging the points of said comb when in its normal position within the crown of the hat.

2. A lady's hat fastening comprising a curved torsional spring, a ring to which said spring is fitted, said ring adapted to be secured within the crown of a hat, a depressible arm on said spring, a comb pivoted to and normally having a frictional engagement with said arm, and a locking device on the opposite side of the spring, normally covering the points of the comb, substantially as described.

1,144,562. AXLE ATTACHMENT FOR AUTOMOBILES. NEWTON W. PEARSON, Sylvania, Ga. Filed Mar. 11, 1915. Serial No. 13,769. (Cl. 21—5.)



1. The combination with an axle casing and an axle section therein, of an expansible clutch mechanism arranged between the axle section and axle casing to lock these parts together, and an auxiliary spindle having means of attachment with the axle casing.

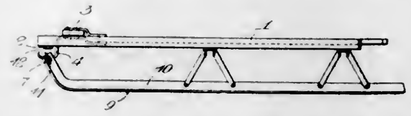
2. The combination with an axle casing, of a spindle having a tapered extension provided with a screw-threaded portion and adapted to be inserted into the end of the axle casing, a split ring arranged upon the tapered extension to engage with the inner side of the axle casing, and a clamping ring engaging the screw-threads of the tapered extension and engaging with the split ring.

3. In apparatus of the character described, an auxiliary spindle having one end adapted to be inserted into the end of an axle casing in proximity to a broken end of an axle section, means to lock the auxiliary spindle with the axle casing, means arranged within the axle casing for locking the axle section with the axle casing against rotation with relation thereto, and means whereby the locking means may be rendered active by a manipulation of the auxiliary spindle.

4. In apparatus of the character described, an auxiliary spindle having its inner end adapted to be inserted within the end of an axle casing in proximity to a broken end of an axle section, means arranged between the inner end of the auxiliary spindle and the axle casing to lock the same together, expansible clutch mechanism arranged within the axle casing and surrounding the axle section to lock the axle section with the axle casing against rotation with relation thereto, and means constituting operative detachable connection between the inner end of the auxiliary spindle and the expansible clutch mechanism.

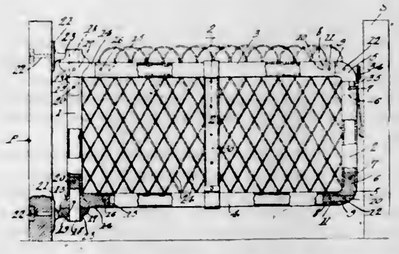
5. In apparatus of the character described, an auxiliary spindle having its inner end adapted to be inserted within an axle casing in proximity to a broken end of an axle section, said inner end of the auxiliary spindle being provided with notches; an expansible clutch means arranged between the axle section and the axle casing to lock them together; a plurality of lugs secured to the expansible clutch means and adapted to enter said notches; and means to lock the auxiliary spindle with the axle casing.

1,144,563. MEANS FOR CONNECTING THE FRONT ENDS OF SLED-RUNNERS. OTTO PEARSON, Mount Jewett, Pa. Original application filed May 18, 1914, Serial No. 839,388. Divided and this application filed Nov. 2, 1914. Serial No. 869,933. (Cl. 21—94.)



The combination with sled runners composed of angle-irons T shaped in cross section, the webs of which are provided near their front ends with longitudinally extending slots; of a cross bar having hooked ends for interlocking engagement with the slots in said runners, and means for connecting said cross bar with the steering bar.

1,144,564. GATE. DAVID POWELL, Murray, Utah. Filed Dec. 10, 1914. Serial No. 876,545. (Cl. 256—73.)



1. A gate frame comprising tubes, corner members disposed between the adjacent ends of the tubes and each having a portion fitting snugly and secured within the end of one adjacent tube, and a pin engaged through each of the corner members and fitting snugly and secured within the end of the other adjacent tube.

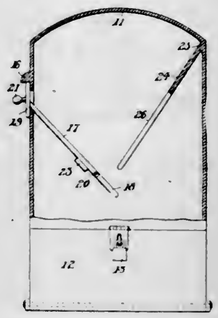
2. A gate comprising a frame embodying upper and lower tubular rails, a tubular stile, corner members between the said stile and rails, the corner members having portions fitting and secured within the ends of the rails and abutting against the ends of the stile, and pins engaged through the said corner members, the pins fitting snugly and secured within the said corner members and the end portions of the stile, and said pins projecting from the said corner members to provide means for hinging the gate.

1,144,565. LADY'S HAT-PIN. ISRAEL NOAH PRENOVICH, New York, N. Y. Filed Apr. 5, 1911. Serial No. 619,138. (Cl. 24—155.)

A hat pin protector and fastener comprising a sleeve open at one end and having a head at its other end, a flexible element having a skeleton head-encircling member at one end and its other end connected with said sleeve to hold said flexible element under tension for exerting lateral strain on the pin to which the device is adapted to be applied.



1,144,566. MAIL-BOX. STANISLAW PTAK and ALOIS SADLIK, Kewanee, Ill. Filed Jan. 4, 1915. Serial No. 325. (Cl. 232—45.)

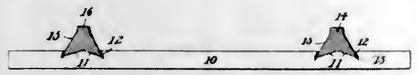


1. A mail box provided with an entrance slot in one wall thereof, a projecting bead positioned thereabove, a fingered guard inwardly inclined and secured within the box, a shiftable slide positioned through said slot and having spaced fingers upon its inner edge, and a slot closing plate angularly secured to the outer end of the said slide.

2. In combination with a mail box provided with an entrance slot in the front wall thereof, a projecting bead secured to said wall above the said slot, an oblique inwardly projecting guard secured within said box at the upper rear angle thereof, and terminating in spaced fingers at its free edge, inwardly projecting opposite oblique lugs carried by the end walls of the box, a slide shiftably positioned through the said slot and having spaced fingers upon its inner free edge, projecting stop pins at the opposite edges of the said slide within said box, a slot closure plate obliquely secured to the outer end of the said slide and positioned in flat engagement with the front wall of the box beneath the said bead and overlying the said slot when the slide is normally positioned in flat engagement with the said lugs and an operating handle secured to the said plate.

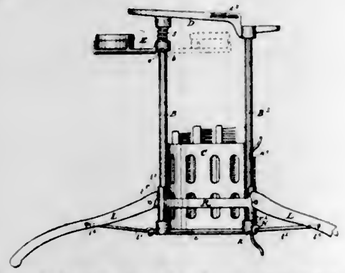
3. In a mail box having an entrance slot, a normally positioned combined mail slide and slot closure member projecting obliquely inwardly of the box through the said slot thereof, an inclined guard within the said box positioned within the path of movement of the said member, the inner ends of the said guard and slide member being normally positioned upon substantially the central vertical axis of the box.

1,144,567. RAIL-JOINT AND SUPPORTING-TIE. PAUL SOTAK, Homer City, Pa. Filed Apr. 19, 1915. Serial No. 22,364. (Cl. 238—5.)



A device of the class described, including meeting rail ends, supporting ties therefor including seat portions, each seat portion formed of upwardly converging sides adapted to provide a substantially anticlinal base, overhanging shoulders formed above said seat, said shoulders adapted to engage the lower side edges of said rail to prevent upward movement thereof, and coöperating means between the rail ends and seat to prevent relative longitudinal movement of the rails.

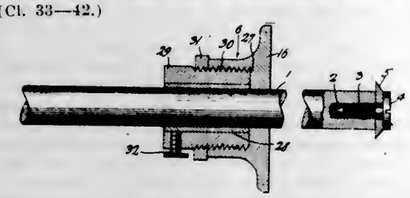
1,144,568. SHOE-SHINING KIT. FRANK J. STOLLE, Fort Thomas, Ky. Filed Nov. 1, 1913. Serial No. 798,696. (Cl. 15—58.)



1. A shoe shining kit, having in combination a frame having a single vertical guide at the front, and a plurality of vertical guides at the rear, a vertically-disposed case confined between the lower portions of the guides adapted to receive a brush, a foot rest supported on the upper ends of said guides, a ring circumscribing the brush containing case and slidably mounted on said guides, legs pivoted to said ring, and a link connecting each leg with said guides.

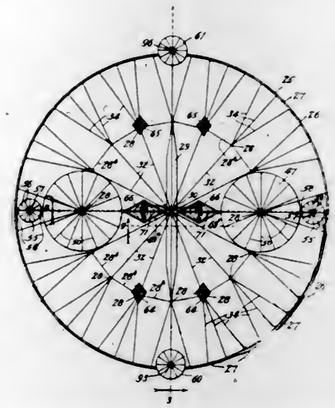
2. An improved shoe shining kit, having in combination a frame composed of a front vertical guide and two rear vertical guides, a case confined between the lower ends of said guides having a top opening adapted to receive a brush, a foot rest fixedly supported on the upper ends of said front and rear guides, a ring circumscribing said case and slidably mounted on said guides, a leg whose inner end at the top is adapted to press against the ring in extended position, pivoted to said ring back of each vertical guide, a lever for each leg whose inner end is pivoted to a contiguous portion of the bottom of one of said guides and whose outer end is pivoted to the leg toward the middle thereof, and a catch adapted to secure the ring to the bottom of the frame in set up position, and to the top of the frame in folded position.

1,144,569. SCRATCH-GAGE. EMORY J. SYLVESTER, Buffalo, N. Y. Filed May 11, 1914. Serial No. 837,890. (Cl. 33—42.)



A scratch gage, including a cylindrical bar, a circular scriber of greater diameter than the bar connected to be carried by one end of the bar, and a slide mounted upon the bar for rotary and longitudinal movements, said slide comprising a split clamping sleeve surrounding the bar, a cylindrical sleeve incasing the split sleeve and having one end exteriorly threaded, a set screw carried by the latter sleeve for engaging the split sleeve, a disk having a threaded socket to receive the threaded end of the sleeve, and a lock nut for locking the disk in position upon the threaded sleeve.

1,144,570. AIRSHIP. EDWIN S. TIMMONS, Chicago, Ill. Filed June 12, 1911. Serial No. 632,548. (Cl. 244—14.)



1. In an air-ship, the combination of frame-work formed of a central member, an endless curved member surrounding the central member and spaced therefrom, a series of upright struts surrounding said central member and located in the space between the latter and said endless member and tensioning members connected with said central member and radiating therefrom and connected with the struts toward their opposite ends and with said endless member to form a wheel-like structure, and a sustaining plane and means for driving the ship operatively connected with said frame-work, for the purpose set forth.

2. In an air-ship, the combination of frame-work formed of a central member, a ring surrounding the central member and spaced therefrom, a series of upright struts surrounding said central member and located in the space between the latter and said ring and tensioning members connected with said central member and radiating therefrom and connected with the struts toward their opposite ends and with said ring to form a wheel-like structure, and a sustaining plane and means for driving the ship operatively connected with said frame-work, for the purpose set forth.

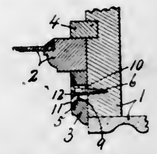
3. In an air-ship, the combination of a carrier, frame-work comprising an endless curved member surrounding the carrier and spaced therefrom, upright struts encircling the carrier between the latter and said endless member and tensioning members operatively connected with the carrier and radiating therefrom and connected with said struts toward their opposite ends and with said endless member, and a plane and propelling mechanism operatively connected with said frame-work.

4. In an air-ship, the combination of frame-work formed of a central member, an endless curved member surrounding the central member and spaced therefrom, a circular series of upright struts surrounding said central member and located in the space between the latter and said endless member and tensioning members connected with the struts toward their opposite ends and with said endless member to form a wheel-structure, and a sustaining plane and means for driving the ship operatively connected with said frame-work, for the purpose set forth.

5. In an air-ship, the combination of a carrier, a series of struts surrounding the carrier and to certain ones of which the carrier is operatively connected, an endless curved member surrounding said struts, tensioning members operatively connected with the carrier and radiating therefrom and connected with the struts at their upper and lower ends and at their outer ends with said endless member, sustaining planes for the ship supported on certain of the struts, and means for propelling the ship.

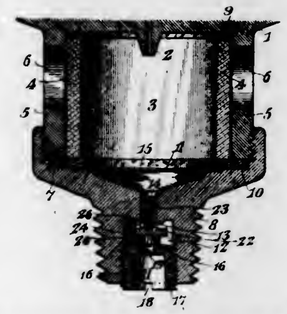
[Claims 6 to 29 not printed in the Gazette.]

1,144,571. WINDOW-BEAD FASTENER. HENRY C. TRIPP, Auburn, N. Y. Filed Nov. 28, 1911. Serial No. 662,803. (Cl. 16—29.)



In combination with a sash-guiding stop having a screw hole of greater transverse width than the diameter of the screw which it is to receive, a circular washer applied to the face of the stop around the screw hole and provided with a diametrical slot elongated transversely of the stop, the portions of the washer at opposite sides of but adjacent to the slot being provided with inwardly projecting flanges spaced apart a distance corresponding approximately to the diameter of the screw and disposed at substantially right angles to the body of the main washer so as to form relatively wide bearings for the screw throughout the length of the slot, and a screw passed through the slot and hole in the top.

1,144,572. EXPLOSION-ENGINE OILER. PETER P. VALBOE, Detroit, Mich., assignor to Penberthy Injector Co., Detroit, Mich., a Corporation of Michigan. Filed Jan. 29, 1914. Serial No. 815,252. (Cl. 184—76.)



1. An oiler for explosion engines provided with a sight feed chamber, and another chamber between the sight feed chamber and the discharge end of the oiler, a valve within the second-named chamber mounted to have unimpeded movement to the open and closed positions and provided with a laterally expanded baffle face toward the outlet end of the oiler, and means for directing a constricted stream of gases of explosion against the central portion of the baffle face, whereby the gases of explosion seat the valve before such gases can reach the sight feed chamber.

2. An oiler for explosion engines provided with a sight feed chamber and another chamber between the sight feed chamber and the discharge end of the oiler, a freely reciprocable valve within the second chamber, having a laterally expanded disk-like head presented toward the discharge end of the oiler, and said oiler having a valve seat at that end of the second-named chamber toward the sight feed chamber with the valve seat of less diameter than the face of the head of the valve presented theretoward, and means for directing a stream of gases of explosion against the central portion of the laterally expanded valve head to cause seating of the valve before the gases can reach the sight feed chamber.

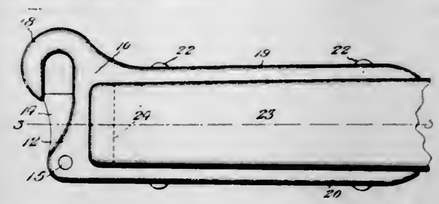
3. An oiler for explosion engines provided with a sight feed chamber and another chamber between the sight feed chamber and the discharge end of the oiler, a freely reciprocable valve within the second-named chamber, said valve having a laterally expanded disk-like head within the chamber, and a stem with a longitudinal bore entering it from the end remote from the valve head and provided with a passage leading from the bore through the stem adjacent to the valve head, and means for directing a constricted stream of gases of explosion against the central portion of that face of the valve head toward the discharge end of the oiler.

4. An oiler for explosion engines provided with a sight feed chamber and a passage leading therefrom to the discharge end of the oiler, said passage being of relatively contracted diameter where leaving the sight feed chamber, and then continuing as a laterally expanded chamber having the outle tend internally screw threaded and where joining the passage of smaller diameter being shaped into a valve seat, a valve with a laterally expanded disk-like head having an axially extended hollow stem on one side adapted to the passage of smaller diameter leading from the sight feed chamber and said stem having a side outlet adjacent to the head, and a hollow plug or nut adapted to the screw threaded end of the portion of the passage leading from the sight feed chamber, said plug having one end partially closed and provided with a centrally located passage therethrough and a central boss through which the passage extends and which boss is provided with side outlets communicating with such central passage.

5. An oiler for explosion engines provided with a sight feed chamber, and a passage leading therefrom to the discharge end of the oiler, said passage being of relatively contracted diameter where leaving the sight feed chamber, and then continuing as a laterally expanded chamber having the outlet end internally screw threaded and where joining the passage of smaller diameter being shaped into a valve seat, a valve with a laterally expanded disk-like head having an axially extended hollow stem on one side adapted to the passage of smaller diameter leading from the sight feed chamber, and said stem having a side outlet adjacent to the head, and a hollow plug or nut adapted to the screw threaded end of the portion of the passage leading from the sight feed chamber, said plug having one end partially closed and provided with a centrally located passage therethrough and a central boss through which the passage extends and which boss is provided with side outlets communicating with such central passage, the sight feed chamber adjacent to the outlet passage therefrom being provided with a screen pervious to lubricant and resistant to obstructive or obscuring particles.

[Claims 6 to 10 not printed in the Gazette.]

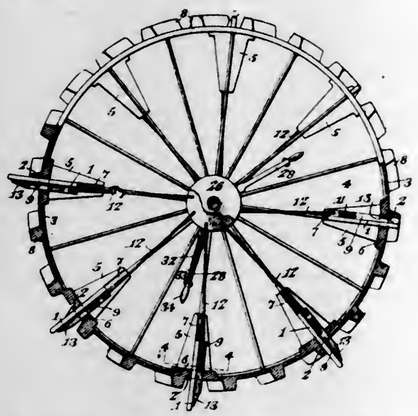
1,144,573. WHIFFLETREE HOOK AND CLIP. JAMES C. VAUGHAN, Needmore, Okla. Filed Dec. 7, 1912. Serial No. 735,455. (Cl. 21—79.)



The combination with a whiffle-tree having a gain in its end, of a clip including a head-forming section partly held within said gain having an enlargement from which is

continued a hook, a lengthwise extending socket entering the main portion of said head having a communicating seat the lower end of said hook extending partly over said socket, two integral apertured clips extending from said head in parallel spaced relation and clasping said whiffle-tree, bolts passing through the apertures of said clips, a pin held within said head opposite said hook, a dog upon said pin adapted at times to enter said socket and said dog arranged to contact with the lower end and inner face of said hook, and a spring within said seat to normally force said dog into contact with said hook, as and in the manner set forth.

1,144,574. TRACTION-WHEEL. CLAUDE F. WASHBURN, Grand Rapids, Wis., assignor of one-half to Harvey Gee, Grand Rapids, Wis. Filed Feb. 24, 1914. Serial No. 820,664. (Cl. 21—209.)



1. A wheel of the class described, including radially slidable plates or blades mounted at the rib of the wheel and arranged in separate sets or series, and separate manually operable means mounted on and carried by the wheel and connected with the sets or series, whereby the sets or series may be independently operated to permit the plates or blades to be extended while out of contact with the ground.

2. A traction wheel comprising a rim, a hub having a spoke-supporting flange, and a fixed annular flange spaced laterally from the spoke-supporting flange, extensible plates mounted on the rim and movable inwardly and outwardly with respect thereto, a rotatable sleeve mounted on the hub and bearing at one end against the fixed flange and provided with an annular flange at the other end, means for connecting the last-mentioned flange and the extensible plates, an operating arm located at the other end of the sleeve adjacent the fixed flange of the hub, and a pivoted dog carried by the arm and adapted to engage notches in the fixed flange for locking the sleeve and the plates in their adjustment.

3. A wheel of the class described, including a rim, a hub, extensible plates mounted on the rim and arranged in two separate sets or series, sleeves mounted on the hub of the wheel for independent rotation, separate sets of rods connecting the sleeves with the plates, and means for rotating the sleeves and for locking the same in their adjustment.

4. A wheel of the class described, including a rim, a hub having spaced ratchet flanges provided at intervals with notches, extensible plates mounted on the rim and arranged in separate sets or series, independently adjustable sleeves arranged on the hub between the ratchet flanges, separate sets of rods connecting the sleeves with the plates, operating arms carried by the sleeves, and locking means mounted on the arms and arranged to engage the notches of the ratchet flanges.

5. A wheel of the class described, including a rim, a hub having outer spoke-supporting flanges and provided with a central spacing flange, said hub being also provided at opposite sides of the central flange with ratchet flanges having notches, extensible plates mounted on the rim, spaced independently adjustable sleeves mounted on the hub between the central and ratchet flanges and provided at their inner ends with flanges, rods pivoted at their inner ends to the flanges of the hubs and at their outer ends to the said plates, operating means carried by the sleeves, and locking means engaging the ratchet flanges for securing the sleeves in their adjustment.

1,144,575. COLOR PHOTOGRAPHY. GEORGE SYDNEY WHITFIELD, Watford, England. Filed Nov. 18, 1914. Serial No. 872,813. (Cl. 95—2.)



1. The process of producing a combined color record and viewing screen of the kind referred to on a flexible medium consisting in expanding said flexible medium as fully as practicable and maintaining it in such expanded state notwithstanding contrary tendencies, from the time when it is ready to receive the color record until said color record and a corresponding viewing screen are placed in permanent contact.

2. The process of producing a combined color record and viewing screen of the kind referred to on a flexible medium consisting in causing said flexible medium carrying a light sensitive coating, to absorb moisture until it is thereby expanded to the practicable limit, producing the color record on said flexible medium without intermediate drying and maintaining it in such wet and expanded condition throughout all subsequent treatment until said color record and a corresponding viewing screen are placed in permanent contact.

3. The process of producing a combined color record and viewing screen of the kind referred to on a flexible medium consisting in coating said flexible medium with a light sensitive coating, drying said coated flexible medium, afterward wetting it with water until it is thereby expanded to the practicable limit, exposing it in such condition through a transparency previously taken through a regular pattern screen corresponding to the viewing screen and maintaining it in said wet and expanded condition through all intermediate treatments until said color record and the viewing screen are placed in permanent contact.

4. The process of producing a combined color record and viewing screen of the kind referred to on paper, consisting in expanding said paper as fully as practicable and maintaining it in such expanded state notwithstanding contrary tendencies, from the time when it is ready to receive the color record until said color record and a corresponding viewing screen are placed in permanent contact.

5. The process of producing a combined color record and viewing screen of the kind referred to on paper consisting in causing said paper carrying a light sensitive coating, to absorb moisture until it is thereby expanded to the practicable limit, producing the color record on said paper without intermediate drying and maintaining it in such wet and expanded condition throughout all subsequent treatment until said color record and a corresponding viewing screen are placed in permanent contact.

[Claims 6 to 10 not printed in the Gazette.]

1,144,576. FASTENER. WILLIAM W. WILSON, Dallas, Tex. Filed May 14, 1914. Serial No. 838,561. (Cl. 70—49.)

1. The combination with a pair of members arranged in substantially longitudinal alinement, one of said members being movable in respect to the other member, a bearing disposed obliquely in one of said members, and a gravity lever having a pivot disposed within said bearing engaging the other member for forcing and holding said members together.



2. In a fastener, the combination with a fixed member and a movable member, of a lever having a pivot mounted obliquely in one of said members for forcing and holding said members in contact.

3. In a fastener, the combination with a fixed member and a movable member, of a bearing disposed obliquely in the fixed member, an angled lever mounted in said bearing for engaging the movable member, and a handle having a connection with said lever.

4. In a fastener, the combination with a fixed member and a movable member, of a bearing disposed at an angle in the fixed member, of a lever having a pivot mounted in said bearing and capable of contacting with the movable member, and a second lever mounted within said bearing having a pivot connected to the pivot of the first-mentioned lever.

5. In a fastener, the combination with a fixed member and a movable member having contacting faces, of a bearing disposed in the fixed member at an angle to the contacting faces of said members, a lever having a pivot mounted in said bearing, a projection on said pivot, and a pin coöperating with said projection and movable member, for throwing said lever into contact with said movable member.

[Claim 6 not printed in the Gazette.]

1,144,577. MANUFACTURE OF VAT DYESTUFFS. EDWARD WRAY, Biebrich-on-the-Rhine, and FRITZ HESS, Wiesbaden, Germany, assignors to the Firm of Kalle and Company, Aktiengesellschaft, Biebrich-on-the-Rhine, Germany. Filed Oct. 29, 1913. Serial No. 798,107. (Cl. 8—1.)

1. Process for producing dark blue to violet to black dyestuffs which consists in condensing isatin-alpha derivatives with derivatives of amino-naphthols.

2. Process for producing dark blue to violet to black dyestuffs which consists in condensing isatin-alpha derivatives with derivaties of amino-naphthols in which the amino group is substituted by an acidyl group.

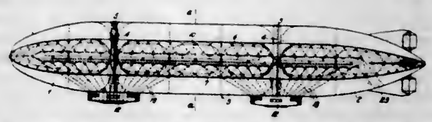
3. Process for producing dark blue to violet to black dyestuffs which consists in condensing the isatin-alpha derivatives with derivatives of amino-naphthols in which the amino group is substituted by a carbonyl-containing residue.

4. As new products the vat dyestuffs being condensation products of isatin-alpha-derivatives with derivatives of amino-naphthols, forming in a dry state dark blue to violet to black powders being transformed by alkaline reducing agents into their leuco compounds from which the coloring matters are regenerated on treatment with oxidizing agents.

5. As new products the vat dyestuffs being condensation products of isatin-alpha derivatives with derivatives of amino-naphthols in which the amino group is substituted by a carbonyl-containing residue, forming in a dry state dark blue to violet to black powders being transformed by alkaline reducing agents into their leuco compounds from which the coloring matters are regenerated on treatment with oxidizing agents.

[Claims 6 to 8 not printed in the Gazette.]

1,144,578. AIRSHIP. IVAN ANDERSSON, New York, N. Y. Filed Nov. 12, 1914. Serial No. 871,814. (Cl. 244—6.)



1. In an airship, an aerostat comprising a plurality of independent non-rigid sections, rigid vertical frames interposed between adjacent sections, platforms carried by said frames at the upper part of the aerostat, propellers carried by said frames, and means for holding the aerostat sections and the frames assembled.

2. In an airship, an aerostat comprising a plurality of independent non-rigid sections, rigid vertical frames interposed between adjacent sections, cables carried longitudinally of the sections and connected to the envelop of the latter, and means for securing said cables to the frames so as to hold the aerostat sections and the frames assembled.

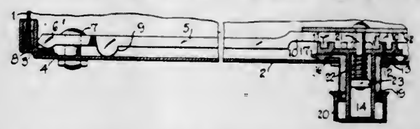
3. In an airship, an aerostat comprising a plurality of independent non-rigid sections, rigid vertical frames interposed between adjacent sections, cables carried longitudinally of the sections and connected to the envelop of the latter, said cables being supported in the frames so as to form about equidistant stretches, means for securing the cables detachably to the frames, and internal net-works connected to said cables so as to limit the expansion of the aerostat and determine its shape.

4. In an airship, an aerostat comprising a plurality of independent non-rigid sections, rigid vertical frames interposed between adjacent sections, cables carried longitudinally of the sections and connected to the envelop of the latter, said cables being supported in the frames so as to form about equidistant stretches, means for securing the cables detachably to the frames, and net-works connected to said cables so as to limit the expansion of the aerostat and determine its shape, the envelop being allowed to bulge out from between the cables.

5. In an airship, an aerostat comprising a plurality of independent non-rigid sections, rigid vertical frames interposed between adjacent sections, cables carried longitudinally of the sections and connected to the envelop of the latter, said cables being supported in the frames so as to form about equidistant stretches, means for securing the cables detachably to the frames, net-works connected to said cables so as to limit the expansion of the aerostat and determine its shape, the envelop being allowed to bulge out from between the cables, and propellers carried by said frames in the niches formed by the cables and the bulging envelop.

[Claims 6 to 12 not printed in the Gazette.]

1,144,579. BURIAL-VAULT. FRANKLIN E. ARNDT, Galion, Ohio, assignor to David C. Boyd, Galion, Ohio. Filed May 5, 1915. Serial No. 26,004. (Cl. 27—7.)



1. A vault door, locking members applied to the rear face thereof, an actuating device, a support carried by the door and in which the actuating device is mounted, the support being revolubly mounted in the door and the actuating device being movable axially independently of the support, said actuating device being operatively connected to the locking members whereby a turning movement of the actuating device will move the locking members outwardly in a plane substantially parallel to the door, and means for moving said actuating device axially and inward in its support whereby to effect a rocking movement upon the locking members.

2. A vault door, locking members applied to the rear face thereof, an actuating device, a sleeve mounted for rotary movement in the door about a fixed axis, the actuating device being mounted in the sleeve and movable revolubly therewith but capable of an axial movement independently thereof, said actuating device being operatively connected to the locking members whereby a turning movement of the actuating device will move the locking devices outwardly in a plane substantially parallel to the plane of the door, and means for moving the actuating device axially in said sleeve and independently thereof whereby to effect a rocking movement upon the locking members.

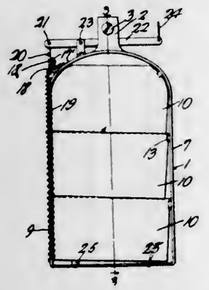
3. A vault door, locking members applied to the rear face thereof, an actuating device, a sleeve mounted for revoluble movement about a fixed axis in the door, a locking dial movable with said sleeve, the actuating device being mounted in the sleeve and held to turn therewith but capable of axial movement therein, said actuating device being operatively connected to the locking members whereby a turning movement of the actuating device will move the locking members outwardly in a plane substantially parallel to the door, means for moving the actuating device axially whereby to effect a rocking movement upon the locking members, and means co-acting with the locking dial for holding the locking members against retraction, as set forth.

4. A vault door, locking members applied to the rear face thereof, an actuating device revolubly mounted in the door and free to slide inwardly therein independently of any rotary movement, said actuating device being operatively connected to the locking members whereby a turning movement of the actuating device will move the locking members outwardly, and means for sliding the actuating device inwardly in an axial direction whereby to effect a rocking movement upon the locking members.

5. In a vault door, the combination with locking members capable of a compound movement, namely, a sliding movement parallel to the face of the door and a rocking movement at right angles to the first named movement, an actuating device mounted in the door and operable from the exterior thereof, and means for closing the outer end of the actuating device and for automatically simultaneously moving the actuating device inwardly, there being an operative connection between the inner ends of the locking members and the actuating device.

[Claims 6 to 14 not printed in the Gazette.]

1,144,580. PROPELLER. JOHN BAUER, Louisville, Ky. Filed Aug. 5, 1914. Serial No. 855,272. (Cl. 115—28.)



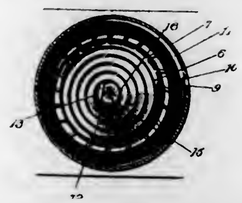
1. A propeller, including a stirrup-shaped frame, a plurality of water engaging sections pivoted therein and transversely of the frame, means attached to the frame and adjacent section for limiting the swinging movement of said sections and whereby when the same is moved upon the pull stroke, the sections are in a vertical plane and when moved in an opposite direction move outwardly and separate to permit the free passage thereof through the water, the adjacent portions of the sections being overlapped, and means for changing the relative positions of the sections to place the adjacent edges in parallel for free movement relative to each other.

2. A paddle, including a stirrup-shaped open frame, a plurality of rods journaled transversely thereof, one end of each rod being mounted in a fixed journal, while the other end is mounted in an arcuate slot formed in the opposite side of the stirrup-shaped frame, a paddle section carried by each rod, the lower edge of one paddle normally overlapping the upper edge of the adjacent paddle and such edges being out of parallel, and means for limiting the swinging movement of the paddle.

3. A paddle, including a stirrup-shaped open frame, a plurality of rods journaled transversely thereof, one end of each rod being mounted in a fixed journal, while the other end is mounted in an arcuate slot formed in the opposite side of the stirrup-shaped frame, a paddle section carried by each rod, the lower edge of one paddle normally overlapping the upper edge of the adjacent paddle and such edges being out of parallel, means for limiting the swinging movement of the paddle, and means connected to the rods adjacent to the arcuate slot portion of the frame for normally holding the sections in overlapping relation.

4. A paddle, including a stirrup-shaped open frame, a plurality of rods journaled transversely thereof, one end of the rod being mounted in a fixed journal, while the other end is mounted in an arcuate slot formed in the opposite side of the stirrup-shaped frame, a paddle section carried by each rod, the lower edge of one paddle normally overlapping the upper edge of the adjacent paddle and such edges being out of parallel, means for limiting the swinging movement of the paddles, a plurality of levers pivoted to the frame and operably connected to the ends of the rods adjacent the arcuate slot, means for connecting all of said levers for operation in unison, a spring connected to one of the levers for holding the paddles normally in overlapping relation, and manually controlled means for operating the levers to place the adjacent edges of the paddles parallel and out of contact.

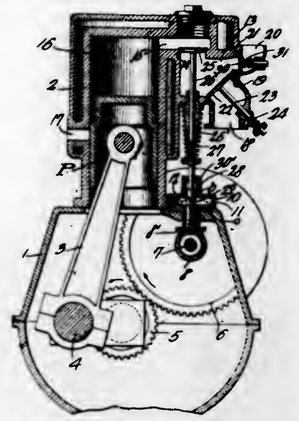
1,144,581. SPRING-MOTOR. HARRY S. BECKER, River Forest, Ill., assignor to American Flyer Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 4, 1915. Serial No. 12,106. (Cl. 185—45.)



1. In a motor the combination with a spring, of a cylindrical casing therefor, said casing having a projection struck inwardly to engage an opening in the end of the spring to hold the same, a pivot in the center of the casing for the spindle of the drive wheel, a pin on said spindle, the inner end of said spring having an opening substantially in line with said fastening projection and at a point nearest the center of the casing when the spring is not under tension, said opening being adapted to receive said pin in order to form a driving connection between said spring and said spindle.

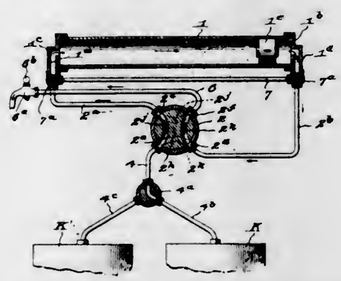
2. In a motor the combination with a spring, of a cylindrical casing therefor, said casing having a projection struck inwardly to engage an opening in the end of the spring to hold the same, a pivot in the center of the casing for the spindle of the drive wheel, a bevel pin on said spindle, the inner end of said spring having an opening substantially in line with said fastening projection and at a point nearest the center of the casing when the spring is not under tension, said opening being adapted to receive said bevel pin in order to form a driving connection between said spring and said spindle.

1,144,582. INTERNAL-COMBUSTION ENGINE. FRED E. BLACK, St. Louis, Mo. Filed Oct. 15, 1913. Serial No. 795,299. (Cl. 123—79.)



An internal combustion engine, including a power cylinder having an intake port at its upper end, and an exhaust port at the opposite side near the lower end, a power piston mounted therein, an auxiliary chamber located adjacent the upper end and to one side of the power cylinder, said auxiliary chamber being in communication with the intake port of the power cylinder and being further provided with an inclinedly disposed intake port and a horizontally disposed and reduced scavenging port, the intake port and the scavenging port opening in opposite directions, two valves, one to the intake and the other to the scavenging port, a main valve for controlling communication between the auxiliary chamber and the combustion chamber of the engine, said intake port being disposed to open inwardly, a spring for closing the same, said scavenging valve being disposed to open outwardly, a spring for holding it closed, a crank shaft operably connected to the power piston, and mechanical means carried by the crank shaft for actuating the main valve.

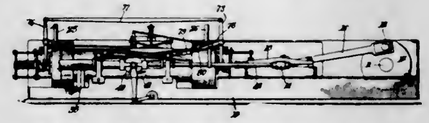
1,144,583. LIQUID-MEASURING APPARATUS. CHARLES F. BROWN, New York, N. Y., assignor to Universal Liquid Register Company, New York, N. Y., a Corporation of New York. Original application filed Dec. 20, 1913, Serial No. 807,911. Divided and this application filed Mar. 17, 1914. Serial No. 825,290. (Cl. 221—102.)



1. In a liquid dispensing apparatus the combination of a measuring vessel provided with openings and an interposed movable member, pipes connected with said vessel, and means for alternately connecting one of said pipes with a liquid supply and the other with a discharge; with a by-pass connecting the said pipes adjacent the vessel, and means for closing communication between said pipes and the vessel intermediate the by-pass and the vessel and establishing communication between said pipes through the by-pass, or cutting out the by-pass pipe and reëstablishing communication between said pipes and the measuring vessel.

2. In combination, a measuring vessel, a reciprocating piston therein, a four-way valve casing, pipes connected with opposite ends of the vessel and with said valve casing; a dispensing pipe connected with said valve casing, a supply pipe also connected with said valve casing; and a valve in said casing provided with ports whereby communication may be alternately established through said valve between the supply and either end of the vessel, and simultaneously between the other end of the vessel and the dispensing pipe; with a by-pass pipe connected with the pipes communicating with the vessel at points adjacent the vessel, and valves at the junctions of said by-pass and pipes whereby communication between said pipes and vessel may be closed and communication between said pipes through the by-pass pipe established, or whereby communication between the by-pass and said pipes can be closed and communication established between said pipes and the measuring vessel.

1,144,584. ENGINE. EDGAR A. BURROW, San Angelo, Tex., assignor, by direct and mesne assignments, of seventy one-hundredths to himself and thirty one-hundredths to Bernard C. Alexander and Mary A. Guthrie, executrix of William A. Guthrie, deceased. Filed June 8, 1914. Serial No. 843,812. (Cl. 121—45.)



1. In an engine, the combination of a cylinder, a piston therein having laterally projecting arms, and means cooperating with said arms to support said piston out of contact with the cylinder bore.

2. In an engine, the combination of a cylinder, a piston therein having laterally projecting arms, means coöperating with said arms to support said piston out of contact with the cylinder bore, and means for vertically adjusting said piston relative to the cylinder.

3. In an engine, the combination of a cylinder, a piston therein having laterally projecting arms, and means, including adjustable wedge members, coöperating with said arms to support said piston out of contact with the cylinder bore.

4. In an engine, the combination of a horizontally arranged cylinder, a piston therein having laterally projecting arms, one of said arms being tubular, means cooperating with said arms to support said piston, and a tubular member telescopically connected with said tubular arm.

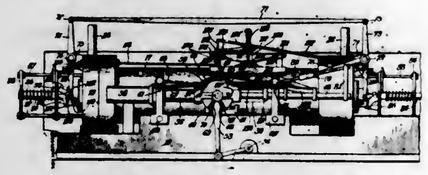
5. In an engine, the combination of a horizontally arranged cylinder, a hollow piston therein having laterally projecting arms, one of said arms being tubular, means cooperating with said arms to support the piston, a valve carried by said piston and adapted to control communication between the interior of the piston and the interior of the cylinder, and a stationary tubular member connected with said tubular arm.

[Claims 6 to 17 not printed in the Gazette.]

1,144,585. VALVE-GEAR. EDGAR A. BURROW, San Angelo, Tex., assignor, by direct and mesne assignments, of seventy one-hundredths to himself and thirty one-hundredths to Bernard C. Alexander and Mary A. Guthrie, executrix of William A. Guthrie, deceased. Original application filed June 8, 1914, Serial No. 843,812. Divided and this application filed Mar. 25, 1915. Serial No. 17,001. (Cl. 121—97.)

1. In an engine, the combination of a cylinder, a piston therein, an arm secured to the piston and projecting

through the side wall of the cylinder, a reciprocable member connected with said arm, a shaft carried by said arm, an exhaust valve carried by the piston, means operatively connecting said shaft with said exhaust valve, an arm loosely mounted on said shaft, means connected with the last-mentioned arm and adapted to cause it to be oscillated by the reciprocation of the piston, a member secured on said shaft and intermittently engaged by the last-mentioned arm to rock said shaft, latching means for holding said shaft at the ends of its rocking movements, means for releasing said latching means, an inlet valve in the end wall of the cylinder, actuating means for said inlet valve comprising a rock shaft, a member carried by the first-mentioned member and having a surface inclined with respect to the plane of reciprocation thereof, and means coöperating with said inclined surface and moved thereby to actuate the last-mentioned rock shaft.



2. In an engine, the combination of a cylinder, a piston in the cylinder, an exhaust valve carried by the piston, a rock shaft carried by the piston, means operatively connecting said rock shaft with said valve, an oscillating arm loose on said shaft, a member secured on said shaft and adapted to be positively engaged by said arm to actuate said shaft to open said valve, a latch device engaging said member to hold said valve in the open position, and cam means for releasing said latch device to permit the valve to close.

3. In an engine, the combination of a cylinder, a piston therein, an inlet valve, actuating means for said inlet valve comprising a stem secured to the valve, a member telescopically connected with said stem, a spring for moving said member in one direction, and means actuated by the piston for moving said member in the opposite direction.

4. In an engine, the combination of a cylinder, a piston therein, a valve for controlling the supply of motive fluid to the cylinder, a stem secured to said valve, a member adapted to positively engage said stem to move said valve to the closed position, means actuated by the piston for moving said member away from said stem, spring means for moving said member in the opposite direction to close said valve, and an automatically operating latch for holding said member in the position to which it is moved by the said piston actuated means.

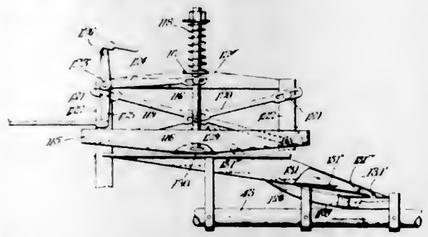
5. In an engine, the combination of a cylinder, a piston therein, a valve for controlling the supply of motive fluid to the cylinder, a member for actuating said valve in one direction, means actuated by said piston for setting said member into position to operate the valve, a latch for holding said member in the set position, and means for releasing said latch.

[Claims 6 to 9 not printed in the Gazette.]

1,144,586. GOVERNOR. EDGAR A. BURROW, San Angelo, Tex., assignor, by direct and mesne assignments, of seventy one-hundredths to himself and thirty one-hundredths to Bernard C. Alexander and Mary A. Guthrie, executrix of William A. Guthrie, deceased. Original application filed June 8, 1914, Serial No. 843,812. Divided and this application filed Mar. 27, 1915. Serial No. 17,494. (Cl. 264—1.)

1. In a governing mechanism, the combination of a reciprocating fluid receptacle, a yieldingly supported pan, means whereby the inertia forces acting on the fluid in said receptacle are utilized to convey the fluid from the receptacle to said pan, and controlling means connected with the pan and actuated by the movement thereof.

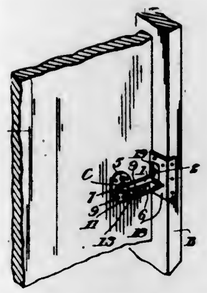
2. In a governing mechanism, the combination of a spring supported pan, controlling devices connected with said pan and actuated by the movements thereof, a fluid receptacle arranged below said pan, a tubular member for conveying the fluid from said receptacle to said pan, and means including an opening in said pan for returning the fluid from the pan to said receptacle.



3. In a governing mechanism, the combination of a spring supported pan having an opening therein for the discharge of fluid, controlling means operatively connected with said pan, a fluid receptacle arranged below said pan and adapted to be moved in synchronism with the movements of the apparatus that is governed, a tubular member for delivering fluid from said receptacle to said pan whereby the inertia forces acting on the fluid in said receptacle are adapted to cause the fluid to be elevated to said pan, and means for returning the fluid from said opening to said receptacle.

4. In a governing mechanism, the combination of a spring supported pan having an opening therein for the discharge of fluid, a fluid receptacle arranged below said pan and adapted to be moved in synchronism with the movements of the apparatus that is governed, a tubular member for delivering fluid from said receptacle to said pan whereby the inertia forces acting on the fluid in the receptacle cause the fluid to be elevated to the pan, means for returning the fluid from said opening to said receptacle, and a pivotally mounted arm operatively connected with controlling means and having a connection with said pan so as to be actuated by the latter.

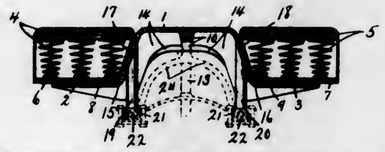
1,144,587. LATCH. PATRICK CASEY, Richmond, Ontario, Canada. Filed Feb. 12, 1915. Serial No. 7,713. (Cl. 70—45.)



1. A latch of the class described comprising a locking bolt, a transversely extending projection formed integral with one end of the locking bolt, a boss located near the opposite end of the locking bolt having a concentric orifice therethrough and being provided with a threaded orifice extending through the outer periphery thereof, a set screw designed to engage with the said threaded orifice, a U-shaped member having the end of one of its parallel arms formed integral with the locking bolt, the end of the other parallel arm being concentrically located in the orifice of the said boss, a handle, a hollow stem formed integral with the handle, designed to engage on its outer periphery with the orifice in the said boss and on its inner periphery with the end of the concentrically located parallel arm of the said U-member, as and for the purpose specified.

2. A latch of the class described comprising a locking bolt, a boss located near one end thereof having an orifice therethrough, a U-shaped member having the end of one of its parallel arms integral with the locking bolt, the end of the other parallel arm being concentrically located in the orifice of the said boss, a handle, a hollow stem integral therewith adapted to engage the U-shaped member and boss, such stem having curved recesses in the free end thereof, one of which is adapted to engage and interlock with the concentric arm of the U-shaped member, substantially as described.

1,144,588. MOTOR-CYCLE SEAT. BERT S. CHILSON, Fayetteville, N. Y. Filed Mar. 20, 1914. Serial No. 825,974. (Cl. 208—111.)



1. A motor cycle seat having a central section and opposite end sections depressed below the plane of the central section, side walls connecting the central section to each of the depressed end sections, a lug projecting from the front side of the central section and provided with an opening adapted to engage a seat-post on the vehicle frame, a supporting post depending from each of the side walls and loosely resting upon portions of the vehicle frame at the rear of the seat post and upon opposite sides of the body of the frame.

2. A motor cycle seat comprising a seat member having seat portions adapted to be disposed upon opposite sides of the motor cycle frame, a lug positioned substantially centrally of and projecting forwardly from the front edge of said seat member, and separate posts projecting downwardly from the under side of said member and adapted to engage the vehicle frame.

3. A motor cycle seat comprising a member having seat portions adapted to be disposed on opposite sides of the vehicle frame, a lug projecting from the front edge of said member and adapted to engage a portion of the vehicle frame, and separate posts projecting downwardly from said member at the rear of said lug and resting upon portions of the vehicle frame at opposite sides of the body thereof.

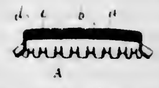
4. A motor cycle seat comprising a seat member having seat portions adapted to be disposed upon opposite sides of the motor cycle frame, a lug positioned substantially centrally of and projecting forwardly from the front edge of said seat member and adapted to be engaged with a post upon the vehicle frame, a rib extending rearwardly from said lug and upon the underside of said member, and separate posts projecting downwardly from said member upon opposite sides of said rib and adapted to engage the vehicle frame.

5. A motor cycle seat comprising a seat member having seat portions adapted to be disposed upon opposite sides of the motor cycle frame, a lug positioned substantially centrally of and projecting forwardly from the front edge of said seat member, a longitudinal rib extending rearwardly from said lug and upon the underside of said member, a cross rib upon each side of said longitudinal rib and separate posts projecting downwardly from said member upon opposite sides of said longitudinal rib and adapted to engage the vehicle frame.

[Claims 6 and 7 not printed in the Gazette.]

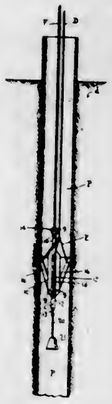
1,144,589. COMPOSITE DISK FOR CAPS OF BOTTLES OR JARS. CHARLES FAY, Sr., Philadelphia, Pa. Filed Apr. 23, 1914. Serial No. 833,852. (Cl. 215—10.)

The combination, in a cap for a bottle or jar, of a metal cap and a thick pliable pasteboard disk fitted thereto, a porous pasteboard disk saturated with linseed oil and beeswax and having on the upper face a coating of shellac to render the same impervious to air and fluid



conditions, a parchmentized paper disk applied to the coated side of said disk and so that the uncoated side is in contact with the pliable pasteboard disk of said cap, substantially as and for the purposes described.

1,144,590. PIPE-GRAPPLE. AMBROSE GOOSLIN, Blackberry Creek, Ky. Filed July 10, 1914. Serial No. 850,160. (Cl. 57—9.)



1. A device of the character described, comprising a carrying member including two plates held in parallel spaced relation, two oppositely positioned spur bars pivotally held between said plates, a spring to normally force said spur bars outward, two oppositely positioned channel irons secured to the outer faces of said two plates said channel irons and carrying plates having oppositely positioned registering openings, a spur bar pivotally secured to each angle iron, and a spring passing through said openings to force said last mentioned spur bars outward said last mentioned spring holding said first mentioned spring in position, as and in the manner set forth.

2. A device of the character described, comprising a carrying member including two plates held in parallel spaced relation, two oppositely positioned spur bars pivotally held between said plates, a spring to normally force said spur bars outward, two oppositely positioned channel irons secured to the outer faces of said two plates said channel irons and carrying plates having oppositely positioned registering openings, a spur bar pivotally secured to each angle iron, means limiting the outward movement of each of said spur bars, and a spring passing through said openings to force said last mentioned spur bars outward said last mentioned spring holding said first mentioned spring in position, as and in the manner set forth.

3. A device of the character described, comprising a carrying member including two plates held in parallel spaced relation, two oppositely positioned spur bars pivotally held between said plates, a spring to normally force said spur bars outward, two oppositely positioned channel irons secured to the outer faces of said two plates said channel irons and carrying plates having oppositely positioned registering openings, a spur bar pivotally secured to each angle iron, an operating strand secured to said spur bars and a spring passing through said openings to force said last mentioned spur bars outward said last mentioned spring holding said first mentioned spring in position, as and in the manner set forth.

4. A device of the character described, comprising a carrying member including two plates held in parallel spaced relation, an intervening link secured between said plates near their lower ends, two oppositely positioned spur bars pivotally held between said plates each having its pivoted end chamfered and arranged in one position to stop against said link, a spring to normally force said spur bars outward, two oppositely positioned channel irons secured to the outer faces of said plates said channel irons and carrying plates having oppositely positioned registering openings, a spur bar pivotally secured to each angle iron each ending in a chamfered end arranged to stop in one position against its connected channel iron, and a spring passing through said openings to force said last mentioned spur bars outward said last mentioned spring held above said first mentioned spring, all arranged as and in the manner set forth.

1,144,591. POULTRY-FOUNTAIN. JOSEPH GUIDINGER, near Los Angeles, Cal. Filed Apr. 30, 1912. Serial No. 694,237. (Cl. 119—74.)



1. A poultry fountain comprising a straight drain pipe provided with a subterranean drain outlet, and a fountain cup supported inside the upper end of the drain pipe; there being overflow spaces leading from the cup to the interior of the drain pipe, and said cup being of less diameter than the drain pipe so the overflow will not wet the pipe.

2. A poultry fountain comprising a drain pipe having upper imperforate and lower perforate portions and a fountain cup provided with lugs projecting from its brim and resting on the rim of the drain pipe, there being overflow space between the cup and the interior of the pipe.

3. A poultry fountain comprising a straight drain pipe having upper imperforate and lower perforate portions and a downwardly reduced fountain cup supported at the top of the drain pipe, there being overflow space between the cup and the interior of the pipe.

4. A poultry fountain comprising a galvanized sheet iron pipe about 30 inches, more or less long, the lower twenty inches, more or less, being perforated and the upper 10 inches, more or less, being imperforate; the perforate portion and the lower part of the imperforate portion being sunk in a hole in the ground; a cup at the upper end of the pipe arranged to overflow into the pipe; and means to cause water to drip or flow slowly into the cup.

5. In a poultry fountain, a fountain cup having lugs projecting outwardly from its brim, and overflow spaces below the level of the lugs, and a straight pipe having a level rim on which the lugs rest.

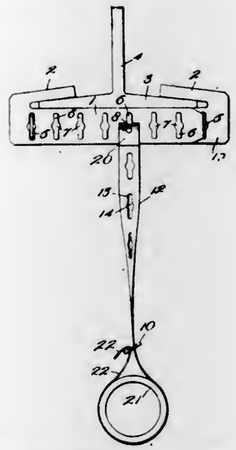
1,144,592. CASING-SPEAR. JACOB J. GUISE, Parkersburg, W. Va. Filed Oct. 3, 1914. Serial No. 864,751. (Cl. 57—9.)

A casing trip spear comprising a body portion having its lower end reduced to form a shank having a shoulder, the lower end of the body above the shoulder being cut away to form a tapering part triangular in cross section, which tapering part is provided with downwardly diverging faces, wedges respectively mounted to slide longitudinally on said faces, a nut threaded on the shank, a piercing member threaded on the lower extremity of the shank below the nut and adjacent thereto, a collar forming an abutment for the wedges slidably mounted on the shank intermediate the shoulder and nut, a coil spring disposed around the shank intermediate the nut and the collar for urging the collar against the shoulder, said tapering part



having a pair of elongated cylindrical recesses, a pin rigidly connected to one face of the collar and telescoping into one of said recesses of the tapered part to guide the collar, said collar having a depression, an angular trip member pivoted in said depression and provided with spring tensioning means, one of the arms of said angular trip member normally telescoping into the other recess of said tapered part, said shoulder having a depression adjacent one of the recesses to receive the recess engaging arm of the trip member when the collar moves downwardly to hold the collar separated from the shoulder.

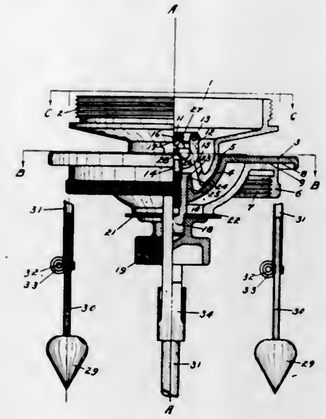
1,144,593. PIPE AND CABLE HANGER. JOSEPH B. HEISER, Williamsport, Pa. Filed June 16, 1914. Serial No. 845,426. (Cl. 248—34.)



1. In a pipe and cable hanger the combination of a pair of clamp members each provided with a toe extending at an angle to its body portion, and with elongated openings adapted to register; a locking member provided with a flat holding bar and a cross bar adapted to enter said openings; and a strap member provided with elongated openings adapted to register with said first named openings and to be also entered by said locking member, substantially as described.

2. In a cable and pipe hanger the combination of a locking support comprising a flat locking bar; a strap provided with elongated openings, one of which is adapted to be entered by said bar and said strap adapted to be bent down over said bar; and a locking member comprising an H-shaped piece adapted to enter other elongated openings of said strap and lock two portions of said strap together, substantially as described.

1,144,594. AUTOMATIC LEVELING ATTACHMENT FOR SURVEYING INSTRUMENTS, &c. LUI F. HELLMANN, Indianapolis, Ind. Filed Nov. 10, 1914. Serial No. 871,415. (Cl. 248—47.)



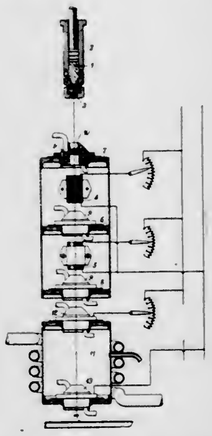
1. An automatic leveling attachment, consisting of a ball screw plate upon which the instrument is fastened, the radius of the ball part of the ball screw plate being taken from the center of the ball, a ball socket plate with substantially the same radius as the first mentioned plate, said ball socket plate being secured by means of a cap piece to the top of the tripod, a clamp for securing the ball screw plate to the ball socket plate, a means for raising and lowering the clamp, a pendulum weight secured to the ball screw plate for leveling the same, a bearing upon which the ball screw plate and pendulum weight are raised and pivoted, a means for raising and lowering the said bearing, substantially as described.

2. An automatic leveling attachment, consisting of a ball screw plate upon which the instrument is fastened, the radius of the ball part of the ball screw plate being taken from the center of the ball, a ball socket plate with substantially the same radius as the first mentioned plate, said ball socket plate being secured by means of a cap piece to the top of the tripod, a clamp for securing the ball screw plate to the ball socket plate, a means for raising and lowering the clamp, a pendulum weight secured to the ball screw plate for leveling the same, a means for shortening or lengthening the means, by which the pendulum weight is attached to the ball screw plate, a means for securing the pendulum weight in its adjusted position, a bearing upon which the ball screw plate and pendulum weight are raised and pivoted, a means for raising and lowering the said bearing, substantially as described.

3. An automatic leveling attachment, consisting of a ball screw plate upon which the instrument is fastened, the radius of the ball part being struck from the center of the ball, a ball socket shifting plate with substantially the same radius as the first mentioned plate, said ball socket plate resting upon and being movable in a horizontal direction upon a head cap, said head cap being secured by means of a cap piece to the top of the tripod, a clamp for securely fastening the ball screw plate, the ball socket shifting plate, and the head cap together, a means for raising and lowering the clamp, a pendulum weight secured to the ball screw plate for leveling the same, a bearing upon which the ball screw plate and pendulum weight are raised and pivoted, a means for raising and lowering the said bearing, substantially as described.

4. An automatic leveling attachment consisting of a ball screw plate upon which the instrument is fastened the radius of the ball part being struck from the center of the ball, a ball socket shifting plate with substantially the same radius as the first mentioned plate, said ball socket plate resting upon and being movable in a horizontal direction upon a head cap, said head cap being secured by means of a cap piece to the top of the tripod, a clamp for securely fastening the ball screw plate, the ball socket shifting plate, and the head cap together, a means for raising and lowering the clamp, a pendulum weight secured to the ball screw plate for leveling the same, a means for shortening or lengthening the means by which the pendulum weight is attached to the ball screw plate, a means for securing the pendulum weight in its adjusted position, a bearing upon which the ball screw plate and pendulum weight are raised and pivoted, a means for raising and lowering the said bearing, substantially as described.

1,144,595. PROCESS FOR MANUFACTURING INCANDESCENT FILAMENTS. ROBERT H. HENDERSON, East Orange, N. J., assignor to Westinghouse Lamp Company, a Corporation of Pennsylvania. Filed Mar. 25, 1910. Serial No. 551,568. (Cl. 176—4.)



1. The process of preparing filaments for incandescent lamps which consists in longitudinally moving filamentous material through a succession of independent and sealed chambers and subjecting the same, while traversing through each chamber, to a different kind of treatment.

2. The process of preparing filaments for incandescent lamps which consists in longitudinally moving filamentous material through a succession of independent chambers, each of which is sealed, and subjecting the said material to physical changes while traversing through certain of said chambers and to chemical changes while traversing through certain other chambers.

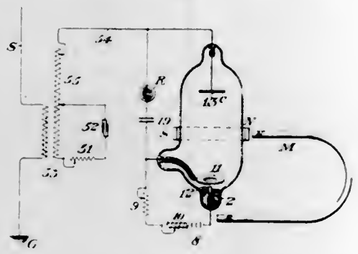
3. The process of preparing filaments for incandescent lamps which consists in longitudinally moving filamentous material through a succession of independent sealed chambers and subjecting the same to physical changes while traversing through certain of said chambers and to chemical changes while traversing through certain other chambers, the treatments in the respective chambers being different.

4. The process of preparing filaments for incandescent lamps which consists in longitudinally moving filamentous material through a succession of independent sealed chambers and subjecting the same to different degrees of heat treatment while traversing through the different chambers.

5. The process of preparing filaments for incandescent lamps which consists in longitudinally moving filamentous material through a succession of independent sealed chambers and subjecting the same to different degrees of heat treatment while traversing through certain chambers and to chemical treatment while traversing through certain other chambers.

[Claim 6 not printed in the Gazette.]

1,144,596. METHOD OF AND APPARATUS FOR TRANSLATING ELECTRICAL VARIATIONS. PETER COOPER HEWITT, New York, N. Y., assignor, by mesne assignments, to Cooper Hewitt Electric Company, Hoboken, N. J., a Corporation of New Jersey. Filed Mar. 30, 1907. Serial No. 365,597. (Cl. 250—27.)



1. An apparatus for translating electrical variations comprising a translating device and a connection therefrom through an electrode to a body of conducting gas or vapor adapted to be maintained in a low resistance conducting condition, in combination with means for continuously maintaining current in said vapor independently of said electrode, and means for operatively applying variations to said apparatus, substantially as described.

2. An apparatus for translating electrical variations comprising a translating device and a connection therefrom through a true conductor of the first class to a conducting gas or vapor maintained in the low resistance conducting condition, in combination with means for continuously maintaining current in the gas or vapor independently of said connection through said true conductor, and means for operatively applying variations to said apparatus, substantially as described.

3. An apparatus for translating electrical variations comprising a translating device and a connection therefrom through an electrode to a body of conducting gas or vapor and means for limiting or preventing normal direct current flow through said electrode, in combination with means for continuously maintaining current in said vapor independently of said electrode, and means for operatively applying variations to said apparatus, substantially as described.

4. An apparatus for translating electrical variations comprising a translating device and a connection therefrom through one conducting medium to a gas or vapor maintained in the low resistance conducting condition, in combination with means for continuously maintaining current in the latter medium independently of said connection through said first mentioned medium and means for operatively applying said variations to said apparatus, substantially as described.

5. In an apparatus for translating electrical variations, two electric circuits each having an independent connection to a body of gas or vapor maintained in the low resistance conducting condition, common to both said circuits, in combination with means for continuously maintaining current in one of said circuits much greater than in the other, together with a translating device in the circuit of lesser current flow, substantially as described.

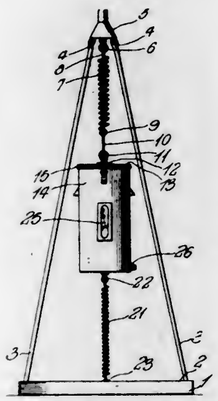
[Claims 6 to 93 not printed in the Gazette.]

1,144,597. SUGAR-CANE-MILL ROLLER. ROBERT RENTON HIND and GEORGE F. RENTON, Ewa, Hawaii. Filed Mar. 20, 1914. Serial No. 826,127. (Cl. 100—47.)



A sugar-cane mill roller provided with a plurality of acute angle grooves of less than thirty-five degrees adapted to anchor on the roller a portion of the bagasse, whereby a gripping surface formed of the bagasse itself is presented to the sugar-cane passing through the mill.

1,144,598. CHURN. MARTHA J. HELEN HUGHES, Detroit, Mich. Filed Nov. 2, 1914. Serial No. 869,921. (Cl. 31—18.)



1. A churn comprising a base having a plurality of spaced stops, a plurality of upwardly converging legs having their lower ends contacting with said stops, a head to which the upper ends of said legs are pivoted, a coil spring depending from said head, and a receptacle supported by said spring.

2. A churn comprising a base, a plurality of spaced stops rising therefrom, upwardly converging legs having their lower ends contacting with said stops, a head to which the upper ends of said legs are pivoted, a coil spring depending from said head, a receptacle supported by said spring, and a second spring depending from the receptacle and connected to said base.

3. A churn comprising a base having an upstanding flange surrounding its edge, said flange having a number of angles constituting stops, a plurality of upwardly converging legs rising from said base and having their lower ends seated within the angles of said flange, a head to which the upper ends of said legs are pivoted, a coil spring depending from said head, and a receptacle supported by said spring.

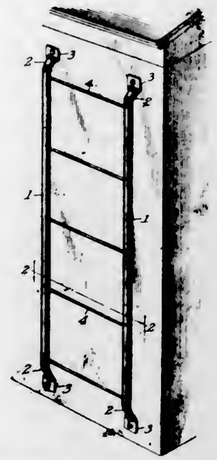
4. A churn comprising a polygonal base having an upstanding flange surrounding its edge, a plurality of upwardly converging legs rising from said base and having their lower ends seated within the angles of the said flange, a head to which the upper ends of said legs are pivoted, a coil spring depending from said head and having a releasable fastener on its lower end, a receptacle having a keeper engaged by said releasable fastener, a second coil spring depending from said receptacle, and releasable fastening means uniting the lower end of said second spring with the base.

1,144,599. PAINT AND PROCESS OF MAKING THE SAME. HENRY JAMSON, Catterick, England. Filed Mar. 14, 1913. Serial No. 754,352. (Cl. 134—39.)

1. A paint, consisting of the following ingredients mixed in substantially the proportions specified: linseed oil, size, turpentine, a drier, Paris white, zinc white and water.

2. The process of making a washable paint, consisting in mixing size with boiling linseed oil, adding water thereto, mixing therewith a drier and turpentine, adding water thereto and thoroughly mixing, adding coloring matter to the previously formed mixture and mixing the whole into a paste.

1,144,600. LADDER. HAROLD C. JONES, Chicago Heights, Ill. Filed Mar. 29, 1915 Serial No. 17,646. (Cl. 228—1.)



1. A ladder having stiles, each of which has an inner flange arranged approximately transverse to the rung, and a second section arranged approximately at right angles thereto and extending outward from the inner flange, said stiles each having a series of holes, and said holes forming notches in the inner flange, and rungs seating in said notches and bending in through the holes in the stiles and engaging the inner surface of the second section of the stile.

2. A ladder having stiles each consisting of a U shaped iron having a central section and two marginal flanges projecting toward the supporting structure, said stiles having holes for receiving the rung, the holes being located adjacent to the inner flanges of the stiles, and the axes of said holes being perpendicular to the surface of the supporting structure, said holes forming notches in the innermost flanges, and rungs seating in said notches and having ogee bends as a result of which the rungs pass in through said holes and the ends of the rungs lie inside of the stiles.

1,144,601. BRAKE-SHOE. HARRY JONES, Suffern, N. Y., assignor to American Brake Shoe & Foundry Company, Mahwah, N. J., a Corporation of New Jersey. Filed Jan. 23, 1915. Serial No. 3,874. (Cl. 188—27.)



1. A brake shoe comprising a body, and an insert therein having a lubricating coating thereon.

2. A brake shoe comprising a cast metal body with a reticulated metal insert embedded therein, said insert having a lubricating coating thereon.

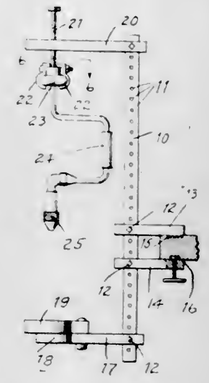
3. A brake shoe comprising a metal body, a wire netting therein, and a lubricating coating carried by said netting, said netting extending substantially parallel to the wearing face of said shoe.

4. A brake shoe comprising a metal body, an insert embedded therein, said insert including a porous lubricating coating adapted to absorb a binder subsequent to the casting of the metal body of the shoe therearound.

5. An insert for brake shoes comprising an open-work support and a lubricating, heat-resisting coating thereon, said coating being adapted to absorb an oil binder.

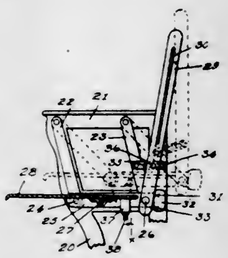
[Claims 6 to 13 not printed in the Gazette.]

1,144,602. DRILL-PRESS. HENRY G. KAISER, Elk Rapids, Mich. Filed Apr. 14, 1914. Serial No. 831,793. (Cl. 77—59.)



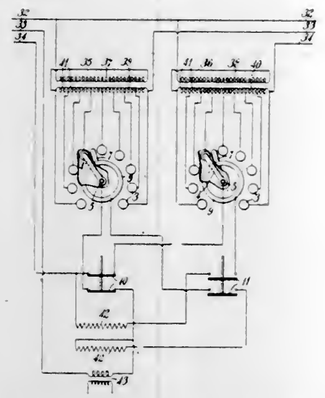
In a drill press, a vertical standard, a clamp carried by the standard for securing the same to a support, a work support carried by the standard, an arm carried by the upper end of the standard, a feed screw carried by the arm, a U frame drill brace including a rotary head, and a clamp carried by the screw for gripping engagement with the said head of the brace.

1,144,603. THEATER-CHAIR. FREDRICK JOHN KEBEL, Seattle, Wash., assignor to Robert J. Noderer, Seattle, Wash. Filed Feb. 24, 1914. Serial No. 820,427. (Cl. 155—13.)



In a chair, the combination with a chair frame, of seat-supporting brackets, a back pivotally-connected with the brackets, a plurality of suspending links pivotally-attached to the chair frame and to the brackets, a slotted link connecting the back with one of the suspended links, and double inclined-faced abutments carried by the brackets and disposed to be engaged by the back.

1,144,604. VOLTAGE-REGULATOR. EDWIN LEHR, Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed July 19, 1913. Serial No. 780,012. (Cl. 171—119.)



1. The combination of a plurality of stationary contact members, and a plurality of coacting movable contact members which are fixed relatively to one another, of means for automatically controlling the electrical connections of said movable members as they are moved relatively to said stationary members.

2. The combination with a plurality of stationary contact segments, a main contact arm, and an auxiliary contact arm, of electrical circuits for said arms, and means for automatically opening and closing the circuits of said arms when said arms are simultaneously moved relatively to said segments.

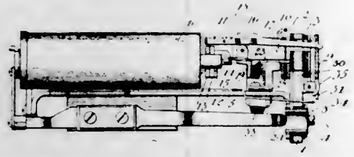
3. The combination with a plurality of stationary contact members, movable main and auxiliary contact members which are fixed relatively to one another, and electrical circuits for said members, of means for automatically controlling the circuits of said movable members in accordance with their positions relative to said stationary members.

4. The combination with a plurality of stationary contact members, movable main and auxiliary contact members which are fixed relatively to one another, and electrical circuits for said members, of means for automatically controlling the circuits of said movable members in accordance with their positions relative to said stationary members.

5. The combination with a plurality of stationary contact members, and movable main and auxiliary contact members which are fixed relatively to one another, of means including electrical connections, for opening and closing the circuits of said arms only when in engagement with said contact members.

[Claims 6 to 11 not printed in the Gazette.]

1,144,605. ANNUNCIATOR. OSCAR M. LEICH, Genoa, Ill., assignor to Cracraft, Leich Electric Company, Genoa, Ill. Filed Aug. 18, 1913. Serial No. 785,378. (Cl. 177—330.)



1. An annunciator for telephone switchboards having an actuating coil, two signals under the control thereof, and means interposed between said signals and said coil to operate one signal irrespective of the nature of the energization of said actuating coil and to operate the other signal in accordance with a code signaling indication.

2. An annunciator for telephone switchboards having a front plate, a framework mounted rearward of said front plate and insulated therefrom, an actuating coil carried by said framework, a shutter, an armature under the control of said coil to control said shutter, a second armature mounted upon said framework and controlled by said coil, a contact spring carried by said second armature and insulated therefrom, and a conducting element mounted upon but insulated from said framework and electrically connected with said spring.

3. An annunciator for telephone switchboards having a front plate, a framework mounted rearward of said front plate and insulated therefrom, an actuating coil carried by said framework, a shutter, an armature under the control of said coil to control said shutter, a second armature mounted upon said framework and controlled by said coil, a contact spring carried by said second armature and insulated therefrom, a conducting element mounted upon but insulated from said framework and electrically connected with said spring, and a conducting strip mounted upon but insulated from said front plate with which said conducting element has electrical contact.

4. An annunciator for telephone switchboards having a front plate, a framework mounted rearward of said front plate and insulated therefrom, an actuating coil carried by said framework, a shutter, an armature under the control of said coil to control said shutter, a second armature mounted upon said framework and controlled by said coil, a contact spring carried by said second armature and insulated therefrom, a conducting element mounted upon but insulated from said framework and electrically connected with said spring, a conducting strip mounted upon but insulated from said front plate with which said conductor element has electrical contact, and a contact element having electrical connection with said front plate adapted to coöperate with said contact spring.

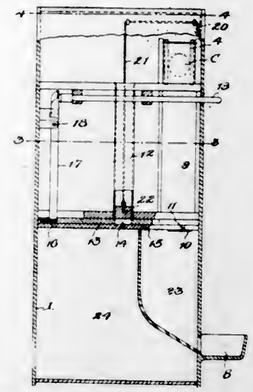
5. An annunciator bank for telephone switchboards having a drop shutter, a common conducting plate for said bank adapted for electrical engagement with said shutter when said shutter is released, a second common conducting plate for said bank, an actuating coil, and means under the control of said actuating coil to control said shutter and to control the electrical circuit through said second conducting plate.

[Claims 6 to 8 not printed in the Gazette.]

1,144,606. CHANGE-MAKER. ADELAIDE LOVENBERG, Providence, R. I., assignor of one-third to Robert E. Thornton and one-third to Estelle Lowande, Providence, R. I. Filed Oct. 26, 1914. Serial No. 868,545. (Cl. 133—4.)

1. In a change maker, a casing having a coin holder, a slide beneath the holder having a receiver opening of a depth to receive only the proper number of coins, a spring to move the slide inwardly to cause the receiver opening to be disposed in register with the holder, a latch on the slide, a spring rod engaged with the latch to hold same and the slide against the tension of the spring, a plate on the rod operable by a descending coin to move the rod out of engagement with the latch to thereby allow the spring to move the slide inwardly to cause the receiver opening to register with the holder and to receive a charge of pennies, a lever pivoted to the casing and engaged with the slide to move the latter outwardly and a push rod to actuate the lever.

2. In a change maker, in combination with a coin holder, and a slide coöperating therewith and formed with a coin receiver, a spring to normally move the slide inwardly, latch mechanism connected to the slide, coin controlled mechanism engageable with the latch mechanism to normally hold the slide in a position where the receiver thereof is in front of the holder and whereby the spring upon release of the latch mechanism moves the slide to position where the receiver registers with the holder, and manually controlled means for operating the slide to discharging position and for resetting the latch mechanism.



3. In combination with a coin holder, and an ejector coöperating therewith, coin-controlled means for holding the ejector out of coin receiving position with respect to the holder, means to automatically move the ejector to a position to receive coins from the holder upon operation of the coin controlled means, and manually controlled means for moving the ejector to ejecting position and for resetting the ejector in locked position and in engagement with the coin controlled means.

4. In a change maker, coin holding means, tensioned ejecting means, means to normally lock the ejecting means in its extreme outward position out of register with the coin holding means, means operable by a coin to release the locking means to thereby cause the ejecting means to be automatically moved inwardly and into register with the coin holding means, and means for operating the ejecting means to coin ejecting position.

5. In a change maker, in combination with a coin holder, an ejector having coin receiving means normally out of register with the holder, coin controlled means to normally hold the ejector out of registry with the coin holder, means for automatically moving the ejector into registering position with the holder, upon release of the coin controlled means, and means to actuate the ejector to ejecting position upon release of the coin controlled means and following the movement of the ejector to position registering with the holder.

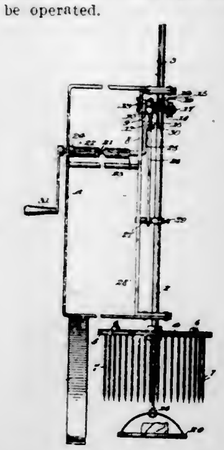
[Claims 6 to 11 not printed in the Gazette.]

1,144,607. ANIMAL-TRAP. GEORGE P. MARQUARDT, Rochester, Minn. Filed Sept. 5, 1913. Serial No. 788,320. (Cl. 43—24.)

1. In an animal trap, the combination with a frame, of a shaft movably mounted thereon carrying spears, an actuating mechanism, means pivotally connected to the shaft engaging the actuating mechanism, a bait holder, and means actuated upon the movement of the bait holder for causing the shaft to be operated.

2. In an animal trap, the combination with a frame, of a shaft movably mounted thereon carrying spears, an actuating mechanism, means pivotally connected to the shaft engaging the actuating mechanism, means engaging said pivotal means for holding the shaft against movement, and a bait holder adapted when actuated to operate said holding means for releasing the shaft.

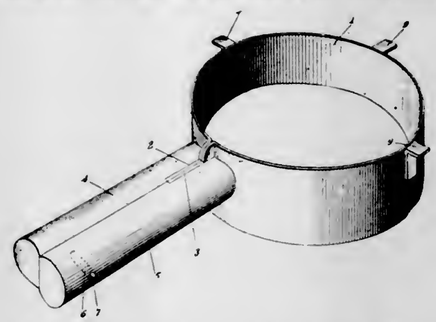
3. In an animal trap, the combination with a frame, of a shaft movably mounted thereon carrying spears, means for holding the shaft against movement, means carried by the shaft engaged by said holding means, means connected to said shaft carried means for imparting a reciprocating movement thereto to actuate the shaft, and a bait holder connected to said holding means adapted to release the shaft upon the movement of the bait holder for causing the shaft to be operated.



4. In an animal trap, the combination with a frame, of a shaft movably mounted thereon carrying spears, means for holding said shaft against movement, means carried by the shaft engaged by said holding means, means connected to said shaft carried means for imparting a reciprocating movement thereto to actuate the shaft, and a bait holder adapted to release said shaft upon the movement of the bait holder.

5. In an animal trap, the combination with a frame, of a shaft having spears thereon, a link connected to the shaft, means connected to the link for reciprocating the shaft, a pawl engaging said link for holding the shaft against movement, a movable bait holder, means connecting the pawl with the bait holder whereby upon the actuation of the bait holder the pawl will be caused to release the shaft, and means for causing said pawl to be brought into position to engage said link for locking the shaft in position for the next operation.

1,144,608. DEVICE FOR HOLDING PISTON-RINGS IN THEIR GROOVES. HOMER ELTON MASON, Delhi, N. Y. Filed Nov. 14, 1913. Serial No. 800,901. (Cl. 29—84.)



1. A device for holding piston rings in their seats, comprising a clamping means having a flexible band, and handles attached to the ends of the band, one of the handles having a pin and the other handle having a hole longer than the pin for bringing the same into alinement.

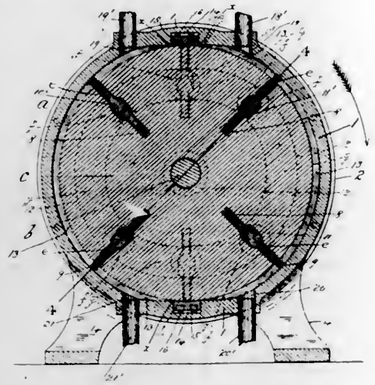
2. A device for holding piston rings in their seats, comprising a clamping means having a flexible band with right-angle brackets at one edge thereof, and handles attached to the ends of the band, one of the handles having a pin and the other handle having a hole longer than the pin for bringing the same into alinement.

3. A device for holding piston rings in their seats, comprising a clamping means having a flexible band with

right-angle brackets at one edge thereof, and handles attached to the ends of the band, having means for bringing the same into alinement, the handles being narrower than the band.

4. A device for holding piston rings in their seats, comprising a clamping means having a flexible band with right-angle brackets at one edge thereof, and semi-circular handles attached to the ends of the band, having means for bringing the same into alinement, the handles being narrower than the band.

1,144,609. PRESSURE-MOTOR. FRANK W. MEYER and ARTHUR STIEB, East St. Louis, Ill. Filed Mar. 9, 1914. Serial No. 823,304. (Cl. 121—75.)

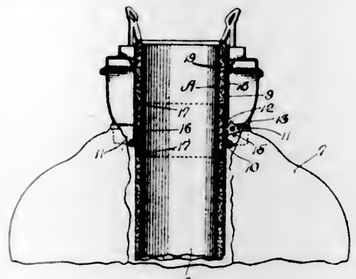


1. In a rotary engine, the combination with a cylinder, a shaft passing centrally therethrough; of a rotatable element within the cylinder fixed on said shaft and provided with a plurality of radial slots having curved central enlargements; a circular plate concentric with and fixed to each face of said element and having openings coinciding with said enlargements; a piston slidable in each slot and having a lateral pin at each side edge thereof and a transversely rounded strengthening boss connecting the inner ends of said pins, said bosses fitting slidably in said enlargements and said pins projecting through said openings; an abutment adapted to bear steam-tight against the periphery of said element; means for admitting and exhausting steam to and from the cylinder; and means for radially moving said pistons into and out of contact with the inner wall of the cylinder and for retracting each piston within its slot as it approaches and passes an abutment.

2. In a rotary engine, the combination, with a cylinder, and a shaft passing centrally therethrough; of a rotatable element within the cylinder fixed on said shaft and provided with a plurality of radial slots having curved central enlargements; a circular plate concentric with and fixed to each face of said element and having openings coinciding with said enlargements; a piston slidable in each slot and having a lateral pin at each side edge thereof and a transversely rounded strengthening boss connecting the inner ends of said pins, said bosses fitting slidably in said enlargements and said pins projecting through said openings; means for admitting and exhausting steam to and from the cylinder; and means for radially moving said pistons into and out of contact with the inner wall of said cylinder.

3. In a rotary engine the combination with a cylinder, a shaft passing centrally therethrough, a rotatable element within said cylinder fixed on said shaft and provided with a plurality of radial slots having elongated enlarged curved portions intermediate their inner and outer ends, a circular plate concentric with and fixed to each face of said element and having openings coinciding with said enlarged portions of said slot, a piston slidable in each slot each of said pistons comprising a plate-like body portion and a transverse rounded strengthening portion located intermediate the inner and outer ends of said piston said strengthening portions being located in the enlarged portions of the radial slots and said strengthening portion being extended beyond the sides of the pistons to constitute lateral pins which pass through and are guided within the openings of the circular plates, an abutment arranged to bear steam-tight against the periphery of said element and means for radially moving said piston into and out of contact with the inner wall of the cylinder and for retracting each cylinder within its slot as it approaches and passes said abutment.

1,144,610. LAMP-BURNER. HERBERT F. MILLER, Wollaston, Mass. Filed Mar. 1, 1915. Serial No. 11,167. (Cl. 67—60.)

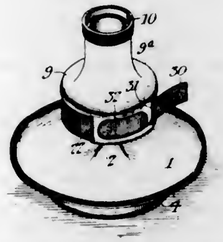


1. A lamp burner comprising an annular wick carrier having guides and a spring clamp having teeth, and a rack plate slidably engaged with said guides and having means adapted to be engaged by the teeth of said clamp.

2. A lamp burner comprising an annular wick carrier having a pair of guides, a plate slidable in said guides relative to said carrier and having a series of transverse bars, and means carried by said carrier for engaging in the spaces between said bars.

3. A lamp burner comprising a pair of wick tubes spaced apart, the outer of said tubes having a vertical slot, a star wheel operating through said slot, an annular wick carrier slidable between said tubes, a rack also slidable between said tubes and in engagement with said star wheel, and means to detachably secure said rack to said wick carrier.

1,144,611. MATCH-IGNITING DEVICE. JACOB E. NEAHR, New York, N. Y. Filed Jan. 31, 1914. Serial No. 815,616. (Cl. 206—20.)



1. The combination of a drum or casing to contain a match-igniting strip, the drum having an opening through which the strip may be drawn out for winding upon the body of the drum, a cover for said drum, a socket within said drum, and a match-holding device including a detachable thimble carried by said cover and fitting in said socket to lock the cover on the drum.

2. The combination of a drum or casing to contain a match-igniting strip, the drum having an opening through which the strip may be drawn out for winding upon the body of the drum, a cover for said drum, a socket within said drum, a match-holding device including a detachable thimble carried by said cover and fitting in said socket to lock the cover on the drum, and means being provided for preventing rotation of the cover.

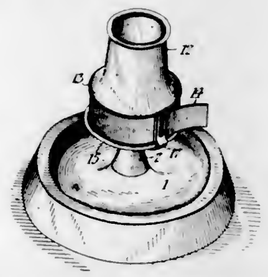
3. The combination of a drum or casing to contain a match-igniting strip, the drum having an opening through which the strip may be drawn out for winding upon the body of the drum, a cover for said drum, a socket within said drum, a match-holding device including a detachable thimble carried by said cover and fitting in said socket to lock the cover on the drum, said locking thimble being connected with said cover in a manner to prevent relative rotation thereof, and means being provided to prevent said thimble from rotating in said socket.

4. The combination of a drum or casing to contain a match-igniting strip, the drum having an opening through which the strip may be drawn out for winding upon the body of the drum, a cover for said drum, a socket within said drum, and a match-holding device including a detachable thimble carried by said cover and fitting in said socket to lock the cover on the drum, the cover being provided with a clamp to hold the igniting strip upon the body of the drum.

5. The combination of a drum, a match-igniting strip contained therein, said drum having an opening through which the strip is drawn out, the strip being wound about the body of the drum, a cover for said drum, said cover having a clamp to hold the strip against the body of the drum, and means to lock the cover upon the drum, including a socket fixed within the drum, and a part extending down from said cover within the drum to engage said socket.

[Claims 6 to 27 not printed in the Gazette.]

1,144,612. MATCH-IGNITING DEVICE. JACOB E. NEAHR, New York, N. Y. Filed Mar. 5, 1914. Serial No. 822,634. (Cl. 206—20.)



1. A match-igniter comprising a drum, a match-igniting strip within the drum, said drum having in its side an aperture through which an end of the strip is drawn out, the strip being wound around the drum and across the aperture, and a clamp mounted on the drum to enter the aperture and wedge the strip into said aperture.

2. A match-igniter comprising a drum, a match-igniting strip within the drum, said drum having in its side an aperture through which an end of the strip is drawn out, the strip being wound around the drum and across the aperture, and a clamp mounted on the drum to enter the aperture and wedge the strip into said aperture; the side portion of the drum at said aperture constructed to yield when the clamp is forced therein, and then to hold the clamp against accidental release.

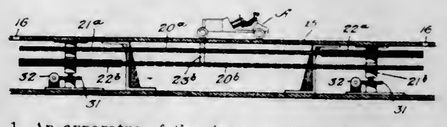
3. A match-igniter comprising a drum, a match-igniting strip within the drum, said drum having in its side an aperture through which an end of the strip is drawn out, the strip being wound around the drum and across the aperture, and a clamp-body pivoted upon the under side of the drum and having an upwardly extending jaw provided with a clamping portion to enter the aperture, said clamping portion of a size to coöperate with the edges of the aperture to bite the igniting strip.

4. A match-igniter comprising a drum, a match-igniting strip within the drum, said drum having a removable cover, and having in its side an aperture through which an end of the strip is drawn out, the strip being wound around the drum, and a strip-clamp mounted upon said drum and wholly independent of said cover, to permit adjustment and clamping of the strip while the cover is off.

5. A match-igniter comprising a drum, a match-igniting strip coil within the drum, said drum having a removable cover, and having in its side an aperture through which an end of the strip is drawn out, the strip being wound around the drum, and a releasable clamp for said strip; said drum having a bottom from which rises a central core or stud within the coil, and said cover having a screw connection to said core or stud.

[Claims 6 to 10 not printed in the Gazette.]

1,144,613. AMUSEMENT APPARATUS. FREDERICK J. RIORDAN, Lawrence, Mass., assignor of one-half to Lawrence Sugden, Lawrence, Mass. Filed Oct. 14, 1914. Serial No. 866,626. (Cl. 46—56.)



1. An apparatus of the character described, comprising an endless racecourse, an object arranged to traverse said course, an operating member, means arranged to transmit motion from said operating member to drive said object along said course, and means arranged to act upon said transmitting means automatically to disconnect said object from said operating member when said object has traversed a predetermined plurality of laps around said course.

2. An apparatus of the character described, comprising a movable object, an operating member, means arranged to transmit motion from said operating member to drive said object, and means driven by said operating member and arranged to adjust said transmitting means automatically to disconnect said object from said operating member when said object has traveled a predetermined distance.

3. In an apparatus of the character described, a racecourse, a wheeled vehicle arranged to roll upon said course, said vehicle having a swiveled steering truck, and means arranged to pull said vehicle, said means being connected to said truck to turn the same laterally to steer the vehicle.

4. An apparatus of the character described, comprising a movable object, an operating member, means arranged to transmit motion from said operating member to cause said object to travel an endless course, said transmission means including disconnectible clutch members, and means arranged to disconnect said clutch members when said object has traversed a predetermined plurality of laps of said course.

5. An apparatus of the character described, comprising a movable object, an operating member, means arranged to transmit motion from said operating member to cause said object to travel an endless course, said means including disconnectible clutch members, and means driven by the driven clutch member arranged to disconnect said clutch members when said object has traversed a predetermined plurality of laps of said course.

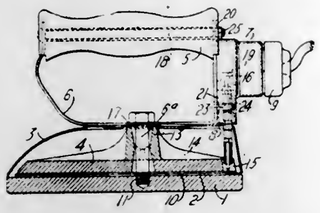
[Claims 6 to 8 not printed in the Gazette.]

1,144,614. ELECTRIC SAD-IRON. EDWARD E. ROSE, Swissvale, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Dec. 26, 1913. Serial No. 808,737. (Cl. 219—25.)

1. In a heating apparatus, the combination with a working member and an electric heater therefor, of an operating handle member, an incasing member and a ter-

minal member for said heater, and means associated with said incasing member for partially preventing displacement of said terminal member and said handle member.

2. In a heating apparatus, the combination with a working member and an electric heater therefor, of an operating handle member, an incasing member for said heater, a terminal member associated with said handle member, means for preventing direct contact of said handle member and said incasing member, and means secured to said incasing member and disposed within said terminal member for partially positioning said handle member and said terminal member.



3. In a sad iron, the combination with a working member and an electric heater therefor, of an operating handle, a unitary supporting member therefor, an incasing member for said heater having projecting therefrom a plurality of spaced guiding surfaces for said supporting member and having a lug near one end, a plurality of terminals for said heater, a casing for said terminals secured to said supporting member and fitting over said lug, and means for clamping together said working member and said supporting member.

4. In a sad iron, the combination with a working member and an electric heater therefor, of an operating handle, a supporting strap therefor of substantially U-shape, a cover for said heater provided on its upper surface with three spaced and alined guiding projections for said strap and with an upright lug near its rear end, a plurality of terminals for said heater, a casing for said terminals detachably secured to said handle and to one arm of said strap and fitting over said lug, a single means extending through the middle guiding projection for clamping together said working member and said strap, and means disposed intermediate said cover and said heater for maintaining intimate thermal contact of the latter with said working member.

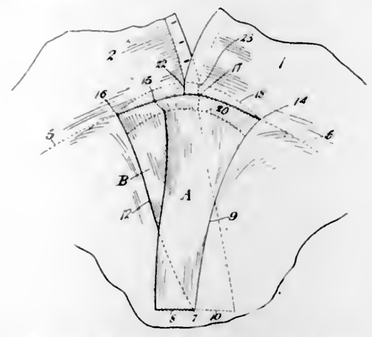
5. In a sad iron, the combination with a working member and an electric heater therefor, of an operating handle, a supporting strap therefor, a cover for said heater provided on its upper surface with three spaced and alined guiding surfaces for said strap and with an external lug near its rear end, a plurality of terminals for said heater, a box for said terminals detachably secured to said handle and to said strap and fitting over said lug, a clamping plate having a relatively large surface in intimate contact with said heater, and a pair of ribs engaging the inner surface of said cover, whereby the latter is maintained out of contact with said working member, and a bolt extending through the middle guiding surface and intermediate said ribs for holding together said working member and said strap, whereby said heater is maintained in intimate thermal contact with said working member.

[Claims 6 to 10 not printed in the Gazette.]

1,144,615. COMPOSITION FOR REFRIGERATOR-LININGS, &c. CHARLES H. SEAMAN, Milwaukee, Wis., assignor to Otto H. Foerster, Milwaukee, Wis. Filed Mar. 4, 1912. Serial No. 681,620. (Cl. 106—29.)

As a new article of manufacture, a shaped body set from a semi-fluent mass resulting from the admixture of magnesium chlorid solution with a finely powdered composition comprising approximately 33⅓% calcined magnesite, 16⅔% glass, 16⅔% quartz, 16⅔% marble dust, 14⅓% feldspar, and 3⅓% light calcined magnesia.

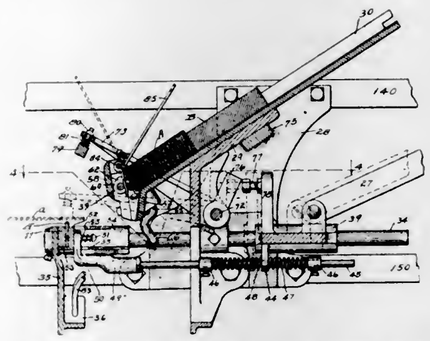
1,144,616. UNDERGARMENT. FRANCIS M. SHIPLEY, Piqua, Ohio. Filed Jan. 27, 1913. Serial No. 744,320. (Cl. 2—144.)



1. In a union garment, leg portions and a body portion, open in the front and in the rear to a point near the waist line, with the body portion permanently secured together at the front of the crotch portion, and two overlapping flaps to close the rear portion, each secured along one side edge to its respective side edge of the rear opening and attached along its lower edge to the leg seams, with a reinforcing strip for the crotch portion secured across the lower end of the body portion in front of the leg seams for one longitudinal edge, and across the lower portion of the overlapping flaps for the other longitudinal edge with the reinforcement strip free between said longitudinal edges to protect and strengthen the leg seams at the crotch portion.

2. In a union garment, leg portions and a body portion, open in the front and in the rear to a point near the waist line, with the body portion permanently secured together at the front of the crotch portion, and two overlapping flaps to close the rear portion, each secured along one side edge to its respective side edge of the rear opening and attached along its lower edge to the leg seams, with a segmental shaped reinforcing strip for the crotch portion secured on the outside across the lower end of the body portion in front of the leg seams for one longitudinal edge, and across the lower portion of the overlapping flaps for the other longitudinal edge, with the end edges secured along the side edge of its respective overlapping flap with the reinforcement strip free between said longitudinal edges to protect and strengthen the leg seams at the crotch portion.

1,144,617. ADDRESSING-MACHINE. CLARENCE I. W. SMITH, Omaha, Nebr., assignor to Henry Haubens and Clark A. Sigafoos, Omaha, Nebr. Filed Oct. 1, 1912. Serial No. 723,377. (Cl. 101—1.)



1. In a consecutive printing machine, means for supporting a column of slugs in an inclined position with the edges of the slugs resting on the support, a stop for engaging the lowermost slug of the column after said slug has moved past the supporting means, and means for raising all of the slugs except the lowermost to permit the latter to fall from the stop.

2. A slug-feeding mechanism comprising an inclined chute, a stop disposed at the lower end of the chute to limit downward movement of the slugs therein, there being an opening in the chute adjacent to the stop so that the lowermost slug is supported above said opening solely by the frictional engagement of the slug with the stop and the adjoining slug in the column, and means for lifting in the chute all of the slugs except the lowermost, whereby said slug is released from said frictional engagement and permitted to fall edgewise through the opening.

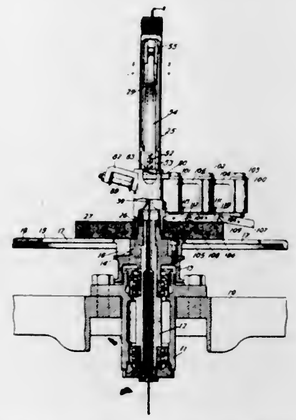
3. In a machine of the class described, in combination, a slug-feeding device, a reciprocating slug-carrier adapted to receive slugs from the feeding device at one position and convey the slugs to a printing position, means on the carrier for clamping a slug, a reciprocating actuating element connected with the carrier and clamping means so as to consecutively clamp the slug, move the carrier from receiving position to printing position, release the slug, and return the carrier to receiving position, and a movable platen adapted for coöperation with a slug held at the printing position, the platen being movable by the actuating element at the conclusion of the movement of the carrier to printing position.

4. In a machine of the class described, a slidably mounted head, a part slidably held in the head, reciprocating member yieldably connected with the sliding part, slug-feed devices arranged to deliver a slug into the head adjoining the sliding part, means limiting movement of the sliding part relative to the head, and means for limiting movement of both the head and the sliding part.

5. In a machine of the class described, an inclined feed-chute having an opening at the lower part thereof and adapted to retain a column of slugs with one of the same at a position adjacent to said opening, and means for moving the remainder of the slugs longitudinally of the chute to remove the pressure thereof from the slug positioned adjacent to the opening, whereby said slug is released and permitted to fall from the chute.

[Claims 6 to 12 not printed in the Gazette.]

1,144,618. WINDING-HEAD. WILLIAM F. SMITH, Chicago, Ill., assignor to Western Electric Company, New York, N. Y., a Corporation of Illinois. Filed Oct. 3, 1913. Serial No. 793,129. (Cl. 28—6.)



1. In a winding head, a face plate and spindle for supporting a tape roll and having a passage therethrough for the wire to be wound, guides for the tape from the periphery of the roll to the wire, a guide for the wire carried by said spindle, and a spring-pressed shoe carried by said spindle and coöperating with the guide carried by said spindle for forming a ridge in the tape as it is wound on the wire.

2. In a winding head, a face plate and spindle for supporting a tape roll and having a passage therethrough for the wire to be wound, guides for the tape from the periphery of the roll to the wire, a guide for the wire carried by said spindle, a spring-pressed shoe carried by said spindle and coöperating with the guide carried by said spindle for forming a ridge in the tape as it is wound on the wire, and a polisher carried by said spindle through which the tape-wound wire passes.

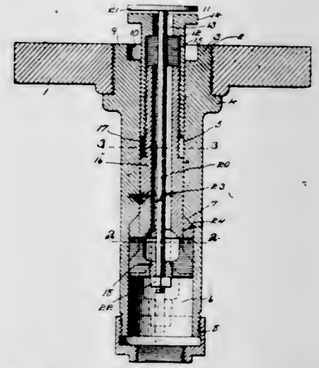
3. In a winding head, a face plate and spindle for supporting a tape roll and having a passage therethrough for the wire to be wound, a tension bracket carried by said spindle and having a plurality of spring pressed plungers for applying uniform tension to the tape roll, guides for the tape from the periphery of the roll to the wire, and means for forming a ridge in the tape as it is wound on the wire.

4. In a winding head, a face plate and spindle for supporting a tape roll and having a passage therethrough for the wire to be wound, guides for the tape from the periphery of the roll to the wire, a removable and interchangeable guide for the wire carried by said spindle, and a spring pressed shoe carried by said spindle and coöperating with said removable and interchangeable guide for forming a ridge in the tape as it is wound on the wire.

5. In a winding head, a face plate, a spindle having a tapered portion, said face plate and said spindle for supporting a tape roll and having a passage therethrough for the wire to be wound, guides for the tape from the periphery of the roll to the wire, and means for forming a ridge in the tape as it is wound on the wire, one of said guides being mounted on said spindle and disposed at an angle with respect thereto and coöperating with the tapered portion of said spindle for determining the position of the ridge in the tape.

[Claims 6 to 13 not printed in the Gazette.]

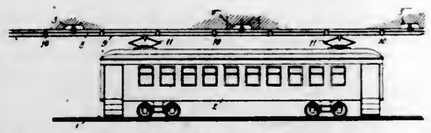
1,144,619. AUTOMATIC SPRINKLING DEVICE. JACOB R. SNYDER, Joplin, Mo. Filed Jan. 29, 1914. Serial No. 815,221. (Cl. 137—65.)



A sprinkler of the type described, including a casing having a bore extending therethrough, said bore being enlarged at its lower end, said casing being arranged for application to a water-supply under pressure, a nozzle having an upper-end flange, said nozzle being arranged within the bore of said casing, the lower end of said nozzle having an enlargement received by the bore-enlargement of said casing, and a sprayer comprising a sprayer-member proper of disk-formation and a stem depending centrally from said sprayer-member proper within the bore of said nozzle and having a lower-end controlling member also received by said bore-enlargement of the casing, said disk sprayer member being arranged to be initially separated from the flange of said nozzle under the water-pressure

and to lie flat upon the latter when water-pressure is removed therefrom, said nozzle together with said sprayer, being arranged to be subsequently elevated by water-pressure.

1,144,620. OVERHEAD LINE CONSTRUCTION. NORMAN W. STORER, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Sept. 10, 1909. Serial No. 517,154. (Cl. 191—42.)



1. In an electric railway line structure, the combination with a plurality of overhead brackets extending alternately in opposite directions from the central plane of the track, insulators mounted thereon and a pair of independent messenger wires or cables suspended from alternate brackets, of two trolley wires respectively suspended from the messenger wires or cables.

2. In an electric railway line structure, the combination with a plurality of overhead brackets similarly supported and extending alternately in opposite directions from the central plane of the track, insulators supported by the brackets and a pair of messenger wires electrically separated from each other and respectively supported by alternate insulators, of two trolley conductors loosely suspended from the respective messenger wires, said brackets being divided into two similar parts which are bolted together around the insulator.

3. In a tunnel or restricted passage-way having centrally-located ceiling pockets, an electric railway structure comprising a plurality of brackets mounted in the said pockets and having laterally disposed arms that project alternately in opposite directions, insulators supported in the laterally disposed arms, suspension bolts seated in the insulators, messenger wires or cables supended in substantially parallel lines from alternate suspension bolts, and trolley conductors loosely suspended from the respective messenger cables.

4. An electric railway line structure comprising a plurality of independent insulating supports and a pair of trolley conductors respectively suspended from alternate supports so that they are electrically separated and independently supported in operative relation to a single pair of track rails.

5. In an electric railway line structure, the combination with a plurality of independent insulating supports, a pair of messenger wires or cables respectively suspended from alternate supports whereby they are electrically separated and independently supported, of a pair of trolley conductors supported from the respective messenger cables in operative relation to a single pair of track rails.

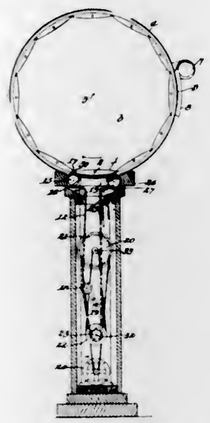
[Claims 6 to 13 not printed in the Gazette.]

1,144,621. AUTOMATIC ADVERTISING-DISPLAY MACHINE. LAUREN T. TUTTLE, Sonoma county, Cal. Filed Nov. 13, 1913. Serial No. 800,824. (Cl. 40—33.)

1. In an advertising display machine, a carrier, a driving belt therefor, a locking pin adapted to engage a part on the carrier, a cam, and a lug carried by the driving belt adapted to engage said cam to effect the disengagement of the pin.

2. In an advertising display machine, a carrier, a driving belt therefor, a lock adapted to engage a part on the carrier, a spring for effecting engagement of the lock, and means for effecting disengagement of the lock comprising a cam operatively associated therewith adapted to be engaged by a part on the driving belt, substantially as described.

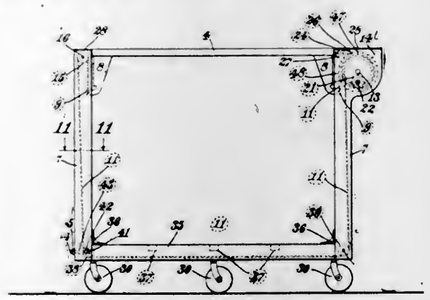
3. In an advertising display machine, a hollow pedestal open at its upper end, a rotatable carrier supported above the same, and means for periodically shifting the carrier comprising engaging portions on the periphery thereof, and a driving belt mounted and movable within the pedestal having an upper run bridging said open upper end adjacent to the carrier of approximately the length of the predetermined shifting movement of the carrier, said belt carrying a part adapted to engage the engaging portions on the carrier.



4. In an advertising display machine, a hollow pedestal, a rotatable carrier supported above the pedestal, and means for periodically shifting the carrier comprising a driving belt mounted and movable within the pedestal adapted to engage complementary parts of the carrier, and supporting and guiding means for the belt causing the same to assume an approximately T-formation the length of the upper run of the T determining the movement of the carrier, substantially as and for the purpose described.

5. In an advertising display machine, the combination with a carrier, of driving means therefor comprising a belt having a part adapted to engage a complementary part on the carrier to shift the carrier at predetermined intervals in the movement of the belt, and a lock adapted to hold the carrier in its positions of rest, said lock being arranged to be engaged and released by the carrier engaging part on the driving belt.

1,144,622. CONVERTIBLE TABLE AND TRUCK. WARREN A. TYRRELL, St. Louis, Mo., assignor of one-half to C. Clinton Nichols, St. Louis, Mo. Filed May 3, 1913. Serial No. 765,228. (Cl. 187—11.)



1. The combination of a body having an opening at its top and vertical slots in the walls of same, hollow members connecting the ends of same, a vertically movable platform within said body having extensions which protrude through the slots in the walls of said body, a revoluble member supported by one end of said body, and flexible members wound on said revoluble member and attached to the extensions of said platform, one pair of said flexible members being arranged to extend through said hollow members.

2. The combination of a body having an opening at its top and vertical slots in its walls adjacent to the corners thereof, hollow members connecting the ends of the body, a vertically movable platform within said body having extensions which protrude through the slots in the walls of said body, a revoluble member supported horizontally on one end of said body, and flexible members wound on said revoluble member and attached to the extensions of said platform, one pair of said flexible members being arranged to extend through said hollow members.

3. The combination of a body having an opening at its top and vertical slots in its walls adjacent to the corners thereof and hollow corner posts communicating with the slots, hollow members connecting the corner posts, a vertically movable platform within said body having extensions at the corners thereof, which extensions protrude through the slots in the walls of said body into the corner posts, a revoluble member supported horizontally by said casing, and flexible members wound on said revoluble member arranged to extend into the corner posts and being attached to the extensions of said platform, one pair of said flexible members being arranged to extend through said hollow members.

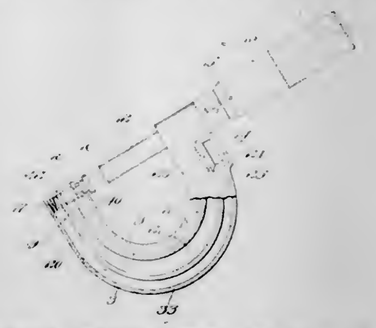
4. The combination of a body having an opening at its top and vertical slots in its walls adjacent to the corners thereof and hollow corner posts communicating with the slots, the sides and ends of said body having hollow members extending longitudinally thereof, a vertically movable platform within said body having corner extensions which protrude through the slots in the walls of the body into the corner posts, a revoluble member extending through the hollow member on one end of the body, a pair of pulleys revolubly supported in the hollow side members adjacent to the other end of the body, and flexible members wound on said revoluble member and being attached to the extensions of said platform, one pair of said flexible members extending from said revoluble member into the corner posts at one end of the body, and the other pair of said flexible members extending from said revoluble member into the hollow side members and then passing through the latter and over said pulleys into the corner posts at the other end of the body.

5. The combination of a frame having an opening at its top and having hollow members, each of said hollow members having a vertical slot therein, a vertically movable platform within the frame, means carried by the platform and extending through the slots into the hollow members, means arranged within said hollow members for raising and lowering said platform incinding a shaft revolubly supported by one end of said frame, pulleys on said shaft, pulleys revolubly supported by the other end of said frame, and flexible members arranged within the hollow members secured at one end to the pulleys on said shaft and at their lower ends to the means carried by the platform, one pair of said flexible members being arranged to pass over said second mentioned pulleys.

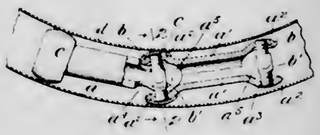
[Claims 6 to 10 not printed in the Gazette.]

1,144,623. MICROMETER-CALIPERS. FÉLIX EMILE VALOIS, Haverhill, Mass. Filed Feb. 20, 1914. Serial No. 820,055. (Cl. 33—147.)

The improved measuring instrument comprising a crescent-shaped yoke having a slot extending substantially throughout the length thereof, an adjustable post mounted transversely of one end of said crescent-shaped yoke, a movable bed-member mounted transversely of the opposite end of said yoke, a single lever within the slot in said yoke pivotally mounted near said bed-member engaging with said bed-member at one end and having a free end with an indicator thereon, said lever being of a crescent-shape to conform with the shape of said yoke and having a movement at the end in engagement with said bed-member substantially transversely of said yoke and parallel with the movement of said bed-member and having a movement at the indicator end substantially longitudinally of said yoke and at right angles with the movement of said bed-member, and a scale on said yoke adjacent said post coöperating with the indicator end of said lever having a line of marking substantially parallel with the movement of said indicator end and at right angles with the movement of said bed-member.



1,144,624. FLEXIBLE SHAFT. CURTIS HUSSEY VEEDER, Hartford, Conn., assignor to Veeder Manufacturing Company, Hartford, Conn., a Corporation of Connecticut. Filed Nov. 6, 1914. Serial No. 870,567. (Cl. 64—30.)



1. The combination with a flexible shaft and a protective casing therefor, of a series of rotatable bearing members fixed along the shaft in spaced relationship and rotatable with the shaft and having their outer faces of semispherical outline to bear against the inner face of the casing and rotate therein.

2. The combination with a flexible shaft composed of a series of links and a protective casing therefor, of a series of ferrules encircling the links respectively and rotatable therewith and having their outer faces of semispherical outline to bear against the inner face of the casing and rotate therein.

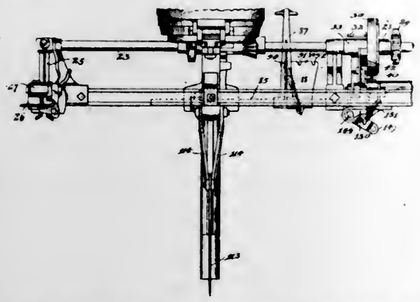
3. The combination with a flexible shaft composed of a series of links, pivot blocks and journals to connect said links respectively, and a protective casing for the shaft, of a series of ferrules encircling the links respectively and constituting abutments for said journals respectively to prevent axial movement thereof, said ferrules resting against the inner face of the casing and constituting bearings for the shaft.

4. A flexible shaft composed of a series of links provided with semispherical portions adjacent their ends respectively, pivot blocks and journals to connect said links respectively, said pivot blocks being disposed within said semispherical portions, and ferrules encircling the links at said semispherical portions and coöperating with the journals respectively to prevent axial movement thereof, said ferrules being pressed on to said semispherical portions so as to be in snug locking engagement therewith and present semispherical bearing surfaces to the inner wall of the casing.

5. In a flexible shaft, the combination of a casing, a series of barrel links, each composed of two similar semicylindrical members and provided at its ends with semispherical portions, a pivot block and journals disposed within said semispherical portions to connect pivotally adjacent links, and a series of ferrules encircling said

semispherical portions respectively and coöperating with the journals to prevent axial movement thereof while pressing the semi-cylindrical members of each link together, said ferrules being pressed on to said semi-cylindrical portions and conforming thereto and presenting on their outer faces bearing surfaces for the shaft within the casing.

1,144,625. CORN-PLANTER. IRA A. WEAVER, Springfield, Ill., assignor, by mesne assignments, to International Harvester Corporation, a Corporation of New Jersey. Filed Aug. 9, 1907. Serial No. 387,873. (Cl. 111—5.)



1. In a seed-planter, the combination of a movable seed-plate provided with recesses adapted to accommodate seeds or kernels and discharge them at a definite point in the movement of said plate, an intermittently-actuated operating means, connecting means between said operating means and seed-plate whereby during each actuation of said operating means said seed-plate is moved to successively bring a number of said recesses into discharging position each delivering its contents, and controlling means adapted to break the operative connection between said operating means and seed-plate at different points in the actuation of the latter whereby to vary the number of seeds or kernels delivered to each hill.

2. In a seed-planter, the combination of a rotary seed-plate provided with recesses adapted to accommodate seeds or kernels, a discharge chute, a rotary shaft intermittently operated for revolving said seed-plate to bring a number of said recesses into communication with said discharge chute successively each discharging its contents into said chute, means connecting said rotary shaft with said seed-plate, and controlling means adapted to break the operative connection between said rotary shaft and seed-plate at different points in the actuation of the latter whereby to vary the number of seeds or kernels delivered to each hill.

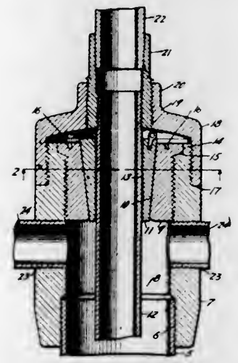
3. In a seed-planter, the combination of a rotary seed-plate provided with recesses adapted to accommodate seeds or kernels and discharge them at a definite point in the movement of said plate, an intermittently-actuated rotary operating shaft adapted to revolve said seed-plate to bring a number of said recesses successively into discharging position each delivering its contents, a clutch between said shaft and seed-plate, and controlling means to render said clutch inoperative at different points in the actuation of said seed-plate whereby to vary the number of seeds or kernels delivered to each hill.

4. In a seed-planter, the combination of a rotary seed-plate provided with recesses adapted to accommodate seeds or kernels and discharge them at a definite point in the movement of said plate, an intermittently-actuated operating shaft adapted to revolve said plate to bring a number of said recesses successively into discharging position each delivering its contents, a clutch between said shaft and seed-plate comprising a ratchet wheel and a pawl normally engaging a tooth of said ratchet wheel, and controlling means to move said pawl and maintain it out of engagement with said ratchet at different points in the actuation of said seed-plate whereby to vary the number of seeds or kernels delivered to each hill.

5. In a seed-planter, the combination of a rotary seed-plate provided with recesses adapted to accommodate seeds or kernels and discharge them at a definite point in the movement of said plate, an intermittently-actuated operating shaft adapted to revolve said seed-plate to bring a number of said recesses successively into discharging position each delivering its contents, a clutch between said shaft and seed-plate comprising a ratchet wheel and a pawl rotatable with said shaft and normally engaging a tooth of said ratchet, and controlling means with pawl-releasing tracks of different lengths adapted to be projected singly into the path of travel of said pawl to move the latter and maintain it out of engagement with said ratchet at different points in the actuation of said seed-plate whereby to vary the number of seeds or kernels delivered to each hill.

[Claims 6 to 46 not printed in the Gazette.]

1,144,626. HEAD FOR WELL-CASINGS. WILSON B. WIGLE, Fullerton, Cal., assignor of one-half to Regan Oil Tool Company, Sherman, Cal., a Corporation of California. Filed May 5, 1914. Serial No. 836,537. (Cl. 166—14.)

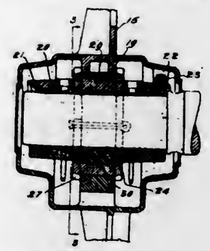


1. A casing head, comprising a cylindrical tubular member threaded to receive the upper end of a well casing and having its upper end portion threaded internally and externally, a ring formed with a tapered slip seat threaded externally to engage the internal threads of the casing head, a plurality of pump tube engaging slips formed to be supported on the tapered seat on said ring, a cap internally threaded to engage the exteriorly threaded portion of the casing head member, and means for connecting said cap to the well casing.

2. A casing head, comprising a cylindrical tubular member threaded to receive the upper end of a well casing and having its upper end portion threaded internally and externally, a ring formed with a tapered slip seat threaded externally to engage the internal threads of the casing head, a plurality of pump tube engaging slips formed to be supported on the tapered seat on said ring, a cap internally threaded to engage the exteriorly threaded portion of the casing head member and having an internally threaded aperture, means for connecting said cap to the well casing, comprising a nipple internally threaded to receive the correspondingly threaded upper end of a pump tube and externally threaded to be engaged by the internally threaded aperture in the cap.

1,144,627. ADJUSTABLE BEARING FOR DYNAMO-ELECTRIC MACHINES. ROBERT B. WILLIAMSON, Milwaukee, Wis., assignor, by mesne assignments, to Allis-Chalmers Manufacturing Company, a Corporation of Delaware. Filed Apr. 19, 1909. Serial No. 490,969. (Cl. 64—53.)

1. In combination, a rotary shaft, a bearing sleeve engaging said shaft, an adjustable eccentric bushing engaging said bearing sleeve and having a plurality of notched flanges extending outwardly therefrom, a housing having an inwardly extending flange engaging a peripheral surface of said bushing and an end surface of at least one of said notched flanges, and means co-acting with a notch of each of said bushing flanges and with said housing flange for locking said bushing to said housing.
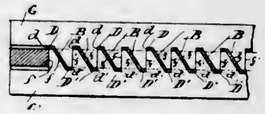


2. In combination, a shaft, bearing sleeves therefor, eccentric bushings surrounding and engaging the sleeves, said bushings each having a pair of external notched flanges, housings inclosing the sleeves and bushings, said housings having inwardly extending flanges engaging said bushings intermediate the flanges thereof, and means engaging the notched portions of said flanges to prevent movement of said bushings.

3. In combination, a shaft, bearing sleeves therefor, eccentric bushings surrounding and engaging the sleeves, said bushings having external flanges notched at intervals, housings having internal flanges engaging the outer surfaces of the bushings, and transverse members extending through the internal flanges of the housings into notches of the bushings, and serving to hold the bushings and housings in relatively fixed positions.

4. In combination, a shaft, bearing sleeves therefor, eccentric bushings surrounding and engaging the sleeves, said bushings and sleeves having interfitting parts which prevent endwise movement of the sleeves, bearing housings surrounding the sleeves and bushings, said housings and bushings having interfitting parts which prevent endwise movement of the bushings, and members extending transversely through said last named interfitting parts and serving when in position to prevent circumferential movement of the bushings relative to the housings.
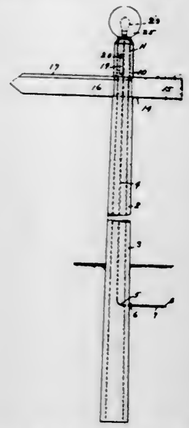
1,144,628. BATTERY-PLATE. ARTHUR S. ATWATER and DANIEL F. SELZER, Cleveland, Ohio. Filed Jan. 2, 1914. Serial No. 809,921. (Cl. 204—29.)



A Planté battery plate consisting of an outer conducting frame and an interior swaged portion comprising a plurality of relatively small parallel substantially Z-shaped partitions forming ridges on the surfaces of the battery plate, and the portions connecting the top and bottom portions of the Z-shaped partition slanting in opposite directions in alternate rows, substantially as described.

1,144,629. ADJUSTABLE SIGN AND LIGHTING POST. GEORGE AUER, White Plains, N. Y. Filed Nov. 24, 1914. Serial No. 873,845. (Cl. 40—145.)

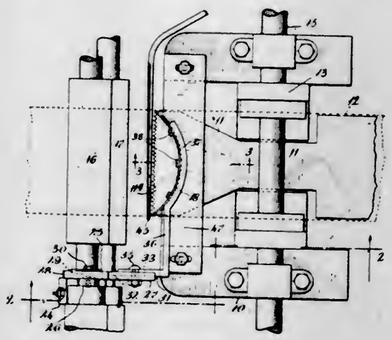
1. An adjustable sign and lighting post, comprising a reinforced cast concrete body portion having an opening extending transversely therethrough at the top, an electric conduit embedded longitudinally in said body portion and passing at one side of said transverse opening and having an extension projecting above the upper end of the body portion, a rotatable short reinforced cast concrete upper section having a longitudinal opening receiving said conduit extension and further provided with an opening formed transversely therethrough, at one side of said longitudinal opening, sign arms extending through and locked in said transverse openings, and an electric illuminating device at the top of said conduit.



2. An adjustable sign and lighting post, comprising a reinforced cast concrete body portion, an electric conduit embedded longitudinally in said body portion and having an extension projecting above the upper end thereof, a rotatable short reinforced cast concrete upper section having a longitudinal opening receiving said conduit extension and further provided with an opening formed transversely therethrough at one side of said longitudinal opening, a transverse sign arm held in said transverse opening, and an electric illuminating device at the top of said conduit.

3. In a concrete sign post, the combination of a concrete post member having an opening formed transversely therethrough, a sign arm having a wider portion projecting at one side of the post member and a narrower portion passing through said opening and projecting at the opposite side, and a locking piece applied to the edge of the projecting narrower portion and making it substantially the same width as the projecting wide portion.

1,144,630. APPARATUS FOR MAKING PAPER BAGS. TRUE M. AVERY, Glens Falls, N. Y., assignor to The Union Bag & Paper Company, a Corporation of New Jersey. Filed Jan. 23, 1915. Serial No. 3,854. (Cl. 93—33.)



1. In a machine for making paper bags, the combination of a blade provided with a series of cutting teeth, means for holding a piece of material which is to be cut,

means for moving said blade toward said piece of material and presenting said teeth, with their points foremost, to said piece at substantially right angles thereto, and means for pressing said piece of material onto said teeth while thus presented to said piece, so that it will be cut thereby.

2. In a machine for making paper bags, the combination of a transverse severing member over which a flat paper-tube is adapted to pass, a second transverse severing member movable perpendicularly toward one wall of said tube, and means for moving the other wall of said tube against the first said severing member and the first said wall against said second severing member successively.

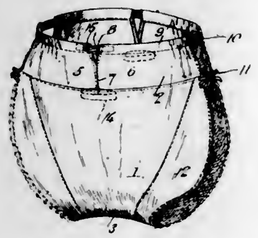
3. In a machine for making paper bags, the combination of a transverse severing member over which a flat paper-tube is adapted to pass, a second transverse severing member comprising a bowed serrated blade movable perpendicularly toward one wall of said tube, and means for moving the other wall of said tube against the first said severing member and the first said wall against said second severing member successively.

4. In a machine for making paper bags, the combination of a former member, over which a flat paper-tube is adapted to pass, a transverse severing member comprising a bowed blade, means for moving said blade perpendicularly toward said former member, and means for moving one wall of said tube against said blade.

5. In a machine for making paper bags, the combination of a former member having a serrated transverse edge, over which a flat paper-tube is adapted to pass, a transverse severing member comprising a bowed blade having a serrated cutting edge, means for moving said blade perpendicularly with its said serrated edge toward said former member, and means for moving one wall of said tube against said edge of said former member and the other wall against said edge of said blade.

[Claims 6 to 9 not printed in the Gazette.]

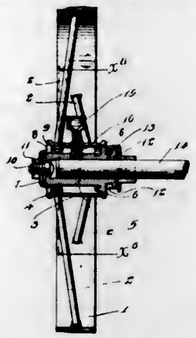
1,144,631. GARMENT. NATALIE MARJORIE BARLET, Philadelphia, Pa., assignor to The Junoform Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed July 5, 1913. Serial No. 777,525. (Cl. 128—5.)



As an article of manufacture, a device of the title described, including a water-proof member, in outline, flaring from a central narrow crotch portion, waist-panel forming members applied to the upper flared ends of said water-proof member, tying tapes interposed between said water-proof member and said waist-panel forming members, the upper edges of said waist-panel forming members having draw bands containing a slidable elastic member, the front waist-panel forming members having a separable connection therebetween, and lateral panel-strips applied to the edges of said water-proof member, said lateral panel strips having outer edge upwardly flared formations and central constricted crotch portions.

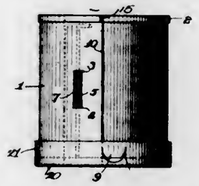
1,144,632. WHEEL. CHARLES E. BEAN, Los Angeles, Cal., assignor to Killifer Manufacturing Company, Los Angeles, Cal., a Corporation of California. Filed Nov. 4, 1913. Serial No. 799,129. (Cl. 21—31.)

In a wheel, a hub including a barrel having internally tapered ends, a removable bearing concentrically arranged within said barrel in spaced relation thereto, having an annular flange adjacent to its inner end, said flange having its peripheral edge tapered to engage the tapered inner end of the barrel, a plate having its peripheral edge tapered to engage the outer end of the barrel, said plate having a central recess to snugly engage the



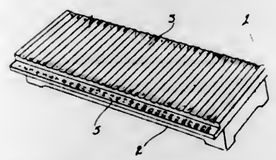
outer end of the bearing, spokes projected between the barrel and bearing, nuts on the inner ends of said spokes, lugs carried by said flange and end plate to lock the nuts against rotation and means for holding the barrel, bearing and plate assembled.

1,144,633. KNOCKDOWN PACKAGE. GEORGE S. BOWMAN, Lebanon, Pa. Filed Dec. 9, 1913. Serial No. 805,545. (Cl. 220—59.)



A receptacle comprising a cylindrical body provided with an outward narrow flange forming a channel between it and said body at one end thereof, said flange having a lateral opening, a head for closing an end of said body provided with a band of greater depth than said flange and adapted to surround and extend beyond said body flange, said head band having a tongue which is connected therewith at a point between the edges of said head band and said body flange and which has a free end projecting toward said head to a point beyond the edge of said body flange and into the channel formed thereby, and said head being rotatable on said body to cause said tongue to engage or disengage said channel through said lateral opening in said body flange.

1,144,634. CAPSULE-FILLER. STUART BROADWELL and CLARENCE HOLLAWAY, Springfield, Ill. Filed Mar. 14, 1914. Serial No. 824,762. (Cl. 128—22.)

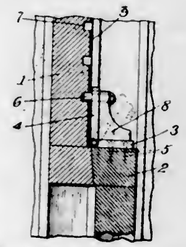


1. A tray for use in filling capsules, comprising grooves semi-circular in cross-section, and said grooves being formed with constantly decreasing depth at each extremity.

2. A tray for use in filling capsules, comprising a plurality of grooves semi-circular in cross-section adapted to receive material to be inserted in capsules, said grooves being formed with constantly decreasing depth at each extremity and each of said grooves providing a slide-way whereby the open ends of a capsule may be brought together along said groove and the material contained in said groove inserted in the capsule.

3. A tray for use in filling capsules, comprising a plurality of identical parallel grooves semi-circular in cross-section and of a predetermined volume adapted to receive material to be inserted in capsules, and said grooves being formed with constantly decreasing depth at each extremity.

1,144,635. SASH-FASTENER. OWEN R. BROWN, Chatham, N. J. Filed July 31, 1914. Serial No. 854,259. (Cl. 16—146.)



1. In a sash fastener, in combination, a plate adapted to be secured to one of the sashes, a second plate hinged to said first plate, a pin carried by said second plate adapted to engage a recess in the other of said sashes, and a locking member operatively connected to said pin and being adapted for engagement with the first plate to lock said second plate against movement relatively to said first plate when said pin occupies its recess engaging position.

2. In a sash fastener, in combination, a plate adapted to be secured to one of the sashes, a second plate hinged to said first plate, a rotatable pin carried by said second plate adapted to engage a recess in the other of said sashes, and a locking member connected to said pin to lock said second plate against movement relatively to said first plate when said pin occupies its recess engaging position.

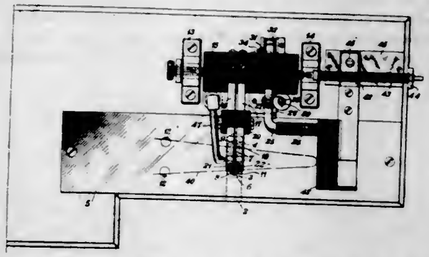
3. In a sash fastener, in combination, a plate adapted to be secured to one of the sashes, a second plate hinged to said first plate, a rotatable pin carried by said second plate adapted to engage a recess in the other of said sashes, and a locking member connected at one end to said pin, the other end of said locking member being adapted to engage the upper surface of said first mentioned plate when said plates are at right angles to one another whereby relative movement of said plates is prevented.

1,144,636. ELECTRICAL MEASURING INSTRUMENT. PERCY A. CAMPBELL, Newark, N. J., assignor to Westinghouse Lamp Company, a Corporation of Pennsylvania. Filed Jan. 3, 1910. Serial No. 536,117. (Cl. 175—183.)

1. An instrument of the character described comprising a plurality of movable terminal devices that carry bodies of mercury, a base having recesses for the reception of the terminal devices, and means for normally maintaining the terminal devices out of the recesses.

2. An instrument of the character described comprising a plurality of movable forked terminal devices, mercury supported in and carried by the said devices, a base having recesses for the reception of the terminal devices, and means for normally maintaining the terminal devices out of the said recesses.

3. An instrument of the character described comprising a plurality of movable terminal devices, a base having recesses for the reception of the terminal devices, means for normally maintaining the terminal devices out of the said recesses, and means for establishing the circuit to the terminal devices when they occupy the recesses.



4. An electrical terminal device comprising a forked member and mercury engaging and carried by the prongs of the member.

5. An electrical terminal device comprising a forked member the prongs of which diverge, and mercury engaging and carried by the prongs of the member.

[Claims 6 to 13 not printed in the Gazette.]

1,144,637. HANDLE FOR SUIT-BOXES AND ANALOGOUS RECEPTACLES. SANFORD BRUNSON CAMPBELL, Birmingham, Ala., assignor of one-half to Harold H. Fraleigh, Birmingham, Ala. Filed Jan. 14, 1915. Serial No. 2,228. (Cl. 229—52.)



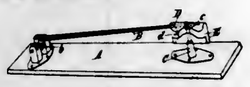
1. A handle for boxes and analogous receptacles consisting of a blank formed of a single piece of flexible material folded transversely at a point midway its ends to form two plies, each ply being duplicate and provided with a substantially oblong terminal portion and an intermediate portion which is reduced in width and is provided with an opening, said plies having the intermediate portions secured flat against each other with the said openings in register, the two terminal portions being left free, whereby they may be spread apart and arranged at right angles to each other for attachment to the box or other receptacle.

2. In combination with a box provided with spaced slits, a pair of handles, each consisting of a single piece of flexible material folded transversely at a point midway its ends to form two plies, each ply being provided with a substantially oblong terminal portion which is reduced in width thereby forming a shoulder at each end of the terminal portion, said plies having the intermediate portions provided with openings and secured flat against each other with the said openings in register to form a hand hold, and the two terminal portions left free, the said handles being passed through the slits in the box until the shoulders at the ends of the terminal portions are reached, whereupon said terminal portions are spread apart and secured to the box at opposite sides of the slits, the outer portions of the handles where the material is folded being creased to permit one handle to rest flat against the other handle when the two handles are brought toward each other.

1,144,638. PIN-POINT CATCH. ARTHUR LEWIS CARNELL, Dungog, New South Wales, Australia. Filed June 17, 1913. Serial No. 774,155. (Cl. 24—157.)

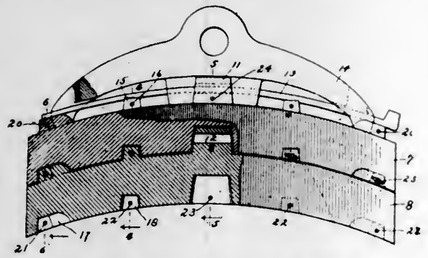
1. In combination, a pin including a back, a pointed member pivoted to the back, and a tubular catch member pivoted to the back adjacent to the free pointed end

of the pin upon a vertical axis, the said catch member being adapted to be moved into parallel relation with respect to the pin in securing position, or into angularly arranged releasing position, the said member having a tortuous slot in one of its sides opening through its ends and adapted to admit the pin point only when the member is in releasing position.



2. In combination, a pin including a back, a point pivoted to the back, and a tubular catch member pivoted to the back adjacent to the free pointed end of the pin upon a vertical axis, the said catch member being adapted to be moved into parallel relation with respect to the pin in securing position, or into angularly arranged releasing position, the said member having a tortuous slot in one of its sides opening through its ends and adapted to admit the pin point only when the member is in releasing position, the opposite side of the catch member being provided terminally and opposite to the said slot with an auxiliary notch.

1,144,639. INTERLOCKING BRAKE-SHOE. GARDINER W. CHIPLEY, Los Angeles, Cal. Filed Aug. 5, 1914. Serial No. 853,130. (Cl. 188—25.)

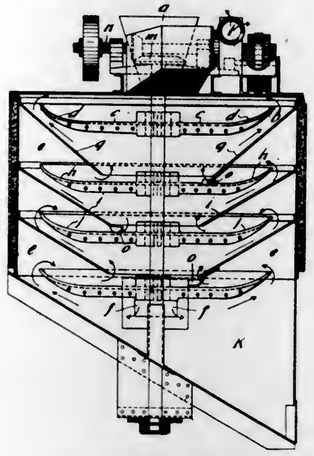


1. An interlocking shoe comprising two shoes, a central key lug on the back of each shoe, an end stop at each end of said shoe, lugs formed on the back of each of said shoes and located between the central lug and end stops, and on opposite sides of the longitudinal center of the shoe, said lugs being formed with transverse openings through the same, the wearing face of each of said shoes being provided with similarly located recesses to receive the lugs on the back of a corresponding shoe, and each of said shoes being provided with transverse openings through the body and lugs, and pins fitting in said transverse openings whereby to retain the two shoes in their assembled positions.

2. An interlocking shoe comprising two shoes, a central key lug formed on the back of each shoe, an end stop at each end of the shoe, lugs formed on the back of each shoe between said key lug and end stops, and on the opposite sides of the longitudinal center of the shoe, each of said shoes being also formed with correspondingly located recesses in the wearing face thereof to receive said lugs and end stops of the adjacent shoe, the bodies of each shoe, lugs and end stops, being provided with alined transverse openings, and pins fitting in said transverse openings and extending through the shoes whereby to retain the latter in their assembled positions.

1,144,640. DRYING AND HEATING APPARATUS. THOMAS COLEMAN, ALFRED COLEMAN, THOMAS COLEMAN, Jr., and FRANK COLEMAN, Derby, England. Filed June 11, 1914. Serial No. 844,596. (Cl. 34—10.)

1. In an apparatus for drying and heating road making materials, such as stone and sand, a casing including at the top means for introducing the material to be heated and means for admitting heated gases at the bottom, said casing being provided with a series of superposed inverted conical walls forming communicating receiving chambers, a rotatable disk member in each chamber for receiving successively the material from said walls, each disk having a flat central portion and an upturned peripheral discharge edge to retard the passage of the material over the edge during the rotation thereof, the conical wall subjacent the initial intake disk and delivering to the next lower disk having an inclination greater than the conical walls subjacent thereto for insuring an initial downward movement of the material having the greatest moisture.



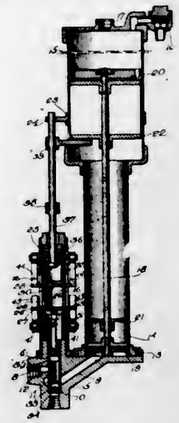
2. In a drying and heating apparatus, a casing including means for feeding the material to be treated into the top and means for admitting heated gases at the bottom thereof, superposed rotatable receiving disks in said casing having upturned peripheral discharge edges, conical walls in said casing between said disks and having discharge ends projecting below the upturned edges of said disks and discharging inwardly of the periphery thereof, whereby the heated gases are caused to successively pass over the under surface of each disk to heat the lower strata of material therein, and are deflected by the said conical walls onto the material carried by said disks, thereby heating the upper strata of material and passing through the latter and upwardly through said discharge ends.

3. In a drying and heating apparatus, a casing including means for feeding the material to be heated into the top and means for admitting heated gases at the bottom, superposed rotatable receiving disks in said casing having upturned peripheral discharging edges, conical receiving walls in said casing between said disks having discharge ends projecting below the upturned discharge edges of said disks and inwardly of the periphery thereof, the discharge end of each wall being raised above its respective disk a successively increasing distance inversely to the direction of flow of the heated gases whereby the material in the lower disk is subjected to a greater amount of heat than the material in the next preceding disk.

4. In a drying and heating apparatus, a casing including means for feeding the material to be heated into the top, and means for admitting heated gases at the bottom thereof, a rotatable material receiving disk in said casing having an upturned peripheral discharge edge, and a delivery wall having its discharge end projecting inwardly from the periphery of the disk and below the peripheral discharge edge thereof, substantially as described.

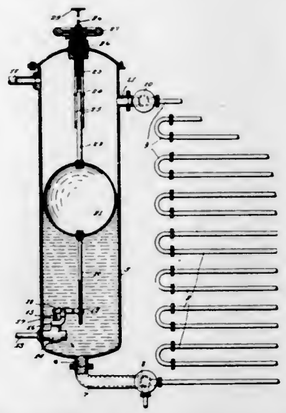
1,144,641. COMPRESSOR-PUMP. EDWARD W. COMFORT, Winchester, Mass., assignor to American Moistening Company, a Corporation of Maine. Filed Feb. 15, 1913. Serial No. 748,586. (Cl. 230—28.)

1. The combination with a motor valve, a pair of slidable members with one of which said valve is connected, springs acting on said members in opposite directions, and means for locking said members against the action of their springs, of a piston and means operated through the movement of said piston for actuating one of said members against the action of its spring.



2. The combination with an element having inlets and outlets, of a motor valve slidable in said element, a chamber mounted on said element, a pair of members slidable in said chamber and having pins extending through slots in the wall of said chamber, connections between one of said members and said motor valve, springs for actuating said members in opposite directions, the spring of the motor valve member being relatively the weaker, a rod slidably engaged with the member having the stronger spring, pairs of hooks pivotally mounted and adapted to engage the pins of said members, means connected with said rod to move said hooks into and out of the pin engaging position, a piston slidably mounted, and coöperating means on said piston and said rod for intermittently actuating said rod in opposite directions.

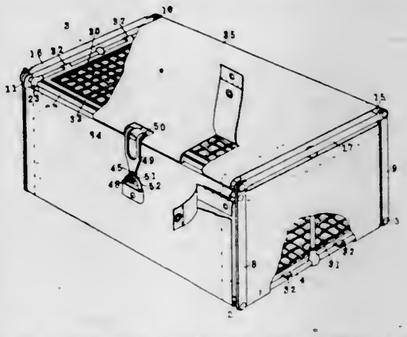
1,144,642. REFRIGERATING APPARATUS. JOHN C. CORBIN, Seattle, Wash. Filed Mar. 31, 1914. Serial No. 828,447. (Cl. 62—126.)



1. In a refrigerating device, the combination with a tank provided in its bottom with an inlet for a refrigerating liquid and in its top with an outlet for vapor, of an expansion valve arranged in the inlet, a refrigerating coil connected with the tank, a lever arm connected with the expansion valve, a nut rotatably mounted to extend crosswise of the outer end of the lever arm, a shaft arranged to screw through the nut, a float secured to the shaft, a stud arranged to project upwardly from the float and having a cross pin in its upper end, and a slotted pipe arranged to extend downwardly through the top of the tank to guide the stud.

2. In a refrigerating device, the combination with a tank provided in its bottom with an inlet for a refrigerating liquid and in its top with an outlet for vapor, of an expansion valve provided in the inlet, a refrigerating coil connected with the tank, a lever arm connected with the expansion valve, a nut rotatably mounted to extend crosswise of the outer end of the lever arm, a shaft to screw through the nut, a float secured to the shaft, a stud to project upwardly from the float, and having a cross pin at its upper end, a slotted pipe to extend downwardly through the top of the tank to guide the stud, the cross pin being adapted to fit within the slot whereby the float may be caused to turn with the slotted pipe, and means for turning the pipe whereby the height of such liquid may be governed.

1,144,643. CONTAINER. HENRY O. ELKINS, Bath, N. Y. Filed Mar. 26, 1914. Serial No. 827,259. (Cl. 150—49.)



1. In a collapsible container, a base portion, a body frame comprising corner uprights and longitudinal transverse rails connected with said uprights at their upper portions to provide a permanently continuous periphery, movable side portions adapted to be moved from positions substantially parallel with said base portion into upright positions to coöperate with opposite sides of said body frame, a movable cover portion comprising means adapted to secure a movable side portion in said coöperative positions, and means adapted to prevent said body frame from collapsing while a side portion is being moved into said upright position.

2. In a collapsible container, in combination, an open base frame, an open body frame comprising four side frame portions pivotally associated with said base frame and movable from a collapsed position substantially parallel with the base plane into an upright position, a cover portion associated with the body frame, side portions movable independently of the movement of said body frame into and out of upright and collapsed positions, and a flexible covering associated with the aforesaid parts in a manner permitting the container to be collapsed and erected without removing the covering.

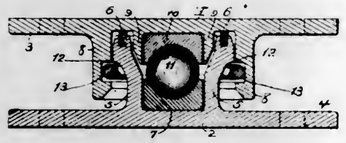
3. In a collapsible container, in combination, an open base frame, an open body frame associated with said base frame and movable from a collapsed position substantially parallel with the base plane into an upright position, a cover portion associated with the body frame, side portions movable independently of said body frame into and out of upright and collapsed positions, a flexible covering associated with the aforesaid parts in a manner permitting the container to be collapsed and erected without removing the covering, and a detachable lining member adapted to be coöperatively associated with said base frame.

4. In a collapsible container, in combination, an open base frame, an open body frame associated with said base frame and movable from a collapsed position substantially parallel with the base plane into an upright position, a cover portion associated with the body frame, side portions movable independently of said body frame into and out of upright and collapsed positions, a flexible covering associated with the aforesaid parts in a manner permitting the container to be collapsed and erected without removing the covering, and a detachable lining member adapted to be coöperatively associated with said cover frame.

5. A collapsible container comprising, in combination, a body frame, a base and cover having pivotally connected members whereby the entire container may be collapsed from an upright position into a position substantially in the plane of the base thereof, and a flexible covering removably attached to said body frame and said cover frame and extending around the container, thereby permitting collapse and erection of the container at will without removing said covering.

[Claims 6 to 12 not printed in the Gazette.]

1,144,644. CENTER-BEARING FOR CARS. THOMAS ELLIOTT, Cincinnati, Ohio, and WILLIAM E. MOORE, Pittsburgh, Pa. Filed Mar. 21, 1914. Serial No. 826,145. (Cl. 64—63.)



1. The combination of upper and lower members of a center bearing each having a limited rocking movement independently of the other, the lower member having a circular flange, and the upper member having two circular flanges, one depending within the circular flange of the lower member and the other depending outside of the latter, a concave bearing carried by each member and centrally disposed with relation to said flanges, and a sphere mounted in said concave bearings and supporting the upper member, the top of said sphere being in a plane below the top of the flange of the lower member.

2. The combination of two members of a center bearing, each adapted to have a limited rocking movement independently of the other and each having a circular flange, the flange of one member concentric with and overhanging the flange on the other member, a flexible packing strip carried by the flange on the lower member and bearing against the lower face of the upper member, a bearing block in each member and central with relation to said flanges, each block having a concave face, and a ball resting in the concave face of the lower block and supporting the block in the upper member of the bearing.

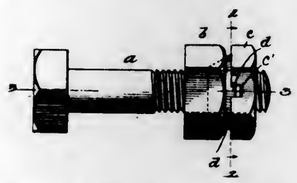
3. The combination of two members each adapted to have a limited rocking movement independently of the other, and each having a circular flange, the outer flange overlapping an inner flange, means carried by said outer flange and normally resting in the path of a part of the inner flange for preventing accidental separation of said members, a block carried by each member, each block being centrally disposed with relation to the flange, and each having a concave seat, and a hard metal ball resting on the concave seat in one block and supporting the other block.

4. A center bearing for cars consisting of upper and lower members each having a circular flange, the two flanges being concentric, the flange on the lower member carrying means engaging the upper member for excluding dust and the flange on the upper member terminating in a plane below the top of the flange of the lower member, a concave seat on each member and central with relation to said flanges, a hard metal sphere loosely supported on the concave seat on the lower member and supporting the upper member, and means carried by the flange of the outer member and located in a plane below a part of the inner flange for preventing accidental separation of the parts.

5. A center bearing for cars consisting of an upper member and a lower member, each having a circular flange, the flange on the upper member embracing the flange on the lower member and projecting below the upper edge of the latter so as to shed water, means intermediate the two members and within the outer flange for excluding dust, each of said members having a concave seat located centrally with relation to the flanges and a sphere loosely supported in the concave seat of the lower member and loosely supporting the concave seat of the upper member.

[Claim 6 not printed in the Gazette.]

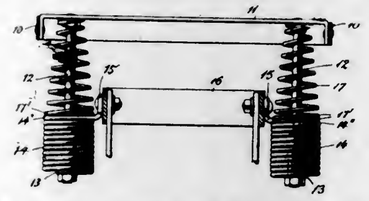
1,144,645. NUT-LOCK. FREDERICK A. FEHRENZ, Syracuse, N. Y. Filed Jan. 5, 1915. Serial No. 682. (Cl. 151—19.)



1. In combination with a bolt and nut, the latter having a beveled counter-sink in its outer face, a split grip-ring or washer, having its inner face beveled to fit within said counter-sink and its outer face provided with one or more lugs, said grip-ring or washer being adapted to slide loosely over the threads of the bolt, and a lock nut threaded on the bolt provided with one or more recesses adapted to receive the lugs on the grip-ring, whereby the grip-ring and the lock nut are compelled to rotate together in jamming the grip-ring into the threads and in releasing it from the threads.

2. In combination with a bolt and nut, the latter having a beveled counter-sink in its outer face, a split grip-ring having its inner face beveled to fit within said counter-sink and adapted to slide loosely over the threads of the bolt, a lock nut threaded on the bolt adapted to abut the outer face of the grip-ring, and one or more interlocking lugs or recesses on the grip-ring and lock nut for causing the grip-ring to rotate with the lock nut in jamming the grip-ring into the threads of the bolt and in loosening it from the threads.

1,144,646. SUPPLEMENTARY SEAT AND CARRIER FOR MOTOR-CYCLES. FRANK P. FENTRESS, Detroit, Mich., assignor to The Troxel Manufacturing Company, Elyria, Ohio, a Corporation of Ohio. Filed June 6, 1914. Serial No. 843,337. (Cl. 208—15.)



1. The combination with a seat, and a supporting frame therefor, of a primary spring having its opposite ends connected with the seat and said frame respectively, and a secondary spring interposed between said seat and the primary spring and supported by the latter.

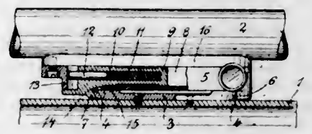
2. The combination with a seat, and a supporting frame therefor, of a primary spring having its opposite ends connected with the seat and said frame respectively, and a secondary spring seated on and supported by said primary spring and supporting said seat.

3. The combination with a seat, and a supporting frame therefor, of a primary spring having its upper end secured to said frame and having its lower end connected to said seat, and a secondary spring resting with its lower end against the uppermost convolution of the primary spring, and having its upper end arranged to support said seat.

4. The combination with a seat, and a supporting frame therefor, of a primary spring having its upper end secured to said frame and having its lower end connected to said seat, and a secondary spring having its lowermost convolution screw-threaded into the convolutions of the primary spring, and having its upper end adapted to support said seat.

5. The combination with a seat, and a supporting frame therefor, of a helical spring having its upper end attached to said frame, a thrust rod secured to said seat and attached to the lower end of said primary spring, and a secondary helical spring having its lower convolutions in threaded engagement with the upper convolutions of the primary spring and having one of its convolutions seated upon the uppermost convolution of the latter, and having its upper end resting against the underside of said seat.

1,144,647. MECHANISM FOR ATTACHING SIGHTING-TELESCOPES TO FIREARMS. TERJE AANENSEN FIDJELAND, deceased, Fostvedt, Iveland, Norway, by Johan Allum Schwartz, representative, Christianssand S., Norway. Filed June 2, 1914. Serial No. 842,390. (Cl. 33—50.)



1. In a device of the class described, in combination, a fire arm, a telescope, and means releasably attaching said telescope to said firearm, said means comprising a member mounted upon the firearm, a second member carried by the first member and including two parts, one of the parts of the second member being movable in a longitudinal direction, and a spring normally holding said movable part in its operative position.

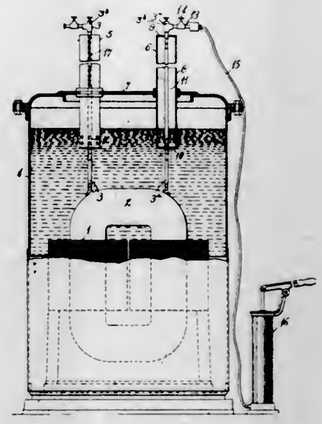
2. In a device of the class described, in combination, a firearm, a telescope, and means releasably attaching said telescope to said firearm, said means comprising an inclined member mounted upon the firearm, a second member carried by the first member and including two parts, the second member being inclined in a direction opposite to the inclination of the first member, one of the parts of the second member being movable in a longitudinal direction, and a spring normally holding said movable part in its operative position.

3. In a device of the class described, in combination, a firearm, a telescope, and means releasably attaching said telescope to said firearm, said means comprising coacting, inclined, rounded members, one of the members including two relatively movable parts one member being inclined in a direction opposite to the inclination of the other member, and a spring normally holding the relatively movable parts of said member in operative position.

4. In a device of the class described, in combination, a firearm, a telescope, a folder on the firearm having rounded, undercut ends, and means operatively connected to said telescope having a fixed nose adapted to engage one end of said holder, and a spring pressed movable nose adapted to engage the other end of said holder, whereby said telescope may be releasably attached to said firearm.

5. In a device of the class described, in combination, a fire arm, a telescope, a holder on the fire arm having rounded, undercut ends, a recessed block operatively connected to said telescope and having a fixed nose adapted to engage one end of said holder, a piston in the recess in said block provided with a nose adapted to engage the other end of said holder, said piston being movable whereby it may be moved into and out of its operative position, and a spring normally holding said piston in its operative position.

1,144,648. ELECTRIC APPARATUS. CHARLES LE G. FORTESCUE, Wilkinsburg, Pa., assignor, by mesne assignments, to Westinghouse Electric & Manufacturing Company, East Pittsburgh, Pa., a Corporation of Pennsylvania. Filed July 6, 1908. Serial No. 442,200. (Cl. 173—318.)



1. The combination with a container and a body of liquid disposed therein, of an insulating bushing for electrical apparatus projecting both upwardly and downwardly through an aperture in the container cover and comprising a casing having a perforated lower end which is immersed in the liquid, and an air valve adapted to coöperate with air-exhausting apparatus in order to remove the air contained within the said casing.

2. The combination with a container and an insulating liquid disposed therein, of an insulating bushing projecting through an aperture in the container cover and comprising a cylindrical casing the lower end of which is perforated and adapted to project into the insulating liquid, and a valve adapted to coöperate with exhausting apparatus to remove the air contained within the casing and thereby effect displacement of the air in said casing by a portion of said insulating liquid.

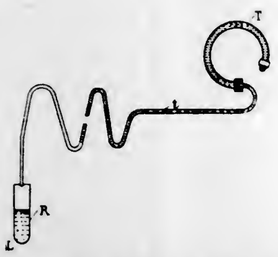
3. The combination with a fluid-containing tank provided with an opening and adapted to receive an electrical apparatus, of an insulating bushing therefor comprising a hollow casing which projects both upwardly and downwardly through said opening, the upper end of the casing being sealed and the lower end being adapted to project into a body of liquid contained in said tank and being provided with at least one opening to permit ingress and egress of the liquid.

4. The combination with a fluid-containing tank provided with a hollow insulating extension through which an electric conducting lead extends, the outer end of said extension being sealed and the inner end being open and immersed in the fluid in said tank, of means for exhausting air from said extension, whereby the level of the fluid contained therein may be raised above that of the fluid in the containing tank.

5. In electric apparatus, the combination with a casing and a liquid therein, of a hollow insulating bushing for a conducting lead sealed at one end and immersed in the liquid at the other end, and a valve adapted to coöperate with air-exhausting apparatus in order that the air in said bushing may be displaced by a portion of the liquid in said casing.

[Claims 6 to 8 not printed in the Gazette.]

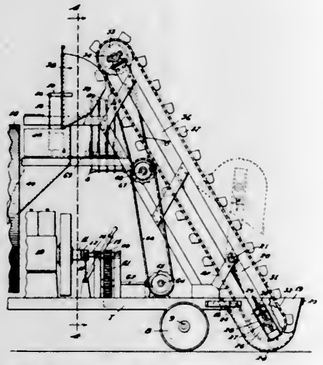
1,144,649. THERMOMETER. JOSEPH BARBE FOURNIER, Paris, France. Filed May 12, 1910, Serial No. 560,803. Renewed May 24, 1915. Serial No. 30,254. (Cl. 73—32.)



1. A thermometrical apparatus comprising a flexible capillary tube, an intermediate portion of said tube forming a reservoir, said portion coiled in any manner, said reservoir portion being subjected to the temperature to be observed, said capillary tube having one end free, said free end of said tube being closed, said closed free end being remote from said reservoir, a plug filling said tube adjacent to said closed free end, liquid contained in said reservoir portion, said liquid generating saturated vapor, a manometer, said manometer being in communication with the other extremity of said tube, and means for transmitting to said manometer the pressure in said reservoir.

2. A thermometrical apparatus comprising a flexible capillary tube, a portion of said tube forming a reservoir, said portion being capable of being deformed at will in any manner, said capillary tube having one end free, the free end of said tube being closed, said closed free end being remote from said reservoir, liquid contained in said reservoir, said reservoir subjected to the temperature to be observed, said liquid generating saturated vapor, a manometer, said manometer communicating with the other end of said tube, and means for transmitting to said manometer the pressure in the reservoir.

1,144,650. CONCRETE-MIXER. RICHARD GEMMRIG, South Pasadena, Cal. Filed Oct. 29, 1913. Serial No. 798,027. (Cl. 193—6.)



1. In a paving machine the combination of a wheeled frame, a supporting frame on said wheeled frame, a plurality of hoppers mounted on said supporting frame having openings in their dependent portions, gates adapted to control the exit of material from said openings, a delivery hopper adjacent said elevated hoppers, a plurality of hoppers adjacent the ground, means to afford communication from said lower hoppers to said elevated hoppers, and a measuring box supported intermediate the openings in said elevated hopper and said delivery hopper, whereby the material delivered to said delivery hopper may be measured.

2. In a paving machine the combination with a wheeled platform and a motor thereon, of a pair of series of hoppers, one series of said hoppers being secured adjacent the ground on said platform and the coöperating series of said hoppers elevated above said platform, a conveyer supporting frame extending into the lower of said hoppers and adjacent said upper hopper, endless conveyers supported on said conveyer frame and adapted to carry material from the lower of said series to the upper of said series of compartments, short shafts mounted in said frame to support the ends of each of said endless conveyers, pinions keyed to said shaft, a driving shaft, pinions mounted on said shaft, chains connecting said pinions to one of said short shafts connected to each of said endless conveyers, and means to connect said pinions on said driving shaft with said motor collectively or individually as desired.

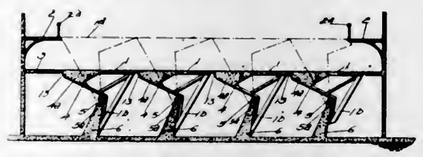
3. In a paving machine, a wheeled frame, a supporting frame thereon, a hopper on said supporting frame, means for controlling the delivery of materials from said hopper, a delivery hopper adjacent said elevated hopper, a measuring box adapted to receive materials delivered from the elevated hopper and to discharge same into the delivery hopper, a hopper arranged adjacent the ground, and means for conveying materials from said last-named hopper to the elevated hopper.

4. In a paving machine, a delivery hopper, an elevated hopper having a discharge opening leading to the delivery hopper, a gate controlling the discharge opening of the elevated hopper, a measuring box arranged beneath the discharge opening of the elevated hopper, a pivotal mounting for said measuring box, and means for holding said measuring box against movement.

5. In a paving machine, a delivery hopper, a plurality of elevated hoppers having discharge openings communicating with the delivery hopper, gates controlling the exit of material from said discharge openings, a measuring box adapted to be positioned to receive the materials discharged from any one of the elevated hoppers, a pivotal support for said measuring box, and means for holding the measuring box against movement.

[Claims 6 and 7 not printed in the Gazette.]

1,144,651. TILTING FLOOR-SECTION. CHARLES E. GLESSNER, Linnton, Oreg., assignor of one-half to John C. Jones, Portland, Oreg. Filed Apr. 23, 1913. Serial No. 763,075. (Cl. 20—1.12.)



1. A tiltable floor section having a plurality of floor faces, bearings formed at an incline with reference to one of said faces, and means for tilting the section to bring said faces into their respective floor lines.

2. The combination in a building having a main partial floor and a second partial floor fixed above said main partial floor, of a tiltable section having a plurality of faces each adapted to form a section in one of said partial floors, and means for tilting said section to bring each of its faces into the plane of its corresponding partial floor.

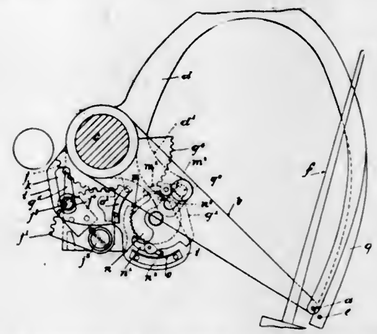
3. The combination in a building having a main floor about its outer portion and a balcony conforming thereto, above it, of a floor section having a plurality of longitudinal faces each adapted to form a section in one of said floors, mounted at an intermediate point in said building, and means for tilting said section whereby one of its faces will be brought into the plane of its corresponding floor.

4. A floor section having substantially the shape of the frustum of a triangular pyramid, means for tilting the section on its supports to bring either face uppermost and varying the plane of each face as it comes into the floor line.

5. A floor comprising a plurality of sections, each having substantially the shape of the frustum of a triangular pyramid, means for tilting the sections on their supports to bring corresponding faces thereof into the floor line and varying the relative plane of each face as it comes into the floor line.

[Claims 6 to 8 not printed in the Gazette.]

1,144,652. MEANS FOR CROSS-WINDING YARN IN SPINNING-MULES. HENRY STAFFORD GOLLAND, Manchester, England. Filed Dec. 30, 1914. Serial No. 879,652. (Cl. 118—9.)



1. In a spinning mule, means to vibrate an auxiliary yarn guide wire disposed between the spindles and the winding faller wire and beneath the yarn to cause the guide wire to act upon the yarn and direct it upon the cop nose in widely pitched spirals to produce cross wound cops, by mechanism actuated from the winding faller shaft and means to oscillate or rock the winding faller shaft on its center during the winding operation substantially as described.

2. In a spinning mule the combination with the winding faller wire and an auxiliary guide wire, of means to vibrate the winding faller and the auxiliary guide wire during the run in of the carriage substantially as described.

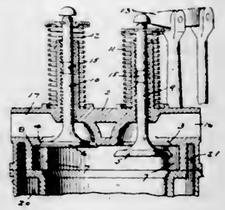
3. In a spinning mule the means for vibrating the winding faller wire during the run in of the mule carriage, an auxiliary yarn guide wire, cams to vibrate such wire, and mechanism for oscillating the cams about the axis of the winding faller shaft and for rocking the cams on their axes and gradually rotating the same to increase the lift of the auxiliary guide wire from a minimum to a maximum as required to form the cop bottom and to continue the building of the cops substantially as described.

4. In a spinning mule the auxiliary guide wire *a*, cams to vibrate such guide wire and means to vibrate the cams to lift and lower the auxiliary guide wire, to rock the cams upon their centers, and to slightly rotate the cams to gradually bring the increasing diameter of such cams in action to vibrate the guide wire from a minimum to a maximum in the manner and substantially as described.

1,144,653. INTERNAL-COMBUSTION ENGINE. LELAND F. GOODSPEED, Milwaukee, Wis. Filed Mar. 11, 1910. Serial No. 548,679. (Cl. 136—6.)

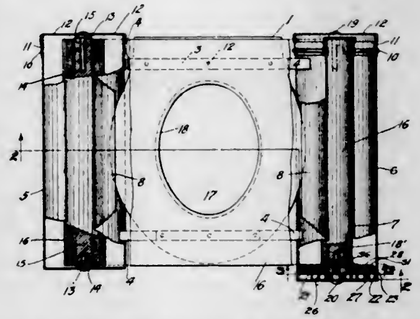
1. In an internal combustion engine, the combination with an engine cylinder, of a separater head for said cylinder having a chamber forming an extension of the cylinder chamber, inlet and exhaust valves mounted in said head and extending radially beyond the bore of the engine cylinder, recesses being formed in the head to provide ledges on the top edge of the cylinder for supporting said valves to prevent same from falling into the engine cylinder in case of breakage, and valve stems having localized weak points.

2. In an internal combustion engine, the combination with an engine cylinder, of a head for said cylinder, inlet and exhaust valves mounted in said head, means for preventing the valves from falling into the engine cylinder in case of breakage, valve stems for operating said valves,



said stems having localized points of weakness in a position to prevent the valve stems from wholly dropping out of the stem bearings in case of breakage.

1,144,654. SANITARY TOILET-SEAT. HENRY B. GRAY, Burlingame, Cal. Filed Mar. 3, 1914. Serial No. 822,116. (Cl. 4—18.)



1. In combination with a toilet seat, a pair of slotted tubular casings one positioned adjacent each longitudinal side edge of said seat and connected thereto, a supply and a winding spool one rotatably mounted in each of said casings, said supply spool adapted for carrying a perforated web of flexible material for passing over said seat and for securing to said winding spool, a rotary driving disk for said winding spool, manually controlled means for operating the same in one direction, a spring for operating the same in the opposite direction, a driven plate rated edge and provided with apertures in its body, means associated with said driving disk and formed with a serrated edge and provided with apertures in its body, means projected inwardly from the inner face of said plate for engaging the end of said winding spool, a spring pawl carried by the driving disk and coöperating with said apertures for connecting said driving disk and plate to operate in unison in one direction, and a pawl for coöperating with the serrated edge of said plate for locking the same from movement in a reverse direction.

2. In combination with a toilet seat, tubular roll supporting means, one positioned adjacent each side edge of the seat and connected thereto, a supply and winding spool, one rotatably carried by each of said roll supporting means, said supply spool adapted for carrying a perforated web of flexible material for passing over said seat and securing to said winding spool, stationary spindles for rotatably supporting said spools, operating means for said winding spool mounted within the tubular member associated with said spool and comprising a driving means rotatably supported by one of said spindles, manually controlled means for operating the same in one direction, means for operating the same in a reverse direction, a driven means associated with said driving means, means carried by said driven means for engaging said winding spool to cause the same to rotate therewith, means carried
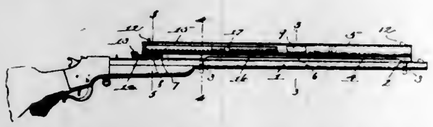
by said driven means for coöperation with said driving means to lock the same to operate together in one direction, and a pawl for coöperating with said driven means for locking the same from movement in a reverse direction.

1,144,655. PROCESS FOR THE PRODUCTION OF PATTERN EFFECTS UPON COTTON FABRICS. GEORGES HEBERLEIN, Wattwil, Switzerland. Filed May 29, 1914. Serial No. 841,805. (Cl. 8—20.)

1. The described process for obtaining pattern effects upon cotton fabrics consisting of taking mercerized fabrics, subjecting the parts where pattern effects are to be produced for a few seconds to the action of sulfuric acid of over 50½° Bé. and finally washing out the acid.

2. The described process for obtaining pattern effects upon cotton fabrics consisting of taking mercerized fabrics, printing the required pattern on the said mercerized cotton fabrics with sulfuric acid of over 50½° Bé. and finally washing out the acid after a few seconds.

1,144,656. FLASH-LIGHT ATTACHMENT FOR GUNS. JOHN PAUL HISE and WILLIAM HAMILTON MOYERS, Hightown, Va. Filed June 18, 1914. Serial No. 845,893. (Cl. 240—8.4.)



1. The combination with the barrel of a fire arm, a tube pivotally mounted intermediate its ends on said barrel, and adapted to be swung into alinement with said barrel and also into position transversely across said barrel and a light in said tube.

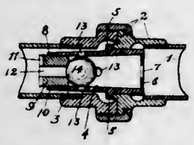
2. The combination with a fire arm, of a rib having its end portions secured to the barrel of said arm, the intermediate portion of said rib being of spring material and out of engagement with said barrel, and a flash light tube pivotally mounted upon said spring portion.

3. The combination with a gun barrel with a rib having an intermediate reduced spring portion, means for clamping the end portions thereof to the barrel, a flash light tube pivotally mounted upon the spring portion of the rib, the rear end portion of said rib being provided with a groove, and a lug carried by said tube and adapted to normally engage said groove.

4. The combination with a fire arm, of a tube of uniform diameter pivotally mounted thereon, and a flash light device comprising a lens arranged in said tube, and bodily movable longitudinally therein.

5. The combination with a firearm, a spring rib secured longitudinally thereon, a tube pivotally mounted on said rib, the pivotal point being midway the ends of the tube and rib, said spring rib tightening when the tube is swung parallel to the rib and sagging when swung transverse to the rib, and a movable light arranged in the tube.

1,144,657. GAS-PRESSURE REGULATOR. PETER KELLER, Chicago, Ill. Filed May 14, 1914. Serial No. 838,450. (Cl. 50—14.)



1. In combination with a pipe union; a gas pressure regulator having a shell provided with an annular flange, a series of holes around the forward portion of said shell, an adjustable plug in the front end thereof, a wall or plate in the rear end thereof, and a ball to operate within said shell.

2. In combination with a pipe union; a gas pressure regulator having a shell provided with an annular flange near its rear end, a rear end wall or plate provided with a central opening, a series of holes around the forward portion of the shell, a plug with a central opening adapted to screw into the forward opening of the shell and a ball to operate therein.

3. A gas pressure regulator having a tapered shell, provided with an annular flange, a series of holes preferably staggered around said shell, a plug in the front end thereof, a perforated plate in the rear end thereof, and a ball to operate within said shell.

1,144,658. TOUPEE. HARRY B. LOMBARD, Lynn, Mass. Filed Nov. 3, 1914. Serial No. 870,080. (Cl. 132—23.)



1. In a device of the character described, a flesh colored fabric foundation, hairs secured to said foundation leaving a narrow strip thereof uncovered to form a parting line, a strip of transparent netting of a different hue from the foundation secured on the upper surface of said foundation and covering said uncovered parting line, and hairs secured to said strip.

2. In a device of the character described, a flesh colored fabric foundation comprising a plurality of layers, hairs secured to the upper layer of said foundation leaving a narrow strip thereof uncovered to form a parting line, a strip of transparent netting of a different hue from the foundation secured to the upper surface of said foundation and covering said uncovered parting line, and hairs connected to said strip of transparent netting.

3. In a device of the character described, a closely woven flesh colored fabric foundation, hairs secured to said foundation leaving a narrow strip thereof uncovered to form a parting line, a strip of open mesh netting of a different hue from the foundation secured on the upper surface of said foundation and covering said uncovered parting line, and hairs secured to said strip.

4. In a device of the character described, a flesh colored fabric foundation, hairs secured to said foundation leaving a narrow strip thereof uncovered to form a parting line, a strip of netting of a different hue from the foundation secured on the upper surface of said foundation and covering said uncovered parting line, and reinforcing strips on the underside of said foundation extending parallel with said parting line for securing the edges of said netting to said foundation.

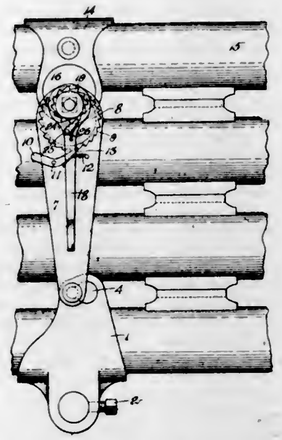
5. In a device of the character described, a flesh colored fabric foundation, hairs secured to said foundation leaving a narrow strip thereof uncovered to form a parting line, and means secured to said foundation for toning the hue of said foundation at the exposed portion thereof at said parting line.

[Claims 6 to 9 not printed in the Gazette.]

1,144,659. VEHICLE TOP-BOW CLAMP. JOSEPH P. McGINNIS, Boston, Mass., assignor of one-half to Charles W. Whelpley, Boston, Mass. Substitute for application Serial No. 686,704, filed Mar. 27, 1912. This application filed Sept. 8, 1914. Serial No. 860,529. (Cl. 21—61.)

1. A bow clamp for vehicle-tops, comprising a rest for the lower bow, a member detachably secured thereto and having an eccentric bearing in its upper portion, a second member adapted to engage the top bow and having an eccentric bearing in its lower portion, a spindle passing through the bearings of each eccentric, and means to actuate both said eccentrics to shorten the clamp.

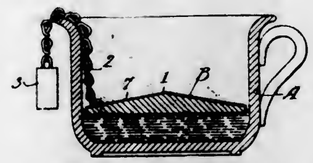
2. A bow clamp for vehicle-tops, comprising a rest for the lower bow, a member detachably secured thereto and having an eccentric bearing in its upper portion, a second member adapted to engage the top bow and having an eccentric bearing in its lower portion, a spindle passing through each eccentric, having means to retain said members in their assembled position, and means to actuate said spindle to impart a rotative movement to both eccentrics whereby the clamp is shortened.



3. A bow clamp for vehicle-tops, comprising a rest for the lower bow, a member detachably secured thereto and having an eccentric bearing in its upper portion with ratchet teeth thereon, a second member to engage the top bow and having an eccentric bearing in its lower portion, a squared spindle passing through both eccentrics, a lever to actuate the spindle, a detent to engage the teeth of the eccentric in said first mentioned member and being pivotally secured to said member, whereby said detent will hold automatically, both the eccentrics in the position to which they are moved by the actuation of the lever.

4. A bow clamp for vehicle tops, comprising a rest for the lower bow, a member detachably secured thereto and having an eccentric bearing in its upper portion, a second member adapted to engage the top bow and have an eccentric bearing in its lower portion, a spindle passing through the eccentrics, means carried by said spindle to actuate the eccentrics to shorten the clamp, and a washer upon each end of said spindle having a recess therein to fit the end of the spindle, said washers being constructed and arranged to hold the eccentrics in their assembled position on the spindle.

1,144,660. SOUND-PREVENTING MEANS. ALEXANDER MCKNIGHT, Brooklyn, N. Y. Filed Dec. 26, 1912. Serial No. 738,676. (Cl. 4—33.)



1. In combination of an open vessel forming a urinal, a sound preventing device substantially covering and forming a cover for the liquid in the vessel and free to rise as the liquid in the vessel rises, and means attached to said device adjacent one edge thereof and extending over the edge of the vessel to form a handle for manipulating said device, said means also opposing the downward tilting of said device at the point of attachment of said means.

2. The combination of the urinal vessel, a disk therein forming a sound preventing float on the liquid in the vessel, and free to rise and fall with the liquid in the vessel, a chain attached to the float and extending over the edge of the vessel and a weight attached to the outer end of the chain.

1,144,661. BED-FRAME. ALEXANDER MCKNIGHT, Brooklyn, N. Y. Filed Feb. 10, 1913. Serial No. 747,411. (Cl. 5—9.)



1. A collapsible bed frame comprising the combination of side rails, legs rigidly secured thereto, and end members extending between and having a swivel connection with said legs permitting a relative pivotal movement of the sides and ends of the frame to move the sides toward each other and swing the ends toward positions in line with the sides, said end members being bodily removable to entirely disconnect the side rails from each other and from the end members.

2. A collapsible bed frame, comprising the combination of sides, uprights secured thereto and formed with vertical sockets, connecting members forming the ends of the frame, said members each having depending ends extending into said sockets and rotatable therein while the ends are both connected to each of the sides to permit the sides to be brought together and the ends to swing toward a position of alinement with the sides.

3. In a folding bed frame, the combination of sides, corner uprights secured thereto and formed with vertical sockets, and end members each having depending ends entering the sockets and uniting the sides and end members to form a rectangular frame, the said depending ends being rotatable in the sockets while the sides and end members are thus united to permit the frame to be folded, said depending ends and sockets comprising means to hold the frame in normal open position, said holding means being releasable to permit the frame to be folded.

4. In a folding bed frame, the combination of the sides, uprights at the corners of the frame formed with vertical sockets, and end members having depending ends entering the sockets and permitting relative pivotal movement of the sides and end members while said sides and end members are united to form a frame, thereby permitting the frame to be folded, said ends and sockets comprising means to hold the end members perpendicular to the sides, said holding means being releasable by an upward movement of an end member without disconnecting it from its sockets.

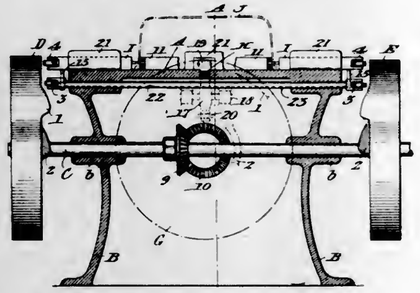
5. In a folding bed frame, the combination of sides, uprights at the ends of the said sides, said uprights formed with vertical sockets, end members having depending ends entering the sockets to connect the sides and end members, and permitting relative pivotal movement of the sides and end members while thus connected, to thereby fold the frame, and means to hold the end members perpendicular to the sides, said holding comprising cams formed to permit said members to be released by pressure in a direction to produce said pivotal movement.

[Claims 6 to 10 not printed in the Gazette.]

1,144,662. PUNCHING AND FORMING DEVICE FOR KETTLES. PAUL MAIWURM, Shreve, Ohio. Filed June 26, 1913. Serial No. 775,935. (Cl. 113—1.)

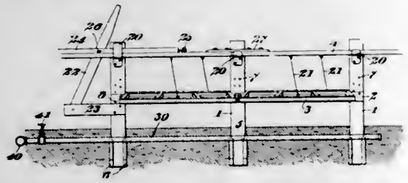
1. In a machine of the character described, the combination of a pair of reciprocating punch-bars slidably operable in channels alined opposite each other upon a table; a third reciprocating punch-bar slidably operable in a channel on said table at right angles with the

line of said pair and midway between the same; a slidably operable forming-bar alined with said third punch-bar and operatively connected thereto, provided with a forming head and adapted to reciprocate with said punch-bar between guides on said table; and a barrier mounted on said table midway between said pair and equi-distant from said third punch-bar—said barrier having die perforations therethrough adapted to register with the several punches of said punch-bars respectively, and an opening alined with said forming bar, and a supplemental barrier adjacent said opening, die-formed to receive and engage said forming head; and means, including a series of co-acting cam-wheels, for reciprocally actuating said punch-bars and said forming-bar simultaneously, substantially as set forth and for the purpose specified.



2. In a machine of the character described, a pair of punch-bars fitted with punches and slidably operable reciprocally in alined channels arranged end to end on a table, equidistant from the center thereof; a punch-bar slidably operable in a channel at right angles with said pair; a forming-bar in operative connection with said punch-bar and adapted to reciprocate therewith; anti-friction rollers on said punch-bars respectively; a head on said forming-bar; a die apertured barrier mounted on said table equidistant from said several punch-bars, suited thereto and provided with an opening opposite the head of said forming-bar; a second barrier before said opening fitted to receive said head; a pair of cam-wheels; a shaft for the same; a third cam-wheel mounted on a shaft geared to said pair shaft at right angles therewith; a pair of cams on each of said wheels, each cam following the other at different distances from the centers of said wheels respectively; a pair of slide-bars reciprocally operable under said table and having anti-friction rollers; each of said slide bars operably connected to an adjacent member of said pair of punch-bars at one end, and, at the other, adapted to engage one of the pair of cams on its adjacent cam-wheel; means for longitudinal adjustment of said punch-bars, and means, including a lever, for reciprocating said third punch-bar and said forming-bar simultaneously, substantially as set forth and for the purpose specified.

1,144,663. PLANT-COVER. LEONARD J. MERRIMAN, Wilmington, N. C. Filed Aug. 14, 1914. Serial No. 856,880. (Cl. 47—22.)



1. A plant cover, having posts and means to connect said posts rigidly in line with one another, wings hingedly connected with the posts and adapted to be folded up against them and to be let down so as to extend outwardly from them, and having coverings, and means to raise and lower said wings simultaneously into the said positions.

2. A plant cover, having posts and means to connect said posts rigidly, foldable wings having coverings, means to connect the posts and wings and means to raise and lower said wings simultaneously or independently.

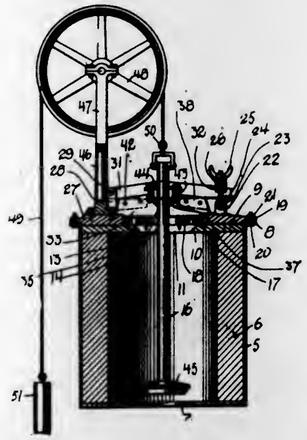
3. A plant cover, having posts, means to anchor them firmly in the earth, connections for said posts adapted to hold them in rigid alinement, wings hingedly mounted on opposite sides of the posts, a translucent covering on said wings, rigid pull-pieces slidably mounted on the posts above the wings, rigid connecting links jointed at their opposite ends to the pull-pieces and wings, and means to move said pull-pieces simultaneously or independently to raise and lower the wings and thereby uncover and cover the objects beneath the wings.

4. A plant cover, comprising a number of units composed of posts adapted to be anchored in the earth vertically, detachable connections adapted to connect the posts in unitary sections and in series of sections, wings hingedly applied to each unit or section on its opposite sides and provided with coverings, rigid pull-pieces mounted upon the posts and adapted to be rigidly connected from section to section, rigid connecting links jointed at opposite ends to the pull-pieces and wings, and operating means common to the pull-pieces and adapted to move said pull-pieces in right lines conjointly or separately to raise and lower the wings of all of the sections on both or either of the sides of the posts throughout the entire series of connected sections.

5. A plant cover, comprising a number of units composed of posts adapted to be anchored in the earth vertically, detachable rigid connections adapted to connect the posts in unitary sections and in series of sections, wings hingedly applied to each unit or section on its opposite sides and provided with coverings, rigid pull-pieces mounted upon opposite sides of the posts and adapted to be connected in series from end to end of the cover, rigid connecting links extending from the wings on one side of the posts to the pull-pieces on the other side, and a common operating medium for said pull-pieces adapted to operate either or both of said pull-pieces when it is desired to raise and lower the wings on either or both of the sides of the posts.

[Claims 6 to 15 not printed in the Gazette.]

1,144,664. BONNET FOR HOT-AIR VALVES. CHARLES NOCK, Youngstown, Ohio. Filed May 6, 1914. Serial No. 836,833. (Cl. 75—124.)



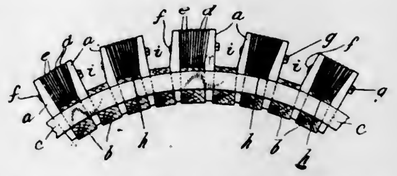
1. A bonnet for a hot air valve comprising an inner and an outer supporting member, said inner member mounted in said outer member and formed with an opening for the passage of the valve stem, an outer bonnet section, an inner bonnet section mounted upon and extending in said outer bonnet section, and provided with an opening for the passage of the valve stem, a packing gland connected to said inner bonnet section, clamping levers pivotally connected to said outer bonnet section and adapted to engage in said inner bonnet section, and clamping devices carried by said outer bonnet section for maintaining said clamping levers in engagement with said inner bonnet section to retain the latter in position.

2. A bonnet for hot air valves comprising an outer supporting member, an inner supporting member arranged in said outer supporting member and having an opening for the passage of a valve stem, an outer bonnet section mounted upon said outer supporting member, an inner bonnet section mounted upon said outer bonnet section and supported by said inner supporting member, and a clamping device carried by said outer bonnet section and engaging with said inner bonnet section for detachably clamping the inner bonnet section to the outer bonnet section, said inner bonnet section provided with an opening for the passage of a valve stem.

3. A bonnet for hot air valves comprising inner and outer supporting members, the former mounted in the latter and provided with vertical lugs, inner and outer bonnet sections, the former mounted upon the latter and upon said lugs, said inner section and said inner member each having an opening for the passage of a valve stem, and a clamping device carried by said outer bonnet section and engaging with said inner bonnet section for detachably clamping the latter to the former.

4. The combination with a valve body provided with a valve seat, a valve operating in said body and having a stem projecting from the body of an inner and an outer supporting member, the former mounted in the latter, the latter mounted upon said valve body, an outer bonnet section detachably connected to said valve body, an inner bonnet section mounted upon and extending in said outer bonnet section, and a clamping device carried by the outer bonnet section and engaging the inner bonnet section for detachably clamping the latter to the former.

1,144,665. BEATER-ROLL. RAY ADNA NORTH, Beloit, Wis., assignor to R. J. Dowd Knife Works, Beloit, Wis., a Corporation. Filed June 10, 1911. Serial No. 632,520. (Cl. 92—22.)



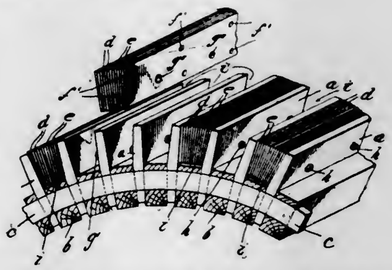
1. A beater-roll having a plurality of spaced pairs of fly-bars projecting from its beating face and forming pockets between them; a retaining device for holding said fly-bars against radial displacement; and a paper-stock beater-filling mounted in some of the pockets between said fly-bars and consisting of alternately-arranged plates of unequal wearing qualities; the outer exposed axially-extending edges of certain of said plates projecting only slightly beyond the corresponding edges of the others of said plates and forming therewith a paper-stock beating-surface; the other pockets between said fly-bars being open at their ends and devoid of beater-filling and thereby adapted for the free circulation of the stock which is being beaten.

2. A beater roll comprising an annular series of radial fly bars spaced apart forming radial pockets between them, abrasive filling located in each alternate radial pocket, each filling consisting of materials having different degrees of hardness placed side by side in alternate relation to each other, and fastening means passing transversely through each set of filling strips and the fly bars which constitute the walls of the pocket in which the same may be inserted.

3. A beater roll comprising an annular series of radiating fly bars, spaced apart forming radial pockets between them, a plurality of independent thin strips differing alternately in degrees of hardness and constituting an abrasive filling removably disposed in alternate radial pockets of the roll, and means for securing each filling in place in its pocket.

4. A beater roll comprising a plurality of radial fly bars spaced apart forming an annular series of radial pockets, sets of alternate strips of metal and wood disposed side by side with the edges of the metal strips projecting slightly beyond the edges of the wooden strips, each set of said alternate metal and wooden strips constituting an abrasive filling, said fillings disposed in alternate radial pockets of the roll, and fastening means passing transversely through the respective walls of each of such alternate pockets and through the interposed filling strips.

1,144,666. BEATER-ROLL ATTACHMENT. RAY ADNA NORTH, Beloit, Wis., assignor to R. J. Dowd Knife Works, Beloit, Wis., a Corporation. Filed Dec. 20, 1911. Serial No. 667,003. (Cl. 92—22.)



1. A beater roll comprising a plurality of radially projecting fly bars spaced apart, sets of thin alternate strips of materials having different wear-resisting qualities, the strips of each set rigidly secured together and constituting a unitary abrasive filling insertible in any of said pockets, and transverse fastening means for removably securing each unitary filling in place in a radial pocket of the beater roll.

2. A paper-stock beating attachment for a beater-roll comprising wear-resisting plates separated by plates which are less wear-resisting than the latter; said plates being assembled and fastened together to form a unitary structure shaped to fit in the interval between a pair of beater-roll knife-bars; and the axially-extending edges of certain of said plates projecting only slightly beyond the corresponding edges of the others of said plates and forming therewith a paper-stock beating surface.

3. A beater-roll section comprising a pair of beater-roll knife-bars forming pockets between them and provided with a paper-stock beating attachment consisting of plates of unequal wear-resisting qualities assembled and fastened together to form a unitary structure and detachably secured in the pocket between said knife-bars and readily removable therefrom; and the axially-extending edges of certain of said plates projecting only slightly beyond the corresponding edges of the others of said plates and forming therewith a paper-stock beating surface.

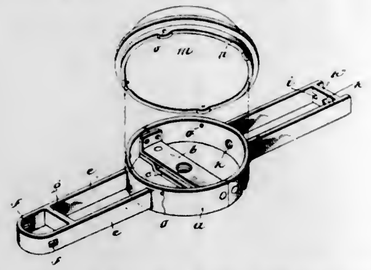
4. A beater-roll section comprising a pair of beater-roll knife-bars forming pockets between them and provided with a paper-stock beating attachment consisting of plates of unequal wear-resisting qualities assembled and fastened together to form a unitary structure and detachably secured in the pocket between said knife-bars and readily removable therefrom; the outer longitudinal edges of the latter forming with the outer longitudinal edges of said plates a beating surface; and the axially-extending edges of certain of said plates projecting only slightly beyond

the corresponding edges of the others of said plates and forming therewith a paper-stock beating surface.

5. A beater-roll section comprising a pair of beater-roll knife-bars formed with holes; and a paper-stock beating attachment mounted in the interval between said knife-bars and consisting of plates of unequal wear-resisting qualities fastened together to form a unitary structure; the axially-extending edges of certain of said plates projecting only slightly beyond the corresponding edges of the others of said plates and forming therewith a paper-stock beating surface; and fastening devices which pass through the holes in said knife-bars and detachably fasten said attachment in the interval between said knife-bars.

[Claim 6 not printed in the Gazette.]

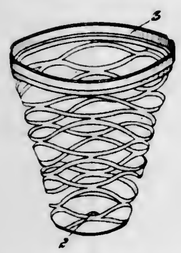
1,144,667. ICE-CREAM FREEZER. JAMES SCOTT PARRISH, Richmond, Va., assignor to Richmond Cedar Works, Richmond, Va., a Corporation of Virginia. Filed Feb. 9, 1911. Serial No. 607,653. (Cl. 259—2.)



1. A frame for ice cream freezer gearings, consisting of a ring-shaped flat bar set vertically on edge and constructed of two sections, a transverse bar extending across the ring and fastened to the inner face thereof across the joints between said sections, a pair of flat bars projecting from each of said sections and having their outer ends connected by transverse cross bars, and a dome whose lower edge is fastened to and embraces the upper edge of said ring-shaped flat bar.

2. A frame for ice cream freezer gearings, consisting of a ring shaped flat bar set vertically on edge and constructed of two sections, a transverse bar extending across the ring and fastened to the inner face thereof across the joints between the sections, and a pair of flat bars projecting from each of said sections and having their outer ends connected by transverse integral cross bars, for the purpose set forth.

1,144,668. METHOD OF MANUFACTURING METAL BASKETS. JOHANN RIZZARDI, Cassel, Germany. Filed Nov. 10, 1913. Serial No. 800,226. (Cl. 164—6.5.)



1. The method of manufacturing metal baskets consisting in pressing a suitably cut sheet metal plate into conical shape, producing in the plate thus prepared concentric series of circularly shaped slits forming strips decreasing in length and spaces between the ends of the slits on radial lines, and expanding the plate thus treated in its axial direction for making said slits elliptical and with pointed ends, substantially as described.

2. The method of manufacturing metal baskets consisting in pressing a suitably cut sheet metal plate into conical shape, cutting concentric series of circularly shaped slits into the plate thus prepared, forming strips decreasing in length, and spaces between the ends of the slits on radial lines, and expanding the plate thus treated in its axial direction for transforming said circular slits into elliptical ones having their ends pointed, substantially as described.

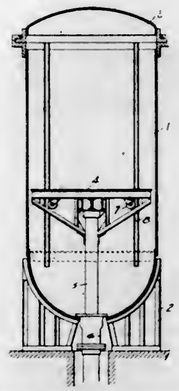
3. The method of manufacturing metal baskets consisting in pressing a suitably cut sheet metal plate into conical shape, cutting concentric series of circularly shaped slits into the plate thus prepared forming strips decreasing in length and spaced between the ends of the slits on radial lines, and expanding the slotted metal parts simultaneously for transforming said circular slits into elliptical ones having their ends pointed, substantially as described.

4. The method of manufacturing metal baskets consisting in pressing a suitably cut sheet metal plate into conical shape, and folding at the same time its edge, producing in the metal plate thus prepared concentric series of circularly shaped slits forming strips decreasing in length and spaces between the ends of the slits on radial lines, and expanding the plate thus treated in its axial direction for transforming said circular slits into elliptical ones having their ends pointed, substantially as described.

5. The method of manufacturing metal baskets consisting in pressing a suitably cut sheet metal plate into conical shape, producing in the plate thus prepared concentric series of circularly shaped slits forming strips decreasing in length and spaces between the ends of the slits on radial lines, and expanding the plate thus treated in its axial direction so as to form the slitted metal parts into meshes diminishing in size in the direction from the periphery to the center, substantially as described.

[Claim 6 not printed in the Gazette.]

1,144,669. WOOD-TREATING CYLINDER. GRANT B. SHIPLEY, Pittsburgh, Pa. Filed Nov. 22, 1913. Serial No. 802,523. (Cl. 99—12.)



1. A vertical wood treating cylinder having in its top a receiving and discharge opening, a platform in said cylinder upon which the charge is supported, and means for raising and lowering said platform so arranged that throughout the operations of loading and unloading the top of the charge upon said platform may be maintained substantially level with the top of the treating cylinder.

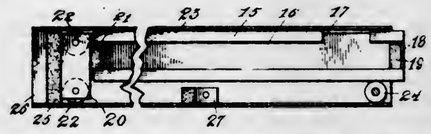
2. A vertical wood treating cylinder having in its top a receiving and discharge opening of a diameter substantially equal to the diameter of the cylinder chamber,

a platform in said cylinder upon which the charge is supported, and means for raising and lowering said platform so arranged that throughout the operations of loading and unloading the top of the charge upon said platform may be maintained substantially level with the top of the treating cylinder.

3. A vertical wood treating cylinder having in its top a receiving and discharge opening, a vertically movable charge supporting platform in said cylinder, and a power plunger for raising and lowering said platform so arranged that throughout the operations of loading and unloading the top of the charge upon said platform may be maintained substantially level with the top of the treating cylinder.

4. A vertical wood treating cylinder having in its top a receiving and discharge opening, a vertically movable charge supporting platform in said cylinder, and mechanism arranged to be operated to lower said platform in said cylinder gradually during the operation of placing the charge thereon and similarly raise the same as the charge is removed therefrom.

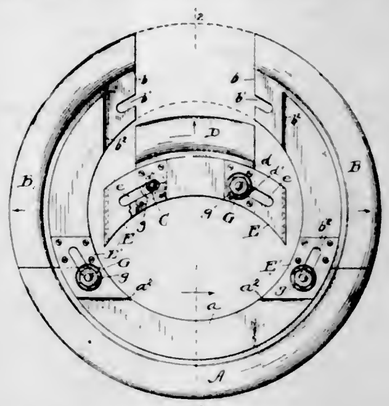
1,144,670. SUSPENSION FOR FILING-DRAWERS. WILLIAM W. WATSON, Jamestown, N. Y. Filed Dec. 23, 1914. Serial No. 878,631. (Cl. 45—77.)



1. In a suspension for drawers the combination with a casing of, outer channel shaped suspension members on the inner walls of said casing, a stop in the rear end of said channel shaped members, inner channel shaped members slidably mounted within each of said outer channel shaped members and opening inwardly, the rear end of each of said inner channel members formed in a loop and projecting below the channel portion of said member to form a stop, rollers revolubly mounted in said loop projecting above and below the same to fit against the walls of said outer channel shaped member and form roller bearings, a stop within each of said outer channel shaped members a spaced distance from the outer end to engage the downward projection of said loop and limit the outward movement of the drawer, a drawer fitting between said suspension members, rollers revolubly mounted on studs a spaced distance from the outer sides of said drawer to engage within said inner channel shaped members, said inner and outer channel shaped members having openings in the flanges thereof to receive said rollers on said drawer and to permit removal of the same.

2. In a suspension for drawers the combination with a casing of, outer channel shaped suspension members on the inner walls of said casing and a felt stop in the rear end of each of said channel shaped members, smaller channel shaped members slidably mounted one within each of said outer channel shaped members and opening inwardly, the rear end of each of said inner channel members formed in a return bend loop and projecting below the lower edge of the channel portion of said inner member to form a stop, rollers revolubly mounted in the upper and lower ends of said loop to form roller bearings against the inner walls of said outer channel member, a felt stop removably attached within the lower flange of each of said outer channel members a spaced distance from the front end to engage said stop at the rear end of said smaller channel member and limit the outward movement of the drawer, a bar lengthwise of each of the outer sides of said drawer, studs on said bars a spaced distance apart, rollers revolubly mounted on said studs a spaced distance from the sides of the drawer to engage within said said inner channel members, said inner and outer channel members having openings in their upper flanges to permit the ingress and egress of said rollers on said drawer.

1,144,671. CORE FOR MANUFACTURE OF PNEUMATIC-TIRE CASINGS. PARK E. WELTON, Akron, Ohio, assignor to Katharine B. Welton, Akron, Ohio. Filed Mar. 10, 1913. Serial No. 753,158. (Cl. 18—45.)



1. In an annular core composed of segment-shaped sections adapted to abut endwise, the combination of inwardly directed flanges fixed to abutting sections having alined slots extending backward from the ends of said flanges, a plate fixed to the flange of one section and extending over and into contact with the flange of the abutting section, which plate has a slot which registers with the slots in the flanges, and a bolt which passes through and is slidable laterally in said slots for clamping the overhanging end of the plate to the flange which it overhangs.

2. In an annular core composed of segment-shaped sections adapted to abut endwise, the combination of inwardly directed flanges fixed to abutting sections having alined slots extending backward from the ends of said flanges, a plate fixed to the flange of one section and extending over and into contact with the flange of the abutting section, which plate has a slot which registers with the slots in the flanges, and a bolt which passes through and is slidable in said slots for clamping the overhanging end of the plate to the flange which it overhangs, said last mentioned flange having a V-shaped groove which is parallel with the end of the section of which the flange is a part, and said plate having near its free end an inwardly projecting V-shaped rib adapted to enter said groove.

3. In an annular core composed of segment-shaped sections adapted to abut endwise, the combination of inwardly directed flanges fixed to said sections having alined slots extending backward from the ends of said flanges, two plates fixed to the flange of one section and embracing opposite sides of the flange of the abutting section, which plates have slots which register with the slots in the flanges, and a bolt which passes through and is slidable laterally in said slots and has heads on its end for engaging with the outer surface of said plates.

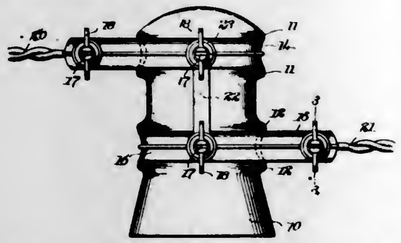
4. In an annular core composed of segment-shaped sections adapted to abut endwise, the combination of inwardly directed flanges fixed to said sections having alined slots extending backward from the ends of said flanges, two plates fixed to the flange of one section and embracing opposite sides of the flange of the abutting section, which plates have slots which register with the slots in the flanges, and have their external surfaces inclined and diverging toward their free ends, and a bolt which passes through and is slidable in said slots and has heads on its ends for engaging with the outer surfaces of said plates.

5. In an annular core composed of segment-shaped sections adapted to abut endwise, the combination of inwardly directed flanges fixed to said sections having alined slots extending backward from the ends of said flanges, two plates fixed to the flange of one section and embracing opposite sides of the flange of the abutting section,

which plates have slots which register with the slots in the flanges, and have their external surfaces inclined and diverging toward their free ends, and said plates having near their free ends inwardly directed V-shaped ribs which are parallel with the end of the section, and the overhung flange on the abutting section being provided with V-shaped grooves adapted to receive said ribs.

[Claims 6 to 8 not printed in the Gazette.]

1,144,672. FUSED TEST CLAMP-INSULATOR. GEORGE WHEALE, Meadowbrook, Pa. Filed Jan. 27, 1914. Serial No. 814,713. (Cl. 175—273.)



1. A device of the character described comprising an insulator block, collars carried by said block in spaced relation, each of said collars being formed from a strip of electricity conducting material, the strip being bent around said block, means for securing the inner end portion of said strip to the intermediate portion thereof whereby the free end portion of said strip will extend from said block, means carried by the free end portion of each of said strips for engaging an electric conductor, and a fuse element removably connected with said collars.

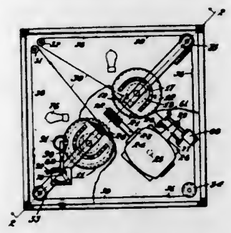
2. A device of the character described comprising an insulator block, collars carried by said block in spaced relation, each of said collars being formed from a strip of material bent about the block, a stem extending from the inner end portion of said strip and passed through an opening formed in said strip intermediate its length, said stem being slotted longitudinally, a stem extending from the outer end portion of said strip and provided with a longitudinally-extending slot whereby a conducting wire may be passed around each of said collars through the slots of said stems, a fuse element removably mounted upon the inner stems of said collars, clamping means mounted upon said stems for clamping said conducting wires to said collars and releasably holding said fuse element upon said inner stems.

3. A strip for releasably connecting a wire with a support provided with openings positioned at points intermediate the center and the ends of the strip, securing means carried by the end portions of said strip for permitting the strip to be secured about a support with the free end portion of the strip extending in a selected direction from the support, and means for releasably holding a wire about the strip and in engagement with said securing means.

1,144,673. ADVERTISING DEVICE. WELLINGTON B. WHEELER, Long Beach, Cal., assignor of one-half to Ralph S. Gilman, San Diego, Cal. Filed Jan. 5, 1914. Serial No. 810,306. (Cl. 40—53.)

1. In an advertising device, a pair of reels, a ribbon mounted to be wound from one reel to the other, means for maintaining the ribbon taut between the reels, a motor adapted to be moved into driving engagement with either of the reels and normally positioned out of engagement therewith, a timing device, and electrical means controlled by the timing device coöperating with the ribbon for intermittently positioning the motor in driving connection with one of the reels.

2. In an advertising device, a pair of reels, a ribbon mounted to be wound from one reel to the other, means for maintaining the ribbon taut between the reels, a motor adapted to be moved into driving engagement with either of the reels and normally positioned out of engagement therewith, a timing device, electrical means controlled by the timing device coöperating with the ribbon for intermittently positioning the motor in driving connection with one of the reels, and electrical means controlled by the ribbon and one of the reels and coöperating with the timing device, whereby the motor may be intermittently connected to the other of the reels to reverse the movement of the ribbon.

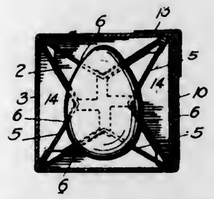


3. In an advertising device, a pair of reels, a ribbon mounted to be wound from one reel to the other, a motor adapted to be moved into driving engagement with either of the reels, spring means for normally positioning the motor out of engagement with the reels, a pair of magnets for engaging the motor with either of the reels, means controlled by one of the reels for directing the flow of electrical current to either one or the other of the magnets according to the direction of rotation of the reels, and a timing device for directing current to the selected magnet intermittently.

4. In an advertising device, a pair of reels geared together, a ribbon mounted to be wound from one reel to the other, a motor adapted to be moved into driving engagement with either of the reels, means for normally positioning the motor out of engagement with the reels, a timing device, and electrical means controlled by the timing device coöperating with the ribbon for intermittently positioning the motor in driving connection with one of the reels.

5. In an advertising device, a pair of reels geared together, a ribbon mounted to be wound from one reel to the other, a motor adapted to be moved into driving engagement with either of the reels, means for normally positioning the motor out of engagement with the reels, a timing device, electrical means controlled by the timing device coöperating with the ribbon for intermittently positioning the motor in driving connection with one of the reels, and electrical means controlled by the ribbon on one of the reels and coöperating with the timing device, whereby the motor will be intermittently connected with the other of the reels.

1,144,674. EGG-CARRIER. HARRY S. WILLIS, Denver, Colo. Filed Feb. 10, 1914. Serial No. 817,821. (Cl. 229—29.)



1. An egg-carrier comprising an inner member and an outer member placed one upon the other and adapted to be together folded along determinate crease lines to form a case of rectangular section, the portions of the inner member between said lines being bent to form inwardly extending ridges which have openings arranged in series to receive and engage the end-portions and opposite side portions of eggs placed between them, when the members are in their said folded condition.

2. An egg-carrier comprising an inner member and an outer member placed one upon the other and adapted to be together folded along determinate crease lines to form a case of rectangular section, the portions of the inner member between said lines being bent to form inwardly extending ridges which have openings to receive the end-portions and opposite side portions of eggs placed between them, and means on said outer member for holding the two members in their said folded condition.

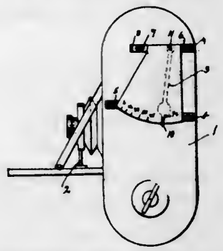
3. An egg-carrier comprising an inner member and an outer member placed one upon the other and adapted to be together folded along determinate crease lines to form a case of rectangular section, the portions of the inner member between said lines being bent to form inwardly extending ridges which have openings to receive the end-portions and opposite side portions of eggs placed between them, when the members are in their said folded condition, the said members having coöperative means for securing the inner one in its bent form, with relation to the other.

4. An egg-carrier comprising an inner member and an outer member placed one upon the other and adapted to be together folded along determinate crease lines to form a case of rectangular section, the portions of the inner member between said lines being bent to form inwardly extending ridges which have openings to receive the end-portions and opposite side portions of eggs placed between them, when the members are in their said folded condition, the said members having coöperative means for securing the inner one in its bent form, with relation to the other, which means consist of tongues formed at the ends of the outer member, and slots formed in the corresponding ends of the inner member to receive the said tongues.

5. An egg-carrier comprising an inner member and an outer member placed one upon the other and adapted to be together folded along determinate crease lines to form a case of rectangular section, the portions of the inner member between said lines being bent to form inwardly extending ridges which have openings to receive the end-portions and opposite side portions of eggs placed between them, when the members are in their said folded condition, the inner member having in its end portions, slots, and the corresponding ends of the outer member being formed and bent to enter the crotches of the ridges on the inner member, and having tongues for insertion in said slots.

[Claims 6 to 14 not printed in the Gazette.]

1,144,675. DISTANCE-MEASURING DEVICE. RADCLIFF A. WILSON, San Francisco, Cal. Filed June 8, 1914. Serial No. 843,687. (Cl. 33—71.)

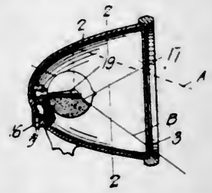


A distance measuring device for cameras comprising a plate provided with a distance scale, brackets for securing said plate to the side of a camera, sights carried by two of said brackets, and a pendulum pivoted to the plate and having one end movable across said distance scale.

1,144,676. HEADLIGHT. ROLAND F. WILSON, Denver, Colo. Filed Aug. 19, 1914. Serial No. 857,582. (Cl. 240—48.6.)

1. A head-light comprising in combination a reflector, two illuminative elements positioned one above the other

in the rear portion thereof, means for rendering said elements separately, luminous, and a shield around the lower portion of the upper element, which obstructs the passage of light rays from said element to the lower portion of the reflective surface of the reflector.



2. A head-light comprising in combination a reflector, two illuminative elements positioned one above the other in the rear portion thereof, means for rendering said elements separately, luminous, and a shield between the said elements, which obstructs the passage of light-rays from the upper element to the lower portion of the reflective surface of the reflector.

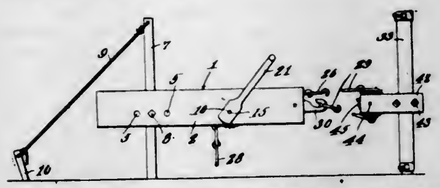
3. A head-light comprising in combination a reflector, two illuminative elements positioned one above the other in the rear portion thereof, means for rendering said elements separately, luminous, and a shield around the lower portion of the upper element, which obstructs the passage of light rays from said element to the lower portion of the reflective surface of the reflector, and which at its front has a port for the passage of forwardly emitted, unreflected rays of light.

4. A head-light comprising in combination a reflector, two incandescent filaments operatively mounted one above the other in the rear portion thereof, an electric circuit in which said filaments are connected, circuit-controlling means for directing the flow of current through said filaments to render them separately incandescent, and a shield between said filaments, which obstructs the passage of light-rays from the upper filament to the lower portion of the reflective surface of the reflector.

5. A head light comprising in combination with a concave reflector and a lamp therein, of an obstructive shield positioned between the lamp and a portion of the reflective surface of the reflector at one side of a plane passing through the axis of the same, and adapted to obstruct the passage of those rays which would otherwise impinge directly upon the said portion of the said surface, exclusive of the rays which at the same side of the said plane, pass directly through the open end of the reflector.

[Claim 6 not printed in the Gazette.]

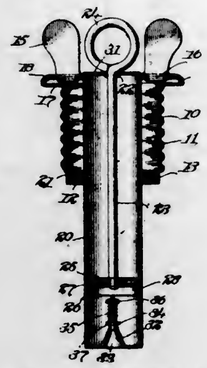
1,144,677. WIRE-STRETCHER. WILLIAM B. WILSON, West Huntsville, Ala. Filed May 16, 1914. Serial No. 839,082. (Cl. 254—161.)



A wire stretcher embodying a frame; a sprocket wheel journaled on the frame; a hook mounted on the frame and having its bill upwardly disposed; a clamp comprising a sprocket wheel located in a common plane with the hook and the sprocket wheel on the frame; a chain one link of which is engaged with the hook, the mouth of the hook being open to receive said link detachably; the chain being extended thence across the lower edge of the sprocket wheel on the clamp and across the upper edges of the sprocket wheels, and the diameter of the sprocket wheel on the clamp being greater than the vertical distance between the bill of the hook and the top of the sprocket

wheel on the clamp whereby when the upper run of the chain is taut, the upper and lower runs of the chain will stand at an acute angle, thus to hold the said link engaged with the hook; and a roller in the frame above the sprocket wheel of the frame and above the upper run of the chain, the roller serving to hold the upper run of the chain on the sprocket wheel of the frame when the sprocket wheel of the clamp approaches the frame and increases the angle between the runs of the chain.

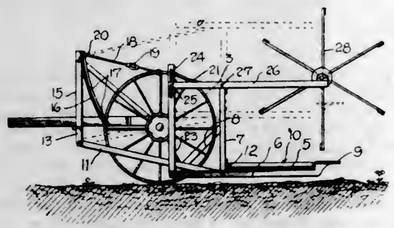
1,144,678. CONTAINER-STOPPER. HENRY M. ABRAHAMSEN, Elmwood, Mass. Filed Feb. 12, 1914. Serial No. 818,329. (Cl. 150—8.)



1. A container stopper comprising a hollow member having upper and lower ends, openings formed in said ends, handles provided upon the upper end of said stopper, the lower end of said stopper being provided adjacent and surrounding the opening therein with an annular flange, a ring of packing material surrounding said stopper, said flange being rolled upon itself to engage the ring of packing material, and a pump chamber secured in said upper and lower openings, said pump chamber being provided with a piston, and a valve in the lower end of said chamber, said valve seating in an opening in the bottom of said pump chamber.

2. A container stopper comprising a hollow stopper member provided with upper and lower closing ends formed integrally therewith, a cylindrical pump chamber passing through said closing ends and secured therein a piston operatively mounted within the chamber, a packing gasket mounted upon the lower closing end and surrounding the pump chamber and a valve seat in a conical opening formed by depressing inwardly the lower end of said pump chamber, for controlling the ingress or egress of air or liquid.

1,144,679. ADJUSTABLE PLATFORM FOR HARVESTING-MACHINES. MAURICE L. AKERS, Pendleton, Oreg. Filed Dec. 1, 1913, Serial No. 804,076. Renewed May 8, 1915. Serial No. 26,902. (Cl. 56—100.)



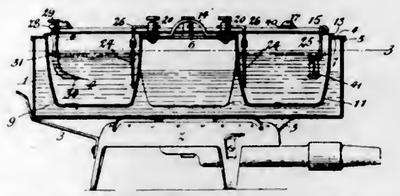
1. In a machine of the character described, a main wheel supported frame, a platform provided with rearwardly extending beams, bars pivotally mounted at their forward ends upon said beams, brackets depending from the main frame in which the rear ends of said bars are pivotally mounted, uprights mounted upon the rear ends of said beams, and bracing means between said uprights and the main frame.

2. In a machine of the character described, a wheel supported header frame, a grain receiving platform arranged in advance of said frame, including rearwardly extending beams, uprights mounted upon said beams, bars pivotally connected to the beams at their forward ends, means for pivotally suspending said bars at their rear ends from the header frame whereby said platform may be raised or lowered, and bracing means between said uprights and the header frame to maintain said platform in parallel relation to the ground in any of its adjusted positions.

3. In a machine of the character described, a wheel supported header frame, a platform arranged in advance of said frame to receive the grain, bars pivotally connected to said platform and extending rearwardly therefrom, hangers depending from the header frame in which the rear ends of said bars are pivotally mounted, upwardly extending curved angle bars mounted upon the header frame, uprights secured to the rear of the platform, adjustable braces connected to the upper ends of said uprights, and means for connecting said braces to the curved angle bars.

4. In a machine of the character described, a wheel supported header frame, a platform arranged in advance of said frame to receive the grain, longitudinally disposed bars pivotally mounted upon the header frame and pivotally connected to said platform, uprights mounted upon the rear of the platform, uprights secured to the header frame, curved brace bars secured to the upper ends of said latter uprights, and to the header frame, said brace bars having forwardly extending flanges provided with a series of openings, and additional supporting members for the platform loosely connected to the upper ends of the uprights and provided with means insertible through the openings in said brace bars.

1,144,680. ELECTROPLATING APPARATUS. HENRY G. ALLEAS, Buffalo, N. Y. Filed May 23, 1914. Serial No. 840,497. (Cl. 204—5.)



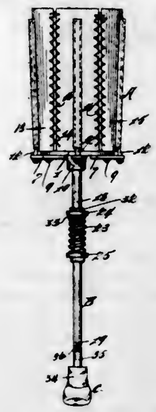
1. An electro-plating apparatus comprising a supporting plate having an opening, a receptacle arranged in said opening, a wire mounted on the upper side of said support and engaging with the upper end of said receptacle and means for suspending a terminal from said wire within said receptacle.

2. An electro-plating apparatus comprising a supporting plate having an opening, a receptacle arranged in said opening, posts arranged on said plate and provided with downwardly facing shoulders, and a wire engaging with said shoulders and the upper end of said receptacle.

3. An electro-plating apparatus comprising a supporting plate having an opening, a receptacle arranged in said opening, a wire mounted on the upper side of said support and engaging with the upper end of said receptacle, and a post arranged on said support, said post and wire being adapted respectively to hold an anode and an article to be plated within said receptacle and to form conductors of an electric current.

4. An electro-plating apparatus comprising a supporting plate having an annular row of openings, a plurality of receptacles each arranged in one of said openings, a ring engaging with the upper ends of said receptacle and adapted to support articles to be plated in said receptacle, insulating posts mounted on said plate and having downwardly facing shoulders engaging with the upper side of said ring, and anode posts mounted on said plate and each adapted to support an anode in one of said receptacles, said anode posts and rings being adapted to be connected with opposite sides of an electric generator.

1,144,681. ARTIFICIAL LEG. JOHN T. APGAR, New York, N. Y. Filed Dec. 15, 1914. Serial No. 877,421. (Cl. 3—3.)



1. An artificial leg, a post comprising a plurality of pivotally connected members, a spring surrounding said members and located at the point of pivotal connection, means to adjust the tension of the spring, and a corset carried by one of said post members.

2. A supporting post for artificial legs consisting of members in alinement, a spring surrounding and arranged to keep said members in alinement and to resist any movement in opposing directions tending to take said members out of alinement.

3. A supporting post for artificial legs consisting of a plurality of pivotally connected post-members, a spring surrounding said members and located at the point of pivotal connection, a seat for said spring carried by one of said members, and a seat carried by the other post-member consisting of an adjustable nut whereby the tension of the spring can be adjusted.

4. A supporting post for artificial legs consisting of a plurality of pivotally connected post-members, a spring surrounding said members and located at the point of pivotal connection, a rotatable seat for said spring carried by one of said members, and a seat carried by the other post-member consisting of an adjustable nut whereby the tension of the spring can be adjusted.

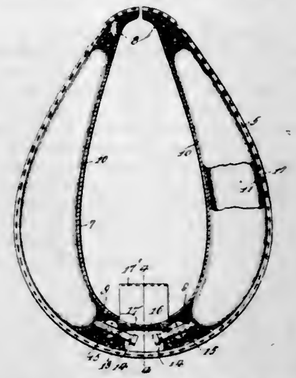
5. A supporting post for artificial legs consisting of a plurality of post-members, a ball and socket connection therefor, and a spring to keep said post-members connected, said spring surrounding said post members at the point of connection.

[Claims 6 and 7 not printed in the Gazette.]

1,144,682. HORSE-COLLAR. JOHN J. BAARSON and ANTON T. THORSON, Odin, Minn. Filed May 15, 1914. Serial No. 838,792. (Cl. 54—19.)

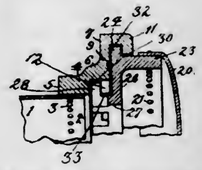
1. A horse collar including an after wale provided with oppositely disposed pockets and with an opening in the bottom, a pneumatic bag mounted in each of the pockets having the usual pump engaging tube extending therefrom, and a guard incasing each of the tubes, the guards communicating with the opening in the bottom of the collar through which access is had for inflating or deflating the bags.

2. A pneumatic horse collar provided with an opening in the bottom, including an after wale having upper and lower filler sections to provide pockets therebetween, each of the latter communicating with the opening in the bottom of the collar, a pneumatic bag mounted in each of said pockets having an inflating tube associated therewith, a casing for each of said tubes, one end of each of which communicates with said opening for facilitating the inflation and deflation of said bags, and a flap carried by said collar for normally closing said opening.



3. A horse collar having an opening in the bottom and including a fore and after wale, the latter provided with upper and lower filler sections having pockets interposed therebetween, each of said pockets communicating with the opening in the bottom of the collar, a pneumatic bag mounted in each of the pockets and having an inflating tube extending therefrom, waterproof protective casings for said pneumatic bags, a tube incasing each of said inflating tubes and extending into said opening in the bottom of the collar for facilitating the inflation and deflation of said bags, and a flap carried by the fore wale of the collar for closing said opening.

1,144,683. VULCANIZER. BYRON R. BARDER, Akron, Ohio. Filed Jan. 7, 1915. Serial No. 972. (Cl. 18—7.)



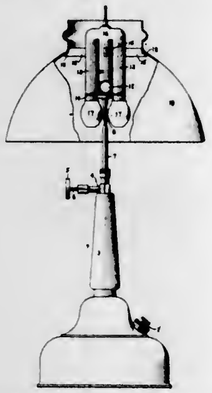
1. The combination of an open-mouthed vulcanizer provided with a ring-shaped coupling member at the open end thereof, said coupling member provided with an outwardly-projecting radial flange, a plurality of in-turned hook-shaped integral lugs formed on the front face of said flange and spaced apart to provide notches between them, the inner face of said coupling member further provided with a plurality of inwardly-projecting lugs spaced apart to provide notches between them, and a closure member therefor provided with a ring-shaped coupling member the outer face of which is fashioned with a plurality of outwardly-projecting lugs spaced apart to provide notches between and adapted to be received in the first-mentioned notches on said vulcanizer, an inwardly-projecting L-shaped integral flange on said closure member provided with a plurality of outwardly-projecting lugs spaced apart to provide notches between them, said lugs adapted to be received in the second series of notches on said vulcanizer, the outwardly-projecting lugs on the closure member adapted to interlock behind the inturned hook-shaped lugs on the vulcanizer and the inwardly-extending lugs on the vulcanizer adapted to interlock behind the outwardly-extending hook-shaped lugs on the closure member when said closure member is given a partial rotation.

2. The combination of an open-end vulcanizer and a closure therefor, one of which is provided with a series of outwardly-projecting lugs spaced apart to provide notches, a second series of outwardly-projecting lugs carried by said member, the other member provided with two series of inwardly-projecting lugs the members of each series spaced apart to provide notches, the projecting lugs of the first member adapted to be passed through the notches of the other member and interlock with the lugs thereof.

3. The combination of a vulcanizer and a closure member therefor, one of said members provided with two circumferentially-extending series of outwardly-extending lugs, the members of the two series being spaced from each other and the members of each series of lugs being spaced from the coadjacent members of each series to provide notches, the other member provided with two series of inwardly-extending lugs the members of the two series being spaced apart and the lugs in each series being spaced from each other to provide notches, the outwardly-extending lugs of one member adapted to be passed through the notches of the other member and to interlock with the lugs thereof when one member is partially revolved with respect to the other member.

4. A coupling device for a vulcanizer and its head, comprising two annularly formed members one of which is provided with two series of circumferentially-extending spaced lugs extending outwardly, the other member provided with two series of spaced lugs extending inwardly, all of said lugs being spaced apart to provide notches between them to permit the outwardly-extending lugs of one member to pass through the notches in the other member and to interlock with the lugs thereof.

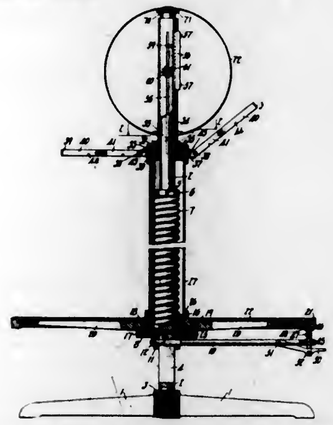
1,144,684. HYDROCARBON-LAMP. LEONIDAS BAXTER, Dayton, Ohio, assignor to The Thomas Manufacturing Company, Dayton, Ohio, a Corporation of Ohio. Filed Oct. 24, 1914. Serial No. 868,522. (Cl. 67—50.)



In a hydrocarbon lamp, a mixing tube, a burner tube depending downwardly on each side of said mixing tube, radial arms extending outwardly from said mixing and burner tubes below the points of communication of the latter tubes with said mixing tube, and shoulders formed on the outer ends of said arms to receive a shade, said shoulders being equidistant from a common central point, substantially as described.

1,144,685. SCALE. JOHN BERNIA, Detroit, Mich., assignor of one-half to Charles E. Marker, Detroit, Mich. Filed Jan. 22, 1915. Serial No. 3,672. (Cl. 73—38.)

1. A weighing device comprising a base, a post rising vertically therefrom, a spiral spring surrounding the post, a bearing block supported by the spring and slidable vertically on the post, means for preventing the bearing block from turning about the post as an axis, a table mounted on the bearing block and rotatable about the post, a tubular member rising from the table, said member being arranged to inclose and protect the spring, means carried by the post for indicating the weight of loads on the table, and means carried by the tubular member for actuating the indicating means.



2. A weighing device comprising a base, a post rising vertically therefrom, a spiral spring surrounding the post, a bearing block supported by the spring and slidable vertically on the post, means for preventing the bearing block from turning about the post as an axis, a table mounted on the bearing block and rotatable about the post, a tubular member rising from the table, said member being arranged to inclose and protect the spring, means carried by the post for indicating the weight of loads on the table, means carried by the tubular member, and in respect to which the tubular member is rotatable, for actuating the indicating means, and means for preventing rotation of the actuating means about the post as an axis.

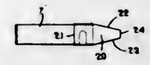
3. A weighing device comprising a base, a post rising vertically therefrom, a spiral spring surrounding the post, a bearing block supported by the spring and slidable vertically on the post, means for preventing the bearing block from turning about the post as an axis, a table mounted on the bearing block and rotatable about the post, a tubular member rising from the table, said member being arranged to inclose and protect the spring, means, including a pinion carried by the post, for indicating the weight of articles on the table, a member movable vertically in respect to the post, said last mentioned member being supported on the tubular member and the latter being rotatable in respect thereto, means for preventing the movable member from rotating about the post, a rack carried by the vertically movable member and meshing with the pinion for causing the indicating means to indicate deflections of the spiral spring caused by loads placed on the table.

4. A weighing device comprising a base, a post rising vertically therefrom, a spiral spring surrounding the post, a bearing block supported by the spring and slidable vertically on the post, means for preventing the bearing block from turning about the post as an axis, a table mounted on the bearing block and rotatable about the post, a tubular member rising from the table, said member being arranged to inclose and protect the spring, a series of bag holders supported by the tubular member, means carried by the post for indicating the weight of bags on the table, and means carried by the tubular member for actuating the indicating means.

5. A weighing device comprising a base, a post rising vertically therefrom, a spiral spring surrounding the post, a bearing block supported by the spring and slidable vertically on the post, means for preventing the bearing block from turning about the post as an axis, a table mounted on the bearing block and rotatable about the post, a tubular member rising from the table, said member being arranged to inclose and protect the spring, means carried by the post for indicating the weight of bags on the table, means carried by the tubular member for actuating the indicating means, and means for locking the table at points in its rotation corresponding in number and location to the individual bag holders of the series.

[Claims 6 to 14 not printed in the Gazette.]

1,144,686. PROTECTING-TIP FOR DROP-WIRE-BAR ENDS. THOMAS F. BRAZEIL, New Bedford, Mass., assignor to Draper Company, Hopedale, Mass., a Corporation of Maine. Filed May 16, 1914. Serial No. 839,151. (Cl. 139—92.)



1. In combination with a warp stop mechanism for looms comprising a drop wire bar having a recessed end by means of which it is detachably supported in the loom, a removable guiding member adapted to cover said recess to prevent engagement of the drop wires therewith when being assembled upon said bar.

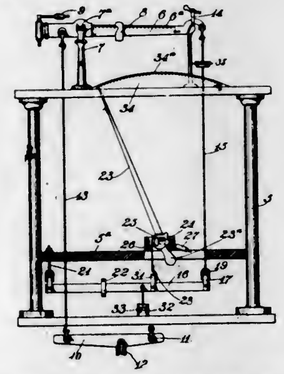
2. In combination with warp stop mechanism for looms comprising a drop wire bar having a recessed end by means of which it is supported in the loom, a hollow removable guiding member adapted to inclose the end of said bar and to cover the walls of said recess whereby injury to the drop wires will be prevented as the same are being assembled upon the drop wire bar.

3. A removable guide tip for the drop wire bar of a loom comprising a member having a tapered end and a hollow base adapted to inclose the recessed end of the bar to prevent injury to the drop wires when being assembled thereon.

4. A removable guide tip for the drop wire bar of a loom comprising a metallic member having a flat tapered end portion and a hollow base and adapted to inclose and cover the recessed end of the bar to prevent injury to the drop wires when being assembled thereon.

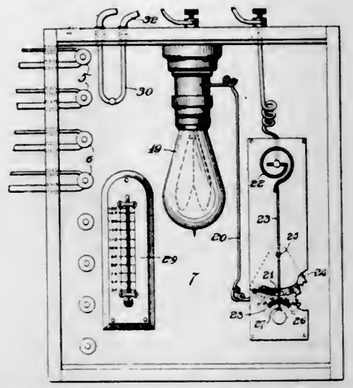
5. In combination with warp stop mechanism for looms comprising a drop wire bar having a recessed end by means of which it is supported in the loom; a removable guiding member for the drop wires consisting of a tip having a rectangular hollow body portion adapted to fit the end portion of the drop wire and to inclose and cover the walls of the recess therein, and a flat tapered portion extending from said body portion and presenting a narrow end adapted to enter the slots in the drop wires to facilitate assembling the same upon the drop wire bar.

1,144,687. WEIGHING-SCALE. BANNER M. BROOKE, Columbus, Ohio. Filed Sept. 20, 1913. Serial No. 790,833. (Cl. 73—29.)



The combination with a platform scale including a scale beam and a counterpoise stem, of a pendulum indicator and scale therefor and a pendent weight beam connected with the counterpoise stem and with the pendulum indicator to actuate the latter, substantially as described.

1,144,688. THERMO-ELECTRIC PYROMETER SYSTEM. RICHARD P. BROWN, Philadelphia, Pa. Filed Oct. 9, 1914. Serial No. 865,814. (Cl. 73—32.)



1. A thermo-electric pyrometer system comprising, in combination, an indicating instrument, a thermo-couple, an inclosed chamber in which is situated the cold junction of said couple, leads connecting said thermo-couple through a switch with said indicating instrument, said switch, a thermostatically controlled means for maintaining said chamber at a substantially uniform temperature, and an auxiliary thermo-couple the hot junction of which is within said chamber and the leads of which are connected through said switch with said indicating instrument.

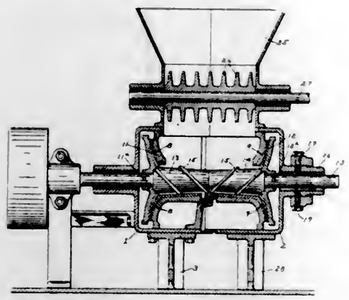
2. A thermo-electric pyrometer system comprising, in combination, an indicating instrument, a thermo-couple, an inclosed chamber in which the cold junction of said couple is placed, leads detachably connecting the cold junction of said couple and the binding posts of said indicating instrument, an auxiliary thermo-couple the hot junction of which is within said inclosed chamber and the leads of which are adapted to be detachably connected to the binding posts of said indicating instrument, and a thermostatic controlled means for maintaining said inclosed chamber at a substantially constant temperature.

3. A thermo-electric pyrometer system comprising in combination, an indicating instrument, a thermo couple, an inclosed chamber in which is situated the cold junction of said couple, leads detachably connecting the cold junction of said couple and the binding posts of said indicating instrument, an auxiliary thermo-couple the hot junction of which is situated within said inclosed chamber, leads detachably connecting said auxiliary thermo-couple and the binding posts of said indicating instrument, an electric lamp within said inclosed chamber, and a thermostat within said chamber forming part of one of the line wires of said lamp and consisting of a thermostatic coil, an arm carried by said coil, a stop adapted to be engaged by said arm, and a means for adjustably carrying said stop, all substantially as set forth.

1,144,689. GRINDING-MILL. THOMAS C. CADWGAN, Springfield, Ohio. Filed Nov. 5, 1914. Serial No. 870,386. (Cl. 83—8.)

1. In a grinding mill, a main casing, two separate pairs of grinding members arranged in the same horizontal plane in said casing, each pair consisting of a revoluble and a non-revoluble member, a drive shaft connecting said revoluble members, the non-revoluble members being located between the revoluble members, means for adjusting the non-revoluble member of one pair relatively to the op-

posing revoluble member, said shaft being capable of a limited longitudinal movement to permit said revoluble members to self-adjust themselves relatively to the non-revoluble members, and a hopper connected with the upper portion of said casing and arranged to discharge the material therein between the non-revoluble members, together with a conveyer connected with said shaft for conveying said material in opposite direction to said grinding members.



2. In a grinding mill, a casing formed in two sections, two pairs of grinding members therein, each pair consisting of a revoluble and a non-revoluble member, the non-revoluble members being supported respectively by the casing sections and having a sliding engagement with each other, a driven shaft extending through said casing to which the revoluble grinding members are connected, and means for adjusting the casing sections relatively to each other to vary the distance between the non-revoluble grinding members, said shaft being capable of a limited movement through said casing to permit the revoluble members to self-adjust themselves relatively to the non-revoluble members.

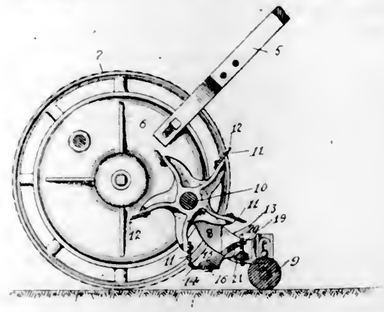
3. In a grinding mill, a casing formed in two sections, two pairs of grinding members therein, each pair consisting of a revoluble and non-revoluble member, the non-revoluble members being supported by the respective casing parts, a driven shaft extending through said casing to which the revoluble grinding members are connected, and means for adjusting one casing section to vary the distance between the non-revoluble grinding members, said shaft being capable of a limited movement in either direction through said casing to permit the revoluble members to self-adjust themselves relatively to the non-revoluble members at each adjustment of said casing section.

4. In a grinding mill, a casing formed in two sections, one of which is movable relatively to the other, two pairs of grinding members located in said casing in the same horizontal plane, each pair consisting of a revoluble and non-revoluble member, said non-revoluble members being carried by the respective casing sections and being located between the revoluble members, a driven shaft extending through said casing to which the revoluble members are connected, and means for adjusting the movable casing section to vary the distance between the non-revoluble members, said shaft being capable of a limited longitudinal movement so as to permit the revoluble grinding members to self-adjust themselves relatively to the non-revoluble members at each adjustment of said movable section.

5. In a grinding mill, a casing formed in two sections, one section being slidably connected with the other, grinding members located in said casing, driven shaft extending through said casing, part of said grinding members being connected with said casing and part with said shaft, devices for adjusting said slidable casing section for the purpose of varying the relation between said grinding members, said adjusting devices consisting in part of a pivoted lever pivotally connected with said slidable casing section, and an adjustable hand wheel operatively connected to the free end of said lever.

[Claim 6 not printed in the Gazette.]

1,144,690. LAWN-MOWER. ISRAEL H. CAISTER, Burbank, Cal., assignor of one-half to Caleb C. Caister, Los Angeles, Cal. Filed Aug. 6, 1913. Serial No. 783,327. (Cl. 56—19.)



1. In a lawn mower, the combination with a revolubly mounted reel and a frame on which said reel is supported, a pivotally mounted bed knife bar supported on said frame, a cross bar adjustably mounted in said frame adjacent the bed knife bar and extending parallel therewith, and a screw formed with right and left hand threads arranged with one threaded end extending through and engaging the cross bar and the other threaded end extending through and engaging the knife bar, whereby rotation of the screw will effect an adjustment of the bed knife bar.

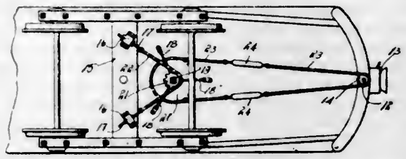
2. In a lawn mower in combination with a rearwardly projecting frame, a revolving reel carrying knife blades mounted in said frame, a pivoted knife bed bar carrying a bed knife, of an extension formed on said bed knife bar extending rearwardly and upwardly from the pivotal axis of said bar, said extension having a threaded aperture therein, a cross bar pivotally mounted intermediate of said rear frame having a reversely threaded aperture therein midway of said frame and adapted to register with the aperture in the extension, and a screw having right and left threads engaged within said threaded apertures whereby adjustment is effected of the bed knife bar.

3. In a lawn mower in combination with a rearwardly projecting frame having a plurality of slots therein, a revolving wheel carrying knife blades mounted in said frame, a pivoted knife bed carrying a bed knife, bed blocks slidably adjustable in relation to said frame having journals to support said knife blade bar, a cross bar pivotally mounted in the journals on said adjustable blocks, means to secure said blocks in relation to certain of said slots in said frame, and a threaded screw to adjust and connect said bed knife bar and said cross bar intermediate of their journal supports, said screw having right hand threads engaging one bar and left hand threads engaging the other bar whereby on rotation of the screw adjustment is effected of the bed knife bar for wear and irregularity in the castings forming said side bars.

4. In a lawn mower, a pair of rearwardly projecting arms, two sets of journals on said arms mounted for vertical adjustment, a bed knife bar pivotally carried by one set of said journals, a cross bar carried by the other set of said journals extending parallel with the bed knife bar, a projection on the bed knife bar extending over the cross bar, and a screw having right and left hand threads on the opposite ends thereof arranged intermediate the ends of the cross bar with one threaded end extending through and engaging the cross bar and the other threaded end extending through and engaging the projection on the bed knife bar, said screw adapted to be rotated to effect a rocking movement of the bed knife bar on its pivotal mounting.

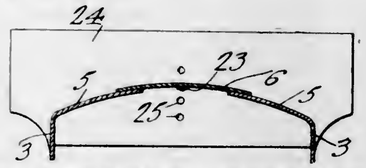
1,144,691. STREET-CAR-HEADLIGHT SHIFTER. BENJAMIN H. CORNELIUS, Bayard, Iowa. Filed Sept. 8, 1914. Serial No. 860,722. (Cl. 240—62.)

The combination with the front truck and dashboard of a car, of a headlight carrying shaft mounted on the dashboard, a sprocket carried shaft, a depending shaft mounted in front of the truck, a larger sprocket wheel on the upper edge of the shaft, a smaller sprocket on the lower edge of the shaft, blocks of insulation secured to the underside of the truck, bars slidably adjustable in the



blocks, a chain turned around the first named sprocket and said larger sprocket, adjusting means carried in the chain for taking up slack, and a chain connected at its end to the said adjustable bars and trained around the last named small sprocket.

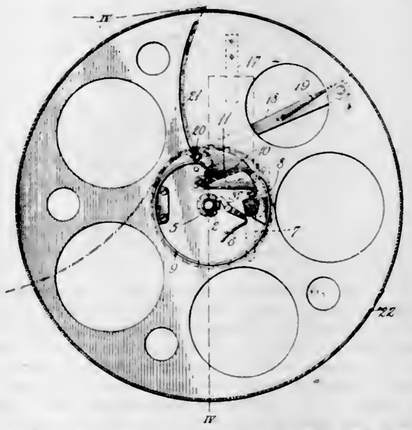
1,144,692. CONDUIT-MOLD. THOMAS DE LA MARE, Tooele, Utah. Filed May 1, 1914. Serial No. 835,734. (Cl. 25—128.)



1. In a molding apparatus, a transversely arched cope comprising a pair of side sections, a pair of yoke plates overlapping the said sections adjacent the ends thereof, and means for adjustably clamping the yoke plates and sections together, there being a filling opening between the said sections and yoke plates.

2. In a molding apparatus, a transversely arched cope comprising a pair of side sections adjustably connected and provided with a filling opening therebetween, the said sections having spaced inturned flanges at one end, and flange members adjustably carried by the inturned flanges and having their adjacent ends overlapped.

1,144,693. FILM-REEL. MICHAEL G. DELANEY, Detroit, Mich., assignor, by mesne assignments, to Northern Sales Co., Toledo, Ohio, a Corporation of Ohio. Filed Dec. 12, 1912. Serial No. 736,347. (Cl. 88—18.7.)



1. A film reel comprising a bearing member with a back plate fixed thereon, a front plate journaled on the bearing member in spaced relation to the back plate and provided with an opening, manually operable means for

locking the plates to turn together, film guiding means extending from an opening through the front plate into concentric relation with the bearing member between the plates, and a cover adapted to be locked on the back plate and to encircle the front plate.

2. A film reel comprising a bearing member with a back plate fixed thereon, a front plate journaled on the bearing member in spaced relation to the back plate and provided with an opening, manually operable means for locking the plates to turn together, film guiding means extending from an opening through the front plate into substantially concentric relation with the bearing member between the plates, a cover adapted to be locked on the back plate and to encircle the front plate, and means yieldingly mounted on one of the plates for maintaining a film applied to the reel in operative position.

3. A film reel comprising a bearing member with a back plate fixed thereon, a front plate journaled on the bearing member in spaced relation to the back plate and provided with an opening, manually operable means for locking the plates to turn together, film guiding means extending from an opening through the front plate into substantially concentric relation with the bearing member between the plates, and a cover adapted to be locked on the back plate to encircle the front plate, the front plate being adapted to detachably engage with the wall of a film magazine or holder.

4. A film reel comprising a bearing member with a back plate fixed thereon, a front plate journaled on the bearing member in spaced relation to the back plate and provided with an opening, manually operable means for locking the plates to turn together, film guiding means extending from an opening through the front plate into substantially concentric relation with the bearing member between the plates, a cover adapted to be locked on the back plate and to encircle the front plate, and means yieldingly, mounted on one of the plates for maintaining a film applied to the reel in operative position, the front plate being adapted to detachably engage with the wall of a film magazine or holder.

5. The combination with the wall of a film magazine having a lateral opening and stops thereon, of a film reel comprising a hollow bearing member, a back plate secured on the bearing member, a front plate journaled on the bearing member and provided with an opening, means on the front plate adapted to interlock with the stops of the magazine wall to hold the respective openings of the plate and magazine wall in register, manually operable means for locking the front plate to turn with the bearing member, and a guiding member on the front plate extending from the opening therethrough between the plates to direct an applied film into substantially concentric relation with the bearing member.

[Claims 6 and 7 not printed in the Gazette.]

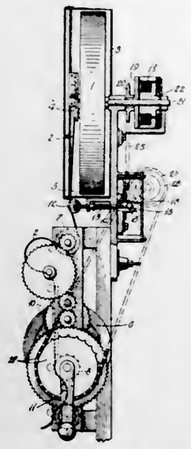
1,144,694. REGULATOR FOR FILM-MACHINES. MICHAEL G. DELANEY, Detroit, Mich., assignor, by mesne assignments, to Northern Sales Co., Toledo, Ohio, a Corporation of Ohio. Filed Sept. 22, 1913. Serial No. 791,157. (Cl. 88—17.)

1. The combination with a film holder and a projecting machine adapted to draw a film therefrom, of normally disconnected mechanism for positively discharging a film from the holder, and means adapted to be controlled by a film passing to the machine for connecting the mechanism when the tension of the film is abnormal.

2. The combination with a film holder and a projecting machine, adapted to draw a picture film from the holder, of means for rotating the holder, and means for connecting the rotating means to the holder controlled by the tension of a film passing from the holder.

3. The combination with a film holder, and guiding mechanism for a film passing therefrom, and means for passing a film through the guiding means from the holder, of means for positively turning the holder, means for coupling the holder to the turning means, and means controlled by the tension of a film passing over the guiding mechanism for throwing in the coupling means when the

tension of a film engaged by the guiding means varies from normal.

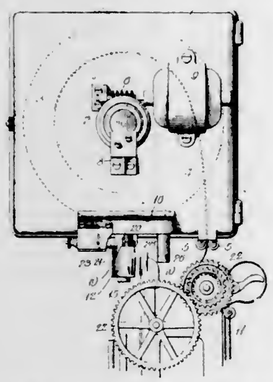


4. The combination with a film holder and guiding mechanism for a film passing therefrom, and means for passing the film through the guiding means from the holder, of normally disconnected mechanism controlled by the tension of a film passing over the guiding means and adapted when thrown in by abnormal tension of the film to turn the holder, and to release the holder to turn independently when the film is under normal tension.

5. The combination with a film magazine, of a film projecting machine, adapted to draw a film therefrom, means for regulating the delivery of the film from the magazine that is normally inert, and means controlled by the tension of a film passing from the magazine to the machine for throwing the regulating means into operation.

[Claims 6 to 11 not printed in the Gazette.]

1,144,695. ADJUSTABLE CASING FOR FILM-REELS. MICHAEL G. DELANEY, Detroit, Mich., assignor to The Northern Sales Co., Toledo, Ohio, a Corporation of Ohio. Filed Feb. 16, 1914. Serial No. 818,911. (Cl. 88—18.7.)



1. In a moving picture machine including a projecting machine with gearing for drawing off a picture film, a casing for film reels provided with means for detachably mounting such reels in the casing and with delivery openings for both center and side deliverey reels with means for mounting the casing on the frame in which the casing is adjustable for bringing either opening into operative registration with the gearing.

2. In a moving picture machine including picture projecting mechanism with gearing for drawing a film therethrough, a casing for film reels having a delivery opening for side delivery reels and an opening for center delivery reels, and means for supporting the casing in operative relation to the gearing, the casing being adjustable in the supporting means for bringing either opening into proper alinement with the gearing.

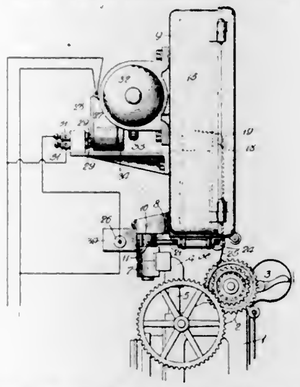
3. In a moving picture machine including film operating mechanism, a bracket adjustably supported on the machine, a film reel casing adjustably mounted in the bracket and provided with film delivery openings for both side and center delivery film reels, and means for detachably locking the casing in the supporting bracket with either opening in proper registration with the film operating mechanism.

4. In a moving picture machine, a bracket detachably mounted thereon, a film reel casing, a stem on the casing adapted to detachably interlock with the bracket, film guiding rolls at an opening in the casing that are in operative registration with the mechanism of the machine when the stem is interlocked with the bracket, a film tensioning roller on the casing at a delivery opening thereof, and a stud on the casing that is adapted to coöperate with the stem when engaging the bracket for holding the casing with the tensioning roller in operative relation to the mechanism of the machine.

5. In a picture machine having film feeding gearing, a bracket adjustably supported on the machine, a reel casing, a stem on the casing adapted to interlock with the bracket when the casing is in one position, a stud on the casing adapted to engage the bracket together with the stem for holding the casing in another position, film guiding members at one opening of the casing for drawing a film therefrom by the machine when the stem alone engages the bracket, and a tensioning roller on the casing at another opening thereof adapted to guide a film drawn therefrom by the machine when the casing is held by the engagement of the stud and stem of the bracket.

[Claims 6 to 8 not printed in the Gazette.]

1,144,696. MOVING-PICTURE MACHINE. MICHAEL G. DELANEY, Detroit, Mich., assignor to The Northern Sales Co., Toledo, Ohio, a Corporation of Ohio. Filed Feb. 16, 1914. Serial No. 818,912. (Cl. 88—17.)



1. A reel container for moving picture machines comprising a casing, means therein for operatively supporting a reel, a pair of guide rolls at one opening in the casing for receiving a film from a side delivery reel, a tension roll at a delivery opening in the casing for a film from a center delivery reel, and means for supporting the casing on a moving picture machine for delivery through an opening.

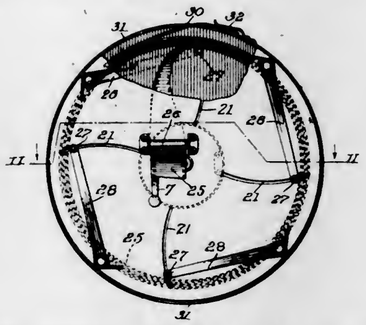
2. A reel container for moving picture machines comprising a casing, means therein for operatively supporting a reel, a pair of guide rolls at one opening in the casing for receiving a film from a side delivery reel, a tension roll at a delivery opening in the casing for a film from a center delivery reel, an extension on the casing, a depending stem from the extension, a stud on the extension, and means for interlocking with the stem to support the casing in one position and with the stem and stud to support the casing in the other position.

3. A reel container for moving picture machines comprising a casing, means therein for operatively supporting a reel, a pair of guide rolls at one opening in the casing for receiving a film from a side delivery reel, a tension roll at a delivery opening in the casing, for a film from a center delivery reel, an extension on the casing, a depending stem from the extension, a stud on the extension, a bracket adapted to be adjustably supported on a moving picture machine and to interlock with and support the casing in position for delivery from one opening and to interlock with the stem and stud for supporting the casing for delivery from the other opening.

4. A reel container comprising a casing, a cover therefor, means in the casing for operatively supporting either a side or center delivery film reel, a pair of guide rolls at one opening in the casing for a film from a side delivery reel, a tension roll on the casing at an opening for delivery of a film from a center delivery reel, an extension on the casing, a stem depending from the extension, a supporting bracket having an opening adapted to receive the stem, a member on the bracket for interlocking with the stem to hold the casing in position for delivery past the guide rolls, and a stud on the extension adapted to coöperatively engage the bracket with the stem for supporting the casing to deliver past the tension roll.

5. A reel container for moving picture machines, comprising a casing having a delivery opening for a film, means therein for operatively supporting a reel, a tension roll at the delivery opening adapted to impose a tension on a film after it passes the opening, and means for supporting the casing on a moving picture machine for delivery through said opening.

1,144,697. FILM-REEL. MICHAEL G. DELANEY, Detroit, Mich., assignor to The Northern Sales Co., Toledo, Ohio, a Corporation of Ohio. Original application filed Dec. 12, 1912, Serial No. 736,347. Divided and this application filed Feb. 21, 1914. Serial No. 820,215. Renewed May 8, 1915. Serial No. 26,903. (Cl. 88—18.7.)

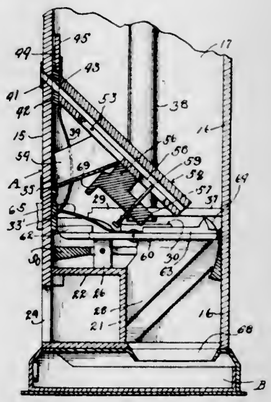


1. The combination with the wall of a film magazine provided with an opening therein, of a film reel comprising a back plate secured on a bearing member, a front plate provided with an opening, and journaled on the bearing member, means for securing the front plate to the wall with the respective openings in register, manually operable means for locking the plates and bearing member to turn together, a film guide extending from the opening of the front plate into concentric relation to the bearing member between the plates, a flanged cover adapted to be locked on the back plate and to encircle the front plate, and means for yieldingly maintaining a film applied to the reel in operative relation to the guide through the cover opening.

2. A film reel comprising a bearing member adapted to be rotatably mounted on a suitable support, a back plate secured to the member, a front plate journaled on the member and provided with an opening means on the front plate adapted to hold a film that passes through the opening in operative relation to the bearing member and plates, a cover removably secured on the back plate and encircling the front plate with a film opening therethrough, and means for locking the plates and member to turn together.

3. A film reel comprising a bearing member adapted to be rotatably mounted on a suitable support, and provided with a fixed side plate, a complementary side plate rotatably mounted on the bearing member in spaced relation to the other plate and provided with a film opening, guiding means between the plates for holding a film that passes through the plate opening in operative relation to the plates and bearing member, a cover detachably secured on the fixed side plate around the other plate and provided with a film opening, and means for locking the rotatable plate to turn with the bearing member.

1,144,698. MONEY-CHANGING MACHINE. CLIFTON T. DODSON, Whitney, Tex. Filed Feb. 3, 1914. Serial No. 816,270. (Cl. 194—1.)



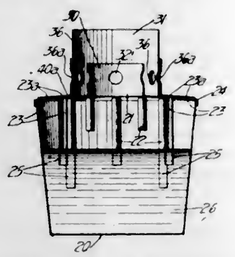
In a money changing machine, the combination of a casing having a slot therein for the insertion of a coin to be changed, a coin magazine, a shutter slidably mounted on the casing and provided with a slot adapted to register with the slot in the casing in one position of the shutter, a platform pivoted in the casing and having one end disposed beneath the magazine to receive the weight of the coins in said magazine, and connections between the shutter and the other end of said platform whereby the pivotal movement of the platform will move the shutter, said shutter being held in position to register the slot of the shutter with the coin slot in the casing by a predetermined weight of coins and movable under the influence of gravity to close the coin slot in the casing when the weight of the coins in the magazine has been reduced a predetermined extent.

1,144,699. HEATER. EMANUEL W. DUNN, San Francisco, Cal. Filed Sept. 9, 1912. Serial No. 719,291. (Cl. 158—91.)

1. In an orchard heater, a substantially closed fuel receptacle, means for controllably admitting air into said receptacle to the fuel therein, a short outlet flue extending upwardly from the receptacle, and a combustion stack surrounding the flue of greater height than the flue and of substantially greater diameter than the flue above the upper end of the flue, said combustion stack having no communication with the fuel receptacle other than through the flue, and means to admit air to the lower part of the combustion stack around the flue.

2. In an orchard heater, a substantially closed fuel receptacle, means for admitting air into said receptacle to the fuel therein, a short outlet flue extending upwardly

from the receptacle, and a combustion stack surrounding the flue of greater height than the flue and of substantially greater diameter than the flue above the upper end of the flue, said combustion stack having no communication with the fuel receptacle other than through the flue, and means to controllably admit air to the lower part of the combustion stack around the flue.



3. In an orchard heater, a substantially closed fuel receptacle, means for admitting air to the fuel within the receptacle, a short outlet flue extending upwardly from the receptacle, a stack of larger diameter than the flue surrounding the same and projecting some distance above its top, so that a considerably larger combustion space is provided in the stack above the flue rather than in the flue, means for admitting air to the lower part of the stack around the flue to effect complete combustion of the gases emerging from the flue, means for controlling admission of air to the fuel in the receptacle, and means for controlling admission of air to the stack.

4. In an orchard heater, a substantially closed fuel receptacle, means for controllably admitting air to the fuel within the receptacle, a combustion stack extending upwardly from the fuel receptacle, means to direct combustible gases from the fuel in the receptacle upwardly into the central portion of said stack, and means coöperating with said first mentioned air admission means for controllably admitting air to the lower peripheral portions of the stack.

5. In an orchard heater, a substantially closed fuel receptacle, means for controllably admitting air to the fuel within the receptacle, a combustion stack extending upwardly from the fuel receptacle, a flue extending upwardly within the lower portion of the stack having its lower end open to the interior of the fuel receptacle and its upper end discharging into the stack, and means coöperating with said first mentioned air admission means for controllably admitting air to the lower part of said stack around the flue.

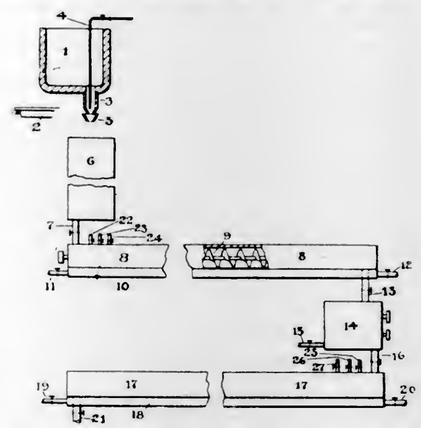
[Claim 6 not printed in the Gazette.]

1,144,700. NAIL AND WASHER FOR SHEET-METAL ROOFING AND THE LIKE. CHRISTOPHER B. EDWARDS, Covington, Ky. Filed Mar. 13, 1915. Serial No. 14,264. (Cl. 85—10.)



In combination, a roofing-nail having a suitable head and a pair of radially-projecting pins or lugs on the shank duly spaced below said head, and a washer having a central orifice that is radially-notched to enable the free passage of the washer over said lugs to snug position beneath said head and to be turned part-way for passing said lugs and adapting them to hold the washer on the shank directly beneath said head for manipulation in application for use.

1,144,701. APPARATUS FOR MAKING WHITE LEAD. CARLETON ELLIS, Montclair, N. J., assignor to Ellis-Foster Company, a Corporation of New Jersey. Filed Aug. 25, 1911. Serial No. 645,913. (Cl. 134—68.)



1. An apparatus for making white lead comprising a receptacle for holding molten lead, adjacent thereto a metal atomizer adapted to comminute lead to a product of extreme fineness, a conveyer of great length adapted to propel the comminuted product, a shunt return forming a part of said conveyer, means for contacting said product while in said conveyer with air in the presence of moisture; whereby said product is hydrated; a separator connected with said conveyer adapted to free the hydrated material from substantially all metallic particles, a second conveyer adapted to receive and propel the hydrated material from said separator, and means for introducing carbon dioxid into said second conveyer; whereby the hydrated material is carbonated.

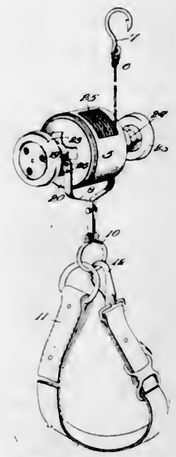
2. An apparatus for making white lead comprising a receptacle for holding molten lead, adjacent thereto a metal atomizer adapted to comminute lead to a product of extreme fineness, a conveyer of great length adapted to propel the comminuted product, means for contacting said product while in said conveyer with air in the presence of moisture; whereby said product is hydrated; a separator connected with said conveyer adapted to free the hydrated material from substantially all metallic particles, a second conveyer adapted to receive and propel the hydrated material from said separator, and means for introducing carbon dioxid into said second conveyer; whereby the hydrated material is carbonated.

3. Apparatus for making white lead comprising a receptacle for holding molten lead, adjacent thereto a metal atomizer adapted to comminute molten lead to a finely divided product, a conveyer adapted to propel the comminuted product in contact with moisture and with oxygenating and carbonating gases, and interposed in said conveyer a separator adapted to remove metallic particles from the material.

1,144,702. PORTABLE FIRE-ESCAPE. FRANCIS A. FOREST, Sault Ste. Marie, Mich., assignor of one-half to John P. Conrick and one-half to Thomas F. Hickler, Detroit, Mich. Filed July 14, 1914. Serial No. 850,923. (Cl. 254—154.)

1. In a device of the character described, in combination, a shaft having a collar near one end thereof, a

flanged drum mounted on said shaft adjacent said collar, a separate friction member adjacent the opposite side of said drum adapted to coact with the adjacent flange, means for initially adjusting the friction between said parts and manually operated means at each side of the device for increasing the friction between said parts, the relative position of said first mentioned means and collar preventing a reduction of the friction beyond a predetermined point.



2. In a device of the character described in combination a drum, a cable adapted to be wound thereon, a body supporting member secured to the drum, means adapted to secure the operator to said body supporting member, means insulating said members one from the other, and manually controlled insulated means for regulating the rate of rotation of said drum.

3. In a device of the character described in combination a drum, a cable adapted to be wound thereon, a body supporting member secured to the drum, means adapted to secure the operator to said body supporting member, means insulating said members one from the other, and manually controlled means for regulating the rate of rotation of said drum, said means having insulating operating handles.

4. In a device of the character described, in combination a drum, a cable adapted to be wound thereon, the flanges of said drum increasing in thickness as they approach the periphery and coacting friction members adapted to engage the flanges of said drum with a decreasing pressure as the cable is unwound from said drum.

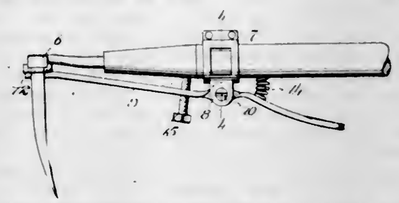
5. In a device of the character described in combination a drum, a cable adapted to be wound thereon, the flanges of said drum increasing in thickness as they approach the periphery to permit radially variable lateral movement, friction devices near the periphery of said flanges and friction devices adapted to coact therewith.

[Claims 6 to 9 not printed in the Gazette.]

1,144,703. RAKE-TEETH CLEANER. JAMES ARTHUR GOODSELL, Hudson, Mich., assignor of forty one-hundredths to William Myers, Hudson, Mich. Filed Mar. 21, 1914. Serial No. 826,282. (Cl. 55—146.)

1. A rake teeth cleaner including in combination with a rake embodying a handle and teeth, a cleaner element associated with the teeth having an operating portion extending therefrom to engage the handle, and an adjustable element carried by the operating portion and coacting with the handle for regulating the depth of the penetration of the teeth.

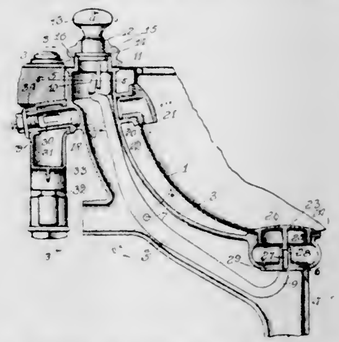
2. A rake teeth cleaner including in combination with a rake handle a bar normally lying in engagement with the rake bar at the inner terminal of the teeth, and a set-screw in connection with the cleaner bar coöperating with the ranke handle to permit of the minute adjustment of the bar on the teeth whereby the depth of penetration of the rake teeth is regulated.



3. A rake teeth cleaner including a cleaning element comprising an elongated channeled bar in which the tooth-bar of the rake engages, means associated with the handle of the rake for actuating said cleaner bar, and a set-screw mounted in said operating means and having engagement with the handle of the rake for disposing said cleaner bar at a predetermined position on the teeth of the rake.

4. A rake teeth cleaner including a cleaning bar provided with a multiplicity of uniformly spaced apart openings through which the teeth of the rake engage, said bar being channeled in order to snugly engage with the tooth bar of the rake, a lever pivotally mounted on said handle and having engagement with said cleaning bar for actuating the latter, means for normally holding said cleaning bar in engagement with the tooth bar of the rake, and a set-screw mounted in said lever for holding said cleaning bar in spaced relation to the tooth bar of the rake for regulating the depth of penetration of the teeth during the raking operation.

1,144,704. LAVATORY APPARATUS. WILLIAM SYDNEY GRAHAM, Chicago, Ill., assignor to Federal-Huber Company, Chicago, Ill., a Corporation of Illinois. Filed Sept. 28, 1908. Serial No. 455,177. (Cl. 4—24.)



1. In a lavatory, the combination with a bowl, of an integral fixture curved around the side of said bowl and comprising a transverse conduit or passage for the supply of water, an outlet conduit for waste water, and means taking through the wall of the bowl and into the conduits whereby the bowl is held in place at the upper and lower ends of said fixture.

2. In a lavatory, the combination of a bowl, of an integral fixture provided with a longitudinally extending passage way and transversely extending passage ways surrounding the longitudinally extending passage way, the transversely extending passage ways having communication with the water supply, the lower end of the longitudinally extending passage way having communication with the waste water supply, a spout extending through the bowl and connected to the said integral fixture for holding the upper end of the same and means taken thorugh the waste water pipe for holding the lower end of the fixture.

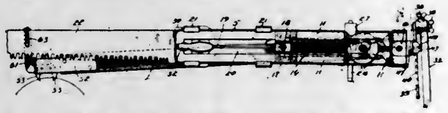
3. In a lavatory apparatus, a combination with a bowl, of an integral fixture provided with a longitudinally ex-

tending passage way and transversely extending passage ways, means for detachably connecting the lower end of the longitudinally extending passage ways with the bowl and means for detachably connecting the transversely extending passage ways with the upper end of the bowl.

4. In a lavatory apparatus, a combination with a bowl of an integral fixture comprising a longitudinally extending passage way and a transverse passage way surrounding the longitudinal passage way, means extending through the bowl for securing the lower end of the longitudinal passage way thereto, and a spout extending through the upper end of the bowl and detachably secured to the transverse passage way for the purpose specified.

5. In a lavatory apparatus, the combination with a bowl, of an integral fixture detachably secured thereto, said fixture comprising a longitudinally extending passage way, and a transversely extending passage way, the medial portion of the transverse passage way extending around the longitudinally extending passage way, inlet pipes leading to one end of the transversely extending passage way, and a spout detachably connected to the opposite end of the transversely extending passage way for the purpose specified.

1,144,705. PORTABLE ELECTRIC AUTOMATIC SAWING-MACHINE. WALTER GRALAPP, Wittenberg, Wis. Filed July 24, 1914. Serial No. 852,890. (Cl. 143—68.)



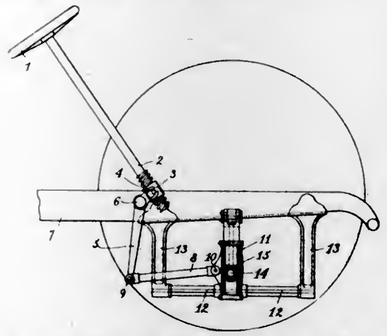
1. A portable sawing machine comprising a main frame, means for securing one end of said main frame to a log, an upright disposed adjacent to the remaining end of said frame and adapted to rest upon the ground and having the upper end thereof formed to provide a horizontal bearing opening, a bushing within said opening, a bolt projecting through said bushing, a vertical supporting arm having the upper end thereof secured to one end of said bolt and depending therefrom, an adjustable connection between said supporting arm and the adjacent end of the frame whereby the elevation of the frame may be varied, and means holding said bolt in said bushing and the saw carrying frame connected to said main frame.

2. A portable sawing machine comprising a main frame, means for securing one end of said main frame to a log, an upright disposed adjacent to the remaining end of said frame and adapted to rest upon the ground and having the upper end thereof formed to provide a horizontal bearing opening, a bushing within said opening, a bolt projecting through said bushing, a vertical supporting arm having the upper end thereof secured to one end of said bolt and depending therefrom, an adjustable connection between said supporting arm and the adjacent end of the frame whereby the elevation of the frame may be varied, means holding said bolt in said bushing and the saw carrying frame connected to said main frame, and means holding said bushing against turning movement in the opening in said upright.

3. A portable sawing machine comprising a main frame, means for securing one end of said main frame to a log, an upright disposed adjacent to the remaining end of said frame and adapted to rest upon the ground and having the upper end thereof formed to provide a horizontal bearing opening, a bushing, a vertical supporting arm having the upper end thereof secured to one end of said bolt and depending therefrom, a plate connected to the adjacent end of said frame and extending outwardly therefrom and having the outer end thereof formed with an opening, a guide block having a boss formed thereon projecting through the opening in said plate, means holding said boss within the opening in said plate, said block being also formed with a vertical opening to slidably receive said vertical arm, and adjustable means for effecting a rigid connection between said block and arm.

4. In a portable sawing machine, a main frame, means on one end of said main frame adapted to grip the work, means supporting the remaining end of said frame, a saw carrying frame pivoted upon said main frame and capable of vertical swinging movement, a stop arm secured to said saw carrying frame and projecting upwardly and laterally therefrom, a clamp bracket secured to said main frame and formed with a vertical opening, a limiting member slidably mounted within said opening, a lateral foot on the lower end of said limiting member disposed in the path of movement of said stop arm and adapted to be engaged thereby to limit the downward movement of the saw carrying frame, and means for holding said limiting member in adjusted position in the slot in said clamp bracket.

1,144,706. ARRANGEMENT FOR CONTROLLING THE STEERING-WHEELS OF AUTOMOBILES. JEAN JACQUES HEILMANN, Paris, France. Filed July 19, 1910. Serial No. 572,686. (Cl. 21—196.)



1. A control device for the steering wheels of a vehicle, comprising a guide carried by the frame of the vehicle, a movable member guided thereby, said member being movable substantially in parallelism with the longitudinal axis of said frame, a vertically displaceable part guided by said member, and a wheel controlling lever co-acting with said vertically displaceable part, said lever being angularly displaceable in a plane transverse to the vertical plane of the wheel.

2. A control device for steering wheels of a vehicle comprising a manually-controlled steering part, a vehicle wheel controlling lever, and means for operating said lever from said steering part, said means including a reciprocable supporting member, a guide for said member upon which said member moves substantially in parallelism with the longitudinal axis of the vehicle frame, and connections between said lever and supporting member comprising a vertically displaceable part, said part being displaced upon angular movement of the axis of rotation of the vehicle wheels with respect to the transverse axis of the vehicle frame, and connections from said steering part to said vertically displaceable part.

3. A control device for the steering wheels of a vehicle comprising a manually controlled steering part, a vehicle wheel controlling lever, and means for operating said lever from said steering part, said means including a slidable support, a cross-head slidably connected to said support and adapted for vertical movement, said cross-head and lever being pivotally connected.

4. A control device for the steering wheels of an automobile or the like, comprising a manually controlled steering part, an extensible wheel controlling lever, the elements of which are telescopically arranged in a plane substantially parallel to the transverse axis of the vehicle, one of said elements being connected to one of the vehicle wheels to permit independent rotation of the latter and to turn therewith, and means connected to the other of said elements for angularly displacing said lever in accordance with the movements of the steering part aforesaid.

5. A control device for the steering wheels of a vehicle, comprising a manually controlled steering part, a reciprocable support, means for moving said support in accordance with the movements of said steering part, and a vehicle wheel controlling lever angularly displaceable by movement of said support, said lever being connected to said support but being vertically displaceable with respect thereto by a vertical displacement of the vehicle wheels with respect to the frame of the vehicle.

[Claims 6 to 8 not printed in the Gazette.]

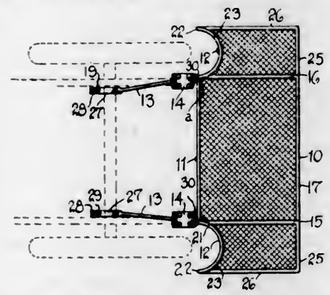
1,144,707. ADVERTISING DEVICE. GERSON ISENBERG, New York, N. Y., assignor to Isenberg Cigar Company, Wheeling, W. Va., a Firm. Filed Nov. 1, 1913. Serial No. 798,746. (Cl. 40—126.)



1. A novelty comprising a suitable backing, a currency note folded into substantially triangular form mounted on said backing, said note having the major portion thereof folded under so that the exposed portion is elevated above the surface of said backing, and strips of a different material projecting outward from the opposite ends of the folded note, the said note and strips presenting an appearance in similitude to a closed unrolled umbrella.

2. A novelty comprising a suitable backing, a currency note folded into substantially triangular form mounted on said backing, said note having the major portion thereof folded under so that the exposed portion is elevated above the surface of said backing, said note presenting an appearance in similitude to the body of an umbrella, and means applied to said backing in contiguity to said note to simulate parts of an umbrella accessory to the body.

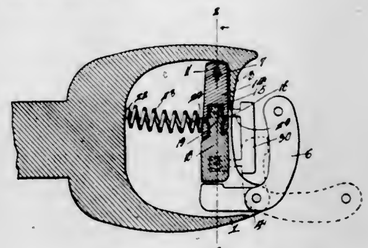
1,144,708. AUTOMOBILE-FENDER. WILLIAM F. JACKSON, Bridgeport, Ill. Filed Apr. 28, 1915. Serial No. 24,536. (Cl. 105—33.)



1. In a vehicle fender, a lap frame, reticulated material covering the frame, transverse extensions formed on the lap frame, reticulated material covering the extensions, transversely curved vertical wheel guards rising from the rear ends of the extensions, a vertical section disposed between the wheel guards and behind the lap frame, said wheel guards being disposed with their rear edges in the plane of the vertical section and being disposed in advance of the front wheels of the vehicle, and means for securing the fender to a vehicle.

2. In a vehicle fender, a lap frame, reticulated material covering the frame, transverse extensions formed on the lap frame, reticulated material covering the extensions, transversely curved vertical wheel guards rising from the rear ends of the extensions, a vertical section disposed between the wheel guards and behind the frame, and means for securing the fender to a vehicle, said means including a pair of attaching plates extending rearwardly from the wheel guards for attachment to the vehicle chassis, and a pair of bracket arms extending rearwardly from the lap frame and engageable with the vehicle axle.

1,144,709. AUTOMATIC UNCOUPLER FOR CARS. GEORGE J. JANOVISK, Chrome, N. J. Filed Jan. 4, 1912. Serial No. 669,353. (Cl. 213—6.)



1. In a car coupling device, a coupling member, means to maintain said coupling member coupled with another coupling member, means to release the coupled coupling member operable to actuate said means upon downward movement of one of the coupled coupling members.

2. In a car coupling device, a movable coupling member, lock means for said movable coupling member, means connected to the lock means to extend into the path of movement of an engaged coupling member for shifting movement through movement of the engaged coupling member to unlock the first coupling member and thereby release the same to permit movement thereof.

3. In a car coupling device, a movable coupling member, means to maintain the movable coupling member coupled with another coupling member, and means operable to uncouple the movable coupling member upon movement of the second coupling member in one direction, whereby said first coupling member may move to thereby disengage the second coupling member.

4. In a device of the class described, a coupling head, a coupling member pivoted to the head, means to normally maintain the coupling member locked, and actuating means associated with said means extending into a plane passing intermediate the coupling portion of said member and the wall of the head opposite the said coupling portion, whereby said actuating means is positioned for engagement by a second coupling member for actuation to effect the release of the first coupling member.

5. In a device of the class described, a head, a coupling member pivoted to the head, means to normally maintain the coupling member locked operable to release a coupled coupling member through downward movement, said means comprising a lock device directly engageable with the coupling member and an operating member extending laterally of the lock device and beyond one end of the said head adapted to be engaged for operation beyond the head by the coupled coupling member upon moving downwardly.

[Claims 6 to 12 not printed in the Gazette.]

1,144,710. TOOL-HANDLE. ARCHER B. JENNINGS, Meriden, Conn. Filed Oct. 24, 1914. Serial No. 868,542. (Cl. 145—79.)

1. A tool handle fastening consisting of a tool shank for insertion in a handle and having a laterally disposed

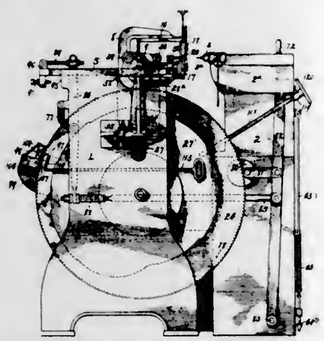
recess in the side thereof, a ferrule on the end of the handle and a depression formed in the ferrule in front of the recess in the shank, whereby the material of the handle adjacent the recesses in the shank is compressed therein and the tool securely held in the handle.



2. In a tool handle fastener, in combination a tool handle of a compressible material, a tool whose shank is inserted in the handle, one or more lateral recesses formed in the shank, a ferrule surrounding the end of the handle and a corresponding number of depressions formed in the ferrule in front of the recesses, thus acting to produce mutual locking connections between the three parts by producing internal projections which enter said recesses and compresses the handle between the projections of the ferrule and the recesses in the shank.

3. A tool handle fastening consisting of a tool shank for insertion in a handle and having a laterally disposed recess in the side thereof, a ferrule on the end of the handle surrounding the shank, a depression formed in the ferrule opposite the recess in the shank and the handle with the compressed portion located between the projection produced by the depression made in the ferrule and the recess in the shank of the tool constituting a condensed wooden wedge, whereby the handle the tool and the ferrule are securely connected together.

1,144,711. BRUSH-MAKING MACHINE. CONRAD JOBST, Toledo, Ohio, assignor to The Ames Bonner Company, Toledo, Ohio, a Corporation of Michigan. Filed Nov. 24, 1913. Serial No. 802,682. (Cl. 15—7.)



1. In combination, a rocker-head, a work-holder carried by said head for rectilinear movements toward and away from the rocker-head axis, and means yieldingly urging said holder in one direction of its movement.

2. In combination, a rocker-head, a work-holder carried my said head for rectilinear movements relative thereto, and means yieldingly urging said holder in one direction of its movement.

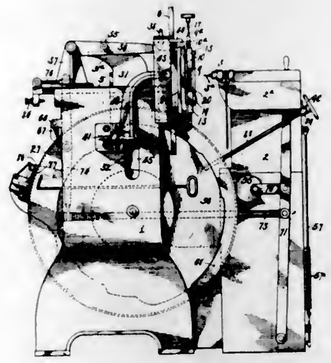
3. In combination, a rocker-head, and a work-holder pivotally and slidingly carried by said head for swinging and rectilinear movements relative thereto.

4. In combination, a rocker-head, a work-holder pivotally and slidingly carried by said head for rocking and rectilinear movements relative thereto, the said rectilinear movements of the holder being toward and away from the rocking axis of the head.

5. In combination, a rocker head pivotally movable in one plane, a work-holder frame carried by said head for pivotal movements in a different plane from the plane of movement of said rocker-head, and mechanism operable to impart predetermined pivotal movements to said head and frame and to vary the relative positions of their axes of oscillation.

[Claims 6 to 66 not printed in the Gazette.]

1,144,712. BRUSH-MAKING MACHINE. CONRAD JOBST, Toledo, Ohio, assignor to The Ames Bonner Company, Toledo, Ohio, a Corporation of Michigan. Filed Nov. 24, 1913. Serial No. 802,683. (Cl. 15—7.)



1. In combination, a work-holder mounted for compound rectilinear reciprocatory movements at right angles to each other and in the same plane, mechanism for imparting predetermined movements of said character to the work-holder, said work-holder comprising two body parts which are connected for relative rectilinear reciprocatory movements in the direction of one of the reciprocatory movements of the work-holder, and means operable at a predetermined point in the movements of said work-holder to impart relative movements to the parts thereof.

2. In combination, a work-holder mounted for compound rectilinear reciprocatory movements at right angles to each other and in the same plane and comprising a body part and a work-carrying part which are connected for relative rectilinear reciprocatory movements in the direction of one of the reciprocatory movements of the work-holder, means yieldingly retaining the work-holder parts at one position or another of their relative movements, mechanism operable to control the compound movements of the work-holder, and means automatically operable upon a predetermined movement of the work-holder in one plane of its movement to shift the relative positions of the work-holder parts.

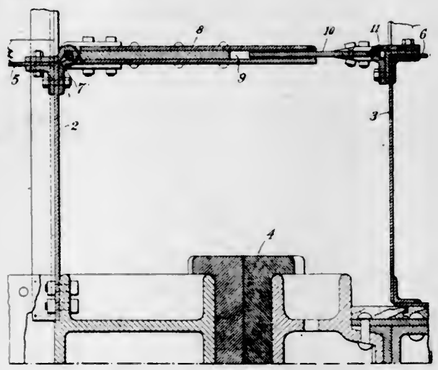
3. In combination, a work-holder mounted for compound reciprocatory movements in different lines in the same plane and comprising a back plate and a face plate which are connected for relative reciprocatory movements in the direction of movement of the work-holder, means yieldingly retaining said plates in one position or another of their relative movements, a plurality of sets of work-holding clamps carried by said face plate, mechanism for imparting predetermined compound movements to said work-holder, and means automatically operable at predetermined points in the movement of said work-holder to relatively shift the plates of the work-holder to move one clamp set from and another clamp set to operative position.

4. In combination, a movable work-holder comprising two plates connected for relative rectilinear movements, one plate having a plurality of work-carrying means, mechanism for imparting predetermined movements to the work-holder as a unit, and means operable at a predetermined point in the unitary movement of the work-holder to relatively move the plates thereof to shift one work holding means from and another work holding means of the work-holder into operative position.

5. In combination, a vertical guide member, a carrier head mounted on said member for vertical reciprocatory movements, a work-holder carried by said head for horizontal reciprocatory movements and comprising two body plates connected for relative shifting movements in the plane of movements of the work-holder relative to the carrier head, mechanism operable to impart predetermined movements to said carrier head and work-holder relative to each other and to said guide member, and means automatically operable at a predetermined point in a movement of the work-holder relative to the carrying head to impart predetermined relative shifting movements to the body plates of the work-holder.

[Claims 6 to 26 not printed in the Gazette.]

1,144,713. ENGINE-TENDER PLATFORM. HARRY T. KRAKAU, Cleveland, Ohio, assignor to The National Malleable Castings Company, Cleveland, Ohio, a Corporation of Ohio. Filed Mar. 9, 1912. Serial No. 682,620. (Cl. 105—21.)



1. An engine tender platform comprised of two webs, the said webs having a slot and recess engagement and admitting of vertical and lateral movement of the engine and tender without drawing apart.

2. An engine-tender platform comprised of two webs, one end of each of said webs being pivotally attached to the engine and tender respectively, one of said webs being adapted to take about the other at its free end, and the free ends of said webs being mutually self-supporting.

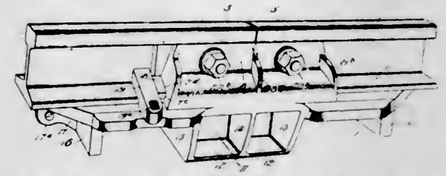
3. An engine-tender platform comprised of a recessed member pivoted to the engine, and a web pivoted to the tender, said web having its free end entered in the recessed member.

4. An engine-tender platform comprised of pivoted plates atached to the engine and tender respectively, and telescopic means for supporting said plates and for providing for relative lateral, vertical, and horizontal movement of the engine and tender.

5. An engine-tender platform consisting of pivoted members attached to the engine and tender respectively, one of said members being adapted to take about the other, the said members comprising a telescoping and laterally slidable joint.

1,144,714. RAIL-JOINT. CHARLES CALVERT LAMB, Chicago, Ill., assignor of one-half to Willard M. McEwen, Chicago, Ill. Filed Feb. 19, 1913. Serial No. 749,334. Renewed Jan. 2, 1915. Serial No. 254. (Cl. 239—6.)

1. In a rail-joint, the combination of a joint-bar consisting of a horizontal base-plate for supporting the rail-ends, and integral, longitudinal side members extending inwardly over the base-flanges of the rails and upwardly at the sides of the rail-webs, one of said side members conforming on its inner surface to the shape of the rails and the other of said side members having its inner surface spaced from the webs and base-flanges of the rails and being longitudinally inclined on its inwardly and downwardly facing surfaces, each of said side members being provided with elongated bolt holes adapted to register with the bolt holes in the rail-webs, a tapered wedge-piece consisting of integrally united base and upright members shaped on their inner surfaces to conform to the base-flanges and webs of the rails and inclined on their outwardly and upwardly facing surfaces, said wedge-piece being provided with elongated bolt holes adapted to register with the bolt holes in the rail webs and the side members of the joint bar, a transverse arm on the larger end of said wedge-piece and extending outwardly therefrom and in position for contact with said base-plate, said arm being provided with a spike-hole, and track bolts inserted through the bolt-holes in the side members, the rail-webs, and the wedge-piece.



2. In a rail joint, the combination of a joint-bar, consisting of a horizontal base-plate and integral, longitudinal side members extending from said base-plate, inwardly over the base-flanges of the rails and upwardly at the sides of the rail-webs, said side members being substantially shorter than the length of the base-plate, one of said side members conforming on its inwardly and downwardly facing surfaces to the shape of the rails and the other having its inner and downwardly facing surfaces spaced from the surfaces of the rails, said side members being provided with bolt holes adapted to register with the bolt holes of the rail webs, a longitudinally inclined wedge-piece having integrally united base and upright members, said members being inclined on their outwardly and upwardly facing surfaces, said wedge piece being provided with elongated bolt holes adapted to register with the bolt holes of the rail webs and the joint bar, a transverse arm on the larger end of the wedge-piece, extending outwardly therefrom with its lower surface in position for contact with the top surface of the base-plate, said arm being provided with a spike-hole, and track bolts inserted through the bolt holes of said side members, the rail-webs, and the wedge-piece.

1,144,715. SAFETY-PIN. GEORGE M. LANE, Lanoka, N. J. Filed May 16, 1912. Serial No. 697,725. (Cl. 24—161.)



1. A pin having a back portion and a pointed portion connected by a spring coil, the back portion being crinkled throughout its entire length and provided with longitudinally extending depressions, formed to correspond to the crinkling of said portion.

2. A pin having a back portion and a pointed portion connected by a coil, said portions being formed from cylindrical wire, the back portion being crinkled throughout its length and compressed at diametrically opposite points to provide depressions extending longitudinally of the back portion.

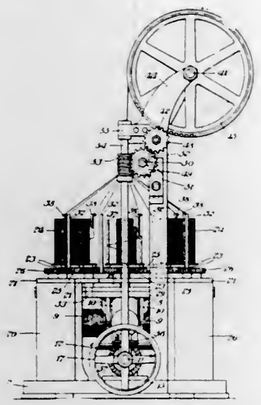
3. A safety pin including a back member having a head at one end and a pointed member at the other end and movable to bring its point into engagement with the head, the back and pointed member both being reinforced, the latter by being compressed at right angles to the common plane of the members to define longitudinally extending diametrically disposed stiffening ridges.

4. A pin having a back portion and pointed portion resiliently connected, the back portion being crinkled throughout its entire length and provided with longitudinal depressions formed to correspond to its crinkling.

5. A safety pin having a back portion and a pointed portion connected by a spring coil, the back portion being crinkled throughout its entire length and formed with depressions to correspond to the crinkling of such portion and the pointed portion being reinforced.

[Claim 6 not printed in the Gazette.]

1,144,716. BRAIDING-MACHINE. JACOB LUNDGREN, Philadelphia, Pa., assignor to The Carlson-Wenstrom Manfacturing Company, Incorporated, Philadelphia, Pa., a Corporation of Delaware. Filed Mar. 25, 1914. Serial No. 827,121. (Cl. 28—4.)



1. In a braiding machine, the combination of a set of spaced carriers adapted to carry a set of thread-supplying devices, a common carrier adapted to carry a second set of thread-supplying devices, means for supporting and rotating said set of carriers and said common carrier in opposite directions to each other and for causing threads delivered from said second set of said devices to move sinuously through the spaces between and around said spaced carriers, said means including spaced pinions arranged in a circular series to actuate the carriers of said set, and said threads moving sinuously around the outside of certain of said pinions and around the inside of certain of said pinions in alternate succession.

2. In a braiding machine, the combination of a set of spaced carriers adapted to carry a set of thread-supplying devices, a common carrier adapted to carry a second set of thread-supplying devices, means for supporting and rotating said set of carriers and said common carrier in opposite directions to each other and for causing threads delivered from said second set of said devices to move sinuously through the spaces between and around said spaced carriers, said means including spaced pinions arranged in a circular series to actuate the carriers of said set, and said threads moving sinuously through a path around the outside of certain of said pinions and around the inside of certain of said pinions in alternate succession, and the pinions on the outside of said path being more numerous than the pinions on the inside of said path.

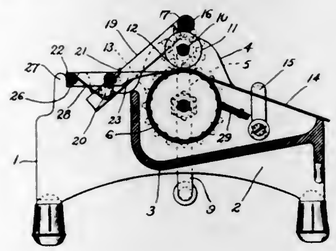
3. In a braiding machine, the combination of a set of spaced carriers adapted to carry a set of thread-supplying devices, a common carrier adapted to carry a second set of thread supplying devices, means for supporting and rotating said set of carriers and said common carrier in opposite directions to each other and for causing threads delivered from said second set of said devices to move sinuously through the spaces between and around said spaced carriers, said means including spaced pinions arranged in a circular series co-acting with the carriers of said set, said threads moving sinuously around the outside of one of said pinions and around the inside of two of said pinions in alternate succession.

4. In a braiding machine, the combination of a supporting frame, a set of spaced carriers for a set of thread-supplying devices, means for actuating said carriers and for guiding threads from a second set of thread-supplying devices, said means including spaced pinions and a gear wheel co-acting with said pinions and having thread-receiving spaces at intervals between adjacent teeth, and the threads from the second set of devices being guided by said means to pass through said spaces.

5. In a braiding machine, the combination of a supporting frame, a central standard supported on said frame, a member supported by said standard, parts supported by said frame and providing a sinuous course between said member and said parts, a set of spaced carriers adapted to carry a set of thread-supplying devices, said member and said parts being provided with means to support and guide said carriers in an annular path intersected by said sinuous course, and means for actuating said carriers and for guiding threads from a second set of thread-supplying devices through said course, said means including spaced pinions certain of which are supported by said member and certain of which are supported by said parts.

[Claims 6 to 16 not printed in the Gazette.]

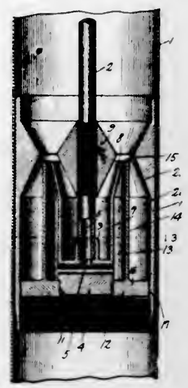
1,144,717. PASTING-MACHINE. HUGH J. MCMACKIN, Boston, Mass. Filed Feb. 28, 1914. Serial No. 821,828. (Cl. 91—51.)



1. In a pasting machine, the combination with a frame presenting end pieces and an open-topped paste-receiving reservoir between the end pieces, said end pieces each having an upwardly-directed extension provided with a single vertically-arranged open-ended slot extending from the top of the extension, of a pasting roller having trunnions which occupy said slots and is freely movable vertically therein, a disk-supporting shaft also journaled in said slots and provided with disks which rest on the pasting roller, a pad holder carrying a wiping pad which rests on the disks, arms pivoted to the end pieces and carrying the pad holder, springs engaging said arms and yieldingly holding the pad against the disks and a receiving platform supported at one end of the pasting roller and sustained at its other end on the frame, said springs engaging the platform and yieldingly holding it in position.

2. In a pasting machine, the combination with a frame presenting end pieces and an open-topped paste-receiving reservoir between the end pieces, said end pieces each having an upwardly-directed extension provided with a single vertically-arranged open-ended slot extending from the top of the extension and also having a second upwardly-directed extension provided with a notch, of a pasting roller having trunnions which occupy said slots and is freely movable vertically therein, a disk-supporting shaft also journaled in said slots and provided with disks which rest on the pasting roller, a pad holder carrying a wiping pad which rests on the disks, arms pivoted to the end pieces and carrying the pad holder, springs engaging said arms and yieldingly holding the pad against the disks, and a receiving platform supported at one end on said pasting roller and having trunnions extending from the other end thereof, which rest loosely in said notches, said springs having extensions to engage the platform trunnions and retain them in the notches.

1,144,718. PUMP. FRED H. MEIER, Teague, Tex. Filed Mar. 19, 1915. Serial No. 15,556. (Cl. 162—1.)



1. A pump, including a casing, an air induction pipe, and a nozzle member connected to and supported upon the lower end of said pipe, said nozzle member having three concentric chambers, the intermediate chamber of which is in communication with the air induction pipe while the remaining chambers are open at their lower ends to permit the passage of water therethrough.

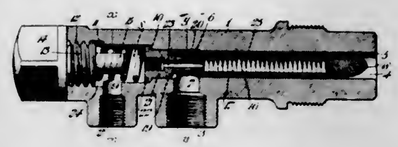
2. A pump, including a casing, an air induction pipe, and a nozzle operably connected to and bodily carried by the air induction pipe, and including three concentrically disposed members, the intermediate member of which is sealed at its lower end and is in communication with the air induction pipe, while the remaining ones are provided with ports in their lower ends to permit the passage of water therein and therethrough, said parts being adjustably connected together to adjust the nozzle effect at the point of commingling of the two water streams with the air stream.

3. A pump, including a casing, an air induction pipe, an exteriorly threaded member attached to the lower end thereof and provided with a transverse by-pass in communication with the lower end of the air induction pipe, said member being provided with a plurality of ports leading from both sides thereof, an upstanding cylinder provided with a flared mouth carried by said member, an annular member adjustably engaging the screw threads thereof and having an upstanding cylindrical member disposed concentrically of the upstanding cylindrical member of the exteriorly screw threaded member, the by-pass of the latter member opening in the space between the two upstanding members to conduct the air thereinto, and a surrounding cylinder forming with the second upstanding member an outer water conducting chamber.

4. A pump, including a casing, an air induction pipe, an exteriorly threaded member attached to the lower end thereof and provided with a transverse by-pass in communication with the lower end of the air induction pipe, said member being provided with a plurality of ports leading from both sides thereof, an upstanding cylinder provided with a flared mouth carried by said member, an annular member adjustably engaging the screw threads thereof and having an upstanding cylindrical member disposed concentrically of the upstanding cylindrical member of the exteriorly screw threaded member, the by-pass of the latter member opening in the space between the two upstanding members to conduct air thereinto, a surrounding cylinder forming with the second upstanding member an outer water conducting chamber, means mounted upon the air induction pipe for regulating the size of the concentric nozzle formed by the flared mouth of the first cylindrical member, and means carried upon the inner face of the last cylindrical member for coöperating with the upper end of the second cylindrical member to regulate the area of the nozzle at that point.

5. A pneumatic nozzle, including an outer cylindrical member having a tapered bore, an annular member adjustably mounted therein and provided with a sleeve disposed to provide an annular water directing chamber between it and the inner wall of the water cylinder, a solid cylindrical member adjustably mounted in the annular member and provided with a cylinder projecting thereabove to coöperate with the last cylinder to form a concentric chamber with an outlet adjacent the upper ends of both cylinders, said chamber being in communication with the air induction pipe, a third chamber being formed concentric of the air induction pipe for the passage of water therethrough, and a cone shaped member mounted upon the air induction pipe for effecting the nozzle area of the last chamber.

1,144,719. OIL-BURNER. WILLIAM MELAS, Philadelphia, Pa., assignor of one-half to David Townsend, Philadelphia, Pa. Filed Mar. 5, 1914. Serial No. 822,553. (Cl. 158—75.)



1. In a liquid fuel burner, comprising a transversely restricted longitudinal passage having an inlet for a diluent and forming an atomizing and mixing chamber, and an expansible fuel-duct having when expanded a helical fuel inlet opening into such passage.

2. A liquid fuel burner, comprising a transversely restricted longitudinal passage having an inlet for a diluent and forming an atomizing and mixing chamber, and an expansible fuel-duct having when expanded a restricted helical fuel inlet opening into such passage.

3. A liquid fuel burner, comprising a transversely restricted longitudinal passage having an inlet for a diluent and forming an atomizing and mixing chamber, and an expansible fuel-duct forming one wall of said passage and having when expanded a helical fuel inlet into the same.

4. A liquid fuel burner, comprising a casing formed with a longitudinal chamber, and an expansible fuel-feeder longitudinally supported within such chamber to produce an atomizing and mixing chamber between it and the casing, said latter chamber having an inlet for a diluent and said fuel-feeder formed with an internal fuel-duct and when expanded with a helical continuous inlet from such duct into the atomizing and mixing chamber.

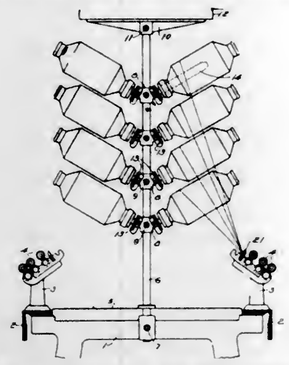
5. A liquid fuel burner, comprising a transversely restricted longitudinal passage having an inlet for a diluent and forming an atomizing and mixing chamber, and an expansible fuel-duct having when expanded an extended helical, automatically expansible and contractible fuel inlet opening into such passage.

[Claims 6 to 27 not printed in the Gazette.]

1,144,720. ROVING-CREEL FOR SPINNING-FRAMES AND THE LIKE. ALBERT H. MORTON, Lowell, Mass. Filed Sept. 12, 1912. Serial No. 719,963. (Cl. 242—131.)

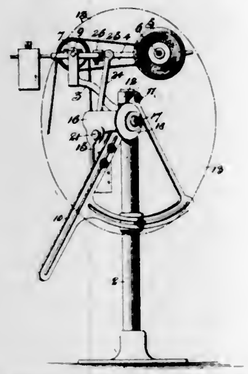
A spinning frame or the like having, in combination, drawing rolls mounted upon the frame, creel pins for carrying bobbins for supplying roving to the rolls mounted above the rolls in position so that the lead of roving runs from the bobbins to the roving guides for the rolls, supported upon low-friction bearings so that the resistance to rotation of the bobbins is so small as to be within the strength of the roving to overcome without stretching or breaking, and in upwardly inclined position to permit ob-

servation of the bobbin thereon and access thereto for the removal of the empty bobbins and the putting on of full



bobbins without interference with other bobbins, substantially as described.

1,144,721. **SAW-REGRINDING ATTACHMENT FOR SAW GUMMERS OR SHARPENERS.** EDMUND A. O'CONNOR, Vancouver, British Columbia, Canada, assignor of one-half to Samuel S. Hayes, Vancouver, Canada. Filed Dec. 14, 1914. Serial No. 877,148. (Cl. 51—12.)



1. A saw re-grinding attachment for a saw-gummer, comprising the combination with such a machine, of a saw holding arbor rotatably mounted in an attachment to the frame of the saw-gummer, and means for raising and lowering the pivotal frame in which the grinding wheel of the gummer is mounted from rotation of the arbor on which the saw to be ground is secured.

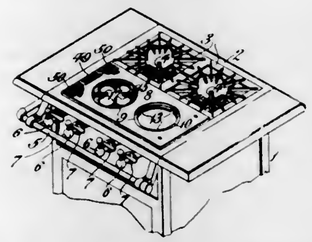
2. In a saw regrinder, the combination with a saw holding arbor rotatably mounted in a suitable frame, of a grinding wheel secured on an arbor which is rotatable adjacent to the plate so that the edge of the grinding wheel may be applied to the face of a saw plate mounted on the saw arbor, and means for reciprocating the grinding wheel across the face of the saw plate by rotation of the saw plate under the friction of the grinding wheel on its face.

3. In a saw regrinder, the combination with a saw holding arbor rotatably mounted in a suitable frame, of a grinding wheel secured on an adjacent arbor which is rotatable so that the edge of the grinding wheel may be applied to the face of a saw plate that is mounted on the saw arbor, in a manner to impart rotation to the saw plate, and means for transversing the grinding wheel across the face of the saw plate.

4. A saw re-grinding attachment for a saw-gummer, comprising the combination with such a machine, of a bracket removably secured to the saw holding frame of the gummer, a saw holding arbor rotatably mounted in the bracket said arbor having a screw thread cut in it, a worm wheel rotatably mounted in the bracket the teeth of which wheel mesh with the thread of the arbor, a crank rotatable with the worm wheel, and means for connecting the crank to the pivotal frame in which the grinding wheel of the gummer is mounted.

5. A saw re-grinding attachment for a saw-gummer, comprising the combination with such a machine, of a bracket removably secured to the saw holding frame of the gummer, an arbor rotatably mounted in the bracket, said arbor having a screw thread cut in it adjacent one end, a worm wheel secured on a shaft which is rotatable in the bracket, the teeth of which wheel mesh with the thread of the arbor, a crank secured on the worm wheel shaft the pin of which crank is adjustable in its radial distance and a connecting rod between the crank pin and a pin attached to the grinding wheel frame of the gummer.

1,144,722. **GAS OR VAPOR STOVE.** WILLIAM H. PEARCE, Philadelphia, Pa. Filed Mar. 16, 1914. Serial No. 824,888. (Cl. 126—214.)



1. A top plate for gas or vapor stoves comprising a metal plate provided with a plurality of pot openings and having at one end and two sides only marginal downwardly deflected portions, said plate having a series of independent depending flanges some of which extend substantially laterally and the others longitudinally upon opposite sides of one of said pot openings in close proximity thereto.

2. A top plate for gas or vapor stoves comprising a metal plate provided with a plurality of pot openings and having at one end and two sides only marginal downwardly deflected portions, said plate having a series of independent depending flanges some of which extend substantially laterally and the others longitudinally upon opposite sides of one of said pot openings in close proximity thereto and flanges between said opening and the adjacent opening.

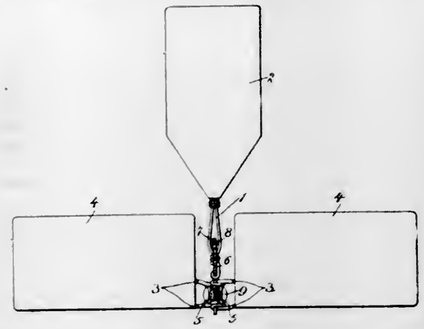
3. A top plate for gas or vapor stoves comprising a metal plate provided with a plurality of pot openings and having at one end and two sides only marginal downwardly deflected portions, said plate having a series of independent depending flanges some of which extend substantially laterally and the others longitudinally upon opposite sides of one of said pot openings in close proximity thereto and flanges between said opening and the adjacent opening, the adjacent flanges being convergent.

4. A top plate for gas or vapor stoves comprising a metal plate provided with a plurality of pot openings and having at one end and two sides only marginal downwardly deflected portions, said plate having a series of independent depending flanges some of which extend substantially laterally and the others longitudinally upon opposite sides of one of said pot openings in close proximity thereto and flanges between said opening and the adjacent opening and curved ribs at the corners at one end of said plate.

5. A top plate for gas or vapor stoves having a pot hole with an inwardly laterally extending flange forming the bottom wall of said hole and having radial apertures and depending flanges integral with said flange and extended upon a plurality of sides of said hole, and a member having lugs conforming to said apertures and its top face provided with ribs radially extended, said member having an aperture with curved walls between said ribs with the greatest width of the plate in proximity to said ribs and the latter extended inward beyond the inner margin of the plate.

[Claims 6 and 7 not printed in the Gazette.]

1,144,723. TOY. LLEWELLYN H. PHYFE, Tallman, N. Y., assignor to Benjamin P. Phyfe, Haworth, N. J. Filed Nov. 28, 1914. Serial No. 874,398. (Cl. 46—37.)



1. A toy of the class described including a body frame, wing elements having an extended atmosphere resisting surface hinged to said body frame and provided with projectile carrying means, and suspension means attached to said body, said wing elements adapted to be actuated by atmospheric resistance when the body frame drops due to the slackening of said suspension means.

2. A toy aeroplane, provided with a body frame, wing frames hinged to the body frame, with wing planes attached thereto, jaws attached to the wing frames and operated thereby, and supporting means attached to the body frame.

3. A toy of the class described including a body, oppositely disposed wing planes hinged to said body and having projectile holding jaws, and suspension means for said body, said wing planes adapted to be actuated when said suspension means becomes slack to open the projectile holding jaws carried thereby.

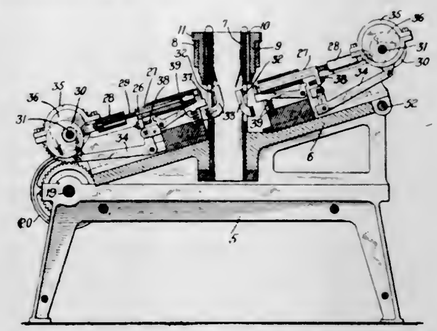
4. A toy of the class described including a body frame, wings having an extended atmosphere resisting surface hinged to said body frame and also having complemental bomb supporting elements, and a suspension element connected with said body.

1,144,724. MACHINE FOR MAKING LINK MESH. ALPHONSO C. PRATT, Glen Ridge, N. J. Filed May 8, 1914. Serial No. 837,143. (Cl. 140—3.)

1. A machine for making link-mesh fabric comprising the combination of a support for a piece of link-mesh, link-forming tools adjacent to the support and mounted in an inclined position with reference to the surface of the coacting portion of the mesh on the support, means for operating the tools, and means for moving the tools and the piece of mesh on the support relatively to present different points on the piece to the tools to receive links, substantially as set forth.

2. A machine for making link-mesh fabric comprising the combination of a support for a piece of link-mesh, two sets of link-forming tools adjacent to the support and mounted in oppositely inclined positions with respect to the surface of the coacting portions of the mesh on the support, means for operating the tools of the two sets, and means for moving the tools and the piece of mesh on the support relatively to present different points on the piece to the tools to receive links, substantially as set forth.

3. A machine for making link-mesh fabric comprising the combination of a circular support for a piece of link-mesh having a spiral thread on the surface thereof, means for rotating a piece of mesh about the support and in coaction with said thread, a plurality of sets of link-forming tools mounted adjacent to the support and in positions inclined to the axis of said support, and means for operating said tools to add links to the mesh on the support, substantially as set forth.

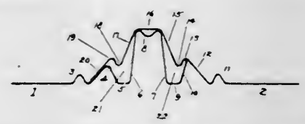


4. A machine for making ring-mesh in which certain of the rings are disposed in an angular relation different from that of other rings, comprising the combination of a support for a piece of ring-mesh, two sets of ring-forming tools, means for operating the tools of each set to form a staple, project the ends of the staple through two rings of the mesh on the support and then form the staple into a ring, and means for moving the sets of tools and the piece of mesh on the support relatively, each of said sets of tools being so mounted that the ends of a staple formed thereby, when projected through rings of the mesh on the support, will be substantially perpendicular to the plane of said rings, substantially as set forth.

5. A machine for making link-mesh fabric comprising the combination of means for holding a piece of mesh in a vertical plane, two sets of link-forming tools adjacent to the support and mounted in positions inclined oppositely with respect to the horizontal, means for operating the tools of the two sets, and means for moving the tools and the piece of mesh on the support relatively to present different points on the piece to the tools to receive links, substantially as set forth.

[Claims 6 to 9 not printed in the Gazette.]

1,144,725. SHEET-METAL ROOFING. EDWIN R. PROBERT, Covington, Ky., assignor to The Moeschl-Edwards Corrugating Company, Covington, Ky., a Corporation of Kentucky. Filed Mar. 13, 1915. Serial No. 14,260. (Cl. 108—18.)

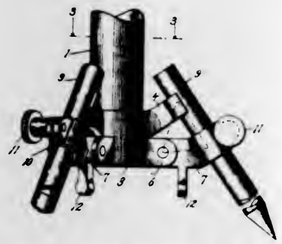


1. A lap-joint for sheet-metal roofing comprising a lower or lapped member having a pair of corresponding, slightly spreading limbs or uprights, a concaved or guttered apex-ligament connecting the upper edges of said limbs, lateral feet or bases projecting from said limbs, an outwardly-flaring flange extended upwardly from one of said feet, an inverted V-shape crimp projecting from the other of said feet and forming part of one of the sheets to be joined, and an upper or lapping member having spreading or outwardly-sloping sides whose meeting point or apex vertically alines with said guttered apex-ligament of the lower or lapped member and whose said sloping-sides cover the lower-member so that a large ventilating and drain cham-

ber or passage is provided between each of them and the adjacent limbs or uprights of the lapped-member.

2. A lap-joint for sheet-metal roofing comprising a lower or lapped member having a pair of corresponding, slightly spreading limbs or uprights, a concaved or guttered apex-ligament connecting the upper edges of said limbs, lateral feet or bases projecting from said limbs, an outwardly-flaring flange extending upwardly from one of said feet, an inverted V-shape crimp projecting from the other of said feet and thence extending into a roofing-sheet to be joined to a companion-sheet, and an upper or lapping member having spreading or outwardly-sloping sides whose upper meeting-point or apex vertically alines with said guttered apex-ligament of the lapped-member and each of whose said sloping sides has a slanting or inclined S-shape crimp therein somewhat elevated above its lower edge and one or more longitudinal upright beads or corrugations made in the roofing-sheet one of them adjacent the outer edge of one sloping side of the lapping-member and the other one adjacent the said inverted V-shape crimp in the lapped-member.

1,144,726. COLLAPSIBLE TRIPOD. ARTHUR D. ROBINSON, New York, N. Y., and ALFRED P. BOLLER, Jr., East Orange, N. J. Filed Dec. 2, 1914. Serial No. 875,074. (Cl. 248—43.)



1. A collapsible tripod comprising: a hollow standard, removable legs adapted to be clamped to the exterior of the standard when in use and to be nested within the hollow standard when not in use, collapsible clamping means exterior to said standard for removably securing the legs in position for use, and a projection on said clamping means adapted when the latter are collapsed to confine the legs nested within the standard.

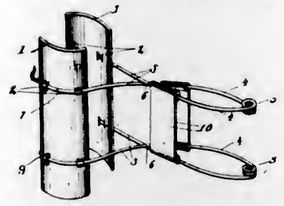
2. A collapsible tripod comprising: a standard, a plurality of angularly disposed abutment members on said standard, pivotally supported clamping members on said standard below said abutment members, and legs adapted to be supported by said abutment and clamping members.

3. A collapsible tripod comprising: a standard, a plurality of abutment members each having a saddle angularly disposed with relation to said standard, pivotally supported clamping members on said standard below said abutment members each having a socket angularly disposed with respect to the standard and in alinement with the saddle portion of the abutment members, and legs adapted to be supported by said abutment and clamping members.

4. A collapsible tripod comprising: a standard, a plurality of angularly disposed abutment members on said standard, pivotally supported clamping members on said standard having sockets for the reception of legs below said abutment members, and legs adapted to be supported by said abutment and clamping members, the abutment member, the socket of the clamping member and the pivotal support of the clamping member forming substantially a triangular support.

1,144,727. COW-TAIL HOLDER. MARCELLUS E. ROLLINS, Santa Cruz, Cal. Filed Sept. 6, 1912. Serial No. 718,911. (Cl. 119—105.)

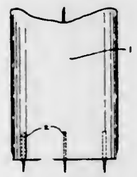
1. A cow tail holder comprising jaw plates of arcuate contour in cross section, said plates being of dimensions to engage an extended portion of the tail and actuating spring having coils and reversely curved arms extending therefrom, the outermost curved portions of the spring arms being secured exteriorly on the jaw plates.



2. A cow tail holder comprising jaw plates of arcuate contour in cross section, said plates being of dimensions to engage an extended portion of the tail and actuating springs having coils and reversely curved arms extending therefrom, the outermost curved portions of the spring arms being secured exteriorly on the jaw plates; and plates whereby the arms of the springs nearest the spring coils are connected in vertical series.

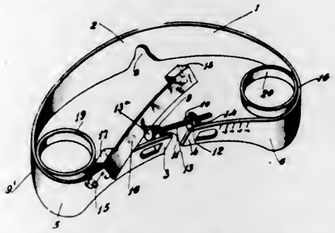
3. A cow tail holder comprising jaw plates of arcuate contour in cross section, said jaw plates being provided with struck up keepers, and actuating springs having coils disposed midway between their ends, and reversely curved arms extending from said coils and crossing each other, the outermost curved portions of said arms being engaged with the keepers of the jaw plate and provided with terminal hooks engaging the edges of said plates.

1,144,728. CANDLE AND ATTACHMENT. JONAS A. ROSSMAN, New York, N. Y. Filed Aug. 27, 1914. Serial No. 858,842. (Cl. 67—22.)



As a new article of manufacture, a candle provided with at least three piercing points of metal firmly secured to the candle and projecting downward below its base to a common plane at right angles to the axis of the candle.

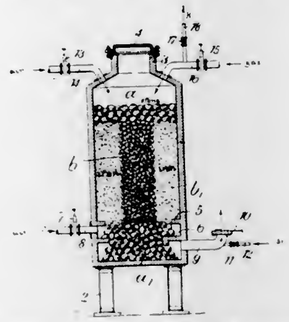
1,144,729. NECKBAND-SHAPER. ROCCO SACROMONE, Brooklyn, N. Y. Filed Mar. 11, 1914. Serial No. 823,967. (Cl. 68—9.)



1. In a shirt ironing and shaping device a band or ring of flexible material split at a suitable point to allow for adjustment, the two ends of said band being bent at such an angle downward and inward and being curved where the said angle starts so that the yoke of the shirt may be properly stretched out while the shirt band is being shaped.

2. In a shirt ironing and shaping device a band or ring of flexible material split at a suitable point to allow for adjustment, which is controlled by an adjusting screw passing through two lugs provided on the ends of the band, said band provided with downward angles and inwardly curved at points where said angles begin at the ends of the said band; a slot on the bottom edge and in the front portion of the band for the insertion of the collar button; finger rings by which the device is manipulated.

1,144,730. PROCESS OF PRODUCING HYDROGEN. KARL SCHAEFER, Charlottenburg, Germany, assignor to Berlin-Anhaltische Maschinenbau-Aktien-Gesellschaft, Berlin, Germany, a Corporation of Germany. Filed July 14, 1914. Serial No. 851,015. (Cl. 48—198.)



1. The herein described process of producing hydrogen, which consists in alternately passing a reducing gas and steam through a heated mass of iron the central zone of which has a greater permeability than the outer one.

2. The herein described process of producing hydrogen, which consists in alternately passing a reducing gas and steam through a heated mass of iron comprising a central zone containing large pieces of iron and an outer zone of smaller pieces of iron.

3. The herein described process of producing hydrogen, which consists in alternately passing a reducing gas and steam through a heated mass of iron comprising in its central part upright iron rods and a loose mass of iron surrounding the same.

4. The herein described process of producing hydrogen, which consists in alternately passing a reducing gas and steam through a heated mass of iron comprising in its central part upright tubular iron rods and a loose mass of iron surrounding the same.

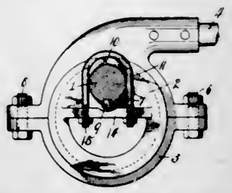
5. The herein described process of producing hydrogen, which consists in passing heating gases at first through a layer of refractory material located in advance of a mass of iron and thereafter through the said mass of iron, and alternately passing a reducing gas and stream through the heated mass of iron, said mass of iron having at its central part a greater permeability than at its outer part.

[Claim 6 not printed in the Gazette.]

1,144,731. ECCENTRIC. HENRY H. SCHUETTE, Napoleon, Ohio. Original application filed Apr. 16, 1914, Serial No. 832,207. Divided and this application filed Jan. 7, 1915. Serial No. 960. (Cl. 74—1.)

1. In combination, an eccentric member having a shaft receiving notch in an edge thereof, a shaft in said notch, a removable bearing block fitted into the outer end of said notch without the shaft and having its ends projected beyond the sides of said member, means engaging the extended ends of said block and adjustably connecting it to said member, means for locking the shaft and member against relative turning, and an eccentric strap loosely encircling said eccentric member and block with its inner periphery substantially flush with the outer side of the shaft.

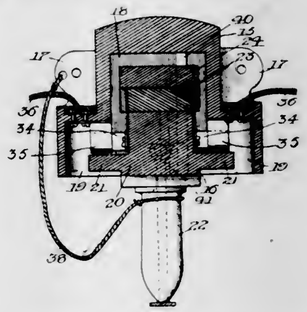
2. In combination, an eccentric member having a shaft receiving notch in an edge thereof, a shaft keyed in the base of said notch, a bearing block closing the outer end of said notch, an eccentric strap loosely encircling said eccentric member and block with its inner periphery substantially flush with the outer side of the shaft, and means for securing the bearing block to the eccentric.



3. In combination, an eccentric member having a radial shaft receiving notch in an edge thereof, a shaft keyed in the base of said notch, a bearing block seated in the outer end of said notch without the shaft and having its ends projected beyond the sides of said member, clips embracing the extended ends of said block and adjustably attached to said member, and an eccentric rotatably encircling said member and block.

4. In combination, an eccentric member having a radial shaft receiving notch in an edge thereof and having flanges projecting from opposite sides thereof adjacent to the base of said notch, a shaft keyed in the base of said notch, a bearing block seated in the outer end of said notch against the outer side of the shaft and conforming at its outer side to the peripheral shape of the eccentric member and having its ends projected beyond the sides of said member, U-shaped clips straddling the projected ends of said block and the shaft and having their free ends adjustably secured to said flanges, and an eccentric strap rotatably embracing said member and bearing block with its inner periphery substantially flush with the outer edge of the shaft.

1,144,732. FUSE DEVICE. EDMUND O. SCHWEITZER and ALFRED HERZ, Chicago, Ill. Filed Apr. 3, 1907. Serial No. 366,219. (Cl. 175—277.)



1. The combination with a fuse-supporting member having a channel for the fuse, said channel being wider than the fuse, and means for crushing the fuse and flattening it out in said channel when the fuse begins to soften, said crushing means being of the same width as the fuse channel.

2. The combination of a fuse supporting member having a channel for the fuse, said channel being wider than the fuse, a fuse block having a portion adapted to fit and work in said channel, and of the same width as the channel, and spring means acting upon said fuse block and exerting a compressive pressure on the fuse.

3. A device of the class specified comprising a plug and socket member, the socket member being arranged with its closed end uppermost and the plug member being

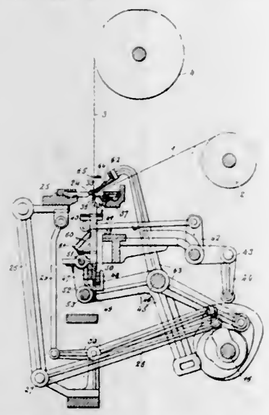
insertible into the socket member from below, a fuse carried by one of said members, means movable upon sufficient softening of the fuse to occupy the fuse space, and means for holding the plug member in the socket member.

4. A device of the class specified comprising a plug and socket member, the socket member being arranged with its closed end uppermost and the plug member being insertible into the socket member from below, a fuse carried by one of said members, spring contacts on the plug and socket members adapted to engage one another when the plug member is inserted into the socket member and movable means adapted to occupy the fuse space upon sufficient softening of the said fuse.

5. A device of the class specified, having upper and lower fuse blocks for the fuse, one of which has a fuse channel and the other a strip or portion adapted to fit into said channel, the fuse being in contact with the upper and lower walls of said channel and a spring acting to oppose separation of said upper and lower walls of the fuse channel.

[Claims 6 to 10 not printed in the Gazette.]

1,144,733. MACHINE FOR MAKING NETWORK WITH SQUARE MESHES. LÉON LIGNEAU DE SÉRÉVILLE, Paris, France. Filed Apr. 26, 1912. Serial No. 693,330. (Cl. 66—6.)



1. A machine for weaving rectangular meshed netting having firm knots comprising a plurality of movable parts and stationary spring hooks, said parts including a warp bar having a plurality of openings through which the warp threads pass and hooked needles, a cam shaft, means for moving said needles and warp bar for forming loops in the warp threads around said spring hooks, said means including cams on said shaft, a needle for drawing the weft strand through the loops so formed, means for controlling said needle controlled by said cam shaft, a draw bar for engaging with the weft strand intermediate the loops said draw bar coöperating with said spring hooks to form a guiding means for the needle carrying the weft thread, and means for actuating the draw including a cam mounted on said cam shaft.

2. A machine for weaving rectangular mesh netting having firm knots, comprising rolls having an intermittent motion, the warp strands being wound on one of said rolls and the completed net on the other, a warp bar having apertures therein through which the warp strands pass, movable needles for engaging said strands, stationary spring hooks, means for moving said warp bar and needles for forming a loop around said hook, means for passing a needle to which the weft thread is secured through the loop so formed, and movable draw bars engaging with said weft strand intermediate the loops, said draw bars coöperating with said spring hooks to form a guiding means for the needle carrying the weft thread.

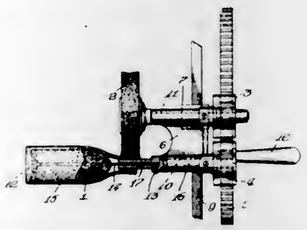
3. A machine for weaving rectangular meshed netting having firm knots comprising rolls, warp strands being wound on one of said rolls and the completed net on the other, a warp bar having apertures therein through which said warp strands pass, movable hooked needles for engaging said strands, stationary spring hooks, means for moving said warp bar and needles for forming loops on said hooks, a movable needle for passing the weft strand through the loop so formed, movable draw bars for engaging said weft strand intermediate said loops, said draw bars coöperating with said spring hooks to form a guiding means for the needle carrying the weft thread, and means for moving said draw bars, the further movement of said needle and said warp bar disengaging knots from the stationary hooks.

4. A machine for weaving netting in square meshes and having firm knots, comprising a plurality of stationary spring hooks, a warp bar having a plurality of openings therein through which the warp threads pass, a plurality of hooked needles, means for moving said hooked needles and warp bar to form loops in the warp threads around said spring hooks, a needle for drawing the weft thread through the loops so formed, movable draw bars having hooked upper ends for engaging said weft threads intermediate the warp threads, said spring hooks having recesses therein coöperating with the hooked portions of said draw bars to form the guiding means for the needle carrying the weft thread, and means for actuating said draw bars.

5. A machine for weaving netting in square meshes and having firm knots, comprising a plurality of stationary spring hooks, a warp bar having a plurality of openings therein through which the warp threads pass, a plurality of hooked needles, means for moving said hooked needles and warp bar to form loops in the warp threads around said spring hooks, a needle for drawing the weft thread through the loops so formed, movable draw bars having hooked upper ends for engaging said weft threads intermediate the warp threads, said spring hooks having recesses therein coöperating with the hooked portions of said draw bars to form the guiding means for the needle carrying the weft threads, and means for actuating said draw bars, said means for actuating said warp bars, hooked needles, and draw bars, comprising a single shaft and a plurality of cams carried thereby engaging with a plurality of levers respectively connected to said warp bar, hooked needles and draw bars.

[Claim 6 not printed in the Gazette.]

1,144,734. BOTTLE CLEANING AND POLISHING DEVICE. ALLAN D. SHAW and GEORGE WICKS, Savanna, Ill.; said Shaw assignor to said Wicks. Filed Mar. 5, 1914. Serial No. 822,612. (Cl. 141—7.)



1. A bottle cleaning machine comprising a frame, a gear wheel rotatably mounted thereon, a pair of transverse bearings disposed parallel to each other on said frame, two shafts journaled respectively in said bearings and extending in the same direction beyond said bearings, pinions on said shafts both meshing with said gear wheel: an exterior bottle-cleaning brush carried by one of said shafts, a tubular extension and an interior bottle-cleaning brush both carried by the other shaft, said extension adapted to fit within the neck of a bottle entered by said interior brush, the said extension engaging the interior of the neck of the bottle to support the latter against the thrust of said exterior brush while the first named brush is cleaning the interior of the bottle.

2. A bottle cleaning machine comprising a frame, a gear wheel rotatably mounted thereon, a pair of transverse bearings disposed parallel to each other on said frame, two shafts journaled respectively in said bearings and extending in the same direction beyond said bearings, pinions on said shafts both meshing with said gear wheel: a pair of brushes mounted respectively on said shafts, one thereof larger in diameter but shorter and nearer to the said frame than the other, the longer and smaller-diametered brush being adapted to engage substantially the entire interior of the body of a bottle while the other brush is engaging the exterior of the neck of the bottle; both of said brushes being rotated in the same direction, whereby the difference in their peripheral speeds will cause the bottle to rotate at a relatively slow speed.

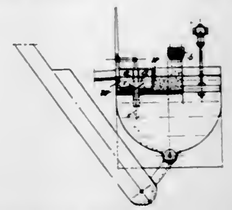
3. A bottle cleaning machine comprising a frame, a gear wheel rotatably mounted thereon, a pair of transverse bearings disposed parallel to each other on said frame, two shafts journaled respectively in said bearings and extending in the same direction beyond said bearings, pinions on said shafts both meshing with said gear wheel: a pair of brushes respectively on said shafts, one thereof larger in diameter but shorter and nearer to the said frame than the other, the longer and smaller-diametered brush being adapted to engage substantially the entire interior of the body of a bottle while the other brush is engaging the exterior of the neck of the bottle: both of said brushes being rotated in the same direction, whereby the difference in their peripheral speeds will cause the bottle to rotate at a relatively slow speed: the shaft carrying the said longer brush being equipped with an enlargement disposed between said brush and the frame, said enlargement being substantially in radial alinement with the shorter brush and substantially equal in diameter to the neck bore of the bottle, whereby the said enlargement will support said neck against the pressure of said shorter brush.

4. A bottle-cleaning machine comprising a vertical frame, a support at the base thereof, a pair of horizontally disposed bearings at the upper end of said frame, a pair of shafts journaled respectively in and extending in the same direction from said bearings, a pinion on each of said shafts, a relatively large gear wheel rotatably mounted at the medial point of said frame and meshing peripherally with both of said pinions, and a pair of brushes carried respectively by said shafts and disposed at different distances from said frame, the said bearings being disposed between the said brushes and the pinions associated with the latter, the brush nearer to the frame being of considerably larger diameter than the other of said brushes and both said brushes being rotated in the same direction by said pinions.

5. A bottle-cleaning machine comprising a vertical frame, a pair of horizontally disposed bearings carried thereby, a pair of shafts journaled respectively in and extending in the same direction from said bearings, means associated with the other ends of said shafts for simultaneously rotating the same in the same direction, and a pair of brushes carried respectively by said shafts and disposed at different distances from said frame, the brush nearer to the frame being considerably larger in diameter than the other of said brushes and the shaft carrying the last named brush having associated therewith an enlargement substantially filling the neck bore of the bottle while said last named brush is engaging the interior of the body of the bottle, the larger diametered brush being radially in alinement with the said enlargement and engaging the exterior of the neck of the bottle while the bore of said neck is supported by the said enlargement.

1,144,735. COAL-JIGGING PLANT. CHRISTIAN SIMON, Essen-Ruhr, Germany. Filed Apr. 17, 1914. Serial No. 832,627. Renewed May 21, 1915. Serial No. 29,662. (Cl. 83—58.)

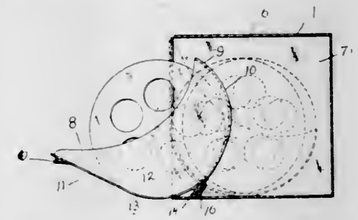
1. In combination a jig, a hydraulic classifier above the level of the jig, discharge means for the lighter material from the hydraulic classifier leading to and discharging upon the jig screen, a closed discharge conduit for the heavier material leading from the bottom of the hydraulic classifier to and discharging into the hutch of the jig, said jig being provided with an automatic overflow chamber for the heavier material.



2. In combination a sectional jig, a hydraulic classifier above the level of the jig, discharge means for the heavier material leading from the bottom of the hydraulic classifier to the hutch of the jig, said discharge means forming a closed conduit, a conduit for the lighter material from the hydraulic classifier leading to the jig, screens in the conduit adapted to successively deliver their "overs" to successive sections of the jig.

3. A jig having inwardly overhanging walls adapted to vertically narrow the cross section of the jig above the bed, said jig being provided with an overflow discharge for the lighter material, the jig walls in proximity and leading to said discharge also overhanging and adapted to turn flat pieces of heavier material approaching said discharge.

1,144,736. MOTION-PICTURE-FILM CABINET. WILLIAM L. SMITH, Decatur, Ill., assignor of one-half to James A. Greer, Decatur, Ill. Filed Apr. 17, 1914. Serial No. 832,418. (Cl. 211—16.)



1. A fire-proof cabinet of the character described, having a plurality of entirely separate compartment, a holder in each compartment, each holder having a bottom portion and sides and being pivotally mounted, part of the bottom portion of each holder forming the closure for its compartment when the holder is in its closed position so that the contents of each holder are entirely separated from the contents of the others.

2. A fire-proof cabinet of the character described, having a plurality of partitions therein extending from the top to the bottom walls and from the rear to the front walls, whereby a plurality of entirely separate compartments is provided, the front wall of each compartment being open, a film holder pivotally mounted in each compartment and having a bottom and sides, part of said bottom being adapted to serve as a closure for the opening into its compartment when the film holder is in its closed position so that the contents of each holder are entirely separated from the contents of the others.

3. A fire-proof cabinet of the character described, having a plurality of partitions therein extending from the top to the bottom walls and from the rear to the front walls, whereby a plurality of entirely separate compartments is provided, the front wall of said cabinet having an opening into each compartment and being curved in its lower portion, a film holder pivotally mounted in each compartment and having side walls and a bottom member, said bottom member being curved for a portion of its length and having a straight portion merging into said

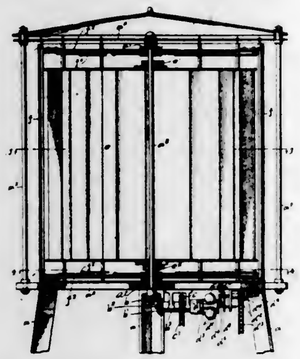
curve, said straight portion and part of the curved portion of the bottom member serving as the closure for its compartment when the film holder is in its closed position so that the contents of each holder are entirely separated from the contents of the others.

4. A fire-proof cabinet of the character described having a compartment therein, a film holder pivotally mounted in said compartment, said holder having side walls and a bottom member, said bottom member being curved for a substantial portion of its length whereby it is adapted to receive a film reel and also being straight for a portion of its length, said straight portion and part of the curved portion of the bottom member of said holder being adapted to serve as a closure for said compartment when said film holder is in its closed position.

5. A fire-proof cabinet of the character described having a compartment therein, a film holder pivotally mounted in said compartment, said holder having side walls and a bottom member, said bottom member being curved for a substantial portion of its length whereby it is adapted to receive and fit a film reel and also being straight for a portion of its length, said straight portion and part of the curved portion of the bottom member of said holder being adapted to serve as a closure for said compartment when said film holder is in its closed position, the pivotal mounting of said film holder being provided by forming the bottom member thereof with an extension having an eye and a rod secured to said cabinet and passing through said eye.

[Claims 6 to 8 not printed in the Gazette.]

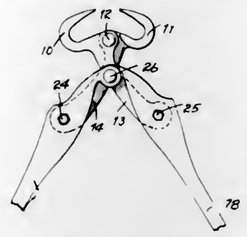
1,144,737. WINDMILL. CLEMENT A. STERNER, Allentown, Pa., assignor to Helen L. Sterner, trustee, Allentown, Pa. Filed Apr. 18, 1913 Serial No. 761,888. (Cl. 170—36.)



1. The combination, of a vertical shaft, a turbine type of rotor connected with said shaft, said rotor, consisting of a series of buckets, each having a long straight formation merging into a shorter straight formation at an obtuse angle to the former and the latter terminating in an inclining extremity, the arrangement being such as to permit of freely admitting air to said buckets as well as facilitating clearance of such air, after its force is expended in said buckets, substantially as and for the purposes described.

2. The combination, in a windmill, of a vertical shaft, a turbine type of rotor connected with said shaft, said rotor, consisting of a series of buckets, each having a long straight formation merging into a shorter straight formation at an obtuse angle to the former and the latter terminating in an inclining extremity, the arrangement being such as to permit of freely admitting air to said buckets as well as facilitating clearance of such air after its force is expended in said buckets, shutters or blinds pivotally supported in position and movable independently of said rotor, suspended weights to open and close said shutters or blinds and operable by the air currents and a cross-shaft connected with said vertical shaft and having a sprocket and chain, substantially as and for the purposes described.

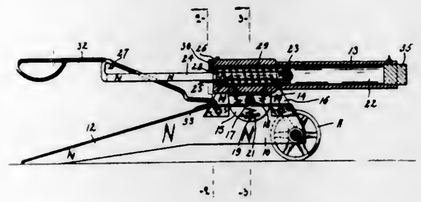
1,144,738. PINCERS. JOE A. STUBKJARE, Columbus, Mont. Filed July 2, 1913. Serial No. 777,040. Renewed Dec. 30, 1914. Serial No. 879,803. (Cl. 81—43.)



1. A tool comprising crossed jaws pivoted at their crossing and extended beyond their crossing to form levers, said levers being curved outwardly terminally and provided with hinge eyes reinforced by bosses on the inner sides, a pair of handle levers each provided with a fork receiving therebetween one of said jaw levers, with the eye and boss thereof bearing on the inner faces of the fork branches, the branches of both handle levers being disposed outside of said jaw levers, pivot pins connecting together the branches of each handle lever on the same side of said jaw levers, and pivot pins passed through the bases of the branches of each handle lever and through the eye and reinforcing boss of the related jaw lever.

2. A tool comprising crossed jaws pivoted at their crossing and extended beyond their crossing to form levers, said levers being curved outwardly terminally and provided with orificed ends reinforced on the inner sides with bosses, a pair of handle levers each formed of a single blank of sheet metal rolled upon itself to produce a grip of circular cross section with parallel branches extending from the end of said grip, the branches of each handle lever receiving therebetween one of said jaw levers, with the orificed end and reinforcing boss thereof bearing upon the inner faces of said branches at the bases of the latter, the branches of both levers being disposed outside of said jaw levers whereby the latter are housed, pivot pins connecting together the branches of each handle lever on the same side of said jaw levers, and pivot pins passed through the bases of the branches of each handle lever and through the orificed end and reinforcing boss of the related jaw lever.

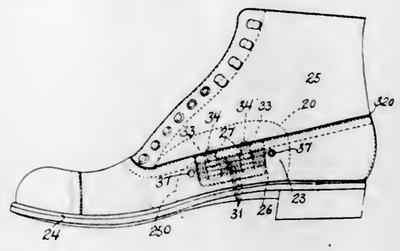
1,144,739. TOY CANNON. WILLIAM SZLÁNYI, New York, N. Y., assignor to Charles H. Dietze, Newark, N. J. Filed Mar. 5, 1915. Serial No. 12,471. (Cl. 42—55.)



In a toy cannon, the combination with a gun carriage, of a barrel pivoted thereto, means for fixing the position of said barrel upon said carriage, said barrel having a contracted opening in its rear end, an ejecting plunger slidably disposed in said barrel, a stem carrying said plunger extending through the opening in said rear end and provided with a lug upon its free end, a cap holder upon the rear end of said barrel in alinement with said lug, a spring for forcing said plunger forward, coacting

means upon said barrel and said stem for holding the latter in its retracted position, and a lever pivoted to said carriage adapted to act, at will, upon said stem for disengaging said last named means, whereby said spring is rendered operative.

1,144,740. ARCH-SUPPORTING SHOE. JOHN F. TEEHAN, Brockton, Mass. Filed Aug. 15, 1914. Serial No. 856,955. (Cl. 36—71.)



1. A shoe having an upper, and innersole, an arch support secured at the junction of the upper and the outer side of the inner sole, a bar supported by the upper above the inner side of the innersole, and hooking means on the free end of the arch support for engagement with said bar to elevate the arch support above the innersole.

2. A shoe having a counter extending longitudinally of the shoe at the inner side thereof and terminating near the waist of the shoe, fastening members attached to the upper adjacent the upper edge of the counter extension, and an arch support consisting of a band attached at its lower and outer end at the junction of the upper and the outer side of the innersole and having on its upper and inner end fastening members for engagement with the first-mentioned fastening members, said parts being so connected and arranged that the counter assists in sustaining the upper end of the band.

3. A shoe having on its inner quarter a depending tab or flap, and a vamp attached to the quarter by the usual line of stitches above the tab or flap, a counter lying between the tab or flap and the vamp immediately below the stitches, and an arch support crossing the innersole from the outer edge thereof and having one end attached to said tab or flap.

4. A shoe having on the interior of the inner side of the upper a series of bars longitudinal of the shoe and elevated above the innersole, and an arch support crossing the inner face of the innersole and having on its inner end hooking means for engaging said bars to elevate the body of the arch support above the innersole.

5. A shoe having on the inner side of the upper a series of parallel bars longitudinal of the shoe, and an arch support crossing the inner face of the innersole with its outer end attached to the outer edge of the innersole and having on its inner end hooking means to engage said parallel bars.

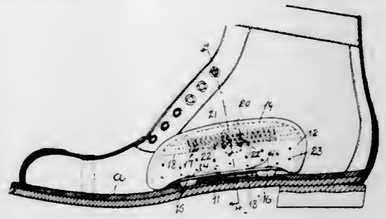
[Claims 6 to 8 not printed in the Gazette.]

1,144,741. ARCH-SUPPORT. JOHN F. TEEHAN, Brockton, Mass. Filed Aug. 17, 1914. Serial No. 857,048. (Cl. 36—71.)

1. An arch support comprising a transversely concave flexible body and a transversely concave spring member, and means for attaching the ends of said spring member to the sides of the body to suspend said body between said points of attachment.

2. An arch support comprising a transversely concave flexible body portion, a transversely concave spring member, means for permanently securing the outer end of said spring member to the outer side of said body, and means for adjustably attaching the inner end of said spring member to the inner side of the body, said spring exerting tension upon said body in opposite directions so that its curvature is less than that of the spring member.

3. An arch support comprising a concave spring adapted to lie transversely of the innersole of a shoe, and a flexible concave body supported by the ends of the spring with its middle portion drawn by the tension of said spring away from the middle portion of said spring.

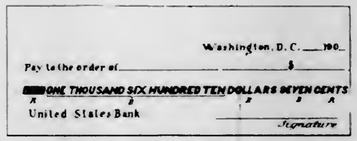


4. An arch support comprising a transversely concave spring, a body having its sides attached to the spring with its middle portion separated from the middle portion of the spring, and means located at the outer edge of the body and arranged for engagement with the outer edge of an innersole.

5. An arch support comprising a concave spring adapted to lie in a shoe transversely of th einnersole, a hook on the spring to engage the outer edge of the innersole, the inner end of the spring extending upward above the inner edge of the innersole, a body attached adjacent its side edges to said spring and of a curvature less than that of the spring, and means for varying the curvature of the body.

[Claim 6 not printed in the Gazette.]

1,144,742. METHOD OF PROTECTING COMMERCIAL PAPER. LIBANUS M. TODD and CHARLES G. TIEFEL, Rochester, N. Y., assignors to G. W. Todd & Company, Rochester, N. Y., a Firm composed of George W. and Libanus M. Todd. Filed Feb. 5, 1915. Serial No. 6,368. (Cl. 11—13.)



1. A method of protectively marking commercial paper, consisting in disrupting the fibers of the paper, and impressing upon the disrupted fibers type forms inked with ink of one color to print one or more amount expressing the face value characters, and type forms inked with ink of a contrasting color to print one or more terminal limiting characters, serving to limit or stop-off the ends of the amount characters, all said characters being placed in close proximity, whereby alteration of the characters would necessitate the application of inks of contrasting colors to the same portion of the disrupted fibers, and thereby make detection possible.

2. A method of protectively marking commercial paper, consisting in disrupting the fibers of the paper and impregnating the disrupted fibers with ink by type forms which print words spelled out to indicate a monetary face value in one or more denominations; also by type forms which print appropriate words spelled out to indicate the denominations of the value words and adjoining the latter words in proper order; and also by type forms which print one or more limiting characters preceding the value words, said denomination words and limiting characters being printed in ink of a color contrasting with that of the ink of the value words, and serving to limit or stop off the latter words, all said words and characters being printed on the paper in close proximity, for the purpose described.

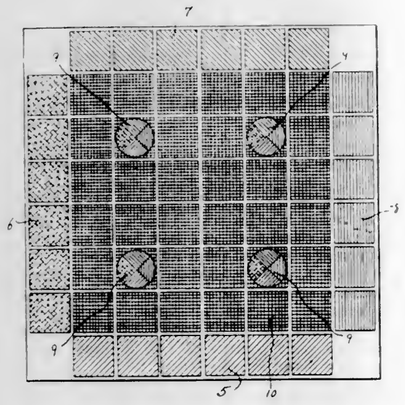
3. A method of protectively marking commercial paper consisting in disrupting the fibers of the paper and im-

pregnating the disrupted fibers with ink by type forms which print words spelled out to indicate a monetary face value in one or more denominations; also by type forms which print appropriate words spelled out to indicate the denominations of the value words, and adjoining the latter words in proper order; said denomination words being printed in ink of a color contrasting with that of the ink of the value words, and serving to limit and stop-off the latter words, all said words being printed on the paper in close proximity, for the purpose described.

4. A method of protectively marking commercial paper consisting in disrupting the fibers of the paper, and impregnating the disrupted fibers with ink by type forms which print words spelled out to indicate a monetary face value in one or more denominations; also by type forms which print appropriate words spelled out to indicate the denominations of the value words and adjoining the latter words in proper order; said denomination words being printed in ink of a color contrasting with that of the ink of the value words, and serving to limit and stop-off the latter words, all said words being printed on the paper in close proximity, and words having equal numbers of letters being printed with their letters in different spaced relation to prevent accurate superposition of one word over the other, for the purpose described.

5. A commercial paper such as a check, draft, or the like, provided with portions thereof having the fibers of the papers disrupted and having its face value printed on said disrupted fibers in words spelled out in full, wherein the ink of the printed characters is impregnated into the disrupted fibers of the paper, the value words being printed in ink of one color, and bearing adjoining denomination words printed in ink of a contrasting color, and all said words adjoining each other in close proximity substantially as and for the purpose described.

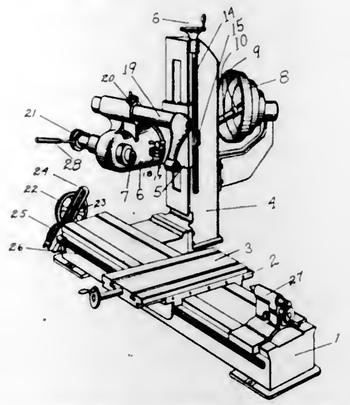
1,144,743. GAME APPARATUS. URIAH C. UPJOHN, Los Angeles, Cal. Filed Nov. 21, 1914. Serial No. 873,286. (Cl. 46—64.)



1. A game apparatus comprising a board on which is delineated four rows of color squares, each row being of a different color from the other rows, said rows being arranged to inclose a parallelogram shaped number of body squares and goal squares in combination with a plurality of blocks of the same color as the color squares.

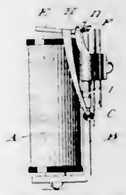
2. A game apparatus comprising a board on which is delineated oppositely disposed parallel rows of color squares, each row being different in color from its opposite row; body squares and goal squares interposed between said outer rows of squares, said body and goal squares being so arranged that there shall be one body square between each goal square and a color square and two body squares between two goal squares.

1,144,744. MACHINE-TOOL. LEWIS R. WHEELER, Los Angeles, Cal., assignor, by mesne assignments, to Modern Appliance Company, Los Angeles, Cal., a Corporation of California. Filed June 16, 1913. Serial No. 773,972. (Cl. 29—27.)



In a machine-tool, the combination of a lathe-bed as described, a carriage, a tail-stock, a vertically adjustable headstock composed of two main members, the one swiveling upon the other, a graduated dial upon one of said headstock members, and a spindle driven from the rear by means of bevel gears, universal-joints and telescopic shaft, said driving members extending through the center of the upright section of the lathe bed.

1,144,745. RELAY. SAMUEL E. WITT, Chicago, Ill., assignor to Automatic Electric Company, Chicago, Ill., a Corporation of Illinois. Filed Oct. 7, 1912. Serial No. 724,479. (Cl. 175—325.)



1. In a relay, an electromagnet, an armature therefor, a heel-piece secured to said electromagnet, and a pair of members carried by said heel-piece, and extending at substantially right-angles to said armature, adapted to hold the edge of said armature against said heel-piece.

2. In a relay, an electromagnet, an armature therefor, a heel-piece secured to said electromagnet, and a pair of flexible members mounted on said heel-piece, and extending at substantially right-angles to said armature, adapted to hold the edge of said armature against said heel-piece.

3. In a relay, an electromagnet, an armature therefor having rearward extensions on opposite sides thereof, and spring members engaging said extensions to hold said armature in place and adapted to be sprung to remove the armature.

4. In a relay, a magnet, an armature therefor, a heel-piece secured to said magnet, a pair of flexible members carried by said heel-piece, and a pair of projections on said armature engaging with said flexible members to hold the edge of said armature against said heel-piece.

5. In a relay, a magnet, an armature therefor, a heel-piece secured to said magnet, and a plurality of curved metallic flexible members mounted upon said heel-piece and holding said armature against said heel-piece.

[Claims 6 and 7 not printed in the Gazette.]

1,144,746. FOLDING BOX. WILLIAM C. ZIEGLER, Rochester, N. Y., assignor to Stecher Lithographic Company, Rochester, N. Y., a Corporation of New York. Filed Feb. 5, 1915. Serial No. 6,354. (Cl. 229—34.)



A folding box comprising in combination a bottom portion and side walls having end extensions, an end wall having an extension foldable over the end extensions on the side walls and provided with locking tongues which are arranged intermediate the top and bottom of the box and are curved in opposite directions away from the end wall, the side walls having correspondingly curved recesses intermediate the top and bottom of the box and adapted to receive the aforesaid tongues whereby to maintain uniform engagement between the adjacent edges of the side wall and the end wall extension.

1,144,747. GOLF-TEE. HAMILTON ARBERT, Passaic, N. J., assignor to The Manhattan Rubber Manufacturing Company, Passaic, N. J., a Corporation of New Jersey. Filed Mar. 11, 1915. Serial No. 13,592. (Cl. 46—4.)



1. A golf tee having a weight connected thereto by a link; all of said parts being formed out of resilient rubber as an integral structure.

2. A golf tee, a weight therefor, and a link connecting said tee and said weight, all formed integral of rubber and having a continuous flat undersurface.

3. A golf tee, a weight therefor, and a link of substantially uniform width and substantially uniform thickness connecting said tee and said weight, said tee, weight and link being all formed integral of rubber and having a continuous flat undersurface.

4. A golf tee, a weight therefor, an elastic link rigidly connected at its respective ends to said tee and said weight, said tee, link and weight presenting a continuous flat undersurface.

5. A golf tee, a weight therefor, and a link connecting said tee and said weight, all formed integral of rubber, the weight portion of said integral rubber structure being of a specific gravity higher than that of the tee portion.

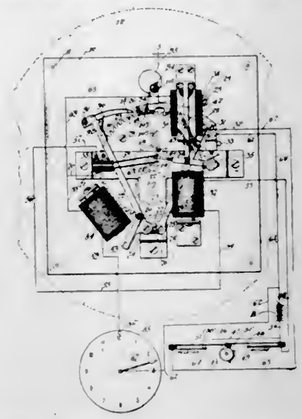
[Claims 6 to 8 not printed in the Gazette.]

1,144,748. HOROLOGICAL MOTOR. BROR A. ADLER, Chicago, Ill., assignor of one-half to Peter A. Lorenz, Chicago, Ill. Filed June 23, 1913. Serial No. 775,215. (Cl. 58—26.)

1. In a device of the character described, a ratchet wheel; a locking pawl normally engaging said wheel to lock it against movement in either direction; an impulse pawl, to move the wheel a distance equal to the distance between two adjacent teeth; an electro-responsive means for moving both pawls; a latch for locking said pawl moving means after the said pawls have been so moved and an electro-responsive means for releasing said latch.

2. In a device of the character described, a ratchet wheel; a locking pawl; a pawl for moving said wheel a distance equal to that between two adjacent teeth on the said wheel; electro-responsive means for moving both pawls; an electro-responsive means for locking the pawls in moved position; and means, operable by the pawl-moving means, for opening its own circuit.

3. In a device of the character described, a ratchet wheel; a locking pawl; a pawl for moving said wheel a



predetermined distance; electro-responsive means for moving both pawls; and an electro-responsive means for locking the pawls in moved position.

1,144,749. DEVICE FOR MIXING FROSTINGS AND CAKES. RUFUS L. BECK, Sullivan, Wis. Filed May 20, 1914. Serial No. 839,790. (Cl. 107—38.)

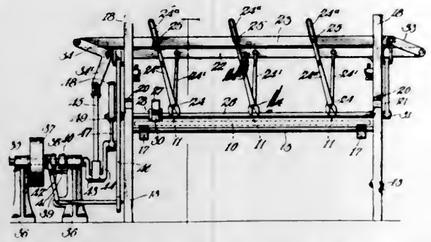
A mixing attachment adapted for removable engagement with an externally beaded pan, comprising a combined handle and pan holder formed of a single bar having one end bent and spaced from said bar to form a bead engaging hook and its opposite end bent downwardly and laterally upon itself for a portion of its length to form an extended double handle, the underlying portion of said handle having its free end bent downwardly to space it from said bar to provide a recess in alinement with said hook to receive the bead of said pan, holding screws mounted in said hook and downwardly bent end, a bearing bracket secured on the top of said bar and longitudinally thereof between said hook and downwardly bent end and having a horizontal portion spaced above said bar, a tubular bearing between said bar and the horizontal portion of said bracket, and an agitator having a vertical portion rotatably mounted in said bar, tubular bearing, and bracket.

1,144,750. CUTTER. ADAM BLUEGE, Chicago, Ill. Filed Dec. 5, 1914. Serial No. 875,650. (Cl. 164—46.)

1. In a machine of the class described, a machine frame, a plurality of actuating bars movably mounted in said frame, a cutter hung pendant from said bars and having one cutting arm pivoted to one of said actuating bars and the other cutting arm pivoted to another actuating bar, and means for moving said bars to operate the cutter.

2. In a machine of the class described, a machine frame, a plurality of actuating bars movably mounted in said frame, a cutter hung pendant from said bars and having one cutter arm pivoted to one of said actuating bars and the other cutting arm pivoted to another actuating bar, and means for moving said bars at angles to the perpendicular, to operate the cutter.

3. In a machine of the class described, a machine frame, a plurality of actuating bars movably mounted in said frame in different but horizontal parallel planes, a cutter hung pendant from said bars and having one cutting arm pivoted to one of said actuating bars and the other cutting arm pivoted to another actuating bar and means for moving said bars to operate the cutter.

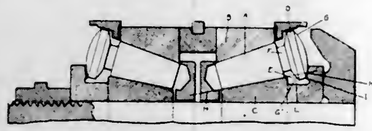


4. In a machine of the class described, a machine frame, a plurality of actuating bars movably mounted in said frame in different but horizontal parallel planes, a cutter hung pendant from said bars and having one cutting arm pivoted to one of said actuating bars and the other cutting arm pivoted to another actuating bar and means for moving said bars relatively to each other and also at angles to the perpendicular to operate the cutter.

5. In a machine of the class described, a machine frame, a plurality of actuating bars movably mounted in said frame, and a cutter operatively depending from said bars and having its cutter arms pivoted to each other at an intermediate point, and one of said arms having fixed pivotal attachment to one of said actuating bars, and the other of said arms having slidable pivotal attachment to the other of said actuating bars.

[Claims 6 to 17 not printed in the Gazette.]

1,144,751. ROLLER-BEARING. HENRY L. BOCK, Toledo, Ohio, assignor to William Emil Bock, Toledo, Ohio. Filed July 16, 1912. Serial No. 709,734. (Cl. 64—39.)

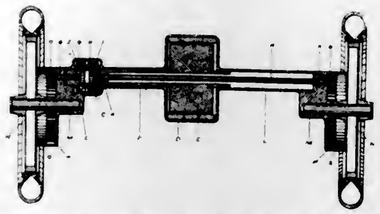


1. In a roller bearing, the combination of a conical roller and a contacting conical race member having portions provided with opposed, slightly divergent, non-parallel end thrust surfaces contacting in a point which is the projection of the line of contact between the conical surfaces, said non-parallel surfaces both extending upon opposite sides of said point of contact being symmetrically arranged with respect to a straight line passing through said point and being of slight divergence to strongly reinforce the bearing point.

2. In a roller bearing, a roller having a conical surface and a head at the large end of said roller having a spherical surface transverse to and extending upon opposite sides of the projection of said conical surface thereon, and conical race members in rolling contact with said conical roller on opposite sides thereof, the one of said race members whose conical surface forms the more acute angle to its axis being provided with an end thrust surface tangent to and bearing upon the spherical surface of said roller at a point in alinement with the line of contact between said roller and race member.

3. In a roller bearing, a roller having a conical surface and a head at the large end separated from said conical surface by a groove, the surfaces upon opposite ends of said head being spherical, and conical race members engaging said conical roller on opposite sides thereof and being provided with end thrust surfaces extending tangent to and contacting with the respective opposite spherical surfaces of said head at points in projection with the lines of contact of said roller with the respective race members, the said spherical surfaces and contacting end thrust surfaces extending symmetrically upon opposite sides of their points of contact.

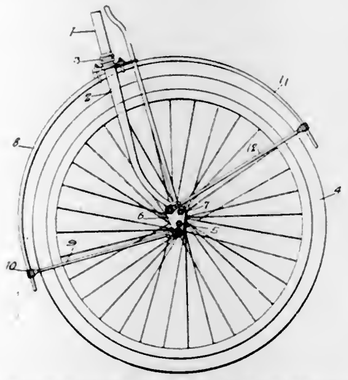
1,144,752. VEHICLE DRIVE MECHANISM. WILLIAM EMIL BOCK, Toledo, Ohio. Filed July 16, 1912. Serial No. 709,653. (Cl. 74—34.)



1. The combination with an axle casing having off-set stub axles at its opposite ends, axially alined shafts passing through said casing, a compensating gearing connecting said shafts, an electric motor concentric with said shafts, a hollow armature shaft for said motor sleeved upon one of said alined shafts, a head mounted on said hollow shaft forming the drive member of said compensating gearing, internal gears concentrically arranged on said stub axles, and pinions on the ends of said alined shafts meshing with said internal gears.

2. The combination with an axle casing having off-set stub axles at its opposite ends, of brake drums provided with integral internal gears concentrically arranged on said stub axles, and means within said axle casing for driving said internal gears.

1,144,753. FORK FOR BICYCLES AND THE LIKE. CHARLES F. BUDROE, Dayton, Ohio, assignor to The Davis Sewing Machine Company, Dayton, Ohio, a Corporation of Ohio. Filed Aug. 8, 1914. Serial No. 855,737. (Cl. 208—97.)



1. In a bicycle or the like, a fork, a connecting device pivotally connected to said fork, a wheel having its axle secured to said connecting device at a point below the point of connection of said device to said fork, and a spring secured to said fork and connected with said device at a point below the axle of said wheel.

2. In a bicycle or the like, a wheel having an axle, a connecting device secured between its ends to said axle, a fork pivotally connected to said device at a point above said axle and in front of a line extending lengthwise of said fork and through said axle, a spring secured to said fork and arranged in the rear thereof, and a connection between said spring and that portion of said connecting device which lies below said axle.

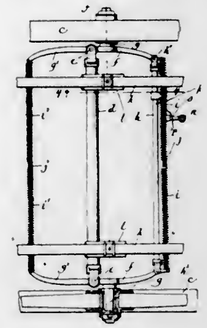
3. In a bicycle or the like, a wheel having an axle, a connecting device secured between its ends to said axle, a fork pivotally connected to said device at a point above said axle and in front of a line extending lengthwise of said forks and through said axle, and two springs secured to said fork extending to the front and to the rear thereof and respectively connected with said device above and below said axle.

4. In a bicycle or the like, a wheel having an axle, a connecting device secured to said axle and extending above and below the same, rearwardly inclined fork pivotally connected at its lower end to said device at a point above said axle, a spring secured to said fork, extending to the rear thereof and connected with said device at a point below said axle, and a second spring secured to said fork, extending in the front thereof and connected to said device above said axle and in the rear of the connection between said device and said fork.

5. In a bicycle or the like, a wheel having an axle, a connecting device secured to said axle and extending above and below the same, rearwardly inclined fork pivotally connected at its lower end to said device at a point above said axle, a spring secured to said fork, extending to the rear thereof and connected with said device at a point below said axle, the points of connection of said device with said fork, said axle and said spring being arranged in a substantially vertical line.

[Claims 6 to 11 not printed in the Gazette.]

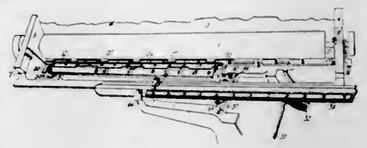
1,144,754. STEERING DEVICE FOR MOTOR-VEHICLES. ARTHUR S. BURNELL and IRA L. LAVENDER, Webster City, Iowa, assignors to Queen Manufacturing Company, Webster City, Iowa, a Corporation of Iowa. Filed Sept. 17, 1908. Serial No. 453,395. (Cl. 21—197.)



In a vehicle, the combination of wheels at opposite sides of the vehicle, an axle connected to the vehicle, provided with terminals adjacent the wheels, a body mounted on said axle so that the weight thereof will be applied rearwardly of the axle, a steering-arm pivoted to each of the axle-terminals in alinement with the axis of the axle, a stub-axle or spindle projecting outwardly from each arm and having its axis rearwardly of, and eccentric with respect to the pivot of the arm to which it is connected and the axis of the axle, said arms having their rear ends extended inwardly of the pivots between the arms and the axle, and a controlling-device mounted on the vehicle for shifting both of said arms to swing the vehicle-wheels.

1,144,755. TYPE-WRITING MACHINE. CORNELIUS B. CORCORAN, New York, N. Y., assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Filed Oct. 22, 1912. Serial No. 727,094. (Cl. 197—127.)

1. In a front-strike typewriting machine, the combination with a frame and a carriage thereon, of a rotatable platen on said carriage, a paper apron thereunder, means for moving said apron away from said platen, and a swinging guide inclined downward from its pivot in position to guide a work-sheet onto said apron when away from said platen, and movable about its pivot to bring its free edge to the platen at the printing line.



2. In a front-strike typewriting machine, the combination with a frame and a carriage thereon, of a rotatable platen on said carriage, a paper apron thereunder, means for moving said apron away from said platen, a pivoted guide extending downward from its pivot in position to guide a work-sheet onto said apron, and a handle for swinging said guide to bring its free edge into position to indicate the printing line.

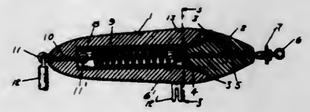
3. In a front-strike typewriting machine, the combination with a frame and a carriage thereon, of a rotatable platen on said carriage, a paper apron thereunder, means for moving said apron away from said platen, a pivoted guide depending from its pivot to guide a work-sheet onto said apron, a handle for swinging said guide to bring its lower edge up to the printing line on the platen, and an indicator on said guide to show the position of a letter space on the work-sheet.

4. In a front-strike typewriting machine, the combination with a right-hand margin stop, of a scale on the frame of the machine at the left for indicating the position on the work-sheet of said margin stop, said scale forming a movable guide normally spaced from the platen for introducing work-sheets at the front of the platen, and movable toward the platen into position to indicate on the work-sheet the printing line, and means for holding the said guide spaced from the platen while a work-sheet is being written upon.

5. In a front-strike typewriting machine, the combination with a carriage and a rotatable platen, of a swinging plate adjacent said platen at one end of its travel and forming with the platen an inclined guideway for the introduction of work-pieces to the platen, said plate movable to bring its free edge in opposition to the printing line on the platen, a stationary support on which said plate normally rests so as to steady its edge, a handle for swinging said plate on said support, and a stop limiting said swing.

[Claims 6 to 31 not printed in the Gazette.]

1,144,756. FISH BAIT OR LURE. HARRY P. DAMSMA, Kalamazoo, Mich. Filed Aug. 13, 1914. Serial No. 856,518. (Cl. 43—30.)



1. A fish bait or lure comprising a body portion provided with a longitudinally extending socket formed therein, the forward edges of said socket being beveled, a head having a rearwardly projecting portion suitably beveled and fitting within the front end of said socket, a link extending longitudinally through said head and provided with line attaching means at its front end, said link having an eye at its inner end, a link extending through the rear end of said body portion and having an eye at its rear end, a hook attached to said eye, said link being provided with an eye at its inner end disposed within said socket, and a spring within said socket and attached at its ends to the eyes at the inner ends of said links, all coacting substantially as described for the purpose specified.

2. A fish bait or lure comprising a body portion provided with a longitudinally extending socket formed therein, a head having a rearwardly projecting portion fitting within the front end of said socket, a link extending longitudinally through said head and provided with line attaching means at its front end, said link having an eye at its inner end, a link extending through the rear end of said body portion and having an eye at its rear end, a hook attached to said eye, said link being provided with an eye at its inner end disposed within said socket, and a spring within said socket and attached at its ends to the eyes at the inner ends of said links, all coacting substantially as described for the purpose specified.

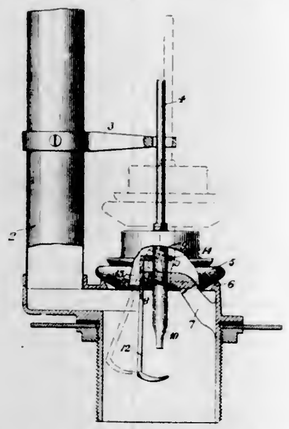
3. A fish bait or lure comprising a body portion provided with a longitudinally extending socket formed therein, a head having a rearwardly projecting portion fitting within the front end of said socket, a link extending longitudinally through said head and provided with line attaching means at its front end, said link having an eye at its inner end, a link extending through the rear end of said body portion and provided with an eye at its inner end disposed within said socket, and a spring within said socket, and attached at its ends to the eyes at the inner ends of said links, all coacting substantially as described for the purpose specified.

4. A fish bait or lure comprising a body portion provided with a longitudinally extending socket formed therein, a head having a rearwardly projecting portion fitting within the front end of said socket, a link extending longitudinally through said head and having an eye at its inner end, a link extending through the rear end of said body portion and provided with an eye at its inner end disposed within said socket, and a spring within said socket, and attached at its ends to the eyes at the inner ends of said links, all coacting substantially as described for the purpose specified.

5. A fish bait or lure, comprising a body portion provided with a longitudinally extending chamber formed therein, a head portion closing the front end of said chamber, a spring disposed in said chamber and connected at its ends with the body portion and the head portion respectively, hooks and hook attaching means, substntially as described and for the purpose specified.

[Claims 6 to 8 not printed in the Gazette.]

1,144,757. VALVE DEVICE. EDWARD L. DELANY, New York, N. Y. Filed Mar. 20, 1915. Serial No. 15,866. (Cl. 4—5.)

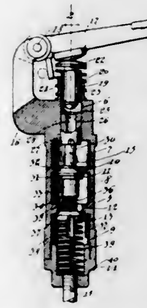


1. In a valve device, the combination with a vertically movable valve having a depending stem, a catch for said stem, a gravitating lever fulcrumed in proximity to said catch and formed with an aperture through which said stem passes and adapted to be actuated by the flow of water to shift said valve stem into engagement with said catch to hold said valve unseated.

2. In a valve device, the combination with a vertically movable valve having a depending stem formed with a tapered extremity, a guide through which said stem extends, a stop limiting the upward movement of said valve, a gravitating lever adapted to be actuated by the flow of water and having a spoon at its lower extremity and disposed substantially parallel to said stem, and adapted to bear against said stem when the valve is unseated and hold the tapered extremity of said stem in frictional engagement with said guide.

3. In a valve device, a valve having a depending stem tapered at its lower extremity, a bracket having an aperture constituting a guide for said stem, a stop to limit the unseating movement of said valve, and a gravitating lever fulcrumed on said bracket and having a lateral top portion formed with an aperture to receive said stem, said lever being adapted to be actuated by the flow of water when said valve is unseated to shift said stem laterally and hold the tapered extremity thereof in engagement with the wall surrounding the aperture in said bracket.

1,144,758. VALVE. JOHN DESMOND, Wilmette, Ill., assignor, by mesne assignments, to Taylor Manufacturing Company, a Corporation of Illinois. Filed June 15, 1914. Serial No. 845,195. (Cl. 137—4.)

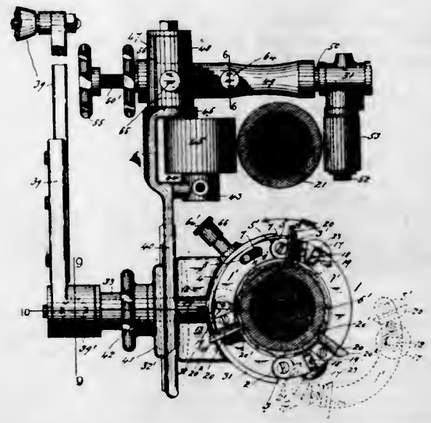


1. In a device of the character described, a casing, having an inlet and an outlet opening; three valves therein, two of which are located intermediate said openings and normally closed; means to automatically close the last two mentioned valves subsequent to their opening, one after the other; the other valve serving as a vent for the outlet opening and normally open; means to automatically open the vent valve after the other two valves have been closed, and manual means to close the vent valve and open the other two valves.

2. In a device of the character described, a casing, having an inlet and an outlet opening; three valves therein, two of which are located intermediate said openings and normally closed; means to automatically close the last two mentioned valves subsequent to their opening, one after the other; the other valve serving as a vent for the outlet opening and normally open; independent means to automatically open the vent valve after the other two valves have been closed and manual means to first close the vent valve and then open the other two valves, one after the other.

1,144,759. PIPE-CLEANER. ALBIN C. EEK, Webster Groves, Mo., assignor, by mesne assignments, to Essaness Manufacturing Company, St. Louis, Mo., a Corporation of Missouri. Filed Apr. 30, 1914. Serial No. 835,561. (Cl. 83—64.)

1. In a pipe cleaner of the class described, the combination with a cylinder revoluble around the pipe, of a circular cutter axially mounted in the wall of and projecting partly into the cylinder, a resilient member fixed to the said wall and adapted to bear on the axis of the said cutter, and positive means on the cylinder for engagement therewith for limiting the outward movement of said cutter.



2. In a pipe cleaner of the class described, the combination with a cylinder revoluble around the pipe, of a series of diametrically equal circular cutters axially mounted parallel to each other side by side in the wall of and projecting partly into the cylinder, and a member fixed to the said wall and adapted to project between the said cutters in approximate engagement with the sides and peripheral cutting edges thereof for maintaining the cutters clean.
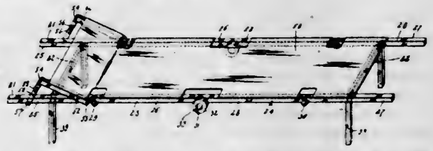
3. In a pipe cleaner of the class described, the combination with a cylinder revoluble around the pipe, of a cutter adjustably fixed to the front end of the cylinder and having its cutting edge in advance of the said end and projecting inward beyond the wall of the cylinder toward the said pipe.

4. In a pipe cleaner of the class described, the combination with a cylinder revoluble around the pipe, of a cutter adjustably fixed to the front end of the cylinder and having two cutting edges, one of the said edges projecting beyond the wall of the cylinder inward toward the said pipe, and the other edge projecting beyond the said wall outward toward a succeeding pipe.

5. In a pipe cleaner of the class described, the combination with a cylinder revoluble around the pipe, of a scraper adjustably fixed to the rear end of the cylinder and having its scraping edge projecting beyond the wall of the cylinder toward the said pipe.

[Claims 6 to 21 not printed in the Gazette.]

1,144,760. COMBINATION FOLDING COT AND STRETCHER. JULIUS FEKETE, New York, N. Y. Filed Mar. 30, 1915. Serial No. 18,020. (Cl. 21—80.)



1. A folding cot comprising a pair of side rails, each side rail consisting of two sections pivotally joined at their inner ends, each of said sections having an inner portion and an outer portion also pivotally joined, said outer portions being adapted to be folded upon said inner portions and the latter being adapted to be swung around their pivots into parallel relation to each other, transverse rails connecting the outer portions of said side rail sections, each transverse rail being made of two sections separably joined at their inner ends and hinged at their outer ends to said side rails, whereby said transverse rail sections are adapted to be folded onto said side rails, a bed bottom fabric secured to said side rails, legs hinged to said transverse rail sections and adapted to be folded thereonto, and means upon said transverse rail sections for holding said legs in their extended positions.

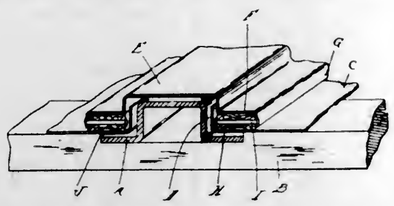
2. A folding cot comprising a pair of side rails, each side rail consisting of two sections pivotally joined at their inner ends, each of said sections having an inner portion and an outer portion also pivotally joined, said outer portions being adapted to be foled upon said inner portions and the latter being adapted to be swung around their pivots into parallel relation to each other, transverse rails connecting the outer portions of said side rail sections, each transverse rail being made of two sections separably joined at their inner ends and hinged at their outer ends to said side rails, whereby said transverse rail sections are adapted to be folded onto said side rails, a bed bottom fabric secured to said side rails, legs hinged to said transverse rail sections and adapted to be folded thereonto, and means upon said transverse rail sections for holding said legs in their extended positions, said last named means serving also to keep said legs folded upon said transverse rails.

3. A folding cot comprising a pair of side rails, each side rail consisting of two sections pivotally joined at their inner ends, each of said sections having an inner portion and an outer portion also pivotally joined, said outer portions being adapted to be folded upon said inner portions and the latter being adapted to be swung around their pivots into parallel relation to each other, transverse rails connecting the outer portions of said side rail sections, each transverse rail being made of two sections separably joined at their inner ends and hinged at their outer ends to said side rails, whereby said transverse rail sections are adapted to be folded onto said side rails, a bed bottom fabric secured to said side rails, legs hinged to said transverse rail sections and adapted to be folded thereonto, and means upon said transverse rail sections for holding said legs in their extended positions, the upper ends of said legs abutting in their extended positions against the undersurfaces of said side rail sections.

4. A combination folding cot and stretcher comprising a pair of side rails, each side rail consisting of two sections pivotally joined at their inner ends, each of said sections having an inner portion and an outer portion also pivotally joined, said outer portions being adapted to be folded upon said inner portions and the latter being adapted to be swung around their pivots into parallel relation to each other, transverse rails connecting the outer portions of said side rail sections, each transverse rail being made of two sections separably joined at their inner ends and hinged at their outer ends to the outer portions of said side rails substantially at the middle of the latter, whereby said transverse rail sections are adapted to be folded onto said side rails, a bed bottom fabric secured to said side rails, legs hinged to said transverse rail sections and adapted to be folded thereonto, and means upon said transverse rail sections for holding said legs in their extended positions.

5. A combination folding cot and stretcher comprising a pair of side rails, each side rail consisting of two sections pivotally joined at their inner ends, each of said sections having an inner portion and an outer portion also pivotally joined, said outer portions being adapted to be folded upon said inner portions and the latter being adapted to be swung around their pivots into parallel relation to each other, transverse rails connecting the outer portions of said side rail sections, each transverse rail being made of two sections separably joined at their inner ends and hinged at their outer ends to the outer portions of said side rails substantially at the middle of the latter, whereby said transverse rail sections are adapted to be folded onto said side rails, a bed bottom fabric secured to said side rails, legs hinged to said transverse rail sections and adapted to be folded thereonto, and means upon said transverse rail sections for holding said legs in their extended positions, said last named means serving also to keep said legs folded upon said transverse rails.

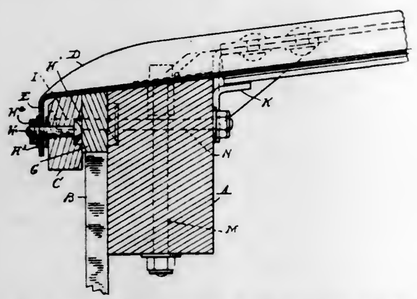
1,144,761. CAR-ROOF. DAVID W. HAWKSWORTH, Detroit, Mich., assignor to Hutchins Car Roofing Company, Detroit, Mich., a Corporation of Michigan. Filed June 16, 1911. Serial No. 633,573. (Cl. 108—5.)



1. In a car roof, the combination with a roof frame, of roofing sheets or plates independently adjustably supported upon said frame, weather-proofing caps for the joint between sheets embracing upstanding flanges of the adjacent edges thereof and constituting a means for holding said sheets down upon the roof frame, and non-metallic facings for said caps forming the bearing upon said sheets.

2. In a car roof, the combination with the roof frame comprising purlins and carlines, of metallic roofing sheets or plates supported on said purlins out of contact with said carlines, caps embracing said carlines and edge flanges on said sheets and forming a means of holding said sheets down upon said purlins, and non-metallic facings for said caps constituting the bearing therefor on said sheets.

1,144,762. CAR-ROOF. SAMUEL HERBERT, Detroit, Mich., assignor to Hutchins Car Roofing Company, Detroit, Mich., a Corporation of Michigan. Filed Mar. 11, 1911. Serial No. 613,771. (Cl. 108—5.)

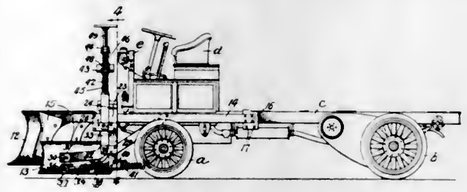


1. In a car, the combination with the plate and siding, of a fascia having its outer face outside the plane of the outer face of said siding, a filler strip between said fascia and plate, a roofing sheet having a depending flange, securing means for said flange passing through said flange and fascia only, and weather guarded securing means for said fascia passing therethrough and through said filler strip into the plate.

2. In a car, the combination with the plate, siding and fascia, of a filler strip of greater thickness than the siding positioned between the fascia and plate with its outer face outside the line of the outer face of the siding, an inwardly extending bolt passing through alined apertures in said fascia, filler strip and plate, a roofing sheet having a downturned flange at the eaves weather-guarding said bolt, and an outwardly extending bolt out of alinement with the first mentioned bolt passing through alined apertures in said flange and the fascia only.

1,144,763. SNOW-PLOW. FRANK C. HEINEN, Chicago, Ill. Filed Dec. 8, 1911. Serial No. 664,624. (Cl. 37—35.)

1. In a snow-plow, the combination of a truck frame having sides, a carrying structure having side bars adapted to extend on the outer side of the sides of the truck frame and comprising a cross bar extending between said side bars and adapted to extend across one end of the truck frame, a plow rigidly secured to said structure, another plow in the rear of the rigidly supported plow adjustably connected to said structure, and means for securing the side bars of the carrying structure to the sides of the truck frame.



2. In a snow-plow, the combination of a truck frame, a plow carrying structure having downwardly extending rigid members at its sides, a plow rigidly connected to said structure, forwardly extending supporting arms adjustably mounted on said structure, a plow pivoted to the front of said arms, and yielding spring connections pivoted to the pivoted plow and connected to the lower ends of said members.

3. In a snow-plow, the combination of a truck frame, a plow carrying structure having downwardly extending, rigid members at its sides, a plow rigidly connected to said structure, forwardly extending supporting arms adjustably mounted on said structure, a plow pivoted to the front of said arms and yielding spring connections pivoted to the pivoted plow, below the point where it is pivoted to said arms, and connected to the lower ends of said members.

4. In a snow-plow, the combination of a truck frame, a plow carrying structure having downwardly extending rigid members at its sides, a plow rigidly connected to said structure, forwardly extending supporting arms adjustably mounted on said structure, a plow pivoted to the front of said arms, rods pivotally connected to the pivoted plow and slidably connected to the lower ends of said members, and springs on said rods.

5. The combination with a truck frame, of a plow frame comprising members adapted to be secured to the sides of the truck frame, a cross-member adapted to extend across the front of the truck frame and be secured thereto, supporting arms slidably mounted in said frame, a stationary plowshare sustained by said frame, and disposed in front of the truck frame and angularly thereto, a movable plowshare disposed behind the stationary plowshare and to operate at a lower level, said rear share being pivotally secured to said supporting arms and means for adjustably and yieldingly securing said arms.

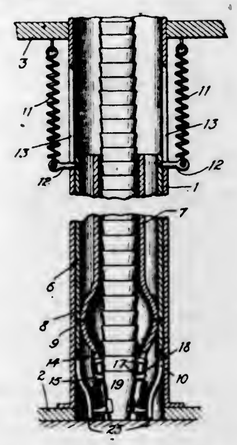
[Claim 6 not printed in the Gazette.]

1,144,764. DISPENSING APPARATUS. MAURICE P HENVIS, Washington, D. C., assignor to Individual Drinking Cup Company, New York, N. Y., a Corporation of Maine. Original application filed June 1, 1909. Serial No. 499,342. Divided and this application filed Aug. 1, 1913. Serial No. 782,415. (Cl. 211—8.)

1. In a dispensing apparatus, the combination of a sliding cup delivering device adapted to carry a series of cups and means beneath said delivering device, toward and from which said device is movable, for holding a cup during one movement of said device.

2. In a dispensing apparatus, the combination of a cup magazine having means to retain the lowermost cup therein, said means being movable up and down, and means to hold said cup against upward movement during the upward movement of said retaining means.

3. In a dispensing apparatus, the combination of a cup slide having means to retain the lower-most cup therein and clamping means for the base of said cup open at the delivery side to permit the lateral removal of the cup therefrom, said cup slide being movable toward and from said clamping means.

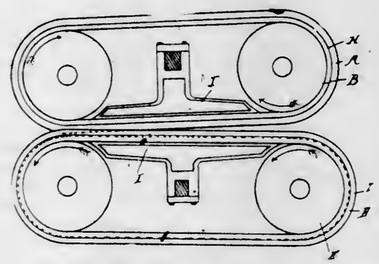


4. In a dispensing apparatus, the combination of a cup magazine, a delivery slide mounted thereon and provided with a pivoted dog to retain the lower-most cup therein, a fixed support beneath said slide toward and from which the latter is movable, and means for retaining said cup in contact with said fixed support.

5. In a dispensing device, the combination of a cup magazine, a delivery slide mounted thereon and movable up and down, and a pivoted dog having retaining means at opposite ends and mounted at the lower end of said slide to engage and hold successive cups therein.

[Claims 6 to 29 not printed in the Gazette.]

1,144,765. MACHINE FOR SCORING BLANKS OF CELLULAR BOARD. DANIEL KELLEHER, Sandusky, Ohio, assignor to The Hinde & Dauch Paper Company, Sandusky, Ohio, a Corporation of Ohio. Filed Oct. 16, 1914. Serial No. 866,994. (Cl. 93—58.)



1. A blank scoring mechanism comprising a pair of endless traveling members respectively having a tongue and a groove cross section, the adjacent portions of said members being in slight angular relation, with the tongue and groove in engagement at one end and slightly separated at the opposite end.

2. A blank scoring mechanism comprising a pair of endless belts having portions adjacent to each other and respectively of a tongue and groove cross section, pulleys over which said belts travel relatively arranged to engage the tongue and groove at one end and separate them at the opposite end, and guides over which the adjacent portions of said belts travel to hold the same from lateral displacement.

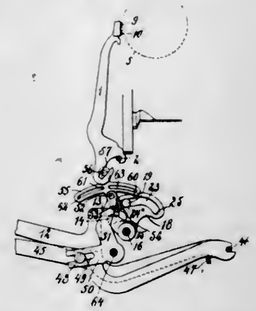
3. A blank scoring mechanism comprising an endless belt and an adjacent member having complementary tongue and groove cross sections, said members being relatively arranged to engage the tongue and groove at one end and to separate the same at the opposite end, the directly coöperating portions of the two members being substantially rectilinear.

4. A blank scoring device comprising a flexible traveling member having its cross sections fashioned to form a score, a guide for holding a portion of said flexible member straight, and an elongated coöperating member adjacent to the straight portion of said flexible member arranged to form a gradual tapering space therebetween.

5. A blank scoring mechanism comprising a pair of endless belts having straight portions adjacent to each other and respectively of a tongue and groove cross section, the direction of movement of said straight portions being slightly angular with respect to each other to engage said tongue and groove at one end and to separate them at the opposite end, and rigid guides for holding said adjacent belt portions from lateral displacement.

[Claims 6 and 7 not printed in the Gazette.]

1,144,766. TYPE-WRITING MACHINE. ALFRED G. F. KUROWSKI, New York, N. Y., assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Filed Jan. 9, 1912. Serial No. 670,136. (Cl. 197—22.)



1. The combination with a set of radially disposed type bars, and a shiftable segment or support therefor, of a set of sliding type-bar actuators mounted upon said support and having portions bent to the planes of the type-bars, and a set of key-operated levers having loose connections to said type-bar actuators.

2. The combination with a shiftable segment or support, of a set of type bars pivoted thereon and shiftable therewith, a set of slides mounted upon said support to shift therewith, said slides being bent at one end to the plane of the type bars and having connections at that end with the type bars, and a set of key-operated levers, said levers having connections with the unbent portions of said slides.

3. The combination with a shiftable segment or support, of a set of type bars pivoted thereon, a set of slides also mounted upon said support to shift therewith and connected to said type bars to operate the same, and a set of key-operated levers having loose connections to said slides to accommodate the shifting of said support; said slides having pin-and-slot connections to said type bars, said levers, and said segment.

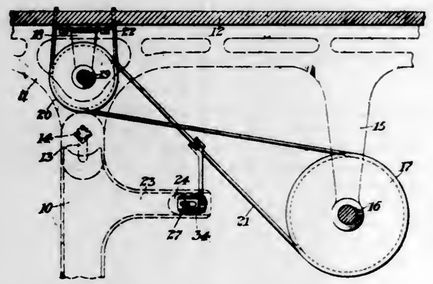
4. The combination of front strike type-bars, key-levers beneath the same, bell cranks or levers operated by the key-levers, radially mounted slides connected to the type-bars and bell cranks and having vertical slots to permit the type-bars and slides to shift for writing upper-case characters; a segment having radiating slots in which said type-bars and slides are mounted, and said segment having a fulcrum rod for the type-bars, and also having curved guide rods for the slides.

5. The combination of front strike type-bars, key-levers beneath the same, bell cranks or levers operated by the key-levers, radially mounted slides connected to the type-

bars and bell cranks and having vertical slots to permit the type-bars and slides to shift for writing upper-case characters; a segment having radiating slots in which said type-bars and slides are mounted, said segment having a fulcrum rod for the type-bars, and also having curved guide rods for the slides, said slides having curved slots to engage said guide rods, and the type-bars having slots engaged by wrists on the slides, for the purpose set forth.

[Claims 6 to 37 not printed in the Gazette.]

1,144,767. CROSS-BELT SPACER. LOUIS LADINSKI, New York, N. Y. Filed Jan. 15, 1915. Serial No. 2,324. (Cl. 74—51.)



1. A cross belt spacer comprising a support, a bracket adjustable to position in the said support, an arm adjustable to position in the said bracket and at right angles to the direction of adjustability of the said bracket, and means at the free end of the said arm for spacing parts of a cross belt as the same pass each other.

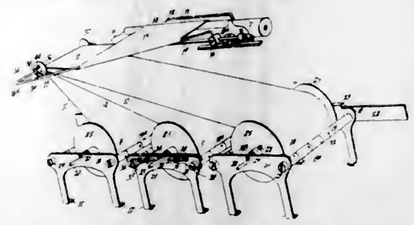
2. A cross belt spacer comprising a support, a bracket adjustable to position in the said support, an arm adjustable to position in the said bracket and at right angles to the direction of adjustability of the said bracket, lugs in an offset position at the free end of the said arm, and a pulley having a concave surface mounted to turn freely between the said lugs and to engage one part of a round belt to prevent the same from coming into contact with the other part thereof adjacent the point where said parts of the round belt cross each other.

1,144,768. SHOE. MICHELE LANZARO, West Springfield, Mass. Filed Mar. 11, 1915. Serial No. 13,693. (Cl. 36—48.)



A shoe the upper of which is composed of a one piece blank, said blank comprising an approximately semi-elliptical forward portion to form the vamp and such vamp-forming portion having rearward opposite and separated extensions, one of which extensions forms the lower portion of the quarter and the lower portion of the upper at one side of the shoe in the region of the shank between the quarter and the vamp, and the other rearward extension being provided with a transverse widened and curved edged terminal, forming the side of the upper at the opposite side of the shoe between the vamp and quarter and from the shank to its upper edge, the upper portion of the quarter, the upper portion of the first named side of the upper between the upper quarter and the instep portion, and said terminal forming the instep-covering portion, said blank being bent around in elongated convolutions and having their adjacent or matching edges united by stitching.

1,144,769. PAPER-ROLL CRADLE. HARRY S. MCCORMACK, New Rochelle, N. Y., assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Filed Dec. 10, 1910. Serial No. 596,586. (Cl. 242—55.)



1. A paper roll cradle comprising a pair of standards, and rods connecting said standards, said rods being between the standards and detachably connected thereto, each rod comprising a series of sections detachably connected to render the cradle adjustable to rolls of different lengths.

2. A paper roll cradle comprising a pair of standards, rods connecting and supporting said standards, each of said rods comprising a series of sections detachably connected to render the cradle adjustable to rolls of different lengths, said rods being adjustable inward and away from each other by means on the frame, to accommodate rolls of different diameters, said rods and standards being provided with clamping means.

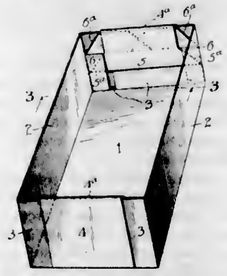
3. A paper roll cradle for use with a type-writing machine, said cradle comprising a pair of end standards, each of said end standards having a pair of oppositely adjustable ears, rods secured to the ears, and between the standards, and connecting the ends, and means for securing the ears in adjusted positions.

4. A paper roll cradle for use with a typewriting machine, said cradle comprising a pair of ends, said ends comprising standards having bearings for the axle of a roll, oppositely adjustable ears secured upon said standards, means to secure the ears where adjusted, to the standards, and rods between the standards connecting the ears of one standard to the corresponding ears of the opposite standard.

5. A paper roll cradle for association with a typewriting machine, said cradle comprising a pair of ends, rods connecting the ends, said rods formed of a series of sections detachably connected to adjust the cradle to rolls of different lengths, each detachable section being fitted to receive a tool for engaging or disengaging the sections.

[Claims 6 to 12 not printed in the Gazette.]

1,144,770. FOLDING BOX. BERTON L. MARENESS, Chicago, Ill., assignor to The Sefton Manufacturing Company, Anderson, Ind., a Corporation of Indiana. Filed Oct. 10, 1914. Serial No. 866,097. (Cl. 229—35.)

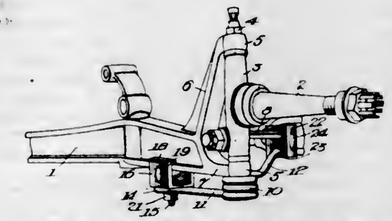


1. A folding box comprising a bottom, side walls hinged thereto and opposite ends, each end consisting of infolded corner flaps hinged to the ends of the side walls and adapted to be infolded toward each other, a middle flap hinged to the bottom, a pair of flaps between said middle flap and said corner flaps, and an extension flap hinged to the middle flap and adapted to be locked to the inner side of the box.

2. A folding box comprising a bottom, side walls hinged thereto and opposite ends, each end consisting of infolded corner flaps hinged to the ends of the side walls and adapted to be infolded toward each other, a middle flap hinged to the bottom, a pair of flaps between said middle flap and said corner flaps, and an extension flap hinged to the middle flap and having tongues 5^a adapted to be tucked behind the said pair of flaps.

3. A folding box comprising a bottom, side walls hinged thereto and opposite ends, each end consisting of infolded corner flaps hinged to the ends of the side walls and adapted to be infolded toward each other, a middle flap hinged to the bottom, a pair of flaps between said middle flap and said corner flaps, each member of said pair being transversely scored for bending and infolding toward each other, and an extension flap hinged to the middle flap and having corner tongues adapted to be tucked behind the said pair of flaps and the outer ends of said last-named flaps being located behind said extension flap.

1,144,771. CASTER-SPRING. CARMI A. MILLER, Spring Valley, Ill., assignor of one-half to J. Fenton Miller, Spring Valley, Ill. Filed Jan. 26, 1915. Serial No. 4,469. (Cl. 21—200.)



1. In combination with the front axle of a motor vehicle, the spindle, the steering knuckle bolt for pivotally connecting the spindle to the axle, the nut engaging the bolt, and the steering knuckle arm extending rearwardly from the spindle and bolt, of a spring for normally holding the spindle and the knuckle arm in neutral position, said spring comprising a coil fitting over the nut of the bolt, arms extending approximately parallel with the axle and with the steering knuckle arm, releasable clamping means for connecting each arm to the axle or to the steering knuckle arm, each of the said clamping means comprising channel-shaped sections arranged with their channels adjacent and having registering openings, a bolt passing through the openings of the sections of each of the said means, a nut engaging each bolt, the side walls of the sections adjacent to the knuckle arm being recessed to receive the knuckle arm and the spring arm, the side walls of the sections at the axle engaging the axle at one side edge of the sections, a bolt clamped between the flanges at the other side edge of the sections, the spring arm having an eye for engaging the bolt, and a nut on the bolt for clamping the eye to the flanges.

2. In combination with the front axle of a motor vehicle, the spindle, the steering knuckle bolt for pivotally connecting the spindle to the axle, the nut engaging the bolt, and the steering knuckle arm extending rearwardly from the spindle and bolt, of a spring for normally holding the spindle and the knuckle arm in neutral position, said spring comprising a coil fitting over the nut of the bolt, arms extending approximately parallel with the axle and with the steering knuckle arm, releasable clamping means for connecting each arm to the axle or to the steering knuckle arm, each of the said clamping means comprising channel-shaped sections arranged with their channels adjacent and having registering openings, a bolt passing through the openings of the sections of each of the said means, and a nut engaging each bolt.

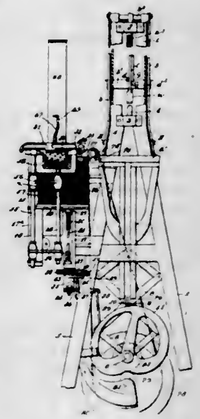
3. In combination with the front axle of a motor vehicle, the spindle, the steering knuckle bolt for pivotally connecting the spindle to the axle, the nut engaging the bolt, and the steering knuckle arm extending rearwardly from the spindle and bolt, of a spring for normally holding the spindle and the knuckle arm in neutral position, said spring comprising a coil fitting over the nut of the bolt, arms extending approximately parallel with the axle and with the steering knuckle arm, and releasable clamping means for connecting each arm to the axle or to the steering knuckle arm.

4. A spring for connection with the front axle of a motor vehicle for holding the spindle in normal position with respect to the axle, said spring comprising a coil adapted to fit over the nut of the steering knuckle bolt, arms extending from the opposite ends of the coil at an acute angle with respect to each other and adapted to extend beneath the axle and the knuckle arm and to be tamped to the axle and the arm, the arm for connection with the axle having a loop or eye at its free end.

5. A spring for connection with the front axle of a motor vehicle for holding the spindle in normal position with respect to the axle, said spring comprising a coil adapted to fit over the nut of the steering knuckle bolt, arms extending from the opposite ends of the coil at an acute angle with respect to each other and adapted to extend beneath the axle and the knuckle arm and to be clamped to the axle and the arm.

[Claim 6 not printed in the Gazette.]

1,144,772. FEEDING-DEVICE FOR PACKET-MAKING MACHINES. WALTER E. MOLINS, London, England. Original application filed Jan. 9, 1912, Serial No. 670,137. Divided and this application filed June 14, 1913. Serial No. 773,743. (Cl. 93—51.)



1 In a packet making machine, the combination with blank folding devices, of secondary feeding means for feeding the blanks transversely to the folding devices, devices for applying an adhesive to said blanks, and primary feeding means for effecting a movement of the adhesive applying devices relative to the blanks to apply the adhesive thereto and for transferring the blanks one at a time to the transverse feeding means.

2. In a packet making machine, the combination of means for feeding the blanks transversely to the folding devices, a support for a stack of blanks, devices for applying adhesive to said blanks, and means actuated coincidently with the packet making machine for effecting a relative movement between the stack of blanks and the adhesive applying devices and for transferring the blanks one at a time from the stack of blanks to a point beyond said adhesive applying devices, to the transverse feeding means.

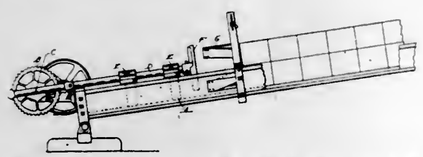
3. In a packet making machine, the combination with blank folding devices, of means operated by said folding devices for feeding said blanks transversely to the folding devices, elevating means for supporting a stack of blanks, a reciprocating feeding means for transferring the blanks longitudinally and one at a time from said stack of blanks to the transverse feeding means, and means operated by the mechanism for actuating the folding devices for lifting said elevating means and reciprocating the feeding means.

4. In a packet making machine, the combination with blank folding devices including a reciprocating plunger, means for feeding blanks transversely to said folding devices, and means actuated by the means for reciprocating said plunger for drawing said blank feeding means quickly beneath the same during the retreat of the plunger and moving said feeding means away from the plunger by a slower movement during the advance of the same.

5. In a packet making machine, the combination with blank folding devices including a reciprocating plunger, actuating means for said plunger, a swinging tray for feeding blanks transversely beneath the plunger, a movable switch carried by the plunger reciprocating means adapted to coact with a projection fixed to said tray for imparting to the tray a quick movement to place a blank beneath the plunger, and a slower movement to carry said tray into position to receive another blank.

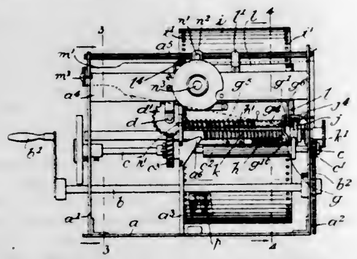
[Claims 6 to 10 not printed in the Gazette.]

1,144,773. METHOD OF SEALING BOXES. LAWRENCE D. MORTON, Sandusky, Ohio, assignor to The Hinde and Dauch Paper Company, Sandusky, Ohio, a Corporation of Ohio. Filed Mar. 12, 1910. Serial No. 548,935. (Cl. 93—2.)



The method of sealing boxes having overlapping flaps, which consists in applying adhesive to one of the contacting surfaces of the overlapping flaps of each box, then placing the box in an inclined series of previously sealed boxes, and then in one operation overlapping the flaps of the box last added to the series against the front or rear face of the box, and displacing the entire series longitudinally and upwardly a certain distance, the contact of the boxes of the series with one another maintaining their flaps closed.

1,144,774. CINEMATOGRAPH APPARATUS. ARTHUR S. NEWMAN, Highgate, England, assignor of one-third to Thomas Horace Bolam and one-third to Sidney Norman Barnard, West Ealing, England. Filed Mar. 17, 1915. Serial No. 14,939. (Cl. 88—16.)



1. In cinematograph apparatus, the combination of a rotating cam equal in length to the travel of the carriage, a laterally sliding carriage, guides on said carriage for the film, a main lever on said carriage moved by the cam, a pair of claws operated by the main lever the ends of which enter the perforations in the film and drive the same, a pawl operated by the main lever, a sleeve connected to the carriage and having teeth driven by said pawl, a lead screw on which the sleeve is mounted, a part on the sleeve engaging the thread of the lead screw, and an objective lens mount, the carriage being located between the film and the objective lens mount, substantially as set forth.

2. In cinematograph apparatus, the combination of a rotating cam, a laterally sliding carriage, guides on said carriage for the film, a main lever on said carriage moved by the cam, a pair of claws operated by the main lever the ends of which enter the perforations in the film and drive the same vertically, a pawl operated by the main lever, a sleeve connected to the carriage and having teeth driven by said pawl, a lead screw permanently supported at both ends on which the sleeve is mounted, a part on the sleeve engaging the thread of the lead screw, a fixed objective lens mount, a shutter shaft mounted in a fixed bearing, and a shutter on said shaft, substantially as set forth.

3. In cinematograph apparatus, the combination of a rotating cam equal in length to the travel of the carriage, a laterally sliding carriage, guides on said carriage for the film, a main lever on said carriage moved by the cam, a pair of claws operated by the main lever the ends of which enter the perforations in the film and drive the same, a pawl operated by the main lever, a sleeve connected to the carriage and having teeth driven by said pawl, a lead screw on which the sleeve is mounted, a part on the sleeve engaging the thread of the lead screw, an objective lens mount, the carriage being located between the film and the objective lens mount, a condenser tube provided with a spring mask, means for allowing the condenser tube to be moved backward away from the carriage to allow the film to be placed in position on the carriage, and means for retaining the condenser tube in its forward position with the mask in contact with the film, substantially as set forth.

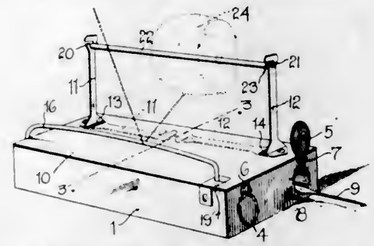
4. In cinematograph apparatus, the combination of a rotating cam equal in length to the travel of the carriage, a laterally sliding carriage, guides on said carriage for the film, a main lever on said carriage moved by the cam, a pair of claws operated by the main lever the ends of which enter the perforations in the film and drive the same, a pawl operated by the main lever, a sleeve connected to the carriage and having teeth driven by said pawl, a lead screw on which the sleeve is mounted, a part on the sleeve engaging the thread of the lead screw, an objective lens mount, the carriage being located between the film and the objective lens mount, a condenser tube provided with a spring mask, a plate hinged at one end carrying said condenser tube, and a catch at the other end of the hinged plate to retain it in its forward position, substantially as set forth.

5. In cinematograph apparatus, the combination of a rotating cam equal in length to the travel of the carriage, a laterally sliding carriage, guides on said carriage for the film, a main lever on said carriage moved by the cam, a pair of claws operated by the main lever the ends of which enter the perforations in the film and drive the same, a pawl operated by the main lever, a sleeve connected to the carriage and having teeth driven by said pawl, a lead screw on which the sleeve is mounted, a part on the sleeve engaging the thread of the lead screw, an objective lens mount, the carriage being located between the film and the objective lens mount, a fixed guide on one edge of said carriage, a pivoted spring-pressed guide on the other edge of said carriage, and springs on said carriage which press the edges of the film against said guides, substantially as set forth.

[Claims 6 to 9 not printed in the Gazette.]

1,144,775. CROCHET-THREAD HOLDER. HARRY N. NOLLNER, Washington, D. C. Filed Jan. 30, 1915. Serial No. 5,210. (Cl. 242—134.)

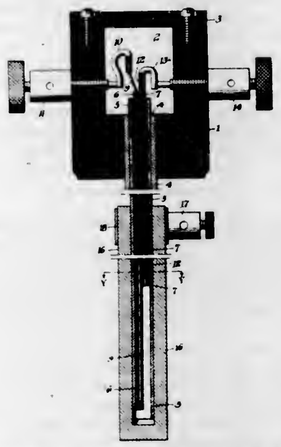
1. In a thread holder for crocheting, a base, spindle supporting uprights, devices hinging said uprights on said base and holding said uprights against outward movement beyond a predetermined upright position and permitting inward folding movement to a position flat against said base, and a thread carrying spindle removably carried by said uprights and engaging the latter to prevent inward movement of said uprights when said spindle is in position, substantially as described.



2. In a thread holder for crocheting, a base, spindle supporting uprights provided with right-angle slots, devices hinging said uprights on said base and holding said uprights against outward movement beyond an upright position, and a thread carrying spindle provided with reduced end portions adapted to be journaled in said slots to removably retain said spindle in position said spindle having shoulder portions engaging the uprights to prevent inward folding movement of the latter toward said base, substantially as described.

3. A thread holder comprising a spindle for rotatively supporting a wound bulk of thread for rotative and longitudinal movement thereon, a base supporting said spindle, and a bowed thread guide having a length substantially equal to the length of longitudinal movement of the bulk along said spindle thereby permitting free movement of the unwinding thread through and along said guide irrespective of the position of the thread bulk on said spindle, the bow-shape of said guide preventing said bulk from moving against the spindle support, substantially as described.

1,144,776. METHOD OF AND MEANS FOR MEASURING TEMPERATURE AND RESISTIVITY. EDWIN F. NORTHRUP, Princeton, N. J. Filed Oct. 3, 1914. Serial No. 864,739. (Cl. 73—32.)



1. The method of measuring temperature higher than the vaporization temperature of mercury, which consists in subjecting to the temperature to be measured an inorganic material which is liquid at said temperature to be measured, and measuring the resistance of a portion of said liquid.

2. The method of measuring temperature higher than the vaporization temperature of mercury, which consists in subjecting to the temperature to be measured a predetermined confined mass of metal molten at said temperature, and measuring the resistance of said molten mass.

3. The method of measuring temperature, which consists in subjecting to the temperature to be measured a material which is molten at that temperature, and while molten changing in resistance directly proportionally to change in temperature, and measuring the resistance of said material.

4. In apparatus for measuring temperature higher than the vaporization temperature of mercury, the combination with a refractory vessel, of metal contained in said vessel and becoming molten at or below the temperature to be measured, and means for connecting a predetermined part of said metal in a resistance measuring circuit.

5. The combination with a pyrometer resistance for measurement of temperature higher than the vaporization temperature of mercury and having the property when molten of changing in resistance directly proportionally with change in temperature consisting of tin, of means for connecting said tin in a resistance measuring circuit.

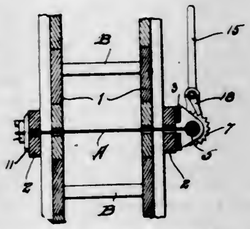
[Claims 6 to 29 not printed in the Gazette.]

1,144,777. SANITARY TOOTH-CLEANER. EDWIN GOULD OVER, Fort Worth, Tex. Filed Sept. 22, 1914. Serial No. 863,004. (Cl. 15—39.)



The improved sanitary device, comprising two pockets arranged back to back, one formed of close-woven fabric which is impervious to tooth-powder, and the other having its face or outer side formed of relatively coarse-mesh fabric which is permeable to tooth-powder, the partition dividing the two pockets being also impervious to powder and extended a considerable distance beyond the mouths of the pockets, whereby it is adapted to serve as a pull-piece and for clamping and holding the device in place on the finger when being used, as described.

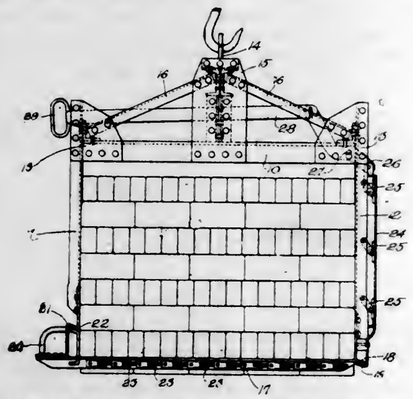
1,144,778. CLAMP FOR CONCRETE-FORMS. GEORGE W. PARISHO, St. Louis, Mo., assignor of one-half to J. G. Lescher, St. Louis, Mo. Filed July 1, 1914. Serial No. 848,419. (Cl. 25—131.)



1. In a clamp for concrete molds or forms, the combination with an anchoring device comprising a perforated plate, a hook pivotally mounted on said plate to the side of the opening therein, a portion of which hook is adapted to extend across the perforation in the plate, an ear projecting outwardly from the central portion of the hook, a tie wire provided at one end with a loop which is engaged by the hook, and a windlass comprising a bracket, a shaft journaled therein, on which shaft the tie wire is adapted to wind, a ratchet wheel on said shaft, a pawl on the bracket, the point of which pawl engages the teeth of the ratchet wheel, a bearing lug on the plate to the rear of the pawl, and means for rotating said shaft.

2. The combination with the mold boards of concrete forms, of a windlass comprising a plate provided with an opening, ears thereon to the sides of the opening therein, a shaft journaled in said ears, which shaft is perforated to receive a tie wire, a ratchet wheel on said shaft, a pawl pivotally mounted on one of the ears, the point of which pawl engages the teeth of said ratchet wheel, a bearing lug integral with the ear to the rear of the pawl, a pawl carrying handle adapted to be applied to said shaft for imparting rotary movement thereto, said plate being adapted to be applied to one of the mold boards of the form, and means adapted to be applied to the opposite mold board of the form for anchoring the end of the wire opposite the end which is connected to the shaft.

1,144,779. BRICK-LIFTING APPARATUS. RAYMOND C. PENFIELD, New York, N. Y. Filed Dec. 2, 1911. Serial No. 663,644. (Cl. 57—9.)



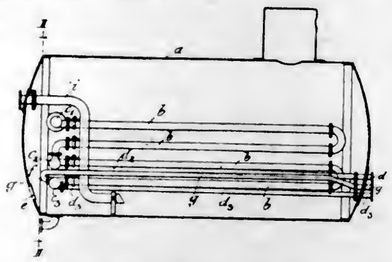
1. An apparatus of the kind described, comprising a lifting frame adapted to be let down over a unit of bricks or the like with provision for engaging the bottom of the unit to lift and deposit the unit without disturbing the formation thereof, and means mounted on an outer side of said frame for collapsing movement relative thereto, said means being adapted to space the unit relative to other units and be then collapsed to permit withdrawal of the frame.

2. An apparatus of the kind described, comprising a lifting cage adapted to be let down over a unit of bricks or the like with provision for engaging the bottom of the unit to lift and deposit the same without disturbing the unit formation, and a movable plate mounted outside and adjacent one side of the lifting frame, being arranged for expanding and collapsing movement relatively to the side of said cage, whereby the unit as deposited may have said plate in contact with an adjacent unit and be spaced therefrom, and the cage then withdrawn by collapsing the plate.

3. An apparatus of the kind described, comprising a lifting frame adapted to be let down over a unit of bricks with provision for engaging the bottom of the unit to lift and deposit the same without disturbing the unit formation adjacent a spacing plate outside said frame, and means to hold said plate substantially parallel with the adjacent side of the frame, said means including a pivotal link connection to the side of said frame to permit expanding and collapsing movement for the purpose stated.

4. An apparatus of the kind described, comprising a lifting cage having opposite sides adapted to be let down over a unit of bricks, leaving the other two sides of the unit open and unobstructed, insertible lifting bars cooperative with said opposite cage sides and having provision to engage and lift the bottom of the unit without disturbing the unit formation, and collapsing spacing means mounted on a side of said cage and adapted to space the unit as deposited, from other units.

1,144,780. CRUDE-OIL PREHEATER. PHILIPP PORGES, Vienna, Austria-Hungary. Filed Feb. 10, 1914. Serial No. 817,955. (Cl. 257—240.)



1. A pre-heater for crude oil, comprising a vessel, an inlet distributer or manifold, other distributers or manifolds, said distributers or manifolds being superposed within said vessel, condensation pipes connecting one distributer with another, in serial order, separate pipes connected to separate manifolds for leading off different fractions of the distillate, said inlet manifold being attached to the vessel, said other manifolds being detached from said vessel.

2. A pre-heater for crude oil, comprising a vessel, an inlet distributer or manifold, other distributers or manifolds, said distributers or manifolds being superposed within said vessel, condensation pipes connecting one distributer with another, in serial order, separate pipes connected to separate manifolds for leading off different fractions of the distillate, said inlet manifold being attached to the vessel, said other manifolds being detached from said vessel, said distributer last in serial order having a pipe connected thereto for leading off the uncondensed vapors.

3. A pre-heater for crude oil, comprising a vessel, an inlet distributer or manifold, other distributers or manifolds, said distributers or manifolds being superposed within said vessel, condensation pipes connecting one distributer with another, in serial order, separate pipes connected to separate manifolds for leading off different fractions of the distillate, said inlet manifold being attached to a longitudinal side of the vessel, said other manifolds being detached from said vessel.

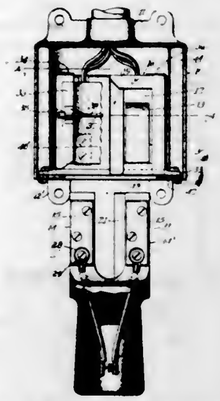
4. A pre-heater for crude oil, comprising a vessel, with a system of return-pipes therein for circulation of distillate gases, said pipes being connected to said vessel at the inlet ends of the pipes by means of a common inlet distributer fixed to the interior of the vessel and having the inlet on the longitudinal side of the vessel, the other ends of the pipes being connected to diatributers arranged freely and movable, and provided with outlet pipes for the condensed distillate products running substantially the length of the vessel and arranged in said vessel as near as possible to the vertical center line thereof.

1,144,781. PLUG-SWITCH. FREDERICK J. RAVLIN and JOHN LOFGREN, Chicago, Ill. Filed Dec. 3, 1914. Serial No. 875,275. (Cl. 173—338.)

1. In a device of the character described, a plurality of insulating base-sections, an assembly frame therefor, holding same in associated relation, and a casing for said frame.

2. In a device of the character described, a plurality of insulating base-sections, jointly providing a plug receiving socket, and divided on a vertical plane; an assembly frame comprising parts divided on vertical planes coacting with said base to position the same, and means to cross connect the frame sections.

3. In a device of the character described, a plurality of insulating base-sections, jointly providing a plug receiving socket, and having external wiring grooves, and divided on a vertical plane; an assembly frame comprising parts divided on vertical planes, coacting with said base to position the same, insulating bodies interposed between the grooved sides of said base and the frame, and means to cross connect the frame sections.



4. In a device of the character described, an assembly frame comprising two sections, each providing two corner structures, means for connecting said two sections transversely, and a plurality of insulating sections positioned in and by said corners, said insulating sections having recesses therein jointly providing the plug-socket.

5. In a device of the character described, an assembly frame comprising two sections each providing two corner structures, tension means for connecting said two sections transversely, and a plurality of insulating sections positioned in and by said corners, said insulating sections having recesses therein jointly providing the plug-socket.

[Claims 6 to 10 not printed in the Gazette.]

1,144,782. METHOD OF COMBUSTION. ALCORN RECTOR, New York, N. Y., assignor to Rector Gas Lamp Company, New York, N. Y., a Corporation of New York. Filed Sept. 26, 1910, Serial No. 583,773. Renewed May 19, 1915. Serial No. 29,224. (Cl. 158—117.5.)



1. A method of combustion consisting in artificially creating a partial vacuum at the place of combustion, delivering a volume of gas in a highly rarefied state to the place of combustion, maintaining a volume of air also in a highly rarefied state, inclosing one volume within and out of contact with the other, drawing them to a point of combustion, and burning the same in a partial vacuum substantially sealed against excessive atmospheric invasion.

2. A method of combustion consisting in maintaining an inclosed volume of gaseous fuel mixed with air in a highly rarefied state, separately maintaining a volume of air also in a highly rarefied state, conducting the gas and air to a place of union for combustion, and burning said mixture in a partial vacuum substantially sealed against excessive atmospheric invasion.

3. A method of combustion consisting in artificially creating and maintaining a partial vacuum, delivering a volume of gas and a volume of air, one interiorly of but out of contact with the other, into the vacuumized space toward and to the point of union for mixture and ignition in the vacuumized space, and forcibly withdrawing the products of combustion through and out of said vacuumized space, thereby insuring against back draft.

4. A method of combustion consisting in artificially creating and maintaining a partial vacuum, conducting simultaneously a volume of gas and a volume of air to a place of union for mixture in the vacuumized space, mixing the same and burning the mixture thereat substantially sealed against atmospheric invasion, and forcibly withdrawing the products of combustion out of said vacuumized space.

5. A method of combustion consisting in artificially creating and maintaining a partial vacuum at the place of combustion, conducting gas and air thereto, mixing and burning the same thereat substantially sealed against atmospheric invasion, and forcibly withdrawing therefrom the products of combustion.

[Claims 6 and 7 not printed in the Gazette.]

1,144,783. COMBUSTION APPARATUS. ALCORN RECTOR, New York, N. Y., assignor to Rector Gas Lamp Company, New York, N. Y., a Corporation of New York. Filed Sept. 26, 1910, Serial No. 583,774. Renewed May 19, 1915. Serial No. 29,225. (Cl. 158—99.)



1. The combination with a casing closed against secondary air invasion, means connected thereto for positively producing and maintaining a partial vacuum within the casing, means for simultaneously drawing into the casing and to a place of combustion therein a volume of combustible fuel and a volume of combustion supporting gas, means for separating the one from the other up to a place of combustion, means for removing the products of combustion from within the casing through the vacuum producer.

2. The combination with a casing closed against secondary air invasion, means connected thereto for positively producing and maintaining a partial vacuum within the casing, means for simultaneously drawing into the casing and to a place of combustion therein a volume of combustible fuel mixed with air.

3. The combination of a fuel supply tube having an air in-take with a tube for supplying combustion supporting gas, said tubes having their inner ends adjacent the one to the other and adapted to deliver their contents to a combustion chamber, means for producing and maintaining a partial vacuum in the combustion chamber, an air-tight conduit leading from the vacuum producing means to the combustion chamber.

4. In a combustion apparatus, substantially air-tight combustion chamber, conduits leading thereto for conveying a regulable mixture of air and gas and a regulable supply of combustion supporting gas, a positively operated vacuum creating and maintaining apparatus, an air-tight conduit leading from the said vacuum apparatus to the combustion chamber.

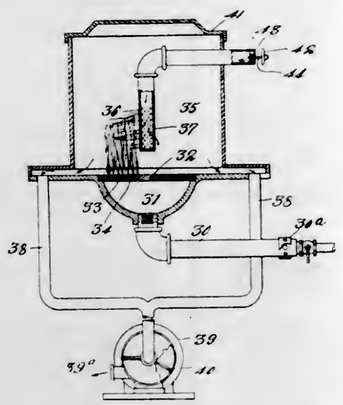
5. In combination with a closed combustion chamber, means for supplying a volume of combustible fuel and a volume of combustion-supporting gas thereto, means for mixing the two volumes together at the point of combustion within the combustion chamber, a vacuum producing and maintaining apparatus hermetically connected to the combustion chamber, means for forcibly drawing the air and combustible fuel into the combustion chamber and for forcibly withdrawing the products of combustion from the combustion chamber through the vacuum producing apparatus.

[Claims 6 to 10 not printed in the Gazette.]

1,144,784. JETTING METHOD OF COMBUSTION. ALCORN RECTOR, New York, N. Y., assignor to Rector Gas Lamp Company, New York, N. Y., a Corporation of New York. Filed Sept. 26, 1910, Serial No. 583,775. Renewed May 19, 1915. Serial No. 29,226. (Cl. 158—117.5.)

1. The method of combustion which consists in forming a partial vacuum at the place of combustion, drawing air and gas thereto in a rarefied condition in separate jets, mixing the same and then burning the rarefied mixture.

2. The method of combustion which consists in forming a partial vacuum at the place of combustion, causing air and gas to be rarefied, drawing air and gas in separate jets, mixing the same together at the place of combustion, burning the said mixture in its rarefied state and forcibly withdrawing the products of combustion.



3. The method of combustion which consists in simultaneously creating and maintaining a partial vacuum at the place of combustion, cross jetting gases at an angle to each other, mixing and sustaining the gases in a rarefied state, burning the mixture and forcibly removing the products of combustion.

4. The method of combustion which consists in simultaneously producing a partial vacuum at the place of combustion, drawing a jet of mixed air and gas and a jet of air thereto at angles to each other in a rarefied state, mixing the same, burning the mixture and forcibly withdrawing the products of combustion.

5. The method of combustion which consists in forming a partial vacuum at the place of combustion, drawing a jet of mixed air and gas and a jet of combustion supporting gas to a place of junction in the zone of combustion, burning the combined mixture in the vacuumized space and forcibly withdrawing the products of combustion from the vacuumized space.

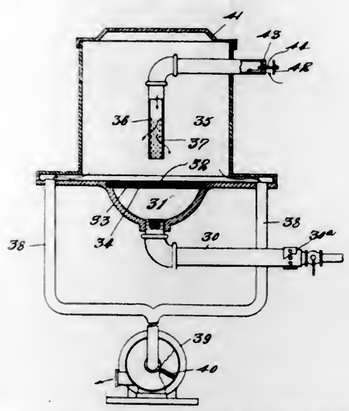
[Claims 6 to 8 not printed in the Gazette.]

1,144,785. COMBUSTION APPARATUS. ALCORN RECTOR, New York, N. Y., assignor to Rector Gas Lamp Company, New York, N. Y., a Corporation of New York. Filed Sept. 26, 1910. Serial No. 583,776. Renewed May 19, 1915. Serial No. 29,227. (Cl. 158—99.)

1. The combination with a fuel chamber of means for supplying the fuel thereto, a combustion chamber, a perforated wall separating said chambers, an air inlet for the combustion chamber, a vacuum producing and maintaining device connected with the combustion chamber, means for operating the same to draw the fuel and air into the combustion chamber and withdraw the products of combustion therefrom.

2. The combination in a combustion apparatus of a fuel chamber, means for admitting mixed air and gas into the fuel chamber, a combustion chamber adjacent thereto, a perforated wall separating said chambers, means for admitting the combustion supporting gas into the combustion chamber, a vacuum producing and maintaining device connected with the combustion chamber, means to operate the same thereby creating a vacuum in the combustion chamber and drawing the mixed air and gas into the combustion chamber and the combustion supporting gas also into the combustion chamber for further mixture and to withdraw from the combustion chamber the products of combustion all in a rarefied state.

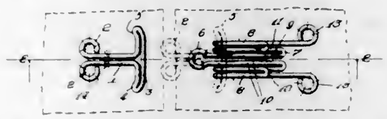
3. The combination in a combustion apparatus of a fuel chamber, a combustion chamber adapted thereto, means for drawing mixed air and gas from the fuel chamber into the combustion chamber by jets, means for drawing air into the combustion chamber situated in juxtaposition to the fuel chamber, a vacuum producing and maintaining device hermetically connected to the combustion chamber, means for operating the same to positively create and maintain a substantial vacuum in the combustion chamber.



4. The combination in a combustion apparatus of a fuel chamber, a combustion chamber in communication therewith, means for jetting the fuel from the fuel chamber into the combustion chamber, a vacuum producing and maintaining device in communication with the combustion chamber operable to create and maintain a partial vacuum therein, to mix the gas and air and to forcibly draw therefrom the products of combustion.

5. The combination of a fuel chamber with a combustion chamber, a perforated wall separating the chambers means for supplying jets of air into the combustion chamber, a vacuum producing and maintaining device communicating with the combustion chamber operable to forcibly draw air for combustion into the combustion chamber and to forcibly draw therefrom the products of combustion.

1,144,786. HOOK AND EYE. WILLIAM E. RICE, La Fayette, Ind. Filed July 24, 1914. Serial No. 852,816. (Cl. 24—228.)

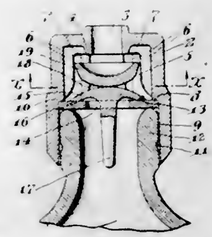


1. In a garment fastener, a hook member made of a singe piece of wire and comprising a pair of terminal eyes, a pair of parallel hooks presenting tips directed rearwardly toward the said eyes, each of said hooks composed of two parallel strands, said eyes formed respectively upon the outer strands of said hooks; and a resilient forwardly directed tongue connecting the inner strands of said hooks and disposed between said hooks, said tongue being upwardly curved intermediate of its ends.

2. In a garment fastener, a hook member made of a single piece of wire and comprising a pair of terminal eyes, a pair of parallel hooks presenting tips directed rearwardly toward the said eyes, each of said hooks composed of two parallel strands, said eyes formed respectively upon the outer strands of said hooks; and a resilient, forwardly directed tongue connecting the inner strands of said hooks and disposed between said hooks, said tongue provided at its forward end with a loop adapted to be secured to the material upon which said hook member is mounted.

3. In a garment fastener, a hook member formed of a single strand of wire terminating in attaching eyes and comprising a pair of spaced hooks presenting tips directed rearwardly toward said eyes, each of said hooks formed of two substantially parallel portions, the outer thereof connected respectively to said eyes, the inner thereof extending toward the said eyes, and a forwardly directed resilient loop connected by return bends respectively to the said inner portions of the spaced hooks and presenting an upwardly directed hump intermediate of the ends of said loop.

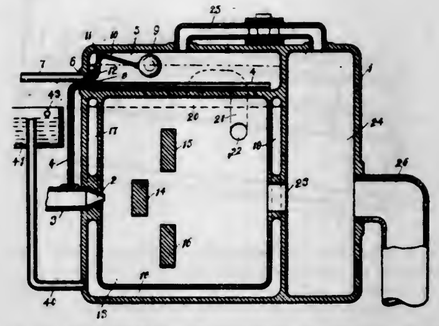
1,144,787. NON-REFILLABLE BOTTLE. HARRY W. RIES, Collingswood, N. J., and LANDY B. BROWN and FREDERICK C. YOCKEL, Philadelphia, Pa. Filed Sept. 5, 1914. Serial No. 860,343. (Cl. 215—62.)



In a non-refillable bottle, the bottle neck, with a hollow cap secured to the neck providing a chamber having an outlet at the top and the interior walls of the chamber ribbed, and an annular valve seat between the bottle neck and the chamber of the cap, said parts forming a circular fulcrum bearing for the valve piece between the ribs and the seat, in combination with a valve piece seating upon the valve seat and having a rounded or spherical upper surface and a thin circumferential edge adjacent to the seating surface and caused to rock within the chamber of the cap by said edge and the confining influence of the ribs which provide a fulcrum bearing adjacent to the annular seat, and said valve piece provided with an arm extending through the aperture of the valve seat and acting as a counterweight to rock the valve piece and seat it, the center of gravity of the valve piece and its arm being slightly to the neck side of the plane of the seat when the bottle is in horizontal position and to the outlet side of the plane of the seat when the bottle is very slightly inverted beyond the horizontal position, and a relatively light weight piece loosely arranged within the chamber of the cap above the valve piece having relatively sharp circumferential edges in contact with and guided and restricted by the ribs so as to both slide and rock thereon and having its under surface rounded or spherical-shaped so as to provide a limited contact engagement with the rounded surface of the valve piece and assist the gravity action of the valve piece to quickly and positively seat upon its seat when the bottle is returned from pouring to horizontal position and in the pouring position to act as a support for the valve piece and hold said arm thereof from contacting with the sides of the annular valve seat.

1,144,788. APPARATUS FOR PRODUCING GASEOUS FUEL. FRANCIS M. RITES, Slaterville Springs, N. Y.; Charles H. Gallagher, executor of said Francis M. Rites, deceased, assignor to Perie Clapp Rites, Ithaca, N. Y., guardian for Marion B. Rites. Filed Dec. 3, 1912. Serial No. 734,793. (Cl. 48—74.)

1. In an apparatus for producing a combustible gas from oil, the combination of a combustion chamber, water jackets on all but one side of said combustion chamber, said combustion chamber serving to heat the water jacket and form steam therein, a tube from said water jacket for discharging steam from the water jacket into the combustion chamber, a vaporizing chamber holding liquid oil directly in contact with the combustion chamber on the unjacketed side thereof, a tube for discharging liquid from the vaporizing chamber into the combustion chamber, said vaporizing chamber forming a cooling jacket for the unjacketed side of the combustion chamber.



2. In an apparatus for producing a combustible gas and vapor from oil, the combination of a combustion chamber, a vaporizing chamber on said combustion chamber, an oil supply pipe feeding oil into said vaporizing chamber, a pipe for the escape of the distilled vapor from said vaporizing chamber, a pipe for the drainage of the heavy oil from said vaporizing chamber, means for partially burning said heavy oil in the combustion chamber and mixing the product of said burning with the vapor from the vaporizing chamber.

3. In an apparatus for producing a combustible gas and vapor from oil, the combination of a combustion chamber, a vaporizing chamber on said combustion chamber, an oil supply pipe feeding oil into said vaporizing chamber, a pipe for the escape of the distilled vapor from said vaporizing chamber, a pipe for the drainage of the heavy oil from said vaporizing chamber, means for partially burning said heavy oil in the combustion chamber and mixing the product of said burning with the vapor from the vaporizing chamber, said combustion chamber serving to heat the vaporizing chamber.

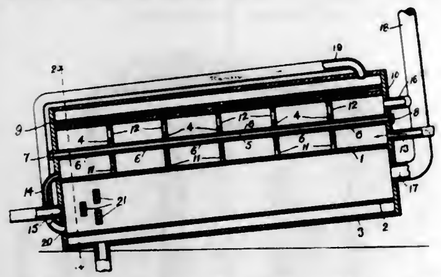
4. In an apparatus for producing combustible gas and vapor from oil, the combination of a water jacketed combustion chamber, a vaporizing chamber, means for discharging the heavier oils from the vaporizing chamber into the combustion chamber, means for discharging steam from the water jacket into the combustion chamber, said combustion chamber operating partially to burn the oil and steam to form producer gas from said oil and steam and means for mixing the gaseous and vaporous products from both the vaporizing chamber and the combustion chamber.

5. In an apparatus for producing combustible gas from oil the combination of a combustion chamber, a vaporizing chamber located above the combustion chamber and provided with means to maintain a body of oil, a tube for transferring the residue from the vaporizing chamber to the combustion chamber, means for supplying air to the residue and partially burning the same in the combustion chamber for heating and vaporizing the oil in the vaporizing chamber, a mixing chamber and means for connecting the combustion chamber and the vaporizing chamber with said mixing chamber, and means for conducting off the gas of the mixing chamber.

1,144,789. PROCESS OF PRODUCING GASEOUS FUEL. FRANCIS M. RITES, Slaterville Springs, N. Y.; Charles H. Gallagher, executor of said Francis M. Rites, deceased, assignor to Perie Clapp Rites, Ithaca, N. Y., guardian of Marion B. Rites. Filed Feb. 5, 1913. Serial No. 746,295. (Cl. 48—211.)

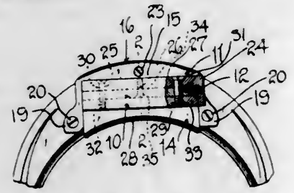
1. A process of producing combustible gas and vapor consisting of continuously feeding crude oil to a vaporizing chamber, partly distilling said crude oil, drawing off the vapor produced thereby, draining and partially burning the residue thereof to furnish the heat for dis-

tillation, converting it into gas or vapor and mixing it with the product of distillation.



2. A process of producing combustible gas and vapor consisting of continuously feeding crude oil to a vaporizing chamber, partly distilling said crude oil, drawing off the vapor produced thereby, draining and partially burning the residue thereof to furnish the heat for distillation, and converting the residue into a combustible gas or vapor and collecting the same.

1,144,790. HORSESHOE TOE-CALK. GEORGE ROBINS, Jackson, Mich. Filed Mar. 27, 1915. Serial No. 17,488. (Cl. 168—34.)



1. A toe calk for horse shoes including a pair of co-acting clips adapted to embrace the toe portion of a horse shoe, mating socket plates depending from the clips, a toe member having a fin inserted in the rectangular socket defined by the socket plates, and fastening devices passing through the socket plates and fin for securing the fin in position for connecting the socket plates.

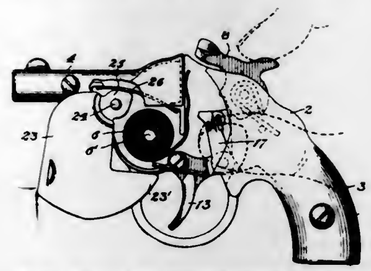
2. A toe calk for horse shoes including a toe member and a holder for adjustably securing the toe member to the horse shoe, said holder including a pair of co-acting clip members, one of said clip members being adapted to embrace the outer edge of the shoe, the other of said clips being adapted to embrace the inner edge of said shoe, a substantially U-shaped socket plate depending from the first clip, and a straight socket plate depending from the second clip, said socket clips being adapted to mate, forming a rectangular socket adapted to receive the toe member, and fastening members passing through the socket plates and toe member for detachably securing the toe member thereto and for connecting the socket plates.

3. A toe calk for horse shoes including a pair of co-acting clips adapted to embrace the toe portion of a horse shoe, mating socket plates depending from the clips, one of said socket plates being substantially U-shaped and the other of said socket plates being flat and being disposed between the end walls of the U-shaped socket plate to define in connection therewith a substantially U-shaped socket, a fin inserted in the socket, and fastening devices passing through the socket plates and fin.

4. A toe calk for horse shoes including a pair of co-acting clips which embrace the toe portion of a horse shoe, a substantially U-shaped socket plate depending from that clip which embraces the forward edge of the shoe, a plane socket plate depending from that clip which embraces the rear edge of the toe portion of the shoe, said second socket plate being disposed between the side walls of the first mentioned socket plate, rearwardly extending lugs formed on the first mentioned clip, and fastening devices for securing said lugs to the shoe, the bottom portion of the second mentioned clip engaging at its terminals against said lugs, whereby it is held against transverse movement upon the shoe.

5. A toe calk for horse shoes including a pair of co-acting clips adapted to embrace the toe portion of the horse shoe, mating socket plates depending from the clips, said plates defining a substantially rectangular socket, a toe member, a longitudinal fin rising from the toe member, said fin being disposed within said socket, the lower edges of the plates defining said socket being disposed to rest upon the upper face of the toe member, and fastening devices passing through a wall of the socket and into the fin for securing the same against withdrawal from the socket.

1,144,791. TOY PISTOL. JOHN R. ROHN, Pittsburgh, Pa., assignor to Federal Toy Pistol Company, Homestead, Pa., a Corporation of Pennsylvania. Filed Oct. 22, 1914. Serial No. 868,045. (Cl. 42—57.)



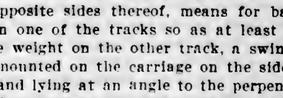
1. In a toy pistol, the combination of a frame having separable sides spaced apart and with the space open at the top, a hammer fitting and movable through the open upper end of said space and held against lateral play by the frame sides, the hammer formed with a pivot passage and with a spring recess in one side, the open side of the recess closed by one of the frame sides and with the recess open through the edge of the hammer, a transverse pivot stud projecting from the recess-closing face of the frame sides and across said recess and into the pivot passage of the hammer, a spring within the hammer recess and coiled about said stud with one extremity of the spring in engagement with the recess wall, an abutment in the frame for the other extremity of the spring, and hammer actuating means.

2. In a toy pistol, the combination of a frame containing a strip-roll magazine, strip feeding and firing mechanisms inclosed within the frame, said mechanisms including an abutment extending downwardly from the top of the frame, the frame being open at one side to expose the magazine and also open downwardly from its top to expose the entire length of the abutment, and a hinged gate for closing the open side of the frame, the gate including an upward extension for closing the space extending to the top of said abutment.

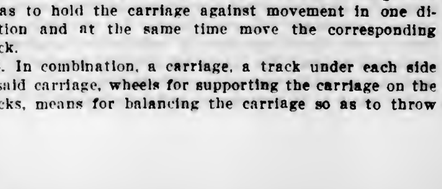
3. In a toy pistol, the combination of a frame containing a strip-roll magazine, strip feeding and firing mechanisms within the frame and including an abutment over which the strip passes, the frame being open at one side to expose the abutment and the magazine, a gate adapted to close the frame opening, the gate formed with a cam head, a hinge mounting for the head within the frame, and a spring coöperating with the head for normally holding the gate closed.

1,144,792. CAR-SEAL. HARRY R. ROMBERGER, Chicago, Ill. Filed Sept. 28, 1914. Serial No. 863,812. (Cl. 70—99.)

In a device of the class described, a strip of metal, a male member comprising a flanged head attached thereto, and a female member comprising a cylindrical body portion flared intermediate its length to form an interior recess and passing through an aperture in said strip and upset upon the opposite side thereof, and an engaging member disposed within said cylindrical member with its inner edge disposed in the interior recess formed by the flared portion thereof and having its other end slotted and inturned to form resilient arms adapted permanently to engage the head of the male member when the two are brought into engagement by pressure.



1,144,793. CARRIAGE AND MOVABLE TRACK THEREFOR. CHARLES W. ROOD, Grand Rapids, Wis., assignor of one-fourth to George M. Hill and one-fourth to Earl M. Hill, Grand Rapids, Wis. Filed Oct. 9, 1911. Serial No. 653,515. (Cl. 21—124.)



1. In combination, tracks adapted to rest loosely on the ground, a carriage mounted on the tracks so as to be movable lengthwise of the tracks and be held against movement in the transverse direction, means for balancing the carriage on one of the tracks so as at least partially to remove the weight on the other track, and means for producing relative movements between the latter track and the carriage in the direction of the length of the tracks.

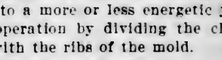
2. In combination, tracks adapted to rest loosely on the ground, a carriage mounted on the tracks so as to be movable lengthwise thereof and be held against movement in the transverse direction, a crane mounted on one end of the carriage so as to be movable about a vertical axis, the crane being of sufficient size to permit it to overhang the aforesaid end of the carriage and when swung to one side or the other to project outwardly from the side of the carriage, the crane having sufficient weight to cause the track on one side to be partially relieved of the weight of the carriage when the crane is swung to the opposite side of the carriage, and means for producing relative movements between the latter track and the carriage in the direction of the length of the tracks.

3. In combination, a carriage, tracks under said carriage at opposite sides thereof, means for balancing the carriage on one of the tracks so as at least partially to remove the weight on the other track, a swinging anchor pivotally mounted on the carriage on the side of the latter track and lying at an angle to the perpendicular, and power devices between the latter track and the carriage and the anchor tending to swing the anchor into a perpendicular and to produce a relative movement between the latter track and the carriage.

4. In combination, a carriage, a track under each side of said carriage, wheels for supporting the carriage on the tracks, means for balancing the carriage so as to throw substantially the whole weight on either of said tracks and at least partially remove the weight on the other track, anchors at the sides of the carriage, and power devices each constructed and arranged to draw one of the anchors into operative relation to the ground so as to hold the carriage against movement in one direction and at the same time move the corresponding track.

5. In combination, a carriage, a track under each side of said carriage, wheels for supporting the carriage on the tracks, means for balancing the carriage so as to throw substantially the whole weight on either of said tracks and at least partially remove the weight on the other track, anchors at the sides of the carriage, and power devices each constructed and arranged to draw one of the anchors into operative relation to the ground so as to hold the carriage against movement in one direction and at the same time move the corresponding track, and means for moving the carriage on the tracks when both anchors are in their inoperative position.

1,144,794. PROCESS FOR MANUFACTURING FILLED STICKS AND OTHER ARTICLES OF CONFECTIONERY WHOLLY OR PARTIALLY COVERED WITH CHOCOLATE. JULES ROUSSEAU, Sedan, France. Filed Aug. 22, 1912. Serial No. 716,419. (Cl. 107—54.)



1. A process consisting in squirting horizontally a layer of hard chocolate; supporting said layer at separate parts, whereby the layer will sag therebetween; depositing masses of filling at the sagging portion; depositing another layer over said filling and first named layer; and joggling said layer while still supported at said parts.

2. A process consisting in squirting a continuous layer of hard chocolate across a plurality of molds; depositing placing masses on said filling over the intra-marginal portion of the mold; squirting another layer of hard chocolate over said filling and first named layer; and joggling the molds for dividing the chocolate layer in accordance with the boundaries of the mold.

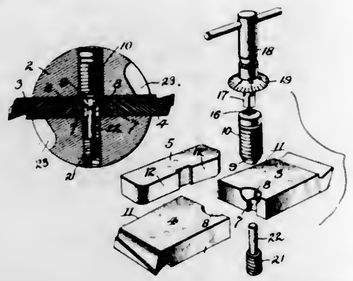
3. A method of manufacture of filled sticks and other articles of confectionery wholly or partly covered with chocolate which method allows of the use of ordinary hard chocolates instead of the special chocolate called "covering chocolate" said process consisting in squirting the hard chocolate in strips of chocolate of a thickness regulatable at will; passing empty molds intended to shape the desired products under the above mentioned strips when being squirted; placing upon the first strip thus laid at the bottom of the molds the previously prepared filling which is to fill the article in question; making the thus far filled molds pass under squirted strips of hard chocolate, the thickness of which is regulated at will, in order to cover the filling with a second layer of chocolate and finally subjecting the molds containing the chocolate covered filling to a more or less energetic joggling which completes the operation by dividing the chocolate strips in accordance with the divisions of the molds.

4. A method of manufacture of filled sticks and other articles of confectionery wholly or partly covered with chocolate, which method allows of the use of ordinary hard chocolate instead of the special chocolate called "covering chocolate", said method consisting in squirting the hard chocolate in strips of chocolate of a thickness regulatable at will; passing a corresponding number of rows of molds intended to shape the desired products under these strips while being squirted; running directly into the molds, upon the first strip of chocolate thus laid at the bottom thereof the baked sugar fillings without running the same first through starch; passing the thus far filled molds under strips of hard chocolate while being squirted, of a thickness regulatable at will, in order to cover the fillings with a second strip of chocolate, and finally subjecting the molds containing the chocolate covered fillings to a more or less energetic joggling which completes the operation by dividing the chocolate strips in accordance with the ribs of the mold.

1,144,795. BORING-BAR. EDWARD C. SCHMELZKOPF, Madison, Wis., assignor to Gisholt Machine Company, Madison, Wis., a Corporation of Wisconsin. Filed Aug. 8, 1914. Serial No. 855,796. (Cl. 77—56.)

1. In combination with a boring bar, laterally-extending cutters; means for securing adjustment thereof; a

shim or key bearing on the cutters adjacent their inner portions, said shim and cutters having inclined contacting bearing faces; and a pin mounted in the bar and bearing on the shim to force the latter into contact with the cutters.



2. In combination with a boring bar, laterally-extending cutters adjustably mounted therein; an adjusting screw mounted in the bar and bearing at its inner end against said cutters; a key having inclined converging faces bearing upon reversely inclined faces formed on the cutters; and a pin mounted in the bar and bearing on the key to force the latter into contact with the cutters.

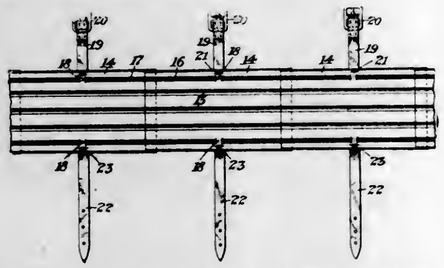
3. In combination with a boring bar, having a recess formed therein for the reception of cutters, and an opening for the reception of a locking pin, said opening being inclined to the longitudinal axis of the bar; cutters mounted in the recess; a key likewise mounted in the recess and bearing upon the cutters; and a pin mounted in the opening, said pin having a flat bearing face contacting with the adjacent face of the key.

4. In combination with a boring bar, having a recess formed therein for the reception of cutters and an opening for the reception of a locking pin, said opening being inclined to the longitudinal axis of the bar; cutters mounted in the recess; a key likewise mounted in the recess and bearing upon the cutters; and a pin mounted in the opening, said pin having an inclined flat bearing face contacting with the adjacent face of the key, the inclination of said face being substantially the same as the inclination of the opening.

5. In combination with a boring bar, cutters carried thereby; an adjusting screw carried by the bar for effecting adjustment of the cutters; a driver for the screw and removable from the same; and a graduated dial carried by the driver, said dial being adapted to be read in conjunction with an index on the bar, upon the rotation of the driver.

[Claims 6 and 7 not printed in the Gazette.]

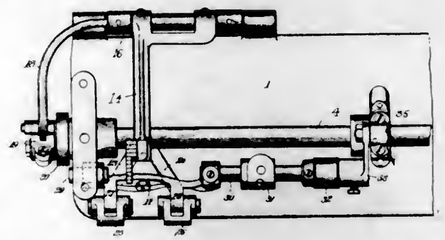
1,144,796. ARMOR FOR VEHICLE-TIRES. HERMAN SCLAR, New York, N. Y. Filed Mar. 16, 1915. Serial No. 14,651. (Cl. 152—16.)



1. An armor for vehicle tires comprising a plurality of similarly constructed plates adapted to extend over the tread and around the tire and each provided with interior longitudinal grooves in alinement when the plates are in position on the tire, and means lying normally within the said grooves for yieldingly connecting each plate to adjacent plates at points approximately centrally thereof.

2. An armor for vehicle tires comprising a plurality of similarly constructed plates adapted to extend over the tread and around the tire and provided with interior longitudinal grooves adjacent the edges of the plates and in alinement when the plates are in position, and springs lying in the said grooves and connected to each of the said plates at points approximately centrally thereof.

1,144,797. FEEDING MECHANISM FOR SEWING-MACHINES. DUDLEY S. SEYMOUR, Oak Park, Ill., assignor to Union Special Machine Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 30, 1908. Serial No. 424,120. (Cl. 112—8.)



1. A feeding mechanism including in combination, a work support, a feed dog, a feed bar carrying said feed dog and having an arm provided with spaced outer ends, means for giving said feed bar movements to feed the fabric, means to move the feed bar to carry the feed dog into and out of engagement with the fabric including parallel links disposed on opposite sides of the line of feed and at their lower ends connected with said outer ends of the arm, and means for supporting said links and moving the same up and down.

2. A feeding mechanism including in combination, a work support, a feed dog, a feed bar having an arm provided with spaced outer ends, means for giving said feed dog movements to feed the fabric, means to move said feed dog into and out of engagement with the fabric, including spaced parallel links pivoted to the outer spaced ends of the arm carried by said feed bar and disposed on opposite sides of the line of feed, a lever having arms to which said links are pivoted at their upper ends.

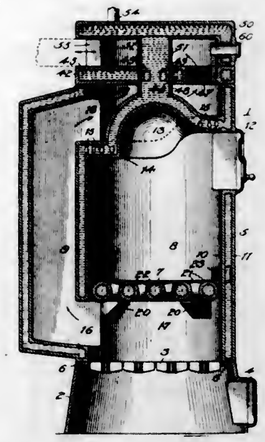
3. A feeding mechanism including in combination, a work support, a feed dog, a feed bar, an arm carried by said feed bar and projecting downwardly and forwardly therefrom, the forward end of said arm being forked, links pivoted at their lower ends to said forked arm and disposed on opposite sides of the line of feed, and a lever to which said links are pivoted at their upper ends.

4. A feeding mechanism including in combination, a work support, a feed dog, a feed bar, an arm carried by said feed bar and projecting downwardly and forwardly therefrom, and having its forward end forked, a lever, the axis of which is substantially perpendicular to the plane of movement of the feed dog, said lever having spaced arms, links pivoted at the lower ends to the forked end of the arm on said feed bar, and at their upper ends to the arms of said lever.

5. The combination of a main shaft, a feeding mechanism including a feed rocker, means for oscillating the same from said shaft, a feed bar pivoted at one end to said feed rocker, a feed dog carried by said feed bar, a looper support extending in a direction substantially at right angles to the plane of movement of the feed bar, means for oscillating said looper support, a looper mounted on said looper support, means for oscillating said looper, and means operated by said looper support and connected to the other end of the feed bar for giving said feed bar its rising and falling movements.

[Claims 6 to 20 not printed in the Gazette.]

1,144,798. HOT-WATER HEATER. HENRY TIELKEMEYER, St. Louis, Mo. Filed Jan. 27, 1915. Serial No. 4,677. (Cl. 122—217.)



1. A boiler of the class described consisting of a plurality of horizontally arranged superimposed hollow water sections through which a heating medium circulates, the said hollow water sections including a major section, a hollow disk section, mounted upon and communicating with the major section and a top or cap section communicating with the hollow disk section, a hollow water grate communicating with the aforesaid major section, a vertical flue extending from beneath the water grate to the top of the major section, an adjacent flue horizontally disposed between the major section and the hollow disk section and communicating with the vertical flue, and another flue horizontally disposed between the hollow disk section and the cap section and extending from the aforesaid adjacent flue to the outside of the boiler.

2. A boiler of the class described consisting of a plurality of horizontally arranged superimposed hollow water sections through which a heating medium circulates, the said hollow water sections including a major water section having a hollow dome-shaped section near the top thereof, a hollow water grate communicating with the aforesaid major water section, a vertical flue extending from beneath the water grate to the top of the major section, another flue disposed between the top of the major and the adjoining section and around the dome-shaped section of the said major section and communicating with the vertical flue and the top of the boiler.

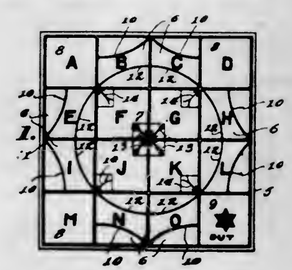
3. A boiler of the class described consisting of a plurality of horizontally arranged superimposed hollow water sections through which a heating medium circulates, the said hollow water sections including a major water section having a hollow dome-shaped water section located adjacent the fuel door and communicating with the adjoining section at the center thereof, a hollow water grate communicating with the aforesaid major water section, a vertical flue extending from beneath the water grate to the top of the major section, another flue disposed between the top of the major and the adjoining section and around the dome-shaped water section and the centrally located water connection with the adjoining section, and communicating with the vertical flue and the top of the boiler.

4. A boiler of the class described consisting of a plurality of horizontally arranged superimposed water sections through which a heating medium circulates, the said hollow water sections including a major water section, a hollow disk water section positioned upon the major section and communicating therewith, the said hollow disk section being provided with a series of openings, a fuel grate positioned in the said major section, a vertical flue extending from beneath the grate to the top of the major section, another flue disposed horizontally between the said major section and the hollow disk section and communicating with the vertical flue and the openings in the hollow disk water section and another flue extending from the aforesaid openings to the outside of the boiler.

5. A boiler of the class described consisting of a plurality of horizontally arranged superimposed hollow water sections through which a heating medium circulates, the said hollow water sections including a major water section, a hollow disk water section mounted upon the said major section and communicating therewith, a hollow cap or top water section mounted upon the said hollow disk water section and having communication therewith by means of a central conduit, a fuel water grate provided in the major section, a flue extending from beneath the said grate to the top of the major section, an adjoining flue disposed horizontally between the said major section and the adjoining hollow disk section and another flue disposed between the said hollow disk section and the hollow cap section of the boiler and around the aforesaid central conduit and extending from the aforesaid horizontal plane to the outside of the boiler.

[Claims 6 and 7 not printed in the Gazette.]

1,144,799. PUZZLE. JOSEPH J. TIERNAN, Chicago, Ill. Filed Oct. 16, 1914. Serial No. 866,889. (Cl. 46—41.)



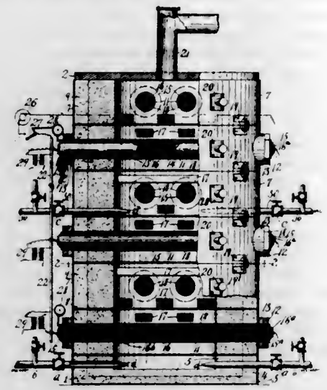
1. A puzzle comprising a receptacle, a plurality of cubical blocks all bearing letters and embodying shiftable groups of letters and blocks, the individual blocks of the groups having differently colored separated dual geometrical elements thereon, and single lettered blocks devoid of the geometrical elements of the other blocks, a central group of blocks that remain in one position and constituting a guiding center around which the other blocks are moved, and a key block which is withdrawn from the receptacle to permit movement of the said shiftable groups.

2. A puzzle comprising a receptacle, a plurality of cubical blocks all bearing letters and embodying shiftable groups, individual blocks of one group having differently colored dual geometrical elements at the outer and inner portions thereof in reverse positions and single lettered blocks, the group of blocks carrying the dual geometrical elements being movable to alternately bring the elements thereof inwardly toward the center of the blocks, a central group of blocks that remain in one position and constituting a guiding center around which the other blocks are moved, the said central group of blocks having differently colored arrows in diagonally reverse positions and capable of being changed as to their relative positions, and a key block having a designating character and distinctive word thereon.

1,144,800. APPARATUS FOR MANUFACTURING CARBURETED HYDROGEN GAS. BURHANS VAN STEENBERGH, Goshen, N. Y. Filed July 2, 1914. Serial No. 848,600. (Cl. 48—65.)

1. A generator for producing gas, comprising a series of superposed unit sections, the sections being alike in form, and each section carrying an electric heater and tiling adapted to be heated thereby.

2. A generator for producing gas, comprising a series of superposed unit sections alike in form, each section carrying a plurality of electric heaters, and a plurality of tiles adapted to be heated by said heaters.



3. A generator for producing gas, comprising a plurality of superposed unit sections, each section being provided with means whereby it may be secured to the next adjacent section or sections, electric heaters carried by each section, and a plurality of tiles likewise carried by each section.

4. A generator for producing gas, comprising a series of superposed unit sections, each section being composed of a metallic shell provided with a lining of non-conducting material adjacent to the shell and an interior lining of refractory material, a plurality of heater pipes extending through said section linings, an electric heater in each of said pipes, and a plurality of tiles extending across the sections adjacent to the pipes.

5. A generator for producing gas, comprising a series of superposed unit sections, each section being composed of a shell provided with a lining of asbestos adjacent to the shell, and an interior fire-brick lining adjacent to the asbestos lining, one or more heater pipes extending through said shell and lining, an electric heater having electrodes in each of said pipes, and a plurality of tiles extending across the sections and adjacent to the pipes.

[Claims 6 to 11 not printed in the Gazette.]

1,144,801. ELECTRIC HEATER. BURHANS VAN STEENBERGH, Goshen, N. Y. Original application filed July 2, 1914. Serial No. 848,600. Divided and this application filed Dec. 11, 1914. Serial No. 876,643. (Cl. 219—72.)



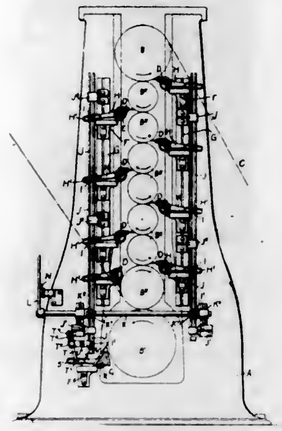
1. An electric heater comprising a metal tube having an exterior catalytic agent coating, an interior tube of insulating material, granular resistance material within the same and electrodes in the ends of the tube and bearing against said resistance material.

2. An electric heater constructed with a metal tube, an inner tube of card-board having an exterior insulating coating of silicate paste, electrodes in the ends of said inner tube and a filling of granular resistance material in the tube between the electrodes.

3. The combination with the walls of a chamber, of an electric heater tube, having an exterior catalytic agent coating to prevent deposit of carbon, said tube extending through the walls and chamber, electrodes in the opposite ends of said tube and resistance material in the tube between the electrodes.

4. In a heating chamber, an electric heater tube having an exterior coating of metallic oxid as a catalytic agent, electrodes in the opposite ends of, and insulated from, said tube, and resistance material between the ends of the electrodes.

1,144,802. DOCTOR FOR CALENDERING-MACHINES. THOMAS E. WARREN, Ticonderoga, N. Y. Filed Apr. 21, 1913. Serial No. 762,540. (Cl. 92—74.)



1. In a calendering machine, the combination of a plurality of rolls, a doctor bar parallel and adjacent to each roll, a doctor mounted on each bar, trunnions at the ends of each bar, bearings for the trunnions, arms secured to the bars and an operating mechanism connected to all of said arms for simultaneously rocking the bars and the doctors thereon in said bearings to carry the doctors into and out of co-action with their corresponding rolls; substantially as described.

2. In a calendering machine, the combination of a plurality of rolls, a doctor bar parallel and adjacent to each roll, a thin, flexible metallic doctor on each doctor bar, a clamping member secured to each doctor bar to hold the doctor thereon in position, trunnions on the ends of said bars, bearings for said trunnions, an arm on one end of each of the bars, and a single operating mechanism for all of said bars connected to all of said arms for simultaneously rocking the bars in their bearings, said doctor bars serving to hold the doctors in contact with the co-acting rolls with substantially equal pressure throughout the length of the doctors; substantially as described.

3. In a calendering machine, the combination of a plurality of rolls, sets of rocking doctors, one set on each side of the series of rolls, and each doctor having a blade adapted to bear at one edge on the peripheral face of the corresponding roll, arms extending from the doctors, coupling rods movable in the direction of their lengths and connected with said arms, and manually controlled means connected with said coupling rods for simultaneously moving the doctors into and out of engagement with the corresponding rolls; substantially as described.

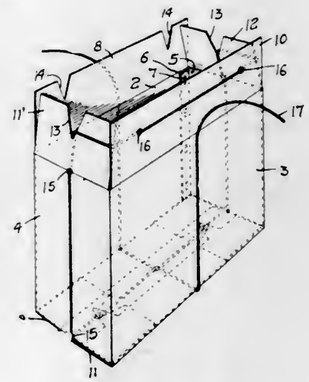
4. In a calendering machine, the combination of a series of rolls, sets of rocking doctors, one set on each side of the series of rolls, each doctor having a blade adapted to bear with one edge on the peripheral face of the corresponding roll, arms extending from the doctors, coupling rods, yielding and adjustable connections connecting the said arms with the said coupling rods, and a manually controlled rock shaft provided with crank arms pivotally connected with the said coupling rods.

5. In a calendering machine, the combination of a series of rolls, sets of rocking doctors, one set on each side of the series of rolls, each doctor having a blade adapted to bear with one edge on the peripheral face of the corresponding roll, arms extending from the doctors, coupling

rods, and sectional connecting rods connecting the said arms with the said coupling rods, each connecting rod having pivoted members, of which one is connected with the arm and the other with the coupling rod, a sleeve screwing on one of the said members and slidingly engaging the other member, and a spring interposed between the said sleeve and the said sliding member.

[Claims 6 to 22 not printed in the Gazette.]

1,144,803. FOLDING BOX. WILLIAM C. WILLETS, Minneapolis, Minn. Filed Aug. 3, 1911, Serial No. 642,170. Renewed May 26, 1913. Serial No. 770,055. (Cl. 229—46.)



1. A folding-box comprising side and end walls and flaps formed thereon, the flaps on one side wall having perforations therein, the flaps formed on the other side wall having notches in their edges and the flaps formed on the end panels also having notched edges and perforations at their point of union with the panels, a lacing cord passing through the perforations in one flap at the bottom of the box and into the notches in the other flap at the bottom of the box and up on the outside of the end walls of the box through the perforations in the end flaps and one of the side flaps at the top of the box and into the notches of the end flaps and the other side flap at the top of the box and down on the outside of the other end wall of the package and thence across the bottom, the loose ends of the cord being crossed and extended from thence up around the outside of the package and secured together.

2. A folding one-piece box comprising a blank scored longitudinally and transversely to form side and end walls, and flaps for said side and end walls, said flaps, when folded inwardly upon one another, forming the top and bottom of the box, the flaps of one side wall having notches in their longitudinal edges and the flaps of the other side wall having perforations therein, the flaps of the end walls having notches in their outer edges and perforations at their points of union with said end walls, and a lacing cord passing through the perforations in said side wall flaps and said end wall flaps and into the notches of said side and end wall flaps and having its ends secured together.

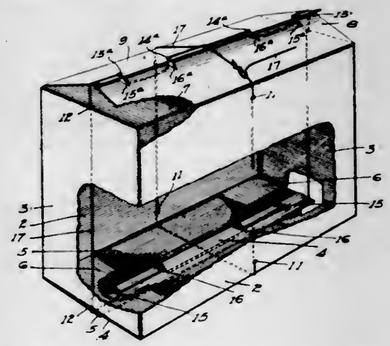
3. A one-piece folding box comprising a blank scored longitudinally and transversely to form side and end walls and flaps thereon, said blank also having slits therein separating said end wall flaps from said side wall flaps, said side and end wall flaps being adapted to be folded inwardly upon one another to form the top and bottom of the box and having perforations therein, and a lacing cord therefor, one of said end walls having a longitudinal lip thereon for securing said end wall to the corresponding edge of the side wall at the other end of the blank.

4. A folding, one-piece box comprising a blank scored longitudinally and transversely to form side and end walls, and flaps for said side and end walls, said flaps, when folded inwardly upon one another, forming the top and bottom of the box, the flaps of one side wall having notches in their longitudinal edges and the flaps of the other side wall having perforations therein, the flaps of the end walls also having perforations therein, and a lacing means passing through the perforations in said side wall flaps and said end wall flaps and into the notches of said side wall flaps, and having its ends secured together.

5. A one-piece folding box comprising side and end panels, said end panels having flaps formed thereon at the top and bottom and adapted to fold inwardly toward the center of the box, said side panels having flaps thereon adapted to fold inwardly over said end flaps, said end panels having openings in their upper and lower portions, the side and end flaps at the top and bottom of the box also having openings therein, and a lacing cord passing through the openings in the bottom flaps and through the openings in the end walls at the bottom and top of the box and through the openings in the flaps at the top of the box, the loose ends of the cord being secured together.

[Claims 6 to 8 not printed in the Gazette.]

1,144,804. FOLDING BOX. WILLIAM C. WILLETS, Minneapolis, Minn. Filed Nov. 28, 1913. Serial No. 803,531. (Cl. 229—46.)



1. A one piece folding box composed of a rectangular blank of flexible material, scored transversely and folded along said score lines to form the side and end walls of the box, the meeting ends of the blank being secured together, said blank having score lines running lengthwise thereof parallel with its longitudinal edges, and slits extending transversely thereof intersecting said longitudinal score lines and in alinement with said transverse score lines, forming a series of flaps on each longitudinal edge of the box, said flaps being adapted to fold inwardly upon one another to close the top and bottom of the box, said side and end walls having openings therein and said side wall flaps having openings therein arranged in pairs, and a lacing cord passing through the openings in said side wall flaps at the bottom of the box and in and out through the openings in the end walls and in and out through the openings in the overlapping side wall flaps at the top of the box, and in and out through the openings in the side walls of the box, the ends of said cord being secured together.

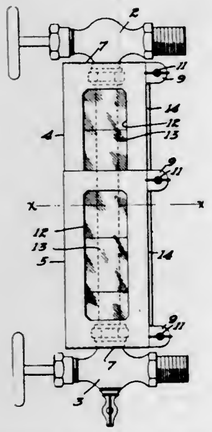
2. A one-piece folding box having side and end panels and side and end flaps at the top and bottom, said side flaps being folded inwardly upon one another and upon said end flaps to close the top and bottom of the box, one of said side flaps having openings therein and the other adjacent side flap having notches to register with said openings, said side and end walls having openings therein, and a lacing cord passing through the openings in said side flaps and the notches in said side flaps and through the end walls and having its loose ends crossed and

threaded through the openings in said side panels, the loose ends of said cord being secured together.

3. A folding one-piece box composed of flexible material having side and end panels and flaps formed thereon at the top and bottom of the box, said side and end panels having openings therein, the side flaps folding inwardly and lapping by one another, one of said side flaps at the top and bottom having notches therein arranged in pairs, the other side flap having openings adapted to register with said notches when said flaps are folded to a closed position, and a flexible lacing means passing through the openings and notches in the bottom side flaps and through the openings in the end panels and the openings and notches in the top side flaps, the ends of said cord being crossed near the middle of the box and one loose end being carried down through the openings in one side panel and across the bottom and in and out through the openings in the other side panel, and its loose end being secured to the other loose end, thereby sealing the contents of the box.

4. A one piece folding box composed of a rectangular blank of flexible material, scored transversely and folded along said score lines to form the side and end walls of the box, the meeting ends of the blank being secured together, said blank having score lines running lengthwise thereof parallel with its longitudinal edges, and slits extending transversely thereof intersecting said longitudinal score lines and in alinement with said transverse score lines, forming a series of flaps on each longitudinal edge of the box, said flaps being adapted to fold inwardly upon one another to close the top and bottom of the box, said side and end walls having holes therein and a pair of said longitudinal flaps having openings therein, the openings of one flap registering with the corresponding openings of the other flap, and a flexible lacing means threaded through said holes in said walls and through the openings in said flaps and extending around the sides and ends of the box, the loose ends of said lacing means being secured together.

1,144,805. GUARD FOR WATER-GLASSES. GEORGE W. AMES, Staples, Minn. Filed Mar. 2, 1915. Serial No. 11,636. (Cl. 73—54.)

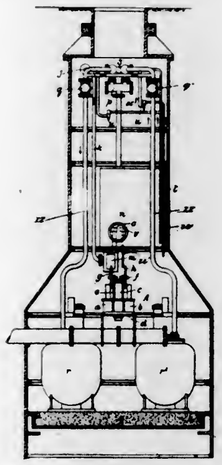


1. The combination, with a water glass and valve therefor, of a guard interposed between said valves, said guard being composed of sections mounted to telescope endwise upon one another and each section being composed of front and side panels, said side panels having openings therein and transparent plates for closing said openings, said side panels having their inner longitudinal edges bent inwardly to form vertical guides for the inner edges of said transparent plates, and said front panels having plates secured thereon and coöperating with the outer portions of said side panels to form outer guides for said transparent plates.

2. The combination, with a water glass and valves therefor, of a guard interposed between said valves and composed of telescoping sections having side panels and longitudinal openings therein, transparent plates for closing said openings, the inner edges of said panels being inwardly and backwardly turned to form vertical guides for the inner edges of said transparent plates, and the outer portion of said guard sections having plates secured thereto and coöperating with said side panels to form vertical guides for the outer edges of said transparent plates.

3. The combination, with a water glass and valves therefor, of a guard interposed between said valves and composed of telescoping sections having side panels and longitudinal openings therein, transparent plates for closing said openings, the inner edges of said panels having vertical guides for the corresponding edges of said transparent plates and the outer portions of said guard sections having plates secured thereto and coöperating with said side panels to form vertical guides for the outer edges of said transparent plates.

1,144,806. PNEUMATIC EJECTOR. EDWARD CYRIL BOWDEN-SMITH, Brockenhurst, England. Filed Nov. 3, 1913. Serial No. 798,914. (Cl. 103—8.)



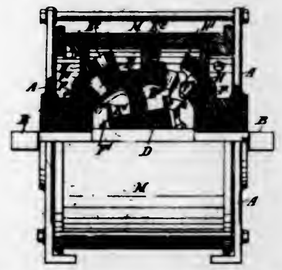
1. In pneumatic ejectors the combination of a motor adapted to be operated by the exhaust from the ejector; an air compressor for the purpose of recompressing a portion of the exhaust and means for opening and closing the exhaust ports.

2. In pneumatic ejectors the combination of a motor adapted to be operated by the exhaust from the ejector; an air compressor for the purpose of recompressing a portion of the used air; a differential valve for opening and closing the exhaust ports and means for conducting the exhaust air to the motor and compressor.

3. In pneumatic ejectors the combination of a motor adapted to be operated by the exhaust from the ejector; an air compressor for the purpose of recompressing a portion of the used air; a differential valve for opening and closing the exhaust ports and an intercepting valve for delaying the return of the differential valve and allowing one ejector to be discharged while the other is exhausting to the air motor.

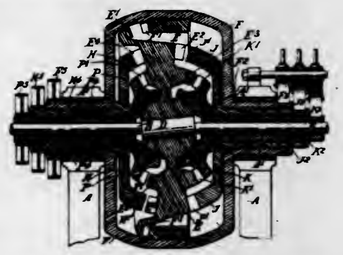
1,144,807. GEARING. ALFRED FREDERICK BRONNER, Melbourne, and ALFRED ARTHUR QUICK, Northcote, Victoria, Australia. Filed Aug. 16, 1911. Serial No. 644,334. (Cl. 74—35.)

In epicyclic gearing, the combination of a fixed member, a rotatable driving member, a rotatable driven member, an oscillating wheel, a cylindrical cam arranged upon one of the said rotatable members at an oblique angle to its axis and having the oscillating wheel journaled thereon, the center of oscillation of said wheel being disposed inwardly with respect to the ends of the cam, inner duplicate series



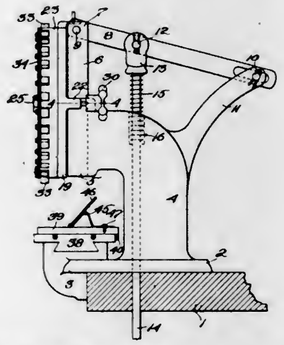
of teeth provided upon both sides of the oscillating wheel and upon the fixed member at opposite sides of the said wheel to gear with each other, and an outer series of teeth provided upon the other rotatable member and the oscillating wheel at one side of the latter to intermesh.

1,144,808. VARIABLE-SPEED GEARING. ALFRED FREDERICK BRONNER, Melbourne, and ALFRED ARTHUR QUICK, Northcote, Victoria, Australia. Filed Aug. 16, 1911. Serial No. 644,335. (Cl. 74—35.)



In epicyclic gearing, in combination, a shaft, a cam thereon, an oscillating wheel provided with a central spherical boss within which said cam is positioned, a fixed wheel and a rotating driven wheel engaged by said oscillating wheel, and a spherical bearing for said spherical boss whereby said oscillating wheel is supported.

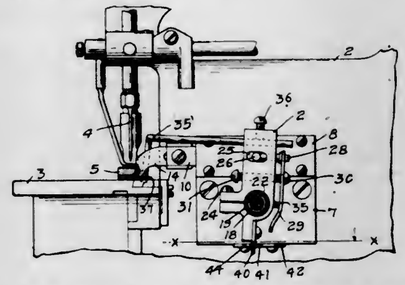
1,144,809. ELECTRICALLY-HEATED STENCILING-MACHINE. EDWIN N. CHANDLER, Braintree, Mass. Filed Mar. 19, 1913. Serial No. 755,319. (Cl. 101—83.)



1. A device of the kind described, comprising a slidable carrier, a hub rigidly secured to said carrier and supporting a plate having a recess in one face, an electrical heater carried in said recess, a die carrying plate rotatably supported by said hub and in contact with the heater containing plate throughout substantially its entire extent, a plurality of stenciling dies removably secured to said plate and all in substantially equal heat receiving position, in combination with means carried by said heater containing plate to lock the die carrying plate in rotative position to hold a selective die in work engaging position.

2. An electrically heated stenciling apparatus, comprising a rotatable carrier, a vertical reciprocating carrier having thereon electrical heating means, a rotatable die carrying plate with its dies removably secured to its periphery, a locking member on the side of said rotatable die carrying plate to hold said plate with a selective die in lowermost position to engage the work, and an indicator on the plate for each die in position adjacent said lock to indicate which die is in work engaging position on the lowermost portion of said plate.

1,144,810. ATTACHMENT FOR SHELL-STITCHING MACHINES. FRANKLIN CHATFIELD, Minneapolis, Minn., assignor to Northwestern Knitting Company, Minneapolis, Minn., a Corporation. Filed Jan. 2, 1912. Serial No. 669,082. (Cl. 112—24.)



1. In a stitching mechanism, a work table, a presser foot, and a chaining finger mounted in said work table beneath said presser foot and having a recess in its upper surface, and a guide fitting into said recess.

2. The combination, with a shell stitching machine, a work table, and a presser foot, of a fabric guide movable toward and from said presser foot, a chaining finger, a ribbon, guide movable toward and from said chaining finger, and mechanism for operating said fabric guide and said ribbon guide simultaneously.

3. The combination, with a shell stitching mechanism, a presser foot and work table, of a fabric guide movable toward and from said presser foot, a movable ribbon guide, and mechanism for operating said fabric guide and said ribbon guide simultaneously or independently of one another.

4. The combination, with a stitching mechanism, a presser foot and work table, of a recessed chaining finger and a movable guide adapted to enter said recess.

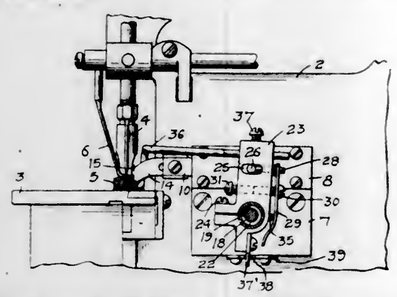
5. The combination, with a stitching mechanism, of a recessed chaining finger, a movable ribbon guide having a part at one end to receive a ribbon and adapted to enter said recess, said recess allowing said guide to feed the ribbon outside the path of said stitching mechanism.

[Claims 6 to 16 not printed in the Gazette.]

1,144,811. FABRIC-GUIDE FOR STITCHING-MACHINES. FRANKLIN CHATFIELD, Minneapolis, Minn., assignor to Northwestern Knitting Company, Minneapolis, Minn., a Corporation. Original application filed Jan. 2, 1912, Serial No. 669,082. Divided and this application filed June 3, 1912. Serial No. 701,260. (Cl. 112—9.)

1. The combination, with a stitching mechanism and a presser foot, of a sliding fabric guide, a slotted plate, a pin connected with said guide and projecting into said slot, a pin mounted in said plate and engaging said first named pin, a lever pivoted on said plate and bearing on

said second named pin, a spring normally tending to retract said fabric guide and means for rocking said lever to actuate said pins and move said fabric guide toward said presser foot.



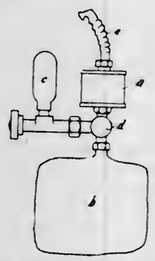
2. The combination, with a stitching mechanism and a presser foot, of a spring retracted fabric guide, a stationary stud, a rotatable collar mounted thereon, a lever, means actuated by the movement of said lever for forcing said guide against the tension of said spring toward said presser foot, and a pin carried by said collar in position to engage and rock said lever.

3. The combination, with a machine frame, of a stitching mechanism and a presser foot, a guideway provided in said frame, a spring retracted slide movable in said guideway, a fabric guide carried by said slide, a rotatable member having a finger grip and means operatively connecting said rotatable member with said slide for forcing said fabric guide toward said presser foot.

4. The combination, with a stitching mechanism and a presser foot having a comparatively small, outwardly projecting pin thereon, a fabric guide having a shank at right angles substantially to said presser foot and an end portion that is bent rearwardly, parallel, substantially, with said presser foot and provided with a transverse slot adapted to receive the pin on said presser foot, a spring normally tending to retract said guide from said presser foot, and mechanism for forcing said guide toward said presser foot against the tension of said spring.

5. The combination, with a stitching mechanism and a presser foot having a comparatively small, outwardly projecting pin thereon, of a fabric guide having a shank at right angles substantially to said presser foot and adjustable toward and from the same, and an end portion that is bent parallel substantially with said presser foot and provided with a slot to receive the pin on said presser foot, a rotatable mechanism for forcing said guide toward said presser foot, and a spring device normally tending to retract said guide.

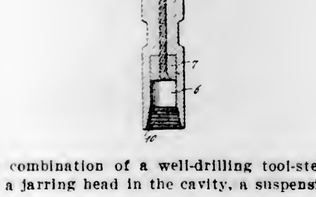
1,144,812. FREELY-PORTABLE BREATHING APPARATUS. FERDINAND LUDWIG CLAREN, Lübeck, Germany, assignor to the Firm of Drägerwerk, Heinr. & Bernh. Dräger, Lübeck, Germany. Filed Nov. 13, 1914. Serial No. 871,960. (Cl. 128—13.)



1. A portable breathing apparatus comprising the following members, a breathing tube, an air regenerator, a breathing bag, a gas receptacle, and a three-way rigid coupling directly connected to three of said members, one of said three members being the regenerator, and a fourth member connected to the latter.

2. A portable breathing apparatus, comprising the following members, a gas receptacle, a breathing bag, an air regenerator, a three-way rigid coupling directly connected to said members, and a breathing tube directly connected to the air regenerator.

1,144,813. HEADLIGHT FOR MOTOR-VEHICLES. JAMES H. CLARK, St. Johns, Oreg., assignor, by direct and mesne assignments, of two-thirds to Jesse M. Russell, St. Johns, Oreg. Filed Aug. 21, 1913. Serial No. 785,969. (Cl. 240—62.)

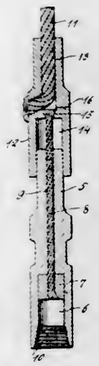


1. In a lamp-shifting mechanism for automobiles, lamp brackets, a reach rod, a lamp-connecting rod, a compensating rod comprising upper and lower members having means of connection which prevent rotation of one member with relation to the other member, said compensating rod connecting the reach rod with said lamp-connecting rod, and a spring-actuated plunger carried by said compensating rod and adapted to engage the lamp-connecting rod to control the action of the lamp bracket.

2. In a lamp-shifting mechanism for automobiles, lamp brackets, a reach rod, a lamp-connecting rod, an extensible compensating rod connecting the reach rod with said lamp-connecting rod, and a catch device carried by the compensating rod and slidably mounted on the connecting rod, said catch device comprising a casing, a spring-actuated plunger carried thereby, and means for retaining said plunger in and out of engagement with said connecting rod.

3. In a lamp-shifting mechanism for automobiles, a lamp connecting rod, a compensating rod, a catch device mounted on the compensating rod to connect said rod to the lamp-connecting rod, said catch device comprising a casing, a spring-actuated plunger carried thereby, a bushing surrounding the plunger, and a stop pin carried by the plunger to coöperate with the bushing for retaining the catch device in its engaged or disengaged positions.

1,144,814. DRILL-JAR. ERASTUS L. CLEVELAND, West Chicago, Ill. Filed Feb. 17, 1915. Serial No. 8,796. (Cl. 255—27.)

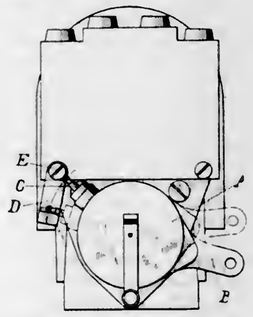


1. The combination of a well-drilling tool-stem having a cavity, a jarring head in the cavity, a suspension means connected to the jarring head, and a drill-rope socket member having a bottom cavity in which the upper end of the tool stem is slidably mounted, to which member the aforesaid suspension means is connected.

2. The combination of a well-drilling tool-stem having a cavity, a jarring head in the cavity, a drill-rope socket member having a bottom cavity in which the upper end of the tool-stem is slidably mounted, and a connection between the socket member and the jarring head.

3. The combination of a well-drilling tool-stem having a cavity, a jarring head in the cavity, a drill-rope socket member having a bottom cavity in which the upper end of the tool-stem is slidably mounted, and a suspension rope carrying the jarring member and connected to the socket member at the upper end of its cavity.

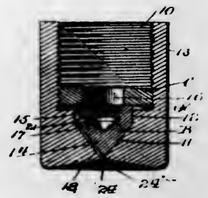
1,144,815. MAGNETO FOR USE ON INTERNAL-COMBUSTION ENGINES. JOHN ALBERT COLE, Leamington, England. Filed July 28, 1914. Serial No. 853,720. (Cl. 123—165.)



1. In a magneto, the combination of a contact breaker, means for advancing and retarding said contact breaker, a switch member carried by said contact breaker and an earthed switch member engaged thereby, substantially as set forth.

2. In a magneto, the combination of a contact breaker, means for advancing and retarding said contact breaker, a terminal on said contact breaker and an earthed blade adapted to be engaged by said terminal, substantially as set forth.

1,144,816. OIL-BURNER. JOHN B. COWPER, Bayonne, N. J. Filed Feb. 24, 1914. Serial No. 820,491. (Cl. 137—86.)



1. A device of the character set forth comprising a body having a shallow approximately cylindrical chamber forming an outlet opening and means within said body arranged to direct a plurality of jets toward said outlet opening, the outlet openings and means for directing the jets being relatively so arranged that the jets will impinge substantially upon the outer edge of the outlet opening and said outlet opening being of lesser cross-sectional area at its outer end than that of the combined jets.

2. A device of the character set forth comprising a body having a shallow approximately cylindrical chamber forming an outlet opening, a conoidal spraying block arranged in said body and having a plurality of external liquid-conducting channels arranged to direct the liquid in a plurality of separate jets substantially against the outer edge of the outlet opening, said outlet opening being of lesser cross-sectional area at its outer end than the combined cross sectional areas of the jets.

3. A device of the character set forth comprising a body having an internal chamber the forward portion of which is substantially conical and the rear portion of which is substantially cylindrical, said body also having a shallow approximately cylindrical chamber forming an outlet opening which enters its said chamber at the apex of the conical portion of the latter, and a spraying block fitted to said chamber, the said block comprising a substantially conical portion and a substantially cylindrical portion, the substantially conical portion of the block being formed with external approximately spiral channels and the substantially cylindrical part of the spraying block having an internal chamber provided with openings which respectively communicate with said channels, said body having means through which the liquid to be sprayed is supplied to the chamber in said block and said channels being so arranged as to direct the jets substantially against the outer edge of the outlet opening in the body.

4. A device of the character set forth comprising a body having a substantially conical chamber and provided with a shallow approximately cylindrical chamber forming an outlet opening which enters said chamber at the apex of the latter, a spraying block fitted to said chamber and a holding nut mounted in the body and engaging the rear end of the spraying block, said spraying block having a substantially conical section provided with liquid conducting substantially spiral narrow channels arranged to direct the liquid in a plurality of jets substantially against the outer edge of the outlet opening in the body, said outlet opening being of lesser cross-sectional area at its outer end than the combined cross sectional areas of the jets.

5. A device of the character set forth comprising a body having a substantially conical chamber and provided with a shallow approximately cylindrical chamber forming an outlet opening which enters said chamber at the apex of the latter, a spraying block fitted to said chamber and a holding nut mounted in the body and engaging the rear end of the spraying block, said spraying block having a substantially conical section provided with external liquid conducting substantially spiral channels of uniform cross section throughout and an internal rearwardly open chamber provided with lateral openings to said chamber, and said holding nut having an opening which registers with the chamber in the spraying block and through which the liquid is supplied to the latter, the channels on the exterior of the block being arranged to direct the liquid in a plurality of jets substantially against the outer edge of the outlet opening in the block, and said outlet opening being of lesser cross-sectional area at its outer end than the combined cross sectional areas of the jets.

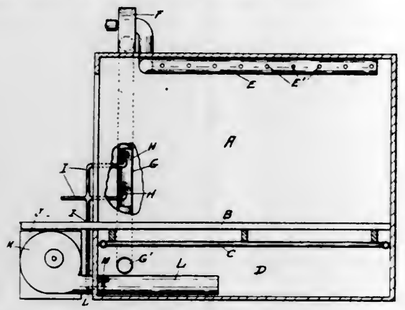
[Claim 6 not printed in the Gazette.]

1,144,817. DRYING APPARATUS. JOHN W. DALE, Portland, Oreg. Filed Dec. 8, 1913. Serial No. 805,235. (Cl. 34—3.)

1. A drying apparatus comprising a housing having a drying chamber therein, said chamber provided with an air inlet, a fluid spray in said air inlet, means for forcibly feeding air through the air inlet, means for heating the air, and a conduit having its opposite ends in communication with the drying chamber, a water spray in said conduit, and means for causing a forced circulation of air through the conduit in the course of its travel through the drying chamber.

2. In a drying apparatus of the character described, a container for the material to be treated, an air supply adapted to discharge into the container, means for moistening the air prior to its discharge in the container, means for withdrawing the air from the container and for returning the same to the container independently of the admission of the fresh air to the latter, so as to commingle with the said fresh air, substantially as described.

3. In a drying apparatus of the character described, a container for the material to be treated, an air supply adapted to discharge into the container, means for moistening the air prior to its discharge into the container, means for withdrawing the air from the container and returning the same to the container independently of the admission of the fresh air to the latter, in combination with means for spraying the air withdrawn from the container with water prior to its return to the container, substantially as and for the purpose specified.



4. In a drying apparatus of the character described, a container for the material to be treated, an air supply adapted to discharge into the container, means for moistening the air prior to its discharge into the container, means for withdrawing the air from the container and returning the same to the container independently of the admission of the fresh air to the latter, in combination with means for condensing the moisture in the air withdrawn from the container prior to its return thereto, substantially as and for the purpose specified.

5. In a drying apparatus of the character described, a container for the material to be treated, an air supply adapted to be discharged into the container, means for withdrawing the air from the container and for returning the same to the container, and separate spray devices arranged to discharge water in both the path of admission and the path of return of the air to the container, substantially as and for the purpose described.

[Claims 6 and 7 not printed in the Gazette.]

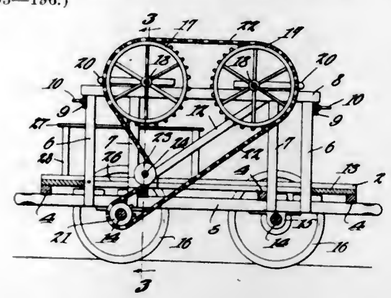
1,144,818. PROJECTILE. GEORGE DAMER, U. S. Navy. Filed Dec. 31, 1914. Serial No. 879,896. (Cl. 102—26.)



1. A projectile, comprising a body provided in its peripheral face with longitudinal grooves extending from a short distance from its base and throughout the remainder of the length of the body, and with radial recesses leading to the bottoms of the grooves, a transverse pivot on the body at the rear end of each groove, a raking arm fitting in each groove and provided at its rear end with an opening eye engaging said pivot, the said raking arms being of a length approximately double the length of the projectile and each formed of a single bar V-shaped in cross section and having a hook at the outer end, and a spring set in each recess to press against the underside of the corresponding raking arm held folded in its recess.

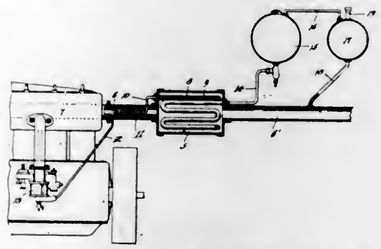
2. The combination with a projectile having longitudinal grooves and recesses extending laterally from one end of the grooves, a pivot in the grooves and extending into the recess, a raking arm having an open eye at one end engaging the pivot, the eye being adapted to be engaged with the pivot in the recess and then moved onto the portion of the pivot in the groove, and means for holding the arm in the position to which it has been moved.

1,144,819. HAND-CAR. WILLIE L. DAUGHTRY, Orlando, Fla. Filed Mar. 22, 1915. Serial No. 16,171. (Cl. 105—196.)



A hand car, comprising a body having an upstanding longitudinal supporting structure, axles journaled to the body and having wheels thereon, an actuating gear embodying a pair of transverse shafts journaled to the supporting structure and having terminal hand cranks, relatively large sprocket wheels secured upon the said shafts and arranged above the axles, a relatively small sprocket wheel carried by one axle, a sprocket chain trained around all of the sprocket wheels, said sprocket chain having an inclined run between the relatively small sprocket wheel and the remote relatively large sprocket wheel, and a pulley carried by the supporting structure between the relatively small sprocket wheel and the other relatively large sprocket wheel and having the chain passed thereabout whereby that portion of the chain between the pulley wheel and relatively small sprocket wheel will be approximately parallel with the said inclined run.

1,144,820. VAPOR-GENERATOR. THOMAS W. DIXON, Chicago, Ill. Filed Dec. 8, 1914. Serial No. 876,111. (Cl. 48—102.)

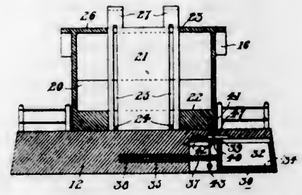


1. The combination with the exhaust pipe of an explosive engine, of a casing connected to said pipe; a heating coil in said casing and filled with metallic particles; a coil surrounding the exhaust pipe and connected with said first mentioned heating coil; a fuel supply tank connected with said first mentioned heating coil; and means for connecting said last mentioned coil with the engine, substantially as described.

2. The combination with the exhaust pipe of an explosive engine, of a casing inserted in said pipe; a heating coil within said casing and filled with metallic particles; means for connecting one end of said coil with an engine; a closed fuel tank connected with the other end of said coil; and a pressure tank connected with the exhaust pipe and with the upper portion of said fuel tank, substantially as described.

3. The combination with the exhaust pipe of an explosive engine, of a casing inserted in said pipe; a heating coil within said casing and filled with metallic particles; means for connecting one end of said coil with an engine; a closed fuel tank connected with the other end of said coil; a pressure tank connected with the exhaust pipe and with the upper portion of said fuel tank; and a safety valve for said pressure tank, substantially as described.

1,144,821. CIGAR, CIGARETTE, AND MATCH DISPENSER. WLADYSLAW DOBROWOLSKI, Pittsburgh, Pa. Filed Dec. 15, 1914. Serial No. 877,382. (Cl. 206—23.)



1. A device of the class described comprising in combination with a shiftable dispenser, a foundation upon which said dispenser is normally mounted, a drawer slidably carried by said foundation, an expulsion spring for the said drawer, a retaining catch for said drawer, and a releasing trip for the said catch carried by the said dispenser and operatively actuated upon the operation of said dispenser.

2. A device of the class described comprising a foundation having an edge opening chamber therein, an inwardly projecting opening leading from the said chamber, a drawer slidably mounted within said chamber, a rod carried by the inner wall of said drawer and slidably positioned within the said opening, a normally tensioned expansion spring encircling the said rod and having one end seated within the said opening and the other end engaging the said drawer wall, a catch hook carried by the foundation and normally engaging the said drawer wall when the drawer is in its closed position, and a vertically movable triangular trip having its path of movement in the plane of the said catch hook.

3. A device of the class described comprising a foundation having an edge opening chamber therein, an inwardly projecting opening leading from the said chamber, a drawer slidably mounted within said chamber, a rod carried by the inner wall of said drawer and slidably positioned within the said opening, a normally tensioned expansion spring encircling the said rod and having one end seated within the said opening and the other end engaging the said drawer wall, a catch hook carried by the foundation and normally engaging the said drawer wall when the drawer is in its closed position, a rocker arm pivoted within said chamber and having one end engaging the said catch hook, and a normally resilient projecting operating rod pivotally connected to the other end of said arm and extending exteriorly of the said foundation.

1,144,822. TYPOGRAPHICAL MACHINE. PHILIP T. DODGE, New York, N. Y., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed Feb. 6, 1915. Serial No. 6,589. (Cl. 199—7.)

1. In a typographical machine, the combination of a plurality of magazines, and two distributers movably arranged so as to be brought into operative relation to different selected pairs of said magazines.

2. In a typographical machine, the combination of a plurality of magazines, two distributers, and means whereby the two distributers may be connected to any selected pair of magazines of the said plurality.

3. In a typographical machine, the combination of a plurality of magazines, and two distributers, the said distributers being movable independently so as to be brought into operative relation to any selected pair of magazines of said plurality.

4. In a typographical machine, the combination of a plurality of magazines, two distributers movably arranged so as to be brought into operative relation to different selected pairs of magazines, and a font separator for delivering the matrices to one or another of the distributers, as required.

5. In a typographical machine, the combination of a plurality of magazines, two distributers movably arranged so as to be brought into operative relation to different selected pairs of said magazines, a font separator mounted in a fixed position in the machine, and flexible tubes leading from the font separator to the respective distributers.

[Claims 6 to 11 not printed in the Gazette.]

1,144,823. TOBACCO PRODUCT. CALEB C. DULA, Yonkers, N. Y. Filed Mar. 12, 1915. Serial No. 13,978. (Cl. 131—52.)



1. As a new article of manufacture, a tobacco stick or roll formed to provide sections for chewing or smoking, comprising a filler made up of superposed long leaf tobacco or portions of leaves of substantial area arranged longitudinally of one another, said filler being suitably shaped and confined within a paper binder, to provide a stick or roll of substantially uniform diameter from end to end.

2. As a new product of manufacture, a tobacco stick or roll formed to provide sections for chewing or smoking purposes, comprising a substantially uniform mass of superposed long-leaf tobacco or portions of leaves of substantial area arranged longitudinally of one another, said mass being slightly compacted and shaped into a cylindrical stick or roll, but not solidly compressed, and a binder of smokable paper wrapped about the stick or roll and having its edges overlapped and secured.

3. As a new product of maintenance, a tobacco package embodying a stick or roll, comprising a filler made up of superposed portions of long-leaf tobacco, said portions being of substantial area and arranged longitudinally of one another, said filler being suitably shaped and confined within a paper binder to provide a stick or roll of substantially uniform diameter from end to end, and a protective envelop or container of substantially air and moisture-proof material inclosing the said stick or roll.

1,144,824. TOBACCO CARTRIDGE AND PACKAGE. CALEB C. DULA, Yonkers, N. Y. Filed Mar. 31, 1915. Serial No. 18,241. (Cl. 131—52.)

1. As a new article of manufacture, a tobacco cartridge for smoking or chewing, formed of a filler comprising portions of leaf tobacco of substantial area super-

posed and compacted into a roll, and a binder of smokable paper inclosing the filler, said cartridge being open at both ends and consumable as a whole.



2. As a new article of manufacture, a tobacco cartridge for smoking or chewing, formed of a filler comprising portions of leaf tobacco of substantial area superposed longitudinally of one another and of the cartridge, and compacted, but not solidly compressed, into a roll, the said leaf portions being folded upon themselves to provide draft spaces therebetween extending longitudinally of the cartridge, and a binder of smokable material inclosing the roll and maintaining the filler in compacted condition.

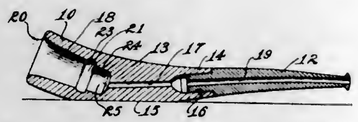
3. As a new article of manufacture, a tobacco cartridge for smoking or chewing, formed of a filler comprising portions of leaf tobacco of substantial area superposed longitudinally of one another and of the cartridge, and compacted into a roll, the said leaf portions being folded upon themselves and relatively interfolded to provide draft spaces therebetween extending longitudinally of the cartridge, and a binder of smokable material inclosing the filler.

4. As a new article of manufacture, a tobacco package embodying a plurality of separate charges for smoking or chewing, formed from sections of a transversely divided roll consisting of portions of substantial area of leaf tobacco and a binder or wrapper of smokable paper, the said sections of the roll constituting the separate charges being arranged end to end and inclosed within an envelop or container.

5. As a new product of manufacture, a tobacco package consisting of a tobacco roll formed of a binder or wrapper of smokable material inclosing a filler consisting of sections of leaf tobacco arranged longitudinally of the roll, and said roll being divided transversely of its length to provide a plurality of separate smoking or chewing charges, and an inclosing wrapper or envelop for the said tobacco charges.

[Claims 6 and 7 not printed in the Gazette.]

1,144,825. SMOKING TUBE OR IMPLEMENT. CALEB C. DULA, Yonkers, N. Y. Filed Apr. 9, 1915. Serial No. 20,184. (Cl. 131—22.)



1. A smoking implement especially adapted for smoking prepared cartridges, comprising a bowl and a stem in substantial alinement, said bowl having a flat resting face on its under side at a point intermediate its ends, and the said stem and the mouth of the bowl being elevated above the plane of said flat resting face.

2. As a new article of manufacture, a smoking implement especially adapted for smoking prepared cartridges, comprising a bowl, and stem in substantial alinement and of gradually tapering contour from end to end, said bowl having a flat resting face on its under side at a point intermediate its ends and the parts being so constructed and arranged that when the said flat face is resting upon a flat supporting surface the bowl and stem will be held elevated and free from contact with such surface.

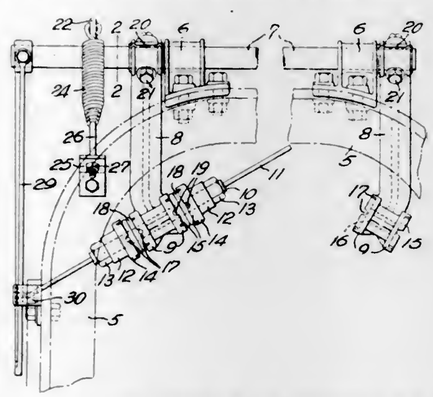
3. A smoking implement comprising a substantially cylindrical bowl having a reduced neck at one end and a stem in substantial alinement with the bowl removably fitted to the neck, said bowl having a flat resting face on its under side intermediate the ends of the neck and bowl respectively and said neck and bowl each curving upwardly and outwardly from the said flat face.

4. A smoking implement especially adapted for smoking prepared tobacco cartridges, said implement comprising a bowl and a stem in substantial alinement and the bowl having a flat resting face on its under side, the bore of the bowl being tapered inwardly and provided with a recess to permit lateral expansion of a portion of the cartridge when inserted therein to prevent accidental dislodgment of the cartridge therefrom.

5. A smoking implement especially adapted for smoking prepared tobacco cartridges, said implement comprising a bowl and a stem, the bore of the bowl having a portion tapered inwardly to compress an inserted cartridge and being recessed beyond said tapered portion to permit expansion of the cartridge into said recess and thus prevent accidental dislodgment of the cartridge from the bowl.

[Claims 6 and 7 not printed in the Gazette.]

1,144,826. TRACK-SCRAPER. WILLIAM E. L. DYER and DAVID E. BLAIR, Montreal, Quebec, Canada. Filed May 4, 1914. Serial No. 836,361. (Cl. 104—100.)



1. A track scraper comprising the combination with a truck frame of a transverse shaft revolubly mounted on the truck frame, normally horizontal rocking arms rigidly mounted at one end on said shaft, and projecting rearwardly therefrom, the free extremities of said levers being turned upwardly and inwardly and scraper blades hingeably mounted to the free ends of said rocking arms.

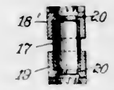
2. In a track scraper, the combination with a truck frame of a transverse shaft journaled therein, rocking arms rigidly connected at one end to said shaft, scraper blades at the free extremities of said arms, pins hingeably connecting said blades to the arms, springs carried by said pins arranged to normally maintain a predetermined relation between the blades and arms, and means for adjusting the tension of said springs to maintain said relation against different resistive forces.

3. In a track scraper, the combination with a truck frame of a transverse shaft journaled thereon, rocking arms rigidly connected at one end to said shaft, scraper blades at the free extremities of said arms, pins hingeably connecting said blades to the arms, springs carried by said pins arranged to normally maintain a predetermined relation between the blades and arms, and means for adjusting the tension of said springs to maintain said relation against different resistive forces, a lever rigidly connected to the shaft, and a spring held in tension between the free extremity of said lever and the truck frame and operating to press the scraper down on the track.

4. In a track scraper, a scraper blade, a rocking arm carrying said blade, a yieldable connection between the scraper and rocking arm arranged to hold the blade at a predetermined cutting angle against a predetermined resistance, coöperative means in the blade and arm for adjusting the yieldability of said connection, and a load spring arranged to press the blade downwardly on the track.

5. A track scraper comprising the combination with a truck frame of a transverse shaft journaled thereto, a rocking arm rigidly secured at one end to said shaft, a pair of flanged plates on opposite sides of said lever at the free end thereof, a scraper blade, a pair of flanged plates secured thereto, a pin passing concentrically through said plates and hingeably connecting the blade to the rocking arm, springs on said pin between the blade and arm plates, and radially disposed seats in the lever and blade plates engaging the ends of said springs, one end of each spring being engaged in an arm plate and the opposite end in a blade plate.

1,144,827. WINDING-CLUTCH FOR WATCHES. GEORGE F. EBERHARD, Trenton, N. J., assignor to Robt. H. Ingersoll & Bro., a Joint-Stock Association of New York. Filed Jan. 2, 1914, Serial No. 809,965. Renewed May 8, 1915. Serial No. 26,900. (Cl. 58—68.)



1. A clutch for watches composed of separate parts including two ends and intermediate means for engagement with the operating member, said clutch having terminal swaged teeth, substantially as described.

2. A winding clutch for watches composed of separate parts including two ends having teeth swaged on the end faces thereof and intermediate means for engagement with the operating member, substantially as described.

3. A winding clutch for watches composed of separate pieces including two ends having teeth swaged on the end faces thereof, said pieces having also a socket and reduced connection between said pieces, substantially as described.

4. A winding clutch for watches composed of separate pieces including two ends with swaged teeth thereon with a socket and reduced connection between, the said pieces being spaced apart by said reduced connection to provide a circumferential groove, substantially as described.

5. A winding clutch for watches composed of two end portions similarly socketed and having swaged teeth, and an intermediate portion fitting within the sockets of the end portions, all of said parts having interior openings for receiving the winding stem.

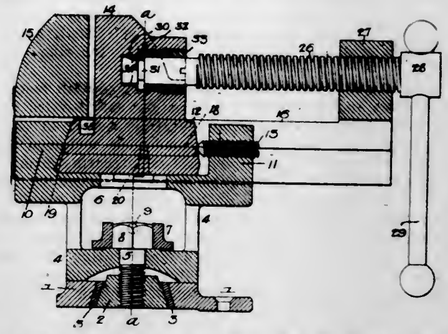
[Claim 6 not printed in the Gazette.]

1,144,828. VISE. THOMAS J. FEGLEY and GEORGE O. LEOPOLD, Philadelphia, Pa., assignors to North Bro's M'f'g Co., Philadelphia, Pa., a Corporation of Pennsylvania. Filed Jan. 20, 1915. Serial No. 3,331. (Cl. 81—41.)

1. The combination in a vise, of a fixed bead; a movable bead slidably mounted on the fixed head; an adjusting screw adapted to a threaded opening in a bearing in the sliding head and having its inner end grooved and fitting a cavity in the fixed head; a key fitting the groove; and a threaded sleeve adapted to the opening in the fixed head and bearing against the key so as to retain the screw in the fixed head.

2. The combination in a vise, of a head having a recess therein; an adjusting screw having a groove near one end and resting against the base of the recess; a shoulder in the recess; a washer adapted to the groove in the end of the adjusting screw; and a sleeve clamping the washer against the shoulder.

3. The combination in a vise, of a jaw; an adjusting screw, the jaw having a shouldered recess therein, the walls of the recess being threaded, the end of the screw resting against the base of the cavity and having an annular groove therein; a U-shaped washer adapted to the groove; and a threaded sleeve mounted in the recess and clamping the washer against the shoulder.



4. The combination in a vise, of a fixed head and a movable head arranged to slide on the fixed head, the body portion of the fixed head having a groove on each side thereof; a notched bar mounted in each groove; with two screws located in the fixed head, one screw extending into the notch of one bar and the other screw extending into the notch of the other bar and holding the bars against longitudinal movement.

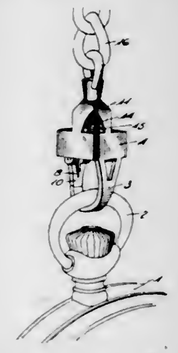
1,144,829. METHOD OF REMOVING ACETONE FROM LECITHIN-CONTAINING SUBSTANCES. GEORG FENDLER, Schöneberg, near Berlin, Germany. Filed Feb. 9, 1914. Serial No. 817,671. (Cl. 99—11.)

1. A method of removing acetone from a lecithin-containing substance obtained by the treatment of yolks of eggs with acetone, which consists in thoroughly moistening this lecithin-containing substance with water and then drying the mass so produced.

2. A method of removing acetone from a lecithin-containing substance obtained by treating yolks of eggs with acetone, which consists in thoroughly moistening this lecithin-containing substance with an aqueous liquid and then drying it.

3. A method of removing acetone from a lecithin-containing substance obtained by treating yolks of eggs with acetone, which consists in thoroughly moistening this lecithin-containing substance with an aqueous liquid and then drying the mass thus obtained at a higher temperature and *in vacuo*.

1,144,830. WATCH-PROTECTOR. MORRIS FLEISCHER and ALFRED C. O. BOCK, New York, N. Y. Filed Oct. 27, 1914. Serial No. 868,804. (Cl. 63—25.)

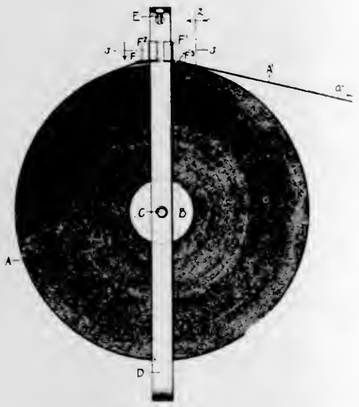


1. In a watch safety appliance, a body formed with inclosing walls having notches or openings at the top, a

plate arranged in said body, the corners of said plate being bent up for presenting prongs, said prongs having no movement independent of said plate, a reciprocating shaft or bar secured to said plate and adapted to move the same so as to force said prongs through said opening, a spring for resiliently resisting said movement, and a hook arranged on said body for receiving the ring of a watch.

2. In a watch safety device, a body formed with rectangular sides and a beveled upper portion, said beveled upper portion having a notch or cutaway section at each corner whereby openings are provided, a reciprocating member arranged in said body, said reciprocating member being provided with a plurality of prongs guided by the walls of said body so as to project through said openings when said reciprocating member is moved toward said upper portion, said prongs having no movement independent of the reciprocating member, a reciprocating shaft secured to said reciprocating member and extending upwardly through said beveled portion of the body, a spring surrounding said shaft and acting against said beveled portion of said body and against said reciprocating member for resiliently holding said member in a lowered position, means arranged on the bottom of said body for limiting the movement of said reciprocating member under the action of said spring, a hook extending from said body, said hook being provided with a pivotally mounted tongue, and a spring for resiliently holding said tongue closed.

1,144,831. REEL-GUIDE AND STRAP-HOLDER. PHILIP JONES FORBES, New York, N. Y. Filed Jan. 16, 1915. Serial No. 2,652. (Cl. 242—103.)



1. A guide and holder comprising a tubular body adapted to slide radially on the frame of a box strap reel, and guideways for the passage of the box strap and projecting outwardly in opposite directions from the inner ends of the said body to slide the said body radially inward on the reel frame on unwinding the box strap and to hold the convolutions of the box strap roll from opening up.

2. A guide and holder for box strap reels made of a single piece of metal shaped to form a tubular body adapted to slide radially on the frame of the reel, and flat guideways integral with the inner edges of the sides of the said body and extending sidewise in opposite directions in the plane of the box strap roll.

1,144,837. HOSE-SUPPORTER. THOMAS P. FORD, New York, N. Y. Filed May 13, 1914. Serial No. 838,295. (Cl. 24—263.)

1. A hose supporter, comprising a frame having a bottom bar, and a clasp movable on the said frame and provided with two clamping bars, the clasp being of a size to lie within the frame and when in lowermost position providing a space for the entrance of the hose material between the frame bottom bar and the said clasp clamping bars, the clasp when in raised position lying within the frame and having its clamping bars located on opposite sides of the frame bottom bar to clamp the hose material between the frame bar and the said clasp clamping bars.



2. A hose supporter, comprising a frame, having a bottom bar, and a clasp movable on the said frame and provided with two straight clamping bars of a length less than the frame bottom bar, the clamping bars of the clasp when in lowermost position being a distance below the frame bottom bar to provide a space for the entrance of the hose material between the said bars and the clasp when in raised position extending within the frame opening and having its clamping bars located on opposite sides of the frame bottom bar to clamp the hose material between the frame bar and the said clasp bars.

3. A hose supporter, comprising an open rectangular frame and a clasp, and the said clasp having a pair of bottom bars, one in front of the other and of a length less than that of the frame bottom bar, the said clasp bottom bars terminating in upwardly extending side bars inclined toward each other, the side bars terminating in horizontal top members having eyes slidably engaging the said frame side bars.

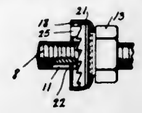
4. A hose supporter, comprising an open frame and a clasp, the open frame having a bottom bar, side bars and a top bar having its central portion bent outwardly to form an upwardly extending top loop, and the said clasp having a pair of bottom bars one in front of the other and of a length less than that of the frame bottom bar, the said clasp bottom bars terminating in upwardly extending side bars inclined toward each other, the side bars terminating in top members having eyes slidably engaging the said frame side bars, the said top members of the clasp when the latter is in clamping relation to the bottom bar of the frame abutting against the top bar and the said clasp bottom bars engaging opposite sides of the frame bottom bar.

5. A hose supporter, comprising a rectangular frame, and a clasp having a straight bottom bar of less length than the bottom bar of the frame, upwardly and inwardly inclined side bars extending from the ends of the bottom bar, and outwardly projecting top bars extending from the ends of the inclined bars and terminating in eyes slidably engaging the sides of the frame, whereby the clasp will be of such a size as to lie entirely within the frame and when in clamping position its top bars will be in engagement with the top bar of the frame and its bottom bar will be in engagement throughout its length with the bottom bar of the said frame.

[Claims 6 and 7 not printed in the Gazette.]

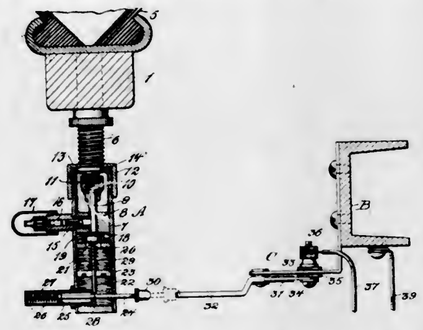
1,144,833. NUT-LOCK. CHARLES W. FOX and JAMES L. CYPHER, Connellsville, Pa. Filed Sept. 30, 1914. Serial No. 864,312. (Cl. 151—13.)

A nut lock comprising the combination with a bolt having a longitudinally extending groove, of a nut mounted upon said bolt and having a toothed collar on its outer face, said collar providing a ledge, and a locking member mounted upon the bolt and engaging in said groove and



provided with means engaging the teeth of the collar and furthermore over-lapping and engaging the ledge.

1,144,834. PRESSURE-DROP ALARM FOR TIRES. FRED PRENTISS FREEMAN, Richland, Wash. Filed May 5, 1914. Serial No. 836,429. (Cl. 200—27.)



1. The combination of a wheel, a tire thereon, an inflating stem for the tire, a combined inflating device and pressure responsive means attached to the stem, a trip carried by the said means and controlled by the pressure responsive device, means for moving the trip when the said device loses control of the trip by the fall of pressure in the tire, a switch adapted to be closed by said trip when the same is released, and an alarm circuit controlled by the switch.

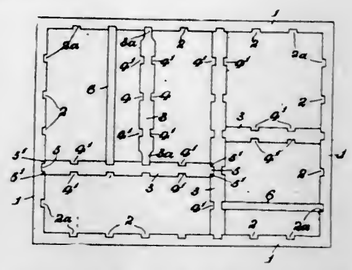
2. The combination of the inflating stem of a tire and a device connected therewith, said device including a valve-controlled inlet through which the tire is inflated, a diaphragm in the device and responsive to the pressure in the tire, a trigger controlled by the diaphragm, and a spring-pressed trip held set by the trigger.

3. The combination of a tire inflating stem, a casing, means for fastening the casing to the stem, a tube in the casing and communicating with the stem, an inflating means communicating with the tube, a pressure responsive device in the casing and subjected to the pressure in the tube, a trip carried by the casing and tending to move to signaling position, and means controlled by the pressure responsive device for releasably holding the trip in non-signaling position.

4. The combination of a tire inflating stem, a casing, means for fastening the casing to the stem, a tube in the casing and communicating with the stem, an inflating means communicating with the tube, a diaphragm in the casing and responsive to the pressure in the tube, a spring-pressed trigger operatively related to the diaphragm, and a trip normally engaged by the trigger and adapted to operate when the trigger releases by the fall in pressure on the diaphragm.

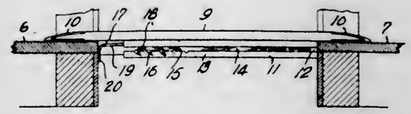
5. The combination of a tire inflating stem, a casing, means for fastening the casing to the stem, a tube in the casing and communicating with the stem, an inflating means communicating with the tube, a diaphragm in the casing and responsive to the pressure in the tube, a spring-pressed trigger operatively related to the diaphragm, a trip mounted in one end of the casing and extending transversely thereto and with which the trigger normally engages, and a spring acting on the trip for moving the same when the trigger is released.

1,144,835. PARTITIONED RECEPTACLE. ALFRED HERBERT GIBSON, Harrogate, England. Filed June 2, 1913. Serial No. 771,220. (Cl. 217—7.)



The combination with a rectangular receptacle, having all its four inner sides formed or provided with slots spaced at equal distances apart with the exception of the slots nearest the corners which said slots are placed at distances from the corners less than the standard ditance between the near edges of a pair of the other slots; of removable partitions of standard lengths having a tenon at each end adapted to fit the slots in the drawer or cabinet, an equal shoulder on each side of said tenon, and slots in both sides of said partitions, corresponding in spacing and formation to the slots in the sides of the drawer or cabinet, the slots nearest the end of a partition being formed at a distance from the shoulder, measured to the near edge of the slot, equal to the standard distance between the other slots less the horizontal width of the shoulder.

1,144,836. GANGWAY. WALTER GREEN, Montreal, Quebec, Canada. Filed June 20, 1914. Serial No. 846,293. (Cl. 57—18.)



1. In a gangway, the combination with a platform of a pair of longitudinal guide members secured to the lower side of said platform, slides movably mounted in said guides, locking means connecting the slides and guides, abutment faces of increased depth on the outer ends of the slides, said slides being tapered from the inner to the outer ends to permit vertical unlocking movement.

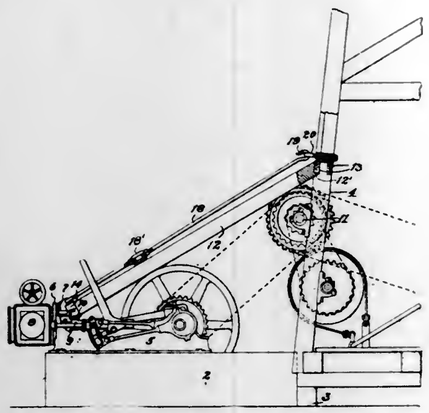
2. In a device of the character described, a platform, a pair of channel shaped guides secured to the lower side thereof, inwardly projecting ribs on the flanges of said guides, the lower of said ribs having a plurality of notches toward one end thereof, abutment members closing the engaged ends of said guides, slidable abutment members mounted in said guides and retained by the ribs thereof, said members being tapered from the closed end of the guides toward the open ends, an abutment shoe of increased depth secured to the free end of each of said slidable members, and pins on said members engageable with the rib notches to hold the members against movement in the guides.

1,144,837. BRACING FOR WELL-DRILLING ENGINES. EDGAR E. GREVE, Pittsburgh, Pa., assignor to Oil Well Supply Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Dec. 4, 1914. Serial No. 875,462. (Cl. 121—105.)

1. An engine brace socket comprising a head having a cavity for receiving the extremity of a brace, the head being flanged to fit the engine parts to which it is applied and the flanges apertured to receive securing bolts.

2. An engine brace socket comprising a head having a cavity for receiving the extremity of a brace, the head

formed to fit the part of the engine to which it is applied and also formed to receive head-securing means, the head formed with an apertured part adapted to receive a tie-rod.



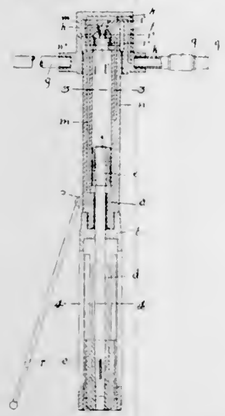
3. An engine brace socket comprising a head having a cavity adapted to receive the extremity of a brace, the head being flanged horizontally and also flanged vertically to fit parts of the engine to which the socket is applied and the flange apertured to pass securing bolts, the head also formed with an apertured part adapted to receive a tie-rod.

4. The combination of an engine mounting, an engine, a derrick, a brace interposed between the derrick and engine, a socket having a cavity for receiving the extremity of the brace, means for securing the socket to the engine, a tie-rod paralleling the brace and at one end secured to the derrick, and means on the socket for securing the opposite end of the tie-rod.

5. The combination of an engine bed, engine parts bolted to the bed, a brace socket adapted to receive the extremity of an engine brace, the socket formed with apertured parts adapted to receive the bolts which secure the engine parts to the bed.

[Claims 6 and 7 not printed in the Gazette.]

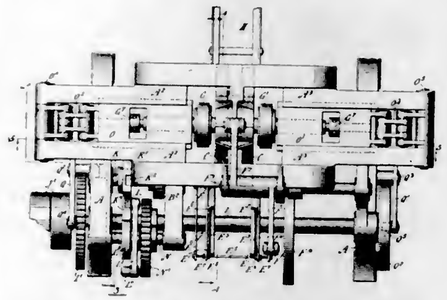
1,144,838. HAND-RAMMER OPERATED BY COMPRESSED AIR. JOHANN FRIEDRICH WILHELM GRIESE, Hamburg, Germany. Filed June 6, 1914. Serial No. 843,506. (Cl. 94—4.)



1. An improved paving rammer, comprising a cylinder, a piston within a cylinder, a ramming block attached to the said piston and means to allow pressure fluid to enter the cylinder above and below the piston and a prop, pivotally attached to the rammer and adapted to steady the rammer during transmission.

2. A pneumatic rammer comprising a cylinder, a piston therein, a ramming block attached to the piston, a frame on the lower end of the cylinder surrounding the block and serving as a support for the cylinder and as a guide for the block, and means to allow pressure fluid to enter the cylinder above and below the piston to reciprocate the latter.

1,144,839. MACHINE FOR FLANGING CAN-BODIES. HENRY L. GUENTHER, Los Angeles, Cal., assignor to Pearl O. Guenther, Los Angeles, Cal. Filed Feb. 26, 1913. Serial No. 750,784. (Cl. 153—21.)



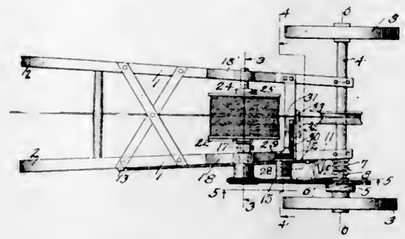
1. A can body flanging machine provided with a can body delivery chute, comprising side pieces each formed of spaced angle irons, a side plate connecting the angle irons of a side piece with each other, supporting bars attached to the angle irons of the side pieces, fixed screw rods supporting the said supporting bars, and pairs of nuts screwing on the said screw rods and engaging the said supporting bars to permit of adjusting the side pieces toward and from each other.

2. A can body flanging machine comprising the combination with a frame, of a can body delivery chute comprising side pieces, brackets secured to the frame and projecting therefrom at opposite sides of the chute, a screw rod rigidly connected to the ends of the brackets and extending therebetween, supporting bars connected to the side pieces of the delivery chute and through portions of which the said screw rod loosely extends, and nuts adjustable upon the screw rod on opposite sides of the supporting bars, whereby the side pieces of the chute may be readily adjusted with respect to one another for the purpose described.

3. A can body flanging machine, comprising an intermittently revolving carrier having peripheral seats for the reception of can bodies, a reciprocating clamp for clamping a can body in a seat at the time the carrier is at rest, a pair of reciprocating dies adapted to pass into the ends of the can body at the time the can body is clamped in position in the carrier by the said clamp, said dies having threaded spindles, sliding cross heads in which the said spindles are adjustably held and toggle mechanism connected directly to the cross heads through which movement is imparted to said dies.

4. A can body flanging mechanism, comprising an intermittently rotating carrier having a horizontal axis and provided on its peripheral face with can seats, means for feeding can bodies to the said seats, a vertical intermittently reciprocating clamp co-acting with the carrier when the latter is at rest to clamp a can body in its seat, a pair of horizontally reciprocating dies adapted to pass simultaneously into the ends of a clamped can body, said dies having threaded spindles, sliding cross heads in which the said spindles are adjustably held and means for actuating the said dies, including a toggle mechanism for each of the dies connected directly to its crosshead, substantially as described.

1,144,840. WIRE-REELING APPARATUS. ALVIN K. HAGENESS, Eleva, Wis. Filed July 9, 1914. Serial No. 849,982. (Cl. 242—92.)



1. In a wire reeling machine, the combination with a carriage having a supporting wheel, of a reel journaled on said carriage, a shaft for supporting the reel and comprising a relatively movable section and a relatively stationary section, a hinged connection for the journal of the relatively movable shaft section to permit bodily swinging of the reel into inoperative position for removal of the shaft from said journal, and driving means connected to the relatively stationary section of the reel shaft with the wheel of the carriage.

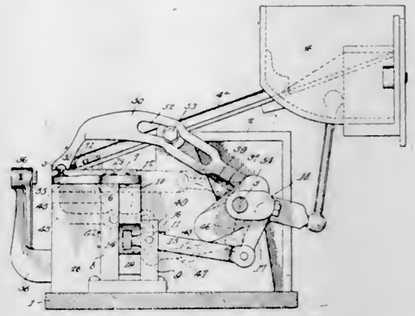
2. In a wire reeling machine, the combination with a carriage having a supporting wheel, of a reel journaled on said carriage, a shaft for supporting the reel and comprising a relatively movable section and a relatively stationary section, a hinged connection for the journal of the relatively movable shaft section to permit bodily swinging of the reel into inoperative position for removal of the shaft from said journal, driving means connected to the relatively stationary section of the reel shaft with the wheel of the carriage, and means for supporting the hinged journal when the reel is swung into the inoperative position aforesaid.

3. In a wire reeling machine, the combination with a carriage having a supporting wheel, of a reel journaled in said carriage, a shaft for supporting the reel and comprising a relatively movable section on which the reel is disposed and a relatively stationary section connected to the movable section, means for detachably connecting the movable section with the relatively stationary section, the former section being slidable in its journal to permit disconnection of the shaft sections from each other, a hinged connection for the journal of the movable shaft section permitting swinging of said reel into a position for being reversed, means for sustaining the reel in the position aforesaid for reversing purposes, and driving means for actuating said reel shaft.

4. In a wire reeling machine, the combination with a carriage having a supporting wheel, of brackets sustained by the carriage, a stub shaft journaled in one of the brackets, a reel shaft journaled in the other bracket and having a detachable connection with the stub shaft, a driving connection between the stub shaft and the supporting wheel, the reel shaft engaged bracket having the portion sustaining the reel shaft supported from the other portion of the bracket and hinged thereto, and means sustained by the carriage for supporting the hinged portion of the bracket in an offstanding position for enabling the reel shaft to be swung to an upright position and for being sustained in such position, the reel shaft being adapted to carry the reel.

1,144,841. BUTTON-SETTING MACHINE. CLARENCE C. HAMMOND, Wichita, Kans. Filed Apr. 21, 1914. Serial No. 833,383. (Cl. 218—8.)

1. In a button-setting machine, staple-forming means, a support for said means having a part provided with a slot, a button chute, a button placing finger movable to carry a button from the chute and to place the same on the support with the shank of the button extending through the slot thereof, a lever carrying said finger, the finger being rigid on the lever, said lever having a slot, a pivot for the lever extending into the slot, a drive shaft, and a crank on said shaft operatively connected to the lever.



2. In a button-setting machine, a staple-forming means, a support for said means having a part provided with a slot, a button chute, a button placing finger movable to carry a button from the chute and to place the same on the support with the shank of the button extending through the slot thereof, a lever carrying said finger, the finger being rigid on the lever, a pivot for the lever, said lever having a slot into which the pivot extends, and said slot extending in a direction to allow the lever to move in the direction of its length, a drive-shaft, and a crank on said drive-shaft operatively connected to the lever for rocking the same on its pivot and for moving the lever in the direction of its length.

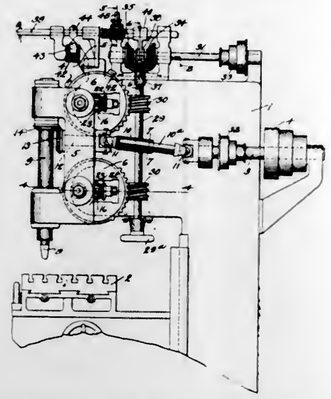
3. In a button-setting machine, a drive-shaft, cranks on said shaft, a reciprocatory cutter having a longitudinal slot, a reciprocatory plunger mounted in the slot, means for placing a button in front of the cutter and the plunger, a clenching anvil and a staple-former head in front of the cutter and the plunger, means for feeding wire and threading the same through the button shank, means for advancing and retracting the staple-former head, a pitman connection between the cutter and one of the cranks of the drive-shaft for advancing the cutter to sever the wire and to bend the same into a staple over the staple-former head, and a pitman connection between the plunger and the other crank of the drive shaft for advancing the plunger to carry the staple against the clenching anvil, the cutter and the plunger being in direct alinement with their drive cranks.

4. In a button-setting machine, a drive-shaft, cranks on said shaft, a reciprocatory cutter having a longitudinal slot, a reciprocatory plunger mounted in the slot of the cutter, means for placing a button in front of the cutter and the plunger, a clenching anvil and a staple-former head in front of the cutter and the plunger, means for feeding wire and threading the same through the button shank, a pitman connection between the cutter and one of the cranks of the drive-shaft for advancing the cutter to sever the wire and to bend the same into a staple over the staple-former head, a pitman connection between the plunger and the other crank of the drive-shaft for advancing the plunger to carry the staple against the clenching anvil, the cutter and the plunger being in direct alinement with their drive cranks, a pivotal support for the staple-former head, a rocker, an operative connection between one end of the rocker and the staple-former head, and an operative connection between the other end of said rocker and one of the aforesaid drive cranks.

1,144,842. ROUTING AND DIE-SINKING MACHINE. HOMER HILLS, Jackson, Mich. Filed Nov. 13, 1914. Serial No. 871,988. (Cl. 90—11.)

1. In a machine of the class described, the combination of a frame, spaced rotative supporting members mounted on said frame, a tool head carried by said supporting members, means for driving the supporting members to thereby

impart movement to said head, and automatic means for reversing the drive of said rotative members.



2. In a machine of the class described, the combination of a frame, spaced rotative supporting members mounted on said frame, a tool head carried by said supporting members, means for driving the suporting members to thereby impart movement to said head, mechanism for driving said rotative members, and automatic means controlled from one of the rotative members to control the operation of said driving mechanism.

3. In a machine of the class described, the combination of rotative supporting members, radially adjustable pivot members mounted on the supporting members, a tool head carried by said pivot members, means for driving the rotative members, and automatic controlling mechanism for said driving means and including a part carried by one of the rotative members coöperative to effect the reversal of direction of driving of the rotative members.

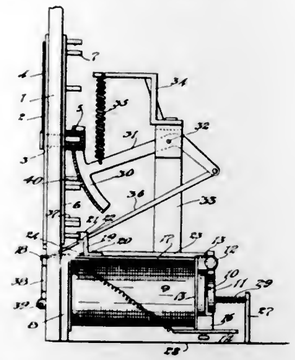
4. In a machine of the class described, the combination of rotative supporting members, radially adjustable pivot members mounted on the supporting members, a tool head carried by said pivot members, automatic means to reversely drive said rotative members, and means to simultaneously adjust the pivot members in respect to the supporting members on which they are mounted.

5. In a machine of the class described, the combination of spaced worm gears, pivot members radially adjustable on said gears, a tool head carried by said pivot members, a tool on said head, driving means for the tool, a worm shaft, worms on said shaft coöperating with the worm gears to drive the latter, and automatic means to reversely operate the worm shaft.

[Claims 6 to 10 not printed in the Gazette.]

1,144,843. ANNUNCIATOR. LEOPOLD COPPARD HODSON, Winnipeg, Manitoba, Canada. Filed Aug. 23, 1911. Serial No. 645,501. (Cl. 177—328.)

1. In combination, a support, a spindle mounted in the support, a dial carried by the support and presenting a number of signals and a zero point arranged concentrically to the spindle, an index pointer rotatable with the spindle and normally indicating zero point on the dial, a disk fixed on the spindle, stop pins extending from the disk, said stop pins being spaced the same distance apart as the signals, a pinion fixed on the spindle and adjoining the disk, a spring actuated means engaging with the pinion and tending normally to rotate the same in a clockwise direction, an electromagnet located in a suitable electric circuit controlled by a make and break key, said electromagnet being provided with the usual pivoted armature, a spring-pressed pivotally mounted escapement supplied with a pair of wings located normally in the path of the stop pins, said escapement being supported further in a manner allowing it to bave a swinging motion in a direction at right angles to the path of the stop pins, which motion is controlled by the armature, means limiting the turning movement of the escapement in one direction on its pivot point, and means for resetting the index pointer after the signal has been given.

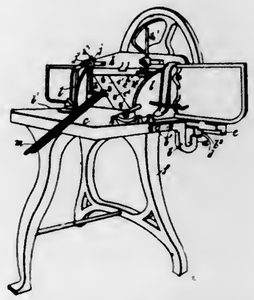


2. In combination, a support, a spindle mounted in the support, a dial carried by the support and presenting a number of signals and a zero point arranged concentrically to the spindle, an index pointer rotatable with the spindle and normally indicating zero point on the dial, a disk fixed on the spindle, stop pins extending from the disk, said stop pins being spaced the same distance apart as the signals, a pinion fixed on the spindle and adjoining the disk, a spring actuated means engaging with the pinion and tending normally to rotate the same in a clockwise direction, an electromagnet located in a suitable electric circuit controlled by a make and break key, said electromagnet being provided with the usual pivoted armature, an arm extending from the armature toward the disk, a spring pressed pivotally mounted escapement carried by the arm, said escapement being supplied with a pair of wings located in the path of the stop pins, a projection extending from the arm and engageable with the side of the escapement, and means for resetting the index pointer after the signal has been given, as and for the purpose specified.

3. In combination, a support, a spindle mounted in the support, a dial carried by the support and presenting a number of signals and a zero point arranged concentrically to the spindle, an index pointer rotatable with the spindle and normally indicating zero point on the dial, a disk fixed on the spindle, stop pins extending from the disk, said stop pins being spaced the same distance apart as the signals, a pinion fixed on the spindle and adjoining the disk, a pivotally mounted spring pressed lever provided with a rack bar having the teeth thereof meshing with the pinion, a rod secured pivotally to the lever and extending forwardly through the support, an electro-magnet carried by the support, said electro-magnet being connected in a suitable electric circuit controlled by a make and break contact, a pivoted armature carried by the electromagnet, a spring holding the armature away from the electro-magnet, an arm extending from the armature forwardly through the support and provided with a hooked end, a setting plate pivotally secured to the support, said plate being held in the upright position by the hooked end of the arm and engaging in the upright position with the protruding end of the rod, a spring pressed pivotally mounted escapement carried by the arm and supplied with a pair of wings extending into the path of the pins, said wings being in different horizontal planes and a projection carried by the arm and engaging with the side of the escapement, as and for the purpose specified.

4. In an annunciator, the combination with a rotatably mounted disk having suitable stop pins extending therefrom and arranged concentric to the axis of rotation of the disk, spring means for rotating the disk and an electromagnet located in a suitable electric circuit controlled by a make and break key, said electromagnet being provided with the usual pivoted armature, of an arm disposed in a plane at right angles to the plane of the disk and having the rear end thereof connected to the armature and the forward end thereof adjoining the pins and an escapement located at the forward end of the arm and located in the path of the pins, said escapement being provided with spaced wings being in different horizontal planes, the said wings being designed to successively arrest and release the successive pins in the movement of the arm with the armature upon the electromagnet being successively energized and deënergized by the manipulation of the key, as and for the purpose specified.

1,144,844. WOOD-TRIMMER AND THE LIKE. JOSEPH HOLLIS, Leicester, England. Filed May 1, 1913. Serial No. 764,868. (Cl. 144—216.)



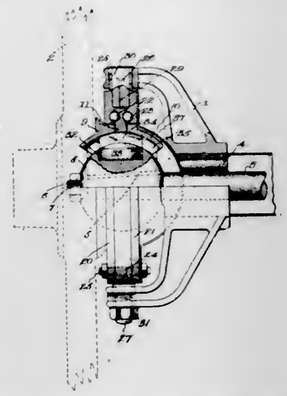
1. In a wood trimmer or the like, a table having a guideway, a member fixed to said table and having a guideway, a knife carrier supported in said guideways, knives attached to said knife carrier, fences provided on said table, means for securing said fences in position, a socket fixed to said member, a pin having a slotted shoe slidably mounted in said socket, a stop carried by and provided with means for securing it in position in said slotted shoe and means for fixing said pin in said socket.

2. In a wood trimmer or the like, a table having a guideway, a member fixed to said table and having a guideway, a knife carrier supported in said guideways, knives attached to said knife carrier, fences provided on said table, means for securing said fences in position, sockets fixed to said member, pins united by a slotted bar and slidably mounted in said sockets, stops carried by and provided with means for securing them in position in said slotted bar and means for fixing said pins in said sockets.

3. In a wood trimmer or the like, a table having a guideway, a member fixed to said table and having a guideway, a knife carrier supported in said guideways, knives attached to said knife carrier, fences provided on said table and having slots and also angle markings, a canting table comprising a frame, the outer rail of which extends over the outer edge of said fences and means passing through said slots for securing the canting table to the fences.

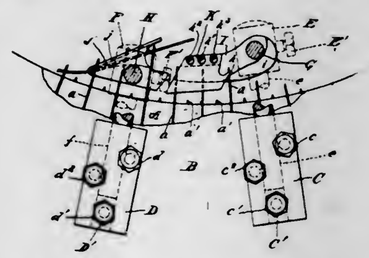
1,144,845. UNIVERSAL DRIVE FOR VEHICLES. ORRA O. HOOTMAN, Orogrande, N. Mex. Filed Sept. 2, 1914. Serial No. 859,807. (Cl. 21—90.)

1. In a universal drive for vehicles of the character described, the combination of a housing constructed with vertically-disposed forks, a drive shaft journaled in said housing, a universal ball fixedly mounted on said drive shaft within said forks, a wheel, a socket connected to said wheel for mounting the same on said universal ball and comprising a pair of shouldered lateral members, and a central member provided with shoulders coöperating with the shoulders on said lateral members and extending beyond the same, a drive element arranged between said universal ball and socket, a pair of rings disposed to either side of the projecting portion of said central socket member, races formed between said rings and each opposite face of said central socket member, bearings confined in said races, an annulus for connecting said rings, and pivots projecting from said annulus and journaled in said forks whereby the socket and connected wheel may be swung horizontally on said universal ball to steer the vehicle, substantially as described.



2. In a universal drive for vehicles of the character described, the combination of a housing constructed with vertically-disposed forks, a drive axle mounted in said housing, a universal ball fixedly mounted on said drive axle between said forks, a wheel, a socket mounted on said wheel and arranged to support the same from said universal ball, said socket comprising a pair of lateral shouldered members, and a central member provided with shoulders coöperating with the shoulders on said lateral members and projecting beyond the latter, a pair of rings disposed to either side of the projecting portion of said central socket member, races formed between said rings and said central socket member, bearings confined in said races, an annulus mounted between said rings concentrically with the central socket member, means for securing said rings and annulus together, pivots formed on said annulus and journaled in said forks to permit steering movement on said vehicle wheel, and a dust guard connected to the interior of said pair of rings and shaped to conform to the adjacent end of said housing, said dust guard being provided with a slot engaged over the drive axle for permitting the steering movement of said wheel, substantially as described.

1,144,846. KNITTING-MACHINE. WILLIS A. INGALLS, Cleveland, Ohio. Filed Dec. 17, 1913. Serial No. 807,165. (Cl. 66—12.)



1. In a knitting machine the combination of a latch opening point suitably attached to the machine with a yarn guide located immediately behind said opening point and having its forward end beveled on the under side to engage needles riding over the latch opening point and force them to their original position for the purpose set forth.

2. In a knitting machine the combination of an adjustable latch opening point, a yarn guide having its forward end beveled on the underside to engage needles riding over the latch opening point and force them downward and means for adjustably attaching said latch opening point and said yarn guide to the machine for the purpose set forth.

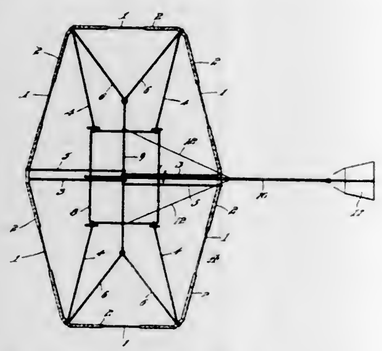
3. In a knitting machine the combination of an adjustable needle evener suitably mounted on the machine, a latch opening point mounted on said needle evener, and a yarn guide having its forward end beveled on the under side to engage needles riding over the latch opening point and force them downward for the purpose set forth.

4. In a knitting machine the combination of an adjustable needle evener suitably mounted on the machine, an adjustable latch opening point mounted on said needle evener, a yarn guide having its forward end beveled on the under side to engage needles riding over the latch opening point and force them downward for the purpose set forth.

5. In a knitting machine the yarn guide J with its stem H secured in the holder F, said holder being secured to the cam plate by the block D, screws in said holder F and block D for adjusting the holder and the stem H in combination with the needle evener I with its stem G mounted in the holder E, said holder being secured to the cam plate by the block C and screws in said block C and holder E for adjusting said holder E and stem G, substantially as and for the purpose specified.

[Claim 6 not printed in the Gazette.]

1,144,847. AEROPLANE. CARL JOHNSON, Cheakamus, British Columbia, Canada. Filed Sept. 16, 1914. Serial No. 861,963. (Cl. 244—21.)



1. In an aeroplane, the combination of a plane comprising a frame variable in size, and a flexible central portion, the periphery of which is secured to said frame; and two sets of substantially radially disposed rods having their outer ends pivotally connected with said frame, adapted to hold the latter in distended condition so as to retain said central portion drawn taut, the inner ends of the rods of each of said sets being pivotally connected together, and said sets of rods being adapted to rock in opposite directions from the plane of said frame to cause contraction of the size of the latter and permit of the central portion of the plane assuming parachute form, substantially as described.

2. In an aeroplane, the combination of a plane comprising a frame variable in size, and a flexible central portion having its periphery secured to said frame; and means for releasably holding said frame in distended condition so as to retain said central portion drawn taut, said means being adapted to move in opposite directions from the plane of said frame to cause contraction of the size of the latter and permit of the central portion of the plane assuming parachute form, substantially as described.

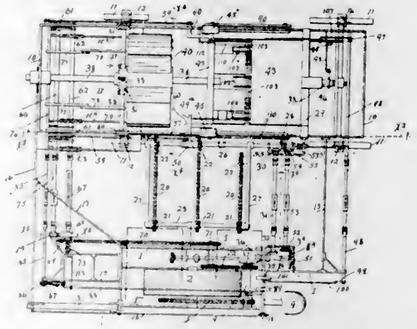
3. In an aeroplane, the combination of a plane comprising a frame adjustable in size, and a flexible central portion having its periphery secured to said frame; two sets of rods having their outer ends pivotally connected with said frame, the inner extremities of the rods of each of said sets being pivotally connected, said sets of rods projecting angularly in opposite directions from the plane of said frame to contract the latter and permit of said central portion of said plane assuming parachute form; and means for rocking said inner ends of said sets of rods toward each other to distend said frame and cause the central portion of said plane to be drawn taut, substantially as described.

4. In an aeroplane, the combination of a normally substantially flat plane; means for distorting said plane into parachute form; and a pivotally mounted rudder-carrying arm adapted to assume a perpendicular position when said plane is in parachute form, substantially as described.

5. In an aeroplane, the combination of a plane comprising a frame adjustable in size, and a flexible central portion having its periphery secured to said frame; two sets of rods having their outer ends pivotally connected with said frame, the inner extremities of the rods of each of said sets being pivotally connected, said sets of rods projecting angularly in opposite directions from the plane of said frame to contract the latter and permit of said central portion of said plane assuming parachute form; means for rocking said inner ends of said sets of rods toward each other to distend said frame and cause the central portion of said plane to be drawn taut; and a pivotally mounted rudder-carrying arm connected with said frame adapted to assume a perpendicular position when said plane is in parachute form, substantially as described.

[Claim 6 not printed in the Gazette.]

1,144,848. GRAIN-SHOCKER FOR HARVESTERS. KARL A. JOHNSON, Olivia, Minn. Filed Sept. 13, 1913, Serial No. 789,690. Renewed Jan. 18, 1915. Serial No. 2,979. (Cl. 56—121.)



1. A shocker comprising a reel normally disposed with its axis in an approximately horizontal position and rotatably movable to accumulate the bundles therein, a cylindrical casing surrounding said reel and having a lateral opening for receiving the bundles, and means for turning the said reel into an approximately upright position to discharge the accumulated shock therefrom.

2. A shocker comprising a casing having a lateral opening for receiving the bundles, a reel normally disposed with its axis in an approximately horizontal position, and working in said casing, rotatably movable to accumulate a shock of bundles within said casing, and means for moving said casing and reel into an upright position to discharge the accumulated shock.

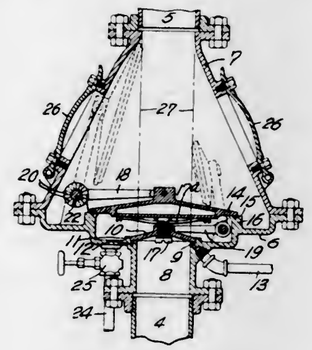
3. In a shocker, the combination with a truck, of an approximately horizontal casing carried by said truck and having a lateral opening for receiving the bundles, a reel having a horizontal axis working in said casing, rotatably movable to accumulate a shock of bundles within said casing, and means for moving said casing and reel into an upright position to discharge the shock of accumulated bundles therefrom.

4. In a shocker, the combination with a truck, of an approximately horizontal casing carried by said truck and having a lateral opening for receiving the bundles, a reel having a horizontal axis and working in said casing, rotatably movable to accumulate a shock of bundles within said casing, and means for moving said casing and reel into an upright position to discharge the shock of accumulated bundles therefrom, the said casing and reel having a rearward movement in respect to said truck in the shock discharging action.

5. In a shocker, the combination with a truck, of an approximately horizontal casing carried by said truck and having a lateral opening for receiving the bundles, a reel having a horizontal axis and working in said casing, rotatably movable to accumulate a shock of bundles within said casing, means for moving said casing and reel into an upright position to discharge the shock of accumulated bundles therefrom, forks applied to said casing and engageable with the buindles contained therein to prevent premature discharge thereof, means for causing said forks to engage the bundles as the said casing and reel are moved to an upright position, and means for operating said forks to release the bundles while said casing and reel are in an upright position.

[Claims 6 to 22 not printed in the Gazette.]

1,144,849. DRY-PIPE VALVE. PAUL D. KINGBERRY and WARREN J. MCCARTHY, Montreal, Quebec, Canada. Filed May 25, 1914. Serial No. 840,850. (Cl. 169—23.)



1. In a dry pipe valve, a water valve, a separate and larger air valve, and an adjustable abutment on the water valve engageable by the air valve.

2. In a dry pipe valve, a pivotally mounted water valve, a larger air valve pivotally mounted at a different center from the water valve, and an adjustable abutment for the air valve carried by the water valve.

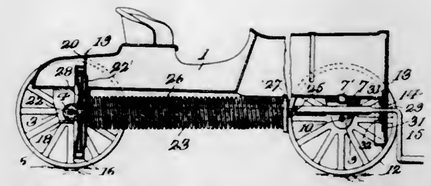
3. In a dry pipe valve, a water valve, a seat therefor in the form of a groove substantially triangular in cross section, a narrower groove below said seat communicating therewith, an outlet from said lower groove, and an upstanding flange surrounding said valve seat arranged to force the water of leakage from said groove outlet.

4. In a dry pipe valve, a water valve, a separate air valve, and a resilient member carried by the air valve arranged to hold the water valve firmly seated.

5. In a dry pipe valve, a water valve, a separate air valve, an adjustable abutment on the water valve, and a resilient member carried by the air valve engageable with said abutment during closed valve position.

[Claims 6 to 8 not printed in the Gazette.]

1,144,850. SELF-PROPELLED TOY VEHICLE. HARRY T. KINGSBURY, Keene, N. H. Filed May 8, 1913. Serial No. 766,333. (Cl. 46—48.)



1. A self-propelled toy comprising a body portion, a rear axle, supporting wheel rigid on said axle, forward supporting wheels, a crank rotatably mounted in the forward end of the body portion, and extending adjacent the rear axle, a gear loosely mounted on the rear end of the crank, a pinion carried by the rear axle and meshing with the gear, a spiral spring surrounding the rear end of the crank and having one end secured thereto and the opposite end secured to the gear, and a ratchet carried by the crank at the forward end of the body and longitudinally movable thereon, and a pawl carried by the body portion and engaging the ratchet.

2. A self-propelled toy comprising a body portion, a rear axle, supporting wheels rigidly carried by the axle, forward supporting wheels carried by the body, a crank on the outside of the forward end of the body and extending adjacent the rear axle, a spiral spring on said crank, for rotating the rear axle, the forward end of the crank having a rectangular portion, a ratchet having a corresponding opening to receive the crank longitudinally movable thereon, and a pawl carried by the body and engaging the ratchet.

3. A self-propelled toy comprising a body portion, a rear axle, supporting wheels carried thereby, forward supporting wheels, a crank extending from the forward end of the body to the drive wheel, a spring secured to the crank and adapted to drive the rear axle, a ratchet carried by the forward end of the crank longitudinally movable thereon on the inside of the body, a pawl slidably supported by the body and surrounding the crank and adapted to engage the opposite sides of the ratchet.

4. A self-propelled toy comprising a body portion, a rear axle, wheels carried thereby, forward wheels, a crank extending through the front of the body portion and extending adjacent the rear axle, a spring secured to the crank and adapted to drive the rear axle, a ratchet longitudinally movable on the crank on the inside of the body portion but held against rotation, a pawl horizontally slidably mounted in the body portion and holding the ratchet between it and the body portion and surrounding the shaft and adapted to engage the opposite sides of the ratchet, whereby the crank may be operated in one direction.

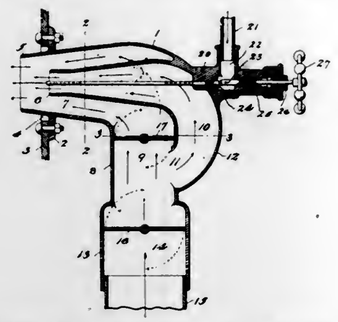
5. A self-propelled toy comprising a body portion, a rear drive axle and wheels, forward wheels, a crank passing through the front of the body portion and extending adjacent the rear axle, a spring connected to the crank and adapted to drive the rear axle, a ratchet movable on the crank but held against rotation, a plate on the inside of the ratchet and having a slot through which the crank passes, outwardly extending pawls carried by the plate on opposite sides of the ratchet and horizontally movably supported in the body portion and adapted to engage opposite sides of the ratchet.

[Claims 6 to 8 not printed in the Gazette.]

1,144,851. HYDROCARBON-BURNER. ROBERT G. KIRKWOOD, Pittsburgh, Pa. Filed Aug. 8, 1911. Serial No. 642,977. (Cl. 158—76.)

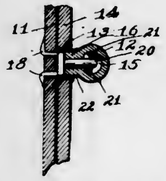
An integral casing formed with an inlet pipe having a valve therein, an outlet nozzle, and an outwardly curved back wall between these members, a blast nozzle in the outlet nozzle with walls projecting from the wall at the

rear of the outlet nozzle, and both nozzles having inlet openings in direct communication with the inlet pipe, a



valve regulating the inlet opening to the outlet nozzle, and an oil feed pipe extended through the blast nozzle.

1,144,852. SHOE-BUTTON. JOSEPH KOPECZKY, Racine, Wis. Filed Mar. 11, 1914. Serial No. 823,949. (Cl. 24—109.)



A shoe fastening comprising a disk-shaped member provided with integral securing prongs on its inner side adapted to be secured to the inner flap of a shoe, and a centrally projecting cylindrical shaft on its outer end formed adjacent to its outer end with diametrically opposite radial lugs, a detachable member of hollow globular form open at its inner side, a tubular neck within the inner portion of the detachable member communicating at its outer end with the hollow portion thereof, and formed with a central opening to receive said cylindrical shaft, and diametrically opposite slots in said neck portion to permit the passage of said radial lugs into the hollow globular member, a shoulder formed at the inner end of the tubular neck, said button adapted to be turned to cause its shoulder to engage said lugs, and a tubular member surrounding said neck contacting the same throughout its length and formed on its inner edge with projecting teeth to engage the button flap to prevent turning of the button, said teeth being disposed in parallel relation with said neck.

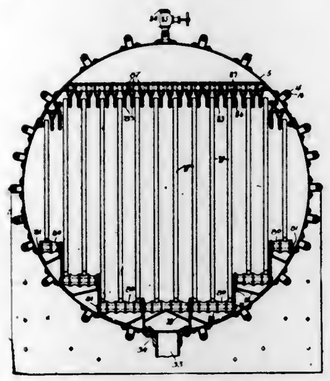
1,144,853. LENSES FOR EYEGLASSES AND SPECTACLES. EUGÈNE W. LAISNÉ, Fresno, Cal. Filed Oct. 26, 1914. Serial No. 868,746. (Cl. 88—54.)



1. In eyeglasses or spectacles, a pair of prismatic lenses having their bases uppermost and operative to deflect the lines of vision of both eyes of the wearer upwardly from the normal.

2. In eyeglasses or spectacles, a pair of prismatic lenses, both lenses having their bases uppermost, and a mounting for supporting the lenses in such position before the eyes of the wearer.

1,144,854. FILTER. WILLIAM POOLE LASS, Treadwell, Alaska. Filed Sept. 30, 1912. Serial No. 723,064. (Cl. 75—86.)



1. In a filter, a drum, a plurality of supports on the inner face of the lower portion of the drum, said supports consisting of a set of spaced brackets at each side of the center of the drum, means connecting the adjacent brackets of the sets together at the top of the brackets, and means connecting the top of each bracket of each set of brackets, with the bottom of the next adjacent bracket, a plurality of filter leaves resting upon the supports, and guides in the upper part of the drum and between which the upper ends of the leaves extend.

2. In a filter, a drum, a plurality of step-shaped brackets mounted on the inner face of the lower portion of the drum, a plurality of rollers mounted in each bracket, a plurality of filter leaves, each resting on a roller, and a plurality of guides in the upper part of the drum between which the upper ends of the leaves extend.

3. In a filter, a drum, a plurality of rollers mounted in the lower portion of the drum, guides in the upper part of the drum, and a plurality of filter leaves, each resting on a roller and having its upper end extending between the guides.

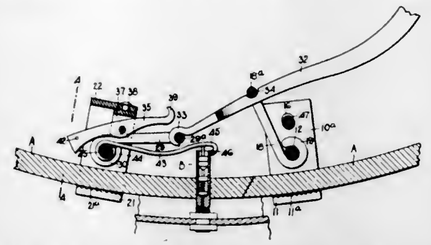
4. In a filter, a drum, a plurality of rollers mounted in the lower part of the drum, a plurality of guides in the upper part of the drum, a plurality of filter plates, each resting on a roller and having its upper end extending between the guides, and spray pipes carried by the guides.

5. In a filter, a drum, a support in the lower part of the drum, a plurality of guides in the upper part of the drum, a plurality of filter leaves resting on the support and each having its upper end extending between two guides, and a spray pipe carried by each guide.

1,144,855. COMPRESSOR FOR DEMOUNTABLE RIMS. HARRY E. LEE, Grandview, Ohio. Filed Dec. 1, 1914. Serial No. 875,037. (Cl. 29—84.)

1. In a device of the character described, separate clamps to grip opposed members to be moved toward each other, actuating means to draw said clamps toward each other, the clamps having elements to be engaged by said actuating means, and latch means to effect latched engagement between the clamps and prevent separation thereof when the actuating means have drawn the clamps toward each other, said latch means comprising mating elements on the respective clamps engageable by a movement of the actuating means.

2. In a device of the character described, separate clamps adapted to engage two opposed members to draw the latter toward each other, a swing bail on each clamp adapted to receive an actuating device to draw the clamps toward each other, and a latch on one clamp movable into latched engagement with the bail of the other clamp.



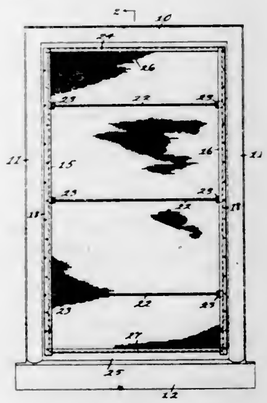
3. In a device of the character described, separate clamps adapted to engage two opposed members to draw the latter toward each other, a swing bail on one clamp disposed toward the second clamp, a swing bail on said second clamp and adapted to overlap the first bail when the clamps are moved toward each other, a latch on the second clamp adjacent the bail thereof, and having a hook to engage the opposite bail, and a lever adapted to engage said bails to draw the clamps toward each other and engage the one bail with the said latch.

4. In a device of the character described, separate clamps adapted to grip the adjacent ends of the split demountable rim, an element on one clamp to bear on the inner end of a valve tube at the inside of the rim, a lever to draw the clamps toward each other, and members on the respective clamps to engage the lever, one of said members being disposed adjacent to the element that bears on the valve tube to dispose the lever adjacent to said element.

5. In a device of the character described, separate clamps adapted to grip the adjacent ends of the split demountable rim, means whereby to draw the clamps toward each other, and means to exert displacing pressure on the valve at the inside of the rim as the clamps approach each other.

[Claims 6 and 7 not printed in the Gazette.]

1,144,856. SCREEN. JOHN AMBROSE LENHOFF, Wilmington, Del. Filed Oct. 9, 1914. Serial No. 865,823. (Cl. 156—39.)



1. A device of the class described, comprising permanent side guides formed of metal, a screen movable therein, said guides being cut away to admit and remove said screen, a flanged stay member at the top of said screen, a flanged stay member at the bottom of said screen, said stay members comprising a strip of metal bent into U formation to inclose the screen and being then bent at right angles at a point intermediate therewith to form a flange perpendicular to the plane of the screen, and a screw-eye supporting the upper stay, beneath the flange thereof to suspend said screen.

2. A device of the class described, comprising permanent side guides formed of metal, a screen movable therein, said guides being cut away to admit and remove said screen, a flanged stay member at the top of said screen, a flanged stay member at the bottom of said screen, means for suspending said screen, a plurality of transverse braces for said screen, and a socketed clip at each end of each of said braces, each of said clips comprising a strip of sheet metal bent into substantially U formation to inclose the corresponding end of a brace and the corresponding edge of the screen.

1,144,857. BANKING-PIN FOR WATCHES, CLOCKS, AND THE LIKE. WILLIAM T. MALONEY, Trenton, N. J., assignor to Robt. H. Ingersoll & Bro., a Joint-Stock Association of New York. Filed Jan. 8, 1914. Serial No. 811,043. (Cl. 58—121.)



1. A banking pin of U-shape having prong portions to be thrust through a supporting plate and held by contact with the said plate.

2. In combination in a watch, an escapement lever, a supporting plate and banking pins consisting of one piece in U-shape providing two banking portions extending through the plate and projecting therefrom on one side and receiving the escapement lever between them, substantially as described.

3. In combination in a watch, an escapement lever, a supporting plate and banking pins consisting of one piece in U-shape with the two banking portions extending through and projecting from the plate on one side, the position of the pins in the plate being determined by the relation of the cross piece to the surface of the plate, substantially as described.

4. Interchangeable banking pins for watches of U-shape having the same exterior width at the portions that bear in the supporting plate and different interior widths at the points of contact of the escapement lever, substantially as described.

5. In combination an escapement lever, a supporting plate having an opening, and banking pins of one piece in U-shape inserted in said opening, said opening being adapted to receive U-shaped pins of one exterior width but of different interior widths at their points of contact with the escapement lever.

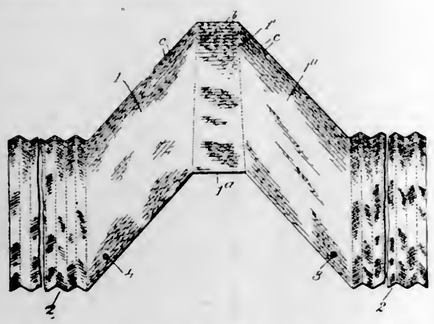
1,144,858. MUFFLER. SOLOMON MEYERS, Seattle, Wash., assignor, by mesne assignments, to The N. J. Rich Company, Cleveland, Ohio, a Corporation of Ohio. Filed July 15, 1909. Serial No. 507,868. (Cl. 2—59.)

1. A muffler of the class described, comprising integrally flat-knit end-portions and an intermediate neck-portion having two diagonally-knit sections racked each half round and a straight central section racked each round, substantially as set forth.

2. An integral flat-knit muffler, comprising end-portions in substantial alinement and a connecting shaped neck-portion comprising two offset sections ribbed diagonally but continuously and a straight ribbed central section, and fastening means for holding the end sections in an overlapped position at the front of the wearer's throat, substantially as set forth.

3. A flat-knit muffler, comprising two integral ends and a neck-portion, said neck-portion having two diagonally-knit sections forming obtuse angles directly with the respective ends, and being united by a substantially rectangular intermediate section, substantially as set forth.

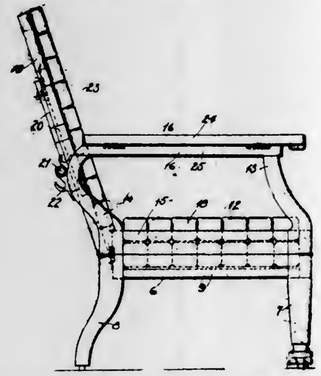
4. A muffler comprising integrally-knitted ends and a connecting neck-portion, consisting of three ribbed sections; two of which extend diagonally from the end-portions and the other section being intermediately positioned in offset relation with the remainder of the muffler., whereby a close-fitting non-curling neck-portion is obtained, substantially as set forth.



5. An integral flat-knit muffler, comprising two end-portions in substantial alinement; two connecting diagonal neck-portions, the stitches being racked each half round, and a straight back-portion, the stitches being racked each round, to form an elastic integral rear member, substantially as set forth.

[Claims 6 to 13 not printed in the Gazette.]

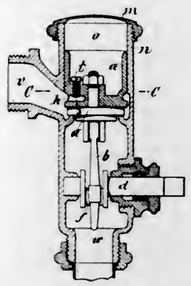
1,144,859. COMBINATION MORRIS CHAIR AND COUCH. DOMENICO NASCA, New York, N. Y. Filed Aug. 5, 1914. Serial No. 855,175. (Cl. 155—6.)



In a combination Morris chair and couch, a main section, a seat section hinged thereto, a back portion hinged to the main section and having means for maintaining it in a predetermined fixed relation to said main section when the chair is transformed into a couch, and arms on said seat section adapted to form a support therefor when the chair is transformed into a couch, said arms being formed of foldable sections to prevent injury to the polished surface when said arms are used as supports.

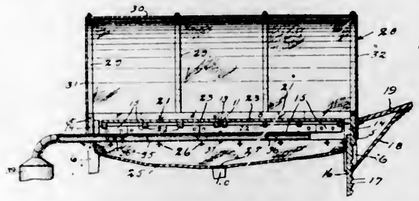
1,144,860. SELF-CLOSING VALVE. ROCCO OSVALDELLA, Trieste, Austria-Hungary. Filed Apr. 10, 1913. Serial No. 760,197. (Cl. 137—93.)

A casing having an inlet, an outlet, an intermediate valve seat and a chamber disposed above said valve seat, a piston valve adapted to seat on said valve seat and to reciprocate in said chamber, an adjustable screw threaded into said piston valve, a restricted passage way connecting said inlet and said chamber, said passage way comprising coöperating channels in said screw and the wall of the opening receiving said screw, each channel being semi-circular in transverse section, a link depending from said piston valve, said link being bifurcated at its lower end, a shaft journaled centrally of said outlet and provided with a crank pin loosely receiving the bifurcated end



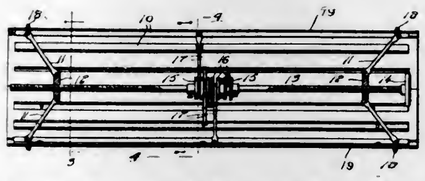
of said link, and a crank secured to said shaft exteriorly of the casing and provided at its outer end with a weighted handle, said crank being normally disposed in a vertical line with the weighted handle lowermost and adapted to describe a complete revolution in the opening of the piston valve.

1,144,861. TAKE-DOWN VAPOR-BATH CABINET. BENJAMIN PAYEUR, Winona, Minn. Filed Aug. 3, 1914. Serial No. 854,798. (Cl. 4—13.)



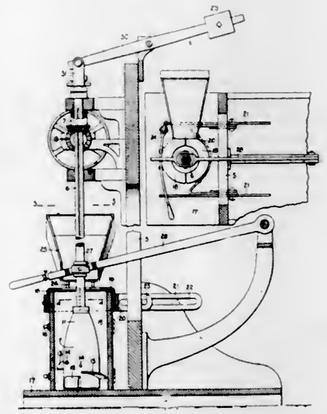
A vapor bath cabinet comprising end bars, corner legs secured thereto, side bars connected with said legs, a pair of side bars hinged upon the free ends of one pair of said first named side bars and swingable outwardly thereon, another pair of side bars hinged upon the free ends of the other pair of said first named side bars and carrying legs upon their free ends, cleats secured upon the inner faces of said end bars, other cleats secured upon said side bars and having their joints in staggered relation to said hinged joints and said second named legs, a transverse brace rod connected with said last named pair of side bars, a slatted bottom resting upon said cleats, an apron extending across the lower portion of said frame, a hood extending over said frame and means for supplying vapor to the cabinet thus formed.

1,144,862. ADJUSTABLE CULVERT-FORM. ELMER E. PEOPLES and ROBERT E. LEE, New Comerstown, Ohio. Filed Oct. 30, 1913. Serial No. 798,311. (Cl. 25—128.)



A culvert mold comprising an oppositely threaded rotatable bar, hubs mounted on the threaded portions of the bar, radial spokes pivotally connected to the hubs, longitudinally extending parallel angle bars arranged in a circular series and pivotally connected to the outer ends of the said spokes, curved plates supported by the angle bars, loosely mounted disks on the central portion of the threaded bar, and radial spokes loosely secured in pairs between the said disks and rigidly connected to the said angle plates.

1,144,863. DRAIN-TILE MOLDER. OLUFF POULSON, Brigham, Utah. Filed Feb. 4, 1915. Serial No. 6,046. (Cl. 25—35.)



1. In a mechanical drain tile molder, a rotary core having a pair of diametrically opposite arcuate wedges on the lateral surface of the core adjacent the bottom thereof, helical blades on the lateral surface between the wedges and above the same, and pins between the edges of the blades and wedges and above the edges of the blades.

2. In a mechanical drain tile molder, a rotary core comprising a projectile shaped body, a pair of diametrically opposite projections on the lateral surface of said body adjacent its larger end, said projections adapted to polish the plastic material within the mold when the same is rotated, a pair of helical blades on the lateral surface of the body between and above the projections and symmetrical therewith, said blades adapted to pack the plastic material within the mold, and stirring pins carried by said body above the edges of the blades and symmetrical with respect to the projections and the blades.

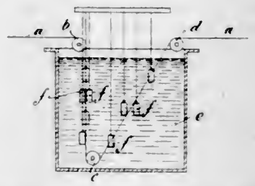
3. In a mechanical drain tile molder, a rotary core comprising a projectile shaped body having adjacent its larger end on the lateral surface thereof, stirrers, packers below said stirrers and symmetrical therewith, and facers below said packers and symmetrical with said stirrers and packers.

4. In a mechanical drain tile molder, a rotary core, a cylindrical, hollow, sectional mold adapted to inclose the core, a sectional dish-shaped cap adapted to engage one edge of the mold, means for locking the sections of the mold, and means whereby said cap sections can be moved apart and thereby disengaged from the mold edge, substantially as and for the purpose set forth.

5. In a mechanical drain tile molder, a hollow, cylindrical, sectional mold, means for maintaining the sections together, a dish-shaped cap formed of two sections, a guide carrying one of the sections in predetermined relation with the mold, a lever carrying the other section of the cap and associated with the guide, whereby the two sections may be locked together and maintained concentric with the mold, said cap having a central opening for admitting plastic material therethrough into the mold.

[Claims 6 to 8 not printed in the Gazette.]

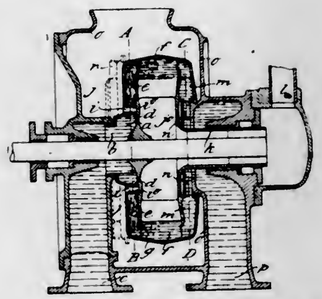
1,144,864. APPARATUS FOR CLEANING YARN. EMIL PAEIN, Hanover, Germany, assignor to Prein-Gewebe Actien-Gesellschaft, Hanover-Linden, Germany, a Firm. Filed Sept. 24, 1913. Serial No. 791,539. (Cl. 28—7.)



1. Apparatus for treating yarn comprising a tank, rolls for supporting and guiding the yarn in transit through the tank, and floating bodies in the line of travel of the yarn and on opposite sides thereof.

2. In apparatus for treating yarn having a liquid holding tank and rolls for supporting and guiding the yarn through the liquid in the tank, bodies having roughened surfaces freely suspended in the liquid and in the line of travel of the yarn, to remove by friction the extraneous fibers from the yarn.

1,144,865. ROTARY PUMP, CONDENSER, OR COMPRESSOR. EDMUND SCOTT GUSTAVE REES, Wolverhampton, England. Filed Dec. 8, 1911. Serial No. 664,545. (Cl. 230—14.)



1. A rotary pump, condenser or compressor based upon the principle of the trompe and comprising in one integral rotating structure a water pump member and ejector, a compressor and a collector, and means for introducing the gas or vapor to be entrained into the rotating structure near the periphery of the water pumping portion thereof.

2. A rotary trompe comprising a centrifugal water pump impeller connected with a water supply, an ejector device at the periphery of the water pumping portion of the impeller and connected with a gaseous fluid space, a centrifugal collector or separator into which the ejector discharges, the said impeller, ejector and collector forming an integral rotating structure, and means for discharging the uncondensed gases and the water separately from the collector.

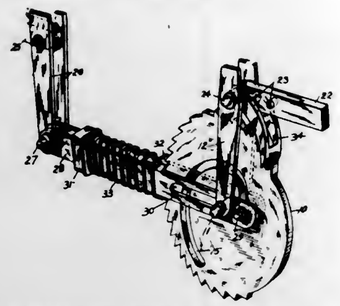
3. A rotary trompe comprising, on one integral rotating structure a centrifugal pump and ejector, a water sealed tank rotating therewith, outwardly directed ducts leading from the ejector to the said tank, inwardly directed ducts leading from the water space of said tank, and a collecting pipe leading from the interior of the said tank.

4. A rotary trompe comprising a centrifugal ejector, a water sealed tank rotating therewith, outwardly directed ducts leading from the ejector to the said tank, an additional pump impeller rotating with the ejector and tank, inwardly directed ducts leading from the water space of said tank to the inlet of the additional impeller, and a collecting pipe leading from the interior of the tank.

5. A rotary trompe consisting of a rotary ejector and water sealed tank and means for discharging separately the water and gases collected in the tank, the said rotary ejector comprising a centrifugal pump impeller connected with a water supply, outwardly directed ducts leading from the impeller to the water sealed tank, and ejector nozzles constituted by transverse pipes open at one end placed in said ducts and having lateral openings thereto.

[Claims 6 to 8 not printed in the Gazette.]

1,144,866. SLACK-ADJUSTER. HUGH ROSE, Stanmore, New South Wales, Australia. Filed June 6, 1914. Serial No. 843,520. (Cl. 188—49.)



1. In a brake lever system, a brake lever, a ratchet wheel journaled in one end of the brake lever, and provided with a cam slot, a pawl carried by the lever and engaging the ratchet wheel to rotate the same, an adjusting link having a pin at one end engaging said cam slot, and a longitudinal slot in said adjusting link adjacent said end, through which the journal pin of the ratchet wheel extends, and a stop pawl mounted to slide on the adjusting link and engaging said ratchet wheel.

2. In a slack adjuster for brakes the combination with the brake blocks, of a ratchet wheel having an eccentrically curved slot, an adjusted link having a pin at one end engaging said slot, a brake lever in which said ratchet wheel is mounted to turn, a pawl carried by said lever and engaging the ratchet wheel to rotate the same, the said adjusting link having a longitudinal slot through which the journal pin of the ratchet wheel extends, a second lever pivotally connected with the other end of said adjusting link, link connections between the said levers and the brake shoes, a stop pawl mounted to slide on the adjusting link and adapted to engage the teeth of the ratchet wheel, and a spring held on said adjusting link and bearing on the said stop pawl.

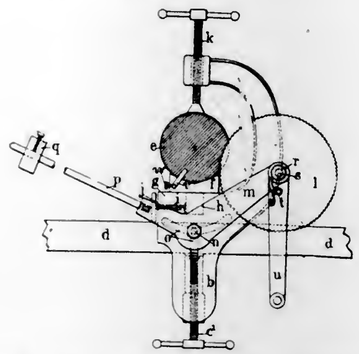
3. In an automatic slack adjuster for brakes, the combination with the brakes, and operating levers therefor, of adjusting links associated with the brakes, ratchet wheels journaled in the levers, and provided with cam slots, each adjusting link being provided with a longitudinal slot adjacent one end through which the journal pin of a ratchet wheel extends, the adjusting link having at said end a pin engaging the cam slot of said ratchet wheel, the said ratchet wheels acting on the adjusting links to adjust the same whereby the slack on the brake shoes is taken up, pawls carried by the operating levers for actuating the ratchet wheels automatically as the brake shoes wear, and spring pressed stop pawls mounted to slide on the adjusting links and engaging the ratchet wheels.

4. An automatic slack adjuster for brakes, comprising a brake lever, a ratchet wheel journaled in one end of the brake lever and provided with a cam slot, a pawl carried by the lever and engaging the ratchet wheel to rotate the same, an adjusting link having a longitudinal slot adjacent one end through which the journal pin of the ratchet wheel extends, the said adjusting link being provided at said end with a pin engaging the said cam slot, a collar on the adjusting link, a stop pawl mounted to slide on the adjusting link, and a coil spring on said adjusting link and bearing against the collar and the said stop pawl.

5. In an automatic slack adjuster for brakes, a brake lever, a ratchet wheel journaled between the lower ends of the members of the brake lever and provided with a cam slot, an operating pawl pivoted to the operating lever and engaging the teeth of said ratchet wheel at one side thereof to rotate the ratchet wheel, a bifurcated adjusting link, the members of which extend on each side of the ratchet wheel, the adjusting link having a longitudinal slot adjacent one end through which the journal pin of the ratchet wheel extends, the said adjusting link being provided at said end with a pin connecting the members of said link and engaging the said cam slot, a stop pawl carried by the adjusting link and engaging the teeth of the ratchet wheel at the other end thereof, and a spring coiled around the members of the adjusting link and pressing on the said stop pawl.

[Claims 6 and 7 not printed in the Gazette.]

1,144,867. MACHINE FOR SAWING METALS. EDWIN OLAF ROTHMAN, London, England, assignor to Société Burton Fils, Paris, France. Filed Oct. 2, 1913. Serial No. 792,979. (Cl. 29—69.)



1. In a machine for sawing metals, a circular saw, a lever supporting said saw, a trunnion on which pivots said lever, and a frame having a slot in which said trunnion can move.

2. In a machine for sawing metals, a circular saw, a lever supporting said saw, a trunnion on which pivots said lever, a frame having a slot in which said trunnion can move, and means for securing the trunnion in its slot to said frame.

3. In a machine for sawing metals, a circular saw, a bent lever supporting said saw, a trunnion on which pivots said lever, and a frame having a curved slot in which said trunnion can move.

4. In a machine for sawing metals, a circular saw, a crank and a locking mechanism for controlling the saw, a lever supporting said saw, a trunnion on which pivots said lever, and a frame having a slot in which trunnion can move.

5. In a machine for sawing metals, a circular saw, a lever suporting said saw, a trunnion on which pivots said lever, a frame having a slot in which said trunnion can move, and an adjustable weight on the lever.

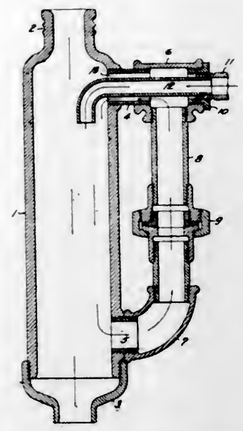
[Claims 6 to 8 not printed in the Gazette.]

1,144,868. MILK-HEATER. JEAN GUSTAVE ROY, Cap Chat, Quebec, Canada. Filed July 27, 1914. Serial No. 853,560. (Cl. 31—91.)

1. A device of the character described, comprising a body, a passage leading from the bottom to the top thereof, a steam pipe entering the body through the upper end of said passage and forming with the wall of the passage an annular orifice, the end of said steam pipe within the body being turned downwardly.

2. A device of the character described, comprising a body, enlarged intermediate its ends and adapted for a

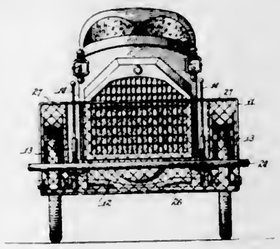
flow of liquid therethrough, means for injecting a heating agent into the body in substantially the direction of liquid flow, and means for abstracting a portion of the mixed liquid and heating agent and delivering the same into the body adjacent the point of entrance of the heating agent.



3. In a device of the character described, a body arranged for the mixing of a liquid and a heating agent, and means for delivering a portion of the heated liquid into the cold liquid simultaneously with the heating agent.

4. A device of the character described comprising a body, enlarged intermediate its ends, a T secured adjacent the inlet end of said body, a conduit for a heating agent passing through said T and discharging into the body and forming with the T an annular passage communicating with the body, and a pipe connecting the opposite end of the body with said annular passage.

1,144,869. FENDER FOR MOTOR-VEHICLES. JOHN W. SAUNDERS and OTTO K. FÖRSTER, Baltimore, Md. Filed Oct. 22, 1914. Serial No. 868,093. (Cl. 105—130.)



1. The combination with a motor vehicle of a fender-frame, vertical rods secured thereto, brackets attached to the vehicle and having bearing-sleeves through which the aforesaid rods pass for slidably supporting the fender-frame, horizontal rods slidably supported on the vehicle and extending in proximity to the vertical rods, conical collars on the vertical and horizontal rods, respectively, and adapted to engage one with the other for supporting the fender-frame normally in elevated position, and means for operating the horizontal rods.

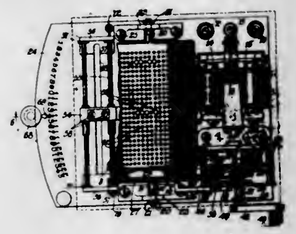
2. The combination with a motor vehicle of brackets attached thereto and each having a vertical and horizontal bearing-sleeves, a fender-frame, vertical rods secured thereto and passing through the vertical bearing-sleeves of the brackets, spring-actuated horizontal rods slidably mounted in the horizontal bearing sleeves of the brackets and extending to and in front of the vertical rods of the fender-frame, a cross-bar connecting the forward ends of said rods, and conical collars on the aforementioned vertical and horizontal rods and adapted to engage one with the other to hold the fender-frame normally in elevated position, substantially as shown and for the purpose set forth.

3. The combination with a motor vehicle of brackets attached thereto, a fender-frame, vertical rods secured thereto and slidable in the brackets, horizontal rods slidably mounted on the vehicle and extending to and in front of the vertical rods, a cross-bar connecting the forward ends of the horizontal rods, and conical collars on the aforementioned vertical ad horizontal rods adapted to engage with each other to support the fender-frame in elevated position, together with a bail connected to the horizontal rods, and an operating-lever connected to said bail, snbstantially as shown and for the purpose set forth.

4. The combination with a motor-vehicle of brackets attached thereto, a fender-frame, vertical rods secured thereto and slidable in the brackets, horizontal rods slidably mounted on the vehicle and extending to and in front of the vertical rods, a cross-bar connecting the forward ends of the horizontal rods, a conical collar on each vertical rod, and a companion conical collar on each horizontal rod engaging the other collar at the rear thereof, the horizontal rod being offset to one side in front of its collar to form a seat for the companion collar on the vertical rod, and springs for moving the horizontal rods forward, substantially as shown and for the purpose set forth.

5. The combination with a motor vehicle of a fender consisting of a wire frame having loops near its ends and horizontal rods extending between the loops and side bars of the fender-frame, netting covering the frame with the exception of the spaces within the loops, rods attached to the lower end of the fender-frame and extending upward between the members of the loops, and rollers at the lower end of said fender-frame; together with brackets on the vehicle in which the aforesaid vertical rods of the fender slide, horizontal rods slidably mounted on the vehicle and extending to and in front of the vertical rods of the fender, a cross-bar connecting the forward ends of the horizontal rods, said horizontal rods being offset to one side in the rear of the vertical rods, a conical collar on each horizontal rod in rear of the offset portion thereof, a conical collar on each vertical rod of the fender arranged to rest on the companion collar on the horizontal rod, and springs for moving the horizontal rods forward, substantially as shown and for the purpose set forth.

1,144,870. CODE-SIGNAL DEVICE. ALFRED L. SOHM, Chicago, Ill., assignor to Sohm Electric Signal & Recording Company, Chicago, Ill., a Corporation of Arizona. Filed Aug. 23, 1913. Serial No. 786,233. (Cl. 177—38.)



1. In combination a metal drum having a plurality of rows of sockets therein, removable metal pins secured in said sockets, said pins forming a plurality of code surfaces on the circumference of said drum, a metallic spring for closing contact with said code surfaces, a pin mechani-

cally connected to said spring but insulated therefrom, an index plate having a plurality of indicia thereupon corresponding to said code surfaces, said drum mounted on said plate and a slotted lever having a handle and pointer movable over said index plate, said pin engaging said slot.

2. In a code signaling device, a metallic drum, a plurality of rows of sockets in said drum, metal contact pins interchangeably fitting into said sockets, said pins having heads substantially contiguous when said pins are inserted in adjacent sockets, said pins thereby forming rods surfaces of various length, a contact spring having a sharp point for engaging said pins to close a circuit therethrough, said spring shiftable into alinement with each of said pins.

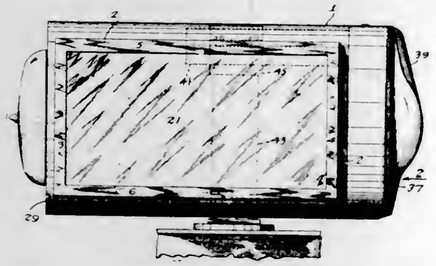
3. In a code signaling device, a metallic drum, a plurality of evenly spaced sockets therein, removable metal contact pins in said sockets, said pins having heads of a width substantially the same as the pitch of said sockets, said pins forming code projections of various lengths, a contact spring for coöperating with the heads of said pins to close a circuit for periods of various lengths, said spring shiftable into engagement with said pins.

4. In a code transmitter, a rotatable drum, a plurality of code projections of different length, said projections comprising a plurality of conducting pins placed adjacent each other on said drum, a relatively stationary contact for making electrical contact with said projecting surfaces, and means to rotate said drum to bring said code projections and said stationary contact into electrical connection.

5. In a code transmitter, a rotatable drum, a plurality of projecting code surfaces of different length arranged in rows on the surface of said drum, said projections comprising a plurality of conducting pins mounted adjacent each other on said drum, an adjustable contact comprising a spring having a pointed pin mounted thereon, said pin extending into the path of said code projections, and means to rotate said drum to bring said projections in contact with said pin.

[Claims 6 to 14 not printed in the Gazette.]

1,144,871. WEATHERPROOF ANNUNCIATOR-CASE. ALBERT STERN, Yonkers, and PHILIP K. STERN, New York, N. Y.; said Philip K. Stern assignor to said Albert Stern. Filed Feb. 25, 1913. Serial No. 750,610. (Cl. 177—324.)



1. In a case of the character described, a shell having an integral end; an oblated ring secured to the other end; a cap provided with a carrying arm and adapted to telescopically engage the oblated ring whereby the arm is spaced from the lateral surface of the shell.

2. In a case of the character described, a shell having a closed end and a rectangular, substantially prismatic apertured, protruding portion on the lateral surface thereof; a pane of glass in said prismatic portion screening said opening; and a cap having a carrying arm removably associated with the open end of the shell.

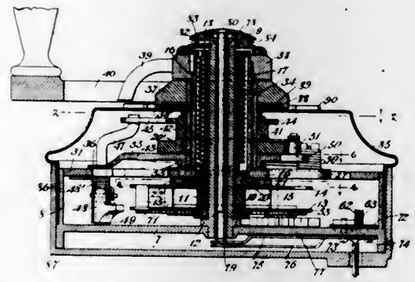
3. In a case of the character described, a tubular shell having a protruding, rectangular, substantially prismatic portion, including means forming a window for said shell, said shell being closed at one end; and a removable cap associated with the other end, said cap having a tubular carrying arm extending parallel to the shell and a duct therein registering with the other arm, whereby access may be had to said case through the arm and duct.

4. In a case of the character described, a shell having a closed end and a rectangular, substantially prismatic, apertured, protruding portion on the lateral surface of said shell; a pane of glass in said prismatic portion adapted to screen said aperture; resilient means associated with said pane of glass and prismatic portion for locking said pane of glass therein; an oblated ring associated with the open end of the shell; a cap fitting into said ring and having an extension exterior of said ring forming an elbow; and a tubular arm carried by said elbow, said cap having a reinforcing, hollow rib registering with said tubular arm whereby access may be had to the case.

5. In a case of the character described, a tubular shell closed at one end and having a rectangular, substantially prismatic, apertured portion on the lateral surface of the shell; a glass screening said aperture and forming a window for said shell; a ring rigid with the open end of the shell and having an oblated, lateral surface formed by an extension lateral of said shell; a cap fitting snugly into said ring and removably associated therewith, said cap having an extension forming an elbow above the extesion of the ring forming the oblated surface; a tubular arm carried by said elbow of the cap; and a hollow rib reinforcing the cap and forming a duct from the tubular arm into the case, whereby access may be had into said case.

[Claim 6 not printed in the Gazette.]

1,144,872. CONTROLLER. ALBERT STERN, Yonkers, N. Y. Filed Mar. 21, 1914. Serial No. 826,250. (Cl. 177—380.)



1. In a circuit controller of the make and break type, a pair of contacts normally tending to remain apart; a member adapted to bring said contacts together; a second member for operating said first member; a spring associated with the second member; and manually operable means associated with the last mentioned member whereby said spring can be energized a predetermined number of times, thus causing a corresponding number of contacts by the engagement of said second mentioned member with said first mentioned member.

2. In a circuit controller of make and break type, a pair of resilient contacts normally tending to remain apart; a toggle bearing against one of said contacts; a member for displacing said toggle whereby the contacts are brought together; manually operable means having a varying range of movement for displacing the member a predetermined number of times by a single displacement of said manually operable means; and a resilient member for restoring the above member to its normal position, the resiliency of said contact member engaging the toggle restoring the same to its normal position after the same has been displaced by said member.

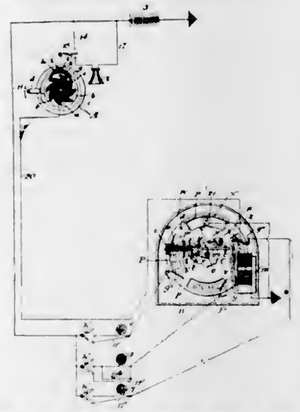
3. In a circuit controller of make and break type, a pair of resilient contacts normally tending to remain apart; an insulated toggle bearing against one of said contacts; a toothed sector having means for displacing said toggle whereby said contact members are brought together; manually operable means having a variable range of movement for displacing the sector, said sector being adapted to be displaced a variable, predetermined number of times by a single displacement of said manually operable means; a spring for maintaining said sector in normal position after the same has been displaced by said manually operable means, said sector displacing said toggle when the same is restored by said spring to its normal position, said resilient contacts being adapted to restore said toggle to its normal position after the same has been displaced by said sector; and an escapement mechanism meshing with said sector whereby the speed of said sector is controlled.

4. In a circuit controller of make and break type, a pair of resilient contacts normally tending to remain apart; an insulated toggle bearing against one of said contacts; a member for actuating said toggle; a resilient member for bringing said member to inoperative position; and means for displacing said member from its inoperative position to a predetermined number of times by a single displacement of said means, said toggle and member being so related that when said member is displaced from its normal position by said means there is substantially no displacement of said toggle, but when said member is restored by the spring to its normal position, a material displacement of the toggle takes place before the same can pass said member, whereby said contacts are brought together.

5. In a circuit controller of make and break type, a pair of resilient contacts normally tending to remain apart; an insulated toggle bearing against one of said contacts; a member for actuating said toggle; a resilient member for bringing said member to inoperative position; and means for displacing said member from its inoperative position a predetermined number of times by a single displacement of said means, said toggle and members being so related that when said member is displaced from its normal position by said means there is substantially no displacement of said toggle, but when said member is restored by the spring to its normal position, a material displacement of the toggle takes place before the same can pass said member, whereby said contacts are brought together; and a regulator associated with said member for regulating its movement caused by the spring tending to restore said member to its normal position and whereby the contact caused by the toggle is prolonged.

[Claims 6 to 32 not printed in the Gazette.]

1,144,873. SIGNALING SYSTEM. ALBERT STERN, Yonkers, and PHILIP K. STERN, deceased, New York, N. Y., by Elizabeth L. Stern, New York, N. Y., executrix; said Elizabeth L. Stern assignor to said Albert Stern. Filed Apr. 22, 1914. Serial No. 833,766. (Cl. 40—55.)

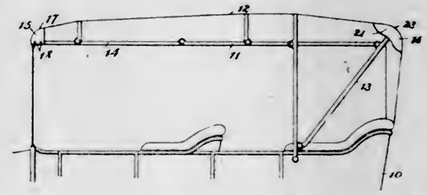


1. In a signaling system, an annunciator comprising a casing having an opening, a member carrying differently colored signs mounted to rotate in said casing, means for operating said member whereby the differently colored signs can be brought in register with the opening in the casing, a lamp in said casing for illuminating the signs, a lamp for each of the colored signs colored similarly to the corresponding sign, a circuit for all of said lamps, and means carried by said member carrying the signs for controlling the circuit, whereby when one of said colored signs is in register with the opening of the casing, the lamp in the casing and the lamp colored to correspond to the sign registering with the opening are illuminated.

2. In a signaling system, an annunciator comprising a casing having an opening, a member carrying differently colored signs mounted to rotate in said casing, means for operating said member whereby any of the colored signs can be brought in register with the opening of the casing, a lamp in said casing, lamps colored similarly to the signs, contacting points in said casing, each in connection with a colored lamp, an electric circuit for all of said lamps, and a member carried by said sign-carrying member adapted to complete the circuit by engaging the contact of a lamp colored similarly to the sign when the same is in register with the opening of the casing, the lamp in the casing being so related to said member completing the circuit that the same is always in the circuit when any of the colored lamps is illuminated.

3. In a signaling system, an annunciator having a member mounted to rotate, said member adapted to carry signs of different color, a ratchet associated with said member, a pawl engaging said ratchet and preventing the retracting movement thereof, an arm mounted to swing in the axis of the ratchet, a spring-actuated pawl carried by said arm and engaging said ratchet, a pin on said arm, a slide having a slot engaging said pin, a spring tending to maintain said slide in a predetermined position, and an electromagnetic arrangement associated with said slide whereby the same can be moved and whereby said arm is caused to swing, the return movement of said slide being obtained by the spring, whereby the ratchet is caused to turn substantially as and for the purpose set forth.

1,144,874. FORM FOR FRONT AND REAR OF AUTOMOBILE-TOPS. ARTHUR H. STOKES, Detroit, Mich. Filed June 1, 1914. Serial No. 842,057. (Cl. 21—62.)



1. The combination with a vehicle top provided with bows; of a convexly arcuate shaping device extended transversely across said top at one end thereof and having end members arranged longitudinally of said top, and means for securing the device to the respective bow.

2. The combination with a vehicle top provided with bows; of a convexly arcuate shaping device extended transversely across said top at one end thereof and having end members arranged longitudinally of said top, the connection of the end members being rounded to shape a cover, and means for securing said device and cover to the respective bow.

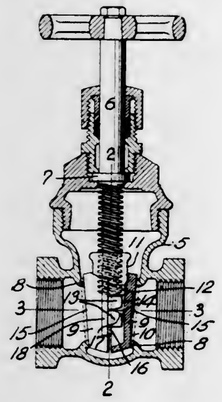
3. In a form for automobile tops, the combination with a bow; of a sheet metal device shaped in convex form and bent lengthwise to fit the curvature of the bow and having a plurality of openings arranged longitudinally therein, and means for securing the device to said bow through said openings.

4. The combination with the bows of a vehicle top; of a former to cause the cover of the top to take a rounding effect, said former comprising a sheet metal member convexly bent with rounded ends and having a plurality of

openings longitudinally thereof, braces connecting the former to a bow and a cover attached to the bow through the openings.

5. The combination with the bows of a vehicle top; of a former to cause the cover of the top to take a rounding effect, said former comprising a sheet metal member convexly bent with rounded ends and having a plurality of longitudinal slots and intermediate openings, braces connecting the former to a bow, and a cover attached to the bow through the slots.

1,144,875. VALVE. CHARLES L. STRECKLER, Montreal, Quebec, Canada. Filed Apr. 8, 1913. Serial No. 759,670. (Cl. 137—5.)



1. In a valve, a body, a two part gate having seat surfaces on opposite sides thereof, a pair of lugs on each gate member having spherically curved outer surfaces, and recesses in each gate member having spherically curved bottoms for the reception of the lugs of the other gate member.

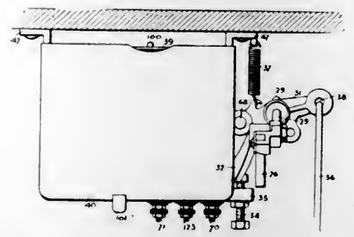
2. In a valve, a body, a gate composed of two similar members, a pair of lugs on each gate member, and a pair of recesses in each gate member positioned to receive the lugs of the other member, said lugs and recesses having their abutting surfaces spherically curved, the center of said curvature being at the center of the outer side of said gate.

3. In a valve, a body, a gate comprising two similar members having seat surfaces on their remote faces, a pair of lugs and a pair of recesses formed on the adjacent faces of said members, the lugs of one member being positioned to engage in the recesses of the other member, said lugs having their outer surfaces spherically curved from a center coincident with the center of the seating face, and said recesses having their bottoms spherically curved from a center coincident with the center of the seating face of the other member.

1,144,876. STARTING-BOX. MAX TAIGMAN, New York, N. Y. Filed Apr. 9, 1914. Serial No. 830,675. (Cl. 172—179.)

1. An apparatus . . characterized, having a box-like body; a plurality of electric main terminals; a resistance coil mounted in said body, said coil having a plurality of section terminals; a plurality of terminal buttons, each electrically connected with one of said section terminals; a switch movable over said buttons, said switch having a circuit terminal; and a cover for said body, adapted to connect the terminal of said switch and the other of said main terminals.

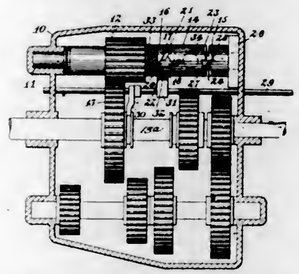
2. An apparatus as characterized, having a box-like body; a plurality of main circuit terminals mounted on said body; a rheostat embodying coil section terminals, electrically connected with one of said circuit terminals; a switch movable over said section terminals; means for electrically connecting said switch and the other of said terminals; and a cover for said body for actuating said means to so connect said switch and terminal when said cover is actively disposed.



3. An apparatus as characterized, having a box-like body; a plurality of electric main terminals; a rheostat electrically connected with one of said terminals; a switch for said rheostat; a cover for said body; and means fixedly connected with said cover for electrically connecting said switch and the other of said terminals when said cover is closed on said body.

4. An apparatus as characterized, having a box-like body; a plurality of electric main terminals; a rheostat electrically connected with one of said terminals, a switch controlling said rheostat; a cover for said body; means fixedly connected with said cover for electrically connecting said switch and the other of said terminals when said cover is closed on said body; and means for holding said cover in closed position.

1,144,877. SAFETY-BRAKE FOR AUTOMOBILES. GEORGE W. YANNEY, Alliance, and EARL FRANKLIN OYSTER, East Cleveland, Ohio. Filed Oct. 18, 1912. Serial No. 726,412. (Cl. 74—13.)



1. A brake device for arresting retrograde movement comprising a driving member, a rotatable clutch member connected with said driving member and independently supported therefrom, an independent-supported non-rotating stop, and an intermediate clutch member movable axially on the first mentioned element into engagement either with the rotary clutch member or with the said stop, the opposed ends of the rotary and intermediate clutch members having co-acting means to cause the axial movement of the intermediate member into engagement with the stop when the shaft or other rotary element turns backward, and the intermediate member having means at its opposite end co-acting with the stop to shift the said intermediate member out of engagement with the stop upon a forward movement from the arrested position.

2. A device for arresting backward movement comprising a driving member, a rotatable clutch member supported independently thereof and connected therewith, a member fixed on said rotatable member and rotating therewith, a stop rigid as to the rotatable element, an intermediate clutch member revoluble by and with the member on the rotary element and movable axially relatively to the said member without total disengagement therefrom, there being means on the said intermediate clutch member to engage with the member on the rotary element, when the latter turns backwardly, for engaging the intermediate member with the stop, and means on the said intermediate member to engage and co-act with the stop to reverse the said axial movement when the rotary element moves forward.

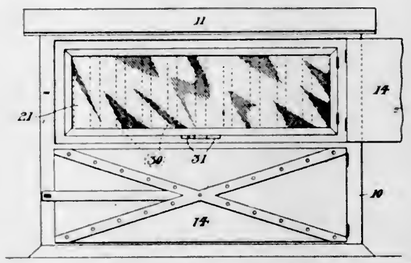
3. A safety brake device, comprising a clutch member, a clutch stop, and an intermediate clutch member having axial movement relative to said first mentioned clutch member to make connection with said stop, a driving member and a movable member connecting the brake device and the driving member during the forward rotation of said driving member and when said member is neutral, and disconnecting said brake device and the driving member during the reverse rotation of said driving member.

4. A brake device for arresting backward movement of a rotary element, comprising a clutch member rotating with said element, a stop, an intermediate clutch member having axial movement relatively to the first mentioned rotary clutch member, and a frictional retarding device to retard rotary movement of the intermediate clutch member.

5. A brake device comprising a rotatable element, an independently supported driving member connected therewith, a cam member rigid on said rotatable element, a rigid independently supported stop provided with cam faces in alinement with said cam member and supporting said rotatable element, an intermediate member provided with cam surfaces on either end conforming to the cam surfaces of the rotatable member and the cam stop forming clutch element and connected at all times with the rotatable member and alternately with the cam stop member and means for transmitting the reverse movement of the driving shaft thereto to operate the same.

[Claims 6 to 9 not printed in the Gazette.]

1,144,878. BEEHIVE. MICHAEL TENYÁK, Amherst, Ohio. Filed Mar. 10, 1915. Serial No. 13,506. (Cl. 6—1.)



1. A bee-hive comprising a casing having a transverse partition formed with a passage therethrough and adjacent the rear side thereof, the said partition being further provided with a forwardly open slide channel communicating with the said passage, the said partition further forming honey-comb receiving compartments, a closure slidably mounted in said channel and having spaced hand-engaging triangular shaped lugs upon its outer end, means carried by said closure member adapted to engage a side wall of said passage to limit the outward movement of said closure member, hinged closure doors for each compartment, the upper closure door constituting a closure for the outer open end of said channel, the said lugs being positioned within the outer end of the said channel when the closure is in its closed position transversely of the said passage.

2. A bee-hive comprising a casing having upper and lower bee inlets through its rear wall, a perforated slide slidably mounted adjacent the said upper inlet, a transverse partition within the said casing having a transverse passage therethrough, the said partition dividing the casing into an upper and a lower compartment, a slidable closure for the said passage carried by the said partition, means carried by said closure member adapted to engage a side wall of said passage to limit the outward movement of said closure member, a hinged closure door for the lower compartment and a glass hinged closure door for the upper compartment, and honey-comb mounting racks slidably positioned within the said compartments.

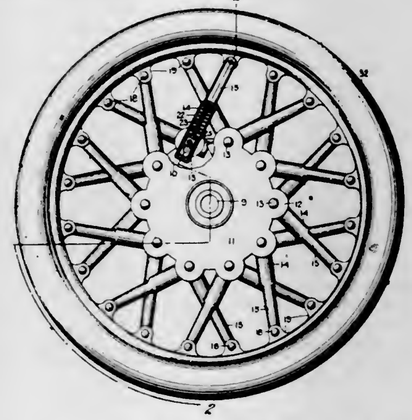
3. A bee-hive comprising a casing having upper and lower compartments, leaf springs mounted at the rear of said compartments, racks slidably mounted within said compartments and having their inner ends resiliently engaged beneath the said springs, upper and lower series of spaced lugs carried by the said racks in longitudinal alinement with each other, and honey-comb mounting frames slidably positioned in the said racks between the said lugs thereof.

4. In combination with a bee-hive including a casing and a partition wall having a transverse opening therein, there being a channel formed in said partition and communicating with said opening, a slide closure plate mounted in said channel and adapted to be moved to position to close the partition opening, and means carried by said closure plate adapted to engage a side wall of said opening to limit the outward movement of the closure plate.

5. A bee-hive including a casing, a partition dividing the casing into independent compartments, guide tracks arranged in each compartment, racks slidably mounted in each compartment and limited in their inward movement by said guides, and resilient members carried by said casing adapted to engage said racks to retain the same in position within the casing.

[Claim 6 not printed in the Gazette.]

1,144,879. VEHICLE-WHEEL. FRANCESCO V. UBEZZI, New York, N. Y., assignor to Transcontinental Wheel Co., Inc., New York, N. Y., a Corporation of New York. Filed Mar. 11, 1915. Serial No. 13,720. (Cl. 152—47.)



1. In combination, a solid tire; a supporting rim therefor embodying a plurality of pivotal connectors disposed in line and at both sides of the central plane of said rim; a hub having cheek-plates disposed in spaced relation at both sides of said plane; a plurality of spokes uniting said rim and said cheek-plates, said spokes being disposed in positions divergent to the radii of said wheel and to said plane; means pivotally connecting said spokes and said rim and cheek-plates in service position; and resilient means interposed between said cheek-plates and each of said spokes for thrusting said spokes outward from said cheek-plates, said means embodying coil springs, pivot bolts, each of said bolts connecting one of said spokes to one of said cheek-plates in sliding relation thereto, and a plurality of compression plates supported by said springs at both ends thereof, said plates being disposed in pairs and operatively connected, one with each of said bolts and one with each of said spokes.

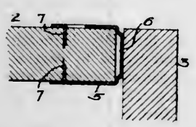
2. In combination, a solid tire; a supporting rim therefor embodying a plurality of pivotal connectors disposed in line and at both sides of the central plane of said rim; a hub having cheek plates disposed in spaced relation at both sides of said plane; a plurality of spokes uniting said rim and said cheek-plates, said spokes being disposed in positions divergent to the radii of said wheel and to said plane; means pivotally connecting said spokes and said rim and cheek-plates in service position; resilient means interposed between said cheek-plates and each of said spokes for thrusting said spokes outward from said cheek-plates, said means embodying coil springs, pivot bolts, each of said bolts connecting one of said spokes to one of said cheek-plates in sliding relation thereto, and a plurality of compression plates supported by said springs at both ends thereof, said plates being disposed in pairs and operatively connected, one with each of said bolts and one with each of said spokes; a plurality of supporting bolts permanently connected with each of said pivot bolts and extending through said springs and said compression plates; and means mounted on said bolts for holding said springs under compression.

3. In combination, a solid tire, a supporting rim therefor embodying a plurality of pivotal connectors disposed in line and at both sides of the central plane of said rim; a hub having cheek-plates disposed in spaced relation at both sides of said plane; a plurality of spokes uniting said rim and said cheek-plates, said spokes being disposed in positions divergent to the radii of said wheel and to said plane; means pivotally connecting said spokes and said rim and cheek-plates in service position; resilient means interposed between said cheek-plates and each of said spokes for thrusting said spokes outward from said cheek-plates, said means embodying coil springs, pivot bolts, each of said bolts connecting one of said spokes to one of said cheek-plates in sliding relation thereto, and a plurality of compression plates supported by said springs at both ends thereof, said plates being disposed in pairs and operatively connected, one with each of said bolts and one with each of said spokes; a plurality of supporting bolts permanently connected with each of said pivot bolts and extending through said springs and said compression plates; and a plurality of screw nuts operatively engaging said bolts for varying the operative position of the adjacent compression plate.

4. In combination, a solid tire; a supporting rim therefor embodying a plurality of pivotal connectors disposed in line and at both sides of the central plane of said rim; a hub having cheek-plates disposed in spaced relation at both sides of said plane; a plurality of spokes pivotally connecting said rim and said cheek-plates, said spokes being disposed in positions divergent to the radii of said wheel, said spokes each having an inner section disposed in service approximately parallel to said plane, and an outer section divergent from said plane; and a plurality of spiral springs mounted within said inner section of said spokes, resting upon said spokes and the pivotal connection thereof with said cheek-plates to maintain said spokes in supporting relation to said rim.

1,144,880. [WITHDRAWN.]

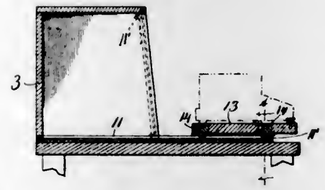
1,144,881. RETAINER FOR BOX-LIDS. WILLIAM VOLLMER and WILLIAM STEINER VOLLMER, Burnham, Pa. Filed July 7, 1913. Serial No. 777,748. (Cl. 217—57.)



1. The combination of a box having a lid hinged thereto and a U-shaped sheet metal retainer having means whereby it may be secured either to the edge of the lid or to the body of the box and having a projecting rib extending into the space between the body of the box and the lid and acting to retain the lid in the closed position by friction due to the rib being forced into the material of the box.

2. The combination of a box having a lid hinged thereto and a U-shaped sheet metal retainer having means whereby it is secured to the edge of the lid and having a projecting rib at its base, the ribbed portion extending between the lid and the body of the box and acting to retain the lid in the closed position by friction due to the rib being forced into the material of the box.

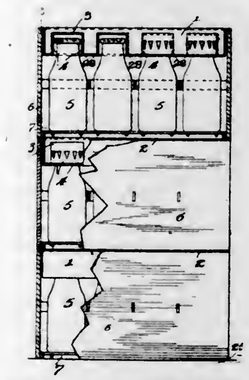
1,144,882. TYPE-WRITER CABINET. SAMUEL T. WHITAKER, Columbus, Ga., assignor of one-third to Thomas W. Bates and one-third to Edward B. Reed, Columbus, Ga. Filed Aug. 20, 1912. Serial No. 716,100. (Cl. 45—52.)



1. In a typewriter cabinet, the combination of a housing having a doorway through which a typewriting machine may pass to and from the housing, a door hinged to the floor of the housing in position for swinging from a substantially vertical position to a substantially horizontal position flush with said floor, and a track for sustaining the typewriter disposed with the uppermost line of the track intersecting the line of the axis of the hinge of the door and extending across portions of the door and floor and severed transversely on a substantially vertical line at the line of jointure between the door and floor.

2. In a typewriter cabinet, the combination of a housing having a doorway through which a typewriting machine may pass to and from the housing, a door hinged to the floor of the housing in position for swinging from a substantially vertical position to a substantially horizontal position flush with said floor, and alined track sections embedded in the door and floor to lie flush with the upper faces thereof when the door is horizontal, the track being adapted for sustaining the typewriter disposed with the uppermost line of the track intersecting the line of the axis of the hinge of the door.

1,144,883. APPARATUS FOR PASTEURIZING SUBSTANCES. BENJAMIN D. WHITE, Baltimore, Md. Filed Apr. 11, 1913. Serial No. 760,527. (Cl. 126—272.)



1. In an apparatus for pasteurizing substances while in containers, a pan or trough for distributing the pasteurizing agent upon the containers, said pan or trough having openings in its bottom, through which the tops of the containers may project, and formed to deliver the pasteurizing liquid directly upon the sides of the containers.

2. In pasteurizing apparatus, a pan adapted to deliver pasteurizing fluid to receptacles, the bottom of the pan being formed with apertures each adapted to have the upper portion of a receptacle introduced therethrough, and each of such apertures being formed for enabling the discharge of liquid from the pan substantially horizontally about the outer surface of the respective receptacle.

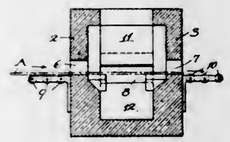
3. In pasteurizing apparatus, a pan having openings in its bottom adapted to accommodate therein upper portions of receptacles, the openings being proportioned to snugly surround the respective receptacles and to permit access of the liquid from the pan to the body of each of the receptacles, the liquid discharging laterally from the pan upon the sides of the receptacles and descending over the bodies of the receptacles in the form of a thin sheet.

4. In pasteurizing apparatus, a pan adapted to have upper portions of receptacles extended through its bottom, the pan being formed with an apertured bottom for accommodating such upper portions of the receptacles, and the apertures being formed for enabling the discharge of liquid from the pan substantially horizontally about the outer surfaces of the receptacles, and means for sustaining the pan out of contact with the receptacles.

5. In pasteurizing apparatus, a pan having a series of caps upstanding from the bottom of the pan, each having its lower end open for accommodating the upper end portion of a receptacle within the respective cap, the side walls of the cap being apertured for admitting liquid from the pan to the outer surfaces of the receptacle.

[Claims 6 to 9 not printed in the Gazette.]

1,144,884. METHOD OF HEAT-TREATING ROLLED STEEL SHEETS AND PLATES. GEORGE A. WHITE, Vandergrift, Pa., assignor to American Sheet & Tin Plate Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed June 22, 1914. Serial No. 846,580. (Cl. 148—21.)



1. The method of heat treating rolled steel sheets and plates which consists in heating successively different sections of the sheets to a temperature of approximately 1600 to 2200 degrees F. and cooling the sections of the sheets or plates in the order in which they are heated.

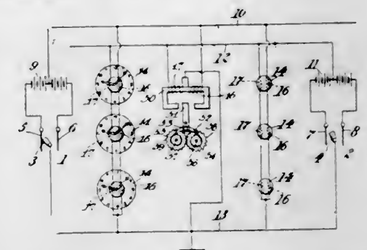
2. The method of heat treating rolled steel sheets and plates which consists in heating successively different sections of the plate in an oxidizing flame and cooling the heated sections successively in the order in which they are heated.

3. The method of heat treating rolled steel sheets and plates which consists in heating successively different sections of the plate in an oxidizing flame to a temperature between 1600 and 2200 degrees F, and cooling the heated sections successively in the order in which they are heated.

4. The method of annealing rolled steel sheets and plates consisting in heating narrow sections of the sheets or plates, progressively changing the heated section of the sheet or plate and allowing the heated portions thereof to cool in the order in which they are heated.

1,144,885. ELECTRIC-CLOCK SYSTEM. LEONARD JAMES ARON, London, England, assignor to X. L. Electric Company Limited, London, England. Filed Sept. 30, 1912. Serial No. 723,184. (Cl. 58—24.)

1. The combination of secondary clocks constructed to be actuated by impulses alternately opposite in sign, normally-open local circuits for said secondary clocks, means for reversing the polarity in said local circuits, a plurality of main circuits for controlling the operation of said means, and a master clock in each of said main circuits for periodically closing, and alternately reversing the polarity therein.



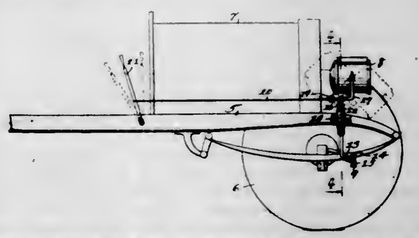
2. The combination of secondary clocks constructed to be actuated by impulses alternately opposite in sign, normally-open local circuits for said secondary clocks, sources for delivering impulses opposite in sign in said local circuits, relay means associated with each of said local circuits and adapted to control the delivery of said impulses, a plurality of main circuits for said relay means, a source for delivering impulses opposite in sign in each of said main circuits, and a master clock in each of said main circuits and adapted to control said source to deliver impulses alternately opposite in sign.

3. The combination of secondary clocks constructed to be actuated by impulses alternately opposite in sign, normally-open local circuits for said secondary clocks, split batteries for supplying current to said local circuits, switches for connecting opposite sides of said batteries in their respective circuits, relay means for closing said switches, a plurality of main circuits for said relay means, a split battery for supplying current to each of said main circuits, and a master clock adapted to alternately close the circuit through opposite sides of the split battery in each of said main circuits.

4. The combination of secondary clocks constructed to be actuated by impulses alternately opposite in sign, normally-open local circuits for said secondary clocks, a plurality of sources of electro-motive force in each of said local circuits, a plurality of relays for controlling the closing of said local circuits, main circuits for said relays, and master clocks included in said main circuits.

5. The combination of secondary clocks constructed to be actuated by impulses alternately opposite in sign, normally-open local circuits for said secondary clocks, a plurality of split batteries in each of said local circuits, a pair of switches for closing the circuit through opposite sides of each of said batteries, a relay for controlling the closing of each of said switches, a main circuit for each of said relays, a split battery in each of said main circuits, and a master clock for alternately closing circuit through opposite sides of the split battery in each of said main circuits.

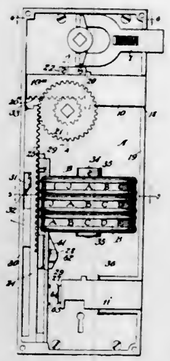
1,144,886. HEADLIGHT CONTROL. GEORGE WILLIAM ATKINSON, Denver, Colo. Filed Sept. 11, 1914. Serial No. 861,217. (Cl. 240—62.)



The combination with the frame, and steering rod of an automobile, of vertically arranged pintles, one on each side

of said frame, means connecting each pintle with said steering rod to rotate said pintles in the movement of said rod, a lamp bracket pivoted to each pintle, a rod pivoted to each bracket, a universal joint in said rod, means for actuating said rod manually, and a lamp in each bracket.

1,144,887. COMBINATION-LOCK. NAUM SHAMAS GORGIS BESHAROV, Paterson, N. J. Filed Apr. 4, 1914. Serial No. 829,494. (Cl. 70—53.)



1. In a lock, the combination of a reciprocable locking bolt, a spindle operatively connected with the bolt for moving the same in both directions, an element reciprocable simultaneously with and transversely to the bolt, means for operatively connecting the spindle with the element, and a tumbler mechanism rotatable on an axis parallel with the line of movement of the element and through which the latter extends, whereby the tumbler mechanism controls the movement of the element.

2. In a lock, the combination of a horizontally movable bolt, a tumbler mechanism, a vertically movable element controlled by the said mechanism, an actuating element, a gearing between the actuating element and bolt, and a gearing between said actuating element and tumbler-controlled element.

3. In a lock, the combination of a locking bolt, an element movable transversely thereto and having a different range of movement, a gearing connecting the bolt and element together for simultaneous movement, a tumbler mechanism controlling the movement of said element, and an actuating means operating through the gearing to move the bolt and element.

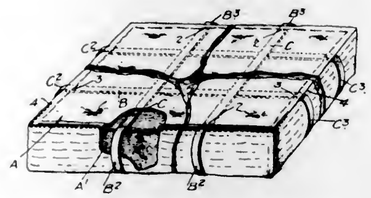
4. In a lock, the combination of a locking-bolt, a pinion meshing therewith, means for turning the pinion, a gear connected rigidly to and turning with the pinion, an element meshing with the gear to be actuated thereby, and a tumbler mechanism controlling the movement of the said element.

5. In a lock, the combination of a locking bolt, an actuating means therefor, an element connected with the said means for movement simultaneously with the bolt, a tumbler mechanism controlling the movement of the said element, and locking means independent of the tumbler mechanism for preventing movement of the said actuating means.

[Claims 6 to 10 not printed in the Gazette.]

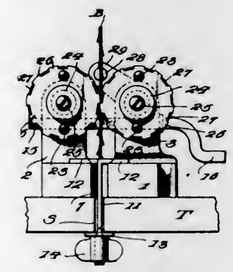
1,144,888. MATTRESS. RICHARD BRADSHAW, Toronto, Ontario, Canada. Filed Dec. 4, 1913. Serial No. 804,670. (Cl. 5—13.)

In a mattress, the combination with a mattress cover and a filling thereof, of a plurality of longitudinal and cross surrounding bands extending above and below the mattress filling so as to form a lattice-like structure and connected to the mattress cover at the corner seam thereof, the band portions extending above the mattress filling being connected by looped integral portions to the band portions extending below the mattress filling, such looped



portions being exterior to the mattress cover, as and for the purpose specified.

1,144,889. DEVICE FOR SETTING BAND-SAWS. CHARLES S. BUSHELL, Beloit, Wis., assignor of one-half to Alfred M. Schroeder, Williams Bay, Wis. Filed June 15, 1914. Serial No. 845,312. (Cl. 76—59.)

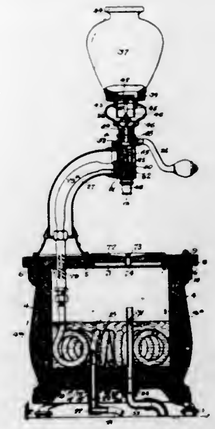


The combination with a base, an integral standard rising from one corner of said base, and a transverse groove with inwardly projecting upper side edges formed on the other corner of the base, a standard with a dovetailed lower end adapted to be slidably mounted in said groove, a transverse rod through the two standards adapted to move the slidable standard to and from the integral standard on the same plane therewith, a pair of parallel stub shafts projecting horizontally from the standards and carrying saw engaging rollers overlying the base, a pair of interengaging dies on the outer ends of said rollers and a pair of intermeshing gears on their inner ends, of an upwardly and inwardly extending integral ear having a horizontally extending threaded opening near its outer edge, said ear projecting from the slidable standard, and a set screw with a smooth inner end engaging through said opening in the ear projecting from the slidable standard and held thereby above but between the rollers to engage the smooth edges of the saws being set.

1,144,890. DISPENSING APPARATUS. FRANK W. CALVERT, Narberth, Pa., assignor to The Charles E. Hires Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Aug. 10, 1908. Serial No. 447,904. (Cl. 225—26.)

1. The combination with a dispensing apparatus having a connection with a source of carbonated water delivered under pressure, of a faucet mounted above the water supply and having a plurality of passages, one of said passages being in communication with said source of carbonated water and through which such water may be discharged, an automatically feeding syrup receptacle disposed above and carried by said faucet, means comprising a tubular stem whereby the contents of said syrup receptacle are maintained in constant communication with a syrup passage within said faucet, independently of and out of contact with the passage for the water, a pair of

valves disposed in said faucet, one of said valves controlling the water discharge, while the other controls the syrup discharge, said faucet having a common delivery outlet for the mixed water and syrup, and a single manually controlled element journaled on said tubular stem for simultaneously actuating said valves.



2. A faucet for liquid dispensing apparatus arranged to discharge a stream of liquid made up of material from two sources such as syrup and water, independent passages in said faucet, the water coming from below and the syrup from above the faucet, a tubular stem at the top of said faucet for the passage of syrup to one of said passages, and a handle journaled on said stem for operating said faucet to discharge syrup and water simultaneously.

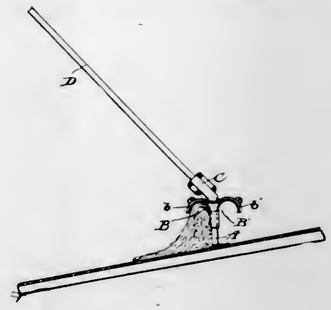
3. A faucet for liquid dispensing apparatus arranged to receive liquid such as syrup and water from independent sources and deliver the same through a common outlet, a tubular stem at the top of said faucet leading from the syrup receptacle above the faucet through which such syrup enters by gravity through an automatic feed device, a connection at the side of the faucet for the entrance of water under pressure from a point below and wholly independent of the syrup supply, valves in the faucet for controlling the outlet of water and syrup simultaneously therefrom, and a handle for operating said valves journaled on the tubular stem through which the syrup flows.

4. The combination, with a liquid dispensing apparatus, of a faucet, a syrup receptacle disposed above and supported by said faucet, a valve closure for said receptacle, means for opening and maintaining said closure in the open position when placed on the faucet, means comprising a tubular stem whereby the syrup is in constant communication with and is automatically fed to the faucet, said faucet having separate passages for water and syrup and a common outlet for a mixed body of the same, said water entering the faucet from a point below the same and wholly out of contact with the syrup, a pair of valves within the faucet, one controlling the passage of water and the other controlling the passage of syrup to the common outlet, and a single manually operated element for effecting simultaneous action of both of said valves.

1,144,891. TOOL FOR SPREADING ROOFING MATERIAL. EDSON L. CANNON, Cleveland, Ohio. Filed Aug. 17, 1914. Serial No. 857,085. (Cl. 91—62.5.)

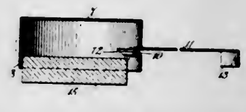
1. In a spreading device, a spreading blade, and clamping plates therefor, the upper edges of said plates being bent outwardly and downwardly, substantially as and for the purpose set forth.

2. In a spreading device, a spreading blade, and a clamping plate upon each side thereof, the upper edges of said plates curved outwardly and downwardly to project



material spread in advance of said blade, and means for attaching a handle to said plates.

1,144,892. COMBINED CLOSURE-CAP AND STYPTIC-HOLDER. STANLEY WINTHER CAWS, Lac Ste. Anne, Alberta, Canada. Filed July 24, 1914. Serial No. 852,953. (Cl. 206—38.)



1. A combined closure cap and styptic holder comprising a flanged cap having a slot in its flange, and a slide extending through the said slot into the cap and forming with the closed end of the said cap a compartment for holding a styptic button.

2. As an article of manufacture, a hollow cap provided with a slot and with a lip partially bounding said slot and extending obliquely inward therefrom, and a slide extending through said slot and engaging said lip, said slide being provided with a rim integral with it and of suitable form to fit against the adjacent peripheral surface of said cap.

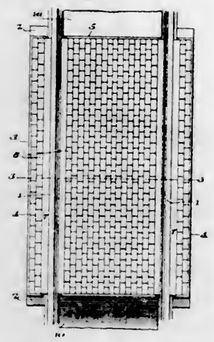
3. A combined closure cap and styptic holder comprising a hollow cap having a general cup-like form and provided with a slot and with a lip partially bounding said slot and extending obliquely inward from the wall of said cap, and a slide having substantially the form of a sector and extending radially into said slot, said slide being further provided with a rim disposed outside of said slot and adapted to be grasped by hand.

4. A device of the character described comprising a hollow cap having an edge portion to be fitted upon a container, said cap being further provided with a slot extending through the wall of said cap, and also provided with a lip integral with said wall and partially bounding said slot, said lip extending obliquely inward from said wall and having a general arcuate form, and a slide extending through said slot and engaging said lip, said slide having the general form of a sector and made of bendable material in order to adapt it for exerting pressure upon a styptic button lodged within said cap, said slide being further provided with a rim located outside of said cap and having a general arcuate form.

5. A device of the character described comprising a cap made of sheet material and having a general cup-like form, said cap being provided with an edge portion for fitting upon a container, said cap being further provided with a slot extending through said wall and with a lip integral with said cap and partially bounding said slot, said lip being integral with said cap and extending inwardly from said wall, and a slide extending loosely through said slot and engaged by the inner edge of said lip, said slide at

its inner end being provided with a bent portion for engaging sad lip when said slide is drawn downwardly to the limit of its travel, said slide being also provided at its edge located outside of said cap with a portion to be grasped by hand in order to move said slide relatively to said cap.

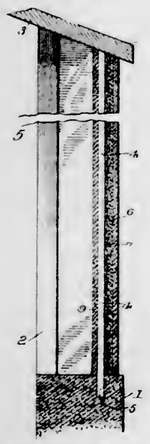
1,144,893. RAILWAY-CROSSING. WILLIAM H. CULKINS, Albion, Mich. Filed Nov. 11, 1914. Serial No. 871,539. (Cl. 104—14.)



1. In a crossing for railways, boxes arranged between and against the outer sides of the rails, the side boxes having their inner and upper edges provided with laterally extending flanges which contact with the outer faces of the heads of the rails, the said boxes being disposed flush with the treads of the rails, and the inner box being spaced from the inner faces of the rails, said boxes having slotted bottoms, means for securing the boxes upon the ties for the rails, and filler blocks comprising removable and interchangeable members within the boxes and arranged flush with the upper open faces of the boxes.

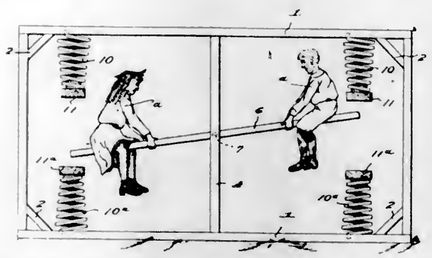
2. In a railway crossing, a box arranged between the rails, a box arranged to the outer sides of each of the rails, said boxes being flush with the treads of the rails and having foraminous bottoms, filler members comprising bricks arranged within the boxes and disposed flush with the top of the boxes, and inclined planes arranged upon the opposite ends of the central box.

1,144,894. BUILDING CONSTRUCTION. WILLIAM DOYLE, Balboa, Canal Zone. Filed Sept. 18, 1914. Serial No. 862,407. (Cl. 72—16.)



A building of the character described including a foundation, disconnected independent inner and outer wall structures provided an air space carried by said foundation, the inner wall structure being of a relatively temporary and removable character, the outer wall structure being of reinforced monolithic construction and relatively permanent in character, and each wall structure being capable of sustaining the weight of the building independent of the other.

1,144,895. TOY SEESAW. ALICIA ENGLAND, Jasper county, Mo. Filed Mar. 1, 1915. Serial No. 11,308. (Cl. 46—22.)

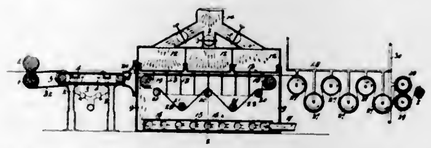


1. A toy see-saw comprising a rectangular frame, a teeter board provided with oppositely disposed trunnions, ball bearings for said trunnions, upper and lower springs connected to the frame in line with the outer ends of the see-saw board and buffers in the ends of said springs.

2. A toy see-saw comprising a centrally pivoted teeter board, springs connected to the frame in the path of the outer ends of the teeter board, and figures mounted upon the teeter board.

3. A toy see-saw comprising a balanced teeter board having figures thereon, springs connected to the frame of the toy in the path of the outer ends of the teeter board, and buffers for said springs.

1,144,896. COATED-PAPER-DRYING APPARATUS. ALFRED THOMAS FOSBRAEY, Niagara Falls, N. Y. Filed Aug. 29, 1914. Serial No. 859,241. (Cl. 34—48.)



1. A paper drying apparatus comprising an infeed conveyer, a hot air drying chamber, a conveyer in said chamber on which the paper is carried through the chamber, means in said chamber for blowing a current of air over the coated side of said paper and a set of heated final drying rolls over which said paper passes on leaving said chamber.

2. A paper drying apparatus comprising an infeed conveyer, a hot air drying chamber, a conveyer in said chamber on which the paper is carried through the chamber, means in said chamber for blowing a current of air over the coated side of said paper and a set of heated final drying rolls over which said paper passes on leaving said chamber, and a set of cooling rolls over which said paper passes on leaving said drying rolls.

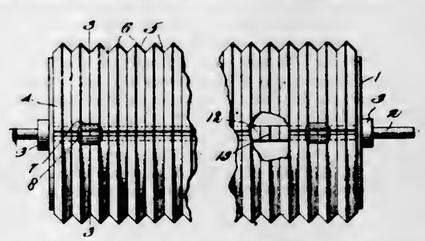
3. In an apparatus of the class described, a drying chamber, an endless belt conveyer within said chamber, an infeed conveyer on the outside of said chamber for carrying a paper strip into the chamber onto the endless belt, a hot air duct within said chamber located above said endless conveyer to direct a current of hot air onto said paper, an off-take duct for conveying away the moist air from the chamber, said chamber having transparencies in its walls through which the interior working may be viewed.

4. In an apparatus of the class described, a drying chamber, an endless belt conveyer within said chamber, an infeed conveyer on the outside of said chamber for carrying a paper strip into the chamber onto the endless belt, a hot air duct within said chamber located above said endless conveyer to direct a current of hot air onto said paper, an off-take duct for conveying away the moist air from the chamber, said chamber having transparencies in its walls through which the interior working may be viewed, and means for adjusting the tension of said endless conveyer whereby to maintain that portion which carries the paper in a horizontal plane.

5. In an apparatus of the class described, a drying chamber, an endless belt conveyer within said chamber, an infeed conveyer on the outside of said chamber for carrying a paper strip into the chamber onto the endless belt, a hot air duct within said chamber located above said endless conveyer to direct a current of hot air onto said paper, an off-take duct for conveying away the moist air from the chamber, said chamber having transparencies in its walls through which the interior working may be viewed, and a set of final drying rolls arranged in staggered succession over and under which the paper passes upon leaving said chamber, means for applying heat to said final drying rolls and means for driving said rolls and said conveyers.

[Claims 6 to 8 not printed in the Gazette.]

1,144,897. APPLIANCE FOR LAND-ROLLERS AND THE LIKE. ARTHUR GERLAUGH, Scottsville, Va. Filed Nov. 5, 1914. Serial No. 870,481. (Cl. 55—21.)



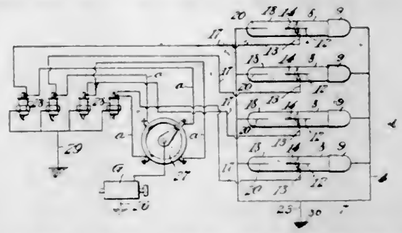
1. A device of the class described comprising opposed roller covering members for engagement upon opposite sides of a roller, said members being hinged together along their longitudinal edges and provided with transverse corrugations, the corrugations of one member registering with the corrugations of the other member, means for drawing the members together and clamping them upon the roller, and a transversely corrugated strip removably positioned between the spaced longitudinal edges of said member.

2. In combination with the smooth surface of a roller, a pair of semi-circular corrugated sections arranged in clamping engagement around said roller, said members being hinged together along their longitudinal edges and provided with transverse corrugations, the corrugations of one member registering with the corrugations of the other member, and means for drawing the members together and clamping them upon the outer surface of the roller, and a transversely corrugated strip movably positioned between the spaced longitudinal edges of said members.

1,144,898. FAULTFINDER FOR INTERNAL-COMBUSTION ENGINES. DINSHAH PESTANJI FRAMJI GHADIALI, New York, N. Y. Filed Oct. 30, 1912. Serial No. 728,703. (Cl. 175—183.)

1. A fault finder for internal combustion engines, including a duplex visual indicator unit, the said unit consisting of a sparking device and a glow element having common terminal connections.

2. A fault finder for internal combustion engines, including a duplex visual indicator unit, said unit consisting of an air-gap sparking device, and a glow element acting as a condenser, said device and said element having common terminal connections.



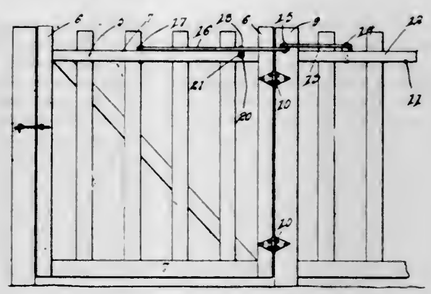
3. A fault finder for internal combustion engines, including a duplex visual indicator unit consisting of a sparking-tube and a glow-tube separably assembled in paired relation, and common terminal connections for both tubes.

4. A fault finder for internal combustion engines including a duplex visual indicator unit consisting of a non-sealed air gap spark-tube and a vacuum glow-tube having a condenser effect, said two tubes being assembled in paired relation, and common terminal connections for both tubes.

5. A fault finder for internal combustion engines including a duplex visual indicator unit consisting of an air gap spark-tube and a vacuum glow-tube, of condenser construction, said two tubes being separably assembled in paired relation, and common terminal connections for both tubes.

[Claims 6 to 14 not printed in the Gazette.]

1,144,899. GATE-CLOSING DEVICE. BENJAMIN GOLD, Indiana Harbor, Ind. Filed Dec. 13, 1913. Serial No. 806,511. (Cl. 16—9.)

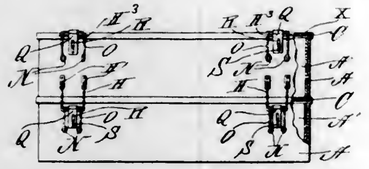


The combination with a fence and a gate, of a pair of levers, one of said levers being shorter than the other, and said levers being pivotally connected together at one of the ends, the free end of said short lever being pivotally connected to the fence, the longer lever having a plurality of apertures therein adjacent its pivotal end, and its other end being pivotally secured to the gate, a spring adjustably connected at one of its ends to the longer lever and the other end of said spring being connected to the gate between the pivotal point of the longer lever and one end of the gate, said spring adapted to close the gate.

1,144,900. FASTENER FOR SHIPPING-TRAYS OR BOX-COVER FASTENER. ELIAS GRAHAM, JOHN GORE, and JOHN G. SAMPLE, Hazel Dell, Ill. Filed Feb. 17, 1914. Serial No. 819,237. (Cl. 70—3.)

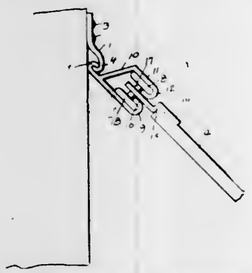
A fastening device for shipping trays, etc., consisting of plates adapted to be fastened rigidly to a tray and each having integral therewith an angled arm of a bail-shaped member, the free end of the bail bearing in a plane parallel with said plates and spaced apart therefrom, a swinging bail adapted to be pivotally mounted on a tray and under-

neath said fixed bail, a right angled hasp pivotally mounted at its angled portion upon the swinging bail, the long arm of the hasp designed to fulcrum over the free end of the fixed bail and the short arm of the hasp designed,



when the bails are drawn to overlap each other, to bear against the face of a tray when the long arm is positioned intermediate the arms of the swinging bail, the swinging movement of the hasp adapted to hold the bails in overlapping contact with each other.

1,144,901. DOOR-HANGER. FRANK M. HAHN, Doland, S. D. Filed Apr. 23, 1915. Serial No. 23,405. (Cl. 16—7.)

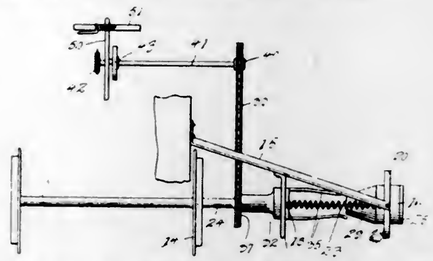


1. A door hanger comprising a supporting bar having a plain flange adapted to be secured to the upper edge of a door opening and an inwardly bent portion forming a groove, a track member having a plain rear plate, an outwardly extending downturned portion on the upper edge of said plate forming a hook member, said hook member being adapted to engage the groove of said supporting bar, whereby said track member can be removably and pivotally supported, the flange of said supporting bar and the rear plate of said track member being in the same plane, an inclined wall extending outwardly from said rear plate near the upper portion thereof, a front plate extending down from said inclined wall, upturned portions on said front and rear plates forming a track member, whereby a door can be slidably suspended thereon.

2. A door hanger comprising a supporting bar having a flange and a bent portion, said bent portion forming a groove, a track member having a rear plate, a downturned portion on the upper edge of said rear plate adapted to engage said groove, an inwardly extended upturned portion on the lower part of said plate, an inclined wall extending outwardly from said plate near the upper edge thereof, a front plate extending downwardly from said inclined wall, an inwardly extending upturned portion on said front plate, said upturned portions of the rear and front plates being in the same plane and forming a track, and a bracket having an offset portion, a downwardly extending shank from said offset portion, said offset and shank being adapted to be secured to a door, a pair of spaced wheels rotatably mounted on the upper portion of said bracket, said wheels adapted to engage said track member.

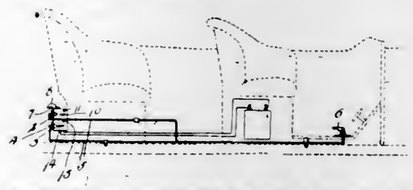
1,144,902. TRAIN-STOP. DANIEL HOPKINS, Cascade, N. H. Filed Aug. 4, 1913. Serial No. 782,965. (Cl. 246—59.)

1. In combination an automatic train stop including a track trip, a stop mechanism, said stop mechanism comprising an extension formed integral with the axle of one set of wheels of the locomotive, a clutch member revolubly mounted on said extension, a coöperating clutch member slidable on said extension and adapted to revolve therewith, a sprocket connection on the revoluble clutch member, means to connect the sprocket with the control of the locomotive, springs to exert pull on the clutch members to bring the same into engagement, and means to hold the clutch members out of engagement, said means designed to be released upon engagement with the track trip.



2. A train stop including a track trip, a train-carried stop mechanism comprising an extension formed on the axle of one set of wheels, a sleeve rotatable on said extension, a sprocket formed integral with the sleeve, means to control the movement of the locomotive, means connecting the movement-controlling means with the sprocket, the sleeve being provided with an annular groove at the end opposite the sprocket, a stationary support secured to the locomotive, a plate supported on the stationary support, and seated within the annular groove in the sleeve to form a bearing therefor, a pair of arms carried by the sleeve and projecting longitudinally with relation thereto, a clutch half slidable longitudinally on the axle extension and designed to rotate therewith, said clutch half being arranged to engage the arms to cause the sleeve to rotate, a plate secured to the clutch half and free to rotate thereon, springs connected to the plate and to the support for the sleeve to normally exert inward pull to hold the arms in engagement with the clutch half, and a rivet of relatively soft material engaging the plate and the stationary support to hold the sleeve and clutch half in spaced relation, said rivet being designed to be severed to permit the clutch half to engage the arms when the device is operated.

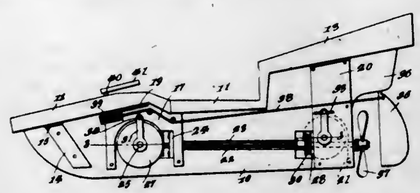
1,144,903. MOTOR-VEHICLE SIGNAL. EDWARD B. HOPKINS, Savannah, Ga. Filed Mar. 17, 1914. Serial No. 825,337. (Cl. 40—61.)



A vehicle signal embodying a casing, a shutter, a spring hinge connecting one end of the shutter to said casing, a curved arm connected at one end to the said shutter at a point in horizontal alinement with the center of said spring, said arm having its remaining end enlarged to form a contact, a contact plate secured to the side of the casing and disposed in the path of movement of said arm, a signal circuit connected to said arm and contact plate, and means connected to said arm for swinging said shutter.

1,144,904. LIFE-SAVING APPARATUS. RIUHE KAMIOKA, Lake Forest, Ill. Filed May 22, 1914. Serial No. 840,350. (Cl. 9—18.)

1. A swimming device comprising a body portion including a platform and keel, said platform having its forward end portion inclined downwardly with respect to the central portion and having its rear end portion extending parallel to the plane of the forward portion and thickened, a propeller shaft rotatably carried by said keel, hand operated means for rotating said propeller shaft positioned adjacent the inner end of the forward portion of said platform, foot operated means for rotating said propeller shaft positioned beneath the rear portion of said platform, a propeller carried by said propeller shaft beneath the rear portion of said platform, a rudder carried by said keel beneath the rear portion of said platform, a tiller carried by the forward portion of said platform, and means connecting said tiller with said rudder to permit said rudder to be turned by said tiller.



2. A swimming device comprising a body portion including a platform and keel, said platform having its forward end portion inclined downwardly with respect to the central portion and having its rear end portion extending parallel to the plane of the forward portions, a propeller shaft rotatably carried by said keel, means for rotating said propeller shaft, and means for steering said swimming device.

3. A swimming device comprising a body portion including a platform and keel, said platform having its forward end portion inclined downwardly with respect to the central portion and having its rear end portions extending parallel to the plane of the forward portion and thickened, a propeller shaft rotatably carried by said keel, a propeller carried by said propeller shaft beneath the rear portion of said platform, a rudder carried by said keel beneath the rear portion of said platform, operating means for said rudder, and operating means for said propeller shaft.

1,144,905. FERTILIZER AND PROCESS OF MANUFACTURING SAME. LUDWIG KERN, Hamburg, Germany. Filed Mar. 27, 1915. Serial No. 17,577. (Cl. 71—9.)

1. The herein described process for the manufacture of fertilizer which consists in mixing waste sulfite liquor with kieselguhr associated with extraneous mineral and organic substances.

2. The herein described process for the manufacture of fertilizer which consists in mixing hot waste sulfite liquor with kieselguhr associated with extraneous mineral and organic substances.

3. The herein described process for the manufacture of fertilizer which consists in mixing previously atomized waste sulfite liquor with kieselguhr associated with extraneous mineral and organic substances.

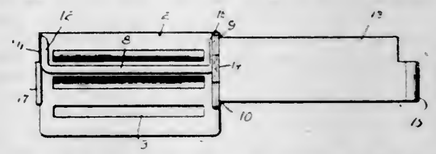
4. The herein described process for the manufacture of fertilizer which consists in mixing waste sulfite liquor previously deprived of hexoses with kieselguhr associated with extraneous mineral and organic substances.

5. The herein described process for the manufacture of fertilizer which consists in mixing waste sulfite liquor with kieselguhr associated with extraneous mineral and organic substances and adding to the mixture calcium nitrate.

[Claims 6 to 10 not printed in the Gazette.]

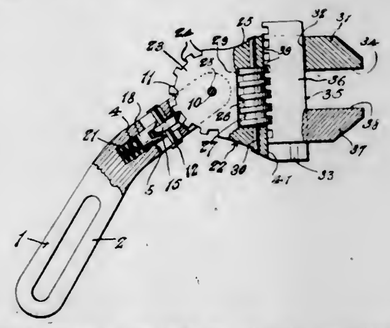
1,144,906. SUSPENDER-LOCK. EDWARD KLATT and REINHOLD KALFIRST, Philadelphia, Pa. Filed Oct. 7, 1913. Serial No. 793,860. (Cl. 24—191.)

A suspender lock comprising a rectangular plate having a longitudinal suspender receiving slot formed therein, a pair of spaced longitudinal gripping tongues formed on and disposed angularly with relation to said plate and disposed intermediate the longitudinal edges of said plate, ears formed on said plate, a U-shaped locking bar having its free ends bent angularly and pivoted in said



ears, said bar adapted to force the suspender strap into engagement with the gripping tongues and a rectangular locking plate hingedly secured at one end to one of the ends of said plate and arranged to engage and cover said U-shaped locking bar to hold said bar in locked position.

1,144,907. WRENCH. CHARLES W. KNIPPLE, Parsons, W. Va., assignor of one-half to Arnold B. Ferguson, Parsons, W. Va. Filed Apr. 19, 1915. Serial No. 22,408. (Cl. 81—59.)



1. A wrench of the character described comprising a handle, a jaw member, a rotatable pawl carried by the handle and arranged to engage the jaw member to hold the same against rotation in one direction, when in one position and to stop rotation in the opposite direction when in another position.

2. A wrench of the character described comprising a handle, a jaw member, a ratchet wheel on the jaw member, a rotatable spring pressed pawl in the handle and adjacent beveled faces on the pawl, one of said faces arranged to engage the ratchet teeth to hold the jaw member against rotation in one direction and the other face holding the jaw member against rotation in the opposite direction when the same is in operative position.

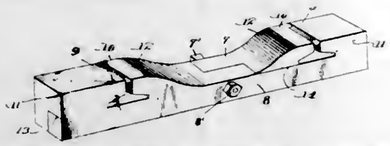
3. A wrench of the character described comprising a handle, a jaw member pivoted to one end of the handle, a ratchet wheel carried by the jaw member, a pawl slidably and rotatably mounted in the handle, oppositely inclined adjacent faces on the pawl arranged to hold the jaw members against rotation in one direction and spring pressed means to urge the pawl toward the ratchet teeth and hold the same in engagement therewith.

4. A wrench of the character described comprising a handle, a jaw member pivoted to one end of the handle, a ratchet wheel carried by the jaw member, a rectangular pawl pivotally and slidably mounted in the handle, inclined faces formed on adjacent edges of the pawl, a pressure member and a spring engaging the pressure member to force the same outwardly into engagement with the pawl to urge the said pawl into engagement with the ratchet teeth.

1,144,908. METALLIC TIE. ELLIS LOWREY, Bernice, La. Filed May 29, 1914. Serial No. 841,857. (Cl. 238—5.)

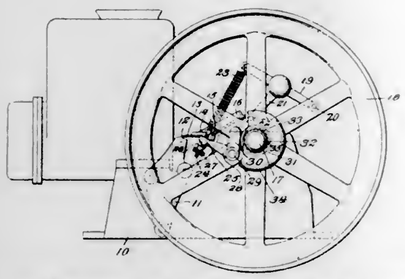
In combination with a pair of rail ends, each of which has an opening, of a railway tie therefor comprising two

similar metallic members adapted to be arranged side by side, the opposite ends of each of the members having enlargements upon their bearing faces, the inner wall of which being beveled to provide rail engaging lips, each of said enlargements having one of its corners formed with a longitudinally extending lug for entering the opening in one rail end, and each of said enlargements extending beyond the inner face of the member to overlie and engage with the bearing face of the co-acting member, each of the said members having second enlargements the outer



faces of which being beveled to provide rail engaging lips which are disposed adjacent the lips upon the respective ends of the tie, each of said second enlargements having one of its corners formed with a longitudinally extending lug which projects beyond the lip, and adapted to enter the opening in the remaining rail end, and the said enlargements extending beyond the inner face of the member upon which it is formed to overlie and rest upon the upper face of the second member, and a tapering key centrally connecting the members.

1,144,909. SPEED-CHANGING DEVICE FOR ENGINES. VINCENT E. MCMULLEN, Jackson, Mich., assignor to Field-Brundage Co., Jackson, Mich., a Corporation of Michigan. Filed June 9, 1914. Serial No. 844,068. (Cl. 121—112.)

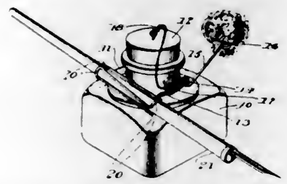


1. In a governor of the class described, a rotatable mass, a weighted arm pivoted thereto, a relatively fixed point carried thereby, a yieldable connection between said weighted lever and said relatively fixed point, said relatively fixed point being pivotally supported by said rotatable mass, an arm extending from said relatively fixed point and a sleeve having arcuate faces formed thereon of different radii, movable with respect to said rotatable mass to have one of its faces engage the arm extending from said relatively fixed point.

2. In a governor of the class described, a rotatable mass, a weighted lever pivoted to said revolving mass, a bell crank lever fulcrumed on said rotatable mass, adjustable resilient connection between said weighted lever and said bell crank lever, said weighted lever having an arm extending therefrom, a trip disposed to be struck by said arm under certain conditions, and a movable sleeve carried by said rotatable mass having faces thereon of different radii to receive one arm of said bell crank lever.

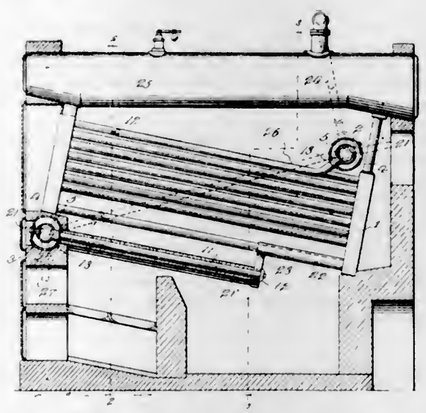
1,144,910. ATTACHMENT FOR INK-RECEPTACLES. JOHN MICHEL, New York, N. Y. Filed Mar. 10, 1914. Serial No. 823,770. (Cl. 120—4.)

An attachment for inkwells comprising a neck encircling member, a pen holder supporting member formed of a single piece of spring-like wire bent to provide horizontally extending portions forming similar opposed loops at one end and similar opposed loops at the other end, said loops engaging the pen holder to secure the same in a horizontal position, with portions of said loops extending transversely across the surface of the pen holder and



curved to conform to the curvature of the said surface of the pen holder, the inner end of said pen holder supporting member having connection with and being supported by said neck encircling member, the similar opposed loops at each end lying in the same plane.

1,144,911. SUPERHEATER. WALTER A. MOFFAT, Erie, Pa. Filed May 19, 1914. Serial No. 839,564. (Cl. 122—472.)



1. A superheater including a header, superheating tubes projecting therefrom, said tubes and header being of arched formation, and castings of refractory material for each tube, said castings fitting between the tubes to form a refractory arch.

2. A superheater tube comprising a cylindrical body having the wall thereof formed with an opening adjacent one end, and a strip having a width corresponding to the diameter of the body and positioned longitudinally of the body to divide the same into distinct channels, the end of the strip being upturned within the body to close the end of one of the channels beyond the opening.

3. A superheater comprising a casing including inner and outer concentric bodies, said bodies being formed with transverse registering openings together forming a passage of conical formation, a tube having a conical terminal corresponding to the minimum dimension of the conical passage, whereby the tube may be inserted or removed through said passage, said tube having threaded connection with the walls of the conical passage at the reduced ends thereof, and plugs closing the openings in the respective bodies at the enlarged end of the passage.

4. A superheater for steam boilers including an upper header and a lower header, each of said headers comprising concentric casings, superheater tubes projecting from the respective headers and each formed to provide distinctive channels communicating respectively with the castings of the header, a steam supply pipe communicating with the inner casing of the upper header, a steam outlet pipe establishing communication between the outer casing of the upper header and the inner casing of the lower header, a steam feed pipe leading from the outer casing of the lower header, an air pipe communicating with the inner casing of the lower header, and an air pipe establishing communication between the outer casing of the lower header and the inner casing of the upper header, whereby a circulation of air may be maintained throughout the superheater at will.

1,144,912. CORSET-STEEL. KATE BERESFORD MONTRE, North San Juan, Cal. Filed Jan. 31, 1914. Serial No. 815,731. (Cl. 2—76.)



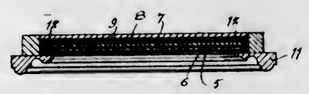
1. A corset steel having its end folded on itself to provide an integral tip, said tip having underfolded corners.

2. A corset steel having its end folded on itself to provide an integral tip, said tip having underfolded corners, and having crimps between said underfolded corners.

3. A corset steel having an end folded on itself to provide an integral tip and having reversely curved convexities on its opposite sides, said tip having underfolded corners.

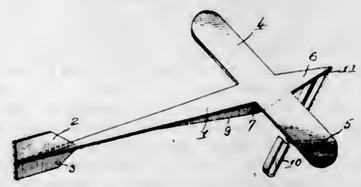
4. A corset steel having an end folded on itself to provide an integral tip and having reversely curved convexities on its opposite sides, said tip having underfolded corners, and being provided with crimps between said underfolded corners.

1,144,913. PROTECTIVE HOUSING FOR PICTURES AND THE LIKE. BRYANT J. O'QUINN, Kissimmee, Fla. Filed July 3, 1914. Serial No. 848,818. (Cl. 40—158.)



A device of the character described comprising a sheet of transparent material, an object mounted behind said transparent material and visible therethrough, a yieldable backing arranged behind said object, a covering arranged behind said backing constituting in conjunction with said transparent material an inclosure for said object, a layer of water-proof material interposed between said covering and said backing, said covering extending inwardly a distance upon the front face of said transparent material and being secured thereto, and a plurality of resilient clips U-shaped in cross section securing the edges of said covering upon the edges of said transparent material.

1,144,914. AERIAL TOY. FRANK S. PIERSON, New York, N. Y. Filed Sept. 3, 1914. Serial No. 860,064. (Cl. 244—2.)



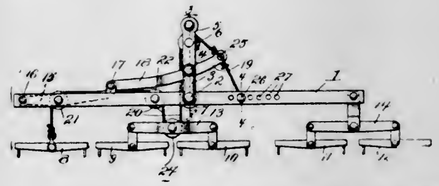
1. A toy of the class described, including a flat tapered body having the forward end thereof formed into a prow, planes integrally formed therewith and extending laterally thereto, said planes being adjacent to and positioned rearwardly of said prow, means associated with the prow to initially impart movement to the device, and a guiding and strengthening rib on the under face and extending throughout the length thereof.

2. In a toy of the class described, comprising a flat body portion, planes formed therewith and extending laterally therefrom, said planes being positioned adjacent the forward end of the body, direction controlling means disposed on the under face of the body portion and extending throughout the length of the same, a prow formed on the forward end of the body, and means carried by the forward end of the device for launching the same through thee air.

3. In a toy of the class described, a body portion comprising a flat tapering sheet of cardboard or the like, planes integrally formed therewith and extending laterally therefrom, means for guiding the device during flight comprising a longitudinally disposed rib upon the under surface of the body portion, and launching means comprising an elastic band carried by the forward end of the device whereby stretching of the elastic band and releasing the body of the device will propel the same through the air.

4. As an article of manufacture, a toy including a flat tapering body having balancing planes formed integrally therewith and extending laterally thereto adjacent the forward end, a guiding and strengthening rib carried by the under face of said body, and an elastic element carried by the forward end of said body to initially impart movement to the same.

1,144,915. DRAFT-EQUALIZER. WILLIAM RADUECHEL, Bloomfield, Nebr. Filed Aug. 4, 1914. Serial No. 855,007. (Cl. 21—76.)



A draft equalizer comprising an equalizing bar, whiffletrees attached thereto, a draft bar to which said equalizing bar is pivotally attached, a sheave journaled on said draft bar at a distance from the pivotal connection between said draft bar and equalizing bar, a flexible element passing over said sheave and attached at one end to the equalizing bar, a whiffletree attached to the other end of said flexible element, a double tree provided with a pulley around which a portion of said flexible element passes, an equalizing arm pivotally attached at one end to said equalizing bar, and an equalizing lever fulcrumed intermediate its ends on the draft bar and having one arm pivotally connected to said equalizing arm and the other arm attached to said flexible element.

1,144,916. TRACK-CLEANER FOR SAWMILL-CARRIAGES. GERRARD M. REDDY, Bowie, La. Filed Sept. 1, 1914. Serial No. 859,674. (Cl. 104—100.)

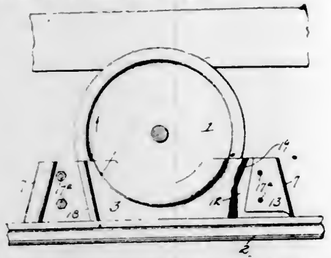
1. A track cleaner comprising an open wheel-receiving casing having removable end caps, and removable wear blocks clamped within said caps.

2. In a track cleaner, an open wheel-receiving casing including side casing plates and removable end caps, and removable wear blocks clamped within said caps.

3. In a track cleaner, an open wheel-receiving casing including side casing plates and removable end caps connecting the ends of said plates, and removable wear blocks clamped within said caps.

4. A track cleaner comprising side casing plates having interior wheel engaging means, removable end caps con-

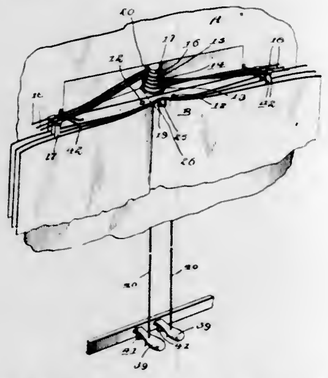
necting the ends of said plates, and removable wear blocks clamped within said caps.



5. A track cleaner including opposite side casing plates, V-shaped end caps removably fitted to the ends of said plates, and a pair of wear blocks removably locked within each end cap.

[Claims 6 to 10 not printed in the Gazette.]

1,144,917. MUSIC-LEAF TURNER. CLIFFORD G. RUST, Marion, Ind. Filed Apr. 1, 1914. Serial No. 828,835. (Cl. 84—17.)

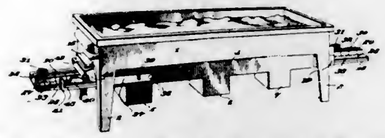


A music leaf turner comprising a support, a tubular housing fixed to the support and having a cut-away portion near the upper end at its front to form an opening, a plurality of cup-shaped sleeves within the said housing and fitted the one within the other, music leaf turning arms secured to the respective sleeve and projected through the opening in the housing, pins mounted in the sleeves, a rod slidable through the sleeves and having a slot provided with a curvature therein receiving the said pins, teeth formed on the rod to form a rack, a gear meshing with the said rack, a ratchet gear fixed for rotation with the said first-named gear, reversely swinging levers having pawls engageable with the ratchet gear, means for operating the levers independently of each other for turning the ratchet gear in reverse directions, and a coil spring having its ends fixed to the levers to hold the same in normal position.

1,144,918. BATTER-DROPPER. JAMES M. SANDERS, St. Louis, Mo. Filed June 20, 1913. Serial No. 774,831. (Cl. 107—29.)

1. A batter dropper including a receptacle formed with discharge openings, chutes arranged below the receptacle out of registry with the respective discharge openings, a control member formed with a receiving chamber and operable to register said receiving chamber with the discharge openings or chutes, said control member including an adjustable section to vary the size of the receiving chambers, and means for locking the adjusting sections in fixed relation to the control member.

2. A batter dropper including a receptacle formed with discharge openings, chutes arranged below the receptacle out of registry with the respective discharge openings, a control member formed with receiving chambers and operable to register said receiving chambers with the discharge openings or chutes, and locking means for the control member including a lever formed with locking lugs, and a projection carried by the control member to coöperate with said lugs.



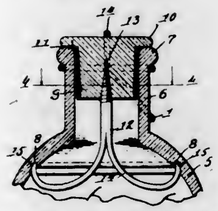
3. A batter dropper including a receptacle formed with discharge openings, chutes arranged below the receptacle out of registry with the respective discharge openings, a control member formed with receiving chambers and operable to register said receiving chambers with the discharge openings or chutes, locking means for the control member including a lever formed with locking lugs, a projection carried by the control member to coöperate with said lugs, and means for manually adjusting the lever to avoid coöperation with the projections.

4. In a batter dropper, the combination with a receptacle provided with a plurality of discharge openings, a plurality of chutes located below said discharge openings, a control member located between said discharge openings and said chutes for receiving a predetermined quantity of batter from said receptacle through the openings therein and discharging said batter into said chutes, and said controlling member including adjustable blocks for closing communication between the receptacle and said chutes.

5. In a batter dropper, the combination with a receptacle provided with a plurality of discharge openings, a plurality of chutes located below said discharge openings, a control member located between said discharge openings and said chutes for receiving a predetermined quantity of batter from said receptacle through the openings therein and discharging said batter into said chutes, said control member including adjustable blocks for closing communication between the discharge openings of the receptacle and said chutes, and means for retaining and adjusting said blocks in their desired position.

[Claim 6 not printed in the Gazette.]

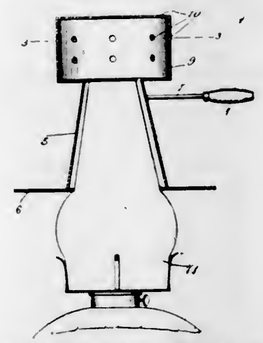
1,144,919. BOTTLE-STOPPER. MATILDA JANE SHUCK, Bloomington, Ill., assignor of one-half to Perry L. Noggle, Bloomington, Ill. Filed Feb. 12, 1914. Serial No. 818,405. (Cl. 215—25.)



1. A bottle stopper in combination with a bottle having a neck issuing therefrom, a stopper mounted in said neck and having its outer terminal enlarged to provide an annular flange to engage the free terminal of the bottle neck, and means for normally snugly engaging said flange with said neck including a rod, one end of which is threaded to facilitate engagement with said stopper and the opposite end formed to provide arms to engage the bottle, substantially as specified.

2. A bottle stopper in combination with a bottle having the usual neck and provided with a groove adjacent the inner terminal of said neck, a stopper mounted in said neck, an elastic element comprising a resilient rod, one end of which is fixedly engaged with said stopper and the opposite end bifurcated and having the free terminals of the branches thereof in engagement with said groove for normally holding said stopper snugly in engagement in the bottle neck and automatically reëngaging said stopper in said neck after it has been unseated therefrom.

1,144,920. HEATING ATTACHMENT FOR LAMP-CHIMNEYS. CARRIE E. SNAVELY, Sauk Rapids, Minn. Filed Dec. 29, 1914. Serial No. 879,498. (Cl. 126—248.)



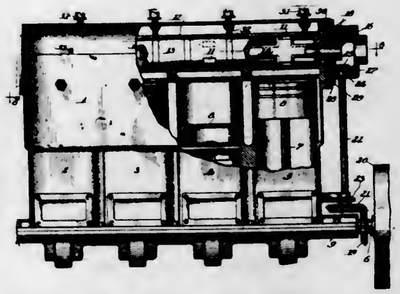
1. An attachment for lamp chimneys comprising a frusto-conical body, an annular flange or shelf at the lower end of said body, and a perforate drum at the upper end of said body.

2. An attachment for lamp chimneys comprising a frusto-conical body, an annular flange secured to the large end of said body, and a perforate drum secured to the small end of said body.

3. An attachment for lamp chimneys comprising a frusto-conical body, an annular flange or shelf secured at the large end of said body and a perforate drum secured to and of greater diameter than the small end of said frusto-conical body.

4. An attachment for lamp chimneys comprising a frusto-conical body, an annular flange at the large end of said body, a perforate drum at the small end of said body, and a handle carried by said frusto-conical body.

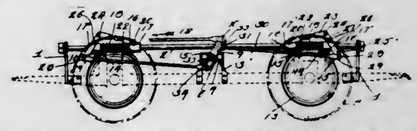
1,144,921. GAS-ENGINE. CHESTER N. STEVER, Mechanics Valley, Pa. Filed June 24, 1914. Serial No. 847,087. (Cl. 123—190.)



1. In combination with the cylinders of an internal combustion engine, a valve casing, a cylindrical valve mounted within said casing, said valve comprising an exhaust chamber running its entire length and having an opening in one end for connection with the exhaust pipe, said chamber being the same diameter throughout, an inner chamber spaced within said exhaust chamber, said inner chamber having an opening in its end opposite to the open end of the exhaust chamber for connection with the gas supply, said chamber being of the same diameter throughout, ports for communication between said cylinders and said valve chambers, the ports from the inner chamber having straight walls, means for balancing said valve, and means for rotating said valve.

2. In combination with the cylinders of an internal combustion engine, a valve casing, a cylindrical valve mounted within said casing, said valve comprising an exhaust chamber running its entire length and having an opening in one end for connection with the exhaust pipe, said chamber being the same diameter throughout, an inner chamber spaced within said exhaust chamber, said inner chamber having an opening in its end opposite to the open end of the exhaust chamber for connection with the gas supply, said chamber being of the same diameter throughout, ports for communication between said cylinders and said valve chambers, the ports from the inner chamber having straight walls, said chambers being axially disposed as to one another for causing an evenly balanced valve, and gear mechanism connected to the main drive shaft of said engine for rotating said valve.

1,144,922. RAILWAY BAND-BRAKE. ALPHONSO TAUBMAN, Richmond, Va. Filed Aug. 21, 1914. Serial No. 857,872. (Cl. 188—33.)



1. The combination with a vehicle and a pair of traction wheels therefor, of an adjustable double-acting band brake for each wheel, and means for simultaneously and uniformly applying and releasing both the brakes, said means including a rock shaft bodily shiftable relative to the vehicle.

2. In a vehicle, the combination with a truck, of a pair of wheels located at each side of the truck, each wheel having a braking surface, a pair of supports arranged at opposite sides of the truck, a pair of band brakes adjustably mounted on each support, each band brake being adapted to act upon the braking surface of the adjacent wheel, and means for applying and releasing all of the band brakes, said means including a bodily shiftable element, connections between the element and all of the band brakes, and an operating member for actuating the element.

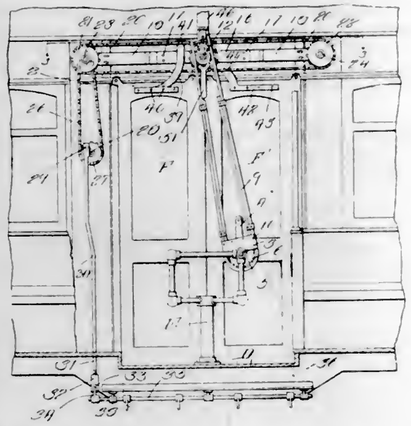
3. In a vehicle, the combination with a truck, of a pair of wheels at each side of the truck, each wheel having a braking surface, a pair of supporting rods carried by the truck and arranged one at each side of the truck, a pair of adjustable band brakes carried by each rod, each band brake being adapted to engage the braking surface of the adjacent wheel, a bodily shiftable rock shaft, connections between the rock shaft and all of the band brakes, and means under control of the operator for actuating the shaft to cause the application of the band brakes to the respective braking surfaces of the wheels.

4. The combination with a vehicle including two pairs of wheels, of two pairs of band brakes for the two pairs of wheels, a sliding sleeve connected to each end portion of each band brake, a spring interposed between the pairs of sleeves of each band brake and adapted to normally throw said band brake out of braking relation with the wheel, a lever pivoted to one of the pair of sleeves of each brake, of a connection between one end of the lever and the opposite sleeve of the brake, a bodily shiftable rock shaft common to all of the brakes, means connecting the rock shaft and the lever of each brake, and means for actuating the rock shaft to cause the application of all of the brakes against the action of the springs of the brakes.

5. The combination with a vehicle including two pairs of wheels, of two pairs of band brakes for the two pairs

of wheels, a sliding sleeve connected with each end portion of each band brake, a spring interposed between the two sleeves of each band brake and adapted to normally throw said band brake out of braking relation with the wheel, a lever for each band brake pivoted to one of the sleeves of each band brake, a connection between one end of the lever and the other sleeve of each band brake, a bodily shiftable rock shaft common to all of the brakes, a pivoted connecting rod connecting the rock shaft with the lever of each brake, and means for actuating the rock shaft to cause the application of all of the brakes against the action of the springs of the brakes.

1,144,923. CAR-DOOR-OPERATING MECHANISM. ALPHONSO TAURMAN, Richmond, Va. Filed Oct. 22, 1914. Serial No. 868,013. (Cl. 105—88.)



1. The combination with a door and a folding step, of mechanism for opening the door and unfolding the step and closing the door and folding the step, said mechanism including a driving sprocket, a driven sprocket, a chain traveling over said sprockets, a connection between the door and the chain, means connecting one of said sprockets and the step, and means under control of the operator for imparting motion to the driving sprocket.

2. The combination with a door and a folding step, of means for opening the door and unfolding the step and closing the door and folding the step, said mechanism including a driving sprocket and a driven sprocket, a chain traveling over said sprockets, a connection between the chain and the door, means connecting one of said sprockets and the steps, an operating shaft connected with the driving sprocket, a power shaft, and power transmission means between the power shaft and the operating shaft.

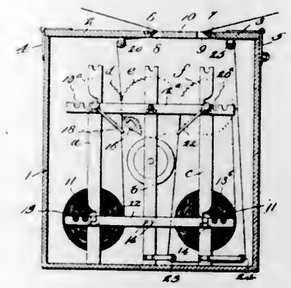
3. The combination with a door and a folding step, of mechanism for opening the door and unfolding the step and closing the door and folding the step, said mechanism including a driving sprocket and a driven sprocket, a chain traveling over the sprockets, a connection between the door and the chain, means connecting one of said sprockets and the step, an operating shaft connected with the driving sprocket, a power shaft, a sprocket for the power shaft, a sprocket connected with the operating shaft, an endless chain traveling over the last two sprockets, and means for actuating the power shaft.

4. The combination with a door and a folding step, of mechanism for opening the door and unfolding the step and closing the door and folding the step, said mechanism including a driving sprocket and a driven sprocket, a chain traveling over said sprockets, a connection between the door and the chain, step operating means interposed between one of the sprockets and the step and including a chain and sprocket device and a flexible connection between the chain and sprocket device and the step, and means under control of the operator for imparting motion to the driving sprocket.

5. The combination with a door and a folding step, of mechanism for opening the door and unfolding the step and closing the door and folding the step, said mechanism including a driving sprocket, an operating shaft for the driving sprocket, a driven sprocket, an endless chain connecting the two sprockets, a connection between the door and the chain, a third sprocket connected in driven relation with one of the first mentioned sprockets, a crank sprocket, a drive chain connecting the third sprocket with the crank sprocket, a rock shaft for the step, means connecting the rock shaft with the crank sprocket, a power shaft, and power transmission means between the power shaft and the operating shaft.

[Claims 6 to 11 not printed in the Gazette.]

1,144,924. PRINTING AND CUTTING MACHINE. HANS H. E. R. TIEDEMANN, Detroit, Mich. Filed Nov. 27, 1914. Serial No. 874,259. (Cl. 211—30.)

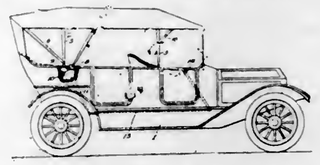


1. A machine for printing and cutting wrapping paper comprising a casing, a central and side vertical standards secured to the bottom of said casing, upper and lower horizontal supporting rods secured to said standards, the ends of the lower supporting rods having rolls of paper of different widths rotatably mounted thereon, platen rollers mounted on the upper supporting rods near their ends, a printing roller rotatably mounted on said central support near the upper end thereof and being in alinement with said platen rollers, an inking roller mounted on said central support, the top of said casing having a pair of parallel slots, knives secured adjacent to said slots, guide rollers secured to the inside of said casing, whereby the webs from the rolls of paper can be brought between said platen rollers and printing roller through said slots and in engagement with said knives.

2. A machine for printing wrapping paper comprising a casing, a central standard secured to the bottom of said casing, side standards secured to the bottom of said casing and being parallel with said central standards, upper and lower supporting rods secured to said standards, a printing roller rotatably mounted on the upper portion of said central standards, said lower supporting rods having rolls of paper of different widths rotatably mounted thereon at a point near their ends, platen rollers rotatable on said upper supporting rods at a point near their ends, guides for the webs of said paper rolls secured to said platen rollers, the upper face of said rods near their ends being notched whereby said platen roller can be brought in or out of engagement with said printing roller and thereby allowing or keeping the webs of said paper rolls from being printed.

1,144,925. VEHICLE TOP RAISING AND LOWERING MECHANISM. DELTON C. WATT and FREDERICK A. GREARSON, Barre, Vt. Filed Nov. 10, 1913. Serial No. 800,133. (Cl. 21—62.)

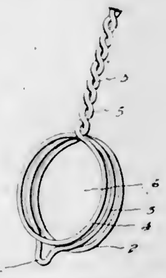
1. The combination with an extensible cover forming a foldable top for a vehicle, and adapted to have one end fixed to the vehicle body, of a power member forming one of the supports for the cover and spaced from its fixed end, a movable support between the power member and the fixed end of the cover, expansible means connected with the power member and the support, and means for operating the power member to distend the expansible means whereby the latter together with said power member and movable support will be in relative position for holding the cover raised and taut from end to end thereof.



2. In combination with a vehicle top embodying pivoted bows or like supports for the cover, said bows having extensions of their side members projecting to unequal distances and side levers having connection with the extensions of the bows unequal distances from the fulcra of such side levers, whereby the bows have a differential movement imparted thereto in the raising and lowering of the top.

3. In a folding vehicle top, a front frame of substantially U-form for supporting the forward portion of the top cover, said frame embodying extensible hollow telescopic side members which are pivoted to the front bow, and springs coöperating with and disposed within the hollow telescopic side members of the frame to effect a yielding movement thereof.

1,144,926. GAME-PIECE. WILLIAM WUNSCH, Brooklyn, N. Y. Filed Oct. 16, 1914. Serial No. 866,981. (Cl. 46—32.)



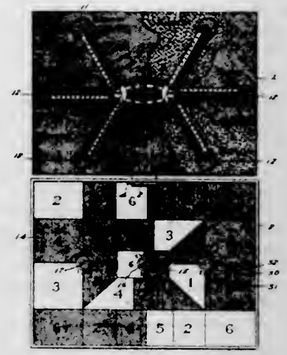
1. A game piece or accessory for game boards comprising a spinning device formed from a single strand of wire and comprising a spinning point or peg, a series of rings connected to the point, and a stem consisting of the terminal ends of the strand of wire twisted together.

2. A game piece or accessory comprising a point or peg, a series of strands of wires formed integral with the peg and bent into the form of a ring having flat sides and the terminal ends of the wire being twisted together to form a spinning stem.

1,144,927. GAME-BOARD. WILLIAM WUNSCH, Brooklyn, N. Y. Filed Oct. 16, 1914. Serial No. 866,982. (Cl. 46—63.)

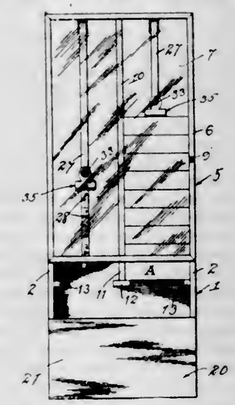
1. A game board comprising a dial having numbers indicated on various colored panels, and a game board provided with a field having various colored portions having the names of different countries thereon, and arms extending from a central panel out into said countries and provided with a circular device entitled "Capital" and a series of columns running from said capital to "Forts" one at each side of the central panel, said columns being provided with eyelet holes, and flags provided with staffs for location at the capitals and for moving along the columns toward the central panel and back toward the capitals.

2. A game board comprising a dial, having a number of ordinals indicated thereon in various colored panels, and a game board comprising a field representing various countries and columns extending from a central panel entitled "Session" and from "Forts" at opposite sides thereof out to the capitals, large national flags inserted centrally in the capitals, small national flags adapted to be moved in perforations in the columns, small peace or truce flags to be moved in the perforations in another column, and a game piece comprising a ring and stem and point to be operated on the dial to indicate the movements of the flags in the columns.



3. A game board comprising a box having a dial therein, various colored panels on the dials, ordinals or numbers indicated in the panels, a centrally disposed panel having a target or bull's eye therein, forts at opposite sides of the central panel, a game piece to be spun at the center or at the forts, and a game board provided with various colored portions, each indicating a country, a central panel entitled "Session", forts at opposite sides of the session, columns extending from said forts and provided with perforations, said columns being differently colored, and capitals at the outer ends of said columns, and flags to be located at each capital to indicate the country and a smaller national flag to be moved along the columns in the perforations, and a white or peace flag to be moved in accordance with the figures indicated by the game piece on the dial.

1,144,928. DELIVERING-CABINET. CHARLES R. ADAIR and FRANK A. BANE, Narrows, Va. Filed Oct. 3, 1914. Serial No. 864,964. (Cl. 211—8.)



1. An indicating and delivering cabinet, including a casing, a vertically adjustable indicator tape within the casing, graduations on the tape, and means to prevent

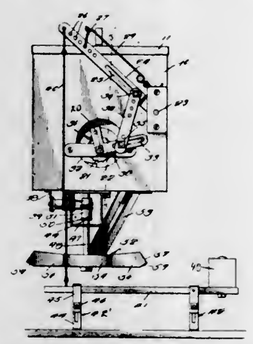
the withdrawal of more than the bottom package from the casing when it is in use.

2. An indicating and delivering cabinet, including a casing, a vertically adjustable indicator tape within the casing, graduations on the tape, means to lock the tape in adjusted position, and means to prevent the withdrawal of more than the bottom package from the casing when it is in use.

3. An indicating and delivering cabinet including a casing, a vertically adjustable indicator tape within the casing, graduations on the tape, a follower on said tape, a thumb screw extending through the follower and tape, a clamp coöperating with the thumb screw and follower to engage the back of the casing and lock the tape against movement, and means to prevent the withdrawal of more than the bottom package from the casing when it is in use.

4. An indicating and delivering cabinet including a casing, the back wall of the casing being slotted, a transparent door forming the front wall of the casing, a vertically adjustable indicator tape within the casing and overlying the slot in the rear wall thereof, graduations on the tape, a follower on the tape, a clamping block cooperating with the follower, a thumb screw extending through the follower and into the clamping block, said block and follower being on opposite sides of the back, and cleats secured to the side walls of the casing at a point slightly below the lower end of the door to prevent more than one package from being withdrawn from the cabinet at one time.

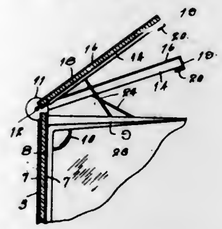
1,144,929. CHICKEN FEEDER AND EXERCISER. HARRY J. BECKER, Northampton, Pa. Filed Oct. 9, 1912. Serial No. 724,809. (Cl. 119—70.)



1. In a chicken feeding device, a feed containing receptacle having a compartment in the forward portion thereof, a shaft mounted in the compartment, the bottom of said compartment having an outlet opening, a ratchet wheel mounted in the shaft, a bladed agitating disk mounted on the shaft, a plate loosely mounted on the shaft, a pawl carried by the plate and engaging the ratchet wheel, a lever pivoted on the receptacle, adjustable connections between the pawl carrying plate and the lever for actuation of said plate upon the movement of the lever, a cable connected at one end to the lever, a depressible bar connected to the other end of the cable for actuating the lever for moving the pawl idly over the ratchet wheel, a rotatable scattering device, a clutch member rotatably carried by the scattering device, the intermediate portion of the cable being engaged around the clutch member, and a spring for returning the member to normal position to actuate the agitating disks.

2. In a chicken feeding device, a feed receptacle, a depressible lever actuated by the chickens, a mechanism for delivering feed from the receptacle, including a spring-pressed lever, a cable connected to the said spring-pressed lever and to the depressible lever, a depending shaft mounted below the receptacle, a rotating feed scattering pan mounted on the lower end of the shaft, a laterally projecting pin on the shaft, a sleeve loosely mounted on the shaft and having teeth for engagement with the pin, and a guiding roller mounted on the receptacle, the cable having its intermediate portion engaged with the guiding roller and around the said sleeve, whereby upward movement of the said depressible lever will permit the spring-depressed lever to pull the said cable and cause the simultaneous actuation of the delivering mechanism and the scattering pan.

1,144,930. SHOW-CASE BRACKET. EMANUEL F. BERGREEN, Brooklyn, N. Y. Filed Aug. 14, 1914. Serial No. 856,828. (Cl. 211—25.)



1. A show case bracket including an upstanding member, an arm formed at the upper terminal of the upstanding member, a pair of bars pivotally secured to the upstanding member and arranged to lie parallel with the arm, each of said bars being rabbeted along their outer edges, and a plate overlying the bars and overhanging the rabbeted portion, thereby forming a groove to receive the glass forming the walls of the show case.

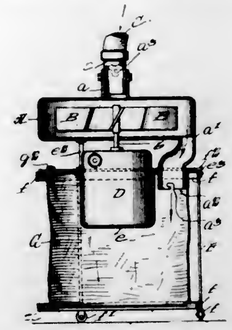
2. A show case bracket comprising an upright, an arm formed at the upper end of the upright, a pair of ears projecting from the upright on the side opposite the arm, bars pivotally secured to the ears, said arms being arranged to lie in parallel relation to the arms and being rabbeted on their outer edges, and plates secured to the bars, said plates overhanging the rabbeted portions to form grooves in which the top plate of the show case is arranged to be held.

3. The combination with a base, a bracket secured to the base, said bracket comprising an upstanding member, an angular extension at the lower terminal of the upstanding member, said extension being provided with screw holes arranged to receive screws by means of which the device is secured to the base plate, an inwardly extending arm at the upper terminel of the upstanding member, ears projecting in the opposite direction of the arm, a pivot pin extending through the ears, a pair of bars pivotally mounted on the pivot pin, each of said bars being rabbeted on its outer edge, and plates secured to the upper surface of the bars, said plates being arranged to overlie the top thereof and overhang the rabbeted portions to hold a glass in place, and means to hold the bars normally downwardly.

1,144,931. VACUUM-CLEANER. ARCHER BOOGHER, Roanoke, Va. Filed Dec. 13, 1912. Serial No. 736,509. (Cl. 83—47.)

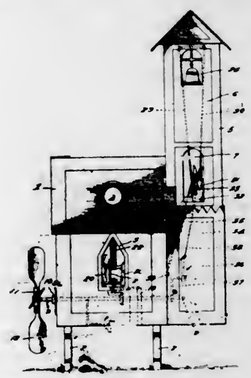
1. In a device of the character described, the combination of a dust collecting mechanism including suction producing means, a casing therefor, said casing being provided with an inlet tube and an outlet tube, and a bag carrying member provided about said outlet tube, said member having outstanding projections, and a support for said dust collecting mechanism having an upper ring on which the said bag carrying member is adapted to rest, provided with hooks for engagement with said outstanding projections whereby to removably lock the dust collecting mechanism on its said support.

2. In a device of the character described, the combination of a dust collecting mechanism including suction producing means, a casing for said means provided with an inlet tube and an outlet tube, a bag carrying member disposed around the outlet tube, and a support for said dust collecting mechanism having an upper ring on which the



said bag carrying member is adapted to rest, said ring and said bag carrying member having relatively engaging means whereby to removably lock the dust collecting mechanism on its said support.

1,144,932. WINDMILL. ALFREDO BUTTAFOCO, Chicago Heights, Ill. Filed Jan. 15, 1915. Serial No. 2,383. (Cl. 46—14.)



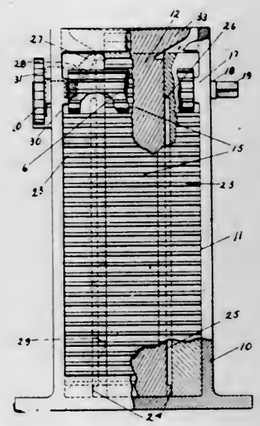
1. A toy comprising a shaft, a wind wheel on said shaft, a turn table and connections between said shaft and turn table, a plurality of figures mounted on the turn table, a bell, and connecting mechanism for ringing the bell when the wind wheel is rotated.

2. A toy comprising a building having open windows, through which moving figures can be seen, and through which a bell can be seen ringing, a shaft mounted in the building, a wind wheel mounted on the shaft outside the building, a turn table, and connections between the shaft and turn table, a plurality of figures mounted to be carried by said turn table around the central point, a tower, a bell pivotally mounted in said tower, cords leading from the bell to figures in the tower for ringing the bell, and connections between the wind wheel shaft and said figures.

3. A toy comprising a building having a tower, a shaft mounted in the building and provided with a wind wheel outside the building, a crank on said shaft inside the building, a turn table, connections between said shaft and turn table, a series of figures mounted on the turn table, a bell in the tower, figures in the tower, a cord connected to the figures in the tower and to the bell and to said crank at one end and an elastic band connected to the other end of said cord and to the building.

4. A toy comprising a building to simulate a church having a tower thereon, a bell pivotally mounted in said tower, a turn table, a plurality of figures mounted on the turn table, a shaft, a wind wheel mounted on the shaft for moving said figures, and means for actuating the bell, said building having openings therein to display the figures and the bell.

1,144,933. LIFTING-JACK. HERBERT A. CONNERS, Boston, Mass. Filed Feb. 7, 1914. Serial No. 817,334. Renewed Jan. 29, 1915. Serial No. 3,124. (Cl. 254—95.)



1. A lifting jack, comprising a base support, a plunger mounted for in and out movement relative thereto, an operating device connected with said plunger, and a slidable member normally disconnected from said operating device having connection with said plunger to be brought into operative relation to the operating device as the plunger nears the outer limit of its movement, whereby it may be moved out from the base by said operating device, there being provision whereby the plunger is then locked to said member to be moved farther outward.

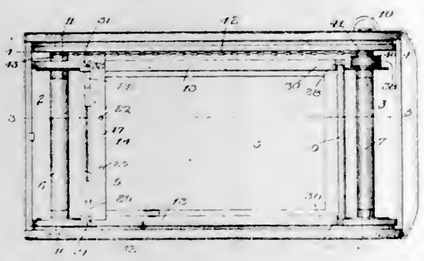
2. A lifting jack, comprising a base support, a primary plunger mounted for movement in and out relative thereto, an operating device for said primary plunger, and a secondary plunger slidably mounted in the base and also in slidable relation to the primary plunger, said secondary plunger having provision for connection to said operating device, normally in inoperative position, interengaging means on said primary plunger and secondary plunger whereby the secondary plunger is picked up by the primary plunger near the end of its outward movement and brought into operative relation to said operating device for farther outward movement, and means associated therewith for locking the primary plunger to the secondary plunger on such farther outward movement.

3. A lifting jack, comprising a base, primary and secondary plungers slidably fitted in said base and also mounted for limited sliding movement with respect to each other, an operating device mounted on the base, means on both of said plungers for engaging said operating device, such means on said secondary plunger being normally disconnected from the operating device, there being interengaging portions on said primary and secondary plungers, whereby the former picks up the latter near the limit of its outward movement and engages it with said operating device for farther outward movement, and a dog on one of said plungers mounted to engage a notch on the other to lock them together when the primary plunger is extended and being moved outward by the secondary plunger.

4. A lifting jack, comprising a base support, primary and secondary plungers slidably mounted in said support and one mounted for limited sliding movement relative

to the other, said plungers each presenting a plane front face equipped with rack teeth, such teeth on the primary plunger being extended up beyond those on the secondary plunger, an elongated pinion mounted to engage the teeth of the primary plunger and normally out of engagement with the teeth of the secondary plunger, there being means whereby the primary plunger picks up the secondary plunger near the limit of its outward movement to bring its teeth into operative relation to said pinion, means for then automatically locking the primary plunger to the secondary plunger, and means for holding said plungers in the position to which they are run out.

1,144,934. PHOTOGRAPHIC-ROLL HOLDER. JOSEPH WARREN CUTLER, Rochester, N. Y. Filed Sept. 12, 1913. Serial No. 789,475. (Cl. 95—31.)



1. In a photographic roll holder, the combination with a casing having an exposure opening and film supply and take up devices arranged therein to stretch the film in rear of said opening, of means operable from the exterior of the casing arranged in rear of the film and opening and adapted to directly engage the film strip to move it from one to the other of said devices.

2. In a photographic roll holder, the combination with film supply and take up devices, of a reciprocatory gripper adapted to engage and move the film across the focal plane when the gripper is actuated in one direction and to release the film when actuated in the other direction and driving means between the gripper and the take-up device for driving the latter directly from the gripper.

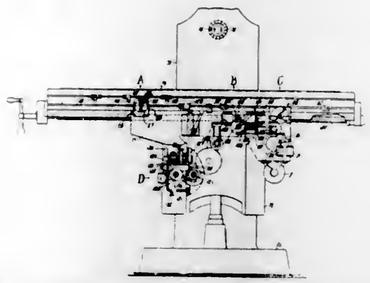
3. In a photographic roll holder, the combination with film supply and take up devices upon which the film is wound and rolled, of a reciprocatory gripper comprising relatively movable jaws adapted to engage and move the film across the focal plane from one to the other of said devices when the gripper is actuated in one direction and to release the film when actuated in the other direction, the length of a single reciprocation of the gripper being approximately equal to the length of a single exposure area of the film whereby an entire exposure area may be advanced into exposing position by a single movement of the gripper driving means between the gripper and the take-up device for driving the latter directly from the gripper and compensating means associated with the driving means to allow for the increasing size of the roll on the take-up device.

4. In a photographic roll holder, the combination with a casing having a removable wall and film feeding and take up devices arranged in the casing, of means adapted to engage the film strip and to move it from one to the other of said devices and an operating member for said means detachably connected thereto and carried by the removable wall.

5. In a photographic roll holder, the combination with a casing having a removable wall and film feeding and take up devices arranged in the casing, of a reciprocating gripper adapted to engage the film and to move it from one to the other of said devices, and a reciprocatory operating member for the gripper guided on the removable wall and detachably connected to the gripper.

[Claims 6 to 11 not printed in the Gazette.]

1,144,935. MACHINE-TOOL CONTROL. ADOLPH L. DE LEEUW, Cincinnati, Ohio, assignor to The Cincinnati Milling Machine Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Feb. 19, 1913. Serial No. 749,292. (Cl. 172—240.)



1. A control system of the nature disclosed, combining a traveling support, a power-driven prime mover, a mechanical connection extending from said prime mover to said support for feeding the same forwardly at a reduced rate, a dynamo actuated by said prime mover, an auxiliary electric motor deriving energy from said prime mover and adapted rapidly to forwardly propel said support, and clutch mechanism adapted alternatively to establish an operative propelling relation between said connection or said motor and said support.

2. A control-system of the nature disclosed combining a traveling support, a mechanical power-driven means for feeding the same forwardly at a reduced rate, an auxiliary electric motor adapted rapidly to forwardly propel said support, clutch mechanism adapted alternatively to establish an operative propelling relation between said means or said motor and said support, and a contact instrumentality actuated by said traveling support for operating said clutch mechanism.

3. A control-system of the nature disclosed combining a traveling support, a power-driven means, an auxiliary motor, a clutch for establishing a forward driving relation between said support and either said means or said motor, an electro-magnetic instrumentality for controlling the action of said clutch, and a contact-system actuated by said support for determining the action of said instrumentality.

4. A control-system of the nature disclosed combining a traveling support, power-driven means adapted to feed the same forwardly slowly, an auxiliary motor adapted rapidly to forwardly propel said support, means alternately establishing an operative propelling relation between said means or said motor and said support, an instrumentality controlling said latter means, and a support-actuated means for determining the action of said instrumentality.

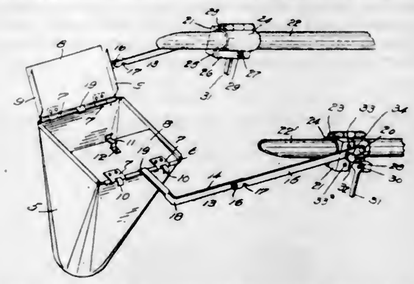
5. A control-system of the nature disclosed combining a traveling support, means for reciprocating said support back and forth between extreme positions, and automatic control mechanism for said means for causing said support to be moved rapidly throughout the first-half of each complete backward as well as forward stroke, and slowly throughout the remaining half.

[Claims 6 to 24 not printed in the Gazette.]

1,144,936. HORSE-FEEDING DEVICE. ROBERT O. GALLINGER, Seattle, Wash. Filed June 2, 1914. Serial No. 842,351. (Cl. 119—68.)

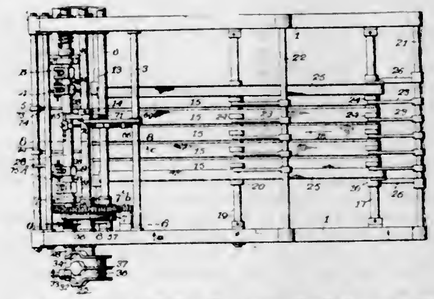
1. The combination with a wire frame, a feed container depending therefrom, a cover member having side flanges hinged to said frame, and means connected with the cover for retaining the cover-member in inclined position when open, of a supporting frame comprised of two foldable arms which are hingedly connected to the aforesaid frame, and shaft clamping devices provided at the ends of the arms remote from their connection with the wire frame.

2. The combination with a feed container, a supporting frame therefor, and means for detachably securing said frame to the shafts of a vehicle, of a pair of cover members hingedly connected to opposite sides of said con-



tainer, and means for retaining said cover members in inclined positions when open to direct the feed which may be thrown thereagainst back into the container.

1,144,937. REGISTERING DEVICE FOR PAPER-FEEDING MECHANISMS. JAMES G. HARDIE, Worcester, Mass. Filed Nov. 26, 1913. Serial No. 803,349. (Cl. 101—36.)



1. A registering device for paper feeding mechanism, comprising means for supporting the sheet in extended position, a registering gage having a wall for engagement with an edge of said sheet, means for moving said wall against said edge to impart a sidewise movement of the sheet, means carried by said gage for gripping said edge of the sheet, means for preventing the entrance of said edge between said wall and said gripping means, and means for reversing the sidewise movement of said sheet to bring said edge into a predetermined position.

2. A registering device for paper feeding mechanism, comprising means for supporting the sheet in extended position, a gage having a wall for engagement with an edge of said sheet, means for moving said wall against said edge to impart a sidewise movement to the sheet, means carried by said gage for gripping said edge of the sheet, said gripping means extending through said wall to prevent the entrance of said edge between said wall and said gripping means, and means for reversing the movement of said gage to bring said edge into a predetermined position.

3. A registering device for a paper feeding mechanism, comprising means for supporting the sheet in an extended position, means for pushing the sheet sidewise, means for applying a frictional resistance to the sidewise movement of the paper, means for engaging the edge of the sheet, and means for moving the sheet engaging means in a direction opposite to the first named sidewise movement to bring the edge of the sheet into a predetermined position.

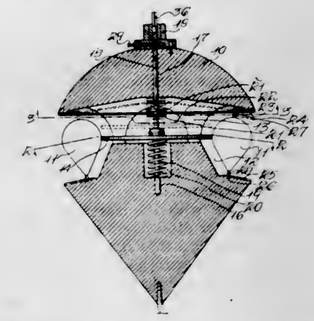
4. A registering device for paper feeding mechanism, comprising means for supporting the sheet in an extended position, a gage for an edge of said sheet, means for moving said gage to impart a sidewise movement to the sheet, yielding means interposed in the path of said sheet during such movement for insuring the contact of said edge with said gage, and means for thereafter gripping said sheet in said gage.

5. A registering device for a paper feeding mechanism, comprising a gage for the sidewise registration of a sheet, a support for the sheet during its registration, a guard for maintaining the sheet on said support and frictionally held in position, means for moving said gage to bring the sheet into a predetermined position, and an arm on said gage to contact with and move said frictionally held guard.

[Claim 6 not printed in the Gazette.]

1,144,938. TOP. HAROLD M. HOWARD, Providence, R. I. Filed Mar. 19, 1914. Serial No. 825,822. (Cl. 46—32.)

1. A top having a lateral recess, a secondary top contained in such recess, and means for setting said secondary top in independent rotation.



2. The combination of a primary top, a secondary top mounted in said primary top, means for spinning said primary top, and means for simultaneously causing said secondary top to spin independently of the primary top.

3. A primary top having means for containing a top in its interior, a secondary top mounted rotatably in said means and means for causing said secondary top to rotate independently of the primary top and to be ejected from the primary top.

4. A primary top having a cavity eccentric to its axis, a secondary top contained in said cavity, the primary top having means for supporting the secondary top so that the latter may rotate independently upon its own axis, and means for releasing the secondary top and permitting its egress from the primary top when the latter is spun.

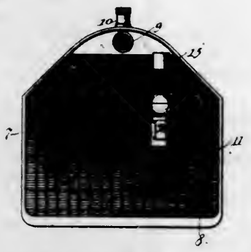
5. A top having a lateral cavity, a secondary top adapted to be contained in said cavity and having pivots on its ends, pivot engaging and supporting means within said cavity constructed to engage said pivots and permit rotation of the secondary top, means for setting the primary top in rotation and simultaneously causing the secondary top to rotate upon its own axis, and means for displacing one of said pivot containing sockets and permitting release of the secondary top.

[Claims 6 to 16 not printed in the Gazette.]

1,144,939. MEANS FOR PREVENTING THE FREEZING OF THE COOLING SYSTEMS OF AUTOMOBILES. HARVEY E. KAILER, Chicago, Ill. Filed Mar. 28, 1914. Serial No. 827,828. (Cl. 123—170.)

1. The combination with a water cooling system for engines, comprising a radiator, a water jacket and an inlet and outlet pipe for the radiator, of means diverting water from and returning it into the current thereof, means for isolating a small portion of water from, and returning it in the form of a jet into the diverted current, and means for heating said isolated water, whereby a continuous circulation of water in a cooling system exposed to a freezing temperature is maintained without substantially reducing the cooling efficiency of the water therein.

2. The combination with a water cooling system for engines comprising a radiator and a water jacket, and an inlet and outlet pipe for the radiator, of means diverting the water from and returning it into the current thereof, means for contracting the diverted current of water, and means for applying heat to the contracted portion of said water current.



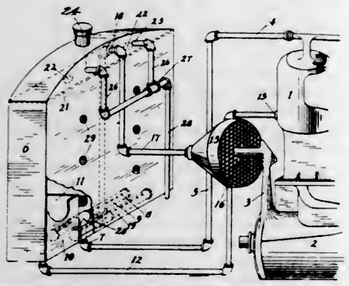
3. The combination with a water cooling system of an engine, comprising a radiator, a water jacket, and a supply and discharge pipe therefor, of a pipe externally of the radiator connecting said inlet and outlet pipe provided with an intermediate contracted passage for the water, a valve for controlling the passage of water therethrough, and means for applying heat to the contracted current of water during its passage from the inlet to the outlet pipe of the radiator.

4. The combination with the water cooling system for an engine, of means for diverting a small stream of water therefrom and returning it into the current thereof, an enlarged water chamber therein, means for isolating a small portion of the water in said chamber, and means for isolating and applying heat to a fractional part thereof, and directing it in a heated condition onward to the cooling water.

5. The combination with the water cooling system for an engine comprising a radiator and water jacket, of a water heating branch therefor, comprising an outlet pipe and an inlet pipe in open communication with the cooling water of said system, a water reservoir connecting said pipes and in the path of the current of water therethrough, means for applying heat to the contents of said reservoir, and a water huddling chamber therein directly in the path of the current of water flowing through the inlet pipe to the cooling system, whereby a comparatively very small amount of the water in the reservoir may be highly heated and discharged into the cooling system in a small stream for maintaining continuous circulation therein without substantially increasing the temperature of the cooling water.

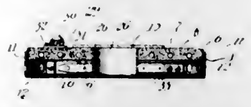
[Claims 6 and 7 not printed in the Gazette.]

1,144,940. WATER-COOLER. THOMAS F. LAMB and WALTER L. DICKINSON, Shreveport, La. Filed Oct. 9, 1912. Serial No. 724,741. (Cl. 261—3.)



A water cooler comprising a receptacle, a perforated air inlet pipe in the base of said receptacle, a cool water compartment having an open top and closed sides and bottom in the base of said receptacle, the top of said compartment being above the level of said air inlet pipe, said air inlet pipe being confined to the space in the base of said receptacle not covered by said compartment, means for forcing a stream of air through said air inlet pipe, means for supplying water to said receptacle, and a water outlet pipe leading from the base of said receptacle.

1,144,941. MICROSCOPE WARM STAGE. TIODOLF LIDBERG, Chicago, Ill., assignor of one-half to John W. Morsbach, Chicago, Ill. Filed June 24, 1914. Serial No. 846,940. (Cl. 219—19.)



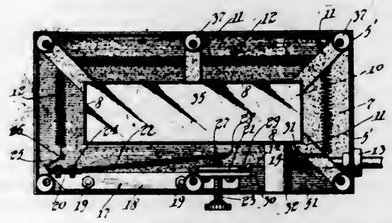
1. A warm stage for a microscope comprising a centrally perforated plate; an electric conductor encompassing said perforation to heat the plate; a metal housing support centrally perforated, having a laterally projecting, perforated, peripheral wall; a circuit varying thermostat bar within said housing, in circuit with said heating conductor, and means to adjust said thermostat, accessible through one of said peripheral perforations.

2. In a structure of the character described the combination of a support comprising a central tube, a base part radiating from the lower end of the tube, the outer edge portion of the base part being upturned to form a peripheral wall; and an electric heating disk adapted to fit within the peripheral wall and having a central opening therethrough to receive said tube.

3. In a structure of the character described the combination of a support comprising a central tube, a base part radiating from the lower end of the tube, the outer edge portion of the base part being upturned to form a peripheral wall; and an electric heating disk positioned with its outer edge within said peripheral wall and its lower face spaced away from the base part to provide an air chamber therebetween, said disk having a central perforation to receive the said tube.

4. In a structure of the character described the combination of a support comprising a central tube, a base part radiating from the lower end of the tube, the outer edge portion of the base part being upturned to form a peripheral wall; an electric heating disk positioned with its outer edge within said peripheral wall and its lower face spaced away from the base part to provide an air chamber therebetween, said disk having a central perforation to receive the said tube and a current varying thermo-responsive element positioned within said air chamber.

1,144,942. INCUBATOR FOR MICROSCOPE-STAGES. TIODOLF LIDBERG, Chicago, Ill., assignor of one-half to John W. Morsbach, Chicago, Ill. Filed June 24, 1914. Serial No. 846,941. (Cl. 219—19.)

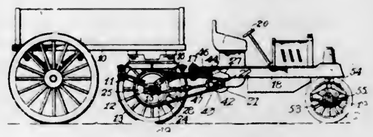


1. A device of the character described comprising a double wall structure, the inner wall being perforated, providing an inclosed heating space surrounding a court to be heated; substantially transparent closures for said court; an electric heating element, within said heating space; and heat responsive means for controlling the circuit including said element, to maintain constant the temperature of the atmosphere within said court.

2. A device of the character described comprising a double wall structure, the inner wall being perforated, providing an inclosed heating space surrounding a court to be heated; suitable transparent closures for said court; an electric heating element within said heating space; an adjustable heat-responsive means within said heating space for controlling the circuit including said element to maintain constant the temperature of the atmosphere within said court and means accessible from without the outer wall to adjust said heat responsive means.

3. A device of the character described comprising a double wall quadrangular box, the inner wall being perforated, providing an inclosed heating space surrounding a court to be heated; substantially transparent closures for said court, one of which is removable; an electric heating element, insulatedly supported within said heating space; an adjustable heat-responsive thermostat for controlling the circuit including said element to maintain constant the temperature of the atmosphere within the court, and an adjustable screw projecting outside of the box to adjust the thermostat for predetermined temperature.

1,144,943. EQUALIZING DEVICE FOR VEHICLES. CHARLES H. MARTIN, Worcester, Mass. Filed Jan. 18, 1912. Serial No. 671,798. (Cl. 21—90.)



1. In a vehicle, the combination with a body yieldingly supported, of means whereby when one side of the body tends to be depressed the downward motion will be transmitted equally to the other side, comprising a movably mounted rigid member extending across the vehicle under the body and adapted to turn about an axis to transmit the motion and having rigid parallel arms at its ends, a pair of rigid parallel arms on the body pivoted to the first named arms by horizontal pivots, and means for connecting the ends of said rigid member with the rear axle of the vehicle.

2. In a vehicle, the combination with a body having a rear axle, said body being yieldingly supported from the rear axle, of a driving shaft extending across the body, two arms extending out adjacent to the driving shaft on opposite sides of the body, an equalizing bar extending across the body and having two rigid arms, each horizontally pivoted to one of the first named arms, and a pair of strut rods pivoted to the axle horizontally and pivoted to the opposite ends of said equalizer bar on vertical axes.

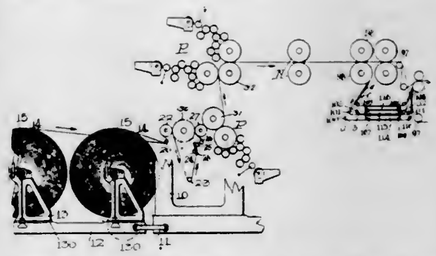
3. In a vehicle, the combination with an axle and a body yieldingly connected therewith, of a rigid arm on each side of the body, an equalizing bar extending from one side of the body to the other, a rigid arm on each end of the bar, each pivoted horizontally to one of the arms on the body, and a pair of strut rods for connecting the body with the axle, each strut rod having a fork provided with a substantially upright pivot, said equalizing bar being mounted at its ends on said pivots.

4. In a vehicle, the combination with an axle and a body yieldingly supported therefrom, of strut rods extending from the axle upwardly toward the body, a transverse member carried by said strut rods and pivoted thereto at its ends on upright axes, and means whereby the descent of one side of the body will turn said transverse member and depress the other side of the body equally.

5. The combination with a vehicle, of a frame provided with a front steering support and a rear axle and yieldingly connected at the rear with said axle, wheels on said axle, a power shaft on said frame, adjustable strut rods removably connecting said shaft with said axle, said shaft being rotatable independently of said strut rods, a motor on said frame geared up to the wheels of the vehicle through said shaft, and means connected with said strut rods for depressing the high side of the frame when the frame tends to tilt.

[Claim 6 not printed in the Gazette.]

1,144,944. PRINTING-MACHINE. FRANCIS MEISEL, Boston, Mass., assignor to Meisel Press & Manufacturing Company, Boston, Mass., a Corporation of Massachusetts. Original application filed Aug. 17, 1910, Serial No. 577,616. Divided and this application filed Jan. 3, 1911, Serial No. 600,382. Renewed Dec. 16, 1914. Serial No. 877,612. (Cl. 242—75.)

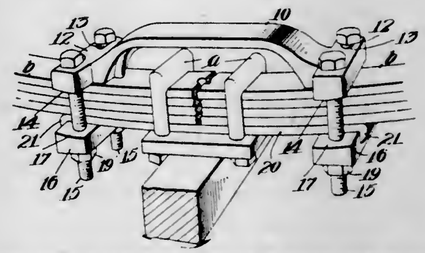


1. The combination with a frame, of a plurality of mill rolls mounted side by side at the end of said frame, a positively driven feed roll extending across the frame and receiving the webs from all of said mill rolls, a set of feed rolls, one for each mill roll for receiving the several webs from the first named feed roll, and means for feeding each of said webs separately from the feed rolls and registering them with each other.

2. The combination with a frame, of a plurality of mill rolls mounted side by side, a positively driven lower feed roll extending across the frame and receiving the webs from all said mill rolls, an upper feed roll, for receiving the several webs from the first named feed roll, a series of lateral guides for each web, feed rolls beyond said guides for receiving each of the webs, and means for feeding the webs individually from the second set of feed rolls.

3 The combination with a frame, of a plurality of mill rolls mounted side by side at the end of said frame, a positively driven feed roll extending across the frame and receiving the webs from all the said mill rolls, a set of feed rolls, one for each mill roll, for receiving the several webs from the first named feed rolls, means for feeding each of said webs separately from said set of feed rolls, and means for bringing the several webs into register.

1,144,945. SPRING-REPAIRER. JOSEPH OUIMETTE, Southbridge, Mass. Filed Nov. 14, 1912. Serial No. 731,239. (Cl. 21—50.)

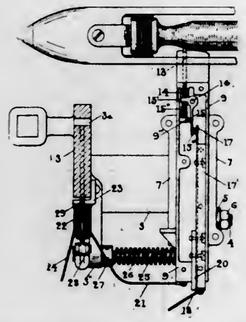


1. As an article of manufacture, a spring repairer comprising a bridge piece having integral transverse perforated ends for engaging one side of a spring, a pair of perforated stay pieces on the other side of the spring,

and bolts connecting said stay pieces to said bridge, the spring-engaging faces of the stay pieces being formed at an acute angle to the plane of the bridge and said stay pieces being reversible, whereby the angular relation of the engaging faces of the bridge and stay pieces may be changed relatively to each other.

2. As an article of manufacture, a spring repairer comprising a bridge piece engaging one side of a spring, a pair of stay pieces engaging the other side of the spring, bolts connecting said bridge and said stay pieces, and a rigid longitudinal member adapted to fit between the spring and the stay pieces, the ends of said member engaging said stay pieces and being effective to prevent longitudinal separation thereof.

1,144,946. WEFT-REPLENISHING LOOM. EPPA H. RYON, Waltham, Mass., assignor to Crompton & Knowles Loom Works, a Corporation of Massachusetts. Filed July 9, 1913. Serial No. 778,068. (Cl. 139—85.)



1. In an automatic weft replenishing loom, a filling detector mechanism, comprising a member having an end to enter a slot in the shuttle and engage the filling on the bobbin or filling carrier therein, and a second member, mounted on and movable with said first mentioned member, and having an end to engage the bobbin or filling carrier in the shuttle, a magnet for controlling the weft replenishing mechanism, a normally open electric circuit between said magnet and said first mentioned member, one terminal being insulated within said member, and the other terminal being a pivoted lever, and means, operated by said second mentioned member, to close said circuit, on the substantial exhaustion of filling in the active shuttle.

2. In an automatic weft replenishing loom, a filling detector mechanism, comprising a slide having an end to enter a slot in the shuttle, and engage the filling on the bobbin, or filling carrier therein, and a plunger, mounted on and movable with said slide, and having an end to engage the bobbin in the shuttle, and a magnet for controlling the weft replenishing mechanism, and a normally open electric circuit, and an electric switch within said slide, operated by said plunger, to close said circuit on the substantial exhaustion of filling in the active shuttle.

3. In a weft replenishing loom, filling detector mechanism, comprising a slide having an end to enter a slot in the shuttle and engage the filling on the bobbin or filling carrier therein, and an adjustable plunger, mounted on and movable with said slide, and having an end to engage the bobbin or filling carrier in the shuttle, and a magnet, and a normally open electric circuit connected therewith, operated by said plunger, to close said circuit on the substantial exhaustion of filling, and means, operated by the magnet to put into operation the filling changing mechanism.

4. In an automatic weft replenishing loom, a filling detector mechanism, comprising a slide having an end to enter a slot in the shuttle and engage the filling on the bobbin in the filling carrier therein, and a plunger, mounted on and movable with said slide, and having a wedge shaped end to engage the bobbin or filling carrier in the shuttle, said plunger adjustable relative to said slide, a magnet for controlling the weft replenishing mechanism, a normally open electric circuit connected therewith, an electric switch within said slide operated by said plunger, to close said circuit on the substantial exhaustion of filling in the active shuttle.

5. In an automatic weft replenishing loom, a filling detector mechanism, comprising a slide having an end to enter a slot in the shuttle and engage the filling on the bobbin or filling carrier therein, a plunger, mounted on and movable with said slide, and having an end to engage the bobbin in the shuttle, a pivoted lever operated by said plunger, a magnet for controlling the weft replenishing mechanism, a normally open electric circuit, connected therewith, said circuit closed by said lever through the movement of said plunger by the bobbin on the substantial exhaustion of filling in the active shuttle.

1,144,947. SEAM. JACOB N. SCHWANDER, Cincinnati, Ohio. Filed Feb. 9, 1914. Serial No. 817,431. (Cl. 36—57.)

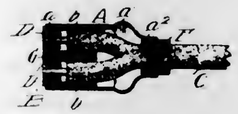


1. A seam for joining pieces of flexible material, comprising a cord, a line of stitching passing through said cord and the pieces of material to be united, the edge portion of one of said pieces of material being folded around said cord and upon itself, the edge portion of the second piece of material overlapping said cord and said first mentioned folded portion, and a second line of stitching passing through the two thicknesses of said first mentioned folded portion and through said over-lapping portion.

2. A seam for joining pieces of flexible material, comprising a cord, and a line of stitching passing through said cord and the pieces of material to be united, the edge portion of one of said pieces of material being folded around said cord and upon itself, the edge portion of the second piece of material overlapping said cord and said first-mentioned folded portion.

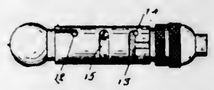
3. A seam for joining pieces of flexible material, comprising a cord, the edge portion of one of said pieces of material being folded around said cord and upon itself, the edge portion of the second piece of material overlapping said cord and said folded portion, a line of stitching passing through one thickness of said folded portion and through said overlapping portion, and a second line of stitching passing through two thicknesses of said folded portion near said cord and through said overlapping portion.

1,144,948. METAL-ARMOR CIRCUIT-CONNECTING ATTACHMENT. JASON C. STEARNS, Worcester, Mass. Filed Dec. 16, 1912. Serial No. 736,899. (Cl. 173—361.)



An electric circuit connecting attachment comprising an outer casing, an insulating block supported in and substantially inclosed by said casing and having cylindrical cavities extending longitudinally therein and provided with smaller passages alined therewith, metallic eyelets secured in said smaller passages, and wires permanently secured in the eyelets, the larger cavities receiving the insulation on the wires.

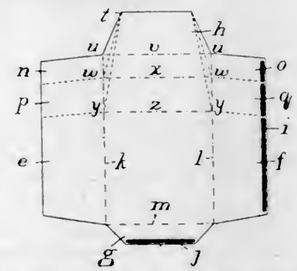
1,144,949. ELECTRICAL FITTING. JASON C. STEARNS, Worcester, Mass. Filed Mar. 18, 1914. Serial No. 825,712. (Cl. 173—348.)



1. In a connector, the combination of a bushing, an insulating member adapted to turn therein on its own axis and having electrical terminals on each end thereof, means at one end of the bushing for holding a lamp or the like in one position so as to engage the terminals at one end of the insulating member when the insulating member is in one position and to be disconnected therefrom when in another position, means adapted to be inserted in the other end of said bushing for making an electrical connection with the terminals of that end of the insulating member and for positively controlling and turning said insulating member to connect and disconnect the terminals of the first named end with the lamp or the like, said bushing having means for holding the last named means in either on or off position in the bushing.

2. In an electrical connector, the combination of a plug having electrical connections extending therethrough and provided with an end adapted to fit in a bushing, with a shoulder at the other end, a cap removably mounted on the end of the plug beyond said shoulder and incapable of turning thereon, and a collar on the plug engaging said shoulder and having a threaded connection with said cap, said cap thus constituting means for turning the plug.

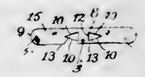
1,144,950. METHOD OF FORMING ENVELOP-BLANKS. WILLARD E. SWIFT, Worcester, Mass., assignor to United States Envelope Company, Springfield, Mass., a Corporation of Maine. Filed Aug. 11, 1911. Serial No. 643,512. (Cl. 93—61.)



1. The within described method of forming blanks from a continuous strip, for envelops varying in that dimension running lengthwise of the strip, consisting in varying the areas removed from the edges of the strip, and severing the strip transversely at uniform intervals.

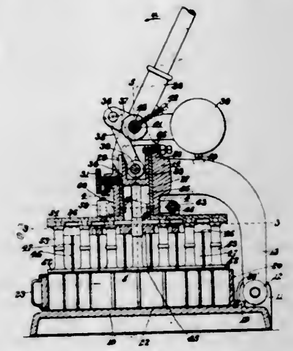
2. The within described method of forming blanks from a continuous strip of uniform width for envelops of different heights, consisting in removing sections of the edges of said strip of different areas, for different heights of envelops required, and severing the strip transversely at its reduced portions at uniform intervals.

1,144,951. MERCHANDISE-ENVELOP. WILLARD E. SWIFT, Worcester, Mass., assignor to United States Envelope Company, Springfield, Mass., a Corporation of Maine. Filed Oct. 9, 1914. Serial No. 865,832. (Cl. 229—78.)



A merchandise envelop having an opening in its closing flap, and provided with a metallic fastener comprising a sheet metal plate having a pair of pointed prongs struck out from the body portion thereof on opposite sides of its center by means of pairs of intersecting slits converging toward the ends of said plate, said prongs being inserted through the body portion of the envelop and clenched upon the inside of the same, with the portions of said plate beyond the base portions of said prongs adapted to lie parallel and in substantial juxtaposition when bent upwardly for insertion through the opening of said closing flap.

1,144,952. DOUGH-DIVIDING MACHINE. ASHLEY F. WARD, Boston, Mass., assignor to The A. F. Ward Machinery Co., a Corporation of Massachusetts. Filed Oct. 25, 1911. Serial No. 656,998. (Cl. 107—26.)



1. In a device of the class described, the combination of a bed plate; a pan therefor; a perforated member fitting said pan; a plunger in each perforation thereof; an operating lever; means including a crank and pitman operable by said lever for forcing said plungers and perforated member into said pan to compress the dough therein and subsequently moving said perforated member through the dough to subdivide it; and an eccentric bearing for the pivot of said operating lever adapted to be adjusted to vary the movement of said perforated member.

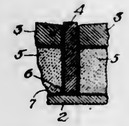
2. A dough dividing machine having, in combination, a dough pan having substantially vertical side walls the inside faces of which are provided with a plurality of inwardly extending substantially vertical ribs and with partially-cylindrical substantially vertical recesses between the ribs so as to cause the inner faces of the side walls to have a scalloped appearance, said ribs having substantially flat inwardly facing end faces, a reciprocating dough dividing member arranged to fit within the pan and having its central portion provided with a plurality of substantially cylindrical chambers the partition walls of which constitute edges for dividing the dough and having its outer side faces provided with a plurality of outwardly extending substantially vertical partition walls and with partially-cylindrical substantially vertical recesses between said partition walls so as to cause the outer side faces of the dividing member to have a scalloped appearance, said partition walls having substantially flat outwardly facing end faces, means for moving the dough dividing member into the dough pan to divide the dough therein, the flat outer end faces of the partition walls on the dough dividing member fitting against the inwardly facing flat end faces of the ribs on the pan so as to cause the oppositely facing partially-cylindrical recesses of the dough dividing member and pan respectively to complement each other to form a plurality of substantially cylindrical chambers, and dough-pressing plungers mounted to reciprocate in the chambers formed in the central part of the dividing member and in the chambers formed by the complementing recesses of the dividing member and pan respectively.

3. A dough dividing machine having, in combination, a base, a frame having the substantial shape of an inverted

U mounted on the base and having its oppositely-disposed downwardly-extending arms connected at their lower ends to the base, a dough pan positioned on the base between the arms, a dough dividing member mounted to reciprocate in the frame and to be moved downwardly into the pan to divide the dough therein, said dough dividing member provided with a plurality of downwardly opening chambers, a plunger plate having a plurality of dough-pressing plungers arranged to fit in the chambers, said plunger plate being yieldingly connected with the dough dividing member to be reciprocated thereby and cause the plungers to engage the dough in the pan, said downwardly-extending arms having on their inner sides and near their tops downwardly opening rod-receiving sockets, inwardly projecting ears on the arms located about midway of the length of the arms and extending beneath the edges of the plunger plate, and vertical guide rods having their upper ends secured in the sockets in the frame arms and having their lower ends secured in the ears, said plunger plate having rod-receiving openings in its edges so as to permit it to reciprocate on the vertical guide rods above the ears.

4. A dough dividing machine having, in combination, a dough pan, a frame over the dough pan, a dough dividing device for dividing the dough in the pan having a piston member mounted to reciprocate in a sliding bearing in the frame, a plunger plate above the dough dividing device having its central portion cut away to surround the piston member of the dough dividing device, a plurality of downwardly extending plungers secured to the underside of the plunger plate, said piston member having formed therein a downwardly opening vertical bore and having longitudinal slots cut through the piston member upon opposite sides of the bore, a central plunger similar to the other plungers having its upper end fitted to slide in the bore in the piston member and provided with a horizontal pin-receiving hole, and a horizontal pin extending through said hole and through the slots in the sides of the piston member and having its ends secured to the plunger plate, whereby the central plunger is moved by the plunger plate and guided by the bore in the piston member.

1,144,953. METHOD OF MAKING PAN-BISCUIT. ASHLEY F. WARD, Boston, Mass., assignor to The A. F. Ward Machinery Co., Boston, Mass., a Corporation of Massachusetts. Filed Jan. 25, 1915. Serial No. 4,271. (Cl. 107—54.)



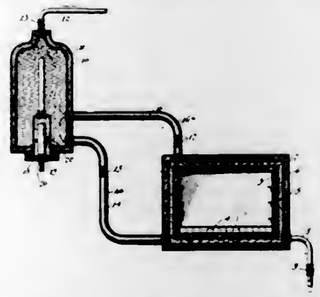
1. The method of making a pan of biscuit in which the biscuit have a regular shape and arrangement and may be readily broken apart, comprising, rounding up a piece of soft dough to give it the proper grain and texture and to form an outer skin, placing the rounded up piece of dough in a baking pan, forming the piece of dough into rounded top fractional parts by subdividing it and drawing down the top of the dough between the parts leaving the top of the dough substantially covered with skin and the sides of the fractional parts in contact with each other, and proofing and baking the dough while it remains in the pan.

2. The method of making a pan of biscuit in which the biscuits have a regular shape and arrangement and may be readily broken apart, comprising, rounding up a piece of soft dough to give it the proper grain and texture and to form an outer skin, placing it in a baking pan, compressing the dough to flatten it and fill the bottom of the pan, and while so compressed, forcing through the dough a dough divider having cutting edges so arranged as to draw down the top of the dough and subdivide it into fractional parts the shape and arrangement of which are predetermined by the divider, and in proofing and baking the dough while it remains in the pan.

3. The method of making a pan of biscuit in which the biscuits have a regular shape and arrangement and may be readily broken apart, comprising, rounding up a piece of soft dough, placing the rounded up piece of dough in a baking pan and subdividing it into fractional parts, and proofing and baking it while it remains in the pan without separating the fractional parts or disturbing their arrangements.

4. The method of making a pan of biscuit in which the biscuit have a regular shape and arrangement and in which the planes of cleavage between the piscuit persist in the baked product, comprising, placing a piece of soft dough, having an outer skin in a baking pan, forming the shape and arrangement of the biscuit and the cleavage planes between them by subdividing the piece of dough so that the outer skin is drawn down below the top of the dough and between the fractional parts leaving the top of each fractional part substantially covered with skin, and proofing and baking the thus subdivided dough while it remains in the pan.

1,144,954. ELECTRIC HOT-WATER HEATING SYSTEM. WILLIAM L. WATERS, Milwaukee, Wis. Filed Jan. 22, 1913. Serial No. 743,514. (Cl. 219—38.)



1. In combination, a stove comprising a heater and an envelop of a heat conducting liquid surrounding the stove, the temperature of said liquid being raised by means of the heat escaping from said stove and which would otherwise be wasted said liquid adapted to circulate freely and an electric heater separate from the first heater immersed in the liquid constituting the envelop, said last mentioned heater being arranged to further raise the temperature of the liquid as desired.

2. In combination, a stove comprising a heater and an envelop of heat conducting liquid surrounding the stove, the temperature of said liquid being raised by the heat escaping from said stove and which would otherwise be wasted and an electric heater separate from the first heater immersed in the liquid constituting said envelop, said last mentioned heater being arranged to further raise the temperature of the liquid as desired, and a layer of heat inculating material interposed between the stove and the liquid envelop to hinder the flow of heat to said liquid and another layer of heat insulating material surrounding the liquid envelop to cut off substantially all hear losses.

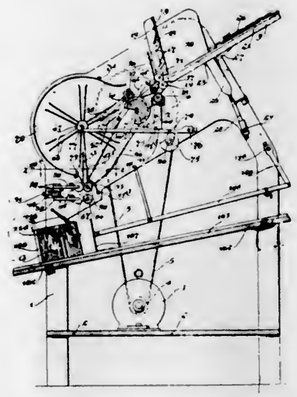
3. In combination, a stove comprising a heater an envelop of heat conducting liquid surrounding the stove, the temperature of said liquid being raised and said liquid caused to circulate by the heat escaping from said stove and which would otherwise be wasted and an electric heater separate from the first heater immersed in the liquid constituting the jacket, said last mentioned heater being arranged to further raise the temperature of the liquid as desired, there being a layer of heat insulating material surrounding the envelop of heat conducting liquid.

4. In combination, a high temperature heater an envelop of heat conducting liquid surrounding said heater, the temperature of the liquid constituting the conducting envelop being raised by the escaping heat from the stove and which would otherwise be wasted, a layer of heat insulating material interposed between the liquid envelop and the heater to prevent transmission of heat to said liquid and another layer of heat insulating material surrounding the liquid envelop.

5. In combination, a high temperature heater an envelop of heat conducting liquid surrounding the heater, the temperature of the liquid constituting the conducting envelop being raised by the heat escaping from the heater and which would otherwise be wasted, said liquid being caused to circulate in said envelop, and a layer of heat insulating material surrounding the conducting envelop to cut off heat losses.

[Claims 6 to 8 not printed in the Gazette.]

1,144,955. ENVELOP-SEALING MACHINE. GUIDO J. ALBRECHT and SIDNEY L. LONG, Minneapolis, Minn., assignors to Long Mailing Machine Company, Minneapolis, Minn., a Corporation. Filed Apr. 20, 1911. Serial No. 622,254. (Cl. 120—6.)



1. A machine for sealing envelops comprising two pairs of forwarding rollers and an intermediate moistening device, initial feeding means to present the envelops singly and successively to the first pair of rollers, and means timed with respect to the action of said initial feeding means to press the flap of the envelop against said moistening device after both sets of rollers have operated to forward the body of said envelop past said moistening device.

2. A machine for operating upon envelops comprising two pairs of rollers operative to forward an envelop in a single plane and an intermediate moistening device having its operative surface out of said plane, initial feeding means to present the envelop singly and successively to the first pair of rollers, a bar and means timed with respect to the action of said initial feeding means to move the bar to cause the same to press the flap against said moistening surface after both sets of rollers have operated to forward the body of the envelop past said moistening device.

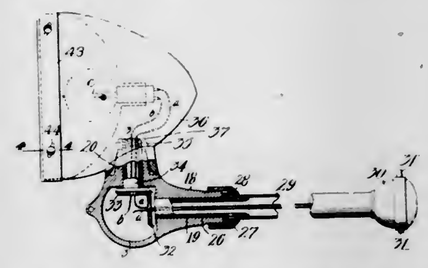
3. A machine for operating upon envelops comprising two pairs of rollers operative to forward an envelop in a single plane and an intermediate moistening device having its operative surface out of said plane, initial feeding means to present the envelops singly and successively to the first pair of rollers, a presser bar, and means timed with respect to the action of said initial feeding means to move the bar edgewise to cause the same to press the flap against said moistening surface after both sets of rollers have operated to forward the body of the envelop past said moistening device.

4. The combination with a moistening device, of means for feeding the envelops to and past said moistening device comprising a pair of rollers in front and a pair of rollers at the rear of said moistening device, means operative intermittently to present envelops singly and successively to the first pair of rollers, and an intermittently operative flap pressing device timed with respect to the action of said presenting means to press the gummed flaps against said moistening device after the front pair of rollers has delivered the envelops and while the envelop is subjected to the action of the rear pair of rollers.

5. The combination with a moistening device and means for causing the same to operate intermittently, of means for feeding the envelops to and past said moistening device comprising a pair of rollers in front and a pair of rollers at the rear of said moistening device, and means to present the envelops singly and successively to the front pair of rollers, and means for intermittently separating and closing the members of the said pairs of rollers timed with respect to the actions of said feeding means and moistening device so that the envelops will be forwarded and moistened in definitely timed succession.

[Claims 6 to 58 not printed in the Gazette.]

1,144,956. LAMP-SOCKET. HERRICK AIKEN, Lawrence, Mass., assignor, by mesne assignments, to Aiken Lamp Company, Franklin, N. H. Filed Sept. 3, 1913. Serial No. 787,998. (Cl. 240—61.)



1. The combination with a stand having a horizontal, cylindrical arm provided with a conical end, of a lamp supporting frame provided with a socket fitting said conical end, and yielding means for forcing the frame along the conical end toward the cylindrical part.

2. The combination with a fixed support having a conical end and a stationary collar at the large end of the cone, of a frame having a socket for receiving said conical end, and a screw-thread on the exterior, a nut connected with said threads and extending beyond said collar, and a spring located between the collar and the end of the nut.

3. The combination with a stand having a horizontal, cylindrical arm provided with a conical end, of a lamp supporting frame provided with a socket fitting said conical end, and having a conical projection, and a lamp body provided with a conical socket for receiving said projection whereby the frame is held frictionally on the support and the lamp body is capable of being turned thereon on a different axis.

4. The combination with a support having a horizontal arm thereon, of a frame frictionally held on said arm and capable of turning about the axis of the arm, a lamp body connected with said frame and capable of turning on an axis at right angles to the first named axis, and means extending through said frame for turning the lamp body on its axis.

5. The combination with a support having a horizontal arm thereon, of a frame frictionally held on said arm and capable of turning about the axis of the arm, a lamp body connected with said frame and capable of turning on an axis at right angles to the first named axis, and means extending through said frame at right angles to both of said axes for turning the lamp body on its axis, and holding it frictionally in its adjusted positions.

1,144,957. TRUCK. WILLIAM E. ANDREE, Chicago, Ill., assignor to American Laundry Machinery Company, Cincinnati, Ohio, a Corporation of New York. Filed Apr. 15, 1914. Serial No. 832,114. (Cl. 21—122.)



1. A truck including a yoke-like base portion adapted to straddle a heating element, and article holders arranged above the base portion to permit articles suspended therefrom to extend downwardly on opposite sides of the base portion.

2. A truck including a base portion having oppositely arranged parts adapted to be positioned on opposite sides of a heating element, and article holders arranged above the base portion to permit articles suspended therefrom to extend downwardly on opposite sides of the heating element.

3. A truck including a yoke-like base portion adapted to straddle a heating element, article holders arranged above the base portion, and a guard carried by the base portion and acting to engage the articles suspended from the article holders to retain them away from the central part of the base portion.

4. A truck including a base portion adapted to be positioned adjacent to a heating element, an article holder disposed above the base portion, and a guard arranged on the base portion and acting to engage an article suspended from the article holder to retain it away from the central part of the base portion.

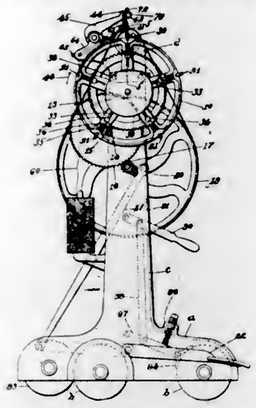
5. A truck including a base portion embodying a plurality of inverted, substantially U-shaped members adapted to straddle a heating element, an article holder arranged above the base portion, and guards extending longitudinally of the base portion and connecting said inverted U-shaped members.

[Claims 6 and 7 not printed in the Gazette.]

1,144,958. SEWING-MACHINE. ORRELL ASHTON, Swampscott, Mass. Filed Sept. 2, 1913. Serial No. 787,606. (Cl. 112—8.)

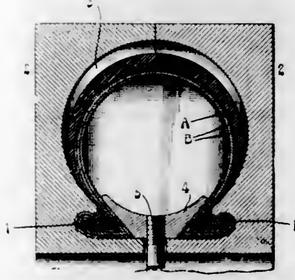
1. In a machine of the character described, in combination, a rotatable carrier for the work, a pointed device secured to said carrier to rotate therewith and projecting therefrom to engage the work, a removing device movable with said carrier and independently thereof to disengage the work from said pointed device, said removing device having a portion on the outer circumference of the rim of the rotatable carrier and provided with a portion extended through the said rim to within the carrier, and means located within the carrier to effect movement of the removing device independently of the said carrier.

2. In a machine of the character described, in combination, a feeding device for engaging the work, a movable carrier for said feeding device to effect the feed of the work, said carrier having a recess in its outer surface, a stripping device movable with said carrier and independently thereof to effect disengagement of the work from said feeding device, said stripping device being normally located in said recess and having an arm extended through the carrier, a spring to normally keep the device in said



recess, and a cam to act on said arm and remove the device from said recess.

1,144,959. PNEUMATIC TIRE. MARK A. DEES, St. Louis, Mo., assignor to The American Tire Company, St. Louis, Mo., a Corporation. Filed Nov. 24, 1913. Serial No. 802,677. Renewed Aug. 29, 1914. Serial No. 859,263. (Cl. 152—13.)



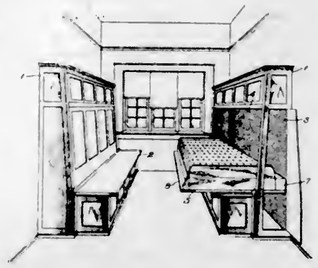
1. A pneumatic tire comprising a plurality of outer plies of rubberized threads normally uniformly tensioned, and an inner ply of rubberized threads normally tensioned to a less degree than the threads in said outer plies, the rubber being vulcanized and connecting the various plies into a unitary structure.

2. A pneumatic tire comprising a plurality of outer plies of rubberized threads normally uniformly tensioned to a degree preventing the extension of the threads by tire inflation pressure, and an inner ply of rubberized threads normally tensioned to a less degree than the threads in said outer plies, the rubber being vulcanized and connecting the various plies into a unitary structure.

3. A pneumatic tire comprising a plurality of outer plies of rubberized threads normally uniformly tensioned to, approximately, the limit of elasticity of the threads, and an inner ply of rubberized threads normally tensioned to a less degree than the threads in said outer plies, the rubber being vulcanized and connecting the various plies into a unitary structure.

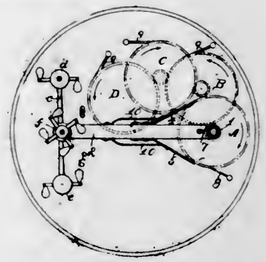
1,144,960. COMPARTMENT-BED. WALDO R. FILLMORE and ELMER BOILLOT, Kansas City, Mo. Filed Dec. 29, 1913. Serial No. 809,264. (Cl. 5—18.)

A compartment bed comprising a housing having a front opening, a seat projecting from said housing and determining the lower edge of said opening, and a bed longitudinally hinged to and entirely supported on the longitudinal edge of said seat at the lower edge of said open-



ing, and adapted to revolve on to said seat and be symmetrically supported thereby.

1,144,961. TRAVEL DETECTOR OR INDICATOR FOR TIRES AND THE LIKE. JACOB H. FRIEDENWALD, Baltimore, Md., assignor, by mesne assignments, to Joseph M. Gilbert, New York, N. Y. Filed Apr. 15, 1909. Serial No. 490,137. (Cl. 235—95.)



1. A tire having a covered cavity and a register located therein, the actuation of the register being controlled by the movement of the tire, substantially as described.

2. A tire having a recess in the body thereof, a protecting casing located within the recess and a travel detector or indicator within the casing actuated by the movement of the tire, substantially as described.

3. The combination with an automobile tire, of an automatically operated device situated within the same and independent of its structural composition for producing an indication of the mileage travel of the tire.

4. The combination of a vehicle wheel, a tire therefor, and means carried by said tire for indicating the extent of use to which the tire has been subjected, said means being actuated by gravity during rotation of the wheel.

5. The combination of a vehicle wheel, a tire therefor, an impact receiving means carried by said tire, an impact producing means also carried by said tire and coöperating with said impact receiving means to indicate the extent of use to which the tire has been subjected and means carried by said tire for moving said impact producing means.

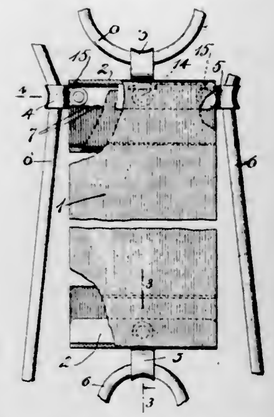
[Claim 6 not printed in the Gazette.]

1,144,962. CHAIR-TIP. WILLIAM E. HATHEWAY, Bridgeport, Conn. Filed Jan. 22, 1914. Serial No. 813,613. Cl. 155—33.)



A chair tip comprising a cup having a rounded bottom and a circular upturned flange, the edge of which is in one plane for engaging the bottom of the chair leg, a central projection within the cup and integral therewith, a retaining plate having a central opening to embrace said central projection and secured thereto by heading over said projection against the retaining plate, said plate and projection located entirely below the edge of the cup so as not to interfere with said edge resting against the bottom of the chair leg.

1,144,963. ATTACHMENT FOR GARMENT-SUPPORTERS. ERNEST N. HUMPHREY, New Britain, Conn., assignor to Traut & Hine Manufacturing Company, New Britain, Conn., a Corporation of Connecticut. Filed Nov. 11, 1914. Serial No. 871,434. (Cl. 241—19.)



1. In a suspender-end, a strip of webbing, a metallic plate arranged to be pinched upon the end of said webbing, a metallic fitting carried by the middle portion of said plate and extending transversely therefrom, a hole through said webbing, a double fold in said webbing said webbing enveloping said plate, said metallic fitting projecting through said hole and outside of said fold to be exposed for use.

2. In a suspender-end, a strip of webbing, a metallic plate arranged to be pinched upon the end of said webbing, a metallic fitting pivotally carried by the middle portion of said plate and extending transversely therefrom, a hole through said webbing, a double fold in said webbing said webbing enveloping said plate, said metallic fitting projecting through said hole and outside of said fold to be exposed for use.

3. In a suspender-end, a strip of webbing, a metallic plate arranged to be pinched upon the end of said webbing, a metallic fitting carried by the middle portion of said plate and extending transversely therefrom, a hole through said webbing, a double fold in said webbing said webbing enveloping said plate, said metallic fitting projecting through said hole and outside of said fold to be exposed for use, and a metallic fitting at one end of said plate projecting through the open end of said fold.

4. In a suspender-end, strip of webbing, a metallic plate arranged to be pinched upon the end of said webbing, a metallic fitting carried by the middle portion of said plate and extending transversely therefrom, a hole through said webbing, a double fold in said webbing said webbing enveloping said plate, said metallic fitting projecting through said hole and outside of said fold to be exposed for use, and a metallic fitting at each end of said plate projecting through the open ends of said fold.

5. In a suspender-end, a strip of webbing, a channeled metallic plate arranged to be pinched upon one end of said webbing, said channeled plate having a passage therein intermediate its lengths and at the bottom of the channel, a metallic fitting part of which extends through said passage, with means for securing said portion of said metallic fitting within the fold of said channeled plate, a hole through the webbing, a double fold in said webbing envel-

oping said plate, the outer end of said metallic fitting projecting through said hole in said webbing and outside of said fold to be exposed for use.

[Claim 6 not printed in the Gazette.]

1,144,964. PICTURE AND PROCESS OF MAKING THE SAME. JOSEPH G. KITCHELL, Haddam, Conn. Filed Dec. 24, 1913. Serial No. 808,582. (Cl. 41—22.)



1. The process of making a design or picture which consists in producing the contours and principal details of the same on a thinner transparent medium, producing merely the outlines of the picture on a thicker opaque medium only, giving the outline on the thicker medium proper color values, and superposing the thinner medium over the thicker medium with the designs in register.

2. The process of making a picture which consists in producing the contours and principal details of the design on a thinner sheet of transparent paper, producing merely the outlines of the picture on a thicker medium of opaque material, applying paint to the outlines on the latter medium only giving color values to the design, superposing the paper over the opaque material with the outlines of the design on each medium in correct register, and securing the two mediums together.

3. The process of making a picture which consists in producing the contours and principal details of the same on a thinner sheet of transparent paper, producing merely the outlines of the picture on a thicker medium of opaque material, applying paint to the thicker medium only to give the design proper color values, and superposing the paper over the opaque material with the inked side of the former uppermost and with the outline of the design on each medium in correct register.

4. A design or picture consisting of an opaque support having merely an outline of a design or picture thereon and colors applied thereto, a thinner transparent sheet carrying the contours and principal details of said design in monochrome, superposed upon said support with the outlines of the picture on each medium in proper register, the support and the sheet being secured together.

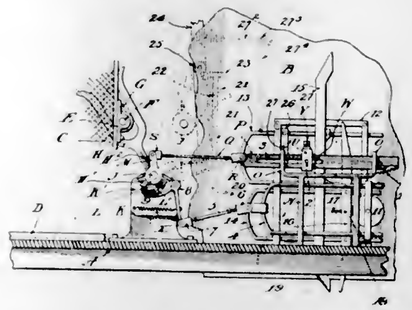
5. A picture or design consisting of a sheet of porcelain or other similar opaque support having a mere outline of a design or picture thereon with color values applied thereto, and a thinner sheet of transparent paper carrying the contours and principal details of the same design or picture in monochrome, superposed over and registering with the design or picture on the support, the said thinner sheet of paper being secured to said support.

[Claim 6 not printed in the Gazette.]

1,144,965. SAFETY APPLIANCE FOR ELEVATORS. SAMUEL L. MCKINNEY, Pekin, Ill., assignor to Elevator Locks Co., Peoria, Ill., a Corporation of Illinois. Filed June 7, 1912. Serial No. 702,287. (Cl. 187—49.)

1. The combination with an elevator car, its starting device, and a door, of mechanism mounted independent of the car and having a part lying in the path of and engaged and moved by the door, said mechanism including an extended portion, mechanism on the car including a part arranged to hold the starting device and also including a part in position to be engaged and moved by the described extended portion to carry the second described part into the path of the device, means to engage and positively hold the first described mechanism in one of its positions, and a manually operated part on the car to engage and move said means to release the said mechanism.

2. The combination with an elevator car, its starting device, and a door, of mechanism mounted independent of the car and having a part lying in the path of and engaged and moved by the door, said mechanism including an extended portion, mechanism on the car including a part arranged to hold the starting device and also including a part in position to be engaged and moved by the described extended portion to carry the second described part into the path of the device, means to engage and positively hold the first described mechanism in one of its positions, the same being operated by the said starting device to release said first described mechanism.



3. The combination with an elevator-car its starting device, and a door, of a member pivoted independent of the car and lying in the path of and moved by the door, mechanism operated by the member in the opening movement of the door and adapted to hold the starting device, said mechanism also having movement independent of the member, and means controlled from within the car for securing the member in a fixed position.

4. The combination with an elevator-car its starting device, and a door, of a member pivotally mounted independent of the car and adapted to be moved by the door, means to engage and positively hold the member for preventing it and the door from moving in one direction, a part controlled from within the car adapted to be brought into engagement with and operate the said means to release the member, and means positively moved by the member into the path of movement of the starting device.

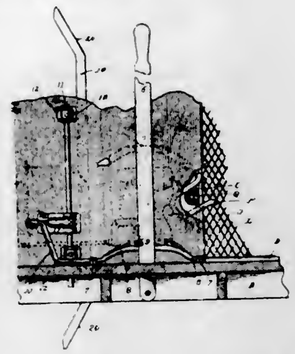
5. The combination with an elevator-car, a door including an extension, and a manually operated device, of a forked member pivotally mounted independent of the car and engaged and moved by said extension of the said door, and means including a portion directly engaging and holding the member and preventing movement of the said door and engaged by said manually operated device to release the member.

[Claims 6 to 22 not printed in the Gazette.]

1,144,966. SAFETY APPLIANCE FOR ELEVATORS. SOLOMON M. MILLER, Peoria, Ill., assignor, by mesne assignments, to Elevator Locks Company, Peoria, Ill., a Corporation of Illinois. Filed Nov. 22, 1909. Serial No. 529,493. (Cl. 187—49.)

1. In mechanism of the class described, the combination with an elevator-car, of a starting lever therein, a rocking member adapted to maintain the starting lever in its inoperative position, a second member carried by the car and extending into the elevator-shaft and adapted for pivotal movement in a lateral direction and having operative connection with the rocking member, a device to elastically and normally hold the rocking member removed from the path of the starting lever, the floor door, a member mounted upon the building-floor and engaged and moved by said door, and adjustable means on the last named member to engage the described second member carried on the car.

2. In mechanism of the class described, the combination with an elevator-car, of a starting lever, means carried by the car adapted to be rocked into the path of the starting lever to station it in its position of rest, a member pivotally mounted on the car and extending into the elevator shaft and provided with an obliquely disposed extension at each end, said member adapted for a rocking movement in a lateral direction and having operative connection with the rocking means, a device to elastically hold the rocking member removed from the vicinity of the starting lever, the floor door, a member mounted upon the building-floor and engaged and shifted by said door, an adjustable extension on the last named member to engage the pivoted member, and means to fix the extension in position on said member.



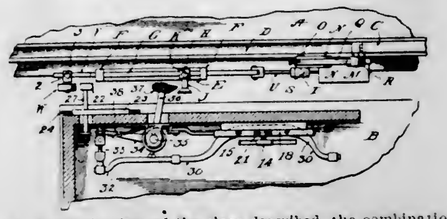
3. In mechanism of the class described, the combination with an elevator-car, of a controlling lever for the same, rocking means mounted on the car and provided with a recess to receive the said controlling lever, a lever extension on the rocking member, a member carried by the car and extending into the elevator-shaft and having a lever-extension to operatively connect with the extension of the said rocking member, a device for normally holding the latter and the second named member at one extreme of their movements, the floor door, an extension thereon, a rock-shaft, a member on said shaft with which the extension of the door engages, a horizontally disposed slidable member, means on the building-floor to carry the latter, means to operatively connect said slidable member with the said rock-shaft, and an extension on the said slidable member to engage the member on the car that extends into the elevator-shaft.

4. In mechanism of the class described, the combination with an elevator-car, of an operating lever therein, means in the car adapted to move into the path of said operating lever and having a lever-extension thereon, a vertically disposed shaft having bearings on the wall of the car, a lever thereon operatively connected to the said lever-extension, an extension on said shaft projecting into the elevator-shaft including a member provided with a vertically disposed surface, said member having an extension at each end disposed at an angle to the vertical surface, a device to normally hold the lever engaging means at one of its extreme positions, the floor door, a standard mounted on the building-floor, a member carried by and movable relatively thereto, a rocking-member operatively connected to the latter to shift it, an extension on the door to engage and move the rocking member, and an adjustable part on the member carried by the standard adapted to engage the member on the car having the vertically disposed surface.

5. In mechanism of the class described, the combination with the elevator-car, of a starting lever therein, a rocking member adapted to move into the path of the said lever and maintain it inoperative, a member carried on the car disposed vertically within the elevator-shaft and having an oblique extension at each end, a standard mounted on the building floor, a horizontally shiftable member therein, a friction roller carried thereby adapted to engage the said vertically disposed member, and a floor door adapted to engage and move the shiftable member to impart movement to the vertically disposed member.

[Claims 6 to 17 not printed in the Gazette.]

1,144,967. SAFETY-LOCK FOR ELEVATORS. SOLOMON M. MILLER, Peoria, Ill., assignor, by mesne assignments, to Elevator Locks Company, Peoria, Ill., a Corporation of Illinois. Original application filed Nov. 22, 1909, Serial No. 529,493. Divided and this application filed July 24, 1911, Serial No. 640,303. Renewed May 8, 1914. Serial No. 837,134. (Cl. 187—61.)



1. In mechanism of the class described, the combination with an elevator car and a floor door, of mechanism for locking the door in its closed position including a part adapted to be moved into and out of the plane of the same, a part mounted on the floor adapted to move in a plane substantially parallel to the plane of the door, an extension carried by and adjustable on said part also parallel to the plane of the door, means in the car including a part extending therefrom into the elevator shaft adapted to engage the said adjustable extension, and a starting device in the car including an extension brought into engagement manually with said means to manually and positively move the said part against the said adjustable extension.

2. In mechanism of the class described, the combination of the floor-door, a locking bolt normally lying in the path of the door, mechanism mounted upon the building-floor adapted to withdraw said locking bolt from the path of the door and out of the plane of the same including a part carried by and extending from said mechanism and adjustable parallel to the plane of the door, the elevator car and its starting device, a striking member on the car extending into the elevator-shaft its path of travel being spaced from the said part, and means interposed between the striking-member and the said starting device and manually operated due to the movement of the latter to shift said striking member into engagement with the said part.

3. The combination with an elevator-car, its starting device and the door of the elevator-shaft, of a member lying in the path of the door and movable in a direction perpendicular to the plane of the same, means in control of the member and movable substantially parallel to the plane of the door, means within the elevator-car operated by the starting-device adapted to engage and move the first said means, and means elastically in control of the said member to hold it in the path of said door.

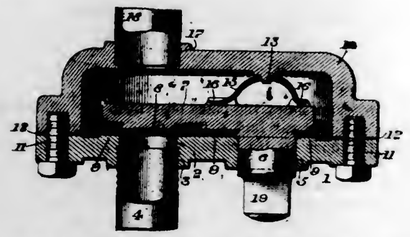
4. The combination with an elevator-car, its starting device and the door of the elevator-shaft, of a member lying in the path of the door and movable in a direction perpendicular to its plane, means in control of the member and movable substantially parallel to the plane of the door, means on the elevator-car operated by the starting-device adapted to engage and move the first said means, means elastically in control of the said member to hold it in the path of the door, and a part constantly tending to hold the second named means free of the first said means.

5. In mechanism of the class described, the combination of the floor-door, a locking mechanism for the same comprising a part movable parallel to the plane of the door and a part controlled by it movable perpendicularly to the plane of said door, an extension on the first said part projecting into the elevator-shaft, the elevator-car and its starting device, means carried by the car including a vertically disposed part of some length within the elevator-shaft adapted to engage the extension, said part having an angular portion at its upper end and an angu-

lar portion at its lower end both receding from the surface that engages said extension in a direction substantially parallel to the plane of the door, said means also including a part to which motion is communicated by the starting device to move the said locking mechanism, and means constantly tending to prevent the said vertically disposed part from engaging the door-locking mechanism.

[Claims 6 to 13 not printed in the Gazette.]

1,144,968. VALVE. FRANKLIN M. PATTERSON, Philadelphia, Pa., assignor to Patterson-Allen Engineering Co., Philadelphia, Pa. Filed June 18, 1906. Serial No. 322,186. (Cl. 137—5.)

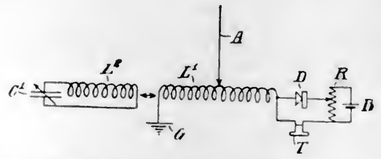


1. In a valve device of the character described, a valve casing made in sections having a chamber, inlet and outer ports in alinement opening into opposite sides of the chamber and a lateral valve seat about and extending a substantial distance to one side of the outlet port, said casing also having a stem opening arranged laterally of said ports and close to the bounding walls of the chamber and in the section of the casing having the valve seat, combined with valve devices for controlling the outlet port, said devices comprising a flat valve face slightly wider than the diameter of the outlet port and continuously supported by and laterally movable over the valve seat and in constant contact with the said seat alone, an operating stem arranged at one side of the valve face and extending through the stem opening and rotatable therein for operating the said valve device, said stem at its inner end surrounded by an integral portion providing a transversely extending bearing face continuous around the stem and forming a tight working joint with the inner surface of the valve seat section of the casing adjacent to and bounding the stem opening and guided wholly by the portion of the casing having the valve seat, and a spring device arranged within the casing in contact with the other section of the casing and extending into the valve chamber in contact with the valve devices for causing the transversely extending bearing surface around the stem to be pressed upon the inner surface of the valve casing bounding the stem opening therein, the said spring device bridging the space between the opposite wall of the casing and the valve devices.

2. In a device of the character described, a valve casing, a plate forming the lower portion of said valve casing and having openings therein, a valve seat formed on all sides of said openings, a slide valve in close contact with said seat, a stem projecting through one of said openings, ears on the upper face of said valve, a spring having its ends situated between said ears and bearing on said valve and a lug projecting from the casing and entering an opening in said spring to hold the same in proper position.

1,144,969. RADIO TELEGRAPHY AND TELEPHONY RECEIVER. GREENLEAF WHITTIER PICKARD, Amesbury, Mass. Filed Apr. 17, 1914. Serial No. 832,592. (Cl. 250—8.)

1. In a system of communicating intelligence by electromagnetic waves which are not materially damped, the combination, at a receiving station, with means for causing such waves of a given frequency to set up oscillating currents of two frequencies differing from each other to such extent as to produce beats of audible frequency, of means for causing the energy of said beats to produce a sound of a pitch corresponding to the frequency of the beats.



2. In a system of communicating intelligence by electromagnetic waves which are not materially damped, the combination, at a receiving station, with means for causing such waves of a given frequency to set up oscillating currents of two frequencies differing from each to such extent as to produce beats of audible frequency, of means for rectifying the oscillations composing said beats, and a telephonic device operable by the rectified beat-pulses to produce a sound having a pitch corresponding to the beat-frequency.

3. In a system of communicating intelligence by electromagnetic waves which are not materially damped, the combination, at a receiving station, with two resonant circuits having such periods and coupling as to cause such waves of a given frequency to set up oscillating currents of two frequencies differing from each other to such extent as to produce beats of audible frequency; of a pick-up coil arranged to receive said beat-pulses; means for rectifying the oscillations composing said beats; and a telephonic device operable by the rectified beat-pulses to produce a sound having a pitch corresponding to the beat-frequency.

4. In a system of communicating intelligence by electromagnetic waves which are not materially damped, the combination, at a receiving station, with two resonant circuits having such periods and coupling as to cause such waves of a given frequency to set up oscillating currents of two frequencies differing from each other to such extent as to produce beats of audible frequency; of a pick-up coil arranged to receive said beat-pulses; means for causing the energy of said beats to produce a sound having a pitch corresponding to the frequency of the beats.

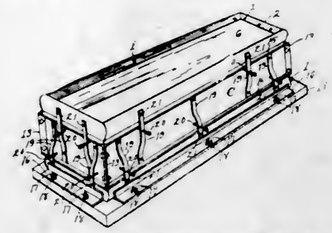
5. In a system of communicating intelligence by electromagnetic waves which are not materially damped, the combination, at a receiving station, with means for causing such waves of a given frequency to set up oscillating currents of two frequencies differing from each other to such extent as to produce beats of audible frequency, of a pick-up coil arranged to receive said beat-pulses; and means unilaterally connected to said pick-up coil, and operable by the energy of said beat-pulses to produce a sound having a pitch corresponding with the frequency of the beats.

1,144,970. MANUFACTURE OF CEMENT BURIAL-CASES. VICTOR E. RANDALL, Battle Creek, Mich., assignor of one-half to Howard E. Russell, Battle Creek, Mich. Filed Mar. 30, 1914. Serial No. 828,166. (Cl. 25—130.)

1. In a mold, the combination of a base, an inner mold section seated upon said base, a spaced encompassing outer mold section, means secured thereto adapted to hold ornamental rim and base members with their inner faces flush with the inner surface of said outer mold section while the case is being formed, for the purpose described.

2. In a mold, the combination of a base and inner mold section seated upon said base, a spaced encompassing outer separable open-topped mold section, spring fingers secured thereto adapted to hold ornamental base and rim members with their inner faces flush with the inner surface of said outer separable open-topped mold section, while the case is being formed, said base member extending above said inner mold section.

3. In a mold, the combination of a base and an inner mold section seated upon said base, a separable spaced encompassing outer mold section, spring fingers secured thereto adapted to hold ornamental base and rim-members with their inner faces flush with the inner surface of said outer mold section while the case is being formed, said rim-member adapted to rest on said base and said base-member adapted to extend above said inner mold section, substantially as and for the purpose set forth.



4. In a mold, the combination with a base and an inner mold section seated upon said base, of a separable spaced encompassing outer mold section, fingers extending from the outer side of said outer mold section beyond either edge thereof adapted to hold ornamental base and rim-members with their inner faces flush with the inner surface of said outer mold section while the case is being run, set screws passing through threaded apertures in said fingers and bearing against said outer mold section to laterally adjust the extremities of said fingers.

5. In a mold, the combination with a base and an inner mold section seated upon said base, of a separable spaced encompassing outer mold section, fingers secured thereto adapted to engage ornamental base and rim-members with their inner faces flush with the inner surface of said outer mold section at either edge thereof while the case is being formed, and means to laterally vary the outer extremities of said fingers, for the purpose set forth.

[Claims 6 and 7 not printed in the Gazette.]

1,144,971. DAMPER. HENRY G. THOMPSON, Cleveland, Ohio, assignor to The A. C. Williams Company, Ravenna, Ohio, a Corporation of Ohio. Filed Feb. 17, 1914. Serial No. 819,214. (Cl. 126—292.)

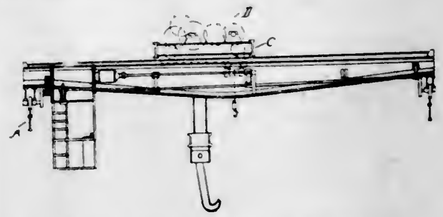


1. In a damper, a combination of a damper plate, a spindle having a head, a handle for the spindle formed with a sheet metal shank tightly folded over the head, an eye in the end of the shank through which the spindle passes, and means for attaching the spindle and damper plate together, substantially as described.

2. In a damper, a combination of a damper plate, a spindle having a head flattened on one side, a handle for the spindle formed with a sheet metal shank tightly folded over the flattened side of the head, an eye in the end of the shank through which the spindle passes, and means for attaching the spindle and damper plate together, substantially as described.

1,144,972. CRANE. GEORGE A. TRUE, Detroit, Mich., assignor of one-half to Northern Engineering Works, Detroit, Mich., a Corporation of Michigan. Filed Aug. 14, 1911. Serial No. 643,937. (Cl. 212—22.)

1. In a ladle crane, the combination with a movable trolley including a frame and a main hoist carried by said frame and fixed in relation thereto, of a track upon the trolley and exterding upon opposite sides of the main hoist, a traveling carriage mounted on said track, and an auxiliary hoist upon said carriage, said traveling carriage being actuable to variably position the auxiliary hoist upon either side of the main hoist.



2. In a ladle crane, the combination with a movable trolley including a frame and a main hoist carried by and fixed in relation to the frame, of a track secured to and suspended from the trolley frame and extending upon opposite sides of the main hoist, a traveling carriage mounted on said track, and an auxiliary hoist upon said carriage, said traveling carriage being free to travel to variably position the auxiliary hoist upon either side of the main hoist.

3. In a ladle crane, the combination with a movable trolley and a main hoist carried thereby, of a substantially arcuate track carried by the trolley, a traveling carriage mounted upon said track, and an auxiliary hoist upon the carriage.

4. In a ladle crane, the combination with a movable trolley and a main hoist carried thereby, of a substantially arcuate track suspended from the trolley, having the main hoist substantially vertically alined with its center, a carriage mounted to travel on said track, and an auxiliary hoist upon the carriage.

1,144,973. ELECTRIC APPARATUS FOR DRIVING CLOCKS OR SIMILAR MECHANISM. HENRY E. WARREN, Ashland, Mass., assignor to Warren Clock Company, Portland, Me., a Corporation of Maine. Filed July 27, 1910. Serial No. 574,092. (Cl. 58—33.)



1. An electrically impelled pendulum having an amplitude regulating circuit closer mounted and contained wholly thereon.

2. An electrically impelled oscillating device and a circuit closer contained wholly thereon, which imparts electrical impulses to said device of markedly decreasing effectiveness, with its increase in amplitude of swing.

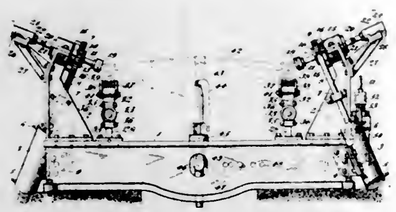
3. A liquid contact maker for the circuit of an electric clock, which contact is caused to close the circuit momentarily at varying intervals determined by the swing of the pendulum thereby tending to maintain uniformity of its swing.

4. An oscillating device, electrical means to impart energy thereto, a contact-maker in the circuit operated by the oscillating device and adapted to cause current impulses when said device is at different positions between its limits of oscillation, which positions vary with the amplitude of the oscillations of the device and tend to maintain such amplitude constant.

5. An oscillating device, electrical means to impart energy of oscillation thereto, and a contact-maker in the circuit which gives momentary current impulses, the recurrences of which have a variable difference of phase in relation to the oscillations of said device, dependent upon its amplitude of swing, and thereby tends to maintain the uniform constancy of its swing.

[Claims 6 to 13 not printed in the Gazette.]

1,144,974. BRAKE-BEAM-ASSEMBLING MACHINE. FRANK R. WEAVER, Southmont, Upper Yoder township, Cambria county, Pa., assignor to Davis Brake Beam Company, a Corporation of Pennsylvania. Filed Feb. 16, 1915. Serial No. 8,492. (Cl. 81—57.)



1. In a machine of the character described, a pair of supports adapted to receive a brake beam having a screw threaded member provided with nuts on the ends thereof, a pair of socket wrenches adapted to receive said nuts, rotatable shafts on which said socket wrenches are mounted, means for traversing said shafts longitudinally and for rotating the same, whereby the nuts are screwed as tightly as desired.

2. A brake beam assembling machine comprising a pair of supports adapted to receive a brake beam, means for adjusting said supports, means coöperating with the brake beam adapted to hold the same firmly on said supports, a pair of socket wrenches mounted on rotatable shafts adapted to coöperate with the nuts of the threaded member of the brake beam, power means for rotating said wrenches and for traversing them longitudinally, whereby the nuts are screwed as tightly as desired.

3. In a machine of the character described, a socket wrench mounted on a rotatable shaft, a spur wheel revolubly mounted on said shaft and provided with pawls pivoted thereto, a ratchet wheel slidably mounted on said shaft, adapted to coöperate with said pawls, a rack meshing with said spur wheel and adapted to rotate the same in one direction.

4. A machine of the character described, comprising a socket wrench mounted on a rotatable shaft, a power cylinder and connections adapted to move said shaft longitudinally, a spur wheel keyed to said shaft, a ratchet wheel adjacent to and pawl connected to said spur wheel, a rack meshing with said spur wheel and provided with a power cylinder adapted to reciprocate said rack, whereby said wrench is rotated in one direction by successive movements of said rack, and traversed longitudinally, whereby a nut may be screwed on a bolt.

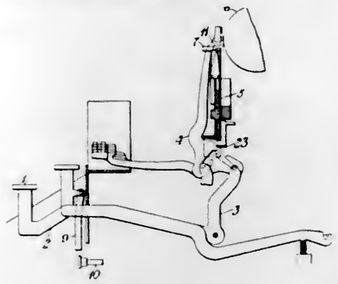
5. A machine of the character described, comprising a pair of adjustable supports adapted to receive a brake beam, and capable of vertical adjustment, the upper surface of said supports being adapted to be adjusted rotatably to incline the upper surfaces as desired, means cooperating with the brake beam adapted to clamp the same on said supports, and power driven wrenches adapted to screw the nuts on the ends of the threaded members of the brake beam.

1,144,975. COMBINED TYPE-WRITING AND COMPUTING MACHINE. LESTER A. WERNERY, New York, N. Y., assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Filed Aug. 19, 1913. Serial No. 785,454. (Cl. 235—58.)

1. In a combined typewriting and computing machine, the combination with a rotatable platen, of a type-bar having upper and lower case types therein, and a stop in position to engage the type-bar between said types during the printing stroke and thereby prevent printing.

2. In a combined typewriting and computing machine, the combination with a rotatable platen and type-bars, of a stop rod extending in the direction of the platen axis and bodily movable in a direction transverse to the platen axis into and out of position to intercept the type-bars.

3. In combined typewriting and computing machine, the combination with a horizontally-disposed rotatable platen and type-bars adapted to swing upwardly and forwardly to strike the front face of the platen, of a horizontal stop rod extending along the face of the platen adjacent to the printing point, and guides in which said rod is vertically movable into and out of position to stop the type-bars as they approach the printing point.

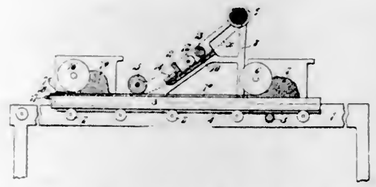


4. In a combined typewriting and computing machine, the combination with a rotatable platen and type-bars to strike the platen, of a horizontal stop rod extending on opposite sides of the printing point, depending guiding members on said rod, and supports in which said members are supported and vertically adjustable to bring said stop into and out of position to stop the type-bars.

5. In a combined typewriting and computing machine, the combination with a rotatable platen and type-bars to strike the platen, of a stop rod extending across the path of the type-bars and on opposite sides of the printing point, depending guiding members on said rod, and stationary supports in which said members are supported and vertically adjustable into and out of the path of the type-bars to bring said stop into and out of position to stop the type bars.

[Claims 6 to 11 not printed in the Gazette.]

1,144,976. SINGLE-STRAND-WIRE-GLASS MACHINE. ARTHUR J. BALDWIN, East Orange, N. J., assignor to Mississippi Wire Glass Company, New York, N. Y., a Corporation of New Jersey. Filed Dec. 21, 1908. Serial No. 468,508. (Cl. 49—32.)

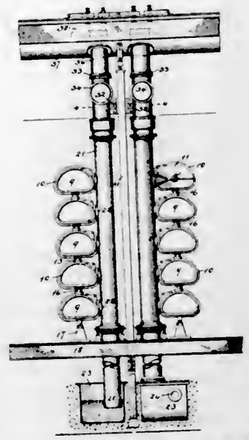


In a device for manufacturing wire glass, the combination of forming rolls, wire reels for supporting separate strands of wire, a table, a slotted guide plate for guiding the separate strands of wire from said reels to said table, and adjustable friction elements coöperating with said slotted plate to grip the wires individually to apply selectively variable tension to the different wires.

1,144,977. APPARATUS FOR MANUFACTURING COAL-GAS. HOWARD BRUCE, Baltimore, Md., assignor to The Bartlett Hayward Company, Baltimore, Md., a Corporation of Maryland. Filed Jan. 7, 1914. Serial No. 810,723. (Cl. 48—171.)

1. In an apparatus for the manufacture of coal gas the combination with a retort, of a stand pipe; a seal for one end of the stand pipe and means for adjusting the stand pipe in a longitudinal direction.

2. In an apparatus for the manufacture of coal gas the combination with a plurality of retorts, of stand pipes; connections between the retorts and stand pipes and adjustable means for sustaining the stand pipes.



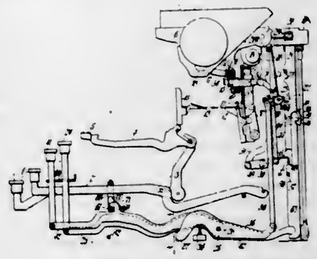
3. In an apparatus for the manufacture of coal gas the combination with a retort mouth piece of a stand pipe having connections with the retort mouth piece; means for adjustably sustaining the mouth piece and means for adjustably sustaining the stand pipe.

4. In an apparatus for the manufacture of coal gas the combination with a plurality of retorts each having a mouthpiece and arranged in vertical rows, of adjustable means interposed between the several mouthpieces in a vertical row for bracing said mouthpieces; a standpipe for each vertical row of retorts said standpipe having a separate and independent connection with each retort and means for adjustably sustaining the standpipes.

5. In an apparatus for the manufacture of coal gas the combination with a plurality of retorts each having a mouthpiece and arranged in vertical rows, of rotatable means for adjustably bracing one mouthpiece from another; a standpipe for each vertical row of retorts and having an independent connection with each retort in the same vertical row and rotatable means for adjusting each standpipe.

[Claims 6 and 7 not printed in the Gazette.]

1,144,978. TYPE-WRITING MACHINE. BENJAMIN P. FORTIN, Hartford, Conn., assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Filed Jan. 6, 1913. Serial No. 740,324. (Cl. 197—177.)



1. In a typewriting machine, the combination with a carriage, of a tabulating key, a stop for arresting said carriage controllable by said tabulating key, a key ineffective alone to operate said stop, and means operated by the carriage for positioning said stop when said keys are operated.

2. In a typewriting machine, the combination with a carriage, of a tabulating key, a stop, means operated by the carriage to set the stop to carriage-arresting position, an interponent set by said key to effect an operative connection between the stop and said means, and a second key ineffective alone to control the setting of said stop and controlling the operation of said tabulating key, whereby said stop is set only when said keys have both been operated.

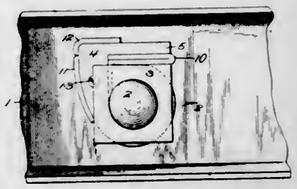
3. In a typewriting machine, the combination with a carriage, of tabulating keys, stops for arresting said carriage, interponents set by said keys, a key ineffective alone to control the stops, a universal operator for said stops, and a swing bar set by said ineffective key for moving said universal operator.

4. In a typewriting machine, the combination with a carriage, of a tabulating key, an interponent set by said key, a stop operable by said interponent, a projection on said carriage, a universal operator, said interponent operable by said operator, a second key, and means controlled by said second key for causing said projection to actuate said universal operator, and thereby effect the operation of said first-named stop.

5. In a typewriting machine, the combination with a carriage, of tabulating keys, interponents set by said keys, stops operable by said interponents, a universal operator, said interponents operable by said operator, a swing bar for moving said universal operator, a series of projections on the carriage for moving said swing bar, selector keys, and means operated by said selector keys for causing said swing bar to select one of said projections.

[Claims 6 to 47 not printed in the Gazette.]

1,144,979. NUT-LOCK. JOSIAH H. HARVEY, Scranton, Pa., assignor to Rebecca Orenstein, Hartford, Conn. Filed July 31, 1913. Serial No. 782,385. (Cl. 151—62.)



1. A nut lock for a bolt comprising a washer, a leg extending from said washer and shaped to form a substantially circular opening through which the bolt passes, an extension formed on the washer, and a split pin having a closed end located between the extension and the bent end of the washer, the split ends of the pin adapted to be bent back on the washer, and an interference member formed on said pin adapted to lock the nut.

2. A nut lock for a bolt comprising a washer surrounding said bolt, a leg extending from said washer and shaped to form substantially a circular opening through which the bolt passes, an extension on the washer forming with said bent leg a tapered opening, a split pin the closed end of which forms an interference member, adapted to lie within the tapered opening, the open ends of said split pin adapted to be bent back against the washer, and a nut engaged by said interference member.

3. A nut lock for a bolt comprising a washer surrounding said bolt comprising a body portion, a leg extending from said body portion bent around said bolt, an extension from the body portion adjacent the bent end of the leg, a split pin having an interference member adapted to lie between the extension and the bent end of the said leg, and a nut yieldably engaged by said bent end, to hold the nut against displacement.

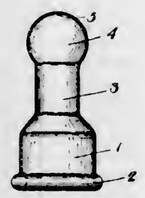
4. A nut lock such as described, comprising a split pin having an open and a closed end shaped to form an interference member, and a washer having a transverse way to receive said pin and hold said member in the path of the nut bearing upon the washer when the open end of the

pin extends beyond the edge of said washer and is bent thereupon.

5. A bolt, a nut, and a split washer having a keyway extending completely through it transverse to and alongside its bolt-opening; combined with a key in said keyway having a head at one end deflected into an interference member projecting beyond the face of the washer and overlying the edge of the nut, the other end of the key projecting from the keyway and bent, for the purpose set forth.

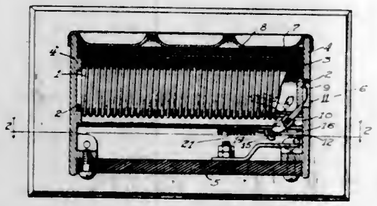
[Claims 6 to 11 not printed in the Gazette.]

1,144,980. NIPPLE FOR NURSING-BOTTLES. EVERETT C. HILTON, Andover, Mass., assignor to Tyer Rubber Company, Boston, Mass., a Corporation of Massachusetts. Filed Mar. 15, 1915. Serial No. 14,546. (Cl. 128—18.)



A nursing-bottle nipple having a plurality of incisions in its end-portion diverging from a common point, forming V-shaped projections, said projections being caused to move outward to open the orifice by deflection of the wall of the end-portion of the nipple, and permitted to resume their normal position to tightly close said orifice upon the deflected portions resuming their normal position.

1,144,981. ELECTRIC HEATER. EDWIN N. LIGHTFOOT, New York, N. Y. Filed Nov. 18, 1911. Serial No. 661,161. (Cl. 219—23.)



1. In an electric heating device, a plurality of heating coils normally simultaneously in circuit and means actuated by the placement of the object to be heated within the heating zone for short circuiting one of said coils.

2. In an electric heating device, a plurality of heating coils of different resistance normally simultaneously in circuit, and means actuated by the placement of the object to be heated within the heating zone for short circuiting certain of said coils.

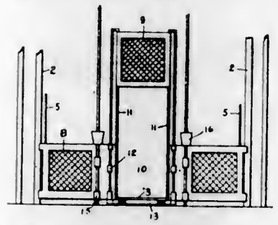
3. In an electric heating device, a plurality of heating coils of different resistance simultaneously in circuit, and means actuated by an object to be heated for short circuiting certain of said coils having a higher resistance.

4. In an electric heating device, a plurality of coils simultaneously in circuit, one of said coils being arranged to form a chamber, a door for said chamber, and means for short circuiting one of said coils upon movement of said door.

5. In an electric heating device, a plurality of heating coils in series, one of said coils being arranged to form a chamber, a door for said chamber, and means actuated by said door for short circuiting one of said coils.

[Claims 6 to 12 not printed in the Gazette.]

1,144,982. LOWERING DEVICE. RAUL MÉNDEZ, Curacao, Dutch West Indies. Filed July 28, 1913. Serial No. 781,528. (Cl. 187—1.)

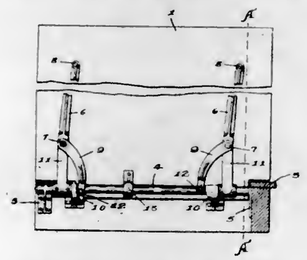


1. In a lowering conveyer, the combination with a counterbalanced horizontal platform, of an upstanding gate, protecting said platform and carried thereby, and a projection depending from said gate below said platform when the same is in raised position and adapted to engage the ground when the platform is lowered thereby to support said gate in raised position above the platform when the same is adjacent the ground.

2. In a lowering conveyer, the combination with a frame including vertical guiding means, of a platform guided in said means for vertical movement, a gate vertically movable relative to said platform and braces depending from said gate adapted to outline a gate-way for said platform when in its lowered position.

3. In a lowering conveyer, the combination with a frame including vertical guiding means, of a platform guided in said means for vertical movement, a gate vertically movable relative to said platform, braces depending from said gate adapted to outline a gateway for said platform when in its lowered position, and a tread plate pivoted to said braces and affording a means for holding said platform in position.

1,144,983. TRAP-DOOR FOR RAILWAY-CARS. ROY T. AXE, Syracuse, N. Y. Original application filed Oct. 6, 1910, Serial No. 585,641. Renewed Sept. 20, 1912, Serial No. 721,520. Divided and this application filed Mar. 2, 1914. Serial No. 821,920. (Cl. 105—84.)



1. The combination with a car platform provided with a step opening and a trap door movable about an axis to open and close said opening and movable in a direction substantially lengthwise of its axis, of a hinge element supported from the car and movable about said axis, means for connecting the door to said element including a part having a swinging movement relatively to the element, and a cam for effecting the swinging movement during the movement of the door about its axis, substantially as and for the purpose described.

2. The combination with a car platform provided with a step opening, and a trap door movable about an axis to open and close said opening, and movable in a direction substantially lengthwise of said axis, of a hinge element supported by the car, means for connecting the door to said element including a lever pivoted to the door and fulcrumed to a part fixed to the hinge element and from movement lengthwise of the axis of the door, and a stationary cam for coacting with the lever to effect the swinging movement of the lever during the movement of the door about its axis, substantially as and for the purpose specified.

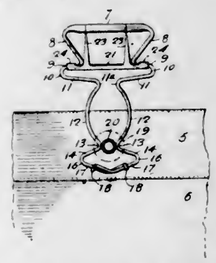
3. The combination with a car platform provided with a step opening, and a trap door movable about an axis to open and close said opening and movable in a direction substantially lengthwise of said axis, of a hinge element supported from the car and movable about said axis, means for connecting the door to said element including a lever pivoted to the door and fulcrumed intermediate of its ends to a part fixed to the hinge element, the fulcrum point being located between the hinge element and the free edge of the door, and a stationary cam located near the hinge element and coacting with the lever to cause said lever to move about its fulcrum point and swing the door lengthwise of its axis during the movement of the door about its axis, substantially as and for the purpose set forth.

4. The combination with a car platform provided with a step opening and a trap door movable about an axis to open and close said opening and movable in a direction substantially lengthwise of said axis, of a hinge element supported by the car and movable about said axis, a bracket carried by the hinge element and extending radially therefrom, a lever fulcrumed to said bracket, and being pivoted to the door, and a stationary cam coacting with said lever to move the same about its fulcrum during the movement of the door about its axis, substantially as and for the purpose described.

5. The combination with a car platform provided with a step opening and a trap door movable about an axis to open and close said opening and movable in a direction substantially lengthwise of said axis, of a hinge element supported by the car and movable about said axis, a bracket carried by the hinge element and extending toward the free edge of the door, a lever fulcrumed intermediate of its ends to said bracket, one arm thereof being pivoted between the bracket and the free edge of the door, and a cam coacting with the other arm of said lever, substantially as and for the purpose specified.

[Claims 6 to 10 not printed in the Gazette.]

1,144,984. BUCKLE AND LOOP. ALFRED ALEXANDER COLLEDGE, Le Mars, Iowa, assignor to Henry W. Klinkerfues, St. Paul, Minn. Filed Oct. 28, 1912. Serial No. 728,102. (Cl. 24—73.)



1. In a combined buckle and loop, the combination with a frame made of a single piece of spring wire shaped at one end of the frame to form a buckle loop adapted to receive a strap, at the other end of the frame to form a resilient button loop adapted to receive and yieldingly hold the shank of a button, and intermediate the said loops to form bearings, of a movable strap securing device operatively engaging the said bearings and disposed in coöperative relation with the said buckle loop.

2. In a combined buckle and loop, the combination with a frame made of a single piece of spring wire having its middle part shaped to form at one end of the frame a buckle loop adapted to receive a strap, its two end parts slidably connected and shaped to form a resilient button loop adapted to receive and yieldingly hold the shank of a button, and being shaped intermediate the said loops to form bearings, of a movable strap securing device operatively engaging the said bearings and disposed in coöperative relation with the said buckle loop.

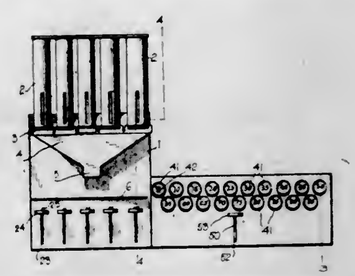
3. In a combined buckle and loop, the combination with a frame having a buckle loop at one end adapted to receive a strap, a resilient button loop at its other end adapted to receive and yieldingly hold the shank of a button, and bearings disposed between the said loops, of a movable strap securing device operatively engaging the said bearings and disposed in coöperative relation with the said buckle loop, the said frame having an opening between the strap loop and the button loop through which the loose end of the strap can be passed from the front side to the rear side of the frame.

4. In a combined buckle and loop, the combination with a frame made of a single piece of spring wire shaped at one end of the frame to form a buckle loop adapted to receive a strap, at the other end of the frame to form a resilient button loop adapted to receive and yieldingly hold the shank of a button, and intermediate the said loops to form bearings and an opening through which the loose end of the strap can be passed from the front side to the rear side of the frame, of a movable strap securing device operatively engaging the said bearings and disposed in coöperative relation with the said buckle loop.

5. In a combined buckle and loop, the combination of a frame made of a single piece of spring wire shaped at one end of the frame to form a buckle loop adapted to receive a strap and at the other end of the frame to form a resilient button loop adapted to receive and yieldingly hold the shank of a button, and a strap securing device on the frame adjacent the buckle loop.

[Claims 6 and 7 not printed in the Gazette.]

1,144,985. COIN-HANDLING DEVICE. EUGENE E. HENRY, Astoria, Oreg., assignor of one-half to Irwin F. Bidwell, Astoria, Oreg. Filed Jan. 23, 1915. Serial No. 4,000. (Cl. 133—2.)



1. A device of the character described including a coin container, an ejector member coacting therewith, a rock arm, means for imparting movement to the rock arm, a projection carried by the rock arm, a rod operatively engaged with the ejector member and provided with a recess to accommodate the projection of the rock arm whereby the ejector member may be moved in unison with the rock arm, an endwise movable bar upon movement in one direction coacting with the rod for moving the same independently of the rock arm whereby the projection of the rock arm is unseated from within the recess of the rod, means for imparting movement to the bar in one direction, and independently operable means coacting with the rock arm whereby the bar may be moved in an opposite direction for reseating the projection of the rock arm within the recess of the rod.

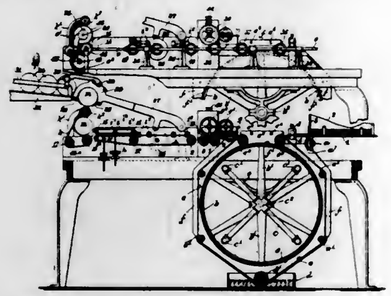
2. A device of the character described including a coin container, an ejector member coacting therewith, a rock arm, means for imparting movement to the rock-arm, a projection carried by the rock arm, a rod operatively engaged with the ejector member and provided with a recess to accommodate the projection of the rock arm whereby the ejector member may be moved in unison with the rock arm, an endwise movable bar upon movement in one direction coacting with the rod for moving the same independently

of the rock arm whereby the projection of the rock arm is unseated from within the recess of the rod, means for imparting movement to the bar in one direction, means carried by the bar coacting with the rock arm whereby the bar may be moved in an opposite direction, and additional means operable independently of the previous mentioned means for imparting movement to the bar in the second named direction.

3. A device of the character described including a coin container, an ejector member coacting therewith, a rock arm, means for imparting movement to the rock arm, a projection carried by the rock arm, a rod operatively engaged with the ejector member and provided with a recess to accommodate the projection of the rock arm whereby the ejector member may be moved in unison with the rock arm, an endwise movable bar upon movement in one direction coacting with the rod for moving the same independently of the rock arm whereby the projection of the rock arm is unseated from within the recess of the rod, means for imparting movement to the bar in one direction, means carried by the bar coacting with the rock arm whereby the bar may be moved in an opposite direction, and additional means operable independently of the previous mentioned means for imparting movement to the bar in the second named direction, said last named means being manually operated.

REISSUES.

13,940. CAN-LABELING MACHINE. JAMES C. SHULTS, Meadville, Pa., assignor to Russ Automatic Labeling Co., New York, N. Y., a Corporation of Delaware. Filed Mar. 5, 1915. Serial No. 12,434. Original No. 1,061,021, dated May 6, 1913, Serial No. 647,428. Renewed Aug. 12, 1912, Serial No. 714,707. (Cl. 216—59.)



1. In a can labeling machine, devices for forwarding labels one at a time, devices for moistening the labels, devices for pasting the labels, devices for gripping and moving the pasted labels, devices for receiving, holding and revolving cans to be label one at a time, and means coperating with the revolving can to wrap the pasted label around the can and simultaneously stretch it.

2. In a can labeling machine, devices for forwarding labels one at a time, devices for moistening the labels, devices for pasting the labels, devices for gripping and moving the pasted labels, devices for receiving, holding and revolving cans to be labeled one at a time, and means comprising an apron movable bodily to partially embrace the revolving can to wrap the pasted label around the can and simultaneously stretch it.

3. In a can labeling machine, devices for forwarding labels one at a time, devices for moistening the labels, devices for pasting the labels, means for straightening the pasted labels, devices for gripping and moving the pasted labels, devices for receiving, holding and revolving cans to be labeled one at a time, and means coöperating with the revolving can to wrap the pasted label around the can and simultaneously stretch it.

4. In a can labeling machine, devices for forwarding labels one at a time, devices for moistening the labels, devices for pasting the labels, means comprising a supporting conveyer and a coöperating ribbed conveyer for gripping and moving the pasted labels, devices for receiving, holding and revolving cans to be labeled one at a time, and means coöperating with the revolving can to wrap the pasted label around the can and simultaneously stretch it.

5. In a can labeling machine, devices for forwarding labels one at a time, devices for moistening the labels, devices for pasting the labels, devices for gripping and moving the pasted labels, devices for receiving, holding and revolving cans to be labeled one at a time, and a swinging traveling apron movable bodily in one direction to partially embrace the revolving can to wrap the pasted label around the can and simultaneously stretch it, and movable in the other direction to permit discharge of the labeled can by gravity.

6. In a can labeling machine, the combination with means for forwarding labels, of a heated drum, a belt extending substantially around said drum, means for wetting said belt, means for delivering the labels between said belt and drum to be moistened, means for stripping the moistened labels from between said belt and drum, means for pasting the moistened labels, conveyer means for receiving and gripping the pasted labels, can feeding and revolving mechanism, and means coöperating with the revolving can to wrap the pasted label around the can while stretching the portion of the label between the can and said gripping means.

7. In a can labeling machine, means for forwarding the labels one at a time, a drum, a felt strip around the periphery of said drum, means whereby the drum and the felt covering are heated, a tank for water beneath the drum, a vertically movable weighted roller in said tank, rollers adjacent the upper part of said drum and spaced apart, a series of guide blades between the latter rollers extending over the drum and its felt covering, and a series of endless belts passing around said rollers and through said tank with their inner portions in contact with the felt covering of the drum, whereby the felt covering is moistened and heated and the endles sbelts are moistened and labels passed between the moistened belts and the moistened and heated felt covering for preparing the labels for the pasting operation.

8. In a can labeling machine, the combination with means for moistening the labels one at a time, of a receptacle for adhesive material such as paste, a roller therein, a distributing roller receiving the paste from the aforesaid roller, label supporting means beneath the distributing roller but out of close contact therewith, switch devices for receiving the moistened labels from the moistening devices and directing their path to the paste distributing roller, and other switch devices for removing the labels as pasted from the paste distributing roller and diverting their path of travel.

9. In a can labeling machine, the combination with means for applying adhesive material to the surface of the labels and diverting their path of travel, of a series of endless conveyer belts, rollers around which the same pass, a series of superposed auxiliary conveyer belts, strips of metal forming ribs secured to the said auxiliary conveyer belts across the same at right angles to their length and adapted to bear upon the endless conveyer belts for gripping the pasted labels and evening the same in transit, and means for applying pressure or tension to any one or a number of the endless conveyer belts as against the auxiliary belts and their ribs, whereby the pasted labels may be held in the desired places, and means co-acting therewith for applying and stretching the labels around the cans.

10. In a can labeling machine, the combination with a series of conveyer belts for forwarding the pasted labels, of devices for progressing the cans to receive the labels, devices for engaging the cans at their respective ends and holding and rotating the same, an endless belt or apron, receiving the pasted labels one at a time as forwarded, and suitable rollers upon which the same is mounted and devices connected with said apron and operated at predetermined intervals for moving the apron and one of the rollers and causing the same to be elevated and embrace a part of the revolving can so that the label is partly wrapped around the can as pasted thereto.

11. In a can labeling machine, the combination with a series of conveyer belts for forwarding the pasted labels, of devices for progressing the cans to receive the labels, devices for engaging the cans at their respective ends and holding and rotating the same, an endless belt or apron receiving the pasted labels one at a time as forwarded, and suitable rollers upon which the same is mounted, devices connected with said apron and operated at predetermined intervals for moving the apron and causing the same to embrace a part of the revolving can so that the label is partly wrapped around the can as pasted thereto, and means for returning the apron to its initial position, whereby a part of the same in an inclined plane, forms a delivery for the can as labeled and released.

12. In a can labeling machine, the combination with means for engaging and rotating a can to be labeled, of means coöperating with the rotating can to press the label thereon, and coöperating conveyers for gripping and feeding the pasted label, the conveyer on the pasted side of the label being transversely corrugated.

13. In a can labeling machine, the combination with endless conveyer belts for forwarding the pasted labels and devices for holding the can to be labeled, of an endless apron, rollers around which the same extends, a tank for water and a brush roller in said tank for moistening the surface of the endless apron and for washing therefrom any surplus paste.

14. In a can labeling machine, the combination with means for forwarding the pasted labels and devices for holding the can to be labeled, of a label applying apron, a tank for water and a brush roller in said tank for moistening the surface of the apron and for washing therefrom any surplus paste, and means for raising the apron so as to cause the same to partially encircle the can to be labeled to wrap and press the label around the can.

15. In a can labeling machine, an inclined platform down which the cans to be labeled are delivered, a swinging arm and a head at the free end of said arm, a device pivotally mounted to said head and also pivotally mounted to a part of said inclined platform, and spring actuated can supporting devices connected to said head, whereby the cans one at a time are received from the said platform in said head and the cans on the platform restrained in their movement, rotating devices for receiving the cans from said head in its lowest position and holding the same, and means for controlling said rotating devices to clamp and release the cans.

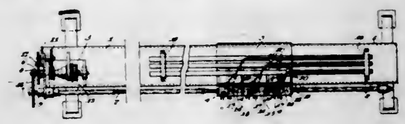
16. In a can labeling machine, the combination with means for feeding adhesive labels and applying them to cans, of a vibratory arm, a head upon the free end of said arm adapted to receive a can to be labeled, means connected with said head for carrying the can, a platform down which the cans descend to be labeled, and means whereby when the head moves in one direction carrying a can, the remaining cans are held stationary on said platform, and when said head returns to a predetermined position the first can is released to roll into the head and simultaneously hold back the second can.

17. In a can labeling machine, means for feeding and pasting a label, means for gripping and feeding the pasted label, means for feeding and rotating the can, and means for receiving the pasted label from said feeding means and applying it to the rotating can whereby to stretch the label between the rotating can and said gripping means while it is being wrapped around the can.

18. In a can labeling machine, means comprising a plurality of successively released clamping devices for feeding an adhesive label to a can, means for rotating the can, and means for receiving the label from said clamping devices and applying it to the rotating can whereby to stretch the label between the can and the said clamping devices as it is wrapped around the can.

19. The combination with means for feeding and pasting labels, of a support for cans, rotatably driven can clamping heads, means for taking cans one by one from said can support and inserting them between said rotatable heads in position to be labeled, means for engaging said heads with said cans and rotating the cans, and means for feeding detached labels to said rotating cans and applying them thereto, said feeding means holding the label against the pull of the rotating can to effect stretching of the label over inequalities of the can.

13,941. APPARATUS FOR WELDING THE MEETING EDGES OF METALLIC ARTICLES. MOISE ALTMAN, Bagnolet, France, assignor to Harlan Eskey Snodgrass, Newark, N. J. Filed Jan. 18, 1912. Serial No. 671,919. Original No. 961,394, dated June 14, 1910, Serial No. 400,800½. (Cl. 113—59.)



1. In an apparatus for welding the meeting edges of metallic articles, the combination with means for supporting the article to be welded, of a blow pipe adapted to direct an oxy-acetylene flame along the edges to be welded, said flame being disposed in the plane of the seam and inclined at an acute angle to the direction of relative movement between the flame and the seam whereby the meeting edges of the article are welded together without cutting the same, and means for maintaining the relation between the flame and the seam being welded throughout the welding operation.

2. In an apparatus for welding the meeting edges of sheet metal tubes for effecting a butt weld and producing a substantially seamless tube, the combination with means for supporting the article to be welded, of a carriage movable relatively to said supporting means, a blow pipe adjustably supported by said carriage and adapted to direct a flame against said article, said flame being disposed in a plane passing between the edges to be joined and intersecting the longer axis of the tube, and being inclined at an acute angle in the direction in which the carriage is traveling whereby said meeting edges are welded together without cutting said article, and means for maintaining a fixed relation between the flame and the edges being welded throughout the welding operation.

3. In an apparatus for making seamless tubes, comprising a bed, a carriage mounted above and on the bed and movable along the same, supports mounted above and on the bed and near opposite ends thereof, and a blowpipe heating means carried by the carriage.

4. In apparatus for welding the meeting edges of metallic articles, the combination of the bed of the apparatus, means for supporting the articles to be welded above the bed, a carriage movable longitudinally of said bed, blowpipe welding means supported by said carriage and adapted to direct a flame against said article at an acute angle to the meeting edges thereof whereby said edges are welded together without cutting said article, means for adjusting said welding means longitudinally in said carriage, and means for adjusting said welding means transversely in said carriage.

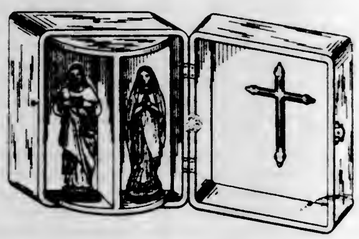
DESIGNS.

47,515. TOY SCOOP-CART. LORIOT D. BOZORTH, Blackwood, N. J. Filed Nov. 17, 1914. Serial No. 872,668. Term of patent 7 years.



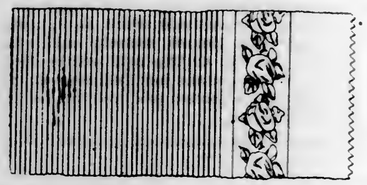
The ornamental design for a toy scoop cart, as shown.

47,516. PRAYER-BOX. FRANK S. HICKEY, Boston, Mass. Filed May 3, 1915. Serial No. 25,614. Term of patent 3½ years.



The ornamental design for "prayer box" as shown.

47,517. PRINTED COTTON FABRIC. CHARLES M. HOWARD, New York, N. Y., assignor to Windsor Print Works, New York, N. Y., a Corporation of Massachusetts. Filed Mar. 19, 1915. Serial No. 15,624. Term of patent 3½ years.



The ornamental design for a printed cotton fabric, as shown.

47,518. PAPER-ROLL HOLDER. CHARLES F. HUBBS, New York, N. Y. Filed Apr. 8, 1915. Serial No. 20,057. Term of patent 14 years.



The ornamental design for a paper roll holder, as shown.

47,519. FEED-BAG FOR HORSES. JOHN HENRY HUCKE, Jr., New York, N. Y. Filed Jan. 6, 1915. Serial No. 876. Term of patent 7 years.



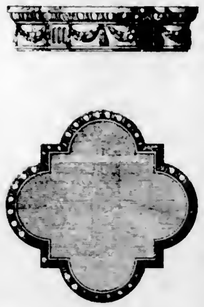
The ornamental design for a feed bag for horses, as shown.

47,520. LAVALLIÈRE. SELIM A. KATIBAH, New York, N. Y. Filed Mar. 1, 1915. Serial No. 11,428. Term of patent 3½ years.



The ornamental design for a lavallière as shown.

47,521. CANOPY OR REFLECTOR FOR ARTIFICIAL LIGHT. RAYMOND V. OWEN, St. Louis, Mo., assignor to Luminous Unit Company, St. Louis, Mo., a Corporation of Missouri. Filed Mar. 19, 1915. Serial No. 15,639. Term of patent 7 years.



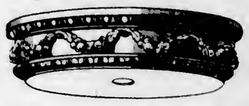
The ornamental design for a canopy or reflector for artificial light, as shown.

47,522. REFLECTOR FOR ARTIFICIAL LIGHT. RAYMOND V. OWEN, St. Louis, Mo., assignor to Luminous Unit Company, St. Louis, Mo., a Corporation of Missouri. Filed Mar. 19, 1915. Serial No. 15,641. Term of patent 7 years.



The ornamental design for a reflector for artificial light, as shown.

47,523. CANOPY OR REFLECTOR FOR ARTIFICIAL LIGHT. RAYMOND V. OWEN, St. Louis, Mo., assignor to Luminous Unit Company, St. Louis, Mo., a Corporation of Missouri. Filed Mar. 19, 1915. Serial No. 15,642. Term of patent 7 years.



The ornamental design for a canopy or reflector for artificial light, as shown.

47,524. CANOPY OR REFLECTOR FOR ARTIFICIAL LIGHT. RAYMOND V. OWEN, St. Louis, Mo., assignor to Luminous Unit Company, St. Louis, Mo., a Corporation of Missouri. Filed Mar. 19, 1915. Serial No. 15,643. Term of patent 7 years.



The ornamental design for a canopy or reflector for artificial light, as shown.

47,525. PARASOL. JAMES ROSE, Lancaster, Pa. Filed May 5, 1915. Serial No. 26,155. Term of patent 3½ years.



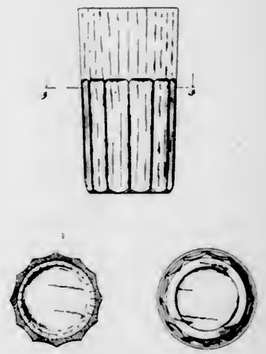
The ornamental design for a parasol, as shown.

47,526. WATCH-FOB. HARRY RUSSELL, San Francisco, Cal. Filed Feb. 26, 1915. Serial No. 10,872. Term of patent 3½ years.



The ornamental design for a watch fob, as shown.

47,527. TUMBLER OR SIMILAR ARTICLE. ANDREW J. SANFORD, Newark, Ohio, assignor to A. H. Heisey & Co., Newark, Ohio. Filed Mar. 12, 1914. Serial No. 824,325. Term of patent 14 years.



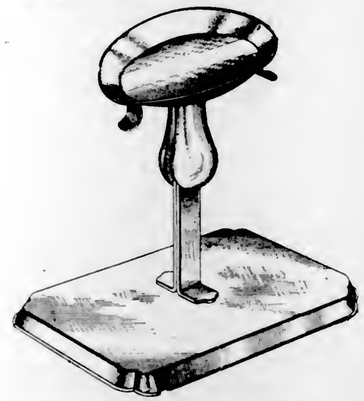
The ornamental design for a tumbler or similar article, substantially as shown and described.

47,528. BOX. CONSTANCE WHITE, Washington, D. C. Filed May 5, 1913. Serial No. 765,526. Term of patent 7 years.



The ornamental design for a box, as shown.

47,529. TRAY. THOMAS WILSON, Toronto, Ontario, Canada. Filed Feb. 20, 1915. Serial No. 9,734. Term of patent 14 years.



The ornamental design for a tray, as shown.

TRADE-MARK REGISTRATIONS GRANTED

JUNE 29, 1915.

104,923. MEN'S OUTER SHIRTS. ALEXANDER & Co., INC., New York, N. Y.
Filed March 24, 1915. Serial No. 85,355. PUBLISHED APRIL 20, 1915.

104,924. CERTAIN NAMED PHARMACEUTICAL PREPARATIONS. AMERICAN DRUG & PRESS ASSOCIATION, Decorah, Iowa.
Filed October 23, 1914. Serial No. 82,086. PUBLISHED MARCH 30, 1915.

104,925. COMPOSITION SOLES AND HEELS FOR SHOES. AVON SOLE COMPANY, Avon and Brockton, Mass.
Filed March 16, 1915. Serial No. 85,174. PUBLISHED APRIL 20, 1915.

104,926. MEN'S AND BOYS' OVERALLS. J. BAKER & SONS, Evansville, Ind.
Filed March 20, 1915. Serial No. 85,268. PUBLISHED APRIL 20, 1915.

104,927. PORTFOLIOS, POCKET-BOOKS, BAGGAGE AND VEHICLE STRAPS, PURSES, WALLETS, TOILET-CASES, AND CERTAIN NAMED BAGS. GEO. BORGFELDT & Co., New York, N. Y.
Filed November 3, 1914. Serial No. 82,368. PUBLISHED APRIL 13, 1915.

104,928. HOLLOW ALUMINUM WARE. GEO. BORGFELDT & Co., New York, N. Y.
Filed November 10, 1914. Serial No. 82,511. PUBLISHED APRIL 13, 1915.

104,929. OINTMENT. JANE R. A. BROWN, Cooperstown, N. Y.
Filed March 5, 1915. Serial No. 84,950. PUBLISHED APRIL 20, 1915.

104,930. CLEANING AND POLISHING PREPARATIONS FOR CERTAIN NAMED MATERIALS. CHEMISCHE FABRIK DÜSSELDORF AKTIENGESELLSCHAFT, Leipzig, Germany.
Filed March 2, 1915. Serial No. 84,878. PUBLISHED APRIL 13, 1915.

104,931. TOILET SOAP. THE CINCINNATI SOAP CO., Cincinnati, Ohio.
Filed February 27, 1915. Serial No. 84,810. PUBLISHED APRIL 13, 1915.

104,932. FIREWORKS. CONSOLIDATED FIREWORKS COMPANY OF AMERICA, New York, N. Y.
Filed February 8, 1915. Serial No. 84,356. PUBLISHED MARCH 23, 1915.

104,933. QUININ HAIR-TONIC. COVALT AND SMITH, Pittsburgh, Pa.
Filed March 6, 1915. Serial No. 84,992. PUBLISHED APRIL 20, 1915.

104,934. PIANOS, ORGANS, PLAYER-PIANOS, HORNS, TROMBONES, GUITARS, MANDOLINS, AND VIOLINS. THE CUSSINS & FEARN CO., Columbus, Ohio.
Filed February 23, 1915. Serial No. 84,682. PUBLISHED APRIL 13, 1915.

104,935. RUBBER TIRES AND PNEUMATIC TIRES. CHARLES A. DANIEL, Philadelphia, Pa.
Filed November 10, 1914. Serial No. 82,506. PUBLISHED APRIL 13, 1915.

104,936. ELECTRIC EGG-TESTERS. HARRY J. FERER, Falls City, Nebr.
Filed January 14, 1915. Serial No. 83,852. PUBLISHED APRIL 13, 1915.

104,937. MEDICINE FOR THE TREATMENT OF TUBERCULOSIS. NANCY HARTFORD, Silver Creek, Nebr.
Filed February 23, 1915. Serial No. 84,690. PUBLISHED MARCH 30, 1915.

104,938. BLUING. B. HELLER & Co., Chicago, Ill.
Filed July 15, 1914. Serial No. 79,809. PUBLISHED AUGUST 11, 1914.

104,939. PLUSHES IN THE PIECE. THE HIND & HARRISON PLUSH CO., New York and Clark Mills, N. Y.
Filed March 16, 1915. Serial No. 85,186. PUBLISHED APRIL 20, 1915.

104,940. HOSIERY. HOLEPROOF HOSIERY CO., Milwaukee, Wis.
Filed March 13, 1915. Serial No. 85,136. PUBLISHED APRIL 13, 1915.

104,941. FUR SCARFS AND MUFFS. JALKOFF BROS., New York, N. Y.
Filed October 21, 1914. Serial No. 82,060. PUBLISHED APRIL 13, 1915.

104,942. FUR SCARFS AND MUFFS. JALKOFF BROS., New York, N. Y.
Filed October 21, 1914. Serial No. 82,061. PUBLISHED APRIL 13, 1915.

104,943. FUR SCARFS AND MUFFS. JALKOFF BROS., New York, N. Y.
Filed October 21, 1914. Serial No. 82,062. PUBLISHED APRIL 13, 1915.

104,944. PREPARED PAINTS—VIZ., MILL-MIXED LIQUID PAINTS—VARNISHES, AND ENAMELS. KING PAINT MFG. CO., New York, N. Y.
Filed January 11, 1915. Serial No. 83,776. PUBLISHED FEBRUARY 23, 1915.

104,945. CERTAIN NAMED PHARMACEUTICAL PREPARATIONS. KIRK GEARY & Co., Sacramento, Cal.
Filed October 7, 1914. Serial No. 81,706. PUBLISHED DECEMBER 15, 1914.

104,946. MEDICINAL PREPARATION FOR TREATMENT OF DISEASES OF POULTRY. ROBERT LICH, Sutton, Nebr.
Filed February 20, 1915. Serial No. 84,664. PUBLISHED APRIL 20, 1915.

104,947. PERFUMES AND SACHET-POWDER. EUGÈNE MOULIÉ, San Diego, Cal.
Filed February 23, 1915. Serial No. 84,700. PUBLISHED APRIL 20, 1915.

104,948. CERTAIN NAMED WARE AND ARTICLES MADE OF OR PLATED WITH PRECIOUS METAL. THE MOUNT VERNON COMPANY—SILVERSMITHS, INC., Mount Vernon, N. Y.
Filed July 25, 1914. Serial No. 80,078. PUBLISHED NOVEMBER 10, 1914.

104,949. BEER. FERDINAND NEUMER, INC., New York, N. Y.
Filed March 19, 1914. Serial No. 76,773. PUBLISHED APRIL 13, 1915.

104,950. CLOTHES-DRIERS IN THE NATURE OF PORTABLE RACKS TO BE SET UP IN THE HOUSE. ARTHUR NOSWORTHY, Brooklyn, N. Y.
Filed August 20, 1914. Serial No. 80,704. PUBLISHED APRIL 20, 1915.

104,951. MEDICINAL WINES. BRONISLAW PREBOL, Passaic, N. J.
Filed December 29, 1914. Serial No. 83,568. PUBLISHED MARCH 16, 1915.

104,952. OUTER SUITS AND OVERCOATS. ROGERS PEET COMPANY, New York, N. Y.
Filed February 20, 1915. Serial No. 84,669. PUBLISHED APRIL 20, 1915.

104,953. OVERALLS, JUMPERS, OVERALL COATS AND PANTS. ROSE-ROGERS CO., Dallas, Tex.
Filed December 29, 1914. Serial No. 83,569. PUBLISHED APRIL 20, 1915.

104,954. SMOKED FISH, CERVALAT SAUSAGE, AND SALAME SAUSAGE. RICHARD SCHNIBBE, Inc., Brooklyn, N. Y.
Filed November 16, 1914. Serial No. 82,631. PUBLISHED FEBRUARY 16, 1915.

104,955. CREAM-SEPARATORS, CLARIFIERS, AND MILKING-MACHINES. THE SHARPLES SEPARATOR CO., West Chester, Pa.
Filed June 24, 1914. Serial No. 79,339. PUBLISHED SEPTEMBER 22, 1914.

104,956. LADIES' COATS AND OUTER SUITS. S. L. SILVER & CO., New York, N. Y.
Filed March 25, 1915. Serial No. 85,416. PUBLISHED APRIL 20, 1915.

104,957. WRITING-INK. TAYLOR CHEMICAL CO., Boston, Mass.
Filed February 26, 1915. Serial No. 84,793. PUBLISHED APRIL 13, 1915.

104,958. SOAP AND SOAP POWDER. P. C. TOMSON & CO., Philadelphia, Pa.
Filed January 26, 1914. Serial No. 75,469. PUBLISHED DECEMBER 1, 1914.

104,959. TWINE, CORD, AND STRING. UNITED DRUG COMPANY, Boston, Mass.
Filed February 23, 1915. Serial No. 84,720. PUBLISHED APRIL 13, 1915.

104,960. STEAM AND ELECTRIC TOYS, MECHANICAL TOYS, AND PARTS THEREOF. WEEDEN MANUFACTURING CO., New Bedford, Mass.
Filed March 26, 1915. Serial No. 85,460. PUBLISHED APRIL 20, 1915.

104,961. BROILERS, TOASTERS, AND PANCAKE-GRIDDLES. THE CLEVELAND FOUNDRY CO., Cleveland, Ohio.
Filed May 7, 1914. Serial No. 78,069. PUBLISHED NOVEMBER 10, 1914.

104,962. LADIES' COLLARS MADE OF FANCY AND PLAIN NETS, LACES, CHIFFONS, SILKS, EMBROIDERIES, LAWNS, ORGANDIES, LINENS. TIMOTHY F. CROWLEY, INCORPORATED, New York, N. Y.
Filed March 20, 1915. Serial No. 85,269. PUBLISHED APRIL 20, 1915.

104,963. ROASTED GROUND COFFEE. A. M. & J. C. DUPONT, Houma, La.
Filed February 20, 1915. Serial No. 84,650. PUBLISHED APRIL 20, 1915.

104,964. BREAD, ESPECIALLY PUMPERNICKEL-BREAD, SALAD-DRESSING, JELLIED MEATS, POTATO-CHIPS, FRUIT JAM AND JELLIES. RICHARD HELLMANN, New York, N. Y.
Filed February 6, 1915. Serial No. 84,339. PUBLISHED APRIL 20, 1915.

104,965. LARD SUBSTITUTE. THE SOUTHERN LARD AND PROVISION COMPANY, Norfolk, Va.
Filed February 25, 1915. Serial No. 84,775. PUBLISHED APRIL 20, 1915.

104,966. SWAGE-SHAPERS. E. C. ATKINS & COMPANY, Indianapolis, Ind.
Filed February 15, 1915. Serial No. 84,519. PUBLISHED APRIL 20, 1915.

104,967. RUBBER HEELS FOR BOOTS AND SHOES. ATLANTIC MANUFACTURING COMPANY, Wilmington, Del.
Filed March 15, 1915. Serial No. 85,160. PUBLISHED APRIL 20, 1915.

104,968. TONIC-BITTERS. FELICE BISLERI, New York, N. Y.
Filed January 16, 1915. Serial No. 83,895. PUBLISHED APRIL 20, 1915.

104,969. WAFFLE COMPOUNDS. OSCAR BLAINE CLOW, Seattle, Wash.
Filed June 10, 1914. Serial No. 78,938. PUBLISHED APRIL 6, 1915.

104,970. WHEAT-FLOUR. COLUMBIA STAR MILLING CO., Columbia, Ill.
Filed March 11, 1914. Serial No. 76,541. PUBLISHED MARCH 23, 1915.

104,971. RUBBER MALLETS, TYPE-WRITER PLATENS, AND RUBBER PRINTING-ROLLS AND PAPER-MACHINE ROLLS. CONTINENTAL RUBBER WORKS, Erie, Pa.
Filed December 19, 1914. Serial No. 83,404. PUBLISHED APRIL 20, 1915.

104,972. LEATHER SHOES. CRADDOCK-TERRY COMPANY, Lynchburg, Va., and St. Louis, Mo.
Filed October 12, 1914. Serial No. 81,811. PUBLISHED MARCH 23, 1915.

104,973. LEATHER SHOES. CRADDOCK-TERRY COMPANY, Lynchburg, Va., and St. Louis, Mo.
Filed October 30, 1914. Serial No. 82,267. PUBLISHED APRIL 20, 1915.

104,974. OLIVES. CURTIS OLIVE CORPORATION, Bloomington and Los Angeles, Cal.
Filed October 26, 1914. Serial No. 82,164. PUBLISHED APRIL 6, 1915.

104,975. NEGLIGÉE, DRESS, AND WORK SHIRTS. FERGUSON, HENE & NEVENS, New York, N. Y.
Filed March 11, 1915. Serial No. 85,079. PUBLISHED APRIL 20, 1915.

104,976. CALIPERS. HAMMEL, RIGLANDER & CO., New York, N. Y.
Filed February 27, 1915. Serial No. 84,813. PUBLISHED APRIL 20, 1915.

104,977. MITTS AND GLOVES. O. C. HANSEN MFG. COMPANY, Milwaukee, Wis.
Filed March 22, 1915. Serial No. 85,308. PUBLISHED APRIL 20, 1915.

104,978. POPCORN-MACHINES. HOLCOMB & HOKE MFG. CO., Indianapolis, Ind.
Filed December 17, 1914. Serial No. 83,346. PUBLISHED FEBRUARY 23, 1915.

104,979. BREAD, CAKE, AND PIES. HOLMES & SON, Washington, D. C.
Filed July 22, 1914. Serial No. 79,985. PUBLISHED APRIL 13, 1915.

104,980. TUBE-SPREADING AND BRICK-HOLDING TOOLS. JOHN KEERS, Brooklyn, N. Y.
Filed November 5, 1912. Serial No. 66,713. PUBLISHED APRIL 20, 1915.

104,981. ROLLED-STEEL BARS AND SHAPES. LACKAWANNA STEEL COMPANY, Lackawanna and New York, N. Y.
Filed March 17, 1915. Serial No. 85,213. PUBLISHED APRIL 13, 1915.

104,982. OINTMENT. EUGENE I. LEIGHTON, Fort Dodge, Iowa.
Filed October 12, 1914. Serial No. 81,822. PUBLISHED APRIL 20, 1915.

104,983. ROLLER-COASTERS. LOCKWOOD AMUSEMENT COMPANY, Kansas City, Mo.
Filed March 8, 1915. Serial No. 84,994. PUBLISHED APRIL 20, 1915.

104,984. PORTLAND CEMENT. MARQUETTE CEMENT MANUFACTURING CO., Chicago and Oglesby, Ill.
Filed February 14, 1914. Serial No. 75,900. PUBLISHED APRIL 20, 1915.

104,985. PREPARATIONS FOR THE PREVENTION OF VENEREAL DISEASES. SOL MEYER, Indianapolis, Ind.
Filed March 12, 1915. Serial No. 85,121. PUBLISHED APRIL 20, 1915.

104,986. SALT. JOHN L. C. MULKEY, Detroit, Mich.
Filed March 11, 1915. Serial No. 85,082. PUBLISHED APRIL 20, 1915.

104,987. RUGS AND CARPETS MANUFACTURED OF WOVEN GRASS. PACIFIC COAST RATTAN CO., Oakland, Cal.
Filed February 15, 1915. Serial No. 84,537. PUBLISHED APRIL 13, 1915.

104,988. CITRUS FRUITS. PITINO BROTHERS, Los Angeles, Cal.
Filed November 18, 1914. Serial No. 82,669. PUBLISHED APRIL 6, 1915.

104,989. CONSERVED CHERRIES. RHEINSTROM BROS., Cincinnati, Ohio.
Filed March 26, 1914. Serial No. 76,972. PUBLISHED JULY 14, 1914.

104,990. IODIN-CONTAINING MEDICINAL PREPARATIONS, MORE PARTICULARLY PREPARATIONS FOR HEART AND SKIN DISEASES AND BLOOD DISEASES. J. D. RIEDEL AKTIENGESELLSCHAFT, Berlin, Germany.
Filed March 23, 1914. Serial No. 76,875. PUBLISHED APRIL 20, 1915.

104,991. ARTIFICIAL BAIT. JOSEPH K. RUSH, Syracuse, N. Y.
Filed March 23, 1915. Serial No. 85,341. PUBLISHED APRIL 20, 1915.

104,992. PREPARATIONS CONTAINING RADIUM AND HAVING RADIO-ACTIVE PROPERTIES. EGMONT SCHAMBERG, Berlin-Halensee, Germany.
Filed February 27, 1913. Serial No. 68,792. PUBLISHED APRIL 20, 1915.

104,993. CERTAIN NAMED WINES. THE SCHUSTER COMPANY, Cleveland, Ohio.
Filed December 4, 1914. Serial No. 83,076. PUBLISHED APRIL 13, 1915.

104,994. CERTAIN NAMED WINES. THE SCHUSTER COMPANY, Cleveland, Ohio.
Filed March 9, 1915. Serial No. 85,049. PUBLISHED MARCH 30, 1915.

104,995. HOROLOGICAL INDICATORS. SENTINEL CLOCK CO., Chicago, Ill.
Filed January 18, 1915. Serial No. 83,942. PUBLISHED APRIL 13, 1915.

104,996. CATHARTIC PASTILS. HARRY PRESCOTT SIMPSON, Cleveland, Ohio.
Filed February 18, 1915. Serial No. 84,599. PUBLISHED APRIL 6, 1915.

104,997. CUSHION-HEELS. CHAS. W. STROHBECK, New York, N. Y.
Filed September 10, 1913. Serial No. 72,773. PUBLISHED APRIL 20, 1915.

104,998. TECHNICAL, ENGINEERING, AND SCIENTIFIC PERIODICAL BULLETINS. STANDARD CORPORATION, Philadelphia, Pa.
Filed January 14, 1915. Serial No. 83,861. PUBLISHED APRIL 13, 1915.

104,999. REFINED PETROLEUM ILLUMINATING-OIL. STANDARD OIL COMPANY, Richmond, Cal.
Filed August 5, 1913. Serial No. 72,172. PUBLISHED DECEMBER 22, 1914.

105,000. SALTED PEANUTS. MABLE P. TAYLOR, Cleveland, Ohio.
Filed February 20, 1915. Serial No. 84,671. PUBLISHED APRIL 20, 1915.

105,001. METAL-POLISHES. DEKOTA MAY TETZLOFF, Independence, Iowa.
Filed February 11, 1915. Serial No. 84,451. PUBLISHED APRIL 13, 1915.

105,002. METAL CURTAIN-RODS. THE TURNER & SEYMOUR MANUFACTURING CO., Torrington, Conn.
Filed March 4, 1915. Serial No. 84,938. PUBLISHED APRIL 20, 1915.

105,003. CHURNS. UNITED STATES MANUFACTURING CO., St. Louis, Mo.
Filed February 11, 1915. Serial No. 84,501. PUBLISHED APRIL 20, 1915.

105,004. SHAMPOO IN SOAP AND LIQUID, HAIR-TONIC, DANDRUFF-REMOVER, LIQUID COCOA-BUTTER AND FACE-DRESSING. THE WILEY DANDRUFF REMOVER COMPANY, Toledo, Ohio.
Filed December 21, 1914. Serial No. 83,444. PUBLISHED APRIL 20, 1915.

105,005. GOLF-BALLS. THE WORTHINGTON BALL COMPANY, Elyria, Ohio.
Filed February 6, 1915. Serial No. 84,350. PUBLISHED APRIL 20, 1915.

105,006. PHARMACEUTICAL PREPARATIONS FOR CERTAIN NAMED USES. THE ZOZ CHEMICAL COMPANY, Cincinnati, Ohio.
Filed January 8, 1914. Serial No. 75,044. PUBLISHED APRIL 20, 1915.

105,007. ELECTRIC VACUUM-CLEANERS. THE APEX ELECTRICAL MANUFACTURING CO., Cleveland, Ohio.
Filed January 2, 1914. Serial No. 74,928. PUBLISHED APRIL 20, 1915.

105,008. AUTOMATIC SPRINKLERS. ASSOCIATED AUTOMATIC SPRINKLER CO., Dover, Del., and Philadelphia, Pa.
Filed February 3, 1914. Serial No. 75,666. PUBLISHED APRIL 20, 1915.

105,009. HAIR TONIC AND ECZEMA. WILLIAM HENRY BLACK, New York, N. Y.
Filed March 8, 1915. Serial No. 85,018. PUBLISHED APRIL 20, 1915.

105,010. FURNITURE-POLISH AND VARNISH-REMOVER. CACTUS CHEMICAL CO., Salt Lake City, Utah.
Filed February 3, 1915. Serial No. 84,280. PUBLISHED APRIL 6, 1915.

105,011. SIZING AND FINISHING PRODUCT USED IN SIZING AND FINISHING TEXTILE FABRICS. JOHN CAMPBELL & CO., New York, N. Y.
Filed February 16, 1915. Serial No. 84,548. PUBLISHED APRIL 20, 1915.

105,012. SHINGLES. JAMES H. CAVANAUGH, Anacortes, Wash.
Filed February 2, 1915. Serial No. 84,256. PUBLISHED APRIL 13, 1915.

105,013. FLAVORING COMPOUND FOR IMPARTING THE FLAVOR OF BUTTER TO CERTAIN PRODUCTS. THOMAS A. FAULDS, Boston, Mass., assignor to T. A. Faulds Company, Boston, Mass., a Corporation of Massachusetts.
Filed November 17, 1914. Serial No. 82,640. PUBLISHED APRIL 13, 1915.

105,014. BUTTER. M. E. AND W. E. FLINT, Montclair, N. J.
Filed July 25, 1914. Serial No. 80,055. PUBLISHED DECEMBER 15, 1914.

105,015. CERTAIN NAMED MACHINERY AND TOOLS AND PARTS THEREOF. FLINT AND WALLING MANUFACTURING CO., Kendallville, Ind.
Filed December 9, 1914. Serial No. 83,172. PUBLISHED APRIL 20, 1915.

105,016. STRUCTURAL CEMENT. HOWARD B. FRENCH, Philadelphia, Pa.
Filed February 18, 1915. Serial No. 84,596. PUBLISHED APRIL 20, 1915.

105,017. LEATHER BOOTS AND SHOES. I. HAUSMAN & SONS, Newark, N. J.
Filed August 14, 1912. Serial No. 65,266. PUBLISHED APRIL 20, 1915.

105,018. BEVERAGES MADE WHOLLY OR PARTLY OF CEREALS, SOLD AS SOFT DRINKS. KELLOGG TOASTED CORN FLAKE COMPANY, Battle Creek, Mich.
Filed December 15, 1914. Serial No. 83,293. PUBLISHED APRIL 6, 1915.

105,019. BEVERAGE MADE PARTLY OR WHOLLY OF CEREALS, SOLD AS SOFT DRINKS. KELLOGG TOASTED CORN FLAKE COMPANY, Battle Creek, Mich.
Filed February 17, 1915. Serial No. 84,580. PUBLISHED APRIL 20, 1915.

105,020. PHARMACEUTICAL PREPARATIONS FOR THE TREATMENT OF CERTAIN NAMED INTERNAL AND EXTERNAL AILMENTS. JOHN A. KELLY, Forsyth, Mont.
Filed October 24, 1912. Serial No. 66,490. PUBLISHED APRIL 20, 1915.

105,021. HAIR-NETS. ADOLPH KLAR, New York, N. Y.
Filed April 27, 1914. Serial No. 77,785. PUBLISHED APRIL 20, 1915.

105,022. METAL COAT OR HAT HOOKS. JOHN C. METZGER, Chicago, Ill.
Filed March 1, 1915. Serial No. 84,861. PUBLISHED APRIL 20, 1915.

105,023. HAIR SWITCHES. NATIONAL HAIR GOODS COMPANY, Chicago, Ill.
Filed March 18, 1915. Serial No. 85,242. PUBLISHED APRIL 20, 1915.

105,024. BUTTER. PEORIA CREAMERY CO., Peoria, Ill.
Filed March 6, 1913. Serial No. 68,873. PUBLISHED APRIL 13, 1915.

105,025. WHEAT-FLOUR. SHANNON & MOTT COMPANY, Des Moines, Iowa.
Filed June 22, 1910. Serial No. 50,498. PUBLISHED APRIL 13, 1915.

105,026. CIGARS. STEEVES & TILTON, Boston, Mass.
Filed December 20, 1912. Serial No. 67,516. PUBLISHED DECEMBER 22, 1914.

105,027. ODOMETERS, REVOLUTION-COUNTERS, AND MOTION-COUNTERS. STEWART-WARNER SPEEDOMETER CORPORATION, Chicago, Ill.
Filed September 8, 1914. Serial No. 81,100. PUBLISHED APRIL 20, 1915.

105,028. TEA. TILZER BROTHERS, New York, N. Y.
Filed February 23, 1915. Serial No. 84,717. PUBLISHED APRIL 20, 1915.

105,029. AUTOMOBILE-LOCKS. GEORGE T. TRUNDLE, Jr., Cleveland, Ohio.
Filed January 29, 1915. Serial No. 84,210. PUBLISHED APRIL 20, 1915.

105,030. MOTION-PICTURE FILMS. UNIVERSAL FILM MANUFACTURING COMPANY, New York, N. Y.
Filed July 23, 1913. Serial No. 71,925. PUBLISHED DECEMBER 29, 1914.

105,031. WHEAT-FLOUR. WHALEY MILL & ELEVATOR CO., Gainesville, Tex.
Filed April 27, 1914. Serial No. 77,818. PUBLISHED FEBRUARY 2, 1915.

105,032. CHEWING-GUM. WM. WRIGLEY, JR. COMPANY, Chicago, Ill.
Filed February 26, 1915. Serial No. 84,798. PUBLISHED APRIL 20, 1915.

105,033. HOROLOGICAL INDICATORS. HARRY H. KING, Chicago, Ill.
Filed November 19, 1914. Serial No. 82,697. PUBLISHED DECEMBER 22, 1914.

105,034. SLEEPING-GARMENTS. WILLIAM D. CRAIG, Logansport, Ind.
Filed February 26, 1915. Serial No. 84,797. PUBLISHED APRIL 20, 1915.

TRADE-MARK REGISTRATIONS RENEWED.

12,309. ILLUMINATING-OIL. ACME OIL COMPANY, Olean, N. Y.; Standard Oil Company of New York, assignee.
Registered June 16, 1885. Renewed June 16, 1915.

LABELS

REGISTERED JUNE 29, 1915.

18,559.—*Title:* "OUR C. C. C. BRAND." (For Canned Beans.) CANASTOTA CANNING COMPANY, Canastota, N. Y. Filed April 7, 1915.

18,560.—*Title:* "SENTINEL." (For Canned Beans.) CANASTOTA CANNING COMPANY, Canastota, N. Y. Filed April 7, 1915.

18,561.—*Title:* "WAN SUM." (For Canned Beans.) CANASTOTA CANNING COMPANY, Canastota, N. Y. Filed April 7, 1915.

18,562.—*Title:* "OUR C. C. C. BRAND." (For Canned Peas.) CANASTOTA CANNING COMPANY, Canastota, N. Y. Filed May 20, 1915.

18,563.—*Title:* "OUR C. C. C. BRAND." (For Canned Sugar-Corn.) CANASTOTA CANNING COMPANY, Canastota, N. Y. Filed May 20, 1915.

18,564.—*Title:* "SENTINEL." (For Canned Peas.) CANASTOTA CANNING COMPANY, Canastota, N. Y. Filed May 20, 1915.

18,565.—*Title:* "SENTINEL." (For Canned Succotash.) CANASTOTA CANNING COMPANY, Canastota, N. Y. Filed May 20, 1915.

18,566.—*Title:* "SENTINEL." (For Canned Sugar-Corn.) CANASTOTA CANNING COMPANY, Canastota, N. Y. Filed May 20, 1915.

18,567.—*Title:* "WAN-SUM." (For Canned Sugar-Corn.) CANASTOTA CANNING COMPANY, Canastota, N. Y. Filed May 20, 1915.

18,568.—*Title:* "WAN-SUM." (For Canned Peas.) CANASTOTA CANNING COMPANY, Canastota, N. Y. Filed May 20, 1915.

18,569.—*Title:* "RED DEVIL ROACH DESTROYER." (For Roach-Destroyers.) THE COX COMPANY, St. Louis, Mo. Filed May 24, 1915.

18,570.—*Title:* "SIGORA." (For Cigars.) GREENWOOD & COMPANY, Savannah, Ga. Filed April 23, 1915.

18,571.—*Title:* "HAMMERSCHLAG'S WAXED PAPERS." (For Waxed Papers.) THE HAMMERSCHLAG MANUFACTURING COMPANY, New York, N. Y. Filed May 19, 1915.

18,572.—*Title:* "TAVERN BRAND." (For Coffee.) MATSON COFFEE COMPANY, Salt Lake City, Utah. Filed May 22, 1915.

18,573.—*Title:* "MIR-TILE WHITE ENAMEL." (For White Enamel.) MCCAFFREY-HEWITT PAINT CO., Chicago, Ill. Filed May 24, 1915.

18,574.—*Title:* "UZ-IT." (For a Medicinal Preparation.) RALPH W. MORGAN, Buffalo, N. Y. Filed April 13, 1915.

18,575.—*Title:* "LASSES KISSES." (For Candy.) SMITH BROTHERS, Poughkeepsie, N. Y. Filed June 3, 1915.

18,576.—*Title:* "PALESTINE CIGARETTES." (For Cigarettes.) DAVID SPIRO, New York, N. Y. Filed May 24, 1915.

18,577.—*Title:* "BOYARA." (For Cigarettes.) DAVID SPIRO, New York, N. Y. Filed May 24, 1915.

PRINTS

REGISTERED JUNE 29, 1915.

3,958.—*Title:* "NOW, NOW, COOL OFF—GET YOUR B. V. D.'S ON!" (For Athletic Underwear.) THE B. V. D. COMPANY, New York, N. Y. Filed May 13, 1915.

3,959.—*Title:* "THAT EASY-BREEZY B. V. D. FEELING." (For Athletic Underwear.) THE B. V. D. COMPANY, New York, N. Y. Filed May 28, 1915.

3,960.—*Title:* "GO GET B. V. D. AND GET COOL." (For Athletic Underwear.) THE B. V. D. COMPANY, New York, N. Y. Filed May 28, 1915.

3,961.—*Title:* "FACE SUMMER IN 'FINE FETTLE' WITH B. V. D." (For Athletic Underwear.) THE B. V. D. COMPANY, New York, N. Y. Filed May 28, 1915.

3,962.—*Title:* "INTO B. V. D. MEANS 'BACK TO NATURE.'" (For Athletic Underwear.) THE B. V. D. COMPANY, New York, N. Y. Filed May 28, 1915.

3,963.—*Title:* "B. V. D. MAKES OURS 'THE LAND OF THE FREE.'" (For Athletic Underwear.) THE B. V. D. COMPANY, New York, N. Y. Filed May 28, 1915.

3,964.—*Title:* "INTO B. V. D. MEANS 'BACK TO NATURE.'" (For Athletic Underwear.) THE B. V. D. COMPANY, New York, N. Y. Filed May 28, 1915.

3,965.—*Title:* "SUMMER'S 'RULE OF THREE.'" (For Athletic Underwear.) THE B. V. D. COMPANY, New York, N. Y. Filed May 28, 1915.

3,966.—*Title:* "GO GET B. V. D. AND GET COOL." (For Athletic Underwear.) THE B. V. D. COMPANY, New York, N. Y. Filed May 28, 1915.

3,967.—*Title:* "FACE SUMMER IN 'FINE FETTLE' WITH B. V. D." (For Athletic Underwear.) THE B. V. D. COMPANY, New York, N. Y. Filed May 28, 1915.

3,968.—*Title:* "B. V. D. MAKES OURS 'THE LAND OF THE FREE.'" (For Athletic Underwear.) THE B. V. D. COMPANY, New York, N. Y. Filed May 28, 1915.

3,969.—*Title:* "THE SUMMER 'RULE OF THREE.'" (For Athletic Underwear.) THE B. V. D. COMPANY, New York, N. Y. Filed May 28, 1915.

3,970.—*Title:* "THAT EASY-BREEZY B. V. D. FEELING." (For Athletic Underwear.) THE B. V. D. COMPANY, New York, N. Y. Filed May 28, 1915.

3,971.—*Title:* "A DUTCH TREAT." (For Wheat Breakfast Food.) CREAM OF WHEAT CO., Minneapolis, Minn. Filed May 28, 1915.

3,972.—*Title:* "WELL LATHERED IS HALF SHAVED." (For Shaving-Cream.) THE G. MENNEN CHEMICAL COMPANY, Newark, N. J. Filed June 3, 1915.

3,973.—*Title:* "THE NEW SCIENCE OF SHAVING." (For Shaving-Cream.) THE G. MENNEN CHEMICAL COMPANY, Newark, N. J. Filed June 3, 1915.

3,974.—*Title:* "LATHER THE MENNEN WAY." (For Shaving-Cream.) THE G. MENNEN CHEMICAL COMPANY, Newark, N. J. Filed June 3, 1915.

DECISIONS

OF THE

COMMISSIONER OF PATENTS

AND OF

UNITED STATES COURTS IN PATENT CASES.

DECISIONS OF THE U. S. COURTS.

Court of Appeals of the District of Columbia.

ELLIS *v.* SCOTT AND SCHIEMER.

Decided April 5, 1915.

INTERFERENCE—PRIORITY—CIRCUMSTANCES AND PRESUMPTIONS.

Where E. and S. and S. were in a former interference involving the same application of S. and S. and E. did not file the application in the present interference until almost a year after he came into possession of the disclosure of S. and S. and, furthermore, according to the showing of E., he deliberately omitted from his first application the element which rendered his machine, constructed according to his prior application, successful, though he now contends he was then in possession of it, *Held* that in view of this remarkable procedure of E. priority was properly awarded to S. and S.

Mr. R. N. Flint for the appellant.

Mr. E. N. Pagelsen for the appellees.

VAN ORSDEL, *J.:*

Appellant Ellis appealed from the decision of the Commissioner of Patents awarding priority of invention to appellees Scott and Schiemer. Appellees filed their applications January 23, 1911, and appellant filed his application August 29, 1912.

The invention in issue relates to an improvement in the manner of feeding fuel to internal-combustion engines. The issue is in three counts, as follows:

1. In an explosive engine, the combination of a cylinder, a piston therein, a compression chamber communicating with the cylinder through a port adapted to be opened and closed by the piston, a fuel receptacle, a nozzle connecting said receptacle with said cylinder through said port, means for effecting communication between said receptacle and said compression chamber, and means for closing said communication in advance of the opening of said port and for reëstablishing communication between the receptacle and chamber when said port is fully opened.

2. In an explosive engine, the combination of an engine cylinder, a piston therein, a compression chamber, a port connecting said chamber with said cylinder adapted to be opened and closed by said piston, a fuel receptacle, a nozzle connecting said receptacle with the cylinder through said port, means for admitting air under pressure from said chamber into said receptacle, means for maintaining said pressure therein in advance of the opening of said port and for reëstablishing communication between said receptacle and said compression chamber when said port is opened.

3. In an explosive engine, the combination of a cylinder, a piston therein, an air compression chamber, a port connecting said chamber with said cylinder adapted to be opened and closed by said piston, a fuel receptacle, a nozzle connecting said receptacle with said cylinder through said port, a conduit connecting the compression chamber with said receptacle, the piston closing said conduit during a portion of its travel, the wall of the piston having a vent port positioned to register with said conduit when said piston reaches the limit of its power stroke.

The parties were in a former interference declared January 27, 1911. Appellees were in that interference on the same application here involved. The application of appellant differed from his application in the present case, in that it did not contain the opening in the piston which is the characteristic feature of the counts in issue. Appellant secured a disclosure of the present counts from the application of appellees in the former contest. Appellant prevailed in that case, but did not file his present application until almost a year after he came into possession of appellees' disclosure. According to appellant's contention here, he must have intended to claim the present invention. It, therefore, is strange that he should wait so long before asserting his rights.

But appellant is confronted with a more serious inconsistency. He built an engine embodying the subject-matter of his first application which did not successfully operate. But he asserts that when it proved unsuccessful he hit upon the present invention, which turned failure into success. Notwithstanding that, according to his dates now relied upon, he possessed this information when he filed his first application, it embodied the unsuccessful device. In other words, according to his own showing, he deliberately omitted from his first application the only element which stood between him and success, though he now contends he was then in possession of it. Referring to this conduct of appellant, the Board of Examiners-in-Chief pointed out in its decision that, notwithstanding the fact that Ellis prevailed in the former case—

> he took no steps toward filing his present application until nearly a year after obtaining access to the Scott and Schiemer disclosure. Ellis contends that he was entirely within his rights in pursuing this course, as possibly he was, but the Examiner of Interferences thought, as we think, that measured by the course of ordinary human conduct this was a remarkable procedure on the part of one who really at the time expected to lay claim to the invention here in contest.

Were it not for these inconsistencies, appellant's case has some elements of strength, but we think it is subject to the objection held fatal in *Peirce* v. *Hiss*, (33 App. D. C., 1; 141 O. G., 1165; 1909. C. D., 356,) where Mr. Justice Robb, speaking for the court, said:

> We have examined this testimony, and, while the question is not free from doubt, we are not disposed, owing to the circumstances under which Peirce's application was filed, to disturb the conclusion of the Commissioner and Board of Examiners-in-Chief. Peirce, being a manufacturer of cable hangers, an inventor, and highly skilled in this art, was certainly in a position to understand and fully appreciate the value of a device like this, and it is inconcelvable, if he did conceive it and embody his conception in concrete form (which, in this case, we apprehend would have constituted a reduction to practice), that he

should have failed to include it in his earlier application. Therefore, without entering upon an analysis of the testimony, we affirm the decision of the Commissioner.

The decision of the Commissioner of Patents is affirmed, and the clerk is directed to certify these proceedings as by law required.

Affirmed.

Court of Appeals of the District of Columbia.

BARBER *v.* SEYMOUR.

Decided April 26, 1915.

INTERFERENCE — PRIORITY — NO RIGHT TO MAKE THE CLAIMS.

The inventions of B. and S. considered and *Held* that B. has no right to make the claims of the issue.

Mr. Walter F. Rogers for the appellant.

Mr. John D. Morgan for the appellee.

ROBB, *J.*:

This is an appeal from a decision of the Commissioner of Patents awarding priority of invention to the appellee upon the ground that the appellant has no right to make the claims of the issue, which read as follows:

1. A sheet handling machine including in combination means for associating a plurality of sheets, means for feeding the associated sheets to a registering device, means for cutting a sheet and superimposing the parts together, and means for feeding said superimposed parts to said registering device whereby said associated sheets and said superimposed parts of the severed sheet are registered with respect to each other by said registering device.

2. A sheet handling machine including in combination means for associating a plurality of sheets, means for cutting another sheet in two and superimposing the cut parts, means for directing said associated sheets into a pathway, whereby they become associated together, and a stop in said pathway for registering said sheets relatively to each other.

The subject-matter of the invention relates to machines for making magazines, including a mechanism for combining with the main part or body of the magazine an insert sheet or sheets. The counts of the interference originated in the Seymour application. The purpose and function of his mechanism is the cutting in two of a single cover-sheet which has been previously printed, dried and stacked, superimposing the two cut parts and, after so superimposing them, feeding them into registry with the bundle of associated sheets of the body of the magazine, which have been printed by a web. From a study of the disclosures of the two parties it is apparent that Seymour's device includes means for cutting the sheets one at a time and superimposing the parts thereof, and that there is a substantial advantage in this process. In Barber's machine the sheets are cut two at a time and there is no suggestion in his application of a mechanism by which it would be possible to cut sheets one at a time and superimpose the parts thereof. The First Assistant Commissioner in his decision said:

The particular improvement which Seymour had in mind, and which he discloses and claims, is a mechanism which has for its object the cutting in two of a single sheet previously printed, dried and stacked, and superimposing the cut parts of this single sheet, then feeding the same into registry with associated sheets, making up the body of the magazine or periodical. Seymour had in mind a mechanism, and devised the same to accomplish the purpose, which will feed a single sheet constituting a double cover which has been printed as a single sheet, whereas, Barber discloses an intention to provide, and does provide, mechanism which feeds, and can only feed, two separate sheets, each of which forms one cover previously printed as separate sheets. It is further noted that in the Seymour construction the sheets are fed from a stack of single sheets having four pages on the side, whereas, Barber's machine cannot possibly operate so as to operate such a single sheet. Sufficient has been said in consideration of detailed difference of function and purpose to indicate the diverse objects of the machines.

He concluded that by no fair interpretation of the language employed by Seymour in his disclosure could "a sheet" be construed to cover groups of sheets disclosed by Barber. A motion for rehearing was argued before the Commissioner in person and denied.

After a very careful examination of the record and briefs of the respective parties we are convinced of the correctness of the Patent Office ruling, and affirm that ruling for the reasons stated in the opinion of the First Assistant Commissioner.

Affirmed.

Court of Appeals of the District of Columbia.

VAN ALSTYNE & CO. *v.* THE BOUTWELL MILLING & GRAIN CO.

Decided May 10, 1915.

TRADE-MARKS—CANCELATION—USE NOT EXCLUSIVE DURING THE TEN-YEAR PERIOD.

An application for the cancelation of a registration of the trade-mark "Upper Hudson," for rye-flour, effected under the ten-year clause of the act, *Held* properly sustained where the evidence shows that the registrant did not have the exclusive use of the trade-mark during the ten-year period.

Mr. J. H. Griffin for the appellant.

Mr. E. T. Fenwick for the appellee.

SHEPARD, *C. J.*:

This is an appeal from a decision of the Commissioner of Patents canceling the registration of a trade-mark "Upper Hudson" for rye-flour, registered by Van Alstyne & Co., January 14, 1913.

This registration was made under the ten-year clause of the Trade-Mark Act. The Boutwell Milling & Grain Co. had previously registered the mark on January 9, 1906. Van Alstyne & Co. were flour dealers in New York city, members of the Produce Exchange, and seem to have originated the mark "Upper Hudson." This flour was manufactured by O. Boutwell & Son at Troy, and the trade-mark "Upper Hudson" with the name of Van Alstyne & Co. was applied to the barrels after receipt in New York.

After some years Van Alstyne & Co. sent the stencil marked "Upper Hudson" to O. Boutwell & Son to put the mark on the barrels and also their own name in place of Van Alstyne & Co. They sold flour so marked to a number of eastern dealers for a number of years continuing down to the present time.

By contract Van Alstyne & Co. handled the flour in New York city and vicinity, but finally an agreement was made with them to purchase the flour outright. This contract was not fully complied with by Van Alstyne & Co., and in 1905 The Boutwell Milling & Grain Co., successors to O. Boutwell & Son, began to ship flour with this mark to other dealers in New York city. This was known to Van Alstyne & Co., and in 1906, The Boutwell Milling & Grain Co. registered the mark in their own name. Van Alstyne & Co. were informed of this and reported an infringement by a New York dealer and The Boutwell Milling & Grain Co. had the latter ended by negotiation with the infringer.

Thus it appears that the trade-mark was used by The Boutwell Milling & Grain Co. for a number of years as their own with the knowledge of Van Alstyne and Co.

The Examiner of Interferences granted the decree of cancelation on the ground that the mark had been abandoned by Van Alstyne & Co., and the use of it by The Boutwell Milling & Grain Co. acquiesced in.

The Commissioner affirmed this decision without passing upon the question of abandonment or acquiescence, but affirmed it on the ground that there had not been exclusive use by Van Alstyne & Co. for the ten years prior to registration made necessary by the Trade-Mark Act.

Passing by the question of first use of the mark on account of its non-technical character and also the question of abandonment and acquiescence, we agree with the Commissioner that Van Alstyne & Co. had not the exclusive use of the trade-mark for the ten years prior to the registration made necessary by the act. (See *Superior Milling Co.* v. *Hoppe*, 37 App. D. C., 115.)

The decision is right and is affirmed.

This decision will be certified by the clerk to the Commissioner of Patents as required by law.

The papers embraced in the return to the writ of certiorari being unnecessary to the decision of the cause, the costs of the writ and the printing thereof are ordered taxed against the appellee.

Affirmed.

Court of Appeals of the District of Columbia.

VINCENT *v.* HOPKINS.

Decided May 24, 1915.

INTERFERENCE—ACTUAL REDUCTION TO PRACTICE—INCOMPLETE OPERATION.

Where the calculating-machine claimed to be a reduction to practice is of limited capacity and the most it can do is to multiply a single digit by a single digit and has no mechanism for bringing the registry-wheel back to zero after a computation has been made and various distinct hand operations were required to perform a multiplication which do not constitute the automatic operation contemplated by the issue, *Held* that this is not sufficient to show actual reduction to practice.

Mr. A. V. Cushman and *Mr. S. E. Hibben* for the appellant.

Mr. L. S. Bacon, Mr. J. H. Milans, and *Mr. F. R. Cornwall* for the appellee.

SHEPARD, *C. J.*:

This is an appeal from the decision of the Commissioner of Patents awarding priority to Hopkins of an invention relating to an attachment adapted to be applied to an adding-machine for the purpose of performing multiplication.

The counts of the issue are as follows:

1. In a machine of the character described, the combination of a reciprocating prime mover; register wheels; actuators therefor; and multiplicand and multiplier setting-up devices controlling movement of said actuators, the latter adapted during the stroke of the prime mover in one direction to register units of the product and during the stroke of the prime mover in the opposite direction to register tens of the product.

2. In a calculating machine, the combination with a totalizer, of two sets of independently movable racks for introducing, respectively, tens and units partial products into said totalizer, a main shaft and means whereby one set of racks is effective on the forward movement of the main shaft, and the other set of racks effective on the back movement of the main shaft, whereby the operation of multiplication is completed by a single operation of said shaft.

3. In a machine of the character described, the combination of accumulator wheels, denominationally arranged, manipulative amount determining devices, and duplex actuators alternately effective and arranged in pairs for adjacent wheels, the said amount determining devices including indexing means to differently measure excursions of the two actuators of a pair.

4. In a machine of the character described, the combination of a pair of wheels, a reciprocatory actuator for one of them, a similar actuator for the other reversely related thereto, the two actuators being adapted to move together in the same direction and one wheel being engaged with the actuator during movement thereof in one direction while the other wheel is disengaged from its actuator and the latter wheel being engageable with the actuator during the reverse movement while the first mentioned wheel is disengaged from its actuator, whereby the two wheels are successively turned in the same direction during one concurrent reciprocation of the two actuators, and multiplicand and multiplier setting-up devices measuring excursions of the actuators, the one to register the units of a product upon its wheel and the other to register the tens of the product on its wheel.

5. In a machine of the character described, the combination of a pair of gear wheels axially alined, reciprocatory actuating racks on opposite sides of said gear wheels, one rack alined to mesh with one such wheel and the other rack alined to mesh with the other wheel and the wheels and racks being relatively movable for alternate engagement of one wheel and rack and the other wheel and rack; two sets of manipulative amount determining devices and stop members jointly controlled thereby and coöperating with both racks simultaneously to measure advance of one in mesh with the wheel and of the other disengaged from its wheel, said latter rack adapted to return meshed with said wheel while the other rack returns disengaged from its wheel.

Hopkins is the senior party, filing December 12, 1908. Vincent filed February 8, 1911. The Examiner of Interferences found that Vincent conceived the invention December 15, 1907, but denied his claim of reduction to practice and also that he was not diligent in perfecting his invention when Hopkins entered the field. Priority, therefore, was awarded to Hopkins. Each successive tribunal of the Office affirmed this decision. This unanimity increases the burden of the junior party.

We may assume that the finding as to Vincent's conception is correct. The question upon which the case turns is the claim of reduction to practice. It appears that Vincent constructed a plate model of his invention in the spring of 1908, which has been produced in evidence. This model consists of two banks of white keys for setting up a multiplicand and one bank of red keys for setting up the digits of a multiplier. Each bank of white keys controls a series of nine plates notched in accordance with the multiplication-table, and there are also three sets of rack-bars and three numeral-wheels.

While several hand operations are required to perform a multiplication upon this model, it is contended that the issue does not preclude this method of operation. It is contended that the model is full size and made of materials usually used in the Burroughs adding-machine. It is of limited capacity. The contention of Hopkins is that this is not a reduction to practice but a device constructed for study and was not intended to be subjected to the tests necessary as a practice of the invention. The numbers on the dial-wheel are upside down and cannot be conveniently read. There is no mechanism for bringing the registry-wheel back to zero

after a computation has been made. The most that the machine can do is to multiply a single digit by a single digit, a computation easily performed without a machine. Finally the various distinct hand operations do not constitute the automatic operation contemplated by the issue. The fixtures are attached to a steel plate and have not the appearance of a complete machine. Vincent admits that the only way in which the accumulating-wheels can be cleared is by adding the necessary complementary numbers to them. The Examiner of Interferences said:

It is obvious that the plate model is operated in a manner radically different from that of the machine shown in Vincent's application, since in the latter a partial rotation of the operating handle performs all of the necessary steps in obtaining the final result.

Having examined the exhibit with an explanation of its action we agree with the tribunals of the Patent Office that it cannot be considered a reduction to practice. It does not come within the class of crude devices capable of use sufficient to demonstrate their practical efficacy and utility as in *Coffee* v. *Guerrant* (3 App. D. C., 497; 68 O. G., 279; 1894, C. D., 384) and other cases cited on behalf of appellant; it more nearly resembles the kind of machine claimed as a reduction to practice in *Paul* v. *Hess*, (24 App. D. C., 462; 115 O. G., 251; 1905, C. D. 610.)

The tribunals also decided that, notwithstanding the prior conception of Vincent, he had been lacking in diligence when Hopkins entered the field. The evidence amply sustains this conclusion.

The decision is affirmed and the clerk will certify this decision to the Commissioner of Patents.

Affirmed.

ADJUDICATED PATENTS.

(U. S. D. C.) The Groebli patents, Nos. 593,206, 593,208, 607,848, 609,429. 618,458, and 637,458, all relating to embroidering-machines operated by jacquard mechanism, and parts thereof, *Held* valid as limited by the prior art, but not infringed. *Loeb & Schoenfeld Co.* v. *Atlas Embroidery Works*, 222 Fed. Rep., 71.

(U. S. C. C. A.) The Bone patent, No. 705,732, for a reinforced-concrete retaining-wall, *Held* valid and infringed. *City of Akron* v. *Bone*, 221 Fed. Rep., 944.

(U. S. C. C. A.) The Ross and McDonald patent, No. 800,172, for a passenger-car, *Held* void for lack of invention. *Prepayment Car Sales Co.* v. *Orange County Traction Co.*, 221 Fed. Rep., 939.

(U. S. C. C. A.) The Ross and McDonald patent, No. 800,172, for an improvement in passenger-cars, *Held* not infringed. *Robinson* v. *Pay-As-You-Enter-Car Corporation*, 221 Fed Rep., 943.

Interference Notice.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., June 12, 1915.

The Red Seal Remedy Company, its assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of The Newton Tea & Spice Co., of 18 East Second Avenue, Cincinnati, Ohio, for registration of a trade-mark and trade-mark registered June 25, 1895, No. 26,734, to The Red Seal Remedy Company, of Rockland, Me., and a notice of such declaration sent by registered mail to The Red Seal Remedy Company at the said address having been returned by the post-office undeliverable, notice is hereby given that unless The Red Seal Remedy Company, its assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

J. T. NEWTON, *First Assistant Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., June 12, 1915.

Cabel H. Butterworth, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of The Newton Tea & Spice Co., of 18 East Second avenue, Cincinnati, Ohio, for registration of a trade-mark and trade-mark registered October 24, 1905, No. 47,097, to Cabel H. Butterworth, of Philadelphia, Pa., and a notice of such declaration sent by registered mail to said Cabel H. Butterworth at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Cabel H. Butterworth, his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

J. T. NEWTON, *First Assistant Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., June 11, 1915.

Maurice H. Strong, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Spratt's Patent (America) Limited, of Congress, Market, and Jefferson streets, Newark, N. J., for registration of a trade-mark and trade-mark registered May 19, 1885, No. 12,249, to Maurice H. Strong, of Cincinnati, Ohio, and a notice of such declaration sent by registered mail to said Maurice H. Strong at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Maurice H. Strong, his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

J. T. NEWTON, *First Assistant Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., June 5, 1915.

Kuhn Bros., their assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Heilpern & Gross, of 6 Village street, Hartford, Conn., for registration of a trade-mark and trade-mark registered February 23, 1892, No. 20,768, to Kuhn Bros., of 945–947 Fifth street, San Diego, Cal., and a notice of such declaration sent by registered mail to said Kuhn Bros. at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Kuhn Bros., their assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

J. T. NEWTON, *First Assistant Commissioner.*

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DIGEST

OF THE

DECISIONS OF THE COMMISSIONER OF PATENTS AND OF THE UNITED STATES COURTS.

JUNE, 1915.

[Decisions of the Court of Appeals of the District of Columbia are indicated by a star (*) and of the Supreme Court of the United States by two stars (**).]

CANCELATION OF TRADE-MARK REGISTRATION.

1. SIMILARITY OF THE MARKS "BEADED" AND "NU-B-DED."

Where the applicant in a cancelation proceeding manufactured lacings having a novel construction of metal tip and sold them under the mark "Beaded" and later the registrant manufactured lacings having a slightly different form of metal tip and sold them under the marks "Nubeaded" and "Nu-B-Ded," *Held* that if the mark "Beaded" is descriptive "Nu-B-Ded" is equally so, and if "Beaded" is merely suggestive the mark "Nu-B-Ded" is similar and would be likely to cause confusion in trade when applied to goods of the same descriptive properties.

[*Barthels Manufacturing Company *v.* United Lace and Braid Manufacturing Company, 667.

2. SHOWING OF INJURY REQUIRED BY APPLICANT.

Where applicant used the word "Electro" in its advertisements and letters and also as the name of a steel it was selling and which buyers bought as such, *Held* that it is not essential in all cases that applicant should have had a strictly trade-mark use of the word in order to deem itself injured by the registration of the mark.

[*Electro Steel Company, Successor of Hammacher Delius & Co., *v.* Lindenberg Steel Company, 997.

3. USE NOT EXCLUSIVE DURING THE TEN-YEAR PERIOD.

An application for the cancelation of a registration of the trade-mark "Upper Hudson," for rye-flour, effected under the ten-year clause of the act, *Held* properly sustained where the evidence shows that the registrant did not have the exclusive use of the trade-mark during the ten-year period.

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A method which consists in circulating air through a fluid-spray having a temperature lower than the normal temperature of the atmosphere, recirculating the cooling fluid, and varying the temperature of the cooling fluid under the control of the condition of the air after being treated to and removed from the influence of the said fluid *Held* lacking in patentable invention in view of the prior art, which discloses the identical process, but applies it under conditions which normally require heating the air and adding to its humidity. [**In re* Braemer, 323.

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Paragraph V of section 250 of the Judicial Code, concerning the validity of an authority of the United States, confers no jurisdiction on this Court to review a judgment of the Court of Appeals of the District of Columbia where the question of authority arises under the patent laws of the United States. Judgment in such cases is made final by the concluding paragraph of section 250 unless this Court exercises its rights of certiorari or the court of appeals certifies question to this Court as provided by that paragraph.

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PRIORITY OF INVENTION.

1. SUFFICIENCY OF EVIDENCE TO ESTABLISH REDUCTION TO PRACTICE.
Where there is evidence from credible witnesses showing that the machine of S. containing every element of the issue, was in existence and for aught that appears easily accessible to K., *Held* that it is probable that the evidence upon this point would have been met had it been possible to do so and that the evidence under these circumstances was sufficient to establish that the machine of S. was a reduction to practice of the invention in issue.
[*Smith v. Kihlgren, 324.

2. PROOF REQUIRED TO OVERCOME A PREVIOUSLY-ISSUED PATENT.
The evidence reviewed and *Held* that the proof of reduction to practice by B. is not of the convincing character required to overcome a previously-issued patent, and priority is properly awarded to W. [*Blackstone v. Wild, Jr., 667.

3. REDUCTION TO PRACTICE.
Evidence reviewed and *Held* that the reduction to practice by D. of the invention defined in count 1 antedated the conception and reduction to practice by G., and priority was properly awarded to D. [*Goldberg v. Dayton, 668.

4. ORIGINALITY.
Evidence reviewed and *Held* to establish that La F. originally gained his information regarding the invention from H., and priority was properly awarded to H. [*La Fleur v. Harris, 669

5. CONCEALMENT.
Evidence reviewed and *Held* that if L. reduced the invention to practice in 1907 or early in 1908 he subordinated his rights to those of C. and C. because of his deliberate concealment and suppression of the invention, and priority was properly awarded to C. and C. [*Luellen v. Claussen and Claus, 1263.

6. INVENTION MADE BY THIRD PARTY.
Where L. contends that the testimony of one of the witnesses shows that C. and C. derived the invention from a third party, and hence L. has no standing in this proceeding, *Held* that evidence that some other party than the parties to the pending proceeding is the real inventor is impertinent to the issue. [*Id.

7. CIRCUMSTANCES AND PRESUMPTIONS.
Where E. and S. and S. were in a former interference involving the same application of S. and S. and E. did not file the application in the present interference until almost a year after he came into possession of the disclosure of S. and S. and, furthermore, according to the showing of E., he deliberately omitted from his first application the element which rendered his machine, constructed according to his prior application, successful, though he now contends he was then in possession of it, *Held* that in view of this remarkable procedure of E. priority was properly awarded to S. and S. [*Ellis v. Scott and Schiemer, 1499.

PROCESS.

See Construction of Claims.

PROOF.

See Priority of Invention, 2.

REDUCTION TO PRACTICE.

See Priority of Invention, 1, 2, 3, 5.

INCOMPLETE OPERATION.
Where the calculating-machine claimed to be a reduction to practice is of limited capacity and the most it can do is to multiply a single digit by a single digit and has no mechanism for bringing the registry-wheel back to zero after a computation has been made and various distinct hand operations were required to perform a multiplication which do not constitute the automatic operation contemplated by the issue, *Held* that this is not sufficient to show actual reduction to practice. [*Vincent v. Hopkins, 1501.

REGISTRATION OF TRADE-MARKS.

See Cancelation of Trade-Mark Registration, 2.

ELECTRO—DESCRIPTIVE.
The word "Electro" as applied to steel produced in an electric furnace *Held* to be descriptive and not capable of exclusive appropriation as a trade-mark.
*Electro Steel Company, Successor of Hammacher Delius & Co. v. Lindenberg Steel Company, 977.

RIGHT TO MAKE CLAIMS.

INTERFERENCE—PRIORITY.
The inventions of B. and S. considered and *Held* that B. has no right to make the claims of the issue. [*Barber v. Seymour, 1500.

SIMILARITY OF MARKS.

See Cancelation of Trade-Mark Registration, 1.

STATE OF THE ART.

See Construction of Claims; Priority of Invention, 2.

SUPPRESSION OF INVENTION.

See Priority of Invention, 5.

TEN-YEARS CLAUSE.

See Cancelation of Trade-Mark Registration, 3.

TESTIMONY.

See Priority of Invention, 6.

TRADE-MARK USE.

See Cancelation of Trade-Mark Registration, 2.

TRADE-MARKS.

See Cancelation of Trade-Mark Registration; Goods of the Same Descriptive Properties; Registraton of Trade-Marks.

WITNESSES.

See Priority of Invention, 1, 6.

WRIT OF ERROR.

See Construction of Statutes.

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ALPHABETICAL LIST OF PATENTEES

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PATENTS WERE ISSUED DURING THE MONTH OF JUNE, 1915.

[Abbreviations: "Gaz."=Official Gazette.]

A. Kimball Company. (See Anthony, Marcus O., assignor.)
A. C. Williams Company, The. (See Thompson, Henry G., assignor.)
A. F. Ward Machinery Co., The. (See Ward, Ashley F., assignor.)
A. J. Ellis, Inc. (See Ellis and Neills, assignors.)
Aaron, Jacob, *et al.* (See Wittenberg, Paul J., assignor.)
Aaron, Julius D., Mount Olive, N. C. Hameless horse-collar. No. 1,143,015; June 15; Gaz. vol. 215; p. 753.
Aaron, Mabel, Stockton, Cal. Broiler and baking attachment for gas-stoves. No. 1,143,603; June 22; Gaz. vol. 215; p. 983.
Abady, Jacques. (See Simmance and Abady.)
Abbott, Lawrence A., Jr., assignor of one-third to H. Browne and one-third to F. Wiegand, Newark, N. J. Bearing-rollers. No. 1,143,479; June 15; Gaz. vol. 215; p. 916.
Abert, Hamilton, assignor to The Manhattan Rubber Manufacturing Company, Passaic, N. J. Golf-tee. No. 1,144,747; June 29; Gaz. vol. 215; p. 1407.
Abplanalp, Arthur, Basel, Switzerland. Exercising apparatus for use in a lying position. No. 1,144,085; June 22; Gaz. vol. 215; p. 1149.
Abrahams, Arthur L., Philadelphia, Pa. Metal door. No. 1,143,245; June 15; Gaz. vol. 215; p. 835.
Abrahamsen, Henry M., Elmwood, Mass. Container-stopper. No. 1,144,678; June 29; Gaz. vol. 215; p. 1382.
Achberger, Józef, Middletown, Ohio. Interchangeable portable light. No. 1,143,604; June 22; Gaz. vol. 215; p. 983.
Achenbach, Moore S., Pittsburgh, Pa. Display device for bottles, &c. No. 1,144,086; June 22; Gaz. vol. 215; p. 1149.
Acker, Charles E., New York, N. Y., assignor to The Nitrogen Company. Electrolyte for the production of alkali and alkaline-earth metals. No. 1,142,220; June 8; Gaz. vol. 215; p. 435.
Ackerman, Edward L., assignor to Joseph N. Smith & Company, Detroit, Mich. Rail and bracket construction for vehicles. No. 1,141,915; June 8; Gaz. vol. 215; p. 329.
Ackerman, William G., Westpoint, Nebr. Sharpener for hair-clippers. No. 1,141,095; June 1; Gaz. vol. 215; p. 3.
Acme Harvesting Machine Co. (See Case, Henry J., assignor.)
Acme Register Company. (See Williams, Frederick, assignor.)
Acme Steel Goods Company. (See Norton, Ralph H., assignor.)
Acme Wire Company, The. (See Underhill, Charles R., assignor.)
Actien Gesellschaft fur Anilin Fabrikation. (See Erlenbach and Marx, assignors.)
Adair, Charles R., and F. A. Bane, Narrows, Va. Delivering-cabinet. No. 1,144,928; June 29; Gaz. vol. 215; p. 1467.
Adam, Henry C., Hamilton, Ontario, and J. C. Adam, Trenton, Ontario, Canada. Trolley-wheel. No. 1,141,512; June 1; Gaz. vol. 215; p. 152.
Adam, Jacob C. (See Adam, Henry C. and J. C.)
Adams, Arthur S. (See Blaney, William, assignor.)
Adams, Joseph, *et al.* (See Eckenwiler, George M., assignor.)
Adams, W. A. (See Adams, Wilber E., assignor.)
Adams, Wilber E., assignor to W. A. Adams, Detroit, Mich. Wheel dresser and truer. No. 1,144,277; June 22; Gaz. vol. 215; p. 1218.
Aderer, Hugo, Bloomfield, N. J., assignor to J. F. Jelenko, & Company, New York, N. Y. Bending apparatus. No. 1,141,858; June 1; Gaz. vol. 215; p. 268.
Aderer, Julius, New York, N. Y. Pliers. No. 1,141,916; June 8; Gaz. vol. 215; p. 329.
Adjusta Company. (See Hirsch, Fred, assignor.)
Adkins, Oscar E., Columbus, Ohio, assignor to J. W. Wolfe, Monongah, W. Va., and J. Kelly, Columbus, Ohio. Amusement device. No. 1,142,387; June 8; Gaz. vol. 215; p. 495.
Adler, Bror A., assignor of one-half to P. A. Lorenz, Chicago, Ill. Horological motor. No. 1,144,748; June 29; Gaz. vol. 215; p. 1407.
Adler, De Witt S., Allston, Mass., assignor to The Metalyte Company, Inc. Adjustable holder for pocket electric lamps. No. 1,144,087; June 22; Gaz. vol. 215; p. 1150.
Adriance, Benjamin. (See Calleson, Amos, assignor.)
Aermotor Company. (See Noyes, La Verne, assignor.)
Aermotor Company. (See Scholes, Daniel R., assignor.)
Agnew, John W. (See Frum, Creed C., assignor.)
Agricultural Research Corporation. (See Peacock, Samuel, assignor.)
Ahrens, Henry A., assignor to The H. Franke Steel Range Company, Cleveland, Ohio. Cooking-range. No. 1,141,748; June 1; Gaz. vol. 215; p. 233.
Aiken, Herrick, Lawrence, Mass., assignor, by mesne assignments, to Aiken Lamp Company, Franklin, N. H. Lamp-socket. No. 1,144,956; June 29; Gaz. vol. 215; p. 1477.
Aiken Lamp Company. (See Aiken, Herrick, assignor.)
Ains, Napoleon L., Chicopee, Mass. Drill for boring gun-barrels. No. 1,144,088; June 22; Gaz. vol. 215; p. 1150.
Aitken, William, Liverpool, England. Telephone system. No. 1,143,680; June 22; Gaz. vol. 215; p. 1009.
Akers, Maurice L., Pendleton, Oreg. Adjustable platform for harvesting-machines. No. 1,144,679; June 29; Gaz. vol. 215; p. 1382.
Aktiebolaget Svenska Kullagerfabriken. (See Fjellman, Bengt W., assignor.)
Aktiebolaget Svenska Kullagerfabriken. (Reissue.) (See Wingquist, Sven G., assignor.)
Aktiengesellschaft Brown Boveri & Cie. (See Buchli, Jacob, assignor.)
Aktiengesellschaft Brown Boveri & Cie. (See Rebstein, Jakob, assignor.)
Aktiengesellschaft Brown Boveri & Cie. (See Roebel, Ludwig, assignor.)
Aktiengesellschaft der Maschinenfabriken Escher Wyss & Cie. (See Schlumpf, Edwin, assignor.)
Albrecht, Christian A., Berlin, Germany, assignor to Mergenthaler Linotype Company. Typographical machine. No. 1,142,221; June 8; Gaz. vol. 215; p. 436.
Albrecht, Christian A., Berlin, Germany, assignor to Mergenthaler Linotype Company. Distributing mechanism of typographical composing-machines. No. 1,142,222; June 8; Gaz. vol. 215; p. 436.
Albrecht, Guido J., and S. L. Long, assignors to Long Mailing Machine Company, Minneapolis, Minn. Envelop-sealing machine. No. 1,144,955; June 29; Gaz. vol. 215; p. 1477.
Albright, Arbannas S., Gainesville, Fla. Automobile-jack. No. 1,142,655; June 8; Gaz. vol. 215; p. 587.
Alexander, Alexander M., Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Insole-reinforcing machine. No. 1,143,016; June 15; Gaz. vol. 215; p. 753.
Alexander, Bernard C., *et al.* (See Burrow, Edgar A., assignor.)
Alexander, Jesse W., Birmingham, Ala. Concrete-wall mold. No. 1,142,388; June 8; Gaz. vol. 215; p. 495.
Alexander, Walter, New York, N. Y. Paint-remover composition. No. 1,143,877; June 22; Gaz. vol. 215; p. 1076.
Alexander, Walter, New York, N. Y. Paint-remover. No. 1,143,878; June 22; Gaz. vol. 215; p. 1076.
Alexandrowsky, Wladimir, and A. Slobinski, St. Petersburg, Russia. Pneumatic wheel. No. 1,143,565; June 15; Gaz. vol. 215; p. 944.
Alford, Charles L. (See Owens and Alford.)
Allan, Charles D., Chicago, Ill. Radiator-control valve. No. 1,142,389; June 8; Gaz. vol. 215; p. 495.
Allegheny Steel Company. (See Scott, Arthur P., assignor.)
Allen, Charles F., Los Angeles, Cal. Door construction for freight-cars. No. 1,141,513; June 1; Gaz. vol. 215; p. 152.
Allen, David, Trenton, N. J. Steering device. No. 1,144,278; June 22; Gaz. vol. 215; p. 1218.
Allen, Edward V., Pontiac, Mich. Match-box holder. No. 1,143,345; June 15; Gaz. vol. 215; p. 869.
Allen, Ernest J. (See Lane and Allen.)

Allen, Ernest J., assignor to Rathbone, Sard & Company, Albany, N. Y. Gas heater and stove. No. 1,141,096; June 1; Gaz. vol. 215; p. 3.
Allen, Eugene E., Los Angeles, Cal. Treating roadways. No. 1,142,788; June 15; Gaz. vol. 215; p. 673.
Allen, Walter P., Ardmore, and G. R. Scattergood, Philadelphia, assignors to The Union Switch and Signal Company, Swissvale, Pa. Railway-traffic-controlling apparatus. No. 1,144,017; June 22; Gaz. vol. 215; p. 1125.
Allen, William R., and A. McNally, Blaine, Wash. Vehicle-wheel. No. 1,143,480; June 15; Gaz. vol. 215; p. 916.
Allen, Willis E., San Diego, Cal. Combination dental instrument. No. 1,143,927; June 22; Gaz. vol. 215; p. 1092.
Allers, Henry G., Buffalo, N. Y. Electroplating apparatus. No. 1,144,680; June 29; Gaz. vol. 215; p. 1382.
Allerton, Robert W., South Orange, N. J., assignor to Henry R. Worthington. Stroke-adjuster for direct-acting engines. No. 1,142,789; June 15; Gaz. vol. 215; p. 673.
Alleva, Sante T. (See Bravi, Giuseppe, assignor.)
Alley, Whitfield H., Chicago, Ill. Pendant-scaffold support. No. 1,141,749; June 1; Gaz. vol. 215; p. 233.
Allin, Henry P., Cambridge, England. Indicator for taxicabs. No. 1,142,390; June 8; Gaz. vol. 215; p. 496.
Allis-Chalmers Manufacturing Company. (See Latta, Nisbet, assignor.)
Allis-Chalmers Manufacturing Company. (See Lieber, William H., assignor.)
Allis-Chalmers Manufacturing Company. (See Marburg, Louis C., assignor.)
Allis-Chalmers Manufacturing Company. (See Nichols, Louis C., assignor.)
Allis-Chalmers Manufacturing Company. (See Sprado, Carl G., assignor.)
Allis-Chalmers Manufacturing Company. (See Williamson, Robert B., assignor.)
Allsop, Thomas, and W. W. Sibson, assignors to The Philadelphia Drying Machinery Company, Philadelphia, Pa. Circulating dyeing-machine. No. 1,142,476; June 8; Gaz. vol. 215; p. 526.
Allspaw, John M., Middletown, Ohio. Aseptic shaving-cup. No. 1,143,879; June 22; Gaz. vol. 215; p. 1076.
Alquist, Karl, Rugby, England. Spur-gearing. No. 1,141,097; June 1; Gaz. vol. 215; p. 3.
Alquist, Karl, Schenectady, N. Y. Flexible gear. No. 1,141,098; June 1; Gaz. vol. 215; p. 4.
Alsted, Edward P., Truesdell, Wis. Attrition-mill plate. No. 1,144,089; June 22; Gaz. vol. 215; p. 1150.
ALsteel Manufacturing Company. (See Macomber, Lynn W., assignor.)
Altheide, August J., Lewiston, Idaho. Spike. No. 1,144,279; June 22; Gaz. vol. 215; p. 1218.
Altman, Moïse, Bagnolet, France, assignor to H. E. Snodgrass, Newark, N. J. Apparatus for welding the meeting edges of metallic articles. (Reissue.) No. 13,941; June 29; Gaz. vol. 215; p. 1489.
Alunan, Salvador, Jaro, Philippine Islands. Hand-weeder. No. 1,142,869; June 15; Gaz. vol. 215; p. 701.
Alvey, Benjamin H., Elizabethtown, Ky. Rotary engine. No. 1,144,018; June 22; Gaz. vol. 215; p. 1125.
Alvey, Benjamin H., Louisville, Ky., assignor, by mesne assignments, to The Alvey-Ferguson Company, Oakley, Cincinnati, Ohio. Conveyer. No. 1,144,337; June 22; Gaz. vol. 215; p. 1238.
Alvey-Ferguson Company, The. (See Alvey, Benjamin H., assignor.)
Alvey, John A., assignor, by mesne assignments, to Alvey Manufacturing Company, St. Louis, Mo. Bearing for conveyer-rollers. No. 1,141,514; June 1; Gaz. vol. 215; p. 153.
Alvey, John A., assignor to Alvey Manufacturing Company, St. Louis, Mo. Bearing for conveyer-rollers. No. 1,141,515; June 1; Gaz. vol. 215; p. 153.
Alvey Manufacturing Company. (See Alvey, John A., assignor.)
Amberg, Walter E., Chicago, Ill. Lateral-motion bearing for railway-trucks. No. 1,144,520; June 29; Gaz. vol. 215; p. 1328.
American Arch Company. (See Willett, Alfred H., assignor.)
American Blower Company. (See Davidson, Samuel C., assignor.)
American Blower Company. (See Luehrs, Daniel M., assignor.)
American Brake Shoe & Foundry Company. (See Jones, Harry, assignor.)
American Can Company. (See Eberhart, Felix, assignor.)
American Can Company. (See Freundt, Louis J., assignor.)
American Can Company. (See Hodgson, John G., assignor.)
American Can Company. (See Taylor, William E., assignor.)
American Chain Company. (See Luce, Thomas C., assignor.)
American Die and Tool Company. (See Sternbergh, David D., assignor.)
American Flyer Manufacturing Company. (See Becker, Harry S., assignor.)
American Granite Saw Company. (See Chase, Elroy A., assignor.)
American Grondal Company. (See Salwén, Sven R., assignor.)
American Hardware Corporation, The. (See Hill, Henderson F., assignor.)
American Hardware Corporation, The. (See Hurd, Norman B., assignor.)
American Laundry Machinery Company. (See Andree, William E., assignor.)
American Laundry Machinery Company. (See Hagen and Binder, assignors.)
American Laundry Machinery Company, The. (Reissue.) (See Bercaw, John W., assignor.)
American Lock Nut Company. (See Radcliffe, Benjamin D., assignor.)
American Moistening Company. (See Comfort, Edward W., assignor.)
American Optical Company. (See Day, George H., assignor.)
American Pin Company. (See Courtland, William A., assignor.)
American Pulley Company, The. (See Bowen, Russell H., assignor.)
American Sheet & Tin Plate Company. (See Skemp and Gibson, assignors.)
American Sheet & Tin Plate Company. (See White, George A., assignor.)
American Shoe Finding Company, The. (See Waterman, Bradford B., assignor.)
American Slicing Machine Company. (See McCormick, John L., assignor.)
American Stamping Co. (See Andrews, Herbert B., assignor.)
American Steel Foundries. (See Darby, Robert F., assignor.)
American Steel Foundries. (See Davis, James C., assignor.)
American Steel Foundries. (See Hedgcock, William C., assignor.)
American Steel Foundries. (See Palmquist, Eric W., assignor.)
American Steel Foundries. (See Weinland, Joseph W., assignor.)
American Stopper Company. (See Perry, Eugene L., assignor.)
American Stove Company. (See Boekenkamp, Edward, assignor.)
American Stove Company. (See Child and Munzner, assignors.)
American Stove Company. (See Meacham, Benjamin E., assignor.)
American Stove Company. (See Nicolaus, Frederic G., assignor.)
American Stove Company. (See Ruppel, Henry, assignor.)
American Tap Bush Co. (See Rice, Frank E., assignor.)
American Telegraphone Company. (See Tiffany, George S., assignor.)
American Telephone and Telegraph Company. (See Molina, Edward C., assignor.)
American Tire Company, The. (See Dees, Mark A., assignor.)
American Tool Handle Company. (See Renkenberger, Edward J., assignor.)
American Tool Works. (See Karcher, Arthur A., assignor.)
American Trolley Wheel Company. (See Anderson, John W., assignor.)
American Valve & Meter Company, The. (See Anderson, Frank C., assignor.)
Ames Bonner Company, The. (See Jobst, Conrad, assignor.)
Ames, George W., Staples, Minn. Guard for water-glasses. No. 1,144,805; June 29; Gaz. vol. 215; p. 1428.
Amphion Piano Player Company. (See Doman, Lewis B., assignor.)
Amrhein, Henry, executor. (See Hartmann, Louis.)
Anderson, Alice M., St. Louis, Mo. Stenotype-keyboard. No. 1,143,160; June 15; Gaz. vol. 215; p. 803.
Anderson, Andrew S., Point Richmond, assignor of nine one-hundredths to C. H. Woodruff, twenty-five one-hundredths to W. B. Richmond, Richmond, and fifteen one-hundredths to J. Roth, Point Richmond, Cal. Transmission mechanism. No. 1,143,928; June 22; Gaz. vol. 215; p. 1092.
Anderson, Edward, assignor of one-half to A. H. Hausson, St. Paul, Minn. Securing means for a removable pulley-housing. No. 1,142,870; June 15; Gaz. vol. 215; p. 701.
Anderson, Edward C. (See Frisk and Anderson.)
Anderson, Frank C., assignor to The American Valve & Meter Company, Cincinnati, Ohio. Switch-stand semaphore mechanism. No. 1,141,296; June 1; Gaz. vol. 215; p. 74.
Anderson, Frank C., assignor to The American Valve & Meter Company, Cincinnati, Ohio. Combined target and interlock operating switch-stand. No. 1,141,905; June 1; Gaz. vol. 215; p. 287.
Anderson, Frank C., assignor to The American Valve & Meter Company, Cincinnati, Ohio. Switch-stand semaphore mechanism. No. 1,141,906; June 1; Gaz. vol. 215; p. 288.
Anderson, Frank C., assignor to The American Valve & Meter Company, Cincinnati, Ohio. Switch-stand crank mechanism. No. 1,141,907; June 1; Gaz. vol. 215; p. 289.
Anderson, Fritz A., Milton, Wis. Hinge-joint. No. 1,144,090; June 22; Gaz. vol. 215; p. 1151.

Anderson, Hans J., assignor of one-half to G. W. Carleton, Lakemills, Wis. Pin-setter. No. 1,144,091; June 22; Gaz. vol. 215; p. 1151.
Anderson, John, Chicago, Ill. Automobile-wheel. No. 1,141,516; June 1; Gaz. vol. 215; p. 153.
Anderson, John W., Hamilton, Ontario, Canada, assignor, by mesne assignments, to American Trolley Wheel Company, Inc., Buffalo, N. Y. Trolley-wheel. No. 1,143,880; June 22; Gaz. vol. 215; p. 1077.
Anderson, Louis, Chicago, Ill. Harvesting-machine. No. 1,143,161; June 15; Gaz. vol. 215; p. 803.
Anderson, Millard F., New York, N. Y. Banding-machine. No. 1,142,656; June 8; Gaz. vol. 215; p. 587.
Anderson, Nils H., assignor to The Noiseless Typewriter Company, Middletown, Conn. Type-writing machine. No. 1,141,168; June 1; Gaz. vol. 215; p. 27.
Anderson, William A., Greenfield, Ohio. Scraper. No. 1,141,917; June 8; Gaz. vol. 215; p. 329.
Anderson, William J., Hyde, England. Display device. No. 1,144,341; June 29; Gaz. vol. 215; p. 1269.
Andersson, Ivan, New York, N. Y. Airship. No. 1,144,578; June 29; Gaz. vol. 215; p. 1347.
Andree, William E., Chicago, Ill., assignor to American Laundry Machinery Company, Cincinnati, Ohio. Truck. No. 1,144,957; June 29; Gaz. vol. 215; p. 1478.
Andres, Charles M., assignor of one-half to A. Soloman, Albany, N. Y. Medicated mouthpiece-connector. No. 1,143,097; June 15; Gaz. vol. 215; p. 782.
Andrew, William K. (See Falk and Andrew, assignors.)
Andrews, Adolph F., Minneapolis, Minn. Ash-sifter. No. 1,141,297; June 1; Gaz. vol. 215; p. 75.
Andrews, Amos. (See Heideloff, Werner B., assignor.)
Andrews, Amos, Plainfield, N. J. Irrigating plant. No. 1,142,223; June 8; Gaz. vol. 215; p. 436.
Andrews, Benjamin, Houston, Tex. Air-lift for elevating liquids. No. 1,144,342; June 29; Gaz. vol. 215; p. 1269.
Andrews, Charles, Jr., assignor to Andrews Wire & Iron Works, Rockford, Ill. Elevator safety-stop. No. 1,143,017; June 15; Gaz. vol. 215; p. 753.
Andrews, Harold C., London, England. Dark slide for photographic cameras. No. 1,141,750; June 1; Gaz. vol. 215; p. 234.
Andrews, Herbert B., assignor to American Stamping Co., Battle Creek, Mich. Locking device for grease-cups. No. 1,144,280; June 22; Gaz. vol. 215; p. 1219.
Andrews, Herbert B., assignor to H. B. Sherman Manufacturing Company, Battle Creek, Mich. Making terminals. No. 1,144,281; June 22; Gaz. vol. 215; p. 1219.
Andrews, John W. R., Leominster, Mass. Chair. No. 1,143,566; June 15; Gaz. vol. 215; p. 945.
Andrews, William E., assignor of one-half to W. A. Stellers, Bellaire, Ohio. Electrical welding apparatus. No. 1,141,517; June 1; Gaz. vol. 215; p. 154.
Andrews Wire & Iron Works. (See Andrews, Charles, Jr., assignor.)
Angle, Edward H., New London, Conn. Orthodontia appliance. No. 1,142,790; June 15; Gaz. vol. 215; p. 673.
Anschütz-Kaempfe, Hermann, Neumühlen, near Kiel, Germany. Artificial horizon. No. 1,141,099; June 1; Gaz vol. 215; p. 4.
Anthony, Marcus O., assignor to A. Kimball Company, New York, N. Y. Tag-sewing machine. No. 1,143,929; June 22; Gaz. vol. 215; p. 1093.
Antley, Viola V. (See Fairchild, Joseph A., assignor.)
Apgar, John T., New York, N. Y. Artificial leg. No. 1,144,681; June 29; Gaz. vol. 215; p. 1383.
Appelqvist, Gunnar S. A., and E. O. E. Tydén, Stockholm, Sweden. Separating the constituents of rocks. No. 1,143,797; June 22; Gaz. vol. 215; p. 1048.
Apple Electric Company, The. (See Apple, Vincent G., assignor.)
Apple, Vincent G., assignor to The Apple Electric Company, Dayton, Ohio. Electrical equipment for internal-combustion engines. No. 1,142,791; June 15; Gaz. vol. 215; p. 674.
Apple, Vincent G., assignor to The Apple Electric Company, Dayton, Ohio. Gearing. No. 1,144,092; June 22; Gaz. vol. 215; p. 1152.
Appleby, John F., Davenport, Iowa, assignor of one-half to P. D. Middlekauff, Chicago, Ill. Grain-harvester. No. 1,141,298; June 1; Gaz. vol. 215; p. 75.
Appleby, John F., Peoria, assignor of one-half to P. D. Middlekauff, Chicago, Ill. Grain-harvester. No. 1,141,299; June 1; Gaz. vol. 215; p. 76.
Appugliese, Louis, assignor to Mersereau Metal Bed Company, Jersey City, N. J. Catch device for crib-gates and the like. No. 1,143,881; June 22; Gaz. vol. 215; p. 1077.
Araki, Shuzoburo, Fromberg, Mont. Butter-cutter. No. 1,144,282; June 22; Gaz. vol. 215; p. 1219.
Armstrong, Andrew C., Sawyer's Valley, Western Australia, Australia. Combination adjustable hygienic desk and seat. No. 1,142,657; June 8; Gaz. vol. 215; p. 588.
Armstrong, John, London, England. Apparatus for washing gases. No. 1,143,162; June 15; Gaz. vol. 215; p. 804.
Arndt, Franklin E., assignor to D. C. Boyd, Galion, Ohio. Burial-vault. No. 1,144,579; June 29; Gaz. vol. 215; p. 1347.
Arnold, Price, Fort Worth, Tex. Coffin. No. 1,143,018; June 15; Gaz. vol. 215; p. 754.
Arnold, William B., North Abington, Mass. Boot and shoe. No. 1,143,481; June 15; Gaz. vol. 215; p. 916.
Aron, Leonard J., assignor to X. L. Electric Company Limited, London, England. Electric-clock system. No. 1,144,885; June 29; Gaz. vol. 215; p. 1455.
Arrow Electric Company, The. (See Gauthier, George A., assignor.)
Arthur D. Little, Incorporated. (See Whitaker and Bates, assignors.)
Arthurs, Biddie. (See Truxall, Ephraim, assignor.)
Artista Piano Player Company. (See Steinhilber, Adolf A., assignor.)
Asbestos Brake Company, The. (See Bonner, William T., assignor.)
Asbury, Frank, *et al.* (See Gore, Frederick W., assignor.)
Asbury, Harry F., *et al.* (See Gore, Frederick W., assignor.)
Ashley, Charles G., Chicago, Ill., assignor to General Engineering and Construction Company, Limited, Toronto, Ontario, Canada. Printing-telegraph system and alphabet. No. 1,141,751; June 1; Gaz. vol. 215; p. 234.
Ashley, Leonard W., assignor of one-half to E. M. McVicker, Milwaukee, Wis. Trolley-wheel mount. No. 1,141,518; June 1; Gaz. vol. 215; p. 154.
Ashtabula Bow Socket Company, The. (See Lewis, Fred K., assignor.)
Ashton, Orrell, Swampscott, Mass. Sewing-machine. No. 1,144,958; June 29; Gaz. vol. 215; p. 1478.
Askin, John, *et al.* (See Fishburne, Edward W., assignor.)
Associated Engineers Company. (See Withers, Francis P., assignor.)
Atkins, William H., assignor, by mesne assignments, to C. H. Bowman, Madison, Wis. Lasting device. No. 1,143,798; June 22; Gaz. vol. 215; p. 1048.
Atkinson, Elijah B., Denver, Colo. Shipping-tag. No. 1,142,294; June 8; Gaz. vol. 215; p. 461.
Atkinson, Fred S., Brookline, Mass. Secondary clock-movement. No. 1,141,752; June 1; Gaz. vol. 215; p. 234.
Atkinson, George W., Denver, Colo. Pneumatic wheel. No. 1,141,918; June 8; Gaz. vol. 215; p. 329.
Atkinson, George W., Denver, Colo. Headlight control. No. 1,144,886; June 29; Gaz. vol. 215; p. 1455.
Atlantic Refining Company, The. (See Van Dyke and Irish, assignors.)
Atlas Educational Film Co. (See Holmes, Oscar J., assignor.)
Atwater, Arthur S., and D. F. Selzer, Cleveland, Ohio. Battery-plate. No. 1,144,628; June 29; Gaz. vol. 215; p. 1365.
Auchu, Henry, Emporium, Pa. Derrick. No. 1,141,919; June 8; Gaz. vol. 215; p. 330.
Auchu, Henry, Emporium, Pa. Derrick. No. 1,143,019; June 15; Gaz. vol. 215; p. 754.
Audet, Frank X., Boston, Mass. Musical instrument. No. 1,142,744; June 8; Gaz. vol. 215; p. 614.
Auer, George, White Plains, N. Y. Adjustable sign and lighting post. No. 1,144,629; June 29; Gaz. vol. 215; p. 1365.
Aufinger, Francissek, and J. Lemankiewick, Braddock, Pa. Life-boat. No. 1,142,224; June 8; Gaz. vol. 215; p. 437.
Aufuldish, John B., Dayton, Ohio. Starter for explosive-engines. No. 1,143,930; June 22; Gaz. vol. 215; p. 1093.
Aug. Goertz & Co. (See Eigen, Benno vom, assignor.)
August, Nathan Jr., Newark, N. J. Plumber's fixture. No. 1,142,225; June 8; Gaz. vol. 215; p. 437.
Aune, Anders, Waltham, Mass., assignor to Waltham Watch Company. Winding-indicator. No. 1,143,567; June 15; Gaz. vol. 215; p. 945.
Aurora Automatic Machinery Company. (See Norling, Reinhold A., assignor.)
Austin, William, Scranton, assignor of one-half to M. W. O'Boyle, Pittston, Pa. Safety automatic train-stopping means. No. 1,144,454; June 29; Gaz. vol. 215; p. 1307.
Austin, William A., and S. S. Lawson, assignors to Lima Locomotive Corporation, Lima, Ohio. Screw reverse-gear for engine-valves. No. 1,144,455; June 29; Gaz. vol. 215; p. 1307.
Auth, Charles, New York, assignor to E. L. Auth, Brooklyn, N. Y. Annunciator-drop. No. 1,142,477; June 8; Gaz. vol. 215; p. 527.
Auth, Emma L. (See Auth, Charles, assignor.)
Auto Pneumatic Action Company, The. (See Southgate, Louis W., assignor.
Auto Pneumatic Action Company, The. (See Staples, Sidney J., assignor.)
Automatic Arms Company, The. (See Lewis, Isaac N., assignor.)
Automatic Chemical Fire Extinguisher and Alarm Company. (See Brodton, Edward R., assignor.)
Automatic Electric Company. (See Fales, Edward D., assignor.)
Automatic Electric Company. (See Witt, Samuel E., assignor.)
Automatic Machine Company. (See Northrup, Elmer C., assignor.)
Automatic Press Feeder Company. (See Kirkman, Karl F., assignor.)
Automatic Refrigerating Company. (See Owens, Michael F., assignor.)
Automatic Train Control & Signal Company. (See Thurber, Guy P., assignor.)
Automatic Weighing Machine Company. (See Tremaine, Edward G., assignor.)
Avery Company. (See Bartholomew, John B., assignor.)

Avery, Ross B., South Bend, Ind. Receiver for wireless telegraphy. No. 1,143,799; June 22; Gaz. vol. 215; p. 1049.

Avery, True M., Glens Falls, N. Y., assignor to The Union Bag & Paper Company. Apparatus for making paper bags. No. 1,144,630; June 29; Gaz. vol. 215; p. 1365.

Axe, Roy T., Syracuse, N. Y. Trap-door for railway-cars. No. 1,144,983; June 29; Gaz. vol. 215; p. 1486.

Aylsworth, Jonas W., assignor to Condensite Company of America, East Orange, N. J. Production of matrices. No. 1,144,338; June 22; Gaz. vol. 215; p. 1239.

Ayotte, Joseph R., assignor to René Wheel Company, Chicago, Ill. Wheel. No. 1,142,226; June 8; Gaz. vol. 215; p. 428.

Ayrault, John, *et al.* (See Casler, Benjamin G., assignor.)

Ayrault, Miles, *et al.* (See Casler, Benjamin G., assignor.)

Ayre, John H., Tilton, N. H. Steering mechanism for vehicles. No. 1,142,658; June 8; Gaz. vol. 215; p. 588.

B. A. Ballou and Company. (See Coombs, Edgar L., assignor.)

B. A. Ballou and Company. (See Naylor, William R., assignor.)

B. F. Goodrich Company, The. (See Shaw, Edwin C., assignor.)

Baarson, John J., and A. T. Thorson, Odin, Minn. Horse-collar. No. 1,144,682; June 29; Gaz. vol. 215; p. 1383.

Babcock, Edward O., Niagara Falls, N. Y. Machine for making paper-board. No. 1,143,931; June 22; Gaz. vol. 215; p. 1094.

Babcock & Wilcox Company, The. (See Bell, John E., assignor.)

Bacon, Charles F., Toledo, Ohio. Bug-eliminating machine. No. 1,144,019; June 22; Gaz. vol. 215; p. 1126.

Bader, Gustav A., Rochester, and C. W. Howland, assignors to The Standard Optical Company, Geneva, N. Y. Lens-drilling machine. No. 1,141,859; June 1; Gaz. vol. 215; p. 269.

Badger Brass Mfg. Co., The. (See White, Walter H., assignor.)

Badin, Adrien, assignor to Société Generale des Nitrures, Paris, France. Manufacture of aluminum nitrid. No. 1,143,482; June 15; Gaz. vol. 215; p. 916.

Bailey, Arlon D., assignor of one-third to A. C. Towne and one-third to C. T. Brown, Winchendon, Mass. Catch-basin. No. 1,141,678; June 1; Gaz. vol. 215; p. 211.

Bailey, Benjamin F., Ann Arbor, Mich. Circuit-breaker. No. 1,141,300; June 1; Gaz. vol. 215; p. 76.

Bailey, De Witt C., Nichols, Fla. Hose-coupling. No. 1,143,020; June 15; Gaz. vol. 215; p. 754.

Bailey, Irving R., assignor to The Goodyear Tire and Rubber Company, Akron, Ohio. Rubber heel. No. 1,141,227; June 1; Gaz. vol. 215; p. 48.

Bailey, James H., New York, N. Y. Register. No. 1,142,792; June 15; Gaz. vol. 215; p. 674.

Bailey, James H., Brooklyn, N. Y. Register. No. 1,143,800; June 22; Gaz. vol. 215; p. 1049.

Bailey, Walter, Smith River, Cal. Ink-well. No. 1,141,753; June 1; Gaz. vol. 215; p. 235.

Baird, Archie M., and H. D. Palmer, Topeka, Kans. Pneumatic trip. No. 1,143,346; June 15; Gaz. vol. 215; p. 869.

Baird, Edward P., Evanston, Ill., assignor to W. T. Baird, New York, N. Y. Counter. No. 1,143,021; June 15; Gaz. vol. 215; p. 754.

Baird, Myron T., St. Louis, Mo. Governor for automobile-engines and the like. No. 1,143,347; June 15; Gaz. vol. 215; p. 869.

Baird, William T. (See Baird, Edward P., assignor.)

Baker, Byron G., assignor to M. Rumely Company, Laporte, Ind. Carbureter. No. 1,142,793; June 15; Gaz. vol. 215; p. 674.

Baker, George S., London, England. Baker's oven. No. 1,141,599; June 1; Gaz. vol. 215; p. 183.

Baker, George S., London, England. Apparatus for proving dough preparatory to baking. No. 1,141,600; June 1; Gaz. vol. 215; p. 183.

Baker, George S., London, England. Baker's oven. No. 1,141,601; June 1; Gaz. vol. 215; p. 184.

Baker, Joseph G., Allentown, assignor to J. E. Durham, Philadelphia, Pa. Lost-motion take-up for tools. No. 1,141,602; June 1; Gaz. vol. 215; p. 184.

Baker, Lee H. (See Dickel and Baker.)

Baker, William J. (See Gates, Frank M., assignor.)

Balcome, Herbert A., Boston, assignor to The Holtzer-Cabot Electric Company, Brookline, Mass. Electric motor or generator. No. 1,141,860; June 1; Gaz. vol. 215; p. 269.

Baldwin, Arthur J., East Orange, N. J., assignor to Mississippi Wire Glass Company, New York, N. Y. Single-strand-wire-glass machine. No. 1,144,976; June 29; Gaz. vol. 215; p. 1484.

Baldwin Locomotive Works, The. (See Bullock, Samuel A., assignor.)

Ball, Albert P., Detroit, Mich., assignor of one-half to Hudson Motor Car Company and one-half to Detroit Body Co. Wind-shield pivot. No. 1,143,932; June 22; Gaz. vol. 215; p. 1094.

Ballard, George L. (See Wildman and Ballard.)

Ballard, Harrie A., Boston, assignor to The Boylston Manufacturing Company, South Boston, Mass. Lock-stitch shoe-sewing machine. No. 1,142,391; June 8; Gaz. vol. 215; p. 496.

Baltimore Tube Company. (See Brinkman, Louis H., assignor.)

Bancel, Paul A. (See Gibson, George H., assignor.)

Bancel, Paul A., New York, N. Y. Multistage steam-condensing. No. 1,143,349; June 15; Gaz. vol. 215; p. 871.

Bancel, Paul A., New York, N. Y., assignor to himself, and G. H. Gibson, Upper Montclair, N. J. Method of and apparatus for utilizing the energy of steam. No. 1,143,348; June 15; Gaz. vol. 215; p. 870.

Bancroft, James E., Toledo, Ohio, assignor to Toledo Computing Scale Company, Newark, N. J. Vulcanizer. No. 1,141,519; June 1; Gaz. vol. 215; p. 154.

Bancroft, Jessie H., New York, N. Y. Garment-supporter. No. 1,141,754; June 1; Gaz. vol. 215; p. 235.

Bandtel, Herbert E., assignor of one-half to R. H. Becker, Milwaukee, Wis. Bar tie and support. No. 1,144,093; June 22; Gaz. vol. 215; p. 1152.

Banduray, Ladislaus. (See Sivak, Nagy, and Banduray.)

Bane, Frank A. (See Adair and Bane.)

Barabás, Louis, and J. Hada, Cleveland, Ohio. Coffee-percolator. No. 1,143,022; June 15; Gaz. vol. 215; p. 755.

Barber-Colman Company. (See Boozer and Hill, assignors.)

Barber, Efraim, Hartford, Conn. Time-actuating device for gas-cocks and the like. No. 1,143,933; June 22; Gaz. vol. 215; p. 1094.

Barber, Joel D., New York, N. Y. Furniture construction. No. 1,142,006; June 8; Gaz. vol. 215; p. 360.

Barbour, George H., Pittsburgh, Pa. Railway-track construction. No. 1,144,164; June 22; Gaz. vol. 215; p. 1178.

Barden, George. (See Doyle and Barden.)

Barder, Byron R., Akron, Ohio. Vulcanizer. No. 1,144,683; June 29; Gaz. vol. 215; p. 1383.

Barker, Charles R. (See Farrow and Barker.)

Barker, Samuel, Providence, R. I. Dyeing-machine. No. 1,141,301; June 1; Gaz. vol. 215; p. 77.

Barker, Wendell A., Chicago, Ill. Water-circulation system for subways. No. 1,144,094; June 22; Gaz. vol. 215; p. 1152.

Barker, Wendell A., assignor to Thomas Elevator Company, Chicago, Ill. Electrically-driven hoist. No. 1,141,679; June 1; Gaz. vol. 215; p. 211.

Barlet, Natalie M., assignor to The Junoform Company, Philadelphia, Pa. Garment. No. 1,144,631; June 29; Gaz. vol. 215; p. 1366.

Barnard and Leas Manufacturing Company. (See Cornwall, John B., assignor.)

Barnard, Sidney N., *et al.* (See Newman, Arthur S., assignor.)

Barnes, Ansley, Waterville, Me. Cable-tightener. No. 1,143,483; June 15; Gaz. vol. 215; p. 916.

Barnes, Charles O., Detroit, Mich. Pressing device. No. 1,141,680; June 1; Gaz. vol. 215; p. 211.

Barnes, William H., Manchester, England. Knife-polishing apparatus. No. 1,144,456; June 29; Gaz. vol. 215; p. 1308.

Barnett, John N., *et al.* (See Stanley, Richard E., assignor.)

Barnett, Otto R. (See Scott, John M., assignor.)

Barnstead, Robert P., Boston, Mass. Electric water-heater. No. 1,143,568; June 15; Gaz. vol. 215; p. 945.

Barrager, Kenneth W., Atlantic Highlands, N. J. Adjustable shade-roller hanger. No. 1,144,283; June 22; Gaz. vol. 215; p. 1219.

Barraja-Frauenfelder, Joseph, assignor to The Lake Torpedo Boat Company of Maine, Bridgeport, Conn. Attachment for submarine boats. No. 1,142,768; June 8; Gaz. vol. 215; p. 625.

Barrash, Joseph J., Chicago, Ill. Rain-signal. No. 1,143,246; June 15; Gaz. vol. 215; p. 835.

Barrett, Halsey M., *et al.*, receivers. (See Fessenden, Reginald A., assignor.)

Barrett, Halsey M., *et al.*, receivers. (See Lee and Hogan, assignors.)

Barrows, Asahel H. (See Barrows, Wilber S. and A. H.)

Barrows, Asahel H., Chicago, Ill. Aeroplane appliance. No. 1,142,134; June 8; Gaz. vol. 215; p. 406.

Barrows, Wilber S. and A. H., Chicago, Ill. Aerial propeller. No. 1,144,521; June 29; Gaz. vol. 215; p. 1328.

Barsness, Herman J., Black Earth, Wis. Cattle-stanchion. No. 1,142,135; June 8; Gaz. vol. 215; p. 406.

Barstow, Edwin O., Midland, Mich., assignor, by mesne assignments, to The Cleveland Trust Company, trustee, Cleveland, Ohio. Manufacturing arsenate of lead. No. 1,141,920; June 8; Gaz. vol. 215; p. 330.

Barstow, Edwin O., assignor to The Dow Chemical Company, Midland, Mich. Making bromin. No. 1,141,921; June 8; Gaz. vol. 215; p. 330.

Barstow, Edwin O., assignor to The Dow Chemical Company, Midland, Mich. Making bromin. No. 1,141,922; June 8; Gaz. vol. 215; p. 331.

Bartholomew, Ellis, Toledo, assignor to The National Peat Refining Company, Cleveland, Ohio. Gathering-head for dredges. No. 1,144,406; June 29; Gaz. vol. 215; p. 1290.

Bartholomew, John B., assignor to Avery Company, Peoria, Ill. Plow. No. 1,143,163; June 15; Gaz. vol. 215; p. 804.

Bartlett Hayward Company, The. (See Bruce, Howard, assignor.)

Barton, Charles W. (See Ott and Barton.)

Barton, Edward H. R., Englewood, N. J. Photographic shutter. No. 1,141,681; June 1; Gaz. vol. 215; p. 211.

Barton, Ella L. (See Stevens, William X., assignor.)

Basile, David, Bridgeport, Conn. Life-boat. No. 1,141,755; June 1; Gaz. vol. 215; p. 235.

Bass, Charles P., Los Angeles, Cal. Ratchet driving mechanism for cutters. No. 1,141,682; June 1; Gaz. vol. 215; p. 212.

Bassett, William E., Fresno, Cal. Self-laying traction-track. No. 1,144,284; June 22; Gaz. vol. 215; p. 1220.

Bastian, August H., Hillsdale, Oreg. Combined weeder and cultivator. No. 1,144,314; June 22; Gaz. vol. 215; p. 1230.

Bates, Adelmer M., assignor to Bates Valve Bag Company, Chicago, Ill. Making and filling bags. No. 1,143,801; June 22; Gaz. vol. 215; p. 1049.

Bates, Arthur, Leicester, England, assignor to United Shoe Machinery Company, Paterson, N. J. Machine for use in the manufacture of boots and shoes. No. 1,141,302; June 1; Gaz. vol. 215; p. 77.

Bates, Arthur, Leicester, England, assignor to United Shoe Machinery Company, Paterson, N. J. Machine for handling articles. No. 1,142,136; June 8; Gaz. vol. 215; p. 403.

Bates, Edward T., Washington, D. C. Nut-lock. No. 1,143,247; June 15; Gaz. vol. 215; p. 835.

Bates, George, *et al.* (See Clemons, James H., assignor.)

Bates, John S. (See Whitaker and Bates.)

Bates, Thomas W., *et al.* (See Whitaker, Samuel T., assignor.)

Bates Valve Bag Company. (See Bates, Adelmer M., assignor.)

Bathrick, Ellsworth R., Akron, Ohio. Exercising apparatus. No. 1,142,137; June 8; Gaz. vol. 215; p. 407.

Batterman, Herman E., Chicago, Ill. Register. No. 1,143,802; June 22; Gaz. vol. 215; p. 1050.

Bauer, Adolph H., New York, N. Y. Card system. No. 1,142,007; June 8; Gaz. vol. 215; p. 360.

Bauer, Harry A., Lansdowne, Pa. Support for indirect or semi-indirect lighting fixtures. No. 1,144,095; June 22; Gaz. vol. 215; p. 1153.

Bauer, John, Louisville, Ky. Propeller. No. 1,144,580; June 29; Gaz. vol. 215; p. 1348.

Bauer, Louis P., Pekin, Ill. Evaporating apparatus. No. 1,143,743; June 22; Gaz. vol. 215; p. 1029.

Bauer, Louis P., Pekin, Ill. Evaporating apparatus. No. 1,143,744; June 22; Gaz. vol. 215; p. 1030.

Bauerle, John, assignor to The Hauser-Stander Tank Company, Cincinnati, Ohio. Silo. No. 1,143,164; June 15; Gaz. vol. 215; p. 804.

Bausman, Alonzo L., Chicopee, assignor to National Equipment Company, Springfield, Mass. Chocolate-tempering machine. No. 1,141,683; June 1; Gaz. vol. 215; p. 212.

Bausman, Alonzo L., Chicopee, assignor to National Equipment Company, Springfield, Mass. Conveyer-belt for confectionery-machines. No. 1,141,861; June 1; Gaz. vol. 215; p. 269.

Bausman, Alonzo L., Chicopee, assignor to National Equipment Company, Springfield, Mass. Continuous cooker. No. 1,141,862; June 1; Gaz. vol. 215; p. 270.

Bausman, Alonzo L., Chicopee, assignor to National Equipment Company, Springfield, Mass. Brush-lined sleve. No. 1,141,863; June 1; Gaz. vol. 215; p. 270.

Bautzner Industriewerk, Aktiengesellschaft. (See Johne, Otto, assignor.)

Bauwens, Seraphine F., Chicago, Ill. Box-machine. No. 1,142,008; June 8; Gaz. vol. 215; p. 360.

Baxter, Berry A., assignor to New Method Stove Company, Mansfield, Ohio. Making hinges for stove-doors or the like. No. 1,143,023; June 15; Gaz. vol. 215; p. 755.

Baxter, Leonidas, assignor to The Thomas Manufacturing Company, Dayton, Ohio. Hydrocarbon-lamp. No. 1,144,684; June 29; Gaz. vol. 215; p. 1384.

Bay City Iron Co. (See Burman, Frank V., assignor.)

Bayles, Lewis C., Easton, Pa., assignor to Ingersoll-Rand Company, New York, N. Y. Percussive tool. No. 1,142,478; June 8; Gaz. vol. 215; p. 527.

Baynes, Cyril. (See Hall and Baynes.)

Bazeley, Arthur J., assignor to The National Malleable Castings Company, Cleveland, Ohio. Car-coupling. No. 1,144,315; June 22; Gaz. vol. 215; p. 1231.

Bazeley, Arthur J., assignor to The National Malleable Castings Company, Cleveland, Ohio. Car-coupling. No. 1,144,316; June 22; Gaz. vol. 215; p. 1231.

Bazeley, Arthur J., assignor to The National Malleable Castings Company, Cleveland, Ohio. Car-coupling. No. 1,144,317; June 22; Gaz. vol. 215; p. 1232.

Beach, Charles, Muscatine, Iowa. Detachable handle for receptacles. No. 1,143,484; June 15; Gaz. vol. 215; p. 917.

Beale, George B., Maywood, Ill. Coin-controlled mechanism. No. 1,142,745; June 8; Gaz. vol. 215; p. 615.

Beall, William L., assignor to Gale Manufacturing Company, Albion, Mich. Cultivator. No. 1,143,248; June 15; Gaz. vol. 215; p. 836.

Bean, Charles E., assignor to Killifer Manufacturing Company, Los Angeles, Cal. Wheel. No. 1,144,632; June 29; Gaz. vol. 215; p. 1366.

Beatley, Don E., and P. M. Feltwell, Sewickley, Pa. Electrical signaling apparatus. No. 1,143,024; June 15; Gaz. vol. 215; p. 755.

Becher, George, New York, N. Y. Fishing-pole attachment. No. 1,141,684; June 1; Gaz. vol. 215; p. 213.

Bechman, Henry F., assignor to Duplex Printing Press Company, Battle Creek, Mich. Ink-fountain for printing-presses. No. 1,142,659; June 8; Gaz. vol. 215; p. 588.

Beck, Charles H., Altoona, Pa. Battery connection. No. 1,143,485; June 15; Gaz. vol. 215; p. 917.

Beck, Charles W., Detroit, Mich., assignor to The Beck-Frost Corporation. Fastening-clip. No. 1,142,479; June 8; Gaz. vol. 215; p. 527.

Beck, Charles W., Rockville Center, N. Y., assignor, by mesne assignments, to The Beck-Frost Corporation, Detroit, Mich. Tool-clamp. No. 1,143,025; June 15; Gaz. vol. 215; p. 756.

Beck-Frost Corporation, The. (See Beck, Charles W., assignor.)

Beck, Marshall, Moline, assignor of one-third to D. K. Hill, Chicago, Ill., and one-third to J. T. Skinkle, Kenosha, Wis. Machine for gathering and handling hay. No. 1,142,927; June 15; Gaz. vol. 215; p. 721.

Beck, Rufus L., Sullivan, Wis. Device for mixing frostings and cakes. No. 1,144,749; June 29; Gaz. vol. 215; p. 1407.

Becker, Harry J., Northampton, Pa. Chicken feeder and exerciser. No. 1,144,929; June 29; Gaz. vol. 215; p. 1468.

Becker, Harry S., River Forest, assignor to American Flyer Manufacturing Company, Chicago, Ill. Spring-motor. No. 1,144,581; June 29; Gaz. vol. 215; p. 1348.

Becker, Joseph, Washington, D. C. Automatic-focusing camera. No. 1,142,295; June 8; Gaz. vol. 215; p. 461.

Becker, Reinhold, Krefeld, Germany. Automatic firearm. No. 1,144,285; June 22; Gaz. vol. 215; p. 1220.

Becker, Robert H. (See Bandtel, Herbert E., assignor.)

Becker, William F., Chicago, Ill., assignor to Thomas Cusack Company. Advertising device. No. 1,144,096; June 22; Gaz. vol. 215; p. 1153.

Beech-Nut Packing Company. (See Merritt, Joseph, assignor.)

Beeler, Samuel E., assignor to Frick Company, Waynesboro, Pa. Traction-wheel. No. 1,142,227; June 8; Gaz. vol. 215; p. 438.

Begg, George B., Harvey, La. Saw-treating device. No. 1,143,934; June 22; Gaz. vol. 215; p. 1095.

Begusch, Franz, Liesling, near Pottschach, Austria-Hungary. Instrument for minute measurings. No. 1,143,165; June 15; Gaz. vol. 215; p. 805.

Behm, Henry, assignor of one-half to W. S. Heal, Elizabeth, N. J. Vibrator. No. 1,141,373; June 1; Gaz. vol. 215; p. 102.

Behring, Frederick H., St. Louis, Mo. Playing-cards. No. 1,143,595; June 15; Gaz. vol. 215; p. 955.

Behringer, Grover F., assignor to The Defiance Pressed Steel Company, Defiance, Ohio. Bottle-crate and adapter therefor. No. 1,143,166; June 15; Gaz. vol. 215; p. 805.

Beindl, Carl, Munich, Germany. Producing cyanogen compounds. No. 1,144,457; June 29; Gaz. vol. 215; p. 1308.

Beisel, William J., Brooklyn, N. Y. Non-refillable bottle. No. 1,144,286; June 22; Gaz. vol. 215; p. 1221.

Beisel, William J., Brooklyn, N. Y. Non-refillable bottle. No. 1,144,287; June 22; Gaz. vol. 215; p. 1221.

Belasco, Jacob, New York, N. Y. Non-refillable bottle. No. 1,143,486; June 15; Gaz. vol. 215; p. 917.

Belin, Edouard, Paris, France. Microphone and like instrument. No. 1,143,487; June 15; Gaz. vol. 215; p. 918.

Belknap, Jackson O., Mobile, Ala., assignor to W. C. Belknap, New York, N. Y. Sign. No. 1,141,685; June 1; Gaz. vol. 215; p. 213.

Belknap, Wilber C. (See Belknap, Jackson O., assignor.)

Bell, Edward M., Greeneville, Tenn. Bottle-holding rack. No. 1,143,488; June 15; Gaz. vol. 215; p. 918.

Bell, John E., assignor to The Babcock & Wilcox Company, New York, N. Y. Water-tube boiler. No. 1,141,520; June 1; Gaz. vol. 215; p. 155.

Bell, Joseph M., Mount Gilead, Ohio. Self-serving table. No. 1,142,480; June 8; Gaz. vol. 215; p. 528.

Bell, Roscoe C., W. H. Roberson, and D. C. Hinderliter, Mount Carmel, Ill. Trap. No. 1,141,756; June 1; Gaz. vol. 215; p. 236.

Bellaire, Albert G., Detroit, Mich. Feed-finger for automatic screw-machines. No. 1,142,660; June 8; Gaz. vol. 215; p. 589.

Bellerose, Henry E., Lincoln, N. H. Pulp-grindstone. No. 1,142,296; June 8; Gaz. vol. 215; p. 462.

Bellhouse, Thomas F., Sacramento, Cal. Automatic flange-lubricator. No. 1,143,681; June 22; Gaz. vol. 215; p. 1009.

Beltramini, Louis, Spring Valley, Ill. Envelop. No. 1,141,603; June 1; Gaz. vol. 215; p. 184.

Belz, Albert, Unter-Goldach, Switzerland. Spooling-machine. No. 1,141,604; June 1; Gaz. vol. 215; p. 185.

Bemen, Louis H. (See Davies and Bemen.)

Benage, George W., Juda, Wis. Calf-weaner. No. 1,144,020; June 22; Gaz. vol. 215; p. 1126.

Benbow, Charles A., Portland, Oreg. Windmill. No. 1,143,803; June 22; Gaz. vol. 215; p. 1050.

Bending, William P., Palo Alto, Cal. Apparatus for drying oils. No. 1,144,522; June 29; Gaz. vol. 215; p. 1329.

Bendix, Vincent, Memphis, Tenn. Starter for gas-engines. No. 1,144,097; June 22; Gaz. vol. 215; p. 1154.

Benedict, Laurance D., Chicago, Ill. Pipe-wrench. No. 1,143,350; June 15; Gaz. vol. 215; p. 871.
Beneker, Jay C., Cincinnati, Ohio. Metal-coating. No. 1,144,523; June 29; Gaz. vol. 215; p. 1329.
Beneker, Jay C., Cincinnati, Ohio. Alloy-coating. No. 1,144,524; June 29; Gaz. vol. 215; p. 1329.
Benjamin, Morris, Atlanta, Ga., assignor to Benjamin Pulverizer Co., New York, N. Y. Lubricating system for pulverizers. No. 1,142,746; June 8; Gaz. vol. 215; p. 615.
Benjamin Pulverizer Co. (See Benjamin, Morris, assignor.)
Benmosche, Moses, Nashua, N. H., and R. P. Elliott, Boston, Mass. Hypodermic syringe. No. 1,144,343; June 29; Gaz. vol. 215; p. 1269.
Bennett, Cyril G. M., London, and S. H. Smith, West Ealing, assignors to Smokeless Economisers Limited, London, England. Oil-fuel burner. No. 1,144,021; June 22; Gaz. vol. 215; p. 1126.
Bennett, Edward O., San Jose, assignor of one-fourth to H. A. Munro, Gilroy, and one-eighth to C. A. Preston, San Francisco, Cal. Coin and check operative lock. No. 1,142,392; June 8; Gaz. vol. 215; p. 497.
Bennett, Frank H., and E. A. Robertson, Sheffield, Ala. Hinge. No. 1,141,303; June 1; Gaz. vol. 215; p. 77.
Bennett, James C., Detroit, Mich. Blower for boilers. No. 1,141,304; June 1; Gaz. vol. 215; p. 78.
Bennett, Theodore J., assignor to B. H. Kaufman, Bloomfield, N. J. Hat-stretching apparatus. No. 1,143,935; June 22; Gaz. vol. 215; p. 1095.
Bennetts, John G. (See Knight and Bennetts.)
Benson, Ira C., Silver City, Idaho. Irrigating device. No. 1,143,351; June 15; Gaz. vol. 215; p. 871.
Bente, Henry K., assignor of one-fourth to M. T. Henderson and one-fourth to E. D. Bosserman, Sedalia, Mo. Fence-post. No. 1,144,288; June 22; Gaz. vol. 215; p. 1222.
Bercaw, John W., Hamilton, assignor to The American Laundry Machinery Company, Norwood, Ohio. Laundry-washing machine. (Reissue.) No. 13,922; June 8; Gaz. vol. 215; p. 634.
Berchtold, John A., Sigel, Ill. Yardstick-support. No. 1,143,489; June 15; Gaz. vol. 215; p. 918.
Berfield, Montgomery, Vergas, Minn. Grinding-machine. No. 1,143,882; June 22; Gaz. vol. 215; p. 1077.
Berg, John, assignor to Metal Specialties Manufacturing Company, Chicago, Ill. Electric lamp. No. 1,142,548; June 8; Gaz. vol. 215; p. 551.
Berg, Oscar W., Kewanee, Ill., assignor to National Tube Company, Pittsburgh, Pa. Chuck. No. 1,141,305; June 1; Gaz. vol. 215; p. 78.
Bergen, George B., Springfield, Ohio. Lead-pencil. No. 1,142,794; June 15; Gaz. vol. 215; p. 675.
Berger, Richard A., assignor to Sapal Société Anonyme Des Plieuses Automatiques, Lausanne, Switzerland. Machine for wrapping sweets. No. 1,144,022; June 22; Gaz. vol. 215; p. 1127.
Bergreen, Emanuel F., Brooklyn, N. Y. Show-case bracket. No. 1,144,930; June 29; Gaz. vol. 215; p. 1468.
Bergstrom, Carl, Lawton, Okla. Attachment for cultivators. No. 1,143,591; June 15; Gaz. vol. 215; p. 954.
Berkeley, Robert M. (See Huntley and Berkeley.)
Berker, Adolf, and F. Sachtleben, assignors to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Device for conveying loads on pack-animals. No. 1,141,923; June 8; Gaz. vol. 215; p. 331.
Berlin-Anhaltische Maschinenbau-Aktien-Gesellschaft. (See Schaefer, Karl, assignor.)
Berliner Import- und Export-Gesellschaft m. b. H. (See Fluckh, Karl, assignor.)
Berliner Maschinenbau-Aktien-Gesellschaft vormals L. Schwartzkopff. (See Kortmann, Paul, assignor.)
Bernheimer, Sanford J., assignor to The Electromobile Company, St. Louis, Mo. Motor-truck. No. 1,141,924; June 8; Gaz. vol. 215; p. 331.
Bernia, John, assignor of one-half to C. E. Marker, Detroit, Mich. Scale. No. 1,144,685; June 29; Gaz. vol. 215; p. 1384.
Bernower, John A., *et al.* (See Klink, Frederick R., assignor.)
Bernstein, Louis, *et al.* (See Burke, Thomas, assignor.)
Berry, John F., and W. E. Burrill, Bangor, Me. Cement-block machine. No. 1,143,490; June 15; Gaz. vol. 215; p. 919.
Berthold, Henry J., Irvington, N. J. Spark-plug. No. 1,143,026; June 15; Gaz. vol. 215; p. 756.
Besharov, Naum S. G., Paterson, N. J. Combination-lock. No. 1,144,887; June 29; Gaz. vol. 215; p. 1456.
Best & Company. (See Gallagher, Edward D., assignor.)
Best, William N., New York, N. Y. Gas-stove. No. 1,141,521; June 1; Gaz. vol. 215; p. 155.
Betts, John L. (See Smith, Jay B., assignor.)
Betulander Automatic Telephone Company. (See Betulander, Gotthilf A., assignor.)
Betulander, Gotthilf A., Södertörns Villastad, Sweden, assignor to The Betulander Automatic Telephone Company, Limited, London, England. Impulse-transmitter for automatic telephone plants. No. 1,142,228; June 8; Gaz. vol. 215; p. 438.
Betz, William G., Chicago, Ill. Hammer rest-rail for pianos. No. 1,143,936; June 22; Gaz. vol. 215; p. 1096.
Beutlich, Richard F., assignor to Twentieth Century Machinery Co., Chicago, Ill. Bottle-washing machine. No. 1,144,023; June 22; Gaz. vol. 215; p. 1128.
Bevis, Luther L., Franklin, Ga. Planter. No. 1,142,481; June 8; Gaz. vol. 215; p. 528.
Bidwell, Edward P., Monrovia, Cal. Wind-shield. No 1,143,491; June 15; Gaz. vol. 215; p. 919.
Bidwell, Irwin F. (See Henry, Eugene E., assignor.)
Biela, Valentine, Cestohowa, Tex. Gear-wheel. No. 1,142,661; June 8; Gaz. vol. 215; p. 589.
Bierens, Gerard C. M., Towner, N. D. Portable mass set. No. 1,141,306; June 1; Gaz. vol. 215; p. 78.
Biersdorf, Mathew F., Los Angeles, Cal. Combined lock and butt-gage. No. 1,142,138; June 8; Gaz. vol. 215; p. 407.
Biesanz, Charles P., assignor to Biesanz Stone Company, Winona, Minn. Gravel screening and washing machine. No. 1,141,169; June 1; Gaz. vol. 215; p. 28.
Biesanz Stone Company. (See Biesanz, Charles P., assignor.)
Biggs, Thomas A., Rapid City, S. D. Freight-car-card holder. No. 1,141,925; June 8; Gaz. vol. 215; p. 332.
Biglow, John H., Brooklyn, N. Y. Steam-boiler. No. 1,142,229; June 8; Gaz. vol. 215; p. 438.
Billingsley, Calvin H., French Lick, Ind. Feed-water heater. No. 1,143,605; June 22; Gaz. vol. 215; p. 983.
Billington, John E. (See Pearce and Billington.)
Binder, Gottlob. (See Hagen and Binder.)
Binz, Albert W., assignor to Schofield, Mason & Co., Philadelphia, Pa. Pile fabric. No. 1,143,804; June 22; Gaz. vol. 215; p. 1050.
Biquard, Robert, assignor to himself, H. Cheron, and H. Dominici, Paris, France. Apparatus applicable for illuminating cavities or surfaces. No. 1,143,682; June 22; Gaz. vol. 215; p. 1010.
Birch, David, New York, N. Y. Non-refillable bottle. No. 1,142,230; June 8; Gaz. vol. 215; p. 439.
Bisch, Floyd, Philadelphia, Pa. Portable electric motor. No. 1,142,482; June 8; Gaz. vol. 215; p. 528.
Bischoff, Karl, New York, N. Y. Horseshoe. No. 1,144,344; June 29; Gaz. vol. 215; p. 1270.
Bishop, Frederic L., assignor to Window Glass Machine Company, Pittsburgh, Pa. Drawing hollow glass articles. No. 1,142,139; June 8; Gaz. vol. 215; p. 407.
Bishop, Joseph M. (See Boyce, Arthur R., assignor.)
Bissell, Joseph E., Pittsburgh, Pa. Transmission mechanism. No. 1,141,228; June 1; Gaz. vol. 215; p. 49.
Bitting, Hervey S., assignor to J. F. Bruederly, Lancaster, Pa. Shade and curtain-pole hanger. No. 1,141,757; June 1; Gaz. vol. 215; p. 236.
Bitzer, Charles, Jr., *et al.* (See Stanley, Richard E., assignor.)
Black, Fred E., St. Louis, Mo. Internal-combustion engine. No. 1,144,582; June 29; Gaz. vol. 215; p. 1349.
Black, Lee J., Beaumont, Tex. Rotary drilling apparatus. No. 1,144,098; June 22; Gaz. vol. 215; p. 1154.
Black, Lee J., Beaumont, Tex. Hoisting-hook. No. 1,144,099; June 22; Gaz. vol. 215; p. 1155.
Blackburn, Jasper, Webster Groves, Mo. Cable-hanger. No. 1,144,318; June 22; Gaz. vol. 215; p. 1232.
Blackmore, William, assignor to The National Malleable Castings Company, Cleveland, Ohio. Car-coupling. No. 1,144,024; June 22; Gaz. vol. 215; p. 1128.
Blair, David E. (See Dyer and Blair.)
Blair, John C., and R. L. Freudenberger, Charleston, W. Va. Sash-fastener. No. 1,144,289; June 22; Gaz. vol. 215; p. 1222.
Blair, William R., assignor to Landis Machine Company, St. Louis, Mo. Awl-feeding mechanism. No. 1,143,683; June 22; Gaz. vol. 215; p. 1010.
Blake, Clinton F., assignor to W. F. Rogers, Portland, Oreg. Diffusing apparatus. No. 1,144,525; June 29; Gaz. vol. 215; p. 1329.
Blanchard, Frederick C., and E. B. Crocker, assignors to The Consolidated Safety Valve Company, Bridgeport, Conn. Safety-valve. No. 1,143,027; June 15; Gaz. vol. 215; p. 756.
Blanchard, George N., assignor of one-half to W. H. Busch, Jr., San Francisco, Cal. Thermo-electric regulating system. No. 1,141,307; June 1; Gaz. vol. 215; p. 79.
Bland, Charles C. (See Spencer, and Bland.)
Blaney, William, assignor of one-half to A. S. Adams, Marblehead, Mass. Heel. No. 1,142,662; June 8; Gaz. vol. 215; p. 589.
Blank, Charles A. (See Lavan, Frank, assignor.)
Bláthy, Otto T., Budapest, Austria-Hungary. Radial-pole dynamo-electric machine. No. 1,142,009; June 8; Gaz. vol. 215; p. 361.
Blaw Collapsible Steel Centering Company. (See Mc Arthur, Charles D., assignor.)
Blaw Steel Construction Company. (See McArthur, Charles D., assignor.)
Bliss, Henry J. W. (See Matthews and Bliss.)
Block, Albert J., assignor to E. Jones, Chicago, Ill. Electrically-heated appliance. No. 1,142,769; June 8; Gaz. vol. 215; p. 626.
Blomstrom, Vern, Detroit, Mich. Rail-tie. No. 1,142,663; June 8; Gaz. vol. 215; p. 589.
Bloom, Anna B. (See Haugh, Frank A., assignor.)
Bloom, Samuel C. (See Braemer and Bloom.)
Bloomer, Charles T., Newark, N. Y. Egg-box. No. 1,143,745; June 22; Gaz. vol. 215; p. 1030.
Bloomer, Harvey E., assignor to P. & B. Mfg. Co., Milwaukee, Wis. Electric heating-pad. No 1,142,393; June 8; Gaz. vol. 215; p. 498.
Blubaugh, Francis P., Fort Scott, Kans. Rotary valve for explosive-engines. No. 1,141,758; June 1; Gaz. vol. 215; p. 236.

Bluege, Adam, Chicago, Ill. Cutter. No. 1,144,750; June 29; Gaz. vol. 215; p. 1407.
Blum, Edward W., assignor to The Bradford Machine Tool Company, Cincinnati, Ohio. Lathe. No. 1,143,592; June 15; Gaz. vol. 215; p. 954.
Blumenfeld, Locher Co. (See Fuhry, Henry, assignor.)
Bobroff, Bornett L., assignor to Universal Indicator Company, Milwaukee, Wis. Telegraphy. No. 1,144,290; June 22; Gaz. vol. 215; p. 1222.
Bochenek, Pawel, Brooklyn, N. Y. Change-handler. No. 1,141,759; June 1; Gaz. vol. 215; p. 237.
Bock, Alfred C. O. (See Fleischer and Bock.)
Bock, Henry L., assignor to W. E. Bock, Toledo, Ohio. Roller-bearing. No. 1,144,751; June 29; Gaz. vol. 215; p. 1408.
Bock, William E. (See Bock, Henry L., assignor.)
Bock, William E., Toledo, Ohio. Vehicle drive mechanism. No. 1,144,752; June 29; Gaz. vol. 215; p. 1408.
Bockhoff, William F., assignor to National Automatic Tool Company, Richmond, Ind. Universal joint. No. 1,143,596; June 15; Gaz. vol. 215; p. 956.
Boecker, Friedrich, Hohenlimburg, Wilhelmshöhe, Germany. Merry-go-round. No. 1,143,352; June 15; Gaz. vol. 215; p. 872.
Boekel, Julius, and J. H. Scherer, Philadelphia, Pa., assignors to said Boekel. Thermostat. No. 1,141,605; June 1; Gaz. vol. 215; p. 185.
Boekenkamp, Edward, assignor to American Stove Company, St. Louis, Mo. Knockdown oven. No. 1,143,028; June 15; Gaz. vol. 215; p. 757.
Boerner, Hermann, assignor to W. D. Mahaney, St. Louis, Mo. Vending-machine. No. 1,141,170; June 1; Gaz. vol. 215; p. 28.
Boettiger, Richard F., Aberdeen, Wash. Electric stove. No. 1,143,883; June 22; Gaz. vol. 215; p. 1078.
Bogdánffy, Alexander, New York, assignor to International Cork Company, Brooklyn, N. Y. Manufacturing bottle-closures. No. 1,143,353; June 15; Gaz. vol. 215; p. 872.
Bohr, Mathias F., Stickney, S. D. Locking device. No. 1,143,029; June 15; Gaz. vol. 215; p. 757.
Boiliot, Elmer. (See Fillmore and Boiliot.)
Bolam, Thomas H., *et al.* (See Newman, Arthur S., assignor.)
Bolen, Emerson A., assignor to North Western Novelty Company, Morris, Ill. Vending-machine. No. 1,144,100; June 22; Gaz. vol. 215; p. 1155.
Bolens, Harry W., Port Washington, Wis. Crank-casing. No. 1,143,098; June 15; Gaz. vol. 215; p. 782.
Bolin, Charles D., and L. E. More, assignors to National Thermo Company, St. Louis, Mo. Oven-thermometer. No. 1,141,926; June 8; Gaz. vol. 215; p. 332.
Boller, Alfred P., Jr. (See Robinson and Boller.)
Bolles, Percy S., Fort Worth, Tex. Chase for printers. No. 1,144,458; June 29; Gaz. vol. 215; p. 1308.
Boltz, George, Amy, Kans. Power-generator. No. 1,141,308; June 1; Gaz. vol. 215; p. 79.
Bolus, Glenn H., assignor to The Ohio Brass Company, Mansfield, Ohio. Lock-hanger for trolley-wires. No. 1,142,394; June 8; Gaz. vol. 215; p. 498.
Bonnstre Llopart, Ramón, Cordoba, Argentina. Production of zinc sulfate. No. 1,142,795; June 15; Gaz. vol. 215; p. 675.
Bonham, Guy L., West Hartford, Conn. Spring-motor brake. No. 1,143,030; June 15; Gaz. vol. 215; p. 757.
Bonner, William T., assignor, by mesne assignments, to The Asbestos Brake Company, Trenton, N. J. Brake and brake-liner. No. 1,141,606; June 1; Gaz. vol. 215; p. 186.
Bonney-Floyd Company, The. (See Dorsey, Walter A., assignor.)
Boogher, Archer, Roanoke, Va. Vacuum-cleaner. No. 1,144,931; June 29; Gaz. vol. 215; p. 1468.
Boozer, Albert E. (See Perry and Boozer.)
Boozer, Arthur G., Jr., and G. Hill, Tucapau, S. C., assignors to Barber-Colman Company, Rockford, Ill. Bobbin-placing and bobbin-removing attachment for spinning-machines. No. 1,142,010; June 8; Gaz. vol. 215; p. 361.
Boozer, Arthur G., Jr., and G. Hill, Tucapau, S. C., assignors to Barber-Colman Company, Rockford, Ill. Doffing-machine for spinning-frames. No. 1,142,011; June 8; Gaz. vol. 215; p. 362.
Boozer, Arthur G., Jr., and G. Hill, Tucapau, S. C., assignors to Barber-Colman Company, Rockford, Ill. Doffing-machine for spinning-frames. No. 1,142,012; June 8; Gaz. vol. 215; p. 362.
Boozer, Arthur G., Jr., and G. Hill, Tucapau, S. C., assignors to Barber-Colman Company, Rockford, Ill. Doffing-machine for spinning-frames. No. 1,142,013; June 8; Gaz. vol. 215; p. 363.
Boozer, Arthur G., Jr., Greenville, and G. Hill, Tucapau, S. C., assignors to Barber-Colman Company, Rockford, Ill. Doffing-machine. No. 1,142,014; June 8; Gaz. vol. 215; p. 363.
Boozer, Arthur G., Jr., Greenville, and G. Hill, Tucapau, S. C., assignors to Barber-Colman Company, Rockford, Ill. Doffing-machine. No. 1,142,015; June 8; Gaz. vol. 215; p. 363.
Boozer, Arthur G., Jr., Greenville, and G. Hill, Tucapau, S. C., assignors to Barber-Colman Company, Rockford, Ill. Doffing-machine for spinning-frames. No. 1,142,747; June 8; Gaz. vol. 215; p. 616.
Boozer, Arthur G., Jr., Greenville, and G. Hill, Tucapau, S. C., assignors to Barber-Colman Company, Rockford, Ill. Doffing-machine. No. 1,142,748; June 8; Gaz. vol. 215; p. 617.
Borland, Deloss, Charleston, Miss. Combined lock and latch. No. 1,143,492; June 15; Gaz. vol. 215; p. 919.
Borzychowski, Leo, Berlin, Germany, assignor to General Electric Company. Apparatus for mounting filaments. No. 1,143,493; June 15; Gaz. vol. 215; p. 919.
Borzykowski, Benno, Charlottenburg-Berlin, Germany. Production of articles or materials from viscose. No. 1,143,569; June 15; Gaz. vol. 215; p. 945.
Bosch, Robert, Stuttgart, Germany. Benzin-washstand. No. 1,143,354; June 15; Gaz. vol. 215; p. 872.
Bosserman, Edward D., *et al.* (See Bente, Henry K., assignor.)
Boston Auto Gage Company. (See Stable, Carl W., assignor.)
Both, Tonjes A. C., Malden, assignor, by mesne assignments, to The Zee Socket & Mfg. Co., Boston, Mass. Mechanical movement. No. 1,143,606; June 22; Gaz. vol. 215; p. 983.
Both, Tonjes A. C., New York, N. Y., assignor, by mesne assignments, to The Zee Socket and Mfg. Co., Boston, Mass. Snap-lock for electric-socket shells. No. 1,143,937; June 22; Gaz. vol. 215; p. 1096.
Boucher, Philias J., assignor to The Standard Optical Company, Geneva, N. Y. Tool-holder. No. 1,141,864; June 1; Gaz. vol. 215; p. 270.
Bouchery, August, assignor, by mesne assignments, to C. K. McCornick, New York, N. Y. Dish-washing apparatus. No. 1,143,099; June 15; Gaz. vol. 215; p. 782.
Boughton, Solon J., *et al.* (See Robinson, Jay A., assignor.)
Bourquin, Gustave L., Perkasie, Pa., and R. Loeb, assignors to R. Loeb, Camden, N. J. Embroidery-trimming machine. No. 1,143,884; June 22; Gaz. vol. 215; p. 1078.
Bourquin, Gustave L., Perkasie, Pa., and R. Loeb, Camden, N. J., assignors to said Loeb. Fabric-trimming machine. No. 1,144,319; June 22; Gaz. vol. 215; p. 1232.
Bourquin, Gustave L., Sellersville, Pa., and R. Loeb, Camden, N. J., assignors to R. Loeb, Jenkintown, Pa. Embroidery-trimming machine. No. 1,144,320; June 22; Gaz. vol. 215; p. 1232.
Bowden-Smith, Edward C., Brockenhurst, England. Pneumatic ejector. No. 1,144,806; June 29; Gaz. vol. 215; p. 1428.
Bowdren, George P., Hempstead, N. Y. Water-closet. No. 1,141,375; June 1; Gaz. vol. 215; p. 103.
Bowen, Edward T., Los Angeles, Cal., assignor to Kellar-Thomason Company. Gate-valve. No. 1,141,374; June 1; Gaz. vol. 215; p. 103.
Bowen, Russell H., assignor to The American Pulley Company, Philadelphia, Pa. Rim-clamp for pulleys. No. 1,142,749; June 8; Gaz. vol. 215; p. 617.
Bowman, Charles H. (See Atkins, William H., assignor.)
Bowman, George S., Lebanon, Pa. Knockdown package. No. 1,144,633; June 29; Gaz. vol. 215; p. 1366.
Boyajean, John A., Jersey City, N. J. Liquid-coloring implement. No. 1,141,522; June 1; Gaz. vol. 215; p. 156.
Boyce, Arthur R., assignor of one-half to J. M. Bishop, Thief River Falls, Minn. Scaffold-bracket. No. 1,142,297; June 8; Gaz. vol. 215; p. 462.
Boyd, David C. (See Arndt, Franklin E., assignor.)
Boyd, Peter, Pittsburgh, and A. M. Saunders, McKeesport, assignors to The National Tube Company, Pittsburgh, Pa. Well-sinking apparatus. No. 1,141,927; June 8; Gaz. vol. 215; p. 332.
Boye, James H., assignor to The Boye Needle Company, Chicago, Ill. Combination thimble and needle-threader. No. 1,143,249; June 15; Gaz. vol. 215; p. 836.
Boye Needle Company, The. (See Boye, James H., assignor.)
Boyer, Alden S., assignor, by mesne assignments, to A. G. McCaleb, Chicago, Ill. Insole. No. 1,144,291; June 22; Gaz. vol. 215; p. 1223.
Boyes, William H., Brooklyn, N. Y. Vehicle-tire. No. 1,141,908; June 1; Gaz. vol. 215; p. 289.
Boyle, Raymond E., Chicago, Ill. Vehicle-signal. No. 1,142,016; June 8; Gaz. vol. 215; p. 364.
Boyles, John H., Winston-Salem, N. C. Steaming apparatus. No. 1,141,760; June 1; Gaz. vol. 215; p. 237.
Boylston Manufacturing Company, The. (See Ballard, Harrie A., assignor.)
Boynton, John J., *et al.* (See Buchanan, Clinton C., assignor.)
Bozic, Joseph, Johnstown, Pa. Register. No. 1,141,309; June 1; Gaz. vol. 215; p. 79.
Bracken, William J., Zion City, Ill. Hot-air-supply means for internal-combustion engines. No. 1,142,871; June 15; Gaz. vol. 215; p. 701.
Bradburn, Charles F., Delmer, Ontario, Canada. Shock-absorber. No. 1,141,310; June 1; Gaz. vol. 215; p. 80.
Bradbury, Roy J., assignor of two-fifths to A. Jackson, Denver, Colo. Safety device for gasolene-motors. No. 1,144,101; June 22; Gaz. vol. 215; p. 1155.
Braden, Robert D. (See Wright, Charles D., assignor.)
Bradford, Beniah, Norristown, assignor to Lee Tire & Rubber Co., Conshohocken, Pa. Detachable rim for pneumatic tires. No. 1,143,031; June 15; Gaz. vol. 215; p. 758.

Bradford Machine Tool Company, The. (See Blum, Edward W., assignor.)

Bradshaw, Richard, Toronto, Ontario, Canada. Mattress. No. 1,144,888; June 29; Gaz. vol. 215; p. 1456.

Brady, Charles N. (See Proeger, Julius, assignor.)

Brady, Terence G., Calmar, Iowa. Combined power washing and wringing machine. (Reissue.) No. 13,923; June 8; Gaz. vol. 215; p. 634.

Braemer, William G. R., and S. C. Bloom, Camden, N. J., assignors to Warren Webster & Company. Humidifying air. No. 1,142,483; June 8; Gaz. vol. 215; p. 529.

Brainard, Charles E., Chicago, Ill. Rotary pulverizer. No. 1,144,102; June 22; Gaz. vol. 215; p. 1156.

Braine, Bancroft G., assignor to The Rail Joint Company, New York, N. Y. Insulated rail-joint. No. 1,141,440; June 1; Gaz. vol. 215; p. 127.

Brake, Archibald, Toronto, Ontario, Canada. Brake-shoe. No. 1,143,494; June 15; Gaz. vol. 215; p. 920.

Brand, George P., New York, N. Y. Expression device for automatic musical instruments. No. 1,141,607; June 1; Gaz. vol. 215; p. 186.

Brand, George P., New York, N. Y. Sheet-centralizing mechanism. No. 1,143,684; June 22; Gaz. vol. 215; p. 1010.

Brandt Cashier Company. (See Brandt, Edward J., assignor.)

Brandt, Edward J., Watertown, Wis., assignor to Brandt Cashier Company, Chicago, Ill. Automatic cashier. No. 1,143,167; June 15; Gaz. vol. 215; p. 805.

Brandt, Edward J., Watertown, Wis., assignor to Brandt Cashier Company, Chicago, Ill. Coin-delivery machine. No. 1,143,685; June 22; Gaz. vol. 215; p. 1010.

Brant, Edmund D., Canton, Ohio. Surgical device. No. 1,144,103; June 22; Gaz. vol. 215; p. 1156.

Braught, John D., Carlisle, Pa. Acrobatic toy. No. 1,143,495; June 15; Gaz. vol. 215; p. 920.

Braun, Otto E., Brooklyn, N. Y. Vehicle wheel-lock. No. 1,141,100; June 1; Gaz. vol. 215; p. 4.

Bravi, Giuseppe, Lansdale, assignor of one-half to S. T. Alleva, Norristown, Pa. Springless suspension for vehicles. No. 1,142,395; June 8; Gaz. vol. 215; p. 498.

Brazell, Thomas F., New Bedford, assignor to Draper Company, Hopedale, Mass. Protecting-tip for drop-wire-bar ends. No. 1,144,686; June 29; Gaz. vol. 215; p. 1385.

Brazier, Charles G., assignor to Knox Hat Company, Inc., New York, N. Y. Hat. No. 1,144,321; June 22; Gaz. vol. 215; p. 1233.

Brehmer, Herman C., assignor to H. W. Butterworth & Sons Company, Philadelphia, Pa. Pressure-motor. No. 1,144,322; June 22; Gaz. vol. 215; p. 1233.

Breirly, Felix, New Bedford, Mass. Skirt-drafting instrument. No. 1,142,298; June 8; Gaz. vol. 215; p. 462.

Brelle, Frank, Sr., San Jose, Cal. Fruit-jar. No. 1,142,231; June 8; Gaz. vol. 215; p. 439.

Bresee, James M., Mattoon, Ill. Road-machine. No. 1,143,032; June 15; Gaz. vol. 215; p. 758.

Brewington, Henry S., Baltimore, Md. Drapery-hook. No. 1,143,100; June 15; Gaz. vol. 215; p. 783.

Briant, Lester H., Webster, Kans. Coin and stamp depository. No. 1,144,526; June 29; Gaz. vol. 215; p. 1329.

Bricker, Garland A., Columbus, Ohio. Drainage apparatus. No. 1,143,938; June 22; Gaz. vol. 215; p. 1097.

Bricker, Samuel P., assignor to National Metal Weather Strip Company, Pittsburgh, Pa. Weather-strip. No. 1,143,033; June 15; Gaz. vol. 215; p. 758.

Brickle, John F. (See Chapman, William C., assignor.)

Bridges, William H., Grand Rapids, Mich. Toilet-brush. No. 1,141,662; June 1; Gaz. vol. 215; p. 205.

Brigden, Burt A., Cleveland, Ohio. Moving-picture machine. No. 1,143,607; June 22; Gaz. vol. 215; p. 984.

Brigden, Burt A., East Cleveland, Ohio. Multicolor-moving-picture machine. No. 1,143,608; June 22; Gaz. vol. 215; p. 984.

Briggs, Delamar C., and C. W. Davock, assignors to Detroit Steel Products Company, Detroit, Mich. Window-stay. No. 1,142,140; June 8; Gaz. vol. 215; p. 407.

Bright, Jesse L., Chicago, Ill. Combined gas and coal range. No. 1,142,928; June 15; Gaz. vol. 215; p. 722.

Briles, Larkin, Lake City, Cal. Automatic cleaner for fish-screens. No. 1,143,496; June 15; Gaz. vol. 215; p. 920.

Briles, Nathan, Custer, Okla. Automatic temperature-controlled receptacle. No. 1,142,075; June 8; Gaz. vol. 215; p. 384.

Brinkman, Louis H., Glen Ridge, N. J., assignor to Baltimore Tube Company, Baltimore, Md. Metal-drawing machine. No. 1,143,101; June 15; Gaz. vol. 215; p. 783.

Broadbent, Charles F., Baltimore, Md. Sign. No. 1,143,168; June 15; Gaz. vol. 215; p. 806.

Broadwell, Stuart, and C. Hollaway, Springfield, Ill. Capsule-filler. No. 1,144,634; June 29; Gaz. vol. 215; p. 1366.

Broady, Harry W., Bayside, N. Y., assignor to Welin Marine Equipment Company. Life-line projectile. No. 1,142,396; June 8; Gaz. vol. 215; p. 498.

Brock, Matthias, Boston, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Heel-stiffener. No. 1,141,913; June 1; Gaz. vol. 215; p. 291.

Brock, Matthias, Boston, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Shoe. No. 1,141,914; June 1; Gaz. vol. 215; p. 291.

Brock, Matthias, Boston, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Lasting shoes. No. 1,142,549; June 8; Gaz. vol. 215; p. 551.

Brock, Matthias, Boston, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Lasting-machine. No. 1,142,550; June 8; Gaz. vol. 215; p. 552.

Brock, Matthias, Boston, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Toe-clamp for lasting-machines. No. 1,143,939; June 22; Gaz. vol. 215; p. 1097.

Brockman, Charles A., and T. D. Conroy, Jolley, Iowa; said Conroy assignor to A. H. Zastrow, Chisholm, Minn. Wrench. No. 1,143,746; June 22; Gaz. vol. 215; p. 1030.

Brodton, Edward R., assignor to Automatic Chemical Fire Extinguisher and Alarm Company, Washington, D. C. Fire-extinguishing apparatus. No. 1,143,169; June 15; Gaz. vol. 215; p. 806.

Brogan, Michael F., Lawrence, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Cementing-machine. No. 1,141,311; June 1; Gaz. vol. 215; p. 80.

Brogden, John, *et al.* (See Eckenwiler, George M., assignor.)

Brögger, Ivar W., Newark, N. J. Electrical measuring instrument. No. 1,141,523; June 1; Gaz. vol. 215; p. 156.

Bronner, Alfred F., Melbourne, and A. A. Quick, Northcote, Victoria, Australia. Gearing. No. 1,144,807; June 29; Gaz. vol. 215; p. 1428.

Bronner, Alfred F., Melbourne, and A. A. Quick, North cote, Victoria, Australia. Variable-speed gearing. No. 1,144,808; June 29; Gaz. vol. 215; p. 1429.

Bronosky, Josef F., Minden, W. Va. Wrench. No. 1,142,929; June 15; Gaz. vol. 215; p. 722.

Brooke, Banner M., Columbus, Ohio. Weighing-scale. No. 1,144,687; June 29; Gaz. vol. 215; p. 1385.

Brookfield Glass Company, The. (See Brookfield and Olsen, assignors.)

Brookfield, Henry M., New York, N. Y. Making a compound of glass. No. 1,143,885; June 22; Gaz. vol. 215; p. 1078.

Brookfield, Henry M., and S. Olsen, assignors to The Brookfield Glass Company, New York, N. Y. Mold. No. 1,144,527; June 29; Gaz. vol. 215; p. 1330.

Brooklyn Cooperage Co. (See Lobley, Max E., assignor.)

Brooks Bank Note Company. (See Clarke, George T. F., assignor.)

Brown, Alvah W., and G. W. Sinclair, assignors to Durfee Embalming Fluid Co., Grand Rapids, Mich. Folding chair. No. 1,143,355; June 15; Gaz. vol. 215; p. 872.

Brown, Alvin, Plainfield, Ill. Street-sweeper. No. 1,144,292; June 22; Gaz. vol. 215; p. 1223.

Brown, Augustus F., assignor to Gorrell Steel Spike Lock Railroad Tie Corporation, Havre de Grace, Md. Insulating fastening means for rails. No. 1,142,232; June 8; Gaz. vol. 215; p. 440.

Brown, Charles F., trustee. (See Coy, Frederick W., assignor.)

Brown, Charles F., assignor to Universal Liquid Register Company, New York, N. Y. Liquid-measuring apparatus. No. 1,144,583; June 29; Gaz. vol. 215; p. 1349.

Brown, Charles J., Newton, Mass. Knockdown extension dining-table. No. 1,143,805; June 22; Gaz. vol. 215; p. 1051.

Brown, Charles T., *et al.* (See Bailey, Arlon D., assignor.)

Brown, Charles W., trustee. (See Noyes, Edward P., assignor.)

Brown, Edgar C., and W. B. May, Wadesboro, N. C. Car-door lock. No. 1,144,345; June 29; Gaz. vol. 215; p. 1270.

Brown, Edmund E., Persia, Iowa. Seed-corn hanger or drying-rack. No. 1,142,484; June 8; Gaz. vol. 215; p. 529.

Brown, Edward N., Cleveland, Ohio. Davenport-bed. No. 1,144,293; June 22; Gaz. vol. 215; p. 1223.

Brown, Horace P. (See Johnston and Brown.)

Brown, Howard J., Marseilles, Ill., assignor to Howe and Davidson Company, East Orange, N. J. Separator. No. 1,142,017; June 8; Gaz. vol. 215; p. 364.

Brown, Ida, San Francisco, Cal. Buttonhole-guide. No. 1,141,761; June 1; Gaz. vol. 215; p. 237.

Brown, James. (See Thomas, Bradford A., assignor.)

Brown, John J., Newark, N. J. Condensing apparatus. No. 1,144,104; June 22; Gaz. vol. 215; p. 1157.

Brown, John W., Lakewood, assignor to National Carbon Company, Cleveland, Ohio. Electric furnace. No. 1,143,940; June 22; Gaz. vol. 215; p. 1097.

Brown, Landy B. (See Ries, Brown, and Yockel.)

Brown, Louis M., Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Pincers. No. 1,144,294; June 22; Gaz. vol. 215; p. 1224.

Brown, Lucius A., Clay Center, Nebr. Butter-merging apparatus. No. 1,141,762; June 1; Gaz. vol. 215; p. 237.

Brown, Matthias G., Gulfport, Miss. Grease-cup. No. 1,141,101; June 1; Gaz. vol. 215; p. 4.

Brown, Owen R., Chatham, N. J. Sash-fastener. No. 1,144,635; June 29; Gaz. vol. 215; p. 1367.

Brown, Richard P., Philadelphia, Pa. Thermo-electric pyrometer system. No. 1,144,688; June 29; Gaz. vol. 215; p. 1385.

Brown, Robert, Craigton, Glasgow, Scotland. Pulley-block. No. 1,142,485; June 8; Gaz. vol. 215; p. 529.

Brown, Stanley L., Spokane, Wash. Carbonator for soda-fountains. No. 1,143,941; June 22; Gaz. vol. 215; p. 1098.

Brown, Thomas E., New York, N. Y., assignor to Otis Elevator Company, Jersey City, N. J. Elevating baggage-truck. No. 1,141,928; June 8; Gaz. vol. 215; p. 332.

Brown, Thomas J., Crestwood, Ky. Envelop. No. 1,141,312; June 1; Gaz. vol. 215; p. 80.

Brown, Walter J., assignor of one-half to J. Firth, Jr., Springfield, Mass. Internal-combustion engine. No. 1,144,105; June 22; Gaz. vol. 215; p. 1157.

Brown, Walter W., Erie, Pa. Compressor. No. 1,142,299; June 8; Gaz. vol. 215; p. 462.

Brown, William S., Knoxville, Tenn. Positioning mechanism. No. 1,143,034; June 15; Gaz. vol. 215; p. 758.

Browne, Harry, *et al.* (See Abbott, Lawrence A., Jr., assignor.)

Browning, George, assignor to Perfection Razor Strop Company, Chicago, Ill. Stropping-machine. No. 1,142,076; June 8; Gaz. vol. 215; p. 385.

Browning, John M., Ogden, Utah. Firearm. No. 1,143,170; June 15; Gaz. vol. 215; p. 807.

Brownjohn, Benjamin J., Sydney, New South Wales, Australia. Casement-hinge. No. 1,141,171; June 1; Gaz. vol. 215; p. 29.

Brubaker, Erwin E., Kiskiminetas township, Armstrong county, Pa. Automatic lock-nut. No. 1,141,608; June 1; Gaz. vol. 215; p. 186.

Bruce, Howard, assignor to The Bartlett Hayward Company, Baltimore, Md. Manufacturing coal-gas. No. 1,144,977; June 29; Gaz. vol. 215; p. 1484.

Bruebach, August, Chicago, Ill. Flask or guard. No. 1,141,929; June 8; Gaz. vol. 215; p. 333.

Bruederly, Joseph F. (See Bitting, Hervey S., assignor.)

Bruehler, Henry J., Cleveland, Ohio. Stair-carpet fastener. No. 1,141,524; June 1; Gaz. vol. 215; p. 157.

Bruening, Henry, Chicago, Ill. Swimming appliance. No. 1,142,872; June 15; Gaz. vol. 215; p. 702.

Brugman, Frank E., New York, N. Y. Fishing-tip. No. 1,142,796; June 15; Gaz. vol. 215; p. 675.

Brune, Heinrich, and H. Horst, Dortmund, assignors to Nasspress-Gesellschaft mit beschränkter Haftung, Wiesbaden, Germany. Drying raw peat and the like. No. 1,143,497; June 15; Gaz. vol. 215; p. 921.

Brunhoff, Edward, Cincinnati, Ohio. Vender's display-stand. No. 1,141,687; June 1; Gaz. vol. 215; p. 214.

Brunswick-Balke-Collender Company of New York. (See McIntire, Jacob N., assignor.)

Bryan, James A. (See Gaskill, Elijah T., assignor.)

Bryant Electric Company, The. (See Goodridge, Gilbert W., assignor.)

Bryla, Frank, Westfield, Mass. Potato-digger. No. 1,143,886; June 22; Gaz. vol. 215; p. 1079.

Bryner, Adolf, Brooklyn, assignor to Conley Foil Company, New York, N. Y. Metal-foil envelop or container. No. 1,143,609; June 22; Gaz. vol. 215; p. 985.

Bryning, Percy L., Boston, assignor to Parker Wire Goods Company, Worcester, Mass. Sectional fence. No. 1,142,233; June 8; Gaz. vol. 215; p. 440.

Bryson, James, Vancouver, British Columbia, Canada. Oil-lamp. No. 1,142,234; June 8; Gaz. vol. 215; p. 441.

Buch, Newton W., New Castle, assignor to Safety Armorite Conduit Company, Pittsburgh, Pa. Apparatus for galvanizing. No. 1,141,930; June 8; Gaz. vol. 215; p. 333.

Buch, Newton W., New Castle, assignor to Safety Armorite Conduit Company, Pittsburgh, Pa. Galvanizing. No. 1,141,931; June 8; Gaz. vol. 215; p. 333.

Buchanan, Alexandria J. (See Poulson and Buchanan.)

Buchanan, Clinton C., assignor of one-third to J. J. Boynton and one-third to S. G. Wilson, Bartow, Fla. Plotter. No. 1,142,077; June 8; Gaz. vol. 215; p. 385.

Buchanan, Frank, Dayton, Ohio. Headlight. No. 1,143,806; June 22; Gaz. vol. 215; p. 1051.

Buchanan, George T., Highland Park, Mich. Signal device for toll-collecting apparatus. No. 1,143,356; June 15; Gaz. vol. 215; p. 873.

Buchanan, George T., Highland Park, Mich. Coin-separator for toll-collecting apparatus. No. 1,143,357; June 15; Gaz. vol. 215; p. 873.

Buchanan, James G., Cananea, Mexico, assignor to H. A. Hatfield, Forest Grove, Oreg. Valve mechanism. No. 1,141,376; June 1; Gaz. vol. 215; p. 103.

Büchi, Alfred, Winterthur, Switzerland, assignor to Busch-Sulzer Bros.-Diesel Engine Company, St. Louis, Mo. Combustion-engine. No. 1,142,873; June 15; Gaz. vol. 215; p. 702.

Buchli, Jacob, assignor to Aktiengesellschaft Brown Boveri & Cie., Baden, Switzerland. Driving mechanism of vehicles. No. 1,141,764; June 1; Gaz. vol. 215; p. 238.

Buck, John, Lincoln, England. Machine for cutting miter and bevel gear-wheels. No. 1,143,498; June 15; Gaz. vol. 215; p. 921.

Buck, William C., Lethbridge, Alberta, Canada. Combination nut-lock and washer. No. 1,142,018; June 8; Gaz. vol. 215; p. 365.

Bückel, Carl, Frankfort-on-the-Main, Germany. Manufacture of emulsions and substances for use therein. No. 1,143,499; June 15; Gaz. vol. 215; p. 921.

Buckingham, Edward J., Brixton Oval, London, England. Vehicle wheel-guard. No. 1,143,035; June 15; Gaz. vol. 215; p. 759.

Buckwalter, Charles E., *et al.* (See Jones, Jefferson D., assignor.)

Budroe, Charles F., assignor to The Davis Sewing Machine Company, Dayton, Ohio. Fork for bicycles and the like. No. 1,144,753; June 29; Gaz. vol. 215; p. 1408.

Buehl, John L., Chicago, Ill. Collapsible or interchangeable case. No. 1,141,865; June 1; Gaz. vol. 215; p. 271.

Buerger, Charles B., assignor of one-half to S. Lippstadt, New York, N. Y. Roll of paper towels or the like and making the same. No. 1,141,229; June 1; Gaz. vol. 215; p. 49.

Buettner, Charles H., Cincinnati, Ohio. Ink-mixing mechanism for printing-presses. No. 1,142,019; June 8; Gaz. vol. 215; p. 365.

Buffum, Frank W., Louisiana, Mo. Stencil-writing attachment for type-writing machines. No. 1,141,525; June 1; Gaz. vol. 215; p. 157.

Buffum Tool Company. (See Phillips, William W., assignor.)

Bugatti, Ettore, Molsheim, Germany. Means for journaling the motor-shaft in self-propelled vehicles. No. 1,143,887; June 22; Gaz. vol. 215; p. 1079.

Bugbee & Niles Co. (See King, Rufus, assignor.)

Bull, Albert W. (See Wiebke and Bull.)

Bull, Lionel, Chicago, Ill. Teat-cup. No. 1,144,346; June 29; Gaz. vol. 215; p. 1270.

Bullard, Otto B., Spalding, Nebr. Disk blade. No. 1,141,765; June 1; Gaz. vol. 215; p. 239.

Bullock, Samuel A., assignor to The Baldwin Locomotive Works, Philadelphia, Pa. Truck. No. 1,143,500; June 15; Gaz. vol. 215; p. 922.

Bullock Tractor Company. (See Houghton, Orley C., assignor.)

Bullock Tractor Company. (See Morris, John O., assignor.)

Bumbaugh, George L., assignor of one-half to A. L. Watters, Indianapolis, Ind. Advertising-lighting for dirigible balloons. No. 1,143,807; June 22; Gaz. vol. 215; p. 1051.

Bunnell, Sterling H., New Canaan, Conn., assignor to The Griscom-Russell Company. Desiccating apparatus. No. 1,141,102; June 1; Gaz. vol. 215; p. 5.

Bunten, William G., assignor of one-half to M. Fabrizio, Coal Creek, Colo. Combination tack-puller. No. 1,142,664; June 8; Gaz. vol. 215; p. 589.

Bunts, Robert, Jr., Pulaski, Va. Crane trip-hammer. No. 1,144,025; June 22; Gaz. vol. 215; p. 1129.

Buquo, G. C., *et al.* (See Mosteller, Dosier H., assignor.)

Burchartz, Ferdinand, assignor to Burchartz Fireproofing Company, Inc., New York, N. Y. Floor and ceiling construction. No. 1,142,486; June 8; Gaz. vol. 215; p. 530.

Burchartz Fireproofing Company. (See Burchartz, Ferdinand, assignor.)

Burchfiel, Otha P. (See Stapleton and Burchfiel.)

Bürger, Franz, assignor to Firm of H. Lanz, Mannheim, Germany. Superheater and economizer for horizontal smoke-tube boilers. No. 1,143,501; June 15; Gaz. vol. 215; p. 922.

Burgess, Charles F., assignor to C. F. Burgess Laboratories, Madison, Wis. Sheet metal and its production. No. 1,144,106; June 22; Gaz. vol. 215; p. 1158.

Burgess, Frank, Norfolk Downs, Mass. Gear-cutting machine. No. 1,143,570; June 15; Gaz. vol. 215; p. 946.

Burke, James E., *et al.* (See Burke, William W., assignor.)

Burke, Thomas, assignor of one-third to F. A. Leatnow and one-third to L. Bernstein, Cleveland, Ohio. Compound railway-rail. No. 1,141,766; June 1; Gaz. vol. 215; p. 239.

Burke, William W., assignor of one-fourth to J. E. Burke and one-fourth to A. J. Cooper, Bennington, Vt. Brake for rotary shafts. No. 1,141,230; June 1; Gaz. vol. 215; p. 49.

Burman, Frank V., assignor to Bay City Iron Co., Bay City, Mich. Angle-iron-bending machine. No. 1,144,459; June 29; Gaz. vol. 215; p. 1308.

Burnell, Arthur S., and I. L. Lavender, assignors to Queen Manufacturing Company, Webster City, Iowa. Steering device for motor-vehicles. No. 1,144,754; June 29; Gaz. vol. 215; p. 1409.

Burnham, Francis M., Kentfield, and C. A. Myers, Berkeley, Cal. Ventilated produce-crate. No. 1,142,300; June 8; Gaz. vol. 215; p. 463.

Burnhart, George W., Denver, Colo. Fluid-pressure motor. No. 1,142,551; June 8; Gaz. vol. 215; p. 552.

Burns & Bassick Company, The. (See Cummins, Norman W., assignor.)

Burns, Clyde F., Chicago, Ill. Stump-puller. No. 1,143,358; June 15; Gaz. vol. 215; p. 874.

Burns, Edward V., Chicago, Ill., assignor to Chicago Shipping & Receipt Book Company. Locking means for loose-leaf binders. No. 1,143,359; June 15; Gaz. vol. 215; p. 874.

Burns, Herbert A. (See Cottrell and Burns.)

Burns, Walter G. (See Young, Flavius J., assignor.)

Burr, Jason L., assignor to The Gloversville Silk Mills, Gloversville, N. Y. Covering for display-forms. No. 1,141,313; June 1; Gaz. vol. 215; p. 80.

Burrell, Ralph, Pomerania, N. J. Device for clenching eyelets and hooks. No. 1,142,797; June 15; Gaz. vol. 215; p. 675.

Burrill, William E. (See Berry and Burrill.)

Burroughs, James W., Irvington, N. Y. Making phosphoric acid. No. 1,142,397; June 8; Gaz. vol. 215; p. 499.

Burrow, Edgar A., San Angelo, Tex., assignor of seventy one-hundredths to himself and thirty one-hundredths to B. C. Alexander and M. A. Guthrie, executrix of W. A. Guthrie, deceased. Engine. No. 1,144,584; June 29; Gaz. vol. 215; p. 1349.

Burrow, Edgar A., San Angelo, Tex., assignor of seventy one-hundredths to himself and thirty one-hundredths to B. C. Alexander and M. A. Guthrie, executrix of W. A. Guthrie, deceased. Valve-gear. No. 1,144,585; June 29; Gaz. vol. 215; p. 1349.

Burrow, Edgar A., San Angelo, Tex., assignor of seventy one-hundredths to himself and thirty one-hundredths to B. C. Alexander and M. A. Guthrie, executrix of W. A. Guthrie, deceased. Governor. No. 1,144,586; June 29; Gaz. vol. 215; p. 1350.

Burrows, John. (See Vogel and Burrows.)

Burt, William H., assignor to Waterbury Mfg. Co., Waterbury, Conn. Switch-plate. No. 1,144,107; June 22; Gaz. vol. 215; p. 1158.

Burton, Irwin G., Asbury Park, N. J. Eyeglass-protector. No. 1,143,502; June 15; Gaz. vol. 215; p. 922.

Burton, James M., New York, assignor to Neptune Meter Company, New York, N. Y. Water-meter. No. 1,142,141; June 8; Gaz. vol. 215; p. 408.

Burton, William B., Annandale, New South Wales, Australia. Rifle-sight. No. 1,142,665; June 8; Gaz. vol. 215; p. 589.

Busch-Sulzer Bros.-Diesel Engine Company. (See Büchi, Alfred, assignor.)

Busch, William H., Jr. (See Blanchard, George N., assignor.)

Buse, Fritz, Terra Nova, Lulu Island, British Columbia, Canada. Grain-saving device. No. 1,143,503; June 15; Gaz. vol. 215; p. 923.

Busenbenz, Jacob J., Grand Rapids, Mich., assignor to Differential Clock Co., Chicago, Ill. Regulator for lever time-movements. No. 1,144,026; June 22; Gaz. vol. 215; p. 1129.

Bushell, Charles S., Beloit, assignor of one-half to A. M. Schroeder, Williams Bay, Wis. Device for setting band-saws. No. 1,144,889; June 29; Gaz. vol. 215; p. 1456.

Bushwick, Nathan, Maspeth, N. Y. Folding hand-bag. No. 1,143,171; June 15; Gaz. vol. 215; p. 807.

Busse, Edwin G., and E. A. Le Beau, assignors to Chicago Railway Equipment Company, Chicago, Ill. Roller side bearing for railway-cars. No. 1,142,398; June 8; Gaz. vol. 215; p. 499.

Butcher, Arthur L. and H. Flick, assignors to Hayes Wheel Company, Jackson, Mich. Automatic spoke-sanding machine. No. 1,144,347; June 29; Gaz. vol. 215; p. 1270.

Butcher, Joseph J., South Framingham, Mass. Wheel for vehicles. No. 1,142,487; June 8; Gaz. vol. 215; p. 530.

Butler, Charles H., Denver, Colo. Carton. No. 1,143,250; June 15; Gaz. vol. 215; p. 836.

Butler, George H., assignor of three-eighths to G. A. Couldery, Vancouver, and one-eighth to R. Kidd, South Vancouver, British Columbia, Canada. Non-refillable bottle. No. 1,142,666; June 8; Gaz. vol. 215; p. 590.

Butler, Louis W., New York, N. Y. Automatic focusing device. No. 1,142,767; June 8; Gaz. vol. 215; p. 625.

Buttafoco, Alfredo, Chicago Heights, Ill. Windmill. No. 1,144,932; June 29; Gaz. vol. 215; p. 1469.

Buttner, Julius C., and F. J. Merklein, Brooklyn, N. Y. Stereopticon-dissolver for moving-picture machines. No. 1,144,108; June 22; Gaz. vol. 215; p. 1158.

Byrne, Michael H., Ashland, Wis. Loading apparatus. No. 1,144,460; June 29; Gaz. vol. 215; p. 1309.

Byrnes, Clarence P., Sewickley, Pa. Drawing glass. No. 1,141,932; June 8; Gaz. vol. 215; p. 334.

C. F. Burgess Laboratories. (See Burgess, Charles F., assignor.)

C. W. Raymond Company, The. (See Mumma, George R., assignor.)

Cadwgan, Thomas C., Springfield, Ohio. Grinding-mill. No. 1,144,689; June 29; Gaz. vol. 215; p. 1385.

Cady, Fred B., *et al.* (See Clemons, James H., assignor.)

Cairns, John, Willenhall, South Staffs, England. Tire for vehicle-wheels. No. 1,143,102; June 15; Gaz. vol. 215; p. 783.

Calster, Caleb C. (See Calster, Israel H., assignor.)

Calster, Israel H., Burbank, assignor of one-half to C. C. Calster, Los Angeles, Cal. Lawn-mower. No. 1,144,690; June 29; Gaz. vol. 215; p. 1386.

Caldwell, Andrew H., Port Byron, N. Y. Pipe-clamp. No. 1,142,235; June 8; Gaz. vol. 215; p. 431.

Caldwell, Eugene W., New York, N. Y. Photographic developing apparatus. No. 1,141,314; June 1; Gaz. vol. 215; p. 81.

Calhoun, John W., Huntington, W. Va. Water-meter setting or connection. No. 1,142,667; June 8; Gaz. vol. 215; p. 590.

California Pipe Line Machine Co. (See Mahoney and Norris, assignors.)

Callanan, James T. (See Miller, Frank L., assignor.)

Calleson, Amos, assignor to B. Adriance, Brooklyn, N. Y. Bottle-support for bottle-sealing machines. No. 1,142,078; June 8; Gaz. vol. 215; p. 385.

Callow, John M., Salt Lake City, Utah, assignor, by mesne assignments, to Metals Recovery Company. Ore-concentrating apparatus. No. 1,141,377; June 1; Gaz. vol. 215; p. 104.

Calvert, Frank W. (See Hamilton and Calvert.)

Calvert, Frank W., Narberth, assignor to The Charles E. Hires Company, Philadelphia, Pa. Dispensing apparatus. No. 1,144,890; June 29; Gaz. vol. 215; p. 1456.

Calvert, George, London, England. Hydrogenization of oils. No. 1,142,668; June 8; Gaz. vol. 215; p. 591.

Camblin, Arthur E., Stella, Nebr. Collapsible core for concrete culverts. No. 1,142,669; June 8; Gaz. vol. 215; p. 591.

Camel Company. (See Comee, Joseph F., assignor.) (Reissue.)

Cameron, Colin, Jr., Tucson, Ariz. Repeating graphophone. No. 1,142,670; June 8; Gaz. vol. 215; p. 591.

Cameron, Edward, St. Kilda, Victoria, Australia. Milking-machine. No. 1,142,488; June 8; Gaz. vol. 215; p. 531.

Cameron, Joseph A., Indianapolis, Ind. Temporary carrying-case. No. 1,142,301; June 8; Gaz. vol. 215; p. 463.

Cameron, Joseph A., Indianapolis, assignor to G. W. Infield, Marion county, Ind. Animal-trap. No. 1,142,781; June 8; Gaz. vol. 215; p. 631.

Cameron, Robert T., Chattanooga, Tenn. Aseptic box or carton for packing medical supplies. No. 1,143,103; June 15; Gaz. vol. 215; p. 784.

Campbell, Alonzo C., Asheville, N. C. Actuating device for percussion-tables. No. 1,141,767; June 1; Gaz. vol. 215; p. 239.

Campbell, Byron D., *et al.* (See Cartwright, Ernest O., assignor.)

Campbell, Charles C. (See Peter, Stephen, assignor.)

Campbell, Coolie D., Traverse City, Mich. Collapsible crate. No. 1,143,888; June 22; Gaz. vol. 215; p. 1079.

Campbell, Duncan R., Boston, assignor of one-half to F. Rumrill, Newton, Mass. Embossing-machine. No. 1,144,340; June 22; Gaz. vol. 215; p. 1240.

Campbell, George W., Jr., Philadelphia, Pa. Gas-cock. No. 1,141,768; June 1; Gaz. vol. 215; p. 239.

Campbell, Percy A., Newark, N. J., assignor to Westinghouse Lamp Company. Electrical measuring instrument. No. 1,144,636; June 29; Gaz. vol. 215; p. 1367.

Campbell, Royal B., Three Rivers, Mich. Rewinding wall-paper machine. No. 1,141,441; June 1; Gaz. vol. 215; p. 127.

Campbell, Sanford B., assignor of one-half to H. H. Fraleigh, Birmingham, Ala. Handle for suit-boxes and analogous receptacles. No. 1,144,637; June 29; Gaz. vol. 215; p. 1367.

Campbell, William R., Lancaster, Ohio. Apparatus for drawing glass. No. 1,143,104; June 15; Gaz. vol. 215; p. 784.

Canfield, Lewis T., Chicago, Ill. Uncoupling mechanism. No. 1,141,933; June 8; Gaz. vol. 215; p. 334.

Canning, Louis P., Athens, Ga. Glass-holder. No. 1,141,609; June 1; Gaz. vol. 215; p. 186.

Cannon, Edson L., Cleveland, Ohio. Tool for spreading roofing material. No. 1,144,891; June 29; Gaz. vol. 215; p. 1457.

Cannon, Martin L., Portis, Kans. Belt-tightener. No. 1,142,874; June 15; Gaz. vol. 215; p. 702.

Cantley, William I. (See Henderson and Cantley.)

Canton Culvert Company, The. (See Schlafly, Julius H., assignor.)

Capece, Giovanni, Providence, R. I. Artificial-stone cement. No. 1,141,610; June 1; Gaz. vol. 215; p. 187.

Capewell Horse Nail Company, The. (See Cutter, Solomon M., assignor.)

Capwell, Courtland G., Roslindale, Mass. Universal joint. No. 1,142,489; June 8; Gaz. vol. 215; p. 531.

Caraway, Gordon B. (See Shimota and Caraway.)

Carey & Co. (See Flaherty and Gerlach, assignors.)

Carichoff, Eugene R., Schenectady, N. Y., assignor to General Electric Company. Protective device. No. 1,142,552; June 8; Gaz. vol. 215; p. 552.

Carjulo, Domenico, New York, N. Y. Combined heating and cooking stove. No. 1,143,504; June 15; Gaz. vol. 215; p. 923.

Carleton, George W. (See Anderson, Hans J., assignor.)

Carlson, Frederick E., assignor to Landers, Frary & Clark, New Britain, Conn. Vacuum-bottle support. No. 1,143,172; June 15; Gaz. vol. 215; p. 807.

Carlson, Frederick E., assignor to Landers, Frary & Clark, New Britain, Conn. Vacuum-bottle support. No. 1,143,173; June 15; Gaz. vol. 215; p. 808.

Carlson, Hjalmar G., Worcester, Mass., assignor to Rockwood Sprinkler Company of Massachusetts. Pipe-hanger. No. 1,144,296; June 22; Gaz. vol. 215; p. 1224.

Carlson, Hjalmar G., assignor to Rockwood Sprinkler Company of Massachusetts, Worcester, Mass. Method of making unions and the like. No. 1,142,302; June 8; Gaz. vol. 215; p. 463.

Carlson, Hjalmar G., Worcester, Mass., assignor to Rockwood Sprinkler Company of Massachusetts. Making unions and the like. No. 1,142,303; June 8; Gaz. vol. 215; p. 464.

Carlson, Hjalmar G., Worcester, Mass., assignor to Rockwood Sprinkler Company of Massachusetts. Set of dies. No. 1,142,782; June 8; Gaz. vol. 215; p. 631.

Carlson, Johan W., Clallam Bay, Wash. Boiler-flue cleaner. No. 1,144,461; June 29; Gaz. vol. 215; p. 1309.

Carlson-Wenstrom Manufacturing Company, The. (See Lundgren, Jacob, assignor.)

Carlson, John P. (See Duffy, David, assignor.)

Carlyon, Philip H., Jr., Dunkirk, N. Y. Fitting for hot-water-radiator connections. No. 1,141,611; June 1; Gaz. vol. 215; p. 187.

Carmina, Benjamin M., New York, N. Y. Pneumatic tool. No. 1,142,671; June 8; Gaz. vol. 215; p. 592.

Carnahan, John E. (See Maskrey, Arthur J., assignor.)

Carnahan, John E., and A. J. Maskrey, Canton, Ohio. Oxidizing steel or iron sheets. No. 1,141,769; June 1; Gaz. vol. 215; p. 240.

Carnahan, John E., Canton, Ohio. Bluing steel or iron sheets. No. 1,141,770; June 1; Gaz. vol. 215; p. 240.

Carnegie, Alfred Q. (See Parsons, Carnegie, and Parsons.)

Carnell, Arthur L., Dungog, New South Wales, Australia. Pin-point catch. No. 1,144,638; June 29; Gaz. vol. 215; p. 1367.

Carney, John, Pawtucket, R. I. Device for withdrawing closure-caps from milk-bottles. No. 1,141,378; June 1; Gaz. vol. 215; p. 104.

Carney, Martin. (See Greer and Carney.)

Carpenter, Charles E., New York, N. Y., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. Printing-press controller. No. 1,143,686; June 22; Gaz. vol. 215; p. 1011.

Carpenter, Henry A., Sewickley, assignor to Riter-Conley Manufacturing Company, Pittsburgh, Pa. Continuous conveyer. No. 1,144,323; June 22; Gaz. vol. 215; p. 1234.

Carpenter, Henry A., and R. L. Hibbard, Sewickley, assignors to Riter-Conley Manufacturing Company, Pittsburgh, Pa. Machine for charging and discharging gas-retorts. No. 1,144,165; June 22; Gaz. vol. 215; p. 1179.

Carpenter, Henry A., and A. W. Warner, Sewickley, assignors to Riter-Conley Manufacturing Company, Pittsburgh, Pa. Means for controlling the operation of gas-retorts. No. 1,144,167; June 22; Gaz. vol. 215; p. 1180.

Carpenter, Henry A., and A. W. Warner, Sewickley, assignors to Riter-Conley Manufacturing Company, Pittsburgh, Pa. Means for controlling the operation of gas-retorts. No. 1,144,168; June 22; Gaz. vol. 215; p. 1180.

Carpenter, Henry A., and A. W. Warner, Sewickley, assignors to Riter-Conley Manufacturing Company, Pittsburgh, Pa. Means for controlling the operation of gas-retorts. No. 1,144,169; June 22; Gaz. vol. 215; p. 1180.

Carpenter, Henry A., R. L. Hibbard, and A. W. Warner, Sewickley, assignors to Riter-Conley Manufacturing Company, Pittsburgh, Pa. Apparatus for charging and discharging gas-retorts. No. 1,144,166; June 22; Gaz. vol. 215; p. 1179.

Carpenter, Teunauski Z., assignor to Federal Screw Corporation, Providence, R. I. Screw-threading machine. No. 1,143,942; June 22; Gaz. vol. 215; p. 1098.

Carpenter, William H., Bristol, Conn. Spooling device. No. 1,141,771; June 1; Gaz. vol. 215; p. 240.

Carr, Albert B., Atlanta, Ga., assignor to The Procter and Gamble Company, Cincinnati, Ohio. Treating cotton-seed. No. 1,141,104; June 1; Gaz. vol. 215; p. 5.

Carr, Alfred E., Formby, near Liverpool, England. Device for detecting incomplete combustion. No. 1,143,889; June 22; Gaz. vol. 215; p. 1080.

Carr, Alfred J. (See Mills, Charles B., assignor.)

Carr, Selby C., Muskogee, Okla. Lock. No. 1,143,610; June 22; Gaz. vol. 215; p. 985.

Carraine, Eugene, Philadelphia, Pa. Spool or reel for ribbons, &c. No. 1,143,505; June 15; Gaz. vol. 215; p. 923.

Carroll, Thomas, Oakwood, assignor to The National Cash Register Company, Dayton, Ohio. Fare-register. No. 1,143,747; June 22; Gaz. vol. 215; p. 1031.

Carscadlin, Charles A., and G. A. Woodman, Chicago, Ill. Uncoupling device. No. 1,141,612; June 1; Gaz. vol. 215; p. 187.

Carson, Walter H. (See French and Carson.)

Carswell, Robert E., Minneapolis, Minn. Transmission mechanism for automobiles. No. 1,143,037; June 15; Gaz. vol. 215; p. 760.

Carter, James H., assignor of one-half to F. C. Maegly, Chicago, Ill. Filler for egg-cases. No. 1,143,036; June 15; Gaz. vol. 215; p. 759.

Carter, Thomas J., Roanoke, Va. Guard-rail for bridges and like structures. No. 1,144,295; June 22; Gaz. vol. 215; p. 1224.

Cartun, Jacob, Philadelphia, Pa. Vending-machine. No. 1,141,772; June 1; Gaz. vol. 215; p. 240.

Cartwright, Ernest O., Springfield, assignor of one-third to L. K. Fisher, Dayton, and one-third to B. D. Campbell, West Milton, Ohio. Pile-elevator for sheet-feeding machines. No. 1,141,773; June 1; Gaz. vol. 215; p. 241.

Carver, George W., East Orange, N. J. Pocket. No. 1,143,038; June 15; Gaz. vol. 215; p. 760.

Carver, John F., Roslindale, Mass. Display-container. No. 1,142,020; June 8; Gaz. vol. 215; p. 365.

Case, Henry J., Owasco, N. Y., assignor to Acme Harvesting Machine Co., Peoria, Ill. Bundle-carrier. No. 1,142,399; June 8; Gaz. vol. 215; p. 500.

Case & Martin Co. (See Ehrlich, William, assignor.)

Casein Company of America. (See Dunham, Andrew A., assignor.)

Casey, Patrick, Richmond, Ontario, Canada. Latch. No. 1,144,587; June 29; Gaz. vol. 215; p. 1350.

Casler, Benjamin G., Tonawanda, N. Y. Roofer's spreading-tool for forming cement joints. No. 1,141,103; June 1; Gaz. vol. 215; p. 5.

Casler, Benjamin G., Tonawanda, N. Y., assignor of one-third to F. W. Ritter, Jr., Washington, D. C., one-sixth to J. Ayrault and one-sixth to M. Ayrault, Tonawanda, N. Y. Reeling and wrapping machine. No. 1,144,348; June 29; Gaz. vol. 215; p. 1271.

Cast Steel Pilot Company. (See Cox, Millard F., assignor.)

Cauger, Arthur V., Kansas City, Mo. Lantern-slide. No. 1,142,143; June 8; Gaz. vol. 215; p. 408.

Caughron, Charles D., Santa Ana, Cal. Gravity-operated level. No. 1,141,315; June 1; Gaz. vol. 215; p. 81.

Cavanaugh, James F. (See Dow and Cavanaugh.)

Caws, Stanley W., Lac Ste. Anne, Alberta, Canada. Combined closure-cap and styptic-holder. No. 1,144,892; June 29; Gaz. vol. 215; p. 1457.

Celluloid Company, The. (See Lindsay, William G., assignor.)

Celmo, Nicola C. (See Means and Celmo.)

Chadeloid Chemical Company. (See Ellis, Carleton, assignor.)

Challenge Machinery Company, The. (See Stonemetz, John H., assignor.)

Chamberlain, Rufus N., Chicago, Ill., assignor to Gould Storage Battery Company. Storage-battery cell. No. 1,141,526; June 1; Gaz. vol. 215; p. 157.

Chamberlin, Clarence P., and C. T. Fezzey, Detroit, Mich. Double envelop. No. 1,141,688; June 1; Gaz. vol. 215; p. 214.

Chamberlin, John, Flat Rock, Mich. Tongue-truck turning attachment for binding-machines. No. 1,143,890; June 22; Gaz. vol. 215; p. 1080.

Chambers, Thomas, Chicago, Ill. Loose-leaf binder. No. 1,142,021; June 8; Gaz. vol. 215; p. 366.

Champ, John K., Paris, Ky. Drinking-cup. No. 1,142,304; June 8; Gaz. vol. 215; p. 464.

Champion Ignition Company. (See Schmidt, Albert, assignor.)

Champion Metal Weather Strip and Parting Bead Company. (See Gifford, Harry E., assignor.)

Chandlee, George H., Washington, D. C. Hose-supporter. No. 1,143,506; June 15; Gaz. vol. 215; p. 923.

Chandler, Edwin N., Braintree, Mass. Edge-setting machine. No. 1,144,170; June 22; Gaz. vol. 215; p. 1181.

Chandler, Edwin N., Braintree, assignor to Simplex Electric Heating Company, Boston, Mass. Electric embossing apparatus. No. 1,141,689; June 1; Gaz. vol. 215; p. 214.

Chandler, Edwin N., Braintree, Mass. Electrically-heated stenciling-machine. No. 1,144,809; June 29; Gaz. vol. 215; p. 1429.

Chantler, James D., Freeport, N. Y. Planter. No. 1,142,400; June 8; Gaz. vol. 215; p. 500.

Chaplin, Manley J., assignor of one-half to F. C. Furth, Seattle, Wash. Riveting-machine. No. 1,144,297; June 22; Gaz. vol. 215; p. 1224.

Chapman Engineering Company. (See Chapman, William B., assignor.)

Chapman, William B., assignor to Chapman Engineering Company, New York, N. Y. Gas-producer. No. 1,142,144; June 8; Gaz. vol. 215; p. 409.

Chapman, William C., Grovetown, assignor of one-half to J. F. Brickle, Augusta, Ga. Internal coaster-brake lock. No. 1,141,774; June 1; Gaz. vol. 215; p. 241.

Chappell, Richard H., Rolla, Mo. Device for pointing brick walls. No. 1,142,022; June 8; Gaz. vol. 215; p. 366.

Charles F. Elmes Engineering Works. (See Slater, Harvey, assignor.)

Charles E. Hires Company, The. (See Calvert, Frank W., assignor.)

Charles, Oscar J., Fort McPherson, Ga. Field stove, oven, range, and the like. No. 1,141,934; June 8; Gaz. vol. 215; p. 334.

Chase, Elroy A., Northfield, Vt., assignor to American Granite Saw Company, Kittery, Me. Stone-sawing machine. No. 1,141,231; June 1; Gaz. vol. 215; p. 50.

Chatfield, Franklin, assignor to Northwestern Knitting Company, Minneapolis, Minn. Attachment for shell-stitching machines. No. 1,144,810; June 29; Gaz. vol. 215; p. 1429.

Chatfield, Franklin, assignor to Northwestern Knitting Company, Minneapolis, Minn. Fabric-guide for stitching-machines. No. 1,144,811; June 29; Gaz. vol. 215; p. 1429.

Chellis, George F. (See Lardner and Chellis.)

Chemische Fabrik vormals Sandoz. (See Lagutt, Jan, assignor.)

Cheron, Henri, *et al.* (See Biquard, Robert, assignor.)

Chesnutt, John L., Kansas City, Mo. Swivel-caster. No. 1,142,930; June 15; Gaz. vol. 215; p. 723.

Chicago Carton Company. (See Richardson, Ralph R., assignor.)

Chicago Electric Meter Company. (See Conrad, Frank, assignor.)

Chicago Electric Meter Company. (See Storer, Simon B., assignor.)

Chicago Pneumatic Tool Company. (See Whitelaw, James, assignor.)

Chicago Railway Equipment Company. (See Busse and Le Beau, assignors.)

Chicago Railway Equipment Company. (See Williams, Charles H. Jr., assignor.)

Chicago Shipping & Receipt Book Company. (See Burns, Edward V., assignor.)

Chicago Standard Equipment Company. (See Lester, Frederick A., assignor.)

Child, Guy B., and C. Munzner, Chicago, Ill., assignors to American Stove Company, St. Louis, Mo. Sad-iron. No. 1,143,507; June 15; Gaz. vol. 215; p. 924.

Childers, Walter E., Mertzon, Tex. Multiple-record phonograph. No. 1,141,232; June 1; Gaz. vol. 215; p. 50.
Chilson, Bert S., Fayetteville, N. Y. Motor-cycle seat. No. 1,144,588; June 29; Gaz. vol. 215; p. 1351.
Chinakas, Andrew H., Spokane, Wash. Track-leveling device. No. 1,143,039; June 15; Gaz. vol. 215; p. 761.
Chipley, Gardiner W., Los Angeles, Cal. Interlocking brake-shoe. No. 1,144,639; June 29; Gaz. vol. 215; p. 1368.
Chisholm, Herman T., assignor of one-half to W. F. Kilchenstein, Baltimore, Md. Game-table. No. 1,142,305; June 8; Gaz. vol. 215; p. 464.
Chivers & Sons. (See Lack, Charles T., assignor.)
Choate, William R., Aurora, Ill. Amusement device. No. 1,143,808; June 22; Gaz. vol. 215; p. 1052.
Choralcelo Company. (See Severy, Melvin L., assignor.)
Chorvath, Joseph. (See Chorvath, Paul and J.)
Chorvath, Paul and J., Tarentum, Pa. Handle attachment for doors. No. 1,143,360; June 15; Gaz. vol. 215; p. 874.
Chott, Edward L., assignor of one-half to H. J. Chott, Chicago, Ill. Suction apparatus for dental casting apparatus. No. 1,142,023; June 8; Gaz. vol. 215; p. 367.
Chott, Edward L., assignor of one-half to H. J. Chott, Chicago, Ill. Dental tool. No. 1,142,024; June 8; Gaz. vol. 215; p. 367.
Chott, Hugo J. (See Chott, Edward L., assignor.)
Chovanecz, Paul, Johnstown, Pa. Foldable vehicle-fender. No. 1,142,490; June 8; Gaz. vol. 215; p. 531.
Christel, Carl H., Berlin, Germany, assignor to Mergenthaler Linotype Company, New York, N. Y. Spacer for use in typographical machines. No. 1,142,236; June 8; Gaz. vol. 215; p. 441.
Christiansen, Frederik C., and T. W. Fuller, Racine, Wis. Headlight-dimmer. No. 1,143,611; June 22; Gaz. vol. 215; p. 985.
Christensen, Mons C., Chicago, Ill. Universal shaft-coupling. No. 1,142,750; June 8; Gaz. vol. 215; p. 617.
Christian, Gilbert, assignor to The Wilcke-Armstrong Company, Detroit, Mich. Telephone pay-station. No. 1,141,866; June 1; Gaz. vol. 215; p. 271.
Christianson, Andrew, Butler, assignor to Standard Motor Truck Company, Pittsburgh, Pa. Bolster-hanger. No. 1,142,237; June 8; Gaz. vol. 215; p. 441.
Christman, Charles F., Winslow, Ariz. Fire-alarm system. No. 1,143,809; June 22; Gaz. vol. 215; p. 1052.
Christoe, Harry C., Alton, Ill. Automatic conveyer and distributer. No. 1,142,025; June 8; Gaz. vol. 215; p. 368.
Chryst, William A. (See Kettering and Chryst.)
Chubbuck, H Eugene, Peoria, Ill. Route-sign for street-cars. No. 1,142,491; June 8; Gaz. vol. 215; p. 532.
Church, Clarence M., Arnold, Pa. Dupiex pump. No. 1,144,298; June 22; Gaz. vol. 215; p. 1225.
Church, Edmund S., assignor to National Cash Register Company, Dayton, Ohio. Adding and subtracting machine. No. 1,142,931; June 15; Gaz. vol. 215; p. 723.
Churnside, John. (See McLane and Churnside.)
Cincinnati Milling Machine Company, The. (See De Leeuw, Adolph L., assignor.)
Cincinnati Milling Machine Company, The. (See Hazelton, Robert T., assignor.)
Citizens Savings and Trust Company, The, trustee. (See Hughes, Dow B., assignor.)
Clapp, Clark E., assignor of one-half to R. L. and W. I. Green, St. Joseph, Mo. Train-stopping apparatus. No. 1,142,492; June 8; Gaz. vol. 215; p. 532.
Claren, Ferdinand L., assignor to Drägerwerk Heinr. & Bernh. Drager, Lübeck, Germany. Freely-portable breathing apparatus. No. 1,144,812; June 29; Gaz. vol. 215; p. 1430.
Clark, Charles H., New York, N. Y. Reduction-gearing. No. 1,142,401; June 8; Gaz. vol. 215; p. 500.
Clark, Emerson L., Lakewood, assignor to National Carbon Company, Cleveland, Ohio. Compression-rheostat. No. 1,143,810; June 22; Gaz. vol. 215; p. 1052.
Clark, Ernest B., *et al.* (See Patterson, Charles A., assignor.)
Clark, Frederick W. (See Rock, John G., assignor.)
Clark, Hinman H., Seattle, Wash. Folded letter-card. No. 1,141,172; June 1; Gaz. vol. 215; p. 29.
Clark, James H., assignor of two-thirds to J. M. Russell, St. Johns, Oreg. Headlight for motor-vehicles. No. 1,144,813; June 29; Gaz. vol. 215; p. 1430.
Clark, James M., 3d, Buffalo, N. Y. Starting device for gas-operated motors. No. 1,144,349; June 29; Gaz. vol. 215; p. 1272.
Clark, Melville, assignor to Melville Clark Piano Company, Chicago, Ill. Pneumatic action for automatic players. No. 1,141,379; June 1; Gaz. vol. 215; p. 105.
Clark, Norris E., Plainville, Conn. Machine for making corner-bead blanks. No. 1,142,493; June 8; Gaz. vol. 215; p. 533.
Clark, Norris E., Plainville, Conn. Corner-bead manufacture. No. 1,142,494; June 8; Gaz. vol. 215; p. 533.
Clark, Ruth A., Trenton, Mo. Lunch-box. No. 1,142,932; June 15; Gaz. vol. 215; p. 723.
Clarke, George T. F., assignor to Brooks Bank Note Company, Springfield, Mass. Display-stand. No. 1,142,933; June 15; Gaz. vol. 215; p. 724.
Clarke, Matthew, Wilkes-Barre, Pa. Saw-holding device. No. 1,143,748; June 22; Gaz. vol. 215; p. 1031.
Clarke, Matthew, Wilkes-Barre, Pa. Saw-holding device. No. 1,143,749; June 22; Gaz. vol. 215; p. 1031.
Clarus, Bruno, Liege, Belgium. Breech mechanism of guns. No. 1,143,612; June 22; Gaz. vol. 215; p. 986.
Claussen, Martin. (See McKay and Claussen.)
Claverie, August J., *et al.* (See Schramm, Frederick C., assignor.)
Claypool, Arthur, *et al.* (See Eckenwiler, George M., assignor.)
Clayton, Fred, Fullerton, La. Self loading and unloading motor-truck. No. 1,142,672; June 8; Gaz. vol. 215; p. 592.
Cleal, Joseph P., Toronto, Ontario, Canada, assignor to The National Cash Register Company, Dayton, Ohio. Cash-register. No. 1,142,079; June 8; Gaz. vol. 215; p. 386.
Cleaver, Howard C., London, England. Internal-combustion engine. No. 1,144,027; June 22; Gaz. vol. 215; p. 1129.
Clemens, John G., Buffalo, N. Y. Electric soldering-iron. No. 1,142,306; June 8; Gaz. vol. 215; p. 465.
Clement, Paul, Volga, S. D. Sanitary garbage-can. No. 1,143,597; June 15; Gaz. vol. 215; p. 956.
Clemons, James H., assignor of twenty-five one-hundredths to G. Bates and twenty-five one-hundredths to F. B. Cady, Ilion, N. Y. Telephone attachment. No. 1,142,080; June 8; Gaz. vol. 215; p. 386.
Cleve, Henry C., Washington, D. C. Hand-wheel for automobiles. No. 1,142,307; June 8; Gaz. vol. 215; p. 465.
Cleveland, Erastus L., West Chicago, Ill. Drill-jar. No. 1,144,814; June 29; Gaz. vol. 215; p. 1430.
Cleveland Trust Company, The, trustee. (See Barstow, Edwin O., assignor.)
Cleveland Wire Spring Company, The. (See Farrow and Barker, assignors.)
Clifton Manufacturing Company. (See Raymond, Nelson H., assignor.)
Clisdell, Robert E., Schenectady, N. Y. Water-heater. No. 1,142,495; June 8; Gaz. vol. 215; p. 533.
Clope, Irving S., Macon, assignor to Empire Chemical Company, Atlanta, Ga. Treating resinous woods to remove the soluble constituents therefrom. No. 1,144,171; June 22; Gaz. vol. 215; p. 1181.
Cloyd, Oliver H., Peoria, Ill. Hog-greaser. No. 1,142,798; June 8; Gaz. vol. 215; p. 676.
Cluett, Peabody & Co. (See Kennedy and Connolly, assignors.)
Clutter, Joseph F. (See Greenberg and Clutter.)
Clyde Iron Works. (See McGiffert, John R., assignor.)
Clymer, Jesse Y., and M. L. Heller, Richlandtown, Pa. Nut-lock. No. 1,142,308; June 8; Gaz. vol. 215; p. 465.
Coats, Henry L., Moscow, Idaho. Gate. No. 1,143,750; June 22; Gaz. vol. 215; p. 1032.
Cobb, Lyman H., assignor to M. E. Johnson, trustee, Fitchburg, Mass. Firearm. No. 1,142,934; June 15; Gaz. vol. 215; p. 724.
Cobban, William A., Culbertson, Mont. Calf-weaner. No. 1,142,026; June 8; Gaz. vol. 215; p. 368.
Coble, Alfred, Jr., Westerville, Ohio. Rail-fastening device. No. 1,142,309; June 8; Gaz. vol. 215; p. 466.
Cockrell, Walter L., Cameron, W. Va. Cable-hanger. No. 1,141,316; June 1; Gaz. vol. 215; p. 82.
Coffman, Samuel M., Kansas City, Mo. Chuck. No. 1,141,613; June 1; Gaz. vol. 215; p. 187.
Cohen, Alfred H., Fruitvale, Cal. Magnetic lift for electrodes in electric oscillators. No. 1,142,496; June 8; Gaz. vol. 215; p. 534.
Cohen, Leon, St. Louis, Mo. Adjustable hat conformer and retainer. No. 1,144,462; June 29; Gaz. vol. 215; p. 1309.
Cole, Francis J., and F. F. Scoville, Schenectady, N. Y. Locomotive trailing truck. No. 1,143,943; June 22; Gaz. vol. 215; p. 1098.
Cole, John A., Leamington, England. Magneto for use on internal-combustion engines. No. 1,144,815; June 29; Gaz. vol. 215; p. 1431.
Cole, Thomas J., Guayanilla, Porto Rico. Tank sight-gage. No. 1,144,528; June 29; Gaz. vol. 215; p. 1330.
Coleman, Alfred. (See Coleman, Thomas, A., T., Jr., and F.)
Coleman, Frank. (See Coleman, Thomas, A., T., Jr., and F.)
Coleman, Harry S. (See Ducas and Coleman.)
Coleman, Thomas, Jr. (See Coleman, Thomas, A., T., Jr., and F.)
Coleman, Thomas, A., T., Jr., and F., Derby, England. Drying and heating apparatus. No. 1,144,640; June 29; Gaz. vol. 215; p. 1368.
Colin, Joseph A., Merriam, Kans. Damper-controlling mechanism. No. 1,142,553; June 8; Gaz. vol. 215; p. 553.
Collar, Adoniram J., Yreka, Cal. Self-closing attachment for faucets. No. 1,142,145; June 8; Gaz. vol. 215; p. 409.
Colledge, Alfred A., Le Mars, Iowa, assignor to H. W. Klinkerfues, St. Paul, Minn. Buckle and loop. No. 1,144,984; June 29; Gaz. vol. 215; p. 1487.
Collier, John Z. (See Helander, Eaton, and Collier.)
Collier, William H., Nashville, Tenn. Combined dash-light, trouble-light, and cigar-lighter. No. 1,144,172; June 22; Gaz. vol. 215; p. 1181.
Collins, Edgar F., Schenectady, N. Y., assignor to General Electric Company. Electric welding. No. 1,144,350; June 29; Gaz. vol. 215; p. 1272.
Collins, Edgar F., Schenectady, N. Y., assignor to General Electric Company. Dynamo-electric machine. No. 1,144,351; June 29; Gaz. vol. 215; p. 1272.

Collins, Elba O., Chillicothe, Ohio. Demountable rim for wheel-tires. No. 1,141,935; June 8; Gaz. vol. 215; p. 335.
Collins, Walter H., Summit, N. J. Egg-sorting device. No. 1,143,613; June 22; Gaz. vol. 215; p. 986.
Colman, Samuel F., New York, N. Y. Corset. No. 1,143,944; June 22; Gaz. vol. 215; p. 1099.
Columbia Machine & Stopper Corporation. (See Lawson, Clarence J., assignor.)
Columbia School Supply Co. (See Moore and Wade, assignors.)
Colvin, Rubin, Park City, Utah. Ore-treating apparatus. No. 1,142,497; June 8; Gaz. vol. 215; p. 535.
Combs, George W., Leavenworth, Kans. Controlling means for gyratory structures. No. 1,142,146; June 8; Gaz. vol. 215; p. 410.
Combs, Jacob, Fayette county, near Montgomery, W. Va. Combined compound engine. No. 1,141,173; June 1; Gaz. vol. 215; p. 29.
Comee, Joseph F., assignor to Camel Company, Chicago, Ill. Car-door hanger. (Reissue.) No. 13,927; June 15; Gaz. vol. 215; p. 959.
Comfort, Edward W., Winchester, Mass., assignor to American Moistening Company, Compressor-pump. No. 1,144,641; June 29; Gaz. vol. 215; p. 1368.
Comingore, Lora, Anderson, Ind. Garment-protector. No. 1,141,690; June 1; Gaz. vol. 215; p. 215.
Commonwealth Steel Company. (See Howard and Pflager, assignors.)
Computing Scale Company, The. (See Menz, Emil, assignor.)
Comstock, Corry B., New York, N. Y. Floor-drain. No. 1,143,174; June 15; Gaz. vol. 215; p. 808.
Condensite Company of America. (See Aylsworth, Jonas W., assignor.)
Conkell, Elias W., assignor of nine-twentieths to I. C. Fason, Bessemer, Ala. Electric signal and train control. No. 1,141,936; June 8; Gaz. vol. 215; p. 335.
Conley Foil Company. (See Bryner, Adolf, assignor.)
Connally, Clarence W. (See McDonald, Charles W., assignor.)
Conner, Abner F., and G. L. Willett, Indianapolis, Ind., assignors to Thos. Cusack Company, Chicago, Ill. Illuminated sign. No. 1,141,691; June 1; Gaz. vol. 215; p. 215.
Conners, Herbert A., Boston, Mass. Lifting-jack. No. 1,144,933; June 29; Gaz. vol. 215; p. 1469.
Connolly, Charles M. (See Kennedy and Connolly.)
Conover, Edwin K., assignor to Conover Motor Car Company, Paterson, N. J. Controlling mechanism for motor-vehicles. No. 1,143,361; June 15; Gaz. vol. 215; p. 875.
Conover Motor Car Company. (See Conover, Edwin K., assignor.)
Conrad, Frank, Swissvale, Pa., assignor, by mesne assignments, to Chicago Electric Meter Company, Chicago, Ill. Electric measuring instrument. No. 1,141,380; June 1; Gaz. vol. 215; p. 106.
Conradson, Conrad M., Madison, Wis. Turret-post. No. 1,143,251; June 15; Gaz. vol. 215; p. 837.
Conradson, Conrad M., Madison, Wis. Turret tool-post. No. 1,143,252; June 15; Gaz. vol. 215; p. 837.
Conrick, John P., *et al.* (See Forest, Francis A., assignor.
Conroy, Thomas D. (See Brockman and Conroy.)
Conroy, William F., Manuet, N. Y. Lock-nut. No. 1,143,508; June 15; Gaz. vol. 215; p. 924.
Consolidated Safety Valve Company, The. (See Blanchard and Crocker, assignors.)
Constantine, Nicolae, Indiana Harbor, Ind. Pot and pan lifter. No. 1,143,253; June 15; Gaz. vol. 215; p. 838.
Continental Asbestos Corporation. (See Warrell, Alexander, assignor.)
Continental & Commercial Trust & Savings Bank, trustee. (See Miehle, Robert, assignor.)
Continental Gas Compressing Corporation. (See Maag, Gustav C., assignor.)
Continental Gas Compressing Corporation. (See Schill, Emil, assignor.)
Conway, Thomas W., North Bergen, N. J., assignor of one-half to R. S. Pollock. Coasting-sleigh. No. 1,142,799. June 15; Gaz. vol. 215; p. 676.
Cook, Aaron J., Gloster, Miss. Vehicle attachment. No. 1,143,751; June 22; Gaz. vol. 215; p. 1032.
Cook, Frederick. (See Lamprell and Cook.)
Cook, George, Sioux City, Iowa. Shock-absorber and safety attachment for percussion-operated tools. No. 1,142,238; June 8; Gaz. vol. 215; p. 442.
Cook, Nicholas. (See Johnson, Iver, assignor.)
Cook, Stanley S. (See Parsons and Cook.)
Cook, William H., Indianapolis, Ind. Envelop-machine. No. 1,142,402; June 8; Gaz. vol. 215; p. 501.
Coombs, Edgar J., assignor to B. A. Ballou and Company, Inc., Providence, R. I. Bracelet. No. 1,141,614; June 1; Gaz. vol. 215; p. 188.
Coombs, Walter J., Quincy, assignor to Tubular Rivet & Stud Company, Boston, Mass. Lacing hook or stud setting machine. No. 1,141,775; June 1; Gaz. vol. 215; p. 242.
Cooper, Alexander J., *et al.* (See Burke, William W., assignor.)
Cooper, Herbert, Brooklyn, N. Y. Universal joint. No. 1,143,571; June 15; Gaz. vol. 215; p. 946.
Cooper Hewitt Electric Company. (See Hewitt, Peter C., assignor.)
Cooper Hewitt Electric Company. (See Thomas, Percy H., assignor.)
Cooper, James A., assignor to The Whitin Machine Works, Whitinsville, Mass. Clearer-cover. No. 1,141,692; June 1; Gaz. vol. 215; p. 215.
Cooper, Peter, Ada, Mich. Tail-lamp. No. 1,141,776; June 1; Gaz. vol. 215; p. 242.
Cooper, Thomas B., and F. F. Rob, Baltimore, Md. Flush-valve. No. 1,144,109; June 22; Gaz. vol. 215; p. 1159.
Cooper, Wallace M., Berkeley, Cal. Engine-mounting for aeroplanes. No. 1,142,147; June 8; Gaz. vol. 215; p. 410.
Copeman Electric Stove Company. (See Copeman, Lloyd G., assignor.)
Copeman, Lloyd G., assignor to Copeman Electric Stove Company, Flint, Mich. Electromagnetic switch. No. 1,141,174; June 1; Gaz. vol. 215; p. 30.
Copeman, Lloyd G., assignor to Copeman Electric Stove Company, Flint, Mich. Electric stove. No. 1,141,175; June 1; Gaz. vol. 215; p. 30.
Copeman, Lloyd G., assignor to Copeman Electric Stove Company, Flint, Mich. Electrically-heated oven. No. 1,141,176; June 1; Gaz. vol. 215; p. 30.
Corbin, John C., Seattle, Wash. Refrigerating apparatus. No. 1,144,642; June 29; Gaz. vol. 215; p. 1369.
Corcoran, Cornelius B., assignor to Underwood Typewriter Company, New York, N. Y. Type-writing machine. No. 1,144,755; June 29; Gaz. vol. 215; p. 1409.
Corcoran, John J., New York, N. Y. Menu-card holder. No. 1,144,173; June 22; Gaz. vol. 215; p. 1182.
Cordray, B. F. (See Jirousek, Joseph F., assignor.)
Cormode, John P., Chatham, Ontario, Canada. Clevis attachment for draft-eveners. No. 1,142,148; June 8; Gaz. vol. 215; p. 410.
Cornelius, Benjamin H., Bayard, Iowa. Street-car-headlight shifter. No. 1,144,691; June 29; Gaz. vol. 215; p. 1386.
Cornell, Fred J., Detroit, Mich. Mud-guard support for motor-cycles or like vehicles. No. 1,144,463; June 29; Gaz. vol. 215; p. 1309.
Cornely, Robert, Paris, France. Embroidering-machine. No. 1,143,945; June 22; Gaz. vol. 215; p. 1099.
Cornet, Darius H. J. (See Poullain and Cornet.)
Cornwall, Frederick R., assignor to Williams Patent Crusher and Pulverizer Company, St. Louis, Mo. Pulverizer. No. 1,144,352; June 29; Gaz. vol. 215; p. 1273.
Cornwall, John B., assignor to Barnard and Leas Manufacturing Company, Moline, Ill. Angle-mill. No. 1,144,174; June 22; Gaz. vol. 215; p. 1182.
Corona Typewriter Company. (See Petermann, Otto, assignor.)
Corona Typewriter Company. (See Rose, Frank S., assignor.)
Correa, John S., Denver, Colo. Ornamentation. No. 1,141,317; June 1; Gaz. vol. 215; p. 82.
Correll, Friedrich, Berlin, Germany. Printing device for cash-registers or cash-delivery apparatus. No. 1,141,693; June 1; Gaz. vol. 215; p. 215.
Corwin, Elmer R., assignor, by mesne assignments, to Frank B. Cook Company, Chicago, Ill. Telephony. No. 1,141,937; June 8; Gaz. vol. 215; p. 335.
Coseo, Frederick C., Columbus, Ohio, assignor to The Jeffrey Manufacturing Company. Support for electric trolley mechanism. No. 1,142,935; June 15; Gaz. vol. 215; p. 724.
Coss, James C., Detroit, Mich. Vehicle bow-socket. No. 1,141,527; June 1; Gaz. vol. 215; p. 158.
Costa, Anthony M. (See Spremulli and Manuppelli, assignors.)
Cottingham, T. J., *et al.* (See Lawrence, Daniel O., assignor.)
Cottrell, Frederick G., Berkeley, and H. A. Burns, Oakland, assignors to International Precipitation Company, San Francisco, Cal. Synchronous electrical contact-maker. No. 1,143,175; June 15; Gaz. vol. 215; p. 808.
Couch, Buel. (See Kneedler, John D., assignor.)
Couldery, Guy A., *et al.* (See Butler, George H., assignor.)
Coulston, Harry, assignor to The Philadelphia Textile Machinery Company, Philadelphia, Pa. Removing stockings from stocking-boards. No. 1,141,777; June 1; Gaz. vol. 215; p. 242.
Coulston, Harry, and W. M. Schwartz, assignors to The Philadelphia Textile Machinery Company, Philadelphia, Pa. Means for removing stockings from forms. No. 1,141,778; June 1; Gaz. vol. 215; p. 243.
Courtine, Benjamin F. A., Maisons-Alfort, France. Vermicelli-folding machine. No. 1,143,509; June 15; Gaz. vol. 215; p. 924.
Courtine, Benjamin F. A., Maisons-Alfort, France. Die for forming plastic material into threads or ribbons. No. 1,143,510; June 15; Gaz. vol. 215; p. 925.
Courtland, William A., Brooklyn, N. Y., assignor to American Pin Company, Waterbury, Conn. Machine for feeding safety-pin shields. No. 1,141,105; June 1; Gaz. vol. 215; p. 6.
Covert, Stanley S., Montclair, N. J., assignor to Watertite Drain & Scupper Co., Inc., New York, N. Y. Water-escape for buildings. No. 1,143,946; June 22; Gaz. vol. 215; p. 1099.
Cowper, John B., Bayonne, N. J. Oil-burner. No. 1,144,816; June 29; Gaz. vol. 215; p. 1431.
Cox, Arthur, Olton, near Birmingham, England. Carbureter. No. 1,143,511; June 15; Gaz. vol. 215 p. 925.

Cox, Millard F., Louisville, Ky., assignor to Cast Steel Pilot Company, St. Louis, Mo. Locomotive-pilot. No. 1,143,687; June 22; Gaz. vol. 215; p. 1011.
Cox, William, Toronto, Ontario, Canada. Fare-box-supporting stand. No. 1,141,318; June 1; Gaz. vol. 215; p. 83.
Coxe, George E., Santa Rita, N. Mex. Refrigerator. No. 1,143,362; June 15; Gaz. vol. 215; p. 875.
Coxey, Jasper S., Aberdeen, Wash. Folding and extension car-step. No. 1,141,615; June 1; Gaz. vol. 215; p. 188.
Coy, Frederick W., Boston, assignor to C. F. Brown, trustee, Reading, Mass. Adjustable seat. No. 1,143,947; June 22; Gaz. vol. 215; p. 1100.
Coykendall, Horatio G., San Jose, Cal. Drive mechanism. No. 1,141,319; June 1; Gaz. vol. 215; p. 83.
Coyne, Edward M., Chatham, Ontario, Canada. Sunshade. No. 1,143,891; June 22; Gaz. vol. 215; p. 1080.
Coyne, Hooper, Baltimore, Md. Safety-razor. No. 1,142,310; June 8; Gaz. vol. 215; p. 466.
Cozilets, John, Coupon, Pa. Mine tipple-car. No. 1,141,442; June 1; Gaz. vol. 215; p. 127.
Cozzens, Louis S., Freeport, N. Y. Collapsible folding table with adjustable drawing-board and artist's easel. No. 1,142,673; June 8; Gaz. vol. 215; p. 592.
Cracraft, Leich Electric Company. (See Leich, Oscar M., assignor.)
Crampton, Orlando W., Pittsburgh, Pa. Game. No. 1,144,529; June 29; Gaz. vol. 215; p. 1331.
Crandall, Max E., assignor of one-half to M. J. Meier, Kingfisher, Okla. Window-screen. No. 1,142,311; June 8; Gaz. vol. 215; p. 466.
Crane, Leslie, assignor to F. R. Patch Mfg. Co., Rutland, Vt. Polishing-head. No. 1,141,616; June 1; Gaz. vol. 215; p. 188.
Crane, Warren N. (See Horne and Crane.)
Creamer, Irvin S., Pleasant Hall, Pa. Level. No. 1,141,617; June 1; Gaz. vol. 215; p. 189.
Cregier, Charles K., Chicago, Ill. Electromegaphone-receiver, &c. No. 1,142,875; June 15; Gaz. vol. 215; p. 703.
Creighton, Elmer E. F., Schenectady, N. Y., assignor to General Electric Company. Protective device. No. 1,144,028; June 22; Gaz. vol. 215; p. 1130.
Creighton, Elmer E. F., Schenectady, N. Y., assignor to General Electric Company. Protective device. No. 1,144,029; June 22; Gaz. vol. 215; p. 1130.
Cremer, Henry, Chicago, Ill. Grating-machine. No. 1,141,694; June 1; Gaz. vol. 215; p. 216.
Crescent Calk Corporation. (See Jacobson, Charles E., assignor.)
Creveling, John L., New York, N. Y., assignor to Safety Car Heating and Lighting Company. Electric system. No. 1,143,176; June 15; Gaz. vol. 215; p. 810.
Crevéling, John L., New York, N. Y., assignor to Safety Car Heating and Lighting Company. Electric regulation. No. 1,144,299; June 22; Gaz. vol. 215; p. 1225.
Crider, Alfred, *et al.* (See Eckenwiler, George M., assignor.)
Crisman, Caleb, Chicago, Ill. Combined shovel and brush. No. 1,143,752; June 22; Gaz. vol. 215; p. 1032.
Crissey, Clarence P., East Orange, N. J., assignor to General Electric Company. Air-regulating device for centrifugal compressors. No. 1,141,938; June 8; Gaz. vol. 215; p. 336.
Criswell, Benjamin H., assignor of one-half to D. L. Holwick, Canton, Ohio. Cleaning-cloth and producing same. No. 1,143,614; June 22; Gaz. vol. 215; p. 986.
Crocker, Ernest B. (See Blanchard and Crocker.)
Crocker, Harry L., Esmond, R. I. Apron-oiler for condensers. No. 1,142,936; June 15; Gaz. vol. 215; p. 725.
Crompton & Knowles Loom Works. (See Crossland, George, assignor.)
Crompton & Knowles Loom Works. (See Gordon, Albert A., Jr., assignor.)
Crompton & Knowles Loom Works. (See Hutchins, George F., assignor.)
Crompton & Knowles Loom Works. (See Ryon, Eppa H., assignor.)
Crompton & Knowles Loom Works. (See Wyman, Horace, assignor.)
Crompton, Randolph, Worcester, Mass. Stopping mechanism for textile apparatus. No. 1,142,751; June 8; Gaz. vol. 215; p. 618.
Crompton, Randolph, Chatham, Mass. Stopping instrumentality and mechanism for textile apparatus. No. 1,142,752; June 8; Gaz. vol. 215; p. 618.
Crompton, Randolph, Chatham, Mass. Stopping mechanism for textile apparatus. No. 1,142,753; June 8; Gaz. vol. 215; p. 619.
Crompton, Randolph, Chatham, Mass. Weft-replenishing loom. No. 1,142,937; June 15; Gaz. vol. 215; p. 725.
Crompton, Randolph, Chatham, Mass. Weft-replenishing color-loom. No. 1,142,938; June 15; Gaz. vol. 215; p. 725.
Crompton, Randolph, Chatham, Mass. Shuttle-positioning means. No. 1,143,105; June 15; Gaz. vol. 215; p. 784.
Crone, Seth A., East Orange, N. J. Brake-beam. No. 1,142,498; June 8; Gaz. vol. 215; p. 535.
Crook, Charles M., Chicago, Ill., assignor, by mesne assignments, to Stromberg Electric Company. Time-recording device. No. 1,143,363; June 15; Gaz. vol. 215; p. 876.
Crook, Charles M., assignor to Stromberg Electric Company, Chicago, Ill. Time-recorder. No. 1,143,364; June 15; Gaz. vol. 215; p. 876.
Crosley, Albert D., and A. R. Stenerson, Jewell, Iowa. Gun-club-scoring machine. No. 1,141,618; June 1; Gaz. vol. 215; p. 189.
Crossland, George, assignor to Crompton & Knowles Loom Works, Worcester, Mass. Pile fabric. No. 1,142,149; June 8; Gaz. vol. 215; p. 410.
Crouch, Thomas C., assignor of two-thirds to W. A. Gilchrist, Saskatoon, Saskatchewan, Canada. Fuel-atomizer for internal-combustion engines. No. 1,142,674; June 8; Gaz. vol. 215; p. 593.
Crum, Irvin, Selma, Ala. Air-brake for motor-cars. No. 1,141,939; June 8; Gaz. vol. 215; p. 336.
Crumbaugh, George P. (See Grove and Crumbaugh.)
Crump Company, The. (See Crump, Samuel, assignor.)
Crump, Samuel, assignor to The Crump Company, New York, N. Y. Manufacture of printers' rollers. No. 1,141,320; June 1; Gaz. vol. 215; p. 83.
Crumpler, Joseph H., Magnolia, Ark. Fertilizer-distributer attachment. No. 1,144,464; June 29; Gaz. vol. 215; p. 1310.
Cruson, Robert G., Fillmore, Cal. Fruit-gatherer. No. 1,143,512; June 15; Gaz. vol. 215; p. 925.
Crutchley, Harry, Jersey City, N. J., assignor to Underwood Typewriter Company, New York, N. Y. Typewriting machine. No. 1,142,800; June 15; Gaz. vol. 215; p. 676.
Cuff, George, Poynette, Wis. Windmill-operating mechanism. No. 1,143,811; June 22; Gaz. vol. 215; p. 1052.
Culkins, William H., Albion, Mich. Railway-crossing. No. 1,144,893; June 29; Gaz. vol. 215; p. 1458.
Culverwell, Joseph F., Washington, D. C., assignor to Elliott-Fisher Company, Harrisburg, Pa. Restoring mechanism for adding-machines. No. 1,141,940; June 8; Gaz. vol. 215; p. 337.
Cummings, Lincoln C. (See Jones, Arthur S., assignor.)
Cummins, Norman W., assignor to The Burns & Bassick Company, Bridgeport, Conn. Grease-cup. No. 1,143,688; June 22; Gaz. vol. 215; p. 1012.
Cunliff, James E., Buffalo, N. Y. Water-gage. No. 1,141,381; June 1; Gaz. vol. 215; p. 106.
Cunniff, John V., Fall River, assignor to J. K. Lanning, Boston, Mass. Winding mechanism. No. 1,141,892; June 1; Gaz. vol. 215; p. 282.
Cunniff, John V., Fall River, assignor to J. K. Lanning, Dorchester, Mass. Yarn or thread package and winding same. No. 1,141,893; June 1; Gaz. vol. 215; p. 282.
Cunniff, John V., Fall River, assignor to J. K. Lanning, Dorchester, Mass. Winding mechanism for forming yarn or thread packages. No. 1,141,894; June 1; Gaz. vol. 215; p. 283.
Cunningham, Andrew C., North Chicago, Ill. Agitator. No. 1,141,528; June 1; Gaz. vol. 215; p. 158.
Cunningham, Auburn S., Marion, Ohio. Time-recorder. No. 1,143,040; June 15; Gaz. vol. 215; p. 761.
Cunningham, James L., Wilmington, Del. Drinking-fountain attachment. No. 1,142,675; June 8; Gaz. vol. 215; p. 593.
Currie, William E. (See Simpson, Selden L., assignor.)
Curtis, Jesse T., Bement, Ill. Explosive-engine. No. 1,141,443; June 1; Gaz. vol. 215; p. 128.
Curtis Publishing Company, The. (See Stiefel, Frank C., assignor.)
Curtiss, Glenn H., Hammondsport, N. Y. Flying-boat. No. 1,142,754; June 8; Gaz. vol. 215; p. 619.
Curtright, Lucius C., *et al.* (See Wine, Noah L., assignor.)
Cusick, Walter M., Boston, Mass. Internal-combustion engine. No. 1,142,312; June 8; Gaz. vol. 215; p. 467.
Custer, Ernest O., West New York, N. J. Expansible pulley. No. 1,144,353; June 29; Gaz. vol. 215; p. 1273.
Cutler-Hammer Mfg. Co., The. (See Carpenter, Charles E., assignor.)
Cutler-Hammer Mfg. Co., The. (See Denhard, Harry W., assignor.)
Cutler-Hammer Mfg. Co., The. (See Henderson, Clark T., assignor.)
Cutler-Hammer Mfg. Co., The. (See Klein, Charles J., assignor.)
Cutler-Hammer Mfg. Co., The. (See Radley, Guy R., assignor.)
Cutler-Hammer Mfg. Co., The. (See Simon, Arthur, assignor.)
Cutler-Hammer Mfg. Co., The. (See Tatum, Lewis L., assignor.)
Cutler, Joseph W., Rochester, N. Y. Photographic-roll holder. No. 1,144,934; June 29; Gaz. vol. 215; p. 1470.
Cutter, Solomon M., Wethersfield, assignor to The Capewell Horse Nail Company, Hartford, Conn. Cleaning rods. No. 1,142,499; June 8; Gaz. vol. 215; p. 535.
Cypher, James L. (See Fox and Cypher.)
D. & H. Manufacturing Jewelers Inc. (See Dygert, Charles H., assignor.)
D. Saunders' Sons. (See Offerman, William, assignor.)
D'Autremont, Louis P., Duluth, Minn. Game-board. No. 1,141,909; June 1; Gaz. vol. 215; p. 289.
Da Costa, Robert C., Trenton, N. J., assignor to John A. Roebling's Sons Company, Solenoid. No. 1,142,027; June 8; Gaz. vol. 215; p. 368.
Daimler-Motoren-Gesellschaft. (See Moewes, Ernst, assignor.)

Dain, Joseph, assignor to Dain Manufacturing Company of Iowa, Ottumwa, Iowa. Hay-rake. No. 1,141,695; June 1; Gaz. vol. 215; p. 216.
Dain Manufacturing Company of Iowa. (See Dain, Joseph, assignor.)
Daisy Manufacturing Company. (See Lefever, Charles F., assignor.)
Dake, Charles W. (See Kilker and Dake.)
Dake Engine Co. (See Zellar, Frederick J., assignor.)
Dale, John W., Portland, Oreg. Drying apparatus. No. 1,144,817; June 29; Gaz. vol. 215; p. 1431.
Dalton Adding Machine Company. (See Landsiedel, Harry, assignor.)
Damer, George, U. S. Navy. Projectile. No. 1,144,818; June 29; Gaz. vol. 215; p. 1432.
Damsma, Harry P., Kalamazoo, Mich. Fish bait or lure. No. 1,144,756; June 29; Gaz. vol. 215; p. 1409.
Danckwardt, Paul, near Dardanelle, Ark. Production of gasolene and naphtha from crude oils, petroleum products, tar-oil, or similar products. No. 1,141,529; June 1; Gaz. vol. 215; p. 158.
Daniels Safety Device Company. (See Daniels and Holschemacher, assignors.)
Daniels, Thomas M., and J. C. Holschemacher, assignors, by mesne assignments, to Daniels Safety Device Company, Chicago, Ill. Nut-tapping machine. No. 1,141,779; June 1; Gaz. vol. 215; p. 243.
Dann, Ernest G., Chicago, Ill. Lubricating-strip for leaf-springs. No. 1,143,812; June 22; Gaz. vol. 215; p. 1053.
Danz, Jacob, 2d, Los Angeles, Cal. Combined game and shell bag. No. 1,141,941; June 8; Gaz. vol. 215; p. 337.
Darby, Norman C., East Orange, N. J., assignor of one-half to R. Miehling, New York, N. Y. Current-corrector. No. 1,143,041; June 15; Gaz. vol. 215; p. 761.
Darby, Robert F., assignor to American Steel Foundries, Chicago, Ill. Cast-steel carry-iron. No. 1,143,689; June 22; Gaz. vol. 215; p. 1012.
Darley, John W., Jr., Baltimore, Md. Thread-controlling mechanism for button-sewing machines. No. 1,143,513; June 15; Gaz. vol. 215; p. 926.
Darlington, Philip J., Hartford, Conn. Rotary motor. No. 1,142,500; June 8; Gaz. vol. 215; p. 536.
Darois, Noah, New York, N. Y. Portable snow-scraper for trolley-cars. No. 1,142,677; June 8; Gaz. vol. 215; p. 594.
Darragh, Edwin E. (See Hassett and Darragh.)
Daugherty, Jeremiah H., and M. L. Hahn, Royalton, Pa. Holding or suspending device. No. 1,141,867; June 1; Gaz. vol. 215; p. 271.
Daughtry, Willie L., Orlando, Fla. Hand-car. No. 1,144,819; June 29; Gaz. vol. 215; p. 1432.
Davenport, Ransom W. (See Van Wie and Davenport.)
Davenport, Ransom W., assignor to Detroit Stove Works, Detroit, Mich. Electrically-heated oven. No. 1,142,939; June 15; Gaz. vol. 215; p. 726.
Davenport, William A., assignor of one-half to C. S. Davies, Scranton, Pa. Positive automatic gas safety-valve and control. No. 1,142,676; June 8; Gaz. vol. 215; p. 594.
David, Peter. (See Shelton, John B., assignor.)
Davidson, Charles H. (See Lofland and Davidson.)
Davidson, Mary E., administratrix. (See Lofland and Davidson.)
Davidson, Samuel C., Belfast, Ireland, assignor, by mesne assignments, to American Blower Company, Green Island, N. Y. Centrifugal fan and pump. No. 1,143,365; June 15; Gaz. vol. 215; p. 876.
Davies, Adrian D., and L. H. Bemen, assignors of one-third to W. H. Tyler, Pueblo, Colo., and two-thirds to said Davies. Alfalfa-mill. No. 1,143,106; June 15; Gaz. vol. 215; p. 784.
Davies, Charles W. T., New York, N. Y. Folding cuff. No. 1,141,942; June 8; Gaz. vol. 215; p. 337.
Davies, Chester S. (See Davenport, William A., assignor.)
Davies, Harold. (See Perkins, Weizmann, and Davies.)
Davis Brake Beam Company. (See Weaver, Frank R., assignor.)
Davis, Charles E., assignor to Goodman Manufacturing Company, Chicago, Ill. Mining-machine truck. No. 1,141,943; June 8; Gaz. vol. 215; p. 337.
Davis, George, Sharon, Pa. Hose-nozzle support. No. 1,141,106; June 1; Gaz. vol. 215; p. 6.
Davis, Gilbert G., Vancouver, British Columbia, Canada. Log-raft. No. 1,142,239; June 8; Gaz. vol. 215; p. 442.
Davis, James A., Washington, D. C. Horseshoe attachment. No. 1,142,028; June 8; Gaz. vol. 215; p. 369.
Davis, James C., Hinsdale, Ill., assignor to American Steel Foundries, New York, N. Y. Open-hearth furnace. No. 1,143,690; June 22; Gaz. vol. 215; p. 1012.
Davis, James M., Wytheville, Va. Nut-lock. No. 1,143,254; June 15; Gaz. vol. 215; p. 838.
Davis, John C., Port Huron, Mich. Playing-cards. No. 1,143,042; June 15; Gaz. vol. 215; p. 762.
Davis, John R., and U. M. Richardson, assignors to Rex Revolving Light Company, Inc., Vine Grove, Ky. Headlight. No. 1,141,780; June 1; Gaz. vol. 215; p. 244.
Davis Sewing Machine Company, The. (See Budroe, Charles F., assignor.)
Davis Sewing Machine Company, The. (See Yahle, William J., assignor.)
Davis, Stanley J., Watertown, N. Y. Paper-stock feeding and weighing machine. No. 1,141,233; June 1; Gaz. vol. 215; p. 50.
Davis, Thomas, Vancouver, British Columbia, Canada. Cross-tie. No. 1,141,444; June 1; Gaz. vol. 215; p. 128.
Davis, Thomas, and A. Reininger, San Francisco, Cal. Milk-can container and server. No. 1,142,940; June 15; Gaz. vol. 215; p. 726.
Davis, William A., and A. Greenwood, Knoxville, Tenn. Bed. No. 1,142,876; June 15; Gaz. vol. 215; p. 703.
Davis, William W., Sylacauga, Ala. Combined harrow and cultivator. No. 1,142,081; June 8; Gaz. vol. 215; p. 387.
Davis, William W., Chicago, Ill. Burglar-proof window. No. 1,142,403; June 8; Gaz. vol. 215; p. 501.
Davison, John O., Memphis, Tenn. Concrete building construction. No. 1,141,445; June 1; Gaz. vol. 215; p. 128.
Davock, Clarence W. (See Briggs and Davock.)
Dawson, Arthur T., Westminster, London, and J. Horne, Barrow-in-Furness, assignors to Vickers Limited, Westminster, England. Control system for gun-mountings and other mechanism. No. 1,143,948; June 22; Gaz. vol. 215; p. 1100.
Dawson, Edward S., Jr., Schenectady, N. Y., assignor to General Electric Company. Resinous composition and making the same. No. 1,141,944; June 8; Gaz. vol. 215; p. 338.
Day, Albert V. T., New Rochelle, assignor, by mesne assignments, to Hall Switch & Signal Company, New York, N. Y. Railway-traffic-controlling system. No. 1,144,465; June 29; Gaz. vol. 215; p. 1310.
Day, Charles L., Glencoe, Ill. Injecting device. No. 1,143,813; June 22; Gaz. vol. 215; p. 1053.
Day, George H., assignor to American Optical Company, Southbridge, Mass. Eye-protector. No. 1,142,313; June 8, Gaz. vol. 215; p. 467.
De Barbadillo, Frank, assignor to E. J. Reilly, Baltimore, Md. Shoe-polishing device. No. 1,142,679; June 8; Gaz. vol. 215; p. 595.
De Brown, Peter, and H. A. Schultz, Kawkawlin, Mich. Eye-shield for attachment to automobiles. No. 1,141,763; June 1; Gaz. vol. 215; p. 238.
De Cew, Judson A., Montreal, Quebec, Canada. Non-corrosive compound for refrigerator-cars and the like. No. 1,141,446; June 1; Gaz. vol. 215; p. 129.
De Coninck, Arthur, Woluwe-St.-Lambert, near Brussels, Belgium. Detachable wheel for vehicles. No. 1,141,234; June 1; Gaz. vol. 215; p. 51.
De Costa, John B., Kansas City, Mo. Vacuum-cleaner. No. 1,141,321; June 1; Gaz. vol. 215; p. 84.
De Fernanzo, Garibaldi, Philadelphia, Pa. Draft-rigging. No. 1,141,696; June 1; Gaz. vol. 215; p. 216.
De Fernanzo, Garibaldi, Philadelphia, Pa. Shock-absorber. No. 1,143,753; June 22; Gaz. vol. 215; p. 1032.
De Fernanzo, Garibaldi, assignor of one-third to L. Morley, Philadelphia, Pa. Shock-absorber. No. 1,144,530; June 29; Gaz. vol. 215; p. 1331.
De Hay, Gedeon J., Brockton, Mass. Washing-machine. No. 1,141,235; June 1; Gaz. vol. 215; p. 51.
De Jahn, Fredrik W., assignor to General Chemical Company, New York, N. Y. Production of ammonia. No. 1,141,947; June 8; Gaz. vol. 215; p. 338.
De Jahn, Fredrik W., assignor to General Chemical Company, New York, N. Y. Production of ammonia. No. 1,141,948; June 8; Gaz. vol. 215; p. 339.
De Jahn, Fredrik W., assignor to General Chemical Company, New York, N. Y. Catalyst for the production of ammonia and making the same. No. 1,143,366; June 15; Gaz. vol. 215; p. 877.
De La Mare, Thomas, Tooele, Utah. Conduit-mold. No. 1,144,692; June 29; Gaz. vol. 215; p. 1387.
De Lage, Arthur H., Alpena, Mich. Holy-water font. No. 1,144,175; June 22; Gaz. vol. 215; p. 1182.
De Leeuw, Adolph L., Cincinnati, Ohio. Circular braider. No. 1,141,382; June 1; Gaz. vol. 215; p. 106.
De Leeuw, Adolph L., assignor to The Cincinnati Milling Machine Company, Cincinnati, Ohio. Grinder structure. No. 1,143,691; June 22; Gaz. vol. 215; p. 1012.
De Leeuw, Adolph L., assignor to The Cincinnati Milling Machine Company, Cincinnati, Ohio. Machine-tool control. No. 1,144,935; June 29; Gaz. vol. 215; p. 1470.
De Pew, John E. (See De Pew, Thomas H., assignor.)
De Pew, Thomas H., Canton, assignor of one-half to J. E. De Pew, Cambridge, Ohio. Piano-pedal. No. 1,143,177; June 15; Gaz. vol. 215; p. 810.
De Pue, Grosvenor H., *et al.* (See Watts, Ben, assignor.)
De Voe, Albert H., Elizabeth, N. J., assignor to The Singer Manufacturing Company. Plait-folder for sewing-machines. No. 1,142,770; June 8; Gaz. vol. 215; p. 626.
De Voe, Chauncey, New York, N. Y. Sash-fastener. No. 1,141,698; June 1; Gaz. vol. 215; p. 217.
De Vries, Peter J., Sheldon, Iowa. Gun-muffler. No. 1,143,814; June 22; Gaz. vol. 215; p. 1054.
De Witt, Eugene T. (See Lee and De Witt.)
De Ybarrondo, Vincent C., Los Angeles, Cal. Apparatus for developing films. No. 1,143,892; June 22; Gaz. vol. 215; p. 1081.
Deacon, Herbert A. (See Deacon and Jordan, assignors.)
Deacon, William P., East Orange, and J. E. Jordan, Newark, assignors of one-third to H. A. Deacon, East Orange, N. J. Supporting-stand for automobiles. No. 1,144,110; June 22; Gaz. vol. 215; p. 1159.

Deady, George F., and G. H. Holland, assignors of one-third to said Deady, one-third to said Holland, and one-third to W. Haas, Dayton, Ohio. Gearing. No. 1,144,324; June 22; Gaz. vol. 215; p. 1234.
Deakin, Gerald, Berkeley, Cal. Telephone-exchange system. No. 1,142,678; June 8; Gaz. vol. 215; p. 594.
Deal, Erastus C., Greensboro, N. C. Filing apparatus. No. 1,142,941; June 15; Gaz. vol. 215; p. 726.
Dean, William W., assignor to Kellogg Switchboard and Supply Company, Chicago, Ill. Telephone-transmitter. No. 1,141,107; June 1; Gaz. vol. 215; p. 6.
Dean, William W., assignor to Kellogg Switchboard and Supply Company, Chicago, Ill. Electrical signaling device. No. 1,141,945; June 8; Gaz. vol. 215; p. 338.
Dechy, Abel, Paris, France. Splash-preventer for road-vehicles. No. 1,142,680; June 8; Gaz. vol. 215; p. 595.
Decker, Alonzo G., Orangeville, assignor to The National Lettergraph Company, Baltimore, Md. Type setting and distributing machine. No. 1,141,946; June 8; Gaz. vol. 215; p. 338.
Deere & Company. (See Olmsted, Norman K., assignor.)
Deere & Mansur Co. (See Dooley, Clarence H., assignor.)
Deere & Mansur Company. (See White, Charles E., assignor.)
Dees, Mark A., assignor to The American Tire Company, St. Louis, Mo. Pneumatic tire. No. 1,144,959; June 29; Gaz. vol. 215; p. 1478.
Defiance Pressed Steel Company, The. (See Behringer, Grover F., assignor.)
Degginger, Louis A., Covington, Ky., assignor to The No-Break Egg Carrier Company, Cincinnati, Ohio. Carrier for eggs, fruits, and the like. No. 1,143,593; June 15; Gaz. vol. 215; p. 955.
Degginger, Louis A., Covington, Ky., assignor to The No Break Egg Carrier Company, Cincinnati, Ohio. Egg-carrier. No. 1,144,111; June 22; Gaz. vol. 215; p. 1159.
Delaney, Isaac L., and J. W. Patterson, Waynesburg, Pa. Sealing-machine of the hot-water type. No. 1,142,801; June 15; Gaz. vol. 215; p. 677.
Delaney, Michael G., Detroit, Mich., assignor, by mesne assignments, to Northern Sales Co., Toledo, Ohio. Film-reel. No. 1,144,693; June 29; Gaz. vol. 215; p. 1387.
Delaney, Michael G., Detroit, Mich., assignor, by mesne assignments, to Northern Sales Co., Toledo, Ohio. Regulator for film-machines. No. 1,144,694; June 29; Gaz. vol. 215; p. 1387.
Delaney, Michael G., Detroit, Mich., assignor to The Northern Sales Co., Toledo, Ohio. Adjustable casing for film-reels. No. 1,144,695; June 29; Gaz. vol. 215; p. 1388.
Delaney, Michael G., Detroit, Mich., assignor to The Northern Sales Co., Toledo, Ohio. Moving-picture machine. No. 1,144,696; June 29; Gaz. vol. 215; p. 1388.
Delaney, Michael G., Detroit, Mich., assignor to The Northern Sales Co., Toledo, Ohio. Film-reel. No. 1,144,697; June 29; Gaz. vol. 215; p. 1389.
Delaney, William H., Toronto, Ontario, Canada. Ash-sifter. No. 1,141,949; June 8; Gaz. vol. 215; p. 339.
Delany, Edward L., New York, N. Y. Valve device. No. 1,144,757; June 29; Gaz. vol. 215; p. 1410.
Delany, Patrick B., South Orange, N. J., and Nantucket, Mass., assignor to Telepost Company, New York, N. Y. Automatic telegraphy. No. 1,141,868; June 1; Gaz. vol. 215; p. 271.
Delaval Separator Company, The. (See Spross, Hubert M., assignor.)
Dellwitz, Oscar, Tegel, near Berlin, Germany. Rolling-machine. No. 1,141,447; June 1; Gaz. vol. 215; p. 129.
Deming, William L., Salem, Ohio. Folding wall attachment for articles of furniture. No. 1,142,404; June 8; Gaz. vol. 215; p. 502.
Denhard, Harry W., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. Electric heater. No. 1,143,572; June 15; Gaz. vol. 215; p. 947.
Denhard, Harry W., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. Automatic cut-off for electrically-heated devices. No. 1,143,573; June 15; Gaz. vol. 215; p. 947.
Denhard, Harry W., San Francisco, Cal., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. Electric resistance element. No. 1,143,574; June 15; Gaz. vol. 215; p. 947.
Denhard, Harry W., San Francisco, Cal., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. Electric resistance element. No. 1,143,575; June 15; Gaz. vol. 215; p. 948.
Denhard, Harry W., San Francisco, Cal., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. Electric resistance unit. No. 1,143,576; June 15; Gaz. vol. 215; p. 948.
Denhard, Harry W., San Francisco, Cal., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. Electric resistance unit. No. 1,143,577; June 15; Gaz. vol. 215; p. 949.
Denhard, Harry W., San Francisco, Cal., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. Electric heater. No. 1,143,578; June 15; Gaz. vol. 215; p. 949.
Denhard, Harry W., San Francisco, Cal., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. Electric heater. No. 1,143,579; June 15; Gaz. vol. 215; p. 949.
Denis, John G., New Orleans, La. Fruit or vegetable cutter. No. 1,142,681; June 8; Gaz. vol. 215; p. 595.
Dennison, Robert L., Kansas City, Mo. Kiln. No. 1,141,619; June 1; Gaz. vol. 215; p. 190.
Denny, Clarence B., Milton, assignor to Wright & Ditson, Boston, Mass. Game appliance. No. 1,144,112; June 22; Gaz. vol. 215; p. 1160.
Dent Hardware Company, The. (See Schrader, Thomas O., assignor.)
Derry, George M., Danvers, Mass. Door-operating mechanism. No. 1,142,405; June 8; Gaz. vol. 215; p. 502.
Des Champs, Alphonse J., Hartford, Conn. Window-bead fastener. No. 1,142,029; June 8; Gaz. vol. 215; p. 369.
Deslauriers Column Mold Company. (See Deslauriers, Philippe A. and L. P., assignors.)
Deslauriers, Louis P. (See Deslauriers, Philippe A. and L. P.)
Deslauriers, Louis P., Ware, Mass. Tire-lining. No. 1,141,697; June 1; Gaz. vol. 215; p. 217.
Deslauriers, Philippe A. and L. P., assignors, by mesne assignments, to Deslauriers Column Mold Company, St. Paul, Minn. Column-mold. No. 1,143,107; June 15; Gaz. vol. 215; p. 785.
Desmond, John, Wilmette, Ill., assignor, by mesne assignments, to Taylor Manufacturing Company. Valve. No. 1,144,758; June 29; Gaz. vol. 215; p. 1410.
Desy, Irene, Lewistown, Mont. Attachment for disk plows. No. 1,144,176; June 22; Gaz. vol. 215; p. 1183.
Detlie, Ole H., Hudson, S. D. Saw-set. No. 1,143,754; June 22; Gaz. vol. 215; p. 1033.
Detroit Body Co. *et al.* (See Ball, Albert P., assignor.)
Detroit Can Company. (See Ford, Ben K., assignor.)
Detroit Scale Manufacturing Company. (See Riedel, Charles E., assignor.)
Detroit Steel Products Company. (See Briggs and Davock, assignors.)
Detroit Stove Works. (See Davenport, Ransom W., assignor.)
Detroit Stove Works. (See Van Wie and Davenport, assignors.)
Detroit Wire Spring Company. (See Rickerd, Fred S., assignor.)
Dewees, George P., Kansas City, Mo. Folding level and plumb-rule. No. 1,143,256; June 15; Gaz. vol. 215; p. 838.
Dewling, Thomas G. (See Weiss and Dewling.)
Dexter Folder Company. (See Jones, Richard E., assignor.)
Dexter, Frank, Vista, Fla. Tire. No. 1,141,620; June 1; Gaz. vol. 215; p. 190.
Diamond Crystal Salt Company. (See Well, Charles L., assignor.)
Dickel, James A., and L. H. Baker, Ottumwa, Iowa. Hay-press. No. 1,143,949; June 22; Gaz. vol. 215; p. 1101.
Dickinson, Ernest C., Anniston, Ala. Ladder. No. 1,141,950; June 8; Gaz. vol. 215; p. 339.
Dickinson, Fairleigh S., Rutherford, N. J. Syringe. No. 1,142,682; June 8; Gaz. vol. 215; p. 595.
Dickinson, Walter L. (See Lamb and Dickinson.)
Dickson, Charles, Elizabeth, N. J. Toothpick-holder. No. 1,141,781; June 1; Gaz. vol. 215; p. 244.
Didier, Joseph L., Salisbury, N. C. Drilling and boring machine. No. 1,142,802; June 15; Gaz. vol. 215; p. 677.
Diefenderfer, Victor J., South Bethlehem, assignor to Victor Engineering Company, Limited, Allentown, Pa. Speed-governor. No. 1,142,803; June 15; Gaz. vol. 215; p. 678.
Diehl, Ambrose N., Duquesne, Pa. Hot-blast stove. No. 1,141,108; June 1; Gaz. vol. 215; p. 6.
Diehl, Jacob, Glenbeulah, Wis. Universal air-blast. No. 1,141,236; June 1; Gaz. vol. 215; p. 51.
Diehl, Philip, and H. Eichhorn, Elizabeth, N. J., assignors to The Singer Manufacturing Company. Multiple-needle sewing-machine. No. 1,142,082; June 8; Gaz. vol. 215; p. 387.
Diener, Charles, New York, N. Y. Self-locking hinge. No. 1,141,782; June 1; Gaz. vol. 215; p. 244.
Dietz, Charles, Chicago, Ill., assignor to The National Malleable Castings Company, Cleveland, Ohio. Car-coupling. No. 1,142,501; June 8; Gaz. vol. 215; p. 536.
Dietze, Charles H. (See Szlányi, William, assignor.)
Diffany, Henry, Newark, N. J. Hand-bag fastener. No. 1,143,514; June 15; Gaz. vol. 215; p. 926.
Differential Clock Co. (See Busenbenz, Jacob J., assignor.)
Dillon, John M., Sterling, Ill. Fence-post. No. 1,142,406; June 8; Gaz. vol. 215; p. 503.
Dilworth, Porter & Company. (See Morrison, Andrew, assignor.)
Dingman, Charles F., Jersey City, N. J. Railway signaling system. No. 1,143,755; June 22; Gaz. vol. 215; p. 1033.
Dinsmoor, John L., New York, N. Y. Arc-lamp. No. 1,143,108; June 15; Gaz. vol. 215; p. 785.
Dismore, Angelo V., county of Buckingham, England. Treatment of iron. No. 1,141,530; June 1; Gaz. vol. 215; p. 158.
Ditchfield, Frank, Montreal, Quebec, Canada. Bolster. No. 1,143,615; June 22; Gaz. vol. 215; p. 987.
Ditesheim, Isidore, Chaux-de-Fonds, Switzerland, assignor to Fabrique Movado L. A. J. Ditesheim & frère. Bracelet-watch. No. 1,142,554; June 8; Gaz. vol. 215; p. 553.
Dixey, Marie U., New York, N. Y. Veil. No. 1,141,531; June 1; Gaz. vol. 215; p. 159.
Dixon, Amos F., Newark, N. J., assignor to Western Electric Company, New York, N. Y. Call-registering mechanism. No. 1,143,367; June 15; Gaz. vol. 215; p. 877.

Dixon, Amos F., Newark, N. J., assignor to Western Electric Company, New York, N. Y. Switch-selector. No. 1,143,368; June 15; Gaz. vol. 215; p. 877.
Dixon, Thomas W., Chicago, Ill. Vapor-generator. No. 1,144,820; June 29; Gaz. vol. 215; p. 1432.
Dobbel, Frederick W., Sonoma, Cal. Egg-tester. No. 1,144,466; June 29; Gaz. vol. 215; p. 1310.
Dobregeansky, Alexander, St. Petersburg, Russia. Bullet or projectile for firearms. No. 1,141,783; June 1; Gaz. vol. 215; p. 244.
Dobrowolski, Wladyslaw, Pittsburgh, Pa. Cigar, cigarette, and match dispenser. No. 1,144,821; June 29; Gaz. vol. 215; p. 1433.
Dodd, Robert, and H. B. P. Humphries, London, England. Preparation of semiplastic material from the soja bean. No. 1,143,893; June 22; Gaz. vol. 215; p. 1081.
Doddridge, Loyal M., Stanton, Mich. Envelop. No. 1,142,942; June 15; Gaz. vol. 215; p. 727.
Dodge Brothers. (See Dodge, John F. and H. E., assignors.)
Dodge, Horace E. (See Dodge, John F. and H. E.)
Dodge, John F., Detroit, and H. E. Dodge, Grosse Point, assignors to Dodge Brothers, Detroit, Mich. Friction-clutch. No. 1,141,322; June 1; Gaz. vol. 215; p. 84.
Dodge, John F., Detroit, and H. E. Dodge, Grosse Point, assignors to Dodge Brothers, Detroit, Mich. Universal joint mechanism. No. 1,144,531; June 29; Gaz. vol. 215; p. 1331.
Dodge, Philip T., New York, N. Y., assignor to Mergenthaler Linotype Company. Typographical machine. No. 1,144,822; June 29; Gaz. vol. 215; p. 1433.
Dodge, Robert W., Omaha, Nebr. Steam and hot-water dish-washer. No. 1,142,083; June 8; Gaz. vol. 215; p. 388.
Dodman, George S., Liverpool, England. Aerial and like vessel. No. 1,144,177; June 22; Gaz. vol. 215; p. 1183.
Dodson, Clifton T., Whitney, Tex. Money-changing machine. No. 1,144,698; June 29; Gaz. vol. 215; p. 1389.
Dodson, William H., New York, N. Y. Hand-stamp. No. 1,142,240; June 8; Gaz. vol. 215; p. 442.
Dolgeville Felt Shoe Company. (See Menge, William, Jr., assignor.)
Doman, Lewis B., assignor to Amphion Piano Player Company, Elbridge, N. Y. Pneumatic self-playing musical instrument. No. 1,141,621; June 1; Gaz. vol. 215; p. 190.
Dominici, Henri, *et al.* (See Biquard, Robert, assignor.)
Dominion Paper Box Company. (See Jones, John L., assignor.)
Domizi, David F., Franklin, Pa. Piston-ring-shell turning and parting machine. No. 1,143,950; June 22; Gaz. vol. 215; p. 1101.
Donald-Hutchinson Patents Ltd. (See Hutchinson, George, assignor.)
Donaldson, George A., Girard, Ill. Shuttle. No. 1,144,178; June 22; Gaz. vol. 215; p. 1183.
Donnelly, John J., Denver, Colo. Windmill. No. 1,142,502; June 8; Gaz. vol. 215; p. 536.
Dooley, Clarence H., Rock Island, Ill., assignor to Deere & Mansur Co., Moline, Ill. Marker mechanism for planters. No. 1,142,314; June 8; Gaz. vol. 215; p. 467.
Doolittle, Harry J., and O. W. Johnson, Cleveland, Ohio; said Johnson assignor to said Doolittle. Clock striking mechanism. No. 1,142,943; June 15; Gaz. vol. 215; p. 727.
Dornes, Raymond A., New York, N. Y. Pump. No. 1,143,255; June 15; Gaz. vol. 215; p. 828.
Dorneth, Julius, assignor to Typograph-Gesellschaft m. b. H., Berlin, Germany. Matrix-bar for line setting and casting machines. No. 1,143,692; June 22; Gaz. vol. 215; p. 1013.
Dorrill, Robert A., Newark, N. J. Toy railway. No. 1,142,150; June 8; Gaz. vol. 215; p. 411.
Dorsey, Walter A., assignor to The Bonney-Floyd Company, Columbus, Ohio. Car-wheel construction. No. 1,142,315; June 8; Gaz. vol. 215; p. 468.
Double, Edward, Los Angeles, Cal. Combined rotary drilling nut and slips. No. 1,143,257; June 15; Gaz. vol. 215; p. 838.
Dougal, William M. (See Greer, Charles L., assignor.)
Douglas, Charles E., Turner, Oreg. Weed-cutting implement. No. 1,142,503; June 8; Gaz. vol. 215; p. 537.
Douglas, Charles H., Springfield, assignor to Douglas Saw & Machinery Co., Boston, Mass. Driving-chain for transmitting power. No. 1,141,869; June 1; Gaz. vol. 215; p. 272.
Douglas, Raiford W., Miami, Fla. Auxiliary box-cover. No. 1,141,699; June 1; Gaz. vol. 215; p. 217.
Douglas Saw & Machinery Co. (See Douglas, Charles H., assignor.)
Douglas, William M., Galveston, Tex. Gun or rifle. No. 1,141,383; June 1; Gaz. vol. 215; p. 107.
Dow Chemical Company, The. (See Barstow, Edwin O., assignor.)
Dow, George B. N., and J. F. Cavanaugh, Manchester, N.H. Knife-sharpener. No. 1,142,030; June 8; Gaz. vol. 215; p. 369.
Dow Surgical Battery Company. (See Shattuck, Burt E., assignor.)
Down, Ernest U., assignor to E. O. Miller and C. F. Leatherman, Bowling Green, Ohio. Combination coat, hat, and pants hanger. No. 1,143,693; June 22; Gaz. vol. 215; p. 1013.
Downey, Richard F., assignor of one-half to H. Loewenbach, Milwaukee, Wis. Measuring device. No. 1,143,109; June 15; Gaz. vol. 215; p. 786.
Downing, Charles E., *et al.* (See Wittenberg, Paul J., assignor.)
Doyle, George E., Sydney, and G. Barden, Newton, near Sydney, New South Wales, Australia. Wheel for common road-vehicles. No. 1,141,384; June 1; Gaz. vol. 215; p. 107.
Doyle, James S., New York, N. Y., assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa. Electro-pneumatic brake for railway-cars. No. 1,141,109; June 1; Gaz. vol. 215; p. 7.
Doyle, John B, Hamburg, Miss. Air-cock operator. No. 1,142,683; June 8; Gaz. vol. 215; p. 596.
Doyle, William, Balboa, Canal Zone. Building construction. No. 1,144,894; June 29; Gaz. vol. 215; p. 1458.
Drägerwerk Heinr. & Bernh. Dräger. (See Claren, Ludwig F., assignor.)
Drago, Louis A., Seattle, Wash. Fuel-controlling device. (Reissue.) No. 13,933; June 22; Gaz. vol. 215; p. 1240.
Drake, Albert H., Waterloo, Iowa. Telephone-receiver support. No. 1,142,804; June 15; Gaz. vol. 215; p. 678.
Drake, Frank H. (See Leighton and Drake.)
Draper Company. (See Brazell, Thomas F., assignor.)
Draper Company. (See Rhoades, Alonzo E., assignor.)
Dreher, Phillip J., Toledo, Ohio. Stop means for sheet-handling apparatus. No. 1,143,369; June 15; Gaz. vol. 215; p. 878.
Dreibelbis, Walter F., Royersford, Pa. Chicken-feeder. No. 1,143,756; June 22; Gaz. vol. 215; p. 1034.
Drew, Herbert W., Chicago, Ill. Window-ventilator. No. 1,141,532; June 1; Gaz. vol. 215; p. 159.
Drosin, Henry B., and M. Gordon, New York, N. Y.; said Drosin assignor to said Gordon. Butter-cutter. No. 1,141,784; June 1; Gaz. vol. 215; p. 244.
Drozinski, Bronislaw, Scranton, Pa. Combined aero, hydro, and auto plane. No. 1,143,894; June 22; Gaz. vol. 215; p. 1081.
Drumm, John B., Winslow, Ariz. Automatic roller. No. 1,144,030; June 22; Gaz. vol. 215; p. 1130.
Dryden, Frederick H., Montgomery City, Mo. Means for converting motion. No. 1,141,323; June 1; Gaz. vol. 215; p. 84.
Dryer, Benjamin J., New York, N. Y. Resilient wheel. No. 1,142,504; June 8; Gaz. vol. 215; p. 537.
Ducas, Charles, and H. S. Coleman, assignors to Jacobs-Shupert United States Fire-Box Company, New York, N. Y. Locomotive-boiler. No. 1,143,694; June 22; Gaz. vol. 215; p. 1013.
Duffy, Charles H., North Laurel, Md., assignor to F. H. Tweed, Chicago, Ill. Compression-coupling. No. 1,143,815; June 22; Gaz. vol. 215; p. 1054.
Duffy, Charles H., Laurel, Md., assignor to F. H. Tweed, Chicago, Ill. Compression-coupling. No. 1,143,816; June 22; Gaz. vol. 215; p. 1054.
Duffy, David, New York, assignor to J. P. Carlson, Brooklyn, N. Y. Engine-valve. No. 1,142,316; June 8; Gaz. vol. 215; p. 468.
Dulven, Jacob, Lugano, Switzerland. Type-writer with electromagnetic thrust. No. 1,142,151; June 8; Gaz. vol. 215; p. 411.
Dula, Caleb C., Yonkers, N. Y. Tobacco product. No. 1,144,823; June 29; Gaz. vol. 215; p. 1433.
Dula, Caleb C., Yonkers, N. Y. Tobacco cartridge and package. No. 1,144,824; June 29; Gaz. vol. 215; p. 1433.
Dula, Caleb C., Yonkers, N. Y. Smoking tube or implement. No. 1,144,825; June 29; Gaz. vol. 215; p. 1434.
Dunbar, Frank G., Chicago, Ill., assignor to Sargent Company. Rail-anchor. No. 1,144,532; June 29; Gaz. vol. 215; p. 1332.
Dunham, Andrew A., Bainbridge, assignor to Casein Company of America, New York, N. Y. Paper-coating composition and making the same. No. 1,141,951; June 8; Gaz. vol. 215; p. 339.
Dunham Company, The. (See Dunham, Wiley J., assignor.) (Reissue.)
Dunham, Floyd S., Peculiar, Mo. Wire fastener and stretcher. No. 1,142,555; June 8; Gaz. vol. 215; p. 553.
Dunham, Hermon E., Seattle, Wash. Inspirator for internal-combustion engines. No. 1,143,258; June 15; Gaz. vol. 215; p. 839.
Dunham, Wiley J., assignor to The Dunham Company, Berea, Ohio. Land roller or pulverizer. (Reissue.) No. 13,921; June 1; Gaz. vol. 215; p. 291.
Dunlop, William F., New York, N. Y. Jaw-prop. No. 1,143,515; June 15; Gaz. vol. 215; p. 926.
Dunn, Burt E., assignor to Dunn's Whole Milk Buttermilk Company, Inc., Muncie, Ind. Making a whole-milk product. No. 1,143,516; June 15; Gaz. vol. 215; p. 926.
Dunn, Emanuel W., San Francisco, Cal. Heater. No. 1,144,699; June 29; Gaz. vol. 215; p. 1389.
Dunn, Frederick J. (See Holland and Dunn.)
Dunn, Joseph, Birmingham, England. Direction-indicator for motor and other vehicles. No. 1,142,505; June 8; Gaz. vol. 215; p. 537.
Dunne, James, London, England. Office-desk and the like. No. 1,143,259; June 15; Gaz. vol. 215; p. 839.
Dunner, Julius, New York, N. Y. Cranking device. No. 1,143,517; June 15; Gaz. vol. 215; p. 926.
Dunn's Whole Milk Buttermilk Company. (See Dunn, Burt E., assignor.)

Duplex Printing Press Company. (See Bechman, Henry F., assignor.)
Duplex Vending Machine Company. (See Hartman, Hans, assignor.)
Duplicator Manufacturing Company. (See Flanigan, John J., assignor.)
Dupree, Samuel F., Jr., G. Ritter, and A. Heckman, Wilkinsburg, Pa. Top-operating mechanism for automobiles. No. 1,143,260; June 15; Gaz. vol. 215; p. 839.
Durfee Embalming Fluid Co. (See Brown and Sinclair, assignors.)
Durham, J. Edward. (See Baker, Joseph G., assignor.)
Duschnitz, Willibald, Vienna, Austria-Hungary. Brake-shoe. No. 1,143,518; June 15; Gaz. vol. 215; p. 927.
Dustman, William L., North Yakima, Wash., assignor to R. Wachsmith. Truck. No. 1,142,944; June 15; Gaz. vol. 215; p. 727.
Dwofsky, Bernard, and S. Sambar, Newark, N. J. Heating apparatus. No. 1,144,533; June 29; Gaz. vol. 215; p. 1332.
Dworak, August, Stuttgart, Germany. Pamphlet-covering machine. No. 1,141,785; June 1; Gaz. vol. 215; p. 245.
Dyer, William E. L., and D. E. Blair, Montreal, Quebec, Canada. Track-scraper. No. 1,144,826; June 29; Gaz. vol. 215; p. 1434.
Dygert, Charles H., Rochester, N. Y., assignor to D. & H. Manufacturing Jewelers Inc. Sleeve-holder. No. 1,144,113; June 22; Gaz. vol. 215; p. 1160.
Dykes, James, New Rockford, N. D. Load-trimmer. No. 1,144,179; June 22; Gaz. vol. 215; p. 1184.
Dyson, Alfred H., Chicago, Ill., assignor, by mesne assignments, to Kellogg Switchboard & Supply Company. Telephone system. No. 1,144,407; June 29; Gaz. vol. 215; p. 1290.
E. G. Staude Manufacturing Company. (See Staude, Edwin G., assignor.)
E. I. du Pont de Nemours Powder Company. (See Stine, Charles M., assignor.)
E. R. Squibb & Sons. (See Hereth, Frank S., assignor.)
E. R. Squibb & Sons Research & Biological Laboratories. (See Park, William H., assignor.)
E. W. Bliss Company. (See Kruse, Peter, assignor.)
Eagan, William H., Grand Rapids, Mich. Attachment for agricultural forks. No. 1,142,783; June 8; Gaz. vol. 215; p. 632.
Eager, Fredrick W., Winthrop, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Holddown for lasting-machines. No. 1,142,152; June 8; Gaz. vol. 215; p. 411.
Eastman Kodak Company. (See Kroedel and Speidel, assignors.)
Eastman Kodak Company. (See Riddell and Kroedel, assignors.)
Eastman Kodak Company. (See Speidel, Charles F., assignor.)
Eaton, Wyman. (See Helander, Eaton, and Collier.)
Eberhard, George F., Trenton, N. J., assignor to R. H. Ingersoll & Bro. Winding-clutch for watches. No. 1,144,827; June 29; Gaz. vol. 215; p. 1435.
Eberhardt, Henry E., assignor to Newark Gear Cutting Machine Co., Newark, N. J. Milling-cutter. No. 1,141,700; June 1; Gaz. vol. 215; p. 217.
Eberhart, Felix, Newark, N. J., assignor to American Can Company, New York, N. Y. Metallic label. No. 1,144,534; June 29; Gaz. vol. 215; p. 1333.
Ebler, Erich, Heidelberg, Germany. Manufacture, isolation, and enrichment of radio-active substances by absorption from solutions. No. 1,142,153; June 8; Gaz. vol. 215; p. 412.
Ebler, Erich, Heidelberg, Germany. Treating radio-active ores and intermediate products. No. 1,142,154; June 8; Gaz. vol. 215; p. 412.
Eccles, William, Chorlton-cum-Hardy, England. Turbine. No. 1,142,506; June 8; Gaz. vol. 215; p. 537.
Eckenwiler, George M., assignor of nine-twentieths to E. and F. Singer, A. Claypool, J. Adams, A. Crider, J. Brogden, W. O'Brien, A. Grimm, V. and D. Pennell, Canton, Ohio. Flying-machine. No. 1,143,817; June 22; Gaz. vol. 215; p. 1035.
Eclipse Machine Company. (See Ellett, Frederick S., assignor.)
Economic Power & Products Company. (See Marsden, Mark W., assignor.)
Economic Press Delivery Company. (See White, Charles A., assignor.)
Edison, Thomas A., Llewellyn Park, West Orange, N. J. Charging storage batteries. No. 1,143,818; June 22; Gaz. vol. 215; p. 1035.
Edison, Thomas A., Llewellyn Park, assignor to New Jersey Patent Company, West Orange, N. J. Sound-recording apparatus. No. 1,142,507; June 8; Gaz. vol. 215; p. 538.
Edmiston, John, Glasgow, Scotland. Scholastic appliance for teaching the reading of clock-dials and the distinguishing of colors. No. 1,143,519; June 15; Gaz. vol. 215; p. 927.
Edmondson, E. A. *et al.* (See Taylor, Nicholas, assignor.)
Edson, John W., Hingham Center, assignor to L. E. Vose, Walpole, Mass. Spool. No. 1,141,448; June 1; Gaz. vol. 215; p. 120.
Edward G. Budd Manufacturing Company, The. (See Ledwinka, Joseph, assignor.)
Edwards, Bruce V., assignor to Edwards Engineering & Manufacturing Company, Newark, N. J. Balloon-stripping machine. No. 1,142,945; June 15; Gaz. vol. 215; p. 728.
Edwards, Christopher B., Covington, Ky. Nail and washer for sheet-metal roofing and the like. No. 1,144,700; June 29; Gaz. vol. 215; p. 1390.
Edwards, Daniel W. (See Purdy and Edwards.)
Edwards Engineering & Manufacturing Company. (See Edwards, Bruce V., assignor.)
Edwards, John K., Philadelphia, Pa. Internal-combustion engine. No. 1,142,508; June 8; Gaz. vol. 215; p. 538.
Edwards, Oliver M., Syracuse, N. Y. Wind-shield for vehicles. No. 1,143,616; June 22; Gaz. vol. 215; p. 987.
Edwards, Reuben J., Waterbury, and C. B. Greene, Morrisville, assignors to H. D. Ryder, Bellows Falls, Vt. Turning-lathe. No. 1,144,535; June 29; Gaz. vol. 215; p. 1333.
Edwin B. Stimpson Company. (See Stimpson, Edwin B., assignor.)
Edwin Harrington, Son & Co. (See Harrington and Mullen, assignors.)
Eek, Albin C., Webster Groves, assignor, by mesne assignments, to Essaness Manufacturing Company, St. Louis, Mo. Pipe-cleaner. No. 1,144,759; June 29; Gaz. vol. 215; p. 1410.
Efraimson, Carl J. (See Leadholm and Efraimson.)
Egry Register Company, The. (See Malm, Axel, assignor.)
Egry Register Company, The. (See Malm, Axel C. V., assignor.)
Ehrhart, Raymond N., Edgewood, Pa., assignor to The Westinghouse Machine Company. Condenser. No. 1,142,784; June 8; Gaz. vol. 215; p. 632.
Ehrlich, William, assignor to Case & Martin Co., Chicago, Ill. Transmission-gearing. No. 1,143,617; June 22; Gaz. vol. 215; p. 987.
Eichhorn, Hermann. (See Diehl and Eichhorn.)
Eichler, Artur, Zossen, Germany, assignor, by mesne assignments, to Mergenthaler Linotype Company. Matrix-setting and type-line-casting machine. No. 1,143,370; June 15; Gaz. vol. 215; p. 878.
Eigen, Benno vom, Newark, N. J., assignor to Aug. Goertz & Co. Safety-catch for bag-frames. No. 1,143,336; June 15; Gaz. vol. 215; p. 865.
Eilert, Walter O., Valley Center, Kans. Wrench. No. 1,141,786; June 1; Gaz. vol. 215; p. 246.
Eisele, Othmar, Vienna, Austria-Hungary. Molding-machine. No. 1,144,180; June 22; Gaz. vol. 215; p. 1184.
Ekenberg, Martin, assignor, by mesne assignments, to Wetcarbonizing Limited, London, England. Briqueting of carbonized peat and the like. No. 1,143,951; June 22; Gaz. vol. 215; p. 1101.
Electric Controller and Manufacturing Company, The. (See Rippl, Charles H., assignor.)
Electric Railway Improvement Company, The. (See Herrick, Albert B., assignor.)
Electric Spark Appliance Co. (See Grubman, Leo, assignor.)
Electric Storage Battery Company, The. (See Myers, Herbert G., assignor.)
Electro Bleaching Gas Company. (See Ornstein, Georg, assignor.)
Electro Dental Manufacturing Company. (See Schramm, Adolph W., assignor.)
Electromobile Company, The. (See Bernheimer, Sanford J., assignor.)
Elektrizitäts-Aktiengesellschaft Hydrawerk. (See Schröter, Fritz, assignor.)
Elevator Locks Co. (See McKinney, Samuel L., assignor.)
Elevator Supply & Repair Company. (See Wylde and Schenck, assignors.) (Reissue.)
Elkins, Henry O., Bath, N. Y. Container. No. 1,144,643; June 29; Gaz. vol. 215; p. 1369.
Ellery, Robert L., Toledo, Ohio. Valve. No. 1,141,870; June 1; Gaz. vol. 215; p. 272.
Ellett, Frederick S., Elmira, N. Y. Engine-starting device for motor-cycles. No. 1,141,787; June 1; Gaz. vol. 215; p. 246.
Ellett, Frederick S., assignor to Eclipse Machine Company, Elmira, N. Y. Bicycle-hub. No. 1,143,261; June 15; Gaz. vol. 215; p. 840.
Ellinger, Julian O., New York, N. Y. Metallic column, &c. No. 1,141,385; June 1; Gaz. vol. 215; p. 107.
Ellinger, Julian O., New York, N. Y. Collapsible concrete reinforcement. No. 1,142,031; June 8; Gaz. vol. 215; p. 370.
Ellinger, Julian O., assignor of one-half to Universal Electric Welding Company, New York, N. Y. Armor or other metal plate. No. 1,142,241; June 8; Gaz. vol. 215; p. 443.
Ellinger, Julian O., assignor of one-half to Universal Electric Welding Company, New York, N. Y. Form for concrete construction. No. 1,142,805; June 15; Gaz. vol. 215; p. 679.
Elliott-Fisher Company. (See Culverwell, Joseph F., assignor.)
Elliott-Fisher Company. (See Parmly, Eleazar, Jr., assignor.)
Elliott, Harvey, assignor to A. M. Parker, Detroit, Mich. Driving-clutch. No. 1,143,371; June 15; Gaz. vol. 215; p. 877.

Elliott, Richard P. (See Benmosche and Elliott.)
Elliott, Thomas, Cincinnati, Ohio, and W. E. Moore, Pittsburgh, Pa. Center-bearing for cars. No. 1,144,644; June 29; Gaz. vol. 215; p. 1370.
Ellis, Alfred J., and C. E. Nellis, Woodcliff-on-Hudson, N. J., assignors to A. J. Ellis, Inc. Apparatus for forming sheet metal into shape. No. 1,142,242; June 8; Gaz. vol. 215; p. 443.
Ellis, Carleton, Larchmont, assignor to Chadeloid Chemical Company, New York, N. Y. Paint and varnish remover. No. 1,143,110; June 15; Gaz. vol. 215; p. 786.
Ellis, Carleton, Larchmont, assignor to Chadeloid Chemical Company, New York, N. Y. Paint and varnish remover. No. 1,143,111; June 15; Gaz. vol. 215; p. 786.
Ellis, Carleton, Montclair, N. J., assignor to Ellis-Foster Company. Treating lead. No. 1,141,177; June 1; Gaz. vol. 215; p. 31.
Ellis, Carleton, Montclair, N. J., assignor to Ellis-Foster Company. Apparatus for making white lead. No. 1,144,701; June 29; Gaz. vol. 215; p. 1390.
Ellis, Elmer E., Pomona, Cal. Hammer-handle attachment. No. 1,142,946; June 15; Gaz. vol. 215; p. 728.
Ellis-Foster Company. (See Ellis, Carleton, assignor.)
Ellis, Jane L., Buffalo, N. Y. Educational device. No. 1,142,947; June 15; Gaz. vol. 215; p. 729.
Ellman, Abraham, and S. Paull, assignors of one-third to S. Gitelman, New York, N. Y. Bathing-suit pocket. No. 1,142,509; June 8; Gaz. vol. 215; p. 539.
Ellwood, Clarence W., Vermont, Wis. Foldable partition. No. 1,141,110; June 1; Gaz. vol. 215; p. 7.
Elvin, Albert G., Somerville, N. J., and J. L. Mohun, Brooklyn, N. Y., assignors, by mesne assignments, to Frankiln Railway Supply Company, Wilmington, Del. Connection for locomotive drifting-valves. No. 1,141,111; June 1; Gaz. vol. 215; p. 8.
Emery, Edward C., Los Angeles, Cal. Treating food remnants. No. 1,141,622; June 1; Gaz. vol. 215; p. 190.
Empire Chemical Company. (See Clope, Irving S., assignor.)
Emrich, Firm of T. (See Emrich, Richard, assignor.)
Emrich, Richard, assignor to Firm of T. Emrich, Pforzheim, Germany. Curb-chain bracelet. No. 1,144,408; June 29; Gaz. vol. 215; p. 1291.
Enamel Concrete Company. (See Stehm, Frank R., assignor.)
Engel, Karl, Arlington, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Making shoe-uppers. No. 1,142,155; June 8; Gaz. vol. 215; p. 412.
Engel, Karl, Arlington, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Stock-cutting. No. 1,142,156; June 8; Gaz. vol. 215; p. 413.
Engel, Karl, Revere, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Making shoes. No. 1,142,556; June 8; Gaz. vol. 215; p. 554.
Engel, Karl, Revere, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Machine for use in the manufacture of boots and shoes. No. 1,142,557; June 8; Gaz. vol. 215; p. 554.
England, Alicia, Jasper county, Mo. Toy seesaw. No. 1,144,895; June 29; Gaz. vol. 215; p. 1458.
Engle, Lillian K., Philadelphia, Pa. Fastening device. No. 1,142,510; June 8; Gaz. vol. 215; p. 539.
English & Mersick Co., The. (See Krah, Alexis, assignor.)
Enterprise Tool and Metal Works. (See Rosengren, George T., assignor.)
Eppenstein, Otto, assignor to Firm of C. Zeiss, Jena, Germany. Separating prism system. No. 1,142,755; June 8; Gaz. vol. 215; p. 620.
Eppenstein, Otto, assignor to Firm of C. Zeiss, Jena, Germany. Adjusting device. No. 1,142,756; June 8; Gaz. vol. 215; p. 620.
Eppler, Andrew, Lynn, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Welt-winding machine. No. 1,141,449; June 1; Gaz. vol. 215; p. 129.
Eppler, Andrew, Lynn, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Back-rest and back-gage or welt-guide mechanism. No. 1,142,157; June 8; Gaz. vol. 215; p. 413.
Epright, Alonzo W., Altoona, Pa. Car-weighing apparatus. No. 1,142,407; June 8; Gaz. vol. 215; p. 503.
Erdmann, Oscar A., Detroit, Mich. Tail-light. No. 1,142,558; June 8; Gaz. vol. 215; p. 555.
Erickson, Edward, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Shoemaking-machine. No. 1,141,324; June 1; Gaz. vol. 215; p. 85.
Erickson, Ole C. (See Koyen and Erickson.)
Erickson, Oscar G., Detroit, Mich. Device for supplying heated air to carbureters. No. 1,141,450; June 1; Gaz. vol. 215; p. 130.
Erlei, Joseph F., Milan, Wis. Tool for use in filing swaged saw-teeth. No. 1,141,451; June 1; Gaz. vol. 215; p. 130.
Erlenbach, Arnold, Dessau, Germany. Preparation for dyeing hairs, furs, and the like. No. 1,144,325; June 22; Gaz. vol. 215; p. 1234.
Erlenbach, Arnold, and K. Marx, Dessau, assignors to Actien Gesellschaft für Anilin Fabrikation, Berlin, Germany. Dyes for furs, hairs, and the like. No. 1,144,181; June 22; Gaz. vol. 215; p. 1184.
Ernst, Friedrich C., New York, N. Y. Umbrella-rib-tip retainer. No. 1,144,182; June 22; Gaz. vol. 215; p. 1185.
Erwin, Walter E., J. N. Lloyd, M. D. Mann, Jr., and R. L. Winchell, Santa Barbara, Cal. Door-operating mechanism for cars and the like. No. 1,142,408; June 8; Gaz. vol. 215; p. 503.
Escher, Gustav E., South Orange, N. J. Means for reinforcing and binding concrete. No. 1,144,536; June 29; Gaz. vol. 215; p. 1333.
Essaness Manufacturing Company. (See Eek, Albin C., assignor.)
Essick, William W., Reading, Pa. Mold for lens-mounting blocks. No. 1,143,895; June 22; Gaz. vol. 215; p. 1082.
Esterbrook, Otto G., New York, N. Y. Knockdown crib. No. 1,142,948; June 15; Gaz. vol. 215; p. 729.
Etienne, Paul, St. Imier, Switzerland. Transmitter for systems of electrically recording signs. No. 1,142,684; June 8; Gaz. vol. 215; p. 596.
Evans, Charles S., Berkeley, Cal. Vise. No. 1,141,237; June 1; Gaz. vol. 215; p. 52.
Evans, Joseph E., Bedford, Ind. Drilling-machine. No. 1,143,178; June 15; Gaz. vol. 215; p. 810.
Evans, Merlin S. (See Leech and Evans.)
Everhart, Perry W. assignor of one-half to W. L. Siders, Elwood, Ind. Coating-pot. No. 1,142,685; June 8; Gaz. vol. 215; p. 597.
Eves, Joshua V., Belfast, Ireland. Apparatus for hackling and spreading flax and other long-staple fibers. No. 1,143,520; June 15; Gaz. vol. 215; p. 928.
Ewald, Martin R., Pentwater, Mich. Bed attachment. No. 1,143,618; June 22; Gaz. vol. 215; p. 988.
Ewer, Frank A., Victor, N. Y. Spirit-level. No. 1,141,325; June 1; Gaz. vol. 215; p. 85.
Ewing, Harry L., Dallas, Tex. Spring-pull for locks. No. 1,143,896; June 22; Gaz. vol. 215; p. 1082.
Ewing, Samuel R., Owensboro, Ky. Portable hay-rack. No. 1,141,112; June 1; Gaz. vol. 215; p. 8.
Excelsior Steel Furnace Company, The. (See Scherer, Albert G., assignor.)
Excess Indicator Company. (See Swoboda, Hans O., assignor.)
Extensive Manufacturing Company, The. (See Fancher, Charles J., assignor.)
Eynon, William H., Cleveland, Ohio. Making chain mesh. No. 1,143,262; June 15; Gaz. vol. 215; p. 840.
F. R. Patch Mfg. Co. (See Crane, Leslie, assignor.)
Faber, Frank M., Canton, Ohio. Method of and apparatus for making motion-picture films. No. 1,143,521; June 15; Gaz. vol. 215; p. 928.
Faber, Frank M., Canton, Ohio. Method of and apparatus for making motion-picture films. No. 1,143,522; June 15; Gaz. vol. 215; p. 928.
Fabrique Movado L. A. J. Ditesheim & frère. (See Ditesheim, Isidore, assignor.)
Fabrizio, Michele. (See Bunten, William G., assignor.)
Faifer, Anthony, assignor, by mesne assignments, to H. E. Wright, Chicago, Ill. Loose-leaf binder and perforator. No. 1,142,032; June 8; Gaz. vol. 215; p. 370.
Fail, Charles S., Charlton, Iowa. Attachment for vehicle-tops. No. 1,142,317; June 8; Gaz. vol. 215; p. 469.
Failing, George, Philadelphia, Pa. Bottle-capping machine. No. 1,143,819; June 22; Gaz. vol. 215; p. 1055.
Fairbanks, John W., Marion, Ohio. Excavating-machine. No. 1,143,619; June 22; Gaz. vol. 215; p. 988.
Fairchild, Joseph A., assignor to V. V. Antley, Forest, Miss. Oven. No. 1,143,372; June 15; Gaz. vol. 215; p. 879.
Faithfull, Clarence M., Liberty, Mo. Interest-bearing instrument of obligation. No. 1,141,452; June 1; Gaz. vol. 215; p. 131.
Fales, Edward D., La Grange, assignor to Automatic Electric Company, Chicago, Ill. Telephone trunking system. No. 1,143,820; June 22; Gaz. vol. 215; p. 1056.
Falk, Herman W., and W. K. Andrew, Milwaukee, Wis., assignors to M. Rumely Company, Laporte, Ind. Carbureter water-supply. No. 1,142,877; June 15; Gaz. vol. 215; p. 703.
Falls, Jesse G., Memphis, Tenn. Treating cotton-seed meal, cotton-seed meats, and cotton-seed flour. No. 1,142,243; June 8; Gaz. vol. 215; p. 443.
Faloon, Dalton B., Dubois, Pa. Type-writer. No. 1,141,533; June 1; Gaz. vol. 215; p. 159.
Fancher, Charles J., Thompsonville, Conn., assignor to The Extensive Manufacturing Company, New York, N. Y. Counter mechanism. No. 1,141,623; June 1; Gaz. vol. 215; p. 191.
Fanning, Fred E., Woodland, Ill. Storage-battery-charging system. No. 1,144,354; June 29; Gaz. vol. 215; p. 1273.
Farago, John, Stamford, Conn. Bed-spring. No. 1,144,183; June 22; Gaz. vol. 215; p. 1185.
Farbwerke vorm. Meister Lucius & Brüning. (See Schmidt and Steindorff, assignors.)
Farington, Thayer B., Columbus, Ohio. Draft-regulating device in locomotive front ends. No. 1,142,686; June 8; Gaz. vol. 215; p. 597.
Farmer, Clyde C., Chicago, Ill., assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa. Triple-valve-testing apparatus. No. 1,143,620; June 22; Gaz. vol. 215; p. 988.
Farrell, William H., South Bethlehem, Pa. Spark-plug. No. 1,142,511; June 8; Gaz. vol. 215; p. 539.
Farrow, Ernest L., and C. R. Barker, assignors to The Cleveland Wire Spring Company, Cleveland, Ohio. Bed-spring. No. 1,143,179; June 15; Gaz. vol. 215; p. 811.
Fason, Ira C. (See Conkell, Elias W., assignor.)

Faulka, Chelcias E., Pueblo, Colo. Safety-pin. No. 1,141,952; June 8; Gaz. vol. 215; p. 340.
Faust, John G., assignor of thirty-five one-hundredths to H. C. Manns, Baltimore, Md. Transmission-gearing. No. 1,144,184; June 22; Gaz. vol. 215; p. 1185.
Faust, Levin. (See Swenson and Faust.)
Fay, Charles, Sr., Philadelphia, Pa. Composite disk for caps of bottles or jars. No. 1,144,589; June 29; Gaz. vol. 215; p. 1351.
Fay, Thomas J., Brooklyn, N. Y., assignor to The Goby Engine Company. Internal-combustion engine. No. 1,142,949; June 15; Gaz. vol. 215; p. 729.
Fearn, William R., Camden, N. J. Non-refillable bottle. No. 1,143,695; June 22; Gaz. vol. 215; p. 1014.
Federal-Huber Company. (See Graham, William S., assignor.)
Federal Screw Corporation. (See Carpenter, Teunauski Z., assignor.)
Federal Toy Pistol Company. (See Rohn, John R., assignor.)
Feeney, William P., Hudson Falls, N. Y. Automatic stuff-box for paper-making machines. No. 1,143,523; June 15; Gaz. vol. 215; p. 929.
Fcerick, James M., Nashville, Tenn. Casting apparatus. No. 1,141,788; June 1; Gaz. vol. 215; p. 246.
Fefell, Henry H., assignor to Ohmer Fare Register Company, Dayton, Ohio. Fare-box. No. 1,142,244; June 8; Gaz. vol. 215; p. 444.
Fegley, Thomas J., and G. O. Leopold, assignors to North Bro's M'f'g Co., Philadelphia, Pa. Vise. No. 1,144,828; June 29; Gaz. vol. 215; p. 1435.
Fehrenz, Frederick A., Syracuse, N. Y. Nut-lock. No. 1,144,645; June 29; Gaz. vol. 215; p. 1370.
Fekete, Julius, New York, N. Y. Combination folding cot and stretcher. No. 1,144,760; June 29; Gaz. vol. 215; p. 1411.
Feldmann, Ernst, assignor to The Ingersoll Milling Machine Co., Rockford, Ill. Milling-machine spindle-saddle. No. 1,143,373; June 15; Gaz. vol. 215; p. 879.
Fell, Charles, Elyria, Ohio, assignor to National Tube Company, Pittsburgh, Pa. Apparatus for scraping pipe-skelp. No. 1,142,950; June 15; Gaz. vol. 215; p. 730.
Feltwell, Peter M. (See Beatley and Feltwell.)
Fendler, Georg, Schöneberg, near Berlin, Germany. Removing acetone from lecithin-containing substances. No. 1,144,829; June 29; Gaz. vol. 215; p. 1435.
Fenlason, Orin C., Hoquiam, Wash. Collapsible veneer box. No. 1,142,084; June 8; Gaz. vol. 215; p. 388.
Fenn, William B., assignor to The Wedoit Company, Columbus, Ohio. Means for sterilizing vessel-closures. No. 1,141,178; June 1; Gaz. vol. 215; p. 31.
Fenn, William B., assignor to The Wedoit Company, Columbus, Ohio. Preserving food products. No. 1,141,238; June 1; Gaz. vol. 215; p. 52.
Fenn, William B., assignor to The Wedoit Company, Columbus, Ohio. Apparatus for sterilizing perishable materials. No. 1,141,239; June 1; Gaz. vol. 215; p. 52.
Fenn, William B., assignor to The Wedoit Company, Columbus, Ohio. Sterilizing-machine. No. 1,141,240; June 1; Gaz. vol. 215; p. 53.
Fenn, William B., assignor to The Wedoit Company, Columbus, Ohio. Treating-chamber for sterilizing-machines. No. 1,141,241; June 1; Gaz. vol. 215; p. 53.
Fenn, William B., assignor to The Wedoit Company, Columbus, Ohio. Sterilizing organic material. No. 1,141,242; June 1; Gaz. vol. 215; p. 54.
Fenton, Ernest V., Des Moines, Iowa. Ladder. No. 1,142,806; June 15; Gaz. vol. 215; p. 679.
Fentress, Frank P., Detroit, Mich., assignor to The Troxel Manufacturing Company, Elyria, Ohio. Supplementary seat and carrier for motor-cycles. No. 1,144,646; June 29; Gaz. vol. 215; p. 1370.
Ferguson, Arnold B. (See Knipple, Charles W., assignor.)
Ferguson, Clara L. K., Philadelphia, Pa. Flexible dress-overshoe. (Reissue.) No. 13,928; June 15; Gaz. vol. 215; p. 959.
Ferguson, George M., Elyria, Ohio. Portable safety-stop for railways. No. 1,142,807; June 15; Gaz. vol. 215; p. 679.
Ferguson, Ida D., Dubuque, Iowa. Horseshoe. No. 1,142,808; June 15; Gaz. vol. 215; p. 680.
Ferguson, Isaac T., Tiptonville, Tenn. Cultivator. No. 1,143,524; June 15; Gaz. vol. 215; p. 929.
Ferngren, Enoch T., assignor of one-fourth to F. E. Wear, Kansas City, Mo. Glass-furnace. No. 1,143,112; June 15; Gaz. vol. 215; p. 786.
Ferres, Jeffrey T., Los Angeles, Cal. Machine for making corrugated paper-board. No. 1,142,409; June 8; Gaz. vol. 215; p. 503.
Ferris, William I., Westfield, N. J. Dispensing-stopper for ink-bottles. No. 1,143,525; June 15; Gaz. vol. 215; p. 929.
Fessenden, Reginald A., Brant Rock, Mass., assignor, by mesne assignments, to S. M. Kintner, Pittsburgh, Pa., and H. M. Barrett, Bloomfield, N. J., receivers. Transmitting and receiving electrical energy. No. 1,141,386; June 1; Gaz. vol. 215; p. 108.
Fessenden, Reginald A., Brant Rock, Mass., assignor, by mesne assignments, to S. M. Kintner, Pittsburgh, Pa., and H. M. Barrett, Bloomfield, N. J., receivers. Apparatus for the transmission and receipt of electrical energy. No. 1,141,453; June 1; Gaz. vol. 215; p. 131.
Feuerlein, Otto, Charlottenburg, and M. von Pirani, Wilmersdorf, Germany, assignors, by mesne assignments, to General Electric Company. Mounting metallic filaments on filament-carriers of incandescent lamps. No. 1,144,114; June 22; Gaz. vol. 215; p. 1160.
Feuerstein, Frank, Williamsville, N. Y. Poultry-feeding device. No. 1,142,687; June 8; Gaz. vol. 215; p. 597.
Fezzey, Chester T. (See Chamberlin and Fezzey.)
Fidjeland, Terje A., deceased. Fostvedt, Iveland; J. A. Schwartz, representative, Christianssand S., Norway. Mechanism for attaching sighting-telescopes to firearms. No. 1,144,647; June 29; Gaz. vol. 215; p. 1379.
Field-Brundage Co. (See McMullen, Vincent E., assignor.)
Fielding, Philip H., East Norwalk, and F. E. Lewis, 2d, Saugatuck, Conn.; said Fielding assignor to said Lewis. Vehicle-indicator. No. 1,141,701; June 1; Gaz. vol. 215; p. 218.
Filbin, James D., assignor to The Lake City Manufacturing and Supply Company, Cleveland, Ohio. Spraying head or nozzle. No. 1,142,410; June 8; Gaz. vol. 215; p. 504.
Filippi, Giuseppe, Turin, Italy. Lock for umbrellas or the like. No. 1,143,043; June 15; Gaz. vol. 215; p. 762.
Filitti, Leonard J., Albany, N. Y. Electric train control. No. 1,141,953; June 8; Gaz. vol. 215; p. 340.
Fillmore, Waldo R., and E. Boillot, Kansas City, Mo. Bed-clothes-clamp. No. 1,142,559; June 8; Gaz. vol. 215; p. 555.
Fillmore, Waldo R., and E. Boillot, Kansas City, Mo. Compartment-bed. No. 1,144,960; June 29; Gaz. vol. 215; p. 1478.
Finckh, Karl, assignor to Berliner Import- und Export-Gesellschaft, m. b. H., Berlin, Germany. Pin for securing artificial teeth and making the same. No. 1,143,696; June 22; Gaz. vol. 215; p. 1014.
Finkelstein, Benatt. (See Rosenbaum and Finkelstein.)
Fire Detecting Wire Company, The. (See Harsch, Charles A., assignor.)
Fire Prevention Company. (See Paine, William H., assignor.)
Firm, Joseph L., Berwyn, Ill. Resilient wheel. No. 1,143,180; June 15; Gaz. vol. 215; p. 811.
First Trust and Savings Bank, trustee. (See Kimball, George E., assignor.)
Firth, John, Jr. (See Brown, Walter J., assignor.)
Fischbach, Walter M., Milwaukee, Wis. Stereopticon. No. 1,142,158; June 8; Gaz. vol. 215; p. 413.
Fischer, Philip A., New York, N. Y. Thumb-tack. No. 1,142,688; June 8; Gaz. vol. 215; p. 598.
Fishburne, Edward W., assignor of three-sixths to A. Meyer, two-sixths to T. B. Leonard, and one-sixth to J. Askin, Richmond, Va. Shade-hanger. No. 1,143,263; June 15; Gaz. vol. 215; p. 840.
Fisher, Dudley T., Columbus, Ohio, assignor to The Jeffrey Manufacturing Company. Electric switch. No. 1,142,318; June 8; Gaz. vol. 215; p. 469.
Fisher, Henry L., assignor to Landis Machine Company, Waynesboro, Pa. Hand-operated threading-die. No. 1,142,411; June 8; Gaz. vol. 215; p. 504.
Fisher, Henry L., Chazy, N. Y. Portable camp-bed. No. 1,143,374; June 15; Gaz. vol. 215; p. 880.
Fisher, Louis K., *et al.* (See Cartwright, Ernest O., assignor.)
Fitch, Wilbur R., Belmont, Mass. Drier. No. 1,144,185; June 22; Gaz. vol. 215; p. 1185.
Fitzgerald, Michael, Medina, N. Y. Window-fastener. No. 1,142,412; June 8; Gaz. vol. 215; p. 504.
Fix, Arthur J., Buffalo, N. Y. Machine for sharpening razor and other blades. No. 1,144,467; June 29; Gaz. vol. 215; p. 1311.
Fjellman, Bengt W., Gottenborg, Sweden. Ball-bearing. No. 1,143,375; June 15; Gaz. vol. 215; p. 880.
Fjellman, Bengt W., assignor to Aktiebolaget Svenska Kullagerfabriken, Gottenborg, Sweden. Thrust ball-bearing. No. 1,144,115; June 22; Gaz. vol. 215; p. 1161.
Flaherty, James F., and C. Gerlach, assignors, by mesne assignments, to Carey & Co., Philadelphia, Pa. Supplemental cover for boxed goods. No. 1,144,326; June 22; Gaz. vol. 215; p. 1234.
Flanagan, Thomas J., assignor of one-half to N. S. Silbert, Neodesha, Kans. Explosive-engine. No. 1,143,526; June 15; Gaz. vol. 215; p. 930.
Flanigan, John J., assignor to Duplicator Manufacturing Company, Chicago, Ill. Multiple-copying machine. No. 1,141,702; June 1; Gaz. vol. 215; p. 218.
Fleischer, Morris, and A. C. O. Bock, New York, N. Y. Watch-protector. No. 1,144,830; June 29; Gaz. vol. 215; p. 1435.
Flexner, Jefferson E., and E. O'Toole, Gary, W. Va. Mining-machine. No. 1,143,897; June 22; Gaz. vol. 215; p. 1082.
Flick, Henry. (See Butcher and Flick.)
Flick, Warren J. (See Huck, John T., assignor.)
Float-Jet Carburetor Co. (See Smith, Elmer S., assignor.)
Florentine Flooring Company Limited, The. (See Lizieri, Giovanni, assignor.)
Foerster, Otto H. (See Seaman, Charles H., assignor.)
Fogg, Newell T., Sanford, Me. Hockey-stick. No. 1,143,376; June 15; Gaz. vol. 215; p. 880.
Folberth, Frederick G., Cleveland, Ohio. Attachment for hydrocarbon-engines. No. 1,142,951; June 15; Gaz. vol. 215; p. 730.

Folger, Harry S., Chicago, Ill. Hand-stamp. No. 1,142,560; June 8; Gaz. vol. 215; p. 555.
Folger, Harry S., Chicago, Ill. Hand-stamp. No. 1,142,561; June 8; Gaz. vol. 215; p. 556.
Folger, Harry S., Chicago, Ill. Reversible blank for stamp-mounts. No. 1,142,562; June 8; Gaz. vol. 215; p. 556.
Follansbee, Gilbert, *et al.* (See Smith, George Z., assignor.)
Foos, Marcus A., Fremont, assignor to National Carbon Company, Cleveland, Ohio. Dry cell. No. 1,143,181; June 15; Gaz. vol. 215; p. 811.
Forbes, Philip J., New York, N. Y. Reel-guide and strap-holder. No. 1,144,831; June 29; Gaz. vol. 215; p. 1436.
Ford, Ben K., assignor to Detroit Can Company, Detroit, Mich. Receptacle. No. 1,141,534; June 1; Gaz. vol. 215; p. 160.
Ford, Bruce, Philadelphia, Pa. Means for holding cells in a battery-box. No. 1,142,245; June 8; Gaz. vol. 215; p. 444.
Ford, Howeth T., Central Valley, N. Y. Washing device for automobiles and other vehicles. No. 1,142,689; June 8; Gaz. vol. 215; p. 598.
Ford, Thomas P., New York, N. Y. Hose-supporter. No. 1,144,832; June 29; Gaz. vol. 215; p. 1436.
Fordice, Edwin, Fairbury, Nebr. Skate attachment. No. 1,141,454; June 1; Gaz. vol. 215; p. 131.
Forest, Francis A., Sault Ste. Marie, assignor of one-half to J. P. Conrick and one-half to T. F. Hickler, Detroit, Mich. Portable fire-escape. No. 1,144,702; June 29; Gaz. vol. 215; p. 1390.
Forged Steel Wheel Company. (See Hansen, John M., assignor.)
Forrester, Peter C., West Tacoma, Wash. Pulverizer. No. 1,142,159; June 8; Gaz. vol. 215; p. 414.
Förster, Otto K. (See Saunders and Förster.)
Fortesque, Charles L., Wilkinsburg, assignor, by mesne assignments, to Westinghouse Electric & Manufacturing Company, East Pittsburgh, Pa. Electric apparatus. No. 1,144,648; June 29; Gaz. vol. 215; p. 1371.
Fortin, Benjamin P., Hartford, Conn., assignor to Underwood Typewriter Company, New York, N. Y. Typewriting machine. No. 1,144,978; June 29; Gaz. vol. 215; p. 1485.
Fortiner, Benjamin F., and J. G. Main, assignors to The Hale and Kilbourn Manufacturing Company, Philadelphia, Pa. Cushion. No. 1,143,182; June 15; Gaz. vol. 215; p. 812.
Fosbraey, Alfred T., Niagara Falls, N. Y. Coated-paper-drying apparatus. No. 1,144,896; June 29; Gaz. vol. 215; p. 1458.
Foster, James F., Buffalo, N. Y. Pot-cover. No. 1,141,455; June 1; Gaz. vol. 215; p. 132.
Foster, Oliver M., assignor to W. J. Rich, Cleveland, Ohio. Cleaning surfaces. No. 1,141,243; June 1; Gaz. vol. 215; p. 54.
Foulke, Horace M., assignor to The J. L. Clark Carriage Company, Oshkosh, Wis. Vehicle-wheel and manufacturing same. No. 1,144,116; June 22; Gaz. vol. 215; p. 1161.
Fournier, John B. J., Oquossoc, Me. Handle for cooking vessels. No. 1,143,898; June 22; Gaz. vol. 215; p. 1083.
Fournier, Joseph B., Paris, France. Thermometer. No. 1,144,649; June 29; Gaz. vol. 215; p. 1372.
Fouts, Calvin C., Middletown, Ohio. Silo-door. No. 1,141,703; June 1; Gaz. vol. 215; p. 218.
Fowler, Frank P., Phoenix, Ariz. Watchman's recording-clock. No. 1,141,244; June 1; Gaz. vol. 215; p. 54.
Fox, Charles W., and J. L. Cypher, Connellsville, Pa. Nut-lock. No. 1,144,833; June 29; Gaz. vol. 215; p. 1436.
Fraleigh, Harold H. (See Campbell, Sanford B., assignor.)
Francis, William P., Atlanta, Ga. Concrete construction. No. 1,143,527; June 15; Gaz. vol. 215; p. 930.
Franck, Charles A., Yonkers, N. Y. Electrical push-button. No. 1,143,264; June 15; Gaz. vol. 215; p. 840.
Francke, William J., Highland Park, N. J. Turbine-wheel. No. 1,142,690; June 8; Gaz. vol. 215; p. 598.
Frank B. Cook Company. (See Corwin, Elmer R., assignor.)
Frank M. Randall Manufacturing Corporation. (See Stern, Philip K., assignor.)
Franke, August H., St. Louis, Mo. Apparatus for purifying oil. No. 1,142,512; June 8; Gaz. vol. 215; p. 540.
Frankenfield, Samuel B., Stroudsburg, Pa. Hat pin and fastener. No. 1,141,179; June 1; Gaz. vol. 215; p. 31.
Franklin, Charles S., London, England, assignor to Marconi Wireless Telegraph Company of America, New York, N. Y. Aerial conductor. No. 1,141,387; June 1; Gaz. vol. 215; p. 108.
Franklin Railway Supply Company. (See Elvin and Mohun, assignors.)
Franklin, Robert M., Galveston, Tex. Trap-net. No. 1,143,758; June 22; Gaz. vol. 215; p. 1034.
Franklin, Robert M., Galveston, Tex. Landing-net. No. 1,143,759; June 22; Gaz. vol. 215; p. 1035.
Frantz, Roland M. (See Hopper, Bert A., assignor.)
Franz, Ferdinand. (See Thompson, Luther C., assignor.)
Fraser-Tufts Manufacturing Company. (See Fraser, Warren F., assignor.
Fraser, Warren F., assignor to Fraser-Tufts Manufacturing Company, Boston, Mass. Car-door seal. No. 1,141,895; June 1; Gaz. vol. 215; p. 283.
Fraver, Lewis C., and I. E. Williams, Dayton, Ohio. Match-box. No. 1,143,113; June 15; Gaz. vol. 215; p. 787.
Frazer, James M., Weston, Mo. Wheel-tire-marking tool. No. 1,143,821; June 22; Gaz. vol. 215; p. 1056.
Frederickson, Herman, Mariners Harbor, N. Y. Heating stove and furnace. No. 1,144,117; June 22; Gaz. vol. 215; p. 1161.
Frederiksen, Victor, Roanoke, Va. Picture-slide controller for stereopticons. No. 1,141,456; June 1; Gaz. vol. 215; p. 132.
Freeland, Earle L., New York, N. Y. Game apparatus. No. 1,141,180; June 1; Gaz. vol. 215; p. 31.
Freeman, Fred P., Richland, Wash. Pressure-drop alarm for tires. No. 1,144,834; June 29; Gaz. vol. 215; p. 1437.
Freeman, Horace, Vancouver, British Columbia, Canada. Production of alkali-metal cyanid. No. 1,143,952; June 22; Gaz. vol. 215; p. 1102.
Freeman, Ladbrook H., assignor to The Guggenheim Laundry Machinery Company, Cleveland, Ohio. Ironing-press. No. 1,141,181; June 1; Gaz. vol. 215; p. 32.
Freeman, Ladbrook H., assignor to The Guggenheim Laundry Machinery Company, Cleveland, Ohio. Bosom-board. No. 1,144,118; June 22; Gaz. vol. 215; p. 1162.
Freese, Carl J., Elyria, Ohio. Paper-box handle. No. 1,141,789; June 1; Gaz. vol. 215; p. 247.
Freestone, Joseph T., Liverpool, England. Washing compound. No. 1,144,186; June 22; Gaz. vol. 215; p. 1186.
Freeto, George L., Mechanicsburg, Ill. Acetylene-generator. No. 1,141,182; June 1; Gaz. vol. 215; p. 32.
French, Edwin F., Los Angeles, Cal. Table for garment-pressing. No. 1,144,300; June 22; Gaz. vol. 215; p. 1226.
French, Elsamur S., and W. H. Carson, Denver, Colo.; said Carson assignor to said French. Easel. No. 1,141,704; June 1; Gaz. vol. 215; p. 219.
Freud, Joseph, Chicago, Ill. Focusing-hood for cameras. No. 1,143,045; June 15; Gaz. vol. 215; p. 762.
Freudenberger, Robert L. (See Blair and Freudenberger.)
Freundt, Louis J., Chicago, Ill., assignor to American Can Company, New York, N. Y. Dredge or sifter-top can. No. 1,141,535; June 1; Gaz. vol. 215; p. 160.
Frick Company. (See Reeler, Samuel E., assignor.)
Fricker, Victor J., Providence, R. I. Hat-hanger. No. 1,142,413; June 8; Gaz. vol. 215; p. 505.
Fried. Krupp Aktiengesellschaft. (See Berker and Sachtleben, assignors.)
Fried. Krupp Aktiengesellschaft Germaniawerft. (See Guthardt, Karl, assignor.)
Fried. Krupp Aktiengesellschaft Germaniawerft. (See Regenbogen, Conrad, assignor.)
Friedenwald, Jacob H., Baltimore, Md., assignor, by mesne assignments, to J. M. Gilbert, New York, N. Y. Travel detector or indicator for tires and the like. No. 1,144,961; June 29; Gaz. vol. 215; p. 1479.
Friedrich, Johannes L., assignor of one-half to J. Gerhardt, Dusseldorf, Germany. Milking-machine. No. 1,141,536; June 1; Gaz. vol. 215; p. 160.
Frisk, Enos C., and E. C. Anderson, Somerset, Wis. Utensil-knob. No. 1,142,691; June 8; Gaz. vol. 215; p. 599.
Froesé, Minna. (See Kaiser, Carl, assignor.)
Frost, Charles H., Pasadena, Cal. Manhole, sewer, or other conduit and constructing the same. No. 1,144,468; June 29; Gaz. vol. 215; p. 1311.
Frum, Creed C., assignor of one-fourth to J. W. Agnew, Clarksburg, W. Va. Passenger-exit register. No. 1,143,598; June 15; Gaz. vol. 215; p. 957.
Fry, Gideon A., New Kensington, Pa. Dust-mop. No. 1,143,528; June 15; Gaz. vol. 215; p. 930.
Frye, Charles H., Salt Lake City, Utah. Headlight-blind. No. 1,142,414; June 8; Gaz. vol. 215; p. 505.
Fuchs, Ernest, assignor to L. Renault, Billancourt, France. Change-speed gearing. No. 1,143,044; June 15; Gaz. vol. 215; p. 762.
Fuhry, Henry, assignor of one-half to Blumenfeld, Locher Co., Milwaukee, Wis. Device for cutting fabrics. No. 1,143,594; June 15; Gaz. vol. 215; p. 955.
Fuller, Charles E., Omaha, Nebr. Stringer-support. No. 1,144,031; June 22; Gaz. vol. 215; p. 1131.
Fuller, Frederick H. (See Tompkins and Fuller.)
Fuller, Frederick H., St. Lawrence, assignor to Tompkins-Hawley-Fuller Company, Valatie, N. Y. Process of and apparatus for craping paper. No. 1,143,377; June 15; Gaz. vol. 215; p. 881.
Fuller, George P., assignor to National Electrolytic Company, Niagara Falls, N. Y. Formaldehyde solution. No. 1,143,114; June 15; Gaz. vol. 215; p. 787.
Fuller, James A., assignor to Hamilton & Hamilton, Jr., Providence, R. I. Necktie-fastener. No. 1,143,580; June 15; Gaz. vol. 215; p. 950.
Fuller, Theodore W. (See Christensen and Fuller.)
Fullerton, Robert M., Spokane, Wash. Game apparatus. No. 1,141,624; June 1; Gaz. vol. 215; p. 191.
Furman, Howard G., Jr., Marsland, Nebr. Wire-stretcher. No. 1,142,952; June 15; Gaz. vol. 215; p. 731.
Furth, Fred C. (See Chaplin, Manley J., assignor.)
Furth, George W., Cleveland, Ohio. Tie-bandle. No. 1,141,790; June 1; Gaz. vol. 215; p. 247.
Furukawa, Hyosaku, Seattle, Wash. Automatic releasing mechanism for cameras. No. 1,144,301; June 22; Gaz. vol. 215; p. 1226.

Fynn, Valère A., assignor to Wagner Electric Manufacturing Company, St. Louis, Mo. Starter and ignition control. No. 1,143,378; June 15; Gaz. vol. 215; p. 881.

G. W. Todd & Company. (See Todd and Tiefel, assignors.)

Gabriel, Charles E. P., Birmingham, England. Lock for sliding doors. No. 1,144,537; June 29; Gaz. vol. 215; p. 1334.

Gaffney, Thomas. (See Maginnis and Gaffney.)

Gagan, Ralph, Oconomowoc, Wis. Cow-stall. No. 1,142,246; June 8; Gaz. vol. 215; p. 444.

Galdyn, Andro, and S. Lublin, Kewanee, Ill. Car construction. No. 1,142,878; June 15; Gaz. vol. 215; p. 704.

Gale, Eugene H. (See George, Grover, assignor.)

Gale Manufacturing Company. (See Beall, William L., assignor.)

Gallagher, Charles H., executor. (See Rites, Francis M.)

Gallagher, Edward D., assignor to Best & Company, New York, N. Y. Last. No. 1,141,326; June 1; Gaz. vol. 215; p. 85.

Gallagher, James A., and E. T. Herboltzheimer, Columbus, Ohio. Trolley-wheel guard. No. 1,142,033; June 8; Gaz. vol. 215; p. 370.

Gallant, Albert R. (See Gallant, James W. and A. R.)

Gallant, James W. and A. R., Elmore, Ohio. Collapsible building. No. 1,143,097; June 22; Gaz. vol. 215; p. 1014.

Gallinger, Robert O., Seattle, Wash. Horse-feeding device. No. 1,144,936; June 29; Gaz. vol. 215; p. 1470.

Gallivan, Frank B., assignor to The Newton Company, Newton, Mass. Waterproof leather-board and preparing the same. No. 1,142,953; June 15; Gaz. vol. 215; p. 731.

Galloway, Robert A., *et al.* (See Watts, Ben, assignor.)

Gambee, William Y., Brooklyn, N. Y. Dumping-vehicle. No. 1,141,113; June 1; Gaz. vol. 215; p. 8.

Gannon, Thomas F., Rochester, N. Y. Excavating and filling apparatus. No. 1,142,692; June 8; Gaz. vol. 215; p. 599.

Ganswindt, Herbert W., Los Angeles, Cal. Safety elevator device. No. 1,142,693; June 8; Gaz. vol. 215; p. 599.

Garay, John, Filbert, W. Va. Combined rail chair and joint. No. 1,141,954; June 8; Gaz. vol. 215; p. 340.

Gardner, Charlie J., International Falls, Minn. Street-sweeper. No. 1,142,415; June 8; Gaz. vol. 215; p. 505.

Gardner, George, South Melbourne, Victoria, Australia. Box-lid. No. 1,141,625; June 1; Gaz. vol. 215; p. 191.

Gardner, Prince A., St. Louis, Mo. Embossing-machine. No. 1,143,379; June 15; Gaz. vol. 215; p. 881.

Garford Manufacturing Company, The. (See Manson, Ray H., assignor.)

Garlow, C. J., *et al.* (See Lawrence, Daniel O., assignor.)

Garner, Vernon, assignor to United Printing Machinery Company, Boston, Mass. Multiple-sheet detector for paper-feeding. No. 1,142,247; June 8; Gaz. vol. 215; p. 445.

Garren, Lewis A., Oskaloosa, Kans. Pillow-holder. No. 1,144,187; June 22; Gaz. vol. 215; p. 1186.

Garretson, Eugene, Buffalo, N. Y. Magnetometer. No. 1,143,529; June 15; Gaz. vol. 215; p. 931.

Garvey, James D., Chicago, Ill. Brush. No. 1,144,355; June 29; Gaz. vol. 215; p. 1273.

Garvin, George J. (See Nyberg, Frank R., assignor.)

Gase, George A., assignor, by mesne assignments, to The Iceless Machine Company, Cleveland, Ohio. Check-valve. No. 1,142,513; June 8; Gaz. vol. 215; p. 540.

Gaskill, Elijah T., assignor of one-half to J. A. Bryan, Newbern, N. C. Sash-frame-holding means. No. 1,142,954; June 15; Gaz. vol. 215; p. 731.

Gasse, Joseph A., Brockton, Mass. Gate-controlling mechanism for railways. No. 1,142,319; June 8; Gaz. vol. 215; p. 469.

Gates, Frank M., Lents, Oreg., assignor to himself, and W. J. Baker, Newport, Ky. Stove. No. 1,143,581; June 15; Gaz. vol. 215; p. 950.

Gaumont, Léon, assignor to Société des Etablissements Gaumont, Paris, France. Means for synchronously displaying cinematographic pictures and reproducing sound. No. 1,144,339; June 22; Gaz. vol. 215; p. 1239.

Gauthier, George A., assignor to The Arrow Electric Company, Hartford, Conn. Binding-post. No. 1,142,416; June 8; Gaz. vol. 215; p. 505.

Gautier, Claude M., Putney, London, England. Armoring pneumatic tires. No. 1,143,265; June 15; Gaz. vol. 215; p. 841.

Gaw, William C., Cleveland, Ohio. Painter's platform. No. 1,142,955; June 15; Gaz. vol. 215; p. 731.

Gebhardt, William, San Antonio, Tex. Spring-wheel. No. 1,143,183; June 15; Gaz. vol. 215; p. 812.

Geddes, William L., Philadelphia, Pa., assignor to MacAndrews & Forbes Company, Camden, N. J. Licorice-root-fiber board. No. 1,143,621; June 22; Gaz. vol. 215; p. 989.

Gee, Harvey. (See Washburn, Claude F., assignor.)

Geissinger, Harry G., assignor to Geissinger Regulator Company, New York, N. Y. Electrically-controlled valve. No. 1,143,530; June 15; Gaz. vol. 215; p. 931.

Geissinger, Harry G., assignor to Geissinger Regulator Company, New York, N. Y. Automatic temperature-regulating system. No. 1,144,032; June 22; Gaz. vol. 215; p. 1131.

Geissinger Regulator Company. (See Geissinger, Harry G., assignor.)

Geist, Josef, Kraiburg-on-the-Inn, Germany. Gripper-tongs. No. 1,144,356; June 29; Gaz. vol. 215; p. 1274.

Gemmrig, Richard, South Pasadena, Cal. Concrete-mixer. No. 1,144,650; June 29; Gaz. vol. 215; p. 1372.

Gendreau, Auguste, assignor of one-half to E. E. McDonald, Bemidji, Minn. Disappearing car and logging-sled stake. No. 1,142,879; June 15; Gaz. vol. 215; p. 704.

General Chemical Company. (See De Jahn, Fredrik W., assignor.)

General Electric Company. (See Borzychowski, Leo, assignor.)

General Electric Company. (See Carichoff, Eugene R., assignor.)

General Electric Company. (See Collins, Edgar F., assignor.)

General Electric Company. (See Creighton, Elmer E. F., assignor.)

General Electric Company. (See Crissey, Clarence P., assignor.)

General Electric Company. (See Dawson, Edward S., Jr., assignor.)

General Electric Company. (See Feuerlein and Pirani, assignors.)

General Electric Company. (See Green, Harold V., assignor.)

General Electric Company. (See Guay, Emile J., assignor.)

General Electric Company. (See Halvorson and Ingalls, assignors.)

General Electric Company. (See Heilborn, Ernst, assignor.)

General Electric Company. (See Jacobs, Ernest H., assignor.)

General Electric Company. (See Jacoby, Richard, assignor.)

General Electric Company. (See Krämer, Bernhard, assignor.)

General Electric Company. (See Mensing, Karl, assignor.)

General Electric Company. (See Merriam, Ezra B., assignor.)

General Electric Company. (See Moody, Walter S., assignor.)

General Electric Company. (See Rice, Richard H., assignor.)

General Electric Company. (See Seede, John A., assignor.)

General Engineering and Construction Company. (See Ashley, Charles G., assignor.)

General Reduction Gas and By-Products Company. (See Hornsey, John W., assignor.)

George Culver Ltd. (See Sutcliffe, John H., assignor.)

George, Gilbert D., St. Paul, Minn. Goggles. No. 1,141,388; June 1; Gaz. vol. 215; p. 108.

George, Grover, assignor of one-half to E. H. Gale, Williamsfield, Ill. Steering apparatus for automobile-headlights. No. 1,144,033; June 22; Gaz. vol. 215; p. 1131.

Gerding, George W., Philadelphia, Pa. Toy. No. 1,141,389; June 1; Gaz. vol. 215; p. 109.

Gerding, Plumb F., Chicago, Ill. Core for electromagnets. No. 1,142,034; June 8; Gaz. vol. 215; p. 370.

Gerdom, Gregory, Watervliet, assignor to Ordnance Improvement Company, New York, N. Y. Composition for core of gas-check pads. No. 1,143,622; June 22; Gaz. vol. 215; p. 989.

Gerhardt, Johannes. (See Friedrich, Johannes L., assignor.)

Gerlach, Charles. (See Flaherty and Gerlach.)

Gerlach, Wilhelm, Johannesburg, Transvaal, South Africa. Elastic and ventilated tread for boots and shoes. No. 1,144,188; June 22; Gaz. vol. 215; p. 1186.

Gerlaugh, Arthur, Scottsville, Va. Appliance for land-rollers and the like. No. 1,144,897; June 29; Gaz. vol. 215; p. 1459.

German, Louis H., Louisville, Ky. Automatic burglar-alarm system. No. 1,141,327; June 1; Gaz. vol. 215; p. 86.

Gestgifvar, Karl A., Bitumen, Pa. Wrench. No. 1,143,115; June 15; Gaz. vol. 215; p. 787.

Gettinger, Andrew J. (See Wild and Gettinger.)

Gettle, Thomas S. (See Reed and Gettle.)

Ghadiali, Dinshah P. F., New York, N. Y. Faultfinder for internal-combustion engines. No. 1,144,898; June 29; Gaz. vol. 215; p. 1459.

Ghent, Leroy G. (See Webler and Ghent.)

Gibbons, Devillo B., Hermon, N. Y. Vehicle shaft attachment. No. 1,141,791; June 1; Gaz. vol. 215; p. 247.

Gibson, Alfred H., Harrogate, England. Partitioned receptacle. No. 1,144,835; June 29; Gaz. vol. 215; p. 1437.

Gibson, Arthur H., Easton, Pa., assignor to Ingersoll-Rand Company, New York, N. Y. Pulsator-driven percussive tool. No. 1,142,514; June 8; Gaz. vol. 215; p. 540.

Gibson, George H. (See Bancel, Paul A., assignor.)

Gibson, George H., Montclair, N. J. Hot-water heating system. No. 1,141,955; June 8; Gaz. vol. 215; p. 340.

Gibson, George H., Montclair, N. J. Hot-water heating system. No. 1,142,785; June 8; Gaz. vol. 215; p. 632.

Gibson, George H., Montclair, N. J., assignor to himself, and P. A. Bancel, New York, N. Y. Condenser. No. 1,143,380; June 15; Gaz. vol. 215; p. 882.

Gibson, George H., Montclair, N. J., assignor to himself, and P. A. Bancel, New York, N. Y. Condensing apparatus. No. 1,143,381; June 15; Gaz. vol. 215; p. 882.

Gibson, George H., Montclair, N. J., and P. A. Bancel, New York, N. Y. Steam-condensing apparatus. No. 1,143,382; June 15; Gaz. vol. 215; p. 883.

Gibson, William, Sr. (See Skemp and Gibson.)

Giedinghagen, William, Mount Sterling, Mo. Bath-cabinet. No. 1,143,822; June 22; Gaz. vol. 215; p. 1057.

Giese, Willy, Round Top, Tex. Measuring device. No. 1,143,531; June 15; Gaz. vol. 215; p. 932.

Gieve, James W., London, assignor to Gieve, Matthews & Seagrove Limited, Portsmouth, England. Life-saving waistcoat. No. 1,143,899; June 22; Gaz. vol. 215; p. 1083.

Gieve, Matthews & Seagrove Limited. (See Gieve, James W., assignor.)

Gifford, Harry E., assignor to Champion Metal Weather Strip and Parting Bead Company, Boston, Mass. Adjustable window-shade fixture. No. 1,144,119; June 22; Gaz. vol. 215; p. 1162.

Gilbert, Joseph M. (See Friedenwald, Jacob H., assignor.)

Gilbert, William O., Arrowsmith, Ill. Adjustable bracket. No. 1,142,694; June 8; Gaz. vol. 215; p. 600.

Gilchrist, William A. (See Crouch, Thomas C., assignor.)

Giles, Harvey. (See Kops and Giles.)

Giles, Lloyd, assignor to Pacific Heater Manufacturing Co., Los Angeles, Cal. Air-heater. No. 1,144,469; June 29; Gaz. vol. 215; p. 1311.

Gillespie, Charles W., El Paso, Tex. Reeling device. No. 1,141,245; June 1; Gaz. vol. 215; p. 55.

Gillette, George H., New York, N. Y., assignor to Gillette Safety Razor Company. Safety-razor. No. 1,141,183; June 1; Gaz. vol. 215; p. 33.

Gillette, Herbert B., Grand Rapids, Mich. Pneumatic tire. No. 1,141,537; June 1; Gaz. vol. 215; p. 161.

Gillette, Herbert B., Grand Rapids, Mich. Pneumatic tire. No. 1,141,538; June 1; Gaz. vol. 215; p. 161.

Gillette Safety Razor Company. (See Gillette, George H., assignor.)

Gillette Safety Razor Company. (See Thuillier, Georges, assignor.)

Gillingham, William, Littleton, W. Va. Folding crate. No. 1,143,532; June 15; Gaz. vol. 215; p. 932.

Gilooly, John, Norwood, Mass. Horseshoe. No. 1,142,320; June 8; Gaz. vol. 215; p. 470.

Gilman, George H., Claremont, N. H., assignor, by mesne assignments, to Sullivan Machinery Company, Boston, Mass. Pressure-actuated tool. No. 1,143,533; June 15; Gaz. vol. 215; p. 933.

Gilman, George H., Claremont, N. H., assignor, by mesne assignments, to Sullivan Machinery Company, Boston, Mass. Pressure-actuated tool. No. 1,143,534; June 15; Gaz. vol. 215; p. 933.

Gilman, Ralph S. (See Wheeler, Wellington B., assignor.)

Gilmore, William E., Holmesville, Ohio. Draining device for embalming purposes. No. 1,143,046; June 15; Gaz. vol. 215; p. 763.

Gilmour, Harry. (See Pinto, Jacob C., assignor.)

Gilroy, Frank J., Buffalo, N. Y. Freight-car closure. No. 1,141,328; June 1; Gaz. vol. 215; p. 86.

Gilson, John E., assignor to Gilson Manufacturing Company, Port Washington, Wis. Igniter-actuating mechanism. No. 1,142,086; June 8; Gaz. vol. 215; p. 389.

Gilson Manufacturing Company. (See Gilson, John E., assignor.)

Giolitti, Federico, Turin, assignor to Società Anonima Italiana Gio. Ansaldo & C., Genoa, Italy. Treatment of steel. No. 1,144,034; June 22; Gaz. vol. 215; p. 1132.

Gisholt Machine Company. (See Schmelzkopf, Edward C., assignor.)

Gitelman, Sol. (See Ellman and Paull, assignors.)

Gitzendanner, Charles, assignor to Kast Inserting & Gathering Machine Company, New York, N. Y. Signature-handling mechanism. No. 1,142,417; June 8; Gaz. vol. 215; p. 506.

Gladwin, Charles C., New York, N. Y. Combination punch and clamping-tool. No. 1,144,120; June 22; Gaz. vol. 215; p. 1162.

Glaessner, Arthur. (See Pum and Glaessner.)

Glass, Perley R., Brookline, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Vamp-marking machine. No. 1,141,329; June 1; Gaz. vol. 215; p. 86.

Glawson, James L., assignor of one-half to H. W. Knowlton, Americus, Ga. Extension-harrow. No. 1,141,330; June 1; Gaz. vol. 215; p. 86.

Gleason, Frederick W., Lestershire, N. Y., assignor to United Shoe Machinery Company, Paterson, N. J. Holder for heels or top-lifts. No. 1,143,900; June 22; Gaz. vol. 215; p. 1083.

Glessner, Charles E., Linnton, assignor of one-half to J. C. Jones, Portland, Oreg. Tilting floor-section. No. 1,144,651; June 29; Gaz. vol. 215; p. 1372.

Gloversville Silk Mills, The. (See Burr, Jason L., assignor.)

Goby Engine Company, The. (See Fay, Thomas J., assignor.)

Göddertz, Peter, New York, N. Y. Key-tester for player-pianos. No. 1,141,331; June 1; Gaz. vol. 215; p. 87.

Godfrey, William H., Somerville, Mass. Weather-strip attachment. No. 1,141,390; June 1; Gaz. vol. 215; p. 109.

Gold, Benjamin, Indiana Harbor, Ind. Gate-closing device. No. 1,144,899; June 29; Gaz. vol. 215; p. 1459.

Goldberg, Shepard J. (See Mendelson and Goldberg.)

Golding, John F., assignor to H. N. Low, Washington, D. C. Reinforcement for concrete. No. 1,142,087; June 8; Gaz. vol. 215; p. 389.

Goldsborough, John B., Croton, N. Y. Lining excavations and horizontal sheeting. No. 1,143,184; June 15; Gaz. vol. 215; p. 812.

Goldsmith, Berthold. (See Stoddard and Goldsmith.)

Goldstein, Bernard, Toronto, Ontario, Canada. Bracelet-link. No. 1,142,160; June 8; Gaz. vol. 215; p. 414.

Goldstone, Max, New Haven, Conn. Shoe-elongator. No. 1,141,792; June 1; Gaz. vol. 215; p. 248.

Golland, Henry S., Manchester, England. Means for cross-winding yarn in spinning-mules. No. 1,144,652; June 29; Gaz. vol. 215; p. 1373.

Goller, Lloyd L., Hanston, Kans. Draft appliance. No. 1,143,535; June 15; Gaz. vol. 215; p. 933.

Golliher, John A., Fulton, Ky. Controlling and cut-off valve for steam-lines. No. 1,144,357; June 29; Gaz. vol. 215; p. 1274.

Good, May A. S. P. (See Good, Thomas L., assignor.)

Good, Thomas L., assignor of one-half to M. A. S. P. Good, Elwardsville, Ill. Potato-planter. No. 1,142,515; June 8; Gaz. vol. 215; p. 541.

Goodman Manufacturing Company. (See Davis, Charles E., assignor.)

Goodnow, Harry W., assignor of one-half to H. W. Heckman, Indianapolis, Ind. Sash-lock. No. 1,141,332; June 1; Gaz. vol. 215; p. 87.

Goodridge, Gilbert W., assignor to The Perkins Electric Switch Manufacturing Company, Bridgeport, Conn. Flush receptacle. No. 1,142,695; June 8; Gaz. vol. 215; p. 600.

Goodridge, Gilbert W., assignor to The Bryant Electric Company, Bridgeport, Conn. Attachment-plug fitting. No. 1,143,536; June 15; Gaz. vol. 215; p. 934.

Goodsell, James A., assignor of forty one-hundredths to W. Myers, Hudson, Mich. Rake-tooth cleaner. No. 1,144,703; June 29; Gaz. vol. 215; p. 1391.

Goodspeed, Leland F., Milwaukee, Wis. Internal-combustion engine. No. 1,144,653; June 29; Gaz. vol. 215; p. 1373.

Goodyear Tire and Rubber Company, The. (See Bailey, Irving R., assignor.)

Goodyear Tire & Rubber Company, The. (See Stadelman, George M., assignor.)

Gooslin, Ambrose, Blackberry Creek, Ky. Pipe-grapple. No. 1,144,590; June 29; Gaz. vol. 215; p. 1351.

Gordon, Albert A., Jr., Worcester, Mass., assignor to Crompton & Knowles Loom Works. Pattern mechanism for looms. No. 1,142,161; June 8; Gaz. vol. 215; p. 415.

Gordon, Beirne, Jr., Utica, N. Y. Protecting device for cotton-spinning machines. No. 1,141,457; June 1; Gaz. vol. 215; p. 133.

Gordon, Max. (See Drosin and Gordon.)

Gore, Frederick W., Quincy, Mass., assignor of one-fourth to H. F. Asbury, Brooklyn, and one-fourth to F. Asbury, Huntington, N. Y. Electric-arc lamp. No. 1,142,248; June 8; Gaz. vol. 215; p. 445.

Gore, Herbert C., Takoma Park, Md. Making syrup from cider and other fruit-juices. No. 1,141,458; June 1; Gaz. vol. 215; p. 133.

Gore, John. (See Graham, Gore, and Sample.)

Gorrell Steel Spike Lock Railroad Tie Corporation. (See Brown, Augustus F., assignor.)

Gottlieb, Rudolf, Brünn, Austria-Hungary. Apparatus for spraying designs on fabrics. No. 1,143,053; June 22; Gaz. vol. 215; p. 1102.

Gough, Arthur P. (See Gregson and Gough.)

Gould Coupler Company. (See Turbayne, William A., assignor.)

Gould Storage Battery Company. (See Chamberlain, Rufus N., assignor.)

Governale, Antoni. (See Wolf and Governale.)

Goy, Edward S. (See Nightingale and Goy.)

Grace, John F., New York, N. Y., assignor to Henry R. Worthington. Cooling-tower. No. 1,142,809; June 15; Gaz. vol. 215; p. 680.

Graf, William, and C. F. Nickel, Baltimore, Md. Machine for making concrete blocks. No. 1,142,696; June 8; Gaz. vol. 215; p. 600.

Graff, Henry W., Chicago, Ill. Car attachment. No. 1,144,189; June 22; Gaz. vol. 215; p. 1186.

Graham, Elias, J. Gore, and J. G. Sample, Hazel Dell, Ill. Fastener for shipping-trays or box-cover fastener. No. 1,144,900; June 29; Gaz. vol. 215; p. 1459.

Graham, William S., assignor to Federal-Huber Company, Chicago, Ill. Lavatory apparatus. No. 1,144,704; June 29; Gaz. vol. 215; p. 1391.

Gralapp, Walter, Wittenberg, Wis. Portable electric automatic sawing-machine. No. 1,144,705; June 29; Gaz. vol. 215; p. 1392.

Grand, Edward, Jr., Ottawa, Ontario, Canada. Flexible cover for drafting-tables, desks, and the like. No. 1,143,901; June 22; Gaz. vol. 215; p. 1084.

Grand Rapids Stove Company. (See Rowlette, Charles G., assignor.)

Grandjean, Frederick, Alexander, Ill. Fence-post. No. 1,142,321; June 8; Gaz. vol. 215; p. 470.

Grant, Charles D., London, England. Machine for making ice. No. 1,143,185; June 15; Gaz. vol. 215; p. 813.

Grant, Emory A., Cleveland, Ohio. Apparatus for killing insects. No. 1,142,810; June 15; Gaz. vol. 215; p. 680.
Granville, Bernard, New York, N. Y. Mechanical movement. No. 1,141,626; June 1; Gaz. vol. 215; p. 191.
Graves, Clark, assignor to Sandwich Manufacturing Co., Sandwich, Ill. Corn-sheller. No. 1,143,186; June 15; Gaz. vol. 215; p. 813.
Gray, Henry B., Burlingame, Cal. Sanitary toilet-seat. No. 1,144,654; June 29; Gaz. vol. 215; p. 1373.
Gray, James A., New York, N. Y. Train-stopping apparatus. No. 1,142,697; June 8; Gaz. vol. 215; p. 601.
Gray, James E. (See Heath and Gray.)
Gray, William E., Boise, Idaho. Line-marking mechanism for copy-holders. No. 1,144,190; June 22; Gaz. vol. 215; p. 1186.
Gray, William E., Brooklyn, N. Y. Washtub. No. 1,144,191; June 22; Gaz. vol. 215; p. 1187.
Grearson, Frederick A. (See Watt and Grearson.)
Green, Charles, Jr., Kings Cross, London, England. Machine for facilitating the trimming of wall-paper. No. 1,143,187; June 15; Gaz. vol. 215; p. 814.
Green, Furney F., Coalgate, Okla. Railway-tie. No. 1,143,188; June 15; Gaz. vol. 215; p. 814.
Green, Harold V., Chicago, Ill., assignor to General Electric Company. Differential driving mechanism. No. 1,143,537; June 15; Gaz. vol. 215; p. 934.
Green, Ralph L., *et al.* (See Clapp, Clark E., assignor.)
Green, Raphael S., Chicago, Ill. Sharpening-machine. No. 1,143,383; June 15; Gaz. vol. 215; p. 883.
Green, Robert A., Quapaw, Okla. Animal-trap. No. 1,143,698; June 22; Gaz. vol. 215; p. 1015.
Green, Walter, Montreal, Quebec, Canada. Gangway. No. 1,144,836; June 29; Gaz. vol. 215; p. 1437.
Green, William L., *et al.* (See Clapp, Clark E., assignor.)
Greenawalt, William E., Denver, Colo. Electrolytic apparatus. No. 1,144,538; June 29; Gaz. vol. 215; p. 1334.
Greenberg, Nathan H., and J. F. Clutter, Omaha, Nebr. Assembler for rimless lenses. No. 1,142,956; June 15; Gaz. vol. 215; p. 732.
Greene, Channing B. (See Edwards and Greene.)
Greene, Claude, Chicago, Ill. Load-supporting rack. No. 1,142,088; June 8; Gaz. vol. 215; p. 390.
Greene M-f-g. Co. (See Palmer, George L. W., assignor.)
Greenlee Bros. & Company. (See Purdy and Edwards, assignors.)
Greenwood, Albert. (See Davis and Greenwood.)
Greer, Charles L., assignor of one-half to W. M. Dougal, Washington, D. C. Portable building. No. 1,143,047; June 15; Gaz. vol. 215; p. 763.
Greer, George, and M. Carney, Fitzherbert West, Palmerston North, New Zealand. Means for regulating the tension on the driving-belts of motor-cycles and the like. No. 1,141,539; June 1; Gaz. vol. 215; p. 162.
Greer, James A. (See Smith, William L., assignor.)
Greer, Thomas H. (See Scott and Greer.)
Gregg, Marjorie T., Brookline, Mass. Toy. No. 1,141,459; June 1; Gaz. vol. 215; p. 133.
Gregory, George. (See Miner, Raymond C., assignor.)
Gregson, Lue V., and A. P. Gough, Seattle, Wash. Fender for wheeled vehicles. No. 1,143,823; June 22; Gaz. vol. 215; p. 1057.
Greick, William P. M., Elgin, Ill. Treating oils and fats. No. 1,144,539; June 29; Gaz. vol. 215; p. 1335.
Grenfell, Russell F. (See Lorraine, Le Roy F., assignor.)
Greth, John C. W., Pittsburgh, Pa. Automatic purifier for swimming-pools. No. 1,144,327; June 22; Gaz. vol. 215; p. 1235.
Greve, Edgar E., assignor to Oil Well Supply Company, Pittsburgh, Pa. Bracing for well-drilling engines. No. 1,144,837; June 29; Gaz. vol. 215; p. 1437.
Greve, John E. W., Chemnitz, assignor to Wanderer-Werke, vormals Winklhofer & Jaenicke, A. G., Schonau, near Chemnitz, Germany. Paper-carriage-shifting mechanism for computing-machines. No. 1,144,192; June 22; Gaz. vol. 215; p. 1187.
Griesbach, Henry S., Chiswick, England. Vaporizer for internal-combustion engines. No. 1,142,090; June 8; Gaz. vol. 215; p. 390.
Griese, Johann F. W., Hamburg, Germany. Hand-rammer operated by compressed air. No. 1,144,838; June 29; Gaz. vol. 215; p. 1438.
Griffin, Frank H., San Francisco, Cal. Can seal and spout. No. 1,144,409; June 29; Gaz. vol. 215; p. 1291.
Griffin, John B., Detroit, Mich. Percolator-pump. No. 1,142,322; June 8; Gaz. vol. 215; p. 470.
Griffiths, William U., Philadelphia, Pa. Discharging-nozzle for water-closets. No. 1,142,249; June 8; Gaz. vol. 215; p. 445.
Griffiths, William U., Philadelphia, Pa. Flush-tank for water-closet apparatus. No. 1,142,250; June 8; Gaz. vol. 215; p. 446.
Griffiths, William U., Philadelphia, Pa. Adjustable bracket. No. 1,144,470; June 29; Gaz. vol. 215; p. 1312.
Grimes, Joseph N., Denver, Colo. Water-elevating device. No. 1,142,089; June 8; Gaz. vol. 215; p. 390.
Grimm, Albert, *et al.* (See Eckenwiler, George M., assignor.)
Grinnell Electric Car Co. (See Pattison, Albert W., assignor.)
Griscom-Russell Company, The. (See Bunnell, Sterling H., assignor.)
Griswold, Louis F., Cleveland, Ohio. Device for stripping wall-paper. No. 1,142,811; June 15; Gaz. vol. 215, p. 680.
Gröndal, Gustaf, Djursholm, and H. Nilsson, Nyhammar, Sweden. Treatment of subdivided ores for agglomerating or reducing them and apparatus therefor. No. 1,142,324; June 8; Gaz. vol. 215; p. 471.
Grose, Amos A., Madison township, St. Joseph county, Ind. Self-starter for explosive-engines. No. 1,144,410; June 29; Gaz. vol. 215; p. 1291.
Grosvenor, William M., New York, N. Y. Drying system. No. 1,141,705; June 1; Gaz. vol. 215; p. 219.
Grosvenor, William M., Ridgewood, N. J. Handling and treating combustible gases and vapors. No. 1,143,623; June 22; Gaz. vol. 215; p. 989.
Grove, Edwin W., and G. P. Crumbaugh, St. Louis, Mo. Combination-brush. No. 1,142,698; June 8; Gaz. vol. 215; p. 601.
Grubman, Leo, assignor to Electric Spark Appliance Co., Inc., New York, N. Y. Electromagnetic sound-producer. No. 1,143,189; June 15; Gaz. vol. 215; p. 814.
Gruss, Lucien R., San Francisco, Cal. Fluid-pressure cushioning and weighing mechanism. No. 1,142,162; June 8; Gaz. vol. 215; p. 415.
Grzybowski, Stanislaw, Fort Wayne, Ind. Ship's table. No. 1,142,163; June 8; Gaz. vol. 215; p. 416.
Guay, Emile J., Swampscott, Mass., assignor to General Electric Company. Arc-lamp. No. 1,142,251; June 8; Gaz. vol. 215; p. 446.
Guenther, Henry L., assignor to P. O. Guenther, Los Angeles, Cal. Machine for flanging can-bodies. No. 1,144,839; June 29; Gaz. vol. 215; p. 1438.
Guenther, Pearl O. (See Guenther, Henry L., assignor.)
Guérineau, Alexis, Cholet, France. Yoke. No. 1,142,091; June 8; Gaz. vol. 215; p. 391.
Guett, Monroe, assignor to The Hart & Hegeman Manufacturing Company, Hartford, Conn. Electric switch. No. 1,141,460; June 1; Gaz. vol. 215; p. 134.
Guggenheim Laundry Machinery Company, The. (See Freeman, Ladbrook H., assignor.)
Guggenheim, Solomon D., Cleveland, Ohio. Ironing-press. No. 1,141,184; June 1; Gaz. vol. 215; p. 33.
Guiberson, S. A., Jr. (See Martin, George C., assignor.)
Guidinger, Joseph, near Los Angeles, Cal. Poultry-fountain. No. 1,144,591; June 29; Gaz. vol. 215; p. 1352.
Guild, George, South Houston, Tex. Jack-block. No. 1,143,760; June 22; Gaz. vol. 215; p. 1035.
Guinzburg, Edwin A., New York, N. Y. Bathing-cap. No. 1,144,121; June 22; Gaz. vol. 215; p. 1163.
Guise, Jacob J., Parkersburg, W. Va. Casing-spear. No. 1,144,592; June 29; Gaz. vol. 215; p. 1352.
Gullage, Joseph. (See Wood and Gullage.)
Gunckel, Pearl L., Dayton, Ohio. Heating-boiler. No. 1,142,323; June 8; Gaz. vol. 215; p. 471.
Gunn, Francis, Reddish, England. Tool or appliance for use in making joints in driving-belting. No. 1,144,122; June 22; Gaz. vol. 215; p. 1163.
Gurney, Albert J., Herrin, Ill. Gate-operating mechanism. No. 1,141,627; June 1; Gaz. vol. 215; p. 192.
Gustafson, Elmer J. (See Gustafson, Victor G. and E. J.)
Gustafson, Justus A., Idaho Springs, Colo. Miner's acetylene-gas lamp. No. 1,142,699; June 8; Gaz. vol. 215; p. 601.
Gustafson, Victor G. and E. J., Joliet, Ill.; said E. J. Gustafson assignor to said Victor G. Gustafson. Assembling or disassembling device. No. 1,144,471; June 29; Gaz. vol. 215; p. 1312.
Guthardt, Karl, Kiel-Hassee, assignor to Fried. Krupp Aktiengesellschaft Germaniawerft, Kiel-Gaarden, Germany. Device for regulating the temperature of superheated steam. No. 1,141,956; June 8; Gaz. vol. 215; p. 341.
Guthrie, Mary A., executrix, *et al.* (See Burrow, Edgar A., assignor.)
Guthrie, Nehemiah, Marietta, Okla., and C. L. Johnson, Dallas, Tex. Resilient means for vehicle axle suspension. No. 1,143,699; June 22; Gaz. vol. 215; p. 1015.
Guy, John, and J. P. Huycke, Cobourg, Ontario, Canada. Hammer. No. 1,144,035; June 22; Gaz. vol. 215; p. 1132.
Gyllstrom, Knut G., Richmond Hill, N. Y. Insect-capturing apparatus. No. 1,144,358; June 29; Gaz. vol. 215; p. 1274.
H. Franke Steel Range Company, The. (See Ahrens, Henry A., assignor.)
H. Koppers Company. (See McIntire, Charles V., assignor.)
H. A. P. Cooking Utensil Mfg. Co. (See Pagnette, Herman A., assignor.)
H. B. Sherman Manufacturing Company. (See Andrews, Herbert B., assignor.)
H. J. Packer & Company. (See Walker and Hay, assignors.)
H. W. Butterworth & Sons Company. (See Brehmer, Herman C., assignor.)
Haas, Lambert, Vienna, Austria-Hungary. Deodorizing waste gases. No. 1,144,193; June 22; Gaz. vol. 215; p. 1188.
Haas, Moris, New York, N. Y. Bed-spring. No. 1,144,123; June 22; Gaz. vol. 215; p. 1163.
Haas, Philip, Dayton, Ohio. Water-closet valve. No. 1,142,092; June 8; Gaz. vol. 215; p. 391.
Haas, Philip, Dayton, Ohio. Flushing-valve. No. 1,143,384; June 15; Gaz. vol. 215; p. 884.
Haas, William, *et al.* (See Deady and Holland, assignors.)

Haberkorn, Theodore H., Denver, Colo. Gaseous-fuel heater and mixer for internal-combustion engines. No. 1,143,902; June 22; Gaz. vol. 215; p. 1084.
Haberle, John B., South Bend, Ind., and J. B. B. Stryker, Lansdale, Pa., assignors to Perkins Glue Company. Glue-spreading machine. No. 1,143,385; June 15; Gaz. vol. 215; p. 884.
Haberstick, Peter F., Wheeling, W. Va. Automobile accessory. No. 1,144,540; June 29; Gaz. vol. 215; p. 1335.
Hada, Joseph. (See Barabás and Hadn.)
Hadaway, William S., Jr., New York, N. Y. Electric-heating system. No. 1,142,771; June 8; Gaz. vol. 215; p. 627.
Haese, William C., Milwaukee, Wis. Track-sander spout. No. 1,143,824; June 22; Gaz. vol. 215; p. 1058.
Haff, Maximilian M. (See Willson and Haff.)
Hagen, Arthur T., and G. Binder, Rochester, N. Y., assignors to American Laundry Machinery Company, Cincinnati, Ohio. Collar-tipping machine. No. 1,144,541; June 29; Gaz. vol. 215; p. 1335.
Hageness, Albin K., Eleva, Wis. Wire-reeling apparatus. No. 1,144,840; June 29; Gaz. vol. 215; p. 1439.
Hagman, William J., and E. H. Wray, Philadelphia, Pa. Boring-mill. No. 1,141,871; June 1; Gaz. vol. 215; p. 272.
Hague, Alfred G., assignor to O. R. Savage, Des Moines, Iowa. Silo. No. 1,143,954; June 22; Gaz. vol. 215; p. 1102.
Hahn, Frank M., Doland, S. D. Door-hanger. No. 1,144,901; June 29; Gaz. vol. 215; p. 1460.
Hahn, Martin L. (See Daugherty and Hahn.)
Hainer Bookkeeping Machine Company. (See Hainer, Whitfield J., assignor.)
Hainer, Whitfield J., assignor to Hainer Bookkeeping Machine Company, Providence, R. I. Autographic register. No. 1,143,386; June 15; Gaz. vol. 215; p. 885.
Hajek, William F., Chicago, Ill. Safety device for stoves. No. 1,141,335; June 1; Gaz. vol. 215; p. 88.
Haldenwang, Richard, Jr., Brooklyn, N. Y. Fan. No. 1,141,957; June 8; Gaz. vol. 215; p. 341.
Hale, Frederick M., Bromley, England. Ammunition. No. 1,141,540; June 1; Gaz. vol. 215; p. 162.
Hale and Kilbourn Manufacturing Company, The. (See Fortiner and Main, assignors.)
Hall, Arthur J., Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company. Control system for electric motors. No. 1,143,955; June 22; Gaz. vol. 215; p. 1103.
Hall, Arthur J., and L. G. Riley, Wilkinsburg, Pa., assignors to Westinghouse Electric and Manufacturing Company. Control system for electric motors. No. 1,143,956; June 22; Gaz. vol. 215; p. 1103.
Hall, Benjamin K., Boston, assignor to W. H. Mitchell, Newton, Mass. Turn-table. No. 1,143,538; June 15; Gaz. vol. 215; p. 935.
Hall, Charles L., Mount Vernon, Wash. Automatic crossing-gate. No. 1,143,190; June 15; Gaz. vol. 215; p. 815.
Hall, George R., Fremont, Mich. Sash-lock. No. 1,144,124; June 22; Gaz. vol. 215; p. 1163.
Hall, John W., and C. Baynes, London, England. Detachable rim for resilient tires. No. 1,142,563; June 8; Gaz. vol. 215; p. 556.
Hall Switch & Signal Company. (See Day, Albert V. T., assignor.)
Hallock, George W., New York, N. Y., assignor to The Safety Car Heating & Lighting Company. Electrical system. No. 1,143,191; June 15; Gaz. vol. 215; p. 815.
Halstead, Frederick H., Worcester, Mass., assignor, by mesne assignments, to Halstead Machine Company. Machine for grinding coiled springs. No. 1,142,700; June 8; Gaz. vol. 215; p. 601.
Halstead Machine Company. (See Halstead, Frederick H., assignor.)
Halvorsou, Cromwell A. B., Jr., Saugus, and L. O. Ingalls, Lynn, Mass., assignors to General Electric Company. Headlight. No. 1,143,539; June 15; Gaz. vol. 215; p. 935.
Hamachek, Frank, Kewaunee, Wis. Detachable-link chain. No. 1,144,411; June 29; Gaz. vol. 215; p. 1292.
Hamalainen, Matti, Ludlow, Vt. Combination-tool. No. 1,142,418; June 8; Gaz. vol. 215; p. 506.
Hambrock, Louis, Jr., Newark, N. J. Finish-remover. No. 1,143,387; June 15; Gaz. vol. 215; p. 885.
Hamel Shoe Machinery Company. (See Valois, Felix E., assignor.)
Hamill, John R. (See Thomas, John W., assignor.)
Hamill, William W., Glasgow, Scotland. Liquid-fuel-spraying device. No. 1,143,700; June 22; Gaz. vol. 215; p. 1015.
Hamilton, Ernest A., Philadelphia, and F. W. Calvert, Narberth, assignors to Scott Paper Company, Philadelphia, Pa. Dispensing means for paper for toilet or towel purposes. No. 1,141,541; June 1; Gaz. vol. 215; p. 162.
Hamilton & Hamilton, Jr. (See Fuller, James A., assignor.)
Hamilton, James L., deceased, Grand Junction, Colo.; M. C. Hamilton, administratrix. Orchard-heater. No. 1,143,582; June 15; Gaz. vol. 215; p. 950.
Hamilton, James T., Davenport, Okla. Metallic shingle. No. 1,143,266; June 15; Gaz. vol. 215; p. 841.
Hamilton, Lawrence, Liverpool, England. Washing-machine. No. 1,141,628; June 1; Gaz. vol. 215; p. 192.
Hamilton, Martha C., administratrix. (See Hamilton, James L.)
Hamlin, Cyrus, New York, N. Y. Thumb-rest for violins and similar musical instruments. No. 1,144,194; June 22; Gaz. vol. 215; p. 1188.
Hamm, Peter, Milwaukee, Wis. Magneto. No. 1,141,336; June 1; Gaz. vol. 215; p. 88.
Hammack, William. (See Hedges and Hammack.)
Hammel, Louis, Philadelphia, Pa. Hedge-trimmer. No. 1,144,542; June 29; Gaz. vol. 215; p. 1336.
Hammer, Fritz, Philadelphia, Pa. Woven pile fabric. No. 1,143,192; June 15; Gaz. vol. 215; p. 816.
Hammerstein, Oscar, New York, N. Y. Cigar-bunch and making same. No. 1,142,164; June 8; Gaz. vol. 215; p. 416.
Hammesfahr, Julius, Newark, N. J., assignor to The R. Neumann Hardware Co. Bag-fastener. No. 1,143,388; June 15; Gaz. vol. 215; p. 885.
Hammond, Clarence C., Wichita, Kans. Button-setting machine. No. 1,144,841; June 29; Gaz. vol. 215; p. 1439.
Hammond, Ellery L., Sayre, Pa. Combined tweezers and file. No. 1,143,761; June 22; Gaz. vol. 215; p. 1035.
Hampton, William H. (See Kayser and Hampton.)
Hannon, Timothy B., Chicago, Ill. Hook. No. 1,143,193; June 15; Gaz. vol. 215; p. 816.
Hansen, Eigil A., Copenhagen, Denmark. Centrifugal pump. No. 1,143,957; June 22; Gaz. vol. 215; p. 1103.
Hansen, John M., assignor to Forged Steel Wheel Company, Pittsburgh, Pa. Apparatus for manufacture of car and similar wheels. No. 1,142,419; June 8; Gaz. vol. 215; p. 506.
Hansen, Lewis E., Blair, Nebr. Harrow. No. 1,144,125; June 22; Gaz. vol. 215; p. 1164.
Hansen, Marius H., Chicago, Ill. Weighing-scale and other measuring instrument. No. 1,141,629; June 1; Gaz. vol. 215; p. 192.
Hansgen, Charles, New York, N. Y. Register. No. 1,144,412; June 29; Gaz. vol. 215; p. 1292.
Hanson, Charles A., Donovan, Ill. Wire-winding machine. No. 1,142,035; June 8; Gaz. vol. 215; p. 371.
Hanson, Harry C., South Pasadena, Cal. Tire-pump. No. 1,142,701; June 8; Gaz. vol. 215; p. 602.
Hanson, Nathan E., New York, N. Y., assignor to Union Special Machine Company, Chicago, Ill. Ruffling and sewing machine. No. 1,143,903; June 22; Gaz. vol. 215; p. 1084.
Hantz, Emil G., South Connellsville, Pa. Bevel-protractor and depth-gage for die-makers. No. 1,141,391; June 1; Gaz. vol. 215; p. 109.
Hapgood, Clarence H., assignor to Toledo Scale Company, Toledo, Ohio. Scale. No. 1,142,165; June 8; Gaz. vol. 215; p. 416.
Harberson, Edward M., Los Angeles, Cal. Base-ball machine. No. 1,144,472; June 29; Gaz. vol. 215; p. 1313.
Harbrecht, William F., assignor to Hinde & Dauch Paper Company, Sandusky, Ohio. Apparatus for manufacturing corrugated paper-board. No. 1,144,413; June 29; Gaz. vol. 215; p. 1292.
Hardesty, Blair, Clifton Forge, Va., assignor to Landis Machine Company, St. Louis, Mo. Work-guide for sewing-machines. No. 1,143,701; June 22; Gaz. vol. 215; p. 1016.
Hardie, James G., Worcester, Mass. Registering device for paper-feeding mechanisms. No. 1,144,937; June 29; Gaz. vol. 215; p. 1471.
Hardisty, Henry, Raymond, assignor of one-half to E. Pierson, South Bend, Wash. Choker-hook. No. 1,141,333; June 1; Gaz. vol. 215; p. 87.
Hardisty, Henry, Raymond, assignor of one-half to E. Pierson, South Bend, Wash. Nut-locking device. No. 1,141,334; June 1; Gaz. vol. 215; p. 88.
Harkness, William E., East Orange, N. J. Remote-control high-potential switch. No. 1,142,252; June 8; Gaz. vol. 215; p. 447.
Harley, Robert J., Reed City, Mich. Mail-bag receiving and delivering apparatus. No. 1,141,793; June 1; Gaz. vol. 215; p. 248.
Harmon, William R., Oak Hill, Fla. Whip-holder. No. 1,142,703; June 8; Gaz. vol. 215; p. 603.
Harnishfeger, Alexander, assignor to Rimolox Tire Carrier Co., Evansville, Ind. Tire-carrier. No. 1,141,185; June 1; Gaz. vol. 215; p. 33.
Harp, Charles B., Los Angeles, Cal. Building construction. No. 1,142,093; June 8; Gaz. vol. 215; p. 392.
Harpst, Frederick E., assignor of twenty-five one-hundredths to W. O. Ilfrey, Houston, Tex. Rotary-valve mechanism. No. 1,141,958; June 8; Gaz. vol. 215; p. 342.
Harrington, Arthur M., and P. Mullen, assignors to Edwin Harrington, Son & Co., Inc., Philadelphia, Pa. Hoist. No. 1,143,958; June 22; Gaz. vol 215; p. 1104.
Harrington, Norman T., Lansing, Mich. Stamp-mill. No. 1,144,126; June 22; Gaz. vol. 215; p. 1164.
Harris, Abraham, New York, N. Y. Clasp for suspenders. No. 1,142,957; June 15; Gaz. vol. 215; p. 732.
Harris, Benjamin E., Chicago, Ill. Cleaning apparatus. No. 1,143,959; June 22; Gaz. vol. 215; p. 1104.
Harris, Daniel L., Wichita, Kans. Drinking-fountain and waste-receptacle. No. 1,141,794; June 1; Gaz. vol. 215; p. 248.
Harris, Harry E., Boonton, N. J. Streak-preventing device for cornices. No. 1,142,253; June 8; Gaz. vol. 215; p. 447.
Harrison, Elmer, Detroit, Mich. Steam-generator. No. 1,142,420; June 8; Gaz. vol. 215; p. 507.

Harrison, Jacob H. (See Rodgers, Roy A., assignor.)
Harrold, William A., Wausau, Wis. Cushion device for nigger-bars. No. 1,143,267; June 15; Gaz. vol. 215; p. 841.
Harsch, Charles A., assignor, by mesne assignments, to The Fire Detecting Wire Company, (Inc.,) New York, N. Y. Protecting-duct for fire-detecting conductors. No. 1,142,094; June 8; Gaz. vol. 215; p. 392.
Hart, Alfred L. (See Telge and Hart.)
Hart, Harry A., Detroit, Mich. Steering-wheel. No. 1,143,702; June 22; Gaz. vol. 215; p. 1016.
Hart & Hegeman Manufacturing Company, The. (See Guett, Monroe, assignor.)
Hart, Louis F., assignor to The Hart Manufacturing Company, Cleveland, Ohio. Die-stock. No. 1,143,960; June 22; Gaz. vol. 215; p. 1104.
Hart Manufacturing Company, The. (See Hart, Louis F., assignor.)
Hart, Walter H., assignor to The Stanley Works, New Britain, Conn. Keeper for hasps. No. 1,141,542; June 1; Gaz. vol. 215; p. 163.
Hartman, Hans, London, England, assignor to Duplex Vending Machine Company, Inc., New York, N. Y. Automatic vending-machine. No. 1,142,702; June 8; Gaz. vol. 215; p. 602.
Hartman, John, Buffalo, N. Y. Vehicle-brake. No. 1,142,880; June 15; Gaz. vol. 215; p. 705.
Hartmann, Louis, Mount Vernon, assignor to H. Iden, deceased, New York, N. Y.; H. Amrhein, executor. Acetylene-gas lamp. No. 1,142,421; June 8; Gaz. vol. 215; p. 507.
Hartner, Mathew, Herndon, Kans. Pump-rod connector. No. 1,141,795; June 1; Gaz. vol. 215; p. 249.
Harvey Hubbell, Inc. (See Horn, Charles, assignor.)
Harvey, Josiah H., Scranton, Pa., assignor to R. Orenstein, Hartford, Conn. Nut-lock. No. 1,144,979; June 29; Gaz. vol. 215; p. 1485.
Haskins, George E., Milford, Conn. Cattle-stanchion. No. 1,141,630; June 1; Gaz. vol. 215; p. 193.
Hassett, Anna F. (See Hassett and Darragh, assignors.)
Hassett, Edmund J., Yonkers, N. Y., and E. E. Darragh, Boonton, N. J., assignors, by mesne assignments, to A. F. Hassett, Yonkers, N. Y. Reel. No. 1,143,904; June 22; Gaz. vol. 215; p. 1085.
Hatfield, Hiram A. (See Buchanan, James G., assignor.)
Hatheway, William E., Bridgeport, Conn. Chair-tip. No. 1,144,962; June 29; Gaz. vol. 215; p. 1479.
Haubens, Henry, *et al.* (See Smith, Clarence I. W., assignor.)
Hauch, John N., Pittsburgh, Pa. Skate attachment. No. 1,143,624; June 22; Gaz. vol. 215; p. 990.
Haugh, Frank A., assignor to A. B. Bloom, Independence, Kans. Underreamer. No. 1,144,195; June 22; Gaz. vol. 215; p. 1188.
Haugh, James G., Bascom, Ohio. Baling-press. No. 1,142,704; June 8; Gaz. vol. 215; p. 603.
Hausammann, Alfred, Peoria, Ill. Purse. No. 1,143,825; June 22; Gaz. vol. 215; p. 1058.
Hauser-Stander Tank Company, The. (See Bauerle, John, assignor.)
Hausson, A. Herman. (See Anderson, Edward, assignor.)
Havens, Edward W., *et al.* (See Roop, Clarence H., assignor.)
Havens, Howard G., *et al.* (See Roop, Clarence H., assignor.)
Hawksworth, David W., assignor to Hutchins Car Roofing Company, Detroit, Mich. Car-roof. No. 1,144,761; June 29; Gaz. vol. 215; p. 1412.
Hawley, Charles G., and E. K. Baker, assignors to Universal Rim Company, Chicago, Ill. Pneumatic-tire mounting. No. 1,142,516; June 8; Gaz. vol. 215; p. 541.
Hawley, Frederick A., Hammond, Ind. Apparatus for administering medical treatment. No. 1,142,422; June 8; Gaz. vol. 215; p. 508.
Hawley, John, Green River, Wyo. Water-motor. No. 1,143,905; June 22; Gaz. vol. 215; p. 1085.
Haworth, Allen, Mabton, Wash. Weeder or cultivator. No. 1,144,196; June 22; Gaz. vol. 215; p. 1189.
Hawthorne, Louis A., Newark, N. J. Measuring instrument. No. 1,142,423; June 8; Gaz. vol. 215; p. 508.
Hay, James. (See Merk, Lawrence A., assignor.)
Hay, Robert B. (See Walker and Hay.)
Hayden, Noah L., Bisbee, Ariz. Vehicle-wheel. No. 1,144,473; June 29; Gaz. vol. 215; p. 1313.
Haydon, James R., Chicago, Ill. Air-propeller. No. 1,141,337; June 1; Gaz. vol. 215; p. 88.
Hayes, Harvey C., Cambridge, Mass., assignor of forty-nine one-hundredths to E. W. Nick, Erie, Pa. Fluid-meter. No. 1,141,631; June 1; Gaz. vol. 215; p. 193.
Hayes, Joseph S. (See Shepherd and Hayes.)
Hayes, Samuel S. (See O'Connor, Edmund A., assignor.)
Hayes Wheel Company. (See Butcher and Flick, assignors.)
Hayne, Edward G., Ottawa, Ill. Shock-absorber. No. 1,143,906; June 22; Gaz. vol. 215; p. 1085.
Haynes, Clarence B., Camden, assignor of twenty-two and one-half one-hundredths to C. A. Richardson, ten one-hundredths to W. K. B. Richardson, Haddonfield, N. J., and twenty-two and one-half one-hundredths to M. Liveright, Philadelphia, Pa. Carbureter. No. 1,143,961; June 22; Gaz. vol. 215; p. 1105.
Haynes, Clarence B., Camden, assignor of twenty-two and one-half one-hundredths to C. A. Richardson, Haddonfield, N. J., twenty-two and one-half one-hundredths to M. Liveright, Philadelphia, Pa., and ten one-hundredths to W. K. B. Richardson, Haddonfield, N. J. Air-moistener. No. 1,143,962; June 22; Gaz. vol. 215; p. 1105.
Hays, Joseph W., Chicago, Ill. Gas-collecting apparatus. No. 1,141,543; June 1; Gaz. vol. 215; p. 163.
Hays, William F., Osbornes Mills, W. Va. Latch. No. 1,142,166; June 8; Gaz. vol. 215; p. 417.
Hays, William F., Osbornes Mills, W. Va. Hinge. No. 1,142,167; June 8; Gaz. vol. 215; p. 417.
Hazelton, Charles N., Morrison, Ill. Rolling-chair. No. 1,142,168; June 8; Gaz. vol. 215; p. 417.
Hazelton, Robert T., assignor to The Cincinnati Milling Machine Company, Cincinnati, Ohio. Safety-coupling. No. 1,141,461; June 1; Gaz. vol. 215; p. 134.
Hazzard, Harry C., *et al.* (See Patterson, Charles A., assignor.)
Heal, William S. (See Behm, Henry, assignor.)
Heaney, William A. (See Mitchella, Clyde B., assignor.)
Heany, John A., Washington, D. C. Self-starting internal-combustion engine. No. 1,141,632; June 1; Gaz. vol. 215; p. 193.
Heany, John A., Washington, D. C. Self-starting internal-combustion engine. No. 1,141,633; June 1; Gaz. vol. 215; p. 194.
Heath, Henry A., Urbanna, and J. E. Gray, Saluda, Va. Fountain shaving-brush. No. 1,141,392; June 1; Gaz. vol. 215; p. 110.
Heberlein, Georges, Wattwil, Switzerland. Producing woollike effects on cotton fabrics. No. 1,141,872; June 1; Gaz. vol. 215; p. 273.
Heberlein, Georges, Wattwil, Switzerland. Production of pattern effects upon cotton fabric. No. 1,144,655; June 29; Gaz. vol. 215; p. 1374.
Heberling, John, Rochester, N. Y. Dumping-wagon. No. 1,142,325; June 8; Gaz. vol. 215; p. 471.
Hebert, Napolean H., Franklin, N. H. Piston-ring. No. 1,144,474; June 29; Gaz. vol. 215; p. 1313.
Hechenbleikner, Ingenuin, Great Falls, S. C., assignor to Southern Electro-Chemical Company, New York, N. Y. Cooling and reducing nitrate of lime. No. 1,143,625; June 22; Gaz. vol. 215; p. 990.
Hecht, Heinrich, Kiel, Germany. Siren. No. 1,143,389; June 15; Gaz. vol. 215; p. 886.
Hecht, Heinrich, Kiel, Germany. Water-siren. No. 1,143,703; June 22; Gaz. vol. 215; p. 1016.
Heckman, August. (See Dupree, Ritter, and Heckman.)
Heckman, Harry W. (See Goodnow, Harry W., assignor.)
Hedgcock, William C., Chicago, Ill., assignor to American Steel Foundries, New York, N. Y. Leveling and safety device for brakes. No. 1,143,704; June 22; Gaz. vol. 215; p. 1017.
Hedgcock, William C., assignor to American Steel Foundries, Chicago, Ill. Brake-release. No. 1,143,705; June 22; Gaz. vol. 215; p. 1017.
Hedgcock, William C., Chicago, Ill., assignor to American Steel Foundries, New York, N. Y. Spring-release for brakes. No. 1,143,706; June 22; Gaz. vol. 215; p. 1017.
Hedgcock, William C., assignor to American Steel Foundries, Chicago, Ill. Truck-pedestal. No. 1,143,707; June 22; Gaz. vol. 215; p. 1017.
Hedges, Jabez, and W. Hammack, Lancaster, Ohio. Auxiliary air-intake valve. No. 1,142,424; June 8; Gaz. vol. 215; p. 509.
Hedges, Roy B., La Junta, Colo. Agricultural implement. No. 1,143,907; June 22; Gaz. vol. 215; p. 1086.
Heffrean, Martin M. (See Strange and Heffrean.)
Heiberger, Milton U. (See Lake and Heiberger.)
Heideloff, Werner B., assignor of one-half to A. Andrews, Plainfield, N. J. Attachment for collapsible tubes. No. 1,143,390; June 15; Gaz. vol. 215; p. 886.
Heilborn, Ernst, Charlottenburg, Germany, assignor to General Electric Company. System of electric metering. No. 1,142,425; June 8; Gaz. vol. 215; p. 509.
Heilmann, Jean J., Paris, France. Arrangement for controlling the steering-wheels of automobiles. No. 1,144,706; June 29; Gaz. vol. 215; p. 1392.
Heimbach, Alton B., Duluth, Minn. Wrench. No. 1,142,426; June 8; Gaz. vol. 215; p. 509.
Heinen, Frank C., Chicago, Ill. Snow-plow. No. 1,144,763; June 29; Gaz. vol. 215; p. 1412.
Heinrich, Gustav P., Brooklyn, assignor to Interstate Electric Novelty Company, New York, N. Y. Tubular electric pocket-lamp. No. 1,141,634; June 1; Gaz. vol. 215; p. 194.
Heinrich, Jacob, Nuremberg, assignor to Metallpapier-Bronzefarben-Blattmetallwerke, Aktiengesellschaft, Munich, Germany. Apparatus for separating sheets from a pile or stack. No. 1,143,708; June 22; Gaz. vol. 215; p. 1018.
Heiser, Joseph B., Williamsport, Pa. Pipe and cable hanger. No. 1,144,593; June 29; Gaz. vol. 215; p. 1352.
Helander, Axel H., W. Eaton, and J. Z. Collier, assignors to The William Tod Company, Youngstown, Ohio. Pinion-housing. No. 1,141,544; June 1; Gaz. vol. 215; p. 163.
Helander, Ernst G., Youngstown, Ohio. Condenser. No. 1,144,197; June 22; Gaz. vol. 215; p. 1189.
Helander, Ernst G., Youngstown, Ohio. Condenser. No. 1,144,198; June 22; Gaz. vol. 215; p. 1190.
Helcher, William C., Gallon, Ohio. Combined jar-closure and cap-extractor. No. 1,142,427; June 8; Gaz. vol. 215; p. 509.

Heller, Markin L. (See Clymer and Heller.)
Hellings, Andrew J., assignor to Hill-Independent Mfg. Co., Philadelphia, Pa. Hand-stamp. No. 1,143,540; June 15; Gaz. vol. 215; p. 935.
Hellmann, Lui F., Indianapolis, Ind. Automatic leveling attachment for surveying instruments, &c. No. 1,144,594; June 29; Gaz. vol. 215; p. 1353.
Hellstrom, Victor A. (See Tuckett and Hellstrom.)
Helmers, Gerhard P., Baltimore, Md. Cuff. No. 1,143,626; June 22; Gaz. vol. 215; p. 990.
Heminger, Charles C. (See McNoon, James J., assignor.)
Henderson, Albert H., and J. T. Mahon, assignors to The Henderson Rubber Company, Baltimore, Md. Loom. No. 1,141,635; June 1; Gaz. vol. 215; p. 195.
Henderson, Clark T., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. Controller for fluid-pressure-actuated devices. No. 1,141,114; June 1; Gaz. vol. 215; p. 9.
Henderson, Clark T., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. Motor-controller. No. 1,143,194; June 15; Gaz. vol. 215; p. 816.
Henderson, Clark T., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. Vehicle. No. 1,143,195; June 15; Gaz. vol. 215; p. 817.
Henderson, George R., and W. I. Cantley, Philadelphia, Pa., assignors, by mesne assignments, to Locomotive Superheater Company, Wilmington, Del. Superheater. No. 1,142,254; June 8; Gaz. vol. 215; p. 447.
Henderson, John, Waterbury, Conn. Tumbling-barrel. No. 1,143,268; June 15; Gaz. vol. 215; p. 841.
Henderson, Mark M. (See Potterf, Orlystis, assignor.)
Henderson, Mark M., New York, N. Y. Underwear. No. 1,141,636; June 1; Gaz. vol. 215; p. 195.
Henderson, Melville T., *et al.* (See Bente, Henry K., assignor.)
Henderson, Ralph M., Toledo, Ohio. Cabinet for holding stationery. No. 1,143,391; June 15; Gaz. vol. 215; p. 886.
Henderson, Robert H., East Orange, N. J., assignor to Westinghouse Lamp Company. Manufacturing incandescent filaments. No. 1,144,595; June 29; Gaz. vol. 215; p. 1353.
Henderson Rubber Company, The. (See Henderson and Mahon, assignors.)
Hendrickson, Frank F., Garfield, N. J. Drum-beater. No. 1,142,095; June 8; Gaz. vol. 215; p. 392.
Hendrix, Herbert A., Albert Lea, Minn. Combined churn and butter-worker. No. 1,141,706; June 1; Gaz. vol. 215; p. 219.
Henkel & Cie. (See Weber, Walter, assignor.)
Hennessy, James J., St. Louis, Mo. Automatic lubricator. No. 1,142,705; June 8; Gaz. vol. 215; p. 603.
Henry, Albert C. (See Horne and Crane, assignors.)
Henry, Eugene E., assignor of one-half to I. F. Bidwell, Astoria, Oreg. Coin-handling device. No. 1,144,985; June 29; Gaz. vol. 215; p. 1487.
Henry, Howard, Kirksville, Mo. Measuring instrument. No. 1,142,958; June 15; Gaz. vol. 215; p. 733.
Henry R. Worthington. (See Allerton, Robert W., assignor.)
Henry R. Worthington. (See Grace, John F., assignor.)
Henvis, Maurice P., Washington, D. C., assignor to Individual Drinking Cup Company, New York, N. Y. Dispensing apparatus. No. 1,144,764; June 29; Gaz. vol. 215; p. 1412.
Herbert, Albert H., *et al.* (See Kenney, Gerald, assignor.)
Herbert, Samuel, assignor to Hutchins Car Roofing Company, Detroit, Mich. Car-roof. No. 1,144,762; June 29; Gaz. vol. 215; p. 1412.
Herboltzheimer, Edward T. (See Gallagher and Herboltzheimer.)
Hereth, Frank S., New York, N. Y., assignor to E. R. Squibb & Sons. Combined bottle and dropping device. No. 1,142,517; June 8; Gaz. vol. 215; p. 541.
Heretyk, John, Fulton, N. Y. Combined cigarette-box and match-holder. No. 1,143,627; June 22; Gaz. vol. 215; p. 990.
Herman, John L., Fort Wayne, Ind. Universal load-box. No. 1,143,963; June 22; Gaz. vol. 215; p. 1105.
Herman, Joseph, South Bartonville, assignor to Keystone Steel & Wire Company, Peoria, Ill. Automatic wire-gage and detector. No. 1,141,707; June 1; Gaz. vol. 215; p. 220.
Hermann, Gustavus H., Minneapolis, Minn. Gas-burner appliance. No. 1,144,199; June 22; Gaz. vol. 215; p. 1190.
Herrick, Albert B., New York, N. Y., assignor to The Electric Railway Improvement Company, Cleveland, Ohio. Making a homogeneous mechanical juncture. No. 1,142,428; June 8; Gaz. vol. 215; p. 510.
Herron, Ollie L., Chicago, Ill. Inclosure for vehicles. No. 1,142,959; June 15; Gaz. vol. 215; p. 733.
Hersey, Guy A., Bangor, Me. Metallic spool. No. 1,143,392; June 15; Gaz. vol. 215; p. 887.
Hertzog, Oscar S., Philadelphia, Pa. Carbureter. No. 1,141,796; June 1; Gaz. vol. 215; p. 249.
Herwig, William D., Jr., Chicago, Ill. Electric-light fixture and the like. No. 1,141,637; June 1; Gaz. vol. 215; p. 195.
Herz, Alfred. (See Schweitzer and Herz.)
Herzbruch, Hugo, Dattein, Germany. Water-filter. No. 1,141,959; June 1; Gaz. vol. 215; p. 342.
Herzog, Reginald O., Prague, Austria-Hungary, and A. Meier, Berlin, Germany. Leather substitute and making it. No. 1,141,545; June 1; Gaz. vol. 215; p. 164.
Hess-Bright Manufacturing Company, The. (See Hess, Henry, assignor.)
Hess Dustless Mining Machine Company. (See Hess, Louis F., assignor.)
Hess, Edward B., assignor, by mesne assignments, to Royal Typewriter Company, Inc., New York, N. Y. Envelop and card feed device for type-writing machines. No. 1,143,269; June 15; Gaz. vol. 215; p. 842.
Hess, Fritz. (See Wray and Hess.)
Hess, George H., La Grange, Ill. Grain-drier. No. 1,141,546; June 1; Gaz. vol. 215; p. 164.
Hess, Harry, Glengarry, Mont. Railway-tie. No. 1,143,964; June 22; Gaz. vol. 215; p. 1106.
Hess, Henry, assignor to The Hess-Bright Manufacturing Company, Philadelphia, Pa. Antifriction-bearing. No. 1,143,116; June 15; Gaz. vol. 215; p. 788.
Hess, Louis F., assignor to Hess Dustless Mining Machine Company, Ansted, W. Va. Mining-machine. No. 1,143,599; June 15; Gaz. vol. 215; p. 957.
Hesselmeyer, Arthur C., Chicago, Ill. Pure kieselguhr brick and making the same. No. 1,143,826; June 22; Gaz. vol. 215; p. 1058.
Hetherington, Arthur F., New York, N. Y. Safety coupling-release system for railway-trains. No. 1,141,393; June 1; Gaz. vol. 215; p. 110.
Hettrick, Francis M., Yelm, Wash. Lock. No. 1,141,797; June 1; Gaz. vol. 215; p. 249.
Hewett, William S., Minneapolis, Minn. Culvert. No. 1,144,200; June 22; Gaz. vol. 215; p. 1191.
Hewitt, James M., Hale, England. Friction-clutch. No. 1,143,908; June 22; Gaz. vol. 215; p. 1086.
Hewitt, Peter C., New York, N. Y., assignor, by mesne assignments, to Cooper Hewitt Electric Company, Hoboken, N. J. Method of and apparatus for translating electrical variations. No. 1,144,596; June 29; Gaz. vol. 215; p. 1354.
Heyman, David, New York, N. Y. Toy cash-register. No. 1,141,547; June 1; Gaz. vol. 215; p. 164.
Hibbard, Robert L. (See Carpenter and Hibbard.)
Hibbard, Robert L. (See Carpenter, Hibbard, and Warner.)
Hibbs, William, Plano, Ill. Driving mechanism for corn-harvesters and the like. No. 1,142,036; June 8; Gaz. vol. 215; p. 371.
Hibner, De Los E., and F. W. Linaker, assignors to The Vulcan Soot Cleaner Co., of Pittsburg, Pa., Dubois, Pa. Boiler-flue-cleaner system. No. 1,144,543; June 29; Gaz. vol. 215; p. 1336.
Hickler, Thomas F., *et al.* (See Forest, Francis A., assignor.)
Hicks, Robert, Rossetti, Saskatchewan, Canada. Manure-carrier. No. 1,144,544; June 29; Gaz. vol. 215; p. 1336.
Hidden, Charles P., Winchester, assignor to The Lamson Company, Boston, Mass. Despatch system. No. 1,142,429; June 8; Gaz. vol. 215; p. 510.
Hidden, Charles P., Brookline, assignor to The Lamson Company, Boston, Mass. Coin-handling apparatus. No. 1,143,827; June 22; Gaz. vol. 215; p. 1059.
Hidoux, Georges, Paris, France. Extracting or sorting combustible matter from refuse. No. 1,142,706; June 8; Gaz. vol. 215; p. 604.
Higbee, Charles E., Grand Prairie, Alberta, Canada. Writing device. No. 1,143,393; June 15; Gaz. vol. 215; p. 887.
Higgin, Henry, assignor of one-half to The Higgin Manufacturing Company, Newport, Ky. Window-screen. No. 1,143,965; June 22; Gaz. vol. 215; p. 1106.
Higgin Manufacturing Company, The. (See Higgin, Henry, assignor.)
Higginbotham, Allen C., Charleston, W. Va. Bolting-cloth cleaner. No. 1,142,096; June 8; Gaz. vol. 215; p. 393.
Higgins, Albert L., Bar Harbor, Me. Milk-bottle-top extractor. No. 1,142,707; June 8; Gaz. vol. 215; p. 604.
Higgins, Patrick F., Fall River, Mass. Loom-shuttle. No. 1,141,186; June 1; Gaz. vol. 215; p. 34.
Higgins, William E., Milwaukee, Wis. Tuning-slide and stop for trumpets, &c. No. 1,141,960; June 8; Gaz. vol. 215; p. 342.
Hildreth, Herbert L. (See Woolf, Frank H., assignor.)
Hill, David K., *et al.* (See Beck, Marshall, assignor.)
Hill, Earl M., *et al.* (See Rood, Charles W., assignor.)
Hill, Edwyn, San Antonio, Tex. Hamper. No. 1,141,638; June 1; Gaz. vol. 215; p. 196.
Hill, Ernest R., East Orange, N. J. Pantograph-grounding circuits for electric railway-vehicles. No. 1,142,881; June 15; Gaz. vol. 215; p. 705.
Hill, George. (See Boozer and Hill.)
Hill, George A., Sanford, Me. Adjustable threshold-transfer. No. 1,142,097; June 8; Gaz. vol. 215; p. 393.
Hill, George M., *et al.* (See Rood, Charles W., assignor.)
Hill, Henderson F., Bloomfield, N. J., assignor to The American Hardware Corporation, New Britain, Conn. Panic-bolt construction. No. 1,141,338; June 1; Gaz. vol. 215; p. 89.
Hill-Independent Mfg. Co. (See Hellings, Andrew J., assignor.)
Hill-Independent Mfg. Co. (See Scotford, Louis K., assignor.)
Hill, James G., Lindsay, Cal. Composition of matter for destroying germs or insects. No. 1,141,961; June 8; Gaz. vol. 215; p. 342.
Hill, Joseph H., Wilmington, Del. Making tires. No. 1,141,708; June 1; Gaz. vol. 215; p. 220.

Hill Publishing Co. (See Ormay, Arthur L., assignor.)
Hill, William B., Terre Haute, Ind. Attachment for electric fans. No. 1,142,708; June 8; Gaz. vol. 215; p. 605.
Hilliard Clutch & Machinery Co., The. (See Scofield, Gilbert J., assignor.)
Hills, Homer, Jackson, Mich. Routing and die-sinking machine. No. 1,144,842; June 29; Gaz. vol. 215; p. 1439.
Hilton, Everett C., Andover, assignor to Tyer Rubber Company, Boston, Mass. Nipple for nursing-bottles. No. 1,144,980; June 29; Gaz. vol. 215; p. 1486.
Hiltz, George S., assignor to Stock Quotation Telegraph Company, New York, N. Y. Local-circuit-controlling apparatus for printing-telegraph systems. No.1,142,037; June 8; Gaz. vol. 215; p. 371.
Himebaugh, Adelbert C. (See Himebaugh, Ray C., assignor.)
Himebaugh, Ray C., assignor to A. C. Himebaugh, Burr Oak, Mich. Hand-planter. No. 1,144,127; June 22; Gaz. vol. 215; p. 1164.
Himes, Wrightsman D., assignor of one-half to J. F. Terry, Delta, Colo. Coupling device. No. 1,144,128; June 22; Gaz. vol. 215; p. 1165.
Hind, Robert R., and G. F. Renton, Ewa, Hawaii. Sugar-cane-mill roller. No. 1,144,597; June 29; Gaz. vol. 215; p. 1354.
Hinde & Dauch Paper Company. (See Harbrecht, William F., assignor.)
Hinde & Dauch Paper Company, The. (See Kelleher, Daniel, assignor.)
Hinde and Dauche Paper Company, The. (See Morton, Lawrence D., assignor.)
Hinde, James J., Sandusky, Ohio. Building-block for building-wall construction. No. 1,142,518; June 8; Gaz. vol. 215; p. 541.
Hinderliter, David C. (See Bell, Roberson, and Hinderliter.)
Hinnant, Lazarus G., Spring Hope, N. C. Scaffolding. No. 1,143,709; June 22; Gaz. vol. 215; p. 1018.
Hipwell, Harry H. and H. T., Pittsburgh, Pa. Portable flash-light. No. 1,144,201; June 22; Gaz. vol. 215; p. 1191.
Hipwell, Harry T. (See Hipwell, Harry H. and H. T.)
Hipwell, Harry T., Pittsburgh, Pa. Flash-light. No. 1,143,966; June 22; Gaz. vol. 215; p. 1106.
Hirsh, Allan M., C. Meriwether, Montclair, and J. C. Mitchell, East Orange, N. J., assignors to Lock Joint Pipe Company, New York, N. Y. Water-tight joint for concrete water-pipes. No. 1,143,117; June 15; Gaz. vol. 215; p. 788.
Hirsh, Fred, New York, N. Y., assignor to Adjusta Company. Adjustable garment-closure. No. 1,141,115; June 1; Gaz. vol. 215; p. 9.
Hirt, Jules H., El Paso, Tex. Soda-ash process. No. 1,141,639; June 1; Gaz. vol. 215; p. 196.
Hiscock, Joseph H., Minneapolis, Minn. Attachment for edging or jointing machines. No. 1,141,709; June 1; Gaz. vol. 215; p. 220.
Hise, John P., and W. H. Moyers, Hightown, Va. Flash-light attachment for guns. No. 1,144,656; June 29; Gaz. vol. 215; p. 1374.
Hiskey, George M., assignor of one-half to E. L. Potter, Los Angeles, Cal. Bottle-stopper lock. No. 1,142,519; June 8; Gaz. vol. 215; p. 542.
Hitchcock Experiment Company. (See Hitchcock, Halbert K., assignor.) (Reissue.)
Hitchcock, Halbert K., Tarentum, Pa., assignor of one-half to Hitchcock Experiment Company. Mechanism for feeding glass. (Reissue.) No. 13,929; June 15; Gaz. vol. 215; p. 960.
Hitt, Charlie E., Lookout, W. Va. Blower-hood and fastening therefor. No. 1,142,960; June 15; Gaz. vol. 215; p. 733.
Hobson, Henry E. (See Murph, Donald H., assignor.)
Hochriem, Gustav F. (See Paupa and Hochriem.)
Hodgeboom, Harry K., Montrose, N. Y. Vehicle-indicator. No. 1,142,038; June 8; Gaz. vol. 215; p. 372.
Hodgson, John G., Maywood, Ill., assignor to American Can Company, New York, N. Y. Continuous can-spraying machine. No. 1,141,339; June 1; Gaz. vol. 215; p. 90.
Hodny, William L., Buffalo, N. Y. Polishing-machine. No. 1,142,570; June 8; Gaz. vol. 215; p. 559.
Hodson, Leopold C., Winnipeg, Manitoba, Canada. Annunciator. No. 1,144,843; June 29; Gaz. vol. 215; p. 1440.
Hoff, Arnold, New York, N. Y. Hat-press. No. 1,142,430; June 8; Gaz. vol. 215; p. 511.
Hoffay, Jose, London, England. Sound-box. No. 1,143,394; June 15; Gaz. vol. 215; p. 887.
Hoffay, Jose, London, England. Sound-box or the like. No. 1,144,202; June 22; Gaz. vol. 215; p. 1191.
Hoffberg, Samuel M., New York, N. Y. Table-cover. No. 1,142,571; June 8; Gaz. vol. 215; p. 559.
Hoffman, Byron F., Byron, Cal. Animal-trap. No. 1,144,545; June 29; Gaz. vol. 215; p. 1336.
Hoffman, Joseph, Schenectady, N. Y. Water-power apparatus. No. 1,143,118; June 15; Gaz. vol. 215; p. 788.
Hoffman, Morris J., Chicago, Ill. Garment-shaper. No. 1,142,431; June 8; Gaz. vol. 215; p. 511.
Hoffmann, Hermann, assignor to Telepantograph-Gesellschaft mit beschrankter Haftung, Bremen, Germany. System of electrically transmitting signs. No. 1,142,572; June 8; Gaz. vol. 215; p. 559.
Hogan, John L., Jr. (See Lee and Hogan.)
Hogg, Frederic W., The Dalles, Oreg. Pneumatically-operated window-cleaner. No. 1,144,203; June 22; Gaz. vol. 215; p. 1192.
Holt, Henry M., Lower Naches Valley, Wash. Apple-gage. No. 1,142,573; June 8; Gaz. vol. 215; p. 560.
Holcomb, William H., Chicago, Ill. Tennis-court-marking-tape outfit. No. 1,142,039; June 8; Gaz. vol. 215; p. 372.
Holderer, Otto H., Detroit, Mich. Floor-surfacing machine. No. 1,142,961; June 15; Gaz. vol. 215; p. 733.
Hole, Charles C., Fremont, Nebr. Exhaust-utilizing system for automobiles. No. 1,143,395; June 15; Gaz. vol. 215; p. 888.
Holland, George H. (See Deady and Holland.)
Holland, Richard, and F. J. Dunn, Detroit, Mich. Platen-press gripper. No. 1,142,040; June 8; Gaz. vol. 215; p. 372.
Hollaway, Clarence. (See Broadwell and Hollaway.)
Hollis, Joseph, Leicester, England. Wood-trimmer and the like. No. 1,144,844; June 29; Gaz. vol. 215; p. 1441.
Holmes, Oscar J., St. Louis, Mo. Fire apparatus for oil-tanks. No. 1,142,520; June 8; Gaz. vol. 215; p. 542.
Holmes, Oscar J., assignor to Atlas Educational Film Co., Chicago, Ill. Film and sprocket drum. No. 1,144,414; June 29; Gaz. vol. 215; p. 1292.
Holschemacher, Julius C. (See Daniels and Holschemacher.)
Holsclaw, William W., and F. Komp, Louisville, Ky. Barrel-hoist. No. 1,143,396; June 15; Gaz. vol. 215; p. 888.
Holt, Benjamin, Stockton, Cal. Radiator. No. 1,143,967; June 22; Gaz. vol. 215; p. 1107.
Holt, John H., Lawrenceburg, Tenn. Vehicle-scotch. No. 1,141,798; June 1; Gaz. vol. 215; p. 249.
Holtzer-Cabot Electric Company, The. (See Balcome, Herbert A., assignor.)
Holwick, Daniel L. (See Criswell, Benjamin H., assignor.)
Holzer, Hiram A., Pittsburg, Kans., assignor to United Iron Works Company, Springfield, Mo. Mine-car wheel. No. 1,144,302; June 22; Gaz. vol. 215; p. 1226.
Homans, Thomas S., Hempstead, assignor to International Typesetting Machine Company, New York, N. Y. Matrix-magazine for typographical machines. No. 1,142,758; June 8; Gaz. vol. 215; p. 621.
Homas, Thomas S., Hempstead, assignor to International Typesetting Machine Company, New York, N. Y. Ejector mechanism for line-casting machines. No. 1,142,757; June 8; Gaz. vol. 215; p. 621.
Hooker, Joseph D., Carson, Iowa, assignor of one-fourth to T. G. Northwall and one-fourth to F. Reed, Omaha, Nebr. Demountable rim for vehicle-tires. No. 1,142,962; June 15; Gaz. vol. 215; p. 733.
Hooks, Jesse J., Donna, Tex. Thermostatic fire-extinguishing device. No. 1,143,762; June 22; Gaz. vol. 215; p. 1035.
Hooper, William H., Lynn, and T. H. Seely, Boston, Mass., assignors to United Shoe Machinery Company, Paterson, N. J. Work-support for soles of boots and shoes. No. 1,141,462; June 1; Gaz. vol. 215; p. 135.
Hootman, Orra O., Orogrande, N. Mex. Universal drive for vehicles. No. 1,144,845; June 29; Gaz. vol. 215; p. 1441.
Hopedale Manufacturing Company. (See Northrop, Jonas, assignor.)
Hopkins, Alfred, New York, N. Y. Drinking-trough, &c. No. 1,144,129; June 22; Gaz. vol. 215; p. 1165.
Hopkins, Daniel, Cascade, N. H. Train-stop. No. 1,144,902; June 29; Gaz. vol. 215; p. 1460.
Hopkins, Edward B., Savannah, Ga. Motor-vehicle signal. No. 1,144,903; June 29; Gaz. vol. 215; p. 1460.
Hopkins, George W., Cleveland, Ohio. Burner. No. 1,142,098; June 8; Gaz. vol. 215; p. 393.
Hopper, Bert A., assignor of one-half to R. M. Frantz, Big Rapids, Mich. Headlight for vehicles. No. 1,142,963; June 15; Gaz. vol. 215; p. 734.
Hopper, Calvin M. (See Wright, Smart, Hopper, and Thompson.)
Horn, Charles, Millbourne, Pa., assignor, by mesne assignments, to Harvey Hubbell, Inc., Bridgeport, Conn. Combined cable clamp and bushing. No. 1,142,709; June 8; Gaz. vol. 215; p. 605.
Horn, William H., Jr., assignor to Wm. H. Horn & Brother, Philadelphia, Pa. Truss. No. 1,141,799; June 1; Gaz. vol. 215; p. 250.
Horn, William W., Chicago Ill. Folding trestle. No. 1,143,397; June 15; Gaz. vol. 215; p. 889.
Hornaday, James M., Durham, N. C., assignor to Liggett & Myers Tobacco Company, St. Louis, Mo. Cutting mechanism for cigarette-machines. No. 1,143,628; June 22; Gaz. vol. 215; p. 991.
Hornbeck, Henry S., assignor to Volotone Company, Elizabeth, N. J. Musical instrument. No. 1,142,255; June 8; Gaz. vol. 215; p. 448.
Horne, James. (See Dawson and Horne.)
Horne, Lawrence W., and W. N. Crane, New York, N. Y., assignors of one-third to A. C. Henry. Automatic train-stopping device. No. 1,142,256; June 8; Gaz. vol. 215; p. 448.
Hornsey, John W., Summit, N. J., assignor to General Reduction Gas and By-Products Company. Rotary apparatus for treating materials. No. 1,142,521; June 8; Gaz. vol. 215; p. 542.

Horrigan, Thomas F., Brighton, Mass. Fastening device for shoes. No. 1,142,812; June 15; Gaz. vol. 215; p. 681.
Horst, Heinrich. (See Brune and Horst.)
Horting, Frank O., *et al.* (See Kempff and Smith, assignors.)
Horváth, Jim. (See Juhász and Horváth.)
Horvath, Joseph, Cherry Valley, Pa. Life-saving suit. No. 1,141,116; June 1; Gaz. vol. 215; p. 9.
Hoschek, John, New York, N. Y. Permutation-lock. No. 1,143,398; June 15; Gaz. vol. 215; p. 889.
Hotchkiss, Clarence F., assignor to Stow Manufacturing Company. Binghamton, N. Y. Belt-gearing. No. 1,143,583; June 15; Gaz. vol. 215; p. 951.
Hotter, Ferdinand. (See Walter, John, assignor.)
Houdaille, Maurice, assignor to Societe Houdaille & Sabot, Paris, France. Hydraulic brake device. No. 1,141,246; June 1; Gaz. vol. 215; p. 55.
Houghton, Orley C., Davenport, Iowa, assignor to Bullock Tractor Company, Chicago, Ill. Traction-truck. No. 1,142,169; June 8; Gaz. vol. 215; p. 417.
House, Zachariah E., Cass Lake, Minn. Toy cannon. No. 1,141,710; June 1; Gaz. vol. 215; p. 221.
Houseknecht, Lloyd M., Picayune, Miss. Educational apparatus. No. 1,141,340; June 1; Gaz. vol. 215; p. 90.
Hout, J. S. (See Shive, Calvin A., assignor.)
Hover, Clyde E. (See Voris and Hover.)
Howard, Clarence H., and H. M. Pflager, St. Louis, Mo., assignors, by mesne assignments, to Commonwealth Steel Company. Articulated car-truck. No. 1,144,328; June 22; Gaz. vol. 215; p. 1235.
Howard, Clarence H., and H. M. Pflager, St. Louis, Mo., assignors, by mesne assignments, to Commonwealth Steel Company. Articulated car-truck. No. 1,144,329; June 22; Gaz. vol. 215; p. 1235.
Howard, Forest L., Clinton, S. C. Self-locking switch. No. 1,143,763; June 22; Gaz. vol. 215; p. 1036.
Howard, Harold M., Providence, R. I. Top. No. 1,144,938; June 29; Gaz. vol. 215; p. 1471.
Howe and Davidson Company. (See Brown, Howard J., assignor.)
Howe, Fred C., New Haven, Conn. Adjustable lamp. No. 1,142,964; June 15; Gaz. vol. 215; p. 734.
Howe, Louis C., Indianapolis, Ind., assignor to Link-Belt Company, Chicago, Ill. Core for molding. No. 1,143,399; June 15; Gaz. vol. 215; p. 889.
Howell, David J., Waukesha, Wis. Attachment for stall-partitions. No. 1,141,341; June 1; Gaz. vol. 215; p. 90.
Howland, Chauncey W. (See Bader and Howland.)
Howland, Chauncey W., assignor to The Standard Optical Company, Geneva, N. Y. Machine for cutting lenses. No. 1,141,896; June 1; Gaz. vol. 215; p. 284.
Hoyt, Albert M. (See Matson, Carl A., assignor.)
Hubbard, Eber J., Berwyn, Ill. Sheet-metal spool. No. 1,143,541; June 15; Gaz. vol. 215; p. 936.
Hubbard, Fred, Pittsburgh, Pa. Collapsible egg-crate. No. 1,143,197; June 15; Gaz. vol. 215; p. 817.
Hubbell, David E., Elgin, Ill. Milk-skimmer. No. 1,142,041; June 8; Gaz. vol. 215; p. 372.
Huber, Charles S., assignor to Positive Supply Company, Davenport, Iowa. Water-tank heater. No. 1,143,196; June 15; Gaz. vol. 215; p. 817.
Huber, Gustav A., New York, N. Y. Electric alarm-bell. No. 1,141,187; June 1; Gaz. vol. 215; p. 34.
Huck, John T., assignor of one-half to W. J. Flick, San Francisco, Cal. Ratchet mechanism. No. 1,142,574; June 8; Gaz. vol. 215; p. 560.
Hudler, Charles L., St. Louis, Mo. Automatic water heater. No. 1,141,247; June 1; Gaz. vol. 215; p. 55.
Hudson, Joel E., Batavia, N. Y. Automatic ship's bell. No. 1,143,270; June 15; Gaz. vol. 215; p. 842.
Hudson Motor Car Company *et al.* (See Ball, Albert P., assignor.)
Huff, Russell, assignor to Packard Motor Car Company, Detroit, Mich. Motor-vehicle. No. 1,142,257; June 8; Gaz. vol. 215; p. 449.
Huffman, Oscar C. (See Voris and Hover, assignors.)
Hughes, Dow B., New York, N. Y., assignor to The Citizens Savings and Trust Company, Cleveland, Ohio, trustee. Magneto. No. 1,143,119; June 15; Gaz. vol. 215; p. 789.
Hughes, Howard R., assignor to Sharp-Hughes Tool Company, Houston, Tex. Cutter for rotary boring-drills. No. 1,143,271; June 15; Gaz. vol. 215; p. 843.
Hughes, Howard R., assignor to Sharp-Hughes Tool Company, Houston, Tex. Rotary boring-drill. No. 1,143,272; June 15; Gaz. vol. 215; p. 843.
Hughes, Howard R., assignor to Sharp-Hughes Tool Company, Houston, Tex. Rotary drill. No. 1,143,273; June 15; Gaz. vol. 215; p. 843.
Hughes, Howard R., assignor to Sharp-Hughes Tool Company, Houston, Tex. Rotary-disk boring-drill. No. 1,143,274; June 15; Gaz. vol. 215; p. 844.
Hughes, Howard R., assignor to Sharp-Hughes Tool Company, Houston, Tex. Demountable cutting edge for drilling-tools. No. 1,143,275; June 15; Gaz. vol. 215; p. 844.
Hughes, James W., Philadelphia, Pa., assignor to Hughes-Lippincott Company, Camden, N. J. Holder for the stylus-needles of talking-machines. No. 1,143,276; June 15; Gaz. vol. 215; p. 844.
Hughes, John C., New York, N. Y. Attachment for pens. No. 1,143,629; June 22; Gaz. vol. 215; p. 991.
Hughes-Lippincott Company. (See Hughes, James W. assignor.)
Hughes, Martha J. H., Detroit, Mich. Churn. No. 1,144,598; June 29; Gaz. vol. 215; p. 1354.
Huguenin, Paul D. E., La Tour-de-Peilz, Switzerland. Instrument for copying and measuring curved outlines. No. 1,141,640; June 1; Gaz. vol. 215; p. 196.
Hugunine, Edward S., Rome, N. Y. Can-capping machine. No. 1,142,564; June 8; Gaz. vol. 215; p. 556.
Hulse, Edward C., Springfield, Mo. Nail-set hammer. No. 1,143,277; June 15; Gaz. vol. 215; p. 845.
Hulstedt, Otis L., Oneida, Ill. Hay-sling. No. 1,142,432; June 8; Gaz. vol. 215; p. 512.
Hummel, John P., Milwaukee, Wis. Box. No. 1,144,130; June 22; Gaz. vol. 215; p. 1166.
Humphrey, Ernest N., assignor to Traut & Hine Manufacturing Company, New Britain, Conn. Attachment for garment-supporters. No. 1,144,963; June 29; Gaz. vol. 215; p. 1479.
Humphrey, Herbert S., Kalamazoo, Mich., assignor to Ruud Manufacturing Company, Pittsburgh, Pa. Water-heater. No. 1,142,433; June 8; Gaz. vol. 215; p. 512.
Humphries, Herbert B. P. (See Dodd and Humphries.)
Hunt, William F., San Francisco, Cal. Changeable-speed gearing. No. 1,143,048; June 15; Gaz. vol. 215; p. 763.
Hunter, Harry S., assignor to Hunter Saw & Machine Company, Pittsburgh, Pa. Milling-saw. No. 1,144,131; June 22; Gaz. vol. 215; p. 1166.
Hunter, Lloyd T., Dorchester, assignor of one-half to F. S. Johnson, Campello, Mass. Automatic fire-escape. No. 1,142,710; June 8; Gaz. vol. 215; p. 605.
Hunter, Samuel, Syracuse, N. Y. Combined scarecrow and advertising device. No. 1,142,326; June 8; Gaz. vol. 215; p. 472.
Hunter Saw & Machine Company. (See Hunter, Harry S., assignor.)
Hunter, William A., Mankato, Kans. Brake. No. 1,144,359; June 29; Gaz. vol. 215; p. 1275.
Huntington, Samuel P., assignor, by mesne assignments, to The Recording Register & Fare Box Company, New Haven, Conn. Fare-register. No. 1,144,475; June 29; Gaz. vol. 215; p. 1314.
Huntley, Wesley P., Ashland, Ky., and R. M. Berkeley, Richmond, Va. Automatic safety air-brake appliance. No. 1,143,198; June 15; Gaz. vol. 215; p. 818.
Hupp Motor Car Company. (See Nelson, Emil A., assignor.)
Hurd, Earl, Kansas City, Mo. Process of and apparatus for producing moving pictures. No. 1,143,542; June 15; Gaz. vol. 215; p. 936.
Hurd, Norman B., assignor to The American Hardware Corporation, New Britain, Conn. Cylinder-lock. No. 1,141,463; June 1; Gaz. vol. 215; p. 135.
Hutchins Car Roofing Company. (See Hawksworth, David W., assignor.)
Hutchins Car Roofing Company. (See Herbert, Samuel, assignor.)
Hutchins, Edgar P., Brookville, Pa. Spring-tire. No. 1,142,327; June 8; Gaz. vol. 215; p. 472.
Hutchins, George F., assignor to Crompton & Knowles Loom Works, Worcester, Mass. Loom for weaving tufted fabric. No. 1,142,170; June 8; Gaz. vol. 215; p. 418.
Hutchinson, George, Chicago, Ill. Wire fence. No. 1,141,394; June 1; Gaz. vol. 215; p. 110.
Hutchinson, George, Chicago, Ill., assignor to Donald-Hutchinson Patents Ltd., Masterton, New Zealand. Metal post. No. 1,144,476; June 29; Gaz. vol. 215; p. 1314.
Hutchison, Benjamin O. (See Talbutt and Hutchison.)
Hutchison, Miller R., Bay Shore, N. Y. Speed-regulator for motor-vehicles. No. 1,142,099; June 8; Gaz. vol. 215; p. 394.
Huycke, John P. (See Guy and Huycke.)
Hyatt Roller Bearing Company. (See Lockwood, Charles S., assignor.)
Hyde, Elbert L., Pittsburgh, assignor to The Spirella Company, Meadville, Pa. Garment-stay. No. 1,142,565; June 8; Gaz. vol. 215; p. 557.
Hyde, James M., Berkeley, Cal. Zinc-smelting furnace. No. 1,144,036; June 22; Gaz. vol. 215; p. 1132.
Hyde, James M., Berkeley, Cal. Smelting zinc and other ores. No. 1,144,037; June 22; Gaz. vol. 215; p. 1133.
Hyland, George O., Childress, Tex. Door-opener. No. 1,142,171; June 8; Gaz. vol. 215; p. 418.
Hymans, Frederick, Shaler township, Allegheny county, Pa., assignor to Otis Elevator Company, Jersey City, N. J. Controlling device for motors. No. 1,141,548; June 1; Gaz. vol. 215; p. 164.
Ibarra, José, Habana, Cuba. Cigarette-box-grouping machine. No. 1,143,400; June 15; Gaz. vol. 215; p. 889.
Iceless Machine Company, The. (See Gase, George A., assignor.)
Ideal Fire Detector Company. (See Kayser, Charles H., assignor.)
Ideal Fire Detector Company. (See Kayser and Hampton, assignors.)
Iden, Henry. (See Hartmann, Louis, assignor.)
Ike, Richard. (See Noppe and Ike.)
Ilfrey, W. O. (See Harpat, Frederick E., assignor.)
Imperial Car Cleaner Company. (See Service, William F., assignor.)
Imperial Manufacturing Company. (See Moore, George W., assignor.)

Improved Construction Company Limited, The. (See Jagger, Peter B., assignor.)
Indahl, Mauritz C., Philadelphia, Pa. Internal-combustion engine. No. 1,141,711; June 1; Gaz. vol. 215; p. 221.
Individual Drinking Cup Company. (See Herwis, Maurice P., assignor.)
Infield, George W. (See Cameron, Joseph A., assignor.)
Ingalls, Lloyd O. (See Halvorson and Ingalls.)
Ingalls, William A., Arkansas City, Kans. Resilient wheel. No. 1,144,546; June 29; Gaz. vol. 215; p. 1337.
Ingalls, Wills A., Cleveland, Ohio. Knitting-machine. No. 1,144,846; June 29; Gaz. vol. 215; p. 1441.
Ingersoll Milling Machine Co., The. (See Feldmann, Ernst, assignor.)
Ingersoll Milling Machine Company, The. (See Johnson, John R., assignor.)
Ingersoll-Rand Company. (See Bayles, Lewis C., assignor.)
Ingersoll-Rand Company. (See Gibson, Arthur H., assignor.)
Inman, Harry A., assignor to Inman Manufacturing Company, Incorporated, Amsterdam, N. Y. Box-making machine. No. 1,142,575; June 8; Gaz. vol. 215; p. 560.
Inman Manufacturing Company. (See Inman, Harry A., assignor.)
Inman Manufacturing Company. (See Wood, Ralph A., assignor.)
Inshaw, George R., Uddingston, Scotland. Rotary internal-combustion engine. No. 1,142,576; June 8; Gaz. vol. 215; p. 561.
International Cork Company. (See Bogdanffy, Alexander, assignor.)
International Harvester Company of New Jersey. (See Leonhauser, Ara U., assignor.)
International Harvester Company of New Jersey. (See Waite, Harry C., assignor.)
International Harvester Corporation. (See Johnston, Edward A., assignor.)
International Harvester Corporation. (See Kane, Edmund J., assignor.)
International Harvester Corporation. (See Weaver, Ira A., assignor.)
International Motor Company. (See Masury, Alfred F., assignor.)
International Precipitation Company. (See Cottrell and Burns, assignors.)
International Signal Company, The. (See Webb, Jean F., Jr., assignor.)
International Typesetting Machine Company. (See Homans, Thomas S., assignor.)
Interstate Electric Novelty Company. (See Heinrich, Gustav P., assignor.)
Ioor, John P., Grand Rapids, Mich., assignor to National Piano Manufacturing Company, Chicago, Ill. Coin-operated automatic piano-player. No. 1,141,549; June 1; Gaz. vol. 215; p. 165.
Irion, Matthew, and A. E. Mueller, Louisville, Ky. Recording apparatus. No. 1,141,962; June 8; Gaz. vol. 215; p. 342.
Irion, Matthew, and A. E. Mueller, Louisville, Ky. Speed-indicating and mileage-registering apparatus. No. 1,141,963; June 8; Gaz. vol. 215; p. 343.
Irish, William M. (See Van Dyke and Irish.)
Irrgang, Adolf. (See Proskauer and Irrgang.)
Irwin Foundry & Mine Car Company. (See Sensenich, Chester D., assignor.)
Isaacs, Joel L., New York, N. Y., assignor to Simmons Manufacturing Company, Kenosha, Wis. Finishing metal joints. No. 1,142,711; June 8; Gaz. vol. 215; p. 605.
Isenberg Cigar Company. (See Isenberg, Gerson, assignor.)
Isenberg, Gerson, New York, N. Y., assignor to Isenberg Cigar Company, Wheeling, W. Va. Advertising device. No. 1,144,707; June 29; Gaz. vol. 215; p. 1393.
Isherwood, Percy C. C., Bushey Heath, England. Manufacturing anodes. No. 1,143,828; June 22; Gaz. vol. 215; p. 1059.
Isley, George H. (See Jefferies and Isley.)
Iverson, Sam K., Colfax, Wis. Spraying attachment. No. 1,144,204; June 22; Gaz. vol. 215; p. 1192.
J. & C. G. Bolinders Mekaniska Verkstads Aktiebolag. (See Larsson and Österberg, assignors.)
J. G. Brill Company, The. (See Smith, Warren M., assignor.)
J. H. White Manufacturing Company. (See White, Edwin L., assignor.)
J. I. Case Plow Works. (See Michael, Clement W., assignor.)
J. L. Clark Carriage Company, The. (See Foulke, Horace M., assignor.)
Jacino, Charles, Garfield, Utah. Rail-joint. No. 1,143,710; June 22; Gaz. vol. 215; p. 1018.
Jack, Lewis T., Mount Sterling, Iowa. Extended step. No. 1,141,800; June 1; Gaz. vol. 215; p. 250.
Jackson, Andrew. (See Bradbury, Roy J., assignor.)
Jackson, Carl A., Kansas City, Mo. Tooth-brush. No. 1,142,566; June 8; Gaz. vol. 215; p. 558.
Jackson, Simeon S., assignor to The Stafford Company, Boston, Mass. Warp stop-motion for looms. No. 1,143,120; June 15; Gaz. vol. 215; p. 789.
Jackson, William F., Bridgeport, Ill. Automobile-fender. No. 1,144,708; June 29; Gaz. vol. 215; p. 1393.
Jacobs, Ernest H., Schenectady, N. Y., assignor to General Electric Company. Electric switch. No. 1,144,038; June 22; Gaz. vol. 215; p. 1133.
Jacobs, George, Cleveland, assignor, by mesne assignments, to The McCaskey Register Company, Alliance, Ohio. Filing appliance. No. 1,142,965; June 15; Gaz. vol. 215; p. 734.
Jacobs, Henry W., and H. H. Lanning, Topeka, Kans. Valve mechanism for gas-compressors. No. 1,144,360; June 29; Gaz. vol. 215; p. 1275.
Jacobs-Shupert United States Fire-Box Company. (See Ducas and Coleman, assignors.)
Jacobson, Charles E., Manchester, Conn., assignor, by mesne assignments, to Crescent Calk Corporation, Syracuse, N. Y. Machine for forming spurs and the like upon bars. No. 1,144,132; June 22; Gaz. vol. 215; p. 1166.
Jacobson, Monus, New York, N. Y. Drip-pan alarm. No. 1,142,577; June 8; Gaz. vol. 215; p. 561.
Jacobson, William A., assignor to Novelty Manufacturing Company, Paterson, N. J. Apparel-belt. No. 1,141,663; June 1; Gaz. vol. 215; p. 205.
Jacoby, Richard, Berlin, Germany, assignor to General Electric Company. Treating conductors. No. 1,142,172; June 8; Gaz. vol. 215; p. 419.
Jacquemin, Eugene, Kent, Wash. Resilient tire. No. 1,141,641; June 1; Gaz. vol. 215; p. 196.
Jacques, Frank W., Los Angeles, Cal. Safety-envelop. No. 1,142,712; June 8; Gaz. vol. 215; p. 606.
Jaeger, Herman J., Weehawken, N. J. Metallic-filament lamp. No. 1,143,909; June 22; Gaz. vol. 215; p. 1086.
Jaenecke Printing Ink Co., The. (See Posse, Gustav E., assignor.)
Jagenberg, Emil, Dusseldorf, Germany. Labeling-machine. No. 1,143,968; June 22; Gaz. vol. 215; p. 1107.
Jager, Frank, Chicago, Ill. Car-door. No. 1,143,121; June 15; Gaz. vol. 215; p. 789.
Jager, Frank, Chicago, Ill. Car-door. No. 1,143,122; June 15; Gaz. vol. 215; p. 790.
Jager, Frank, Chicago, Ill. Metallic track-fastening. No. 1,143,123; June 15; Gaz. vol. 215; p. 790.
Jagger, Peter B., assignor to The Improved Construction Company Limited, London, England. Machine for manufacturing concrete articles. No. 1,142,522; June 8; Gaz. vol. 215; p. 543.
James, Moses, Lansford, Pa. Shaker-plate for ore and coal washers. No. 1,142,434; June 8; Gaz. vol. 215; p. 512.
James, Owen, Fall River, Mass. Display-sign for store-windows. No. 1,141,801; June 1; Gaz. vol. 215; p. 251.
Jamson, Henry, Catterick, England. Paint and making the same. No. 1,144,599; June 29; Gaz. vol. 215; p. 1355.
Janes, Jesse A., Metropolis, Ill. Automatic water-gage. No. 1,142,328; June 8; Gaz. vol. 215; p. 472.
Janicke, Gustavus A., Louisville, Ky. Telephone. No. 1,142,173; June 8; Gaz. vol. 215; p. 419.
Janovisk, George J., Chrome, N. J. Automatic uncoupler for cars. No. 1,144,709; June 29; Gaz. vol. 215; p. 1393.
Jardine, James L., Penicuik, Scotland. Production of paper-pulp or cellulose from bamboo and the like. No. 1,143,401; June 15; Gaz. vol. 215; p. 889.
Jardine, James L., Penicuik, Scotland. Preparing textile materials for bleaching. No. 1,143,543; June 15; Gaz. vol. 215; p. 936.
Jas. Clark, Jr., Electric Co. (See Willey, Charles E., assignor.)
Javault, Robert, assignor to Société Francaise des Films & Cinematographes, "Eclair," Paris, France. Apparatus for developing and washing cinematographic films. No. 1,141,464; June 1; Gaz. vol. 215; p. 136.
Jeavons, William R., and A. R. Whittaker, Cleveland, Ohio. Oil-burner. No. 1,143,199; June 15; Gaz. vol. 215; p. 818.
Jefferies, Ebenezer A. W., and G. H. Isley, assignors to Morgan Construction Company, Worcester, Mass. Gas-producer. No. 1,142,100; June 8; Gaz. vol. 215; p. 394.
Jeffrey Manufacturing Company, The. (See Coseo, Frederick C., assignor.)
Jeffrey Manufacturing Company, The. (See Fisher, Dudley T., assignor.)
Jeffrey Manufacturing Company, The. (See Merrill, Edwin R., assignor.)
Jeffrey Manufacturing Company, The. (See Sessions, Frank L., assignor.)
Jelenko & Company, J. F. (See Aderer, Hugo, assignor.)
Jenkins, Samuel E., Richmond, Va. Apparatus for handling ashes, garbage, and other refuse. No. 1,143,278; June 15; Gaz. vol. 215; p. 845.
Jennings, Archer B., Meriden, Conn. Tool-handle. No. 1,144,710; June 29; Gaz. vol. 215; p. 1393.
Jennings, Chester S., assignor to The Lamson Company, Boston, Mass. Despatch or conveyer system. No. 1,143,829; June 22; Gaz. vol. 215; p. 1059.
Jennings, Emerson P., Jr., Lehighton, Pa. Roller-carriage. No. 1,142,435; June 8; Gaz. vol. 215; p. 513.
Jennings, Emerson P., Jr., Lehighton, Pa. Ink-distributing device. No. 1,143,764; June 22; Gaz. vol. 215; p. 1037.
Jennings, Harry M., Utica, N. Y. Automobile-washer. No. 1,142,966; June 15; Gaz. vol. 215; p. 735.

Jensen, Alexander V., Elizabeth, N. J. Apparatus for conveying and placing concrete. No. 1,142,567; June 8; Gaz. vol. 215; p. 558.
Jirousek, Joseph F., assignor of one-half to B. F. Corday, Cleveland, Ohio. Printer's sheet-receptacle. No. 1,144,133; June 22; Gaz. vol. 215; p. 1167.
Jno. M. Shelton Egg Carrier Company, The. (See Shelton, John M., assignor.)
Jobst, Conrad, assignor to The Ames Bonner Company, Toledo, Ohio. Brush-making machine. No. 1,144,711; June 29; Gaz. vol. 215; p. 1394.
Jobst, Conrad, assignor to The Ames Bonner Company, Toledo, Ohio. Brush-making machine. No. 1,144,712; June 29; Gaz. vol. 215; p. 1394.
Joerns Motor Manufacturing Company. (See Strand, Andrew, assignor.)
Joha, Norbert, Milwaukee, Wis. Measuring instrument. No. 1,142,436; June 8; Gaz. vol. 215; p. 513.
John A. Roebling's Sons Company. (See Da Costa, Robert C., assignor.)
John Douglas Company, The. (See McNeil, Daniel W., assignor.)
John, Griffith, Yonkers, N. Y., assignor to Otis Elevator Company, Jersey City, N. J. Elevator. No. 1,141,964; June 8; Gaz. vol. 215; p. 343.
Johne, Otto, assignor to Bautzner Industriewerk, Aktiengesellschaft, Bautzen, Germany. Machine for cutting piles of paper. No. 1,143,765; June 22; Gaz. vol. 215; p. 1037.
Johnson, Callender L. (See Guthrie and Johnson.)
Johnson, Carl, Cheakamus, British Columbia, Canada. Aeroplane. No. 1,144,847; June 29; Gaz. vol. 215; p. 1442.
Johnson, Edward E., St. Paul, Minn. Tube-forming machine. No. 1,141,712; June 1; Gaz. vol. 215; p. 222.
Johnson, Edward E., St. Paul, Minn. Wire grooving and milling machine. No. 1,141,713; June 1; Gaz. vol. 215; p. 222.
Johnson, F. S. (See Hunter, Lloyd T., assignor.)
Johnson, George, *et al.* (See Worrell, Robert H., assignor.)
Johnson, George A., assignor to W. H. Miner, Chicago, Ill. Packing for refrigerator-doors. No. 1,143,049; June 15; Gaz. vol. 215; p. 764.
Johnson, Gustave A., Newark, N. J. Metallic molding. No. 1,141,188; June 1; Gaz. vol. 215; p. 35.
Johnson, Harry A., and V. J. Pearson, Piper City, Ill. Tongue-supporter. No. 1,142,578; June 8; Gaz. vol. 215; p. 561.
Johnson, Harry T., deceased, New York, N. Y.; N. F. Johnson, administratrix. Reducing coke to produce battery-carbons. No. 1,141,117; June 1; Gaz. vol. 215; p. 9.
Johnson, Harry T., deceased, New York, N. Y.; N. F. Johnson, administratrix. Kiln or furnace for treatment of carbonaceous materials. No. 1,141,118; June 1; Gaz. vol. 215; p. 10.
Johnson, Israel J., and H. McClelland, Redding, Cal. Rotary pump. No. 1,143,200; June 15; Gaz. vol. 215; p. 818.
Johnson, Iver, Vancouver, British Columbia, Canada, assignor to N. Cook, Seattle, Wash. Clothes-line pulley. No. 1,143,910; June 22; Gaz. vol. 215; p. 1086.
Johnson, John B., Fort Collins, Colo. Cultivator. No. 1,144,039; June 22; Gaz. vol. 215; p. 1134.
Johnson, John C., St. Louis, Mo. Means for use in sealing fiber boxes, cartons, and the like. No. 1,142,813; June 15; Gaz. vol. 215; p. 681.
Johnson, John R., assignor to The Ingersoll Milling Machine Company, Rockford, Ill. Milling-machine. No. 1,143,584; June 15; Gaz. vol. 215; p. 951.
Johnson, John R., assignor to The Ingersoll Milling Machine Company, Rockford, Ill. Milling-machine spindle-head. No. 1,143,585; June 15; Gaz. vol. 215; p. 951.
Johnson, John T., and F. G. Mason, Caulfield, Victoria, Australia. Making tire-covers. No. 1,142,042; June 8; Gaz. vol. 215; p. 372.
Johnson, Karl A., Olivia, Minn. Grain-shocker for harvesters. No. 1,144,848; June 29; Gaz. vol. 215; p. 1442.
Johnson, Mark W., Jr., Atlanta, Ga. Turbine. No. 1,142,882; June 15; Gaz. vol. 215; p. 705.
Johnson, Martin A., Galesville, Wis. Spring-motor. No. 1,144,205; June 22; Gaz. vol. 215; p. 1192.
Johnson, Mary E., trustee. (See Cobb, Lyman H., assignor.)
Johnson, Nathan C., Englewood, N. J., assignor to Tinius Olsen Testing Machine Company, Philadelphia, Pa. Absorption-dynamometer. No. 1,141,802; June 1; Gaz. vol. 215; p. 251.
Johnson, Nettie F., administratrix. (See Johnson, Harry T.)
Johnson, Oliver W. (See Doolittle and Johnson.)
Johnson, Olof E. M., Newett, Colo. Hatchet. No. 1,142,101; June 8; Gaz. vol. 215; p. 394.
Johnson, Walter N., Williamsport, Pa. Antifrosting window. No. 1,143,402; June 15; Gaz. vol. 215; p. 890.
Johnson, William C., Cincinnati, Ohio. Table. No. 1,143,279; June 15; Gaz. vol. 215; p. 846.
Johnson, William G., Old Forge borough, Pa. Safety elevator-gate. No. 1,143,766; June 22; Gaz. vol. 215; p. 1037.
Johnston, Clarence L., and H. P. Brown, Oakland, Cal. Interleaved paper articles. No. 1,141,395; June 1; Gaz. vol. 215; p. 111.
Johnston, Edward A., Chicago, Ill., assignor, by mesne assignments, to International Harvester Corporation. Power-transmission mechanism. No. 1,144,547; June 29; Gaz. vol. 215; p. 1337.
Johnston, Samuel E., Delta, Colo. Instep and ankle support for shoes. No. 1,142,713; June 8; Gaz. vol. 215; p. 606.
Jones, Alva D., Philadelphia, Pa. Sound-box for talking-machines. No. 1,142,883; June 15; Gaz. vol. 215; p. 706.
Jones, Arthur S., assignor of one-half to L. C. Cummings, Brookline, Mass. Automatic control system for railway-trains. No. 1,141,873; June 1; Gaz. vol. 215; p. 273.
Jones, Benjamin H., St. Louis, Mo. Caster-socket. No. 1,141,342; June 1; Gaz. vol. 215; p. 91.
Jones, Byron O., Chicago, Ill. Piano-stool. No. 1,142,174; June 8; Gaz. vol. 215; p. 419.
Jones, El Dorado. (See Block, Albert J., assignor.)
Jones, El Dorado, Moline, Ill. Attachment-plug. No. 1,141,686; June 1; Gaz. vol. 215; p. 213.
Jones, Elmer M., assignor to Jones Signal System Company, Atlanta, Ga. Automatic train-stop. No. 1,142,884; June 15; Gaz. vol. 215; p. 706.
Jones, Elmer M., assignor to Jones Signal System Company, Atlanta, Ga. Automatic stopping device for vehicles. No. 1,142,885; June 15; Gaz. vol. 215; p. 707.
Jones, Elmer M., assignor to Jones Signal System Company, Atlanta, Ga. Automatic stop or cab signal device. No. 1,142,886; June 15; Gaz. vol. 215; p. 707.
Jones, Frederick A., Wagga Wagga, New South Wales, Australia. Faucet attachment. No. 1,142,579; June 8; Gaz. vol. 215; p. 562.
Jones, Harold C., Chicago Heights, Ill. Ladder. No. 1,144,600; June 29; Gaz. vol. 215; p. 1355.
Jones, Harry, Suffern, N. Y., assignor to American Brake Shoe & Foundry Company, Mahwah, N. J. Brake-shoe. No. 1,144,601; June 29; Gaz. vol. 215; p. 1355.
Jones, James A., Jackson, Tenn. Cover for automobile-tops. No. 1,142,329; June 8; Gaz. vol. 215; p. 473.
Jones, Jefferson D., assignor of one-half to R. G. Warnick and one-half to C. E. Buckwalter, Long Beach, Cal. Cycle-skate. No. 1,144,134; June 22; Gaz. vol. 215; p. 1167.
Jones, John C. (See Glessner, Charles E., assignor.)
Jones, John L., assignor to Dominion Paper Box Company, Limited, Toronto, Ontario, Canada. Paper box. No. 1,141,343; June 1; Gaz. vol. 215; p. 91.
Jones, Joshua J., assignor of one-third to B. Rutherfoord and one-third to C. P. Trimble, Pittsburgh, Pa. Folding box. No. 1,142,175; June 8; Gaz. vol. 215; p. 420.
Jones, Lenora H., Wichita, Kans. Electric talking-sign. No. 1,143,201; June 15; Gaz. vol. 215; p. 819.
Jones, Marcellus W., Carthage, Mo. Trip-hook. No. 1,144,415; June 29; Gaz. vol. 215; p. 1293.
Jones, Richard E., assignor to Dexter Folder Company, Pearl River, N. Y. Feeding attachment for printing-presses and the like. No. 1,143,630; June 22; Gaz. vol. 215; p. 991.
Jones Signal System Company. (See Jones, Elmer M., assignor.)
Jones, William K., Wichita, Kans. Combination-suit. No. 1,142,580; June 8; Gaz. vol. 215; p. 562.
Jones, William M., Checotah, Okla. Hair-spring-removing tool. No. 1,144,548; June 29; Gaz. vol. 215; p. 1338.
Joos, George, Fountain City, Wis. Gearing. No. 1,143,280; June 15; Gaz. vol. 215; p. 846.
Jordan, David, Sweetwater, Tex. Oil-burner. No. 1,144,361; June 29; Gaz. vol. 215; p. 1275.
Jordan, John E. (See Deacon and Jordan.)
Jorgensen, Hans C., Montreal, Quebec, Canada. Float. No. 1,143,830; June 22; Gaz. vol. 215; p. 1060.
Joseph N. Smith & Company. (See Ackerman, Edward L., assignor.)
Jubinville, Hildaige, Dracut, Mass. Center and axis indicator. No. 1,141,396; June 1; Gaz. vol. 215; p. 111.
Judson Governor Company. (See Osborne, John L., assignor.)
Juhász, Johan, and J. Horváth, Scalp Level, Pa. Rail-joint. No. 1,141,714; June 1; Gaz. vol. 215; p. 223.
Juhász, John, New York, N. Y. Carbureter. No. 1,144,206; June 22; Gaz. vol. 215; p. 1193.
Junoform Company, The. (See Barlet, Natalie M., assignor.)
Juntunen, Gustie J., Dollar Bay, Mich. Automatic whistling device. No. 1,141,344; June 1; Gaz. vol. 215; p. 91.
K. W. Ignition Company. (See Williams, Joseph A., assignor.)
Kadlec, Friedrich, Fiume, Austria-Hungary. Motor-car. No. 1,141,248; June 1; Gaz. vol. 215; p. 56.
Kadow, August, assignor to The Westlake Machine Company, Toledo, Ohio. Transmission apparatus. No. 1,142,437; June 8; Gaz. vol. 215; p. 514.
Kahn, Isidor. (See Rothenbucher, George E. R., assignor.)
Kailer, Harvey E., Chicago, Ill. Preventing the freezing of the cooling systems of automobiles. No. 1,144,939; June 29; Gaz. vol. 215; p. 1471.
Kaiser, Carl, assignor, by meane assignments, to M. Froosé, New York, N. Y. Ash-sifter. No. 1,141,550; June 1; Gaz. vol. 215; p. 165.
Kaiser, Carl, assignor to M. Froesé, New York, N. Y. Milk safe. No. 1,141,551; June 1; Gaz. vol. 215; p. 165.

Kaiser, Henry G., Elk Rapids, Mich. Drill-press. No. 1,144,602; June 29; Gaz. vol. 215; p. 1355.

Kaisling, William, assignor to Kellogg Switchboard & Supply Company, Chicago, Ill. Indicating-relay. No. 1,141,119; June 1; Gaz. vol. 215; p. 10.

Kaisling, William, assignor to Kellogg Switchboard & Supply Company, Chicago, Ill. Ignition-timer. No. 1,144,135; June 22; Gaz. vol. 215; p. 1167.

Kajut, Joseph E. (See Thompson and Kajut.)

Kako, Shintaro, San Francisco, Cal. Flat-iron. No. 1,143,050; June 15; Gaz. vol. 215; p. 764.

Kalfirst, Reinhold. (See Klatt and Kalfirst.)

Kallanjee, Tricamdas, and A. B. Paranjape, Bombay, India. Internal-combustion engine. No. 1,142,581; June 8; Gaz. vol. 215; p. 562.

Kalle and Company Aktiengesellschaft. (See Wray and Hess, assignors.)

Kamioka, Riuhe, Lake Forest, Ill. Life-saving apparatus. No. 1,144,904; June 29; Gaz. vol. 215; p. 1460.

Kane, Edmund J., Chicago, Ill., assignor, by mesne assignments, to International Harvester Corporation. Carbureter for internal-combustion engines. No. 1,144,549; June 29; Gaz. vol. 215; p. 1338.

Kanzee, Austin, San Francisco, Cal. Tire-tread. No. 1,143,124; June 15; Gaz. vol. 215; p. 790.

Kaplan, Jacob, Chicago, Ill. Twisted-belt-saving device. No. 1,143,281; June 15; Gaz. vol. 215; p. 846.

Karcher, Arthur A., Chicago, Ill., assignor to American Tool Works, St. Joseph, Mich. Breech-loading air-gun. No. 1,143,544; June 15; Gaz. vol. 215; p. 937.

Karpen, Adolph. (See Miller, Royal R., assignor.)

Kast Inserting & Gathering Machine Company. (See Glitzendanner, Charles, assignor.)

Kaszubski, Adam, Detroit, Mich. Device to prevent slipping. No. 1,142,967; June 15; Gaz. vol. 215; p. 735.

Katzenberger, Oscar, Chicago, Ill. Single-acting lavatory-hinge. No. 1,142,582; June 8; Gaz. vol. 215; p. 563.

Katzenberger, Oscar, Chicago, Ill. Invisible surface hinge. No. 1,144,207; June 22; Gaz. vol. 215; p. 1194.

Kauffman, Horace M., South Bend, Ind. Cranking device for explosive-engines. No. 1,141,189; June 1; Gaz. vol. 215; p. 35.

Kauffmann, Ferdinand E., Rahway, N. J. Horseshoe. No. 1,144,416; June 29; Gaz. vol. 215; p. 1293.

Kaufman, Adolph G., New York, N. Y. Hydrocarbon-lamp. No. 1,142,814; June 15; Gaz. vol. 215; p. 682.

Kaufman, Adolph G., New York, N. Y. Hydrocarbon-lamp support. No. 1,142,815; June 15; Gaz. vol. 215; p. 682.

Kaufman, Adolph G., New York, N. Y. Self-contained hydrocarbon-lamp. No. 1,142,816; June 15; Gaz. vol. 215; p. 682.

Kaufman, Benjamin H. (See Bennett, Theodore J., assignor.)

Kaufman, David V., New York, N. Y. Antiskidding device. No. 1,142,583; June 8; Gaz. vol. 215; p. 563.

Kayle, Oscar C., assignor to H. A. Moyer, Syracuse, N. Y. Type-writing machine. No. 1,142,568; June 8; Gaz. vol. 215; p. 558.

Kawasaki, Utakichi, Seattle, Wash. Car-seat. No. 1,143,831; June 22; Gaz. vol. 215; p. 1060.

Kayser, Charles H., West Orange, N. J., assignor to Ideal Fire Detector Company. Circuit-controlling element. No. 1,143,969; June 22; Gaz. vol. 215; p. 1107.

Kayser, Charles H., Orange, N. J., and W. H. Hampton, New York, N. Y., assignors to Ideal Fire Detector Company. Fire-detector apparatus. No. 1,143,970; June 22; Gaz. vol. 215; p. 1108.

Keenan, James W., Detroit, Mich. Mold for concrete basement-walls. No. 1,142,887; June 15; Gaz. vol. 215; p. 707.

Keene, Florence L., administratrix. (See Keene, Fremont O.)

Keene, Fremont O., deceased, Freeport; F. L. Keene, Stephenson county, Ill., administratrix. Pea-separator. No. 1,143,202; June 15; Gaz. vol. 215; p. 819.

Keene, George F., assignor of one-half to A. O. Pardey, Whitman, Mass. Cranberry-harvester. No. 1,143,403; June 15; Gaz. vol. 215; p. 890.

Kehler, Herbert, Warsaw, Ind. Leather-cutting machine. No. 1,141,465; June 1; Gaz. vol. 215; p. 136.

Keislar, Mott, Phulera, India. Razor. No. 1,143,832; June 22; Gaz. vol. 215; p. 1060.

Keister, James, Steubenville, Ohio. Single-valve four-cycle explosive-engine. No. 1,144,208; June 22; Gaz. vol. 215; p. 1194.

Kellar-Thomason Company. (See Bowen, Edward T., assignor.)

Kelleher, Daniel, assignor to The Hinde & Dauch Paper Company, Sandusky, Ohio. Machine for scoring blanks of cellular board. No. 1,144,765; June 29; Gaz. vol. 215; p. 1413.

Keller, John W. (See Kilgore and Keller.)

Keller, Joseph F., W. A. Warman, New York, and H. L. Parr, Yonkers, assignors to Keller Mechanical Engraving Company, Brooklyn, N. Y. Fluid-measuring device. No. 1,143,631; June 22; Gaz. vol. 215; p. 992.

Keller Mechanical Engraving Company. (See Keller, Warman, and Parr, assignors.)

Keller, Peter, Chicago, Ill. Gas-regulator. No. 1,144,040; June 22; Gaz. vol. 215; p. 1134.

Keller, Peter, Chicago, Ill. Gas-pressure regulator. No. 1,144,657; June 29; Gaz. vol. 215; p. 1374.

Keller, William H., assignor, by mesne assignments, to Santo Manufacturing Company, Philadelphia, Pa. Vacuum-cleaner. No. 1,143,833; June 22; Gaz. vol. 215; p. 1061.

Kellogg, James G. (See Mastin, James G., assignor.)

Kellogg, Milton, New York, N. Y. Foldable cover for dictating-machines and the like. No. 1,144,417; June 29; Gaz. vol. 215; p. 1294.

Kellogg Switchboard and Supply Company. (See Dean, William W., assignor.)

Kellogg Switchboard & Supply Company. (See Dyson, Alfred H., assignor.)

Kellogg Switchboard and Supply Company. (See Kaisling, William, assignor.)

Kellogg Switchboard and Supply Company. (See Simpson, Charles A., assignor.)

Kellogg Switchboard and Supply Company. (See Utter and Schmidt, assignors.)

Kellogg Switchboard and Supply Company. (See Winston, Charles S., assignor.)

Kellogg Toasted Corn Flake Company. (See Valentine, Ralph E., assignor.)

Kellogg, William S., Jr., Peoria, Ill. Carbureter. No. 1,144,477; June 29; Gaz. vol. 215; p. 1314.

Kelly, Edwin W. (See Snook and Kelly.)

Kelly, James W., Bay City, Mich. Adjustable rear seat for bicycles. No. 1,144,550; June 29; Gaz. vol. 215; p. 1339.

Kelly, John, *et al.* (See Adkins, Oscar E., assignor.)

Kelly, John B., Chicago, Ill. Demountable wheel. No. 1,144,136; June 22; Gaz. vol. 215; p. 1168.

Kelly, William D., Jefferson, Tex. Spike-holder. No. 1,143,051; June 15; Gaz. vol. 215; p. 765.

Kemerer, Frank, Kersey, Pa. Electric switch. No. 1,141,803; June 1; Gaz. vol. 215; p. 251.

Kemp, William W., and W. H. Van Horn, Baltimore, Md. Fluid-mixing apparatus. No. 1,141,466; June 1; Gaz. vol. 215; p. 136.

Kempff, Fredrick L., Philadelphia, and H. W. Smith, assignors of three-eighths to M. W. Pickens and three-eighths to F. O. Horting, Harrisburg, Pa., and one-fourth to said Kempff. Film-winding apparatus. No. 1,144,362; June 29; Gaz. vol. 215; p. 1276.

Kendrick, James P., Fayette, Mo. Feed-trough. No. 1,142,176; June 8; Gaz. vol. 215; p. 420.

Kennedy, David S., Brooklyn, N. Y., assignor to Mergenthaler Linotype Company. Typographical casting-machine. No. 1,142,258; June 8; Gaz. vol. 215; p. 449.

Kennedy, Earl E., Neepawa, Manitoba, Canada. Type-writer. No. 1,143,404; June 15; Gaz. vol. 215; p. 890.

Kennedy, Frank B., assignor, by mesne assignments, to The Recording Register & Fare Box Company, New Haven, Conn. Fare-register. No. 1,144,478; June 29; Gaz. vol. 215; p. 1315.

Kennedy, Frank D., Galesburg, Ill. Piston. No. 1,142,177; June 8; Gaz. vol. 215; p. 420.

Kennedy, Howard L., Fort Wayne, Ind. Traveler's bag or grip. No. 1,143,711; June 22; Gaz. vol. 215; p. 1019.

Kennedy, Howard S., and C. M. Connolly, assignors, by mesne assignments, to Cluett, Peabody & Co., Inc., Troy, N. Y. Open-bosom dress-shirt. No. 1,141,397; June 1; Gaz. vol. 215; p. 111.

Kennedy, Joseph E., New York, N. Y. Crushing and pulverizing machine. No. 1,143,203; June 15; Gaz. vol. 215; p. 819.

Kennedy, Julian, Pittsburgh, Pa. Gear. No. 1,144,137; June 22; Gaz. vol. 215; p. 1168.

Kennedy, Walter J., Cleveland, Ohio. Fuel-economizing valve. No. 1,144,209; June 22; Gaz. vol. 215; p. 1195.

Kenney, Gerald, assignor of twenty-four and one-half one-hundredths to A. H. Herbert and twenty-four and one-half one-hundredths to J. C. Newlands, San Francisco, Cal. Automatic train control. No. 1,142,178; June 8; Gaz. vol. 215; p. 421.

Kenyon, Charles H. (See Roush and Kenyon.)

Kerbel, Fredrick J., assignor to R. J. Noderer, Seattle, Wash. Theater-chair. No. 1,144,603; June 29; Gaz. vol. 215; p. 1355.

Kern, Ludwig, Hamburg, Germany. Fertilizer and manufacturing same. No. 1,144,905; June 29; Gaz. vol. 215; p. 1461.

Kern, Maximilian H., assignor to The Roberts Numbering Machine Company, Brooklyn, N. Y. Numbering-machine. No. 1,144,138; June 22; Gaz. vol. 215; p. 1169.

Kerr, Thomas H. (See Snee and Kerr.)

Kerr, Thomas R., Norfolk, Va. Street-sweeper. No. 1,143,052; June 15; Gaz. vol. 215; p. 765.

Kettering, Charles F., assignor to The National Cash Register Company, Dayton, Ohio. Store-service credit-system apparatus. No. 1,142,102; June 8; Gaz. vol. 215; p. 395.

Kettering, Charles F., and W. A. Chryst, assignors to The National Cash Register Company, Dayton, Ohio. Cash-register. No. 1,144,418; June 29; Gaz. vol. 215; p. 1294.

Keuffel & Esser Company. (See Pfeiffer, Charles C., assignor.)

Keyes, Eugene L., Boston, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Machine for use in the manufacture of boots and shoes. No. 1,143,712; June 22; Gaz. vol. 215; p. 1019.

Keyes, Eugene L., Boston, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Apparatus for use in lasting toes. No. 1,143,971; June 22; Gaz. vol. 215; p. 1108.

Keyes, Eugene L., Chicago, Ill., assignor to United Shoe Machinery Company, Paterson, N. J. Making shoes. No. 1,143,972; June 22; Gaz. vol. 215; p. 1108.

Keyes, James A., New York, N. Y. Safety device for elevators. No. 1,144,479; June 29; Gaz. vol. 215; p. 1315.

Keystone Steel & Wire Company. (See Herman, Joseph, assignor.)

Keystone Type Foundry. (See Orchard, Alfred S., assignor.)

Kidd, Burrell L., Tuscola, Tex. Wire-stretcher. No. 1,143,911; June 22; Gaz. vol. 215; p. 1087.

Kidd, Robert, *et al.* (See Butler, George H., assignor.)

Kiendl, Robert J., Buffalo, N. Y. Radiator. No. 1,142,179; June 8; Gaz. vol. 215; p. 421.

Kienzle, Herbert, New York, N. Y. Illuminated clock. No. 1,143,632; June 22; Gaz. vol. 215; p. 992.

Kilbourn Manufacturing Corporation. (See Mettler and Smith, assignors.)

Kilchenstein, Walter F. (See Chisholm, Herman T., assignor.)

Kilgore, Elmer A., Lorimer, and J. W. Keller, East Peru, Iowa. Palmetto-root plow. No. 1,143,204; June 15; Gaz. vol. 215; p. 820.

Kilker, John E., and C. W. Dake, assignors to Pyle-National Electric Headlight Company, Chicago, Ill. Manufacturing bucket-wheels. No. 1,141,190; June 1; Gaz. vol. 215; p. 35.

Killifer Manufacturing Company. (See Bean, Charles E., assignor.)

Kimball, George E., assignor, by mesne assignments, to First Trust and Savings Bank, trustee, Chicago, Ill. Telephone busy-signal apparatus. No. 1,144,330; June 22; Gaz. vol. 215; p. 1236.

Kimmel, Earl G., Stoyestown, Pa. Plow. No. 1,141,965; June 8; Gaz. vol. 215; p. 344.

Kimsey, Roy H., Gillett, Ark. Combined collar-button and necktie-fastener. No. 1,143,834; June 22; Gaz. vol. 215; p. 1061.

Kinast, Edward L., Chicago, Ill. Scoring attachment for printing-presses. No. 1,144,139; June 22; Gaz. vol. 215; p. 1169.

Kincaid, Robert, Youngstown, Ohio. Tool. No. 1,144,210; June 22; Gaz. vol. 215; p. 1195.

Kindl, F. H., administrator. (See Kindl, Frederick H.)

Kindl, Frederick H., deceased, Pittsburgh, Pa.; F. H. Kindl, Jr., administrator. Apparatus for handling materials. No. 1,142,968; June 15; Gaz. vol. 215; p. 735.

King, Carlos C., Indianapolis, Ind. Dump-wagon. No. 1,143,405; June 15; Gaz. vol. 215; p. 891.

King, Edward P., Painesville, Ohio. Sleeping-garment. No. 1,143,282; June 15; Gaz. vol. 215; p. 846.

King, Eugene F., Guilford, N. C. Package-tie. No. 1,144,211; June 22; Gaz. vol. 215; p. 1195.

King, George W., Worcester, Mass. Producing printed and embossed sheets. No. 1,143,767; June 22; Gaz. vol. 215; p. 1038.

King, Rufus, Plainville, Mass., assignor to Bugbee & Niles Co., Providence, R. I. Link for expansible bracelets. No. 1,141,552; June 1; Gaz. vol. 215; p. 166.

King, Rufus, Plainville, Mass., assignor to Bugbee & Niles Co., Providence, R. I. Extensible bracelet-chain. No. 1,143,545; June 15; Gaz. vol. 215; p. 937.

Kingberry, Paul D., and W. J. McCarthy, Montreal, Quebec, Canada. Dry-pipe valve. No. 1,144,849; June 29; Gaz. vol. 215; p. 1443.

Kingsbury, Harry T., Keene, N. H. Self-propelled toy vehicle. No. 1,144,850; June 29; Gaz. vol. 215; p. 1443.

Kingsbury, William M., Cleveland, Ohio. Window-refrigerator. No. 1,143,205; June 15; Gaz. vol. 215; p. 821.

Kingsley, George E., Spokane, Wash. Treating complex sulfid ores. No. 1,144,480; June 29; Gaz. vol. 215; p. 1315.

Kingsley, Horace L., Racine, Wis. Laundry sundry. No. 1,141,345; June 1; Gaz. vol. 215; p. 91.

Kintner, Samuel M., *et al.*, receivers. (See Fessenden, Reginald A., assignor.)

Kintner, Samuel M., *et al.*, receivers. (See Lee and Hogan, assignors.)

Kintner, Theodore J., Denver, Colo. Gage attachment for planes. No. 1,144,041; June 22; Gaz. vol. 215; p. 1134.

Kinzelt, August, Lind, Wash. Clothes-drier. No. 1,142,888; June 15; Gaz. vol. 215; p. 708.

Kirk, Henry C., Jr., Roland Park, Md. Spring take-up. No. 1,142,817; June 15; Gaz. vol. 215; p. 682.

Kirkman, Karl F., Delray, Fla., assignor to Automatic Press Feeder Company, Chicago, Ill. Printing-press. No. 1,141,191; June 1; Gaz. vol. 215; p. 35.

Kirkpatrick, Frank C., Amory, Miss. Plow-stock. No. 1,144,042; June 22; Gaz. vol. 215; p. 1135.

Kirkwood, Robert G., Pittsburgh, Pa. Hydrocarbon-burner. No. 1,144,851; June 29; Gaz. vol. 215; p. 1443.

Kirsch, Charles W., assignor to Kirsch Manufacturing Co., Sturgis, Mich. Curtain-rod lock. No. 1,142,438; June 8; Gaz. vol. 215; p. 514.

Kirsch Manufacturing Co. (See Kirsch, Charles W., assignor.)

Kirstin, Alfred J., Escanaba, Mich. Slack-take-up mechanism. No. 1,143,713; June 22; Gaz. vol. 215; p. 1019.

Kish, Joseph, Cobalt, Ontario, Canada. Wrench. No. 1,141,715; June 1; Gaz. vol. 215; p. 223.

Kispeter, Michael, New York, N. Y. Life-saving apparatus. No. 1,143,835; June 22; Gaz. vol. 215; p. 1062.

Kitchell, Joseph G., Haddam, Conn. Picture and making the same. No. 1,144,964; June 29; Gaz. vol. 215; p. 1480.

Kitchen, Joseph M. W., East Orange, N. J. Bottle-closure. No. 1,141,553; June 1; Gaz. vol. 215; p. 166.

Kjellstrom, Charles R., Rockford, Ill. Combined fire-escape and alarm. No. 1,141,716; June 1; Gaz. vol. 215; p. 223.

Klahn, Arthur H., San Francisco, Cal. Engine-starter. No. 1,143,406; June 15; Gaz. vol. 215; p. 891.

Klatt, Edward, and R. Kalfirst, Philadelphia, Pa. Suspender-lock. No. 1,144,906; June 29; Gaz. vol. 215; p. 1461.

Klein, Charles J., Milwaukee, Wis. Separable connector for electrical conductors. No. 1,141,121; June 1; Gaz. vol. 215; p. 11.

Klein, Charles J., Milwaukee, Wis. Means for securing contacts. No. 1,143,633; June 22; Gaz. vol. 215; p. 993.

Klein, Charles J., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. Casing-cap for lamp-sockets. No. 1,141,120; June 1; Gaz. vol. 215; p. 10.

Klein, Charles J., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. Cap for lamp-shells, switch-receptacles, and analogous devices. No. 1,142,818; June 15; Gaz. vol. 215; p. 682.

Klein, Charles J., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. Cap for lamp-sockets and the like. No. 1,142,819; June 15; Gaz. vol. 215; p. 683.

Klein, Charles J., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. Electric switch device and receptacle. No. 1,143,206; June 15; Gaz. vol. 215; p. 821.

Klein, Charles J., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. Push-button. No. 1,143,207; June 15; Gaz. vol. 215; p. 821.

Klein, Charles J., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. Electric switch. No. 1,144,419; June 29; Gaz. vol. 215; p. 1294.

Kleinbrahm, Hermann, Millheim-on-the-Ruhr, Germany. Two-cylinder engine. No. 1,143,973; June 22; Gaz. vol. 215; p. 1109.

Kleinschmidt, Anthony F., Indianapolis, Ind. Casement-window holder. No. 1,144,212; June 22; Gaz. vol. 215; p. 1196.

Klensk, Frank, Scranton, Pa. Glass-cutter. No. 1,141,192; June 1; Gaz. vol. 215; p. 36.

Kliegl, Anton T., New York, N. Y. Stage-footlights. No. 1,141,122; June 1; Gaz. vol. 215; p. 11.

Klink, Frederick R., assignor of one-third to J. A. Bernower and one-third to V. L. Ney, Canton, Ohio. Safety-shutter for motion-picture machines. No. 1,142,103; June 8; Gaz. vol. 215; p. 395.

Klinkerfues, Henry W. (See Colledge, Alfred A., assignor.)

Klohs, Samuel F., Chicago, Ill. Car-coupling. No. 1,142,104; June 8; Gaz. vol. 215; p. 395.

Klopping, Adolph C., assignor of one-half to The Toledo Parlor Furniture Company, Toledo, Ohio. Bed-davenport. No. 1,143,974; June 22; Gaz. vol. 215; p. 1109.

Klumpp, August, Munich, Germany. Scaffold-support. No. 1,141,554; June 1; Gaz. vol. 215; p. 167.

Knapp, George S., La Grange, Ill. Metal base-board. No. 1,143,283; June 15; Gaz. vol. 215; p. 847.

Knapp, Roland W., Minneapolis, Minn. Starting device for gas-engines. No. 1,142,889; June 15; Gaz. vol. 215; p. 708.

Knapp, Roland W., Minneapolis, Minn. Starting device for gas-engines. No. 1,142,890; June 15; Gaz. vol. 215; p. 708.

Knauff, George C., Chicago, Ill. Forming projections. No. 1,142,820; June 15; Gaz. vol. 215; p. 683.

Kneedler, John D., assignor of one-half to B. Couch, Sioux City, Iowa. Rotary engine. No. 1,142,969; June 15; Gaz. vol. 215; p. 736.

Kneppler, Charles M., New York, N. Y. Feed mechanism for printing-presses. No. 1,142,786; June 8; Gaz. vol. 215; p. 633.

Knight, Frank H., assignor to M. J. Knight, Lancaster, Pa. Baby-walker. No. 1,141,123; June 1; Gaz. vol. 215; p. 11.

Knight, M. J. (See Knight, Frank H., assignor.)

Knight, Minnie G., executrix. (See Knight, Ora W.)

Knight, Ora W., deceased; M. G. Knight, executrix, Portland, Me. Treating sulfite waste liquor and product thereof. No. 1,143,714; June 22; Gaz. vol. 215; p. 1020.

Knight, Thomas, and J. G. Bennetts, Ahmeek, Mich. Bearing-box. No. 1,143,208; June 15; Gaz. vol. 215; p. 821.

Knipe, William A., Ward Hill, Mass. Making welt-innersoles. No. 1,144,420; June 29; Gaz. vol. 215; p. 1295.

Knipple, Charles W., assignor of one-half to A. B. Ferguson, Parsons, W. Va. Wrench. No. 1,144,907; June 29; Gaz. vol. 215; p. 1461.

Knopp, Otto A., Oakland, assignor to Pacific Gas & Electric Company, San Francisco, Cal. Electrical measuring apparatus. No. 1,141,642; June 1; Gaz. vol. 215; p. 197.

Knowles, Frederick, Hartford, Conn. Producing shaded effects in designs. No. 1,143,407; June 15; Gaz. vol. 215; p. 892.

Knowlson, Frederick. (See Stevenson and Knowlson.)

Knowlton, Hiram W. (See Glawson, James L., assignor.)
Knox Hat Company. (See Brazier, Charles G., assignor.)
Knox, Jean H., Oakland, Cal. Concrete construction. No. 1,142,259; June 8; Gaz. vol. 215; p. 450.
Knox, Luther L., Avalon, assignor to Knox Pressed and Welded Steel Company, Pittsburgh, Pa. Water-cooled valve or damper. No. 1,142,180; June 8; Gaz. vol. 215; p. 421.
Knox, Luther L., Avalon, assignor to Knox Pressed & Welded Steel Company, Pittsburgh, Pa. Furnace protection. No. 1,143,284; June 15; Gaz. vol. 215; p. 847.
Knox Pressed and Welded Steel Company. (See Knox, Luther L., assignor.)
Kobs, John, Jr., and M. Stewart, Ashland, Ky. Headlight-shield. No. 1,141,124; June 1; Gaz. vol. 215; p. 12.
Koechlin, Albert G. Basel, Switzerland, assignor to Spinnerei & Weberei Steinen Actien-Gesellschaft, Steinen, Germany. Weft-bobbin-exchange device for looms. No. 1,142,569; June 8; Gaz. vol. 215; p. 558.
Koehler, James A., Saginaw, Mich. Circle-swing. No. 1,142,970; June 15; Gaz. vol. 215; p. 737.
Koehring Machine Co. (See Lichtenberg, Erich H., assignor.)
Koella, Ernest, Knoxville, Tenn. Cutting mechanism. No. 1,143,285; June 15; Gaz. vol. 215; p. 847.
Koella, Ernest, Knoxville, Tenn. Sewing-machine. No. 1,143,286; June 15; Gaz. vol. 215; p. 848.
Köhler, Adolf, Berlin, Germany. Machine for filling sausages and the like. No. 1,143,715; June 22; Gaz. vol. 215; p. 1020.
Köhler, August, assignor to Firm of C. Zeiss, Jena, Germany. Lighting system for cinematographs. No. 1,143,287.; June 15; Gaz. vol. 215; p. 848.
Kohn, Julius, Vienna, Austria-Hungary. Furniture-leg fastener. No. 1,143,836; June 22; Gaz. vol. 215; p. 1062.
Komp, Frank. (See Holsclaw and Komp.)
Kopeczky, Joseph, Racine, Wis. Shoe-button. No. 1,144,852; June 29; Gaz. vol. 215; p. 1444.
Kops Bros. (See Kops and Giles, assignors.)
Kops, Waldemar, New York, N. Y., and H. Giles, Boundbrook, N. J., assignors to Kops Bros., New York, N. Y. Buckle. No. 1,142,523; June 8; Gaz. vol. 215; p. 543.
Korinek, Charles J., assignor to Korinek Veterinary Remedy Company, Medford, Oreg. Veterinary instrument. No. 1,142,715; June 8; Gaz. vol. 215; p. 606.
Korinek Veterinary Remedy Company. (See Korinek, Charles J., assignor.)
Körting, Firm of Wilh. (See Nitz, Bruno, assignor.)
Kortmann, Paul, Berlin-Waidmannslust, assignor to Berliner Maschinenbau-Aktien-Gesellschaft vormals L. Schwartzkopff, Berlin, Germany. Gyroscope. No. 1,143,975; June 22; Gaz. vol. 215; p. 1109.
Kosinski, Stanislaw, Amsterdam, N. Y. Fountain-brush handle. No. 1,142,439; June 8; Gaz. vol. 215; p. 514.
Kostecki, Michael A., Hartford, Conn. Railway-brake. No. 1,141,125; June 1; Gaz. vol. 215; p. 12.
Koyen, Wilfred, and O. C. Erickson, Detroit Harbor, Wis. Hen's nest. No. 1,141,346; June 1; Gaz. vol. 215; p. 92.
Kozlowski, Martin, Greensburg, Pa. Shoe-clasp. No. 1,143,837; June 22; Gaz. vol. 215; p. 1062.
Krah, Alexis, assignor to The English & Mersick Co., New Haven, Conn. Hinge for vehicle-doors. No. 1,142,584; June 8; Gaz. vol. 215; p. 564.
Krakau, Harry T., assignor to The National Malleable Castings Company, Cleveland, Ohio. Engine-tender platform. No. 1,144,713; June 29; Gaz. vol. 215; p. 1395.
Krämer, Bernhard, Charlottenburg, Germany, assignor to General Electric Company. Fuel-pulverizer for internal-combustion engines. No. 1,142,440; June 8; Gaz. vol. 215; p. 515.
Krämer, Bernhard, Charlottenburg, Germany, assignor to General Electric Company. Internal-combustion engine. No. 1,143,408; June 15; Gaz. vol. 215; p. 892.
Kramer, Frank, Tiskalwa, Ill. Drag-harrow. No. 1,141,467; June 1; Gaz. vol. 215; p. 137.
Kramsky, Edward. (See Kramsky Frank and E.)
Kramsky, Frank and E., Chicago, Ill. Monoplane. No. 1,141,347; June 1; Gaz. vol. 215; p. 92.
Kranich, Frank N. G., assignor to M. Rumely Co., Laporte, Ind. Corn-husker shredder. No. 1,142,181; June 8; Gaz. vol. 215; p. 422.
Krauth, Albert, Hamilton, Ohio. Autographic register. No. 1,142,441; June 8; Gaz. vol. 215; p. 515.
Krauth, Albert, Hamilton, Ohio. Manifolding-machine. No. 1,142,442; June 8; Gaz. vol. 215; p. 516.
Krauth, Albert, Hamilton, Ohio. Autographic register. No. 1,144,551; June 29; Gaz. vol. 215; p. 1339.
Krcma, John F., Chicago, Ill. Vending-machine. No. 1,141,557; June 1; Gaz. vol. 215; p. 168.
Krebs, Richard C., Chicago, Ill. Latch for drill-heads of handpieces of dental engines. No. 1,142,443; June 8; Gaz. vol. 215; p. 516.
Krenzler, Emil, Barmen, Germany. Braiding-machine. No. 1,141,555; June 1; Gaz. vol. 215; p. 167.
Kress, Frank E., Denver, Colo. Brush-making machine. No. 1,141,398; June 1; Gaz. vol. 215; p. 112.
Krippendorf Kalculator Company. (See Krippendorf, Paul F. W. C., assignor.)
Krippendorf, Paul F. W. C., Lynn, Mass., assignor to Krippendorf Kalculator Company, Portland, Me. Computing device. No. 1,142,182; June 8; Gaz. vol. 215; p. 422.
Kroedel, Robert. (See Riddell and Kroedel.)
Kroedel, Robert, and C. F. Speidel, assignors to Eastman Kodak Company, Rochester, N. Y. Photographic-camera back. No. 1,144,140; June 22; Gaz. vol. 215; p. 1170.
Krogh, Ferdinand W., San Francisco, Cal. Centrifugal pump. No. 1,141,556; June 1; Gaz. vol. 215; p. 167.
Kruck, Ervin J., New York, N. Y. Note-sheet-guiding device. No. 1,141,966; June 8; Gaz. vol. 215; p. 344.
Krueger, Henry E. (See Schloemer and Krueger.)
Kruger, Samuel, New York, N. Y. Safety spool-holder for sewing-machines. No. 1,142,183; June 8; Gaz. vol. 215; p. 423.
Krumming, Reinhold, Milwaukee, Wis. Sectional-post binder. No. 1,143,716; June 22; Gaz. vol. 215; p. 1020.
Krupicka, Louis F., Niobrara, Nebr. Hat-pin-point protector. No. 1,143,838; June 22; Gaz. vol. 215; p. 1062.
Kruse, Peter, assignor to E. W. Bliss Company, Brooklyn, N. Y. Double-seaming machine. No. 1,143,976; June 22; Gaz. vol. 215; p. 1110.
Kucharski, Stanislaus, Waidmannslust, near Berlin, Germany. Apparatus for intermittently moving forward the picture-film for cinematographs or the like. No. 1,143,977; June 22; Gaz. vol. 215; p. 1110.
Kugel, Joseph, Cincinnati, Ohio. Glass-cleaner. No. 1,142,716; June 8; Gaz. vol. 215; p. 606.
Kurowski, Alfred G. F., assignor to Underwood Typewriter Company, New York, N. Y. Type-writing machine. No. 1,141,558; June 1; Gaz. vol. 215; p. 168.
Kurowski, Alfred G. F., assignor to Underwood Typewriter Company, New York, N. Y. Coin-controlled type-writing machine. No. 1,141,559; June 1; Gaz. vol. 215; p. 168.
Kurowski, Alfred G. F., assignor to Underwood Typewriter Company, New York, N. Y. Type-writing machine. No. 1,144,766; June 29; Gaz. vol. 215; p. 1413.
Kurtz, Stewart S., Canton, assignor, by mesne assignments, to The McCaskey Register Company, Alliance, Ohio. Filing appliance. No. 1,142,971; June 15; Gaz. vol. 215; p. 737.
Kyle, George S., Chambersburg, Pa. Boiler-flue-cleaning apparatus. No. 1,143,409; June 15; Gaz. vol. 215; p. 892.
La Chapelle, Euclid I., Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Sole-leveling machine. No. 1,143,717; June 22; Gaz. vol. 215; p. 1021.
Lack, Charles T., Impington, assignor of one-half to Chivers & Sons, Limited, Histon, England. Apparatus for severing metals by fusion. No. 1,141,560; June 1; Gaz. vol. 215; p. 169.
Lacoste, Camille, Paris, France. Metallic framework construction. No. 1,141,967; June 8; Gaz. vol. 215; p. 344.
Ladinski, Louis, New York, N. Y. Cross-belt spacer. No. 1,144,767; June 29; Gaz. vol. 215; p. 1414.
Lagergren, Carl, Osterville, Mass. Steering mechanism for automobiles. No. 1,143,410; June 15; Gaz. vol. 215; p. 893.
Lagois, John T., New York, N. Y. Can sifter-top. No. 1,144,213; June 22; Gaz. vol. 215; p. 1196.
Lagutt, Jan, assignor to Chemische Fabrik vormals Sandoz, Basel, Switzerland. Production of stable salts of dimethyl-P-aminophenol and P-oxyphenol-trimethylammonium. No. 1,144,141; June 22; Gaz. vol. 215; p. 1170.
Lahière, Eugene A., Washington, D. C. Table-mat. No. 1,142,330; June 8; Gaz. vol. 215; p. 473.
Lahière, Eugene A., Washington, D. C. Mixing-machine. No. 1,142,331; June 8; Gaz. vol. 215; p. 474.
Laib, Walter, Rittman, assignor to The Ohio Salt Company, Wadsworth, Ohio. Producing chlorates of alkalis and alkaline earths. No. 1,143,586; June 15; Gaz. vol. 215; p. 952.
Laird, Robert E., and J. H. Raney, Taft, assignors to Raney-Laird Petroleum Dehydrating Company, Los Angeles, Cal. Treater for petroleum emulsions. No. 1,142,759; June 8; Gaz. vol. 215; p. 621.
Laird, Robert E., and J. H. Raney, Taft, assignors to Raney-Laird Petroleum Dehydrating Company, Los Angeles, Cal. Apparatus for treating emulsions. No. 1,142,760; June 8; Gaz. vol. 215; p. 622.
Laird, Robert E., and J. H. Raney, Taft, assignors to Raney-Laird Petroleum Dehydrating Company, Los Angeles, Cal. Apparatus for dehydrating petroleum-oil. No. 1,142,761; June 8; Gaz. vol. 215; p. 622.
Laisné, Eugéne W., Fresno, Cal. Lenses for eyeglasses and spectacles. No. 1,144,853; June 29; Gaz. vol. 215; p. 1444.
Lake City Manufacturing and Supply Company, The. (See Flibin, James D., assignor.)
Lake, David, Jeffersonville, and M. U. Heiberger, Philadelphia, Pa. Fluid-clutch. No. 1,144,214; June 22; Gaz. vol. 215; p. 1196.
Lake, Fred W., Moline, Ill. Make-up device for printers. No. 1,142,105; June 8; Gaz. vol. 215; p. 396.
Lake Torpedo Boat Company, The. (See Barraja-Frauenfelder, Joseph, assignor.)
Lamb, Charles C., assignor of one-half to W. M. McEwen, Chicago, Ill. Rail-joint. No. 1,144,714; June 29; Gaz. vol. 215; p. 1395.
Lamb, Thomas F., and W. L. Dickinson, Shreveport, La. Water-cooler. No. 1,144,940; June 29; Gaz. vol. 215; p. 1472.
Lamparter, John W. (See Messner and Lamparter.)

Lamprell, Denis J., and F. Cook, Dowerin, Western Australia, Australia. Cultivator. No. 1,141,804; June 1; Gaz. vol. 215; p. 252.
Lamson Company, The. (See Hidden, Charles P., assignor.)
Lamson Company, The. (See Jennings, Chester S., assignor.)
Lamson Company, The. (See Wright, Walter C., assignor.)
Lancaster, Frank W., Jacksonville, Fla. Collection device. No. 1,142,891; June 15; Gaz. vol. 215; p. 709.
Landers, Frary & Clark. (See Carlson, Frederick E., assignor.)
Landis, Abraham B., Enfield, Pa. Resilient tire. No. 1,142,892; June 15; Gaz. vol. 215; p. 709.
Landis Machine Company. (See Blair, William R., assignor.)
Landis Machine Company. (See Fisher, Henry L., assignor.)
Landis Machine Company. (See Hardesty, Blair, assignor.)
Landry, Albany, Indian Orchard, Mass. Elevator-gate-operating mechanism. No. 1,141,874; June 1; Gaz. vol. 215; p. 273.
Landsberg, William, Brooklyn, N. Y. Mayonnaise-mixer. No. 1,144,215; June 22; Gaz. vol. 215; p. 1196.
Landsiedel, Harry, Poplar Bluff, Mo., assignor, by mesne assignments, to The Dalton Adding Machine Company, Cincinnati, Ohio. Adding-machine. No. 1,141,348; June 1; Gaz. vol. 215; p. 92.
Landsiedel, Harry, Poplar Bluff, Mo., assignor, by mesne assignments, to The Dalton Adding Machine Company, Cincinnati, Ohio. Recording-machine. No. 1,142,787; June 8; Gaz. vol. 215; p. 633.
Lane, Frederick W., Chico, Cal. Projecting instrument. No. 1,142,585; June 8; Gaz. vol. 215; p. 564.
Lane, George M., Lanoka, N. J. Safety-pin. No. 1,144,715; June 29; Gaz. vol. 215; p. 1395.
Lane, William C., and E. J. Allen, Brooklyn, N. Y. Feed-regulator. No. 1,143,634; June 22; Gaz. vol. 215; p. 993.
Lang, George H., Boston, Mass. Laundry-marking machine. No. 1,143,768; June 22; Gaz. vol. 215; p. 1038.
Langguth, Erich, Neerpelt, Belgium. Treating mixed sulfid ores. No. 1,144,481; June 29; Gaz. vol. 215; p. 1315.
Lanning, Charles D., Boston, Mass. Winding mechanism for forming yarn or thread packages. No. 1,141,876; June 1; Gaz. vol. 215; p. 274.
Lanning, Howard H. (See Jacobs and Lanning.)
Lanning, James K. (See Cunniff, John V., assignor.)
Lanning, James K. (See Webster, Charles B., assignor.)
Lanning, James K., Boston, Mass. Winding mechanism for forming yarn or thread packages. No. 1,141,875; June 1; Gaz. vol. 215; p. 274.
Lanz, Firm of Heinrich. (See Bürger, Franz, assignor.)
Lanzaro, Michele, West Springfield, Mass. Shoe. No. 1,144,768; June 29; Gaz. vol. 215; p. 1414.
Lardner, Henry A., and G. F. Chellis, San Francisco, Cal. Steering apparatus. No. 1,144,552; June 29; Gaz. vol. 215; p. 1339.
Larrabee, Albert R., Jersey City, N. J. Display-card. No. 1,141,349; June 1; Gaz. vol. 215; p. 93.
Larsen, Christian, Lake Benton, Minn. Combined automatic coupling for a train-pipe and valve-actuating mechanism. No. 1,144,482; June 29; Gaz. vol. 215; p. 1316.
Larson, Carl A., Oswego, N. Y. Automatic can-filling machine. No. 1,141,561; June 1; Gaz. vol. 215; p. 169.
Larson, Fred R., New Sweden, Me. Safety-envelop. No. 1,142,444; June 8; Gaz. vol. 215; p. 516.
Larsson, Johan A., and K. E. R. Österberg, assignors to J. & C. G. Bolinders Mekaniska Verkstads Aktiebolag, Stockholm, Sweden. Resawing-machine and the like. No. 1,142,972; June 15; Gaz. vol. 215; p. 737.
Lashar, Walter B. (See Weed, Harry D., assignor.)
Laskey, William B., Marblehead, Mass. Candy-making machine. No. 1,142,893; June 15; Gaz. vol. 215; p. 709.
Lass, William P., Treadwell, Alaska. Filter. No. 1,144,854; June 29; Gaz. vol. 215; p. 1444.
Latshaw, Joseph W., assignor to National Tube Company, Pittsburgh, Pa. Method of and apparatus for finishing pipes and tubes. No. 1,143,912; June 22; Gaz. vol. 215; p. 1087.
Latta, Nisbet, Milwaukee, Wis., assignor, by mesne assignments to Allis-Chalmers Manufacturing Company. Gas-producer. No. 1,142,524; June 8; Gaz. vol. 215; p. 543.
Laurier, Ruben C., and F. Monette, Montreal, Quebec, Canada. Receipt. No. 1,142,332; June 8; Gaz. vol. 215; p. 474.
Lavan, Frank, assignor of one-third to C. A. Blank, Miller, Ind. Machine for packing explosives known as gelatin into paper shells. No. 1,144,216; June 22; Gaz. vol. 215; p. 1197.
Lavender, Ira L. (See Burnell and Lavender.)
Lavers, Henry, Surrey Hills, Victoria, Australia, assignor to Minerals Separation American Syndicate (1913) Limited, London, England. Separation of mixed sulfid ores. No. 1,142,821; June 15; Gaz. vol. 215; p. 683.
Law, Louis E., Putnam, Conn. Testing-scale. No. 1,141,562; June 1; Gaz. vol. 215; p. 170.
Law, Stanley W., St. Paul, Minn. Variable-resistance unit. No. 1,142,586; June 8; Gaz. vol. 215; p. 564.
Lawhead, Robert C., Alluwe, Okla. Guide. No. 1,143,125; June 15; Gaz. vol. 215; p. 791.
Lawrence, Daniel O., Sixteen, Mont., assignor of one-third to C. J. Garlow, Columbus, Nebr., and one-third to T. J. Cottingham, Los Angeles, Cal. Pay-station instrument. No. 1,142,333; June 8; Gaz. vol. 215; p. 474.
Lawrence, George H., Colfax, Wash. Fire-extinguishing system. No. 1,143,053; June 15; Gaz. vol. 215; p. 765.
Lawrence, John N., Las Animas, Colo. Base-ball-pitcher's target. No. 1,142,184; June 8; Gaz. vol. 215; p. 423.
Lawson, Clarence J., Yonkers, assignor to Columbia Machine & Stopper Corporation, New York, N. Y. Bottle-sealing machine. No. 1,141,350; June 1; Gaz. vol. 215; p. 93.
Lawson, Sherman S. (See Austin and Lawson.)
Lawton, Andrew S., Brockton, Mass. Portable wardrobe. No. 1,141,468; June 1; Gaz. vol. 215; p. 137.
Lawton, Peter S., New Orleans, La. Stump-puller. No. 1,143,209; June 15; Gaz. vol. 215; p. 822.
Layman, Hebron B., New York, N. Y. Internal-combustion engine. No. 1,144,421; June 29; Gaz. vol. 215; p. 1295.
Layman, Hebron B., New York, N. Y. Internal-combustion engine. No. 1,144,422; June 29; Gaz. vol. 215; p. 1296.
Layman, Hebron B., New York, N. Y. Internal-combustion engine. No. 1,144,423; June 29; Gaz. vol. 215; p. 1296.
Layman, Hebron B., New York, N. Y. Internal-combustion engine. No. 1,144,424; June 29; Gaz. vol. 215; p. 1297.
Layman, Hebron B., assignor of one-half to F. E. Lonas, New York, N. Y. Vehicle-wheel. No. 1,142,334; June 8; Gaz. vol. 215; p. 475.
Layman, Hebron B., assignor of one-half to F. E. Lonas, New York, N. Y. Front wheel for automobiles. No. 1,142,335; June 8; Gaz. vol. 215; p. 475.
Layman, Hebron B., assignor of one-half to F. E. Lonas, New York, N. Y. Rear wheel and axle construction for automobiles. No. 1,142,336; June 8; Gaz. vol. 215; p. 476.
Layman, Hebron B., assignor of one-half to F. E. Lonas, New York, N. Y. Automobile. No. 1,142,337; June 8; Gaz. vol. 215; p. 476.
Layman, Stephen D., Newark, N. J. Hinged last. No. 1,144,363; June 29; Gaz. vol. 215; p. 1276.
Layman, Stephen D., Newark, N. J. Hinged last. No. 1,144,364; June 29; Gaz. vol. 215; p. 1277.
Lazell, Ellis W. (See Spackman and Lazell.)
Le Beau, Ernest A. (See Busse and Le Beau.)
Le Brocq, Richard F., New York, and K. J. J. Schmutzler, New Dorp Manor, assignors to Lebrocq Company, Brooklyn, N. Y. Door-closer. No. 1,143,288; June 15; Gaz. vol. 215; p. 848.
Le Quornick, Hermann, New York, N. Y. Window-guard. No. 1,143,588; June 15; Gaz. vol. 215; p. 953.
Leadholm, Anton P., and C. J. Efraimson, Omaha, Nebr. Window-scaffold. No. 1,141,805; June 1; Gaz. vol. 215; p. 252.
Leatherman, Charles F., *et al.* (See Down, Ernest U., assignor.)
Leathers, Percy B., Oak Lawn, R. I. Gage and measure for woodworkers. No. 1,142,717; June 8; Gaz. vol. 215; p. 606.
Leathers, Ward G., New York, N. Y., assignor to Stewart-Warner Speedometer Corporation, Chicago, Ill. Speedometer. No. 1,143,978; June 22; Gaz. vol. 215; p. 1111.
Leatnow, Frederick A., *et al.* (See Burke, Thomas, assignor.)
Leavitt, Harry W., Waterloo, Iowa. Tractor. No. 1,141,126; June 1; Gaz. vol. 215; p. 12.
Leblanc, Maurice, Croissy, assignor to Societe Anonyme Pour L'Exploitation Des Procedes Westinghouse Leblanc, Paris, France. Steam-turbine. No. 1,141,968; June 8; Gaz. vol. 215; p. 345.
Lebrocq Company. (See Le Brocq and Schmutzler, assignors.)
Ledbetter, Wiley C., Newbern, Tenn. Kettle-support. No. 1,142,587; June 8; Gaz. vol. 215; p. 565.
Ledwinka, Joseph, assignor to The Edward G. Budd Manufacturing Company, Philadelphia, Pa. Automobile-body. No. 1,143,635; June 22; Gaz. vol. 215; p. 993.
Lee, Elmer L., and E. T. De Witt, Denver, Colo. Car-door. No. 1,142,588; June 8; Gaz. vol. 215; p. 565.
Lee, Harry E., Grandview, Ohio. Compressor for demountable rims. No. 1,144,855; June 29; Gaz. vol. 215; p. 1444.
Lee, John W., Brooklyn, and J. L. Hogan, Jr., West Rockaway, N. Y., assignors, by mesne assignments, to S. M. Kintner, Pittsburgh, Pa., and H. M. Barrett, Bloomfield, N. J., receivers. Transmitting intelligence by radiant energy. No. 1,141,717; June 1; Gaz. vol. 215; p. 223.
Lee, Robert E. (See Peoples and Lee.)
Lee Tire & Rubber Co. (See Bradford, Beniah, assignor.)
Lee, Waldo J., assignor of one-half to A. R. Olsen, Munson, Alberta, Canada. Cleaner for rolling colters. No. 1,142,185; June 8; Gaz. vol. 215; p. 423.
Leech, Donald S., and M. S. Evans, Lima, Ohio. Transmission-gearing. No. 1,141,563; June 1; Gaz. vol. 215; p. 170.
Leedy Manufacturing Company. (See Wanamaker, Charles B., assignor.)

Lees, John, Indianapolis, Ind. Safety tank-lock. No. 1,143,546; June 15; Gaz. vol. 215; p. 937.
Lefever, Charles F., assignor to Daisy Manufacturing Company, Plymouth, Mich. Liquid-pistol. No. 1,143,839; June 22; Gaz. vol. 215; p. 1063.
Lefevre, George, Lawrence, Mass. Shade-roller support. No. 1,142,589; June 8; Gaz. vol. 215; p. 565.
Legrand, Albert, Paris, France. Body for motor road-vehicles. No. 1,142,590; June 8; Gaz. vol. 215; p. 566.
Lehman, Joseph H., New York, N. Y. Electrical apparatus. No. 1,142,973; June 15; Gaz. vol. 215; p. 738.
Lehmkuhl, Hellmuth, St. Paul, Minn. Stenciling apparatus. No. 1,142,106; June 8; Gaz. vol. 215; p. 396.
Lehr, Edwin, Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company. Voltage-regulator. No. 1,144,604; June 29; Gaz. vol. 215; p. 1356.
Leich, Oscar M., assignor to Cracraft, Leich Electric Company, Genoa, Ill. Annunciator. No. 1,144,605; June 29; Gaz. vol. 215; p. 1356.
Leighton, Frank D., and F. H. Drake, Manchester, N. H. Damper. No. 1,142,894; June 15; Gaz. vol. 215; p. 710.
Leisenring, Frank S., Flushing, N. Y. Repeating device for talking-machines. No. 1,143,289; June 15; Gaz. vol. 215; p. 849.
Leiser, Heinrich, Charlottenburg, Berlin, Germany. Manufacture of solid bodies from powder. No. 1,141,469; June 1; Gaz. vol. 215; p. 138.
Leisse, Pierre L., assignor to L. Renault, Billancourt, France. Lubrication of motors. No. 1,141,351; June 1; Gaz. vol. 215; p. 94.
Leistler, Alois, Hollenstein, Ybbs, Austria-Hungary. Automatically-locking lock. No. 1,142,591; June 8; Gaz. vol. 215; p. 566.
Lelong, Louis, and J. R. Millward, Newark, N. J. Crumb-collecting device. No. 1,143,840; June 22; Gaz. vol. 215; p. 1063.
Lemanklewick, Josepf. (See Aufinger and Lemanklewick.)
Lemassena, Lillian, Newark, N. J. Picture-building game. No. 1,143,636; June 22; Gaz. vol. 215; p. 994.
Lemberg, Joseph, Charlestown, Mass. Non-refillable bottle. No. 1,142,445; June 8; Gaz. vol. 215; p. 517.
Lembke, John J., Berlin, Ontario, Canada. Caster. No. 1,144,365; June 29; Gaz. vol. 215; p. 1277.
Lemley, Louis E., and R. N. Leopard, New Orleans, La. Automatic cut-off for gas-stove burners. No. 1,141,564; June 1; Gaz. vol. 215; p. 170.
Lenhoff, John A., Wilmington, Del. Screen. No. 1,144,856; June 29; Gaz. vol. 215; p. 1445.
Lenning, Malcolm N., Esk Bank, Saskatchewan, Canada. Globe-valve. No. 1,141,565; June 1; Gaz. vol. 215; p. 171.
Leonard, Frank J., Olivia, Minn. Cover-opener. No. 1,142,446; June 8; Gaz. vol. 215; p. 517.
Leonard, George A., Sheffield, Iowa. Block-molding machine. No. 1,143,769; June 22; Gaz. vol. 215; p. 1038.
Leonard, Joseph T., St. Charles, Mo. Eyeglass-cleaner. No. 1,144,483; June 29; Gaz. vol. 215; p. 1316.
Leonard, Thomas B., *et al.* (See Fishburne, Edward W., assignor.)
Leonhauser, Ara U., Chicago, Ill., assignor to International Harvester Company of New Jersey. Shearing-machine. No. 1,142,974; June 15; Gaz. vol. 215; p. 738.
Leopard, Robert N. (See Lemley and Leopard.)
Leopold, George O. (See Fegley and Leopold.)
Lepley, Daniel F., Connellsville, Pa. Coke-conveyer. No. 1,142,895; June 15; Gaz. vol. 215; p. 710.
Lescher, J. G. (See Parisho, George W., assignor.)
Lester, Frederick A., assignor to Chicago Standard Equipment Company, Chicago, Ill. Metallic tie and rail-fastening therefor. No. 1,143,841; June 22; Gaz. vol. 215; p. 1063.
Lester, George W. (See Randall and Lester.)
Lester, James F., assignor to R. Merrifield, New York, N. Y. Pasteurizing milk. No. 1,141,566; June 1; Gaz. vol. 215; p. 171.
Levine, Phillip, New York, N. Y. Cap. No. 1,144,366; June 29; Gaz. vol. 215; p. 1277.
Lewinson, Harry. (See Smith, Edmund L., assignor.)
Lewis, Fred K., assignor to The Ashtabula Bow Socket Company, Ashtabula, Ohio. Bow-socket separator. No. 1,143,637; June 22; Gaz. vol. 215; p. 994.
Lewis, Frederic E., 2d. (See Fielding and Lewis.)
Lewis, Isaac N., New York, N. Y., assignor to The Automatic Arms Company, Buffalo, N. Y. Automatic fire-arm. No. 1,142,806; June 15; Gaz. vol. 215; p. 711.
Libbey, Albert F., Old Orchard, Me. Artificial tooth. No. 1,142,807; June 15; Gaz. vol. 215; p. 711.
Lichtenberg, Erich H., assignor to Koehring Machine Co., Milwaukee, Wis. Distributing mechanism for concrete-mixers. No. 1,141,470; June 1; Gaz. vol. 215; p. 138.
Lidberg, Tiodolf, assignor of one-half to J. W. Morsbach, Chicago, Ill. Microscope warm stage. No. 1,144,941; June 29; Gaz. vol. 215; p. 1472.
Lidberg, Tiodolf, assignor of one-half to J. W. Morsbach, Chicago, Ill. Incubator for microscope-stages. No. 1,144,942; June 29; Gaz. vol. 215; p. 1472.
Lieber, William H., assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis. Roll-crusher. No. 1,141,643; June 1; Gaz. vol. 215; p. 197.
Liedke, Edmund. (See Papini, Anthony, assignor.)
Lièvre, Joseph, Corpus Christi, Tex. Electric signal. No. 1,141,127; June 1; Gaz. vol. 215; p. 13.
Ligety, Rosalie H. (See Ligety, William L., assignor.)
Ligety, William L., New York, assignor to R. H. Ligety, Brooklyn, N. Y. Cigar and making same. No. 1,141,399; June 1; Gaz. vol. 215; p. 113.
Liggett & Myers Tobacco Company. (See Hornaday, James M., assignor.)
Lightfoot, Edwin N., New York, N. Y. Electric heater. No. 1,144,981; June 29; Gaz. vol. 215; p. 1486.
Ligon, Arthur L., Pecos, Tex. Blacksmith's tool set. No. 1,142,447; June 8; Gaz. vol. 215; p. 517.
Liljencrantz, Gustave A. M., Chicago, Ill. Game apparatus. No. 1,143,210; June 15; Gaz. vol. 215; p. 822.
Lima Locomotive Corporation. (See Austin and Lawson, assignors.)
Limberg, Hermann J., Gelsenkirchen, Germany. Closure for distillation-furnaces and particularly coke-ovens. No. 1,143,411; June 15; Gaz. vol. 215; p. 893.
Linaker, Frederick W., assignor to The Vulcan Soot Cleaner Co., of Pittsburg, Pa., Dubois, Pa. Boiler-flue-cleaner system. No. 1,144,553; June 29; Gaz. vol. 215; p. 1339.
Linaker, Frederick W. (See Hibner and Linaker.)
Lincoln, Paul M., Pittsburgh, Pa. Thermo-electric ammeter. No. 1,142,898; June 15; Gaz. vol. 215; p. 711.
Lind, Otto S. (See Russell and Lind.)
Lindeberg, Hugo, Eskilstuna, Sweden. Liner for centrifugal separators. No. 1,141,567; June 1; Gaz. vol. 215; p. 172.
Lindell, Arnold W., Denver, Colo. Time-switch. No. 1,142,338; June 8; Gaz. vol. 215; p. 477.
Lindemann, Walter, Detroit, Mich. Life-saving device. No. 1,142,592; June 8; Gaz. vol. 215; p. 566.
Linder, Walter M. (See Smart and Linder.)
Lindsay, Julian C., Forest Depot, Va. Post-hole auger. No. 1,141,568; June 1; Gaz. vol. 215; p. 172.
Lindsay, William G., Caldwell, N. J., assignor to The Celluloid Company, New York, N. Y. Solvent for acetyl cellulose. No. 1,143,979; June 22; Gaz. vol. 215; p. 1111.
Lines, Lewis A., Perry, N. Y. Nut-lock. No. 1,142,899; June 15; Gaz. vol. 215; p. 711.
Link-Belt Company. (See Howe, Louis C., assignor.)
Link-Belt Company. (See Sayers, Albert J., assignor.)
Link-Belt Company. (See Webster, Thomas F., assignor.)
Linn, Josephus A., Selma, Ala. Hasp for car-doors. No. 1,144,043; June 22; Gaz. vol. 215; p. 1135.
Linotype and Machinery Limited. (See Pearce and Billington, assignors.)
Linotype and Machinery Limited. (See Pearce, Parker, and Wright, assignors.)
Lipman Air Appliance Company. (See Lipman, Carl E. L., assignor.)
Lipman, Carl E. L., assignor to Lipman Air Appliance Company, Beloit, Wis. Air-gage appliance. No. 1,142,772; June 8; Gaz. vol. 215; p. 627.
Lipofsky, Zigmund, Hoboken, N. J. Weighing apparatus. No. 1,143,638; June 22; Gaz. vol. 215; p. 994.
Lippincott, Norman R., Pittsburgh, Pa. Illuminator for cash-registers. No. 1,143,290; June 15; Gaz. vol. 215; p. 849.
Lipps, Louis P. (See Wing and Lipps.)
Lippstadt, Sigmund. (See Buerger, Charles B., assignor.)
Lipsius, Samuel, New York, N. Y. Apparatus for producing raised printed matter. No. 1,144,303; June 22; Gaz. vol. 215; p. 1227.
Lisa, Savin. (See Nettle, John F., assignor.)
Littlefield, Frank A., assignor to Nashua Machine Company, Nashua, N. H. Steam-trap. No. 1,141,249; June 1; Gaz. vol. 215; p. 56.
Littleford, John W., San Francisco, Cal., assignor to Minerals Separation, Limited, London, England. Ore concentration. No. 1,142,822; June 15; Gaz. vol. 215; p. 684.
Liveright, Max, *et al.* (See Haynes, Clarence B., assignor.)
Livingston, Walter F. (See Palmer, Herman H., assignor.)
Lizieri, Giovanni, assignor to The Florentine Flooring Company Limited, Newcastle-upon-Tyne, England. Composition for covering floors, walls, and other surfaces. No. 1,141,897; June 1; Gaz. vol. 215; p. 284.
Lloyd, Ernest M., New York, N. Y. Flexible coupling. No. 1,143,054; June 15; Gaz. vol. 215; p. 766.
Lloyd, Joseph N. (See Erwin, Lloyd, Mann, and Winchell.)
Lobley, Max E., assignor to Brooklyn Cooperage Co., Brooklyn, N. Y. Machine for making metallic hoops for barrels. No. 1,143,211; June 15; Gaz. vol. 215; p. 822.
Lock Joint Pipe Company. (See Hirsh, Meriwether, and Mitchell, assignors.)
Lockwood, Charles S., Newark, assignor to Hyatt Roller Bearing Company, Harrison, N. J. Roller-bearing with thrust-collar. No. 1,144,484; June 29; Gaz. vol. 215; p. 1317.
Lockwood, Charles S., Newark, assignor to Hyatt Roller Bearing Company, Harrison, N. J. Roller-bearing. No. 1,144,485; June 29; Gaz. vol. 215; p. 1317.
Lockwood, Lynneaus I., St. Louis, Mo. Curtain-stretcher. No. 1,142,823; June 15; Gaz. vol. 215; p. 684.
Lockwood, Marquis H., assignor to Underwood Typewriter Company, New York, N. Y. Type-writing machine. No. 1,143,212; June 15; Gaz. vol. 215; p. 823.
"Locomobile" Company of America, The. (See Riker, Andrew L., assignor.)
Locomotive Stoker Company. (See Lower, Nathan M., assignor.)

Locomotive Stoker Company, The. (See Street, Clement F., assignor.)
Locomotive Superheater Company. (See Henderson and Cantley, assignors.)
Loeb, Rudolf. (See Bourquin and Loeb.)
Loewenbach, Hugo. (See Downey, Richard F., assignor.)
Lofgren, John. (See Ravlin and Lofgren.)
Lofland, Alfred H., and C. H. Davidson, deceased, Milton, Del.; M. E. Davidson, administratrix. Thill-support. No. 1,142,900; June 15; Gaz. vol. 215; p. 712.
Logan, James, Worcester, assignor to United States Envelope Company, Springfield, Mass. Envelop. No. 1,142,339; June 8; Gaz. vol. 215; p. 477.
Logan, Lloyd, Boston, Mass. Electric measuring instrument. No. 1,142,593; June 8; Gaz. vol. 215; p. 566.
Lohman, Ralph W., Oakland, Cal. Method and apparatus for converting alternating or pulsating electric currents into unidirectional currents. No. 1,143,213; June 15; Gaz. vol. 215; p. 823.
Lombard, Harry B., Lynn, Mass. Toupee. No. 1,144,658; June 29; Gaz. vol. 215; p. 1374.
Lonas, Frank E. (See Layman Hebron B., assignor.)
Loncar, Josef, Vienna, Austria-Hungary. Gear. No. 1,144,554; June 29; Gaz. vol. 215; p. 1340.
Long Mailing Machine Company. (See Albrecht and Long, assignors.)
Long, Sidney L. (See Albrecht and Long.)
Loomis, Osborn P., Newport News, Va. Appliance for indicating explosive pressures in gas-engines. No. 1,143,639; June 22; Gaz. vol. 215; p. 995.
Lord, Henry L., Kanopolis, Kans. Lawn-sprinkler. No. 1,142,448; June 8; Gaz. vol. 215; p. 517.
Lorenz, Peter A. (See Adler, Bror A., assignor.)
Lorraine, Le Roy F., assignor of one-half to R. F. Grenfell, San Diego, Cal. Tool. No. 1,144,555; June 29; Gaz. vol. 215; p. 1340.
Loudenslager, John E., Jr., Hagerstown, Md. Mail-box. No. 1,141,806; June 1; Gaz. vol. 215; p. 252.
Loughridge, Matthew H., New York, N. Y. Underground-conduit construction. No. 1,143,412; June 15; Gaz. vol. 215; p. 893.
Lovatt, William, Greenport, N. Y. Piston packing-ring. No. 1,144,486; June 29; Gaz. vol. 215; p. 1317.
Love, Emanuel, Trenton, N. J. Paper-roll-making apparatus. No. 1,143,214; June 15; Gaz. vol. 215; p. 824.
Lovekin, Luther D. (See Turner, Ernest G., assignor.)
Lovekin, Luther D., Philadelphia, Pa. Water-heater. No. 1,143,291; June 15; Gaz. vol. 215; p. 850.
Lovenberg, Adelaide, assignor of one-third to R. E. Thornton and one-third to E. Lowande, Providence, R. I. Change-maker. No. 1,144,606; June 29; Gaz. vol. 215; p. 1356.
Low, Frank. (See Muhleman, Charles H., assignor.)
Low, H. N. (See Golding, John F., assignor.)
Lowande, Estelle, *et al.* (See Lovenberg, Adelaide, assignor.)
Lowe, Henry A., Cleveland, Ohio. Test-indicator. No. 1,144,367; June 29; Gaz. vol. 215; p. 1278.
Lowe, Herbert J., Galesburg, Ill. Roller-clamp. No. 1,144,556; June 29; Gaz. vol. 215; p. 1340.
Lower, Nathan M., assignor to Locomotive Stoker Company, Schenectady, N. Y. Oil-separator for steam-engines. No. 1,144,331; June 22; Gaz. vol. 215; p. 1236.
Lowrey, Ellis, Bernice, La. Metallic tie. No. 1,144,908; June 29; Gaz. vol. 215; p. 1461.
Lowy, Morris, assignor to Lowy Patent Furniture Co., Inc., New York, N. Y. Crib. No. 1,143,292; June 15; Gaz. vol. 215; p. 850.
Lowy Patent Furniture Co. (See Lowy, Morris, assignor.)
Lublin, Stanislaw. (See Galdyn and Lublin.)
Luce, Thomas C., Stratford, assignor to American Chain Company, Incorporated, Bridgeport, Conn. Chain-tool. No. 1,141,877; June 1; Gaz. vol. 215; p. 275.
Lucia, Joel, Portland, Oreg. Warp-line cleat. No. 1,141,807; June 1; Gaz. vol. 215; p. 252.
Luehrs, Daniel M., assignor to American Blower Company, Detroit, Mich. Spray-nozzle. No. 1,143,293; June 15; Gaz. vol. 215; p. 850.
Luethy, Fredrick C., Stoughton, Wis. Street-indicator. No. 1,142,718; June 8; Gaz. vol. 215; p. 607.
Lulek, John, Cicero, Ill. Mail-bag catching and delivering apparatus. No. 1,142,107; June 8; Gaz. vol. 215; p. 397.
Lummis, Charles W., Worcester, Mass. Apparatus for casting metal ingots. No. 1,143,215; June 15; Gaz. vol. 215; p. 824.
Lund, James B., Chicago, Ill. Carbureter attachment. No. 1,142,824; June 15; Gaz. vol. 215; p. 684.
Lundgren, Jacob, assignor to The Carlson-Wenstrom Manufacturing Company, Incorporated, Philadelphia, Pa. Braiding-machine. No. 1,144,716; June 29; Gaz. vol. 215; p. 1396.
Lunt, George, Formby, near Liverpool, England. Treatment of dough. No. 1,143,413; June 15; Gaz. vol. 215; p. 894.
Lupton, Benjamin M., Jr., Jersey City, N. J. Photographic exposure-meter. No. 1,144,142; June 22; Gaz. vol. 215; p. 1170.
Luten, Daniel B., Indianapolis, Ind. Wedge. No. 1,141,250; June 1; Gaz. vol. 215; p. 56.
Luthy, Joseph O., San Antonio, Tex. Plate for secondary batteries. No. 1,141,251; June 1; Gaz. vol. 215; p. 56.
Lutz, Herman P., Johnstown, Nebr. Adjustable wrench. No. 1,143,600; June 15; Gaz. vol. 215; p. 957.
Lutz, William D., Allendale, N. J. Pump. No. 1,141,252; June 1; Gaz. vol. 215; p. 57.
Lydon, Coleman C., Minneapolis, Minn. Table-pad. No. 1,143,842; June 22; Gaz. vol. 215; p. 1064.
Lynch, Lucy, Chicago, Ill. Skirt-hanger. No. 1,142,719; June 8; Gaz. vol. 215; p. 607.
Lyon, Howard, assignor to Welsbach Light Company, Gloucester City, N. J. Burner for inverted incandescent gas-lamps. No. 1,142,594; June 8; Gaz. vol. 215; p. 567.
Lyons, William F., Kansas City, Mo. Shock-absorber. No. 1,142,825; June 15; Gaz. vol. 215; p. 684.
M. Rumely Company. (See Baker, Byron G., assignor.)
M. Rumely Company. (See Falk and Andrew, assignors.)
M. Rumely Co. (See Kranich, Frank N. G., assignor.)
M. S. Wright Company. (See Wright, Morris S., assignor.)
M. T. Stevens and Sons Company. (See Stone, George, assignor.)
Maag, Gustav C., New York, N. Y., assignor to Continental Gas Compressing Corporation. Apparatus for obtaining liquid hydrocarbons. No. 1,142,525; June 8; Gaz. vol. 215; p. 544.
Maanum, Dedrick A., Benson, Minn. Fanning-mill. No. 1,144,368; June 29; Gaz. vol. 215; p. 1278.
MacAndrews & Forbes Company. (See Geddes, William L., assignor.)
MacGregor, Peter G., New York, N. Y., assignor to Pyrene Manufacturing Company. Valve. No. 1,142,343; June 8; Gaz. vol. 215; p. 479.
Macbeth-Evans Glass Company. (See Schnelbach, Harry A., assignor.)
Macfarlane, F. W. (See Wolf, Fred W., assignor.)
Machenbach, Richard, Schlebusch, near Cologne, Germany. Projectile for air vessels. No. 1,142,827; June 15; Gaz. vol. 215; p. 685.
Machine Parts Company, The. (See Smith, James C., assignor.)
Mack, Albert S., Klamath Falls, Oreg. Electrical heater. No. 1,141,197; June 1; Gaz. vol. 215; p. 38.
Mack, Richard, Berlin, Germany, assignor to Thomson Electric Welding Company, Lynn, Mass. Electric welding. No. 1,143,220; June 15; Gaz. vol. 215; p. 826.
Mackensen, Otto, assignor to Firm of C. Zeiss, Jena, Germany. Sighting instrument for aerial use. No. 1,143,719; June 22; Gaz. vol. 215; p. 1022.
Mackey, Frank, Newark, Ohio. Spring-frame for motor-cycles. No. 1,142,344; June 8; Gaz. vol. 215; p. 479.
Macklin, Jesse W., Stuart, Iowa. Osteopathic operating-table. No. 1,143,981; June 22; Gaz. vol. 215; p. 1111.
Macomber, Lynn W., assignor to ALSteel Manufacturing Company, Battle Creek, Mich. Baling-press. No. 1,142,188; June 8; Gaz. vol. 215; p. 424.
Madden, Albert F., Newark, N. J. Repeating phonograph. No. 1,144,219; June 22; Gaz. vol. 215; p. 1198.
Maegly, Frederick C. (See Carter, James H., assignor.)
Maginnis, T. B., Chicago, Ill., and T. Gaffney, St. Louis, Mo. Apparatus for making ice. No. 1,142,085; June 8; Gaz. vol. 215; p. 388.
Maguire, Francis J. W., Detroit, Mich. Diagnostic sound. No. 1,144,220; June 22; Gaz. vol. 215; p. 1199.
Mahan, James C., Lincoln, Nebr. Wire-fence tool. No. 1,143,414; June 15; Gaz. vol. 215; p. 894.
Mahaney, W. D. (See Boerner, Hermann, assignor.)
Mahon, Joseph T. (See Henderson and Mahon.)
Mahoney, Jeremiah L., New Haven, Conn. Machine for punching rubber nipples. No. 1,144,045; June 22; Gaz. vol. 215; p. 1136.
Mahoney, John J., San Francisco, and W. L. Norris, Berkeley, assignors to California Pipe Line Machine Co., San Francisco, Cal. Pipe-laying machine. No. 1,143,844; June 22; Gaz. vol. 215; p. 1064.
Mahoney, William H., Hingham, Mass. Draw-bar and coupling connector. No. 1,141,810; June 1; Gaz. vol. 215; p. 253.
Mail-om-eter Company. (See Strnad, John C., assignor.)
Main, James G. (See Fortiner and Main.)
Maiwurm, Paul, Shreve, Ohio. Punching and forming device for kettles. No. 1,144,662; June 29; Gaz. vol. 215; p. 1375.
Major, John K., Paducah, Ky. Nut-lock. No. 1,142,345; June 8; Gaz. vol. 215; p. 479.
Malcom, Robert, *et al.* (See Mosteller, Dosier H., assignor.)
Malm, Axel, assignor to The Egry Register Company, Dayton, Ohio. Folding-machine. No. 1,142,828; June 15; Gaz. vol. 215; p. 686.
Malm, Axel C. V., assignor to The Egry Register Company, Dayton, Ohio. Manifolding attachment for type-writing machines. No. 1,144,146; June 22; Gaz. vol. 215; p. 1171.
Malm, Axel C. V., and L. Rauh, assignors to The Egry Register Company, Dayton, Ohio. Manifolding attachment for type-writers. No. 1,144,147; June 22; Gaz. vol. 215; p. 1172.
Maloney, William T., Trenton, N. J., assignor to R. H. Ingersoll & Bro. Banking-pin for watches, clocks, and the like. No. 1,144,857; June 29; Gaz. vol. 215; p. 1445.
Malsin, Albert, New York, N. Y. Garment. No. 1,144,148; June 22; Gaz. vol. 215; p. 1172.
Manby, Bertram C., Carnegie, Pa. Shock-absorber. No. 1,142,261; June 8; Gaz. vol. 215; p. 450.
Mandeville, Paul, Lake Bluff, Ill. Apparatus for preparing flats for use in egg-case fillers. No. 1,143,055; June 15; Gaz. vol. 215; p. 766.

Mangisch, Edward, New York, N. Y. Folding balcony. No. 1,142,596; June 8; Gaz. vol. 215; p. 568.

Manhattan Rubber Manufacturing Company, The. (See Abert, Hamilton, assignor.)

Manierre, George, Milwaukee, Wis. Loading apparatus. No. 1,143,056; June 15; Gaz. vol. 215; p. 776.

Mann, Matthew D., Jr. (See Erwin, Lloyd, Mann, and Winchell.)

Manns, Harry C. (See Faust, John G., assignor.)

Manson, Ray H., assignor to The Garford Manufacturing Company, Elyria, Ohio. Automobile-horn. No. 1,143,845; June 22; Gaz. vol. 215; p. 1065.

Manuel, Samuel, Saltcoats, Saskatchewan, Canada. Grain-car door. No. 1,143,846; June 22; Gaz. vol. 215; p. 1065.

Manuppelli, Arnaldo. (See Spremulli and Manuppelli.)

Manwaring, Albert H., Philadelphia, Pa. Sectional support for pendent light-fixtures. No. 1,142,597; June 8; Gaz. vol. 215; p. 568.

Marburg, Louis C., Milwaukee, Wis., assignor, by mesne assignments, to Allis-Chalmers Manufacturing Company. Alternating-current system. No. 1,144,149; June 22; Gaz. vol. 215; p. 1173.

Marconi Wireless Telegraph Company of America. (See Franklin, Charles S., assignor.)

Marcotte, Arthur D., Eunice, La. Combined oil-burner and steam-generator. No. 1,144,221; June 22; Gaz. vol. 215; p. 1199.

Marcouiller, Ernest J., Oconto Falls, Wis. Winding-machine for ribbons, laces, or the like. No. 1,141,646; June 1; Gaz. vol. 215; p. 199.

Marcovsky, Frank, Pittsburgh, Pa. Protective armor for cycle-riders. No. 1,144,150; June 22; Gaz. vol. 215; p. 1173.

Marczi, John, La Belle, Pa. Extensible window-frame. No. 1,144,046; June 22; Gaz. vol. 215; p. 1136.

Mareness, Berton L., Chicago, Ill., assignor to The Sefton Manufacturing Company, Anderson, Ind. Folding box. No. 1,144,770; June 29; Gaz. vol. 215; p. 1414.

Marin, Aimé, Vitry-sur-Seine, France. Cap for incandescent lamps. No. 1,141,400; June 1; Gaz. vol. 215; p. 113.

Mariner, George P., Philadelphia, Pa. Food product. No. 1,142,346; June 8; Gaz. vol. 215; p. 479.

Maring, Howard T. (See Myers and Maring.)

Marker, Charles E. (See Bernia, John, assignor.)

Markowicz, Martin, Erie, Pa. Ice-creeper. No. 1,141,353; June 1; Gaz. vol. 215; p. 94.

Marks, Isaac G., New Orleans, La. Automatic closure for garbage-cans. No. 1,143,847; June 22; Gaz. vol. 215; p. 1065.

Marquardt, George P., Rochester, Minn. Animal-trap. No. 1,144,607; June 29; Gaz. vol. 215; p. 1357.

Marsden, Mark W., assignor to Economic Power & Products Company, Philadelphia, Pa. Utilizing waste substances of the cotton-plant and product thereof. No. 1,143,587; June 15; Gaz. vol. 215; p. 952.

Marsh, Walter W., Baltimore, Md. Closet-trap. No. 1,144,488; June 29; Gaz. vol. 215; p. 1318.

Marshall, Charles L., *et al.* (See Mentzer, Oliver A., assignor.)

Martin, Charles H., Worcester, Mass. Equalizing device for vehicles. No. 1,144,943; June 29; Gaz. vol. 215; p. 1473.

Martin, George C., Los Angeles, assignor to S. A. Guiberson, Jr., San Francisco, Cal. Pipe-wrench. No. 1,143,126; June 15; Gaz. vol. 215; p. 791.

Martin, John J., St. Louis, Mo. Screen for headlights and other lamps. No. 1,141,718; June 1; Gaz. vol. 215; p. 224.

Martin, Sarpala, Ishpeming, Mich. Railway-tie. No. 1,141,811; June 1; Gaz. vol. 215; p. 253.

Martin, Sidney, Cliftondale, Mass. Suspender. (Reissue.) No. 13,939; June 22; Gaz. vol. 215; p. 1249.

Marx, Karl. (See Erlenbach and Marx.)

Mask, John L. (See Terrell and Mask.)

Maskrey, Arthur J. (See Carnahan and Maskrey.)

Maskrey, Arthur J., assignor of one-half to J. E. Carnahan, Canton, Ohio. Oxidizing steel or iron sheets. No. 1,141,719; June 1; Gaz. vol. 215; p. 224.

Mason, Frederick G. (See Johnson and Mason.)

Mason, Homer E., Delhi, N. Y. Device for holding piston-rings in their grooves. No. 1,144,608; June 29; Gaz. vol. 215; p. 1357.

Mason, Jesse A., Mannington, W. Va. Casing-coupling. No. 1,141,910; June 1; Gaz. vol. 215; p. 290.

Massey-Harris Company. (See Van Sickle, Paul A., assignor.)

Masterson, George F., *et al.* (See Truesdell, John P., assignor.)

Mastin, James G., assignor, by mesne assignments, to J. G. Kellogg, Chicago, Ill. Grease-cup. No. 1,141,720; June 1; Gaz. vol. 215; p. 224.

Mastin, James G., assignor, by mesne assignments, to J. G. Kellogg, Chicago, Ill. Atomizer. No. 1,141,721; June 1; Gaz. vol. 215; p. 225.

Masury, Alfred F., assignor to International Motor Company, New York, N. Y. Securing device for gears. No. 1,143,720; June 22; Gaz. vol. 215; p. 1022.

Matacotta, Santo E. P., New York, N. Y. Heel. No. 1,142,598; June 8; Gaz. vol. 215; p. 568.

Mathisen, Ole M., deceased, La Crosse, Wis., assignor, by mesne assignments, of one-half to Wheeling Can Company, Wheeling, W. Va.; O. M. Schlabach, La Crosse, Wis., administrator. Means for attaching handles to containers. No. 1,142,112; June 8; Gaz. vol. 215; p. 398.

Matson, Carl A., Lynn, assignor of one-half to A. M. Hoyt, Swampscott, Mass. Heel-burnishing machine. No. 1,141,878; June 1; Gaz. vol. 215; p. 276.

Matsuda, Riichi, Chicago, Ill. Focusing-hood for cameras. No. 1,141,970; June 8; Gaz. vol. 215; p. 345.

Mattatuck Manufacturing Company, The. (See Welton, Harry C., assignor.)

Matthael, Max, Frankfort-on-the-Main, Germany. Built-up iron railway-sleeper. No. 1,143,415; June 15; Gaz. vol. 215; p. 894.

Matthews, Alonzo B., Durham, N. C. Writing-desk. No. 1,143,416; June 15; Gaz. vol. 215; p. 894.

Matthews, Claude L., assignor to W. N. Matthews and Brother, St. Louis, Mo. Ground-anchor. No. 1,142,347; June 8; Gaz. vol. 215; p. 479.

Matthews, Francis E., and H. J. W. Bliss, London, England. Manufacture of unsaturated hydrocarbons and intermediate compounds. No. 1,144,558; June 29; Gaz. vol. 215; p. 1341.

Matthews, William J., Newburgh, N. Y. Bib for overalls. No. 1,144,369; June 29; Gaz. vol. 215; p. 1278.

Mattson, Andrew, Bellingham, Wash. Seine. No. 1,141,128; June 1; Gaz. vol. 215; p. 13.

Mauck, John A., Princeton, Ind. Shock-absorber and supplementary spring. No. 1,142,599; June 8; Gaz. vol 215; p. 569.

Mauer, Michael, Detroit, Mich. Closet-flushing apparatus. No. 1,141,354; June 1; Gaz. vol. 215; p. 94.

Maurer, Edward, Freeland, Mich. Furrow-gage for plows. No. 1,144,370; June 29; Gaz. vol. 215; p. 1279.

Maxwell, Russell H., Trenton, N. J. Shield or guard for telephones. No. 1,142,600; June 8; Gaz. vol. 215; p. 569.

Maxwell, Thomas G., assignor, by mesne assignments, to The McCaskey Register Company, Alliance, Ohio. Filing appliance. No. 1,141,401; June 1; Gaz. vol. 215; p. 113.

May, Minnie M., Evansville, Ind. Combined necktie holder and stretcher. No. 1,142,722; June 8; Gaz. vol. 215; p. 608.

May, Tony. (See Merriman and May.)

May, Willie B. (See Brown and May.)

Mayer, Heinrich, and G. Schlatter, Arbon, Switzerland. Detachable wheel for motor-cars. No. 1,142,113; June 8; Gaz. vol. 215; p. 398.

Maywald, Frederick J., Brooklyn, N. Y. Making heat-insulating material. No. 1,142,829; June 15; Gaz. vol. 215; p. 686.

McAfee, Almer M., New York, N. Y. Manufacture of aluminum chlorid. No. 1,144,304; June 22; Gaz. vol. 215; p. 1227.

McAllister, John A., Madison, S. D. Wagon foot-rest. No. 1,143,770; June 22; Gaz. vol. 215; p. 1039.

McAllister, William H., Newberry, Pa. Window-fastener. No. 1,143,417; June 15; Gaz. vol. 215; p. 895.

McArthur, Charles D., assignor to Blaw Steel Construction Company, Pittsburgh, Pa. Core-mold. No. 1,141,193; June 1; Gaz. vol. 215; p. 36.

McArthur, Charles D., assignor to Blaw Collapsible Steel Centering Company, Pittsburgh, Pa. Paving-form. No. 1,142,043; June 8; Gaz. vol. 215; p. 373.

McAuley, William J., Revere, Mass. Size-tag for clothing. No. 1,142,720; June 8; Gaz. vol. 215; p. 607.

McBerty, Frank R., New Rochelle, assignor to Western Electric Company, New York, N. Y. Semi-automatic telephone-exchange system. No. 1,141,352; June 1; Gaz. vol. 215; p. 94.

McCaleb, Albert G. (See Boyer, Alden S., assignor.)

McCarter, Milton, Boone county, Ind. Wire-working device. No. 1,144,217; June 22; Gaz. vol. 215; p. 1197.

McCarthy, Warren J. (See Kingberry and McCarthy.)

McCaskey Register Company, The. (See Jacobs, George, assignor.)

McCaskey Register Company, The. (See Kurtz, Stewart S., assignor.)

McCaskey Register Company, The. (See Maxwell, Thomas G., assignor.)

McCaskey Register Company, The. (See Moseley, Emerson B., assignor.)

McCaskey Register Company, The. (See Ryley, Alfred G., assignor.)

McCaskey Register Company, The. (See Silvius, Ellis T., assignor.)

McClain, Fred F., Xenia, Ohio. Window-sash. No. 1,143,640; June 22; Gaz. vol. 215; p. 995.

McClellan, William F., Brooklyn, N. Y. Shoe-tree. No. 1,142,595; June 8; Gaz. vol. 215; p. 567.

McClelland, Harry. (See Johnson and McClelland.)

McClure, John M., Winchester, Ky. Truss. No. 1,141,569; June 1; Gaz. vol. 215; p. 172.

McClure, William, Boughton, Ark. Railway level-board. No. 1,141,471; June 1; Gaz. vol. 215; p. 138.

McCollom, William R., Chicago, Ill. Switch-rod. No. 1,141,129; June 1; Gaz. vol. 215; p. 13.

McComb, William N., New York, N. Y. Seed-tape. No. 1,143,980; June 22; Gaz. vol. 215; p. 1111.

McCool, Edward F., Victor, Colo. Ore-grinder. No. 1,144,305; June 22; Gaz. vol. 215; p. 1228.

McCormack, Harry S., New Rochelle, assignor to Underwood Typewriter Company, New York, N. Y. Paper-roll cradle. No. 1,144,769; June 29; Gaz. vol. 215; p. 1414.

McCormick, Harry H., Grayrocks, Wyo. Safety attachment for vehicles. No. 1,142,449; June 8; Gaz. vol. 215; p. 518.

McCormick, John I., assignor to American Slicing Machine Company, Chicago, Ill. Meat-slicer. No. 1,142,901; June 15; Gaz. vol. 215; p. 712.

McCormick, Joseph A., Chicago, Ill. Soda-water faucet. No. 1,141,472; June 1; Gaz. vol. 215; p. 138.

McCornack, Herbert, West Chester, Pa. Carbureter. No. 1,141,570; June 1; Gaz. vol. 215; p. 173.

McCornick, Clarence K. (See Bouchery, August, assignor.)

McCoy, Benjamin F., St. Louis, Mo. Metallic counter for shoes. No. 1,143,294; June 15; Gaz. vol. 215; p. 851.

McCrary, John C., Columbia, Mo. Piano-bench. No. 1,141,130; June 1; Gaz. vol. 215; p. 14.

McCrery, William H., Savannah, Ga. Collapsible barrel. No. 1,144,218; June 22; Gaz. vol. 215; p. 1198.

McDonald, Charles D., assignor to McDonald Machine Co., Chicago, Ill. Metal-shearing machine. No. 1,141,644; June 1; Gaz. vol. 215; p. 198.

McDonald, Charles W., assignor of one-half to C. W. Connally, Austin, Tex. Machine for cracking nuts. No. 1,143,843; June 22; Gaz. vol. 215; p. 1064.

McDonald, Claude F. and S. O., Camden, Ohio. Railway-rail coupling. No. 1,144,557; June 29; Gaz. vol. 215; p. 1341.

McDonald, Elmer E. (See Gendreau, Auguste, assignor.)

McDonald Machine Co. (See McDonald, Charles D., assignor.)

McDonald, Stanley O. (See McDonald, Claude F. and S. O.)

McElheny, William C., Pittsburgh, Pa. Apparatus for refining oil. No. 1,142,826; June 15; Gaz. vol. 215; p. 685.

McElroy, John H., Chicago, Ill. Interlocking mechanism for voting-machines and similar structures. No. 1,141,645; June 1; Gaz. vol. 215; p. 198.

McEntyre, Levi, Cayuga, Ind. Car-replacer. No. 1,142,340; June 8; Gaz. vol. 215; p. 477.

McEwen, Willard M. (See Lamb, Charles C., assignor.)

McFadden, Benjamin B., Binghamton, N. Y. Folding box. No. 1,142,186; June 8; Gaz. vol. 215; p. 424.

McFall, Edward J., Tarentum, Pa. Puzzle. No. 1,143,418; June 15; Gaz. vol. 215; p. 895.

McFeely Company, Thomas. (See McFeely and Romick, assignors.)

McFeely, Thomas, Folcroft, Pa., and L. Romick, Niles, Ohio, assignors to Thomas McFeely Company, Folcroft, Pa. Bran and middlings finisher. No. 1,141,969; June 8; Gaz. vol. 215; p. 345.

McFerran, John A. and M. L., Louisville, Ky. Draft-regulator and smoke-purifier. No. 1,142,721; June 8; Gaz. vol. 215; p. 607.

McFerran, Milton L. (See McFerran, John A. and M. L.)

McGiffert, John R., assignor to Clyde Iron Works, Duluth, Minn. Variable-speed-transmission mechanism. No. 1,143,547; June 15; Gaz. vol. 215; p. 937.

McGillivray, James, Sacramento, Cal. Revetment. No. 1,144,143; June 22; Gaz. vol. 215; p. 1171.

McGillivray, James, Sacramento, Cal. Revetment. No. 1,144,144; June 22; Gaz. vol. 215; p. 1171.

McGinley, Evelyn G., Boston, Mass. Portable folding screen. No. 1,141,808; June 1; Gaz. vol. 215; p. 253.

McGinley, Evelyn G., Boston, Mass. Counting device. No. 1,144,487; June 29; Gaz. vol. 215; p. 1318.

McGinnis, Joseph P., assignor of one-half to C. W. Whelpley, Boston, Mass. Vehicle top-bow clamp. No. 1,144,659; June 29; Gaz. vol. 215; p. 1374.

McGlynn, Robert E., San Francisco, Cal. Compression-pump. No. 1,141,571; June 1; Gaz. vol. 215; p. 173.

McGrath, John H., Knoxville borough, Pa. Emergency sand-valve. No. 1,141,131; June 1; Gaz. vol. 215; p. 14.

McGrath, John T., Bloomington, Ill. Dish-washing machine. No. 1,142,187; June 8; Gaz. vol. 215; p. 424.

McGrath, John T., Bloomington, Ill. Dish-washing machine. No. 1,143,216; June 15; Gaz. vol. 215; p. 824.

McGrath, John T., Bloomington, Ill. Dish-washing machine. No. 1,143,217; June 15; Gaz. vol. 215; p. 825.

McGregor, Alexander G., Globe, Ariz. Car. No. 1,143,641; June 22; Gaz. vol. 215; p. 995.

McGuire, John J., New York, N. Y. Dust-proof guard for automatic axle-oilers. No. 1,142,260; June 8; Gaz. vol. 215; p. 450.

McGuire, William J., assignor to Wray's Fresh Water System, Kewanee, Ill. Device for elevating fluids. No. 1,142,762; June 8; Gaz. vol. 215; p. 623.

McIntire, Charles V., Indianapolis, Ind., assignor to H. Koppers Company, Chicago, Ill. Operating device for coke-oven doors. No. 1,141,132; June 1; Gaz. vol. 215; p. 14.

McIntire, Jacob N., assignor to The Brunswick-Balke-Collender Company of New York, New York, N. Y. Bowling-alley ball-returnway. No. 1,144,145; June 22; Gaz. 215; p. 1171.

McIntire, Roderick A., *et al.* (See Truesdell, John P., assignor.)

McIntyre, Michael M., assignor to The Perfection Spring Company, Cleveland, Ohio. Vehicle-spring. No. 1,141,194; June 1; Gaz. vol. 215; p. 36.

McKay, William A., and M. Claussen, San Francisco, Cal. Lamp-stand body. No. 1,142,108; June 8; Gaz. vol. 215; p. 397.

McKee, McKendree H., South Bend, Ind. Reinforced concrete construction. No. 1,142,109; June 8; Gaz. vol. 215; p. 397.

McKenna, Daniel A., Brooklyn, N. Y. Slip-on inking-roller. No. 1,143,419; June 15; Gaz. vol. 215; p. 895.

McKenzie, George. (See Westergard, Christ, assignor.)

McKim, James A., Greensburg, Ind. Head-lamp control. No. 1,141,809; June 1; Gaz. vol. 215; p. 253.

McKinney, Ora O., Frankfort, Ind. Agricultural machine. No. 1,141,195; June 1; Gaz. vol. 215; p. 37.

McKinney, Samuel L., Pekin, assignor to Elevator Locks Co., Peoria, Ill. Safety appliance for elevators. No. 1,144,965; June 29; Gaz. vol. 215; p. 1480.

McKnight, Alexander, Brooklyn, N. Y. Sound-preventing means. No. 1,144,660; June 29; Gaz. vol. 215; p. 1375.

McKnight, Alexander, Brooklyn, N. Y. Bed-frame. No. 1,144,661; June 29; Gaz. vol. 215; p. 1375.

McKnight, John A., assignor, by mesne assignments, to Spring Governor Company, Chicago, Ill. Shock-absorber. No. 1,142,044; June 8; Gaz. vol. 215; p. 373.

McLain, John E. (See Yeakley, Melvin A., assignor.)

McLane, Alexander, Lansford, and J. Churnside, Hudson, Pa. Detachable connector. No. 1,143,218; June 15; Gaz. vol. 215; p. 825.

McLaren, Donald, assignor of one-half to J. J. Robinson, Fort William, Ontario, Canada. Canoe motor-frame. No. 1,141,196; June 1; Gaz. vol. 215; p. 37.

McLeod, Clifford J., Hyde Park, Mass. Stay for corsets, collars, &c. No. 1,142,045; June 8; Gaz. vol. 215; p. 373.

McMackin, Hugh J., Boston, Mass. Pasting-machine. No. 1,144,717; June 29; Gaz. vol. 215; p. 1396.

McMillan, Bertha L. (See Tilden, Josephine E., assignor.)

McMullen, John F. P., Wakefield, Kans. Cooking-cabinet. No. 1,143,420; June 15; Gaz. vol. 215; p. 895.

McMullen, Vincent E., assignor to Field-Brundage Co., Jackson, Mich. Speed-changing device for engines. No. 1,144,909; June 29; Gaz. vol. 215; p. 1462.

McMullin, William E., Minneapolis, Minn. Ventilator for cars. No. 1,142,110; June 8; Gaz. vol. 215; p. 397.

McNabb, William F., Pittsburgh, Pa. Heat-producing compound. No. 1,143,295; June 15; Gaz. vol. 215; p. 852.

McNally, Aloysius. (See Allen and McNally.)

McNeil, Chester, assignor, to Union Special Machine Company, Chicago, Ill. Cutting mechanism. No. 1,143,421; June 15; Gaz. vol. 215; p. 896.

McNeil, Daniel W., East Norwood, Ohio, assignor to The John Douglas Company. Apparatus for molding clay or similar material. No. 1,142,341; June 8; Gaz. vol. 215; p. 478.

McNeil, Daniel W., Norwood, Ohio, assignor to The John Douglas Company. Molding clay or similar material. No. 1,142,342; June 8; Gaz. vol. 215; p. 478.

McNoon, James J., assignor of one-half to C. C. Heminger, Bowling Green, Ky. Acetylene-gas generator. No. 1,144,044; June 22; Gaz. vol. 215; p. 1135.

McNulty, Frank T., *et al.* (See Wine, Noah L., assignor.)

McNulty, James A., Kansas City, Mo. Nailless grain-door for railway-cars. No. 1,143,219; June 15; Gaz. vol. 215; p. 826.

McNutt, William H., New York, assignor to C. E. Owen, Franklin, N. Y. Wrench. No. 1,142,111; June 8; Gaz. vol. 215; p. 398.

McNutt, William H., New York, assignor to C. E. Owen, Franklin, N. Y. Safety-bung. No. 1,142,902; June 15; Gaz. vol. 215; p. 712.

McPherson, Sylvester E., Chattanooga, Tenn. Roller window-screen. No. 1,143,718; June 22; Gaz. vol. 215; p. 1021.

McRaven, John, Little Rock, Ark. Type-writer. No. 1,143,771; June 22; Gaz. vol. 215; p. 1039.

McVicker, E. M. (See Ashley, Leonard W., assignor.)

Meacham, Benjamin E., Lorain, Ohio, assignor to American Stove Company, St. Louis, Mo. Burner for water-heaters. No. 1,143,057; June 15; Gaz. vol. 215; p. 767.

Mead, Marvin H., Passaic, N. J. Net for collecting specimens. No. 1,143,721; June 22; Gaz. vol. 215; p. 1022.

Meador, Tandy, Westmoreland, Tenn. Automatic stove-damper. No. 1,143,422; June 15; Gaz. vol. 215; p. 897.

Meaker, John W., Detroit, Mich. Forming polygonal bores. No. 1,144,425; June 29; Gaz. vol. 215; p. 1297.

Means, Warren M., and N. C. Celmo, Putneyville, Pa. Lock for switch-arms. No. 1,142,830; June 15; Gaz. vol. 215; p. 686.

Mechanical Development Company, The. (See Rackstraw, Albert V., assignor.)

Mechanics' Machine Company. (See Swenson and Faust, assignors.)

Mechanic's Stationary Stage Company. (See Narron, John W., assignor.)

Medina, Eulalio, Douglas, Ariz. Water-jacket. No. 1,143,642; June 22; Gaz. vol. 215; p. 996.

Medlock, Carl B. B., Mortons Gap, Ky. Barrel-cover latch. No. 1,144,489; June 29; Gaz. vol. 215; p. 1318.

Megosin Company. (See Menden, William S., assignor.)

Meier, August. (See Herzog and Meier.)

Meier, Fred H., Teague, Tex. Pump. No. 1,144,718; June 29; Gaz. vol. 215; p. 1397.

Meier, Martin J. (See Crandall, Max E., assignor.)
Meisel, Francis, assignor to Meisel Press & Manufacturing Company, Boston, Mass. Printing-machine. No. 1,144,944; June 29; Gaz. vol. 215; p. 1473.
Meisel Press & Manufacturing Company. (See Meisel, Francis, assignor.)
Melas, William, assignor of one-half to D. Townsend, Philadelphia, Pa. Oil-burner. No. 1,144,719; June 29; Gaz. vol. 215; p. 1397.
Melville Clark Piano Company. (See Clark, Melville, assignor.)
Mendelson, Aaron, and S. J. Goldberg, New York, N. Y. Cigarette-box. No. 1,144,559; June 29; Gaz. vol. 215; p. 1341.
Menden, William S., Brooklyn, N. Y., assignor to Megosin Company, Inc. Passenger-car. No. 1,142,263; June 8; Gaz. vol. 215; p. 451.
Menden, William S., Brooklyn, N. Y., assignor to Megosin Company, Inc. Gate for vehicles and means for mounting same. No. 1,142,264; June 8; Gaz. vol. 215; p. 451.
Mendenhall, Clarence M., New York, N. Y. Gage-glass. No. 1,142,262; June 8; Gaz. vol. 215; p. 450.
Méndez, Raul, Curacao, Dutch West Indies. Lowering device. No. 1,144,982; June 29; Gaz. vol. 215; p. 1486.
Menge, William, Jr., assignor to Dolgeville Felt Shoe Company, Dolgeville, N. Y. Manufacture of shoes. No. 1,142,265; June 8; Gaz. vol. 215; p. 451.
Mengelbier, Oscar, Berlin, Germany. Extraction of juice from sugar-cane and similar saccharine material. No. 1,141,572; June 1; Gaz. vol. 215; p. 174.
Meune, Joseph, Green Bay, Wis. Traction-wheel. No. 1,142,189; June 8; Gaz. vol. 215; p. 425.
Mensing, Karl, Hanau, Germany, assignor to General Electric Company. Gas-tight seal. No. 1,141,123; June 1; Gaz. vol. 215; p. 15.
Mentzer, Oliver A., assignor of one-fourth to H. E. Ransing, one-fourth to C. L. Marshall, Lancaster, Pa., and one-fourth to F. C. Sweeton, Haddonfield, N. J. Nut and bolt locking and releasing device. No. 1,143,127; June 15; Gaz. vol. 215; p. 791.
Menz, Emil, Hamilton, assignor by mesne assignments, to The Computing Scale Company, Dayton, Ohio. Spring weighing-scale. No. 1,141,722; June 1; Gaz. vol. 215; p. 225.
Mercer, Henry H., Claremont, N. H., assignor, by mesne assignments, to Sullivan Machinery Company, Boston, Mass. Stoneworking-machine. No. 1,142,975; June 15; Gaz. vol. 215; p. 738.
Meredith, William R., Youngstown, Ohio. Tire for vehicles. No. 1,143,982; June 22; Gaz. vol. 215; p. 1112.
Mergenthaler Linotype Company. (See Albrecht, Christian A., assignor.)
Mergenthaler Linotype Company. (See Christel, Carl H., assignor.)
Mergenthaler Linotype Company. (See Dodge, Philip T., assignor.)
Mergenthaler Linotype Company. (See Elchler, Artur, assignor.)
Mergenthaler Linotype Company. (See Kennedy, David S., assignor.)
Mergenthaler Linotype Company. (See Röger, Karl, assignor.)
Merian, Frederic, Pittsburgh, Pa. Cover-shifting mechanism. No. 1,141,573; June 1; Gaz. vol. 215; p. 174.
Meriwether, Coleman. (See Hirsh, Meriwether, and Mitchell.)
Merk, Lawrence A., assignor of one-half to J. Hay, Pittsburgh, Pa. Means for controlling flow of fluids. No. 1,141,647; June 1; Gaz. vol. 215; p. 199.
Merker, Harry C., Seattle, Wash. Can attachment. No. 1,142,601; June 8; Gaz. vol. 215; p. 569.
Merker, Monte C. (See Settergren, Bernhard, assignor.)
Merklein, Frederick J. (See Buttner and Merklein.)
Merrell, Frederick R., Galveston, Tex. Window-sash lock. No. 1,142,450; June 8; Gaz. vol. 215; p. 518.
Merrell, Irving S. and O. E., assignors to Merrell-Soule Company, Syracuse, N. Y. Desiccating. No. 1,141,879; June 1; Gaz. vol. 215; p. 276.
Merrell, Oliver E. (See Merrell, Irving S. and O. E.)
Merrell-Soule Company. (See Merrell, Irving S. and O. E., assignors.)
Merriam, Ezra B., Schenectady, N. Y., assignor to General Electric Company. Electric switch. No. 1,144,047; June 22; Gaz. vol. 215; p. 1136.
Merrick, Frank W., Boston, Mass. Leather-scarfing machine. No. 1,141,253; June 1; Gaz. vol. 215; p. 57.
Merrifield, Richard. (See Lester, James F., assignor.)
Merrill, Edwin R., assignor to The Jeffrey Manufacturing Company, Columbus, Ohio. Mining machine and truck. No. 1,142,348; June 8; Gaz. vol. 215; p. 480.
Merrill, Raymond A., New York, N. Y. Envelop. No. 1,142,349; June 8; Gaz. vol. 215; p. 480.
Merriman, Harry L., and T. May, Woodlawn, Pa. Rail-joint. No. 1,142,266; June 8; Gaz. vol. 215; p. 451.
Merriman, Leonard J., Wilmington, N. C. Plant-cover. No. 1,144,663; June 29; Gaz. vol. 215; p. 1376.
Merritt, Joseph, Hartford, Conn., assignor to Beech-Nut Packing Company, Canajoharie, N. Y. Grinding-mill. No. 1,141,898; June 1; Gaz. vol. 215; p. 285.
Merritt, Joseph, Hartford, Conn., assignor to Beech-Nut Packing Company, Canajoharie, N. Y. Feeding and blending mechanism for grinding-mills. No. 1,141,899; June 1; Gaz. vol. 215; p. 285.
Merritt, William E., Portland, Oreg. Valve. No. 1,142,723; June 8; Gaz. vol. 215; p. 608.
Mersereau Metal Bed Company. (See Appugliese, Louis, assignor.)
Mershon, Ralph D., New York, N. Y. Electrolytic apparatus employing filmed electrodes. No. 1,141,402; June 1; Gaz. vol. 215; p. 113.
Mertes, Frank N., Los Angeles, Cal. Fastener. No. 1,144,222; June 22; Gaz. vol. 215; p. 1199.
Mertz, Boyd F., Northumberland, Pa. Vehicle-wheel with demountable rim. No. 1,142,350; June 8; Gaz. vol. 215; p. 480.
Messikommer, Jacob, Chicago, Ill. Safety appliance for flying-machines. No. 1,143,643; June 22; Gaz. vol. 215; p. 996.
Messner, Fred C., and J. W. Lamparter, Moundsville, W. Va. Glass-molding apparatus. No. 1,143,423; June 15; Gaz. vol. 215; p. 897.
Metal Specialties Manufacturing Company. (See Berg, John, assignor.)
Metallic Flexible Hose Company. (See Wolf and Governale, assignors.)
Metallpapier-Bronzefarben-Blattmetallwerke, Aktiengesellschaft. (See Heinrich, Jacob, assignor.)
Metals Recovery Company. (See Callow, John M., assignor.)
Metalyte Company, The. (See Adler, De Witt S., assignor.)
Metten, John F., Philadelphia, Pa., assignor to The Wm. Cramp & Sons Ship & Engine Building Company. Steam-turbine. No. 1,141,473; June 1; Gaz. vol. 215; p. 139.
Mettler, John W., East Millstone, and W. E. Smith, Milltown, assignors to Kilbourn Manufacturing Corporation, New Brunswick, N. J. Reinforced tubular fabric and knitting the same. No. 1,141,971; June 8; Gaz. vol. 215; p. 346.
Metzner, Otto, assignor to The Rookwood Pottery Company, Cincinnati, Ohio. Making tile. No. 1,141,134; June 1; Gaz. vol. 215; p. 15.
Meyer, August, *et al.* (See Fishburne, Edward W., assignor.)
Meyer, Frank W., and A. Stieb, East St. Louis, Ill. Pressure-motor. No. 1,144,609; June 29; Gaz. vol. 215; p. 1358.
Meyer, John T., Minster, Ohio. Spoon. No. 1,144,490; June 29; Gaz. vol. 215; p. 1318.
Meyer, Peter, Cologne-Nippes, Germany. Apparatus for printing, registering, and issuing tickets. No. 1,143,424; June 15; Gaz. vol. 215; p. 898.
Meyers, Solomon, Seattle, Wash., assignor, by mesne assignments, to The N. J. Rich Company, Cleveland, Ohio. Muffler. No. 1,144,858; June 29; Gaz. vol. 215; p. 1445.
Michael, Clement W., assignor to J. I. Case Plow Works, Racine, Wis. Cultivator. No. 1,141,135; June 1; Gaz. vol. 215; p. 15.
Michael, Clement W., assignor to J. I. Case Plow Works, Racine, Wis. Clutch mechanism. No. 1,143,221; June 15; Gaz. vol. 215; p. 826.
Michael, Clement W., assignor to J. I. Case Plow Works, Racine, Wis. Disk cultivator. No. 1,144,151; June 22; Gaz. vol. 215; p. 1174.
Michael, Walter, Oakland, assignor to Union Iron Works Co., San Francisco, Cal. Mechanism for insuring understanding of signals from bridge to engine-room. No. 1,144,491; June 29; Gaz. vol. 215; p. 1319.
Michel, John, New York, N. Y. Attachment for ink-receptacles. No. 1,144,916; June 29; Gaz. vol. 215; p. 1462.
Michell, Anthony G. M., Melbourne, and H. C. Newton, Kew, near Melbourne, Victoria, Australia. Hydraulic mechanism for transmission of power. No. 1,141,812; June 1; Gaz. vol. 215; p. 254.
Michigan Stove Company, The. (See Pomaville, Cephres R., assignor.)
Michod, Charles L., Chicago, Ill. Post. No. 1,142,046; June 8; Gaz. vol. 215; p. 374.
Miciaus, Alexander, Jr., Alliance, Ohio. Gun-mount. No. 1,142,602; June 8; Gaz. vol. 215; p. 569.
Middlekauff, Peter D. (See Appleby, John F., assignor.)
Midgley, Albert H. (See Vandervell and Midgley.)
Miehle, Robert, assignor to Continental & Commercial Trust & Savings Bank, trustee, Chicago, Ill. Application of power to reciprocating-bed printing-presses. No. 1,143,425; June 15; Gaz. vol. 215; p. 898.
Miehling, Rudolph. (See Darby, Norman C., assignor.)
Miles, John J., and J. A. Williams, Corpus Christi, Tex. Shirt. No. 1,144,223; June 22; Gaz. vol. 215; p. 1199.
Miller, Anvy H., Minburn, Iowa. Grading and leveling machine. No. 1,142,114; June 8; Gaz. vol. 215; p. 399.
Miller, Benjamin A., West Hazleton, Pa. Carpenter's tool. No. 1,143,426; June 15; Gaz. vol. 215; p. 899.
Miller, Carmi A., assignor of one-half to J. F. Miller, Spring Valley, Ill. Caster-spring. No. 1,144,771; June 29; Gaz. vol. 215; p. 1415.
Miller, Charles E., Anderson, Ind. Vulcanizing apparatus. No. 1,142,526; June 8; Gaz. vol. 215; p. 544.
Miller, Charles E., Pittsburgh, Pa. Insulator-support. No. 1,143,983; June 22; Gaz. vol. 215; p. 1112.
Miller, Earl O., *et al.* (See Down, Ernest U., assignor.)
Miller, Earnest, Kokomo, Ind. Felly-tightener. No. 1,142,903; June 15; Gaz. vol. 215; p. 712.
Miller, Frank L., assignor to J. T. Callanan, Parkersburg, W. Va. Retort-door-securing mechanism. No. 1,144,152; June 22; Gaz. vol. 215; p. 1174.

Miller, George W., Tarentum borough, Pa. Differential lock. No. 1,142,831; June 15; Gaz. vol. 215; p. 687.
Miller, Herbert F., Wollaston, Mass. Lamp-burner. No. 1,144,610; June 29; Gaz. vol. 215; p. 1358.
Miller, J. Fenton. (See Miller, Carmi A., assignor.)
Miller, James H., *et al.* (See Worrel, Robert H., assignor.)
Miller, Julius J., St. Joseph, Mich., assignor, by mesne assignments, to Wirebounds Patents Company, Kittery, Me. Box-blank machine. No. 1,142,351; June 8; Gaz. vol. 215; p. 481.
Miller, Lewis J., assignor of one-fourth to G. M. Neal, Bergen, N. Y. Safety attachment for trolley-rail switches. No. 1,144,371; June 29; Gaz. vol. 215; p. 1279.
Miller Lock Co. (See Soley, Frank, assignor.)
Miller, Nicholas C., Dodgeville, Wis. Knuckle connection for automobile-wheels. No. 1,142,190; June 8; Gaz. vol. 215; p. 425.
Miller, Robert E., Pecos, Tex. Egg-crate. No. 1,143,913; June 22; Gaz. vol. 215; p. 1087.
Miller, Royal R., assignor to A. Karpen, Chicago, Ill. Revolving-seat davenport. No. 1,143,848; June 22; Gaz. vol. 215; p. 1066.
Miller, Solomon M., assignor, by mesne assignments, to Elevator Locks Company, Peoria, Ill. Safety appliance for elevators. No. 1,144,966; June 29; Gaz. vol. 215; p. 1480.
Miller, Solomon M., assignor, by mesne assignments, to Elevator Locks Company, Peoria, Ill. Safety-lock for elevators. No. 1,144,967; June 29; Gaz. vol. 215; p. 1481.
Miller, William C., Moretown, Vt. Automatic train-pipe coupling. No. 1,143,984; June 22; Gaz. vol. 215; p. 1112.
Miller, William E., Allegan, Mich. Machine for sealing wrappers upon loaves of bread. No. 1,142,976; June 15; Gaz. vol. 215; p. 739.
Milliken, Walter L. (See Shiek, Daniel W., assignor.)
Milliken, Walter L., trustee. (See Shiek, Daniel W., assignor.)
Millis, William A., Wheatland, Cal. Transmission-gearing. No. 1,141,813; June 1; Gaz. vol. 215; p. 254.
Mills, Charles B., assignor of one-fourth to A. J. Carr, Baltimore, Md. Cable-tap. No. 1,144,224; June 22; Gaz. vol. 215; p. 1200.
Mills, Charles B., Gardenville, assignor of one-fourth to A. J. Carr, Baltimore, Md. Cable-connector. No. 1,144,225; June 22; Gaz. vol. 215; p. 1200.
Mills, Charles B., Baltimore, Md. Electroplating. No. 1,144,226; June 22; Gaz. vol. 215; p. 1200.
Mills, Edgar A., Baltimore, and R. H. Richards, Hamilton, assignors of three-fifths to J. B. Wells, Baltimore, Md. Water-heater. No. 1,144,227; June 22; Gaz. vol. 215; p. 1200.
Mills, Rolla O., Redondo, Wash. Combination bath-room fixture. No. 1,143,128; June 15; Gaz. vol. 215; p. 791.
Millward, John R. (See Lelong and Millward.)
Milton, John L., Chicago, Ill., assignor, by mesne assignments, to Webster Electric Company, Racine, Wis. Inductor-generator. No. 1,141,474; June 1; Gaz. vol. 215; p. 139.
Milton, John L., assignor of one-half to T. K. Webster, Chicago, Ill. Inductor-generator. No. 1,142,047; June 8; Gaz. vol. 215; p. 374.
Milwaukee Electric Railway & Light Company, The. (See Mullett, Howard A., assignor.)
Miner, Raymond C., Faith, S. D., assignor, by mesne assignments, of one-half to G. Gregory, Glendive, Mont. Pencil-securing holder. No. 1,144,426; June 29; Gaz. vol. 215; p. 1297.
Miner, W. H. (See Johnson, George A., assignor.)
Miner, William H. (See O'Connor, John F., assignor.)
Miner, William H., Chazy, N. Y. Buffing mechanism for railway-cars. No. 1,142,832; June 15; Gaz. vol. 215; p. 687.
Minerals Separation. (See Littleford, John W., assignor.)
Minerals Separation American Syndicate (1913) Limited. (See Lavers, Henry, assignor.)
Mississippi Wire Glass Company. (See Baldwin, Arthur J., assignor.)
Mitchell, Arthur B., Birmingham, Ala. Acetylene-lamp. No. 1,141,475; June 1; Gaz. vol. 215; p. 140.
Mitchell, Dennis, Waterloo, England. Foot-sock. No. 1,141,814; June 1; Gaz. vol. 215; p. 254.
Mitchell, John C. (See Hirsh, Meriwether, and Mitchell.)
Mitchell, John F., Santa Monica, assignor to E. P. Young, Los Angeles, Cal. Lamp. No. 1,141,880; June 1; Gaz. vol. 215; p. 276.
Mitchell, Mary P., Eaton, Ohio. Mechanical starting device for explosion-engines. No. 1,141,198; June 1; Gaz. vol. 215; p. 38.
Mitchell, William H. (See Hall, Benjamin K., assignor.)
Mitchella, Clyde B., assignor of one-half to W. A. Heaney, Akron, Ohio. Clutch. No. 1,141,648; June 1; Gaz. vol. 215; p. 200.
Mock, Frank C., Cleveland, Ohio. Apparatus for muffling sound. No. 1,144,306; June 22; Gaz. vol. 215; p. 1228.
Modern Appliance Company. (See Wheeler, Lewis R., assignor.)
Moellendick, Philipp, New York, N. Y. Gas-stove attachment. No. 1,142,603; June 8; Gaz. vol. 215; p. 570.
Moeller, William J., Wyoming, assignor to The Philip Carey Manufacturing Company, Lockland, Ohio. Fireproof and waterproof covering and making same. No. 1,141,136; June 1; Gaz. vol. 215; p. 16.
Moen, Thorey L., Chippewa Falls, Wis. Animal-trap. No. 1,141,815; June 1; Gaz. vol. 215; p. 254.
Moeschl-Edwards Corrugating Company, The. (See Probert, Edwin R., assignor.)
Moewes, Ernst, Marienfelde, near Berlin, assignor to Daimler-Motoren-Gesellschaft, Unterturkheim, Germany. Retarding mechanism for motor-vehicles. No. 1,144,372; June 29; Gaz. vol. 215; p. 1279.
Moffat, Walter A., Erie, Pa. Superheater. No. 1,144,911; June 29; Gaz. vol. 215; p. 1462.
Moffatt, James R., assignor to Union Special Machine Company, Chicago, Ill. Sewing-machine. No. 1,141,476; June 1; Gaz. vol. 215; p. 140.
Moffatt, James R., assignor to Union Special Machine Company, Chicago, Ill. Shirring presser-foot for sewing-machines. No. 1,144,228; June 22; Gaz. vol. 215; p. 1200.
Mohun, John L. (See Elvin and Mohun.)
Molinn, Edward C., East Orange, N. J., assignor to American Telephone and Telegraph Company. Indicating system. No. 1,144,560; June 29; Gaz. vol. 215; p. 1342.
Molins, Walter E., London, England. Feeding device for packet-making machines. No. 1,144,772; June 29; Gaz. vol. 215; p. 1415.
Monette, Francis. (See Laurier and Monette.)
Monro, William L., assignor to Window Glass Machine Company, Pittsburgh, Pa. Glass-drawing-pot trunnion. No. 1,143,296; June 15; Gaz. vol. 215; p. 852.
Monroe, Henry, Sabetha, Kans. Tide-motor. No. 1,142,724; June 8; Gaz. vol. 215; p. 608.
Montgomery, William E., Lewiston, Me., assignor to Rockwood Sprinkler Company. Automatic sprinkling system. No. 1,141,477; June 1; Gaz. vol. 215; p. 140.
Montre, Kate B., North San Juan, Cal. Corset-steel. No. 1,144,912; June 29; Gaz. vol. 215; p. 1463.
Moody, Walter S., Schenectady, N. Y., assignor to General Electric Company. Three-phase transformer. No. 1,141,199; June 1; Gaz. vol. 215; p. 38.
Mooklar, Edward J., Honolulu, Hawaii. Producing a food product. No. 1,141,816; June 1; Gaz. vol. 215; p. 255.
Moon, Arch, Fallon, Nev. Single-spoke-cushion wheel. No. 1,143,427; June 15; Gaz. vol. 215; p. 899.
Moon-Hopkins Billing Machine Company. (See Thieme, Otto, assignor.)
Moore, Charles J., assignor, by mesne assignments, to Packard Motor Car Company, Detroit, Mich. Robe-support. No. 1,143,772; June 22; Gaz. vol. 215; p. 1039.
Moore, Clara C., Jacksonville, Ill. Cake-cooler. No. 1,143,644; June 22; Gaz. vol. 215; p. 997.
Moore, George W., assignor to Imperial Manufacturing Company, Tulsa, Okla. Clutch. No. 1,143,298; June 15; Gaz. vol. 215; p. 852.
Moore, George W., Tulsa, assignor to Imperial Manufacturing Company, Sand Springs, Okla. Gearing for clothes-wringers. No. 1,143,299; June 15; Gaz. vol. 215; p. 853.
Moore, Jacob W., Oxford, Ark. Mail-bag catcher. No. 1,141,817; June 1; Gaz. vol. 215; p. 255.
Moore, Jesse C., and W. A., and F. Wade, assignors to Columbia School Supply Co., Indianapolis, Ind. Cabinet-drawer construction. No. 1,143,297; June 15; Gaz. vol. 215; p. 852.
Moore, John R., Winona, Tex. Clock attachment. No. 1,142,604; June 8; Gaz. vol. 215; p. 570.
Moore, John W., Sioux City, Iowa. Engine-starter for automobiles and the like. No. 1,142,191; June 8; Gaz. vol. 215; p. 425.
Moore, Lyman L., Seattle, Wash. Heating-drum. No. 1,141,200; June 1; Gaz. vol. 215; p. 39.
Moore, Robert, Tuxedo Park, N. Y. Racket. No. 1,143,300; June 15; Gaz. vol. 215; p. 853.
Moore, Thomas S., Shoshoni, assignor of one-half to M. Williams, Wheatland, Wyo. Beet-harvester. No. 1,142,048; June 8; Gaz. vol. 215; p. 374.
Moore, Thomas S., Shoshoni, assignor of one-half to M. Williams, Wheatland, Wyo. Uprooting mechanism for beet-harvesters. No. 1,142,049; June 8; Gaz. vol. 215; p. 375.
Moore, Thomas S., Shoshoni, assignor of one-half to M. Williams, Wheatland, Wyo. Gathering and discharging mechanism for beet-harvesters. No. 1,142,050; June 8; Gaz. vol. 215; p. 375.
Moore, William A. (See Moore and Wade.)
Moore, William E. (See Elliott and Moore.)
Moore, William J., Cedar Springs, and F. M. Thayer, Grand Rapids, Mich. Steering-gear for automobiles. No. 1,144,307; June 22; Gaz. vol. 215; p. 1228.
More, Lucius E. (See Bolin and More.)
Morgan Construction Company. (See Jefferies and Isley, assignors.)
Morgan, David G., San Francisco, Cal. Multiple-nut lock. No. 1,142,192; June 8; Gaz. vol. 215; p. 426.
Morgan, Edmund C., Morgan Park, Ill. Cutting mechanism. No. 1,141,254; June 1; Gaz. vol. 215; p. 57.
Morgan, Frank, Melrose, Mass. Starting device for internal-combustion engines. No. 1,142,193; June 8; Gaz. vol. 215; p. 426.

Morgan, Frank, Melrose, Mass. Auxiliary valve for internal-combustion engines. No. 1,142,194; June 8; Gaz. vol. 215; p. 426.
Morley, Louis. (See De Feranzo, Garibaldi, assignor.)
Morrell, Isaac V., Elgin, Ill., assignor of one-fourth to J. O. Morrell, Montreal, Quebec, Canada. Camera. No. 1,142,904; June 15; Gaz. vol. 215; p. 713.
Morrell, J. Otty. (See Morrell, Isaac V., assignor.)
Morris, Anthony S., Haverford, Pa. Press. No. 1,143,849; June 22; Gaz. vol. 215; p. 1066.
Morris, Claude W. and H. R., Chicago, Ill. Adjustable holder for wrist-watches. No. 1,143,548; June 15; Gaz. vol. 215; p. 938.
Morris, Clinton D., Binghamton, N. Y. Garment and hat hanger. No. 1,142,451; June 8; Gaz. vol. 215; p. 518.
Morris, Emanuel S., St. Louis, Mo. Resilient vehicle-wheel. No. 1,141,255; June 1; Gaz. vol. 215; p. 58.
Morris, Emerson T., Constitution, Ohio. Wire-stretcher. No. 1,142,352; June 8; Gaz. vol. 215; p. 481.
Morris, Harold R. (See Morris, Claude W. and H. R.)
Morris, Jacob, Sydney, New South Wales, Australia. Lady's hat-fastening. No. 1,144,561; June 29; Gaz. vol. 215; p. 1342.
Morris, John O., Davenport, Iowa, assignor, by mesne assignments, to Bullock Tractor Company, Chicago, Ill. Track for vehicles. No. 1,142,195; June 8; Gaz. vol. 215; p. 427.
Morris, John O., Davenport, Iowa, assignor, by mesne assignments, to Bullock Tractor Company, Chicago, Ill. Vehicle. No. 1,142,196; June 8; Gaz. vol. 215; p. 427.
Morris, William L., assignor to S. F. Bowser & Co., Inc., Fort Wayne, Ind. Oil-drip-return system. No. 1,141,649; June 1; Gaz. vol. 215; p. 200.
Morris, William L., Chicago, Ill., assignor to S. F. Bowser & Company, Inc., Fort Wayne, Ind. Filter. No. 1,143,985; June 22; Gaz. vol. 215; p. 1113.
Morris, Willis G., Morrill, Nebr. Tire-casing. No 1,142,905; June 15; Gaz. vol. 215; p. 713.
Morrison, Andrew, assignor to Dilworth, Porter & Company, Limited, Pittsburgh, Pa. Tie-plate. No. 1,143,301; June 15; Gaz. vol. 215; p. 853.
Morrison, Robert D. (See Wardell and Morrison.)
Morrow, James. (See Morrow, Richard H. and J.)
Morrow, Richard H. and J., Waukegan, Ill. Electric vacuum-cleaner. No. 1,142,353; June 8; Gaz. vol. 215; p. 481.
Morsbach, John W. (See Lidberg, Tiodolf, assignor.)
Morton, Albert H., Lowell, Mass. Roving-creel for spinning-frames and the like. No. 1,144,720; June 29; Gaz. vol. 215; p. 1397.
Morton, Lawrence D., assignor to The Hinde and Dauch Paper Company, Sandusky, Ohio. Sealing boxes. No. 1,144,773; June 29; Gaz. vol. 215; p. 1416.
Morton, Samuel S., Harrisburg, Pa. Traction-wheel. No. 1,144,373; June 29; Gaz. vol. 215; p. 1279.
Moseley, Emerson B., assignor, by mesne assignments, to The McCaskey Register Company, Alliance, Ohio. Filing appliance. No. 1,141,403; June 1; Gaz. vol. 215; p. 114.
Moseley, Emerson B., assignor, by mesne assignments, to The McCaskey Register Company, Alliance, Ohio. Filing appliance. No. 1,141,404; June 1; Gaz. vol. 215; p. 114.
Moseley, Emerson B., assignor, by mesne assignments, to The McCaskey Register Company, Alliance, Ohio. Filing appliance. No. 1,141,405; June 1; Gaz. vol. 215; p. 115.
Moseley, Emerson B., assignor, by mesne assignments, to The McCaskey Register Company, Alliance, Ohio. Filing appliance. No. 1,142,115; June 8; Gaz. vol. 215; p. 399.
Moser, Fred J., Kane, Pa. Head for oil-wells. No. 1,143,302; June 15; Gaz. vol. 215; p. 854.
Moses, William P., Bowmanville, Ontario, Canada. Sash-hanger. No. 1,141,818; June 1; Gaz. vol. 215; p. 255.
Mosteller, Dosier H., Chicago, Ill., assignor of one-half to R. Malcom, Chicago, Ill., and one-half to G. C. Buquo, Asheville, N. C. Ice-cream spoon. No. 1,142,354; June 8; Gaz. vol. 215; p. 482.
Motorflex Equipment Company. (See Prescott, Sydney I., assignor.)
Mount, William, Sydney, New South Wales, Australia. Appliance for polishing floors or floor-coverings. No. 1,141,478; June 1; Gaz. vol. 215; p. 141.
Moyer, Harvey A. (See Kavle, Oscar C., assignor.)
Moyer, John T., Philadelphia, Pa. Automatic car-signal. No. 1,142,605; June 8; Gaz. vol. 215; p. 570.
Moyer, Malcolm B., Montevideo, Minn. Hoisting-drum and clutch. No. 1,141,819; June 1; Gaz. vol. 215; p. 256.
Moyers, William H. (See Hise and Moyers.)
Moyle, Edward H., Los Angeles, Cal. Rock-crusher. No. 1,142,116; June 8; Gaz. vol. 215; p. 400.
Mozolan, Louis, Montgomery, Ala. Liquid-level-alarm apparatus. No. 1,141,820; June 1; Gaz. vol. 215; p. 256.
Muehlmann, Charles J., Detroit, Mich. Gas control valve and igniter. No. 1,144,427; June 29; Gaz. vol. 215; p. 1298.
Mueller, Adolf E. (See Irion and Mueller.)
Mueller, John, Providence, R. I. Locking-bar for gates. No. 1,141,479; June 1; Gaz. vol. 215; p. 141.
Mueller, John L., St. Louis, Mo. Oil-cloth stand. No. 1,144,229; June 22; Gaz. vol. 215; p. 1201.
Mueller, Oscar W., Cincinnati, Ohio. Clutch. No. 1,141,137; June 1; Gaz. vol. 215; p. 16.
Mueller, Rudolph J. J., Milwaukee, Wis., assignor, by mesne asignments, to Oxweld Acetylene Company, Chicago, Ill. Cutting metals. No. 1,142,355; June 8; Gaz. vol. 215; p. 482.
Muhleman, Charles H., Western Springs, Ill., assignor of fifty-five one-hundredths to F. Low, St. Louis, Mo. Pan-motion concentrator. No. 1,141,972; June 8; Gaz. vol. 215; p. 346.
Muir, James A., Cincinnati, Ohio, assignor to The Toledo Electric Welder Company. Electric welding. No. 1,142,833; June 15; Gaz. vol. 215; p. 687.
Muir, Wellington W., Baltimore, Md. Carbureter. No. 1,143,986; June 22; Gaz. vol. 215; p. 1113.
Mulch, Balthaser H. T. (See Mulch, Theodore H. and B. H. T.)
Mulch, Theodore H. and B. H. T., New York, N. Y. Water-filter. No. 1,143,129; June 15; Gaz. vol. 215; p. 792.
Mullaney, John F., Colorado Springs, Colo. Door-check. No. 1,143,773; June 22; Gaz. vol. 215; p. 1039.
Mullen, Peter. (See Harrington and Mullen.)
Müller, Emil, Dusseldorf, assignor to Rheinische Metallwaaren- und Maschinenfabrik, Dusseldorf-Derendorf, Germany. Arrangement for automatically varying the elevation of a gun for a given range according to the height of the target. No. 1,143,428; June 15; Gaz. vol. 215; p. 899.
Müller, Friederich, assignor to Pratt & Whitney Company, Hartford, Conn. Grinding-machine. (Reissue.) No. 13,930; June 15; Gaz. vol. 215; p. 961.
Muller, George, Ridgewood, N. J. Amusement apparatus. No. 1,141,821; June 1; Gaz. vol. 215; p. 256.
Müller, John P., Freeport, Ill. Box-car door. No. 1,144,048; June 22; Gaz. vol. 215; p. 1137.
Müller, Paul. (See Schmidt and Müller.)
Mullett, Howard A., assignor to The Milwaukee Electric Railway & Light Company, Milwaukee, Wis. Car-fender. No. 1,142,834; June 15; Gaz. vol. 215; p. 688.
Mumford, Gurdon S., New York, N. Y. Concrete-construction apparatus. No. 1,143,429; June 15; Gaz. vol. 215; p. 900.
Mumma, George R., assignor to The C. W. Raymond Company, Dayton, Ohio. Sectional kiln. No. 1,143,549; June 15; Gaz. vol. 215; p. 938.
Mundlos & Co., H. (See Mundlos, Richard, assignor.)
Mundlos, Richard, assignor to H. Mundlos & Co., Magdeburg, Germany. Sewing-machine frame. No. 1,144,428; June 29; Gaz. vol. 215; p. 1298.
Munroe, Harry A., *et al.* (See Bennett, Edward O., assignor.)
Munson Brothers Company. (See Munson, Edmund G. assignor.)
Munson, Edmund G., assignor to Munson Brothers Company, Whitesboro, N. Y. Axially-adjustable ball-bearing. No. 1,141,201; June 1; Gaz. vol. 215; p. 39.
Munzner, Charles. (See Child and Munzner.)
Münzner, Max, Arlington, N. J., assignor to The Torsion Balance Company, New York, N. Y. Weighing-scale. No. 1,141,202; June 1; Gaz. vol. 215; p. 40.
Murayama, Hashime, New York, N. Y. Transparent model for anatomical study. No. 1,141,480; June 1; Gaz. vol. 215; p. 141.
Muri, Wilhelm, Stockton, Cal. Cherry-pitter. No. 1,141,355; June 1; Gaz. vol. 215; p. 95.
Murph, Donald H., assignor of one-half to H. E. Hobson, Dallas, Tex. Fan and fixture support. No. 1,141,203; June 1; Gaz. vol. 215; p. 40.
Murphy, Morrell. (See Peters, Marcus W., assignor.)
Murphy, William, Eden Valley, Minn. Manure-loading apparatus. No. 1,142,197; June 8; Gaz. vol. 215; p. 427.
Murray, Esther, Bayswater, London, England. Wheel of motor-cycles and other vehicles. No. 1,142,606; June 8; Gaz. vol. 215; p. 570.
Murray, Thomas E., New York, N. Y. Outlet-box for protective casings for line conductors. No. 1,142,835; June 15; Gaz. vol. 215; p. 688.
Murray, Thomas E., New York, N. Y. Vehicle-wheel. No. 1,142,836; June 15; Gaz. vol. 215; p. 688.
Myers, Charles A. (See Burnham and Myers.)
Myers, Charles O., and H. T. Maring, Gettysburg, Pa. Nut-lock. No. 1,142,607; June 8; Gaz. vol. 215; p. 570.
Myers, George S., Electra, Tex. Gripping device for well-boring apparatus. No. 1,143,430; June 15; Gaz. vol. 215; p. 900.
Myers, Herbert G., Chicago, Ill., assignor to The Electric Storage Battery Company, Philadelphia, Pa. Suspension for axle-lighting dynamos. No. 1,142,267; June 8; Gaz. vol. 215; p. 452.
Myers, Solomon B., Plainfield, N. J., and H. L. Rogers, Jamaica, N. Y. Loose-roll tile roof. No. 1,144,332; June 22; Gaz. vol. 215; p. 1237.
Myers, William. (See Goodsell, James A., assignor.)
N. J. Rich Company, The. (See Meyers, Solomon, assignor.)
Nadreau, Alphonse J., Miami, Fla. Bicycle. No. 1,143,850; June 22; Gaz. vol. 215; p. 1067.
Nagle, Erin P., Emeryville, Cal. Cam-shaft drive. No. 1,144,492; June 29; Gaz. vol. 215; p. 1319.
Nagy, Alexander. (See Sivak, Nagy, and Banduray.)
Nahr, Edwin, Long Beach, Cal. Handle connection. No. 1,142,837; June 15; Gaz. vol. 215; p. 689.
Naismith, Samuel, Chicago, Ill. Furnace-door frame. No. 1,142,773; June 8; Gaz. vol. 215; p. 628.

Nakata, Masahachi, Crystal Springs, Wash. Vibrator. No. 1,144,308; June 22; Gaz. vol. 215; p. 1228.
Nally, Matthew, New York, N. Y., assignor to United Shoe Machinery Company, Paterson, N. J. Skiving-machine. No. 1,141,481; June 1; Gaz. vol. 215; p. 142.
Narron, John W., Oakland, assignor to Mechanic's Stationary Stage Company, Richmond, Cal. Painter's ladder-support. No. 1,143,058; June 15; Gaz. vol. 215; p. 767.
Nasca, Domenico, New York, N. Y. Combination Morris chair and couch. No. 1,144,859; June 29; Gaz. vol. 215; p. 1446.
Nash, Charles J., assignor to Universal Draft Gear Attachment Co., Chicago, Ill. Draft-rigging. No. 1,143,303; June 15; Gaz. vol. 215; p. 854.
Nashua Machine Company. (See Littlefield, Frank A., assignor.)
Nasspress-Gesellschaft mit beschränkter Haftung. (See Brune and Horst, assignors.)
Nathan, Isaac, Oakland, Cal. Combined reinforce and spot for billiard and pool tables. No. 1,143,222; June 15; Gaz. vol. 215; p. 827.
National Automatic Tool Company. (See Bockhoff, William F., assignor.)
National Carbon Company. (See Brown, John W., assignor.)
National Carbon Company. (See Clark, Emerson L., assignor.)
National Carbon Company. (See Foos, Marcus A., assignor.)
National Cash Register Company, The. (See Carroll, Thomas, assignor.)
National Cash Register Company. (See Church, Edmund S., assignor.)
National Cash Register Company, The. (See Cleal, Joseph P., assignor.)
National Cash Register Company, The. (See Kettering, Charles F., assignor.)
National Cash Register Company, The. (See Kettering and Chryst, assignors.)
National Electrolytic Company. (See Fuller, George P., assignor.)
National Equipment Company. (See Bausman, Alonzo L., assignor.)
National Lettergraph Company, The. (See Decker, Alonzo G., assignor.)
National Malleable Castings Company, The. (See Bazeley, Arthur J., assignor.)
National Malleable Castings Company, The. (See Blackmore, William, assignor.)
National Malleable Castings Company, The. (See Dietz, Charles, assignor.)
National Malleable Castings Company, The. (See Krakau, Harry T., assignor.)
National Malleable Castings Company, The. (See Schmidt, Ernest H., assignor.)
National Metal Weather Strip Company. (See Bricker, Samuel P., assignor.)
National Peat Refining Company, The. (See Bartholomew, Ellis, assignor.)
National Piano Manufacturing Company. (See Ioor, John P., assignor.)
National Thermo Company. (See Bolin and More, assignors.)
National Tube Company. (See Berg, Oscar W., assignor.)
National Tube Company, The. (See Boyd and Saunders, assignors.)
National Tube Company. (See Fell, Charles, assignor.)
National Tube Company. (See Latshaw, Joseph W., assignor.)
National Tube Company. (See Speller, Frank N., assignor.)
Nauman, William H., Philadelphia, Pa. Folding crate. No. 1,141,574; June 1; Gaz. vol. 215; p. 174.
Naylor, William R., assignor to B. A. Ballou and Company, Inc., Providence, R. I. Connector for neck-chains. No. 1,141,575; June 1; Gaz. vol. 215; p. 175.
Neahr, Jacob E., New York, N. Y. Match-igniting device. No. 1,144,611; June 29; Gaz. vol. 215; p. 1358.
Neahr, Jacob E., New York, N. Y. Match-igniting device. No. 1,144,612; June 29; Gaz. vol. 215; p. 1359.
Neal, Franklin G., Halifax, Nova Scotia, Canada. Nut-locking device. No. 1,144,493; June 29; Gaz. vol. 215; p. 1319.
Neal, George M. (See Miller, Lewis J., assignor.)
Neal, J. N. (See Van Valkenburg, Randall T., assignor.)
Neeland, Marvin A., Montclair, N. J. Hot-blast stove. No. 1,142,838; June 15; Gaz. vol. 215; p. 689.
Neill, James W., Pasadena, Cal. Jigging apparatus. No. 1,144,494; June 29; Gaz. vol. 215; p. 1320.
Nellany, Charles V., New York, N. Y. Tooth-brush. No. 1,142,356; June 8; Gaz. vol. 215; p. 483.
Nellis, Charles E. (See Ellis and Nellis.)
Nelson, Charles A., assignor to Savage Arms Company, Utica, N. Y. Tubular-magazine rifle. No. 1,141,256; June 1; Gaz. vol. 215; p. 58.
Nelson, Emil, Portland, Oreg. Nozzle-holder. No. 1,144,495; June 29; Gaz. vol. 215; p. 1320.
Nelson, Emil A., assignor to Hupp Motor Car Company, Detroit, Mich. Motor-vehicle frame and body construction. No. 1,143,987; June 22; Gaz. vol. 215; p. 1114.
Nelson, Emil A., assignor to Hupp Motor Car Company, Detroit, Mich. Lubricating system for engine and transmission. No. 1,144,496; June 29; Gaz. vol. 215; p. 1320.
Nelson, Henry F., Angola, La. Rail-joint. No. 1,143,851; June 22; Gaz. vol. 215; p. 1067.
Nelson, John A. (See Spangler, John H., assignor.)
Neptune Meter Company. (See Burton, James M., assignor.)
Nettle, John F., assignor of one-half to S. Lisa, Butte, Mont. Cushion-wheel. No. 1,143,304; June 15; Gaz. vol. 215; p. 854.
Neumann, Rudolph, Indianapolis, Ind. Butt and lock gage. No. 1,144,049; June 22; Gaz. vol. 215; p. 1137.
Neversiip Manufacturing Company, The. (See Whitaker, Richard, assignor.)
New Departure Manufacturing Company, The. (See Rockwell, Albert F., assignor.)
New Jersey Patent Company. (See Edison, Thomas A., assignor.)
New Method Stove Company. (See Baxter, Berry A., assignor.)
Newark Gear Cutting Machine Co. (See Eberhardt, Henry E., assignor.)
Newbold, Eugene S., Baltimore, Md. Mechanism for lighting and extinguishing street-lamps. No. 1,142,608; June 8; Gaz. vol. 215; p. 571.
Newell, Edward W., Pittsburgh, assignor to The Westinghouse Air Brake Company, Wilmerding, Pa. Friction draft-gear. No. 1,141,138; June 1; Gaz. vol. 215; p. 16.
Newitt, Edward, Fitchburg, Mass. Boring-bar. No. 1,143,988; June 22; Gaz. vol. 215; p. 1114.
Newlands, John C., *et al.* (See Kenney, Gerald, assignor.)
Newman, Arthur S., Highgate, assignor of one-third to T. H. Bolam and one-third to S. N. Barnard, West Ealing, England. Cinematograph apparatus. No. 1,144,774; June 29; Gaz. vol. 215; p. 1416.
Newman, Horatio H. (See Smith, John R., assignor.)
Newman, William G., Ogden, Utah. Screen-wire-cloth rack. No. 1,144,230; June 22; Gaz. vol. 215; p. 1201.
Newman, William J., Chicago, Ill. Trap-door for discharge-openings. No. 1,143,852; June 22; Gaz. vol. 215; p. 1067.
Newton Company, The. (See Gallivan, Frank B., assignor.)
Newton, Henry C. (See Michell and Newton.)
Ney Manufacturing Company, The. (See Trabue, Luther, assignor.) (Reissue.)
Ney, Valentine L., *et al.* (See Klink, Frederick R., assignor.)
Neydhart, Francis S., West Hoboken, N. J. Window-cleaner. No. 1,142,609; June 8; Gaz. vol. 215; p. 571.
Nicholls, Emma B., Philadelphia, Pa. Canopy. No. 1,143,774; June 22; Gaz. vol. 215; p. 1040.
Nichols, C. Clinton. (See Tyrrell, Warren A., assignor.)
Nichols, Jesse W., Chicago, Ill. Can-cap with vent-shield. No. 1,141,973; June 8; Gaz. vol. 215; p. 347.
Nichols, Louis C., Milwaukee, Wis., assignor, by mesne assignments, to Allis-Chalmers Manufacturing Company. Transformer. No. 1,143,305; June 15; Gaz. vol. 215; p. 804.
Nichols, Robert F., Oakland, Cal. Casement-window. No. 1,143,059; June 15; Gaz. vol. 215; p. 768.
Nichols, William H., Bennington, Vt. Insulator. No. 1,144,153; June 22; Gaz. vol. 215; p. 1174.
Nick, Edwin W. (See Hayes, Harvey C., assignor.)
Nickel, Charles F. (See Graf and Nickel.)
Nicolaus, Frederic G., Cleveland, Ohio, assignor to American Stove Company, St. Louis, Mo., Lighter for gas-stoves. No. 1,143,060; June 15; Gaz. vol. 215; p. 768.
Nieć, Michael, St. Catharines, Ontario, Canada. Utensil-lifter. No. 1,142,198; June 8; Gaz. vol. 215; p. 428.
Nienstadt, August E., Bensonhurst, assignor to Specification Soap & Oil Co., Inc., New York, N. Y. Paint and varnish remover. No. 1,143,130; June 15; Gaz. vol. 215; p. 792.
Nightingale, Joseph M., London, and E. S. Goy, Buckhurst Hill, England. Sock and stocking. No. 1,144,050; June 22; Gaz. vol. 215; p. 1137.
Nilsson, Herman. (See Grondal and Nilsson.)
Nissen, John P., Stapleton, N. Y., assignor to Oneida Knitting Co., Inc., Philadelphia, Pa. Stocking. No. 1,142,774; June 8; Gaz. vol. 215; p. 628.
Nitrogen Company, The. (See Acker, Charles E., assignor.)
Nitz, Bruno, Berlin-Reinickendorf, assignor to Firm of W. Körting, Barmen, Germany. Plaiting-machine. No. 1,144,080; June 22; Gaz. vol. 215; p. 1146.
Niven, James J., Philadelphia, Pa. Equalizing-valve. No. 1,142,117; June 8; Gaz. vol. 215; p. 400.
Nix, Edward A., Memphis, Tenn., and E. C. Roddie, New Orleans, La. Equalizing draft-gear for railway-cars. No. 1,144,231; June 22; Gaz. vol. 215; p. 1202.
No-Break Egg Carrier Company, The. (See Degginger, Louis A., assignor.)
Noce, Frank F., Lester, W. Va. Gutter. No. 1,141,204; June 1; Gaz. vol. 215; p. 40.
Nock, Charles, Youngstown, Ohio. Bonnet for hot-air valves. No. 1,144,664; June 29; Gaz. vol. 215; p. 1376.
Noderer, Robert J. (See Kerbel, Fredrick J., assignor.)
Noggle, Perry L. (See Shuck, Matilda J., assignor.)
Noiseless Typewriter Company, The. (See Anderson, Nils H., assignor.)
Nolan, James A., Bowerston, Ohio. Automatic car-cager. No. 1,144,374; June 29; Gaz. vol. 215; p. 1280.
Nolin, Henry, Providence, R. I. Clip for tentering-machines. No. 1,143,989; June 22; Gaz. vol. 215; p. 1114.

Nollner, Harry N., Washington, D. C. Crochet-thread holder. No. 1,144,775; June 29; Gaz. vol. 215; p. 1416.

Noppe, Henry, and R. Ike, Grand Rapids, Mich. Broom. No. 1,144,309; June 22; Gaz. vol. 215; p. 1229.

Norden, Joseph. (See Norden, Mortimer, assignor.)

Norden, Mortimer, assignor of one-half to J. Norden, New York, N. Y. Combined attachment-plug and base. No. 1,143,306; June 15; Gaz. vol. 215; p. 855.

Norling, Reinhold A., assignor to Aurora Automatic Machinery Company, Aurora, Ill. Transmission-gearing. No. 1,142,357; June 8; Gaz. vol. 215; p. 482.

Norman, William W., Hunterville, Mo. Treating wood. No. 1,142,610; June 8; Gaz. vol. 215; p. 571.

Norman, William W., Hunterville, Mo. Apparatus for treating wood. No. 1,142,611; June 8; Gaz. vol. 215; p. 572.

Norris, William L. (See Mahoney and Norris.)

North Bro's M'f'g Co. (See Fegley and Leopold, assignors.)

North Dakota Gas Engine Manufacturing Company, The. (See Sandbo, Anton I., assignor.)

North, Ray A., assignor to R. J. Dowd Knife Works, Beloit, Wis. Beater-roll. No. 1,144,665; June 29; Gaz. vol. 215; p. 1377.

North, Ray A., assignor to R. J. Dowd Knife Works, Beloit, Wis. Beater-roll attachment. No. 1,144,666; June 29; Gaz. vol. 215; p. 1377.

North Western Novelty Company. (See Bolen, Emerson A., assignor.)

Northern Engineering Works. (See True, George A., assignor.)

Northern Sales Co. (See Delaney, Michael G., assignor.)

Northrop, Jonas, assignor to Hopedale Manufacturing Company, Hopedale, Mass. Automatic weft-replenishing loom. No. 1,142,725; June 8; Gaz. vol. 215; p. 609.

Northrup, Edwin F., Princeton, N. J. Method of and means for measuring temperature and resistivity. No. 1,144,776; June 29; Gaz. vol. 215; p. 1417.

Northrup, Elmer C., assignor to Automatic Machine Company, San Francisco, Cal. Box-making machine. No. 1,144,497; June 29; Gaz. vol. 215; p. 1321.

Northwall, Theodore G., *et al.* (See Hooker, Joseph D., assignor.)

Northwestern Knitting Company. (See Chatfield, Franklin, assignor.)

Norton, Charles H., assignor to Norton Grinding Company, Worcester, Mass. Wheel-feed for grinding-machines. No. 1,141,205; June 1; Gaz. vol. 215; p. 41.

Norton Grinding Company. (See Norton, Charles H., assignor.)

Norton, Ralph H., assignor to Acme Steel Goods Company, Chicago, Ill. Tool for handling wire. No. 1,141,257; June 1; Gaz. vol. 215; p. 59.

Novelty Manufacturing Company. (See Jacobson, William A., assignor.)

Noyes, Edward P., Winchester, Mass., assignor, by mesne assignments, to C. W. Brown, trustee, Pittsburgh, Pa. Liquid-feeder for burners, &c. No. 1,141,258; June 1; Gaz. vol. 215; p. 59.

Noyes, La Verne, assignor to Aermotor Company, Chicago, Ill. Gear-casing for power transmission. No. 1,141,356; June 1; Gaz. vol. 215; p. 95.

Noyes, La Verne, assignor to Aermotor Company, Chicago, Ill. Lubricating mechanism. No. 1,143,307; June 15; Gaz. vol. 215; p. 855.

Nunez, Crescencio A., Cruces, Cuba. Steam-trap. No. 1,143,550; June 15; Gaz. vol. 215; p. 939.

Nyberg, Frank R., assignor of one-half to G. J. Garvin, Lamar, Colo. Attachment for engines. No. 1,142,612; June 8; Gaz. vol. 215; p. 572.

Nye, George F., Kearney, Nebr. Concrete-mixer. No. 1,142,613; June 8; Gaz. vol. 215; p. 572.

O. and S. Bearing Company. (See Obrecht and Skillman, assignors.)

O'Boyle, Michael W. (See Austin, William, assignor.)

O'Brien, Alfred J., *et al.* (See Robinson, Jay A., assignor.)

O'Brien, Glen, Manhattan, Kans. Dehumidizer. No. 1,143,061; June 15; Gaz. vol. 215; p. 769.

O'Brien, William, *et al.* (See Eckenwiler, George M., assignor.)

O'Connor, Edmund A., assignor of one-half to S. S. Hayes, Vancouver, British Columbia, Canada. Saw-regrinding attachment for saw gummers or sharpeners. No. 1,144,721; June 29; Gaz. vol. 215; p. 1398.

O'Connor, James F., St. Louis, Mo. Dumping-wagon. No. 1,143,308; June 15; Gaz. vol. 215; p. 856.

O'Connor, John F., assignor to W. H. Miner, Chicago, Ill. Draft-rigging for railway-cars. No. 1,142,358; June 8; Gaz. vol. 215; p. 483.

O'Connor, John F., assignor to W. H. Miner, Chicago, Ill. Draft-rigging for railway-cars. No. 1,142,839; June 15; Gaz. vol. 215; p. 689.

O'Connor, Martin A., assignor to Providence Blower Company, Providence, R. I. Variable-speed gear. No. 1,142,051; June 8; Gaz. vol. 215; p. 375.

O'Malley-Beare Valve Company. (See O'Malley, Edward, assignor.)

O'Malley, Edward, assignor to O'Malley-Beare Valve Company, Chicago, Ill. Valve. No. 1,141,882; June 1; Gaz. vol. 215; p. 277.

O'Neil, William H., Los Angeles, Cal. Stuffing-box follower. No. 1,143,854; June 22; Gaz. vol. 215; p. 1068.

O'Quinn, Bryant J., Kissimmee, Fla. Protective housing for pictures and the like. No. 1,144,913; June 29; Gaz. vol. 215; p. 1463.

O'Regan, James J., Woodhaven, N. Y. Type-writing machine. No. 1,141,651; June 1; Gaz. vol. 215; p. 201.

O'Rourke, John F., New York, N. Y. Device for determining load-carrying capacity of subterranean areas. No. 1,143,645; June 22; Gaz. vol. 215; p. 997.

O'Rourke, John F., New York, N. Y. Flying-machine. No. 1,144,052; June 22; Gaz. vol. 215; p. 1138.

O'Toole, Edward. (See Flexner and O'Toole.)

Obrecht, Norbert L., and N. Skillman, assignors to O. and S. Bearing Company, Detroit, Mich. Bearing. No. 1,141,974; June 8; Gaz. vol. 215; p. 347.

Ocumpaugh, Edmund, Rochester, N. Y. Platen mechanism. No. 1,142,977; June 15; Gaz. vol. 215; p. 739.

Oelkers, John B., Newark, N. J. Clamping-support. No. 1,143,990; June 22; Gaz. vol. 215; p. 1115.

Offerman, William, assignor to D. Saunders' Sons, Yonkers, N. Y. Pipe-threading machine. No. 1,144,333; June 22; Gaz. vol. 215; p. 1237.

Ogilvie, Frederick H., Jersey City, N. J., assignor to Wisner Manufacturing Company, New York, N. Y. Cleaning apparatus. No. 1,141,139; June 1; Gaz. vol. 215; p. 17.

Ohio Brass Company, The. (See Bolus, Glenn H., assignor.)

Ohio Brass Company, The. (See Starkey, William C., assignor.)

Ohio Salt Company, The. (See Laib, Walter, assignor.)

Ohmer Fare Register Company. (See Fefell, Henry H., assignor.)

Oil Well Supply Company. (See Greve, Edgar E., assignor.)

Okamoto, Kenkichi, San Francisco, Cal. Game apparatus. No. 1,144,051; June 22; Gaz. vol. 215; p. 1138.

Olafson, Halvor, Bowdon, N. D. Sliding door for automobile-bodies. No. 1,143,062; June 15; Gaz. vol. 215; p. 769.

Oldham, Samuel, Philadelphia, Pa. Clutch for a pneumatic hammer. No. 1,141,206; June 1; Gaz. vol. 215; p. 41.

Oldham, Samuel, Philadelphia, Pa. Jack hammer-drill. No. 1,141,650; June 1; Gaz. vol. 215; p. 201.

Oliver, Arthur A., Calera, Ala. Frictional pawl. No. 1,142,4[illegible]; June 8; Gaz. vol. 215; p. 518.

Oliver, Lott D., assignor of one-half to L. H. Thompson, Blackwell, Okla. Brick-kiln. No. 1,144,334; June 22; Gaz. vol. 215; p. 1237.

Ollard, James C., Tacoma, Wash. Trolley-wheel. No. 1,141,406; June 1; Gaz. vol. 215; p. 115.

Ollard, James C., Tacoma, Wash. Trolley-harp. No. 1,141,407; June 1; Gaz. vol. 215; p. 115.

Olmsted, Norman K., assignor to Deere & Company, Moline, Ill. Draft device. No. 1,141,259; June 1; Gaz. vol. 215; p. 59.

Olmsted, Perry, Los Angeles, Cal. Drafting instrument. No. 1,143,431; June 15; Gaz. vol. 215; p. 930.

Olsen, Axel R. (See Lee, Waldo J., assignor.)

Olsen, Carl, and W. C. Stautzenberger, Beeville, Tex. Device for catching insects. No. 1,142,614; June 8; Gaz. vol. 215; p. 573.

Olsen, Sigward. (See Brookfield and Olsen.)

Olsen, Tinius, assignor to Tinius Olsen Testing Machine Company, Philadelphia, Pa. Proof-testing machine. No. 1,141,822; June 1; Gaz. vol. 215; p. 257.

Olsen, Tinius, assignor to Tinius Olsen Testing Machine Company, Philadelphia, Pa. Machine for testing hardness. No. 1,141,881; June 1; Gaz. vol. 215; p. 277.

Olson, Bernard G., Chinook, Mont. Shoe-lace fastener. No. 1,142,199; June 8; Gaz. vol. 215; p. 428.

Olson, Bror E., Stockholm, Saskatchewan, Canada. Extension-table. No. 1,143,853; June 22; Gaz. vol. 215; p. 1068.

Olson, Nels, Minden, Nebr. Combination framing-tool. No. 1,142,527; June 8; Gaz. vol. 215; p. 544.

Olson, Samuel, Chicago, Ill. Store-service conveyer system. No. 1,142,453; June 8; Gaz. vol. 215; p. 519.

Olstad, Hans, Elsworth, N. D. Foot-lever for grindstones. No. 1,144,375; June 29; Gaz. vol. 215; p. 1280.

Onderdonk, Lansing, New York, N. Y., assignor to Union Special Machine Company, Chicago, Ill. Feeding mechanism for sewing-machines. No. 1,142,359; June 8; Gaz. vol. 215; p. 484.

Onderdonk, Lansing, New York, N. Y., assignor to Union Special Machine Company, Chicago, Ill. Thread-controller for sewing-machines. No. 1,142,360; June 8; Gaz. vol. 215; p. 484.

Onderdonk, Lansing, New York, N. Y., assignor to Union Special Machine Company, Chicago, Ill. Take-up mechanism for sewing-machines. No. 1,144,498; June 29; Gaz. vol. 215; p. 1321.

Oneida Community. (See Ricker, Frank S., assignor.)

Oneida Knitting Co. (See Nissen, John P., assignor.)

Oppen, Nortie B., Stoughton, Wis. Holder for lighting-fixtures. No. 1,143,775; June 22; Gaz. vol. 215; p. 1040.

Oppenheim, Simon R., Long Beach, assignor of one-fourth to J. Reinhaus, Santa Ana, Cal. Extracting potash and other substances from kelp. No. 1,141,482; June 1; Gaz. vol. 215; p. 142.

Orchard, Alfred S., assignor to Keystone Type Foundry, Philadelphia, Pa. Printer's galley. No. 1,142,206; June 8; Gaz. vol. 215; p. 428.

Ordnance Improvement Company. (See Gerdom, Gregory, assignor.)

Orenstein, Rebecca. (See Harvey, Josiah H., assignor.)

Ormay, Arthur L., Brooklyn, assignor to Hill Publishing Co., New York, N. Y. Producing illustrations. No. 1,143,991; June 22; Gaz. vol. 215; p. 1115.

Ornstein, Georg, New York, N. Y., assignor to Electro Bleaching Gas Company. Antisepticizing water. No. 1,142,361; June 8; Gaz. vol. 215; p. 485.

Orville Simpson Company, The. (See Simpson, Lowe E., assignor.)

Orwig, Joseph R., Des Moines, Iowa. Match-holder. No. 1,143,992; June 22; Gaz. vol. 215; p. 1116.

Osborn, Clark H., St. Joseph, Mo. Incubator. No. 1,144,232; June 22; Gaz. vol. 215; p. 1202.

Osborn, Elisha H., Sauk Center, Minn. Telephone-signal. No. 1,141,823; June 1; Gaz. vol. 215; p. 257.

Osborne, John L., assignor to Judson Governor Company, Rochester, N. Y. Pneumatic controller. No. 1,141,975; June 8; Gaz. vol. 215; p. 347.

Österberg, Karl E. R. (See Larsson and Österberg.)

Osvaldella, Rocco, Trieste, Austria-Hungary. Self-closing valve. No. 1,144,860; June 29; Gaz. vol. 215; p. 1446.

Otis Elevator Company. (See Brown, Thomas E., assignor.)

Otis Elevator Company. (See Hymans, Frederick, assignor.)

Otis Elevator Company. (See John, Griffith, assignor.)

Ott, Harvey N., and C. W. Barton, assignors to Spencer Lens Company, Buffalo, N. Y. Projection apparatus and the like. No. 1,143,993; June 22; Gaz. vol. 215; p. 1116.

Ouimette, Joseph, Southbridge, Mass. Spring-repairer. No. 1,144,945; June 29; Gaz. vol. 215; p. 1473.

Over, Edwin G., Fort Worth, Tex. Sanitary tooth-cleaner. No. 1,144,777; June 29; Gaz. vol. 215; p. 1417.

Ovington, Edward J., Brookline, assignor to Simplex Electric Heating Company, Cambridge, Mass. Electric heating device. No. 1,141,576; June 1; Gaz. vol. 215; p. 175.

Owen, Carrie E. (See McNutt, William H., assignor.)

Owens, Andrew L., and C. L. Alford, Indianapolis, Ind.; said Alford assignor to said Owens. Relief-valve for pneumatic tires. No. 1,144,499; June 29; Gaz. vol. 215; p. 1322.

Owens, Horace P., Atlanta, Ga. Wire-stretcher. No. 1,144,310; June 22; Gaz. vol. 215; p. 1229.

Owens, Michael F., assignor to Automatic Refrigerating Company, Hartford, Conn. Time-limit circuit-breaker. No. 1,144,233; June 22; Gaz. vol. 215; p. 1203.

Oxweld Acetylene Company. (See Mueller, Rudolph J. J., assignor.)

Oxweld Acetylene Company. (See Winans, Milton E., assignor.)

Oyster, Earl F. (See Yanney and Oyster.)

P. & B. Mfg. Co. (See Bloomer, Harvey E., assignor.)

Pacific Gas & Electric Company. (See Knopp, Otto A., assignor.)

Pacific Heater Manufacturing Co. (See Giles, Lloyd, assignor.)

Packard Motor Car Company. (See Huff, Russell, assignor.)

Packard Motor Car Company. (See Moore, Charles J., assignor.)

Packard Motor Car Company. (See Tibbetts, Milton, assignor.)

Packard Motor Car Company. (See Waldon, Sidney D., assignor.)

Page, Albert A., East Haven, assignor to Sargent & Company, New Haven, Conn. Panic-bolt. No. 1,143,776; June 22; Gaz. vol. 215; p. 1040.

Paige, Jeremiah A., assignor to A. A. Ziegler, trustee, Boston, Mass. Stop mechanism. No. 1,142,906; June 15; Gaz. vol. 215; p. 713.

Paine, William H., Providence, R. I., assignor to Fire Prevention Company. Thermally-controlled valve. No. 1,142,528; June 8; Gaz. vol. 215; p. 545.

Paisley, Elbert E., Portville, N. Y. Basket-cover fastener. No. 1,144,376; June 29; Gaz. vol. 215; p. 1280.

Palmer, George L. W., Cambridge, assignor to Greene M-f-g. Co., Boston, Mass. Projecting apparatus. No. 1,141,885; June 1; Gaz. vol. 215; p. 278.

Palmer, Goodlet M. and L. M., Philadelphia, Pa., assignors of thirteen-twentieths to G. M. Palmer and seven-twentieths to L. M. Palmer. Non-refillable bottle and like vessel. No. 1,142,978; June 15; Gaz. vol. 215; p. 740.

Palmer, Harvey D. (See Baird and Palmer.)

Palmer, Herman H., assignor of one-half to W. F. Livingston, Charleston, S. C. Safety and sanitary envelop. No. 1,142,615; June 8; Gaz. vol. 215; p. 573.

Palmer, Howard V., Dumont, N. J. Photographic device. No. 1,143,722; June 22; Gaz. vol. 215; p. 1022.

Palmer, Lewis M. (See Palmer, Goodlet M. and L. M.)

Palmer, Theodore D., assignor to T. D. Palmer Company, Syracuse, N. Y. Clothes-pressing machine. No. 1,141,900; June 1; Gaz. vol. 215; p. 286.

Palmer, Theodore D., assignor to T. D. Palmer Company, Syracuse, N. Y. Clothes-pressing machine. No. 1,141,901; June 1; Gaz. vol. 215; p. 286.

Palmer, Theodore D., assignor to T. D. Palmer Company, Syracuse, N. Y. Garment-pressing machine. No. 1,141,902; June 1; Gaz. vol. 215; p. 286.

Palmer, Theodore D., assignor to T. D. Palmer Company, Syracuse, N. Y. Sad-iron. No. 1,141,903; June 1; Gaz. vol. 215; p. 287.

Palmer, Theron R., Erie, Pa. Vehicle-tire. No. 1,141,723; June 1; Gaz. vol. 215; p. 226.

Palmquist, Eric W., St. Louis, Mo., assignor to American Steel Foundries, New York, N. Y. Side frame and journal-box. No. 1,143,723; June 22; Gaz. vol. 215; p. 1023.

Panama Banana Food Company. (See Rathbun, William L., assignor.)

Pankey, Alexander, Meridian, Miss. Plow. No. 1,143,309; June 15; Gaz. vol. 215; p. 856.

Pankratz, Peter J., Stafford, Kans. Centrifugal casting-machine. No. 1,142,840; June 15; Gaz. vol. 215; p. 689.

Pansegrau, Gustav C., assignor of one-half to P. M. Pansegrau, New York, N. Y. Garbage-receptacle. No. 1,141,260; June 1; Gaz. vol. 215; p. 60.

Pansegrau, Paul M. (See Pansegrau, Gustav C., assignor.)

Pape, Hermann, Oker-in-the-Harz, Germany. Furnace for working up ores. No. 1,144,053; June 22; Gaz. vol. 215; p. 1138.

Pape, Hermann, Oker-in-the-Harz, Germany. Reduction-furnace. No. 1,144,054; June 22; Gaz. vol. 215; p. 1138.

Papini, Anthony, South Bethlehem, assignor of forty one-hundredths to E. Liedke, Allentown, Pa. Gas-burner and valve-actuating mechanism. No. 1,142,454; June 8; Gaz. vol. 215; p. 519.

Pappadakes, Gust P., New York, N. Y. Resilient wheel. No. 1,142,907; June 15; Gaz. vol. 215; p. 714.

Paquet, Pierre J., Salem, W. Va. Glass-drawing apparatus. No. 1,144,234; June 22; Gaz. vol. 215; p. 1203.

Paquette, Herman A., assignor to H. A. P. Cooking Utensil Mfg. Co., Chicago, Ill. Cooking utensil. No. 1,142,052; June 8; Gaz. vol. 215; p. 376.

Paramount Knitting Company. (See Randall, Edison E., assignor.)

Paranjape, Anant B. (See Kallanjee and Paranjape.)

Pardey, Alfred O. (See Keene, George F., assignor.)

Parent, Ludger M., Boston, Mass. Beverage-mixer. No. 1,141,207; June 1; Gaz. vol. 215; p. 42.

Parisho, George W., assignor of one-half to J. G. Leacher, St. Louis, Mo. Clamp for concrete-forms. No. 1,144,778; June 29; Gaz. vol. 215; p. 1417.

Park, William H., New York, N. Y., assignor, by mesne assignments, to E. R. Squibb & Sons Research & Biological Laboratories. Serum-container. No. 1,143,855; June 22; Gaz. vol. 215; p. 1068.

Parker, Arthur M. (See Elliott, Harvey, assignor.)

Parker, Daniel W., Everett, Wash. Stone-sawing machine. No. 1,143,856; June 22; Gaz. vol. 215; p. 1069.

Parker, Elijah. (See Redding, Jerome, assignor.)

Parker, Pitman W., San Diego, Cal. Machine for making tile or pipe. No. 1,142,616; June 8; Gaz. vol. 215; p. 573.

Parker, Thomas R. G. (See Pearce, Parker, and Wright.)

Parker Wire Goods Company. (See Bryning, Percy L., assignor.)

Parkes, Bertrand A., Barren Hill, assignor to The Philadelphia Drying Machinery Company, Philadelphia, Pa. Fabric-tube-opening device. No. 1,141,883; June 1; Gaz. vol. 215; p. 277.

Parkhurst, Edward B., and L. W. Witry, assignors to The Waterloo Gasoline Engine Company, Waterloo, Iowa. Friction-clutch. No. 1,143,063; June 15; Gaz. vol. 215; p. 769.

Parkinson, John A., Sioux City, Iowa. Motor-starter. No. 1,141,261; June 1; Gaz. vol. 215; p. 60.

Parmly, Eleazar, Jr., Washington, D. C., assignor to Elliott-Fisher Company, Harrisburg, Pa. Tabulating, back-spacing, key-connecting, and color-selecting mechanism. No. 1,143,223; June 15; Gaz. vol. 215; p. 827.

Parr, Harry L. (See Keller, Warman, and Parr.)

Parrish, James S., assignor to Richmond Cedar Works, Richmond, Va. Ice-cream freezer. No. 1,144,667; June 29; Gaz. vol. 215; p. 1378.

Parrott & Company. (See Wiet, Eugene, assignor.)

Parsons, Adin, Bondi, near Sydney, New South Wales, Australia. Reed-organ pipe. No. 1,141,262; June 1; Gaz. vol. 215; p. 61.

Parsons, Charles A., Newcastle-upon-Tyne, and S. S. Cook, Wallsend-upon-Tyne, England; said Cook assignor to said Parsons. Surface condenser. No. 1,144,235; June 22; Gaz. vol. 215; p. 1204.

Parsons, Charles A., A. Q. Carnegie, and G. L. Parsons, Newcastle-upon-Tyne, England; said G. L. Parsons and A. Q. Carnegie assignors to said Charles A. Parsons. Valve-controlling device. No. 1,141,824; June 1; Gaz. vol. 215; p. 258.

Parsons, Emory, Lakewood, Ohio. Receptacle-holder. No. 1,144,055; June 22; Gaz. vol. 215; p. 1139.

Parsons, Geoffry L. (See Parsons, Carnegie, and Parsons.)

Patten, Ernest L., Malden, assignor to Wellman Company, Medford, Mass. Machine for cutting forms. No. 1,144,429; June 29; Gaz. vol. 215; p. 1299.

Patterson-Allen Engineering Company. (See Patterson, Franklin M., assignor.)

Patterson-Allen Engineering Company. (See Riegel, Samuel S., assignor.)

Patterson, Charles A., assignor of one-third to E. B. Clark and one-third to H. C. Hazzard, Baltimore, Md. Locking attachment for valves. No. 1,144,056; June 22; Gaz. vol. 215; p. 1139.

Patterson, Franklin M., Philadelphia, Pa., assignor to Patterson-Allen Engineering Company, Valve. No. 1,144,968; June 29; Gaz. vol. 215; p. 1482.

Patterson, John J., Couer d'Alene, Idaho. Tool. No. 1,142,617; June 8; Gaz. vol. 215; p. 574.

Patterson, Joseph W. (See Delaney and Patterson.)

Pattison, Albert W., assignor to Grinnell Electric Car Co., Detroit, Mich. Vehicle-seat. No. 1,143,310; June 15; Gaz. vol. 215; p. 857.

Patton, William G., Seattle, Wash. Cutting device. No. 1,143,857; June 22; Gaz. vol. 215; p. 1069.

Paul, Abram F., Philadelphia, Pa., and A. J. Tanner, North Haven, Conn., assignors to Prepayment Car Sales Company, New York, N. Y. Passenger-vehicle. No. 1,141,408; June 1; Gaz. vol. 215; p. 116.

Paulauski, John, Chicago, Ill. Ship's fender. No. 1,141,577; June 1; Gaz. vol. 215; p. 175.

Pauley, Henry F., Sacramento, Cal. Bolt. No. 1,142,618; June 8; Gaz. vol. 215; p. 574.

Paull, Samuel. (See Ellman and Paull.)

Paupa, Joseph, and G. F. Hochriem, Chicago, Ill. Weighing mechanism. No. 1,143,224; June 15; Gaz. vol. 215; p. 827.

Paus, Rudolph H., Shipley, England. Flushing-cistern. No. 1,142,118; June 8; Gaz. vol. 215; p. 400.

Paxson, Jonathan V. (See Wolz and Paxson.)

Payeur, Benjamin, Winona, Minn. Take-down vapor-bath cabinet. No. 1,144,861; June 29; Gaz. vol. 215; p. 1446.

Peacock, Edward L., Wallsend-upon-Tyne, England. Safety device for submarines or submersible boats. No. 1,143,131; June 15; Gaz. vol. 215; p. 792.

Peacock, Samuel, Chicago, Ill., assignor, by mesne assignments, to Agricultural Research Corporation, New York, N. Y. Fixing atmospheric nitrogen. No. 1,143,132; June 15; Gaz. vol. 215; p. 793.

Pearce, Herbert, and J. E. Billington, Broadheath, assignors to Linotype and Machinery Limited, London, England. Typographical composing-machine. No. 1,141,208; June 1; Gaz. vol. 215; p. 42.

Pearce, Herbert, T. R. G. Parker, and F. W. Wright, Broadheath, assignors to Linotype and Machinery Limited, London, England. Control of the tripping mechanism of a printing-press. No. 1,142,268; June 8; Gaz. vol. 215; p. 452.

Pearce, Leon D., Phelps, N. Y. Safety-hook. No. 1,144,377; June 29; Gaz. vol. 215; p. 1280.

Pearce, William H., Philadelphia, Pa. Gas or vapor stove. No. 1,144,722; June 29; Gaz. vol. 215; p. 1398.

Pearman, Henry M., Oxford, England. Apparatus for washing crockery. No. 1,143,858; June 22; Gaz. vol. 215; p. 1069.

Pearson, Henry, Springfield, Mass., and J. Renfrew, Habana, Cuba. Adjustable hinge. No. 1,144,057; June 22; Gaz. vol. 215; p. 1139.

Pearson, Newton W., Sylvania, Ga. Axle attachment for automobiles. No. 1,144,562; June 29; Gaz. vol. 215; p. 1342.

Pearson, Otto, Mount Jewett, Pa. Means for connecting the front ends of sled-runners. No. 1,144,563; June 29; Gaz. vol. 215; p. 1343.

Pearson, Victor J. (See Johnson and Pearson.)

Pease, Charles, Beverly, Mass., assignor to United-Xpedite Finishing Company, Berwick, Me. Machine for wax-treating parts of boots and shoes. No. 1,141,263; June 1; Gaz. vol. 215; p. 61.

Peerless Check Protecting Company. (See Sampson, Charles H., assignor.)

Peerless Silo Supply Co. (See Rasmussen, Andrew, assignor.)

Peirce, William E., San Francisco, Cal. Transmitter or reproducer. No. 1,144,236; June 22; Gaz. vol. 215; p. 1204.

Pelton, Clyde S., Cleveland, Ohio. Clevis-link connection. No. 1,142,979; June 15; Gaz. vol. 215; p. 740.

Pembroke, Charles J., Rochester, N. Y. Automobile. No. 1,143,777; June 22; Gaz. vol. 215; p. 1041.

Pembroke, Charles J., Rochester, N. Y. Distributing-valve starting mechanism for explosive-engines. No. 1,143,778; June 22; Gaz. vol. 215; p. 1041.

Pembroke, Charles J., Rochester, N. Y. Carbureter. No. 1,143,779; June 22; Gaz. vol. 215; p. 1041.

Penberthy Injector Co. (See Valboe, Peter P., assignor.)

Penfield, Raymond C., New York, N. Y. Brick-lifting apparatus. No. 1,144,779; June 29; Gaz. vol. 215; p. 1418.

Pennell, Dale, *et al.* (See Eckenwiler, George M., assignor.)

Pennell, Vincent, *et al.* (See Eckenwiler, George M., assignor.)

Peoples, Elmer E., and R. E. Lee, New Comerstown, Ohio. Adjustable culvert-form. No. 1,144,862; June 29; Gaz. vol. 215; p. 1446.

Peoples, James E., Alva, Okla. Educational appliance. No. 1,141,409; June 1; Gaz. vol. 215; p. 116.

Peot, Nicholas A., Jr., Green Bay, Wis. Foot-rest for radiators. No. 1,143,859; June 22; Gaz. vol. 215; p. 1069.

Percy, Herbert J., Lynn, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Shoe. No. 1,141,911; June 1; Gaz. vol. 215; p. 290.

Percy, Herbert J., Lynn, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Manufacture of welt-shoes. No. 1,141,912; June 1; Gaz. vol. 215; p. 290.

Perfection Razor Strop Company. (See Browning, George, assignor.)

Perfection Spring Company, The. (See McIntyre, Michael M., assignor.)

Perkin, William H., C. Weizmann, and H. Davies, Manchester, England. Manufacture of halogen derivatives of organic compounds. No. 1,144,237; June 22; Gaz. vol. 215; p. 1204.

Perkins, Charles, Bridgewater, Mass. Pneumatic turbine-grinder. No. 1,143,064; June 15; Gaz. vol. 215; p. 770.

Perkins Electric Switch Manufacturing Company, The. (See Goodridge, Gilbert W., assignor.)

Perkins Glue Company. (See Haberle and Stryker, assignors.)

Perky, Henry D., deceased, Glencoe, Md.; L. Sparks, administrator, assignor, by mesne assignments, to The Shredded Wheat Company, Niagara Falls, N. Y. Means for reducing cereal products to form. No. 1,143,311; June 15; Gaz. vol. 215; p. 857.

Perry, Eugene L., New York, N. Y., assignor to American Stopper Company. Can-body-making machine. No. 1,143,065; June 15; Gaz. vol. 215; p. 770.

Perry, Frank, Fresno, Cal. Carbureter. No. 1,142,763; June 8; Gaz. vol. 215; p. 623.

Perry, William M., Columbia, S. C. Signaling system. No. 1,143,313; June 15; Gaz. vol. 215; p. 858.

Perry, William M., and A. E. Boozer, Columbia, S. C. Signaling-circuit. No. 1,143,312; June 15; Gaz. vol. 215; p. 857.

Perry, William R., Hazleton, Pa. Street-cleaner. No. 1,143,133; June 15; Gaz. vol. 215; p. 793.

Peter, Grace F., Chicago, Ill. Clothes-hanger. No. 1,144,058; June 22; Gaz. vol. 215; p. 1140.

Peter, Stephen, Omaha, assignor of one-half to C. C. Campbell, Hastings, Nebr. Soil-receptacle for water-closets. No. 1,141,976; June 8; Gaz. vol. 215; p. 348.

Petermann, Otto, Groton, N. Y., assignor to Corona Typewriter Company, Incorporated. Keyboard for typewriting machines. No. 1,144,238; June 22; Gaz. vol. 215; p. 1205.

Peters, Henry, Rahway, N. J. Reproducing pictures. No. 1,143,860; June 22; Gaz. vol. 215; p. 1070.

Peters, Marcus W., La Fayette, assignor of one-half to M. Murphy, Manlius, N. Y. Wheel-driving mechanism. No. 1,141,578; June 1; Gaz. vol. 215; p. 176.

Peterson, Carl H., Denver, Colo. Garter-supporter. No. 1,142,201; June 8; Gaz. vol. 215; p. 428.

Peterson, Edwin L., assignor to Pressed Steel Truck Company, Pittsburgh, Pa. Platform-truck. No. 1,143,134; June 15; Gaz. vol. 215; p. 793.

Peterson, Fred C., Clermont, Pa. Steam-generating system. No. 1,144,059; June 22; Gaz. vol. 215; p. 1140.

Pethoud, Leonidas, Beatrice, Nebr. Feed-grinder. No. 1,141,825; June 1; Gaz. vol. 215; p. 258.

Petri, Gunther H., Boston, Mass. Forming-machine. No. 1,141,884; June 1; Gaz. vol. 215; p. 278.

Petter, George E. (See Schaefer, Ernst, assignor.)

Pettit, Lyman D., Everett, Wash. Lubricant. No. 1,143,724; June 22; Gaz. vol. 215; p. 1023.

Petty, John P., Reading, England. Temporary binder or loose-sheet holder. No. 1,142,455; June 8; Gaz. vol. 215; p. 520.

Petz, Henrik, Budapest, Austria-Hungary. Apparatus for adjusting multiple-cutter holder of turning-lathes. No. 1,142,362; June 8; Gaz. vol. 215; p. 485.

Peyton, William E., Sherman, Okla. Collapsible egg-case. No. 1,141,357; June 1; Gaz. vol. 215; p. 96.

Pfeiffer, Charles C., assignor to Keuffel & Esser Company, Hoboken, N. J. Parallel-ruler. No. 1,141,483; June 1; Gaz. vol. 215; p. 142.

Pfenninger Pretzel & Baking Company. (See Schaetzel, George H., assignor.)

Pfistner, Frank G. (See Zuck and Pfistner.)

Pflager, Harry M. (See Howard and Pflager.)

Pfluger, Frank X., Portland, Oreg. Roller-head. No. 1,142,202; June 8; Gaz. vol. 215; p. 429.

Phelps, James C., Springfield, Mass. Terminal fitting for electric conduits. No. 1,141,484; June 1; Gaz. vol. 215; p. 143.

Phenix, Leroy C., Los Angeles, Cal. Davenport. No. 1,142,053; June 8; Gaz. vol. 215; p. 376.

Philadelphia Drying Machinery Company, The. (See Allsop and Sibson, assignors.)

Philadelphia Drying Machinery Company, The. (See Parkes, Bertrand A., assignor.)

Philadelphia Holding Company. (See Stevenson, William H., assignor.)

Philadelphia Textile Machinery Company, The. (See Coulston, Harry, assignor.)

Philadelphia Textile Machinery Company, The. (See Coulston and Schwartz, assignors.)

Philip Carey Manufacturing Company, The. (See Moeller, William J., assignor.)

Philipp Röder-Bruno Raabe, A. G. (See Pum and Glaessner, assignors.)

Phillipp, William E., Baltimore, Md. Machine for painting tin and other metals. No. 1,141,209; June 1; Gaz. vol. 215; p. 42.

Phillips, Andrew, Conemaugh, Pa. Reversible rotary steam-engine. No. 1,142,726; June 8; Gaz. vol. 215; p. 609.

Phillips, Darius T., Chicago, Ill. Derrick. No. 1,143,314; June 15; Gaz. vol. 215; p. 858.

Phillips, George L., Rochester, N. Y. Rod-packing. No. 1,142,980; June 15; Gaz. vol. 215; p. 740.

Phillips, Herman A. (See Spanovic, Ninko, assignor.)

Phillips, Robert B., Dublin, N. C. Elevated carrier. No. 1,144,060; June 22; Gaz. vol. 215; p. 1140.

Phillips, William W., St. Louis, assignor to Buffum Tool Company, Louisiana, Mo. Type-writing machine. No. 1,142,363; June 8; Gaz. vol. 215; p. 486.

Phyfe, Benjamin P. (See Phyfe, Llewellyn H., assignor.)

Phyfe, Llewellyn H., Tallman, N. Y., assignor to B. P. Phyfe, Haworth, N. J. Toy. No. 1,144,723; June 29; Gaz. vol. 215; p. 1399.

Pickard, Greenleaf W., Amesbury, Mass. Radio telegraphy and telephony receiver. No. 1,144,969; June 29; Gaz. vol. 215; p. 1482.

Pickens, Myron W., *et al.* (See Kempff and Smith, assignors.)

Pickett, Lafayette E., St. Louis, Mo. Resilient tire. No. 1,143,994; June 22; Gaz. vol. 215; p. 1117.

Pickford, James, Oldham, England. Guard for self-acting mules and twiners. No. 1,144,500; June 29; Gaz. vol. 215; p. 1322.

Pickup, George E., assignor to The Wehrle Company, Newark, Ohio. Core-making apparatus. No. 1,143,861; June 22; Gaz. vol. 215; p. 1070.

Pierce-Arrow Motor Car Company, The. (See Younger, John, assignor.)

Pierson, Elias. (See Hardisty, Henry, assignor.)

Pierson, Frank S., New York, N. Y. Aerial toy. No. 1,144,914; June 29; Gaz. vol. 215; p. 1463.

Pine, Wilber J., Oshkosh, Wis. Bed-bottom-fabric-assembling machine. No. 1,141,140; June 1; Gaz. vol. 215; p. 17.

Pinkerton, Edward E., Chicago, Ill. Box. No. 1,143,551; June 15; Gaz. vol. 215; p. 939.

Pinto, Jacob C., assignor of one-half to H. Gilmour, San Jose, Cal. Adjustable support for motor-cycles and the like. No. 1,143,780; June 22; Gaz. vol. 215; p. 1042.

Pirani, Marcello von. (See Feuerlein and Pirani.)

Pirson, George H., Buffalo, N. Y. Angle-brace. No. 1,141,210; June 1; Gaz. vol. 215; p. 43.

Pittsburgh Plate Glass Company. (See Slingluff, Harry G., assignor.)

Plante, Arthur G., Anoka, Minn. Attachment for boxes. No. 1,143,066; June 15; Gaz. vol. 215; p. 771.

Plante, Oliver N., Lowville, N. Y. Combination-tool. No. 1,141,141; June 1; Gaz. vol. 215; p. 18.

Platt, Lewis A., Waterbury, Conn. Valve. No. 1,143,225; June 15; Gaz. vol. 215; p. 828.

Plopper, James A., Portland, Oreg. Change-making and coin-dispensing machine. No. 1,141,410; June 1; Gaz. vol. 215; p. 116.

Podmore, Thomas, Wilkes-Barre, Pa. Window attachment. No. 1,141,579; June 1; Gaz. vol. 215; p. 176.

Poetter, Heinrich, Dusseldorf, Germany. Blowing system for furnaces. No. 1,141,652; June 1; Gaz. vol. 215; p. 201.

Poland, Edward F., Boston, Mass. Mechanical toy. No. 1,143,315; June 15; Gaz. vol. 215; p. 859.

Pollock, Roy S. (See Conway, Thomas W., assignor.)

Pomaville, Cephres R., assignor to The Michigan Stove Company, Detroit, Mich. Air and gas mixing device. No. 1,144,501; June 29; Gaz. vol. 215; p. 1322.

Pool, David A., Maceo, Ky. Automatic train-order crane. No. 1,141,411; June 1; Gaz. vol. 215; p. 117.

Pool, Elmer C., New Castle, Pa. Manipulation of sheet-metal plates. No. 1,141,412; June 1; Gaz. vol. 215; p. 118.

Poole, John H., Avon, assignor to Reinforced Inner Tube Company, Brockton, Mass. Inner tube for pneumatic tires. No. 1,144,239; June 22; Gaz. vol. 215; p. 1205.

Poor, Gilbert H., Milwaukee, Wis. Safety storage-receptacle for combustible liquids. No. 1,143,646; June 22; Gaz. vol. 215; p. 997.

Poppenhusen, Herman A., Hammond, Ind. Elevation-adjusting means for chain grates. No. 1,144,502; June 29; Gaz. vol. 215; p. 1322.

Porges, Philipp, Vienna, Austria-Hungary. Crude-oil preheater. No. 1,144,780; June 29; Gaz. vol. 215; p. 1418.

Porter, John H., Atlanta, Ga. Fuel-feeding apparatus. No. 1,142,364; June 8; Gaz. vol. 215; p. 486.

Portmann, Roy W., Norwood, Ohio. Drink-mixing machine. No. 1,141,358; June 1; Gaz. vol. 215; p. 96.

Positive Supply Company. (See Huber, Charles S., assignor.)

Posse, Gustav E., assignor to The Jaenecke Printing Ink Co., Newark, N. J. Printing-ink. No. 1,142,365; June 8; Gaz. vol. 215; p. 486.

Posson, Edward, Chicago, Ill. Car-framework. No. 1,144,378; June 29; Gaz. vol. 215; p. 1281.

Post, Charles B., New London, Ohio. Stair-rod. No. 1,142,366; June 8; Gaz. vol. 215; p. 486.

Pothier, Frederick G., Elmira, N. Y. Automobile-fender. No. 1,142,456; June 8; Gaz. vol. 215; p. 520.

Potter, E. L. (See Hiskey, George M., assignor.)

Potter, Joseph L., Indianapolis, Ind. Excavating and conveying apparatus. No. 1,142,457; June 8; Gaz. vol. 215; p. 520.

Potterf, Orlystis M., Larned, Kans., assignor to M. M. Henderson, Norwalk, Conn. Combination-garment. No. 1,144,240; June 22; Gaz. vol. 215; p. 1205.

Pottsgrove, Philip N., Altoona, Pa. Traction device for automobiles. No. 1,142,727; June 8; Gaz. vol. 215; p. 609.

Poullain, Augustin G., and D. H. J. Cornet, Paris, France. Optical lens. No. 1,143,316; June 15; Gaz. vol. 215; p. 859.

Poulson, Lester C., and A. J. Buchanan, Birdsnest, Va. Mail-bag retainer for mail-cranes. No. 1,144,241; June 22; Gaz. vol. 215; p. 1206.

Poulson, Oluff, Brigham, Utah. Drain-tile molder. No. 1,144,863; June 29; Gaz. vol. 215; p. 1447.

Pounder, George H., Fort Atkinson, Wis. Sectional draw-bar for harrows. No. 1,144,503; June 29; Gaz. vol. 215; p. 1323.

Powell, Charles H., Dalkena, Wash. Head-block. No. 1,142,981; June 15; Gaz. vol. 215; p. 741.

Powell, David, Murray, Utah. Gate. No. 1,144,564; June 29; Gaz. vol. 215; p. 1343.

Power, Alexander C., Pendleton, Oreg. Switch-box. No. 1,141,359; June 1; Gaz. vol. 215; p. 97.

Powers, Fred, Marshfield, Oreg. Safety choker-hook. No. 1,144,430; June 29; Gaz. vol. 215; p. 1299.

Prahar, Louis B., Massapequa, N. Y. Bag-jaw fastener. No. 1,143,226; June 15; Gaz. vol. 215; p. 828.

Prahl, Hugo, Dusseldorf, assignor to Rheinische Metallwaaren- und Maschinenfabrik, Dusseldorf-Derendorf, Germany. Combined time and percussion fuse. No. 1,144,242; June 22; Gaz. vol. 215; p. 1206.

Prahl, Hugo, Dusseldorf, assignor to Rheinische Metallwaaren- und Maschinenfabrik, Dusseldorf-Derendorf, Germany. Percussion-fuse with an adjustable retardation device. No. 1,144,243; June 22; Gaz. vol. 215; p. 1206.

Pratt, Alphonso C., Glen Ridge, N. J. Machine for making link mesh. No. 1,144,724; June 29; Gaz. vol. 215; p. 1399.

Pratt & Whitney Company. (See Müller, Friedrich, assignor.) (Reissue.)

Preator, Eugene, Burlington, Wyo. Wire-stretching machine. No. 1,142,908; June 15; Gaz. vol. 215; p. 714.

Prein, Emil, Hanover, assignor to Prein-Gewebe Actien-Gesellschaft, Hanover-Linden, Germany. Apparatus for cleaning yarn. No. 1,144,864; June 29; Gaz. vol. 215; p. 1447.

Prein-Gewebe Actien-Gesellschaft. (See Prein, Emil, assignor.)

Prenovich, Israel N., New York, N. Y. Lady's hat-pin. No. 1,144,565; June 29; Gaz. vol. 215; p. 1343.

Prenzel, Adam H., Halifax, Pa., assignor to United Shoe Machinery Company, Paterson, N. J. Welt laying and attaching machine. No. 1,142,119; June 8; Gaz. vol. 215; p. 401.

Prepayment Car Sales Company. (See Paul and Tanner, assignors.)

Prescott, De Witt C., Chicago, Ill. Valve-controller. No. 1,142,054; June 8; Gaz. vol. 215; p. 377.

Prescott, Sydney I., Brooklyn, N. Y. Carbureter. No. 1,143,227; June 15; Gaz. vol. 215; p. 828.

Prescott, Sydney I., Brooklyn, assignor to Motorflex Equipment Company, New York, N. Y. Universal joint. No. 1,141,211; June 1; Gaz. vol. 215; p. 43.

Pressed Steel Truck Company. (See Peterson, Edwin L., assignor.)

Preston, Charles A., *et al.* (See Bennett, Edward O., assignor.)

Price, Charles W., St. Louis, Mo. Shock-absorber. No. 1,141,264; June 1; Gaz. vol. 215; p. 62.

Price, Twiggs, Bucyrus, Ohio. Lawn-mower. No. 1,144,244; June 22; Gaz. vol. 215; p. 1206.

Pritchard, Irvin L., Baltimore, Md. Chalk-holder. No. 1,142,458; June 8; Gaz. vol. 215; p. 521.

Pritchard, Nathaniel J., Point Richmond, Cal. Micrometer pump-valve gage. No. 1,144,061; June 22; Gaz. vol. 215; p. 1140.

Pritham, Henry C., assignor to Union Metallic Cartridge Company, Bridgeport, Conn. Waterproof shot-cartridge. No. 1,144,379; June 29; Gaz. vol. 215; p. 1281.

Probert, Edwin R., assignor to The Moeschl-Edwards Corrugating Company, Covington, Ky. Sheet-metal roofing. No. 1,144,725; June 29; Gaz. vol. 215; p. 1399.

Procter and Gamble Company, The. (See Carr, Albert B., assignor.)

Proeger, Julius, Pittsburgh, assignor of one-half to C. N. Brady, Washington, Pa. Glass-mold lock. No. 1,141,653; June 1; Gaz. vol. 215; p. 202.

Proeger, Luis W., Pittsburgh, Pa. Delivering molten glass to molds. No. 1,143,317; June 15; Gaz. vol. 215; p. 859.

Proskauer, Bertbold, Berlin, and A. Irrgang, Baumschulenweg, near Berlin, Germany. Apparatus for making dental crowns and molar projections. No. 1,143,432; June 15; Gaz. vol. 215; p. 900.

Providence Blower Company. (See O'Connor, Martin A., assignor.)

Pruden, Daniel R., Revere, and D. W. Wormwood, Chelsea, Mass. Knockdown barrel. No. 1,142,269; June 8; Gaz. vol. 215; p. 453.

Prutzman, Edward, Lewisburg, Pa. Device for opening envelops. No. 1,141,142; June 1; Gaz. vol. 215; p. 18.

Ptak, Stanislaw, and A. Sadlik, Kewanee, Ill. Mail-box. No. 1,144,566; June 29; Gaz. vol. 215; p. 1343.

Pum, Gustav, Gratz, and A. Glaessner, assignors to Phillipp Röder-Bruno Raabe, A. G., Vienna, Austria-Hungary. Manufacturing artificial sponge. No. 1,142,619; June 8; Gaz. vol. 215; p. 575.

Purdie, Alexander, Wyandotte, Mich. Antiskidding device. No. 1,142,909; June 15; Gaz. vol. 215; p. 714.
Purdy, George C., and D. W. Edwards, assignors to Greenlee Bros. & Company, Rockford, Ill. Machine for adzing and boring ties. No. 1,141,886; June 1; Gaz. vol. 215; p. 279.
Purdy, George C., and D. W. Edwards, assignors to Greenlee Bros. & Company, Rockford, Ill. Tie-gaining machine. No. 1,141,887; June 1; Gaz. vol. 215; p. 279.
Putnam, George E., New York, N. Y. Float-operated valve. No. 1,142,910; June 15; Gaz. vol. 215; p. 715.
Putnam, Waldo D., New York, N. Y. Door-check. No. 1,141,485; June 1; Gaz. vol. 215; p. 143.
Pyle-National Electric Headlight Company. (See Kilker and Dake, assignors.)
Pyle, William B., Robinson, Ill. Water-circulating system for explosive-engines. No. 1,142,055; June 8; Gaz. vol. 215; p. 377.
Pyrene Manufacturing Company. (See MacGregor, Peter G., assignor.)
Queen Manufacturing Company. (See Burnell and Lavender, assignors.)
Quennard, George H., Allendale, N. J. Tire. No. 1,143,781; June 22; Gaz. vol. 215; p. 1042.
Quick, Alfred A. (See Bronner and Quick.)
Quiggle, George E., Fruitdale, Ala. Extension car-steps. No. 1,143,433; June 15; Gaz. vol. 215; p. 901.
Quigley, Edward J., New York, N. Y. Combination-garment. No. 1,141,486; June 1; Gaz. vol. 215; p. 143.
Quigley, Edward J., Newark, N. J. Combination-garment. No. 1,143,228; June 15; Gaz. vol. 215; p. 829.
R. Neuman Hardware Co., The. (See Hammesfahr, Julius, assignor.)
R. J. Dowd Knife Works. (See North, Ray A., assignor.)
Racine Aluminum Shoe Company. (See Trolle, Sofus, assignor.)
Rackstraw, Albert V., Bedford, Ohio, assignor, by mesne assignments, to The Mechanical Development Company. Cow-milking machine. No. 1,144,380; June 29; Gaz. vol. 215; p. 1281.
Radcliffe, Benjamin D., Chicago, Ill., assignor to American Lock Nut Company. Lock-nut. No. 1,143,229; June 15; Gaz. vol. 215; p. 829.
Radcliffe, Thomas H., Brooklyn, N. Y. Ball-cock. No. 1,142,620; June 8; Gaz. vol. 215; p. 575.
Rader, August C., Upper Montclair, N. J. Car-seat. No. 1,142,203; June 8; Gaz. vol. 215; p. 429.
Radiguer, Charles, assignor to The Societe Anonyme des Etablissements Delaunay-Belleville, St.-Denis, France. Excess-lubricant-collecting means for engine-cylinders. No. 1,143,014; June 22; Gaz. vol. 215; p. 1087.
Radlein, Albert L., and G. Selander, Chicago, Ill. Rotary polishing-brush. No. 1,141,143; June 1; Gaz. vol. 215; p. 18.
Radley, Guy R., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. Motor-controller. No. 1,144,431; June 29; Gaz. vol. 215; p. 1299.
Raduechel, William, Bloomfield, Nebr. Draft-equalizer. No. 1,144,915; June 29; Gaz. vol. 215; p. 1463.
Raettig, Alfred W., Sturgis, Mich. Metallic resilient tire. No. 1,143,995; June 22; Gaz. vol. 215; p. 1117.
Rahne, Leonard, *et al.* (See Yulill, James, assignor.)
Rail Joint Company, The. (See Braine, Bancroft G., assignor.)
Rail Joint Company, The. (See Schermerhorn, Edward F., assignor.)
Railway Electric Manufacturing Co. (See Rugh, Harry O., assignor.)
Raleigh, Frederick E., Strong City, Kans. Mixer and spreader for concrete and other plastic materials. No. 1,142,841; June 15; Gaz. vol. 215; p. 690.
Rand, James H., Jr., North Tonawanda, N. Y. Card-index system. No. 1,142,728; June 8; Gaz. vol. 215; p. 610.
Randall, Edison E., Kankakee, assignor to Paramount Knitting Company, Chicago, Ill. Knitting-machine. No. 1,143,552; June 15; Gaz. vol. 215; p. 939.
Randall, Thomas C., Newport, R. I. Hair-drying frame. No. 1,141,826; June 1; Gaz. vol. 215; p. 258.
Randall, Thomas L., and G. W. Lester, Centerville, Mo. Wire-fence clamp. No. 1,144,432; June 29; Gaz. vol. 215; p. 1300.
Randall, Victor E., assignor of one-half to H. E. Russell, Battle Creek, Mich. Manufacture of cement burial cases. No. 1,144,970; June 29; Gaz. vol. 215; p. 1482.
Raney, Joseph H. (See Laird and Raney.)
Raney-Laird Petroleum Dehydrating Company. (See Laird and Raney, assignors.)
Ransing, Henry E., *et al.* (See Mentzer, Oliver A., assignor.)
Rapp, William M., Atlanta, Ga. Catch-basin. No. 1,143,915; June 22; Gaz. vol. 215; p. 1088.
Rappaport, Paul, New York, N. Y. Display-cover for boxes. No. 1,141,144; June 1; Gaz. vol. 215; p. 18.
Raschig, Fritz, Ludwigshafen-on-the-Rhine, Germany. Process and apparatus for continuous distillation. No. 1,141,265; June 1; Gaz. vol. 215; p. 62.
Raschig, Fritz, Ludwigshafen-on-the-Rhine, Germany. Absorption and reaction tower for acids, &c. No. 1,141,266; June 1; Gaz. vol. 215; p. 62.
Rasmussen, Andrew, Racine Junction, assignor to Peerless Silo Supply Co., Racine, Wis. Hoop for silos and like tanks. No. 1,141,413; June 1; Gaz. vol. 215; p. 118.
Rasmussen, Andrew M. (See Tuller and Rasmussen.)
Rasmussen, Frederick W., Pahiatua, New Zealand. Automatically-folding seat. No. 1,141,724; June 1; Gaz. vol. 215; p. 226.
Rateau, Battu, Smoot Company. (See Smoot, Charles H., assignor.)
Rathbone, Sard & Company. (See Allen, Ernest J., assignor.)
Rathbun, William L., assignor to Panama Banana Food Company, New York, N. Y. Banana-peeler and peeling bananas. No. 1,143,135; June 15; Gaz. vol. 215; p. 794.
Rathjen, William L., Portland, Oreg. Nursing-bottle holder. No. 1,142,729; June 8; Gaz. vol. 215; p. 610.
Ravel, Louis, Besançon, France. Driving mechanism for motor-cars. No. 1,142,621; June 8; Gaz. vol. 215; p. 575.
Ravlin, Frederick J., and J. Lofgren, Chicago, Ill. Plug-switch. No. 1,144,781; June 29; Gaz. vol. 215; p. 1418.
Ray, Albert D., and C. N. Russell, Cleveland, Ohio. Bottle-capping machine. No. 1,141,267; June 1; Gaz. vol. 215; p. 63.
Ray, Gabriel F., Roswell, N. Mex. Dish-washer. No. 1,141,414; June 1; Gaz. vol. 215; p. 118.
Raymond, Nelson H., Buffalo, N. Y., assignor to Clifton Manufacturing Company, Boston, Mass. Making pipes for electrical conduits. No. 1,143,916; June 22; Gaz. vol. 215; p. 1088.
Rayvio Water Company. (See Wagner, Walter, assignor.)
Ré, Eugene, St. Louis, Mo. Non-refillable bottle. No. 1,141,487; June 1; Gaz. vol. 215; p. 143.
Rea, Henry P. (See Wilson, Homer S., assignor.)
Read, Orrin B., Troy, N. Y. Rein-supporter. No. 1,141,488; June 1; Gaz. vol. 215; p. 144.
Reardon, Jeremiah P., Coatesville, Pa. Punching and shearing machine. No. 1,143,434; June 15; Gaz. vol. 215; p. 901.
Reber, James C., Reading, Pa. Antifriction-bearing. No. 1,144,245; June 22; Gaz. vol. 215; p. 1207.
Rebstein, Jakob, Winterthur, assignor to Aktiengesellschaft Brown Boveri & Cie., Baden, Switzerland. Driving of vehicles. No. 1,144,246; June 22; Gaz. vol. 215; p. 1207.
Rebtoy, Charles F., Flint, Mich. Railway-switch. No. 1,144,247; June 22; Gaz. vol. 215; p. 1207.
Recording Register & Fare Box Company, The. (See Huntington, Samuel P., assignor.)
Recording Register & Fare Box Company, The. (See Kennedy, Frank B., assignor.)
Rector, Alcorn, assignor to Rector Gas Lamp Company, New York, N. Y. Heating apparatus. No. 1,143,553; June 15; Gaz. vol. 215; p. 940.
Rector, Alcorn, assignor to Rector Gas Lamp Company, New York, N. Y. Method of combustion. No. 1,144,782; June 29; Gaz. vol. 215; p. 1419.
Rector, Alcorn, assignor to Rector Gas Lamp Company, New York, N. Y. Combustion apparatus. No. 1,144,783; June 29; Gaz. vol. 215; p. 1419.
Rector, Alcorn, assignor to Rector Gas Lamp Company, New York, N. Y. Jetting method of combustion. No. 1,144,784; June 29; Gaz. vol. 215; p. 1419.
Rector, Alcorn, assignor to Rector Gas Lamp Company, New York, N. Y. Combustion apparatus. No. 1,144,785; June 29; Gaz. vol. 215; p. 1420.
Rector Gas Lamp Company. (See Rector, Alcorn, assignor.)
Reddick, John E., Philadelphia, Pa. Polishing-mitt. No. 1,141,580; June 1; Gaz. vol. 215; p. 176.
Redding, Jerome, Malden, assignor of one-half to E. Parker, Boston, Mass. Storage-battery element and making the same. No. 1,144,311; June 22; Gaz. vol. 215; p. 1229.
Reddy, Gerrard M., Bowie, La. Track-cleaner for saw mill-carriages. No. 1,144,916; June 29; Gaz. vol. 215; p. 1463.
Reece, Hosea E., McMechen, W. Va. Draft-regulator. No. 1,143,917; June 22; Gaz. vol. 215; p. 1088.
Reed, Alfred L., and T. S. Gettle, Anderson, Ind.; said Gettle assignor to said Reed. Cheese-cutter. No. 1,142,622; June 8; Gaz. vol. 215; p. 575.
Reed, Edward B., *et al.* (See Whitaker, Samuel T., assignor.)
Reed, Frank, *et al.* (See Hooker, Joseph D., assignor.)
Reed, Frank E., assignor of forty-five one-hundredths to C. C. Roth, Lacon, Ill. Ice-sawing machine. No. 1,141,268; June 1; Gaz. vol. 215; p. 63.
Reed, William A., Chelsea, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Pad-holder. No. 1,143,725; June 22; Gaz. vol. 215; p. 1023.
Rees, Edmund S. G., Wolverhampton, England. Rotary pump, condenser, or compressor. No. 1,144,865; June 29; Gaz. vol. 215; p. 1447.
Reese, John T., Shipman, Va. Churn. No. 1,142,459; June 8; Gaz. vol. 215; p. 521.
Regan Oil Tool Company. (See Wigle, Wilson B., assignor.)
Regenbogen, Conrad, Kiel, Germany, assignor to Fried. Krupp Aktiengesellschaft Germaniawerft. Fuel-injector. No. 1,142,623; June 8; Gaz. vol. 215; p. 576.
Rehm, Frederick C., Detroit, Mich. Buckle. No. 1,142,842; June 15; Gaz. vol. 215; p. 690.
Reiche, Hermann, Bellemead, N. J. Internal-combustion engine. No. 1,142,367; June 8; Gaz. vol. 215; p. 486.
Reichenthal, Sigmund, Jr., New York, N. Y. Protective device for railway-crossings. No. 1,144,248; June 22; Gaz. vol. 215; p. 1208.

Reidt, Ulrich, Los Angeles, Cal. Permutation-padlock. No. 1,141,827; June 1; Gaz. vol. 215; p. 259.
Reilly, Edward J. (See De Barbadillo, Frank, assignor.)
Reilly, Peter, Passaic, assignor to J. P. Schmitt, Hoboken, N. J. Loom attachment. No. 1,142,624; June 8; Gaz. vol. 215; p. 577.
Reimers, Wilhelm, Kiel, Germany. Expansible pulley. No. 1,144,381; June 29; Gaz. vol. 215; p. 1282.
Reinforced Inner Tube Company. (See Poole, John H., assignor.)
Reinhaus, Julius. (See Oppenheim, Simon R., assignor.)
Reininger, August. (See Davis and Reininger.)
Reisert, Hans, Cologne, Germany. Filter. No. 1,142,270; June 8; Gaz. vol. 215; p. 453.
Reiste, Oliver C., Mount Pleasant, Iowa. Spring-wheel. No. 1,143,435; June 15; Gaz. vol. 215; p. 902.
Reisz, Eugen, Berlin-Treptow, Germany. Discharge-tube. No. 1,142,625; June 8; Gaz. vol. 215; p. 577.
Reitz, Albert, Retah, Mont. Hose-coupling. No. 1,143,136; June 15; Gaz. vol. 215; p. 794.
Relyea, Ralph E., Detroit, Mich. Vehicle-brake. No. 1,143,996; June 22; Gaz. vol. 215; p. 1117.
Remington Typewriter Company. (See Yaw, Clio B., assignor.)
Remy, Benjamin P. and F. I., Anderson, Ind. Milking-machine. No. 1,142,626; June 8; Gaz. vol. 215; p. 577.
Remy, Frank I. (See Remy, Benjamin P. and F. I.)
Remy, Wilhelm. (See Roitzheim and Remy.)
Renault, Louis. (See Fuchs, Ernest, assignor.)
Renault, Louis. (See Leisse, Pierre L., assignor.)
René Wheel Company. (See Ayotte, Joseph R., assignor.)
Renfrew, John. (See Pearson and Renfrew.)
Renkenberger, Edward J., Chicago, Ill., assignor to American Tool Handle Company, Buffalo, N. Y. Handle-ferrule. No. 1,144,382; June 29; Gaz. vol. 215; p. 1282.
Rennerfelt, Ture G., Stockholm, Sweden. Stone-crushing machine. No. 1,141,581; June 1; Gaz. vol. 215; p. 176.
Renton, George F. (See Hind and Renton.)
Rentz, George H., Minneapolis, Minn. Antiseptic instrument-case. No. 1,143,436; June 15; Gaz. vol. 215; p. 902.
Reo Motor Car Company. (See Thomas, Horace T., assignor.)
Reutelhuber, William A., Wilkes-Barre, Pa. Automatic means for controlling the operation of jigs. No. 1,143,137; June 15; Gaz. vol. 215; p. 794.
Reuter, William O., Peru, Ind. Auto lamp-shade. No. 1,143,138; June 15; Gaz. vol. 215; p. 795.
Rex Revolving Light Company. (See Davis and Richardson, assignors.)
Reyner, Paul A., Broken Bow, Nebr. End-gate fastener. No. 1,144,062; June 22; Gaz. vol. 215; p. 1141.
Rheinische Metallwaaren- und Maschinenfabrik. (See Müller, Emil, assignor.)
Rheinische Metallwaaren- und Maschinenfabrik. (See Prahl, Hugo, assignor.)
Rhoades, Alonzo E., assignor to Draper Company, Hopedale, Mass. Guide for thread-cutting temples. No. 1,141,654; June 1; Gaz. vol. 215; p. 202.
Rhody, Eliza, Farmland, Ind. Gate-hinge. No. 1,141,828; June 1; Gaz. vol. 215; p. 259.
Rice, Frank E., assignor to American Tap Bush Co., Detroit, Mich. Beer-tap and bushing. No. 1,141,269; June 1; Gaz. vol. 215; p. 63.
Rice, Richard H., Lynn, Mass., assignor to General Electric Company. Hydraulic valve-gear. No. 1,143,437; June 15; Gaz. vol. 215; p. 902.
Rice, William E., La Fayette, Ind. Hook and eye. No. 1,144,786; June 29; Gaz. vol. 215; p. 1420.
Rich, Walter J. (See Foster, Oliver M., assignor.)
Richards, Julius H., assignor to Spilldorf Electrical Company, Newark, N. J. Combined generator and timer-distributer mounting. No. 1,142,056; June 8; Gaz. vol. 215; p. 377.
Richards, Richard H. (See Mills and Richards.)
Richardson, Andrew T., assignor to Verona Tool Works, Verona, Pa. Lifting-jack. No. 1,143,067; June 15; Gaz. vol. 215; p. 771.
Richardson, Charles A., *et al.* (See Haynes, Clarence B., assignor.)
Richardson, Harvey J., Chicago, Ill. Means for cleaning air. No. 1,142,982; June 15; Gaz. vol. 215; p. 741.
Richardson, Ralph R., assignor to Chicago Carton Company, Chicago, Ill. Container. No. 1,141,489; June 1; Gaz. vol. 215; p. 144.
Richardson, Ullie M. (See Davis and Richardson.)
Richardson, William K., Leavenworth, Kans. Projectile. No. 1,141,415; June 1; Gaz. vol. 215; p. 118.
Richardson, William K. B., *et al.* (See Haynes, Clarence B., assignor.)
Richart, George F., Grand Junction, Colo. Valve-gear. No. 1,141,416; June 1; Gaz. vol. 215; p. 119.
Richmond Cedar Works. (See Parrish, James S., assignor.)
Richmond, William B., *et al.* (See Anderson, Andrew S., assignor.)
Ricker, Frank S., Oneida Castle, assignor to Oneida Community, Limited, Oneida, N. Y. Animal-trap. No. 1,143,589; June 15; Gaz. vol. 215; p. 953.
Rickerd, Fred S., assignor to Detroit Wire Spring Company, Detroit, Mich. Clip. No. 1,141,145; June 1; Gaz. vol. 215; p. 19.
Riddell, William A., and R. Kroedel, assignors to Eastman Kodak Company, Rochester, N. Y. Lens-carriage for photographic cameras. No. 1,143,782; June 22; Gaz. vol. 215; p. 1042.
Riddiford, George, Chicago, Ill. Fountain-brush. No. 1,142,911; June 15; Gaz. vol. 215; p. 715.
Rider, George E., Kansas City, Mo. Bailing-press. No. 1,143,318; June 15; Gaz. vol. 215; p. 860.
Ridge, Harry M., London, England. Ore roasting or drying furnace. No. 1,143,438; June 15; Gaz. vol. 215; p. 903.
Riedel, Charles E., assignor to Detroit Scale Manufacturing Company, Detroit, Mich. Bearing for scales. No. 1,143,647; June 22; Gaz. vol. 215; p. 998.
Rieg, Swebert B., Meridian, Miss. Safety appliance for railway-cars. No. 1,143,648; June 22; Gaz. vol. 215; p. 998.
Riegel, Samuel S., Scranton, Pa., assignor to Patterson-Allen Engineering Company. Tender-tank valve. No. 1,143,726; June 22; Gaz. vol. 215; p. 1023.
Rieke, Frederick W., Red Bud, Ill. Adjustable shock-absorber for vehicle-tongues. No. 1,143,783; June 22; Gaz. vol. 215; p. 1043.
Rielly, George, Santa Rosa, Cal. Railway-rail fastener. No. 1,143,997; June 22; Gaz. vol. 215; p. 1118.
Ries, Harry W., Collingswood, N. J., L. B. Brown and F. C. Yockel, Philadelphia, Pa. Non-refillable bottle. No. 1,144,787; June 29; Gaz. vol. 215; p. 1421.
Rigby, Clark F., Butler, Pa. Clutch and clutch-actuating means. No. 1,142,120; June 8; Gaz. vol. 215; p. 401.
Rigby, Thomas, Dumfries, Scotland, assignor to Wetcarbonizing Limited, London, England. Working ammonia-recovery producer-gas plants. No. 1,141,829; June 1; Gaz. vol. 215; p. 259.
Rigby, Thomas, Dumfries, Scotland, assignor to Wetcarbonizing Limited, London, England. Utilization of peat. No. 1,143,319; June 15; Gaz. vol. 215; p. 860.
Rigby, Thomas, Dumfries, Scotland, assignor, by mesne assignments, to Wetcarbonizing Limited, London, England. Getting or excavating peat. No. 1,144,249; June 22; Gaz. vol. 215; p. 1208.
Rigby, Thomas, Dumfries, Scotland, and N. Testrup, assignors to Wetcarbonizing Limited, London, England. Utilization of peat. No. 144,250; June 22; Gaz. vol. 215; p. 1208.
Riker, Andrew L., Bridgeport, Conn., assignor to The "Locomobile" Company of America, New York, N. Y. Internal-combustion engine. No. 1,144,433; June 29; Gaz. vol. 215; p. 1300.
Riley, Isaac H., Osceola, Iowa. Wheel-tire. No. 1,143,139; June 15; Gaz. vol. 215; p. 795.
Riley, Lynn G. (See Hall and Riley.)
Rimolox Tire Carrier Co. (See Harnishfeger, Alexander, assignor.)
Rinehart, Bentley L., Philadelphia, Pa. Method and means for the generation of compound motive fluid. No. 1,142,271; June 8; Gaz. vol. 215; p. 453.
Riordan, Frederick J., assignor of one-half to L. Sugden, Lawrence, Mass. Amusement apparatus. No. 1,144,613; June 29; Gaz. vol. 215; p. 1359.
Rippl, Charles H., assignor to The Electric Controller and Manufacturing Company, Cleveland, Ohio. Magnetically-operated device. No. 1,144,063; June 22; Gaz. vol. 215; p. 1141.
Riter-Conley Manufacturing Company. (See Carpenter, Henry A., assignor.)
Riter-Conley Manufacturing Company. (See Carpenter and Hibbard, assignors.)
Riter-Conley Manufacturing Company. (See Carpenter, Hibbard, and Warner, assignors.)
Rites, Francis M., deceased, Slaterville Springs; C. H. Gallagher, executor, assignor to P. C. Rites, Ithaca, N. Y., guardian for M. B. Rites. Apparatus for producing gaseous fuel. No. 1,144,788; June 29; Gaz. vol. 215; p. 1421.
Rites, Francis M., deceased, Slaterville Springs; C. H. Gallagher, executor, assignor to P. C. Rites, Ithaca, N. Y., guardian of M. B. Rites. Producing gaseous fuel. No. 1,144,789; June 29; Gaz. vol. 215; p. 1421.
Rites, Perle C. (See Rites, Francis M., assignor.)
Ritter, Frederic W., Jr., *et al.* (See Casler, Benjamin G., assignor.)
Ritter, George. (See Dupree, Ritter, and Heckman.)
Rizzardi, Johann, Cassel, Germany. Manufacturing metal baskets. No. 1,144,668; June 29; Gaz. vol. 215; p. 1378.
Roach, William F., Frostburg, Md. Automatic control of cut-off valves. No. 1,141,146; June 1; Gaz. vol. 215; p. 19.
Rob, Ferdinand F. (See Cooper and Rob.)
Robbins, Charles A., and W. F. Roth, Nevada, Ohio. Water-heater. No. 1,141,830; June 1; Gaz. vol. 215; p. 259.
Roberson, William E., Dickerson, Md. Vehicle-brake. No. 1,143,320; June 15; Gaz. vol. 215; p. 861.
Roberson, William H. (See Bell, Roberson, and Hinderliter.)
Roberts, George W., Columbus, Ga. Rail-elevating apparatus. No. 1,144,251; June 22; Gaz. vol. 215; p. 1209.
Roberts, James F. G., Wellington, New Zealand. Portable or field cooking apparatus. No. 1,141,490; June 1; Gaz. vol. 215; p. 144.
Roberts, John G., Dobbs Ferry, assignor to Western Electric Company, New York, N. Y. Line-switch. No. 1,143,998; June 22; Gaz. vol. 215; p. 1118.

Roberts Numbering Machine Company, The. (See Kern, Maximilian H., assignor.)
Roberts, Samuel S., Pittsburgh, Pa. Safety tool-retainer. No. 1,142,983; June 15; Gaz. vol. 215; p. 741.
Roberts, Stephen S., Mexico, Mo. Wire-fence stretcher. No. 1,144,064; June 22; Gaz. vol. 215; p. 1141.
Robertson, Edward A. (See Bennett and Robertson.)
Robins, George, Jackson, Mich. Horseshoe toe-calk. No. 1,144,790; June 29; Gaz. vol. 215; p. 1422.
Robinson, Arthur D., New York, N. Y., and A. P. Boller, Jr., East Orange, N. J. Collapsible tripod. No. 1,144,726; June 29; Gaz. vol. 215; p. 1400.
Robinson, Arthur W., Montreal, Quebec, Canada. Floating discharge-pipe for hydraulic dredges. No. 1,143,321; June 15; Gaz. vol. 215; p. 861.
Robinson, Fred W., Towanda, Pa. Hand-operated coldpunch. No. 1,142,627; June 8; Gaz. vol. 215; p. 578.
Robinson, Jay A., assignor of one-fourth to A. J. O'Brien and one-fourth to S. J. Boughton, Denver, Colo. Telephone-call register. No. 1,143,140; June 15; Gaz. vol. 215; p. 795.
Robinson, John J. (See McLaren, Donald, assignor.)
Robinson, Miner, Newton, Mass. Outlet-box. No. 1,143,322; June 15; Gaz. vol. 215; p. 861.
Robinson, William, Brooklyn, N. Y. Electric-railway system. No. 1,141,655; June 1; Gaz. vol. 215; p. 202.
Robson, John, Westminster, assignor to The Variable Speed Gear Limited, London, England. Variable-speed hydraulic transmission. No. 1,143,727; June 22; Gaz. vol. 215; p. 1024.
Robt. H. Ingersoll & Bro. (See Eberhard, George F., assignor.)
Robt. H. Ingersoll & Bro. (See Malouey, William T., assignor.)
Roby, John W., Hammon, Okla. Drill-bit clutch. No. 1,142,460; June 8; Gaz. vol. 215; p. 521.
Rock, Edward, Laurel, Miss. Derailing device. No. 1,143,439; June 15; Gaz. vol. 215; p. 903.
Rock, John G., New Rochelle, assignor to F. W. Clark, Mount Vernon, N. Y. Shock-absorber. No. 1,143,068; June 15; Gaz. vol. 215; p. 771.
Rock, John G., New Rochelle, assignor to Volute Spring Shock Absorber Company, Mount Vernon, N. Y. Shock-absorber. No. 1,143,069; June 15; Gaz. vol. 215; p. 772.
Rock, John G., assignor to Volute Spring Shock Absorber Company, Mount Vernon, N. Y. Shock-absorber. No. 1,143,070; June 15; Gaz. vol. 215; p. 772.
Rockwell, Albert F., assignor to The New Departure Manufacturing Company, Bristol, Conn. Machine-tool. No. 1,142,730; June 8; Gaz. vol. 215; p. 610.
Rockwood Sprinkler Company. (See Montgomery, William E., assignor.)
Rockwood Sprinkler Company of Massachusetts. (See Carlson, Hjalmar G., assignor.)
Roddie, Eugene C. (See Nix and Roddie.)
Rodgers, Roy A., Seneca, Kans., assignor of one-third to J. H. Harrison, Falls City, Nebr. Combined mop and wringer. No. 1,142,628; June 8; Gaz. vol. 215; p. 578.
Rodkey, David B., Wilkinsburg, Pa. Glove-cleaning machine. No. 1,143,440; June 15; Gaz. vol. 215; p. 903.
Rodriguez, Carlos E., Brooklyn, N. Y. Igniting cigarette or cigar. No. 1,142,529; June 8; Gaz. vol. 215; p. 545.
Roebel, Ludwig, Mannheim-Käferthal, Germany, assignor to Aktiengesellschaft Brown Boveri & Cie., Baden, Switzerland. Electrical conductor. No. 1,144,252; June 22; Gaz. vol. 215; p. 1209.
Röger, Karl, Berlin, Germany, assignor to Mergenthaler Linotype Company. Typographical machine. No. 1,142,272; June 8; Gaz. vol. 215; p. 454.
Rogers, Alson, Warren, Pa. Plumb-bob support. No. 1,141,977; June 8; Gaz. vol. 215; p. 348.
Rogers, Andrew, Wellington, New Zealand. Gas-meter. No. 1,141,725; June 1; Gaz. vol. 215; p. 226.
Rogers, Herbert L. (See Myers and Rogers.)
Rogers, Ralph F., Chicago, Ill. Wheel-fender. No. 1,143,071; June 15; Gaz. vol. 215; p. 773.
Rogers, Thomas H., *et al.* (See Smith, George Z., assignor.)
Rogers, William F. (See Blake, Clinton F., assignor.)
Rohn, John R., Pittsburgh, assignor to Federal Toy Pistol Company, Homestead, Pa. Toy pistol. No. 1,144,791; June 29; Gaz. vol. 215; p. 1422.
Rohr, Moritz von, assignor to Firm of C. Zeiss, Jena, Germany. Optical system. No. 1,143,667; June 22; Gaz. vol. 215; p. 1004.
Roitzheim, Alexander, Duisburg, Germany. Process and apparatus for removing drossy residues from vertical muffles in the extraction of zinc. No. 1,144,066; June 22; Gaz. vol. 215; p. 1142.
Roitzheim, Alexander, and W. Remy, Duisburg-Ruhrort, Germany. Mechanism for removing residues from vertical retorts. No. 1,144,065; June 22; Gaz. vol. 215; p. 1141.
Rollins, Marcellus E., Santa Cruz, Cal. Cow-tail holder. No. 1,144,727; June 29; Gaz. vol. 215; p. 1400.
Romano, Samuel L., Vancouver, British Columbia, Canada. Forming-mold for sewer-conduits. No. 1,143,862; June 22; Gaz. vol. 215; p. 1070.
Romberger, Harry R., Chicago, Ill. Car-seal. No. 1,144,792; June 29; Gaz. vol. 215; p. 1422.
Romick, Landis. (See McFeely and Romick.)
Rood, Charles W., assignor of one-fourth to G. M. Hill and one-fourth to E. M. Hill, Grand Rapids, Wis. Carriage and movable track therefor. No. 1,144,793; June 29; Gaz. vol. 215; p. 1423.
Rood, Lloyd V., Marietta, Ohio. Tire-plug. No. 1,143,141; June 15; Gaz. vol. 215; p. 796.
Rookwood Pottery Company, The. (See Metzner, Otto, assignor.)
Roop, Clarence H., Camden, assignor of one-third to E. W. Havens, Belford, and one-third to H. G. Havens, Camden, N. J. Phonograph. No. 1,143,784; June 22; Gaz. vol. 215; p. 1043.
Roos, Hendrik C., Grand Rapids, Mich. Embossing-machine. No. 1,142,273; June 8; Gaz. vol. 215; p. 454.
Root, William A., Bennington, Vt. Air-controlled device for gas-engines. No. 1,143,230; June 15; Gaz. vol. 215; p. 829.
Rose, Alfred A., Bellevue, Ky., assignor to The Rudolph Wurlitzer Manufacturing Company, North Tonawanda, N. Y. Snare-drum. No. 1,142,843; June 15; Gaz. vol. 215; p. 690.
Rose, David, assignor of one-half to J. Rose, Lancaster, Pa. Lamp-shade. No. 1,142,775; June 8; Gaz. vol. 215; p. 628.
Rose, Edward E., Swissvale, Pa., assignor to Westinghouse Electric and Manufacturing Company. Electric sad-iron. No. 1,144,614; June 29; Gaz. vol. 215; p. 1359.
Rose, Frank S., deceased, Newark, N. J.; Corona Typewriter Company, Inc., Groton, N. Y., assignee by mesne assignments. Type-writing machine. (Reissue.) No. 13,934; June 22; Gaz. vol. 215; p. 1241.
Rose, Frank S., deceased, Newark, N. J.; Corona Typewriter Company, Inc., Groton, N. Y., assignee. Escapement mechanism for type-writers. (Reissue.) No. 13,935; June 22; Gaz. vol. 215; p. 1243.
Rose, Hugh, Stanmore, New South Wales, Australia. Slack-adjuster. No. 1,144,866; June 29; Gaz. vol. 215; p. 1448.
Rose, James. (See Rose, David, assignor.)
Rose Label Machine Company. (See Rosenthal, Arthur, assignor.)
Rosenbaum, Samuel, and B. Finkelstein, Los Angeles, Cal. Adjustable sleeve-protector. No. 1,141,656; June 1; Gaz. vol. 215; p. 203.
Rosencrans, Herman F., Durand, Mich. Valve. No. 1,143,999; June 22; Gaz. vol. 215; p. 1118.
Rosengren, George T., assignor to Enterprise Tool and Metal Works, Chicago, Ill. Sad-iron. No. 1,142,984; June 15; Gaz. vol. 215; p. 742.
Rosenthal, Arthur, assignor to Rose Label Machine Company, Grand Rapids, Mich. Sewing-machine for attaching labels. No. 1,142,057; June 8; Gaz. vol. 215; p. 378.
Rosenthal, August, West Allis, Wis. Self-feeder for corn husking and shredding machines. No. 1,142,844; June 15; Gaz. vol. 215; p. 690.
Ross, Charles H. A. F. L., Balnagown Castle, county of Ross, Scotland. Mushrooming bullets. No. 1,141,212; June 1; Gaz. vol. 215; p. 44.
Ross, Charles H. A. F. L., Balnagown Castle, county of Ross, Scotland. Firearm. No. 1,141,582; June 1; Gaz. vol. 215; p. 177.
Ross, Jay W., Forsyth, Ga. Seal for railway-car doors. No. 1,143,441; June 15; Gaz. vol. 215; p. 904.
Rossman, Jonas A., New York, N. Y. Candle and attachment. No. 1,144,728; June 29; Gaz. vol. 215; p. 1400.
Rotary Valve Manufacturing Company. (See Sherman, Louie A., assignor.)
Roth, Anton, Newport, Ky. Dough-mixing machine. No. 1,142,461; June 8; Gaz. vol. 215; p. 522.
Roth, Charles C. (See Reed, Frank E., assignor.)
Roth, John, *et al.* (See Anderson, Andrew S., assignor.)
Roth, William F. (See Robbins and Roth.)
Rothenbucher, George E. R., assignor of one-half to I. Kahn, New York, N. Y. Automatic safety brake-lock for automobiles and other vehicles. No. 1,142,845; June 15; Gaz. vol. 215; p. 691.
Rothert, Edward H., Leavenworth, Wash. Magnetic separating apparatus. No. 1,144,383; June 29; Gaz. vol. 215; p. 1282.
Rothman, Edwin O., London, England, assignor to Société Burton Fils, Paris, France. Machine for sawing metals. No. 1,144,867; June 29; Gaz. vol. 215; p. 1448.
Roush, Squire, and C. H. Kenyon, San Francisco, Cal. Air-brake handle. No. 1,142,629; June 8; Gaz. vol. 215; p. 578.
Rousseau, Jules, Sedan, France. Manufacturing filled sticks and other articles of confectionery wholly or partially covered with chocolate. No. 1,144,794; June 29; Gaz. vol. 215; p. 1423.
Routin, Joseph L., Paris, France. Means for collectively actuating and controlling alternating-current motors. No. 1,142,274; June 8; Gaz. vol. 215; p. 455.
Roux, François A., assignor to Société L'Aluminium Francais, Paris, France. Treatment of surfaces of aluminum or alloys of aluminum in order to prepare them for receiving a metallic deposit. No. 1,144,000; June 22; Gaz. vol. 215; p. 1119.
Rovira, Josiphine, New York, N. Y. Brassière. No. 1,144,001; June 22; Gaz. vol. 215; p. 1119.
Row, Charles G., San Francisco, Cal. Drafting instrument. No. 1,142,368; June 8; Gaz. vol. 215; p. 487.
Rowthorne, William, Southampton, England. Screw-propeller. No. 1,142,530; June 8; Gaz. vol. 215; p. 545.
Roy, Jean G., Cap Chat, Quebec, Canada. Milk-heater. No. 1,144,868; June 29; Gaz. vol. 215; p. 1448.
Royal Typewriter Company. (See Hess, Edward B., assignor.)

Roylance, Leon S., San Francisco, Cal. Ore-disintegrator. No. 1,142,462; June 8; Gaz. vol. 215; p. 522.
Royle, Vernon, Paterson, N. J. Tension device. No. 1,142,531; June 8; Gaz. vol. 215; p. 545.
Rozier, Albert, Wembley, England. Electric elevator. No. 1,141,979; June 8; Gaz. vol. 215; p. 349.
Rubel, Jacob, assignor to Standard Mail Order Company, New York, N. Y. Catamenial appliance. No. 1,144,253; June 22; Gaz. vol. 215; p. 1209.
Rudd, Herbert F., Belpre, Kans. Pneumatic cushion. No. 1,141,360; June 1; Gaz. vol. 215; p. 97.
Rudolph, Emil C., Springville, N. Y. Boiler attachment for locomotive fire-boxes. No. 1,142,731; June 8; Gaz. vol. 215; p. 611.
Rudolph Wurlitzer Manufacturing Company, The. (See Rose, Alfred A., assignor.)
Rugh, Harry O., assignor to Railway Electric Manufacturing Co., Chicago, Ill. Voting-machine. No. 1,142,058; June 8; Gaz. vol. 215; p. 378.
Rumold, Christian F., Berea, Ky. Railway signal apparatus. No. 1,141,147; June 1; Gaz. vol. 215; p. 19.
Rumrill, Frank. (See Campbell, Duncan R., assignor.)
Rundlöf, Erik A., Stocksund, Sweden. Coupling. No. 1,144,067; June 22; Gaz. vol. 215; p. 1142.
Ruppel, Henry, Cleveland, Ohio, assignor to American Stove Company, St. Louis, Mo. Blue-flame wick-burner. No. 1,143,072; June 15; Gaz. vol. 215; p. 773.
Russ Automatic Labeling Co. (See Shults, James C., assignor.) (Reissue.)
Russell, Charles C., Chicago, Ill. Car-door hanger. No. 1,142,532; June 8; Gaz. vol. 215; p. 546.
Russell, Charles N. (See Ray and Russell.)
Russell, Frank N., and O. S. Lind, Chicago, Ill. Automatic saw-filing device. No. 1,144,254; June 22; Gaz. vol. 215; p. 1209.
Russell, Howard E. (See Randall, Victor E., assignor.)
Russell, Jesse M. (See Clark, James H., assignor.)
Russell, William E., Upper Wortley, Leeds, England. Type-writer. No. 1,141,831; June 1; Gaz. vol. 215; p. 260.
Rust, Clifford G., Marion, Ind. Music-leaf turner. No. 1,144,917; June 29; Gaz. vol. 215; p. 1464.
Rust, William J., Sollitt, Ill. Cover for receptacles. No. 1,141,832; June 1; Gaz. vol. 215; p. 260.
Ruth, Walter H., Greensburg, Kans. Harrow attachment. No. 1,143,785; June 22; Gaz. vol. 215; p. 1043.
Rutherford, Brabazon, *et al.* (See Jones, Joshua J., assignor.)
Ruud Manufacturing Company. (See Humphrey, Herbert S., assignor.)
Ryan, Patrick J., Minneapolis, Minn. Detachable horseshoe-calk. No. 1,141,726; June 1; Gaz. vol. 215; p. 226.
Rydell, David. Foreston, Minn. Barrel-cart. No. 1,142,630; June 8; Gaz. vol. 215; p. 579.
Ryden, Claes, Cranston, R. I., assignor to Universal Winding Company, Portland, Me. Winding-machine. No. 1,141,583; June 1; Gaz. vol. 215; p. 177.
Ryder, Herbert D. (See Edwards and Greene, assignors.)
Ryley, Alfred G., assignor to The McCaskey Register Company, Canton, Ohio. Account-register. No. 1,143,073; June 15; Gaz. vol. 215; p. 773.
Ryon, Eppa H., Waltham, assignor to Crompton & Knowles Loom Works, Worcester, Mass. Weft-detecting mechanism. No. 1,142,121; June 8; Gaz. vol. 215; p. 402.
Ryon, Eppa H., Waltham, Mass., assignor to Crompton & Knowles Loom Works. Weft-replenishing loom. No. 1,144,946; June 29; Gaz. vol. 215; p. 1474.
S. F. Bowser & Co. (See Morris, William L., assignor.)
S. & S. Automatic Threaze Company, The. (See Shumway and Scholz, assignors.)
Saatweber, Charles R., Paterson, N. J. Positive high-speed shuttle-motion. No. 1,142,059; June 8; Gaz. vol. 215; p. 379.
Saccerdote, Secondo, Milan, Italy. Steam cooking apparatus. No. 1,144,002; June 22; Gaz. vol. 215; p. 1119.
Sachtleben, Friedrich. (See Berker and Sachtleben.)
Sacromone, Rocco, Brooklyn, N. Y. Neckband-shaper. No. 1,144,729; June 29; Gaz. vol. 215; p. 1400.
Sadlik, Alois. (See Ptak and Sadlik.)
Saeger, Charles M., Allentown, Pa. Electric signal. No. 1,142,912; June 15; Gaz. vol. 215; p. 715.
Safety Armorite Conduit Company. (See Buch, Newton W., assignor.)
Safety Car Heating and Lighting Company. (See Creveling, John L., assignor.)
Safety Car Heating & Lighting Company, The. (See Hallock, George W., assignor.)
Sage, Henry M. (See Winne, William P., assignor.)
Salamon, Jacob. (See Sillo, Daniel, assignor.)
Salias, Philip, Whitestone, N. Y. Eyeglasses. No. 1,144,068; June 22; Gaz. vol. 215; p. 1143.
Salwén, Sven R., Grangesberg, Sweden, assignor to American Grondal Company, New York, N. Y. Magnetic ore-separator. No. 1,141,833; June 1; Gaz. vol. 215; p. 260.
Sambar, Sam. (See Dwofsky and Sambar.)
Sample, John G. (See Graham, Gore, and Sample.)
Sampson, Charles H., assignor to Peerless Check Protecting Company, Rochester, N. Y. Printing-machine. No. 1,141,270; June 1; Gaz. vol. 215; p. 64.
Sams, Albert J., Fort Scott, assignor to Smith Locomotive Adjustable Hub Plate Company, Pittsburg, Kans. Packing device for hub-plates. No. 1,143,142; June 15; Gaz. vol. 215; p. 796.
Samuel J. Shimer & Sons. (See Shimer, Elmer S., assignor.)
Sanborn Evaporator Company. (See Sanborn, Thornton F., assignor.)
Sanborn, Thornton F., assignor to Sanborn Evaporator Company, New York, N. Y. Evaporating. No. 1,143,074; June 15; Gaz. vol. 215; p. 774.
Sandbo, Anton L., Lansford, N. D. Engine-cylinder. No. 1,142,631; June 8; Gaz. vol. 215; p. 579.
Sandbo, Anton L., Rock Island, Ill., assignor to The North Dakota Gas Engine Manufacturing Company, Langsford, N. D. Internal-combustion engine. No. 1,143,649; June 22; Gaz. vol. 215; p. 998.
Sanders, James M., St. Louis, Mo. Batter-dropper. No. 1,144,918; June 29; Gaz. vol. 215; p. 1464.
Sanders, Thomas, Kingman, Ind. Trolley-wheel mount. No. 1,142,846; June 15; Gaz. vol. 215; p. 691.
Sandwich Manufacturing Co. (See Graves, Clark, assignor.)
Santo Manufacturing Company. (See Keller, William H., assignor.)
Sapal Société Anonyme Des Plieuses Automatiques. (See Berger, Richard A., assignor.)
Sapegno, Giovanni, Genoa, Italy. Railway-tie. No. 1,143,442; June 15; Gaz. vol. 215; p. 904.
Sargent Company. (See Dunbar, Frank G., assignor.)
Sargent & Company. (See Page, Albert A., assignor.)
Sargent & Company. (See Sparks, William E., assignor.)
Saunders, Augustus M. (See Boyd and Saunders.)
Saunders, John W., and O. K. Förster, Baltimore, Md. Fender for motor-vehicles. No. 1,144,869; June 29; Gaz. vol. 215; p. 1449.
Saunders, Lewis E., Niagara Falls, N. Y. Preparing barium oxid. (Reissue.) No. 13,924; June 8; Gaz. vol. 215; p. 635.
Sauvage Appliance Company. (See Sauvage, William H., assignor.)
Sauvage, William H., assignor to Sauvage Appliance Company, Inc., New York, N. Y. Slack-adjuster for railway-brakes. No. 1,143,554; June 15; Gaz. vol. 215; p. 940.
Savage Arms Company. (See Nelson, Charles A., assignor.)
Savage Arms Company. (See Swartz, William L., assignor.)
Savage, O. R. (See Hague, Alfred G., assignor.)
Sawman, Axel A., Brooklyn, N. Y. Boat. No. 1,144,434; June 29; Gaz. vol. 215; p. 1309.
Sayers, Albert J., assignor to Link-Belt Company, Chicago, Ill. Coal-washer. No. 1,142,060; June 8; Gaz. vol. 215; p. 379.
Scattergood, George R. (See Allen and Scattergood.)
Schade, Henry, Albany, N. Y. Electric testing instrument. No. 1,144,255; June 22; Gaz. vol. 215; p. 1210.
Schaefer, Charles, Toledo, Ohio. Shoe-last. No. 1,141,584; June 1; Gaz. vol. 215; p. 178.
Schaefer, Edward H., Stapleton, N. Y. Crown-cleaning machine. No. 1,143,231; June 15; Gaz. vol. 215; p. 830.
Schaefer, Ernst, Scranton, Pa., assignor, by mesne assignments, to G. E. Pettey, Memphis, Tenn. Fuel-saving device. No. 1,141,657; June 1; Gaz. vol. 215; p. 203.
Schaefer, Joseph, Frankfort-on-the-Main, Germany. Extracting wort from mashes. No. 1,141,491; June 1; Gaz. vol. 215; p. 145.
Schaefer, Karl, Charlottenberg, assignor to Berlin-Anhaltische Maschinenbau-Aktien-Gesellschaft, Berlin, Germany. Producing hydrogen. No. 1,144,730; June 29; Gaz. vol. 215; p. 1401.
Schaetzel, George H., assignor to Pfenninger Pretzel & Baking Company, St. Louis, Mo. Pretzel-making machine. No. 1,142,533; June 8; Gaz. vol. 215; p. 546.
Schanzenbach & Co. G. m. b. H., G. (See Schmidt and Müller, assignors.)
Schatterman, Louise, Moline, Ill. Lemon-squeezer. No. 1,141,834; June 1; Gaz. vol. 215; p. 261.
Schenck, Charles. (See Wylde and Schenck.) (Reissue.)
Schenk, Edward G., Louisville, Ky. Window-screen. No. 1,143,863; June 22; Gaz. vol. 215; p. 1071.
Schenkenberg, Frederick, Dallas, Tex. Horse-collar. No. 1,143,728; June 22; Gaz. vol. 215; p. 1024.
Scherer, Albert G., assignor to The Excelsior Steel Furnace Company, Chicago, Ill. Stack-head for hot-air stacks or conduits. No. 1,141,492; June 1; Gaz. vol. 215; p. 145.
Scherer, Albert G., assignor to The Excelsior Steel Furnace Company, Chicago, Ill. Means for securing register-frames to stack-heads. No. 1,141,493; June 1; Gaz. vol. 215; p. 145.
Scherer, John H. (See Boekel and Scherer.)
Schermerhorn, Edward F., Brooklyn, assignor to The Rail Joint Company, New York, N. Y. Insulated rail-joint. No. 1,142,632; June 8; Gaz. vol. 215; p. 579.
Scherrer, Charles J., Council Bluffs, Iowa. Combined hoist and conveyer. No. 1,143,786; June 22; Gaz. vol. 215; p. 1043.
Schierding, William, Wallace, Idaho. Motor-propelled vehicle. No. 1,142,204; June 8; Gaz. vol. 215; p. 429.
Schies, John, Anderson, Ind. Vehicle-wheel. No. 1,142,985; June 15; Gaz. vol. 215; p. 742.
Schildhauer, Edward, Culebra, Canal Zone. Circuit-controlling mechanism. No. 1,142,847; June 15; Gaz. vol. 215; p. 691.
Schill, Emil, New York, N. Y., assignor to Continental Gas Compressing Corporation. Apparatus for obtaining liquid hydrocarbons. No. 1,142,275; June 8; Gaz. vol. 215; p. 455.

Schimmelpfennig, John, Cedar Rapids, Iowa. Roof-shingling seat. No. 1,143,555; June 15; Gaz. vol. 215; p. 941.
Schisler, Frank J., Winthrop, Minn. Journal-bearing. No. 1,141,835; June 1; Gaz. vol. 215; p. 261.
Schlabach, Otto M., administrator. (See Mathisen, Ole M.)
Schlafly, Julius H., assignor to The Canton Culvert Company, Canton, Ohio. Sheet-metal structural section. No. 1,141,417; June 1; Gaz. vol. 215; p. 119.
Schlatter, Gustav. (See Mayer and Schlatter.)
Schleicher, John C., Mount Vernon, N. Y. Tire-protector. No. 1,141,585; June 1; Gaz. vol. 215; p. 178.
Schleicher, Rudolph H., Philadelphia, Pa. Pencil. No. 1,144,069; June 22; Gaz. vol. 215; p. 1143.
Schloemer, Peter J., and H. E. Krueger, Oshkosh, Wis. Filling and capping machine. No. 1,141,271; June 1; Gaz. vol. 215; p. 64.
Schlumpf, Edwin, assignor to Aktiengesellschaft der Maschinenfabriken Escher Wyss & Cie., Zurich, Switzerland. Turbine. No. 1,144,154; June 22; Gaz. vol. 215; p. 1175.
Schmelzkopf, Edward C., assignor to Gisholt Machine Company, Madison, Wis. Boring-bar. No. 1,144,795; June 29; Gaz. vol. 215; p. 1423.
Schmidt, Albert, assignor to Champion Ignition Company, Flint, Mich. Spark-plug. No. 1,142,369; June 8; Gaz. vol. 215; p. 487.
Schmidt, Albrecht, and A. Steindorff, assignors to Farbwerke vorm. Meister Lucius & Brüning, Höchst-on-the-Main, Germany. Leuco compounds and making same. No. 1,141,148; June 1; Gaz. vol. 215; p. 20.
Schmidt, Conrad, Spokane, Wash. Portable electrically-heated radiator. No. 1,141,888; June 1; Gaz. vol. 215; p. 279.
Schmidt, Ernest H., assignor to The National Malleable Castings Company, Cleveland, Ohio. Coupling-shank and yoke connection. No. 1,144,384; June 29; Gaz. vol. 215; p. 1283.
Schmidt, Florence J. (See Schmidt, William A., assignor.)
Schmidt, Herman P. (See Utter and Schmidt.)
Schmidt, Peter G., Olympia, Wash. Gas-producer. No. 1,142,633; June 8; Gaz. vol. 215; p. 580.
Schmidt, Peter G., Olympia, Wash. Apparatus for interiorly cleansing receptacles. No. 1,142,913; June 15; Gaz. vol. 215; p. 716.
Schmidt, Peter G., Olympia, Wash. Gas-producer. No. 1,142,914; June 15; Gaz. vol. 215; p. 716.
Schmidt, Wilhelm, Wilhelmshöhe, near Cassel, assignor to Schmidt'sche Heissdampf Gesellschaft m. b. H., Cassel-Wilhelmshöhe, Germany. Arrangement in steam-engines for taking working steam from the engine-cylinders. No. 1,142,370; June 8; Gaz. vol. 215; p. 488.
Schmidt, William A., assignor to F. J. Schmidt, Newark, N. J. Combined post-card, candy-container, and mail-receptacle. No. 1,143,729; June 22; Gaz. vol. 215; p. 1025.
Schmidt, Willy, Frankfort-on-the-Main, and P. Müller, Dortmund, assignors to G. Schanzenbach & Co. G. m. b. H., Frankfort-on-the-Main, Germany. Lamp-shade. No. 1,141,361; June 1; Gaz. vol. 215; p. 98.
Schmidt'sche Heissdampf Gesellschaft m. b. H. (See Schmidt, Wilhelm, assignor.)
Schmied, Walther, Geneva, Switzerland. Internal-combustion engine. No. 1,141,658; June 1; Gaz. vol. 215; p. 203.
Schmitt, Henry, Shreveport, La. Internal-combustion engine. No. 1,141,362; June 1; Gaz. vol. 215; p. 98.
Schmitt, Joseph F. (See Reilly, Peter, assignor.)
Schmitz, Frank C., New York, N. Y. Manufacturing phosphoric acid. No. 1,142,371; June 8; Gaz. vol. 215; p. 488.
Schmutzler, Karl J. J. (See Le Brocq and Schmutzler.)
Schnebelen, August, Canton, Ohio. Dough-raiser. No. 1,143,787; June 22; Gaz. vol. 215; p. 1044.
Schneckloth, William, Chicago, Ill. Steerable drive-gearing. No. 1,143,864; June 22; Gaz. vol. 215; p. 1071.
Schneider, Clara G. (See Schneider, Max and C. G.)
Schneider, Eugène, Le Creuzot, France. Installation permitting of electrically actuating apparatus at a distance from a central station. No. 1,141,363; June 1; Gaz. vol. 215; p. 98.
Schneider, Eugène, Le Creuzot, France. Automobile torpedo. No. 1,143,232; June 15; Gaz. vol. 215; p. 830.
Schneider, Eugène, Le Creuzot, France. Device for the injection of water at high pressure into the air-reheaters of torpedo-engines. No. 1,144,385; June 29; Gaz. vol. 215; p. 1283.
Schneider, Julius, New York, N. Y. Needle-threader. No. 1,144,504; June 29; Gaz. vol. 215; p. 1323.
Schneider, Max and C. G., Denver, Colo. Sprinkling device. No. 1,144,070; June 22; Gaz. vol. 215; p. 1143.
Schnelbach, Harry A., Steubenville, Ohio, assignor, by mesne assignments, to Macbeth-Evans Glass Company, Pittsburgh, Pa. Glass and batch for making the same. No. 1,143,788; June 22; Gaz. vol. 215; p. 1044.
Schnell, Curtis C., Glen Rock, Pa. Support. No. 1,142,205; June 8; Gaz. vol. 215; p. 430.
Schnell, Julius L., Arlington, N. J. Self-filler fountain-pen. No. 1,144,436; June 29; Gaz. vol. 215; p. 1301.
Schoell, Reinhold, assignor to The Yale & Towne Manufacturing Company, Stamford, Conn. Locking device for circuit-controlling means. No. 1,142,732; June 8; Gaz. vol. 215; p. 611.
Schoen, Charles T., Media, Pa. Spool for music-rolls. No. 1,143,143; June 15; Gaz. vol. 215; p. 796.
Schoenfeld, Morris, Rorschach, Switzerland. Circular-shuttle embroidery-machine. No. 1,142,534; June 8; Gaz. vol. 215; p. 546.
Schoenner, Georg, Nuremberg, Germany. Drawing-pen. No. 1,143,730; June 22; Gaz. vol. 215; p. 1025.
Schoenthaler, George R., Chicago, Ill. Support and tie for concrete-reinforcing bars. No. 1,143,323; June 15; Gaz. vol. 215; p. 862.
Schofield, Mason & Co. (See Binz, Albert W., assignor.)
Scholes, Daniel R., assignor to Aermotor Company, Chicago, Ill. Power-transmission mechanism. No. 1,143,324; June 15; Gaz. vol. 215; p. 862.
Scholl, William M., Chicago, Ill. Instep-arch support. No. 1,142,848; June 15; Gaz. vol. 215; p. 692.
Scholl, William M., Chicago, Ill. Instep-arch supporter. No. 1,142,849; June 15; Gaz. vol. 215; p. 692.
Scholl, William M., Chicago, Ill. Instep-arch support. No. 1,142,850; June 15; Gaz. vol. 215; p. 693.
Scholz, Walter T. (See Shumway and Scholz.)
Schoonmaker, Frederick W., Jr., Montclair, N. J., assignor to Schoonmaker Laboratories, Inc., New York, N. Y. Nasal device. No. 1,143,731; June 22; Gaz. vol. 215; p. 1025.
Schoonmaker Laboratories. (See Schoonmaker, Frederick W., Jr., assignor.)
Schott & Gen. (See Schott, Otto, assignor.)
Schott, Otto, assignor to Schott & Gen., Jena, Germany. Glass. No. 1,143,732; June 22; Gaz. vol. 215; p. 1025.
Schrader, Thomas O., Allentown, assignor to The Dent Hardware Company, Fullerton, Pa. Toy cap-pistol. No. 1,141,904; June 1; Gaz. vol. 215; p. 287.
Schramm, Adolph W., assignor to Electro Dental Manufacturing Company, Philadelphia, Pa. Instrument-table. No. 1,143,443; June 15; Gaz. vol. 215; p. 904.
Schramm, Frederick C., assignor of three-fourths to A. J. Claverie and one-fourth to C. A. Villars, New Orleans, La. Acetylene-gas generator. No. 1,142,206; June 8; Gaz. vol. 215; p. 430.
Schramm, Louis, Jr., Armiger, Md. Device for attracting submarines and the like. No. 1,143,233; June 15; Gaz. vol. 215; p. 831.
Schremp, William R., New York, assignor to Union Mills, Inc., Hudson, N. Y. Undergarment. No. 1,143,444; June 15; Gaz. vol. 215; p. 905.
Schroder, Henry F., Windham, Mont. Straw-stacker. No. 1,144,386; June 29; Gaz. vol. 215; p. 1283.
Schroeder, Alfred M. (See Bushell, Charles S., assignor.)
Schröter, Fritz, Wilmersdorf, assignor to Elektrizitäts-Aktiengesellschaft Hydrawerk, Charlottenburg, near Berlin, Germany. Device for working weak-current installations. No. 1,141,836; June 1; Gaz. vol. 215; p. 261.
Schubert, Charles W., Cleveland, Ohio. Designing or calculating chart. No. 1,141,837; June 1; Gaz. vol. 215; p. 262.
Schuette, Henry H., Napoleon, Ohio. Eccentric. No. 1,144,731; June 29; Gaz. vol. 215; p. 1401.
Schuller, Frank, Jersey City, N. J. Flat-iron support and safety-guard. No. 1,141,272; June 1; Gaz. vol. 215; p. 65.
Schultz, Henry A. (See De Brown and Schultz.)
Schultz, Herman E., Jr., and F. Wetteroth, assignors to Zittlosen Manufacturing Company, St. Louis, Mo. Umbrella. No. 1,141,494; June 1; Gaz. vol. 215; p. 146.
Schuster, Max, Vienna, Austria-Hungary. Machine for turning green malt. No. 1,143,918; June 22; Gaz. vol. 215; p. 1089.
Schütz, Adolf F. (See Schütz, Gustav A. and A. F.)
Schütz, Gustav A. and A. F., Wurzen, Germany. Filtering device. No. 1,141,213; June 1; Gaz. vol. 215; p. 44.
Schwabek, George G., Baltimore, Md., assignor of one-third to W. H. Zeigler, New Freedom, Pa. Collapsible life-boat. No. 1,142,986; June 15; Gaz. vol. 215; p. 742.
Schwander, Jacob N., Cincinnati, Ohio. Seam. No. 1,144,947; June 29; Gaz. vol. 215; p. 1474.
Schwartz, Johan A., representative. (See Fidjeland, Terje A.)
Schwartz, Walter M. (See Coulston and Schwartz.)
Schwartzman, Jacub, Brooklyn, N. Y. Wire fabric. No. 1,141,418; June 1; Gaz. vol. 215; p. 119.
Schwarz, Julius, New York, N. Y. Curtain for knee-trousers. (Reissue.) No. 13,936; June 22; Gaz. vol. 215; p. 1247.
Schweitzer, Edmund O., and A. Herz, Chicago, Ill. Fuse device. No. 1,144,732; June 29; Gaz. vol. 215; p. 1401.
Sclar, Herman, New York, N. Y. Armor for vehicle-tires. No. 1,144,796; June 29; Gaz. vol. 215; p. 1424.
Scofield, Gilbert J., assignor to The Hilliard Clutch & Machinery Co., Elmira, N. Y. Clutch. No. 1,143,076; June 15; Gaz. vol. 215; p. 774.
Scotford, Louis K., Chicago, Ill., assignor to Hill-Independent Mfg. Co., Philadelphia, Pa. Hand-stamp. No. 1,143,445; June 15; Gaz. vol. 215; p. 905.
Scott, Arthur H., Oak Lane, Pa. Paper towel. No. 1,141,495; June 1; Gaz. vol. 215; p. 146.
Scott, Arthur P., Brackenridge, assignor to Allegheny Steel Company, Pittsburgh, Pa. Producing practically pure iron. No. 1,144,256; June 22; Gaz. vol. 215; p. 1210.
Scott, Elton H., Somerville, Mass. Weeder. No. 1,141,659; June 1; Gaz. vol. 215; p. 203.

Scott, Ephriam J., Providence, R. I. Machine for opening envelops. No. 1,143,919; June 22; Gaz. vol. 215; p. 1089.
Scott, George W., Troy, Ohio. Storm-front for vehicles. No. 1,142,061; June 8; Gaz. vol. 215; p. 380.
Scott, John L., Vermillion, Ohio. Propeller. No. 1,142,915; June 15; Gaz. vol. 215; p. 717.
Scott, John L., Vermillion, Ohio. Propeller. No. 1,142,916; June 15; Gaz. vol. 215; p. 717.
Scott, John M., Racine, Wis. Tie-plate and rail-brace. No. 1,144,003; June 22; Gaz. vol. 215; p. 1120.
Scott, John M., Racine, Wis., assignor to O. R. Barnett, Chicago, Ill. Rail-anchor. No. 1,143,077; June 15; Gaz. vol. 215; p. 774.
Scott, John W., New York, N. Y., and T. H. Greer, South Orange, N. J. Detachable stair-tread. No. 1,142,372; June 8; Gaz. vol. 215; p. 489.
Scott Paper Company. (See Hamilton and Calvert, assignors.)
Scovill Manufacturing Company. (See Stanley, Frederick E., assignor.)
Scoville, Frank F. (See Cole and Scoville.)
Scribner, John F., Chicago, Ill. Non-glare reflector. No. 1,143,650; June 22; Gaz. vol. 215; p. 999.
Seaman, Albert J., assignor to Seaman Engine Company, Boston, Mass. Valve mechanism for internal-combustion engines. No. 1,142,987; June 15; Gaz. vol. 215; p. 743.
Seaman, Alexander F., Pottsville, Pa. Shoe-button separator. No. 1,141,727; June 1; Gaz. vol. 215; p. 227.
Seaman, Charles H., assignor to O. H. Foerster, Milwaukee, Wis. Composition for refrigerator-linings, &c. No. 1,144,615; June 29; Gaz. vol. 215; p. 1360.
Seaman Engine Company. (See Seaman, Albert J., assignor.)
See, John. (See Wimmer and See.)
Seede, John A., Niskayuna, N. Y., assignor to General Electric Company. Arc-welding system. No. 1,141,980; June 8; Gaz. vol. 215; p. 349.
Seely, Thomas H. (See Hooper and Seely.)
Seely, Thomas H., Boston, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Machine for preparing welts. No. 1,143,078; June 15; Gaz. vol. 215; p. 775.
Sefton Manufacturing Company, The. (See Mareness, Berton L., assignor.)
Selander, Gustaf. (See Radlein and Selander.)
Selke, Willy, Berlin, Germany. Apparatus for plastically reproducing an object. No. 1,142,733; June 8; Gaz. vol. 215; p. 611.
Sell, Hattie H., Gilbertsville, Pa. Clothes-pin. No. 1,141,728; June 1; Gaz. vol. 215; p. 227.
Sellars, Rufus B., Obion county, Tenn. Stove. No. 1,143,079; June 15; Gaz. vol. 215; p. 775.
Selzer, Daniel F. (See Atwater and Selzer.)
Semonof, Wolf, Providence, R. I. Tailor's grading system and device therefor. No. 1,144,071; June 22; Gaz. vol. 215; p. 1144.
Senn, Karl, Alameda, Cal. Combined batea, jig, and pan-motion concentrator. No. 1,141,419; June 1; Gaz. vol. 215; p. 120.
Sensenich, Chester D., assignor to Irwin Foundry & Mine Car Company, Irwin, Pa. Self-oiling wheel. No. 1,141,586; June 1; Gaz. vol. 215; p. 178.
Senton, Moritz S., New Orleans, La. Coupon certificate of deposit. No. 1,141,838; June 1; Gaz. vol. 215; p. 262.
Séréville, Léon L. de, Paris, France. Machine for making network with square meshes. No. 1,144,733; June 29; Gaz. vol. 215; p. 1402.
Service, William F., Jersey City, assignor to Imperial Car Cleaner Company, Newark, N. J. Apparatus for treating car-cushions or the like. No. 1,143,080; June 15; Gaz. vol. 215; p. 776.
Sessions, Frank L., Columbus, Ohio, assignor to The Jeffrey Manufacturing Company. Mining-machine. No. 1,143,144; June 15; Gaz. vol. 215; p. 797.
Settergren, Bernhard, Chicago, Ill., assignor to M. C. Merker, New York, N. Y. Differential antiskidding driving mechanism. No. 1,141,839; June 1; Gaz. vol. 215; p. 262.
Severson, Knute J., Barnesville, Minn. Potato-digger. No. 1,143,446; June 15; Gaz. vol. 215; p. 905.
Severy, Melvin L., Arlington Heights, assignor to Choralcelo Company, Boston, Mass. Sonorous body and making the same. No. 1,144,435; June 29; Gaz. vol. 215; p. 1301.
Sexton, William A., Newton, Mass. Automatic poultry-feeder. No. 1,141,981; June 8; Gaz. vol. 215; p. 349.
Seymour, Dudley S., Oak Park, assignor to Union Special Machine Company, Chicago, Ill. Feeding mechanism for sewing-machines. No. 1,144,797; June 29; Gaz. vol. 215; p. 1424.
Shaeffer, Norman J., Woodward, Iowa. Planter. No. 1,143,738; June 22; Gaz. vol. 215; p. 1025.
Shane, Isaac N., Winfield, Kans. Flower-box. No. 1,142,634; June 8; Gaz. vol. 215; p. 580.
Sharp-Hughes Tool Company. (See Hughes, Howard R., assignor.)
Shattuck, Burt E., assignor to Dow Surgical Battery Company, Boston, Mass. Beater or agitator. No. 1,141,420; June 1; Gaz. vol. 215; p. 120.
Shaw, Allan D., and G. Wicks, Savanna, Ill.; said Shaw assignor to said Wicks. Bottle cleaning and polishing device. No. 1,144,734; June 29; Gaz. vol. 215; p. 1402.
Shaw, Edwin C., Akron, Ohio, assignor, by mesne assignments, to The B. F. Goodrich Company. Vehicle wheel-rim. No. 1,141,496; June 1; Gaz. vol. 215; p. 146.
Shaw, James, Lodi, Cal. Internal-combustion engine. No. 1,142,851; June 15; Gaz. vol. 215; p. 693.
Shaw, Percy W., Lynn, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Making boots and shoes. No. 1,141,840; June 1; Gaz. vol. 215; p. 263.
Sheahan, William, Oregon City, Oreg. Drier-rolls for paper-machines. (Reissue.) No. 13,925; June 8; Gaz. vol. 215; p. 635.
Shearwood, Walter A., Webster Groves, Mo. Oiler for elevator guide-rods. No. 1,141,149; June 1; Gaz. vol. 215; p. 20.
Sheets, Jesse T., Covington, Ky. Stretcher-support. No. 1,142,276; June 8; Gaz. vol. 215; p. 455.
Sheldon, Harry E. (See Snyder, George W., assignor.)
Sheldon, Ray W., White City, Kans. Fixture for combination hay and hog racks. No. 1,143,145; June 15; Gaz. vol. 215; p. 797.
Shellenberger, John, Rome, Ga. Veneer or slicing machine. No. 1,143,081; June 15; Gaz. vol. 215; p. 776.
Shelters, Hiram H., Rock Island, Quebec, Canada. Motor-vehicle controlling mechanism. No. 1,141,421; June 1; Gaz. vol. 215; p. 121.
Shelton, John B., assignor of one-half to P. David, Tacoma, Wash. Freight and stock car. No. 1,143,234; June 15; Gaz. vol. 215; p. 831.
Shelton, John M., Oklahoma, Okla., assignor to The Jno. M. Shelton Egg Carrier Company. Egg-case. No. 1,143,146; June 15; Gaz. vol. 215; p. 797.
Shepherd, Arthur F., Columbus, Ohio. Fastening mechanism for double doors. No. 1,142,463; June 8; Gaz. vol. 215; p. 522.
Shepherd, Thomas, Chorlton-on-Medlock, and J. S. Hayes, Moss Side, Manchester, England. Fan or air-propeller. No. 1,143,082; June 15; Gaz. vol. 215; p. 777.
Sherman, James M., Dallas, Tex. Pump. No. 1,143,325; June 15; Gaz. vol. 215; p. 863.
Sherman, Loule A., assignor to Rotary Valve Manufacturing Company, Kansas City, Mo. Valve. No. 1,143,865; June 22; Gaz. vol. 215; p. 1071.
Sherwood, George H., Denver, Colo. Vestibule-diaphragm for railway-cars. No. 1,143,734; June 22; Gaz. vol. 215; p. 1026.
Sherwood, James A., Scotia, N. Y. Pail-support. No. 1,144,072; June 22; Gaz. vol. 215; p. 1144.
Sherwood, Riley A., Billings, Mont. Fish-screen. No. 1,143,147; June 15; Gaz. vol. 215; p. 798.
Sherwood, Simeon V., Minneapolis, Minn. Safety device for railway-cars. No. 1,142,635; June 8; Gaz. vol. 215; p. 580.
Shiek, Daniel W., Indianapolis, Ind., assignor to W. L. Milliken, Barnstable, Mass. Computing-machine. No. 1,143,447; June 15; Gaz. vol. 215; p. 905.
Shiek, Daniel W., Indianapolis, Ind., assignor to W. L. Milliken, Barnstable, Mass. Calculating and listing machine. No. 1,143,448; June 15; Gaz. vol. 215; p. 906.
Shiek, Daniel W., Chicago, Ill., assignor, by mesne assignments, to W. L. Milliken, trustee. Calculating-machine. No. 1,143,920; June 22; Gaz. vol. 215; p. 1089.
Shimer, Elmer S., assignor to Samuel J. Shimer & Sons, Milton, Pa. Cutter-head. No. 1,142,776; June 8; Gaz. vol. 215; p. 629.
Shimer, Elmer S., assignor to Samuel J. Shimer & Sons, Milton, Pa. Cutter-head. No. 1,143,449; June 15; Gaz. vol. 215; p. 906.
Shimer, Elmer S., assignor to Samuel J. Shimer & Sons, Milton, Pa. Ball-bearing. No. 1,143,590; June 15; Gaz. vol. 215; p. 953.
Shimota, Benjamin J., Vesell, and G. B. Caraway, St. Paul, Minn. Egg-candling apparatus. No. 1,142,535; June 8; Gaz. vol. 215; p. 547.
Shimpf Starter Company. (See Shimpf, Walter H., assignor.)
Shimpf, Walter H., assignor to Shimpf Starter Company, Boston, Mass. Motor-starting device. No. 1,144,437; June 29; Gaz. vol. 215; p. 1301.
Shipley, Francis M., Piqua, Ohio. Undergarment. No. 1,144,616; June 29; Gaz. vol. 215; p. 1360.
Shipley, Grant B., Pittsburgh, Pa. Wood-treating cylinder. No. 1,144,669; June 29; Gaz. vol. 215; p. 1378.
Shive, Calvin A., Payson, assignor, by mesne assignments, to J. S. Hout, Tulsa, Okla. Gearing for washing-machines and the like. No. 1,143,326; June 15; Gaz. vol. 215; p. 863.
Showalter, Roy C., Altoona, Pa. Nut-lock. No. 1,143,450; June 15; Gaz. vol. 215; p. 906.
Shredded Wheat Company, The. (See Perky, Henry D., assignor.)
Shuck, Matilda J., assignor of one-half to P. L. Noggle, Bloomington, Ill. Bottle-stopper. No. 1,144,919; June 29; Gaz. vol. 215; p. 1464.
Shults, James C., Meadville, Pa., assignor to Russ Automatic Labeling Co., New York, N. Y. Can-labeling machine. (Reissue.) No. 13,940; June 29; Gaz. vol. 215; p. 1488.
Shumate, Robert D., Spray, N. C. Window-lock. No. 1,141,841; June 1; Gaz. vol. 215; p. 263.
Shumway, Harvey E., and W. T. Scholz, Frankfort, assignors to The S. & S. Automatic Tireaze Company, Marysville, Kans. Vehicle-elevator. No. 1,144,004; June 22; Gaz. vol. 215; p. 1120.

Shuping, Jacob A., Morganton, N. C. Grate. No. 1,143,235; June 15; Gaz. vol. 215; p. 831.
Sibert, Nicholas S. (See Flanagan, Thomas J., assignor.)
Sibson, Walter W. (See Allsop and Sibson.)
Sickman, Davy V., Denver, Colo. Hydraulic cartridge. No. 1,144,005; June 22; Gaz. vol. 215; p. 1120.
Siders, Walter L. (See Everhart, Perry W., assignor.)
Sides, John N., North Birmingham, Ala. Railway-frog. No. 1,142,373; June 8; Gaz. vol. 215; p. 489.
Sidwell, Charles W., Delta, Pa. Pump. No. 1,142,734; June 8; Gaz. vol. 215; p. 612.
Sieffert, Martin J. (See Vernon and Sieffert.)
Signfoos, Clark A., *et al.* (See Smith, Clarence I. W., assignor.)
Sigmun, Myer, assignor of one-half to S. Spitzer, Toledo, Ohio. Radiator. No. 1,142,536; June 8; Gaz. vol. 215; p. 547.
Silberstein, Martin, *et al.* (See Star, George, assignor.)
Silica Stone Works. (See Thomas, Charles W., assignor.)
Silio, Daniel, assignor of one-half to J. Salamon, Aurora, Ill. Street-sweeper. No. 1,143,148; June 15; Gaz. vol. 215; p. 798.
Sills, Clyde C., Dardanelle, Ark. Automatic lubricator. No. 1,142,735; June 8; Gaz. vol. 215; p. 612.
Silvius, Ellis T., Indianapolis, Ind., assignor, by mesne assignments, to The McCaskey Register Company, Alliance, Ohio. Filing appliance. No. 1,141,422; June 1; Gaz. vol. 215; p. 121.
Silvius, Ellis T., Indianapolis, Ind., assignor, by mesne assignments, to The McCaskey Register Company, Alliance, Ohio. Filing appliance. No. 1,142,122; June 8; Gaz. vol. 215; p. 402.
Silvius, Ellis T., Indianapolis, Ind., assignor, by mesne assignments, to The McCaskey Register Company, Alliance, Ohio. Credit-accounting register. No. 1,143,789; June 22; Gaz. vol. 215; p. 1044.
Simas, Michael P., assignor of one-half to J. Vasconcellos, New Bedford, Mass. Clam-rake. No. 1,141,423; June 1; Gaz. vol. 215; p. 121.
Simmance, John F., and J. Abady, London, England. Calorimeter. No. 1,143,790; June 22; Gaz. vol. 215; p. 1045.
Simmons, Leo, Washington, D. C. Flushing apparatus. No. 1,142,917; June 15; Gaz. vol. 215; p. 717.
Simmons Manufacturing Company. (See Isaacs, Joel L., assignor.)
Simmons, Ralph C., Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Machine for operating upon heels. No. 1,143,921; June 22; Gaz. vol. 215; p. 1090.
Simon, Arthur, assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. Electric magnet and solenoid. No. 1,142,852; June 15; Gaz. vol. 215; p. 694.
Simon, Christian, Essen-Ruhr, Germany. Coal-jigging plant. No. 1,144,735; June 29; Gaz. vol. 215; p. 1403.
Simon, Paul, Perth Amboy, N. J. Life-saving suit. No. 1,141,273; June 1; Gaz. vol. 215; p. 65.
Simpkins, Frank E., Youngstown, Ohio. Manufacture of seamless tubes. No. 1,141,424; June 1; Gaz. vol. 215; p. 122.
Simpkins, Frank E., Youngstown, Ohio. Apparatus for rolling seamless tubes. No. 1,141,425; June 1; Gaz. vol. 215; p. 122.
Simpkins, Frank E., Youngstown, Ohio. Mandrel stripping and cooling mechanism. No. 1,141,426; June 1; Gaz. vol. 215; p. 122.
Simpkins, Frank E., Youngstown, Ohio. Tube-rolling mill. No. 1,141,427; June 1; Gaz. vol. 215; p. 123.
Simplex Electric Heating Company. (See Chandler, Edwin N., assignor.)
Simplex Electric Heating Company. (See Ovington, Edward J., assignor.)
Simpson, Charles A., assignor to Kellogg Switchboard and Supply Company, Chicago, Ill. Relay. No. 1,141,982; June 8; Gaz. vol. 215; p. 350.
Simpson, Edmund, New York, N. Y. Switch-key attachment. No. 1,142,277; June 8; Gaz. vol. 215; p. 456.
Simpson, Frank M., Alameda, Cal. Rail-plate. No. 1,141,428; June 1; Gaz. vol. 215; p. 123.
Simpson, Lowe E., assignor to The Orville Simpson Company, Cincinnati, Ohio. Sifting-machine. No. 1,141,660; June 1; Gaz. vol. 215; p. 204.
Simpson, Selden L., assignor of one-half to W. E. Currie, Detroit, Mich. Vehicle-wheel. No. 1,141,429; June 1; Gaz. vol. 215; p. 123.
Sinclair, George W. (See Brown and Sinclair.)
Sinclair, Harry R., Worcester, Mass. Check-protector. No. 1,143,556; June 15; Gaz. vol. 215; p. 941.
Sinclair, Harry R., Worcester, Mass. Check-protector. No. 1,143,557; June 15; Gaz. vol. 215; p. 941.
Singer, Aaron, New York, N. Y. Powder-blower. No. 1,142,636; June 8; Gaz. vol. 215; p. 581.
Singer, Ernest, *et al.* (See Eckenwiler, George M., assignor.)
Singer, Fred, *et al.* (See Eckenwiler, George M., assignor.)
Singer, Jacob J., St. Louis, Mo. Resonating stethoscope or intensifier. No. 1,143,791; June 22; Gaz. vol. 215; p. 1045.
Singer Manufacturing Company, The. (See De Voe, Albert H., assignor.)
Singer Manufacturing Company, The. (See Diehl and Eichhorn, assignors.)
Siskin, Harry, Los Angeles, Cal. Cedar-chest bed. No. 1,142,537; June 8; Gaz. vol. 215; p. 547.
Sitta, Methold F., Chicago, Ill. Signal device. No. 1,142,062; June 8; Gaz. vol. 215; p. 380.
Sivak, John, A. Nagy, and L. Banduray, New York, N. Y. Hygienic toilet-seat. No. 1,142,374; June 8; Gaz. vol. 215; p. 489.
Skall, Max A., New York, N. Y. Ticket-rack and storage system for same. No. 1,141,274; June 1; Gaz. vol. 215; p. 65.
Skall, Max A., New York, N. Y. Show-case construction. No. 1,141,275; June 1; Gaz. vol. 215; p. 66.
Skelton, Harry E., Detroit, Mich. Grapple. No. 1,144,387; June 29; Gaz. vol. 215; p. 1284.
Skemp, Robert, Scottdale, and W. Gibson, Sr., Vandergrift, assignors to American Sheet & Tin Plate Company, Pittsburgh, Pa. Coating iron or steel. No. 1,143,922; June 22; Gaz. vol. 215; p. 1090.
Skiles, James A. (See Stroup, Earl N., assignor.)
Skillman, Newton. (See Obrecht and Skillman.)
Skinkle, Julia T., *et al.* (See Beck, Marshall, assignor.)
Skinner Engine Company. (See Skinner and Williams, assignors.)
Skinner, Le Grand, and E. F. Williams, assignors to Skinner Engine Company, Erie, Pa. Steam-engine valve-gear. No. 1,142,853; June 15; Gaz. vol. 215; p. 695.
Sklarek, Jacques. (See Weiler, Wilhelm, assignor.)
Skowbo, Arthur W., Armstrong, Iowa. Shaving-brush. No. 1,143,451; June 15; Gaz. vol. 215; p. 907.
Skunda, John, Urey, Pa. Ice-creeper. No. 1,144,155; June 22; Gaz. vol. 215; p. 1175.
Slater, Harvey, assignor to Charles F. Elmes Engineering Works, Chicago, Ill. High-pressure valve. No. 1,143,236; June 15; Gaz. vol. 215; p. 832.
Slaughter & Company. (See Strohmenger, Arthur P., assignor.)
Slick, Edwin E., Westmont borough, Pa. Metallic railway-tie. No. 1,142,278; June 8; Gaz. vol. 215; p. 456.
Slick, Edwin E., Westmont borough, Pa. Making flanged shapes. No. 1,143,735; June 22; Gaz. vol. 215; p. 1026.
Slingluff, Harry G., assignor to Pittsburgh Plate Glass Company, Pittsburgh, Pa. Glass-drawing apparatus. No. 1,141,497; June 1; Gaz. vol. 215; p. 146.
Slobinski, Ananios. (See Alexandrowsky and Slobinski.)
Slocum, Charles B., Quincy, Ill. Sandal. No. 1,142,854; June 15; Gaz. vol. 215; p. 695.
Smakal, Frank C., Midas, Nev. Bank-protecting apparatus. No. 1,142,736; June 8; Gaz. vol. 215; p. 612.
Smart, Charles S., and W. W. Linder; said Linder assignor to T. V. Terrell, Cooleemee, N. C. Bobbin or quill stripping machine. No. 1,144,006; June 22; Gaz. vol. 215; p. 1121.
Smart, Mason L. (See Wright, Smart, Hopper, and Thompson.)
Smieja, John F., Royalton, Minn. Harness-buckle. No. 1,141,842; June 1; Gaz. vol. 215; p. 263.
Smith, Albert W., Washington, D. C. Electric starter for automobile-engines. No. 1,144,438; June 29; Gaz. vol. 215; p. 1301.
Smith, Algernon V., Houston Heights, Tex. Hydrocarbon-burner. No. 1,143,792; June 22; Gaz. vol. 215; p. 1045.
Smith, Asa E., Hillsboro, Tex. Lever-latch. No. 1,143,452; June 15; Gaz. vol. 215; p. 907.
Smith, Clarence I. W., assignor to H. Haubens and C. A. Signfoos, Omaha, Nebr. Addressing-machine. No. 1,144,617; June 29; Gaz. vol. 215; p. 1360.
Smith, Edmund L., assignor of one-half to H. Lewinson, San Francisco, Cal. Molding for screens. No. 1,142,918; June 15; Gaz. vol. 215; p. 718.
Smith, Elmer G., Fostoria, Ohio. Rail-connecting means. No. 1,141,843; June 1; Gaz. vol. 215; p. 263.
Smith, Elmer S., assignor to Float-Jet Carburetor Co., Newark, N. J. Carbureter. No. 1,141,276; June 1; Gaz. vol. 215; p. 66.
Smith, Frank, Kansas City, Mo. Stove. No. 1,142,123; June 8; Gaz. vol. 215; p. 403.
Smith, Frank W., Westfield, N. J., assignor to Sundh Electric Company, New York, N. Y. Motor controller and indicator. No. 1,144,388; June 29; Gaz. vol. 215; p. 1284.
Smith, George Z., assignor of one-third to T. H. Rogers and one-third to G. Follansbee, Follansbee, W. Va. Sheet transporting and stacking apparatus. No. 1,141,277; June 1; Gaz. vol. 215; p. 67.
Smith, Gilman B., Montclair, N. J. Collar-support. No. 1,143,453; June 15; Gaz. vol. 215; p. 907.
Smith, Harry W. (See Kempff and Smith.)
Smith, Horace S., Youngstown, Ohio, assignor to H. S. Smith, trustee. Detachable sole and heel for boots and shoes. No. 1,141,844; June 1; Gaz. vol. 215; p. 264.
Smith, James C., assignor to The Machine Parts Company, Elyria, Ohio. Velocipede. No. 1,141,278; June 1; Gaz. vol. 215; p. 67.
Smith, Jay B., Girard, Ala., assignor of one-half to J. L. Betts, Muscogee county, Ga. Implement for pulling nails, fence-wires, &c. No. 1,143,083; June 15; Gaz. vol. 215; p. 777.
Smith, John J. P., Charleston, S. C. Lubricating device for engines. No. 1,144,257; June 22; Gaz. vol. 215; p. 1211.
Smith, John R., McDonough, assignor of forty one-hundredths to H. H. Newman, Sandersville, Ga. Saw-sharpening device. No. 1,143,084; June 15; Gaz. vol. 215; p. 777.

Smith, Josiah H., assignor to W. H. Tigerman, Philadelphia, Pa. Suspension-railway. No. 1,142,124; June 8; Gaz. vol. 215; p. 403.
Smith Locomotive Adjustable Hub Plate Company. (See Sams, Albert J., assignor.)
Smith, Lyle G., St. Louis, Mich. Rotary engine. No. 1,144,258; June 22; Gaz. vol. 215; p. 1211.
Smith, Newton, East Orange, N. J. Steering-wheel lock. No. 1,142,764; June 8; Gaz. vol. 215; p. 624.
Smith, Newton H., Hamilton, Ill. Lawn-swing. No. 1,143,454; June 15; Gaz. vol. 215; p. 907.
Smith, Oakley, Chicago, Ill. Diagnostic and treating table. No. 1,143,651; June 22; Gaz. vol. 215; p. 999.
Smith, Oakley, Chicago, Ill. Chart for the spinal column. No. 1,143,652; June 22; Gaz. vol. 215; p. 999.
Smith, Rose W., Lexington, Mass. Ornamental plaque. No. 1,143,601; June 15; Gaz. vol. 215; p. 957.
Smith, Stephen G., Hannibal, Mo. Tonsillotome. No. 1,142,919; June 15; Gaz. vol. 215; p. 718.
Smith, Sydney H. (See Bennett and Smith.)
Smith, Theodore, assignor to Theo. Smith Manufacturing Company, Chicago, Ill. Telephone apparatus. No. 1,141,279; June 1; Gaz. vol. 215; p. 67.
Smith, Walter E., Winfield, Kans. Billiard-cue. No. 1,141,587; June 1; Gaz. vol. 215; p. 178.
Smith, Warren M., Moores, assignor to The J. G. Brill Company, Philadelphia, Pa. Car-frame. No. 1,141,845; June 1; Gaz. vol. 215; p. 264.
Smith, William B., Danville, Ill. Sliding-door lock. No. 1,143,653; June 22; Gaz. vol. 215; p. 999.
Smith, William E. (See Mettler and Smith.)
Smith, William F., Chicago, Ill., assignor to Western Electric Company, New York, N. Y. Winding-head. No. 1,144,618; June 29; Gaz. vol. 215; p. 1361.
Smith, William J., New Haven, Conn., assignor to H. N. Sweet, trustee, Boston, Mass. Exploding device for projectiles. No. 1,142,375; June 8; Gaz. vol. 215; p. 489.
Smith, William L., assignor of one-half to J. A. Greer, Decatur, Ill. Motion-picture-film cabinet. No. 1,144,736; June 29; Gaz. vol. 215; p. 1403.
Smokeless Economisers Limited. (See Bennett and Smith, assignors.)
Smoot, Charles H., assignor to Rateau, Battu, Smoot Company, New York, N. Y. Power-generating system. No. 1,141,983; June 8; Gaz. vol. 215; p. 350.
Smulski, Theodore J., Milwaukee, Wis. Resilient wheel. No. 1,141,498; June 1; Gaz. vol. 215; p. 147.
Smykal, Emil, Bloomfield, N. J., assignor to Woods & Chatellier, New York, N. Y. Card-case. No. 1,143,654; June 22; Gaz. vol. 215; p. 1000.
Smyle, Bernhardt and C., Brooklyn, N. Y. Collapsible ice-cream box. No. 1,141,661; June 1; Gaz. vol. 215; p. 204.
Smyle, Charles. (See Smyle, Bernhardt and C.)
Snavely, Carrie E., Sauk Rapids, Minn. Heating attachment for lamp-chimneys. No. 1,144,920; June 29; Gaz. vol. 215; p. 1465.
Snee, John A., Jr., West Elizabeth, and T. H. Kerr, Pittsburgh, Pa., assignors to said Snee and W. Snee, West Elizabeth, Pa. Wind-wheel-load regulator. No. 1,142,538; June 8; Gaz. vol. 215; p. 548.
Snee, William. (See Snee and Kerr, assignors.)
Sneed, William V., Vernon, Tex. Hull-burner. No. 1,141,214; June 1; Gaz. vol. 215; p. 44.
Snodgrass, Harlan E. (See Altman, Moïse, assignor.) (Reissue.)
Snodgrass, James W., Youngstown, Ohio. Stump-puller and tree-carrier. No. 1,143,455; June 15; Gaz. vol. 215; p. 908.
Snook, Homer C., Cynwyd, and E. W. Kelly, Philadelphia, Pa. Vacuum regulation. No. 1,143,327; June 15; Gaz. vol. 215; p. 863.
Snyder, George W., assignor to H. E. Sheldon, Pittsburgh, Pa. Cast-metal railway cross-tie. No. 1,143,456; June 15; Gaz. vol. 215; p. 908.
Snyder, Jacob R., Joplin, Mo. Automatic sprinkling device. No. 1,144,619; June 29; Gaz. vol. 215; p. 1361.
Snyder, John J., Jersey City, N. J. Self-locking nut. No. 1,141,280; June 1; Gaz. vol. 215; p. 68.
Snyder, John J., Kansas City, Mo. Credit-account device. No. 1,143,085; June 15; Gaz. vol. 215; p. 778.
Sochor, Friedrich, Vienna, Austria-Hungary. Grab for transporters, excavators, and the like. No. 1,142,637; June 8; Gaz. vol. 215; p. 581.
Società Anonima Italiana Gio. Ansaldo & C. (See Giolitti, Federico, assignor.)
Societe Anonyme des Etablissements Delaunay-Belleville, The. (See Radiguer, Charles, assignor.)
Societe Anonyme Pour L'Exploitation Des Procedes Westinghouse Leblanc. (See Leblanc, Maurice, assignor.)
Société Burton Fils. (See Rothman, Edwin O., assignor.)
Société des Etablissements Gaumont. (See Gaumont, Léon, assignor.)
Société Francaise des Films & Cinematographes, "Eclair." (See Javault, Robert, assignor.)
Société Generale des Nitrures. (See Badin, Adrien, assignor.)
Societe Houdaille & Sabot. (See Houdaille, Maurice, assignor.)
Société L'Aluminium Francais. (See Roux, François A., assignor.)
Soderstrom, John A., Chicago, Ill. Necktie. No. 1,143,086; June 15; Gaz. vol. 215; p. 778.
Sohm, Alfred L., Los Angeles, Cal., assignor to Sohm Electric Signal & Recording Company, Chicago, Ill. Lock. No. 1,141,215; June 1; Gaz. vol. 215; p. 44.
Sohm, Alfred L., assignor to Sohm Electric Signal & Recording Company, Chicago, Ill. Electrical recording apparatus. No. 1,141,216; June 1; Gaz. vol. 215; p. 45.
Sohm, Alfred L., assignor to Sohm Electric Signal & Recording Company, Chicago, Ill. Code-signal device. No. 1,144,870; June 29; Gaz. vol. 215; p. 1449.
Sohm Electric Signal & Recording Company. (See Sohm, Alfred L., assignor.)
Solaini, Peter, New York, N. Y. Embroidery device. No. 1,141,217; June 1; Gaz. vol. 215; p. 45.
Soley, Frank, assignor to Miller Lock Co., Philadelphia, Pa. Padlock. No. 1,142,638; June 8; Gaz. vol. 215; p. 581.
Soloman, Abraham. (See Andres, Charles M., assignor.)
Sommer, William H., Peoria, Ill. Making a metallic structure. No. 1,143,655; June 22; Gaz. vol. 215; p. 1000.
Sooy, Ephraim C., Kansas City, Mo. System and apparatus for the drainage and reclamation of inundated surfaces of land. No. 1,142,125; June 8; Gaz. vol. 215; p. 404.
Sotak, Paul, Homer City, Pa. Rail-joint and supporting-tie. No. 1,144,567; June 29; Gaz. vol. 215; p. 1344.
Soty, Joseph, New York, N. Y. Demountable and adjustable skate. No. 1,142,855; June 15; Gaz. vol. 215; p. 695.
Southern Cotton Oil Company. (See Wesson, David, assignor.)
Southern Cotton Oil Company, The. (See Woodruff, John C., assignor.)
Southern-Electro Chemical Company. (See Hechenbleikner, Ingenuin, assignor.)
Southern Investment Co. of Canada Ltd. (See Willson and Haff, assignors.)
Southgate, Louis W., Worcester, Mass., assignor to The Auto Pneumatic Action Company. Paper-winding mechanism. No. 1,142,988; June 15; Gaz. vol. 215; p. 743.
Spackman, Henry S., Ardmore, Pa., and E. W. Lazell, Portland, Oreg.; said Lazell assignor to said Spackman. Plaster composition and making the same. No. 1,142,989; June 15; Gaz. vol. 215; p. 744.
Spahr, Otto, Philadelphia, Pa. Bottle-closure. No. 1,143,656; June 22; Gaz. vol. 215; p. 1000.
Spangler, John H., assignor of one-half to J. A. Nelson, Minneapolis, Minn. Resilient wheel. No. 1,144,073; June 22; Gaz. vol. 215; p. 1145.
Spanovic, Ninko, Pittsburgh, Pa., assignor of one-half to H. A. Phillips, Washington, D. C. Bicycle propulsion. No. 1,141,364; June 1; Gaz. vol. 215; p. 99.
Sparks, Laban, administrator. (See Perky, Henry D.)
Sparks, Oscar C., Elwood, Ind. Nut-lock. No. 1,142,464; June 8; Gaz. vol. 215; p. 523.
Sparks, Troy W., Eden, Tex. Automatic controller for cotton-trampers. No. 1,141,218; June 1; Gaz. vol. 215; p. 45.
Sparks, William E., assignor to Sargent & Company, New Haven, Conn. Lock. No. 1,141,150; June 1; Gaz. vol. 215; p. 21.
Sparks, William E., assignor to Sargent & Company, New Haven, Conn. Lock. No. 1,141,984; June 8; Gaz. vol. 215; p. 351.
Spaulding, Algernon S., Worcester, Mass., assignor to Thomas & Company, Inc. Sanding-machine. No. 1,142,063; June 8; Gaz. vol. 215; p. 380.
Specification Soap & Oil Co. (See Nienstadt, August E., assignor.)
Speidel, Charles F. (See Kroedel and Speidel.)
Speidel, Charles F., assignor to Eastman Kodak Company, Rochester, N. Y. View-finder. No. 1,144,074; June 22; Gaz. vol. 215; p. 1145.
Speller, Frank N., assignor to National Tube Company, Pittsburgh, Pa. Pipe-coupling. No. 1,141,151; June 1; Gaz. vol. 215; p. 21.
Spencer, Alvah C., Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Coupling. No. 1,141,281; June 1; Gaz. vol. 215; p. 68.
Spencer Lens Company. (See Ott and Barton, assignors.)
Spencer, Robert, and C. C. Bland, Terre Haute, Ind. Fresh-air bed. No. 1,144,075; June 22; Gaz. vol. 215; p. 1145.
Sperberg, Edward H., Kansas City, Mo. Moving-picture machine. No. 1,141,588; June 1; Gaz. vol. 215; p. 179.
Sperry, Elmer A., Chicago, Ill. Gas-engine. No. 1,141,985; June 8; Gaz. vol. 215; p. 351.
Spill, Charles J., Springfield, Mass. Shank-button. No. 1,143,457; June 15; Gaz. vol. 215; p. 908.
Spinnerei & Weberei Steinen Actien-Gesellschaft. (See Koechlin, Albert G., assignor.)
Spirella Company, The. (See Hyde, Elbert L., assignor.)
Spitzer, Sumer. (See Sigmun, Myer, assignor.)
Splitdorf Electrical Company. (See Richards, Julius H., assignor.)
Splitdorf Electrical Company. (See Wilson, James M., assignor.)
Sprado, Carl G., assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis. Regulator for combustion-engines. No. 1,143,328; June 15; Gaz. vol. 215; p. 863.
Sprague, James H., Clarkston, Wash. Fruit-drier. No. 1,142,465; June 8; Gaz. vol. 215; p. 523.
Spremulli, Leonardo, and A. Manuppelli, Ellsworth, assignors of one-third to A. M. Costa, Bentleyville, Pa. Garbage-can. No. 1,141,846; June 1; Gaz. vol. 215; p. 264.

Spring Governor Company. (See McKnight, John A., assignor.)
Spross, Hubert M., Arlington, assignor to The Delaval Separator Company, New York, N. Y. Liquid-treating apparatus. No. 1,141,282; June 1; Gaz. vol. 215; p. 68.
St. Clair, Jerry W., Johnstown, Pa. Railway-tie. No. 1,144,441; June 29; Gaz. vol. 215; p. 1302.
St. Louis, Frank, Windsor, Ontario, Canada. Floor-mat. No. 1,144,442; June 29; Gaz. vol. 215; p. 1303.
Stadelman, George M., assignor to The Goodyear Tire & Rubber Company, Akron, Ohio. Valve-stem protective device. No. 1,141,219; June 1; Gaz. vol. 215; p. 46.
Stadtherr, Paul J., Melrose, Minn. Window-lock. No. 1,144,007; June 22; Gaz. vol. 215; p. 1121.
Stafford Company, The. (See Jackson, Simeon S., assignor.)
Stafford, Henry L., Long Beach, Cal. Food product and preparing the same. No. 1,143,087; June 15; Gaz. vol. 215; p. 778.
Stahelin, Albert J., Redford, Mich. Greenhouse. No. 1,142,539; June 8; Gaz. vol. 215; p. 548.
Stahl, Oliver E., Pittsburgh, Pa. Portable support for electric lamps. No. 1,141,152; June 1; Gaz. vol. 215; p. 21.
Stahl, Sidney S., Connellsville, Pa. Pressure-controlled electric switch for motor-operated pumps. No. 1,141,847; June 1; Gaz. vol. 215; p. 264.
Stahle, Carl W., Everett, assignor to Boston Auto Gage Company, Boston, Mass. Fluid-gage. No. 1,141,499; June 1; Gaz. vol. 215; p. 147.
Stahle, Carl W., Everett, assignor to Boston Auto Gage Company, Boston, Mass. Fluid-gage. No. 1,141,500; June 1; Gaz. vol. 215; p. 148.
Staler, Henry, New York, N. Y. Match-head or similar composition. No. 1,144,076; June 22; Gaz. vol. 215; p. 1146.
Staler, Henry, New York, N. Y. Match-head or similar composition. No. 1,144,077; June 22; Gaz. vol. 215; p. 1146.
Standard Mail Order Company. (See Rubel, Jacob, assignor.)
Standard Motor Truck Company. (See Christianson, Andrew, assignor.)
Standard Optical Company, The. (See Bader and Howland, assignors.)
Standard Optical Company, The. (See Boucher, Philias J., assignor.)
Standard Optical Company, The. (See Howland, Chauncy W., assignor.)
Standard Stoker Company. (See Williams, David T., assignor.)
Stanley, Frederick E., assignor to Scovill Manufacturing Company, Waterbury, Conn. Tack-fastened button. No. 1,142,376; June 8; Gaz. vol. 215; p. 490.
Stanley, Richard E., assignor of one-third to J. N. Barnett and one-third to C. Bitzer, Jr., Pittsburgh, Pa. Bowling-pin. No. 1,144,078; June 22; Gaz. vol. 215; p. 1146.
Stanley, Theodore D., Detroit, Mich. Steering-gear. No. 1,142,377; June 8; Gaz. vol. 215; p. 490.
Stanley Works, The. (See Hart, Walter H., assignor.)
Stanwood, Frank H., Arlington, Mass. Step for automobiles and other vehicles. No. 1,144,439; June 29; Gaz. vol. 215; p. 1302.
Staples, Sidney J., West New York, N. J., assignor to The Auto Pneumatic Action Company. Link-connector. No. 1,144,440; June 29; Gaz. vol. 215; p. 1302.
Stapleton, Charles A., and O. P. Burchfiel, Anthony, Kans. Gas-engine. No. 1,143,736; June 22; Gaz. vol. 215; p. 1027.
Star, George, assignor of one-third to M. Silberstein and one-third to P. Wagner, Davenport, Iowa. Changeable sign. No. 1,142,777; June 8; Gaz. vol. 215; p. 629.
Star Seal Company. (See Winter, Charles, assignor.)
Starkey, William C., assignor to The Ohio Brass Company, Mansfield, Ohio. Catenary banger. No. 1,142,378; June 8; Gaz. vol. 215; p. 491.
Starling, Robert W., Habira, Ga. Guano-distributer. No. 1,142,064; June 8; Gaz. vol. 215; p. 381.
Staude, Edwin G., Minneapolis, Minn., assignor to E. G. Staude Manufacturing Company. Machine for making flexible boxes. (Reissue.) No. 13,937; June 22; Gaz. vol. 215; p. 1247.
Staude, Edwin G., Minneapolis, Minn., assignor, by mesne assignments, to United States Envelope Company, Worcester, Mass. Envelop-making machine. No. 1,144,506; June 29; Gaz. vol. 215; p. 1323.
Stautzenberger, William C. (See Olsen and Stautzenberger.)
Stearns, Jason C., Worcester, Mass. Metal-armor circuit-connecting attachment. No. 1,144,948; June 29; Gaz. vol. 215; p. 1474.
Stearns, Jason C., Worcester, Mass. Electrical fitting. No. 1,144,949; June 29; Gaz. vol. 215; p. 1475.
Stebbins, Arthur C., Lansing, Mich. All-steel truck. No. 1,143,088; June 15; Gaz. vol. 215; p. 778.
Stecher Lithographic Company. (See Ziegler, William C., assignor.)
Stedman, Pascal H., Newport, R. I. Slat-holder. No. 1,143,657; June 22; Gaz. vol. 215; p. 1001.
Steel, John L., Wellston, Ohio. Cut-off. No. 1,144,259; June 22; Gaz. vol. 215; p. 1211.
Steele, Edwin G. (See Sutton and Steele.)
Steele, Walter L. (See Sutton and Steele.)
Steere, William J., Rockwood, Tenn. Attachment for knitting-machines. No. 1,143,658; June 22; Gaz. vol. 215; p. 1001.
Steffan, Frank, San Diego, Cal. Aerial landing and launching appliance. No. 1,144,505; June 29; Gaz. vol. 215; p. 1323.
Stehm, Frank R., assignor to Enamel Concrete Company, Des Moines, Iowa. Waterproofing compound for cement, concrete, and the like. No. 1,141,848; June 1; Gaz. vol. 215; p. 265.
Stehr, Joseph, Cincinnati, Ohio. Demountable rim. No. 1,144,260; June 22; Gaz. vol. 215; p. 1212.
Steinberger, Louis, Brooklyn, N. Y. Insulator. No. 1,143,149; June 15; Gaz. vol. 215; p. 799.
Steindorff, Adolf. (See Schmidt and Steindorff.)
Steinhilber, Adolf A., Rock Island, assignor to Artista Piano Player Company, Milan, Ill. Tempo-regulator and rewinding mechanism for piano-players. No. 1,141,283; June 1; Gaz. vol. 215; p. 69.
Steinmann, Frank, St. Louis, Mo. Flying-machine. No. 1,141,431; June 1; Gaz. vol. 215; p. 124.
Steinmetz, Joseph A., Philadelphia, Pa. Automobile theft-indicator. No. 1,142,639; June 8; Gaz. vol. 215; p. 582.
Stellers, W. A. (See Andrews, William E., assignor.)
Stenerson, Andrew R. (See Crosley and Stenerson.)
Stephens, Harry H., Philadelphia, Pa. Centrifugal hanger. No. 1,141,430; June 1; Gaz. vol. 215; p. 124.
Stephens, James W. T., New Orleans, La. Spring-cushion tire. No. 1,142,279; June 8; Gaz. vol. 215; p. 456.
Stephenson, Thomas E., Penbrook, Pa. Compound tool. No. 1,142,065; June 8; Gaz. vol. 215; p. 381.
Stern, Albert, Yonkers, N. Y. Controller. No. 1,144,872; June 29; Gaz. vol. 215; p. 1450.
Stern, Albert and P. K., Yonkers, N. Y.; said P. K. Stern assignor to said Albert Stern. Weatherproof annunciator-case. No. 1,144,871; June 29; Gaz. vol. 215; p. 1450.
Stern, Albert, Yonkers, and P. K. Stern, deceased; E. L. Stern, executrix, New York, N. Y.; said E. L. Stern assignor to said Albert Stern. Signaling system. No. 1,144,873; June 29; Gaz. vol. 215; p. 1451.
Stern, Elizabeth L., executrix. (See Stern, Philip K.)
Stern, Elizabeth L., executrix. (See Stern, Albert and P. K.)
Stern, Frederick, New Rochelle, N. Y. Respirator. No. 1,142,990; June 15; Gaz. vol. 215; p. 744.
Stern, Philip K. (See Stern, Albert and P. K.)
Stern, Philip K., New York, N. Y., assignor to Frank M. Randall Manufacturing Corporation. Universal joint. No. 1,143,659; June 22; Gaz. vol. 215; p. 1001.
Stern, Philip K., deceased; E. L. Stern, executrix, assignor to Frank M. Randall Manufacturing Corporation, New York, N. Y. Universal joint. No. 1,143,660; June 22; Gaz. vol. 215; p. 1002.
Stern, Samuel W., New York, N. Y. Smoking-doll. No. 1,143,458; June 15; Gaz. vol. 215; p. 908.
Sternbergh, David D., assignor to American Die and Tool Company, Reading, Pa. Transmission-gear casing. No. 1,143,661; June 22; Gaz. vol. 215; p. 1002.
Sterner, Clement A., assignor to H. L. Sterner, trustee, Allentown, Pa. Windmill. No. 1,144,737; June 29; Gaz. vol. 215; p. 1404.
Sterner, Helen L., trustee. (See Sterner, Clement A., assignor.)
Stevens, William H. T., *et al.* (See Yuill, James, assignor.)
Stevens, William X., Washington, D. C., assignor to E. L. Barton, Jacksonville, Fla. Box-making machine. No. 1,143,089; June 15; Gaz. vol. 215; p. 779.
Stevenson, John H., and F. Knowlson, Ann Arbor, Mich.; said Stevenson assignor to said Knowlson. Leaf-separator for springs. No. 1,142,280; June 8; Gaz. vol. 215; p. 457.
Stevenson, William H., assignor to Philadelphia Holding Company, Philadelphia, Pa. Car-truck. No. 1,142,379; June 8; Gaz. vol. 215; p. 491.
Stever, Chester N., Mechanics Valley, Pa. Gas-engine. No. 1,144,921; June 29; Gaz. vol. 215; p. 1465.
Stewart, Annie. (See Stewart, James S., assignor.)
Stewart, James S., assignor to A. Stewart, New York, N. Y. Device for temporarily retaining conductors. No. 1,142,282; June 8; Gaz. vol. 215; p. 457.
Stewart, John H., Lynn, Mass. Skiving-machine. No. 1,142,281; June 8; Gaz. vol. 215; p. 457.
Stewart, Marvin. (See Kobs and Stewart.)
Stewart-Warner Speedometer Corporation. (See Leathers, Ward G., assignor.)
Stewart-Warner Speedometer Corporation. (See Swanson, Ernest J., assignor.)
Stewart, William G., Chester, Pa. Woven fabric. No. 1,141,665; June 1; Gaz. vol. 215; p. 205.
Stickle, Cole, Indianapolis, Ind. Steam-trap. No. 1,143,329; June 15; Gaz. vol. 215; p. 864.
Stickley, Marcus A., Strasburg, Va. Gate-operating means. No. 1,141,849; June 1; Gaz. vol. 215; p. 265.
Stickney, Charles A., St. Paul, Minn. Electric generator. No. 1,143,662; June 22; Gaz. vol. 215; p. 1003.
Stieb, Arthur. (See Meyer and Stieb.)
Stiefel, Frank C., assignor to The Curtis Publishing Company, Philadelphia, Pa. Towel-rack. No. 1,141,664; June 1; Gaz. vol. 215; p. 205.

Stiefel, Frank C., assignor to The Curtis Publishing Company, Philadelphia, Pa. Brush-holder. No. 1,143,090; June 15; Gaz. vol. 215; p. 779.
Stille, Curt, Zehlendorf-West, near Berlin, Germany. Image-transformer for distance photography. No. 1,141,850; June 1; Gaz. vol. 215; p. 266.
Stimpson, Edwin B., assignor to Edwin B. Stimpson Company, Brooklyn, N. Y. Washer. No. 1,143,091; June 15; Gaz. vol. 215; p. 779.
Stine, Charles M., Chester, Pa., assignor to E. I. du Pont de Nemours Powder Company, Wilmington, Del. Explosive. No. 1,143,330; June 15; Gaz. vol. 215; p. 864.
Stine, Walter L., Niles, Cal. Automatic grease-cup. No. 1,142,283; June 8; Gaz. vol. 215; p. 457.
Stock, Julius A., assignor to W. C. Ritchie & Company, Chicago, Ill. Box-delivering mechanism. No. 1,141,501; June 1; Gaz. vol. 215; p. 148.
Stock, Julius A., assignor to W. C. Ritchie & Company, Chicago, Ill. Box-assembling machine. No. 1,141,502; June 1; Gaz. vol. 215; p. 148.
Stock Quotation Telegraph Company. (See Hiltz, George S., assignor.)
Stoddard, Lewis S., and B. Goldsmith, Lisbon, Ohio. Apparatus for coating sheet, plate, and rolled metal. No. 1,142,856; June 15; Gaz. vol. 215; p. 696.
Stogsdill, Benjamin F., San Francisco, Cal. Pen-holding device. No. 1,141,851; June 1; Gaz. vol. 215; p. 266.
Stokes, Arthur H., Detroit, Mich. Form for front and rear of automobile-tops. No. 1,144,874; June 29; Gaz. vol. 215; p. 1451.
Stolle, Frank J., Fort Thomas, Ky. Shoe-shining kit. No. 1,144,568; June 29; Gaz. vol. 215; p. 1344.
Stone, George, assignor to M. T. Stevens and Sons Company, North Andover, Mass. Bag-filling apparatus. No. 1,141,220; June 1; Gaz. vol. 215; p. 46.
Stone, James, La Crosse, Wis. Body-garment. No. 1,141,284; June 1; Gaz. vol. 215; p. 69.
Stonemetz, John H., assignor to The Challenge Machinery Company, Grand Haven, Mich. Paper-cutting machine. No. 1,143,237; June 15; Gaz. vol. 215; p. 832.
Stoner, Clarence J., Gloversville, N. Y. Linoleum-rack. No. 1,143,459; June 15; Gaz. vol. 215; p. 909.
Stordahl, Ingomar, Miles City, Mont. Mechanical fuel-feeding apparatus. No. 1,144,156; June 22; Gaz. vol. 215; p. 1175.
Storer, Norman W., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Overhead line construction. No. 1,144,620; June 29; Gaz. vol. 215; p. 1362.
Storer, Simon B., Syracuse, N. Y., assignor, by mesne assignments, to Chicago Electric Meter Company, Chicago, Ill. Recording instrument for wattmeters. No. 1,141,729; June 1; Gaz. vol. 215; p. 227.
Stork-Tuteur Company. (See Tuteur, Charles, assignor.)
Stow Manufacturing Company. (See Hotchkiss, Clarence F., assignor.)
Stowell, Henry F., Rochester, N. Y. Optical device for viewing moving pictures. No. 1,141,432; June 1; Gaz. vol. 215; p. 125.
Strand, Andrew, Minneapolis, assignor to Joerns Motor Manufacturing Company, St. Paul, Minn. Motor-cycle. No. 1,143,793; June 22; Gaz. vol. 215; p. 1046.
Strang, Walter C., Yonkers, N. Y. Elevator safety device. No. 1,141,986; June 8; Gaz. vol. 215; p. 351.
Strange, Edward D., East St. Louis, Ill., and M. M. Heffrean, St. Louis, Mo. Air-heating device for internal-combustion engines. No. 1,143,331; June 15; Gaz. vol. 215; p. 864.
Stratton, Harper E., Empire, Ohio. Tube-cleaner. No. 1,141,433; June 1; Gaz. vol. 215; p. 125.
Straubel, Rudolf, assignor to Firm of C. Zeiss, Jena, Germany. Lighting system for cinematographs. No. 1,143,663; June 22; Gaz. vol. 215; p. 1003.
Strauss, Joseph B., Chicago, Ill. Car. No. 1,141,987; June 1; Gaz. vol. 215; p. 352.
Strawsine, Fern A., Detroit, Mich. Tank for developing photographic plates. No. 1,144,008; June 22; Gaz. vol. 215; p. 1121.
Streckler, Charles E., Montreal, Quebec, Canada. Valve. No. 1,144,875; June 29; Gaz. vol. 215; p. 1452.
Street, Clement F., Schenectady, N. Y., assignor to The Locomotive Stoker Company, Wilmerding, Pa. Controller-cam device. No. 1,141,503; June 1; Gaz. vol. 215; p. 149.
Street, Clement F., New York, N. Y., assignor to The Locomotive Stoker Company, Wilmerding, Pa. Controller-cam device. No. 1,141,504; June 1; Gaz. vol. 215; p. 149.
Streeter, Alfred L., Chicago, Ill. Brake-shoe. No. 1,142,380; June 8; Gaz. vol. 215; p. 492.
Streich, Charles G., Oshkosh, Wis. Bottom door for dump-wagons. No. 1,144,389; June 29; Gaz. vol. 215; p. 1285.
Strnad, John C., Highland Park, assignor to Mail-om-eter Company, Detroit, Mich. Stamp-affixing machine. No. 1,141,666; June 1; Gaz. vol. 215; p. 206.
Strohm, Wilmer J., Moline, Kans. Torpedo-holder. No. 1,142,640; June 8; Gaz. vol. 215; p. 582.
Strohmenger, Arthur P., Westminster, assignor to Slaughter & Company, Limited, London, England. Electric welding and fusion deposition of metals. No. 1,144,390; June 29; Gaz. vol. 215; p. 1285.
Stromberg Electric Company. (See Crook, Charles M., assignor.)
Stroup, Earl N., West View, assignor of one-half to J. A. Skiles, Pittsburgh, Pa. Feed-holder. No. 1,144,157; June 22; Gaz. vol. 215; p. 1176.
Stroupe, Frank, *et al.* (See Taylor, Nicholas, assignor.)
Strozier-Sinclair Mfg. Co., The. (See Strozier, Webster G., assignor.)
Strozier, Webster G., assignor to The Strozier-Sinclair Mfg. Co., Inc., Washington, D. C. Wood-clamp. No. 1,141,365; June 1; Gaz. vol. 215; p. 99.
Struthers, Alexander, London, England. Window opening and closing device. No. 1,142,207; June 8; Gaz. vol. 215; p. 430.
Stryker, Julius B. B. (See Haberle and Stryker.)
Stuart, Francis J., St. Louis, Mo. Truss-pad. No. 1,142,466; June 8; Gaz. vol. 215; p. 523.
Stubkjare, Joe A., Columbus, Mont. Pincers. No. 1,144,738; June 29; Gaz. vol. 215; p. 1404.
Stukart, Hendrik, Rotterdam, Netherlands, assignor to U. S. Slicing Machine Company, Chicago, Ill. Slicing-machine. No. 1,144,507; June 29; Gaz. vol. 215; p. 1324.
Stull, Roy H., Sunbury, Pa. Engine-starter. No. 1,143,460; June 15; Gaz. vol. 215; p. 909.
Stunz, William P., Lansdowne, Md., assignor, by mesne assignments, to The Webb Talking Pictures Company. Transmitter for telephone and other sound-transmitting instruments. No. 1,144,391; June 29; Gaz. vol. 215; p. 1285.
Sturgis, Nelson H., Guthrie, Okla. Suspension-bridge. No. 1,143,866; June 22; Gaz. vol. 215; p. 1072.
Sturman, Robert E., Franklin township, Wright county, Minn. Tire. No. 1,143,461; June 15; Gaz. vol. 215; p. 909.
Sturtevant Mill Company. (See Sturtevant, Thomas J., assignor.)
Sturtevant, Thomas J., Wellesley, Mass., assignor to Sturtevant Mill Company. Screen or separator. No. 1,141,988; June 8; Gaz. vol. 215; p. 352.
Sturtevant, Thomas L., Quincy, Mass. Fencing-strand. No. 1,142,126; June 8; Gaz. vol. 215; p. 404.
Suddick, Louise F., De Soto, Mo. Plant-shield. No. 1,142,991; June 15; Gaz. vol. 215; p. 744.
Sugden, Lawrence. (See Riordan, Frederick J., assignor.)
Sullivan, James E., Pawtucket, R. I. Adjusting device for draft-regulators for steam-boilers. No. 1,143,737; June 22; Gaz. vol. 215; p. 1027.
Sullivan Machinery Company. (See Gilman, George H., assignor.)
Sullivan Machinery Company. (See Mercer, Henry H., assignor.)
Sulzberger, Nathan, New York, N. Y. Catalyzer containing silicon and making same. No. 1,143,332; June 15; Gaz. vol. 215; p. 864.
Summers, Edgar W., Pittsburg, Pa. Railway-car truck. No. 1,144,392; June 29; Gaz. vol. 215; p. 1286.
Sunblad, Uno L., New Haven, Conn. Self-winding electric clock. No. 1,143,664; June 22; Gaz. vol. 215; p. 1003.
Sundh, August, Hastings-upon-Hudson, N. Y. Hinge. No. 1,141,989; June 8; Gaz. vol. 215; p. 353.
Sundh Electric Company. (See Smith, Frank W., assignor.)
Sunvold, Herman H., Sacred Heart, Minn. Rear-axle truss. No. 1,144,443; June 29; Gaz. vol. 215; p. 1303.
Superzynski, John. (See Tuleski, Bernard M., assignor.)
Sutcliffe, John H., assignor to George Culver Ltd., London, England. Ophthalmometer and cerratometer. No. 1,142,778; June 8; Gaz. vol. 215; p. 629.
Sutherland, Alexander W., St. Paul, Minn. Tractor. No. 1,142,066; June 8; Gaz. vol. 215; p. 381.
Sutherland, Emil T., Iron River, Mich. Road-making machine. No. 1,144,444; June 29; Gaz vol. 215; p. 1303.
Sutherland, Forrest A., Springfield, Me. Controlling-plug for gasolene-filters. No. 1,142,992; June 15; Gaz. vol. 215; p. 744.
Sutter, John R., Kansas City, Mo. Lantern. No. 1,143,238; June 15; Gaz. vol. 215; p. 832.
Sutton, Henry M., W. L. and E. G. Steele, Dallas, Tex. Process of and apparatus for sizing or classifying comminuted materials. No. 1,141,852; June 1; Gaz. vol. 215; p. 266.
Suwa, Michisuye, Tokyo, Japan. Automatic telephone signaling system. No. 1,142,857; June 15; Gaz. vol. 215; p. 696.
Svensson, Johan A., Rochester, N. Y. Gear-cutting machine. No. 1,143,602; June 15; Gaz. vol. 215; p. 958.
Swanson, Ernest J., assignor to Stewart-Warner Speedometer Corporation, Chicago, Ill. Temperature-indicator. No. 1,144,009; June 22; Gaz. vol. 215; p. 1122.
Swanson, Starley S. (See Vrooman and Swanson.)
Swartz, William L., assignor to Savage Arms Company, Utica, N. Y. Firearm. No. 1,141,285; June 1; Gaz. vol. 215; p. 70.
Sweet, Frederick A., Salt Lake City, Utah. Mine-car wheel and axle. No. 1,141,990; June 8; Gaz. vol. 215; p. 353.
Sweet, Henry N., trustee. (See Smith, William J., assignor.)
Sweeton, Frederic C., *et al.* (See Mentzer, Oliver A., assignor.)
Swenson, Carl E., and L. Faust, assignors to Mechanics' Machine Company, Rockford, Ill. Transmission mechanism. No. 1,143,794; June 22; Gaz. vol. 215; p. 1046.
Swezey, Benjamin F., Bellingham, Minn. Device for preventing snow-drifts. No. 1,144,393; June 29; Gaz. vol. 215; p. 1286.

Swift, Willard E., Worcester, assignor to United States Envelope Company, Springfield, Mass. Receptacle for collapsible drinking-cups. No. 1,142,284; June 8; Gaz. vol. 215; p. 458.

Swift, Willard E., Worcester, assignor to United States Envelope Company, Springfield, Mass. Forming envelop-blanks. No. 1,144,950; June 29; Gaz. vol. 215; p. 1475.

Swift, Willard E., Worcester, assignor to United States Envelope Company, Springfield, Mass. Merchandise-envelop. No. 1,144,951; June 29; Gaz. vol. 215; p. 1475.

Swoboda, Hans O., Edgewood, Pa., assignor to Excess Indicator Company. Excess-indicator. No. 1,144,335; June 22; Gaz. vol. 215; p. 1238.

Sylvester, Emory J., Buffalo, N. Y. Scratch-gage. No. 1,144,569; June 29; Gaz. vol. 215; p. 1344.

Symons, Edgar B., Milwaukee, Wis. Pulsating screen. No. 1,141,153; June 1; Gaz. vol. 215; p. 22.

Szlányi, William, New York, N. Y., assignor to C. H. Dietze, Newark, N. J. Toy cannon. No. 1,144,739; June 29; Gaz. vol. 215; p. 1404.

T. D. Biedel Actiengeselischaft. (See Walther, Reinhold F., assignor.)

T. D. Palmer Company. (See Palmer, Theodore D., assignor.)

Tabor, William B., Staunton, Ill. Means for anchoring stovepipes. No. 1,142,067; June 8; Gaz. vol. 215; p. 381.

Talgman, Max, New York, N. Y. Starting-box. No. 1,144,876; June 29; Gaz. vol. 215; p. 1452.

Takacs, George, Buffalo, N. Y. Sash-lock. No. 1,141,286; June 1; Gaz. vol. 215; p. 70.

Talbutt, Robert H., Baltimore, Md., and B. O. Hutchison, Spartanburg, S. C. Coffee-pot. No. 1,143,239; June 15; Gaz. vol. 215; p. 833.

Talmage, John G., Cleveland, Ohio. Gage-glass. No. 1,142,540; June 8; Gaz. vol. 215; p. 548.

Tanaka, Tomo, New York, N. Y. Bath-tub seat. No. 1,144,261; June 22; Gaz. vol. 215; p. 1212.

Tanner, Arnold J. (See Paul and Tanner.)

Tatum, James W., Coats, N. C. Window-shade fixture. No. 1,142,993; June 15; Gaz. vol. 215; p. 745.

Tatum, James W., Coats, N. C. Blind-hinge. No. 1,144,262; June 22; Gaz. vol. 215; p. 1212.

Tatum, Lewis L., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. Motor-controller. No. 1,141,154; June 1; Gaz. vol. 215; p. 22.

Tatum, Lewis L., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. Electroresponsive regulator. No. 1,142,858; June 15; Gaz. vol. 215; p. 696.

Taurman, Alphonso, Richmond, Va. Railway band-brake. No. 1,144,922; June 29; Gaz. vol. 215; p. 1465.

Taurman, Alphonso, Richmond, Va. Car-door-operating mechanism. No. 1,144,923; June 29; Gaz. vol. 215; p. 1466.

Taylor Automatic Air Control Company *et al.* (See Taylor, Nicholas, assignor.)

Taylor, Edgar, Yonkers, N. Y. Brooder. No. 1,141,853; June 1; Gaz. vol. 215; p. 266.

Taylor, Hugh G., Buhl, Idaho. Road-grader. No. 1,142,381; June 8; Gaz. vol. 215; p. 492.

Taylor, John, Jr., Kansas City, Mo. Humidor. No. 1,144,508; June 29; Gaz. vol. 215; p. 1324.

Taylor, John D., deceased, Wilkinsburg; M. E. Taylor, executrix, assignor to The Union Switch & Signal Company, Swissvale, Pa. Railway signaling. No. 1,144,509; June 29; Gaz. vol. 215; p. 1325.

Taylor, Leonard, Slattocks, Castleton, England. Friction clutch and coupling. No. 1,142,541; June 8; Gaz. vol. 215; p. 549.

Taylor Manufacturing Company. (See Desmond, John, assignor.)

Taylor, Mary E., executrix. (See Taylor, John D.)

Taylor, Nicholas, assignor of three-fourths to Taylor Automatic Air Control Company, one-eighth to E. A. Edmondson, and one-eighth to F. Stroupe, Muskogee, Okla. Fluid-pressure automobile control mechanism. No. 1,141,589; June 1; Gaz. vol. 215; p. 179.

Taylor, William E., Eastport, Me., assignor to American Can Company, New York, N. Y. Solder-fusing machine. No. 1,144,510; June 29; Gaz. vol. 215; p. 1325.

Teehan, John F., Brockton, Mass. Arch-supporting shoe. No. 1,144,740; June 29; Gaz. vol. 215; p. 1405.

Teehan, John F., Brockton, Mass. Arch-support. No. 1,144,741; June 29; Gaz. vol. 215; p. 1405.

Teige, Charles R., Yonkers, and A. L. Hart, New York, N. Y. Automatic indicator for plate-holders. No. 1,143,462; June 15; Gaz. vol. 215; p. 910.

Telepantograph-Gesellschaft mit beschrankter Haftung. (See Hoffmann, Hermann, assignor.)

Telepost Company. (See Delany, Patrick B., assignor.)

Telford, Robert L., Lewisburg, W. Va. Fastener for drawers, &c. No. 1,142,994; June 15; Gaz. vol. 215; p. 745.

Temple, Floyd L., Terre Haute, Ind. Motion-converting device. No. 1,142,641; June 8; Gaz. vol. 215; p. 582.

Templeton, Walter B., Chicago, Ill. Gearing. No. 1,143,558; June 15; Gaz. vol. 215; p. 942.

Tenyák, Michael, Amherst, Ohio. Beehive. No. 1,144,878; June 29; Gaz. vol. 215; p. 1453.

Terrell, Albert C., Grand Rapids, Mich., assignor to Terrell's Equipment Company. Metal shelving. No. 1,141,991; June 8; Gaz. vol. 215; p. 354.

Terrell, Clarence D., and J. L. Mask, Covington, Ga. Cotton-cleaner. No. 1,141,366; June 1; Gaz. vol. 215; p. 99.

Terrell's Equipment Company. (See Terrell, Albert C., assignor.)

Terrell, Theodore V. (See Smart and Linder, assignors.)

Terry, James F. (See Hines, Wrightsman D., assignor.)

Terwilliger, Thomas M., Jr., Walden, N. Y. Cigar-holder. No. 1,143,463; June 15; Gaz. vol. 215; p. 910.

Testrup, Nils. (See Rigby and Testrup.)

Tew, James D., Akron, Ohio. Tubular cord. No. 1,144,079; June 22; Gaz. vol. 215; p. 1146.

Thacker, Charles, Ironton, Ohio. Bundling-machine. No. 1,141,730; June 1; Gaz. vol. 215; p. 228.

Thayer, Franklin M. (See Moore and Thayer.)

Thayer, William B., Kansas City, Mo. Floor-polisher. No. 1,141,287; June 1; Gaz. vol. 215; p. 71.

Thebault, Joseph, Central Falls, R. I. Spindle. No. 1,144,394; June 29; Gaz. vol. 215; p. 1286.

Theo. Smith Manufacturing Company. (See Smith, Theodore, assignor.)

Theriault, Thomas P., Sheridan, Me. Hat-pin. No. 1,144,263; June 22; Gaz. vol. 215; p. 1213.

Thieme, Otto, assignor to Moon-Hopkins Billing Machine Company, St. Louis, Mo. Multiple-zero escapement mechanism. No. 1,143,240; June 15; Gaz. vol. 215; p. 833.

Thieme, Otto, assignor to Moon-Hopkins Billing Machine Company, St. Louis, Mo. Calculating-machine. No. 1,143,241; June 15; Gaz. vol. 215; p. 834.

Thomas, Bradford A., assignor of one-half to J. Brown, San Francisco, Cal. Hydrocarbon-burner. No. 1,143,150; June 15; Gaz. vol. 215; p. 799.

Thomas, Charles W., East Downingtown, assignor to Silica Stone Works, Glenloch, Pa. Making vitrified objects. No. 1,144,395; June 29; Gaz. vol. 215; p. 1287.

Thomas & Company. (See Spaulding, Algernon S., assignor.)

Thomas Cusack Company. (See Becker, William F., assignor.)

Thomas Elevator Company. (See Barker, Wendell A., assignor.)

Thomas, George P., Glenshaw, Pa. Multiple punching-machine. No. 1,141,221; June 1; Gaz. vol. 215; p. 46.

Thomas, Horace T., assignor to Reo Motor Car Company, Lansing, Mich. Starter. No. 1,142,285; June 8; Gaz. vol. 215; p. 458.

Thomas, Horace T., assignor to Reo Motor Car Co., Lansing, Mich. Starting mechanism. No. 1,144,010; June 22; Gaz. vol. 215; p. 1122.

Thomas, John G. P., Holywell, Wales. Power-transmission mechanism. No. 1,144,011; June 22; Gaz. vol. 215; p. 1122.

Thomas, John W., Kansas City, Kans., assignor of one-half to J. R. Hamill, Kansas City, Mo. Railway-tie plate. No. 1,143,559; June 15; Gaz. vol. 215; p. 942.

Thomas Manufacturing Company, The. (See Baxter, Leonidas, assignor.)

Thomas, Percy H., East Orange, assignor, by mesne assignments, to Cooper Hewitt Electric Company, Hoboken, N. J. Starter for vapor electric devices. No. 1,144,396; June 29; Gaz. vol. 215; p. 1287.

Thommen, William H., assignor to Wisconsin Chair Company, Port Washington, Wis. Convertible furniture. No. 1,144,397; June 29; Gaz. vol. 215; p. 1287.

Thommen, William H., assignor to Wisconsin Chair Company, Port Washington, Wis. Convertible furniture. No. 1,144,398; June 29; Gaz. vol. 215; p. 1287.

Thompson, Ennis H., and J. E. Kajut, Arnold, assignors to Window Glass Machine Company, Pittsburgh, Pa. Capping-off apparatus for glass cylinders. No. 1,143,242; June 15; Gaz. vol. 215; p. 834.

Thompson, George W. (See Wright, Smart, Hopper, and Thompson.)

Thompson, Henry G., Cleveland, assignor to The A. C. Williams Company, Ravenna, Ohio. Damper. No. 1,144,971; June 29; Gaz. vol. 215; p. 1483.

Thompson, John L., El Centro, Cal. Toy. No. 1,143,867; June 22; Gaz. vol. 215; p. 1072.

Thompson, Lloyd H. (See Oliver, Lott D., assignor.)

Thompson, Luther C., Washington, D. C., assignor to F. Franz, Baltimore, Md. Thrust-bearing journal-box. No. 1,141,667; June 1; Gaz. vol. 215; p. 206.

Thompson, Samuel K., Jenkintown, Pa. Controlling system for electrical apparatus. No. 1,144,264; June 22; Gaz. vol. 215; p. 1213.

Thompson, Victor, Vancouver, British Columbia, Canada. Telephone-call-registering device. No. 1,141,367; June 1; Gaz. vol. 215; p. 100.

Thompson, William B., Los Gatos, Cal. Tire-protector. No. 1,144,445; June 29; Gaz. vol. 215; p. 1303.

Thompson, William M., New Philadelphia, Ohio. Weather-strip. No. 1,142,995; June 15; Gaz. vol. 215; p. 745.

Thomson Electric Welding Company. (See Mack, Richard, assignor.)

Thornton, Robert E., *et al.* (See Lovenberg, Adelaide, assignor.)

Thorp, George G., Chicago, Ill. Furnace. No. 1,144,511; June 29; Gaz. vol. 215; p. 1326.

Thorson, Anton I. (See Baarson and Thorson.)

Thos. Cusack Company. (See Conner and Willett, assignors.)

Thuillier, Georges, Nogent en Bassigny, France, assignor to Gillette Safety Razor Company, Boston, Mass. Apparatus for hardening very thin metallic plates. No. 1,141,155; June 1; Gaz. vol. 215; p. 22.

Thumm, William, Chicago, Ill. Water-seal valve. No. 1,141,668; June 1; Gaz. vol. 215; p. 206.

Thurber, Guy P., assignor, by mesne assignments, to Automatic Train Control & Signal Company, Pittsburgh, Pa. Magnet-valve. No. 1,142,382; June 8; Gaz. vol. 215; p. 493.

Thurber, Guy P., assignor, by mesne assignments, to Automatic Train Control & Signal Company, Pittsburgh, Pa. Automatic brake-valve. No. 1,142,383; June 8; Gaz. vol. 215; p. 493.

Tibbetts, Milton, assignor to Packard Motor Car Company, Detroit, Mich. Hydrocarbon-motor. No. 1,141,288; June 1; Gaz. vol. 215; p. 71.

Tiedemann, Hans H. E. R., Detroit, Mich. Printing and cutting machine. No. 1,144,924; June 29; Gaz. vol. 215; p. 1466.

Tiefel, Charles G. (See Todd and Tiefel.)

Tielkemeyer, Henry, St. Louis, Mo. Hot-water heater. No. 1,144,798; June 29; Gaz. vol. 215; p. 1425.

Tiernan, Joseph J., Chicago, Ill. Puzzle. No. 1,144,799; June 29; Gaz. vol. 215; p. 1425.

Tiffany, George S., Summit, N. J., assignor, by mesne assignments, to American Telegraphone Company. Telegraphone. No. 1,142,384; June 8; Gaz. vol. 215; p. 494.

Tigerman, William H. (See Smith, Josiah H., assignor.)

Tilden, James A., Boston, Mass. Hydraulic system. No. 1,144,446; June 29; Gaz. vol. 215; p. 1304.

Tilden, Josephine E., assignor of one-half to B. L. McMillan, Minneapolis, Minn. Game apparatus. No. 1,141,505; June 1; Gaz. vol. 215; p. 149.

Timken Roller Bearing Company, The. (See Vanderbeek, Herbert, assignor.)

Timmons, Edwin S., Chicago, Ill. Airship. No. 1,144,570; June 29; Gaz. vol. 215; p. 1344.

Tinius Olsen Testing Machine Company. (See Johnson, Nathan C., assignor.)

Tinius Olsen Testing Machine Company. (See Olsen, Tinius, assignor.)

Tirrill, Allen A., Schenectady, N. Y. Electric switch. No. 1,142,859; June 15; Gaz. vol. 215; p. 696.

Titus, Willis E., Hanover, Mich. Fly-killer. No. 1,143,738; June 22; Gaz. vol. 215; p. 1027.

Todd, Edmund N., Millburn, N. J. Producing transparent coatings. No. 1,143,464; June 15; Gaz. vol. 215; p. 910.

Todd, Libanus M., and C. G. Tiefel, assignors to G. W. Todd & Company, Rochester, N. Y. Protecting commercial paper. No. 1,144,742; June 29; Gaz. vol. 215; p. 1405.

Toelcke, Karl L., Chicago, Ill. Safety ring-holder. No. 1,141,992; June 8; Gaz. vol. 215; p. 354.

Toledo Computing Scale Company. (See Bancroft, James E., assignor.)

Toledo Electric Welder Company, The. (See Muir, James A., assignor.

Toledo Parlor Furniture Company, The. (See Klopping, Adolph C., assignor.)

Toledo Scale Company. (See Hapgood, Clarence H., assignor.)

Tolman, Scott H., Boston, Mass. Welding-torch. No. 1,141,669; June 1; Gaz. vol. 215; p. 207.

Tompkins-Hawley-Fuller Company. (See Fuller, Frederick H., assignor.)

Tompkins-Hawley-Fuller Company. (See Tompkins and Fuller, assignors.)

Tompkins, John D., Valatie, and F. H. Fuller, Potsdam, assignors to Tompkins-Hawley-Fuller Company, Valatie, N. Y. Crimped paper. No. 1,143,333; June 15; Gaz. vol. 215; p. 864.

Toolan, John J., Chicago, Ill. Impression-registering device for type-writers. No. 1,143,665; June 22; Gaz. vol. 215; p. 1003.

Torsion Balance Company, The. (See Münzner, Max, assignor.)

Torson, Thomas M., Kansas City, Kans. Automobile-wheel pulley attachment. No. 1,142,737; June 8; Gaz. vol. 215; p. 612.

Torson, Thomas M., Kansas City, Kans. Windlass. No. 1,142,738; June 8; Gaz. vol. 215; p. 613.

Tosta, Joao, Lowell, Mass. Toy. No. 1,141,434; June 1; Gaz. vol. 215; p. 125.

Tothill, William S., Chicago, Ill. Amusement device. No. 1,142,996; June 15; Gaz. vol. 215; p. 746.

Towne, Archie C., *et al.* (See Bailey, Arlon D., assignor.)

Towne, Joseph M., East Orange, N. J. Temporary binder. No. 1,144,447; June 29; Gaz. vol. 215; p. 1304.

Towne, Joseph M., East Orange, N. J. Temporary binder No. 1,144,448; June 29; Gaz. vol. 215; p. 1305.

Townsend, David. (See Melas, William, assignor.)

Townsend, George E., Springfield, Ohio. Rake. No. 1,142,127; June 8; Gaz. vol. 215; p. 404.

Townsend, Velda E., Livingston Manor, N. Y. Non-refillable bottle. No. 1,142,739; June 8; Gaz. vol. 215; p. 613.

Transcontinental Wheel Co. (See Ubezzi, Francesco V., assignor.)

Traube, Luther, Girard, Ill., assignor to The Ney Manufacturing Company, Canton, Ohio. Door-hanger. (Reissue.) No. 13,931; June 15; Gaz. vol. 215; p. 963.

Traut & Hine Manufacturing Company. (See Humphrey, Ernest N., assignor.)

Traversaro, Ignatius, San Francisco, Cal. Attachment for pianos. No. 1,144,512; June 29; Gaz. vol. 215; p. 1326.

Travis, John M., St. Louis, Mo. Sugar-bowl. No. 1,141,368; June 1; Gaz. vol. 215; p. 101.

Tremaine, Edward G., assignor to Automatic Weighing Machine Company, Newark, N. J. Carton-sealing machine. No. 1,141,156; June 1; Gaz. vol. 215; p. 23.

Triem, Jakob, Frankfort-on-the-Main, Germany, assignor to United Shoe Machinery Company, Paterson, N. J. Tip-measuring apparatus for pulling-over machines. No. 1,142,128; June 8; Gaz. vol. 215; p. 404.

Trimble, Charles P., *et al.* (See Jones, Joshua J., assignor.)

Trimble, Jesse C., North Otter, Ill. Mail-box. No. 1,142,286; June 8; Gaz. vol. 215; p. 459.

Trinkaus, Charles W., Catonsville, Md. Hinge. No. 1,142,542; June 8; Gaz. vol. 215; p. 549.

Tripp, Henry C., Auburn, N. Y. Window-bead fastener. No. 1,144,571; June 29; Gaz. vol. 215; p. 1345.

Tripp, Solomon, La Junta, Colo. Superheater. No. 1,141,993; June 8; Gaz. vol. 215; p. 354.

Trist, Edward, Pittsburgh, Pa. Gas stove and range. No. 1,144,158; June 22; Gaz. vol. 215; p. 1176.

Tritt, Arthur A. (See Umbarger, Albert R., assignor.)

Trolle, Sofus, assignor to Racine Aluminum Shoe Company, Racine, Wis. Boot, shoe, and the like. No. 1,141,889; June 1; Gaz. vol. 215; p. 280.

Troxel Manufacturing Company, The. (See Fentress, Frank P., assignor.)

True, George A., assignor of one-half to Northern Engineering Works, Detroit, Mich. Crane. No. 1,144,972; June 29; Gaz. vol. 215; p. 1483.

True, Harry U., Brighton, Mass. Golf-tee. No. 1,142,997; June 15; Gaz. vol. 215; p. 746.

Truesdell, John P., Tiverton, assignor of one-third to G. F. Masterson and one-third to R. A. McIntire, Providence, R. I. Oil-lamp burner. No. 1,141,435; June 1; Gaz. vol. 215; p. 125.

Trulan, Frederick G. (See Van Sickle and Trulan.)

Truscott, Harold S., Makawell, Hawaii. Entrainment-tester. No. 1,142,287; June 8; Gaz. vol. 215; p. 459.

Trussell, Clarence D., Poughkeepsie, N. Y. Temporary binder. No. 1,141,157; June 1; Gaz. vol. 215; p. 23.

Truxall, Ephraim, assignor of one-half to B. Arthurs, Pittsburgh, Pa. Can. No. 1,144,159; June 22; Gaz. vol. 215; p. 1176.

Tubular Rivet & Stud Company. (See Coombs, Walter J., assignor.)

Tuckett, Henry A., and V. A. Hellstrom, Salt Lake City, Utah. Scraper. No. 1,143,465; June 15; Gaz. vol. 215; p. 910.

Tuleski, Bernard M., assignor of one-half to J. Superzynski, Bay City, Mich. Horseshoe. No. 1,144,449; June 29; Gaz. vol. 215; p. 1305.

Tuller, Nathan G., and A. M. Rasmussen, Beloit, Wis. Ice-skate. No. 1,143,868; June 22; Gaz. vol. 215; p. 1072.

Tunison, Garrett M., Red Cloud, Nebr. Insect-catcher. No. 1,144,450; June 29; Gaz. vol. 215; p. 1305.

Turbayne, William A., Lancaster, N. Y., assignor to Gould Coupler Company. Electrical system of distribution. No. 1,141,506; June 1; Gaz. vol. 215; p. 150.

Turk, Leo, East Youngstown, Ohio. Door-lock mechanism. No. 1,141,590; June 1; Gaz. vol. 215; p. 180.

Turner, Charles A., Statesville, N. C. Pipe, cigar or cigarette holder. No. 1,142,998; June 15; Gaz. vol. 215; p. 746.

Turner, Edgar N., Logan, Ohio. Grout-carrier. No. 1,144,160; June 22; Gaz. vol. 215; p. 1177.

Turner, Ernest G., assignor of one-half to L. D. Lovekin, Philadelphia, Pa. Friction-clutch and means for operating same. No. 1,141,670; June 1; Gaz. vol. 215; p. 207.

Turner, Harmon, New Brookland, S. C. Poison-bottle. No. 1,141,369; June 1; Gaz. vol. 215; p. 101.

Turner, Hiram D., Manchester, N. H. Lap-stand. No. 1,144,161; June 22; Gaz. vol. 215; p. 1177.

Turner, John A., Mobile, Ala. Spring-bolster bearing for car-trucks. No. 1,141,436; June 1; Gaz. vol. 215; p. 126.

Turner, Walter V., Edgewood, assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa. Blow-out device for electric-pump governors. No. 1,141,158; June 1; Gaz. vol. 215; p. 24.

Turner, Walter V., Edgewood, assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa. Control-valve device for fluid-pressure brakes. No. 1,141,159; June 1; Gaz. vol. 215; p. 24.

Turner, Walter V., Edgewood, assignor to The Westinghouse Air Brake Company, Wilmerding, Pa. Fluid-pressure brake. No. 1,142,860; June 15; Gaz. vol. 215; p. 697.

Turner, Walter V., Edgewood, assignor to The Westinghouse Air Brake Company, Wilmerding, Pa. Brake-valve device. No. 1,143,334; June 15; Gaz. vol. 215; p. 865.

Turney, Eugene T., New York, N. Y. Rectifying-detector for wireless systems. No. 1,144,399; June 29; Gaz. vol. 215; p. 1288.

Tuteur, Charles, assignor to Stork-Tuteur Company, New York, N. Y. Frame for sash-pulleys. No. 1,142,999; June 15; Gaz. vol. 215; p. 746.

Tuttle, Lauren T., Sonoma county, Cal. Automatic advertising-display machine. No. 1,144,621; June 29; Gaz. vol. 215; p. 1362.
Tweed, Frederick H. (See Duffy, Charles H., assignor.)
Twentieth Century Machinery Co. (See Beutlich, Richard F., assignor.)
Tydén, Einar O. E. (See Appelqvist and Tydén.)
Tyer Rubber Company. (See Hilton, Everett C., assignor.)
Tyler, William H. (See Davies and Bemen, assignors.)
Typograph-Gesellschaft m. b. H. (See Dorneth, Julius, assignor.)
Tyrrell, Warren A., assignor of one-half to C. C. Nichols, St. Louis, Mo. Convertible table and truck. No. 1,144,622; June 29; Gaz. vol. 215; p. 1362.
U. S. Slicing Machine Company. (See Stukart, Hendrik, assignor.)
Ubezzi, Francesco V., assignor to Transcontinental Wheel Co., Inc., New York, N. Y. Vehicle-wheel. No. 1,144,879; June 29; Gaz. vol. 215; p. 1453.
Uebel, Carl, Heidelberg, Germany. Manufacture of nitric acid. No. 1,141,994; June 8; Gaz. vol. 215; p. 354.
Ujházy, Imre, Osaka, Va. Artificial building composition. No. 1,141,591; June 1; Gaz. vol. 215; p. 180.
Ullich, Marie, Zurich, Switzerland. Nose-former. No. 1,141,592; June 1; Gaz. vol. 215; p. 180.
Umbarger, Albert R., assignor of one-half to A. A. Tritt, Walton, Ind. Gas-saving appliance. No. 1,142,779; June 8; Gaz. vol. 215; p. 630.
Unckles, Henry W., New York, N. Y. Carbureter. No. 1,143,092; June 15; Gaz. vol. 215; p. 780.
Underhill, Charles R., assignor to The Acme Wire Company, New Haven, Conn. Winding-machine. No. 1,143,335; June 15; Gaz. vol. 215; p. 865.
Underhill, George H., Boston, Mass. Sound reproducing or recording machine. No. 1,141,672; June 1; Gaz. vol. 215; p. 208.
Underwood Typewriter Company. (See Corcoran, Cornelius B., assignor.)
Underwood Typewriter Company. (See Crutchley, Harry, assignor.)
Underwood Typewriter Company. (See Fortin, Benjamin P., assignor.)
Underwood Typewriter Company. (See Kurowski, Alfred G. F., assignor.)
Underwood Typewriter Company. (See Lockwood, Marquis H., assignor.)
Underwood Typewriter Company. (See McCormack, Harry S., assignor.)
Underwood Typewriter Company. (See Watts, George S., assignor.)
Underwood Typewriter Company. (See Wernery, Lester A., assignor.)
Union Bag & Paper Company, The. (See Avery, True M., assignor.)
Union Iron Works Co. (See Michael, Walter, assignor.)
Union Metallic Cartridge Company. (See Pritham, Henry C., assignor.)
Union Mills. (See Schremp, William R., assignor.)
Union Special Machine Company. (See Hanson, Nathan E., assignor.)
Union Special Machine Company. (See McNeil, Chester, assignor.)
Union Special Machine Company. (See Moffatt, James R., assignor.)
Union Special Machine Company. (See Onderdonk, Lansing, assignor.)
Union Special Machine Company. (See Seymour, Dudley S., assignor.)
Union Special Machine Company. (See Woodward, Russel G., assignor.)
Union Switch and Signal Company, The. (See Allen and Scattergood, assignors.)
Union Switch & Signal Company, The. (See Taylor, John D., assignor.)
United Iron Works Company. (See Holzer, Hiram A., assignor.)
United Printing Machinery Co. (See Upham, Burt F., assignor.)
United Printing Machinery Company. (See Garner, Vernon, assignor.)
United Shoe Machinery Company. (See Alexander, Alexander M., assignor.)
United Shoe Machinery Company. (See Bates, Arthur, assignor.)
United Shoe Machinery Company. (See Brock, Matthias, assignor.)
United Shoe Machinery Company. (See Brogan, Michael F., assignor.)
United Shoe Machinery Company. (See Brown, Louis M., assignor.)
United Shoe Machinery Company. (See Eager, Fredrick W., assignor.)
United Shoe Machinery Company. (See Engel, Karl, assignor.)
United Shoe Machinery Company. (See Eppler, Andrew, assignor.)
United Shoe Machinery Company. (See Erickson, Edward, assignor.)
United Shoe Machinery Company. (See Glass, Perley R., assignor.)
United Shoe Machinery Company. (See Gleason, Frederick W., assignor.)
United Shoe Machinery Company. (See Hooper and Seeley, assignors.)
United Shoe Machinery Company. (See Keyes, Eugene L., assignor.)
United Shoe Machinery Company. (See La Chapelle, Euclid I., assignor.)
United Shoe Machinery Company. (See Nally, Matthew, assignor.)
United Shoe Machinery Company. (See Percy, Herbert J., assignor.)
United Shoe Machinery Company. (See Prenzel, Adam H., assignor.)
United Shoe Machinery Company. (See Reed, William A., assignor.)
United Shoe Machinery Company. (See Seely, Thomas H., assignor.)
United Shoe Machinery Company. (See Shaw, Percy W., assignor.)
United Shoe Machinery Company. (See Simmons, Ralph C., assignor.)
United Shoe Machinery Company. (See Spencer, Alvah C., assignor.)
United Shoe Machinery Company. (See Triem, Jakob, assignor.)
United Shoe Machinery Company. (See Varney, Everett W., assignor.)
United Shoe Machinery Company. (See Wales, Alfred B., assignor.)
United Shoe Machinery Company. (See Wentworth, Pearl J., assignor.)
United States Envelope Company. (See Logan, James, assignor.)
United States Envelope Company. (See Staude, Edwin G., assignor.)
United States Envelope Company. (See Swift, Willard E., assignor.)
United-Xpedite Finishing Company. (See Pease, Charles, assignor.)
Universal Draft Gear Attachment Co. (See Nash, Charles J., assignor.)
Universal Electric Welding Company. (See Ellinger, Julian O., assignor.)
Universal Indicator Company. (See Bobroff, Bornett L., assignor.)
Universal Liquid Register Company. (See Brown, Charles F., assignor.)
Universal Rim Company. (See Hawley and Baker, assignors.)
Universal Winding Company. (See Ryden, Claes, assignor.)
Unks, Thomas E., Sandusky, Ohio. Operating means for washing-machines. No. 1,142,543; June 8; Gaz. vol. 215; p. 549.
Unterlender, John, New York, N. Y. Lock. No. 1,141,437; June 1; Gaz. vol. 215; p. 126.
Upham, Burt F., assignor to United Printing Machinery Co., Boston, Mass. Plate-hook. No. 1,142,208; June 8; Gaz. vol. 215; p. 430.
Upjohn, Uriah C., Los Angeles, Cal. Game apparatus. No. 1,144,743; June 29; Gaz. vol. 215; p. 1406.
Upton, George F., Kansas City, Mo. Fire-escape. No. 1,141,995; June 8; Gaz. vol. 215; p. 355.
Urdzela, Andrew, Hamtramck, Mich. Adjustable curtain-holder. No. 1,141,370; June 1; Gaz. vol. 215; p. 101.
Urle, Howard, Twin Falls, Idaho. Sickle-bar and pitman-rod connector. No. 1,141,731; June 1; Gaz. vol. 215; p. 228.
Urwick, Henry, Worcester, England. Glove. No. 1,143,093; June 15; Gaz. vol. 215; p. 780.
Utard, Antoine, Longeville, France. Hand molding-machine with lifting arrangement. No. 1,144,400; June 29; Gaz. vol. 215; p. 1288.
Utter, Richard I., and H. P. Schmidt, assignors to Kellogg Switchboard and Supply Company, Chicago, Ill. Magneto cord-circuit with secret service. No. 1,144,401; June 29; Gaz. vol. 215; p. 1289.
Vadner, Charles S., Salt Lake City, Utah. Recovery of metals from ores and the like. No. 1,144,402; June 29; Gaz. vol. 215; p. 1289.
Valboe, Peter P., assignor to Penberthy Injector Co., Detroit, Mich. Explosion-engine oiler. No. 1,144,572; June 29; Gaz. vol. 215; p. 1345.
Valentine, Ralph E., assignor to Kellogg Toasted Corn Flake Company, Battle Creek, Mich. Oven. No. 1,143,151; June 15; Gaz. vol. 215; p. 800.
Valois, Félix E., Haverhill, Mass. Micrometer-calipers. No. 1,144,623; June 29; Gaz. vol. 215; p. 1363.
Valois, Felix E., Haverhill, assignor to Hamel Shoe Machinery Company, Lynn, Mass. Seam. No. 1,142,288; June 8; Gaz. vol. 215; p. 459.
Van Deventer, Henry R., Sumter, S. C. Ignition system for internal-combustion engines. No. 1,142,920; June 15; Gaz. vol. 215; p. 719.
Van Dyke, John W., and W. M. Irish, assignors to The Atlantic Refining Company, Philadelphia, Pa. Process of and apparatus for distilling petroleum. No. 1,143,466; June 15; Gaz. vol. 215; p. 911.
Van Heest, Jacob, New Freedom, Pa. Color-chart. No. 1,144,266; June 22; Gaz. vol. 215; p. 1214.
Van Horn, Vandiver J., Chicago, Ill. Sewing-machine. No. 1,143,795; June 22; Gaz. vol. 215; p. 1047.
Van Horn, William H. (See Kemp and Van Horn.)
Van Maanen, Charles H., Central City, Ky. Lubricating device for piston-rods. No. 1,142,642; June 8; Gaz. vol. 215; p. 582.

Van Norman, Frederick D., Springfield, Mass. Tool-holder for lathes. No. 1,141,854; June 1; Gaz. vol. 215; p. 267.
Van Nostrand, William, Dalton, N. Y. Millstone-dress. No. 1,142,209; June 8; Gaz. vol. 215; p. 431.
Van Sickle, Kenneth J., and F. G. Trulan, Seneca Falls, N. Y. Camera. No. 1,144,267; June 22; Gaz. vol. 215; p. 1214.
Van Sickle, Paul A., Brantford, assignor to Massey-Harris Company, Limited, Toronto, Ontario, Canada. Hanger for shaking-screens. No. 1,142,921; June 15; Gaz. vol. 215; p. 719.
Van Steenbergh, Burhans, Goshen, N. Y. Manufacturing carbureted hydrogen gas. No. 1,144,800; June 29; Gaz. vol. 215; p. 1425.
Van Steenbergh, Burhans, Goshen, N. Y. Electric heater. No. 1,144,801; June 29; Gaz. vol. 215; p. 1426.
Van Valkenburg, Randall T. Rushville, Ind., assignor to J. N. Neal, Manistee, Mich. Producing a puncture-closing compound for pneumatic tires. No. 1,143,152; June 15; Gaz. vol. 215; p. 800.
Van Wie, Edwin G., and R. W. Davenport, assignors to Detroit Stove Works, Detroit, Mich. Electrical heating unit. No. 1,142,861; June 15; Gaz. vol. 215; p. 697.
Van Wie, Edwin G., and R. W. Davenport, assignors to Detroit Stove Works, Detroit, Mich. Electrical heating unit. No. 1,142,862; June 15; Gaz. vol. 215; p. 698.
Van Woerden, Ysbrand, Chicago, Ill. Egg-testing apparatus. No. 1,141,593; June 1; Gaz. vol. 215; p. 180.
Van Woert, Frank T., New York, N. Y. Artificial tooth. No. 1,142,385; June 8; Gaz. vol. 215; p. 494.
Vanasdale, Oliver E., Erie, Pa. Window-screen. No. 1,141,996; June 8; Gaz. vol. 215; p. 355.
Vance, Caughey C., Memphis, Tex. Cultivator-foot. No. 1,141,732; June 1; Gaz. vol. 215; p. 228.
Vanderbeck, Herbert, assignor to The Timken Roller Bearing Company, Canton, Ohio. Roller-bearing. No. 1,144,451; June 29; Gaz. vol. 215; p. 1305.
Vandervell, Charles A., and A. H. Midgley, Acton Vale, England. Commutator for dynamo-machines. No. 1,143,666; June 22; Gaz. vol. 215; p. 1004.
Variable Speed Gear Limited, The. (See Robson, John, assignor.)
Varney, Everett W., Newton, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Shoe-making machine. No. 1,141,289; June 1; Gaz. vol. 215; p. 71.
Varnum, Edward D., San Diego, Cal. Crude-oil burner. No. 1,143,923; June 22; Gaz. vol. 215; p. 1090.
Vasconcellos, Julio. (See Simas, Michael P., assignor.)
Vaughan, James C., Needmore, Okla. Whiffletree hook and clip. No. 1,144,573; June 29; Gaz. vol. 215; p. 1345.
Veazey, Victor S., Mount Hope, W. Va. Portable track-measurer. No. 1,143,467; June 15; Gaz. vol. 215; p. 911.
Veeder, Curtis H., assignor to Veeder Manufacturing Company, Hartford, Conn. Flexible shaft. No. 1,144,624; June 29; Gaz. vol. 215; p. 1363.
Veeder Manufacturing Co. (See Veeder, Curtis H., assignor.)
Vernon, James B., Pittsburgh, and M. J. Sieffert, Wireton, Pa. Compression and suction device. No. 1,142,544; Jun 8; Gaz. vol. 215; p. 550.
Verona Tool Works. (See Richardson, Andrew T., assignor.)
Vesterling, August, Battersea Park, London, England. Filing means for records, letters, and other documents. No. 1,142,643; June 8; Gaz. vol. 215; p. 583.
Vesterling, August, Battersea Park, London, England. Filing of records, letters, and other documents. No. 1,142,644; June 8; Gaz. vol. 215; p. 583.
Vickers Limited. (See Dawson and Horne, assignors.)
Vickery, Frederick W., London, England. Laying-machine. No. 1,144,268; June 22; Gaz. vol. 215; p. 1214.
Vickery, Frederick W., London, England. Paper piling or laying machine. No. 1,144,269; June 22; Gaz. vol. 215; p. 1215.
Victor Engineering Company. (See Diefenderfer, Victor J., assignor.)
Villars, Claude A., *et al.* (See Schramm, Frederick C., assignor.)
Virneburg, George, Chicago, Ill. Abrasive. No. 1,141,371; June 1; Gaz. vol. 215; p. 102.
Voedisch, Alfred W., Aberdeen, S. D. Electric time-switch. No. 1,143,869; June 22; Gaz. vol. 215; p. 1073.
Voelker, Richard J., St. Louis, Mo. Aerial-ladder truck. No. 1,143,560; June 15; Gaz. vol. 215; p. 942.
Vogan, Frank M., Canton, Ohio. Concrete construction. No. 1,141,671; June 1; Gaz. vol. 215; p. 208.
Vogel, Leopold H., and J. Burrows, Boston, Mass. Refrigerator. No. 1,143,243; June 15; Gaz. vol. 215; p. 835.
Vogt, Axel S., Altoona, Pa. Automatic oil-feeding device. No. 1,141,733; June 1; Gaz. vol. 215; p. 229.
Voigt, George F., Charlestown, Ind. Supply-valve. No. 1,143,000; June 15; Gaz. vol. 215; p. 747.
Voigt, George F., Charlestown, Ind. Pipe-jack. No. 1,143,739; June 22; Gaz. vol. 215; p. 1028.
Vollmer, William and W. S., Burnham, Pa. Retainer for box-lids. No. 1,144,881; June 29; Gaz. vol. 215; p. 1454.
Vollmer, William S. (See Vollmer, William and W. S.)
Volotone Company. (See Hornbeck, Henry S., assignor.)
Volute Spring Shock Absorber Company. (See Rock, John G., assignor.)
Von Uffel, Herman, Philadelphia, Pa. Standing weather-proof seam for felt roofing. No. 1,144,265; June 22; Gaz. vol. 215; p. 1213.
Vorls, James W., and C. E. Hover, Norwood; said Hover assignor of one-half to O. C. Huffman, Cincinnati, Ohio. Can-tester. No. 1,144,081; June 22; Gaz. vol. 215; p. 1147.
Vose, Louis E. (See Edson, John W., assignor.)
Vrooman, Arba E. and H. F., Painesville, and S. S. Swanson, assignors to The Vrooman Company, Bellevue, Ohio. Rotary weeder and cultivator. No. 1,141,997; June 8; Gaz. vol. 215; p. 356.
Vrooman Company, The. (See Vrooman and Swanson, assignors.)
Vrooman, Howard F. (See Vrooman and Swanson.)
Vulcan Soot Cleaner Co., of Pittsburg, Pa., The. (See Hibner and Linaker, assignors.)
Vulcan Soot Cleaner Co., of Pittsburg, Pa., The. (See Linaker, Frederick W., assignor.)
W. C. Ritchie & Company. (See Stock, Julius A., assignor.)
W. N. Matthews and Brother. (See Matthews, Claude L., assignor.)
Wachsmith, Richard. (See Dustman, William L., assignor.)
Wade, Foy. (See Moore and Wade.)
Wade, Frank E., Fairmont, Minn. Internal-combustion engine. No. 1,142,545; June 8; Gaz. vol. 215; p. 550.
Wade, Jethro T., Peterborough, England. Demountable wheel. No. 1,143,870; June 22; Gaz. vol. 215; p. 1073.
Wadsworth, Dwight W., Bangor, Mich. Relief-valve for spraying-pumps. No. 1,142,289; June 8; Gaz. vol. 215; p. 459.
Wagner Electric Manufacturing Company. (See Fynn, Valère A., assignor.)
Wagner, Paul A., Carlstadt, N. J. Support for heddle-bars. No. 1,142,290; June 8; Gaz. vol. 215; p. 460.
Wagner, Phillip, *et al.* (See Star, George, assignor.)
Wagner, Walter, Chicago, Ill., assignor, by mesne assignments, to Rayvio Water Company. Liquid-dispensing device. No. 1,142,210; June 8; Gaz. vol. 215; p. 431.
Waidlich, Walter, Detroit, Mich. Fastener for box-covers. No. 1,142,211; June 8; Gaz. vol. 215; p. 432.
Waite Grass Carpet Company. (See Waite, Ossian T., assignor.)
Waite, Guy B., New York, N. Y. Reinforced-concrete building construction. No. 1,141,160; June 1; Gaz. vol. 215; p. 24.
Waite, Harry C., Lewistown, Mont., assignor to International Harvester Company of New Jersey. Axle-support. No. 1,144,513; June 29; Gaz. vol. 215; p. 1327.
Waite, Ossian T., Oshkosh, Wis. Grass twine. No. 1,144,163; June 22; Gaz. vol. 215; p. 1178.
Waite, Ossian T., assignor to Waite Grass Carpet Company, Oshkosh, Wis. Grass-twine machine. No. 1,144,162; June 22; Gaz. vol. 215; p. 1178.
Waldon, Sidney D., assignor to Packard Motor Car Company, Detroit, Mich. Hydrocarbon-motor. No. 1,143,001; June 15; Gaz. vol. 215; p. 747.
Waldon, Sidney D., assignor to Packard Motor Car Company, Detroit, Mich. Hydrocarbon-motor. No. 1,144,514; June 29; Gaz. vol. 215; p. 1327.
Wales, Alfred B., Whitman, Mass., assignor, by mesne assignments, to United Shoe Machinery Company, Paterson, N. J. Shoemaking. No. 1,143,740; June 22; Gaz. vol. 215; p. 1028.
Wales, Alfred B., Whitman, Mass., assignor, by mesne assignments, to United Shoe Machinery Company, Paterson, N. J. Eyeleting-machine. No. 1,143,741; June 22; Gaz. vol. 215; p. 1029.
Walker, Horace, and R. B. Hay, assignors to H. J. Packer & Company, Limited, Bristol, England. Manufacture of confectionery. No. 1,142,129; June 8; Gaz. vol. 215; p. 405.
Walker, J. Mort, administrator. (See Walker, William E., assignor.)
Walker, Wilbur W., Hanford, Cal. Timing and ignition device. No. 1,142,212; June 8; Gaz. vol. 215; p. 432.
Walker, William A., Enterprise, Miss. Excelsior-cutting machine. No. 1,141,222; June 1; Gaz. vol. 215; p. 47.
Walker, William E., deceased, New Orleans, La.; J. M. Walker, administrator. Orthodontia appliance. No. 1,142,467; June 8; Gaz. vol. 215; p. 524.
Walling, Clyde E., South Whitley, Ind. Grinding-machine. No. 1,143,337; June 15; Gaz. vol. 215; p. 866.
Walter, Edward C., New York, N. Y. Automatic stopping device for phonographs. No. 1,141,507; June 1; Gaz. vol. 215; p. 150.
Walter, John, assignor of one-half to F. Hotter, Philadelphia, Pa. Indicating device. No. 1,142,645; June 8; Gaz. vol. 215; p. 583.
Walters, Samuel O., Roversford, Pa. Cuspidor. No. 1,141,734; June 1; Gaz. vol. 215; p. 229.
Waltham Watch Company. (See Aune, Anders, assignor.)
Walther, Reinhold F. von, Dresden, assignor to T. D. Biedel Actiengesellschaft, Berlin, Germany. Production of antiseptically-acting bodies. No. 1,144,270; June 22; Gaz. vol. 215; p. 1215.
Walton, Albert, Boston, Mass., assignor to Westinghouse Electric and Manufacturing Company. Speed-controlling device. No. 1,144,012; June 22; Gaz. vol. 215; p. 1123.

Walton, Morris A. (See Weatherhead, Duglas C., assignor.)
Walz, August F., St. Louis, Mo. Sorting-cabinet. No. 1,143,668; June 22; Gaz. vol. 215; p. 1004.
Wanamaker, Charles B., assignor to Leedy Manufacturing Company, Indianapolis, Ind. Snare-drum. No. 1,144,452; June 29; Gaz. vol. 215; p. 1306.
Wanderer-Werke, Vormals Winklhofer & Jaenicke, A. G. (See Greve, John E. W., assignor.)
Ward, Ashley F., Boston, Mass., assignor to The A. F. Ward Machinery Co. Dough-dividing machine. No. 1,144,952; June 29; Gaz. vol. 215; p. 1475.
Ward, Ashley F., assignor to The A. F. Ward Machinery Company, Boston, Mass. Making pan-biscuit. No. 1,144,953; June 29; Gaz. vol. 215; p. 1476.
Warden, Clarence C., Reno, Nev. Rake-cleaner. No. 1,142,740; June 8; Gaz. vol. 215; p. 613.
Wardwell, Charles H., Rutland, Vt., and R. D. Morrison, Providence, R. I. Container for paste. No. 1,142,130; June 8; Gaz. vol. 215; p. 405.
Warman, William A. (See Keller, Warman, and Parr.)
Warner, Arthur W. (See Carpenter, Hibbard, and Warner.)
Warnick, Robert G., *et al.* (See Jones, Jefferson D., assignor.)
Warrell, Alexander, St. John, New Brunswick, Canada, assignor to Continental Asbestos Corporation, Worcester, Mass. Asbestos packing. No. 1,143,153; June 15; Gaz. vol. 215; p. 800.
Warren Clock Company. (See Warren, Henry E., assignor.)
Warren, Henry E., Ashland, Mass., assignor to Warren Clock Company, Portland, Me. Electric apparatus for driving clocks or similar mechanism. No. 1,144,973; June 29; Gaz. vol. 215; p. 1483.
Warren, Thomas E., Ticonderoga, N. Y. Doctor for calendering-machines. No. 1,144,802; June 29; Gaz. vol. 215; p. 1426.
Warren Webster & Company. (See Braemer and Bloom, assignors.)
Washburn, Claude F., assignor of one-half to H. Gee, Grand Rapids, Wis. Traction-wheel. No. 1,144,574; June 29; Gaz. vol. 215; p. 1346.
Washburn, Frank S., Nashville, Tenn. Making monoammonium phosphate. No. 1,142,068; June 8; Gaz. vol. 215; p. 382.
Wasson, Frank A., Milwaukee, Wis. Trolley-retriever. No. 1,143,002; June 15; Gaz. vol. 215; p. 748.
Waterbury Mfg. Co. (See Burt, William H., assignor.)
Waterloo Gasoline Engine Company, The. (See Parkhurst and Witry, assignors.)
Waterman, Bradford B., East Bridgewater, Mass., assignor to The American Shoe Finding Company. Device for feeding tacks, nails, and the like. No. 1,143,561; June 15; Gaz. vol. 215; p. 943.
Waters, William L., Milwaukee, Wis. Electric hot-water heating system. No. 1,144,954; June 29; Gaz. vol. 215; p. 1476.
Watertite Drain & Scupper Co. (See Covert, Stanley S., assignor.)
Watkins, Benjamin G., Nehawka, Nebr., W. P. and T. Watkins, Elizabethtown, Ky. Post-hole auger. No. 1,142,646; June 8; Gaz. vol. 215; p. 584.
Watkins, Taylor. (See Watkins, Benjamin G., W. P., and T.)
Watkins, Walter P. (See Watkins, Benjamin G., W. P., and T.)
Watrous, Earl G., Chicago, Ill. Valve. No. 1,143,669; June 22; Gaz. vol. 215; p. 1005.
Watson, John D., Appleton, Wis. Seam for Fourdrinier wires. No. 1,143,742; June 22; Gaz. vol. 215; p. 1029.
Watson, William A., Malden, Mass. Single-valve player mechanism. No. 1,142,863; June 15; Gaz. vol. 215; p. 698.
Watson, William W., Jamestown, N. Y. Suspension for filing-drawers. No. 1,144,670; June 29; Gaz. vol. 215; p. 1379.
Watt, Delton C., and F. A. Grearson, Barre, Vt. Vehicle top raising and lowering mechanism. No. 1,144,925; June 29; Gaz. vol. 215; p. 1466.
Watters, Albert L. (See Bumbaugh, George L., assignor.)
Watts, Ben, assignor of one-third to R. A. Galloway, Pasco, and one-third to G. H. De Pue, Seattle, Wash. Automobile-lock. No. 1,141,223; June 1; Gaz. vol. 215; p. 47.
Watts, George S., Marietta, Ga., assignor to Underwood Typewriter Company, New York, N. Y. Type-writer attachment. No. 1,143,871; June 22; Gaz. vol. 215; p. 1073.
Watts, George W., Hot Springs, Ark. Nut-locking appliance. No. 1,142,647; June 8; Gaz. vol. 215; p. 584.
Waugh, James M., Chicago, Ill. Draft-gear. No. 1,143,154; June 15; Gaz. vol. 215; p. 801.
Wawrzinlok, Otto C. E. P., Dresden, Germany. Coating woven fabrics, paper, and the like. No. 1,141,224; June 1; Gaz. vol. 215; p. 48.
Wear, F. E. (See Ferngren, Enoch T., assignor.)
Weatherhead, Duglas C., assignor of one-third to M. A. Walton, Salisbury, Md. Plow. No. 1,143,468; June 15; Gaz. vol. 215; p. 912.
Weatherley, Stuart, London, England. Boot and shoe fastening. No. 1,142,546; June 8; Gaz. vol. 215; p. 550.
Weatherley, Stuart, London, England. Pin. No. 1,142,547; June 8; Gaz. vol. 215; p. 550.
Weatherwax, Leon J., De Queen, Ark. Vehicle steering mechanism. No. 1,141,290; June 1; Gaz. vol. 215; p. 72.
Weaver, Frank R., Southmont, Upper Yoder township, Cambria county, Pa., assignor to Davis Brake Beam Company. Brake-beam-assembling machine. No. 1,144,974; June 29; Gaz. vol. 215; p. 1484.
Weaver, Ira A., Springfield, Ill., assignor, by mesne assignments, to International Harvester Corporation. Corn-planter. No. 1,144,625; June 29; Gaz. vol. 215; p. 1364.
Webb, Jean F., Jr., assignor to The International Signal Company, New York, N. Y. Valve mechanism. No. 1,141,161; June 1; Gaz. vol. 215; p. 25.
Webb Talking Pictures Company, The. (See Stunz, William P., assignor.)
Weber, Andrew W., Jackson, Mich. Cap for milk-bottles. No. 1,142,291; June 8; Gaz. vol. 215; p. 460.
Weber, Gustav, Hagen, Germany. Chuck for holding work-pieces. No. 1,141,594; June 1; Gaz. vol. 215; p. 181.
Weber, John, Elba, N. Y. Whiffletree-guard. No. 1,143,924; June 22; Gaz. vol. 215; p. 1091.
Weber, Philip J., Jr., Chicago, Ill. Vehicle-arrester. No. 1,141,291; June 1; Gaz. vol. 215; p. 72.
Weber, Walter, assignor to Henkel & Cie., Dusseldorf, Germany. Apparatus for the continuous production by synthesis of hydrogen peroxid. No. 1,144,271; June 22; Gaz. vol. 215; p. 1215.
Webler, William H., and L. G. Ghent, Sodus Center, N. Y. Train-control apparatus. No. 1,141,998; June 8; Gaz. vol. 215; p. 356.
Webster, Allen K., Brookville, Kans. Two-row cutter and conveyer for corn-binders. No. 1,144,515; June 29; Gaz. vol. 215; p. 1327.
Webster, Charles B., Fall River, assignor to J. K. Lanning, Boston, Mass. Winding mechanism. No. 1,141,890; June 1; Gaz. vol. 215; p. 280.
Webster Electric Company. (See Milton, John L., assignor.)
Webster, Thomas F., Sewickley, Pa., assignor to Link-Belt Company, Chicago, Ill. Screening-conveyer. No. 1,142,648; June 8; Gaz. vol. 215; p. 584.
Webster, Towner K. (See Milton, John L., assignor.)
Wedell, Otto B., Elgin, Ill. Eyeglass-chain reel. No. 1,141,855; June 1; Gaz. vol. 215; p. 267.
Wedoit Company, The. (See Fenn, William B., assignor.)
Weed, Harry D., Canastota, N. Y., assignor to W. B. Lashar, Bridgeport, Conn. Grip-tread for vehicle-tires. No. 1,141,735; June 1; Gaz. vol. 215; p. 230.
Wehrle Company, The. (See Pickup, George E., assignor.)
Well, Charles L., assignor to Diamond Crystal Salt Company, St. Clair, Mich. Manufacture of salt. No. 1,141,999; June 8; Gaz. vol. 215; p. 357.
Weller, Wilhelm, assignor to J. Sklarek, Munich, Germany. Manufacturing artificial stone. No. 1,143,670; June 22; Gaz. vol. 215; p. 1005.
Weinland, Joseph W., Chicago, Ill., assignor to American Steel Foundries, New York, N. Y. Adjustable brake-head. No. 1,143,671; June 22; Gaz. vol. 215; p. 1006.
Weise, Bruno, New York, N. Y. Implement for acrobatic tricks. No. 1,141,292; June 1; Gaz. vol. 215; p. 73.
Welskittel, Harry C., Baltimore, Md. Shutter-support for gas-burners. No. 1,143,469; June 15; Gaz. vol. 215; p. 912.
Weiss, Carl W., New York, N. Y. Power-transmission device. No. 1,141,508; June 1; Gaz. vol. 215; p. 151.
Weiss, George, Chicago, Ill. Machine for making cement drain-tiles, &c. No. 1,142,864; June 15; Gaz. vol. 215; p. 698.
Weiss, Joseph W., and T. G. Dewling, Baltimore, Md. Scoring and cutting machine. No. 1,143,672; June 22; Gaz. vol. 215; p. 1006.
Weitman, Samuel A., Thornton, Wash. Weeder. No. 1,144,013; June 22; Gaz. vol. 215; p. 1123.
Weizmann, Charles. (See Perkin, Weizmann, and Davies.)
Welchman, David S., Grover, Wyo. Hen's nest. No. 1,141,438; June 1; Gaz. vol. 215; p. 126.
Welin Marine Equipment Company. (See Broady, Harry W., assignor.)
Wellman Company. (See Patten, Ernest L., assignor.)
Wells, George W., Southbridge, Mass. Pocket reading-glass. No. 1,141,225; June 1; Gaz. vol. 215; p. 48.
Wells, John B. (See Mills and Richards, assignors.)
Welsbach Light Company. (See Lyon, Howard, assignor.)
Welton, Harry C., assignor to The Mattatuck Manufacturing Company, Waterbury, Conn. Pencil. No. 1,144,082; June 22; Gaz. vol. 215; p. 1147.
Welton, Katherine B. (See Welton, Park E., assignor.)
Welton, Park E., assignor to K. B. Welton, Akron, Ohio. Core for manufacture of pneumatic-tire casings. No. 1,144,671; June 29; Gaz. vol. 215; p. 1379.
Wemp, Ernest E., Pontiac, Mich. Vehicle suspension. No. 1,142,468; June 8; Gaz. vol. 215; p. 524.
Wentworth, Pearl J., Hyde Park, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Making turn-shoes. No. 1,142,741; June 8; Gaz. vol. 215; p. 613.
Wern, Gustav P., New York, N. Y. Clutch-operating mechanism. No. 1,143,673; June 22; Gaz. vol. 215; p. 1006.
Wernery, Lester A., assignor to Underwood Typewriter Company, New York, N. Y. Combined type-writing and computing machine. No. 1,144,975; June 29; Gaz. vol. 215; p. 1484.

Werrbach, John L., Chicago, Ill. Trap for drain-pipes. No. 1,142,469; June 8; Gaz. vol. 215; p. 524.
Wesener, John A., Chicago, Ill. Pressure-gage. No. 1,143,338; June 15; Gaz. vol. 215; p. 866.
Wesson, David, Montclair, N. J., assignor to The Southern Cotton Oil Company, New York, N. Y. Manufacture of catalyzers. No. 1,143,339; June 15; Gaz. vol. 215; p. 867.
West, Abraham L., Newark, N. J. Compensating drive for concentric cylinders or mills. No. 1,144,272; June 22; Gaz. vol. 215; p. 1216.
West, John B., assignor to L. B. West, Balboa, Cal. Book-binding means for pamphlets and signatures. No. 1,143,562; June 15; Gaz. vol. 215; p. 943.
West, John W., East Braintree, Mass. Controlling device for winding-machines. No. 1,143,003; June 15; Gaz. vol. 215; p. 748.
West, Lillian B. (See West, John B., assignor.)
Westergard, Christ, assignor of one-half to G. McKenzie, Everett, Wash. Making tiles, conduit-pipes, bricks, and like products. No. 1,143,004; June 15; Gaz. vol. 215; p. 749.
Westergard, Christ, assignor of one-half to G. McKenzie, Everett, Wash. Machine for molding pipe. No. 1,143,094; June 15; Gaz. vol. 215; p. 781.
Western Electric Company. (See Dixon, Amos F., assignor.)
Western Electric Company. (See McBerty, Frank R., assignor.)
Western Electric Company. (See Roberts, John G., assignor.)
Western Electric Company. (See Smith, William F., assignor.)
Westfield, Herman J., Princeton, Wis. Mail-cabinet. No. 1,142,865; June 15; Gaz. vol. 215; p. 699.
Westinghouse Air Brake Company, The. (See Doyle, James S., assignor.)
Westinghouse Air Brake Company, The. (See Farmer, Clyde C., assignor.)
Westinghouse Air Brake Company, The. (See Newell, Edward W., assignor.)
Westinghouse Air Brake Company, The. (See Turner, Walter V., assignor.)
Westinghouse Electric & Manufacturing Company. (See Fortescue, Charles L., assignor.)
Westinghouse Electric and Manufacturing Company. (See Hall, Arthur J., assignor.)
Westinghouse Electric and Manufacturing Company. (See Hall and Riley, assignors.)
Westinghouse Electric and Manufacturing Company. (See Lehr, Edwin, assignor.)
Westinghouse Electric and Manufacturing Company. (See Rose, Edward E., assignor.)
Westinghouse Electric and Manufacturing Company. (See Storer, Norman W., assignor.)
Westinghouse Electric and Manufacturing Company. (See Walton, Albert, assignor.)
Westinghouse Electric and Manufacturing Company. (See Wirth, John A., assignor.)
Westinghouse, George, Pittsburgh, assignor to The Westinghouse Machine Company, East Pittsburgh, Pa. Marine turbine. No. 1,142,069; June 8; Gaz. vol. 215; p. 382.
Westinghouse Lamp Company. (See Campbell, Percy A., assignor.)
Westinghouse Lamp Company. (See Henderson, Robert H., assignor.)
Westinghouse Machine Company, The. (See Ehrhart, Raymond N., assignor.)
Westinghouse Machine Company, The. (See Westinghouse, George, assignor.)
Westlake Machine Company, The. (See Kadow, August, assignor.)
Westman, Wilhelm, assignor of one-half to E. Williams, Los Angeles, Cal. Printing-frame. No. 1,144,014; June 22; Gaz. vol. 215; p. 1123.
Weston, William S., Columbia, S. C. Crusher-shaft nut. No. 1,143,005; June 15; Gaz. vol. 215; p. 749.
Wetcarbonizing Limited. (See Ekenberg, Martin, assignor.)
Wetcarbonizing Limited. (See Rigby, Thomas, assignor.)
Wetcarbonizing Limited. (See Rigby and Testrup, assignors.)
Wetteroth, Frank. (See Schultz and Wetteroth.)
Weymann, Peter, Melrose, Minn. Feeding device for corn-shredders. No. 1,141,736; June 1; Gaz. vol. 215; p. 230.
Whaler, Herbert T., Miami, Fla. Splice for lead-armored cables. No. 1,142,213; June 8; Gaz. vol. 215; p. 433.
Wheale, George, Meadowbrook, Pa. Fused test clamp-insulator. No. 1,144,672; June 29; Gaz. vol. 215; p. 1380.
Wheeler, Lewis R., assignor, by mesne assignments, to Modern Appliance Company, Los Angeles, Cal. Machine-tool. No. 1,144,744; June 29; Gaz. vol. 215; p. 1406.
Wheeler, Train, Downing, Mo. Post-hole-boring apparatus. No. 1,143,872; June 22; Gaz. vol. 215; p. 1074.
Wheeler, Wellington B., Long Beach, assignor of one-half to R. S. Gilman, San Diego, Cal. Advertising device. No. 1,144,673; June 29; Gaz. vol. 215; p. 1380.
Wheeling Can Company. (See Mathisen, Ole M., assignor.)
Wheelock, Edwin M., Winona, Minn. Traction-wheel for motor-propelled vehicles. No. 1,142,470; June 8; Gaz. vol. 215; p. 525.
Wheelock, Louis W., Wyncote, Pa. Candy-box. No. 1,142,131; June 8; Gaz. vol. 215; p. 405.
Whelpley, Charles W. (See McGinnis, Joseph P., assignor.)
Whitaker, Milton C., New York, N. Y., and J. S. Bates, assignors of one-half to Arthur D. Little, Incorporated, Boston, Mass. Treating resinous woods. No. 1,142,922; June 15; Gaz. vol. 215; p. 719.
Whitaker, Richard, Bradley Beach, N. J., assignor, by mesne assignments, to The Neverslip Manufacturing Company. Overshoe for horses. No. 1,142,765; June 8; Gaz. vol. 215; p. 624.
Whitaker, Richard, Bradley Beach, N. J., assignor, by mesne assignments, to The Neverslip Manufacturing Company. Overshoe for horses. No. 1,142,766; June 8; Gaz. vol. 215; p. 625.
Whitaker, Samuel T., assignor of one-third to T. W. Bates and one-third to E. B. Reed, Columbus, Ga. Type-writer cabinet. No. 1,144,882; June 29; Gaz. vol. 215; p. 1454.
White, Benjamin D., Baltimore, Md. Apparatus for pasteurizing substances. No. 1,144,883; June 29; Gaz. vol. 215; p. 1454.
White, Charles A., assignor to Economic Press Delivery Company, Buffalo, N. Y. Sheet-delivery attachment for printing-presses. No. 1,141,856; June 1; Gaz. vol. 215; p. 268.
White, Charles E., assignor to Deere & Mansur Company, Moline, Ill. Check-row wire mechanism for planters. No. 1,143,674; June 22; Gaz. vol. 215; p. 1007.
White, Edwin L., New York, assignor to J. H. White Manufacturing Company, Brooklyn, N. Y. Watch-stand. No. 1,143,340; June 15; Gaz. vol. 215; p. 867.
White, George A., Vandergrift, assignor to American Sheet & Tin Plate Company, Pittsburgh, Pa. Heat-treating rolled steel sheets and plates. No. 1,144,884; June 29; Gaz. vol. 215; p. 1455.
White, Harrie C., North Bennington, Vt. Pin for children's building-blocks. No. 1,142,471; June 8; Gaz. vol. 215; p. 525.
White, John W., Jr., Oakland, Cal. Distributer for fertilizers, disinfectants, and the like. No. 1,142,292; June 8; Gaz. vol. 215; p. 460.
White, Prince E., Perth Amboy, N. J. Ship's berth. No. 1,142,472; June 8; Gaz. vol. 215; p. 525.
White, Walter H., assignor to The Badger Brass Mfg. Co., Kenosha, Wis. Locking-ring for glazings. No. 1,144,083; June 22; Gaz. vol. 215; p. 1148.
Whitelaw, James, St. Louis, Mo., assignor, by mesne assignments, to Chicago Pneumatic Tool Company, Chicago, Ill. Engine. No. 1,143,563; June 15; Gaz. vol. 215; p. 943.
Whiteley, George H., Jr., York, Pa. Artificial tooth. No. 1,144,336; June 22; Gaz. vol. 215; p. 1238.
Whitfield, George S., Watford, England. Color photography. No. 1,144,575; June 29; Gaz. vol. 215; p. 1346.
Whitin, George M., assignor to The Whitin Machine Works, Whitinsville, Mass. Combing cotton. No. 1,141,673; June 1; Gaz. vol. 215; p. 209.
Whitin Machine Works, The. (See Cooper, James A., assignor.)
Whitin Machine Works, The. (See Whitin, George M. assignor.)
Whiting, William J., Handsworth, Birmingham, England Automatic pistol and other magazine small-arm. No. 1,143,470; June 15; Gaz. vol. 215; p. 912.
Whiting, William J., Handsworth, Birmingham, England Magazine small-arm. No. 1,143,471; June 15; Gaz. vol. 215; p. 913.
Whiting, William J., Handsworth, Birmingham, England. Hammerless automatic small-arm. No. 1,143,472; June 15; Gaz. vol. 215; p. 913.
Whitney, James L., San Francisco, Cal. Hemoglobinometer. No. 1,143,675; June 22; Gaz. vol. 215; p. 1007.
Whitney, Larned S., Wallingford, Vt. Blank for making rakes and forks. No. 1,142,000; June 8; Gaz. vol. 215; p. 357.
Whitney, Larned S., Fiskdale, Mass. Making rakes, forks, and the like. No. 1,142,001; June 8; Gaz. vol. 215; p. 357.
Whitt, James E., Champaign, Ill. Spring-wheel. No. 1,142,649; June 8; Gaz. vol. 215; p. 585.
Whittaker, Arnold R. (See Jeavons and Whittaker.)
Whittaker, Elba E., Milwaukee, Wis. Protecting device for the hair. No. 1,143,341; June 15; Gaz. vol. 215; p. 867.
Whittaker, Richard J., St. Louis, Mo. Bed. No. 1,143,342; June 15; Gaz. vol. 215; p. 868.
Whittier, Albert E., Bristol, Conn. Oven-thermometer. No. 1,143,925; June 22; Gaz. vol. 215; p. 1091.
Wicks, George. (See Shaw and Wicks.)
Wideman, Sadie, Niles, Mich. Car-signal. No. 1,141,509; June 1; Gaz. vol. 215; p. 151.
Wiebke, Louis, and A. W. Bull, New York, N. Y.; said Bull assignor to said Wiebke. Attachment for dumb-waiter shafts. No. 1,144,516; June 29; Gaz. vol. 215; p. 1327.
Wiedmann, Henry, Newark, N. J. Bracelet. No. 1,142,070; June 8; Gaz. vol. 215; p. 383.
Wiegand, Frank, *et al.* (See Abbott, Lawrence A., Jr., assignor.)
Wiemann, William P., Pittsburgh, Pa. Manufacture of pure ice. No. 1,144,312; June 22; Gaz. vol. 215; p. 1230.

Wiemer, Christian, Cuyahoga Falls, Ohio. Milling-machine. No. 1,144,015; June 22; Gaz. vol. 215; p. 1124.
Wiet, Eugene, assignor to Parrott & Company, San Francisco, Cal. Machine for manufacturing steel studding. No. 1,141,595; June 1; Gaz. vol. 215; p. 181.
Wigginton, George P., Kalamazoo, Mich. Temporary binder or loose-sheet holder. No. 1,143,006; June 15; Gaz. vol. 215; p. 749.
Wigle, Wilson B., Fullerton, assignor of one-half to Regan Oil Tool Company, Sherman, Cal. Head for well-casings. No. 1,144,626; June 29; Gaz. vol. 215; p. 1364.
Wilcke-Armstrong Company, The. (See Christian, Gilbert, assignor.)
Wilcox, Floyd, Dayton, Ohio. Ratchet extension and protector for micrometer-calipers. No. 1,143,007; June 15; Gaz. vol. 215; p. 750.
Wild, Francis J., Jr., and A. J. Gettinger, St. Louis, Mo. Sterilized brush. No. 1,142,386; June 8; Gaz. vol. 215; p. 494.
Wildman, Frank B., and G. L. Ballard, Norristown, Pa., assignors to Wildman Mfg. Co. Stop mechanism for knitting-machines. No. 1,144,273; June 22; Gaz. vol. 215; p. 1216.
Wildman Mfg. Co. (See Wildman and Ballard, assignors.)
Wilhelm, Jacob A., Detroit, Mich. Signal apparatus for motor-vehicles. No. 1,142,650; June 8; Gaz. vol. 215; p. 585.
Willett, Alfred H., West New York, N. J., assignor, by mesne assignments, to American Arch Company, New York, N. Y. Locomotive baffle-wall. No. 1,143,095; June 15; Gaz. vol. 215; p. 781.
Willett, Guy L. (See Conner and Willett.)
Willets, William C., Minneapolis, Minn. Folding box. No. 1,144,803; June 29; Gaz. vol. 215; p. 1427.
Willets, William C., Minneapolis, Minn. Folding box. No. 1,144,804; June 29; Gaz. vol. 215; p. 1427.
Willey, Charles E., assignor to Jas. Clark, Jr., Electric Co., Louisville, Ky. Automobile or train lighting system. No. 1,143,008; June 15; Gaz. vol. 215; p. 750.
Willhardt, Adam, Elizabeth, N. J. Number-plate holder for motor-vehicles. No. 1,142,002; June 8; Gaz. vol. 215; p. 358.
William Tod Company, The. (See Helander, Eaton, and Collier, assignors.)
Williams, Alfred and L. D., London, England. Contrivance for automatically detecting the presence of certain gases and vapors. No. 1,143,473; June 15; Gaz. vol. 215; p. 914.
Williams, Benjamin F., Grand Rapids, Mich. Safety apparatus for railway-cars. No. 1,141,737; June 1; Gaz. vol. 215; p. 230.
Williams, Charles H., Jr., assignor to Chicago Railway Equipment Company, Chicago, Ill. Brake-beam. No. 1,144,403; June 29; Gaz. vol. 215; p. 1289.
Williams, Clarence B., Pence, and I. H. Williams, Maple Creek, Saskatchewan, Canada. Combined work-support and coöperating tool mechanism. No. 1,142,923; June 15; Gaz. vol. 215; p. 719.
Williams, David T., Paterson, N. J., assignor to Standard Stoker Company, Inc., Wilmington, Del. Automatic stoker. No. 1,142,293; June 8; Gaz. vol. 215; p. 461.
Williams, Edwin F. (See Skinner and Williams.)
Williams, Elihu, Youngstown, Ohio. Bottle-cap. No. 1,141,738; June 1; Gaz. vol. 215; p. 230.
Williams, Ernest. (See Westman, Wilhelm, assignor.)
Williams, Frank E., Alhambra, Cal. Detachable button and safety-pin. No. 1,141,162; June 1; Gaz. vol. 215; p. 25.
Williams, Frederick, assignor to Acme Register Company, Somerville, Mass. Circuit-closer. No. 1,143,676; June 22; Gaz. vol. 215; p. 1007.
Williams, Hartwell L., Rison, Ark. Single-trigger mechanism for double-barreled guns. No. 1,142,003; June 8; Gaz. vol. 215; p. 358.
Williams, Ira H. (See Williams, Clarence B. and I. H.)
Williams, Ira T., Decatur, Ill. Whirligig-cart. No. 1,142,214; June 8; Gaz. vol. 215; p. 433.
Williams, Irvin E. (See Fraver and Williams.)
Williams, Jerome A. (See Miles and Williams.)
Williams, John F., Wilkes-Barre, Pa. Time mechanism for furnaces. No. 1,141,739; June 1; Gaz. vol. 215; p. 231.
Williams, Joseph A., assignor to K. W. Ignition Company, Cleveland, Ohio. Magneto driving mechanism. No. 1,144,016; June 22; Gaz. vol. 215; p. 1124.
Williams, Leo D. (See Williams, Alfred and L. D.)
Williams, Margaret E. B., Westernport, Md. Trunk or receptacle. No. 1,143,474; June 15; Gaz. vol. 215; p. 914.
Williams, Mort. (See Moore, Thomas S., assignor.)
Williams Patent Crusher and Pulverizer Company. (See Cornwall, Frederick R., assignor.)
Williams, Winfield S., Chicago, Ill. Hinge mechanism. No. 1,144,404; June 29; Gaz. vol. 215; p. 1289.
Williamson, Elmer. (See Williamson, Jason and E.)
Williamson, Jason and E., Greenwood, Tex. Sliding valve for steam-engines or the like. No. 1,142,071; June 8; Gaz. vol. 215; p. 388.
Williamson, Robert B., Milwaukee, Wis., assignor, by mesne assignments, to Allis-Chalmers Manufacturing Company. Adjustable bearing for dynamo-electric machines. No. 1,144,627; June 29; Gaz. vol. 215; p. 1364.
Willis, Harry S., Denver, Colo. Egg-carrier. No. 1,144,674; June 29; Gaz. vol. 215; p. 1380.
Willson, Thomas L., and M. M. Haff, Ottawa, Ontario, assignors to Southern Investment Co. of Canada Ltd., Montreal, Canada. Obtaining alkali compounds useful for fertilizing. No. 1,144,405; June 29; Gaz. vol. 215; p. 1290.
Willstätter, Richard, Berlin-Dahlem, Germany. Preparing solutions of cellulose. No. 1,141,510; June 1; Gaz. vol. 215; p. 151.
Wilson, Homer S., Richmond, Va., assignor of one-half to H. P. Rea, Bellevue, Ky. Ventilating-screen. No. 1,141,163; June 1; Gaz. vol. 215; p. 26.
Wilson, James M., assignor to Splitdorf Electrical Company, Newark, N. J. Electric-current generator. No. 1,142,866; June 15; Gaz. vol. 215; p. 699.
Wilson, Jennie, Earl Gray, Saskatchewan, Canada. Fastener. No. 1,143,244; June 15; Gaz. vol. 215; p. 835.
Wilson, John T., Jersey Shore, Pa. Piston-valve and packing for the same. No. 1,143,009; June 15; Gaz. vol. 215; p. 750.
Wilson, Milo F., New Brighton, Pa. Attachment for horseshoes. No. 1,141,596; June 1; Gaz. vol. 215; p. 182.
Wilson, Radcliff A., San Francisco, Cal. Distance-measuring device. No. 1,144,675; June 29; Gaz. vol. 215; p. 1381.
Wilson, Ralph J., Chicago, Ill. Leaf for loose-leaf ledgers. No. 1,143,155; June 15; Gaz. vol. 215; p. 801.
Wilson, Roland F., Denver, Colo. Headlight. No. 1,144,676; June 29; Gaz. vol. 215; p. 1381.
Wilson, Solon G., *et al.* (See Buchanan, Clinton C., assignor.)
Wilson, William B., West Huntsville, Ala. Wire-stretcher. No. 1,144,677; June 29; Gaz. vol. 215; p. 1381.
Wilson, William W., Dallas, Tex. Fastener. No. 1,144,576; June 29; Gaz. vol. 215; p. 1346.
Wimmer, Edith, Loveland, and J. See, Steamboat Springs, Colo. Marking-gage and try-square. No. 1,142,215; June 8; Gaz. vol. 215; p. 434.
Winans Manufacturing Company. (See Winans, Wesley G., assignor.)
Winans, Milton E., Newark, N. J., assignor to Oxweld Acetylene Company, Chicago, Ill. Blowpipe. No. 1,143,677; June 22; Gaz. vol. 215; p. 1008.
Winans, Wesley G., assignor to Winans Manufacturing Company, Detroit, Mich. Ladder-jack. No. 1,143,678; June 22; Gaz. vol. 215; p. 1008.
Winchell, Raymond L. (See Erwin, Lloyd, Mann, and Winchell.)
Window Glass Machine Company. (See Bishop, Frederic L., assignor.)
Window Glass Machine Company. (See Monro, William L., assignor.)
Window Glass Machine Company. (See Thompson and Kajut, assignors.)
Wine, Noah L., assignor of one-fourth to F. T. McNulty and one-fourth to L. C. Curtright, Fort Myers, Fla. Electric display-board. No. 1,141,740; June 1; Gaz. vol. 215; p. 231.
Wing, George C., trustee. (See Wing and Lipps, assignors.)
Wing, George C., and L. P. Lipps, Cleveland, Ohio, assignors to said Wing, trustee. Street-car and similar vehicle. No. 1,142,867; June 15; Gaz. vol. 215; p. 700.
Wingerd, David H., Ramona, Kans. Ladder-holding device. No. 1,142,672; June 8; Gaz. vol. 215; p. 383.
Wingerd, David H., Ramona, Kans. Coupling device. No. 1,143,873; June 22; Gaz. vol. 215; p. 1074.
Wingquist, Sven G., assignor to Aktiebolaget Svenska Kullagerfabriken, Gottenborg, Sweden. Ball-bearing. (Reissue.) No. 13,926; June 8; Gaz. vol. 215; p. 636.
Winlock, Tadeus, Raymond, Wash. Educational appliance. No. 1,142,651; June 8; Gaz. vol. 215; p. 585.
Winkley, Erastus E., Lynn, Mass. Self-starting engine. No. 1,143,156; June 15; Gaz. vol. 215; p. 801.
Winn, John J., Kimball, S. D. Rail-fastening device. No. 1,142,742; June 8; Gaz. vol. 215; p. 613.
Winne, William P., Albany, assignor to H. M. Sage, Menands, N. Y. Iron bedstead. No. 1,141,164; June 1; Gaz. vol. 215; p. 26.
Winston, Charles S., assignor to Kellogg Switchboard and Supply Company, Chicago, Ill. Call-distributing system. No. 1,144,084; June 22; Gaz. vol. 215; p. 1148.
Winter, Charles, Woodbury, N. J., assignor to Star Seal Company. Seal-feed for bottle-sealing machines. No. 1,141,165; June 1; Gaz. vol. 215; p. 26.
Winwood, George M., Jr., Springfield, Ohio. Grain-drill. No. 1,144,274; June 22; Gaz. vol. 215; p. 1217.
Wirebounds Patents Company. (See Miller, Julius J., assignor.)
Wirsig, Alfred, Hoboken, N. J. Swimming apparatus. No. 1,142,652; June 8; Gaz. vol. 215; p. 586.
Wirth, John A., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Coil-former for armatures. No. 1,141,166; June 1; Gaz. vol. 215; p. 27.
Wirth, John A., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Coil-former for armatures. No. 1,141,891; June 1; Gaz. vol. 215; p. 281.
Wisconsin Chair Company. (See Thommen, William H., assignor.)
Wise, William E., Williamsport, Pa. Axle. No. 1,143,475; June 15; Gaz. vol. 215; p. 914.
Wiseman, Elmer, Milwaukie, Oreg. Tack-puller. No. 1,141,741; June 1; Gaz. vol. 215; p. 231.

Wiseman, Elmer, Milwaukie, Oreg. Tack-puller. No. 1,141,742; June 1; Gaz. vol. 215; p. 231.
Wisner Manufacturing Company. (See Ogilvie, Frederick H., assignor.)
Withers, Francis P., assignor to Associated Engineers Company, Chicago, Ill. Safety device. No. 1,141,674; June 1; Gaz. vol. 215; p. 209.
Witry, Louis W. (See Parkhurst and Witry.)
Witt, Samuel E., assignor to Automatic Electric Company, Chicago, Ill. Relay. No. 1,144,745; June 29; Gaz. vol. 215; p. 1406.
Wittenberg, Paul J., assignor of one-third to C. E. Downing and one-third to J. Aaron, Chicago, Ill. Junction-box. No. 1,144,517; June 29; Gaz. vol. 215; p. 1327.
Wittich, William F., Erie, Pa. Roller-bearing. No. 1,141,743; June 1; Gaz. vol. 215; p. 232.
Wm. Cramp & Sons Ship & Engine Building Company, The. (See Metten, John F., assignor.)
Wm. H. Horn & Brother. (See Horn, William H., Jr., assignor.)
Wokes, Charles, Toronto, Ontario, Canada. Chemical fire-extinguishing apparatus. No. 1,141,293; June 1; Gaz. vol. 215; p. 73.
Wolf, Aaron, and A. Governale, New York, assignors to Metallic Flexible Hose Company, Brooklyn, N. Y. Corner-post fastener. No. 1,143,796; June 22; Gaz. vol. 215; p. 1047.
Wolf, Fred W., assignor to F. W. Macfarlane, Honolulu, Hawaii. Pineapple coring and slicing machine. No. 1,142,216; June 8; Gaz. vol. 215; p. 434.
Wolf, Fred W., assignor to F. W. Macfarlane, Honolulu, Hawaii. Pineapple-corer in a pineapple coring and slicing machine. No. 1,142,217; June 8; Gaz. vol. 215; p. 434.
Wolfe, Arthur P., Vineland, N. J. Cooling device for the water circulation of automobile-engines. No. 1,141,511; June 1; Gaz. vol. 215; p. 151.
Wolfe, John L., Wilshire, Ohio. Fodder-bundler. No. 1,144,275; June 22; Gaz. vol. 215; p. 1217.
Wolfe, John W., *et al.* (See Adkins, Oscar E., assignor.)
Wolff, Ernst, Pforzheim, Germany. Explosion-engine. No. 1,142,073; June 8; Gaz. vol. 215; p. 384.
Wollensak, Andrew, assignor to Wollensak Optical Company, Rochester, N. Y. Photographic shutter. No. 1,143,926; June 22; Gaz. vol. 215; p. 1091.
Wollensak Optical Company. (See Wollensak, Andrew, assignor.)
Wolz, William, and J. V. Paxson, Three Oaks, Mich. Egg-crate. No. 1,141,167; June 1; Gaz. vol. 215; p. 27.
Wood, Elmer E., New Orleans, La. Photographic-printing machine. No. 1,142,653; June 8; Gaz. vol. 215; p. 586.
Wood, Herbert F., and J. Gullage, Somerville, Mass. Automatic slack-adjuster for brakes. No. 1,144,453; June 29; Gaz. vol. 215; p. 1306.
Wood, Ralph A., assignor to Inman Manufacturing Company, Inc., Amsterdam, N. Y. Dieing mechanism for box-making machines. No. 1,142,654; June 8; Gaz. vol. 215; p. 586.
Wood, Rushmore, Brooklyn, N. Y. Standard of position for aircraft. No. 1,142,218; June 8; Gaz. vol. 215; p. 435.
Wood, Wilfred R., London, England. Mechanically-operated grate for furnaces. No. 1,141,226; June 1; Gaz. vol. 215; p. 48.
Woodall, Claude, Supply, Okla. Kafir-corn beader. No. 1,141,372; June 1; Gaz. vol. 215; p. 102.
Woodard, William E., Schenectady, N. Y. Locomotive driving-box. No. 1,141,294; June 1; Gaz. vol. 215; p. 73.
Woodman, George A. (See Carscadin and Woodman.)
Woodruff, Charles H., *et al.* (See Anderson, Andrew S., assignor.)
Woodruff, John C., Bayonne, N. J., assignor to The Southern Cotton Oil Company, New York, N. Y. Preparing nickel hydroxid. No. 1,143,343; June 15; Gaz. vol. 215; p. 868.
Woods, Allie, administratrix. (See Woods, Harry.)
Woods & Chatellier. (See Smykal, Emil, assignor.)
Woods, Harry, deceased, Steubenville, Ohio; A. Woods, administratrix. Water-filter. No. 1,141,744; June 1; Gaz. vol. 215; p. 232.
Woodsmall, Samuel F., Twin Falls, Idaho. Shoe-shining machine. No. 1,142,924; June 15; Gaz. vol. 215; p. 720.
Woodward, Edward M., Worcester, Mass. Driving mechanism for variable-speed machines. No. 1,143,679; June 22; Gaz. vol. 215; p. 1009.
Woodward, Russel G., Waukegan, assignor to Union Special Machine Company, Chicago, Ill. Thread-controlling mechanism for sewing-machines. No. 1,143,010; June 15; Gaz. vol. 215; p. 751.
Woodward, William, Chicago, Ill. Internal-combustion engine. No. 1,142,074; June 8; Gaz. vol. 215; p. 384.
Woodward, William S., Burt, Mich. Sliding-door lock. No. 1,141,439; June 1; Gaz. vol. 215; p. 127.
Woolf, Frank H., Chicago, Ill., assignor to H. L. Hildreth, Boston, Mass. Honeycomb-candy machine. No. 1,143,564; June 15; Gaz. vol. 215; p. 944.
Wormwood, Daniel W. (See Pruden and Wormwood.)
Worns, Edwin C., Rutherford, N. J. Tool. No. 1,142,473; June 8; Gaz. vol. 215; p. 525.
Worrel, Robert H., Surveyor, assignor of one-fourth to J. H. Miller, Hinton, and one-fourth to G. W. Johnson, Parkersburg, W. Va. Pulley-block. No. 1,141,745; June 1; Gaz. vol. 215; p. 232.
Worrest, Alfred H., Lancaster, Pa. Shock-absorber. No. 1,142,925; June 15; Gaz. vol. 215; p. 720.
Wray, Edward, Biebrich-on-the-Rhine, and F. Hess, Wiesbaden, assignors to Kalle and Company, Aktiengesellschaft, Biebrich-on-the-Rhine, Germany. Manufacture of vat dyestuffs. No. 1,144,577; June 29; Gaz. vol. 215; p. 1347.
Wray, Edward H. (See Hagman and Wray.)
Wray's Fresh Water System. (See McGuire, William J., assignor.)
Wright, Charles D., Adrian, Mich., assignor of one-half to R. D. Braden, Chicago, Ill. Automobile power-transmitting apparatus. No. 1,143,157; June 15; Gaz. vol. 215; p. 802.
Wright, Chester L., M. L. Smart, C. M. Hopper, and G. W. Thompson, Sumner, Mo. Automatic register for tanks. No. 1,142,926; June 15; Gaz. vol. 215; p. 721.
Wright & Ditson. (See Denny, Clarence B., assignor.)
Wright, Edward, Brooklyn, N. Y. Tractor operated by internal-combustion engines. No. 1,141,295; June 1; Gaz. vol. 215; p. 74.
Wright, Fred W. (See Pearce, Parker, and Wright.)
Wright, Harry E. (See Faifer, Anthony, assignor.)
Wright, Morris S., assignor to M. S. Wright Company, Worcester, Mass. Vacuum-cleaner. No. 1,141,597; June 1; Gaz. vol. 215; p. 182.
Wright, Stephen G., Oak Park, Ill. Prepared roofing. No. 1,144,313; June 22; Gaz. vol. 215; p. 1230.
Wright, Walter C., Atlanta, Ga., assignor to The Lamson Company, Boston, Mass. Store-service apparatus and the like. No. 1,142,474; June 8; Gaz. vol. 215; p. 526.
Wunsch, William, Brooklyn, N. Y. Game-piece. No. 1,144,926; June 29; Gaz. vol. 215; p. 1467.
Wunsch, William, Brooklyn, N. Y. Game-board. No. 1,144,927; June 29; Gaz. vol. 215; p. 1467.
Wylde, Edward, New York, N. Y., and C. Schenck, assignors to Elevator Supply & Repair Company, Chicago, Ill. Door-controlling device. (Reissue.) No. 13,932; June 15; Gaz. vol. 215; p. 964.
Wyman, Horace, assignor to Crompton & Knowles Loom Works, Worcester, Mass. Weft-replenishing loom. No. 1,142,743; June 8; Gaz. vol. 215; p. 614.
Wyman, William H., Oshkosh, Wis. Button-attaching machine. No. 1,142,004; June 8; Gaz. vol. 215; p. 359.
X. L. Electric Company Limited. (See Aron, Leonard J., assignor.)
Yahle, William J., assignor to The Davis Sewing Machine Company, Dayton, Ohio. Pedal. No. 1,144,518; June 29; Gaz. vol. 215; p. 1328.
Yale & Towne Manufacturing Company, The. (See Schoell, Reinhold, assignor.)
Yanney, George W., Alliance, and E. F. Oyster, East Cleveland, Ohio. Safety-brake for automobiles. No. 1,144,877; June 29; Gaz. vol. 215; p. 1452.
Yarnall, David R., assignor to Yarnall-Waring Company, Philadelphia, Pa. Automatic meter control. No. 1,143,344; June 15; Gaz. vol. 215; p. 868.
Yarnall-Waring Company. (See Yarnall, David R., assignor.)
Yarrow, Harold E., Scotstown, Glasgow, Scotland. Superheater for water-tube boilers. No. 1,143,476; June 15; Gaz. vol. 215; p. 915.
Yates, George W., Griffinsburg, Va. Axle construction. No. 1,143,477; June 15; Gaz. vol. 215; p. 915.
Yaw, Clio B., Arlington, N. J., assignor, by mesne assignments, to Remington Typewriter Company, Ilion, N. Y. Type-writing machine. No. 1,141,857; June 1; Gaz. vol. 215; p. 268.
Yaw, Clio B., Arlington, N. J., assignor, by mesne assignments, to Remington Typewriter Company, Ilion, N. Y. Type-writing machine. No. 1,142,005; June 8; Gaz. vol. 215; p. 359.
Yeakley, Melvin A., assignor to J. E. McLain, Canton, Ohio. Antifriction-bearing. No. 1,141,675; June 1; Gaz. vol. 215; p. 209.
Yeakley, Melvin A., Kamms, assignor to J. E. McLain, Canton, Ohio. Trolley retriever or safety device. No. 1,143,874; June 22; Gaz. vol. 215; p. 1075.
Yeakley, Melvin A., assignor to J. E. McLain, Canton, Ohio. Trolley-retriever. No. 1,143,875; June 22; Gaz. vol. 215; p. 1075.
Yingling, Frank B., Hamilton, Ohio. Recoil-checking mechanism for ordnance. (Reissue.) No. 13,938; June 22; Gaz. vol. 215; p. 1248.
Yockel, Frederick C. (See Ries, Brown, and Yockel.)
Yonts, Morton K., Louisville, Ky. Suspender-clasp. No. 1,142,132; June 8; Gaz. vol. 215; p. 405.
Young, Ethel P. (See Mitchell, John F., assignor.)
Young, Flavius J., assignor to W. G. Burns, Fort Wayne, Ind. Measuring-pump. No. 1,143,158; June 15; Gaz. vol. 215; p. 802.
Young, Oliver H., Brooklyn, N. Y. Antiskidding device for vehicles. No. 1,141,676; June 1; Gaz. vol. 215; p. 210.
Young, Robert, Sheboygan, Wis. Lighting. No. 1,143,011; June 15; Gaz. vol. 215; p. 751.
Younger, John, assignor to The Pierce-Arrow Motor Car Company, Buffalo, N. Y. Hand or steering wheel. No. 1,142,780; June 8; Gaz. vol. 215; p. 630.

Yuill, James, assignor of one-third to W. H. T. Stevens, Toronto, Ontario, and one-third to L. Rahne, Fort George, British Columbia, Canada. Snap electric-light switch. No. 1,143,876; June 22; Gaz. vol. 215; p. 1076.
Zahniser, Valentine O., Washington, Pa. Bull-wheel. No. 1,143,012; June 15; Gaz. vol. 215; p. 751.
Zahniser, Valentine O., Washington, Pa. Band-wheel. No. 1,143,013; June 15; Gaz. vol. 215; p. 752.
Zastrow, Albert H. (See Brockman and Conroy, assignors.)
Zaweracz, Roman, Bentleyville, Pa. Knife-sharpener. No. 1,143,096; June 15; Gaz. vol. 215; p. 781.
Zee Socket & Mfg. Co., The. (See Both, Tonjes A. C., assignor.)
Zeh, Edmund W., Newark, N. J. Power-press. No. 1,141,677; June 1; Gaz. vol. 215; p. 210.
Zeigler, William H. (See Schwabek, George G., assignor.)
Zeiss, Firm of Carl. (See Eppenstein, Otto, assignor.)
Zeiss, Firm of Carl. (See Köhler, August, assignor.)
Zeiss, Firm of Carl. (See Mackensen, Otto, assignor.)
Zeiss, Firm of Carl. (See Rohr, Moritz von, assignor.)
Zeiss, Firm of Carl. (See Straubel, Rudolf, assignor.)
Zellar, Frederick J., assignor of one-half to Dake Engine Co., Grand Haven, Mich. Engine. No. 1,144,276; June 22; Gaz. vol. 215; p. 1217.
Zenke, Julius, Dakota, Minn. Cow-tail holder. No. 1,141,746; June 1; Gaz. vol. 215; p. 232.
Ziegler, Albert H., Oshkosh, Wis. Governing and throttling device for internal-combustion engines. No. 1,142,219; June 8; Gaz. vol. 215; p. 435.
Ziegler, Alfred A., trustee. (See Paige, Jeremiah A., assignor.)
Ziegler, Alfred A., Boston, Mass. Circuit-wire terminal. No. 1,141,598; June 1; Gaz. vol. 215; p. 183.
Ziegler, William C., assignor to Stecher Lithographic Company, Rochester, N. Y. Folding box. No. 1,144,746; June 29; Gaz. vol. 215; p. 1407.
Zimmerschied, Karl W., Detroit, Mich. Pyrometer. No. 1,142,133; June 8; Gaz. vol. 215; p. 406.
Zimtbaum, Nathan, New York, N. Y. Tank-valve. No. 1,143,014; June 15; Gaz. vol. 215; p. 752.
Zittlosen Manufacturing Company. (See Schultz and Wetteroth, assignors.)
Zofness, Martin L., Bartlesville, Okla. Measuring-stick. No. 1,143,478; June 15; Gaz. vol. 215; p. 915.
Zola, John, Trenton, N. J. Mail-delivery apparatus. No. 1,142,475; June 8; Gaz. vol. 215; p. 526.
Zuck, Nicholas, and F. G. Pfistner, Rochester, N. Y. Fabric. No. 1,144,519; June 29; Gaz. vol. 215; p. 1328.
Zumpe, Arthur E., Englewood, N. J. Feather-curling machine. No. 1,142,868; June 15; Gaz. vol. 215; p. 700.
Zwickle, John M., Roanoke, Va. Smoking set. No. 1,143,159; June 15; Gaz. vol. 215; p. 802.
Zysset, Samuel F., Thomas, Oreg. Apparatus for burning stumps. No. 1,141,747; June 1; Gaz. vol. 215; p. 233.

ALPHABETICAL LIST OF PATENTEES OF DESIGNS.

A. H. Heisey Co. (See Sanford, Andrew J., assignor.)
Acker, Samuel N., Washington, D. C. Medallion, badge, watch-fob, or similar article. Nos. 47,480–1; June 22; Gaz. vol. 215; p. 1250.
Albert Lorsch and Company. (See Shepard, Egbert B., assignor.)
Allen, Grosvenor N., assignor to Oneida Community, Limited, Oneida, N. Y. Handle for spoons, knives, forks, and other table and toilet articles. No. 47,482; June 22; Gaz. vol. 215; p. 1250.
American Pin Company, The. (See Nash, John J., assignor.)
Arthur Chemical Company, The. (See Freedman, Arthur O., assignor.)
Averill, Georgene, Los Angeles, Cal. Doll. No. 47,447; June 15; Gaz. vol. 215; p. 965.
Barker, Harold, Ann Arbor, Mich. Bassinet. No. 47,415; June 8; Gaz. vol. 215; p. 636.
Basheller, Frank M., Jenkintown, Pa. Printer's make-ready table. No. 47,448; June 15; Gaz. vol. 215; p. 965.
Blyth, Arthur J. (See Gray and Blyth.)
Bottome, Edgar M., assignor to Fostoria Glass Company, Moundsville, W. Va. Glass vessel or similar article. Nos. 47,449–51; June 15; Gaz. vol. 215; p. 965.
Bozorth, Lorlot D., Blackwood, N. J. Toy scoop-cart. No. 47,515; June 29; Gaz. vol. 215; p. 1490.
Bromley & Sons, John. (See Petzold, Adolph, assignor.)
Burger, Max H., Bradley Beach, N. J. Candle-lamp. No. 47,483; June 22; Gaz. vol. 215; p. 1251.
Cameoscope Corporation. (See Roys, Herman E., assignor.)
Chacon, Enriqueta, New York, N. Y. Pin. No. 47,452; June 15; Gaz. vol. 215; p. 966.
Cleveland-Akron Bag Company, The. (See Karberg, Charles F., assignor.)
Curtiss, George E., New Britain, Conn. Toaster-frame. No. 47,394; June 1; Gaz. vol. 215; p. 292.
Doering, Charles, Jr. (See Doering, Henry C., and M.)
Doering, Charles, Jr., and H. H., Oak Park, Ill. Housing for beverage-dispensing apparatus. No. 47,453; June 15; Gaz. vol. 215; p. 966.
Doering, Henry, C., and M., Chicago, Ill. Water or liquid cooler. No. 47,454; June 15; Gaz. vol. 215; p. 966.
Doering, Henry H. (See Doering, Charles, Jr., and H. H.)
Doering, Max. (See Doering, Henry, C., and M.)
Ebeling, Phillip, assignor to Fostoria Glass Company, Moundsville, W. Va. Glass vessel or similar article. No. 47,455; June 15; Gaz. vol. 215; p. 966.
Eckert, Adelbert M., Wheeling, W. Va. Puzzle-box. No. 47,484; June 22; Gaz. vol. 215; p. 1251.
Edwards, George H., V. H. King, and H. J. Skipp, assignors to Ostby and Barton Company, Providence, R. I. Ring, scarf-pin, brooch, button, or similar article of jewelry. No. 47,485; June 22; Gaz. vol. 215; p. 1251.
Ellis, Emory E., assignor to Union Caliper Company, Orange, Mass. Tool-handle. No. 47,416; June 8; Gaz. vol. 215; p. 637.
Faber, John F., Brooklyn, N. Y. Ring. No. 47,417; June 8; Gaz. vol. 215; p. 637.
Fisk Rubber Company. (See Leab, Herbert J., assignor.)
Fostoria Glass Company. (See Bottome, Edgar M., assignor.)
Fostoria Glass Company. (See Ebeling, Phillip, assignor.)
Freedman, Arthur O., assignor to The Arthur Chemical Company, New Haven, Conn. Bottle. No. 47,418; June 8; Gaz. vol. 215; p. 637.
Gair, Robert, New York, assignor to Robert Gair Company, Brooklyn, N. Y. Dolly. Nos. 47,456–61; June 15; Gaz. vol. 215; pp. 966–7.
George Frost Company. (See Glidden, George B., assignor.)
Glidden, George B., Dighton, assignor to George Frost Company, Boston, Mass. Garter. No. 47,486; June 22; Gaz. vol. 215; p. 1251.
Golden, Jack R., Cleveland, Ohio. Teething apparatus. No. 47,419; June 8; Gaz. vol. 215; p. 637.
Gorham Manufacturing Company. (See Jenks, Barton P., assignor.)
Gray, Leonard G., and A. J. Blyth, assignors to Walrus Manufacturing Company, Decatur, Ill. Luncheonette-buffet. No. 47,462; June 15; Gaz. vol. 215; p. 967.
Harrell, Arlando T., Chicago, Ill. Savings-bank. No. 47,395; June 1; Gaz. vol. 215; p. 292.
Harrison, Andrew J., Birmingham, England. Spectacle-frame. No. 47,420; June 8; Gaz. vol. 215; p. 637.
Hartman, John H., Lancaster, Pa. Toy or toy bank. No. 47,421; June 8; Gaz. vol. 215; p. 637.
Hazzard, Henry C., San Francisco, Cal. Game-board. No. 47,487; June 22; Gaz. vol. 215; p. 1251.
Heuser, Anna, Paterson, N. J. Closed drawers. No. 47,423; June 8; Gaz. vol. 215; p. 638.
Hickey, Frank S., Boston, Mass. Prayer-box. No. 47,516; June 29; Gaz. vol. 215; p. 1490.
Hirschmann, William F., New York, N. Y. Base-ball emblem. No. 47,488; June 22; Gaz. vol. 215; p. 1251.
Hoffman, Rudolph, Chicago Heights, Ill. Stove-shelf. No. 47,463; June 15; Gaz. vol. 215; p. 967.
Holmes, Hibbert R., Toronto, Ontario, Canada. Pneumatic tire. No. 47,424; June 8; Gaz. vol. 215; p. 638.
Hotel Traymore Company. (See Moore, Guernsey, assignor.)
Howard, Charles M., assignor to Windsor Print Works, New York, N. Y. Printed cotton fabric. No. 47,517; June 29; Gaz. vol. 215; p. 1490.
Hubbs, Charles F., New York, N. Y. Paper-roll holder. No. 47,518; June 29; Gaz. vol. 215; p. 1490.
Hucke, John H., Jr., New York, N. Y. Feed-bag for horses. No. 47,519; June 29; Gaz. vol. 215; p. 1490.
Hullinger, Homer L., Cleveland, Ohio. Signal device. No. 47,425; June 8; Gaz. vol. 215; p. 638.
Hunter, Wilber E., Morgantown, W. Va. Article of manufacture. Nos. 47,489–90; June 22; Gaz. vol. 215; p. 1252.
Israel, Elias, New York, N. Y. Braid. No. 47,396; June 1; Gaz. vol. 215; p. 292.
Israel, Elias, New York, N. Y. Imitation-straw-braid fabric for hats. No. 47,397; June 1; Gaz. vol. 215; p. 292.
Jacobowitz, Henry H., Brooklyn, N. Y. Sign-letter. No. 47,426; June 8; Gaz. vol. 215; p. 638.
Jarvis, David, Jr., assignor to Rosenau, Frankel & Co., Philadelphia, Pa. Lace edging. No. 47,491; June 22; Gaz. vol. 215; p. 1252.
Jenks, Barton P., assignor to Gorham Manufacturing Company, Providence, R. I. Teapot or similar article. No. 47,427; June 8; Gaz. vol. 215; p. 638.
Jenks, Barton P., assignor to Gorham Manufacturing Company, Providence, R. I. Pitcher or similar article. No. 47,428; June 8; Gaz. vol. 215; p. 639.
Johnson, Eldridge R., Merion, and E. T. Kieffer, Philadelphia, Pa., assignors to Victor Talking Machine Company. Cabinet for talking-machines. No. 47,398; June 1; Gaz. vol. 215; p. 293.
Karberg, Charles F., assignor to The Cleveland-Akron Bag Company, Cleveland, Ohio. Gear-case. No. 47,429; June 8; Gaz. vol. 215; p. 639.
Katibah, Selim A., New York, N. Y. Lavallière. No. 47,520; June 29; Gaz. vol. 215; p. 1490.
Kelly, Lilius A., Calistoga, Cal. Stick-pin or similar article of jewelry. No. 47,430; June 8; Gaz. vol. 215; p. 639.
Kieffer, Eugene T. (See Johnson and Kieffer.)
Kieffer, Eugene T., Philadelphia, Pa., assignor to Victor Talking Machine Company. Cabinet for talking-machines. No. 47,399; June 1; Gaz. vol. 215; p. 293.
King, Victor H. (See Edwards, King, and Skipp.)
Klemm, Edwin O., Saginaw, Mich., and E. W. Schreiber, Yuma, Ariz. Combination study-chair. No. 47,464; June 15; Gaz. vol. 215; p. 968.
Kuhn, Frank, and F. E. Shallor, Detroit, Mich.; said Shallor assignor to said Kuhn. Electric percolator. No. 47,465; June 15; Gaz. vol. 215; p. 968.
Ladd, Louis E., Providence, R. I., assignor to Potter and Buffinton Company. Jewelry-gallery. Nos. 47,400–2; June 1; Gaz. vol. 215; p. 293.
Leab, Herbert J., assignor to Fisk Rubber Company, Chicopee Falls, Mass. Automobile-tire. No. 47,431; June 8; Gaz. vol. 215; p. 639.
Lemiesz, John, Large, Pa. Pocket article. No. 47,492; June 22; Gaz. vol. 215; p. 1252.
Levin, Samuel A., Chicago, Ill. Dental mold. No. 47,493; June 22; Gaz. vol. 215; p. 1252.
Levy, Alexander S., Philadelphia, Pa. Beehive-button. No. 47,466; June 15; Gaz. vol. 215; p. 968.
Luminous Unit Company. (See Owen, Raymond V., assignor.)
Masson, Margaret, assignor to The Watson Company, Attleboro, Mass. Handle for spoons, forks, or similar articles. No. 47,432; June 8; Gaz. vol. 215; p. 639.
McCray Refrigerator Company. (See Ullin, Charles O., assignor.)
McKee Glass Company. (See Sailor, George D., assignor.)
McNaull, William D., Toledo, Ohio. Tire-tread. No. 47,467; June 15; Gaz. vol. 215; p. 968.
Meier, Edward C., Phoenixville, Pa. Hand-hole plate. No. 47,468; June 15; Gaz. vol. 215; p. 968.
Milkes, Leah G., Minneapolis, Minn. Sleeping-robe. No. 47,494; June 22; Gaz. vol. 215; p. 1252.

Moore, Guernsey, Swarthmore, Pa., assignor to Hotel Traymore Company, Atlantic City, N. J. Article of manufacture. No. 47,433; June 8; Gaz. vol. 215; p. 639.
Nash, John J., assignor to The American Pin Company, Waterbury, Conn. Bed-trimming. No. 47,469; June 15; Gaz. vol. 215; p. 968.
Numan, Charles H., New York, N. Y. Combination desk-pad and inkstand. No. 47,495; June 22; Gaz. vol. 215; p. 1253.
Oneida Community. (See Allen, Grosvenor N., assignor.)
Orem, William, Baltimore, Md., assignor to R. A. Carmichael & Co., Detroit, Mich. Perfume-bottle. No. 47,434; June 8; Gaz. vol. 215; p. 640.
Ormsby, Georgia C., Oakland, Cal. Doll. No. 47,496; June 22; Gaz. vol. 215; p. 1253.
Ostby and Barton Company. (See Edwards, King, and Skipp, assignors.)
Owen, Raymond V., assignor to Luminous Unit Company, St. Louis, Mo. Canopy or reflector for artificial light. No. 47,521; June 29; Gaz. vol. 215; p. 1491.
Owen, Raymond V., assignor to Luminous Unit Company, St. Louis, Mo. Reflector for artificial light. No. 47,522; June 29; Gaz. vol. 215; p. 1491.
Owen, Raymond V., assignor to Luminous Unit Company, St. Louis, Mo. Canopy or reflector for artificial light. Nos. 47,523–4; June 29; Gaz. vol. 215; p. 1491.
Petersen, Hans P., South Tacoma, Wash. Wrench. No. 47,435; June 8; Gaz. vol. 215; p. 640.
Petzold, Adolph, assignor to J. Bromley & Sons, Philadelphia, Pa. Rug. Nos. 47,403–7; June 1; Gaz. vol. 215; pp. 293–4.
Petzold, Adolph, assignor to J. Bromley & Sons, Philadelphia, Pa. Rug. Nos. 47,497–508; June 22; Gaz. vol. 215; pp. 1253–5.
Pinney, George H., South Manchester, Conn., assignor to The Williams Brothers Manufacturing Company, Glastonbury, Conn. Spoon, fork, and similar article. No. 47,470; June 15; Gaz. vol. 215; p. 969.
Potter and Buffinton Company. (See Ladd, Louis E., assignor.)
Quackenbush, Grace M., New York, N. Y. Panel for children's furniture, bedsteads, fences, and similar toys. No. 47,471; June 15; Gaz. vol. 215; p. 969.
Quackenbush, Grace M., New York, N. Y. Gate for children's fences. No. 47,472; June 15; Gaz. vol. 215; p. 969.
R. A. Carmichael & Co. (See Orem, William, assignor.)
Read, Willard H., Troy, N. Y. Score-board. No. 47,422; June 8; Gaz. vol. 215; p. 638.
Reitler, Charles W., Denver, Colo. Pencil. No. 47,473; June 15; Gaz. vol. 215; p. 969.
Renwick, Anna C., Flushing, N. Y. Doll. No. 47,408; June 1; Gaz. vol. 215; p. 294.
Robert Gair Company. (See Gair, Robert, assignor.)
Roberts, Park D., St. Joseph, Mo. Ice-cream cone. No. 47,436; June 8; Gaz. vol. 215; p. 640.
Rose, James, Lancaster, Pa. Parasol. No. 47,525; June 29; Gaz. vol. 215; p. 1491.
Roseman, Frankel & Co. (See Jarvis, David, Jr., assignor.)
Rosenfield, William W., New York, N. Y. Suction-cleaner casing. No. 47,409; June 1; Gaz. vol. 215; p. 295.
Roys, Herman E., New York, N. Y., assignor, by mesne assignments, to Cameoscope Corporation. Casing for moving-picture machines. No. 47,410; June 1; Gaz. vol. 215; p. 295.
Russell, Harry, San Francisco, Cal. Watch-fob. No. 47,526; June 29; Gaz. vol. 215; p. 1491.
Saart, William H., Attleboro, Mass., assignor to The W. H. Saart Company. Cigar-holder. No. 47,437; June 8; Gaz. vol. 215; p. 640.
Saller, George D., assignor to McKee Glass Company, Jeannette, Pa. Water-cooler. No. 47,474; June 15; Gaz. vol. 215; p. 970.
Sanford, Andrew J., assignor to A. H. Heisey & Co., Newark, Ohio. Tumbler or similar article. No. 47,527; June 29; Gaz. vol. 215; p. 1491.
Schreiber, Edwin W. (See Klemm and Schreiber.)
Schwinn, Frederick, Attleboro, Mass. Pierced spoon, fork, or similar article. No. 47,509; June 22; Gaz. vol. 215; p. 1255.
Scott, Corlett L., Denver, Colo. Fountain-faucet. No. 47,475; June 15; Gaz. vol. 215; p. 970.
Shallor, Frank E. (See Kuhn and Shallor.)
Shepard, Egbert B., Providence, R. I., assignor to Albert Lorsch and Company, Incorporated. Cut gem. Nos. 47,510–11; June 22; Gaz. vol. 215; pp. 1255–6.
Sinclaire, Henry P., Corning, N. Y. Dish. Nos. 47,411–12; June 1; Gaz. vol. 215; p. 295.
Skipp, Herbert J. (See Edwards, King, and Skipp.)
Smith, Luther D., assignor to The Standard Electric Stove Company, Toledo, Ohio. Stove. No. 47,438; June 8; Gaz. vol. 215; p. 640.
Standard Electric Stove Company, The. (See Smith, Luther D., assignor.)
Steinmeier, Joseph E., New York, N. Y., assignor to Western Clock Company, La Salle, Ill. Clock-frame. No. 47,439; June 8; Gaz. vol. 215; p. 640.
Swearingen, Philip J., Los Angeles, Cal. Box. No. 47,440; June 8; Gaz. vol. 215; p. 641.
Thorn, Emerich, Boston, Mass. Bowl for a tobacco-pipe. No. 47,476; June 15; Gaz. vol. 215; p. 970.
Tilton, George P., Newburyport, Mass., assignor to The United Jewelers Inc., New York, N. Y. Spoon, fork, or similar article. No. 47,512; June 22; Gaz. vol. 215; p. 1256.
Ullin, Charles O., assignor to McCray Refrigerator Company, Kendallville, Ind. Candy-refrigerator. Nos. 47,441–2; June 8; Gaz. vol. 215; p. 641.
Union Caliper Company. (See Ellis, Emory E., assignor.)
United Jewelers Inc., The. (See Tilton, George P., assignor.)
Venon, Jules H., New York, N. Y. Cup or similar article. No. 47,413; June 1; Gaz. vol. 215; p. 295.
Victor Talking Machine Company. (See Johnson and Kieffer, assignors.)
Victor Talking Machine Company. (See Kieffer, Eugene T., assignor.)
Villemain, Victor M., New York, N. Y. Combination knife, fork, spoon, and toothpick. No. 47,443; June 8; Gaz. vol. 215; p. 641.
W. H. Saart Company, The. (See Saart, William H., assignor.)
Wallace, Henry L., Wallingford, Conn. Spoon, fork, or similar article. No. 47,414; June 1; Gaz. vol. 215; p. 295.
Walovich, Zuza, Hawleyville, Conn. Slavonian-peasant doll. No. 47,513; June 22; Gaz. vol. 215; p. 1256.
Walrus Manufacturing Company. (See Gray and Blyth, assignors.)
Watson Company, The. (See Masson, Margaret, assignor.)
Welper, Henry B., Lower Lake, Cal. Grave-protecting monument. No. 47,444; June 8; Gaz. vol. 215; p. 641.
Wernicke, Otto H. L., Grand Rapids, Mich. Drawer-pull. No. 47,445; June 8; Gaz. vol. 215; p. 642.
Western Clock Company. (See Steinmeier, Joseph E., assignor.)
White, Constance, Washington, D. C. Box. No. 47,528; June 29; Gaz. vol. 215; p. 1492.
White, Perry B., Rochester, N. Y. Watch-chain safety-clasp. No. 47,446; June 8; Gaz. vol. 215; p. 642.
Whitney, Claire, San Francisco, Cal. Badge. No. 47,514; June 22; Gaz. vol. 215; p. 1256.
Wilkinson, Iona, assignor to Wilkinson Quilt Company, Ligonier, Ind. Bedquilt. Nos. 47,477–9; June 15; Gaz. vol. 215; p. 970.
Wilkinson Quilt Company. (See Wilkinson, Iona, assignor.)
Williams Brothers Manufacturing Company, The. (See Pinney, George H., assignor.)
Wilson, Thomas, Toronto, Ontario, Canada. Tray. No. 47,529; June 29; Gaz. vol. 215; p. 1492.
Windsor Print Works. (See Howard, Charles M., assignor.)

ALPHABETICAL LIST OF REGISTRANTS OF TRADE-MARKS.

A. Silz, Inc., New York, N. Y. Prepared ham and bacon. No. 104,679; June 8; Gaz. vol. 215; p. 664.
A/S Egron, Christiania and Kløften, near Christiania, Norway. Dry or evaporated milk. No. 104,606; June 8; Gaz. vol. 215; p. 661.
A. V. Victorius Co. Inc., New York, N. Y. Hosiery. No. 104,894; June 22; Gaz. vol. 215; p. 1259.
Abel Estate, M. E., Easton, Pa. Candles. No. 104,584; June 8; Gaz. vol. 215; p. 661.
Acme Mills, The, Hopkinsville, Ky. Self-rising wheat-flour. No. 104,432; June 1; Gaz. vol. 215; p. 317.
Adam Bros. & Seifers Fig Co., Alvin, Tex. Preserved figs. Nos. 104,691–2; June 15; Gaz. vol. 215; p. 971.
Adroit Manufacturing Co., The, Detroit, Mich. Coffee-grinders. No. 104,585; June 8; Gaz. vol. 215; p. 661.
Ahrendt & Sons Co., The, Toledo, Ohio. Stomach-bitters. No. 104,501; June 1; Gaz. vol. 215; p. 319.
Alexander & Co., Inc., New York, N. Y. Men's outer shirts. No. 104,923; June 29; Gaz. vol. 215; p. 1493.
Alfalfa Foods and Medicine Company, Minneapolis, Minn. Syrup for making carbonated non-alcoholic beverages. No. 104,586; June 8; Gaz. vol. 215; p. 661.
Amazon Products Co., Muskegon, Mich. Children's clothing-supporting waists. No. 104,693; June 15; Gaz. vol. 215; p. 971.
American Agricultural Chemical Co., New York, N. Y. Fertilizers. No. 104,433; June 1; Gaz. vol. 215; p. 317.
American Caramel Company, York, Pa. Caramels and candies. No. 104,919; June 22; Gaz. vol. 215; p. 1260.
American Chemical Paint Company, Philadelphia, Pa. Liquid chemical solution for removing rust and grease from metal surfaces. No. 104,434; June 1; Gaz. vol. 215; p. 317.
American Drug & Press Association, Decorah, Iowa. Certain named pharmaceutical preparations. No. 104,924; June 29; Gaz. vol. 215; p. 1493.
American Manufacturing Co., Boston, Mass., and New York, N. Y. Monthly magazine. No. 104,522; June 1; Gaz. vol. 215; p. 319.
American Optical Company, Southbridge, Mass. Certain named measuring and scientific appliances. No. 104,664; June 8; Gaz. vol. 215; p. 663.
American Paper Goods Company, Montclair, N. J., and Berlin, Conn. Printing-presses. No. 104,759; June 15; Gaz. vol. 215; p. 973.
Angsten-Koch Company, Chicago, Ill. Tandem seats, luggage and parcel carriers, lamp-brackets, &c. No. 104,694; June 15; Gaz. vol. 215; p. 971.
Ansbacher Insecticide Co., Inc., New York, N. Y. Insecticides and fungicides. No. 104,695; June 15; Gaz. vol. 215; p. 971.
Apex Electrical Manufacturing Co., The, Cleveland, Ohio. Electric vacuum-cleaners. No. 105,007; June 29; Gaz. vol. 215; p. 1495.
Aquamarine Company, Oakland, Cal. Laxative mineral water. No. 104,696; June 15; Gaz. vol. 215; p. 971.
Arkay Rubber Co., New York, N. Y. Rubber elastic bands. No. 104,697; June 15; Gaz. vol. 215; p. 971.
Aspegren & Co., New York, N. Y. Salad-oil pressed from cotton-seed. No. 104,587; June 8; Gaz. vol. 215; p. 661.
Associated Automatic Sprinkler Co., Dover, Del., and Philadelphia, Pa. Automatic sprinklers. No. 105,008; June 29; Gaz. vol. 215; p. 1495.
Atlantic Manufacturing Company, Wilmington, Del. Rubber heels for boots and shoes. No. 104,967; June 29; Gaz. vol. 215; p. 1494.
Attridge, Eugene M., Binghamton, N. Y. Certain named pharmaceutical preparation for toilet use. No. 104,435; June 1; Gaz. vol. 215; p. 317.
Attridge, Eugene M., Binghamton, N. Y. Chocolates, bonbons, caramels, &c. No. 104,588; June 8; Gaz. vol. 215; p. 661.
Attridge, Eugene M., Binghamton, N. Y. Soap for toilet, shaving, and laundry purposes, washing powders and compounds. No. 104,699; June 15; Gaz. vol. 215; p. 971.
Avon Sole Company, Avon and Brockton, Mass. Composition soles and heels for shoes. No. 104,925; June 29; Gaz. vol. 215; p. 1493.
Ayer & McKinney, Philadelphia, Pa. Butter, cheese, eggs, milk, and milk-producing cattle. No. 104,589; June 8; Gaz. vol. 215; p. 661.
Badger Bag & Paper Co., Wausau, Wis., and Chicago, Ill. Wrapping-paper. No. 104,524; June 1; Gaz. vol. 215; p. 319.
Balassa, Cornelius C., New York, N. Y. Safety fuse-plugs and cartridges. No. 104,525; June 1; Gaz. vol. 215; p. 319.
Bancroft, George A., Natick, Mass. Carbonated non-alcoholic beverages. No. 104,526; June 1; Gaz. vol. 215; p. 319.
Barbaressos Bros., Piraeus, Greece. Cognacs and brandies. No. 104,856; June 22; Gaz. vol. 215; p. 1258.
Barbour Chemical Works, San Francisco, Cal. Barium compounds. No. 104,857; June 22; Gaz. vol. 215; p. 1258.
Barclay & Co., Wilmington, Del., and New York, N. Y. Hair-tonic. No. 104,436; June 1; Gaz. vol. 215; p. 317.
Barclay & Co., Wilmington, Del., and New York, N. Y. Hair tonic and dyes, face-cream, liniments, &c. No. 104,437; June 1; Gaz. vol. 215; p. 317.
Barron, Lizzie S., Baltimore, Md. Liver-pills. No. 104,700; June 15; Gaz. vol. 215; p. 971.
Baumgarten & Co., Baltimore, Md. Stencils. No. 104,760; June 15; Gaz. vol. 215; p. 973.
Bean, Bert J., Wichita Falls, Tex. Coffee and tea. No. 104,590; June 8; Gaz. vol. 215; p. 661.
Bearings Company of America, Jersey City, N. J. Retainers for ball-bearings. Nos. 104,787–8; June 15; Gaz. vol. 215; p. 973.
Becker, Firm of Carl F. W., Dresden, Germany. Corn remedy. No. 104,701; June 15; Gaz. vol. 215; p. 971.
Bee Bee Confection Company, The, Dayton, Ohio. Chewing-gum. No. 104,824; June 22; Gaz. vol. 215; p. 1257.
Bergenstein & Co., Chs., New York, N. Y. Ruffings. No. 104,582; June 1; Gaz. vol. 215; p. 321.
Berry-Hall Company, Burlington, Vt. Tea, pepper, ginger, cinnamon, &c. No. 104,858; June 22; Gaz. vol. 215; p. 1258.
Betz-Pierce Company, The, Cleveland, Ohio. Steel bars. No. 104,901; June 22; Gaz. vol. 215; p. 1259.
Bijur Motor Lighting Company, Hoboken, N. J. Electrical apparatus for vehicle lighting and starting. No. 104,702; June 15; Gaz. vol. 215; p. 971.
Binney & Smith Company, East Orange, N. J., and New York, N. Y. Crayons. No. 104,814; June 15; Gaz. vol. 215; p. 974.
Bisleri, Felice, New York, N. Y. Tonic-bitters. No. 104,968; June 29; Gaz. vol. 215; p. 1494.
Bison Fibre Company, Inc., Buffalo, N. Y. Fiber chair-seats. No. 104,438; June 1; Gaz. vol. 215; p. 317.
Bittel-Leftwich Tire Service Co., St. Louis, Mo. Inner tubes for pneumatic tires. No. 104,859; June 22; Gaz. vol. 215; p. 1258.
Black, William H., New York, N. Y. Laxative. No. 104,761; June 15; Gaz. vol. 215; p. 973.
Black, William H., New York, N. Y. Hair-tonic and eczema. No. 105,009; June 29; Gaz. vol. 215; p. 1495.
Blackstone Institute, Chicago, Ill. Printed books, booklets, pamphlets, &c. No. 104,860; June 22; Gaz. vol. 215; p. 1258.
Blake Oil Co., Liberal, Kans. Lubricating-oil particularly adapted for automobiles. No. 104,762; June 15; Gaz. vol. 215; p. 973.
Bleichrode, Jacob B., New York, N. Y. Coffee-percolators. No. 104,527; June 1; Gaz. vol. 215; p. 319.
Bliss & Van Auken Lumber Co., Saginaw, Mich. Maple flooring. No. 104,591; June 8; Gaz. vol. 215; p. 661.
Blocton Cahaba Coal Co., Piper, Ala. Coal. No. 104,439; June 1; Gaz. vol. 215; p. 317.
Bloom & Godley Co., Trenton, N. J. Cotton-felt mattresses. No. 104,556; June 1; Gaz. vol. 215; p. 320.
Bockar, John J., New York, N. Y. Remedy for rheumatism in powder, liquid, &c., forms. No. 104,557; June 1; Gaz. vol. 215; p. 320.
Bolgar, Erwin, Cleveland, Ohio. Candy laxatives. No. 104,703; June 15; Gaz. vol. 215; p. 971.
Bonney Vise & Tool Works Inc., Philadelphia and Allentown, Pa., and New York, N. Y. Screw-wrenches and vises. No. 104,592; June 8; Gaz. vol. 215; p. 661.
Border Chemical Company, Revere, Mass. Preparation for treatment of diphtheria, sore throat, pneumonia, and la grippe. No. 104,528; June 1; Gaz. vol. 215; p. 319.
Border Chemical Company, Revere, Mass. Disinfectant, antiseptic, insecticide, and germicide. No. 104,529; June 1; Gaz. vol. 215; p. 320.
Boston Woven Hose & Rubber Co., Boston and Cambridge, Mass. Rubber jar-rings and hose. No. 104,789; June 15; Gaz. vol. 215; p. 974.
Bowers Rubber Works, San Francisco, Cal. Composite rubber packing for pistons. No. 104,440; June 1; Gaz. vol. 215; p. 317.
Brandle & Smith Co., Philadelphia, Pa. Candy. No. 104,705; June 15; Gaz. vol. 215; p. 971.
Brett, William J., New York, N. Y. Canteens. No. 104,902; June 22; Gaz. vol. 215; p. 1259.
Bristol-Myers Company, New York, N. Y. Digestants and medicinal preparations for dyspepsia, indigestion, &c. No. 104,706; June 15; Gaz. vol. 215; p. 971.
British American Manufacturing Company, Springdale, Conn. Waterproofed fabric. No. 104,790; June 15; Gaz. vol. 215; p. 974.

Brown, Ellis E., Reading, Pa. Clutches. No. 104,861; June 22; Gaz. vol. 215; p. 1258.
Brown, Jane R. A., Cooperstown, N. Y. Ointment. No. 104,929; June 29; Gaz. vol. 215; p. 1493.
Brown, Ralph, New York, N. Y. Liniment. No. 104,862; June 22; Gaz. vol. 215; p. 1258.
Brush-McCoy Pottery Company, The, Zanesville, Ohio. Certain named crockery and earthenware. No. 104,665; June 8; Gaz. vol. 215; p. 663.
Bu Kola Tablet Co., Portland, Oreg. Remedy for nerves, bladder, and kidneys. No. 104,707; June 15; Gaz. vol. 215; p. 971.
Bukolt, John J., Stevens Point, Wis. Tire straps or protectors. No. 104,826; June 22; Gaz. vol. 215; p. 1257.
Bull Tractor Co., Minneapolis, Minn. Traction-engines. No. 104,593; June 8; Gaz. vol. 215; p. 661.
Bulmer, Thaddeus S., Greenport, N. Y. Bilge-pump. No. 104,763; June 15; Gaz. vol. 215; p. 973.
Burrell, Ernest L., Chicago, Ill. Belting and hose. No. 104,863; June 22; Gaz. vol. 215; p. 1258.
Burton Powder Company, Pittsburgh, Pa. Permissive explosives. No. 104,441; June 1; Gaz. vol. 215; p. 317.
C. B. Muench Co., Milwaukee, Wis. Fresh oysters. No. 104,628; June 8; Gaz. vol. 215; p. 662.
C. B. Woodworth Sons Co., Rochester, N. Y. Perfumes, toilet waters, sachet and talcum powders. No. 104,758; June 15; Gaz. vol. 215; p. 973.
C. H. Dexter & Sons, Incorporated, Windsor Locks, Conn. Toilet, writing, printing, &c., paper. No. 104,712; June 15; Gaz. vol. 215; p. 971.
C. R. Cook Paint Company, Kansas City, Mo. Monthly magazine. No. 104,816; June 15; Gaz. vol. 215; p. 974.
Cactus Chemical Co., Salt Lake City, Utah. Furniture-polish and varnish-remover. No. 105,010; June 29; Gaz. vol. 215; p. 1495.
Canastota Canning Company, Canastota, N. Y. Canned vegetables and fruits. Nos. 104,666–7; June 8; Gaz. vol. 215; p. 663.
Carl Co., Schenectady, N. Y. Cotton piece goods. No. 104,708; June 15; Gaz. vol. 215; p. 971.
Carter's Ink Company, Cambridge, Mass. Type-writer ribbons and carbon-paper. No. 104,815; June 15; Gaz. vol. 215; p. 974.
Cash Buyers Union, Inc., Coachella, Cal. Fresh table-grapes. No. 104,595; June 8; Gaz. vol. 215; p. 661.
Cavanaugh, James H., Anacortes, Wash. Shingles. No. 105,012; June 29; Gaz. vol. 215; p. 1495.
Chapple Publishing Company, Boston, Mass. Monthly magazines. No. 104,442; June 1; Gaz. vol. 215; p. 317.
Charles William Stores, Inc., Brooklyn, N. Y. Certain named cutlery, machinery, and tools. No. 104,811; June 15; Gaz. vol. 215; p. 974.
Chemische Fabrik Düsseldorf Aktiengesellschaft, Leipzig, Germany. Cleaning and polishing preparations for certain named materials. No. 104,930; June 29; Gaz. vol. 215; p. 1493.
Chevrolet Motor Company of New York, Inc., New York, N. Y. Automobiles, motor-vehicles, and parts thereof. No. 104,903; June 22; Gaz. vol. 215; p. 1259.
Chicago Germicide Co., Chicago, Ill. Germicides. No. 104,791; June 15; Gaz. vol. 215; p. 974.
Childs Company, New York, N. Y. Whole milk scientifically soured. No. 104,865; June 22; Gaz. vol. 215; p. 1258.
Cincinnati Soap Co., The, Cincinnati, Ohio. Toilet soap. No. 104,931; June 29; Gaz. vol. 215; p. 1493.
City Iron Works & Machine Co., Philadelphia, Pa. Pressed-metal grease-cups, grease-guns, and fittings. No. 104,792; June 15; Gaz. vol. 215; p. 974.
Cleveland Foundry Co., The, Cleveland, Ohio. Broilers, toasters, and pancake-griddles. No. 104,961; June 29; Gaz. vol. 215; p. 1494.
Clincher Automobile Tire Manufacturers' Association, Cleveland, Ohio. Vehicle wheel-rims. No. 104,905; June 22; Gaz. vol. 215; p. 1259.
Clow, Oscar B., Seattle, Wash. Waffle compounds. No. 104,969; June 29; Gaz. vol. 215; p. 1494.
Co-operative Drug Manufacturing Company, now by change of name American Drug Mfg. Co., Jackson, Tenn. Certain pharmaceutical preparation and remedies for certain named diseases. No. 104,596; June 8; Gaz. vol. 215; p. 661.
Co-operative Drug Manufacturing Company, now by change of name American Drug Mfg. Co., Jackson, Tenn. Flavoring extracts and spices. No. 104,597; June 8; Gaz. vol. 215; p. 661.
Co-operative Drug Manufacturing Company, now by change of name American Drug Mfg. Co., Jackson, Tenn. Flavoring extracts and spices. No. 104,598; June 8; Gaz. vol. 215; p. 661.
Cohn, J. & M., New York, N. Y. Collars. No. 104,443; June 1; Gaz. vol. 215; p. 317.
Cole Brothers Lightning Rod Company, St. Louis, Mo. Lightning-rods, lightning-rod parts, fixtures, points, and ornaments. Nos. 104,530–1; June 1; Gaz. vol. 215; p. 320.
Columbia Star Milling Co., Columbia, Ill. Wheat-flour. No. 104,970; June 29; Gaz. vol. 215; p. 1494.
Columbia Tool Steel Company, Chicago Heights, Ill. Special grade of steel. No. 104,709; June 15; Gaz. vol. 215; p. 971.
Conradty, Firm of C., Nuremberg, Germany. Electrical and galvanic carbons. No. 104,532; June 1; Gaz. vol. 215; p. 320.
Conradty, Firm of C., Nuremberg, Germany. Electrical and galvanic carbons. Nos. 104,793–4; June 15; Gaz. vol. 215; p. 974.
Consolidated Fireworks Company of America, New York, N. Y. Fireworks. No. 104,932; June 29; Gaz. vol. 215; p. 1493.
Continental Rubber Works, Erie, Pa. Rubber mallets, type-writer platens, &c. No. 104,971; June 29; Gaz. vol. 215; p. 1494.
Cooper Medicine Company, The, assignor, by mesne assignments, to Tona Vita Medicine Company, Dayton, Ohio. Tonic, stimulant, general stomachic, &c. No. 104,828; June 22; Gaz. vol. 215; p. 1257.
Corning Glass Works, Corning, N. Y. Lamp and lantern lenses for illuminating and signaling. No. 104,599; June 8; Gaz. vol. 215; p. 661.
Covalt and Smith, Pittsburgh, Pa. Quinin hair-tonic. No. 104,933; June 29; Gaz. vol. 215; p. 1493.
Craddock-Terry Company, Lynchburg, Va., and St. Louis, Mo. Leather shoes. Nos. 104,972–3; June 29; Gaz. vol. 215; p. 1494.
Craig, William D., Logansport, Ind. Sleeping-garments. No. 105,034; June 29; Gaz. vol. 215; p. 1496.
Crystal Film Company, New York, N. Y. Motion-picture films. No. 104,817; June 15; Gaz. vol. 215; p. 974.
Cudahy Packing Company, The, Chicago, Ill. Washing-powder. No. 104,444; June 1; Gaz. vol. 215; p. 317.
Curtis Olive Corporation, Bloomington and Los Angeles, Cal. Olives. No. 104,974; June 29; Gaz. vol. 215; p. 1494.
Cussins & Fearn Co., The, Columbus, Ohio. Pianos, organs, player-pianos, horns, &c. No. 104,934; June 29; Gaz. vol. 215; p. 1493.
Cyclone Co., New York, N. Y. Carbon-remover. No. 104,866; June 22; Gaz. vol. 215; p. 1258.
D. G. Cutler Company, Duluth, Minn. Common stock-salt. No. 104,669; June 8; Gaz. vol. 215; p. 663.
D. G. Cutler Company, Duluth, Minn. Salt. Nos. 104,670–1; June 8; Gaz. vol. 215; p. 663.
D. G. Cutler Company, Duluth, Minn. Medium salt. No. 104,672; June 8; Gaz. vol. 215; p. 663.
Daniel, Charles A., Philadelphia, Pa. Rubber and pneumatic tires. No. 104,935; June 29; Gaz. vol. 215; p. 1493.
Daniel Green Felt Shoe Company, Boston, Mass., and Dolgeville, N. Y. Felt shoes and slippers. No. 104,600; June 8; Gaz. vol. 215; p. 661.
Davis, George W., Manorville, N. Y. Cranberries. No. 104,601; June 8; Gaz. vol. 215; p. 661.
De Roo Sons, P., Cincinnati, Ohio. Mops. No. 104,711; June 15; Gaz. vol. 215; p. 971.
De Tullio, Alfonso, Youngstown, Ohio. Tonic reconstituent digestive antimalaric. No. 104,906; June 22; Gaz. vol. 215; p. 1259.
De Vilbiss Manufacturing Co., The, Toledo, Ohio. Surface-coating apparatus of a spray type. No. 104,581; June 1; Gaz. vol. 215; p. 321.
Deignan, John F., *et al.*, executors. (See Deignan, Richard.)
Deignan, R. C., *et al.*, executors. (See Deignan, Richard.)
Deignan, Richard, deceased; R. C. and J. F. Deignan, executors, Columbus, Ga. Honey and cane-syrup. No. 104,447; June 1; Gaz. vol. 215; p. 317.
Denison & Company, Chicago, Ill. Coffee. No. 104,602; June 8; Gaz. vol. 215; p. 661.
Deunison Manufacturing Company, Boston, Mass. Certain named paper and stationery supplies. No. 104,710; June 15; Gaz. vol. 215; p. 971.
Desmond, Bertrand G., Muncie, Ind. Lubricating-oils and lubricants. No. 104,603; June 8; Gaz. vol. 215; p. 661.
Dilsizian Bros., New York, N. Y. Refined petroleum. Nos. 104,604–5; June 8; Gaz. vol. 215; p. 661.
Doehler Die Casting Co., New York, N. Y. Metal alloy and castings made therefrom. No. 104,795; June 15; Gaz. vol. 215; p. 974.
Double Tread Tire Company, Inc., New York, N. Y. Automobile rubber tires. No. 104,533; June 1; Gaz. vol. 215; p. 320.
Douglass, John W., Philadelphia, Pa., assignor to Protective "Frello" Stopple Company, Dover, Del. Porcelain, glass, or vitreous ware and metal stopples for bottles. No. 104,796; June 15; Gaz. vol. 215; p. 974.
Dreffein, Frank W., Chicago, Ill. Compound to be added to clothes-starch to perfume same and to prevent iron from sticking. No. 104,673; June 8; Gaz. vol. 215; p. 663.
Du Mor Specialty Co., Cincinnati, Ohio. Polish and cleaner for furniture, pianos, automobiles, &c. No. 104,829; June 22; Gaz. vol. 215; p. 1257.
Dupont, A. M. & J. C., Houma, La. Roasted ground coffee. No. 104,963; June 29; Gaz. vol. 215; p. 1494.
Durham Hosiery Mills, Durham, N. C. Hosiery. No. 104,446; June 1; Gaz. vol. 215; p. 317.
E. Ingraham Company, Bristol, Conn. Clocks. No. 104,799; June 15; Gaz. vol. 215; p. 974.
E. C. Atkins & Company, Indianapolis, Ind. Swage-shapers. No. 104,966; June 29; Gaz. vol. 215; p. 1494.
E. E. Lloyd Paper Co., Chicago, Ill. Writing-paper. No. 104,461; June 1; Gaz. vol. 215; p. 317.
E. T. Burrowes Company, The, Portland, Me. Tables, chairs, settees, stands, and cedar chests. No. 104,594; June 8; Gaz. vol. 215; p. 661.

Eagle Lake Citrus Growers Association, Eagle Lake, Fla. Citrus fruits. No. 104,503; June 1; Gaz. vol. 215; p. 319.
Egli, Firm of Hans W., Zurich, Switzerland. Adding and calculating machines. No. 104,868; June 22; Gaz. vol. 215; p. 1258.
Ehlers, Albert, New York, N. Y. Certain named dry groceries. No. 104,607; June 8; Gaz. vol. 215; p. 661.
Elsner-Mendelson Co., New York, N. Y. Certain named pharmaceutical preparations. No. 104,713; June 15; Gaz. vol. 215; p. 971.
Electric Controller and Manufacturing Company, Cleveland, Ohio. Certain named electrical apparatus and supplies. No. 104,714; June 15; Gaz. vol. 215; p. 971.
Elmer, Lewis S., Baltimore, Md. Certain named foods. No. 104,869; June 22; Gaz. vol. 215; p. 1258.
Emery & Company, Incorporated, Boston, Mass. Cake. No. 104,715; June 15; Gaz. vol. 215; p. 971.
Empire Regenerator Company, New York, N. Y. Hair-colorings and hair-dyes. No. 104,716; June 15; Gaz. vol. 215; p. 971.
F. A. Hardy & Co., Chicago, Ill. Eye shades and shields. No. 104,612; June 8; Gaz. vol. 215; p. 661.
F. A. Thompson & Co., Detroit, Mich. Hair-tonics. No. 104,893; June 22; Gaz. vol. 215; p. 1259.
Fafnir Bearing Company, The, New Britain, Conn. Certain named machinery and parts thereof. No. 104,534; June 1; Gaz. vol. 215; p. 320.
Fargo, Stephen, Cleveland, Ohio. Remedy for the treatment of certain named affections. No. 104,717; June 15; Gaz. vol. 215; p. 971.
Fargo, Stephen, Cleveland, Ohio. Liniment. No. 104,718; June 15; Gaz. vol. 215; p. 971.
Faulds, Thomas A., assignor to T. A. Faulds Company, Boston, Mass. Compound for imparting the flavor of butter to certain products. No. 105,013; June 29; Gaz. vol. 215; p. 1495.
Faxon, Williams & Faxon, Buffalo, N. Y. Detergent cleaning preparation. No. 104,448; June 1; Gaz. vol. 215; p. 317.
Fay, Josie, Detroit, Mich. Ointment. No. 104,719; June 15; Gaz. vol. 215; p. 971.
Federal Coffee Mills Company, The, Cleveland, Ohio. Coffee. No. 104,870; June 22; Gaz. vol. 215; p. 1258.
Fellman, E. J., Milwaukee, Wis. Hangers and fasteners for window-screen and storm-sash. No. 104,608; June 8; Gaz. vol. 215; p. 661.
Ferdinand Neumer, Inc., New York, N. Y. Beer. No. 104,949; June 29; Gaz. vol. 215; p. 1493.
Ferer, Harry J., Falls City, Nebr. Electric egg-testers No. 104,936; June 29; Gaz. vol. 215; p. 1493.
Ferguson, Hene & Nevens, New York, N. Y. Negligée, dress, and work shirts. No. 104,975; June 29; Gaz. vol. 215; p. 1494.
Fischer, Arthur J., Boston, Mass. Monthly magazine. No. 104,764; June 15; Gaz. vol. 215; p. 973.
Fiske Brothers Refining Co., New York, N. Y. Lubricating oils and greases. No. 104,504; June 1; Gaz. vol. 215; p. 319.
Fitz Gibbon & Co., F., New York, N. Y. Gloves. No. 104,720; June 15; Gaz. vol. 215; p. 971.
Flash Chemical Company, Boston, Mass. Bug and insect exterminator. No. 104,505; June 1; Gaz. vol. 215; p. 319.
Fletcher & Wilson Coffee Co., Nashville, Tenn. Peanuts and peanut-butter. No. 104,609; June 8; Gaz. vol. 215; p. 661.
Flint, M. E. and W. E., Montclair, N. J. Butter. No. 105,014; June 29; Gaz. vol. 215; p. 1495.
Flint and Walling Manufacturing Co., Kendallville, Ind. Certain named machinery and tools and parts thereof. No. 105,015; June 29; Gaz. vol. 215; p. 1495.
Forbes, Andrew, Philadelphia, Pa. Gins. No. 104,555; June 1; Gaz. vol. 215; p. 320.
Förster, Querin, Brussels, Belgium. Products for conserving wood. No. 104,871; June 22; Gaz. vol. 215; p. 1258.
Fort Pitt Bedding Co., Pittsburgh, Pa. Bed-springs. No. 104,765; June 15; Gaz. vol. 215; p. 973.
Fowler Nail Co., The, Seymour, Conn. Horseshoe-nails. No. 104,872; June 22; Gaz. vol. 215; p. 1258.
Frank H. Fleer Corporation, Philadelphia, Pa. Chewing-gum and candy. No. 104,506; June 1; Gaz. vol. 215; p. 319.
Frayser, Frederick H., Richmond, Va. Stock food. No. 104,766; June 15; Gaz. vol. 215; p. 973.
French, Howard B., Philadelphia, Pa. Structural cement. No. 105,016; June 29; Gaz. vol. 215; p. 1495.
Fritz Company, William, Lester, Pa. Cough-drops and catarrh-bonbons. No. 104,873; June 22; Gaz. vol. 215; p. 1258.
Fully & Lewis, Los Angeles, Cal. Foot-powder. No. 104,721; June 15; Gaz. vol. 215; p. 972.
Gabbott, Edgar P., Manchester, England. Steam and water meters and recorders and indicating apparatus. No. 104,797; June 15; Gaz. vol. 215; p. 974.
General Chemical Company, New York, N. Y. Baking-powder. No. 104,798; June 15; Gaz. vol. 215; p. 974.
Genung and Mayer, West Haven, Conn. Anesthetics, obtundents, &c., pharmaceutical preparations. No. 104,507; June 1; Gaz. vol. 215; p. 319.
Geo. B. Carpenter & Co., Chicago, Ill. Sash-cord. No. 104,864; June 22; Gaz. vol. 215; p. 1258.
Geo. Borgfeldt & Co., New York, N. Y. Certain articles made of certain named materials, (not precious metal.) No. 104,704; June 15; Gaz. vol. 215; p. 971.
Geo. Borgfeldt & Co., New York, N. Y. Portfolios, pocket-books, baggage and vehicle straps, &c. No. 104,927; June 29; Gaz. vol. 215; p. 1493.
Geo. Borgfeldt & Co., New York, N. Y. Hollow aluminum ware. No. 104,928; June 29; Gaz. vol. 215; p. 1493.
Geo. H. Strietmann's Sons Co., The, Cincinnati, Ohio. Oyster-crackers. No. 104,851; June 22; Gaz. vol. 215; p. 1257.
Girard Grocery Company, Philadelphia, Pa. Canned peas, corn, and tomatoes. No. 104,558; June 1; Gaz. vol. 215; p. 320.
Glee Cola Co., Birmingham, Ala. Non-alcoholic and carbonated beverage. No. 104,830; June 22; Gaz. vol. 215; p. 1257.
Godfree, Felton & Co., E., Westminster, England. Liqueur. No. 104,508; June 1; Gaz. vol. 215; p. 319.
Goldberg, Joseph, Philadelphia, Pa. Combination outer and under garments. No. 104,722; June 15; Gaz. vol. 215; p. 972.
Goldman, I. Edwin, New York, N. Y. Cloaks, coats, suits, and dresses. No. 104,831; June 22; Gaz. vol. 215; p. 1257.
Goldstein, Sol, Chicago, Ill. Butter and eggs. No. 104,449; June 1; Gaz. vol. 215; p. 317.
Gottlieb Bauernschmidt Straus Brewing Company, The, Baltimore, Md. Lager-beer. No. 104,610; June 8; Gaz. vol. 215; p. 661.
Gottschalk Co., The, Baltimore, Md. Whisky. No. 104,920; June 22; Gaz. vol. 215; p. 1260.
Griffiths, Thomas M., St. Louis, Mo. Cathartic and laxative. No. 104,723; June 15; Gaz. vol. 215; p. 972.
Grocers Chemical Works, Evansville, Ind. Baking-powder. No. 104,767; June 15; Gaz. vol. 215; p. 973.
H. C. Dusenberry Inc., New York, N. Y. Insecticide. No. 104,900; June 22; Gaz. vol. 215; p. 1259.
H. E. Verran Company, Incorporated, New York, N. Y. Certain named threads and yarns and combinations thereof. No. 104,918; June 22; Gaz. vol. 215; p. 1259.
H. J. McGrath Company, Baltimore, Md. Canned fruits, vegetables, and oysters. No. 104,623; June 8; Gaz. vol. 215; p. 662.
H. L. Hurst Mfg. Co., The, Canton, Ohio. Hand and power sprayers. No. 104,876; June 22; Gaz. vol. 215; p. 1258.
H. W. Clark Co., Mattoon, Ill. Pipe-couplings. No. 104,827; June 22; Gaz. vol. 215; p. 1257.
Habicht, Braun & Co., New York, N. Y. Certain named foods. No. 104,768; June 15; Gaz. vol. 215; p. 973.
Hall, David, St. Louis, Mo. Kitchen-cabinets. No. 104,874; June 22; Gaz. vol. 215; p. 1258.
Hammel, Riglander & Co., New York, N. Y. Calipers. No. 104,976; June 29; Gaz. vol. 215; p. 1494.
Hardware Buyers Association, Chicago, Ill. Aluminum ware and wire screens. No. 104,611; June 8; Gaz. vol. 215; p. 661.
Harper, James P., St. Louis, Mo. Dental technicons, articulators, and articulator-holders. No. 104,724; June 15; Gaz. vol. 215; p. 972.
Harris, Edward O., Mount Pleasant, Mich. Wheat, Graham, and pancake flours and cornmeal. No. 104,725; June 15; Gaz. vol. 215; p. 972.
Hartford, Nancy, Silver Creek, Nebr. Medicine for tuberculosis. No. 104,937; June 29; Gaz. vol. 215; p. 1493.
Healine Manufacturing Co., Elmira, N. Y. Salve and ointment for certain named ailments and diseases. No. 104,907; June 22; Gaz. vol. 215; p. 1259.
Healy, Arthur E., D. D. S., New York, N. Y. Impression material for dental purposes in powdered form. No. 104,559; June 1; Gaz. vol. 215; p. 320.
Healy Shoe Company, Inc., New York, N. Y. Boots and shoes of leather, textile fabric, or rubber. No. 104,613; June 8; Gaz. vol. 215; p. 662.
Heineman Bros., Baltimore, Md. Cigars. No. 104,450; June 1; Gaz. vol. 215; p. 317.
Heller & Co., B., Chicago, Ill. Bluing. No. 104,938; June 29; Gaz. vol. 215; p. 1493.
Hellmann, Richard, New York, N. Y. Bread, especially pumpernickel-bread, salad-dressing, jellied meats, &c. No. 104,964; June 29; Gaz. vol. 215; p. 1494.
Hello-Boy Manufacturing Company, Farrell, Pa. Antiseptic. No. 104,726; June 15; Gaz. vol. 215; p. 972.
Hence & Co., E., New York, N. Y. Maps. No. 104,451; June 1; Gaz. vol. 215; p. 317.
Herman, Benjamin L., Hackensack, N. J. Certain named clothing for men and women. No. 104,685; June 8; Gaz. vol. 215; p. 664.
Hexter & Company, S. M., Cleveland, Ohio. Lining fabrics. No. 104,875; June 22; Gaz. vol. 215; p. 1258.
Hibbard, Spencer, Bartlett & Co., Chicago, Ill. Certain named cutlery, machinery, and tools. No. 104,614; June 8; Gaz. vol. 215; p. 662.
Hills Brothers Company, The, New York, N. Y. Figs. No. 104,536; June 1; Gaz. vol. 215; p. 320.
Hills Brothers Company, The, New York, N. Y. Figs and dates. No. 104,537; June 1; Gaz. vol. 215; p. 320.
Hind & Harrison Plush Co., The, New York and Clark Mills, N. Y. Plushes in the piece. Nos. 104,908–9; June 22; Gaz. vol. 215; p. 1259.
Hind & Harrison Plush Co., The, New York and Clark Mills, N. Y. Plushes in the piece. No. 104,939; June 29; Gaz. vol. 215; p. 1493.

Hoe & Co., Limited, Manchester, England. Sauce or relish. No. 104,452; June 1; Gaz. vol. 215; p. 317.
Holbrook Grocery Co., The, Keene, Woodsville, and Nashua, N. H. Coffee and tea. Nos. 104,560–1; June 1; Gaz. vol. 215; p. 320.
Holcomb & Hoke Mfg. Co., Indianapolis, Ind. Popcorn-machines. No. 104,978; June 29; Gaz. vol. 215; p. 1494.
Holeproof Hosiery Co., Milwaukee, Wis. Hosiery. No. 104,940, June 29; Gaz. vol. 215; p. 1493.
Holliston Mills, The, Norwood, Mass. Sized, stiffened, and finished cloth for bookbinding. No. 104,453; June 1; Gaz. vol. 215; p. 317.
Holmes & Son, Washington, D. C. Bread, cake, and pies. No. 104,979; June 29; Gaz. vol. 215; p. 1494.
Home Maid Products Co., New York, N. Y. Chilli sauce and marmalade. No. 104,727; June 15; Gaz. vol. 215; p. 972.
Howitz & Co., Albert L., New York, N. Y. Ladies' hats. No. 104,686; June 8; Gaz. vol. 215; p. 664.
Hub Hosiery Mills, Boston, Mass. Infants' hose. No. 104,562; June 1; Gaz. vol. 215; p. 321.
Hyman & Oppenheim, New York, N. Y. Hair-nets. No. 104,832; June 22; Gaz. vol. 215; p. 1257.
I. Hausman & Sons, Newark, N. J. Leather boots and shoes. No. 105,017; June 29; Gaz. vol. 215; p. 1496.
Ilse, Henry, Bronxville, N. Y. Beer. No. 104,833; June 22; Gaz. vol. 215; p. 1257.
Imperial Underwear Company, Piqua, Ohio. Knit and woven union suits. No. 104,729; June 15; Gaz. vol. 215; p. 972.
Independent Brewing Ass'n, Chicago, Ill. Beer. No. 104,688; June 8; Gaz. vol. 215; p. 664.
Industrial Chemical Company, New York, N. Y. Tanning materials and extracts. No. 104,730; June 15; Gaz. vol. 215; p. 972.
Inland Electric Co., Chicago, Ill. Armored flexible electric extension-conductors. No. 104,921; June 22; Gaz. vol. 215; p. 1260.
Instant Products Co., Buffalo, N. Y. Polishes for woodwork, pianos, automobiles, &c. No. 104,538; June 1; Gaz. vol. 215; p. 320.
Intravenous Products Company, The, Denver, Colo. Intravenous treatment of syphilis, pellagra, and malaria. No. 104,615; June 8; Gaz. vol. 215; p. 662.
Intravenous Products Company, The, Denver, Colo. Intravenous treatment of anemia. No. 104,616; June 8; Gaz. vol. 215; p. 662.
Intravenous Products Company, The, Denver, Colo. Intravenous treatment of malaria. No. 104,617; June 8; Gaz. vol. 215; p. 662.
Intravenous Products Company, The, Denver, Colo. Intravenous treatment of certain named diseases. No. 104,834; June 22; Gaz. vol. 215; p. 1257.
J. Baker & Sons, Evansville, Ind. Men's and boys' overalls. No. 104,926; June 29; Gaz. vol. 215; p. 1493.
J. D. Riedel Aktiengesellschaft, Berlin, Germany. Sedative, antipyretic, antimyalgic, &c., compounds. No. 104,825; June 22; Gaz. vol. 215; p. 1257.
J. D. Riedel Aktiengesellschaft, Berlin, Germany. Iodin-containing medicinal preparations. No. 104,990; June 29; Gaz. vol. 215; p. 1495.
J. H. Orr Co., Nashville, Tenn. Certain named foods. No. 104,644; June 8; Gaz. vol. 215; p. 662.
J. H. Williams & Co., New York, N. Y. Steels and high-speed steels. No. 104,813; June 15; Gaz. vol. 215; p. 974.
J. K. Armsby Co., The, San Francisco, Cal. Dried fruits. No. 104,523; June 1; Gaz. vol. 215; p. 319.
J. K. Armsby Co., The, San Francisco, Cal. Certain named foods. No. 104,684; June 8; Gaz. vol. 215; p. 664.
Jackman, George M., Columbus, Ohio. Preparation for the treatment of certain named diseases. No. 104,910; June 22; Gaz. vol. 215; p. 1259.
Jacob Petry Suction Retainer Company, Charleston, W. Va., and Pittsburgh, Pa. Dentist-plates. No. 104,886; June 22; Gaz. vol. 215; p. 1259.
Jalkoff Bros., New York, N. Y. Fur scarfs and muffs. Nos. 104,941–3; June 29; Gaz. vol. 215; p. 1493.
James H. Dunham & Co., New York, N. Y. Kid gloves. No. 104,445; June 1; Gaz. vol. 215; p. 317.
James, Mrs. L. W., State Line, Miss. Remedy for certain named ailments. No. 104,455; June 1; Gaz. vol. 215; p. 317.
James & Morgan Manufacturing Company, New York, N. Y. Razor-strops. No. 104,731; June 15; Gaz. vol. 215; p. 972.
Jianellis, Gustantinos Y., Detroit, Mich. Scalp and dandruff preparation. No. 104,732; June 15; Gaz. vol. 215; p. 972.
John Campbell & Co., New York, N. Y. Sizing and finishing product for textile fabrics. No. 105,011; June 29; Gaz. vol. 215; p. 1495.
John Wyeth & Brother, Incorporated, Philadelphia, Pa. Certain named medicines and pharmaceutical preparations. No. 104,497; June 1; Gaz. vol. 215; p. 319.
Johnson, Edgar V., Lawrenceburg, Ky. Powdered-form rheumatism remedy. No. 104,877; June 22; Gaz. vol. 215; p. 1258.
Kalamazoo Vegetable Parchment Company, Kalamazoo, Mich. Paper ice-blankets and nursery-blankets. No. 104,456; June 1; Gaz. vol. 215; p. 317.
Kalitzky, Waldemar, Milwaukee, Wis. Remedies for stomach and bowel ailments. No. 104,911; June 22; Gaz. vol. 215; p. 1259.
Kandem Electric Company, Inc., New York, N. Y. Arc-lamps, hangers and carbons for same, and projectors. No. 104,800; June 15; Gaz. vol. 215; p. 974.
Kansas City Wholesale Grocery Co., Kansas City, Mo. Cigars, chewing and smoking tobacco, cigarettes, and cheroots. No. 104,769; June 15; Gaz. vol. 215; p. 973.
Keers, John, Brooklyn, N. Y. Tube-spreading and brick-holding tools. No. 104,980; June 29; Gaz. vol. 215; p. 1494.
Keller & Company, L. H., New York, N. Y. Jewelers' piercing-saws. No. 104,539; June 1; Gaz. vol. 215; p. 320.
Kellogg Toasted Corn Flake Company, Battle Creek, Mich. Cereal beverages sold as soft drinks. No. 105,018; June 29; Gaz. vol. 215; p. 1496.
Kellogg Toasted Corn Flake Company, Battle Creek, Mich. Cereal beverage for a soft drink. No. 105,019; June 29; Gaz. vol. 215; p. 1496.
Kelly, John A., Forsyth, Mont. Pharmaceutical preparations for the treatment of certain named internal and external ailments. No. 105,020; June 29; Gaz. vol. 215; p. 1496.
Kidd, Susanna, Minneapolis, Minn. Insecticide. No. 104,733; June 15; Gaz. vol. 215; p. 972.
Killark Electric Manufacturing Co., St. Louis, Mo. Electrical-conduit fittings. No. 104,618; June 8; Gaz. vol. 215; p. 662.
Klaw Motion Picture Company, Inc., New York, N. Y. Motion-picture-projecting machines and cameras. No. 104,510; June 1; Gaz. vol. 215; p. 319.
King, Harry H., Chicago, Ill. Horological indicators. No. 105,033; June 29; Gaz. vol. 215; p. 1496.
King Paint Mfg. Co., New York, N. Y. Prepared paints, varnishes, and enamels. No. 104,511; June 1; Gaz. vol. 215; p. 319.
King Paint Mfg. Co., New York, N. Y. Prepared paints. No. 104,944; June 29; Gaz. vol. 215; p. 1493.
Kirk Geary & Co., Sacramento, Cal. Certain named pharmaceutical preparation. No. 104,945; June 29; Gaz. vol. 215; p. 1493.
Klaus, Max, New York, N. Y. Manicure instruments. No. 104,878; June 22; Gaz. vol. 215; p. 1258.
Klar, Adolph, New York, N. Y. Hair-nets. No. 105,021; June 29; Gaz. vol. 215; p. 1496.
Klauber Wangenheim Co., San Diego, Cal. Certain named foods. No. 104,540; June 1; Gaz. vol. 215; p. 320.
Kleanall Chemical Company, Hyde Park, Pa. Water softeners and cleansers. No. 104,457; June 1; Gaz. vol. 215; p. 317.
Knitted Padding Company, Canton, Mass. Unspun cotton fiber made into sheet or blanket form, reinforced and held compacted by stitching therethrough. No. 104,801; June 15; Gaz. vol. 215; p. 974.
Knox, Albert W., Asbury Park, N. J. Dentifrices. No. 104,734; June 15; Gaz. vol. 215; p. 972.
Kono Cereal Co., Chicago, Ill. Cereal coffee or substitute for coffee. No. 104,735; June 15; Gaz. vol. 215; p. 972.
Kuehler & Son, F. X., Brooklyn, N. Y. Candy. No. 104,835; June 22; Gaz. vol. 215; p. 1257.
L. Sonneborn Sons, Inc., New York, N. Y. Mineral oil used as a medicine and as an ingredient of medicinal preparations. No. 104,653; June 8; Gaz. vol. 215; p. 663.
Lackawanna Steel Company, Lackawanna and New York, N. Y. Rolled-steel bars and shapes. No. 104,981; June 29; Gaz. vol. 215; p. 1494.
Lakeland Citrus Growers Association, Lakeland, Fla. Citrus fruits. Nos. 104,512–13; June 1; Gaz. vol. 215; p. 319.
Lanz, Firm of Heinrich, Mannheim, Germany. Cream-separators. No. 104,770; June 15; Gaz. vol. 215; p. 973.
Lanz, Firm of Heinrich, Mannheim, Germany. Certain named cutlery, machinery, and appliances for making and working butter. No. 104,771; June 15; Gaz. vol. 215; p. 973.
Lard, S. S., Houston, Tex. Butter. No. 104,458; June 1; Gaz. vol. 215; p. 317.
Lashneen Company, Philadelphia, Pa. Cosmetic for effecting the growth of eyelashes and eyebrows. No. 104,459; June 1; Gaz. vol. 215; p. 317.
Lee Tire & Rubber Co., Whitemarsh township, Montgomery county, Pa. Certain named medical and surgical appliances. No. 104,879; June 22; Gaz. vol. 215; p. 1258.
Leech, E., Mosman, near Sydney, New South Wales, Australia. Insecticide. No. 104,736; June 15; Gaz. vol. 215; p. 972.
Legavre, Jules E., Paris, France. Certain named articles composed of plastic material. No. 104,514; June 1; Gaz. vol. 215; p. 319.
Leighton, Eugene I., Fort Dodge, Iowa. Ointment. No. 104,982; June 29; Gaz. vol. 215; p. 1494.
Lesella Remedies Company, Louisville, Ky. Salves, medicinal tonics, laxatives, &c. No. 104,737; June 15; Gaz. vol. 215; p. 972.
Lester Piano Company, Philadelphia, Pa. Automatic pianos. No. 104,738; June 15; Gaz. vol. 215; p. 972.
Lich, Robert, Sutton, Nebr. Medicinal preparation for diseases of poultry. No. 104,046; June 29; Gaz. vol. 215; p. 1493.

Lieberman, Pauline, New York, N. Y. Ladies' hats. No. 104,460; June 1; Gaz. vol. 215; p. 317.
Lindberg, G., Tacoma, Wash. Coffee. No. 104,541; June 1; Gaz. vol. 215; p. 320.
Lindquist Cracker Co., Denver, Colo. Crackers. No. 104,563; June 1; Gaz. vol. 215; p. 321.
Little Crow Milling Co., Warsaw, Ind. Wheat, &c., flours, cornmeal, and feeds. No. 104,836; June 22; Gaz. vol. 215; p. 1257.
Lockwood Amusement Company, Kansas City, Mo. Roller-coasters. No. 104,983; June 29; Gaz. vol. 215; p. 1494.
Loose-Wiles Biscuit Company, New York, N. Y. Cakes called snaps. No. 104,619; June 8; Gaz. vol. 215; p. 662.
Loose-Wiles Biscuit Company, Chicago, Ill. Cakes and crackers. No. 104,620; June 8; Gaz. vol. 215; p. 662.
Loose-Wiles Biscuit Co., Boston, Mass. Biscuit. No. 104,621; June 8; Gaz. vol. 215; p. 662.
Louis Auerbach, Inc., New York, N. Y. Neckties, neck-scarfs, and jabots. No. 104,698; June 15; Gaz. vol. 215; p. 971.
Lowe Manufacturing Company, The, Enderlin, N. D. Hoof-nippers. No. 104,542; June 1; Gaz. vol. 215; p. 320.
Lynat, Ltd., London, England, and Philadelphia, Pa. Adjustable hat-linings. No. 104,543; June 1; Gaz. vol. 215; p. 320.
M. M. V. Co., Huntsville, Ala. Cotton piece goods. No. 104,837; June 22; Gaz. vol. 215; p. 1257.
Macdonald, John N., Wethersfield, Conn. Tools for opening and closing the attaching-hooks of non-skid tire-chains, &c. No. 104,818; June 15; Gaz. vol. 215; p. 974.
Maclin-Zimmer-McGill Tobacco Co., Incorporated, Petersburg, Va. Plug, twist, cut-plug, smoking, and leaf tobaccos. No. 104,544; June 1; Gaz. vol. 215; p. 320.
Macy & Co., R. H., New York, N. Y. Rouges. No. 104,462; June 1; Gaz. vol. 215; p. 317.
Mandabach, Peter A., Chicago, Ill. Candy confection. No. 104,803; June 15; Gaz. vol. 215; p. 974.
Market Forge Company, The, Chelsea, Mass. Metal trucks. No. 104,622; June 8; Gaz. vol. 215; p. 662.
Marquette Cement Manufacturing Co., Chicago and Oglesby, Ill. Portland cement. No. 104,984; June 29; Gaz. vol. 215; p. 1495.
Maxwell-Ray Company, Milwaukee, Wis. Electric lamps, electric-lamp stands, electric-light fixtures and brackets. No. 104,564; June 1; Gaz. vol. 215; p. 321.
McClanahan, Charles H., Cowden, Ill. Preparation for treatment of cancer. No. 104,880; June 22; Gaz. vol. 215; p. 1258.
McDonald, Charles R., East Liverpool, assignor to Sanitary Ice Cream Sandwich Company, Cleveland, Ohio. Ice-cream-sandwich machines. No. 104,912; June 22; Gaz. vol. 215; p. 1259.
McGuire, John C., Detroit, Mich. Steel of every description. No. 104,739; June 15; Gaz. vol. 215; p. 972.
Measuregraph Company, The, St. Louis, Mo. Cloth and fabric measuring machines and parts thereof. No. 104,624; June 8; Gaz. vol. 215; p. 662.
Melville, Frank, Jr., New York, N. Y. Leather shoes. No. 104,625; June 8; Gaz. vol. 215; p. 662.
Menley & James, Limited, New York, N. Y. Compound sulfur ointment. No. 104,463; June 1; Gaz. vol. 215; p. 318.
Metzger, John C., Chicago, Ill. Metal coat or hat hooks. No. 105,022; June 29; Gaz. vol. 215; p. 1496.
Meyer, Sol, Indianapolis, Ind. Preparations for the prevention of venereal diseases. No. 104,740; June 15; Gaz. vol. 215; p. 972.
Meyer, Sol, Indianapolis, Ind. Preparations for the prevention of venereal diseases. No. 104,985; June 29; Gaz. vol. 215; p. 1495.
Middlebrook Wool Combing Company, East Boston, Mass. Wool tops. No. 104,838; June 22; Gaz. vol. 215; p. 1257.
Migel & Co., M. C., New York, N. Y. Silk piece goods. No. 104,804; June 15; Gaz. vol. 215; p. 974.
Miller Organ & Piano Co., Lebanon, Pa. Pianos. No. 104,773; June 15; Gaz. vol. 215; p. 973.
Mock, Adolph L., New York, N. Y. Growing plants and flowers and cut flowers. No. 104,805; June 15; Gaz. vol. 215; p. 974.
Mohawk Overall Co., Detroit, Mich. Work-shirts, jackets, trousers, and overalls. No. 104,464; June 1; Gaz. vol. 215; p. 318.
Moline Tool Company, Moline, Ill. Boring and drilling machines. No. 104,626; June 8; Gaz. vol. 215; p. 662.
Morgan, Field C., Claremont, N. H. Laxative pills. No. 104,741; June 15; Gaz. vol. 215; p. 972.
Morley & Co., Butte, Mont. Coffee-clarifier. No. 104,774; June 15; Gaz. vol. 215; p. 973.
Morning Journal Association, New York, N. Y. Newspaper. No. 104,465; June 1; Gaz. vol. 215; p. 318.
Morton Salt Company, Chicago, Ill. Salt. Nos. 104,913–14; June 22; Gaz. vol. 215; p. 1259.
Moullé, Eugène, San Diego, Cal. Perfumes and sachet-powder. No. 104,947; June 29; Gaz. vol. 215; p. 1493.
Mount Vernon Company—Silversmiths, Inc., The, Mount Vernon, N. Y. Certain named ware and articles made of or plated with precious metal. No. 104,948; June 29; Gaz. vol. 215; p. 1493.
Mt. Vernon Cream Co., Mount Vernon and Seattle, Wash. Canned evaporated milk. No. 104,627; June 8; Gaz. vol. 215; p. 662.
Mulkey, John L. C., Detroit, Mich. Salt. No. 104,986; June 29; Gaz. vol. 215; p. 1495.
Murray, William J., Sausalito, Cal. Remedy for chills and fever. No. 104,742; June 15; Gaz. vol. 215; p. 972.
N. V. Fabriek Van Melkproducten "Excelsior." Woerden, Netherlands. Condensed milk. Nos. 104,666–7; June 1; Gaz. vol. 215; p. 318.
Naaml. Venn. "Excelsior" Fabriek Van Melkproducten, Woerden, Netherlands. Condensed milk. Nos. 104,468–70; June 1; Gaz. vol. 215; p. 318.
Nagle Re Blade Knife Company, Inc., Poughkeepsie, N. Y. Knives and knife-blades. No. 104,839; June 22; Gaz. vol. 215; p. 1257.
Nairn Linoleum Co., The, Kearny, N. J. Linoleums. No. 104,629; June 8; Gaz. vol. 215; p. 662.
National Bath Powder Company, Fort Smith, Ark. Bath-powder. No. 104,471; June 1; Gaz. vol. 215; p. 318.
National Biscuit Company, Jersey City, N. J., and New York, N. Y. Biscuit. Nos. 104,630–40; June 8; Gaz. vol. 215; p. 662.
National Fruit Product Company, Inc., Alexandria, Va. Apple-cider vinegar. No. 104,641; June 8; Gaz. vol. 215; p. 662.
National Grocery Company, Jersey City, N. J. Baking soda and powder, bluing, and ammonia. No. 104,472; June 1; Gaz. vol. 215; p. 318.
National Hair Goods Company, Chicago, Ill. Hair switches. No. 105,023; June 29; Gaz. vol. 215; p. 1496.
National Remedy Company, Inc., New York, N. Y. Laxative syrup. No. 104,840; June 22; Gaz. vol. 215; p. 1257.
National Tube Company, Pittsburgh, Pa. Metal pipes, tubes, and casings. Nos. 104,881–2; June 22; Gaz. vol. 215; p. 1258.
New England Biscuit Company, Worcester, Mass. Crackers and biscuits. No. 104,565; June 1; Gaz. vol. 215; p. 321.
Nice, Eugene E., Philadelphia, Pa. Certain named paints and painters' supplies. No. 104,775; June 15; Gaz. vol. 215; p. 973.
Nicholas, George H., New York, N. Y. Shirts, shirt-waists, and blouses. No. 104,687; June 8; Gaz. vol. 215; p. 664.
Nitta, Chojiro, Nanba, Minami-Ku, Osaka, Japan. Leather belting. No. 104,776; June 15; Gaz. vol. 215; p. 973.
North American Mercantile Co., San Francisco, Cal. Matches. No. 104,883; June 22; Gaz. vol. 215; p. 1258.
Northrup, King & Co., Minneapolis, Minn. Seeds. No. 104,566; June 1; Gaz. vol. 215; p. 321.
Northwestern Expanded Metal Company, Chicago, Ill. Expanded-metal lathing. Nos. 104,642–3; June 8; Gaz. vol. 215; p. 662.
Nosworthy, Arthur, Brooklyn, N. Y. Portable racks adapted for indoor clothes-driers. No. 104,950; June 29; Gaz. vol. 215; p. 1493.
Nunes, Mary J., Tonopah, Nev. External remedies for the treatment of certain named ailments. No. 104,502; June 1; Gaz. vol. 215; p. 319.
Nuss Confectionery Co., Cincinnati, Ohio. Candy. No. 104,806; June 15; Gaz. vol. 215; p. 974.
O. C. Hansen Mfg. Company, Milwaukee, Wis. Mitts and gloves. No. 104,977; June 29; Gaz. vol. 215; p. 1494.
O'Brien, Michael, Detroit, Mich. Whisky. No. 104,743; June 15; Gaz. vol. 215; p. 972.
O'Brien Varnish Co., The, South Bend, Ind. Ready-mixed washable flat wall waterproof coating. No. 104,567; June 1; Gaz. vol. 215; p. 321.
Ogden Portland Cement Co., The, Ogden, Utah. Portland cement. No. 104,568; June 1; Gaz. vol. 215; p. 321.
Onondaga Pottery Company, Syracuse, N. Y. China tableware and ornamental chinaware. Nos. 104,744–5; June 15; Gaz. vol. 215; p. 972.
Operators' Piano Co., The, Chicago, Ill. Piano-players, self-playing pianos, orchestrions, &c. No. 104,473; June 1; Gaz. vol. 215; p. 318.
Oshkosh Trap & Novelty Co., Oshkosh, Wis. Animal-traps. No. 104,474; June 1; Gaz. vol. 215; p. 318.
Oswald Jaeger Baking Co., Milwaukee, Wis. Bread. No. 104,454; June 1; Gaz. vol. 215; p. 317.
Ouerbacker Coffee Co., The, Louisville, Ky. Roasted coffee. No. 104,569; June 1; Gaz. vol. 215; p. 321.
Pacific Coast Rattan Co., Oakland, Cal. Rugs and carpets of woven grass. No. 104,987; June 29; Gaz. vol. 215; p. 1495.
Page & Hill Co., Minneapolis, Minn. Wood-preserving oil. No. 104,746; June 15; Gaz. vol. 215; p. 972.
Parks Bros. & Rogers, Providence, R. I. Precious-metal cuff-buttons. No. 104,777; June 15; Gaz. vol. 215; p. 973.
Parrish, Jesse J., Titusville, Fla. Oranges, grape-fruit, and tangerines. No. 104,475; June 1; Gaz. vol. 215; p. 318.
Partridge, Herbert L., La Crosse, Wis. Corn remedy, toothache-drops, cold-tablets, &c. No. 104,841; June 22; Gaz. vol. 215; p. 1257.
Pawlas, George F. E., Cleveland, Ohio. Certain named medicines and pharmaceutical preparations. No. 104,884; June 22; Gaz. vol. 215; p. 1258.
Pearl City Fruit Co. Ltd., Honolulu, Hawaii. Canned pineapple. No. 104,545; June 1; Gaz. vol. 215; p. 320.
Penn Oil and Supply Co., Pasadena, Cal. Lubricating oils and greases, also fuel-oils. No. 104,747; June 15; Gaz. vol. 215; p. 972.

Peoria Creamery Co., Peoria, Ill. Butter. No. 105,024; June 29; Gaz. vol. 215; p. 1496.
Perkins, Willard, San Francisco, Cal. Rubber heels and soles. No. 104,476; June 1; Gaz. vol. 215; p. 318.
Perretta & Co., Rocco, Utica, N. Y. Olive-oil. No. 104,676; June 8; Gaz. vol. 215; p. 663.
Petrolive Co., San Francisco, Cal. Medicinal preparation. No. 104,885; June 22; Gaz. vol. 215; p. 1258.
Phenix Cheese Co., New York, N. Y. Cheese. No. 104,546; June 1; Gaz. vol. 215; p. 320.
Phenix Cheese Co., New York, N. Y. Cheese. No. 104,748; June 15; Gaz. vol. 215; p. 972.
Phillips, Harold W., Washington, D. C. Monthly periodical. No. 104,819; June 15; Gaz. vol. 215; p. 974.
Phillips, Firm of I. & M., New York, N. Y. Misses' outer suits and coats. No. 104,477; June 1; Gaz. vol. 215; p. 318.
Pieratt & Collins Co., Minneapolis, Minn. Candy. No. 104,645; June 8; Gaz. vol. 215; p. 662.
Pillsbury Flour Mills Company, Minneapolis, Minn. Wheat-flour. No. 104,646; June 8; Gaz. vol. 215; p. 662.
Pinco, Louis H., New York, N. Y. Laxative gum. No. 104,478; June 1; Gaz. vol. 215; p. 318.
Pitino Brothers, Los Angeles, Cal. Citrus fruits. No. 104,988; June 29; Gaz. vol. 215; p. 1495.
Pittsburgh Brewing Company, Pittsburgh, Pa. Beer. No. 104,479; June 1; Gaz. vol. 215; p. 318.
Prebol, Bronislaw, Passaic, N. J. Medicinal wines. No. 104,951; June 29; Gaz. vol. 215; p. 1494.
Priscilla Publishing Co., The, Boston, Mass. Sewing-machines. No. 104,570; June 1; Gaz. vol. 215; p. 321.
Proctor, Charles S., Detroit, Mich. Scotch whisky. No. 104,647; June 8; Gaz. vol. 215; p. 662.
Protective "Frefio" Stopple Company. (See Douglass, John W., assignor.)
Pulver Company, Inc., Rochester, N. Y. Chewing-gum. No. 104,571; June 1; Gaz. vol. 215; p. 321.
R. A. Wooldridge Company, Baltimore, Md. Fertilizers. No. 104,663; June 8; Gaz. vol. 215; p. 663.
R. M. Ford & Co., Inc., New York, N. Y. Printed annual publication. No. 104,535; June 1; Gaz. vol. 215; p. 320.
Radio-Round Incubator Co., Wayne, Nebr. Incubator. No. 104,480; June 1; Gaz. vol. 215; p. 318.
Ralston Purina Company, St. Louis, Mo. Prepared mixed feed for stock, dairy-animals, and poultry. No. 104,915; June 22; Gaz. vol. 215; p. 1259.
Ramsey, G. P., Ada, Okla. Preparation for cancers and tumors. No. 104,749; June 15; Gaz. vol. 215; p. 972.
Reckitts (U. S. A.), Ltd., New York, N. Y., and New Brunswick, N. J. Blue and laundry articles containing blue. No. 104,481; June 1; Gaz. vol. 215; p. 318.
Reckitts (U. S. A.), Ltd., New York, N. Y., and New Brunswick, N. J. Bluing. No. 104,750; June 15; Gaz. vol. 215; p. 972.
Redmanol Chemical Products Co., Chicago, Ill. Impregnating liquids for coating material to render it available for an insulating substance and which also protects the material against the weather and chemical actions. No. 104,751; June 15; Gaz. vol. 215; p. 972.
Reliance Manufacturing Company, Chicago, Ill. Boys' blouses. No. 104.675; June 8; Gaz. vol. 215; p. 663.
Renwick, Anna C., Flushing, N. Y. Dolls. No. 104,887; June 22; Gaz. vol. 215; p. 1259.
Republic Rubber Company, The, Youngstown, Ohio. Inner tubes for tires. No. 104,482; June 1; Gaz. vol. 215; p. 318.
Rheinische Gummi- und Celluloid-Fabrik, Mannheim-Neckarau, Germany. Dolls and other toys made of pyroxylin compounds. No. 104,499; June 1; Gaz. vol. 215; p. 319.
Rheinstrom Bros., Cincinnati, Ohio. Conserved cherries. No. 104,989; June 29; Gaz. vol. 215; p. 1495.
Richard Hudnut, New York, N. Y. Certain named pharmaceutical preparations for toilet purposes. No. 104,728; June 15; Gaz. vol. 215; p. 972.
Richard Schnibbe, Inc., Brooklyn, N. Y. Smoked fish, cervalat, and salame sausage. No. 104,954; June 29; Gaz. vol. 215; p. 1494.
Rigney & Company, Inc., Brooklyn, N. Y. Certain named candies, syrups, and honey. No. 104,572; June 1; Gaz. vol. 215; p. 321.
Rivears, Lena, Portland, Oreg. Cold-cream and skin-cleanser. No. 104,515; June 1; Gaz. vol. 215; p. 319.
Rochau, Albert D., Michigan City, Ind. Covering for ironing-boards. No. 104,547; June 1; Gaz. vol. 215; p. 320.
Rogers Peet Company, New York, N. Y. Outer suits and overcoats. No. 104,952; June 29; Gaz. vol. 215; p. 1494.
Rose-Rogers Co., Dallas, Tex. Overalls, jumpers, overall-coats, and pants. No. 104,953; June 29; Gaz. vol. 215; p. 1494.
Rosenberg, Hani A., New York, N. Y. Hair tonic, restorer, and pomade. No. 104,548; June 1; Gaz. vol. 215; p. 320.
Rosenberg, Jerome D., New York, N. Y. Book of nursery-rhymes and adhesive illustrative posters issued in series. No. 104,807; June 15; Gaz. vol. 215; p. 974.
Rowe Sanitary Mfg. Co., Detroit, Mich. Chemical closets and sanitary washstands. No. 104,483; June 1; Gaz. vol. 215; p. 318.
Rudolph Saenger Co., New York, N. Y. Hair-nets. Nos. 104,573–6; June 1; Gaz. vol. 215; p. 321.
Rush, Joseph K., Syracuse, N. Y. Artificial bait. No. 104,991; June 29; Gaz. vol. 215; p. 1495.
Russell-Miller Milling Company, Minneapolis, Minn. Bread. No. 104,648; June 8; Gaz. vol. 215; p. 663.
Safety Vapor Heating Co., Buffalo, N. Y. Valves for heating apparatus and damper-regulators. No. 104,484; June 1; Gaz. vol. 215; p. 318.
Salt's Textile Manufacturing Company, The, Bridgeport, Conn., and New York, N. Y. Coats, cloaks, wraps, and capes. Nos. 104,677–8; June 8; Gaz. vol. 215; p. 663.
Salt's Textile Manufacturing Company, The, Bridgeport, Conn., and New York, N. Y. Velvets and plushes in the piece. No. 104,842; June 22; Gaz. vol. 215; p. 1257.
Samaha & Bro., S. N., Washington, D. C. Preserved fruit-pulp, jellies, vinegar, and mustard. No. 104,916; June 22; Gaz. vol. 215; p. 1259.
San Antonio Drug Company, San Antonio, Tex. Olive-oil. No. 104,577; June 1; Gaz. vol. 215; p. 321.
Sanitary Ice Cream Sandwich Company. (See McDonald, Charles R., assignor.)
Sapah, Naman, Brooklyn, N. Y. Remedial oil for topical use. No. 104,843; June 22; Gaz. vol. 215; p. 1257.
Sargent & Company, New Haven, Conn. Certain named measuring and scientific appliances. No. 104,649; June 8; Gaz. vol. 215; p. 663.
Sargent & Company, New Haven, Conn. Certain named cutlery and tools. No. 104,650; June 8; Gaz. vol. 215; p. 663.
Sargent & Company, New Haven, Conn. Locks, latches, keys, padlocks, &c. No. 104,651; June 8; Gaz. vol. 215; p. 663.
Sarle, Harriet A., New York, N. Y. Writing-paper. No. 104,778; June 15; Gaz. vol. 215; p. 973.
Sauquoit Toilet Paper Co., Inc., New Hartford, N. Y. Toilet-paper. Nos. 104,779–83; June 15; Gaz. vol. 215; p. 973.
Sauté Products Corporation, New York, N. Y. Pure butter of cocoanut for frying, &c. No. 104,549; June 1; Gaz. vol. 215; p. 320.
Schamberg, Egmont, Berlin-Halensee, Germany. Preparations containing radium and having radio-active properties. No. 104,992; June 29; Gaz. vol. 215; p. 1495.
Schleizer, William H., Chicago, Ill. Laxative tablets. No. 104,844; June 22; Gaz. vol. 215; p. 1257.
Schoonmaker, Frederick W., New York, N. Y., assignor to Schoonmaker Laboratories, Inc. Ointment for irritation or inflammation of the mucous membrane. No. 104,888; June 22; Gaz. vol. 215; p. 1259.
Schultz, William L., Brooklyn, N. Y., and Paris, France. Face-powder. No. 104,752; June 15; Gaz. vol. 215; p. 972.
Schuster Company, The, Cleveland, Ohio. Certain named wines. No. 104,993; June 29; Gaz. vol. 215; p. 1495.
Schuster Company, The, Cleveland, Ohio. Certain named wines. No. 104,994; June 29; Gaz. vol. 215; p. 1495.
Scranton Lace Company, The, Scranton, Pa. Curtains and draperies. No. 104,485; June 1; Gaz. vol. 215; p. 318.
Sears, Roebuck and Co., Chicago, Ill. Automobile-oil. No. 104,846; June 22; Gaz. vol. 215; p. 1257.
Sentinel Clock Co., Chicago, Ill. Horological indicators. No. 104,995; June 29; Gaz. vol. 215; p. 1495.
Shado-Lite Manufacturing Company, Beaver Falls, Pa. Electrical lighting means for motion-picture and other auditoriums. No. 104,516; June 1; Gaz. vol. 215; p. 319.
Shannon & Mott Company, Des Moines, Iowa. Wheat-flour. No. 105,025; June 29; Gaz. vol. 215; p. 1496.
Sharples Separator Co., The, West Chester, Pa. Cream-separators, clarifiers, and milking-machines. No. 104,955; June 29; Gaz. vol. 215; p. 1494.
Sherwin-Williams Co., Cleveland, Ohio. Insulating-varnish. No. 104,808; June 15; Gaz. vol. 215; p. 974.
Shupe, Joseph J., Detroit, Mich. Bread. No. 104,889; June 22; Gaz. vol. 215; p. 1259.
Siebe, Gorman & Co., Ltd., London, England. Apparatus for reviving or resuscitating persons asphyxiated or apparently drowned. No. 104,890; June 22; Gaz. vol. 215; p. 1259.
Siemens & Company, Gebruder, Berlin-Lichtenberg, Germany. Alcohol-measuring apparatus and condenser water-meters. No. 104,674; June 8; Gaz. vol. 215; p. 663.
Silver & Co., S. L., New York, N. Y. Ladies' coats and outer suits. No. 104,847; June 22; Gaz. vol. 215; p. 1257.
Silver & Co., S. L., New York, N. Y. Ladies' coats and outer suits. No. 104,956; June 29; Gaz. vol. 215; p. 1494.
Simon, Richard, Newton, N. J. Stomach-drops. No. 104,486; June 1; Gaz. vol. 215; p. 318.
Simons, George E., Seattle, Wash. Compound for cleaning and polishing metal surfaces. No. 104,517; June 1; Gaz. vol. 215; p. 319.
Simpson, Harry P., Cleveland, Ohio. Cathartic pastils. No. 104,996; June 29; Gaz. vol. 215; p. 1495.
Skinner Mfg. Co., Omaha, Nebr. Alimentary paste products and cereal breakfast food. No. 104,652; June 8; Gaz. vol. 215; p. 663.
Smith, George F., Washington, Pa. Remedy for certain named ailments and diseases. No. 104,753; June 15; Gaz. vol. 215; p. 972.
Smith, Hannah A., Philadelphia, Pa. Lime. No. 104,891; June 22; Gaz. vol. 215; p. 1259.

Smyrna & Hawk Park Citrus Growers Association, New Smyrna, Fla. Oranges and grape-fruit. No. 104,578; June 1; Gaz. vol. 215; p. 321.
Snyder, Harry E., Akron, Ohio. Washing compounds for walls, ceilings, floors, &c. No. 104,487; June 1; Gaz. vol. 215; p. 318.
Southern Lard and Provision Company, The, Norfolk, Va. Lard substitute. No. 104,965; June 29; Gaz. vol. 215; p. 1494.
Sparks Milling Company, Alton, Ill., and Terre Haute, Ind. Wheat-flour. No. 104,848; June 22; Gaz. vol. 215; p. 1257.
Spies, Charles B., New York, N. Y. Certain named pharmaceutical preparation. No. 104,488; June 1; Gaz. vol. 215; p. 318.
St. Ivel, Limited, Yeovil, England. Preparation for the brain and nerves. No. 104,809; June 15; Gaz. vol. 215; p. 974.
Standard Corporation, Philadelphia, Pa. Technical, engineering, and scientific periodical bulletins. No. 104,998; June 29; Gaz. vol. 215; p. 1495.
Standard Oil Company, Whiting, Ind., and Chicago, Ill. Petrolatum-oil. No. 104,680; June 8; Gaz. vol. 215; p. 664.
Standard Oil Company, Richmond, Cal. Refined petroleum illuminating-oil. No. 104,999; June 29; Gaz. vol. 215; p. 1495.
Staples Chemical Company, R. C., Fort Smith, Ark. Baking-powder. No. 104,754; June 15; Gaz. vol. 215; p. 972.
Steeves & Tilton, Boston, Mass. Cigars. No. 105,026; June 29; Gaz. vol. 215; p. 1496.
Stefanski, Michael L., Baltimore, Md. Liniment for the treatment of certain named diseases and affections. No. 104,755; June 15; Gaz. vol. 215; p. 973.
Steinwender-Stoffregen Coffee Co., St. Louis, Mo. Roasted coffee. No. 104,810; June 15; Gaz. vol. 215; p. 974.
Sterrick Sales Corporation, The, Wilmington, Del., and Pittsburgh, Pa. Shaving massage-brush and casing. No. 104,892; June 22; Gaz. vol. 215; p. 1259.
Steuben Glass Works, Corning, N. Y. Illuminating-glassware. No. 104,518; June 1; Gaz. vol. 215; p. 319.
Stewart, Amos, Los Angeles, Cal. Remedy for rheumatism, lumbago, and kidney trouble. No. 104,654; June 8; Gaz. vol. 215; p. 663.
Stewart-Warner Speedometer Corporation, Chicago, Ill. Odometers, revolution and motion counters. No. 105,027; June 29; Gaz. vol. 215; p. 1496.
Stockwell, Albert M., Rochester, N. Y. Chewing-gum. No. 104,519; June 1; Gaz. vol. 215; p. 319.
Strohbeck, Chas. W., New York, N. Y. Cushion-heels. No. 104,997; June 29; Gaz. vol. 215; p. 1495.
Sumter Electrical Company, Sumter, S. C. Magnetos. Nos. 104,681–2; June 8; Gaz. vol. 215; p. 664.
Swedish Separator Co., Chicago, Ill. Cream-separators. No. 104,785; June 15; Gaz. vol. 215; p. 973.
Sweet Candy Company, Salt Lake City, Utah. Chocolates. Nos. 104,849–50; June 22; Gaz. vol. 215; p. 1257.
T. A. Faulds Company. (See Faulds, Thomas A., assignor.)
Taylor Chemical Co., Boston, Mass. Writing-ink. No. 104,957; June 29; Gaz. vol. 215; p. 1494.
Taylor, Mable P., Cleveland Ohio. Salted peanuts. No. 105,000; June 29; Gaz. vol. 215; p. 1495.
Teitelbaum, Isidor, Cleveland, Ohio. Cigars. No. 104,550; June 1; Gaz. vol. 215; p. 320.
Templetons Rheumatic Capsule Corporation Limited, Toronto, Ontario, Canada. Remedy for rheumatism. No. 104,689; June 8; Gaz. vol. 215; p. 664.
Terryberry, George, Cleveland, Ohio. Wheat-flour. No. 104,655; June 8; Gaz. vol. 215; p. 663.
Tetlow, Clara, Philadelphia, Pa. Face-powder. No. 104,489; June 1; Gaz. vol. 215; p. 318.
Tetzloff, Dekota M., Independence, Iowa. Metal-polishes. No. 105,001; June 29; Gaz. vol. 215; p. 1495.
Thomas & Bishop, London, England. Cement for packing metallic joints. No. 104,490; June 1; Gaz. vol. 215; p. 318.
Thomas Maddock's Sons Company, Trenton, N. J. Vitreous-china water-closets, urinals, lavatories, &c. No. 104,802; June 15; Gaz. vol. 215; p. 974.
Thompson Milling Company, Philadelphia, Pa. Soup-flours made of beans, peas, &c. No. 104,520; June 1; Gaz. vol. 215; p. 319.
Tilzer Brothers, New York, N. Y. Tea. No. 105,028; June 29; Gaz. vol. 215; p. 1496.
Timothy F. Crowley, Incorporated, New York, N. Y. Ladies' collars made of nets, laces, chiffons, silks, &c. No. 104,668; June 8; Gaz. vol. 215; p. 663.
Timothy F. Crowley, Incorporated, New York, N. Y. Ladies' collars made of nets, laces, &c. No. 104,962; June 29; Gaz. vol. 215; p. 1494.
Tire Seal Co. Inc., New York, N. Y. Preparation to seal punctures in tires. No. 104,656; June 8; Gaz. vol. 215; p. 663.
Tomson & Co., P. C., Philadelphia, Pa. Soap and soap powder. No. 104,958; June 29; Gaz. vol. 215; p. 1494.
Tona Vita Medicine Company. (See Cooper Medicine Company, assignor.)
Tootal, Broadhurst Lee Company, Ltd., Manchester, England. Certain named cotton piece goods. No. 104,917; June 22; Gaz. vol. 215; p. 1259.
Tower Manufacturing & Novelty Co., New York, N. Y. Card-index boxes made of wood. No. 104,852; June 22; Gaz. vol. 215; p. 1258.
Treinis Bros., New York, N. Y. Sweaters. No. 104,583; June 1; Gaz. vol. 215; p. 321.
Trey Bros., de, Zurich, Switzerland. Dental supplies. No. 104,867; June 22; Gaz. vol. 215; p. 1258.
Trundle, George T., Jr., Cleveland, Ohio. Automobile-locks. No. 105,029; June 29; Gaz. vol. 215; p. 1496.
Trussed Concrete Steel Company, Detroit, Mich. Priming or sizing coat for walls and ceilings. No. 104,551; June 1; Gaz. vol. 215; p. 320.
Trussed Concrete Steel Company, Detroit, Mich. Protective iron and steel paints. No. 104,552; June 1; Gaz. vol. 215; p. 320.
Turner, Halsey Company, New York, N. Y. Cotton duck. No. 104,491; June 1; Gaz. vol. 215; p. 318.
Turner & Seymour Manufacturing Co., The, Torrington, Conn. Metal curtain-rods. No. 105,002; June 29; Gaz. vol. 215; p. 1495.
Unit-Wall Construction Company, New York, N. Y. Concrete-molding apparatus for casting concrete *in situ*. No. 104,579; June 1; Gaz. vol. 215; p. 321.
United Distributing Companies, Chicago, Ill. Vacuum-cleaners. No. 104,756; June 15; Gaz. vol. 215; p. 973.
United Drug Company, Boston, Mass. Certain named games, toys, and sporting goods. No. 104,657; June 8; Gaz. vol. 215; p. 663.
United Drug Company, Boston, Mass. Twine, cord, and string. No. 104,959; June 29; Gaz. vol. 215; p. 1494.
United Lace & Braid Manufacturing Company, Cranston, R. I. Braids, shoe and corset laces, and galloons. No. 104,820; June 15; Gaz. vol. 215; p. 975.
United States Manufacturing Co., St. Louis, Mo. Churns. No. 105,003; June 29; Gaz. vol. 215; p. 1495.
United States Wire Mat Company, Decatur, Ill. Fly-killers. No. 104,658; June 8; Gaz. vol. 215; p. 663.
Universal Film Manufacturing Company, Chicago, Ill. Motion-picture films. No. 104,821; June 15; Gaz. vol. 215; p. 975.
Universal Film Manufacturing Company, Chicago, Ill. Motion-picture films. No. 105,030; June 29; Gaz. vol. 215; p. 1496.
Unruh Schuyler C., Benton Harbor, Mich. Remedy for rheumatism. No. 104,492; June 1; Gaz. vol. 215; p. 318.
Valentine & Company, New York, N. Y. Primers, fillers, surfacers, and paints, paste and ready mixed. No. 104,812; June 15; Gaz. vol. 215; p. 974.
Vassar Cap Co., Chicago, Ill. Hats and caps. No. 104,757; June 15; Gaz. vol. 215; p. 973.
Vinton & Son, L. A., Moline, Ill. Post-hole diggers and repair parts therefor. No. 104,922; June 22; Gaz. vol. 215; p. 1260.
Virginia Alfalfa Corporation, Richmond, Va. Alfalfa for feeding purposes. No. 104,521; June 1; Gaz. vol. 215; p. 319.
Vola Importing Company, New York, N. Y. Red and white Chianti. No. 104,895; June 22; Gaz. vol. 215; p. 1259.
W. E. Whann Company, Philadelphia, Pa. Fertilizer. No. 104,661; June 8; Gaz. vol. 215; p. 663.
W. H. Metzger Manufacturing Company, Quincy, Ill. Pharmaceutical preparation for destroying vermin, &c. No. 104,772; June 15; Gaz. vol. 215; p. 973.
W. R. Grace & Co., New York, N. Y. Lard substitute. No. 104,509; June 1; Gaz. vol. 215; p. 319.
W. W. Chill Kill Co., Douglas, Ga. Preparation for chills and fever. No. 104,904; June 22; Gaz. vol. 215; p. 1259.
Wabash Sani-Tray Co., Wabash, Ind. High chairs for babies. No. 104,493; June 1; Gaz. vol. 215; p. 318.
Wagner, Edward H., New York, N. Y. Fireworks. No. 104,494; June 1; Gaz. vol. 215; p. 318.
Walker & Tracy, Canandaigua, N. Y. Crackers. No. 104,690; June 8; Gaz. vol. 215; p. 664.
Walker & Tracy, Canandaigua, N. Y. Crackers. No. 104,853; June 22; Gaz. vol. 215; p. 1258.
Walter Brewing Co., Pueblo, Colo. Beer. No. 104,896; June 22; Gaz. vol. 215; p. 1259.
Wechsler-Barber Silk Co., Paterson, N. J. Silk piece goods. Nos. 104,854–5; June 22; Gaz. vol. 215; p. 1258.
Weeden Manufacturing Co., New Bedford, Mass. Steam, electric, and mechanical toys and parts thereof. No. 104,960; June 29; Gaz. vol. 215; p. 1494.
Wegelin & Schweizer, New York, N. Y. Cotton piece goods. No. 104,495; June 1; Gaz. vol. 215; p. 318.
Well Corset Co., The, New Haven, Conn. Abdominal belts. No. 104,500; June 1; Gaz. vol. 215; p. 319.
Wertheimer Bros., Baltimore, Md. Cigars. No. 104,659; June 8; Gaz. vol. 215; p. 663.
Wetzler, John H., Milwaukee, Wis. Cigars. No. 104,660; June 8; Gaz. vol. 215; p. 663.
Whaley Mill & Elevator Co., Gainesville, Tex. Wheat-flour. No. 105,031; June 29; Gaz. vol. 215; p. 1496.
Whetzel, Billups & Pickrell, Colfax, Wash. Compound for treatment of dandruff and eczema and for a hair-tonic. No. 104,496; June 1; Gaz. vol. 215; p. 318.
White, Malcolm R., Detroit, Mich. Cathartic. No. 104,897; June 22; Gaz. vol. 215; p. 1259.
Wight Company, Lamoni, Iowa. Poultry remedies. No. 104,898; June 22; Gaz. vol. 215; p. 1259.
Wilcox & White Company, Meriden, Conn. Mechanical music-playing instruments and music-rolls therefor. No. 104,786; June 15; Gaz. vol. 215; p. 973.

Wiley Dandruff Remover Company, The, Toledo, Ohio. Shampoo, hair-tonic, dandruff-remover, &c. No. 105,004; June 29; Gaz. vol. 215; p. 1495.

William Schotten Coffee Company, St. Louis, Mo., assignor to Western Grocer Company, Marshalltown, Iowa, a Corporation of Iowa. Tea. No. 104,784; June 15: Gaz. vol. 215; p. 973.

William Schotten Coffee Co., St. Louis, Mo. Roasted coffee. No. 104,845; June 22; Gaz. vol. 215; p. 1257.

Williams Company, Gurnsey B., Syracuse, N. Y. Shirts, drawers, union suits, gloves, and hose. No. 104,553; June 1; Gaz. vol. 215; p. 320.

Williams, Harry S., Springfield, Ohio. Article for cleansing, polishing, and scouring. No. 104,498; June 1; Gaz. vol. 215; p. 319.

Wirt Company, Portland Me., and Philadelphia, Pa. Regulable electric-lighting apparatus, dimmers for electric-light fixtures. No. 104,554; June 1; Gaz. vol. 215; p. 320.

Wm. Wrigley, Jr. Company, Chicago, Ill. Chewing-gum. No. 105,032; June 29; Gaz. vol. 215; p. 1496.

Wood-Beazley Seed Co., Springfield, Mo. Seeds. No. 104,662; June 8; Gaz. vol. 215; p. 663.

Wood & Son, Alexander, Peterhead, Scotland. Pickled herrings in barrels. No. 104,580; June 1; Gaz. vol. 215; p. 321.

Woodbridge Chemical Co. Inc., Woodbridge, N. J., and New York, N. Y. Preparation for preventing the puncture of automobile-tires. No. 104,822; June 15; Gaz. vol. 215; p. 975.

Woolson Spice Company, The, Toledo, Ohio. Tea. No. 104,683; June 8; Gaz. vol. 215; p. 664.

Woolson Spice Company, Toledo, Ohio. Tea. No. 104,823; June 15; Gaz. vol. 215; p. 975.

Worthington Ball Company, The, Elyria, Ohio. Golf-balls. No. 105,005; June 29; Gaz. vol. 215; p. 1495.

Yawman & Erbe Mfg. Co., Rochester, N. Y. Filing-cabinets, sectional furniture, &c. No. 104,899; June 22; Gaz. vol. 215; p. 1259.

Zoz Chemical Company, The, Cincinnati, Ohio. Pharmaceutical preparations for certain named uses. No. 105,006; June 29; Gaz. vol. 215; p. 1495.

ALPHABETICAL LIST OF REGISTRANTS OF LABELS.

A. P. Babcock Co., New York, N. Y. "Babcock's." (For Talcum Powder.) No. 18,516; June 15; Gaz. vol. 215; p. 976.

Albano, Francesco, New York, N. Y. "Ferrandina." (For Olive-Oil.) No. 18,515; June 15; Gaz. vol. 215; p. 976.

Albano, Francesco, New York, N. Y. "Teresa de Rosa." (For Alimentary Pastes.) No. 18,544; June 22; Gaz. vol. 215; p. 1261.

Alden, John W., Boston, Mass. "Berwick." (For Cake.) No. 18,490; June 1; Gaz. vol. 215; p. 322.

Buck, W. H. G., San Diego, Cal. "Mission Punch." (For Punch.) No. 18,491; June 1; Gaz. vol. 215; p. 322.

Buckley Bakery & Macaroni Company, The, Kensington, Conn. "Macaroni." (For Macaroni.) No. 18,545; June 22; Gaz. vol. 215; p. 1261.

Canastota Canning Company, Canastota, N. Y. "Teasel." (For Canned Sugar-Corn.) No. 18,492; June 1; Gaz. vol. 215; p. 322.

Canastota Canning Company, Canastota, N. Y. "Our C. C. C. Brand." (For Canned Beans.) No. 18,559; June 29; Gaz. vol. 215; p. 1497.

Canastota Canning Company, Canastota, N. Y. "Sentinel." (For Canned Beans.) No. 18,560; June 29; Gaz. vol. 215; p. 1497.

Canastota Canning Company, Canastota, N. Y. "Wan-Sum." (For Canned Beans.) No. 18,561; June 29; Gaz. vol. 215; p. 1497.

Canastota Canning Company, Canastota, N. Y. "Our C. C. C. Brand." (For Canned Peas.) No. 18,562; June 29; Gaz. vol. 215; p. 1497.

Canastota Canning Company, Canastota, N. Y. "Our C. C. C. Brand." (For Canned Sugar-Corn.) No. 18,563; June 29; Gaz. vol. 215; p. 1497.

Canastota Canning Company, Canastota, N. Y. "Sentinel." (For Canned Peas.) No. 18,564; June 29; Gaz. vol. 215; p. 1497.

Canastota Canning Company, Canastota, N. Y. "Sentinel." (For Canned Succotash.) No. 18,565; June 29; Gaz. vol. 215; p. 1497.

Canastota Canning Company, Canastota, N. Y. "Sentinel." (For Canned Sugar-Corn.) No. 18,566; June 29; Gaz. vol. 215; p. 1497.

Canastota Canning Company, Canastota, N. Y. "Wan-Sum." (For Canned Sugar-Corn.) No. 18,567; June 29; Gaz. vol. 215; p. 1497.

Canastota Canning Company, Canastota, N. Y. "Wan-Sum." (For Canned Peas.) No. 18,568; June 29; Gaz. vol. 215; p. 1497.

Collis, Henry J., Taunton, Mass. "Collis' Famous Combination Ankle Supporters." (For Ankle-Supporters.) No. 18,506; June 8; Gaz. vol. 215; p. 665.

Cooper, Frank J., San Francisco, Cal. "California Frutstix." (For Confections Made from Fruits.) No. 18,546; June 22; Gaz. vol. 215; p. 1261.

Cooper Underwear Company, Kenosha, Wis. "Coopers K-K-K Quality Since 1876." (For Underwear.) Nos. 18,517–18; June 15; Gaz. vol. 215; p. 976.

Cox Company, The, St. Louis, Mo. "Red Devil Roach Destroyer." (For Roach-Destroyers.) No. 18,569; June 29; Gaz. vol. 215; p. 1497.

David Adler & Sons Clothing Co., Milwaukee, Wis. "Sterling Brand Clothes." (For Clothing.) No. 18,547; June 22; Gaz. vol. 215; p. 1261.

Detroit Optical Mfg. Co., Detroit, Mich. "Emrald-Glo." (For Eyeglasses.) No. 18,519; June 15; Gaz. vol. 215; p. 976.

Di Nonno, Rocco, Meriden, Conn. "'No-Smart' Face Lotion." (For a Face-Lotion.) No. 18,493; June 1; Gaz. vol. 215; p. 322.

Domino Sugarmint Co., New York, N. Y. "Domino Sugarmint." (For Peppermint Lozenges.) No. 18,520; June 15; Gaz. vol. 215; p. 976.

Durkee & Co., E. R., New York, N. Y. "Durkee's Tapioca." (For Tapioca.) No. 18,521; June 15; Gaz. vol. 215; p. 976.

Durkee & Co., E. R., New York, N. Y. "Durkee's Pearl Barley." (For Barley.) No. 18,522; June 15; Gaz. vol. 215; p. 976.

Durkee & Co., E. R., New York, N. Y. "Durkee's Rice Flour." (For Flour.) No. 18,523; June 15; Gaz. vol. 215; p. 976.

Durkee & Co., E. R., New York, N. Y. "Invisible Starch." (For Starch.) No. 18,524; June 15; Gaz. vol. 215; p. 976.

Durkee & Co., E. R., New York, N. Y. "Durkee's Mixed Bird Seed." (For Bird-Seed.) No. 18,525; June 15; Gaz. vol. 215; p. 976.

Durkee & Co., E. R., New York, N. Y. "Durkee's Corn Starch." (For Corn-Starch.) No. 18,526; June 15; Gaz. vol. 215; p. 976.

Dwinell-Wright Co., Boston, Mass. "Strictly Pure Coffee." (For Coffee.) No. 18,507; June 8; Gaz. vol. 215; p. 665.

Dwinell-Wright Co., Boston, Mass. "The Toast of our Grand Parents." (For Coffee.) No. 18,508; June 8; Gaz. vol. 215; p. 665.

Dwinell-Wright Co., Boston, Mass. "Southern Girl." (For Coffee.) No. 18,548; June 22; Gaz. vol. 215; p. 1261.

Eastman, John, Syracuse, N. Y. "True Blue." (For a Veterinary Remedy.) No. 18,527; June 15; Gaz. vol. 215; p. 976.

Escondido Vineyard & Vinery Company, Escondido, Cal. "Sun Kist Burgundy." (For Wine.) No. 18,528; June 15; Gaz. vol. 215; p. 976.

F. G. Vogt & Sons, Incorporated, Philadelphia, Pa. "Vogt's Philadelphia Scrapple." (For Scrapple.) No. 18,514; June 8; Gaz. vol. 215; p. 665.

Fitzpatrick Bros., Chicago, Ill. "Linoleum Oil Soap." (For Soap.) No. 18,529; June 15; Gaz. vol. 215; p. 976.

Goodway, Joseph A., Pittsburgh, Pa. "Goodway's Sunburn Lotion." (For a Liquid Lotion Having Certain Medicinal Properties.) No. 18,530; June 15; Gaz. vol. 215; p. 976.

Green & Green, Houston, Tex. "Muscadine Punch." (For a Beverage.) No. 18,549; June 22; Gaz. vol. 215; p. 1261.

Greenwood & Company, Savannah, Ga. "Sigora." (For Cigars.) No. 18,570; June 29; Gaz. vol. 215; p. 1497.

H. Behrens M'f'g. Co., Winona, Minn. "Never-Mend." (For Metal Ware.) No. 18,550; June 22; Gaz. vol. 215; p. 1261.

Hammerschlag Manufacturing Company, The, New York, N. Y. "Hammerschlag's Waxed Papers." (For Waxed Papers.) No. 18,571; June 29; Gaz. vol. 215; p. 1497.

Helmet Company, The, Cincinnati, Ohio. "Roundees." (For a Chewing-Gun Confection.) No. 18,531; June 15; Gaz. vol. 215; p. 976.

Hiscox Bros. Co., Patchogue, N. Y. "Parker's Toilet Cream." (For a Toilet Cream.) No. 18,532; June 15; Gaz. vol. 215; p. 976.

Hood River Apple Vinegar Co., Hood River, Oreg. "Yellow Newtown." (For Cider.) No. 18,494; June 1; Gaz. vol. 215; p. 322.

Horner, Edward B., Lancaster, Pa. "Moose Heart." (For Cigars.) No. 18,495; June 1; Gaz. vol. 215; p. 322.

International Pharmaceutical Company, Chicago, Ill. "Lax-Ola, The Key To Health." (For Laxative Tablets.) No. 18,496; June 1; Gaz. vol. 215; p. 322.

Jidas Bros. & Co., J. D., Chicago, Ill. "Delight Cleaner." (For a Scouring and Cleaning Preparation.) No. 18,497; June 1; Gaz. vol. 215; p. 322.

John Hoberg Company, The, Green Bay, Wis. "Waukesha." (For Toilet-Paper.) No. 18,533; June 15; Gaz. vol. 215; p. 976.

John Hoberg Company, The, Green Bay, Wis. "Wahnetta." (For Toilet-Paper.) No. 18,534; June 15; Gaz. vol. 215; p. 976.

Jouannet, Alfred, Mount Pleasant, S. C. "Cotton Boll." (For Seeds.) No. 18,509; June 8; Gaz. vol. 215; p. 665.

Kalamazoo Vegetable Parchment Co., Kalamazoo, Mich. "Bran Nu Bread." (For Bread.) No. 18,535; June 15; Gaz. vol. 215; p. 976.

Kernola Cereal Co., Bay City, Mich. "Kernola, 'The Food Drink.'" (For a Coffee Substitute.) No. 18,551; June 22; Gaz. vol. 215; p. 1261.

Lambert, John B., Woonsocket, R. I. "St. Martin." (For Medicinal Wine.) No. 18,510; June 8; Gaz. vol. 215; p. 665.

Lekas and Drivas, New York, N. Y. "Hymette Greek Honey." (For Honey.) No. 18,552; June 22; Gaz. vol. 215; p. 1261.

Lekas and Drivas, New York, N. Y. "Elendi Brand Coffee." (For Coffee.) No. 18,553; June 22; Gaz. vol. 215; p. 1261.

Marcelas Juniper Company, The, Chicago, Ill. "Marcelas Juniper Salve." (For Salve.) No. 18,554; June 22; Gaz. vol. 215; p. 1261.

Master Roofers Association of Chicago, Chicago, Ill. "Master Brand Pitch." (For Pitch.) No. 18,536; June 15; Gaz. vol. 215; p. 976.

Master Roofers Association of Chicago, Chicago, Ill. "Master Brand Tarred Felt." (For Tarred Felt.) No. 18,537; June 15; Gaz. vol. 215; p. 976.

Master Roofers Association of Chicago, Chicago, Ill. "Master Brand Flux." (For Flux.) No. 18,538; June 15; Gaz. vol. 215; p. 976.

Matson Coffee Company, Salt Lake City, Utah. "Tavern Brand." (For Coffee.) No. 18,572; June 29; Gaz. vol. 215; p. 1497.

McCaffrey-Hewitt Paint Co., Chicago, Ill. "Mir-Tile White Enamel." (For White Enamel.) No. 18,573; June 29; Gaz. vol. 215; p. 1497.

Milwaukee-Waukesha Brewing Co., Milwaukee, Wis. "Olde Browne Health Beer." (For Beer.) No. 18,539; June 15; Gaz. vol. 215; p. 976.

Moehle Lithographic Company, The, New York, N. Y. "Our Club." (For Cigars.) No. 18,498; June 1; Gaz. vol. 215; p. 322.

Moehle Lithographic Company, The, New York, N. Y. "Walton Arms." (For Cigars.) No. 18,499; June 1; Gaz. vol. 215; p. 322.

Moehle Lithographic Company, The, New York, N. Y. "Medal Bond." (For Cigars.) No. 18,500; June 1; Gaz. vol. 215; p. 322.

Moehle Lithographic Company, The, New York, N. Y. "Stuart Arms." (For Cigars.) No. 18,501; June 1; Gaz. vol. 215; p. 322.

Moehle Lithographic Co., The, New York, N. Y. "Bcuquet de Habana." (For Cigars.) No. 18,540; June 15; Gaz. vol. 215; p. 976.

Morgan, Ralph W., Buffalo, N. Y. "Uz-It." (For a Medicinal Preparation.) No. 18,574; June 29; Gaz. vol. 215; p. 1497.

Murrey & Powers, San Francisco, Cal. "Ziska." (For a Hair-Solvent.) No. 18,511; June 8; Gaz. vol. 215; p. 665.

National Bedding Co., Leavenworth, Kans. "Cotton Queen." (For Mattresses.) No. 18,502; June 1; Gaz. vol. 215; p. 322.

New England Laboratory Co., Lynn, Mass. "Burrill's Tooth Powder." (For Tooth-Powder.) No. 18,503; June 1; Gaz. vol. 215; p. 322.

Normandin, Edmond, Woonsocket, R. I. "Cane-Maple Syrup." (For Cane-Maple Syrup.) No. 18,555; June 22; Gaz. vol. 215; p. 1261.

Nuubson Baking Company, The, Duluth, Minn. "Diamond Crisp Wafers." (For Flat Bread.) No. 18,556; June 22; Gaz. vol. 215; p. 1261.

Robinson Company, The, Pitsburgh, Pa. "Sock Surecure Cold." (For a Medicinal Preparation.) No. 18,541; June 15; Gaz. vol. 215; p. 976.

Singleton, H. M., Los Angeles, Cal. "Lusterall." (For Furniture-Polish or Varnish-Remover.) No. 18,512; June 8; Gaz. vol. 215; p. 665.

Smith Brothers, Poughkeepsie, N. Y. "Lasses Kisses." (For Candy.) No. 18,575; June 29; Gaz. vol. 215; p. 1497.

Smith, David A., Wonder, Nev. "Eye Bath." (For Lotion for the Eyes.) No. 18,513; June 8; Gaz. vol. 215; p. 665.

Smith, Still J., Eau Claire, Wis. "K-O." (For a Hog-Cholera Compound.) No. 18,557; June 22; Gaz. vol. 215; p. 1261.

Sonn Brothers Company, New York, N. Y. "Piury & Co. Sherry." (For Wines.) No. 18,542; June 15; Gaz. vol. 215; p. 976.

Spiro, David, New York, N. Y. "Palestine Cigarettes." (For Cigarettes.) No. 18,576; June 29; Gaz. vol. 215; p. 1497.

Spiro, David, New York, N. Y. "Boyara." (For Cigarettes.) No. 18,577; June 29; Gaz. vol. 215; p. 1497.

Standard Polish Company, Rapid City, S. D., and Chicago, Ill. "Knife and Fork Brand Metal Polish." (For a Metal-Polish.) No. 18,504; June 1; Gaz. vol. 215; p. 322.

Stephens, William P., Hutchinson, Kans. "Stephens' Duro Ink." (For Ink.) No. 18,543; June 15; Gaz. vol. 215; p. 976.

Themelis Bros. Company, Atlanta, Ga., and New York, N. Y. "Rose Tip Themelis Specials." (For Cigarettes.) No. 18,505; June 1; Gaz. vol. 215; p. 322.

Walter Brewing Co., The, Pueblo, Colo. "Gold Label." (For Beer.) No. 18,558; June 22; Gaz. vol. 215; p. 1261.

PRINTS.

B. V. D. Company, The, New York, N. Y. "You Rascal, It's B. V. D. That Keeps You Cool!" (For Athletic Underwear.) No. 3,934; June 8; Gaz. vol. 215; p. 665.

B. V. D. Company, The, New York, N. Y. "You Can't Be Too Careful, Sir—Here's the B. V. D. Label." (For Athletic Underwear.) No. 3,935; June 8; Gaz. vol. 215; p. 665.

B. V. D. Company, The, New York, N. Y. "That's Your Friend, The B. V. D. Label, Boys!" (For Athletic Underwear.) No. 3,936; June 8; Gaz. vol. 215; p. 665.

B. V. D. Company, The, New York, N. Y. "Play The Game of 'Beat-The-Heat' in B. V. D., and You'll Win." (For Athletic Underwear.) No. 3,937; June 8; Gaz. vol. 215; p. 665.

B. V. D. Company, The, New York, N. Y. "Welcome to Camp B. V. D." (For Athletic Underwear.) No. 3,938; June 8; Gaz. vol. 215; p. 665.

B. V. D. Company, The, New York, N. Y. "Now, Now, Cool Off—Get Your B. V. D.'s On!" (For Athletic Underwear.) No. 3,958; June 29; Gaz. vol. 215; p. 1498.

B. V. D. Company, The, New York, N. Y. "That Easy-Breezy B. V. D. Feeling." (For Athletic Underwear.) No. 3,959; June 29; Gaz. vol. 215; p. 1498.

B. V. D. Company, The, New York, N. Y. "Go Get B. V. D. and Get Cool." (For Athletic Underwear.) No. 3,960; June 29; Gaz. vol. 215; p. 1498.

B. V. D. Company, The, New York, N. Y. "Face Summer In 'Fine Fettle' With B. V. D." (For Athletic Underwear.) No. 3,961; June 29; Gaz. vol. 215; p. 1498.

B. V. D. Company, The, New York, N. Y. "Into B. V. D. Means 'Back to Nature.'" (For Athletic Underwear.) No. 3,962; June 29; Gaz. vol. 215; p. 1498.

B. V. D. Company, The, New York, N. Y. "B. V. D. Makes Ours 'The Land of The Free.'" (For Athletic Underwear.) No. 3,963; June 29; Gaz. vol. 215; p. 1498.

B. V. D. Company, The, New York, N. Y. "Into B. V. D. Means 'Back to Nature.'" (For Athletic Underwear.) No. 3,964; June 29; Gaz. vol. 215; p. 1498.

B. V. D. Company, The, New York, N. Y. "Summers Rule of Three." (For Athletic Underwear.) No. 3,965; June 29; Gaz. vol. 215; p. 1498.

B. V. D. Company, The, New York, N. Y. "Go Get B. V. D. and Get Cool." (For Athletic Underwear.) No. 3,966; June 29; Gaz. vol. 215; p. 1498.

B. V. D. Company, The, New York, N. Y. "Face Summer In 'Fine Fettle' With B. V. D." (For Athletic Underwear.) No. 3,967; June 29; Gaz. vol. 215; p. 1498.

B. V. D. Company, The, New York, N. Y. "B. V. D. Makes Ours 'The Land of The Free.'" (For Athletic Underwear.) No. 3,968; June 29; Gaz. vol. 215; p. 1498.

B. V. D. Company, The, New York, N. Y. "The Summer 'Rule of Three.'" (For Athletic Underwear.) No. 3,969; June 29; Gaz. vol. 215; p. 1498.

B. V. D. Company, The, New York, N. Y. "That Easy-Breezy B. V. D. Feeling." (For Athletic Underwear.) No. 3,970; June 29; Gaz. vol. 215; p. 1498.

Brown, Wm. T., Dubuque, Iowa. "Mrs. Coffee's Toast." (For Coffee.) No. 3,930; June 8; Gaz. vol. 215; p. 665.

Colgate & Co., Jersey City, N. J., and New York, N. Y. "An American Beauty." (For Cold-Cream.) No. 3,941; June 8; Gaz. vol. 215; p. 665.

Cream of Wheat Co., Minneapolis, Minn. "A Dutch Treat." (For Wheat Breakfast Food.) No. 3,971; June 29; Gaz. vol. 215; p. 1498.

Durkee & Co., E. R., New York, N. Y. "Durkee's Pastry Spice." (For Spices.) No. 3,945; June 15; Gaz. vol. 215; p. 976.

Durkee & Co., E. R., New York, N. Y. "Durkee's Celery Salt." (For Celery-Salt.) No. 3,952; June 22; Gaz. vol. 215; p. 1261.

Durkee & Co., E. R., New York, N. Y. "Durkee's Challenge Sauce." (For Sauces.) No. 3,953; June 22; Gaz. vol. 215; p. 1261.

Durkee & Co., E. R., New York, N. Y. "Durkee's Poultry Sauce." (For Seasoning.) No. 3,954; June 22; Gaz. vol. 215; p. 1261.

Durkee & Co., E. R., New York, N. Y. "Durkee's Salad Dressing." (For Salad-Dressing.) No. 3,955; June 22; Gaz. vol. 215; p. 1261.

Durkee & Co., E. R., New York, N. Y. "Durkee's Curry Powder." (For Curry-Powder.) No. 3,956; June 22; Gaz. vol. 215; p. 1261.

Durkee & Co., E. R., New York, N. Y. "Durkee's Flavoring Extracts." (For Flavoring Extracts.) No. 3,957; June 22; Gaz. vol. 215; p. 1261.

E. La Montagne's Sons, New York, N. Y. "'B. & G.' Olive Oil." (For Olive-Oil.) No. 3,942; June 8; Gaz. vol. 215; p. 665.

E. La Montagne's Sons, New York, N. Y. "Gordon London Dry Gin." (For Gordon London Dry Gin.) No. 3,943; June 8; Gaz. vol. 215; p. 665.

Firestone Tire & Rubber Company, The, Akron, Ohio. "The Colossus of Roads." (For Rubber Tires.) No. 3,946; June 15; Gaz. vol. 215; p. 976.

G. Mennen Chemical Company, The, Newark, N. J. "Well Lathered is Half Shaved." (For Shaving-Cream.) No. 3,972; June 29; Gaz. vol. 215; p. 1498.

G. Mennen Chemical Company, The, Newark, N. J. "The New Science of Shaving." (For Shaving-Cream.) No. 3,973; June 29; Gaz. vol. 215; p. 1498.

G. Mennen Chemical Company, The, Newark, N. J. "Lather The Mennen Way." (For Shaving-Cream.) No. 3,974; June 29; Gaz. vol. 215; p. 1498.

Kaufman & Strauss Co., New York, N. Y. "Glad Hand." (For Coffee.) No. 3,931; June 1; Gaz. vol. 215; p. 322.

Kneipp Malt Food Company, Manitowoc, Wis. "Kneipp Malt Better Than Coffee." (For Kneipp Malt.) No. 3,947; June 15; Gaz. vol. 215; p. 976.

Marathon Tire & Rubber Co., Cuyahoga Falls, Ohio. "Marathon Angle Tread Tires 'Inspire Confidence.'" (For Automobile-Tires.) No. 3,944; June 8; Gaz. vol. 215; p. 665.

Moore Drop Forging Company, Springfield, Mass. "Moore Self Winding Clothes Line." (For Clothes-Line Reels.) No. 3,951; June 22; Gaz. vol. 215; p. 1261.

New England Laboratory Co., Lynn, Mass. "First Aid to a Good Complexion." (For Aleppo Cold-Cream.) No. 3,932; June 1; Gaz. vol. 215; p. 322.

Orona Mfg. Co., Boston, Mass. "Orona Cleans." (For Cleansers.) No. 3,948; June 15; Gaz. vol. 215; p. 976.

R. Wallace & Sons Mfg. Co., Wallingford, Conn. "Athena." (For Silver.) No. 3,933; June 1; Gaz. vol. 215; p. 322.

Schulze, Paul, Chicago, Ill. "Luxury." (For Cake.) No. 3,949; June 15; Gaz. vol. 215; p. 976.

Schulze, Paul, Chicago, Ill. "Big-Dandy." (For Bread.) No. 3,950; June 15; Gaz. vol. 215; p. 976.

William Carter Co., The, Needham Heights, Mass. "Carter's Knit Underwear Please." (For Knit Underwear. No. 3,940; June 8; Gaz. vol. 215; p. 665.

DISCLAIMER.

Rietzel, Adolph F., Lynn, Mass.: disclaimer filed by assignee, Thomson Electric Welding Company. Uniting the component parts of composite sheet-metal structures. No. 928,701; disclaimer filed June 12, 1915; Gaz. vol. 215; p. 1265.

ALPHABETICAL LIST OF INVENTIONS

FOR WHICH

PATENTS WERE ISSUED DURING THE MONTH OF JUNE, 1915.

[Abbreviations: "Gaz."=Official Gazette.]

Abrasive. G. Virneburg. No. 1,141,371; June 1; Gaz. vol. 215; p. 102.
Account device, Credit-. J. J. Snyder. No. 1,143,085; June 15; Gaz. vol. 215; p. 778.
Account-register. A. G. Ryley. No. 1,143,073; June 15; Gaz. vol. 215; p. 773.
Accounting register, Credit-. E. T. Silvius. No. 1,143,789; June 22; Gaz. vol. 215; p. 1044.
Acetone from lecithin-containing substances, Removing. G. Fendler. No. 1,144,829; June 29; Gaz. vol. 215; p. 1435.
Acetylene-generator. G. L. Freeto. No. 1,141,182; June 1; Gaz. vol. 215; p. 32.
Acid, Making phosphoric. J. W. Burroughs. No. 1,142,397; June 8; Gaz. vol. 215; p. 490.
Acid, Manufacture of nitric. C. Uebel. No. 1,141,994; June 8; Gaz. vol. 215; p. 354.
Acid, Manufacturing phosphate. F. C. Schmitz. No. 1,142,371; June 8; Gaz. vol. 215; p. 488.
Acids, &c., Absorption and reaction tower for. F. Raschig. No. 1,141,266; June 1; Gaz. vol. 215; p. 62.
Acrobatic tricks, Implement for. B. Weise. No. 1,141,292; June 1; Gaz. vol. 215; p. 73.
Adding and subtracting machine. E. S. Church. No. 1,142,931; June 15; Gaz. vol. 215; p. 723.
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Adding-machines, Restoring mechanism for. J. F. Culverwell. No. 1,141,940; June 8; Gaz. vol. 215; p. 337.
Addressing-machine. C. I. W. Smith. No. 1,144,617; June 29; Gaz. vol. 215; p. 1360.
Adjustable bracket. W. O. Gilbert. No. 1,142,694; June 8; Gaz. vol. 215; p. 600.
Adjustable bracket. W. W. Griffiths. No. 1,144,470; June 20; Gaz. vol. 215; p. 1312.
Adjustable seat. F. W. Coy. No. 1,143,947; June 22; Gaz. vol. 215; p. 1100.
Adjustable wrench. H. P. Lutz. No. 1,143,600; June 15; Gaz. vol. 215; p. 957.
Adjusting device. O. Eppenstein. No. 1,142,756; June 8; Gaz. vol. 215; p. 620.
Advertising device. W. F. Becker. No. 1,144,096; June 22; Gaz. vol. 215; p. 1153.
Advertising device. G. Isenberg. No. 1,144,707; June 29; Gaz. vol. 215; p. 1393.
Advertising device. W. B. Wheeler. No. 1,144,673; June 29; Gaz. vol. 215; p. 1380.
Advertising-display machine, Automatic. L. T. Tuttle. No. 1,144,621; June 29; Gaz. vol. 215; p. 1362.
Aerial and like vessel. G. S. Dodman. No. 1,144,177; June 22; Gaz. vol. 215; p. 1183.
Aerial conductor. C. S. Franklin. No. 1,141,387; June 1; Gaz. vol. 215; p. 108.
Aerial landing and launching appliance. F. Steffan. No. 1,144,505; June 29; Gaz. vol. 215; p. 1323.
Aerial propeller. W. S. and A. H. Barrows. No. 1,144,521; June 29; Gaz. vol. 215; p. 1328.
Aero, hydro, and auto plane, Combined. B. Drojinski. No. 1,143,894; June 22; Gaz. vol. 215; p. 1081.
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Aeroplane appliance. A. H. Barrows. No. 1,142,134; June 8; Gaz. vol. 215; p. 406.
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Agitator. A. C. Cunningham. No. 1,141,528; June 1; Gaz. vol. 215; p. 158.
Agricultural implement. R. B. Hedges. No. 1,143,907; June 22; Gaz. vol. 215; p. 1086.
Agricultural machine. O. O. McKinney. No. 1,141,195; June 1; Gaz. vol. 215; p. 37.
Air and gas mixing device. C. R. Pomarville. No. 1,144,501; June 29; Gaz. vol. 215; p. 1322.
Air-blast, Universal. J. Diehl. No. 1,141,236; June 1; Gaz. vol. 215; p. 51.
Air-brake appliance, Automatic safety. W. P. Huntley and R. M. Berkeley. No. 1,143,198; June 15; Gaz. vol. 215; p. 818.
Air-brake for motor-cars. I. Crum. No. 1,141,939; June 8; Gaz. vol. 215; p. 336.
Air-brake handle. S. Roush and C. H. Kenyon. No. 1,142,629; June 8; Gaz. vol. 215; p. 578.
Air-cleaning means. H. J. Richardson. No. 1,142,982; June 15; Gaz. vol. 215; p. 741.
Air-gage appliance. C. E. L. Lipman. No. 1,142,772; June 8; Gaz. vol. 215; p. 627.
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Air, Humidifying. W. G. R. Braemer and S. C. Bloom. No. 1,142,483; June 8; Gaz. vol. 215; p. 529.
Air-lift for elevating liquids. B. Andrews. No. 1,144,342; June 29; Gaz. vol. 215; p. 1269.
Air-moistener. C. B. Haynes. No. 1,143,962; June 22; Gaz. vol. 215; p. 1105.
Air-propeller. J. R. Haydon. No. 1,141,337; June 1; Gaz. vol. 215; p. 88.
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Alarm: *See*—
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Alloy-coating. J. C. Beneker. No. 1,144,524; June 29; Gaz. vol. 215; p. 1329.
Aluminum chlorid, Manufacture of. A. M. McAfee. No. 1,144,304; June 22; Gaz. vol. 215; p. 1227.
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Aluminum or alloys of aluminum in order to prepare them for receiving a metallic deposit, Treatment of surfaces of. F. A. Roux. No. 1,144,000; June 22; Gaz. vol. 215; p. 1119.
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Ammunition. F. M. Hale. No. 1,141,540; June 1; Gaz. vol. 215; p. 162.
Amusement apparatus. G. Muller. No. 1,141,821; June 1; Gaz. vol. 215; p. 256.
Amusement apparatus. F. J. Riordan. No. 1,144,613; June 29; Gaz. vol. 215; p. 1359.
Amusement device. O. E. Adkins. No. 1,142,387; June 8; Gaz. vol. 215; p. 495.
Amusement device. W. B. Choate. No. 1,143,808; June 22; Gaz. vol. 215; p. 1052.
Amusement device. W. S. Tothill. No. 1,142,996; June 15; Gaz. vol. 215; p. 746.
Anatomical study, Transparent model for. H. Murayama. No. 1,141,480; June 1; Gaz. vol. 215; p. 141.
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Animal-trap. F. S. Ricker. No. 1,143,589; June 15; Gaz. vol. 215; p. 953.
Annunciator. L. C. Hodson. No. 1,144,843; June 29; Gaz. vol. 215; p. 1440.
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Annunciator-case, Weatherproof. A. and P. K. Stern. No. 1,144,871; June 29; Gaz. vol. 215; p. 1450.
Annunciator-drop. C. Auth. No. 1,142,477; June 8; Gaz. vol. 215; p. 527.

Anodes, Manufacturing. P. C. C. Isberwood. No. 1,143,828; June 22; Gaz. vol. 215; p. 1058.
Antiseptically-acting bodies, Production of. R. F. von Walther. No. 1,144,270; June 22; Gaz. vol. 215; p. 1215.
Antiskidding device. D. V. Kaufman. No. 1,142,583; June 8; Gaz. vol. 215; p. 563.
Antiskidding device. A. Purdle. No. 1,142,909; June 15; Gaz. vol. 215; p. 714.
Antiskidding device for vehicles. O. H. Young. No. 1,141,676; June 1; Gaz. vol. 215; p. 210.
Antiskidding driving mechanism, Differential. B. Settergren. No. 1,141,839; June 1; Gaz. vol. 215; p. 262.
Apple-gage. H. M. Holt. No. 1,142,573; June 8; Gaz. vol. 215; p. 560.
Arch-support. J. F. Teeban. No. 1,144,741; June 29; Gaz. vol. 215; p. 1405.
Armature-coil former. J. A. Wirth. No. 1,141,166; June 1; Gaz. vol. 215; p. 27.
Armature-coil former. J. A. Wirth. No. 1,141,891; June 1; Gaz. vol. 215; p. 281.
Armor or other metal plate. J. O. Ellinger. No. 1,142,241; June 8; Gaz. vol. 215; p. 443.
Aseptic box or carton for packing medical supplies. R. T. Cameron. No. 1,143,103; June 15; Gaz. vol. 215; p. 784.
Ashes, garbage, and other refuse, Apparatus for handling. S. E. Jenkins. No. 1,143,278; June 15; Gaz. vol. 215; p. 845.
Assembling or disassembling device. V. G. and E. J. Gustafson. No. 1,144,471; June 29; Gaz. vol. 215; p. 1312.
Atomizer. J. G. Mastin. No. 1,141,721; June 1; Gaz. vol. 215; p. 225.
Attachment-plug. E. Jones. No. 1,141,686; June 1; Gaz. vol. 215; p. 213.
Attrition-mill plate. E. P. Alsted. No. 1,144,089; June 22; Gaz. vol. 215; p. 1150.
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Auger, Post-hole. B. G., W. P., and T. Watkins. No. 1,142,646; June 8; Gaz. vol. 215; p. 584.
Autographic register. W. J. Hainer. No. 1,143,386; June 15; Gaz. vol. 215; p. 885.
Autographic register. A. Krauth. No. 1,142,441; June 8; Gaz. vol. 215; p. 515.
Autographic register. A. Krauth. No. 1,144,551; June 29; Gaz. vol. 215; p. 1339.
Automatic lubricator. J. J. Hennessy. No. 1,142,705; June 8; Gaz. vol. 215; p. 603.
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Automatic roller. J. B. Drumm. No. 1,144,030; June 22; Gaz. vol. 215; p. 1130.
Automatically-locking lock. A. Leistler. No. 1,142,591; June 8; Gaz. vol. 215; p. 566.
Automobile. H. B. Layman. No. 1,142,337; June 8; Gaz. vol. 215; p. 476.
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Automobile accessory. P. F. Haberstick. No. 1,144,540; June 29; Gaz. vol. 215; p. 1335.
Automobile axle attachment. N. W. Pearson. No. 1,144,562; June 29; Gaz. vol. 215; p. 1342.
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Automobile-body. J. Ledwinka. No. 1,143,635; June 22; Gaz. vol. 215; p. 993.
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Automobile front wheel. H. B. Layman. No. 1,142,335; June 8; Gaz. vol. 215; p. 475.
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Automobile or train lighting system. C. E. Willey. No. 1,143,008; June 15; Gaz. vol. 215; p. 750.
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Automobile rear wheel and axle construction. H. B. Layman. No. 1,142,336; June 8; Gaz. vol. 215; p. 476.
Automobile safety-brake. G. W. Yanney and E. F. Oyster. No. 1,144,877; June 29; Gaz. vol. 215; p. 1452.
Automobile steering-gear. W. J. Moore and F. M. Thayer. No. 1,144,307; June 22; Gaz. vol. 215; p. 1228.
Automobile steering mechanism. C. Lagergren. No. 1,143,410; June 15; Gaz. vol. 215; p. 893.
Automobile steering-wheels, Arrangement for controlling. J. J. Heilmann. No. 1,144,706; June 29; Gaz. vol. 215; p. 1392.
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Automobile theft-indicator. J. A. Steinmetz. No. 1,142,639; June 8; Gaz. vol. 215; p. 582.
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Automobile top-operating mechanism. S. F. Dupree, Jr., G. Ritter, and A. Heckman. No. 1,143,260; June 15; Gaz. vol. 215; p. 839.
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Automobile traction device. P. N. Pottsgrove. No. 1,142,727; June 8; Gaz. vol. 215; p. 609.
Automobile transmission mechanism. R. E. Carswell. No. 1,143,037; June 15; Gaz. vol. 215; p. 760.
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Automobile-wheel. J. Anderson. No. 1,141,516; June 1; Gaz. vol. 215; p. 153.
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Automobiles and other vehicles, Washing device for. H. T. Ford. No. 1,142,689; June 8; Gaz. vol. 215; p. 598.
Automobiles, Exhaust-utilizing system for. C. C. Hole. No. 1,143,395; June 15; Gaz. vol. 215; p. 888.
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Axle. W. E. Wise. No. 1,143,475; June 15; Gaz. vol. 215; p. 914.
Axle construction. G. W. Yates. No. 1,143,477; June 15; Gaz. vol. 215; p. 915.
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Axle-support. H. C. Waite. No. 1,144,513; June 29; Gaz. vol. 215; p. 1327.
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Baby-walker. P. H. Knight. No. 1,141,123; June 1; Gaz. vol. 215; p. 11.
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Baling-press. J. G. Haugh. No. 1,142,704; June 8; Gaz. vol. 215; p. 603.
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Basin, Catch-. W. M. Rapp. No. 1,143,915; June 22; Gaz. vol. 215; p. 1088.
Basket-cover fastener. E. E. Paisley. No. 1,144,376; June 29; Gaz. vol. 215; p. 1280.
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Bath cabinet, Take-down vapor-. B. Payeur. No. 1,144,861; June 29; Gaz. vol. 215; p. 1446.
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Bed-davenport. A. C. Klopping. No. 1,143,974; June 22; Gaz. vol. 215; p. 1109.
Bed-frame. A. McKnight. No. 1,144,661; June 29; Gaz. vol. 215; p. 1375.
Bed, Fresh-air. R. Spencer and C. C. Bland. No. 1,144,075; June 22; Gaz. vol. 215; p. 1145.
Bed, Portable camp-. H. L. Fisher. No. 1,143,374; June 15; Gaz. vol. 215; p. 880.
Bed-spring. J. Farago. No. 1,144,183; June 22; Gaz. vol. 215; p. 1185.
Bed-spring. E. L. Farrow and C. R. Barker. No. 1,143,179; June 15; Gaz. vol. 215; p. 811.
Bed-spring. M. Haas. No. 1,144,123; June 22; Gaz. vol. 215; p. 1163.
Bedclothes-clamp. W. Fillmore and E. Boillot. No. 1,142,559; June 8; Gaz. vol. 215; p. 555.
Bedstead, Iron. W. P. Winne. No. 1,141,164; June 1; Gaz. vol. 215; p. 26.
Beehive. M. Tenyák. No. 1,144,878; June 29; Gaz. vol. 215; p. 1453.
Bell, Automatic ship's. J. E. Hudson. No. 1,143,270; June 15; Gaz. vol. 215; p. 842.
Bell, Electric alarm-. G. A. Huber. No. 1,141,187; June 1; Gaz. vol. 215; p. 34.
Belt, Apparel-. W. A. Jacobson. No. 1,141,663; June 1; Gaz. vol. 215; p. 205.
Belt-saving device, Twisted-. J. Kaplan. No. 1,143,281; June 15; Gaz. vol. 215; p. 846.
Belt spacer, Cross-. L. Ladinski. No. 1,144,767; June 29; Gaz. vol. 215; p. 1414.
Belt-tightener. M. L. Cannon. No. 1,142,874; June 15; Gaz. vol. 215; p. 702.
Belting, Tool or appliance for use in making joints in driving-. F. Gunn. No. 1,144,122; June 22; Gaz. vol. 215; p. 1163.
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Bending apparatus. H. Aderer. No. 1,141,858; June 1; Gaz. vol. 215; p. 268.
Berth, Ship's. P. E. White. No. 1,142,472; June 8; Gaz. vol. 215; p. 525.
Beverage-mixer. L. M. Parent. No. 1,141,207; June 1; Gaz. vol. 215; p. 42.
Bicycle. A. J. Nadreau. No. 1,143,850; June 22; Gaz. vol. 215; p. 1067.
Bicycle-hub. F. S. Ellett. No. 1,143,261; June 15; Gaz. vol. 215; p. 840.
Bicycle propulsion. N. Spanovic. No. 1,141,364; June 1; Gaz. vol. 215; p. 99.
Bicycles, Adjustable rear seat for. J. W. Kelly. No. 1,144,550; June 29; Gaz. vol. 215; p. 1339.
Bicycles and the like, Fork for. C. F. Budroe. No. 1,144,753; June 29; Gaz. vol. 215; p. 1408.
Billiard and pool tables, Combined reinforce and spot for. I. Nathan. No. 1,143,222; June 15; Gaz. vol. 215; p. 827.
Billiard-cue. W. E. Smith. No. 1,141,587; June 1; Gaz. vol. 215; p. 178.
Binder and perforator, Loose-leaf. A. Faifer. No. 1,142,032; June 8; Gaz. vol. 215; p. 370.
Binder, Loose-leaf. T. Chambers. No. 1,142,021; June 8; Gaz. vol. 215; p. 366.
Binder or loose-sheet holder, Temporary. J. P. Petty. No. 1,142,455; June 8; Gaz. vol. 215; p. 520.
Binder or loose-sheet holder, Temporary. G. P. Wigginton. No. 1,143,006; June 15; Gaz. vol. 215; p. 749.
Binder, Temporary. J. M. Towne. No. 1,144,447; June 29; Gaz. vol. 215; p. 1304.
Binder, Temporary. J. M. Towne. No. 1,144,448; June 29; Gaz. vol. 215; p. 1305.
Binder, Temporary. C. D. Trussell. No. 1,141,157; June 1; Gaz. vol. 215; p. 23.
Binders, Locking means for loose-leaf. E. V. Burns. No. 1,143,359; June 15; Gaz. vol. 215; p. 874.
Binders, Two-row cutter and conveyer for corn-. A. K. Webster. No. 1,144,515; June 29; Gaz. vol. 215; p. 1327.
Binding-machines, Tongue-truck turning attachment for. J. Chamberlin. No. 1,143,890; June 22; Gaz. vol. 215; p. 1080.
Binding-post. G. A. Gauthier. No. 1,142,416; June 8; Gaz. vol. 215; p. 505.
Biscuit, Making pan-. A. F. Ward. No. 1,144,953; June 29; Gaz. vol. 215; p. 1476.
Blacksmith's tool set. A. L. Ligon. No. 1,142,447; June 8; Gaz. vol. 215; p. 517.
Bleaching, Preparing textile materials for. J. L. Jardine. No. 1,143,543; June 15; Gaz. vol. 215; p. 936.
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Block-molding machine. G. A. Leonard. No. 1,143,769; June 22; Gaz. vol. 215; p. 1038.
Blower for boilers. J. C. Bennett. No. 1,141,304; June 1; Gaz. vol. 215; p. 78.
Blower-hood and fastening therefor. C. E. Hitt. No. 1,142,960; June 15; Gaz. vol. 215; p. 733.
Blower, Powder-. A. Singer. No. 1,142,636; June 8; Gaz. vol. 215; p. 581.
Blowpipe. M. E. Wirans. No. 1,143,677; June 22; Gaz. vol. 215; p. 1008.
Blue-flame wick-burner. H. Ruppel. No. 1,143,072; June 15; Gaz. vol. 215; p. 773.
Board: *See*—
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Bosom-board.
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Licorice-root-fiber board.
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Board, Machine for scoring blanks of cellular. D. Kelleher. No. 1,144,765; June 29; Gaz. vol. 215; p. 1413.
Boat. A. A. Sawman. No. 1,144,434; June 29; Gaz. vol. 215; p. 1300.
Boat, Collapsible life-. G. G. Schwabek. No. 1,142,986; June 15; Gaz. vol. 215; p. 742.
Boat, Flying-. G. H. Curtiss. No. 1,142,754; June 8; Gaz. vol. 215; p. 619.

Boat, Life-. F. Aufinger and J. Lemankiewick. No. 1,142,224; June 8; Gaz. vol. 215; p. 437.
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Boats, Attachment for submarine. J. Barraja-Frauenfelder. No. 1,142,768; June 8; Gaz. vol. 215; p. 625.
Bobbin or quill stripping machine. C. S. Smart and W. W. Linder. No. 1,144,006; June 22; Gaz. vol. 215; p. 1121.
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Boiler-flue cleaner. J. W. Carlson. No. 1,144,461; June 29; Gaz. vol. 215; p. 1309.
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Boiler-flue-cleaner system. F. W. Linaker. No. 1,144,553; June 29; Gaz. vol. 215; p. 1339.
Boiler-flue-cleaning apparatus. G. S. Kyle. No. 1,143,409; June 15; Gaz. vol. 215; p. 892.
Boilers, Adjusting device for draft-regulators for steam-. J. E. Sullivan. No. 1,143,737; June 22; Gaz. vol. 215; p. 1027.
Bolster. F. Ditchfield. No. 1,143,615; June 22; Gaz. vol. 215; p. 987.
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Bolt. H. F. Pauley. No. 1,142,618; June 8; Gaz. vol. 215; p. 574.
Bolting-cloth cleaner. A. C. Higginbotham. No. 1,142,096; June 8; Gaz. vol. 215; p. 393.
Bookbinding means for pamphlets and signatures. J. B. West. No. 1,143,562; June 15; Gaz. vol. 215; p. 943.
Boot and shoe. W. B. Arnold. No. 1,143,481; June 15; Gaz. vol. 215; p. 916.
Boot and shoe fastening. S. Weatherley. No. 1,142,546; June 8; Gaz. vol. 215; p. 550.
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Boots and shoes, Machine for use in the manufacture of. E. L. Keyes. No. 1,143,712; June 22; Gaz. vol. 215; p. 1019.
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Bottle and like vessel, Non-refillable. G. M. and L. M. Palmer. No. 1,142,978; June 15; Gaz. vol. 215; p. 740.
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Bottle-capping machine. G. Failing. No. 1,143,819; June 22; Gaz. vol. 215; p. 1055.
Bottle-capping machine. A. D. Ray and C. N. Russell. No. 1,141,267; June 1; Gaz. vol. 215; p. 63.
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Bottle-closure. J. M. W. Kitchen. No. 1,141,553; June 1; Gaz. vol. 215; p. 166.
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Bottle closures, Manufacturing. A. Bozdánffy. No. 1,143,353; June 15; Gaz. vol. 215; p. 872.
Bottle dispensing-stopper, Ink-. W. I. Ferris. No. 1,143,525; June 15; Gaz. vol. 215; p. 929.
Bottle holder, Nursing-. W. L. Rathjen. No. 1,142,729; June 8; Gaz. vol. 215; p. 610.
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Bottle, Non-refillable. W. J. Belsel. No. 1,144,287; June 22; Gaz. vol. 215; p. 1221.
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Bottle, Non-refillable. E. Rè. No. 1,141,487; June 1; Gaz. vol. 215; p. 143.
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Bottle, Poison-. H. Turner. No. 1,141,369; June 1; Gaz. vol. 215; p. 101.
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Bottle support, Vacuum. F. E. Carlson. No. 1,143,173; June 15; Gaz. vol. 215; p. 808.
Bottle-top extractor, Milk-. A. L. Higgins. No. 1,142,707; June 8; Gaz. vol. 215; p. 604.
Bottle-washing machine. R. F. Beutlich. No. 1,144,023; June 22; Gaz. vol. 215; p. 1128.
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Bottles, Nipple for nursing-. E. C. Hilton. No. 1,144,980; June 29; Gaz. vol. 215; p. 1486.
Bottles or jars, Composite disk for caps of. C. Fay, Sr. No. 1,144,589; June 29; Gaz. vol. 215; p. 1351.
Bow-socket separator. F. K. Lewis. No. 1,143,637; June 22; Gaz. vol. 215; p. 994.
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Bowling-alley ball-returnway. J. N. McIntire. No. 1,144,145; June 22; Gaz. vol. 215; p. 1171.
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Bearing-box. Lunch-box.
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Cigarette-box. Match-box.
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Fare-box. Paper box.
Flower-box. Sound-box.
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Ice-cream box. Switch-box.
Journal-box. Talking-machine sound-box.
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Box. J. P. Hummel. No. 1,144,130; June 22; Gaz. vol. 215; p. 1166.
Box. E. E. Pinkerton. No. 1,143,551; June 15; Gaz. vol. 215; p. 939.
Box-assembling machine. J. A. Stock. No. 1,141,502; June 1; Gaz. vol. 215; p. 148.
Box attachment. A. G. Plante. No. 1,143,066; June 15; Gaz. vol. 215; p. 771.
Box-blank machine. J. J. Miller. No. 1,142,351; June 8; Gaz. vol. 215; p. 481.
Box-cover, Auxiliary. R. W. Douglas. No. 1,141,699; June 1; Gaz. vol. 215; p. 217.
Box-cover fastener. W. Waidlich. No. 1,142,211; June 8; Gaz. vol. 215; p. 432.
Box-delivering mechanism. J. A. Stock. No. 1,141,501; June 1; Gaz. vol. 215; p. 148.
Box-lid. G. Gardner. No. 1,141,625; June 1; Gaz. vol. 215; p. 191.
Box-lid retainer. W. and W. S. Vollmer. No. 1,144,881; June 29; Gaz. vol. 215; p. 1454.
Box-machine. S. F. Bauwens. No. 1,142,008; June 8; Gaz. vol. 215; p. 360.
Box-making machine. H. A. Inman. No. 1,142,575; June 8; Gaz. vol. 215; p. 560.
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Bracelet. E. I. Coombs. No. 1,141,614; June 1; Gaz. vol. 215; p. 188.
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Bracelet-link. B. Goldstein. No. 1,142,160; June 8; Gaz. vol. 215; p. 414.
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Braider, Circular. A. L. De Leeuw. No. 1,141,382; June 1; Gaz. vol. 215; p. 106.
Braiding-machine. E. Krenzler. No. 1,141,555; June 1; Gaz. vol. 215; p. 167.
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Brake. W. A. Hunter. No. 1,144,359; June 29; Gaz. vol. 215; p. 1275.
Brake and brake-liner. W. T. Bonner. No. 1,141,606; June 1; Gaz. vol. 215; p. 186.
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Brake-beam-assembling machine. F. R. Weaver. No. 1,144,974; June 29; Gaz. vol. 215; p. 1484.
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Brake-head, Adjustable. J. W. Weinland. No. 1,143,671; June 22; Gaz. vol. 215; p. 1006.
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Brassière. J. Rovira. No. 1,144,001; June 22; Gaz. vol. 215; p. 1119.
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Broom. H. Noppe and R. Ike. No. 1,144,309; June 22; Gaz. vol. 215; p. 1229.
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Brush, Shaving-. A. W. Skowbo. No. 1,143,451; June 15; Gaz. vol. 215; p. 907.
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Bucket-wheels, Manufacturing. J. E. Kilker and C. W. Dake. No. 1,141,190; June 1; Gaz. vol. 215; p. 35.
Buckle. W. Kops and H. Giles. No. 1,142,523; June 8; Gaz. vol. 215; p. 543.
Buckle. F. C. Rehm. No. 1,142,842; June 15; Gaz. vol. 215; p. 690.
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Building, Collapsible. J. W. and A. R. Gallant. No. 1,143,697; June 22; Gaz. vol. 215; p. 1014.
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Building construction. W. Doyle. No. 1,144,894; June 29; Gaz. vol. 215; p. 1458.
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Bull-wheel. V. O. Zahniser. No. 1,143,012; June 15; Gaz. vol. 215; p. 751.
Bullet or projectile for firearms. A. Dobrogeansky. No. 1,141,783; June 1; Gaz. vol. 215; p. 244.
Bullets, Mushrooming. C. H. A. F. L. Ross. No. 1,141,212; June 1; Gaz. vol. 215; p. 44.
Bundle-carrier. H. J. Case. No. 1,142,399; June 8; Gaz. vol. 215; p. 500.
Bundling-machine. C. Thacker. No. 1,141,730; June 1; Gaz. vol. 215; p. 228.
Bung, Safety-. W. H. McNutt. No. 1,142,902; June 15; Gaz. vol. 215; p. 712.
Burglar-alarm system, Automatic. L. H. German. No. 1,141,327; June 1; Gaz. vol. 215; p. 86.
Burial-cases, Manufacture of cement. V. E. Randall. No. 1,144,970; June 29; Gaz. vol. 215; p. 1482.
Burner: *See*—
Blue-flame wick-burner. Hydrocarbon-burner.
Gas-burner. Lamp-burner.
Heater-burner. Oil-burner.
Hull-burner. Oil-fuel burner.
Burner. G. W. Hopkins. No. 1,142,098; June 8; Gaz. vol. 215; p. 393.
Burners, &c., Liquid-feeder for. E. P. Noyes. No. 1,141,258; June 1; Gaz. vol. 215; p. 59.
Butt and lock gage. R. Neumann. No. 1,144,049; June 22; Gaz. vol. 215; p. 1137.
Butter-cutter. S. Arakl. No. 1,144,282; June 22; Gaz. vol. 215; p. 1219.
Butter-cutter. H. B. Drosin and M. Gordon. No. 1,141,784; June 1; Gaz. vol. 215; p. 244.
Butter-merging apparatus. L. A. Brown. No. 1,141,762; June 1; Gaz. vol. 215; p. 237.
Button and necktie-fastener, Combined collar-. R. H. Kimsey. No. 1,143,834; June 22; Gaz. vol. 215; p. 1061.
Button and safety-pin, Detachable. F. E. Williams. No. 1,141,162; June 1; Gaz. vol. 215; p. 25.
Button-attaching machine. W. H. Wyman. No. 1,142,004; June 8; Gaz. vol. 215; p. 359.
Button separator, Shoe-. A. F. Seaman. No. 1,141,727; June 1; Gaz. vol. 215; p. 227.
Button-setting machine. C. C. Hammond. No. 1,144,841; June 29; Gaz. vol. 215; p. 1439.
Button, Shank-. C. J. Spill. No. 1,143,457; June 15; Gaz. vol. 215; p. 908.
Button, Shoe-. J. Kopeczky. No. 1,144,852; June 29; Gaz. vol. 215; p. 1444.
Button, Tack-fastened. F. E. Stanley. No. 1,142,376; June 8; Gaz. vol. 215; p. 490.
Buttonhole-guide. I. Brown. No. 1,141,761; June 1; Gaz. vol. 215; p. 237.
Cabinet, Cooking-. J. F. P. McMullen. No. 1,143,420; June 15; Gaz. vol. 215; p. 895.
Cabinet, Delivering-. C. R. Adair and F. A. Bane. No. 1,144,928; June 29; Gaz. vol. 215; p. 1467.
Cabinet for holding stationery. R. M. Henderson. No. 1,143,391; June 15; Gaz. vol. 215; p. 886.
Cabinet, Sorting-. A. F. Walz. No. 1,143,668; June 22; Gaz. vol. 215; p. 1004.
Cable clamp and bushing, Combined. C. Horn. No. 1,142,709; June 8; Gaz. vol. 215; p. 605.
Cable-connector. C. B. Mills. No. 1,144,225; June 22; Gaz. vol. 215; p. 1200.
Cable-hanger. J. Blackburn. No. 1,144,318; June 22; Gaz. vol. 215; p. 1232.
Cable-hanger. W. L. Cockrell. No. 1,141,316; June 1; Gaz. vol. 215; p. 82.
Cable-tap. C. B. Mills. No. 1,144,224; June 22; Gaz. vol. 215; p. 1200.

Cable-tightener. A. Barnes. No. 1,143,483; June 15; Gaz. vol. 215; p. 916.
Cables, Splice for lead-armored. H. T. Whaler. No. 1,142,213; June 8; Gaz. vol. 215; p. 433.
Cake-cooler. C. C. Moore. No. 1,143,644; June 22; Gaz. vol. 215; p. 997.
Calculating and listing machine. D. W. Shlek. No. 1,143,448; June 15; Gaz. vol. 215; p. 906.
Calculating-machine. D. W. Shlek. No. 1,143,920; June 22; Gaz. vol. 215; p. 1089.
Calculating-machine. O. Thieme. No. 1,143,241; June 15; Gaz. vol. 215; p. 834.
Calendering-machines, Doctor for. T. E. Warren. No. 1,144,802; June 29; Gaz. vol. 215; p. 1426.
Calipers, Micrometer-. F. E. Valois. No. 1,144,623; June 29; Gaz. vol. 215; p. 1363.
Calipers, Ratchet extension and protector for micrometer-. F. Wilcox. No. 1,143,007; June 15; Gaz. vol. 215; p. 750.
Call-distributing system. C. S. Winston. No. 1,144,084; June 22; Gaz. vol. 215; p. 1148.
Call-registering mechanism. A. F. Dixon. No. 1,143,367; June 15; Gaz. vol. 215; p. 877.
Calorimeter. J. F. Simmance and J. Abady. No. 1,143,790; June 22; Gaz. vol. 215; p. 1045.
Cam device, Controller-. C. F. Street. No. 1,141,503; June 1; Gaz. vol. 215; p. 149.
Cam device, Controller-. C. F. Street. No. 1,141,504; June 1; Gaz. vol. 215; p. 149.
Camera. I. V. Morrell. No. 1,142,904; June 15; Gaz. vol. 215; p. 713.
Camera. K. J. Van Sickle and F. G. Trulan. No. 1,144,267; June 22; Gaz. vol. 215; p. 1214.
Camera, Automatic-focusing. J. Becker. No. 1,142,295; June 8; Gaz. vol. 215; p. 461.
Camera back, Photographic-. R. Kroedel and C. F. Speidel. No. 1,144,140; June 22; Gaz. vol. 215; p. 1170.
Camera focusing-hood. J. Freud. No. 1,143,045; June 15; Gaz. vol. 215; p. 762.
Camera focusing-hood. R. Matsuda. No. 1,141,970; June 8; Gaz. vol. 215; p. 345.
Cameras, Automatic releasing mechanism for. H. Furukawa. No. 1,144,301; June 22; Gaz. vol. 215; p. 1226.
Cameras, Dark slide for photographic. H. C. Andrews. No. 1,141,750; June 1; Gaz. vol. 215; p. 234.
Cameras, Lens-carriage for photographic. W. A. Riddell and R. Kroedel. No. 1,143,782; June 22; Gaz. vol. 215; p. 1042.
Can: *See*—
Garbage-can.
Can. E. Truxall. No. 1,144,159; June 22; Gaz. vol. 215; p. 1176.
Can attachment. H. C. Merker. No. 1,142,601; June 8; Gaz. vol. 215; p. 569.
Can-body-flanging machine. H. L. Guenther. No. 1,144,839; June 29; Gaz. vol. 215; p. 1438.
Can-body-making machine. E. L. Perry. No. 1,143,065; June 15; Gaz. vol. 215; p. 770.
Can-cap with vent-shield. J. W. Nichols. No. 1,141,973; June 8; Gaz. vol. 215; p. 347.
Can-capping machine. E. S. Hugunine. No. 1,142,564; June 8; Gaz. vol. 215; p. 556.
Can container and server, Milk-. T. Davis and A. Reinlnger. No. 1,142,940; June 15; Gaz. vol. 215; p. 726.
Can-filling machine, Automatic. C. A. Larson. No. 1,141,561; June 1; Gaz. vol. 215; p. 169.
Can-sifter top. J. T. Lagois. No. 1,144,213; June 22; Gaz. vol. 215; p. 1196.
Can-tester. J. W. Voris and C. E. Hover. No. 1,144,081; June 22; Gaz. vol. 215; p. 1147.
Cans, Automatic closure for garbage-. I. G. Marks. No. 1,143,847; June 22; Gaz. vol. 215; p. 1065.
Candle and attachment. J. A. Rossman. No. 1,144,728; June 29; Gaz. vol. 215; p. 1400.
Candy-box. L. W. Wheelock. No. 1,142,131; June 8; Gaz. vol. 215; p. 405.
Candy machine, Honeycomb-. F. H. Woolf. No. 1,143,564; June 15; Gaz. vol. 215; p. 944.
Candy-making machine. W. B. Laskey. No. 1,142,893; June 15; Gaz. vol. 215; p. 709.
Cane and similar saccharine material, Extraction of juice from sugar-. O. Mengelbier. No. 1,141,572; June 1; Gaz. vol. 215; p. 174.
Cane-mill roller, Sugar-. R. R. Hind and G. F. Renton. No. 1,144,597; June 29; Gaz. vol. 215; p. 1354.
Canoe motor-frame. D. McLaren. No. 1,141,196; June 1; Gaz. vol. 215; p. 37.
Canopy. E. B. Nicholls. No. 1,143,774; June 22; Gaz. vol. 215; p. 1040.
Cap. P. Levine. No. 1,144,366; June 29; Gaz. vol. 215; p. 1277.
Cap and styptic-holder, Combined cuticure-. S. W. Caws. No. 1,144,892; June 29; Gaz. vol. 215; p. 1457.
Capsule-filler. S. Broadwell and C. Hollaway. No. 1,144,634; June 29; Gaz. vol. 215; p. 1366.
Car. A. G. McGregor. No. 1,143,641; June 22; Gaz. vol. 215; p. 995.
Car. J. B. Strauss. No. 1,141,987; June 8; Gaz. vol. 215; p. 352.
Car and logging-sled stake, Disappearing-. A. Gendreau. No. 1,142,879; June 15; Gaz. vol. 215; p. 704.
Car and similar vehicle, Street-. G. C. Wing and L. P. Lipps. No. 1,142,867; June 15; Gaz. vol. 215; p. 700.
Car attachment. H. W. Graff. No. 1,144,189; June 22; Gaz. vol. 215; p. 1186.
Car-cager, Automatic. J. A. Nolan. No. 1,144,374, June 29; Gaz. vol. 215; p. 1280.
Car-card holder, Freight-. T. A. Biggs. No. 1,141,925; June 8; Gaz. vol. 215; p. 332.
Car center-bearing. T. Elliott and W. E. Moore. No. 1,144,644; June 29; Gaz. vol. 215; p. 1370.
Car closure, Freight-. F. J. Gilroy. No. 1,141,328; June 1; Gaz. vol. 215; p. 86.
Car construction. A. Galdyn and S. Lublin. No. 1,142,878; June 15; Gaz. vol. 215; p. 704.
Car-coupling. A. J. Bazeley. No. 1,144,315; June 22; Gaz. vol. 215; p. 1231.
Car-coupling. A. J. Bazeley. No. 1,144,316; June 22; Gaz. vol. 215; p. 1231.
Car-coupling. A. J. Bazeley. No. 1,144,317; June 22; Gaz. vol. 215; p. 1232.
Car-coupling. W. Blackmore. No. 1,144,024; June 22; Gaz. vol. 215; p. 1128.
Car-coupling. C. Dietz. No. 1,142,501; June 8; Gaz. vol. 215; p. 536.
Car-coupling. S. F. Klohs. No. 1,142,104; June 8; Gaz. vol. 215; p. 395.
Car-cushions or the like, Apparatus for treating. W. F. Service. No. 1,143,080; June 15; Gaz. vol. 215; p. 776.
Car-door. F. Jager. No. 1,143,121; June 15; Gaz. vol. 215; p. 789.
Car-door. F. Jager. No. 1,143,122; June 15; Gaz. vol. 215; p. 790.
Car-door. E. L. Lee and E. T. De Witt. No. 1,142,588; June 8; Gaz. vol. 215; p. 565.
Car door, Box-. J. P. Müller. No. 1,144,048; June 22; Gaz. vol. 215; p. 1137.
Car door construction, Freight-. C. F. Allen. No. 1,141,513; June 1; Gaz. vol. 215; p. 152.
Car door, Grain-. S. Manuel. No. 1,143,846; June 22; Gaz. vol. 215; p. 1065.
Car-door hanger. J. F. Comee. (Reissue.) No. 13,927; June 15; Gaz. vol. 215; p. 959.
Car-door hanger. C. C. Russell. No. 1,142,532; June 8; Gaz. vol. 215; p. 546.
Car-door hasp. J. A. Linn. No. 1,144,043; June 22; Gaz. vol. 215; p. 1135.
Car-door lock. E. C. Brown and W. B. May. No. 1,144,345; June 29; Gaz. vol. 215; p. 1270.
Car-door-operating mechanism. A. Taurman. No. 1,144,923; June 29; Gaz. vol. 215; p. 1466.
Car draft-rigging, Railway-. J. F. O'Connor. No. 1,142,358; June 8; Gaz. vol. 215; p. 483.
Car draft-rigging, Railway-. J. F. O'Connor. No. 1,142,839; June 15; Gaz. vol. 215; p. 689.
Car driving mechanism, Motor-. L. Ravel. No. 1,142,621; June 8; Gaz. vol. 215; p. 575.
Car-fender. H. A. Mullett. No. 1,142,834; June 15; Gaz. vol. 215; p. 688.
Car-frame. W. M. Smith. No. 1,141,845; June 1; Gaz. vol. 215; p. 264.
Car-framework. E. Posson. No. 1,144,378; June 29; Gaz. vol. 215; p. 1281.
Car, Freight and stock. J. B. Shelton. No. 1,143,234; June 15; Gaz. vol. 215; p. 831.
Car, Hand-. W. L. Daughtry. No. 1,144,819; June 29; Gaz. vol. 215; p. 1432.
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Car, Passenger-. W. S. Menden. No. 1,142,263; June 8; Gaz. vol. 215; p. 451.
Car-replacer. L. McEntyre. No. 1,142,340; June 8; Gaz. vol. 215; p. 477.
Car roller side bearing, Railway-. E. G. Busse and E. A. Le Beau. No. 1,142,398; June 8; Gaz. vol. 215; p. 499.
Car-roof. D. W. Hawksworth. No. 1,144,761, June 29; Gaz. vol. 215; p. 1412.
Car-roof. S. Herbert. No. 1,144,762; June 29; Gaz. vol. 215; p. 1412.
Car safety apparatus, Railway-. B. F. Williams. No. 1,141,737; June 1; Gaz. vol. 215; p. 230.
Car safety appliance, Railway-. S. B. Rieg. No. 1,143,648; June 22; Gaz. vol. 215; p. 998.
Car safety device, Railway-. S. V. Sherwood. No. 1,142,635; June 8; Gaz. vol. 215; p. 580.
Car-seat. U. Kawasaki. No. 1,143,831; June 22; Gaz. vol. 215; p. 1060.
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Car-signal. S. Wideman. No. 1,141,509; June 1; Gaz. vol. 215; p. 151.
Car-signal, Automatic. J. T. Moyer. No. 1,142,605; June 8; Gaz. vol. 215; p. 570.
Car-step, Folding and extension. J. S. Coxey. No. 1,141,615; June 1; Gaz. vol. 215; p. 188.
Car-steps, Extension. G. E. Quiggle. No. 1,143,433; June 15; Gaz. vol. 215; p. 901.
Car-ventilator. W. E. McMullin. No. 1,142,110; June 8; Gaz. vol. 215; p. 397.
Car vestibule-diaphragm, Railway-. G. H. Sherwood. No. 1,143,734; June 22; Gaz. vol. 215; p. 1026.
Car-weighing apparatus. A. W. Epright. No. 1,142,407; June 8; Gaz. vol. 215; p. 503.
Car wheel and axle, Mine-. F. A. Sweet. No. 1,141,990; June 8; Gaz. vol. 215; p. 353.
Car wheel, Mine-. H. A. Holzer. No. 1,144,302; June 22; Gaz. vol. 215; p. 1226.

Cars and the like, Door-operating mechanism for. W. E. Erwin, J. N. Lloyd, M. D. Mann, Jr., and R. L. Winchell. No. 1,142,408; June 8; Gaz. vol. 215; p. 503.
Cars, Automatic uncoupler for. G. J. Janovisk. No. 1,144,709; June 29; Gaz. vol. 215; p. 1393.
Cars, Buffing mechanism for railway-. W. H. Miner. No. 1,142,832; June 15; Gaz. vol. 215; p. 687.
Cars, Detachable wheel for motor-. H. Mayer and G. Schlatter. No. 1,142,113; June 8; Gaz. vol. 215; p. 398.
Cars, Electropneumatic brake for railway-. J. S. Doyle. No. 1,141,109; June 1; Gaz. vol. 215; p. 7.
Cars, Equalizing draft-gear for railway-. E. A. Nix and E. C. Roddle. No. 1,144,231; June 22; Gaz. vol. 215; p. 1202.
Cars, Nailless grain-door for. J. A. McNulty. No. 1,143,219; June 15; Gaz. vol. 215; p. 826.
Cars, Portable snow-scraper for trolley-. N. Darols. No. 1,142,677; June 8; Gaz. vol. 215; p. 594.
Cars, Route-sign for street-. H. E. Chubbuck. No. 1,142,491; June 8; Gaz. vol. 215; p. 532.
Cars, Trap-door for railway-. R. T. Axe. No. 1,144,983; June 29; Gaz. vol. 215; p. 1486.
Carbonator for soda-fountains. S. L. Brown. No. 1,143,941; June 22; Gaz. vol. 215; p. 1098.
Carbureter. B. G. Baker. No. 1,142,793; June 15; Gaz. vol. 215; p. 674.
Carbureter. A. Cox. No. 1,143,511; June 15; Gaz. vol. 215; p. 925.
Carbureter. C. B. Haynes. No. 1,143,961; June 22; Gaz. vol. 215; p. 1105.
Carbureter. O. S. Hertzog. No. 1,141,796; June 1; Gaz. vol. 215; p. 249.
Carbureter. J. Juhász. No. 1,144,206; June 22; Gaz. vol. 215; p. 1193.
Carbureter. W. S. Kellogg, Jr. No. 1,144,477; June 29; Gaz. vol. 215; p. 1314.
Carbureter. H. McCormack. No. 1,141,570; June 1; Gaz. vol. 215; p. 173.
Carbureter. W. W. Muir. No. 1,143,986; June 22; Gaz. vol. 215; p. 1113.
Carbureter. C. J. Pembroke. No. 1,143,779; June 22; Gaz. vol. 215; p. 1041.
Carbureter. F. Perry. No. 1,142,763; June 8; Gaz. vol. 215; p. 623.
Carbureter. S. I. Prescott. No. 1,143,227; June 15; Gaz. vol. 215; p. 828.
Carbureter. E. S. Smith. No. 1,141,276; June 1; Gaz. vol. 215; p. 66.
Carbureter. H. W. Unckles. No. 1,143,092; June 15; Gaz. vol. 215; p. 780.
Carbureter attachment. J. B. Lund. No. 1,142,824; June 15; Gaz. vol. 215; p. 684.
Carbureter for internal-combustion engines. E. J. Kane. No. 1,144,549; June 29; Gaz. vol. 215; p. 1338.
Carbureter water-supply. H. W. Falk and W. K. Andrew. No. 1,142,877; June 15; Gaz. vol. 215; p. 703.
Carburcters, Device for supplying heated air to. O. G. Erickson. No. 1,141,450; June 1; Gaz. vol. 215; p. 130.
Card-case. E. Smykal. No. 1,143,654; June 22; Gaz. vol. 215; p. 1000.
Card, Folded letter-. H. H. Clark. No. 1,141,172; June 1; Gaz. vol. 215; p. 29.
Card system. A. H. Bauer. No. 1,142,007; June 8; Gaz. vol. 215; p. 360.
Cards, Playing-. F. H. Behring. No. 1,143,595; June 15; Gaz. vol. 215; p. 955.
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Carpenter's tool. B. A. Miller. No. 1,143,426; June 15; Gaz. vol. 215; p. 899.
Carpet fastener, Stair-. H. J. Bruehler. No. 1,141,524; June 1; Gaz. vol. 215; p. 157.
Carriage and movable track therefor. C. W. Rood. No. 1,144,793; June 29; Gaz. vol. 215; p. 1423.
Carriage, Roller-. E. P. Jennings, Jr. No. 1,142,435; June 8; Gaz. vol. 215; p. 513.
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Carry-iron, Cast-steel. R. F. Darby. No. 1,143,689; June 22; Gaz. vol. 215; p. 1012.
Carrying-case, Temporary. J. A. Cameron. No. 1,142,301; June 8; Gaz. vol. 215; p. 463.
Cart, Barrel-. D. Rydell. No. 1,142,630; June 8; Gaz. vol. 215; p. 579.
Cart, Whirligig-. I. T. Williams. No. 1,142,214; June 8; Gaz. vol. 215; p. 433.
Carton. C. H. Butler. No. 1,143,250; June 15; Gaz. vol. 215; p. 836.
Cartridge, Hydraulic. D. V. Sickman. No. 1,144,005; June 22; Gaz. vol. 215; p. 1120.
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Cash-register. J. P. Cleal. No. 1,142,079; June 8; Gaz. vol. 215; p. 386.
Cash-register. C. F. Kettering and W. A. Chryst. No. 1,144,418; June 29; Gaz. vol. 215; p. 1294.
Cash-register Illuminator. N. R. Lippincott. No. 1,143,290; June 15; Gaz. vol. 215; p. 849.
Cashier, Automatic. E. J. Brandt. No. 1,143,167; June 15; Gaz. vol. 215; p. 805.
Casing-coupling. J. A. Mason. No. 1,141,910; June 1; Gaz. vol. 215; p. 290.
Casing-spear. J. J. Guise. No. 1,144,592; June 29; Gaz. vol. 215; p. 1352.
Caster. J. J. Lembke. No. 1,144,365; June 29; Gaz. vol. 215; p. 1277.
Caster-socket. B. H. Jones. No. 1,141,342; June 1; Gaz. vol. 215; p. 91.
Caster-spring. C. A. Miller. No. 1,144,771; June 29; Gaz. vol. 215; p. 1415.
Caster, Swivel-. J. L. Chesnutt. No. 1,142,930; June 15; Gaz. vol. 215; p. 723.
Casting apparatus. J. M. Feerick. No. 1,141,788; June 1; Gaz. vol. 215; p. 246.
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Casting metal ingots, Apparatus for. C. W. Lummis. No. 1,143,215; June 15; Gaz. vol. 215; p. 824.
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Catamenial appliance. J. Rubel. No. 1,144,253; June 22; Gaz. vol. 215; p. 1209.
Catenary hanger. W. C. Starkey. No. 1,142,378; June 8; Gaz. vol. 215; p. 491.
Cellulose, Preparing solutions of. R. Willstätter. No. 1,141,510; June 1; Gaz. vol. 215; p. 151.
Cellulose, Solvent for acetyl. W. G. Lindsay. No. 1,143,979; June 22; Gaz. vol. 215; p. 1111.
Cement, Artificial-stone. G. Capece. No. 1,141,610; June 1; Gaz. vol. 215; p. 187.
Cement-block machine. J. F. Berry and W. E. Burrill. No. 1,143,490; June 15; Gaz. vol. 215; p. 919.
Cementing-machine. M. F. Brogan. No. 1,141,311; June 1; Gaz. vol. 215; p. 80.
Center and axis indicator. H. Jubinville. No. 1,141,396; June 1; Gaz. vol. 215; p. 111.
Centrifugal hanger. H. H. Stephens. No. 1,141,430; June 1; Gaz. vol. 215; p. 124.
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Chain mesh, Making. W. H. Eynon. No. 1,143,262; June 15; Gaz. vol. 215; p. 840.
Chain-tool. T. C. Luce. No. 1,141,877; June 1; Gaz. vol. 215; p. 275.
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Chair. J. W. R. Andrews. No. 1,143,566; June 15; Gaz. vol. 215; p. 945.
Chair and couch, Combination Morris. D. Nasca. No. 1,144,859; June 29; Gaz. vol. 215; p. 1446.
Chair-tip. W. E. Hatheway. No. 1,144,962; June 29; Gaz. vol. 215; p. 1479.
Chalk-holder. I. L. Pritchard. No. 1,142,458; June 8; Gaz. vol. 215; p. 521.
Change-handler. P. Bochenek. No. 1,141,759; June 1; Gaz. vol. 215; p. 237.
Change-maker. A. Lovenberg. No. 1,144,606; June 29; Gaz. vol. 215; p. 1356.
Change-making and coin-dispensing machine. J. A. Plopper. No. 1,141,410; June 1; Gaz. vol. 215; p. 116.
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Chart, Designing or calculating. C. W. Schubert. No. 1,141,837; June 1; Gaz. vol. 215; p. 262.
Chart for the spinal column. O. Smith. No. 1,143,652; June 22; Gaz. vol. 215; p. 999.
Check-protector. H. R. Sinclair. No. 1,143,556; June 15; Gaz. vol. 215; p. 941.
Check-protector. H. R. Sinclair. No. 1,143,557; June 15; Gaz. vol. 215; p. 941.
Cheese-cutter. A. L. Reed and T. S. Gettle. No. 1,142,622; June 8; Gaz. vol. 215; p. 575.
Cherry-pitter. W. Muri. No. 1,141,355; June 1; Gaz. vol. 215; p. 95.
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Chuck for holding work-pieces. G. Weber. No. 1,141,594; June 1; Gaz. vol. 215; p. 181.
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Cigar-bunch and making same. O. Hammerstein. No. 1,142,164; June 8; Gaz. vol. 215; p. 416.
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Clothes-pressing machine. T. D. Palmer. No. 1,141,901; June 1; Gaz. vol. 215; p. 286.
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Corner-bead manufacture. N. E. Clark. No. 1,142,494; June 8; Gaz. vol. 215; p. 533.

Corner-post fastener. A. Wolf and A. Governale. No. 1,143,796; June 22; Gaz. vol. 215; p. 1047.
Cornices, Streak-preventing device for. H. E. Harris. No. 1,142,253; June 8; Gaz. vol. 215; p. 447.
Corset. S. F. Colman. No. 1,143,944; June 22; Gaz. vol. 215; p. 1099.
Corset-steel. K. B. Montre. No. 1,144,912; June 29; Gaz. vol. 215; p. 1463.
Cot and stretcher, Combination folding. J. Fekete. No. 1,144,760; June 29; Gaz. vol. 215; p. 1411.
Cotton-cleaner. C. D. Terrell and J. L. Mask. No. 1,141,366; June 1; Gaz. vol. 215; p. 99.
Cotton, Combing. G. M. Whitin. No. 1,141,673; June 1; Gaz. vol. 215; p. 209.
Cotton fabrics, Production of pattern effects upon. G. Heberlein. No. 1,144,655; June 29; Gaz. vol. 215; p. 1374.
Cotton-plant and product thereof, Utilizing waste substances of the. M. W. Marsden. No. 1,143,587; June 15; Gaz. vol. 215; p. 952.
Cotton-seed meal, cotton-seed meats, and cotton-seed flour, Treating. J. G. Falls. No. 1,142,243; June 8; Gaz. vol. 215; p. 443.
Cotton-trampers, Automatic controller for. T. W. Sparks. No. 1,141,218; June 1; Gaz. vol. 215; p. 45.
Counter. E. P. Baird. No. 1,143,021; June 15; Gaz. vol. 215; p. 754.
Counter mechanism. C. J. Fancher. No. 1,141,623; June 1; Gaz. vol. 215; p. 191.
Counting device. E. G. McGinley. No. 1,144,487; June 29; Gaz. vol. 215; p. 1318.
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Casing-coupling. Pipe-coupling.
Compression-coupling. Railway-rail coupling.
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Coupling. E. A. Rundlöf. No. 1,144,067; June 22; Gaz. vol. 215; p. 1142.
Coupling. A. C. Spencer. No. 1,141,281; June 1; Gaz. vol. 215; p. 68.
Coupling device. W. D. Himes. No. 1,144,128; June 22; Gaz. vol. 215; p. 1165.
Coupling device. D. H. Wingerd. No. 1,143,873; June 22; Gaz. vol. 215; p. 1074.
Coupling-shank and yoke connection. E. H. Schmidt. No. 1,144,384; June 29; Gaz. vol. 215; p. 1283.
Cover for boxed goods, Supplemental. J. F. Flaherty and C. Gerlach. No. 1,144,326; June 22; Gaz. vol. 215; p. 1234.
Cover for dictating-machines and the like, Foldable. M. Kellogg. No. 1,144,417; June 29; Gaz. vol. 215; p. 1294.
Cover-opener. F. J. Leonard. No. 1,142,446; June 8; Gaz. vol. 215; p. 517.
Cover-shifting mechanism. F. Merlan. No. 1,141,573; June 1; Gaz. vol. 215; p. 174.
Cow-tail holder. M. E. Rollins. No. 1,144,727; June 29; Gaz. vol. 215; p. 1400.
Cow-tail holder. J. Zenke. No. 1,141,746; June 1; Gaz. vol. 215; p. 232.
Crane. G. A. True. No. 1,144,972; June 29; Gaz. vol. 215; p. 1483.
Crane, Automatic train-order. D. A. Pool. No. 1,141,411; June 1; Gaz. vol. 215; p. 117.
Crank-casing. H. W. Boleus. No. 1,143,098; June 15; Gaz. vol. 215; p. 782.
Cranking device. J. Dunner. No. 1,143,517; June 15; Gaz. vol. 215; p. 926.
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Crate, Collapsible egg-. F. Hubbard. No. 1,143,197; June 15; Gaz. vol. 215; p. 817.
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Crate, Egg-. W. Wolz and J. V. Paxson. No. 1,141,167; June 1; Gaz. vol. 215; p. 27.
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Crate, Ventilated produce-. F. M. Burnham and C. A. Myers. No. 1,142,300; June 8; Gaz. vol. 215; p. 463.
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Crib-gates and the like, Catch device for. L. Appugliese. No. 1,143,881; June 22; Gaz. vol. 215; p. 1077.
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Crown-cleaning machine. E. H. Schaefer. No. 1,143,231; June 15; Gaz. vol. 215; p. 830.
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Cultivator. I. T. Ferguson. No. 1,143,524; June 15; Gaz. vol. 215; p. 929.
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Cushion. B. F. Fortiner and J. G. Main. No. 1,143,182; June 15; Gaz. vol. 215; p. 812.
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Drinking-trough, &c. A. Hopkins. No. 1,144,129; June 22; Gaz. vol. 215; p. 1165.
Drip-pan alarm. M. Jacobson. No. 1,142,577; June 8; Gaz. vol. 215; p. 561.
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Driving mechanism. Differential. H. V. Green. No. 1,143,537; June 15; Gaz. vol. 215; p. 934.
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Eccentric. H. H. Schuette. No. 1,144,731; June 29; Gaz. vol. 215; p. 1401.
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Electric heater. H. W. Denhard. No. 1,143,578; June 15; Gaz. vol. 215; p. 949.
Electric heater. H. W. Denhard. No. 1,143,579; June 15; Gaz. vol. 215; p. 949.
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Electric resistance unit. H. W. Denhard. No. 1,143,577; June 15; Gaz. vol. 215; p. 949.
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Explosive-engine, Single-valve four-cycle. J. Keister. No. 1,144,208; June 22; Gaz. vol. 215; p. 1194.
Explosives known as gelatin into paper shells, Machine for packing. F. Lavan. No. 1,144,216; June 22; Gaz. vol. 215; p. 1197.
Extension dining-table, Knockdown. C. J. Brown. No. 1,143,805; June 22; Gaz. vol. 215; p. 1051.
Extension-table. B. E. Olson. No. 1,143,853; June 22; Gaz. vol. 215; p. 1068.
Extractor: *See*—
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Eye-protector. G. H. Day. No. 1,142,313; June 8; Gaz. vol. 215; p. 467.
Eyeglass-chain reel. O. B. Wedell. No. 1,141,855; June 1; Gaz. vol. 215; p. 267.
Eyeglass-cleaner. J. T. Leonard. No. 1,144,483; June 29; Gaz. vol. 215; p. 1316.
Eyeglass-protector. I. G. Burton. No. 1,143,502; June 15; Gaz. vol. 215; p. 922.
Eyeglasses. P. Sallas. No. 1,144,068; June 22; Gaz. vol. 215; p. 1143.
Eyeglasses and spectacles, Lenses for. E. W. Laisne. No. 1,144,853; June 29; Gaz. vol. 215; p. 1444.
Eyeleting-machine. A. B. Wales. No. 1,143,741; June 22; Gaz. vol. 215; p. 1029.
Eyelets and hooks, Device for clenching. R. Burrell. No. 1,142,797; June 15; Gaz. vol. 215; p. 675.
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Fabric. N. Zuck and F. G. Pfistner. No. 1,144,519; June 29; Gaz. vol. 215; p. 1328.
Fabric-cutting device. H. Fuhry. No. 1,143,594; June 15; Gaz. vol. 215; p. 955.
Fabric-trimming machine. G. L. Bourquin and R. Loeb. No. 1,144,319; June 22; Gaz. vol. 215; p. 1232.
Fan. R. Haldenwang, Jr. No. 1,141,957; June 8; Gaz. vol. 215; p. 341.
Fan and fixture support. D. H. Murph. No. 1,141,203; June 1; Gaz. vol. 215; p. 40.
Fan and pump, Centrifugal. S. C. Davidson. No. 1,143,365; June 15; Gaz. vol. 215; p. 876.
Fan attachment, Electric-. W. B. Hill. No. 1,142,708; June 8; Gaz. vol. 215; p. 605.
Fan or air-propeller. T. Shepherd and J. S. Hayes. No. 1,143,082; June 15; Gaz. vol. 215; p. 777.
Fanning-mill. D. A. Maanum. No. 1,144,368; June 29; Gaz. vol. 215; p. 1278.
Fare-box. H. H. Fefell. No. 1,142,244; June 8; Gaz. vol. 215; p. 444.
Fare-box-supporting stand. W. Cox. No. 1,141,318; June 1; Gaz. vol. 215; p. 83.
Fare-register. T. Carroll. No. 1,143,747; June 22; Gaz. vol. 215; p. 1031.
Fare-register. S. P. Huntington. No. 1,144,475; June 29; Gaz. vol. 215; p. 1314.
Fare-register. F. B. Kennedy. No. 1,144,478; June 29; Gaz. vol. 215; p. 1315.
Fastener. F. N. Mertes. No. 1,144,222; June 22; Gaz. vol. 215; p. 1199.
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Fastener. W. W. Wilson. No. 1,144,576; June 29; Gaz. vol. 215; p. 1346.
Fastening-clip. C. W. Beck. No. 1,142,479; June 8; Gaz. vol. 215; p. 527.
Fastening device. L. K. Engle. No. 1,142,510; June 8; Gaz. vol. 215; p. 539.
Faucet attachment. F. A. Jones. No. 1,142,579; June 8; Gaz. vol. 215; p. 562.
Faucet, Soda-water. J. A. McCormick. No. 1,141,472; June 1; Gaz. vol. 215; p. 139.
Faucets, Self-closing attachment for. A. J. Collar. No. 1,142,145; June 8; Gaz. vol. 215; p. 409.
Feather-curling machine. A. E. Zumpe. No. 1,142,868; June 15; Gaz. vol. 215; p. 700.
Feed-grinder. L. Pethoud. No. 1,141,825; June 1; Gaz. vol. 215; p. 258.
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Feed-trough. J. P. Kendrick. No. 1,142,176; June 8; Gaz. vol. 215; p. 420.
Feed-water heater. C. H. Billingsley. No. 1,143,605; June 22; Gaz. vol. 215; p. 983.
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Felly-tightener. E. Miller. No. 1,142,903; June 15; Gaz. vol. 215; p. 712.
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Fencing-strand. T. L. Sturtevant. No. 1,142,126; June 8; Gaz. vol. 215; p. 404.
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Fertilizing, Obtaining alkali compounds useful for. T. L. Willson and M. M. Haff. No. 1,144,405; June 29; Gaz. vol. 215; p. 1290.
Filament-mounting apparatus. L. Borzychowski. No. 1,143,493; June 15; Gaz. vol. 215; p. 919.

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Filing appliance. S. S. Kurtz. No. 1,142,971; June 15; Gaz. vol. 215; p. 737.
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Filing means for records, letters, and other documents. A. Vesterling. No. 1,142,643; June 8; Gaz. vol. 215; p. 583.
Filing of records, letters, and other documents. A. Vestering. No. 1,142,644; June 8; Gaz. vol. 215; p. 583.
Filling and capping machine. P. J. Schloemer and H. E. Krueger. No. 1,141,271; June 1; Gaz. vol. 215; p. 64.
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Filtering device. G. A. and A. F. Schütz. No. 1,141,213; June 1; Gaz. vol. 215; p. 44.
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Fire-alarm system. C. F. Christman. No. 1,143,809; June 22; Gaz. vol. 215; p. 1052.
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Fire-detecting conductors, Protective duct for. C. A. Harsch. No. 1,142,094; June 8; Gaz. vol. 215; p. 392.
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Fire-escape. G. F. Upton. No. 1,141,995; June 8; Gaz. vol. 215; p. 355.
Fire-escape and alarm, Combined. C. R. Kjellstrom. No. 1,141,716; June 1; Gaz. vol. 215; p. 223.
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Fire-escape, Portable. F. A. Forest. No. 1,144,702; June 29; Gaz. vol. 215; p. 1390.
Fire-extinguishing apparatus. E. R. Brodton. No. 1,143,169; June 15; Gaz. vol. 215; p. 806.
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Flange-lubricator, Automatic. T. F. Bellhouse. No. 1,143,681; June 22; Gaz. vol. 215; p. 1009.
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Flash-light. H. T. Hipwell. No. 1,143,966; June 22; Gaz. vol. 215; p. 1106.
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Flask or guard. A. Bruebach. No. 1,141,929; June 8; Gaz. vol. 215; p. 333.
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Flexible coupling. E. M. Lloyd. No. 1,143,054; June 15; Gaz. vol. 215; p. 766.
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Floor and ceiling construction. F. Burchartz. No. 1,142,486; June 8; Gaz. vol. 215; p. 530.
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Floor-polisher. W. B. Thayer. No. 1,141,287; June 1; Gaz. vol. 215; p. 71.
Floor-section, Tilting. C. E. Gleesner. No. 1,144,651; June 29; Gaz. vol. 215; p. 1372.
Floor-surfacing machine. O. H. Holderer. No. 1,142,961; June 15; Gaz. vol. 215; p. 733.
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Fluid-elevating device. W. J. McGuire. No. 1,142,762; June 8; Gaz. vol. 215; p. 623.
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Fluid-gage. C. W. Stahle. No. 1,141,500; June 1; Gaz. vol. 215; p. 148.
Fluid-meter. H. C. Hayes. No. 1,141,631; June 1; Gaz. vol. 215; p. 193.
Fluid, Method and means for the generation of compound motive. B. L. Rinehart. No. 1,142,271; June 8; Gaz. vol. 215; p. 453.
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Fluid-pressure brake. W. V. Turner. No. 1,142,860; June 15; Gaz. vol. 215; p. 697.
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Flush receptacle. G. W. Goodridge. No. 1,142,695; June 8; Gaz. vol. 215; p. 600.
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Flushing apparatus. L. Simmons. No. 1,142,917; June 15; Gaz. vol. 215; p. 717.
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Flushing-cistern. R. H. Paus. No. 1,142,118; June 8; Gaz. vol. 215; p. 400.
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Flying-machine safety appliance. J. Messikommer. No. 1,143,643; June 22; Gaz. vol. 215; p. 996.
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Folding screen, Portable. E. G. McGinley. No. 1,141,808; June 1; Gaz. vol. 215; p. 253.
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Fruit-drier. J. H. Sprague. No. 1,142,465; June 8; Gaz. vol. 215; p. 523.
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Furniture, Convertible. W. H. Thommen. No. 1,144,398; June 29; Gaz. vol. 215; p. 1287.
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Game apparatus. R. M. Fullerton. No. 1,141,624; June 1; Gaz. vol. 215; p. 191.
Game apparatus. G. A. M. Liljencrantz. No. 1,143,210; June 15; Gaz. vol. 215; p. 822.
Game apparatus. K. Okamoto. No. 1,144,051; June 22; Gaz. vol. 215; p. 1138.
Game apparatus. J. E. Tilden. No. 1,141,505; June 1; Gaz. vol. 215; p. 149.
Game apparatus. U. C. Upjohn. No. 1,144,743; June 29; Gaz. vol. 215; p. 1406.
Game appliance. C. B. Denny. No. 1,144,112; June 22; Gaz. vol. 215; p. 1160.
Game-board. L. P. D'Autremont. No. 1,141,909; June 1; Gaz. vol. 215; p. 289.
Game-board. W. Wunsch. No. 1,144,927; June 29; Gaz. vol. 215; p. 1407.
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Gangway. W. Green. No. 1,144,836; June 29; Gaz. vol. 215; p. 1437.
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Garment. A. Malsin. No. 1,144,148; June 22; Gaz. vol. 215; p. 1172.
Garment and hat hanger. C. D. Morris. No. 1,142,451; June 8; Gaz. vol. 215; p. 518.
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Garment, Combination-. E. J. Quigley. No. 1,141,486, June 1; Gaz. vol. 215; p. 143.
Garment, Combination-. E. J. Quigley. No. 1,143,228; June 15; Gaz. vol. 215; p. 829.
Garment-pressing machine. T. D. Palmer. No. 1,141,902; June 1; Gaz. vol. 215; p. 286.
Garment-pressing table. E. F. French No. 1,144,300; June 22; Gaz. vol. 215; p. 1226.
Garment-protector. L. Comingore. No. 1,141,690; June 1; Gaz. vol. 215; p. 215.
Garment-shaper. M. J. Hoffman. No. 1,142,431; June 8; Gaz. vol. 215; p. 511.
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Gas heater and stove. E. J. Allen. No. 1,141,096; June 1; Gaz. vol. 215; p. 3.

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Harvester, Cranberry-. G. F. Keene. No. 1,143,403; June 15; Gaz. vol. 215; p. 890.
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Harvester, Grain-. J. F. Appleby. No. 1,141,299; June 1; Gaz. vol. 215; p. 76.
Harvesters and the like, Driving mechanism for corn-. W. Hibbs. No. 1,142,036; June 8; Gaz. vol. 215; p. 371.
Harvesters, Gathering and discharging mechanism for beet-. T. S. Moore. No. 1,142,050; June 8; Gaz. vol. 215; p. 375.
Harvesters, Grain-shocker for. K. A. Johnson. No. 1,144,848; June 29; Gaz. vol. 215; p. 1442.
Harvesters, Uprooting mechanism for beet-. T. S. Moore. No. 1,142,049; June 8; Gaz. vol. 215; p. 375.
Harvesting-machine. L. Anderson. No. 1,143,161; June 15; Gaz. vol. 215; p. 803.
Harvesting-machines, Adjustable platform for. M. L. Akers. No. 1,144,679; June 29; Gaz. vol. 215; p. 1382.
Hasps, Keeper for. W. H. Hart. No. 1,141,542; June 1; Gaz. vol. 215; p. 163.
Hat. C. G. Brazier. No. 1,144,321; June 22; Gaz. vol. 215; p. 1233.
Hat conformer and retainer, Adjustable. L. Cohen. No. 1,144,462; June 29; Gaz. vol. 215; p. 1309.
Hat-fastening, Lady's. J. Morris. No. 1,144,561; June 29; Gaz. vol. 215; p. 1342.
Hat-hanger. V. J. Fricker. No. 1,142,413; June 8; Gaz. vol. 215; p. 505.
Hat-pin. T. P. Theriault. No. 1,144,263; June 22; Gaz. vol. 215; p. 1213.
Hat pin and fastener. S. B. Frankenfield. No. 1,141,179; June 1; Gaz. vol. 215; p. 31.
Hat-pin, Lady's. I. N. Prenovich. No. 1,144,565; June 29; Gaz. vol. 215; p. 1343.
Hat-pin-point protector. L. F. Krupicka. No. 1,143,838; June 22; Gaz. vol. 215; p. 1062.
Hat-press. A. Hoff. No. 1,142,430; June 8; Gaz. vol. 215; p. 511.
Hat-stretching apparatus. T. J. Bennett. No. 1,143,935; June 22; Gaz. vol. 215; p. 1095.
Hatchet. O. E. M. Johnson. No. 1,142,101; June 8; Gaz. vol. 215; p. 394.
Hay and hog racks, Fixture for combination. R. W. Sheldon. No. 1,143,145; June 15; Gaz. vol. 215; p. 797.
Hay gathering and handling machine. M. Beck. No. 1,142,927; June 15; Gaz. vol. 215; p. 721.
Hay-press. J. A. Dickel and L. H. Baker. No. 1,143,949; June 22; Gaz. vol. 215; p. 1101.
Hay-rack, Portable. S. R. Ewing. No. 1,141,112; June 1; Gaz. vol. 215; p. 8.

Hay-rake. J. Dain. No. 1,141,695; June 1; Gaz. vol. 215; p. 216.
Hay-sling. O. L. Hulstedt. No. 1,142,432; June 8; Gaz. vol. 215; p. 512.
Head-block. C. H. Powell. No. 1,142,981; June 15; Gaz. vol. 215; p. 741.
Headlight. F. Buchanan. No. 1,143,806; June 22; Gaz. vol. 215; p. 1051.
Headlight. J. R. Davis and U. Richardson. No. 1,141,780; June 1; Gaz. vol. 215; p. 244.
Headlight. C. A. B. Halvorson, Jr., and L. O. Ingalls. No. 1,143,539; June 15; Gaz. vol. 215; p. 935.
Headlight. R. F. Wilson. No. 1,144,676; June 29; Gaz. vol. 215; p. 1381.
Headlight-blind. C. H. Frye. No. 1,142,414; June 8; Gaz. vol. 215; p. 505.
Headlight control. G. W. Atkinson. No. 1,144,886; June 29; Gaz. vol. 215; p. 1455.
Headlight-dimmer. F. C. Christensen and T. W. Fuller. No. 1,143,611; June 22; Gaz. vol. 215; p. 985.
Headlight, Motor-vehicle. J. H. Clark. No. 1,144,813; June 29; Gaz. vol. 215; p. 1430.
Headlight-shield. J. Kobs, Jr., and M. Stewart. No. 1,141,124; June 1; Gaz. vol. 215; p. 12.
Headlight shifter, Street-car-. B. H. Cornelius. No. 1,144,691; June 29; Gaz. vol. 215; p. 1386.
Headlight, Vehicle-. B. A. Hopper. No. 1,142,963; June 15; Gaz. vol. 215; p. 734.
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Headlights, Steering apparatus for automobiles. G. George. No. 1,144,033; June 22; Gaz. vol. 215; p. 1131.
Heat-insulating material, Making. F. J. Maywald. No. 1,142,829; June 15; Gaz. vol. 215; p. 686.
Heat-producing compound. W. F. McNabb. No. 1,143,295; June 15; Gaz. vol. 215; p. 852.
Heater: *See*—
Air-heater.
Electric heater.
Electrical heater.
Feed-water heater.
Gas-heater.
Hot-water heater.
Milk-heater.
Orchard-heater.
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Water-heater.
Heater. E. W. Dunn. No. 1,144,699; June 29; Gaz. vol. 215; p. 1389.
Heater burner, Water-. B. E. Meacham. No. 1,143,057; June 15; Gaz. vol. 215; p. 767.
Heating apparatus. B. Dwofsky and S. Sambar. No. 1,144,533; June 29; Gaz. vol. 215; p. 1332.
Heating apparatus. A. Rector. No. 1,143,553; June 15; Gaz. vol. 215; p. 940.
Heating-boiler. P. L. Gunckel. No. 1,142,323; June 8; Gaz. vol. 215; p. 471.
Heating device, Electric. E. J. Ovington. No. 1,141,576; June 1; Gaz. vol. 215; p. 175.
Heating system, Electric. W. S. Hadaway, Jr. No. 1,142,771; June 8; Gaz. vol. 215; p. 627.
Heating system, Electric hot-water. W. L. Waters. No. 1,144,954; June 29; Gaz. vol. 215; p. 1476.
Heating system, Hot-water. G. H. Gibson. No. 1,141,955; June 8; Gaz. vol. 215; p. 340.
Heating system, Hot-water. G. H. Gibson. No. 1,142,785; June 8; Gaz. vol. 215; p. 632.
Heating unit, Electrical. E. G. Van Wie and R. W. Davenport. No. 1,142,861; June 15; Gaz. vol. 215; p. 697.
Heating unit, Electrical. E. G. Van Wie and R. W. Davenport. No. 1,142,862; June 15; Gaz. vol. 215; p. 698.
Heddle-bar support. P. A. Wagner. No. 1,142,290; June 8; Gaz. vol. 215; p. 460.
Hedge-trimmer. L. Hammel. No. 1,144,542; June 29; Gaz. vol. 215; p. 1336.
Heel. W. Blaney. No. 1,142,662; June 8; Gaz. vol. 215; p. 589.
Heel. S. E. P. Matacotta. No. 1,142,598; June 8; Gaz. vol. 215; p. 568.
Heel-burnishing machine. C. A. Matson. No. 1,141,878; June 1; Gaz. vol. 215; p. 276.
Heel, Rubber. L. R. Bailey. No. 1,141,227; June 1; Gaz. vol. 215; p. 48.
Heel-stiffener. M. Brock. No. 1,141,913; June 1; Gaz. vol. 215; p. 291.
Heels, Machine for operating upon. R. C. Simmons. No. 1,143,921; June 22; Gaz. vol. 215; p. 1090.
Heels or top lifts, Holder for. F. W. Gleason. No. 1,143,900; June 22; Gaz. vol. 215; p. 1083.
Hemoglobinometer. J. L. Whitney. No. 1,143,675; June 22; Gaz. vol. 215; p. 1007.
High-potential switch, Remote-control. W. E. Harkness. No. 1,142,252; June 8; Gaz. vol. 215; p. 447.
Hinge. F. H. Bennett and E. A. Robertson. No. 1,141,303; June 1; Gaz. vol. 215; p. 77.
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Hinge, Adjustable. H. Pearson and J. Renfrew. No. 1,144,057; June 22; Gaz. vol. 215; p. 1139.
Hinge, Blind-. J. W. Tatum. No. 1,144,262; June 22; Gaz. vol. 215; p. 1212.
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Hinge for vehicle-doors. A. Krah. No. 1,142,584; June 8; Gaz. vol. 215; p. 564.
Hinge, Gate-. E. Rhody. No. 1,141,828; June 1; Gaz. vol. 215; p. 259.
Hinge, Invisible surface. O. Katzenberger. No. 1,144,207; June 22; Gaz. vol. 215; p. 1194.
Hinge-joint. P. A. Anderson. No. 1,144,090; June 22; Gaz. vol. 215; p. 1151.
Hinge mechanism. W. S. Williams. No. 1,144,404; June 29; Gaz. vol. 215; p. 1289.
Hinge, Self-locking. C. Diener. No. 1,141,782; June 1; Gaz. vol. 215; p. 244.
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Hinges for stove-doors or the like, Making. B. A. Baxter. No. 1,143,023; June 15; Gaz. vol. 215; p. 755.
Hockey-stick. N. T. Fogg. No. 1,143,376; June 15; Gaz. vol. 215; p. 880.
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Hoist and conveyer, Combined. C. J. Scherrer. No. 1,143,786; June 22; Gaz. vol. 215; p. 1043.
Hoist, Barrel-. W. W. Holsclaw and F. Komp. No. 1,143,396; June 15; Gaz. vol. 215; p. 888.
Hoist, Electrically-driven. W. A. Barker. No. 1,141,679; June 1; Gaz. vol. 215; p. 211.
Hoisting-drum and clutch. M. B. Moyer. No. 1,141,819; June 1; Gaz. vol. 215; p. 256.
Hoisting-hook. L. J. Black. No. 1,144,099; June 22; Gaz. vol. 215; p. 1155.
Holding or suspending device. J. H. Daugherty and M. L. Hahn. No. 1,141,867; June 1; Gaz. vol. 215; p. 271.
Hook: *See*—
Choker-hook.
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Hook. T. B. Hannon. No. 1,143,193; June 15; Gaz. vol. 215; p. 816.
Hook and eye. W. E. Rice. No. 1,144,786; June 29; Gaz. vol. 215; p. 1420.
Hoop for silos and like tanks. A. Rasmussen. No. 1,141,413; June 1; Gaz. vol. 215; p. 118.
Hoops for barrels, Machine for making metallic. M. E. Lobley. No. 1,143,211; June 15; Gaz. vol. 215; p. 822.
Horizon, Artificial. H. Anschütz-Kaempfe. No. 1,141,099; June 1; Gaz. vol. 215; p. 4.
Horn, Automobile-. R. H. Manson. No. 1,143,845; June 22; Gaz. vol. 215; p. 1065.
Horological motor. B. A. Adler. No. 1,144,748; June 29; Gaz. vol. 215; p. 1407.
Horse-overshoe. R. Whitaker. No. 1,142,765; June 8; Gaz. vol. 215; p. 624.
Horse-overshoe. R. Whitaker. No. 1,142,766; June 8; Gaz. vol. 215; p. 625.
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Horseshoe attachment. J. A. Davis. No. 1,142,028; June 8; Gaz. vol. 215; p. 369.
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Horseshoe-calk, Detachable. P. J. Ryan. No. 1,141,726; June 1; Gaz. vol. 215; p. 226.
Horseshoe toe-calk. G. Robins. No. 1,144,790; June 29; Gaz. vol. 215; p. 1422.
Hose-coupling. D. C. Bailey. No. 1,143,020; June 15; Gaz. vol. 215; p. 754.
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Hose-nozzle support. G. Davis. No. 1,141,106; June 1; Gaz. vol. 215; p. 6.
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Hose-supporter. T. P. Ford. No. 1,144,832; June 29; Gaz. vol. 215; p. 1436.
Hot-air stacks or conduits, Stack-head for. A. G. Scherer. No. 1,141,492; June 1; Gaz. vol. 215; p. 145.
Hot-water heater. H. Tielkemeyer. No. 1,144,798; June 29; Gaz. vol. 215; p. 1425.
Hub-plates, Packing device for. A. J. Sams. No. 1,143,142; June 15; Gaz. vol. 215; p. 796.
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Hydraulic transmission, Variable-speed. J. Robson. No. 1,143,727; June 22; Gaz. vol. 215; p. 1024.
Hydrocarbon-burner. R. C. Kirkwood. No. 1,144,851; June 29; Gaz. vol. 215; p. 1443.
Hydrocarbon-burner. A. V. Smith. No. 1,143,792; June 22; Gaz. vol. 215; p. 1045.
Hydrocarbon-burner. B. A. Thomas. No. 1,143,150; June 15; Gaz. vol. 215; p. 799.

Hydrocarbon-motor. M. Tibbetts. No. 1,141,288; June 1; Gaz. vol. 215; p. 71.
Hydrocarbon-motor. S. D. Waldon. No. 1,143,001; June 15; Gaz. vol. 215; p. 747.
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Hydrocarbons and intermediate compounds, Manufacture of unsaturated. F. E. Matthews and H. G. W. Bliss. No. 1,144,558; June 29; Gaz. vol. 215; p. 1341.
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Hydrocarbons, Apparatus for obtaining liquid. E. Schill. No. 1,142,275; June 8; Gaz. vol. 215; p. 455.
Hydrogen peroxid, Apparatus for the continuous production by synthesis of. W. Weber. No. 1,144,271; June 22; Gaz. vol. 215; p. 1215.
Hydrogen, Producing. K. Schaefer. No. 1,144,730; June 29; Gaz. vol. 215; p. 1401.
Ice-cream box, Collapsible. B. and C. Smyle. No. 1,141,661; June 1; Gaz. vol. 215; p. 204.
Ice-cream freezer. J. S. Parrish. No. 1,144,667; June 29; Gaz. vol. 215; p. 1378.
Ice-cream spoon. D. H. Mosteller. No. 1,142,354; June 8; Gaz. vol. 215; p. 482.
Ice-creeper. M. Markowicz. No. 1,141,353; June 1; Gaz. vol. 215; p. 94.
Ice-creeper. J. Skunda. No. 1,144,155; June 22; Gaz. vol. 215; p. 1175.
Ice-making apparatus. T. B. Maglunis and T. Gaffney. No. 1,142,085; June 8; Gaz. vol. 215; p. 388.
Ice-making machine. C. D. Grant. No. 1,143,185; June 15; Gaz. vol. 215; p. 813.
Ice, Manufacture of pure. W. P. Wiemann. No. 1,144,312; June 22; Gaz. vol. 215; p. 1230.
Ice-sawing machine. F. E. Reed. No. 1,141,268; June 1; Gaz. vol. 215; p. 63.
Igniter-actuating mechanism. J. E. Gilson. No. 1,142,086; June 8; Gaz. vol. 215; p. 389.
Ignition-timer. W. Kaisling. No. 1,144,135; June 22; Gaz. vol. 215; p. 1167.
Illuminating cavities or surfaces, Apparatus applicable for. R. Biquard. No. 1,143,682; June 22; Gaz. vol. 215; p. 1010.
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Indicating device. J. Walter. No. 1,142,645; June 8; Gaz. vol. 215; p. 583.
Indicating system. E. C. Molina. No. 1,144,560; June 29; Gaz. vol. 215; p. 1342.
Indicator: *See*—
Automobile theft-indicator.
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Inductor-generator. J. L. Milton. No. 1,141,474; June 1; Gaz. vol. 215; p. 139.
Inductor-generator. J. L. Milton. No. 1,142,047; June 8; Gaz. vol. 215; p. 374.
Injecting device. C. L. Day. No. 1,143,813; June 22; Gaz. vol. 215; p. 1053.
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Ink-receptacles, Attachment for. J. Michel. No. 1,144,910; June 29; Gaz. vol. 215; p. 1462.
Ink-well. W. Bailey. No. 1,141,753; June 1; Gaz. vol. 215; p. 235.
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Insect-catcher. G. M. Tunison. No. 1,144,450; June 29; Gaz. vol. 215; p. 1305.
Insect-catching device. C. Olsen and W. C. Stautzenberger. No. 1,142,614; June 8; Gaz. vol. 215; p. 573.
Insect-killing apparatus. E. A. Grant. No. 1,142,810; June 15; Gaz. vol. 215; p. 680.
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Instep-arch support. W. M. Scholl. No. 1,142,848; June 15; Gaz. vol. 215; p. 692.
Instep-arch supporter. W. M. Scholl. No. 1,142,849; June 15; Gaz. vol. 215; p. 692.
Instep-arch support. W. M. Scholl. No. 1,142,850; June 15; Gaz. vol. 215; p. 693.
Instrument-case, Antiseptic. G. H. Rentz. No. 1,143,436; June 15; Gaz. vol. 215; p. 902.
Instrument-table. A. W. Schramm. No. 1,143,443; June 15; Gaz. vol. 215; p. 904.
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Insulator. L. Steinberger. No. 1,143,149; June 15; Gaz. vol. 215; p. 799.
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Insulator-support. C. E. Miller. No. 1,143,983; June 22; Gaz. vol. 215; p. 1112.
Interchangeable portable light. J. Achberger. No. 1,143,604; June 22; Gaz. vol. 215; p. 983.
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Internal-combustion engine. W. J. Brown. No. 1,144,105; June 22; Gaz. vol. 215; p. 1157.
Internal-combustion engine. H. C. Cleaver. No. 1,144,027; June 22; Gaz. vol. 215; p. 1129.
Internal-combustion engine. W. M. Cusick. No. 1,142,312; June 8; Gaz. vol. 215; p. 467.
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Internal-combustion engine. T. Kallanjee and A. B. Paranjape. No. 1,142,581; June 8; Gaz. vol. 215; p. 562.
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Internal-combustion engine. H. Schmitt. No. 1,141,362; June 1; Gaz. vol. 215; p. 98.
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Internal-combustion engine, Self-starting. J. A. Heany. No. 1,141,632; June 1; Gaz. vol. 215; p. 193.
Internal-combustion engine, Self-starting. J. A. Heany. No. 1,141,633; June 1; Gaz. vol. 215; p. 194.
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Carry-iron.
Electric sad-iron.
Flat-iron.
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Iron or steel, Coating. R. Skemp and W. Gibson, Sr. No. 1,143,922; June 22; Gaz. vol. 215; p. 1090.
Iron, Producing practically pure. A. P. Scott. No. 1,144,256; June 22; Gaz. vol. 215; p. 1210.
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Irrigating device. L. C. Benson. No. 1,143,351; June 15; Gaz. vol. 215; p. 871.
Irrigating plant. A. Andrews. No. 1,142,223; June 8; Gaz. vol. 215; p. 436.
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Automobile-jack.
Ladder-jack.
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Jack-block. G. Guild. No. 1,143,760; June 22; Gaz. vol. 215; p. 1035.
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Jar-closure and cap-extractor, Combined. W. C. Helcher. No. 1,142,427; June 8; Gaz. vol. 215; p. 509.
Jaw-prop. W. F. Dunlop. No. 1,143,515; June 15; Gaz. vol. 215; p. 926.
Jigging apparatus. J. W. Neill. No. 1,144,494; June 29; Gaz. vol. 215; p. 1320.
Jigs, Automatic means for controlling the operation of. W. A. Rentelhuber. No. 1,143,137; June 15; Gaz. vol. 215; p. 794.
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Hinge-joint.
Rail-joint.
Universal joint.
Journal-bearing. F. J. Schisler. No. 1,141,835; June 1; Gaz. vol. 215; p. 261.
Journal-box, Thrust-bearing. L. C. Thompson. No. 1,141,667; June 1; Gaz. vol. 215; p. 206.
Junction-box. P. J. Wittenberg. No. 1,144,517; June 29; Gaz. vol. 215; p. 1327.
Kettle-support. W. C. Ledbetter. No. 1,142,587; June 8; Gaz. vol. 215; p. 565.
Kettles, Punching and forming device for. P. Malwurm. No. 1,144,662; June 29; Gaz. vol. 215; p. 1375.

Kiln: *See*—
Brick-kiln.
Sectional kiln.
Kiln. R. L. Dennison. No. 1,141,619; June 1; Gaz. vol. 215; p. 190.
Kiln or furnace for treatment of carbonaceous materials. H. T. Johnson. No. 1,141,118; June 1; Gaz. vol. 215; p. 10.
Knife-polishing apparatus. W. H. Barnes. No. 1,144,456; June 29; Gaz. vol. 215; p. 1308.
Knitting-machine. W. A. Ingalls. No. 1,144,846; June 29; Gaz. vol. 215; p. 1441.
Knitting-machine. E. E. Randall. No. 1,143,552; June 15; Gaz. vol. 215; p. 939.
Knitting-machine attachment. W. J. Steere. No. 1,143,658; June 22; Gaz. vol. 215; p. 1001.
Knitting-machine stop mechanism. F. B. Wildman and G. L. Ballard. No. 1,144,273; June 22; Gaz. vol. 215; p. 1216.
Knob, Utensil-. E. C. Frisk and E. C. Anderson. No. 1,142,691; June 8; Gaz. vol. 215; p. 599.
Label, Metallic. F. Eberhart. No. 1,144,534; June 29; Gaz. vol. 215; p. 1333.
Labeling-machine. E. Jagenberg. No. 1,143,968; June 22; Gaz. vol. 215; p. 1107.
Labeling machine, Can-. J. C. Shults. (Reissue.) No. 13,940; June 29; Gaz. vol. 215; p. 1488.
Lace fastener, Shoe-. B. G. Olson. No. 1,142,199; June 8; Gaz. vol. 215; p. 428.
Lacing hook or stud setting machine. W. J. Coombs. No. 1,141,775; June 1; Gaz. vol. 215; p. 242.
Ladder. E. C. Dickinson. No. 1,141,950; June 8; Gaz. vol. 215; p. 339.
Ladder. E. V. Fenton. No. 1,142,806; June 15; Gaz. vol. 215; p. 679.
Ladder. H. C. Jones. No. 1,144,600; June 29; Gaz. vol. 215; p. 1355.
Ladder-holding device. D. H. Wingerd. No. 1,142,072; June 8; Gaz. vol. 215; p. 383.
Ladder-jack. W. G. Winans. No. 1,143,678; June 22; Gaz. vol. 215; p. 1008.
Ladder-support, Painter's. J. W. Narron. No. 1,143,058; June 15; Gaz. vol. 215; p. 767.
Lamp. J. F. Mitchell. No. 1,141,880; June 1; Gaz. vol. 215; p. 276.
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Lamp, Acetylene-gas. L. Hartmann. No. 1,142,421; June 8; Gaz. vol. 215; p. 507.
Lamp, Adjustable. F. C. Howe. No. 1,142,964; June 15; Gaz. vol. 215; p. 734.
Lamp, Arc-. J. L. Dinsmoor. No. 1,143,108; June 15; Gaz. vol. 215; p. 785.
Lamp, Arc-. E. J. Gnay. No. 1,142,251; June 8; Gaz. vol. 215; p. 446.
Lamp-burner. H. F. Miller. No. 1,144,610; June 29; Gaz. vol. 215; p. 1358.
Lamp burner, Oil-. J. P. Truesdell. No. 1,141,435; June 1; Gaz. vol. 215; p. 125.
Lamp-chimneys, Heating attachment for. C. E. Snavely. No. 1,144,920; June 29; Gaz. vol. 215; p. 1465.
Lamp control, Head-. J. A. McKim. No. 1,141,809; June 1; Gaz. vol. 215; p. 253.
Lamp, Electric. J. Berg. No. 1,142,548; June 8; Gaz. vol. 215; p. 551.
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Lamp, Hydrocarbon-. L. Baxter. No. 1,144,684; June 29; Gaz. vol. 215; p. 1384.
Lamp, Hydrocarbon-. A. G. Kaufman. No. 1,142,814; June 15; Gaz. vol. 215; p. 682.
Lamp lighting and extinguishing mechanism. Street-. E. S. Newbold. No. 1,142,608; June 8; Gaz. vol. 215; p. 571.
Lamp, Metallic-filament. H. J. Jaeger. No. 1,143,909; June 22; Gaz. vol. 215; p. 1086.
Lamp, Miner's acetylene-gas. J. A. Gustafson. No. 1,142,699; June 8; Gaz. vol. 215; p. 601.
Lamp, Oil-. J. Bryson. No. 1,142,234; June 8; Gaz. vol. 215; p. 441.
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Lamp, Self-contained hydrocarbon-. A. G. Kaufman. No 1,142,816; June 15; Gaz. vol. 215; p. 682.
Lamp-shade. D. Rose. No. 1,142,775; June 8; Gaz. vol. 215; p. 628.
Lamp-shade. W. Schmidt and P. Müller. No. 1,141,361; June 1; Gaz. vol. 215; p. 98.
Lamp-shade, Auto. W. O. Reuter. No. 1,143,138; June 15; Gaz. vol. 215; p. 795.
Lamp-shells, switch-receptacles, and analogous devices, Cap for. C. J. Klein. No. 1,142,818; June 15; Gaz. vol. 215; p. 682.
Lamp-socket. H. Aiken. No. 1,144,956; June 29; Gaz. vol. 215; p. 1477.
Lamp-socket casing-cap. C. J. Klein. No. 1,141,120; June 1; Gaz. vol. 215; p. 10.
Lamp-sockets and the like, Cap for. C. J. Klein. No. 1,142,819; June 15; Gaz. vol. 215; p. 683.
Lamp-stand body. W. A. McKay and M. Claussen. No. 1,142,108; June 8; Gaz. vol. 215; p. 397.
Lamp support, Hydrocarbon-. A. G. Kaufman. No. 1,142,815; June 15; Gaz. vol. 215; p. 682.
Lamp, Tail-. P. Cooper. No. 1,141,776; June 1; Gaz. vol. 215; p. 242.
Lamp, Tubular electric pocket-. G. P. Heinrich. No. 1,141,634; June 1; Gaz. vol. 215; p. 194.
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Lamps, Burner for inverted incandescent gas-. H. Lyon. No. 1,142,594; June 8; Gaz. vol. 215; p. 567.
Lamps, Cap for incandescent. A. Marin. No. 1,141,400; June 1; Gaz. vol. 215; p. 113.
Lamps, Mounting metallic filaments on filament-carriers of incandescent. O. Feuerlein and M. von Pirani. No. 1,144,114; June 22; Gaz. vol. 215; p. 1160.
Land roller or pulverizer. W. J. Dunham. (Reissue.) No. 13,921; June 1; Gaz. vol. 215; p. 291.
Land-rollers and the like, Appliance for. A. Gerlaugh. No. 1,144,897; June 29; Gaz. vol. 215; p. 1459.
Lantern. J. R. Sutter. No. 1,143,238; June 15; Gaz. vol. 215; p. 832.
Lantern-slide. A. V. Cauger. No. 1,142,143; June 8; Gaz. vol. 215; p. 408.
Lap-stand. H. D. Turner. No. 1,144,161; June 22; Gaz. vol. 215; p. 1177.
Last. E. D. Gallagher. No. 1,141,326; June 1; Gaz. vol. 215; p. 85.
Last, Hinged. S. D. Layman. No. 1,144,364; June 29; Gaz. vol. 215; p. 1277.
Last, Hinged. S. D. Layman. No. 1,144,365; June 29; Gaz. vol. 215; p. 1276.
Last, Shoe-. C. Schaefer. No. 1,141,584; June 1; Gaz. vol. 215; p. 178.
Lasting device. W. H. Atkins. No. 1,143,798; June 22; Gaz. vol. 215; p. 1048.
Lasting-machine. M. Brock. No. 1,142,550; June 8; Gaz. vol. 215; p. 552.
Lasting-machine holddown. F. W. Eager. No. 1,142,152; June 8; Gaz. vol. 215; p. 411.
Lasting-machine toe-clamp. M. Brock. No. 1,143,939; June 22; Gaz. vol. 215; p. 1097.
Lasting shoes. M. Brock. No. 1,142,549; June 8; Gaz. vol. 215; p. 551.
Lasting toes, Apparatus for use in. E. L. Keyes. No. 1,143,971; June 22; Gaz. vol. 215; p. 1108.
Latch. P. Casey. No. 1,144,587; June 29; Gaz. vol. 215; p. 1350.
Latch. W. F. Hays. No. 1,142,166; June 8; Gaz. vol. 215; p. 417.
Latch, Barrel-cover. C. B. B. Medlock. No. 1,144,489; June 29; Gaz. vol. 215; p. 1318.
Latch, Lever-. A. E. Smith. No. 1,143,452; June 15; Gaz. vol. 215; p. 907.
Lathe. E. W. Blum. No. 1,143,502; June 15; Gaz. vol. 215; p. 954.
Lathe tool-holder. F. D. Van Norman. No. 1,141,854; June 1; Gaz. vol. 215; p. 267.
Lathe, Turning-. R. J. Edwards and C. B. Greene. No. 1,144,535; June 29; Gaz. vol. 215; p. 1333.
Lathes, Apparatus for adjusting multiple-cutter holders of turning-. H. Petz. No. 1,142,362; June 8; Gaz. vol. 215; p. 485.
Laundry-marking machine. G. H. Lang. No. 1,143,768; June 22; Gaz. vol. 215; p. 1038.
Laundry sundry. H. L. Kingsley. No. 1,141,345; June 1; Gaz. vol. 215; p. 91.
Lavatory apparatus. W. S. Graham. No. 1,144,704; June 29; Gaz. vol. 215; p. 1391.
Lawn-sprinkler. H. L. Lord. No. 1,142,448; June 8; Gaz. vol. 215; p. 517.
Laying-machine. F. W. Vickery. No. 1,144,268; June 22; Gaz. vol. 215; p. 1214.
Lead. Apparatus for making white. C. Ellis. No. 1,144,701; June 29; Gaz. vol. 215; p. 1390.
Lead arsenate, Manufacturing. E. O. Barstow. No. 1,141,920; June 8; Gaz. vol. 215; p. 330.
Lead, Treating. C. Ellis. No. 1,141,177; June 1; Gaz. vol. 215; p. 31.
Leather-board and preparing the same, Waterproof. F. B. Gallivan. No. 1,142,953; June 15; Gaz. vol. 215; p. 731.
Leather-cutting machine. H. Kehler. No. 1,141,465; June 1; Gaz. vol. 215; p. 136.
Leather-scarfing machine. F. W. Merrick. No. 1,141,253; June 1; Gaz. vol. 215; p. 57.
Leather substitute and making it. R. O. Herzog and A. Meier. No. 1,141,545; June 1; Gaz. vol. 215; p. 164.
Ledgers, Leaf for loose-leaf. R. J. Wilson. No. 1,143,155; June 15; Gaz. vol. 215; p. 801.
Leg, Artificial. J. T. Apgar. No. 1,144,681; June 29; Gaz. vol. 215; p. 1383.
Lemon-squeezer. L. Schatterman. No. 1,141,834; June 1; Gaz. vol. 215; p. 261.
Lens-cutting machine. C. W. Howland. No. 1,141,896; June 1; Gaz. vol. 215; p. 284.
Lens-drilling machine. G. A. Bader and C. W. Howland. No. 1,141,859; June 1; Gaz. vol. 215; p. 269.
Lens-mounting blocks, Mold for. W. W. Essick. No. 1,143,895; June 22; Gaz. vol. 215; p. 1082.
Lens, Optical. A. G. Poullain and D. H. J. Cornet. No. 1,143,316; June 15; Gaz. vol. 215; p. 859.
Lenses, Assembler for rimless. N. H. Greenberg and J. F. Clutter. No. 1,142,956; June 15; Gaz. vol. 215; p. 732.
Leuco compounds and making same. A. Schmidt and A. Steindorff. No. 1,141,148; June 1; Gaz. vol. 215; p. 20.
Level. I. S. Creamer. No. 1,141,617; June 1; Gaz. vol. 215; p. 189.
Level and plumb-rule, Folding. G. P. Dewees. No. 1,143,256; June 15; Gaz. vol. 215; p. 838.

Level, Gravity-operated. C. D. Caughron. No. 1,141,315; June 1; Gaz. vol. 215; p. 81.
Level, Spirit-. F. A. Ewer. No. 1,141,325; June 1; Gaz. vol. 215; p. 85.
Leveling attachment for surveying instruments, &c., Automatic. L. F. Hellmann. No. 1,144,594; June 29; Gaz. vol. 215; p. 1353.
Licorice-root-fiber board. W. L. Geddes. No. 1,143,621; June 22; Gaz. vol. 215; p. 989.
Life-saving apparatus. R. Kamioka. No. 1,144,904; June 29; Gaz. vol. 215; p. 1460.
Life-saving apparatus. M. Kispeter. No. 1,143,835; June 22; Gaz. vol. 215; p. 1062.
Life-saving device. W. Lindemann. No. 1,142,592; June 8; Gaz. vol. 215; p. 566.
Life-saving suit. J. Horvath. No. 1,141,116; June 1; Gaz. vol. 215; p. 9.
Life-saving suit. P. Simon. No. 1,141,273; June 1; Gaz. vol. 215; p. 65.
Life-saving waistcoat. J. W. Gleve. No. 1,143,899; June 22; Gaz. vol. 215; p. 1083.
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Lifting-jack. H. A. Conners. No. 1,144,933; June 29; Gaz. vol. 215; p. 1469.
Lifting-jack. A. T. Richardson. No. 1,143,067; June 15; Gaz. vol. 215; p. 771.
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Flash-light.
Light-fixtures, Sectional support for pendent. A. H. Manwaring. No. 1,142,597; June 8; Gaz. vol. 215; p. 568.
Lighting. R. Young. No. 1,143,011; June 15; Gaz. vol. 215; p. 751.
Lighting-fixture holder. N. B. Oppen. No. 1,143,775; June 22; Gaz. vol. 215; p. 1040.
Lighting-fixtures, Support for indirect or semi-indirect. H. A. Bauer. No. 1,144,095; June 22; Gaz. vol. 215; p. 1153.
Line-casting machines, Ejector mechanism for. T. S. Homans. No. 1,142,757; June 8; Gaz. vol. 215; p. 621.
Line setting and casting machines, Matrix-bar for. J. Dorneth. No. 1,143,692; June 22; Gaz. vol. 215; p. 1013.
Line-switch. J. G. Roberts. No. 1,143,998; June 22; Gaz. vol. 215; p. 1118.
Link-connector. S. J. Staples. No. 1,144,440; June 29; Gaz. vol. 215; p. 1302.
Link-mesh-making machine. A. C. Pratt. No. 1,144,724; June 29; Gaz. vol. 215; p. 1399.
Linoleum-rack. C. J. Stoner. No. 1,143,459; June 15; Gaz. vol. 215; p. 909.
Liquid-coloring implement. J. A. Boyajean. No. 1,141,522; June 1; Gaz. vol. 215; p. 156.
Liquid-dispensing device. W. Wagner. No. 1,142,210; June 8; Gaz. vol. 215; p. 431.
Liquid-level-alarm apparatus. L. Mozolan. No. 1,141,820; June 1; Gaz. vol. 215; p. 256.
Liquid-treating apparatus. H. M. Spross. No. 1,141,282; June 1; Gaz. vol. 215; p. 68.
Liquids, Safety storage-receptacle for combustible. G. H. Poor. No. 1,143,646; June 22; Gaz. vol. 215; p. 997.
Load-box, Universal. J. L. Herman. No. 1,143,963; June 22; Gaz. vol. 215; p. 1105.
Load-regulator, Wind-wheel. J. A. Snee, Jr., and T. H. Kerr. No. 1,142,538; June 8; Gaz. vol. 215; p. 548.
Load-supporting rack. C. Greene. No. 1,142,088; June 8; Gaz. vol. 215; p. 390.
Load-trimmer. J. Dykes. No. 1,144,179; June 22; Gaz. vol. 215; p. 1184.
Loads on pack-animals, Device for conveying. A. Berker and F. Sachtleben. No. 1,141,923; June 8; Gaz. vol. 215; p. 331.
Loading apparatus. M. H. Byrne. No. 1,144,460; June 29; Gaz. vol. 215; p. 1309.
Loading apparatus. G. Manierre. No. 1,143,056; June 15; Gaz. vol. 215; p. 766.
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Automobile lock. Glass-mold lock.
Bottle-stopper lock. Nut-lock.
Brake-lock. Permutation-lock.
Car-door lock. Sash-lock.
Coin and check operative lock. Steering-wheel lock.
Suspender-lock.
Combination-lock. Switch-arm lock.
Curtain-rod lock. Tank-lock.
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Lock. S. C. Carr. No. 1,143,610; June 22; Gaz. vol. 215; p. 985.
Lock. F. M. Hettrick. No. 1,141,797; June 1; Gaz. vol. 215; p. 249.
Lock. A. L. Sohn. No. 1,141,215; June 1; Gaz. vol. 215; p. 44.
Lock. W. E. Sparks. No. 1,141,150; June 1; Gaz. vol. 215; p. 21.
Lock. W. E. Sparks. No. 1,141,984; June 8; Gaz. vol. 215; p. 351.
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Lock and butt-gage, Combined. M. F. Biersdorf. No. 1,142,138; June 8; Gaz. vol. 215; p. 407.
Lock and latch, Combined. D. Borland. No. 1,143,492; June 15; Gaz. vol. 215; p. 919.
Lock mechanism, Door-. L. Turk. No. 1,141,590; June 1; Gaz. vol. 215; p. 180.
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Locking device. M. F. Bohr. No. 1,143,029; June 15; Gaz. vol. 215; p. 757.
Locomotive baffle-wall. A. H. Willett. No. 1,143,095; June 15; Gaz. vol. 215; p. 781.
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Locomotive drifting-valves, Connection for. A. G. Elvin and J. L. Mohun. No. 1,141,111; June 1; Gaz. vol. 215; p. 8.
Locomotive driving-box. W. E. Woodard. No. 1,141,294; June 1; Gaz. vol. 215; p. 73.
Locomotive fire-boxes, Boiler attachment for. E. C. Rudolph. No. 1,142,731; June 8; Gaz. vol. 215; p. 611.
Locomotive front ends, Draft-regulating device in. T. B. Farington. No. 1,142,686; June 8; Gaz. vol. 215; p. 597.
Locomotive-pilot. M. F. Cox. No. 1,143,687; June 22; Gaz. vol. 215; p. 1011.
Loom. A. H. Henderson and J. T. Mahon. No. 1,141,635; June 1; Gaz. vol. 215; p. 195.
Loom attachment. P. Reilly. No. 1,142,624; June 8; Gaz. vol. 215; p. 577.
Loom, Automatic weft-replenishing. J. Northrop. No. 1,142,725; June 8; Gaz. vol. 215; p. 609.
Loom for weaving tufted fabric. G. F. Hutchins. No. 1,142,170; June 8; Gaz. vol. 215; p. 418.
Loom pattern mechanism. A. A. Gordon, Jr. No. 1,142,161; June 8; Gaz. vol. 215; p. 415.
Loom-shuttle. P. F. Higgins. No. 1,141,186; June 1; Gaz. vol. 215; p. 34.
Loom warp stop-motion. S. S. Jackson. No. 1,143,120; June 15; Gaz. vol. 215; p. 789.
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Loom, Weft-replenishing. E. H. Ryon. No. 1,144,946; June 29; Gaz. vol. 215; p. 1474.
Loom, Weft-replenishing. H. Wyman. No. 1,142,743; June 8; Gaz. vol. 215; p. 614.
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Lowering device. R. Méndez. No. 1,144,982; June 29; Gaz. vol. 215; p. 1486.
Lubricant. L. D. Pettit. No. 1,143,724; June 22; Gaz. vol. 215; p. 1023.
Lubricating device for piston-rods. C. H. Van Maanen. No. 1,142,642; June 8; Gaz. vol. 215; p. 582.
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Lunch-box. R. A. Clark. No. 1,142,932; June 15; Gaz. vol. 215; p. 723.
Machine-tool. A. F. Rockwell. No. 1,142,730; June 8; Gaz. vol. 215; p. 610.
Machine-tool control. A. L. De Leeuw. No. 1,144,935; June 29; Gaz. vol. 215; p. 1470.
Magnet and solenoid, Electric. A. Simon. No. 1,142,852; June 15; Gaz. vol. 215; p. 894.
Magnetic separating apparatus. E. H. Rothert. No. 1,144,383; June 29; Gaz. vol. 215; p. 1282.
Magnetically-operated device. C. H. Rippl. No. 1,144,063; June 22; Gaz. vol. 215; p. 1141.
Magneto. P. Hamm. No. 1,141,336; June 1; Gaz. vol. 215; p. 88.
Magneto. D. B. Hughes. No. 1,143,119; June 15; Gaz. vol. 215; p. 789.
Magneto cord-circuit with secret service. R. I. Utter and H. P. Schmidt. No. 1,144,401; June 29; Gaz. vol. 215; p. 1289.
Magneto driving mechanism. J. A. Williams. No. 1,144,016; June 22; Gaz. vol. 215; p. 1124.
Magnetometer. E. Garretson. No. 1,143,529; June 15; Gaz. vol. 215; p. 931.
Mail-bag catcher. J. W. Moore. No. 1,141,817; June 1; Gaz. vol. 215; p. 255.
Mail-bag catching and delivering machine. J. Lulek. No. 1,142,107; June 8; Gaz. vol. 215; p. 397.
Mail-bag receiving and delivering apparatus. R. J. Harley. No. 1,141,793; June 1; Gaz. vol. 215; p. 248.
Mail-bag retainer for mail-cranes. L. C. Poulson and A. J. Buchanan. No. 1,144,241; June 22; Gaz. vol. 215; p. 1206.
Mail-box. J. E. Loudenslager, Jr. No. 1,141,806; June 1; Gaz. vol. 215; p. 252.
Mail-box. S. Ptak and A. Sadlik. No. 1,144,566; June 29; Gaz. vol. 215; p. 1343.
Mail-box. J. C. Trimble. No. 1,142,286; June 8; Gaz. vol. 215; p. 459.
Mail-cabinet. H. J. Westfield. No. 1,142,865; June 15; Gaz. vol. 215; p. 699.
Mail-delivery apparatus. J. Zola. No. 1,142,475; June 8; Gaz. vol. 215; p. 526.

Malt, Machine for turning green. M. Schuster. No. 1,143,918; June 22; Gaz. vol. 215; p. 1089.
Mandrel stripping and cooling mechanism. F. E. Simpkins. No. 1,141,426; June 1; Gaz. vol. 215; p. 122.
Manhole, sewer, or other conduit and constructing the same. C. H. Frost. No. 1,144,469; June 29; Gaz. vol. 215; p. 1311.
Manifolding-machine. A. Krauth. No. 1,142,442; June 8; Gaz. vol. 215; p. 516.
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Manure-loading apparatus. W. Murphy. No. 1,142,197; June 8; Gaz. vol. 215; p. 427.
Marking-gage and try-square. E. Wimnier and J. Sec. No. 1,142,215; June 8; Gaz. vol. 215; p. 434.
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Match-box. L. C. Fraver and I. E. Williams. No. 1,143,113; June 15; Gaz. vol. 215; p. 787.
Match-box holder. E. V. Allen. No. 1,143,345; June 15; Gaz. vol. 215; p. 869.
Match-head or similar composition. H. Staier. No. 1,144,076; June 22; Gaz. vol. 215; p. 1146.
Match-head or similar composition. H. Staier. No. 1,144,077; June 22; Gaz. vol. 215; p. 1146.
Match-holder. J. R. Orwig. No. 1,143,992; June 22; Gaz. vol. 215; p. 1116.
Match-igniting device. J. E. Neahr. No. 1,144,611; June 29; Gaz. vol. 215; p. 1358.
Match-igniting device. J. E. Neahr. No. 1,144,612; June 29; Gaz. vol. 215; p. 1359.
Matrices, Production of. J. W. Aylsworth. No. 1,144,338; June 22; Gaz. vol. 215; p. 1239.
Matrix-setting and type-line-casting machine. A. Eichler. No. 1,143,370; June 15; Gaz. vol. 215; p. 878.
Mattress. R. Bradshaw. No. 1,144,888; June 29; Gaz. vol. 215; p. 1456.
Mayonnaise-mixer. W. Landsberg. No. 1,144,215; June 22; Gaz. vol. 215; p. 1196.
Measuring apparatus, Electrical. O. A. Knopp. No. 1,141,642; June 1; Gaz. vol. 215; p. 197.
Measuring apparatus for pulling-over machines, Tip-. J. Triem. No. 1,142,128; June 8; Gaz. vol. 215; p. 404.
Measuring apparatus, Liquid-. C. F. Brown. No. 1,144,583; June 29; Gaz. vol. 215; p. 1349.
Measuring device. R. F. Downey. No. 1,143,109; June 15; Gaz. vol. 215; p. 786.
Measuring device. W. Giese. No. 1,143,531; June 15; Gaz. vol. 215; p. 932.
Measuring device, Distance-. R. A. Wilson. No. 1,144,675; June 29; Gaz. vol. 215; p. 1381.
Measuring device, Fluid-. J. F. Keller, W. A. Warman, and H. L. Parr. No. 1,143,631; June 22; Gaz. vol. 215; p. 992.
Measuring instrument. L. A. Hawthorne. No. 1,142,423; June 8; Gaz. vol. 215; p. 508.
Measuring instrument. H. Henry. No. 1,142,958; June 15; Gaz. vol. 215; p. 733.
Measuring instrument. N. Joha. No. 1,142,436; June 8; Gaz. vol. 215; p. 513.
Measuring instrument, Electric. L. Logan. No. 1,142,593; June 8; Gaz. vol. 215; p. 566.
Measuring instrument, Electrical. I. W. Brögger. No. 1,141,523; June 1; Gaz. vol. 215; p. 156.
Measuring instrument, Electrical. P. A. Campbell. No. 1,144,636; June 29; Gaz. vol. 215; p. 1367.
Measuring instrument, Electrical. F. Conrad. No. 1,141,380; June 1; Gaz. vol. 215; p. 106.
Measuring instrument, Minute-. F. Begusch. No. 1,143,165; June 15; Gaz. vol. 215; p. 805.
Measuring-stick. M. I. Zofness. No. 1,143,478; June 15; Gaz. vol. 215; p. 915.
Measuring temperature and resistivity, Method of and means for. E. F. Northrup. No. 1,144,776; June 29; Gaz. vol. 215; p. 1417.
Mechanical juncture, Making a homogeneous. A. B. Herrick. No. 1,142,428; June 8; Gaz. vol. 215; p. 510.
Mechanical movement. T. A. C. Both. No. 1,143,606; June 22; Gaz. vol. 215; p. 983.
Mechanical movement. B. Granville. No. 1,141,626; June 1; Gaz. vol. 215; p. 191.
Medical treatment, Apparatus for administering. F. A. Hawley. No. 1,142,422; June 8; Gaz. vol. 215; p. 508.
Menu-card holder. J. J. Corcoran. No. 1,144,173; June 22; Gaz. vol. 215; p. 1182.
Merry-go-round. F. Boecker. No. 1,143,352; June 15; Gaz. vol. 215; p. 872.
Metal-armor circuit-connecting attachment. J. C. Stearns. No. 1,144,948; June 29; Gaz. vol. 215; p. 1474.
Metal-coating. J. C. Beneker. No. 1,144,523; June 29; Gaz. vol. 215; p. 1329.
Metal-drawing machine. L. H. Brinkman. No. 1,143,101; June 15; Gaz. vol. 215; p. 783.
Metal joints, Finishing. J. L. Isaacs. No. 1,142,711; June 8; Gaz. vol. 215; p. 605.
Metal post. G. Hutchinson. No. 1,144,476; June 29; Gaz. vol. 215; p. 1314.
Metal-sawing machine. E. O. Rothman. No. 1,144,867; June 29; Gaz. vol. 215; p. 1448.
Metal-shearing machine. C. D. McDonald. No. 1,141,644; June 1; Gaz. vol. 215; p. 198.
Metals by fusion, Apparatus for severing. C. T. Lack. No. 1,141,560; June 1; Gaz. vol. 215; p. 169.
Metals, Cutting. R. J. J. Mueller. No. 1,142,355; June 8; Gaz. vol. 215; p. 482.
Metallic framework construction. C. Lacoste. No. 1,141,967; June 8; Gaz. vol. 215; p. 344.
Metallic plates, Apparatus for hardening very thin. G. Thuillier. No. 1,141,155; June 1; Gaz. vol. 215; p. 22.
Metallic tie. E. Lowrey. No. 1,144,908; June 29; Gaz. vol. 215; p. 1461.
Metallic tie and rail-fastening therefor. F. A. Lester. No. 1,143,841; June 22; Gaz. vol. 215; p. 1063.
Meter: *See*—
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Meter control, Automatic. D. R. Yarnall. No. 1,143,344; June 15; Gaz. vol. 215; p. 868.
Micrometer pump-valve gage. N. G. Pritchard. No. 1,144,061; June 22; Gaz. vol. 215; p. 1140.
Microphone and like instrument. E. Belin. No. 1,143,487; June 15; Gaz. vol. 215; p. 918.
Microscope-stages, Incubator for. T. Lidberg. No. 1,144,942; June 29; Gaz. vol. 215; p. 1472.
Microscope warm stage. T. Lidberg. No. 1,144,941; June 29; Gaz. vol. 215; p. 1472.
Milk-heater. J. G. Roy. No. 1,144,868; June 29; Gaz. vol. 215; p. 1448.
Milk, Pasteurizing. J. F. Lester. No. 1,141,566; June 1; Gaz. vol. 215; p. 171.
Milk product, Making a whole-. B. E. Dunn. No. 1,143,516; June 15; Gaz. vol. 215; p. 926.
Milk-safe. C. Kaiser. No. 1,141,551; June 1; Gaz. vol. 215; p. 165.
Milking-machine. E. Cameron. No. 1,142,488; June 8; Gaz vol. 215; p. 531.
Milking-machine. J. I. Friedrich. No. 1,141,536; June 1; Gaz. vol. 215; p. 160.
Milking-machine. B. P. and F. I. Remy. No. 1,142,626; June 8; Gaz. vol. 215; p. 577.
Milking machine, Cow-. A. V. Rackstraw. No. 1,144,380; June 29; Gaz. vol. 215; p. 1281.
Mill: *See*—
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Angle-mill. Stamp-mill.
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Milling-cutter. H. E. Eberhardt. No. 1,141,700; June 1; Gaz. vol. 215; p. 217.
Milling-machine. J. R. Johnson. No. 1,143,584; June 15; Gaz. vol. 215; p. 951.
Milling-machine. C. Wiemer. No. 1,144,015; June 22; Gaz. vol. 215; p. 1124.
Milling-machine spindle-head. J. R. Johnson. No. 1,143,585; June 15; Gaz. vol. 215; p. 951.
Milling-machine spindle-saddle. E. Feldmann. No. 1,143,373; June 15; Gaz. vol. 215; p. 879.
Millstone-dress. W. Van Nostrand. No. 1,142,209; June 8; Gaz. vol 215; p. 431.
Mining-machine. J. F. Flexner and E. O'Toole. No. 1,143,897; June 22; Gaz. vol. 215; p. 1082.
Mining-machine, L. F. Hess. No. 1,143,599; June 15; Gaz. vol. 215; p. 957.
Mining-machine. F. L. Sessions. No. 1,143,144; June 15; Gaz. vol. 215; p. 797.
Mining machine and truck. E. R. Merrill. No. 1,142,348; June 8; Gaz. vol. 215; p. 480.
Mitt, Polishing-. J. E. Reddick. No. 1,141,580; June 1; Gaz. vol. 215; p. 176.
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Mixing-machine. E. A. Labière. No. 1,142,331; June 8; Gaz. vol. 215; p. 474.
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Molding clay or similar material. D. W. McNeil. No. 1,142,342; June 8; Gaz. vol. 215; p. 478.
Molding clay or similar material, Apparatus for. D. W. McNeil. No. 1,142,341; June 8; Gaz. vol. 215; p. 478.
Molding-machine. O. Eisele. No. 1,144,180; June 22; Gaz. vol. 215; p. 1184.
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Molding, Metallic. G. A. Johnson. No. 1,141,188; June 1; Gaz. vol. 215; p. 35.
Money-changing machine. C. T. Dodson. No. 1,144,698; June 29; Gaz. vol. 215; p. 1389.
Mono-ammonium phosphate, Making. F. S. Washburn. No. 1,142,068; June 8; Gaz. vol. 215; p. 382.
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Mop and wringer, Combined. R. A. Rodgers. No. 1,142,628; June 8; Gaz. vol. 215; p. 578.
Mop, Dust-. G. A. Fry. No. 1,143,528; June 15; Gaz. vol. 215; p. 930.
Motion-converting device. F. L. Temple. No. 1,142,641; June 8; Gaz. vol. 215; p. 582.

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Motor brake, Spring-. G. L. Bonham. No. 1,143,030; June 15; Gaz. vol. 215; p. 757.
Motor control system, Electric-. A. J. Hall. No. 1,143,955; June 22; Gaz. vol. 215; p. 1103.
Motor control system, Electric-. A. J. Hall and L. G. Riley. No. 1,143,956; June 22; Gaz. vol. 215; p. 1103.
Motor-controller. C. T. Henderson. No. 1,143,194; June 15; Gaz. vol. 215; p. 816.
Motor-controller. G. R. Radley. No. 1,144,431; June 29; Gaz. vol. 215; p. 1299.
Motor-controller. L. L. Tatum. No. 1,141,154; June 1; Gaz. vol. 215; p. 22.
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Mouthpiece-connector, Medicated. C. M. Andres. No. 1,143,097; June 15; Gaz. vol. 215; p. 782.
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Nasal device. F. W. Schoonmaker, Jr. No. 1,143,731; June 22; Gaz. vol. 215; p. 1025.
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Necktie. J. A. Soderstrom. No. 1,143,086; June 15; Gaz. vol. 215; p. 778.
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Necktie holder and stretcher, Combined. M. M. May. No. 1,142,722; June 8; Gaz. vol. 215; p. 608.
Needle-threader. J. Schneider. No. 1,144,504; June 29; Gaz. vol. 215; p. 1323.
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Nest, Hen's. D. S. Welchman. No. 1,141,438; June 1; Gaz. vol. 215; p. 126.
Net for collecting specimens. M. H. Mead. No. 1,143,721; June 22; Gaz. vol. 215; p. 1022.
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Net, Trap-. R. M. Franklin. No. 1,143,758; June 22; Gaz. vol. 215; p. 1034.
Network with square meshes, Machine for making. L. L. de Séréville. No. 1,144,733; June 29; Gaz. vol. 215; p. 1402.
Nickel hydroxid, Preparing. J. C. Woodruff. No. 1,143,343; June 15; Gaz. vol. 215; p. 868.
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Nitrogen, Fixing atmospheric. S. Peacock. No. 1,143,132; June 15; Gaz. vol. 215; p. 793.
Nose-former. M. Ulrich. No. 1,141,592; June 1; Gaz. vol. 215; p. 180.
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Numbering-machine. M. H. Kern. No. 1,144,138; June 22; Gaz. vol. 215; p. 1169.
Nut and bolt locking and releasing device. O. A. Mentzer. No. 1,143,127; June 15; Gaz. vol. 215; p. 791.
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Nut-lock. J. M. Davis. No. 1,143,254; June 15; Gaz. vol. 215; p. 838.
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Nut-lock. C. W. Fox and J. L. Cypher. No. 1,144,833; June 29; Gaz. vol. 215; p. 1436.
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Nut-lock. R. C. Showalter. No. 1,143,450; June 15; Gaz. vol. 215; p. 906.
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Nut-lock and washer, Combination. W. C. Buck. No. 1,142,018; June 8; Gaz. vol. 215; p. 365.
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Oil, Apparatus for dehydrating petroleum-. R. E. Laird and J. H. Raney. No. 1,142,761; June 8; Gaz. vol. 215; p. 622.
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Oil-burner. W. Melas. No. 1,144,719; June 29; Gaz. vol. 215; p. 1397.
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Oil burner, Crude-. E. D. Varnum. No. 1,143,923; June 22; Gaz. vol. 215; p. 1090.
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Oil-fuel burner. C. G. M. Bennett and S. H. Smith. No. 1,144,021; June 22; Gaz. vol. 215; p. 1126.
Oil preheater, Crude-. P. Porges. No. 1,144,780; June 29; Gaz. vol. 215; p. 1418.
Oil-purifying apparatus. A. H. Franke. No. 1,142,512; June 8; Gaz. vol. 215; p. 540.
Oil-refining apparatus. W. C. McElheny. No. 1,142,826; June 15; Gaz. vol. 215; p. 685.
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Oiler for condensers, Apron-. H. L. Crocker. No. 1,142,936; June 15; Gaz. vol. 215; p. 725.
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Oilers, Dust-proof guard for automatic axle-. J. J. McGuire. No. 1,142,260; June 8; Gaz. vol. 215; p. 450.
Open-hearth furnace. J. C. Davis. No. 1,143,690; June 22; Gaz. vol. 215; p. 1012.
Ophthalmometer and ceratometer. J. H. Sutcliffe. No. 1,142,778; June 8; Gaz. vol. 215; p. 629.
Optical system. M. von Rohr. No. 1,143,667; June 22; Gaz. vol. 215; p. 1004.
Orchard-heater. J. L. Hamilton. No. 1,143,582; June 15; Gaz. vol. 215; p. 950.
Ordnance, Recoil-checking mechanism for. F. B. Yingling. (Reissue.) No. 13,938; June 22; Gaz. vol. 215; p. 1248.
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Ore concentration. J. W. Littleford. No. 1,142,822; June 15; Gaz. vol. 215; p. 684.
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Ore roasting or drying furnace. H. M. Ridge. No. 1,143,438; June 15; Gaz. vol. 215; p. 903.
Ore-separator, Magnetic. S. R. Salwén. No. 1,141,833; June 1; Gaz. vol. 215; p. 260.
Ore-treating apparatus. R. Colvin. No. 1,142,497; June 8; Gaz. vol. 215; p. 535.
Ores and intermediate products, Treating radio-active. E. Ebler. No. 1,142,154; June 8; Gaz. vol. 215; p. 412.
Ores and the like, Recovery of metals from. C. S. Vadner. No. 1,144,402; June 29; Gaz. vol. 215; p. 1289.
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Ores, Treating mixed sulfid. E. Langguth. No. 1,144,481; June 29; Gaz. vol. 215; p. 1315.
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Ornamentation. J. S. Correa. No. 1,141,317; June 1; Gaz. vol. 215; p. 82.
Orthodontia appliance. E. H. Angle. No. 1,142,790; June 15; Gaz. vol. 215; p. 673.
Orthodontia appliance. W. E. Walker. No. 1,142,467; June 8; Gaz. vol. 215; p. 524.
Osteopathic operating-table. J. W. Macklin. No. 1,143,981; June 22; Gaz. vol. 215; p. 1111.
Outlet-box. M. Robinson. No. 1,143,322; June 15; Gaz. vol. 215; p. 861.
Outlet-box for protective casings for line conductors. T. E. Murray. No. 1,142,835; June 15; Gaz. 215; p. 688.
Oven. J. A. Fairchild. No. 1,143,372; June 15; Gaz. vol. 215; p. 879.
Oven. R. E. Valentine. No. 1,143,151; June 15; Gaz. vol. 215; p. 800.
Oven, Baker's. G. S. Baker. No. 1,141,599; June 1; Gaz. vol. 215; p. 183.
Oven, Baker's. G. S. Baker. No. 1,141,601; June 1; Gaz. vol. 215; p. 184.
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Oven, Electrically-heated. R. W. Davenport. No. 1,142,939; June 15; Gaz. vol. 215; p. 726.
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Overalls, Bib for. W. J. Matthews. No. 1,144,369; June 29; Gaz. vol. 215; p. 1278.
Overhead line construction. N. W. Storer. No. 1,144,620; June 29; Gaz. vol. 215; p. 1362.
Overshoe, Flexible dress-. C. L. K. Ferguson. (Reissue.) No. 13,928; June 15; Gaz. vol. 215; p. 959.
Package, Knockdown. G. S. Bowman. No. 1,144,633; June 29; Gaz. vol. 215; p. 1366.
Package-tie. E. F. King. No. 1,144,211; June 22; Gaz. vol. 215; p. 1195.
Packet-making machines, Feeding device for. W. E. Molins. No. 1,144,772; June 29; Gaz. vol. 215; p. 1415.
Packing, Asbestos. A. Warrell. No. 1,143,153; June 15; Gaz. vol. 215; p. 800.
Packing-ring, Piston. W. Lovatt. No. 1,144,486; June 29; Gaz. vol. 215; p. 1317.
Packing, Rod-. G. L. Phillips. No. 1,142,980; June 15; Gaz. vol. 215; p. 740.
Pad: *See*—
Electric heating-pad. Truss-pad.
Table-pad.
Pad-holder. W. A. Reed. No. 1,143,725; June 22; Gaz. vol. 215; p. 1023.
Padlock. F. Soley. No. 1,142,638; June 8; Gaz. vol. 215; p. 581.
Padlock, Permutation-. U. Reidt. No. 1,141,827; June 1; Gaz. vol. 215; p. 259.
Pall-support. J. A. Sherwood. No. 1,144,072; June 22; Gaz. vol. 215; p. 1144.
Paint and making the same. H. Jamson. No. 1,144,599; June 29; Gaz. vol. 215; p. 1355.
Paint and varnish remover. C. Ellis. No. 1,143,110; June 15; Gaz. vol. 215; p. 786.
Paint and varnish remover. C. Ellis. No. 1,143,111; June 15; Gaz. vol. 215; p. 786.
Paint and varnish remover. A. E. Nienstadt. No. 1,143,130; June 15; Gaz. vol. 215; p. 792.
Paint-remover. W. Alexander. No. 1,143,878; June 22; Gaz. vol. 215; p. 1076.
Paint-remover composition. W. Alexander. No. 1,143,877; June 22; Gaz. vol. 215; p. 1076.
Painter's platform. W. C. Gaw. No. 1,142,955; June 15; Gaz. vol. 215; p. 731.
Painting tin and other metals, Machine for. W. E. Philipp. No. 1,141,209; June 1; Gaz. vol. 215; p. 42.
Pamphlet-covering machine. A. Dworak. No. 1,141,785; June 1; Gaz. vol. 215; p. 245.
Panic-bolt. A. A. Page. No. 1,143,776; June 22; Gaz. vol. 215; p. 1040.
Panic-bolt construction. H. F. Hill. No. 1,141,338; June 1; Gaz. vol. 215; p. 89.
Paper articles, Interleaved. C. L. Johnston and H. P. Lown. No. 1,141,395; June 1; Gaz. vol. 215; p. 111.
Paper-bag-making apparatus. T. M. Avery. No. 1,144,630; June 29; Gaz. vol. 215; p. 1365.
Paper-board, Apparatus for manufacturing corrugated. W. F. Harbrecht. No. 1,144,413; June 29; Gaz. vol. 215; p. 1292.
Paper-board, Machine for making corrugated. J. T. Ferres. No. 1,142,400; June 8; Gaz. vol. 215; p. 503.
Paper-board-making machine. E. O. Babcock. No. 1,143,931; June 22; Gaz. vol. 215; p. 1094.
Paper box. J. L. Jones. No. 1,141,343; June 1; Gaz. vol. 215; p. 91.
Paper-box handle. C. J. Freese. No. 1,141,789; June 1; Gaz. vol. 215; p. 247.
Paper-coating composition and making the same. A. A. Dunham. No. 1,141,951; June 8; Gaz. vol. 215; p. 339.
Paper, Crimped. J. D. Tompkins and F. H. Fuller. No. 1,143,333; June 15; Gaz. vol. 215; p. 864.
Paper-cutting machine. J. H. Stonemetz. No. 1,143,237; June 15; Gaz. vol. 215; p. 832.
Paper-drying apparatus, Coated-. A. T. Fosbraey. No. 1,144,856; June 29; Gaz. vol. 215; p. 1458.
Paper-feeding mechanisms, Registering device for. J. G. Hardie. No. 1,144,937; June 29; Gaz. vol. 215; p. 1471.
Paper-feeding, Multiple-sheet detector for. V. Garner. No. 1,142,247; June 8; Gaz. vol. 215; p. 445.
Paper for toilet or towel purposes, Dispensing means for. E. A. Hamilton and F. W. Calvert. No. 1,141,541; June 1; Gaz. vol. 215; p. 162.
Paper, Machine for cutting piles of. O. Johne. No. 1,143,765; June 22; Gaz. vol. 215; p. 1037.
Paper, Machine for facilitating the trimming of wall-. C. Green, Jr. No. 1,143,187; June 15; Gaz. vol. 215; p. 814.
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Paper-making machines, Automatic stuff-box for. W. P. Feeney. No. 1,143,523; June 15; Gaz. vol. 215; p. 929.
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Paper-roll-making apparatus. F. Love. No. 1,143,214; June 15; Gaz. vol. 215; p. 824.
Paper-stock feeding and weighing machine. S. J. Davis. No. 1,141,233; June 1; Gaz. vol. 215; p. 50.
Paper-stripping device, Wall-. L. F. Griswold. No. 1,142,811; June 15; Gaz. vol. 215; p. 680.
Paper towel. A. H. Scott. No. 1,141,495; June 1; Gaz. vol. 215; p. 146.
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Partition, Foldable. C. W. Ellwood. No. 1,141,110; June 1; Gaz. vol. 215; p. 7.
Passenger-exit register. C. C. Frum. No. 1,143,598; June 15; Gaz. vol. 215; p. 957.
Paste-container. C. H. Wardwell and R. D. Morrison. No. 1,142,130; June 8; Gaz. vol. 215; p. 405.
Pasting-machine. H. J. McMackin. No. 1,144,717; June 29; Gaz. vol. 215; p. 1396.
Pasteurizing substances, Apparatus for. B. D. White. No. 1,144,883; June 29; Gaz. vol. 215; p. 1454.
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Pen-holding device. B. F. Stogsdill. No. 1,141,851; June 1; Gaz. vol. 215; p. 266.
Pencil. R. H. Schleicher. No. 1,144,069; June 22; Gaz. vol. 215; p. 1143.
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Percolator, Coffee-. L. Barabás and J. Hada. No. 1,143,022; June 15; Gaz. vol. 215; p. 755.
Percussion-tables, Actuating device for. A. C. Campbell, No. 1,141,767; June 1; Gaz. vol. 215; p. 239.
Permutation-lock. J. Hoschek. No. 1,143,398; June 15; Gaz. vol. 215; p. 889.
Phonograph. C. H. Roop. No. 1,143,784; June 22; Gaz. vol. 215; p. 1043.
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Picture films, Method of and apparatus for making motion-. F. M. Faber. No. 1,143,522; June 15; Gaz. vol. 215; p. 928.
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Pipe-molding machine. C. Westergard. No. 1,143,094; June 15; Gaz. vol. 215; p. 781.
Pipe-skelp-scraping apparatus. C. Fell. No. 1,142,950; June 15; Gaz. vol. 215; p. 730.
Pipe-threading machine. W. Offerman. No. 1,144,333; June 22; Gaz. vol. 215; p. 1237.
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Polishing-head. L. Crane. No. 1,141,616; June 1; Gaz. vol. 215; p. 188.
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Power-transmission device. C. W. Weiss. No. 1,141,508; June 1; Gaz. vol. 215; p. 151.
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Power-transmission mechanism. E. A. Johnston. No. 1,144,547; June 29; Gaz. vol. 215; p. 1337.
Power-transmission mechanism. D. R. Scholes. No. 1,143,324; June 15; Gaz. vol. 215; p. 862.
Power-transmission mechanism. J. G. P. Thomas. No. 1,144,011; June 22; Gaz. vol. 215; p. 1122.
Press: *See*—
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Hay-press.
Press. A. S. Morris. No. 1,143,849; June 22; Gaz. vol. 215; p. 1066.
Pressing device. C. O. Barnes. No. 1,141,680; June 1; Gaz. vol. 215; p. 211.
Pressure-gage. J. A. Wesener. No. 1,143,338; June 15; Gaz. vol. 215; p. 866.
Pressure-motor. H. C. Brehmer. No. 1,144,322; June 22; Gaz. vol. 215; p. 1233.
Pressure-motor. F. W. Meyer and A. Stieb. No. 1,144,609; June 29; Gaz. vol. 215; p. 1358.
Pretzel-making machine. G. H. Schnetzel. No. 1,142,533; June 8; Gaz. vol. 215; p. 546.
Printed and embossed sheets, Producing. G. W. King. No. 1,143,767; June 22; Gaz. vol. 215; p. 1038.
Printed matter, Apparatus for producing raised. S. Lipsius. No. 1,144,303; June 22; Gaz. vol. 215; p. 1221.
Printer's chase. P. S. Bolles. No. 1,144,458; June 29; Gaz. vol. 215; p. 1308.
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Printer's make-up device. F. W. Lake. No. 1,142,105; June 8; Gaz. vol. 215; p. 396.
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Printing and cutting machine. H. H. E. R. Tiedemann. No. 1,144,924; June 29; Gaz. vol. 215; p. 1466.
Printing device for cash-registers or cash-delivery apparatus. F. Correll. No. 1,141,693; June 1; Gaz. vol. 215; p. 215.
Printing-frame. W. Westman. No. 1,144,014; June 22; Gaz. vol. 215; p. 1123.
Printing-machine. F. Meisel. No. 1,144,944; June 29; Gaz. vol. 215; p. 1473.
Printing-machine. C. H. Sampson. No. 1,141,270; June 1; Gaz. vol. 215; p. 64.
Printing-press. K. F. Kirkman. No. 1,141,191; June 1; Gaz. vol. 215; p. 35.
Printing-press controller. C. E. Carpenter. No. 1,143,686; June 22; Gaz. vol. 215; p. 1011.
Printing-press feed mechanism. C. M. Knoppler. No. 1,142,786; June 8; Gaz. vol. 215; p. 633.
Printing-press ink-fountain. H. F. Bechman. No. 1,142,659; June 8; Gaz. vol. 215; p. 588.
Printing-press ink-mixing mechanism. C. H. Buettner. No. 1,142,019; June 8; Gaz. vol. 215; p. 365.
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Printing-presses and the like, Feeding attachment for. R. E. Jones. No. 1,143,630; June 22; Gaz. vol. 215; p. 991.
Printing-presses, Application of power to reciprocating-bed. R. Miehle. No. 1,143,425; June 15; Gaz. vol. 215; p. 898.
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Prism system, Separating-. O. Eppenstein. No. 1,142,755; June 8; Gaz. vol. 215; p. 620.
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Proof-testing machine. T. Olsen. No. 1,141,822; June 1; Gaz. vol. 215; p. 257.
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Propeller. J. L. Scott. No. 1,142,916; June 15; Gaz. vol. 215; p. 717.
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Protective device. E. R. Carichoff. No. 1,142,552; June 8; Gaz. vol. 215; p. 552.

Protective device. E. E. F. Creighton. No. 1,144,028; June 22; Gaz. vol. 215; p. 1130.
Protective device. E. E. F. Creighton. No. 1,144,029; June 22; Gaz. vol. 215; p. 1130.
Protractor and depth-gage for die-makers, Bevel-. E. H. Hantz. No. 1,141,391; June 1; Gaz. vol. 215; p. 109.
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Pulley-block. R. Brown. No. 1,142,485; June 8; Gaz. vol. 215; p. 529.
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Pulley-housing, Securing means for a removable. E. Anderson. No. 1,142,870; June 15; Gaz. vol. 215; p. 701.
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Pump, condenser, or compressor, Rotary. E. S. G. Rees. No. 1,144,865; June 29; Gaz. vol. 215; p. 1447.
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Pump governors, Blow-out device for electric-. W. V. Turner. No. 1,141,158; June 1; Gaz. vol. 215; p. 24.
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Pump, Percolator-. J. B. Griffin. No. 1,142,322; June 8; Gaz. vol. 215; p. 470.
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Railway-switch. C. F. Rebtoy. No. 1,144,247; June 22; Gaz. vol. 215; p. 1207.
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Resinous composition and making the same. E. S. Dawson, Jr. No. 1,141,944; June 8; Gaz. vol. 215; p. 338.
Resinous woods to remove the soluble constituents therefrom, Treating. I. S. Clope. No. 1,144,171; June 22; Gaz. vol. 215; p. 1181.
Resinous woods, Treating. M. C. Whitaker and J. S. Bates. No. 1,142,922; June 15; Gaz. vol. 215; p. 719.
Resistance unit, Variable-. S. W. Law. No. 1,142,586; June 8; Gaz. vol. 215; p. 564.
Respirator. F. Stern. No. 1,142,990; June 15; Gaz. vol. 215; p. 744.
Retort-door-securing mechanism. F. L. Miller. No. 1,144,152; June 22; Gaz. vol. 215; p. 1052.
Retort-door-securing mechanism. F. L. Miller. No. 1,144,152; June 22; Gaz. vol. 215; p. 1174.
Retorts, Mechanism for removing residues from vertical. A. Roitzheim and W. Remy. No. 1,144,065; June 22; Gaz. vol. 215; p. 1141.
Revetment. J. McGillivray. No. 1,144,143; June 22; Gaz. vol. 215; p. 1171.
Revetment. J. McGillivray. No. 1,144,144; June 22; Gaz. vol. 215; p. 1171.
Rheostat, Compression-. E. L. Clark. No. 1,143,810; June 22; Gaz. vol. 215; p. 1052.
Rifle-sight. W. B. Burton. No. 1,142,665; June 8; Gaz. vol. 215; p. 589.
Rifle, Tubular-magazine. C. A. Nelson. No. 1,141,256; June 1; Gaz. vol. 215; p. 58.
Rim, Demountable. J. Stehr. No. 1,144,260; June 22; Gaz. vol. 215; p. 1212.
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Road-machine. J. M. Bresee. No. 1,143,032; June 15; Gaz. vol. 215; p. 758.
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Robe-support. C. J. Moore. No. 1,143,772; June 22; Gaz. vol. 215; p. 1039.
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Rods, Cleaning. S. M. Cutter. No. 1,142,499; June 8; Gaz. vol. 215; p. 535.
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Rolling-chair. C. N. Hazelton. No. 1,142,168; June 8; Gaz. vol. 215; p. 417.
Rolling-machine. O. Dellwitz. No. 1,141,447; June 1; Gaz. vol. 215; p. 129.

Roof, Loose-roll tile. S. B. Myers and H. L. Rogers. No. 1,144,332; June 22; Gaz. vol. 215; p. 1237.
Roofer's spreading-tool for forming cement joints. B. G. Casler. No. 1,141,103; June 1; Gaz. vol. 215; p. 5.
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Saw-holding device. M. Clarke. No. 1,143,749; June 22; Gaz. vol. 215; p. 1031.
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Sawmill-carriages, Track-cleaner for. G. M. Reddy. No. 1,144,916; June 29; Gaz. vol. 215; p. 1463.
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Scaffold-support. A. Klumpp. No. 1,141,554; June 1; Gaz. vol. 215; p. 167.
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Sectional kiln. G. R. Mumma. No. 1,143,549; June 15; Gaz. vol. 215; p. 938.

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Seed, Treating cotton-. A. B. Carr. No. 1,141,104; June 1; Gaz. vol. 215; p. 5.
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Shock-absorber. J. G. Rock. No. 1,143,069; June 15; Gaz. vol. 215; p. 772.
Shock-absorber. J. G. Rock. No. 1,143,070; June 15; Gaz vol. 215; p. 772.
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Shock-absorber and safety attachment for percussion-operated tools. G. Cook. No. 1,142,238; June 8; Gaz. vol. 215; p. 442.
Shock-absorber and supplementary spring. J. A. Mauck. No. 1,142,599; June 8; Gaz. vol. 215; p. 569.
Shock-absorber for vehicle-tongues, Adjustable. F. W. Rieke. No. 1,143,783; June 22; Gaz. vol. 215; p. 1043.
Shoe. M. Brock. No. 1,141,914; June 1; Gaz. vol. 215; p. 291.
Shoe. M. Lanzaro. No. 1,144,768; June 29; Gaz. vol. 215; p. 1414.
Shoe. K. J. Percy. No. 1,141,911; June 1; Gaz. vol. 215; p. 290.
Shoe, Arch-supporting. J. F. Teehan. No. 1,144,740; June 29; Gaz. vol. 215; p. 1405.
Shoe-clasp. M. Kozlowski. No. 1,143,837; June 22; Gaz. vol. 215; p. 1062.
Shoe-counter, Metallic. B. F. McCoy. No. 1,143,294; June 15; Gaz. vol. 215; p. 851.
Shoe-elongator. M. Goldstone. No. 1,141,792; June 1; Gaz. vol. 215; p. 248.
Shoe-fastening device. T. F. Horrigan. No. 1,142,812; June 15; Gaz. vol. 215; p. 681.
Shoe-polishing device. F. De Barbadillo. No. 1,142,679; June 8; Gaz. vol. 215; p. 595.
Shoe-shining kit. F. J. Stolle. No. 1,144,568; June 29; Gaz. vol. 215; p. 1344.
Shoe-shining machine. S. F. Woodsmall. No. 1,142,924; June 15; Gaz. vol. 215; p. 720.
Shoe-tree. W. F. McClellan. No. 1,142,595; June 8; Gaz. vol. 215; p. 567.
Shoe-uppers, Making. K. Engel. No. 1,142,155; June 8; Gaz. vol. 215; p. 412.
Shoes, Instep and ankle support for. S. E. Johnston. No. 1,142,713; June 8; Gaz. vol. 215; p. 606.
Shoes, Making. K. Engel. No. 1,142,556; June 8; Gaz. vol. 215; p. 554.

Shoes, Making. E. L. Keyes. No. 1,143,972; June 22; Gaz. vol. 215; p. 1108.
Shoes, Making turn-. P. J. Wentworth. No. 1,142,741; June 8; Gaz. vol. 215; p. 613.
Shoes, Manufacture of. W. Menge, Jr. No. 1,142,265; June 8; Gaz. vol. 215; p. 451.
Shoes, Manufacture of welt-. H. J. Percy. No. 1,141,912; June 1; Gaz. vol. 215; p. 290.
Shoemaking. A. B. Wales. No. 1,143,740; June 22; Gaz. vol. 215; p. 1028.
Shoemaking-machine. E. Erickson. No. 1,141,324; June 1; Gaz. vol. 215; p. 85.
Shoemaking-machine. E. W. Varney. No. 1,141,289; June 1; Gaz. vol. 215; p. 71.
Shovel and brush, Combined. C. Crisman. No. 1,143,752; June 22; Gaz. vol. 215; p. 1032.
Show-case bracket. E. F. Bergreen. No. 1,144,930; June 29; Gaz. vol. 215; p. 1468.
Show-case construction. M. A. Skall. No. 1,141,275; June 1; Gaz. vol. 215; p. 66.
Shuttle. G. A. Donaldson. No. 1,144,178; June 22; Gaz. vol. 215; p. 1183.
Shuttle-motion, Positive high-speed. C. R. Snatweber. No. 1,142,059; June 8; Gaz. vol. 215; p. 379.
Shuttle-positioning means. R. Crompton. No. 1,143,105; June 15; Gaz. vol. 215; p. 784.
Sickle-bar and pitman-rod connector. H. Urie. No. 1,141,731; June 1; Gaz. vol. 215; p. 228.
Side frame and journal-box. E. W. Palmquist. No. 1,143,723; June 22; Gaz. vol. 215; p. 1023.
Sieve, Brush-lined. A. L. Bausman. No. 1,141,863; June 1; Gaz. vol. 215; p. 270.
Sifter, Ash-. A. P. Andrews. No. 1,141,297; June 1; Gaz. vol. 215; p. 75.
Sifter, Ash-. W. H. De Laney. No. 1,141,949; June 8; Gaz. vol. 215; p. 339.
Sifter, Ash-. C. Kaiser. No. 1,141,550; June 1; Gaz. vol. 215; p. 165.
Sifting-machine. L. E. Simpson. No. 1,141,660; June 1; Gaz. vol. 215; p. 204.
Sighting instrument for aerial use. O. Mackensen. No. 1,143,719; June 22; Gaz. vol. 215; p. 1022.
Sign. J. O. Belknap. No. 1,141,685; June 1; Gaz. vol. 215; p. 213.
Sign. C. F. Broadbent. No. 1,143,168; June 15; Gaz. vol. 215; p. 806.
Sign and lighting post, Adjustable. G. Auer. No. 1,144,629; June 29; Gaz. vol. 215; p. 1365.
Sign, Changeable. G. Star. No. 1,142,777; June 8; Gaz. vol. 215; p. 629.
Sign, Electric talking-. L. H. Jones. No. 1,143,201; June 15; Gaz. vol. 215; p. 819.
Sign for store-windows, Display-. O. James. No. 1,141,801; June 1; Gaz. vol. 215; p. 251.
Sign, Illuminated. A. F. Conner and G. L. Willett. No. 1,141,691; June 1; Gaz. vol. 215; p. 215.
Signs, Transmitter for systems of electrically recording. P. Etienne. No. 1,142,684; June 8; Gaz. vol. 215; p. 596.
Signal: *See*—
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Signal device. M. F. Sitta. No. 1,142,062; June 8; Gaz. vol. 215; p. 380.
Signal device, Automatic stop or cab. E. M. Jones. No. 1,142,886; June 15; Gaz. vol. 215; p. 707.
Signal device, Code-. A. L. Sohm. No. 1,144,870; June 29; Gaz. vol. 215; p. 1449.
Signals from bridge to engine-room, Mechanism for insuring understanding of. W. Michael. No. 1,144,491; June 29; Gaz. vol. 215; p. 1319.
Signaling apparatus, Electrical. D. E. Beatley and P. M. Feltwell. No. 1,143,024; June 15; Gaz. vol. 215; p. 755.
Signaling-circuit. W. M. Perry and A. E. Boozer. No. 1,143,312; June 15; Gaz. vol. 215; p. 857.
Signaling device, Electrical. W. W. Dean. No. 1,141,945; June 8; Gaz. vol. 215; p. 338.
Signaling system. W. M. Perry. No. 1,143,313; June 15; Gaz. vol. 215; p. 858.
Signaling system. A. and P. K. Stern. No. 1,144,873; June 29; Gaz. vol. 215; p. 1451.
Signature-handling mechanism. C. Gitzendanner. No. 1,142,417; June 8; Gaz. vol. 215; p. 506.
Silo. J. Bauerle. No. 1,143,164; June 15; Gaz. vol. 215; p. 804.
Silo. A. G. Hague. No. 1,143,954; June 22; Gaz. vol. 215; p. 1102.
Silo-door. C. C. Fouts. No. 1,141,703; June 1; Gaz. vol. 215; p. 218.
Siren. H. Hecht. No. 1,143,389; June 15; Gaz. vol. 215; p. 886.
Siren, Water-. H. Hecht. No. 1,143,703; June 22; Gaz. vol. 215; p. 1016.
Skate attachment. E. Fordice. No. 1,141,454; June 1; Gaz. vol. 215; p. 131.
Skate attachment. J. N. Hauch. No. 1,143,624; June 22; Gaz. vol. 215; p. 970.
Skate, Cycle-. J. D. Jones. No. 1,144,134; June 22; Gaz. vol. 215; p. 1167.
Skate, Demountable and adjustable. J. Soty. No. 1,142,855; June 15; Gaz. vol. 215; p. 695.
Skate, Ice-. N. G. Tuller and A. M. Rasmussen. No. 1,143,868; June 22; Gaz. vol. 215; p. 1072.
Skimmer, Milk-. D. E. Hubbell. No. 1,142,041; June 8; Gaz. vol. 215; p. 372.
Skirt-hanger. L. Lynch. No. 1,142,719; June 8; Gaz. vol. 215; p. 607.
Skiving-machine. M. Nally. No. 1,141,481; June 1; Gaz. vol. 215; p. 142.
Skiving-machine. J. H. Stewart. No. 1,142,281; June 8; Gaz. vol. 215; p. 457.
Slack-adjuster. H. Rose. No. 1,144,866; June 29; Gaz. vol. 215; p. 1448.
Slack-take-up mechanism. A. J. Kirstin. No. 1,143,713; June 22; Gaz. vol. 215; p. 1019.
Slat-holder. P. H. Stedman. No. 1,143,657; June 22; Gaz. vol. 215; p. 1001.
Sled-runners, Means for connecting the front ends of. O. Pearson. No. 1,144,563; June 29; Gaz. vol. 215; p. 1343.
Sleeve-holder. C. H. Dygert. No. 1,144,113; June 22; Gaz. vol. 215; p. 1160.
Sleeve-protector, Adjustable. S. Rosenbaum and B. Finkelstein. No. 1,141,656; June 1; Gaz. vol. 215; p. 203.
Sleigh, Coasting-. T. W. Conway. No. 1,142,799; June 15; Gaz. vol. 215; p. 676.
Slicer, Meat-. J. I. McCormick. No. 1,142,901; June 15; Gaz. vol. 215; p. 712.
Slicing-machine. H. Stukart. No. 1,144,507; June 29; Gaz. vol. 215; p. 1324.
Slipping, Device to prevent. A. Kaszubski. No. 1,142,967; June 15; Gaz. vol. 215; p. 735.
Small-arm, Hammerless automatic. W. J. Whiting. No. 1,143,472; June 15; Gaz. vol. 215; p. 913.
Small-arm, Magazine. W. J. Whiting. No. 1,143,471; June 15; Gaz. vol. 215; p. 913.
Smelting furnace, Zinc-. J. M. Hyde. No. 1,144,036; June 22; Gaz. vol. 215; p. 1132.
Smelting zinc and other ores. J. M. Hyde. No. 1,144,037; June 22; Gaz. vol. 215; p. 1133.
Smoking set. J. M. Zwickie. No. 1,143,159; June 15; Gaz. vol. 215; p. 802.
Smoking tube or implement. C. C. Dula. No. 1,144,825; June 29; Gaz. vol. 215; p. 1434.
Snow-drift-preventing device. B. F. Swezey. No. 1,144,393; June 29; Gaz. vol. 215; p. 1286.
Sock and stocking. J. M. Nightingale and E. S. Goy. No. 1,144,050; June 22; Gaz. vol. 215; p. 1137.
Sock, Foot-. D. Mitchell. No. 1,141,814; June 1; Gaz. vol. 215; p. 254.
Soda-ash process. J. H. Hirt. No. 1,141,639; June 1; Gaz. vol. 215; p. 196.
Solder-fusing machine. W. E. Taylor. No. 1,144,510; June 29; Gaz. vol. 215; p. 1325.
Soldering-iron, Electric. J. G. Clemens. No. 1,142,306; June 8; Gaz. vol. 215; p. 465.
Sole and heel for boots and shoes, Detachable. H. S. Smith. No. 1,141,844; June 1; Gaz. vol. 215; p. 264.
Sole-leveling machine. E. I. La Chapelle. No. 1,143,717; June 22; Gaz. vol. 215; p. 1021.
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Soles of boots and shoes, Work-support for. W. H. Hooper and T. H. Seely. No. 1,141,462; June 1; Gaz. vol. 215; p. 135.
Solenoid. R. C. De Costa. No. 1,142,027; June 8; Gaz. vol. 215; p. 368.
Sonorous body and making same. M. L. Severy. No. 1,144,435; June 29; Gaz. vol. 215; p. 1301.
Sound-box. J. Hoffay. No. 1,143,394; June 15; Gaz. vol. 215; p. 887.
Sound-box or the like. J. Hoffay. No. 1,144,202; June 22; Gaz. vol. 215; p. 1191.
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Sound-muffling apparatus. F. C. Mock. No. 1,144,306; June 22; Gaz. vol. 215; p. 1228.
Sound-preventing means. A. McKnight. No. 1,144,660; June 29; Gaz. vol. 215; p. 1375.
Sound-producer, Electromagnetic. L. Grubman. No. 1,143,189; June 15; Gaz. vol. 215; p. 814.
Sound-recording apparatus. T. A. Edison. No. 1,142,507; June 8; Gaz. vol. 215; p. 538.
Sound reproducing or recording machine. G. H. Underhill. No. 1,141,672; June 1; Gaz. vol. 215; p. 208.
Spark-plug. H. J. Berthold. No. 1,143,026; June 15; Gaz. vol. 215; p. 756.
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Spark-plug. A. Schmidt. No. 1,142,369; June 8; Gaz. vol. 215; p. 487.
Speed-controlling device. A. Walton. No. 1,144,012; June 22; Gaz. vol. 215; p. 1123.
Speed-governor. V. J. Diefenderfer. No. 1,142,803; June 15; Gaz. vol. 215; p. 678.
Speed-indicating and mileage-registering apparatus. M. Irion and A. E. Mueller. No. 1,141,963; June 8; Gaz. vol. 215; p. 343.
Speed-transmission mechanism, Variable-. J. R. McGiffert. No. 1,143,547; June 15; Gaz. vol. 215; p. 937.
Speedometer. W. G. Leathers. No. 1,143,978; June 22; Gaz. vol. 215; p. 1111.
Spike. A. J. Altheide. No. 1,144,279; June 22; Gaz. vol. 215; p. 1218.
Spike-holder. W. D. Kelly. No. 1,143,051; June 15; Gaz. vol. 215; p. 765.
Spindle. J. Thebault. No. 1,144,394; June 29; Gaz. vol. 215; p. 1286.

Spinning-frame doffing-machine. A. G. Boozer, Jr., and G. Hill. No. 1,142,011; June 8; Gaz. vol. 215; p. 362.
Spinning-frame doffing-machine. A. G. Boozer, Jr., and G. Hill. No. 1,142,012; June 8; Gaz. vol. 215; p. 362.
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Spinning-frames and the like, Roving-creel for. A. H. Morton. No. 1,144,720; June 29; Gaz. vol. 215; p. 1397.
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Spinning-mules, Means for cross-winding yarn in. H. S. Golland. No. 1,144,652; June 29; Gaz. vol. 215; p. 1373.
Spoke-sanding machine, Automatic. A. L. Butcher and H. Flick. No. 1,144,347; June 29; Gaz. vol. 215; p. 1270.
Sponge, Manufacturing artificial. G. Pum and A. Glaessner. No. 1,142,619; June 8; Gaz. vol. 215; p. 575.
Spool. J. W. Edson. No. 1,141,448; June 1; Gaz. vol. 215; p. 129.
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Spool or reel for ribbons, &c. E. Carraine. No. 1,143,505; June 15; Gaz. vol. 215; p. 923.
Spool, Sheet-metal. E. J. Hubbard. No. 1,143,541; June 15; Gaz. vol. 215; p. 936.
Spooling device. W. H. Carpenter. No. 1,141,771; June 1; Gaz. vol. 215; p. 240.
Spooling-machine. A. Belz. No. 1,141,604; June 1; Gaz. vol. 215; p. 185.
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Spraying attachment. S. K. Iverson. No. 1,144,204; June 22; Gaz. vol. 215; p. 1192.
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Stacker, Straw-. H. F. Schroder. No. 1,144,386; June 29; Gaz. vol. 215; p. 1283.
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Stocking. J. P. Nissen. No. 1,142,774; June 8; Gaz. vol. 215; p. 628.
Stockings from forms, Means for removing. H. Coulston and W. M. Schwartz. No. 1,131,778; June 1; Gaz. vol. 215; p. 243.

Stockings from stocking-boards, Removing. H. Coulston. No. 1,141,777; June 1; Gaz. vol. 215; p. 242.
Stoker, Automatic. D. T. Williams. No. 1,142,293; June 8; Gaz. vol. 215; p. 461.
Stone-crushing machine. T. G. Rennerfelt. No. 1,141,581; June 1; Gaz. vol. 215; p. 176.
Stone, Manufacturing artificial. W. Weller. No. 1,143,670; June 22; Gaz. vol. 215; p. 1005.
Stone-sawing machine. E. A. Chase. No. 1,141,231; June 1; Gaz. vol. 215; p. 50.
Stone-sawing machine. D. W. Parker. No. 1,143,856; June 22; Gaz. vol. 215; p. 1069.
Stoneworking-machine. H. H. Mercer. No. 1,142,975; June 15; Gaz. vol. 215; p. 738.
Stool, Piano-. B. O. Jones. No. 1,142,174; June 8; Gaz. vol. 215; p. 419.
Stop mechanism. J. A. Paige. No. 1,142,906; June 15; Gaz. vol. 215; p. 713.
Stopper: *See*—
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Store-service apparatus and the like. W. C. Wright. No. 1,142,474; June 8; Gaz. vol. 215; p. 526.
Store-service conveyer system. S. Olson. No. 1,142,453; June 8; Gaz. vol. 215; p. 519.
Store-service credit-system apparatus. C. F. Kettering. No. 1,142,102; June 8; Gaz. vol. 215; p. 395.
Stove. F. M. Gates. No. 1,143,581; June 15; Gaz. vol. 215; p. 950.
Stove. R. B. Sellars. No. 1,143,079; June 15; Gaz. vol. 215; p. 775.
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Stove and furnace, Heating. H. Frederickson. No. 1,144,117; June 22; Gaz. vol. 215; p. 1161.
Stove and range, Gas. E. Triest. No. 1,144,158; June 22; Gaz. vol. 215; p. 1176.
Stove attachment, Gas-. P. Moellendick. No. 1,142,603; June 8; Gaz. vol. 215; p. 570.
Stove burners, Automatic cut-off for gas-. L. E. Lemley and R. N. Leopard. No. 1,141,564; June 1; Gaz. vol. 215; p. 170.
Stove, Combined heating and cooking. D. Carjulo. No. 1,143,504; June 15; Gaz. vol. 215; p. 923.
Stove, Electric. R. F. Boettiger. No. 1,143,883; June 22; Gaz. vol. 215; p. 1078.
Stove, Electric. L. G. Copeman. No. 1,141,175; June 1; Gaz. vol. 215; p. 30.
Stove, Gas-. W. N. Best. No. 1,141,521; June 1; Gaz. vol. 215; p. 155.
Stove, Gas or vapor. W. H. Pearce. No. 1,144,722; June 29; Gaz. vol. 215; p. 1398.
Stove, Hot-blast. A. N. Diehl. No. 1,141,108; June 1; Gaz. vol. 215; p. 6.
Stove, Hot-blast. M. A. Neeland. No. 1,142,838; June 15; Gaz. vol. 215; p. 689.
Stove lighter, Gas-. F. G. Nicolaus. No. 1,143,060; June 15; Gaz. vol. 215; p. 768.
Stove, oven, range, and the like, Field. O. J. Charles. No. 1,141,934; June 8; Gaz. vol. 215; p. 334.
Stove safety device. W. F. Hajek. No. 1,141,335; June 1; Gaz. vol. 215; p. 88.
Stoves, Broiler and baking attachment for gas-. M. Aaron. No. 1,143,603; June 22; Gaz. vol. 215; p. 983.
Stovepipe-anchoring means. W. B. Tabor. No. 1,142,067; June 8; Gaz. vol. 215; p. 381.
Street-cleaner. W. R. Perry. No. 1,143,133; June 15; Gaz. vol. 215; p. 793.
Street-indicator. F. C. Luethy. No. 1,142,718; June 8; Gaz. vol. 215; p. 607.
Street-sweeper. A. Brown. No. 1,144,292; June 22; Gaz. vol. 215; p. 1223.
Street-sweeper. C. J. Gardner. No. 1,142,415; June 8; Gaz. vol. 215; p. 505.
Street-sweeper. T. R. Kerr. No. 1,143,052; June 15; Gaz. vol. 215; p. 765.
Street-sweeper. D. Sillo. No. 1,143,148; June 15; Gaz. vol. 215; p. 798.
Stretcher-support. J. T. Sheets. No. 1,142,276; June 8; Gaz. vol. 215; p. 455.
Stringer-support. C. E. Fuller. No. 1,144,031; June 22; Gaz. vol. 215; p. 1131.
Stropping-machine. G. Browning. No. 1,142,076; June 8; Gaz. vol. 215; p. 385.
Structure, Making a metallic. W. H. Sommer. No. 1,143,655; June 22; Gaz. vol. 215; p. 1000.
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Stuffing-box follower. W. H. O'Neil. No. 1,143,854; June 22; Gaz. vol. 215; p. 1068.
Stump-burning apparatus. S. F. Zysset. No. 1,141,747; June 1; Gaz. vol. 215; p. 233.
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Suit, Combination-. W. K. Jones. No. 1,142,580; June 8; Gaz. vol. 215; p. 562.
Sulfite waste liquor and product thereof, Treating. O. W. Knight. No. 1,143,714; June 22; Gaz. vol. 215; p. 1020.
Sunshade. E. M. Coyne. No. 1,143,891; June 22; Gaz. vol. 215; p. 1080.
Superheater. G. R. Henderson and W. I. Cantley. No. 1,142,254; June 8; Gaz. vol. 215; p. 447.
Superheater. W. A. Moffat. No. 1,144,911; June 29; Gaz. vol. 215; p. 1462.
Superheater. S. Tripp. No. 1,141,993; June 8; Gaz. vol. 215; p. 354.
Superheater and economizer for horizontal smoke-tube boilers. P. Bürger. No. 1,143,501; June 15; Gaz. vol. 215; p. 922.
Superheater for water-tube boilers. H. E. Yarrow. No. 1,143,476; June 15; Gaz. vol. 215; p. 915.
Support. C. C. Schnell. No. 1,142,205; June 8; Gaz. vol. 215; p. 420.
Surgical device. E. D. Brant. No. 1,144,103; June 22; Gaz. vol. 215; p. 1156.
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Suspender-lock. E. Klatt and R. Kallfirst. No. 1,144,906; June 29; Gaz. vol. 215; p. 1461.
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Swimming apparatus. A. Wirsig. No. 1,142,652; June 8; Gaz. vol. 215; p. 586.
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Swimming-pools, Automatic purifier for. J. C. W. Greth. No. 1,144,327; June 22; Gaz. vol. 215; p. 1235.
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Electric switch. Plug-switch.
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Switch-arm lock. W. M. Means and N. C. Celmo. No. 1,142,830; June 15; Gaz. vol. 215; p. 686.
Switch-box. A. C. Power. No. 1,141,359; June 1; Gaz. vol. 215; p. 97.
Switch-key attachment. E. Simpson. No. 1,142,277; June 8; Gaz. vol. 215; p. 456.
Switch-plate. W. H. Burt. No. 1,144,107; June 22; Gaz. vol. 215; p. 1158.
Switch-rod. W. R. McCollom. No. 1,141,129; June 1; Gaz. vol. 215; p. 13.
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Switch-stand crank mechanism. F. C. Anderson. No. 1,141,907; June 1; Gaz. vol. 215; p. 289.
Switch-stand semaphore mechanism. F. C. Anderson. No. 1,141,296; June 1; Gaz. vol. 215; p. 74.
Switch-stand semaphore mechanism. F. C. Anderson. No. 1,141,906; June 1; Gaz. vol. 215; p. 288.
Syringe. F. S. Dickinson. No. 1,142,682; June 8; Gaz. vol. 215; p. 595.
Syringe, Hypodermic. M. Benmoseche and R. P. Elliott. No. 1,144,343; June 29; Gaz. vol. 215; p. 1269.
Syrup from cider and other fruit-juices, Making. H. C. Gore. No. 1,141,458; June 1; Gaz. vol. 215; p. 133.
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Table, W. C. Johnson. No. 1,143,279; June 15; Gaz. vol. 215; p. 846.
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Table-cover. S. M. Hoffberg. No. 1,142,571; June 8; Gaz. vol. 215; p. 559.
Table-mat. E. A. Lahlère. No. 1,142,330; June 8; Gaz. vol. 215; p. 473.
Table-pad. C. C. Lydon. No. 1,143,842; June 22; Gaz. vol. 215; p. 1064.
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Tabulating, back-spacing, key-connecting, and color-selecting mechanism. E. Parmly, Jr. No. 1,143,223; June 15; Gaz. vol. 215; p. 827.
Tack-puller. E. Wiseman. No. 1,141,741; June 1; Gaz. vol. 215; p. 231.
Tack-puller. E. Wiseman. No. 1,141,742; June 1; Gaz. vol. 215; p. 231.
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Tailor's grading system and device therefor. W. Semonof. No. 1,144,071; June 22; Gaz. vol. 215; p. 1144.
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Telephone apparatus. T. Smith. No. 1,141,279; June 1; Gaz. vol. 215; p. 67.
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Telephone-exchange system. G. Deakin. No. 1,142,678; June 8; Gaz. vol. 215; p. 594.
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Tentering-machine clip. H. Nolin. No. 1,143,989; June 22; Gaz. vol. 215; p. 1114.
Terminals, Making. H. B. Andrews. No. 1,144,281; June 22; Gaz. vol. 215; p. 1219.
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Theater-chair. F. J. Kerbel. No. 1,144,603; June 29; Gaz. vol. 215; p. 1355.
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Thermometer. J. B. Fournier. No. 1,144,649; June 29; Gaz. vol. 215; p. 1372.
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Thermometer, Oven-. A. E. Whittier. No. 1,143,925; June 22; Gaz. vol. 215; p. 1091.
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Thill-support. A. H. Lotland and C. H. Davidson. No. 1,142,900; June 15; Gaz. vol. 215; p. 712.
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Thumb-tack. P. A. Fischer. No. 1,142,688; June 8; Gaz. vol. 215; p. 598.
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Tire. G. H. Quennard. No. 1,143,781; June 22; Gaz. vol. 215; p. 1042.
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Tire-carrier. A. Harnishfeger. No. 1,141,185; June 1; Gaz. vol. 215; p. 33.
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Tire, Pneumatic. H. B. Gillette. No. 1,141,538; June 1; Gaz. vol. 215; p. 161.
Tire pressure-drop alarm. F. P. Freeman. No. 1,144,834; June 29; Gaz. vol. 215; p. 1437.
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Tire, Resilient. L. E. Pickett. No. 1,143,994; June 22; Gaz. vol. 215; p. 1117.
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Tire-tread. A. Kanzee. No. 1,143,124; June 15; Gaz. vol. 215; p. 790.
Tire, Vehicle-. W. H. Boyes. No. 1,141,908; June 1; Gaz. vol. 215; p. 289.
Tire, Vehicle-. W. R. Meredith. No. 1,143,982; June 22; Gaz. vol. 215; p. 1112.
Tire, Vehicle-. T. R. Palmer. No. 1,141,723; June 1; Gaz. vol. 215; p. 226.
Tire, Vehicle wheel-. J. Cairns. No. 1,143,102; June 15; Gaz. vol. 215; p. 783.
Tire, Wheel-. I. H. Riley. No. 1,143,139; June 15; Gaz. vol. 215; p. 795.
Tires, Armoring of pneumatic. C. M. Gautier. No. 1,143,265; June 15; Gaz. vol. 215; p. 841.
Tires, Demountable rim for vehicle-. J. D. Hooker. No. 1,142,962; June 15; Gaz. vol. 215; p. 733.
Tires, Demountable rim for wheel-. E. O. Collins. No. 1,141,935; June 8; Gaz. vol. 215; p. 335.
Tires, Detachable rim for pneumatic. B. Bradford. No. 1,143,031; June 15; Gaz. vol. 215; p. 758.
Tires, Detachable rim for resilient. J. W. Hall and C. Baynes. No. 1,142,563; June 8; Gaz. vol. 215; p. 556.
Tires, Grip-tread for vehicle-. H. D. Weed. No. 1,141,735; June 1; Gaz. vol. 215; p. 230.
Tires, Inner tube for pneumatic. J. H. Poole. No. 1,144,239; June 22; Gaz. vol. 215; p. 1205.
Tires, Making. J. H. Hill. No. 1,141,708; June 1; Gaz. vol. 215; p. 220.
Tires, Producing a puncture-closing compound for pneumatic. R. T. Van Valkenburg. No. 1,143,152; June 15; Gaz. vol. 215; p. 800.
Tires, Relief-valve for pneumatic. A. L. Owens and C. L. Alford. No. 1,144,499; June 29; Gaz. vol. 215; p. 1322.
Tires, &c., Travel detector or indicator for. J. H. Friedenwald. No. 1,144,961; June 29; Gaz. vol. 215; p. 1479.
Tobacco cartridge and package. C. C. Dula. No. 1,144,824; June 29; Gaz. vol. 215; p. 1433.
Tobacco product. C. C. Dula. No. 1,144,823; June 29; Gaz. vol. 215; p. 1433.
Toilet-seat, Hygienic. J. Sivak, A. Nagy, and L. Banduray. No. 1,142,374; June 8; Gaz. vol. 215; p. 489.
Toilet-seat, Sanitary. H. B. Gray. No. 1,144,654; June 29; Gaz. vol. 215; p. 1373.
Toll-collecting apparatus, Coin-separator for. G. T. Buchanan. No. 1,143,357; June 15; Gaz. vol. 215; p. 873.
Toll-collecting apparatus, Signal device for. G. T. Buchanan. No. 1,143,356; June 15; Gaz. vol. 215; p. 873.
Tongs, Gripper-. J. Geist. No. 1,144,356; June 29; Gaz. vol. 215; p. 1274.
Tongue-supporter. H. A. Johnson and V. J. Pearson. No. 1,142,578; June 8; Gaz. vol. 215; p. 561.
Tonsillotome. S. G. Smith. No. 1,142,919; June 15; Gaz. vol. 215; p. 718.
Tool. R. Kincaid. No. 1,144,210; June 22; Gaz. vol. 215; p. 1195.
Tool. L. F. Lorraine. No. 1,144,555; June 29; Gaz. vol. 215; p. 1340.
Tool. J. J. Patterson. No. 1,142,617; June 8; Gaz. vol. 215; p. 574.
Tool. E. C. Worns. No. 1,142,473; June 8; Gaz. vol. 215; p. 525.
Tool-clamp. C. W. Beck. No. 1,143,025; June 15; Gaz. vol. 215; p. 756.
Tool, Combination-. M. Hamalainen. No. 1,142,418; June 8; Gaz. vol. 215; p. 506.
Tool, Combination-. O. N. Plante. No. 1,141,141; June 1; Gaz. vol. 215; p. 18.
Tool, Compound. T. E. Stephenson. No. 1,142,065; June 8; Gaz. vol. 215; p. 381.
Tool-handle. A. B. Jennings. No. 1,144,710; June 29; Gaz. vol. 215; p. 1393.
Tool-holder. P. J. Boucher. No. 1,141,864; June 1; Gaz. vol. 215; p. 270.
Tool, Machine-. L. R. Wheeler. No. 1,144,744; June 29; Gaz. vol. 215; p. 1406.
Tool, Percussive. L. C. Bayles. No. 1,142,478; June 8; Gaz. vol. 215; p. 527.
Tool, Pneumatic. B. M. Carmina. No. 1,142,671; June 8; Gaz. vol. 215; p. 592.
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Tool, Pressure-actuated. G. H. Gilman. No. 1,143,584; June 15; Gaz. vol. 215; p. 933.
Tool, Pulsator-driven percussive. A. H. Gibson. No. 1,142,514; June 8; Gaz. vol. 215; p. 540.
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Tools, Lost-motion take-up for. J. G. Baker. No. 1,141,602; June 1; Gaz. vol. 215; p. 184.
Tooth, Artificial. A. F. Libbey. No. 1,142,897; June 15; Gaz. vol. 215; p. 711.
Tooth, Artificial. F. T. Van Woert. No. 1,142,385; June 8; Gaz. vol. 215; p. 494.
Tooth, Artificial. G. M. Whiteley, Jr. No. 1,144,336; June 22; Gaz. vol. 215; p. 1238.
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Toothpick-holder. C. Dickson. No. 1,141,751; June 1; Gaz. vol. 215; p. 244.
Top. H. M. Howard. No. 1,144,938; June 29; Gaz. vol. 215; p. 1471.
Torch, Welding-. S. H. Tolman. No. 1,141,669; June 1; Gaz. vol. 215; p. 207.
Torpedo, Automobile. E. Schneider. No. 1,143,232; June 15; Gaz. vol. 215; p. 830.
Torpedo-holder. W. J. Strohm. No. 1,142,640; June 8; Gaz. vol. 215; p. 582.
Toupee. H. B. Lombard. No. 1,144,658; June 29; Gaz. vol. 215; p. 1374.
Towel-rack. F. C. Stiefel. No. 1,141,664; June 1; Gaz. vol. 215; p. 205.
Tower, Cooling-. J. F. Grace. No. 1,142,809; June 15; Gaz. vol. 215; p. 680.
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Toy. M. T. Gregg. No. 1,141,459; June 1; Gaz. vol. 215; p. 133.
Toy. L. H. Phyfe. No. 1,144,723; June 29; Gaz. vol. 215; p. 1399.
Toy. J. L. Thompson. No. 1,143,867; June 22; Gaz. vol. 215; p. 1072.
Toy. J. Tosta. No. 1,141,434; June 1; Gaz. vol. 215; p. 125.
Toy, Acrobatic. J. D. Braught. No. 1,143,495; June 15; Gaz. vol. 215; p. 920.
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Toy cannon. Z. E. House. No. 1,141,710; June 1; Gaz. vol. 215; p. 221.
Toy cannon. W. Szlányi. No. 1,144,739; June 29; Gaz. vol. 215; p. 1404.
Toy cap-pistol. T. O. Schrader. No. 1,141,904; June 1; Gaz. vol. 215; p. 287.
Toy cash-register. D. Heyman. No. 1,141,547; June 1; Gaz. vol. 215; p. 164.
Toy, Mechanical. E. F. Poland. No. 1,143,315; June 15; Gaz. vol. 215; p. 859.
Toy pistol. J. R. Rohn. No. 1,144,791; June 29; Gaz. vol. 215; p. 1422.
Toy railway. R. A. Dorrill. No. 1,142,150; June 8; Gaz. vol. 215; p. 411.
Toy seesaw. A. England. No. 1,144,895; June 29; Gaz. vol. 215; p. 1458.
Toy vehicle, Self-propelled. H. T. Kingsbury. No. 1,144,850; June 29; Gaz. vol. 215; p. 1443.
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Track for vehicles. J. O. Morris. No. 1,142,195; June 8; Gaz. vol. 215; p. 427.
Track-leveling device. A. H. Chinakas. No. 1,143,039; June 15; Gaz. vol. 215; p. 761.
Track-measurer, Portable. V. S. Veazey. No. 143,467; June 15; Gaz. vol. 215; p. 911.
Track-sander spout. W. C. Haese. No. 1,143,824; June 22; Gaz. vol. 215; p. 1058.
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Traction-wheel. J. Menne. No. 1,142,189; June 8; Gaz. vol. 215; p. 425.
Traction-wheel. S. S. Morton. No. 1,144,373; June 29; Gaz. vol. 215; p. 1279.
Traction-wheel. C. F. Washburn. No. 1,144,574; June 29; Gaz. vol. 215; p. 1346.
Traction-wheel for motor-propelled vehicles. E. M. Wheelock. No. 1,142,470; June 8; Gaz. vol. 215; p. 525.
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Tractor operated by internal-combustion engines. E. Wright. No. 1,141,295; June 1; Gaz. vol. 215; p. 74.
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Train-stop, Automatic. E. M. Jones. No. 1,142,884; June 15; Gaz. vol. 215; p. 706.
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Train-stopping device, Automatic. L. W. Horne and W. N. Crane. No. 1,142,256; June 8; Gaz. vol. 215; p. 448.
Train-stopping means, Safety automatic. W. Austin. No. 1,144,454; June 29; Gaz. vol. 215; p. 1307.
Transformer. L. C. Nichols. No. 1,143,305; June 15; Gaz. vol. 215; p. 854.
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Transmission mechanism. A. S. Anderson. No. 1,143,928; June 22; Gaz. vol. 215; p. 1092.
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Transmitter or reproducer. W. E. Peirce. No. 1,144,236; June 22; Gaz. vol. 215; p. 1204.
Transmitting intelligence by radiant energy. J. W. Lee and J. L. Hogan, Jr. No. 1,141,717; June 1; Gaz. vol. 215; p. 223.
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Trolley-retriever. M. A. Yeakley. No. 1,143,875; June 22; Gaz. vol. 215; p. 1075.
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Truck, Articulated car-. C. H. Howard and H. M. Pflager. No. 1,144,329; June 22; Gaz. vol. 215; p. 1235.
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Turbine, Steam-. M. Leblanc. No. 1,141,968; June 8; Gaz. vol. 215; p. 345.
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Type-writer attachment. G. S. Watts. No. 1,143,871; June 22; Gaz. vol. 215; p. 1073.
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Type-writer escapement mechanism. F. S. Rose. (Reissue.) No. 13,935; June 22; Gaz. vol. 215; p. 1243.
Type-writer with electromagnetic thrust. J. Duiven. No. 1,142,151; June 8; Gaz. vol. 215; p. 411.
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Type-writing machine. C. B. Yaw. No. 1,141,857; June 1; Gaz. vol. 215; p. 268.
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Uncoupling mechanism. L. T. Canfield. No. 1,141,933; June 8; Gaz. vol. 215; p. 334.
Undergarment. W. R. Schremp. No. 1,143,444; June 15; Gaz. vol. 215; p. 905.
Undergarment. F. M. Shipley. No. 1,144,616; June 29; Gaz. vol. 215; p. 1360.
Underreamer. F. A. Haugh. No. 1,144,195; June 22; Gaz. vol. 215; p. 1188.
Underwear. M. M. Henderson. No. 1,141,636; June 1; Gaz. vol. 215; p. 195.
Unions and the like, Making. H. G. Carlson. No. 1,142,302; June 8; Gaz. vol. 215; p. 463.
Unions and the like, Making. H. G. Carlson. No. 1,142,303; June 8; Gaz. vol. 215; p. 464.
Universal joint. W. F. Bockhoff. No. 1,143,596; June 15; Gaz. vol. 215; p. 956.
Universal joint. C. G. Capwell. No. 1,142,489; June 8; Gaz. vol. 215; p. 531.
Universal joint. H. Cooper. No. 1,143,571; June 15; Gaz. vol. 215; p. 946.
Universal joint. S. I. Prescott. No. 1,141,211; June 1; Gaz. vol. 215; p. 43.
Universal joint. P. K. Stern. No. 1,143,659; June 22; Gaz. vol. 215; p. 1001.
Universal joint. P. K. Stern. No. 1,143,660; June 22; Gaz. vol. 215; p. 1002.
Universal-joint mechanism. J. F. and H. E. Dodge. No. 1,144,531; June 29; Gaz. vol. 215; p. 1331.
Utensil-lifter. M. Nieć. No. 1,142,198; June 8; Gaz. vol. 215; p. 428.
Vacuum-cleaner. A. Boogher. No. 1,144,931; June 29; Gaz. vol. 215; p. 1468.
Vacuum-cleaner. J. B. De Costa. No. 1,141,321; June 1; Gaz. vol. 215; p. 84.
Vacuum-cleaner. W. H. Keller. No. 1,143,833; June 22; Gaz. vol. 215; p. 1061.
Vacuum-cleaner. M. S. Wright. No. 1,141,597; June 1; Gaz. vol. 215; p. 182.
Vacuum-cleaner, Electric. R. H. and J. Morrow. No. 1,142,353; June 8; Gaz. vol. 215; p. 481.
Vacuum regulation. H. C. Snook and E. W. Kelly. No. 1,143,327; June 15; Gaz. vol. 215; p. 863.
Valve. J. Desmond. No. 1,144,758; June 29; Gaz. vol. 215; p. 1410.
Valve. R. L. Ellery. No. 1,141,870; June 1; Gaz. vol. 215; p. 272.
Valve. P. G. MacGregor. No. 1,142,343; June 8; Gaz. vol. 215; p. 479.
Valve. W. E. Merritt. No. 1,142,723; June 8; Gaz. vol. 215; p. 608.
Valve. E. O'Malley. No. 1,141,882; June 1; Gaz. vol. 215; p. 277.
Valve. F. M. Patterson. No. 1,144,968; June 29; Gaz. vol. 215; p. 1482.
Valve. L. A. Platt. No. 1,143,225; June 15; Gaz. vol. 215; p. 828.
Valve. H. F. Rosencrans. No. 1,143,999; June 22; Gaz. vol. 215; p. 1118.
Valve. L. A. Sherman. No. 1,143,865; June 22; Gaz. vol. 215; p. 1071.
Valve. C. E. Streckler. No. 1,144,875; June 29; Gaz. vol. 215; p. 1452.
Valve. E. G. Watrous. No. 1,143,669; June 22; Gaz. vol. 215; p. 1005.
Valve and control, Positive automatic gas safety-. W. A. Davenport. No. 1,142,670; June 8; Gaz. vol. 215; p. 594.
Valve and igniter, Gas control. C. J. Muehlmann. No. 1,144,427; June 29; Gaz. vol. 215; p. 1298.
Valve and packing for the same, Piston-. J. T. Wilson. No. 1,143,009; June 15; Gaz. vol. 215; p. 750.
Valve, Automatic brake-. G. P. Thurber. No. 1,142,383; June 8; Gaz. vol. 215; p. 493.
Valve, Automatic control cut-off. W. F. Roach. No. 1,141,146; June 1; Gaz. vol. 215; p. 19.
Valve, Auxiliary air-intake. J. Hedges and W. Hammack. No. 1,142,424; June 8; Gaz. vol. 215; p. 509.
Valve, Check-. G. A. Gase. No. 1,142,513; June 8; Gaz. vol. 215; p. 540.
Valve-controller. D. C. Prescott. No. 1,142,054; June 8; Gaz. vol. 215; p. 377.
Valve-controlling device. C. A. Parsons, A. Q. Carnegie, and G. L. Parsons. No. 1,141,824; June 1; Gaz. vol. 215; p. 258.
Valve device. E. L. Delany. No. 1,144,757; June 29; Gaz. vol. 215; p. 1410.
Valve, Dry-pipe. P. D. Kingberry and W. J. McCarthy. No. 1,144,849; June 29; Gaz. vol. 215; p. 1443.
Valve, Electrically-controlled. H. G. Geissinger. No. 1,143,530; June 15; Gaz. vol. 215; p. 931.
Valve, Emergency sand-. J. H. McGrath. No. 1,141,131; June 1; Gaz. vol. 215; p. 14.
Valve, Engine-. D. Duffy. No. 1,142,316; June 8; Gaz. vol. 215; p. 468.
Valve, Equalizing-. J. J. Niven. No. 1,142,117; June 8; Gaz. vol. 215; p. 400.
Valve, Float-operated. G. E. Putnam. No. 1,142,910; June 15; Gaz. vol. 215; p. 715.
Valve, Flush-. T. B. Cooper and F. F. Rob. No. 1,144,109; June 22; Gaz. vol. 215; p. 1159.
Valve, Flushing-. P. Haas. No. 1,143,384; June 15; Gaz. vol. 215; p. 884.
Valve for explosive-engines, Rotary. F. P. Blubaugh. No. 1,141,758; June 1; Gaz. vol. 215; p. 236.
Valve for internal-combustion engines, Auxiliary. F. Morgan. No. 1,142,194; June 8; Gaz. vol. 215; p. 426.
Valve for steam-engines or the like, Sliding. J. and E. Williamson. No. 1,142,071; June 8; Gaz. vol. 215; p. 383.
Valve for steam-lines, Controlling and cut-off. J. A. Gollher. No. 1,144,357; June 29; Gaz. vol. 215; p. 1274.
Valve, Fuel-economizing. W. J. Kennedy. No. 1,144,209; June 22; Gaz. vol. 215; p. 1195.
Valve, Gate-. E. T. Bowen. No. 1,141,374; June 1; Gaz. vol. 215; p. 103.
Valve-gear. E. A. Burrow. No. 1,144,585; June 29; Gaz. vol. 215; p. 1349.
Valve-gear. G. F. Richart. No. 1,141,416; June 1; Gaz. vol. 215; p. 119.
Valve-gear, Hydraulic. R. H. Rice. No. 1,143,437; June 15; Gaz. vol. 215; p. 902.
Valve-gear, Steam-engine. L. Skinner and E. F. Williams. No. 1,142,853; June 15; Gaz. vol. 215; p. 695.
Valve, Globe-. M. N. Lenning. No. 1,141,565; June 1; Gaz. vol. 215; p. 171.
Valve, High-pressure. H. Slater. No. 1,143,236; June 15; Gaz. vol. 215; p. 832.
Valve-locking attachment. C. A. Patterson. No. 1,144,056; June 22; Gaz. vol. 215; p. 1139.
Valve, Magnet-. G. P. Thurber. No. 1,142,382; June 8; Gaz. vol. 215; p. 493.
Valve mechanism. J. G. Buchanan. No. 1,141,376; June 1; Gaz. vol. 215; p. 103.
Valve mechanism. J. F. Webb, Jr. No. 1,141,161; June 1; Gaz. vol. 215; p. 25.
Valve mechanism for gas-compressors. H. W. Jacobs and H. H. Lanning. No. 1,144,360; June 29; Gaz. vol. 215; p. 1275.
Valve mechanism for internal-combustion engines. A. J. Seaman. No. 1,142,987; June 15; Gaz. vol. 215; p. 743.
Valve mechanism, Rotary-. F. E. Harpst. No. 1,141,958; June 8; Gaz. vol. 215; p. 342.

Valve or damper, Water-cooled. L. L. Knox. No. 1,142,180; June 8; Gaz. vol. 215; p. 421.
Valve, Radiator-control. C. D. Allan. No. 1,142,389; June 8; Gaz. vol. 215; p. 495.
Valve, Safety-. F. C. Blanchard and E. B. Crocker. No. 1,143,027; June 15; Gaz. vol. 215; p. 756.
Valve, Self-closing. R. Osvaldella. No. 1,144,860; June 29; Gaz. vol. 215; p. 1446.
Valve starting mechanism for explosive-engines, Distributing-. C. J. Pembroke. No. 1,143,778; June 22; Gaz. vol. 215; p. 1041.
Valve-stem protective device. G. M. Stadelman. No. 1,141,219; June 1; Gaz. vol. 215; p. 46.
Valve, Supply-. G. P. Voigt. No. 1,143,000; June 15; Gaz. vol. 215; p. 747.
Valve, Tank-. N. Zimtbaum. No. 1,143,014; June 15; Gaz. vol. 215; p. 752.
Valve, Tender-tank. S. S. Riegel. No. 1,143,726; June 22; Gaz. vol. 215; p. 1023.
Valve-testing apparatus, Triple-. C. C. Farmer. No. 1,143,620; June 22; Gaz. vol. 215; p. 988.
Valve, Thermally-controlled. W. H. Paine. No. 1,142,528; June 8; Gaz. vol. 215; p. 545.
Valve, Water-seal. W. Thumm. No. 1,141,668; June 1; Gaz. vol. 215; p. 206.
Valves, Bonnet for hot-air. C. Nock. No. 1,144,664; June 29; Gaz. vol. 215; p. 1376.
Valves, Screw reverse-gear for engine-. W. A. Austin and S. S. Lawson. No. 1,144,455; June 29; Gaz. vol. 215; p. 1307.
Vamp-marking machine. P. R. Glass. No. 1,141,329; June 1; Gaz. vol. 215; p. 86.
Vapor-generator. T. W. Dixon. No. 1,144,820; June 29; Gaz. vol. 215; p. 1432.
Vault, Burial-. F. E. Arndt. No. 1,144,579; June 29; Gaz. vol. 215; p. 1347.
Vehicle. C. T. Henderson. No. 1,143,195; June 15; Gaz. vol. 215; p. 817.
Vehicle. J. O. Morris. No. 1,142,196; June 8; Gaz. vol. 215; p. 427.
Vehicle-arrester. P. J. Weber, Jr. No. 1,141,291; June 1; Gaz. vol. 215; p. 72.
Vehicle attachment. A. J. Cook. No. 1,143,751; June 22; Gaz. vol. 215; p. 1032.
Vehicle body, Motor-road-. A. Legrand. No. 1,142,590; June 8; Gaz. vol. 215; p. 566.
Vehicle bow-socket. J. C. Coss. No. 1,141,527; June 1; Gaz. vol. 215; p. 158.
Vehicle-brake. J. Hartman. No. 1,142,880; June 15; Gaz. vol. 215; p. 705.
Vehicle-brake. R. E. Relyea. No. 1,143,996; June 22; Gaz. vol. 215; p. 1117.
Vehicle-brake. W. E. Roberson. No. 1,143,320; June 15; Gaz. vol. 215; p. 861.
Vehicle controlling mechanism, Motor-. E. K. Conover. No. 1,143,361; June 15; Gaz. vol. 215; p. 875.
Vehicle controlling mechanism, Motor-. H. H. Shelters. No. 1,141,421; June 1; Gaz. vol. 215; p. 121.
Vehicle drive mechanism. W. E. Bock. No. 1,144,752; June 29; Gaz. vol. 215; p. 1408.
Vehicle-drive, Universal. O. O. Hootman. No. 1,144,845; June 29; Gaz. vol. 215; p. 1441.
Vehicle driving mechanism. J. Buchli. No. 1,141,764; June 1; Gaz. vol. 215; p. 238.
Vehicle, Dumping-. W. Y. Gambee. No. 1,141,113; June 1; Gaz. vol. 215; p. 8.
Vehicle-elevator. H. E. Shumway and W. T. Scholz. No. 1,144,004; June 22; Gaz. vol. 215; p. 1120.
Vehicle equalizing device. C. H. Martin. No. 1,144,943; June 29; Gaz. vol. 215; p. 1473.
Vehicle-fender, Foldable. P. Chovanecz. No. 1,142,490; June 8; Gaz. vol. 215; p. 531.
Vehicle fender, Motor-. J. W. Saunders and O. K. Forster. No. 1,144,869; June 29; Gaz. vol. 215; p. 1449.
Vehicle fender, Wheeled-. L. V. Gregson and A. P. Gough. No. 1,143,823; June 22; Gaz. vol. 215; p. 1057.
Vehicle frame and body construction, Motor-. E. A. Nelson. No. 1,143,987; June 22; Gaz. vol. 215; p. 1114.
Vehicle-gate and means for mounting same. W. S. Menden. No. 1,142,264; June 8; Gaz. vol. 215; p. 451.
Vehicle-inclosure. O. L. Herron. No. 1,142,959; June 15; Gaz. vol. 215; p. 733.
Vehicle-indicator. P. H. Fielding and F. E. Lewis, 2d. No. 1,141,701; June 1; Gaz. vol. 215; p. 218.
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Vehicle, Motor-. R. Huff. No. 1,142,257; June 8; Gaz. vol. 215; p. 449.
Vehicle, Motor-propelled. W. Schierding. No. 1,142,204; June 8; Gaz. vol. 215; p. 429.
Vehicle, Passenger-. A. F. Paul and A. J. Tanner. No. 1,141,408; June 1; Gaz. vol. 215; p. 116.
Vehicle retarding mechanism, Motor-. E. Moewes. No. 1,144,372; June 29; Gaz. vol. 215; p. 1279.
Vehicle safety attachment. H. H. McCormick. No. 1,142,449; June 8; Gaz. vol. 215; p. 518.
Vehicle-scotch. J. H. Holt. No. 1,141,798; June 1; Gaz. vol. 215; p. 249.
Vehicle-seat. A. W. Pattison. No. 1,143,310; June 15; Gaz. vol. 215; p. 857.
Vehicle-signal. R. E. Boyle. No. 1,142,016; June 8; Gaz. vol. 215; p. 364.
Vehicle signal apparatus, Motor-. J. A. Wilhelm. No. 1,142,650; June 8; Gaz. vol. 215; p. 585.
Vehicle signal, Motor-. E. B. Hopkins. No. 1,144,903; June 29; Gaz. vol. 215; p. 1460.
Vehicle speed-regulator, Motor-. M. R. Hutchison. No. 1,142,099; June 8; Gaz. vol. 215; p. 394.
Vehicle splash-preventer, Road-. A. Dechy. No. 1,142,680; June 8; Gaz. vol. 215; p. 595.
Vehicle-spring. M. M. McIntyre. No. 1,141,194; June 1; Gaz. vol. 215; p. 36.
Vehicle steering device, Motor-. A. S. Burnell and I. L. Lavender. No. 1,144,754; June 29; Gaz. vol. 215; p. 1409.
Vehicle steering mechanism. J. H. Ayre. No. 1,142,658; June 8; Gaz. vol. 215; p. 588.
Vehicle steering mechanism. L. J. Weatherwax. No. 1,141,290; June 1; Gaz. vol. 215; p. 72.
Vehicle stopping device, Automatic. E. M. Jones. No. 1,142,885; June 15; Gaz. vol. 215; p. 707.
Vehicle storm-front. G. W. Scott. No. 1,142,061; June 8; Gaz. vol. 215; p. 380.
Vehicle suspension. E. E. Wemp. No. 1,142,468; June 8; Gaz. vol. 215; p. 524.
Vehicle top attachment. C. S. Fall. No. 1,142,317; June 8; Gaz. vol. 215; p. 469.
Vehicle top-bow clamp. J. P. McGinnis. No. 1,144,659; June 29; Gaz. vol. 215; p. 1374.
Vehicle top raising and lowering mechanism. D. C. Watt and F. A. Grearson. No. 1,144,925; June 29; Gaz. vol. 215; p. 1466.
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Vehicle-wheel. J. J. Butcher. No. 1,142,487; June 8; Gaz. vol. 215; p. 530.
Vehicle-wheel. N. L. Hayden. No. 1,144,473; June 29; Gaz. vol. 215; p. 1313.
Vehicle-wheel. H. B. Layman. No. 1,142,334; June 8; Gaz. vol. 215; p. 475.
Vehicle-wheel. T. E. Murray. No. 1,142,836; June 15; Gaz. vol. 215; p. 688.
Vehicle-wheel. J. Schles. No. 1,142,985; June 15; Gaz. vol. 215; p. 742.
Vehicle-wheel. S. L. Simpson. No. 1,141,429; June 1; Gaz. vol. 215; p. 123.
Vehicle-wheel. F. V. Ubezzi. No. 1,144,879; June 29; Gaz. vol. 215; p. 1453.
Vehicle-wheel and manufacturing same. H. M. Foulke. No. 1,144,116; June 22; Gaz. vol. 215; p. 1161.
Vehicle wheel, Common-road-. G. E. Doyle and G. Barden. No. 1,141,384; June 1; Gaz. vol. 215; p. 107.
Vehicle-wheel, Detachable. A. De Coninck. No. 1,141,234; June 1; Gaz. vol. 215; p. 51.
Vehicle-wheel, Resilient. E. S. Morris. No. 1,141,255; June 1; Gaz. vol. 215; p. 58.
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Veil. M. U. Dixey. No. 1,141,531; June 1; Gaz. vol. 215; p. 159.
Velocipede. J. C. Smith. No. 1,141,278; June 1; Gaz. vol. 215; p. 67.
Vending-machine. H. Boerner. No. 1,141,170; June 1; Gaz. vol. 215; p. 28.
Vending-machine. E. A. Bolen. No. 1,144,100; June 22; Gaz. vol. 215; p. 1155.
Vending-machine. J. Cartun. No. 1,141,772; June 1; Gaz. vol. 215; p. 240.
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Ventilating-screen. H. S. Wilson. No. 1,141,163; June 1; Gaz. vol. 215; p. 26.
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Washing-machine. L. Hamilton. No. 1,141,628; June 1; Gaz. vol. 215; p. 192.
Washing machine, Laundry-. J. W. Bercaw. (Reissue.) No. 13,922; June 8; Gaz. vol. 215; p. 634.
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Water-gage. J. E. Cunliff. No. 1,141,381; June 1; Gaz. vol. 215; p. 106.
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Water-glasses, Guard for. G. W. Ames. No. 1,144,805; June 29; Gaz. vol. 215; p. 1428.
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Water-heater. H. S. Humphrey. No. 1,142,433; June 8; Gaz. vol. 215; p. 512.
Water-heater. L. D. Lovekin. No. 1,143,291; June 15; Gaz. vol. 215; p. 850.
Water-heater. E. A. Mills and R. H. Richards. No. 1,144,227; June 22; Gaz. vol. 215; p. 1200.
Water-heater. C. A. Robbins and W. F. Roth. No. 1,141,830; June 1; Gaz. vol. 215; p. 259.
Water-heater, Automatic. C. L. Hudler. No. 1,141,247; June 1; Gaz. vol. 215; p. 55.
Water-heater, Electric. R. P. Barnstead. No. 1,143,568; June 15; Gaz. vol. 215; p. 945.
Water-jacket. E. Medina. No. 1,143,642; June 22; Gaz. vol. 215; p. 996.
Water-meter. J. M. Burton. No. 1,142,141; June 8; Gaz. vol. 215; p. 408.
Water-meter setting or connection. J. W. Calhoun. No. 1,142,667; June 8; Gaz. vol. 215; p. 590.
Water-motor. J. Hawley. No. 1,143,905; June 22; Gaz. vol. 215; p. 1085.
Water-pipes, Water-tight joint for concrete. A. M. Hirsh, C. Merlwether, and J. C. Mitchell. No. 1,143,117; June 15; Gaz. vol. 215; p. 788.
Water-power apparatus. J. Hoffman. No. 1,143,118; June 15; Gaz. vol. 215; p. 788.
Water-tube boiler. J. E. Bell. No. 1,141,520; June 1; Gaz. vol. 215; p. 155.
Waterproofing compound for cement, concrete, and the like. F. R. Stehm. No. 1,141,848; June 1; Gaz. vol. 215; p. 205.
Wattmeters, Recording instrument for. S. B. Storer. No. 1,141,729; June 1; Gaz. vol. 215; p. 227.
Weaner, Calf-. G. W. Benage. No. 1,144,020; June 22; Gaz. vol. 215; p. 1126.
Weaner, Calf-. W. A. Cobban. No. 1,142,026; June 8; Gaz. vol. 215; p. 368.
Weather-strip. S. P. Bricker. No. 1,143,033; June 15; Gaz. vol. 215; p. 758.
Weather-strip. W. M. Thompson. No. 1,142,995; June 15; Gaz. vol. 215; p. 745.
Weather-strip attachment. W. H. Godfrey. No. 1,141,390; June 1; Gaz. vol. 215; p. 109.
Wedge. D. B. Luten. No. 1,141,250; June 1; Gaz. vol. 215; p. 56.
Weed-cutting implement. C. E. Douglas. No. 1,142,503; June 8; Gaz. vol. 215; p. 537.
Weeder. E. H. Scott. No. 1,141,659; June 1; Gaz. vol. 215; p. 203.
Weeder. S. A. Weitman. No. 1,144,013; June 22; Gaz. vol. 215; p. 1123.
Weeder and cultivator, Combined. A. H. Bastian. No. 1,144,314; June 22; Gaz. vol. 215; p. 1230.
Weeder and cultivator, Rotary. A. E. and H. F. Vrooman, and S. S. Swanson. No. 1,141,997; June 8; Gaz. vol. 215; p. 356.
Weeder, Hand-. S. Alunan. No. 1,142,869; June 15; Gaz. vol. 215; p. 701.
Weeder or cultivator. A. Haworth. No. 1,144,196; June 22; Gaz. vol. 215; p. 1189.
Weft-detecting machine. E. H. Ryon. No. 1,142,121; June 8; Gaz. vol. 215; p. 402.
Weighing apparatus. Z. Lipofsky. No. 1,143,638; June 22; Gaz. vol. 215; p. 994.
Weighing mechanism. J. Paupa and G. F. Hochriem. No. 1,143,224; June 15; Gaz. vol. 215; p. 827.
Welding and fusion deposition of metals, Electric. A. P. Strohmenger. No. 1,144,390; June 29; Gaz. vol. 215; p. 1285.
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Welding, Electric. E. F. Collins. No. 1,144,350; June 29; Gaz. vol. 215; p. 1272.
Welding, Electric. R. Mack. No. 1,143,220; June 15; Gaz. vol. 215; p. 826.
Welding, Electric. J. A. Muir. No. 1,142,833; June 15; Gaz. vol. 215; p. 687.
Welding system, Arc-. J. Seede. No. 1,141,980; June 8; Gaz. vol. 215; p. 349.
Welding the meeting edges of metallic articles, Apparatus for. M. Altman. (Reissue.) No. 13,941; June 29; Gaz. vol. 215; p. 1489.
Well-boring apparatus, Gripping device for. G. S. Myers. No. 1,143,430; June 15; Gaz. vol. 215; p. 900.
Well-casing head. W. B. Wigle. No. 1,144,626; June 29; Gaz. vol. 215; p. 1364.
Well-drilling engines, Bracing for. E. E. Greve. No. 1,144,837; June 29; Gaz. vol. 215; p. 1437.
Well-sinking apparatus. P. Boyd and A. M. Saunders. No. 1,141,927; June 8; Gaz. vol. 215; p. 332.
Wells, Head for oil-. F. J. Moser. No. 1,143,302; June 15; Gaz. vol. 215; p. 854.
Welt laying and attaching machine. A. H. Prenzel. No. 1,142,119; June 8; Gaz. vol. 215; p. 401.
Welt-preparing machine. T. H. Seely. No. 1,143,078; June 15; Gaz. vol. 215; p. 775.
Welt-winding machine. A. Eppler. No. 1,141,449; June 1; Gaz. vol. 215; p. 129.
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Automobile hand-wheel. Pneumatic wheel.
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Wheel. J. R. Ayotte. No. 1,142,226; June 8; Gaz. vol. 215; p. 438.
Wheel. C. E. Bean. No. 1,144,632; June 29; Gaz. vol. 215; p. 1366.

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Wheel-fender. R. F. Rogers. No. 1,143,071; June 15; Gaz. vol. 215; p. 773.
Wheel-guard, Vehicle. E. J. Buckingham. No. 1,143,035; June 15; Gaz. vol. 215; p. 759.
Wheel-lock, Vehicle. O. E. Braun. No. 1,141,100; June 1; Gaz. vol. 215; p. 4.
Wheel of motor-cycles and other vehicles. E. Murray. No. 1,142,606; June 8; Gaz. vol. 215; p. 570.
Wheel-rim, Vehicle. E. C. Shaw. No. 1,141,496; June 1; Gaz. vol. 215; p. 146.
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Wheels, Knuckle connection for automobile-. N. C. Miller. No. 1,142,190; June 8; Gaz. vol. 215; p. 425.
Whiffletree-guard. J. Weber. No. 1,143,924; June 22; Gaz. vol. 215; p. 1097.
Whiffletree hook and clip. J. C. Vaughan. No. 1,144,573; June 29; Gaz. vol. 215; p. 1345.
Whip-holder. W. R. Harmon. No. 1,142,703; June 8; Gaz. vol. 215; p. 603.
Whistling device, Automatic. G. J. Juntunen. No. 1,141,344; June 1; Gaz. vol. 215; p. 91.
Wind-shield. E. P. Bidwell. No. 1,143,491; June 15; Gaz. vol. 215; p. 919.
Wind-shield pivot. A. P. Ball. No. 1,143,932; June 22; Gaz. vol. 215; p. 1094.
Windmill. C. A. Benbow. No. 1,143,803; June 22; Gaz. vol. 215; p. 1050.
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Winding-head. W. F. Smith. No. 1,144,618; June 29; Gaz. vol. 215; p. 1361.
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Winding-machine controlling device. J. W. West. No. 1,143,003; June 15; Gaz. vol. 215; p. 748.
Winding-machine for ribbons, laces, or the like. E. J. Marcouiller. No. 1,141,646; June 1; Gaz. vol. 215; p. 199.
Winding mechanism. J. V. Cunniff. No. 1,141,892; June 1; Gaz. vol. 215; p. 282.
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Winding mechanism for forming yarn or thread packages. J. V. Cunniff. No. 1,141,894; June 1; Gaz. vol. 215; p. 283.
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Window-guard. H. Le Quornick. No. 1,143,588; June 15; Gaz. vol. 215; p. 953.
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Window opening and closing device. A. Struthers. No. 1,142,207; June 8; Gaz. vol. 215; p. 430.
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Wire-gage and detector, Automatic. J. Herman. No. 1,141,707; June 1; Gaz. vol. 215; p. 220.
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Wire-handling tool. R. H. Norton. No. 1,141,257; June 1; Gaz. vol. 215; p. 59.
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Wire-winding machine. C. A. Hanson. No. 1,142,035; June 8; Gaz. vol. 215; p. 371.
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Game-board. H. C. Hazzard. No. 47,487; June 22; Gaz. vol. 215; p. 1251.
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Lace edging. D. Jarvis, Jr. No. 47,491; June 22; Gaz. vol. 215; p. 1252.
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Pitcher or similar article. B. P. Jenks. No. 47,428; June 8; Gaz. vol. 215; p. 639.
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Printer's make-ready table. F. M. Basheller. No. 47,448; June 15; Gaz. vol. 215; p. 965.
Puzzle-box. A. M. Eckert. No. 47,484; June 22; Gaz. vol. 215; p. 1251.
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Refrigerator, Candy-. C. O. Ullin. Nos. 47,441–2; June 8; Gaz. vol. 215; p. 641.
Ring. J. F. Faber. No. 47,417; June 8; Gaz. vol. 215; p. 637.
Ring, scarf-pin, brooch, button, or similar article of jewelry. G. H. Edward, V. H. King, and H. J. Skipp. No. 47,485; June 22; Gaz. vol. 215; p. 1251.
Robe, Sleeping-, L. G. Milkes. No. 47,494; June 22; Gaz. vol. 215; p. 1252.
Rug. A. Petzold. Nos. 47,403–7; June 1; Gaz. vol. 215; pp. 293–4.
Rug. A. Petzold. Nos. 47,497–508; June 22; Gaz. vol. 215; pp. 1253–5.
Score-board. W. H. Read. No. 47,422; June 8; Gaz. vol. 215; p. 638.
Signal device. H. L. Hullinger. No. 47,425; June 8; Gaz. vol. 215; p. 638.
Spectacle-frame. A. J. Harrison. No. 47,420; June 8; Gaz. vol. 215; p. 637.
Spoon, fork, and similar article. G. H. Pinney. No. 47,470; June 15; Gaz. vol. 215; p. 969.
Spoon, fork, or similar article. G. P. Tilton. No. 47,512; June 22; Gaz. vol. 215; p. 1256.
Spoon, fork, or similar article. H. L. Wallace. No. 47,414; June 1; Gaz. vol. 215; p. 295.
Spoon, fork, or similar article, Pierced. F. Schwinn. No. 47,509; June 22; Gaz. vol. 215; p. 1255.
Spoons, forks, or similar articles, Handle for. M. Masson. No. 47,432; June 8; Gaz. vol. 215; p. 639.
Spoons, knives, forks, and other table and toilet articles, Handle for. G. N. Allen. No. 47,482; June 22; Gaz. vol. 215; p. 1250.
Stick-pin or similar article of jewelry. L. A. Kelly. No. 47,430; June 8; Gaz. vol. 215; p. 639.
Stove. L. D. Smith. No. 47,438; June 8; Gaz. vol. 215; p. 640.
Stove-shelf. R. Hoffman. No. 47,463; June 15; Gaz. vol. 215; p. 967.
Straw-braid fabric for hats, Imitation-. E. Israel. No. 47,397; June 1; Gaz. vol. 215; p. 292.
Talking-machine cabinet. E. R. Johnson and E. T. Kieffer. No. 47,398; June 1; Gaz. vol. 215; p. 293.

Talking-machine cabinet. E. T. Kieffer. No. 47,399; June 1; Gaz. vol. 215; p. 293.
Teapot or similar article. B. P. Jenks. No. 47,427; June 8; Gaz. vol. 215; p. 638.
Teething apparatus. J. R. Golden. No. 47,419; June 8; Gaz. vol. 215; p. 637.
Tire, Automobile-. H. J. Leab. No. 47,431; June 8; Gaz. vol. 215; p. 639.
Tire, Pneumatic. H. R. Holmes. No. 47,424; June 8; Gaz. vol. 215; p. 638.
Tire-tread. W. D. McNaull. No. 47,467; June 15; Gaz. vol. 215; p. 968.
Toaster-frame. G. E. Curtiss. No. 47,394; June 1; Gaz. vol. 215; p. 292.
Tool-handle. E. E. Ellis. No. 47,416; June 8; Gaz. vol. 215; p. 637.
Toy or toy bank. J. H. Hartman. No. 47,421; June 8; Gaz. vol. 215; p. 637.
Toy scoop-cart. L. D. Bozorth. No. 47,515; June 29; Gaz. vol. 215; p. 1490.
Tray. T. Wilson. No. 47,529; June 29; Gaz. vol. 215; p. 1492.
Tumbler or similar article. A. J. Sanford. No. 47,527; June 29; Gaz. vol. 215; p. 1491.
Watch-fob. H. Russell. No. 47,526; June 29; Gaz. vol. 215; p. 1491.
Water-cooler. G. D. Sailer. No. 47,474; June 15; Gaz. vol. 215; p. 970.
Water or liquid cooler. H., C., Jr., and M. Doering. No. 47,454; June 15; Gaz. vol. 215; p. 966.
Wrench. H. P. Petersen. No. 47,435; June 8; Gaz. vol. 215; p. 640.

ALPHABETICAL LIST OF TRADE-MARKS.

Adding and calculating machines. Firm of H. W., Egli. No. 104,868; June 22; Gaz. vol. 215; p. 1258.
Alcohol-measuring apparatus and condenser water-meters. Gebruder Siemens & Company. No. 104,674; June 8; Gaz. vol. 215; p. 663.
Alfalfa for feed. Virginia Alfalfa Corporation. No. 104,521; June 1; Gaz. vol. 215; p. 319.
Alimentary paste products and cereal breakfast food. Skinner Mfg. Co. No. 104,652; June 8; Gaz. vol. 215; p. 663.
Alloy and castings made therefrom, Metal. Doehler Die Casting Co. No. 104,795; June 15; Gaz. vol. 215; p. 974.
Aluminum ware and wire screens. Hardware Buyers Association. No. 104,611; June 8; Gaz. vol. 215; p. 661.
Aluminum ware, Hollow. Geo. Borgfeldt & Co. No. 104,928; June 29; Gaz. vol. 215; p. 1493.
Anesthetics, obtundents, &c. Genung & Mayer. No. 104,507; June 1; Gaz. vol. 215; p. 319.
Antiseptic. Hello-Boy Manufacturing Company. No. 104,726; June 15; Gaz. vol. 215; p. 972.
Articles made of certain named materials, (not precious metal.) Geo. Borgfeldt & Co. No. 104,704; June 15; Gaz. vol. 215; p. 971.
Asphyxiated or apparently-drowned persons, Apparatus for reviving or resuscitating. Siebe, Gorman & Co. No. 104,890; June 22; Gaz. vol. 215; p. 1259.
Automobile-locks. G. T. Trundle, Jr. No. 105,029; June 29; Gaz. vol. 215; p. 1496.
Automobiles, motor-vehicles, and parts thereof. Chevrolet Motor Company. No. 104,903; June 22; Gaz. vol. 215; p. 1259.
Bait, Artificial. J. K. Rush. No. 104,991; June 29; Gaz. vol. 215; p. 1495.
Baking-powder. General Chemical Company. No. 104,798; June 15; Gaz. vol. 215; p. 974.
Baking-powder. Grocers Chemical Works. No. 104,767; June 15; Gaz. vol. 215; p. 973.
Baking-powder. R. C. Staples Chemical Company. No. 104,754; June 15; Gaz. vol. 215; p. 972.
Baking soda and powder, bluing, and ammonia. National Grocery Company. No. 104,472; June 1; Gaz. vol. 215; p. 318.
Barium compounds. Barbour Chemical Works. No. 104,857; June 22; Gaz. vol. 215; p. 1258.
Bearing retainers, Ball-. Bearings Company of America. Nos. 104,787–8; June 15; Gaz. vol. 215; p. 973.
Bearings, bearing hanger-boxes, balls, &c., Antifriction. The Fafnir Bearing Company. No. 104,534; June 1; Gaz. vol. 215; p. 320.
Bed-springs. Fort Pitt Bedding Co. No. 104,765; June 15; Gaz. vol. 215; p. 973.
Beer. Ferdinaud Neuner, Inc. No. 104,949; June 29; Gaz. vol. 215; p. 1493.
Beer. H. Ilse. No. 104,833; June 22; Gaz. vol. 215; p. 1257.
Beer. Independent Brewing Ass'n. No. 104,688; June 8; Gaz. vol. 215; p. 664.
Beer. Pittsburgh Brewing Company. No. 104,479; June 1; Gaz. vol. 215; p. 318.
Beer. The Walter Brewing Co. No. 104,896; June 22; Gaz. vol. 215; p. 1259.
Beer, Lager-. The Gottlieb Bauernschmidt Straus Brewing Company. No. 104,610; June 8; Gaz. vol. 215; p. 661.
Belting and hose. E. L. Burrell. No. 104,863; June 22; Gaz. vol. 215; p. 1258.
Belting, Leather. C. Nitta. No. 104,776; June 15; Gaz. vol. 215; p. 973.
Belts, Abdominal. The Well Corset Co. No. 104,500; June 1; Gaz. vol. 215; p. 319.
Beverage, Non-alcoholic and carbonated. Glee-Cola Co. No. 104,830; June 22; Gaz. vol. 215; p. 1257.
Beverages, Carbonated non-alcoholic. G. A. Bancroft. No. 104,526; June 1; Gaz. vol. 215; p. 319.
Beverages sold as soft drinks, Cereal. Kellogg Toasted Corn Flake Company. Nos. 105,018–19; June 29; Gaz. vol. 215; p. 1496.
Biscuit. Loose-Wiles Biscuit Co. No. 104,621; June 8; Gaz. vol. 215; p. 662.
Biscuit. National Biscuit Company. Nos. 104,630–40; June 8; Gaz. vol. 215; p. 662.
Bitters, Stomach-. The Ahrend & Sons Co. No. 104,501; June 1; Gaz. vol. 215; p. 314.
Blouses, Boys'. Reliance Manufacturing Company. No. 104,675; June 8; Gaz. vol. 215; p. 663.
Blue and laundry articles containing blue. Reckitts (U. S. A.). No. 104,481; June 1; Gaz. vol. 215; p. 318.
Bluing. B. Heller & Co. No. 104,938; June 29; Gaz. vol. 215; p. 1493.
Bluing. Reckitts (U. S. A.), Ltd. No. 104,750; June 15; Gaz. vol. 215; p. 972.
Book of nursery-rhymes and adhesive illustrative posters thereof. J. D. Rosenberg. No. 104,807; June 15; Gaz. vol. 215; p. 974.
Books, booklets, pamphlets, &c., Printed. Blackstone Institute. No. 104,860; June 22; Gaz. vol. 215; p. 1258.
Bookbinding-cloth. The Holliston Mills. No. 104,453; June 1; Gaz. vol. 215; p. 317.
Boots and shoes, Leather. I. Hausman & Sons. No. 105,017; June 29; Gaz. vol. 215; p. 1496.
Boots and shoes, Leather, textile fabric, or rubber. Healy Shoe Company. No. 104,613; June 8; Gaz. vol. 215; p. 662.
Boring and drilling machines. Moline Tool Company. No. 104,626; June 8; Gaz. vol. 215; p. 662.
Bottle-stopples. J. W. Douglass. No. 104,796; June 15; Gaz. vol. 215; p. 974.
Braids, shoe and corset laces, and galloons. United Lace & Braid Manufacturing Company. No. 104,820; June 15; Gaz. vol. 215; p. 975.
Bread. Oswald Jaeger Baking Co. No. 104,454; June 1; Gaz. vol. 215; p. 317.
Bread. Russell-Miller Milling Company. No. 104,648; June 8; Gaz. vol. 215; p. 663.
Bread. J. J. Shupe. No. 104,889; June 22; Gaz. vol. 215; p. 1259.
Bread, cake, and pies. Holmes & Son. No. 104,979; June 29; Gaz. vol. 215; p. 1494.
Bread, salad-dressing, jellied meats, &c. R. Hellmann. No. 104,964; June 29; Gaz. vol. 215; p. 1494.
Broilers, toasters, and pancake-griddles. The Cleveland Foundry Co. No. 104,961; June 29; Gaz. vol. 215; p. 1494.
Brush and casing, Shaving-. The Sterrick Sales Corporation. No. 104,892; June 22; Gaz. vol. 215; p. 1259.
Bug and insect exterminator. Flash Chemical Company. No. 104,505; June 1; Gaz. vol. 215; p. 319.
Bulletins, Technical, engineering, and scientific. Standard Corporation. No. 104,998; June 29; Gaz. vol. 215; p. 1495.
Butter. M. E. and W. E. Flint. No. 105,014; June 29; Gaz. vol. 215; p. 1495.
Butter. S. S. Lard. No. 104,458; June 1; Gaz. vol. 215; p. 317.
Butter. Peoria Creamery Co. No. 105,024; June 29; Gaz. vol. 215; p. 1496.
Butter and eggs. S. Goldstein. No. 104,449; June 1; Gaz. vol. 215; p. 317.
Butter, Certain named cutlery, machinery, and appliances for making and working. H. Lanz. No. 104,771; June 15; Gaz. vol. 215; p. 973.
Butter, cheese, eggs, milk, and milk-producing cattle. Ayer & McKinney. No. 104,589; June 8; Gaz. vol. 215; p. 661.
Butter of cocoanut for frying, &c., Pure. Sauté Products Corporation. No. 104,549; June 1; Gaz. vol. 215; p. 320.
Buttons, Precious-metal cuff-. Parks Bros. & Rogers. No. 104,777; June 15; Gaz. vol. 215; p. 973.
Cabinets, Kitchen-. D. Hall. No. 104,874; June 22; Gaz. vol. 215; p. 1258.
Cabinets, sectional furniture, &c., Filing-. Yawman & Erbe Mfg. Co. No. 104,899; June 22; Gaz. vol. 215; p. 1259.
Cake. Emery & Company. No. 104,715; June 15; Gaz. vol. 215; p. 971.
Cakes and crackers. Loose-Wiles Biscuit Company. No. 104,620; June 8; Gaz. vol. 215; p. 662.
Cakes called snaps. Loose-Wiles Biscuit Company. No. 104,619; June 8; Gaz. vol. 215; p. 662.
Callipers. Hammel, Riglander & Co. No. 104,976; June 29; Gaz. vol. 215; p. 1494.
Candles. M. E. Abel Estate. No. 104,584; June 8; Gaz. vol. 215; p. 661.
Candles, syrups, and honey, Certain named. Rigney & Company. No. 104,572; June 1; Gaz. vol. 215; p. 321.
Candy. Brandle & Smith Co. No. 104,705; June 15; Gaz. vol. 215; p. 971.
Candy. F. X. Kuchler & Son. No. 104,835; June 22; Gaz. vol. 215; p. 1257.
Candy. The Nuss Confectionery Co. No. 104,806; June 15; Gaz. vol. 215; p. 974.
Candy. Pieratt & Collins Co. No. 104,645; June 8; Gaz. vol. 215; p. 662.
Candy confection. P. A. Mandabach. No. 104,803; June 15; Gaz. vol. 215; p. 974.
Canned fruits, vegetables, and oysters. H. J. McGrath Company. No. 104,623; June 8; Gaz. vol. 215; p. 662.
Canned peas, corn, and tomatoes. Girard Grocery Company. No. 104,558; June 1; Gaz. vol. 215; p. 320.
Canned pineapple. Pearl City Fruit Co. No. 104,545; June 1; Gaz. vol. 215; p. 320.

Canned vegetables and fruits. Canastota Canning Company. Nos. 104,666–7; June 8; Gaz. vol. 215; p. 663.
Canteens. W. J. Brett. No. 104,902; June 22; Gaz. vol. 215; p. 1259.
Caramels and candies. American Caramel Company. No. 104,919; June 22; Gaz. vol. 215; p. 1260.
Carbon-remover. Cyclone Co. No. 104,866; June 22; Gaz. vol. 215; p. 1258.
Cathartic. M. R. White. No. 104,897; June 22; Gaz. vol. 215; p. 1259.
Cathartic and laxative. T. M. Griffiths. No. 104,723; June 15; Gaz. vol. 215; p. 972.
Cathartic pastils. H. P. Simpson. No. 104,996; June 29; Gaz. vol. 215; p. 1495.
Cement, Portland. Marquette Cement Manufacturing Co. No. 104,984; June 29; Gaz. vol. 215; p. 1495.
Cement, Portland. The Ogden Portland Cement Co. No. 104,568; June 1; Gaz. vol. 215; p. 321.
Cement, Structural. H. B. French. No. 105,016; June 29; Gaz. vol. 215; p. 1495.
Chair-seats, Fiber. Bison Fibre Company. No. 104,438; June 1; Gaz. vol. 215; p. 317.
Chairs, Babies' high. Wabash Sani-Tray Co. No. 104,493; June 1; Gaz. vol. 215; p. 318.
Cheese. Phenix Cheese Co. No. 104,546; June 1; Gaz. vol. 215; p. 320.
Cheese. Phenix Cheese Co. No. 104,748; June 15; Gaz. vol. 215; p. 972.
Chianti, Red and white. Vola Importing Company. No. 104,895; June 22; Gaz. vol. 215; p. 1259.
Chilli sauce and marmalade. Home Maid Products Co. No. 104,727; June 15; Gaz. vol. 215; p. 972.
Chocolates. Sweet Candy Company. Nos. 104,849–50; June 22; Gaz. vol. 215; p. 1257.
Chocolates, bonbons, caramels, &c. E. M. Attridge. No. 104,588; June 8; Gaz. vol. 215; p. 661.
Churns. United States Manufacturing Co. No. 105,003; June 29; Gaz. vol. 215; p. 1495.
Cigars. Helneman Bros. No. 104,450; June 1; Gaz. vol. 215; p. 317.
Cigars. Steeves & Tilton. No. 105,026; June 29; Gaz. vol. 215; p. 1496.
Cigars. I. Teitelbaum. No. 104,550; June 1; Gaz. vol. 215; p. 320.
Cigars. Wertheimer Bros. No. 104,659; June 8; Gaz. vol. 215; p. 663.
Cigars. J. H. Wetzler. No. 104,660; June 8; Gaz. vol. 215; p. 663.
Cigars, tobacco, cigarettes, and cheroots. Kansas City Wholesale Grocery Co. No. 104,769; June 15; Gaz. vol. 215; p. 973.
Cleaners, Electric vacuum-. The Apex Electrical Manufacturing Co. No. 105,007; June 29; Gaz. vol. 215; p. 1495.
Cleaners, Vacuum-. United Distributing Companies. No. 104,756; June 15; Gaz. vol. 215; p. 973.
Cleaning and polishing compound for metal surfaces. G. E. Simons. No. 104,517; June 1; Gaz. vol. 215; p. 319.
Cleaning and polishing preparations for metal, leather, glass, wood, &c. Chemische Fabrik Düsseldorf Aktiengesellschaft. No. 104,930; June 29; Gaz. vol. 215; p. 1497.
Cleaning preparation, Detergent. Faxon, Williams & Faxon. No. 104,448; June 1; Gaz. vol. 215; p. 317.
Cleansing, polishing, and scouring article. H. S. Williams. No. 104,498; June 1; Gaz. vol. 215; p. 319.
Cloaks, coats, suits, and dresses. I. E. Goldman. No. 104,831; June 22; Gaz. vol. 215; p. 1257.
Clocks. The E. Ingraham Company. No. 104,799; June 15; Gaz. vol. 215; p. 974.
Closets and sanitary washstands, Chemical. Rowe Sanitary Mfg. Co. No. 104,483; June 1; Gaz. vol. 215; p. 318.
Closets, urinals, &c., Vitreous-china water-. Thomas Maddock's Sons Company. No. 104,802; June 15; Gaz. vol. 215; p. 974.
Clothes-driers. A. Nosworthy. No. 104,950; June 29; Gaz. vol. 215; p. 1493.
Clothing, Certain named. B. L. Herman. No. 104,685; June 8; Gaz. vol. 215; p. 664.
Clutches. E. E. Brown. No. 104,861; June 22; Gaz. vol. 215; p. 1258.
Coal. Blocton Cahaba Coal Co. No. 104,439; June 1; Gaz. vol. 215; p. 317.
Coating apparatus, Surface-. De Vilbiss Manufacturing Co. No. 104,581; June 1; Gaz. vol. 215; p. 321.
Coats and outer suits, Ladies'. S. L. Silver & Co. No. 104,847; June 22; Gaz. vol. 215; p. 1257.
Coats and outer suits, Ladies'. S. L. Silver & Co. No. 104,956; June 29; Gaz. vol. 215; p. 1494.
Coats, cloaks, wraps, suits, costumes, and capes. The Salt's Textile Manufacturing Company. Nos. 104,677–8; June 8; Gaz. vol. 215; p. 663.
Coffee. Denison & Company. No. 104,602; June 8; Gaz. vol. 215; p. 661.
Coffee. The Federal Coffee Mills Company. No. 104,870; June 22; Gaz. vol. 215; p. 1258.
Coffee. G. Lindberg. No. 104,541; June 1; Gaz. vol. 215; p. 320.
Coffee and tea. B. J. Bean. No. 104,590; June 8; Gaz. vol. 215; p. 661.
Coffee and tea. The Holbrook Grocery Co. Nos. 104,560–1; June 1; Gaz. vol. 215; p. 320.
Coffee-clarifier. Morley & Co. No. 104,774; June 15; Gaz. vol. 215; p. 973.
Coffee-grinders. The Adroit Manufacturing Co. No. 104,585; June 8; Gaz. vol. 215; p. 661.
Coffee, Roasted. The Querbacker Coffee Co. No. 104,569; June 1; Gaz. vol. 215; p. 321.
Coffee, Roasted. Steinwender-Stoffregen Coffee Co. No. 104,810; June 15; Gaz. vol. 215; p. 974.
Coffee, Roasted. William Schotten Coffee Co. No. 104,845; June 22; Gaz. vol. 215; p. 1257.
Coffee, Roasted ground. A. M. & J. C. Dupont. No. 104,963; June 29; Gaz. vol. 215; p. 1494.
Coffee substitute, Cereal. Kono Cereal Co. No. 104,735; June 15; Gaz. vol. 215; p. 972.
Cognacs and brandies. Barbaressos Bros. No. 104,856; June 22; Gaz. vol. 215; p. 1258.
Collars. J. & M. Cohn. No. 104,443; June 1; Gaz. vol. 215; p. 317.
Collars, Ladies'. Timothy F. Crowley, Incorporated. No. 104,668; June 8; Gaz. vol. 215; p. 663.
Collars, Ladies'. Timothy F. Crowley, Incorporated. No. 104,962; June 29; Gaz. vol. 215; p. 1494.
Compound for treatment of dandruff and eczema and for a hair-tonic. Whetzel, Billups & Pickrell. No. 104,496; June 1; Gaz. vol. 215; p. 318.
Concrete *in situ*, Molding apparatus for casting. Unit-Wall Construction Company. No. 104,579; June 1; Gaz. vol. 215; p. 321.
Conserved cherries. Rheinstrom Bros. No. 104,989; June 29; Gaz. vol. 215; p. 1495.
Cosmetic for effecting growth of eyelashes and eyebrows. Lashineen Company. No. 104,459; June 1; Gaz. vol. 215; p. 317.
Cotton duck. Turner, Halsey Company. No. 104,491; June 1; Gaz. vol. 215; p. 318.
Cotton fiber in sheet or blanket form stitched throughout, Unspun. Knitted Padding Company. No. 104,801; June 15; Gaz. vol. 215; p. 974.
Cotton piece goods. Carl Co. No. 104,708; June 15; Gaz. vol. 215; p. 971.
Cotton piece goods. M. M. V. Co. No. 104,837; June 22; Gaz. vol. 215; p. 1257.
Cotton piece goods. Wegelin & Schweizer. No. 104,495; June 1; Gaz. vol. 215; p. 318.
Cotton piece goods, Certain named. Tootal, Broadhurst Lee Company. No. 104,917; June 22; Gaz. vol. 215; p. 1259.
Cough-drops and catarrh-bonbons. W. Fritz Company. No. 104,873; June 22; Gaz. vol. 215; p. 1258.
Crackers. The Lindquist Cracker Co. No. 104,563; June 1; Gaz. vol. 215; p. 321.
Crackers. Walker & Tracy. No. 104,690; June 8; Gaz. vol. 215; p. 664.
Crackers. Walker & Tracy. No. 104,853; June 22; Gaz. vol. 215; p. 1258.
Crackers and biscuits. New England Biscuit Company. No. 104,565; June 1; Gaz. vol. 215; p. 321.
Crackers, Oyster-. The Geo. H. Strietmann's Sons Co. No. 104,851; June 22; Gaz. vol. 215; p. 1257.
Cranberries. G. W. Davis. No. 104,661; June 8; Gaz. vol. 215; p. 661.
Crayons. Binney & Smith Company. No. 104,814; June 15; Gaz. vol. 215; p. 974.
Cream and skin-cleanser, Cold-. L. Rivears. No. 104,515; June 1; Gaz. vol. 215; p. 319.
Cream-separators. Firm of H. Lanz. No. 104,770; June 15; Gaz. vol. 215; p. 973.
Cream-separators. Swedish Separator Co. No. 104,785; June 15; Gaz. vol. 215; p. 973.
Cream-separators, clarifiers, and milking-machines. The Sharples Separator Co. No. 104,955; June 29; Gaz. vol. 215; p. 1494.
Crockery and earthenware, Certain named. The Brush-McCoy Pottery Company. No. 104,665; June 8; Gaz. vol. 215; p. 663.
Curtain-rods, Metal. The Turner & Seymour Manufacturing Co. No. 105,002; June 29; Gaz. vol. 215; p. 1495.
Curtains and draperies. The Scranton Lace Company. No. 104,485; June 1; Gaz. vol. 215; p. 318.
Cutlery, machinery, and tools, Certain named. The Charles William Stores. No. 104,811; June 15; Gaz. vol. 215; p. 974.
Cutlery, machinery, and tools, Certain named. Hibbard, Spencer, Bartlett & Co. No. 104,614; June 8; Gaz. vol. 215; p. 662.
Dental impression material, Powdered. A. E. Healy, D. D. S. No. 104,559; June 1; Gaz. vol. 215; p. 320.
Dental supplies. De Trey Bros. No. 104,867; June 22; Gaz. vol. 215; p. 1258.
Dental technicons, articulators, and articulator-holders. J. P. Harper. No. 104,724; June 15; Gaz. vol. 215; p. 972.
Dentifrices. A. W. Knox. No. 104,734; June 15; Gaz. vol. 215; p. 972.
Dentist-plates. Jacob Petry Suction Retainer Company. No. 104,886; June 22; Gaz. vol. 215; p. 1259.
Digestants and medicinal preparations for dyspepsia, indigestion, &c. Bristol-Myers Company. No. 104,706; June 15; Gaz. vol. 215; p. 971.
Disinfectant, antiseptic, insecticide, and germicide. Border Chemical Company. No. 104,529; June 1; Gaz. vol. 215; p. 320.
Dolls. A. C. Renwick. No. 104,887; June 22; Gaz. vol. 215; p. 1259.

Dolls and other toys made of pyroxylin compounds. Rheinische Gummi- und Celluloid-Fabrik. No. 104,499; June 1; Gaz. vol. 215; p. 319.
Drops, Stomach-. R. Simon. No. 104,486; June 1; Gaz. vol. 215; p. 318.
Egg-testers, Electric. H. J. Ferer. No. 104,936; June 29; Gaz. vol. 215; p. 1493.
Electric extension-conductors. Inland Electric Co. No. 104,921; June 22; Gaz. vol. 215; p. 1260.
Electric-lighting apparatus, dimmers for electric-light fixtures. Wirt Company. No. 104,554; June 1; Gaz. vol. 215; p. 320.
Electrical and galvanic carbons. C. Conradty. No. 104,532; June 1; Gaz. vol. 215; p. 320.
Electrical and galvanic carbons. Firm of C. Conradty. Nos. 104,793–4; June 15; Gaz. vol. 215; p. 974.
Electrical apparatus and supplies, Certain named. The Electric Controller and Manufacturing Company. No. 104,714; June 15; Gaz. vol. 215; p. 971.
Electrical-conduit fittings. Killark Electric Manufacturing Co. No. 104,618; June 8; Gaz. vol. 215; p. 662.
Electrical lighting means for motion-picture and other auditoriums. Shade-Lite Manufacturing Company. No. 104,516; June 1; Gaz. vol. 215; p. 319.
Engines, Traction-. Bull Tractor Co. No. 104,593; June 8; Gaz. vol. 215; p. 661.
Explosives, Permissive. Burton Powder Company. No. 104,441; June 1; Gaz. vol. 215; p. 317.
Eye shades and shields. F. A. Hardy & Co. No. 104,612; June 8; Gaz. vol. 215; p. 661.
Feed, Stock, dairy-animal, and poultry. Ralston Purina Company. No. 104,915; June 22; Gaz. vol. 215; p. 1259.
Fertilizer. W. E. Whann Company. No. 104,661; June 8; Gaz. vol. 215; p. 663.
Fertilizers. American Agricultural Chemical Co. No. 104,433; June 1; Gaz. vol. 215; p. 317.
Fertilizers. R. A. Wooldridge Company. No. 104,663; June 8; Gaz. vol. 215; p. 663.
Figs. The Hills Brothers Company. No. 104,536; June 1; Gaz. vol. 215; p. 320.
Figs and dates. The Hills Brothers Company. No. 104,537; June 1; Gaz. vol. 215; p. 320.
Figs, Preserved. Adam Bros. & Sellers Fig Co. Nos. 104,691–2; June 15; Gaz. vol. 215; p. 971.
Fireworks. Consolidated Fireworks Company of America. No. 104,932; June 29; Gaz. vol. 215; p. 1493.
Fireworks. E. H. Wagner. No. 104,494; June 1; Gaz. vol. 215; p. 318.
Fish, cervalat and salame sausage, Smoked. Richard Schnibbe, Inc. No. 104,954; June 29; Gaz. vol. 215; p. 1494.
Fish-hooks, fishing-lines, stuffed toy figures, &c. United Drug Company. No. 104,657; June 8; Gaz. vol. 215; p. 663.
Flat-ware, tableware, hollow ware, &c. The Mount Vernon Company—Silversmiths. No. 104,948; June 29; Gaz. vol. 215; p. 1493.
Flavor of butter to certain products, Compound for imparting. T. A. Faulds. No. 105,013; June 29; Gaz. vol. 215; p. 1495.
Flavoring extracts and spices. Co-operative Drug Manufacturing Company, now by change of name American Drug Mfg. Co. Nos. 104,597–8; June 8; Gaz. vol. 215; p. 661.
Flooring, Maple. Bliss & Van Auken Lumber Co. No. 104,591; June 8; Gaz. vol. 215; p. 661.
Flour, Self-rising wheat-. The Acme Mills. No. 104,432; June 1; Gaz. vol. 215; p. 317.
Flour, Wheat-. Columbia Star Milling Co. No. 104,970; June 29; Gaz. vol. 215; p. 1494.
Flour, Wheat-. Pillsbury Flour Mills Company. No. 104,646; June 8; Gaz. vol. 215; p. 662.
Flour, Wheat-. Shannon & Mott Company. No. 105,025; June 29; Gaz. vol. 215; p. 1496.
Flour, Wheat-. Sparks Milling Company. No. 104,848; June 22; Gaz. vol. 215; p. 1257.
Flour, Wheat-. G. Terryberry. No. 104,655; June 8; Gaz. vol. 215; p. 663.
Flour, Wheat-. Whaley Mill & Elevator Co. No. 105,031; June 29; Gaz. vol. 215; p. 1496.
Flours and cornmeal, Wheat, Graham, and pancake. E. O. Harris. No. 104,725; June 15; Gaz. vol. 215; p. 972.
Flours, cornmeal, scratch, &c. Little Crow Milling Co. No. 104,836; June 22; Gaz. vol. 215; p. 1257.
Fly-killers, Hand. United States Wire Mat Company. No. 104,658; June 8; Gaz. vol. 215; p. 663.
Food, Stock. F. H. Frayser. No. 104,766; June 15; Gaz. vol. 215; p. 973.
Foods, Certain named. L. S. Elmer. No. 104,869; June 22; Gaz. vol. 215; p. 1258.
Foods, Certain named. Habicht, Braun & Co. No. 104,768; June 15; Gaz. vol. 215; p. 973.
Foods, Certain named. J. H. Orr Co. No. 104,644; June 8; Gaz. vol. 215; p. 662.
Foods, Certain named. The J. K. Armsby Co. No. 104,684; June 8; Gaz. vol. 215; p. 664.
Fruit-pulp, jellies, vinegar, and mustard, Preserved. S. N. Samaha & Bro. No. 104,916; June 22; Gaz. vol. 215; p. 1259.
Fruits, Citrus. Eagle Lake Citrus Growers Association. No. 104,503; June 1; Gaz. vol. 215; p. 319.
Fruits, Citrus. Lakeland Citrus Growers Association. Nos. 104,512–13; June 1; Gaz. vol. 215; p. 319.
Fruits, Citrus. Pitino Brothers. No. 104,988; June 29; Gaz. vol. 215; p. 1495.
Fruits, Dried. The J. K. Armsby Co. No. 104,523; June 1; Gaz. vol. 215; p. 319.
Fur scarfs and muffs. Jalkoff Bros. Nos. 104,941–3; June 29; Gaz. vol. 215; p. 1493.
Furniture, piano, automobile, &c., polish and cleaner. Du Mor Specialty Co. No. 104,829; June 22; Gaz. vol. 215; p. 1257.
Furniture-polish and varnish-remover. Cactus Chemical Co. No. 105,010; June 29; Gaz. vol. 215; p. 1495.
Fuse-plugs and cartridges, Safety. C. C. Balassa. No. 104,525; June 1; Gaz. vol. 215; p. 319.
Garments, Combination outer and under. J. Goldberg. No. 104,722; June 15; Gaz. vol. 215; p. 972.
Garments, Sleeping-. W. D. Craig. No. 105,034; June 29; Gaz. vol. 215; p. 1496.
Germicides. Chicago Germicide Co. No. 104,791; June 15; Gaz. vol. 215; p. 974.
Gins. A. Forbes. No. 104,555; June 1; Gaz. vol. 215; p. 320.
Glassware, Illuminating-. Steuben Glass Works. No. 104,518; June 1; Gaz. vol. 215; p. 319.
Gloves. F. Fitz Gibbon & Co. No. 104,720; June 15; Gaz. vol. 215; p. 971.
Gloves, Kid. James H. Dunham & Co. No. 104,445; June 1; Gaz. vol. 215; p. 317.
Golf-balls. The Worthington Ball Company. No. 105,005; June 29; Gaz. vol. 215; p. 1495.
Grapes, Fresh table-. Cash Buyers Union. No. 104,595; June 8; Gaz. vol. 215; p. 661.
Grease cups, guns, and fittings, Pressed-metal. City Iron Works & Machine Co. No. 104,792; June 15; Gaz. vol. 215; p. 974.
Groceries, Certain named dry. A. Ehlers. No. 104,607; June 8; Gaz. vol. 215; p. 661.
Gum and candy, Chewing-. Frank H. Fleer Corporation. No. 104,506; June 1; Gaz. vol. 215; p. 319.
Gum, Chewing-. The Bee Bee Confection Company. No. 104,824; June 22; Gaz. vol. 215; p. 1257.
Gum, Chewing-. Pulver Company. No. 104,571; June 1; Gaz. vol. 215; p. 321.
Gum, Chewing-. A. M. Stockwell. No. 104,519; June 1; Gaz. vol. 215; p. 319.
Gum, Chewing-. Wm. Wrigley, Jr. Company. No. 105,032; June 29; Gaz. vol. 215; p. 1496.
Gum, Laxative. L. H. Pinco. No. 104,478; June 1; Gaz. vol. 215; p. 318.
Hair colorings and dyes. The Empire Regenerator Company. No. 104,716; June 15; Gaz. vol. 215; p. 971.
Hair-nets. Hyman & Oppenheim. No. 104,832; June 22; Gaz. vol. 215; p. 1257.
Hair-nets. A. Klar. No. 105,021; June 29; Gaz. vol. 215; p. 1496.
Hair-nets. Rudolph Saenger Co. Nos. 104,573–6; June 1; Gaz. vol. 215; p. 321.
Hair switches. National Hair Goods Company. No. 105,023; June 29; Gaz. vol. 215; p. 1496.
Hair-tonic. Barclay & Co. No. 104,436; June 1; Gaz. vol. 215; p. 317.
Hair tonic and dyes, face-cream, liniments, &c. Barclay & Co. No. 104,437; June 1; Gaz. vol. 215; p. 317.
Hair-tonic and eczema. W. H. Black. No. 105,009; June 29; Gaz. vol. 215; p. 1495.
Hair-tonic, Quinin. Covalt and Smith. No. 104,933; June 29; Gaz. vol. 215; p. 1493.
Hair tonic, restorer, and pomade. H. A. Rosenberg. No. 104,548; June 1; Gaz. vol. 215; p. 320.
Hair-tonics. F. A. Thompson & Co. No. 104,893; June 22; Gaz. vol. 215; p. 1259.
Ham and bacon, Prepared. A. Silz, Inc. No. 104,679; June 8; Gaz. vol. 215; p. 664.
Hat-linings, Adjustable. Lynat, Ltd. No. 104,543; June 1; Gaz. vol. 215; p. 320.
Hats and caps. Vassar Cap Co. No. 104,757; June 15; Gaz. vol. 215; p. 973.
Hats, Ladies'. A. L. Howitz & Co. No. 104,686; June 8; Gaz. vol. 215; p. 664.
Hats, Ladies'. P. Lieberman. No. 104,460; June 1; Gaz. vol. 215; p. 317.
Heels, Cushion-. C. W. Strohbeck. No. 104,997; June 29; Gaz. vol. 215; p. 1495.
Herrings in barrels, Pickled. A. Wood & Son. No. 104,580; June 1; Gaz. vol. 215; p. 321.
Honey and cane-syrup. R. Deignan. No. 104,447; June 1; Gaz. vol. 215; p. 317.
Hooks, Metal coat or hat. J. C. Metzger. No. 105,022; June 29; Gaz. vol. 215; p. 1496.
Horological indicators. H. H. King. No. 105,033; June 29; Gaz. vol. 215; p. 1496.
Horological indicators. Sentinel Clock Co. No. 104,995; June 29; Gaz. vol. 215; p. 1495.
Horse-powers, windlasses, vises, &c. Flint and Walling Manufacturing Co. No. 105,015; June 29; Gaz. vol. 215; p. 1495.
Hose, Infants'. Hub Hosiery Mills. No. 104,562; June 1; Gaz. vol. 215; p. 321.
Hosiery. Durham Hosiery Mills. No. 104,446; June 1; Gaz. vol. 215; p. 317.
Hosiery. Holeproof Hosiery Co. No. 104,940; June 29; Gaz. vol. 215; p. 1493.
Hosiery. A. Y. Victorius Co. No. 104,894; June 22; Gaz. vol. 215; p. 1259.
Ice-cream-sandwich machines. C. R. McDonald. No. 104,912; June 22; Gaz. vol. 215; p. 1259.
Incubator. Radio-Round Incubator Co. No. 104,480; June 1; Gaz. vol. 215; p. 318.

Index boxes, Card-. Tower Manufacturing & Novelty Co. No. 104,852; June 22; Gaz. vol. 215; p. 1258.
Ink, Writing-. Taylor Chemical Co. No. 104,957; June 29; Gaz. vol. 215; p. 1494.
Insecticide. H. C. Dusenberry, Inc. No. 104,900; June 22; Gaz. vol. 215; p. 1259.
Insecticide. S. Kidd. No. 104,733; June 15; Gaz. vol. 215; p. 972.
Insecticide. E. Leech. No. 104,736; June 15; Gaz. vol. 215; p. 972.
Insecticides and fungicides. Ausbacher Insecticide Co. No. 104,695; June 15; Gaz. vol. 215; p. 971.
Insulating substance, Impregnating liquids for coating a material to render it available for. Redmanol Chemical Products Co. No. 104,751; June 15; Gaz. vol. 215; p. 972.
Insulating-varnish. Sherwin-Williams Co. No. 104,808; June 15; Gaz. vol. 215; p. 974.
Ironing-board covering. A. D. Rochau. No. 104,547; June 1; Gaz. vol. 215; p. 320.
Jams, Jellies, preserved fruits, teas, &c. Klauber Wangenheim Co. No. 104,540; June 1; Gaz. vol. 215; p. 320.
Joint cement, Metallic-. Thomas & Bishop. No. 104,490; June 1; Gaz. vol. 215; p. 318.
Knit and woven union suits. The Imperial Underwear Company. No. 104,729; June 15; Gaz. vol. 215; p. 972.
Knives and knife-blades. Nagle Re Blade Knife Company. No. 104,859; June 22; Gaz. vol. 215; p. 1257.
Lamps and stands, electric-light fixtures and brackets, Electric. Maxwell-Ray Company. No. 104,564; June 1; Gaz. vol. 215; p. 321.
Lamps, hangers and carbons for same, projectors, Arc-. Kandeum Electric Company. No. 104,800; June 15; Gaz. vol. 215; p. 974.
Lard substitute. W. R. Grace & Co. No. 104,509; June 1; Gaz. vol. 215; p. 319.
Lard substitute. The Southern Lard and Provision Company. No. 104,965; June 29; Gaz. vol. 215; p. 1494.
Lathing, Expanded-metal. Northwestern Expanded Metal Company. Nos. 104,642–3; June 8; Gaz. vol. 215; p. 662.
Laxative. W. H. Black. No. 104,761; June 15; Gaz. vol. 215; p. 973.
Laxative syrup. National Remedy Company. No. 104,840; June 22; Gaz. vol. 215; p. 1257.
Laxatives, Candy. E. Bolgar. No. 104,703; June 15; Gaz. vol. 215; p. 971.
Lenses for illuminating and signaling, Lamp and lantern. Corning Glass Works. No. 104,599; June 8; Gaz. vol. 215; p. 661.
Lightning-rods, lightning-rod parts, fixtures, points, and ornaments. Cole Brothers Lightning Rod Company. Nos. 104,530–1; June 1; Gaz. vol. 215; p. 320.
Lime. H. A. Smith. No. 104,891; June 22; Gaz. vol. 215; p. 1259.
Liniment. R. Brown. No. 104,862; June 22; Gaz. vol. 215; p. 1258.
Liniment. S. Fargo. No. 104,718; June 15; Gaz. vol. 215; p. 971.
Liniment for treatment of certain named diseases and affections. M. L. Stefanski. No. 104,755; June 15; Gaz. vol. 215; p. 973.
Lining fabrics. S. M. Hexter & Company. No. 104,875; June 22; Gaz. vol. 215; p. 1258.
Linoleums. The Nairn Linoleum Co. No. 104,629; June 8; Gaz. vol. 215; p. 662.
Liqueur. E. Godfree, Felton & Co. No. 104,508; June 1; Gaz. vol. 215; p. 319.
Locks, latches, keys, padlocks, &c. Sargent & Company. No. 104,651; June 8; Gaz. vol. 215; p. 663.
Lotions, Skin, &c. The Zoz Chemical Company. No. 105,006; June 29; Gaz. vol. 215; p. 1495.
Magazine, Monthly. American Manufacturing Co. No. 104,522; June 1; Gaz. vol. 215; p. 319.
Magazine, Monthly. C. R. Cook Paint Company. No. 104,816; June 15; Gaz. vol. 215; p. 974.
Magazine, Monthly. A. J. Fischer. No. 104,764; June 15; Gaz. vol. 215; p. 973.
Magazines, Monthly. Chapple Publishing Company. No. 104,442; June 1; Gaz. vol. 215; p. 317.
Magnetos. Sumter Electrical Company. Nos. 104,681–2; June 8; Gaz. vol. 215; p. 664.
Manicure instruments. M. Klaas. No. 104,878; June 22; Gaz. vol. 215; p. 1258.
Maps. E. Hence & Co. No. 104,451; June 1; Gaz. vol. 215; p. 317.
Matches. North American Mercantile Co. No. 104,883; June 22; Gaz. vol. 215; p. 1258.
Mattresses, Cotton-felt. Bloom & Godley Co. No. 104,556; June 1; Gaz. vol. 215; p. 320.
Measuring and scientific appliances, Certain named. American Optical Company. No. 104,664; June 8; Gaz. vol. 215; p. 663.
Measuring and scientific appliances, Certain named. Sargent & Company. No. 104,649; June 8; Gaz. vol. 215; p. 663.
Measuring machines and parts, Cloth and fabric. The Measuregraph Company. No. 104,624; June 8; Gaz. vol. 215; p. 662.
Medical and surgical appliances, Certain named. Lee Tire & Rubber Co. No. 104,879; June 22; Gaz. vol. 215; p. 1258.
Medicinal preparation. The Petroline Co. No. 104,885; June 22; Gaz. vol. 215; p. 1258.
Medicinal preparation for diseases of poultry. R. Lich. No. 104,946; June 29; Gaz. vol. 215; p. 1493.
Medicinal preparations containing iodin. J. D. Riedel Aktiengesellschaft. No. 104,990; June 29; Gaz. vol. 215; p. 1495.
Medicine, Tuberculosis. N. Hartford. No. 104,937; June 29; Gaz. vol. 215; p. 1493.
Medicine used as a tonic, stimulant, &c. The Cooper Medicine Company. No. 104,828; June 22; Gaz. vol. 215; p. 1257.
Medicines and pharmaceutical preparations, Certain named. G. F. E. Pawlas. No. 104,884; June 22; Gaz. vol. 215; p. 1258.
Medicines and pharmaceutical preparations, Certain named. John Wyeth & Brother. No. 104,497; June 1; Gaz. vol. 215; p. 319.
Metal-polishes. D. M. Tetzloff. No. 105,001; June 29; Gaz. vol. 215; p. 1495.
Metal surfaces, Solution for removing rust and grease from. American Chemical Paint Company. No. 104,434; June 1; Gaz. vol. 215; p. 317.
Milk, Canned evaporated. Mount Vernon Cream Co. No. 104,627; June 8; Gaz. vol. 215; p. 662.
Milk, Condensed. N. V. Fabriek van Melkproducten "Excelsior." Nos. 104,466–7; June 1; Gaz. vol. 215; p. 318.
Milk, Condensed. Naaml. Venn. "Excelsior" Fabriek van Melkproducten. Nos. 104,468–70; June 1; Gaz. vol. 215; p. 318.
Milk, Dry or evaporated. A/S Egron. No. 104,606; June 8; Gaz. vol. 215; p. 661.
Milk scientifically soured, Whole. Childs Company. No. 104,865; June 22; Gaz. vol. 215; p. 1258.
Mitts and gloves. O. C. Hansen Mfg. Company. No. 104,977; June 29; Gaz. vol. 215; p. 1494.
Mops. P. De Roo Sons. No. 104,711; June 15; Gaz. vol. 215; p. 971.
Motor-cycles and bicycles, Certain named accessories and supplies for. Angsten-Koch Company. No. 104,694; June 15; Gaz. vol. 215; p. 971.
Music-playing instruments and music-rolls therefor, Mechanical. The Wilcox & White Company. No. 104,786; June 15; Gaz. vol. 215; p. 973.
Nails, Horseshoe-. The Fowler Nail Co. No. 104,872; June 22; Gaz. vol. 215; p. 1258.
Neckties, neckscarfs, and jabots. Louis Auerbach, Inc. No. 104,698; June 15; Gaz. vol. 215; p. 971.
Newspaper. Morning Journal Association. No. 104,465; June 1; Gaz. vol. 215; p. 318.
Nippers, Hoof-. The Lowe Manufacturing Company. No. 104,542; June 1; Gaz. vol. 215; p. 320.
Odometers, revolution and motion counters. Stewart-Warner Speedometer Corporation. No. 105,027; June 29; Gaz. vol. 215; p. 1496.
Oil, Automobile-. Sears, Roebuck and Co. No. 104,846; June 22; Gaz. vol. 215; p. 1257.
Oil for topical use, Remedial. N. Sapuh. No. 104,843; June 22; Gaz. vol. 215; p. 1257.
Oil, Lubricating-. Blake Oil Co. No. 104,762; June 15; Gaz. vol. 215; p. 973.
Oil, Olive-. Rocco Perretta & Co. No. 104,676; June 8; Gaz. vol. 215; p. 663.
Oil, Olive-. San Antonio Drug Company. No. 104,577; June 1; Gaz. vol. 215; p. 321.
Oil, Petrolatum-. Standard Oil Company. No. 104,680; June 8; Gaz. vol. 215; p. 664.
Oil pressed from cotton-seed, Salad-. Aspegren & Co. No. 104,587; June 8; Gaz. vol. 215; p. 661.
Oil, Refined petroleum illuminating-. Standard Oil Company. No. 104,999; June 29; Gaz. vol. 215; p. 1495.
Oil used as a medicine and as an ingredient of medicinal preparations, Mineral. L. Sonneborn Sons. No. 104,653; June 8; Gaz. vol. 215; p. 663.
Oil, Wood-preserving. Page & Hill Co. No. 104,746; June 15; Gaz. vol. 215; p. 972.
Oils and greases, also fuel-oils, Lubricating. Penn Oil and Supply Co. No. 104,747; June 15; Gaz. vol. 215; p. 972.
Oils and greases, Lubricating. Fiske Brothers Refining Co. No. 104,504; June 1; Gaz. vol. 215; p. 319.
Oils and lubricants, Lubricating-. B. G. Desmond. No. 104,603; June 8; Gaz. vol. 215; p. 661.
Ointment. J. R. A. Brown. No. 104,929; June 29; Gaz. vol. 215; p. 1493.
Ointment. J. Fay. No. 104,719; June 15; Gaz. vol. 215; p. 971.
Ointment. E. I. Leighton. No. 104,982; June 29; Gaz. vol. 215; p. 1494.
Ointment, Compound sulfur. Menley & James. No. 104,463; June 1; Gaz. vol. 215; p. 318.
Ointment for irritation or inflammation of the mucous membrane. F. W. Schoonmaker. No. 104,888; June 22; Gaz. vol. 215; p. 1259.
Olives. Curtis Olive Corporation. No. 104,974; June 29; Gaz. vol. 215; p. 1494.
Oranges and grape-fruit. Smyrna & Hawk Park Citrus Growers Association. No. 104,578; June 1; Gaz. vol. 215; p. 321.
Oranges, grape-fruit, and tangerines. J. J. Parrish. No. 104,475; June 1; Gaz. vol. 215; p. 318.
Overalls, jumpers, overall coats and pants. Rose-Rogers Co. No. 104,953; June 29; Gaz. vol. 215; p. 1494.
Overalls, Men's and boys'. J. Baker & Sons. No. 104,926; June 29; Gaz. vol. 215; p. 1493.

Oysters, Fresh. C. B. Muench Co. No. 104,628; June 8; Gaz. vol. 215; p. 662.
Paints and painters' supplies, Certain named. E. E. Nice. No. 104,775; June 15; Gaz. vol. 215; p. 973.
Paints, Protective iron and steel. Trussed Concrete Steel Company. No. 104,552; June 1; Gaz. vol. 215; p. 320.
Paints, varnishes, and enamels, Mill-mixed liquid. King Paint Mfg. Co. No. 104,944; June 29; Gaz. vol. 215; p. 1493.
Paints, varnishes, and enamels, Prepared. King Paint Mfg. Co. No. 104,511; June 1; Gaz. vol. 215; p. 319.
Paper and stationery supplies, Certain named. Dennison Manufacturing Company. No. 104,710; June 15; Gaz. vol. 215; p. 971.
Paper ice and nursery blankets. Kalamazoo Vegetable Parchment Company. No. 104,456; June 1; Gaz. vol. 215; p. 317.
Paper, Toilet-. Sauquoit Toilet Paper Co. Nos. 104,779–83; June 15; Gaz. vol. 215; p. 973.
Paper, Toilet, writing, printing, &c. C. H. Dexter & Sons. No. 104,712; June 15; Gaz. vol. 215; p. 971.
Paper, Wrapping-. Badger Bag & Paper Co. No. 104,524; June 1; Gaz. vol. 215; p. 319.
Paper, Writing-. E. E. Lloyd Paper Co. No. 104,461; June 1; Gaz. vol. 215; p. 317.
Paper, Writing-. H. A. Sarle. No. 104,778; June 15; Gaz. vol. 215; p. 973.
Peanuts and peanut-butter. Fletcher & Wilson Coffee Co. No. 104,609; June 8; Gaz. vol. 215; p. 661.
Peanuts, Salted. M. P. Taylor. No. 105,000; June 29; Gaz. vol. 215; p. 1495.
Percolators, Coffee-. J. B. Bleichrode. No. 104,527; June 1; Gaz. vol. 215; p. 319.
Perfumes and sachet-powder. E. Moulié. No. 104,947; June 29; Gaz. vol. 215; p. 1493.
Perfumes, toilet waters, sachet and talcum powders. C. B. Woodworth Sons Co. No. 104,758; June 15; Gaz. vol. 215; p. 973.
Periodical, Monthly. H. W. Phillips. No. 104,819; June 15; Gaz. vol. 215; p. 974.
Petroleum, Refined. Dilsizian Bros. Nos. 104,604–5; June 8; Gaz. vol. 215; p. 661.
Pharmaceutical preparation for destroying vermin, &c. W. H. Metzger Manufacturing Company. No. 104,772; June 15; Gaz. vol. 215; p. 973.
Pharmaceutical preparations and remedies for certain named diseases, Certain. Co-operative Drug Manufacturing Company, now by change of name American Drug Mfg. Co. No. 104,596; June 8; Gaz. vol. 215; p. 661.
Pharmaceutical preparations, Certain named. Eisner-Mendelson Co. No. 104,713; June 15; Gaz. vol. 215; p. 971.
Pharmaceutical preparations, Certain named. Kirk Geary & Co. No. 104,945; June 29; Gaz. vol. 215; p. 1493.
Pharmaceutical preparations, Certain named. C. B. Spies. No. 104,488; June 1; Gaz. vol. 215; p. 318.
Pharmaceutical preparations for the treatment of certain named ailments. J. A. Kelly. No. 105,020; June 29; Gaz. vol. 215; p. 1496.
Pharmaceutical preparations for toilet purposes, Certain named. Richard Hudnut, Inc. No. 104,728; June 15; Gaz. vol. 215; p. 972.
Pharmaceutical preparations for toilet use, Certain named. E. M. Attridge. No. 104,435; June 1; Gaz. vol. 215; p. 317.
Piano-players, self-playing pianos, orchestrions, &c. The Operators' Piano Co. No. 104,473; June 1; Gaz. vol. 215; p. 318.
Pianos. Miller Organ & Piano Co. No. 104,773; June 15; Gaz. vol. 215; p. 973.
Pianos, Automatic. Lester Piano Company. No. 104,738; June 15; Gaz. vol. 215; p. 972.
Pianos, organs, player-pianos, horns, &c. The Cussins & Fearn Co. No. 104,934; June 29; Gaz. vol. 215; p. 1493.
Picture films, Motion-. The Crystal Film Company. No. 104,817; June 15; Gaz. vol. 215; p. 974.
Picture films, Motion-. Universal Film Manufacturing Company. No. 105,030; June 29; Gaz. vol. 215; p. 1496.
Picture-films, Moving-. Universal Film Manufacturing Company. No. 104,821; June 15; Gaz. vol. 215; p. 975.
Picture-projecting machines and cameras, Motion-. Kinak Motion Picture Company. No. 104,510; June 1; Gaz. vol. 215; p. 319.
Pills, Laxative. F. C. Morgan. No. 104,741; June 15; Gaz. vol. 215; p. 972.
Pills, Liver-. L. S. Barron. No. 104,700; June 15; Gaz. vol. 215; p. 971.
Pipe-couplings. H. W. Clark Co. No. 104,827; June 22; Gaz. vol. 215; p. 1257.
Pipes, tubes, and casings, Metal. National Tube Company. Nos. 104,881–2; June 22; Gaz. vol. 215; p. 1258.
Planes, screw-drivers, awls and tools, saw-sets, &c. Sargent & Company. No. 104,650; June 8; Gaz. vol. 215; p. 663.
Plants and flowers and cut flowers, Growing. A. L. Mock. No. 104,805; June 15; Gaz. vol. 215; p. 974.
Plastic material, Certain named articles composed of. J. E. Legavre. No. 104,514; June 1; Gaz. vol. 215; p. 319.
Plushes in the piece. The Hind & Harrison Plush Co. Nos. 104,908–9; June 22; Gaz. vol. 215; p. 1259.
Plushes in the piece. The Hind & Harrison Plush Co. No. 104,939; June 29; Gaz. vol. 215; p. 1493.
Polishes for woodwork, pianos, automobiles, &c. Instant Products Co. No. 104,538; June 1; Gaz. vol. 215; p. 320.
Popcorn-machines. Holcomb & Hoke Mfg. Co. No. 104,978; June 29; Gaz. vol. 215; p. 1494.
Portfolios, pocket-books, hand-bags, &c. Geo. Borgfeldt & Co. No. 104,927; June 29; Gaz. vol. 215; p. 1493.
Post-hole diggers and repair parts therefor. L. A. Vinton & Son. No. 104,922; June 22; Gaz. vol. 215; p. 1260.
Powder, Bath-. National Bath Powder Company. No. 104,471; June 1; Gaz. vol. 215; p. 318.
Powder, Face-. W. L. Schultz. No. 104,752; June 15; Gaz. vol. 215; p. 972.
Powder, Face-. C. Tetlow. No. 104,489; June 1; Gaz. vol. 215; p. 318.
Powder, Foot-. Fully & Lewis. No. 104,721; June 15; Gaz. vol. 215; p. 972.
Preparation for cancers and tumors. G. P. Ramsey. No. 104,749; June 15; Gaz. vol. 215; p. 972.
Preparation for chills and fever. W W Chill Kill Co. No. 104,904; June 22; Gaz. vol. 215; p. 1259.
Preparation for diphtheria, sore throat, pneumonia, and la grippe. Border Chemical Company. No. 104,528; June 1; Gaz. vol. 215; p. 319.
Preparation for the brain and nerves. St. Ivel Limited. No. 104,809; June 15; Gaz. vol. 215; p. 974.
Preparation for the treatment of certain named diseases. G. M. Jackman. No. 104,910; June 22; Gaz. vol. 215; p. 1259.
Preparation for treatment of cancer. C. H. McClanahan. No. 104,880; June 22; Gaz. vol. 215; p. 1258.
Preparations for prevention of venereal diseases. S. Meyer. No. 104,740; June 15; Gaz. vol. 215; p. 972.
Preparations for the prevention of venereal diseases. S. Meyer. No. 104,985; June 29; Gaz. vol. 215; p. 1495.
Primers, fillers, surfacers, &c. Valentine & Company. No. 104,812; June 15; Gaz. vol. 215; p. 974.
Priming or sizing coat for walls and ceilings. Trussed Concrete Steel Company. No. 104,551; June 1; Gaz. vol. 215; p. 320.
Printing-presses. The American Paper Goods Company. No. 104,759; June 15; Gaz. vol. 215; p. 973.
Publication, Printed annual. R. M. Ford & Co. No. 104,535; June 1; Gaz. vol. 215; p. 320.
Pump, Bilge-. T. S. Bulmer. No. 104,763; June 15; Gaz. vol. 215; p. 973.
Radium preparations. E. Schamberg. No. 104,992; June 29; Gaz. vol. 215; p. 1495.
Razor-strops. James & Morgan Manufacturing Company. No. 104,731; June 15; Gaz. vol. 215; p. 972.
Remedies for certain named ailments, External. M. J. Nunes. No. 104,502; June 1; Gaz. vol. 215; p. 319.
Remedies for stomach and bowel ailments. W. Kalitzky. No. 104,911; June 22; Gaz. vol. 215; p. 1259.
Remedies, Poultry. The Wight Company. No. 104,898; June 22; Gaz. vol. 215; p. 1259.
Remedy, Corn. C. F. W. Becker. No. 104,701; June 15; Gaz. vol. 215; p. 971.
Remedy for certain named ailments. Mrs. L. W. James. No. 104,455; June 1; Gaz. vol. 215; p. 317.
Remedy for certain named ailments and diseases. G. F. Smith. No. 104,753; June 15; Gaz. vol. 215; p. 972.
Remedy for chills and fever. W. J. Murray. No. 104,742; June 15; Gaz. vol. 215; p. 972.
Remedy for nerves, bladder, and kidneys. Bu Kola Tablet Co. No. 104,707; June 15; Gaz. vol. 215; p. 971.
Remedy for rheumatism. Templeton Rheumatic Capsule Corporation. No. 104,689; June 8; Gaz. vol. 215; p. 664.
Remedy for rheumatism. S. C. Unruh. No. 104,492; June 1; Gaz. vol. 215; p. 318.
Remedy for rheumatism, lumbago, and kidney trouble. A. Stewart. No. 104,654; June 8; Gaz. vol. 215; p. 663.
Remedy for the treatment of certain named affections. S. Fargo. No. 104,717; June 15; Gaz. vol. 215; p. 971.
Remedy, Rheumatism. J. J. Bockar. No. 104,557; June 1; Gaz. vol. 215; p. 320.
Remedy, Rheumatism. E. V. Johnson. No. 104,877; June 22; Gaz. vol. 215; p. 1258.
Remedy, toothache-drops, cold-tablets, &c., Corn. H. L. Partridge. No. 104,841; June 22; Gaz. vol. 215; p. 1257.
Roller-coasters. Lockwood Amusement Company. No. 104,983; June 29; Gaz. vol. 215; p. 1494.
Rouges. R. H. Macy & Co. No. 104,462; June 1; Gaz. vol. 215; p. 317.
Rubber elastic bands. Arkay Rubber Co. No. 104,697; June 15; Gaz. vol. 215; p. 971.
Rubber heels and soles. W. Perkins. No. 104,476; June 1; Gaz. vol. 215; p. 318.
Rubber heels for boots and shoes. Atlantic Manufacturing Company. No. 104,967; June 29; Gaz. vol. 215; p. 1494.
Rubber jar-rings and hose. Boston Woven Hose & Rubber Co. No. 104,789; June 15; Gaz. vol. 215; p. 974.
Rubber mallets, type-writer platens, &c. Continental Rubber Works. No. 104,971; June 29; Gaz. vol. 215; p. 1494.
Rubber piston-packing, Composite. Bowers Rubber Works No. 104,440; June 1; Gaz. vol. 215; p. 317.
Ruffings. C. Bergenstein & Co. No. 104,582; June 1; Gaz. vol. 215; p. 321.

Rugs and carpets, Woven grass. Pacific Coast Rattan Co. No. 104,987; June 29; Gaz. vol. 215; p. 1495.
Salt. D. G. Cutler Company. Nos. 104,669–71; June 8; Gaz. vol. 215; p. 663.
Salt. Morton Salt Company. Nos. 104,913–14; June 22; Gaz. vol. 215; p. 1259.
Salt. J. L. C. Mulkey. No. 104,986; June 29; Gaz. vol. 215; p. 1495.
Salt, Medium. D. G. Cutler Company. No. 104,672; June 8; Gaz. vol. 215; p. 663.
Salve and ointment for catarrh, neuralgia, quinsy, &c. Healine Manufacturing Co. No. 104,907; June 22; Gaz. vol. 215; p. 1259.
Salves, medicinal tonics, laxatives, remedies for coughs, epilepsy, &c. Lesella Remedies Company. No. 104,737; June 15; Gaz. vol. 215; p. 972.
Sash-cord. Geo. B. Carpenter & Co. No. 104,864; June 22; Gaz. vol. 215; p. 1258.
Sauce or relish. Hoe & Co. No. 104,452; June 1; Gaz. vol. 215; p. 317.
Saws, Jewelers' piercing-. L. H. Keller & Company. No. 104,539; June 1; Gaz. vol. 215; p. 320.
Scalp and dandruff preparation. G. Y. Jlanellis. No. 104,732; June 15; Gaz. vol. 215; p. 972.
Sedative, antipyretic, antimyalgic, &c., compounds. J. D. Riedel Aktiengesellschaft. No. 104,825; June 22; Gaz. vol. 215; p. 1257.
Seeds. Northrup, King & Co. No. 104,566; June 1; Gaz. vol. 215; p. 321.
Seeds. Wood-Beazley Seed Co. No. 104,662; June 8; Gaz. vol. 215; p. 663.
Sewing-machines. The Priscilla Publishing Co. No. 104,570; June 1; Gaz. vol. 215; p. 321.
Shampoo, hair-tonic, dandruff-remover, &c. The Wiley Dandruff Remover Company. No. 105,004; June 29; Gaz. vol. 215; p. 1495.
Shingles. J. H. Cavanaugh. No. 105,012; June 29; Gaz. vol. 215; p. 1495.
Shirts. Ferguson, Hene & Nevens. No. 104,975; June 29; Gaz. vol. 215; p. 1494.
Shirts, drawers, union suits, gloves, and hose. G. B. Williams Company. No. 104,553; June 1; Gaz. vol. 215; p. 320.
Shirts, jackets, trousers, and overalls, Work-. Mohawk Overall Co. No. 104,464; June 1; Gaz. vol. 215; p. 318.
Shirts, Men's outer. Alexander & Co. No. 104,923; June 29; Gaz. vol. 215; p. 1493.
Shirts, shirt-waists, and blouses. G. H. Nicholas. No. 104,687; June 8; Gaz. vol. 215; p. 664.
Shoe soles and heels, Composition. Avon Sole Company. No. 104,925; June 29; Gaz. vol. 215; p. 1493.
Shoes and slippers, Felt. Daniel Green Felt Shoe Company. No. 104,600; June 8; Gaz. vol. 215; p. 661.
Shoes, Leather. Craddock-Terry Company. Nos. 104,972–3; June 29; Gaz. vol. 215; p. 1494.
Shoes, Leather. F. Melville, Jr. No. 104,625; June 8; Gaz. vol. 215; p. 662.
Silk piece goods. M. C. Migel & Co. No. 104,804; June 15; Gaz. vol. 215; p. 974.
Silk piece goods. Wechsler-Barber Silk Co. Nos. 104,854–5; June 22; Gaz. vol. 215; p. 1258.
Sizing and finishing product for textile fabrics. John Campbell & Co. No. 105,011; June 29; Gaz. vol. 215; p. 1495.
Soap and soap powder. P. C. Tomson & Co. No. 104,958; June 29; Gaz. vol. 215; p. 1494.
Soap, Toilet. The Cincinnati Soap Co. No. 104,931; June 29; Gaz. vol. 215; p. 1493.
Soaps, washing powders and compounds, Toilet, &c. E. M. Attridge. No. 104,699; June 15; Gaz. vol. 215; p. 971.
Soup-flours. Thompson Milling Company. No. 104,520; June 1; Gaz. vol. 215; p. 319.
Sprayers, Hand and power. The H. L. Hurst Mfg. Co. No. 104,876; June 22; Gaz. vol. 215; p. 1258.
Sprinklers, Automatic. Associated Automatic Sprinkler Co. No. 105,008; June 29; Gaz. vol. 215; p. 1495.
Starch to perfume same and prevent iron from sticking, Compound to be added to. F. W. Dreffein. No. 104,675; June 8; Gaz. vol. 215; p. 663.
Steam and water meters and recorders and indicating apparatus. E. P. Gabbott. No. 104,797; June 15; Gaz. vol. 215; p. 974.
Steel. J. C. McGuire. No. 104,739; June 15; Gaz. vol. 215; p. 972.
Steel bars. The Betz-Pierce Company. No. 104,901; June 22; Gaz. vol. 215; p. 1259.
Steel bars and shapes, Rolled. Lackawanna Steel Company. No. 104,981; June 29; Gaz. vol. 215; p. 1494.
Steel, Special grade of. Columbia Tool Steel Company. No. 104,709; June 15; Gaz. vol. 215; p. 971.
Steels and high-speed steels. J. H. Williams & Co. No. 104,813; June 15; Gaz. vol. 215; p. 974.
Stencils. Baumgarten & Co. No. 104,760; June 15; Gaz. vol. 215; p. 973.
Suits and coats, Misses' outer. I. & M. Phillips. No. 104,477; June 1; Gaz. vol. 215; p. 318.
Suits and overcoats, Outer. Rogers Peet Company. No. 104,952; June 29; Gaz. vol. 215; p. 1494.
Swage-shapers. E. C. Atkins & Company. No. 104,966; June 29; Gaz. vol. 215; p. 1494.
Sweaters. Treinis Bros. No. 104,583; June 1; Gaz. vol. 215; p. 321.
Syrup for making carbonated non-alcoholic beverages. Alfalfa Foods and Medicine Company. No. 104,586; June 8; Gaz. vol. 215; p. 661.
Tables, chairs, settees, stands, and cedar chests. The E. T. Burrowes Company. No. 104,594; June 8; Gaz. vol. 215; p. 661.
Tableware and ornamental chinaware, China. Onondaga Pottery Company. Nos. 104,744–5; June 15; Gaz. vol. 215; p. 972.
Tablets, Laxative. W. H. Schleizer. No. 104,844; June 22; Gaz. vol. 215; p. 1257.
Tanning materials and extracts. Industrial Chemical Company. No. 104,730; June 15; Gaz. vol. 215; p. 972.
Tea. Tilzer Brothers. No. 105,028; June 29; Gaz. vol. 215; p. 1496.
Tea. William Schotten Coffee Company. No. 104,784; June 15; Gaz. vol. 215; p. 973.
Tea. The Woolson Spice Company. No. 104,683; June 8; Gaz. vol. 215; p. 664.
Tea. Woolson Spice Company. No. 104,823; June 15; Gaz. vol. 215; p. 975.
Tea, pepper, ginger, cinnamon, &c. Berry-Hall Company. No. 104,858; June 22; Gaz. vol. 215; p. 1258.
Thread and yarn. H. E. Verran Company. No. 104,918; June 22; Gaz. vol. 215; p. 1259.
Tire-chains, &c., Tools for opening and closing attaching-hooks of non-skid. J. N. Macdonald. No. 104,818; June 15; Gaz. vol. 215; p. 974.
Tire inner tube. The Republic Rubber Company. No. 104,482; June 1; Gaz. vol. 215; p. 318.
Tire-puncture-sealing preparation. Tire Seal Co. No. 104,656; June 8; Gaz. vol. 215; p. 663.
Tire straps or protectors. J. J. Bukolt. No. 104,826; June 22; Gaz. vol. 215; p. 1257.
Tires, Automobile rubber. Double Tread Tire Company. No. 104,533; June 1; Gaz. vol. 215; p. 320.
Tires, Inner tubes for pneumatic. Bittel-Leftwich Tire Service Co. No. 104,859; June 22; Gaz. vol. 215; p. 1258.
Tires, Preparation for preventing the puncture of automobile. Woodbridge Chemical Co. No. 104,822; June 15; Gaz. vol. 215; p. 975.
Tires, Rubber and pneumatic. C. A. Daniel. No. 104,935; June 29; Gaz. vol. 215; p. 1493.
Tobaccos, Plug, twist, cut-plug, smoking, and leaf. Macklin-Zimmer-McGill Tobacco Co. No. 104,544; June 1; Gaz. vol. 215; p. 320.
Tonic-bitters. F. Bisleri. No. 104,968; June 29; Gaz. vol. 215; p. 1494.
Tonic reconstituent digestive antimalaric. A. De Tullio. No. 104,906; June 22; Gaz. vol. 215; p. 1259.
Toothache-drops, cold-cream, tooth-paste, &c. American Drug & Press Association. No. 104,924; June 29; Gaz. vol. 215; p. 1493.
Toys and parts thereof, Steam, electric, and mechanical. Weeden Manufacturing Co. No. 104,960; June 29; Gaz. vol. 215; p. 1494.
Traps, Animal-. Oshkosh Trap & Novelty Co. No. 104,474; June 1; Gaz. vol. 215; p. 318.
Treatment of anemia, Intravenous. The Intravenous Products Company. No. 104,834; June 22; Gaz. vol. 215; p. 1257.
Treatment of malaria, Intravenous. The Intravenous Products Company. Nos. 104,616–17; June 8; Gaz. vol. 215; p. 662.
Treatment of syphilis, pellagra, and malaria, Intravenous. The Intravenous Products Company. No. 104,615; June 8; Gaz. vol. 215; p. 662.
Trucks, Metal. The Market Forge Company. No. 104,622; June 8; Gaz. vol. 215; p. 662.
Tube-spreading and brick-holding tools. J. Keers. No. 104,980; June 29; Gaz. vol. 215; p. 1494.
Twine, cord, and string. United Drug Company. No. 104,959; June 29; Gaz. vol. 215; p. 1494.
Type-writer ribbons and carbon-paper. The Carter's Ink Company. No. 104,815; June 15; Gaz. vol. 215; p. 974.
Valves for heating apparatus and damper-regulators. Safety Vapor Heating Co. No. 104,484; June 1; Gaz. vol. 215; p. 318.
Vehicle lighting and starting apparatus, Electrical. Bijur Motor Lighting Company. No. 104,702; June 15; Gaz. vol. 215; p. 971.
Velvets and plushes in the piece. The Salt's Textile Manufacturing Company. No. 104,842; June 22; Gaz. vol. 215; p. 1257.
Vinegar, Apple-cider. National Fruit Product Company. No. 104,641; June 8; Gaz. vol. 215; p. 662.
Wallie compounds. O. B. Clow. No. 104,969; June 29; Gaz. vol. 215; p. 1494.
Waists, Children's clothing-supporting. Amazon Products Co. No. 104,693; June 15; Gaz. vol. 215; p. 971.
Washing compounds for walls, ceilings, floors, &c. H. E. Snyder. No. 104,487; June 1; Gaz. vol. 215; p. 318.
Washing-powder. The Cudahy Packing Company. No. 104,444; June 1; Gaz. vol. 215; p. 317.
Water, Laxative mineral. Aquamarine Company. No. 104,696; June 15; Gaz. vol. 215; p. 971.
Water-softeners and cleansers. Kleanall Chemical Company. No. 104,457; June 1; Gaz. vol. 215; p. 317.

Waterproof coating, Ready-mixed washable flat wall. The O'Brien Varnish Co. No. 104,567; June 1; Gaz. vol. 215; p. 321.
Waterproofed fabric. British American Manufacturing Company. No. 104,790; June 15; Gaz. vol. 215; p. 974.
Wheel-rims, Vehicle. Clincher Automobile Tire Manufacturers' Association. No. 104,905; June 22; Gaz. vol. 215; p. 1259.
Whisky. The Gottschalk Co. No. 104,920; June 22; Gaz. vol. 215; p. 1260.
Whisky. M. O'Brien. No. 104,743; June 15; Gaz. vol. 215; p. 972.
Whisky, Scotch. C. S. Proctor. No. 104,647; June 8; Gaz. vol. 215; p. 662.
Window-screen and storm-sash hangers and fasteners. E. J. Fellman. No. 104,608; June 8; Gaz. vol. 215; p. 661.
Wines, Certain named. The Schuster Company. Nos. 104,993–4; June 29; Gaz. vol. 215; p. 1495.
Wines, Medicinal. B. Prebol. No. 104,951; June 29; Gaz. vol. 215; p. 1494.
Wood-conserving products. Q. Förster. No. 104,871; June 22; Gaz. vol. 215; p. 1258.
Wool tops. Middlebrook Wool Combing Company. No. 104,838; June 22; Gaz. vol. 215; p. 1257.
Wrenches and vises, Screw-. Bonney Vise & Tool Works. No. 104,592; June 8; Gaz. vol. 215; p. 661.

ALPHABETICAL LIST OF LABELS.

"Babcock's." (For Talcum Powder.) A. P. Babcock Co. No. 18,516; June 15; Gaz. vol. 215; p. 976.
"Berwick." (For Cake.) J. W. Alden. No. 18,490; June 1; Gaz. vol. 215; p. 322.
"Bouquet de Habana." (For Cigars.) The Moehle Lithographic Co. No. 18,540; June 15; Gaz. vol. 215; p. 976.
"Boyara." (For Cigarettes.) D. Spiro. No. 18,577; June 29; Gaz. vol. 215; p. 1497.
"Bran Nu Bread." (For Bread.) Kalamazoo Vegetable Parchment Co. No. 18,535; June 15; Gaz. vol. 215; p. 976.
"Burrill's Tooth Powder." (For Tooth-Powder.) New England Laboratory Co. No. 18,503; June 1; Gaz. vol. 215; p. 322.
"California Frutstix." (For Confections Made from Fruits.) F. J. Cooper. No. 18,546; June 22; Gaz. vol. 215; p. 1261.
"Cane-Maple Syrup." (For Cane-Maple Syrup.) E. Normandin. No. 18,555; June 22; Gaz. vol. 215; p. 1261.
"Collis' Famous Combination Ankle Supporter." (For Ankle-Supporters.) H. J. Collis. No. 18,506; June 8; Gaz. vol. 215; p. 665.
"Coopers K-K-K Quality Since 1876." (For Underwear.) Cooper Underwear Company. Nos. 18,517–18; June 15; Gaz. vol. 215; p. 976.
"Cotton Boll." (For Seeds.) A. Jouannet. No. 18,509; June 8; Gaz. vol. 215; p. 665.
"Cotton Queen." (For Mattresses.) National Bedding Co. No. 18,502; June 1; Gaz. vol. 215; p. 322.
"Delight Cleaner." (For a Scouring and Cleaning Preparation.) J. D. Jidas Bros. & Co. No. 18,497; June 1; Gaz. vol. 215; p. 322.
"Diamond Crisp Wafers." (For Flat Bread.) The Nuubson Baking Company. No. 18,556; June 22; Gaz. vol. 215; p. 1261.
"Domino Sugarmint." (For Peppermint Lozenges.) Domino Sugarmint Co. No. 18,520; June 15; Gaz. vol. 215; p. 976.
"Durkee's Corn Starch." (For Corn-Starch.) E. R. Durkee & Co. No. 18,526; June 15; Gaz. vol. 215; p. 976.
"Durkee's Mixed Bird Seed." (For Bird-Seed.) E. R. Durkee & Co. No. 18,525; June 15; Gaz. vol. 215; p. 976.
"Durkee's Pearl Barley." (For Barley.) E. R. Durkee & Co. No. 18,522; June 15; Gaz. vol. 215; p. 976.
"Durkee's Rice Flour." (For Flour.) E. R. Durkee & Co. No. 18,523; June 15; Gaz. vol. 215; p. 976.
"Durkee's Tapioca." (For Tapioca.) E. R. Durkee & Co. No. 18,521; June 15; Gaz. vol. 215; p. 976.
"Elendi Brand Coffee." (For Coffee.) Lekas and Drivas. No. 18,553; June 22; Gaz. vol. 215; p. 1261.
"Emrald-Glo." (For Eyeglasses.) Detroit Optical Mfg. Co. No. 18,519; June 15; Gaz. vol. 215; p. 976.
"Eye Bath." (For Lotion for the Eyes.) D. A. Smith. No. 18,513; June 8; Gaz. vol. 215; p. 665.
"Ferrandina." (For Olive-Oil.) F. Albano. No. 18,515; June 15; Gaz. vol. 215; p. 976.
"Gold Label." (For Beer.) The Walter Brewing Co. No. 18,558; June 22; Gaz. vol. 215; p. 1261.
"Goodway's Sunburn Lotion." (For a Liquid Lotion Having Certain Medicinal Properties.) J. A. Goodway. No. 18,530; June 15; Gaz. vol. 215; p. 976.
"Hammeschlag's Waxed Papers." (For Waxed Papers.) The Hammeschlag Manufacturing Company. No. 18,571; June 29; Gaz. vol. 215; p. 1497.
"Hymette Greek Honey." (For Honey.) Lekas and Drivas. No. 18,552; June 22; Gaz. vol. 215; p. 1261.
"Invisible Starch." (For Starch.) E. R. Durkee & Co. No. 18,524; June 15; Gaz. vol. 215; p. 976.
"K-O." (For a Hog-Cholera Compound.) S. J. Smith. No. 18,557; June 22; Gaz. vol. 215; p. 1261.
"Kernola, 'The Food Drink.'" (For a Coffee Substitute.) Kernola Cereal Co. No. 18,551; June 22; Gaz. vol. 215; p. 1261.
"Knife and Fork Brand Metal Polish." (For a Metal-Polish.) Standard Polish Company. No. 18,504; June 1; Gaz. vol. 215; p. 322.
"Lasses Kisses." (For Candy.) Smith Brothers. No. 18,575; June 29; Gaz. vol. 215; p. 1497.
"Lax-Ola, The Key To Health." (For Laxative Tablets.) International Pharmaceutical Company. No. 18,496; June 1; Gaz. vol. 215; p. 322.
"Linoleum Oil Soap." (For Soaps.) Fitzpatrick Bros. No. 18,529; June 15; Gaz. vol. 215; p. 976.
"Lusterall." (For Furniture-Polish or Varnish-Remover.) H. M. Singleton. No. 18,512; June 8; Gaz. vol. 215; p. 665.
"Macaroni." (For Macaroni.) The Buckley Bakery & Macaroni Company. No. 18,545; June 22; Gaz. vol. 215; p. 1261.
"Marcelas Juniper Salve." (For Salve.) The Marcelas Juniper Company. No. 18,554; June 22; Gaz. vol. 215; p. 1261.
"Master Brand Flux." (For Flux.) Master Roofers Association of Chicago. No. 18,538; June 15; Gaz. vol. 215; p. 976.
"Master Brand Pitch." (For Pitch.) Master Roofers Association of Chicago. No. 18,536; June 15; Gaz. vol. 215; p. 976.
"Master Brand Tarred Felt." (For Tarred Felt.) Master Roofers Association of Chicago. No. 18,537; June 15; Gaz. vol. 215; p. 976.
"Medal Bond." (For Cigars.) The Moehle Lithographic Company. No. 18,500; June 1; Gaz. vol. 215; p. 322.
"Mir-Tile White Enamel." (For White Enamel.) McCaffrey-Hewitt Paint Co. No. 18,573; June 29; Gaz. vol. 215; p. 1497.
"Mission Punch." (For Punch.) W. H. G. Buck. No. 18,491; June 1; Gaz. vol. 215; p. 322.
"Moose Heart." (For Cigars.) E. B. Horner. No. 18,495; June 1; Gaz. vol. 215; p. 322.
"Muscadine Punch." (For a Beverage.) Green & Green. No. 18,549; June 22; Gaz. vol. 215; p. 1261.
"Never-Mend." (For Metal Ware.) H. Behrens M'f'g. Co. No. 18,550; June 22; Gaz. vol. 215; p. 1261.
"'No-Smart' Face Lotion." (For a Face-Lotion.) R. Di Nonno. No. 18,493; June 1; Gaz. vol. 215; p. 322.
Olde Browne Health Beer." (For Beer.) Milwaukee-Waukesha Brewing Co. No. 18,539; June 15; Gaz. vol. 215; p. 976.
"Our C. C. C. Brand." (For Canned Beans.) Canastota Canning Company. No. 18,559; June 29; Gaz. vol. 215; p. 1497.
"Our C. C. C. Brand." (For Canned Peas.) Canastota Canning Company. No. 18,562; June 29; Gaz. vol. 215; p. 1497.
"Our C. C. C. Brand." (For Canned Sugar-Corn.) Canastota Canning Company. No. 18,563; June 29; Gaz. vol. 215; p. 1497.
"Our Club." (For Cigars.) The Moehle Lithographic Company. No. 18,498; June 1; Gaz. vol. 215; p. 322.
"Palestine Cigarettes." (For Cigarettes.) D. Spiro. No. 18,576; June 29; Gaz. vol. 215; p. 1497.
"Parker's Toilet Cream." (For a Toilet Cream.) Hiscox Bros. Co. No. 18,532; June 15; Gaz. vol. 215; p. 976.
"Plury & Co. Sherry." (For Wines.) Sonn Brothers Company. No. 18,542; June 15; Gaz. vol. 215; p. 976.
"Red Devil Roach Destroyer." (For Roach-Destroyers.) The Cox Company. No. 18,569; June 29; Gaz. vol. 215; p. 1497.
"Rose Tip Themelis Specials." (For Cigarettes.) Themelis Bros. Company. No. 18,505; June 1; Gaz. vol. 215; p. 322.
"Roundees." (For a Chewing-Gum Confection.) The Helmet Company. No. 18,531; June 15; Gaz. vol. 215; p. 976.
"Sentinel." (For Canned Beans.) Canastota Canning Company. No. 18,560; June 29; Gaz. vol. 215; p. 1497.
"Sentinel." (For Canned Peas.) Canastota Canning Company. No. 18,564; June 29; Gaz. vol. 215; p. 1497.
"Sentinel." (For Canned Succotash.) Canastota Canning Company. No. 18,565; June 29; Gaz. vol. 215; p. 1497.
"Sentinel." (For Canned Sugar-Corn.) Canastota Canning Company. No. 18,566; June 29; Gaz. vol. 215; p. 1497.
"Sigora." (For Cigars.) Greenwood & Company. No. 18,570; June 29; Gaz. vol. 215; p. 1497.
"Sock Surecure Cold." (For a Medicinal Preparation.) The Robinson Company. No. 18,541; June 15; Gaz. vol. 215; p. 976.
"Southern Girl." (For Coffee.) Dwinell-Wright Co. No. 18,548; June 22; Gaz. vol. 215; p. 1261.
"St. Martin." (For Medicinal Wine.) J. B. Lambert. No. 18,510; June 8; Gaz. vol. 215; p. 665.
"Stephens' Duro Ink." (For Ink.) W. P. Stephens. No. 18,543; June 15; Gaz. vol. 215; p. 976.
"Sterling Brand Clothes." (For Clothing.) David Adler & Sons Clothing Co. No. 18,547; June 22; Gaz. vol. 215; p. 1261.
"Strictly Pure Coffee." (For Coffee.) Dwinell-Wright Co. No. 18,507; June 8; Gaz. vol. 215; p. 665.

"Stuart Arms." (For Cigars.) The Moehle Lithographic Company. No. 18,501; June 1; Gaz. vol. 215; p. 322.
"Sun Kist Burgundy." (For Wine.) Escondido Vineyard & Winery Company. No. 18,528; June 15; Gaz. vol. 215; p. 976.
"Tavern Brand." (For Coffee.) Matson Coffee Company. No. 18,572; June 29; Gaz. vol. 215; p. 1497.
"Teasel." (For Canned Sugar-Corn.) Canastota Canning Company. No. 18,492; June 1; Gaz. vol. 215; p. 322.
"Teresa de Rosa." (For Alimentary Pastes.) F. Albano. No. 18,544; June 22; Gaz. vol. 215; p. 1261.
"The Toast of our Grandparents." (For Coffee.) Dwinell-Wright Co. No. 18,508; June 8; Gaz. vol. 215; p. 665.
"True Blue." (For a Veterinary Remedy.) J. Eastman. No. 18,327; June 15; Gaz. vol. 215; p. 976.
"Uz-It." (For a Medicinal Preparation.) R. W. Morgan. No. 18,574; June 29; Gaz. vol. 215; p. 1497.
"Vogt's Philadelphia Scrapple." (For Scrapple.) F. G. Vogt & Sons, Incorporated. No. 18,514; June 8; Gaz. vol. 215; p. 665.
"Wahnetta." (For Toilet-Paper.) The John Hoberg Company. No. 18,534; June 15; Gaz. vol. 215; p. 976.
"Walton Arms." (For Cigars.) The Moehle Lithographic Company. No. 18,499; June 1; Gaz. vol. 215; p. 322.
"Wan-Sum." (For Canned Beans.) Canastota Canning Company. No. 18,561; June 29; Gaz. vol. 215; p. 1497.
"Wan-Sum." (For Canned Peas.) Canastota Canning Company. No. 18,568; June 29; Gaz. vol. 215; p. 1497.
"Wan-Sum." (For Canned Sugar-Corn.) Canastota Canning Company. No. 18,567; June 29; Gaz. vol. 215; p. 1497.
"Waukesha." (For Toilet-Paper.) The John Hoberg Company. No. 18,533; June 15; Gaz. vol. 215; p. 976.
"Yellow Newtown." (For Cider.) Hood River Apple Vinegar Co. No. 18,494; June 1; Gaz. vol. 215; p. 322.
"Ziska." (For a Hair-Solvent.) Murrey & Powers. No. 18,511; June 8; Gaz. vol. 215; p. 665.

PRINTS.

"A Dutch Treat." (For Wheat Breakfast Food.) Cream of Wheat Co. No. 3,971; June 29; Gaz. vol. 215; p. 1498.
"An American Beauty." (For Cold-Cream.) Colgate & Co. No. 3,941; June 8; Gaz. vol. 215; p. 665.
"Athena." (For Silver.) R. Wallace & Sons Mfg. Co. No. 3,933; June 1; Gaz. vol. 215; p. 322.
"'B. & G.' Olive Oil." (For Olive-Oil.) E. La Montagne's Sons. No. 3,942; June 8; Gaz. vol. 215; p. 665.
"B. V. D. Makes Ours 'The Land of the Free.'" (For Athletic Underwear.) The B. V. D. Company. No. 3,963; June 29; Gaz. vol. 215; p. 1498.
"B. V. D. Makes Ours 'The Land of the Free.'" (For Athletic Underwear.) The B. V. D. Company. No. 3,968; June 29; Gaz. vol. 215; p. 1498.
"Big-Dandy." (For Bread.) P. Schulze. No. 3,950; June 15; Gaz. vol. 215; p. 976.
"Carter's Knit Underwear Please." (For Knit Underwear.) The William Carter Co. No. 3,940; June 8; Gaz. vol. 215; p. 655.
"Durkee's Celery Salt." (For Celery-Salt.) E. R. Durkee & Co. No. 3,952; June 22; Gaz. vol. 215; p. 1261.
"Durkee's Challenge Sauce." (For Sauces.) E. R. Durkee & Co. No. 3,953; June 22; Gaz. vol. 215; p. 1261.
"Durkee's Curry Powder." (For Curry-Powder.) E. R. Durkee & Co. No. 3,956; June 22; Gaz. vol. 215; p. 1261.
"Durkee's Flavoring Extracts." (For Flavoring Extracts.) E. R. Durkee & Co. No. 3,957; June 22; Gaz. vol. 215; p. 1261.
"Durkee's Pastry Spice." (For Spices.) E. R. Durkee & Co. No. 3,945; June 15; Gaz. vol. 215; p. 976.
"Durkee's Poultry Seasoning." (For Seasoning.) E. R. Durkee & Co. No. 3,954; June 22; Gaz. vol. 215; p. 1261.
"Durkee's Salad Dressing." (For Salad-Dressing.) E. R. Durkee & Co. No. 3,955; June 22; Gaz. vol. 215; p. 1261.
"Face Summer In 'Fine Fettle' With B. V. D." (For Athletic Underwear.) The B. V. D. Company. No. 3,961; June 29; Gaz. vol. 215; p. 1498.
"Face Summer In 'Fine Fettle' With B. V. D." (For Athletic Underwear.) The B. V. D. Company. No. 3,967; June 29; Gaz. vol. 215; p. 1498.
"First Aid to a Good Complexion." (For Aleppo Cold-Cream.) New England Laboratory Co. No. 3,932; June 1; Gaz. vol. 215; p. 322.
"Glad Hand." (For Coffee.) Kaufmann & Strauss Co. No. 3,931; June 1; Gaz. vol. 215; p. 322.
"Go Get B. V. D. and Get Cool." (For Athletic Underwear.) The B. V. D. Company. No. 3,960; June 29; Gaz. vol. 215; p. 1498.
"Go Get B. V. D. and Get Cool." (For Athletic Underwear.) The B. V. D. Company. No. 3,966; June 29; Gaz. vol. 215; p. 1498.
"Gordon London Dry Gin." (For Gordon London Dry Gin.) E. La Montagne's Sons. No. 3,943; June 8; Gaz. vol. 215; p. 655.
"Into B. V. D. Means 'Back to Nature.'" (For Athletic Underwear.) The B. V. D. Company. No. 3,962; June 29; Gaz. vol. 215; p. 1498.
"Into B. V. D. Means 'Back to Nature.'" (For Athletic Underwear.) The B. V. D. Company. No. 3,964; June 29; Gaz. vol. 215; p. 1498.
"Kneipp Malt Better Than Coffee." (For Kneipp Malt.) Kneipp Malt Food Company. No. 3,947; June 15; Gaz. vol. 215; p. 976.
"Lather the Mennen Way." (For Shaving-Cream.) The G. Mennen Chemical Company. No. 3,979; June 29; Gaz. vol. 215; p. 1498.
"Luxury." (For Cake.) P. Schulze. No. 3,949; June 15; Gaz. vol. 215; p. 976.
"Marathon Angle Tread Tires 'Inspire Confidence.'" (For Automobile-Tires.) The Marathon Tire & Rubber Co. No. 3,944; June 8; Gaz. vol. 215; p. 665.
"Moore Self Winding Clothes Line." (For Clothes-Line Reels.) Moore Drop Forging Company. No. 3,951; June 22; Gaz. vol. 215; p. 1261.
"Mrs. Coffee's Toast." (For Coffee.) W. T. Brown. No. 3,939; June 8; Gaz. vol. 215; p. 665.
"Now, Now, Cool Off—Get Your B. V. D.'s On!" (For Athletic Underwear.) The B. V. D. Company. No. 3,958; June 29; Gaz. vol. 215; p. 1498.
"Orona Cleans." (For Cleansers.) Orona Mfg. Co. No. 3,948; June 15; Gaz. vol. 215; p. 976.
"Play The Game Of 'Beat-The-Heat' In B. V. D., and You'll Win." (For Athletic Underwear.) The B. V. D. Company. No. 3,937; June 8; Gaz. vol. 215; p. 665.
"Summer's 'Rule of Three.'" (For Athletic Underwear.) The B. V. D. Company. No. 3,965; June 29; Gaz. vol. 215; p. 1498.
"That Easy-Breezy B. V. D. Feeling." (For Athletic Underwear.) The B. V. D. Company. No. 3,959; June 29; Gaz. vol. 215; p. 1498.
"That Easy-Breezy B. V. D. Feeling." (For Athletic Underwear.) The B. V. D. Company. No. 3,970; June 29; Gaz. vol. 215; p. 1498.
"That's Your Friend, The B. V. D. Label, Boys!" (For Athletic Underwear.) The B. V. D. Company. No. 3,936; June 8; Gaz. vol. 215; p. 665.
"The Colossus of Roads." (For Rubber Tires.) The Firestone Tire & Rubber Company. No. 3,946; June 15; Gaz. vol. 215; p. 976.
"The New Science of Shaving." (For Shaving-Cream.) The G. Mennen Chemical Company. No. 3,973; June 29; Gaz. vol. 215; p. 1498.
"The Summer 'Rule of Three.'" (For Athletic Underwear.) The B. V. D. Company. No. 3,969; June 29; Gaz. vol. 215; p. 1498.
"Welcome To Camp B. V. D." (For Athletic Underwear.) The B. V. D. Company. No. 3,938; June 8; Gaz. vol. 215; p. 665.
"Well Lathered is Half Shaved." (For Shaving-Cream.) The G. Mennen Chemical Company. No. 3,972; June 29; Gaz. vol. 215; p. 1498.
"You Can't Be Too Careful, Sir—Here's The B. V. D. Label." (For Athletic Underwear.) The B. V. D. Company. No. 3,935; June 8; Gaz. vol. 215; p. 665.
"You Rascal, It's B. V. D. That Keeps You Cool!" (For Athletic Underwear.) The B. V. D. Company. No. 3,934; June 8; Gaz. vol. 215; p. 665.

DISCLAIMER.

Sheet-metal structures. Uniting the component parts of composite. A. F. Rietzel. No. 928,701; date of patent July 20, 1909; disclaimer filed June 12, 1915; Gaz. vol. 215; p. 1265.

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